

Alyssa Linenkugel, Place 1  
Tomas Mendoza, Place 2  
John Mounce, Place 3



James Castle, Place 4  
Daniel Dennis, Place 5  
Shelby St. Claire, Mayor Pro Tem, Place 6

**James Clark, Mayor**  
**CITY OF JUSTIN**  
**CITY COUNCIL AGENDA**  
**MAY 22, 2025**  
**415 N. COLLEGE AVE.**  
**5:30 PM**

**A) CALL TO ORDER**

Convene into Session:  
Invocation and Pledge of Allegiance  
American Flag

Texas Flag: *“Honor the Texas Flag; I pledge allegiance to thee, Texas, one state, under God, one and indivisible”*

**B) PROCLAMATION(S)**

1. Presentation of a Proclamation declaring the Month of May as Motorcycle Safety and Awareness Month

**C) EXECUTIVE SESSION**

Any item on this posted agenda could be discussed in Executive Session as long as it is within one of the permitted categories under sections 551.071 through 551.076 and Section 551.087 of the Texas Government Code.

1. Under Section 551.071, to conduct a private consultation with the City Attorney regarding:
  - Trafford Terrace Developers Agreement
  - Justin Crossing Developers Agreement
2. Under Section 551.087 the City Council may convene in an executive session to discuss or deliberate regarding commercial or financial information that the City of Justin has received from a business prospect that the City seeks to have locate, stay, or expand in or near the City and with which the City is conducting economic development negotiations; or to deliberate the offer of a financial or other incentive to a business prospect described below.
  - Treeline Development
  - Dream Complex Developers Agreement
  - Cobblestone Agreement
3. Under Section 551.072, to deliberate regarding the purchase, exchange, lease, or sale of real property located north of Wilkerson Lane and Boss Range Road, south of Timberbrook Parkway

and FM 156, east of Timberbrook Parkway and FM 407, and west of FM 156.

4. Under Section 551.072, to deliberate regarding the purchase, exchange, lease, or sale of real property related to Water Infrastructure
5. Under Section 551.074, to deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee. (City Attorney)

**D) TAKE ANY ACTION AS A RESULT OF CLOSED EXECUTIVE SESSION ITEM(S)**

**E) UPCOMING MEETINGS AND EVENTS**

1. The following is a list of upcoming meetings and events:
  - May 26, 2025, Memorial Day Holiday (City Offices Closed)
  - May 30, 2025, Summer Reading Program Kickoff Event 10 a.m. to 2 p.m.
  - June 2, 2025 Municipal Court @ 5 p.m.
  - June 6, 2025, Staff Development Day (City Offices Closed 11 a.m. to 5 p.m)
  - June 17, 2025, Planning and Zoning Commission Meeting @ 6:30 p.m.
  - June 19, 2025, Juneteenth Holiday (City Offices Closed)
  - June 26, 2025, City Council Meeting @ 5:30 p.m.
  - July 4, 2025, Independence Day Holiday (City Offices Closed)
  - July 8 & 9th City Council Orientation (all day)
  - July 10, 2025, City Council Meeting @ 5:30 p.m.

**F) REPORT(S)**

1. Receive a Resident Survey Report
2. Receive an Update on the Give A Drip Program

**G) PUBLIC COMMENT**

In order to expedite the flow of business and to provide all citizens with the opportunity to speak, the mayor may impose a three-minute time limitation for each citizen to speak with a seasonal limitation on speakers on one topic or item with a maximum of fifteen total minutes on the same topic. The Texas Open Meetings Act prohibits the City Council from discussing issues which the public have not been given a seventy-two (72) hour notice. Issues raised may be referred to City staff for research and/or placed on a future agenda.

**H) CONSENT AGENDA**

***Any Council Member may request an item on the Consent Agenda to be taken up for individual consideration.***

1. Consider approving City Council minutes dated May 8, 2025 and May 13, 2025; and take appropriate action.
2. Consider approving Resolution 752-25 adopting a Strategic Communications Plan; and take appropriate action.
3. Consider approving Resolution 759-25 authorizing the City Manager to execute Interlocal



Cooperation Agreements with Denton County Tax Office for Tax Collections; and take appropriate action.

4. Consider adopting Ordinance 803-25, second reading, to rezone Cuesta development from Residential Estate Single Family (SF-RE) to Planned Development- Single-Family Residential-Medium (PD-SF-2) legally described as a tract of land totaling approximately 537.18 acres, located within the following survey abstracts in Denton County, Texas: A1125A W.D. Reed, Tr 7, 53.76 Acres, Old DCAD Tr #3, A0419A W.A. Ferris, Tr 7, 39.044 Acres, Old DCAD Tr 5, A0419A W.A. Ferris, Tr 8, 52.208 Acres, Old DCAD Tr 6, A0993A Mary Polk, Tr 42, 219.812 Acres, Old DCAD SHT 1, Tr #6, A0993A Mary Polk, Tr 39A & 41A, 158.80 Acres, Range Hill Addn Blk 1 Lot Range Hill Rd 1.81 Acres, A0419A W.A. Ferris, Tr 9, 11.0541 Acres, Old DCAD Tr 7A(1); and take appropriate action.
5. Consider adopting Ordinance 804-25(A), second reading, to amend the Unified Development Code establishing the Old Town Area as a Historical Preservation District with the boundaries set as the area within the boundaries as follows: Beginning on the northwest corner of block 2, lot 12 Hardeman Ranch Estates following the property lines east to Creek Hillway, continuing east following the north property line A1127A ROBERTS, TR 2B, 6.704 ACRES ROBERT ABSTRTRACT, proceeding east on the property north property line of A1127A ROBERTS, TR 2A(2), proceeding east to FM 156, proceeding South on proceeding South on N FM 156 to West 1st Street, proceeding West on West 1st Street to Leuty Street, proceeding north on Leuty Street to West 7th Street, proceeding East on West 7th Street to the western property line of A1358A WILSON, TR 12 proceeding North to the beginning point. ; and take appropriate action.

#### **I) ITEMS PULLED FROM CONSENT AGENDA**

#### **J) PUBLIC HEARING(S)**

1. Conduct a Public Hearing and Consider adopting Ordinance 802-25, second reading, approving a Strategic Services Agreement with Traditions Municipal District No. 2C; and take appropriate action.
2. Conduct a Public Hearing and consider approving Ordinance 806-25, first reading, for a Specific Use Permit for Grapes to Wine+, a Wine/Bourbon Bar use located at 112 W 4th Street; and take appropriate action.

#### **K) ACTION ITEM(S)**

1. Consider approving Resolution 760-25 authorizing the City Manager or designee to negotiate and execute a lease agreement with Grapes to Wine+; and take appropriate action.
2. Consider approving Resolution 758-25 for Architectural Services with FGMArchitects in the amount of \$148,415 related to the renovation of City Hall, Joe Merle Morris Community Center, Police Department, Council Chambers, and the design of a New Gymnasium; and take appropriate action.
3. Consider approving Resolution 761-25 appointing an alternate member to the Parks and Recreation Board; and take appropriate action.

#### **L) CEREMONIAL ITEM(S)**

1. Presentation to outgoing City Council Members in recognition of their years of service
2. Conduct Oaths of Office for newly Elected Officials
3. Consider and take action to appoint a Mayor Pro Tem

**M) FUTURE AGENDA ITEMS**

**N) ADJOURN**

I, the undersigned authority, do hereby certify that the above notice of the meeting of the City Council of the City of Justin, Texas, is a true and correct copy of the said notice that I posted on the official bulletin board at Justin Municipal Complex, 415 North College Street, Justin, Texas, a place of convenience and readily accessible to the general public at all times, and said notice posted this 5/15/25 at 11 a.m., at least 72 hours preceding the scheduled meeting time.

Amy Piukana

Amy Piukana, TRMC, City Secretary



City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 1. (REPORT(S))

Title: Receive a Resident Survey Report

Department: Administration

Contact: Abbey Reece

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**Recommendation:**

Presentation only.

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**Background:**

The City launched a resident survey for the second year in a row with OnPointe Insights. Ron Gailey, CEO, will be at the meeting to discuss the results in detail.

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**City Attorney Review:** N/A

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**Attachments:**

None



City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 1. (CONSENT AGENDA)

Title: Consider approving City Council minutes dated May 8, 2025 and May 13, 2025; and take appropriate action.

Department: Administration

Contact: Amy Piukana, City Secretary

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**Recommendation:**

Staff recommends approving minutes.

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**Background:**

The City Council shall review and approve minutes at the next City Council Meeting. These minutes are kept on file with the City Secretary, as required per the City Charter.

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**City Attorney Review:** No

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**Attachments:**

1. CCM 5.8.25 Draft
2. CCM 5.13.25 Draft

Alyssa Linenkugel, Place 1  
Tomas Mendoza, Place 2  
John Mounce, Place 3



James Castle, Place 4  
Daniel Dennis, Place 5  
Shelby St. Claire, Mayor Pro Tem, Place 6

**James Clark, Mayor**

## **MINUTES**

**State of Texas  
County of Denton  
City of Justin**

**Justin City Council Regular Session Meeting - May 8, 2025**

### **A) CALL TO ORDER**

Convene into Session:  
Invocation and Pledge of Allegiance  
American Flag

Texas Flag: ***"Honor the Texas Flag; I pledge allegiance to thee, Texas, one state, under God, one and indivisible"***

### **Present**

Mayor James Clark, Mayor Pro Tem Shelby St. Claire, Council Member Alyssa Linenkugel (*Absent*), Council Member John Mounce, Council Member Tomas Mendoza, Council Member James Castle, Council Member Daniel Dennis

**City Staff:** City Manager Jarrod Greenwood, City Secretary Amy Piukana, Director of Development and Economic Development Services Matthew Cyr, and City Attorney Matthew Boyle

With a quorum of members present, Mayor Clark called the meeting to order at 5:31 p.m.

Pastor Joel Maldonado of Gateway Church led the invocation. Mayor Clark led the Pledge of Allegiance and Pledge to the Texas Flag.

### **B) PROCLAMATION(S) AND PRESENTATION(S)**

1. Presentation of a Proclamation declaring May 18-24, 2025 as National Public Works Week

Mayor Clark provided a proclamation to the Public Works Department in attendance.

2. Presentation of a Proclamation recognizing May 15-21, 2025 as National Police Week

Mayor Clark provided a proclamation recognizing Police Officers in attendance for National Police Week.

3. Presentation of Certificate of Occupancy to 1911 in recognition of their recent Grand Opening

Mayor Clark presented the new business, 1911 a Certificate of Occupancy in recognition of their Grand Opening in Justin, Texas.

#### 4. RISE Recognition

City Manager Jarrod Greenwood expressed his gratitude to City Staff members for their assistance on Good Friday in helping a resident in need. Mr Greenwood provided a RISE Coin to the following employees: Patti Hollis (Development Services Department), Julia Crow (Code Enforcement), Kellie Thielmann (Police Department), Kelly Lemance (Police Department), Kelli Oehmler (Police Department), Clay Sparks (Police Department) and Kira Sedivy (Public Works).

#### **C) EXECUTIVE SESSION**

Any item on this posted agenda could be discussed in Executive Session as long as it is within one of the permitted categories under sections 551.071 through 551.076 and Section 551.087 of the Texas Government Code.

Mayor Clark recessed into closed session at 5:55 p.m. and reconvened into open session at 7:34 p.m.

Mayor Clark recessed into closed session again at 9:07 p.m. to discuss Agenda Item C.5 and reconvened into open session at 9:27 p.m.

1. Under Section 551.071, to conduct a private consultation with the City Attorney regarding:
  - Trafford Terrace Developers Agreement
  - Justin Crossing Developers Agreement
  - Cuesta Developers Agreement
2. Under Section 551.087 the City Council may convene in an executive session to discuss or deliberate regarding commercial or financial information that the City of Justin has received from a business prospect that the City seeks to have locate, stay, or expand in or near the City and with which the City is conducting economic development negotiations; or to deliberate the offer of a financial or other incentive to a business prospect described below.
  - Treeline Development
  - Dream Complex Developers Agreement
  - Cobblestone Agreement
  - Justin Town Square
3. Under Section 551.072, to deliberate regarding the purchase, exchange, lease, or sale of real property located north of Wilkerson Lane and Boss Range Road, south of Timberbrook Parkway and FM 156, east of Timberbrook Parkway and FM 407, and west of FM 156.
4. Under Section 551.072, to deliberate regarding the purchase, exchange, lease, or sale of real property related to Water Infrastructure
5. Under Section 551.074, to deliberate the appointment, employment, evaluation, reassignment, duties, discipline, or dismissal of a public officer or employee. (City Manager review)

#### **D) TAKE ANY ACTION AS A RESULT OF CLOSED EXECUTIVE SESSION ITEM(S)**

As a result of the closed session (Agenda Item C.5), a motion was made by Mayor Pro Tem St. Claire to approve a second amendment to the employment agreement with the City Manager and authorize the Mayor to execute the same. Motion seconded by Council Member Mounce.

Motion prevailed by the following vote:

In Favor: *Clark, Mendoza, Mounce, Castle, St. Claire*

Opposition: *Dennis*

*The motion passed 5-1.*

#### **E) UPCOMING MEETINGS AND EVENTS**

Communications Manager Krystal Rodriguez Haynes provided an update on items of upcoming meetings and events.

1. The following is a list of upcoming meetings and events:

- May 13, 2025, Election Canvass
- May 13, 2025, Parks & Recreation Board meeting at 6 p.m.
- May 14, 2025, EDC/CDC meeting at 5:30 p.m.
- May 15, 2025, Fire Engine Ceremony at 4:30 p.m.
- May 15, 2025, Fire Station Groundbreaking Event at 6 p.m.
- May 20, 2025, Planning & Zoning Commission meeting at 6:30 p.m.
- May 22, 2025, Regular City Council meeting at 5:30 p.m.
- May 26, 2025, Memorial Day Holiday, City Offices Closed
- May 30, 2025, Library Summer Reading Program Kickoff 10 a.m. to 3 p.m.

#### **F) REPORT(S)**

1. Discuss and receive an update regarding building repairs for City Hall

City Manager Jarrod Greenwood provided an update regarding ongoing building repairs to City Hall.

City Council discussed air quality monitoring, roofing issues, the cost of insurance, and water damage issues due to the age and deterioration of the building.

Councilman Castle requested that the City Council hold more discussions on the necessary renovations to City Hall and the gym. The City Manager, Jarrod Greenwood, explained that an air quality report and architect update will be provided at the May 22, 2025, City Council meeting.

#### **G) PUBLIC COMMENT**

In order to expedite the flow of business and to provide all citizens with the opportunity to speak, the mayor may impose a three-minute time limitation for each citizen to speak with a seasonal limitation on speakers on one topic or item with a maximum of fifteen total minutes on the same topic. The Texas Open Meetings Act prohibits the City Council from discussing issues which the public have not been given a seventy-two (72) hour notice. Issues raised may be referred to City staff for research and/or placed on a future agenda.

No public comments were provided.

#### **H) CONSENT AGENDA**

**Any Council Member may request an item on the Consent Agenda to be taken up for individual consideration.**

Council Member Mendoza pulled Consent Agenda Item No. 3, for discussion.

A motion was made by Council Member Mounce to approve Consent Items H.1, H.2, H.4, and H.5, as presented. Motion seconded by Mayor Pro Tem St. Claire. Motion approved unanimously.

1. Consider approving City Council minutes dated April 10, 2025; and take appropriate action.
2. Consider adopting Ordinance 800-25, second and final reading, approving an amendment to the FY 2024-2025 Community Development (Type B) Corporation Budget; and take appropriate action.
3. Consider approving Resolution 757-25 reappointing Greg Scott to the Upper Trinity Regional Water District; and take appropriate action.

Council Member Mendoza asked Mr. Greg Scott to provide an introduction to his experience with the Upper Trinity Water District.

Mr. Greg Scott briefed the City Council on his tenure with the Upper Trinity Water District, water operations, and irrigation recommendations.

After discussion, Council Member Mendoza moved to approve Resolution 757-25, as presented. Council Member Mounce seconded the motion, which was approved unanimously.

4. Consider approving Resolution 754-25 accepting the Oliver Creek Municipal Utility District Resolution to comply with the Developers Agreement; and take appropriate action.
5. Consider approving Resolution 755-25 authorizing the Notice of Intent to Proceed with the Old Town Phase 3 and FM 156 Corridor Plan; and take appropriate action.
6. Consider approving Resolution 756-25, authorizing the City Manager to execute and negotiate an agreement with Glacier Property Management; and take appropriate action.

**I) ITEMS PULLED FROM CONSENT AGENDA**

Item H.3 was pulled for discussion.

**J) PUBLIC HEARING(S)**

1. Conduct a Public Hearing and consider adopting Ordinance 802-25, first reading, approving a Strategic Service Agreement with Traditions Municipal District No. 2C; and take appropriate action.

Director of Development and Economic Development Services Matthew Cyr briefed the City Council regarding this item.

Mayor Clark opened the public hearing. There were no citizens present in support and/or opposition to



the Public Hearing. Mayor Clark closed the public hearing.

After discussion, Mayor Pro Tem St. Claire moved to adopt Ordinance 802-25, as presented. Council Member Mounce seconded the motion, which was approved unanimously.

2. Conduct a Public Hearing and consider adopting Ordinance 803-25, first reading, to rezone Cuesta development from Residential Estate Single Family (SF-RE) to Planned Development- Single-Family Residential- Medium (PD-SF-2) legally described as a tract of land totaling approximately 537.18 acres, located within the following survey abstracts in Denton County, Texas: A1125A W.D. Reed, Tr 7, 53.76 Acres, Old DCAD Tr #3, A0419A W.A. Ferris, Tr 7, 39.044 Acres, Old DCAD Tr 5, A0419A W.A. Ferris, Tr 8, 52.208 Acres, Old DCAD Tr 6, A0993A Mary Polk, Tr 42, 219.812 Acres, Old DCAD SHT 1, Tr #6, A0993A Mary Polk, Tr 39A & 41A, 158.80 Acres, Range Hill Addn Blk 1 Lot Range Hill Rd 1.81 Acres, A0419A W.A. Ferris, Tr 9, 11.0541 Acres, Old DCAD Tr 7A(1); and take appropriate action.

Director of Development and Economic Development Services Matthew Cyr briefed the City Council regarding this item.

The City Council discussed the options of the Planning and Zoning Commission recommendations, traffic study, connections, traffic signals, ground percolation requirements, and increased traffic effects on 407.

Mayor Clark opened the public hearing and the following comments were provided:

- *Ms Kim Wallace, 10652 Range Road, spoke, noting Range Road is in litigation with homeowners and TCCI.*
- *Mr. Will Holbrook, 10516 Range Road, spoke regarding suggestions made to ensure water wells have enough water capacity when the development is built.*
- *Mr. Greg Scott, 136 Daisy Justin, Texas, spoke regarding the John Wiley Road connection and the cost of a traffic signal.*

Mayor Clark closed the public hearing. A motion was made by Council Member Mounce to adopt Ordinance 803-25, first reading, with the Planning and Zoning recommendations. Motion seconded by Council Member Castle. Motion approved unanimously.

3. Conduct a Public Hearing and consider adopting Ordinance 804-25(A), first reading, to amend the Unified Development Code establishing the Old Town Area as a Historical Preservation District with the boundaries set as the area within the boundaries as follows: Beginning on West 12th Street proceeding East to North FM Rd 156, proceeding South on N FM 156 to West 1st Street, proceeding West on West 1st Street to Leuty Street, proceeding north on Leuty Street to West 7th Street, proceeding East on West 7th Street to 12th Street, proceeding East on 12th Street to N FM 156; and take appropriate action.

Director of Development and Economic Development Services Matthew Cyr briefed the City Council regarding this item.

The City Council discussed modifying the map to ensure we carve out the shop area and around the creek line (*behind Creek Hill Road*).

Mayor Clark opened the public hearing.

Mr. Greg Scott, 316 Daisy, spoke, asking for clarification of why Hardeman Circle is being included in the Old Town Area.

After discussion, Mayor Clark closed the Public Hearing.

A motion was made by Mayor Pro Tem St. Claire to adopt Ordinance 804-25, with staff's recommended revision and modifying the northern boundary line west of Creek Hill Road to follow the centerline of the creek south of 12th Street. Motion seconded by Council Member Mounce. Motion approved unanimously.

## **K) ACTION ITEM(S)**

1. Consider approving Resolution 753-25 supporting the stance on Texas Legislative Bills; and take appropriate action.

City Manager Jarrod Greenwood briefed the City Council regarding this item.

After discussion, a motion was made by Council Member Mendoza to approve Resolution 753-25, as presented. Motion seconded by Mayor Pro Tem St. Claire. Motion approved unanimously.

2. Consider all matters incident and related to the issuance and sale of City of Justin, Texas, Public Property Finance Contractual Obligations, Series 2025, including the adoption of Ordinance 801-25 authorizing the issuance of such obligations; and take appropriate action.

City Manager Jarrod Greenwood briefed the City Council regarding this item. Mr. Greenwood introduced Steven Murray, Senior Vice President of Hilltop Securities Inc., who briefed the City Council regarding this item. Mr. Murray explained that both agenda items K.2 and K.3 would be discussed together but voted on separately.

After discussion, a motion was made by Mayor Pro Tem St. Claire to adopt Ordinance 801-25 authorizing the issuance and sale of City of Justin, Texas Public Property Finance Contractual Obligations, Series 2025 and resolving other matters incident to and relating to the issuance and sale of such contractual obligations. Motion seconded by Council Member Mendoza. Motion approved unanimously.

3. Consider all matters an incident and related to the issuance and sale of City of Justin, Texas General Obligation Bonds, Series 2025, by adopting Ordinance 802-25 authorizing the issuance of such bonds; and take appropriate action.

This item was discussed with Agenda Item K.2. Mr. Murray with Hilltop Securities, Inc., was available for questions.

Motion made by Mayor Pro Tem St. Claire to adopt Ordinance 805-25 to authorize the issuance and sale of City of Justin, Texas General Obligation Bonds, Series 2025, and resolve other matters incident to and relating to the issuance and sale of such bonds. Motion seconded by Council Member Mendoza. Motion approved unanimously.

## **L) FUTURE AGENDA ITEMS**

Council Member Mendoza requested a future agenda item to discuss the feasibility of tarp covers for the ballfields.

After discussion, the City Council agreed to add this to a future agenda. Mayor Clark suggested adding this to the June 26, 2025, City Council agenda.

**M) ADJOURN**

Mayor Clark adjourned the meeting at 9:28 p.m.

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Mayor James Clark

Amy Piukana

Amy Piukana, TRMC, City Secretary

Seal:

Alyssa Linenkugel, Place 1  
Tomas Mendoza, Place 2  
John Mounce, Place 3



James Castle, Place 4  
Daniel Dennis, Place 5  
Shelby St. Claire, Mayor Pro Tem, Place 6

**James Clark, Mayor**

## **MINUTES**

**State of Texas  
County of Denton  
City of Justin**

### **Justin City Council Regular Session Meeting - May 13, 2025**

#### **A) CALL TO ORDER**

Convene into Session:  
Invocation and Pledge of Allegiance  
American Flag

Texas Flag: ***"Honor the Texas Flag; I pledge allegiance to thee, Texas, one state, under God, one and indivisible"***

#### **Present**

Mayor James Clark, Mayor Pro Tem Shelby St. Claire, and Council Member Daniel Dennis

**City Staff:** City Secretary Amy Piukana and Assistant City Manager Abbey Reece

With a quorum of members present, Mayor Clark called the meeting to order at 10:00 a.m.

Mayor Clark led the invocation, Pledge of Allegiance, and Pledge to the Texas Flag.

#### **B) PUBLIC COMMENT**

There were no comments provided.

#### **C) ACTION ITEM(S)**

1. Consider adopting Ordinance 804-25(B) canvassing the results of the General Election held on May 3, 2025 for the purpose of electing candidates to the office of City Council; and take appropriate action.

Mayor Clark read the canvass results provided by Denton County Elections.

Mayor Pro Tem St. Claire moved to adopt Ordinance 804-25(B), as presented. Motion seconded by Council Member Dennis. Motion approved unanimously.

2. Consider adopting Ordinance 805-25 canvassing the Special Election Charter Amendments from the May 3, 2025 City Council Election; and take appropriate action.

Mayor Clark read the canvass results provided by Denton County Elections.

A motion was made by Council Member Dennis to adopt Ordinance 805-25, as presented. Motion seconded by Mayor Pro Tem St. Claire. Motion approved unanimously.

**D) ADJOURN**

There being no further business, the meeting was adjourned at 10:08 a.m.

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Mayor James Clark

Amy Piukana

Amy Piukana, TRMC, City Secretary

Seal:



City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 2. (CONSENT AGENDA)

Title: Consider approving Resolution 752-25 adopting a Strategic Communications Plan; and take appropriate action.

Department: Administration

Contact: Krystal Gonzalez, Communications Manager

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**Recommendation:**

Motion to approve Resolution 752-25, as presented.

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**Background:**

A Strategic Communications Plan is essential to ensure consistent, clear, and effective communication between the City and the community. The proposed Plan outlines a unified approach to messaging, defines staff roles and responsibilities, and includes a framework for crisis communication. It is designed to enhance transparency, increase public engagement, and support efficient internal and external communication practices.

Adopting this Plan through the proposed Resolution aligns with the City's Excellence in Operations initiative, specifically the goal to "Develop a Strategic Communication Plan." Approval of the Plan will formalize communication standards across the organization and support the City's commitment to proactive, professional, and coordinated outreach.

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**City Attorney Review:** No

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**Attachments:**

1. Comms Plan Resolution 752-25
2. Exhibit A

**RESOLUTION NO. 752-25**

**A RESOLUTION ADOPTING A STRATEGIC COMMUNICATIONS PLAN FOR THE CITY OF JUSTIN; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin recognizes the need for strategic and cohesive communication in all departments; and

**WHEREAS**, City staff have worked with consultants on crafting a document that outlines our best practices in all areas of communication to ensure we have a consistent voice; and

**WHEREAS**, the City Council specified a Strategic Communications Plan as a 2025 Strategic Initiative; and

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** That the City Council hereby approves the 2025-2028 Strategic Communications Plan.

**SECTION 2.** This Resolution shall take effect immediately upon its passage.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 22<sup>nd</sup> day of May 2025.

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

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Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

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City Attorney





# **City of Justin Strategic Communications Plan**

## Executive Summary

The 2025–2028 City of Justin Communications Plan outlines objectives and strategies aimed at enhancing the City’s communication, engagement, information distribution, and connection with residents. This document serves as an administrative guideline for the City of Justin, Texas, establishing communication standards and expectations for all City employees under the supervision of the City Manager. Including Appendix A, the City of Justin Communications Policy, this Plan is to be followed by employees as part of their professional responsibilities. It is important to note that while this Plan provides a framework for the City’s messaging initiatives, it is not mandated for elected officials or individuals not directly supervised by the City Manager.

Recognizing the paramount importance of transparent, two-way communication, especially concerning information distribution, resident input, feedback collection, and the utilization of evolving technology to provide accurate and timely information, this Plan serves as a roadmap for achieving the City’s current communication objectives through the forthcoming three years.

The Communications Plan is a dynamic document, designed to adapt and evolve alongside the City’s progress and evolving goals. It anticipates adjustments to meet emerging requirements and align with advancements in communication technology and platforms utilized by residents. This Plan is geared towards addressing the evolving needs of Justin’s communications strategy, building upon existing communication strengths, fostering opportunities for more effective resident engagement, and enhancing internal communication. Through this Plan, the City aims to refine both the method and timing of its communication with all target audiences and stakeholders.

This Plan not only documents the current communication initiatives but also furnishes a framework for executing future endeavors in response to shifting priorities, evolving communication trends, innovative concepts, and opportunities to connect with the City’s target demographics. At its core, this Plan encapsulates the City’s prevailing communication objectives and offers a unified approach to their achievement. The information within this Plan has been used to craft a set of Goals, Objectives, Strategies, and Tactics that will steer the efforts of the City staff over the next three years.

## Guiding Principles

The City of Justin acknowledges that effective communication is a core responsibility of a responsive and transparent government and a vital element of

an engaged and well-informed community. By consistently delivering accurate and timely information, the City of Justin can boost citizen involvement in government affairs, strengthen community pride, and cultivate a strong sense of public trust. Recognizing the importance of having a Communication Plan in place to establish a framework for effective communication, the City aims to promote an engaged and well-informed community.

The City of Justin's Communication Plan adheres to the following principles, which support effective municipal communication. These principles serve to coordinate and oversee the communication efforts of City employees involved in official City matters, ensuring precision, consistency, and timeliness in relaying information to employees, departments, media representatives, City of Justin stakeholders, and the diverse information needs of the public.

### **1. We Tell Our Own Story**

It is the City's responsibility to share City-related information with residents, rather than relying on others to interpret Justin's actions, concerns, and choices. The City's Communications staff and its communication channels will represent the most accurate and reliable sources for City government information. When residents are well-informed, they are enabled to engage more effectively in local government and make informed decisions regarding matters that affect their daily lives.

### **2. We Are Proactive, Not Reactive**

The City must take a proactive, well-coordinated approach to initiate communication and distribute information, rather than responding to issues and events as they occur. The City of Justin believes in building and maintaining positive relationships and partnerships between the City government, residents, businesses, community organizations, and other stakeholders to achieve a high level of community engagement and awareness.

### **3. We Have a Centralized Approach**

This Plan will establish a uniform procedure for messaging that will ensure accuracy, City-wide coordination, and timely responses for any situation within the City involving City personnel or officials. The City's Communications team is tasked with spearheading all public messaging initiatives for the City. This includes maintaining Justin's official web presence through regular updates on social media platforms and the City's website(s) and engaging with local, state, and other credited media outlets.

The City's Communications team serves as liaisons to coordinate media responses with designated City staff in specific subject areas and offering support to staff in their communication endeavors. Within this centralized framework, the Communications team will establish a cohesive system that promotes transparency in government and equips all City employees with the requisite training to convey information impactfully and accurately about each department's programs and services.

#### **4. We Utilize Open, Two-Way Communication**

The City of Justin is committed to maintaining a government that is both open and transparent for residents and employees. This commitment involves the act sharing of information throughout the community and within the organization, with a strong emphasis on facilitating two-way communication and fostering positive dialogue. The Communications staff will address comments and inquiries, and messaging will be structured in a way that allows for meaningful conversations and gives productive feedback.

#### **5. We Are Consistent**

This plan supports, reinforces, and reflects the concept that the City of Justin's primary directive is to serve its residents. This Plan will enable us to establish a centralized and consistent voice for communication and branding. The Communications staff will provide a unified message that effectively supports the mission and goals of the City of Justin.

#### **6. We Build Relationships**

Community engagement occurs when relationships are created between government and individuals. Collaboration and the identification of shared values helps build relationships. This leads to increased trust in government, better communication, and improved civic infrastructure. These assets can be harnessed to address issues and enhance the overall quality of life within a community. Problems within communities find solutions when people are willing to place their trust in one another, engage in dialogue, and extend a helping hand to fellow community members.

#### **7. We Never Stop Learning**

To ensure effective communication and community engagement, City staff must continuously seek innovative approaches to connect with the City's target audiences through their preferred communication platforms. This entails staying abreast of the latest technological developments, social media trends, and

communication channels, while actively exploring novel methods to engage both individuals and groups. By leveraging digital analytics and other performance metrics, the city can ensure the ongoing relevance and efficacy of its messaging and engagement initiatives. This data-driven approach allows for the refinement and optimization of communication strategies to maintain their effectiveness.

### **Communications Structure**

The City of Justin Communications staff is led by the Assistant City Manager, who directs the efforts of messaging to the full-time Communications Manager. The Communications Manager is responsible for overseeing the City's messaging and public relations efforts, coordinating the communications strategy, and implementing the Communications Plan. The Communications Manager also serves as the City's Public Information Officer (PIO), acting as the official spokesperson and primary point of contact for all public and media inquiries on behalf of the entire organization. This Plan applies to City officials and staff.

All official communication to the media and any outside channels should be routed through the Communications Manager. The Communications Manager is primarily responsible for sharing the City's messages with the public and the media. This structure enables the City to provide consistent and clear messages.

### **Communication Channels**

The primary channels used in providing information to target audiences are through various forms of digital communication and media, including the City website, social media, and email. To engage a diverse audience, the city utilizes multiple communication and messaging platforms, as detailed in Appendix A, "City Communications Channels," to effectively reach target audiences.

### **Digital and Print Publications**

The cost effectiveness of digital distribution versus print publications is an ongoing factor in any communication strategy. In most cases, digital distribution of information is the preferred and predominant method. The Communications staff assists departments with the development of digital and printed publications along with promotional materials on an as-needed basis, including but not limited to newsletters, flyers, posters, postcards, brochures, calendars, social media graphics and infographics. These materials are used to help promote and market the City's various events, programs, and activities.

### **Media Relations**

Developing and maintaining positive working relationships with local media outlets is an important way to ensure that all aspects of City programs, services, and activities are being accurately shared with the public. The Communications staff is responsible for

producing media releases, monitoring media coverage, and facilitating media inquiries and interviews.

## **Crisis Communications**

The Communications staff assists public safety and emergency management staff with crisis communication efforts to ensure that residents are informed in a timely, consistent, and transparent manner in times of crisis. The city has retained a strategic communications consulting firm who serves as an on-call crisis communications liaison should the need arise. City Council members and Communications Staff receive ongoing training in crisis communications to maintain readiness in the event of a crisis. Residents may subscribe to Justin's mass messaging system – JustinTX Alerts – found on the City's website to receive urgent notifications regarding emergencies, storm warnings, or other related information distributed via social media and/or text if the resident chooses to opt in. Further information about Justin's Crisis Communications procedures can be found in Appendix A, "Crisis Communications."

**Commented [CR1]:** Switch when Genesis Contract is signed

## **Internal Communication Methods**

An effective internal communications system ensures that the City Council and City employees not only receive important information but are regularly updated on the City's progress toward meeting its goals and objectives. Good communication builds trust by fostering transparency, and dispelling rumors and misinformation. Internal communication also provides an opportunity to reward and reinforce members of the staff who demonstrate exceptional performance and customer service and contribute to a positive organizational culture. Internal communications strategies utilized by the City are further detailed in the Communications Policy, specifically on page 2 of Appendix A, "Internal Communications Methods."

## **City-Wide Training and Support**

The City Communications staff will serve as an ongoing resource to departmental communicators. Educational programs such as media and communication training will be provided on an as-needed basis to ensure the City's communicators have the skills necessary to convey consistent and accurate messaging. Staff members are available to assist departmental communicators and staff with the development of content, talking points, interview preparation, and communication best practices to effectively convey information about City programs, events, activities, and initiatives.

## **Monthly Communications Report and Performance Measures**

The Communications staff compiles a report each month to measure the effectiveness of communication efforts. Without effective data and statistics, it is difficult to determine whether the City's communication efforts are reaching the intended audience or producing the desired impact. The report tracks output across all communication channels, including the number of media releases generated, growth in social media

followers, the number of e-newsletter subscribers, and overall community engagement. Website analytics also provide valuable insight into which pages are most frequently visited and how long users stay on each page.

To support proactive planning, the Communications staff maintains a Content Calendar that is updated throughout the year. This tool helps ensure consistency in messaging and allows staff to stay ahead of recurring events and announcements. The calendar includes known annual events, seasonal campaigns, City observances, and more. Staff are encouraged to reference and contribute to this calendar regularly.

Access the City of Justin [Communications Content Calendar here](#).

## **Appendix A: City of Justin Communications Policy**

### **A. POLICY:**

The following appendix identifies the policies and procedures utilized by the Communications Department to disseminate information to appropriate and necessary audiences on behalf of the City of Justin and to provide guidelines for how the City's various communication channels may be used, monitored, responded to, and the type of information that may be provided through those multiple channels.

### **B. PURPOSE:**

The mission of the Communications Department is to be the citizen, staff, and media link to the City of Justin, allowing access to desired information on news, events, and local and regional issues that impact the City, build consensus and community support, and cultivate a strong sense of public trust. The City of Justin acknowledges that impactful communication is a core responsibility of a responsive and transparent government and a vital element of an engaged and well-informed community.

### **C. COMMUNICATION GOALS:**

Our goals are to provide citizens, staff, and the general public with timely, accurate, clear, and complete information about the policies, programs, services, events, and initiatives of the City of Justin. The City of Justin strives:

1. To provide uniform procedures for messaging that will ensure accuracy, City-wide coordination, and timely responses in any situation involving the City.
2. To offer planned procedures for coordinating messaging and media relations during crisis situations involving the City.
3. To clarify the expectations of employees of the City and their activity on social media platforms or if asked to visit with representatives from any traditional media platforms.
4. To maintain consistency in and throughout all messaging delivered by the City, including but not limited to styles, brands, logos, and electronic signatures.
5. To deliver prompt, courteous, timely, and responsive service sensitive to the needs and concerns of residents and the general public.

### **D. DUTIES, RESPONSIBILITIES, AND STRUCTURE**

The City of Justin Assistant City Manager Abbey Reece directs the efforts of the Communications Manager, Krystal Haynes. The Communications Manager is responsible for leading all public messaging efforts for the City, maintaining the City's official web presence via the website and social media channels, and engaging with local, state, and national credentialed media outlets. All City departments and employees authorized to engage in social media networking in an official capacity for



their department are to coordinate any messaging activity with the Communications Manager and her designee. The Communications Manager is responsible for administering the City's public communication programs and serves as Justin's Public Information Officer.

The responsibility for assuring complete compliance with the provisions of this policy rests with department directors, supervisors, and individual employees. Social media users are responsible for staying informed regarding City policies related to their online activity.

#### **E. CITY COMMUNICATIONS CHANNELS:**

All City communication platforms and channels, including the website, social media channels, and more, provide information on City government, services, and produced and/or sponsored events. All existences, activities, and responses on social media sites or services are considered an extension of the City's information and communications networks.

**Website:** The City of Justin website, [www.cityofjustin.com](http://www.cityofjustin.com), is the City's main information portal. Department Heads and/or designated personnel are responsible for reviewing the content to ensure it is current, clear, and accurate. Each Department has a designated staff member who is trained to manage website updates applicable to their department.

**Social Media Platforms:** The City appropriates various forms of social media to communicate and disseminate information with residents in the way they find most convenient. To engage a diverse audience, the City manages and utilizes seven social media accounts across five platforms: Facebook, X, Instagram, NextDoor, and LinkedIn. New accounts may be added as needed and must be approved by the Communications Manager.

The City of Justin's social media pages are designed to be helpful and informative mediums. Any comments made by the public to these sites are reviewed and, while comments will not be edited by City personnel, they may be deleted or hidden if they violate the comment policy listed below (subject to amendment or modification at any time):

1. A comment that includes obscene, indecent, or profane language, pictures, and/or videos.
2. A comment that includes threats, personal attacks, or defamatory statements.
3. A comment that includes speech directed at the religion, race, color, gender, sexual orientation, national origin, ethnicity, age, political beliefs, or any physical or mental disability of a person or group.
4. A comment that includes fraudulent, deceptive, or misleading information.
5. A comment that includes harassment or bullying of any kind.
6. A comment that is not related to the posted topic.

7. Multiple off-topic comments by a single user are repetitive posts copied and pasted by multiple users or a spam mechanism.
8. A comment that includes promotion or endorsement of services or products for commerce.
9. A comment that violates the proprietary information of any other party.
10. A comment that violates any local, state, or federal laws.
11. A comment that includes campaign materials promoting or opposing an individual in an election for political office.
12. A comment that includes personally identifiable information, such as addresses, phone numbers, social security numbers, or other sensitive information.
13. A comment that includes any links to other Web sites or pages not preapproved by the City.
14. A comment that includes solicitation for political or charitable purposes.

**Internal Communications Methods:** An impactful internal communications system ensures that the City Council and City employees receive essential information and are regularly updated on the City's progress toward meeting its goals and objectives. The City currently utilizes the following internal communication strategies:

- **Bi-Weekly Update** – the City Manager's weekly newsletter distributed each week to the City Council and Executive Staff focusing on events, news, and major project updates that occurred during the week.
- **Monthly Internal Newsletter** – the Communications Manager provides updates on City announcements, initiatives, and highlights to City staff at the beginning of each month.
- **City-wide Email** – employee events, announcements, policy updates and other important information is distributed via a City-wide distribution list. Information is typically printed and displayed for those employees with limited access to email.
- **Informational Meetings** – the Human Resources Department and the City Manager's Office schedule informational meetings on topics of particular importance to employees, such as Open Enrollment Meetings, and City Manager Briefings.
- **Employee Events** – events such as the Fall Luncheon, Staff Development Days, and the Appreciation Event provide an opportunity for employees to build relationships with each other, and for City leadership to convey key messages to staff in a fun, informal setting.

## F. MEDIA RELATIONS

The City of Justin strives to engage credentialed media members and their outlets transparently and collaboratively to promptly disseminate accurate and concise information. The Communications staff produces press releases, monitors media coverage, and facilitates and executes media inquiries and interviews, among more. The communications staff's goal is to maintain a positive working relationship with local, state, and national media outlets to ensure that all aspects of City programs, services,

and activities are accurately shared with the stakeholders and the general public. To achieve these goals, the City has the following policies for anyone requesting to speak on its behalf:

1. Any media inquiries received by any City of Justin employee, either by written request or in person, shall immediately be forwarded or referred to the Communications Manager. An example response message is included below.
  - a. ***"Thank you for your inquiry. I am forwarding your message to our City spokesperson [khaynes@cityofjustin.com](mailto:khaynes@cityofjustin.com)."***
2. All City press/news releases, media statements, responses, or other media outreach and advisories or announcements must be coordinated with the Communications Manager.

#### **Definitions:**

- **News/Press Releases:** The Communications Department coordinates and approves all press/news releases, and they, along with Police and Fire, are the only departments authorized by the City Manager to send out news releases. All news releases are sent to the media distribution list, archived online, and available from the News and Highlights section of the City's website. Often, news releases are made available to the public through the City's social media platforms.
- **Statements or Responsive Statements:** A statement is a simple quote the City releases to the public via a distribution list or social media when very little can be said, but the information is necessary to share. A response statement is a similar quote given in response to a credentialed news reporter's specific question and is shared only with the inquiring member of the press.
- **Media Advisories:** A media advisory is an invitation to the media to cover an event sponsored by the City. It traditionally appears like a facts sheet, providing the topic of the event, speakers, date, time, and location.
- **Press Conferences:** Press Conferences are only coordinated by the Communications office (and the Public Information Officers for the City when necessary). Designated staff will coordinate staging and set-up in conjunction with necessary parties.

#### **Important Reminders:**

- The City may withhold responses to media inquiries in the event of ongoing or impending investigations or litigation.
- Due to the vast number of reporting mediums, the City will always give preference in responding to inquiries from credentialed media representatives who work for recognized local, regional, state, or national news outlets.

## **G. CRISIS COMMUNICATIONS**

The Communications Manager, in coordination with the City Manager and the Police and Fire Chiefs, leads the Emergency Management Leadership team. This team will coordinate the communications strategy during a crisis and will be responsible for updates and changes to the plan as needed. They will work on the scene with emergency management and public safety officials to compile and disseminate accurate information to the media and the public in a timely manner.

The predetermined communications flow for a contained emergency event in the City includes the City Manager, Mayor, Police and Fire Chiefs, and the Public Information Officer. They will immediately contact law enforcement and all public safety officials to mobilize to the scene. The PIO will alert necessary department directors and begin creating and implementing a communications plan for the event. This plan will include social media posts by the City, Police, and Fire as information is released, as well as drafting media statements and press releases.

On the occasion that members of the media or press arrive on the scene of an emergency event, the City's Public Information Officer, a role held by the Communications Manager, will coordinate with the Fire and Police leadership or on-duty staff to organize a designated area for media purposes. The City will communicate onsite and through media advisories—via the email database and social media platforms—as to when and how often officials will provide information or answer questions. Elected officials will report to the Emergency Operations Center (EOC) as directed by the Incident or Unified Command System. To prevent the release of sensitive or unverified information, elected officials are strongly encouraged to communicate directly and exclusively with City staff during emergency situations.

## **H. WATER BILL INSERTS/FLYERS**

Inserts in the City of Justin water bills are at the discretion of the City Manager. These inserts are limited to City announcements, information, or the promotion of events hosted by the City or its departments. Approval for sharing information or promoting events using these inserts is also at the discretion of the City Manager.

## **I. COMMERCIAL FILM OR PHOTOGRAPHIC USE OF CITY FACILITIES**

Only the Assistant City Manager may approve on ground or aerial commercial filming and photography including the use of drones on public property for production or distribution use. Requests must be submitted by email to the Communications Manager and receive approval from the City Manager prior to conducting a shoot.

## **J. EXTERNAL COMMUNICATIONS PIECES**

All external communications need to be approved by the Communications Manager. To receive approval on printed or published materials, including flyers, pamphlets,

newsletters, pictures and brochures, please e-mail PDF or JPEG files to [khaynes@cityofjustin.com](mailto:khaynes@cityofjustin.com). Allow a minimum of two business days for a response.

Text and artwork must be final to be considered for approval. It must have final imagery, logo placement at intended size and location, and final text. No edits may be done after the approval process.

In addition to artwork, include in your e-mail the objective of the piece and the audience the piece will address. For ads, provide the name of the publication, website, or media platform, the ad run dates, and the insertion deadline. For direct marketing pieces, provide a specific number of residents/addresses that will receive the piece.

All external communications pieces must strictly adhere to the [Brand Standards Guide](#).

#### **K. ALERTING THE COMMUNICATIONS TEAM OF NEWS**

In addition to emergency or developing events, the Communications Manager should be notified at least two weeks prior to planned events such as:

- Construction or repair projects that impact traffic flow or parking in the City.
- Meetings of advisory boards and commissions that might need to be announced or reported.
- Groundbreaking ceremonies, ribbon cutting events, major bid openings, open houses, meetings or seminars involving the City.
- Announcements of major new ordinances or regulations.
- Hiring of a new Division or Department head or other key position.
- Awards or recognition given to any City department or employee.
- Other information that could be helpful for staff and/or residents to know.

#### **L. EMPLOYEES' PERSONAL USE OF SOCIAL MEDIA/NETWORKING SITES**

Access to the Internet using the City's electronic communications systems is a privilege and carries responsibilities, including responsible and ethical use. This is true whether access is for personal use or related to an employee's job duties. The City of Justin reserves the right to access, intercept, monitor, and review all information viewed, posted, sent, stored, printed, or received through its communications systems or equipment at any time. An employee's use of social media, whether inside or outside of work hours, must not interfere with or conflict with the employee's responsibilities or job performance, reflect negatively on the City, or violate any social media policy. Protecting the City's reputation and ensuring that employee communication within and outside of the City reflects positively on the employee as an individual and the City of Justin. Personal use of social media sites is strongly discouraged during working hours. The City of Justin expects all employees to use good judgment and follow the guidelines set out in this policy when posting information on social media, regardless of whether activity occurs during or outside work hours.

**User guidelines for employees who wish to engage on personal social media accounts:**

1. City of Justin employees shall not use a City email address for social media accounts.
2. City of Justin employees may only comment on City-related matters on public platforms or outlets if they are an official spokesperson and have the approval to do so.
3. City of Justin employees shall not post images, files, or texts depicting City property, equipment, apparel, or personnel in any manner that would adversely affect the reputation of the City or a City employee or department.
4. City of Justin employees shall not make insulting or offensive comments on any platform or outlet, engage in harassment, libel, or use derogatory speech regarding a person's race, age, religion, political preference, national origin, disability, sexual orientation, or gender.
5. City of Justin employees are prohibited from disclosing confidential information or information that could breach the City's security in any way.
6. City of Justin employees may not attribute personal statements or opinions to the City when engaging in private postings on social media sites.
7. While City of Justin employees may encourage eligible residents to engage in the political process, endorsing any individual candidates or other ballot items is strictly prohibited.
8. City of Justin employees are prohibited from posting anything that promotes or contains illegal or illicit activity of any kind.

Note: The City of Justin Employee social media Policy can be accessed in Section 9, on page 84 of the Employee Manual.

**N. EMPLOYEE EMAIL USAGE**

Employees are to conduct email conversations in a professional and timely manner. Any and all activity on a City account is subject to the state's open records laws.

**O. OUT OF OFFICE MESSAGING**

The Microsoft Outlook "Out of Office" tool should be used during any absence where the employee will not be regularly checking and responding to e-mail including but not limited to vacation, medical leave, holidays, etc. The information provided on the "Out of Office" message, should include the employee's expected time or day of return, the contact information of someone else that might be able to assist, and, when necessary, a method by which to reach the employee.

**P. E-MAIL SIGNATURE**

All e-mail signatures should use the uniform template with the City of Justin logo and the employee's name, title, office phone number, and cell phone number (if desired). Employees are not to embed background images or wallpaper in their e-mails. Please

reach out to the Communications team for assistance. A sample signatures and instructions for how to apply them are available [here](#).

#### **Q. Logo Use Policy**

As guided municipal law, City logos are exclusively used for official City business such as City communications, merchandise, facilities, signage, events, and services. The Communications Department reserves the right to deviate from these guidelines in certain situations, as applicable. Any questions regarding the usage of the City of Justin logo should be directed to the Communications Manager.



City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 3. (CONSENT AGENDA)

Title: Consider approving Resolution 759-25 authorizing the City Manager to execute Interlocal Cooperation Agreements with Denton County Tax Office for Tax Collections; and take appropriate action.

Department: Administration

Contact: Jarrod Greenwood, City Manager

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**Recommendation:**

Staff recommends approval.

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**Background:**

Historically, each year the City and Denton County enter into an agreement for tax collection and remittance,, allowing Denton County to collect taxes on behalf of the City. Several years ago, the County changed the agreement format to be a multi-year agreement that is only signed once and renewed automatically each year, unless changes are made. Since the last executed agreement, Denton County has changed some language in it that modifies the collection rate, so this requires Council approval of a new agreement. There are a total of six agreements because the County considers the City's standard tax collection and each of the five Public Improvement District areas within the Timberbrook PID a separate taxing unit, thus requiring an agreement for each one.

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**City Attorney Review:** N/A

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**Attachments:**

1. Resolution 759-25 Denton County ICA Tax Collection
2. C09 CITY OF JUSTIN
3. PID44 TIMBERBROOK PID IA NO 1
4. PID45 TIMBERBROOK PID 1 MIA
5. PID64 TIMBERBROOK PID IA #2A
6. PID65 TIMBERBROOK PID IA #2B
7. PID86 TIMBERBROOK PID 2 IA#1



**CITY OF JUSTIN  
RESOLUTION 759-25**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, APPROVING INTERLOCAL COOPERATION AGREEMENTS WITH DENTON COUNTY FOR THE ASSESSMENT AND COLLECTION OF AD VALOREM TAXES; AUTHORIZING THE CITY MANAGER TO EXECUTE SAID AGREEMENTS; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin, Texas (“City”) is a political subdivision of the State of Texas authorized to levy and collect ad valorem taxes; and

**WHEREAS**, Section 6.24 of the Texas Tax Code and Chapter 791 of the Texas Government Code authorize municipalities to enter into interlocal agreements with counties for the assessment and collection of ad valorem taxes; and

**WHEREAS**, Denton County, Texas (“County”) has offered to provide such services to the City under the terms set forth in the Interlocal Cooperation Agreements for Property Tax Assessment and Collection; and

**WHEREAS**, the City Council has reviewed and desires to approve the agreements presented by the Denton County Tax Assessor-Collector; and

**WHEREAS**, the City Council finds that it is in the best interest of the City and its residents to enter into these agreements with Denton County for professional, efficient, and cost-effective tax collection services.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS:**

**SECTION 1:** That the Interlocal Cooperation Agreements for Property Tax Assessment and Collection between the City of Justin and Denton County, Texas, effective October 1, 2025, attached hereto as Exhibits “A”, “B”, “C”, “D”, “E”, “F”, are hereby approved.

**SECTION 2:** That the City Manager is hereby authorized to execute the agreements and any necessary documents associated therewith on behalf of the City.

**SECTION 3:** If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof, and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

**SECTION 4:** That this Resolution shall become effective from and after its date of passage.

**DULY PASSED** and approved by the City Council of the City of Justin, Texas, by a vote on this the 22<sup>nd</sup> day of May, 2025.

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

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Amy M. Piukana, City Secretary

**APPROVED AS TO FORM:**

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Matthew Boyle, City Attorney



Office of Dawn Waye  
Denton County Tax Assessor – Collector

**RESOLUTION 759-25**  
**EXHIBIT A**

May 2, 2025

**Subject: Updated Contract and Parcel Fee Adjustments**

Dear CITY OF JUSTIN

I hope this message finds you well. Enclosed is the updated contract for services provided by the Denton County Tax Assessor-Collector's Office. We value our partnership and appreciate the opportunity to continue serving your entity.

Following our annual review, we revisited the cost basis and breakeven analysis and will be implementing a modest per-parcel fee of \$1.41, effective October 1, 2025. This breakeven adjustment helps offset increased expenses related to staffing, technology, postage, and materials broken down below.

The last adjustment to the parcel fee was implemented in 2018. In 2021, our printing-mailing partner notified us that uncontrollable costs had escalated by 51% since the original contract had been signed. Although the Commissioners Court authorized an 18% increase at that time, the parcel fee charged to taxing entities remained unchanged.

By statute, parcel fees must achieve a zero net result, meaning the Tax Office is not allowed to profit from these charges but allowed to break even. However, over the past seven to eight years, we have consistently operated at a deficit, unable to recover the actual cost of providing services.

Key cost increases since 2018 include:

- **Paper costs:** Increased by 51%
- **Postage rates:** Increased by 46%, with seven individual rate hikes during this period
- **Cost of living (based on the PCE Index):** Increased by 22.88% from 2018 to 2025
- **Cost of living (based on CPI)** Increased 27.29% over the same period

1505 E. McKinney Street  
Denton, TX 75209  
940-340-3506



Office of Dawn Waye  
Denton County Tax Assessor – Collector

Given these significant cost escalations, the current parcel fee is no longer sufficient to meet statutory requirements for cost recovery.

For entities that do not meet the established parcel benchmark, a minimum annual fee of \$200 will apply to cover the baseline costs of service. Entities that exceed the benchmark and generate fees above this threshold will not be subject to the minimum.

**Key updates include:**

- A new per-parcel fee of \$1.41
- A \$200 minimum annual fee for entities below the parcel benchmark

Please review the attached contract and return the signed copy by July 1, 2025 to ensure timely continuation of services. We remain committed to sustainability, transparency, efficiency, and maintaining the high standard of service you expect.

If you have questions or need further clarification, feel free to contact me directly.

Thank you for your continued partnership.

Sincerely,

Dawn M. Waye  
Denton County Tax Assessor-Collector  
940-949-3506 Direct  
214-223-6090 Cell

1505 E. McKinney Street  
Denton, TX 75209  
940-340-3506



THE STATE OF TEXAS §

COUNTY OF DENTON §

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY TAX**

**ASSESSMENT AND COLLECTION BETWEEN**

**DENTON COUNTY, TEXAS AND CITY/TOWN OF**  
**CITY OF JUSTIN, TEXAS**

**INTERLOCAL COOPERATION AGREEMENT –TAX COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as "**COUNTY**," and **CITY OF JUSTIN**, Denton County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as "**MUNICIPALITY**."

**WHEREAS, COUNTY** and **MUNICIPALITY** mutually desire to be subject to the provisions of Texas Government Code, Chapter 791 (the Interlocal Cooperation Act), and Section 6.24 of the Texas Tax Code; and;

**WHEREAS, MUNICIPALITY** has the authority to contract with the **COUNTY** for the **COUNTY** to act as tax assessor and collector for **MUNICIPALITY** and **COUNTY** has the authority to so act.

**NOW THEREFORE, COUNTY** and **MUNICIPALITY**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

## I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning on the effective date and ending on, September 30, 2026. The initial term of the Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **MUNICIPALITY** no later than one hundred-eighty (180) days prior to the expiration date of the then- current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then-current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **MUNICIPALITY** to

the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified tax assessor/collector, shall serve as tax assessor/collector for **MUNICIPALITY** for ad valorem tax collection for the tax year. **COUNTY** agrees to perform all necessary ad valorem assessing and collecting duties for **MUNICIPALITY** and **MUNICIPALITY** does hereby expressly authorize **COUNTY** to do and perform all acts necessary and proper to assess and collect taxes for **MUNICIPALITY**. **COUNTY** agrees to collect base taxes, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all current and delinquent tax statements required by statute, supplemental changes for applicable property accounts, as well as prepare and mail any other mailing as deemed necessary and appropriate by **COUNTY**; provide daily, monthly and annual collection reports to **MUNICIPALITY**; prepare tax certificates; develop and maintain both current and delinquent tax rolls, disburse tax monies to **MUNICIPALITY** daily (business day) based on prior day tax postings, approve and refund overpayment or erroneous payment of taxes for **MUNICIPALITY** pursuant to Property Tax Code Chapter 31 from available current tax collections of **MUNICIPALITY**; and to meet the requirements of Section 26.04 and Chapter 42, Subchapter C and develop and maintain such other records and forms as are necessary or required by State law, rules, or regulations. If daily disbursal is to be delayed, **COUNTY** will notify **MUNICIPALITY** in the secured web entity folder the reason for the delay.

3. **COUNTY** further agrees that it will make for **MUNICIPALITY** the property tax rate calculations required by Property Code Section 26.04 (currently identified in the Section by the terms "no new revenue tax rate" and "voter-approval tax rate"), and will do so in accordance with all requirements therein. All such rate calculations will be performed using only the Texas State Comptroller's "Truth In Taxation" formulas, and at no additional cost to **MUNICIPALITY**. The information concerning the rate calculations described in this Article II.3 and publications will be provided to **MUNICIPALITY** in the form prescribed by the Comptroller of Public Accounts of the State of Texas, and as required by Property Tax Code Chapter 26. **MUNICIPALITY** shall be responsible for all publications as required by Chapter 26. In the event **MUNICIPALITY** requires early calculation based on certified estimate values, **COUNTY** will perform the tax rate calculations described in this Article II.3. and provide the required publications to **MUNICIPALITY** in the same manner as performing the tax rate calculations pursuant to the annual appraisal district reports required to be Certified on July 25 of each tax year.

4. **COUNTY** agrees, upon request, to offer guidance and the necessary forms for posting notices as required by Chapter 26 of the Property Tax Code if **MUNICIPALITY** requests such no less than 7 days in advance of the intended publication date. **MUNICIPALITY** must approve all calculations and notices, in the format required by **COUNTY** and Property Tax Code Chapter 26. The accuracy and timeliness of all required notices are the responsibility of **MUNICIPALITY**. **COUNTY** will update tax transparency databases, as required in Property Tax Code Sections 26.17(b),(5A,B),(7),(12),(13) and 26.17(e)(2) with applicable Truth In Taxation



worksheets and Notices. **MUNICIPALITY** is responsible for any other required information posted on a tax transparency database. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Property Tax Code and all other applicable Texas statutes. **COUNTY** will submit to **MUNICIPALITY** approval forms of the tax rate calculation and required notices. **MUNICIPALITY** must return executed approval forms to tax assessor/collector as required by law and this agreement.

5. Should **MUNICIPALITY** vote to increase its tax rate above the statutory voter approval limit (also known as the "rollback" or the "voter approval" rate), the required publication of notices shall be the responsibility of the **MUNICIPALITY**. Should **MUNICIPALITY** roll back the tax rate as a result of Tax Rate Election, the required publication of notices shall be the responsibility of **MUNICIPALITY**.

6. **COUNTY** agrees to develop and maintain written policies and procedures of its operation. **COUNTY** further agrees to make available full information about the operation of the County Tax Office to **MUNICIPALITY**, and to promptly furnish written reports to keep **MUNICIPALITY** informed of all financial information affecting it.

7. **MUNICIPALITY** agrees to promptly deliver to **COUNTY** all records that it has accumulated and developed in the assessment and collection of taxes, and to cooperate in furnishing or locating any other information and records needed by **COUNTY** to perform its duties under the terms and conditions of this Agreement.

8. **COUNTY** agrees to allow an audit of the tax records of **MUNICIPALITY** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **MUNICIPALITY**. A copy of any and all such audits shall be furnished to **COUNTY**.

9. If required by **MUNICIPALITY**, **COUNTY** agrees to obtain a surety bond for the County Tax Assessor/Collector. Such bond will be conditioned upon the faithful performance of the tax assessor/collector's lawful duties, will be made payable to **MUNICIPALITY** and in an amount determined by the governing body of **MUNICIPALITY**. The premium for any such bond shall be borne solely by **MUNICIPALITY**.

10. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent tax penalties will apply to all assessed taxes that are not paid by January 31<sup>st</sup> of the collection year.

11. **COUNTY** agrees that it will post to a secure website collection reports for **MUNICIPALITY** listing current taxes, delinquent taxes, penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly Maintenance and Operation (hereinafter referred to as "MO"), and Interest and Sinking (hereinafter referred to as "IS") collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

12. **MUNICIPALITY** retains its right to select its own delinquent tax collection attorney and **COUNTY** agrees to reasonably cooperate with the attorney selected by **MUNICIPALITY** in the collection of delinquent taxes and related activities.

13. **MUNICIPALITY** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

### III.

**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **MUNICIPALITY**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **COUNTY** and **MUNICIPALITY**.

### IV.

**COUNTY** accepts responsibility for the acts, negligence, and/or omissions related to property tax service of all **COUNTY** employees and agents, sub-contractors and/or contract laborers, and for those actions of other persons doing work under a contract or agreement with **COUNTY** to the extent allowed by law.

### V.

**MUNICIPALITY** accepts responsibility for the acts, negligence, and/or omissions of all **MUNICIPALITY** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **MUNICIPALITY** to the extent allowed by law.

VI.

**MUNICIPALITY** understands and agrees that **MUNICIPALITY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **MUNICIPALITY**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **MUNICIPALITY**’s preceding tax year Tax Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the tax year, **MUNICIPALITY** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of tax statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing tax collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same Per Parcel Rate, except that, if that Per Parcel Rate multiplied by the entity’s Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each tax year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **MUNICIPALITY** with written notice of that rate.

2. The current tax statements will be mailed by October 10<sup>th</sup> of the tax year or as soon thereafter as practical. The **MUNICIPALITY** must adopt its tax year tax rate on

or before September 30<sup>th</sup> of the applicable tax year, if that rate does not exceed the voter-approval tax rate. **MUNICIPALITY** must adopt a tax rate that exceeds the voter-approval tax rate not later than the deadline set forth in Property Tax Code Section 26.05(a) and Election Code 3.005 and 41.001. In order to expedite mailing of tax statements, **MUNICIPALITY** shall adopt and then deliver its adopted tax rate to **COUNTY** no later than the applicable adoption deadline described herein. Failure by **MUNICIPALITY** to adopt and then deliver the adopted tax rate to **COUNTY** by said applicable adoption deadline may result in delay of processing and mailing **MUNICIPALITY** tax statements. **MUNICIPALITY** agrees to assume the costs for additional delayed tax statements, processing and mailing as determined by **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **MUNICIPALITY** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent tax statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent taxes.

4. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent tax statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent taxes.

5. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent tax statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent taxes.

6. For accounts that become delinquent on February 1<sup>st</sup> of the tax year,

**COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent taxes not including February 33.11 notices.

7. In event of a tax rate change resulting from a rollback or tax approval election that takes place after tax bills for **MUNICIPALITY** have been mailed, **MUNICIPALITY** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY**, pursuant to Property Tax Code Section 26.07(f) or 26.075(j) will mail corrected statements to the owner of each property. The fee for this service will be the same Per Parcel Rate described in paragraphs 1, 9 and 10 of this Article VII. When a refund is required per Property Tax Code Section 26.07(g) or 26.075(k) **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a successful rollback election, will be the responsibility of the **COUNTY**. **MUNICIPALITY** will be billed for the refunds, postage and processing fees.

8. **MUNICIPALITY** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the tax year, deduct from current collections of **MUNICIPALITY** the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

9. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **MUNICIPALITY's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 (if the total number of parcels listed on **MUNICIPALITY's** preceding tax year Tax Roll on September 30<sup>th</sup> of the tax year is 141 or less), then the "Total Cost" of

providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

10. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **MUNICIPALITY** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the “Total Cost” of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **MUNICIPALITY**’s then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **MUNICIPALITY** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

11. In the event that a rollback or tax rate approval election as described in paragraph 7 of this Article VII takes place, **COUNTY** shall bill **MUNICIPALITY** for the applicable programming charge, check processing fees, refunds paid, and refund postage costs. **MUNICIPALITY** shall pay **COUNTY** all billed amounts within 30 days of its receipt of said bill. In the event costs for additional delayed tax statements, processing and mailing are incurred as described in paragraph 2 of this Article VII, **COUNTY** shall bill **MUNICIPALITY** for such amounts. **MUNICIPALITY** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

## VIII.

**COUNTY** agrees to remit all taxes, penalties, and interest collected on **MUNICIPALITY's** behalf and to deposit such funds into the **MUNICIPALITY's** depositories, as designated:

1. For deposits of tax, penalties, and interest, payment shall be by wire transfer or ACH to **MUNICIPALITY's** depository accounts only, and segregated into the appropriate MO and IS accounts, as applicable, specified on the Direct Deposit Authorization executed between the **MUNICIPALITY** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of tax, penalty and interest be sent by mail to **MUNICIPALITY**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding tax debt of **MUNICIPALITY**, the **MUNICIPALITY** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected taxes until such time as payment is remitted.

## IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the tax year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this



Agreement during such period.

X.

This Agreement represents the entire agreement between **MUNICIPALITY** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **MUNICIPALITY** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

XI.

Any and all written notices required to be given under this Agreement shall be delivered or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76209  
Telephone: 940-349-2820

**MUNICIPALITY:**

|  |
|--|
|  |
|  |
|  |

XII.

**MUNICIPALITY** hereby designates \_\_\_\_\_ to act on behalf of **MUNICIPALITY**, and to serve as Liaison for **MUNICIPALITY** to ensure the performance of all duties and obligations of **MUNICIPALITY** as stated in this Agreement. **MUNICIPALITY**'s designee shall devote sufficient time and attention to the execution of said duties on behalf of **MUNICIPALITY** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **MUNICIPALITY** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **MUNICIPALITY** and **COUNTY**.

XIII.

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.

XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**MUNICIPALITY**

City/Town: CITY OF JUSTIN

Streetaddress:

City, state,zip:

Email:

Phone:

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector

THE STATE OF TEXAS   §  
COUNTY OF DENTON   §

**RESOLUTION 759-25**  
**EXHIBIT B**

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY  
ASSESSMENTS ASSESSMENT AND COLLECTION BETWEEN DENTON  
COUNTY, TEXAS AND**

**CITY/TOWN OF** **JUSTIN** **PUBLIC**  
**IMPROVEMENT DISTRICT**

**INTERLOCAL COOPERATION AGREEMENT –ASSESSMENTS**  
**COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as "COUNTY," and **JUSTIN**, Denton County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as "CITY/TOWN."

**WHEREAS, COUNTY** and **CITY/TOWN** mutually desire to be subject to the provisions of Texas Government Code, Chapter 791, the Interlocal Cooperation Act, and;

**WHEREAS**, pursuant to Chapter 372 of the Texas Local Government Code, Subchapter A, **CITY/TOWN** has created the

**PID44-TIMBERBROOK PID IA NO 1**

**PUBLIC IMPROVEMENT DISTRICT**, hereinafter referred to as **DISTRICT**, and has levied special assessments on properties within the boundaries of the **CITY/TOWN**, and

**WHEREAS**, pursuant to §372.0175 of the Texas Local Government Code, **CITY/TOWN** has the authority to contract with the **COUNTY** to perform the duties of **CITY/TOWN** relating to collection of special assessments levied by **DISTRICT** under Chapter 372, Subchapter A, and,

**NOW THEREFORE, COUNTY and CITY/TOWN**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning of the effective date and ending September 30, 2026. The initial term of this Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **CITY/TOWN** no later than one hundred-eighty (180) days prior to the expiration date of the then-current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then-current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first

renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **CITY/TOWN** to the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified Tax Assessor-Collector, shall collect **DISTRICT** assessments for current tax year. **CITY/TOWN** does hereby expressly authorize **COUNTY** and **COUNTY** agrees to do and perform for **CITY/TOWN** all acts necessary and proper to collect said **DISTRICT** assessments. **COUNTY** agrees to collect base assessments, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all assessment statements (included on the tax statement for each parcel, provide daily, monthly and annual collection reports to **CITY/TOWN**, maintain both current and delinquent assessment rolls, disburse assessment monies to **CITY/TOWN** daily (business day) based on prior day assessment postings, and to develop and maintain such other records and forms as are necessary or required by State law, rules or regulations to **CITY/TOWN**. If daily disbursal is to be delayed, **COUNTY** will notify **CITY/TOWN** in the secured web entity folder the reason for the delay.

3. If **COUNTY** determines, based on **DISTRICT** assessment roll, that a person erred in paying a **DISTRICT** assessment by making a duplicate or erroneous payment **COUNTY** agrees to refund the payment to the person who erred in making it from current **DISTRICT** assessment collections. **COUNTY** agrees that such refund will be made as soon as practicable after **COUNTY** discovers the erroneous payment. The refund shall be accompanied by a description of the property subject to the assessment sufficient to identify

the property. If the property is assigned an account number, **COUNTY** shall include that number.

4. If **COUNTY** determines, based on **DISTRICT** assessment roll, that there has been an overpayment of a **DISTRICT** assessment, **COUNTY** shall send the owner a refund application. Upon owner's return of the accurate and fully completed refund application, **COUNTY** will issue, from current **DISTRICT** assessment collections, a refund of the overpayment.

5. **COUNTY** agrees to develop and maintain written policies and procedures of its operation. **COUNTY** further agrees to make available full information about the operation of the County Tax Office to **CITY/TOWN**, and to promptly furnish written reports to keep **CITY/TOWN** informed of all financial information affecting it.

6. **CITY/TOWN** agrees to promptly deliver to **COUNTY** all records that it has accumulated and developed in the assessment and collection of assessments, and to cooperate in furnishing or locating any other information and records needed by **COUNTY** to perform its duties under the terms and conditions of this Agreement.

7. **COUNTY** agrees to allow an audit of the assessment collection records of **CITY/TOWN** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **CITY/TOWN**. A copy of any and all such audits shall be furnished to **COUNTY**.

8. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent assessment penalties will apply to all assessments that are not paid by January 31<sup>st</sup> of the collection year.

9. **COUNTY** agrees that it will post to a secure website collection reports for **CITY/TOWN** listing current assessments, delinquent assessments, and penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

10. **CITY/TOWN** retains its right to select its own delinquent collection attorney and **COUNTY** agrees to reasonably cooperate with the attorney selected by **CITY/TOWN** in the collection of delinquent assessments and related activities.

11. **CITY/TOWN** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

12. For assessments that become delinquent on February 1<sup>st</sup> of the tax year, **COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent assessments.

### III.

**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **CITY/TOWN**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this



Agreement for the mutual benefit of **COUNTY** and **CITY/TOWN**. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Texas Property Tax Code and all other applicable Texas statutes.

#### IV.

**COUNTY** accepts responsibility for the acts, negligence, and/or omissions related to property assessments service of all **COUNTY** employees and agents, sub-contractors and/or contract laborers, and for those actions of other persons doing work under a contract or agreement with **COUNTY** to the extent allowed by law.

It is understood and agreed between **COUNTY** and **CITY/TOWN** that the **CITY/TOWN**, in performing its obligations hereunder, is acting independently, and the **COUNTY** assumes no responsibility or liabilities in connection therewith to third parties. It is further understood and agreed between **COUNTY** and **CITY/TOWN** that the **COUNTY**, in performing its obligations hereunder, is acting independently, and the **CITY/TOWN** assumes no responsibilities in connection therewith to third parties. Nothing in this **AGREEMENT** is intended to benefit any third party beneficiary.

**CITY/TOWN** agrees that it will protect, defend, indemnify, and hold harmless **COUNTY** and all of its officers, agents, and employees from and against all claims, demands, causes of action, damages, judgments, losses and expenses, including attorney's fees, of whatsoever nature, character, or description that any person or entity has or may have arising from or on account of any injuries or damages received or sustained by person, persons, or property, on account of or arising out of, or in connection with the performance of the services, including without limiting the generality of the foregoing, any negligent act or omission of the **CITY/TOWN** or any employee, officer, agent, subcontractor, servant, invitee, or assignee of

the **CITY/TOWN** in the execution or performance of this **AGREEMENT**. This provision shall survive the termination of this **AGREEMENT**.

V.

**CITY/TOWN** accepts responsibility for the acts, negligence, and/or omissions of all **CITY/TOWN** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **CITY/TOWN** to the extent allowed by law.

VI.

**CITY/TOWN** understands and agrees that **CITY/TOWN**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **CITY/TOWN**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **CITY’s/TOWN’s** preceding tax year PID Assessment Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the assessment year, **CITY/TOWN** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of assessment statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing assessments collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same per parcel collection rate, except that, if that Per Parcel Rate multiplied by the

entity's Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each assessments year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **CITY/TOWN** with written notice of that rate.

2. The current assessment statements will be mailed by October 10<sup>th</sup> of the assessments year or as soon thereafter as practical. If **CITY/TOWN** does not provide **COUNTY** with the fixed lien assessment levied and the assessment roll by **CITY/TOWN's** governing body under Local Government Code Section 372.017 on or before September 10<sup>th</sup>, **COUNTY** may, in addition to the costs set forth in paragraph 10 (initial term costs) or paragraph 11 (renewal term costs) of this Article VII, whichever is applicable, charge **CITY/TOWN** a \$5,000 late processing fee. The assessment roll is to be accompanied by the resolution passed by the governing body for the current assessment year. All assessments

become due on receipt of the assessment/tax statement each year. The **DISTRICT** assessment shall be entered in to the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the **APPRAISAL DISTRICT** records submitted to **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **CITY/TOWN** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. All unpaid assessments become delinquent on February 1st of the year following the assessment year. Penalty and interest fees accrue at the same rate and time schedule as the same year's ad valorem property tax. (Property Tax Code, Section 31.02(a) and 33.01(a)).

4. Delinquent assessment collection attorneys become involved at the same

times as do the delinquent ad valorem property tax attorneys. (Property Tax Code, Sections 6.30, 33.07, 33.08, 33.11, and 33.48).

5. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

6. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

7. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent assessments statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent assessments.

8. In the event **DISTRICT** levies a supplemental corrected assessment by order of its governing body after the assessment statements have already been mailed, **CITY/ TOWN** shall provide **COUNTY** with an updated assessment roll identifying the corrected assessments levied by **DISTRICT'S** governing body under Local Government Code Section 372.017, as corrected by any supplemental assessments levied by its governing body under Section 372.019. **CITY/TOWN** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY** will mail corrected statements to the owner of each affected parcel. The **DISTRICT** assessment shall be entered into the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the Appraisal District records submitted to **COUNTY**. **The corrected assessment is to be accompanied by the resolution passed by the governing**

**body for the assessment year.** The fee for the services performed by **COUNTY** under this paragraph 8 will be the Per Parcel Rate approved by Commissioners Court for the applicable tax year multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. When a refund is required per Property Tax Code Section 26.07(g), **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a corrected assessment roll, will be the responsibility of **COUNTY**. **CITY/TOWN** will be billed for the refunds, postage and processing fees.

9. **CITY/TOWN** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the assessment year, deduct from current collections of **CITY/TOWN** the "Total Cost" of providing all services described in Sections 1-5 above. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

10. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **CITY/TOWN's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 , then the "Total Cost" of providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

11. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **CITY/TOWN** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate

approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **CITY/TOWN** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

12. In the event costs for additional delayed assessments statements, processing and mailing are incurred as described in Section 1, **COUNTY** shall bill **CITY/TOWN** for such amounts. **CITY/TOWN** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

#### VIII.

**COUNTY** agrees to remit all assessments, penalties, and interest collected on **CITY/TOWN's** behalf and to deposit such funds into the **CITY/TOWN's** depositories, as designated:

1. For deposits of assessments, penalties, and interest, payment shall be by wire transfer or ACH to **CITY/TOWN's** depository accounts only as applicable, specific on the Direct Deposit Authorization executed between the **CITY/TOWN** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of assessments, penalty and interest be sent by mail to **CITY/TOWN**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this

Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding assessment debt of **CITY/TOWN**, the **CITY/TOWN** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected assessments until such time as payment is remitted.

#### IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the assessments year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this Agreement during such period.

#### X.

This Agreement represents the entire agreement between **CITY/TOWN** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **CITY/TOWN** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

#### XI.

Any and all written notices required to be given under this Agreement shall be delivered

or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208  
Telephone: 940-349-2820

**CITY/TOWN:**

|        |
|--------|
| JUSTIN |
|        |
|        |
|        |

II.

**CITY/TOWN** hereby designates \_\_\_\_\_ to act on behalf of **CITY/TOWN**, and to serve as Liaison for **CITY/TOWN** to ensure the performance of all duties and obligations of **CITY/TOWN** as stated in this Agreement. **CITY/TOWN's** designee shall devote sufficient time and attention to the execution of said duties on behalf of **CITY/TOWN** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **CITY/TOWN** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **CITY/TOWN** and **COUNTY**.

XIII.

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.



XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**CITY/TOWN**

**JUSTIN**  
\_\_\_\_\_

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector

**THE STATE OF TEXAS   §**  
**COUNTY OF DENTON   §**

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY  
ASSESSMENTS ASSESSMENT AND COLLECTION BETWEEN DENTON  
COUNTY, TEXAS AND**

**CITY/TOWN OF JUSTIN \_\_\_\_\_PUBLIC  
IMPROVEMENT DISTRICT**

**INTERLOCAL COOPERATION AGREEMENT –ASSESSMENTS  
COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON  
COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as  
"COUNTY," and **JUSTIN \_\_\_\_\_**, Denton  
County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as  
"CITY/TOWN."

**WHEREAS, COUNTY** and **CITY/TOWN** mutually desire to be subject to the  
provisions of Texas Government Code, Chapter 791, the Interlocal Cooperation Act, and;

**WHEREAS**, pursuant to Chapter 372 of the Texas Local Government Code,  
Subchapter A, **CITY/TOWN** has created the  
**PID45 TIMBERBROOK PID NO 1 MIA \_\_\_\_\_**

**PUBLIC IMPROVEMENT DISTRICT**, hereinafter referred to as **DISTRICT**, and  
has levied special assessments on properties within the boundaries of the  
**CITY/TOWN**, and

**WHEREAS**, pursuant to §372.0175 of the Texas Local Government Code, **CITY/TOWN** has the authority to contract with the **COUNTY** to perform the duties of **CITY/TOWN** relating to collection of special assessments levied by **DISTRICT** under Chapter 372, Subchapter A, and,

**NOW THEREFORE, COUNTY and CITY/TOWN**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning of the effective date and ending September 30, 2026. The initial term of this Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **CITY/TOWN** no later than one hundred-eighty (180) days prior to the expiration date of the then-current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then- current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first

renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **CITY/TOWN** to the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified Tax Assessor-Collector, shall collect **DISTRICT** assessments for current tax year. **CITY/TOWN** does hereby expressly authorize **COUNTY** and **COUNTY** agrees to do and perform for **CITY/TOWN** all acts necessary and proper to collect said **DISTRICT** assessments. **COUNTY** agrees to collect base assessments, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all assessment statements (included on the tax statement for each parcel, provide daily, monthly and annual collection reports to **CITY/TOWN**, maintain both current and delinquent assessment rolls, disburse assessment monies to **CITY/TOWN** daily (business day) based on prior day assessment postings, and to develop and maintain such other records and forms as are necessary or required by State law, rules or regulations to **CITY/TOWN**. If daily disbursal is to be delayed, **COUNTY** will notify **CITY/TOWN** in the secured web entity folder the reason for the delay.

3. If **COUNTY** determines, based on **DISTRICT** assessment roll, that a person erred in paying a **DISTRICT** assessment by making a duplicate or erroneous payment **COUNTY** agrees to refund the payment to the person who erred in making it from current **DISTRICT** assessment collections. **COUNTY** agrees that such refund will be made as soon as practicable after **COUNTY** discovers the erroneous payment. The refund shall be accompanied by a description of the property subject to the assessment sufficient to identify

the property. If the property is assigned an account number, **COUNTY** shall include that number.

4. If **COUNTY** determines, based on **DISTRICT** assessment roll, that there has been an overpayment of a **DISTRICT** assessment, **COUNTY** shall send the owner a refund application. Upon owner's return of the accurate and fully completed refund application, **COUNTY** will issue, from current **DISTRICT** assessment collections, a refund of the overpayment.

5. **COUNTY** agrees to develop and maintain written policies and procedures of its operation. **COUNTY** further agrees to make available full information about the operation of the County Tax Office to **CITY/TOWN**, and to promptly furnish written reports to keep **CITY/TOWN** informed of all financial information affecting it.

6. **CITY/TOWN** agrees to promptly deliver to **COUNTY** all records that it has accumulated and developed in the assessment and collection of assessments, and to cooperate in furnishing or locating any other information and records needed by **COUNTY** to perform its duties under the terms and conditions of this Agreement.

7. **COUNTY** agrees to allow an audit of the assessment collection records of **CITY/TOWN** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **CITY/TOWN**. A copy of any and all such audits shall be furnished to **COUNTY**.

8. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent assessment penalties will apply to all assessments that are not paid by January 31<sup>st</sup> of the collection year.

9. **COUNTY** agrees that it will post to a secure website collection reports for **CITY/TOWN** listing current assessments, delinquent assessments, and penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

10. **CITY/TOWN** retains its right to select its own delinquent collection attorney and **COUNTY** agrees to reasonably cooperate with the attorney selected by **CITY/TOWN** in the collection of delinquent assessments and related activities.

11. **CITY/TOWN** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

12. For assessments that become delinquent on February 1<sup>st</sup> of the tax year, **COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent assessments.

### III.

**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **CITY/TOWN**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this

Agreement for the mutual benefit of **COUNTY** and **CITY/TOWN**. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Texas Property Tax Code and all other applicable Texas statutes.

#### IV.

**COUNTY** accepts responsibility for the acts, negligence, and/or omissions related to property assessments service of all **COUNTY** employees and agents, sub-contractors and/or contract laborers, and for those actions of other persons doing work under a contract or agreement with **COUNTY** to the extent allowed by law.

It is understood and agreed between **COUNTY** and **CITY/TOWN** that the **CITY/TOWN**, in performing its obligations hereunder, is acting independently, and the **COUNTY** assumes no responsibility or liabilities in connection therewith to third parties. It is further understood and agreed between **COUNTY** and **CITY/TOWN** that the **COUNTY**, in performing its obligations hereunder, is acting independently, and the **CITY/TOWN** assumes no responsibilities in connection therewith to third parties. Nothing in this **AGREEMENT** is intended to benefit any third party beneficiary.

**CITY/TOWN** agrees that it will protect, defend, indemnify, and hold harmless **COUNTY** and all of its officers, agents, and employees from and against all claims, demands, causes of action, damages, judgments, losses and expenses, including attorney's fees, of whatsoever nature, character, or description that any person or entity has or may have arising from or on account of any injuries or damages received or sustained by person, persons, or property, on account of or arising out of, or in connection with the performance of the services, including without limiting the generality of the foregoing, any negligent act or omission of the **CITY/TOWN** or any employee, officer, agent, subcontractor, servant, invitee, or assignee of

the **CITY/TOWN** in the execution or performance of this **AGREEMENT**. This provision shall survive the termination of this **AGREEMENT**.

V.

**CITY/TOWN** accepts responsibility for the acts, negligence, and/or omissions of all **CITY/TOWN** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **CITY/TOWN** to the extent allowed by law.

VI.

**CITY/TOWN** understands and agrees that **CITY/TOWN**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **CITY/TOWN**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **CITY’s/TOWN’s** preceding tax year PID Assessment Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the assessment year, **CITY/TOWN** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of assessment statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing assessments collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same per parcel collection rate, except that, if that Per Parcel Rate multiplied by the



entity's Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each assessments year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **CITY/TOWN** with written notice of that rate.

2. The current assessment statements will be mailed by October 10<sup>th</sup> of the assessments year or as soon thereafter as practical. If **CITY/TOWN** does not provide **COUNTY** with the fixed lien assessment levied and the assessment roll by **CITY/TOWN's** governing body under Local Government Code Section 372.017 on or before September 10<sup>th</sup>, **COUNTY** may, in addition to the costs set forth in paragraph 10 (initial term costs) or paragraph 11 (renewal term costs) of this Article VII, whichever is applicable, charge **CITY/TOWN** a \$5,000 late processing fee. The assessment roll is to be accompanied by the resolution passed by the governing body for the current assessment year. All assessments

become due on receipt of the assessment/tax statement each year. The **DISTRICT** assessment shall be entered in to the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the **APPRAISAL DISTRICT** records submitted to **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **CITY/TOWN** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. All unpaid assessments become delinquent on February 1st of the year following the assessment year. Penalty and interest fees accrue at the same rate and time schedule as the same year's ad valorem property tax. (Property Tax Code, Section 31.02(a) and 33.01(a)).

4. Delinquent assessment collection attorneys become involved at the same

times as do the delinquent ad valorem property tax attorneys. (Property Tax Code, Sections 6.30, 33.07, 33.08, 33.11, and 33.48).

5. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

6. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

7. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent assessments statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent assessments.

8. In the event **DISTRICT** levies a supplemental corrected assessment by order of its governing body after the assessment statements have already been mailed, **CITY/ TOWN** shall provide **COUNTY** with an updated assessment roll identifying the corrected assessments levied by **DISTRICT'S** governing body under Local Government Code Section 372.017, as corrected by any supplemental assessments levied by its governing body under Section 372.019. **CITY/TOWN** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY** will mail corrected statements to the owner of each affected parcel. The **DISTRICT** assessment shall be entered into the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the Appraisal District records submitted to **COUNTY**. **The corrected assessment is to be accompanied by the resolution passed by the governing**

**body for the assessment year.** The fee for the services performed by **COUNTY** under this paragraph 8 will be the Per Parcel Rate approved by Commissioners Court for the applicable tax year multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. When a refund is required per Property Tax Code Section 26.07(g), **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a corrected assessment roll, will be the responsibility of **COUNTY**. **CITY/TOWN** will be billed for the refunds, postage and processing fees.

9. **CITY/TOWN** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the assessment year, deduct from current collections of **CITY/TOWN** the "Total Cost" of providing all services described in Sections 1-5 above. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

10. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **CITY/TOWN's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 , then the "Total Cost" of providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

11. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **CITY/TOWN** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate

approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **CITY/TOWN** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

12. In the event costs for additional delayed assessments statements, processing and mailing are incurred as described in Section 1, **COUNTY** shall bill **CITY/TOWN** for such amounts. **CITY/TOWN** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

#### VIII.

**COUNTY** agrees to remit all assessments, penalties, and interest collected on **CITY/TOWN's** behalf and to deposit such funds into the **CITY/TOWN's** depositories, as designated:

1. For deposits of assessments, penalties, and interest, payment shall be by wire transfer or ACH to **CITY/TOWN's** depository accounts only as applicable, specific on the Direct Deposit Authorization executed between the **CITY/TOWN** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of assessments, penalty and interest be sent by mail to **CITY/TOWN**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this

Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding assessment debt of **CITY/TOWN**, the **CITY/TOWN** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected assessments until such time as payment is remitted.

#### IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the assessments year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this Agreement during such period.

#### X.

This Agreement represents the entire agreement between **CITY/TOWN** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **CITY/TOWN** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

#### XI.

Any and all written notices required to be given under this Agreement shall be delivered

or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208  
Telephone: 940-349-2820

**CITY/TOWN:**

|        |
|--------|
| JUSTIN |
|        |
|        |
|        |

**II.**

**CITY/TOWN** hereby designates \_\_\_\_\_ to act on behalf of **CITY/TOWN**, and to serve as Liaison for **CITY/TOWN** to ensure the performance of all duties and obligations of **CITY/TOWN** as stated in this Agreement. **CITY/TOWN's** designee shall devote sufficient time and attention to the execution of said duties on behalf of **CITY/TOWN** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **CITY/TOWN** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **CITY/TOWN** and **COUNTY**.

**XIII.**

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.

XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**CITY/TOWN**

**JUSTIN**  
\_\_\_\_\_

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector

**THE STATE OF TEXAS   §**

**COUNTY OF DENTON   §**

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY  
ASSESSMENTS ASSESSMENT AND COLLECTION BETWEEN DENTON  
COUNTY, TEXAS AND**

**CITY/TOWN OF JUSTIN PUBLIC  
IMPROVEMENT DISTRICT**

**INTERLOCAL COOPERATION AGREEMENT –ASSESSMENTS  
COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as "COUNTY," and **JUSTIN**, Denton County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as "CITY/TOWN."

**WHEREAS, COUNTY** and **CITY/TOWN** mutually desire to be subject to the provisions of Texas Government Code, Chapter 791, the Interlocal Cooperation Act, and;

**WHEREAS**, pursuant to Chapter 372 of the Texas Local Government Code, Subchapter A, **CITY/TOWN** has created the  
**PID64 TIMBERBOOK PID IA #2A**

**PUBLIC IMPROVEMENT DISTRICT**, hereinafter referred to as **DISTRICT**, and has levied special assessments on properties within the boundaries of the **CITY/TOWN**, and



**WHEREAS**, pursuant to §372.0175 of the Texas Local Government Code, **CITY/TOWN** has the authority to contract with the **COUNTY** to perform the duties of **CITY/TOWN** relating to collection of special assessments levied by **DISTRICT** under Chapter 372, Subchapter A, and,

**NOW THEREFORE, COUNTY and CITY/TOWN**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning of the effective date and ending September 30, 2026. The initial term of this Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **CITY/TOWN** no later than one hundred-eighty (180) days prior to the expiration date of the then-current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then- current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first

renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **CITY/TOWN** to the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified Tax Assessor-Collector, shall collect **DISTRICT** assessments for current tax year. **CITY/TOWN** does hereby expressly authorize **COUNTY** and **COUNTY** agrees to do and perform for **CITY/TOWN** all acts necessary and proper to collect said **DISTRICT** assessments. **COUNTY** agrees to collect base assessments, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all assessment statements (included on the tax statement for each parcel, provide daily, monthly and annual collection reports to **CITY/TOWN**, maintain both current and delinquent assessment rolls, disburse assessment monies to **CITY/TOWN** daily (business day) based on prior day assessment postings, and to develop and maintain such other records and forms as are necessary or required by State law, rules or regulations to **CITY/TOWN**. If daily disbursal is to be delayed, **COUNTY** will notify **CITY/TOWN** in the secured web entity folder the reason for the delay.

3. If **COUNTY** determines, based on **DISTRICT** assessment roll, that a person erred in paying a **DISTRICT** assessment by making a duplicate or erroneous payment **COUNTY** agrees to refund the payment to the person who erred in making it from current **DISTRICT** assessment collections. **COUNTY** agrees that such refund will be made as soon as practicable after **COUNTY** discovers the erroneous payment. The refund shall be accompanied by a description of the property subject to the assessment sufficient to identify

the property. If the property is assigned an account number, **COUNTY** shall include that number.

4. If **COUNTY** determines, based on **DISTRICT** assessment roll, that there has been an overpayment of a **DISTRICT** assessment, **COUNTY** shall send the owner a refund application. Upon owner's return of the accurate and fully completed refund application, **COUNTY** will issue, from current **DISTRICT** assessment collections, a refund of the overpayment.

5. **COUNTY** agrees to develop and maintain written policies and procedures of its operation. **COUNTY** further agrees to make available full information about the operation of the County Tax Office to **CITY/TOWN**, and to promptly furnish written reports to keep **CITY/TOWN** informed of all financial information affecting it.

6. **CITY/TOWN** agrees to promptly deliver to **COUNTY** all records that it has accumulated and developed in the assessment and collection of assessments, and to cooperate in furnishing or locating any other information and records needed by **COUNTY** to perform its duties under the terms and conditions of this Agreement.

7. **COUNTY** agrees to allow an audit of the assessment collection records of **CITY/TOWN** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **CITY/TOWN**. A copy of any and all such audits shall be furnished to **COUNTY**.

8. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent assessment penalties will apply to all assessments that are not paid by January 31<sup>st</sup> of the collection year.

9. **COUNTY** agrees that it will post to a secure website collection reports for **CITY/TOWN** listing current assessments, delinquent assessments, and penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

10. **CITY/TOWN** retains its right to select its own delinquent collection attorney and **COUNTY** agrees to reasonably cooperate with the attorney selected by **CITY/TOWN** in the collection of delinquent assessments and related activities.

11. **CITY/TOWN** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

12. For assessments that become delinquent on February 1<sup>st</sup> of the tax year, **COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent assessments.

### III.

**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **CITY/TOWN**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this

Agreement for the mutual benefit of **COUNTY** and **CITY/TOWN**. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Texas Property Tax Code and all other applicable Texas statutes.

#### IV.

**COUNTY** accepts responsibility for the acts, negligence, and/or omissions related to property assessments service of all **COUNTY** employees and agents, sub-contractors and/or contract laborers, and for those actions of other persons doing work under a contract or agreement with **COUNTY** to the extent allowed by law.

It is understood and agreed between **COUNTY** and **CITY/TOWN** that the **CITY/TOWN**, in performing its obligations hereunder, is acting independently, and the **COUNTY** assumes no responsibility or liabilities in connection therewith to third parties. It is further understood and agreed between **COUNTY** and **CITY/TOWN** that the **COUNTY**, in performing its obligations hereunder, is acting independently, and the **CITY/TOWN** assumes no responsibilities in connection therewith to third parties. Nothing in this **AGREEMENT** is intended to benefit any third party beneficiary.

**CITY/TOWN** agrees that it will protect, defend, indemnify, and hold harmless **COUNTY** and all of its officers, agents, and employees from and against all claims, demands, causes of action, damages, judgments, losses and expenses, including attorney's fees, of whatsoever nature, character, or description that any person or entity has or may have arising from or on account of any injuries or damages received or sustained by person, persons, or property, on account of or arising out of, or in connection with the performance of the services, including without limiting the generality of the foregoing, any negligent act or omission of the **CITY/TOWN** or any employee, officer, agent, subcontractor, servant, invitee, or assignee of

the **CITY/TOWN** in the execution or performance of this **AGREEMENT**. This provision shall survive the termination of this **AGREEMENT**.

V.

**CITY/TOWN** accepts responsibility for the acts, negligence, and/or omissions of all **CITY/TOWN** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **CITY/TOWN** to the extent allowed by law.

VI.

**CITY/TOWN** understands and agrees that **CITY/TOWN**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **CITY/TOWN**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **CITY’s/TOWN’s** preceding tax year PID Assessment Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the assessment year, **CITY/TOWN** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of assessment statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing assessments collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same per parcel collection rate, except that, if that Per Parcel Rate multiplied by the

entity's Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each assessments year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **CITY/TOWN** with written notice of that rate.

2. The current assessment statements will be mailed by October 10<sup>th</sup> of the assessments year or as soon thereafter as practical. If **CITY/TOWN** does not provide **COUNTY** with the fixed lien assessment levied and the assessment roll by **CITY/TOWN's** governing body under Local Government Code Section 372.017 on or before September 10<sup>th</sup>, **COUNTY** may, in addition to the costs set forth in paragraph 10 (initial term costs) or paragraph 11 (renewal term costs) of this Article VII, whichever is applicable, charge **CITY/TOWN** a \$5,000 late processing fee. The assessment roll is to be accompanied by the resolution passed by the governing body for the current assessment year. All assessments

become due on receipt of the assessment/tax statement each year. The **DISTRICT** assessment shall be entered in to the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the **APPRAISAL DISTRICT** records submitted to **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **CITY/TOWN** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. All unpaid assessments become delinquent on February 1st of the year following the assessment year. Penalty and interest fees accrue at the same rate and time schedule as the same year's ad valorem property tax. (Property Tax Code, Section 31.02(a) and 33.01(a)).

4. Delinquent assessment collection attorneys become involved at the same

times as do the delinquent ad valorem property tax attorneys. (Property Tax Code, Sections 6.30, 33.07, 33.08, 33.11, and 33.48).

5. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

6. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

7. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent assessments statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent assessments.

8. In the event **DISTRICT** levies a supplemental corrected assessment by order of its governing body after the assessment statements have already been mailed, **CITY/ TOWN** shall provide **COUNTY** with an updated assessment roll identifying the corrected assessments levied by **DISTRICT'S** governing body under Local Government Code Section 372.017, as corrected by any supplemental assessments levied by its governing body under Section 372.019. **CITY/TOWN** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY** will mail corrected statements to the owner of each affected parcel. The **DISTRICT** assessment shall be entered into the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the Appraisal District records submitted to **COUNTY**. **The corrected assessment is to be accompanied by the resolution passed by the governing**



**body for the assessment year.** The fee for the services performed by **COUNTY** under this paragraph 8 will be the Per Parcel Rate approved by Commissioners Court for the applicable tax year multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. When a refund is required per Property Tax Code Section 26.07(g), **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a corrected assessment roll, will be the responsibility of **COUNTY**. **CITY/TOWN** will be billed for the refunds, postage and processing fees.

9. **CITY/TOWN** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the assessment year, deduct from current collections of **CITY/TOWN** the "Total Cost" of providing all services described in Sections 1-5 above. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

10. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **CITY/TOWN's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 , then the "Total Cost" of providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

11. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **CITY/TOWN** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate

approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **CITY/TOWN** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

12. In the event costs for additional delayed assessments statements, processing and mailing are incurred as described in Section 1, **COUNTY** shall bill **CITY/TOWN** for such amounts. **CITY/TOWN** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

#### VIII.

**COUNTY** agrees to remit all assessments, penalties, and interest collected on **CITY/TOWN's** behalf and to deposit such funds into the **CITY/TOWN's** depositories, as designated:

1. For deposits of assessments, penalties, and interest, payment shall be by wire transfer or ACH to **CITY/TOWN's** depository accounts only as applicable, specific on the Direct Deposit Authorization executed between the **CITY/TOWN** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of assessments, penalty and interest be sent by mail to **CITY/TOWN**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this

Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding assessment debt of **CITY/TOWN**, the **CITY/TOWN** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected assessments until such time as payment is remitted.

#### IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the assessments year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this Agreement during such period.

#### X.

This Agreement represents the entire agreement between **CITY/TOWN** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **CITY/TOWN** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

#### XI.

Any and all written notices required to be given under this Agreement shall be delivered

or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208  
Telephone: 940-349-2820

**CITY/TOWN:**

|        |
|--------|
| JUSTIN |
|        |
|        |
|        |

II.

**CITY/TOWN** hereby designates \_\_\_\_\_ to act on behalf of **CITY/TOWN**, and to serve as Liaison for **CITY/TOWN** to ensure the performance of all duties and obligations of **CITY/TOWN** as stated in this Agreement. **CITY/TOWN's** designee shall devote sufficient time and attention to the execution of said duties on behalf of **CITY/TOWN** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **CITY/TOWN** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **CITY/TOWN** and **COUNTY**.

XIII.

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.

XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**CITY/TOWN**

**JUSTIN**  
\_\_\_\_\_

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector

**THE STATE OF TEXAS   §**  
**COUNTY OF DENTON   §**

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY  
ASSESSMENTS ASSESSMENT AND COLLECTION BETWEEN DENTON  
COUNTY, TEXAS AND**

**CITY/TOWN OF JUSTIN \_\_\_\_\_ PUBLIC  
IMPROVEMENT DISTRICT**

**INTERLOCAL COOPERATION AGREEMENT –ASSESSMENTS  
COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON  
COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as  
"COUNTY," and **JUSTIN \_\_\_\_\_**, Denton  
County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as  
"CITY/TOWN."

**WHEREAS, COUNTY** and **CITY/TOWN** mutually desire to be subject to the  
provisions of Texas Government Code, Chapter 791, the Interlocal Cooperation Act, and;

**WHEREAS**, pursuant to Chapter 372 of the Texas Local Government Code,  
Subchapter A, **CITY/TOWN** has created the  
**PID65 TIMBERBOOK PID IA #2B**

**PUBLIC IMPROVEMENT DISTRICT**, hereinafter referred to as **DISTRICT**, and  
has levied special assessments on properties within the boundaries of the  
**CITY/TOWN**, and

**WHEREAS**, pursuant to §372.0175 of the Texas Local Government Code, **CITY/TOWN** has the authority to contract with the **COUNTY** to perform the duties of **CITY/TOWN** relating to collection of special assessments levied by **DISTRICT** under Chapter 372, Subchapter A, and,

**NOW THEREFORE, COUNTY and CITY/TOWN**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning of the effective date and ending September 30, 2026. The initial term of this Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **CITY/TOWN** no later than one hundred-eighty (180) days prior to the expiration date of the then-current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then-current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first

renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **CITY/TOWN** to the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified Tax Assessor-Collector, shall collect **DISTRICT** assessments for current tax year. **CITY/TOWN** does hereby expressly authorize **COUNTY** and **COUNTY** agrees to do and perform for **CITY/TOWN** all acts necessary and proper to collect said **DISTRICT** assessments. **COUNTY** agrees to collect base assessments, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all assessment statements (included on the tax statement for each parcel, provide daily, monthly and annual collection reports to **CITY/TOWN**, maintain both current and delinquent assessment rolls, disburse assessment monies to **CITY/TOWN** daily (business day) based on prior day assessment postings, and to develop and maintain such other records and forms as are necessary or required by State law, rules or regulations to **CITY/TOWN**. If daily disbursal is to be delayed, **COUNTY** will notify **CITY/TOWN** in the secured web entity folder the reason for the delay.

3. If **COUNTY** determines, based on **DISTRICT** assessment roll, that a person erred in paying a **DISTRICT** assessment by making a duplicate or erroneous payment **COUNTY** agrees to refund the payment to the person who erred in making it from current **DISTRICT** assessment collections. **COUNTY** agrees that such refund will be made as soon as practicable after **COUNTY** discovers the erroneous payment. The refund shall be accompanied by a description of the property subject to the assessment sufficient to identify



the property. If the property is assigned an account number, **COUNTY** shall include that number.

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7. **COUNTY** agrees to allow an audit of the assessment collection records of **CITY/TOWN** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **CITY/TOWN**. A copy of any and all such audits shall be furnished to **COUNTY**.

8. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent assessment penalties will apply to all assessments that are not paid by January 31<sup>st</sup> of the collection year.

9. **COUNTY** agrees that it will post to a secure website collection reports for **CITY/TOWN** listing current assessments, delinquent assessments, and penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

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11. **CITY/TOWN** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

12. For assessments that become delinquent on February 1<sup>st</sup> of the tax year, **COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent assessments.

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**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **CITY/TOWN**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this

Agreement for the mutual benefit of **COUNTY** and **CITY/TOWN**. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Texas Property Tax Code and all other applicable Texas statutes.

#### IV.

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It is understood and agreed between **COUNTY** and **CITY/TOWN** that the **CITY/TOWN**, in performing its obligations hereunder, is acting independently, and the **COUNTY** assumes no responsibility or liabilities in connection therewith to third parties. It is further understood and agreed between **COUNTY** and **CITY/TOWN** that the **COUNTY**, in performing its obligations hereunder, is acting independently, and the **CITY/TOWN** assumes no responsibilities in connection therewith to third parties. Nothing in this **AGREEMENT** is intended to benefit any third party beneficiary.

**CITY/TOWN** agrees that it will protect, defend, indemnify, and hold harmless **COUNTY** and all of its officers, agents, and employees from and against all claims, demands, causes of action, damages, judgments, losses and expenses, including attorney's fees, of whatsoever nature, character, or description that any person or entity has or may have arising from or on account of any injuries or damages received or sustained by person, persons, or property, on account of or arising out of, or in connection with the performance of the services, including without limiting the generality of the foregoing, any negligent act or omission of the **CITY/TOWN** or any employee, officer, agent, subcontractor, servant, invitee, or assignee of

the **CITY/TOWN** in the execution or performance of this **AGREEMENT**. This provision shall survive the termination of this **AGREEMENT**.

V.

**CITY/TOWN** accepts responsibility for the acts, negligence, and/or omissions of all **CITY/TOWN** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **CITY/TOWN** to the extent allowed by law.

VI.

**CITY/TOWN** understands and agrees that **CITY/TOWN**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **CITY/TOWN**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **CITY’s/TOWN’s** preceding tax year PID Assessment Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the assessment year, **CITY/TOWN** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of assessment statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing assessments collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same per parcel collection rate, except that, if that Per Parcel Rate multiplied by the

entity's Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each assessments year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **CITY/TOWN** with written notice of that rate.

2. The current assessment statements will be mailed by October 10<sup>th</sup> of the assessments year or as soon thereafter as practical. If **CITY/TOWN** does not provide **COUNTY** with the fixed lien assessment levied and the assessment roll by **CITY/TOWN's** governing body under Local Government Code Section 372.017 on or before September 10<sup>th</sup>, **COUNTY** may, in addition to the costs set forth in paragraph 10 (initial term costs) or paragraph 11 (renewal term costs) of this Article VII, whichever is applicable, charge **CITY/TOWN** a \$5,000 late processing fee. The assessment roll is to be accompanied by the resolution passed by the governing body for the current assessment year. All assessments

become due on receipt of the assessment/tax statement each year. The **DISTRICT** assessment shall be entered in to the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the **APPRAISAL DISTRICT** records submitted to **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **CITY/TOWN** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. All unpaid assessments become delinquent on February 1st of the year following the assessment year. Penalty and interest fees accrue at the same rate and time schedule as the same year's ad valorem property tax. (Property Tax Code, Section 31.02(a) and 33.01(a)).

4. Delinquent assessment collection attorneys become involved at the same

times as do the delinquent ad valorem property tax attorneys. (Property Tax Code, Sections 6.30, 33.07, 33.08, 33.11, and 33.48).

5. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

6. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

7. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent assessments statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent assessments.

8. In the event **DISTRICT** levies a supplemental corrected assessment by order of its governing body after the assessment statements have already been mailed, **CITY/ TOWN** shall provide **COUNTY** with an updated assessment roll identifying the corrected assessments levied by **DISTRICT'S** governing body under Local Government Code Section 372.017, as corrected by any supplemental assessments levied by its governing body under Section 372.019. **CITY/TOWN** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY** will mail corrected statements to the owner of each affected parcel. The **DISTRICT** assessment shall be entered into the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the Appraisal District records submitted to **COUNTY**. **The corrected assessment is to be accompanied by the resolution passed by the governing**

**body for the assessment year.** The fee for the services performed by **COUNTY** under this paragraph 8 will be the Per Parcel Rate approved by Commissioners Court for the applicable tax year multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. When a refund is required per Property Tax Code Section 26.07(g), **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a corrected assessment roll, will be the responsibility of **COUNTY**. **CITY/TOWN** will be billed for the refunds, postage and processing fees.

9. **CITY/TOWN** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the assessment year, deduct from current collections of **CITY/TOWN** the "Total Cost" of providing all services described in Sections 1-5 above. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

10. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **CITY/TOWN's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 , then the "Total Cost" of providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

11. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **CITY/TOWN** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate

approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **CITY/TOWN** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

12. In the event costs for additional delayed assessments statements, processing and mailing are incurred as described in Section 1, **COUNTY** shall bill **CITY/TOWN** for such amounts. **CITY/TOWN** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

#### VIII.

**COUNTY** agrees to remit all assessments, penalties, and interest collected on **CITY/TOWN's** behalf and to deposit such funds into the **CITY/TOWN's** depositories, as designated:

1. For deposits of assessments, penalties, and interest, payment shall be by wire transfer or ACH to **CITY/TOWN's** depository accounts only as applicable, specific on the Direct Deposit Authorization executed between the **CITY/TOWN** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of assessments, penalty and interest be sent by mail to **CITY/TOWN**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this



Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding assessment debt of **CITY/TOWN**, the **CITY/TOWN** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected assessments until such time as payment is remitted.

#### IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the assessments year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this Agreement during such period.

#### X.

This Agreement represents the entire agreement between **CITY/TOWN** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **CITY/TOWN** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

#### XI.

Any and all written notices required to be given under this Agreement shall be delivered

or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208  
Telephone: 940-349-2820

**CITY/TOWN:**

|        |
|--------|
| JUSTIN |
|        |
|        |
|        |

II.

**CITY/TOWN** hereby designates \_\_\_\_\_ to act on behalf of **CITY/TOWN**, and to serve as Liaison for **CITY/TOWN** to ensure the performance of all duties and obligations of **CITY/TOWN** as stated in this Agreement. **CITY/TOWN's** designee shall devote sufficient time and attention to the execution of said duties on behalf of **CITY/TOWN** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **CITY/TOWN** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **CITY/TOWN** and **COUNTY**.

XIII.

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.

XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**CITY/TOWN**

**JUSTIN**  
\_\_\_\_\_

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector

**THE STATE OF TEXAS   §**  
**COUNTY OF DENTON   §**

**INTERLOCAL COOPERATION AGREEMENT FOR PROPERTY  
ASSESSMENTS ASSESSMENT AND COLLECTION BETWEEN DENTON  
COUNTY, TEXAS AND**

**CITY/TOWN OF** **JUSTIN** **PUBLIC**  
**IMPROVEMENT DISTRICT**

**INTERLOCAL COOPERATION AGREEMENT –ASSESSMENTS**  
**COLLECTION**

**THIS AGREEMENT** is made and entered into by and between **DENTON**  
**COUNTY**, a political subdivision of the State of Texas, hereinafter referred to as  
"COUNTY," and **JUSTIN**, Denton  
County, Texas, also a political subdivision of the State of Texas, hereinafter referred to as  
"CITY/TOWN."

**WHEREAS, COUNTY** and **CITY/TOWN** mutually desire to be subject to the  
provisions of Texas Government Code, Chapter 791, the Interlocal Cooperation Act, and;

**WHEREAS**, pursuant to Chapter 372 of the Texas Local Government Code,  
Subchapter A, **CITY/TOWN** has created the  
**PID86 TIMBERBROOK PID 2 IA#1**

**PUBLIC IMPROVEMENT DISTRICT**, hereinafter referred to as **DISTRICT**, and  
has levied special assessments on properties within the boundaries of the  
**CITY/TOWN**, and

**WHEREAS**, pursuant to §372.0175 of the Texas Local Government Code, **CITY/TOWN** has the authority to contract with the **COUNTY** to perform the duties of **CITY/TOWN** relating to collection of special assessments levied by **DISTRICT** under Chapter 372, Subchapter A, and,

**NOW THEREFORE, COUNTY and CITY/TOWN**, for and in consideration of the mutual promises, covenants, and agreements herein contained, do agree as follows:

Throughout this Agreement, the term "Property Tax Code" means Title 1 of the Texas Tax Code. Throughout this Agreement, the term "tax year" means the calendar year in which the applicable tax lien attaches to the taxable property. The term "collection year" refers to the period commencing on October 1<sup>st</sup> of the applicable tax year and continuing through the end of the applicable term (September 30<sup>th</sup> of the following year), in which collection and billing services are to be performed under this Agreement.

I.

The effective date of this Agreement shall be October 1, 2025. The initial term of this Agreement shall be for a period of one year beginning of the effective date and ending September 30, 2026. The initial term of this Agreement is for tax year 2025 property tax rate calculation, billing and collection services. Following the initial term, this Agreement shall automatically renew for subsequent one-year terms, unless written notice of termination is provided by **COUNTY** or **CITY/TOWN** no later than one hundred-eighty (180) days prior to the expiration date of the then-current term of the Agreement. If said notice is provided, this Agreement shall terminate at the end of the then-current term. Each renewal term shall be for property tax rate calculation, billing and collection services for the applicable tax year (the first

renewal term will be for tax year 2026, the second renewal terms for tax year 2027, etc.).

## II.

For the purposes and consideration herein stated and contemplated, **COUNTY** shall provide the following necessary and appropriate services for **CITY/TOWN** to the maximum extent authorized by this Agreement, without regard to race, sex, religion, color, age, disability, or national origin:

1. **COUNTY**, by and through its duly qualified Tax Assessor-Collector, shall collect **DISTRICT** assessments for current tax year. **CITY/TOWN** does hereby expressly authorize **COUNTY** and **COUNTY** agrees to do and perform for **CITY/TOWN** all acts necessary and proper to collect said **DISTRICT** assessments. **COUNTY** agrees to collect base assessments, penalties, interest, and attorney's fees.

2. **COUNTY** agrees to prepare and mail all assessment statements (included on the tax statement for each parcel, provide daily, monthly and annual collection reports to **CITY/TOWN**, maintain both current and delinquent assessment rolls, disburse assessment monies to **CITY/TOWN** daily (business day) based on prior day assessment postings, and to develop and maintain such other records and forms as are necessary or required by State law, rules or regulations to **CITY/TOWN**. If daily disbursal is to be delayed, **COUNTY** will notify **CITY/TOWN** in the secured web entity folder the reason for the delay.

3. If **COUNTY** determines, based on **DISTRICT** assessment roll, that a person erred in paying a **DISTRICT** assessment by making a duplicate or erroneous payment **COUNTY** agrees to refund the payment to the person who erred in making it from current **DISTRICT** assessment collections. **COUNTY** agrees that such refund will be made as soon as practicable after **COUNTY** discovers the erroneous payment. The refund shall be accompanied by a description of the property subject to the assessment sufficient to identify

the property. If the property is assigned an account number, **COUNTY** shall include that number.

4. If **COUNTY** determines, based on **DISTRICT** assessment roll, that there has been an overpayment of a **DISTRICT** assessment, **COUNTY** shall send the owner a refund application. Upon owner's return of the accurate and fully completed refund application, **COUNTY** will issue, from current **DISTRICT** assessment collections, a refund of the overpayment.

5. **COUNTY** agrees to develop and maintain written policies and procedures of its operation. **COUNTY** further agrees to make available full information about the operation of the County Tax Office to **CITY/TOWN**, and to promptly furnish written reports to keep **CITY/TOWN** informed of all financial information affecting it.

6. **CITY/TOWN** agrees to promptly deliver to **COUNTY** all records that it has accumulated and developed in the assessment and collection of assessments, and to cooperate in furnishing or locating any other information and records needed by **COUNTY** to perform its duties under the terms and conditions of this Agreement.

7. **COUNTY** agrees to allow an audit of the assessment collection records of **CITY/TOWN** in **COUNTY'S** possession during normal working hours with at least 72 hours advance, written notice to **COUNTY**. The expense of any and all such audits shall be paid by **CITY/TOWN**. A copy of any and all such audits shall be furnished to **COUNTY**.

8. **COUNTY** agrees that it will post a notice on its website, as a reminder that delinquent assessment penalties will apply to all assessments that are not paid by January 31<sup>st</sup> of the collection year.

9. **COUNTY** agrees that it will post to a secure website collection reports for **CITY/TOWN** listing current assessments, delinquent assessments, and penalties and interest on a daily basis through September 30<sup>th</sup> of the collection year. **COUNTY** will provide monthly collection reports; provide monthly recap reports; and provide monthly attorney fee collection reports.

10. **CITY/TOWN** retains its right to select its own delinquent collection attorney and **COUNTY** agrees to reasonably cooperate with the attorney selected by **CITY/TOWN** in the collection of delinquent assessments and related activities.

11. **CITY/TOWN** will provide **COUNTY** with notice of any change in collection attorney at least 7 days before the effective date of the new collection attorney contract.

12. For assessments that become delinquent on February 1<sup>st</sup> of the tax year, **COUNTY**, in its sole discretion, may mail a reminder notice to the owner of each parcel having delinquent assessments.

### III.

**COUNTY** hereby designates the Denton County Tax Assessor/ Collector to act on behalf of the County Tax Office and to serve as Liaison for **COUNTY** with **CITY/TOWN**. The County Tax Assessor/Collector, and/or his/her designated substitute, shall ensure the performance of all duties and obligations of **COUNTY**; shall devote sufficient time and attention to the execution of said duties on behalf of **COUNTY** in full compliance with the terms and conditions of this Agreement; and shall provide immediate and direct supervision of the County Tax Office employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this



Agreement for the mutual benefit of **COUNTY** and **CITY/TOWN**. This Agreement is subject to and the parties herein shall comply with all applicable provisions of the Texas Property Tax Code and all other applicable Texas statutes.

#### IV.

**COUNTY** accepts responsibility for the acts, negligence, and/or omissions related to property assessments service of all **COUNTY** employees and agents, sub-contractors and/or contract laborers, and for those actions of other persons doing work under a contract or agreement with **COUNTY** to the extent allowed by law.

It is understood and agreed between **COUNTY** and **CITY/TOWN** that the **CITY/TOWN**, in performing its obligations hereunder, is acting independently, and the **COUNTY** assumes no responsibility or liabilities in connection therewith to third parties. It is further understood and agreed between **COUNTY** and **CITY/TOWN** that the **COUNTY**, in performing its obligations hereunder, is acting independently, and the **CITY/TOWN** assumes no responsibilities in connection therewith to third parties. Nothing in this **AGREEMENT** is intended to benefit any third party beneficiary.

**CITY/TOWN** agrees that it will protect, defend, indemnify, and hold harmless **COUNTY** and all of its officers, agents, and employees from and against all claims, demands, causes of action, damages, judgments, losses and expenses, including attorney's fees, of whatsoever nature, character, or description that any person or entity has or may have arising from or on account of any injuries or damages received or sustained by person, persons, or property, on account of or arising out of, or in connection with the performance of the services, including without limiting the generality of the foregoing, any negligent act or omission of the **CITY/TOWN** or any employee, officer, agent, subcontractor, servant, invitee, or assignee of

the **CITY/TOWN** in the execution or performance of this **AGREEMENT**. This provision shall survive the termination of this **AGREEMENT**.

V.

**CITY/TOWN** accepts responsibility for the acts, negligence, and/or omissions of all **CITY/TOWN** employees and agents, sub-contractors and/or contract laborers, and for those of all other persons doing work under a contract or agreement with **CITY/TOWN** to the extent allowed by law.

VI.

**CITY/TOWN** understands and agrees that **CITY/TOWN**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **COUNTY**. **COUNTY** understands and agrees that **COUNTY**, its employees, servants, agents, and representatives shall at no time represent themselves to be employees, servants, agents, and/or representatives of **CITY/TOWN**.

VII.

In this Article VII, the term “Prior TY Parcel Count” means the total number of parcels listed on **CITY’s/TOWN’s** preceding tax year PID Assessment Roll on September 30<sup>th</sup> of the tax year. For the services rendered during the assessment year, **CITY/TOWN** agrees to pay **COUNTY** for the receipting, bookkeeping, issuing, and mailing of assessment statements as follows:

1. The County Budget Office establishes collection rates annually based on a survey of actual annual costs incurred by the County in performing assessments collection services. The collection rate for each tax year, referred to in this Article VII as the “Per Parcel Rate,” is approved by County Commissioners’ Court, and all entities are assessed the same per parcel collection rate, except that, if that Per Parcel Rate multiplied by the

entity's Prior TY Parcel Count equals less than \$200, the entity will be assessed a flat fee of \$200. Following approval of the Per Parcel Rate for each assessments year, **COUNTY** will, at least sixty (60) days prior to the expiration date of the then-current term of this Agreement, provide **CITY/TOWN** with written notice of that rate.

2. The current assessment statements will be mailed by October 10<sup>th</sup> of the assessments year or as soon thereafter as practical. If **CITY/TOWN** does not provide **COUNTY** with the fixed lien assessment levied and the assessment roll by **CITY/TOWN's** governing body under Local Government Code Section 372.017 on or before September 10<sup>th</sup>, **COUNTY** may, in addition to the costs set forth in paragraph 10 (initial term costs) or paragraph 11 (renewal term costs) of this Article VII, whichever is applicable, charge **CITY/TOWN** a \$5,000 late processing fee. The assessment roll is to be accompanied by the resolution passed by the governing body for the current assessment year. All assessments

become due on receipt of the assessment/tax statement each year. The **DISTRICT** assessment shall be entered in to the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the **APPRAISAL DISTRICT** records submitted to **COUNTY**. An additional notice will be sent during the month of March following the initial mailing provided that **CITY/TOWN** has requested such a notice on or before February 28<sup>th</sup> of the collection year.

3. All unpaid assessments become delinquent on February 1st of the year following the assessment year. Penalty and interest fees accrue at the same rate and time schedule as the same year's ad valorem property tax. (Property Tax Code, Section 31.02(a) and 33.01(a)).

4. Delinquent assessment collection attorneys become involved at the same

times as do the delinquent ad valorem property tax attorneys. (Property Tax Code, Sections 6.30, 33.07, 33.08, 33.11, and 33.48).

5. At least 30 days, but no more than 60 days prior to April 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.11 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

6. At least 30 days, but no more than 60 days prior to July 1<sup>st</sup> of the collection year and following the initial mailing, a delinquent assessments statement meeting the requirements of Section 33.07 of the Property Tax Code will be mailed to the owner of each parcel having delinquent assessments.

7. For accounts that become delinquent on or after June 1<sup>st</sup> of the collection year, **COUNTY** shall mail a delinquent assessments statement meeting the requirements of Section 33.08 of the Property Tax Code to the owner of each parcel having delinquent assessments.

8. In the event **DISTRICT** levies a supplemental corrected assessment by order of its governing body after the assessment statements have already been mailed, **CITY/ TOWN** shall provide **COUNTY** with an updated assessment roll identifying the corrected assessments levied by **DISTRICT'S** governing body under Local Government Code Section 372.017, as corrected by any supplemental assessments levied by its governing body under Section 372.019. **CITY/TOWN** agrees to pay **COUNTY** a programming charge of \$5,000.00. **COUNTY** will mail corrected statements to the owner of each affected parcel. The **DISTRICT** assessment shall be entered into the **COUNTY** records as a fixed lien and applied to the properties assessed by the **DISTRICT** as reflected on the Appraisal District records submitted to **COUNTY**. **The corrected assessment is to be accompanied by the resolution passed by the governing**

**body for the assessment year.** The fee for the services performed by **COUNTY** under this paragraph 8 will be the Per Parcel Rate approved by Commissioners Court for the applicable tax year multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. When a refund is required per Property Tax Code Section 26.07(g), **COUNTY** will charge a \$1.00 processing fee per check, in addition to the corrected statement mailing costs. Issuance of refunds, in the event of a corrected assessment roll, will be the responsibility of **COUNTY**. **CITY/TOWN** will be billed for the refunds, postage and processing fees.

9. **CITY/TOWN** understands and agrees that **COUNTY** will, no later than January 31<sup>st</sup> of the assessment year, deduct from current collections of **CITY/TOWN** the "Total Cost" of providing all services described in Sections 1-5 above. This "Total Cost" includes any such services that have not yet been performed at the time of deduction.

10. During the initial term of this Agreement, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: **\$1.41** (the "TY 2025 Per Parcel Rate") multiplied by **CITY/TOWN's** Prior TY Parcel Count, provided that, if the TY 2025 Per Parcel Rate of \$1.41 multiplied by the Prior TY Parcel Count equals less than \$200.00 , then the "Total Cost" of providing all services described in paragraphs 2-6 shall be a flat amount of \$200.00.

11. During the first and second renewal terms of this agreement, and provided that **COUNTY** has provided **CITY/TOWN** with notice of the Per Parcel Rate as described in paragraph 1 of this Article VII, the "Total Cost" of providing all services described in paragraphs 2-6 of this Article VII shall be the total of: The Per Parcel Rate

approved by Commissioners Court for the applicable tax year (the TY 2026 Per Parcel Rate and the TY 2027 Per Parcel Collection Rate, respectively) multiplied by the **CITY's/TOWN's** then Prior TY Parcel Count, provided that, if the applicable Per Parcel Rate multiplied by the applicable Prior TY Parcel Count equals less than \$200.00, then the Total Cost of providing all services described in paragraphs 2-6 shall be a flat fee of \$200. In the event **COUNTY** does not provide **CITY/TOWN** with notice of the per parcel rate as described in paragraph 1 of this Article VII, the per parcel rate charged during the preceding term will apply.

12. In the event costs for additional delayed assessments statements, processing and mailing are incurred as described in Section 1, **COUNTY** shall bill **CITY/TOWN** for such amounts. **CITY/TOWN** shall pay **COUNTY** all such billed amounts within 30 days of its receipt of said bill.

#### VIII.

**COUNTY** agrees to remit all assessments, penalties, and interest collected on **CITY/TOWN's** behalf and to deposit such funds into the **CITY/TOWN's** depositories, as designated:

1. For deposits of assessments, penalties, and interest, payment shall be by wire transfer or ACH to **CITY/TOWN's** depository accounts only as applicable, specific on the Direct Deposit Authorization executed between the **CITY/TOWN** and **COUNTY**. Only in the event of failure of electronic transfer protocol will a check for deposits of assessments, penalty and interest be sent by mail to **CITY/TOWN**.

2. In anticipation of renewal of this Agreement, **COUNTY** further agrees that deposits will be made daily through September 30<sup>th</sup> of the collection year. It is expressly understood, however, that this obligation of **COUNTY** shall not survive termination of this

Agreement, whether by termination by either party or by failure of the parties to renew this Agreement.

3. In event that **COUNTY** experiences shortage in collections as a result of an outstanding assessment debt of **CITY/TOWN**, the **CITY/TOWN** agrees a payment in the amount of shortage shall be made by check or ACH to **COUNTY** within 15 days after notification of such shortage. Failure to remit payment of shortage restricts release of collected assessments until such time as payment is remitted.

#### IX.

In the event of termination, the terminating party shall be obligated to make such payments as are required by this Agreement through the balance of the assessments year in which notice is given. **COUNTY** shall be obligated to provide services pursuant to this Agreement during such period.

#### X.

This Agreement represents the entire agreement between **CITY/TOWN** and **COUNTY** and supersedes all prior negotiations, representations, and/or agreements, either written or oral. This Agreement may be amended only by written instrument signed by the governing bodies of both **CITY/TOWN** and **COUNTY** or those authorized to sign on behalf of those governing bodies.

#### XI.

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or mailed to the listed addresses:

**COUNTY:**

County Judge of Denton County  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208  
Telephone: 940-349-2820

**CITY/TOWN:**

|        |
|--------|
| JUSTIN |
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II.

**CITY/TOWN** hereby designates \_\_\_\_\_ to act on behalf of **CITY/TOWN**, and to serve as Liaison for **CITY/TOWN** to ensure the performance of all duties and obligations of **CITY/TOWN** as stated in this Agreement. **CITY/TOWN's** designee shall devote sufficient time and attention to the execution of said duties on behalf of **CITY/TOWN** in full compliance with the terms and conditions of this Agreement; shall provide immediate and direct supervision of the **CITY/TOWN** employees, agents, contractors, subcontractors, and/or laborers, if any, in the furtherance of the purposes, terms and conditions of this Agreement for the mutual benefit of **CITY/TOWN** and **COUNTY**.

XIII.

In the event that any portion of this Agreement shall be found to be contrary to law, it is the intent of the parties that the remaining portions shall remain valid and in full force and effect to the extent possible.



XIV.

The undersigned officers and/or agents of the parties are the properly authorized officials and have the necessary authority to execute this agreement on behalf of the parties. Each party hereby certifies to the other that any resolutions necessary for this Agreement have been duly passed and are now in full force and effect.

Executed in triplicate originals this, \_\_\_\_\_ day of \_\_\_\_\_  
20\_\_\_\_.

**COUNTY**

Denton County Texas  
1 Courthouse Dr Ste 3100  
Denton, Texas 76208

**CITY/TOWN**

**JUSTIN**  
\_\_\_\_\_

BY: \_\_\_\_\_  
Honorable Andy Eads  
County Judge

BY: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

ATTEST:

ATTEST:

BY: \_\_\_\_\_  
Juli Luke  
Denton County Clerk

BY: \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

APPROVED FORM AND CONTENT:

\_\_\_\_\_  
Dawn Waye  
Denton County  
Tax Assessor/Collector



City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 4. (CONSENT AGENDA)

**Title:** Consider adopting Ordinance 803-25, second reading, to rezone Cuesta development from Residential Estate Single Family (SF-RE) to Planned Development- Single-Family Residential-Medium (PD-SF-2) legally described as a tract of land totaling approximately 537.18 acres, located within the following survey abstracts in Denton County, Texas: A1125A W.D. Reed, Tr 7, 53.76 Acres, Old DCAD Tr #3, A0419A W.A. Ferris, Tr 7, 39.044 Acres, Old DCAD Tr 5, A0419A W.A. Ferris, Tr 8, 52.208 Acres, Old DCAD Tr 6, A0993A Mary Polk, Tr 42, 219.812 Acres, Old DCAD SHT 1, Tr #6, A0993A Mary Polk, Tr 39A & 41A, 158.80 Acres, Range Hill Addn Blk 1 Lot Range Hill Rd 1.81 Acres, A0419A W.A. Ferris, Tr 9, 11.0541 Acres, Old DCAD Tr 7A(1); and take appropriate action.

Department: Administration

Contact: Matthew Cyr, Director of Planning and Development

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**Recommendation:**

Staff recommends consideration as requested.

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**Background:**

**PROJECT SUMMARY:**

The applicant proposes the creation of a Planned Development (PD) district to allow for the Cuesta Development, a master-planned residential community located on approximately 538.99 acres. The development is designed to include up to 1,600 single-family residential units with integrated open space, trails, and park amenities. The PD establishes development regulations tailored to the site's topography and the City's long-term vision.

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**DEVELOPMENT STANDARDS:**

- **Residential Density:**
    - Maximum of 1,600 single-family units
-

- No cap on floor area or dwelling units per acre

- **Lot Types & Sizes:**

- 40 ft, 50 ft, 60 ft, and 70 ft wide lots
- Specific minimum lot areas and dimensions outlined per lot type
- Developer permitted limited flexibility to adjust lot type distribution within constraints

- **Building Standards:**

- Max height: 35 ft
- Lot coverage: Max 70%
- Specific setbacks and yard requirements based on lot width
- Enhanced architectural standards including 80% front masonry, 25% side/rear masonry

- **Permitted Uses:**

- One-family detached dwellings
- Additional amenities such as amenity centers, pools, sport courts, splash pads, food trucks, etc.
- Event lawn for public gatherings permitted only in public parks

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## **OPEN SPACE & PARKS:**

- **Public Dedication:**

- At least 90 acres of public open space dedicated to the City
- Three public parks totaling approx. 3.36+ acres (Event Park, Play Park, Pavilion Park)
- Improvements provided in each park (e.g., splash pad, playgrounds, pavilion, sport courts)

- **Trails:**

- Multi-use trails (12' concrete), regional trails, and nature trails (4' min width) integrated into open space
  - Public trails to be dedicated and maintained by the City
- 
-

## LANDSCAPE BUFFERING:

- 20-foot buffers along collector streets where homes front the roadway (with trees/shrubs, no walls)
  - 15-foot buffers where homes side/back collector streets (includes masonry wall)
  - Specific planting requirements per 100 linear feet
  - Flexibility provided for trail integration and floodplain exceptions
- 

## CIRCULATION & STREET DESIGN:

- Street sections deviate from City's standard; custom cross-sections outlined in Exhibit G
  - Includes local streets (50' & 60' ROW), minor arterials (Type A/B/C), and alleys
  - Street alignment may vary slightly from Concept Plan but must maintain functional intent
- 

## HOMEOWNERS' ASSOCIATION & MAINTENANCE:

- HOA responsible for private open space, common areas, fencing, and landscaping
  - City responsible for public parkland and trail maintenance post-dedication
- 

## Traffic Summary for Cuesta Development

The Traffic Impact Analysis for the Cuesta (Range Creek) Development evaluated the impact of 1,547 single-family homes at full buildout by 2030. The study focused on key intersections surrounding the site and projected traffic growth at 3.5% annually.

### Key Findings:

- **Intersection Performance:**

Most intersections are expected to operate at acceptable Levels of Service (LOS D or better) through 2030. However, the **Boss Range Road & Wiley/Range Road** intersection is projected to experience delays (LOS F) on eastbound and westbound approaches at buildout.

- **Mitigation Measures:**

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- An **all-way stop control** is recommended at the above intersection starting in Phase 3.
- A future **traffic signal** may be warranted post-buildout depending on traffic volumes.

- **Turn Lane Improvements:**

The development will include:

- **Left-turn lanes** in both directions at key intersections.
- **Left and right-turn lanes** at strategic arterial connections to reduce congestion and improve safety.
- Improvements comply with the City of Justin's subdivision standards and are shown in the **Turn Lane Exhibit** (March 2025)

## **P&Z Recommendation:**

The planning and zoning commission recommended approving the rezoning request on April 15, 2025, by a vote of 5-1 with the following conditions:

1. A percolation/groundwater study be conducted and submitted with construction/engineering plans.
2. To amend the following from 10% to 5% "A maximum of ~~40%~~ 5% of each lot type (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.)"

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**City Attorney Review:** Yes

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## **Attachments:**

1. Development Regulations (Cuesta) 4858-8591-5888 8 (1)
2. Cuesta Buffer Map
3. Turn Lane Exhibits
4. Cuesta Traffic Impact Analysis
5. Cuesta Zoning Proposed Ordinance with ExhibitS
6. CUESTA PD SUBMITTAL SET
7. Cuesta Zoning Proposed Ordinance with Exhibit.docx- V2

**CUESTA**  
**DEVELOPMENT REGULATIONS**  
**Planned Development – 538.99 Acres**

**I. PURPOSE**

This Planned Development includes the land more particularly described on Exhibit "A" (the "Property").

The Cuesta development aims to establish a diverse and vibrant neighborhood, offering a mix of single-family homes. The trails provided throughout the Property harmonize with the Property's natural topography, and allow for connectivity within the neighborhood and broader community. The varied housing options target housing attainability and cater to residents at different life stages. The project ensures easy access to amenities and site features with connections and trails throughout the site. The central amenity, park and open space areas form the heart of the community with diverse recreational experiences, enhancing community engagement.

Development and use of the Property shall comply with the Zoning Ordinance, Chapter 52 of the City of Justin Code of Ordinances, in effect on the date of approval of this PD Ordinance (the "Zoning Ordinance"), as amended by this PD Ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD Ordinance shall control. In the event of a conflict between this PD Ordinance and the Concept Plan/ Development Plan (defined below) or any other exhibits attached hereto, this PD Ordinance shall control. In the event of a conflict between the Concept Plan/ Development Plan and any other exhibits attached hereto and the Zoning Ordinance, the Concept/ Development Plan and exhibits attached hereto shall control.

**II. DEVELOPMENT PLAN**

A conceptual master plan for development of the Property is attached as Exhibit "B" ("Concept Plan/ Development Plan") and all development shall generally conform to the Concept Plan/ Development Plan, except as may be modified as provided herein. The Concept Plan/ Development Plan shall satisfy all requirements under the Zoning Ordinance to submit/ approve a development plan for this PD and no further development plan or approvals by the Planning and Zoning Commission or City Council with respect to a development plan shall be required.

Changes of detail or amendments to the Concept Plan/ Development Plan, or any other exhibits attached hereto may be authorized by the Director of Development & Economic Development or his/her designated representative (the "Director") so long as such changes or amendments: do not alter the basic relationship of the proposed development to adjacent property and which do not alter the uses permitted, increase the density above 1,600 dwelling units, increase building height above 35 feet, or increase lot coverage for any residential lot above 70% and which do not decrease the required off street parking required

pursuant to Section X, or reduce the minimum yards required pursuant to Section XIII.F. of these Development Regulations (below). The applicant may appeal the decision to deny an amendment to the Concept Plan/ Development Plan or any other exhibits attached hereto to the City's Planning and Zoning Commission and may appeal the decision of the City's Planning and Zoning Commission to the City Council. For any amendments that are not authorized to be approved by the Director herein or are otherwise authorized elsewhere in the Zoning Ordinance, the applicant may apply for an amendment through the same process as a zoning amendment.

The Property may be developed in phases. The phases are not required to exactly conform to the boundaries as shown on Exhibit "C" and the phase boundaries may be adjusted at the time of platting without requiring an amendment to the Concept Plan/ Development Plan.

### **III. DEFINITIONS**

- A. 40 ft lot – means a lot with a width of at least 40 feet, but less than 50 feet.
- B. 50 ft lot – means a lot with a width of at least 50 feet, but less than 60 feet.
- C. 60 ft lot – means a lot with a width of at least 60 feet, but less than 70 feet.
- D. 70 ft lot – means a lot with a width of at least 70 feet.
- E. Masonry – shall be defined as exterior construction materials consisting of one or a combination of the following: brick material, fiber cement siding (such as Hardiplank or Hardiboard), stucco, stone, concrete and other built up/tilt panels. The Director may approve other materials as masonry materials in addition to those materials listed herein.
- F. Open Space — means an area accessible to all residents within the Property that may include without limitation landscaping, sidewalks, trails, recreational facilities (e.g., playground equipment or other recreational facilities), seating areas, a pavilion or other shade structure(s), community gathering places, benches, trees, amenities, natural features, and/or water features. Open space may also include areas that are accessible to the general public within the Property after such areas have been dedicated to the City.

### **IV. USES**

Permitted Uses – One-Family Detached Dwelling and all other uses allowed in the SF-2 — Single-family residential district ("SF-2 District") of the Zoning Ordinance shall be permitted on the Property, in addition to the following uses which shall be expressly permitted:

- 1) Amenity Centers;
- 2) Community Pools;

- 3) Gazebos;
- 4) Pavilions;
- 5) Tennis and Sport Courts;
- 6) Accessory Buildings;
- 7) Ponds, detention and/or retention areas;
- 8) Open space;
- 9) Playgrounds;
- 10) Splash pad(s);
- 11) Farmer's market (may be open to the public);
- 12) Food trucks;
- 13) Community garden(s);
- 14) Event lawn that may host periodic public events such as concerts or artistic performances [*allowed only in the Public Parks (defined herein)*]; and
- 15) Other amenities allowed or contemplated herein or in the exhibits attached hereto.

Uses allowed by Specific Use Permit in the SF-2 District are allowed in this district, subject to procedures for approval of Specific Use Permits in the Zoning Ordinance.

## **V. HOMEOWNERS' ASSOCIATION; CITY MAINTENANCE OF TRAILS**

A Homeowners' Association (HOA) will be formed and will be responsible for the maintenance of the common areas, entry features, private open space areas, and perimeter fencing and landscaping. The City will own and be responsible for the maintenance of any open space or park areas dedicated to the City pursuant to Section XI herein (including without limitation the Public Open Space and Public Parks). The City will be responsible for all maintenance and operation of any public trails (including within limitation the Nature Trail, Multi Use Trail and Regional Trail, each as defined herein).

## **VI. LANDSCAPE BUFFER**

- A. 20-foot Landscape Buffer. A landscape buffer with a minimum width of twenty (20) feet from the perimeter property line shall be provided where homes front a collector street in the locations generally shown on the Exhibit "D" as the "20 Ft Buffer Yard Requirement". Trails and sidewalks shall be permitted within this 20 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:



- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) Berms shall not be required. A screening wall or fence shall not be required.
- B. 15-foot Landscape Buffer. A landscape buffer with a minimum width of fifteen (15) feet from the perimeter property line shall be provided where homes back or side to a collector street in the locations generally shown on the Exhibit “D” as the “15 Ft Buffer Yard Requirement”. Trails and sidewalks shall be permitted within this 15 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:
- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) A minimum six feet (6’) tall masonry wall will be provided.
  - 5) Berms shall not be required.
- C. No landscape buffer yard or setback shall be required except in the locations shown generally on Exhibit “D”, notwithstanding any requirements in Division 5 of the Zoning Ordinance (Landscaping and Buffer Requirements). The requirements noted herein shall apply in lieu of any landscape buffer/ buffer yard requirements in the Zoning Ordinance. By way of clarity and notwithstanding any requirements herein or in the Zoning Ordinance to the contrary, (1) where floodplain abuts an arterial or collector street, the buffer yard requirements do not apply, and such areas may be left in their natural state; and (2) neither a screening wall nor buffer yard is required when the rear or side yards of a residential subdivision abut a local street.

## **VII. RESIDENTIAL DENSITY**

- A. The maximum number of dwelling units in the aggregate on the Property shall be 1,600. There is no maximum floor area and no maximum number of dwelling units per acre.
- B. The developer is not strictly bound by the locations of lot types as shown on the Concept Plan/ Development Plan. Notwithstanding the proposed locations of lot types as shown on the Concept Plan/ Development Plan, the developer may change the location of lot types (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) and relocate lot types so long as: (i) the total number of 40 ft lots within the overall

Property (not by phase) does not increase by more than 10% of the total number of 40 ft lots shown on the Concept Plan/ Development Plan, (ii) the total number of 50 ft lots within the overall Property (not by phase) does not increase by more than 15% of the total number of 50 ft lots shown on the Concept Plan/ Development Plan, (iii) the total number of 60 ft lots within the overall Property (not by phase) does not decrease by more than 15% of the total number of 60 ft lots shown on the Concept Plan/ Development Plan; and (iv) the total number of 70 ft lots within the total Property (not by phase) does not decrease by more than 10% of the total number of 70 ft lots shown on the Concept Plan/ Development Plan.

## **VIII. AREA REQUIREMENTS AND DEVELOPMENT STANDARDS**

- A. The primary development and land use standards for this project will be based upon the standards outlined in this document. The Property shall be developed in accordance with the standards applicable to the SF-2 District, except as amended or otherwise set forth in this PD Ordinance.
- B. 50 ft lots, 60 ft lots and 70 ft lots may be front entry.
- C. Minimum Lot Area.
  - 1) The minimum lot area for the following lot widths shall be as follows:
    - a. 40 ft lot: 4,200 square feet
    - b. 50 ft lot: 5,750 square feet
    - c. 60 ft lot: 6,900 square feet
    - d. 70 ft lot: 8,050 square feet
  - 2) A maximum of 10% of each lot type (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).
- D. Minimum lot width shall be as follows:
  - 1) 40 ft lots: 40 feet
  - 2) 50 ft lots: 50 feet
  - 3) 60 ft lots: 60 feet
  - 4) 70 ft lots: 70 feet
- E. Minimum Lot Depth. The minimum lot depth shall be:
  - 1) 40 ft lots: 105 feet.

- 2) 50 ft lots, 60 ft lots, and 70 ft lots: 115 feet.

F. Yard Requirements

1) Minimum Front Yard Setback

- a. The minimum front yard setback shall be:

(a) 40 ft lots: 5 feet.

(b) 50 ft lots, 60 ft lots, and 70 ft lots: 20 feet.

- b. Porches on 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots may encroach into the required front yard by a maximum of 5 feet.

2) Minimum Interior Side Yard

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 5 feet.

3) Minimum Corner Side Yard (street side)

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

4) Minimum Rear Yard Setback

- a. 40 ft lots: 20 feet.

- b. 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

- G. Maximum Lot Coverage: 70 percent per lot for main and accessory buildings. Lot coverage means the lot area covered by all buildings located thereon, including the area covered by all overhanging roofs, except that lot coverage calculations shall exclude the driveway regardless of whether a roof overhang is located over the driveway.

- H. Maximum Height: up to 35 feet

- I. The tables below illustrate the above development standards for ease of reference. In the event of a conflict between Section XIII.A. – H. and the tables below, Sections XIII.A. – H. shall control.

**Area Regulations for 40-foot lots.** Area regulations for 40-foot lots shall be as follows:

|                          |                   |
|--------------------------|-------------------|
| <b>Minimum Lot Area*</b> | 4,200 square feet |
| <b>Misc.</b>             | Rear loaded       |

|                                |           |
|--------------------------------|-----------|
| <b>Min. Lot Width</b>          | 40 feet   |
| <b>Min. Lot Depth</b>          | 105 feet  |
| <b>Min. Front Yard</b>         | 5 feet    |
| <b>Min. Interior Side Yard</b> | 5 feet    |
| <b>Min. Corner Side Yard</b>   | 15 feet   |
| <b>Min. Rear Yard</b>          | 20 feet   |
| <b>Max. Lot Coverage</b>       | 70%       |
| <b>Max. Height</b>             | up to 35' |

\* A maximum of 10% of the total number of 40 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 50-foot lots.** Area regulations for 50-foot lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 5,750 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 50 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 50 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 60-foot lots.** Area regulations for 60-foot lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 6,900 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 60 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 60 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints.

**Area Regulations for 70-foot lots.** Area regulations for 70 ft lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 8,050 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 70 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 70 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

## **IX. BUILDING DESIGN**

- A. The following minimum design and construction standards shall apply within the Property in this Planned Development. The requirements in this section shall apply in lieu of any exterior construction, building materials or design requirements in the Zoning Ordinance (including but not limited to Section 52-87 of the Zoning Ordinance) and shall be the exclusive exterior construction, building materials, and design requirements that apply to the development of the Property.
- B. Masonry Requirements.
  - 1) Front Elevation Wall Surface Area — A minimum of 80% Masonry on front surface area of main dwelling unit (calculation shall exclude area covered by windows and doors). No more than 50% of the total dwelling units developed within the Property shall have fiber cement siding material or stucco on more than 50% of the front façade surface area. More than 50% of the total dwelling units within a phase may have fiber cement siding or stucco on more than 50% of the front façade surface area so long as the total overall within the development as a whole (all phases combined) is 50% or less.
  - 2) Except as noted in subsection B(1) above, there shall be no limit on the percentage of the exterior masonry construction requirements for residential structures that may be met by fiber cement siding. There is no minimum percentage of stone construction.
  - 3) Side and Rear Wall Elevation Surface Areas — A minimum of 25% Masonry on Side and Rear Elevations of main dwelling unit (calculation shall exclude area covered by windows and doors).
  - 4) There is no minimum masonry percentage for amenity buildings, restroom facility buildings or accessory buildings.
- C. Building Elevations.
  - 1) Building elevations shall be submitted to the Director prior to the issuance of a building permit. The Director will approve the building elevations if they substantially conform to the requirements of Section IX.B(1)-(4) above.
  - 2) All required elevations shall include sufficient detail to allow the Director to evaluate whether the proposed elevations meet the requirements of IX.B(1)-(4) above, and shall include identification of predominant exterior building materials. The residential building elevations depicted on Exhibit

“E” are an example of building elevations illustrating compliance with the requirements of Section IX.B(1)-(4) above and a sample of the level detail that should be provided in elevations.

- 3) The applicant may submit alternate materials, design or changed elevations that differ from Exhibit “E” and the Director will approve such elevations if the elevations meet the requirements of Section IX.B(1)-(4) above. The different/alternative building elevations are not required to be the same architectural style or color palette as what is shown on Exhibit “E”.

**D. Minimum Roof Pitch.**

- 1) In general (except as provided in (2) below): minimum roof pitch of 6:12.
- 2) Other structures attached to or separate from the main home (such as porches, covered porches, etc.) and roof over garages: minimum 4:12 roof pitch.

**X. PARKING**

- A. Minimum Off-Street Parking; Garage Requirements: Each dwelling unit shall have no less than two enclosed parking spaces that shall be located in a garage. Garages shall provide a minimum of 16ft garage door opening and a minimum inside clear width from wall to wall of 18ft and a minimum inside depth of 18ft.

**XI. OPEN SPACE DEDICATION AND PUBLIC AMENITIES**

- A. Developer agrees to dedicate open space in the location(s) generally shown on Exhibit “F” attached hereto as “floodplain/ open space (dedicated to the City)” and “open space (dedicated to the City)” (the “Public Open Space”) to the City. The Public Open Space is not required to conform exactly to the boundaries as shown on Exhibit “F”, so long as at least 90 acres of open space is dedicated to the City within the overall Property (within the aggregate, including all phases). The Public Open Space may be dedicated in phases or portions (i.e., the total Public Open Space is not required to be dedicated at the same time). The Public Open Space (or portion thereof) is required to be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the Public Open Space is located within or adjacent to (if the Public Open Space is not located within a phase). The Public Open Space and the Public Parks (defined herein) shall fully satisfy the developer or property owner’s obligations under Section 42-126 of the City’s Code of Ordinances to (1) dedicate parkland or pay a fee in lieu thereof; and (2) pay park development fees. Therefore, no parkland dedication (or fee in lieu thereof) and no park development fees shall be due for the development of the Property. Prior to dedication of the applicable portion of the Public Open Space, the developer or property owner shall construct trails within the Public Open Space area as generally shown on Exhibit “F”. Other than the aforementioned trails, the developer or property owner shall not be required to make any improvements to the Public Open Space area. The trails labeled on Exhibit “F” as the “Regional Public

Trail (Public)” (referred to herein as the “Regional Trail”) and “Multi Use Trail (Public)” (referred to herein as the “Multi Use Trail”) shall be at least 12’ wide and constructed of concrete. The trail labeled as the “Nature Trail (Public)” on Exhibit “F” (the “Nature Trail”) shall be at least 4’ wide and is not required to be constructed of concrete. The trails are not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design so long as the trails comply with the minimum requirements herein and are either (i) located in the same general directions shown on Exhibit “F” or (ii) located at other locations approved by the Director. In the event of a conflict between the text of these PD Development Regulations and Exhibit “F”, the text of these PD Development Regulations controls.

- B. Developer agrees to dedicate three (3) public parks to the City in the locations generally identified on Exhibit “F” as the Public “Event Park”, the Public “Play Park” and the Public “Pavilion Park” (each a “Public Park” and collectively, the “Public Parks”). The Public Parks are not required to conform exactly to the boundaries as shown on Exhibit “F” or to any acreages stated herein, so long as at least 1.24 acres is dedicated to the City for the Event Park, at least 1.12 acres is dedicated to the City for the Play Park, and at least one (1) acre is dedicated to the City for the Pavilion Park. The Public Parks may be dedicated in phases (corresponding with the respective phases of development) and shall be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective Public Park is located within or adjacent to (if the Public Park is not located within a phase). Prior to dedication of the applicable Public Park, the developer or property owner shall construct and/or install the following improvements at a minimum within each Public Park, respectively (and may, but shall not be required to, construct additional improvements, in its discretion):
- 1) Pavilion Park: (a) a shade structure or pavilion; and (b) green space areas;
  - 2) Play Park: (a) three (3) playgrounds; (b) a splash pad; and (c) one or more sports courts such as a basketball, tennis or pickleball court;
  - 3) Event Park: (a) an event lawn; (b) at least one playground; and (c) a pavilion or shade structure.

Other than the aforementioned improvements, the developer or property owner shall not be required to make any improvements to the Public Parks, but may include other improvements at its discretion.

- C. The open space, trails, and park requirements in this PD Ordinance shall apply in lieu of any open space, trails, or park requirements in the City Code and shall be the exclusive open space, park, and trail requirements that apply to the development of the Property. For the avoidance of doubt, the dedication of the Public Parks and Public Open Space is not required prior to final plat or approval of any construction plans or building permits and the timing for dedication shall be required as provided herein.



- D. Detention and retention may be provided in open space areas. There is no limit or restriction on the amount of floodplain or natural drainage areas that may be located within the Public Open Space area and no required minimum slope.
- E. Paved parking areas are not required within the Public Parks or Public Open Space area notwithstanding any City Code requirements to the contrary. The developer may designate parallel parking at the perimeter of the Public Parks.

## **XII. PRIVATE AMENITIES**

- A. Developer agrees to install the following amenities for residents within the Property, which may be installed in open space areas or common areas (“Required Private Amenities”):
  - 1) Two separate resident amenity areas north of Range Road (each a “Resident Amenity Area”).
  - 2) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include a playground.
  - 3) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include the following at a minimum: a swimming pool, seating areas, and restroom facilities.
- B. The exact location of the Required Private Amenities and amenities provided within such areas may change during the final design process. The Resident Amenity Areas may include other amenities in addition to the minimum amenities listed in subsection A(2)-(3) above at the developer’s discretion.
- C. The Required Private Amenities may be completed in phases (corresponding with the respective phases of development) and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective amenity is located within.

## **XIII. TRAILS**

- A. Developer agrees to construct a multi-use trail approximately 12 feet in width in the locations generally shown as the “12’ Multi Use Trail (Public)” on Exhibit “F” (“Multi Use Trail”). The Multi-Use Trail is not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design. The Multi-Use Trail will be constructed of concrete and will be publicly accessible. The Multi-Use Trail may be completed in phases and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the trail is located within or adjacent to (if the portion of the trail is not located within a phase).

#### **XIV. STREETS AND ACCESS**

- A. The street sections and street design requirements herein apply in lieu of any standard street section or design requirements in the City Code.
- B. Alleys shall comply with the section titled “30 Ft Alley ROW Street Plan/ Section” on Exhibit “G”.
- C. Except where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” on Exhibit “G”, local streets shall comply with the section titled “50 Ft ROW Street Plan/ Section” on Exhibit “G”.
- D. Where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” (intended for streets directly abutting or providing a connection to a Public Park or Resident Amenity Area), local streets shall comply with the section titled “60 Ft ROW Street Plan/ Section”.
- E. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type A Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type A Street Plan/ Section”.
- F. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type B Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type B Street Plan/ Section”.
- G. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type C Street Plan/ Section” (including portions of a minor arterial and four entrances into the subdivision) will comply with the “100 Ft ROW – Type C Street Plan/ Section”.
- H. Streets are not required to be exactly as shown and street alignments are not required to match exactly what is shown on Exhibit “G”. Exhibit “G” shows where different street sections are located for the current draft Concept Plan/ Development Plan.

**Exhibit "A"**

Legal Description of the Property

## **Exhibit "B"**

### Concept Plan/ Development Plan

## **Exhibit "C"**

Phase Exhibit

## **Exhibit "D"**

### Buffer Plan

## **Exhibit "E"**

### **Example of Acceptable Building Elevations**

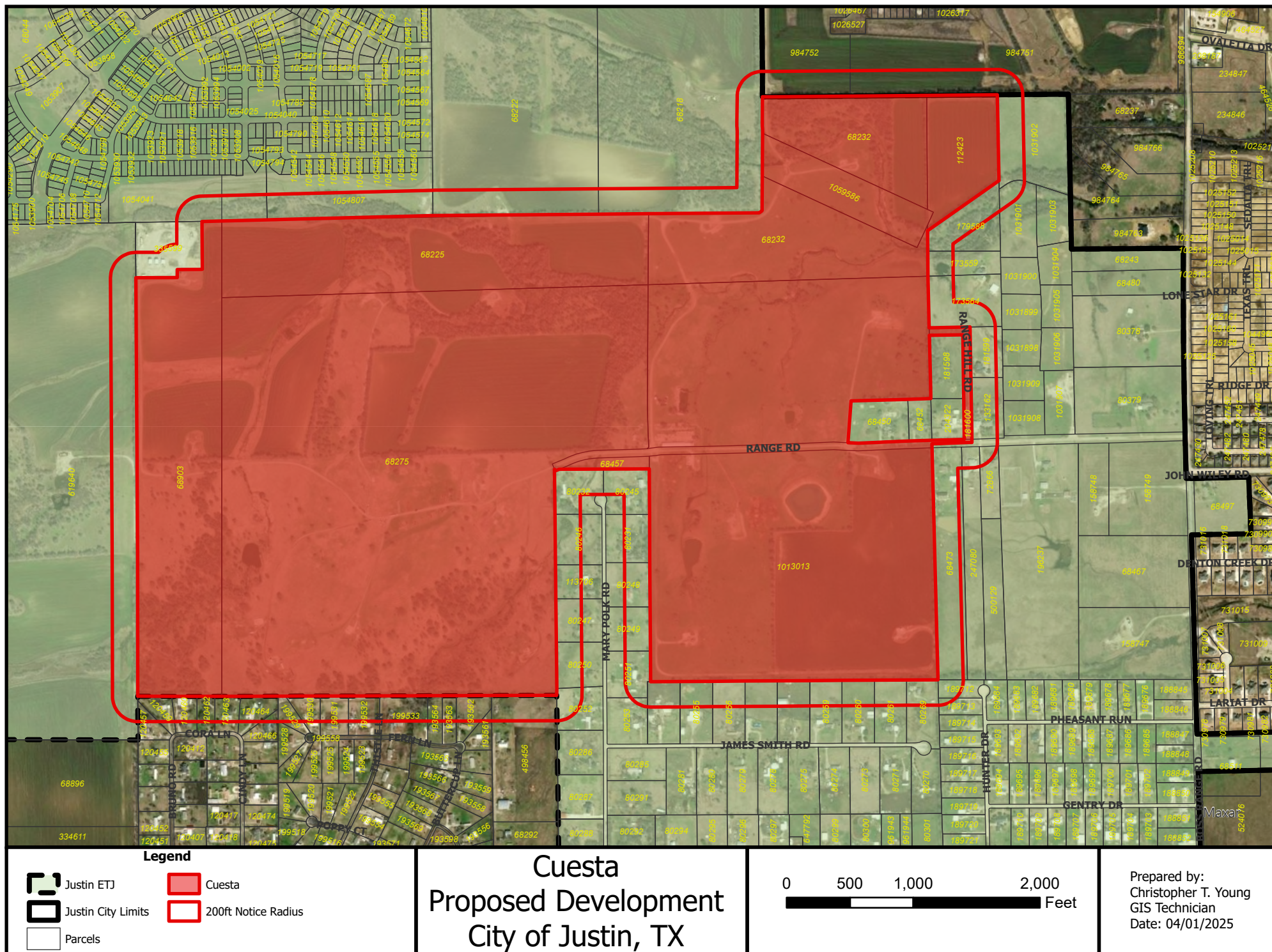
## **Exhibit "F"**

### **Preliminary Open Space and Parks Plan**

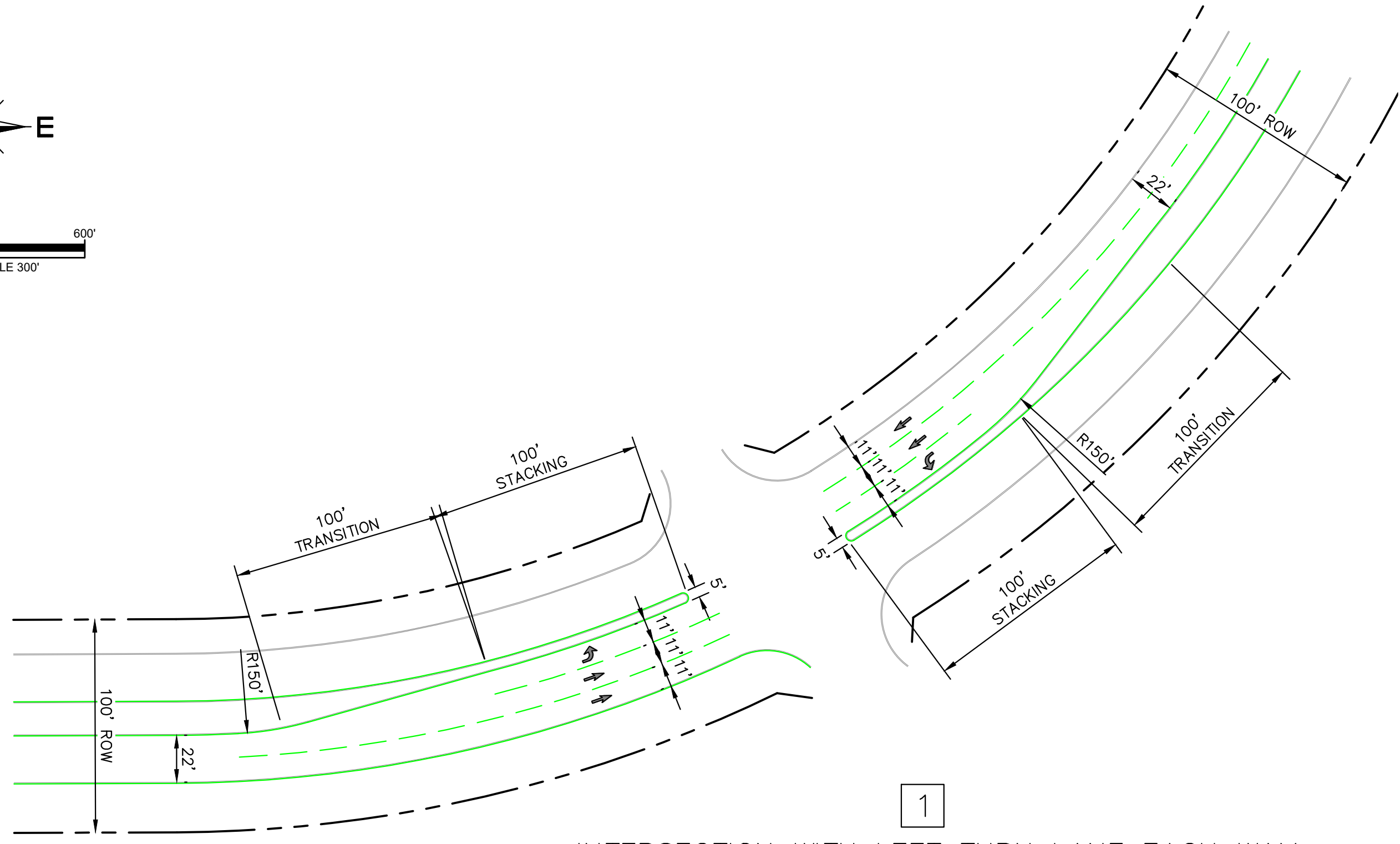
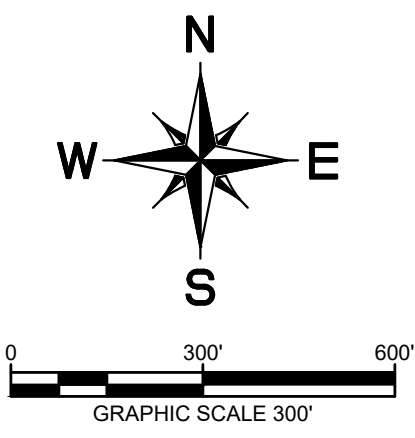


## **Exhibit "G"**

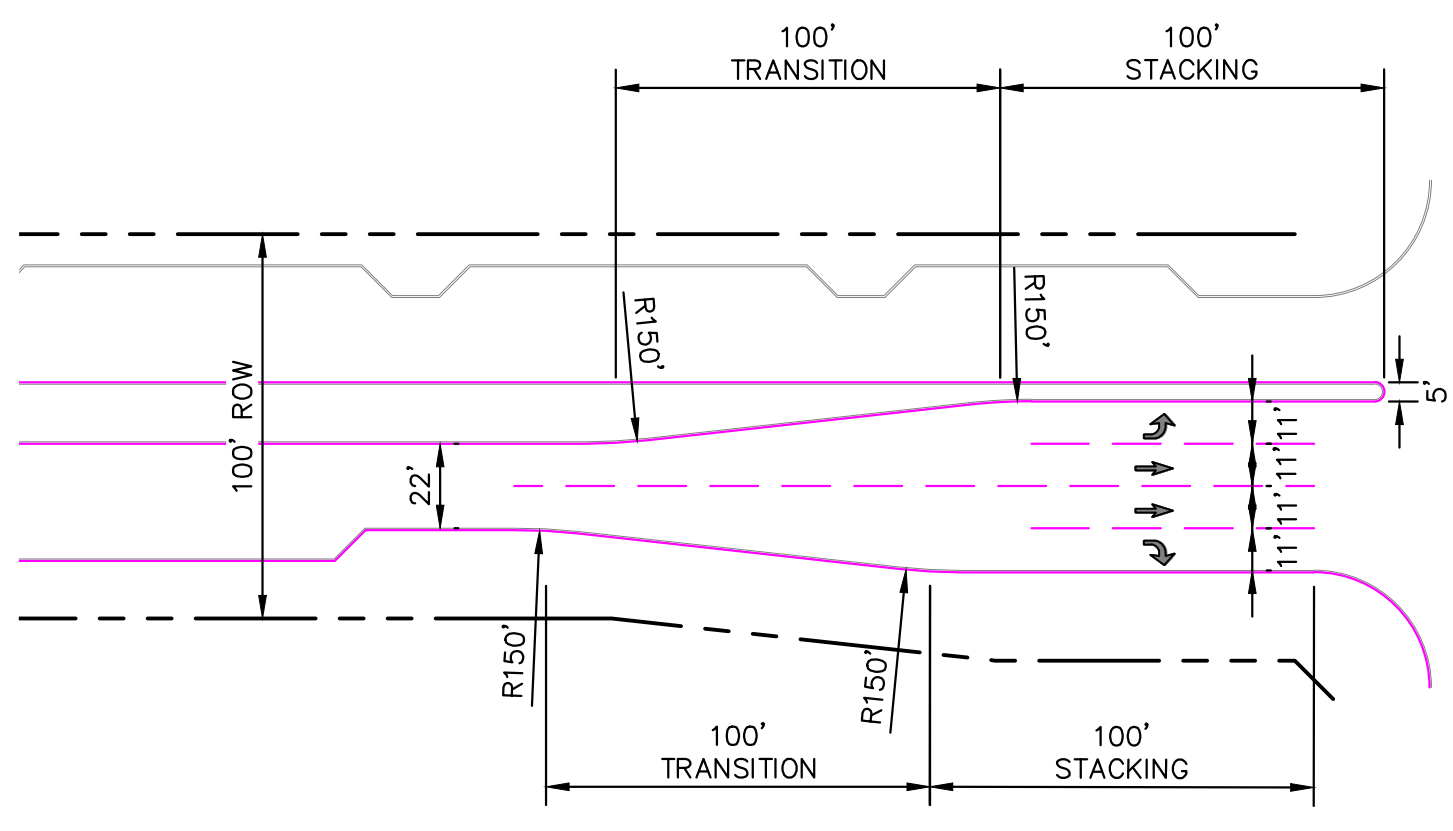
### Street Sections



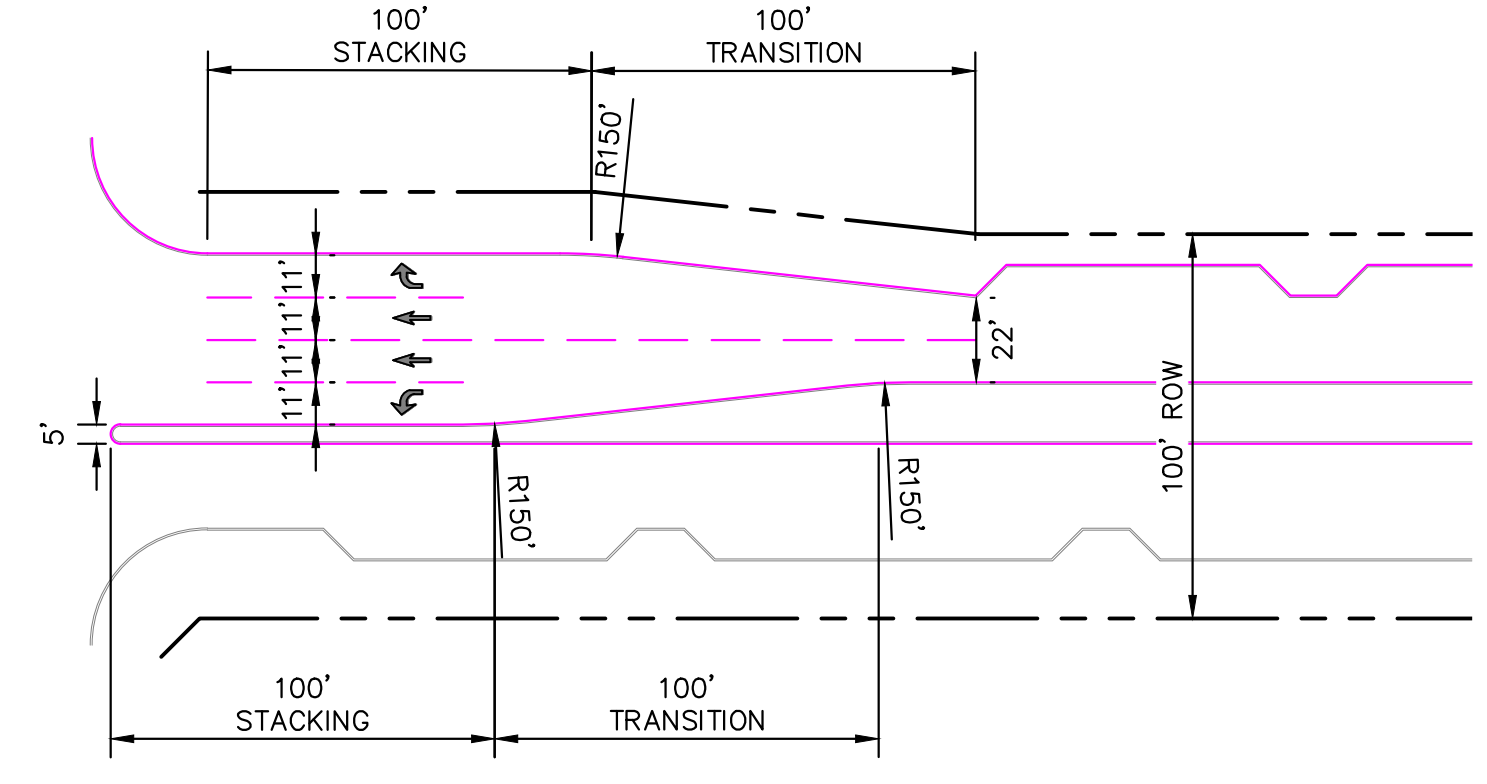




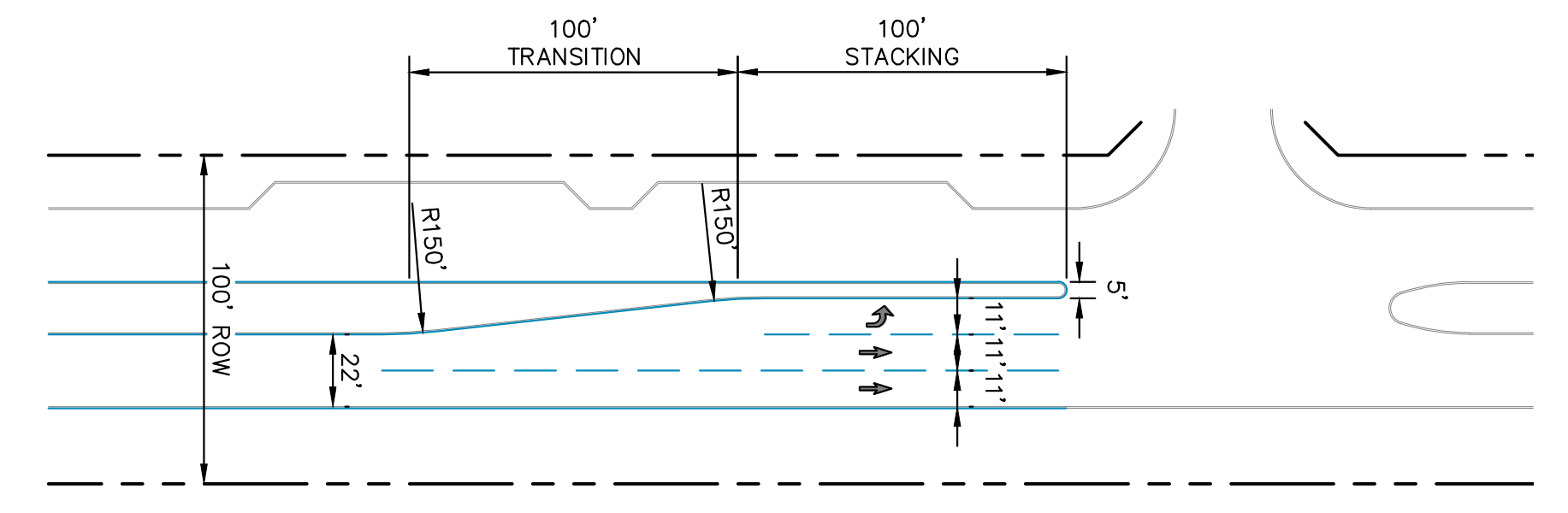
1  
INTERSECTION WITH LEFT TURN LANE EACH WAY  
NTS



2  
INTERSECTION WITH LEFT AND RIGHT TURN LANE EACH WAY  
NTS



3  
INTERSECTION WITH LEFT TURN LANE ONE WAY  
NTS



NOTE:  
1. ALL DIMENSIONS SHOWN ARE FACE OF CURB.



Turn Lane Exhibit

Cuesta

Justin, Texas  
March 2025

Kimley»Horn

400 North Oklahoma Drive, Suite 105  
Celina, TX 75009  
469-501-2200  
State of Texas Registration No. F-928

NOTES:  
1. THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY OR  
CONTACT WITH THE CITY, COUNTY, ETC.  
2. AERIAL IMAGE BY NEARMAP, COPYRIGHT 2021

# Range Creek Single-Family

## TRAFFIC IMPACT ANALYSIS

Prepared By:

**Kimley»»Horn**

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(817) 339-2254

Contact: Pete Kelly, P.E

Job Number: 061179360

**MARCH 2025**



A handwritten signature in blue ink, appearing to read "Pete Kelly", with a long horizontal flourish extending to the right.

03-06-2025

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## EXECUTIVE SUMMARY

This report documents a traffic impact analysis (TIA) performed for the proposed Range Creek development located south of FM 407 and west of Boss Range Road in the City of Justin, Texas. The proposed development is anticipated to include 1,547 lots of single-family detached housing.

Traffic was evaluated for five scenarios for which the Weekday AM and PM peak hour level of service analysis was performed. Analysis procedures consisted of intersection capacity analysis, auxiliary lane analysis, sight distance analysis, and access spacing analysis. These scenarios are presented in **Table A**.

**Table A. Analysis Scenario Summary Table**

| Scenario                       | Roadway Conditions                                                      | Development Assumptions                             | Traffic Volumes                                                                       |
|--------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| Existing (2024)                | Existing                                                                | Existing                                            | Existing                                                                              |
| Phase 1-2 (2027)<br>Background | Existing                                                                | Existing                                            | Existing + 3 years of growth at 3.5% per year                                         |
| Phase 1-2 (2027)               | Existing +<br>Site Driveways + Range Road +<br>Timberbrook Dr           | Existing + Phase 1-2 Range Creek<br>Development     | Existing + 3 years of growth at 3.5% per year<br>+ Range Creek Phase 1-2 Site Traffic |
| Buildout (2030)<br>Background  | Existing                                                                | Existing                                            | Existing + 6 years of growth at 3.5% per year                                         |
| Buildout (2030)                | Existing +<br>Site Driveways + Realigned Range<br>Road + Timberbrook Dr | Existing + All Phases of Range<br>Creek Development | Existing + 6 years of growth at 3.5% per year<br>+ Range Creek Buildout Site Traffic  |

Based on the analyses performed, we offer the following conclusions and recommendations:

### Intersection Capacity Analysis

Based on the intersection capacity analysis, all study area intersections are projected to operate at LOS D or better through the Horizon (2034) scenario except the following:

#### Boss Range Road & Wiley Road / Range Road

The eastbound and westbound approaches of the intersection are anticipated to operate at LOS F in both peak hours in Buildout (2030) conditions. Based on projected volumes, the intersection is projected to fall just below volume thresholds to warrant a traffic signal. Mitigated analyses were performed with all-way stop control and signalization. Based on the mitigated analyses, the intersection is anticipated to operate with ~75% less overall delay with all-way stop control, and at LOS B or better with a signal installed in buildout conditions.

#### Recommendations:

**Step 1** – Consider implementing all-way stop control to lower overall delay beginning in Phase 3.

**Step 2** - Collect new traffic counts to evaluate the need for a traffic signal and/or other mitigations after Buildout (2030) and realignment of Range Road.

**Responsible Party:** Range Creek Development / Adjacent Developments / City



## Auxiliary Lane Analysis

Based on the auxiliary lane analysis of the development through Buildout (2030) conditions according to the City of Justin's *Subdivision Regulations*, the following observations are made:

- Left-turn lanes are to be provided for all divided streets where median openings provide access to streets, alleys, or driveways. Based on the Range Creek site plan, all site driveways are anticipated to be constructed at median openings except for Drives 4, 12, and 13. Based on the City of Justin's requirements, the minimum length for a left-turn deceleration lane is 200 total feet, which includes 100 feet of storage and 100 feet of transition. Therefore, it is recommended to construct left-turn lanes in each direction at all site driveways except Drives 4, 12, and 13.
- Right-turn lanes are to be provided on all approaches of TxDOT, arterial, and collector streets. Also, they are required for commercial developments of 5 acres or more and based on a traffic impact analysis demonstrating adequate safety. With the addition of left-turn lanes, Range Road and Timberbrook are anticipated to operate with sufficient capacity and minimal delay. Based on the City's requirements and acceptable operations, it is not recommended to install right-turn lanes at any of the site driveways. However, it is recommended to install left and right-turn lanes where each Minor Arterial connects to the existing City roadway network.

## Sight Distance Analysis

Based on field observations and the proposed site plan, all proposed driveways (Drives 1-17) are anticipated to have adequate sight distance. All driveways should be designed to provide adequate sight distance (i.e. clear sight with no obstructing object, signs, landscaping, etc.).

## Access Spacing Analysis

The driveways planned to serve the proposed development include the proposed Drives 1-17 along Range Road and Timberbrook. According to the City of Justin's *Subdivision Regulations* on Page 13-14, the following observations are made:

- The edge of the median opening is not less than 400 feet from the edge of an intersection with a collector or arterial thoroughfare.
- All the proposed site driveways are anticipated to provide adequate access spacing along Range Road and Timberbrook.



# INTRODUCTION

## PURPOSE

Kimley-Horn and Associates, Inc. was retained by Meritage Homes of Texas, LLC to perform a traffic impact analysis for the proposed Range Creek development, located south of FM 407 and west of Boss Range Road in the City of Justin, Texas.

The purpose of this study is to address the traffic impacts of the proposed development on surrounding streets and intersections. This traffic impact study was prepared based on criteria set forth by the City of Justin and TxDOT standards. The specific objectives of this study are to determine existing and future levels of service at the various study intersections and recommend any capacity or operational related improvements.

## METHODOLOGY

The traffic evaluation was comprised of five scenarios for which Weekday AM and PM peak hour intersection level of service analyses were performed. Based on the project's anticipated completion, 2030 was assumed as the buildout analysis year. In total, five analysis scenarios were examined and are presented in **Table 1**.

**Table 1. Analysis Scenario Summary Table**

| Scenario                       | Roadway Conditions                                                      | Development Assumptions                             | Traffic Volumes                                                                       |
|--------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| Existing (2024)                | Existing                                                                | Existing                                            | Existing                                                                              |
| Phase 1-2 (2027)<br>Background | Existing                                                                | Existing                                            | Existing + 3 years of growth at 3.5% per year                                         |
| Phase 1-2 (2027)               | Existing +<br>Site Driveways + Range Road +<br>Timberbrook Dr           | Existing + Phase 1-2 Range Creek<br>Development     | Existing + 3 years of growth at 3.5% per year<br>+ Range Creek Phase 1-2 Site Traffic |
| Buildout (2030)<br>Background  | Existing                                                                | Existing                                            | Existing + 6 years of growth at 3.5% per year                                         |
| Buildout (2030)                | Existing +<br>Site Driveways + Realigned Range<br>Road + Timberbrook Dr | Existing + All Phases of Range<br>Creek Development | Existing + 6 years of growth at 3.5% per year<br>+ Range Creek Buildout Site Traffic  |

For all intersections, the capacity analyses were conducted using the *Synchro 12™* software package and its associated *Highway Capacity Manual* reports.

## STUDY AREA

### SITE LOCATION

The development is located south of FM 407 and west of Boss Range Road in the City of Justin, Texas. A vicinity map is presented in **Exhibit 1**. The existing intersections of FM 407 & Timberbrook, Boss Range Road & Range Road, and Range Road & Wiley Road were analyzed, along with the future intersections at the proposed driveways. **Exhibit 2** displays the existing thoroughfares, lane assignments, and traffic controls within the study area.

### MAJOR THOROUGHFARES

Wiley Road is currently a two-lane undivided roadway located east of Boss Range Road oriented in an east-west direction. Wiley Road serves residential developments along its span from FM 156 to Boss Range Road. Per the City of Justin Master Thoroughfare Plan, Wiley Road is classified as a Minor Arterial and has a posted speed limit of 30 mph.

FM 407 is currently a two-lane undivided TxDOT roadway located west of FM 156 and oriented in an east-west direction. FM 407 serves residential developments west of the study area and to downtown Justin east. Per the City of Justin Master Thoroughfare Plan, FM 407 is classified as a State Highway and has a posted speed limit of 45 mph.

Boss Range Road is currently a two-lane undivided roadway and is oriented in a north-south direction. Boss Range Road provides access to rural residential areas to the south and FM 407 to the north. Per the City of Justin Master Thoroughfare Plan, Boss Range Road is classified as a Minor Arterial and has a posted speed limit of 35 mph.

Range Road is currently two-lane undivided roadway and is oriented in an east-west direction. Range Road provides access to rural residential areas to the west and to Boss Range Road / Wiley Road to the east. Per the City of Justin Master Thoroughfare Plan, Range Road is classified as a Minor Arterial and has a posted speed limit of 30 mph.

### PROPOSED DEVELOPMENT

The development is located south of FM 407 and west of Boss Range Road in the City of Justin, Texas. Based on information provided by the developer, the proposed development is anticipated to include 1,547 lots of single-family detached housing, in which Phases 1-2 are anticipated to be completed by 2027 and Buildout by 2030.

The development is anticipated to have seventeen (17) access points, with fourteen being full access and 3 being right-in/right-out only accesses. The development is planning to construct the east-west Range Road and north-south Timberbrook Minor Arterial sections within the site boundary. These thoroughfares will provide access to the site driveways.

## EXISTING (2024) TRAFFIC CONDITIONS

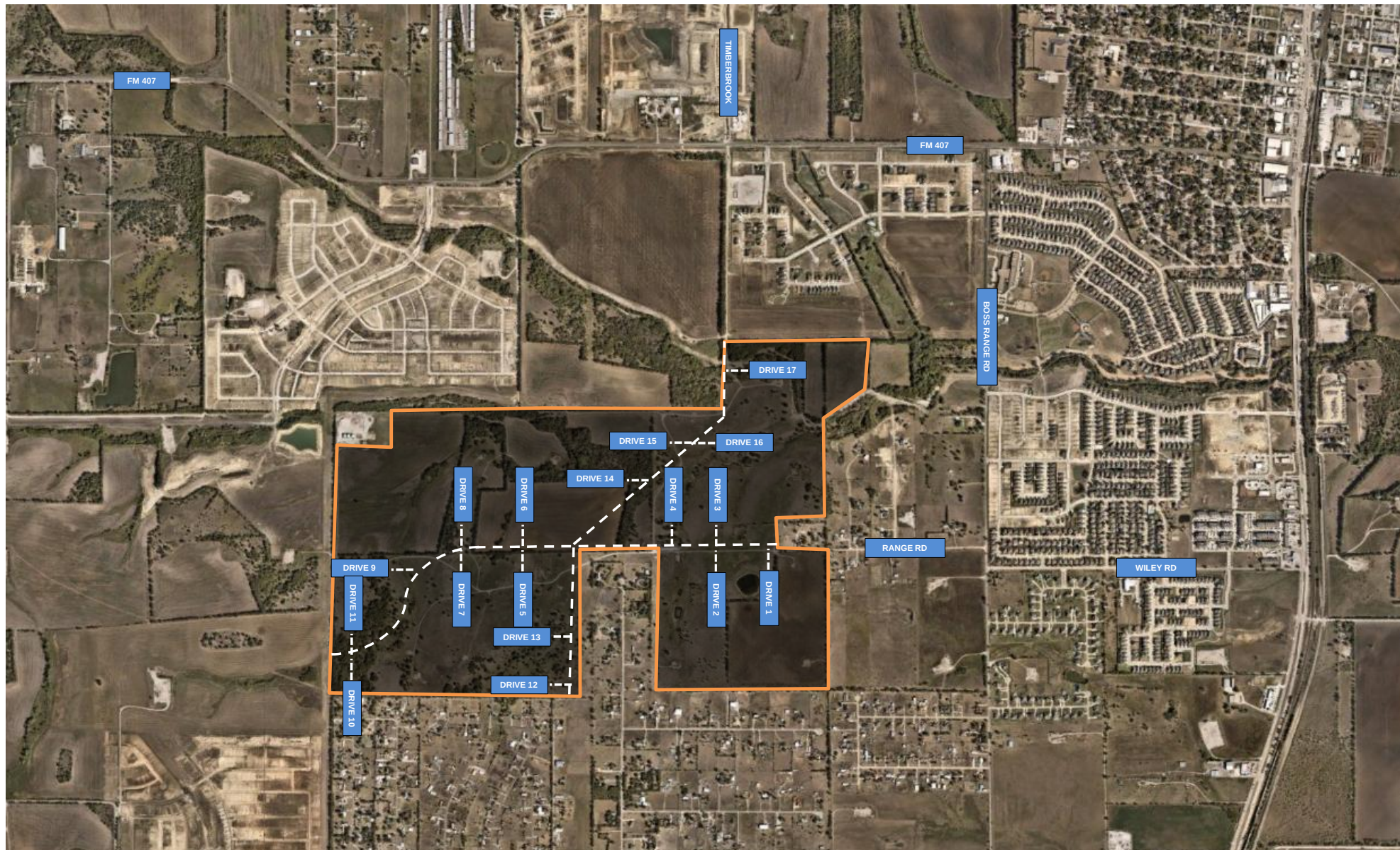
### EXISTING TRAFFIC VOLUMES

Turning movement counts were collected on Wednesday, October 30th, 2024, during the AM and PM peak hours at the following intersections:

- FM 407 & Timberbrook
- Boss Range Road & Wiley Road
- Boss Range Road & Range Road

Based on the collection date of traffic volumes, the existing scenario year used is 2024. The Existing (2024) traffic volumes are presented in **Exhibit 3**. Raw traffic counts are provided in the **Appendix**.





**LEGEND:**

- Existing Stop Sign
- Existing Facility
- - - Future Site Drive
- Future Roundabout

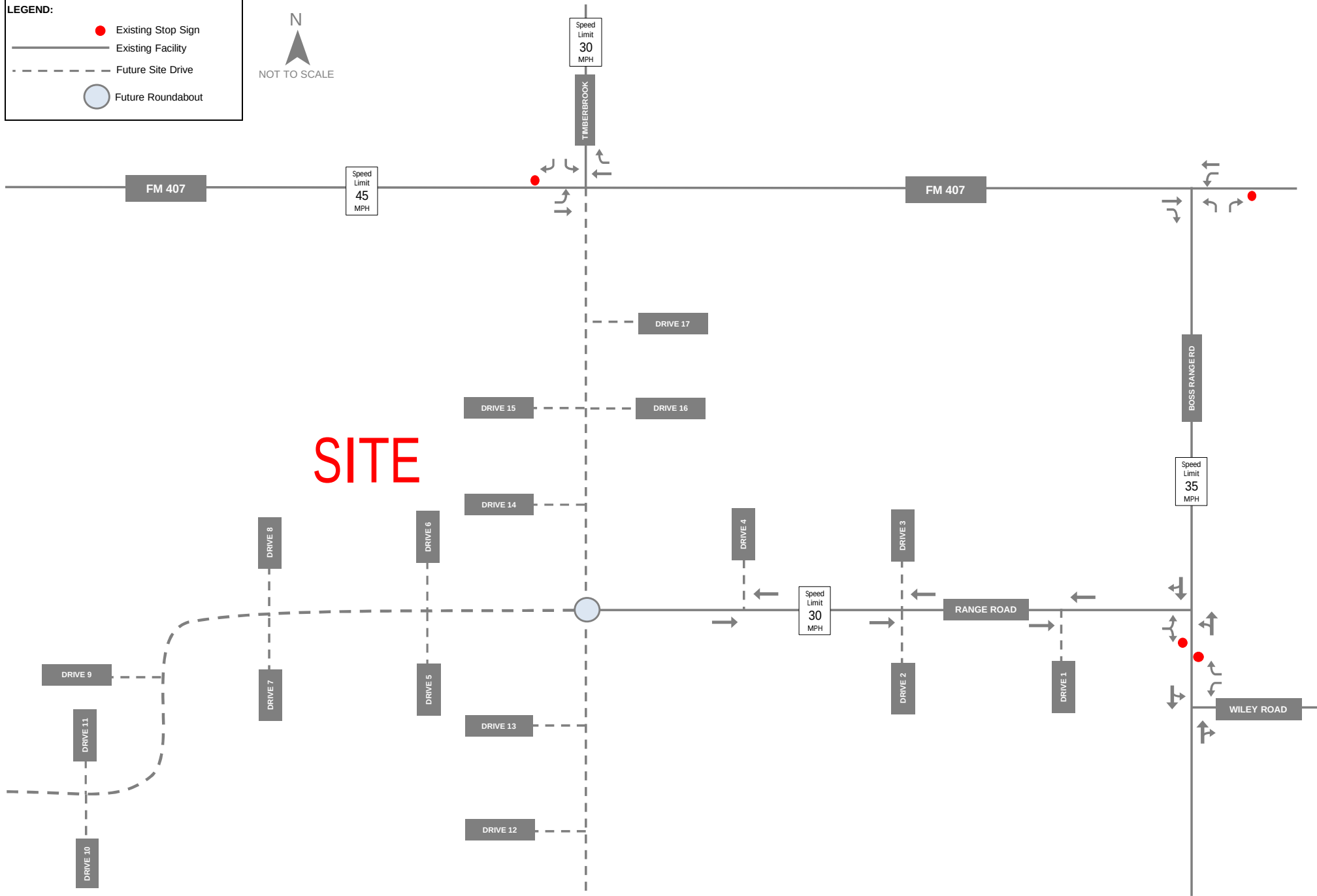


EXHIBIT 2  
 EXISTING LANE ASSIGNMENT & INTERSECTION CONTROL  
 RANGE CREEK TIA

**LEGEND:**  
X (Y)  
X = AM Peak Hour Turning Movements  
Y = PM Peak Hour Turning Movements  
Volumes may not sum from point to point due to rounding  
and presence of smaller driveways not included in analysis.

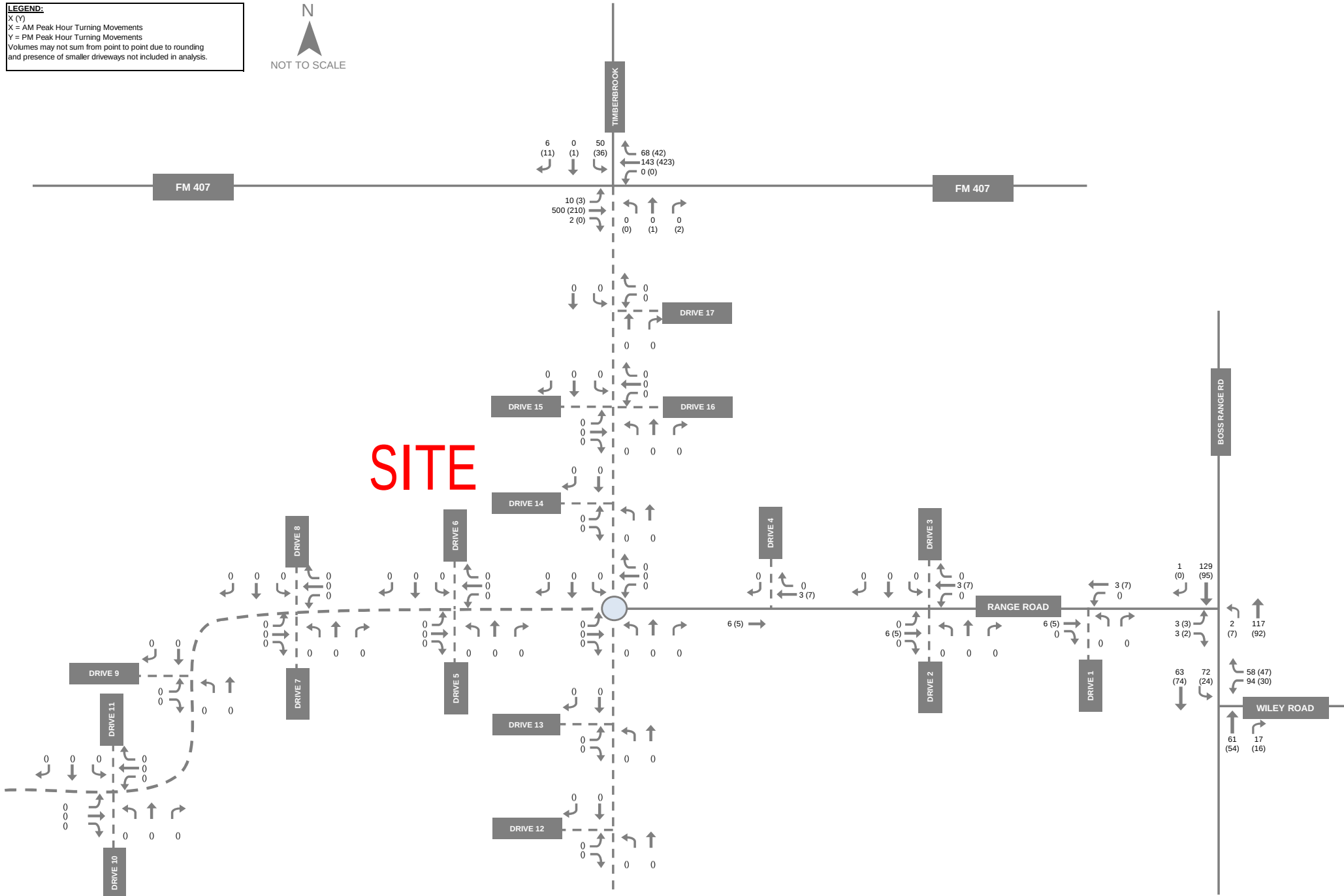


EXHIBIT 3  
**EXISTING (2024) TRAFFIC VOLUMES**  
Range Creek TIA



## FUTURE TRAFFIC CONDITIONS

### HISTORICAL GROWTH RATE

Based on historical growth data from the TxDOT Traffic Count Database System and future growth projections from the TxDOT Statewide Planning Map, an annual growth of 3.5% was assumed as representative for the roadway network. This was based on historical traffic counts along FM 407, east of Boss Range Road.

### PHASE 1-2 (2027) BACKGROUND TRAFFIC VOLUMES

**Exhibit 8** presents the projected Phase 1-2 (2027) Background traffic volume, which is the existing traffic (see **Exhibit 3**) grown at a projected 3.5% annual background growth to year 2027

### BUILDOUT (2030) BACKGROUND TRAFFIC VOLUMES

**Exhibit 10** presents the projected Buildout (2030) Background traffic volume, which is the existing traffic (see **Exhibit 3**) grown at a projected 3.5% annual background growth to year 2030.

### ROADWAY NETWORK

The Buildout (2030) total roadway network is anticipated to be the same as the Existing (2024) conditions, with the addition of the following:

- East-West Minor Arterial (Range Road), within the site boundary
- North-South Minor Arterial (Timberbrook), within the site boundary
- Realignment of Range Road to create four-leg intersection at Wiley Road & Boss Range Road

According to the Justin Master Thoroughfare Plan, Minor Arterials are designated as two-lane divided roadways with on-street parking. Note that the connection of Range Road to the east of the development is unknown, along with the Timberbrook connection to the south. Both are assumed to not connect to adjacent roadways or developments during the Range Creek development timeline.

### TRIP GENERATION

Traffic projections were prepared for Build-Out of the proposed development based on the trip generation rates found in the 11<sup>th</sup> edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. This recognized standard for trip generation is based on actual surveys (traffic counts) of existing types of development. **Table 2** provides the average rates included in the ITE *Trip Generation Manual* in addition to the entering and exiting distribution splits.

**Table 2. Trip Generation Rates**

| Land Use Description                 | Variable          | Daily      |                   | AM Peak Hour |                   | PM Peak Hour |                   |
|--------------------------------------|-------------------|------------|-------------------|--------------|-------------------|--------------|-------------------|
|                                      |                   | Rate       | Split             | Rate         | Split             | Rate         | Split             |
| Single-Family Detached<br>(ITE #210) | Dwelling<br>Units | 9.43 * (X) | 50% In<br>50% Out | 0.70 * (X)   | 26% In<br>74% Out | 0.94 * (X)   | 63% In<br>37% Out |

Number of trips generated = Trip Rate (Development Unit); X = Dwelling Units

**Table 3** summarizes the total number of trips that are projected to be generated by the proposed development during the Weekday AM and PM peak periods for each phase of development. The number of trips generated represents the number of vehicles entering and exiting the proposed development to and from the adjacent street system.

**Table 3. Trip Generation Calculation**

| Land Use Description           | ITE Code | Scenario             | Intensity / Units  | Daily  | AM Peak Hour |     |       | PM Peak Hour |     |       |
|--------------------------------|----------|----------------------|--------------------|--------|--------------|-----|-------|--------------|-----|-------|
|                                |          |                      |                    |        | In           | Out | Total | In           | Out | Total |
| Single-Family Detached Housing | 210      | Phase 1-2            | 606 Dwelling Units | 5,715  | 110          | 314 | 424   | 359          | 211 | 570   |
|                                |          | Phase 3-4 (Buildout) | 941 Dwelling Units | 8,874  | 171          | 488 | 659   | 558          | 327 | 885   |
| Range Creek Total Site Traffic |          |                      |                    | 14,589 | 281          | 802 | 1,083 | 917          | 538 | 1,455 |

## TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The distribution and assignment of the site-generated traffic to the study area roadway network was performed for the proposed development based on examination of the existing and anticipated traffic volumes and the locations of the proposed driveway access to and from the site. The following percentages of trip distribution are assumed on the surrounding roadway network for both Phase 1-2 (2027) and Buildout (2030):

- 40% - Wiley Road, east of the study area
- 20% - Boss Range Road, south of the study area
- 10% - Boss Range Road, north of the study area
- 15% - FM 407, northwest of the study area
- 10% - FM 407, northeast of the study area
- 5% - Timberbrook, north of the study area

**Exhibit 4** and **Exhibit 6** presents the inbound and outbound directional distribution percentages for site-generated traffic during the Weekday AM and PM peak hours for Phase 1-2 and Buildout, respectively. Total site-generated traffic volumes for the Weekday AM and PM peak hours at Phase 1-2 and Buildout are presented in **Exhibit 5** and **Exhibit 7**, respectively.

Total traffic volumes for Phase 1-2 and Buildout (2030) conditions can be found in **Exhibit 9** and **Exhibit 11**, respectively.



**LEGEND:**  
 X% (Y%)  
 X% = Percentage of Inbound Site-Generated Traffic  
 Y% = Percentage of Outbound Site-Generated Traffic

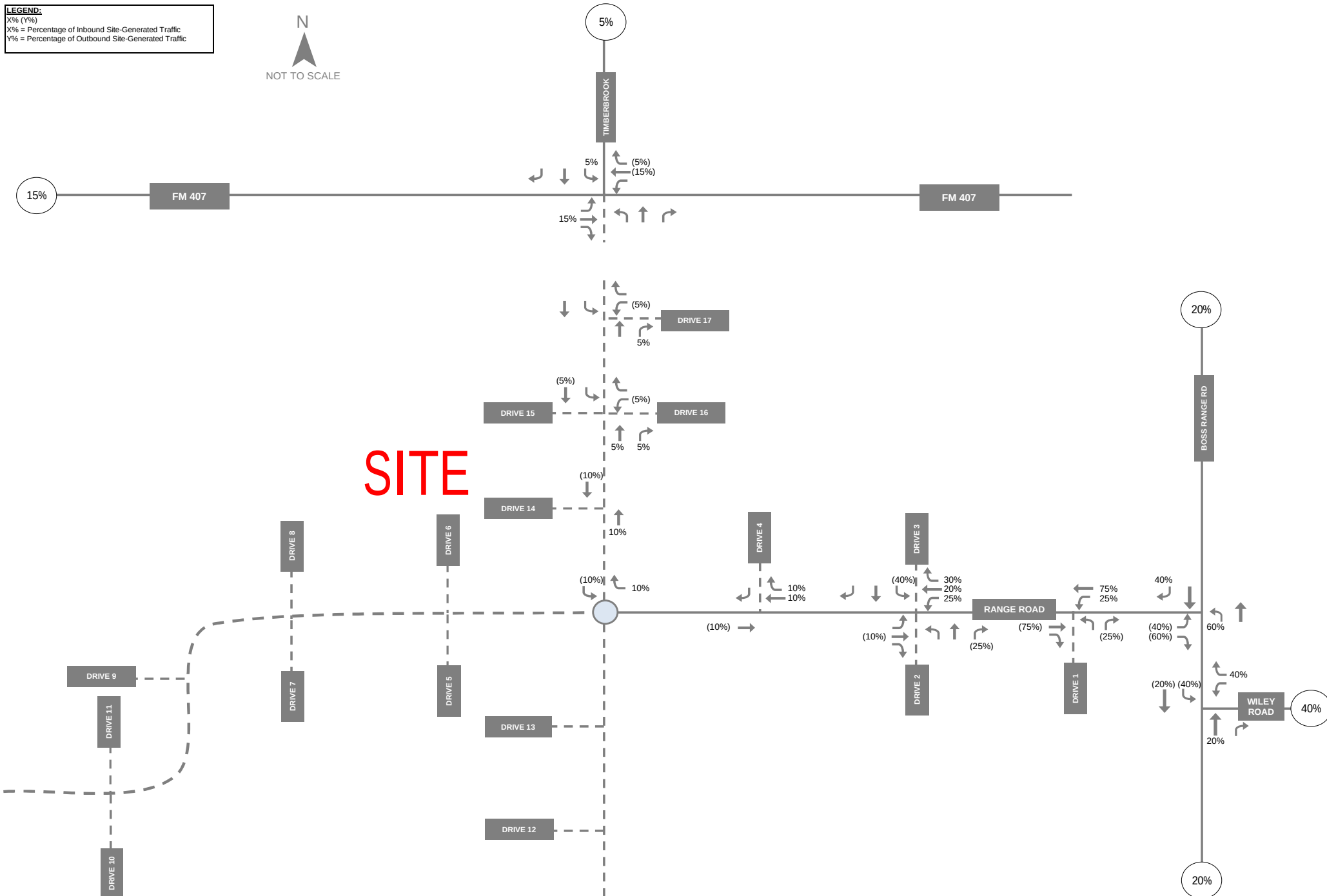


EXHIBIT 4  
 PHASE 1-2 (2027) TRIP DISTRIBUTION  
 RANGE CREEK TIA

**LEGEND:**  
 X (Y)  
 X = AM Peak Hour Turning Movements  
 Y = PM Peak Hour Turning Movements  
 Volumes may not sum from point to point due to rounding  
 and presence of smaller driveways not included in analysis.

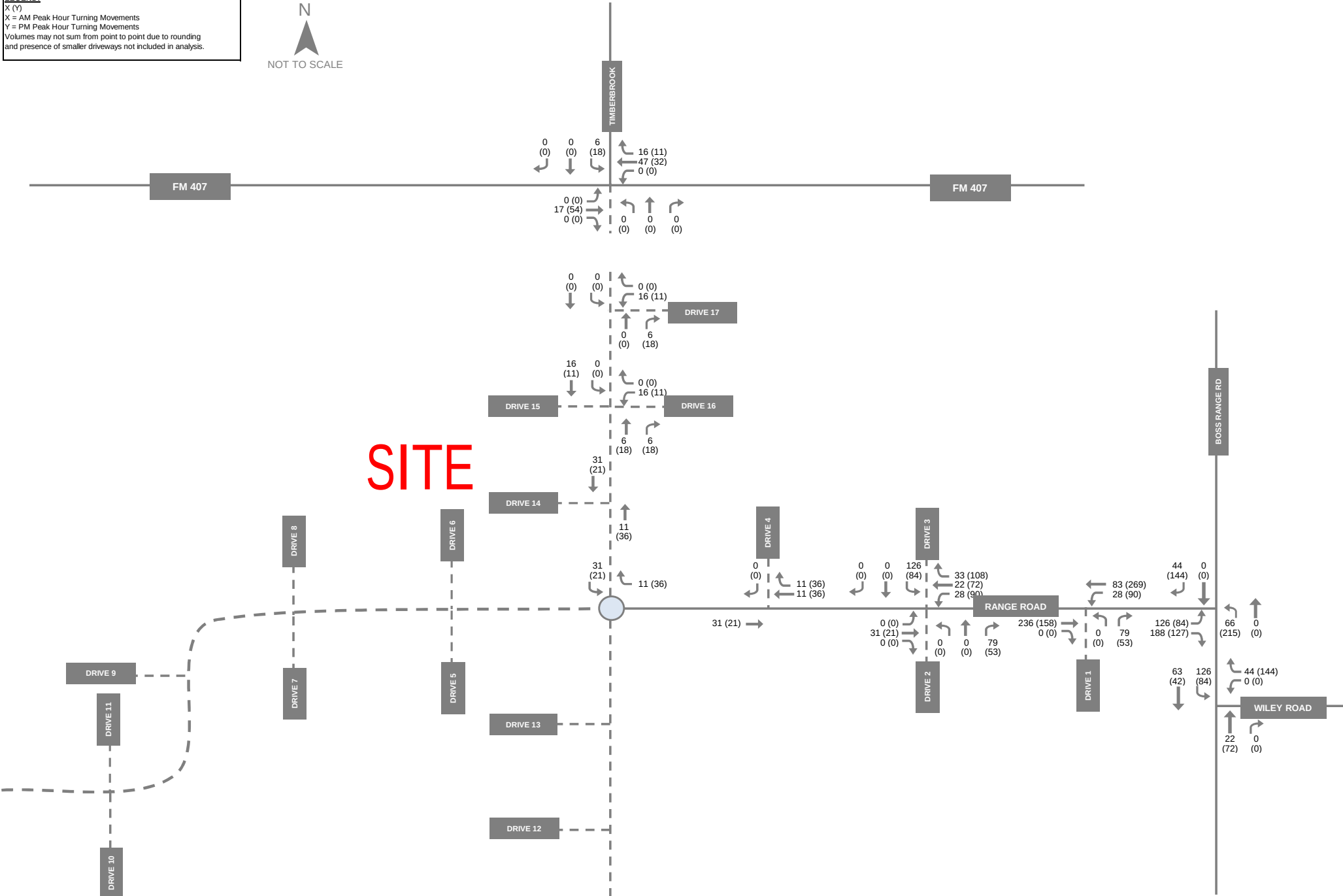


EXHIBIT 5  
 PHASE 1-2 (2027) TRIP ASSIGNMENT  
 RANGE CREEK TIA

**LEGEND:**  
 X% (Y%)  
 X% = Percentage of Inbound Site-Generated Traffic  
 Y% = Percentage of Outbound Site-Generated Traffic

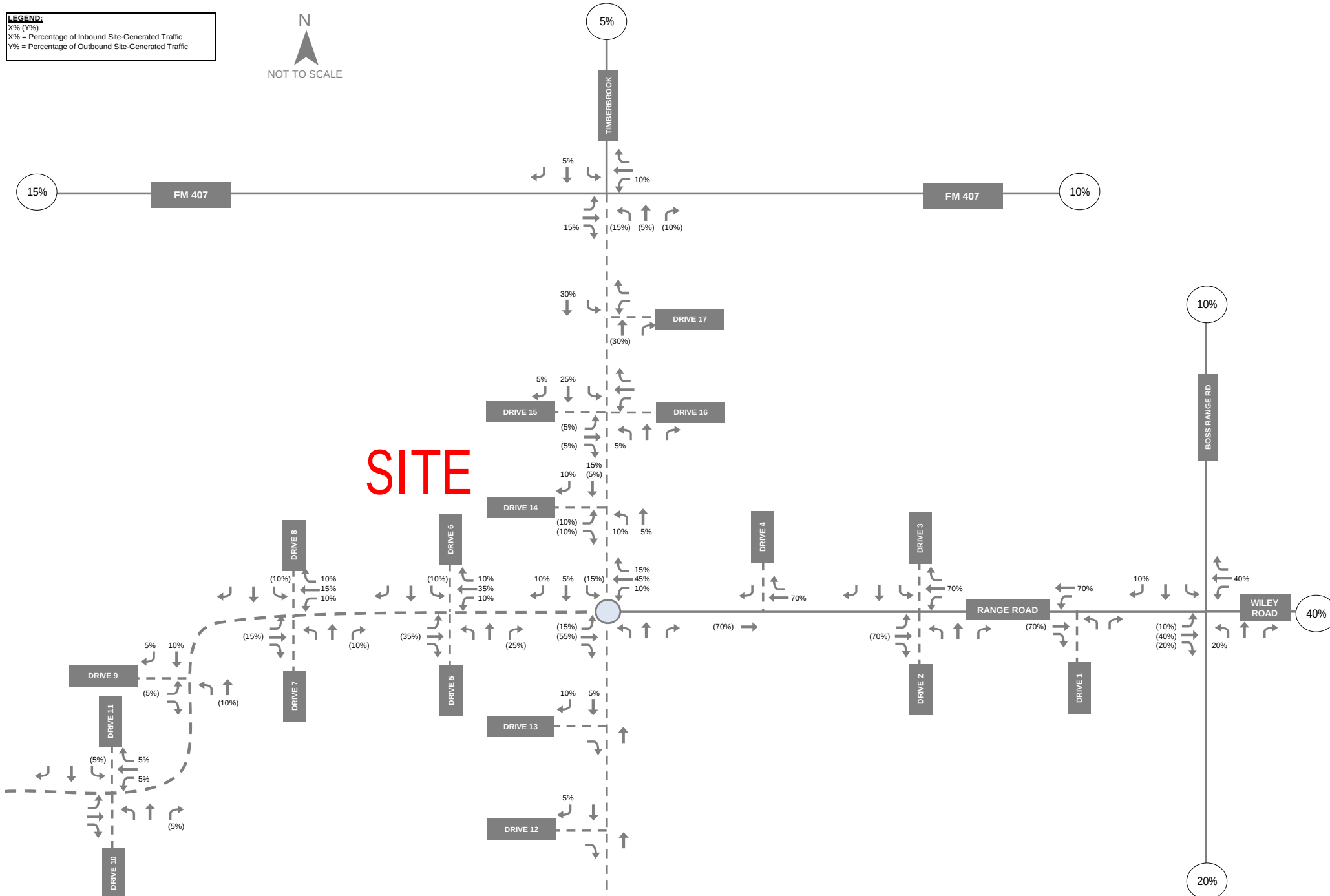


EXHIBIT 6  
**BUILDOUT (2030) TRIP DISTRIBUTION**  
 RANGE CREEK TIA

**LEGEND:**  
X (Y)  
X = AM Peak Hour Turning Movements  
Y = PM Peak Hour Turning Movements  
Volumes may not sum from point to point due to rounding  
and presence of smaller driveways not included in analysis.

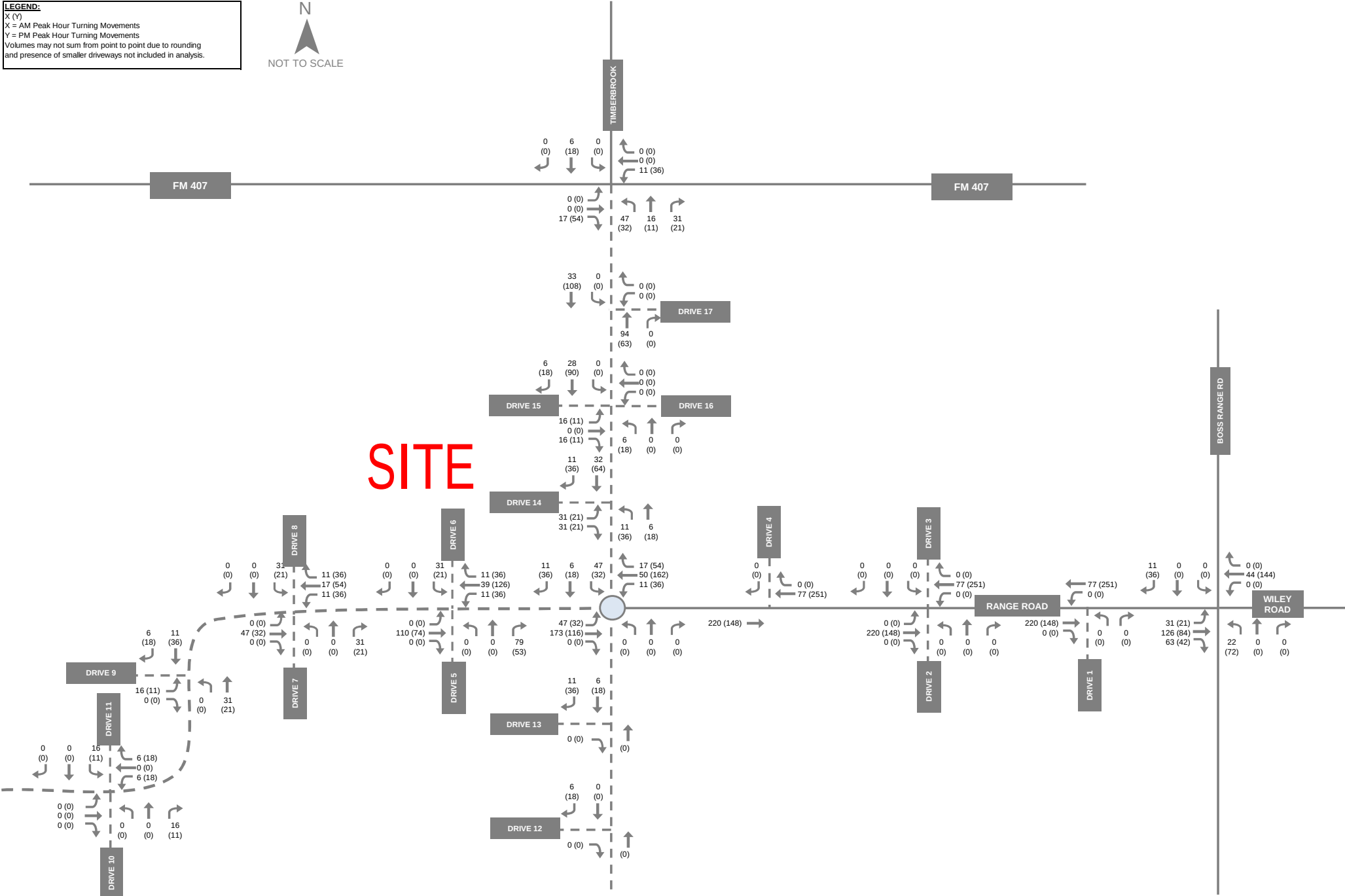


EXHIBIT 7  
**BUILDOUT (2030) TRIP ASSIGNMENT**  
RANGE CREEK TIA

**LEGEND:**  
X (Y)  
X = AM Peak Hour Turning Movements  
Y = PM Peak Hour Turning Movements  
Volumes may not sum from point to point due to rounding  
and presence of smaller driveways not included in analysis.

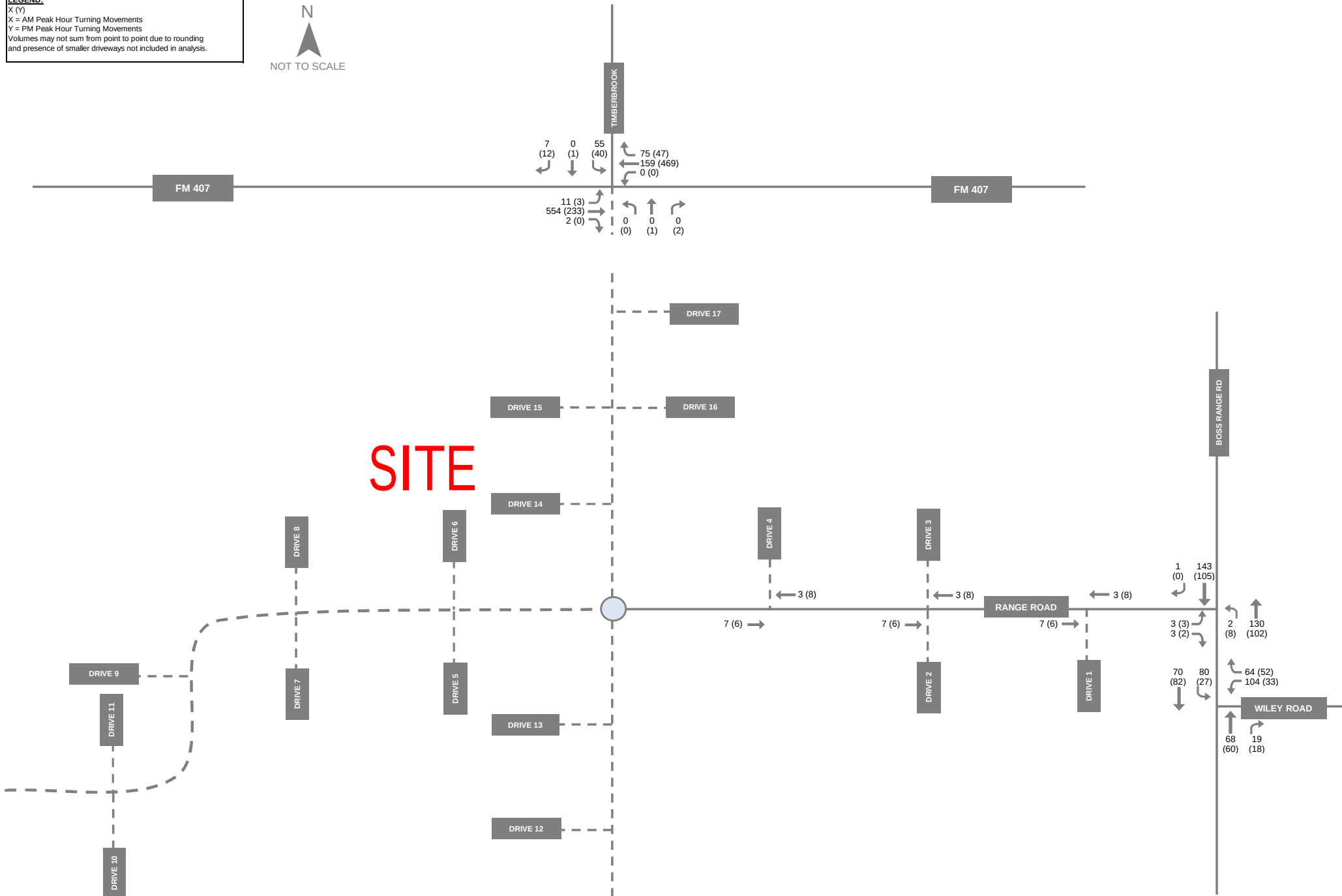


EXHIBIT 8  
**PHASE 1-2 (2027) BACKGROUND TRAFFIC VOLUMES**  
RANGE CREEK TIA

**LEGEND:**  
 X (Y)  
 X = AM Peak Hour Turning Movements  
 Y = PM Peak Hour Turning Movements  
 Volumes may not sum from point to point due to rounding  
 and presence of smaller driveways not included in analysis.

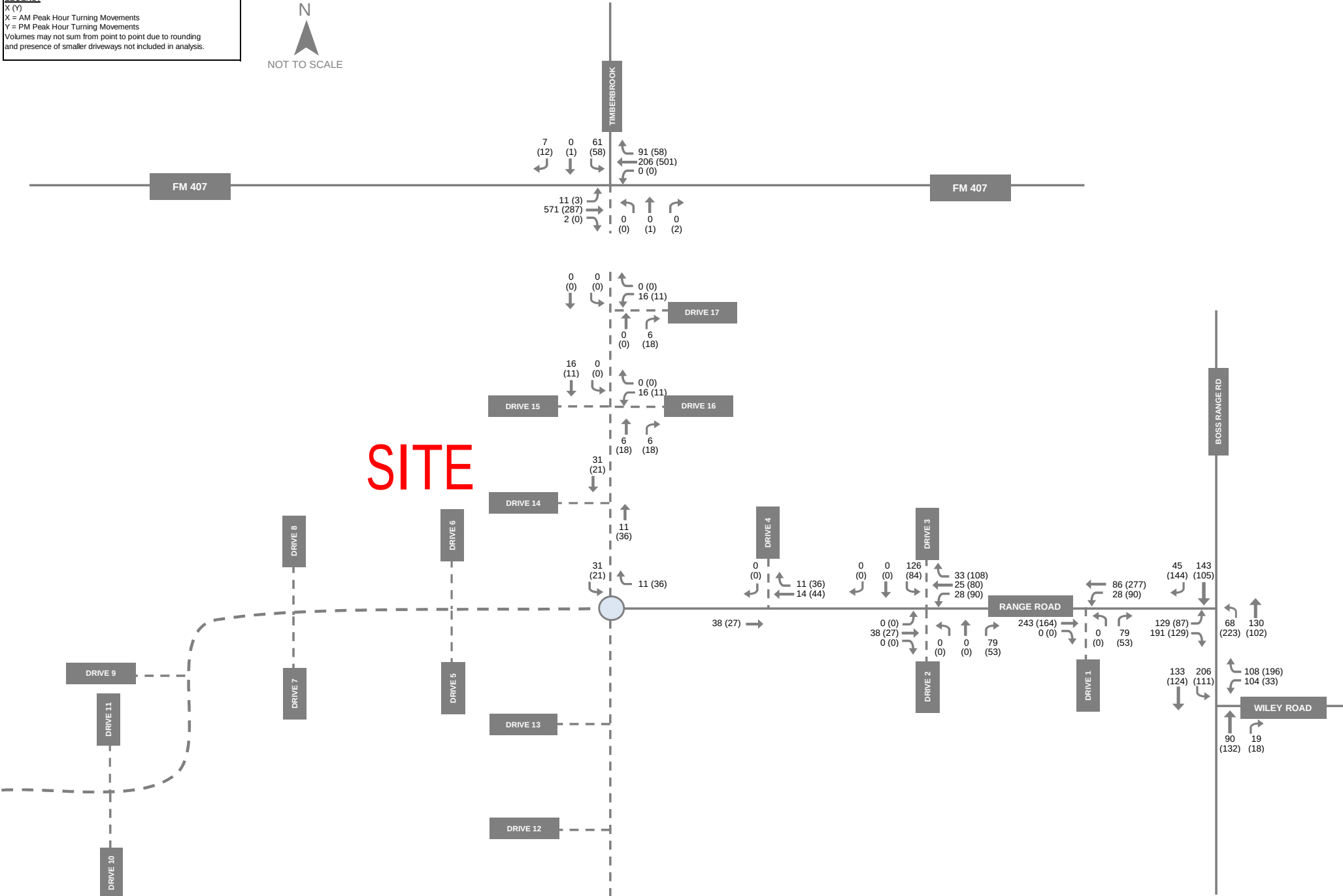


EXHIBIT 9  
 PHASE 1-2 (2027) TOTAL TRAFFIC VOLUMES  
 RANGE CREEK TIA

**LEGEND:**  
 X (Y)  
 X = AM Peak Hour Turning Movements  
 Y = PM Peak Hour Turning Movements  
 Volumes may not sum from point to point due to rounding  
 and presence of smaller driveways not included in analysis.

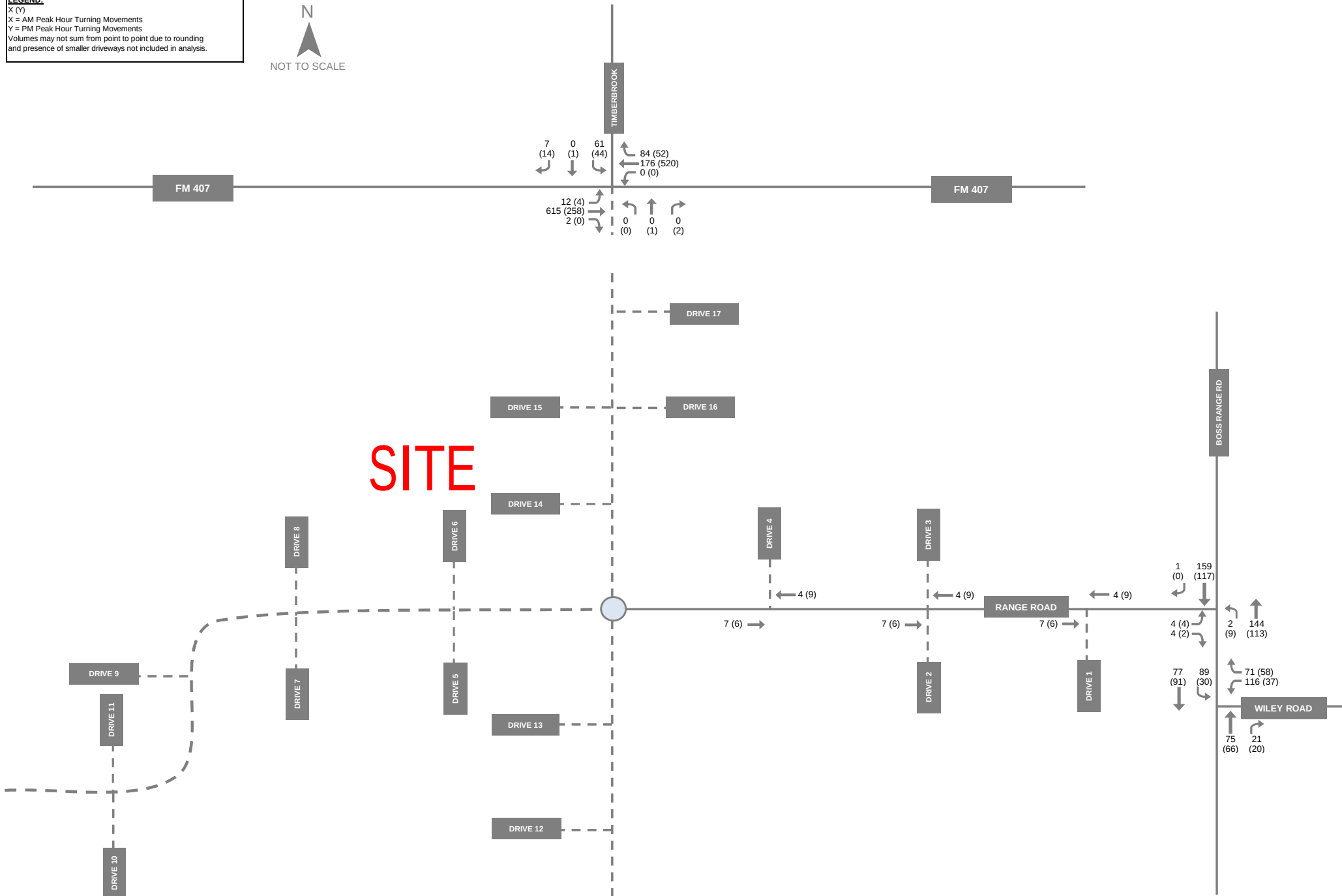


EXHIBIT 10  
**BUILDOUT (2030) BACKGROUND TRAFFIC VOLUMES**  
 RANGE CREEK TIA

**LEGEND:**  
X (Y)  
X = AM Peak Hour Turning Movements  
Y = PM Peak Hour Turning Movements  
Volumes may not sum from point to point due to rounding  
and presence of smaller driveways not included in analysis.

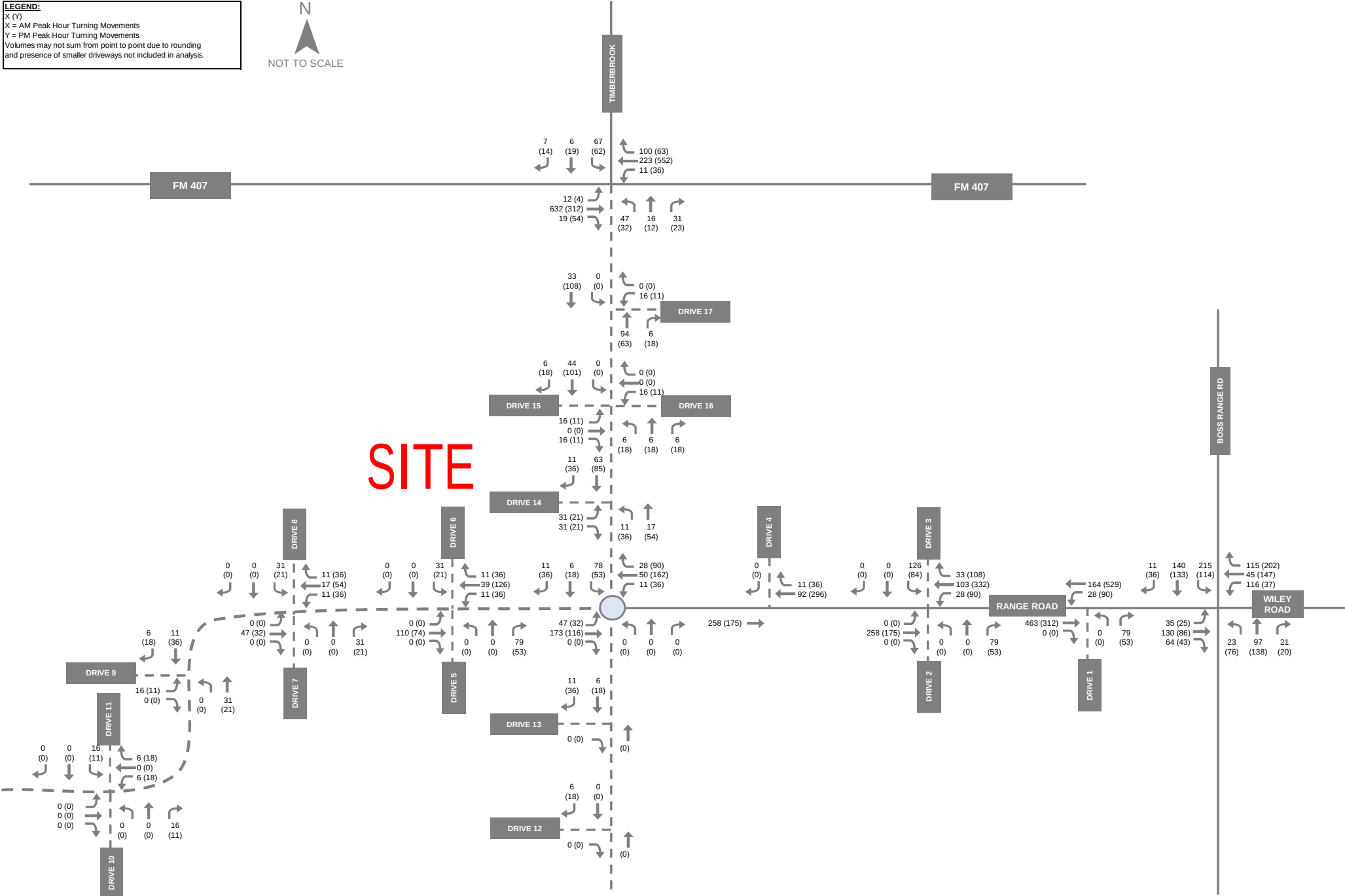


EXHIBIT 11  
**BUILDOUT (2030) TOTAL TRAFFIC VOLUMES**  
RANGE CREEK TIA



## INTERSECTION CAPACITY ANALYSIS

The evaluation of the existing roadway system was comprised of the Weekday AM and PM peak hour level of service analysis. For the study area intersections, analysis was accomplished via *Synchro 12<sup>TM</sup>* software. The previously referenced **Exhibit 2** details the lane assignments for the existing roadway network that were used for analysis. The purpose of this analysis was to determine if any deficiencies exist within the network and to establish a baseline condition.

Capacity defines the volume of traffic that can be accommodated by a roadway at a specified “level-of-service.” Capacity is affected by various geometric factors including roadway type (e.g. divided or undivided), number of lanes, lane widths, and grades. Level-of-service (LOS), which is a measure of the degree of congestion, ranges from LOS “A” (free flowing) to LOS “F” (a congested, forced flow condition). A description of each operational state for all intersections, based on the Highway Capacity Manual, is presented in **Table 4**.

**Table 4. Definition of Level of Service for Intersections**

| Level of Service | Signalized Intersection<br>Average Total Delay<br>(sec/veh) | Unsignalized Intersection<br>Average Total Delay<br>(sec/veh) |
|------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| A                | ≤10                                                         | ≤10                                                           |
| B                | >10 and ≤20                                                 | >10 and ≤15                                                   |
| C                | >20 and ≤35                                                 | >15 and ≤25                                                   |
| D                | >35 and ≤55                                                 | >25 and ≤35                                                   |
| E                | >55 and ≤80                                                 | >35 and ≤50                                                   |
| F                | >80                                                         | >50                                                           |

**Table 5** presents the results of the analysis for the study area intersections during the Weekday AM peak hour for all scenarios and **Table 6** presents the results for the PM peak hour. **Table 7** presents the mitigated results for both peak hours. The *Synchro 12<sup>TM</sup>* output sheets for this analysis are provided in the **Appendix**. Intersection peak hour factors observed during the data collection were used in the capacity analysis.

Based on the intersection capacity analysis, all study area intersections are projected to operate at LOS D or better through the Buildout (2030) scenario except the following:

### **Boss Range Road & Wiley Road / Range Road**

The eastbound and westbound approaches of the intersection are anticipated to operate at LOS F in both peak hours in Buildout (2030) conditions. Based on projected volumes, the intersection is projected to be close to warranting a traffic signal where it meets 2 hours of the 4-hour warrant and close to the PM peak hour warrant. Based on a mitigated analysis, the intersection is anticipated to operate at LOS D or better in both peak hours with a signal installed in buildout conditions. An all-way stop control at the intersection can reduce overall delay at the intersection, however, it is still anticipated to operate at LOS F.

**Recommendation:** Collect new traffic counts to evaluate the need for a traffic signal and/or other mitigations after Buildout (2030) and realignment of Range Road.

**Responsible Party:** Range Creek Development / Adjacent Developments / City

kimley-horn.com

801 Cherry Street, Unit 11, Suite 1300, Ft. Worth, TX 76102

817 335 6511

**Table 5. AM Peak Hour Intersection Capacity Analysis**

| Intersection                             | Type of Control | Approach   | Delay (Sec/veh) |                             |                  |                            |                 |
|------------------------------------------|-----------------|------------|-----------------|-----------------------------|------------------|----------------------------|-----------------|
|                                          |                 |            | LOS             |                             |                  |                            |                 |
|                                          |                 |            | Existing (2024) | Phase 1-2 (2027) Background | Phase 1-2 (2027) | Buildout Background (2030) | Buildout (2030) |
| Boss Range Rd & John Wiley Rd / Range Rd | TWSC            | Eastbound  |                 |                             |                  |                            | 100+<br>F       |
|                                          |                 | Westbound  | 13.2<br>B       | 14.5<br>B                   | 30.4<br>D        | 16.5<br>C                  | 100+<br>F       |
| Range Road & Boss Range Rd               | TWSC            | Eastbound  | 10.2<br>B       | 10.5<br>B                   | 58.6<br>F        | 10.8<br>B                  |                 |
|                                          |                 |            |                 |                             |                  |                            |                 |
| FM 407 & Timberbrook                     | TWSC            | Northbound | 0.0<br>A        | 0.0<br>A                    | 0.0<br>A         | 0.0<br>A                   | 22.6<br>C       |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound | 16.5<br>C       | 18.4<br>C                   | 20.9<br>C        | 21.5<br>C                  | 32.6<br>D       |
| Range Road & Drive 1                     | TWSC            | Northbound |                 |                             | 10.8<br>B        |                            | 14.2<br>B       |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 2 / Drive 3           | TWSC            | Northbound |                 |                             | 8.8<br>A         |                            | 10.4<br>B       |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound |                 |                             | 11.0<br>B        |                            | 17.0<br>C       |
| Range Road & Drive 4                     | TWSC            | Southbound |                 |                             | 0.0<br>A         |                            | 0.0<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Timberbrook                 | Roundabout      | Northbound |                 |                             |                  |                            | 4.7<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound |                 |                             |                  |                            | 3.4<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
|                                          |                 | Westbound  |                 |                             |                  |                            | 3.5<br>A        |
| Range Road & Drive 5 / Drive 6           | TWSC            | Northbound |                 |                             |                  |                            | 9.3<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound |                 |                             |                  |                            | 10.5<br>B       |
| Range Road & Drive 7 / Drive 8           | TWSC            | Northbound |                 |                             |                  |                            | 8.7<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound |                 |                             |                  |                            | 9.4<br>A        |
| Range Road & Drive 9                     | TWSC            | Eastbound  |                 |                             |                  |                            | 8.8<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 10 / Drive 11         | TWSC            | Northbound |                 |                             |                  |                            | 8.4<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Southbound |                 |                             |                  |                            | 8.8<br>A        |
| Timberbrook & Drive 12                   | TWSC            | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Timberbrook & Drive 13                   | TWSC            | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Timberbrook & Drive 14                   | TWSC            | Eastbound  |                 |                             |                  |                            | 9.2<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Timberbrook & Drive 15 / Drive 16        | TWSC            | Eastbound  |                 |                             |                  |                            | 8.9<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
|                                          |                 | Westbound  |                 |                             | 8.7<br>A         |                            | 9.1<br>A        |
| Timberbrook & Drive 17                   | TWSC            | Westbound  |                 |                             | 8.6<br>A         |                            | 9.3<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |

**Table 6. PM Peak Hour Intersection Capacity Analysis**

| Intersection                             | Type of Control | Approach   | Delay (Sec/veh) |                             |                  |                            |                 |
|------------------------------------------|-----------------|------------|-----------------|-----------------------------|------------------|----------------------------|-----------------|
|                                          |                 |            | LOS             |                             |                  |                            |                 |
|                                          |                 |            | Existing (2024) | Phase 1-2 (2027) Background | Phase 1-2 (2027) | Buildout Background (2030) | Buildout (2030) |
| Boss Range Rd & John Wiley Rd / Range Rd | TWSC            | Eastbound  |                 |                             |                  |                            | 100+            |
|                                          |                 |            |                 |                             |                  |                            | F               |
|                                          |                 | Westbound  | 9.5<br>A        | 9.7<br>A                    | 11.1<br>B        | 9.9<br>A                   | 60.4<br>F       |
| Range Road & Boss Range Rd               | TWSC            | Eastbound  | 9.4<br>A        | 9.5<br>A                    | 20.7<br>C        | 9.7<br>A                   |                 |
|                                          |                 |            |                 |                             |                  |                            |                 |
| FM 407 & Timberbrook                     | TWSC            | Northbound | 11.7<br>B       | 12.2<br>B                   | 13.2<br>B        | 12.9<br>B                  | 26.3<br>D       |
|                                          |                 | Southbound | 15.8<br>C       | 17.5<br>C                   | 21.9<br>C        | 19.8<br>C                  | 37.2<br>E       |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 1                     | TWSC            | Northbound |                 |                             | 9.6<br>A         |                            | 10.8<br>B       |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 2 / Drive 3           | TWSC            | Northbound |                 |                             | 8.6<br>A         |                            | 9.5<br>A        |
|                                          |                 | Southbound |                 |                             | 13.4<br>B        |                            | 26.1<br>D       |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 4                     | TWSC            | Southbound |                 |                             | 0.0<br>A         |                            | 0.0<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Timberbrook                 | Roundabout      | Northbound |                 |                             |                  |                            | 4.2<br>A        |
|                                          |                 | Southbound |                 |                             |                  |                            | 4.8<br>A        |
|                                          |                 | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
|                                          |                 | Westbound  |                 |                             |                  |                            | 4.3<br>A        |
|                                          |                 | Overall    |                 |                             |                  |                            | 4.5<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 5 / Drive 6           | TWSC            | Northbound |                 |                             |                  |                            | 8.9<br>A        |
|                                          |                 | Southbound |                 |                             |                  |                            | 11.4<br>B       |
| Range Road & Drive 7 / Drive 8           | TWSC            | Northbound |                 |                             |                  |                            | 8.6<br>A        |
|                                          |                 | Southbound |                 |                             |                  |                            | 10.1<br>B       |
| Range Road & Drive 9                     | TWSC            | Eastbound  |                 |                             |                  |                            | 8.9<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |
| Range Road & Drive 10 / Drive 11         | TWSC            | Northbound |                 |                             |                  |                            | 8.4<br>A        |
|                                          |                 | Southbound |                 |                             |                  |                            | 8.9<br>A        |
| Timberbrook & Drive 12                   | TWSC            | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
| Timberbrook & Drive 13                   | TWSC            | Eastbound  |                 |                             |                  |                            | 0.0<br>A        |
| Timberbrook & Drive 14                   | TWSC            | Eastbound  |                 |                             |                  |                            | 9.7<br>A        |
| Timberbrook & Drive 15 / Drive 16        | TWSC            | Eastbound  |                 |                             |                  |                            | 9.4<br>A        |
|                                          |                 | Westbound  |                 |                             | 8.8<br>A         |                            | 9.8<br>A        |
| Timberbrook & Drive 17                   | TWSC            | Westbound  |                 |                             | 8.6<br>A         |                            | 9.6<br>A        |
|                                          |                 |            |                 |                             |                  |                            |                 |

**Table 7. Mitigated Intersection Capacity Analysis**

| Intersection                             | Type of Control | Approach   | LOS Delay (Sec/veh)       |         |
|------------------------------------------|-----------------|------------|---------------------------|---------|
|                                          |                 |            | MITIGATED Buildout (2030) |         |
|                                          |                 |            | AM Peak                   | PM Peak |
| Boss Range Rd & John Wiley Rd / Range Rd | Signal          | Eastbound  | 10.3                      | 6.9     |
|                                          |                 |            | B                         | A       |
|                                          |                 | Westbound  | 11.6                      | 8.4     |
|                                          |                 |            | B                         | A       |
|                                          |                 | Northbound | 7.9                       | 8.1     |
|                                          |                 |            | A                         | A       |
|                                          |                 | Southbound | 10.2                      | 8.5     |
|                                          |                 |            | B                         | A       |
|                                          |                 | Overall    | 10.3                      | 8.2     |
|                                          |                 |            | B                         | A       |

## AUXILIARY LANE ANALYSIS

An auxiliary lane analysis was performed for prospective intersections to determine if the inclusion of left-turn and/or right-turn lanes will be warranted at the site drives.

### LEFT-TURN LANE ANALYSIS

The need for left-turn lanes was evaluated using criteria established by the City of Justin's *Subdivision Regulations* on Page 9. Left-turn lanes are to be provided for all divided streets where median openings provide access to streets, alleys, or driveways.

Based on Range Creek site plan, all site driveways are anticipated to be constructed at median openings except for Drives 4, 12, and 13. Based on the City of Justin's requirements, the minimum length for a left-turn deceleration lane is 200 total feet, which includes 100 feet of storage and 100 feet of transition. Therefore, it is recommended to construct left-turn lanes in each direction at all site driveways except Drives 4, 12, and 13.

### RIGHT-TURN LANE ANALYSIS

The need for right-turn lanes was evaluated using criteria established by the City of Justin's *Subdivision Regulations* on Page 9. Right-turn lanes are to be provided on all approaches of TxDOT, arterial, and collector streets. Also, they are required to commercial developments of 5 acres or more and based on a traffic impact analysis demonstrating adequate safety.

The Range Creek development is anticipated to construct the Minor Arterials sections as two-lane divided roadways. With the addition of left-turn lanes, Range Road and Timberbrook are anticipated to operate with sufficient capacity and minimal delay. Based on the City's requirements and acceptable operations, it is not recommended to install right-turn lanes at any of the site driveways. However, it is recommended to install left and right-turn lanes where each Minor Arterial connects to the existing City roadway network.

## SIGHT DISTANCE ANALYSIS

Based on field observations and the proposed site plan, all proposed driveways (Drives 1-17) are anticipated to have adequate sight distance. All driveways should be designed to provide adequate sight distance (i.e. clear sight with no obstructing object, signs, landscaping, etc.).

## ACCESS SPACING ANALYSIS

The driveways planned to serve the proposed development include the proposed Drives 1-17 along Range Road and Timberbrook. According to the City of Justin's *Subdivision Regulations* on Page 13-14, the following observations are made:

- The edge of the median opening is not less than 400 feet from the edge of an intersection with a collector or arterial thoroughfare.
- All the proposed site driveways are anticipated to provide adequate access spacing along Range Road and Timberbrook.

Access spacing is presented in **Exhibit 12**.

## SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was completed based on criteria established in the Texas Manual on Uniform Traffic Control Devices (TXMUTCD) for the Boss Range Road & Wiley Road / Range Road intersection.

The Boss Range Road & Wiley Road / Range Road intersection is anticipated fall just below the volume thresholds to warrant a traffic signal through Buildout (2030) conditions. It is recommended to perform a full signal warrant analysis with new counts after Buildout. This will allow for the evaluation of the intersection including the realignment of Range Road as a four-leg intersection with future volumes.

Signal warrant analysis sheets are provided in the **Appendix**.

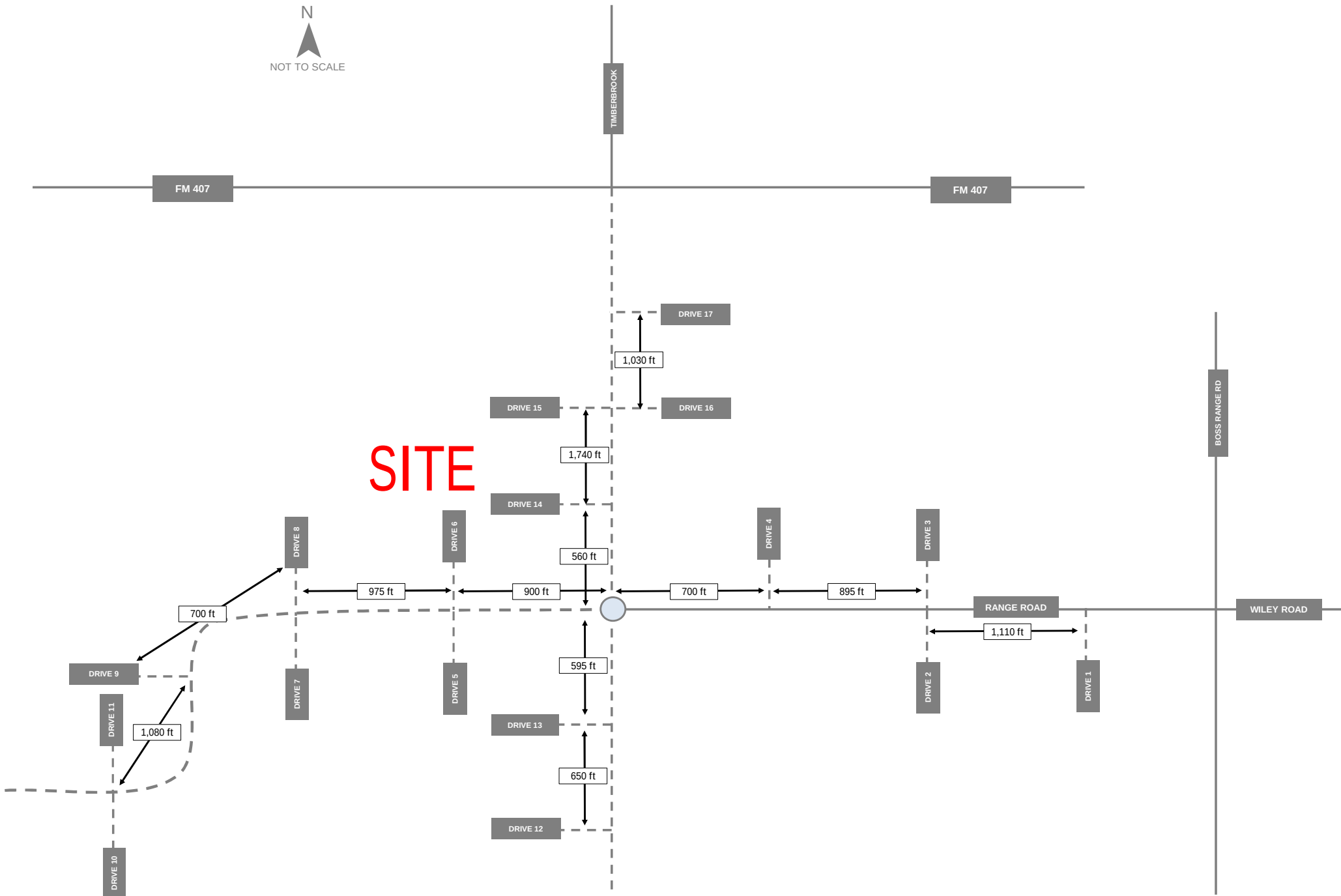


EXHIBIT 8  
 PHASE 1-2 (2027) BACKGROUND TRAFFIC VOLUMES  
 RANGE CREEK TIA

## CONCLUSIONS AND RECOMMENDATIONS

Based on the analyses performed, we offer the following conclusions and recommendations:

### Intersection Capacity Analysis

Based on the intersection capacity analysis, all study area intersections are projected to operate at LOS D or better through the Horizon (2034) scenario except the following:

#### **Boss Range Road & Wiley Road / Range Road**

The eastbound and westbound approaches of the intersection are anticipated to operate at LOS F in both peak hours in Buildout (2030) conditions. Based on projected volumes, the intersection is projected to fall just below volume thresholds to warrant a traffic signal. Mitigated analyses were performed with all-way stop control and signalization. Based on the mitigated analyses, the intersection is anticipated to operate with ~75% less overall delay with all-way stop control, and at LOS B or better with a signal installed in buildout conditions.

#### Recommendations:

**Step 1** – Consider implementing all-way stop control to lower overall delay beginning in Phase 3.

**Step 2** - Collect new traffic counts to evaluate the need for a traffic signal and/or other mitigations after Buildout (2030) and realignment of Range Road.

**Responsible Party:** Range Creek Development / Adjacent Developments / City

### Auxiliary Lane Analysis

Based on the auxiliary lane analysis of the development through Buildout (2030) conditions according to the City of Justin's *Subdivision Regulations*, the following observations are made:

- Left-turn lanes are to be provided for all divided streets where median openings provide access to streets, alleys, or driveways. Based on the Range Creek site plan, all site driveways are anticipated to be constructed at median openings except for Drives 4, 12, and 13. Based on the City of Justin's requirements, the minimum length for a left-turn deceleration lane is 200 total feet, which includes 100 feet of storage and 100 feet of transition. Therefore, it is recommended to construct left-turn lanes in each direction at all site driveways except Drives 4, 12, and 13.
- Right-turn lanes are to be provided on all approaches of TxDOT, arterial, and collector streets. Also, they are required for commercial developments of 5 acres or more and based on a traffic impact analysis demonstrating adequate safety. With the addition of left-turn lanes, Range Road and Timberbrook are anticipated to operate with sufficient capacity and minimal delay. Based on the City's requirements and acceptable operations, it is not recommended to install right-turn lanes at any of the site driveways. However, it is recommended to install left and right-turn lanes where each Minor Arterial connects to the existing City roadway network.

### Sight Distance Analysis

Based on field observations and the proposed site plan, all proposed driveways (Drives 1-17) are anticipated to have adequate sight distance. All driveways should be designed to provide adequate sight distance (i.e. clear sight with no obstructing object, signs, landscaping, etc.).



### Access Spacing Analysis

The driveways planned to serve the proposed development include the proposed Drives 1-17 along Range Road and Timberbrook. According to the City of Justin's *Subdivision Regulations* on Page 13-14, the following observations are made:

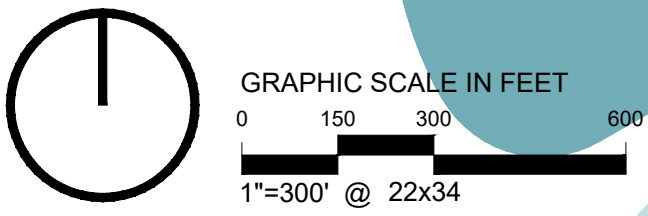
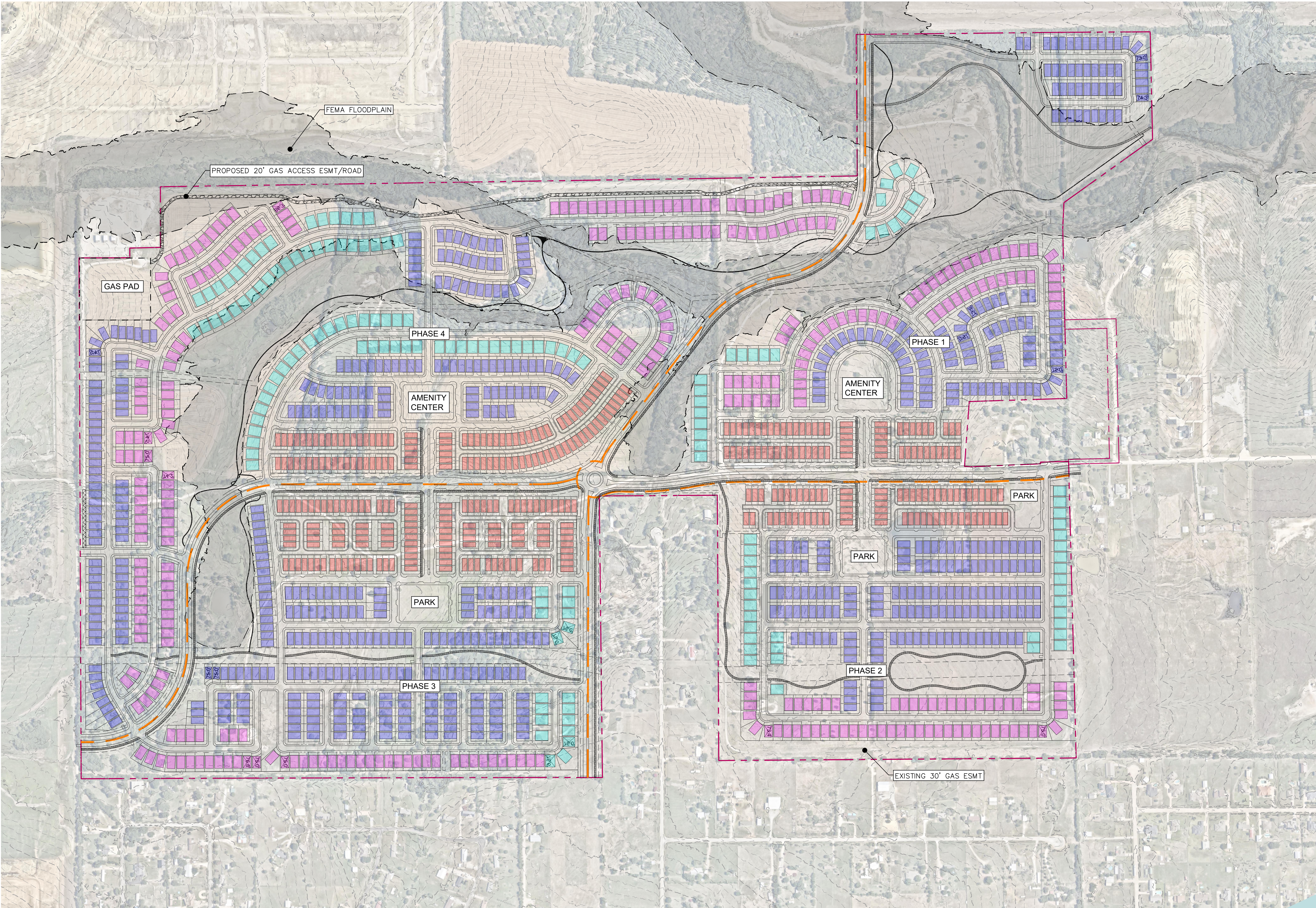
- The edge of the median opening is not less than 400 feet from the edge of an intersection with a collector or arterial thoroughfare.
- All the proposed site driveways are anticipated to provide adequate access spacing along Range Road and Timberbrook.

## APPENDIX

1. Conceptual Site Plan
2. Existing Raw Traffic Counts
3. Existing (2024) Traffic Analysis
4. Phase 1-2 (2027) Background Traffic Analysis
5. Phase 1-2 (2027) Traffic Analysis
6. Buildout (2030) Background Traffic Analysis
7. Buildout (2030) Traffic Analysis
8. Mitigated Traffic Analysis
9. Signal Warrant Analysis

CONCEPTUAL SITE PLAN





| Phase 1 Lot Type Summary | Lots | Percentages |
|--------------------------|------|-------------|
| 40'x120'                 | 65   | 22.6%       |
| 50'x120'                 | 135  | 47.0%       |
| 60'x120'                 | 64   | 22.3%       |
| 70'x120'                 | 23   | 8.0%        |
| Overall Total            | 287  | 100.0%      |

| Phase 2 Lot Type Summary | Lots | Percentages |
|--------------------------|------|-------------|
| 40'x120'                 | 70   | 21.9%       |
| 50'x120'                 | 153  | 48.0%       |
| 60'x120'                 | 63   | 19.7%       |
| 70'x120'                 | 33   | 10.3%       |
| Overall Total            | 319  | 100.0%      |

| Phase 3 Lot Type Summary | Lots | Percentages |
|--------------------------|------|-------------|
| 40'x120'                 | 130  | 32.3%       |
| 50'x120'                 | 206  | 51.1%       |
| 60'x120'                 | 48   | 11.9%       |
| 70'x120'                 | 19   | 4.7%        |
| Overall Total            | 403  | 100.0%      |

| Phase 4 Lot Type Summary | Lots | Percentages |
|--------------------------|------|-------------|
| 40'x120'                 | 105  | 19.5%       |
| 50'x120'                 | 186  | 34.6%       |
| 60'x120'                 | 169  | 31.4%       |
| 70'x120'                 | 78   | 14.5%       |
| Overall Total            | 538  | 100.0%      |

| Overall Lot Type Summary | Lots | Percentages |
|--------------------------|------|-------------|
| 40'x120'                 | 370  | 23.9%       |
| 50'x120'                 | 680  | 44.0%       |
| 60'x120'                 | 344  | 22.2%       |
| 70'x120'                 | 153  | 9.9%        |
| Overall Total            | 1547 | 100.0%      |

- NOTES:
1. THIS PLAN IS CONCEPTUAL IN NATURE AND MAY HAVE BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY OR CONTACT WITH THE CITY, COUNTY, ETC.
  2. FLOOD PLAIN SHOWN IS SUBJECT TO CHANGE BASED ON A MORE DETAILED FULLY DEVELOPED FLOOD STUDY ANALYSIS.
  3. AERIAL IMAGE BY NEARMAP, COPYRIGHT 2025.

CONCEPT PLAN

Cuesta  
Justin, Texas

Kimley»Horn

400 North Oklahoma Drive, Suite 105  
Celina, TX 75009  
P 469-501-2200  
State of Texas Registration No. F-928

March 2025



EXISTING RAW TRAFFIC COUNTS

GRAM Traffic NTX Inc.  
1120 W. Lovers Lane  
Arlington, Texas, United States 76013  
817.265.8968 nick@gramntx.com

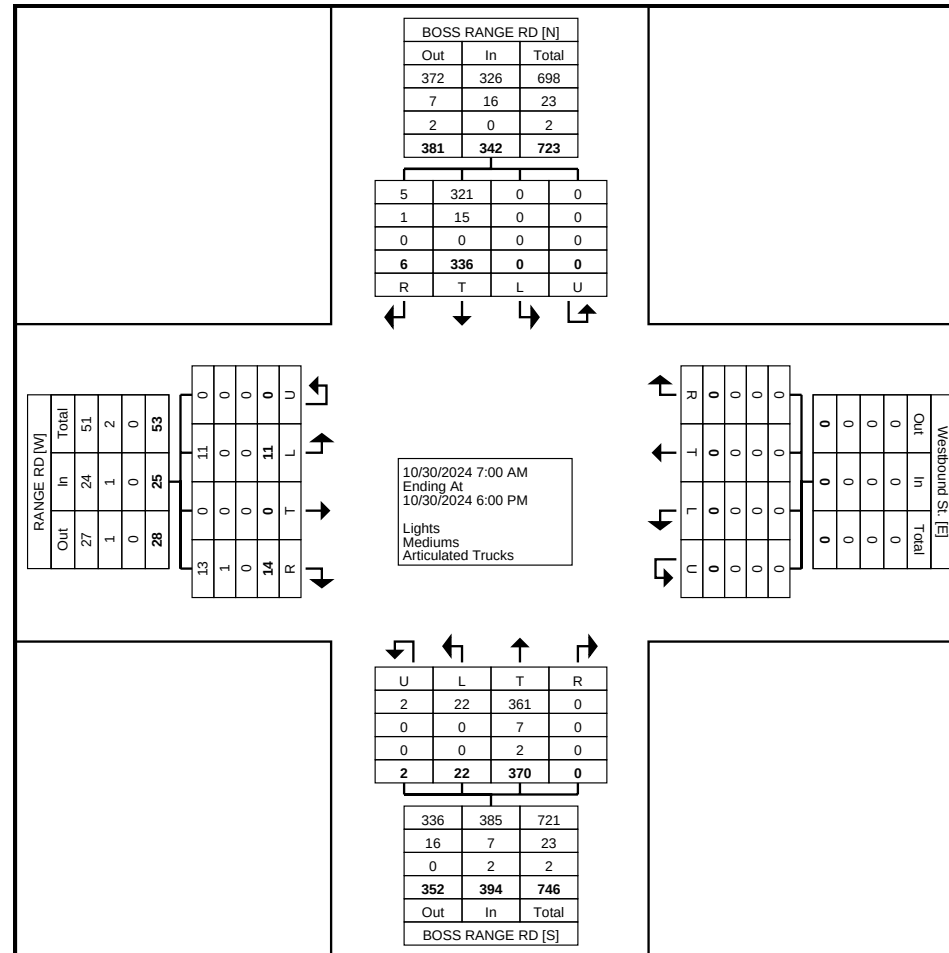
Count Name: 1. RANGE RD @ BOSS RANGE RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 1

## Turning Movement Data

| Start Time           | BOSS RANGE RD<br>Southbound |      |       |        |            | Westbound St.<br>Westbound |      |       |        |            | BOSS RANGE RD<br>Northbound |      |       |        |            | RANGE RD<br>Eastbound |      |       |        |            | Int. Total |
|----------------------|-----------------------------|------|-------|--------|------------|----------------------------|------|-------|--------|------------|-----------------------------|------|-------|--------|------------|-----------------------|------|-------|--------|------------|------------|
|                      | Left                        | Thru | Right | U-Turn | App. Total | Left                       | Thru | Right | U-Turn | App. Total | Left                        | Thru | Right | U-Turn | App. Total | Left                  | Thru | Right | U-Turn | App. Total |            |
| 7:00 AM              | 0                           | 12   | 0     | 0      | 12         | 0                          | 0    | 0     | 0      | 0          | 1                           | 25   | 0     | 2      | 28         | 0                     | 0    | 1     | 0      | 1          | 41         |
| 7:15 AM              | 0                           | 40   | 0     | 0      | 40         | 0                          | 0    | 0     | 0      | 0          | 1                           | 40   | 0     | 0      | 41         | 1                     | 0    | 0     | 0      | 1          | 82         |
| 7:30 AM              | 0                           | 62   | 1     | 0      | 63         | 0                          | 0    | 0     | 0      | 0          | 0                           | 38   | 0     | 0      | 38         | 1                     | 0    | 2     | 0      | 3          | 104        |
| 7:45 AM              | 0                           | 15   | 0     | 0      | 15         | 0                          | 0    | 0     | 0      | 0          | 0                           | 14   | 0     | 0      | 14         | 1                     | 0    | 0     | 0      | 1          | 30         |
| Hourly Total         | 0                           | 129  | 1     | 0      | 130        | 0                          | 0    | 0     | 0      | 0          | 2                           | 117  | 0     | 2      | 121        | 3                     | 0    | 3     | 0      | 6          | 257        |
| 8:00 AM              | 0                           | 11   | 0     | 0      | 11         | 0                          | 0    | 0     | 0      | 0          | 0                           | 16   | 0     | 0      | 16         | 0                     | 0    | 0     | 0      | 0          | 27         |
| 8:15 AM              | 0                           | 9    | 0     | 0      | 9          | 0                          | 0    | 0     | 0      | 0          | 2                           | 18   | 0     | 0      | 20         | 0                     | 0    | 3     | 0      | 3          | 32         |
| 8:30 AM              | 0                           | 8    | 1     | 0      | 9          | 0                          | 0    | 0     | 0      | 0          | 2                           | 19   | 0     | 0      | 21         | 0                     | 0    | 1     | 0      | 1          | 31         |
| 8:45 AM              | 0                           | 11   | 1     | 0      | 12         | 0                          | 0    | 0     | 0      | 0          | 2                           | 9    | 0     | 0      | 11         | 0                     | 0    | 0     | 0      | 0          | 23         |
| Hourly Total         | 0                           | 39   | 2     | 0      | 41         | 0                          | 0    | 0     | 0      | 0          | 6                           | 62   | 0     | 0      | 68         | 0                     | 0    | 4     | 0      | 4          | 113        |
| 9:00 AM              | 0                           | 0    | 0     | 0      | 0          | 0                          | 0    | 0     | 0      | 0          | 0                           | 0    | 0     | 0      | 0          | 0                     | 0    | 0     | 0      | 0          | 0          |
| *** BREAK ***        | -                           | -    | -     | -      | -          | -                          | -    | -     | -      | -          | -                           | -    | -     | -      | -          | -                     | -    | -     | -      | -          | -          |
| Hourly Total         | 0                           | 0    | 0     | 0      | 0          | 0                          | 0    | 0     | 0      | 0          | 0                           | 0    | 0     | 0      | 0          | 0                     | 0    | 0     | 0      | 0          | 0          |
| 4:00 PM              | 0                           | 21   | 1     | 0      | 22         | 0                          | 0    | 0     | 0      | 0          | 1                           | 24   | 0     | 0      | 25         | 2                     | 0    | 2     | 0      | 4          | 51         |
| 4:15 PM              | 0                           | 24   | 1     | 0      | 25         | 0                          | 0    | 0     | 0      | 0          | 2                           | 28   | 0     | 0      | 30         | 2                     | 0    | 2     | 0      | 4          | 59         |
| 4:30 PM              | 0                           | 17   | 0     | 0      | 17         | 0                          | 0    | 0     | 0      | 0          | 2                           | 32   | 0     | 0      | 34         | 1                     | 0    | 0     | 0      | 1          | 52         |
| 4:45 PM              | 0                           | 11   | 1     | 0      | 12         | 0                          | 0    | 0     | 0      | 0          | 2                           | 15   | 0     | 0      | 17         | 0                     | 0    | 1     | 0      | 1          | 30         |
| Hourly Total         | 0                           | 73   | 3     | 0      | 76         | 0                          | 0    | 0     | 0      | 0          | 7                           | 99   | 0     | 0      | 106        | 5                     | 0    | 5     | 0      | 10         | 192        |
| 5:00 PM              | 0                           | 24   | 0     | 0      | 24         | 0                          | 0    | 0     | 0      | 0          | 2                           | 23   | 0     | 0      | 25         | 0                     | 0    | 1     | 0      | 1          | 50         |
| 5:15 PM              | 0                           | 29   | 0     | 0      | 29         | 0                          | 0    | 0     | 0      | 0          | 3                           | 16   | 0     | 0      | 19         | 1                     | 0    | 1     | 0      | 2          | 50         |
| 5:30 PM              | 0                           | 21   | 0     | 0      | 21         | 0                          | 0    | 0     | 0      | 0          | 1                           | 21   | 0     | 0      | 22         | 1                     | 0    | 0     | 0      | 1          | 44         |
| 5:45 PM              | 0                           | 21   | 0     | 0      | 21         | 0                          | 0    | 0     | 0      | 0          | 1                           | 32   | 0     | 0      | 33         | 1                     | 0    | 0     | 0      | 1          | 55         |
| Hourly Total         | 0                           | 95   | 0     | 0      | 95         | 0                          | 0    | 0     | 0      | 0          | 7                           | 92   | 0     | 0      | 99         | 3                     | 0    | 2     | 0      | 5          | 199        |
| Grand Total          | 0                           | 336  | 6     | 0      | 342        | 0                          | 0    | 0     | 0      | 0          | 22                          | 370  | 0     | 2      | 394        | 11                    | 0    | 14    | 0      | 25         | 761        |
| Approach %           | 0.0                         | 98.2 | 1.8   | 0.0    | -          | 0.0                        | 0.0  | 0.0   | 0.0    | -          | 5.6                         | 93.9 | 0.0   | 0.5    | -          | 44.0                  | 0.0  | 56.0  | 0.0    | -          | -          |
| Total %              | 0.0                         | 44.2 | 0.8   | 0.0    | 44.9       | 0.0                        | 0.0  | 0.0   | 0.0    | 0.0        | 2.9                         | 48.6 | 0.0   | 0.3    | 51.8       | 1.4                   | 0.0  | 1.8   | 0.0    | 3.3        | -          |
| Lights               | 0                           | 321  | 5     | 0      | 326        | 0                          | 0    | 0     | 0      | 0          | 22                          | 361  | 0     | 2      | 385        | 11                    | 0    | 13    | 0      | 24         | 735        |
| % Lights             | -                           | 95.5 | 83.3  | -      | 95.3       | -                          | -    | -     | -      | -          | 100.0                       | 97.6 | -     | 100.0  | 97.7       | 100.0                 | -    | 92.9  | -      | 96.0       | 96.6       |
| Mediums              | 0                           | 15   | 1     | 0      | 16         | 0                          | 0    | 0     | 0      | 0          | 0                           | 7    | 0     | 0      | 7          | 0                     | 0    | 1     | 0      | 1          | 24         |
| % Mediums            | -                           | 4.5  | 16.7  | -      | 4.7        | -                          | -    | -     | -      | -          | 0.0                         | 1.9  | -     | 0.0    | 1.8        | 0.0                   | -    | 7.1   | -      | 4.0        | 3.2        |
| Articulated Trucks   | 0                           | 0    | 0     | 0      | 0          | 0                          | 0    | 0     | 0      | 0          | 0                           | 2    | 0     | 0      | 2          | 0                     | 0    | 0     | 0      | 0          | 2          |
| % Articulated Trucks | -                           | 0.0  | 0.0   | -      | 0.0        | -                          | -    | -     | -      | -          | 0.0                         | 0.5  | -     | 0.0    | 0.5        | 0.0                   | -    | 0.0   | -      | 0.0        | 0.3        |

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Count Name: 1. RANGE RD @ BOSS RANGE  
RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 2



Turning Movement Data Plot

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Count Name: 1. RANGE RD @ BOSS RANGE  
RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 3

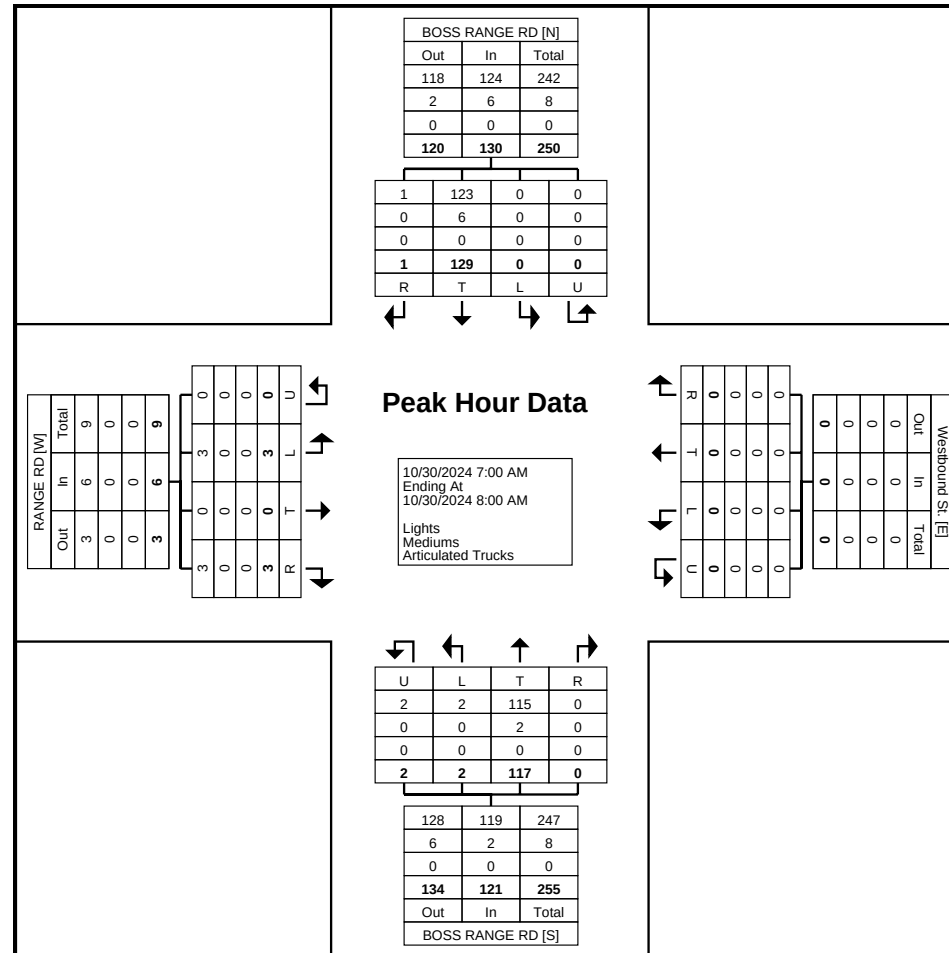
### Turning Movement Peak Hour Data (7:00 AM)

| Start Time           | BOSS RANGE RD<br>Southbound |       |       |        |            | Westbound St.<br>Westbound |       |       |        |            | BOSS RANGE RD<br>Northbound |       |       |        |            | RANGE RD<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|-----------------------------|-------|-------|--------|------------|-----------------------|-------|-------|--------|------------|------------|
|                      | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total | Left                        | Thru  | Right | U-Turn | App. Total | Left                  | Thru  | Right | U-Turn | App. Total |            |
| 7:00 AM              | 0                           | 12    | 0     | 0      | 12         | 0                          | 0     | 0     | 0      | 0          | 1                           | 25    | 0     | 2      | 28         | 0                     | 0     | 1     | 0      | 1          | 41         |
| 7:15 AM              | 0                           | 40    | 0     | 0      | 40         | 0                          | 0     | 0     | 0      | 0          | 1                           | 40    | 0     | 0      | 41         | 1                     | 0     | 0     | 0      | 1          | 82         |
| 7:30 AM              | 0                           | 62    | 1     | 0      | 63         | 0                          | 0     | 0     | 0      | 0          | 0                           | 38    | 0     | 0      | 38         | 1                     | 0     | 2     | 0      | 3          | 104        |
| 7:45 AM              | 0                           | 15    | 0     | 0      | 15         | 0                          | 0     | 0     | 0      | 0          | 0                           | 14    | 0     | 0      | 14         | 1                     | 0     | 0     | 0      | 1          | 30         |
| Total                | 0                           | 129   | 1     | 0      | 130        | 0                          | 0     | 0     | 0      | 0          | 2                           | 117   | 0     | 2      | 121        | 3                     | 0     | 3     | 0      | 6          | 257        |
| Approach %           | 0.0                         | 99.2  | 0.8   | 0.0    | -          | 0.0                        | 0.0   | 0.0   | 0.0    | -          | 1.7                         | 96.7  | 0.0   | 1.7    | -          | 50.0                  | 0.0   | 50.0  | 0.0    | -          | -          |
| Total %              | 0.0                         | 50.2  | 0.4   | 0.0    | 50.6       | 0.0                        | 0.0   | 0.0   | 0.0    | 0.0        | 0.8                         | 45.5  | 0.0   | 0.8    | 47.1       | 1.2                   | 0.0   | 1.2   | 0.0    | 2.3        | -          |
| PHF                  | 0.000                       | 0.520 | 0.250 | 0.000  | 0.516      | 0.000                      | 0.000 | 0.000 | 0.000  | 0.000      | 0.500                       | 0.731 | 0.000 | 0.250  | 0.738      | 0.750                 | 0.000 | 0.375 | 0.000  | 0.500      | 0.618      |
| Lights               | 0                           | 123   | 1     | 0      | 124        | 0                          | 0     | 0     | 0      | 0          | 2                           | 115   | 0     | 2      | 119        | 3                     | 0     | 3     | 0      | 6          | 249        |
| % Lights             | -                           | 95.3  | 100.0 | -      | 95.4       | -                          | -     | -     | -      | -          | 100.0                       | 98.3  | -     | 100.0  | 98.3       | 100.0                 | -     | 100.0 | -      | 100.0      | 96.9       |
| Mediums              | 0                           | 6     | 0     | 0      | 6          | 0                          | 0     | 0     | 0      | 0          | 0                           | 2     | 0     | 0      | 2          | 0                     | 0     | 0     | 0      | 0          | 8          |
| % Mediums            | -                           | 4.7   | 0.0   | -      | 4.6        | -                          | -     | -     | -      | -          | 0.0                         | 1.7   | -     | 0.0    | 1.7        | 0.0                   | -     | 0.0   | -      | 0.0        | 3.1        |
| Articulated Trucks   | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 0                           | 0     | 0     | 0      | 0          | 0                     | 0     | 0     | 0      | 0          | 0          |
| % Articulated Trucks | -                           | 0.0   | 0.0   | -      | 0.0        | -                          | -     | -     | -      | -          | 0.0                         | 0.0   | -     | 0.0    | 0.0        | 0.0                   | -     | 0.0   | -      | 0.0        | 0.0        |



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Count Name: 1. RANGE RD @ BOSS RANGE  
RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 4



Turning Movement Peak Hour Data Plot (7:00 AM)

GRAM Traffic NTX Inc.  
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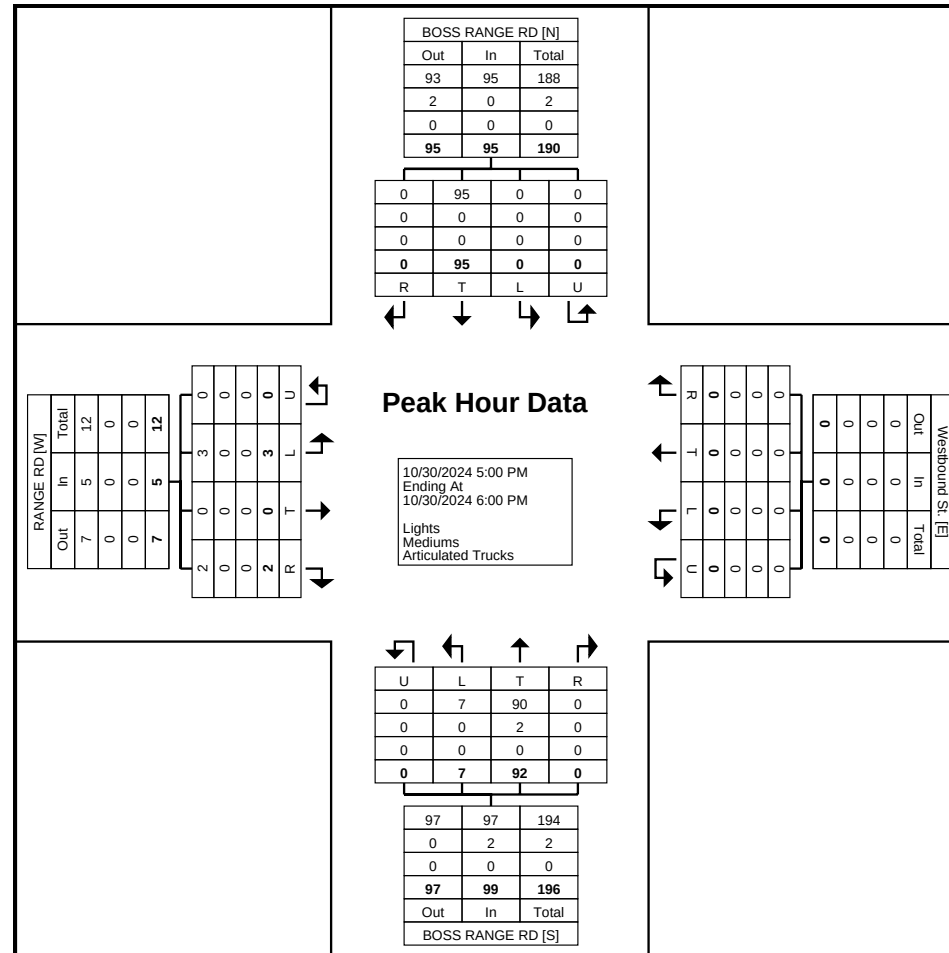
Count Name: 1. RANGE RD @ BOSS RANGE  
RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 5

### Turning Movement Peak Hour Data (5:00 PM)

| Start Time           | BOSS RANGE RD<br>Southbound |       |       |        |            | Westbound St.<br>Westbound |       |       |        |            | BOSS RANGE RD<br>Northbound |       |       |        |            | RANGE RD<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|-----------------------------|-------|-------|--------|------------|-----------------------|-------|-------|--------|------------|------------|
|                      | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total | Left                        | Thru  | Right | U-Turn | App. Total | Left                  | Thru  | Right | U-Turn | App. Total |            |
| 5:00 PM              | 0                           | 24    | 0     | 0      | 24         | 0                          | 0     | 0     | 0      | 0          | 2                           | 23    | 0     | 0      | 25         | 0                     | 0     | 1     | 0      | 1          | 50         |
| 5:15 PM              | 0                           | 29    | 0     | 0      | 29         | 0                          | 0     | 0     | 0      | 0          | 3                           | 16    | 0     | 0      | 19         | 1                     | 0     | 1     | 0      | 2          | 50         |
| 5:30 PM              | 0                           | 21    | 0     | 0      | 21         | 0                          | 0     | 0     | 0      | 0          | 1                           | 21    | 0     | 0      | 22         | 1                     | 0     | 0     | 0      | 1          | 44         |
| 5:45 PM              | 0                           | 21    | 0     | 0      | 21         | 0                          | 0     | 0     | 0      | 0          | 1                           | 32    | 0     | 0      | 33         | 1                     | 0     | 0     | 0      | 1          | 55         |
| Total                | 0                           | 95    | 0     | 0      | 95         | 0                          | 0     | 0     | 0      | 0          | 7                           | 92    | 0     | 0      | 99         | 3                     | 0     | 2     | 0      | 5          | 199        |
| Approach %           | 0.0                         | 100.0 | 0.0   | 0.0    | -          | 0.0                        | 0.0   | 0.0   | 0.0    | -          | 7.1                         | 92.9  | 0.0   | 0.0    | -          | 60.0                  | 0.0   | 40.0  | 0.0    | -          | -          |
| Total %              | 0.0                         | 47.7  | 0.0   | 0.0    | 47.7       | 0.0                        | 0.0   | 0.0   | 0.0    | 0.0        | 3.5                         | 46.2  | 0.0   | 0.0    | 49.7       | 1.5                   | 0.0   | 1.0   | 0.0    | 2.5        | -          |
| PHF                  | 0.000                       | 0.819 | 0.000 | 0.000  | 0.819      | 0.000                      | 0.000 | 0.000 | 0.000  | 0.000      | 0.583                       | 0.719 | 0.000 | 0.000  | 0.750      | 0.750                 | 0.000 | 0.500 | 0.000  | 0.625      | 0.905      |
| Lights               | 0                           | 95    | 0     | 0      | 95         | 0                          | 0     | 0     | 0      | 0          | 7                           | 90    | 0     | 0      | 97         | 3                     | 0     | 2     | 0      | 5          | 197        |
| % Lights             | -                           | 100.0 | -     | -      | 100.0      | -                          | -     | -     | -      | -          | 100.0                       | 97.8  | -     | -      | 98.0       | 100.0                 | -     | 100.0 | -      | 100.0      | 99.0       |
| Mediums              | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 0                           | 2     | 0     | 0      | 2          | 0                     | 0     | 0     | 0      | 0          | 2          |
| % Mediums            | -                           | 0.0   | -     | -      | 0.0        | -                          | -     | -     | -      | -          | 0.0                         | 2.2   | -     | -      | 2.0        | 0.0                   | -     | 0.0   | -      | 0.0        | 1.0        |
| Articulated Trucks   | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 0                           | 0     | 0     | 0      | 0          | 0                     | 0     | 0     | 0      | 0          | 0          |
| % Articulated Trucks | -                           | 0.0   | -     | -      | 0.0        | -                          | -     | -     | -      | -          | 0.0                         | 0.0   | -     | -      | 0.0        | 0.0                   | -     | 0.0   | -      | 0.0        | 0.0        |

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Count Name: 1. RANGE RD @ BOSS RANGE  
RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 6



Turning Movement Peak Hour Data Plot (5:00 PM)

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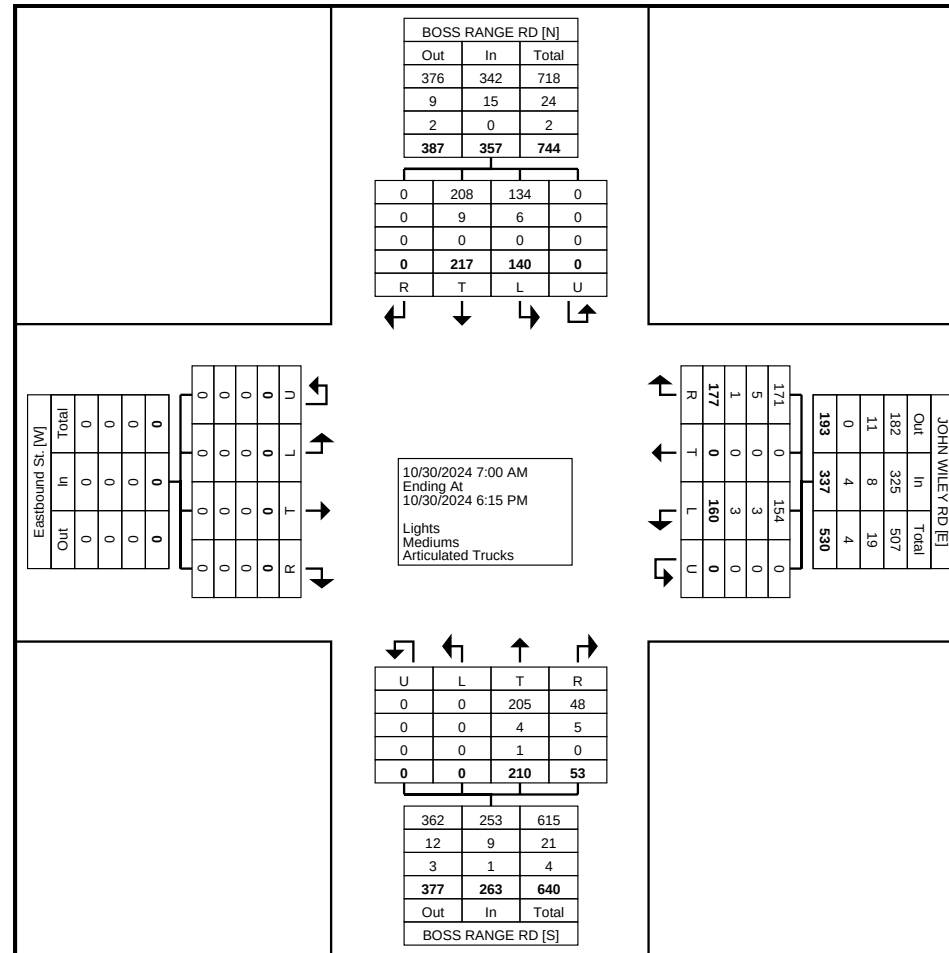
Count Name: 2. BOSS RANGE RD @ JOHN  
WILEY RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 1

### Turning Movement Data

| Start Time           | BOSS RANGE RD<br>Southbound |      |       |        |            | JOHN WILEY RD<br>Westbound |      |       |        |            | BOSS RANGE RD<br>Northbound |      |       |        |            | Eastbound St.<br>Eastbound |      |       |        |            | Int. Total |
|----------------------|-----------------------------|------|-------|--------|------------|----------------------------|------|-------|--------|------------|-----------------------------|------|-------|--------|------------|----------------------------|------|-------|--------|------------|------------|
|                      | Left                        | Thru | Right | U-Turn | App. Total | Left                       | Thru | Right | U-Turn | App. Total | Left                        | Thru | Right | U-Turn | App. Total | Left                       | Thru | Right | U-Turn | App. Total |            |
| 7:00 AM              | 2                           | 15   | 0     | 0      | 17         | 86                         | 0    | 17    | 0      | 103        | 0                           | 12   | 3     | 0      | 15         | 0                          | 0    | 0     | 0      | 0          | 135        |
| 7:15 AM              | 21                          | 20   | 0     | 0      | 41         | 7                          | 0    | 20    | 0      | 27         | 0                           | 22   | 5     | 0      | 27         | 0                          | 0    | 0     | 0      | 0          | 95         |
| 7:30 AM              | 41                          | 22   | 0     | 0      | 63         | 0                          | 0    | 17    | 0      | 17         | 0                           | 18   | 3     | 0      | 21         | 0                          | 0    | 0     | 0      | 0          | 101        |
| 7:45 AM              | 8                           | 6    | 0     | 0      | 14         | 1                          | 0    | 4     | 0      | 5          | 0                           | 9    | 6     | 0      | 15         | 0                          | 0    | 0     | 0      | 0          | 34         |
| Hourly Total         | 72                          | 63   | 0     | 0      | 135        | 94                         | 0    | 58    | 0      | 152        | 0                           | 61   | 17    | 0      | 78         | 0                          | 0    | 0     | 0      | 0          | 365        |
| 8:00 AM              | 6                           | 6    | 0     | 0      | 12         | 3                          | 0    | 4     | 0      | 7          | 0                           | 11   | 4     | 0      | 15         | 0                          | 0    | 0     | 0      | 0          | 34         |
| 8:15 AM              | 4                           | 7    | 0     | 0      | 11         | 2                          | 0    | 8     | 0      | 10         | 0                           | 8    | 1     | 0      | 9          | 0                          | 0    | 0     | 0      | 0          | 30         |
| 8:30 AM              | 2                           | 7    | 0     | 0      | 9          | 1                          | 0    | 7     | 0      | 8          | 0                           | 12   | 2     | 0      | 14         | 0                          | 0    | 0     | 0      | 0          | 31         |
| 8:45 AM              | 4                           | 8    | 0     | 0      | 12         | 3                          | 0    | 4     | 0      | 7          | 0                           | 7    | 1     | 0      | 8          | 0                          | 0    | 0     | 0      | 0          | 27         |
| Hourly Total         | 16                          | 28   | 0     | 0      | 44         | 9                          | 0    | 23    | 0      | 32         | 0                           | 38   | 8     | 0      | 46         | 0                          | 0    | 0     | 0      | 0          | 122        |
| *** BREAK ***        | -                           | -    | -     | -      | -          | -                          | -    | -     | -      | -          | -                           | -    | -     | -      | -          | -                          | -    | -     | -      | -          | -          |
| 4:00 PM              | 5                           | 19   | 0     | 0      | 24         | 5                          | 0    | 12    | 0      | 17         | 0                           | 16   | 5     | 0      | 21         | 0                          | 0    | 0     | 0      | 0          | 62         |
| 4:15 PM              | 11                          | 14   | 0     | 0      | 25         | 8                          | 0    | 13    | 0      | 21         | 0                           | 16   | 1     | 0      | 17         | 0                          | 0    | 0     | 0      | 0          | 63         |
| 4:30 PM              | 8                           | 9    | 0     | 0      | 17         | 6                          | 0    | 17    | 0      | 23         | 0                           | 17   | 5     | 0      | 22         | 0                          | 0    | 0     | 0      | 0          | 62         |
| 4:45 PM              | 4                           | 10   | 0     | 0      | 14         | 8                          | 0    | 7     | 0      | 15         | 0                           | 8    | 1     | 0      | 9          | 0                          | 0    | 0     | 0      | 0          | 38         |
| Hourly Total         | 28                          | 52   | 0     | 0      | 80         | 27                         | 0    | 49    | 0      | 76         | 0                           | 57   | 12    | 0      | 69         | 0                          | 0    | 0     | 0      | 0          | 225        |
| 5:00 PM              | 4                           | 23   | 0     | 0      | 27         | 8                          | 0    | 12    | 0      | 20         | 0                           | 15   | 3     | 0      | 18         | 0                          | 0    | 0     | 0      | 0          | 65         |
| 5:15 PM              | 9                           | 18   | 0     | 0      | 27         | 4                          | 0    | 10    | 0      | 14         | 0                           | 9    | 4     | 0      | 13         | 0                          | 0    | 0     | 0      | 0          | 54         |
| 5:30 PM              | 5                           | 16   | 0     | 0      | 21         | 8                          | 0    | 10    | 0      | 18         | 0                           | 10   | 5     | 0      | 15         | 0                          | 0    | 0     | 0      | 0          | 54         |
| 5:45 PM              | 6                           | 17   | 0     | 0      | 23         | 10                         | 0    | 15    | 0      | 25         | 0                           | 20   | 4     | 0      | 24         | 0                          | 0    | 0     | 0      | 0          | 72         |
| Hourly Total         | 24                          | 74   | 0     | 0      | 98         | 30                         | 0    | 47    | 0      | 77         | 0                           | 54   | 16    | 0      | 70         | 0                          | 0    | 0     | 0      | 0          | 245        |
| 6:00 PM              | 0                           | 0    | 0     | 0      | 0          | 0                          | 0    | 0     | 0      | 0          | 0                           | 0    | 0     | 0      | 0          | 0                          | 0    | 0     | 0      | 0          | 0          |
| Grand Total          | 140                         | 217  | 0     | 0      | 357        | 160                        | 0    | 177   | 0      | 337        | 0                           | 210  | 53    | 0      | 263        | 0                          | 0    | 0     | 0      | 0          | 957        |
| Approach %           | 39.2                        | 60.8 | 0.0   | 0.0    | -          | 47.5                       | 0.0  | 52.5  | 0.0    | -          | 0.0                         | 79.8 | 20.2  | 0.0    | -          | 0.0                        | 0.0  | 0.0   | 0.0    | -          | -          |
| Total %              | 14.6                        | 22.7 | 0.0   | 0.0    | 37.3       | 16.7                       | 0.0  | 18.5  | 0.0    | 35.2       | 0.0                         | 21.9 | 5.5   | 0.0    | 27.5       | 0.0                        | 0.0  | 0.0   | 0.0    | 0.0        | -          |
| Lights               | 134                         | 208  | 0     | 0      | 342        | 154                        | 0    | 171   | 0      | 325        | 0                           | 205  | 48    | 0      | 253        | 0                          | 0    | 0     | 0      | 0          | 920        |
| % Lights             | 95.7                        | 95.9 | -     | -      | 95.8       | 96.3                       | -    | 96.6  | -      | 96.4       | -                           | 97.6 | 90.6  | -      | 96.2       | -                          | -    | -     | -      | -          | 96.1       |
| Mediums              | 6                           | 9    | 0     | 0      | 15         | 3                          | 0    | 5     | 0      | 8          | 0                           | 4    | 5     | 0      | 9          | 0                          | 0    | 0     | 0      | 0          | 32         |
| % Mediums            | 4.3                         | 4.1  | -     | -      | 4.2        | 1.9                        | -    | 2.8   | -      | 2.4        | -                           | 1.9  | 9.4   | -      | 3.4        | -                          | -    | -     | -      | -          | 3.3        |
| Articulated Trucks   | 0                           | 0    | 0     | 0      | 0          | 3                          | 0    | 1     | 0      | 4          | 0                           | 1    | 0     | 0      | 1          | 0                          | 0    | 0     | 0      | 0          | 5          |
| % Articulated Trucks | 0.0                         | 0.0  | -     | -      | 0.0        | 1.9                        | -    | 0.6   | -      | 1.2        | -                           | 0.5  | 0.0   | -      | 0.4        | -                          | -    | -     | -      | -          | 0.5        |

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Count Name: 2. BOSS RANGE RD @ JOHN  
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Site Code:  
Start Date: 10/30/2024  
Page No: 2



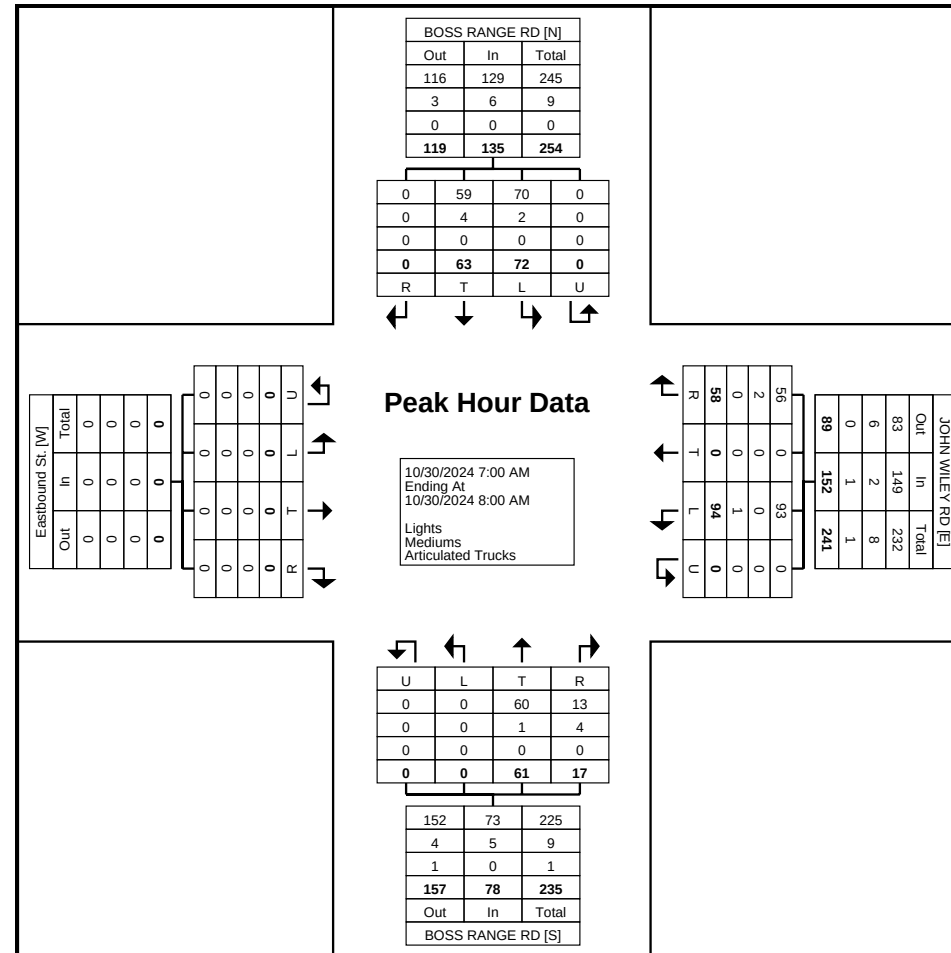
Turning Movement Data Plot

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Count Name: 2. BOSS RANGE RD @ JOHN  
WILEY RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 3

### Turning Movement Peak Hour Data (7:00 AM)

| Start Time           | BOSS RANGE RD<br>Southbound |       |       |        |            | JOHN WILEY RD<br>Westbound |       |       |        |            | BOSS RANGE RD<br>Northbound |       |       |        |            | Eastbound St.<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|------------|
|                      | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total |            |
| 7:00 AM              | 2                           | 15    | 0     | 0      | 17         | 86                         | 0     | 17    | 0      | 103        | 0                           | 12    | 3     | 0      | 15         | 0                          | 0     | 0     | 0      | 0          | 135        |
| 7:15 AM              | 21                          | 20    | 0     | 0      | 41         | 7                          | 0     | 20    | 0      | 27         | 0                           | 22    | 5     | 0      | 27         | 0                          | 0     | 0     | 0      | 0          | 95         |
| 7:30 AM              | 41                          | 22    | 0     | 0      | 63         | 0                          | 0     | 17    | 0      | 17         | 0                           | 18    | 3     | 0      | 21         | 0                          | 0     | 0     | 0      | 0          | 101        |
| 7:45 AM              | 8                           | 6     | 0     | 0      | 14         | 1                          | 0     | 4     | 0      | 5          | 0                           | 9     | 6     | 0      | 15         | 0                          | 0     | 0     | 0      | 0          | 34         |
| Total                | 72                          | 63    | 0     | 0      | 135        | 94                         | 0     | 58    | 0      | 152        | 0                           | 61    | 17    | 0      | 78         | 0                          | 0     | 0     | 0      | 0          | 365        |
| Approach %           | 53.3                        | 46.7  | 0.0   | 0.0    | -          | 61.8                       | 0.0   | 38.2  | 0.0    | -          | 0.0                         | 78.2  | 21.8  | 0.0    | -          | 0.0                        | 0.0   | 0.0   | 0.0    | -          | -          |
| Total %              | 19.7                        | 17.3  | 0.0   | 0.0    | 37.0       | 25.8                       | 0.0   | 15.9  | 0.0    | 41.6       | 0.0                         | 16.7  | 4.7   | 0.0    | 21.4       | 0.0                        | 0.0   | 0.0   | 0.0    | 0.0        | -          |
| PHF                  | 0.439                       | 0.716 | 0.000 | 0.000  | 0.536      | 0.273                      | 0.000 | 0.725 | 0.000  | 0.369      | 0.000                       | 0.693 | 0.708 | 0.000  | 0.722      | 0.000                      | 0.000 | 0.000 | 0.000  | 0.000      | 0.676      |
| Lights               | 70                          | 59    | 0     | 0      | 129        | 93                         | 0     | 56    | 0      | 149        | 0                           | 60    | 13    | 0      | 73         | 0                          | 0     | 0     | 0      | 0          | 351        |
| % Lights             | 97.2                        | 93.7  | -     | -      | 95.6       | 98.9                       | -     | 96.6  | -      | 98.0       | -                           | 98.4  | 76.5  | -      | 93.6       | -                          | -     | -     | -      | -          | 96.2       |
| Mediums              | 2                           | 4     | 0     | 0      | 6          | 0                          | 0     | 2     | 0      | 2          | 0                           | 1     | 4     | 0      | 5          | 0                          | 0     | 0     | 0      | 0          | 13         |
| % Mediums            | 2.8                         | 6.3   | -     | -      | 4.4        | 0.0                        | -     | 3.4   | -      | 1.3        | -                           | 1.6   | 23.5  | -      | 6.4        | -                          | -     | -     | -      | -          | 3.6        |
| Articulated Trucks   | 0                           | 0     | 0     | 0      | 0          | 1                          | 0     | 0     | 0      | 1          | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 1          |
| % Articulated Trucks | 0.0                         | 0.0   | -     | -      | 0.0        | 1.1                        | -     | 0.0   | -      | 0.7        | -                           | 0.0   | 0.0   | -      | 0.0        | -                          | -     | -     | -      | -          | 0.3        |



Turning Movement Peak Hour Data Plot (7:00 AM)

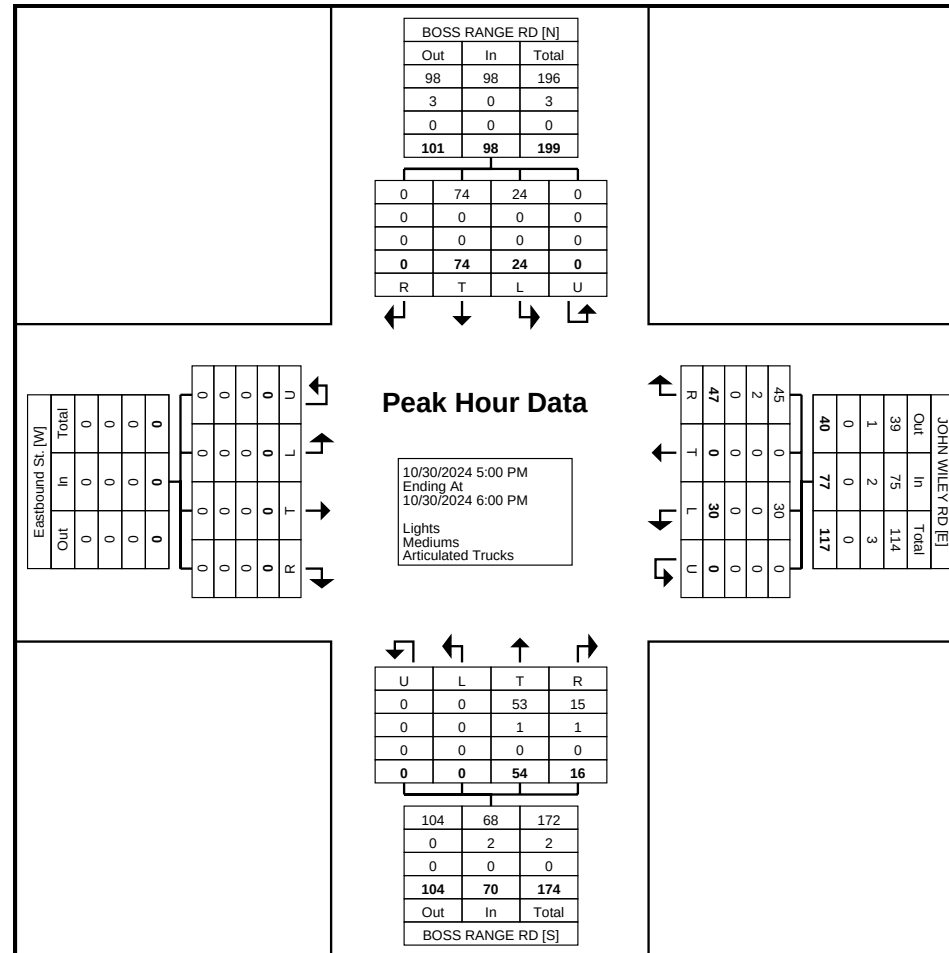
GRAM Traffic NTX Inc.  
1120 W. Lovers Lane  
Arlington, Texas, United States 76013  
817.265.8968 nick@gramntx.com

Count Name: 2. BOSS RANGE RD @ JOHN  
WILEY RD  
Site Code:  
Start Date: 10/30/2024  
Page No: 5

### Turning Movement Peak Hour Data (5:00 PM)

| Start Time           | BOSS RANGE RD<br>Southbound |       |       |        |            | JOHN WILEY RD<br>Westbound |       |       |        |            | BOSS RANGE RD<br>Northbound |       |       |        |            | Eastbound St.<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|-----------------------------|-------|-------|--------|------------|----------------------------|-------|-------|--------|------------|------------|
|                      | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total | Left                        | Thru  | Right | U-Turn | App. Total | Left                       | Thru  | Right | U-Turn | App. Total |            |
| 5:00 PM              | 4                           | 23    | 0     | 0      | 27         | 8                          | 0     | 12    | 0      | 20         | 0                           | 15    | 3     | 0      | 18         | 0                          | 0     | 0     | 0      | 0          | 65         |
| 5:15 PM              | 9                           | 18    | 0     | 0      | 27         | 4                          | 0     | 10    | 0      | 14         | 0                           | 9     | 4     | 0      | 13         | 0                          | 0     | 0     | 0      | 0          | 54         |
| 5:30 PM              | 5                           | 16    | 0     | 0      | 21         | 8                          | 0     | 10    | 0      | 18         | 0                           | 10    | 5     | 0      | 15         | 0                          | 0     | 0     | 0      | 0          | 54         |
| 5:45 PM              | 6                           | 17    | 0     | 0      | 23         | 10                         | 0     | 15    | 0      | 25         | 0                           | 20    | 4     | 0      | 24         | 0                          | 0     | 0     | 0      | 0          | 72         |
| Total                | 24                          | 74    | 0     | 0      | 98         | 30                         | 0     | 47    | 0      | 77         | 0                           | 54    | 16    | 0      | 70         | 0                          | 0     | 0     | 0      | 0          | 245        |
| Approach %           | 24.5                        | 75.5  | 0.0   | 0.0    | -          | 39.0                       | 0.0   | 61.0  | 0.0    | -          | 0.0                         | 77.1  | 22.9  | 0.0    | -          | 0.0                        | 0.0   | 0.0   | 0.0    | -          | -          |
| Total %              | 9.8                         | 30.2  | 0.0   | 0.0    | 40.0       | 12.2                       | 0.0   | 19.2  | 0.0    | 31.4       | 0.0                         | 22.0  | 6.5   | 0.0    | 28.6       | 0.0                        | 0.0   | 0.0   | 0.0    | 0.0        | -          |
| PHF                  | 0.667                       | 0.804 | 0.000 | 0.000  | 0.907      | 0.750                      | 0.000 | 0.783 | 0.000  | 0.770      | 0.000                       | 0.675 | 0.800 | 0.000  | 0.729      | 0.000                      | 0.000 | 0.000 | 0.000  | 0.000      | 0.851      |
| Lights               | 24                          | 74    | 0     | 0      | 98         | 30                         | 0     | 45    | 0      | 75         | 0                           | 53    | 15    | 0      | 68         | 0                          | 0     | 0     | 0      | 0          | 241        |
| % Lights             | 100.0                       | 100.0 | -     | -      | 100.0      | 100.0                      | -     | 95.7  | -      | 97.4       | -                           | 98.1  | 93.8  | -      | 97.1       | -                          | -     | -     | -      | -          | 98.4       |
| Mediums              | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 2     | 0      | 2          | 0                           | 1     | 1     | 0      | 2          | 0                          | 0     | 0     | 0      | 0          | 4          |
| % Mediums            | 0.0                         | 0.0   | -     | -      | 0.0        | 0.0                        | -     | 4.3   | -      | 2.6        | -                           | 1.9   | 6.3   | -      | 2.9        | -                          | -     | -     | -      | -          | 1.6        |
| Articulated Trucks   | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 0                           | 0     | 0     | 0      | 0          | 0                          | 0     | 0     | 0      | 0          | 0          |
| % Articulated Trucks | 0.0                         | 0.0   | -     | -      | 0.0        | 0.0                        | -     | 0.0   | -      | 0.0        | -                           | 0.0   | 0.0   | -      | 0.0        | -                          | -     | -     | -      | -          | 0.0        |





Turning Movement Peak Hour Data Plot (5:00 PM)

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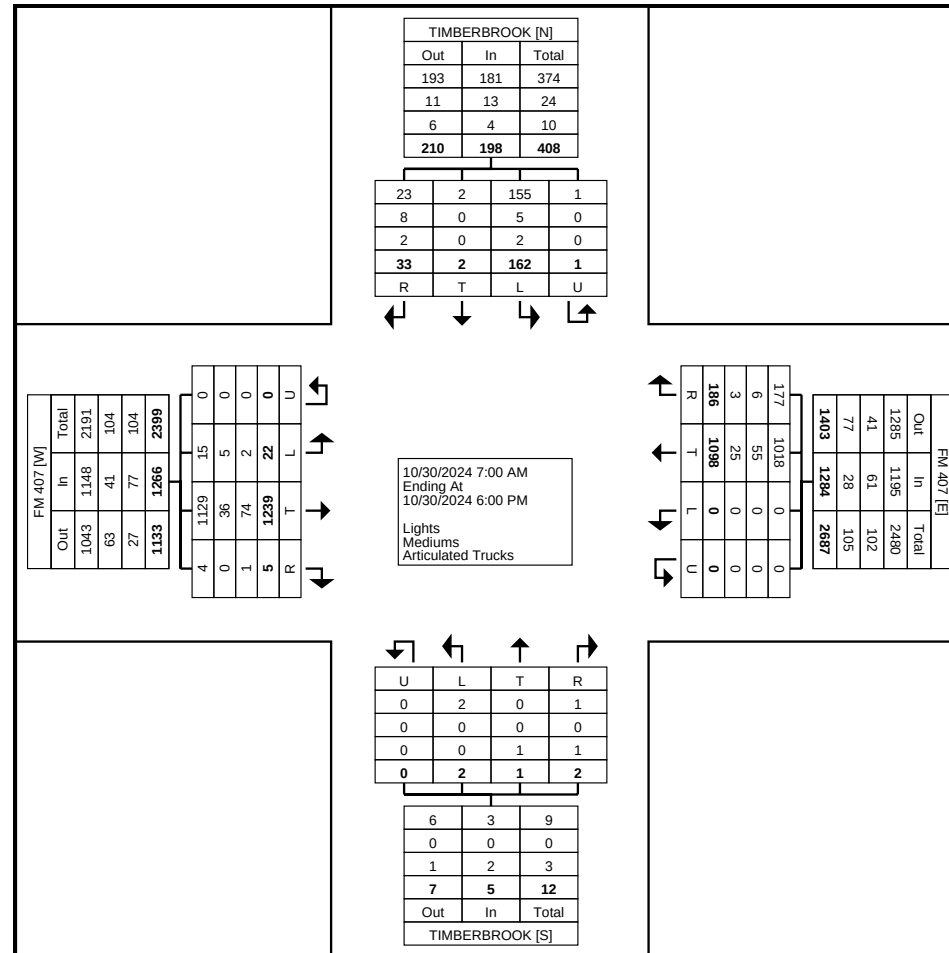
Count Name: 3. FM 407 @ TIMBERBROOK  
Site Code:  
Start Date: 10/30/2024  
Page No: 1

### Turning Movement Data

| Start Time           | TIMBERBROOK<br>Southbound |       |       |        |            | FM 407<br>Westbound |      |       |        |            | TIMBERBROOK<br>Northbound |       |       |        |            | FM 407<br>Eastbound |      |       |        |            | Int. Total |
|----------------------|---------------------------|-------|-------|--------|------------|---------------------|------|-------|--------|------------|---------------------------|-------|-------|--------|------------|---------------------|------|-------|--------|------------|------------|
|                      | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru | Right | U-Turn | App. Total | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru | Right | U-Turn | App. Total |            |
| 7:00 AM              | 4                         | 0     | 3     | 1      | 8          | 0                   | 32   | 10    | 0      | 42         | 0                         | 0     | 0     | 0      | 0          | 2                   | 112  | 0     | 0      | 114        | 164        |
| 7:15 AM              | 19                        | 0     | 0     | 0      | 19         | 0                   | 35   | 14    | 0      | 49         | 0                         | 0     | 0     | 0      | 0          | 5                   | 137  | 0     | 0      | 142        | 210        |
| 7:30 AM              | 19                        | 0     | 2     | 0      | 21         | 0                   | 44   | 27    | 0      | 71         | 0                         | 0     | 0     | 0      | 0          | 0                   | 109  | 2     | 0      | 111        | 203        |
| 7:45 AM              | 6                         | 0     | 3     | 0      | 9          | 0                   | 36   | 13    | 0      | 49         | 0                         | 0     | 0     | 0      | 0          | 4                   | 126  | 0     | 0      | 130        | 188        |
| Hourly Total         | 48                        | 0     | 8     | 1      | 57         | 0                   | 147  | 64    | 0      | 211        | 0                         | 0     | 0     | 0      | 0          | 11                  | 484  | 2     | 0      | 497        | 765        |
| 8:00 AM              | 6                         | 0     | 1     | 0      | 7          | 0                   | 28   | 14    | 0      | 42         | 0                         | 0     | 0     | 0      | 0          | 1                   | 128  | 0     | 0      | 129        | 178        |
| 8:15 AM              | 9                         | 0     | 3     | 0      | 12         | 0                   | 33   | 6     | 0      | 39         | 0                         | 0     | 0     | 0      | 0          | 1                   | 78   | 2     | 0      | 81         | 132        |
| 8:30 AM              | 11                        | 0     | 1     | 0      | 12         | 0                   | 32   | 10    | 0      | 42         | 1                         | 0     | 0     | 0      | 1          | 1                   | 77   | 0     | 0      | 78         | 133        |
| 8:45 AM              | 9                         | 1     | 2     | 0      | 12         | 0                   | 34   | 13    | 0      | 47         | 0                         | 0     | 0     | 0      | 0          | 3                   | 62   | 0     | 0      | 65         | 124        |
| Hourly Total         | 35                        | 1     | 7     | 0      | 43         | 0                   | 127  | 43    | 0      | 170        | 1                         | 0     | 0     | 0      | 1          | 6                   | 345  | 2     | 0      | 353        | 567        |
| *** BREAK ***        | -                         | -     | -     | -      | -          | -                   | -    | -     | -      | -          | -                         | -     | -     | -      | -          | -                   | -    | -     | -      | -          | -          |
| 4:00 PM              | 13                        | 0     | 3     | 0      | 16         | 0                   | 91   | 6     | 0      | 97         | 1                         | 0     | 0     | 0      | 1          | 0                   | 50   | 1     | 0      | 51         | 165        |
| 4:15 PM              | 7                         | 0     | 2     | 0      | 9          | 0                   | 106  | 15    | 0      | 121        | 0                         | 0     | 0     | 0      | 0          | 0                   | 46   | 0     | 0      | 46         | 176        |
| 4:30 PM              | 7                         | 0     | 2     | 0      | 9          | 0                   | 122  | 16    | 0      | 138        | 0                         | 0     | 0     | 0      | 0          | 0                   | 61   | 0     | 0      | 61         | 208        |
| 4:45 PM              | 15                        | 1     | 0     | 0      | 16         | 0                   | 104  | 8     | 0      | 112        | 0                         | 0     | 1     | 0      | 1          | 1                   | 41   | 0     | 0      | 42         | 171        |
| Hourly Total         | 42                        | 1     | 7     | 0      | 50         | 0                   | 423  | 45    | 0      | 468        | 1                         | 0     | 1     | 0      | 2          | 1                   | 198  | 1     | 0      | 200        | 720        |
| 5:00 PM              | 9                         | 0     | 5     | 0      | 14         | 0                   | 96   | 8     | 0      | 104        | 0                         | 1     | 0     | 0      | 1          | 1                   | 53   | 0     | 0      | 54         | 173        |
| 5:15 PM              | 5                         | 0     | 4     | 0      | 9          | 0                   | 101  | 10    | 0      | 111        | 0                         | 0     | 1     | 0      | 1          | 1                   | 55   | 0     | 0      | 56         | 177        |
| 5:30 PM              | 17                        | 0     | 2     | 0      | 19         | 0                   | 97   | 5     | 0      | 102        | 0                         | 0     | 0     | 0      | 0          | 2                   | 51   | 0     | 0      | 53         | 174        |
| 5:45 PM              | 6                         | 0     | 0     | 0      | 6          | 0                   | 107  | 11    | 0      | 118        | 0                         | 0     | 0     | 0      | 0          | 0                   | 53   | 0     | 0      | 53         | 177        |
| Hourly Total         | 37                        | 0     | 11    | 0      | 48         | 0                   | 401  | 34    | 0      | 435        | 0                         | 1     | 1     | 0      | 2          | 4                   | 212  | 0     | 0      | 216        | 701        |
| Grand Total          | 162                       | 2     | 33    | 1      | 198        | 0                   | 1098 | 186   | 0      | 1284       | 2                         | 1     | 2     | 0      | 5          | 22                  | 1239 | 5     | 0      | 1266       | 2753       |
| Approach %           | 81.8                      | 1.0   | 16.7  | 0.5    | -          | 0.0                 | 85.5 | 14.5  | 0.0    | -          | 40.0                      | 20.0  | 40.0  | 0.0    | -          | 1.7                 | 97.9 | 0.4   | 0.0    | -          | -          |
| Total %              | 5.9                       | 0.1   | 1.2   | 0.0    | 7.2        | 0.0                 | 39.9 | 6.8   | 0.0    | 46.6       | 0.1                       | 0.0   | 0.1   | 0.0    | 0.2        | 0.8                 | 45.0 | 0.2   | 0.0    | 46.0       | -          |
| Lights               | 155                       | 2     | 23    | 1      | 181        | 0                   | 1018 | 177   | 0      | 1195       | 2                         | 0     | 1     | 0      | 3          | 15                  | 1129 | 4     | 0      | 1148       | 2527       |
| % Lights             | 95.7                      | 100.0 | 69.7  | 100.0  | 91.4       | -                   | 92.7 | 95.2  | -      | 93.1       | 100.0                     | 0.0   | 50.0  | -      | 60.0       | 68.2                | 91.1 | 80.0  | -      | 90.7       | 91.8       |
| Mediums              | 5                         | 0     | 8     | 0      | 13         | 0                   | 55   | 6     | 0      | 61         | 0                         | 0     | 0     | 0      | 0          | 5                   | 36   | 0     | 0      | 41         | 115        |
| % Mediums            | 3.1                       | 0.0   | 24.2  | 0.0    | 6.6        | -                   | 5.0  | 3.2   | -      | 4.8        | 0.0                       | 0.0   | 0.0   | -      | 0.0        | 22.7                | 2.9  | 0.0   | -      | 3.2        | 4.2        |
| Articulated Trucks   | 2                         | 0     | 2     | 0      | 4          | 0                   | 25   | 3     | 0      | 28         | 0                         | 1     | 1     | 0      | 2          | 2                   | 74   | 1     | 0      | 77         | 111        |
| % Articulated Trucks | 1.2                       | 0.0   | 6.1   | 0.0    | 2.0        | -                   | 2.3  | 1.6   | -      | 2.2        | 0.0                       | 100.0 | 50.0  | -      | 40.0       | 9.1                 | 6.0  | 20.0  | -      | 6.1        | 4.0        |

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Count Name: 3. FM 407 @ TIMBERBROOK  
Site Code:  
Start Date: 10/30/2024  
Page No: 2



Turning Movement Data Plot

GRAM Traffic NTX Inc.  
1120 W. Lovers Lane  
Arlington, Texas, United States 76013  
817.265.8968 nick@gramntx.com

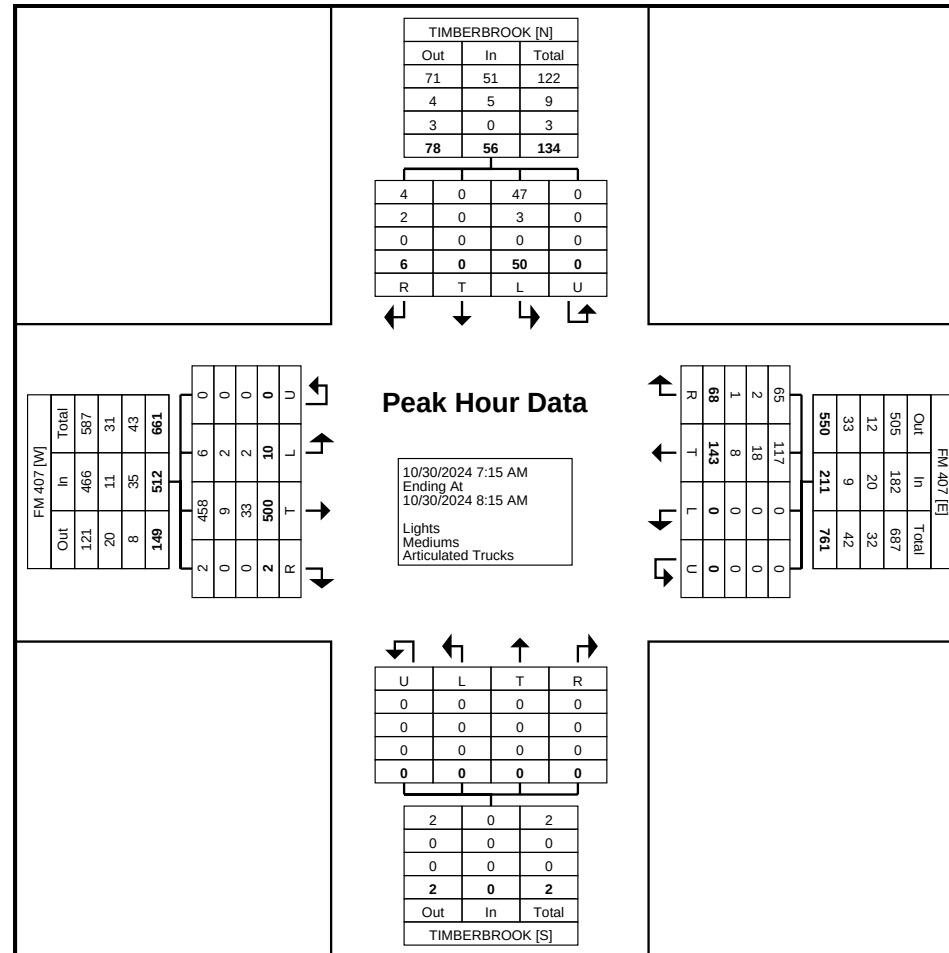
Count Name: 3. FM 407 @ TIMBERBROOK  
Site Code:  
Start Date: 10/30/2024  
Page No: 3

### Turning Movement Peak Hour Data (7:15 AM)

| Start Time           | TIMBERBROOK<br>Southbound |       |       |        |            | FM 407<br>Westbound |       |       |        |            | TIMBERBROOK<br>Northbound |       |       |        |            | FM 407<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|---------------------------|-------|-------|--------|------------|---------------------|-------|-------|--------|------------|---------------------------|-------|-------|--------|------------|---------------------|-------|-------|--------|------------|------------|
|                      | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru  | Right | U-Turn | App. Total | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru  | Right | U-Turn | App. Total |            |
| 7:15 AM              | 19                        | 0     | 0     | 0      | 19         | 0                   | 35    | 14    | 0      | 49         | 0                         | 0     | 0     | 0      | 0          | 5                   | 137   | 0     | 0      | 142        | 210        |
| 7:30 AM              | 19                        | 0     | 2     | 0      | 21         | 0                   | 44    | 27    | 0      | 71         | 0                         | 0     | 0     | 0      | 0          | 0                   | 109   | 2     | 0      | 111        | 203        |
| 7:45 AM              | 6                         | 0     | 3     | 0      | 9          | 0                   | 36    | 13    | 0      | 49         | 0                         | 0     | 0     | 0      | 0          | 4                   | 126   | 0     | 0      | 130        | 188        |
| 8:00 AM              | 6                         | 0     | 1     | 0      | 7          | 0                   | 28    | 14    | 0      | 42         | 0                         | 0     | 0     | 0      | 0          | 1                   | 128   | 0     | 0      | 129        | 178        |
| Total                | 50                        | 0     | 6     | 0      | 56         | 0                   | 143   | 68    | 0      | 211        | 0                         | 0     | 0     | 0      | 0          | 10                  | 500   | 2     | 0      | 512        | 779        |
| Approach %           | 89.3                      | 0.0   | 10.7  | 0.0    | -          | 0.0                 | 67.8  | 32.2  | 0.0    | -          | 0.0                       | 0.0   | 0.0   | 0.0    | -          | 2.0                 | 97.7  | 0.4   | 0.0    | -          | -          |
| Total %              | 6.4                       | 0.0   | 0.8   | 0.0    | 7.2        | 0.0                 | 18.4  | 8.7   | 0.0    | 27.1       | 0.0                       | 0.0   | 0.0   | 0.0    | 0.0        | 1.3                 | 64.2  | 0.3   | 0.0    | 65.7       | -          |
| PHF                  | 0.658                     | 0.000 | 0.500 | 0.000  | 0.667      | 0.000               | 0.813 | 0.630 | 0.000  | 0.743      | 0.000                     | 0.000 | 0.000 | 0.000  | 0.000      | 0.500               | 0.912 | 0.250 | 0.000  | 0.901      | 0.927      |
| Lights               | 47                        | 0     | 4     | 0      | 51         | 0                   | 117   | 65    | 0      | 182        | 0                         | 0     | 0     | 0      | 0          | 6                   | 458   | 2     | 0      | 466        | 699        |
| % Lights             | 94.0                      | -     | 66.7  | -      | 91.1       | -                   | 81.8  | 95.6  | -      | 86.3       | -                         | -     | -     | -      | -          | 60.0                | 91.6  | 100.0 | -      | 91.0       | 89.7       |
| Mediums              | 3                         | 0     | 2     | 0      | 5          | 0                   | 18    | 2     | 0      | 20         | 0                         | 0     | 0     | 0      | 0          | 2                   | 9     | 0     | 0      | 11         | 36         |
| % Mediums            | 6.0                       | -     | 33.3  | -      | 8.9        | -                   | 12.6  | 2.9   | -      | 9.5        | -                         | -     | -     | -      | -          | 20.0                | 1.8   | 0.0   | -      | 2.1        | 4.6        |
| Articulated Trucks   | 0                         | 0     | 0     | 0      | 0          | 0                   | 8     | 1     | 0      | 9          | 0                         | 0     | 0     | 0      | 0          | 2                   | 33    | 0     | 0      | 35         | 44         |
| % Articulated Trucks | 0.0                       | -     | 0.0   | -      | 0.0        | -                   | 5.6   | 1.5   | -      | 4.3        | -                         | -     | -     | -      | -          | 20.0                | 6.6   | 0.0   | -      | 6.8        | 5.6        |

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Count Name: 3. FM 407 @ TIMBERBROOK  
Site Code:  
Start Date: 10/30/2024  
Page No: 4



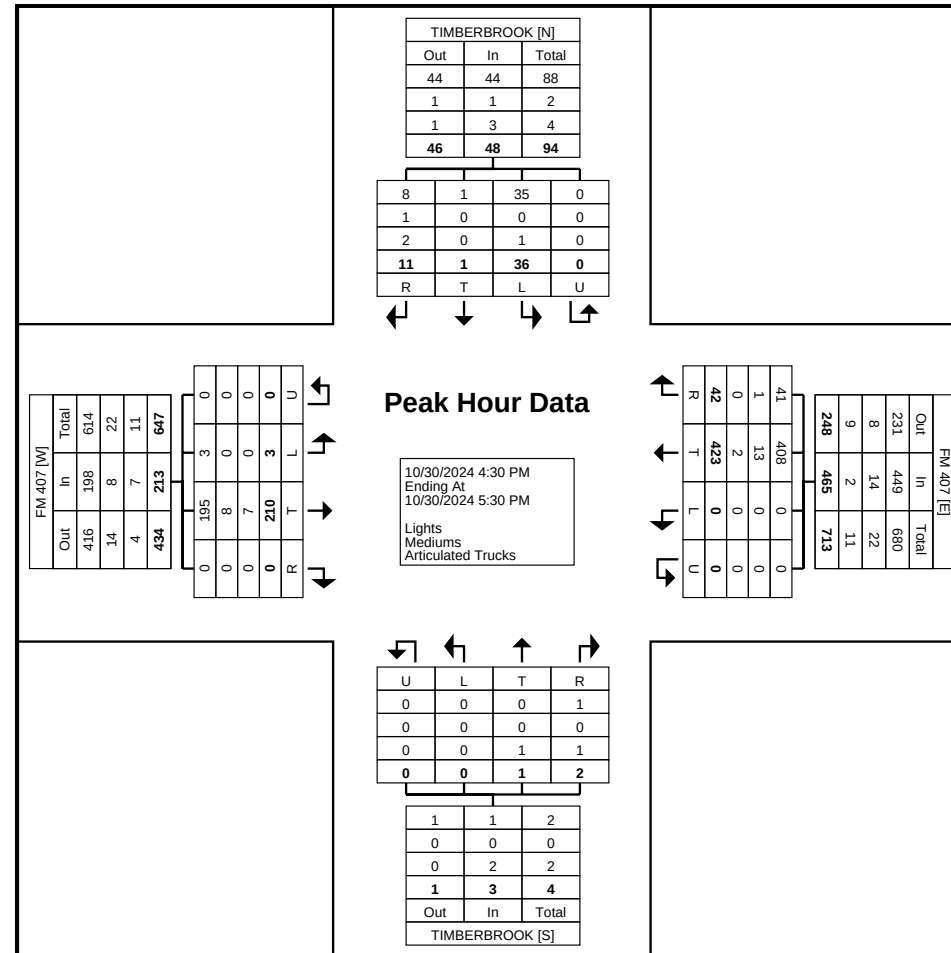
Turning Movement Peak Hour Data Plot (7:15 AM)

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Count Name: 3. FM 407 @ TIMBERBROOK  
Site Code:  
Start Date: 10/30/2024  
Page No: 5

### Turning Movement Peak Hour Data (4:30 PM)

| Start Time           | TIMBERBROOK<br>Southbound |       |       |        |            | FM 407<br>Westbound |       |       |        |            | TIMBERBROOK<br>Northbound |       |       |        |            | FM 407<br>Eastbound |       |       |        |            | Int. Total |
|----------------------|---------------------------|-------|-------|--------|------------|---------------------|-------|-------|--------|------------|---------------------------|-------|-------|--------|------------|---------------------|-------|-------|--------|------------|------------|
|                      | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru  | Right | U-Turn | App. Total | Left                      | Thru  | Right | U-Turn | App. Total | Left                | Thru  | Right | U-Turn | App. Total |            |
| 4:30 PM              | 7                         | 0     | 2     | 0      | 9          | 0                   | 122   | 16    | 0      | 138        | 0                         | 0     | 0     | 0      | 0          | 0                   | 61    | 0     | 0      | 61         | 208        |
| 4:45 PM              | 15                        | 1     | 0     | 0      | 16         | 0                   | 104   | 8     | 0      | 112        | 0                         | 0     | 1     | 0      | 1          | 1                   | 41    | 0     | 0      | 42         | 171        |
| 5:00 PM              | 9                         | 0     | 5     | 0      | 14         | 0                   | 96    | 8     | 0      | 104        | 0                         | 1     | 0     | 0      | 1          | 1                   | 53    | 0     | 0      | 54         | 173        |
| 5:15 PM              | 5                         | 0     | 4     | 0      | 9          | 0                   | 101   | 10    | 0      | 111        | 0                         | 0     | 1     | 0      | 1          | 1                   | 55    | 0     | 0      | 56         | 177        |
| Total                | 36                        | 1     | 11    | 0      | 48         | 0                   | 423   | 42    | 0      | 465        | 0                         | 1     | 2     | 0      | 3          | 3                   | 210   | 0     | 0      | 213        | 729        |
| Approach %           | 75.0                      | 2.1   | 22.9  | 0.0    | -          | 0.0                 | 91.0  | 9.0   | 0.0    | -          | 0.0                       | 33.3  | 66.7  | 0.0    | -          | 1.4                 | 98.6  | 0.0   | 0.0    | -          | -          |
| Total %              | 4.9                       | 0.1   | 1.5   | 0.0    | 6.6        | 0.0                 | 58.0  | 5.8   | 0.0    | 63.8       | 0.0                       | 0.1   | 0.3   | 0.0    | 0.4        | 0.4                 | 28.8  | 0.0   | 0.0    | 29.2       | -          |
| PHF                  | 0.600                     | 0.250 | 0.550 | 0.000  | 0.750      | 0.000               | 0.867 | 0.656 | 0.000  | 0.842      | 0.000                     | 0.250 | 0.500 | 0.000  | 0.750      | 0.750               | 0.861 | 0.000 | 0.000  | 0.873      | 0.876      |
| Lights               | 35                        | 1     | 8     | 0      | 44         | 0                   | 408   | 41    | 0      | 449        | 0                         | 0     | 1     | 0      | 1          | 3                   | 195   | 0     | 0      | 198        | 692        |
| % Lights             | 97.2                      | 100.0 | 72.7  | -      | 91.7       | -                   | 96.5  | 97.6  | -      | 96.6       | -                         | 0.0   | 50.0  | -      | 33.3       | 100.0               | 92.9  | -     | -      | 93.0       | 94.9       |
| Mediums              | 0                         | 0     | 1     | 0      | 1          | 0                   | 13    | 1     | 0      | 14         | 0                         | 0     | 0     | 0      | 0          | 0                   | 8     | 0     | 0      | 8          | 23         |
| % Mediums            | 0.0                       | 0.0   | 9.1   | -      | 2.1        | -                   | 3.1   | 2.4   | -      | 3.0        | -                         | 0.0   | 0.0   | -      | 0.0        | 0.0                 | 3.8   | -     | -      | 3.8        | 3.2        |
| Articulated Trucks   | 1                         | 0     | 2     | 0      | 3          | 0                   | 2     | 0     | 0      | 2          | 0                         | 1     | 1     | 0      | 2          | 0                   | 7     | 0     | 0      | 7          | 14         |
| % Articulated Trucks | 2.8                       | 0.0   | 18.2  | -      | 6.3        | -                   | 0.5   | 0.0   | -      | 0.4        | -                         | 100.0 | 50.0  | -      | 66.7       | 0.0                 | 3.3   | -     | -      | 3.3        | 1.9        |



Turning Movement Peak Hour Data Plot (4:30 PM)

EXISTING (2024) TRAFFIC ANALYSIS



| Intersection                |        |          |        |       |       |      |
|-----------------------------|--------|----------|--------|-------|-------|------|
| Int Delay, s/veh            | 7      |          |        |       |       |      |
| Movement                    | WBL    | WBR      | NBT    | NBR   | SBL   | SBT  |
| Lane Configurations         | W      |          | T      |       |       | A    |
| Traffic Vol, veh/h          | 94     | 58       | 61     | 17    | 72    | 63   |
| Future Vol, veh/h           | 94     | 58       | 61     | 17    | 72    | 63   |
| Conflicting Peds, #/hr      | 0      | 0        | 0      | 0     | 0     | 0    |
| Sign Control                | Stop   | Stop     | Free   | Free  | Free  | Free |
| RT Channelized              | -      | None     | -      | None  | -     | None |
| Storage Length              | 0      | -        | -      | -     | -     | -    |
| Veh in Median Storage, #    | 0      | -        | 0      | -     | -     | 0    |
| Grade, %                    | 0      | -        | 0      | -     | -     | 0    |
| Peak Hour Factor            | 68     | 68       | 68     | 68    | 68    | 68   |
| Heavy Vehicles, %           | 2      | 2        | 2      | 2     | 2     | 2    |
| Mvmt Flow                   | 138    | 85       | 90     | 25    | 106   | 93   |
| Major/Minor                 | Minor1 | Major1   | Major2 |       |       |      |
| Conflicting Flow All        | 407    | 102      | 0      | 0     | 115   | 0    |
| Stage 1                     | 102    | -        | -      | -     | -     | -    |
| Stage 2                     | 304    | -        | -      | -     | -     | -    |
| Critical Hdwy               | 6.42   | 6.22     | -      | -     | 4.12  | -    |
| Critical Hdwy Stg 1         | 5.42   | -        | -      | -     | -     | -    |
| Critical Hdwy Stg 2         | 5.42   | -        | -      | -     | -     | -    |
| Follow-up Hdwy              | 3.518  | 3.318    | -      | -     | 2.218 | -    |
| Pot Cap-1 Maneuver          | 601    | 953      | -      | -     | 1474  | -    |
| Stage 1                     | 922    | -        | -      | -     | -     | -    |
| Stage 2                     | 748    | -        | -      | -     | -     | -    |
| Platoon blocked, %          |        |          | -      | -     |       | -    |
| Mov Cap-1 Maneuver          | 555    | 953      | -      | -     | 1474  | -    |
| Mov Cap-2 Maneuver          | 555    | -        | -      | -     | -     | -    |
| Stage 1                     | 922    | -        | -      | -     | -     | -    |
| Stage 2                     | 691    | -        | -      | -     | -     | -    |
| Approach                    | WB     | NB       | SB     |       |       |      |
| HCM Control Delay, s/v13.22 |        | 0        | 4.07   |       |       |      |
| HCM LOS                     | B      |          |        |       |       |      |
| Minor Lane/Major Mvmt       | NBT    | NBRWBLn1 | SBL    | SBT   |       |      |
| Capacity (veh/h)            | -      | -        | 660    | 960   | -     |      |
| HCM Lane V/C Ratio          | -      | -        | 0.339  | 0.072 | -     |      |
| HCM Control Delay (s/veh)   | -      | -        | 13.2   | 7.6   | 0     |      |
| HCM Lane LOS                | -      | -        | B      | A     | A     |      |
| HCM 95th %tile Q(veh)       | -      | -        | 1.5    | 0.2   | -     |      |

| Intersection                |        |        |       |        |      |      |
|-----------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh            | 0.3    |        |       |        |      |      |
| Movement                    | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations         | W      |        |       | W      | W    |      |
| Traffic Vol, veh/h          | 3      | 3      | 2     | 117    | 129  | 1    |
| Future Vol, veh/h           | 3      | 3      | 2     | 117    | 129  | 1    |
| Conflicting Peds, #/hr      | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control                | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized              | -      | None   | -     | None   | -    | None |
| Storage Length              | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #    | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                    | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor            | 62     | 62     | 62    | 62     | 62   | 62   |
| Heavy Vehicles, %           | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                   | 5      | 5      | 3     | 189    | 208  | 2    |
|                             |        |        |       |        |      |      |
| Major/Minor                 | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All        | 404    | 209    | 210   | 0      | -    | 0    |
| Stage 1                     | 209    | -      | -     | -      | -    | -    |
| Stage 2                     | 195    | -      | -     | -      | -    | -    |
| Critical Hdwy               | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1         | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2         | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy              | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver          | 603    | 831    | 1361  | -      | -    | -    |
| Stage 1                     | 826    | -      | -     | -      | -    | -    |
| Stage 2                     | 838    | -      | -     | -      | -    | -    |
| Platoon blocked, %          |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver          | 601    | 831    | 1361  | -      | -    | -    |
| Mov Cap-2 Maneuver          | 601    | -      | -     | -      | -    | -    |
| Stage 1                     | 824    | -      | -     | -      | -    | -    |
| Stage 2                     | 838    | -      | -     | -      | -    | -    |
|                             |        |        |       |        |      |      |
|                             |        |        |       |        |      |      |
| Approach                    | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v10.23 |        | 0.13   |       | 0      |      |      |
| HCM LOS                     | B      |        |       |        |      |      |
|                             |        |        |       |        |      |      |
| Minor Lane/Major Mvmt       | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)            | 30     | -      | 698   | -      | -    |      |
| HCM Lane V/C Ratio          | 0.002  | -      | 0.014 | -      | -    |      |
| HCM Control Delay (s/veh)   | 7.7    | 0      | 10.2  | -      | -    |      |
| HCM Lane LOS                | A      | A      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)       | 0      | -      | 0     | -      | -    |      |

| Intersection              |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.3                                                                               |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations       |  |  |      |        |  |  |        |  |  |  |      |  |
| Traffic Vol, veh/h        | 10                                                                                | 500                                                                               | 2    | 0      | 143                                                                               | 68                                                                                | 0      | 0                                                                                 | 0                                                                                 | 50                                                                                  | 0    | 6                                                                                   |
| Future Vol, veh/h         | 10                                                                                | 500                                                                               | 2    | 0      | 143                                                                               | 68                                                                                | 0      | 0                                                                                 | 0                                                                                 | 50                                                                                  | 0    | 6                                                                                   |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free   | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None                                                                              | -      | -                                                                                 | None                                                                              | -                                                                                   | -    | None                                                                                |
| Storage Length            | 220                                                                               | -                                                                                 | -    | -      | -                                                                                 | 200                                                                               | -      | -                                                                                 | -                                                                                 | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor          | 93                                                                                | 93                                                                                | 93   | 93     | 93                                                                                | 93                                                                                | 93     | 93                                                                                | 93                                                                                | 93                                                                                  | 93   | 93                                                                                  |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                 | 11                                                                                | 538                                                                               | 2    | 0      | 154                                                                               | 73                                                                                | 0      | 0                                                                                 | 0                                                                                 | 54                                                                                  | 0    | 6                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2 |                                                                                   |                                                                                   | Minor1 |                                                                                   |                                                                                   | Minor2                                                                              |      |                                                                                     |
| Conflicting Flow All      | 227                                                                               | 0                                                                                 | 0    | -      | -                                                                                 | 0                                                                                 | 714    | 787                                                                               | 539                                                                               | 713                                                                                 | -    | 154                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 560    | 560                                                                               | -                                                                                 | 154                                                                                 | -    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 154    | 227                                                                               | -                                                                                 | 559                                                                                 | -    | -                                                                                   |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 7.12   | 6.52                                                                              | 6.22                                                                              | 7.12                                                                                | -    | 6.22                                                                                |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | -    | -                                                                                   |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | -    | -                                                                                   |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 3.518  | 4.018                                                                             | 3.318                                                                             | 3.518                                                                               | -    | 3.318                                                                               |
| Pot Cap-1 Maneuver        | 1341                                                                              | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 346    | 324                                                                               | 543                                                                               | 347                                                                                 | 0    | 892                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 513    | 510                                                                               | -                                                                                 | 849                                                                                 | 0    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 849    | 716                                                                               | -                                                                                 | 513                                                                                 | 0    | -                                                                                   |
| Platoon blocked, %        |                                                                                   | -                                                                                 | -    |        | -                                                                                 | -                                                                                 |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Mov Cap-1 Maneuver        | 1341                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 341    | 321                                                                               | 543                                                                               | 344                                                                                 | -    | 892                                                                                 |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 341    | 321                                                                               | -                                                                                 | 344                                                                                 | -    | -                                                                                   |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 509    | 506                                                                               | -                                                                                 | 849                                                                                 | -    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 842    | 716                                                                               | -                                                                                 | 509                                                                                 | -    | -                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Approach                  | EB                                                                                |                                                                                   |      | WB     |                                                                                   |                                                                                   | NB     |                                                                                   |                                                                                   | SB                                                                                  |      |                                                                                     |
| HCM Control Delay, s/v    | 0.15                                                                              |                                                                                   |      | 0      |                                                                                   |                                                                                   | 0      |                                                                                   |                                                                                   | 16.5                                                                                |      |                                                                                     |
| HCM LOS                   |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   | A      |                                                                                   |                                                                                   | C                                                                                   |      |                                                                                     |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | EBR    | WBT                                                                               | WBR                                                                               | SBLn1  | SBLn2                                                                             |                                                                                   |                                                                                     |      |                                                                                     |
| Capacity (veh/h)          | -                                                                                 | 1341                                                                              | -    | -      | -                                                                                 | -                                                                                 | 344    | 892                                                                               |                                                                                   |                                                                                     |      |                                                                                     |
| HCM Lane V/C Ratio        | -                                                                                 | 0.008                                                                             | -    | -      | -                                                                                 | -                                                                                 | 0.156  | 0.007                                                                             |                                                                                   |                                                                                     |      |                                                                                     |
| HCM Control Delay (s/veh) | 0                                                                                 | 7.7                                                                               | -    | -      | -                                                                                 | -                                                                                 | 17.4   | 9.1                                                                               |                                                                                   |                                                                                     |      |                                                                                     |
| HCM Lane LOS              | A                                                                                 | A                                                                                 | -    | -      | -                                                                                 | -                                                                                 | C      | A                                                                                 |                                                                                   |                                                                                     |      |                                                                                     |
| HCM 95th %tile Q(veh)     | -                                                                                 | 0                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 0.5    | 0                                                                                 |                                                                                   |                                                                                     |      |                                                                                     |

HCM 7th TWSC  
1: Boss Range Rd & Wiley Rd

Existing PM  
Range Creek TIA

| Intersection              |        |          |       |        |       |      |
|---------------------------|--------|----------|-------|--------|-------|------|
| Int Delay, s/veh          | 3.7    |          |       |        |       |      |
| Movement                  | WBL    | WBR      | NBT   | NBR    | SBL   | SBT  |
| Lane Configurations       | W      |          | T     |        |       | A    |
| Traffic Vol, veh/h        | 30     | 47       | 54    | 16     | 24    | 74   |
| Future Vol, veh/h         | 30     | 47       | 54    | 16     | 24    | 74   |
| Conflicting Peds, #/hr    | 0      | 0        | 0     | 0      | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free  | Free   | Free  | Free |
| RT Channelized            | -      | None     | -     | None   | -     | None |
| Storage Length            | 0      | -        | -     | -      | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0     | -      | -     | 0    |
| Grade, %                  | 0      | -        | 0     | -      | -     | 0    |
| Peak Hour Factor          | 85     | 85       | 85    | 85     | 85    | 85   |
| Heavy Vehicles, %         | 2      | 2        | 2     | 2      | 2     | 2    |
| Mvmt Flow                 | 35     | 55       | 64    | 19     | 28    | 87   |
| Major/Minor               | Minor1 | Major1   |       | Major2 |       |      |
| Conflicting Flow All      | 216    | 73       | 0     | 0      | 82    | 0    |
| Stage 1                   | 73     | -        | -     | -      | -     | -    |
| Stage 2                   | 144    | -        | -     | -      | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -     | -      | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -     | -      | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -     | -      | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -     | -      | 2.218 | -    |
| Pot Cap-1 Maneuver        | 772    | 989      | -     | -      | 1515  | -    |
| Stage 1                   | 950    | -        | -     | -      | -     | -    |
| Stage 2                   | 884    | -        | -     | -      | -     | -    |
| Platoon blocked, %        |        |          | -     | -      |       | -    |
| Mov Cap-1 Maneuver        | 757    | 989      | -     | -      | 1515  | -    |
| Mov Cap-2 Maneuver        | 757    | -        | -     | -      | -     | -    |
| Stage 1                   | 950    | -        | -     | -      | -     | -    |
| Stage 2                   | 866    | -        | -     | -      | -     | -    |
| Approach                  | WB     | NB       |       | SB     |       |      |
| HCM Control Delay, s/v    | 9.54   | 0        |       | 1.82   |       |      |
| HCM LOS                   | A      |          |       |        |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 |       | SBL    | SBT   |      |
| Capacity (veh/h)          | -      | -        | 883   | 441    | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.103 | 0.019  | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 9.5   | 7.4    | 0     |      |
| HCM Lane LOS              | -      | -        | A     | A      | A     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 0.3   | 0.1    | -     |      |

| Intersection              |        |        |       |        |      |      |
|---------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh          | 0.5    |        |       |        |      |      |
| Movement                  | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations       | W      |        |       | W      | W    |      |
| Traffic Vol, veh/h        | 3      | 2      | 7     | 92     | 95   | 0    |
| Future Vol, veh/h         | 3      | 2      | 7     | 92     | 95   | 0    |
| Conflicting Peds, #/hr    | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control              | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized            | -      | None   | -     | None   | -    | None |
| Storage Length            | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #  | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                  | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor          | 90     | 90     | 90    | 90     | 90   | 90   |
| Heavy Vehicles, %         | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                 | 3      | 2      | 8     | 102    | 106  | 0    |
| Major/Minor               | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All      | 223    | 106    | 106   | 0      | -    | 0    |
| Stage 1                   | 106    | -      | -     | -      | -    | -    |
| Stage 2                   | 118    | -      | -     | -      | -    | -    |
| Critical Hdwy             | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1       | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2       | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy            | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver        | 765    | 949    | 1486  | -      | -    | -    |
| Stage 1                   | 919    | -      | -     | -      | -    | -    |
| Stage 2                   | 907    | -      | -     | -      | -    | -    |
| Platoon blocked, %        |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver        | 761    | 949    | 1486  | -      | -    | -    |
| Mov Cap-2 Maneuver        | 761    | -      | -     | -      | -    | -    |
| Stage 1                   | 914    | -      | -     | -      | -    | -    |
| Stage 2                   | 907    | -      | -     | -      | -    | -    |
| Approach                  | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v    | 9.39   | 0.53   |       | 0      |      |      |
| HCM LOS                   | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)          | 127    | -      | 826   | -      | -    |      |
| HCM Lane V/C Ratio        | 0.005  | -      | 0.007 | -      | -    |      |
| HCM Control Delay (s/veh) | 7.4    | 0      | 9.4   | -      | -    |      |
| HCM Lane LOS              | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)     | 0      | -      | 0     | -      | -    |      |

| Intersection              |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.1                                                                               |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT   | SBR                                                                                 |
| Lane Configurations       |  |  |      |        |  |  |        |  |  |  |       |  |
| Traffic Vol, veh/h        | 3                                                                                 | 210                                                                               | 0    | 0      | 423                                                                               | 42                                                                                | 0      | 1                                                                                 | 2                                                                                 | 36                                                                                  | 1     | 11                                                                                  |
| Future Vol, veh/h         | 3                                                                                 | 210                                                                               | 0    | 0      | 423                                                                               | 42                                                                                | 0      | 1                                                                                 | 2                                                                                 | 36                                                                                  | 1     | 11                                                                                  |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0     | 0                                                                                   |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free   | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop  | Stop                                                                                |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None                                                                              | -      | -                                                                                 | None                                                                              | -                                                                                   | -     | None                                                                                |
| Storage Length            | 220                                                                               | -                                                                                 | -    | -      | -                                                                                 | 200                                                                               | -      | -                                                                                 | -                                                                                 | 0                                                                                   | -     | 0                                                                                   |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0     | -                                                                                   |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0     | -                                                                                   |
| Peak Hour Factor          | 88                                                                                | 88                                                                                | 88   | 88     | 88                                                                                | 88                                                                                | 88     | 88                                                                                | 88                                                                                | 88                                                                                  | 88    | 88                                                                                  |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2     | 2                                                                                   |
| Mvmt Flow                 | 3                                                                                 | 239                                                                               | 0    | 0      | 481                                                                               | 48                                                                                | 0      | 1                                                                                 | 2                                                                                 | 41                                                                                  | 1     | 13                                                                                  |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2 |                                                                                   |                                                                                   | Minor1 |                                                                                   |                                                                                   | Minor2                                                                              |       |                                                                                     |
| Conflicting Flow All      | 528                                                                               | 0                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | 727    | 774                                                                               | 239                                                                               | 727                                                                                 | 726   | 481                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 245    | 245                                                                               | -                                                                                 | 481                                                                                 | 481   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 481    | 528                                                                               | -                                                                                 | 246                                                                                 | 245   | -                                                                                   |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 7.12   | 6.52                                                                              | 6.22                                                                              | 7.12                                                                                | 6.52  | 6.22                                                                                |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | 5.52  | -                                                                                   |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | 5.52  | -                                                                                   |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 3.518  | 4.018                                                                             | 3.318                                                                             | 3.518                                                                               | 4.018 | 3.318                                                                               |
| Pot Cap-1 Maneuver        | 1039                                                                              | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 340    | 329                                                                               | 800                                                                               | 340                                                                                 | 351   | 585                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 758    | 703                                                                               | -                                                                                 | 566                                                                                 | 554   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 566    | 527                                                                               | -                                                                                 | 758                                                                                 | 703   | -                                                                                   |
| Platoon blocked, %        |                                                                                   | -                                                                                 |      |        | -                                                                                 | -                                                                                 |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Mov Cap-1 Maneuver        | 1039                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 330    | 328                                                                               | 800                                                                               | 336                                                                                 | 350   | 585                                                                                 |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 330    | 328                                                                               | -                                                                                 | 336                                                                                 | 350   | -                                                                                   |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 756    | 701                                                                               | -                                                                                 | 566                                                                                 | 554   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 553    | 527                                                                               | -                                                                                 | 752                                                                                 | 701   | -                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Approach                  | EB                                                                                |                                                                                   |      | WB     |                                                                                   |                                                                                   | NB     |                                                                                   |                                                                                   | SB                                                                                  |       |                                                                                     |
| HCM Control Delay, s/v    | 0.12                                                                              |                                                                                   |      | 0      |                                                                                   |                                                                                   | 11.7   |                                                                                   |                                                                                   | 15.8                                                                                |       |                                                                                     |
| HCM LOS                   |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   | B      |                                                                                   |                                                                                   | C                                                                                   |       |                                                                                     |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | WBT    | WBR                                                                               | SBLn1                                                                             | SBLn2  |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Capacity (veh/h)          | 541                                                                               | 1039                                                                              | -    | -      | -                                                                                 | 336                                                                               | 585    |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Lane V/C Ratio        | 0.006                                                                             | 0.003                                                                             | -    | -      | -                                                                                 | 0.122                                                                             | 0.021  |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Control Delay (s/veh) | 11.7                                                                              | 8.5                                                                               | -    | -      | -                                                                                 | 17.2                                                                              | 11.3   |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Lane LOS              | B                                                                                 | A                                                                                 | -    | -      | -                                                                                 | C                                                                                 | B      |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM 95th %tile Q(veh)     | 0                                                                                 | 0                                                                                 | -    | -      | -                                                                                 | 0.4                                                                               | 0.1    |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |



| Intersection              |        |          |        |       |       |      |
|---------------------------|--------|----------|--------|-------|-------|------|
| Int Delay, s/veh          | 7.5    |          |        |       |       |      |
| Movement                  | WBL    | WBR      | NBT    | NBR   | SBL   | SBT  |
| Lane Configurations       | W      |          | T      |       |       | A    |
| Traffic Vol, veh/h        | 104    | 64       | 68     | 19    | 80    | 70   |
| Future Vol, veh/h         | 104    | 64       | 68     | 19    | 80    | 70   |
| Conflicting Peds, #/hr    | 0      | 0        | 0      | 0     | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free   | Free  | Free  | Free |
| RT Channelized            | -      | None     | -      | None  | -     | None |
| Storage Length            | 0      | -        | -      | -     | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0      | -     | -     | 0    |
| Grade, %                  | 0      | -        | 0      | -     | -     | 0    |
| Peak Hour Factor          | 68     | 68       | 68     | 68    | 68    | 68   |
| Heavy Vehicles, %         | 2      | 2        | 2      | 2     | 2     | 2    |
| Mvmt Flow                 | 153    | 94       | 100    | 28    | 118   | 103  |
| Major/Minor               | Minor1 | Major1   | Major2 |       |       |      |
| Conflicting Flow All      | 452    | 114      | 0      | 0     | 128   | 0    |
| Stage 1                   | 114    | -        | -      | -     | -     | -    |
| Stage 2                   | 338    | -        | -      | -     | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -      | -     | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -      | -     | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -      | -     | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -      | -     | 2.218 | -    |
| Pot Cap-1 Maneuver        | 565    | 939      | -      | -     | 1458  | -    |
| Stage 1                   | 911    | -        | -      | -     | -     | -    |
| Stage 2                   | 722    | -        | -      | -     | -     | -    |
| Platoon blocked, %        |        |          | -      | -     |       | -    |
| Mov Cap-1 Maneuver        | 517    | 939      | -      | -     | 1458  | -    |
| Mov Cap-2 Maneuver        | 517    | -        | -      | -     | -     | -    |
| Stage 1                   | 911    | -        | -      | -     | -     | -    |
| Stage 2                   | 660    | -        | -      | -     | -     | -    |
| Approach                  | WB     | NB       | SB     |       |       |      |
| HCM Control Delay, s/v    | 14.51  | 0        | 4.1    |       |       |      |
| HCM LOS                   | B      |          |        |       |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 | SBL    | SBT   |       |      |
| Capacity (veh/h)          | -      | -        | 624    | 960   | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.396  | 0.081 | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 14.5   | 7.7   | 0     |      |
| HCM Lane LOS              | -      | -        | B      | A     | A     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 1.9    | 0.3   | -     |      |



| Intersection                |        |        |       |        |      |      |
|-----------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh            | 0.3    |        |       |        |      |      |
| Movement                    | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations         | W      |        |       | 4      | 4    |      |
| Traffic Vol, veh/h          | 3      | 3      | 2     | 130    | 143  | 1    |
| Future Vol, veh/h           | 3      | 3      | 2     | 130    | 143  | 1    |
| Conflicting Peds, #/hr      | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control                | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized              | -      | None   | -     | None   | -    | None |
| Storage Length              | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #    | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                    | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor            | 62     | 62     | 62    | 62     | 62   | 62   |
| Heavy Vehicles, %           | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                   | 5      | 5      | 3     | 210    | 231  | 2    |
|                             |        |        |       |        |      |      |
| Major/Minor                 | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All        | 448    | 231    | 232   | 0      | -    | 0    |
| Stage 1                     | 231    | -      | -     | -      | -    | -    |
| Stage 2                     | 216    | -      | -     | -      | -    | -    |
| Critical Hdwy               | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1         | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2         | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy              | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver          | 569    | 808    | 1335  | -      | -    | -    |
| Stage 1                     | 807    | -      | -     | -      | -    | -    |
| Stage 2                     | 820    | -      | -     | -      | -    | -    |
| Platoon blocked, %          |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver          | 567    | 808    | 1335  | -      | -    | -    |
| Mov Cap-2 Maneuver          | 567    | -      | -     | -      | -    | -    |
| Stage 1                     | 805    | -      | -     | -      | -    | -    |
| Stage 2                     | 820    | -      | -     | -      | -    | -    |
|                             |        |        |       |        |      |      |
|                             |        |        |       |        |      |      |
| Approach                    | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v10.48 |        | 0.12   |       | 0      |      |      |
| HCM LOS                     | B      |        |       |        |      |      |
|                             |        |        |       |        |      |      |
| Minor Lane/Major Mvmt       | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)            | 27     | -      | 666   | -      | -    |      |
| HCM Lane V/C Ratio          | 0.002  | -      | 0.015 | -      | -    |      |
| HCM Control Delay (s/veh)   | 7.7    | 0      | 10.5  | -      | -    |      |
| HCM Lane LOS                | A      | A      | B     | -      | -    |      |
| HCM 95th %tile Q(veh)       | 0      | -      | 0     | -      | -    |      |

| Intersection              |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |       |                                                                                     |      |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.4                                                                               |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |       |                                                                                     |      |                                                                                     |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR   | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations       |  |  |      |        |  |  |        |  |       |  |      |  |
| Traffic Vol, veh/h        | 11                                                                                | 554                                                                               | 2    | 0      | 159                                                                               | 75                                                                                | 0      | 0                                                                                 | 0     | 55                                                                                  | 0    | 7                                                                                   |
| Future Vol, veh/h         | 11                                                                                | 554                                                                               | 2    | 0      | 159                                                                               | 75                                                                                | 0      | 0                                                                                 | 0     | 55                                                                                  | 0    | 7                                                                                   |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0     | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free   | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop  | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None                                                                              | -      | -                                                                                 | None  | -                                                                                   | -    | None                                                                                |
| Storage Length            | 220                                                                               | -                                                                                 | -    | -      | -                                                                                 | 200                                                                               | -      | -                                                                                 | -     | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -     | -                                                                                   | 0    | -                                                                                   |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -     | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor          | 93                                                                                | 93                                                                                | 93   | 93     | 93                                                                                | 93                                                                                | 93     | 93                                                                                | 93    | 93                                                                                  | 93   | 93                                                                                  |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2     | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                 | 12                                                                                | 596                                                                               | 2    | 0      | 171                                                                               | 81                                                                                | 0      | 0                                                                                 | 0     | 59                                                                                  | 0    | 8                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |       |                                                                                     |      |                                                                                     |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2 |                                                                                   |                                                                                   | Minor1 |                                                                                   |       | Minor2                                                                              |      |                                                                                     |
| Conflicting Flow All      | 252                                                                               | 0                                                                                 | 0    | -      | -                                                                                 | 0                                                                                 | 791    | 872                                                                               | 597   | 790                                                                                 | -    | 171                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 620    | 620                                                                               | -     | 171                                                                                 | -    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 171    | 252                                                                               | -     | 619                                                                                 | -    | -                                                                                   |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 7.12   | 6.52                                                                              | 6.22  | 7.12                                                                                | -    | 6.22                                                                                |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | -    | -                                                                                   |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | -    | -                                                                                   |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 3.518  | 4.018                                                                             | 3.318 | 3.518                                                                               | -    | 3.318                                                                               |
| Pot Cap-1 Maneuver        | 1314                                                                              | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 307    | 289                                                                               | 503   | 308                                                                                 | 0    | 873                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 475    | 480                                                                               | -     | 831                                                                                 | 0    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | 0      | -                                                                                 | -                                                                                 | 831    | 699                                                                               | -     | 476                                                                                 | 0    | -                                                                                   |
| Platoon blocked, %        |                                                                                   | -                                                                                 | -    |        | -                                                                                 | -                                                                                 |        |                                                                                   |       |                                                                                     |      |                                                                                     |
| Mov Cap-1 Maneuver        | 1314                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 302    | 286                                                                               | 503   | 305                                                                                 | -    | 873                                                                                 |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 302    | 286                                                                               | -     | 305                                                                                 | -    | -                                                                                   |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 471    | 475                                                                               | -     | 831                                                                                 | -    | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 824    | 699                                                                               | -     | 472                                                                                 | -    | -                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |       |                                                                                     |      |                                                                                     |
| Approach                  | EB                                                                                |                                                                                   |      | WB     |                                                                                   |                                                                                   | NB     |                                                                                   |       | SB                                                                                  |      |                                                                                     |
| HCM Control Delay, s/v    | 0.15                                                                              |                                                                                   |      | 0      |                                                                                   |                                                                                   | 0      |                                                                                   |       | 18.44                                                                               |      |                                                                                     |
| HCM LOS                   |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   | A      |                                                                                   |       | C                                                                                   |      |                                                                                     |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |       |                                                                                     |      |                                                                                     |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | EBR    | WBT                                                                               | WBR                                                                               | SBLn1  | SBLn2                                                                             |       |                                                                                     |      |                                                                                     |
| Capacity (veh/h)          | -                                                                                 | 1314                                                                              | -    | -      | -                                                                                 | -                                                                                 | 305    | 873                                                                               |       |                                                                                     |      |                                                                                     |
| HCM Lane V/C Ratio        | -                                                                                 | 0.009                                                                             | -    | -      | -                                                                                 | -                                                                                 | 0.194  | 0.009                                                                             |       |                                                                                     |      |                                                                                     |
| HCM Control Delay (s/veh) | 0                                                                                 | 7.8                                                                               | -    | -      | -                                                                                 | -                                                                                 | 19.6   | 9.2                                                                               |       |                                                                                     |      |                                                                                     |
| HCM Lane LOS              | A                                                                                 | A                                                                                 | -    | -      | -                                                                                 | -                                                                                 | C      | A                                                                                 |       |                                                                                     |      |                                                                                     |
| HCM 95th %tile Q(veh)     | -                                                                                 | 0                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 0.7    | 0                                                                                 |       |                                                                                     |      |                                                                                     |

| Intersection              |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 3.8                                                                               |        |                                                                                   |        |       |                                                                                   |
| Movement                  | WBL                                                                               | WBR    | NBT                                                                               | NBR    | SBL   | SBT                                                                               |
| Lane Configurations       |  |        |  |        |       |  |
| Traffic Vol, veh/h        | 33                                                                                | 52     | 60                                                                                | 18     | 27    | 82                                                                                |
| Future Vol, veh/h         | 33                                                                                | 52     | 60                                                                                | 18     | 27    | 82                                                                                |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0      | 0     | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop   | Free                                                                              | Free   | Free  | Free                                                                              |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None   | -     | None                                                                              |
| Storage Length            | 0                                                                                 | -      | -                                                                                 | -      | -     | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -      | 0                                                                                 | -      | -     | 0                                                                                 |
| Peak Hour Factor          | 85                                                                                | 85     | 85                                                                                | 85     | 85    | 85                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2      | 2     | 2                                                                                 |
| Mvmt Flow                 | 39                                                                                | 61     | 71                                                                                | 21     | 32    | 96                                                                                |
|                           |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Major/Minor               | Minor1                                                                            | Major1 |                                                                                   | Major2 |       |                                                                                   |
| Conflicting Flow All      | 241                                                                               | 81     | 0                                                                                 | 0      | 92    | 0                                                                                 |
| Stage 1                   | 81                                                                                | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                   | 160                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy             | 6.42                                                                              | 6.22   | -                                                                                 | -      | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -                                                                                 | -      | -     | -                                                                                 |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | -                                                                                 | -      | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver        | 747                                                                               | 979    | -                                                                                 | -      | 1503  | -                                                                                 |
| Stage 1                   | 942                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                   | 869                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Platoon blocked, %        |                                                                                   |        | -                                                                                 | -      |       | -                                                                                 |
| Mov Cap-1 Maneuver        | 730                                                                               | 979    | -                                                                                 | -      | 1503  | -                                                                                 |
| Mov Cap-2 Maneuver        | 730                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 1                   | 942                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
| Stage 2                   | 849                                                                               | -      | -                                                                                 | -      | -     | -                                                                                 |
|                           |                                                                                   |        |                                                                                   |        |       |                                                                                   |
|                           |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Approach                  | WB                                                                                | NB     |                                                                                   | SB     |       |                                                                                   |
| HCM Control Delay, s/v    | 9.71                                                                              | 0      |                                                                                   | 1.84   |       |                                                                                   |
| HCM LOS                   | A                                                                                 |        |                                                                                   |        |       |                                                                                   |
|                           |                                                                                   |        |                                                                                   |        |       |                                                                                   |
| Minor Lane/Major Mvmt     |                                                                                   | NBT    | NBRWBLn1                                                                          | SBL    | SBT   |                                                                                   |
| Capacity (veh/h)          |                                                                                   | -      | -                                                                                 | 865    | 446   | -                                                                                 |
| HCM Lane V/C Ratio        |                                                                                   | -      | -                                                                                 | 0.116  | 0.021 | -                                                                                 |
| HCM Control Delay (s/veh) |                                                                                   | -      | -                                                                                 | 9.7    | 7.4   | 0                                                                                 |
| HCM Lane LOS              |                                                                                   | -      | -                                                                                 | A      | A     | A                                                                                 |
| HCM 95th %tile Q(veh)     |                                                                                   | -      | -                                                                                 | 0.4    | 0.1   | -                                                                                 |

| Intersection              |        |        |       |        |      |      |
|---------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh          | 0.5    |        |       |        |      |      |
| Movement                  | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations       | W      |        |       | 4      | 4    |      |
| Traffic Vol, veh/h        | 3      | 2      | 8     | 102    | 105  | 0    |
| Future Vol, veh/h         | 3      | 2      | 8     | 102    | 105  | 0    |
| Conflicting Peds, #/hr    | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control              | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized            | -      | None   | -     | None   | -    | None |
| Storage Length            | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #  | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                  | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor          | 90     | 90     | 90    | 90     | 90   | 90   |
| Heavy Vehicles, %         | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                 | 3      | 2      | 9     | 113    | 117  | 0    |
| Major/Minor               | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All      | 248    | 117    | 117   | 0      | -    | 0    |
| Stage 1                   | 117    | -      | -     | -      | -    | -    |
| Stage 2                   | 131    | -      | -     | -      | -    | -    |
| Critical Hdwy             | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1       | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2       | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy            | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver        | 741    | 935    | 1472  | -      | -    | -    |
| Stage 1                   | 908    | -      | -     | -      | -    | -    |
| Stage 2                   | 895    | -      | -     | -      | -    | -    |
| Platoon blocked, %        |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver        | 736    | 935    | 1472  | -      | -    | -    |
| Mov Cap-2 Maneuver        | 736    | -      | -     | -      | -    | -    |
| Stage 1                   | 902    | -      | -     | -      | -    | -    |
| Stage 2                   | 895    | -      | -     | -      | -    | -    |
| Approach                  | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v    | 9.51   | 0.54   |       | 0      |      |      |
| HCM LOS                   | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)          | 131    | -      | 805   | -      | -    |      |
| HCM Lane V/C Ratio        | 0.006  | -      | 0.007 | -      | -    |      |
| HCM Control Delay (s/veh) | 7.5    | 0      | 9.5   | -      | -    |      |
| HCM Lane LOS              | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)     | 0      | -      | 0     | -      | -    |      |

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.2                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |  |  |  |      |  |
| Traffic Vol, veh/h       | 3                                                                                 | 233                                                                               | 0    | 0    | 469                                                                               | 47                                                                                | 0    | 1                                                                                 | 2                                                                                 | 40                                                                                  | 1    | 12                                                                                  |
| Future Vol, veh/h        | 3                                                                                 | 233                                                                               | 0    | 0    | 469                                                                               | 47                                                                                | 0    | 1                                                                                 | 2                                                                                 | 40                                                                                  | 1    | 12                                                                                  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -                                                                                 | None                                                                              | -                                                                                   | -    | None                                                                                |
| Storage Length           | 220                                                                               | -                                                                                 | -    | -    | -                                                                                 | 200                                                                               | -    | -                                                                                 | -                                                                                 | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor         | 88                                                                                | 88                                                                                | 88   | 88   | 88                                                                                | 88                                                                                | 88   | 88                                                                                | 88                                                                                | 88                                                                                  | 88   | 88                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                | 3                                                                                 | 265                                                                               | 0    | 0    | 533                                                                               | 53                                                                                | 0    | 1                                                                                 | 2                                                                                 | 45                                                                                  | 1    | 14                                                                                  |

| Major/Minor          | Major1 |   | Major2 |   | Minor1 |   | Minor2 |       |       |       |       |       |
|----------------------|--------|---|--------|---|--------|---|--------|-------|-------|-------|-------|-------|
| Conflicting Flow All | 586    | 0 | -      | - | -      | 0 | 805    | 858   | 265   | 805   | 805   | 533   |
| Stage 1              | -      | - | -      | - | -      | - | 272    | 272   | -     | 533   | 533   | -     |
| Stage 2              | -      | - | -      | - | -      | - | 534    | 586   | -     | 272   | 272   | -     |
| Critical Hdwy        | 4.12   | - | -      | - | -      | - | 7.12   | 6.52  | 6.22  | 7.12  | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | -      | - | -      | - | 6.12   | 5.52  | -     | 6.12  | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | -      | - | -      | - | 6.12   | 5.52  | -     | 6.12  | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | -      | - | -      | - | 3.518  | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 989    | - | 0      | 0 | -      | - | 301    | 294   | 774   | 301   | 316   | 547   |
| Stage 1              | -      | - | 0      | 0 | -      | - | 734    | 685   | -     | 531   | 525   | -     |
| Stage 2              | -      | - | 0      | 0 | -      | - | 530    | 497   | -     | 734   | 685   | -     |
| Platoon blocked, %   | -      | - | -      | - | -      | - | -      | -     | -     | -     | -     | -     |
| Mov Cap-1 Maneuver   | 989    | - | -      | - | -      | - | 291    | 293   | 774   | 298   | 315   | 547   |
| Mov Cap-2 Maneuver   | -      | - | -      | - | -      | - | 291    | 293   | -     | 298   | 315   | -     |
| Stage 1              | -      | - | -      | - | -      | - | 732    | 682   | -     | 531   | 525   | -     |
| Stage 2              | -      | - | -      | - | -      | - | 516    | 497   | -     | 728   | 682   | -     |

| Approach               | EB   | WB | NB    | SB    |
|------------------------|------|----|-------|-------|
| HCM Control Delay, s/v | 0.11 | 0  | 12.24 | 17.53 |
| HCM LOS                |      |    | B     | C     |

| Minor Lane/Major Mvmt     | NBLn1 | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)          | 501   | 989   | -   | -   | -   | 298   | 547   |
| HCM Lane V/C Ratio        | 0.007 | 0.003 | -   | -   | -   | 0.153 | 0.025 |
| HCM Control Delay (s/veh) | 12.2  | 8.7   | -   | -   | -   | 19.3  | 11.8  |
| HCM Lane LOS              | B     | A     | -   | -   | -   | C     | B     |
| HCM 95th %tile Q(veh)     | 0     | 0     | -   | -   | -   | 0.5   | 0.1   |



| Intersection                |                                                                                   |                                                                                   |                                                                                   |      |       |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 12.3                                                                              |                                                                                   |                                                                                   |      |       |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR  | SBL   | SBT                                                                               |
| Lane Configurations         |  |  |  |      |       |  |
| Traffic Vol, veh/h          | 104                                                                               | 108                                                                               | 90                                                                                | 19   | 206   | 133                                                                               |
| Future Vol, veh/h           | 104                                                                               | 108                                                                               | 90                                                                                | 19   | 206   | 133                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0    | 0     | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free | Free  | Free                                                                              |
| RT Channelized              | -                                                                                 | None                                                                              | -                                                                                 | None | -     | None                                                                              |
| Storage Length              | 250                                                                               | 0                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -     | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -    | -     | 0                                                                                 |
| Peak Hour Factor            | 68                                                                                | 68                                                                                | 68                                                                                | 68   | 68    | 68                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2    | 2     | 2                                                                                 |
| Mvmt Flow                   | 153                                                                               | 159                                                                               | 132                                                                               | 28   | 303   | 196                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |      |       |                                                                                   |
| Conflicting Flow All        | 948                                                                               | 146                                                                               | 0                                                                                 | 0    | 160   | 0                                                                                 |
| Stage 1                     | 146                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                     | 801                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy               | 6.42                                                                              | 6.22                                                                              | -                                                                                 | -    | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Critical Hdwy Stg 2         | 5.42                                                                              | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Follow-up Hdwy              | 3.518                                                                             | 3.318                                                                             | -                                                                                 | -    | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver          | 290                                                                               | 901                                                                               | -                                                                                 | -    | 1419  | -                                                                                 |
| Stage 1                     | 881                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                     | 442                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -    |       | -                                                                                 |
| Mov Cap-1 Maneuver          | 220                                                                               | 901                                                                               | -                                                                                 | -    | 1419  | -                                                                                 |
| Mov Cap-2 Maneuver          | 220                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Stage 1                     | 881                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Stage 2                     | 336                                                                               | -                                                                                 | -                                                                                 | -    | -     | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |      |       |                                                                                   |
| HCM Control Delay, s/v30.43 |                                                                                   | 0                                                                                 | 5                                                                                 |      |       |                                                                                   |
| HCM LOS                     | D                                                                                 |                                                                                   |                                                                                   |      |       |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT  |       |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | - 220 901                                                                         | 1094                                                                              | -    |       |                                                                                   |
| HCM Lane V/C Ratio          | -                                                                                 | - 0.695 0.176                                                                     | 0.214                                                                             | -    |       |                                                                                   |
| HCM Control Delay (s/veh)   | -                                                                                 | - 51.8 9.9                                                                        | 8.2                                                                               | 0    |       |                                                                                   |
| HCM Lane LOS                | -                                                                                 | - F A                                                                             | A                                                                                 | A    |       |                                                                                   |
| HCM 95th %tile Q(veh)       | -                                                                                 | - 4.5 0.6                                                                         | 0.8                                                                               | -    |       |                                                                                   |

| Intersection              |        |        |       |        |      |      |
|---------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh          | 27.3   |        |       |        |      |      |
| Movement                  | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations       | W      |        |       | W      | W    |      |
| Traffic Vol, veh/h        | 129    | 191    | 68    | 130    | 143  | 45   |
| Future Vol, veh/h         | 129    | 191    | 68    | 130    | 143  | 45   |
| Conflicting Peds, #/hr    | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control              | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized            | -      | None   | -     | None   | -    | None |
| Storage Length            | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #  | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                  | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor          | 62     | 62     | 62    | 62     | 62   | 62   |
| Heavy Vehicles, %         | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                 | 208    | 308    | 110   | 210    | 231  | 73   |
| Major/Minor               | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All      | 696    | 267    | 303   | 0      | -    | 0    |
| Stage 1                   | 267    | -      | -     | -      | -    | -    |
| Stage 2                   | 429    | -      | -     | -      | -    | -    |
| Critical Hdwy             | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1       | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2       | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy            | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver        | 408    | 772    | 1258  | -      | -    | -    |
| Stage 1                   | 778    | -      | -     | -      | -    | -    |
| Stage 2                   | 657    | -      | -     | -      | -    | -    |
| Platoon blocked, %        |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver        | 367    | 772    | 1258  | -      | -    | -    |
| Mov Cap-2 Maneuver        | 367    | -      | -     | -      | -    | -    |
| Stage 1                   | 701    | -      | -     | -      | -    | -    |
| Stage 2                   | 657    | -      | -     | -      | -    | -    |
| Approach                  | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v    | 58.6   | 2.79   |       | 0      |      |      |
| HCM LOS                   | F      |        |       |        |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)          | 618    | -      | 535   | -      | -    |      |
| HCM Lane V/C Ratio        | 0.087  | -      | 0.965 | -      | -    |      |
| HCM Control Delay (s/veh) | 8.1    | 0      | 58.6  | -      | -    |      |
| HCM Lane LOS              | A      | A      | F     | -      | -    |      |
| HCM 95th %tile Q(veh)     | 0.3    | -      | 12.8  | -      | -    |      |



| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |      |                                                                                     |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.6                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |      |                                                                                     |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR  | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |  |      |  |      |  |
| Traffic Vol, veh/h       | 11                                                                                | 571                                                                               | 2    | 0    | 206                                                                               | 91                                                                                | 0    | 0                                                                                 | 0    | 61                                                                                  | 0    | 7                                                                                   |
| Future Vol, veh/h        | 11                                                                                | 571                                                                               | 2    | 0    | 206                                                                               | 91                                                                                | 0    | 0                                                                                 | 0    | 61                                                                                  | 0    | 7                                                                                   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0    | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -                                                                                 | None | -                                                                                   | -    | None                                                                                |
| Storage Length           | 220                                                                               | -                                                                                 | -    | -    | -                                                                                 | 200                                                                               | -    | -                                                                                 | -    | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -                                                                                   | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -    | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor         | 93                                                                                | 93                                                                                | 93   | 93   | 93                                                                                | 93                                                                                | 93   | 93                                                                                | 93   | 93                                                                                  | 93   | 93                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2    | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                | 12                                                                                | 614                                                                               | 2    | 0    | 222                                                                               | 98                                                                                | 0    | 0                                                                                 | 0    | 66                                                                                  | 0    | 8                                                                                   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |   |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|---|-------|
| Conflicting Flow All | 319    | 0 | 0 | -      | - | 0 | 860    | 958   | 615   | 859    | - | 222   |
| Stage 1              | -      | - | - | -      | - | - | 639    | 639   | -     | 222    | - | -     |
| Stage 2              | -      | - | - | -      | - | - | 222    | 319   | -     | 638    | - | -     |
| Critical Hdwy        | 4.12   | - | - | -      | - | - | 7.12   | 6.52  | 6.22  | 7.12   | - | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | - | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | - | -     |
| Follow-up Hdwy       | 2.218  | - | - | -      | - | - | 3.518  | 4.018 | 3.318 | 3.518  | - | 3.318 |
| Pot Cap-1 Maneuver   | 1241   | - | - | 0      | - | - | 276    | 257   | 491   | 276    | 0 | 818   |
| Stage 1              | -      | - | - | 0      | - | - | 464    | 471   | -     | 781    | 0 | -     |
| Stage 2              | -      | - | - | 0      | - | - | 781    | 653   | -     | 465    | 0 | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |   |       |
| Mov Cap-1 Maneuver   | 1241   | - | - | -      | - | - | 271    | 255   | 491   | 274    | - | 818   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 271    | 255   | -     | 274    | - | -     |
| Stage 1              | -      | - | - | -      | - | - | 460    | 466   | -     | 781    | - | -     |
| Stage 2              | -      | - | - | -      | - | - | 774    | 653   | -     | 461    | - | -     |

| Approach                    | EB | WB | NB | SB    |
|-----------------------------|----|----|----|-------|
| HCM Control Delay, s/v 0.15 |    | 0  | 0  | 20.92 |
| HCM LOS                     |    |    | A  | C     |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|------|-----|-----|-----|-----|-------|-------|
| Capacity (veh/h)          | -     | 1241 | -   | -   | -   | -   | 274   | 818   |
| HCM Lane V/C Ratio        | -     | 0.01 | -   | -   | -   | -   | 0.24  | 0.009 |
| HCM Control Delay (s/veh) | 0     | 7.9  | -   | -   | -   | -   | 22.2  | 9.4   |
| HCM Lane LOS              | A     | A    | -   | -   | -   | -   | C     | A     |
| HCM 95th %tile Q(veh)     | -     | 0    | -   | -   | -   | -   | 0.9   | 0     |

HCM 7th TWSC  
4: Drive 1 & Range Rd

Phase 1-2 AM  
Range Creek TIA

| Intersection              |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 2.5                                                                               |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                  | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations       |  |      |  |  |  |  |
| Traffic Vol, veh/h        | 243                                                                               | 0    | 28                                                                                | 86                                                                                | 0                                                                                 | 79                                                                                |
| Future Vol, veh/h         | 243                                                                               | 0    | 28                                                                                | 86                                                                                | 0                                                                                 | 79                                                                                |
| Conflicting Peds, #/hr    | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized            | -                                                                                 | None | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length            | -                                                                                 | -    | 200                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                  | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor          | 76                                                                                | 76   | 76                                                                                | 76                                                                                | 76                                                                                | 76                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                 | 320                                                                               | 0    | 37                                                                                | 113                                                                               | 0                                                                                 | 104                                                                               |
|                           |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor               | Major1                                                                            |      | Major2                                                                            |                                                                                   | Minor1                                                                            |                                                                                   |
| Conflicting Flow All      | 0                                                                                 | 0    | 320                                                                               | 0                                                                                 | 507                                                                               | 320                                                                               |
| Stage 1                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 320                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 187                                                                               | -                                                                                 |
| Critical Hdwy             | -                                                                                 | -    | 4.12                                                                              | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1       | -                                                                                 | -    | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2       | -                                                                                 | -    | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy            | -                                                                                 | -    | 2.218                                                                             | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver        | -                                                                                 | -    | 1240                                                                              | -                                                                                 | 526                                                                               | 721                                                                               |
| Stage 1                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 736                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 845                                                                               | -                                                                                 |
| Platoon blocked, %        | -                                                                                 | -    |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver        | -                                                                                 | -    | 1240                                                                              | -                                                                                 | 510                                                                               | 721                                                                               |
| Mov Cap-2 Maneuver        | -                                                                                 | -    | -                                                                                 | -                                                                                 | 510                                                                               | -                                                                                 |
| Stage 1                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 736                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -    | -                                                                                 | -                                                                                 | 820                                                                               | -                                                                                 |
|                           |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                           |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                  | EB                                                                                |      | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s/v    | 0                                                                                 |      | 1.96                                                                              |                                                                                   | 10.83                                                                             |                                                                                   |
| HCM LOS                   | B                                                                                 |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                           |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                           |                                                                                   |      |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBT  | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)          | 721                                                                               | -    | -                                                                                 | 1240                                                                              | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio        | 0.144                                                                             | -    | -                                                                                 | 0.03                                                                              | -                                                                                 |                                                                                   |
| HCM Control Delay (s/veh) | 10.8                                                                              | -    | -                                                                                 | 8                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane LOS              | B                                                                                 | -    | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)     | 0.5                                                                               | -    | -                                                                                 | 0.1                                                                               | -                                                                                 |                                                                                   |

| Intersection              |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh          | 6.9                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR   | SBL    | SBT                                                                                 | SBR   |
| Lane Configurations       |  |  |      |  |  |      |        |  |       |        |  |       |
| Traffic Vol, veh/h        | 0                                                                                 | 38                                                                                | 0    | 28                                                                                | 25                                                                                | 33   | 0      | 0                                                                                 | 79    | 126    | 0                                                                                   | 0     |
| Future Vol, veh/h         | 0                                                                                 | 38                                                                                | 0    | 28                                                                                | 25                                                                                | 33   | 0      | 0                                                                                 | 79    | 126    | 0                                                                                   | 0     |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                   | 0     |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop  | Stop   | Stop                                                                                | Stop  |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                   | None  |
| Storage Length            | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                   | -     |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Peak Hour Factor          | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92     | 92                                                                                | 92    | 92     | 92                                                                                  | 92    |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2     | 2      | 2                                                                                   | 2     |
| Mvmt Flow                 | 0                                                                                 | 41                                                                                | 0    | 30                                                                                | 27                                                                                | 36   | 0      | 0                                                                                 | 86    | 137    | 0                                                                                   | 0     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |       | Minor2 |                                                                                     |       |
| Conflicting Flow All      | 63                                                                                | 0                                                                                 | 0    | 41                                                                                | 0                                                                                 | 0    | 129    | 165                                                                               | 41    | 147    | 147                                                                                 | 45    |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 41     | 41                                                                                | -     | 106    | 106                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 88     | 124                                                                               | -     | 41     | 41                                                                                  | -     |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | 4.12                                                                              | -                                                                                 | -    | 7.12   | 6.52                                                                              | 6.22  | 7.12   | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | 2.218                                                                             | -                                                                                 | -    | 3.518  | 4.018                                                                             | 3.318 | 3.518  | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver        | 1540                                                                              | -                                                                                 | -    | 1568                                                                              | -                                                                                 | -    | 843    | 727                                                                               | 1030  | 821    | 744                                                                                 | 1025  |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 973    | 861                                                                               | -     | 900    | 808                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 920    | 793                                                                               | -     | 973    | 861                                                                                 | -     |
| Platoon blocked, %        |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 | -    |        |                                                                                   |       |        |                                                                                     |       |
| Mov Cap-1 Maneuver        | 1540                                                                              | -                                                                                 | -    | 1568                                                                              | -                                                                                 | -    | 827    | 713                                                                               | 1030  | 738    | 730                                                                                 | 1025  |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 827    | 713                                                                               | -     | 738    | 730                                                                                 | -     |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 973    | 861                                                                               | -     | 882    | 792                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 902    | 778                                                                               | -     | 892    | 861                                                                                 | -     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Approach                  | EB                                                                                |                                                                                   |      | WB                                                                                |                                                                                   |      | NB     |                                                                                   |       | SB     |                                                                                     |       |
| HCM Control Delay, s/v    | 0                                                                                 |                                                                                   |      | 2.39                                                                              |                                                                                   |      | 8.81   |                                                                                   |       | 10.99  |                                                                                     |       |
| HCM LOS                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      | A      |                                                                                   |       | B      |                                                                                     |       |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |       |        |                                                                                     |       |
| Capacity (veh/h)          | 1030                                                                              | 1540                                                                              | -    | -                                                                                 | 1568                                                                              | -    | -      | 738                                                                               |       |        |                                                                                     |       |
| HCM Lane V/C Ratio        | 0.083                                                                             | -                                                                                 | -    | -                                                                                 | 0.019                                                                             | -    | -      | 0.186                                                                             |       |        |                                                                                     |       |
| HCM Control Delay (s/veh) | 8.8                                                                               | 0                                                                                 | -    | -                                                                                 | 7.3                                                                               | -    | -      | 11                                                                                |       |        |                                                                                     |       |
| HCM Lane LOS              | A                                                                                 | A                                                                                 | -    | -                                                                                 | A                                                                                 | -    | -      | B                                                                                 |       |        |                                                                                     |       |
| HCM 95th %tile Q(veh)     | 0.3                                                                               | 0                                                                                 | -    | -                                                                                 | 0.1                                                                               | -    | -      | 0.7                                                                               |       |        |                                                                                     |       |

| Intersection              |        |        |      |        |      |       |
|---------------------------|--------|--------|------|--------|------|-------|
| Int Delay, s/veh          | 0      |        |      |        |      |       |
| Movement                  | EBL    | EBT    | WBT  | WBR    | SBL  | SBR   |
| Lane Configurations       |        | ↑      | ↑    |        |      | ↗     |
| Traffic Vol, veh/h        | 0      | 38     | 14   | 11     | 0    | 0     |
| Future Vol, veh/h         | 0      | 38     | 14   | 11     | 0    | 0     |
| Conflicting Peds, #/hr    | 0      | 0      | 0    | 0      | 0    | 0     |
| Sign Control              | Free   | Free   | Free | Free   | Stop | Stop  |
| RT Channelized            | -      | None   | -    | None   | -    | None  |
| Storage Length            | -      | -      | -    | -      | -    | 0     |
| Veh in Median Storage, #  | -      | 0      | 0    | -      | 0    | -     |
| Grade, %                  | -      | 0      | 0    | -      | 0    | -     |
| Peak Hour Factor          | 92     | 92     | 92   | 92     | 92   | 92    |
| Heavy Vehicles, %         | 2      | 2      | 2    | 2      | 2    | 2     |
| Mvmt Flow                 | 0      | 41     | 15   | 12     | 0    | 0     |
|                           |        |        |      |        |      |       |
| Major/Minor               | Major1 | Major2 |      | Minor2 |      |       |
| Conflicting Flow All      | -      | 0      | -    | 0      | -    | 21    |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
| Critical Hdwy             | -      | -      | -    | -      | -    | 6.22  |
| Critical Hdwy Stg 1       | -      | -      | -    | -      | -    | -     |
| Critical Hdwy Stg 2       | -      | -      | -    | -      | -    | -     |
| Follow-up Hdwy            | -      | -      | -    | -      | -    | 3.318 |
| Pot Cap-1 Maneuver        | 0      | -      | -    | -      | 0    | 1056  |
| Stage 1                   | 0      | -      | -    | -      | 0    | -     |
| Stage 2                   | 0      | -      | -    | -      | 0    | -     |
| Platoon blocked, %        |        | -      | -    | -      |      |       |
| Mov Cap-1 Maneuver        | -      | -      | -    | -      | -    | 1056  |
| Mov Cap-2 Maneuver        | -      | -      | -    | -      | -    | -     |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Approach                  | EB     | WB     |      | SB     |      |       |
| HCM Control Delay, s/v    | 0      | 0      |      | 0      |      |       |
| HCM LOS                   | A      |        |      |        |      |       |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Minor Lane/Major Mvmt     | EBT    | WBT    | WBR  | SBLn1  |      |       |
| Capacity (veh/h)          | -      | -      | -    | -      |      |       |
| HCM Lane V/C Ratio        | -      | -      | -    | -      |      |       |
| HCM Control Delay (s/veh) | -      | -      | -    | 0      |      |       |
| HCM Lane LOS              | -      | -      | -    | A      |      |       |
| HCM 95th %tile Q(veh)     | -      | -      | -    | -      |      |       |

| Intersection              |        |          |      |        |       |      |
|---------------------------|--------|----------|------|--------|-------|------|
| Int Delay, s/veh          | 3.2    |          |      |        |       |      |
| Movement                  | WBL    | WBR      | NBT  | NBR    | SBL   | SBT  |
| Lane Configurations       | W      |          | T    |        |       | A    |
| Traffic Vol, veh/h        | 16     | 0        | 6    | 6      | 0     | 16   |
| Future Vol, veh/h         | 16     | 0        | 6    | 6      | 0     | 16   |
| Conflicting Peds, #/hr    | 0      | 0        | 0    | 0      | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free | Free   | Free  | Free |
| RT Channelized            | -      | None     | -    | None   | -     | None |
| Storage Length            | 0      | -        | -    | -      | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0    | -      | -     | 0    |
| Grade, %                  | 0      | -        | 0    | -      | -     | 0    |
| Peak Hour Factor          | 92     | 92       | 92   | 92     | 92    | 92   |
| Heavy Vehicles, %         | 2      | 2        | 2    | 2      | 2     | 2    |
| Mvmt Flow                 | 17     | 0        | 7    | 7      | 0     | 17   |
| Major/Minor               | Minor1 | Major1   |      | Major2 |       |      |
| Conflicting Flow All      | 27     | 10       | 0    | 0      | 13    | 0    |
| Stage 1                   | 10     | -        | -    | -      | -     | -    |
| Stage 2                   | 17     | -        | -    | -      | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -    | -      | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -    | -      | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -    | -      | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -    | -      | 2.218 | -    |
| Pot Cap-1 Maneuver        | 988    | 1072     | -    | -      | 1605  | -    |
| Stage 1                   | 1013   | -        | -    | -      | -     | -    |
| Stage 2                   | 1005   | -        | -    | -      | -     | -    |
| Platoon blocked, %        |        |          | -    | -      |       | -    |
| Mov Cap-1 Maneuver        | 988    | 1072     | -    | -      | 1605  | -    |
| Mov Cap-2 Maneuver        | 988    | -        | -    | -      | -     | -    |
| Stage 1                   | 1013   | -        | -    | -      | -     | -    |
| Stage 2                   | 1005   | -        | -    | -      | -     | -    |
| Approach                  | WB     | NB       |      | SB     |       |      |
| HCM Control Delay, s/v    | 8.71   | 0        |      | 0      |       |      |
| HCM LOS                   | A      |          |      |        |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 |      | SBL    | SBT   |      |
| Capacity (veh/h)          | -      | - 988    |      | 1605   | -     |      |
| HCM Lane V/C Ratio        | -      | - 0.018  |      | -      | -     |      |
| HCM Control Delay (s/veh) | -      | - 8.7    |      | 0      | -     |      |
| HCM Lane LOS              | -      | - A      |      | A      | -     |      |
| HCM 95th %tile Q(veh)     | -      | - 0.1    |      | 0      | -     |      |

| Intersection              |        |          |      |        |       |      |
|---------------------------|--------|----------|------|--------|-------|------|
| Int Delay, s/veh          | 6      |          |      |        |       |      |
| Movement                  | WBL    | WBR      | NBT  | NBR    | SBL   | SBT  |
| Lane Configurations       | W      |          | T    |        |       | A    |
| Traffic Vol, veh/h        | 16     | 0        | 0    | 6      | 0     | 0    |
| Future Vol, veh/h         | 16     | 0        | 0    | 6      | 0     | 0    |
| Conflicting Peds, #/hr    | 0      | 0        | 0    | 0      | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free | Free   | Free  | Free |
| RT Channelized            | -      | None     | -    | None   | -     | None |
| Storage Length            | 0      | -        | -    | -      | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0    | -      | -     | 0    |
| Grade, %                  | 0      | -        | 0    | -      | -     | 0    |
| Peak Hour Factor          | 92     | 92       | 92   | 92     | 92    | 92   |
| Heavy Vehicles, %         | 2      | 2        | 2    | 2      | 2     | 2    |
| Mvmt Flow                 | 17     | 0        | 0    | 7      | 0     | 0    |
| Major/Minor               | Minor1 | Major1   |      | Major2 |       |      |
| Conflicting Flow All      | 4      | 3        | 0    | 0      | 7     | 0    |
| Stage 1                   | 3      | -        | -    | -      | -     | -    |
| Stage 2                   | 1      | -        | -    | -      | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -    | -      | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -    | -      | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -    | -      | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -    | -      | 2.218 | -    |
| Pot Cap-1 Maneuver        | 1018   | 1081     | -    | -      | 1614  | -    |
| Stage 1                   | 1020   | -        | -    | -      | -     | -    |
| Stage 2                   | 1022   | -        | -    | -      | -     | -    |
| Platoon blocked, %        |        |          | -    | -      |       | -    |
| Mov Cap-1 Maneuver        | 1018   | 1081     | -    | -      | 1614  | -    |
| Mov Cap-2 Maneuver        | 1018   | -        | -    | -      | -     | -    |
| Stage 1                   | 1020   | -        | -    | -      | -     | -    |
| Stage 2                   | 1022   | -        | -    | -      | -     | -    |
| Approach                  | WB     | NB       |      | SB     |       |      |
| HCM Control Delay, s/v    | 8.6    | 0        |      | 0      |       |      |
| HCM LOS                   | A      |          |      |        |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 |      | SBL    | SBT   |      |
| Capacity (veh/h)          | -      | - 1018   |      | 1614   | -     |      |
| HCM Lane V/C Ratio        | -      | - 0.017  |      | -      | -     |      |
| HCM Control Delay (s/veh) | -      | - 8.6    |      | 0      | -     |      |
| HCM Lane LOS              | -      | - A      |      | A      | -     |      |
| HCM 95th %tile Q(veh)     | -      | - 0.1    |      | 0      | -     |      |

| Intersection                |                                                                                   |                                                                                   |                                                                                   |       |       |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh            | 5.5                                                                               |                                                                                   |                                                                                   |       |       |                                                                                   |
| Movement                    | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR   | SBL   | SBT                                                                               |
| Lane Configurations         |  |  |  |       |       |  |
| Traffic Vol, veh/h          | 33                                                                                | 196                                                                               | 132                                                                               | 18    | 111   | 124                                                                               |
| Future Vol, veh/h           | 33                                                                                | 196                                                                               | 132                                                                               | 18    | 111   | 124                                                                               |
| Conflicting Peds, #/hr      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0     | 0     | 0                                                                                 |
| Sign Control                | Stop                                                                              | Stop                                                                              | Free                                                                              | Free  | Free  | Free                                                                              |
| RT Channelized              | -                                                                                 | None                                                                              | -                                                                                 | None  | -     | None                                                                              |
| Storage Length              | 250                                                                               | 0                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Veh in Median Storage, #    | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -     | 0                                                                                 |
| Grade, %                    | 0                                                                                 | -                                                                                 | 0                                                                                 | -     | -     | 0                                                                                 |
| Peak Hour Factor            | 85                                                                                | 85                                                                                | 85                                                                                | 85    | 85    | 85                                                                                |
| Heavy Vehicles, %           | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2     | 2     | 2                                                                                 |
| Mvmt Flow                   | 39                                                                                | 231                                                                               | 155                                                                               | 21    | 131   | 146                                                                               |
| Major/Minor                 | Minor1                                                                            | Major1                                                                            | Major2                                                                            |       |       |                                                                                   |
| Conflicting Flow All        | 573                                                                               | 166                                                                               | 0                                                                                 | 0     | 176   | 0                                                                                 |
| Stage 1                     | 166                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                     | 407                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy               | 6.42                                                                              | 6.22                                                                              | -                                                                                 | -     | 4.12  | -                                                                                 |
| Critical Hdwy Stg 1         | 5.42                                                                              | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Critical Hdwy Stg 2         | 5.42                                                                              | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Follow-up Hdwy              | 3.518                                                                             | 3.318                                                                             | -                                                                                 | -     | 2.218 | -                                                                                 |
| Pot Cap-1 Maneuver          | 481                                                                               | 878                                                                               | -                                                                                 | -     | 1400  | -                                                                                 |
| Stage 1                     | 864                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                     | 672                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Platoon blocked, %          |                                                                                   |                                                                                   | -                                                                                 | -     |       | -                                                                                 |
| Mov Cap-1 Maneuver          | 432                                                                               | 878                                                                               | -                                                                                 | -     | 1400  | -                                                                                 |
| Mov Cap-2 Maneuver          | 432                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Stage 1                     | 864                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Stage 2                     | 604                                                                               | -                                                                                 | -                                                                                 | -     | -     | -                                                                                 |
| Approach                    | WB                                                                                | NB                                                                                | SB                                                                                |       |       |                                                                                   |
| HCM Control Delay, s/v11.07 |                                                                                   | 0                                                                                 | 3.7                                                                               |       |       |                                                                                   |
| HCM LOS                     | B                                                                                 |                                                                                   |                                                                                   |       |       |                                                                                   |
| Minor Lane/Major Mvmt       | NBT                                                                               | NBRWBLn1WBLn2                                                                     | SBL                                                                               | SBT   |       |                                                                                   |
| Capacity (veh/h)            | -                                                                                 | -                                                                                 | 432                                                                               | 878   | 850   | -                                                                                 |
| HCM Lane V/C Ratio          | -                                                                                 | -                                                                                 | 0.09                                                                              | 0.262 | 0.093 | -                                                                                 |
| HCM Control Delay (s/veh)   | -                                                                                 | -                                                                                 | 14.1                                                                              | 10.6  | 7.8   | 0                                                                                 |
| HCM Lane LOS                | -                                                                                 | -                                                                                 | B                                                                                 | B     | A     | A                                                                                 |
| HCM 95th %tile Q(veh)       | -                                                                                 | -                                                                                 | 0.3                                                                               | 1.1   | 0.3   | -                                                                                 |

| Intersection              |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|---------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh          | 8                                                                                 |        |       |                                                                                   |                                                                                   |      |
| Movement                  | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations       |  |        |       |  |  |      |
| Traffic Vol, veh/h        | 87                                                                                | 129    | 223   | 102                                                                               | 105                                                                               | 144  |
| Future Vol, veh/h         | 87                                                                                | 129    | 223   | 102                                                                               | 105                                                                               | 144  |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control              | Stop                                                                              | Stop   | Free  | Free                                                                              | Free                                                                              | Free |
| RT Channelized            | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None |
| Storage Length            | 0                                                                                 | -      | -     | -                                                                                 | -                                                                                 | -    |
| Veh in Median Storage, #  | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                  | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor          | 90                                                                                | 90     | 90    | 90                                                                                | 90                                                                                | 90   |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                 | 97                                                                                | 143    | 248   | 113                                                                               | 117                                                                               | 160  |
|                           |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Major/Minor               | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All      | 806                                                                               | 197    | 277   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                   | 197                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                   | 609                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy             | 6.42                                                                              | 6.22   | 4.12  | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -     | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -     | -                                                                                 | -                                                                                 | -    |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | 2.218 | -                                                                                 | -                                                                                 | -    |
| Pot Cap-1 Maneuver        | 351                                                                               | 845    | 1286  | -                                                                                 | -                                                                                 | -    |
| Stage 1                   | 837                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                   | 543                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %        |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver        | 279                                                                               | 845    | 1286  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver        | 279                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                   | 665                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                   | 543                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
|                           |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|                           |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Approach                  | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s/v    | 20.7                                                                              | 5.81   |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                   | C                                                                                 |        |       |                                                                                   |                                                                                   |      |
|                           |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt     | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)          | 1205                                                                              | -      | 465   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio        | 0.193                                                                             | -      | 0.516 | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s/veh) | 8.5                                                                               | 0      | 20.7  | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS              | A                                                                                 | A      | C     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)     | 0.7                                                                               | -      | 2.9   | -                                                                                 | -                                                                                 |      |



| Intersection              |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.8                                                                               |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR                                                                               | NBL    | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT   | SBR                                                                                 |
| Lane Configurations       |  |  |      |        |  |  |        |  |  |  |       |  |
| Traffic Vol, veh/h        | 3                                                                                 | 287                                                                               | 0    | 0      | 501                                                                               | 58                                                                                | 0      | 1                                                                                 | 2                                                                                 | 58                                                                                  | 1     | 12                                                                                  |
| Future Vol, veh/h         | 3                                                                                 | 287                                                                               | 0    | 0      | 501                                                                               | 58                                                                                | 0      | 1                                                                                 | 2                                                                                 | 58                                                                                  | 1     | 12                                                                                  |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0     | 0                                                                                   |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free   | Free                                                                              | Free                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop  | Stop                                                                                |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None                                                                              | -      | -                                                                                 | None                                                                              | -                                                                                   | -     | None                                                                                |
| Storage Length            | 220                                                                               | -                                                                                 | -    | -      | -                                                                                 | 200                                                                               | -      | -                                                                                 | -                                                                                 | 0                                                                                   | -     | 0                                                                                   |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0     | -                                                                                   |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                   | 0     | -                                                                                   |
| Peak Hour Factor          | 88                                                                                | 88                                                                                | 88   | 88     | 88                                                                                | 88                                                                                | 88     | 88                                                                                | 88                                                                                | 88                                                                                  | 88    | 88                                                                                  |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2     | 2                                                                                   |
| Mvmt Flow                 | 3                                                                                 | 326                                                                               | 0    | 0      | 569                                                                               | 66                                                                                | 0      | 1                                                                                 | 2                                                                                 | 66                                                                                  | 1     | 14                                                                                  |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2 |                                                                                   |                                                                                   | Minor1 |                                                                                   |                                                                                   | Minor2                                                                              |       |                                                                                     |
| Conflicting Flow All      | 635                                                                               | 0                                                                                 | -    | -      | -                                                                                 | 0                                                                                 | 903    | 968                                                                               | 326                                                                               | 903                                                                                 | 902   | 569                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 333    | 333                                                                               | -                                                                                 | 569                                                                                 | 569   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 570    | 635                                                                               | -                                                                                 | 334                                                                                 | 333   | -                                                                                   |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 7.12   | 6.52                                                                              | 6.22                                                                              | 7.12                                                                                | 6.52  | 6.22                                                                                |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | 5.52  | -                                                                                   |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 6.12   | 5.52                                                                              | -                                                                                 | 6.12                                                                                | 5.52  | -                                                                                   |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 3.518  | 4.018                                                                             | 3.318                                                                             | 3.518                                                                               | 4.018 | 3.318                                                                               |
| Pot Cap-1 Maneuver        | 948                                                                               | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 258    | 254                                                                               | 715                                                                               | 258                                                                                 | 277   | 521                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 681    | 644                                                                               | -                                                                                 | 507                                                                                 | 506   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | 0    | 0      | -                                                                                 | -                                                                                 | 507    | 472                                                                               | -                                                                                 | 680                                                                                 | 644   | -                                                                                   |
| Platoon blocked, %        |                                                                                   | -                                                                                 |      |        | -                                                                                 | -                                                                                 |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Mov Cap-1 Maneuver        | 948                                                                               | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 250    | 253                                                                               | 715                                                                               | 255                                                                                 | 276   | 521                                                                                 |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 250    | 253                                                                               | -                                                                                 | 255                                                                                 | 276   | -                                                                                   |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 678    | 642                                                                               | -                                                                                 | 507                                                                                 | 506   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -      | -                                                                                 | -                                                                                 | 492    | 472                                                                               | -                                                                                 | 674                                                                                 | 642   | -                                                                                   |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Approach                  | EB                                                                                |                                                                                   |      | WB     |                                                                                   |                                                                                   | NB     |                                                                                   |                                                                                   | SB                                                                                  |       |                                                                                     |
| HCM Control Delay, s/v    | 0.09                                                                              |                                                                                   |      | 0      |                                                                                   |                                                                                   | 13.16  |                                                                                   |                                                                                   | 21.9                                                                                |       |                                                                                     |
| HCM LOS                   |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   | B      |                                                                                   |                                                                                   | C                                                                                   |       |                                                                                     |
|                           |                                                                                   |                                                                                   |      |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | WBT    | WBR                                                                               | SBLn1                                                                             | SBLn2  |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| Capacity (veh/h)          | 444                                                                               | 948                                                                               | -    | -      | -                                                                                 | 255                                                                               | 521    |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Lane V/C Ratio        | 0.008                                                                             | 0.004                                                                             | -    | -      | -                                                                                 | 0.258                                                                             | 0.026  |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Control Delay (s/veh) | 13.2                                                                              | 8.8                                                                               | -    | -      | -                                                                                 | 23.9                                                                              | 12.1   |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM Lane LOS              | B                                                                                 | A                                                                                 | -    | -      | -                                                                                 | C                                                                                 | B      |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |
| HCM 95th %tile Q(veh)     | 0                                                                                 | 0                                                                                 | -    | -      | -                                                                                 | 1                                                                                 | 0.1    |                                                                                   |                                                                                   |                                                                                     |       |                                                                                     |

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 2.1                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                  | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 164                                                                               | 0      | 90                                                                                | 277                                                                               | 0                                                                                 | 53                                                                                |
| Future Vol, veh/h         | 164                                                                               | 0      | 90                                                                                | 277                                                                               | 0                                                                                 | 53                                                                                |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control              | Free                                                                              | Free   | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length            | -                                                                                 | -      | 200                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor          | 85                                                                                | 85     | 85                                                                                | 85                                                                                | 85                                                                                | 85                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                 | 193                                                                               | 0      | 106                                                                               | 326                                                                               | 0                                                                                 | 62                                                                                |
| Major/Minor               | Major1                                                                            | Major2 |                                                                                   | Minor1                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All      | 0                                                                                 | 0      | 193                                                                               | 0                                                                                 | 731                                                                               | 193                                                                               |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 193                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 538                                                                               | -                                                                                 |
| Critical Hdwy             | -                                                                                 | -      | 4.12                                                                              | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy            | -                                                                                 | -      | 2.218                                                                             | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver        | -                                                                                 | -      | 1380                                                                              | -                                                                                 | 389                                                                               | 849                                                                               |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 840                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 586                                                                               | -                                                                                 |
| Platoon blocked, %        | -                                                                                 | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver        | -                                                                                 | -      | 1380                                                                              | -                                                                                 | 359                                                                               | 849                                                                               |
| Mov Cap-2 Maneuver        | -                                                                                 | -      | -                                                                                 | -                                                                                 | 359                                                                               | -                                                                                 |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 840                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 541                                                                               | -                                                                                 |
| Approach                  | EB                                                                                |        | WB                                                                                |                                                                                   | NB                                                                                |                                                                                   |
| HCM Control Delay, s/v    | 0                                                                                 |        | 1.92                                                                              |                                                                                   | 9.58                                                                              |                                                                                   |
| HCM LOS                   |                                                                                   |        |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)          | 849                                                                               | -      | -                                                                                 | 1380                                                                              | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio        | 0.073                                                                             | -      | -                                                                                 | 0.077                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s/veh) | 9.6                                                                               | -      | -                                                                                 | 7.8                                                                               | -                                                                                 |                                                                                   |
| HCM Lane LOS              | A                                                                                 | -      | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)     | 0.2                                                                               | -      | -                                                                                 | 0.2                                                                               | -                                                                                 |                                                                                   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5.1                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 27                                                                                | 0    | 90                                                                                | 80                                                                                | 108  | 0    | 0                                                                                 | 53   | 84   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 27                                                                                | 0    | 90                                                                                | 80                                                                                | 108  | 0    | 0                                                                                 | 53   | 84   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 29                                                                                | 0    | 98                                                                                | 87                                                                                | 117  | 0    | 0                                                                                 | 58   | 91   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 204    | 0 | 0 | 29     | 0 | 0 | 312    | 429   | 29    | 371    | 371   | 146   |
| Stage 1              | -      | - | - | -      | - | - | 29     | 29    | -     | 341    | 341   | -     |
| Stage 2              | -      | - | - | -      | - | - | 283    | 400   | -     | 29     | 29    | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1367   | - | - | 1584   | - | - | 641    | 518   | 1045  | 586    | 559   | 901   |
| Stage 1              | -      | - | - | -      | - | - | 988    | 871   | -     | 674    | 638   | -     |
| Stage 2              | -      | - | - | -      | - | - | 724    | 602   | -     | 988    | 871   | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |       |       |
| Mov Cap-1 Maneuver   | 1367   | - | - | 1584   | - | - | 601    | 486   | 1045  | 520    | 525   | 901   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 601    | 486   | -     | 520    | 525   | -     |
| Stage 1              | -      | - | - | -      | - | - | 988    | 871   | -     | 632    | 599   | -     |
| Stage 2              | -      | - | - | -      | - | - | 680    | 564   | -     | 933    | 871   | -     |

| Approach               | EB |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|------------------------|----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 2.4 |  |  | 8.64 |  |  | 13.4 |  |  |
| HCM LOS                |    |  |  |     |  |  | A    |  |  | B    |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 1045  | 1367 | -   | -   | 1584  | -   | -   | 520   |
| HCM Lane V/C Ratio        | 0.055 | -    | -   | -   | 0.062 | -   | -   | 0.176 |
| HCM Control Delay (s/veh) | 8.6   | 0    | -   | -   | 7.4   | -   | -   | 13.4  |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | B     |
| HCM 95th %tile Q(veh)     | 0.2   | 0    | -   | -   | 0.2   | -   | -   | 0.6   |

| Intersection              |        |        |      |        |      |       |
|---------------------------|--------|--------|------|--------|------|-------|
| Int Delay, s/veh          | 0      |        |      |        |      |       |
| Movement                  | EBL    | EBT    | WBT  | WBR    | SBL  | SBR   |
| Lane Configurations       |        | ↑      | ↑    |        |      | ↑     |
| Traffic Vol, veh/h        | 0      | 27     | 44   | 36     | 0    | 0     |
| Future Vol, veh/h         | 0      | 27     | 44   | 36     | 0    | 0     |
| Conflicting Peds, #/hr    | 0      | 0      | 0    | 0      | 0    | 0     |
| Sign Control              | Free   | Free   | Free | Free   | Stop | Stop  |
| RT Channelized            | -      | None   | -    | None   | -    | None  |
| Storage Length            | -      | -      | -    | -      | -    | 0     |
| Veh in Median Storage, #  | -      | 0      | 0    | -      | 0    | -     |
| Grade, %                  | -      | 0      | 0    | -      | 0    | -     |
| Peak Hour Factor          | 92     | 92     | 92   | 92     | 92   | 92    |
| Heavy Vehicles, %         | 2      | 2      | 2    | 2      | 2    | 2     |
| Mvmt Flow                 | 0      | 29     | 48   | 39     | 0    | 0     |
|                           |        |        |      |        |      |       |
| Major/Minor               | Major1 | Major2 |      | Minor2 |      |       |
| Conflicting Flow All      | -      | 0      | -    | 0      | -    | 67    |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
| Critical Hdwy             | -      | -      | -    | -      | -    | 6.22  |
| Critical Hdwy Stg 1       | -      | -      | -    | -      | -    | -     |
| Critical Hdwy Stg 2       | -      | -      | -    | -      | -    | -     |
| Follow-up Hdwy            | -      | -      | -    | -      | -    | 3.318 |
| Pot Cap-1 Maneuver        | 0      | -      | -    | -      | 0    | 996   |
| Stage 1                   | 0      | -      | -    | -      | 0    | -     |
| Stage 2                   | 0      | -      | -    | -      | 0    | -     |
| Platoon blocked, %        |        | -      | -    | -      |      |       |
| Mov Cap-1 Maneuver        | -      | -      | -    | -      | -    | 996   |
| Mov Cap-2 Maneuver        | -      | -      | -    | -      | -    | -     |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Approach                  | EB     | WB     |      | SB     |      |       |
| HCM Control Delay, s/v    | 0      | 0      |      | 0      |      |       |
| HCM LOS                   |        |        |      |        | A    |       |
|                           |        |        |      |        |      |       |
| Minor Lane/Major Mvmt     | EBT    | WBT    | WBR  | SBLn1  |      |       |
| Capacity (veh/h)          | -      | -      | -    | -      |      |       |
| HCM Lane V/C Ratio        | -      | -      | -    | -      |      |       |
| HCM Control Delay (s/veh) | -      | -      | -    | 0      |      |       |
| HCM Lane LOS              | -      | -      | -    | A      |      |       |
| HCM 95th %tile Q(veh)     | -      | -      | -    | -      |      |       |

| Intersection              |        |          |        |      |       |      |
|---------------------------|--------|----------|--------|------|-------|------|
| Int Delay, s/veh          | 1.7    |          |        |      |       |      |
| Movement                  | WBL    | WBR      | NBT    | NBR  | SBL   | SBT  |
| Lane Configurations       | W      |          | T      |      |       | A    |
| Traffic Vol, veh/h        | 11     | 0        | 18     | 18   | 0     | 11   |
| Future Vol, veh/h         | 11     | 0        | 18     | 18   | 0     | 11   |
| Conflicting Peds, #/hr    | 0      | 0        | 0      | 0    | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free   | Free | Free  | Free |
| RT Channelized            | -      | None     | -      | None | -     | None |
| Storage Length            | 0      | -        | -      | -    | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0      | -    | -     | 0    |
| Grade, %                  | 0      | -        | 0      | -    | -     | 0    |
| Peak Hour Factor          | 92     | 92       | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %         | 2      | 2        | 2      | 2    | 2     | 2    |
| Mvmt Flow                 | 12     | 0        | 20     | 20   | 0     | 12   |
| Major/Minor               | Minor1 | Major1   | Major2 |      |       |      |
| Conflicting Flow All      | 41     | 29       | 0      | 0    | 39    | 0    |
| Stage 1                   | 29     | -        | -      | -    | -     | -    |
| Stage 2                   | 12     | -        | -      | -    | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -      | -    | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -      | -    | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -      | -    | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -      | -    | 2.218 | -    |
| Pot Cap-1 Maneuver        | 970    | 1045     | -      | -    | 1571  | -    |
| Stage 1                   | 993    | -        | -      | -    | -     | -    |
| Stage 2                   | 1011   | -        | -      | -    | -     | -    |
| Platoon blocked, %        |        |          | -      | -    |       | -    |
| Mov Cap-1 Maneuver        | 970    | 1045     | -      | -    | 1571  | -    |
| Mov Cap-2 Maneuver        | 970    | -        | -      | -    | -     | -    |
| Stage 1                   | 993    | -        | -      | -    | -     | -    |
| Stage 2                   | 1011   | -        | -      | -    | -     | -    |
| Approach                  | WB     | NB       | SB     |      |       |      |
| HCM Control Delay, s/v    | 8.76   | 0        | 0      |      |       |      |
| HCM LOS                   | A      |          |        |      |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 | SBL    | SBT  |       |      |
| Capacity (veh/h)          | -      | -        | 970    | 1571 | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.012  | -    | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 8.8    | 0    | -     |      |
| HCM Lane LOS              | -      | -        | A      | A    | -     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 0      | 0    | -     |      |

| Intersection              |        |          |      |        |       |      |
|---------------------------|--------|----------|------|--------|-------|------|
| Int Delay, s/veh          | 3.2    |          |      |        |       |      |
| Movement                  | WBL    | WBR      | NBT  | NBR    | SBL   | SBT  |
| Lane Configurations       | W      |          | T    |        |       | A    |
| Traffic Vol, veh/h        | 11     | 0        | 0    | 18     | 0     | 0    |
| Future Vol, veh/h         | 11     | 0        | 0    | 18     | 0     | 0    |
| Conflicting Peds, #/hr    | 0      | 0        | 0    | 0      | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free | Free   | Free  | Free |
| RT Channelized            | -      | None     | -    | None   | -     | None |
| Storage Length            | 0      | -        | -    | -      | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0    | -      | -     | 0    |
| Grade, %                  | 0      | -        | 0    | -      | -     | 0    |
| Peak Hour Factor          | 92     | 92       | 92   | 92     | 92    | 92   |
| Heavy Vehicles, %         | 2      | 2        | 2    | 2      | 2     | 2    |
| Mvmt Flow                 | 12     | 0        | 0    | 20     | 0     | 0    |
| Major/Minor               | Minor1 | Major1   |      | Major2 |       |      |
| Conflicting Flow All      | 11     | 10       | 0    | 0      | 20    | 0    |
| Stage 1                   | 10     | -        | -    | -      | -     | -    |
| Stage 2                   | 1      | -        | -    | -      | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -    | -      | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -    | -      | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -    | -      | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -    | -      | 2.218 | -    |
| Pot Cap-1 Maneuver        | 1009   | 1072     | -    | -      | 1597  | -    |
| Stage 1                   | 1013   | -        | -    | -      | -     | -    |
| Stage 2                   | 1022   | -        | -    | -      | -     | -    |
| Platoon blocked, %        |        |          | -    | -      |       | -    |
| Mov Cap-1 Maneuver        | 1009   | 1072     | -    | -      | 1597  | -    |
| Mov Cap-2 Maneuver        | 1009   | -        | -    | -      | -     | -    |
| Stage 1                   | 1013   | -        | -    | -      | -     | -    |
| Stage 2                   | 1022   | -        | -    | -      | -     | -    |
| Approach                  | WB     | NB       |      | SB     |       |      |
| HCM Control Delay, s/v    | 8.61   | 0        |      | 0      |       |      |
| HCM LOS                   | A      |          |      |        |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 |      | SBL    | SBT   |      |
| Capacity (veh/h)          | -      | - 1009   |      | 1597   | -     |      |
| HCM Lane V/C Ratio        | -      | - 0.012  |      | -      | -     |      |
| HCM Control Delay (s/veh) | -      | - 8.6    |      | 0      | -     |      |
| HCM Lane LOS              | -      | - A      |      | A      | -     |      |
| HCM 95th %tile Q(veh)     | -      | - 0      |      | 0      | -     |      |



| Intersection              |        |          |        |       |       |      |
|---------------------------|--------|----------|--------|-------|-------|------|
| Int Delay, s/veh          | 8.4    |          |        |       |       |      |
| Movement                  | WBL    | WBR      | NBT    | NBR   | SBL   | SBT  |
| Lane Configurations       | W      |          | T      |       |       | A    |
| Traffic Vol, veh/h        | 116    | 71       | 75     | 21    | 89    | 77   |
| Future Vol, veh/h         | 116    | 71       | 75     | 21    | 89    | 77   |
| Conflicting Peds, #/hr    | 0      | 0        | 0      | 0     | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free   | Free  | Free  | Free |
| RT Channelized            | -      | None     | -      | None  | -     | None |
| Storage Length            | 0      | -        | -      | -     | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0      | -     | -     | 0    |
| Grade, %                  | 0      | -        | 0      | -     | -     | 0    |
| Peak Hour Factor          | 68     | 68       | 68     | 68    | 68    | 68   |
| Heavy Vehicles, %         | 2      | 2        | 2      | 2     | 2     | 2    |
| Mvmt Flow                 | 171    | 104      | 110    | 31    | 131   | 113  |
| Major/Minor               | Minor1 | Major1   | Major2 |       |       |      |
| Conflicting Flow All      | 501    | 126      | 0      | 0     | 141   | 0    |
| Stage 1                   | 126    | -        | -      | -     | -     | -    |
| Stage 2                   | 375    | -        | -      | -     | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -      | -     | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -      | -     | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -      | -     | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -      | -     | 2.218 | -    |
| Pot Cap-1 Maneuver        | 530    | 925      | -      | -     | 1442  | -    |
| Stage 1                   | 900    | -        | -      | -     | -     | -    |
| Stage 2                   | 695    | -        | -      | -     | -     | -    |
| Platoon blocked, %        |        |          | -      | -     |       | -    |
| Mov Cap-1 Maneuver        | 478    | 925      | -      | -     | 1442  | -    |
| Mov Cap-2 Maneuver        | 478    | -        | -      | -     | -     | -    |
| Stage 1                   | 900    | -        | -      | -     | -     | -    |
| Stage 2                   | 628    | -        | -      | -     | -     | -    |
| Approach                  | WB     | NB       |        | SB    |       |      |
| HCM Control Delay, s/v    | 16.46  | 0        |        | 4.15  |       |      |
| HCM LOS                   | C      |          |        |       |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 | SBL    | SBT   |       |      |
| Capacity (veh/h)          | -      | -        | 586    | 965   | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.469  | 0.091 | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 16.5   | 7.7   | 0     |      |
| HCM Lane LOS              | -      | -        | C      | A     | A     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 2.5    | 0.3   | -     |      |



| Intersection                |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|-----------------------------|-----------------------------------------------------------------------------------|--------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Int Delay, s/veh            | 0.3                                                                               |        |       |                                                                                   |                                                                                   |      |
| Movement                    | EBL                                                                               | EBR    | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
| Lane Configurations         |  |        |       |  |  |      |
| Traffic Vol, veh/h          | 4                                                                                 | 4      | 2     | 144                                                                               | 159                                                                               | 1    |
| Future Vol, veh/h           | 4                                                                                 | 4      | 2     | 144                                                                               | 159                                                                               | 1    |
| Conflicting Peds, #/hr      | 0                                                                                 | 0      | 0     | 0                                                                                 | 0                                                                                 | 0    |
| Sign Control                | Stop                                                                              | Stop   | Free  | Free                                                                              | Free                                                                              | Free |
| RT Channelized              | -                                                                                 | None   | -     | None                                                                              | -                                                                                 | None |
| Storage Length              | 0                                                                                 | -      | -     | -                                                                                 | -                                                                                 | -    |
| Veh in Median Storage, #    | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Grade, %                    | 0                                                                                 | -      | -     | 0                                                                                 | 0                                                                                 | -    |
| Peak Hour Factor            | 62                                                                                | 62     | 62    | 62                                                                                | 62                                                                                | 62   |
| Heavy Vehicles, %           | 2                                                                                 | 2      | 2     | 2                                                                                 | 2                                                                                 | 2    |
| Mvmt Flow                   | 6                                                                                 | 6      | 3     | 232                                                                               | 256                                                                               | 2    |
|                             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Major/Minor                 | Minor2                                                                            | Major1 |       | Major2                                                                            |                                                                                   |      |
| Conflicting Flow All        | 496                                                                               | 257    | 258   | 0                                                                                 | -                                                                                 | 0    |
| Stage 1                     | 257                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                     | 239                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy               | 6.42                                                                              | 6.22   | 4.12  | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy Stg 1         | 5.42                                                                              | -      | -     | -                                                                                 | -                                                                                 | -    |
| Critical Hdwy Stg 2         | 5.42                                                                              | -      | -     | -                                                                                 | -                                                                                 | -    |
| Follow-up Hdwy              | 3.518                                                                             | 3.318  | 2.218 | -                                                                                 | -                                                                                 | -    |
| Pot Cap-1 Maneuver          | 533                                                                               | 781    | 1307  | -                                                                                 | -                                                                                 | -    |
| Stage 1                     | 786                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                     | 801                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Platoon blocked, %          |                                                                                   |        |       | -                                                                                 | -                                                                                 | -    |
| Mov Cap-1 Maneuver          | 532                                                                               | 781    | 1307  | -                                                                                 | -                                                                                 | -    |
| Mov Cap-2 Maneuver          | 532                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 1                     | 783                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
| Stage 2                     | 801                                                                               | -      | -     | -                                                                                 | -                                                                                 | -    |
|                             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
|                             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Approach                    | EB                                                                                | NB     |       | SB                                                                                |                                                                                   |      |
| HCM Control Delay, s/v10.81 |                                                                                   | 0.11   |       | 0                                                                                 |                                                                                   |      |
| HCM LOS                     | B                                                                                 |        |       |                                                                                   |                                                                                   |      |
|                             |                                                                                   |        |       |                                                                                   |                                                                                   |      |
| Minor Lane/Major Mvmt       | NBL                                                                               | NBT    | EBLn1 | SBT                                                                               | SBR                                                                               |      |
| Capacity (veh/h)            | 25                                                                                | -      | 633   | -                                                                                 | -                                                                                 |      |
| HCM Lane V/C Ratio          | 0.002                                                                             | -      | 0.02  | -                                                                                 | -                                                                                 |      |
| HCM Control Delay (s/veh)   | 7.8                                                                               | 0      | 10.8  | -                                                                                 | -                                                                                 |      |
| HCM Lane LOS                | A                                                                                 | A      | B     | -                                                                                 | -                                                                                 |      |
| HCM 95th %tile Q(veh)       | 0                                                                                 | -      | 0.1   | -                                                                                 | -                                                                                 |      |

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.6                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |  |  |  |      |  |
| Traffic Vol, veh/h       | 12                                                                                | 615                                                                               | 2    | 0    | 176                                                                               | 84                                                                                | 0    | 0                                                                                 | 0                                                                                 | 61                                                                                  | 0    | 7                                                                                   |
| Future Vol, veh/h        | 12                                                                                | 615                                                                               | 2    | 0    | 176                                                                               | 84                                                                                | 0    | 0                                                                                 | 0                                                                                 | 61                                                                                  | 0    | 7                                                                                   |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -                                                                                 | None                                                                              | -                                                                                   | -    | None                                                                                |
| Storage Length           | 220                                                                               | -                                                                                 | -    | -    | -                                                                                 | 200                                                                               | -    | -                                                                                 | -                                                                                 | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor         | 93                                                                                | 93                                                                                | 93   | 93   | 93                                                                                | 93                                                                                | 93   | 93                                                                                | 93                                                                                | 93                                                                                  | 93   | 93                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                | 13                                                                                | 661                                                                               | 2    | 0    | 189                                                                               | 90                                                                                | 0    | 0                                                                                 | 0                                                                                 | 66                                                                                  | 0    | 8                                                                                   |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |   |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|---|-------|
| Conflicting Flow All | 280    | 0 | 0 | -      | - | 0 | 877    | 968   | 662   | 876    | - | 189   |
| Stage 1              | -      | - | - | -      | - | - | 688    | 688   | -     | 189    | - | -     |
| Stage 2              | -      | - | - | -      | - | - | 189    | 280   | -     | 687    | - | -     |
| Critical Hdwy        | 4.12   | - | - | -      | - | - | 7.12   | 6.52  | 6.22  | 7.12   | - | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | - | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | - | -     |
| Follow-up Hdwy       | 2.218  | - | - | -      | - | - | 3.518  | 4.018 | 3.318 | 3.518  | - | 3.318 |
| Pot Cap-1 Maneuver   | 1283   | - | - | 0      | - | - | 269    | 254   | 462   | 269    | 0 | 853   |
| Stage 1              | -      | - | - | 0      | - | - | 436    | 447   | -     | 813    | 0 | -     |
| Stage 2              | -      | - | - | 0      | - | - | 813    | 679   | -     | 437    | 0 | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |   |       |
| Mov Cap-1 Maneuver   | 1283   | - | - | -      | - | - | 264    | 251   | 462   | 266    | - | 853   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 264    | 251   | -     | 266    | - | -     |
| Stage 1              | -      | - | - | -      | - | - | 432    | 442   | -     | 813    | - | -     |
| Stage 2              | -      | - | - | -      | - | - | 805    | 679   | -     | 433    | - | -     |

| Approach                    | EB | WB | NB | SB    |
|-----------------------------|----|----|----|-------|
| HCM Control Delay, s/v 0.15 |    | 0  | 0  | 21.46 |
| HCM LOS                     |    |    | A  | C     |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|------|-----|-----|-----|-----|-------|-------|
| Capacity (veh/h)          | -     | 1283 | -   | -   | -   | -   | 266   | 853   |
| HCM Lane V/C Ratio        | -     | 0.01 | -   | -   | -   | -   | 0.246 | 0.009 |
| HCM Control Delay (s/veh) | 0     | 7.8  | -   | -   | -   | -   | 22.9  | 9.3   |
| HCM Lane LOS              | A     | A    | -   | -   | -   | -   | C     | A     |
| HCM 95th %tile Q(veh)     | -     | 0    | -   | -   | -   | -   | 0.9   | 0     |

| Intersection              |        |          |        |       |       |      |
|---------------------------|--------|----------|--------|-------|-------|------|
| Int Delay, s/veh          | 3.9    |          |        |       |       |      |
| Movement                  | WBL    | WBR      | NBT    | NBR   | SBL   | SBT  |
| Lane Configurations       | W      |          | T      |       |       | A    |
| Traffic Vol, veh/h        | 37     | 58       | 66     | 20    | 30    | 91   |
| Future Vol, veh/h         | 37     | 58       | 66     | 20    | 30    | 91   |
| Conflicting Peds, #/hr    | 0      | 0        | 0      | 0     | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free   | Free  | Free  | Free |
| RT Channelized            | -      | None     | -      | None  | -     | None |
| Storage Length            | 0      | -        | -      | -     | -     | -    |
| Veh in Median Storage, #  | 0      | -        | 0      | -     | -     | 0    |
| Grade, %                  | 0      | -        | 0      | -     | -     | 0    |
| Peak Hour Factor          | 85     | 85       | 85     | 85    | 85    | 85   |
| Heavy Vehicles, %         | 2      | 2        | 2      | 2     | 2     | 2    |
| Mvmt Flow                 | 44     | 68       | 78     | 24    | 35    | 107  |
| Major/Minor               | Minor1 | Major1   | Major2 |       |       |      |
| Conflicting Flow All      | 267    | 89       | 0      | 0     | 101   | 0    |
| Stage 1                   | 89     | -        | -      | -     | -     | -    |
| Stage 2                   | 178    | -        | -      | -     | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -      | -     | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -      | -     | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -      | -     | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -      | -     | 2.218 | -    |
| Pot Cap-1 Maneuver        | 722    | 969      | -      | -     | 1491  | -    |
| Stage 1                   | 934    | -        | -      | -     | -     | -    |
| Stage 2                   | 853    | -        | -      | -     | -     | -    |
| Platoon blocked, %        |        |          | -      | -     |       | -    |
| Mov Cap-1 Maneuver        | 704    | 969      | -      | -     | 1491  | -    |
| Mov Cap-2 Maneuver        | 704    | -        | -      | -     | -     | -    |
| Stage 1                   | 934    | -        | -      | -     | -     | -    |
| Stage 2                   | 832    | -        | -      | -     | -     | -    |
| Approach                  | WB     | NB       | SB     |       |       |      |
| HCM Control Delay, s/v    | 9.91   | 0        | 1.85   |       |       |      |
| HCM LOS                   | A      |          |        |       |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 | SBL    | SBT   |       |      |
| Capacity (veh/h)          | -      | -        | 845    | 446   | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.132  | 0.024 | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 9.9    | 7.5   | 0     |      |
| HCM Lane LOS              | -      | -        | A      | A     | A     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 0.5    | 0.1   | -     |      |

| Intersection              |        |        |       |        |      |      |
|---------------------------|--------|--------|-------|--------|------|------|
| Int Delay, s/veh          | 0.5    |        |       |        |      |      |
| Movement                  | EBL    | EBR    | NBL   | NBT    | SBT  | SBR  |
| Lane Configurations       | W      |        |       | W      | W    |      |
| Traffic Vol, veh/h        | 4      | 2      | 9     | 113    | 117  | 0    |
| Future Vol, veh/h         | 4      | 2      | 9     | 113    | 117  | 0    |
| Conflicting Peds, #/hr    | 0      | 0      | 0     | 0      | 0    | 0    |
| Sign Control              | Stop   | Stop   | Free  | Free   | Free | Free |
| RT Channelized            | -      | None   | -     | None   | -    | None |
| Storage Length            | 0      | -      | -     | -      | -    | -    |
| Veh in Median Storage, #  | 0      | -      | -     | 0      | 0    | -    |
| Grade, %                  | 0      | -      | -     | 0      | 0    | -    |
| Peak Hour Factor          | 90     | 90     | 90    | 90     | 90   | 90   |
| Heavy Vehicles, %         | 2      | 2      | 2     | 2      | 2    | 2    |
| Mvmt Flow                 | 4      | 2      | 10    | 126    | 130  | 0    |
| Major/Minor               | Minor2 | Major1 |       | Major2 |      |      |
| Conflicting Flow All      | 276    | 130    | 130   | 0      | -    | 0    |
| Stage 1                   | 130    | -      | -     | -      | -    | -    |
| Stage 2                   | 146    | -      | -     | -      | -    | -    |
| Critical Hdwy             | 6.42   | 6.22   | 4.12  | -      | -    | -    |
| Critical Hdwy Stg 1       | 5.42   | -      | -     | -      | -    | -    |
| Critical Hdwy Stg 2       | 5.42   | -      | -     | -      | -    | -    |
| Follow-up Hdwy            | 3.518  | 3.318  | 2.218 | -      | -    | -    |
| Pot Cap-1 Maneuver        | 714    | 920    | 1455  | -      | -    | -    |
| Stage 1                   | 896    | -      | -     | -      | -    | -    |
| Stage 2                   | 882    | -      | -     | -      | -    | -    |
| Platoon blocked, %        |        |        |       | -      | -    | -    |
| Mov Cap-1 Maneuver        | 709    | 920    | 1455  | -      | -    | -    |
| Mov Cap-2 Maneuver        | 709    | -      | -     | -      | -    | -    |
| Stage 1                   | 889    | -      | -     | -      | -    | -    |
| Stage 2                   | 882    | -      | -     | -      | -    | -    |
| Approach                  | EB     | NB     |       | SB     |      |      |
| HCM Control Delay, s/v    | 9.73   | 0.55   |       | 0      |      |      |
| HCM LOS                   | A      |        |       |        |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT    | EBLn1 | SBT    | SBR  |      |
| Capacity (veh/h)          | 133    | -      | 767   | -      | -    |      |
| HCM Lane V/C Ratio        | 0.007  | -      | 0.009 | -      | -    |      |
| HCM Control Delay (s/veh) | 7.5    | 0      | 9.7   | -      | -    |      |
| HCM Lane LOS              | A      | A      | A     | -      | -    |      |
| HCM 95th %tile Q(veh)     | 0      | -      | 0     | -      | -    |      |

| Intersection             |                                                                                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 1.4                                                                               |                                                                                   |      |      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |                                                                                     |      |                                                                                     |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR                                                                               | NBL  | NBT                                                                               | NBR                                                                               | SBL                                                                                 | SBT  | SBR                                                                                 |
| Lane Configurations      |  |  |      |      |  |  |      |  |  |  |      |  |
| Traffic Vol, veh/h       | 4                                                                                 | 258                                                                               | 0    | 0    | 520                                                                               | 52                                                                                | 0    | 1                                                                                 | 2                                                                                 | 44                                                                                  | 1    | 14                                                                                  |
| Future Vol, veh/h        | 4                                                                                 | 258                                                                               | 0    | 0    | 520                                                                               | 52                                                                                | 0    | 1                                                                                 | 2                                                                                 | 44                                                                                  | 1    | 14                                                                                  |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0    | 0                                                                                   |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free | Free                                                                              | Free                                                                              | Stop | Stop                                                                              | Stop                                                                              | Stop                                                                                | Stop | Stop                                                                                |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None                                                                              | -    | -                                                                                 | None                                                                              | -                                                                                   | -    | None                                                                                |
| Storage Length           | 220                                                                               | -                                                                                 | -    | -    | -                                                                                 | 200                                                                               | -    | -                                                                                 | -                                                                                 | 0                                                                                   | -    | 0                                                                                   |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 | -                                                                                   | 0    | -                                                                                   |
| Peak Hour Factor         | 88                                                                                | 88                                                                                | 88   | 88   | 88                                                                                | 88                                                                                | 88   | 88                                                                                | 88                                                                                | 88                                                                                  | 88   | 88                                                                                  |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2    | 2                                                                                   |
| Mvmt Flow                | 5                                                                                 | 293                                                                               | 0    | 0    | 591                                                                               | 59                                                                                | 0    | 1                                                                                 | 2                                                                                 | 50                                                                                  | 1    | 16                                                                                  |

| Major/Minor          | Major1 |   | Major2 |   | Minor1 |   | Minor2 |       |       |       |       |       |
|----------------------|--------|---|--------|---|--------|---|--------|-------|-------|-------|-------|-------|
| Conflicting Flow All | 650    | 0 | -      | - | -      | 0 | 894    | 952   | 293   | 894   | 893   | 591   |
| Stage 1              | -      | - | -      | - | -      | - | 302    | 302   | -     | 591   | 591   | -     |
| Stage 2              | -      | - | -      | - | -      | - | 591    | 650   | -     | 303   | 302   | -     |
| Critical Hdwy        | 4.12   | - | -      | - | -      | - | 7.12   | 6.52  | 6.22  | 7.12  | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | -      | - | -      | - | 6.12   | 5.52  | -     | 6.12  | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | -      | - | -      | - | 6.12   | 5.52  | -     | 6.12  | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | -      | - | -      | - | 3.518  | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 936    | - | 0      | 0 | -      | - | 262    | 259   | 746   | 262   | 281   | 507   |
| Stage 1              | -      | - | 0      | 0 | -      | - | 707    | 664   | -     | 493   | 494   | -     |
| Stage 2              | -      | - | 0      | 0 | -      | - | 493    | 465   | -     | 706   | 664   | -     |
| Platoon blocked, %   |        | - |        |   | -      | - |        |       |       |       |       |       |
| Mov Cap-1 Maneuver   | 936    | - | -      | - | -      | - | 252    | 258   | 746   | 259   | 279   | 507   |
| Mov Cap-2 Maneuver   | -      | - | -      | - | -      | - | 252    | 258   | -     | 259   | 279   | -     |
| Stage 1              | -      | - | -      | - | -      | - | 704    | 661   | -     | 493   | 494   | -     |
| Stage 2              | -      | - | -      | - | -      | - | 476    | 465   | -     | 700   | 661   | -     |

| Approach               | EB   | WB | NB    | SB    |
|------------------------|------|----|-------|-------|
| HCM Control Delay, s/v | 0.14 | 0  | 12.93 | 19.83 |
| HCM LOS                |      |    | B     | C     |

| Minor Lane/Major Mvmt     | NBLn1 | EBL   | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---------------------------|-------|-------|-----|-----|-----|-------|-------|
| Capacity (veh/h)          | 458   | 936   | -   | -   | -   | 259   | 507   |
| HCM Lane V/C Ratio        | 0.007 | 0.005 | -   | -   | -   | 0.193 | 0.031 |
| HCM Control Delay (s/veh) | 12.9  | 8.9   | -   | -   | -   | 22.2  | 12.3  |
| HCM Lane LOS              | B     | A     | -   | -   | -   | C     | B     |
| HCM 95th %tile Q(veh)     | 0     | 0     | -   | -   | -   | 0.7   | 0.1   |



HCM 7th TWSC  
1: Boss Range Rd & Range Rd/Wiley Rd

Buildout AM  
Range Creek TIA

| Intersection               |        |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|----------------------------|--------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|------|-------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh           | 167.7  |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Movement                   | EBL    | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR  | SBL   | SBT                                                                                 | SBR  |
| Lane Configurations        |        |  |        |  |  |       |        |  |      |       |  |      |
| Traffic Vol, veh/h         | 35     | 130                                                                               | 64     | 116                                                                               | 45                                                                                | 115   | 23     | 97                                                                                | 21   | 215   | 140                                                                                 | 11   |
| Future Vol, veh/h          | 35     | 130                                                                               | 64     | 116                                                                               | 45                                                                                | 115   | 23     | 97                                                                                | 21   | 215   | 140                                                                                 | 11   |
| Conflicting Peds, #/hr     | 0      | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0     | 0      | 0                                                                                 | 0    | 0     | 0                                                                                   | 0    |
| Sign Control               | Stop   | Stop                                                                              | Stop   | Stop                                                                              | Stop                                                                              | Stop  | Free   | Free                                                                              | Free | Free  | Free                                                                                | Free |
| RT Channelized             | -      | -                                                                                 | None   | -                                                                                 | -                                                                                 | None  | -      | -                                                                                 | None | -     | -                                                                                   | None |
| Storage Length             | -      | -                                                                                 | -      | 250                                                                               | -                                                                                 | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Veh in Median Storage, #   | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Grade, %                   | -      | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | -     | -      | 0                                                                                 | -    | -     | 0                                                                                   | -    |
| Peak Hour Factor           | 68     | 68                                                                                | 68     | 68                                                                                | 68                                                                                | 68    | 68     | 68                                                                                | 68   | 68    | 68                                                                                  | 68   |
| Heavy Vehicles, %          | 2      | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2     | 2      | 2                                                                                 | 2    | 2     | 2                                                                                   | 2    |
| Mvmt Flow                  | 51     | 191                                                                               | 94     | 171                                                                               | 66                                                                                | 169   | 34     | 143                                                                               | 31   | 316   | 206                                                                                 | 16   |
|                            |        |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Major/Minor                | Minor2 |                                                                                   | Minor1 |                                                                                   | Major1                                                                            |       | Major2 |                                                                                   |      |       |                                                                                     |      |
| Conflicting Flow All       | 1090   | 1088                                                                              | 214    | 1160                                                                              | 1080                                                                              | 158   | 222    | 0                                                                                 | 0    | 174   | 0                                                                                   | 0    |
| Stage 1                    | 846    | 846                                                                               | -      | 226                                                                               | 226                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                    | 243    | 241                                                                               | -      | 934                                                                               | 854                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy              | 7.12   | 6.52                                                                              | 6.22   | 7.12                                                                              | 6.52                                                                              | 6.22  | 4.12   | -                                                                                 | -    | 4.12  | -                                                                                   | -    |
| Critical Hdwy Stg 1        | 6.12   | 5.52                                                                              | -      | 6.12                                                                              | 5.52                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Critical Hdwy Stg 2        | 6.12   | 5.52                                                                              | -      | 6.12                                                                              | 5.52                                                                              | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Follow-up Hdwy             | 3.518  | 4.018                                                                             | 3.318  | 3.518                                                                             | 4.018                                                                             | 3.318 | 2.218  | -                                                                                 | -    | 2.218 | -                                                                                   | -    |
| Pot Cap-1 Maneuver         | 193    | 216                                                                               | 826    | 173                                                                               | 218                                                                               | 887   | 1347   | -                                                                                 | -    | 1403  | -                                                                                   | -    |
| Stage 1                    | 357    | 378                                                                               | -      | 777                                                                               | 717                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                    | 760    | 706                                                                               | -      | 319                                                                               | 375                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Platoon blocked, %         |        |                                                                                   |        |                                                                                   |                                                                                   |       |        | -                                                                                 | -    |       | -                                                                                   | -    |
| Mov Cap-1 Maneuver         | 74     | ~ 156                                                                             | 826    | ~ 110                                                                             | 157                                                                               | 887   | 1347   | -                                                                                 | -    | 1403  | -                                                                                   | -    |
| Mov Cap-2 Maneuver         | 74     | ~ 156                                                                             | -      | ~ 110                                                                             | 157                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 1                    | 265    | 281                                                                               | -      | 755                                                                               | 697                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
| Stage 2                    | 541    | 686                                                                               | -      | ~ 67                                                                              | 278                                                                               | -     | -      | -                                                                                 | -    | -     | -                                                                                   | -    |
|                            |        |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Approach                   | EB     |                                                                                   | WB     |                                                                                   | NB                                                                                |       | SB     |                                                                                   |      |       |                                                                                     |      |
| HCM Control Delay, s/veh   | 533.28 |                                                                                   | 165.25 |                                                                                   | 1.26                                                                              |       | 4.88   |                                                                                   |      |       |                                                                                     |      |
| HCM LOS                    | F      |                                                                                   | F      |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
|                            |        |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| Minor Lane/Major Mvmt      | NBL    | NBT                                                                               | NBR    | EBLn1                                                                             | WBLn1                                                                             | WBLn2 | SBL    | SBT                                                                               | SBR  |       |                                                                                     |      |
| Capacity (veh/h)           | 284    | -                                                                                 | -      | 165                                                                               | 110                                                                               | 385   | 1042   | -                                                                                 | -    |       |                                                                                     |      |
| HCM Lane V/C Ratio         | 0.025  | -                                                                                 | -      | 2.038                                                                             | 1.545                                                                             | 0.611 | 0.225  | -                                                                                 | -    |       |                                                                                     |      |
| HCM Control Delay (s/veh)  | 7.7    | 0                                                                                 | -      | \$ 533.3                                                                          | \$ 354.6                                                                          | 28    | 8.3    | 0                                                                                 | -    |       |                                                                                     |      |
| HCM Lane LOS               | A      | A                                                                                 | -      | F                                                                                 | F                                                                                 | D     | A      | A                                                                                 | -    |       |                                                                                     |      |
| HCM 95th %tile Q(veh)      | 0.1    | -                                                                                 | -      | 26.3                                                                              | 12.6                                                                              | 3.9   | 0.9    | -                                                                                 | -    |       |                                                                                     |      |
| Notes                      |        |                                                                                   |        |                                                                                   |                                                                                   |       |        |                                                                                   |      |       |                                                                                     |      |
| ~: Volume exceeds capacity |        | \$: Delay exceeds 300s                                                            |        | +: Computation Not Defined                                                        |                                                                                   |       |        | *: All major volume in platoon                                                    |      |       |                                                                                     |      |

| Intersection              |                                                                                   |                                                                                   |       |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |       |                                                                                     |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 4.2                                                                               |                                                                                   |       |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |       |                                                                                     |       |                                                                                     |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR   | WBL    | WBT                                                                               | WBR                                                                               | NBL                                                                               | NBT                                                                               | NBR   | SBL                                                                                 | SBT   | SBR                                                                                 |
| Lane Configurations       |  |  |       |        |  |  |  |  |       |  |       |  |
| Traffic Vol, veh/h        | 12                                                                                | 632                                                                               | 19    | 11     | 223                                                                               | 100                                                                               | 47                                                                                | 16                                                                                | 31    | 67                                                                                  | 6     | 7                                                                                   |
| Future Vol, veh/h         | 12                                                                                | 632                                                                               | 19    | 11     | 223                                                                               | 100                                                                               | 47                                                                                | 16                                                                                | 31    | 67                                                                                  | 6     | 7                                                                                   |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0     | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0     | 0                                                                                   | 0     | 0                                                                                   |
| Sign Control              | Free                                                                              | Free                                                                              | Free  | Free   | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              | Stop  | Stop                                                                                | Stop  | Stop                                                                                |
| RT Channelized            | -                                                                                 | -                                                                                 | None  | -      | -                                                                                 | None                                                                              | -                                                                                 | -                                                                                 | None  | -                                                                                   | -     | None                                                                                |
| Storage Length            | 220                                                                               | -                                                                                 | -     | -      | -                                                                                 | 200                                                                               | 250                                                                               | -                                                                                 | -     | 0                                                                                   | -     | 0                                                                                   |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -     | -      | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                   | 0     | -                                                                                   |
| Grade, %                  | -                                                                                 | 0                                                                                 | -     | -      | 0                                                                                 | -                                                                                 | -                                                                                 | 0                                                                                 | -     | -                                                                                   | 0     | -                                                                                   |
| Peak Hour Factor          | 93                                                                                | 93                                                                                | 93    | 93     | 93                                                                                | 93                                                                                | 93                                                                                | 93                                                                                | 93    | 93                                                                                  | 93    | 93                                                                                  |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2     | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2     | 2                                                                                   | 2     | 2                                                                                   |
| Mvmt Flow                 | 13                                                                                | 680                                                                               | 20    | 12     | 240                                                                               | 108                                                                               | 51                                                                                | 17                                                                                | 33    | 72                                                                                  | 6     | 8                                                                                   |
| Major/Minor               | Major1                                                                            |                                                                                   |       | Major2 |                                                                                   |                                                                                   | Minor1                                                                            |                                                                                   |       | Minor2                                                                              |       |                                                                                     |
| Conflicting Flow All      | 347                                                                               | 0                                                                                 | 0     | 700    | 0                                                                                 | 0                                                                                 | 982                                                                               | 1087                                                                              | 690   | 977                                                                                 | 989   | 240                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 716                                                                               | 716                                                                               | -     | 263                                                                                 | 263   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 267                                                                               | 371                                                                               | -     | 714                                                                                 | 726   | -                                                                                   |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -     | 4.12   | -                                                                                 | -                                                                                 | 7.12                                                                              | 6.52                                                                              | 6.22  | 7.12                                                                                | 6.52  | 6.22                                                                                |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 6.12                                                                              | 5.52                                                                              | -     | 6.12                                                                                | 5.52  | -                                                                                   |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 6.12                                                                              | 5.52                                                                              | -     | 6.12                                                                                | 5.52  | -                                                                                   |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -     | 2.218  | -                                                                                 | -                                                                                 | 3.518                                                                             | 4.018                                                                             | 3.318 | 3.518                                                                               | 4.018 | 3.318                                                                               |
| Pot Cap-1 Maneuver        | 1212                                                                              | -                                                                                 | -     | 897    | -                                                                                 | -                                                                                 | 228                                                                               | 216                                                                               | 445   | 230                                                                                 | 247   | 799                                                                                 |
| Stage 1                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 421                                                                               | 434                                                                               | -     | 742                                                                                 | 690   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 739                                                                               | 620                                                                               | -     | 422                                                                                 | 430   | -                                                                                   |
| Platoon blocked, %        | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 | -     | -                                                                                   | -     | -                                                                                   |
| Mov Cap-1 Maneuver        | 1212                                                                              | -                                                                                 | -     | 897    | -                                                                                 | -                                                                                 | 214                                                                               | 210                                                                               | 445   | 190                                                                                 | 240   | 799                                                                                 |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 214                                                                               | 210                                                                               | -     | 190                                                                                 | 240   | -                                                                                   |
| Stage 1                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 417                                                                               | 430                                                                               | -     | 729                                                                                 | 679   | -                                                                                   |
| Stage 2                   | -                                                                                 | -                                                                                 | -     | -      | -                                                                                 | -                                                                                 | 713                                                                               | 609                                                                               | -     | 371                                                                                 | 425   | -                                                                                   |
| Approach                  | EB                                                                                |                                                                                   |       | WB     |                                                                                   |                                                                                   | NB                                                                                |                                                                                   |       | SB                                                                                  |       |                                                                                     |
| HCM Control Delay, s/v    | 0.14                                                                              |                                                                                   |       | 0.3    |                                                                                   |                                                                                   | 22.58                                                                             |                                                                                   |       | 32.57                                                                               |       |                                                                                     |
| HCM LOS                   |                                                                                   |                                                                                   |       |        |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |       | D                                                                                   |       |                                                                                     |
| Minor Lane/Major Mvmt     | NBLn1NBLn2                                                                        |                                                                                   | EBL   | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | SBLn1 | SBLn2                                                                               |       |                                                                                     |
| Capacity (veh/h)          | 214                                                                               | 323                                                                               | 1212  | -      | -                                                                                 | 897                                                                               | -                                                                                 | -                                                                                 | 190   | 799                                                                                 |       |                                                                                     |
| HCM Lane V/C Ratio        | 0.236                                                                             | 0.157                                                                             | 0.011 | -      | -                                                                                 | 0.013                                                                             | -                                                                                 | -                                                                                 | 0.378 | 0.009                                                                               |       |                                                                                     |
| HCM Control Delay (s/veh) | 26.9                                                                              | 18.2                                                                              | 8     | -      | -                                                                                 | 9.1                                                                               | -                                                                                 | -                                                                                 | 35    | 9.5                                                                                 |       |                                                                                     |
| HCM Lane LOS              | D                                                                                 | C                                                                                 | A     | -      | -                                                                                 | A                                                                                 | -                                                                                 | -                                                                                 | D     | A                                                                                   |       |                                                                                     |
| HCM 95th %tile Q(veh)     | 0.9                                                                               | 0.5                                                                               | 0     | -      | -                                                                                 | 0                                                                                 | -                                                                                 | -                                                                                 | 1.6   | 0                                                                                   |       |                                                                                     |



HCM 7th TWSC  
4: Drive 1 & Range Rd

Buildout AM  
Range Creek TIA

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.9                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                  | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                               |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 463                                                                               | 0      | 28                                                                                | 164                                                                               | 0                                                                                 | 79                                                                                |
| Future Vol, veh/h         | 463                                                                               | 0      | 28                                                                                | 164                                                                               | 0                                                                                 | 79                                                                                |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control              | Free                                                                              | Free   | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                              |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length            | -                                                                                 | -      | 200                                                                               | -                                                                                 | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor          | 76                                                                                | 76     | 76                                                                                | 76                                                                                | 76                                                                                | 76                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                 | 609                                                                               | 0      | 37                                                                                | 216                                                                               | 0                                                                                 | 104                                                                               |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Major/Minor               | Major1                                                                            | Major2 |                                                                                   | Minor1                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All      | 0                                                                                 | 0      | 609                                                                               | 0                                                                                 | 899                                                                               | 609                                                                               |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 609                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 289                                                                               | -                                                                                 |
| Critical Hdwy             | -                                                                                 | -      | 4.12                                                                              | -                                                                                 | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy            | -                                                                                 | -      | 2.218                                                                             | -                                                                                 | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver        | -                                                                                 | -      | 969                                                                               | -                                                                                 | 310                                                                               | 495                                                                               |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 543                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 760                                                                               | -                                                                                 |
| Platoon blocked, %        | -                                                                                 | -      |                                                                                   | -                                                                                 |                                                                                   |                                                                                   |
| Mov Cap-1 Maneuver        | -                                                                                 | -      | 969                                                                               | -                                                                                 | 298                                                                               | 495                                                                               |
| Mov Cap-2 Maneuver        | -                                                                                 | -      | -                                                                                 | -                                                                                 | 298                                                                               | -                                                                                 |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 543                                                                               | -                                                                                 |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 731                                                                               | -                                                                                 |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Approach                  | EB                                                                                | WB     |                                                                                   | NB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 0                                                                                 | 1.29   |                                                                                   | 14.2                                                                              |                                                                                   |                                                                                   |
| HCM LOS                   | B                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                   |
| Capacity (veh/h)          | 495                                                                               | -      | -                                                                                 | 969                                                                               | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio        | 0.21                                                                              | -      | -                                                                                 | 0.038                                                                             | -                                                                                 |                                                                                   |
| HCM Control Delay (s/veh) | 14.2                                                                              | -      | -                                                                                 | 8.9                                                                               | -                                                                                 |                                                                                   |
| HCM Lane LOS              | B                                                                                 | -      | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)     | 0.8                                                                               | -      | -                                                                                 | 0.1                                                                               | -                                                                                 |                                                                                   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 5.1                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 258                                                                               | 0    | 28                                                                                | 103                                                                               | 33   | 0    | 0                                                                                 | 79   | 126  | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 258                                                                               | 0    | 28                                                                                | 103                                                                               | 33   | 0    | 0                                                                                 | 79   | 126  | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 280                                                                               | 0    | 30                                                                                | 112                                                                               | 36   | 0    | 0                                                                                 | 86   | 137  | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 148    | 0 | 0 | 280    | 0 | 0 | 453    | 489   | 280   | 471    | 471   | 130   |
| Stage 1              | -      | - | - | -      | - | - | 280    | 280   | -     | 191    | 191   | -     |
| Stage 2              | -      | - | - | -      | - | - | 173    | 209   | -     | 280    | 280   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1434   | - | - | 1282   | - | - | 517    | 479   | 758   | 503    | 491   | 920   |
| Stage 1              | -      | - | - | -      | - | - | 726    | 679   | -     | 811    | 742   | -     |
| Stage 2              | -      | - | - | -      | - | - | 829    | 729   | -     | 726    | 679   | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |       |       |
| Mov Cap-1 Maneuver   | 1434   | - | - | 1282   | - | - | 505    | 468   | 758   | 435    | 479   | 920   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 505    | 468   | -     | 435    | 479   | -     |
| Stage 1              | -      | - | - | -      | - | - | 726    | 679   | -     | 792    | 725   | -     |
| Stage 2              | -      | - | - | -      | - | - | 809    | 712   | -     | 644    | 679   | -     |

| Approach               | EB |  |  | WB   |  |  | NB    |  |  | SB    |  |  |
|------------------------|----|--|--|------|--|--|-------|--|--|-------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 1.34 |  |  | 10.35 |  |  | 17.02 |  |  |
| HCM LOS                |    |  |  |      |  |  | B     |  |  | C     |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 758   | 1434 | -   | -   | 1282  | -   | -   | 435   |
| HCM Lane V/C Ratio        | 0.113 | -    | -   | -   | 0.024 | -   | -   | 0.315 |
| HCM Control Delay (s/veh) | 10.4  | 0    | -   | -   | 7.9   | -   | -   | 17    |
| HCM Lane LOS              | B     | A    | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh)     | 0.4   | 0    | -   | -   | 0.1   | -   | -   | 1.3   |

| Intersection              |        |        |      |        |      |       |
|---------------------------|--------|--------|------|--------|------|-------|
| Int Delay, s/veh          | 0      |        |      |        |      |       |
| Movement                  | EBL    | EBT    | WBT  | WBR    | SBL  | SBR   |
| Lane Configurations       |        | ↑      | ↑    |        |      | ↑     |
| Traffic Vol, veh/h        | 0      | 258    | 92   | 11     | 0    | 0     |
| Future Vol, veh/h         | 0      | 258    | 92   | 11     | 0    | 0     |
| Conflicting Peds, #/hr    | 0      | 0      | 0    | 0      | 0    | 0     |
| Sign Control              | Free   | Free   | Free | Free   | Stop | Stop  |
| RT Channelized            | -      | None   | -    | None   | -    | None  |
| Storage Length            | -      | -      | -    | -      | -    | 0     |
| Veh in Median Storage, #  | -      | 0      | 0    | -      | 0    | -     |
| Grade, %                  | -      | 0      | 0    | -      | 0    | -     |
| Peak Hour Factor          | 92     | 92     | 92   | 92     | 92   | 92    |
| Heavy Vehicles, %         | 2      | 2      | 2    | 2      | 2    | 2     |
| Mvmt Flow                 | 0      | 280    | 100  | 12     | 0    | 0     |
|                           |        |        |      |        |      |       |
| Major/Minor               | Major1 | Major2 |      | Minor2 |      |       |
| Conflicting Flow All      | -      | 0      | -    | 0      | -    | 106   |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
| Critical Hdwy             | -      | -      | -    | -      | -    | 6.22  |
| Critical Hdwy Stg 1       | -      | -      | -    | -      | -    | -     |
| Critical Hdwy Stg 2       | -      | -      | -    | -      | -    | -     |
| Follow-up Hdwy            | -      | -      | -    | -      | -    | 3.318 |
| Pot Cap-1 Maneuver        | 0      | -      | -    | -      | 0    | 948   |
| Stage 1                   | 0      | -      | -    | -      | 0    | -     |
| Stage 2                   | 0      | -      | -    | -      | 0    | -     |
| Platoon blocked, %        |        | -      | -    | -      |      |       |
| Mov Cap-1 Maneuver        | -      | -      | -    | -      | -    | 948   |
| Mov Cap-2 Maneuver        | -      | -      | -    | -      | -    | -     |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Approach                  | EB     | WB     |      | SB     |      |       |
| HCM Control Delay, s/v    | 0      | 0      |      | 0      |      |       |
| HCM LOS                   |        |        |      |        | A    |       |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Minor Lane/Major Mvmt     | EBT    | WBT    | WBR  | SBLn1  |      |       |
| Capacity (veh/h)          | -      | -      | -    | -      |      |       |
| HCM Lane V/C Ratio        | -      | -      | -    | -      |      |       |
| HCM Control Delay (s/veh) | -      | -      | -    | 0      |      |       |
| HCM Lane LOS              | -      | -      | -    | A      |      |       |
| HCM 95th %tile Q(veh)     | -      | -      | -    | -      |      |       |

| Intersection                |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|
| Intersection Delay, s/veh   | 4.1     |         |         |         |
| Intersection LOS            | A       |         |         |         |
| Approach                    | EB      | WB      | NB      | SB      |
| Entry Lanes                 | 1       | 1       | 1       | 1       |
| Conflicting Circle Lanes    | 1       | 1       | 1       | 1       |
| Adj Approach Flow, veh/h    | 239     | 96      | 0       | 104     |
| Demand Flow Rate, veh/h     | 244     | 98      | 0       | 106     |
| Vehicles Circulating, veh/h | 106     | 52      | 331     | 67      |
| Vehicles Exiting, veh/h     | 67      | 279     | 19      | 83      |
| Ped Vol Crossing Leg, #/h   | 0       | 0       | 0       | 0       |
| Ped Cap Adj                 | 1.000   | 1.000   | 1.000   | 1.000   |
| Approach Delay, s/veh       | 4.7     | 3.4     | 0.0     | 3.5     |
| Approach LOS                | A       | A       | -       | A       |
| Lane                        | Left    | Left    | Left    | Left    |
| Designated Moves            | LTR     | LTR     | LTR     | LTR     |
| Assumed Moves               | LTR     | LTR     | LTR     | LTR     |
| RT Channelized              |         |         |         |         |
| Lane Util                   | 1.000   | 1.000   | 1.000   | 1.000   |
| Follow-Up Headway, s        | 2.609   | 2.609   | 2.609   | 2.609   |
| Critical Headway, s         | 4.976   | 4.976   | 4.976   | 4.976   |
| A (Intercept)               | 1380    | 1380    | 1380    | 1380    |
| B (Slope)                   | 1.02e-3 | 1.02e-3 | 1.02e-3 | 1.02e-3 |
| Entry Flow, veh/h           | 244     | 98      | 0       | 106     |
| Cap Entry Lane, veh/h       | 1238    | 1309    | 985     | 1289    |
| Entry HV Adj Factor         | 0.980   | 0.979   | 1.000   | 0.980   |
| Flow Entry, veh/h           | 239     | 96      | 0       | 104     |
| Cap Entry, veh/h            | 1214    | 1281    | 985     | 1263    |
| V/C Ratio                   | 0.197   | 0.075   | 0.000   | 0.082   |
| Control Delay, s/veh        | 4.7     | 3.4     | 3.7     | 3.5     |
| LOS                         | A       | A       | A       | A       |
| 95th %tile Queue, veh       | 1       | 0       | 0       | 0       |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4                                                                                 |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 110                                                                               | 0    | 11                                                                                | 39                                                                                | 11   | 0    | 0                                                                                 | 79   | 31   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 110                                                                               | 0    | 11                                                                                | 39                                                                                | 11   | 0    | 0                                                                                 | 79   | 31   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 120                                                                               | 0    | 12                                                                                | 42                                                                                | 12   | 0    | 0                                                                                 | 86   | 34   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 54     | 0 | 0 | 120    | 0 | 0 | 186    | 198   | 120   | 192    | 192   | 48    |
| Stage 1              | -      | - | - | -      | - | - | 120    | 120   | -     | 72     | 72    | -     |
| Stage 2              | -      | - | - | -      | - | - | 66     | 78    | -     | 120    | 120   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1551   | - | - | 1468   | - | - | 775    | 698   | 932   | 768    | 703   | 1020  |
| Stage 1              | -      | - | - | -      | - | - | 885    | 797   | -     | 937    | 835   | -     |
| Stage 2              | -      | - | - | -      | - | - | 944    | 830   | -     | 885    | 797   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1551   | - | - | 1468   | - | - | 769    | 692   | 932   | 691    | 697   | 1020  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 769    | 692   | -     | 691    | 697   | -     |
| Stage 1              | -      | - | - | -      | - | - | 885    | 797   | -     | 930    | 828   | -     |
| Stage 2              | -      | - | - | -      | - | - | 936    | 823   | -     | 803    | 797   | -     |

| Approach               | EB |  |  | WB   |  |  | NB   |  |  | SB    |  |  |
|------------------------|----|--|--|------|--|--|------|--|--|-------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 1.35 |  |  | 9.25 |  |  | 10.47 |  |  |
| HCM LOS                |    |  |  |      |  |  | A    |  |  | B     |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 932   | 1551 | -   | -   | 1468  | -   | -   | 691   |
| HCM Lane V/C Ratio        | 0.092 | -    | -   | -   | 0.008 | -   | -   | 0.049 |
| HCM Control Delay (s/veh) | 9.3   | 0    | -   | -   | 7.5   | -   | -   | 10.5  |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | B     |
| HCM 95th %tile Q(veh)     | 0.3   | 0    | -   | -   | 0     | -   | -   | 0.2   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4.3                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 47                                                                                | 0    | 11                                                                                | 17                                                                                | 11   | 0    | 0                                                                                 | 31   | 31   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 47                                                                                | 0    | 11                                                                                | 17                                                                                | 11   | 0    | 0                                                                                 | 31   | 31   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 51                                                                                | 0    | 12                                                                                | 18                                                                                | 12   | 0    | 0                                                                                 | 34   | 34   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 30     | 0 | 0 | 51     | 0 | 0 | 93     | 105   | 51    | 99     | 99    | 24    |
| Stage 1              | -      | - | - | -      | - | - | 51     | 51    | -     | 48     | 48    | -     |
| Stage 2              | -      | - | - | -      | - | - | 42     | 54    | -     | 51     | 51    | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1582   | - | - | 1555   | - | - | 890    | 785   | 1017  | 882    | 791   | 1052  |
| Stage 1              | -      | - | - | -      | - | - | 962    | 852   | -     | 965    | 855   | -     |
| Stage 2              | -      | - | - | -      | - | - | 972    | 850   | -     | 962    | 852   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1582   | - | - | 1555   | - | - | 883    | 779   | 1017  | 846    | 785   | 1052  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 883    | 779   | -     | 846    | 785   | -     |
| Stage 1              | -      | - | - | -      | - | - | 962    | 852   | -     | 958    | 848   | -     |
| Stage 2              | -      | - | - | -      | - | - | 965    | 843   | -     | 930    | 852   | -     |

| Approach               | EB |  |  | WB   |  |  | NB   |  |  | SB   |  |  |
|------------------------|----|--|--|------|--|--|------|--|--|------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 2.07 |  |  | 8.66 |  |  | 9.43 |  |  |
| HCM LOS                |    |  |  |      |  |  | A    |  |  | A    |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 1017  | 1582 | -   | -   | 1555  | -   | -   | 846   |
| HCM Lane V/C Ratio        | 0.033 | -    | -   | -   | 0.008 | -   | -   | 0.04  |
| HCM Control Delay (s/veh) | 8.7   | 0    | -   | -   | 7.3   | -   | -   | 9.4   |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | A     |
| HCM 95th %tile Q(veh)     | 0.1   | 0    | -   | -   | 0     | -   | -   | 0.1   |

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 2.2                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Movement                  | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                               |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 16                                                                                | 0      | 0                                                                                 | 31                                                                                | 11                                                                                | 6                                                                                 |
| Future Vol, veh/h         | 16                                                                                | 0      | 0                                                                                 | 31                                                                                | 11                                                                                | 6                                                                                 |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | -      | 200                                                                               | -                                                                                 | -                                                                                 | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                 |
| Peak Hour Factor          | 92                                                                                | 92     | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                 | 17                                                                                | 0      | 0                                                                                 | 34                                                                                | 12                                                                                | 7                                                                                 |
| Major/Minor               | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                   |
| Conflicting Flow All      | 49                                                                                | 15     | 18                                                                                | 0                                                                                 | -                                                                                 | 0                                                                                 |
| Stage 1                   | 15                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                   | 34                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.42                                                                              | 6.22   | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                 |
| Pot Cap-1 Maneuver        | 960                                                                               | 1064   | 1598                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                   | 1008                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                   | 989                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver        | 960                                                                               | 1064   | 1598                                                                              | -                                                                                 | -                                                                                 | -                                                                                 |
| Mov Cap-2 Maneuver        | 960                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 1                   | 1008                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Stage 2                   | 989                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                 |
| Approach                  | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 8.82                                                                              | 0      |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   |
| HCM LOS                   | A                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                   |
| Capacity (veh/h)          | 1598                                                                              | -      | 960                                                                               | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio        | -                                                                                 | -      | 0.018                                                                             | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Control Delay (s/veh) | 0                                                                                 | -      | 8.8                                                                               | -                                                                                 | -                                                                                 |                                                                                   |
| HCM Lane LOS              | A                                                                                 | -      | A                                                                                 | -                                                                                 | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)     | 0                                                                                 | -      | 0.1                                                                               | -                                                                                 | -                                                                                 |                                                                                   |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 7.1                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 0                                                                                 | 0    | 6                                                                                 | 0                                                                                 | 6    | 0    | 0                                                                                 | 16   | 16   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 0                                                                                 | 0    | 6                                                                                 | 0                                                                                 | 6    | 0    | 0                                                                                 | 16   | 16   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 0                                                                                 | 0    | 7                                                                                 | 0                                                                                 | 7    | 0    | 0                                                                                 | 17   | 17   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 7      | 0 | 0 | 1      | 0 | 0 | 14     | 21    | 1     | 17     | 17    | 3     |
| Stage 1              | -      | - | - | -      | - | - | 1      | 1     | -     | 16     | 16    | -     |
| Stage 2              | -      | - | - | -      | - | - | 13     | 20    | -     | 1      | 1     | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1614   | - | - | 1622   | - | - | 1002   | 873   | 1083  | 997    | 877   | 1081  |
| Stage 1              | -      | - | - | -      | - | - | 1022   | 895   | -     | 1003   | 882   | -     |
| Stage 2              | -      | - | - | -      | - | - | 1007   | 879   | -     | 1022   | 895   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1614   | - | - | 1622   | - | - | 998    | 870   | 1083  | 977    | 873   | 1081  |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 998    | 870   | -     | 977    | 873   | -     |
| Stage 1              | -      | - | - | -      | - | - | 1022   | 895   | -     | 999    | 878   | -     |
| Stage 2              | -      | - | - | -      | - | - | 1003   | 875   | -     | 1006   | 895   | -     |

| Approach               | EB |  |  | WB   |  |  | NB   |  |  | SB   |  |  |
|------------------------|----|--|--|------|--|--|------|--|--|------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 3.61 |  |  | 8.38 |  |  | 8.75 |  |  |
| HCM LOS                |    |  |  |      |  |  | A    |  |  | A    |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 1083  | 1614 | -   | -   | 1622  | -   | -   | 977   |
| HCM Lane V/C Ratio        | 0.016 | -    | -   | -   | 0.004 | -   | -   | 0.018 |
| HCM Control Delay (s/veh) | 8.4   | 0    | -   | -   | 7.2   | -   | -   | 8.8   |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | A     |
| HCM 95th %tile Q(veh)     | 0     | 0    | -   | -   | 0     | -   | -   | 0.1   |



| Intersection              |           |        |      |        |      |      |
|---------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh          | 0         |        |      |        |      |      |
| Movement                  | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations       |           | ↗      |      | ↑      | ↘    |      |
| Traffic Vol, veh/h        | 0         | 0      | 0    | 0      | 0    | 6    |
| Future Vol, veh/h         | 0         | 0      | 0    | 0      | 0    | 6    |
| Conflicting Peds, #/hr    | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control              | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized            | -         | None   | -    | None   | -    | None |
| Storage Length            | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, #  | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                  | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor          | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %         | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                 | 0         | 0      | 0    | 0      | 0    | 7    |
| Major/Minor               | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All      | -         | 3      | -    | 0      | -    | 0    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Critical Hdwy             | -         | 6.22   | -    | -      | -    | -    |
| Critical Hdwy Stg 1       | -         | -      | -    | -      | -    | -    |
| Critical Hdwy Stg 2       | -         | -      | -    | -      | -    | -    |
| Follow-up Hdwy            | -         | 3.318  | -    | -      | -    | -    |
| Pot Cap-1 Maneuver        | 0         | 1081   | 0    | -      | -    | -    |
| Stage 1                   | 0         | -      | 0    | -      | -    | -    |
| Stage 2                   | 0         | -      | 0    | -      | -    | -    |
| Platoon blocked, %        |           |        |      | -      | -    | -    |
| Mov Cap-1 Maneuver        | -         | 1081   | -    | -      | -    | -    |
| Mov Cap-2 Maneuver        | -         | -      | -    | -      | -    | -    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Approach                  | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s/v    | 0         | 0      |      | 0      |      |      |
| HCM LOS                   | A         |        |      |        |      |      |
| Minor Lane/Major Mvmt     | NBT EBLn1 |        | SBT  | SBR    |      |      |
| Capacity (veh/h)          | -         | -      | -    | -      |      |      |
| HCM Lane V/C Ratio        | -         | -      | -    | -      |      |      |
| HCM Control Delay (s/veh) | -         | 0      | -    | -      |      |      |
| HCM Lane LOS              | -         | A      | -    | -      |      |      |
| HCM 95th %tile Q(veh)     | -         | -      | -    | -      |      |      |

| Intersection              |           |        |      |        |      |      |
|---------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh          | 0         |        |      |        |      |      |
| Movement                  | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations       |           | ↗      |      | ↑      | ↘    |      |
| Traffic Vol, veh/h        | 0         | 0      | 0    | 0      | 6    | 11   |
| Future Vol, veh/h         | 0         | 0      | 0    | 0      | 6    | 11   |
| Conflicting Peds, #/hr    | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control              | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized            | -         | None   | -    | None   | -    | None |
| Storage Length            | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, #  | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                  | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor          | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %         | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                 | 0         | 0      | 0    | 0      | 7    | 12   |
| Major/Minor               | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All      | -         | 13     | -    | 0      | -    | 0    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Critical Hdwy             | -         | 6.22   | -    | -      | -    | -    |
| Critical Hdwy Stg 1       | -         | -      | -    | -      | -    | -    |
| Critical Hdwy Stg 2       | -         | -      | -    | -      | -    | -    |
| Follow-up Hdwy            | -         | 3.318  | -    | -      | -    | -    |
| Pot Cap-1 Maneuver        | 0         | 1068   | 0    | -      | -    | -    |
| Stage 1                   | 0         | -      | 0    | -      | -    | -    |
| Stage 2                   | 0         | -      | 0    | -      | -    | -    |
| Platoon blocked, %        |           |        |      | -      | -    | -    |
| Mov Cap-1 Maneuver        | -         | 1068   | -    | -      | -    | -    |
| Mov Cap-2 Maneuver        | -         | -      | -    | -      | -    | -    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Approach                  | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s/v    | 0         | 0      |      | 0      |      |      |
| HCM LOS                   | A         |        |      |        |      |      |
| Minor Lane/Major Mvmt     | NBT EBLn1 |        | SBT  | SBR    |      |      |
| Capacity (veh/h)          | -         | -      | -    | -      |      |      |
| HCM Lane V/C Ratio        | -         | -      | -    | -      |      |      |
| HCM Control Delay (s/veh) | -         | 0      | -    | -      |      |      |
| HCM Lane LOS              | -         | A      | -    | -      |      |      |
| HCM 95th %tile Q(veh)     | -         | -      | -    | -      |      |      |

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 4                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Movement                  | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                                |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 31                                                                                | 31     | 11                                                                                | 17                                                                                | 63                                                                                | 11                                                                                 |
| Future Vol, veh/h         | 31                                                                                | 31     | 11                                                                                | 17                                                                                | 63                                                                                | 11                                                                                 |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  |
| Sign Control              | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                               |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                               |
| Storage Length            | 0                                                                                 | -      | 200                                                                               | -                                                                                 | -                                                                                 | -                                                                                  |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Peak Hour Factor          | 92                                                                                | 92     | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                 |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  |
| Mvmt Flow                 | 34                                                                                | 34     | 12                                                                                | 18                                                                                | 68                                                                                | 12                                                                                 |
| Major/Minor               | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                    |
| Conflicting Flow All      | 117                                                                               | 74     | 80                                                                                | 0                                                                                 | -                                                                                 | 0                                                                                  |
| Stage 1                   | 74                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 42                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy             | 6.42                                                                              | 6.22   | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                  |
| Pot Cap-1 Maneuver        | 879                                                                               | 987    | 1517                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 948                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 980                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Platoon blocked, %        |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-1 Maneuver        | 872                                                                               | 987    | 1517                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-2 Maneuver        | 872                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 941                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 980                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Approach                  | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                    |
| HCM Control Delay, s/v    | 9.19                                                                              | 2.9    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    |
| HCM LOS                   | A                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Minor Lane/Major Mvmt     | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                    |
| Capacity (veh/h)          | 1517                                                                              | -      | 926                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane V/C Ratio        | 0.008                                                                             | -      | 0.073                                                                             | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Control Delay (s/veh) | 7.4                                                                               | -      | 9.2                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane LOS              | A                                                                                 | -      | A                                                                                 | -                                                                                 | -                                                                                 |                                                                                    |
| HCM 95th %tile Q(veh)     | 0                                                                                 | -      | 0.2                                                                               | -                                                                                 | -                                                                                 |                                                                                    |

| Intersection              |        |       |        |            |       |        |       |      |        |       |      |      |
|---------------------------|--------|-------|--------|------------|-------|--------|-------|------|--------|-------|------|------|
| Int Delay, s/veh          | 4.1    |       |        |            |       |        |       |      |        |       |      |      |
| Movement                  | EBL    | EBT   | EBR    | WBL        | WBT   | WBR    | NBL   | NBT  | NBR    | SBL   | SBT  | SBR  |
| Lane Configurations       |        | ⬆⬆    |        |            | ⬆⬆    |        | ⬆     | ⬆    |        | ⬆     | ⬆    |      |
| Traffic Vol, veh/h        | 16     | 0     | 16     | 16         | 0     | 0      | 6     | 6    | 6      | 0     | 44   | 6    |
| Future Vol, veh/h         | 16     | 0     | 16     | 16         | 0     | 0      | 6     | 6    | 6      | 0     | 44   | 6    |
| Conflicting Peds, #/hr    | 0      | 0     | 0      | 0          | 0     | 0      | 0     | 0    | 0      | 0     | 0    | 0    |
| Sign Control              | Stop   | Stop  | Stop   | Stop       | Stop  | Stop   | Free  | Free | Free   | Free  | Free | Free |
| RT Channelized            | -      | -     | None   | -          | -     | None   | -     | -    | None   | -     | -    | None |
| Storage Length            | -      | -     | -      | -          | -     | -      | 200   | -    | -      | 200   | -    | -    |
| Veh in Median Storage, #  | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Grade, %                  | -      | 0     | -      | -          | 0     | -      | -     | 0    | -      | -     | 0    | -    |
| Peak Hour Factor          | 92     | 92    | 92     | 92         | 92    | 92     | 92    | 92   | 92     | 92    | 92   | 92   |
| Heavy Vehicles, %         | 2      | 2     | 2      | 2          | 2     | 2      | 2     | 2    | 2      | 2     | 2    | 2    |
| Mvmt Flow                 | 17     | 0     | 17     | 17         | 0     | 0      | 7     | 7    | 7      | 0     | 48   | 7    |
|                           |        |       |        |            |       |        |       |      |        |       |      |      |
| Major/Minor               | Minor2 |       | Minor1 |            |       | Major1 |       |      | Major2 |       |      |      |
| Conflicting Flow All      | 71     | 77    | 51     | 71         | 77    | 10     | 54    | 0    | 0      | 13    | 0    | 0    |
| Stage 1                   | 51     | 51    | -      | 23         | 23    | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                   | 20     | 26    | -      | 48         | 54    | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy             | 7.12   | 6.52  | 6.22   | 7.12       | 6.52  | 6.22   | 4.12  | -    | -      | 4.12  | -    | -    |
| Critical Hdwy Stg 1       | 6.12   | 5.52  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Critical Hdwy Stg 2       | 6.12   | 5.52  | -      | 6.12       | 5.52  | -      | -     | -    | -      | -     | -    | -    |
| Follow-up Hdwy            | 3.518  | 4.018 | 3.318  | 3.518      | 4.018 | 3.318  | 2.218 | -    | -      | 2.218 | -    | -    |
| Pot Cap-1 Maneuver        | 921    | 813   | 1017   | 921        | 813   | 1072   | 1551  | -    | -      | 1605  | -    | -    |
| Stage 1                   | 962    | 852   | -      | 995        | 876   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                   | 999    | 873   | -      | 966        | 850   | -      | -     | -    | -      | -     | -    | -    |
| Platoon blocked, %        |        |       |        |            |       |        |       | -    | -      |       | -    | -    |
| Mov Cap-1 Maneuver        | 917    | 810   | 1017   | 901        | 810   | 1072   | 1551  | -    | -      | 1605  | -    | -    |
| Mov Cap-2 Maneuver        | 917    | 810   | -      | 901        | 810   | -      | -     | -    | -      | -     | -    | -    |
| Stage 1                   | 962    | 852   | -      | 991        | 873   | -      | -     | -    | -      | -     | -    | -    |
| Stage 2                   | 995    | 870   | -      | 949        | 850   | -      | -     | -    | -      | -     | -    | -    |
|                           |        |       |        |            |       |        |       |      |        |       |      |      |
|                           |        |       |        |            |       |        |       |      |        |       |      |      |
| Approach                  | EB     |       | WB     |            |       | NB     |       |      | SB     |       |      |      |
| HCM Control Delay, s/v    | 8.87   |       | 9.07   |            |       | 2.44   |       |      | 0      |       |      |      |
| HCM LOS                   | A      |       | A      |            |       |        |       |      |        |       |      |      |
|                           |        |       |        |            |       |        |       |      |        |       |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL   | SBT    | SBR   |      |        |       |      |      |
| Capacity (veh/h)          | 1551   | -     | -      | 964        | 901   | 1605   | -     | -    |        |       |      |      |
| HCM Lane V/C Ratio        | 0.004  | -     | -      | 0.036      | 0.019 | -      | -     | -    |        |       |      |      |
| HCM Control Delay (s/veh) | 7.3    | -     | -      | 8.9        | 9.1   | 0      | -     | -    |        |       |      |      |
| HCM Lane LOS              | A      | -     | -      | A          | A     | A      | -     | -    |        |       |      |      |
| HCM 95th %tile Q(veh)     | 0      | -     | -      | 0.1        | 0.1   | 0      | -     | -    |        |       |      |      |

| Intersection              |        |          |        |      |       |      |
|---------------------------|--------|----------|--------|------|-------|------|
| Int Delay, s/veh          | 1      |          |        |      |       |      |
| Movement                  | WBL    | WBR      | NBT    | NBR  | SBL   | SBT  |
| Lane Configurations       | W      |          | T      |      | T     | T    |
| Traffic Vol, veh/h        | 16     | 0        | 94     | 6    | 0     | 33   |
| Future Vol, veh/h         | 16     | 0        | 94     | 6    | 0     | 33   |
| Conflicting Peds, #/hr    | 0      | 0        | 0      | 0    | 0     | 0    |
| Sign Control              | Stop   | Stop     | Free   | Free | Free  | Free |
| RT Channelized            | -      | None     | -      | None | -     | None |
| Storage Length            | 0      | -        | -      | -    | 200   | -    |
| Veh in Median Storage, #  | 0      | -        | 0      | -    | -     | 0    |
| Grade, %                  | 0      | -        | 0      | -    | -     | 0    |
| Peak Hour Factor          | 92     | 92       | 92     | 92   | 92    | 92   |
| Heavy Vehicles, %         | 2      | 2        | 2      | 2    | 2     | 2    |
| Mvmt Flow                 | 17     | 0        | 102    | 7    | 0     | 36   |
| Major/Minor               | Minor1 | Major1   | Major2 |      |       |      |
| Conflicting Flow All      | 141    | 105      | 0      | 0    | 109   | 0    |
| Stage 1                   | 105    | -        | -      | -    | -     | -    |
| Stage 2                   | 36     | -        | -      | -    | -     | -    |
| Critical Hdwy             | 6.42   | 6.22     | -      | -    | 4.12  | -    |
| Critical Hdwy Stg 1       | 5.42   | -        | -      | -    | -     | -    |
| Critical Hdwy Stg 2       | 5.42   | -        | -      | -    | -     | -    |
| Follow-up Hdwy            | 3.518  | 3.318    | -      | -    | 2.218 | -    |
| Pot Cap-1 Maneuver        | 852    | 949      | -      | -    | 1482  | -    |
| Stage 1                   | 919    | -        | -      | -    | -     | -    |
| Stage 2                   | 987    | -        | -      | -    | -     | -    |
| Platoon blocked, %        |        |          | -      | -    |       | -    |
| Mov Cap-1 Maneuver        | 852    | 949      | -      | -    | 1482  | -    |
| Mov Cap-2 Maneuver        | 852    | -        | -      | -    | -     | -    |
| Stage 1                   | 919    | -        | -      | -    | -     | -    |
| Stage 2                   | 987    | -        | -      | -    | -     | -    |
| Approach                  | WB     | NB       | SB     |      |       |      |
| HCM Control Delay, s/v    | 9.32   | 0        | 0      |      |       |      |
| HCM LOS                   | A      |          |        |      |       |      |
| Minor Lane/Major Mvmt     | NBT    | NBRWBLn1 | SBL    | SBT  |       |      |
| Capacity (veh/h)          | -      | -        | 852    | 1482 | -     |      |
| HCM Lane V/C Ratio        | -      | -        | 0.02   | -    | -     |      |
| HCM Control Delay (s/veh) | -      | -        | 9.3    | 0    | -     |      |
| HCM Lane LOS              | -      | -        | A      | A    | -     |      |
| HCM 95th %tile Q(veh)     | -      | -        | 0.1    | 0    | -     |      |

HCM 7th TWSC  
1: Boss Range Rd & Range Rd/Wiley Rd

Buildout PM  
Range Creek TIA

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 38.2 |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↕    |      | ↗    | ↘    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 25   | 86   | 43   | 37   | 147  | 202  | 76   | 138  | 20   | 114  | 133  | 36   |
| Future Vol, veh/h        | 25   | 86   | 43   | 37   | 147  | 202  | 76   | 138  | 20   | 114  | 133  | 36   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | 250  | -    | -    | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 85   | 85   | 85   | 85   | 85   | 85   | 85   | 85   | 85   | 85   | 85   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 29   | 101  | 51   | 44   | 173  | 238  | 89   | 162  | 24   | 134  | 156  | 42   |

| Major/Minor          | Minor2 |       | Minor1 |       | Major1 |       | Major2 |   |   |       |   |   |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 874    | 811   | 178    | 828   | 820    | 174   | 199    | 0 | 0 | 186   | 0 | 0 |
| Stage 1              | 446    | 446   | -      | 353   | 353    | -     | -      | - | - | -     | - | - |
| Stage 2              | 428    | 365   | -      | 475   | 467    | -     | -      | - | - | -     | - | - |
| Critical Hdwy        | 7.12   | 6.52  | 6.22   | 7.12  | 6.52   | 6.22  | 4.12   | - | - | 4.12  | - | - |
| Critical Hdwy Stg 1  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Critical Hdwy Stg 2  | 6.12   | 5.52  | -      | 6.12  | 5.52   | -     | -      | - | - | -     | - | - |
| Follow-up Hdwy       | 3.518  | 4.018 | 3.318  | 3.518 | 4.018  | 3.318 | 2.218  | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver   | 270    | 314   | 865    | 290   | 310    | 869   | 1374   | - | - | 1389  | - | - |
| Stage 1              | 592    | 574   | -      | 664   | 631    | -     | -      | - | - | -     | - | - |
| Stage 2              | 605    | 623   | -      | 570   | 562    | -     | -      | - | - | -     | - | - |
| Platoon blocked, %   |        |       |        |       |        |       |        | - | - |       | - | - |
| Mov Cap-1 Maneuver   | 60     | 259   | 865    | 148   | 256    | 869   | 1374   | - | - | 1389  | - | - |
| Mov Cap-2 Maneuver   | 60     | 259   | -      | 148   | 256    | -     | -      | - | - | -     | - | - |
| Stage 1              | 527    | 511   | -      | 616   | 585    | -     | -      | - | - | -     | - | - |
| Stage 2              | 287    | 578   | -      | 384   | 500    | -     | -      | - | - | -     | - | - |

| Approach                 | EB   | WB   | NB   | SB   |
|--------------------------|------|------|------|------|
| HCM Control Delay, s/veh | 0.86 | 60.4 | 2.53 | 3.17 |
| HCM LOS                  | F    | F    |      |      |

| Minor Lane/Major Mvmt     | NBL   | NBT | NBR | EBLn1 | WBLn1 | WBLn2 | SBL   | SBT | SBR |
|---------------------------|-------|-----|-----|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h)          | 570   | -   | -   | 192   | 148   | 432   | 695   | -   | -   |
| HCM Lane V/C Ratio        | 0.065 | -   | -   | 0.943 | 0.295 | 0.949 | 0.097 | -   | -   |
| HCM Control Delay (s/veh) | 7.8   | 0   | -   | 100.9 | 39.3  | 62.6  | 7.9   | 0   | -   |
| HCM Lane LOS              | A     | A   | -   | F     | E     | F     | A     | A   | -   |
| HCM 95th %tile Q(veh)     | 0.2   | -   | -   | 7.6   | 1.2   | 11.1  | 0.3   | -   | -   |

| Intersection              |            |       |       |        |      |       |        |       |       |        |       |       |
|---------------------------|------------|-------|-------|--------|------|-------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh          | 4.8        |       |       |        |      |       |        |       |       |        |       |       |
| Movement                  | EBL        | EBT   | EBR   | WBL    | WBT  | WBR   | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations       | ↰          | ↱     |       |        | ↱    | ↰     | ↰      | ↱     |       | ↰      |       | ↱     |
| Traffic Vol, veh/h        | 4          | 312   | 54    | 36     | 552  | 63    | 32     | 12    | 23    | 62     | 19    | 14    |
| Future Vol, veh/h         | 4          | 312   | 54    | 36     | 552  | 63    | 32     | 12    | 23    | 62     | 19    | 14    |
| Conflicting Peds, #/hr    | 0          | 0     | 0     | 0      | 0    | 0     | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control              | Free       | Free  | Free  | Free   | Free | Free  | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized            | -          | -     | None  | -      | -    | None  | -      | -     | None  | -      | -     | None  |
| Storage Length            | 220        | -     | -     | -      | -    | 200   | 250    | -     | -     | 0      | -     | 0     |
| Veh in Median Storage, #  | -          | 0     | -     | -      | 0    | -     | -      | 0     | -     | -      | 0     | -     |
| Grade, %                  | -          | 0     | -     | -      | 0    | -     | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor          | 88         | 88    | 88    | 88     | 88   | 88    | 88     | 88    | 88    | 88     | 88    | 88    |
| Heavy Vehicles, %         | 2          | 2     | 2     | 2      | 2    | 2     | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                 | 5          | 355   | 61    | 41     | 627  | 72    | 36     | 14    | 26    | 70     | 22    | 16    |
| Major/Minor               | Major1     |       |       | Major2 |      |       | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All      | 699        | 0     | 0     | 416    | 0    | 0     | 1114   | 1175  | 385   | 1080   | 1134  | 627   |
| Stage 1                   | -          | -     | -     | -      | -    | -     | 394    | 394   | -     | 709    | 709   | -     |
| Stage 2                   | -          | -     | -     | -      | -    | -     | 720    | 781   | -     | 370    | 425   | -     |
| Critical Hdwy             | 4.12       | -     | -     | 4.12   | -    | -     | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1       | -          | -     | -     | -      | -    | -     | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2       | -          | -     | -     | -      | -    | -     | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy            | 2.218      | -     | -     | 2.218  | -    | -     | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver        | 898        | -     | -     | 1143   | -    | -     | 185    | 192   | 662   | 196    | 203   | 483   |
| Stage 1                   | -          | -     | -     | -      | -    | -     | 631    | 605   | -     | 425    | 437   | -     |
| Stage 2                   | -          | -     | -     | -      | -    | -     | 419    | 405   | -     | 650    | 586   | -     |
| Platoon blocked, %        | -          | -     | -     | -      | -    | -     | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver        | 898        | -     | -     | 1143   | -    | -     | 150    | 179   | 662   | 163    | 190   | 483   |
| Mov Cap-2 Maneuver        | -          | -     | -     | -      | -    | -     | 150    | 179   | -     | 163    | 190   | -     |
| Stage 1                   | -          | -     | -     | -      | -    | -     | 628    | 602   | -     | 400    | 411   | -     |
| Stage 2                   | -          | -     | -     | -      | -    | -     | 361    | 381   | -     | 607    | 583   | -     |
| Approach                  | EB         |       |       | WB     |      |       | NB     |       |       | SB     |       |       |
| HCM Control Delay, s/v    | 0.1        |       |       | 0.46   |      |       | 26.25  |       |       | 37.21  |       |       |
| HCM LOS                   |            |       |       |        |      |       | D      |       |       | E      |       |       |
| Minor Lane/Major Mvmt     | NBLn1NBLn2 |       | EBL   | EBT    | EBR  | WBL   | WBT    | WBR   | SBLn1 | SBLn2  |       |       |
| Capacity (veh/h)          | 150        | 344   | 898   | -      | -    | 1143  | -      | -     | 163   | 483    |       |       |
| HCM Lane V/C Ratio        | 0.243      | 0.116 | 0.005 | -      | -    | 0.036 | -      | -     | 0.431 | 0.033  |       |       |
| HCM Control Delay (s/veh) | 36.6       | 16.8  | 9     | -      | -    | 8.3   | -      | -     | 42.7  | 12.7   |       |       |
| HCM Lane LOS              | E          | C     | A     | -      | -    | A     | -      | -     | E     | B      |       |       |
| HCM 95th %tile Q(veh)     | 0.9        | 0.4   | 0     | -      | -    | 0.1   | -      | -     | 1.9   | 0.1    |       |       |

HCM 7th TWSC  
4: Drive 1 & Range Rd

Buildout PM  
Range Creek TIA

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.3                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Movement                  | EBT                                                                               | EBR    | WBL                                                                               | WBT                                                                               | NBL                                                                               | NBR                                                                                |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 312                                                                               | 0      | 90                                                                                | 529                                                                               | 0                                                                                 | 53                                                                                 |
| Future Vol, veh/h         | 312                                                                               | 0      | 90                                                                                | 529                                                                               | 0                                                                                 | 53                                                                                 |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  |
| Sign Control              | Free                                                                              | Free   | Free                                                                              | Free                                                                              | Stop                                                                              | Stop                                                                               |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                               |
| Storage Length            | -                                                                                 | -      | 200                                                                               | -                                                                                 | 0                                                                                 | -                                                                                  |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Peak Hour Factor          | 85                                                                                | 85     | 85                                                                                | 85                                                                                | 85                                                                                | 85                                                                                 |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  |
| Mvmt Flow                 | 367                                                                               | 0      | 106                                                                               | 622                                                                               | 0                                                                                 | 62                                                                                 |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Major/Minor               | Major1                                                                            | Major2 |                                                                                   | Minor1                                                                            |                                                                                   |                                                                                    |
| Conflicting Flow All      | 0                                                                                 | 0      | 367                                                                               | 0                                                                                 | 1201                                                                              | 367                                                                                |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 367                                                                               | -                                                                                  |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 834                                                                               | -                                                                                  |
| Critical Hdwy             | -                                                                                 | -      | 4.12                                                                              | -                                                                                 | 6.42                                                                              | 6.22                                                                               |
| Critical Hdwy Stg 1       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                  |
| Critical Hdwy Stg 2       | -                                                                                 | -      | -                                                                                 | -                                                                                 | 5.42                                                                              | -                                                                                  |
| Follow-up Hdwy            | -                                                                                 | -      | 2.218                                                                             | -                                                                                 | 3.518                                                                             | 3.318                                                                              |
| Pot Cap-1 Maneuver        | -                                                                                 | -      | 1191                                                                              | -                                                                                 | 204                                                                               | 678                                                                                |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 701                                                                               | -                                                                                  |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 426                                                                               | -                                                                                  |
| Platoon blocked, %        | -                                                                                 | -      |                                                                                   | -                                                                                 |                                                                                   |                                                                                    |
| Mov Cap-1 Maneuver        | -                                                                                 | -      | 1191                                                                              | -                                                                                 | 186                                                                               | 678                                                                                |
| Mov Cap-2 Maneuver        | -                                                                                 | -      | -                                                                                 | -                                                                                 | 186                                                                               | -                                                                                  |
| Stage 1                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 701                                                                               | -                                                                                  |
| Stage 2                   | -                                                                                 | -      | -                                                                                 | -                                                                                 | 388                                                                               | -                                                                                  |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Approach                  | EB                                                                                | WB     |                                                                                   | NB                                                                                |                                                                                   |                                                                                    |
| HCM Control Delay, s/v    | 0                                                                                 | 1.21   |                                                                                   | 10.84                                                                             |                                                                                   |                                                                                    |
| HCM LOS                   | B                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|                           |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBT    | EBR                                                                               | WBL                                                                               | WBT                                                                               |                                                                                    |
| Capacity (veh/h)          | 678                                                                               | -      | -                                                                                 | 1191                                                                              | -                                                                                 |                                                                                    |
| HCM Lane V/C Ratio        | 0.092                                                                             | -      | -                                                                                 | 0.089                                                                             | -                                                                                 |                                                                                    |
| HCM Control Delay (s/veh) | 10.8                                                                              | -      | -                                                                                 | 8.3                                                                               | -                                                                                 |                                                                                    |
| HCM Lane LOS              | B                                                                                 | -      | -                                                                                 | A                                                                                 | -                                                                                 |                                                                                    |
| HCM 95th %tile Q(veh)     | 0.3                                                                               | -      | -                                                                                 | 0.3                                                                               | -                                                                                 |                                                                                    |



| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 4                                                                                 |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 175                                                                               | 0    | 90                                                                                | 332                                                                               | 108  | 0    | 0                                                                                 | 53   | 84   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 175                                                                               | 0    | 90                                                                                | 332                                                                               | 108  | 0    | 0                                                                                 | 53   | 84   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 190                                                                               | 0    | 98                                                                                | 361                                                                               | 117  | 0    | 0                                                                                 | 58   | 91   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 478    | 0 | 0 | 190    | 0 | 0 | 747    | 864   | 190   | 805    | 805   | 420   |
| Stage 1              | -      | - | - | -      | - | - | 190    | 190   | -     | 615    | 615   | -     |
| Stage 2              | -      | - | - | -      | - | - | 557    | 674   | -     | 190    | 190   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1084   | - | - | 1384   | - | - | 329    | 292   | 852   | 301    | 316   | 634   |
| Stage 1              | -      | - | - | -      | - | - | 812    | 743   | -     | 478    | 482   | -     |
| Stage 2              | -      | - | - | -      | - | - | 515    | 454   | -     | 812    | 743   | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |       |       |
| Mov Cap-1 Maneuver   | 1084   | - | - | 1384   | - | - | 306    | 271   | 852   | 260    | 293   | 634   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 306    | 271   | -     | 260    | 293   | -     |
| Stage 1              | -      | - | - | -      | - | - | 812    | 743   | -     | 445    | 448   | -     |
| Stage 2              | -      | - | - | -      | - | - | 479    | 422   | -     | 757    | 743   | -     |

| Approach               | EB |  |  | WB   |  |  | NB   |  |  | SB    |  |  |
|------------------------|----|--|--|------|--|--|------|--|--|-------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 1.32 |  |  | 9.53 |  |  | 26.11 |  |  |
| HCM LOS                |    |  |  |      |  |  | A    |  |  | D     |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 852   | 1084 | -   | -   | 1384  | -   | -   | 260   |
| HCM Lane V/C Ratio        | 0.068 | -    | -   | -   | 0.071 | -   | -   | 0.351 |
| HCM Control Delay (s/veh) | 9.5   | 0    | -   | -   | 7.8   | -   | -   | 26.1  |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | D     |
| HCM 95th %tile Q(veh)     | 0.2   | 0    | -   | -   | 0.2   | -   | -   | 1.5   |

| Intersection              |        |        |      |        |      |       |
|---------------------------|--------|--------|------|--------|------|-------|
| Int Delay, s/veh          | 0      |        |      |        |      |       |
| Movement                  | EBL    | EBT    | WBT  | WBR    | SBL  | SBR   |
| Lane Configurations       |        | ↑      | ↑    |        |      | ↑     |
| Traffic Vol, veh/h        | 0      | 175    | 296  | 36     | 0    | 0     |
| Future Vol, veh/h         | 0      | 175    | 296  | 36     | 0    | 0     |
| Conflicting Peds, #/hr    | 0      | 0      | 0    | 0      | 0    | 0     |
| Sign Control              | Free   | Free   | Free | Free   | Stop | Stop  |
| RT Channelized            | -      | None   | -    | None   | -    | None  |
| Storage Length            | -      | -      | -    | -      | -    | 0     |
| Veh in Median Storage, #  | -      | 0      | 0    | -      | 0    | -     |
| Grade, %                  | -      | 0      | 0    | -      | 0    | -     |
| Peak Hour Factor          | 92     | 92     | 92   | 92     | 92   | 92    |
| Heavy Vehicles, %         | 2      | 2      | 2    | 2      | 2    | 2     |
| Mvmt Flow                 | 0      | 190    | 322  | 39     | 0    | 0     |
|                           |        |        |      |        |      |       |
| Major/Minor               | Major1 | Major2 |      | Minor2 |      |       |
| Conflicting Flow All      | -      | 0      | -    | 0      | -    | 341   |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
| Critical Hdwy             | -      | -      | -    | -      | -    | 6.22  |
| Critical Hdwy Stg 1       | -      | -      | -    | -      | -    | -     |
| Critical Hdwy Stg 2       | -      | -      | -    | -      | -    | -     |
| Follow-up Hdwy            | -      | -      | -    | -      | -    | 3.318 |
| Pot Cap-1 Maneuver        | 0      | -      | -    | -      | 0    | 701   |
| Stage 1                   | 0      | -      | -    | -      | 0    | -     |
| Stage 2                   | 0      | -      | -    | -      | 0    | -     |
| Platoon blocked, %        |        | -      | -    | -      |      |       |
| Mov Cap-1 Maneuver        | -      | -      | -    | -      | -    | 701   |
| Mov Cap-2 Maneuver        | -      | -      | -    | -      | -    | -     |
| Stage 1                   | -      | -      | -    | -      | -    | -     |
| Stage 2                   | -      | -      | -    | -      | -    | -     |
|                           |        |        |      |        |      |       |
|                           |        |        |      |        |      |       |
| Approach                  | EB     | WB     |      | SB     |      |       |
| HCM Control Delay, s/v    | 0      | 0      |      | 0      |      |       |
| HCM LOS                   |        |        |      |        | A    |       |
|                           |        |        |      |        |      |       |
| Minor Lane/Major Mvmt     | EBT    | WBT    | WBR  | SBLn1  |      |       |
| Capacity (veh/h)          | -      | -      | -    | -      |      |       |
| HCM Lane V/C Ratio        | -      | -      | -    | -      |      |       |
| HCM Control Delay (s/veh) | -      | -      | -    | 0      |      |       |
| HCM Lane LOS              | -      | -      | -    | A      |      |       |
| HCM 95th %tile Q(veh)     | -      | -      | -    | -      |      |       |

| Intersection                |         |         |         |         |
|-----------------------------|---------|---------|---------|---------|
| Intersection Delay, s/veh   | 4.5     |         |         |         |
| Intersection LOS            | A       |         |         |         |
| Approach                    | EB      | WB      | NB      | SB      |
| Entry Lanes                 | 1       | 1       | 1       | 1       |
| Conflicting Circle Lanes    | 1       | 1       | 1       | 1       |
| Adj Approach Flow, veh/h    | 161     | 313     | 0       | 117     |
| Demand Flow Rate, veh/h     | 165     | 320     | 0       | 119     |
| Vehicles Circulating, veh/h | 119     | 36      | 224     | 220     |
| Vehicles Exiting, veh/h     | 220     | 188     | 60      | 136     |
| Ped Vol Crossing Leg, #/h   | 0       | 0       | 0       | 0       |
| Ped Cap Adj                 | 1.000   | 1.000   | 1.000   | 1.000   |
| Approach Delay, s/veh       | 4.2     | 4.8     | 0.0     | 4.3     |
| Approach LOS                | A       | A       | -       | A       |
| Lane                        | Left    | Left    | Left    | Left    |
| Designated Moves            | LTR     | LTR     | LTR     | LTR     |
| Assumed Moves               | LTR     | LTR     | LTR     | LTR     |
| RT Channelized              |         |         |         |         |
| Lane Util                   | 1.000   | 1.000   | 1.000   | 1.000   |
| Follow-Up Headway, s        | 2.609   | 2.609   | 2.609   | 2.609   |
| Critical Headway, s         | 4.976   | 4.976   | 4.976   | 4.976   |
| A (Intercept)               | 1380    | 1380    | 1380    | 1380    |
| B (Slope)                   | 1.02e-3 | 1.02e-3 | 1.02e-3 | 1.02e-3 |
| Entry Flow, veh/h           | 165     | 320     | 0       | 119     |
| Cap Entry Lane, veh/h       | 1222    | 1330    | 1098    | 1103    |
| Entry HV Adj Factor         | 0.979   | 0.980   | 1.000   | 0.980   |
| Flow Entry, veh/h           | 161     | 313     | 0       | 117     |
| Cap Entry, veh/h            | 1196    | 1303    | 1098    | 1080    |
| V/C Ratio                   | 0.135   | 0.241   | 0.000   | 0.108   |
| Control Delay, s/veh        | 4.2     | 4.8     | 3.3     | 4.3     |
| LOS                         | A       | A       | A       | A       |
| 95th %tile Queue, veh       | 0       | 1       | 0       | 0       |

| Intersection             |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 2.8                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |      |                                                                                   |      |      |                                                                                     |      |
| Movement                 | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                               | NBR  | SBL  | SBT                                                                                 | SBR  |
| Lane Configurations      |  |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h       | 0                                                                                 | 74                                                                                | 0    | 36                                                                                | 126                                                                               | 36   | 0    | 0                                                                                 | 53   | 21   | 0                                                                                   | 0    |
| Future Vol, veh/h        | 0                                                                                 | 74                                                                                | 0    | 36                                                                                | 126                                                                               | 36   | 0    | 0                                                                                 | 53   | 21   | 0                                                                                   | 0    |
| Conflicting Peds, #/hr   | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0    | 0                                                                                 | 0    | 0    | 0                                                                                   | 0    |
| Sign Control             | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop | Stop                                                                              | Stop | Stop | Stop                                                                                | Stop |
| RT Channelized           | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -    | -                                                                                 | None | -    | -                                                                                   | None |
| Storage Length           | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -    | -                                                                                 | -    | -    | -                                                                                   | -    |
| Veh in Median Storage, # | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Grade, %                 | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -    | 0                                                                                 | -    | -    | 0                                                                                   | -    |
| Peak Hour Factor         | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92   | 92                                                                                | 92   | 92   | 92                                                                                  | 92   |
| Heavy Vehicles, %        | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow                | 0                                                                                 | 80                                                                                | 0    | 39                                                                                | 137                                                                               | 39   | 0    | 0                                                                                 | 58   | 23   | 0                                                                                   | 0    |

| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 176    | 0 | 0 | 80     | 0 | 0 | 296    | 335   | 80    | 315    | 315   | 157   |
| Stage 1              | -      | - | - | -      | - | - | 80     | 80    | -     | 235    | 235   | -     |
| Stage 2              | -      | - | - | -      | - | - | 215    | 254   | -     | 80     | 80    | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1400   | - | - | 1517   | - | - | 657    | 586   | 980   | 637    | 601   | 889   |
| Stage 1              | -      | - | - | -      | - | - | 928    | 828   | -     | 768    | 711   | -     |
| Stage 2              | -      | - | - | -      | - | - | 787    | 697   | -     | 928    | 828   | -     |
| Platoon blocked, %   |        | - | - |        | - | - |        |       |       |        |       |       |
| Mov Cap-1 Maneuver   | 1400   | - | - | 1517   | - | - | 640    | 570   | 980   | 584    | 585   | 889   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 640    | 570   | -     | 584    | 585   | -     |
| Stage 1              | -      | - | - | -      | - | - | 928    | 828   | -     | 748    | 692   | -     |
| Stage 2              | -      | - | - | -      | - | - | 767    | 679   | -     | 873    | 828   | -     |

| Approach               | EB |  |  | WB   |  |  | NB  |  |  | SB    |  |  |
|------------------------|----|--|--|------|--|--|-----|--|--|-------|--|--|
| HCM Control Delay, s/v | 0  |  |  | 1.35 |  |  | 8.9 |  |  | 11.41 |  |  |
| HCM LOS                |    |  |  |      |  |  | A   |  |  | B     |  |  |

| Minor Lane/Major Mvmt     | NBLn1 | EBL  | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|---------------------------|-------|------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)          | 980   | 1400 | -   | -   | 1517  | -   | -   | 584   |
| HCM Lane V/C Ratio        | 0.059 | -    | -   | -   | 0.026 | -   | -   | 0.039 |
| HCM Control Delay (s/veh) | 8.9   | 0    | -   | -   | 7.4   | -   | -   | 11.4  |
| HCM Lane LOS              | A     | A    | -   | -   | A     | -   | -   | B     |
| HCM 95th %tile Q(veh)     | 0.2   | 0    | -   | -   | 0.1   | -   | -   | 0.1   |

| Intersection              |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh          | 3.3                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR   | SBL    | SBT                                                                                 | SBR   |
| Lane Configurations       |  |  |      |  |  |      |        |  |       |        |  |       |
| Traffic Vol, veh/h        | 0                                                                                 | 32                                                                                | 0    | 36                                                                                | 54                                                                                | 36   | 0      | 0                                                                                 | 21    | 21     | 0                                                                                   | 0     |
| Future Vol, veh/h         | 0                                                                                 | 32                                                                                | 0    | 36                                                                                | 54                                                                                | 36   | 0      | 0                                                                                 | 21    | 21     | 0                                                                                   | 0     |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                   | 0     |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop  | Stop   | Stop                                                                                | Stop  |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                   | None  |
| Storage Length            | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                   | -     |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Peak Hour Factor          | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92     | 92                                                                                | 92    | 92     | 92                                                                                  | 92    |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2     | 2      | 2                                                                                   | 2     |
| Mvmt Flow                 | 0                                                                                 | 35                                                                                | 0    | 39                                                                                | 59                                                                                | 39   | 0      | 0                                                                                 | 23    | 23     | 0                                                                                   | 0     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |       | Minor2 |                                                                                     |       |
| Conflicting Flow All      | 98                                                                                | 0                                                                                 | 0    | 35                                                                                | 0                                                                                 | 0    | 172    | 211                                                                               | 35    | 191    | 191                                                                                 | 78    |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 35     | 35                                                                                | -     | 157    | 157                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 137    | 176                                                                               | -     | 35     | 35                                                                                  | -     |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | 4.12                                                                              | -                                                                                 | -    | 7.12   | 6.52                                                                              | 6.22  | 7.12   | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | 2.218                                                                             | -                                                                                 | -    | 3.518  | 4.018                                                                             | 3.318 | 3.518  | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver        | 1495                                                                              | -                                                                                 | -    | 1577                                                                              | -                                                                                 | -    | 791    | 686                                                                               | 1038  | 769    | 704                                                                                 | 982   |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 981    | 866                                                                               | -     | 846    | 768                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 866    | 753                                                                               | -     | 981    | 866                                                                                 | -     |
| Platoon blocked, %        |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 | -    |        |                                                                                   |       |        |                                                                                     |       |
| Mov Cap-1 Maneuver        | 1495                                                                              | -                                                                                 | -    | 1577                                                                              | -                                                                                 | -    | 772    | 669                                                                               | 1038  | 733    | 686                                                                                 | 982   |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 772    | 669                                                                               | -     | 733    | 686                                                                                 | -     |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 981    | 866                                                                               | -     | 825    | 749                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 845    | 735                                                                               | -     | 959    | 866                                                                                 | -     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Approach                  | EB                                                                                |                                                                                   |      | WB                                                                                |                                                                                   |      | NB     |                                                                                   |       | SB     |                                                                                     |       |
| HCM Control Delay, s/v    | 0                                                                                 |                                                                                   |      | 2.1                                                                               |                                                                                   |      | 8.55   |                                                                                   |       | 10.07  |                                                                                     |       |
| HCM LOS                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      | A      |                                                                                   |       | B      |                                                                                     |       |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |       |        |                                                                                     |       |
| Capacity (veh/h)          | 1038                                                                              | 1495                                                                              | -    | -                                                                                 | 1577                                                                              | -    | -      | 733                                                                               |       |        |                                                                                     |       |
| HCM Lane V/C Ratio        | 0.022                                                                             | -                                                                                 | -    | -                                                                                 | 0.025                                                                             | -    | -      | 0.031                                                                             |       |        |                                                                                     |       |
| HCM Control Delay (s/veh) | 8.5                                                                               | 0                                                                                 | -    | -                                                                                 | 7.3                                                                               | -    | -      | 10.1                                                                              |       |        |                                                                                     |       |
| HCM Lane LOS              | A                                                                                 | A                                                                                 | -    | -                                                                                 | A                                                                                 | -    | -      | B                                                                                 |       |        |                                                                                     |       |
| HCM 95th %tile Q(veh)     | 0.1                                                                               | 0                                                                                 | -    | -                                                                                 | 0.1                                                                               | -    | -      | 0.1                                                                               |       |        |                                                                                     |       |

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 1.1                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Movement                  | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                                |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 11                                                                                | 0      | 0                                                                                 | 21                                                                                | 36                                                                                | 18                                                                                 |
| Future Vol, veh/h         | 11                                                                                | 0      | 0                                                                                 | 21                                                                                | 36                                                                                | 18                                                                                 |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  |
| Sign Control              | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                               |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                               |
| Storage Length            | 0                                                                                 | -      | 200                                                                               | -                                                                                 | -                                                                                 | -                                                                                  |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Peak Hour Factor          | 92                                                                                | 92     | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                 |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  |
| Mvmt Flow                 | 12                                                                                | 0      | 0                                                                                 | 23                                                                                | 39                                                                                | 20                                                                                 |
| Major/Minor               | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                    |
| Conflicting Flow All      | 72                                                                                | 49     | 59                                                                                | 0                                                                                 | -                                                                                 | 0                                                                                  |
| Stage 1                   | 49                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 23                                                                                | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy             | 6.42                                                                              | 6.22   | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                  |
| Pot Cap-1 Maneuver        | 932                                                                               | 1020   | 1545                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 974                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 1000                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Platoon blocked, %        |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-1 Maneuver        | 932                                                                               | 1020   | 1545                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-2 Maneuver        | 932                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 974                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 1000                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Approach                  | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                    |
| HCM Control Delay, s/v    | 8.91                                                                              | 0      |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    |
| HCM LOS                   | A                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Minor Lane/Major Mvmt     | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                    |
| Capacity (veh/h)          | 1545                                                                              | -      | 932                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane V/C Ratio        | -                                                                                 | -      | 0.013                                                                             | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Control Delay (s/veh) | 0                                                                                 | -      | 8.9                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane LOS              | A                                                                                 | -      | A                                                                                 | -                                                                                 | -                                                                                 |                                                                                    |
| HCM 95th %tile Q(veh)     | 0                                                                                 | -      | 0                                                                                 | -                                                                                 | -                                                                                 |                                                                                    |

| Intersection              |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
|---------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh          | 5.4                                                                               |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Movement                  | EBL                                                                               | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL    | NBT                                                                               | NBR   | SBL    | SBT                                                                                 | SBR   |
| Lane Configurations       |  |  |      |  |  |      |        |  |       |        |  |       |
| Traffic Vol, veh/h        | 0                                                                                 | 0                                                                                 | 0    | 18                                                                                | 0                                                                                 | 18   | 0      | 0                                                                                 | 11    | 11     | 0                                                                                   | 0     |
| Future Vol, veh/h         | 0                                                                                 | 0                                                                                 | 0    | 18                                                                                | 0                                                                                 | 18   | 0      | 0                                                                                 | 11    | 11     | 0                                                                                   | 0     |
| Conflicting Peds, #/hr    | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                   | 0     |
| Sign Control              | Free                                                                              | Free                                                                              | Free | Free                                                                              | Free                                                                              | Free | Stop   | Stop                                                                              | Stop  | Stop   | Stop                                                                                | Stop  |
| RT Channelized            | -                                                                                 | -                                                                                 | None | -                                                                                 | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                   | None  |
| Storage Length            | 200                                                                               | -                                                                                 | -    | 200                                                                               | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                   | -     |
| Veh in Median Storage, #  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Grade, %                  | -                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                   | -     |
| Peak Hour Factor          | 92                                                                                | 92                                                                                | 92   | 92                                                                                | 92                                                                                | 92   | 92     | 92                                                                                | 92    | 92     | 92                                                                                  | 92    |
| Heavy Vehicles, %         | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2      | 2                                                                                 | 2     | 2      | 2                                                                                   | 2     |
| Mvmt Flow                 | 0                                                                                 | 0                                                                                 | 0    | 20                                                                                | 0                                                                                 | 20   | 0      | 0                                                                                 | 12    | 12     | 0                                                                                   | 0     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Major/Minor               | Major1                                                                            |                                                                                   |      | Major2                                                                            |                                                                                   |      | Minor1 |                                                                                   |       | Minor2 |                                                                                     |       |
| Conflicting Flow All      | 20                                                                                | 0                                                                                 | 0    | 1                                                                                 | 0                                                                                 | 0    | 40     | 60                                                                                | 1     | 50     | 50                                                                                  | 10    |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 1      | 1                                                                                 | -     | 49     | 49                                                                                  | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 39     | 59                                                                                | -     | 1      | 1                                                                                   | -     |
| Critical Hdwy             | 4.12                                                                              | -                                                                                 | -    | 4.12                                                                              | -                                                                                 | -    | 7.12   | 6.52                                                                              | 6.22  | 7.12   | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Critical Hdwy Stg 2       | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 6.12   | 5.52                                                                              | -     | 6.12   | 5.52                                                                                | -     |
| Follow-up Hdwy            | 2.218                                                                             | -                                                                                 | -    | 2.218                                                                             | -                                                                                 | -    | 3.518  | 4.018                                                                             | 3.318 | 3.518  | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver        | 1597                                                                              | -                                                                                 | -    | 1622                                                                              | -                                                                                 | -    | 964    | 831                                                                               | 1083  | 950    | 841                                                                                 | 1072  |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 1022   | 895                                                                               | -     | 964    | 854                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 976    | 846                                                                               | -     | 1022   | 895                                                                                 | -     |
| Platoon blocked, %        |                                                                                   | -                                                                                 | -    |                                                                                   | -                                                                                 | -    |        |                                                                                   |       |        |                                                                                     |       |
| Mov Cap-1 Maneuver        | 1597                                                                              | -                                                                                 | -    | 1622                                                                              | -                                                                                 | -    | 952    | 821                                                                               | 1083  | 928    | 831                                                                                 | 1072  |
| Mov Cap-2 Maneuver        | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 952    | 821                                                                               | -     | 928    | 831                                                                                 | -     |
| Stage 1                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 1022   | 895                                                                               | -     | 953    | 844                                                                                 | -     |
| Stage 2                   | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 | -    | 964    | 836                                                                               | -     | 1011   | 895                                                                                 | -     |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Approach                  | EB                                                                                |                                                                                   |      | WB                                                                                |                                                                                   |      | NB     |                                                                                   |       | SB     |                                                                                     |       |
| HCM Control Delay, s/v    | 0                                                                                 |                                                                                   |      | 3.62                                                                              |                                                                                   |      | 8.36   |                                                                                   |       | 8.93   |                                                                                     |       |
| HCM LOS                   |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      | A      |                                                                                   |       | A      |                                                                                     |       |
|                           |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |      |        |                                                                                   |       |        |                                                                                     |       |
| Minor Lane/Major Mvmt     | NBLn1                                                                             | EBL                                                                               | EBT  | EBR                                                                               | WBL                                                                               | WBT  | WBR    | SBLn1                                                                             |       |        |                                                                                     |       |
| Capacity (veh/h)          | 1083                                                                              | 1597                                                                              | -    | -                                                                                 | 1622                                                                              | -    | -      | 928                                                                               |       |        |                                                                                     |       |
| HCM Lane V/C Ratio        | 0.011                                                                             | -                                                                                 | -    | -                                                                                 | 0.012                                                                             | -    | -      | 0.013                                                                             |       |        |                                                                                     |       |
| HCM Control Delay (s/veh) | 8.4                                                                               | 0                                                                                 | -    | -                                                                                 | 7.2                                                                               | -    | -      | 8.9                                                                               |       |        |                                                                                     |       |
| HCM Lane LOS              | A                                                                                 | A                                                                                 | -    | -                                                                                 | A                                                                                 | -    | -      | A                                                                                 |       |        |                                                                                     |       |
| HCM 95th %tile Q(veh)     | 0                                                                                 | 0                                                                                 | -    | -                                                                                 | 0                                                                                 | -    | -      | 0                                                                                 |       |        |                                                                                     |       |

| Intersection              |           |        |      |        |      |      |
|---------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh          | 0         |        |      |        |      |      |
| Movement                  | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations       |           | ↗      |      | ↑      | ↘    |      |
| Traffic Vol, veh/h        | 0         | 0      | 0    | 0      | 0    | 18   |
| Future Vol, veh/h         | 0         | 0      | 0    | 0      | 0    | 18   |
| Conflicting Peds, #/hr    | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control              | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized            | -         | None   | -    | None   | -    | None |
| Storage Length            | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, #  | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                  | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor          | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %         | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                 | 0         | 0      | 0    | 0      | 0    | 20   |
| Major/Minor               | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All      | -         | 10     | -    | 0      | -    | 0    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Critical Hdwy             | -         | 6.22   | -    | -      | -    | -    |
| Critical Hdwy Stg 1       | -         | -      | -    | -      | -    | -    |
| Critical Hdwy Stg 2       | -         | -      | -    | -      | -    | -    |
| Follow-up Hdwy            | -         | 3.318  | -    | -      | -    | -    |
| Pot Cap-1 Maneuver        | 0         | 1072   | 0    | -      | -    | -    |
| Stage 1                   | 0         | -      | 0    | -      | -    | -    |
| Stage 2                   | 0         | -      | 0    | -      | -    | -    |
| Platoon blocked, %        |           |        |      | -      | -    | -    |
| Mov Cap-1 Maneuver        | -         | 1072   | -    | -      | -    | -    |
| Mov Cap-2 Maneuver        | -         | -      | -    | -      | -    | -    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Approach                  | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s/v    | 0         | 0      |      | 0      |      |      |
| HCM LOS                   | A         |        |      |        |      |      |
| Minor Lane/Major Mvmt     | NBT EBLn1 |        | SBT  | SBR    |      |      |
| Capacity (veh/h)          | -         | -      | -    | -      |      |      |
| HCM Lane V/C Ratio        | -         | -      | -    | -      |      |      |
| HCM Control Delay (s/veh) | -         | 0      | -    | -      |      |      |
| HCM Lane LOS              | -         | A      | -    | -      |      |      |
| HCM 95th %tile Q(veh)     | -         | -      | -    | -      |      |      |



| Intersection              |           |        |      |        |      |      |
|---------------------------|-----------|--------|------|--------|------|------|
| Int Delay, s/veh          | 0         |        |      |        |      |      |
| Movement                  | EBL       | EBR    | NBL  | NBT    | SBT  | SBR  |
| Lane Configurations       |           | ↗      |      | ↑      | ↘    |      |
| Traffic Vol, veh/h        | 0         | 0      | 0    | 0      | 18   | 36   |
| Future Vol, veh/h         | 0         | 0      | 0    | 0      | 18   | 36   |
| Conflicting Peds, #/hr    | 0         | 0      | 0    | 0      | 0    | 0    |
| Sign Control              | Stop      | Stop   | Free | Free   | Free | Free |
| RT Channelized            | -         | None   | -    | None   | -    | None |
| Storage Length            | -         | 0      | -    | -      | -    | -    |
| Veh in Median Storage, #  | 0         | -      | -    | 0      | 0    | -    |
| Grade, %                  | 0         | -      | -    | 0      | 0    | -    |
| Peak Hour Factor          | 92        | 92     | 92   | 92     | 92   | 92   |
| Heavy Vehicles, %         | 2         | 2      | 2    | 2      | 2    | 2    |
| Mvmt Flow                 | 0         | 0      | 0    | 0      | 20   | 39   |
| Major/Minor               | Minor2    | Major1 |      | Major2 |      |      |
| Conflicting Flow All      | -         | 39     | -    | 0      | -    | 0    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Critical Hdwy             | -         | 6.22   | -    | -      | -    | -    |
| Critical Hdwy Stg 1       | -         | -      | -    | -      | -    | -    |
| Critical Hdwy Stg 2       | -         | -      | -    | -      | -    | -    |
| Follow-up Hdwy            | -         | 3.318  | -    | -      | -    | -    |
| Pot Cap-1 Maneuver        | 0         | 1032   | 0    | -      | -    | -    |
| Stage 1                   | 0         | -      | 0    | -      | -    | -    |
| Stage 2                   | 0         | -      | 0    | -      | -    | -    |
| Platoon blocked, %        |           |        |      | -      | -    | -    |
| Mov Cap-1 Maneuver        | -         | 1032   | -    | -      | -    | -    |
| Mov Cap-2 Maneuver        | -         | -      | -    | -      | -    | -    |
| Stage 1                   | -         | -      | -    | -      | -    | -    |
| Stage 2                   | -         | -      | -    | -      | -    | -    |
| Approach                  | EB        | NB     |      | SB     |      |      |
| HCM Control Delay, s/v    | 0         | 0      |      | 0      |      |      |
| HCM LOS                   | A         |        |      |        |      |      |
| Minor Lane/Major Mvmt     | NBT EBLn1 |        | SBT  | SBR    |      |      |
| Capacity (veh/h)          | -         | -      | -    | -      |      |      |
| HCM Lane V/C Ratio        | -         | -      | -    | -      |      |      |
| HCM Control Delay (s/veh) | -         | 0      | -    | -      |      |      |
| HCM Lane LOS              | -         | A      | -    | -      |      |      |
| HCM 95th %tile Q(veh)     | -         | -      | -    | -      |      |      |

| Intersection              |                                                                                   |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
|---------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Int Delay, s/veh          | 2.7                                                                               |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Movement                  | EBL                                                                               | EBR    | NBL                                                                               | NBT                                                                               | SBT                                                                               | SBR                                                                                |
| Lane Configurations       |  |        |  |  |  |  |
| Traffic Vol, veh/h        | 21                                                                                | 21     | 36                                                                                | 54                                                                                | 85                                                                                | 36                                                                                 |
| Future Vol, veh/h         | 21                                                                                | 21     | 36                                                                                | 54                                                                                | 85                                                                                | 36                                                                                 |
| Conflicting Peds, #/hr    | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  |
| Sign Control              | Stop                                                                              | Stop   | Free                                                                              | Free                                                                              | Free                                                                              | Free                                                                               |
| RT Channelized            | -                                                                                 | None   | -                                                                                 | None                                                                              | -                                                                                 | None                                                                               |
| Storage Length            | 0                                                                                 | -      | 200                                                                               | -                                                                                 | -                                                                                 | -                                                                                  |
| Veh in Median Storage, #  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Grade, %                  | 0                                                                                 | -      | -                                                                                 | 0                                                                                 | 0                                                                                 | -                                                                                  |
| Peak Hour Factor          | 92                                                                                | 92     | 92                                                                                | 92                                                                                | 92                                                                                | 92                                                                                 |
| Heavy Vehicles, %         | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                  |
| Mvmt Flow                 | 23                                                                                | 23     | 39                                                                                | 59                                                                                | 92                                                                                | 39                                                                                 |
| Major/Minor               | Minor2                                                                            | Major1 |                                                                                   | Major2                                                                            |                                                                                   |                                                                                    |
| Conflicting Flow All      | 249                                                                               | 112    | 132                                                                               | 0                                                                                 | -                                                                                 | 0                                                                                  |
| Stage 1                   | 112                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 137                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy             | 6.42                                                                              | 6.22   | 4.12                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 1       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Critical Hdwy Stg 2       | 5.42                                                                              | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Follow-up Hdwy            | 3.518                                                                             | 3.318  | 2.218                                                                             | -                                                                                 | -                                                                                 | -                                                                                  |
| Pot Cap-1 Maneuver        | 740                                                                               | 941    | 1454                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 913                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 890                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Platoon blocked, %        |                                                                                   |        |                                                                                   | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-1 Maneuver        | 720                                                                               | 941    | 1454                                                                              | -                                                                                 | -                                                                                 | -                                                                                  |
| Mov Cap-2 Maneuver        | 720                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 1                   | 888                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Stage 2                   | 890                                                                               | -      | -                                                                                 | -                                                                                 | -                                                                                 | -                                                                                  |
| Approach                  | EB                                                                                | NB     |                                                                                   | SB                                                                                |                                                                                   |                                                                                    |
| HCM Control Delay, s/v    | 9.68                                                                              | 3.02   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    |
| HCM LOS                   | A                                                                                 |        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |
| Minor Lane/Major Mvmt     | NBL                                                                               | NBT    | EBLn1                                                                             | SBT                                                                               | SBR                                                                               |                                                                                    |
| Capacity (veh/h)          | 1454                                                                              | -      | 816                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane V/C Ratio        | 0.027                                                                             | -      | 0.056                                                                             | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Control Delay (s/veh) | 7.5                                                                               | -      | 9.7                                                                               | -                                                                                 | -                                                                                 |                                                                                    |
| HCM Lane LOS              | A                                                                                 | -      | A                                                                                 | -                                                                                 | -                                                                                 |                                                                                    |
| HCM 95th %tile Q(veh)     | 0.1                                                                               | -      | 0.2                                                                               | -                                                                                 | -                                                                                 |                                                                                    |

| Intersection              |        |       |        |            |        |       |        |      |      |       |      |      |
|---------------------------|--------|-------|--------|------------|--------|-------|--------|------|------|-------|------|------|
| Int Delay, s/veh          | 2.2    |       |        |            |        |       |        |      |      |       |      |      |
| Movement                  | EBL    | EBT   | EBR    | WBL        | WBT    | WBR   | NBL    | NBT  | NBR  | SBL   | SBT  | SBR  |
| Lane Configurations       |        | ↔     |        |            | ↔      |       | ↔      | ↔    |      | ↔     | ↔    |      |
| Traffic Vol, veh/h        | 11     | 0     | 11     | 11         | 0      | 0     | 18     | 18   | 18   | 0     | 101  | 18   |
| Future Vol, veh/h         | 11     | 0     | 11     | 11         | 0      | 0     | 18     | 18   | 18   | 0     | 101  | 18   |
| Conflicting Peds, #/hr    | 0      | 0     | 0      | 0          | 0      | 0     | 0      | 0    | 0    | 0     | 0    | 0    |
| Sign Control              | Stop   | Stop  | Stop   | Stop       | Stop   | Stop  | Free   | Free | Free | Free  | Free | Free |
| RT Channelized            | -      | -     | None   | -          | -      | None  | -      | -    | None | -     | -    | None |
| Storage Length            | -      | -     | -      | -          | -      | -     | 200    | -    | -    | 200   | -    | -    |
| Veh in Median Storage, #  | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -     | 0    | -    |
| Grade, %                  | -      | 0     | -      | -          | 0      | -     | -      | 0    | -    | -     | 0    | -    |
| Peak Hour Factor          | 92     | 92    | 92     | 92         | 92     | 92    | 92     | 92   | 92   | 92    | 92   | 92   |
| Heavy Vehicles, %         | 2      | 2     | 2      | 2          | 2      | 2     | 2      | 2    | 2    | 2     | 2    | 2    |
| Mvmt Flow                 | 12     | 0     | 12     | 12         | 0      | 0     | 20     | 20   | 20   | 0     | 110  | 20   |
| Major/Minor               | Minor2 |       | Minor1 |            | Major1 |       | Major2 |      |      |       |      |      |
| Conflicting Flow All      | 178    | 198   | 120    | 178        | 198    | 29    | 129    | 0    | 0    | 39    | 0    | 0    |
| Stage 1                   | 120    | 120   | -      | 68         | 68     | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                   | 59     | 78    | -      | 110        | 129    | -     | -      | -    | -    | -     | -    | -    |
| Critical Hdwy             | 7.12   | 6.52  | 6.22   | 7.12       | 6.52   | 6.22  | 4.12   | -    | -    | 4.12  | -    | -    |
| Critical Hdwy Stg 1       | 6.12   | 5.52  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -     | -    | -    |
| Critical Hdwy Stg 2       | 6.12   | 5.52  | -      | 6.12       | 5.52   | -     | -      | -    | -    | -     | -    | -    |
| Follow-up Hdwy            | 3.518  | 4.018 | 3.318  | 3.518      | 4.018  | 3.318 | 2.218  | -    | -    | 2.218 | -    | -    |
| Pot Cap-1 Maneuver        | 784    | 698   | 932    | 784        | 698    | 1045  | 1456   | -    | -    | 1571  | -    | -    |
| Stage 1                   | 885    | 797   | -      | 942        | 838    | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                   | 953    | 830   | -      | 895        | 789    | -     | -      | -    | -    | -     | -    | -    |
| Platoon blocked, %        |        |       |        |            |        |       |        | -    | -    |       | -    | -    |
| Mov Cap-1 Maneuver        | 773    | 688   | 932    | 763        | 688    | 1045  | 1456   | -    | -    | 1571  | -    | -    |
| Mov Cap-2 Maneuver        | 773    | 688   | -      | 763        | 688    | -     | -      | -    | -    | -     | -    | -    |
| Stage 1                   | 885    | 797   | -      | 929        | 827    | -     | -      | -    | -    | -     | -    | -    |
| Stage 2                   | 940    | 819   | -      | 884        | 789    | -     | -      | -    | -    | -     | -    | -    |
| Approach                  | EB     |       | WB     |            | NB     |       | SB     |      |      |       |      |      |
| HCM Control Delay, s/v    | 9.38   |       | 9.79   |            | 2.5    |       | 0      |      |      |       |      |      |
| HCM LOS                   | A      |       | A      |            |        |       |        |      |      |       |      |      |
| Minor Lane/Major Mvmt     | NBL    | NBT   | NBR    | EBLn1WBLn1 | SBL    | SBT   | SBR    |      |      |       |      |      |
| Capacity (veh/h)          | 1456   | -     | -      | 845        | 763    | 1571  | -      | -    |      |       |      |      |
| HCM Lane V/C Ratio        | 0.013  | -     | -      | 0.028      | 0.016  | -     | -      | -    |      |       |      |      |
| HCM Control Delay (s/veh) | 7.5    | -     | -      | 9.4        | 9.8    | 0     | -      | -    |      |       |      |      |
| HCM Lane LOS              | A      | -     | -      | A          | A      | A     | -      | -    |      |       |      |      |
| HCM 95th %tile Q(veh)     | 0      | -     | -      | 0.1        | 0      | 0     | -      | -    |      |       |      |      |

| Intersection              |                                                                                   |          |                                                                                   |      |                                                                                   |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh          | 0.5                                                                               |          |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                  | WBL                                                                               | WBR      | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                               |
| Lane Configurations       |  |          |  |      |  |  |
| Traffic Vol, veh/h        | 11                                                                                | 0        | 63                                                                                | 18   | 0                                                                                 | 108                                                                               |
| Future Vol, veh/h         | 11                                                                                | 0        | 63                                                                                | 18   | 0                                                                                 | 108                                                                               |
| Conflicting Peds, #/hr    | 0                                                                                 | 0        | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control              | Stop                                                                              | Stop     | Free                                                                              | Free | Free                                                                              | Free                                                                              |
| RT Channelized            | -                                                                                 | None     | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length            | 0                                                                                 | -        | -                                                                                 | -    | 200                                                                               | -                                                                                 |
| Veh in Median Storage, #  | 0                                                                                 | -        | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Grade, %                  | 0                                                                                 | -        | 0                                                                                 | -    | -                                                                                 | 0                                                                                 |
| Peak Hour Factor          | 92                                                                                | 92       | 92                                                                                | 92   | 92                                                                                | 92                                                                                |
| Heavy Vehicles, %         | 2                                                                                 | 2        | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                 | 12                                                                                | 0        | 68                                                                                | 20   | 0                                                                                 | 117                                                                               |
| Major/Minor               | Minor1                                                                            | Major1   | Major2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All      | 196                                                                               | 78       | 0                                                                                 | 0    | 88                                                                                | 0                                                                                 |
| Stage 1                   | 78                                                                                | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 117                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy             | 6.42                                                                              | 6.22     | -                                                                                 | -    | 4.12                                                                              | -                                                                                 |
| Critical Hdwy Stg 1       | 5.42                                                                              | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Critical Hdwy Stg 2       | 5.42                                                                              | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Follow-up Hdwy            | 3.518                                                                             | 3.318    | -                                                                                 | -    | 2.218                                                                             | -                                                                                 |
| Pot Cap-1 Maneuver        | 793                                                                               | 982      | -                                                                                 | -    | 1508                                                                              | -                                                                                 |
| Stage 1                   | 945                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 908                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Platoon blocked, %        |                                                                                   |          | -                                                                                 | -    |                                                                                   | -                                                                                 |
| Mov Cap-1 Maneuver        | 793                                                                               | 982      | -                                                                                 | -    | 1508                                                                              | -                                                                                 |
| Mov Cap-2 Maneuver        | 793                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 1                   | 945                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Stage 2                   | 908                                                                               | -        | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Approach                  | WB                                                                                | NB       | SB                                                                                |      |                                                                                   |                                                                                   |
| HCM Control Delay, s/v    | 9.61                                                                              | 0        | 0                                                                                 |      |                                                                                   |                                                                                   |
| HCM LOS                   | A                                                                                 |          |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt     | NBT                                                                               | NBRWBLn1 | SBL                                                                               | SBT  |                                                                                   |                                                                                   |
| Capacity (veh/h)          | -                                                                                 | -        | 793                                                                               | 1508 | -                                                                                 |                                                                                   |
| HCM Lane V/C Ratio        | -                                                                                 | -        | 0.015                                                                             | -    | -                                                                                 |                                                                                   |
| HCM Control Delay (s/veh) | -                                                                                 | -        | 9.6                                                                               | 0    | -                                                                                 |                                                                                   |
| HCM Lane LOS              | -                                                                                 | -        | A                                                                                 | A    | -                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)     | -                                                                                 | -        | 0                                                                                 | 0    | -                                                                                 |                                                                                   |

MITIGATED TRAFFIC ANALYSIS

| Intersection              |     |
|---------------------------|-----|
| Intersection Delay, s/veh | 193 |
| Intersection LOS          | F   |

| Movement            | EBL  | EBT                                                                               | EBR  | WBL                                                                               | WBT                                                                               | WBR  | NBL  | NBT                                                                                 | NBR  | SBL  | SBT                                                                                 | SBR  |
|---------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |      |  |      |  |  |      |      |  |      |      |  |      |
| Traffic Vol, veh/h  | 35   | 129                                                                               | 63   | 116                                                                               | 45                                                                                | 164  | 23   | 122                                                                                 | 21   | 352  | 208                                                                                 | 12   |
| Future Vol, veh/h   | 35   | 129                                                                               | 63   | 116                                                                               | 45                                                                                | 164  | 23   | 122                                                                                 | 21   | 352  | 208                                                                                 | 12   |
| Peak Hour Factor    | 0.68 | 0.68                                                                              | 0.68 | 0.68                                                                              | 0.68                                                                              | 0.68 | 0.68 | 0.68                                                                                | 0.68 | 0.68 | 0.68                                                                                | 0.68 |
| Heavy Vehicles, %   | 2    | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    | 2    | 2                                                                                   | 2    |
| Mvmt Flow           | 51   | 190                                                                               | 93   | 171                                                                               | 66                                                                                | 241  | 34   | 179                                                                                 | 31   | 518  | 306                                                                                 | 18   |
| Number of Lanes     | 0    | 1                                                                                 | 0    | 1                                                                                 | 1                                                                                 | 0    | 0    | 1                                                                                   | 0    | 0    | 1                                                                                   | 0    |

| Approach                   | EB   | WB   | NB   | SB    |
|----------------------------|------|------|------|-------|
| Opposing Approach          | WB   | EB   | SB   | NB    |
| Opposing Lanes             | 2    | 1    | 1    | 1     |
| Conflicting Approach Left  | SB   | NB   | EB   | WB    |
| Conflicting Lanes Left     | 1    | 1    | 1    | 2     |
| Conflicting Approach Right | NB   | SB   | WB   | EB    |
| Conflicting Lanes Right    | 1    | 1    | 2    | 1     |
| HCM Control Delay, s/veh   | 37.9 | 26.9 | 26.1 | 397.4 |
| HCM LOS                    | E    | D    | D    | F     |

| Lane                     | NBLn1  | EBLn1  | WBLn1  | WBLn2 | SBLn1 |
|--------------------------|--------|--------|--------|-------|-------|
| Vol Left, %              | 14%    | 15%    | 100%   | 0%    | 62%   |
| Vol Thru, %              | 73%    | 57%    | 0%     | 22%   | 36%   |
| Vol Right, %             | 13%    | 28%    | 0%     | 78%   | 2%    |
| Sign Control             | Stop   | Stop   | Stop   | Stop  | Stop  |
| Traffic Vol by Lane      | 166    | 227    | 116    | 209   | 572   |
| LT Vol                   | 23     | 35     | 116    | 0     | 352   |
| Through Vol              | 122    | 129    | 0      | 45    | 208   |
| RT Vol                   | 21     | 63     | 0      | 164   | 12    |
| Lane Flow Rate           | 244    | 334    | 171    | 307   | 841   |
| Geometry Grp             | 2      | 4a     | 5      | 5     | 2     |
| Degree of Util (X)       | 0.569  | 0.746  | 0.42   | 0.666 | 1.822 |
| Departure Headway (Hd)   | 10.333 | 10.224 | 10.894 | 9.791 | 7.796 |
| Convergence, Y/N         | Yes    | Yes    | Yes    | Yes   | Yes   |
| Cap                      | 352    | 357    | 333    | 372   | 471   |
| Service Time             | 8.333  | 8.224  | 8.594  | 7.491 | 5.863 |
| HCM Lane V/C Ratio       | 0.693  | 0.936  | 0.514  | 0.825 | 1.786 |
| HCM Control Delay, s/veh | 26.1   | 37.9   | 21.3   | 30    | 397.4 |
| HCM Lane LOS             | D      | E      | C      | D     | F     |
| HCM 95th-tile Q          | 3.4    | 5.8    | 2      | 4.6   | 53    |

# HCM 7th Signalized Intersection Summary

## 1: Boss Range Rd & Range Rd/Wiley Rd

MITIGATED Buildout AM

Range Creek TIA

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 35                                                                                | 130                                                                               | 64                                                                                | 116                                                                               | 45                                                                                | 115                                                                               | 23                                                                                  | 97                                                                                  | 21                                                                                  | 215                                                                                 | 140                                                                                 | 11                                                                                  |
| Future Volume (veh/h)        | 35                                                                                | 130                                                                               | 64                                                                                | 116                                                                               | 45                                                                                | 115                                                                               | 23                                                                                  | 97                                                                                  | 21                                                                                  | 215                                                                                 | 140                                                                                 | 11                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 51                                                                                | 191                                                                               | 94                                                                                | 171                                                                               | 66                                                                                | 169                                                                               | 34                                                                                  | 143                                                                                 | 31                                                                                  | 316                                                                                 | 206                                                                                 | 16                                                                                  |
| Peak Hour Factor             | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                              | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                | 0.68                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 473                                                                               | 424                                                                               | 209                                                                               | 441                                                                               | 167                                                                               | 426                                                                               | 568                                                                                 | 612                                                                                 | 133                                                                                 | 607                                                                                 | 704                                                                                 | 55                                                                                  |
| Arrive On Green              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.41                                                                                | 0.41                                                                                | 0.41                                                                                | 0.41                                                                                | 0.41                                                                                | 0.41                                                                                |
| Sat Flow, veh/h              | 1145                                                                              | 1183                                                                              | 582                                                                               | 1094                                                                              | 465                                                                               | 1191                                                                              | 1159                                                                                | 1489                                                                                | 323                                                                                 | 1211                                                                                | 1713                                                                                | 133                                                                                 |
| Grp Volume(v), veh/h         | 51                                                                                | 0                                                                                 | 285                                                                               | 171                                                                               | 0                                                                                 | 235                                                                               | 34                                                                                  | 0                                                                                   | 174                                                                                 | 316                                                                                 | 0                                                                                   | 222                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 1145                                                                              | 0                                                                                 | 1766                                                                              | 1094                                                                              | 0                                                                                 | 1656                                                                              | 1159                                                                                | 0                                                                                   | 1812                                                                                | 1211                                                                                | 0                                                                                   | 1846                                                                                |
| Q Serve(g_s), s              | 1.4                                                                               | 0.0                                                                               | 4.8                                                                               | 5.5                                                                               | 0.0                                                                               | 4.1                                                                               | 0.8                                                                                 | 0.0                                                                                 | 2.4                                                                                 | 9.0                                                                                 | 0.0                                                                                 | 3.1                                                                                 |
| Cycle Q Clear(g_c), s        | 5.5                                                                               | 0.0                                                                               | 4.8                                                                               | 10.3                                                                              | 0.0                                                                               | 4.1                                                                               | 3.9                                                                                 | 0.0                                                                                 | 2.4                                                                                 | 11.4                                                                                | 0.0                                                                                 | 3.1                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.33                                                                              | 1.00                                                                              |                                                                                   | 0.72                                                                              | 1.00                                                                                |                                                                                     | 0.18                                                                                | 1.00                                                                                |                                                                                     | 0.07                                                                                |
| Lane Grp Cap(c), veh/h       | 473                                                                               | 0                                                                                 | 632                                                                               | 441                                                                               | 0                                                                                 | 593                                                                               | 568                                                                                 | 0                                                                                   | 745                                                                                 | 607                                                                                 | 0                                                                                   | 759                                                                                 |
| V/C Ratio(X)                 | 0.11                                                                              | 0.00                                                                              | 0.45                                                                              | 0.39                                                                              | 0.00                                                                              | 0.40                                                                              | 0.06                                                                                | 0.00                                                                                | 0.23                                                                                | 0.52                                                                                | 0.00                                                                                | 0.29                                                                                |
| Avail Cap(c_a), veh/h        | 736                                                                               | 0                                                                                 | 1038                                                                              | 693                                                                               | 0                                                                                 | 973                                                                               | 1820                                                                                | 0                                                                                   | 2703                                                                                | 1915                                                                                | 0                                                                                   | 2754                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 11.4                                                                              | 0.0                                                                               | 9.6                                                                               | 13.5                                                                              | 0.0                                                                               | 9.4                                                                               | 9.0                                                                                 | 0.0                                                                                 | 7.5                                                                                 | 11.2                                                                                | 0.0                                                                                 | 7.7                                                                                 |
| Incr Delay (d2), s/veh       | 0.1                                                                               | 0.0                                                                               | 0.5                                                                               | 0.6                                                                               | 0.0                                                                               | 0.4                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.2                                                                                 | 0.7                                                                                 | 0.0                                                                                 | 0.2                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.3                                                                               | 0.0                                                                               | 1.5                                                                               | 1.2                                                                               | 0.0                                                                               | 1.2                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.7                                                                                 | 1.8                                                                                 | 0.0                                                                                 | 0.9                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 11.5                                                                              | 0.0                                                                               | 10.1                                                                              | 14.1                                                                              | 0.0                                                                               | 9.8                                                                               | 9.0                                                                                 | 0.0                                                                                 | 7.6                                                                                 | 11.9                                                                                | 0.0                                                                                 | 7.9                                                                                 |
| LnGrp LOS                    | B                                                                                 |                                                                                   | B                                                                                 | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                   |                                                                                     | A                                                                                   | B                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 336                                                                               |                                                                                   |                                                                                   | 406                                                                               |                                                                                   |                                                                                   | 208                                                                                 |                                                                                     |                                                                                     | 538                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 10.3                                                                              |                                                                                   |                                                                                   | 11.6                                                                              |                                                                                   |                                                                                   | 7.9                                                                                 |                                                                                     |                                                                                     | 10.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS                 | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 20.5                                                                              |                                                                                   |                                                                                   | 18.5                                                                              |                                                                                   |                                                                                   | 20.5                                                                                |                                                                                     |                                                                                     | 18.5                                                                                |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                                 |                                                                                     |                                                                                     | 4.5                                                                                 |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 58.1                                                                              |                                                                                   |                                                                                   | 22.9                                                                              |                                                                                   |                                                                                   | 58.1                                                                                |                                                                                     |                                                                                     | 22.9                                                                                |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 5.9                                                                               |                                                                                   |                                                                                   | 7.5                                                                               |                                                                                   |                                                                                   | 13.4                                                                                |                                                                                     |                                                                                     | 12.3                                                                                |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 1.2                                                                               |                                                                                   |                                                                                   | 1.7                                                                               |                                                                                   |                                                                                   | 2.6                                                                                 |                                                                                     |                                                                                     | 1.6                                                                                 |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 10.3                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | B                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

# HCM 7th Signalized Intersection Summary

MITIGATED Buildout PM

## 1: Boss Range Rd & Range Rd/Wiley Rd

Range Creek TIA

|                              |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                     | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations          |  |  |                                                                                   |  |  |                                                                                   |  |  |                                                                                     |  |  |                                                                                     |
| Traffic Volume (veh/h)       | 25                                                                                | 86                                                                                | 43                                                                                | 37                                                                                | 147                                                                               | 202                                                                               | 76                                                                                  | 138                                                                                 | 20                                                                                  | 114                                                                                 | 133                                                                                 | 36                                                                                  |
| Future Volume (veh/h)        | 25                                                                                | 86                                                                                | 43                                                                                | 37                                                                                | 147                                                                               | 202                                                                               | 76                                                                                  | 138                                                                                 | 20                                                                                  | 114                                                                                 | 133                                                                                 | 36                                                                                  |
| Initial Q (Qb), veh          | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Lane Width Adj.              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Ped-Bike Adj(A_pbT)          | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                              |                                                                                   | 1.00                                                                              | 1.00                                                                                |                                                                                     | 1.00                                                                                | 1.00                                                                                |                                                                                     | 1.00                                                                                |
| Parking Bus, Adj             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Work Zone On Approach        | No                                                                                |                                                                                   |                                                                                   | No                                                                                |                                                                                   |                                                                                   | No                                                                                  |                                                                                     |                                                                                     | No                                                                                  |                                                                                     |                                                                                     |
| Adj Sat Flow, veh/h/ln       | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                              | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                | 1870                                                                                |
| Adj Flow Rate, veh/h         | 29                                                                                | 101                                                                               | 51                                                                                | 44                                                                                | 173                                                                               | 238                                                                               | 89                                                                                  | 162                                                                                 | 24                                                                                  | 134                                                                                 | 156                                                                                 | 42                                                                                  |
| Peak Hour Factor             | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                              | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                | 0.85                                                                                |
| Percent Heavy Veh, %         | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                 | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   | 2                                                                                   |
| Cap, veh/h                   | 418                                                                               | 428                                                                               | 216                                                                               | 637                                                                               | 260                                                                               | 358                                                                               | 526                                                                                 | 493                                                                                 | 73                                                                                  | 537                                                                                 | 439                                                                                 | 118                                                                                 |
| Arrive On Green              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.36                                                                              | 0.31                                                                                | 0.31                                                                                | 0.31                                                                                | 0.31                                                                                | 0.31                                                                                | 0.31                                                                                |
| Sat Flow, veh/h              | 975                                                                               | 1172                                                                              | 592                                                                               | 1235                                                                              | 713                                                                               | 981                                                                               | 1185                                                                                | 1592                                                                                | 236                                                                                 | 1198                                                                                | 1419                                                                                | 382                                                                                 |
| Grp Volume(v), veh/h         | 29                                                                                | 0                                                                                 | 152                                                                               | 44                                                                                | 0                                                                                 | 411                                                                               | 89                                                                                  | 0                                                                                   | 186                                                                                 | 134                                                                                 | 0                                                                                   | 198                                                                                 |
| Grp Sat Flow(s),veh/h/ln     | 975                                                                               | 0                                                                                 | 1764                                                                              | 1235                                                                              | 0                                                                                 | 1694                                                                              | 1185                                                                                | 0                                                                                   | 1828                                                                                | 1198                                                                                | 0                                                                                   | 1802                                                                                |
| Q Serve(g_s), s              | 0.7                                                                               | 0.0                                                                               | 1.7                                                                               | 0.7                                                                               | 0.0                                                                               | 5.6                                                                               | 1.7                                                                                 | 0.0                                                                                 | 2.2                                                                                 | 2.7                                                                                 | 0.0                                                                                 | 2.4                                                                                 |
| Cycle Q Clear(g_c), s        | 6.3                                                                               | 0.0                                                                               | 1.7                                                                               | 2.4                                                                               | 0.0                                                                               | 5.6                                                                               | 4.1                                                                                 | 0.0                                                                                 | 2.2                                                                                 | 4.8                                                                                 | 0.0                                                                                 | 2.4                                                                                 |
| Prop In Lane                 | 1.00                                                                              |                                                                                   | 0.34                                                                              | 1.00                                                                              |                                                                                   | 0.58                                                                              | 1.00                                                                                |                                                                                     | 0.13                                                                                | 1.00                                                                                |                                                                                     | 0.21                                                                                |
| Lane Grp Cap(c), veh/h       | 418                                                                               | 0                                                                                 | 644                                                                               | 637                                                                               | 0                                                                                 | 618                                                                               | 526                                                                                 | 0                                                                                   | 566                                                                                 | 537                                                                                 | 0                                                                                   | 557                                                                                 |
| V/C Ratio(X)                 | 0.07                                                                              | 0.00                                                                              | 0.24                                                                              | 0.07                                                                              | 0.00                                                                              | 0.67                                                                              | 0.17                                                                                | 0.00                                                                                | 0.33                                                                                | 0.25                                                                                | 0.00                                                                                | 0.36                                                                                |
| Avail Cap(c_a), veh/h        | 870                                                                               | 0                                                                                 | 1462                                                                              | 1210                                                                              | 0                                                                                 | 1404                                                                              | 2651                                                                                | 0                                                                                   | 3844                                                                                | 2685                                                                                | 0                                                                                   | 3789                                                                                |
| HCM Platoon Ratio            | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Upstream Filter(I)           | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                              | 0.00                                                                              | 1.00                                                                              | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                | 1.00                                                                                | 0.00                                                                                | 1.00                                                                                |
| Uniform Delay (d), s/veh     | 10.0                                                                              | 0.0                                                                               | 6.1                                                                               | 6.9                                                                               | 0.0                                                                               | 7.4                                                                               | 9.0                                                                                 | 0.0                                                                                 | 7.3                                                                                 | 9.2                                                                                 | 0.0                                                                                 | 7.4                                                                                 |
| Incr Delay (d2), s/veh       | 0.1                                                                               | 0.0                                                                               | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 1.2                                                                               | 0.2                                                                                 | 0.0                                                                                 | 0.3                                                                                 | 0.2                                                                                 | 0.0                                                                                 | 0.4                                                                                 |
| Initial Q Delay(d3), s/veh   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| %ile BackOfQ(50%),veh/ln     | 0.1                                                                               | 0.0                                                                               | 0.4                                                                               | 0.1                                                                               | 0.0                                                                               | 1.3                                                                               | 0.3                                                                                 | 0.0                                                                                 | 0.5                                                                                 | 0.5                                                                                 | 0.0                                                                                 | 0.5                                                                                 |
| Unsig. Movement Delay, s/veh |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| LnGrp Delay(d), s/veh        | 10.1                                                                              | 0.0                                                                               | 6.3                                                                               | 7.0                                                                               | 0.0                                                                               | 8.6                                                                               | 9.1                                                                                 | 0.0                                                                                 | 7.7                                                                                 | 9.4                                                                                 | 0.0                                                                                 | 7.8                                                                                 |
| LnGrp LOS                    | B                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                   |                                                                                     | A                                                                                   | A                                                                                   |                                                                                     | A                                                                                   |
| Approach Vol, veh/h          | 181                                                                               |                                                                                   |                                                                                   | 455                                                                               |                                                                                   |                                                                                   | 275                                                                                 |                                                                                     |                                                                                     | 332                                                                                 |                                                                                     |                                                                                     |
| Approach Delay, s/veh        | 6.9                                                                               |                                                                                   |                                                                                   | 8.4                                                                               |                                                                                   |                                                                                   | 8.1                                                                                 |                                                                                     |                                                                                     | 8.5                                                                                 |                                                                                     |                                                                                     |
| Approach LOS                 | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 |                                                                                   |                                                                                   | A                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Timer - Assigned Phs         | 2                                                                                 |                                                                                   |                                                                                   | 4                                                                                 |                                                                                   |                                                                                   | 6                                                                                   |                                                                                     |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     |
| Phs Duration (G+Y+Rc), s     | 13.0                                                                              |                                                                                   |                                                                                   | 14.6                                                                              |                                                                                   |                                                                                   | 13.0                                                                                |                                                                                     |                                                                                     | 14.6                                                                                |                                                                                     |                                                                                     |
| Change Period (Y+Rc), s      | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   | 4.5                                                                                 |                                                                                     |                                                                                     | 4.5                                                                                 |                                                                                     |                                                                                     |
| Max Green Setting (Gmax), s  | 58.1                                                                              |                                                                                   |                                                                                   | 22.9                                                                              |                                                                                   |                                                                                   | 58.1                                                                                |                                                                                     |                                                                                     | 22.9                                                                                |                                                                                     |                                                                                     |
| Max Q Clear Time (g_c+I1), s | 6.1                                                                               |                                                                                   |                                                                                   | 8.3                                                                               |                                                                                   |                                                                                   | 6.8                                                                                 |                                                                                     |                                                                                     | 7.6                                                                                 |                                                                                     |                                                                                     |
| Green Ext Time (p_c), s      | 1.5                                                                               |                                                                                   |                                                                                   | 0.8                                                                               |                                                                                   |                                                                                   | 1.7                                                                                 |                                                                                     |                                                                                     | 2.5                                                                                 |                                                                                     |                                                                                     |
| Intersection Summary         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th Control Delay, s/veh | 8.2                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| HCM 7th LOS                  | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |





# TRAFFIC SIGNAL WARRANT ANALYSIS (2011 TXMUTCD)

|               |                                |    |    |                      |              |
|---------------|--------------------------------|----|----|----------------------|--------------|
| MAJOR STREET: | <u>Boss Range Road</u>         | NB | SB | # OF APPROACH LANES: | <div>1</div> |
| MINOR STREET: | <u>Wiley Road / Range Road</u> | EB | WB | # OF APPROACH LANES: | <div>1</div> |
| CITY, STATE:  | <u>Justin, TX</u>              |    |    |                      |              |
| COMMENTS:     | <u>Buildout (2030) Volumes</u> |    |    |                      |              |

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): 

N

85TH PERCENTILE SPEED OR POSTED SPEED LIMIT GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): 

N

|          |    |          |  | Boss Range Road |             | Total | Wiley Road / Range Road |             | Minor Street Heavy Leg |
|----------|----|----------|--|-----------------|-------------|-------|-------------------------|-------------|------------------------|
|          |    |          |  | NB Approach     | SB Approach |       | EB Approach             | WB Approach |                        |
| 07:00 AM | TO | 07:00 AM |  | 120             | 364         | 484   | 227                     | 276         | 276                    |
| 08:00 AM | TO | 08:00 AM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 09:00 AM | TO | 09:00 AM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 10:00 AM | TO | 10:00 AM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 11:00 AM | TO | 11:00 AM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 12:00 PM | TO | 12:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 01:00 PM | TO | 01:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 02:00 PM | TO | 02:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 03:00 PM | TO | 03:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 04:00 PM | TO | 04:00 PM |  | 212             | 283         | 495   | 154                     | 384         | 384                    |
| 05:00 PM | TO | 05:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 06:00 PM | TO | 06:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |
| 07:00 PM | TO | 07:00 PM |  | 0               | 0           | 0     | 0                       | 0           | 0                      |

| Warrant | Description                        | Warrant Met?    |
|---------|------------------------------------|-----------------|
| 1       | Eight-Hour Volume                  | Warrant NOT Met |
| 2       | Four-Hour Volume                   | Warrant NOT Met |
| 3       | Peak Hour Volume                   | Warrant NOT Met |
| 4       | Pedestrian Volume                  | Not Evaluated   |
| 5       | School Crossing                    | N/A             |
| 6       | Coordinated Signal System          | N/A             |
| 7       | Crash Experience                   | Not Evaluated   |
| 8       | Roadway Network                    | N/A             |
| 9       | Intersection Near a Grade Crossing | N/A             |

01/21/25  
Kimley-Horn and Associates, Inc.

# TRAFFIC SIGNAL WARRANT ANALYSIS (2011 TXMUTCD)

MAJOR STREET: Boss Range Road NB SB # OF APPROACH LANES: 1

MINOR STREET: Wiley Road / Range Road EB WB # OF APPROACH LANES: 1

CITY, STATE: Justin, TX

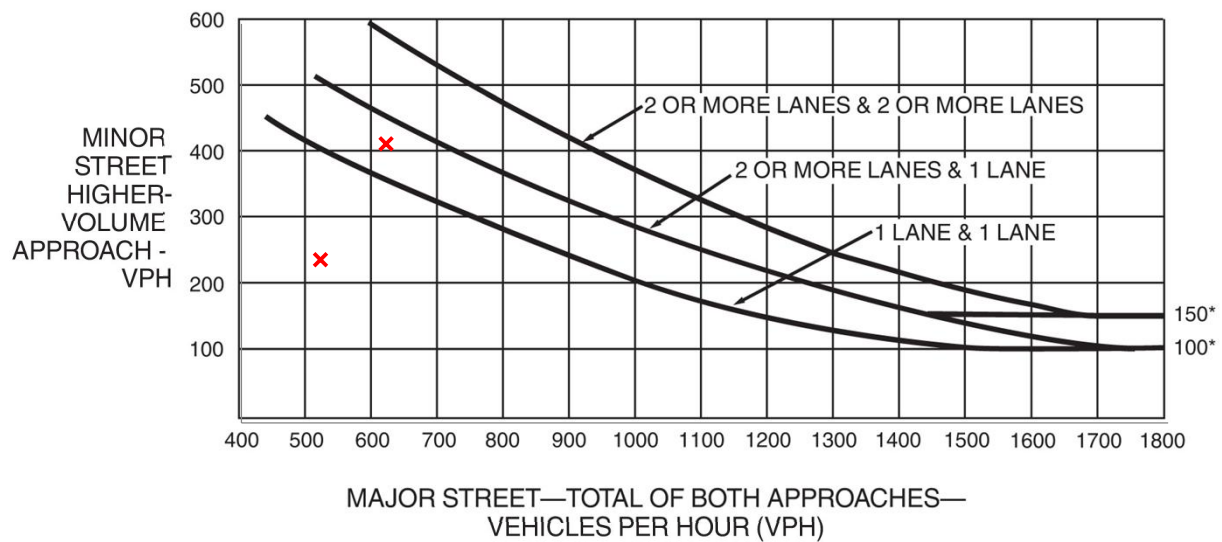
COMMENTS: Buildout (2030) Volumes

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N): N  
 85TH PERCENTILE SPEED OR POSTED SPEED LIMIT GREATER THAN 40 MPH ON MAJOR STREET (Y OR N): N

|                  |    |          | MAJOR ST<br>TWO-WAY<br>TRAFFIC | MINOR ST<br>TRAFFIC<br>HEAVY LEG | WARRANT 1 - Condition A, Part 1 |                |             | WARRANT 1 - Condition B, Part 1 |                |             | WARRANT 1 - Condition A, Part 2         |                |             | WARRANT 1 - Condition B, Part 2 |                |             | WARRANT 2<br>Four-Hour | WARRANT 3<br>Peak Hour |
|------------------|----|----------|--------------------------------|----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|-----------------------------------------|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| THRESHOLD VALUES |    |          |                                |                                  | MAIN<br>LINE                    | SIDE<br>STREET | BOTH<br>MET | MAIN<br>LINE                    | SIDE<br>STREET | BOTH<br>MET | MAIN<br>LINE                            | SIDE<br>STREET | BOTH<br>MET | MAIN<br>LINE                    | SIDE<br>STREET | BOTH<br>MET |                        |                        |
| 06:00 AM         | TO | 07:00 AM | 484                            | 276                              | 500                             | 150            |             | 750                             | 75             |             | 400                                     | 120            |             | 600                             | 60             |             | Y                      |                        |
| 07:00 AM         | TO | 08:00 AM | 0                              | 0                                |                                 | Y              |             |                                 | Y              |             | Y                                       | Y              | Y           |                                 | Y              |             |                        |                        |
| 08:00 AM         | TO | 09:00 AM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 09:00 AM         | TO | 10:00 AM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 10:00 AM         | TO | 11:00 AM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 11:00 AM         | TO | 12:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 12:00 PM         | TO | 01:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 01:00 PM         | TO | 02:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 02:00 PM         | TO | 03:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 03:00 PM         | TO | 04:00 PM | 495                            | 384                              |                                 | Y              |             |                                 | Y              |             | Y                                       | Y              | Y           |                                 | Y              |             | Y                      |                        |
| 04:00 PM         | TO | 05:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 05:00 PM         | TO | 06:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
| 06:00 PM         | TO | 07:00 PM | 0                              | 0                                |                                 |                |             |                                 |                |             |                                         |                |             |                                 |                |             |                        |                        |
|                  |    |          | 979                            | 660                              | 0                               | 2              | 0           | 0                               | 2              | 0           | 2                                       | 2              | 2           | 0                               | 2              | 0           | 2                      | 0                      |
|                  |    |          |                                |                                  | 8 HOURS NEEDED                  |                |             | 8 HOURS NEEDED                  |                |             | 8 HOURS NEEDED for both Condition A & B |                |             |                                 |                |             | 4 HRS NEEDED           | 1 HR NEEDED            |
|                  |    |          |                                |                                  | NOT SATISFIED                   |                |             | NOT SATISFIED                   |                |             | NOT SATISFIED                           |                |             |                                 |                |             | NOT SATISFIED          | NOT SATISFIED          |

01/21/25  
 Kimley-Horn and Associates, Inc.

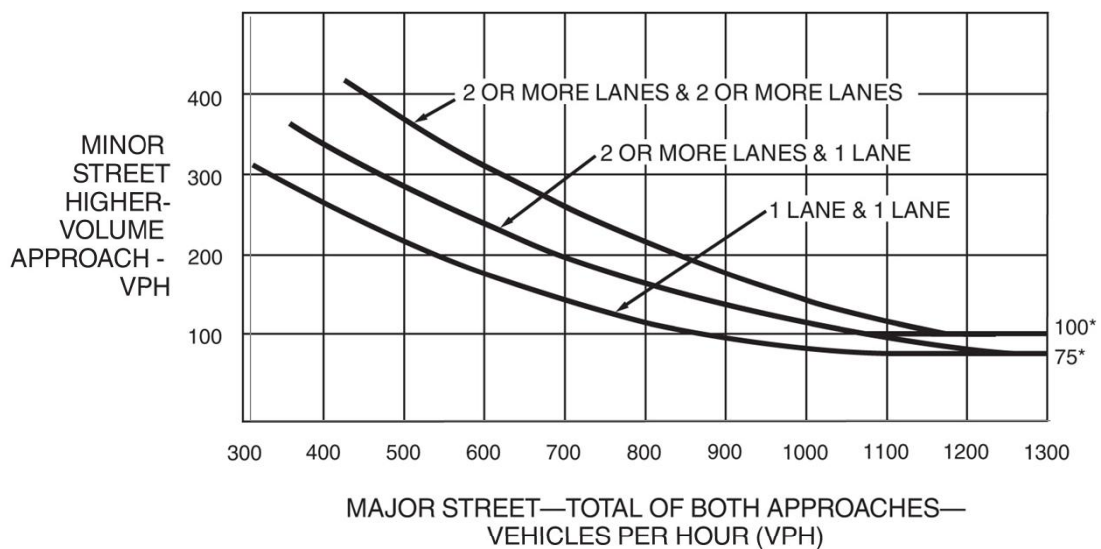
**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

## **ORDINANCE NO. 803-25**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, AMENDING THE OFFICIAL ZONING MAP BY REZONING APPROXIMATELY 538.99 ACRES OF LAND, GENERALLY LOCATED SOUTH OF FM 407 AND WEST OF BOSS RANGE ROAD, FROM SF-2 (SINGLE-FAMILY RESIDENTIAL DISTRICT) TO PLANNED DEVELOPMENT (PD) DISTRICT TO BE KNOWN AS "CUESTA PD"; ADOPTING DEVELOPMENT REGULATIONS; PROVIDING FOR INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT OF ZONING MAP; PROVIDING A CUMULATIVE CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; PROVIDING A PENALTY; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin, Texas (the "City") is a home-rule municipality with full power of local self-government pursuant to Article XI, Section 5 of the Texas Constitution and its Home Rule Charter; and

**WHEREAS**, the Planning and Zoning Commission and the City Council of the City of Justin, in compliance with the laws of the State of Texas and the ordinances of the City, have given the requisite notices by publication and otherwise, and have held public hearings and afforded full and fair hearings to all property owners generally and to all persons interested in and situated in the affected area; and

**WHEREAS**, the City Council has determined that this ordinance promotes the health, safety, morals, and general welfare of the City and its inhabitants and is in the best interest of the City and consistent with the City's Comprehensive Plan and Zoning Ordinance; and

**WHEREAS**, the City Council adopts this ordinance with the recommended conditions from the Planning and Zoning Commission:

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** All of the above premises are hereby found to be true and correct legislative determinations of the City Council and are incorporated herein as if fully set forth herein.

**SECTION 2.** The official zoning map of the City of Justin is hereby amended to rezone approximately 538.99 acres of land, more particularly described in *Exhibit "A"* attached hereto and incorporated herein by reference, from **Single-Family Residential District (SF-2)** to **Planned Development District (PD)** to be known as the **Cuesta PD**, subject to the development regulations and Concept Plan attached hereto which are incorporated herein.

**SECTION 3.** That this Ordinance shall be cumulative of all other ordinances of the City of Justin, Texas, and this ordinance shall not operate to repeal or affect any such ordinance except so far as the provisions are inconsistent or in conflict, in which event such other ordinance is repealed.

**SECTION 4.** If any section, article, paragraph, sentence, clause, phrase or word in this ordinance, or application thereto any person or circumstances is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this ordinance; and the City Council hereby declares it would have passed such remaining portions of the ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

**SECTION 5.** The fact that the present ordinances and regulations of the City of Justin, Texas are inadequate to properly safeguard the health, safety, morals, peace and general welfare of the inhabitants of the City of Justin, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this ordinance shall become effective from and after the date of its passage, and it is accordingly so ordained.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 22nd day of May, 2025.

**On first reading, the 8th day of May 2025.**

**On the second and final reading, the 22nd day of May 2025.**

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

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Amy Piukana, City Secretary

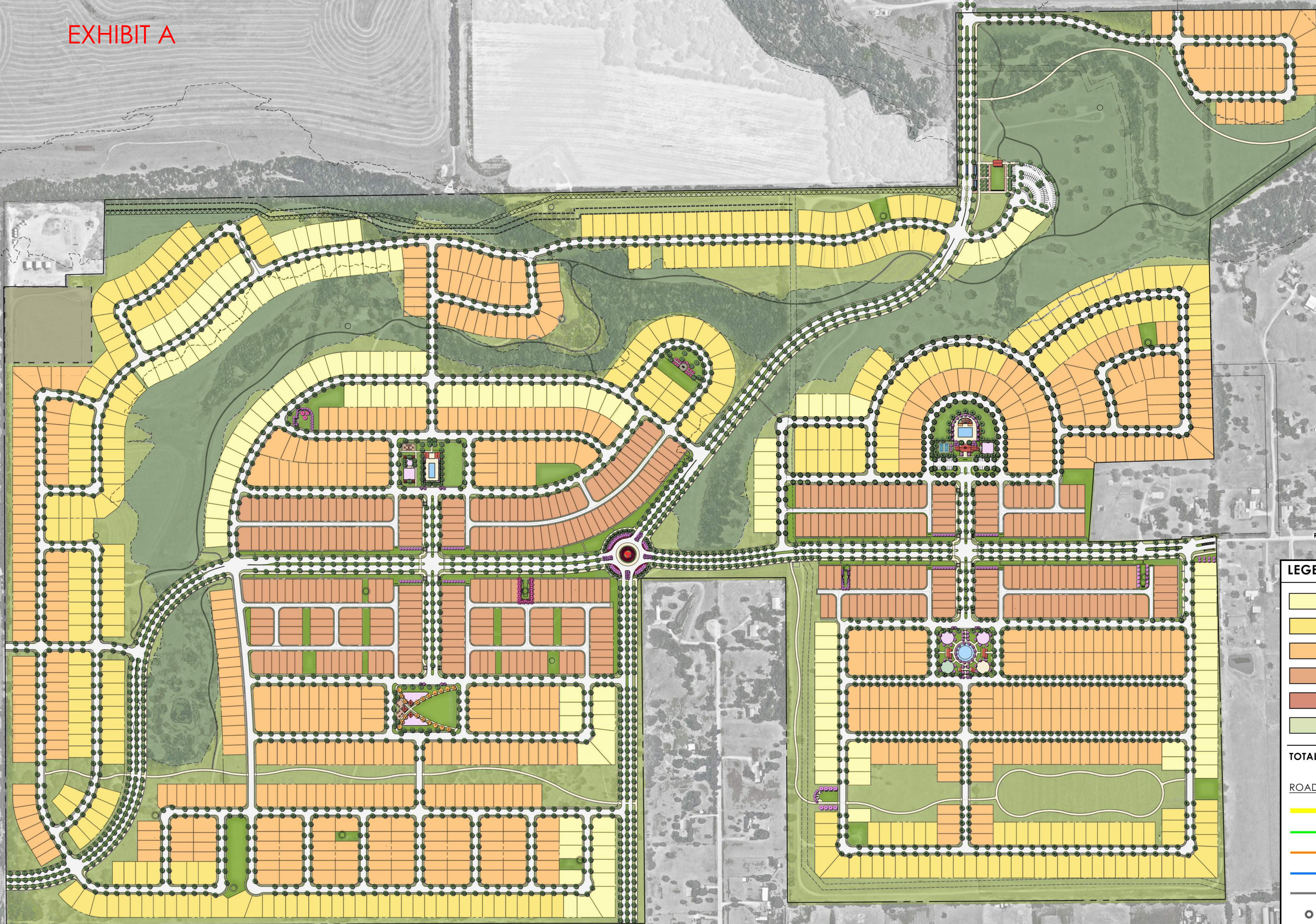
**APPROVED AS TO FORM:**

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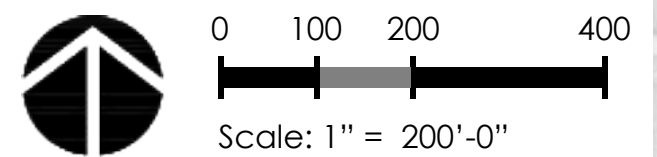
City Attorney



EXHIBIT A



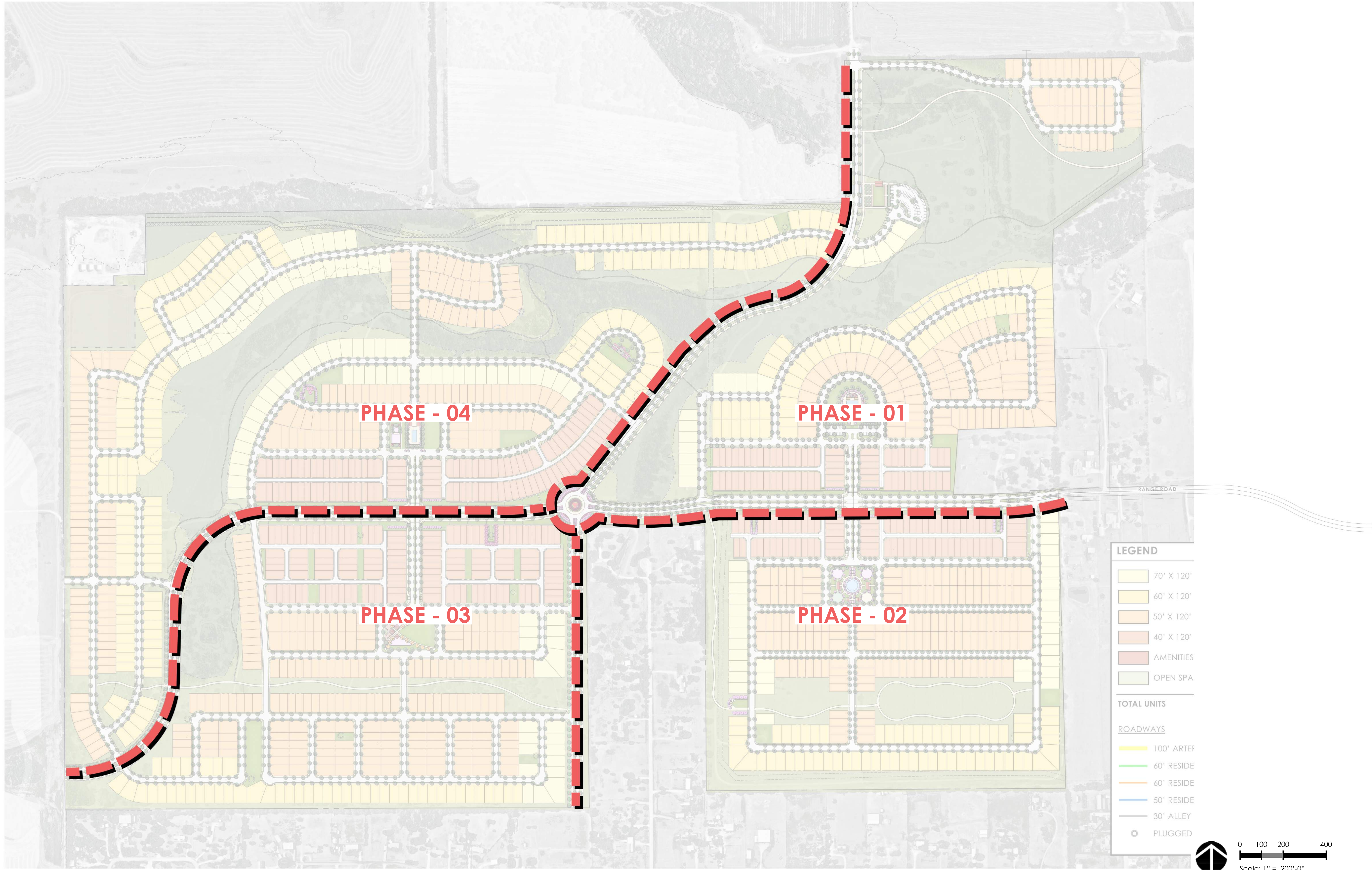
| LEGEND                                    | LOT COUNT   |
|-------------------------------------------|-------------|
| 70' X 120' LOTS                           | 150         |
| 60' X 120' LOTS                           | 347         |
| 50' X 120' LOTS                           | 673         |
| 40' X 120' LOTS                           | 376         |
| AMENITIES                                 |             |
| OPEN SPACE                                |             |
| <b>TOTAL UNITS</b>                        | <b>1546</b> |
| <b>ROADWAYS</b>                           |             |
| 100' ARTERIAL                             |             |
| 60' RESIDENTIAL - SINGLE PARALLEL PARKING |             |
| 60' RESIDENTIAL - DOUBLE PARALLEL PARKING |             |
| 50' RESIDENTIAL                           |             |
| 30' ALLEY                                 |             |
| PLUGGED GAS WELL                          |             |



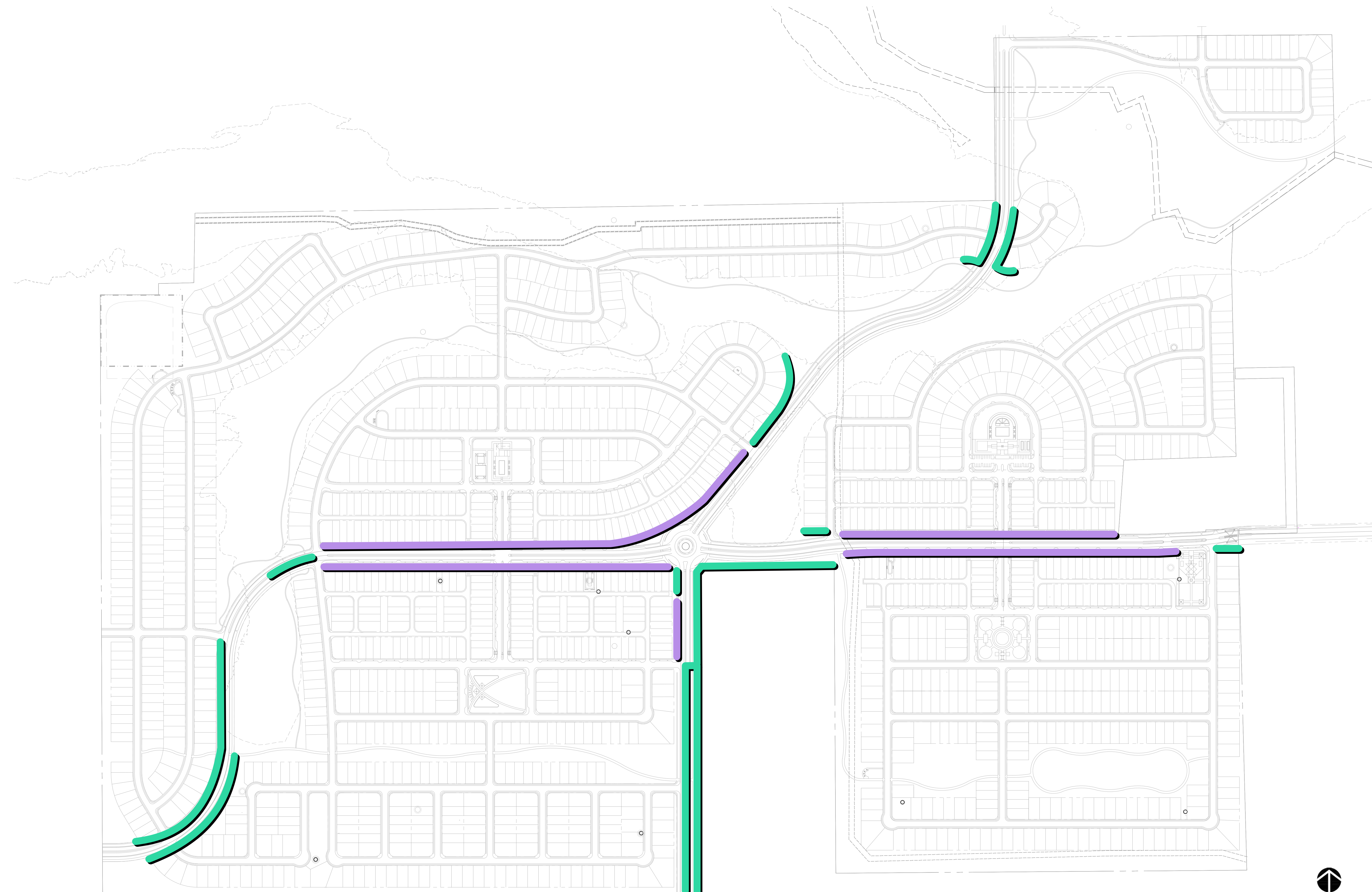
CUESTA

EXHIBIT B - CONCEPT PLAN / DEVELOPMENT PLAN









LEGEND

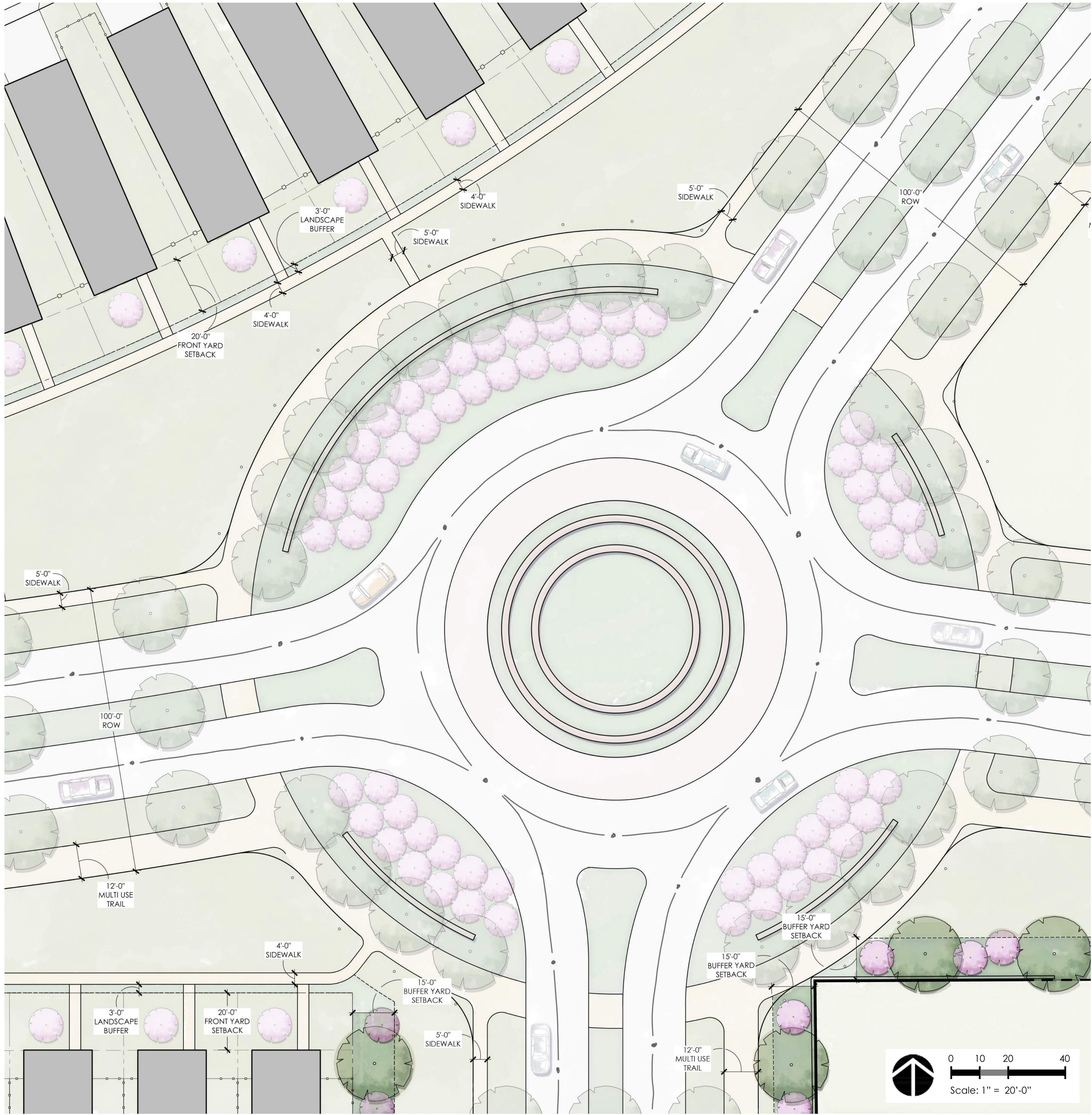
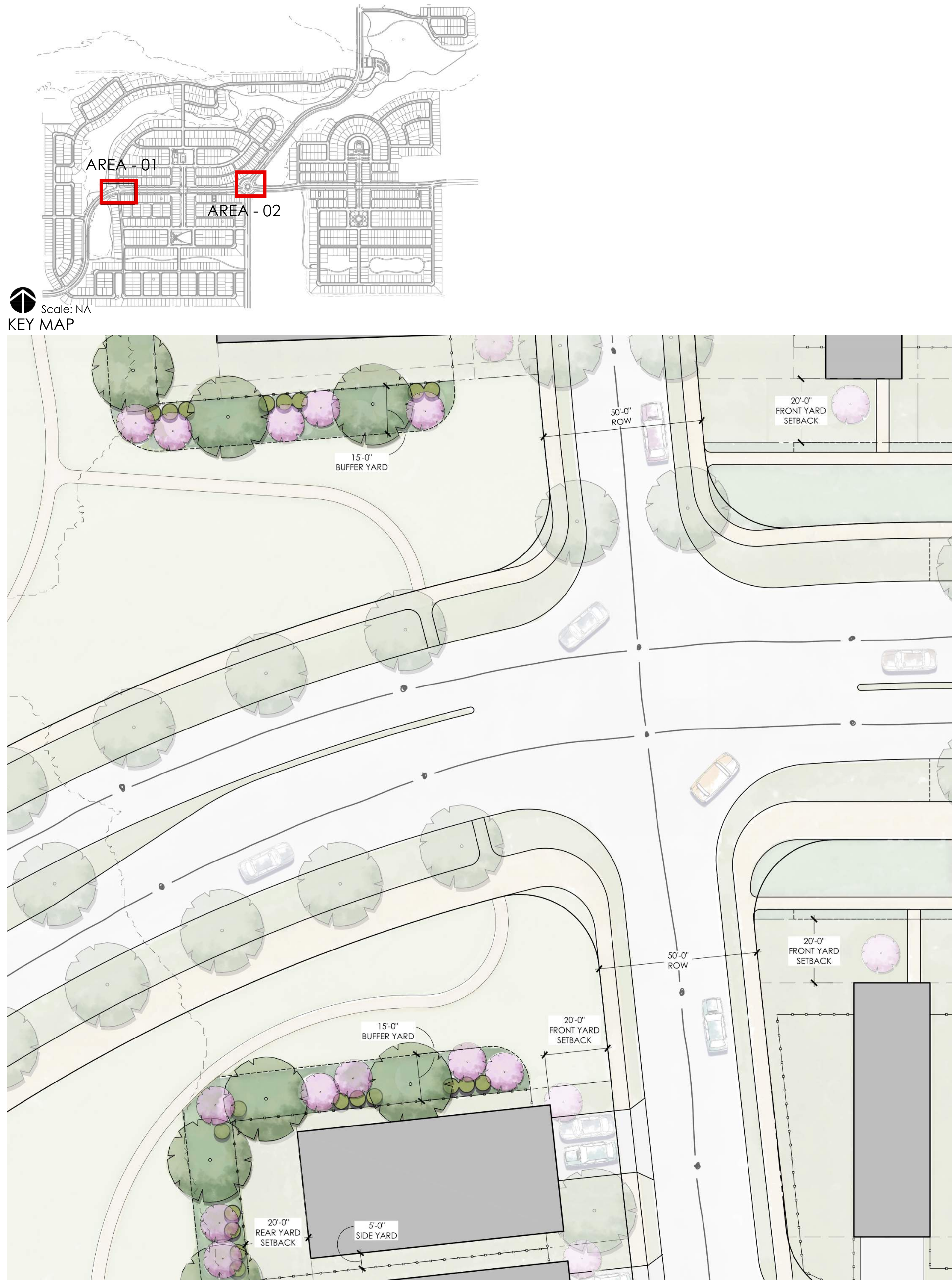
20 FT BUFFER YARD REQUIREMENT

15 FT BUFFER YARD REQUIREMENT

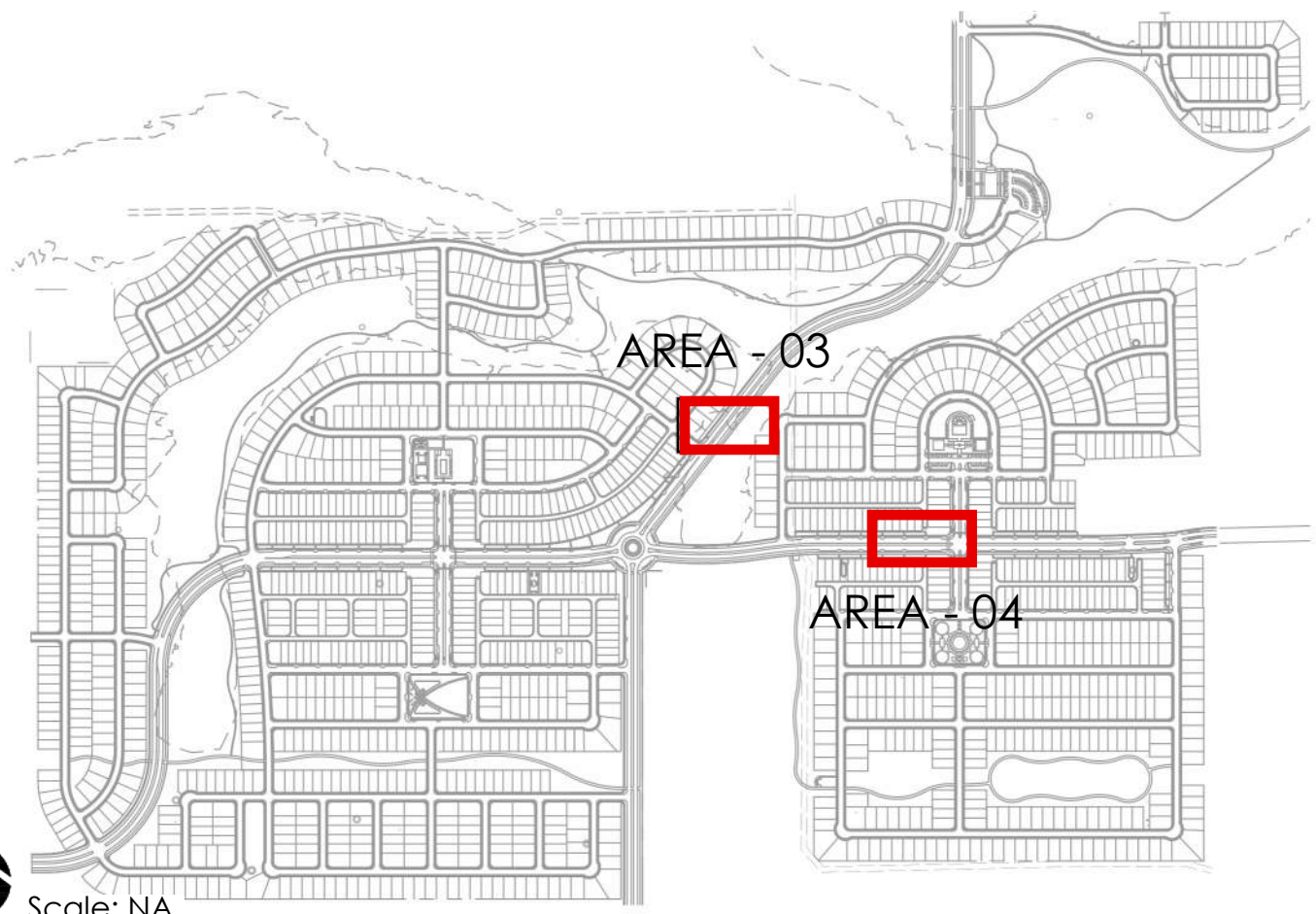
SCALE: NTS



P:\616195\Meritage Homes\001 Range Creek\Tolson Design\11 Planning & Zoning\11.01 PZ Final Docs Page 284 of 478



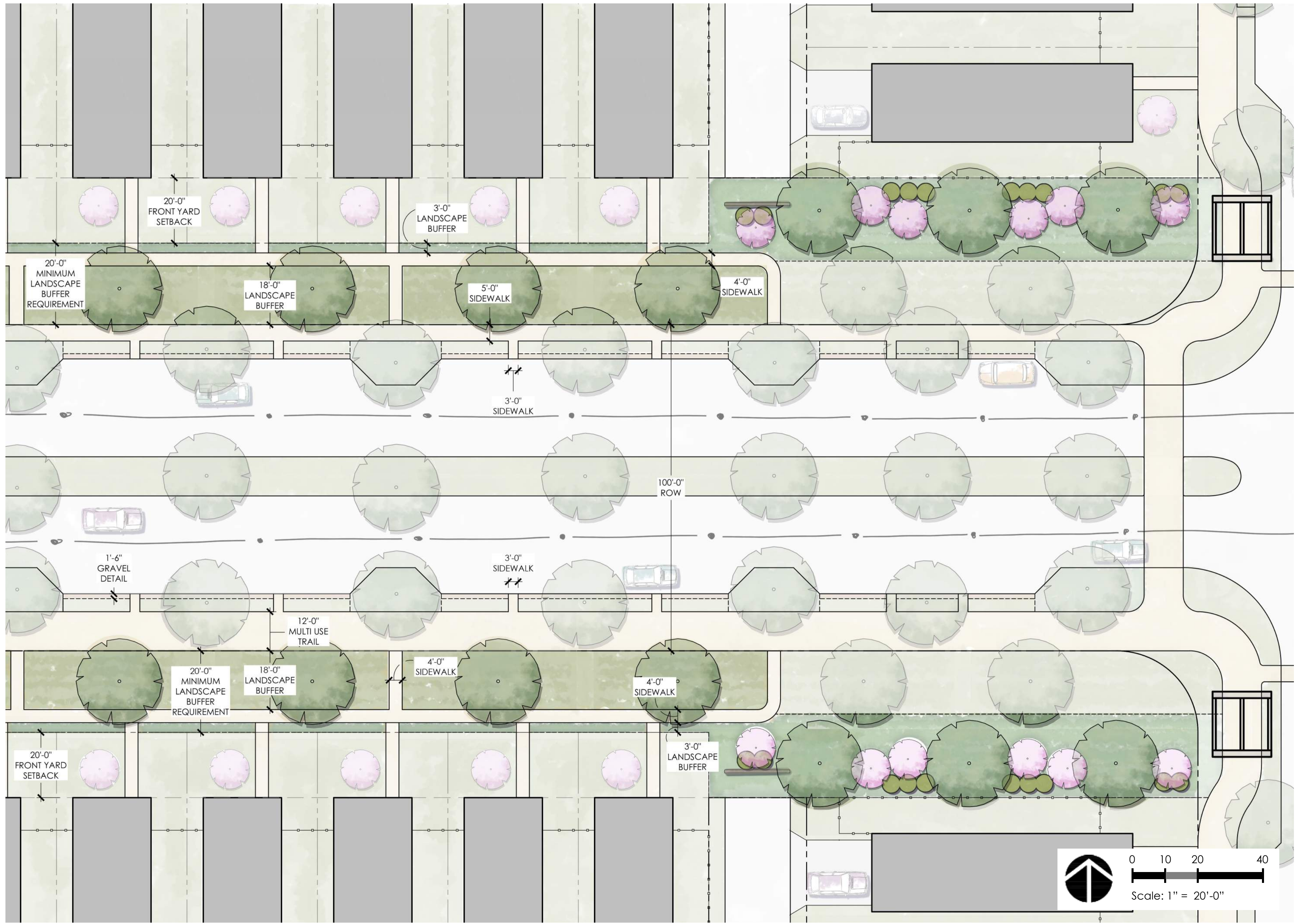




KEY MAP

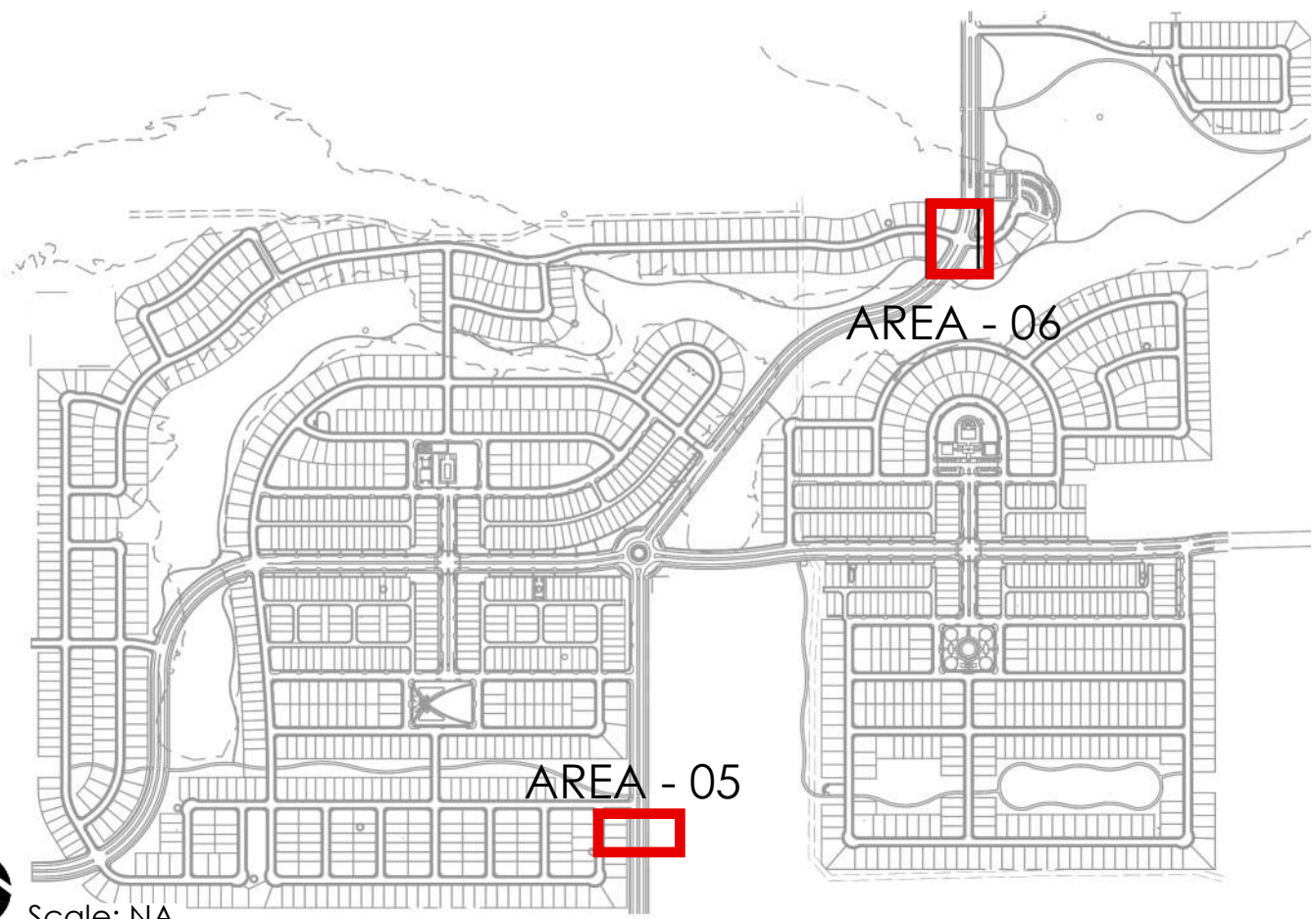


AREA - 03

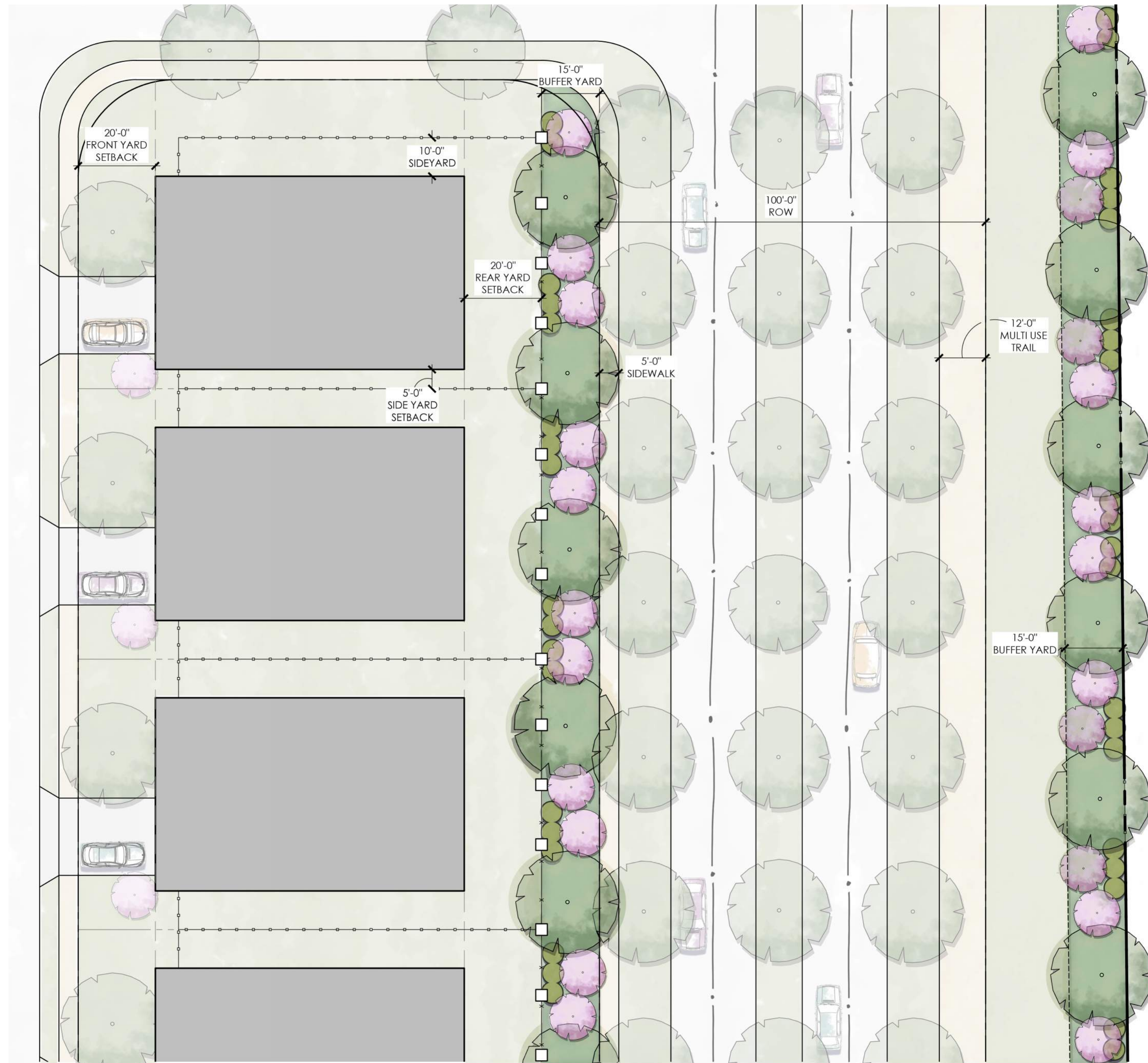


AREA - 04





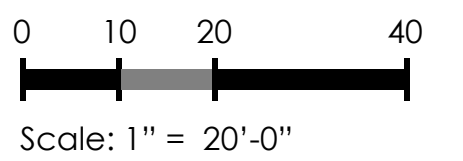
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KEY MAP



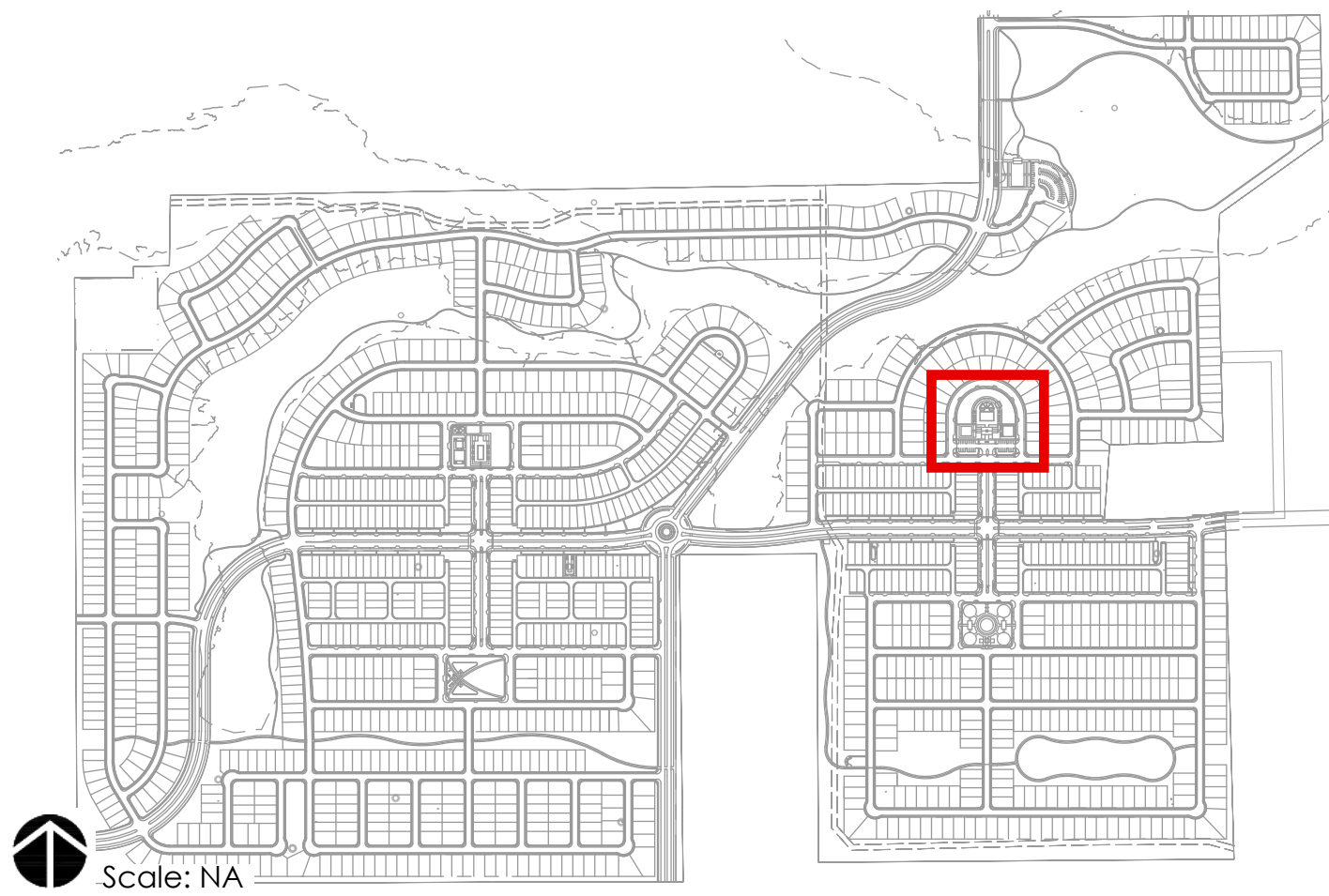
AREA - 05



AREA - 06







KEY MAP



ARCHITECTURAL AESTHETIC - 01



OPEN LAWN



CANOPY TREE OPTION



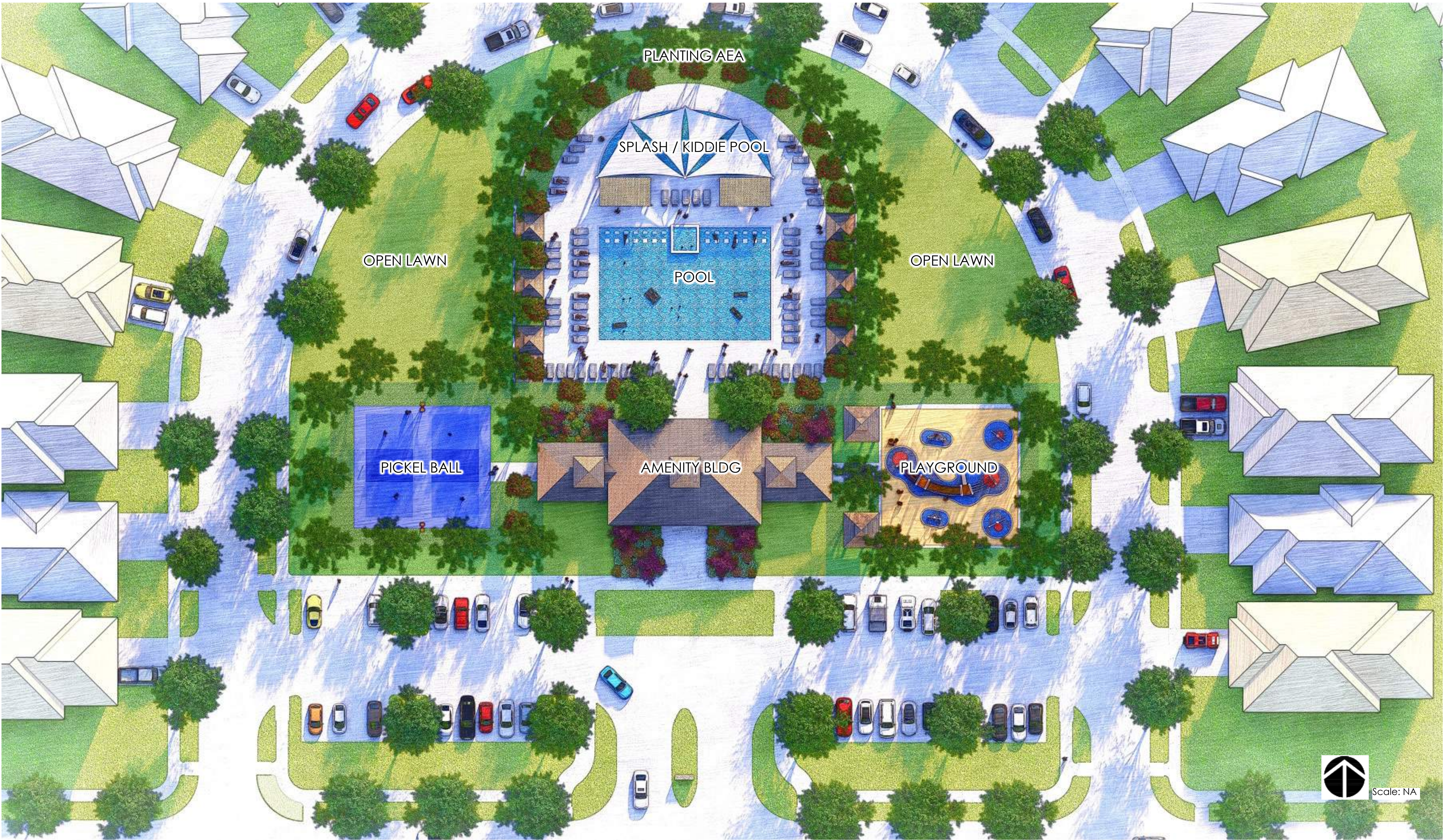
PLAYGROUND



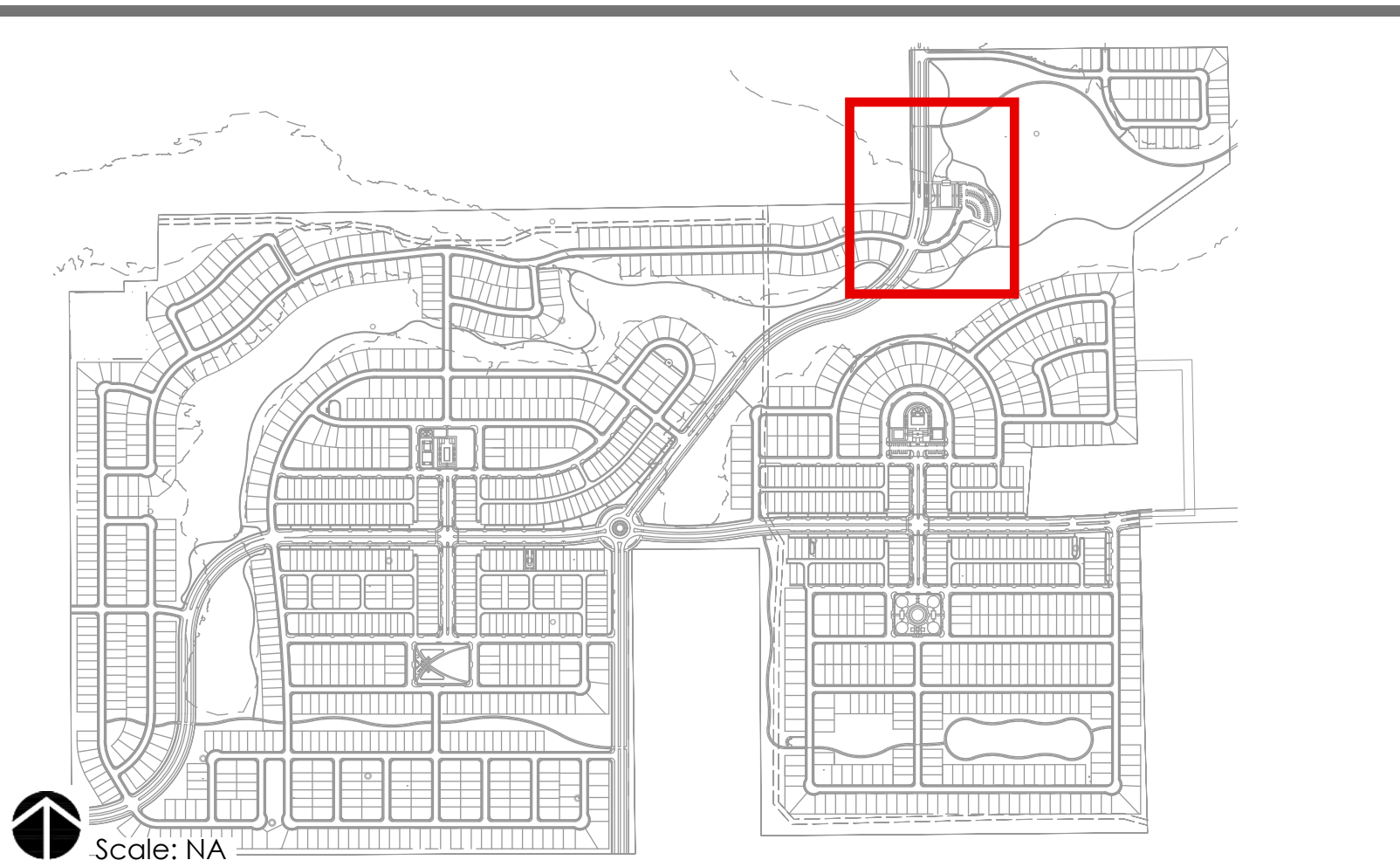
COMMUNITY POOL



PICKLE BALL COURT







KEY MAP



FARMERS MARKET



DEVELOPMENT SIGNAGE AT PAVILION



ARCHITECTURAL AESTHETIC



TEIRED FOUNTAIN INSPIRATION



SCUPPER FOUNTAIN INSPIRATION



Scale: NA



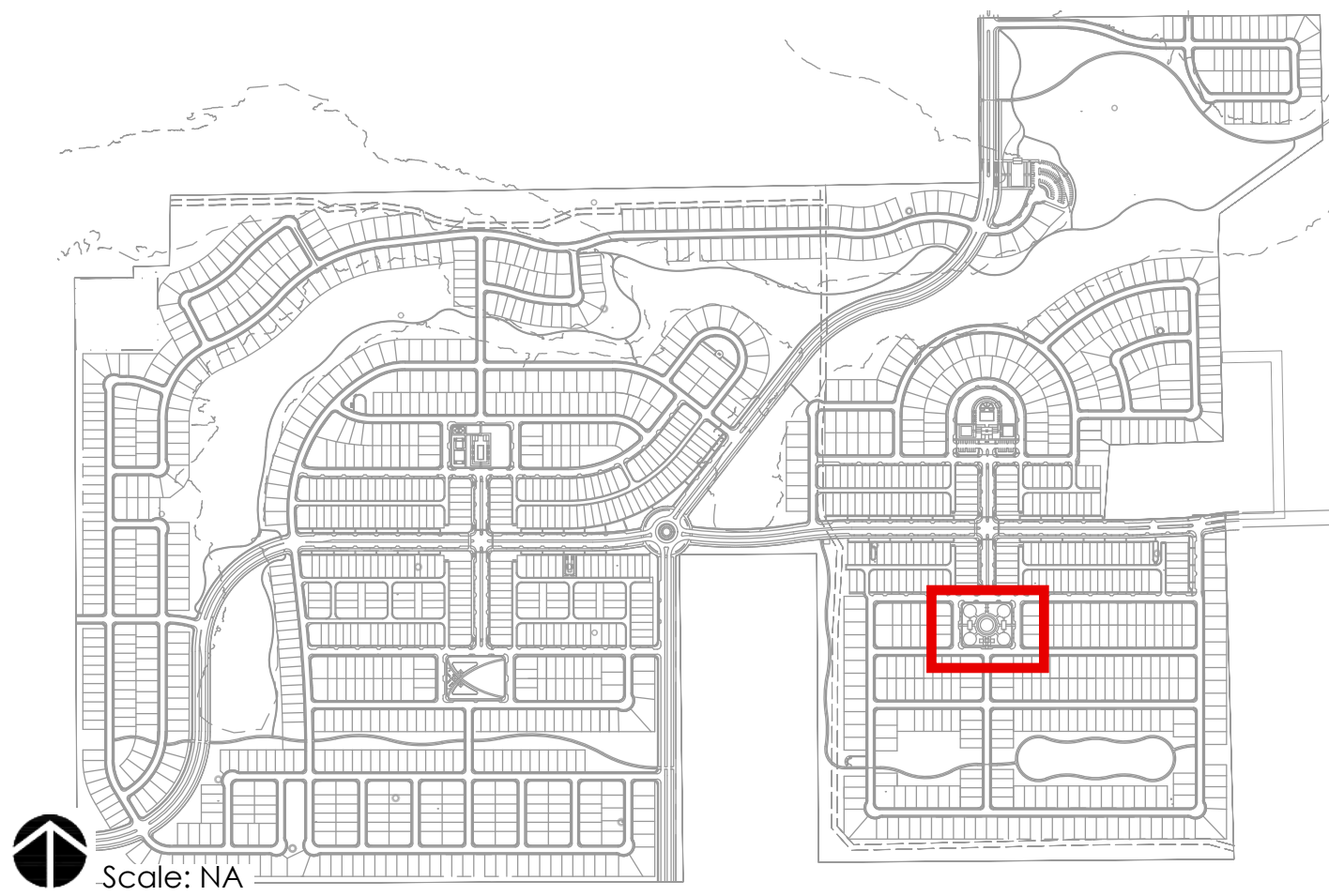
NOTE:  
COMPLETE/FULL PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT (CD) SET.  
CONSTRUCTION PLANS WILL BE REVIEWED BY THE  
PARKS BOARD AND APPROVED BY CITY COUNCIL

# CUESTA

## EXHIBIT F - AMENITY ENLARGEMENT - PUBLIC PAVILION PARK







KEY MAP



PAVILION - PICNIC / SEATING AREA



ENTRY ARBOR



KID PLAYGROUND



TODDLER-PRESCHOOLER PLAYGROUND



SPLASH PAD



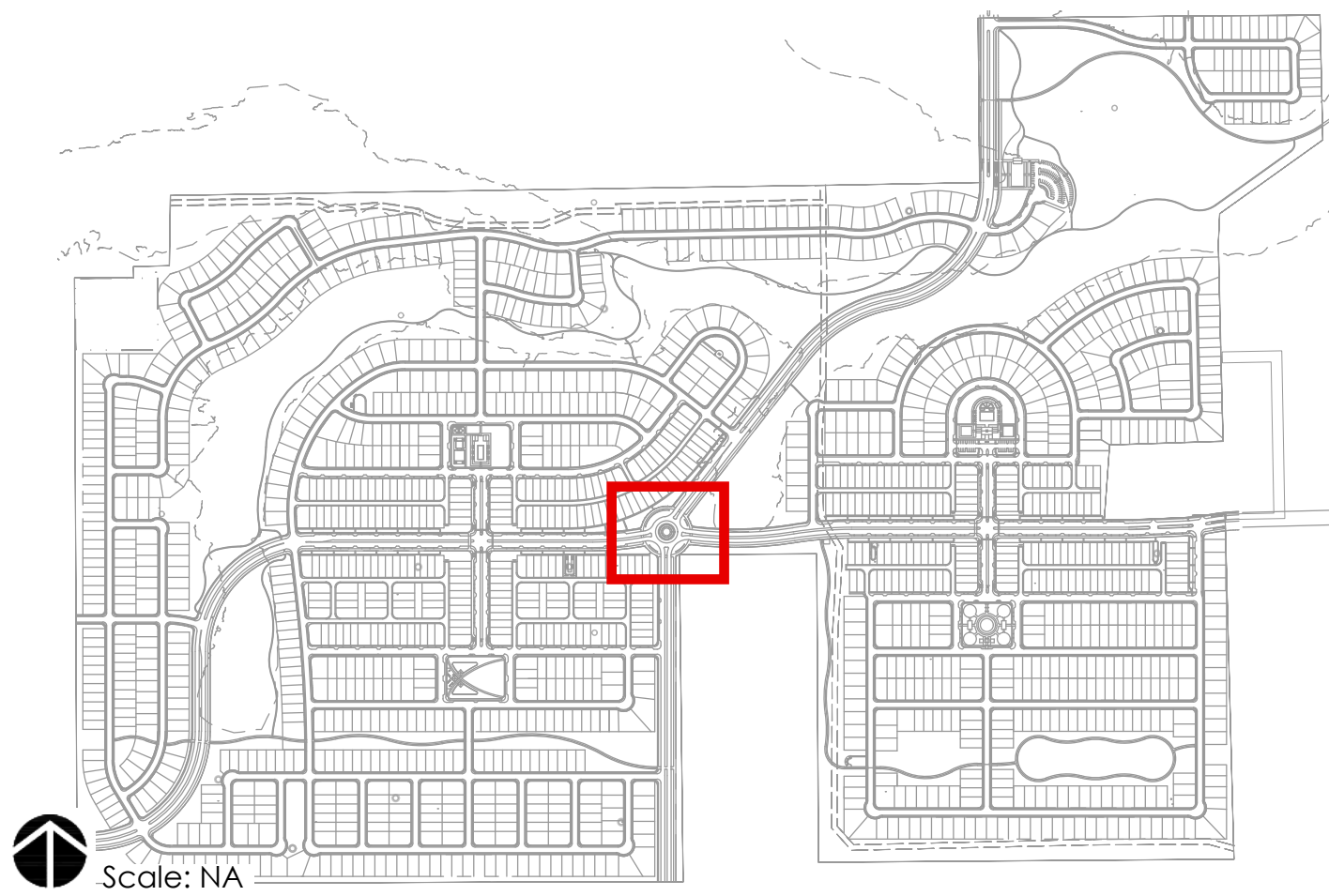
BASKETBALL COURT



# CUESTA

## EXHIBIT F - AMENITY ENLARGEMENT - PUBLIC PLAY PARK





KEY MAP



FLAG CITY DETAIL



ORNAMENTAL TREE DETAIL



ROUNDBOUT TREE DETAIL



MULTI USE TRAIL



ROUNDBOUT SCULPTURE - OPTION 02

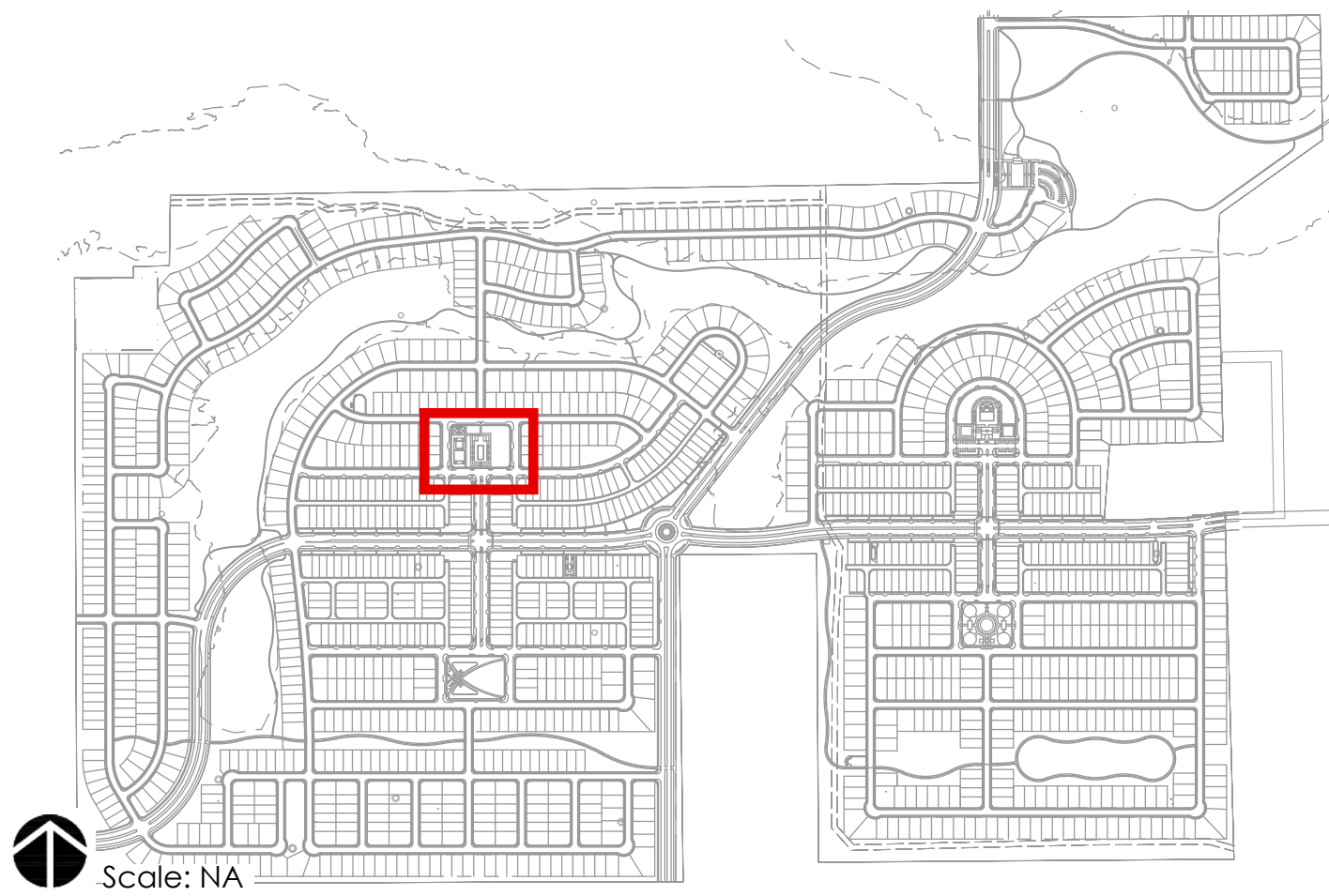


ROUNDBOUT SCULPTURE - OPTION 01



Scale: NA





KEY MAP



CABANA DETAIL



COMMUNITY POOL



OPEN LAWN



CANOPY TREES



ARCHITECTURAL AESTHETIC - AMENITY CENTER



PLAYGROUND



NOTE:  
COMPLETE/FULL PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT (CD) SET.  
CONSTRUCTION PLANS WILL BE REVIEWED BY THE  
PARKS BOARD AND APPROVED BY CITY COUNCIL.

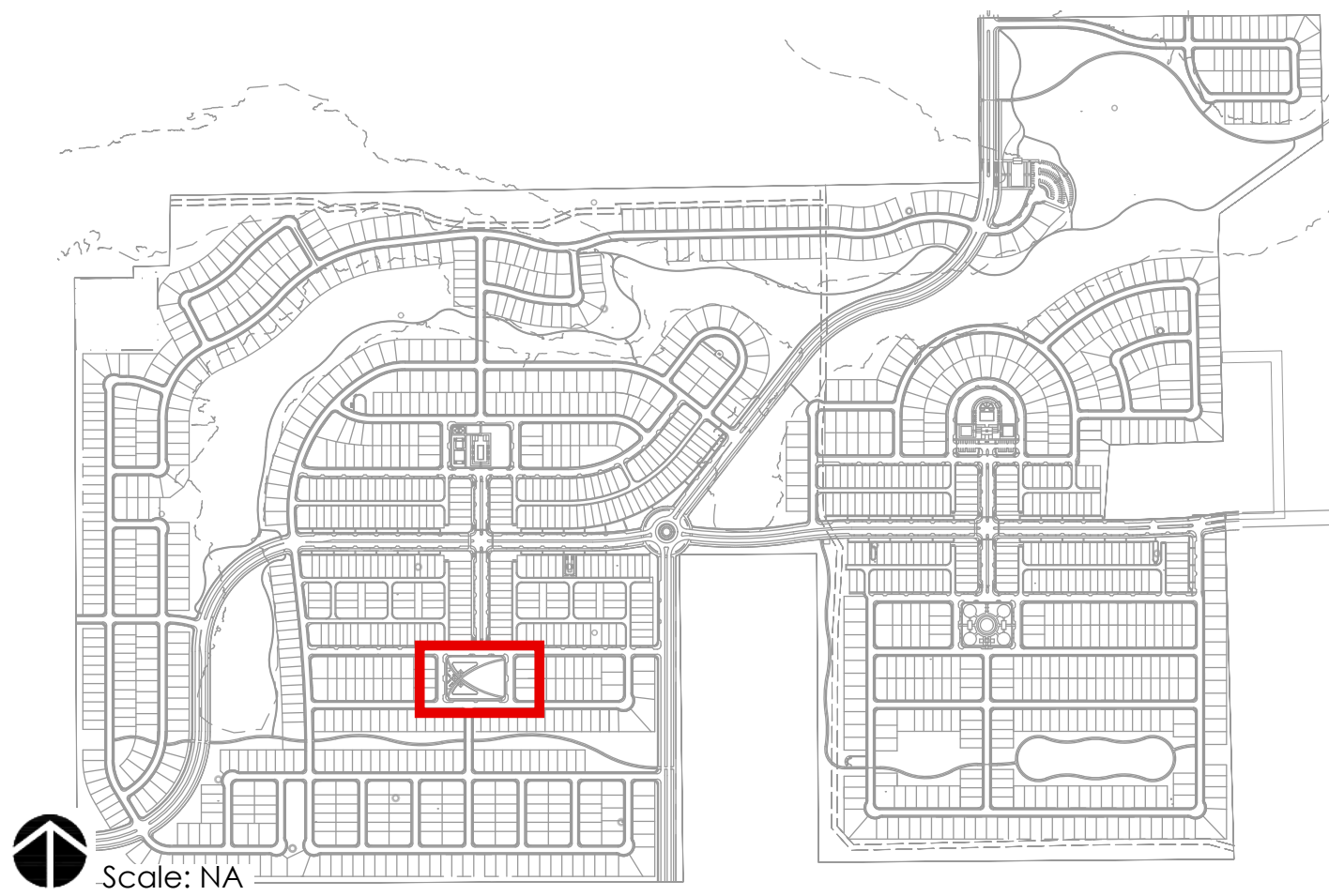
## CUESTA

EXHIBIT F - AMENITY ENLARGEMENT - NORTH WEST AMENITY CENTER (PRIVATE / HOA)

Kimley»Horn

TALSON  
DESIGN





KEY MAP



PARK INSPIRATION



OPEN LAWN



PAVILION SEATING



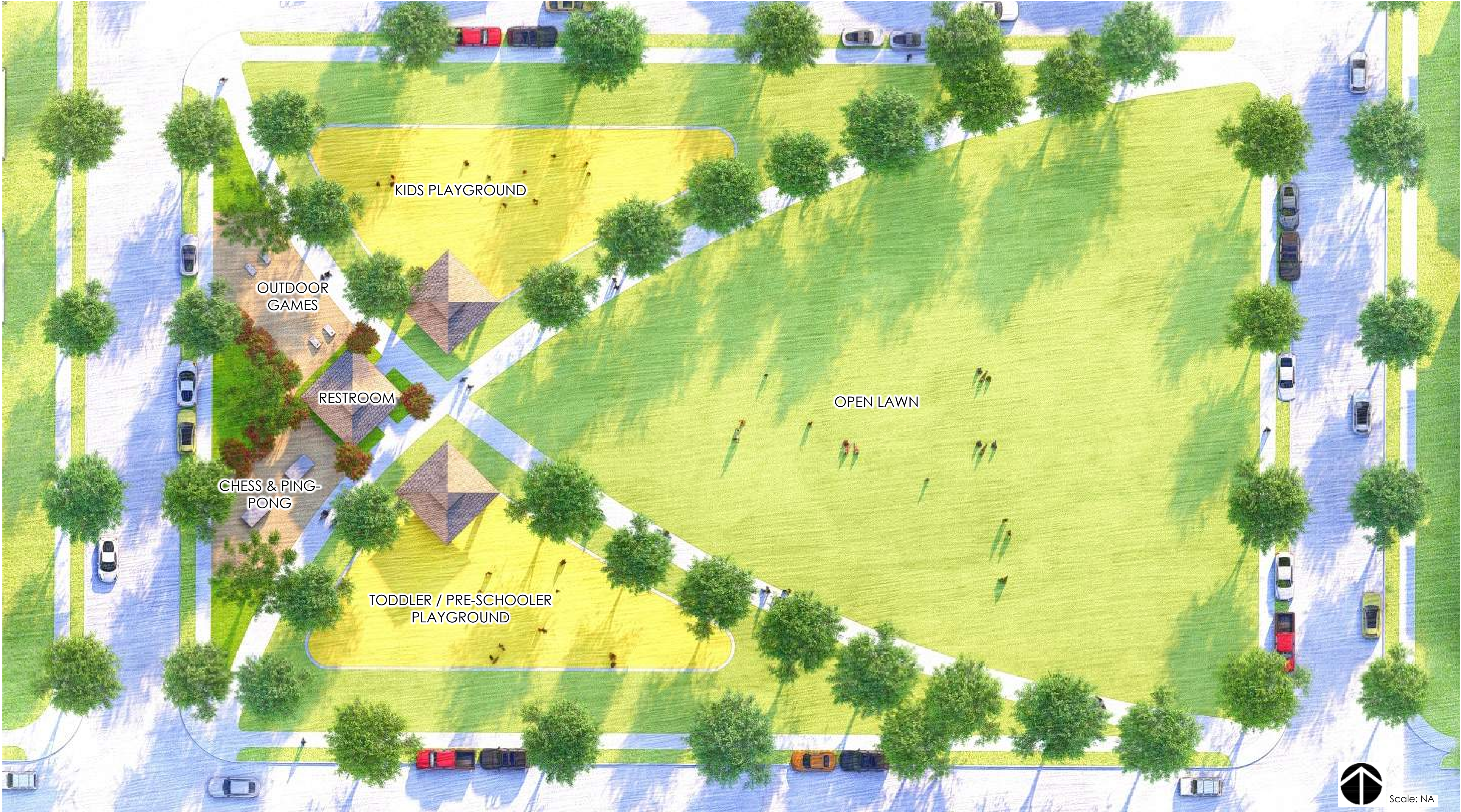
CANOPY TREE DECIDUOUS



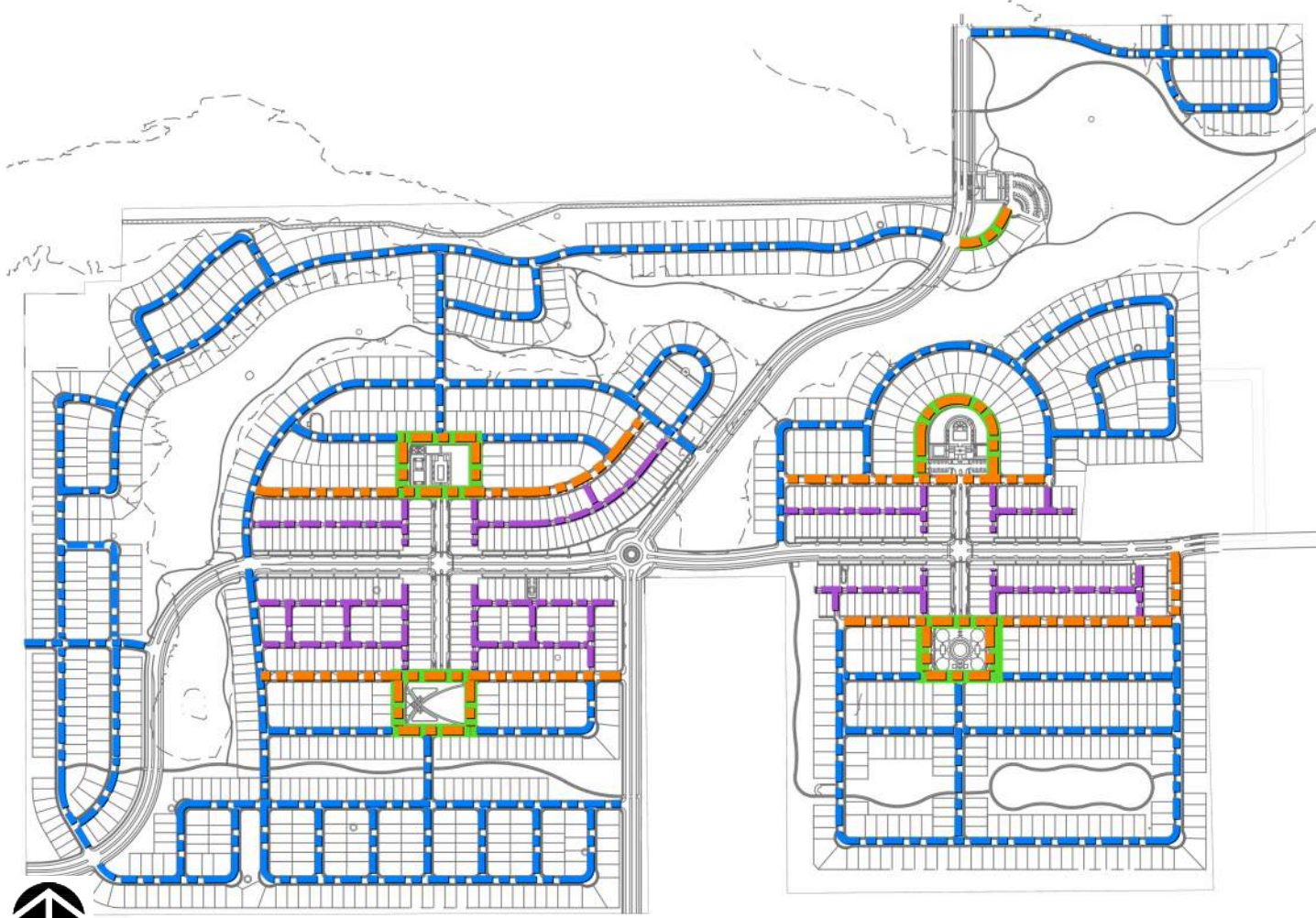
OUTDOOR GAMES & AMENITIES



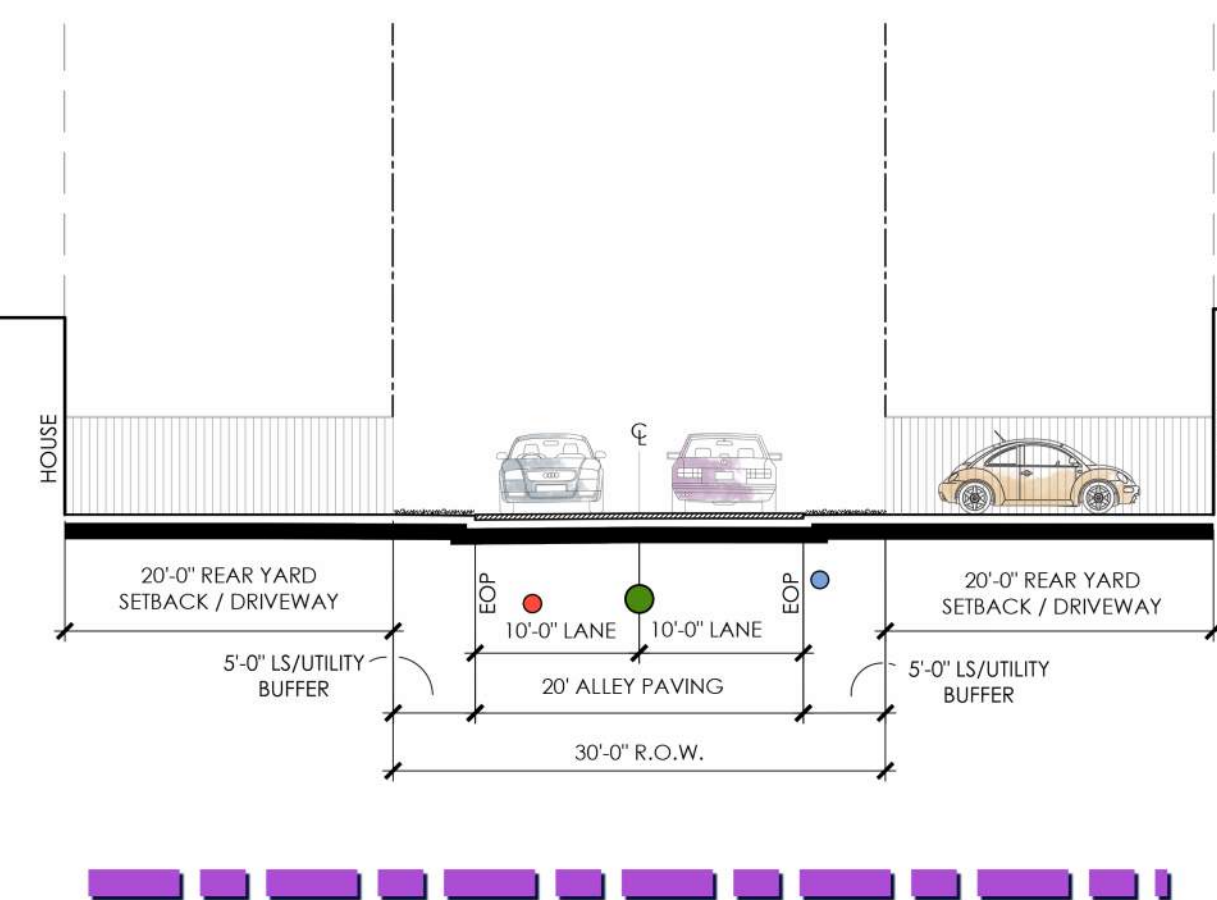
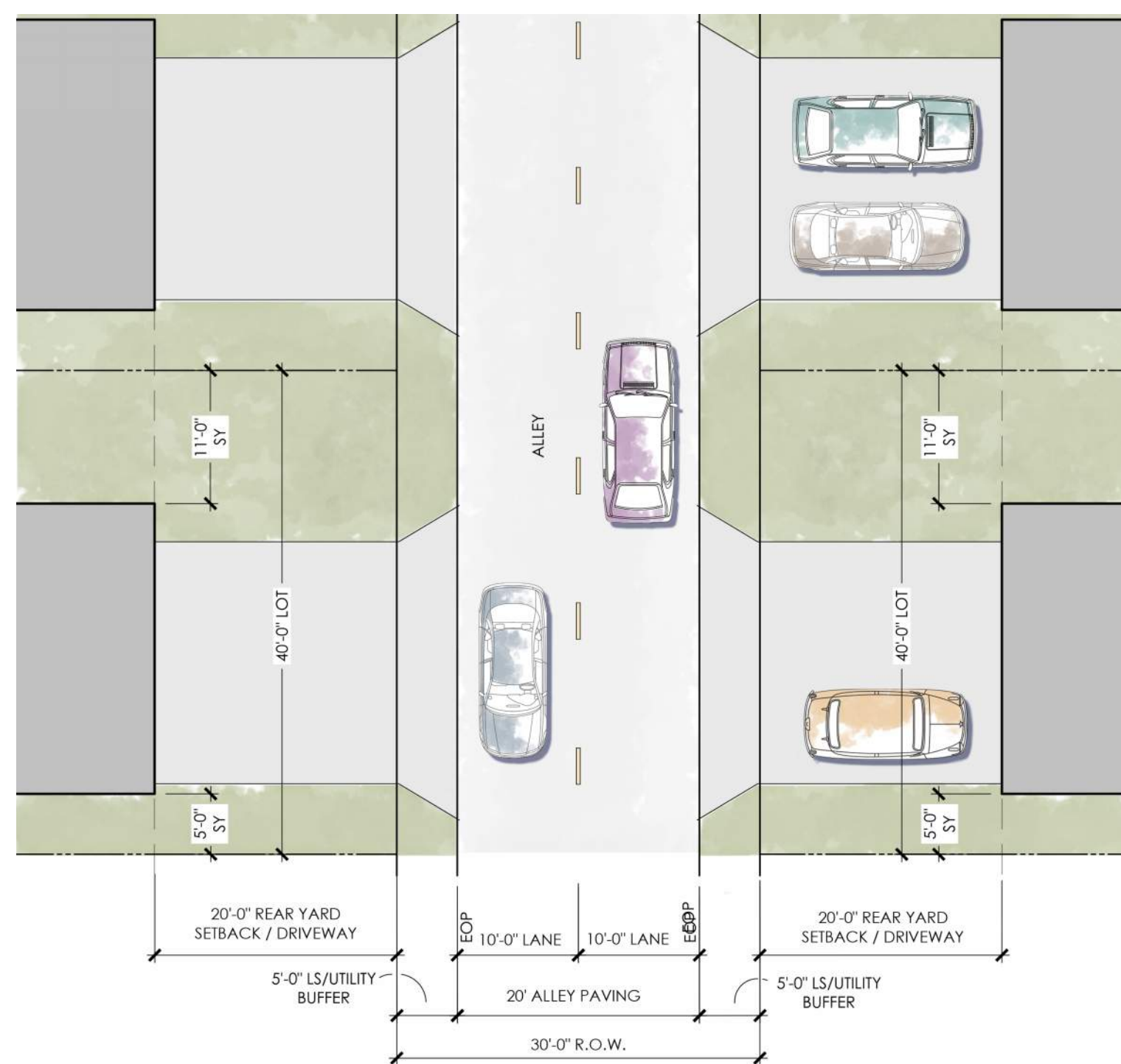
TODDLER-PRE SCHOOLER / KIDS PLAYGROUND



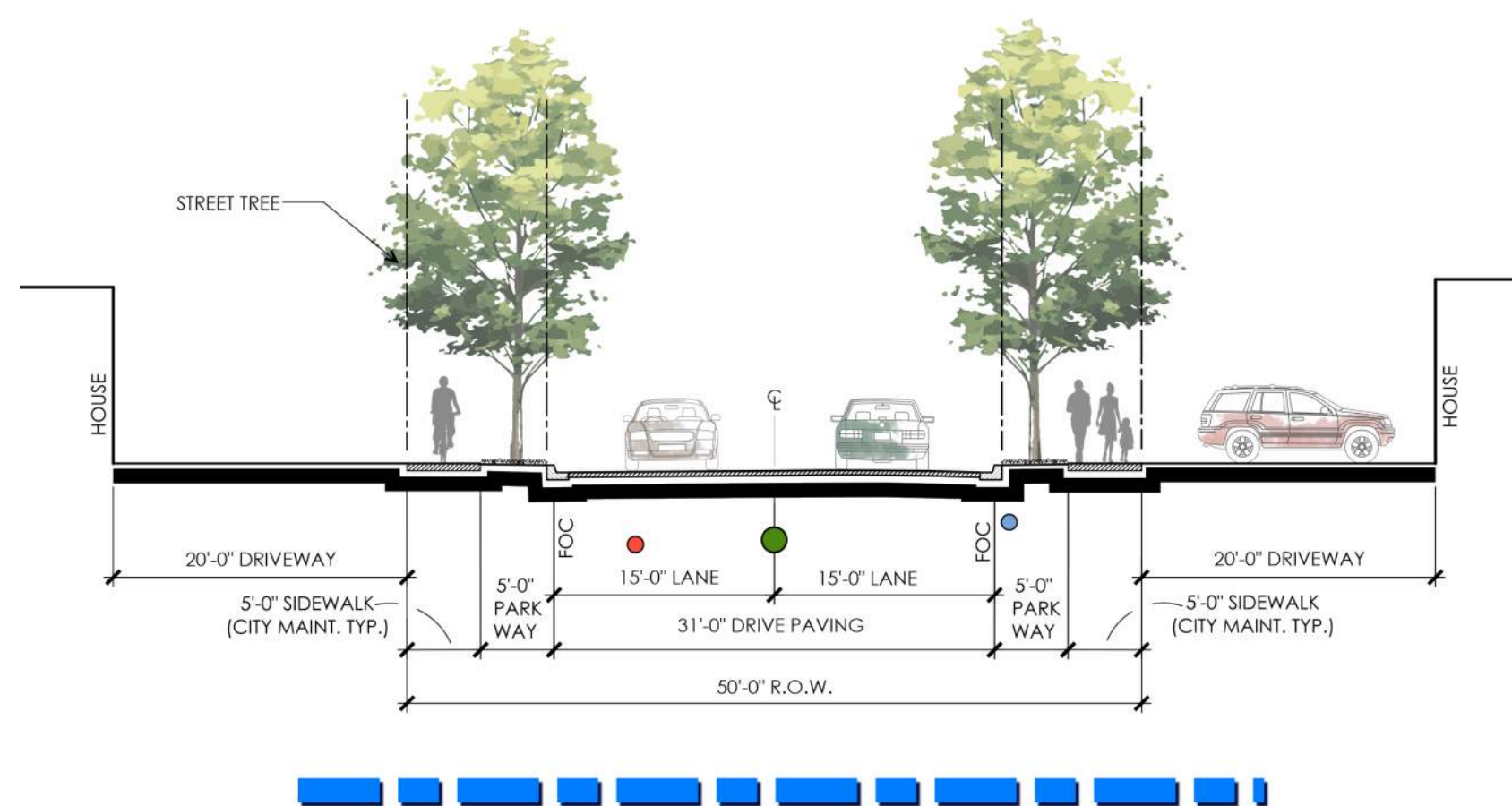
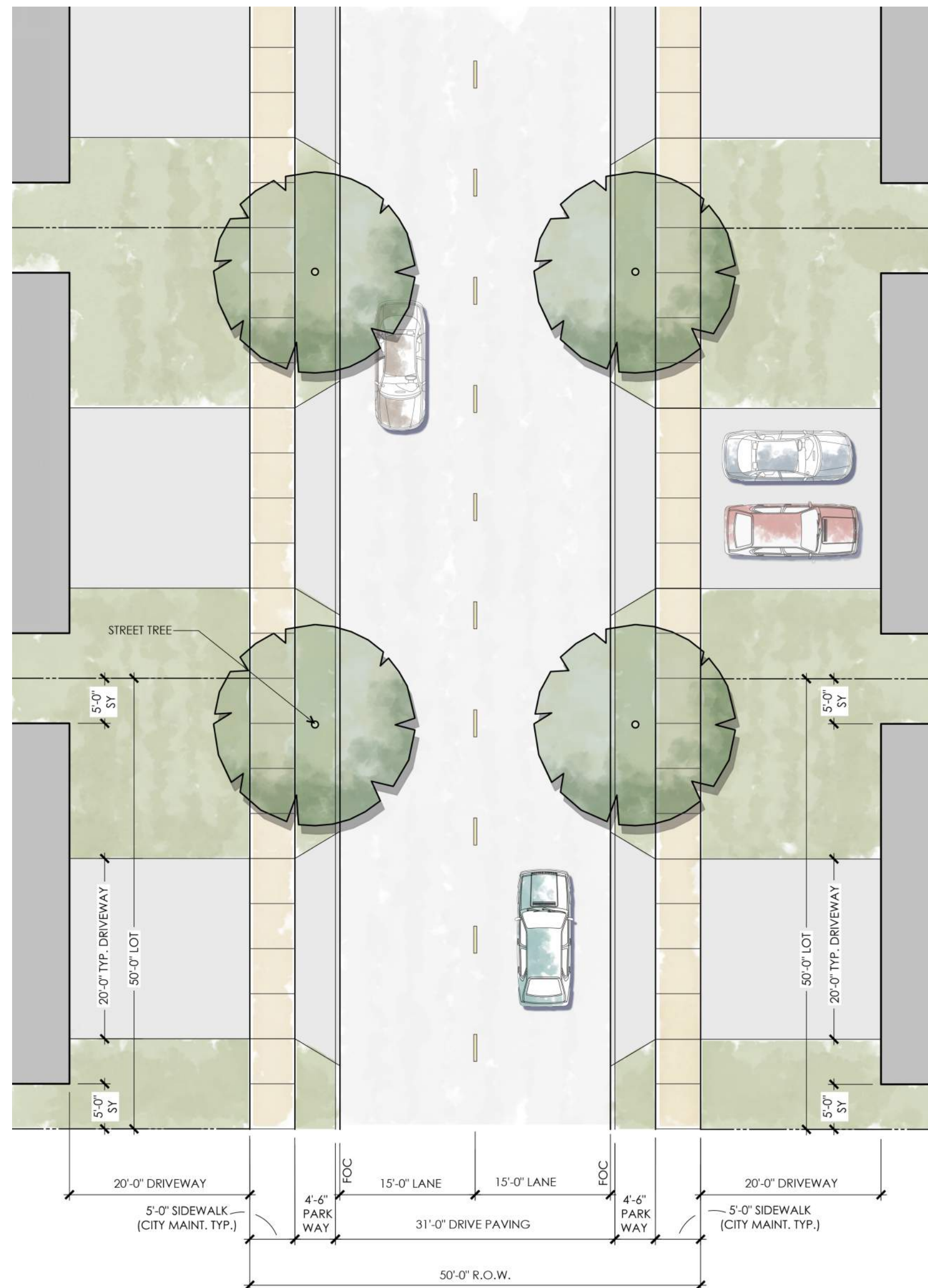




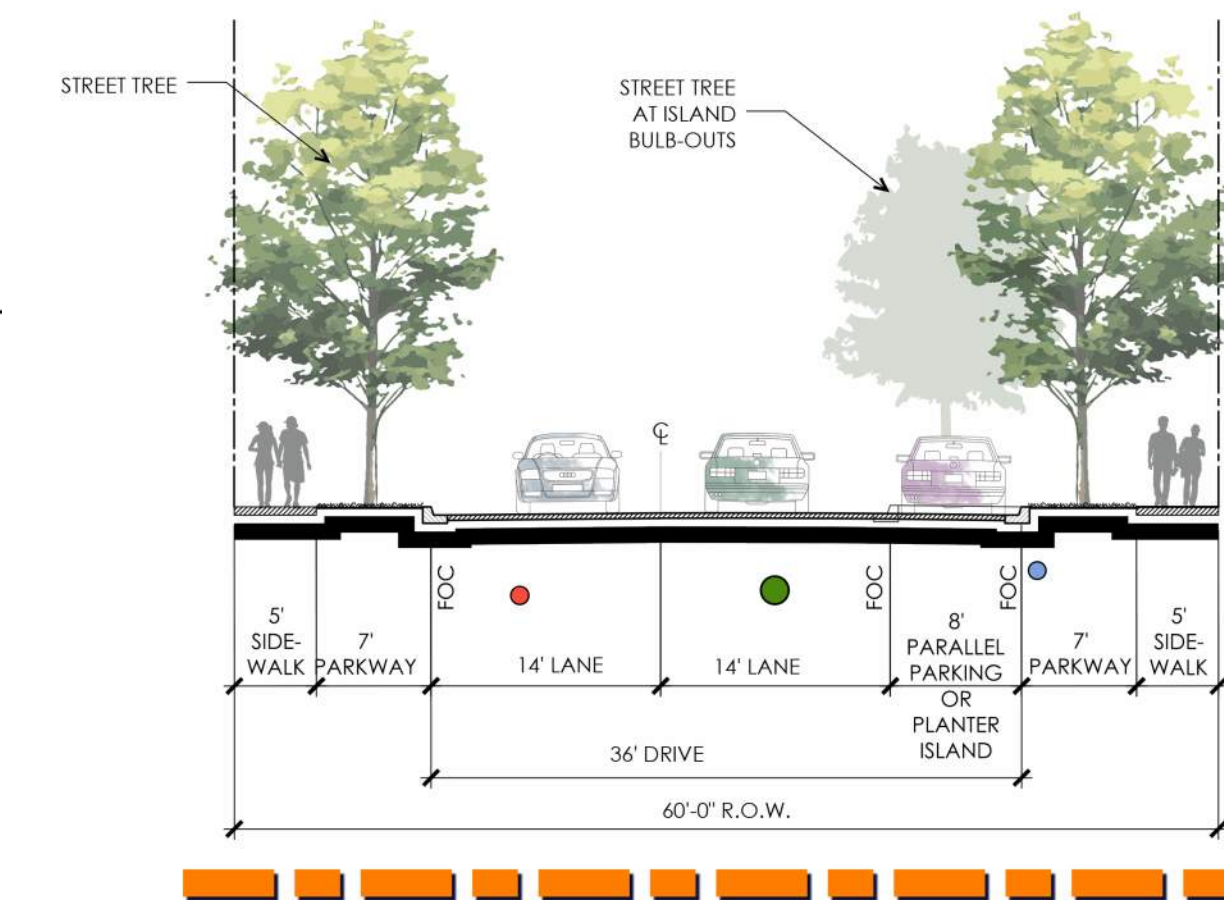
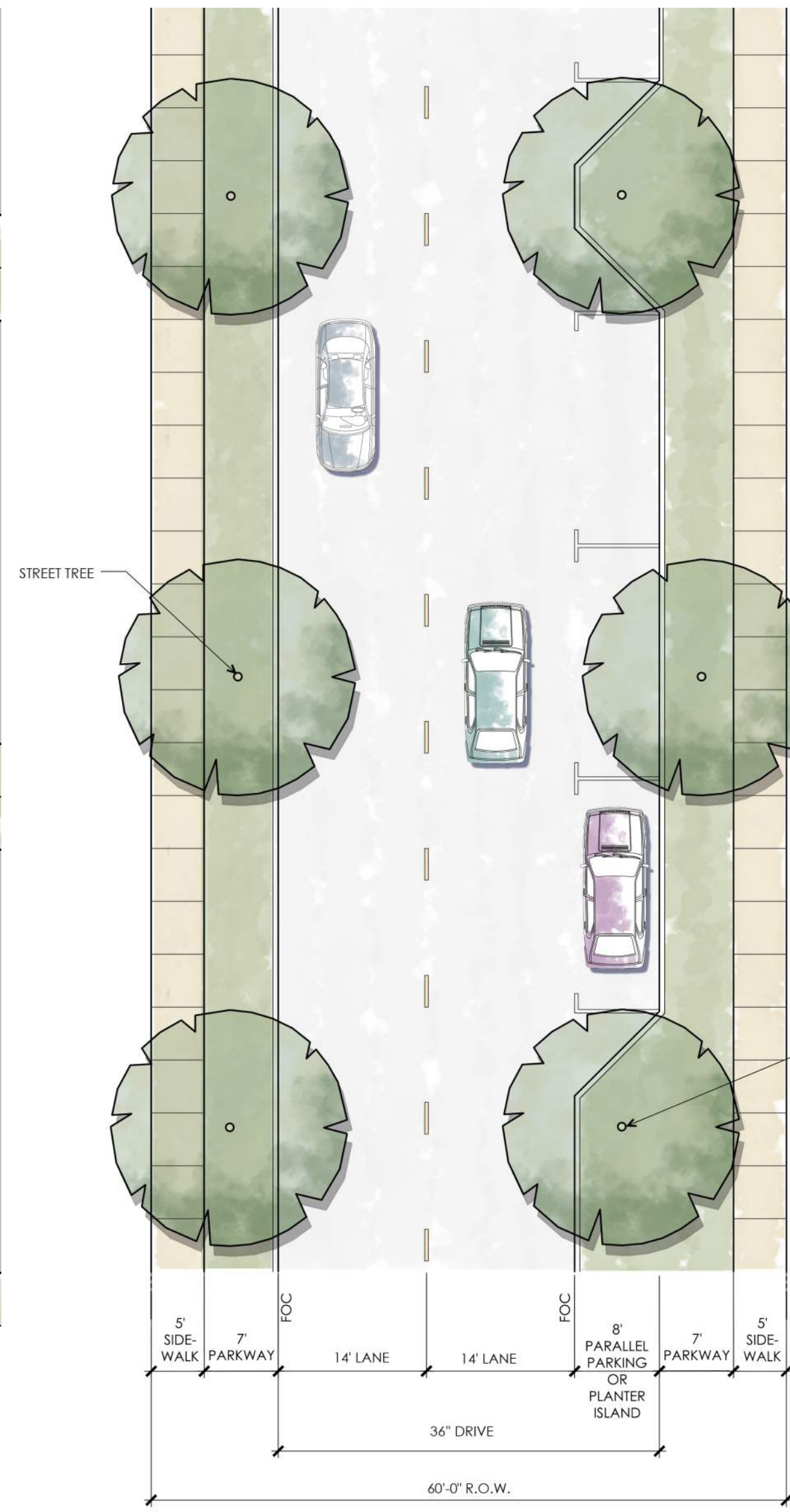
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KEY MAP



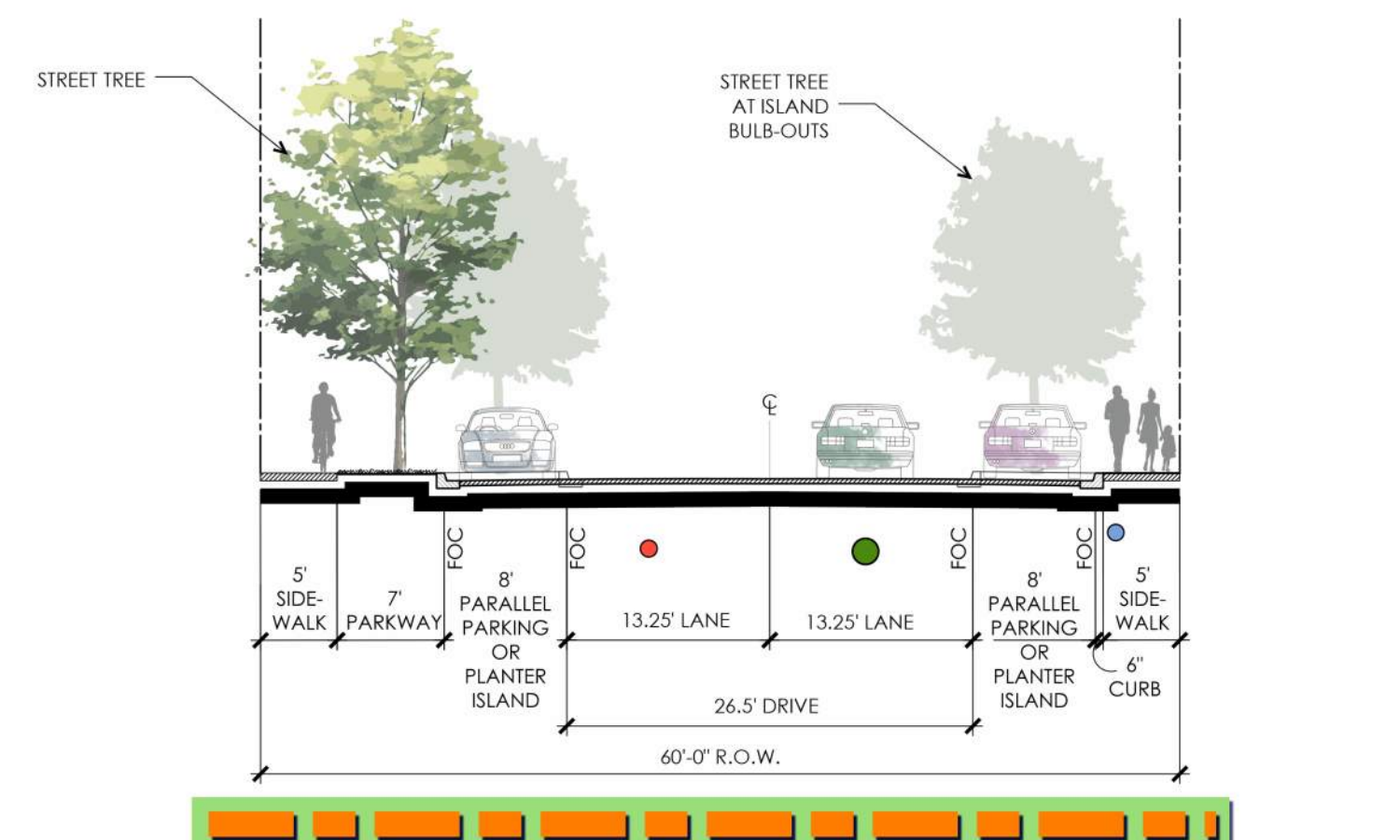
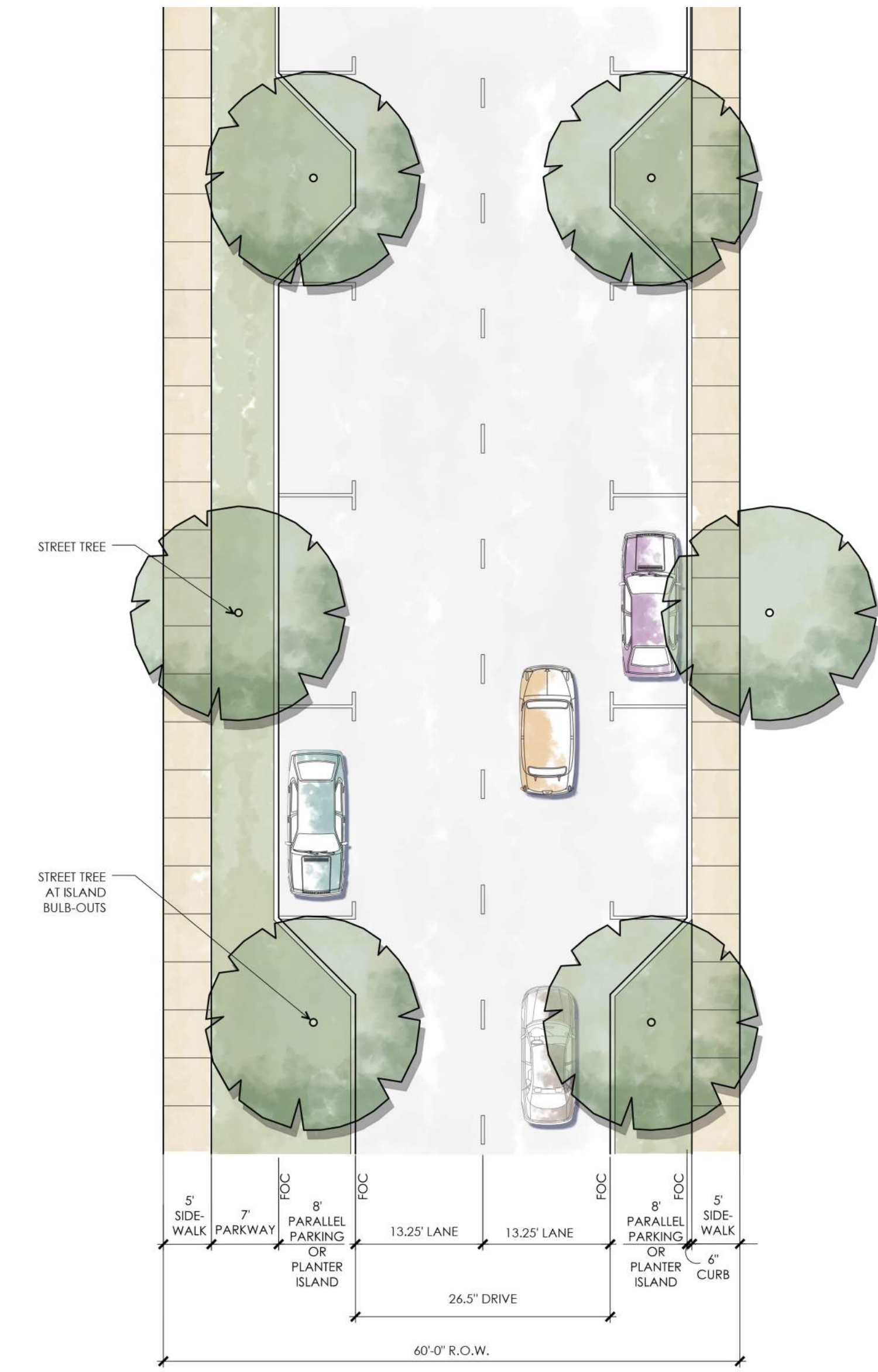
30 Ft Alley ROW Street Plan / Section



50 Ft ROW Street Plan / Section



60 Ft ROW Street Plan / Section - Type A



60 Ft ROW Street Plan / Section - Type B

| UTILITY LEGEND                       |                |
|--------------------------------------|----------------|
| <span style="color: blue;">●</span>  | WATER MAIN     |
| <span style="color: green;">●</span> | STORM          |
| <span style="color: red;">●</span>   | SANITARY SEWER |

CUESTA

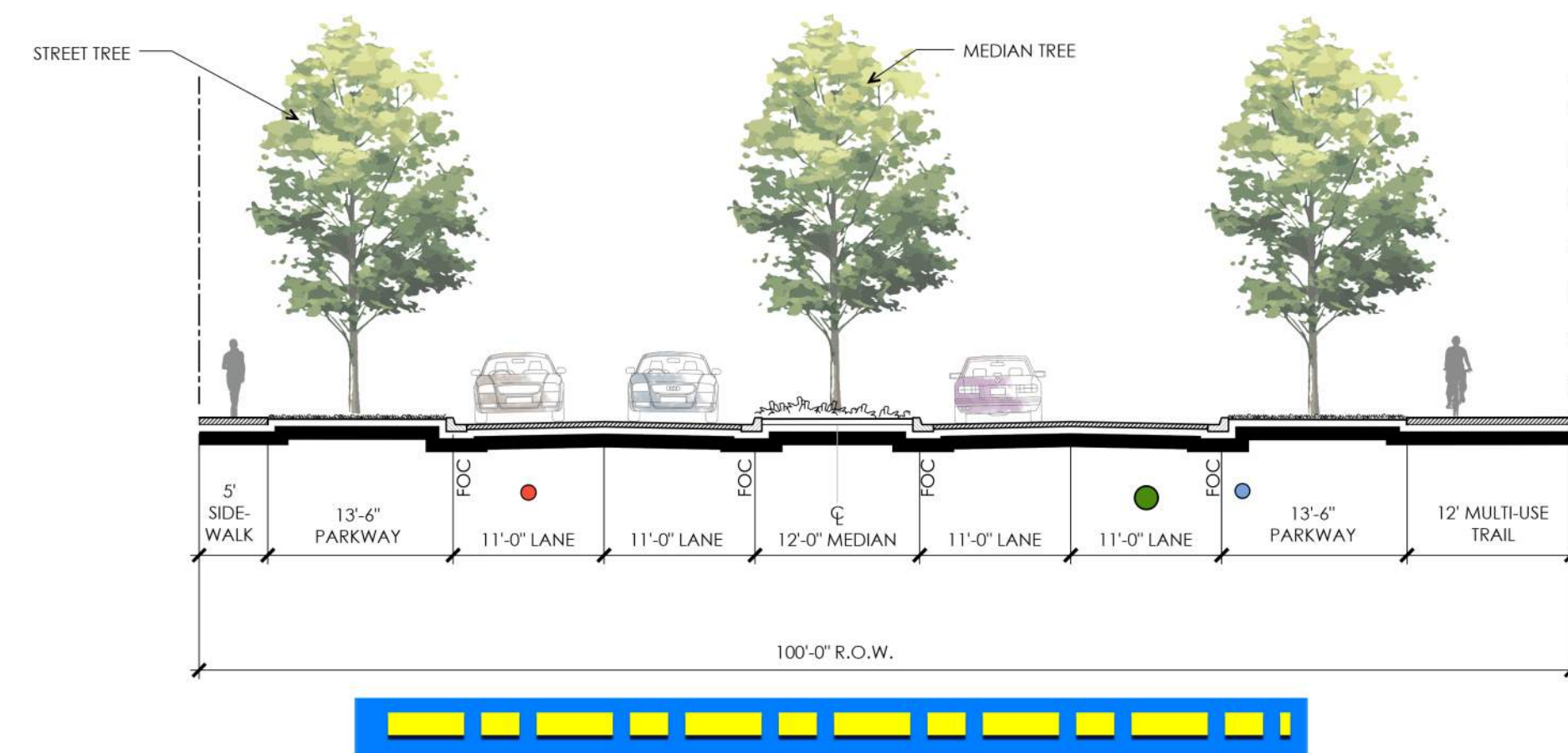
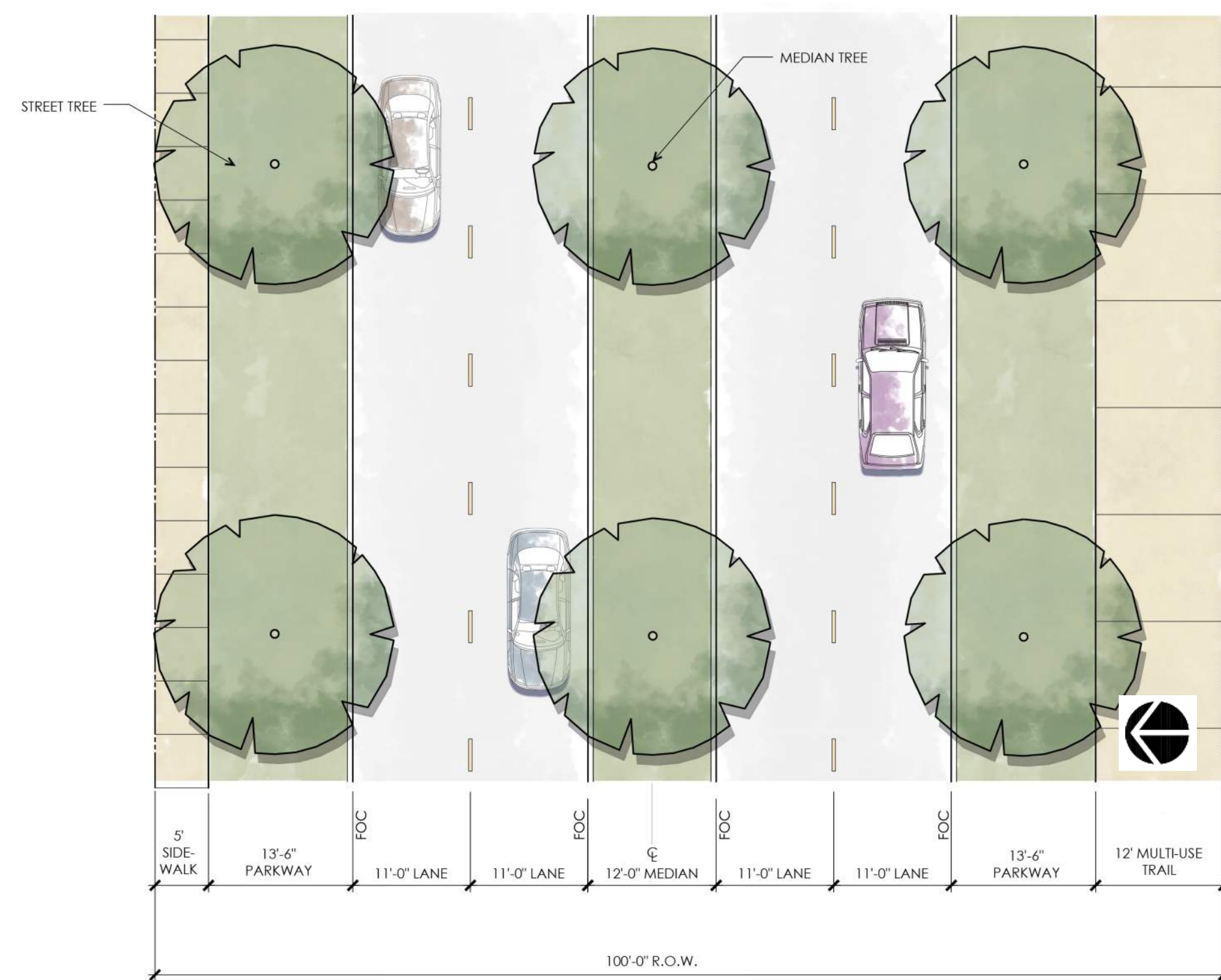
EXHIBIT G - STREET PLAN / SECTION

Kimley»Horn TALSON  
DESIGN

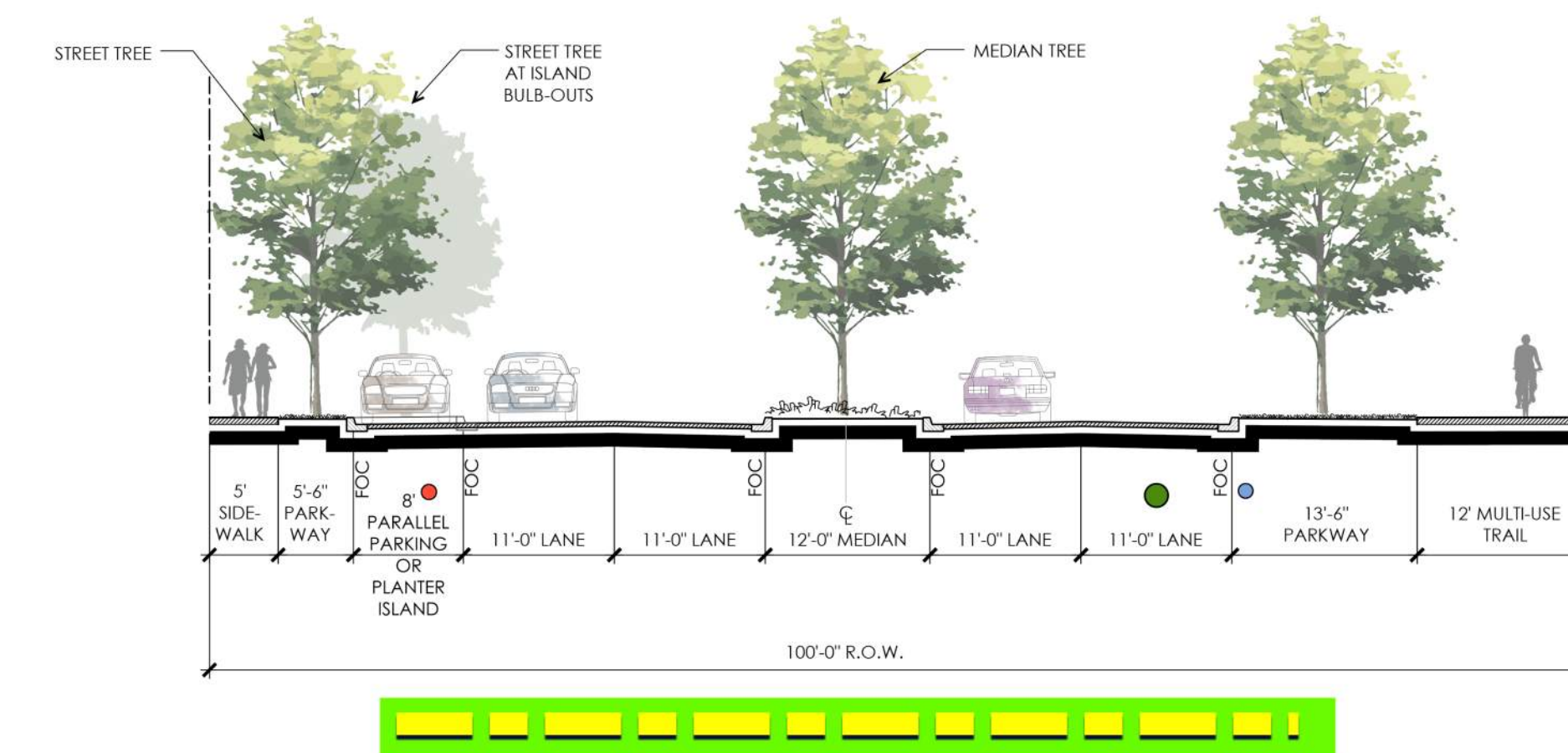
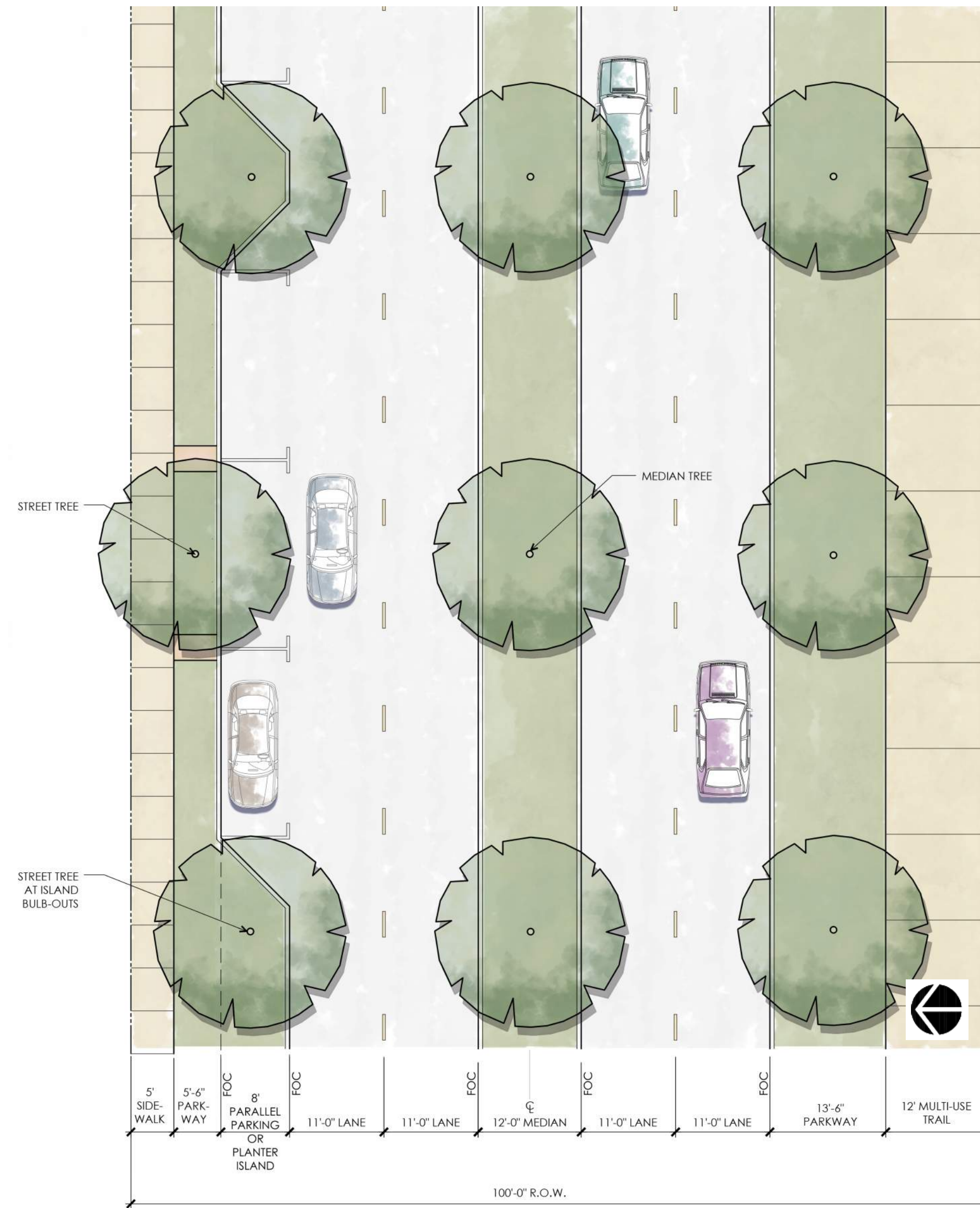




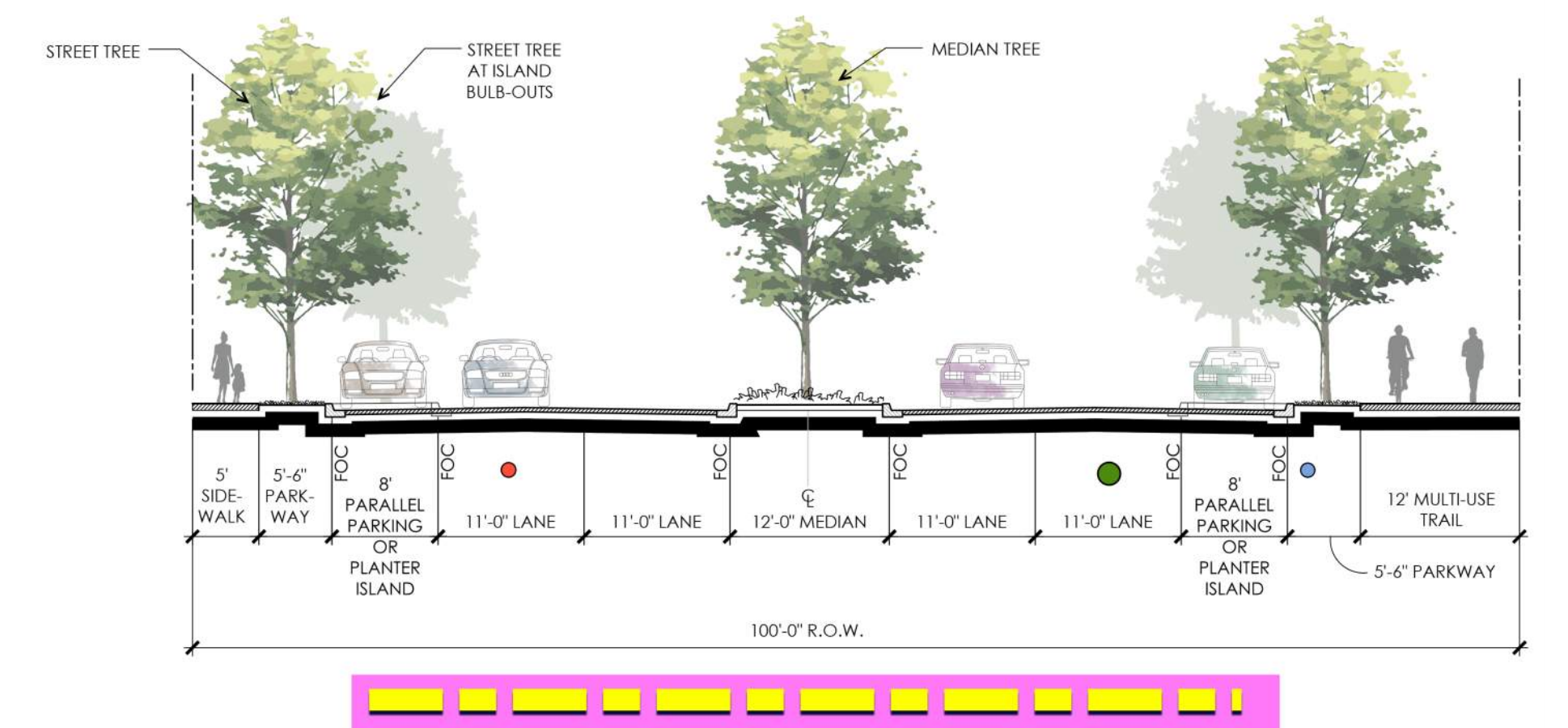
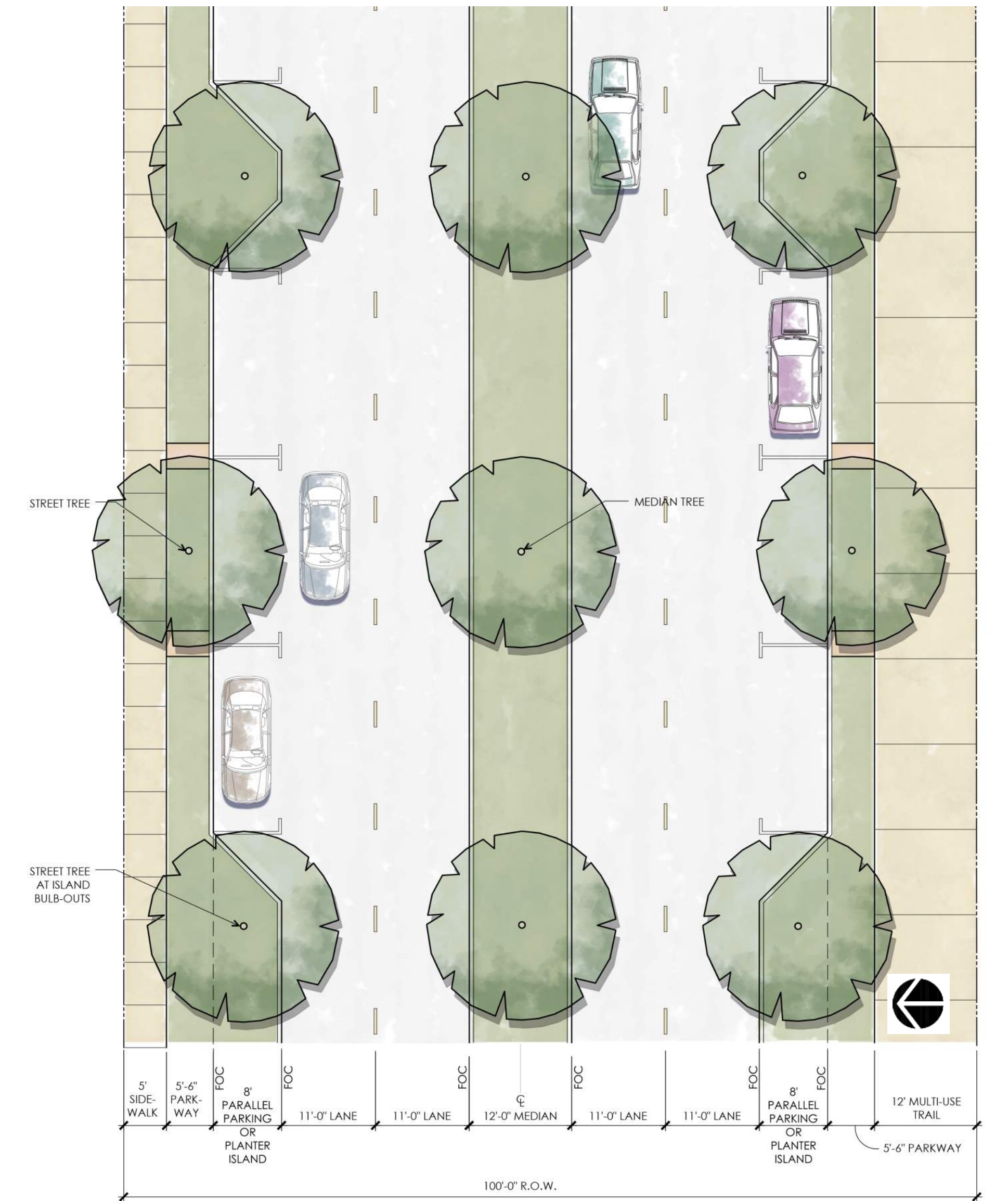
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KEY MAP



100 Ft ROW - Type A Street Plan / Section



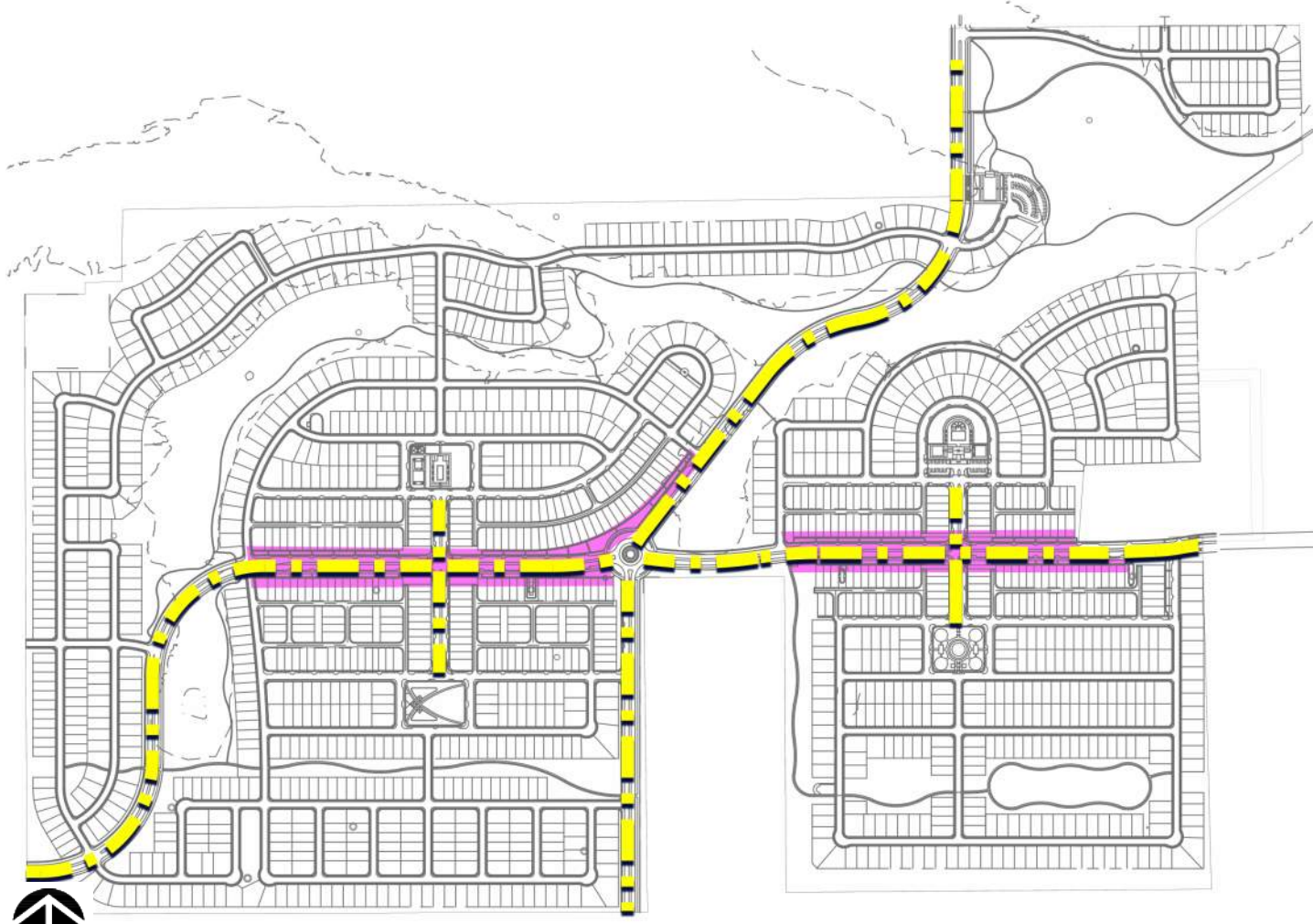
100 Ft ROW - Type B Street Plan / Section



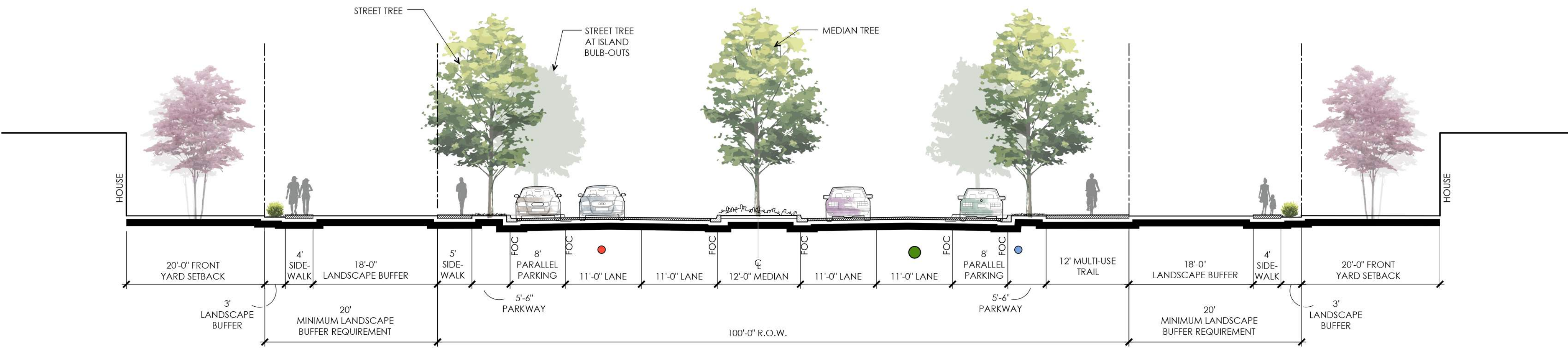
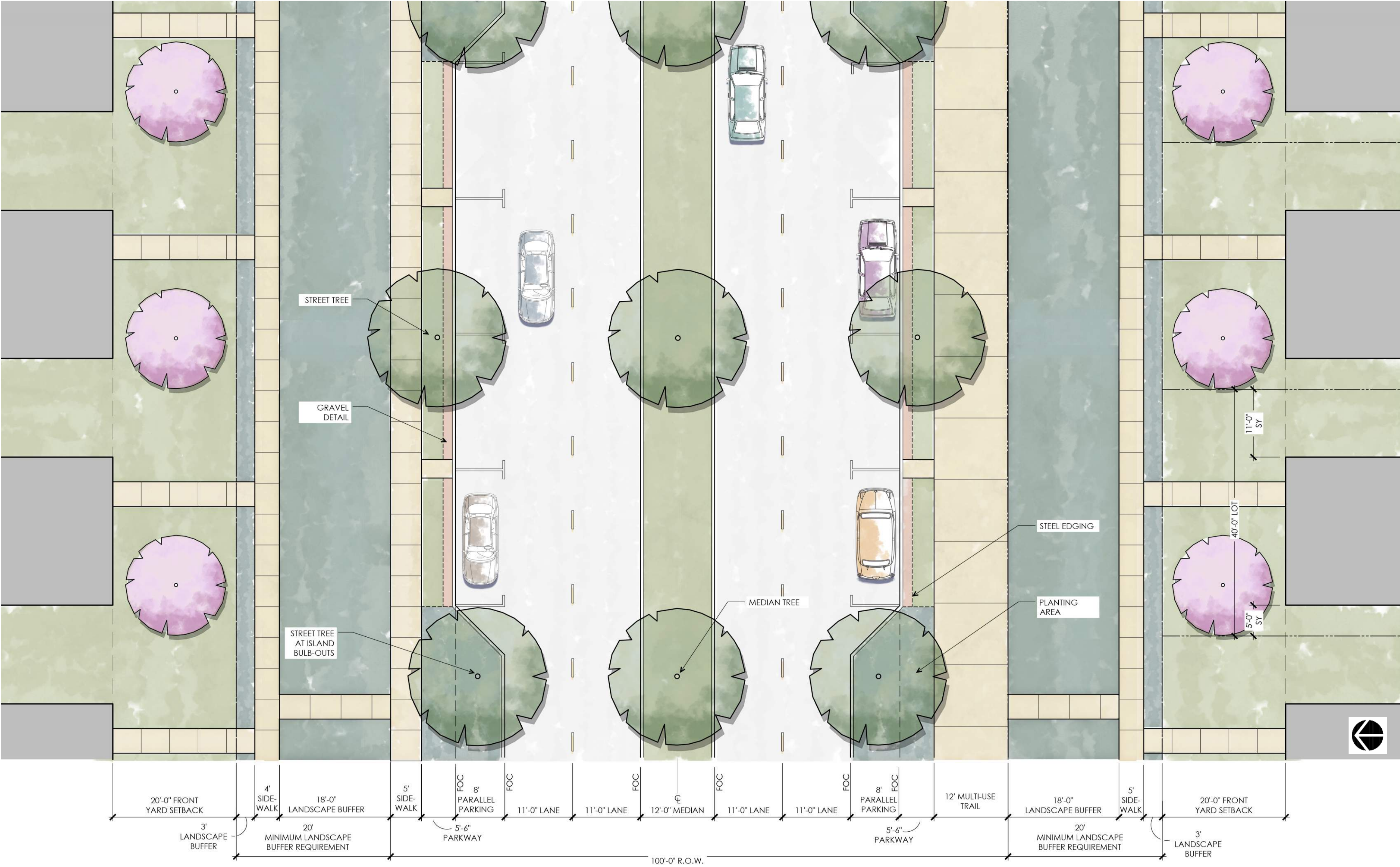
100 Ft ROW - Type C Street Plan / Section

| UTILITY LEGEND                       |                |
|--------------------------------------|----------------|
| <span style="color: blue;">●</span>  | WATER MAIN     |
| <span style="color: green;">●</span> | STORM          |
| <span style="color: red;">●</span>   | SANITARY SEWER |





Scale: NA  
KEY MAP



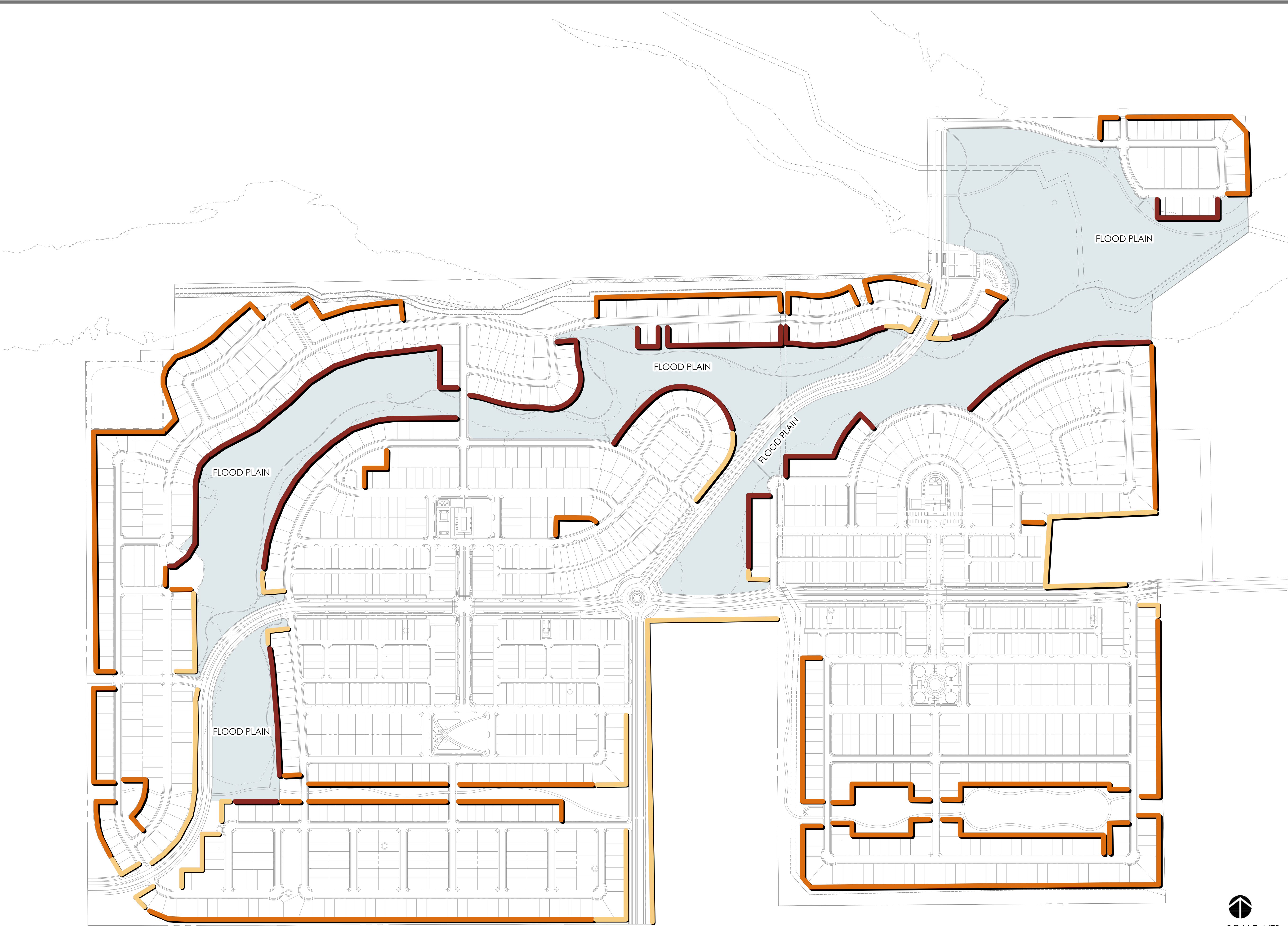
100 Ft ROW - Type C Street Plan / Section

| UTILITY LEGEND |                |
|----------------|----------------|
|                | WATER MAIN     |
|                | STORM          |
|                | SANITARY SEWER |

**CUESTA**  
EXHIBIT G - STREET PLAN / SECTION



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WROUGHT IRON FENCE



WOOD PICKET FENCE



MASONRY WALL  
BRICK COLOR AESTHETIC



MASONRY WALL  
COLUMN AESTHETIC



SCALE: NTS

NOTE: ALL INTERNAL LOTS TO HAVE WOODEN FENCE



## TALSON DESIGN PARTNERED WITH TREE MANN SOLUTIONS



TREE MANN SOLUTIONS  
DALLAS, TX

PREPARED BY:

[illegible]

CUESTIA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|           |            |
|-----------|------------|
| Date:     | 11/07/2024 |
| Check by: | JJ         |
| Drawn By: | SD         |
| Sheet No. | COVER      |

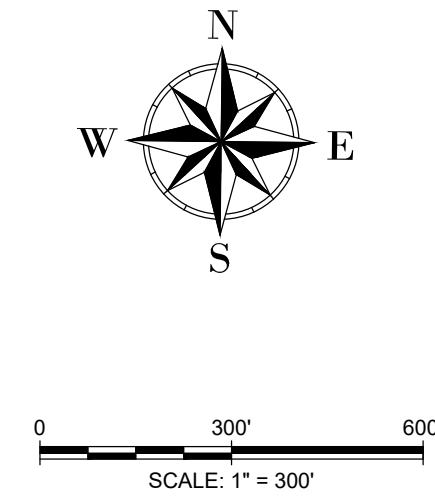
AREA A

AREA B

PROPOSED 30' GAS ACCESS EASEMENT/ROAD

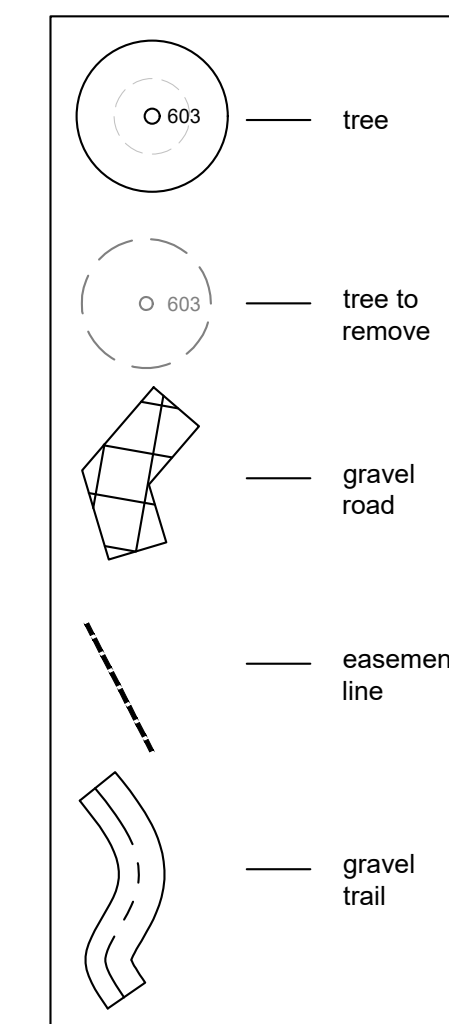
AREA D

AREA C



| PRELIM TREE SCHEDULE    |      |
|-------------------------|------|
| Number of trees saved   | 1182 |
| Number of trees removed | 326  |

## LEGEND



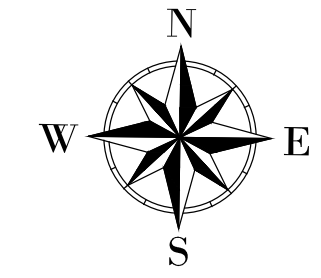








**TREE MANN  
SOLUTIONS**  
PLANNING • PERMITTING • PRESERVATION



tree

tree to remove

gravel road

easement line

gravel trail

[illegible]

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 2 of 6     |
| Project No. | 9831       |

P:\616.195 Meritage Homes\001 Range Creek\Tolson Design\11 Planning &amp; Zoning\11.01 PZ Final Docs

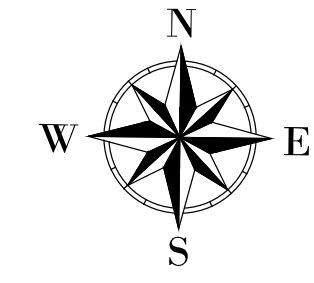


TREE MANN SOLUTIONS  
DALLAS, TX

PREPARED BY:

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 3 of 6     |
| Project No. | 9831       |



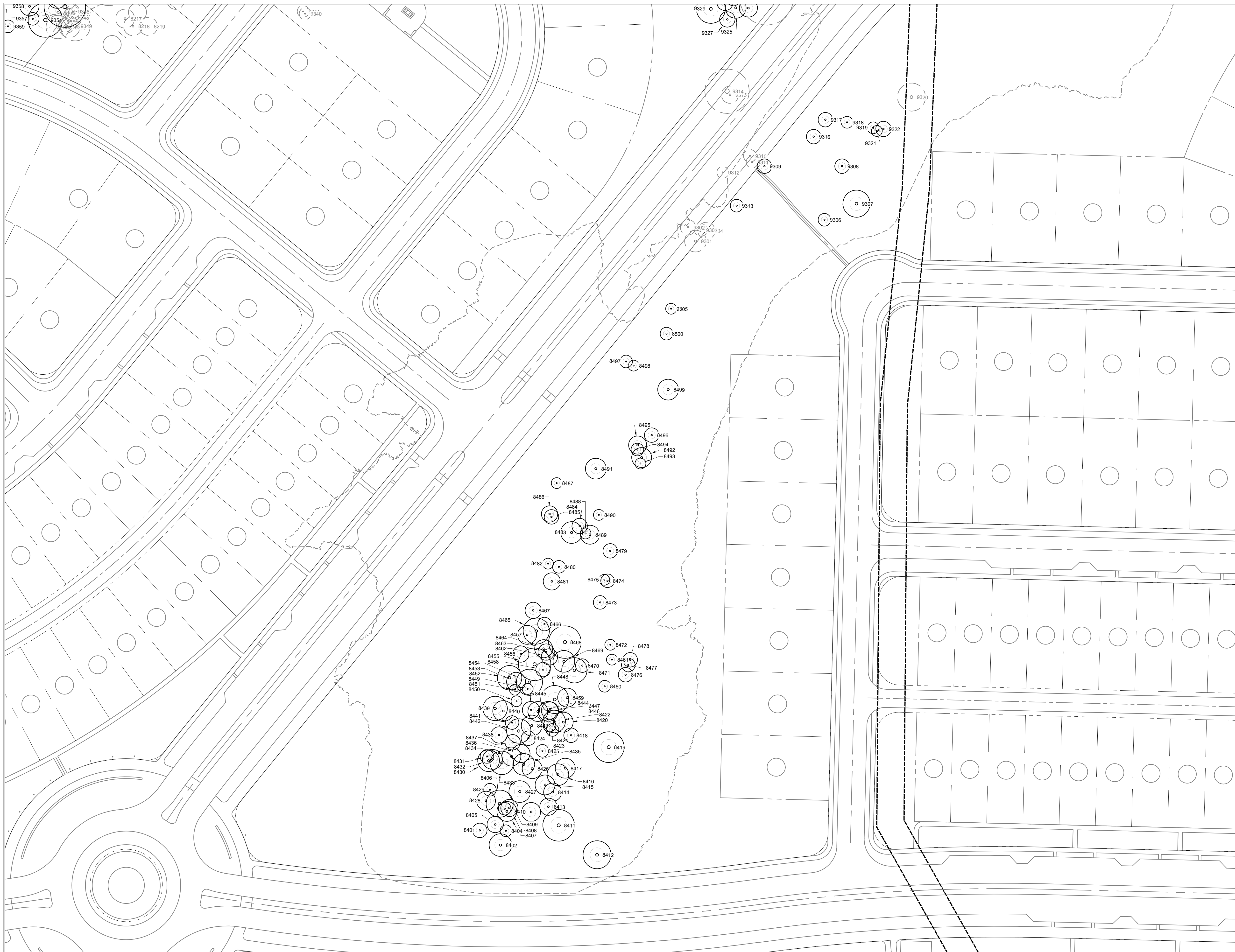
tree

tree to remove

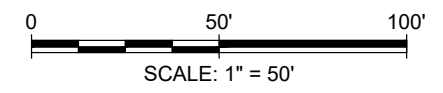
gravel road

easement line

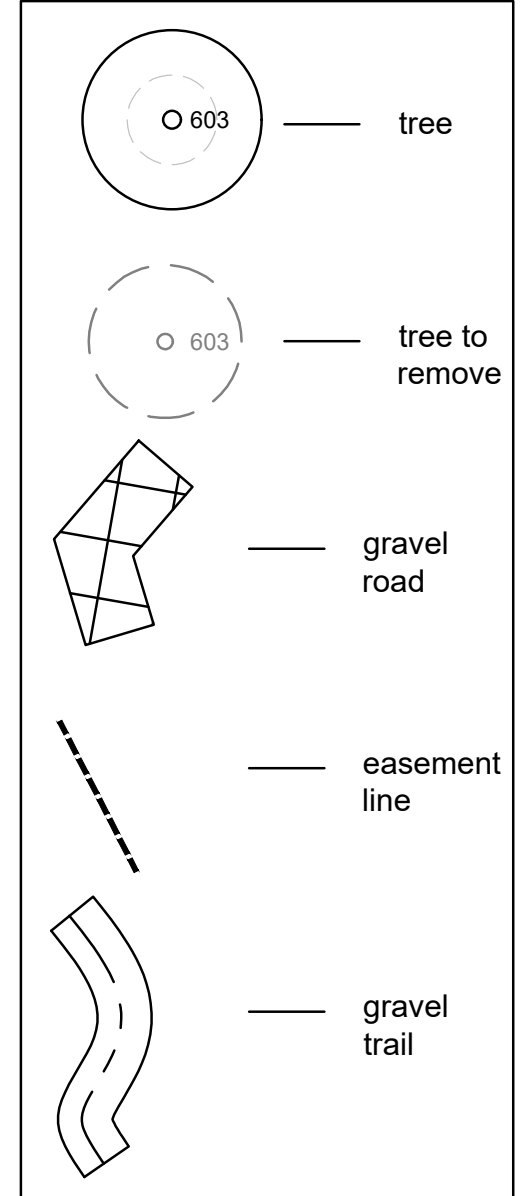
gravel trail







## LEGEND

[illegible]



TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 1145        | 10       | Fair      | Cedar Elm    | 1350        | 11       | Fair      | Cedar Elm    | 1448        | 15.5     | Fair      | Cedar Elm    | 1643        | 12       | Fair      | Cedar Elm    | 5549        | 6.5      | Fair      | Cedar Elm    | 5644        | 9        | Fair      | Cedar Elm    | 7736        | 7        | Fair      | Cedar Elm    | 7833        | 6.5      | Fair      | Cedar Elm    |
| 1248        | 22       | Fair      | Cedar Elm    | 1351        | 6        | Fair      | Cedar Elm    | 1449        | 9.5      | Fair      | Cedar Elm    | 1644        | 7.5      | Fair      | Cedar Elm    | 5550        | 14       | Fair      | Cedar Elm    | 5645        | 9.5      | Fair      | Cedar Elm    | 7737        | 6        | Fair      | Cedar Elm    | 7834        | 14       | Fair      | Cedar Elm    |
| 1249        | 14       | Poor      | Cedar Elm    | 1352        | 10.5     | Fair      | Cedar Elm    | 1450        | 6.5      | Fair      | Cedar Elm    | 1645        | 8.5      | Poor      | Cedar Elm    | 5551        | 14       | Fair      | Cedar Elm    | 5646        | 18       | Fair      | Cedar Elm    | 7738        | 11       | Fair      | Cedar Elm    | 7835        | 15.5     | Fair      | Cedar Elm    |
| 1250        | 7.5      | Fair      | Cedar Elm    | 1353        | 11       | Fair      | American Elm | 1451        | 18       | Fair      | American Elm | 1646        | 6.5      | Fair      | Cedar Elm    | 5552        | 6.5      | Fair      | Cedar Elm    | 5647        | 13       | Fair      | Cedar Elm    | 7739        | 6.5      | Fair      | Cedar Elm    | 7836        | 9.5      | Poor      | Cedar Elm    |
| 1251        | 8        | Fair      | Cedar Elm    | 1354        | 8.5      | Fair      | Cedar Elm    | 1452        | 25       | Very Poor | American Elm | 1647        | 7.5      | Fair      | Cedar Elm    | 5553        | 13       | Fair      | Cedar Elm    | 5648        | 14.5     | Fair      | Cedar Elm    | 7740        | 7.5      | Fair      | Cedar Elm    | 7837        | 6        | Fair      | Cedar Elm    |
| 1252        | 9.5      | Fair      | Cedar Elm    | 1355        | 14.5     | Fair      | Cedar Elm    | 1453        | 6.5      | Fair      | American Elm | 1648        | 13       | Fair      | Cedar Elm    | 5554        | 8.5      | Fair      | Cedar Elm    | 5649        | 17       | Fair      | Cedar Elm    | 7741        | 8        | Fair      | Cedar Elm    | 7838        | 11       | Fair      | Cedar Elm    |
| 1253        | 20       | Poor      | Cedar Elm    | 1356        | 13       | Fair      | Cedar Elm    | 1454        | 18       | Fair      | Cedar Elm    | 1649        | 7        | Fair      | Cedar Elm    | 5555        | 19       | Fair      | Cedar Elm    | 5650        | 16.5     | Poor      | Cedar Elm    | 7742        | 6        | Poor      | Cedar Elm    | 7839        | 9        | Fair      | Cedar Elm    |
| 1254        | 12.5     | Fair      | Cedar Elm    | 1357        | 10       | Fair      | Cedar Elm    | 1455        | 11       | Fair      | Cedar Elm    | 1650        | 13       | Fair      | Cedar Elm    | 5556        | 12.5     | Fair      | Cedar Elm    | 5651        | 18       | Fair      | Cedar Elm    | 7743        | 10       | Fair      | Cedar Elm    | 7840        | 10.5     | Fair      | Cedar Elm    |
| 1255        | 13       | Fair      | Cedar Elm    | 1358        | 14       | Fair      | Cedar Elm    | 1456        | 8        | Fair      | Cedar Elm    | 1651        | 7        | Fair      | Cedar Elm    | 5557        | 9        | Fair      | Cedar Elm    | 5652        | 17       | Fair      | Cedar Elm    | 7744        | 10       | Fair      | Cedar Elm    | 7841        | 9        | Fair      | Cedar Elm    |
| 1256        | 15       | Fair      | Cedar Elm    | 1359        | 14.5     | Fair      | Cedar Elm    | 1457        | 10       | Fair      | Cedar Elm    | 1652        | 10.5     | Fair      | Cedar Elm    | 5558        | 12.5     | Fair      | Cedar Elm    | 5653        | 7        | Fair      | Cedar Elm    | 7745        | 8        | Fair      | Cedar Elm    | 7842        | 10.5     | Fair      | Cedar Elm    |
| 1257        | 8        | Fair      | Cedar Elm    | 1360        | 9        | Fair      | Cedar Elm    | 1458        | 9.5      | Fair      | Cedar Elm    | 1653        | 13       | Fair      | Cedar Elm    | 5559        | 7        | Fair      | Cedar Elm    | 5654        | 10       | Fair      | Cedar Elm    | 7746        | 6.5      | Fair      | Cedar Elm    | 7843        | 17.5     | Fair      | Cedar Elm    |
| 1258        | 6.5      | Fair      | Cedar Elm    | 1361        | 6        | Fair      | Cedar Elm    | 1459        | 17.5     | Fair      | Cedar Elm    | 1654        | 11.5     | Fair      | Cedar Elm    | 5560        | 6        | Fair      | Cedar Elm    | 5655        | 9        | Fair      | Cedar Elm    | 7747        | 16       | Fair      | Cedar Elm    | 7844        | 14       | Fair      | Cedar Elm    |
| 1259        | 8.5      | Fair      | Cedar Elm    | 1362        | 6        | Fair      | Cedar Elm    | 1460        | 8        | Fair      | American Elm | 1655        | 8.5      | Fair      | Cedar Elm    | 5561        | 8        | Fair      | Cedar Elm    | 5656        | 11.5     | Fair      | Cedar Elm    | 7748        | 16.5     | Fair      | Cedar Elm    | 7845        | 11       | Fair      | Cedar Elm    |
| 1260        | 10       | Fair      | Cedar Elm    | 1363        | 19.5     | Fair      | Cedar Elm    | 1461        | 9.5      | Fair      | American Elm | 1656        | 10       | Poor      | Cedar Elm    | 5562        | 15       | Fair      | Cedar Elm    | 5657        | 8.5      | Fair      | Cedar Elm    | 7749        | 8        | Fair      | Cedar Elm    | 7846        | 9        | Fair      | Cedar Elm    |
| 1261        | 13       | Poor      | Cedar Elm    | 1364        | 8        | Fair      | Cedar Elm    | 1462        | 8.5      | Fair      | Cedar Elm    | 1657        | 18       | Fair      | Cedar Elm    | 5563        | 26.5     | Fair      | Cedar Elm    | 5658        | 9        | Fair      | Cedar Elm    | 7750        | 11       | Fair      | Cedar Elm    | 7847        | 8.5      | Fair      | Cedar Elm    |
| 1262        | 7        | Fair      | Cedar Elm    | 1365        | 9        | Fair      | Cedar Elm    | 1463        | 11.5     | Fair      | Cedar Elm    | 1658        | 18       | Fair      | Cedar Elm    | 5564        | 13.5     | Fair      | Cedar Elm    | 5659        | 7        | Fair      | Cedar Elm    | 7751        | 10.5     | Fair      | Cedar Elm    | 7848        | 6        | Fair      | Cedar Elm    |
| 1263        | 7        | Fair      | Cedar Elm    | 1366        | 11.5     | Fair      | Cedar Elm    | 1464        | 11.5     | Fair      | Cedar Elm    | 1659        | 9        | Fair      | Cedar Elm    | 5565        | 8        | Fair      | Cedar Elm    | 5660        | 10       | Fair      | Cedar Elm    | 7752        | 13       | Fair      | Cedar Elm    | 7849        | 17.5     | Fair      | Cedar Elm    |
| 1264        | 46       | Fair      | Cedar Elm    | 1367        | 15.5     | Fair      | Cedar Elm    | 1465        | 16       | Fair      | Cedar Elm    | 1660        | 13       | Fair      | Cedar Elm    | 5566        | 13       | Fair      | Cedar Elm    | 5661        | 6        | Fair      | Cedar Elm    | 7753        | 9        | Fair      | Cedar Elm    | 7850        | 6.5      | Fair      | Cedar Elm    |
| 1265        | 13       | Fair      | American Elm | 1368        | 12.5     | Fair      | American Elm | 1466        | 12.5     | Fair      | Cedar Elm    | 1661        | 10       | Fair      | Cedar Elm    | 5567        | 16.5     | Fair      | Cedar Elm    | 5662        | 9.5      | Fair      | Cedar Elm    | 7754        | 8.5      | Fair      | Cedar Elm    | 7851        | 12       | Fair      | Cedar Elm    |
| 1266        | 18       | Fair      | American Elm | 1369        | 15       | Fair      | Cedar Elm    | 1467        | 6.5      | Fair      | American Elm | 1662        | 13       | Fair      | Cedar Elm    | 5568        | 14.5     | Fair      | Cedar Elm    | 5663        | 10.5     | Fair      | Cedar Elm    | 7755        | 8.5      | Fair      | Cedar Elm    | 7852        | 7        | Fair      | Cedar Elm    |
| 1267        | 6        | Fair      | American Elm | 1370        | 17       | Fair      | Cedar Elm    | 1468        | 14.5     | Fair      | American Elm | 1663        | 13.5     | Fair      | Cedar Elm    | 5569        | 11.5     | Fair      | Cedar Elm    | 5664        | 9.5      | Fair      | Cedar Elm    | 7756        | 11       | Fair      | Cedar Elm    | 7853        | 12.5     | Fair      | Cedar Elm    |
| 1268        | 27       | Poor      | American Elm | 1371        | 8        | Fair      | Cedar Elm    | 1469        | 10       | Fair      | Cedar Elm    | 1664        | 8        | Fair      | American Elm | 5570        | 13       | Fair      | Cedar Elm    | 5665        | 8        | Fair      | Cedar Elm    | 7757        | 8.5      | Fair      | Cedar Elm    | 7854        | 8.5      | Fair      | Cedar Elm    |
| 1269        | 15       | Fair      | American Elm | 1372        | 15.5     | Fair      | Cedar Elm    | 1470        | 9        | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5571        | 20       | Fair      | Cedar Elm    | 5666        | 8.5      | Fair      | Cedar Elm    | 7758        | 8        | Fair      | Cedar Elm    | 7855        | 40       | Fair      | Cedar Elm    |
| 1270        | 7        | Fair      | American Elm | 1373        | 15.5     | Very Poor | Cedar Elm    | 1471        | 6.5      | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5572        | 10.5     | Fair      | Cedar Elm    | 5667        | 9        | Fair      | Cedar Elm    | 7759        | 9        | Fair      | Cedar Elm    | 7856        | 8        | Fair      | Cedar Elm    |
| 1271        | 8.5      | Fair      | American Elm | 1374        | 9.5      | Fair      | Cedar Elm    | 1472        | 10       | Fair      | American Elm | 1667        | 15       | Fair      | Cedar Elm    | 5573        | 16       | Very Poor | Cedar Elm    | 5668        | 7        | Fair      | Cedar Elm    | 7760        | 6.5      | Fair      | Cedar Elm    | 7857        | 8.5      | Fair      | Cedar Elm    |
| 1272        | 8.5      | Fair      | American Elm | 1375        | 13       | Fair      | Cedar Elm    | 1473        | 20.5     | Fair      | American Elm | 1668        | 13       | Fair      | Cedar Elm    | 5574        | 7.5      | Fair      | Cedar Elm    | 5669        | 8.5      | Fair      | Cedar Elm    | 7761        | 9        | Fair      | Cedar Elm    | 7858        | 6.5      | Fair      | Cedar Elm    |
| 1273        | 10       | Fair      | American Elm | 1376        | 6        | Fair      | Cedar Elm    | 1474        | 14       | Fair      | Cedar Elm    | 1669        | 16       | Fair      | Cedar Elm    | 5575        | 7        | Fair      | Cedar Elm    | 5670        | 11.5     | Fair      | Cedar Elm    | 7762        | 9        | Fair      | Cedar Elm    | 7859        | 9        | Fair      | Cedar Elm    |
| 1274        | 8        | Fair      | American Elm | 1377        | 11       | Fair      | Cedar Elm    | 1475        | 6.5      | Fair      | American Elm | 1670        | 23.5     | Fair      | Cedar Elm    | 5576        | 6.5      | Fair      | Cedar Elm    | 5671        | 18.5     | Fair      | Cedar Elm    | 7763        | 7        | Fair      | Cedar Elm    | 7860        | 6        | Fair      | Cedar Elm    |
| 1275        | 9.5      | Fair      | American Elm | 1378        | 12       | Fair      | Cedar Elm    | 1476        | 10       | Fair      | Cedar Elm    | 1671        | 9.5      | Fair      | Cedar Elm    | 5577        | 8        | Fair      | Cedar Elm    | 5672        | 8        | Fair      | Cedar Elm    | 7764        | 15       | Poor      | Cedar Elm    | 7861        | 10       | Fair      | Cedar Elm    |
| 1276        | 9.5      | Fair      | American Elm | 1379        | 7        | Fair      | Cedar Elm    | 1477        | 12       | Fair      | Cedar Elm    | 1672        | 10.5     | Fair      | Cedar Elm    | 5578        | 8.5      | Fair      | Cedar Elm    | 5673        | 14.5     | Fair      | Cedar Elm    | 7765        | 12.5     | Fair      | Cedar Elm    | 7862        | 6        | Fair      | Cedar Elm    |
| 1277        | 9        | Very Poor | American Elm | 1380        | 8.5      | Fair      | Cedar Elm    | 1478        | 7        | Fair      | Cedar Elm    | 1673        | 20       | Fair      | Cedar Elm    | 5579        | 9        | Fair      | Cedar Elm    | 5674        | 23.5     | Fair      | Cedar Elm    | 7766        | 17       | Fair      | American Elm | 7863        | 7.5      | Fair      | Cedar Elm    |
| 1278        | 8.5      | Fair      | American Elm | 1381        | 11       | Fair      | Cedar Elm    | 1479        | 6        | Fair      | Cedar Elm    | 1674        | 6        | Fair      | Cedar Elm    | 5580        | 11       | Fair      | Cedar Elm    | 5675        | 20.5     | Fair      | Cedar Elm    | 7767        | 18.5     | Fair      | Cedar Elm    | 7864        | 7.5      | Fair      | Cedar Elm    |
| 1279        | 7.5      | Fair      | American Elm | 1382        | 12       | Fair      | Cedar Elm    | 1480        | 10.5     | Fair      | Cedar Elm    | 1675        | 9.5      | Fair      | Cedar Elm    | 5581        | 12.5     | Fair      | Cedar Elm    | 5676        | 16       | Fair      | Cedar Elm    | 7768        | 7.5      | Fair      | Cedar Elm    | 7865        | 11       | Fair      | Cedar Elm    |
| 1280        | 8        | Fair      | American Elm | 1383        | 8.5      | Fair      | Cedar Elm    | 1481        | 6.5      | Fair      | Cedar Elm    | 1676        | 19       | Fair      | Cedar Elm    | 5582        | 9.5      | Fair      | Cedar Elm    | 5677        | 11       | Fair      | Cedar Elm    | 7769        | 8        | Fair      | Cedar Elm    | 7866        | 9        | Fair      | Cedar Elm    |
| 1281        | 10       | Fair      | American Elm | 1384        | 10.5     | Fair      | Cedar Elm    | 1482        | 19       | Fair      | Cedar Elm    | 1677        | 13       | Fair      | Cedar Elm    | 5583        | 12.5     | Fair      | Cedar Elm    | 5678        | 7.5      | Fair      | Cedar Elm    | 7770        | 7        | Fair      | Cedar Elm    | 7867        | 7.5      | Fair      | Cedar Elm    |
| 1282        | 10       | Fair      | American Elm | 1385        | 6.5      | Fair      | Cedar Elm    | 1483        | 21.5     | Good      | Cedar Elm    | 1678        | 7        | Fair      | American Elm | 5584        | 7.5      | Fair      | Cedar Elm    | 5679        | 9        | Fair      | Cedar Elm    | 7771        | 11       | Fair      | Cedar Elm    | 7868        | 7.5      | Fair      | Cedar Elm    |
| 1283        | 7.5      | Fair      | American Elm | 1386        | 8.5      | Fair      | Cedar Elm    | 1484        | 6.5      | Fair      | Cedar Elm    | 1679        | 18.5     | Fair      | Cedar Elm    | 5585        | 16       | Fair      | Cedar Elm    | 5680        | 18       | Fair      | Cedar Elm    | 7772        | 11       | Fair      | Cedar Elm    | 7869        | 27       | Fair      | Cedar Elm    |
| 1284        | 11       | Fair      | American Elm | 1387        | 9.5      | Fair      | Cedar Elm    | 1485        | 13.5     | Fair      | Cedar Elm    | 1680        | 19       | Fair      | Cedar Elm    | 5586        | 6        | Fair      | Cedar Elm    | 5681        | 8        | Fair      | Cedar Elm    | 7773        | 9        | Fair      | Cedar Elm    | 7870        | 23.5     | Fair      | Cedar Elm    |
| 1285        | 35       | Good      | American Elm | 1388        | 12       | Fair      | Cedar Elm    | 1486        | 8        | Fair      | Cedar Elm    | 1681        | 9        | Fair      | American Elm | 5587        | 22       | Fair      | American Elm | 5682        | 10       | Fair      | American Elm | 7774        | 8.5      | Fair      | Cedar Elm    | 7871        | 12       | Fair      | Cedar Elm    |
| 1286        | 7.5      | Fair      | American Elm | 1389        | 7.5      | Fair      | Cedar Elm    | 1487        | 10.5     | Fair      | Cedar Elm    | 1682        | 6        | Fair      | American Elm | 5588        | 10       | Fair      | American Elm | 5683        | 12.5     | Fair      | Cedar Elm    | 7775        | 13       | Poor      | Cedar Elm    | 7872        | 8        | Fair      | Cedar Elm    |
| 1287        | 8        | Fair      | American Elm | 1390        | 13       | Poor      | Cedar Elm    | 1488        | 15       | Fair      | Cedar Elm    | 1683        | 21       | Fair      | Cedar Elm    | 5589        | 8        | Fair      | American Elm | 5684        | 9        | Fair      | Cedar Elm    | 7776        | 13       | Fair      | Cedar Elm    | 7873        | 12       | Fair      | Cedar Elm    |
| 1288        | 7        | Poor      | American Elm | 1391        | 8.5      | Fair      | Cedar Elm    | 1489        | 13       | Fair      | Cedar Elm    | 1684        | 7.5      | Fair      | Cedar Elm    | 5590        | 28       | Fair      | Cedar Elm    | 5685        | 16       | Fair      | Cedar Elm    | 7777        | 6.5      | Fair      | Cedar Elm    | 7874        | 16       | Fair      | Cedar Elm    |
| 1289        | 9.5      | Fair      | American Elm | 1392        | 6.5      | Poor      | Cedar Elm    | 1490        | 16       | Fair      | Cedar Elm    | 1685        | 9        | Fair      | Cedar Elm    | 5591        | 26       | Fair      | Cedar Elm    | 5686        | 14       | Fair      | Cedar Elm    | 7778        | 6.5      | Fair      | Cedar Elm    | 7875        | 26.5     | Fair      | Cedar Elm    |
| 1290        | 23       | Fair      | American Elm | 1393        | 7        | Fair      | Cedar Elm    | 1491        | 9        | Fair      | Cedar Elm    | 1686        | 10       | Fair      | Cedar Elm    | 5592        | 21.5     | Fair      | American Elm | 5687        | 14       | Fair      | Cedar Elm    | 7779        | 6.5      | Fair      | Cedar Elm    | 7877        | 45       | Fair      | Cedar Elm    |
| 1291        | 12.5     | Fair      | American Elm | 1394        | 7        | Fair      | Cedar Elm    | 1492        | 8        | Fair      | Cedar Elm    | 1687        | 14.5     | Fair      | Cedar Elm    | 5593        | 9        | Fair      | Cedar Elm    | 5688        | 9        | Fair      | American Elm | 7780        | 6        | Fair      | Cedar Elm    | 7878        | 13       | Fair      | Cedar Elm    |
| 1292        | 8        | Fair      | American Elm | 1395        | 6        | Fair      | Cedar Elm    | 1493        | 15       | Fair      | Cedar Elm    | 1688        | 13.5     | Fair      | American Elm | 5594        | 19.5     | Fair      | American Elm | 5689        | 7        | Fair      | American Elm | 7781        | 13       | Fair      | Cedar Elm    | 7879        | 17.5     | Poor      | American Elm |
| 1293        | 9        | Fair      | American Elm | 1396        | 7        | Fair      | Cedar Elm    | 1494        | 18.5     | Fair      | Cedar Elm    | 1689        | 22       | Fair      | Cedar Elm    | 5595        | 6.5      | Fair      | American Elm | 5690        | 17.5     | Fair      | Cedar Elm    | 7782        | 11.5     | Fair      | Cedar Elm    | 7880        | 6        | Fair      | Cedar Elm    |
| 1294        | 8.5      | Poor      | American Elm | 1397        | 6        | Fair      | Cedar Elm    | 1495        | 6.5      | Fair      | Cedar Elm    | 5501        | 7.5      | Fair      | Cedar Elm    | 5596        | 12.5     | Fair      | American Elm | 5691        | 11       | Fair      | Cedar Elm    | 7783        | 11.5     | Fair      | Cedar Elm    | 7881        | 16.5     | Poor      | Cedar Elm    |
| 1295        | 6.5      | Fair      | American Elm | 1398        | 7.5      | Fair      | Cedar Elm    | 1496        | 19       | Fair      | Cedar Elm    | 5502        | 9.5      | Fair      | Cedar Elm    | 5597        | 6        | Fair      | American Elm | 5692        | 20       | Fair      | Cedar Elm    | 7784        | 11.5     | Fair      | Cedar Elm    | 7882        | 12.5     | Fair      | Cedar Elm    |
| 1296        | 16       | Fair      | American Elm | 1399        | 7        | Fair      | Cedar Elm    | 1497        | 6        | Fair      | Cedar Elm    | 5503        | 7.5      | Fair      | Cedar Elm    | 5598        | 9        | Fair      | Cedar Elm    | 5693        | 7.5      | Fair      | Cedar Elm    | 7785        | 9.5      | Fair      | Cedar Elm    | 7883        | 7        | Fair      | Cedar Elm    |
| 1297        | 16.5     | Very Poor | American Elm | 1400        | 9.5      | Fair      | Cedar Elm    | 1498        | 13.5     | Fair      | Cedar Elm    | 5504        | 11       | Fair      | Cedar Elm    | 5599        | 7.5      | Fair      | Cedar Elm    | 5694        | 10       | Fair      |              |             |          |           |              |             |          |           |              |



TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 7929        | 40.5     | Fair      | Cedar Elm    | 8019        | 10       | Fair      | Cedar Elm    | 8109        | 15       | Fair      | American Elm | 8199        | 6        | Fair      | Cedar Elm    | 8292        | 8        | Fair      | Cedar Elm    | 8383        | 10.5     | Fair      | Cedar Elm    | 8474        | 7.5      | Fair      | Cedar Elm    | 8563        | 9        | Fair      | Cedar Elm    | 8652        | 6.5      | Fair      | Cedar Elm    |
| 7930        | 46       | Fair      | Cedar Elm    | 8020        | 10.5     | Fair      | Cedar Elm    | 8110        | 10       | Fair      | Cedar Elm    | 8200        | 43.5     | Fair      | Cedar Elm    | 8293        | 31       | Fair      | Cedar Elm    | 8384        | 7        | Fair      | Cedar Elm    | 8475        | 6        | Fair      | Cedar Elm    | 8564        | 16.5     | Fair      | Cedar Elm    | 8653        | 44       | Fair      | Cedar Elm    |
| 7931        | 29       | Fair      | Cedar Elm    | 8021        | 9        | Fair      | Cedar Elm    | 8111        | 9        | Fair      | Cedar Elm    | 8201        | 8.5      | Fair      | Cedar Elm    | 8294        | 6.5      | Fair      | Cedar Elm    | 8385        | 6        | Fair      | Cedar Elm    | 8476        | 8        | Fair      | Cedar Elm    | 8565        | 13.5     | Fair      | Cedar Elm    | 8654        | 8        | Fair      | Cedar Elm    |
| 7932        | 8        | Fair      | American Elm | 8022        | 6        | Fair      | Cedar Elm    | 8112        | 10.5     | Fair      | American Elm | 8202        | 7        | Fair      | Cedar Elm    | 8295        | 6        | Fair      | Cedar Elm    | 8386        | 7.5      | Fair      | Cedar Elm    | 8477        | 7.5      | Fair      | Cedar Elm    | 8566        | 14       | Fair      | Cedar Elm    | 8655        | 13.5     | Fair      | Cedar Elm    |
| 7933        | 9.5      | Fair      | Cedar Elm    | 8023        | 7        | Fair      | Cedar Elm    | 8113        | 9        | Fair      | American Elm | 8203        | 7        | Fair      | Cedar Elm    | 8296        | 24       | Fair      | Cedar Elm    | 8387        | 7        | Fair      | American Elm | 8478        | 8        | Fair      | Cedar Elm    | 8567        | 14.5     | Fair      | Cedar Elm    | 8656        | 11.5     | Fair      | Cedar Elm    |
| 7934        | 6.5      | Fair      | Cedar Elm    | 8024        | 8        | Fair      | Cedar Elm    | 8114        | 15       | Fair      | Cedar Elm    | 8204        | 7        | Fair      | Cedar Elm    | 8297        | 6.5      | Fair      | Cedar Elm    | 8388        | 7        | Fair      | Cedar Elm    | 8479        | 8        | Fair      | American Elm | 8568        | 12       | Fair      | Cedar Elm    | 8657        | 8.5      | Fair      | Cedar Elm    |
| 7935        | 9.5      | Fair      | Cedar Elm    | 8025        | 7        | Fair      | Cedar Elm    | 8115        | 14       | Fair      | Cedar Elm    | 8205        | 6.5      | Fair      | Cedar Elm    | 8298        | 16.5     | Fair      | Cedar Elm    | 8389        | 14.5     | Fair      | Cedar Elm    | 8480        | 7        | Fair      | American Elm | 8569        | 9        | Fair      | Cedar Elm    | 8658        | 9.5      | Fair      | Cedar Elm    |
| 7936        | 44       | Fair      | Cedar Elm    | 8026        | 6.5      | Fair      | Cedar Elm    | 8116        | 16       | Fair      | Cedar Elm    | 8206        | 7        | Fair      | Cedar Elm    | 8299        | 17       | Fair      | Cedar Elm    | 8390        | 7        | Fair      | Cedar Elm    | 8481        | 9.5      | Fair      | Cedar Elm    | 8570        | 6.5      | Fair      | Cedar Elm    | 8659        | 9.5      | Fair      | Cedar Elm    |
| 7937        | 42       | Fair      | Cedar Elm    | 8027        | 14       | Fair      | Cedar Elm    | 8117        | 8        | Fair      | Cedar Elm    | 8207        | 7.5      | Fair      | Cedar Elm    | 8300        | 7        | Fair      | Cedar Elm    | 8391        | 8        | Fair      | Cedar Elm    | 8482        | 6        | Fair      | Cedar Elm    | 8571        | 28.5     | Fair      | Cedar Elm    | 8660        | 6.5      | Fair      | Cedar Elm    |
| 7938        | 7        | Fair      | Cedar Elm    | 8028        | 8        | Fair      | Cedar Elm    | 8118        | 7        | Fair      | Cedar Elm    | 8208        | 9        | Fair      | Cedar Elm    | 8301        | 6.5      | Fair      | Cedar Elm    | 8392        | 7.5      | Fair      | Cedar Elm    | 8483        | 12       | Fair      | American Elm | 8572        | 12       | Fair      | Cedar Elm    | 8661        | 6        | Fair      | Cedar Elm    |
| 7939        | 8.5      | Fair      | Cedar Elm    | 8029        | 21       | Fair      | Cedar Elm    | 8119        | 9.5      | Fair      | Cedar Elm    | 8209        | 40.5     | Fair      | Cedar Elm    | 8302        | 8.5      | Fair      | Cedar Elm    | 8393        | 9        | Fair      | Cedar Elm    | 8484        | 8.5      | Fair      | American Elm | 8573        | 14       | Fair      | Cedar Elm    | 8662        | 17.5     | Fair      | Cedar Elm    |
| 7940        | 21.5     | Fair      | Cedar Elm    | 8030        | 16       | Fair      | Cedar Elm    | 8120        | 6        | Fair      | Cedar Elm    | 8210        | 11       | Fair      | Cedar Elm    | 8303        | 10.5     | Fair      | Cedar Elm    | 8394        | 7        | Fair      | Cedar Elm    | 8485        | 8        | Fair      | American Elm | 8574        | 10       | Fair      | Cedar Elm    | 8663        | 10.5     | Fair      | Cedar Elm    |
| 7941        | 13       | Fair      | Cedar Elm    | 8031        | 10       | Fair      | Cedar Elm    | 8121        | 7.5      | Fair      | Cedar Elm    | 8211        | 8.5      | Fair      | Cedar Elm    | 8304        | 10       | Fair      | Cedar Elm    | 8395        | 7        | Fair      | Cedar Elm    | 8486        | 9        | Fair      | American Elm | 8575        | 16       | Fair      | Cedar Elm    | 8664        | 7.5      | Fair      | Cedar Elm    |
| 7942        | 7        | Fair      | Cedar Elm    | 8032        | 14       | Fair      | Cedar Elm    | 8122        | 6        | Fair      | Cedar Elm    | 8212        | 9.5      | Fair      | Cedar Elm    | 8305        | 42       | Fair      | Cedar Elm    | 8396        | 8        | Fair      | Cedar Elm    | 8487        | 6        | Fair      | American Elm | 8576        | 8.5      | Fair      | Cedar Elm    | 8665        | 20.5     | Fair      | Cedar Elm    |
| 7943        | 8        | Fair      | Cedar Elm    | 8033        | 42.5     | Fair      | Cedar Elm    | 8123        | 9.5      | Fair      | Cedar Elm    | 8213        | 9.5      | Fair      | Cedar Elm    | 8306        | 6        | Fair      | Cedar Elm    | 8397        | 8        | Fair      | Cedar Elm    | 8488        | 6        | Fair      | Cedar Elm    | 8577        | 12       | Fair      | Cedar Elm    | 8666        | 11.5     | Fair      | Cedar Elm    |
| 7944        | 19       | Fair      | Cedar Elm    | 8034        | 9.5      | Fair      | Cedar Elm    | 8124        | 7.5      | Fair      | Cedar Elm    | 8214        | 42       | Fair      | Cedar Elm    | 8307        | 40       | Fair      | Cedar Elm    | 8398        | 6        | Fair      | Cedar Elm    | 8489        | 10.5     | Fair      | American Elm | 8578        | 7.5      | Fair      | Cedar Elm    | 8667        | 6.5      | Fair      | Cedar Elm    |
| 7945        | 44       | Fair      | Cedar Elm    | 8035        | 6        | Fair      | Cedar Elm    | 8125        | 7        | Fair      | Cedar Elm    | 8215        | 7        | Fair      | Cedar Elm    | 8308        | 6        | Fair      | Cedar Elm    | 8399        | 9        | Fair      | Cedar Elm    | 8490        | 6        | Fair      | Cedar Elm    | 8579        | 8.5      | Fair      | Cedar Elm    | 8668        | 27       | Fair      | Cedar Elm    |
| 7946        | 7.5      | Fair      | Cedar Elm    | 8036        | 6        | Poor      | Cedar Elm    | 8126        | 6.5      | Fair      | Cedar Elm    | 8216        | 7        | Fair      | Cedar Elm    | 8309        | 11.5     | Fair      | Cedar Elm    | 8400        | 7        | Fair      | Cedar Elm    | 8491        | 11.5     | Poor      | Cedar Elm    | 8580        | 10       | Fair      | Cedar Elm    | 8669        | 6        | Fair      | Cedar Elm    |
| 7947        | 8.5      | Fair      | Cedar Elm    | 8037        | 10.5     | Very Poor | Cedar Elm    | 8127        | 7.5      | Fair      | Cedar Elm    | 8217        | 40.5     | Fair      | Cedar Elm    | 8310        | 8        | Fair      | Cedar Elm    | 8401        | 8        | Fair      | American Elm | 8492        | 11       | Fair      | Cedar Elm    | 8581        | 9        | Fair      | Cedar Elm    | 8670        | 9.5      | Fair      | Cedar Elm    |
| 7948        | 44       | Fair      | Cedar Elm    | 8038        | 17       | Poor      | Cedar Elm    | 8128        | 9.5      | Fair      | Cedar Elm    | 8218        | 40.5     | Fair      | Cedar Elm    | 8311        | 12.5     | Fair      | Cedar Elm    | 8402        | 12.5     | Fair      | Cedar Elm    | 8493        | 6        | Fair      | Cedar Elm    | 8582        | 7.5      | Fair      | Cedar Elm    | 8671        | 11.5     | Fair      | Cedar Elm    |
| 7949        | 40.5     | Fair      | Cedar Elm    | 8039        | 14       | Fair      | Cedar Elm    | 8129        | 6.5      | Fair      | Cedar Elm    | 8219        | 40       | Fair      | Cedar Elm    | 8312        | 8.5      | Fair      | Cedar Elm    | 8403        | 6.5      | Fair      | Cedar Elm    | 8494        | 7        | Fair      | Cedar Elm    | 8583        | 9.5      | Fair      | Cedar Elm    | 8672        | 9        | Fair      | Cedar Elm    |
| 7950        | 15.5     | Fair      | Cedar Elm    | 8040        | 10.5     | Fair      | Cedar Elm    | 8130        | 6        | Fair      | Cedar Elm    | 8220        | 49       | Fair      | Cedar Elm    | 8313        | 8        | Fair      | Cedar Elm    | 8404        | 9        | Fair      | Cedar Elm    | 8495        | 10       | Fair      | Cedar Elm    | 8584        | 8        | Fair      | Cedar Elm    | 8673        | 9.5      | Fair      | Cedar Elm    |
| 7951        | 12.5     | Fair      | Cedar Elm    | 8041        | 21       | Fair      | Cedar Elm    | 8131        | 6.5      | Fair      | Cedar Elm    | 8221        | 7        | Fair      | Cedar Elm    | 8314        | 7        | Fair      | Cedar Elm    | 8405        | 15       | Fair      | Cedar Elm    | 8496        | 8        | Fair      | Cedar Elm    | 8585        | 24.5     | Fair      | Cedar Elm    | 8674        | 9        | Fair      | Cedar Elm    |
| 7952        | 28       | Fair      | Cedar Elm    | 8042        | 8        | Fair      | Cedar Elm    | 8132        | 7        | Fair      | Cedar Elm    | 8222        | 6        | Fair      | Cedar Elm    | 8315        | 7        | Fair      | Cedar Elm    | 8406        | 11       | Fair      | Cedar Elm    | 8497        | 7        | Fair      | Cedar Elm    | 8586        | 40.5     | Fair      | Cedar Elm    | 8675        | 8        | Fair      | Cedar Elm    |
| 7953        | 22.5     | Fair      | Cedar Elm    | 8043        | 8        | Fair      | Cedar Elm    | 8133        | 6        | Fair      | Cedar Elm    | 8223        | 7.5      | Fair      | Cedar Elm    | 8316        | 9.5      | Fair      | Cedar Elm    | 8407        | 9.5      | Fair      | Cedar Elm    | 8498        | 6        | Fair      | Cedar Elm    | 8587        | 6.5      | Fair      | Cedar Elm    | 8676        | 15.5     | Fair      | Cedar Elm    |
| 7954        | 7        | Fair      | American Elm | 8044        | 11.5     | Very Poor | Cedar Elm    | 8134        | 7.5      | Fair      | Cedar Elm    | 8224        | 6        | Fair      | Cedar Elm    | 8317        | 11.5     | Fair      | Cedar Elm    | 8408        | 7        | Fair      | Cedar Elm    | 8499        | 11.5     | Fair      | Cedar Elm    | 8588        | 6.5      | Fair      | Cedar Elm    | 8677        | 6.5      | Fair      | Cedar Elm    |
| 7955        | 9        | Fair      | Cedar Elm    | 8045        | 6        | Poor      | Cedar Elm    | 8135        | 6.5      | Fair      | Cedar Elm    | 8225        | 43       | Fair      | Cedar Elm    | 8318        | 9        | Fair      | Cedar Elm    | 8409        | 10.5     | Fair      | Cedar Elm    | 8500        | 7        | Fair      | American Elm | 8589        | 8.5      | Fair      | Cedar Elm    | 8678        | 8.5      | Fair      | Cedar Elm    |
| 7956        | 14.5     | Fair      | Cedar Elm    | 8046        | 9        | Fair      | Cedar Elm    | 8136        | 7        | Fair      | Cedar Elm    | 8226        | 12       | Fair      | Cedar Elm    | 8319        | 11.5     | Fair      | Cedar Elm    | 8410        | 17.5     | Fair      | Cedar Elm    | 8501        | 6        | Fair      | Cedar Elm    | 8590        | 20       | Fair      | Cedar Elm    | 8679        | 12       | Fair      | Cedar Elm    |
| 7957        | 8        | Fair      | Cedar Elm    | 8047        | 9.5      | Fair      | Cedar Elm    | 8137        | 6        | Fair      | Cedar Elm    | 8227        | 16.5     | Fair      | Cedar Elm    | 8320        | 8        | Fair      | Cedar Elm    | 8411        | 15.5     | Fair      | Cedar Elm    | 8502        | 12.5     | Fair      | Cedar Elm    | 8591        | 8        | Fair      | Cedar Elm    | 8680        | 6.5      | Fair      | Cedar Elm    |
| 7958        | 10.5     | Fair      | Cedar Elm    | 8048        | 17.5     | Fair      | Cedar Elm    | 8138        | 8        | Fair      | Cedar Elm    | 8228        | 17       | Fair      | Cedar Elm    | 8321        | 45       | Fair      | Cedar Elm    | 8412        | 9.5      | Fair      | Cedar Elm    | 8503        | 17.5     | Fair      | Cedar Elm    | 8592        | 42       | Fair      | American Elm | 8681        | 6        | Fair      | Cedar Elm    |
| 7959        | 13       | Fair      | Cedar Elm    | 8049        | 7        | Fair      | Cedar Elm    | 8139        | 8        | Fair      | Cedar Elm    | 8229        | 6.5      | Fair      | Cedar Elm    | 8322        | 44       | Fair      | Cedar Elm    | 8413        | 10       | Fair      | Cedar Elm    | 8504        | 7        | Fair      | Cedar Elm    | 8593        | 8.5      | Fair      | American Elm | 8682        | 6        | Fair      | Cedar Elm    |
| 7960        | 42       | Fair      | Cedar Elm    | 8050        | 30       | Fair      | American Elm | 8140        | 6.5      | Fair      | Cedar Elm    | 8230        | 7.5      | Fair      | Cedar Elm    | 8323        | 9.5      | Fair      | Cedar Elm    | 8414        | 11       | Fair      | Cedar Elm    | 8505        | 6.5      | Fair      | Cedar Elm    | 8594        | 7        | Fair      | Cedar Elm    | 8683        | 18       | Fair      | Cedar Elm    |
| 7961        | 9        | Fair      | Cedar Elm    | 8051        | 14.5     | Fair      | American Elm | 8141        | 9        | Fair      | Cedar Elm    | 8231        | 6.5      | Fair      | Cedar Elm    | 8324        | 9.5      | Fair      | Cedar Elm    | 8415        | 10       | Fair      | Cedar Elm    | 8506        | 6.5      | Fair      | Cedar Elm    | 8595        | 9.5      | Fair      | American Elm | 8684        | 6        | Fair      | Cedar Elm    |
| 7962        | 9.5      | Fair      | Cedar Elm    | 8052        | 30       | Poor      | American Elm | 8142        | 7        | Fair      | Cedar Elm    | 8232        | 22.5     | Fair      | Cedar Elm    | 8325        | 7.5      | Fair      | Cedar Elm    | 8416        | 12       | Fair      | Cedar Elm    | 8507        | 6.5      | Fair      | Cedar Elm    | 8596        | 6        | Fair      | Cedar Elm    | 8685        | 6        | Fair      | Cedar Elm    |
| 7963        | 6        | Fair      | Cedar Elm    | 8053        | 17.5     | Fair      | American Elm | 8143        | 6        | Fair      | Cedar Elm    | 8233        | 11       | Fair      | Cedar Elm    | 8326        | 8        | Fair      | Cedar Elm    | 8417        | 11       | Fair      | Cedar Elm    | 8508        | 6        | Fair      | Cedar Elm    | 8597        | 7        | Fair      | Cedar Elm    | 8686        | 9        | Fair      | Cedar Elm    |
| 7964        | 9        | Fair      | Cedar Elm    | 8054        | 22       | Fair      | American Elm | 8144        | 6        | Fair      | Cedar Elm    | 8234        | 10.5     | Fair      | Cedar Elm    | 8327        | 7.5      | Fair      | Cedar Elm    | 8418        | 8        | Fair      | Cedar Elm    | 8509        | 6        | Fair      | Cedar Elm    | 8598        | 15       | Fair      | Cedar Elm    | 8687        | 7        | Fair      | Cedar Elm    |
| 7965        | 6        | Fair      | Cedar Elm    | 8055        | 33       | Fair      | American Elm | 8145        | 6        | Fair      | Cedar Elm    | 8235        | 13.5     | Fair      | Cedar Elm    | 8328        | 8.5      | Fair      | Cedar Elm    | 8419        | 17       | Fair      | Cedar Elm    | 8510        | 6        | Fair      | Cedar Elm    | 8599        | 8        | Fair      | Cedar Elm    | 8688        | 11       | Fair      | Cedar Elm    |
| 7966        | 28.5     | Fair      | Cedar Elm    | 8056        | 13.5     | Poor      | American Elm | 8146        | 6.5      | Fair      | Cedar Elm    | 8236        | 14       | Fair      | Cedar Elm    | 8329        | 9        | Fair      | Cedar Elm    | 8420        | 11       | Fair      | Cedar Elm    | 8511        | 7.5      | Fair      | Cedar Elm    | 8600        | 8        | Fair      | Cedar Elm    | 8689        | 6.5      | Fair      | Cedar Elm    |
| 7967        | 14.5     | Fair      | Cedar Elm    | 8057        | 13       | Fair      | American Elm | 8147        | 8        | Fair      | Cedar Elm    | 8237        | 23       | Fair      | Cedar Elm    | 8330        | 7        | Fair      | Cedar Elm    | 8421        | 7        | Fair      | Cedar Elm    | 8512        | 13.5     | Fair      | American Elm | 8601        | 7        | Fair      | Cedar Elm    | 8690        | 6.5      | Fair      | Cedar Elm    |
| 7968        | 9        | Fair      | Cedar Elm    | 8058        | 13       | Poor      | American Elm | 8148        | 8        | Fair      | Cedar Elm    | 8238        | 21.5     | Fair      | Cedar Elm    | 8331        | 6.5      | Fair      | Cedar Elm    | 8422        | 12.5     | Fair      | Cedar Elm    | 8513        | 6        | Fair      | American Elm | 8602        | 6.5      | Fair      | Cedar Elm    | 8691        | 6        | Fair      | Cedar Elm    |
| 7969        | 10       | Fair      | Cedar Elm    | 8059        | 13       | Fair      | Cedar Elm    | 8149        | 7        | Fair      | Cedar Elm    | 8239        | 19.5     | Fair      | Cedar Elm    | 8332        | 6.5      | Fair      | Cedar Elm    | 8423        | 7        | Fair      | Cedar Elm    | 8514        | 14       | Fair      | American Elm | 8603        | 6.5      | Fair      | Cedar Elm    | 8692        | 7        | Fair      | Cedar Elm    |
| 7970        | 9        | Fair      | Cedar Elm    | 8060        | 10.5     | Fair      | Cedar Elm    | 8150        | 7.5      | Fair      | Cedar Elm    | 8240        | 14       | Fair      | Cedar Elm    | 8333        | 10.5     | Fair      | Cedar Elm    | 8424        | 8        | Fair      | Cedar Elm    | 8515        | 7        | Fair      | American Elm | 8604        | 7        | Fair      | Cedar Elm    | 8693        | 7        | Fair      | Cedar Elm    |
| 7971        | 44.5     | Fair      | Cedar Elm    | 8061        | 14       | Fair      | Cedar Elm    | 8151        | 8        | Fair      | Cedar Elm    | 8241        | 10       | Fair      | Cedar Elm    | 8334        | 6.5      | Fair      | Cedar Elm    | 8425        | 11       | Fair      | Cedar Elm    | 8516        | 9        | Fair      | American Elm | 8605        | 24.5     | Fair      | American Elm | 8694        | 9.5      | Fair      | American Elm |
| 7972        | 8.5      | Fair      | Cedar Elm    | 8062        | 8        | Fair      | Cedar Elm    | 8152        | 40.5     | Fair      | Cedar Elm    | 8242        | 7        | Fair      | Cedar Elm    | 8335        | 10       | Fair      | Cedar Elm    | 8426        | 12       | Fair      | Cedar Elm    | 8517        | 11       | Fair      | American Elm | 8606        | 8        | Fair      | Cedar Elm    | 8695        | 8        | Fair      | Cedar Elm    |
| 7973        | 43       | Poor      | Cedar Elm    | 8063        | 11.5     | Fair      | Cedar Elm    | 8153        | 6        | Fair      | Cedar Elm    | 8243        | 8        | Fair      | Cedar Elm    | 8336        | 7.5      | Fair      | Cedar Elm    | 8427        | 10.5     | Fair      | American Elm | 8518        | 9        | Fair      | American Elm | 8607        | 8        | Fair      | Cedar Elm    | 8696        | 8        | Fair      | Cedar Elm    |
| 7974        | 44       | Fair      | Cedar Elm    | 8064        | 10       | Fair      | Cedar Elm    | 8154        | 6        | Fair      | C            |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |



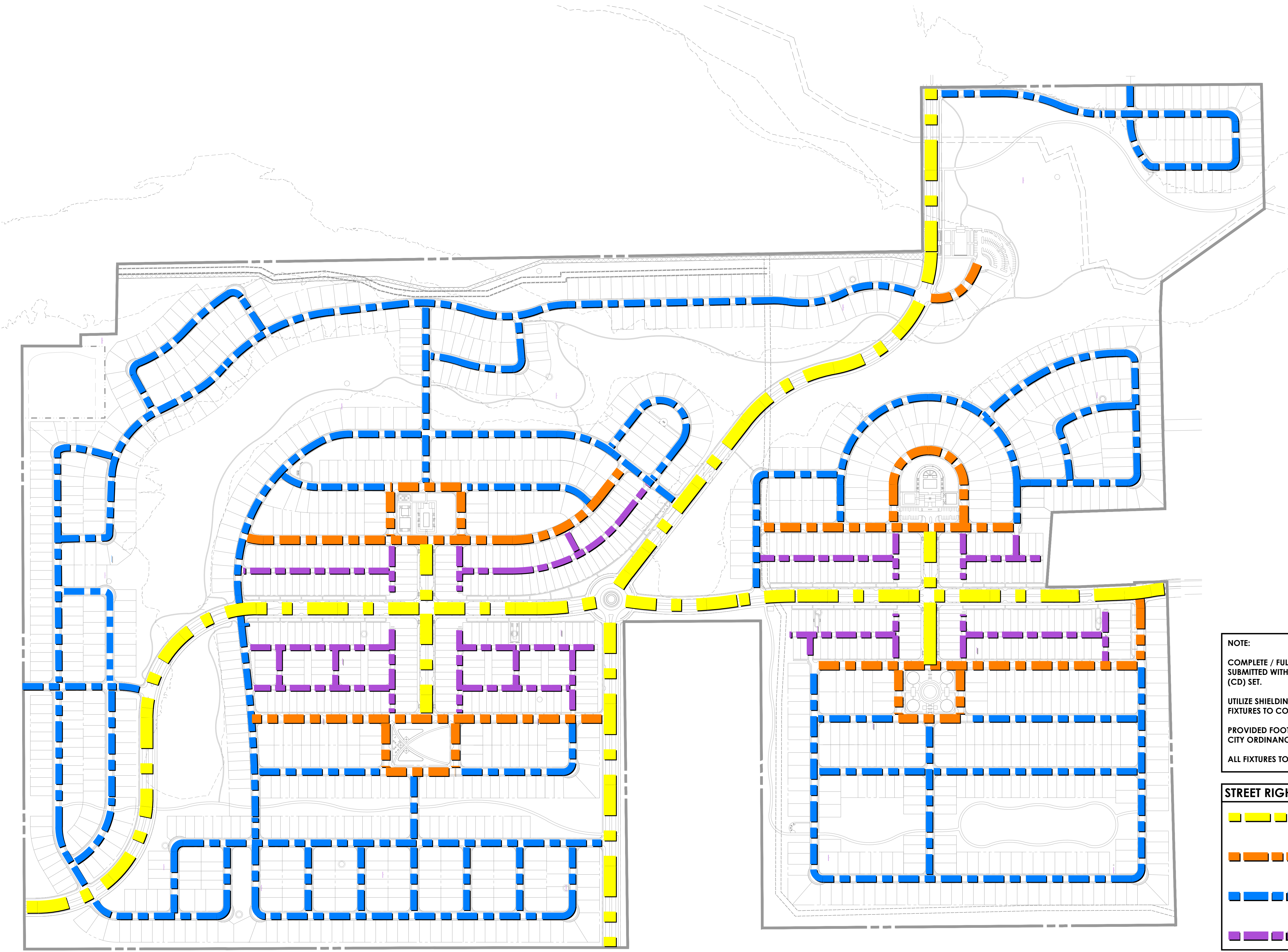
STREET LIGHT OPTIONS  
HISTORICAL PENDANT



PHILADELPHIA WITH  
SINGLE PENDANT



PHILADELPHIA WITH  
DOUBLE PENDANT



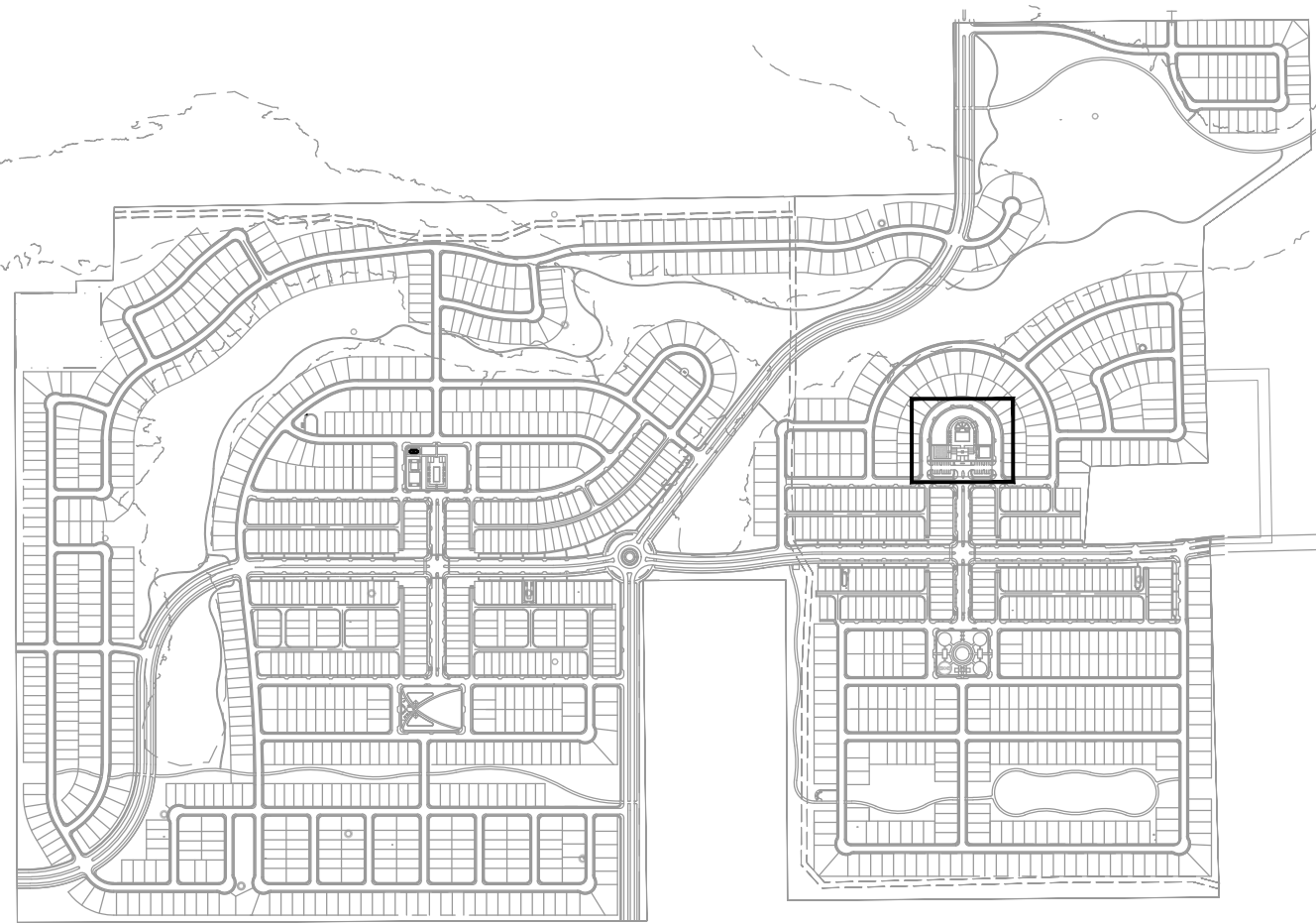
NOTE:  
COMPLETE / FULL PHOTOMETRICS PLANS WILL BE  
SUBMITTED WITH FINAL CONSTRUCTION DOCUMENT  
(CD) SET.  
  
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK SKY INITIATIVE.  
  
PROVIDED FOOTCANDLE TO MEET ALL CODE REQ. PER  
CITY ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH DARK SKY INITIATIVE

| STREET RIGHT OF WAY (ROW) LEGEND |                                 |
|----------------------------------|---------------------------------|
|                                  | 100' FT ROW -<br>MINOR ARTERIAL |
|                                  | 60' FT ROW -<br>LOCAL STREET    |
|                                  | 50' FT ROW -<br>LOCAL STREET    |
|                                  | 30' FT ALLEY                    |

CUESTA

STREET LIGHT - PHOTOMETRIC EXHIBIT





KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

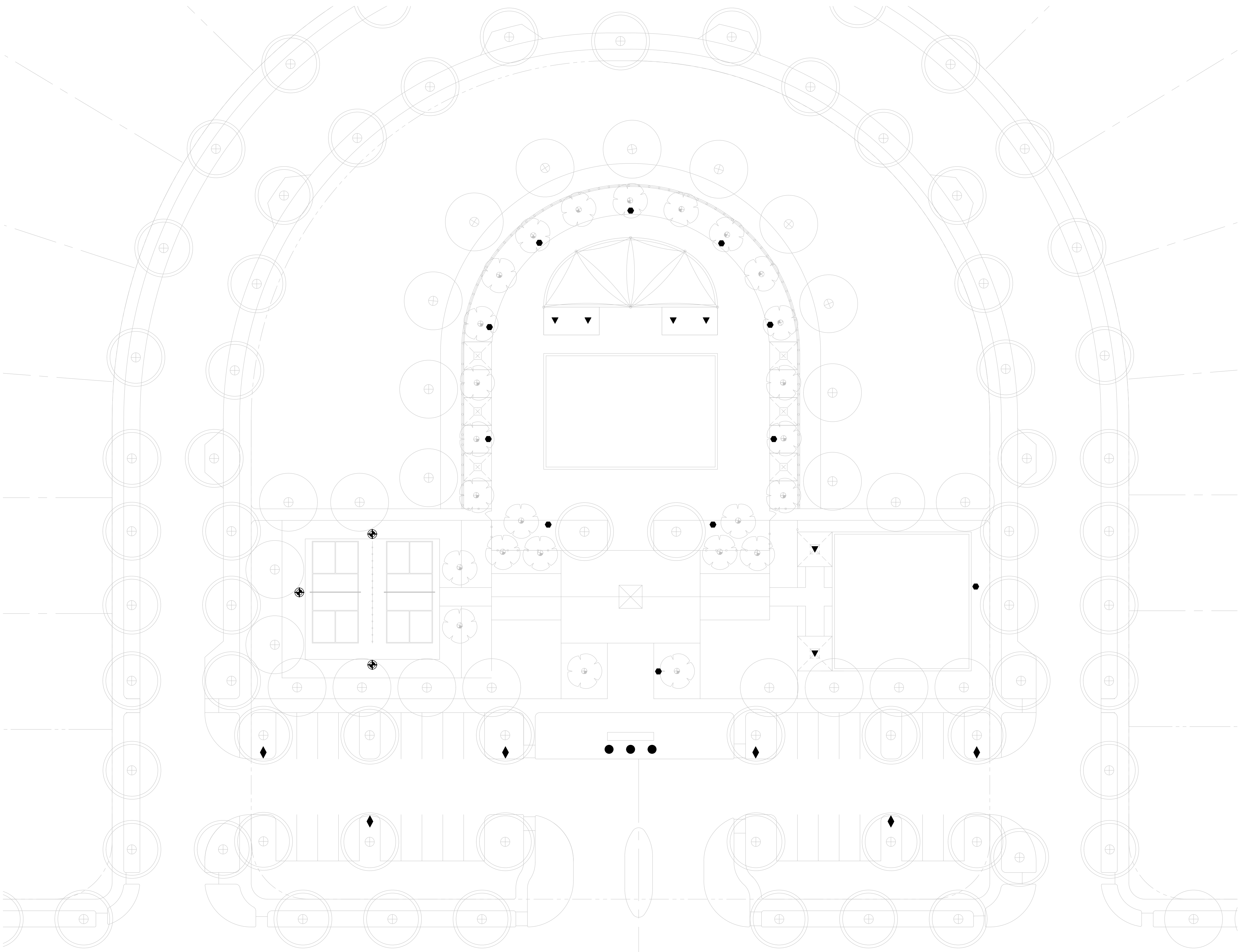
NOTE:

COMPLETE / FULL PHOTOMETRICS  
PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT  
(CD) SET.

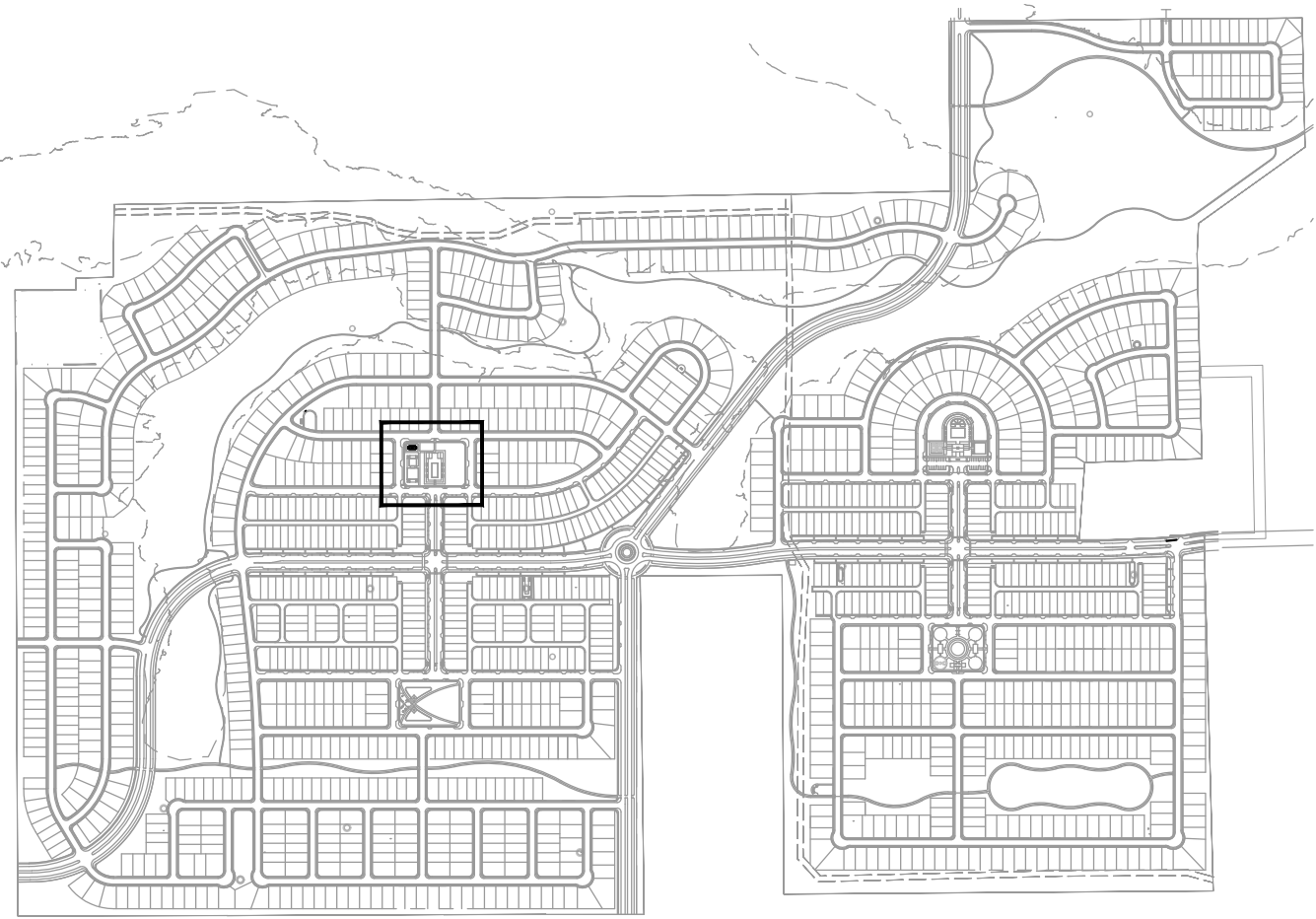
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK  
SKY INITIATIVE.

PROVIDED FOOTCANDLE TO MEET  
ALL CODE REQ. PER CITY  
ORDINANCE

ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







KEY MAP



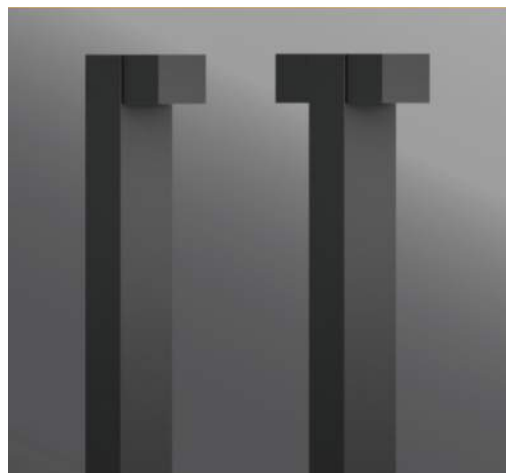
LIGMAN - LIGHT LINEAR  
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SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT

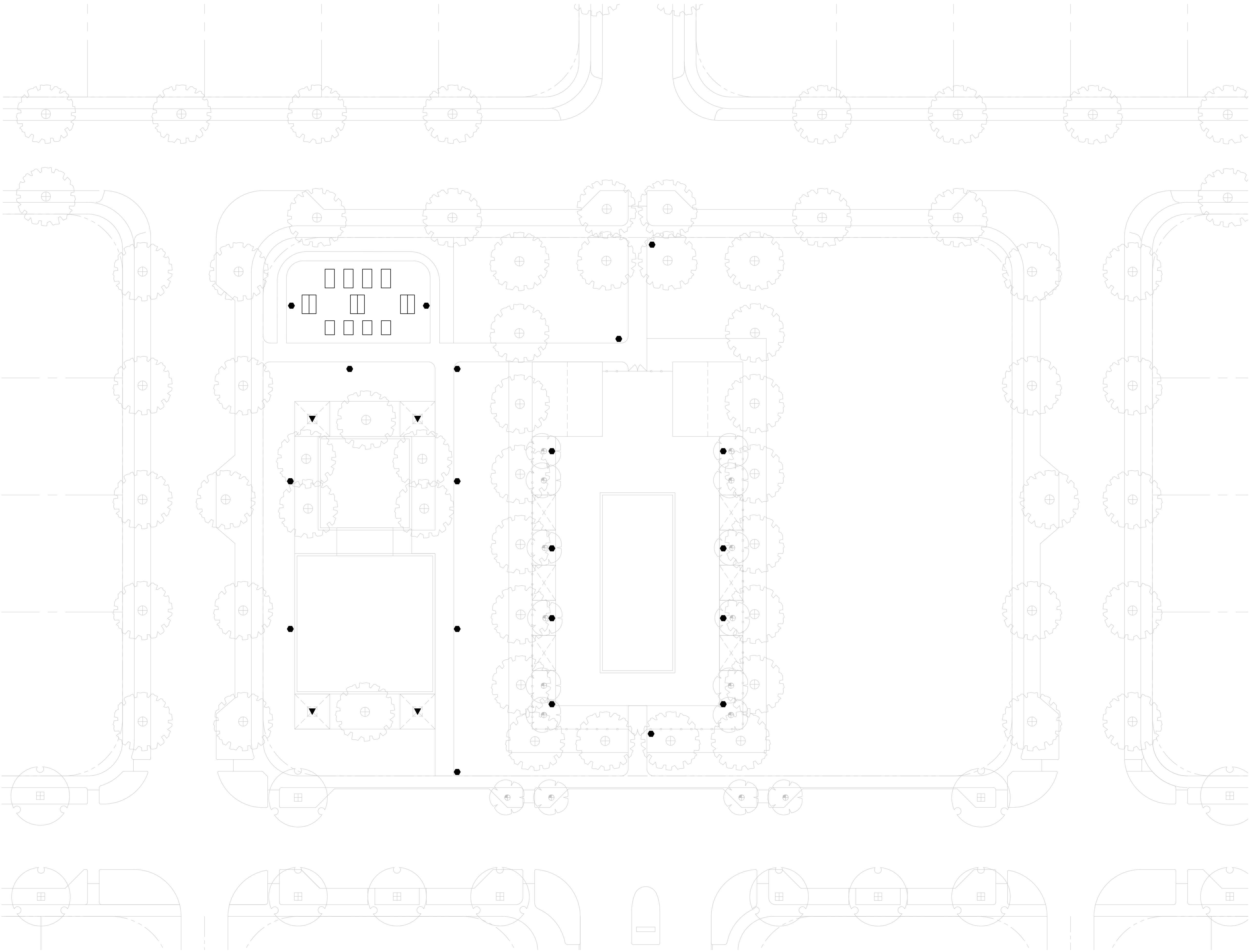


LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

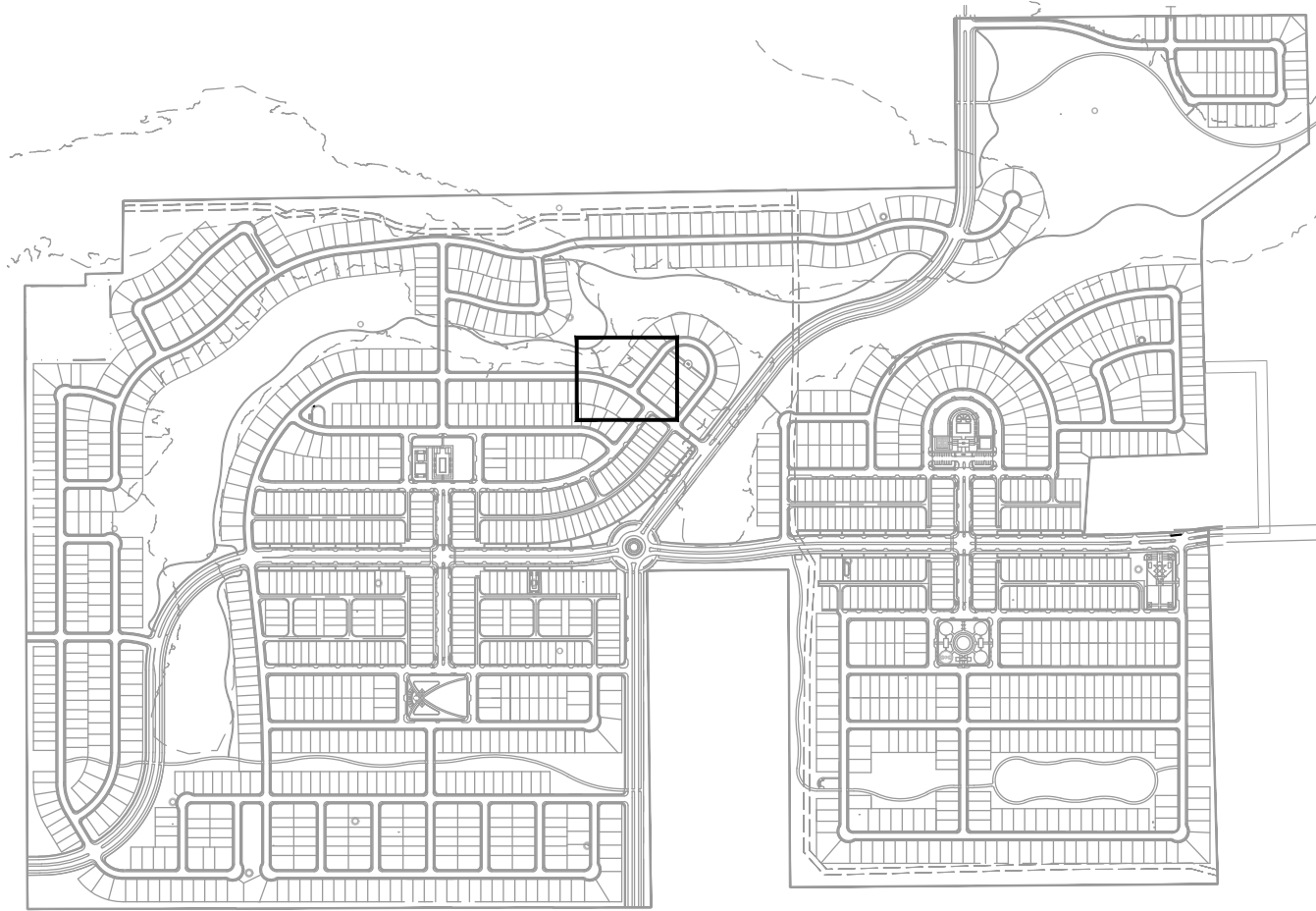
LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

NOTE:  
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KEY MAP



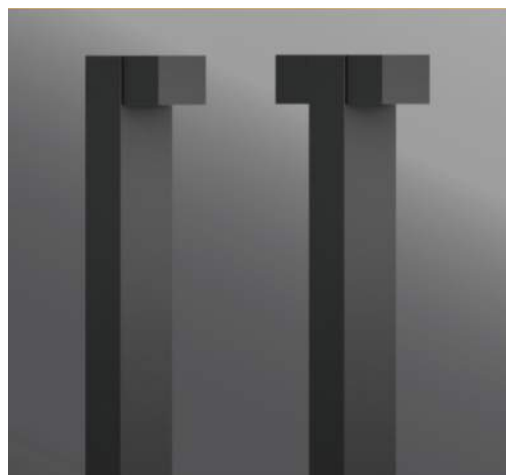
LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT

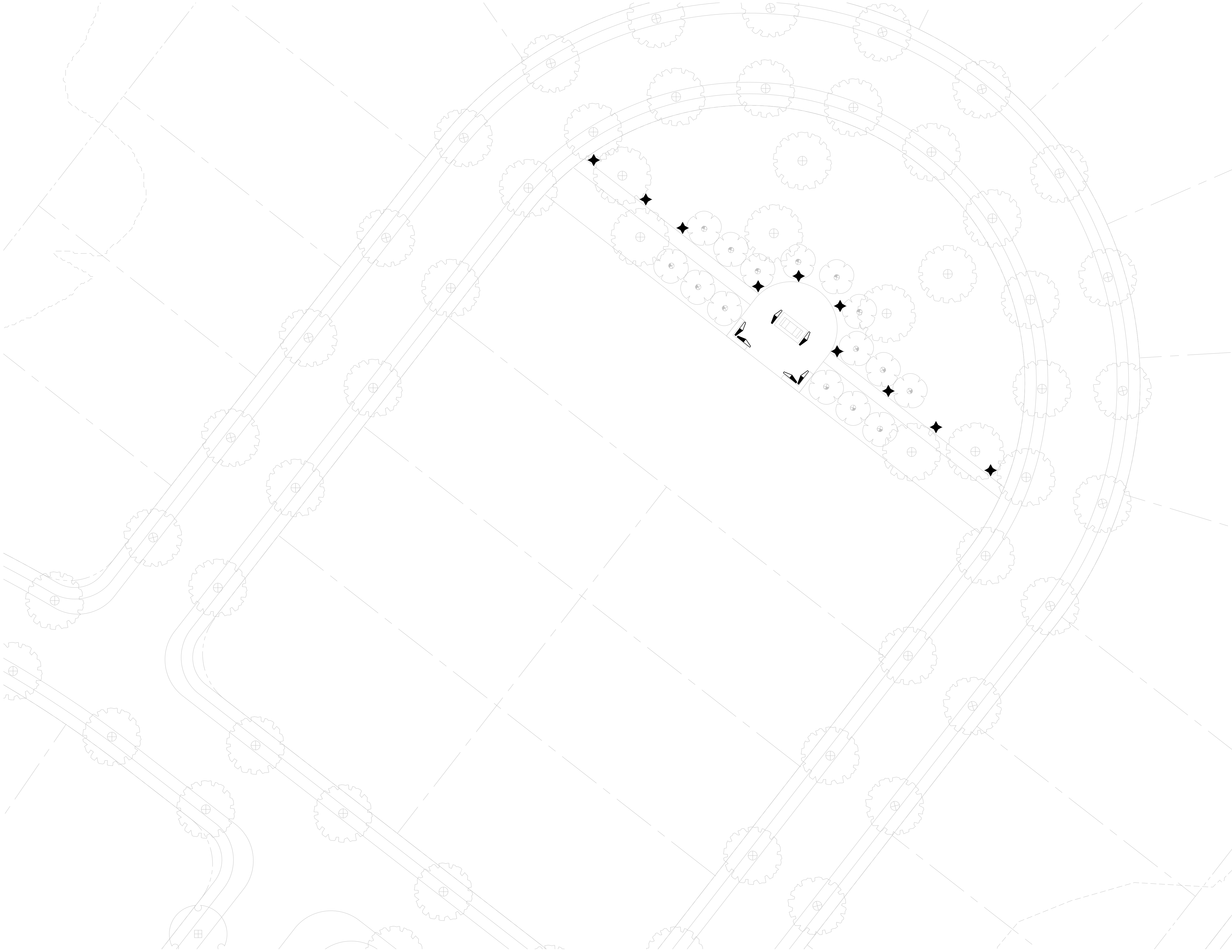


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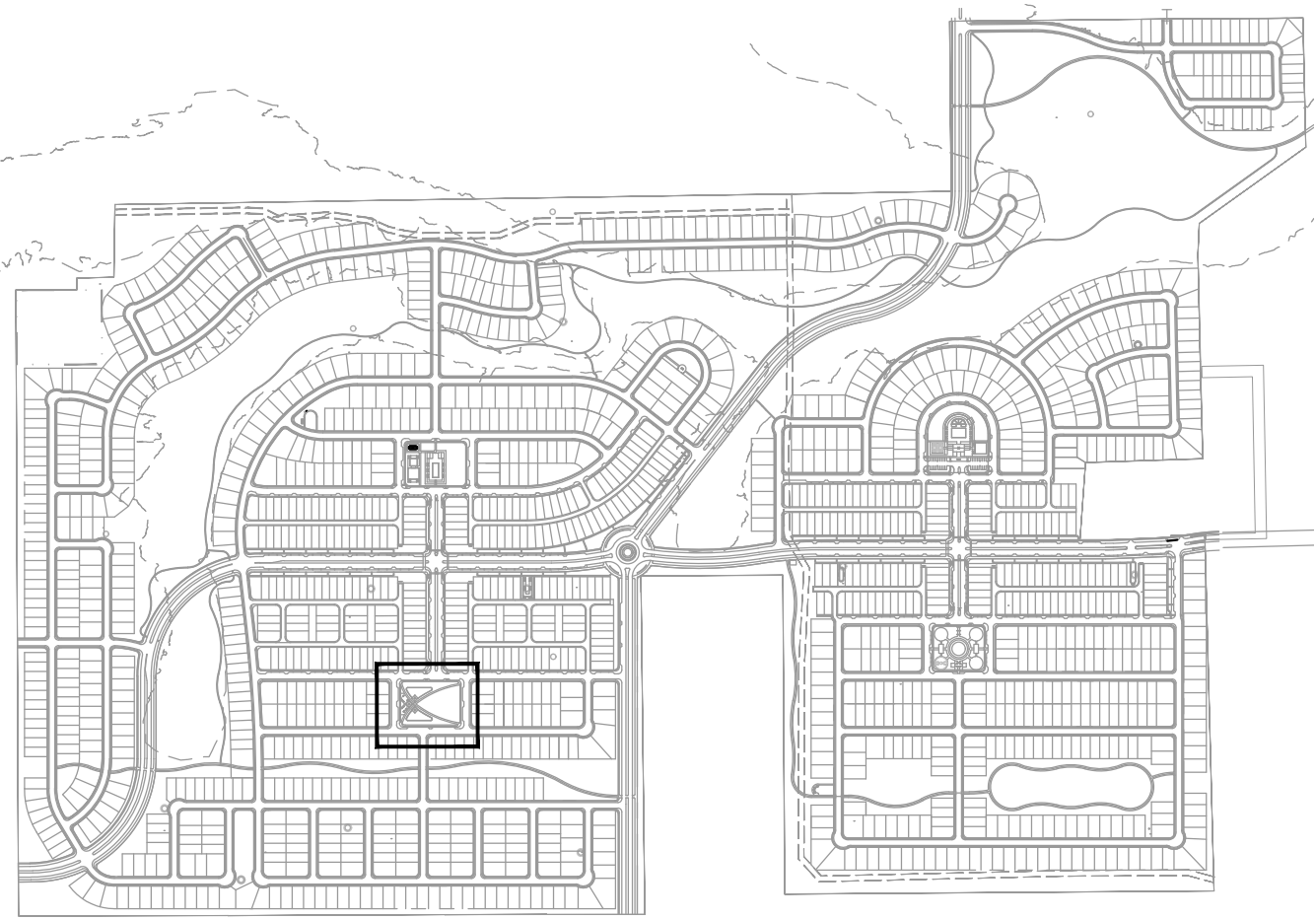
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SPORT LIGHT



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PT 4 SINGLE HEAD - ULI-21172  
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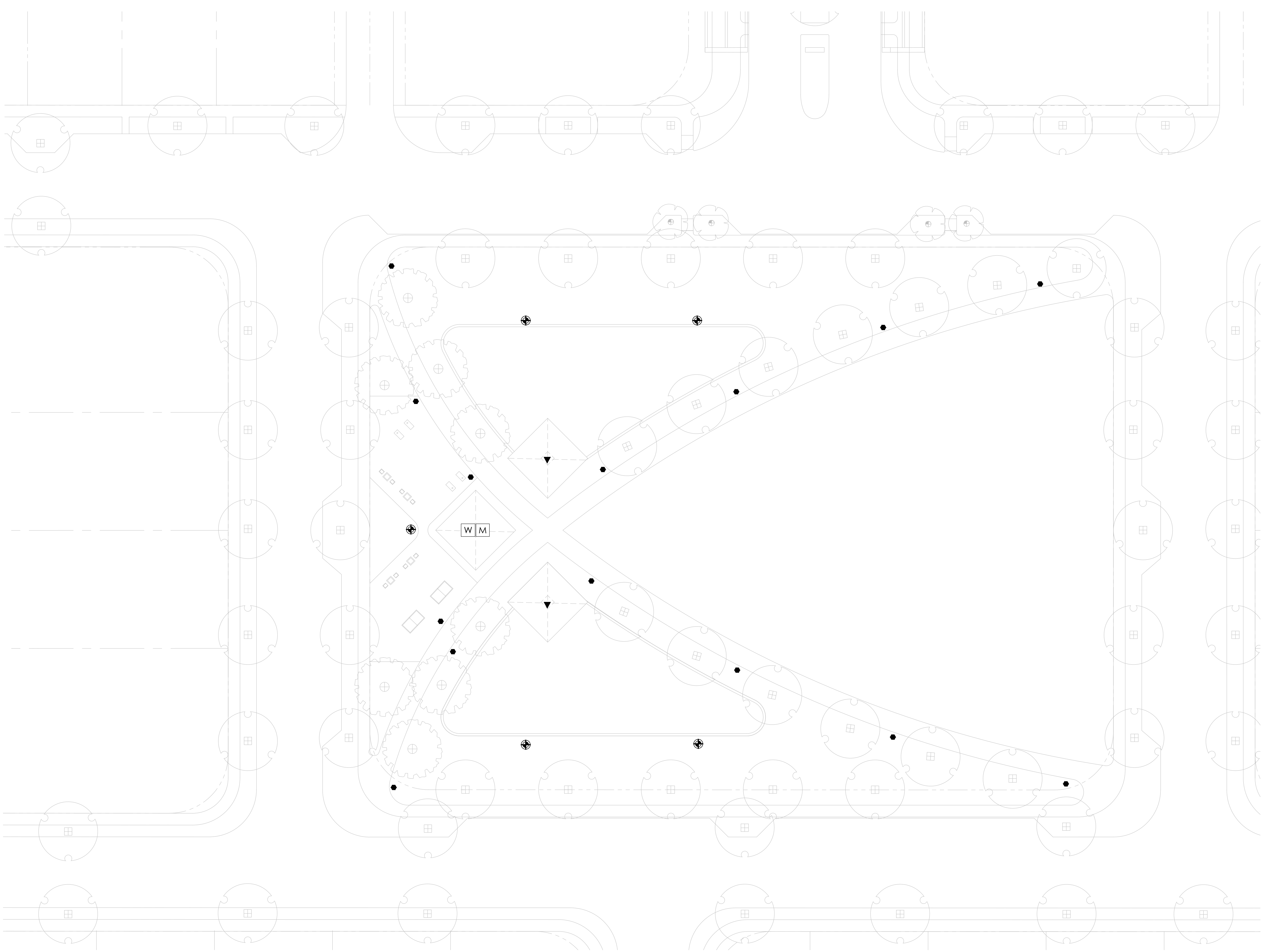
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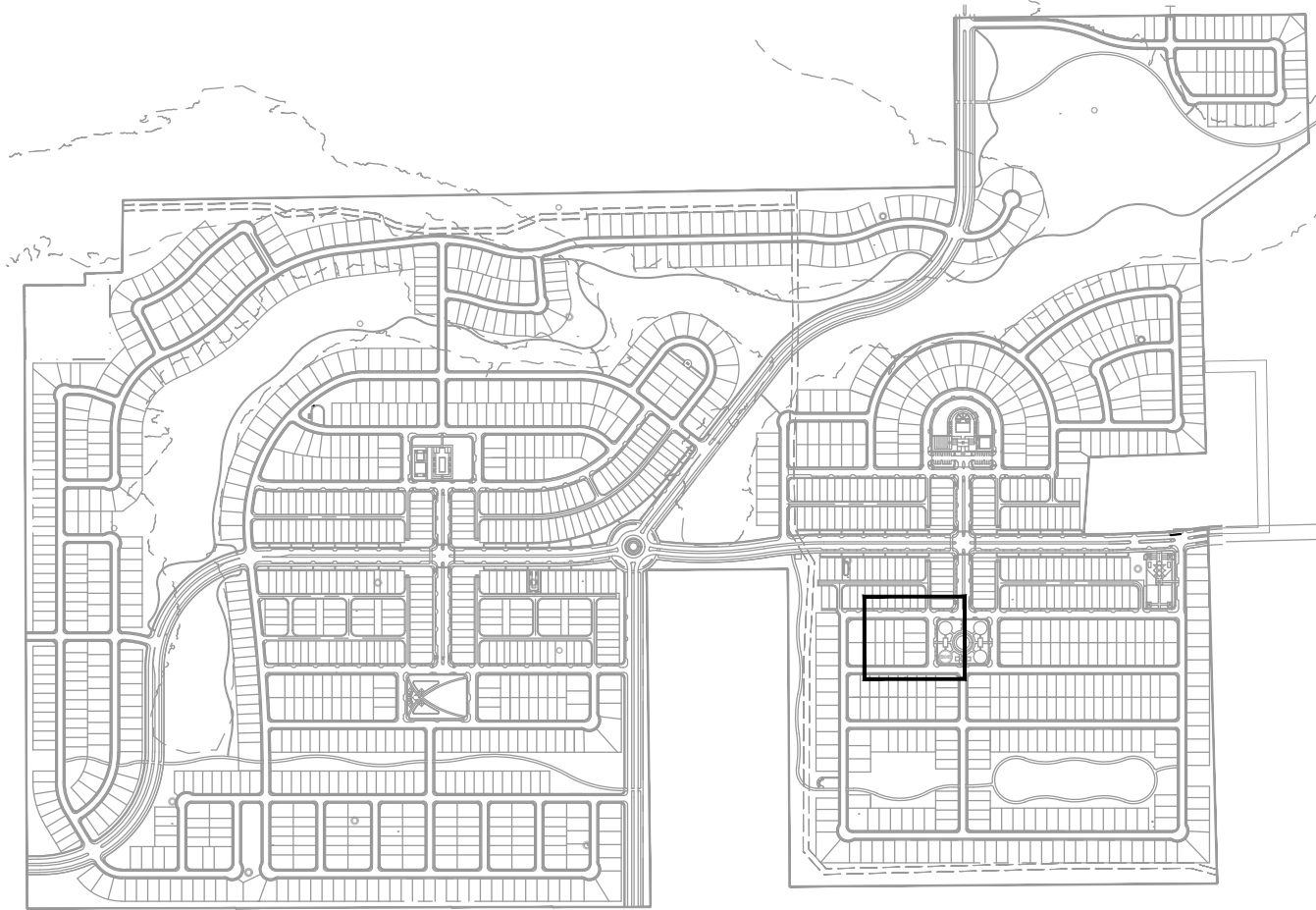
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KEY MAP



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SPORT LIGHT



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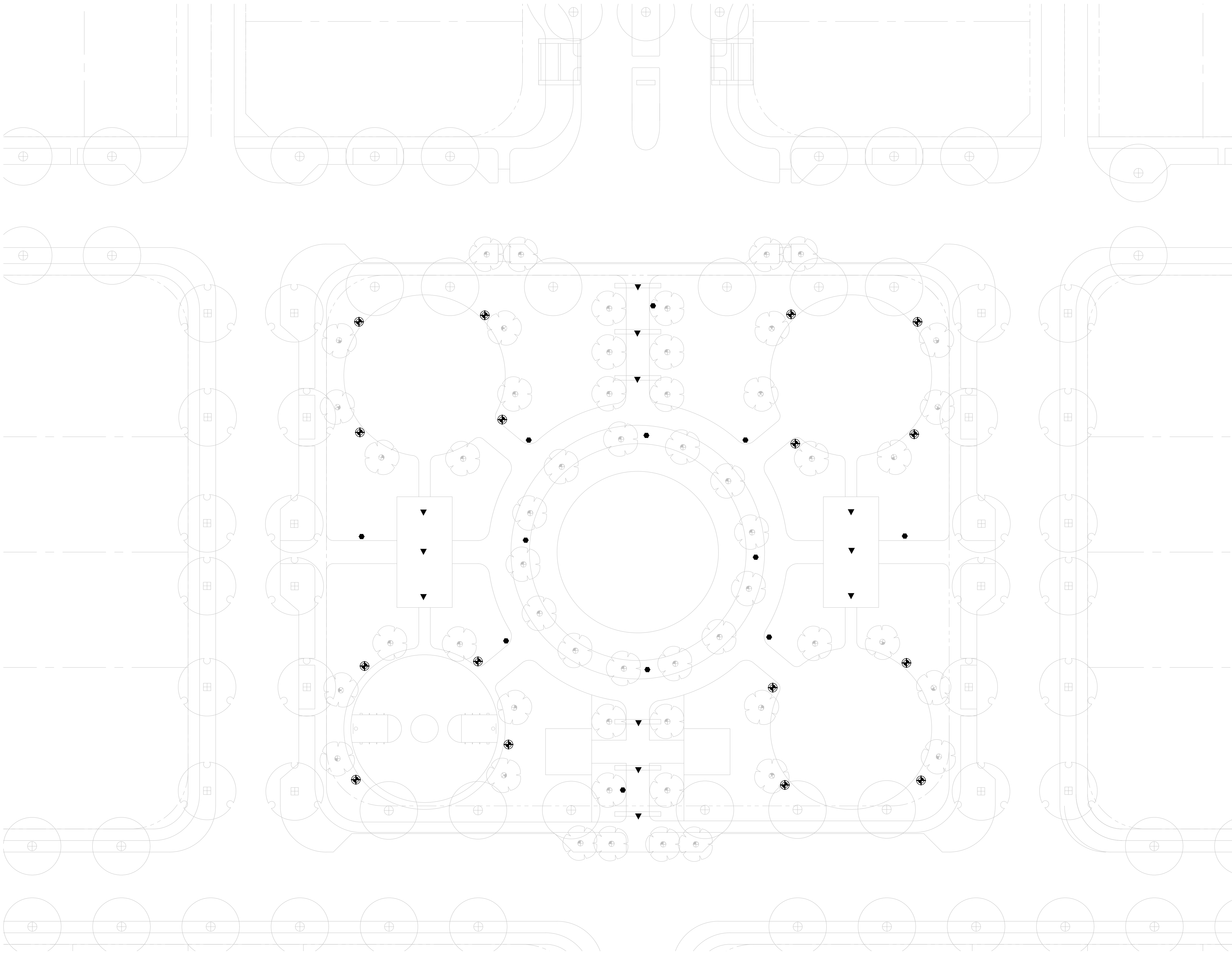
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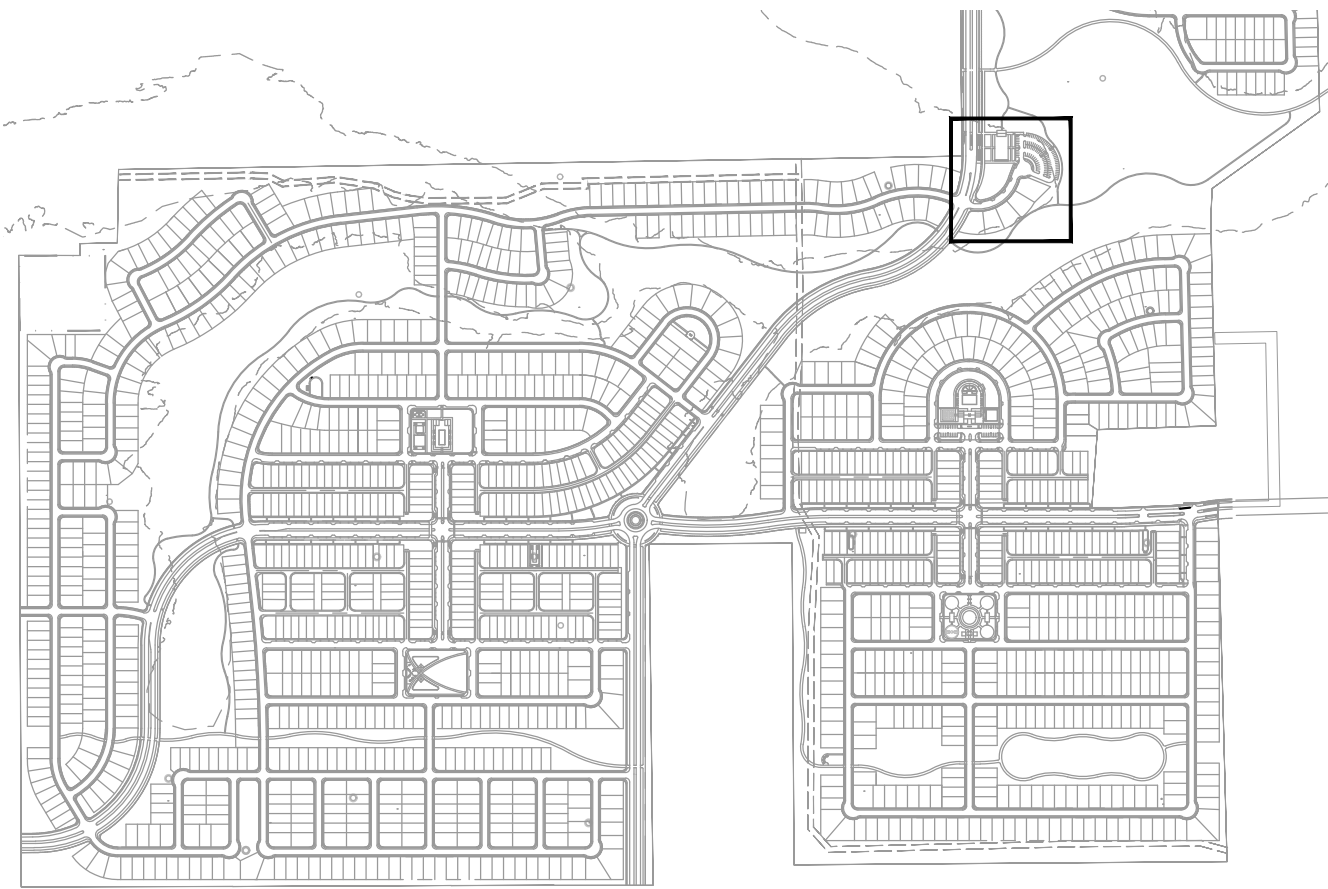
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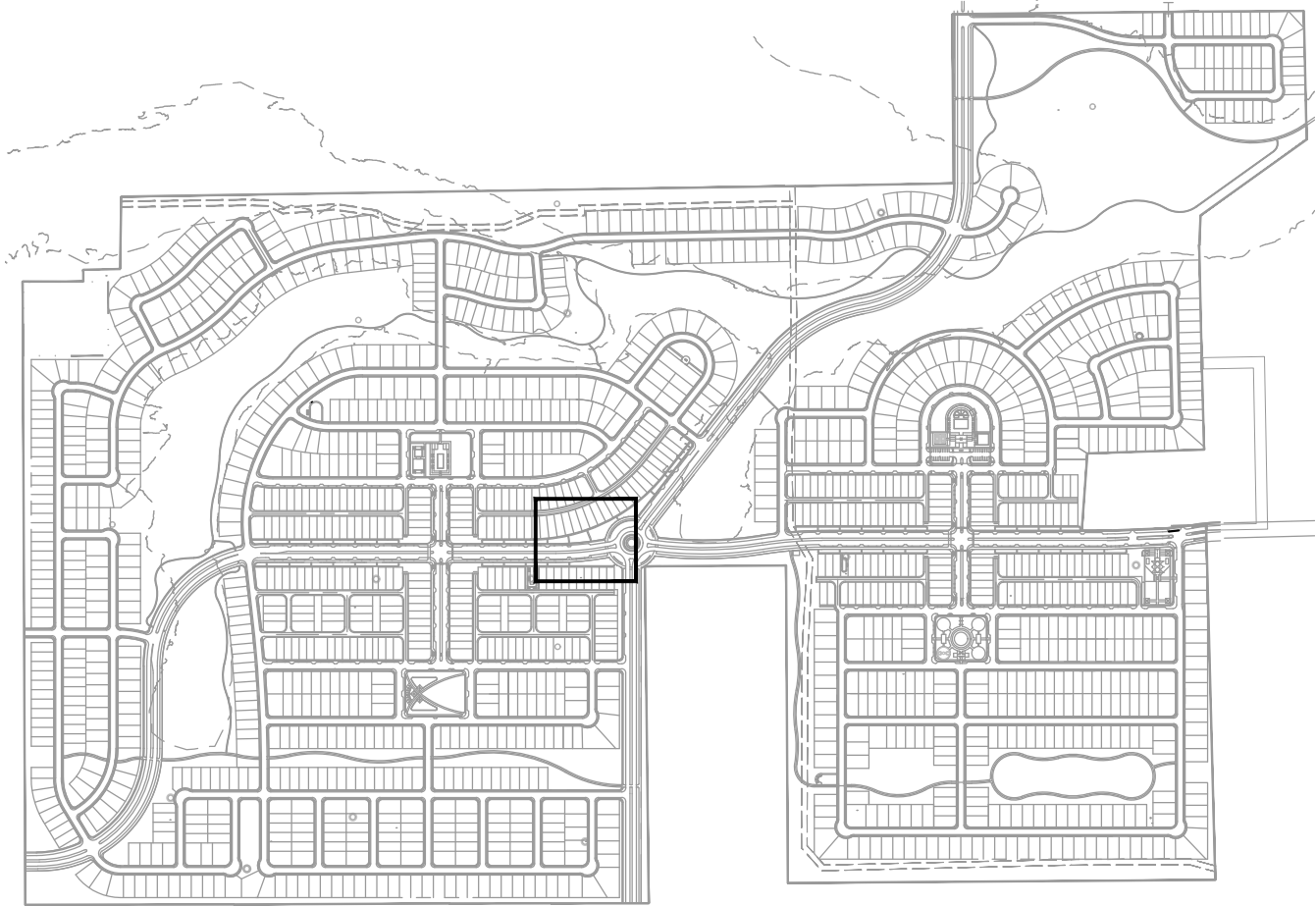


2025-04-09

CUESTA  
PAVILION PARK - PHOTOMETRIC EXHIBIT







KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
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SPORT LIGHT



LIGMAN - LIGHT LINEAR  
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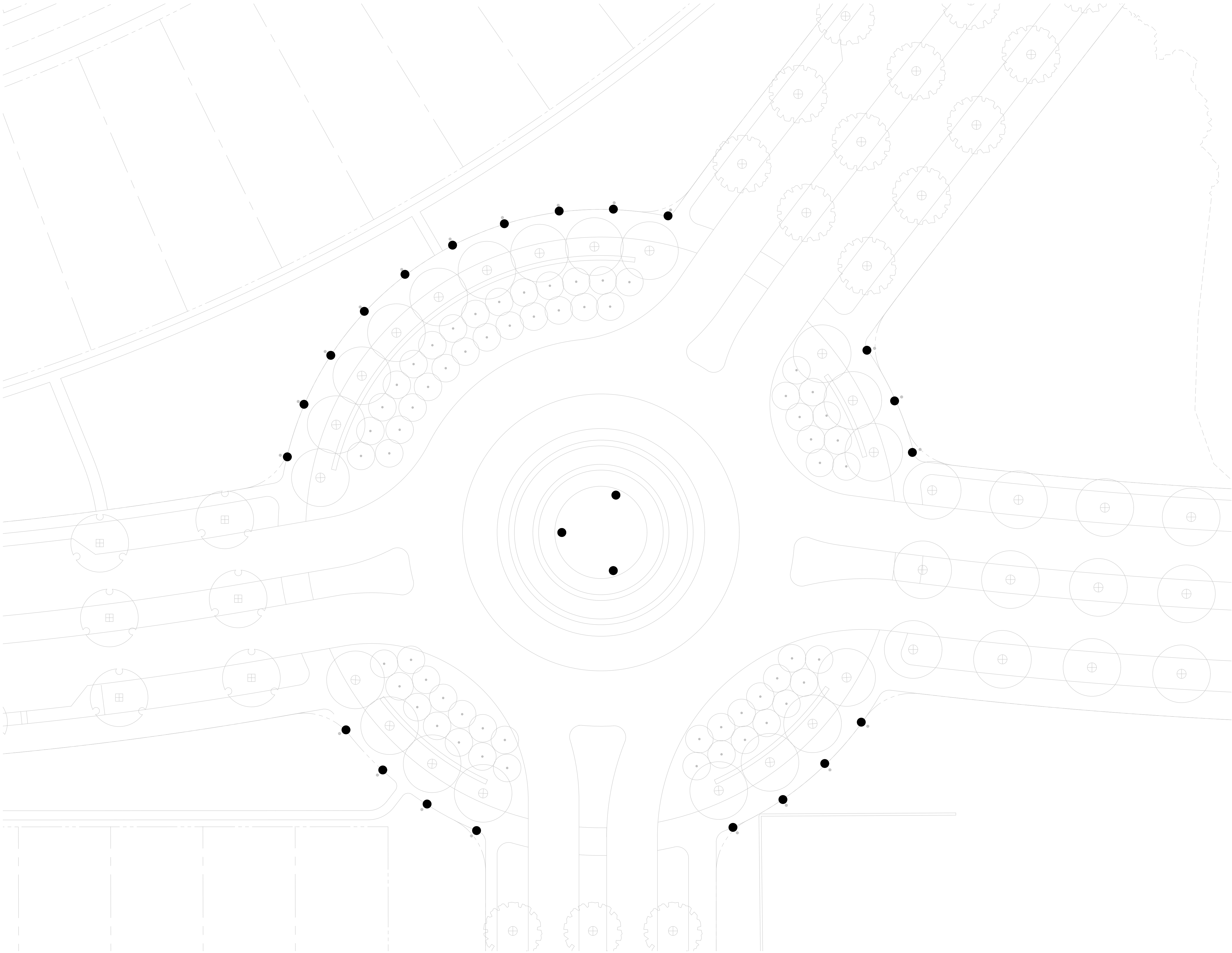
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# EXHIBIT B

## CUESTA

### DEVELOPMENT REGULATIONS

#### Planned Development – 538.99 Acres

##### I. PURPOSE

This Planned Development includes the land more particularly described on Exhibit "A" (the "Property").

The Cuesta development aims to establish a diverse and vibrant neighborhood, offering a mix of single-family homes. The trails provided throughout the Property harmonize with the Property's natural topography, and allow for connectivity within the neighborhood and broader community. The varied housing options target housing attainability and cater to residents at different life stages. The project ensures easy access to amenities and site features with connections and trails throughout the site. The central amenity, park and open space areas form the heart of the community with diverse recreational experiences, enhancing community engagement.

Development and use of the Property shall comply with the Zoning Ordinance, Chapter 52 of the City of Justin Code of Ordinances, in effect on the date of approval of this PD Ordinance (the "Zoning Ordinance"), as amended by this PD Ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD Ordinance shall control. In the event of a conflict between this PD Ordinance and the Concept Plan/ Development Plan (defined below) or any other exhibits attached hereto, this PD Ordinance shall control. In the event of a conflict between the Concept Plan/ Development Plan and any other exhibits attached hereto and the Zoning Ordinance, the Concept/ Development Plan and exhibits attached hereto shall control.

##### II. DEVELOPMENT PLAN

A conceptual master plan for development of the Property is attached as Exhibit "B" ("Concept Plan/ Development Plan") and all development shall generally conform to the Concept Plan/ Development Plan, except as may be modified as provided herein. The Concept Plan/ Development Plan shall satisfy all requirements under the Zoning Ordinance to submit/ approve a development plan for this PD and no further development plan or approvals by the Planning and Zoning Commission or City Council with respect to a development plan shall be required.

Changes of detail or amendments to the Concept Plan/ Development Plan, or any other exhibits attached hereto may be authorized by the Director of Development & Economic Development or his/her designated representative (the "Director") so long as such changes or amendments: do not alter the basic relationship of the proposed development to adjacent property and which do not alter the uses permitted, increase the density above 1,600 dwelling units, increase building height above 35 feet, or increase lot coverage for any residential lot above 70% and which do not decrease the required off street parking required

pursuant to Section X, or reduce the minimum yards required pursuant to Section XIII.F. of these Development Regulations (below). The applicant may appeal the decision to deny an amendment to the Concept Plan/ Development Plan or any other exhibits attached hereto to the City's Planning and Zoning Commission and may appeal the decision of the City's Planning and Zoning Commission to the City Council. For any amendments that are not authorized to be approved by the Director herein or are otherwise authorized elsewhere in the Zoning Ordinance, the applicant may apply for an amendment through the same process as a zoning amendment.

The Property may be developed in phases. The phases are not required to exactly conform to the boundaries as shown on Exhibit "C" and the phase boundaries may be adjusted at the time of platting without requiring an amendment to the Concept Plan/ Development Plan.

### **III. DEFINITIONS**

- A. 40 ft lot – means a lot with a width of at least 40 feet, but less than 50 feet.
- B. 50 ft lot – means a lot with a width of at least 50 feet, but less than 60 feet.
- C. 60 ft lot – means a lot with a width of at least 60 feet, but less than 70 feet.
- D. 70 ft lot – means a lot with a width of at least 70 feet.
- E. Masonry – shall be defined as exterior construction materials consisting of one or a combination of the following: brick material, fiber cement siding (such as Hardiplank or Hardiboard), stucco, stone, concrete and other built up/tilt panels. The Director may approve other materials as masonry materials in addition to those materials listed herein.
- F. Open Space — means an area accessible to all residents within the Property that may include without limitation landscaping, sidewalks, trails, recreational facilities (e.g., playground equipment or other recreational facilities), seating areas, a pavilion or other shade structure(s), community gathering places, benches, trees, amenities, natural features, and/or water features. Open space may also include areas that are accessible to the general public within the Property after such areas have been dedicated to the City.

### **IV. USES**

Permitted Uses – One-Family Detached Dwelling and all other uses allowed in the SF-2 — Single-family residential district ("SF-2 District") of the Zoning Ordinance shall be permitted on the Property, in addition to the following uses which shall be expressly permitted:

- 1) Amenity Centers;
- 2) Community Pools;



- 3) Gazebos;
- 4) Pavilions;
- 5) Tennis and Sport Courts;
- 6) Accessory Buildings;
- 7) Ponds, detention and/or retention areas;
- 8) Open space;
- 9) Playgrounds;
- 10) Splash pad(s);
- 11) Farmer's market (may be open to the public);
- 12) Food trucks;
- 13) Community garden(s);
- 14) Event lawn that may host periodic public events such as concerts or artistic performances [*allowed only in the Public Parks (defined herein)*]; and
- 15) Other amenities allowed or contemplated herein or in the exhibits attached hereto.

Uses allowed by Specific Use Permit in the SF-2 District are allowed in this district, subject to procedures for approval of Specific Use Permits in the Zoning Ordinance.

## **V. HOMEOWNERS' ASSOCIATION; CITY MAINTENANCE OF TRAILS**

A Homeowners' Association (HOA) will be formed and will be responsible for the maintenance of the common areas, entry features, private open space areas, and perimeter fencing and landscaping. The City will own and be responsible for the maintenance of any open space or park areas dedicated to the City pursuant to Section XI herein (including without limitation the Public Open Space and Public Parks). The City will be responsible for all maintenance and operation of any public trails (including within limitation the Nature Trail, Multi Use Trail and Regional Trail, each as defined herein).

## **VI. LANDSCAPE BUFFER**

- A. 20-foot Landscape Buffer. A landscape buffer with a minimum width of twenty (20) feet from the perimeter property line shall be provided where homes front a collector street in the locations generally shown on the Exhibit "D" as the "20 Ft Buffer Yard Requirement". Trails and sidewalks shall be permitted within this 20 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:

- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) Berms shall not be required. A screening wall or fence shall not be required.
- B. 15-foot Landscape Buffer. A landscape buffer with a minimum width of fifteen (15) feet from the perimeter property line shall be provided where homes back or side to a collector street in the locations generally shown on the Exhibit “D” as the “15 Ft Buffer Yard Requirement”. Trails and sidewalks shall be permitted within this 15 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:
- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) A minimum six feet (6’) tall masonry wall will be provided.
  - 5) Berms shall not be required.
- C. No landscape buffer yard or setback shall be required except in the locations shown generally on Exhibit “D”, notwithstanding any requirements in Division 5 of the Zoning Ordinance (Landscaping and Buffer Requirements). The requirements noted herein shall apply in lieu of any landscape buffer/ buffer yard requirements in the Zoning Ordinance. By way of clarity and notwithstanding any requirements herein or in the Zoning Ordinance to the contrary, (1) where floodplain abuts an arterial or collector street, the buffer yard requirements do not apply, and such areas may be left in their natural state; and (2) neither a screening wall nor buffer yard is required when the rear or side yards of a residential subdivision abut a local street.

## **VII. RESIDENTIAL DENSITY**

- A. The maximum number of dwelling units in the aggregate on the Property shall be `1,600. There is no maximum floor area and no maximum number of dwelling units per acre.
- B. The developer is not strictly bound by the locations of lot types as shown on the Concept Plan/ Development Plan. Notwithstanding the proposed locations of lot types as shown on the Concept Plan/ Development Plan, the developer may change the location of lot types (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) and relocate lot types so long as: (i) the total number of 40 ft lots within the overall

Property (not by phase) does not increase by more than 10% of the total number of 40 ft lots shown on the Concept Plan/ Development Plan, (ii) the total number of 50 ft lots within the overall Property (not by phase) does not increase by more than 15% of the total number of 50 ft lots shown on the Concept Plan/ Development Plan, (iii) the total number of 60 ft lots within the overall Property (not by phase) does not decrease by more than 15% of the total number of 60 ft lots shown on the Concept Plan/ Development Plan; and (iv) the total number of 70 ft lots within the total Property (not by phase) does not decrease by more than 10% of the total number of 70 ft lots shown on the Concept Plan/ Development Plan.

## **VIII. AREA REQUIREMENTS AND DEVELOPMENT STANDARDS**

- A. The primary development and land use standards for this project will be based upon the standards outlined in this document. The Property shall be developed in accordance with the standards applicable to the SF-2 District, except as amended or otherwise set forth in this PD Ordinance.
- B. 50 ft lots, 60 ft lots and 70 ft lots may be front entry.
- C. Minimum Lot Area.
  - 1) The minimum lot area for the following lot widths shall be as follows:
    - a. 40 ft lot: 4,200 square feet
    - b. 50 ft lot: 5,750 square feet
    - c. 60 ft lot: 6,900 square feet
    - d. 70 ft lot: 8,050 square feet
  - 2) A maximum of 10% of each lot type (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).
- D. Minimum lot width shall be as follows:
  - 1) 40 ft lots: 40 feet
  - 2) 50 ft lots: 50 feet
  - 3) 60 ft lots: 60 feet
  - 4) 70 ft lots: 70 feet
- E. Minimum Lot Depth. The minimum lot depth shall be:
  - 1) 40 ft lots: 105 feet.



- 2) 50 ft lots, 60 ft lots, and 70 ft lots: 115 feet.

F. Yard Requirements

1) Minimum Front Yard Setback

- a. The minimum front yard setback shall be:

(a) 40 ft lots: 5 feet.

(b) 50 ft lots, 60 ft lots, and 70 ft lots: 20 feet.

- b. Porches on 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots may encroach into the required front yard by a maximum of 5 feet.

2) Minimum Interior Side Yard

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 5 feet.

3) Minimum Corner Side Yard (street side)

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

4) Minimum Rear Yard Setback

- a. 40 ft lots: 20 feet.

- b. 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

- G. Maximum Lot Coverage: 70 percent per lot for main and accessory buildings. Lot coverage means the lot area covered by all buildings located thereon, including the area covered by all overhanging roofs, except that lot coverage calculations shall exclude the driveway regardless of whether a roof overhang is located over the driveway.

- H. Maximum Height: up to 35 feet

- I. The tables below illustrate the above development standards for ease of reference. In the event of a conflict between Section XIII.A. – H. and the tables below, Sections XIII.A. – H. shall control.

**Area Regulations for 40-foot lots.** Area regulations for 40-foot lots shall be as follows:

|                          |                   |
|--------------------------|-------------------|
| <b>Minimum Lot Area*</b> | 4,200 square feet |
| <b>Misc.</b>             | Rear loaded       |

|                                |           |
|--------------------------------|-----------|
| <b>Min. Lot Width</b>          | 40 feet   |
| <b>Min. Lot Depth</b>          | 105 feet  |
| <b>Min. Front Yard</b>         | 5 feet    |
| <b>Min. Interior Side Yard</b> | 5 feet    |
| <b>Min. Corner Side Yard</b>   | 15 feet   |
| <b>Min. Rear Yard</b>          | 20 feet   |
| <b>Max. Lot Coverage</b>       | 70%       |
| <b>Max. Height</b>             | up to 35' |

\* A maximum of 10% of the total number of 40 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 50-foot lots.** Area regulations for 50-foot lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 5,750 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 50 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 50 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 60-foot lots.** Area regulations for 60-foot lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 6,900 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 60 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 60 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints.

**Area Regulations for 70-foot lots.** Area regulations for 70 ft lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 8,050 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 70 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |



\* A maximum of 10% of the total number of 70 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

## **IX. BUILDING DESIGN**

- A. The following minimum design and construction standards shall apply within the Property in this Planned Development. The requirements in this section shall apply in lieu of any exterior construction, building materials or design requirements in the Zoning Ordinance (including but not limited to Section 52-87 of the Zoning Ordinance) and shall be the exclusive exterior construction, building materials, and design requirements that apply to the development of the Property.
- B. Masonry Requirements.
  - 1) Front Elevation Wall Surface Area — A minimum of 80% Masonry on front surface area of main dwelling unit (calculation shall exclude area covered by windows and doors). No more than 50% of the total dwelling units developed within the Property shall have fiber cement siding material or stucco on more than 50% of the front façade surface area. More than 50% of the total dwelling units within a phase may have fiber cement siding or stucco on more than 50% of the front façade surface area so long as the total overall within the development as a whole (all phases combined) is 50% or less.
  - 2) Except as noted in subsection B(1) above, there shall be no limit on the percentage of the exterior masonry construction requirements for residential structures that may be met by fiber cement siding. There is no minimum percentage of stone construction.
  - 3) Side and Rear Wall Elevation Surface Areas — A minimum of 25% Masonry on Side and Rear Elevations of main dwelling unit (calculation shall exclude area covered by windows and doors).
  - 4) There is no minimum masonry percentage for amenity buildings, restroom facility buildings or accessory buildings.
- C. Building Elevations.
  - 1) Building elevations shall be submitted to the Director prior to the issuance of a building permit. The Director will approve the building elevations if they substantially conform to the requirements of Section IX.B(1)-(4) above.
  - 2) All required elevations shall include sufficient detail to allow the Director to evaluate whether the proposed elevations meet the requirements of IX.B(1)-(4) above, and shall include identification of predominant exterior building materials. The residential building elevations depicted on Exhibit

“E” are an example of building elevations illustrating compliance with the requirements of Section IX.B(1)-(4) above and a sample of the level detail that should be provided in elevations.

- 3) The applicant may submit alternate materials, design or changed elevations that differ from Exhibit “E” and the Director will approve such elevations if the elevations meet the requirements of Section IX.B(1)-(4) above. The different/alternative building elevations are not required to be the same architectural style or color palette as what is shown on Exhibit “E”.

**D. Minimum Roof Pitch.**

- 1) In general (except as provided in (2) below): minimum roof pitch of 6:12.
- 2) Other structures attached to or separate from the main home (such as porches, covered porches, etc.) and roof over garages: minimum 4:12 roof pitch.

**X. PARKING**

- A. Minimum Off-Street Parking; Garage Requirements: Each dwelling unit shall have no less than two enclosed parking spaces that shall be located in a garage. Garages shall provide a minimum of 16ft garage door opening and a minimum inside clear width from wall to wall of 18ft and a minimum inside depth of 18ft.

**XI. OPEN SPACE DEDICATION AND PUBLIC AMENITIES**

- A. Developer agrees to dedicate open space in the location(s) generally shown on Exhibit “F” attached hereto as “floodplain/ open space (dedicated to the City)” and “open space (dedicated to the City)” (the “Public Open Space”) to the City. The Public Open Space is not required to conform exactly to the boundaries as shown on Exhibit “F”, so long as at least 90 acres of open space is dedicated to the City within the overall Property (within the aggregate, including all phases). The Public Open Space may be dedicated in phases or portions (i.e., the total Public Open Space is not required to be dedicated at the same time). The Public Open Space (or portion thereof) is required to be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the Public Open Space is located within or adjacent to (if the Public Open Space is not located within a phase). The Public Open Space and the Public Parks (defined herein) shall fully satisfy the developer or property owner’s obligations under Section 42-126 of the City’s Code of Ordinances to (1) dedicate parkland or pay a fee in lieu thereof; and (2) pay park development fees. Therefore, no parkland dedication (or fee in lieu thereof) and no park development fees shall be due for the development of the Property. Prior to dedication of the applicable portion of the Public Open Space, the developer or property owner shall construct trails within the Public Open Space area as generally shown on Exhibit “F”. Other than the aforementioned trails, the developer or property owner shall not be required to make any improvements to the Public Open Space area. The trails labeled on Exhibit “F” as the “Regional Public

Trail (Public)” (referred to herein as the “Regional Trail”) and “Multi Use Trail (Public)” (referred to herein as the “Multi Use Trail”) shall be at least 12’ wide and constructed of concrete. The trail labeled as the “Nature Trail (Public)” on Exhibit “F” (the “Nature Trail”) shall be at least 4’ wide and is not required to be constructed of concrete. The trails are not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design so long as the trails comply with the minimum requirements herein and are either (i) located in the same general directions shown on Exhibit “F” or (ii) located at other locations approved by the Director. In the event of a conflict between the text of these PD Development Regulations and Exhibit “F”, the text of these PD Development Regulations controls.

- B. Developer agrees to dedicate three (3) public parks to the City in the locations generally identified on Exhibit “F” as the Public “Event Park”, the Public “Play Park” and the Public “Pavilion Park” (each a “Public Park” and collectively, the “Public Parks”). The Public Parks are not required to conform exactly to the boundaries as shown on Exhibit “F” or to any acreages stated herein, so long as at least 1.24 acres is dedicated to the City for the Event Park, at least 1.12 acres is dedicated to the City for the Play Park, and at least one (1) acre is dedicated to the City for the Pavilion Park. The Public Parks may be dedicated in phases (corresponding with the respective phases of development) and shall be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective Public Park is located within or adjacent to (if the Public Park is not located within a phase). Prior to dedication of the applicable Public Park, the developer or property owner shall construct and/or install the following improvements at a minimum within each Public Park, respectively (and may, but shall not be required to, construct additional improvements, in its discretion):
- 1) Pavilion Park: (a) a shade structure or pavilion; and (b) green space areas;
  - 2) Play Park: (a) three (3) playgrounds; (b) a splash pad; and (c) one or more sports courts such as a basketball, tennis or pickleball court;
  - 3) Event Park: (a) an event lawn; (b) at least one playground; and (c) a pavilion or shade structure.

Other than the aforementioned improvements, the developer or property owner shall not be required to make any improvements to the Public Parks, but may include other improvements at its discretion.

- C. The open space, trails, and park requirements in this PD Ordinance shall apply in lieu of any open space, trails, or park requirements in the City Code and shall be the exclusive open space, park, and trail requirements that apply to the development of the Property. For the avoidance of doubt, the dedication of the Public Parks and Public Open Space is not required prior to final plat or approval of any construction plans or building permits and the timing for dedication shall be required as provided herein.



- D. Detention and retention may be provided in open space areas. There is no limit or restriction on the amount of floodplain or natural drainage areas that may be located within the Public Open Space area and no required minimum slope.
- E. Paved parking areas are not required within the Public Parks or Public Open Space area notwithstanding any City Code requirements to the contrary. The developer may designate parallel parking at the perimeter of the Public Parks.

## **XII. PRIVATE AMENITIES**

- A. Developer agrees to install the following amenities for residents within the Property, which may be installed in open space areas or common areas (“Required Private Amenities”):
  - 1) Two separate resident amenity areas north of Range Road (each a “Resident Amenity Area”).
  - 2) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include a playground.
  - 3) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include the following at a minimum: a swimming pool, seating areas, and restroom facilities.
- B. The exact location of the Required Private Amenities and amenities provided within such areas may change during the final design process. The Resident Amenity Areas may include other amenities in addition to the minimum amenities listed in subsection A(2)-(3) above at the developer’s discretion.
- C. The Required Private Amenities may be completed in phases (corresponding with the respective phases of development) and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective amenity is located within.

## **XIII. TRAILS**

- A. Developer agrees to construct a multi-use trail approximately 12 feet in width in the locations generally shown as the “12’ Multi Use Trail (Public)” on Exhibit “F” (“Multi Use Trail”). The Multi-Use Trail is not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design. The Multi-Use Trail will be constructed of concrete and will be publicly accessible. The Multi-Use Trail may be completed in phases and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the trail is located within or adjacent to (if the portion of the trail is not located within a phase).

#### **XIV. STREETS AND ACCESS**

- A. The street sections and street design requirements herein apply in lieu of any standard street section or design requirements in the City Code.
- B. Alleys shall comply with the section titled “30 Ft Alley ROW Street Plan/ Section” on Exhibit “G”.
- C. Except where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” on Exhibit “G”, local streets shall comply with the section titled “50 Ft ROW Street Plan/ Section” on Exhibit “G”.
- D. Where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” (intended for streets directly abutting or providing a connection to a Public Park or Resident Amenity Area), local streets shall comply with the section titled “60 Ft ROW Street Plan/ Section”.
- E. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type A Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type A Street Plan/ Section”.
- F. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type B Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type B Street Plan/ Section”.
- G. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type C Street Plan/ Section” (including portions of a minor arterial and four entrances into the subdivision) will comply with the “100 Ft ROW – Type C Street Plan/ Section”.
- H. Streets are not required to be exactly as shown and street alignments are not required to match exactly what is shown on Exhibit “G”. Exhibit “G” shows where different street sections are located for the current draft Concept Plan/ Development Plan.

**Exhibit "A"**

Legal Description of the Property



## **Exhibit "B"**

### Concept Plan/ Development Plan

**Exhibit "C"**

Phase Exhibit

## **Exhibit "D"**

### Buffer Plan



## **Exhibit "E"**

### **Example of Acceptable Building Elevations**

## **Exhibit "F"**

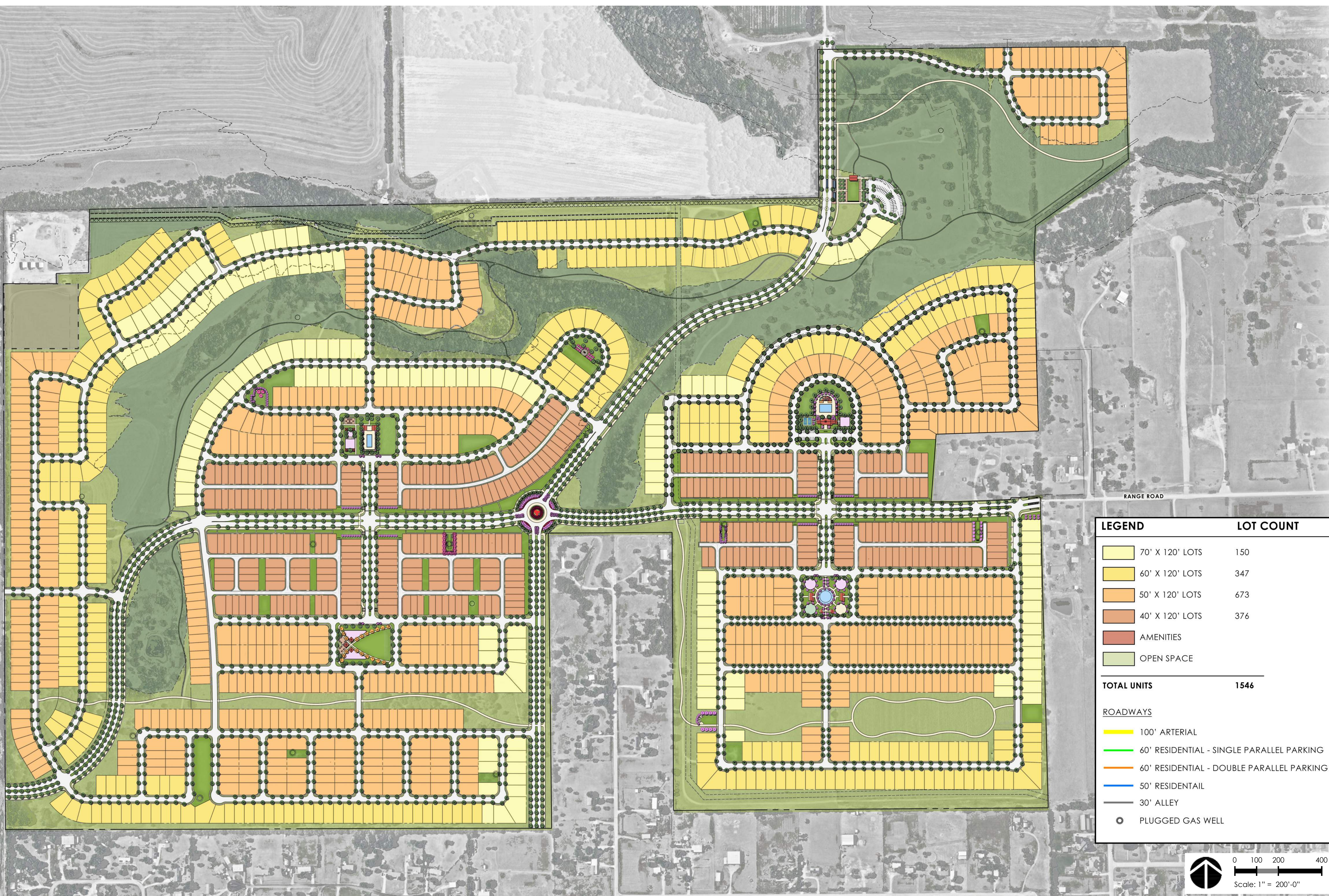
### **Preliminary Open Space and Parks Plan**

**Exhibit "G"**

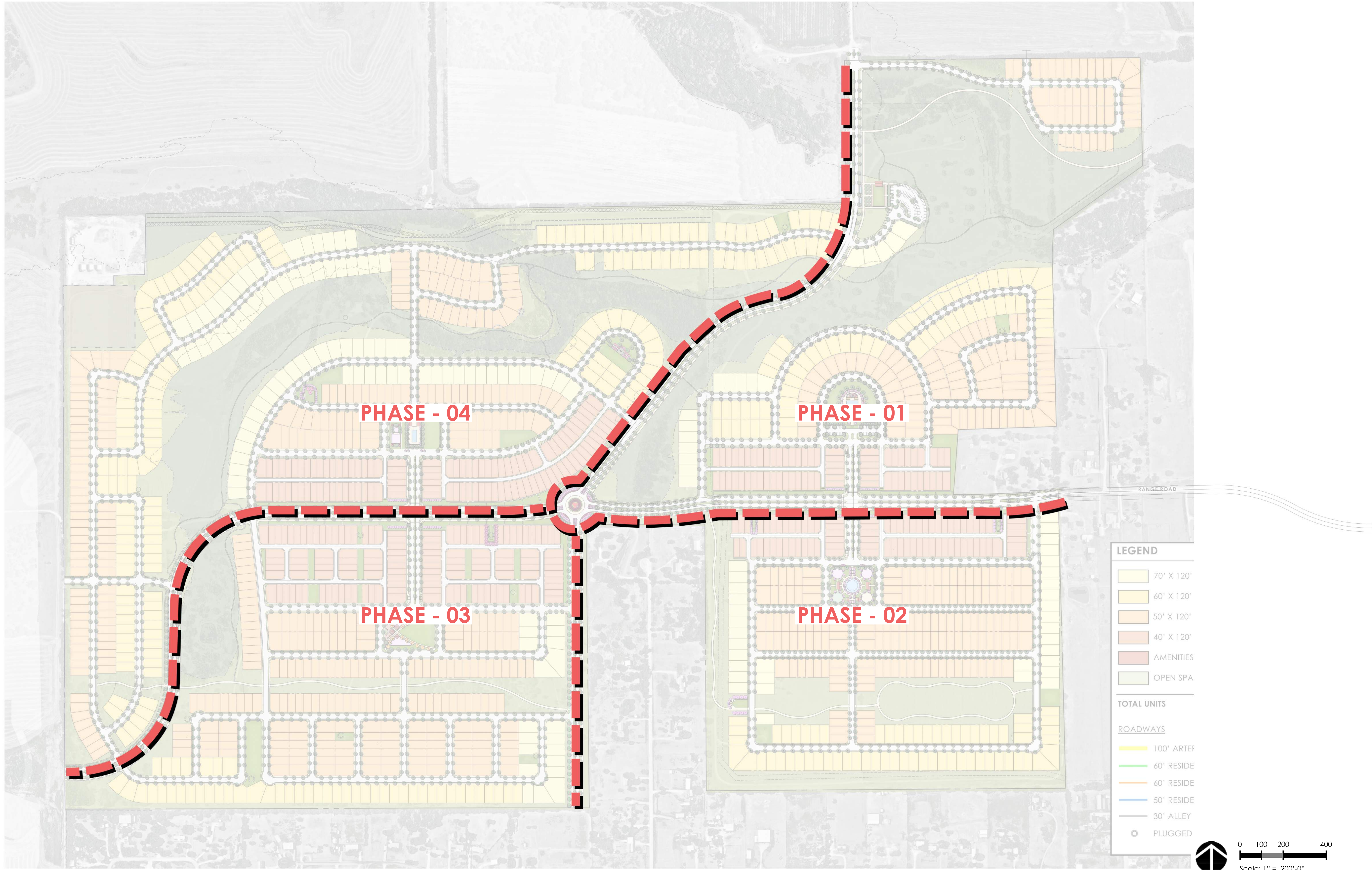
Street Sections



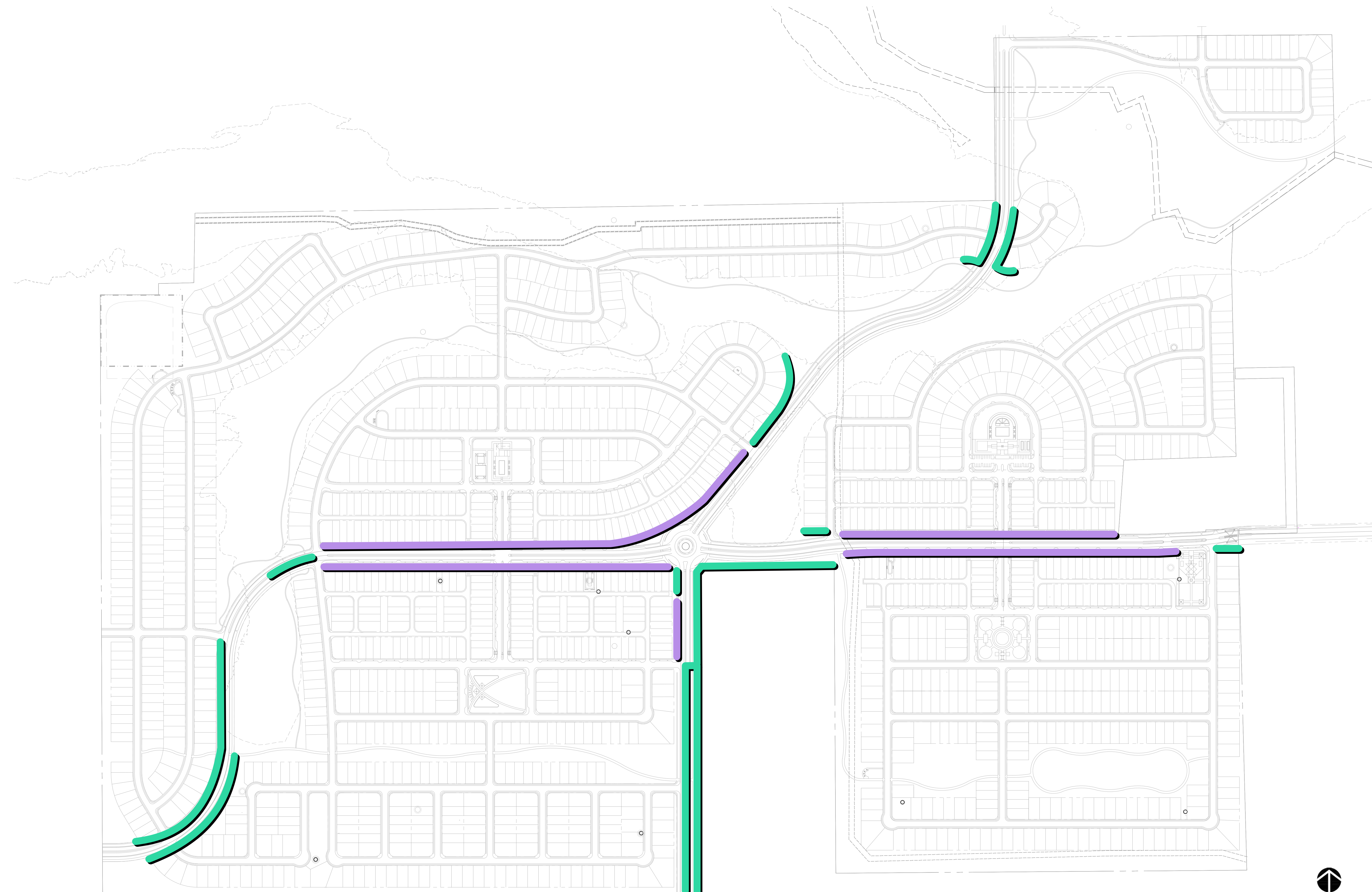
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LEGEND

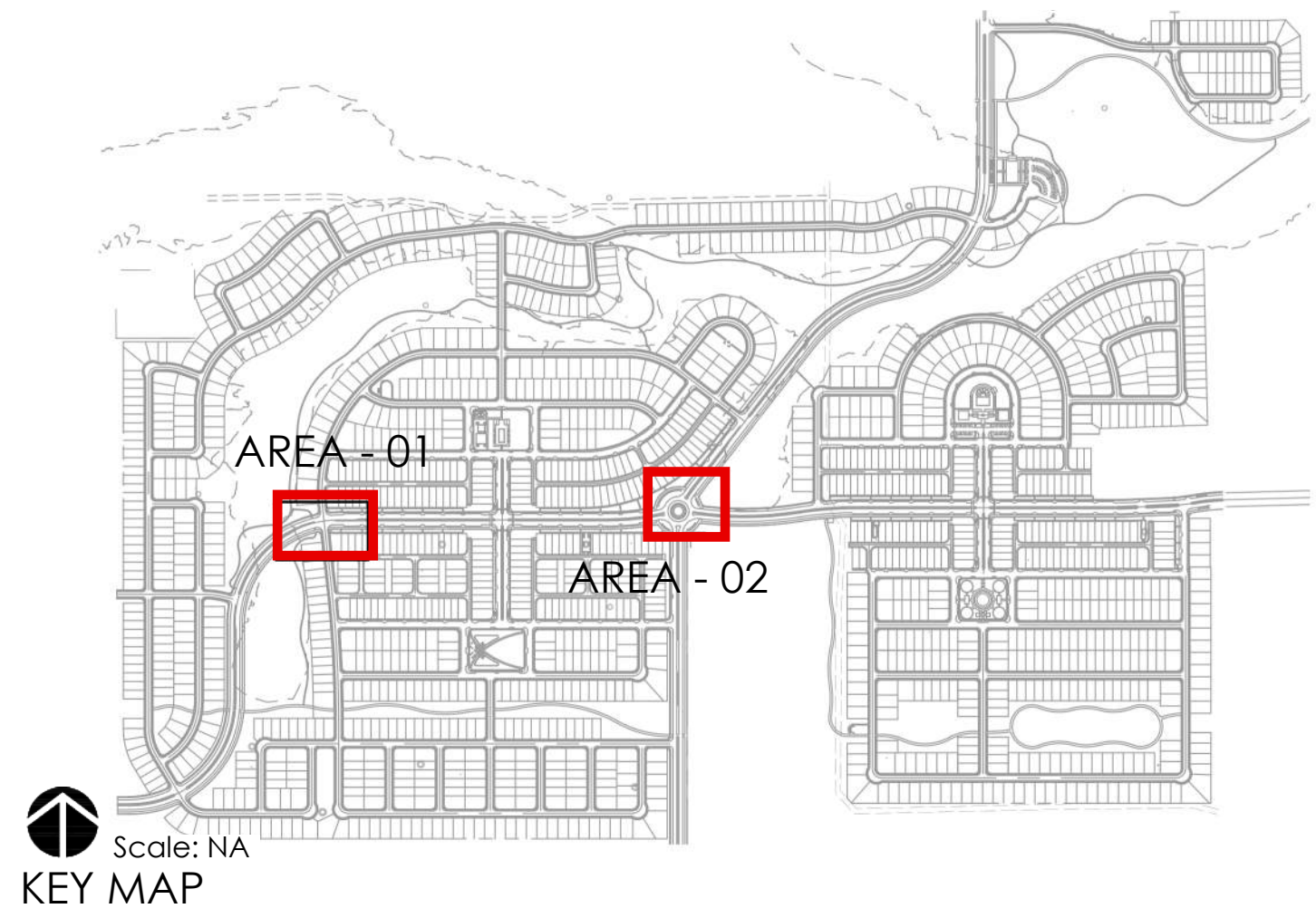
20 FT BUFFER YARD REQUIREMENT

15 FT BUFFER YARD REQUIREMENT

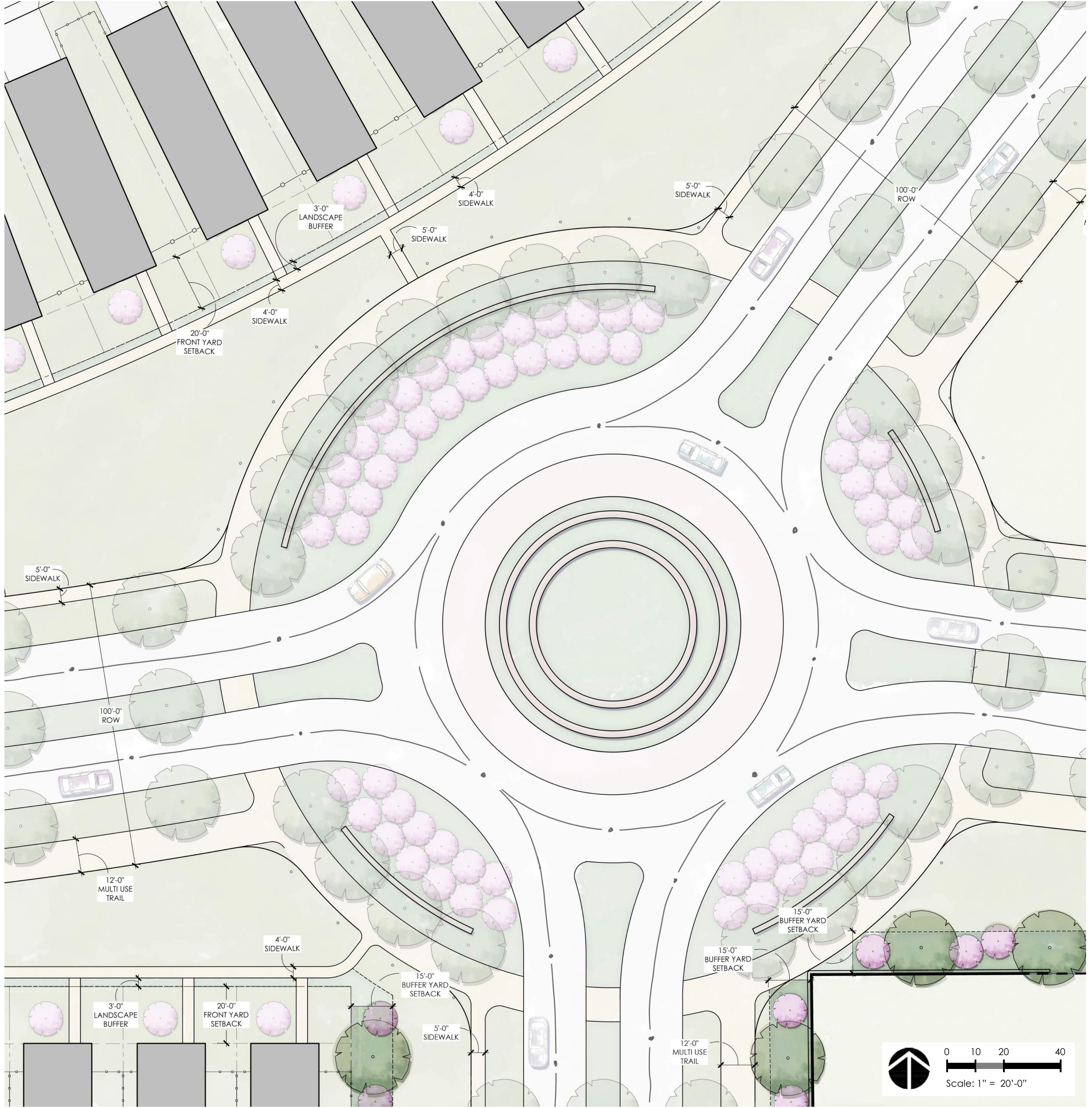
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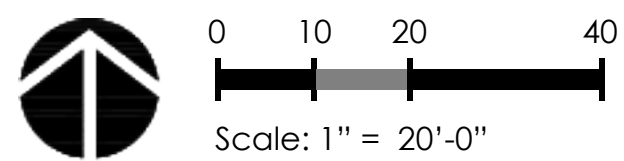
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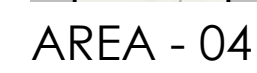
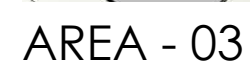
AREA - 01



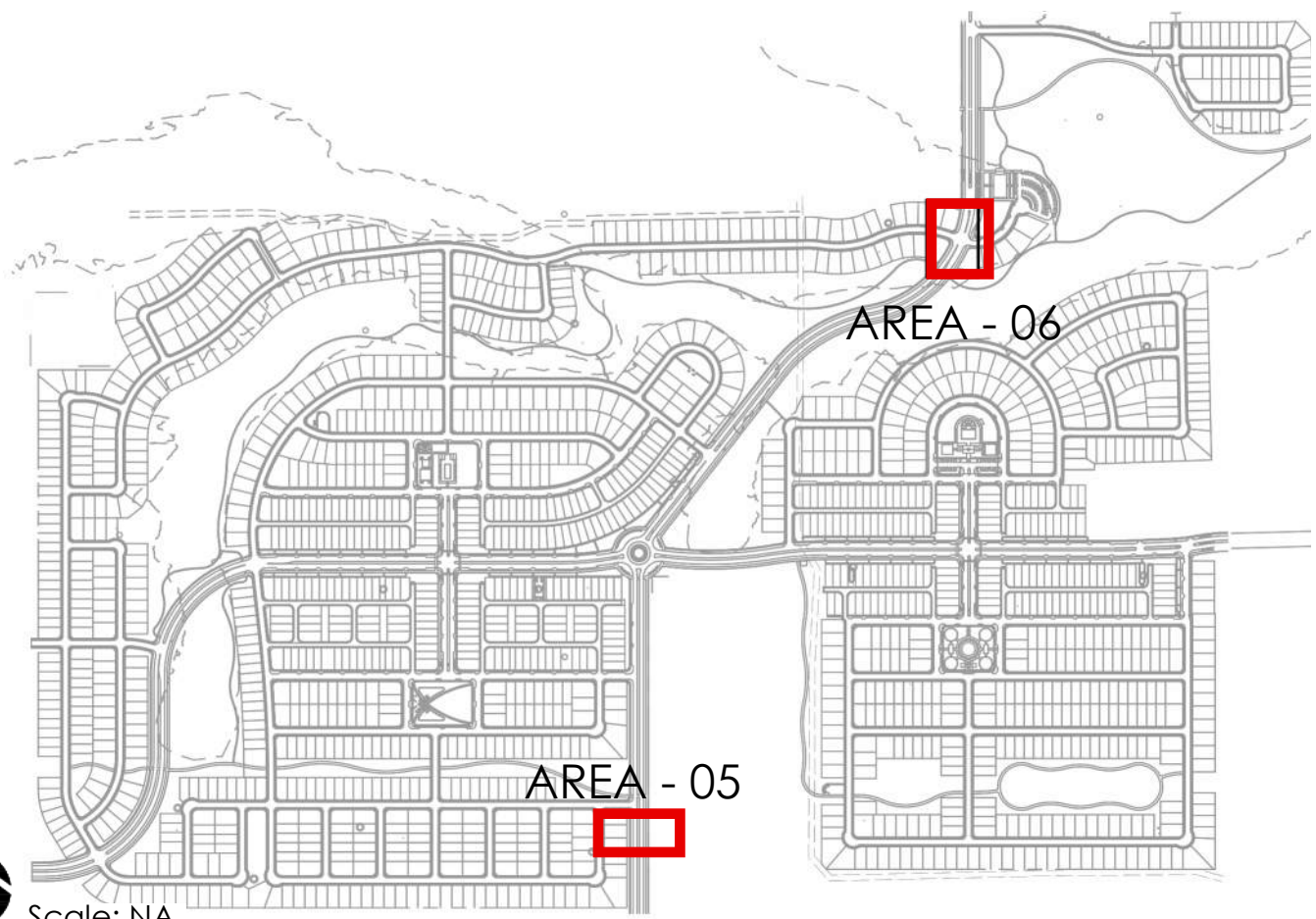
AREA - 02



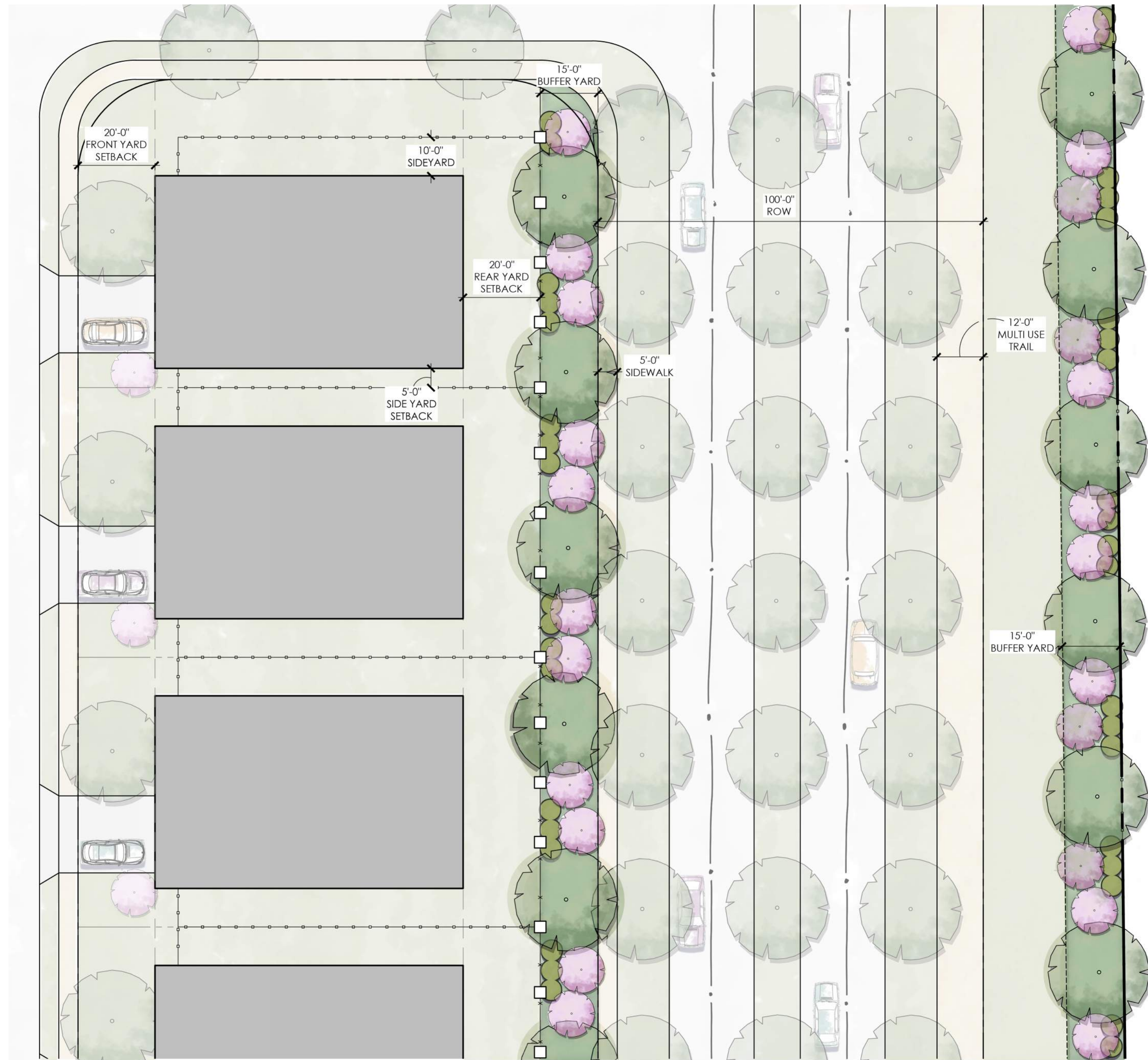








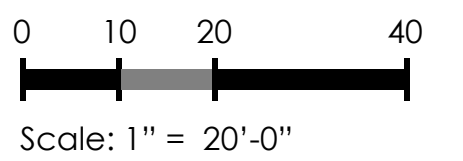
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KEY MAP



AREA - 05



AREA - 06





40' Lot (24' Wide Product)



50' Lot (40' Wide Product)





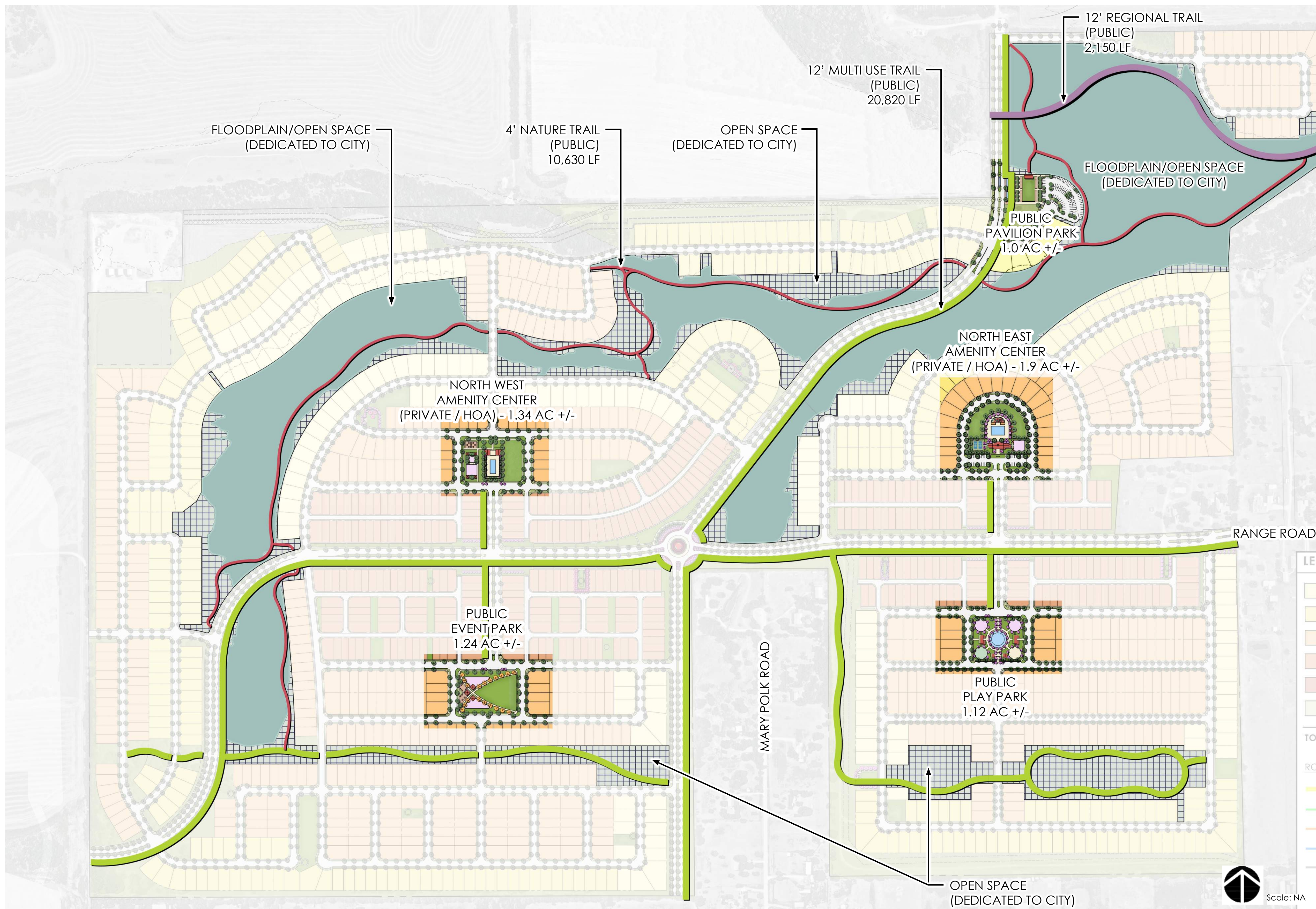
60' Lot (50' Wide Product)



70' Lot (50' Wide Product)



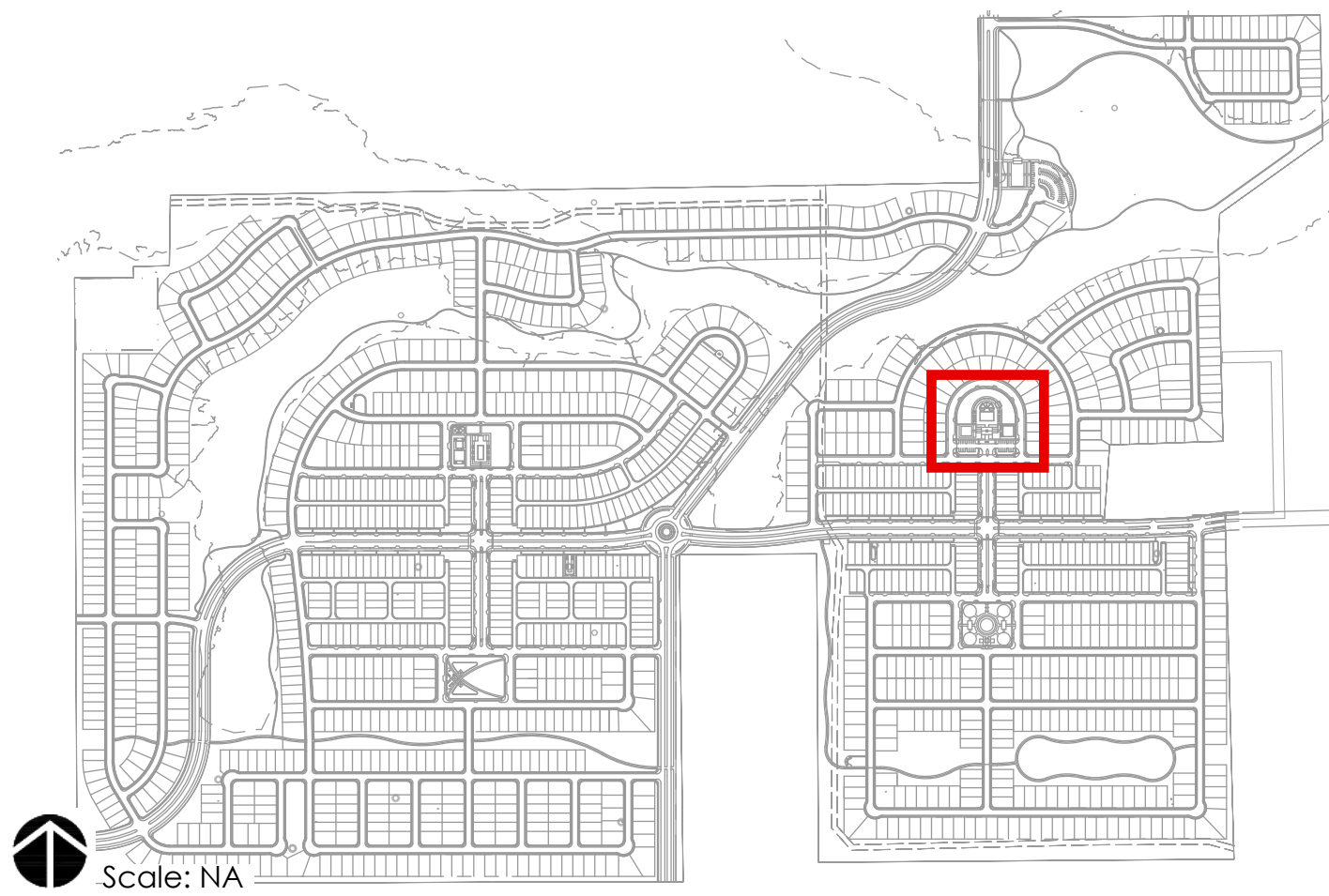




CUESTA - MASTER PLAN

| LEGEND |                              |
|--------|------------------------------|
|        | PUBLIC OPEN SPACE AREA       |
|        | APPROXIMATE FLOODPLAIN LIMIT |





KEY MAP



ARCHITECTURAL AESTHETIC - 01



OPEN LAWN



CANOPY TREE OPTION



PLAYGROUND



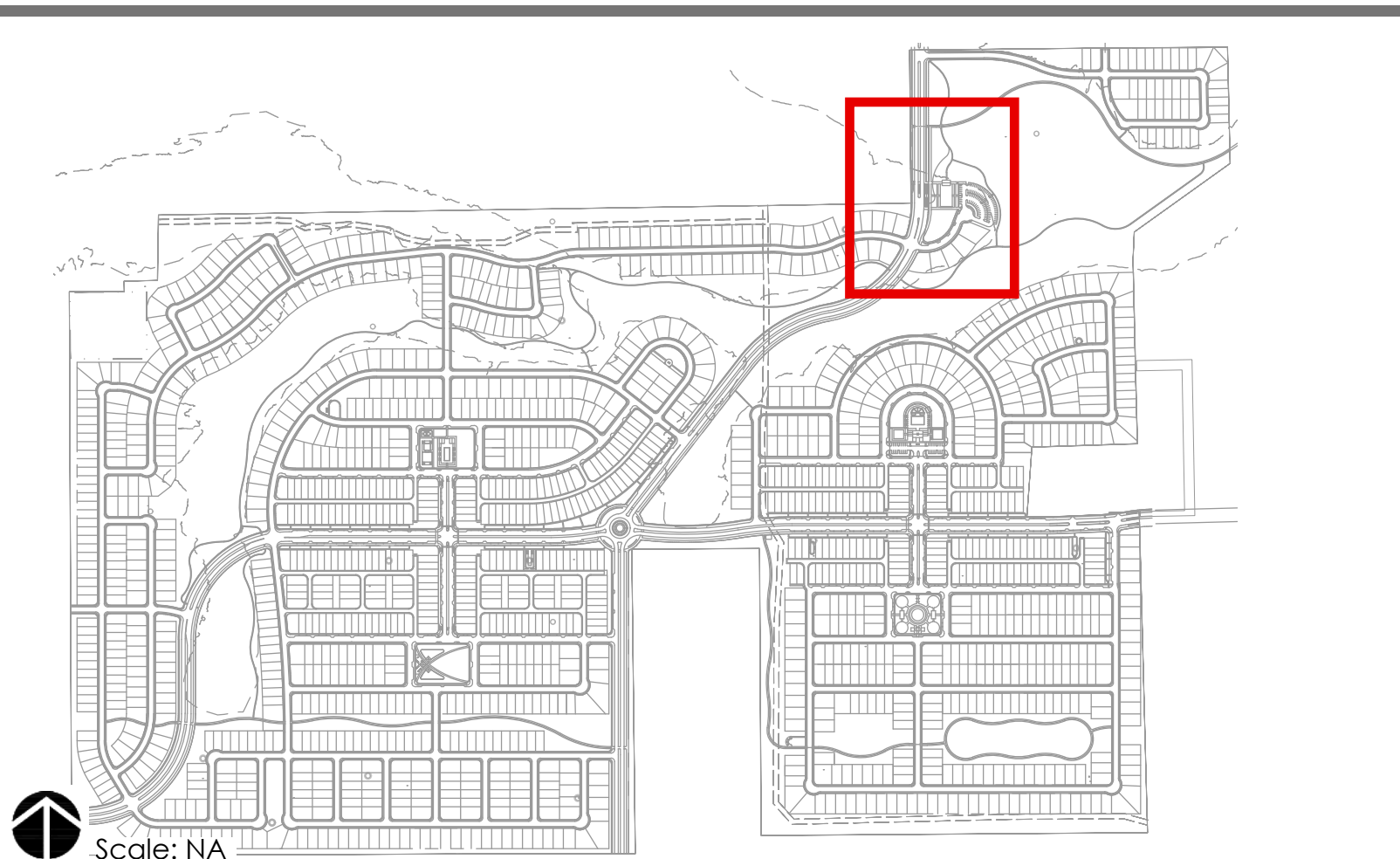
COMMUNITY POOL



PICKLE BALL COURT







KEY MAP



FARMERS MARKET



DEVELOPMENT SIGNAGE AT PAVILION



ARCHITECTURAL AESTHETIC



TEIRED FOUNTAIN INSPIRATION

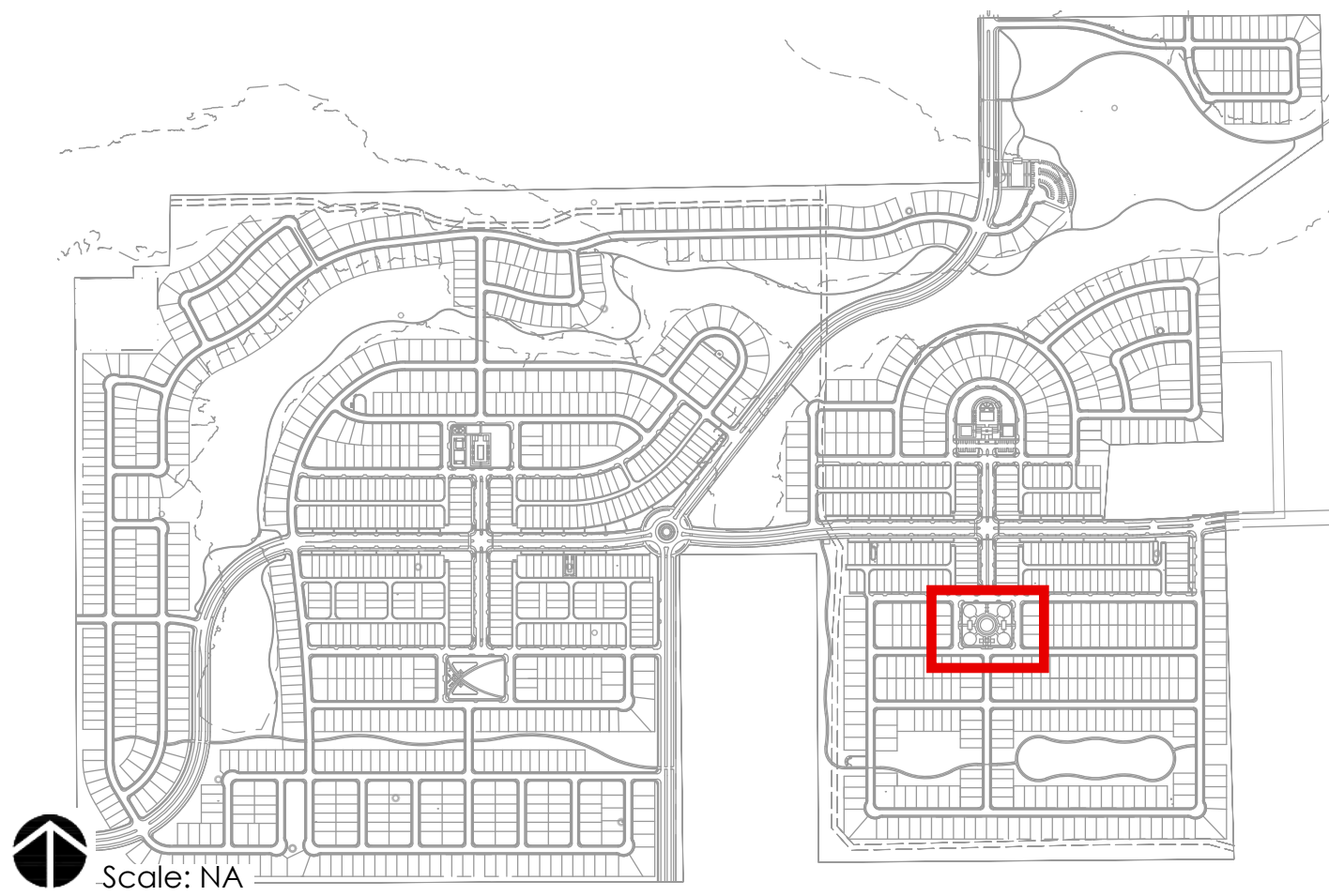


SCUPPER FOUNTAIN INSPIRATION



Scale: NA





KEY MAP



PAVILION - PICNIC / SEATING AREA



ENTRY ARBOR



KID PLAYGROUND



TODDLER-PRESCHOOLER PLAYGROUND



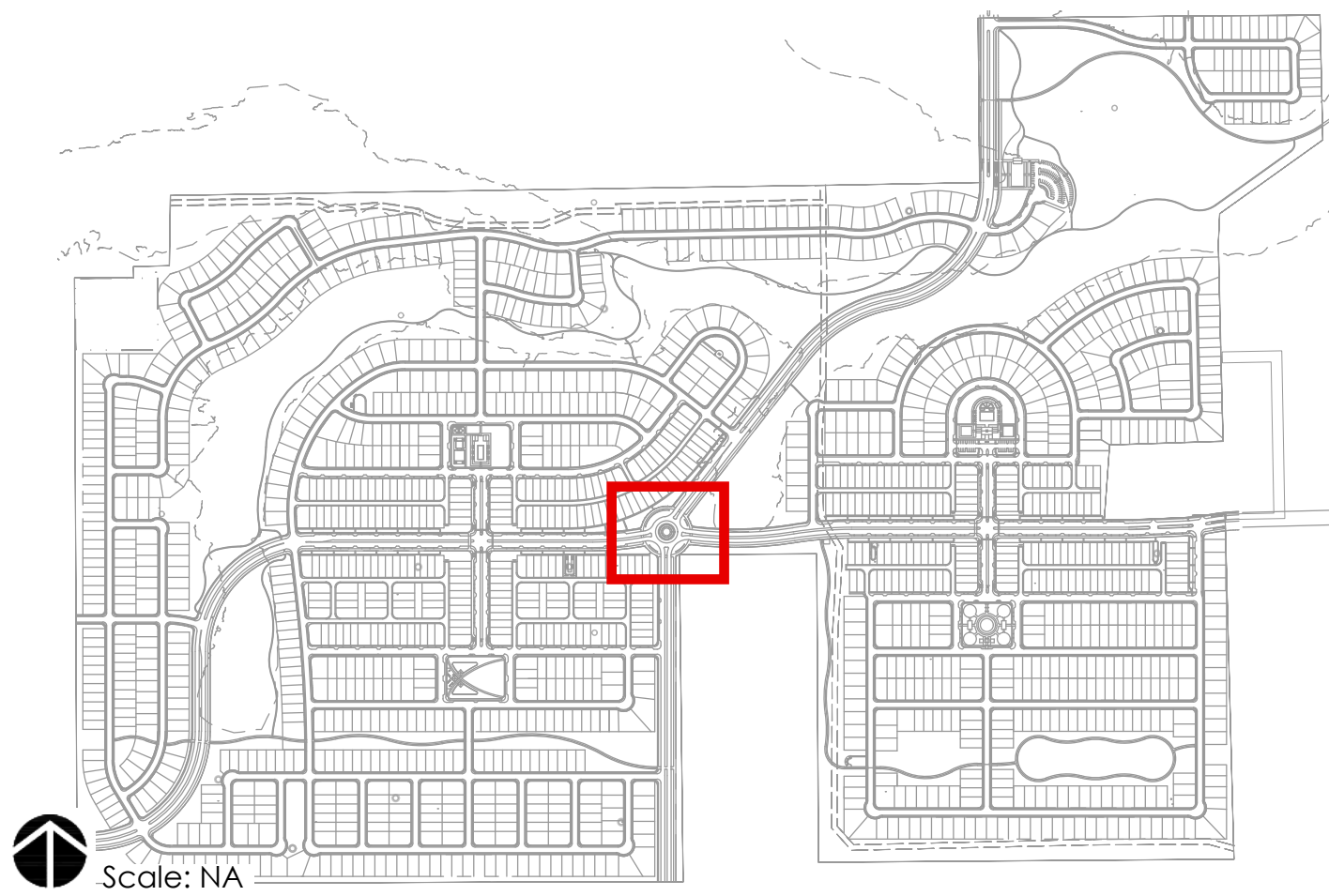
SPLASH PAD



BASKETBALL COURT







KEY MAP



FLAG CITY DETAIL



ORNAMENTAL TREE DETAIL



ROUNDBOUT TREE DETAIL



MULTI USE TRAIL



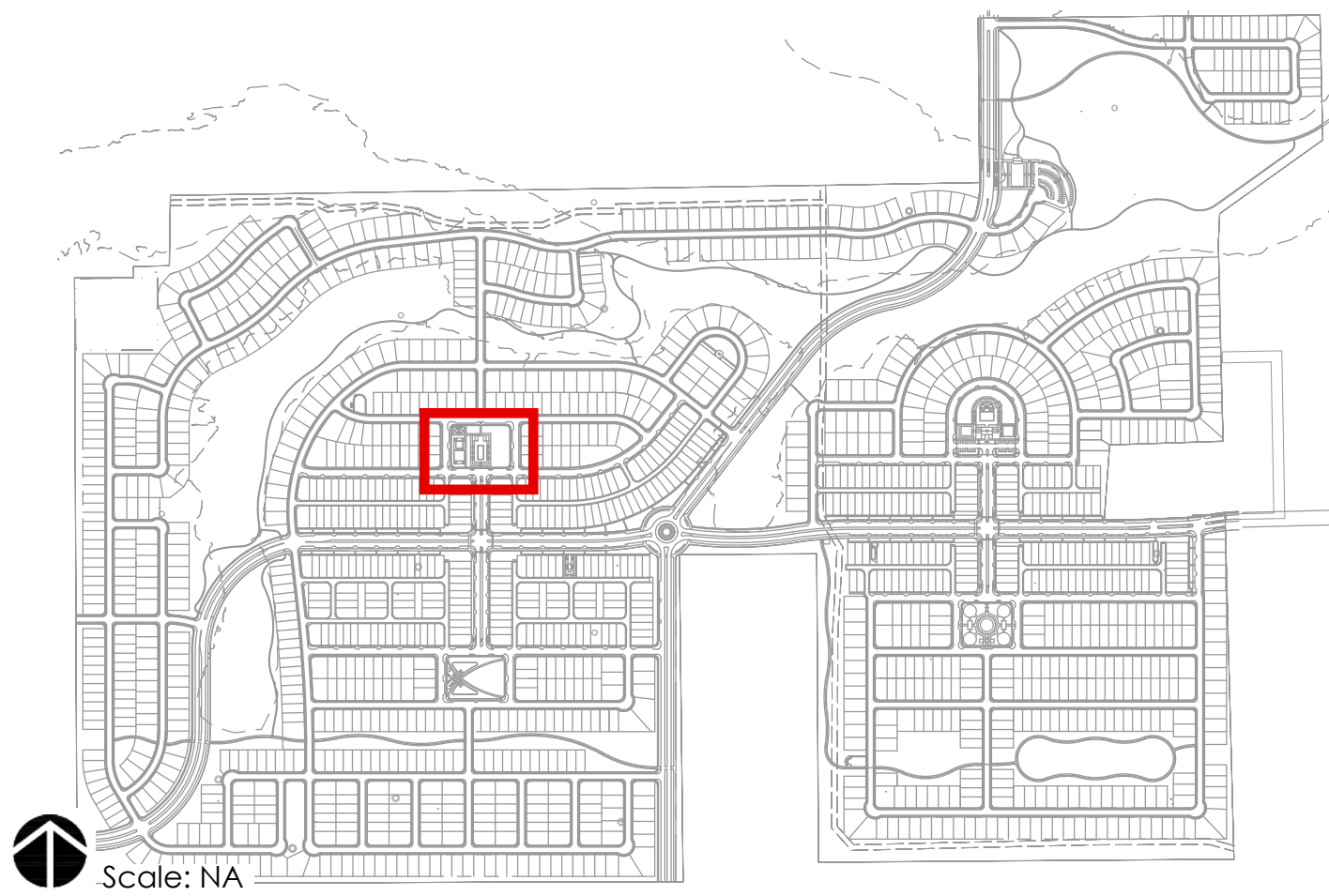
ROUNDBOUT SCULPTURE - OPTION 02



ROUNDBOUT SCULPTURE - OPTION 01







KEY MAP



CABANA DETAIL



COMMUNITY POOL



OPEN LAWN



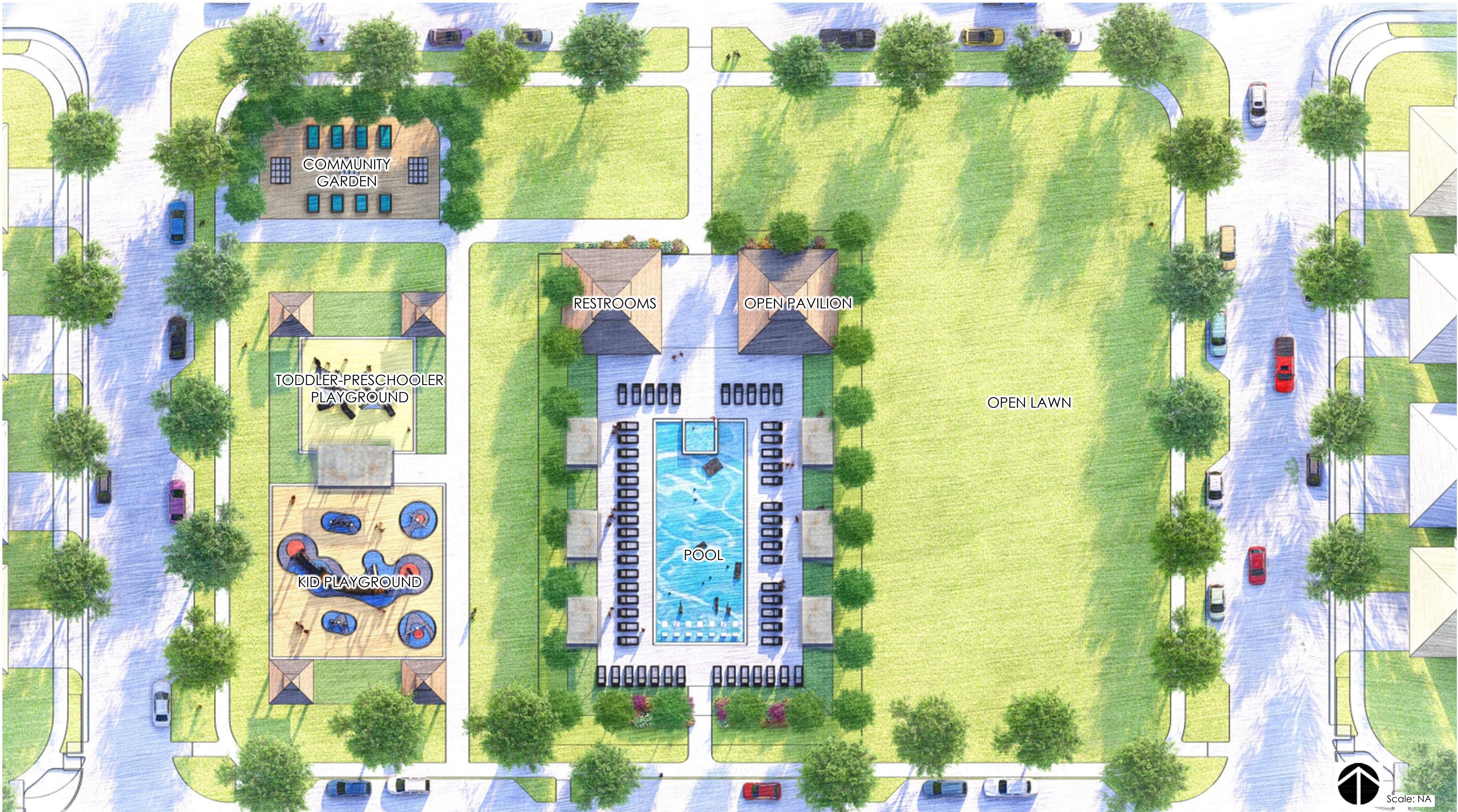
CANOPY TREES



ARCHITECTURAL AESTHETIC - AMENITY CENTER



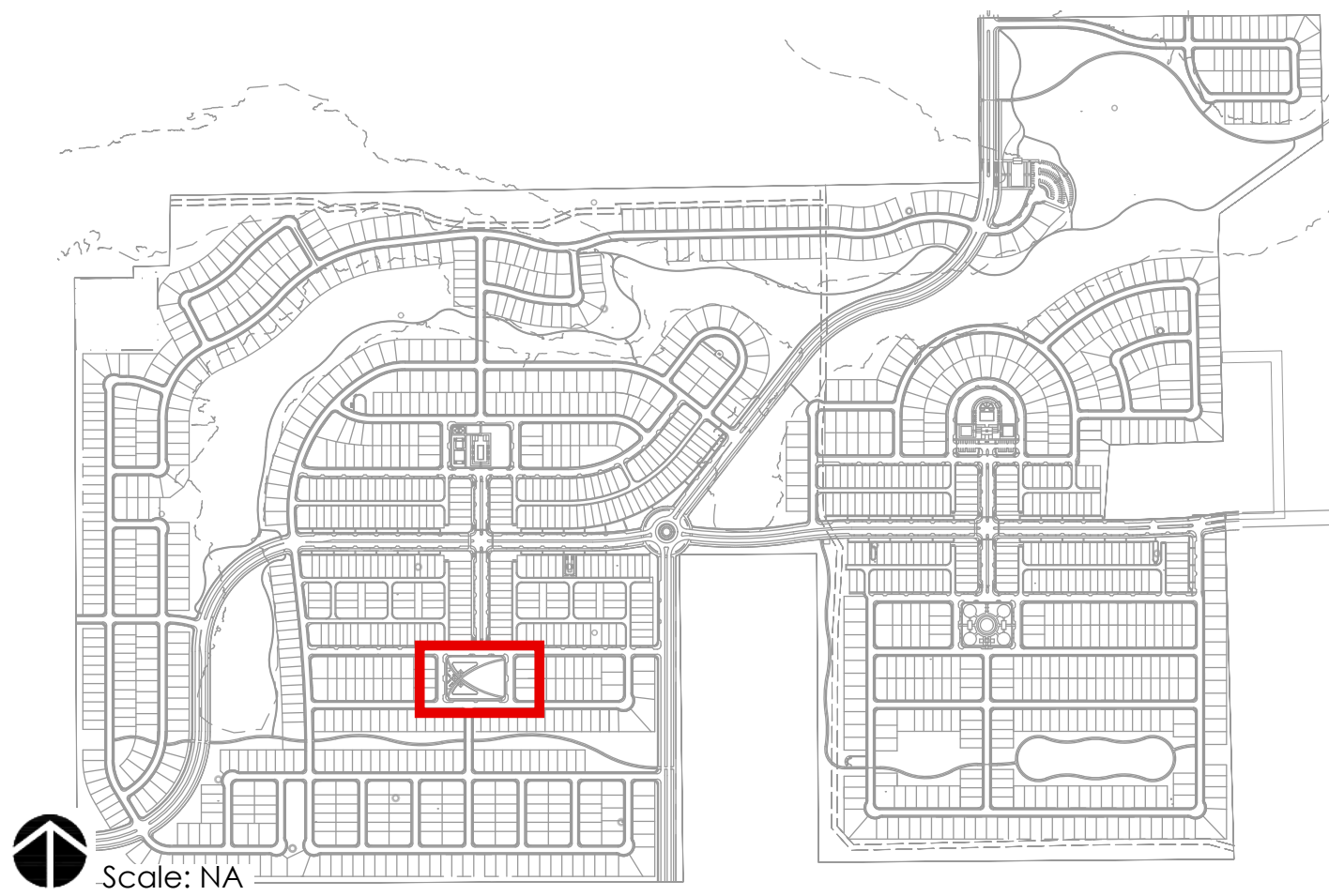
PLAYGROUND



## CUESTA

EXHIBIT F - AMENITY ENLARGEMENT - NORTH WEST AMENITY CENTER (PRIVATE / HOA)





KEY MAP



PARK INSPIRATION



OPEN LAWN



PAVILION SEATING



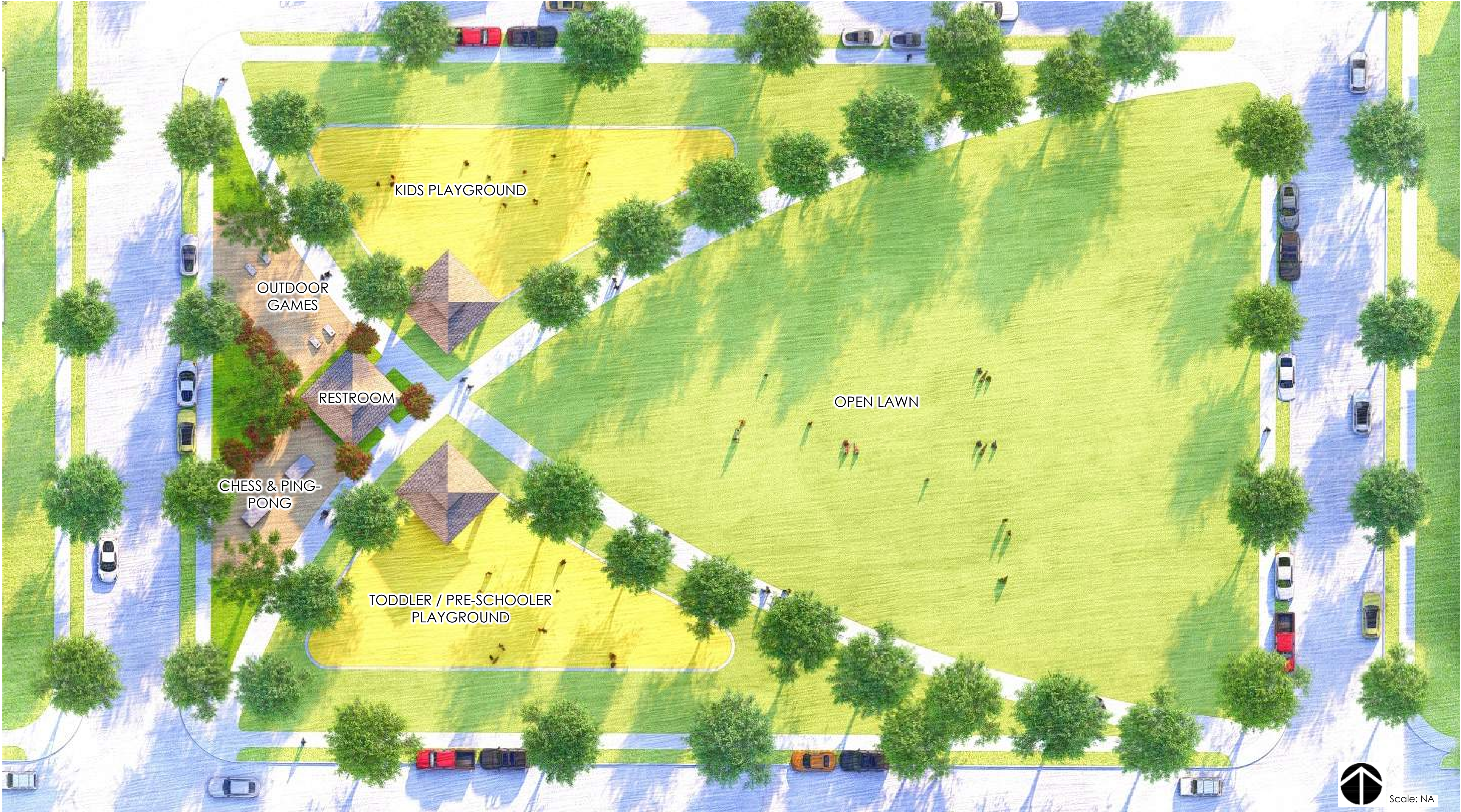
CANOPY TREE DECIDUOUS



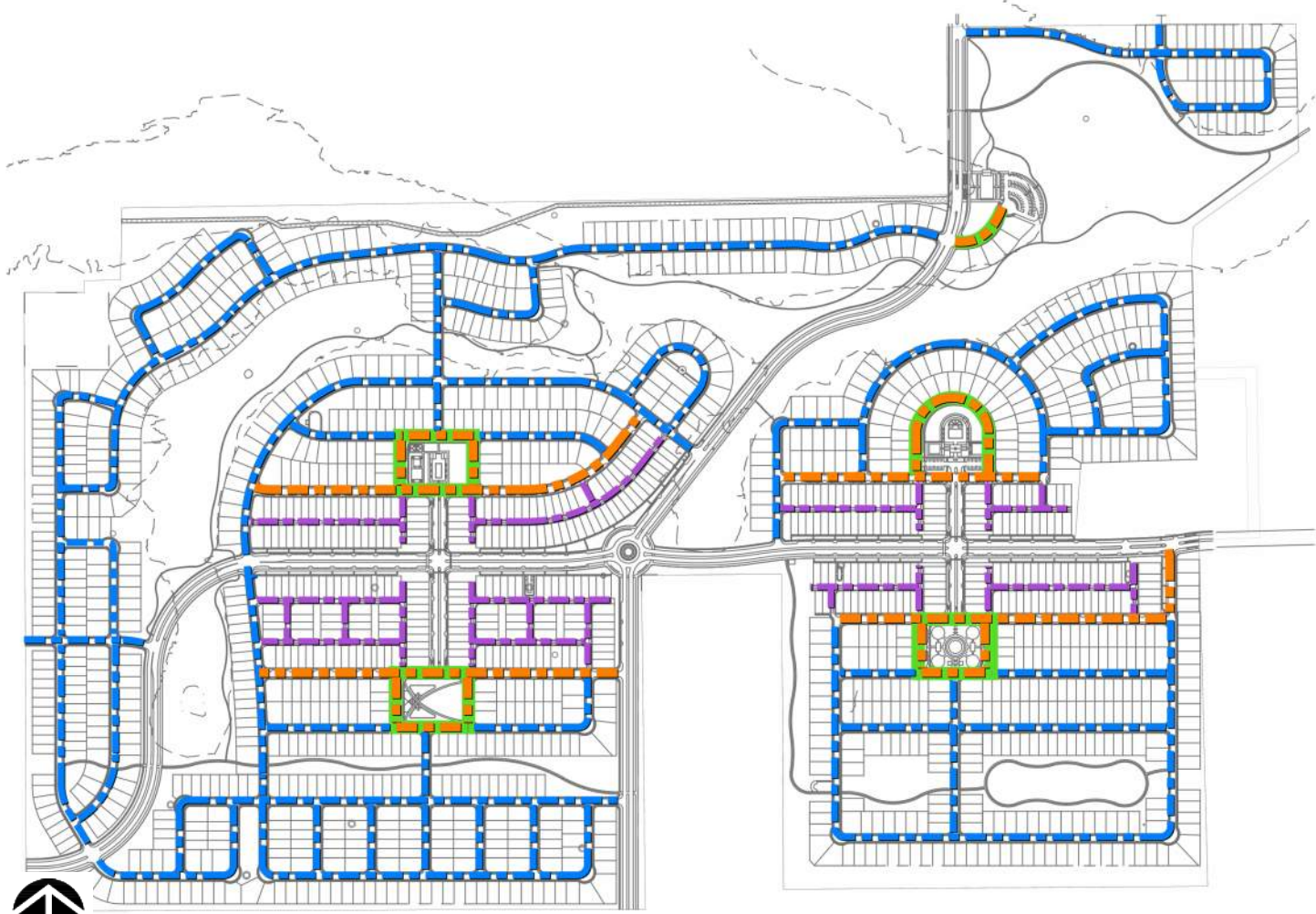
OUTDOOR GAMES & AMENITIES



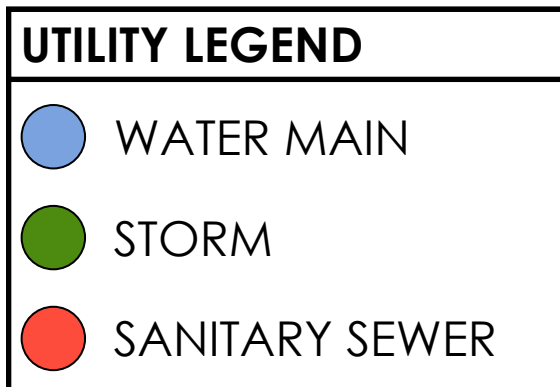
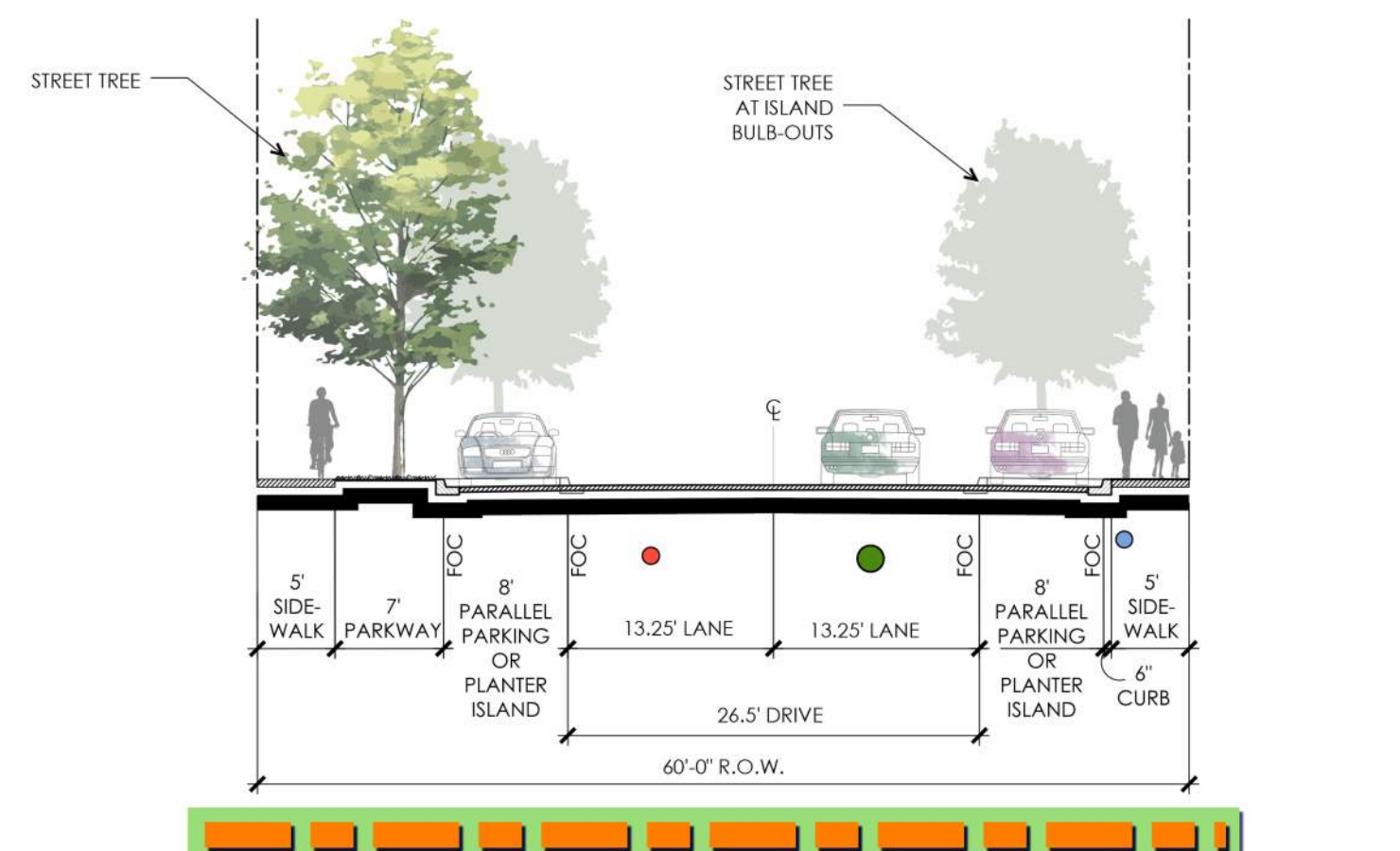
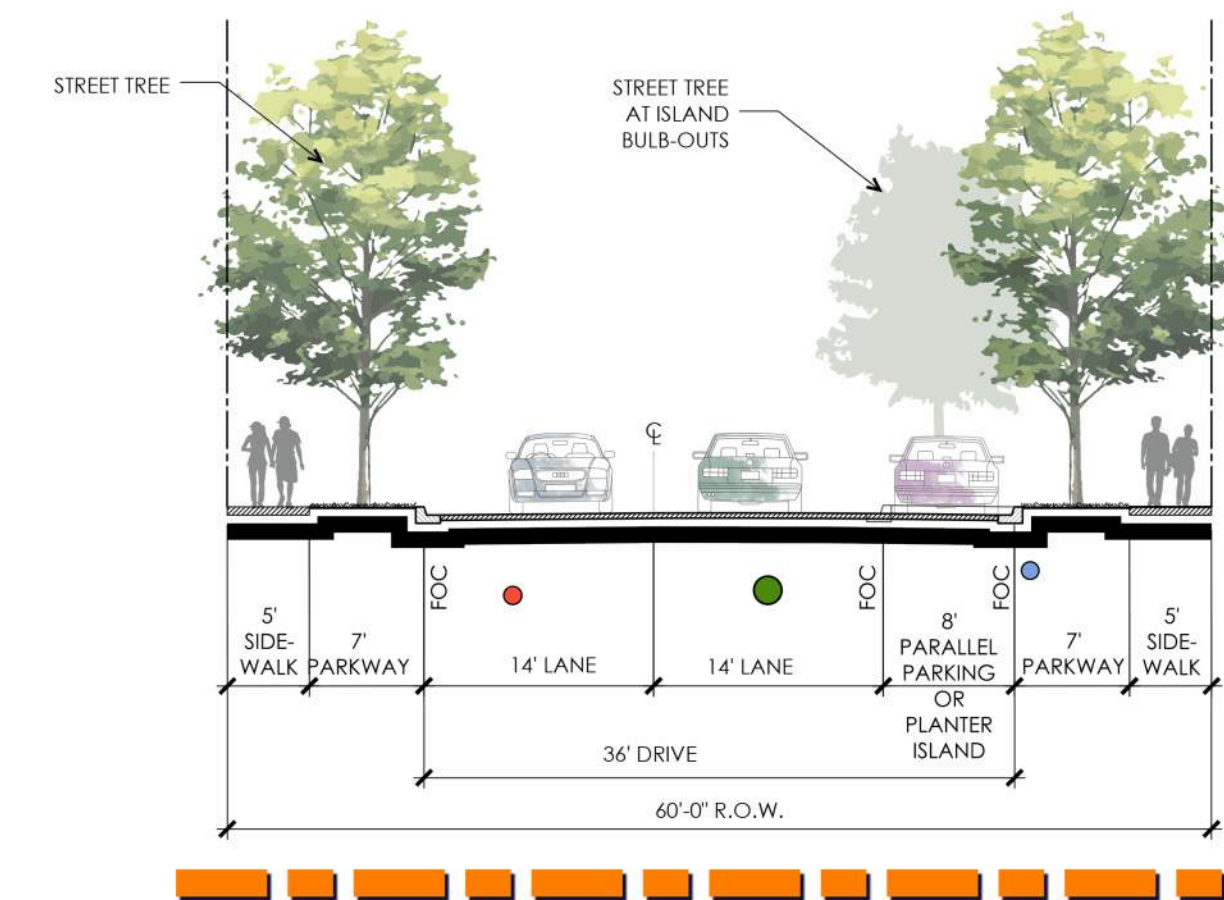
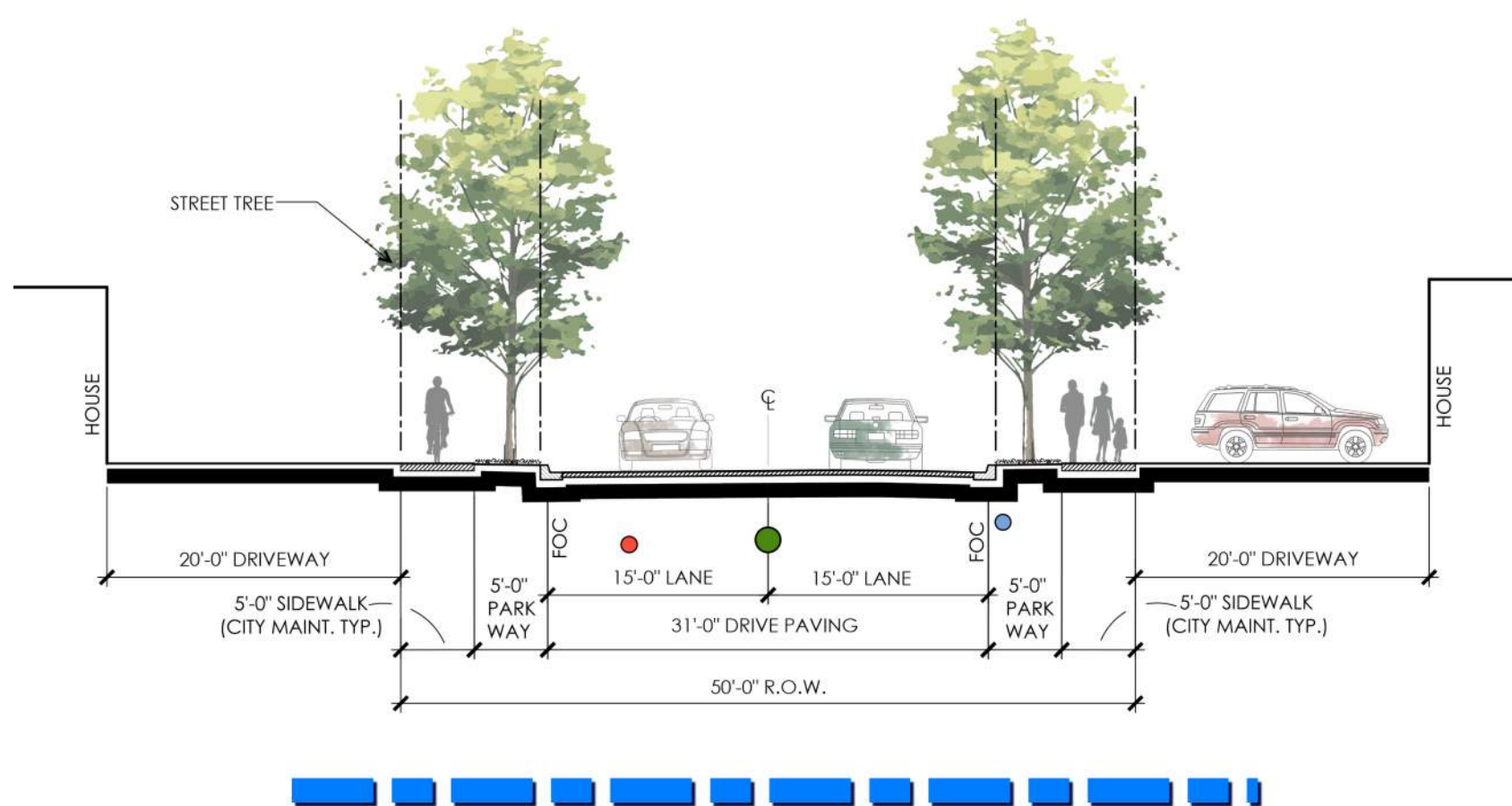
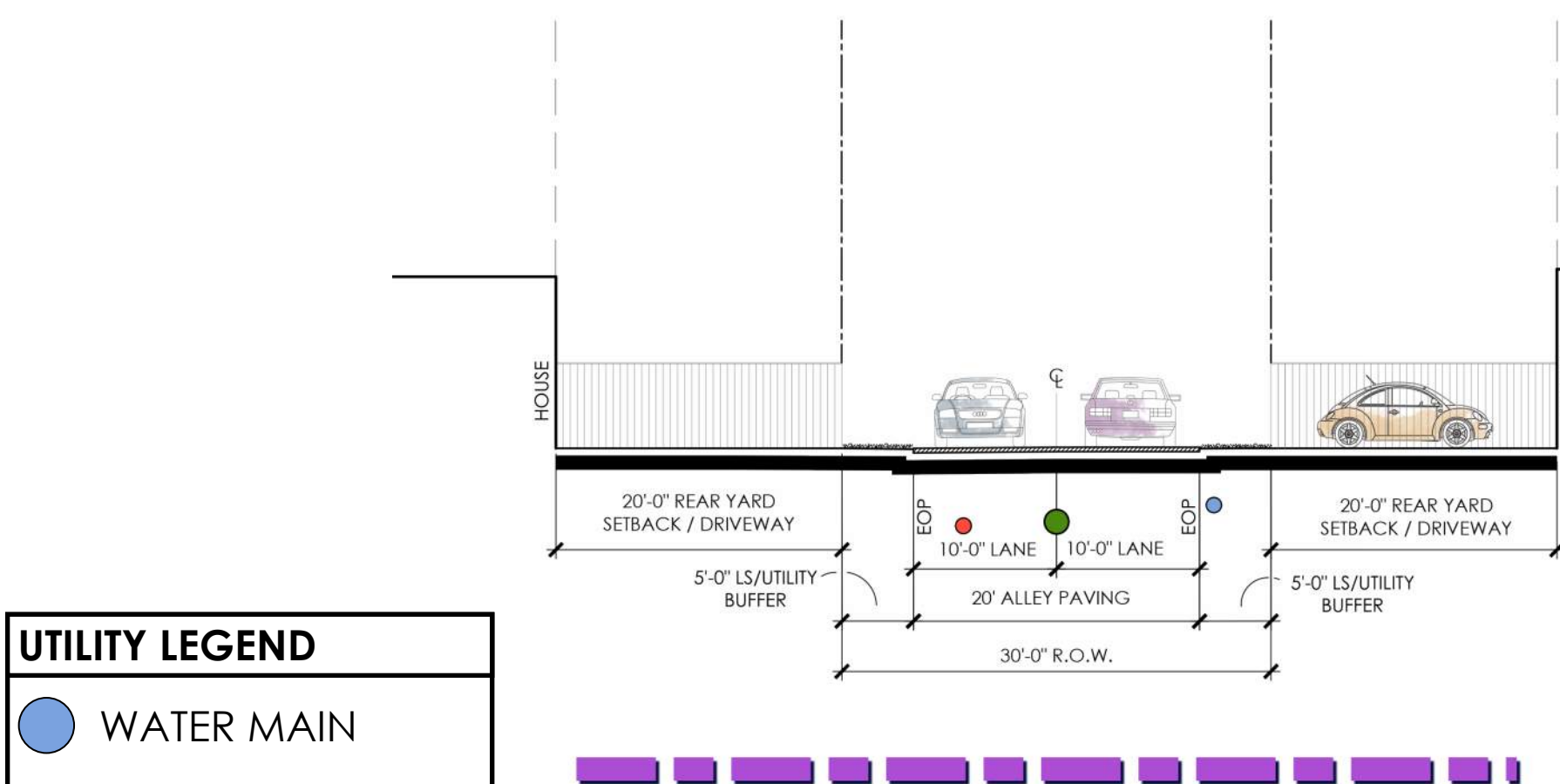
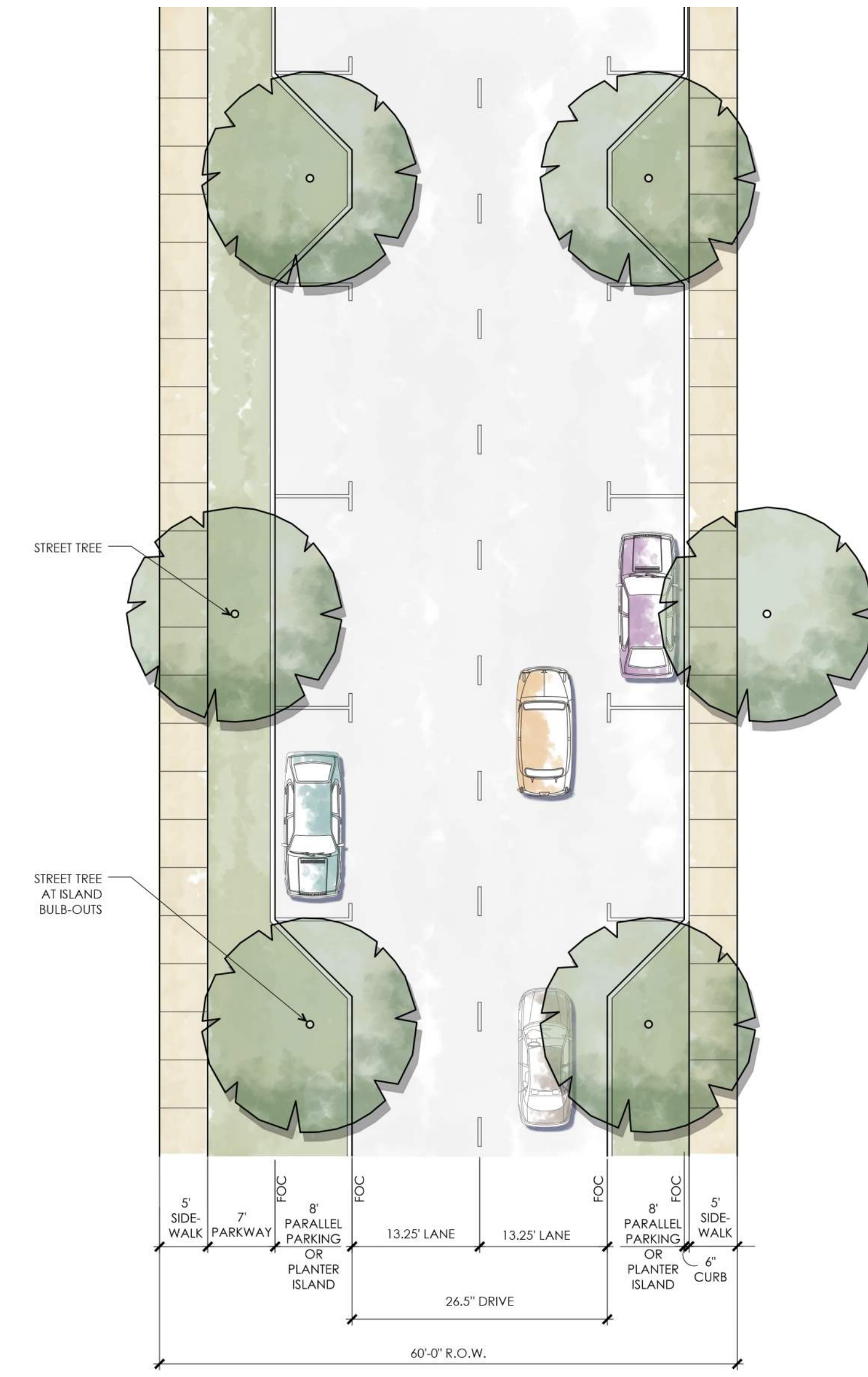
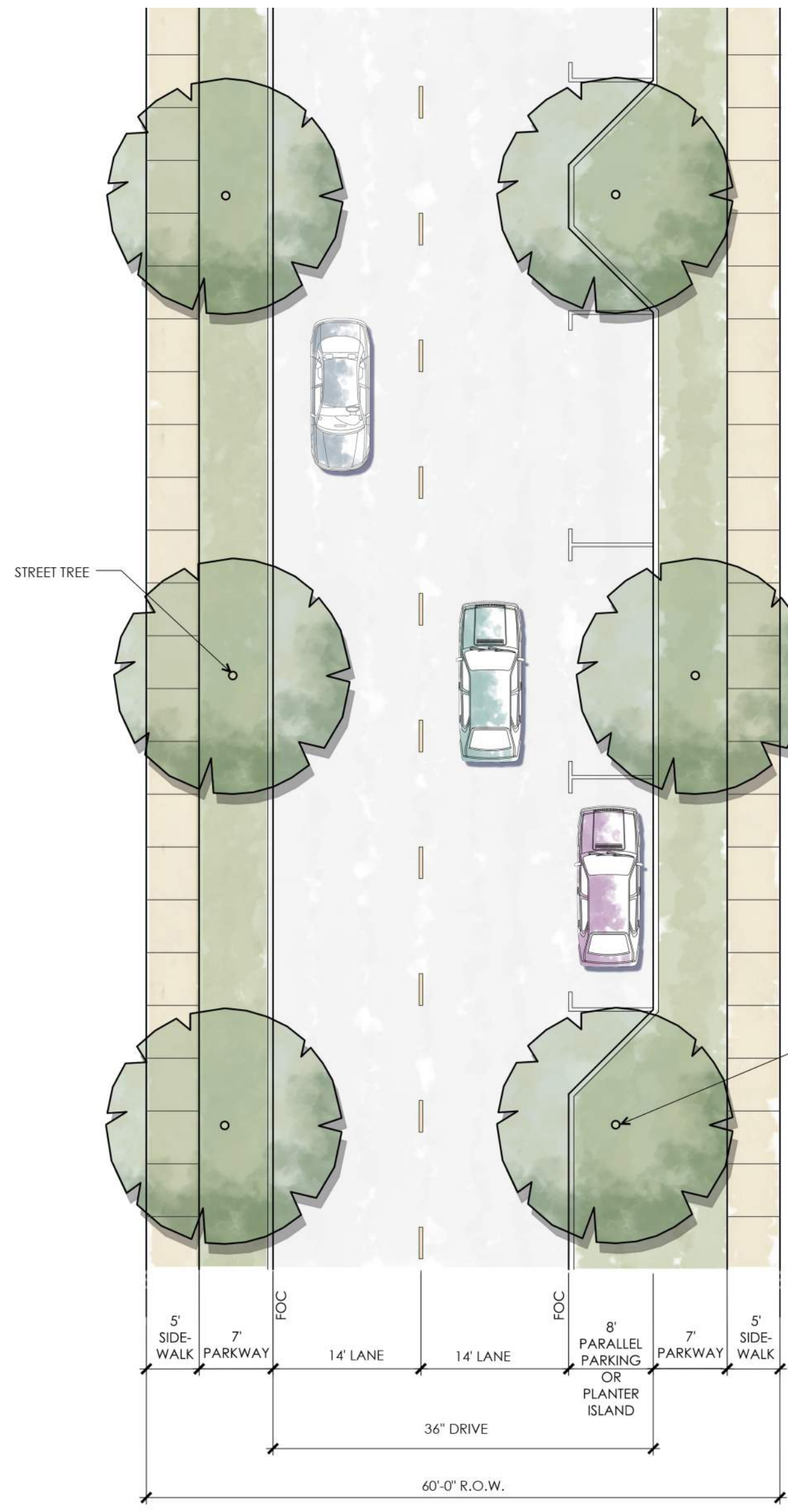
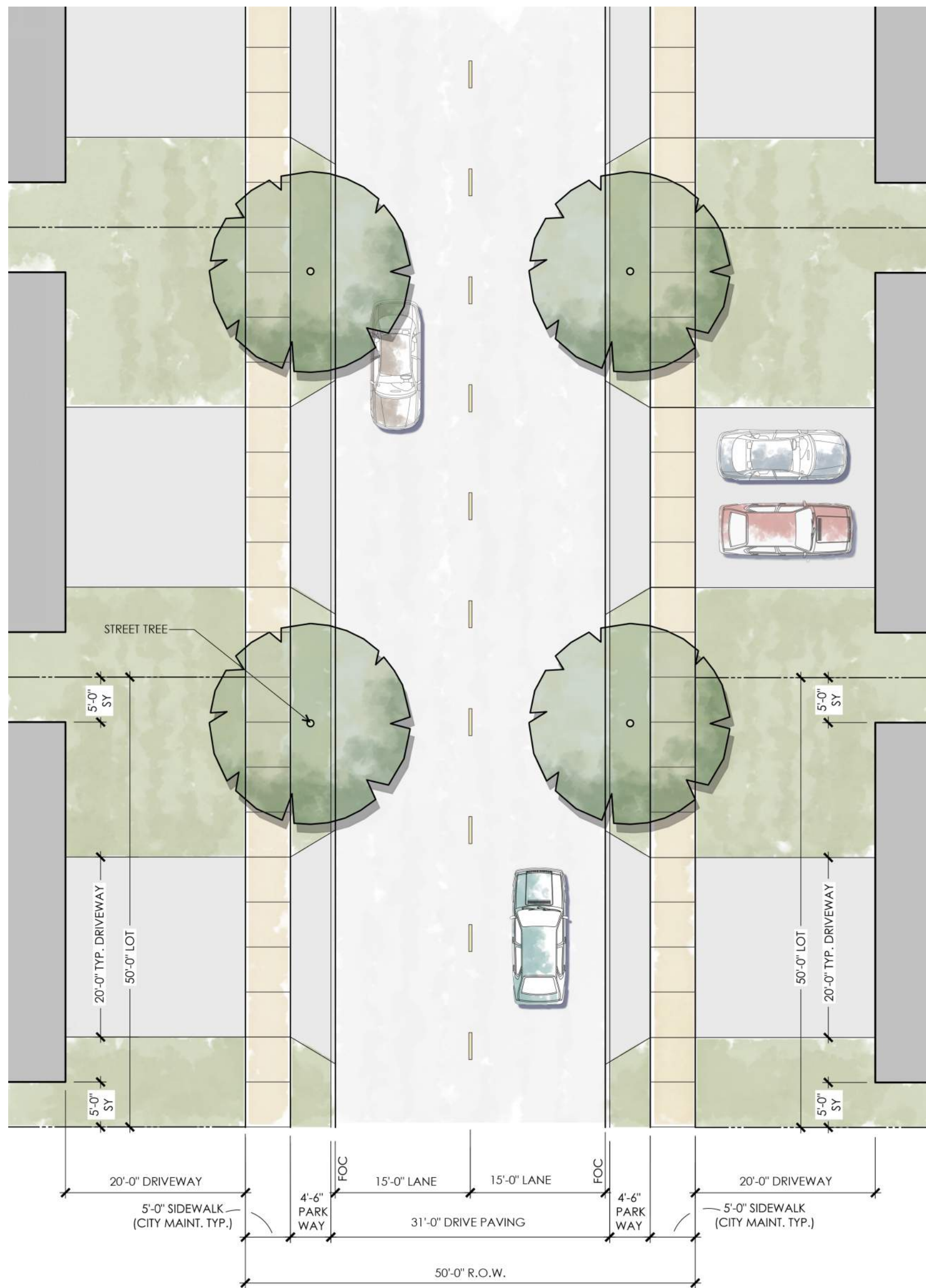
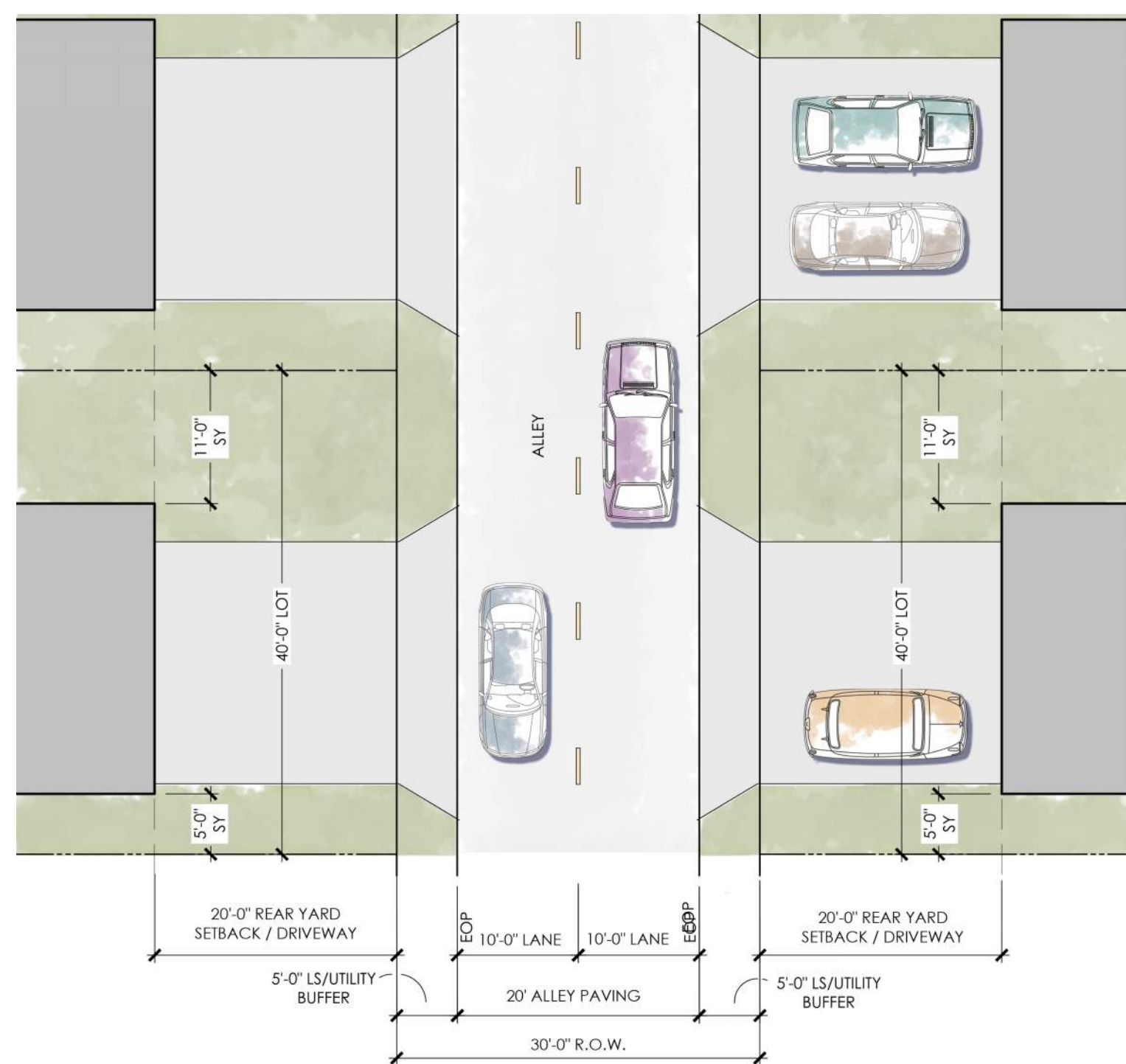
TODDLER-PRE SCHOOLER / KIDS PLAYGROUND







KEY MAP



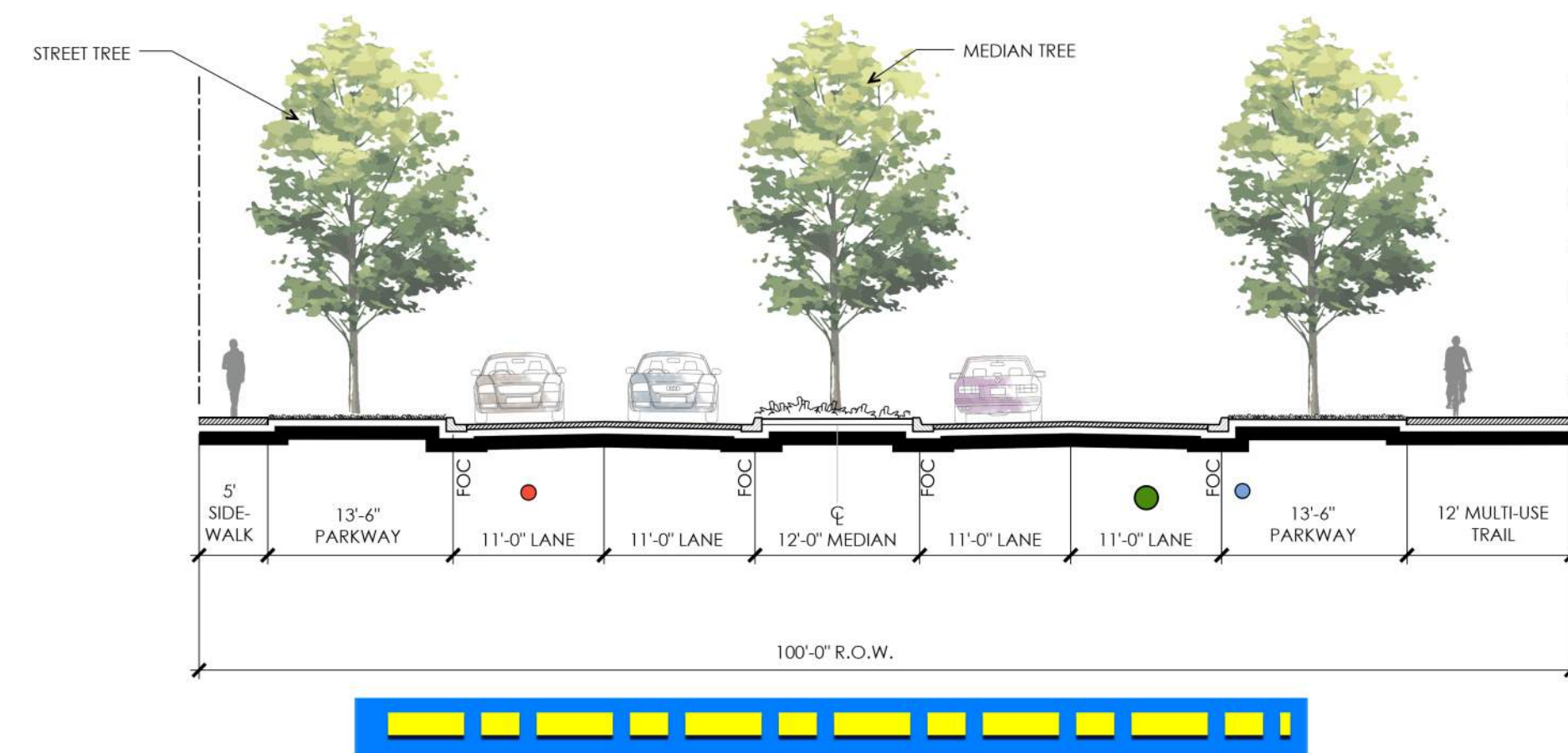
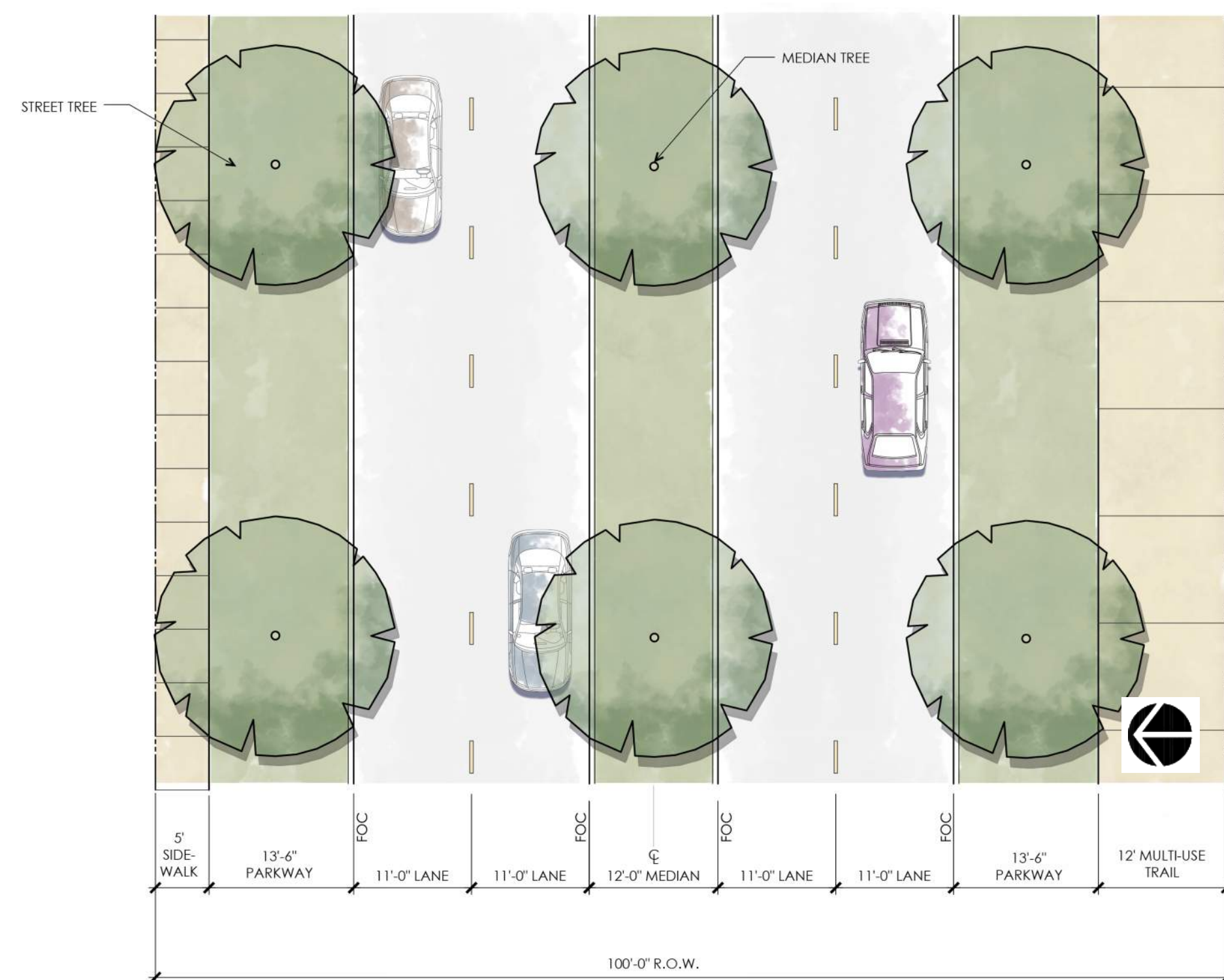
# CUESTA

## EXHIBIT G - STREET PLAN / SECTION

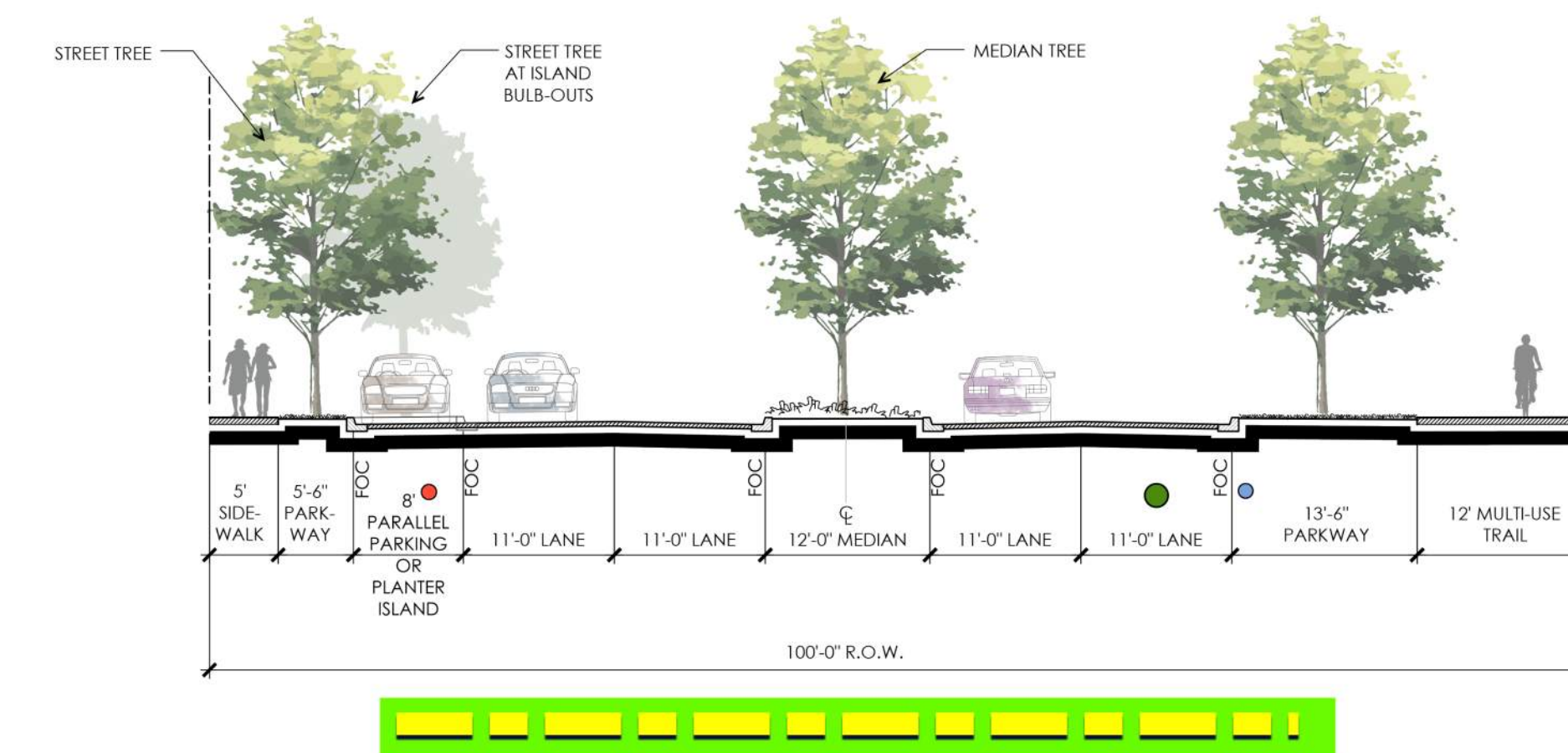
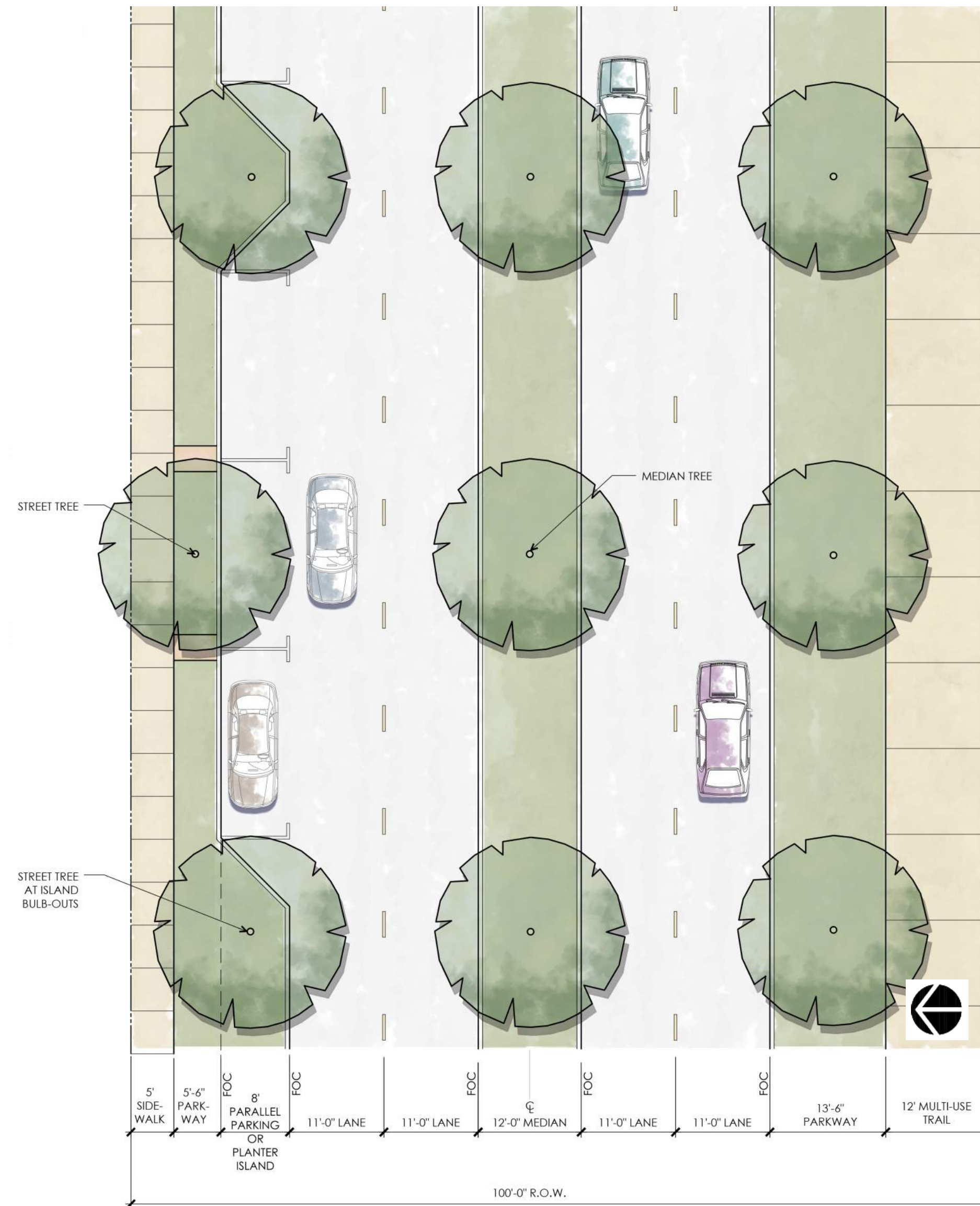




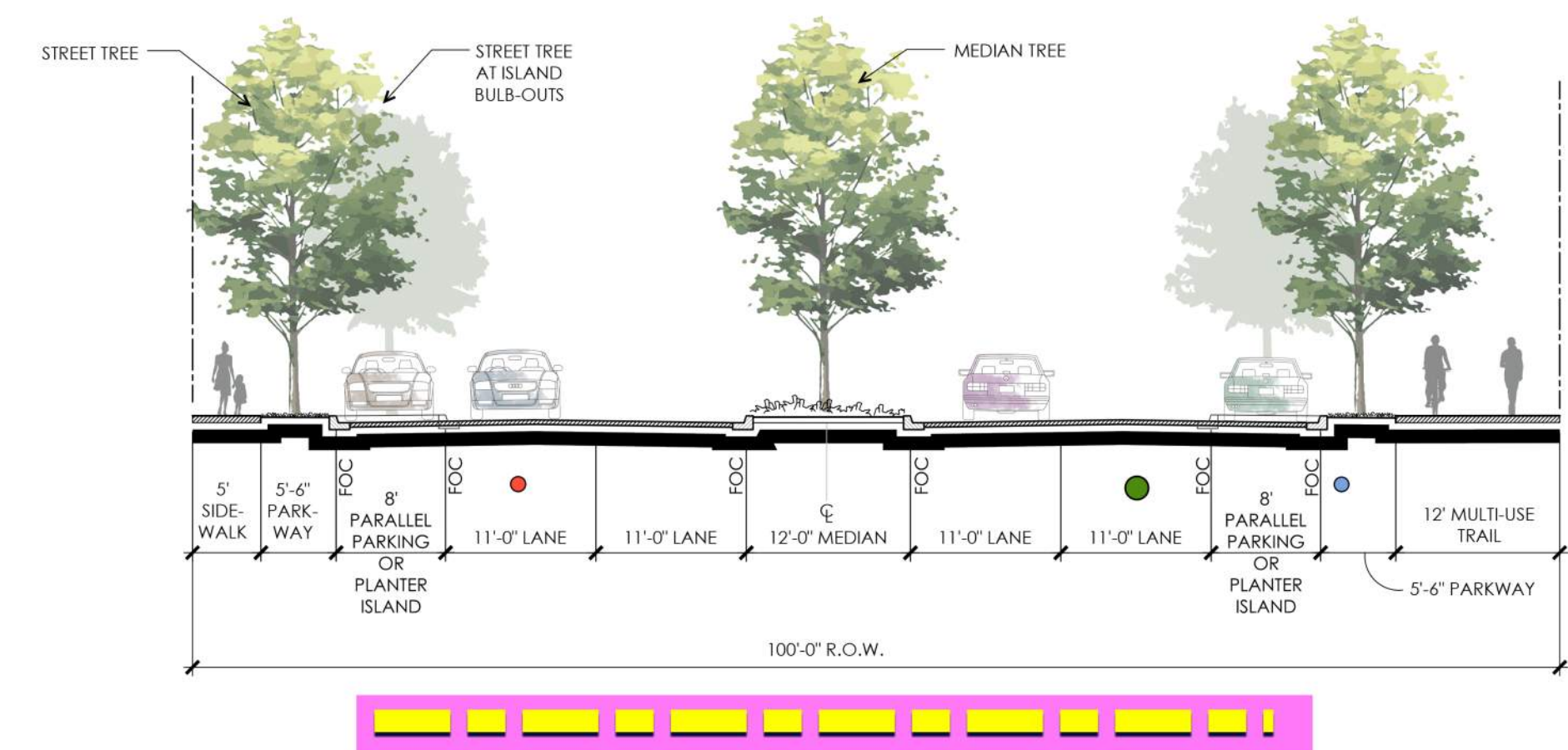
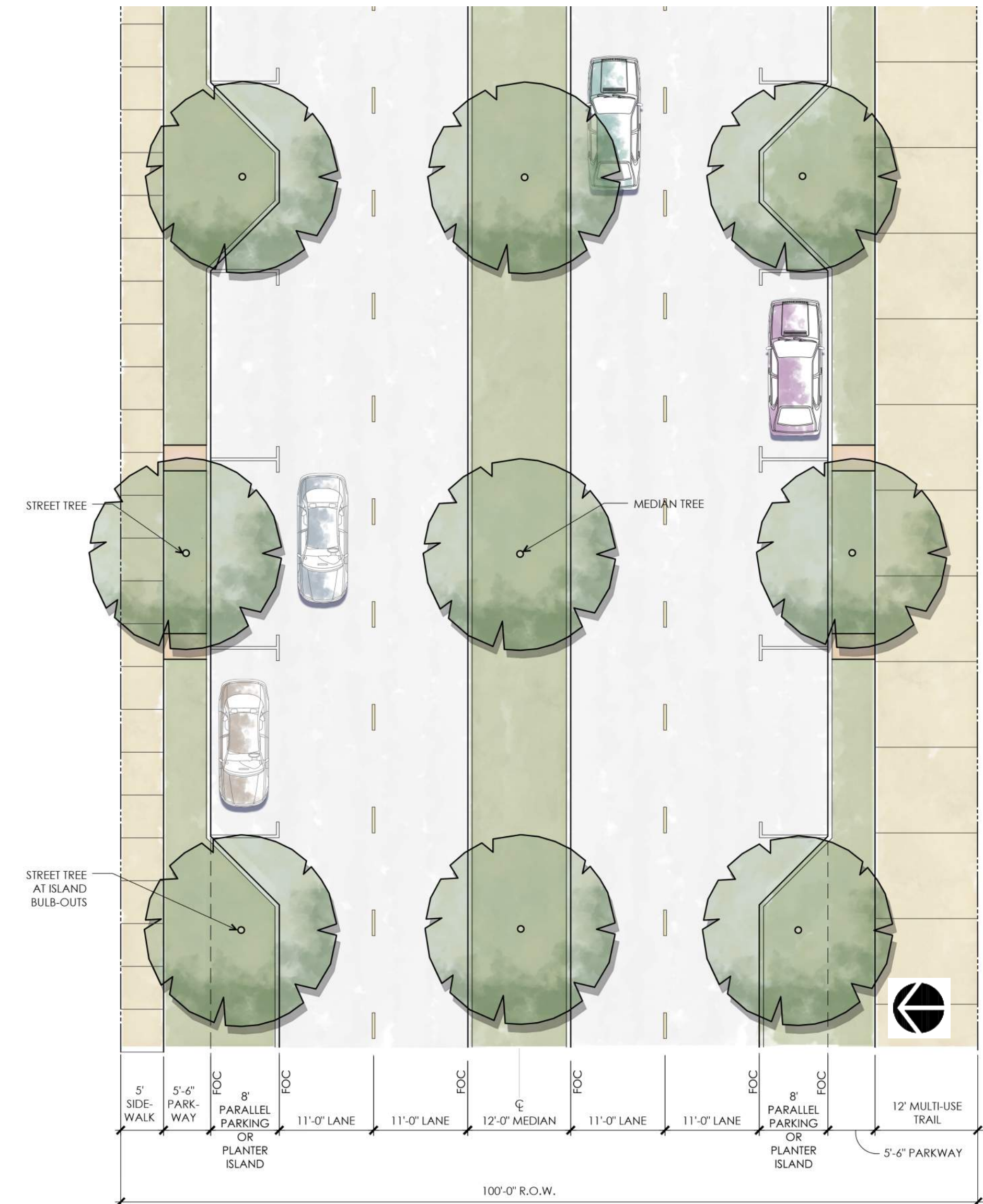
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KEY MAP



100 Ft ROW - Type A Street Plan / Section



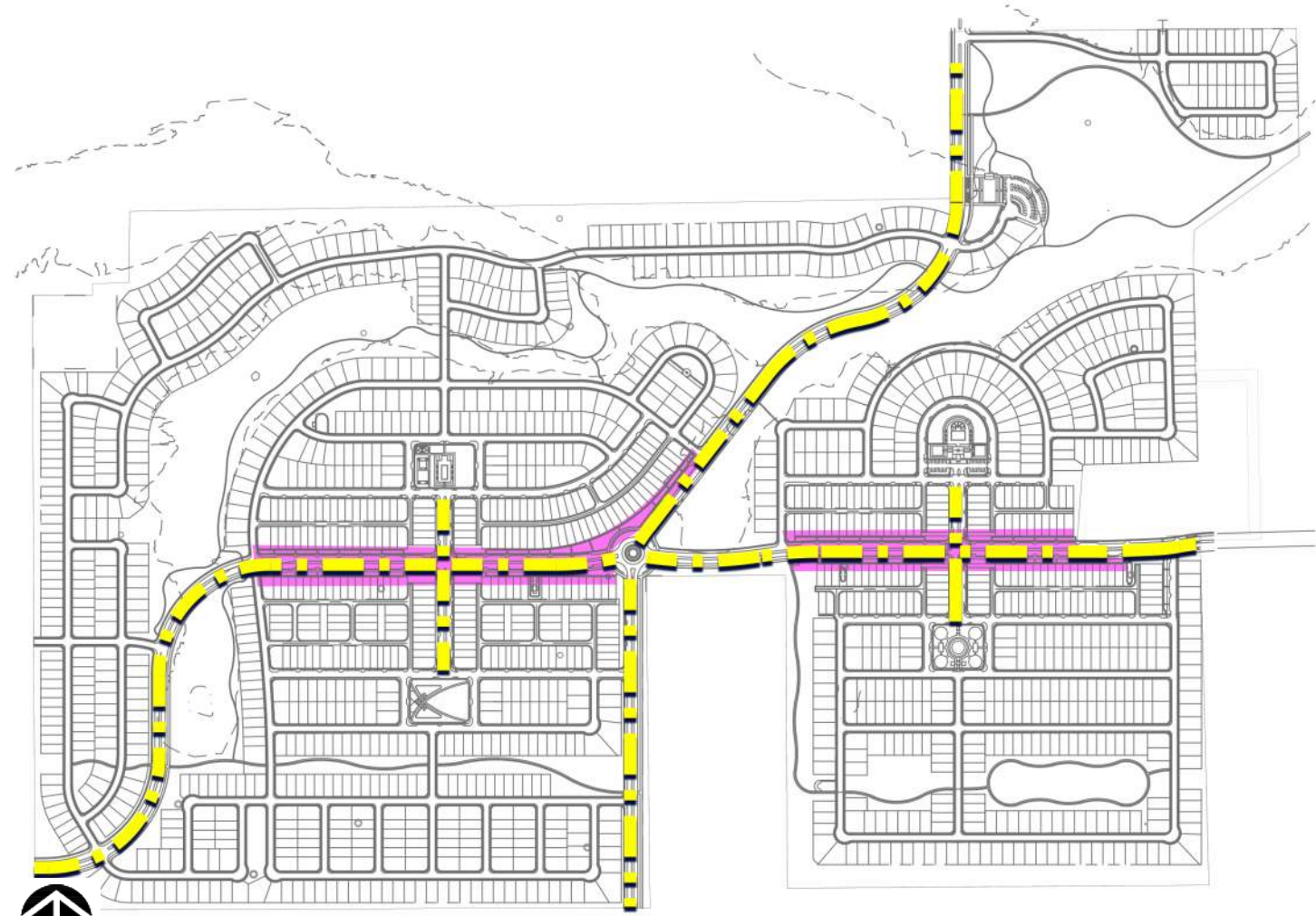
100 Ft ROW - Type B Street Plan / Section



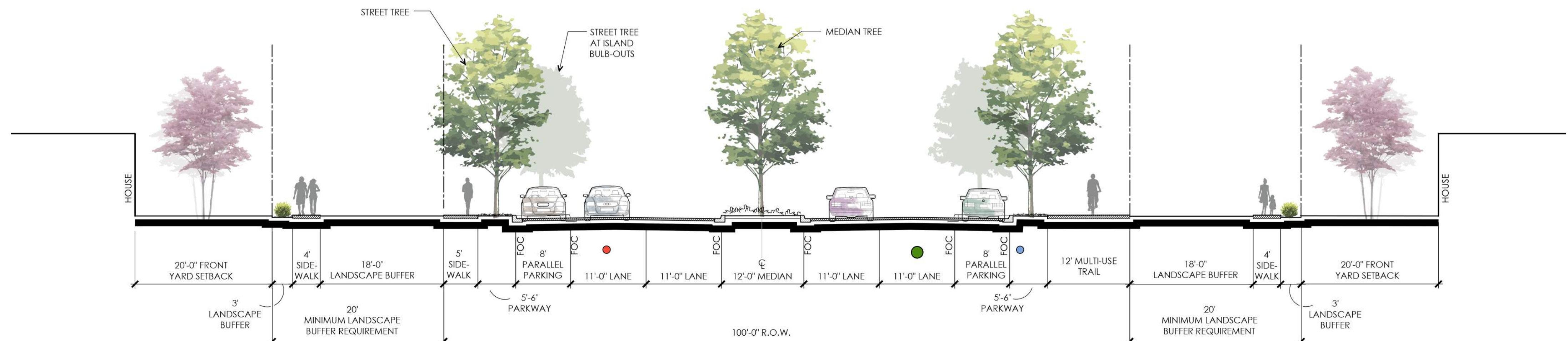
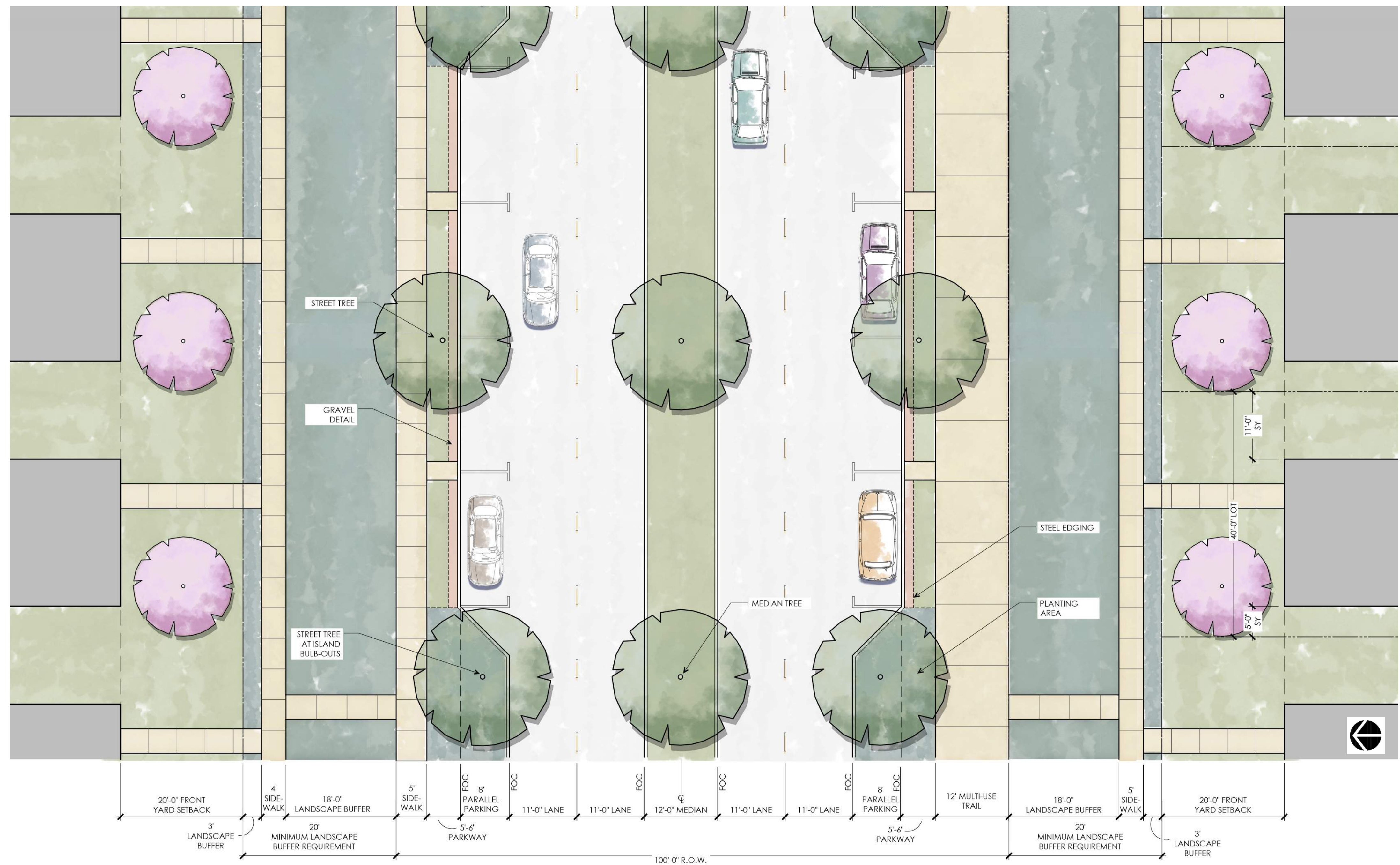
100 Ft ROW - Type C Street Plan / Section

| UTILITY LEGEND                       |                |
|--------------------------------------|----------------|
| <span style="color: blue;">●</span>  | WATER MAIN     |
| <span style="color: green;">●</span> | STORM          |
| <span style="color: red;">●</span>   | SANITARY SEWER |





Scale: NA  
KEY MAP

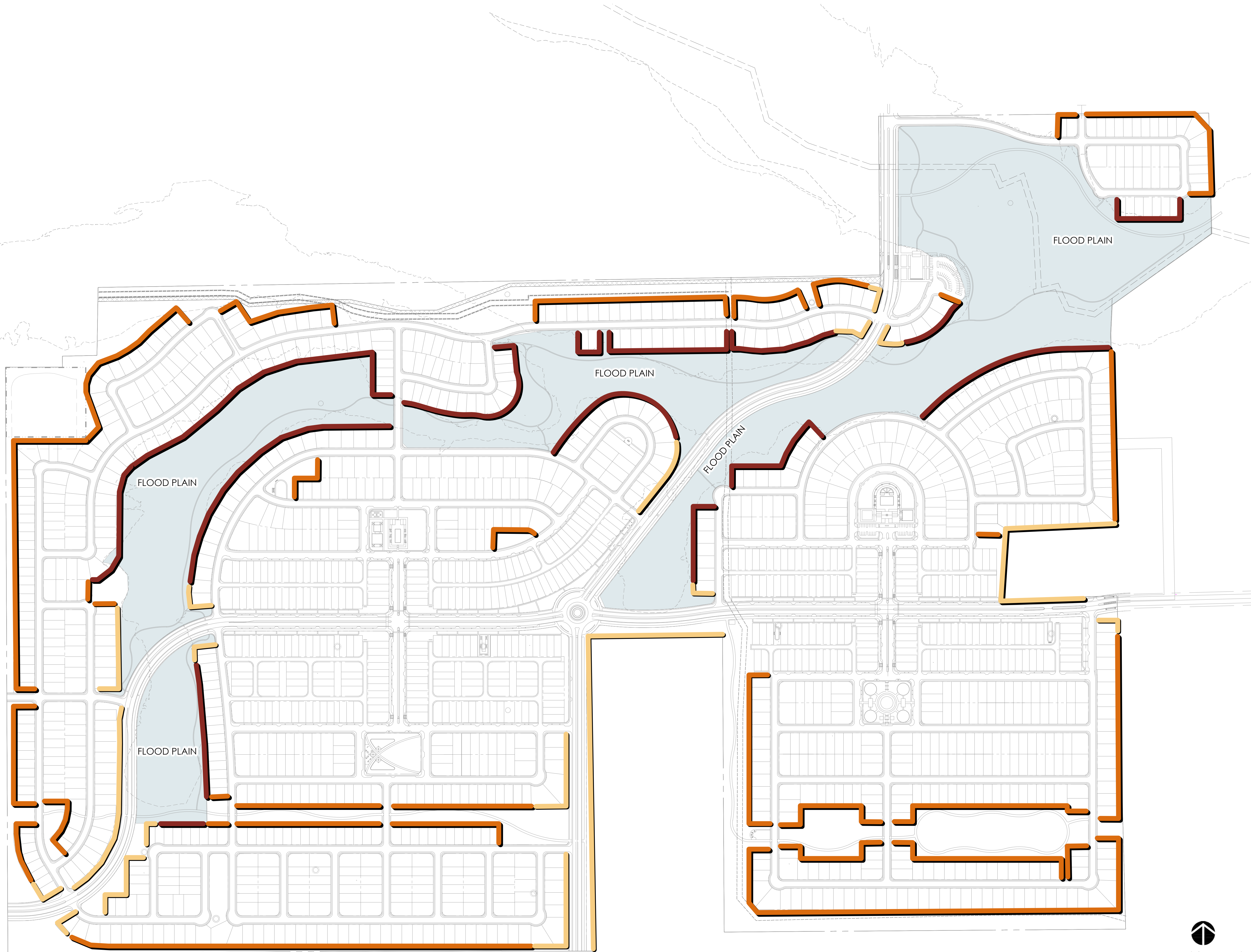


100 Ft ROW - Type C Street Plan / Section

| UTILITY LEGEND |                |
|----------------|----------------|
|                | WATER MAIN     |
|                | STORM          |
|                | SANITARY SEWER |



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WROUGHT IRON FENCE



WOOD PICKET FENCE



MASONRY WALL  
BRICK COLOR AESTHETIC



MASONRY WALL  
COLUMN AESTHETIC

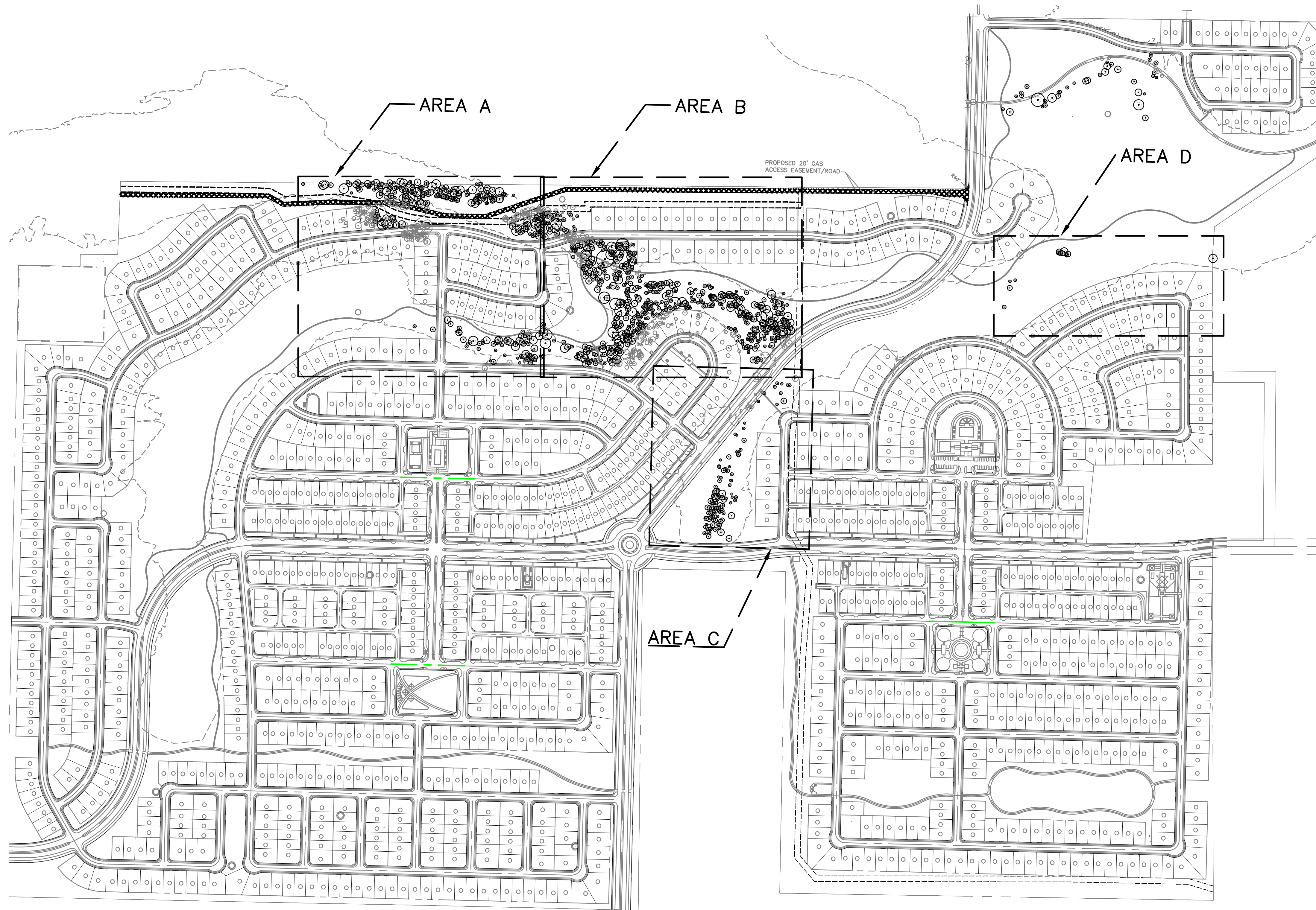


SCALE: NTS

NOTE: ALL INTERNAL LOTS TO HAVE WOODEN FENCE



## TALSON DESIGN PARTNERED WITH TREE MANN SOLUTIONS



| PRELIM TREE SCHEDULE    |      |
|-------------------------|------|
| Number of trees saved   | 1182 |
| Number of trees removed | 326  |

tree

tree to remove

gravel road

easement line

gravel trail

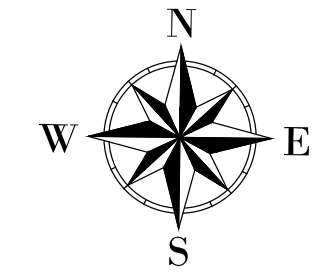
CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|           |            |
|-----------|------------|
| Date:     | 11/07/2024 |
| Check by: | JJ         |
| Drawn By: | SD         |
| Sheet No. | COVER      |









tree

tree to remove

gravel road

easement line

gravel trail

[illegible]

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 2 of 6     |
| Project No. | 9831       |

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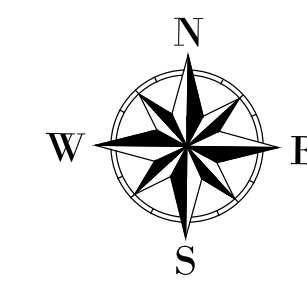


TREE MANN SOLUTIONS  
DALLAS, TX

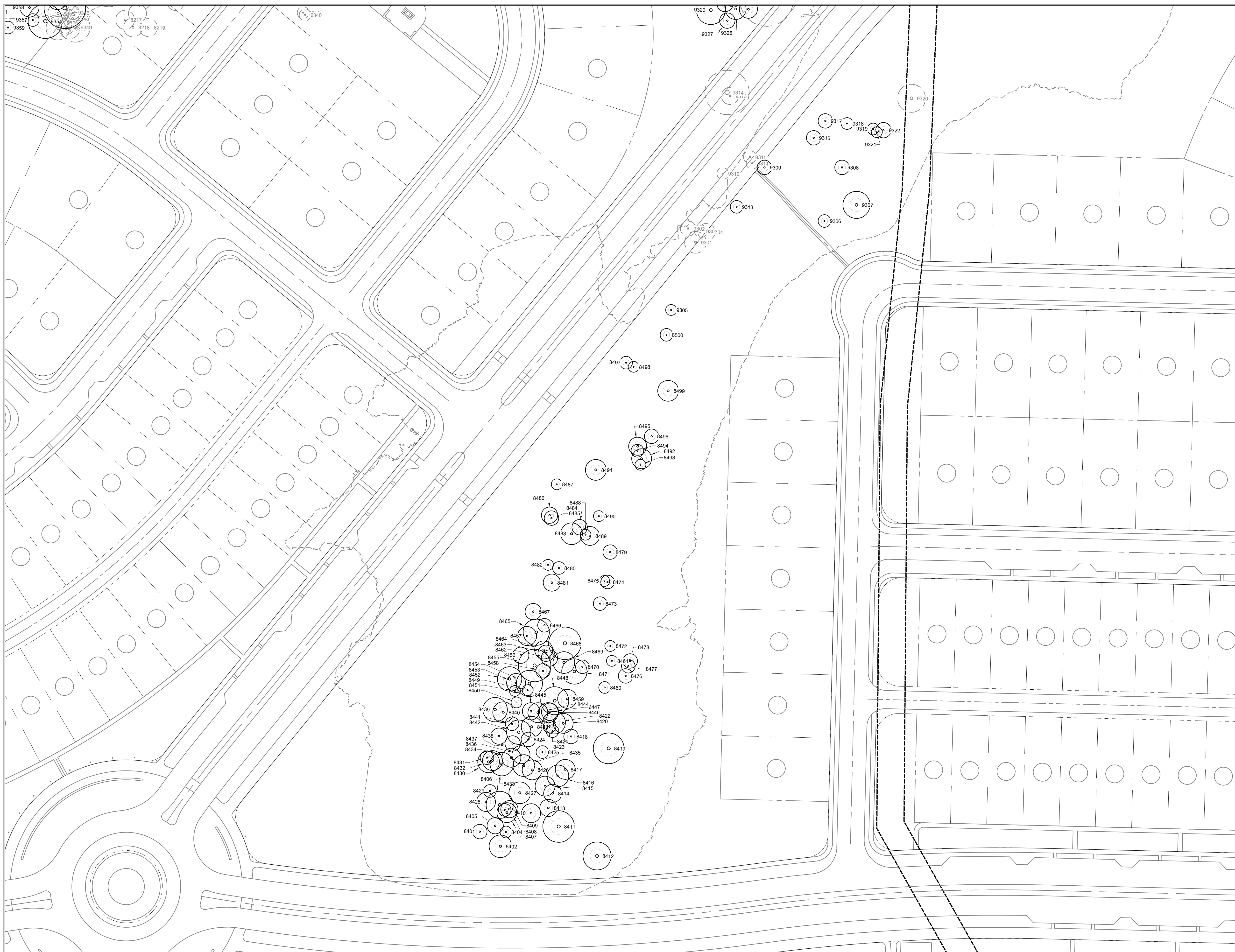
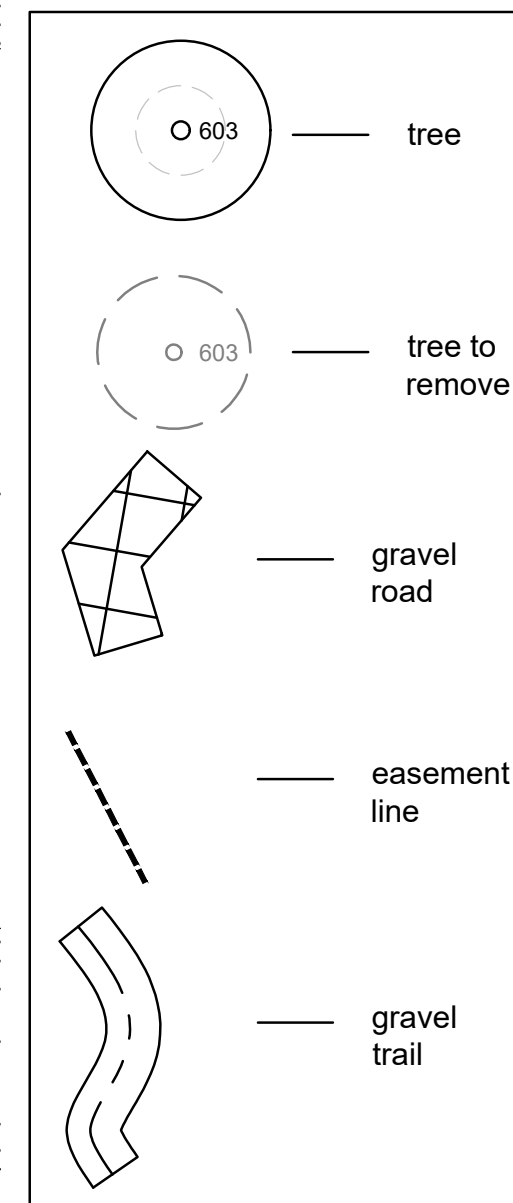
PREPARED  
BY:[illegible]

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 3 of 6     |
| Project No. | 9831       |

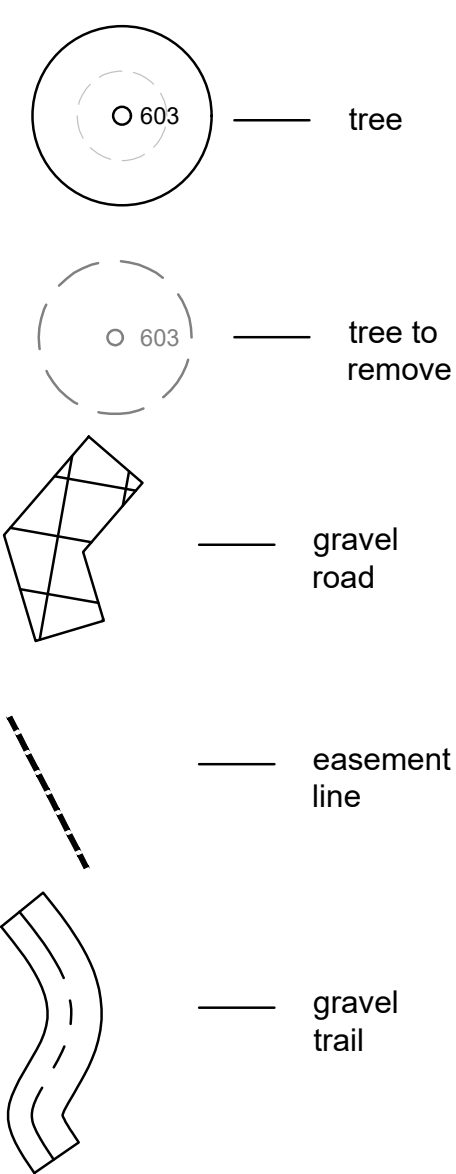


## LEGEND





## LEGEND

[illegible]

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

Date: 11/07/2024

Check by: 11

Drawn By: SD

Sheet No. 4 of 6

|             |      |
|-------------|------|
| Project No. | 9831 |
|-------------|------|



TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 1145        | 10       | Fair      | Cedar Elm    | 1350        | 11       | Fair      | Cedar Elm    | 1448        | 15.5     | Fair      | Cedar Elm    | 1643        | 12       | Fair      | Cedar Elm    | 5549        | 6.5      | Fair      | Cedar Elm    | 5644        | 9        | Fair      | Cedar Elm    | 7736        | 7        | Fair      | Cedar Elm    | 7833        | 6.5      | Fair      | Cedar Elm    |
| 1248        | 22       | Fair      | Cedar Elm    | 1351        | 6        | Fair      | Cedar Elm    | 1449        | 9.5      | Fair      | Cedar Elm    | 1644        | 7.5      | Fair      | Cedar Elm    | 5550        | 14       | Fair      | Cedar Elm    | 5645        | 9.5      | Fair      | Cedar Elm    | 7737        | 6        | Fair      | Cedar Elm    | 7834        | 14       | Fair      | Cedar Elm    |
| 1249        | 14       | Poor      | Cedar Elm    | 1352        | 10.5     | Fair      | Cedar Elm    | 1450        | 6.5      | Fair      | Cedar Elm    | 1645        | 8.5      | Poor      | Cedar Elm    | 5551        | 14       | Fair      | Cedar Elm    | 5646        | 18       | Fair      | Cedar Elm    | 7738        | 11       | Fair      | Cedar Elm    | 7835        | 15.5     | Fair      | Cedar Elm    |
| 1250        | 7.5      | Fair      | Cedar Elm    | 1353        | 11       | Fair      | American Elm | 1451        | 18       | Fair      | American Elm | 1646        | 6.5      | Fair      | Cedar Elm    | 5552        | 6.5      | Fair      | Cedar Elm    | 5647        | 13       | Fair      | Cedar Elm    | 7739        | 6.5      | Fair      | Cedar Elm    | 7836        | 9.5      | Poor      | Cedar Elm    |
| 1251        | 8        | Fair      | Cedar Elm    | 1354        | 8.5      | Fair      | Cedar Elm    | 1452        | 25       | Very Poor | American Elm | 1647        | 7.5      | Fair      | Cedar Elm    | 5553        | 13       | Fair      | Cedar Elm    | 5648        | 14.5     | Fair      | Cedar Elm    | 7740        | 7.5      | Fair      | Cedar Elm    | 7837        | 6        | Fair      | Cedar Elm    |
| 1252        | 9.5      | Fair      | Cedar Elm    | 1355        | 14.5     | Fair      | Cedar Elm    | 1453        | 6.5      | Fair      | American Elm | 1648        | 13       | Fair      | Cedar Elm    | 5554        | 8.5      | Fair      | Cedar Elm    | 5649        | 17       | Fair      | Cedar Elm    | 7741        | 8        | Fair      | Cedar Elm    | 7838        | 11       | Fair      | Cedar Elm    |
| 1253        | 20       | Poor      | Cedar Elm    | 1356        | 13       | Fair      | Cedar Elm    | 1454        | 18       | Fair      | Cedar Elm    | 1649        | 7        | Fair      | Cedar Elm    | 5555        | 19       | Fair      | Cedar Elm    | 5650        | 16.5     | Poor      | Cedar Elm    | 7742        | 6        | Poor      | Cedar Elm    | 7839        | 9        | Fair      | Cedar Elm    |
| 1254        | 12.5     | Fair      | Cedar Elm    | 1357        | 10       | Fair      | Cedar Elm    | 1455        | 11       | Fair      | Cedar Elm    | 1650        | 13       | Fair      | Cedar Elm    | 5556        | 12.5     | Fair      | Cedar Elm    | 5651        | 18       | Fair      | Cedar Elm    | 7743        | 10       | Fair      | Cedar Elm    | 7840        | 10.5     | Fair      | Cedar Elm    |
| 1255        | 13       | Fair      | Cedar Elm    | 1358        | 14       | Fair      | Cedar Elm    | 1456        | 8        | Fair      | Cedar Elm    | 1651        | 7        | Fair      | Cedar Elm    | 5557        | 9        | Fair      | Cedar Elm    | 5652        | 17       | Fair      | Cedar Elm    | 7744        | 10       | Fair      | Cedar Elm    | 7841        | 9        | Fair      | Cedar Elm    |
| 1256        | 15       | Fair      | Cedar Elm    | 1359        | 14.5     | Fair      | Cedar Elm    | 1457        | 10       | Fair      | Cedar Elm    | 1652        | 10.5     | Fair      | Cedar Elm    | 5558        | 12.5     | Fair      | Cedar Elm    | 5653        | 7        | Fair      | Cedar Elm    | 7745        | 8        | Fair      | Cedar Elm    | 7842        | 10.5     | Fair      | Cedar Elm    |
| 1257        | 8        | Fair      | Cedar Elm    | 1360        | 9        | Fair      | Cedar Elm    | 1458        | 9.5      | Fair      | Cedar Elm    | 1653        | 13       | Fair      | Cedar Elm    | 5559        | 7        | Fair      | Cedar Elm    | 5654        | 10       | Fair      | Cedar Elm    | 7746        | 6.5      | Fair      | Cedar Elm    | 7843        | 17.5     | Fair      | Cedar Elm    |
| 1258        | 6.5      | Fair      | Cedar Elm    | 1361        | 6        | Fair      | Cedar Elm    | 1459        | 17.5     | Fair      | Cedar Elm    | 1654        | 11.5     | Fair      | Cedar Elm    | 5560        | 6        | Fair      | Cedar Elm    | 5655        | 9        | Fair      | Cedar Elm    | 7747        | 16       | Fair      | Cedar Elm    | 7844        | 14       | Fair      | Cedar Elm    |
| 1259        | 8.5      | Fair      | Cedar Elm    | 1362        | 6        | Fair      | Cedar Elm    | 1460        | 8        | Fair      | American Elm | 1655        | 8.5      | Fair      | Cedar Elm    | 5561        | 8        | Fair      | Cedar Elm    | 5656        | 11.5     | Fair      | Cedar Elm    | 7748        | 16.5     | Fair      | Cedar Elm    | 7845        | 11       | Fair      | Cedar Elm    |
| 1260        | 10       | Fair      | Cedar Elm    | 1363        | 19.5     | Fair      | Cedar Elm    | 1461        | 9.5      | Fair      | American Elm | 1656        | 10       | Poor      | Cedar Elm    | 5562        | 15       | Fair      | Cedar Elm    | 5657        | 8.5      | Fair      | Cedar Elm    | 7749        | 8        | Fair      | Cedar Elm    | 7846        | 9        | Fair      | Cedar Elm    |
| 1261        | 13       | Poor      | Cedar Elm    | 1364        | 8        | Fair      | Cedar Elm    | 1462        | 8.5      | Fair      | Cedar Elm    | 1657        | 18       | Fair      | Cedar Elm    | 5563        | 26.5     | Fair      | Cedar Elm    | 5658        | 9        | Fair      | Cedar Elm    | 7750        | 11       | Fair      | Cedar Elm    | 7847        | 8.5      | Fair      | Cedar Elm    |
| 1262        | 7        | Fair      | Cedar Elm    | 1365        | 9        | Fair      | Cedar Elm    | 1463        | 11.5     | Fair      | Cedar Elm    | 1658        | 18       | Fair      | Cedar Elm    | 5564        | 13.5     | Fair      | Cedar Elm    | 5659        | 7        | Fair      | Cedar Elm    | 7751        | 10.5     | Fair      | Cedar Elm    | 7848        | 6        | Fair      | Cedar Elm    |
| 1263        | 7        | Fair      | Cedar Elm    | 1366        | 11.5     | Fair      | Cedar Elm    | 1464        | 11.5     | Fair      | Cedar Elm    | 1659        | 9        | Fair      | Cedar Elm    | 5565        | 8        | Fair      | Cedar Elm    | 5660        | 10       | Fair      | Cedar Elm    | 7752        | 13       | Fair      | Cedar Elm    | 7849        | 17.5     | Fair      | Cedar Elm    |
| 1264        | 46       | Fair      | Cedar Elm    | 1367        | 15.5     | Fair      | Cedar Elm    | 1465        | 16       | Fair      | Cedar Elm    | 1660        | 13       | Fair      | Cedar Elm    | 5566        | 13       | Fair      | Cedar Elm    | 5661        | 6        | Fair      | Cedar Elm    | 7753        | 9        | Fair      | Cedar Elm    | 7850        | 6.5      | Fair      | Cedar Elm    |
| 1265        | 13       | Fair      | American Elm | 1368        | 12.5     | Fair      | American Elm | 1466        | 12.5     | Fair      | Cedar Elm    | 1661        | 10       | Fair      | Cedar Elm    | 5567        | 16.5     | Fair      | Cedar Elm    | 5662        | 9.5      | Fair      | Cedar Elm    | 7754        | 8.5      | Fair      | Cedar Elm    | 7851        | 12       | Fair      | Cedar Elm    |
| 1266        | 18       | Fair      | American Elm | 1369        | 15       | Fair      | Cedar Elm    | 1467        | 6.5      | Fair      | American Elm | 1662        | 13       | Fair      | Cedar Elm    | 5568        | 14.5     | Fair      | Cedar Elm    | 5663        | 10.5     | Fair      | Cedar Elm    | 7755        | 8.5      | Fair      | Cedar Elm    | 7852        | 7        | Fair      | Cedar Elm    |
| 1267        | 6        | Fair      | American Elm | 1370        | 17       | Fair      | Cedar Elm    | 1468        | 14.5     | Fair      | American Elm | 1663        | 13.5     | Fair      | Cedar Elm    | 5569        | 11.5     | Fair      | Cedar Elm    | 5664        | 9.5      | Fair      | Cedar Elm    | 7756        | 11       | Fair      | Cedar Elm    | 7853        | 12.5     | Fair      | Cedar Elm    |
| 1268        | 27       | Poor      | American Elm | 1371        | 8        | Fair      | Cedar Elm    | 1469        | 10       | Fair      | Cedar Elm    | 1664        | 8        | Fair      | American Elm | 5570        | 13       | Fair      | Cedar Elm    | 5665        | 8        | Fair      | Cedar Elm    | 7757        | 8.5      | Fair      | Cedar Elm    | 7854        | 8.5      | Fair      | Cedar Elm    |
| 1269        | 15       | Fair      | American Elm | 1372        | 15.5     | Fair      | Cedar Elm    | 1470        | 9        | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5571        | 20       | Fair      | Cedar Elm    | 5666        | 8.5      | Fair      | Cedar Elm    | 7758        | 8        | Fair      | Cedar Elm    | 7855        | 40       | Fair      | Cedar Elm    |
| 1270        | 7        | Fair      | American Elm | 1373        | 15.5     | Very Poor | Cedar Elm    | 1471        | 6.5      | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5572        | 10.5     | Fair      | Cedar Elm    | 5667        | 9        | Fair      | Cedar Elm    | 7759        | 9        | Fair      | Cedar Elm    | 7856        | 8        | Fair      | Cedar Elm    |
| 1271        | 8.5      | Fair      | American Elm | 1374        | 9.5      | Fair      | Cedar Elm    | 1472        | 10       | Fair      | American Elm | 1667        | 15       | Fair      | Cedar Elm    | 5573        | 16       | Very Poor | Cedar Elm    | 5668        | 7        | Fair      | Cedar Elm    | 7760        | 6.5      | Fair      | Cedar Elm    | 7857        | 8.5      | Fair      | Cedar Elm    |
| 1272        | 8.5      | Fair      | American Elm | 1375        | 13       | Fair      | Cedar Elm    | 1473        | 20.5     | Fair      | American Elm | 1668        | 13       | Fair      | Cedar Elm    | 5574        | 7.5      | Fair      | Cedar Elm    | 5669        | 8.5      | Fair      | Cedar Elm    | 7761        | 9        | Fair      | Cedar Elm    | 7858        | 6.5      | Fair      | Cedar Elm    |
| 1273        | 10       | Fair      | American Elm | 1376        | 6        | Fair      | Cedar Elm    | 1474        | 14       | Fair      | Cedar Elm    | 1669        | 16       | Fair      | Cedar Elm    | 5575        | 7        | Fair      | Cedar Elm    | 5670        | 11.5     | Fair      | Cedar Elm    | 7762        | 9        | Fair      | Cedar Elm    | 7859        | 9        | Fair      | Cedar Elm    |
| 1274        | 8        | Fair      | American Elm | 1377        | 11       | Fair      | Cedar Elm    | 1475        | 6.5      | Fair      | American Elm | 1670        | 23.5     | Fair      | Cedar Elm    | 5576        | 6.5      | Fair      | Cedar Elm    | 5671        | 18.5     | Fair      | Cedar Elm    | 7763        | 7        | Fair      | Cedar Elm    | 7860        | 6        | Fair      | Cedar Elm    |
| 1275        | 9.5      | Fair      | American Elm | 1378        | 12       | Fair      | Cedar Elm    | 1476        | 10       | Fair      | Cedar Elm    | 1671        | 9.5      | Fair      | Cedar Elm    | 5577        | 8        | Fair      | Cedar Elm    | 5672        | 8        | Fair      | Cedar Elm    | 7764        | 15       | Poor      | Cedar Elm    | 7861        | 10       | Fair      | Cedar Elm    |
| 1276        | 9.5      | Fair      | American Elm | 1379        | 7        | Fair      | Cedar Elm    | 1477        | 12       | Fair      | Cedar Elm    | 1672        | 10.5     | Fair      | Cedar Elm    | 5578        | 8.5      | Fair      | Cedar Elm    | 5673        | 14.5     | Fair      | Cedar Elm    | 7765        | 12.5     | Fair      | Cedar Elm    | 7862        | 6        | Fair      | Cedar Elm    |
| 1277        | 9        | Very Poor | American Elm | 1380        | 8.5      | Fair      | Cedar Elm    | 1478        | 7        | Fair      | Cedar Elm    | 1673        | 20       | Fair      | Cedar Elm    | 5579        | 9        | Fair      | Cedar Elm    | 5674        | 23.5     | Fair      | Cedar Elm    | 7766        | 17       | Fair      | American Elm | 7863        | 7.5      | Fair      | Cedar Elm    |
| 1278        | 8.5      | Fair      | American Elm | 1381        | 11       | Fair      | Cedar Elm    | 1479        | 6        | Fair      | Cedar Elm    | 1674        | 6        | Fair      | Cedar Elm    | 5580        | 11       | Fair      | Cedar Elm    | 5675        | 20.5     | Fair      | Cedar Elm    | 7767        | 18.5     | Fair      | Cedar Elm    | 7864        | 7.5      | Fair      | Cedar Elm    |
| 1279        | 7.5      | Fair      | American Elm | 1382        | 12       | Fair      | Cedar Elm    | 1480        | 10.5     | Fair      | Cedar Elm    | 1675        | 9.5      | Fair      | Cedar Elm    | 5581        | 12.5     | Fair      | Cedar Elm    | 5676        | 16       | Fair      | Cedar Elm    | 7768        | 7.5      | Fair      | Cedar Elm    | 7865        | 11       | Fair      | Cedar Elm    |
| 1280        | 8        | Fair      | American Elm | 1383        | 8.5      | Fair      | Cedar Elm    | 1481        | 6.5      | Fair      | Cedar Elm    | 1676        | 19       | Fair      | Cedar Elm    | 5582        | 9.5      | Fair      | Cedar Elm    | 5677        | 11       | Fair      | Cedar Elm    | 7769        | 8        | Fair      | Cedar Elm    | 7866        | 9        | Fair      | Cedar Elm    |
| 1281        | 10       | Fair      | American Elm | 1384        | 10.5     | Fair      | Cedar Elm    | 1482        | 19       | Fair      | Cedar Elm    | 1677        | 13       | Fair      | Cedar Elm    | 5583        | 12.5     | Fair      | Cedar Elm    | 5678        | 7.5      | Fair      | Cedar Elm    | 7770        | 7        | Fair      | Cedar Elm    | 7867        | 7.5      | Fair      | Cedar Elm    |
| 1282        | 10       | Fair      | American Elm | 1385        | 6.5      | Fair      | Cedar Elm    | 1483        | 21.5     | Good      | Cedar Elm    | 1678        | 7        | Fair      | American Elm | 5584        | 7.5      | Fair      | Cedar Elm    | 5679        | 9        | Fair      | Cedar Elm    | 7771        | 11       | Fair      | Cedar Elm    | 7868        | 7.5      | Fair      | Cedar Elm    |
| 1283        | 7.5      | Fair      | American Elm | 1386        | 8.5      | Fair      | Cedar Elm    | 1484        | 6.5      | Fair      | Cedar Elm    | 1679        | 18.5     | Fair      | Cedar Elm    | 5585        | 16       | Fair      | Cedar Elm    | 5680        | 18       | Fair      | Cedar Elm    | 7772        | 11       | Fair      | Cedar Elm    | 7869        | 27       | Fair      | Cedar Elm    |
| 1284        | 11       | Fair      | American Elm | 1387        | 9.5      | Fair      | Cedar Elm    | 1485        | 13.5     | Fair      | Cedar Elm    | 1680        | 19       | Fair      | Cedar Elm    | 5586        | 6        | Fair      | Cedar Elm    | 5681        | 8        | Fair      | Cedar Elm    | 7773        | 9        | Fair      | Cedar Elm    | 7870        | 23.5     | Fair      | Cedar Elm    |
| 1285        | 35       | Good      | American Elm | 1388        | 12       | Fair      | Cedar Elm    | 1486        | 8        | Fair      | Cedar Elm    | 1681        | 9        | Fair      | American Elm | 5587        | 22       | Fair      | American Elm | 5682        | 10       | Fair      | American Elm | 7774        | 8.5      | Fair      | Cedar Elm    | 7871        | 12       | Fair      | Cedar Elm    |
| 1286        | 7.5      | Fair      | American Elm | 1389        | 7.5      | Fair      | Cedar Elm    | 1487        | 10.5     | Fair      | Cedar Elm    | 1682        | 6        | Fair      | American Elm | 5588        | 10       | Fair      | American Elm | 5683        | 12.5     | Fair      | Cedar Elm    | 7775        | 13       | Poor      | Cedar Elm    | 7872        | 8        | Fair      | Cedar Elm    |
| 1287        | 8        | Fair      | American Elm | 1390        | 13       | Poor      | Cedar Elm    | 1488        | 15       | Fair      | Cedar Elm    | 1683        | 21       | Fair      | Cedar Elm    | 5589        | 8        | Fair      | American Elm | 5684        | 9        | Fair      | Cedar Elm    | 7776        | 13       | Fair      | Cedar Elm    | 7873        | 12       | Fair      | Cedar Elm    |
| 1288        | 7        | Poor      | American Elm | 1391        | 8.5      | Fair      | Cedar Elm    | 1489        | 13       | Fair      | Cedar Elm    | 1684        | 7.5      | Fair      | Cedar Elm    | 5590        | 28       | Fair      | Cedar Elm    | 5685        | 16       | Fair      | Cedar Elm    | 7777        | 6.5      | Fair      | Cedar Elm    | 7874        | 16       | Fair      | Cedar Elm    |
| 1289        | 9.5      | Fair      | American Elm | 1392        | 6.5      | Poor      | Cedar Elm    | 1490        | 16       | Fair      | Cedar Elm    | 1685        | 9        | Fair      | Cedar Elm    | 5591        | 26       | Fair      | Cedar Elm    | 5686        | 14       | Fair      | Cedar Elm    | 7778        | 6.5      | Fair      | Cedar Elm    | 7875        | 26.5     | Fair      | Cedar Elm    |
| 1290        | 23       | Fair      | American Elm | 1393        | 7        | Fair      | Cedar Elm    | 1491        | 9        | Fair      | Cedar Elm    | 1686        | 10       | Fair      | Cedar Elm    | 5592        | 21.5     | Fair      | American Elm | 5687        | 14       | Fair      | Cedar Elm    | 7779        | 6.5      | Fair      | Cedar Elm    | 7877        | 45       | Fair      | Cedar Elm    |
| 1291        | 12.5     | Fair      | American Elm | 1394        | 7        | Fair      | Cedar Elm    | 1492        | 8        | Fair      | Cedar Elm    | 1687        | 14.5     | Fair      | Cedar Elm    | 5593        | 9        | Fair      | Cedar Elm    | 5688        | 9        | Fair      | American Elm | 7780        | 6        | Fair      | Cedar Elm    | 7878        | 13       | Fair      | Cedar Elm    |
| 1292        | 8        | Fair      | American Elm | 1395        | 6        | Fair      | Cedar Elm    | 1493        | 15       | Fair      | Cedar Elm    | 1688        | 13.5     | Fair      | American Elm | 5594        | 19.5     | Fair      | American Elm | 5689        | 7        | Fair      | American Elm | 7781        | 13       | Fair      | Cedar Elm    | 7879        | 17.5     | Poor      | American Elm |
| 1293        | 9        | Fair      | American Elm | 1396        | 7        | Fair      | Cedar Elm    | 1494        | 18.5     | Fair      | Cedar Elm    | 1689        | 22       | Fair      | Cedar Elm    | 5595        | 6.5      | Fair      | American Elm | 5690        | 17.5     | Fair      | Cedar Elm    | 7782        | 11.5     | Fair      | Cedar Elm    | 7880        | 6        | Fair      | Cedar Elm    |
| 1294        | 8.5      | Poor      | American Elm | 1397        | 6        | Fair      | Cedar Elm    | 1495        | 6.5      | Fair      | Cedar Elm    | 5501        | 7.5      | Fair      | Cedar Elm    | 5596        | 12.5     | Fair      | American Elm | 5691        | 11       | Fair      | Cedar Elm    | 7783        | 11.5     | Fair      | Cedar Elm    | 7881        | 16.5     | Poor      | Cedar Elm    |
| 1295        | 6.5      | Fair      | American Elm | 1398        | 7.5      | Fair      | Cedar Elm    | 1496        | 19       | Fair      | Cedar Elm    | 5502        | 9.5      | Fair      | Cedar Elm    | 5597        | 6        | Fair      | American Elm | 5692        | 20       | Fair      | Cedar Elm    | 7784        | 11.5     | Fair      | Cedar Elm    | 7882        | 12.5     | Fair      | Cedar Elm    |
| 1296        | 16       | Fair      | American Elm | 1399        | 7        | Fair      | Cedar Elm    | 1497        | 6        | Fair      | Cedar Elm    | 5503        | 7.5      | Fair      | Cedar Elm    | 5598        | 9        | Fair      | Cedar Elm    | 5693        | 7.5      | Fair      | Cedar Elm    | 7785        | 9.5      | Fair      | Cedar Elm    | 7883        | 7        | Fair      | Cedar Elm    |
| 1297        | 16.5     | Very Poor | American Elm | 1400        | 9.5      | Fair      | Cedar Elm    | 1498        | 13.5     | Fair      | Cedar Elm    | 5504        | 11       | Fair      | Cedar Elm    | 5599        | 7.5      | Fair      | Cedar Elm    | 5694        | 10       | Fair      |              |             |          |           |              |             |          |           |              |

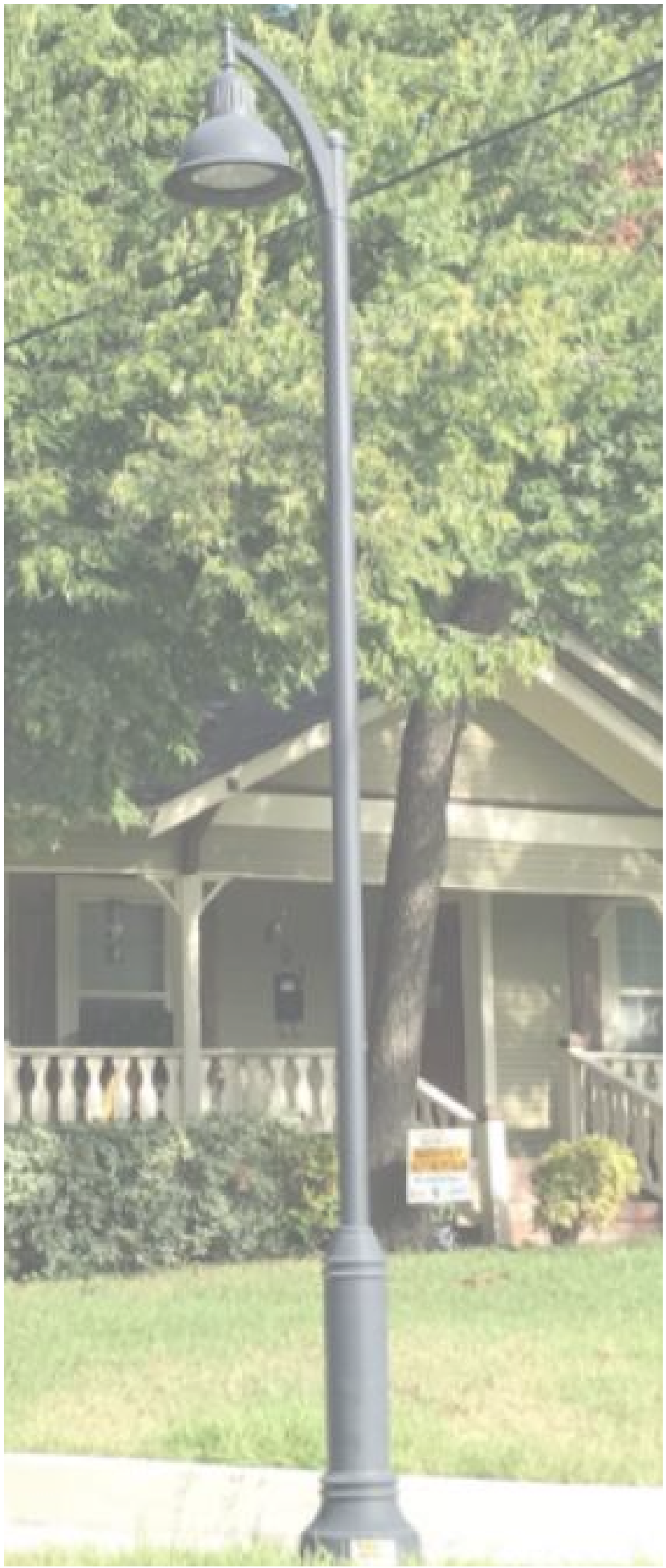


TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 7929        | 40.5     | Fair      | Cedar Elm    | 8019        | 10       | Fair      | Cedar Elm    | 8109        | 15       | Fair      | American Elm | 8199        | 6        | Fair      | Cedar Elm    | 8292        | 8        | Fair      | Cedar Elm    | 8383        | 10.5     | Fair      | Cedar Elm    | 8474        | 7.5      | Fair      | Cedar Elm    | 8563        | 9        | Fair      | Cedar Elm    | 8653        | 6.5      | Fair      | Cedar Elm    |
| 7930        | 46       | Fair      | Cedar Elm    | 8020        | 10.5     | Fair      | Cedar Elm    | 8110        | 10       | Fair      | Cedar Elm    | 8200        | 43.5     | Fair      | Cedar Elm    | 8293        | 31       | Fair      | Cedar Elm    | 8384        | 7        | Fair      | Cedar Elm    | 8475        | 6        | Fair      | Cedar Elm    | 8564        | 16.5     | Fair      | Cedar Elm    | 8654        | 44       | Fair      | Cedar Elm    |
| 7931        | 29       | Fair      | Cedar Elm    | 8021        | 9        | Fair      | Cedar Elm    | 8111        | 9        | Fair      | Cedar Elm    | 8201        | 8.5      | Fair      | Cedar Elm    | 8294        | 6.5      | Fair      | Cedar Elm    | 8385        | 6        | Fair      | Cedar Elm    | 8476        | 8        | Fair      | Cedar Elm    | 8565        | 13.5     | Fair      | Cedar Elm    | 8655        | 8        | Fair      | Cedar Elm    |
| 7932        | 8        | Fair      | American Elm | 8022        | 6        | Fair      | Cedar Elm    | 8112        | 10.5     | Fair      | American Elm | 8202        | 7        | Fair      | Cedar Elm    | 8295        | 6        | Fair      | Cedar Elm    | 8386        | 7.5      | Fair      | Cedar Elm    | 8477        | 7.5      | Fair      | Cedar Elm    | 8566        | 14       | Fair      | Cedar Elm    | 8656        | 13.5     | Fair      | Cedar Elm    |
| 7933        | 9.5      | Fair      | Cedar Elm    | 8023        | 7        | Fair      | Cedar Elm    | 8113        | 9        | Fair      | American Elm | 8203        | 7        | Fair      | Cedar Elm    | 8296        | 24       | Fair      | Cedar Elm    | 8387        | 7        | Fair      | American Elm | 8478        | 8        | Fair      | Cedar Elm    | 8567        | 14.5     | Fair      | Cedar Elm    | 8657        | 11.5     | Fair      | Cedar Elm    |
| 7934        | 6.5      | Fair      | Cedar Elm    | 8024        | 8        | Fair      | Cedar Elm    | 8114        | 15       | Fair      | Cedar Elm    | 8204        | 7        | Fair      | Cedar Elm    | 8297        | 6.5      | Fair      | Cedar Elm    | 8388        | 7        | Fair      | Cedar Elm    | 8479        | 8        | Fair      | American Elm | 8568        | 12       | Fair      | Cedar Elm    | 8658        | 8        | Fair      | Cedar Elm    |
| 7935        | 9.5      | Fair      | Cedar Elm    | 8025        | 7        | Fair      | Cedar Elm    | 8115        | 14       | Fair      | Cedar Elm    | 8205        | 6.5      | Fair      | Cedar Elm    | 8298        | 16.5     | Fair      | Cedar Elm    | 8389        | 14.5     | Fair      | Cedar Elm    | 8480        | 7        | Fair      | American Elm | 8569        | 9        | Fair      | Cedar Elm    | 8659        | 9.5      | Fair      | Cedar Elm    |
| 7936        | 44       | Fair      | Cedar Elm    | 8026        | 6.5      | Fair      | Cedar Elm    | 8116        | 16       | Fair      | Cedar Elm    | 8206        | 7        | Fair      | Cedar Elm    | 8299        | 17       | Fair      | Cedar Elm    | 8390        | 7        | Fair      | Cedar Elm    | 8481        | 9.5      | Fair      | Cedar Elm    | 8570        | 6.5      | Fair      | Cedar Elm    | 8660        | 9.5      | Fair      | Cedar Elm    |
| 7937        | 42       | Fair      | Cedar Elm    | 8027        | 14       | Fair      | Cedar Elm    | 8117        | 8        | Fair      | Cedar Elm    | 8207        | 7.5      | Fair      | Cedar Elm    | 8300        | 7        | Fair      | Cedar Elm    | 8391        | 8        | Fair      | Cedar Elm    | 8482        | 6        | Fair      | Cedar Elm    | 8571        | 28.5     | Fair      | Cedar Elm    | 8661        | 6.5      | Fair      | Cedar Elm    |
| 7938        | 7        | Fair      | Cedar Elm    | 8028        | 8        | Fair      | Cedar Elm    | 8118        | 7        | Fair      | Cedar Elm    | 8208        | 9        | Fair      | Cedar Elm    | 8301        | 6.5      | Fair      | Cedar Elm    | 8392        | 7.5      | Fair      | Cedar Elm    | 8483        | 12       | Fair      | American Elm | 8572        | 12       | Fair      | Cedar Elm    | 8662        | 6        | Fair      | Cedar Elm    |
| 7939        | 8.5      | Fair      | Cedar Elm    | 8029        | 21       | Fair      | Cedar Elm    | 8119        | 9.5      | Fair      | Cedar Elm    | 8209        | 40.5     | Fair      | Cedar Elm    | 8302        | 8.5      | Fair      | Cedar Elm    | 8393        | 9        | Fair      | Cedar Elm    | 8484        | 8.5      | Fair      | American Elm | 8573        | 14       | Fair      | Cedar Elm    | 8663        | 17.5     | Fair      | Cedar Elm    |
| 7940        | 21.5     | Fair      | Cedar Elm    | 8030        | 16       | Fair      | Cedar Elm    | 8120        | 6        | Fair      | Cedar Elm    | 8210        | 11       | Fair      | Cedar Elm    | 8303        | 10.5     | Fair      | Cedar Elm    | 8394        | 7        | Fair      | Cedar Elm    | 8485        | 8        | Fair      | American Elm | 8574        | 10       | Fair      | Cedar Elm    | 8664        | 10.5     | Fair      | Cedar Elm    |
| 7941        | 13       | Fair      | Cedar Elm    | 8031        | 10       | Fair      | Cedar Elm    | 8121        | 7.5      | Fair      | Cedar Elm    | 8211        | 8.5      | Fair      | Cedar Elm    | 8304        | 10       | Fair      | Cedar Elm    | 8395        | 7        | Fair      | Cedar Elm    | 8486        | 9        | Fair      | American Elm | 8575        | 16       | Fair      | Cedar Elm    | 8665        | 7.5      | Fair      | Cedar Elm    |
| 7942        | 7        | Fair      | Cedar Elm    | 8032        | 14       | Fair      | Cedar Elm    | 8122        | 6        | Fair      | Cedar Elm    | 8212        | 9.5      | Fair      | Cedar Elm    | 8305        | 42       | Fair      | Cedar Elm    | 8396        | 8        | Fair      | Cedar Elm    | 8487        | 6        | Fair      | American Elm | 8576        | 8.5      | Fair      | Cedar Elm    | 8666        | 20.5     | Fair      | Cedar Elm    |
| 7943        | 8        | Fair      | Cedar Elm    | 8033        | 42.5     | Fair      | Cedar Elm    | 8123        | 9.5      | Fair      | Cedar Elm    | 8213        | 9.5      | Fair      | Cedar Elm    | 8306        | 6        | Fair      | Cedar Elm    | 8397        | 8        | Fair      | Cedar Elm    | 8488        | 6        | Fair      | Cedar Elm    | 8577        | 12       | Fair      | Cedar Elm    | 8667        | 11.5     | Fair      | Cedar Elm    |
| 7944        | 19       | Fair      | Cedar Elm    | 8034        | 9.5      | Fair      | Cedar Elm    | 8124        | 7.5      | Fair      | Cedar Elm    | 8214        | 42       | Fair      | Cedar Elm    | 8307        | 40       | Fair      | Cedar Elm    | 8398        | 6        | Fair      | Cedar Elm    | 8489        | 10.5     | Fair      | American Elm | 8578        | 7.5      | Fair      | Cedar Elm    | 8668        | 6.5      | Fair      | Cedar Elm    |
| 7945        | 44       | Fair      | Cedar Elm    | 8035        | 6        | Fair      | Cedar Elm    | 8125        | 7        | Fair      | Cedar Elm    | 8215        | 7        | Fair      | Cedar Elm    | 8308        | 6        | Fair      | Cedar Elm    | 8399        | 9        | Fair      | Cedar Elm    | 8490        | 6        | Fair      | Cedar Elm    | 8579        | 8.5      | Fair      | Cedar Elm    | 8669        | 27       | Fair      | Cedar Elm    |
| 7946        | 7.5      | Fair      | Cedar Elm    | 8036        | 6        | Poor      | Cedar Elm    | 8126        | 6.5      | Fair      | Cedar Elm    | 8216        | 7        | Fair      | Cedar Elm    | 8309        | 11.5     | Fair      | Cedar Elm    | 8400        | 7        | Fair      | Cedar Elm    | 8491        | 11.5     | Poor      | Cedar Elm    | 8580        | 10       | Fair      | Cedar Elm    | 8670        | 6        | Fair      | Cedar Elm    |
| 7947        | 8.5      | Fair      | Cedar Elm    | 8037        | 10.5     | Very Poor | Cedar Elm    | 8127        | 7.5      | Fair      | Cedar Elm    | 8217        | 40.5     | Fair      | Cedar Elm    | 8310        | 8        | Fair      | Cedar Elm    | 8401        | 8        | Fair      | American Elm | 8492        | 11       | Fair      | Cedar Elm    | 8581        | 9        | Fair      | Cedar Elm    | 8671        | 9.5      | Fair      | Cedar Elm    |
| 7948        | 44       | Fair      | Cedar Elm    | 8038        | 17       | Poor      | Cedar Elm    | 8128        | 9.5      | Fair      | Cedar Elm    | 8218        | 40.5     | Fair      | Cedar Elm    | 8311        | 12.5     | Fair      | Cedar Elm    | 8402        | 12.5     | Fair      | Cedar Elm    | 8493        | 6        | Fair      | Cedar Elm    | 8582        | 7.5      | Fair      | Cedar Elm    | 8672        | 11.5     | Fair      | Cedar Elm    |
| 7949        | 40.5     | Fair      | Cedar Elm    | 8039        | 14       | Fair      | Cedar Elm    | 8129        | 6.5      | Fair      | Cedar Elm    | 8219        | 40       | Fair      | Cedar Elm    | 8312        | 8.5      | Fair      | Cedar Elm    | 8403        | 6.5      | Fair      | Cedar Elm    | 8494        | 7        | Fair      | Cedar Elm    | 8583        | 9.5      | Fair      | Cedar Elm    | 8673        | 9        | Fair      | Cedar Elm    |
| 7950        | 15.5     | Fair      | Cedar Elm    | 8040        | 10.5     | Fair      | Cedar Elm    | 8130        | 6        | Fair      | Cedar Elm    | 8220        | 49       | Fair      | Cedar Elm    | 8313        | 8        | Fair      | Cedar Elm    | 8404        | 9        | Fair      | Cedar Elm    | 8495        | 10       | Fair      | Cedar Elm    | 8584        | 8        | Fair      | Cedar Elm    | 8674        | 9.5      | Fair      | Cedar Elm    |
| 7951        | 12.5     | Fair      | Cedar Elm    | 8041        | 21       | Fair      | Cedar Elm    | 8131        | 6.5      | Fair      | Cedar Elm    | 8221        | 7        | Fair      | Cedar Elm    | 8314        | 7        | Fair      | Cedar Elm    | 8405        | 15       | Fair      | Cedar Elm    | 8496        | 8        | Fair      | Cedar Elm    | 8585        | 24.5     | Fair      | Cedar Elm    | 8675        | 9        | Fair      | Cedar Elm    |
| 7952        | 28       | Fair      | Cedar Elm    | 8042        | 8        | Fair      | Cedar Elm    | 8132        | 7        | Fair      | Cedar Elm    | 8222        | 6        | Fair      | Cedar Elm    | 8315        | 7        | Fair      | Cedar Elm    | 8407        | 11       | Fair      | Cedar Elm    | 8497        | 7        | Fair      | Cedar Elm    | 8586        | 40.5     | Fair      | Cedar Elm    | 8676        | 8        | Fair      | Cedar Elm    |
| 7953        | 22.5     | Fair      | Cedar Elm    | 8043        | 8        | Fair      | Cedar Elm    | 8133        | 6        | Fair      | Cedar Elm    | 8223        | 7.5      | Fair      | Cedar Elm    | 8316        | 9.5      | Fair      | Cedar Elm    | 8408        | 9.5      | Fair      | Cedar Elm    | 8498        | 6        | Fair      | Cedar Elm    | 8587        | 6.5      | Fair      | Cedar Elm    | 8677        | 15.5     | Fair      | Cedar Elm    |
| 7954        | 7        | Fair      | American Elm | 8044        | 11.5     | Very Poor | Cedar Elm    | 8134        | 7.5      | Fair      | Cedar Elm    | 8224        | 6        | Fair      | Cedar Elm    | 8317        | 11.5     | Fair      | Cedar Elm    | 8409        | 7        | Fair      | Cedar Elm    | 8499        | 11.5     | Fair      | Cedar Elm    | 8588        | 6.5      | Fair      | Cedar Elm    | 8678        | 6.5      | Fair      | Cedar Elm    |
| 7955        | 9        | Fair      | Cedar Elm    | 8045        | 6        | Poor      | Cedar Elm    | 8135        | 6.5      | Fair      | Cedar Elm    | 8225        | 43       | Fair      | Cedar Elm    | 8318        | 9        | Fair      | Cedar Elm    | 8410        | 10.5     | Fair      | Cedar Elm    | 8500        | 7        | Fair      | American Elm | 8589        | 8.5      | Fair      | Cedar Elm    | 8679        | 8.5      | Fair      | Cedar Elm    |
| 7956        | 14.5     | Fair      | Cedar Elm    | 8046        | 9        | Fair      | Cedar Elm    | 8136        | 7        | Fair      | Cedar Elm    | 8226        | 12       | Fair      | Cedar Elm    | 8319        | 11.5     | Fair      | Cedar Elm    | 8411        | 17.5     | Fair      | Cedar Elm    | 8501        | 6        | Fair      | Cedar Elm    | 8590        | 20       | Fair      | Cedar Elm    | 8680        | 12       | Fair      | Cedar Elm    |
| 7957        | 8        | Fair      | Cedar Elm    | 8047        | 9.5      | Fair      | Cedar Elm    | 8137        | 6        | Fair      | Cedar Elm    | 8227        | 16.5     | Fair      | Cedar Elm    | 8320        | 8        | Fair      | Cedar Elm    | 8412        | 15.5     | Fair      | Cedar Elm    | 8502        | 12.5     | Fair      | Cedar Elm    | 8591        | 8        | Fair      | Cedar Elm    | 8681        | 6.5      | Fair      | Cedar Elm    |
| 7958        | 10.5     | Fair      | Cedar Elm    | 8048        | 17.5     | Fair      | Cedar Elm    | 8138        | 8        | Fair      | Cedar Elm    | 8228        | 17       | Fair      | Cedar Elm    | 8322        | 45       | Fair      | Cedar Elm    | 8413        | 9.5      | Fair      | Cedar Elm    | 8503        | 17.5     | Fair      | Cedar Elm    | 8592        | 42       | Fair      | American Elm | 8682        | 6        | Fair      | Cedar Elm    |
| 7959        | 13       | Fair      | Cedar Elm    | 8049        | 7        | Fair      | Cedar Elm    | 8139        | 8        | Fair      | Cedar Elm    | 8229        | 6.5      | Fair      | Cedar Elm    | 8323        | 44       | Fair      | Cedar Elm    | 8414        | 10       | Fair      | Cedar Elm    | 8504        | 7        | Fair      | Cedar Elm    | 8593        | 8.5      | Fair      | American Elm | 8683        | 6        | Fair      | Cedar Elm    |
| 7960        | 42       | Fair      | Cedar Elm    | 8050        | 30       | Fair      | American Elm | 8140        | 6.5      | Fair      | Cedar Elm    | 8230        | 7.5      | Fair      | Cedar Elm    | 8324        | 9.5      | Fair      | Cedar Elm    | 8415        | 11       | Fair      | Cedar Elm    | 8505        | 6.5      | Fair      | Cedar Elm    | 8594        | 7        | Fair      | Cedar Elm    | 8684        | 18       | Fair      | Cedar Elm    |
| 7961        | 9        | Fair      | Cedar Elm    | 8051        | 14.5     | Fair      | American Elm | 8141        | 9        | Fair      | Cedar Elm    | 8231        | 6.5      | Fair      | Cedar Elm    | 8325        | 9        | Fair      | Cedar Elm    | 8416        | 12       | Fair      | Cedar Elm    | 8506        | 6.5      | Fair      | Cedar Elm    | 8595        | 9.5      | Fair      | American Elm | 8685        | 6        | Fair      | Cedar Elm    |
| 7962        | 9.5      | Fair      | Cedar Elm    | 8052        | 30       | Poor      | American Elm | 8142        | 7        | Fair      | Cedar Elm    | 8232        | 22.5     | Fair      | Cedar Elm    | 8326        | 7.5      | Fair      | Cedar Elm    | 8417        | 11       | Fair      | Cedar Elm    | 8507        | 6        | Fair      | Cedar Elm    | 8596        | 6        | Fair      | Cedar Elm    | 8686        | 6        | Fair      | Cedar Elm    |
| 7963        | 6        | Fair      | Cedar Elm    | 8053        | 17.5     | Fair      | American Elm | 8143        | 6        | Fair      | Cedar Elm    | 8233        | 11       | Fair      | Cedar Elm    | 8327        | 8        | Fair      | Cedar Elm    | 8418        | 8        | Fair      | Cedar Elm    | 8508        | 6        | Fair      | Cedar Elm    | 8597        | 7        | Fair      | Cedar Elm    | 8687        | 9        | Fair      | Cedar Elm    |
| 7964        | 9        | Fair      | Cedar Elm    | 8054        | 22       | Fair      | American Elm | 8144        | 6        | Fair      | Cedar Elm    | 8234        | 10.5     | Fair      | Cedar Elm    | 8328        | 7.5      | Fair      | Cedar Elm    | 8419        | 17       | Fair      | Cedar Elm    | 8509        | 6        | Fair      | Cedar Elm    | 8598        | 15       | Fair      | Cedar Elm    | 8688        | 7        | Fair      | Cedar Elm    |
| 7965        | 6        | Fair      | Cedar Elm    | 8055        | 33       | Fair      | American Elm | 8145        | 6        | Fair      | Cedar Elm    | 8235        | 13.5     | Fair      | Cedar Elm    | 8329        | 8.5      | Fair      | Cedar Elm    | 8420        | 11       | Fair      | Cedar Elm    | 8510        | 13.5     | Fair      | Cedar Elm    | 8599        | 8        | Fair      | Cedar Elm    | 8689        | 11       | Fair      | Cedar Elm    |
| 7966        | 28.5     | Fair      | Cedar Elm    | 8056        | 13.5     | Poor      | American Elm | 8146        | 6.5      | Fair      | Cedar Elm    | 8236        | 14       | Fair      | Cedar Elm    | 8330        | 9        | Fair      | Cedar Elm    | 8421        | 7        | Fair      | Cedar Elm    | 8511        | 7.5      | Fair      | Cedar Elm    | 8600        | 8        | Fair      | Cedar Elm    | 8690        | 6.5      | Fair      | Cedar Elm    |
| 7967        | 14.5     | Fair      | Cedar Elm    | 8057        | 13       | Fair      | American Elm | 8147        | 8        | Fair      | Cedar Elm    | 8237        | 23       | Fair      | Cedar Elm    | 8331        | 7        | Fair      | Cedar Elm    | 8422        | 12.5     | Fair      | Cedar Elm    | 8512        | 13.5     | Fair      | American Elm | 8601        | 7        | Fair      | Cedar Elm    | 8691        | 6.5      | Fair      | Cedar Elm    |
| 7968        | 9        | Fair      | Cedar Elm    | 8058        | 13       | Poor      | American Elm | 8148        | 8        | Fair      | Cedar Elm    | 8238        | 21.5     | Fair      | Cedar Elm    | 8332        | 6.5      | Fair      | Cedar Elm    | 8423        | 7        | Fair      | Cedar Elm    | 8513        | 6        | Fair      | American Elm | 8602        | 6.5      | Fair      | Cedar Elm    | 8692        | 6        | Fair      | Cedar Elm    |
| 7969        | 10       | Fair      | Cedar Elm    | 8059        | 13       | Fair      | Cedar Elm    | 8149        | 7        | Fair      | Cedar Elm    | 8239        | 19.5     | Fair      | Cedar Elm    | 8333        | 6.5      | Fair      | Cedar Elm    | 8424        | 8        | Fair      | Cedar Elm    | 8514        | 14       | Fair      | American Elm | 8603        | 6.5      | Fair      | Cedar Elm    | 8693        | 7        | Fair      | Cedar Elm    |
| 7970        | 9        | Fair      | Cedar Elm    | 8060        | 10.5     | Fair      | Cedar Elm    | 8150        | 7.5      | Fair      | Cedar Elm    | 8240        | 14       | Fair      | Cedar Elm    | 8334        | 10.5     | Fair      | Cedar Elm    | 8425        | 7        | Fair      | Cedar Elm    | 8515        | 7        | Fair      | American Elm | 8604        | 7        | Fair      | Cedar Elm    | 8694        | 7        | Fair      | Cedar Elm    |
| 7971        | 44.5     | Fair      | Cedar Elm    | 8061        | 14       | Fair      | Cedar Elm    | 8151        | 8        | Fair      | Cedar Elm    | 8241        | 10       | Fair      | Cedar Elm    | 8335        | 6.5      | Fair      | Cedar Elm    | 8426        | 11       | Fair      | Cedar Elm    | 8516        | 9        | Fair      | American Elm | 8605        | 24.5     | Fair      | American Elm | 8695        | 6        | Fair      | Cedar Elm    |
| 7972        | 8.5      | Fair      | Cedar Elm    | 8062        | 8        | Fair      | Cedar Elm    | 8152        | 40.5     | Fair      | Cedar Elm    | 8242        | 7        | Fair      | Cedar Elm    | 8336        | 10       | Fair      | Cedar Elm    | 8427        | 12       | Fair      | Cedar Elm    | 8517        | 11       | Fair      | American Elm | 8606        | 9.5      | Fair      | American Elm | 8696        | 8        | Fair      | Cedar Elm    |
| 7973        | 43       | Poor      | Cedar Elm    | 8063        | 11.5     | Fair      | Cedar Elm    | 8153        | 6        | Fair      | Cedar Elm    | 8243        | 8        | Fair      | Cedar Elm    | 8337        | 7.5      | Fair      | Cedar Elm    | 8428        | 10.5     | Fair      | American Elm | 8518        | 9        | Fair      | American Elm | 8607        | 8        | Fair      | Cedar Elm    | 8697        | 8        | Fair      | Cedar Elm    |
| 7974        | 44       | Fair      | Cedar Elm    | 8064        | 10       | Fair      | Cedar Elm    | 8154        | 6        | Fair      | Cedar Elm    |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |



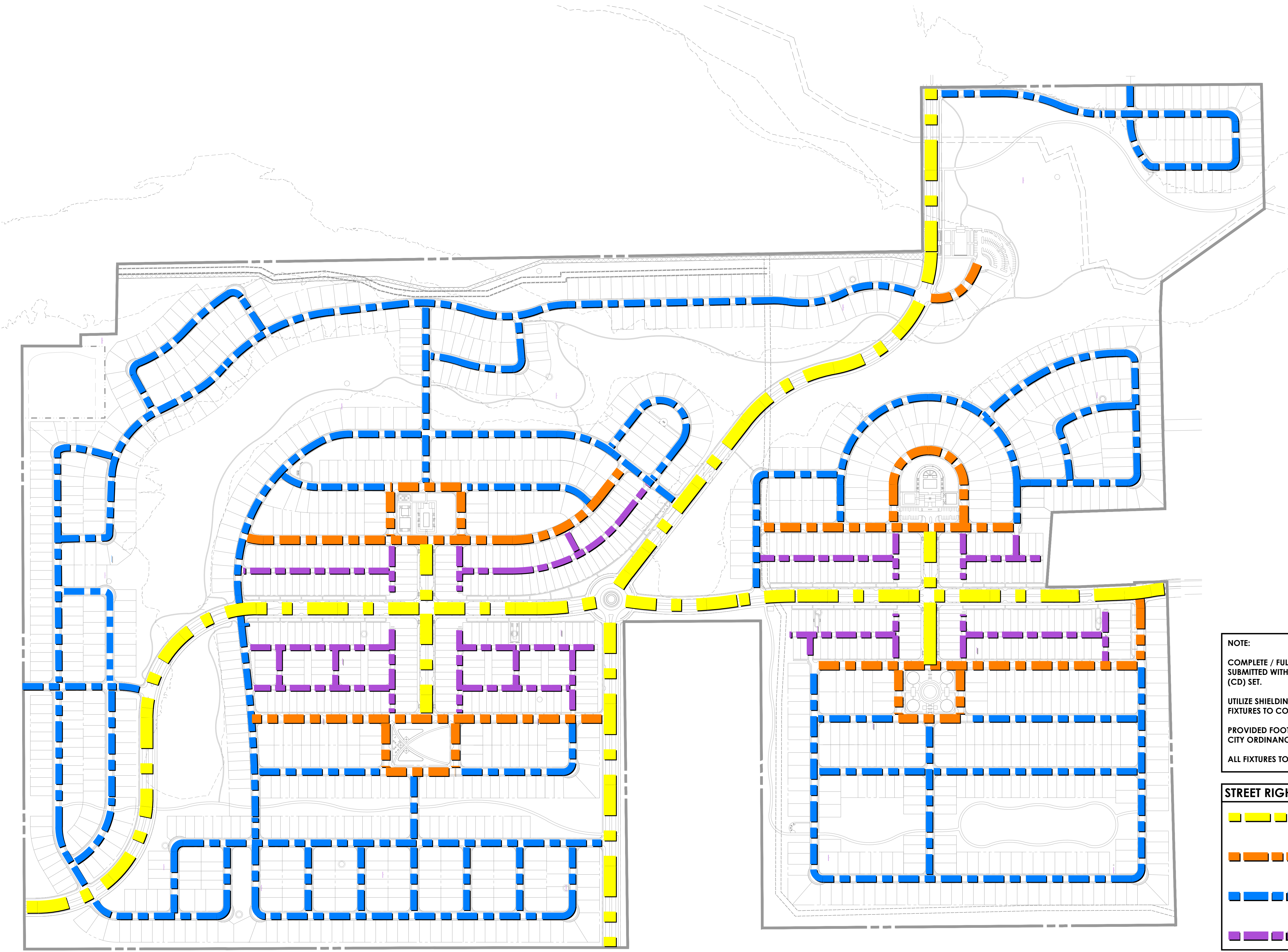
STREET LIGHT OPTIONS  
HISTORICAL PENDANT



PHILADELPHIA WITH  
SINGLE PENDANT



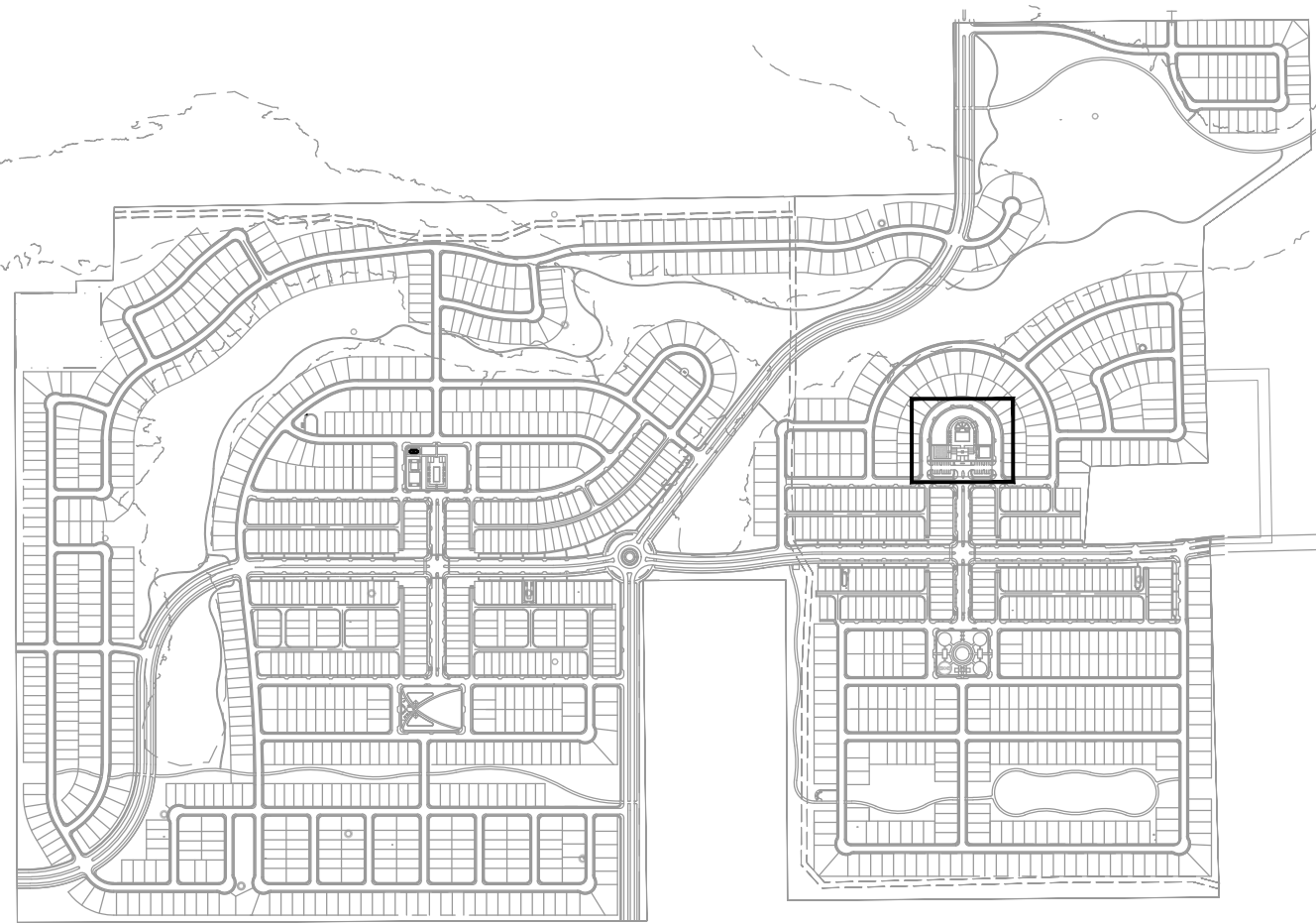
PHILADELPHIA WITH  
DOUBLE PENDANT



NOTE:  
COMPLETE / FULL PHOTOMETRICS PLANS WILL BE  
SUBMITTED WITH FINAL CONSTRUCTION DOCUMENT  
(CD) SET.  
  
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK SKY INITIATIVE.  
  
PROVIDED FOOTCANDLE TO MEET ALL CODE REQ. PER  
CITY ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH DARK SKY INITIATIVE

| STREET RIGHT OF WAY (ROW) LEGEND |                                 |
|----------------------------------|---------------------------------|
|                                  | 100' FT ROW -<br>MINOR ARTERIAL |
|                                  | 60' FT ROW -<br>LOCAL STREET    |
|                                  | 50' FT ROW -<br>LOCAL STREET    |
|                                  | 30' FT ALLEY                    |





KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

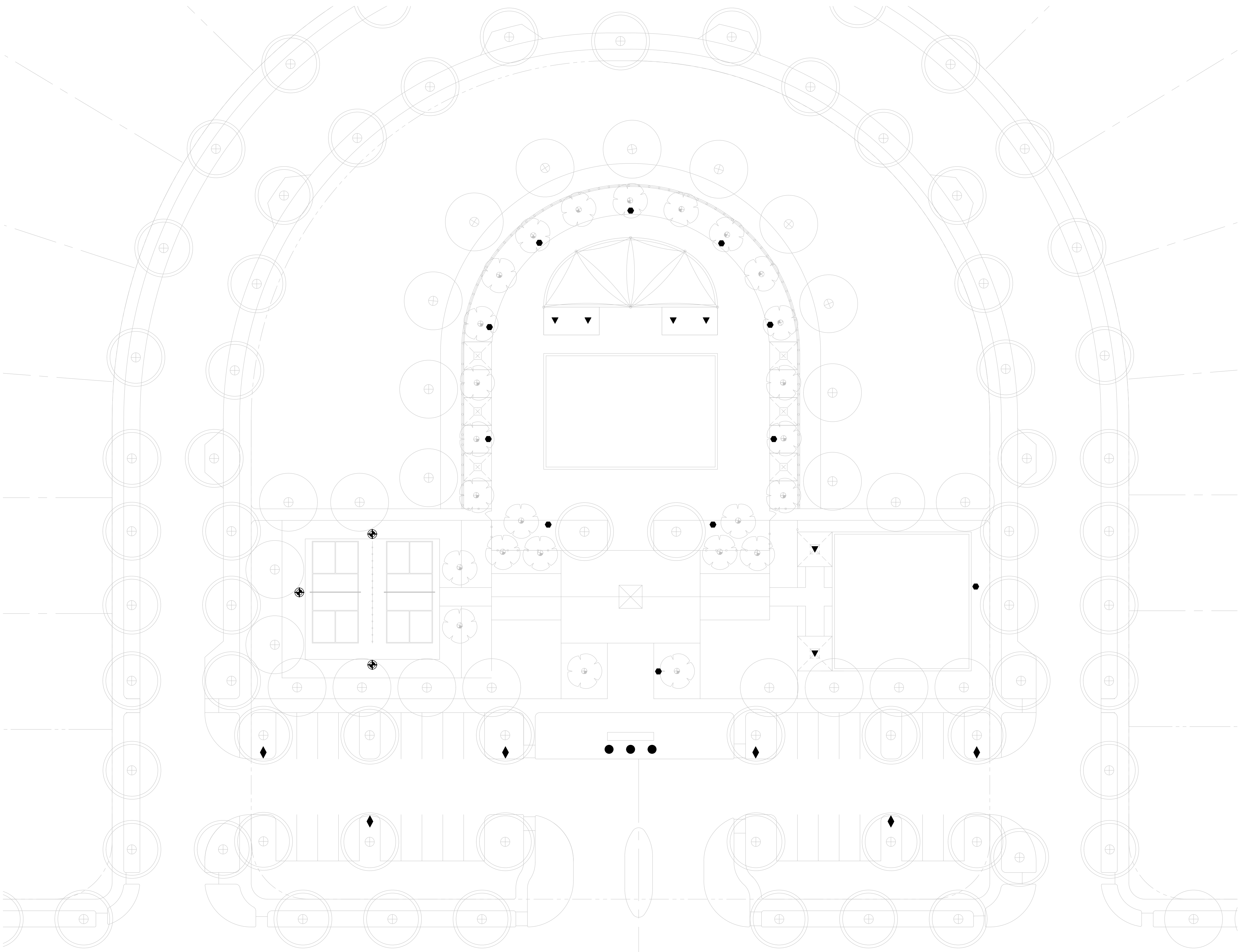
NOTE:

COMPLETE / FULL PHOTOMETRICS  
PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT  
(CD) SET.

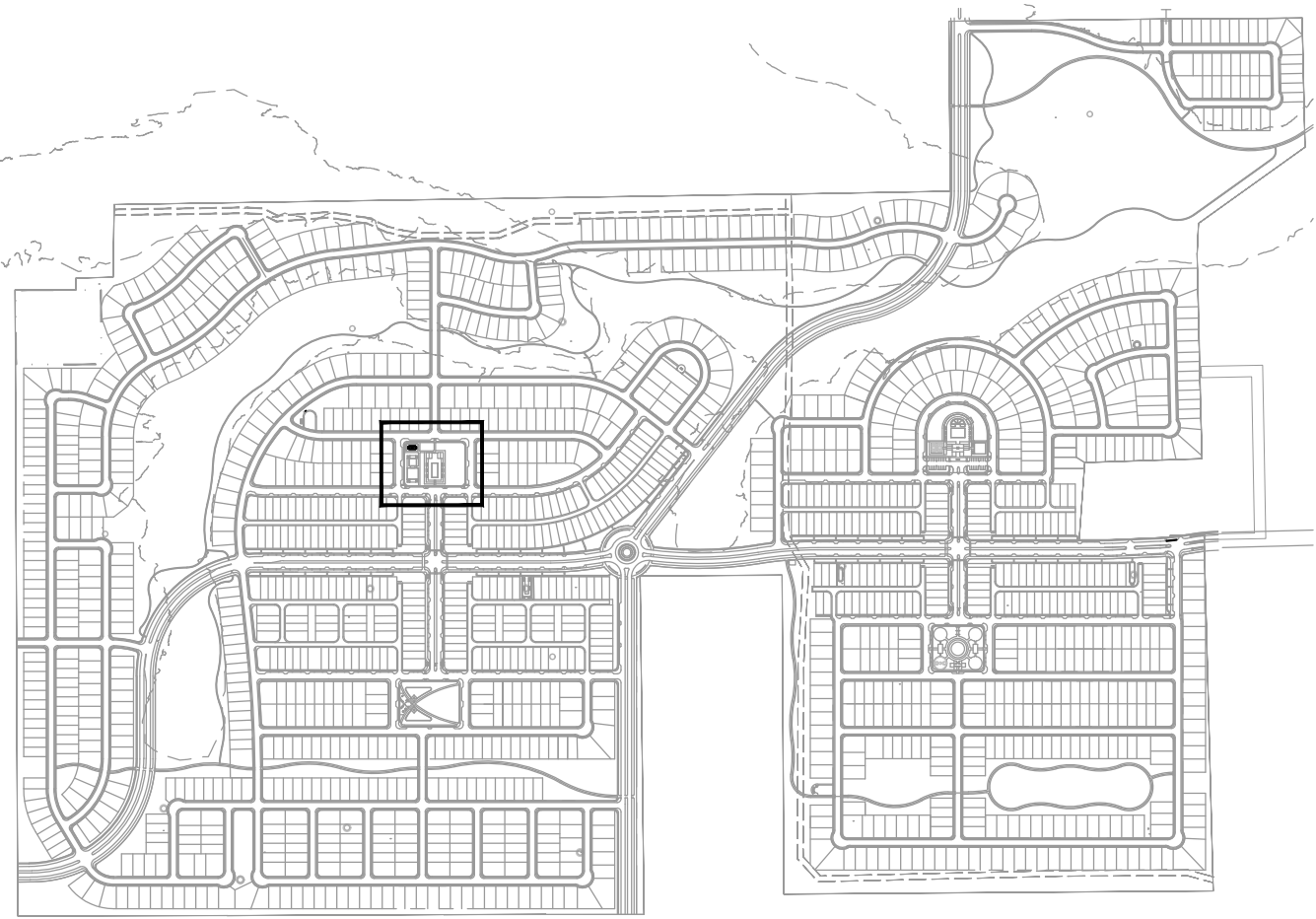
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK  
SKY INITIATIVE.

PROVIDED FOOTCANDLE TO MEET  
ALL CODE REQ. PER CITY  
ORDINANCE

ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







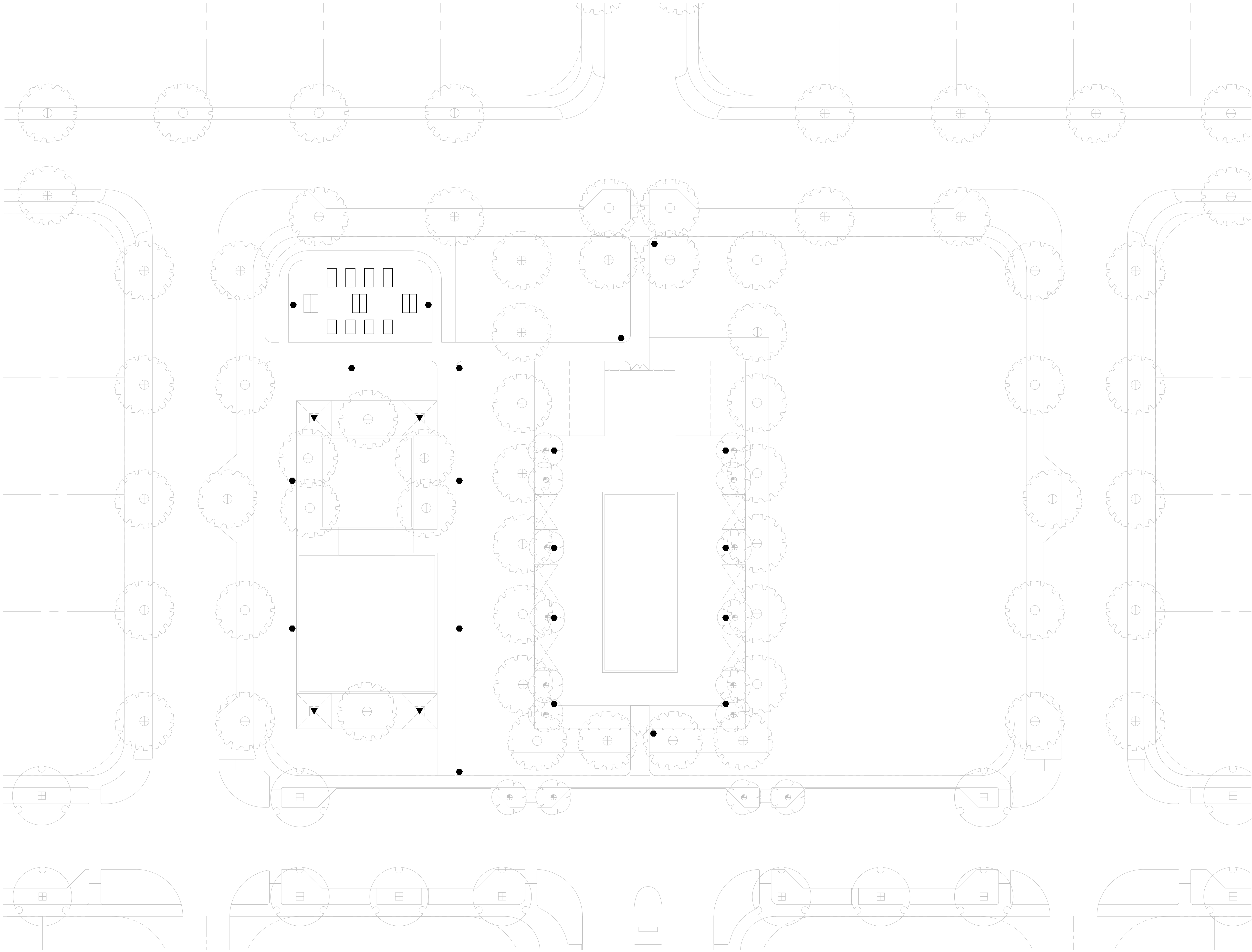
KEY MAP



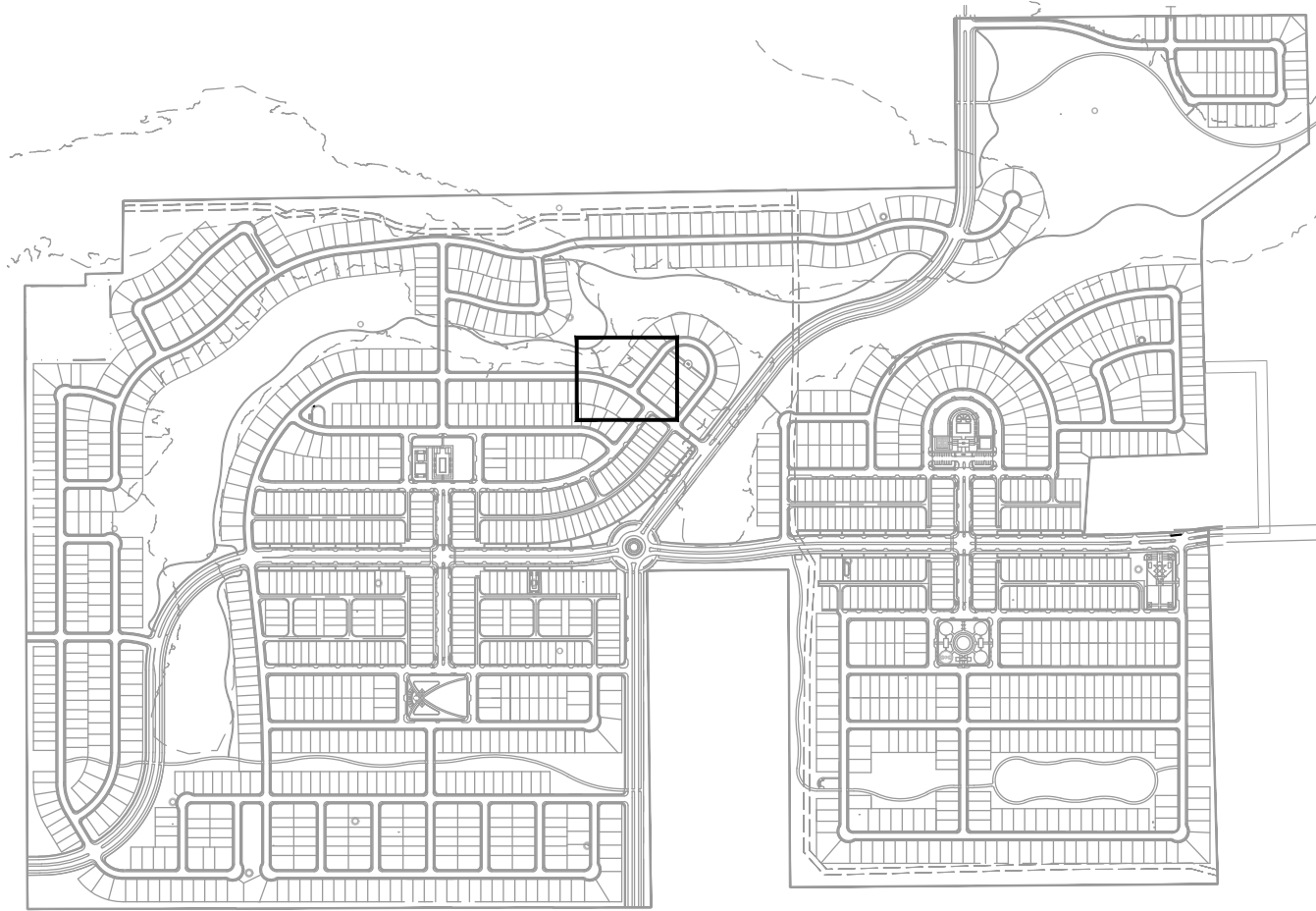
LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

NOTE:  
COMPLETE / FULL PHOTOMETRICS  
PLANS WILL BE SUBMITTED WITH  
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UTILIZE SHIELDING FOR ALL  
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ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







KEY MAP



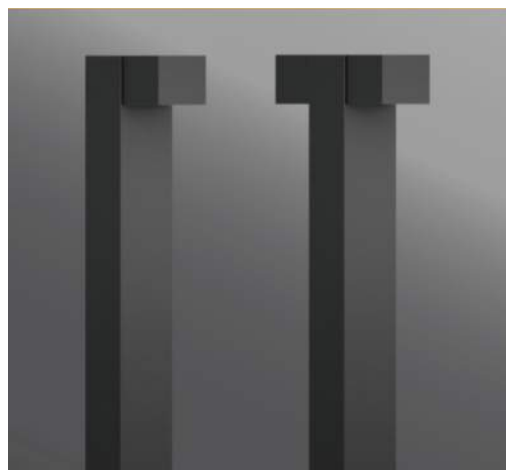
LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT

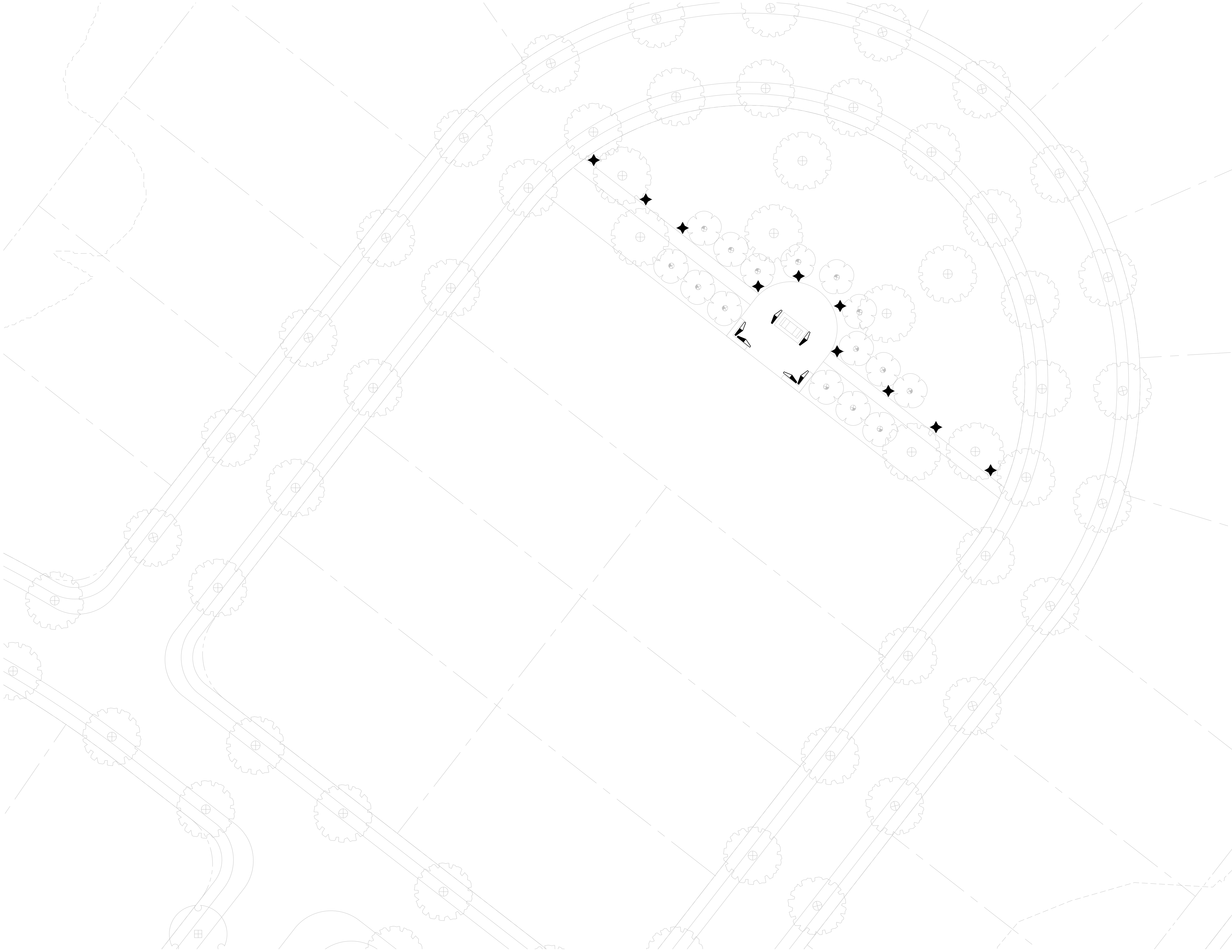


LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

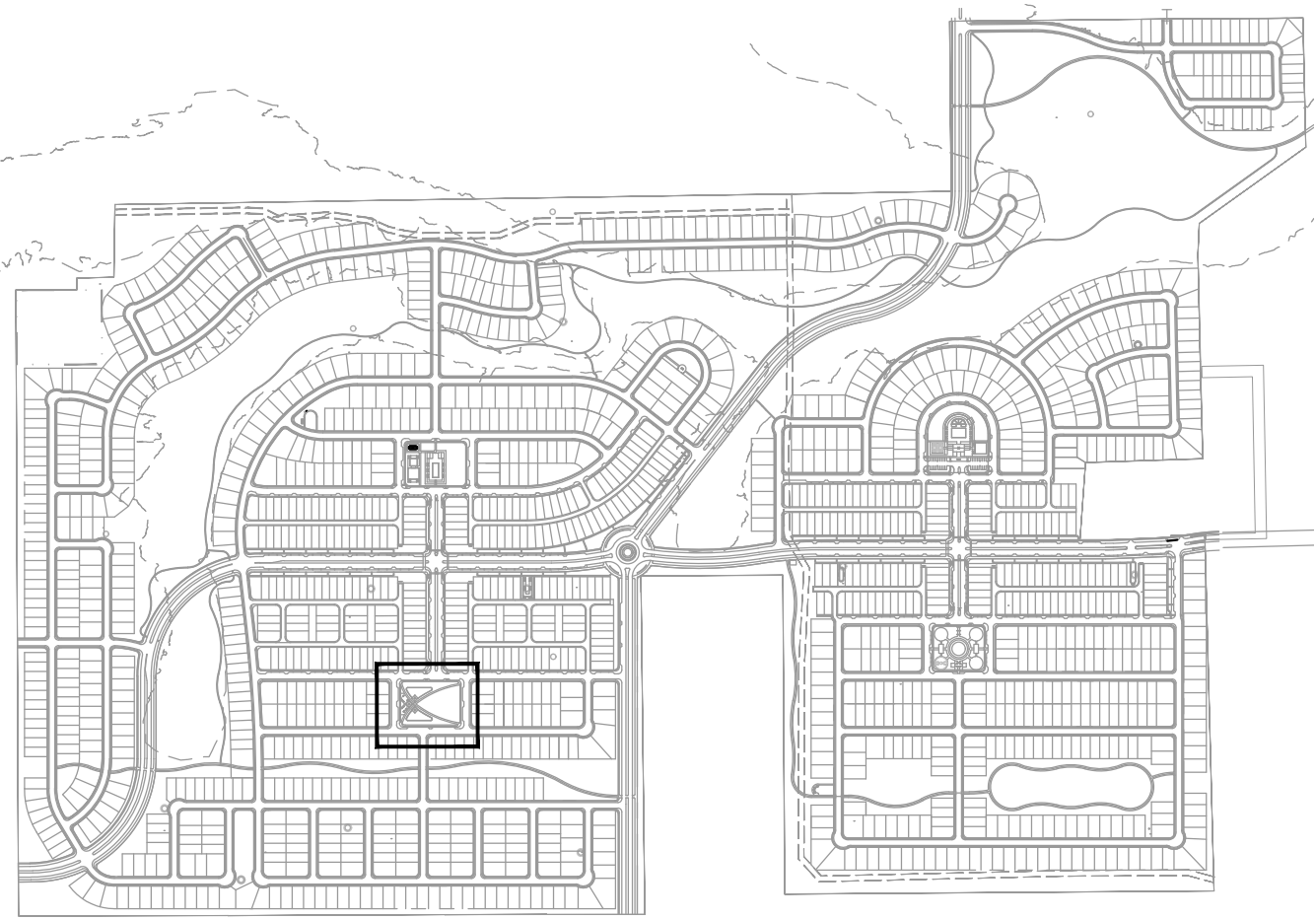
LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
| ⊕    | WATER ACCENT LIGHT     |
| ●    | PEDESTRIAN POLE LIGHT  |
| ◆    | PARKING LOT POLE LIGHT |
| ▼    | TRELLIS DOWN LIGHT     |
| ◆    | STRING / FESTOON LIGHT |
| ●    | UPLIGHT - SIGN         |
| ⊕    | SPORT LIGHT            |
| ◆    | PATH / BOLLARD LIGHT   |
| ▢    | RECESSED WALL LIGHT    |
| M    | RESTROOM - MEN         |
| W    | RESTROOM - WOMEN       |

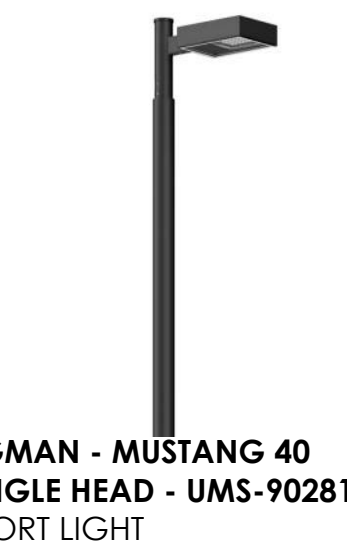
NOTE:  
COMPLETE / FULL PHOTOMETRICS  
PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT  
(CD) SET.  
  
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK  
SKY INITIATIVE.  
  
PROVIDED FOOTCANDLE TO MEET  
ALL CODE REQ. PER CITY  
ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







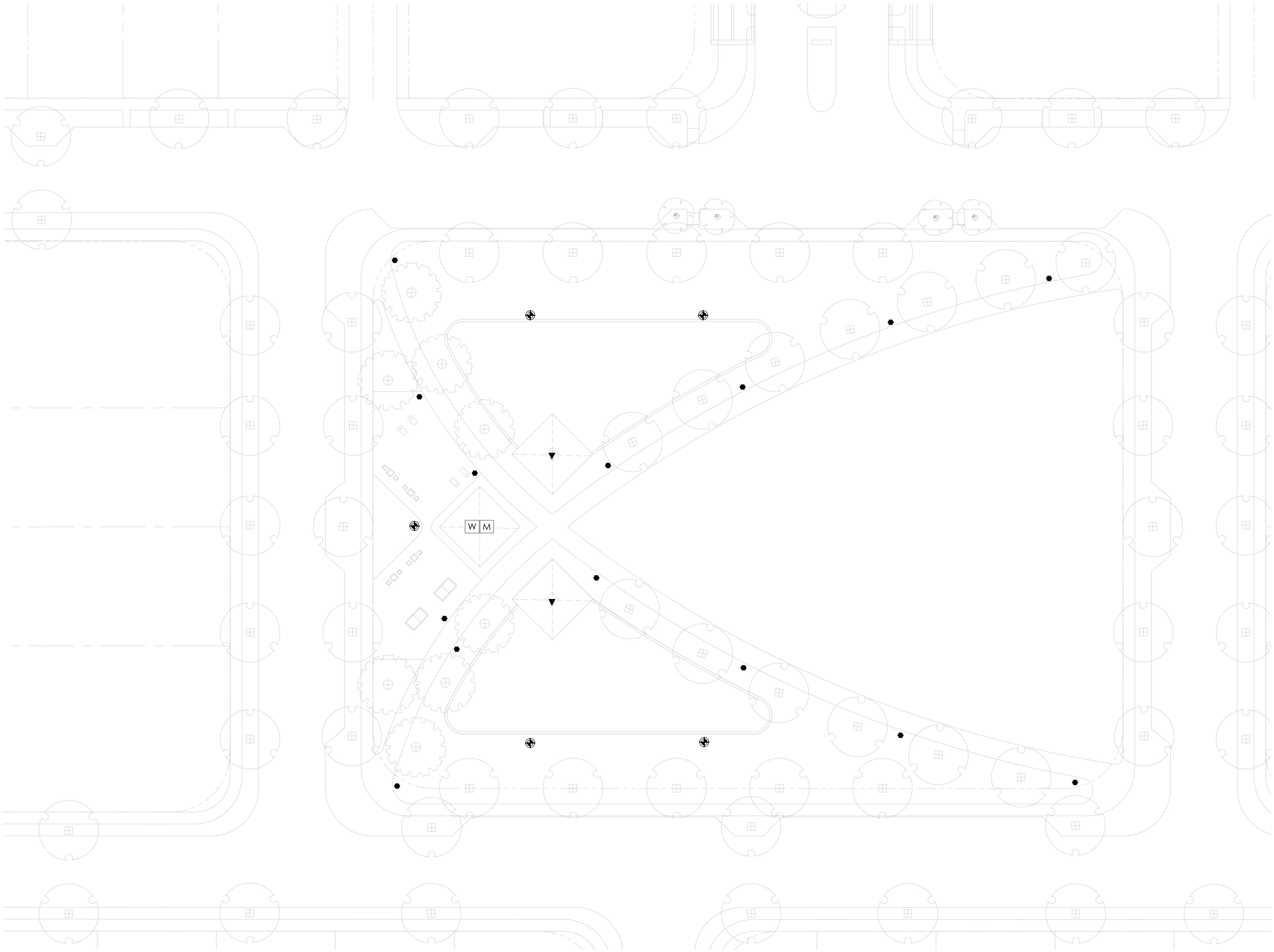
KEY MAP



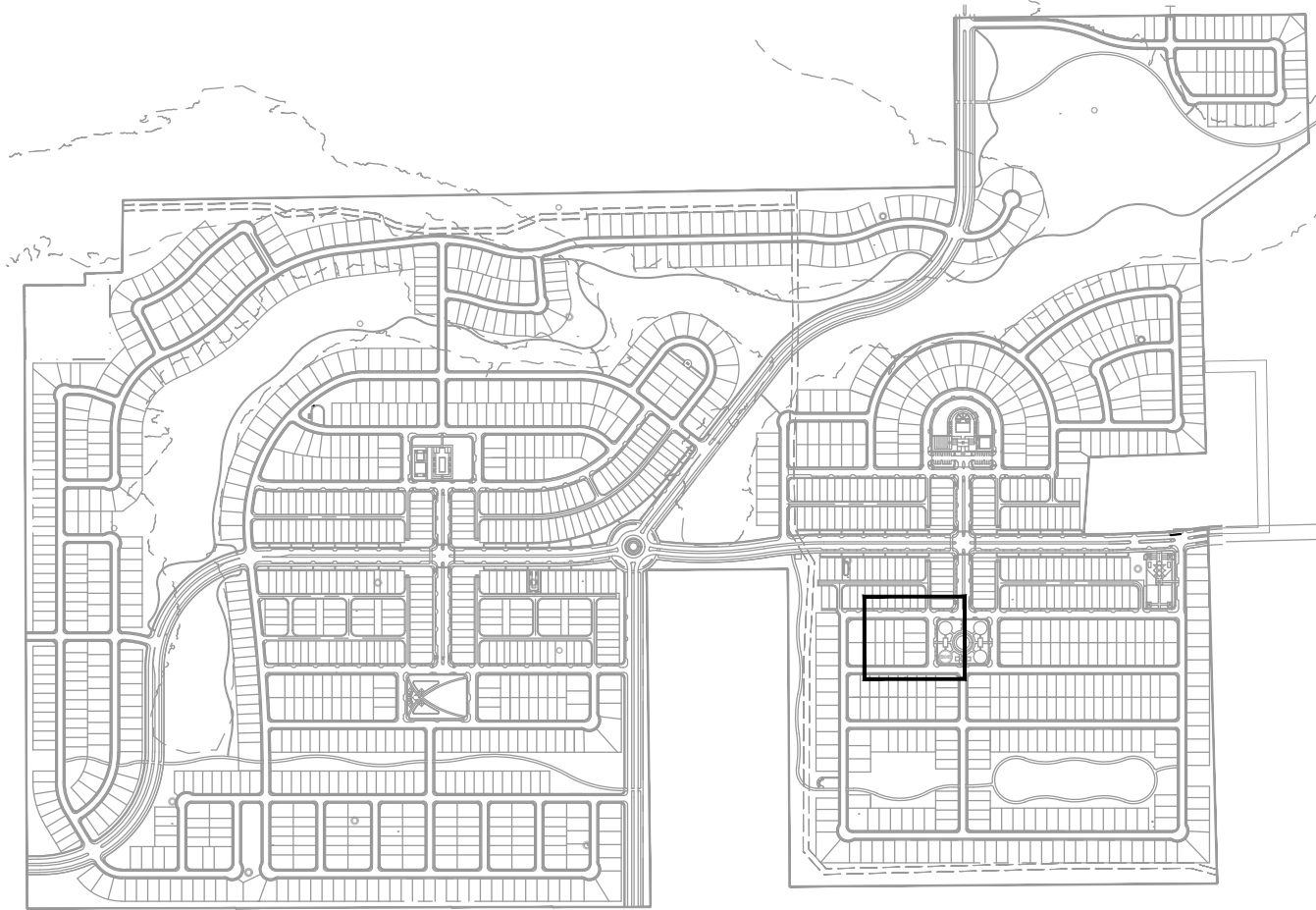
LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
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|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

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ALL CODE REQ. PER CITY  
ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







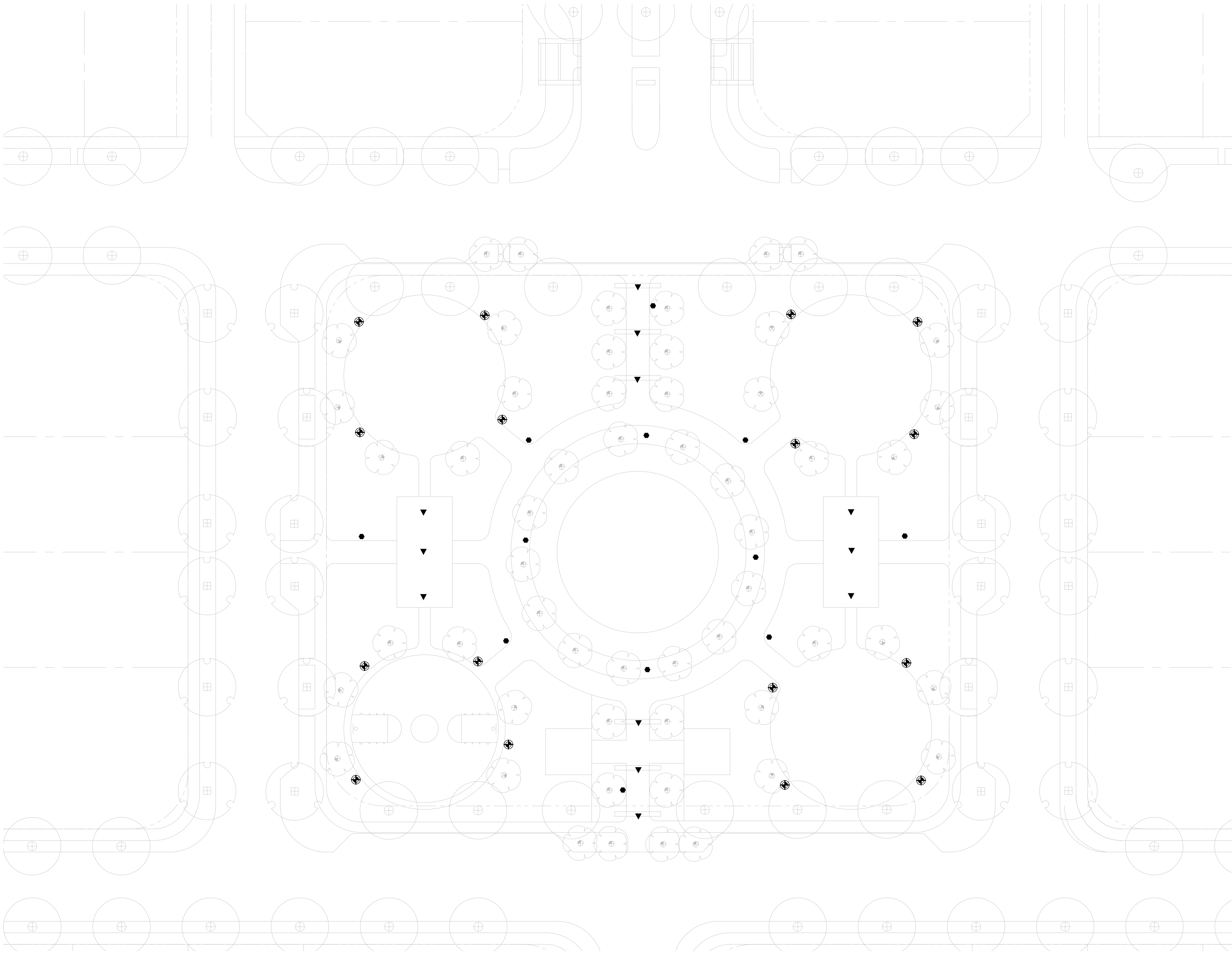
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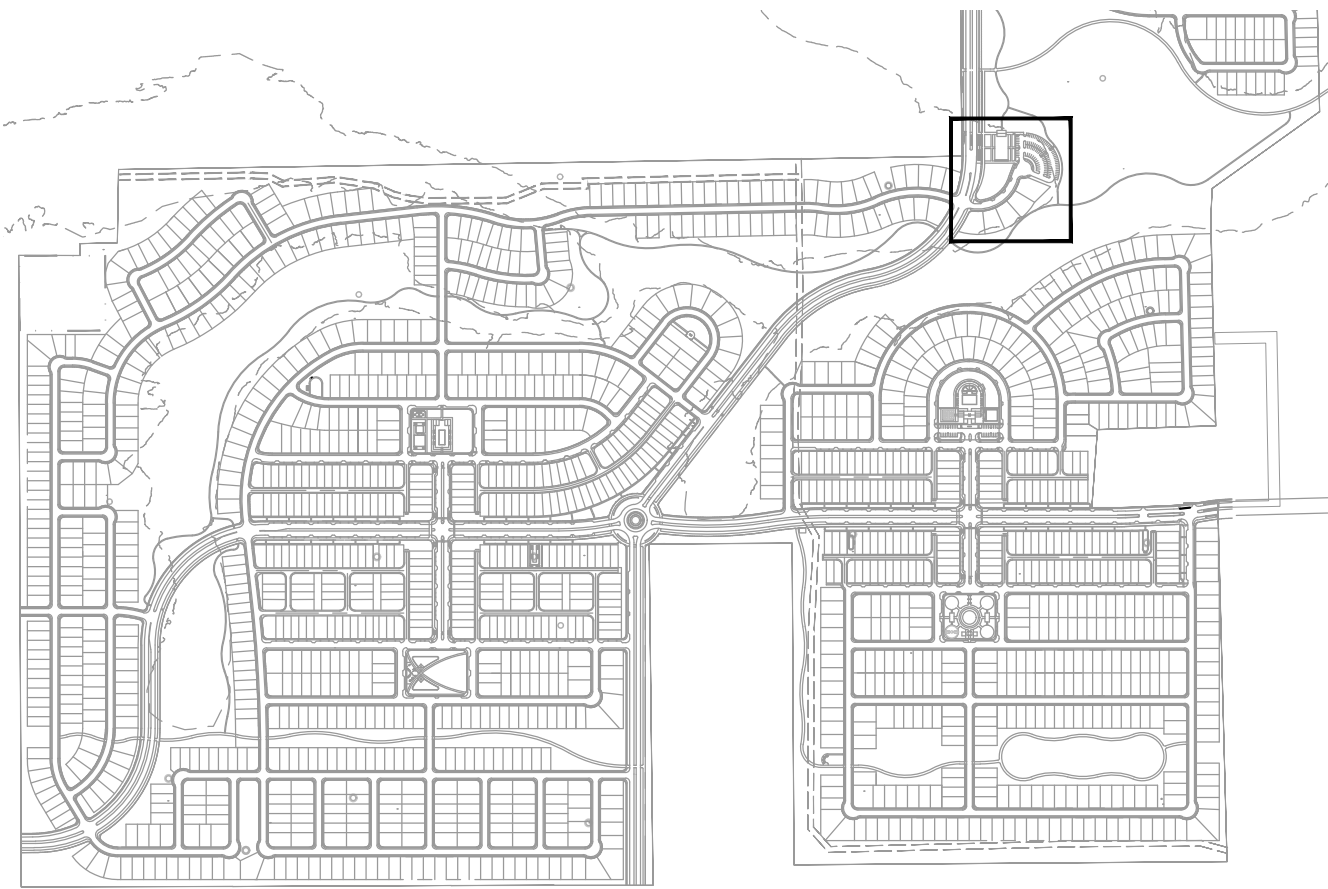
LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
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|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
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ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT



LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
| ⊕    | WATER ACCENT LIGHT     |
| ●    | PEDESTRIAN POLE LIGHT  |
| ◆    | PARKING LOT POLE LIGHT |
| ▼    | TRELLIS DOWN LIGHT     |
| ◆    | STRING / FESTOON LIGHT |
| ●    | UPLIGHT - SIGN         |
| ⊕    | SPORT LIGHT            |
| ◆    | PATH / BOLLARD LIGHT   |
| ⌒    | RECESSED WALL LIGHT    |
| M    | RESTROOM - MEN         |

NOTE:

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SKY INITIATIVE.

PROVIDED FOOTCANDLE TO MEET  
ALL CODE REQ. PER CITY  
ORDINANCE

ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE

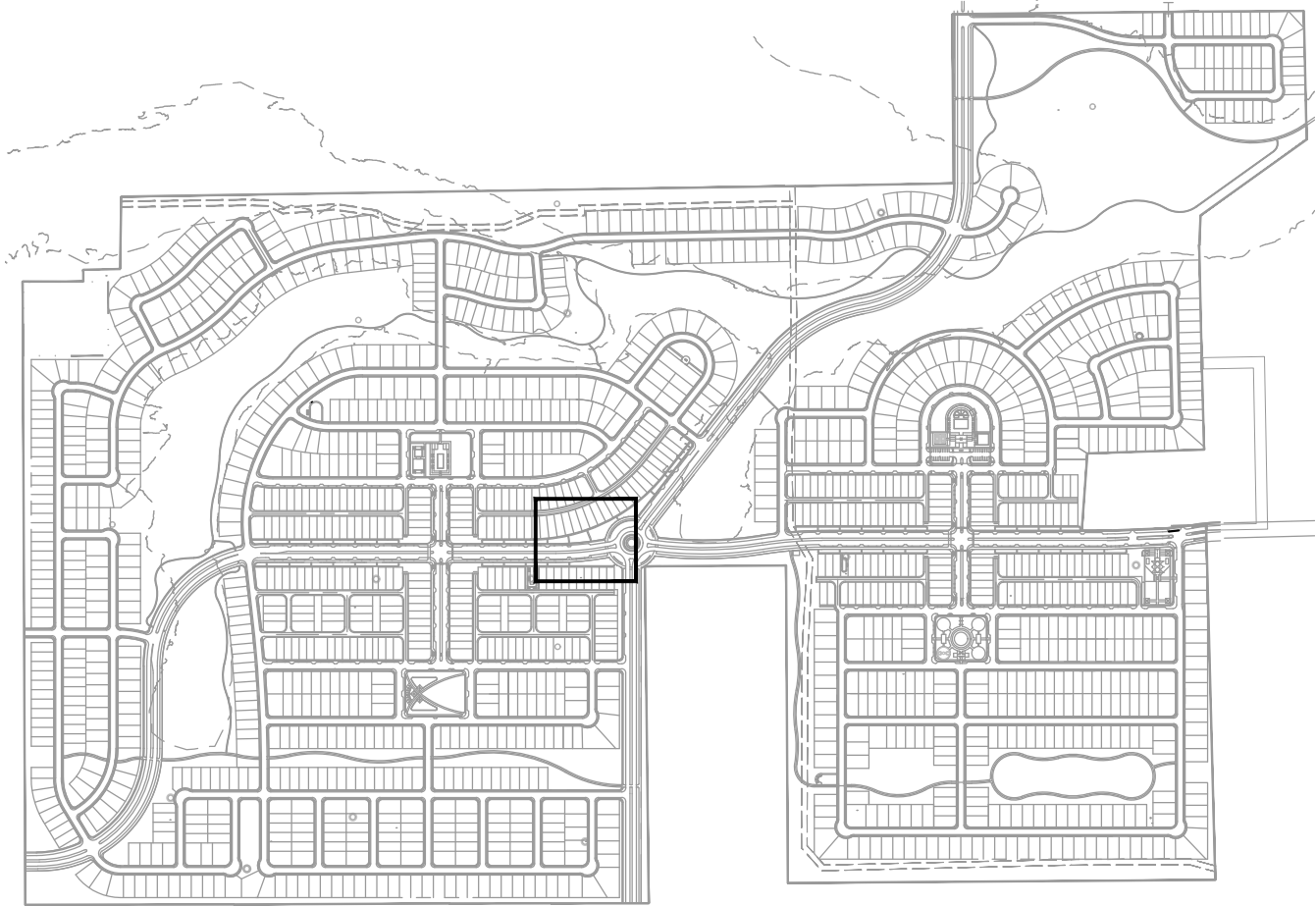


2025-04-14

CUESTA  
PAVILION PARK - PHOTOMETRIC EXHIBIT







KEY MAP



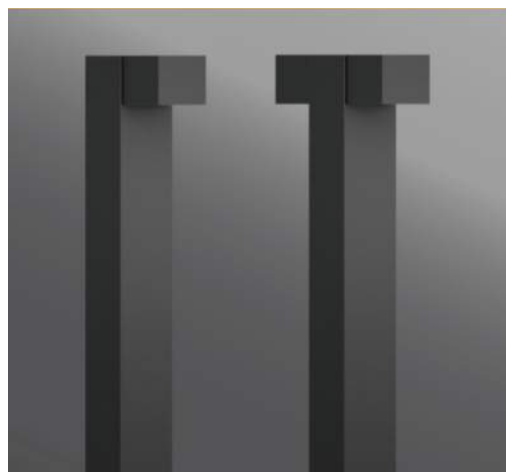
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PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
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LIGHT LEGEND

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|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

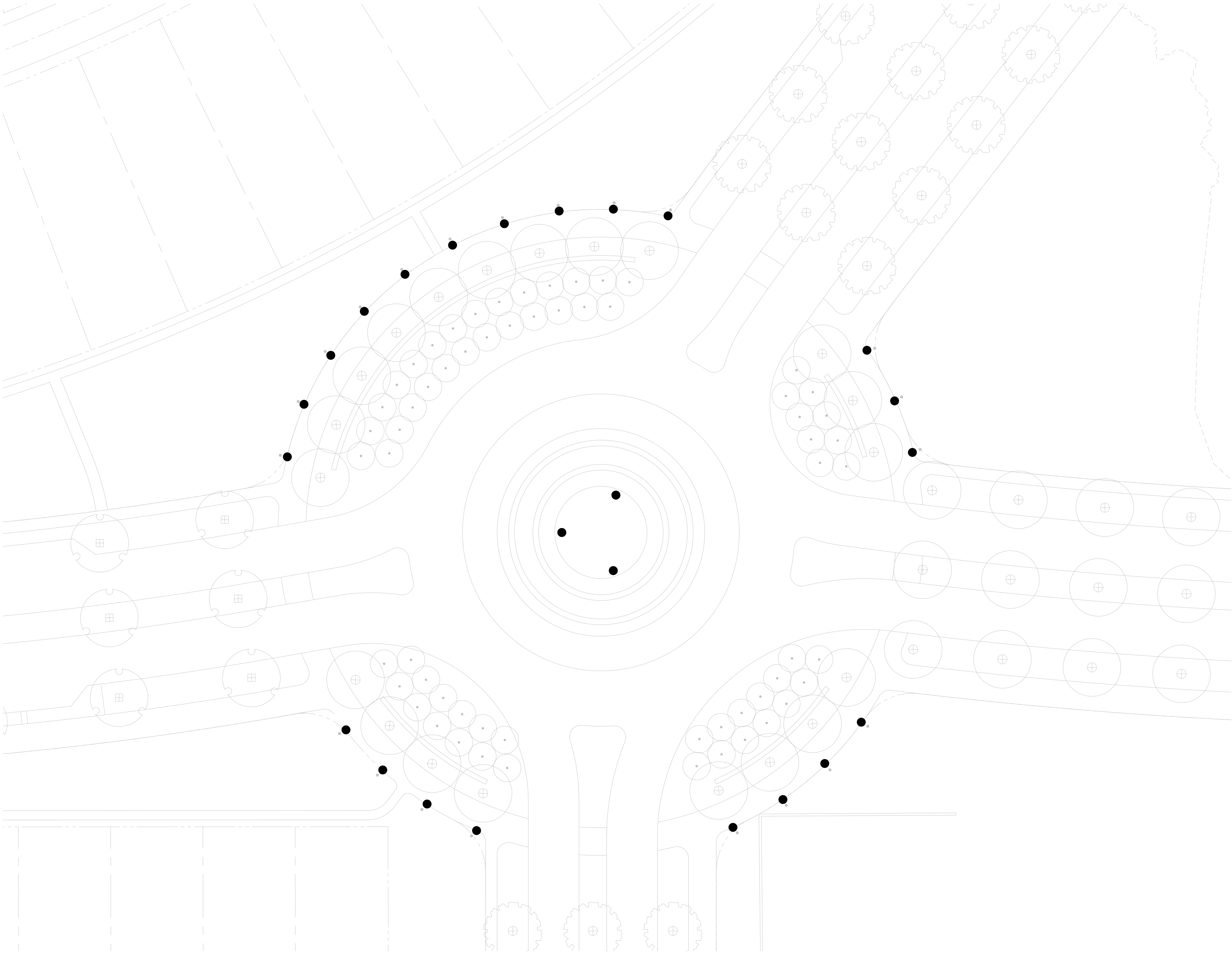
NOTE:

COMPLETE / FULL PHOTOMETRICS  
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DARK SKY INITIATIVE



## **ORDINANCE NO. 803-25**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, AMENDING THE OFFICIAL ZONING MAP BY REZONING APPROXIMATELY 538.99 ACRES OF LAND, GENERALLY LOCATED SOUTH OF FM 407 AND WEST OF BOSS RANGE ROAD, FROM SF-2 (SINGLE-FAMILY RESIDENTIAL DISTRICT) TO PLANNED DEVELOPMENT (PD) DISTRICT TO BE KNOWN AS "CUESTA PD"; ADOPTING DEVELOPMENT REGULATIONS; PROVIDING FOR INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT OF ZONING MAP; PROVIDING A CUMULATIVE CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; PROVIDING A PENALTY; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin, Texas (the "City") is a home-rule municipality with full power of local self-government pursuant to Article XI, Section 5 of the Texas Constitution and its Home Rule Charter; and

**WHEREAS**, the Planning and Zoning Commission and the City Council of the City of Justin, in compliance with the laws of the State of Texas and the ordinances of the City, have given the requisite notices by publication and otherwise, and have held public hearings and afforded full and fair hearings to all property owners generally and to all persons interested in and situated in the affected area; and

**WHEREAS**, the City Council has determined that this ordinance promotes the health, safety, morals, and general welfare of the City and its inhabitants and is in the best interest of the City and consistent with the City's Comprehensive Plan and Zoning Ordinance; and

**WHEREAS**, the City Council adopts this ordinance with the recommended conditions from the Planning and Zoning Commission:

1. A percolation/groundwater study be conducted and submitted with construction/engineering plans.
2. To amend the following from 10% to 5% "A maximum of 5% of each lot type (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.)"

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** All of the above premises are hereby found to be true and correct legislative determinations of the City Council and are incorporated herein as if fully set forth herein.



**SECTION 2.** The official zoning map of the City of Justin is hereby amended to rezone approximately 538.99 acres of land, more particularly described in *Exhibit "A"* attached hereto and incorporated herein by reference, from **Single-Family Residential District (SF-2)** to **Planned Development District (PD)** to be known as the **Cuesta PD**, subject to the development regulations and Concept Plan attached hereto which are incorporated herein.

**SECTION 3.** That this Ordinance shall be cumulative of all other ordinances of the City of Justin, Texas, and this ordinance shall not operate to repeal or affect any such ordinance except so far as the provisions are inconsistent or in conflict, in which event such other ordinance is repealed.

**SECTION 4.** If any section, article, paragraph, sentence, clause, phrase or word in this ordinance, or application thereto any person or circumstances is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this ordinance; and the City Council hereby declares it would have passed such remaining portions of the ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

**SECTION 5.** The fact that the present ordinances and regulations of the City of Justin, Texas are inadequate to properly safeguard the health, safety, morals, peace and general welfare of the inhabitants of the City of Justin, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this ordinance shall become effective from and after the date of its passage, and it is accordingly so ordained.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 22nd day of May, 2025.

**On first reading, the 8th day of May 2025.**

**On the second and final reading, the 22nd day of May 2025.**

**APPROVED:**

---

James Clark, Mayor

**ATTEST:**

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Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

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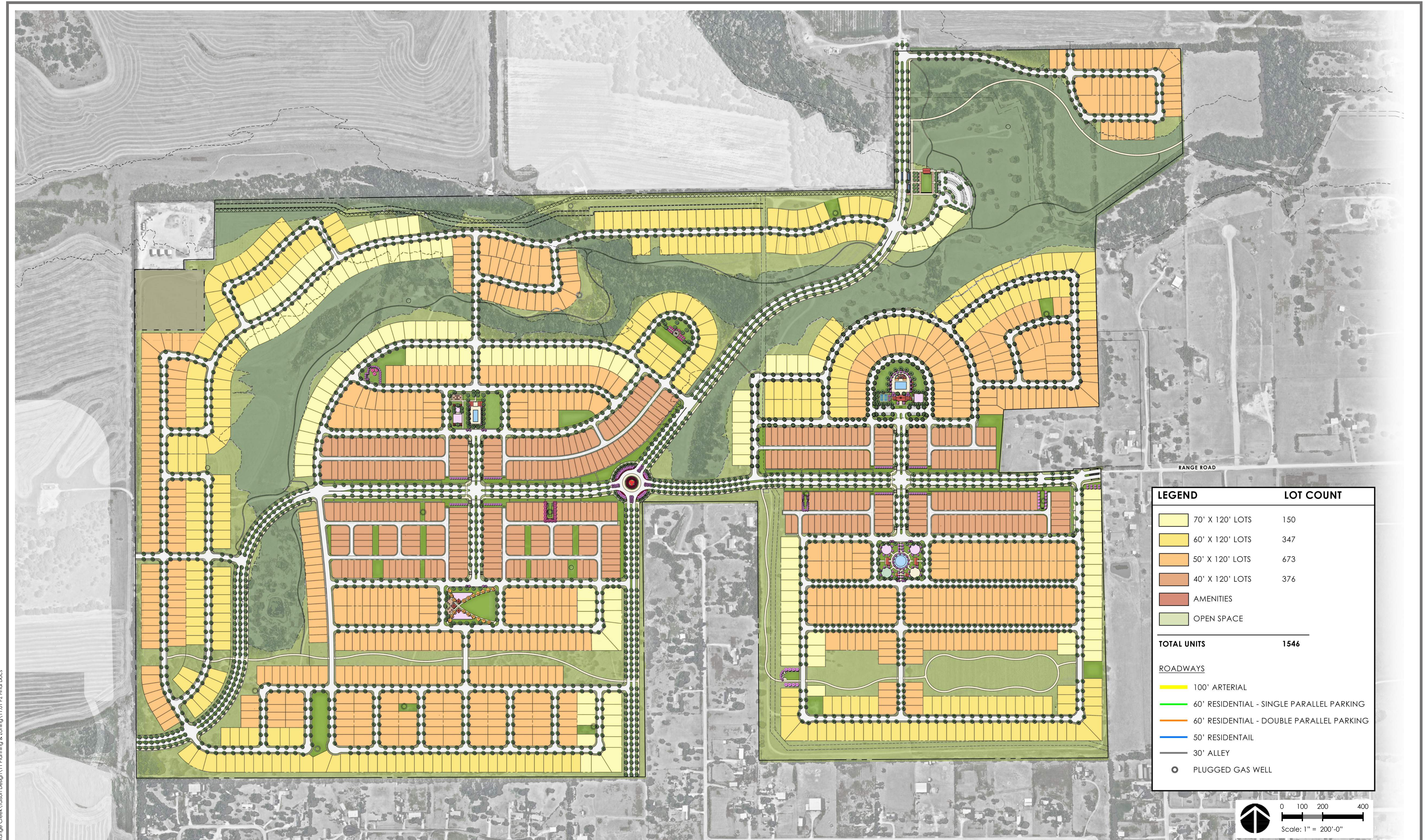
City Attorney



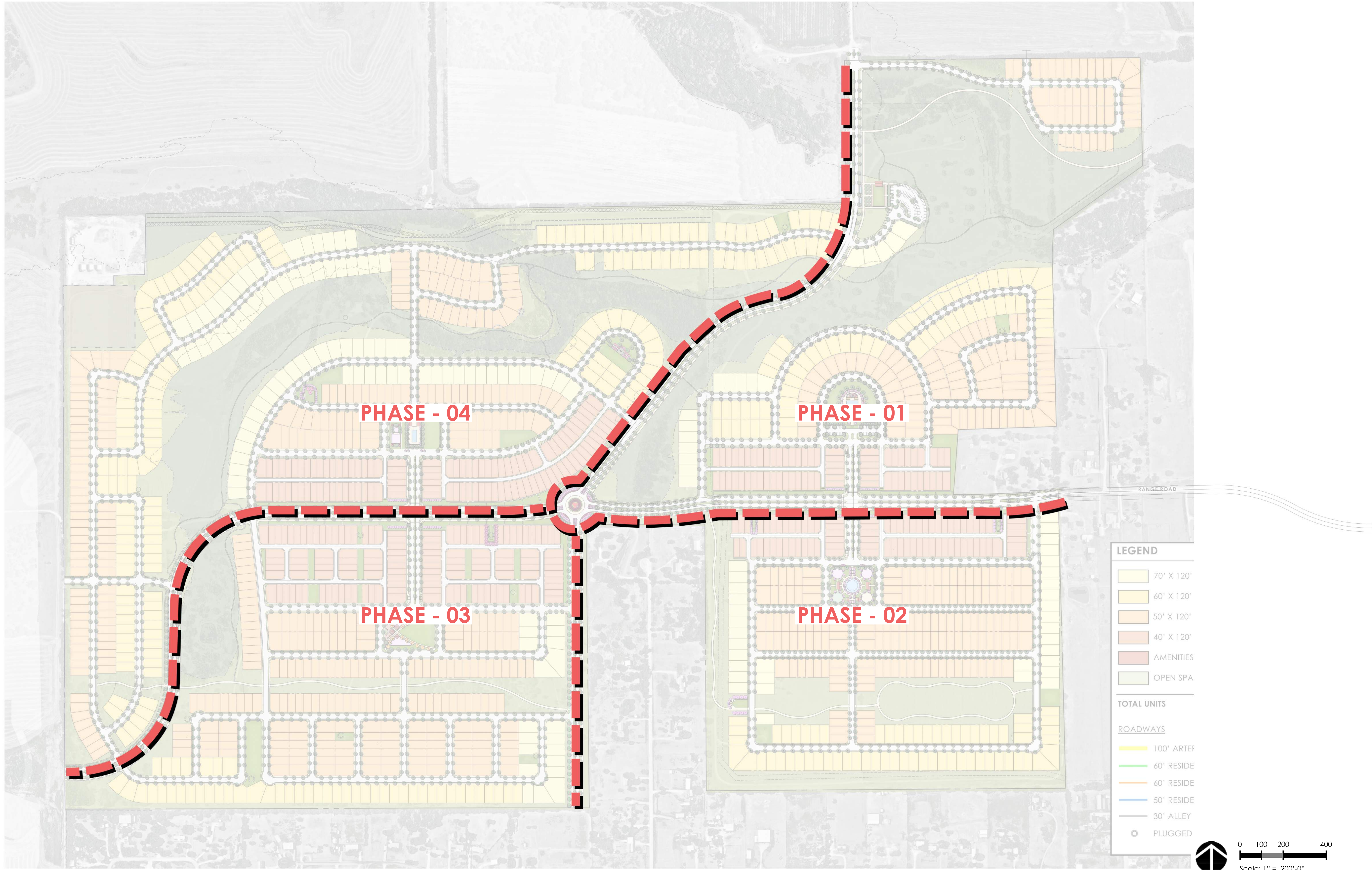




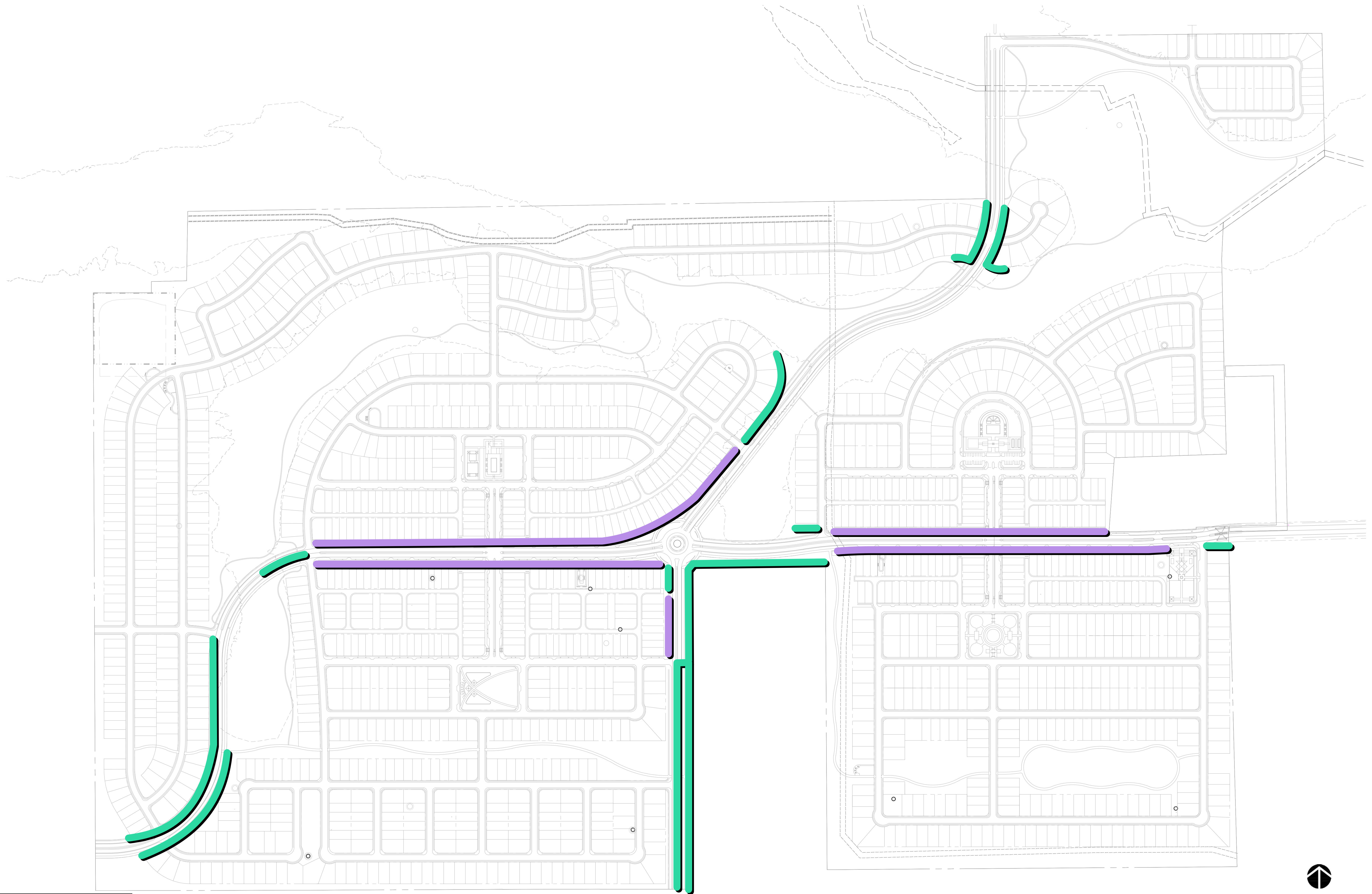
P:\616195\Heritage Homes\001 Range Creek\Tolson Design\11 Planning & Zoning\11.01 PZ Final Docs











LEGEND

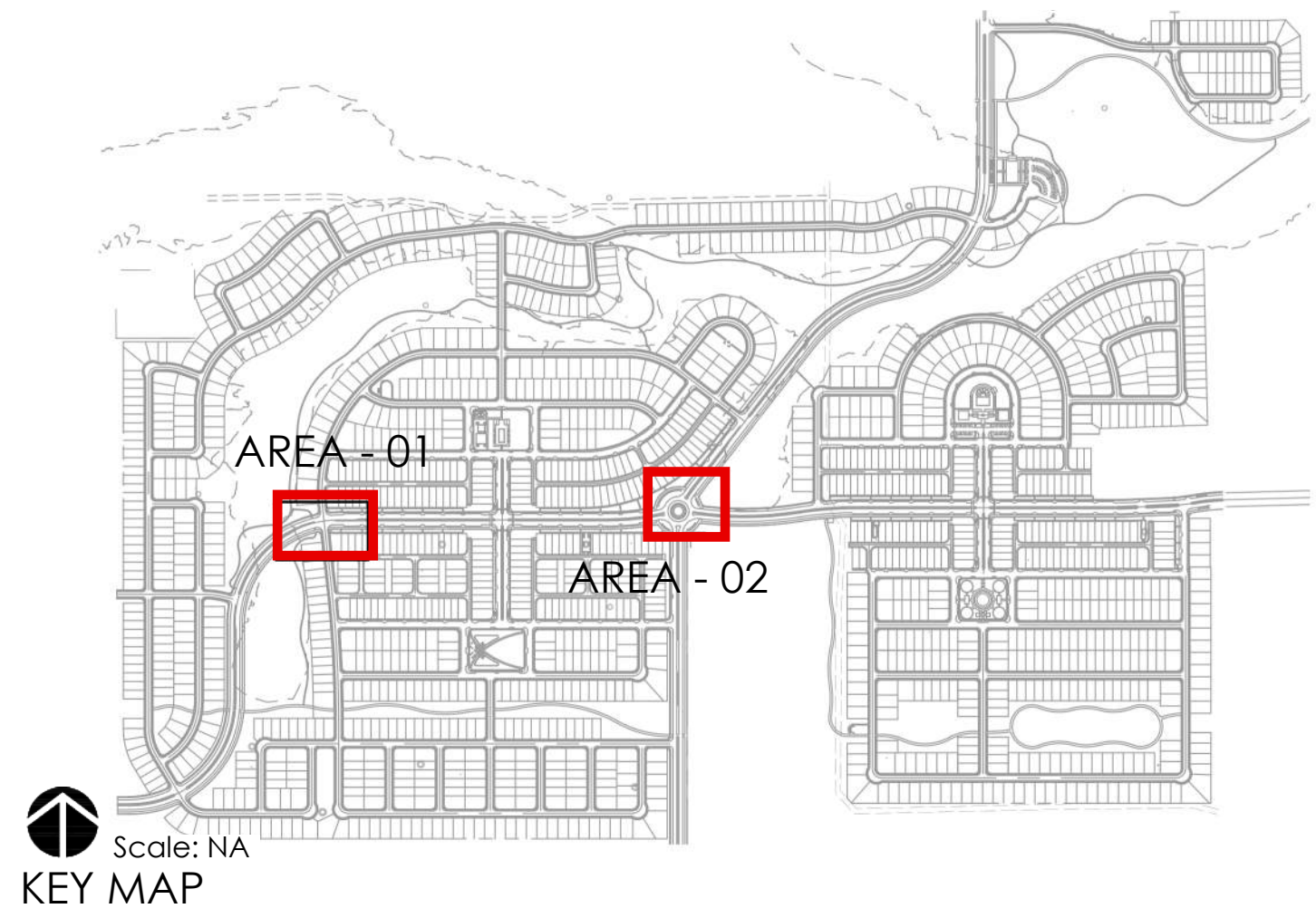
20 FT BUFFER YARD REQUIREMENT

15 FT BUFFER YARD REQUIREMENT

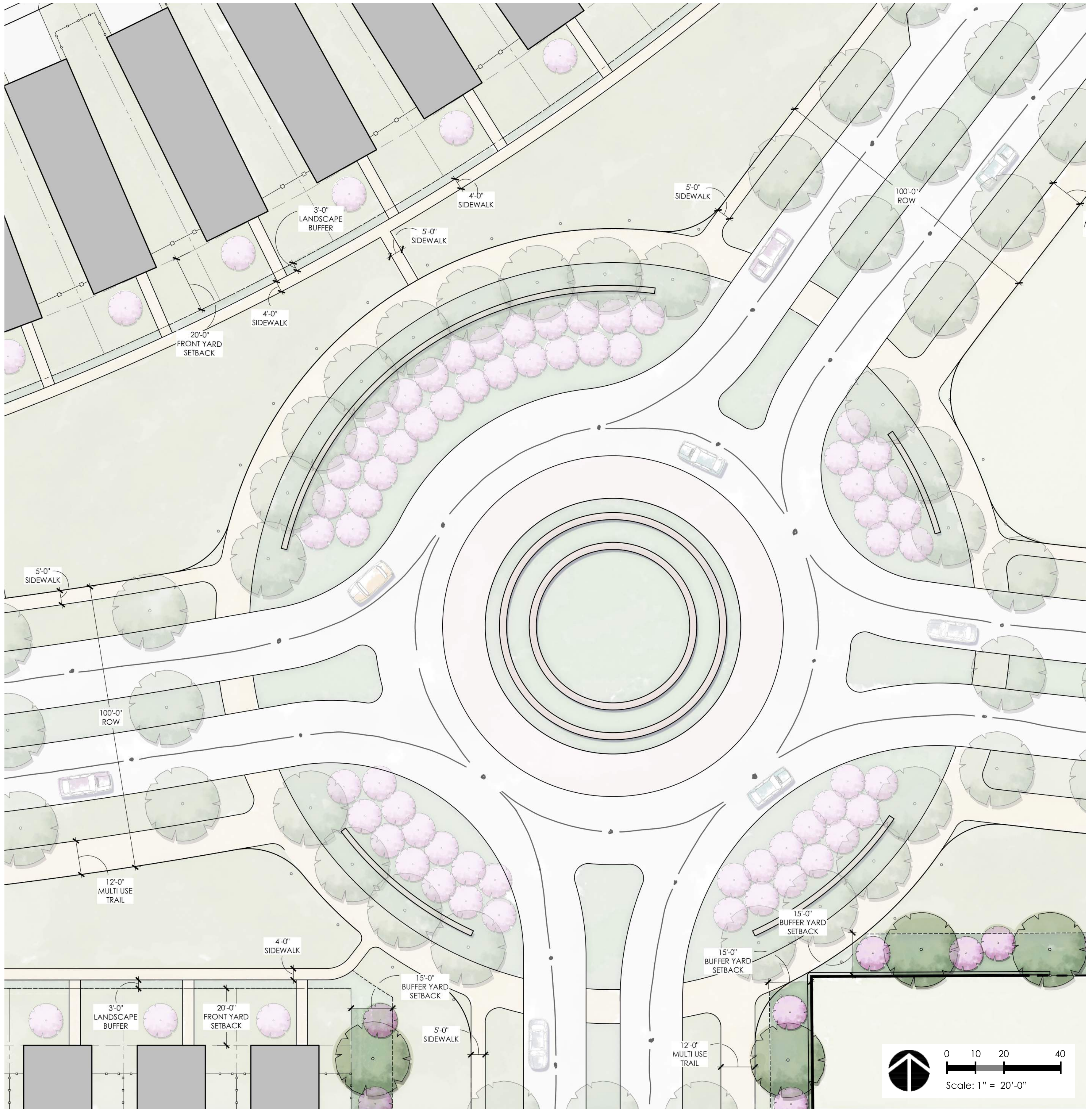
SCALE: NTS



P:\616195\Meritage Homes\001 Range Creek\Tolson Design\11 Planning & Zoning\11.01 PZ Final Docs

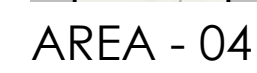
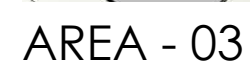


AREA - 01

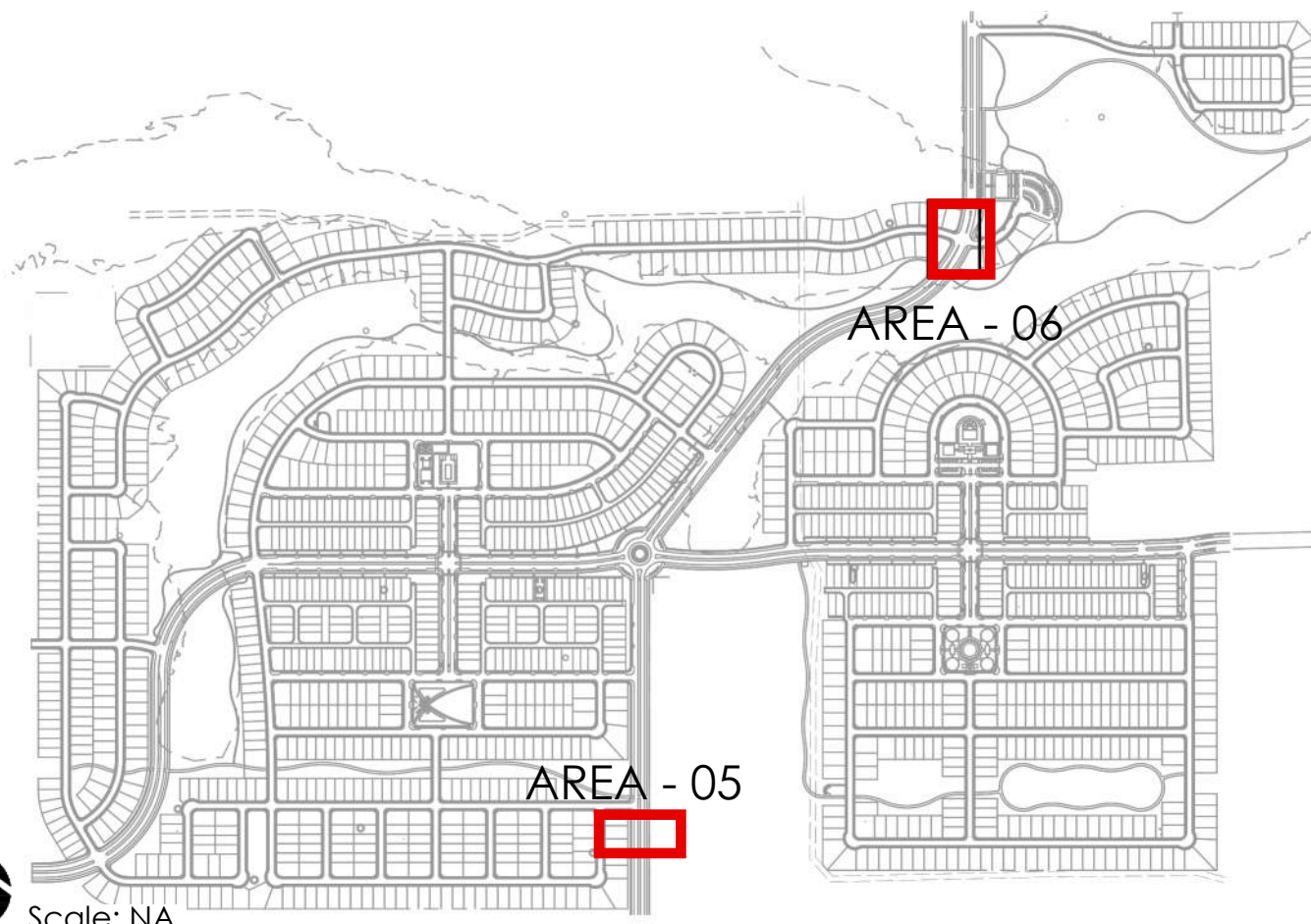


AREA - 02

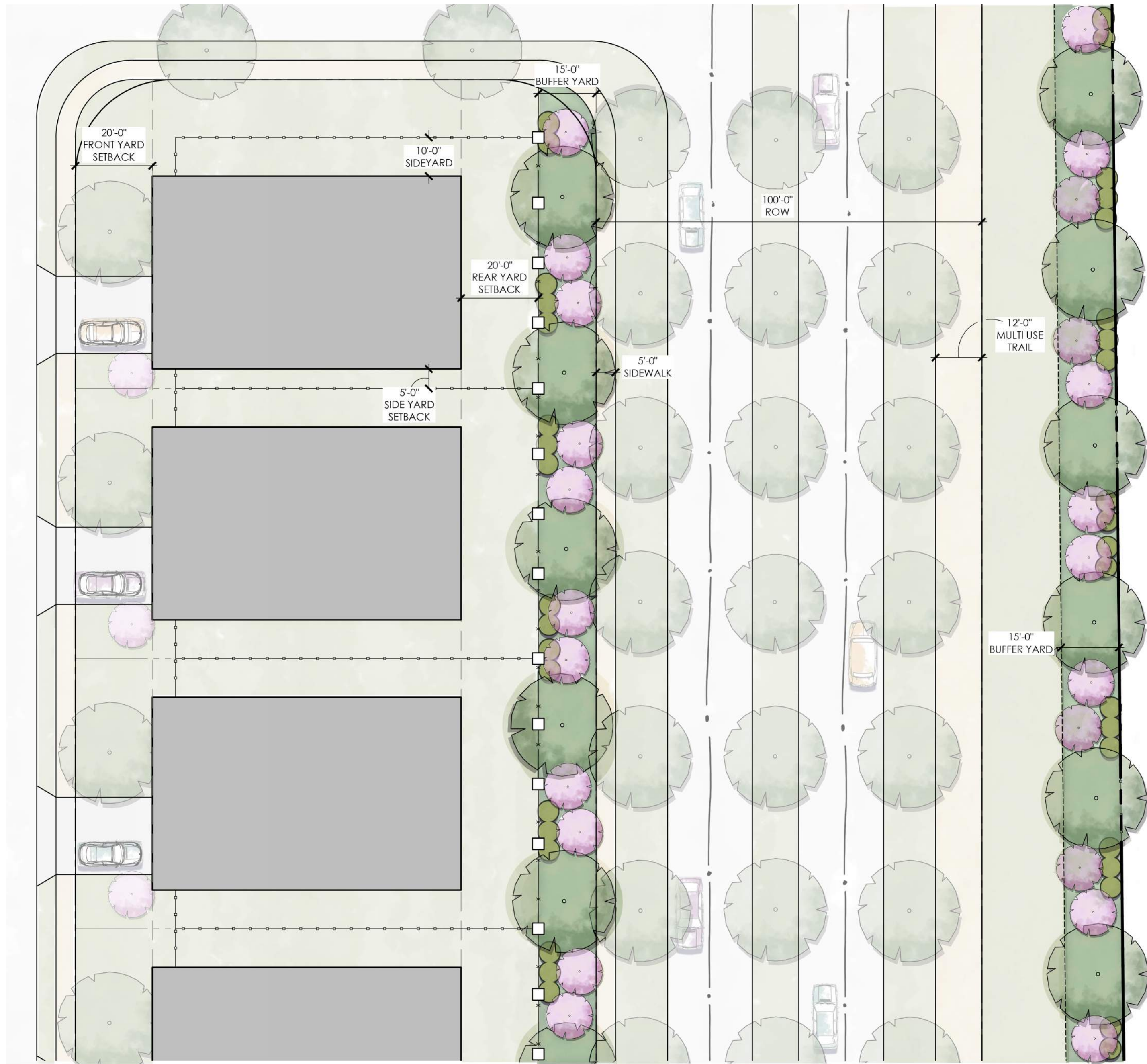








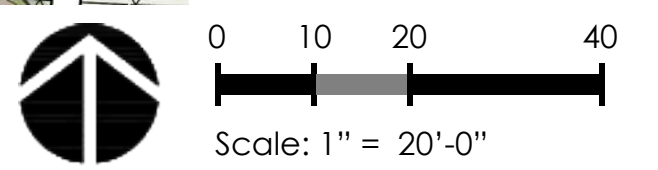
Scale: NA  
KEY MAP



AREA - 05



AREA - 06





40' Lot (24' Wide Product)



50' Lot (40' Wide Product)





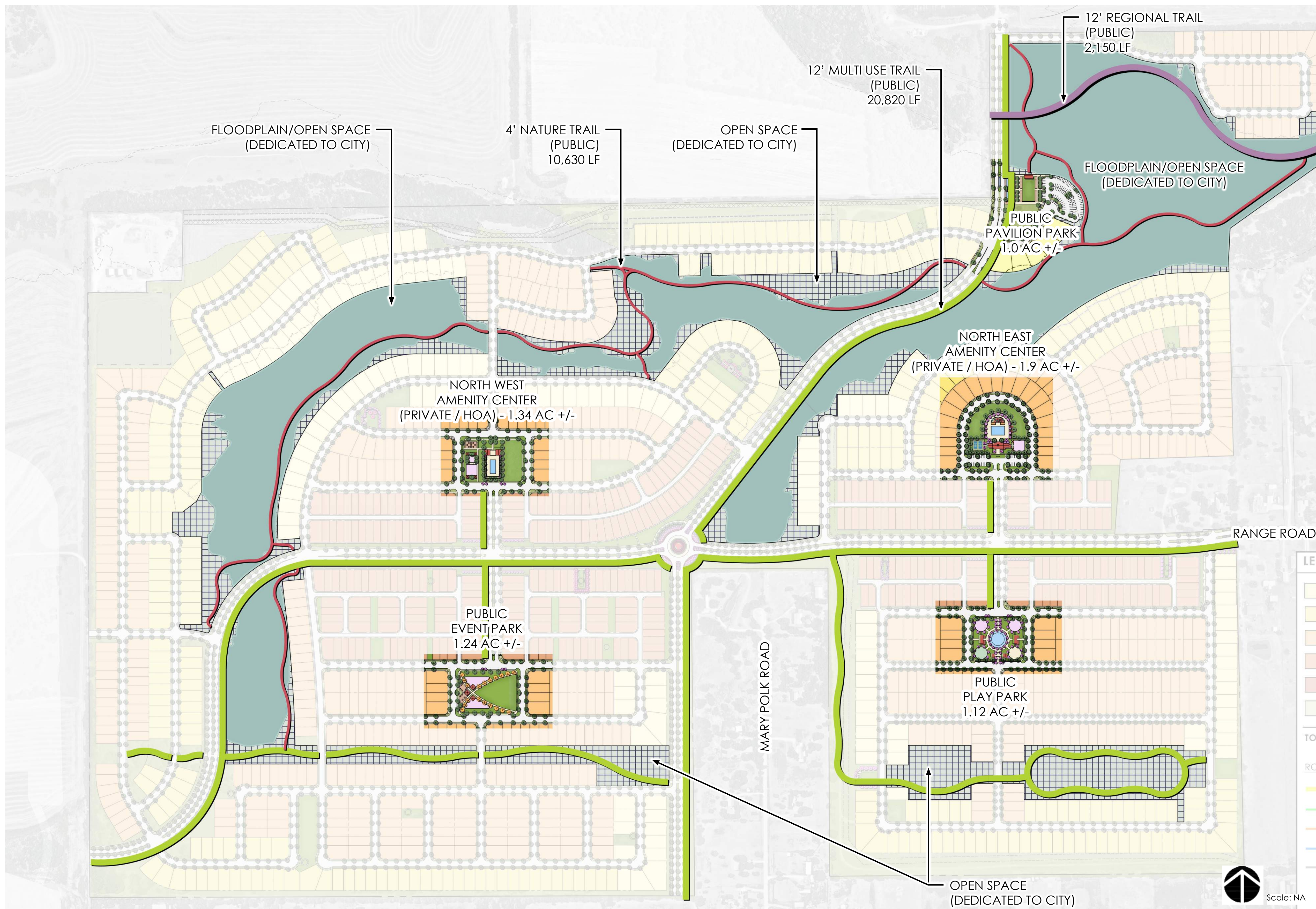
60' Lot (50' Wide Product)



70' Lot (50' Wide Product)







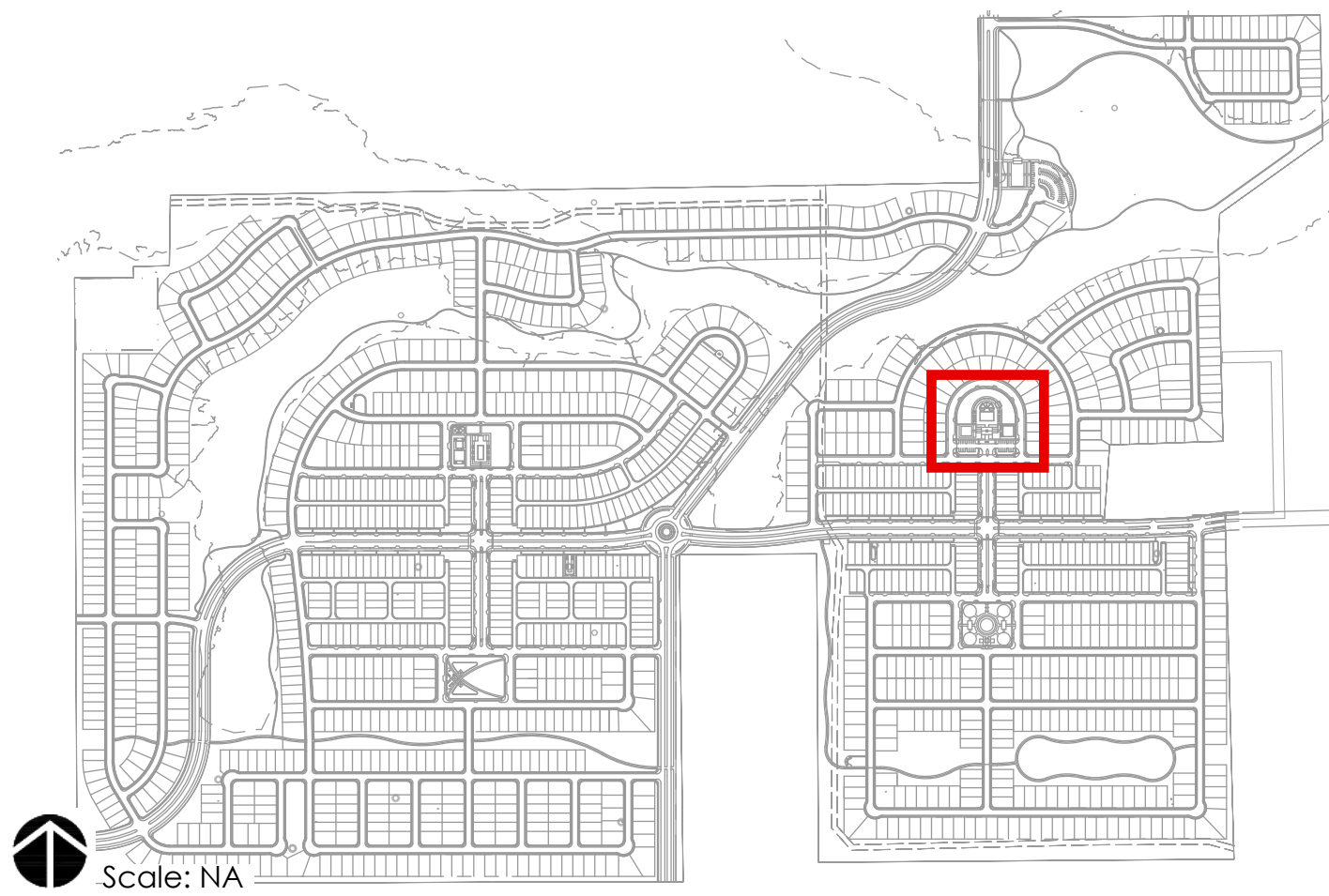
CUESTA - MASTER PLAN

**LEGEND**

PUBLIC OPEN SPACE AREA

APPROXIMATE FLOODPLAIN LIMIT





KEY MAP



ARCHITECTURAL AESTHETIC - 01



OPEN LAWN



CANOPY TREE OPTION



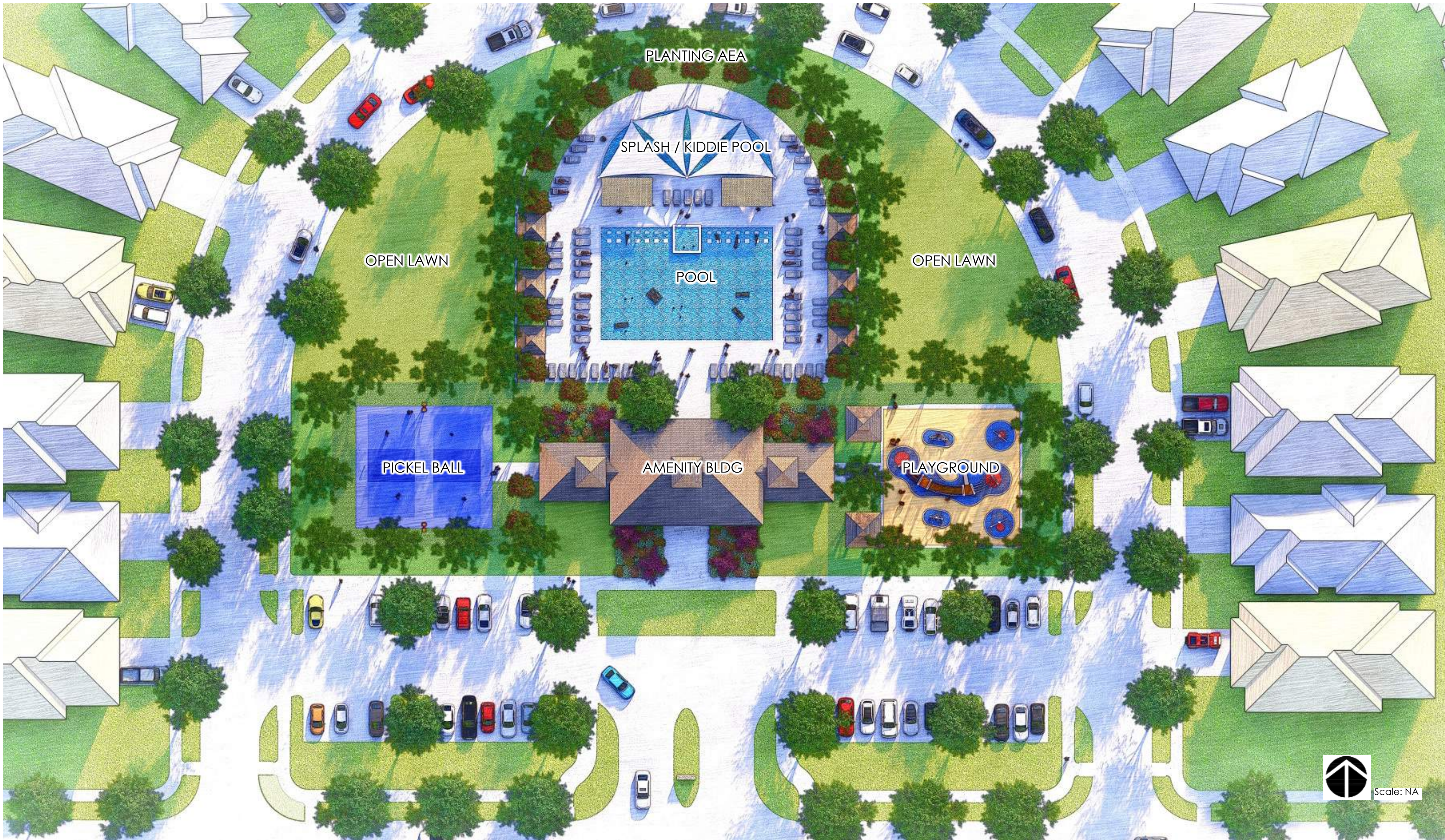
PLAYGROUND



COMMUNITY POOL

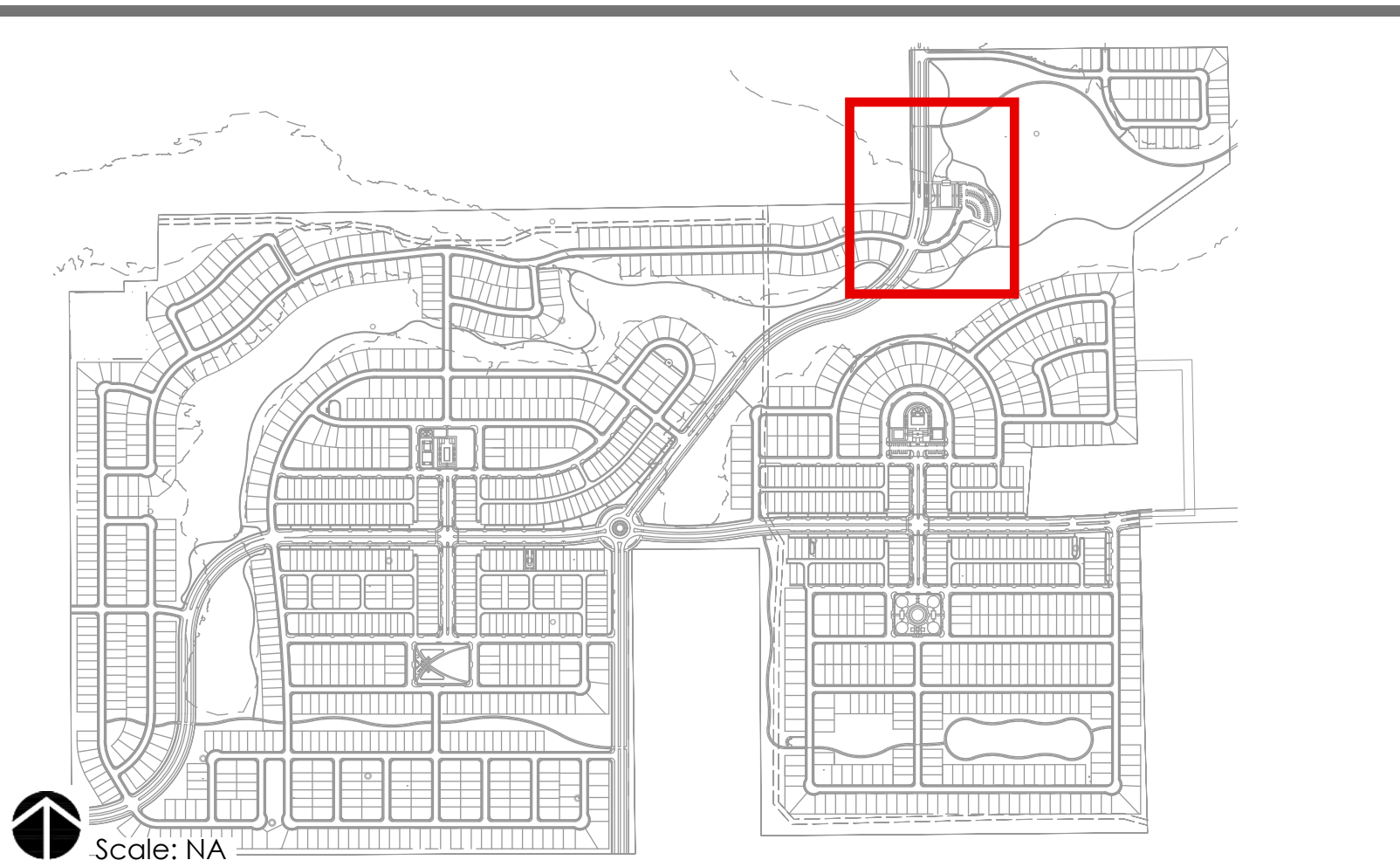


PICKLE BALL COURT



Scale: NA





KEY MAP



FARMERS MARKET



DEVELOPMENT SIGNAGE AT PAVILION



ARCHITECTURAL AESTHETIC



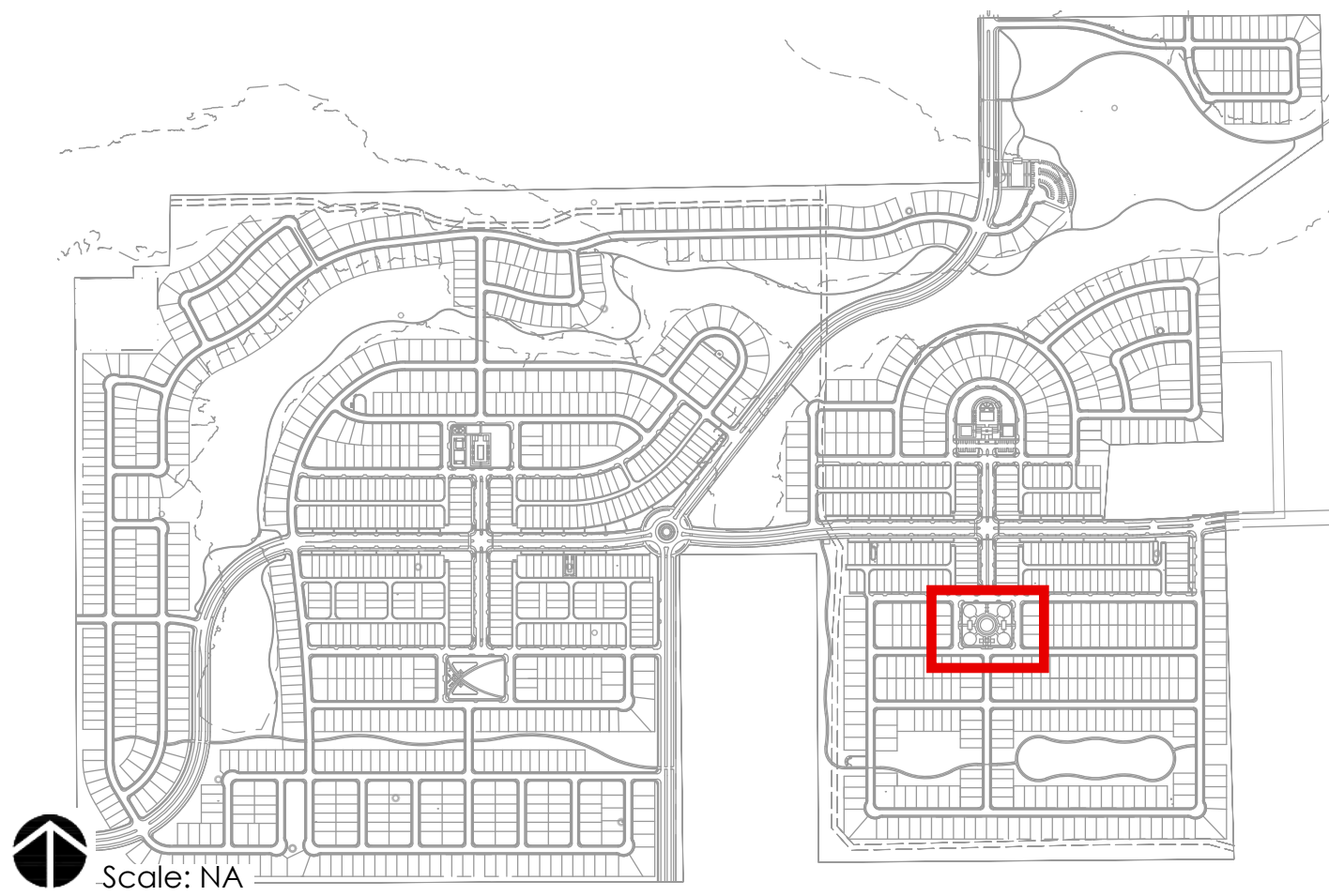
TEIRED FOUNTAIN INSPIRATION



SCUPPER FOUNTAIN INSPIRATION



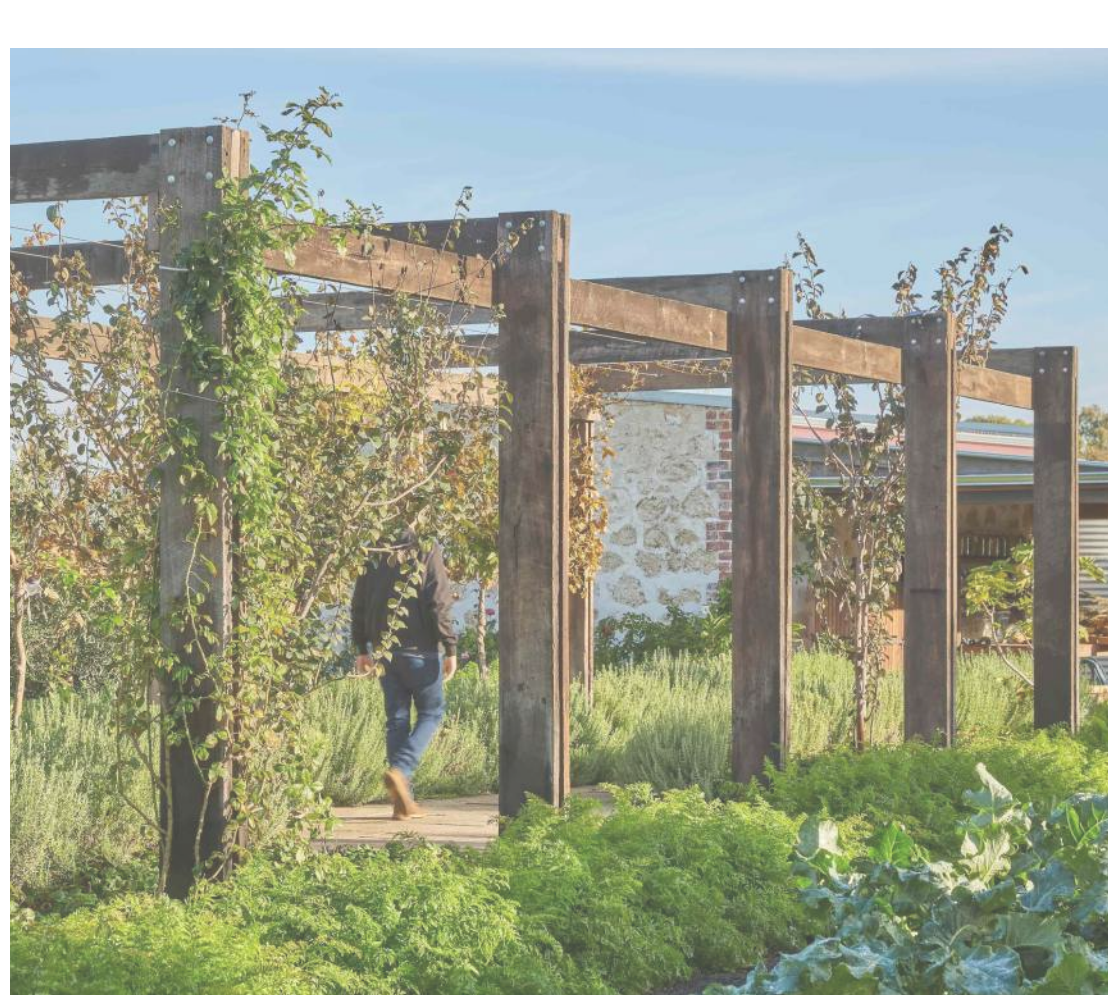




KEY MAP



PAVILION - PICNIC / SEATING AREA



ENTRY ARBOR



KID PLAYGROUND



TODDLER-PRESCHOOLER PLAYGROUND



SPLASH PAD

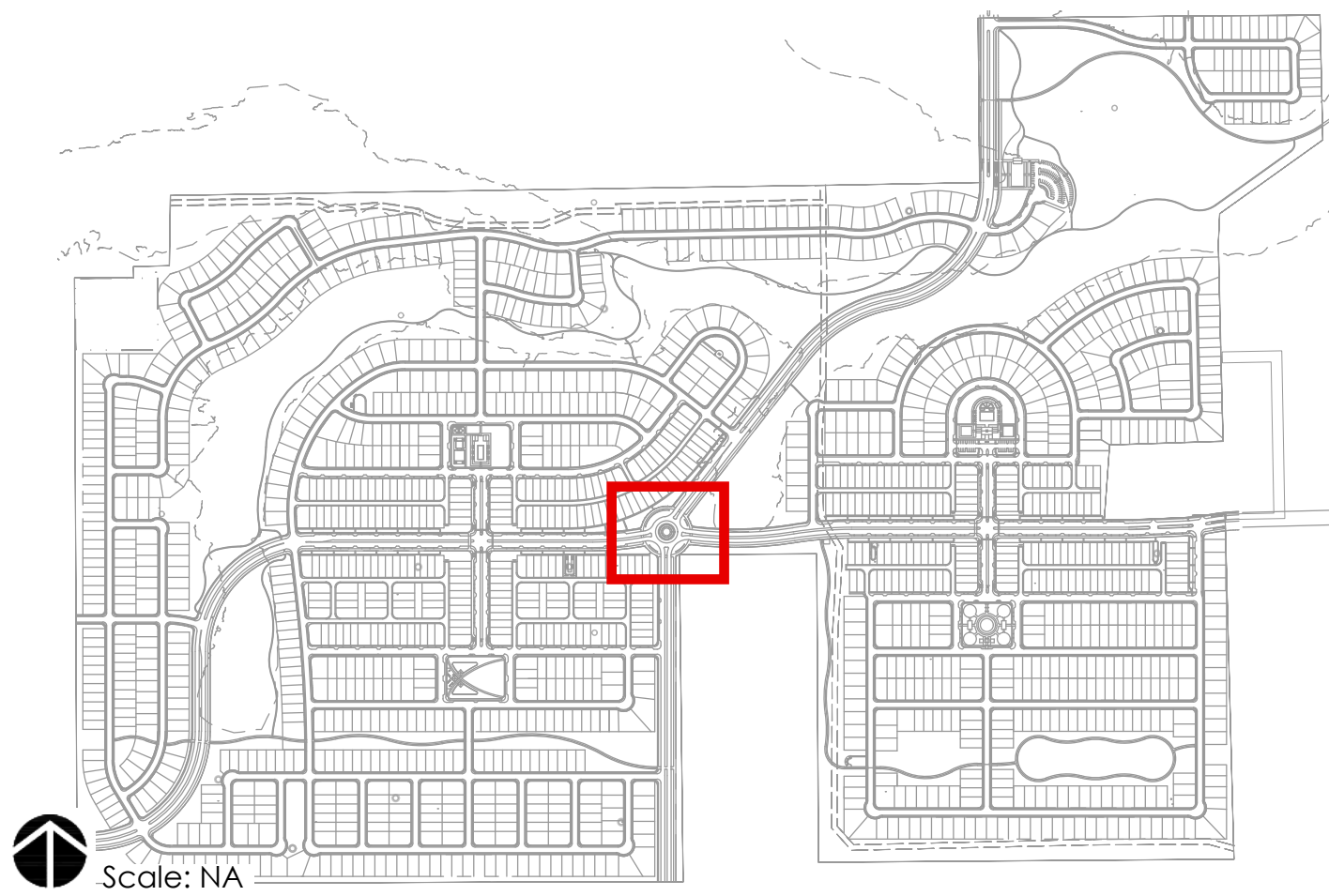


BASKETBALL COURT



Scale: NA





KEY MAP



FLAG CITY DETAIL



ORNAMENTAL TREE DETAIL



ROUNDBOUT TREE DETAIL



MULTI USE TRAIL



ROUNDBOUT SCULPTURE - OPTION 02

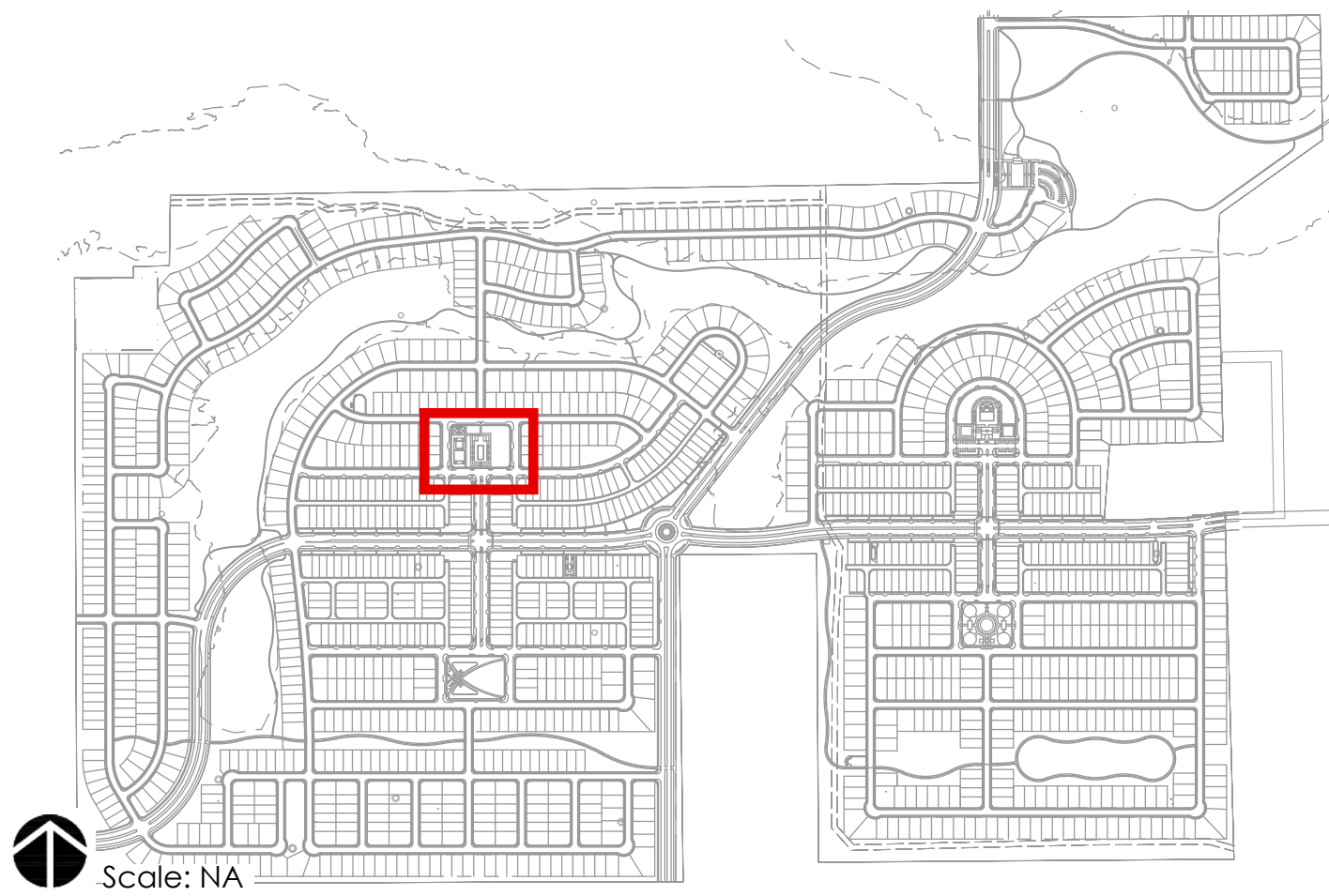


ROUNDBOUT SCULPTURE - OPTION 01



Scale: NA





KEY MAP



CABANA DETAIL



COMMUNITY POOL



OPEN LAWN



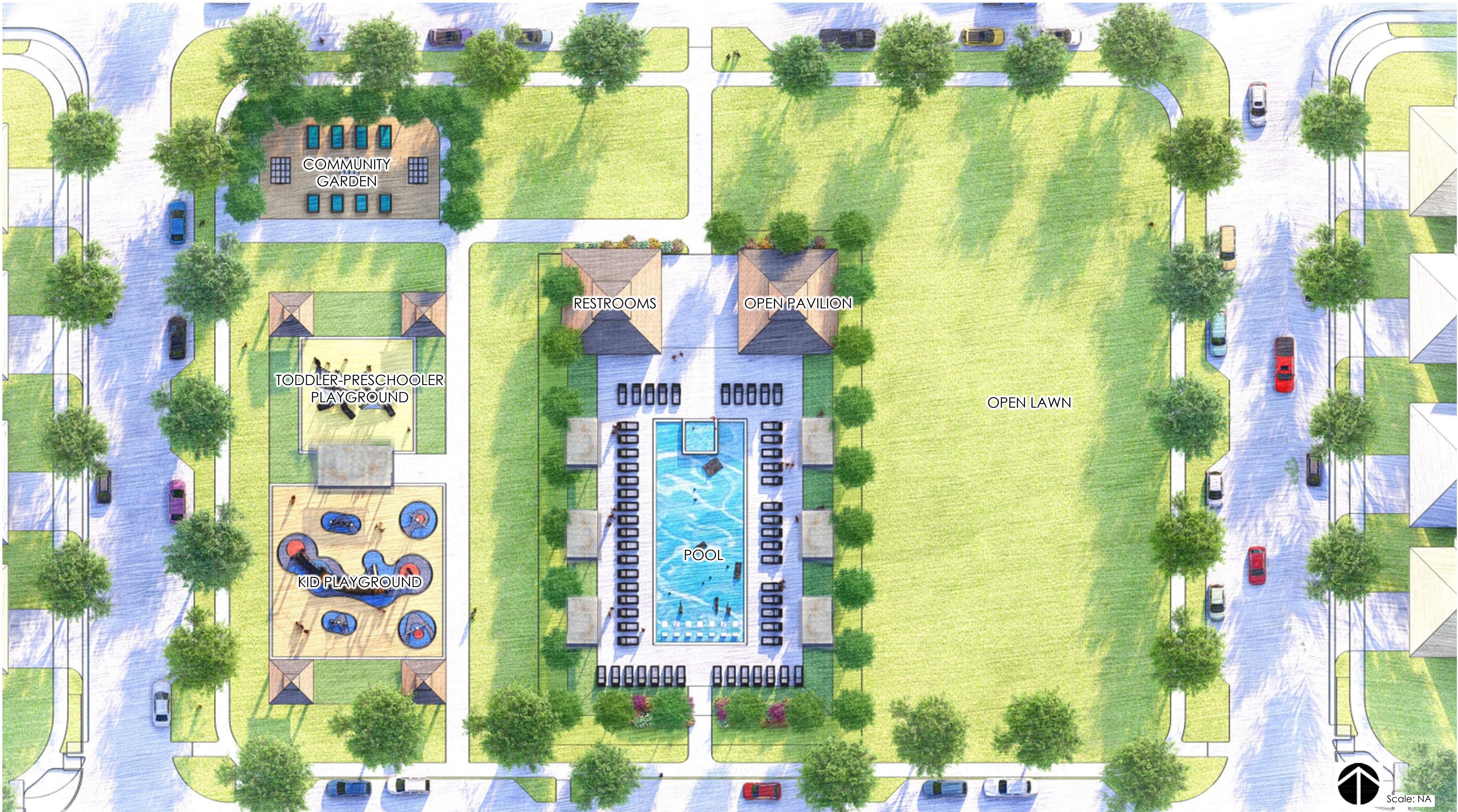
CANOPY TREES



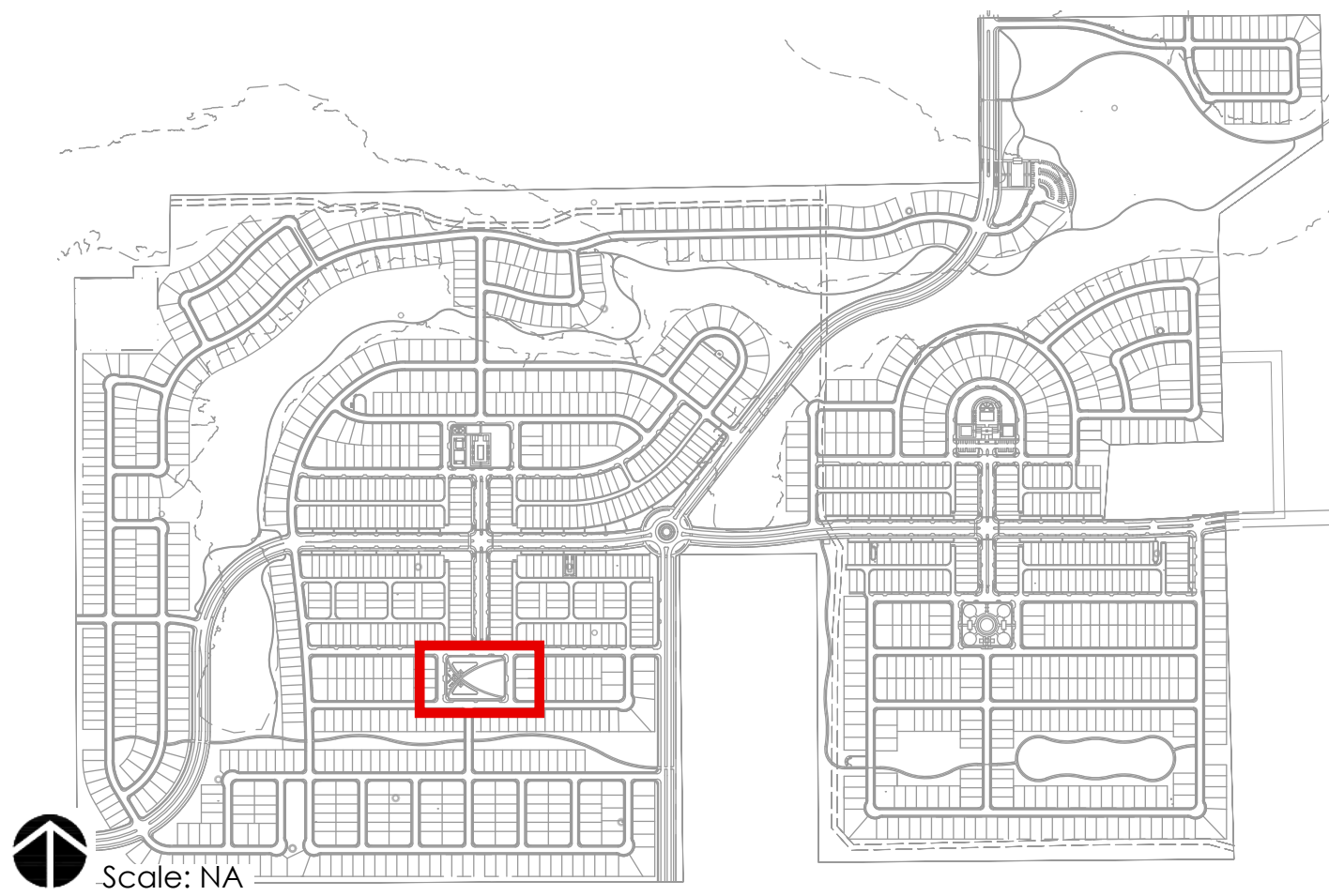
ARCHITECTURAL AESTHETIC - AMENITY CENTER



PLAYGROUND







KEY MAP



PARK INSPIRATION



OPEN LAWN



PAVILION SEATING



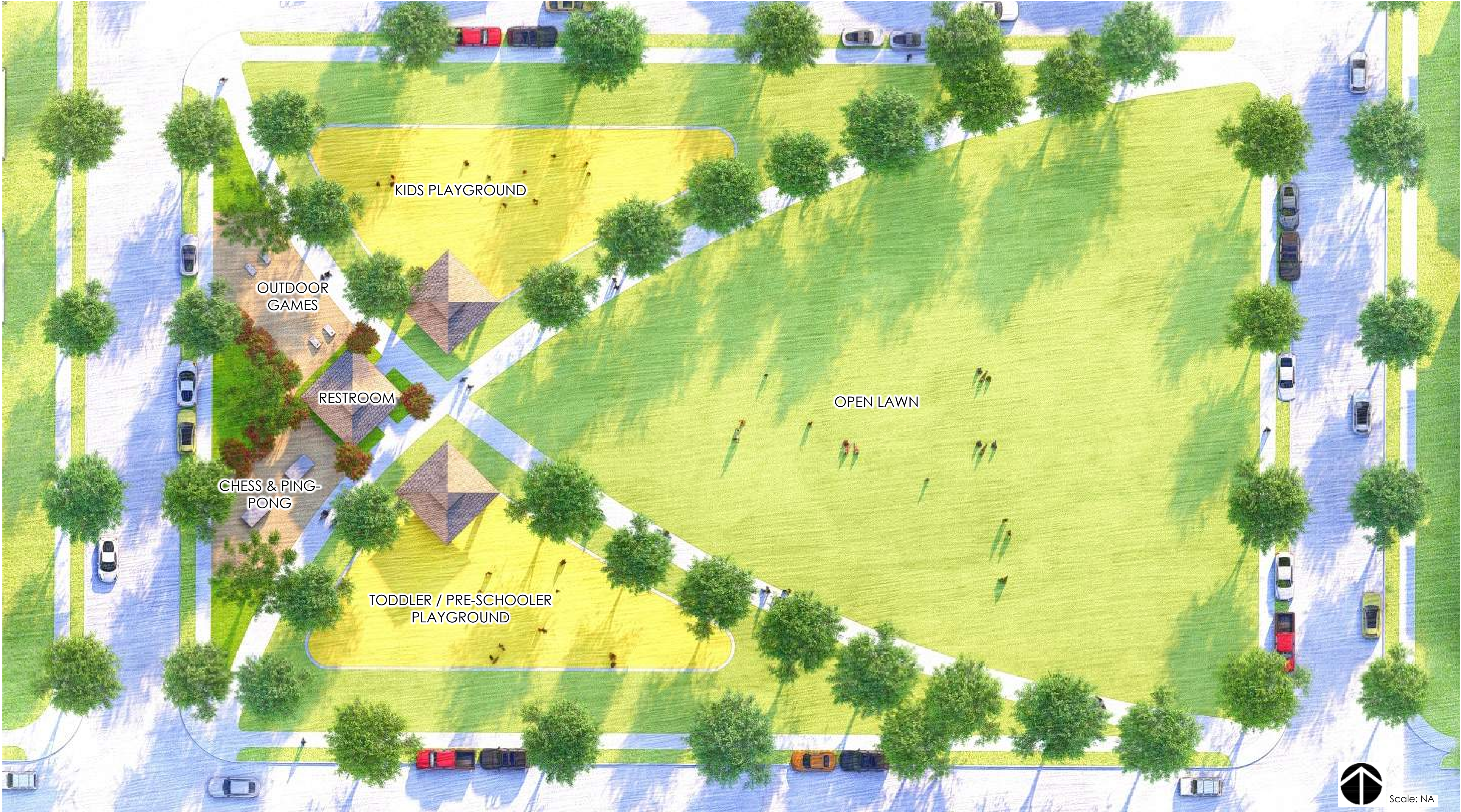
CANOPY TREE DECIDUOUS



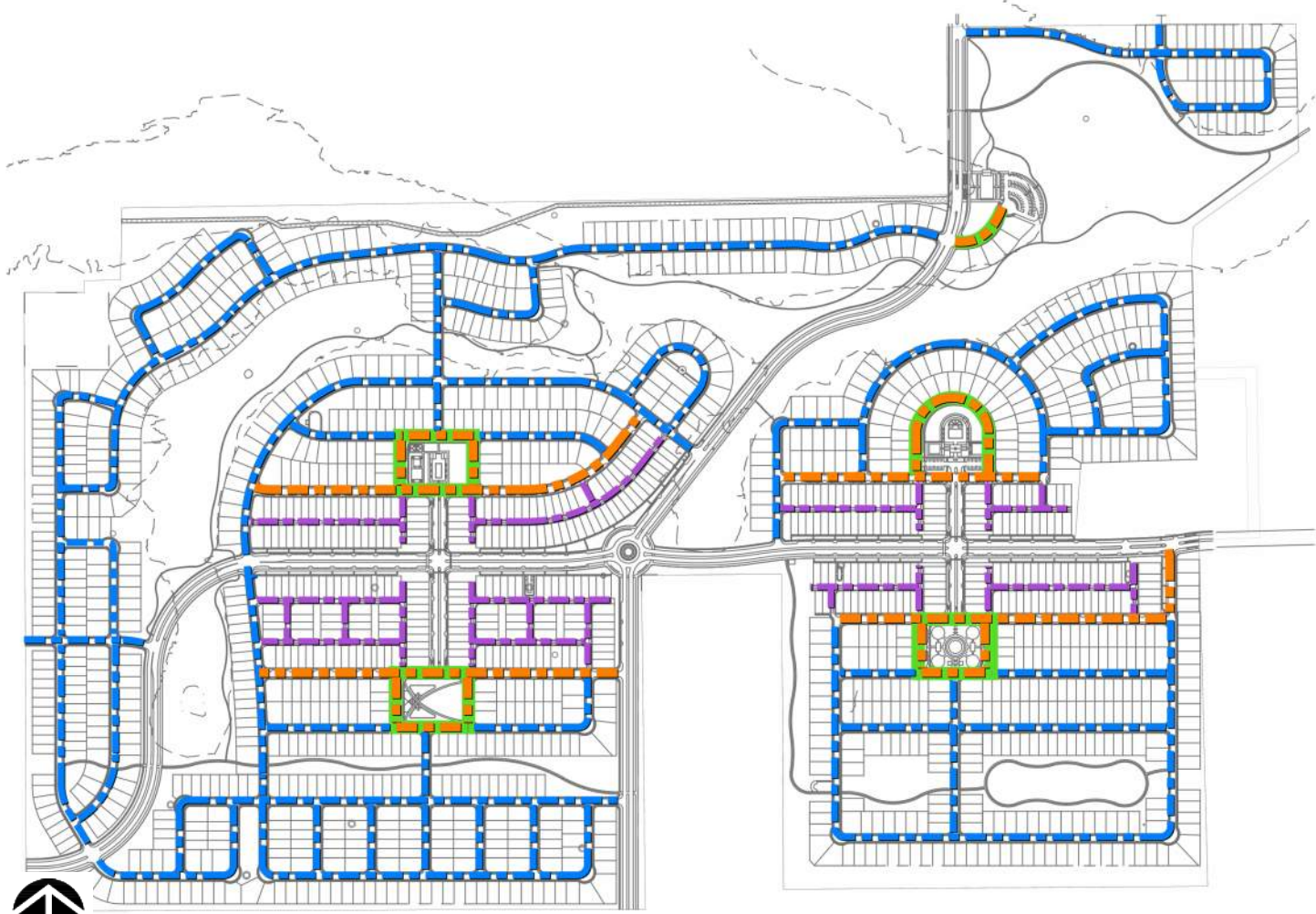
OUTDOOR GAMES & AMENITIES



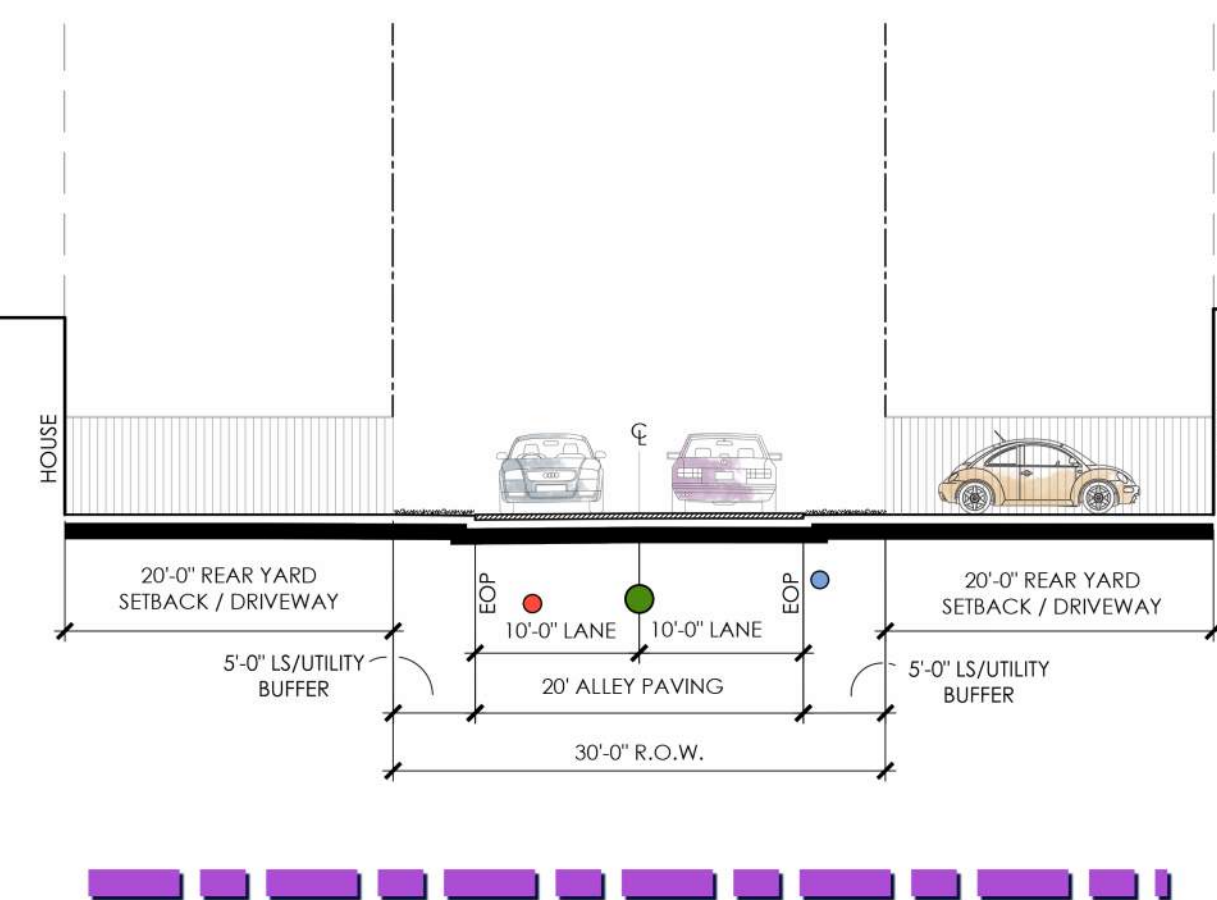
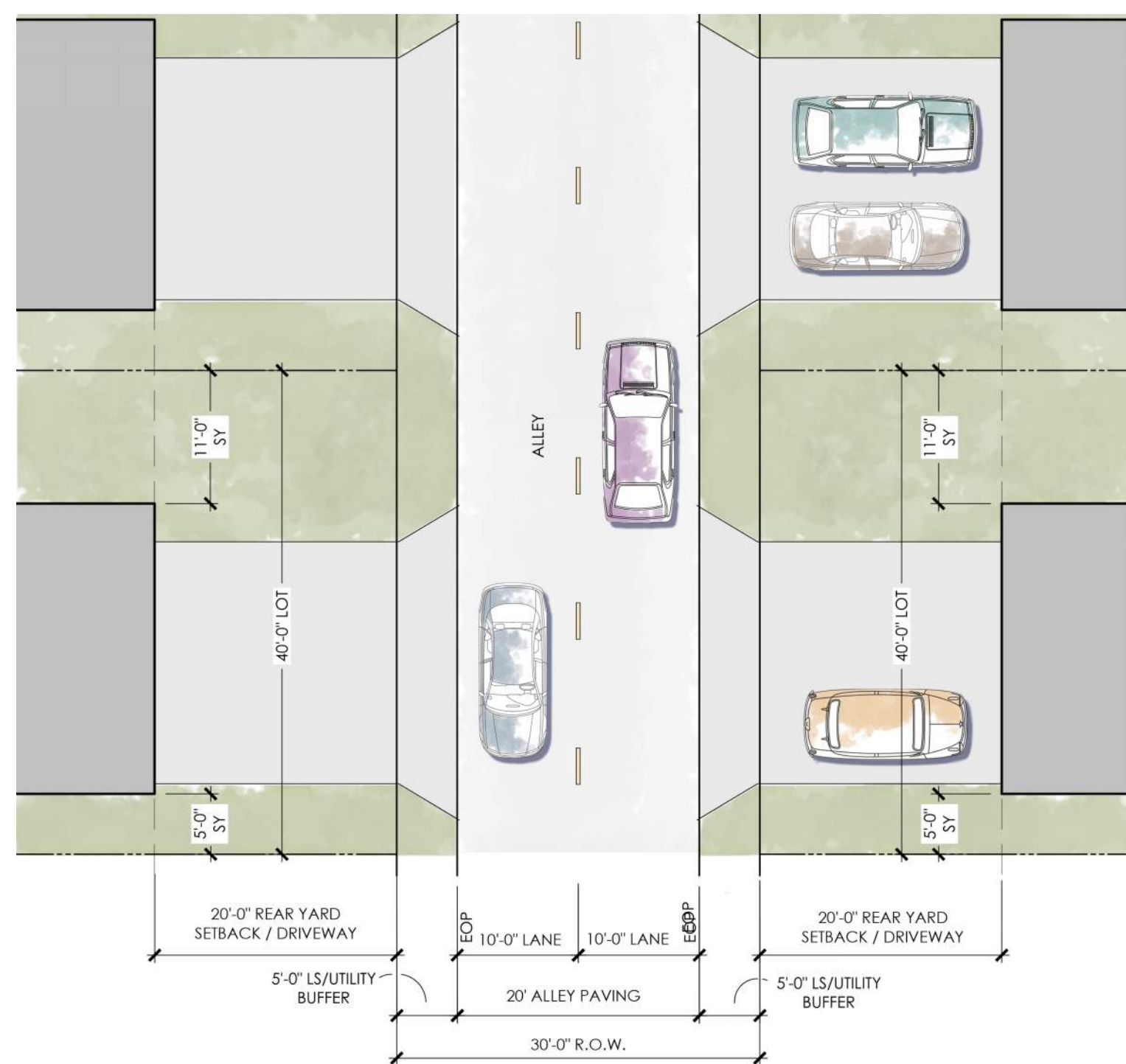
TODDLER-PRE SCHOOLER / KIDS PLAYGROUND



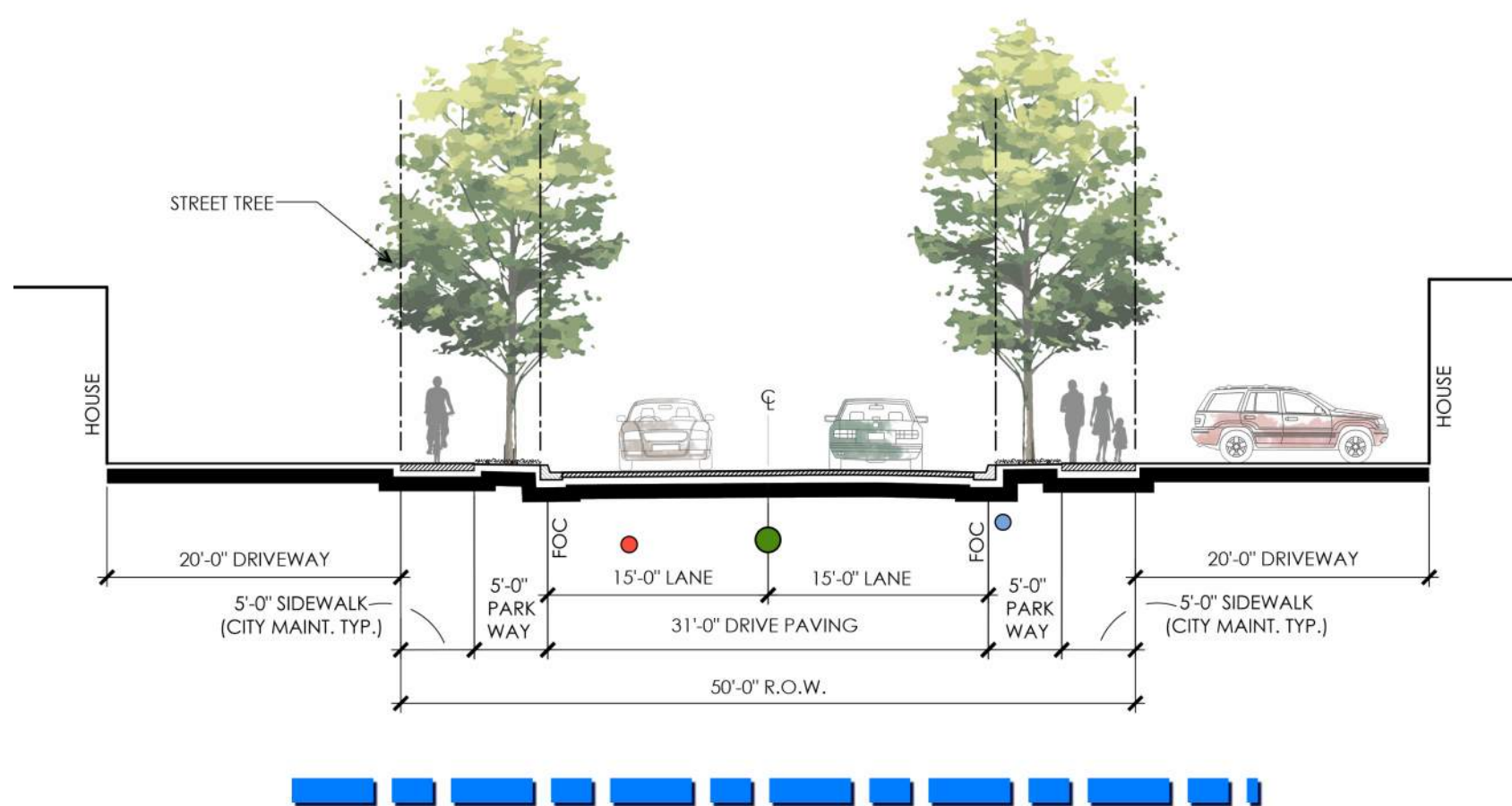
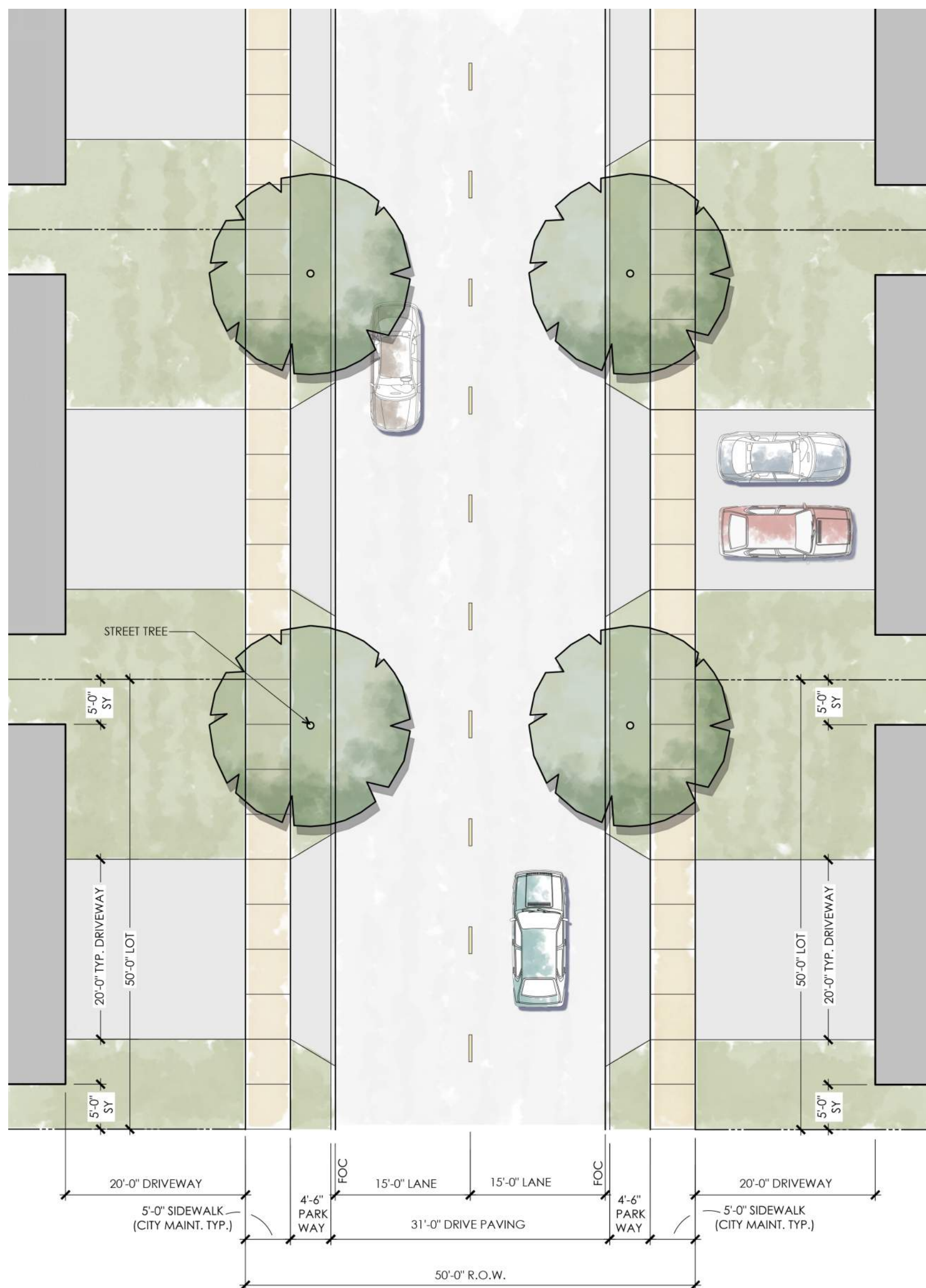




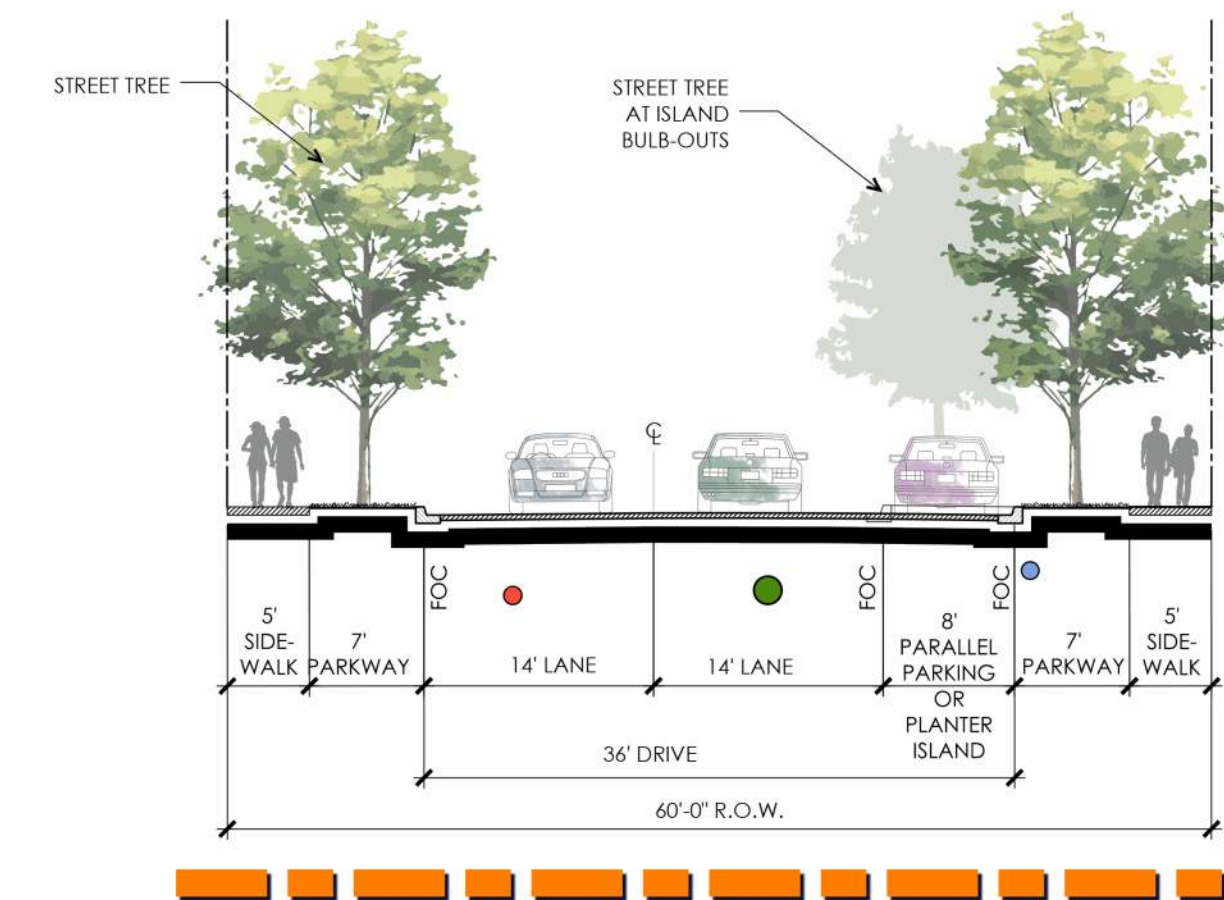
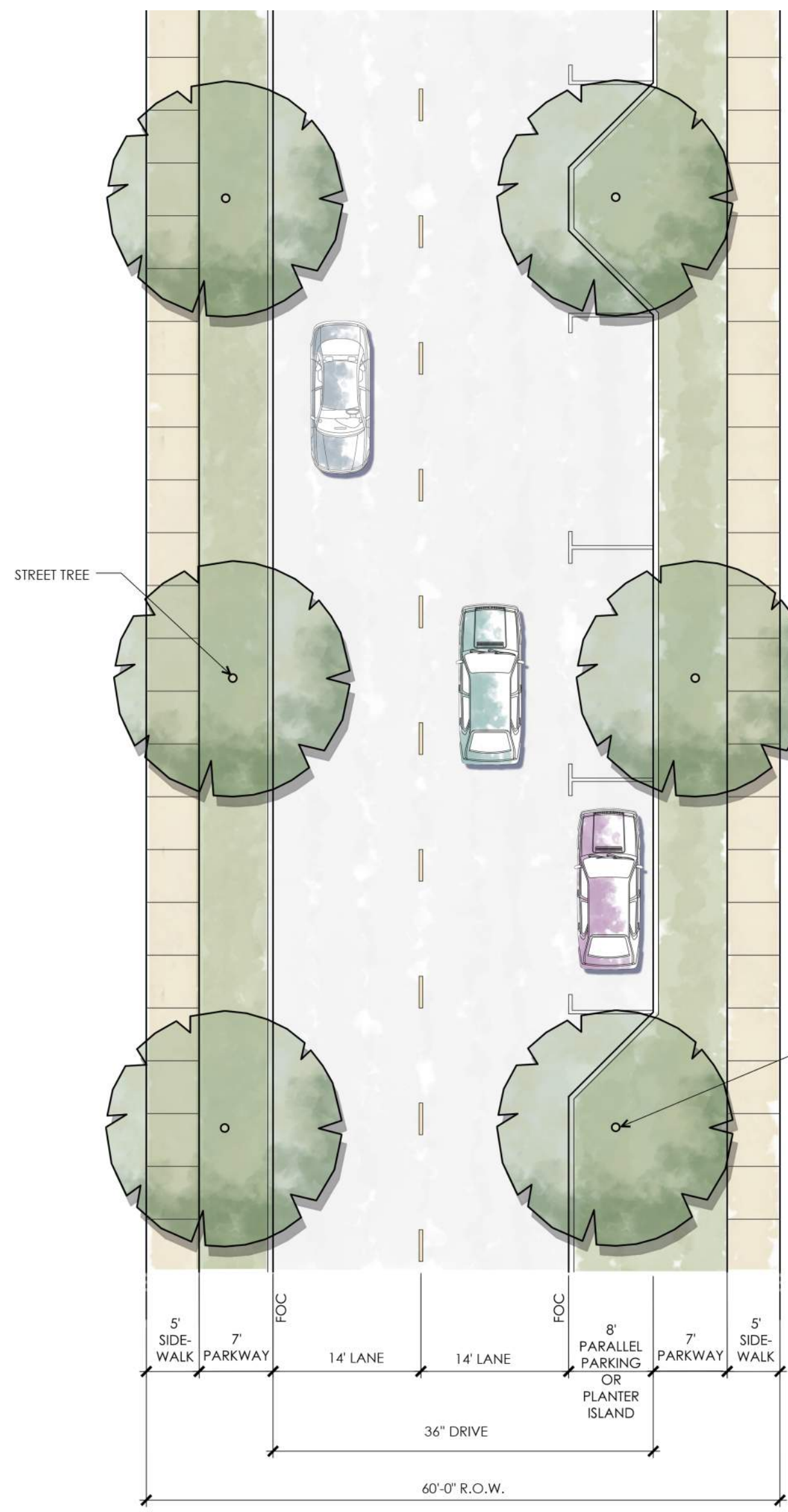
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KEY MAP



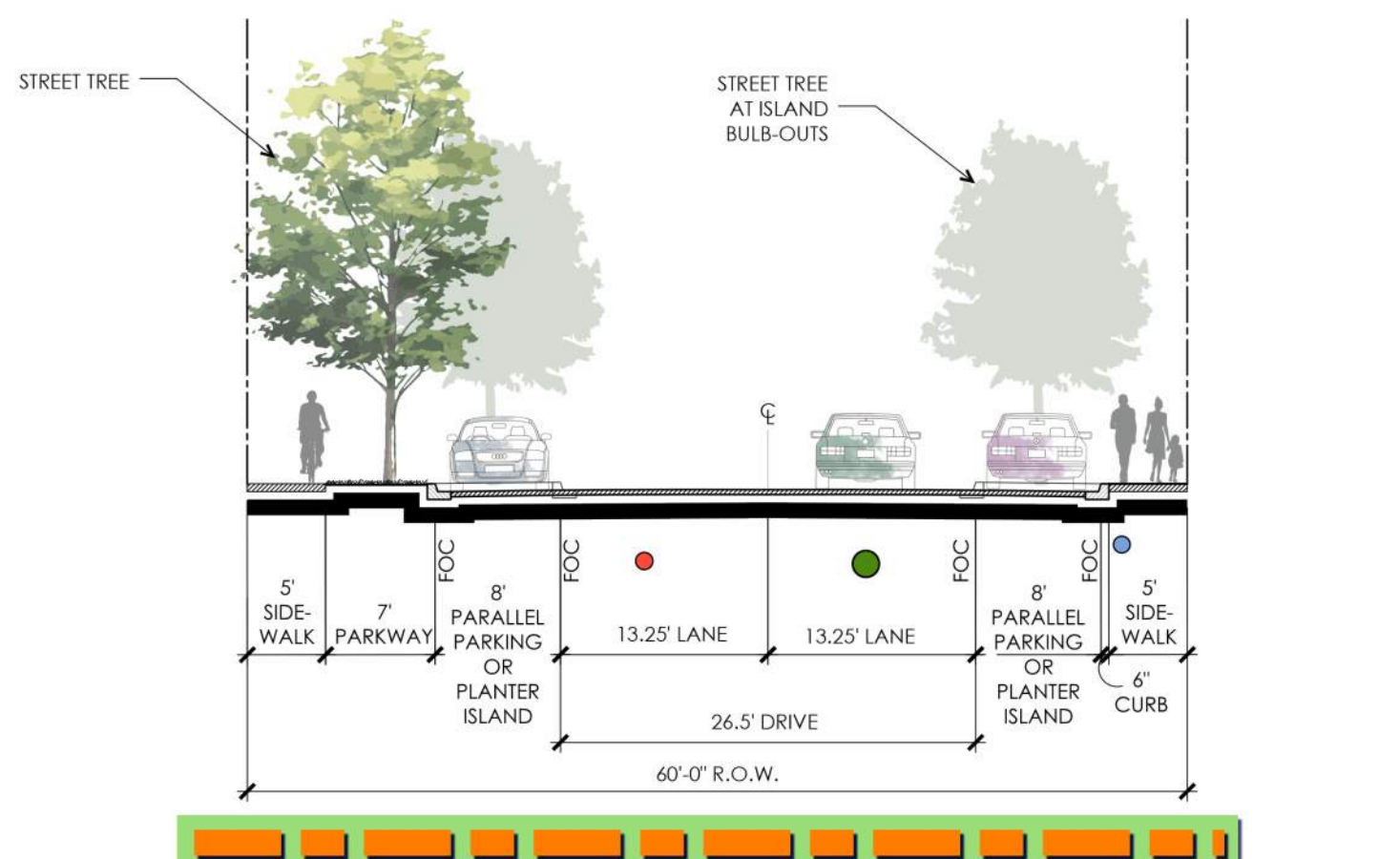
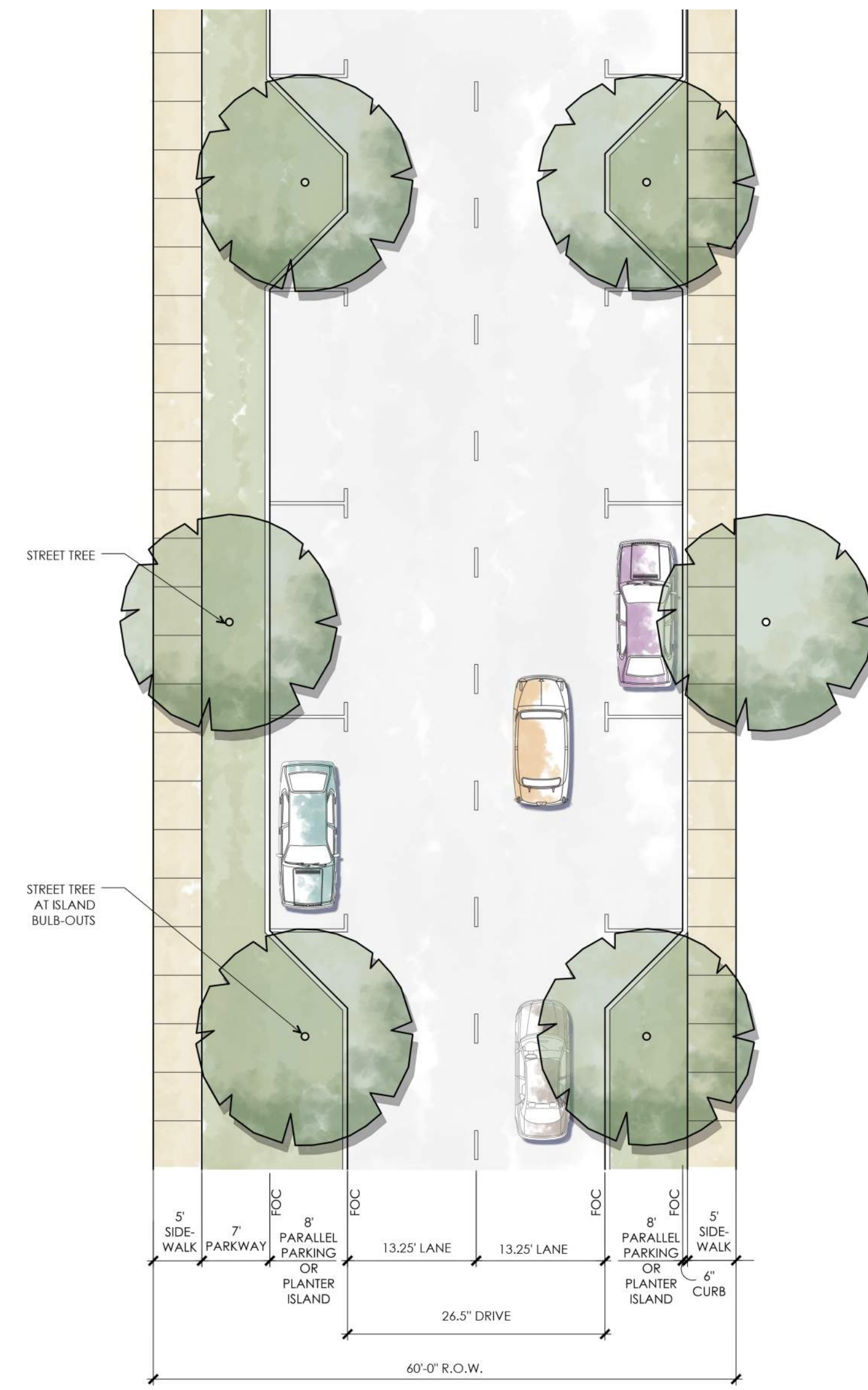
30 Ft Alley ROW Street Plan / Section



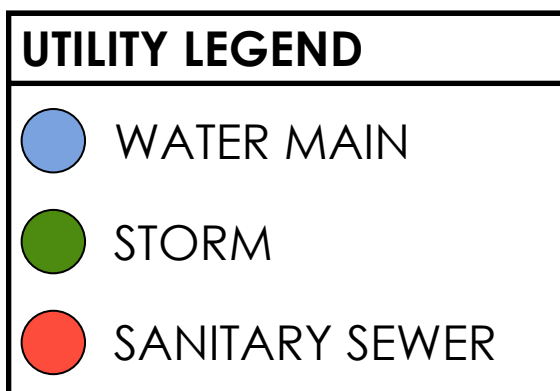
50 Ft ROW Street Plan / Section



60 Ft ROW Street Plan / Section - Type A



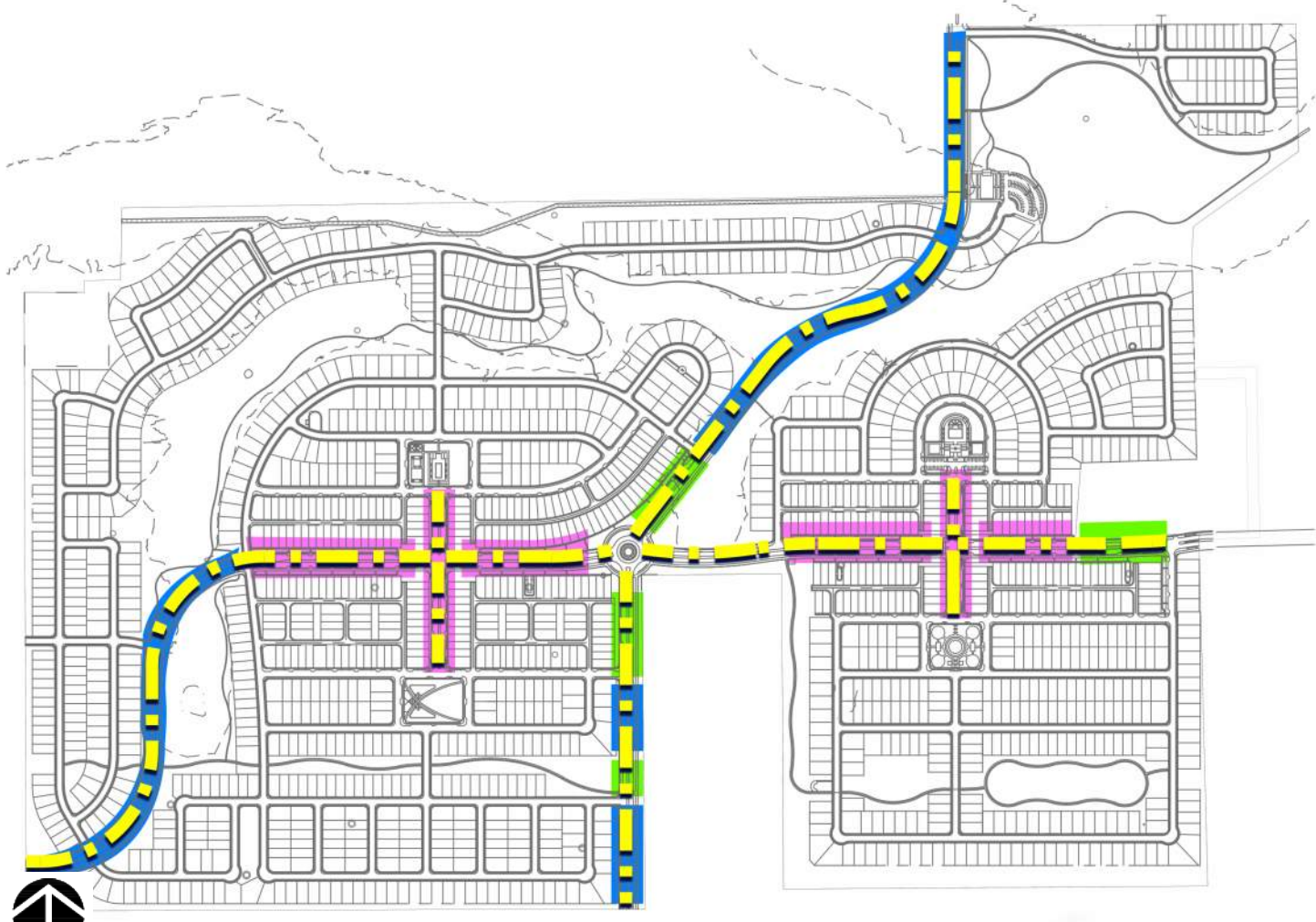
60 Ft ROW Street Plan / Section - Type B



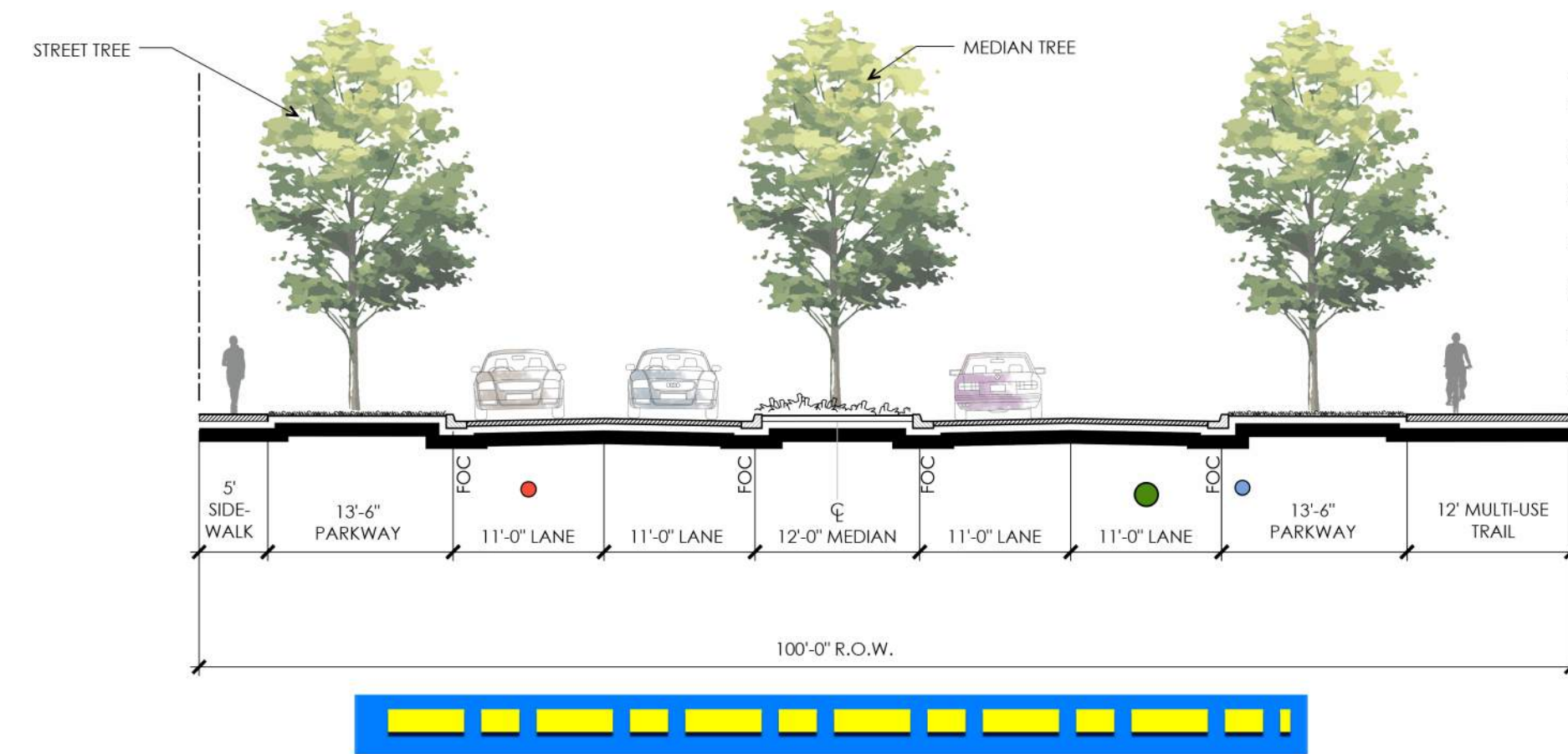
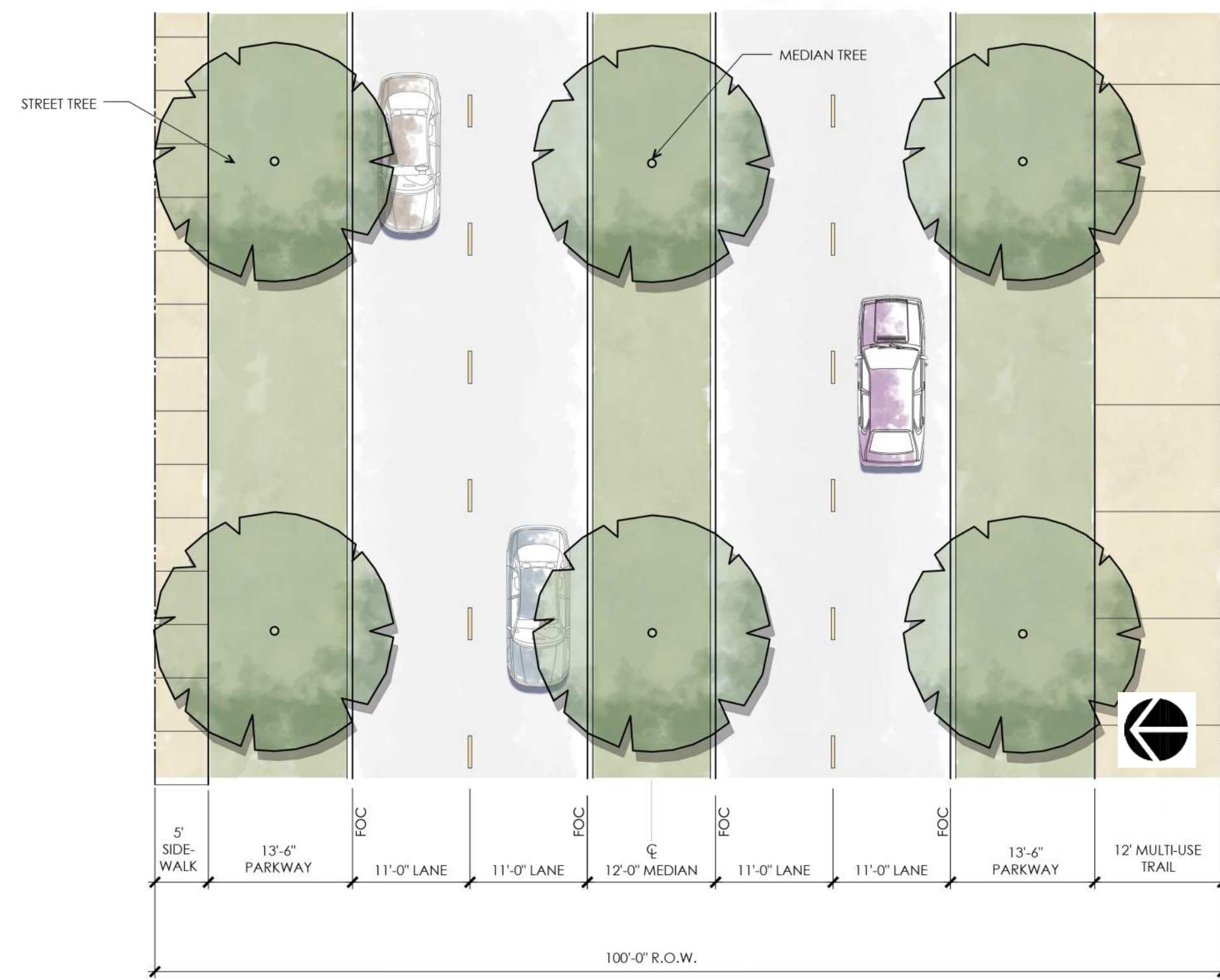
# CUESTA

EXHIBIT G - STREET PLAN / SECTION

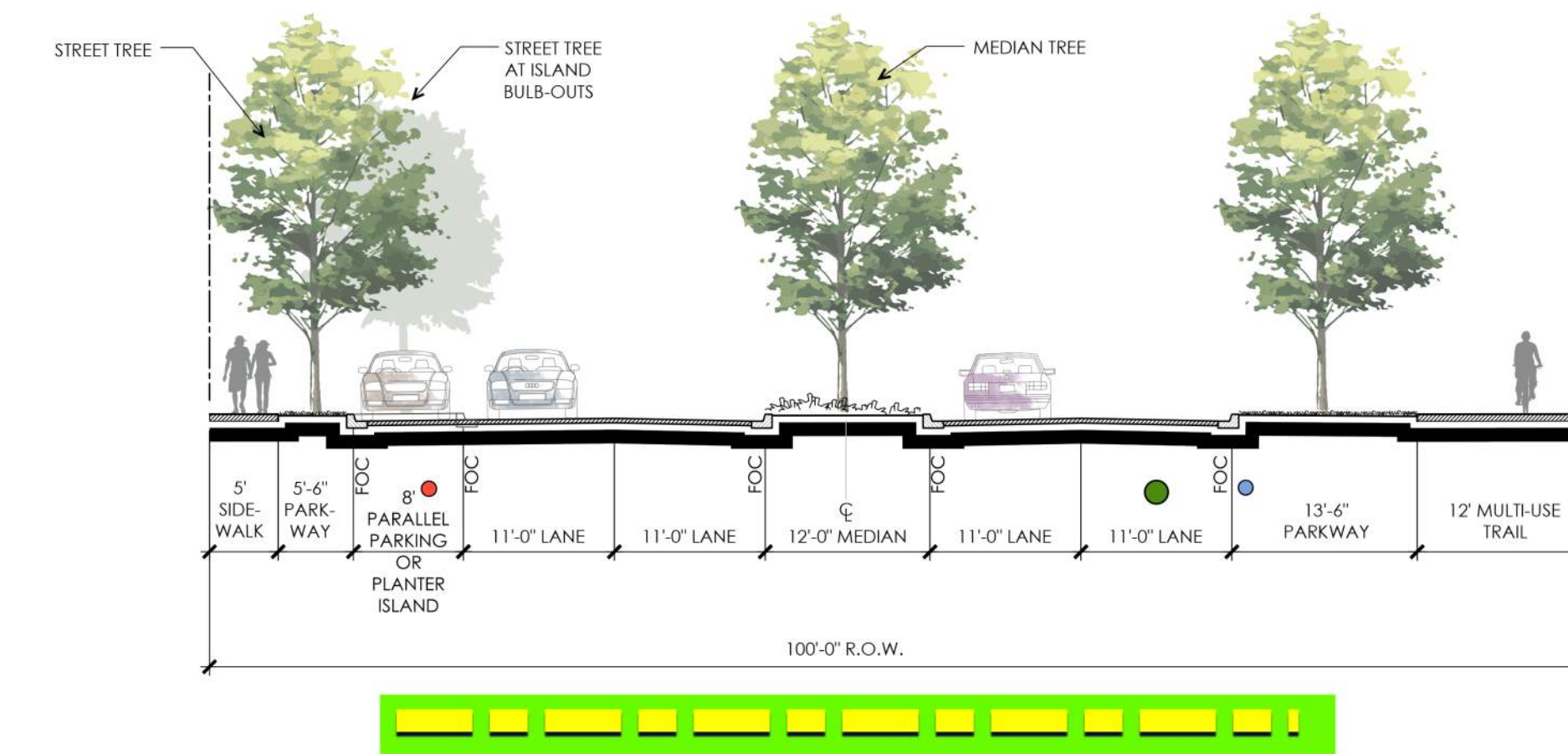
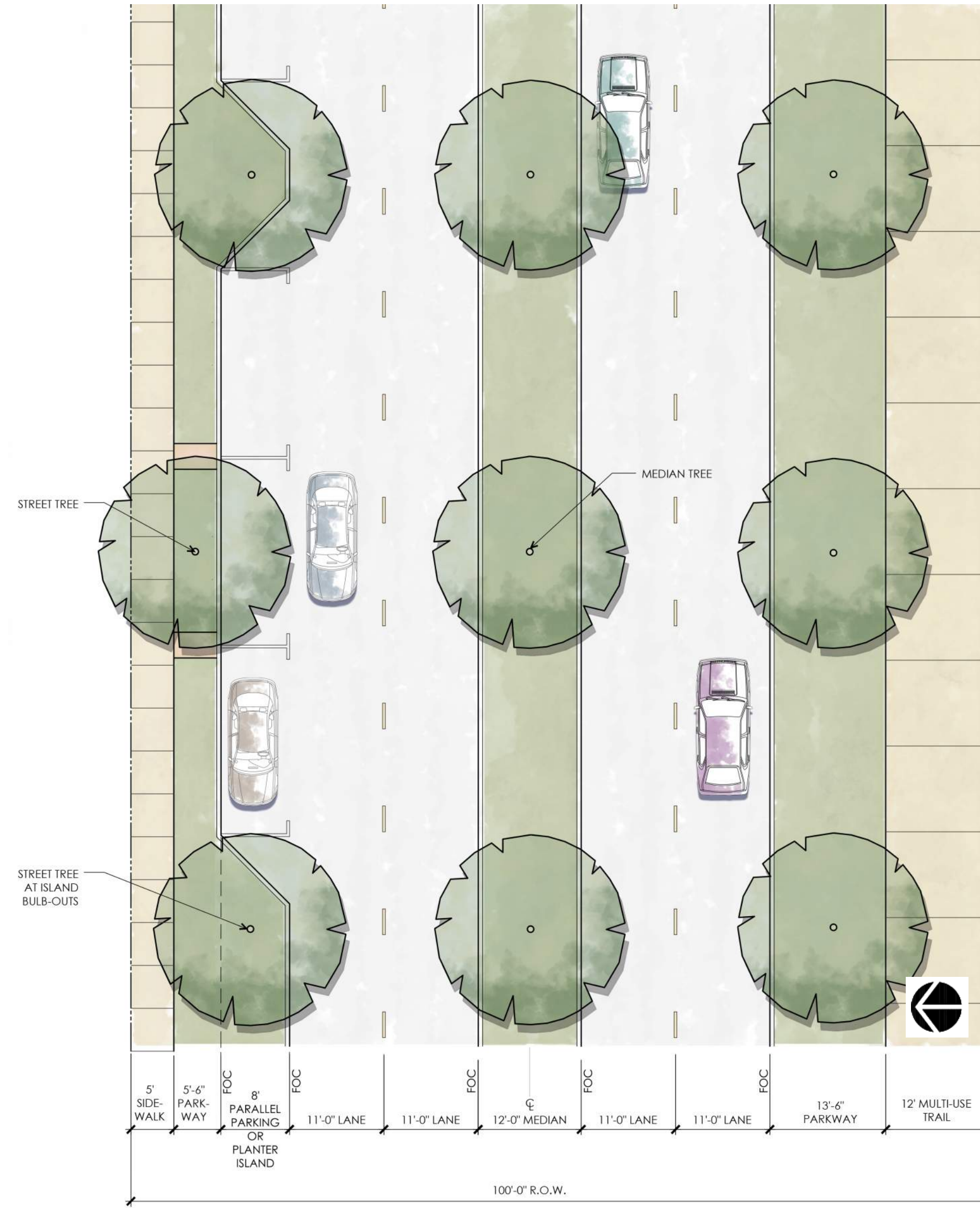




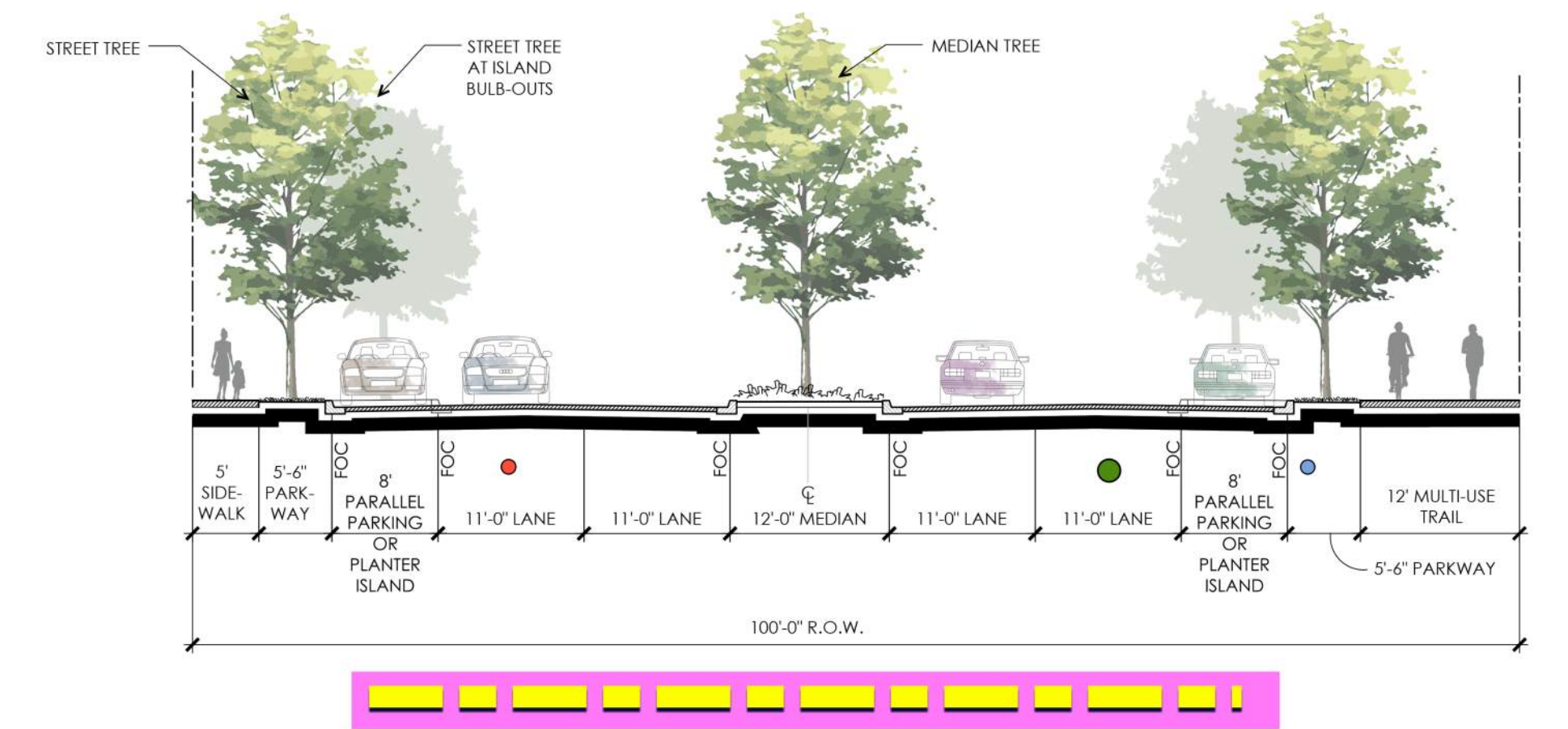
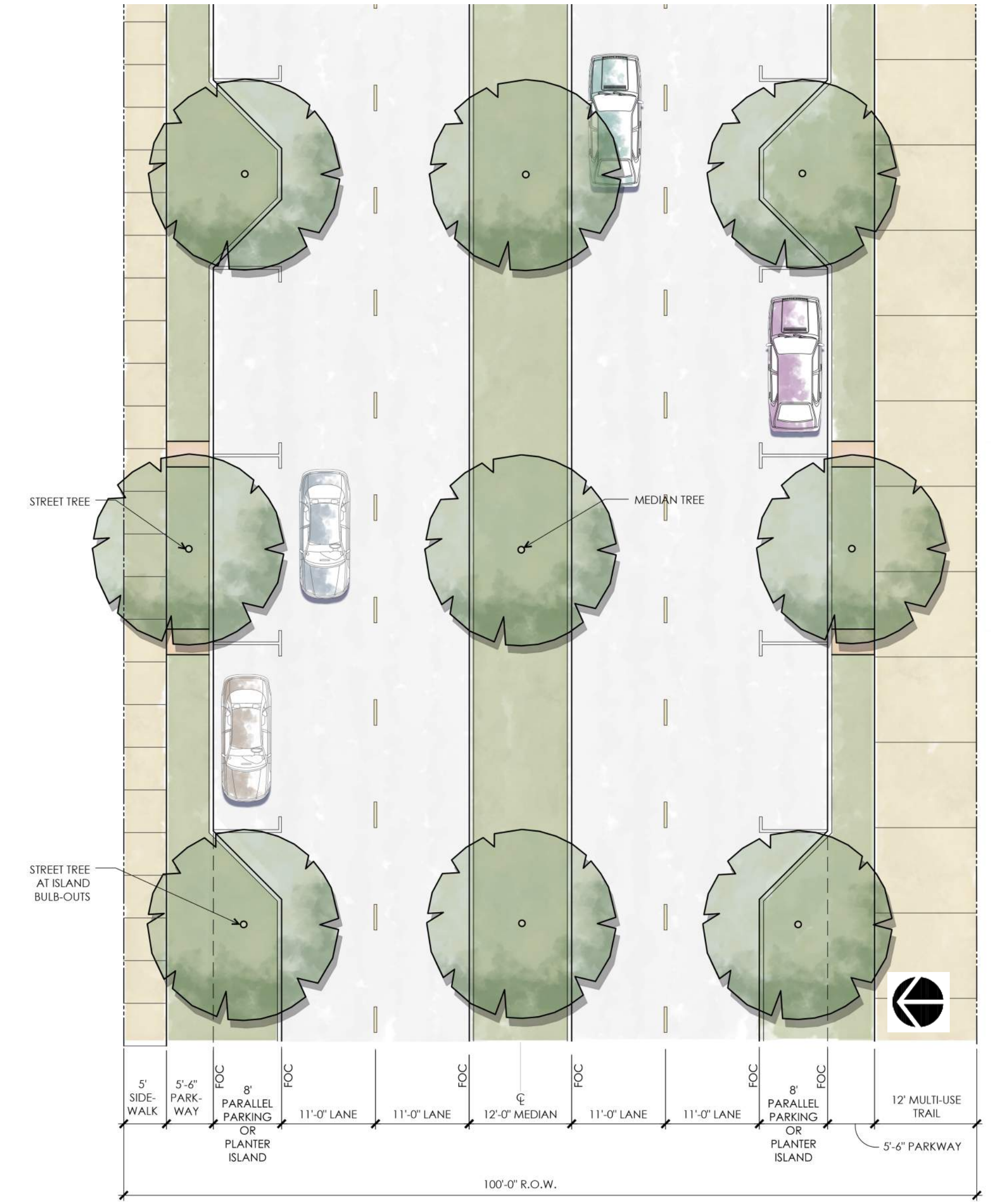
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KEY MAP



100 Ft ROW - Type A Street Plan / Section



100 Ft ROW - Type B Street Plan / Section



100 Ft ROW - Type C Street Plan / Section

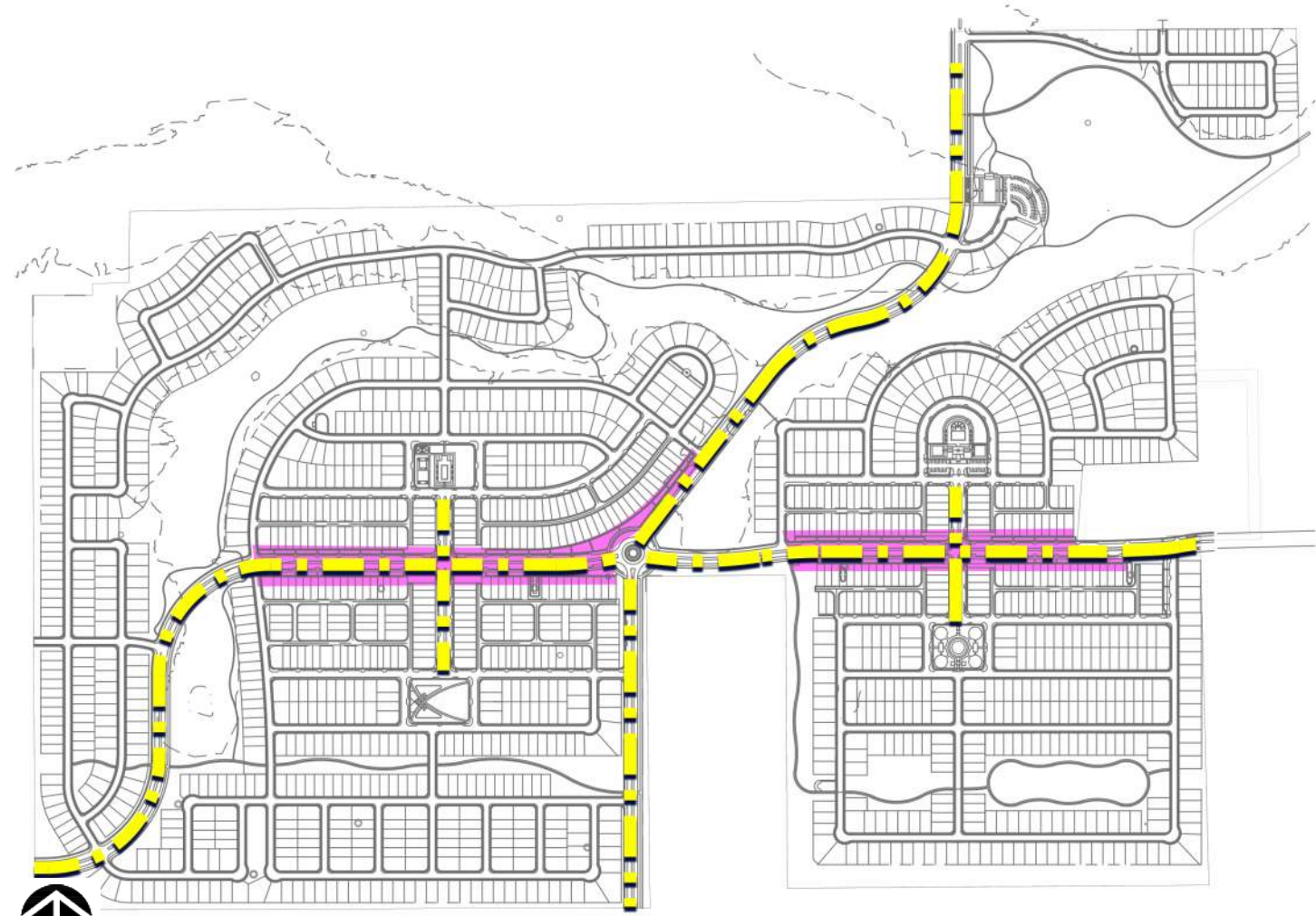
| UTILITY LEGEND                       |                |
|--------------------------------------|----------------|
| <span style="color: blue;">●</span>  | WATER MAIN     |
| <span style="color: green;">●</span> | STORM          |
| <span style="color: red;">●</span>   | SANITARY SEWER |



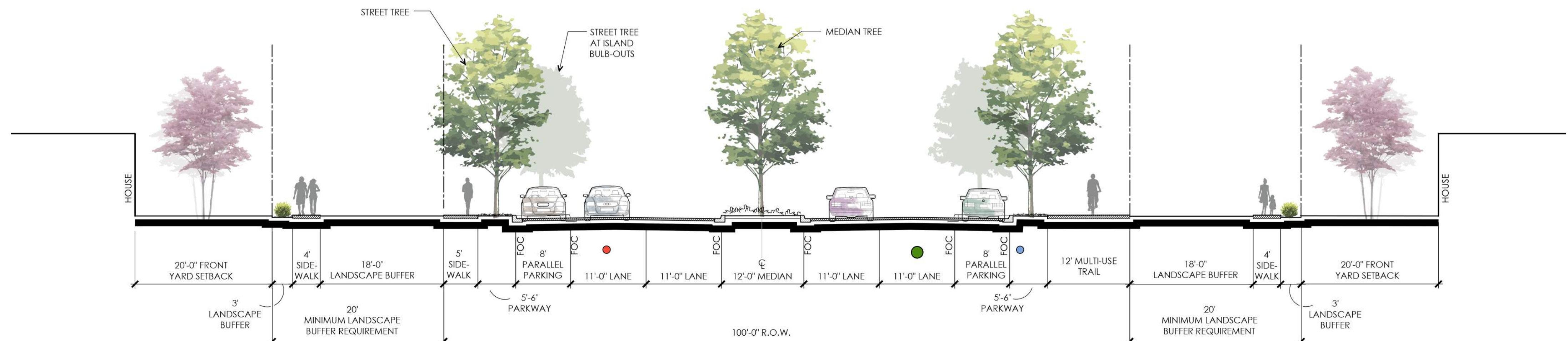
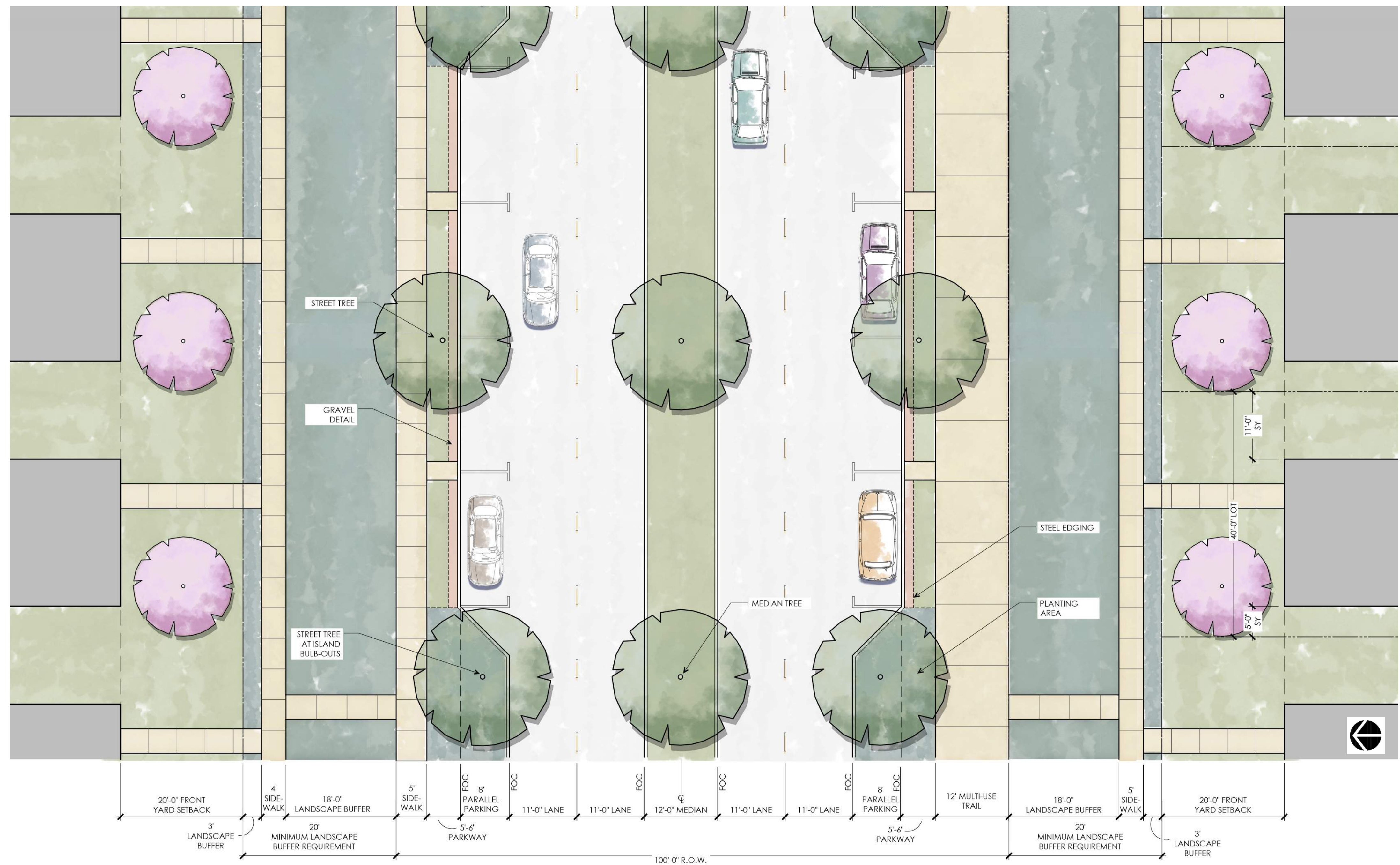
## CUESTA

EXHIBIT G - STREET PLAN / SECTION





Scale: NA  
KEY MAP

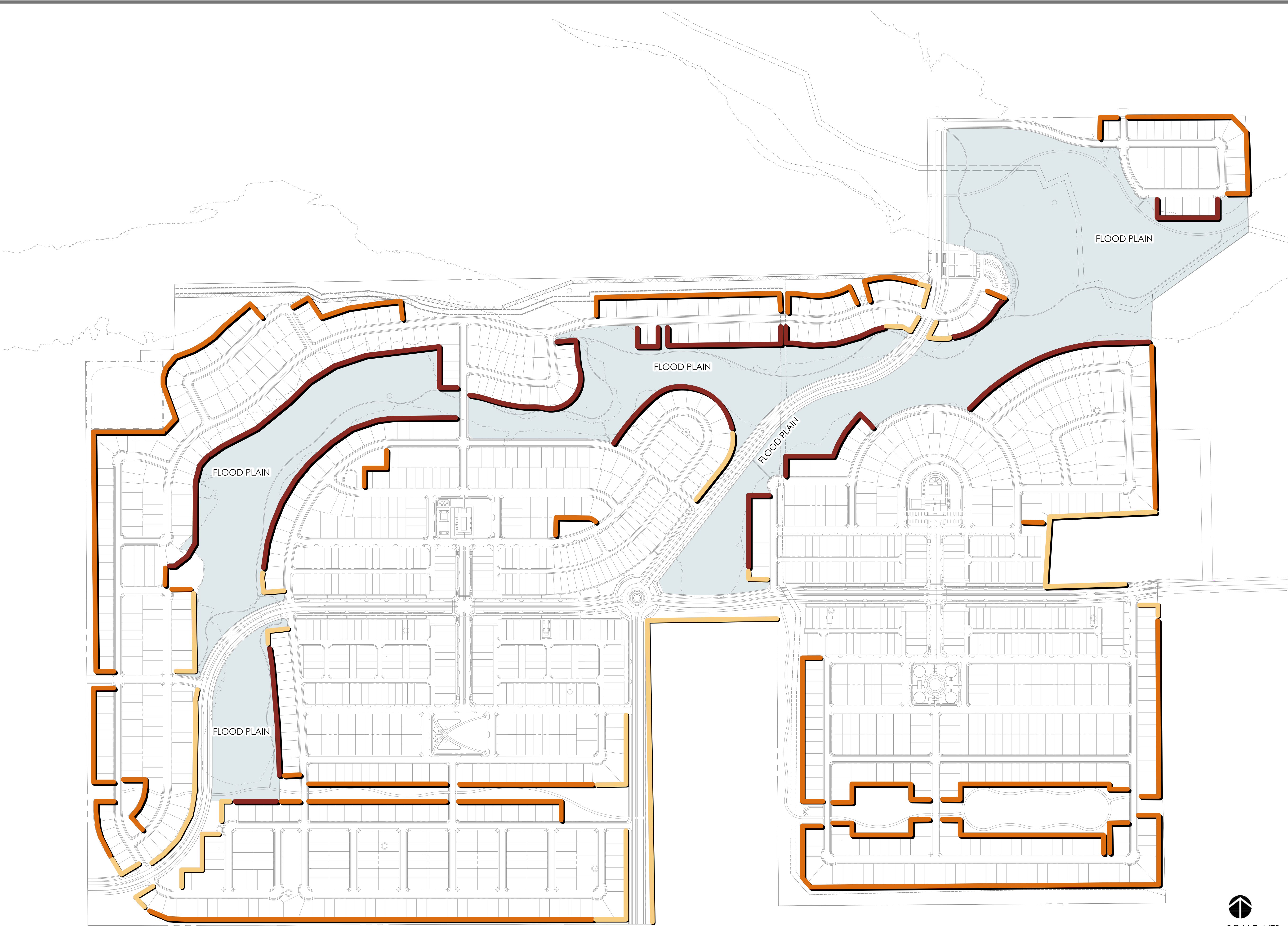


100 Ft ROW - Type C Street Plan / Section

| UTILITY LEGEND |                |
|----------------|----------------|
|                | WATER MAIN     |
|                | STORM          |
|                | SANITARY SEWER |



P:\616195\Meritage Homes\001 Range Creek\Tolson Design\11 Planning & Zoning\11.01 PZ Final Docs



WROUGHT IRON FENCE



WOOD PICKET FENCE



MASONRY WALL  
BRICK COLOR AESTHETIC



MASONRY WALL  
COLUMN AESTHETIC



SCALE: NTS

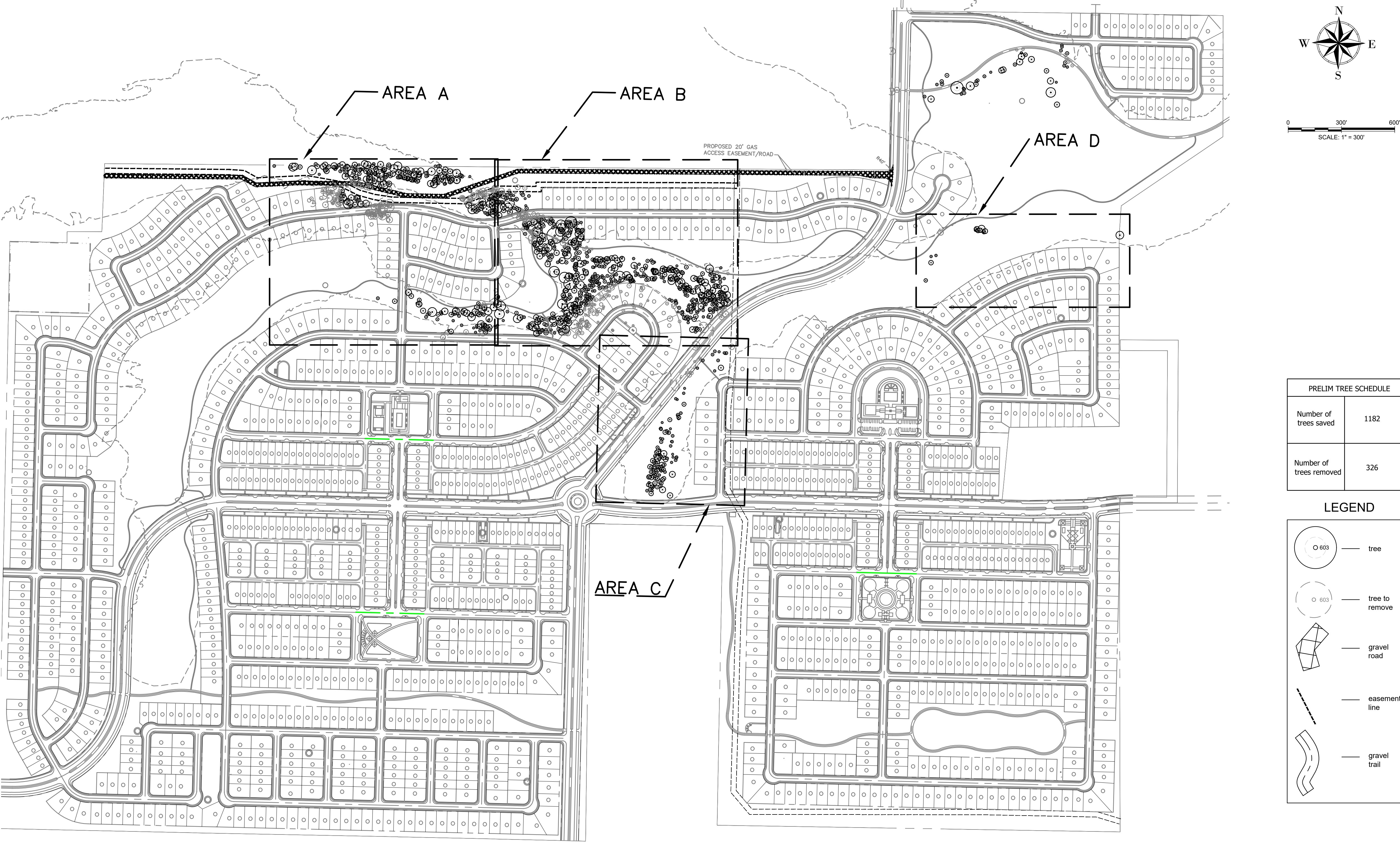
NOTE: ALL INTERNAL LOTS TO HAVE WOODEN FENCE



# TREE PRESERVATION PLAN: CUESTA DEVELOPMENT JUSTIN, TX

TALSON DESIGN PARTNERED WITH TREE MANN SOLUTIONS

KEY MAP:



TREE MANN SOLUTIONS  
DALLAS, TX

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

Date: 11/07/2024  
Check by: JJ  
Drawn By: SD  
Sheet No. COVER

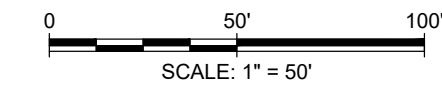








**TREE MANN  
SOLUTIONS**  
PLANNING • PERMITTING • PRESERVATION



tree

tree to remove

gravel road

easement line

gravel trail

[illegible]

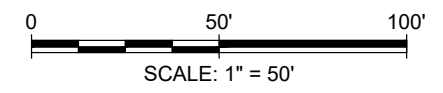
CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 2 of 6     |
| Project No. | 9831       |

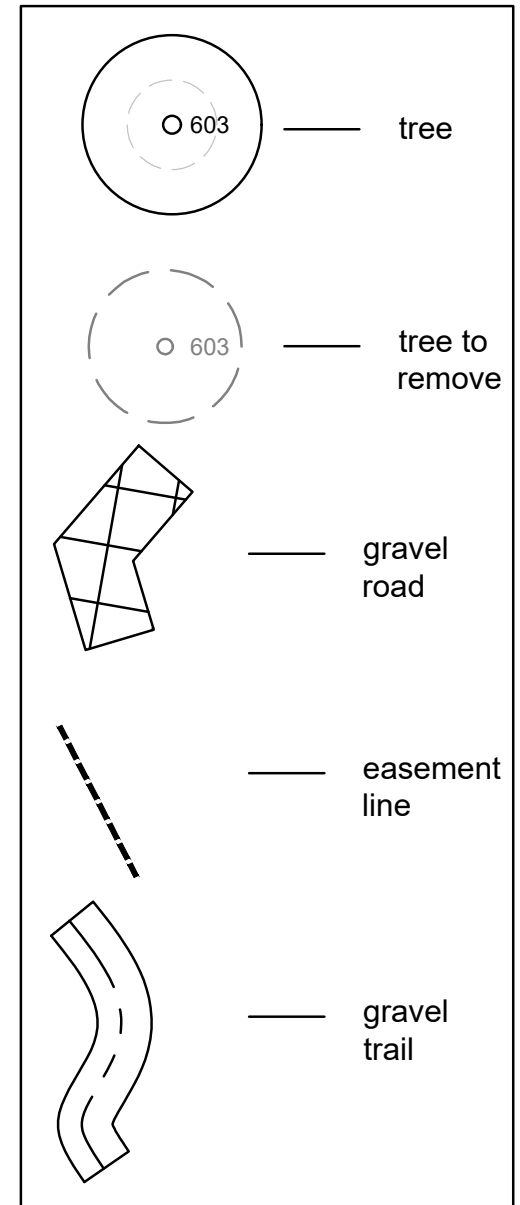








## LEGEND

[illegible]

CUESTA DEVELOPMENT  
TALSON DESIGN  
ATTN: JAKE SCHWARZ, PLA

|             |            |
|-------------|------------|
| Date:       | 11/07/2024 |
| Check by:   | JJ         |
| Drawn By:   | SD         |
| Sheet No.   | 4 of 6     |
| Project No. | 9831       |



TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 1145        | 10       | Fair      | Cedar Elm    | 1350        | 11       | Fair      | Cedar Elm    | 1448        | 15.5     | Fair      | Cedar Elm    | 1643        | 12       | Fair      | Cedar Elm    | 5549        | 6.5      | Fair      | Cedar Elm    | 5644        | 9        | Fair      | Cedar Elm    | 7736        | 7        | Fair      | Cedar Elm    | 7833        | 6.5      | Fair      | Cedar Elm    |
| 1248        | 22       | Fair      | Cedar Elm    | 1351        | 6        | Fair      | Cedar Elm    | 1449        | 9.5      | Fair      | Cedar Elm    | 1644        | 7.5      | Fair      | Cedar Elm    | 5550        | 14       | Fair      | Cedar Elm    | 5645        | 9.5      | Fair      | Cedar Elm    | 7737        | 6        | Fair      | Cedar Elm    | 7834        | 14       | Fair      | Cedar Elm    |
| 1249        | 14       | Poor      | Cedar Elm    | 1352        | 10.5     | Fair      | Cedar Elm    | 1450        | 6.5      | Fair      | Cedar Elm    | 1645        | 8.5      | Poor      | Cedar Elm    | 5551        | 14       | Fair      | Cedar Elm    | 5646        | 18       | Fair      | Cedar Elm    | 7738        | 11       | Fair      | Cedar Elm    | 7835        | 15.5     | Fair      | Cedar Elm    |
| 1250        | 7.5      | Fair      | Cedar Elm    | 1353        | 11       | Fair      | American Elm | 1451        | 18       | Fair      | American Elm | 1646        | 6.5      | Fair      | Cedar Elm    | 5552        | 6.5      | Fair      | Cedar Elm    | 5647        | 13       | Fair      | Cedar Elm    | 7739        | 6.5      | Fair      | Cedar Elm    | 7836        | 9.5      | Poor      | Cedar Elm    |
| 1251        | 8        | Fair      | Cedar Elm    | 1354        | 8.5      | Fair      | Cedar Elm    | 1452        | 25       | Very Poor | American Elm | 1647        | 7.5      | Fair      | Cedar Elm    | 5553        | 13       | Fair      | Cedar Elm    | 5648        | 14.5     | Fair      | Cedar Elm    | 7740        | 7.5      | Fair      | Cedar Elm    | 7837        | 6        | Fair      | Cedar Elm    |
| 1252        | 9.5      | Fair      | Cedar Elm    | 1355        | 14.5     | Fair      | Cedar Elm    | 1453        | 6.5      | Fair      | American Elm | 1648        | 13       | Fair      | Cedar Elm    | 5554        | 8.5      | Fair      | Cedar Elm    | 5649        | 17       | Fair      | Cedar Elm    | 7741        | 8        | Fair      | Cedar Elm    | 7838        | 11       | Fair      | Cedar Elm    |
| 1253        | 20       | Poor      | Cedar Elm    | 1356        | 13       | Fair      | Cedar Elm    | 1454        | 18       | Fair      | Cedar Elm    | 1649        | 7        | Fair      | Cedar Elm    | 5555        | 19       | Fair      | Cedar Elm    | 5650        | 16.5     | Poor      | Cedar Elm    | 7742        | 6        | Poor      | Cedar Elm    | 7839        | 9        | Fair      | Cedar Elm    |
| 1254        | 12.5     | Fair      | Cedar Elm    | 1357        | 10       | Fair      | Cedar Elm    | 1455        | 11       | Fair      | Cedar Elm    | 1650        | 13       | Fair      | Cedar Elm    | 5556        | 12.5     | Fair      | Cedar Elm    | 5651        | 18       | Fair      | Cedar Elm    | 7743        | 10       | Fair      | Cedar Elm    | 7840        | 10.5     | Fair      | Cedar Elm    |
| 1255        | 13       | Fair      | Cedar Elm    | 1358        | 14       | Fair      | Cedar Elm    | 1456        | 8        | Fair      | Cedar Elm    | 1651        | 7        | Fair      | Cedar Elm    | 5557        | 9        | Fair      | Cedar Elm    | 5652        | 17       | Fair      | Cedar Elm    | 7744        | 10       | Fair      | Cedar Elm    | 7841        | 9        | Fair      | Cedar Elm    |
| 1256        | 15       | Fair      | Cedar Elm    | 1359        | 14.5     | Fair      | Cedar Elm    | 1457        | 10       | Fair      | Cedar Elm    | 1652        | 10.5     | Fair      | Cedar Elm    | 5558        | 12.5     | Fair      | Cedar Elm    | 5653        | 7        | Fair      | Cedar Elm    | 7745        | 8        | Fair      | Cedar Elm    | 7842        | 10.5     | Fair      | Cedar Elm    |
| 1257        | 8        | Fair      | Cedar Elm    | 1360        | 9        | Fair      | Cedar Elm    | 1458        | 9.5      | Fair      | Cedar Elm    | 1653        | 13       | Fair      | Cedar Elm    | 5559        | 7        | Fair      | Cedar Elm    | 5654        | 10       | Fair      | Cedar Elm    | 7746        | 6.5      | Fair      | Cedar Elm    | 7843        | 17.5     | Fair      | Cedar Elm    |
| 1258        | 6.5      | Fair      | Cedar Elm    | 1361        | 6        | Fair      | Cedar Elm    | 1459        | 17.5     | Fair      | Cedar Elm    | 1654        | 11.5     | Fair      | Cedar Elm    | 5560        | 6        | Fair      | Cedar Elm    | 5655        | 9        | Fair      | Cedar Elm    | 7747        | 16       | Fair      | Cedar Elm    | 7844        | 14       | Fair      | Cedar Elm    |
| 1259        | 8.5      | Fair      | Cedar Elm    | 1362        | 6        | Fair      | Cedar Elm    | 1460        | 8        | Fair      | American Elm | 1655        | 8.5      | Fair      | Cedar Elm    | 5561        | 8        | Fair      | Cedar Elm    | 5656        | 11.5     | Fair      | Cedar Elm    | 7748        | 16.5     | Fair      | Cedar Elm    | 7845        | 11       | Fair      | Cedar Elm    |
| 1260        | 10       | Fair      | Cedar Elm    | 1363        | 19.5     | Fair      | Cedar Elm    | 1461        | 9.5      | Fair      | American Elm | 1656        | 10       | Poor      | Cedar Elm    | 5562        | 15       | Fair      | Cedar Elm    | 5657        | 8.5      | Fair      | Cedar Elm    | 7749        | 8        | Fair      | Cedar Elm    | 7846        | 9        | Fair      | Cedar Elm    |
| 1261        | 13       | Poor      | Cedar Elm    | 1364        | 8        | Fair      | Cedar Elm    | 1462        | 8.5      | Fair      | Cedar Elm    | 1657        | 18       | Fair      | Cedar Elm    | 5563        | 26.5     | Fair      | Cedar Elm    | 5658        | 9        | Fair      | Cedar Elm    | 7750        | 11       | Fair      | Cedar Elm    | 7847        | 8.5      | Fair      | Cedar Elm    |
| 1262        | 7        | Fair      | Cedar Elm    | 1365        | 9        | Fair      | Cedar Elm    | 1463        | 11.5     | Fair      | Cedar Elm    | 1658        | 18       | Fair      | Cedar Elm    | 5564        | 13.5     | Fair      | Cedar Elm    | 5659        | 7        | Fair      | Cedar Elm    | 7751        | 10.5     | Fair      | Cedar Elm    | 7848        | 6        | Fair      | Cedar Elm    |
| 1263        | 7        | Fair      | Cedar Elm    | 1366        | 11.5     | Fair      | Cedar Elm    | 1464        | 11.5     | Fair      | Cedar Elm    | 1659        | 9        | Fair      | Cedar Elm    | 5565        | 8        | Fair      | Cedar Elm    | 5660        | 10       | Fair      | Cedar Elm    | 7752        | 13       | Fair      | Cedar Elm    | 7849        | 17.5     | Fair      | Cedar Elm    |
| 1264        | 46       | Fair      | Cedar Elm    | 1367        | 15.5     | Fair      | Cedar Elm    | 1465        | 16       | Fair      | Cedar Elm    | 1660        | 13       | Fair      | Cedar Elm    | 5566        | 13       | Fair      | Cedar Elm    | 5661        | 6        | Fair      | Cedar Elm    | 7753        | 9        | Fair      | Cedar Elm    | 7850        | 6.5      | Fair      | Cedar Elm    |
| 1265        | 13       | Fair      | American Elm | 1368        | 12.5     | Fair      | American Elm | 1466        | 12.5     | Fair      | Cedar Elm    | 1661        | 10       | Fair      | Cedar Elm    | 5567        | 16.5     | Fair      | Cedar Elm    | 5662        | 9.5      | Fair      | Cedar Elm    | 7754        | 8.5      | Fair      | Cedar Elm    | 7851        | 12       | Fair      | Cedar Elm    |
| 1266        | 18       | Fair      | American Elm | 1369        | 15       | Fair      | Cedar Elm    | 1467        | 6.5      | Fair      | American Elm | 1662        | 13       | Fair      | Cedar Elm    | 5568        | 14.5     | Fair      | Cedar Elm    | 5663        | 10.5     | Fair      | Cedar Elm    | 7755        | 8.5      | Fair      | Cedar Elm    | 7852        | 7        | Fair      | Cedar Elm    |
| 1267        | 6        | Fair      | American Elm | 1370        | 17       | Fair      | Cedar Elm    | 1468        | 14.5     | Fair      | American Elm | 1663        | 13.5     | Fair      | Cedar Elm    | 5569        | 11.5     | Fair      | Cedar Elm    | 5664        | 9.5      | Fair      | Cedar Elm    | 7756        | 11       | Fair      | Cedar Elm    | 7853        | 12.5     | Fair      | Cedar Elm    |
| 1268        | 27       | Poor      | American Elm | 1371        | 8        | Fair      | Cedar Elm    | 1469        | 10       | Fair      | Cedar Elm    | 1664        | 8        | Fair      | American Elm | 5570        | 13       | Fair      | Cedar Elm    | 5665        | 8        | Fair      | Cedar Elm    | 7757        | 8.5      | Fair      | Cedar Elm    | 7854        | 8.5      | Fair      | Cedar Elm    |
| 1269        | 15       | Fair      | American Elm | 1372        | 15.5     | Fair      | Cedar Elm    | 1470        | 9        | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5571        | 20       | Fair      | Cedar Elm    | 5666        | 8.5      | Fair      | Cedar Elm    | 7758        | 8        | Fair      | Cedar Elm    | 7855        | 40       | Fair      | Cedar Elm    |
| 1270        | 7        | Fair      | American Elm | 1373        | 15.5     | Very Poor | Cedar Elm    | 1471        | 6.5      | Fair      | Cedar Elm    | 1666        | 12       | Fair      | Cedar Elm    | 5572        | 10.5     | Fair      | Cedar Elm    | 5667        | 9        | Fair      | Cedar Elm    | 7759        | 9        | Fair      | Cedar Elm    | 7856        | 8        | Fair      | Cedar Elm    |
| 1271        | 8.5      | Fair      | American Elm | 1374        | 9.5      | Fair      | Cedar Elm    | 1472        | 10       | Fair      | American Elm | 1667        | 15       | Fair      | Cedar Elm    | 5573        | 16       | Very Poor | Cedar Elm    | 5668        | 7        | Fair      | Cedar Elm    | 7760        | 6.5      | Fair      | Cedar Elm    | 7857        | 8.5      | Fair      | Cedar Elm    |
| 1272        | 8.5      | Fair      | American Elm | 1375        | 13       | Fair      | Cedar Elm    | 1473        | 20.5     | Fair      | American Elm | 1668        | 13       | Fair      | Cedar Elm    | 5574        | 7.5      | Fair      | Cedar Elm    | 5669        | 8.5      | Fair      | Cedar Elm    | 7761        | 9        | Fair      | Cedar Elm    | 7858        | 6.5      | Fair      | Cedar Elm    |
| 1273        | 10       | Fair      | American Elm | 1376        | 6        | Fair      | Cedar Elm    | 1474        | 14       | Fair      | Cedar Elm    | 1669        | 16       | Fair      | Cedar Elm    | 5575        | 7        | Fair      | Cedar Elm    | 5670        | 11.5     | Fair      | Cedar Elm    | 7762        | 9        | Fair      | Cedar Elm    | 7859        | 9        | Fair      | Cedar Elm    |
| 1274        | 8        | Fair      | American Elm | 1377        | 11       | Fair      | Cedar Elm    | 1475        | 6.5      | Fair      | American Elm | 1670        | 23.5     | Fair      | Cedar Elm    | 5576        | 6.5      | Fair      | Cedar Elm    | 5671        | 18.5     | Fair      | Cedar Elm    | 7763        | 7        | Fair      | Cedar Elm    | 7860        | 6        | Fair      | Cedar Elm    |
| 1275        | 9.5      | Fair      | American Elm | 1378        | 12       | Fair      | Cedar Elm    | 1476        | 10       | Fair      | Cedar Elm    | 1671        | 9.5      | Fair      | Cedar Elm    | 5577        | 8        | Fair      | Cedar Elm    | 5672        | 8        | Fair      | Cedar Elm    | 7764        | 15       | Poor      | Cedar Elm    | 7861        | 10       | Fair      | Cedar Elm    |
| 1276        | 9.5      | Fair      | American Elm | 1379        | 7        | Fair      | Cedar Elm    | 1477        | 12       | Fair      | Cedar Elm    | 1672        | 10.5     | Fair      | Cedar Elm    | 5578        | 8.5      | Fair      | Cedar Elm    | 5673        | 14.5     | Fair      | Cedar Elm    | 7765        | 12.5     | Fair      | Cedar Elm    | 7862        | 6        | Fair      | Cedar Elm    |
| 1277        | 9        | Very Poor | American Elm | 1380        | 8.5      | Fair      | Cedar Elm    | 1478        | 7        | Fair      | Cedar Elm    | 1673        | 20       | Fair      | Cedar Elm    | 5579        | 9        | Fair      | Cedar Elm    | 5674        | 23.5     | Fair      | Cedar Elm    | 7766        | 17       | Fair      | American Elm | 7863        | 7.5      | Fair      | Cedar Elm    |
| 1278        | 8.5      | Fair      | American Elm | 1381        | 11       | Fair      | Cedar Elm    | 1479        | 6        | Fair      | Cedar Elm    | 1674        | 6        | Fair      | Cedar Elm    | 5580        | 11       | Fair      | Cedar Elm    | 5675        | 20.5     | Fair      | Cedar Elm    | 7767        | 18.5     | Fair      | Cedar Elm    | 7864        | 7.5      | Fair      | Cedar Elm    |
| 1279        | 7.5      | Fair      | American Elm | 1382        | 12       | Fair      | Cedar Elm    | 1480        | 10.5     | Fair      | Cedar Elm    | 1675        | 9.5      | Fair      | Cedar Elm    | 5581        | 12.5     | Fair      | Cedar Elm    | 5676        | 16       | Fair      | Cedar Elm    | 7768        | 7.5      | Fair      | Cedar Elm    | 7865        | 11       | Fair      | Cedar Elm    |
| 1280        | 8        | Fair      | American Elm | 1383        | 8.5      | Fair      | Cedar Elm    | 1481        | 6.5      | Fair      | Cedar Elm    | 1676        | 19       | Fair      | Cedar Elm    | 5582        | 9.5      | Fair      | Cedar Elm    | 5677        | 11       | Fair      | Cedar Elm    | 7769        | 8        | Fair      | Cedar Elm    | 7866        | 9        | Fair      | Cedar Elm    |
| 1281        | 10       | Fair      | American Elm | 1384        | 10.5     | Fair      | Cedar Elm    | 1482        | 19       | Fair      | Cedar Elm    | 1677        | 13       | Fair      | Cedar Elm    | 5583        | 12.5     | Fair      | Cedar Elm    | 5678        | 7.5      | Fair      | Cedar Elm    | 7770        | 7        | Fair      | Cedar Elm    | 7867        | 7.5      | Fair      | Cedar Elm    |
| 1282        | 10       | Fair      | American Elm | 1385        | 6.5      | Fair      | Cedar Elm    | 1483        | 21.5     | Good      | Cedar Elm    | 1678        | 7        | Fair      | American Elm | 5584        | 7.5      | Fair      | Cedar Elm    | 5679        | 9        | Fair      | Cedar Elm    | 7771        | 11       | Fair      | Cedar Elm    | 7868        | 7.5      | Fair      | Cedar Elm    |
| 1283        | 7.5      | Fair      | American Elm | 1386        | 8.5      | Fair      | Cedar Elm    | 1484        | 6.5      | Fair      | Cedar Elm    | 1679        | 18.5     | Fair      | Cedar Elm    | 5585        | 16       | Fair      | Cedar Elm    | 5680        | 18       | Fair      | Cedar Elm    | 7772        | 11       | Fair      | Cedar Elm    | 7869        | 27       | Fair      | Cedar Elm    |
| 1284        | 11       | Fair      | American Elm | 1387        | 9.5      | Fair      | Cedar Elm    | 1485        | 13.5     | Fair      | Cedar Elm    | 1680        | 19       | Fair      | Cedar Elm    | 5586        | 6        | Fair      | Cedar Elm    | 5681        | 8        | Fair      | Cedar Elm    | 7773        | 9        | Fair      | Cedar Elm    | 7870        | 23.5     | Fair      | Cedar Elm    |
| 1285        | 35       | Good      | American Elm | 1388        | 12       | Fair      | Cedar Elm    | 1486        | 8        | Fair      | Cedar Elm    | 1681        | 9        | Fair      | American Elm | 5587        | 22       | Fair      | American Elm | 5682        | 10       | Fair      | American Elm | 7774        | 8.5      | Fair      | Cedar Elm    | 7871        | 12       | Fair      | Cedar Elm    |
| 1286        | 7.5      | Fair      | American Elm | 1389        | 7.5      | Fair      | Cedar Elm    | 1487        | 10.5     | Fair      | Cedar Elm    | 1682        | 6        | Fair      | American Elm | 5588        | 10       | Fair      | American Elm | 5683        | 12.5     | Fair      | Cedar Elm    | 7775        | 13       | Poor      | Cedar Elm    | 7872        | 8        | Fair      | Cedar Elm    |
| 1287        | 8        | Fair      | American Elm | 1390        | 13       | Poor      | Cedar Elm    | 1488        | 15       | Fair      | Cedar Elm    | 1683        | 21       | Fair      | Cedar Elm    | 5589        | 8        | Fair      | American Elm | 5684        | 9        | Fair      | Cedar Elm    | 7776        | 13       | Fair      | Cedar Elm    | 7873        | 12       | Fair      | Cedar Elm    |
| 1288        | 7        | Poor      | American Elm | 1391        | 8.5      | Fair      | Cedar Elm    | 1489        | 13       | Fair      | Cedar Elm    | 1684        | 7.5      | Fair      | Cedar Elm    | 5590        | 28       | Fair      | Cedar Elm    | 5685        | 16       | Fair      | Cedar Elm    | 7777        | 6.5      | Fair      | Cedar Elm    | 7874        | 16       | Fair      | Cedar Elm    |
| 1289        | 9.5      | Fair      | American Elm | 1392        | 6.5      | Poor      | Cedar Elm    | 1490        | 16       | Fair      | Cedar Elm    | 1685        | 9        | Fair      | Cedar Elm    | 5591        | 26       | Fair      | Cedar Elm    | 5686        | 14       | Fair      | Cedar Elm    | 7778        | 6.5      | Fair      | Cedar Elm    | 7875        | 26.5     | Fair      | Cedar Elm    |
| 1290        | 23       | Fair      | American Elm | 1393        | 7        | Fair      | Cedar Elm    | 1491        | 9        | Fair      | Cedar Elm    | 1686        | 10       | Fair      | Cedar Elm    | 5592        | 21.5     | Fair      | American Elm | 5687        | 14       | Fair      | Cedar Elm    | 7779        | 6.5      | Fair      | Cedar Elm    | 7877        | 45       | Fair      | Cedar Elm    |
| 1291        | 12.5     | Fair      | American Elm | 1394        | 7        | Fair      | Cedar Elm    | 1492        | 8        | Fair      | Cedar Elm    | 1687        | 14.5     | Fair      | Cedar Elm    | 5593        | 9        | Fair      | Cedar Elm    | 5688        | 9        | Fair      | American Elm | 7780        | 6        | Fair      | Cedar Elm    | 7878        | 13       | Fair      | Cedar Elm    |
| 1292        | 8        | Fair      | American Elm | 1395        | 6        | Fair      | Cedar Elm    | 1493        | 15       | Fair      | Cedar Elm    | 1688        | 13.5     | Fair      | American Elm | 5594        | 19.5     | Fair      | American Elm | 5689        | 7        | Fair      | American Elm | 7781        | 13       | Fair      | Cedar Elm    | 7879        | 17.5     | Poor      | American Elm |
| 1293        | 9        | Fair      | American Elm | 1396        | 7        | Fair      | Cedar Elm    | 1494        | 18.5     | Fair      | Cedar Elm    | 1689        | 22       | Fair      | Cedar Elm    | 5595        | 6.5      | Fair      | American Elm | 5690        | 17.5     | Fair      | Cedar Elm    | 7782        | 11.5     | Fair      | Cedar Elm    | 7880        | 6        | Fair      | Cedar Elm    |
| 1294        | 8.5      | Poor      | American Elm | 1397        | 6        | Fair      | Cedar Elm    | 1495        | 6.5      | Fair      | Cedar Elm    | 5501        | 7.5      | Fair      | Cedar Elm    | 5596        | 12.5     | Fair      | American Elm | 5691        | 11       | Fair      | Cedar Elm    | 7783        | 11.5     | Fair      | Cedar Elm    | 7881        | 16.5     | Poor      | Cedar Elm    |
| 1295        | 6.5      | Fair      | American Elm | 1398        | 7.5      | Fair      | Cedar Elm    | 1496        | 19       | Fair      | Cedar Elm    | 5502        | 9.5      | Fair      | Cedar Elm    | 5597        | 6        | Fair      | American Elm | 5692        | 20       | Fair      | Cedar Elm    | 7784        | 11.5     | Fair      | Cedar Elm    | 7882        | 12.5     | Fair      | Cedar Elm    |
| 1296        | 16       | Fair      | American Elm | 1399        | 7        | Fair      | Cedar Elm    | 1497        | 6        | Fair      | Cedar Elm    | 5503        | 7.5      | Fair      | Cedar Elm    | 5598        | 9        | Fair      | Cedar Elm    | 5693        | 7.5      | Fair      | Cedar Elm    | 7785        | 9.5      | Fair      | Cedar Elm    | 7883        | 7        | Fair      | Cedar Elm    |
| 1297        | 16.5     | Very Poor | American Elm | 1400        | 9.5      | Fair      | Cedar Elm    | 1498        | 13.5     | Fair      | Cedar Elm    | 5504        | 11       | Fair      | Cedar Elm    | 5599        | 7.5      | Fair      | Cedar Elm    | 5694        | 10       | Fair      |              |             |          |           |              |             |          |           |              |



TREE LIST

| Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species | Tree Number | Diameter | Condition | Tree Species |
|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|-------------|----------|-----------|--------------|
| 7929        | 40.5     | Fair      | Cedar Elm    | 8019        | 10       | Fair      | Cedar Elm    | 8109        | 15       | Fair      | American Elm | 8199        | 6        | Fair      | Cedar Elm    | 8292        | 8        | Fair      | Cedar Elm    | 8383        | 10.5     | Fair      | Cedar Elm    | 8474        | 7.5      | Fair      | Cedar Elm    | 8563        | 9        | Fair      | Cedar Elm    | 8653        | 6.5      | Fair      | Cedar Elm    |
| 7930        | 46       | Fair      | Cedar Elm    | 8020        | 10.5     | Fair      | Cedar Elm    | 8110        | 10       | Fair      | Cedar Elm    | 8200        | 43.5     | Fair      | Cedar Elm    | 8293        | 31       | Fair      | Cedar Elm    | 8384        | 7        | Fair      | Cedar Elm    | 8475        | 6        | Fair      | Cedar Elm    | 8564        | 16.5     | Fair      | Cedar Elm    | 8654        | 44       | Fair      | Cedar Elm    |
| 7931        | 29       | Fair      | Cedar Elm    | 8021        | 9        | Fair      | Cedar Elm    | 8111        | 9        | Fair      | Cedar Elm    | 8201        | 8.5      | Fair      | Cedar Elm    | 8294        | 6.5      | Fair      | Cedar Elm    | 8385        | 6        | Fair      | Cedar Elm    | 8476        | 8        | Fair      | Cedar Elm    | 8565        | 13.5     | Fair      | Cedar Elm    | 8655        | 8        | Fair      | Cedar Elm    |
| 7932        | 8        | Fair      | American Elm | 8022        | 6        | Fair      | Cedar Elm    | 8112        | 10.5     | Fair      | American Elm | 8202        | 7        | Fair      | Cedar Elm    | 8295        | 6        | Fair      | Cedar Elm    | 8386        | 7.5      | Fair      | Cedar Elm    | 8477        | 7.5      | Fair      | Cedar Elm    | 8566        | 14       | Fair      | Cedar Elm    | 8656        | 13.5     | Fair      | Cedar Elm    |
| 7933        | 9.5      | Fair      | Cedar Elm    | 8023        | 7        | Fair      | Cedar Elm    | 8113        | 9        | Fair      | American Elm | 8203        | 7        | Fair      | Cedar Elm    | 8296        | 24       | Fair      | Cedar Elm    | 8387        | 7        | Fair      | American Elm | 8478        | 8        | Fair      | Cedar Elm    | 8567        | 14.5     | Fair      | Cedar Elm    | 8657        | 11.5     | Fair      | Cedar Elm    |
| 7934        | 6.5      | Fair      | Cedar Elm    | 8024        | 8        | Fair      | Cedar Elm    | 8114        | 15       | Fair      | Cedar Elm    | 8204        | 7        | Fair      | Cedar Elm    | 8297        | 6.5      | Fair      | Cedar Elm    | 8388        | 7        | Fair      | Cedar Elm    | 8479        | 8        | Fair      | American Elm | 8568        | 12       | Fair      | Cedar Elm    | 8658        | 8.5      | Fair      | Cedar Elm    |
| 7935        | 9.5      | Fair      | Cedar Elm    | 8025        | 7        | Fair      | Cedar Elm    | 8115        | 14       | Fair      | Cedar Elm    | 8205        | 6.5      | Fair      | Cedar Elm    | 8298        | 16.5     | Fair      | Cedar Elm    | 8389        | 14.5     | Fair      | Cedar Elm    | 8480        | 7        | Fair      | American Elm | 8569        | 9        | Fair      | Cedar Elm    | 8659        | 9.5      | Fair      | Cedar Elm    |
| 7936        | 44       | Fair      | Cedar Elm    | 8026        | 6.5      | Fair      | Cedar Elm    | 8116        | 16       | Fair      | Cedar Elm    | 8206        | 7        | Fair      | Cedar Elm    | 8299        | 17       | Fair      | Cedar Elm    | 8390        | 7        | Fair      | Cedar Elm    | 8481        | 9.5      | Fair      | Cedar Elm    | 8570        | 6.5      | Fair      | Cedar Elm    | 8660        | 9.5      | Fair      | Cedar Elm    |
| 7937        | 42       | Fair      | Cedar Elm    | 8027        | 14       | Fair      | Cedar Elm    | 8117        | 8        | Fair      | Cedar Elm    | 8207        | 7.5      | Fair      | Cedar Elm    | 8300        | 7        | Fair      | Cedar Elm    | 8391        | 8        | Fair      | Cedar Elm    | 8482        | 6        | Fair      | Cedar Elm    | 8571        | 28.5     | Fair      | Cedar Elm    | 8661        | 6.5      | Fair      | Cedar Elm    |
| 7938        | 7        | Fair      | Cedar Elm    | 8028        | 8        | Fair      | Cedar Elm    | 8118        | 7        | Fair      | Cedar Elm    | 8208        | 9        | Fair      | Cedar Elm    | 8301        | 6.5      | Fair      | Cedar Elm    | 8392        | 7.5      | Fair      | Cedar Elm    | 8483        | 12       | Fair      | American Elm | 8572        | 12       | Fair      | Cedar Elm    | 8662        | 6        | Fair      | Cedar Elm    |
| 7939        | 8.5      | Fair      | Cedar Elm    | 8029        | 21       | Fair      | Cedar Elm    | 8119        | 9.5      | Fair      | Cedar Elm    | 8209        | 40.5     | Fair      | Cedar Elm    | 8302        | 8.5      | Fair      | Cedar Elm    | 8393        | 9        | Fair      | Cedar Elm    | 8484        | 8.5      | Fair      | American Elm | 8573        | 14       | Fair      | Cedar Elm    | 8663        | 17.5     | Fair      | Cedar Elm    |
| 7940        | 21.5     | Fair      | Cedar Elm    | 8030        | 16       | Fair      | Cedar Elm    | 8120        | 6        | Fair      | Cedar Elm    | 8210        | 44       | Fair      | Cedar Elm    | 8303        | 10.5     | Fair      | Cedar Elm    | 8394        | 7        | Fair      | Cedar Elm    | 8485        | 8        | Fair      | American Elm | 8574        | 10       | Fair      | Cedar Elm    | 8664        | 10.5     | Fair      | Cedar Elm    |
| 7941        | 13       | Fair      | Cedar Elm    | 8031        | 10       | Fair      | Cedar Elm    | 8121        | 7.5      | Fair      | Cedar Elm    | 8211        | 8.5      | Fair      | Cedar Elm    | 8304        | 10       | Fair      | Cedar Elm    | 8395        | 7        | Fair      | Cedar Elm    | 8486        | 9        | Fair      | American Elm | 8575        | 16       | Fair      | Cedar Elm    | 8665        | 7.5      | Fair      | Cedar Elm    |
| 7942        | 7        | Fair      | Cedar Elm    | 8032        | 14       | Fair      | Cedar Elm    | 8122        | 6        | Fair      | Cedar Elm    | 8212        | 9.5      | Fair      | Cedar Elm    | 8305        | 42       | Fair      | Cedar Elm    | 8396        | 8        | Fair      | Cedar Elm    | 8487        | 6        | Fair      | American Elm | 8576        | 8.5      | Fair      | Cedar Elm    | 8666        | 20.5     | Fair      | Cedar Elm    |
| 7943        | 8        | Fair      | Cedar Elm    | 8033        | 42.5     | Fair      | Cedar Elm    | 8123        | 9.5      | Fair      | Cedar Elm    | 8213        | 9.5      | Fair      | Cedar Elm    | 8306        | 6        | Fair      | Cedar Elm    | 8397        | 8        | Fair      | Cedar Elm    | 8488        | 6        | Fair      | Cedar Elm    | 8577        | 12       | Fair      | Cedar Elm    | 8667        | 11.5     | Fair      | Cedar Elm    |
| 7944        | 19       | Fair      | Cedar Elm    | 8034        | 9.5      | Fair      | Cedar Elm    | 8124        | 7.5      | Fair      | Cedar Elm    | 8214        | 42       | Fair      | Cedar Elm    | 8307        | 40       | Fair      | Cedar Elm    | 8398        | 6        | Fair      | Cedar Elm    | 8489        | 10.5     | Fair      | American Elm | 8578        | 7.5      | Fair      | Cedar Elm    | 8668        | 6.5      | Fair      | Cedar Elm    |
| 7945        | 44       | Fair      | Cedar Elm    | 8035        | 6        | Fair      | Cedar Elm    | 8125        | 7        | Fair      | Cedar Elm    | 8215        | 7        | Fair      | Cedar Elm    | 8308        | 6        | Fair      | Cedar Elm    | 8399        | 9        | Fair      | Cedar Elm    | 8490        | 6        | Fair      | Cedar Elm    | 8579        | 8.5      | Fair      | Cedar Elm    | 8669        | 27       | Fair      | Cedar Elm    |
| 7946        | 7.5      | Fair      | Cedar Elm    | 8036        | 6        | Poor      | Cedar Elm    | 8126        | 6.5      | Fair      | Cedar Elm    | 8216        | 7        | Fair      | Cedar Elm    | 8309        | 11.5     | Fair      | Cedar Elm    | 8400        | 7        | Fair      | Cedar Elm    | 8491        | 11.5     | Poor      | Cedar Elm    | 8580        | 10       | Fair      | Cedar Elm    | 8670        | 6        | Fair      | Cedar Elm    |
| 7947        | 8.5      | Fair      | Cedar Elm    | 8037        | 10.5     | Very Poor | Cedar Elm    | 8127        | 7.5      | Fair      | Cedar Elm    | 8217        | 40.5     | Fair      | Cedar Elm    | 8310        | 8        | Fair      | Cedar Elm    | 8401        | 8        | Fair      | American Elm | 8492        | 11       | Fair      | Cedar Elm    | 8581        | 9        | Fair      | Cedar Elm    | 8671        | 9.5      | Fair      | Cedar Elm    |
| 7948        | 44       | Fair      | Cedar Elm    | 8038        | 17       | Poor      | Cedar Elm    | 8128        | 9.5      | Fair      | Cedar Elm    | 8218        | 40.5     | Fair      | Cedar Elm    | 8311        | 12.5     | Fair      | Cedar Elm    | 8402        | 12.5     | Fair      | Cedar Elm    | 8493        | 6        | Fair      | Cedar Elm    | 8582        | 7.5      | Fair      | Cedar Elm    | 8672        | 11.5     | Fair      | Cedar Elm    |
| 7949        | 40.5     | Fair      | Cedar Elm    | 8039        | 14       | Fair      | Cedar Elm    | 8129        | 6.5      | Fair      | Cedar Elm    | 8219        | 40       | Fair      | Cedar Elm    | 8312        | 8.5      | Fair      | Cedar Elm    | 8403        | 6.5      | Fair      | Cedar Elm    | 8494        | 7        | Fair      | Cedar Elm    | 8583        | 9.5      | Fair      | Cedar Elm    | 8673        | 9        | Fair      | Cedar Elm    |
| 7950        | 15.5     | Fair      | Cedar Elm    | 8040        | 10.5     | Fair      | Cedar Elm    | 8130        | 6        | Fair      | Cedar Elm    | 8220        | 49       | Fair      | Cedar Elm    | 8313        | 8        | Fair      | Cedar Elm    | 8404        | 9        | Fair      | Cedar Elm    | 8495        | 10       | Fair      | Cedar Elm    | 8584        | 8        | Fair      | Cedar Elm    | 8674        | 9.5      | Fair      | Cedar Elm    |
| 7951        | 12.5     | Fair      | Cedar Elm    | 8041        | 21       | Fair      | Cedar Elm    | 8131        | 6.5      | Fair      | Cedar Elm    | 8221        | 7        | Fair      | Cedar Elm    | 8314        | 7        | Fair      | Cedar Elm    | 8405        | 15       | Fair      | Cedar Elm    | 8496        | 8        | Fair      | Cedar Elm    | 8585        | 24.5     | Fair      | Cedar Elm    | 8675        | 9        | Fair      | Cedar Elm    |
| 7952        | 28       | Fair      | Cedar Elm    | 8042        | 8        | Fair      | Cedar Elm    | 8132        | 7        | Fair      | Cedar Elm    | 8222        | 6        | Fair      | Cedar Elm    | 8315        | 7        | Fair      | Cedar Elm    | 8406        | 11       | Fair      | Cedar Elm    | 8497        | 7        | Fair      | Cedar Elm    | 8586        | 40.5     | Fair      | Cedar Elm    | 8676        | 8        | Fair      | Cedar Elm    |
| 7953        | 22.5     | Fair      | Cedar Elm    | 8043        | 8        | Fair      | Cedar Elm    | 8133        | 6        | Fair      | Cedar Elm    | 8223        | 7.5      | Fair      | Cedar Elm    | 8316        | 9.5      | Fair      | Cedar Elm    | 8407        | 9.5      | Fair      | Cedar Elm    | 8498        | 6        | Fair      | Cedar Elm    | 8587        | 6.5      | Fair      | Cedar Elm    | 8677        | 15.5     | Fair      | Cedar Elm    |
| 7954        | 7        | Fair      | American Elm | 8044        | 11.5     | Very Poor | Cedar Elm    | 8134        | 7.5      | Fair      | Cedar Elm    | 8224        | 6        | Fair      | Cedar Elm    | 8317        | 11.5     | Fair      | Cedar Elm    | 8408        | 7        | Fair      | Cedar Elm    | 8499        | 11.5     | Fair      | Cedar Elm    | 8588        | 6.5      | Fair      | Cedar Elm    | 8678        | 6.5      | Fair      | Cedar Elm    |
| 7955        | 9        | Fair      | Cedar Elm    | 8045        | 6        | Poor      | Cedar Elm    | 8135        | 6.5      | Fair      | Cedar Elm    | 8225        | 43       | Fair      | Cedar Elm    | 8318        | 9        | Fair      | Cedar Elm    | 8409        | 10.5     | Fair      | Cedar Elm    | 8500        | 7        | Fair      | American Elm | 8589        | 8.5      | Fair      | Cedar Elm    | 8679        | 8.5      | Fair      | Cedar Elm    |
| 7956        | 14.5     | Fair      | Cedar Elm    | 8046        | 9        | Fair      | Cedar Elm    | 8136        | 7        | Fair      | Cedar Elm    | 8226        | 12       | Fair      | Cedar Elm    | 8319        | 11.5     | Fair      | Cedar Elm    | 8410        | 17.5     | Fair      | Cedar Elm    | 8501        | 6        | Fair      | Cedar Elm    | 8590        | 20       | Fair      | Cedar Elm    | 8680        | 12       | Fair      | Cedar Elm    |
| 7957        | 8        | Fair      | Cedar Elm    | 8047        | 9.5      | Fair      | Cedar Elm    | 8137        | 6        | Fair      | Cedar Elm    | 8227        | 16.5     | Fair      | Cedar Elm    | 8320        | 8        | Fair      | Cedar Elm    | 8411        | 15.5     | Fair      | Cedar Elm    | 8502        | 12.5     | Fair      | Cedar Elm    | 8591        | 8        | Fair      | Cedar Elm    | 8681        | 6.5      | Fair      | Cedar Elm    |
| 7958        | 10.5     | Fair      | Cedar Elm    | 8048        | 17.5     | Fair      | Cedar Elm    | 8138        | 8        | Fair      | Cedar Elm    | 8228        | 17       | Fair      | Cedar Elm    | 8321        | 45       | Fair      | Cedar Elm    | 8412        | 9.5      | Fair      | Cedar Elm    | 8503        | 17.5     | Fair      | Cedar Elm    | 8592        | 42       | Fair      | American Elm | 8682        | 6        | Fair      | Cedar Elm    |
| 7959        | 13       | Fair      | Cedar Elm    | 8049        | 7        | Fair      | Cedar Elm    | 8139        | 8        | Fair      | Cedar Elm    | 8229        | 6.5      | Fair      | Cedar Elm    | 8322        | 44       | Fair      | Cedar Elm    | 8413        | 10       | Fair      | Cedar Elm    | 8504        | 7        | Fair      | Cedar Elm    | 8593        | 8.5      | Fair      | American Elm | 8683        | 6        | Fair      | Cedar Elm    |
| 7960        | 42       | Fair      | Cedar Elm    | 8050        | 30       | Fair      | American Elm | 8140        | 6.5      | Fair      | Cedar Elm    | 8230        | 7.5      | Fair      | Cedar Elm    | 8323        | 9.5      | Fair      | Cedar Elm    | 8414        | 11       | Fair      | Cedar Elm    | 8505        | 6.5      | Fair      | Cedar Elm    | 8594        | 7        | Fair      | Cedar Elm    | 8684        | 18       | Fair      | Cedar Elm    |
| 7961        | 9        | Fair      | Cedar Elm    | 8051        | 14.5     | Fair      | American Elm | 8141        | 9        | Fair      | Cedar Elm    | 8231        | 6.5      | Fair      | Cedar Elm    | 8324        | 9.5      | Fair      | Cedar Elm    | 8415        | 10       | Fair      | Cedar Elm    | 8506        | 6.5      | Fair      | Cedar Elm    | 8595        | 9.5      | Fair      | American Elm | 8685        | 6        | Fair      | Cedar Elm    |
| 7962        | 9.5      | Fair      | Cedar Elm    | 8052        | 30       | Poor      | American Elm | 8142        | 7        | Fair      | Cedar Elm    | 8232        | 22.5     | Fair      | Cedar Elm    | 8325        | 7.5      | Fair      | Cedar Elm    | 8416        | 12       | Fair      | Cedar Elm    | 8507        | 6        | Fair      | Cedar Elm    | 8596        | 6        | Fair      | Cedar Elm    | 8686        | 6        | Fair      | Cedar Elm    |
| 7963        | 6        | Fair      | Cedar Elm    | 8053        | 17.5     | Fair      | American Elm | 8143        | 6        | Fair      | Cedar Elm    | 8233        | 11       | Fair      | Cedar Elm    | 8326        | 8        | Fair      | Cedar Elm    | 8417        | 11       | Fair      | Cedar Elm    | 8508        | 6        | Fair      | Cedar Elm    | 8597        | 7        | Fair      | Cedar Elm    | 8687        | 9        | Fair      | Cedar Elm    |
| 7964        | 9        | Fair      | Cedar Elm    | 8054        | 22       | Fair      | American Elm | 8144        | 6        | Fair      | Cedar Elm    | 8234        | 10.5     | Fair      | Cedar Elm    | 8327        | 7.5      | Fair      | Cedar Elm    | 8418        | 8        | Fair      | Cedar Elm    | 8509        | 6        | Fair      | Cedar Elm    | 8598        | 15       | Fair      | Cedar Elm    | 8688        | 7        | Fair      | Cedar Elm    |
| 7965        | 6        | Fair      | Cedar Elm    | 8055        | 33       | Fair      | American Elm | 8145        | 6        | Fair      | Cedar Elm    | 8235        | 13.5     | Fair      | Cedar Elm    | 8328        | 8.5      | Fair      | Cedar Elm    | 8419        | 17       | Fair      | Cedar Elm    | 8510        | 13.5     | Fair      | Cedar Elm    | 8599        | 8        | Fair      | Cedar Elm    | 8689        | 11       | Fair      | Cedar Elm    |
| 7966        | 28.5     | Fair      | Cedar Elm    | 8056        | 13.5     | Poor      | American Elm | 8146        | 6.5      | Fair      | Cedar Elm    | 8236        | 14       | Fair      | Cedar Elm    | 8329        | 9        | Fair      | Cedar Elm    | 8420        | 11       | Fair      | Cedar Elm    | 8511        | 7.5      | Fair      | Cedar Elm    | 8600        | 8        | Fair      | Cedar Elm    | 8690        | 6.5      | Fair      | Cedar Elm    |
| 7967        | 14.5     | Fair      | Cedar Elm    | 8057        | 13       | Fair      | American Elm | 8147        | 8        | Fair      | Cedar Elm    | 8237        | 23       | Fair      | Cedar Elm    | 8330        | 7        | Fair      | Cedar Elm    | 8421        | 7        | Fair      | Cedar Elm    | 8512        | 13.5     | Fair      | American Elm | 8601        | 7        | Fair      | Cedar Elm    | 8691        | 6.5      | Fair      | Cedar Elm    |
| 7968        | 9        | Fair      | Cedar Elm    | 8058        | 13       | Poor      | American Elm | 8148        | 8        | Fair      | Cedar Elm    | 8238        | 21.5     | Fair      | Cedar Elm    | 8331        | 6.5      | Fair      | Cedar Elm    | 8422        | 12.5     | Fair      | Cedar Elm    | 8513        | 6        | Fair      | American Elm | 8602        | 6.5      | Fair      | Cedar Elm    | 8692        | 6.5      | Fair      | Cedar Elm    |
| 7969        | 10       | Fair      | Cedar Elm    | 8059        | 13       | Fair      | Cedar Elm    | 8149        | 7        | Fair      | Cedar Elm    | 8239        | 19.5     | Fair      | Cedar Elm    | 8332        | 6.5      | Fair      | Cedar Elm    | 8423        | 7        | Fair      | Cedar Elm    | 8514        | 44       | Fair      | American Elm | 8603        | 6.5      | Fair      | Cedar Elm    | 8693        | 7        | Fair      | Cedar Elm    |
| 7970        | 9        | Fair      | Cedar Elm    | 8060        | 10.5     | Fair      | Cedar Elm    | 8150        | 7.5      | Fair      | Cedar Elm    | 8240        | 14       | Fair      | Cedar Elm    | 8333        | 10.5     | Fair      | Cedar Elm    | 8424        | 8        | Fair      | Cedar Elm    | 8515        | 7        | Fair      | American Elm | 8604        | 7        | Fair      | Cedar Elm    | 8694        | 7        | Fair      | Cedar Elm    |
| 7971        | 44.5     | Fair      | Cedar Elm    | 8061        | 14       | Fair      | Cedar Elm    | 8151        | 8        | Fair      | Cedar Elm    | 8241        | 10       | Fair      | Cedar Elm    | 8334        | 6.5      | Fair      | Cedar Elm    | 8425        | 11       | Fair      | Cedar Elm    | 8516        | 9        | Fair      | American Elm | 8605        | 24.5     | Fair      | American Elm | 8695        | 6        | Fair      | Cedar Elm    |
| 7972        | 8.5      | Fair      | Cedar Elm    | 8062        | 8        | Fair      | Cedar Elm    | 8152        | 40.5     | Fair      | Cedar Elm    | 8242        | 7        | Fair      | Cedar Elm    | 8335        | 10       | Fair      | Cedar Elm    | 8426        | 12       | Fair      | Cedar Elm    | 8517        | 11       | Fair      | American Elm | 8606        | 9.5      | Fair      | American Elm | 8696        | 8        | Fair      | Cedar Elm    |
| 7973        | 43       | Poor      | Cedar Elm    | 8063        | 11.5     | Fair      | Cedar Elm    | 8153        | 6        | Fair      | Cedar Elm    | 8243        | 8        | Fair      | Cedar Elm    | 8336        | 7.5      | Fair      | Cedar Elm    | 8427        | 10.5     | Fair      | American Elm | 8518        | 9        | Fair      | American Elm | 8607        | 8        | Fair      | Cedar Elm    | 8697        | 8        | Fair      | Cedar Elm    |
| 7974        | 44       | Fair      | Cedar Elm    | 8064        | 10       | Fair      | Cedar Elm    | 8154        | 6        | Fair      |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |             |          |           |              |



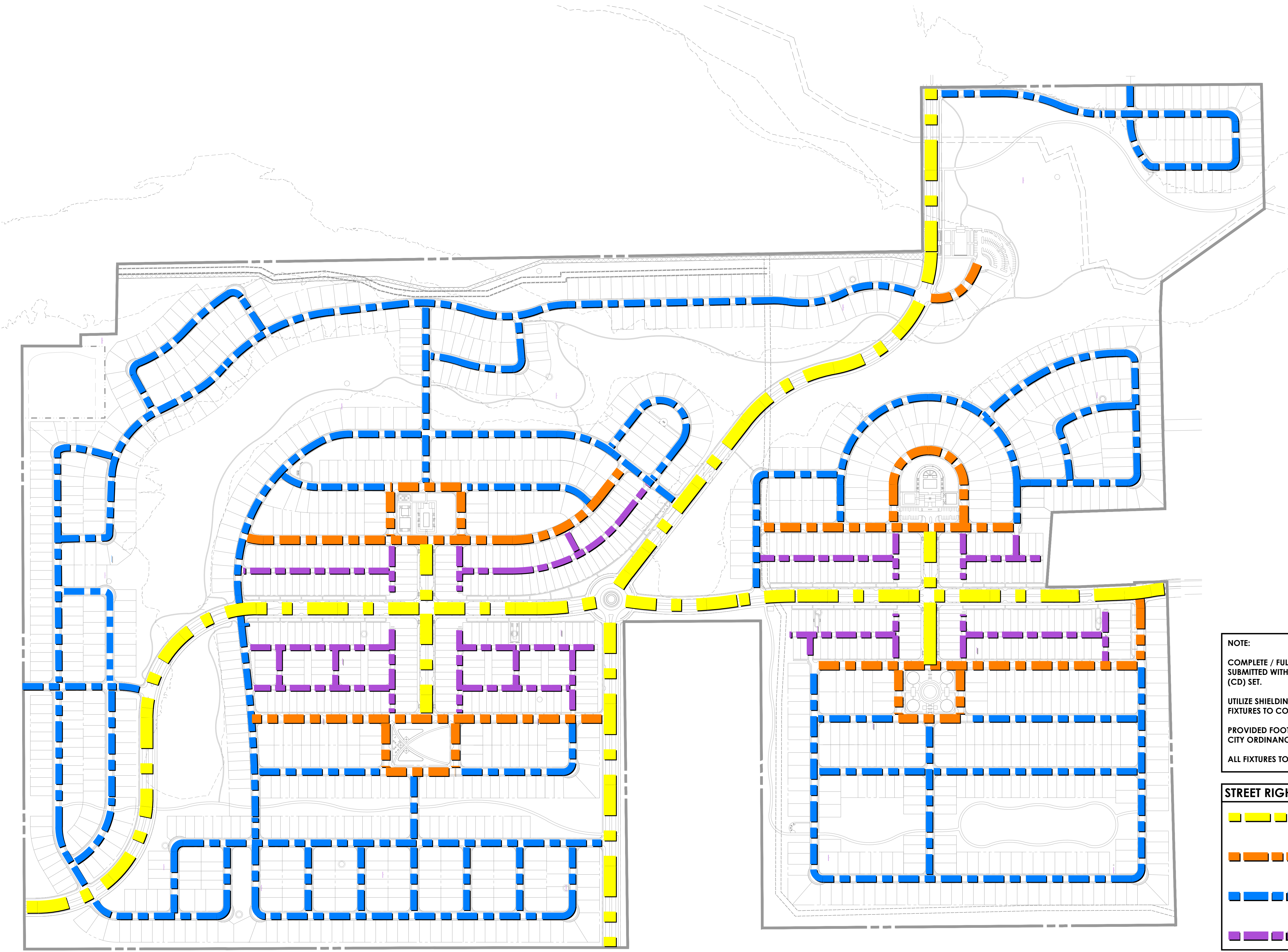
STREET LIGHT OPTIONS  
HISTORICAL PENDANT



PHILADELPHIA WITH  
SINGLE PENDANT



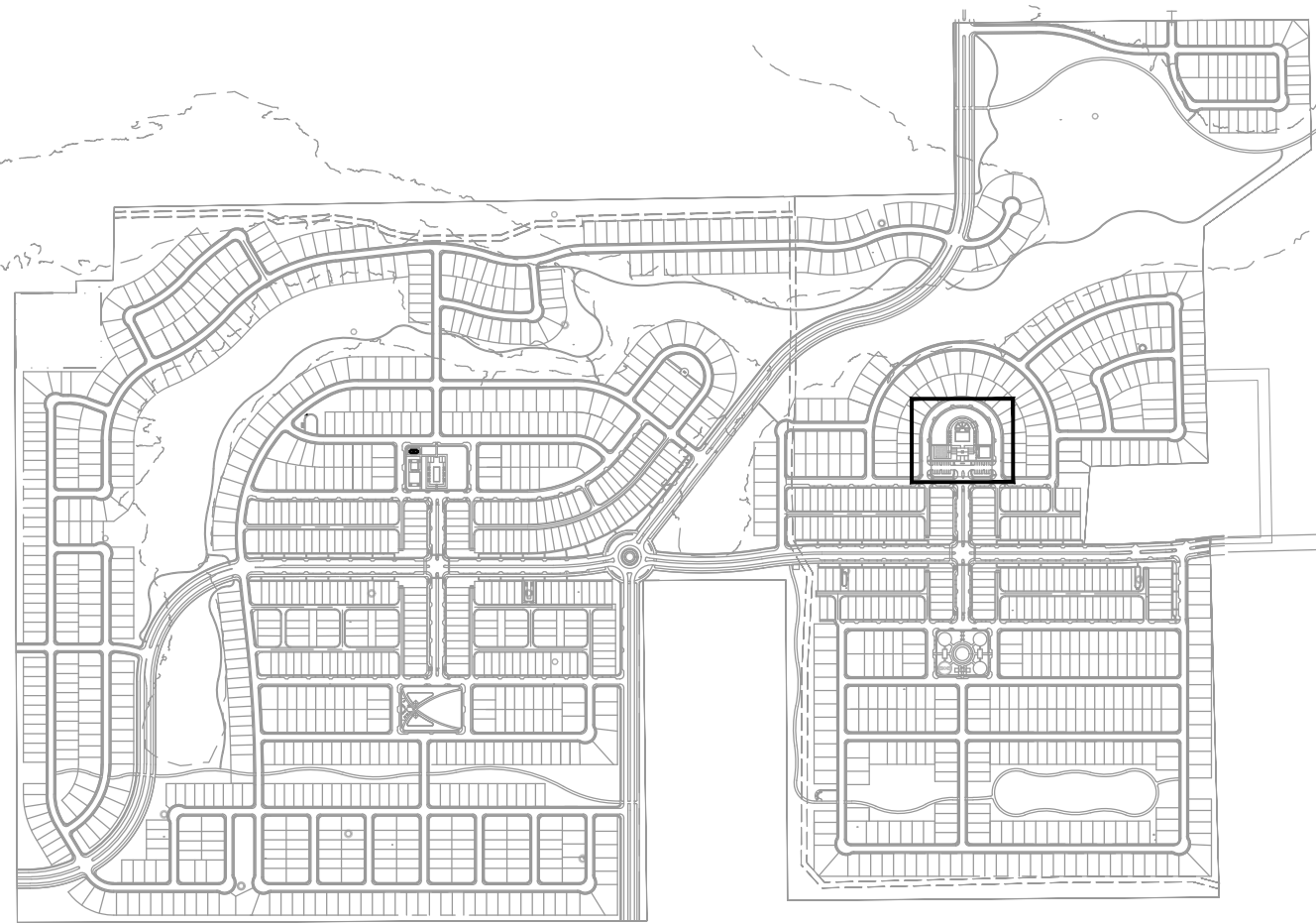
PHILADELPHIA WITH  
DOUBLE PENDANT



NOTE:  
COMPLETE / FULL PHOTOMETRICS PLANS WILL BE  
SUBMITTED WITH FINAL CONSTRUCTION DOCUMENT  
(CD) SET.  
  
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK SKY INITIATIVE.  
  
PROVIDED FOOTCANDLE TO MEET ALL CODE REQ. PER  
CITY ORDINANCE  
  
ALL FIXTURES TO COMPLY WITH DARK SKY INITIATIVE

| STREET RIGHT OF WAY (ROW) LEGEND |                                 |
|----------------------------------|---------------------------------|
|                                  | 100' FT ROW -<br>MINOR ARTERIAL |
|                                  | 60' FT ROW -<br>LOCAL STREET    |
|                                  | 50' FT ROW -<br>LOCAL STREET    |
|                                  | 30' FT ALLEY                    |





KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

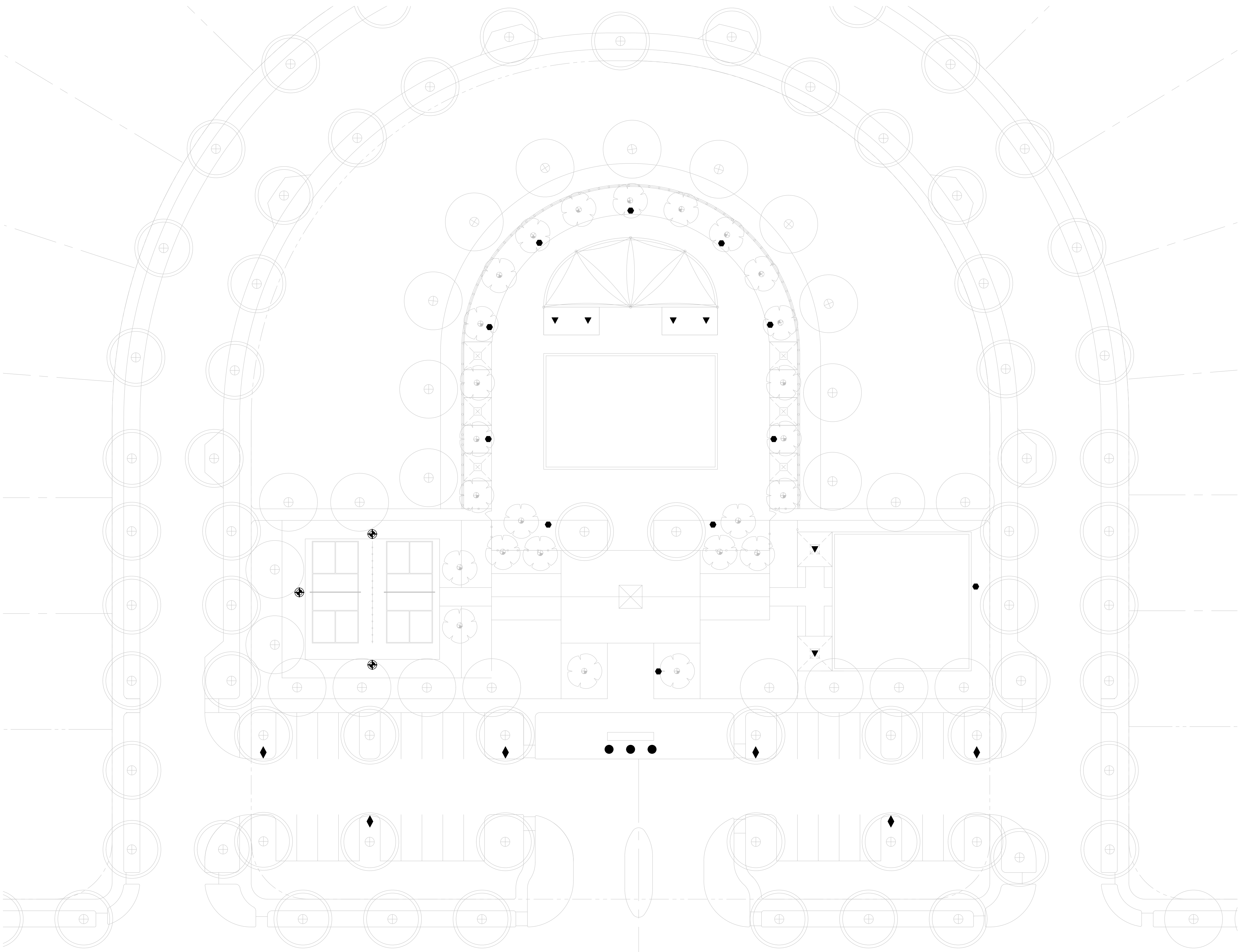
NOTE:

COMPLETE / FULL PHOTOMETRICS  
PLANS WILL BE SUBMITTED WITH  
FINAL CONSTRUCTION DOCUMENT  
(CD) SET.

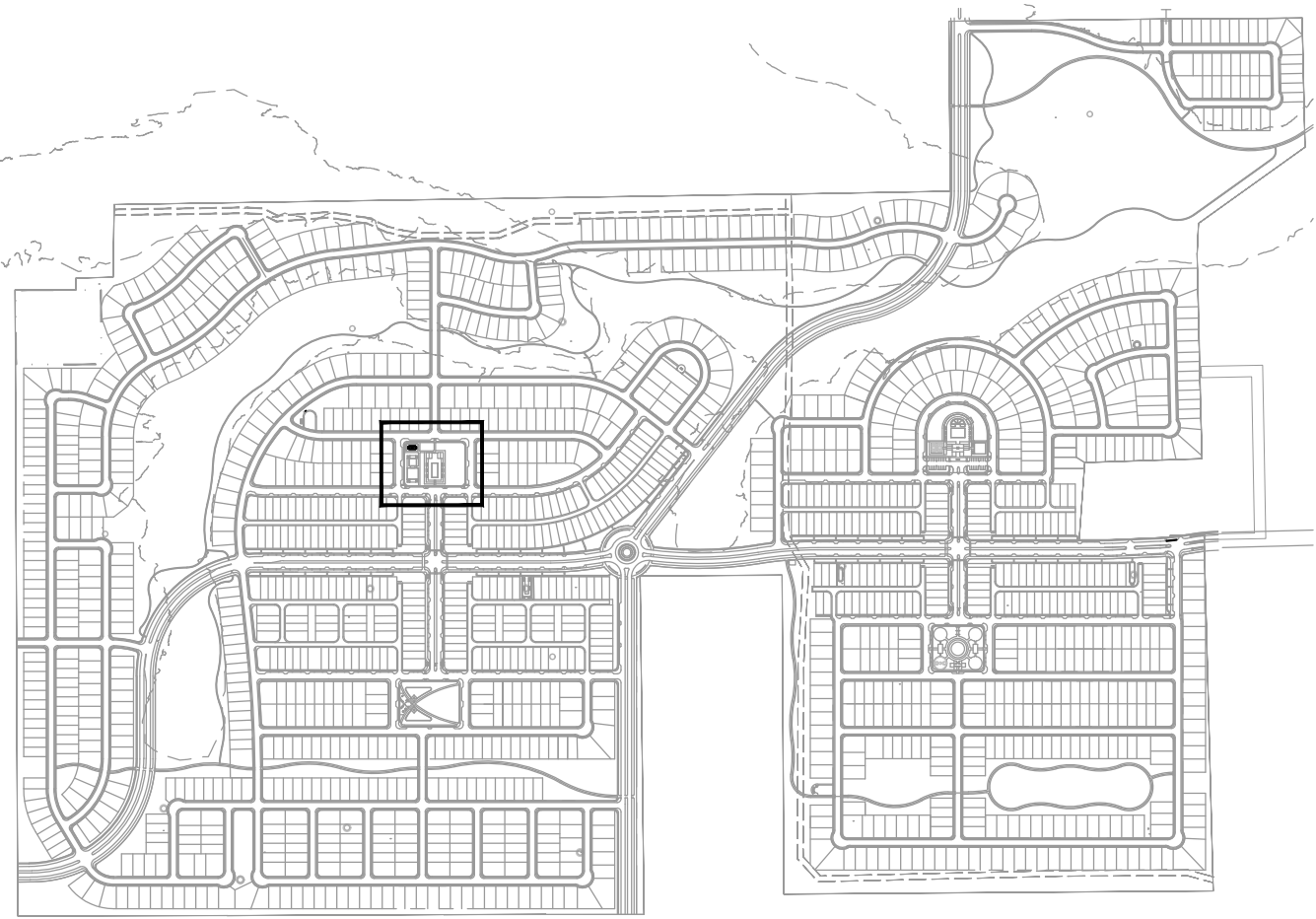
UTILIZE SHIELDING FOR ALL  
FIXTURES TO COMPLY WITH DARK  
SKY INITIATIVE.

PROVIDED FOOTCANDLE TO MEET  
ALL CODE REQ. PER CITY  
ORDINANCE

ALL FIXTURES TO COMPLY WITH  
DARK SKY INITIATIVE







KEY MAP



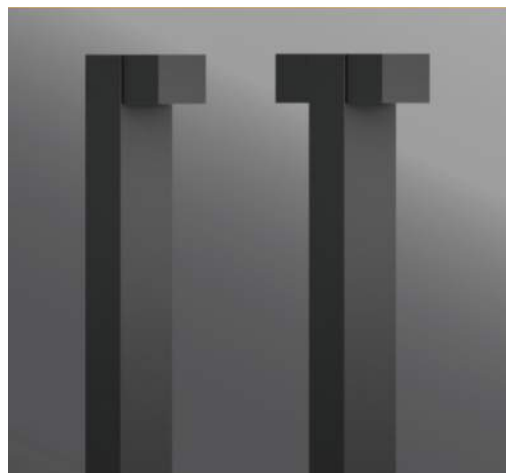
LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



LIGMAN - MUSTANG 40  
SINGLE HEAD - UMS-90281  
SPORT LIGHT



LIGMAN - LIGHT LINEAR  
PT 4 SINGLE HEAD - ULI-21172  
PEDESTRIAN POLE LIGHT



LIGMAN - GINO BOLLARD  
PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

LIGHT LEGEND

| SYM. | DESCRIPTION            |
|------|------------------------|
|      | WATER ACCENT LIGHT     |
|      | PEDESTRIAN POLE LIGHT  |
|      | PARKING LOT POLE LIGHT |
|      | TRELLIS DOWN LIGHT     |
|      | STRING / FESTOON LIGHT |
|      | UPLIGHT - SIGN         |
|      | SPORT LIGHT            |
|      | PATH / BOLLARD LIGHT   |
|      | RECESSED WALL LIGHT    |
|      | RESTROOM - MEN         |
|      | RESTROOM - WOMEN       |

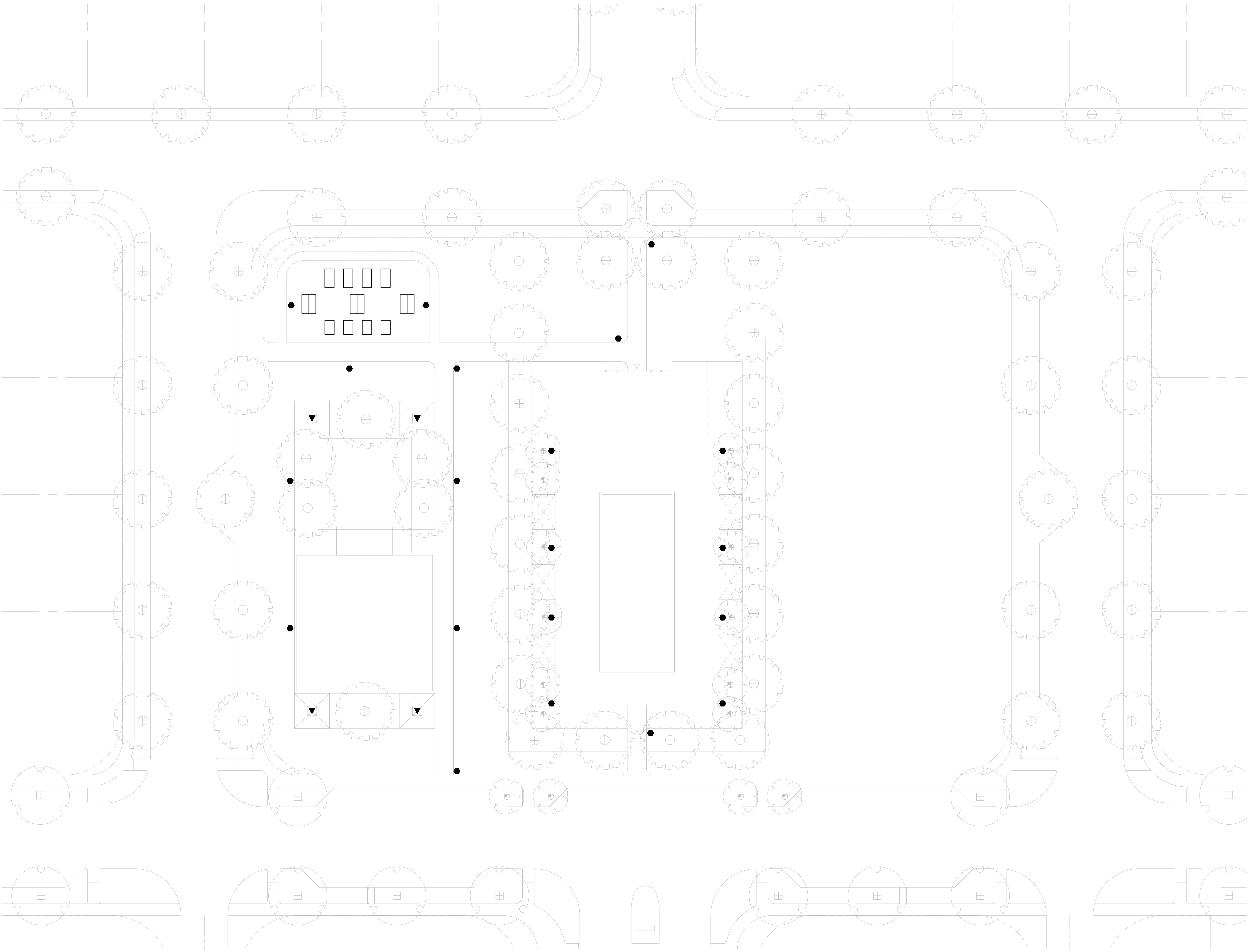
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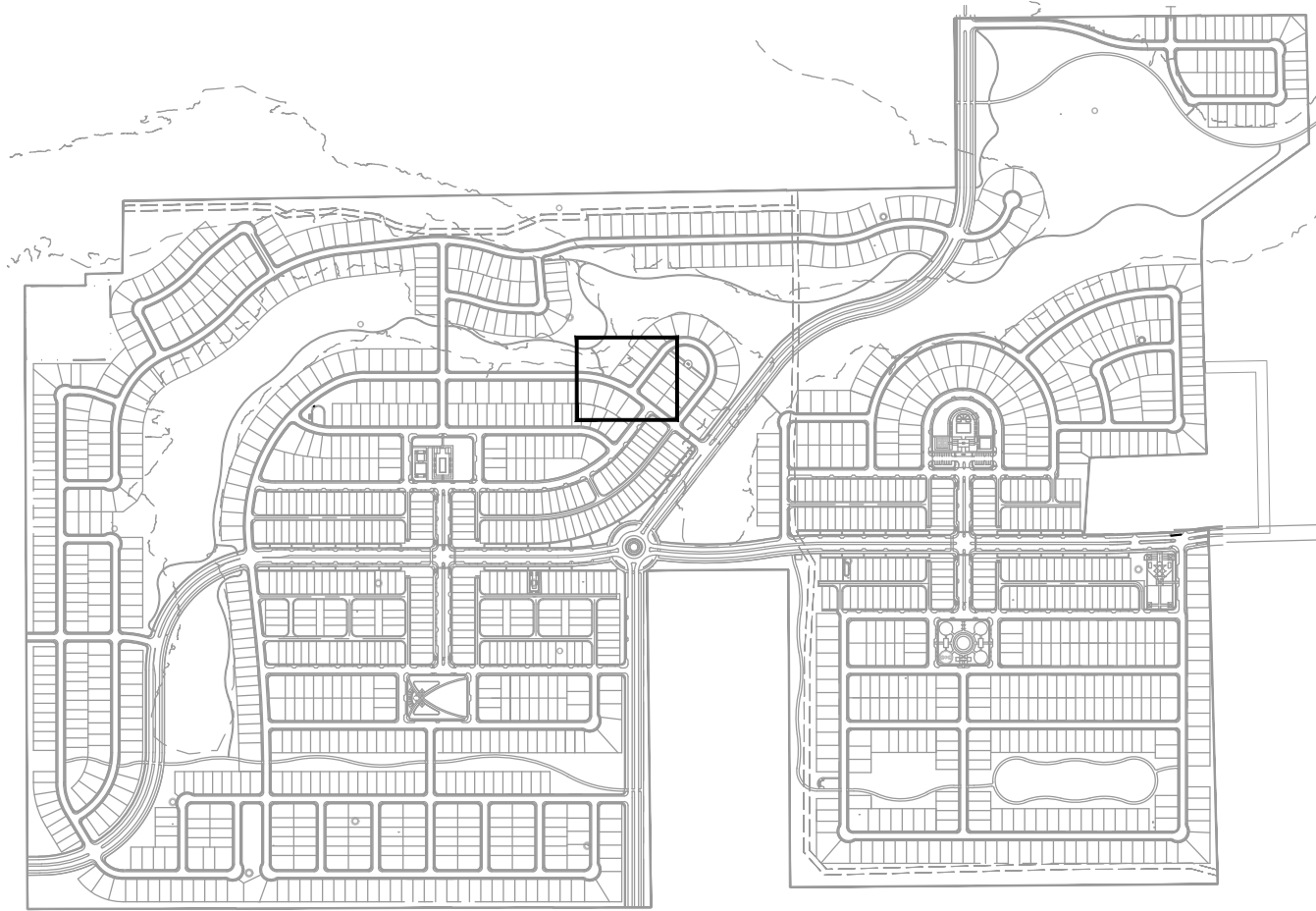
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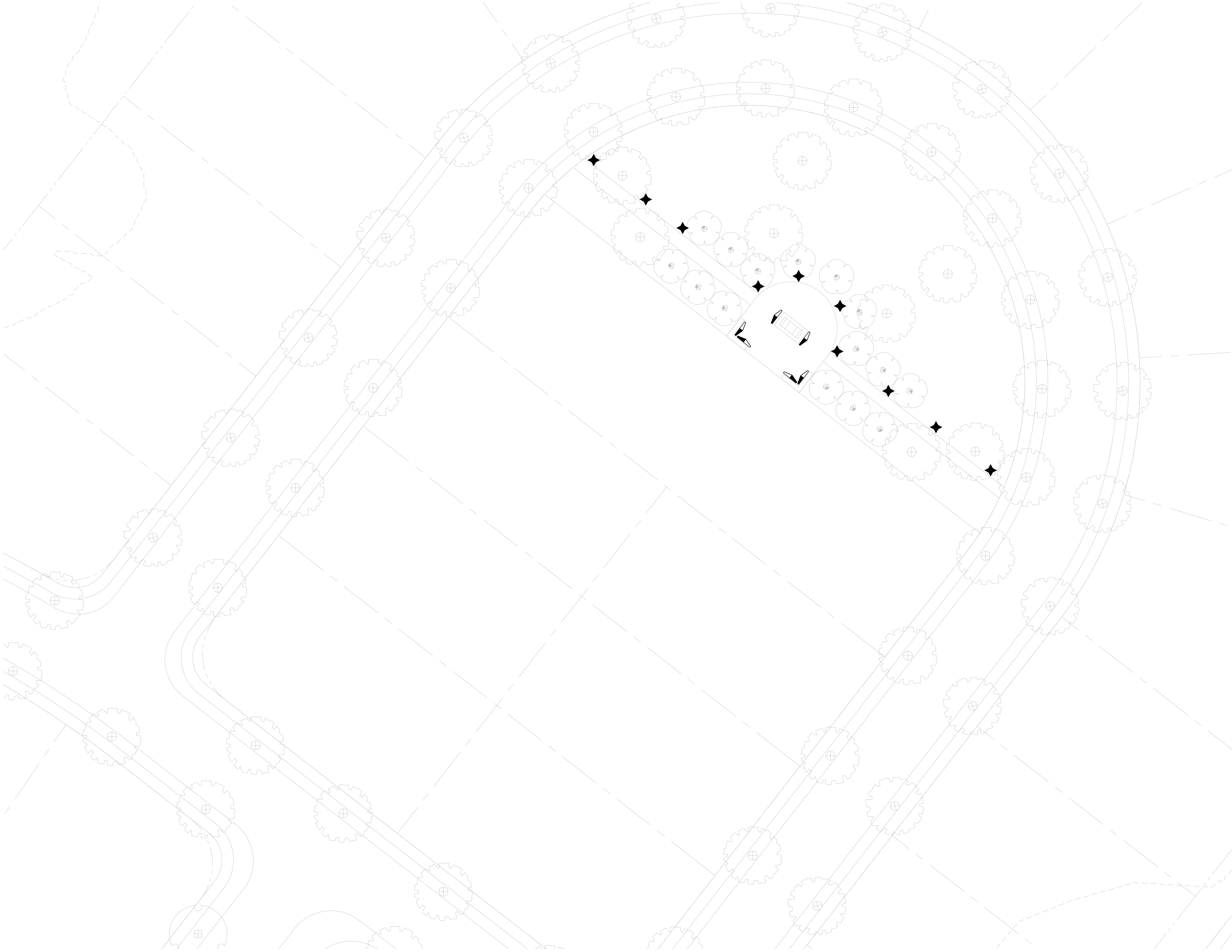
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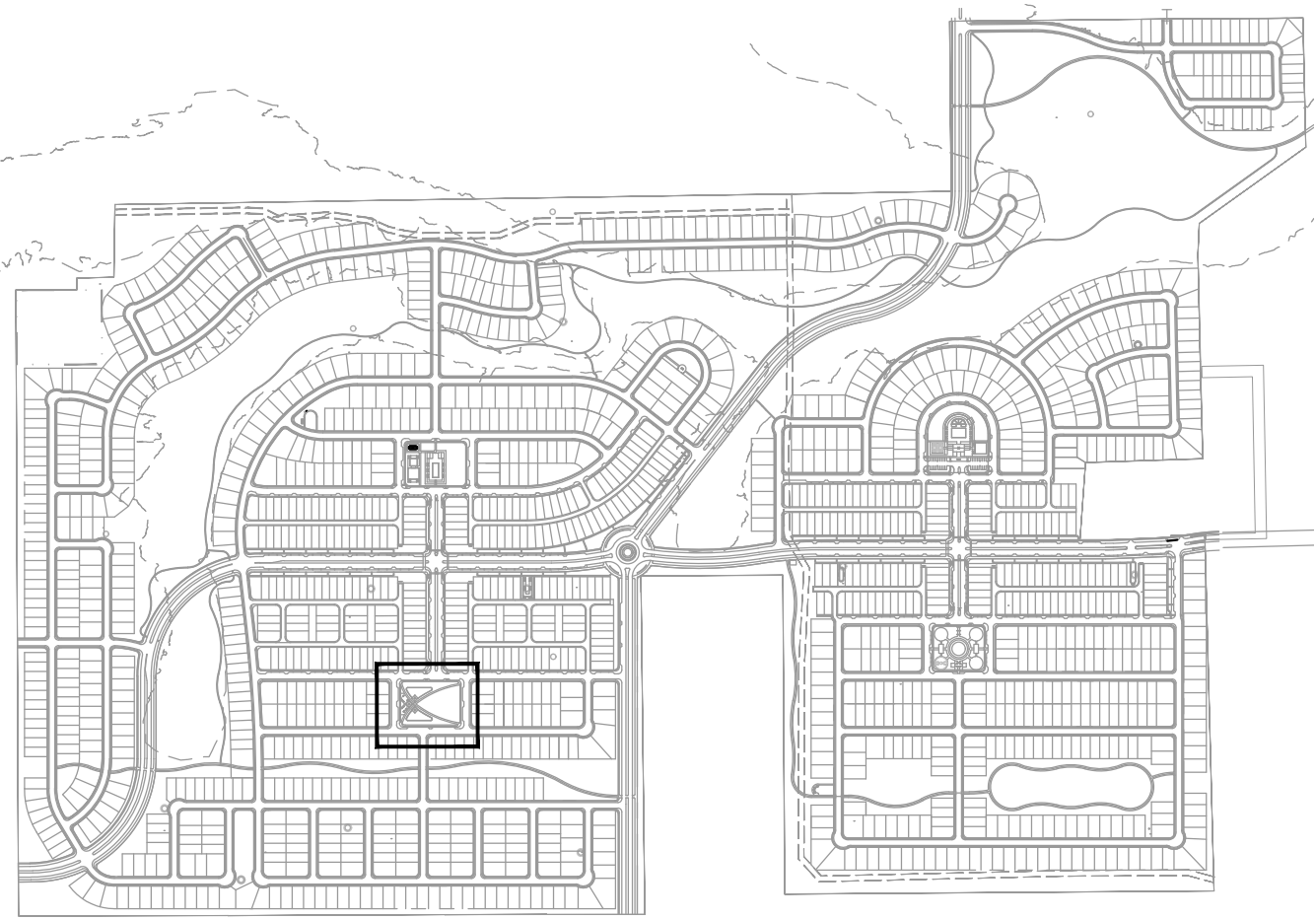
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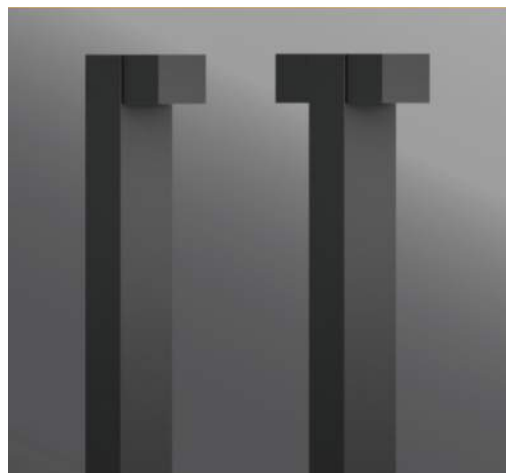
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LIGMAN - MUSTANG 40  
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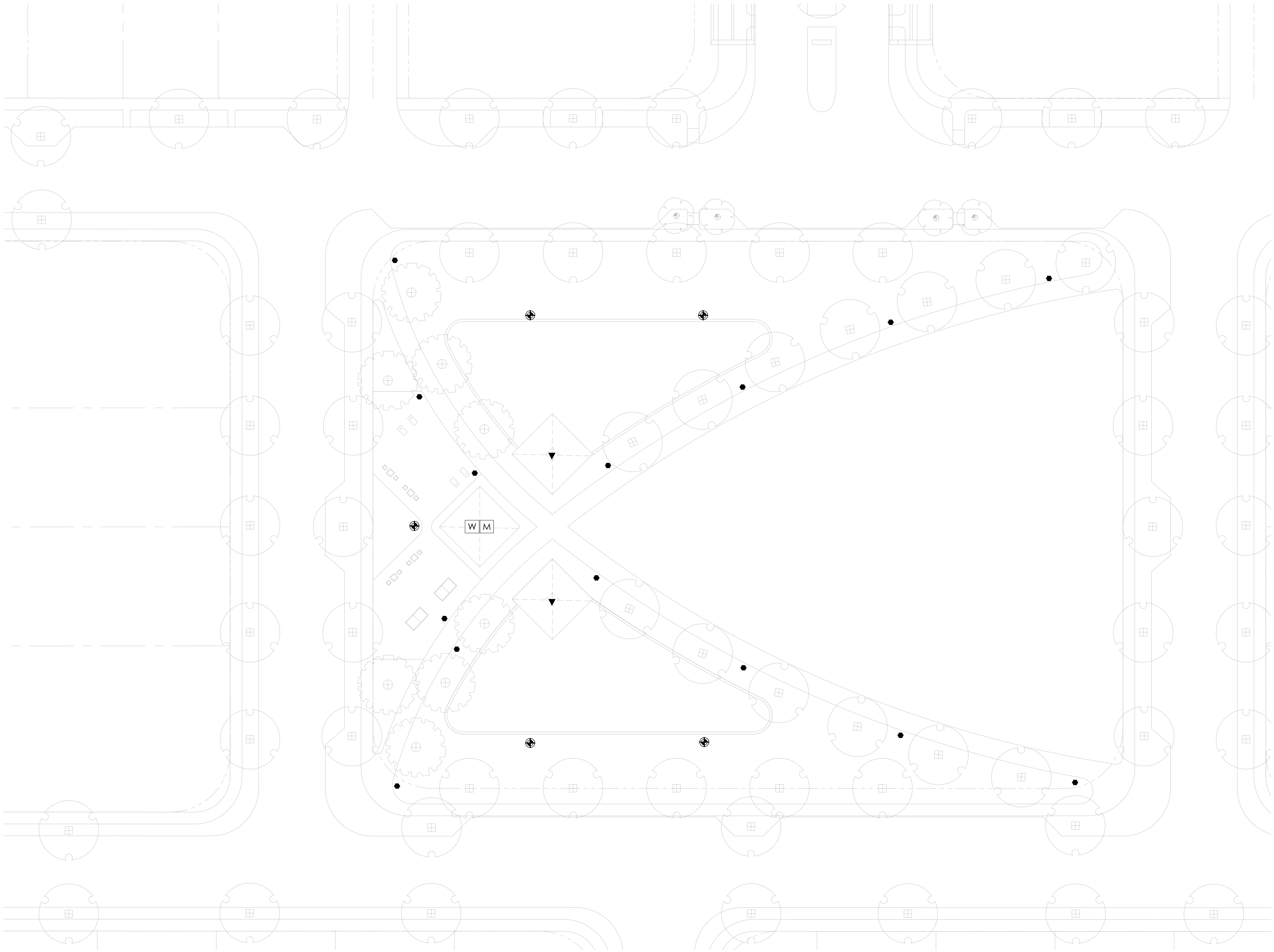


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PRAGUE 2 MEDIUM BOLLARD - UPRA-10011  
PEDESTRIAN POLE LIGHT

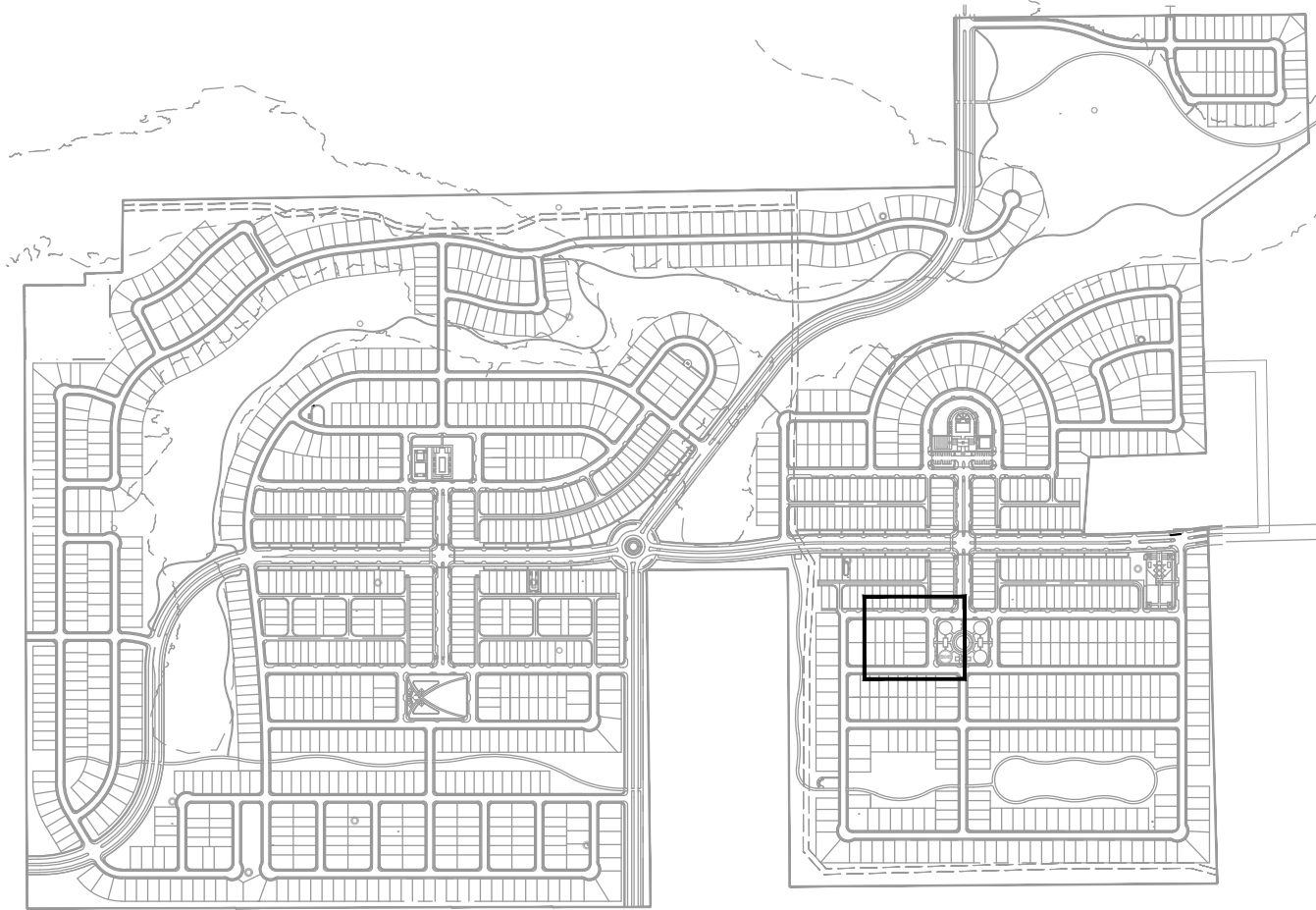
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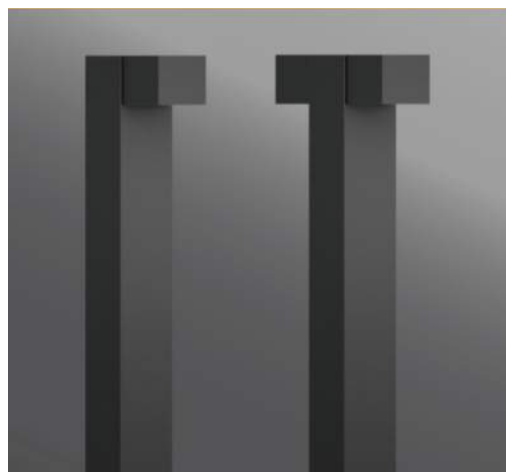
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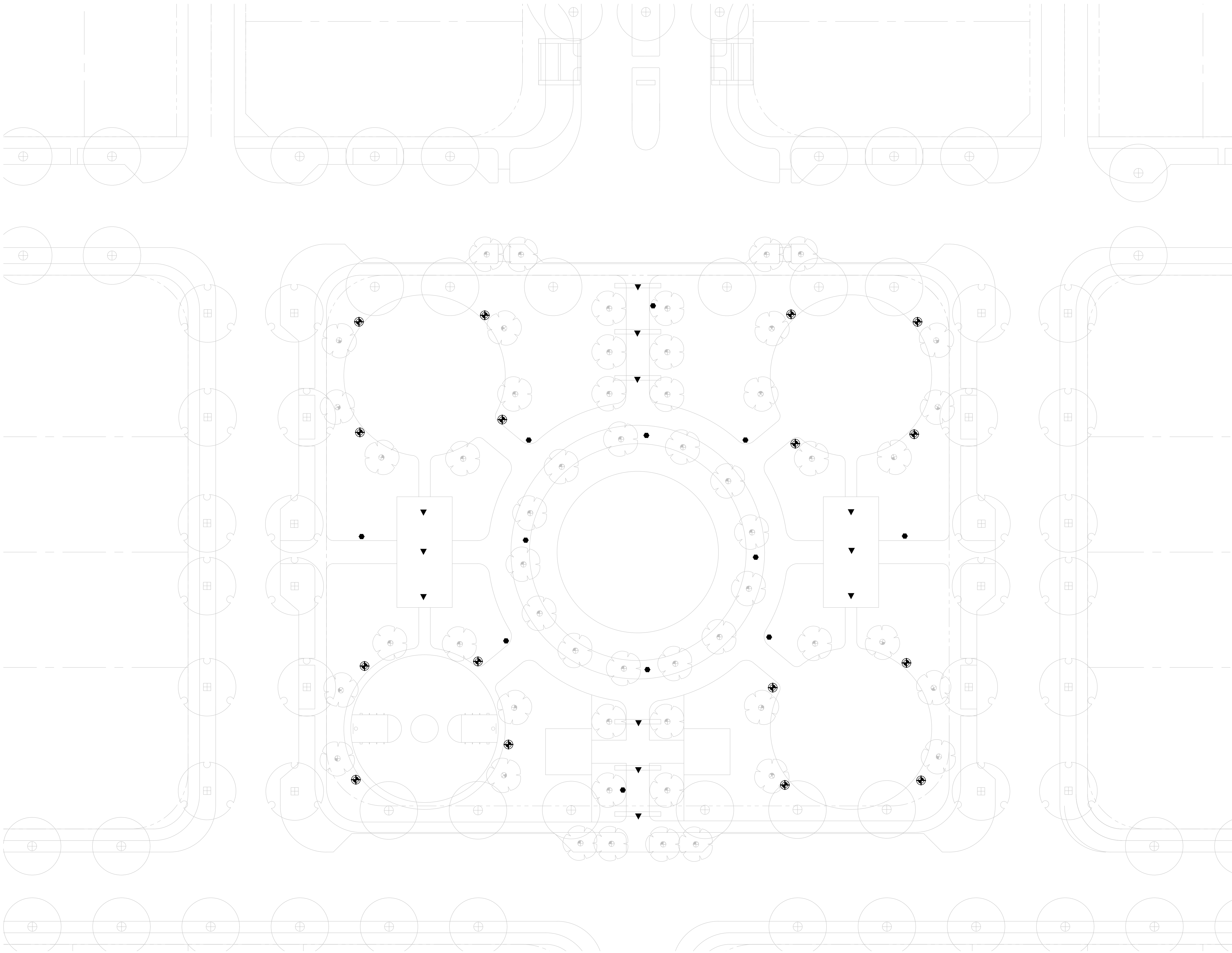
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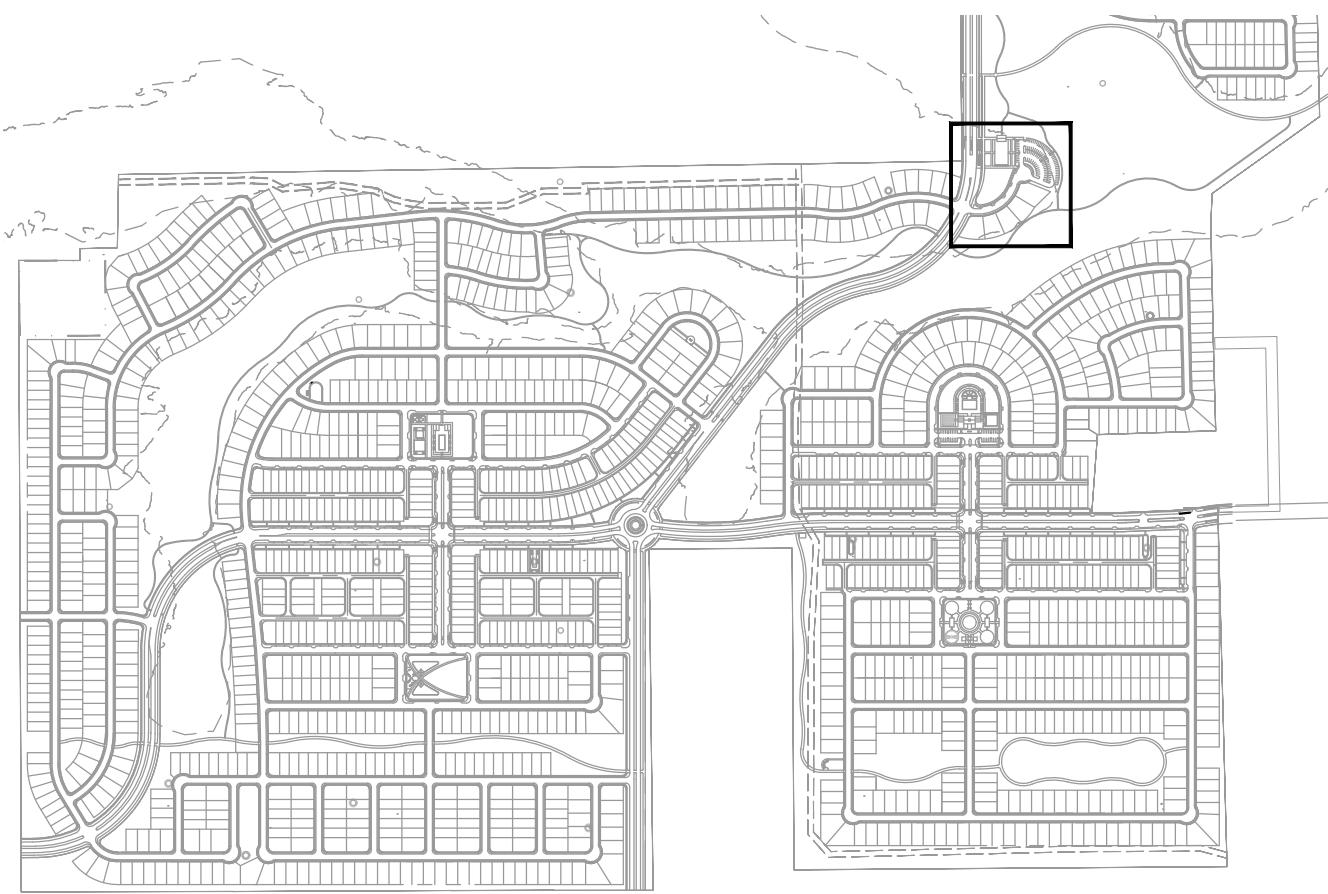
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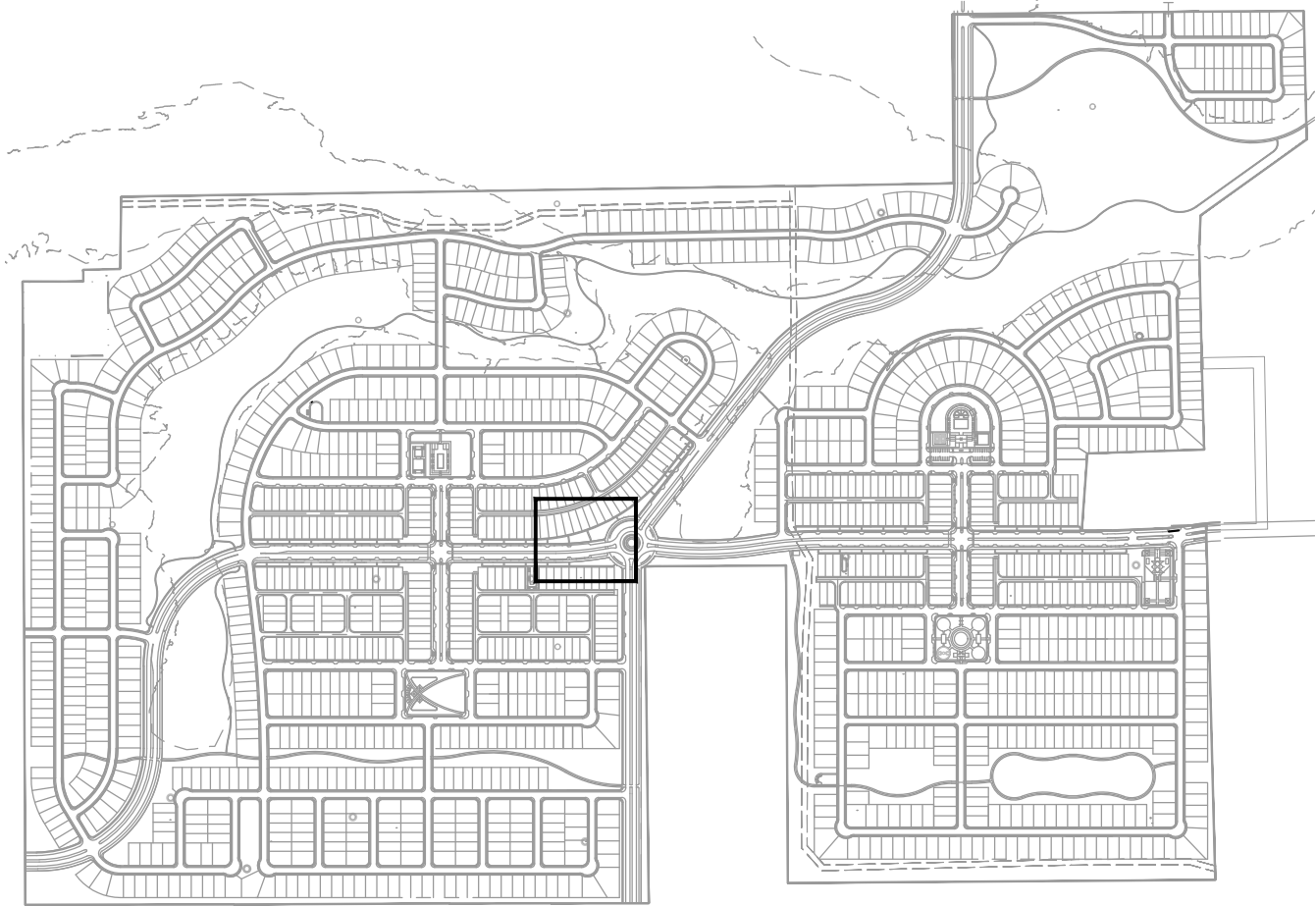
2025-04-14

# CUESTA

PAVILION PARK - PHOTOMETRIC EXHIBIT







KEY MAP



LIGMAN - LIGHT LINEAR  
PT 6 DOUBLE HEAD - ULI-21182  
PARKING LOT DOUBLE POLE LIGHT



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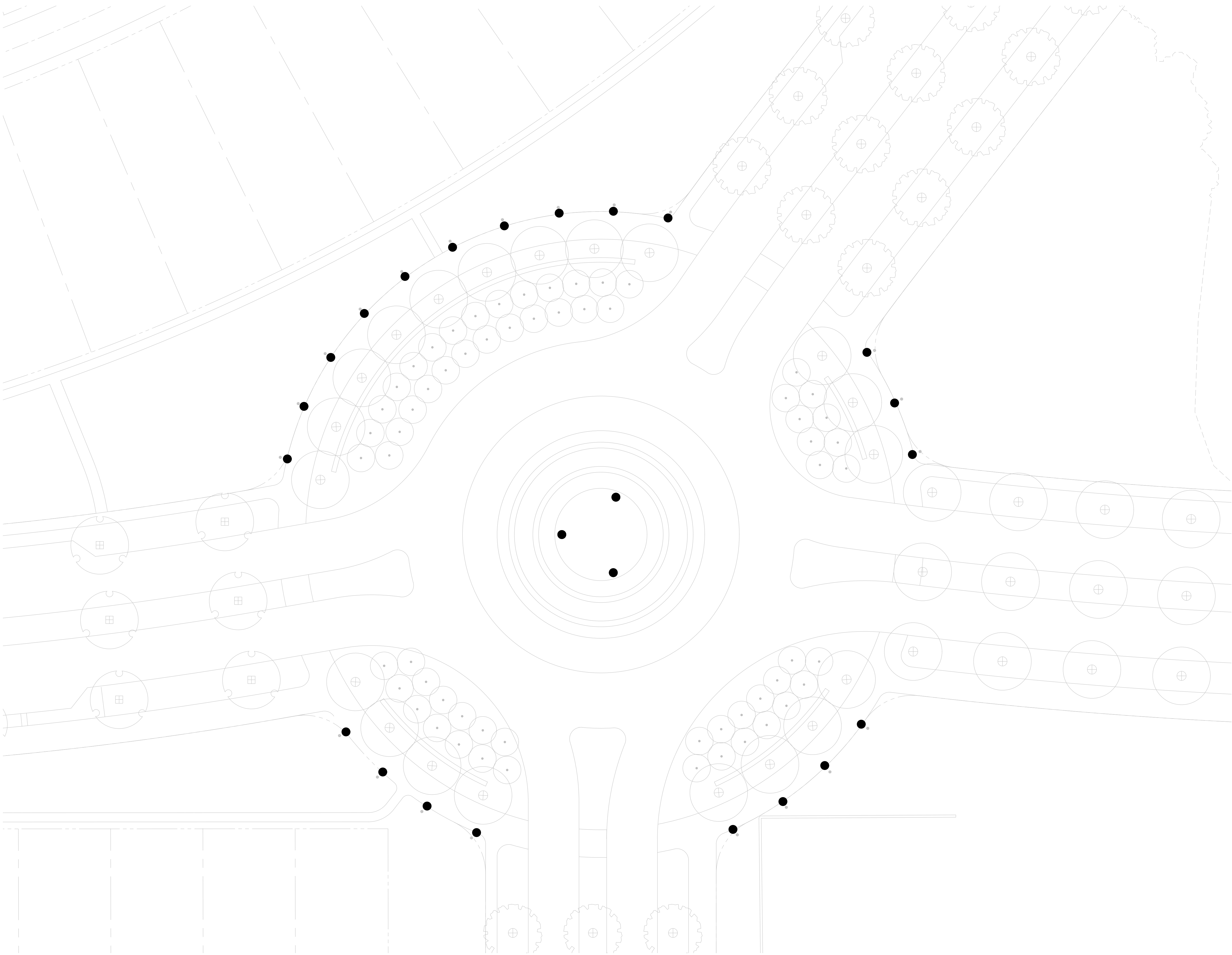
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# EXHIBIT B

## CUESTA

### DEVELOPMENT REGULATIONS

#### Planned Development – 538.99 Acres

##### I. PURPOSE

This Planned Development includes the land more particularly described on Exhibit "A" (the "Property").

The Cuesta development aims to establish a diverse and vibrant neighborhood, offering a mix of single-family homes. The trails provided throughout the Property harmonize with the Property's natural topography, and allow for connectivity within the neighborhood and broader community. The varied housing options target housing attainability and cater to residents at different life stages. The project ensures easy access to amenities and site features with connections and trails throughout the site. The central amenity, park and open space areas form the heart of the community with diverse recreational experiences, enhancing community engagement.

Development and use of the Property shall comply with the Zoning Ordinance, Chapter 52 of the City of Justin Code of Ordinances, in effect on the date of approval of this PD Ordinance (the "Zoning Ordinance"), as amended by this PD Ordinance. In the event of a conflict between the Zoning Ordinance and this PD Ordinance, this PD Ordinance shall control. In the event of a conflict between this PD Ordinance and the Concept Plan/ Development Plan (defined below) or any other exhibits attached hereto, this PD Ordinance shall control. In the event of a conflict between the Concept Plan/ Development Plan and any other exhibits attached hereto and the Zoning Ordinance, the Concept/ Development Plan and exhibits attached hereto shall control.

##### II. DEVELOPMENT PLAN

A conceptual master plan for development of the Property is attached as Exhibit "B" ("Concept Plan/ Development Plan") and all development shall generally conform to the Concept Plan/ Development Plan, except as may be modified as provided herein. The Concept Plan/ Development Plan shall satisfy all requirements under the Zoning Ordinance to submit/ approve a development plan for this PD and no further development plan or approvals by the Planning and Zoning Commission or City Council with respect to a development plan shall be required.

Changes of detail or amendments to the Concept Plan/ Development Plan, or any other exhibits attached hereto may be authorized by the Director of Development & Economic Development or his/her designated representative (the "Director") so long as such changes or amendments: do not alter the basic relationship of the proposed development to adjacent property and which do not alter the uses permitted, increase the density above 1,600 dwelling units, increase building height above 35 feet, or increase lot coverage for any residential lot above 70% and which do not decrease the required off street parking required



pursuant to Section X, or reduce the minimum yards required pursuant to Section XIII.F. of these Development Regulations (below). The applicant may appeal the decision to deny an amendment to the Concept Plan/ Development Plan or any other exhibits attached hereto to the City's Planning and Zoning Commission and may appeal the decision of the City's Planning and Zoning Commission to the City Council. For any amendments that are not authorized to be approved by the Director herein or are otherwise authorized elsewhere in the Zoning Ordinance, the applicant may apply for an amendment through the same process as a zoning amendment.

The Property may be developed in phases. The phases are not required to exactly conform to the boundaries as shown on Exhibit "C" and the phase boundaries may be adjusted at the time of platting without requiring an amendment to the Concept Plan/ Development Plan.

### **III. DEFINITIONS**

- A. 40 ft lot – means a lot with a width of at least 40 feet, but less than 50 feet.
- B. 50 ft lot – means a lot with a width of at least 50 feet, but less than 60 feet.
- C. 60 ft lot – means a lot with a width of at least 60 feet, but less than 70 feet.
- D. 70 ft lot – means a lot with a width of at least 70 feet.
- E. Masonry – shall be defined as exterior construction materials consisting of one or a combination of the following: brick material, fiber cement siding (such as Hardiplank or Hardiboard), stucco, stone, concrete and other built up/tilt panels. The Director may approve other materials as masonry materials in addition to those materials listed herein.
- F. Open Space — means an area accessible to all residents within the Property that may include without limitation landscaping, sidewalks, trails, recreational facilities (e.g., playground equipment or other recreational facilities), seating areas, a pavilion or other shade structure(s), community gathering places, benches, trees, amenities, natural features, and/or water features. Open space may also include areas that are accessible to the general public within the Property after such areas have been dedicated to the City.

### **IV. USES**

Permitted Uses – One-Family Detached Dwelling and all other uses allowed in the SF-2 — Single-family residential district ("SF-2 District") of the Zoning Ordinance shall be permitted on the Property, in addition to the following uses which shall be expressly permitted:

- 1) Amenity Centers;
- 2) Community Pools;



- 3) Gazebos;
- 4) Pavilions;
- 5) Tennis and Sport Courts;
- 6) Accessory Buildings;
- 7) Ponds, detention and/or retention areas;
- 8) Open space;
- 9) Playgrounds;
- 10) Splash pad(s);
- 11) Farmer's market (may be open to the public);
- 12) Food trucks;
- 13) Community garden(s);
- 14) Event lawn that may host periodic public events such as concerts or artistic performances [*allowed only in the Public Parks (defined herein)*]; and
- 15) Other amenities allowed or contemplated herein or in the exhibits attached hereto.

Uses allowed by Specific Use Permit in the SF-2 District are allowed in this district, subject to procedures for approval of Specific Use Permits in the Zoning Ordinance.

## **V. HOMEOWNERS' ASSOCIATION; CITY MAINTENANCE OF TRAILS**

A Homeowners' Association (HOA) will be formed and will be responsible for the maintenance of the common areas, entry features, private open space areas, and perimeter fencing and landscaping. The City will own and be responsible for the maintenance of any open space or park areas dedicated to the City pursuant to Section XI herein (including without limitation the Public Open Space and Public Parks). The City will be responsible for all maintenance and operation of any public trails (including within limitation the Nature Trail, Multi Use Trail and Regional Trail, each as defined herein).

## **VI. LANDSCAPE BUFFER**

- A. 20-foot Landscape Buffer. A landscape buffer with a minimum width of twenty (20) feet from the perimeter property line shall be provided where homes front a collector street in the locations generally shown on the Exhibit "D" as the "20 Ft Buffer Yard Requirement". Trails and sidewalks shall be permitted within this 20 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:



- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) Berms shall not be required. A screening wall or fence shall not be required.
- B. 15-foot Landscape Buffer. A landscape buffer with a minimum width of fifteen (15) feet from the perimeter property line shall be provided where homes back or side to a collector street in the locations generally shown on the Exhibit “D” as the “15 Ft Buffer Yard Requirement”. Trails and sidewalks shall be permitted within this 15 foot landscape buffer. The following standards shall apply for every one hundred (100) linear feet of landscape buffer length:
- 1) There shall be a minimum of four (4) canopy trees.
  - 2) There shall be a minimum of four (4) understory trees.
  - 3) There shall be a minimum of ten (10) shrubs (shrubs are not required to be screening shrubs).
  - 4) A minimum six feet (6’) tall masonry wall will be provided.
  - 5) Berms shall not be required.
- C. No landscape buffer yard or setback shall be required except in the locations shown generally on Exhibit “D”, notwithstanding any requirements in Division 5 of the Zoning Ordinance (Landscaping and Buffer Requirements). The requirements noted herein shall apply in lieu of any landscape buffer/ buffer yard requirements in the Zoning Ordinance. By way of clarity and notwithstanding any requirements herein or in the Zoning Ordinance to the contrary, (1) where floodplain abuts an arterial or collector street, the buffer yard requirements do not apply, and such areas may be left in their natural state; and (2) neither a screening wall nor buffer yard is required when the rear or side yards of a residential subdivision abut a local street.

## **VII. RESIDENTIAL DENSITY**

- A. The maximum number of dwelling units in the aggregate on the Property shall be 1,600. There is no maximum floor area and no maximum number of dwelling units per acre.
- B. The developer is not strictly bound by the locations of lot types as shown on the Concept Plan/ Development Plan. Notwithstanding the proposed locations of lot types as shown on the Concept Plan/ Development Plan, the developer may change the location of lot types (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) and relocate lot types so long as: (i) the total number of 40 ft lots within the overall



Property (not by phase) does not increase by more than 10% of the total number of 40 ft lots shown on the Concept Plan/ Development Plan, (ii) the total number of 50 ft lots within the overall Property (not by phase) does not increase by more than 15% of the total number of 50 ft lots shown on the Concept Plan/ Development Plan, (iii) the total number of 60 ft lots within the overall Property (not by phase) does not decrease by more than 15% of the total number of 60 ft lots shown on the Concept Plan/ Development Plan; and (iv) the total number of 70 ft lots within the total Property (not by phase) does not decrease by more than 10% of the total number of 70 ft lots shown on the Concept Plan/ Development Plan.

## **VIII. AREA REQUIREMENTS AND DEVELOPMENT STANDARDS**

- A. The primary development and land use standards for this project will be based upon the standards outlined in this document. The Property shall be developed in accordance with the standards applicable to the SF-2 District, except as amended or otherwise set forth in this PD Ordinance.
- B. 50 ft lots, 60 ft lots and 70 ft lots may be front entry.
- C. Minimum Lot Area.
  - 1) The minimum lot area for the following lot widths shall be as follows:
    - a. 40 ft lot: 4,200 square feet
    - b. 50 ft lot: 5,750 square feet
    - c. 60 ft lot: 6,900 square feet
    - d. 70 ft lot: 8,050 square feet
  - 2) A maximum of 10% of each lot type (i.e., 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots) will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).
- D. Minimum lot width shall be as follows:
  - 1) 40 ft lots: 40 feet
  - 2) 50 ft lots: 50 feet
  - 3) 60 ft lots: 60 feet
  - 4) 70 ft lots: 70 feet
- E. Minimum Lot Depth. The minimum lot depth shall be:
  - 1) 40 ft lots: 105 feet.



- 2) 50 ft lots, 60 ft lots, and 70 ft lots: 115 feet.

F. Yard Requirements

1) Minimum Front Yard Setback

- a. The minimum front yard setback shall be:

(a) 40 ft lots: 5 feet.

(b) 50 ft lots, 60 ft lots, and 70 ft lots: 20 feet.

- b. Porches on 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots may encroach into the required front yard by a maximum of 5 feet.

2) Minimum Interior Side Yard

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 5 feet.

3) Minimum Corner Side Yard (street side)

- a. 40 ft lots, 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

4) Minimum Rear Yard Setback

- a. 40 ft lots: 20 feet.

- b. 50 ft lots, 60 ft lots, and 70 ft lots: 15 feet.

- G. Maximum Lot Coverage: 70 percent per lot for main and accessory buildings. Lot coverage means the lot area covered by all buildings located thereon, including the area covered by all overhanging roofs, except that lot coverage calculations shall exclude the driveway regardless of whether a roof overhang is located over the driveway.

- H. Maximum Height: up to 35 feet

- I. The tables below illustrate the above development standards for ease of reference. In the event of a conflict between Section XIII.A. – H. and the tables below, Sections XIII.A. – H. shall control.

**Area Regulations for 40-foot lots.** Area regulations for 40-foot lots shall be as follows:

|                          |                   |
|--------------------------|-------------------|
| <b>Minimum Lot Area*</b> | 4,200 square feet |
| <b>Misc.</b>             | Rear loaded       |



|                                |           |
|--------------------------------|-----------|
| <b>Min. Lot Width</b>          | 40 feet   |
| <b>Min. Lot Depth</b>          | 105 feet  |
| <b>Min. Front Yard</b>         | 5 feet    |
| <b>Min. Interior Side Yard</b> | 5 feet    |
| <b>Min. Corner Side Yard</b>   | 15 feet   |
| <b>Min. Rear Yard</b>          | 20 feet   |
| <b>Max. Lot Coverage</b>       | 70%       |
| <b>Max. Height</b>             | up to 35' |

\* A maximum of 10% of the total number of 40 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 50-foot lots.** Area regulations for 50-foot lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 5,750 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 50 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 50 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

**Area Regulations for 60-foot lots.** Area regulations for 60-foot lots shall be as follows:



|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 6,900 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 60 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |

\* A maximum of 10% of the total number of 60 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints.

**Area Regulations for 70-foot lots.** Area regulations for 70 ft lots shall be as follows:

|                                |                    |
|--------------------------------|--------------------|
| <b>Minimum Lot Area*</b>       | 8,050 square feet  |
| <b>Misc.</b>                   | May be front entry |
| <b>Min. Lot Width</b>          | 70 feet            |
| <b>Min. Lot Depth</b>          | 115 feet           |
| <b>Min. Front Yard</b>         | 20 feet            |
| <b>Min. Interior Side Yard</b> | 5 feet             |
| <b>Min. Corner Side Yard</b>   | 15 feet            |
| <b>Min. Rear Yard</b>          | 15 feet            |
| <b>Max. Lot Coverage</b>       | 70%                |
| <b>Max. Height</b>             | up to 35'          |



\* A maximum of 10% of the total number of 70 ft lots within the Property will be allowed to have a reduced area of no more than 5% of the minimum area due to layout constraints (e.g., along curvilinear streets, etc.).

## **IX. BUILDING DESIGN**

- A. The following minimum design and construction standards shall apply within the Property in this Planned Development. The requirements in this section shall apply in lieu of any exterior construction, building materials or design requirements in the Zoning Ordinance (including but not limited to Section 52-87 of the Zoning Ordinance) and shall be the exclusive exterior construction, building materials, and design requirements that apply to the development of the Property.
- B. Masonry Requirements.
  - 1) Front Elevation Wall Surface Area — A minimum of 80% Masonry on front surface area of main dwelling unit (calculation shall exclude area covered by windows and doors). No more than 50% of the total dwelling units developed within the Property shall have fiber cement siding material or stucco on more than 50% of the front façade surface area. More than 50% of the total dwelling units within a phase may have fiber cement siding or stucco on more than 50% of the front façade surface area so long as the total overall within the development as a whole (all phases combined) is 50% or less.
  - 2) Except as noted in subsection B(1) above, there shall be no limit on the percentage of the exterior masonry construction requirements for residential structures that may be met by fiber cement siding. There is no minimum percentage of stone construction.
  - 3) Side and Rear Wall Elevation Surface Areas — A minimum of 25% Masonry on Side and Rear Elevations of main dwelling unit (calculation shall exclude area covered by windows and doors).
  - 4) There is no minimum masonry percentage for amenity buildings, restroom facility buildings or accessory buildings.
- C. Building Elevations.
  - 1) Building elevations shall be submitted to the Director prior to the issuance of a building permit. The Director will approve the building elevations if they substantially conform to the requirements of Section IX.B(1)-(4) above.
  - 2) All required elevations shall include sufficient detail to allow the Director to evaluate whether the proposed elevations meet the requirements of IX.B(1)-(4) above, and shall include identification of predominant exterior building materials. The residential building elevations depicted on Exhibit



“E” are an example of building elevations illustrating compliance with the requirements of Section IX.B(1)-(4) above and a sample of the level detail that should be provided in elevations.

- 3) The applicant may submit alternate materials, design or changed elevations that differ from Exhibit “E” and the Director will approve such elevations if the elevations meet the requirements of Section IX.B(1)-(4) above. The different/alternative building elevations are not required to be the same architectural style or color palette as what is shown on Exhibit “E”.

**D. Minimum Roof Pitch.**

- 1) In general (except as provided in (2) below): minimum roof pitch of 6:12.
- 2) Other structures attached to or separate from the main home (such as porches, covered porches, etc.) and roof over garages: minimum 4:12 roof pitch.

**X. PARKING**

- A. Minimum Off-Street Parking; Garage Requirements: Each dwelling unit shall have no less than two enclosed parking spaces that shall be located in a garage. Garages shall provide a minimum of 16ft garage door opening and a minimum inside clear width from wall to wall of 18ft and a minimum inside depth of 18ft.

**XI. OPEN SPACE DEDICATION AND PUBLIC AMENITIES**

- A. Developer agrees to dedicate open space in the location(s) generally shown on Exhibit “F” attached hereto as “floodplain/ open space (dedicated to the City)” and “open space (dedicated to the City)” (the “Public Open Space”) to the City. The Public Open Space is not required to conform exactly to the boundaries as shown on Exhibit “F”, so long as at least 90 acres of open space is dedicated to the City within the overall Property (within the aggregate, including all phases). The Public Open Space may be dedicated in phases or portions (i.e., the total Public Open Space is not required to be dedicated at the same time). The Public Open Space (or portion thereof) is required to be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the Public Open Space is located within or adjacent to (if the Public Open Space is not located within a phase). The Public Open Space and the Public Parks (defined herein) shall fully satisfy the developer or property owner’s obligations under Section 42-126 of the City’s Code of Ordinances to (1) dedicate parkland or pay a fee in lieu thereof; and (2) pay park development fees. Therefore, no parkland dedication (or fee in lieu thereof) and no park development fees shall be due for the development of the Property. Prior to dedication of the applicable portion of the Public Open Space, the developer or property owner shall construct trails within the Public Open Space area as generally shown on Exhibit “F”. Other than the aforementioned trails, the developer or property owner shall not be required to make any improvements to the Public Open Space area. The trails labeled on Exhibit “F” as the “Regional Public



Trail (Public)” (referred to herein as the “Regional Trail”) and “Multi Use Trail (Public)” (referred to herein as the “Multi Use Trail”) shall be at least 12’ wide and constructed of concrete. The trail labeled as the “Nature Trail (Public)” on Exhibit “F” (the “Nature Trail”) shall be at least 4’ wide and is not required to be constructed of concrete. The trails are not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design so long as the trails comply with the minimum requirements herein and are either (i) located in the same general directions shown on Exhibit “F” or (ii) located at other locations approved by the Director. In the event of a conflict between the text of these PD Development Regulations and Exhibit “F”, the text of these PD Development Regulations controls.

- B. Developer agrees to dedicate three (3) public parks to the City in the locations generally identified on Exhibit “F” as the Public “Event Park”, the Public “Play Park” and the Public “Pavilion Park” (each a “Public Park” and collectively, the “Public Parks”). The Public Parks are not required to conform exactly to the boundaries as shown on Exhibit “F” or to any acreages stated herein, so long as at least 1.24 acres is dedicated to the City for the Event Park, at least 1.12 acres is dedicated to the City for the Play Park, and at least one (1) acre is dedicated to the City for the Pavilion Park. The Public Parks may be dedicated in phases (corresponding with the respective phases of development) and shall be dedicated prior to the issuance of the last certificate of occupancy in the phase in which the respective Public Park is located within or adjacent to (if the Public Park is not located within a phase). Prior to dedication of the applicable Public Park, the developer or property owner shall construct and/or install the following improvements at a minimum within each Public Park, respectively (and may, but shall not be required to, construct additional improvements, in its discretion):
- 1) Pavilion Park: (a) a shade structure or pavilion; and (b) green space areas;
  - 2) Play Park: (a) three (3) playgrounds; (b) a splash pad; and (c) one or more sports courts such as a basketball, tennis or pickleball court;
  - 3) Event Park: (a) an event lawn; (b) at least one playground; and (c) a pavilion or shade structure.

Other than the aforementioned improvements, the developer or property owner shall not be required to make any improvements to the Public Parks, but may include other improvements at its discretion.

- C. The open space, trails, and park requirements in this PD Ordinance shall apply in lieu of any open space, trails, or park requirements in the City Code and shall be the exclusive open space, park, and trail requirements that apply to the development of the Property. For the avoidance of doubt, the dedication of the Public Parks and Public Open Space is not required prior to final plat or approval of any construction plans or building permits and the timing for dedication shall be required as provided herein.



- D. Detention and retention may be provided in open space areas. There is no limit or restriction on the amount of floodplain or natural drainage areas that may be located within the Public Open Space area and no required minimum slope.
- E. Paved parking areas are not required within the Public Parks or Public Open Space area notwithstanding any City Code requirements to the contrary. The developer may designate parallel parking at the perimeter of the Public Parks.

## **XII. PRIVATE AMENITIES**

- A. Developer agrees to install the following amenities for residents within the Property, which may be installed in open space areas or common areas (“Required Private Amenities”):
  - 1) Two separate resident amenity areas north of Range Road (each a “Resident Amenity Area”).
  - 2) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include a playground.
  - 3) At least one of the Resident Amenity Areas referenced in subsection A(1) above will include the following at a minimum: a swimming pool, seating areas, and restroom facilities.
- B. The exact location of the Required Private Amenities and amenities provided within such areas may change during the final design process. The Resident Amenity Areas may include other amenities in addition to the minimum amenities listed in subsection A(2)-(3) above at the developer’s discretion.
- C. The Required Private Amenities may be completed in phases (corresponding with the respective phases of development) and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective amenity is located within.

## **XIII. TRAILS**

- A. Developer agrees to construct a multi-use trail approximately 12 feet in width in the locations generally shown as the “12’ Multi Use Trail (Public)” on Exhibit “F” (“Multi Use Trail”). The Multi-Use Trail is not strictly bound to the locations shown on Exhibit “F” and may be modified with the final design. The Multi-Use Trail will be constructed of concrete and will be publicly accessible. The Multi-Use Trail may be completed in phases and shall be completed prior to the issuance of the last certificate of occupancy in the phase in which the respective portion(s) of the trail is located within or adjacent to (if the portion of the trail is not located within a phase).



#### **XIV. STREETS AND ACCESS**

- A. The street sections and street design requirements herein apply in lieu of any standard street section or design requirements in the City Code.
- B. Alleys shall comply with the section titled “30 Ft Alley ROW Street Plan/ Section” on Exhibit “G”.
- C. Except where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” on Exhibit “G”, local streets shall comply with the section titled “50 Ft ROW Street Plan/ Section” on Exhibit “G”.
- D. Where shown in the key map as an orange “60 Ft ROW Street Plan/ Section” (intended for streets directly abutting or providing a connection to a Public Park or Resident Amenity Area), local streets shall comply with the section titled “60 Ft ROW Street Plan/ Section”.
- E. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type A Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type A Street Plan/ Section”.
- F. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type B Street Plan/ Section” (including portions of minor arterials) will comply with the “100 Ft ROW – Type B Street Plan/ Section”.
- G. The portions of streets shown in the key map on Exhibit “G” as “100 Ft ROW – Type C Street Plan/ Section” (including portions of a minor arterial and four entrances into the subdivision) will comply with the “100 Ft ROW – Type C Street Plan/ Section”.
- H. Streets are not required to be exactly as shown and street alignments are not required to match exactly what is shown on Exhibit “G”. Exhibit “G” shows where different street sections are located for the current draft Concept Plan/ Development Plan.



**Exhibit "A"**

Legal Description of the Property



## **Exhibit "B"**

### Concept Plan/ Development Plan



## **Exhibit "C"**

Phase Exhibit



## **Exhibit "D"**

### Buffer Plan



## **Exhibit "E"**

### **Example of Acceptable Building Elevations**



## **Exhibit "F"**

### **Preliminary Open Space and Parks Plan**



## **Exhibit "G"**

### Street Sections

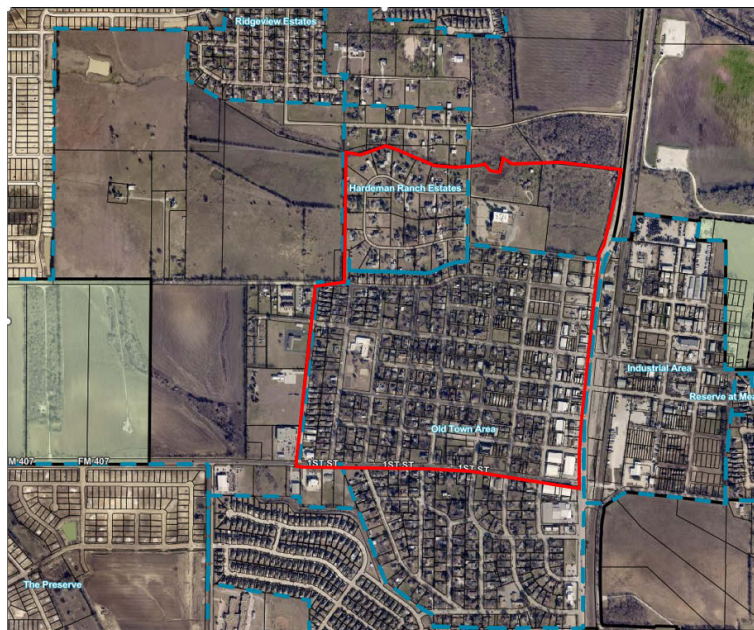


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## **Article 7 – Old Town Historic District**

### **Section 52.701 - Establishment**

The Old Town Historic Preservation District is hereby established with the boundaries described in Figure 7.1.



*Figure 7.1*

### **Section 52.702 - Modifications**

Any external modifications (excluding signage and windows), demolitions, or new developments within the district shall require a Certificate of Appropriateness issued and approved by the City Council.

### **Section 52.703 - Regulations**

The following guidelines shall apply to all structures and developments within the district:

1. Preservation of historic facades, materials, and architectural details;
2. Compatibility of new construction with the historic character of the district by matching architecture, site layout, materials, or functionality;
3. Use of historically appropriate materials and color schemes;
4. Encouragement of adaptive reuse of historic buildings;
5. Limitations on demolitions including a 60 day hold, requiring economic hardship justification and public hearings for approval;
6. Strict height, setback, and design requirements to maintain historic character based on the existing street building fabric;
7. All exterior alterations must conform to the district's historic design guidelines.

### **Section 52.704 – Incentives**



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The City may provide incentives, including grants and tax abatements, to property owners who engage in preservation efforts consistent with these guidelines.



**ORDINANCE NO. 804-25(A)**

**AN ORDINANCE OF THE CITY OF JUSTIN, TEXAS, ESTABLISHING THE OLD TOWN HISTORIC PRESERVATION DISTRICT; PROVIDING GUIDELINES FOR PRESERVATION AND DEVELOPMENT; PROVIDING FOR A REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City Council of the City of Justin, Texas, declares that the protection, preservation, and enhancement of architecturally significant and historic structures is necessary to promote the economic, cultural, educational, and general welfare of the City;

**WHEREAS**, the unique identity and history of the area described and identified herein has produced significant historic, architectural, and cultural resources; and

**WHEREAS**, the City Council finds that the establishment of the Old Town Historic Preservation District, will encourage preservation, economic development, and community identity; and

**WHEREAS**, all constitutional, statutory, and legal prerequisites for the passage of this Ordinance have been met, including but not limited to the Open Meetings Act; and

**WHEREAS**, on May 8, 2025 City Council made a motion on the first reading to adopt with the following conditions, to revise the boundaries as described below and to add language to the amendment clarifying modifications to external modifications; and

**WHEREAS**, the boundaries are described as: Beginning on the northwest corner of block 2, lot 12 Hardeman Ranch Estates following the property lines east to Creek Hillway, continuing east following the north property line A1127A ROBERTS, TR 2B, 6.704 ACRES ROBERT ABSTRACT, proceeding east on the property north property line of A1127A ROBERTS, TR 2A(2), proceeding east to FM 156, proceeding South on proceeding South on N FM 156 to West 1st Street, proceeding West on West 1st Street to Leuty Street, proceeding north on Leuty Street to West 7th Street, proceeding East on West 7th Street to the western property line of A1358A WILSON, TR 12 proceeding North to the beginning point.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**



**SECTION 1.** That all matters stated in the preamble are found to be true and correct and are incorporated herein as if copied in their entirety.

**SECTION 2.** That chapter 52 of the City of Justin Code of Ordinances is hereby amended through the revision of Article 7:

"(a) The Old Town Historic Preservation District is hereby established with the boundaries described in Exhibit A.

(b) Any external modifications (excluding signage and windows), demolitions, or new developments within the district shall require a Certificate of Appropriateness issued and approved by the City Council.

(c) The following guidelines shall apply to all structures and developments within the district:

1. Preservation of historic facades, materials, and architectural details;
2. Compatibility of new construction with the historic character of the district by matching architecture, site layout, materials, or functionality;
3. Use of historically appropriate materials and color schemes;
4. Encouragement of adaptive reuse of historic buildings;
5. Limitations on demolitions including a 60 day hold, requiring economic hardship justification and public hearings for approval;
6. Strict height, setback, and design requirements to maintain historic character based on the existing street building fabric;
7. All exterior alterations must conform to the district's historic design guidelines.

(d) The City may provide incentives, including grants and tax abatements, to property owners who engage in preservation efforts consistent with these guidelines."

**SECTION 3.** That this Ordinance shall be cumulative of all other ordinances of the City of Justin, Texas, and this ordinance shall not operate to repeal or affect any such ordinance except so far as the provisions are inconsistent or in conflict, in which event such other ordinance is repealed.

**SECTION 4.** If any section, article, paragraph, sentence, clause, phrase or word in this ordinance, or application thereto any person or circumstances is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining



portions of this ordinance; and the City Council hereby declares it would have passed such remaining portions of the ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

**SECTION 5.** The fact that the present ordinances and regulations of the City of Justin, Texas are inadequate to properly safeguard the health, safety, morals, peace and general welfare of the inhabitants of the City of Justin, Texas, creates an emergency for the immediate preservation of the public business, property, health, safety and general welfare of the public which requires that this ordinance shall become effective from and after the date of its passage, and it is accordingly so ordained.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 22nd day of May 2025.

**On first reading, the 8<sup>th</sup> day of May 2025.**

**On the second and final reading, the 22nd day of May 2025.**

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

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Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

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City Attorney





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 1. (PUBLIC HEARING(S))

Title: Conduct a Public Hearing and Consider adopting Ordinance 802-25, second reading, approving a Strategic Services Agreement with Traditions Municipal District No. 2C; and take appropriate action.

Department: Administration

Contact: Matthew Cyr, Director of Planning and Development

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**Recommendation:**

Staff recommends approval with the following conditions:

1. City Attorney to approve the agreement
  2. A SITEUS agreement or arrangement to be included in the Strategic Services Agreement.
- 

**Background:**

**Overview**

The City of Justin is in the final stages of formalizing a Strategic Partnership Agreement (SPA) with Tradition Municipal Utility District No. 2C of Denton County under Section 43.0751 of the Texas Local Government Code. This agreement allows the City to annex the district for limited purposes and collect sales and use taxes generated within the district. Per the terms of the agreement, the City will retain **50% of all collected sales and use tax revenues**, with the remaining 50% remitted to the District.

Additionally, the final agreement will incorporate a **SITEUS (Sales and Use Tax Estimated Use Structure)** provision that ensures material sales tax revenue generated during vertical construction is collected and allocated by the City.

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**Estimated Positive Fiscal Impact to the City**

Based on the development analysis and revenue projections provided, the City is expected to receive the following benefits through the combined sales tax allocation and SITEUS component. The tax sharing agreement is an annual payment and the SITEUS payment is one time.

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| Revenue Source                 | Total Estimated Revenue | City Share (50%)   |
|--------------------------------|-------------------------|--------------------|
| Hillwood Development Sales Tax | \$967,019               | \$483,510          |
| SITEUS Construction Sales Tax  | \$3,054,000             | \$1,527,000        |
| <b>Total to City</b>           |                         | <b>\$2,010,510</b> |

*Note: This does not include long-term property tax revenue or service assessments which may be added upon full annexation or service extension.*

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## Agreement Status

- The draft SPA has been reviewed by staff and includes all required procedural elements including hearings, notices, and tax sharing provisions.
- **The City Attorney is currently completing the final legal review**, and the agreement will not be considered fully executed until legal review is complete.
- **A SITEUS provision will be included in the final agreement** to maximize and protect construction-related sales tax revenues for the City.

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## Next Steps

- Finalize legal review of the SPA document.
- Incorporate the SITEUS provisions.
- Schedule consideration for adoption by City Council.
- File notice with the Texas Comptroller upon adoption to begin tax collection.

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## City Attorney Review: Yes

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### Attachments:

1. Strategic Partnership Agreement (18488)
2. Strategic Services Agreement- Ordinance v2



**STRATEGIC PARTNERSHIP AGREEMENT BY AND BETWEEN  
THE CITY OF JUSTIN, TEXAS AND  
TRADITION MUNICIPAL UTILITY DISTRICT NO. 2C OF DENTON COUNTY**

STATE OF TEXAS                   §

COUNTY OF DENTON           §

This Strategic Partnership Agreement (this “Agreement”) is entered into by the City of Justin, Texas (the “City”), and Tradition Municipal Utility District No. 2C of Denton County, a political subdivision of the State of Texas, acting by and through its duly authorized Board of Directors (the “District”), under the authority of Section 43.0751 of the Texas Local Government Code (the “Local Government Code”).

**RECITALS**

WHEREAS, Local Government Code Section 43.0751 (the “Act”) authorizes the City and the District to negotiate and enter into a strategic partnership agreement by mutual consent; and

WHEREAS, the District encompasses approximately 815.247 acres, all of which is located within the City’s extraterritorial jurisdiction, described by metes and bounds and depicted on Exhibit “A” (as defined herein to include land added to the District, the “Property”); and

WHEREAS, this Agreement authorizes the City to annex all or certain portions of the Property for limited purposes for the purpose of collecting Sales and Use Tax Revenues (hereinafter defined) and to annex all of the Property for full purposes upon the terms contained herein; and

WHEREAS, pursuant to this Agreement, the City will retain fifty percent (50%) of all Sales and Use Tax Revenues (hereinafter defined) collected within the Property and shall remit fifty percent (50%) of said Sales and Use Tax Revenues to the District; and

WHEREAS, the City and the District acknowledge that this Agreement provides benefits to each party, including revenue, services and regulatory benefits.

NOW, THEREFORE, for and in consideration of the mutual agreements, covenants and conditions contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and the District agree as follows:

**ARTICLE I**  
**FINDINGS**



A. The District is a municipal utility district encompassing approximately 815.247 acres that is located within the City's extraterritorial jurisdiction.

B. The District was duly created and established pursuant to the results of the November 7, 2023 election to divide Tradition Municipal Utility District No. 2A of Denton County into Tradition Municipal Utility District No. 2C of Denton County and Tradition Municipal Utility District No. 2D of Denton County, as a conservation and reclamation district created under and essential to accomplish the purposes of Section 52, Article III, and Section 59, Article XVI, of the Texas Constitution and operating pursuant to Chapters 49 and 54 of the Texas Water Code and Chapter 8189 of the Texas Special District Local Laws Code.

C. The District provided notice of two public hearings concerning the adoption of this Agreement following the District's notification procedures for other matters of public importance, in accordance with the procedural requirements of the Act.

D. The Board of Directors of the District conducted two public hearings regarding this Agreement, at which members of the public who wished to present testimony or evidence regarding this Agreement and the proposed limited purpose annexation were given the opportunity to do so, in accordance with the procedural requirements of the Act, on \_\_\_\_\_, 2025, at 12:00 p.m. at 16000 N. Dallas Parkway, Suite 350, Dallas, Texas 75248, and on \_\_\_\_\_, 2025, at 12:00 p.m. at 16000 N. Dallas Parkway, Suite 350, Dallas, Texas 75248.

E. The Board of Directors of the District approved this Agreement on \_\_\_\_\_, 2025, in open session at a meeting held in accordance with Chapter 551 of the Texas Government Code.

F. The City provided notice of two public hearings concerning the adoption of this Agreement by publishing said notices in a newspaper of general circulation in the City and in the District, in accordance with the procedural requirements of the Act.

G. The City Council conducted two public hearings regarding this Agreement, at which members of the public who wished to present testimony or evidence regarding this Agreement and the proposed limited purpose annexation were given the opportunity to do so, in accordance with the procedural requirements of the Act, on \_\_\_\_\_, 2025, at \_\_\_\_\_ p.m. at the City Council Chambers, and on \_\_\_\_\_, 2025, at \_\_\_\_\_ p.m. at the City Council Chambers.

H. The City Council approved this Agreement on \_\_\_\_\_, 2025, in open session at a meeting held in accordance with Chapter 551 of the Texas Government Code, which approval occurred after the Board of Directors of the District approved this Agreement.

I. All procedural requirements imposed by law for the adoption of this Agreement have been met.



J. In accordance with the requirements of Subsection (p)(2) of the Act, this Agreement provides benefits to the City and the District, including revenue, services and regulatory benefits which are reasonable and equitable with regard to the benefits provided to the other.

## ARTICLE II DEFINITIONS

Terms used in this Agreement shall have the following meanings:

“Act” means the Texas Local Government Code, Section 43.0751, and any amendments thereto.

“Agreement” means this Strategic Partnership Agreement between the City and the District.

“Board of Directors” means the Board of Directors of the District.

“City” means the City of Justin, Texas, a home rule municipality of the State of Texas.

“City Council” means the City Council of the City.

“City Share” means the City’s share of the Sales and Use Tax Revenues as defined in Section 4.2 of this Agreement.

“Comptroller” means the Comptroller of Public Accounts for the State of Texas.

“Development Agreement” means the Development Agreement between the City and Petrus Investment, LP, a Texas limited partnership, recorded on July 31, 2021 in the real property records of Denton County, Texas as Instrument No. 2021-13285, assigned to HWC Justin 407, LLC (“Owner”) and subsequently amended by that certain First Amendment to Development Agreement between the City and HWC Justin 407, LLC, a Texas limited liability company, recorded on February 27, 2023 in the real property records of Denton County, Texas as Instrument No. 17853 and that certain Second Amendment to Development Agreement between the City and HWC Justin 407, LLC as approved by the City Council of the City on September 26, 2023, regarding development of the Property.

“District” means Tradition Municipal Utility District No. 2C of Denton County.

“District Share” means the District’s share of the Sales and Use Tax Revenues as defined by Section 4.2 of this Agreement.

“ETJ” means the extraterritorial jurisdiction of a city as defined by the Local Government Code, as amended.



“Effective Date” means the date on which the City adopts this Agreement.

“Government Code” means the Texas Government Code, as amended.

“Limited Purpose Annexation Period” means the period commencing on the effective date of the limited purpose annexation of the Limited Purpose Property and ending upon the full purpose annexation or disannexation of such property.

“Limited Purpose Property” means the property in the District that is within the City’s ETJ and is annexed for limited purposes pursuant to this Agreement.

“Local Government Code” means the Texas Local Government Code, as amended.

“Notice” means notice as defined in Section 8.1 of this Agreement.

“Party” means, individually, the City or the District, their successors and assigns as permitted by Section 8.8 of this Agreement.

“Property” means the approximately 815.247 acres within the City’s extraterritorial jurisdiction and within the District described by metes and bounds and depicted on Exhibit “A,” and any other property within the City’s extraterritorial jurisdiction annexed into the District after the Effective Date.

“Sales and Use Tax Revenues” means those revenues received by the City from the sales and use tax authorized to be imposed by the City on sales consummated at locations within the Limited Purpose Property pursuant to the Act and Chapter 321 of the Tax Code and whose use is not otherwise controlled or regulated, in whole or in part, by another governmental entity, authority or applicable law, ordinance, rule or regulation.

“Tax Code” means the Texas Tax Code, as amended.

ARTICLE III  
ADOPTION OF AGREEMENT AND  
LIMITED PURPOSE ANNEXATION OF COMMERCIAL PROPERTY

3.1 Public Hearings. The District and the City acknowledge and agree that prior to the execution of this Agreement, the governing bodies of the District and the City have conducted two public hearings for the purpose of considering the adoption of this Agreement and that such hearings were noticed and conducted in accordance with the terms of the Act, this Agreement and Chapter 551 of the Government Code.

3.2 Effective Date. Pursuant to Subsection (c) of the Act, this Agreement is effective



on the date of adoption of this Agreement by the City.

3.3 Filing in Property Records. The District shall file this Agreement in the Real Property Records of Denton County, Texas. This Agreement binds each owner and future owner of land included within the District's boundaries in accordance with Subsection (c) of the Act.

3.4 Limited Purpose Annexation. The District and the City agree that the City shall annex all or any portion of the District for the limited purpose of collecting Sales and Use Tax Revenues within the District pursuant to Subsection (k) of the Act. The District acknowledges that the City Council shall adopt one or more limited purpose annexation ordinances at one or more meetings conducted in accordance with Chapter 551 of the Government Code and further acknowledges that no additional notices, hearings or other procedures are required by law in order to approve such limited purpose annexations. Within sixty (60) days of the Effective Date, the City shall annex all of the Property for the limited purpose of collecting Sales and Use Tax Revenues within the District pursuant to Subsection (k) of the Act. For any land located within the City's extraterritorial jurisdiction that is annexed into the District after the Effective Date, upon written notice to the City, the City shall annex for limited purposes said annexed land within sixty (60) days of said written notice.

3.5 Limited Purpose Property and Sales and Use Tax Revenue. For purposes of this Agreement, any property the City annexes for the limited purpose of collecting sales tax shall collectively be referred to as the "Limited Purpose Property"; and the sales and use taxes collected within the Limited Purpose Property shall be referred to as the "Sales and Use Tax Revenues".

3.6 Consent to Limited Purpose Annexation. The District, on behalf of itself and all present and future owners of land within the District, hereby requests that the City annex the Limited Purpose Property for limited purposes as provided in this Agreement. The District consents to such annexation and to the collection of Sales and Use Tax Revenues by the City within such Limited Purpose Property. Such consent shall bind the District and all current and future owners of land within the District.

#### ARTICLE IV TAXATION AND PROVISIONS OF SERVICES

4.1 Collection of Sales and Use Tax Revenues. The City may impose a sales and use tax within the Limited Purpose Property pursuant to Subsection (k) of the Act. The sales and use tax shall be imposed on all eligible commercial activities at the rate of two percent (2%), or other rate allowed under future amendments to Chapter 321 of the Tax Code and imposed by the City, provided, however, that said future rate shall not decrease below the same rate charged in other areas of the City as allowed by then-applicable law. Collection of the Sales and Use Tax Revenues shall take effect on the date described in Section 321.102 of the Tax Code.

4.2 Payment of Sales and Use Tax. In return for the benefits received by the City



pursuant to this Agreement, the City shall pay to the District an amount equal to fifty percent (50%) of the Sales and Use Tax Revenues paid to the City as reflected in sales tax reports provided by the Comptroller to the City to be used for any lawful purpose of the District. All amounts payable to the District are hereafter referred to as the “District Share.” The City shall pay the District Share within thirty (30) days after the City receives the payment and the sales tax report reflecting such revenue from the Comptroller. Any payment of the District Share not made within such thirty (30) day period shall bear interest calculated in accordance with Section 2251.025 of the Government Code. The City shall retain all Sales and Use Tax Revenues that do not constitute the District Share (the “City Share”). The City shall deliver to the District a condensed version of each monthly area sales tax report provided by the Comptroller, containing only the contents of the sales tax report relating to retail sales and retailers in the Property within thirty (30) days of the City’s receipt of the sales tax report.

4.3 Notification of Comptroller. The City shall send notice of this Agreement, together with other required documentation, to the Comptroller in the manner provided by Section 321.102 of the Tax Code, after the City Council annexes any portion of the Limited Purpose Property for limited purposes.

## ARTICLE V

### FULL PURPOSE ANNEXATION

5.1 Full Purpose Annexation and Conversion Date. In accordance with the provisions of Section 43.0751(f)(5) of the Act, the District consents to the full purpose annexation of the District by the City at any time on or after one hundred percent (100%) of the land in the District has been developed with water, sanitary sewer, and drainage facilities and roads (collectively, “Facilities”) and the District has issued its bonds to fully reimburse the developer of such Facilities and associated reimbursable expenses to the fullest extent allowed under the then current rules of the Texas Commission on Environmental Quality. The City agrees not to annex the District for full municipal purposes prior to such time. At least sixty (60) days prior to the date the City intends to annex the District, the City shall provide the District with a written notice of intent to annex the District and the date planned for annexation, which date shall constitute the full purpose annexation conversion date under the Act. The City further agrees that the full purpose annexation of the District by the City is further subject to the limitations contained in the Development Agreement.

5.2 Assumption of District Duties. Prior to the full purpose annexation conversion date, the District remains authorized to exercise all powers and functions of a municipal utility district provided by existing law or any amendments or additions thereto. The District's assets, liabilities, indebtedness, and obligations will remain the responsibility of the District during the period preceding full-purpose annexation and conversion. The District agrees that beginning on the Effective Date and until the full purpose annexation conversion date, the District shall maintain all District-owned roadway, property and utility infrastructure in good condition and repair in accordance with the standards set forth in the Development Agreement. Upon the full purpose annexation conversion date Sections 43.075(c) and (d) of the Act shall apply and, (i) the City shall



succeed to the powers, duties, assets, and obligations of the District; and (ii) the City shall take over all the property and other assets of the District, assume all the debts, liabilities, and obligations of the District, and perform all the functions of the District. The City and the District agree to fully comply with all requirements in Section 43.075 of the Texas Local Government Code.

## ARTICLE VI TERM

This Agreement commences on the Effective Date and continues until the City annexes all of the Property for full purposes in accordance with the terms hereof. The provisions of this Agreement relating to the collection of sales and use tax will automatically terminate with regard to any portion of the Property upon disannexation or full purpose annexation of such property.

## ARTICLE VII BREACH, NOTICE AND REMEDIES

7.1 Notification of Breach. If either Party commits a breach of this Agreement, the non-breaching Party shall give Notice to the breaching Party that described the breach in reasonable detail.

7.2 Cure of Breach. The breaching Party shall commence curing such breach within fourteen (14) calendar days after receipt of Notice of the breach and shall complete the cure within fourteen (14) calendar days from the date of commencement of the cure; however, if the breach is not reasonable susceptible to cure by the breaching Party within such fourteen (14) day period, the non-breaching Party shall not bring any action so long as the breaching Party has commenced to cure the breach within such fourteen (14) day period and diligently completes the cure within a reasonable time without unreasonable cessation.

7.3 Remedies for Breach. If the breaching Party does not substantially cure such breach within the stated period of time, the non-breaching Party may, in its sole discretion, and without prejudice to any other right under this Agreement, law, or equity, seek relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, specific performance, mandamus and injunctive relief; provided, however, the non-breaching Party shall not be entitled to terminate this Agreement. The Parties specifically waive any right that they have or in the future may have to terminate this Agreement. Damages, if any, to which any non-breaching Party may be entitled shall be limited to actual damages and shall not include special or consequential damages.

## ARTICLE VIII ADDITIONAL PROVISIONS

8.1 Notices. All notices under this Agreement (“Notice”) shall be in writing, shall be signed by or on behalf of the Party giving the Notice, and shall become effective as follows: (a)



on the third (3rd) business day after being deposited with the United States mail service, Certified Mail, Return Receipt Requested with a confirming copy sent by facsimile; (b) on the day delivered by private delivery or private messenger service (such as FedEx or UPS) as evidenced by a receipt signed by any person at the delivery address (whether or not such person is the person to whom the Notice is addressed); or (c) otherwise on the day actually received by the person to whom the Notice is addressed, including, but not limited to, delivery in persona and delivery by regular mail. All Notices given pursuant to this section shall be addressed as follows:

|                  |                                                                                                                                                                               |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| To the City:     | Attn: City Manager<br>City of Justin, Texas<br>415 North College Ave.<br>Justin, Texas 76247                                                                                  |
| With a copy to:  | Boyle & Lowry, LLP<br>Attn: Matthew Boyle<br>4201 Wingren, Suite 108<br>Irving, Texas 75062                                                                                   |
| To the District: | Tradition Municipal Utility District<br>No. 2C of Denton County<br>c/o Coats Rose, P.C.<br>Attn: Mindy L. Koehne<br>16000 N. Dallas Parkway, Suite 350<br>Dallas, Texas 75248 |

8.2 No Waiver. Any failure by a Party to insist upon strict performance by the other Party of any provision of this Agreement shall not be deemed a waiver thereof, and the Party shall have the right at any time thereafter to insist upon strict performance of any and all of the provisions of this Agreement. No provision of this Agreement may be waived except in writing signed by the Party waiving such provision. Any waiver shall be limited to the specific purpose for which it is given. No waiver by any Party hereto of any term or condition of this Agreement shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

8.3 Governing Law and Venue. This Agreement must be construed and enforced in accordance with the laws of the State of Texas, as they apply to contracts performed within the State of Texas and without regard to any choice of law rules or principles to the contrary. The Parties acknowledge that this Agreement is performable in Denton County, Texas, and hereby submit to the jurisdiction of the courts of Denton County, Texas, and agree that any such court with proper jurisdiction shall be a proper forum for the determination of any dispute arising hereunder.

8.4 Authority to Execute. The City warrants that this Agreement has been approved by the City Council in accordance with all applicable public meeting and public notice requirements



(including, but not limited to, notices required by the Texas Open Meetings Act) and that the individual executing this Agreement on behalf of the City has been authorized to do so. The District warrants that this Agreement has been approved by the Board in accordance with all applicable public meeting and public notice requirements (including, but not limited to, notices required by the Open Meetings Act) and the individual executing this Agreement on behalf of the District has been authorized to do so.

8.5 Entire Agreement; Severability. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the subject matter of this Agreement. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable for any reason, then (a) such unenforceable provision shall be deleted from this Agreement; (b) the unenforceable provision shall, to the extent possible, be rewritten to be enforceable and to give effect to the intent of the Parties; and (c) the remainder of this Agreement shall remain in full force and effect and shall be interpreted to give effect to the intent of the Parties.

8.6 Changes in State or Federal Law. If any state or federal law changes so as to make it impossible for the City or the District to perform its obligations under this Agreement, the Parties will cooperate to amend this Agreement in such a manner that is most consistent with the original intent of this Agreement and legally possible.

8.7 Additional Documents and Acts. The Parties agree that at any time after execution of this Agreement, they will, upon request of the other Party, execute and/or exchange any other documents necessary to effectuate the terms of this Agreement and perform any further acts as the other Party may reasonably request to effectuate the terms of this Agreement.

8.8 Assignability, Successors and Assigns. This Agreement shall not be assignable by any Party without the other Party's written consent. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective representatives, successors and assigns.

8.9 Amendment. This Agreement may be amended only by written agreement with approval of the governing bodies of both the City and the District.

8.10 Interpretation. The Parties acknowledge that each Party and, if it so chooses, its counsel, have reviewed and revised this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting Party shall not be employed in the interpretation of this Agreement or any amendments or exhibits hereto. As used in this Agreement, the term "including" means "including, without limitation" and the term "days" means calendar days, not business days. Wherever required by the context, the singular shall include the plural, and the plural shall include the singular. Each defined term herein may be used in its singular or plural form whether or not so defined

8.11 No Third-Party Beneficiaries. This Agreement is solely for the benefit of the City



and the District. Neither the City nor the District intends by any provision of this Agreement to create any rights in any third-party beneficiaries or to confer any benefit or enforceable rights under this Agreement or otherwise upon anyone other than the City and the District.

8.12 Governmental Powers. By execution of this Agreement, neither the City nor the District waives or surrenders any of its respective governmental powers, immunities or rights, except as specifically waived pursuant to this section. The City and the District mutually waive their governmental immunity from suit and liability only as to any action brought by a Party to pursue the remedies available under this Agreement and only to the extent necessary to pursue such remedies. Nothing in this section shall waive any claims, defenses or immunities that the City or the District has with respect to suits against the City or the District by persons or entities not a party to this Agreement. Nothing in this Agreement is intended to delegate or impair the performance by the City of its governmental functions, and the City waives any claim or defense that any provision of this Agreement is unenforceable on the grounds that it constitutes an impermissible delegation or impairment of the City's performance of its governmental functions.

8.13 Incorporation of Exhibits by Reference. All exhibits attached to this Agreement are incorporated into this Agreement by reference for the purposes set forth herein, as follows:

Exhibit A      Legal Description and Map of Property

8.14 Counterpart Originals. This Agreement may be executed in multiple counterparts, each of which shall be deemed to be an original.

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CITY OF JUSTIN, TEXAS

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_  
City Secretary

APPROVED AS TO FORM

By: \_\_\_\_\_  
City Attorney

STATE OF TEXAS §

COUNTY OF DENTON §

This instrument was acknowledged before me, the undersigned notary, on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by \_\_\_\_\_, City Manager, and \_\_\_\_\_, City Secretary, of the city of Justin, Texas, on behalf of said city.

\_\_\_\_\_  
Notary Public in and for the State of Texas

(NOTARY SEAL)



TRADITION MUNICIPAL UTILITY DISTRICT  
NO. 2C OF DENTON COUNTY

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF TEXAS           §

COUNTY OF DALLAS       §

          This instrument was acknowledged before me, the undersigned notary, on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by \_\_\_\_\_, \_\_\_\_\_ of the Board of Directors of Tradition Municipal Utility District No. 2C of Denton County, on behalf of said district.

\_\_\_\_\_  
Notary Public in and for the State of Texas

(NOTARY SEAL)



## EXHIBIT "A"

### The Property

#### Tract 1:

BEING a 709.93 acre tract of land situated in the William C. Brookfield Survey, Abstract No. 34, and the William D. Redd Survey, Abstract No. 1125, Denton County, Texas, said tract being all of a called 2.837 acre tract of land described as "Tract 2" in deed to SLF IV-114 Assemblage, L.P., as recorded in County Clerk Document No. 2014-47856, Deed Records of Denton County, Texas (D.R.D.C.T.), and also being all of a called 63.007 acre tract of land in deed to Deblock, LTD., as recorded in County Clerk Document No. 2014-115219, D.R.D.C.T., and also being part of a called 1,023.4685 acre tract of land described as "Tract 3" in deed to Petrus Investment, L.P., as recorded in County Clerk's Document No. 2009-23477, D.R.D.C.T., said 709.93 acre tract being more particularly described as follows:

BEGINNING at a found 5/8 inch iron rod with a plastic cap stamped "DUNAWAY ASSOC. LP" for the northwest corner of said 2.837 acre tract, said corner being on the south right-of-way line of F.M. 407 (90' R.O.W.);

THENCE North 89 degrees 26 minutes 07 seconds East, along said south right-of-way line, a distance of 170.00 feet to a found 5/8 inch iron rod with a plastic cap stamped "DUNAWAY ASSOC. LP" for the northeast corner of said 2.837 acre tract;

THENCE South 00 degrees 33 minutes 53 seconds East, departing said south right-of-way line and along the east line of said 2.837 acre tract, a distance of 730.66 feet to a found 5/8 inch iron rod with a plastic cap stamped "DUNAWAY ASSOC. LP" for the southeast corner of said 2.837 acre tract, and being on the north line of said 63.007 acre tract;

THENCE South 88 degrees 03 minutes 39 seconds East, along the north line of said 63.007 acre tract, a distance of 41.44 feet to a found 1/2 inch iron rod for the northeast corner of a said 63.007 acre tract, and being the most northerly northwest corner of said 1,023.4685 acre tract;

THENCE North 89 degrees 00 minutes 53 seconds East, along the north line of said 1,023.4685 acre tract, a distance of 1,146.83 feet to a found 3/8-inch iron rod on the south right-of-way line of said F.M. 407;

THENCE South 50 degrees 09 minutes 40 seconds East, along said south right-of-way line, a distance of 681.84 feet to a found 3/8-inch iron rod for the beginning of a tangent curve to the left, having a radius of 618.69 feet, and whose chord bears South 70 degrees 02 minutes 10 seconds East, a distance of 420.67 feet;

THENCE Southeasterly, continuing along said south right-of-way line and along said curve to the left, through a central angle of 39 degrees 45 minutes 00 seconds, and an arc length of 429.23 feet to a found 5/8-inch iron rod for the point of tangency;

THENCE South 89 degrees 54 minutes 20 seconds East, continuing along said south right-of-way line, a distance of 458.09 feet to a point for corner on the north line of said 1,023.4685 acre tract;

THENCE South 00 degrees 00 minutes 43 seconds West, departing said south right-of-way line and crossing said 1,023.4685 acre tract, a distance of 2,998.50 feet to a point for corner on the most easterly south line of said 1,023.4685 acre tract;

THENCE South 88 degrees 58 minutes 16 seconds West, along the most easterly south line of said 1,023.4685 acre tract, a distance of 802.30 feet to a found 5/8-inch iron rod for an ell corner on the east line of said 1,023.4685 acre tract;

THENCE South 00 degrees 10 minutes 35 seconds East, along the east line of said 1,023.4685 acre tract, a distance of 3,748.13 feet to a found 1/2-inch iron rod for an angle point;

continued next page...



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THENCE South 00 degrees 20 minutes 09 seconds East, continuing along the east line of said 1,023.4685 acre tract, a distance of 348.46 feet to a found 1/2-inch iron rod for an angle point;

THENCE South 00 degrees 06 minutes 50 seconds East, continuing along the east line of said 1,023.4685 acre tract, a distance of 162.24 feet to a found 1/2-inch iron rod with plastic cap stamped "RPLS 5439" for the northeast corner of a called 50.00 acre tract of land described as "Tract 2" in deed to SLF IV-114 Assemblage, L.P., as recorded in County Clerk Document No. 2014-53143, D.R.D.C.T.;

THENCE South 89 degrees 56 minutes 13 seconds West, along the north line of said 50.00 acre tract, a distance of 4,660.47 feet to a found P.K. Nail within said Sam Reynolds Road for the northwest corner of said 50.00 acre tract, and being on the west line of said 1,023.4685 acre tract;

THENCE North 00 degrees 08 minutes 49 seconds West, along the west line of said 1,023.4685 acre tract, a distance of 521.75 feet to a found 60D nail for an angle corner;

THENCE North 76 degrees 15 minutes 16 seconds East, continuing along the west line of said 1,023.4685 acre tract, a distance of 381.87 feet to a point for corner;

THENCE North 00 degrees 16 minutes 47 seconds West, continuing along the west line of said 1,023.4685 acre tract, a distance of 307.61 feet to a found 1/2-inch iron rod for corner;

THENCE South 89 degrees 55 minutes 32 seconds West, continuing along the west line of said 1,023.4685 acre tract, a distance of 370.50 feet to a found 60D nail for corner;

THENCE North 00 degrees 11 minutes 58 seconds West, continuing along the west line of said 1,023.4685 acre tract, a distance of 3,495.35 feet to a found 1/2-inch iron rod for corner;

THENCE South 89 degrees 56 minutes 10 seconds East, along the westerly north line of said 1,023.4685 acre tract, a distance of 509.52 feet to a found 5/8-inch iron rod for corner;

THENCE South 00 degrees 17 minutes 00 seconds East, continuing along the westerly north line of said 1,023.4685 acre tract, a distance of 226.27 feet to a found 3/8-inch iron rod for corner;

THENCE North 89 degrees 05 minutes 10 seconds East, continuing along the westerly north line of said 1,023.4685 acre tract, a distance of 870.62 feet to a found 5/8-inch iron rod;

THENCE North 88 degrees 48 minutes 38 seconds East, continuing along the westerly north line of said 1,023.4685 acre tract, a distance of 1,598.69 feet to a found 1/2 inch iron rod for corner;

THENCE North 00 degrees 24 minutes 38 seconds West, along the west line of said 1,023.4685 acre tract, a distance of 906.87 feet to a found 3/8-inch iron rod for an angle point;

continued next page...



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THENCE North 00 degrees 43 minutes 50 seconds West, continuing along the west line of said 1,023.4685 acre tract, a distance of 423.74 feet to a found 3/8-inch iron rod for southeast corner of said 63.007 acre tract;

THENCE South 88 degrees 53 minutes 24 seconds West, along the south line of said 63.007 acre tract, a distance of 1,193.18 feet to a found 1/2-inch iron rod for the southwest corner of said 63.007 acre tract;

THENCE North 00 degrees 34 minutes 57 seconds West, along the west line of said 63.007 acre tract, a distance of 2,336.08 feet to a found 3/8-inch iron rod for the northwest corner of said 63.007 acre tract;

THENCE South 88 degrees 03 minutes 39 seconds East, along the north line of said 63.007 acre tract, a distance of 978.44 feet to a found 5/8 inch iron rod with a plastic cap stamped "DUNAWAY ASSOC. LP" for the southwest corner of said 2.837 acre tract;

THENCE North 00 degrees 33 minutes 53 seconds West, along the west line of said 2.837 acre tract, a distance of 723.22 feet to the POINT OF BEGINNING and containing 30,924,353 square feet or 709.93 acres of land, more or less.

Bearings are based upon the Texas State Plane Coordinate System (NAD83), North Central Zone 4202, and are based upon GPS measurements made on the ground. Distance values are "surface" derived from grid data by utilizing the Denton County Surface Scale Factor of 1.00015063, as published by TxDOT.

## Tract 2:

### DESCRIPTION OF 105.317 ACRES OF LAND

BEING a tract of land situated in the William G. Brookfield Survey, Abstract Number 34, the W.A. Ferris Survey, Abstract Number 419 and the W.D. Reed Survey, Abstract Number 1125, Denton County, Texas, being a portion of that tract of land described by deed to Petrus Investment, L.P. recorded in Instrument Number 2009-23477, Real Property Records, Denton County, Texas and being more particularly described by metes and bounds as follows:

BEGINNING at the northeast corner of said Petrus Investment tract, being in the south right-of-way line of State Highway FM 407 (a 90 foot right-of-way) and being in the west line of that tract of land described by deed to CNR Tally/Trail Creek Acres, recorded in Instrument Number 2009-136383, said Real Property Records

THENCE S 00°34'42"E, 3214.24 feet, departing said right-of-way line with the east line of said Petrus Investment tract, to an ell corner of said Petrus investment tract;

THENCE S 88°57'58"W, 1539.85 feet, continuing with said east line;

THENCE N 00°00'00"E, 2998.58 feet, departing said east line to the north line of said Petrus Investment tract and the aforementioned south right-of-way line of State Highway FM 407;

THENCE with said common line the following courses and distances:

S 89°55'02"E, 1005.81 feet, to the beginning of a curve to the left;

With said curve to the left, an arc distance of 489.52 feet, through a central angle of 45°20'01", having a radius of 618.69 feet, the long chord which bears N 67°24'58"E, 476.85 feet;

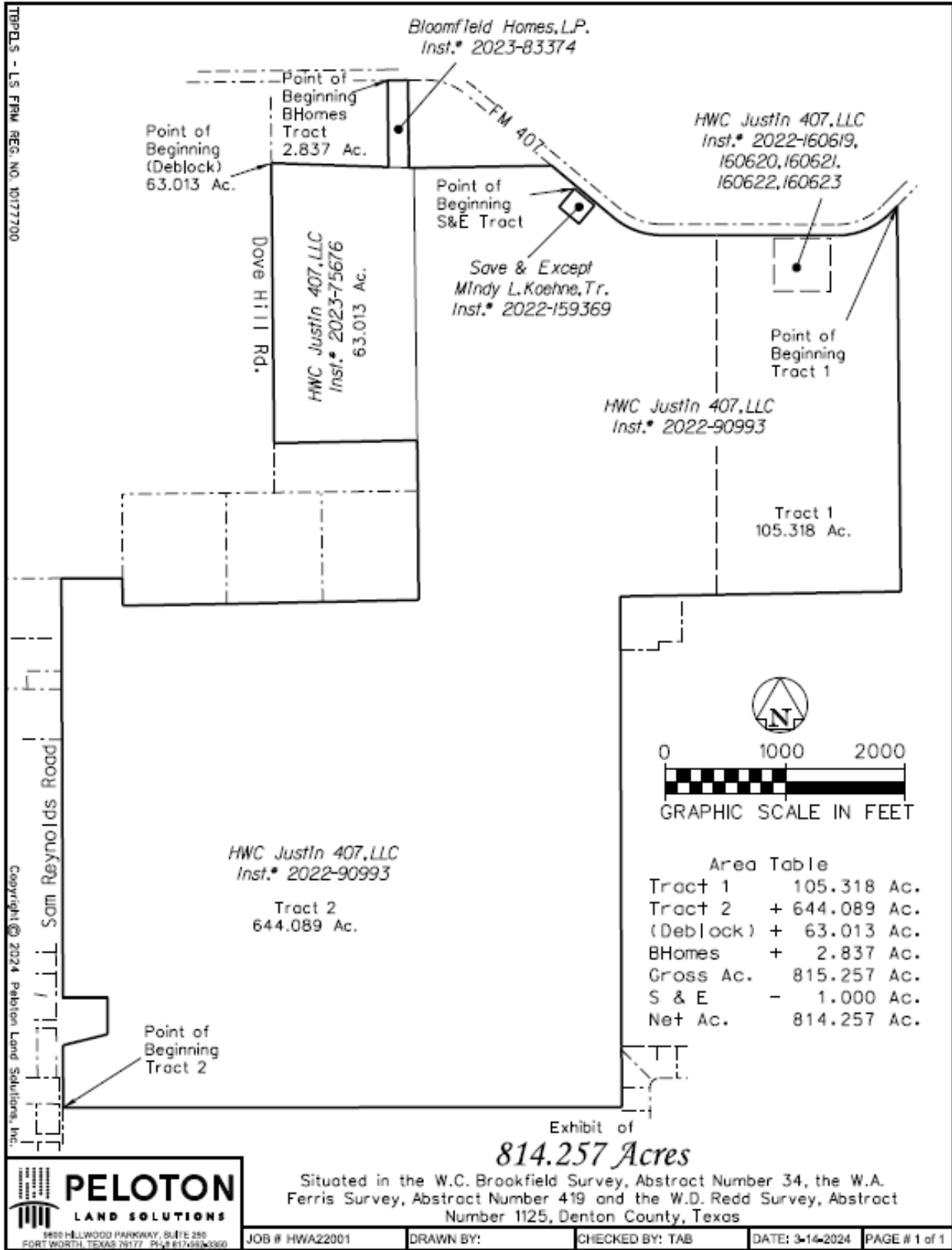
THENCE N 44°44'58"E, 86.74 feet, continuing with said common line to the **Point of Beginning** and containing 4,587,603 square feet or 105.317 acres of land more or less.

"Integral parts of this document"

1. Description

"This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."







## **ORDINANCE NO. 802-25**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, AUTHORIZING THE CITY MANAGER TO FINALIZE AND EXECUTE A STRATEGIC PARTNERSHIP AGREEMENT WITH TRADITION MUNICIPAL UTILITY DISTRICT NO. 2C OF DENTON COUNTY; DIRECTING THE CITY ATTORNEY TO COMPLETE LEGAL REVIEW; REQUIRING THE INCLUSION OF A SITEUS COMPONENT; ACKNOWLEDGING THE ANTICIPATED POSITIVE FISCAL IMPACT TO THE CITY; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin and Tradition Municipal Utility District No. 2C of Denton County (“District”) desire to enter into a Strategic Partnership Agreement (“SPA”) under Section 43.0751 of the Texas Local Government Code; and

**WHEREAS**, the SPA will authorize the limited-purpose annexation of land within the District’s boundaries for the purpose of collecting local sales and use tax revenues, and will allocate fifty percent (50%) of all such revenues to the City of Justin; and

**WHEREAS**, the preliminary estimates based on development projections anticipate that the City will receive approximately **\$2,010,510** in total revenue from both traditional sales tax and vertical construction-related SITEUS (Sales and Use Tax Estimated Use Structure) collections; and

**WHEREAS**, the City Council finds that entering into this agreement is in the best interest of the City and its residents, supporting long-term fiscal sustainability and enabling equitable participation in the commercial and residential growth of the District; and

**WHEREAS**, the City Council desires to ensure the final agreement includes a SITEUS provision and that the City Attorney completes full legal review prior to execution;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** The City Manager is hereby authorized to finalize and execute the Strategic Partnership Agreement with Tradition MUD No. 2C of Denton County, in a form substantially similar to the draft presented, subject to final review and approval by the City Attorney.

**SECTION 2.** The final agreement shall include a SITEUS provision to ensure the collection and allocation of local sales and use taxes on vertical construction materials and



related sales within the District. The parties may mutually agree to engage a consultant to manage the associated documentation, with the cost to be shared equally (50/50) between both parties.

**SECTION 3.** The City Council acknowledges the anticipated positive fiscal impact to the City, estimated at approximately **\$2,010,510**, derived from the City's share of traditional and SITEUS-related sales and use taxes.

**SECTION 4:** The City Attorney shall review and approve the Strategic Partnership Agreement for legal sufficiency prior to execution. No agreement shall be deemed final or binding until such legal review is completed.

**SECTION 5:** If any provision, section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be unconstitutional, void, or invalid, the validity of the remaining portions shall not be affected thereby.

**SECTION 6:** This Ordinance shall take effect immediately from and after its passage and publication as required by law.

**PASSED ON THE FIRST READING BY THE CITY COUNCIL ON THE 8th DAY OF MAY 2025.**

**PASSED ON SECOND READING BY THE CITY COUNCIL ON THE 22ND DAY OF MAY 2025.**

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

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Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

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City Attorney





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 2. (PUBLIC HEARING(S))

Title: Conduct a Public Hearing and consider approving Ordinance 806-25, first reading, for a Specific Use Permit for Grapes to Wine+, a Wine/Bourbon Bar use located at 112 W 4th Street; and take appropriate action.

Department: Administration

Contact: Matthew Cyr, Director of Planning and Development

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**Recommendation:**

Staff recommends consideration based upon the request.

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**Background:**

There is a request to consider a Specific Use Permit (SUP) for the establishment of a wine and bourbon bar, Grapes to Wine+, to be located at 112 W. 4th Street in the Old Town District. The applicants, Dan and Hazel Adams, propose to operate a stylish, upscale bar specializing in premium wines and small-batch bourbons, incorporating curated tastings, membership programs, and a refined social atmosphere.

The City recently acquired the building in March 2025 and has been looking for an appropriate tenant that aligns with supporting local businesses, while providing a unique experience in the Old Town Area.

The proposed hours of operation are Tuesday through Thursday from 2:00 PM to 8:00 PM and Friday through Saturday from 2:00 PM to 10:00 PM. The bar will be closed on Sundays and Mondays. Interior and exterior seating is proposed, including comfortable lounge furniture and outdoor benches surrounding gas firepits or Solo Stoves.

The tenant will not be installing a kitchen, but will be installing a food prep area for Charcuteri boards and other small snacks to be served. In addition, the tenant talked about allowing food from other restaurants into the location to be brought in only by the customer.

**Key Consideration – Parking:**

Parking availability will be a central topic of review in evaluating this request. Staff has identified

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approximately 78 parking spaces within 0.08 miles of the subject site. The immediate area includes two restaurants and approximately seven other retail establishments. Based on the City's zoning requirements, restaurants are required to provide one (1) parking space per 100 square feet of floor area, and retail uses require one (1) space per 300 square feet.

As a result, staff will present the cumulative demand for parking in the area at the meeting, factoring in the proposed use along with existing businesses. The applicant or City may be required to coordinate shared parking or provide additional strategies to mitigate potential impacts during peak operational hours, which has been a topic of discussion.

### **Unified Development Code:**

In February 2025, the Planning and Zoning Commission and City Council adopted the City's new Unified Development Code (UDC). Under the UDC, all bar uses are required to obtain a Specific Use Permit to ensure compatibility with surrounding uses and alignment with the City's long-term vision. This application is consistent with those new regulatory requirements.

### **Imagine Justin Comprehensive Plan:**

The Comprehensive Plan was adopted in 2023 and is attached for the Commission's review.

### **Criteria for Consideration:**

The UDC requires consideration of the following:

When the planning and zoning commission considers giving a permit for a specific use, they check that it will be in harmony with nearby buildings and land uses. They look at whether it meets city standards for street paving, sidewalks, access to public roads, drainage, parking, screening like walls or fences, open spaces, building heights, and construction quality. Additionally, the commission reviews:

- (1) if the proposed land use matches the Imagine Justin Comprehensive Plan;
- (2) and any potential issues with lighting, noise, smells, etc., that might affect neighbors.

### **PZ Commission:**

The Commission will hear and act on the item on Tuesday, May 20th.

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**City Attorney Review:** No

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### **Attachments:**

- 1. Business Plan
- 2. UDC OT AREA
- 3. PZ Criteria
- 4. Imagine Justin Comprehensive Plan
- 5. Preliminary Floor Plan- Subject to Change
- 6. Proposed Ordinance







# Business Plan for Grapes to Wine+

## *Wine and Bourbon Bar*

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### 1. Executive Summary

**Business Name:** Grapes to Wine+

**Business Structure:** LLC

**Business Principal Members:** Dan L. Adams, Chief Executive Officer  
Hazel W. Adams, Managing Partner

**Location:** 112 N. 4<sup>th</sup> Street, Justin, TX

**Concept:** A stylish, upscale bar specializing in premium wines and small-batch bourbons, offering tasting experiences and a refined social atmosphere.

**Mission Statement:** To create a unique and sophisticated drinking destination that celebrates craftsmanship, community, and discovery through expertly curated wine and bourbon selections.

#### **Objectives:**

- Launch the bar by 3<sup>rd</sup> Qtr 2025
  - Develop a loyal membership and event clientele
  - Achieve 75 wine and 50 bourbon club memberships within the first 6 months
  - Achieve profitability by end of the first 6 months to hire an employee
  - Achieve \$300,000 in revenue in Year 1
- 

### 2. Business Description

#### **Industry Overview:**

The U.S. wine and spirits market continues to grow, with consumer interest shifting toward premium experiences and craft labels. Wine consumption remains steady, while bourbon is enjoying a renaissance driven by younger consumers and collectors.



### **Unique Selling Proposition (USP):**

- Membership program with perks and private tastings
  - Exclusive wine flights and bourbon tastings
  - Expert-led education and pairing events
  - Cozy yet elegant atmosphere with a vintage-modern design
- 

## **3. Market Analysis**

### **Target Market:**

- Age 28–75, urban professionals and retirees, bourbon and wine enthusiasts
- Middle-to-high income brackets
- Locals and tourists seeking premium nightlife experiences

### **Competitor Overview:**

- Local restaurants and bars

### **Competitive Advantage:**

- Specialized dual focus on wine and bourbon
  - Handpicked selections
  - Seasonal and limited-edition offerings
  - Interactive events: tastings, live music
- 

## **4. Marketing Strategy**

### **Branding:**

Approachable, welcoming, and comfortable with a Tuscany look and feel. Interior furnishings will be tables, chairs, and comfortable sitting room sofa and chairs. Exterior furnishings will be outside benches and chairs around gas firepits and/or Solo Stoves.

### **Promotion Channels:**

- Social media (Instagram, Facebook, TikTok)
  - Advertise in local quarterly magazines (e.g., Argyle and Lantana Living) and newspapers (Cross Timber Gazette, etc.)
  - Monthly newsletter via email
  - Customer referrals
-



## 5. Operations Plan

### Hours of Operation:

Sunday-Monday, Closed

Tuesday–Thursday, 2pm – 8pm

Friday-Saturday, 2pm-10pm

### Staffing Needs:

- First 6-months, owners, Dan and Hazel Adams, will manage and operate the business.
- Bourbon consultant, as needed, to assist with the initial selection of bourbon and startup of the bourbon club membership.
- After 6 months, a part-time employee will be hired to fill the role of a Bartender/Server.
- Months 7 on will reassess the staffing needs and appropriately hire, as necessary.

### Suppliers:

- National distributors (e.g., Republic National Distributor, Glazer, etc.)
- Local Texas distributors (e.g., Favorite Brands, Pioneer, Ambiente, Serendipity, etc.)
- Local wineries/distilleries

### Technology:

- POS system (e.g., Toast or Square)
  - Accounting system (e.g., Quick Books, etc.)
  - Reservation/event booking service
- 

## 6. Financial Plan

### Startup Costs (Estimated):

- Leasehold improvements: \$25,000
  - Furnishings/decor: \$15,000
  - Licenses and permits: \$5,000
  - Initial inventory: \$30,000
  - Marketing: \$5,000
  - Working capital: \$20,000
- Total Estimated Startup Costs: \$100,000**

### Revenue Streams:

- In-house wine and bourbon sales
- Tastings/events



- Membership programs
- Retail bottle sales
- Food - Charcuterie boards

#### **Year 1 Projections (Estimated):**

- Revenue: \$300,000
  - COGS: \$120,000
  - Gross Margin: \$180,000
  - Operating Expenses: \$84,000
  - Net Profit: \$96,000
- 

### **7. Legal & Licensing**

- TABC State liquor license (wine & spirits)
  - Business license (LLC)
- 

### **8. Appendix**

- Founders/Owners Experience
- Bar layout/floorplan (refer to separate attachment)
- Sample representation of interior and exterior furnishings

#### **Founders/Owners Experience:**

In Dan's career, he worked in Sales for several small and large companies and owned two businesses. His first business was a successful furniture store specializing in antique reproductions for 13 years. Hazel had a very rewarding and successful 40-year career with the Federal Reserve System, where she started as a high school intern and retired as a Vice President.

In 2010, Dan and Hazel opened Grapes to Wine (GTW) in the Bartonville Town Center to provide a unique wine tasting experience and club membership for the local community. With Dan's expert wine knowledge and business savvy, the wine club membership reached ~400 members, which became the largest wine club out of a single location in the state of Texas. GTW offered music on Friday and Saturday nights and quickly became known for the place couples would go for date night. GTW motto was "Enter as Strangers and leave as Friends" because many in the community met there and became great friends. There were many sold out events, everything from wine and food pairings to wine tastings curated by well-known Napa Valley winemakers. As the business grew, it required them to expand from 1,200 sq ft to almost 6,000 sq ft. It employed full-time and part-time people from the community.



**Sample Representation of furnishings:**  
Please find below pictures representing  
of the interior and exterior furnishings.



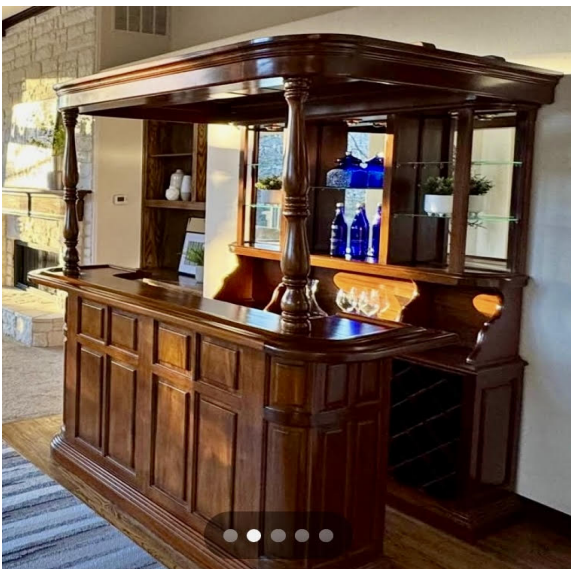
Comfortable chairs and side tables



Comfortable seating



High-top table and stools



Bourbon Bar



Outside seating bench



| Schedule of Uses                                                                                                                |                          |      |      |       |    |    |                 |    |    |    |    |
|---------------------------------------------------------------------------------------------------------------------------------|--------------------------|------|------|-------|----|----|-----------------|----|----|----|----|
| Chart Legend: "P" Permitted Use, "PC" Permitted with Design Criteria, "S" Specific Use Permit required, "Blank" Use Not Allowed |                          |      |      |       |    |    |                 |    |    |    |    |
| USE ZONING DISTRICT<br>TYPE                                                                                                     | RESIDENTIAL              |      |      |       |    |    | NON-RESIDENTIAL |    |    |    |    |
|                                                                                                                                 | SF-RE                    | SF-1 | SF-2 | SF-OT | MM | MF | NC              | RC | MU | OT | LI |
| Golf driving range                                                                                                              |                          |      |      |       |    | S  | S               | S  | S  |    | P  |
| Outdoor amusement                                                                                                               |                          |      |      |       |    |    |                 | S  | S  |    | P  |
| Park or playground (public or private)                                                                                          | P                        | P    | P    | P     | P  | P  | P               | P  | P  | P  | P  |
| Recreation or amusement establishment                                                                                           |                          |      |      |       |    |    |                 | S  | S  |    | S  |
| Stable, commercial, riding or boarding                                                                                          | S                        |      |      |       |    |    |                 | S  | S  |    | P  |
| Tennis or swim club                                                                                                             |                          |      | S    | S     | S  | P  | P               | P  | P  | P  | P  |
|                                                                                                                                 | Religious                |      |      |       |    |    |                 |    |    |    |    |
| Place of worship (primary use)                                                                                                  |                          |      |      | S     | S  | S  | S               | S  | S  | S  | P  |
| Institutions of religious or philanthropic nature                                                                               |                          |      | S    | S     | S  | P  | P               | P  | P  | P  | P  |
| Place of worship auxiliary use                                                                                                  | S                        | S    | S    | S     | S  | S  | P               | P  | P  |    | P  |
|                                                                                                                                 | Utilities                |      |      |       |    |    |                 |    |    |    |    |
| Electric power substation                                                                                                       | S                        | S    | S    | S     | S  | P  | P               | P  | P  | P  | P  |
| Power plant or central electric station                                                                                         |                          |      |      |       |    |    |                 |    |    |    | P  |
| Stealth telecommunications towers                                                                                               | S                        | S    | S    | S     | S  | S  | S               | S  | S  | S  | S  |
| Telecommunications antenna (on structure)                                                                                       |                          |      |      |       |    | S  | S               | S  | S  | S  | S  |
| Telecommunications tower                                                                                                        | S                        | S    | S    | S     | S  | S  | S               | S  | S  | S  | S  |
| Utility transmission or distribution line                                                                                       | P                        | P    | P    | P     | P  | P  | P               | P  | P  | P  | P  |
| Sewage pumping stations                                                                                                         | S                        | S    | S    | S     | S  | S  | S               | S  | S  | S  | S  |
| Wastewater (sewage) treatment facility                                                                                          |                          |      |      |       |    |    |                 |    |    |    | P  |
| Water supply or storage facility                                                                                                | S                        | S    | S    | S     | S  | S  | S               | S  | S  | S  | P  |
| Water treatment plant                                                                                                           |                          |      |      |       |    | S  | S               | S  | S  |    | S  |
|                                                                                                                                 | COMMERCIAL USES          |      |      |       |    |    |                 |    |    |    |    |
|                                                                                                                                 | Dining and Entertainment |      |      |       |    |    |                 |    |    |    |    |
| Amusement, indoor                                                                                                               |                          |      |      |       |    |    | P               | P  | P  | P  | P  |
| Amusement, outdoor                                                                                                              |                          |      |      |       |    |    |                 | S  | S  | S  | P  |
| Baseball/softball facility (commercial)                                                                                         |                          |      |      |       |    |    |                 | S  | S  | S  | P  |
| Batting cages, indoor                                                                                                           |                          |      |      |       |    |    | P               | P  | P  | P  | P  |
| Bowling alley                                                                                                                   |                          |      |      |       |    |    | P               | P  | P  | P  | P  |
| Bar, tavern, cocktail lounge; club, private or teen                                                                             |                          |      |      |       |    |    |                 | S  | S  | S  | S  |



(b) When the planning and zoning commission considers giving a permit for a specific use, they check that it will be in harmony with nearby buildings and land uses. They look at whether it meets city standards for street paving, sidewalks, access to public roads, drainage, parking, screening like walls or fences, open spaces, building heights, and construction quality. Additionally, the commission reviews:

- (1) if the proposed land use matches the Imagine Justin Comprehensive Plan; and
  - (2) any potential issues with lighting, noise, smells, etc., that might affect neighbors.
-

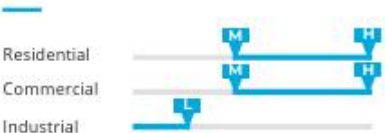


## DISTRICT PROFILE



### Development Intensity

Regulatory Guidance



Old Town has one of the highest development ranges due to the commercial and mixed-use intensity developed as the city's original plat. This core has been the heart of commercial development for generations, and continuing to develop this area will promote more economic development.

### IDENTITY + CHARACTER

Old Town is the original Justin town and has a significant historical context. Development is reminiscent of traditional main streets, and walkable mixed-use is encouraged by having buildings close to the road, street trees, and pedestrian-focused amenities that make walking comfortable.

### OPPORTUNITIES

As the historical core, this area is situated to accommodate higher intensity developments that can include mixed use which is successful in areas with plenty of services and retail. With added residential in the area, it can create a substantial amount of foot traffic that can sustain more retail businesses.

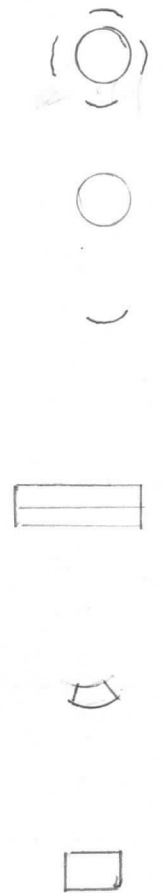
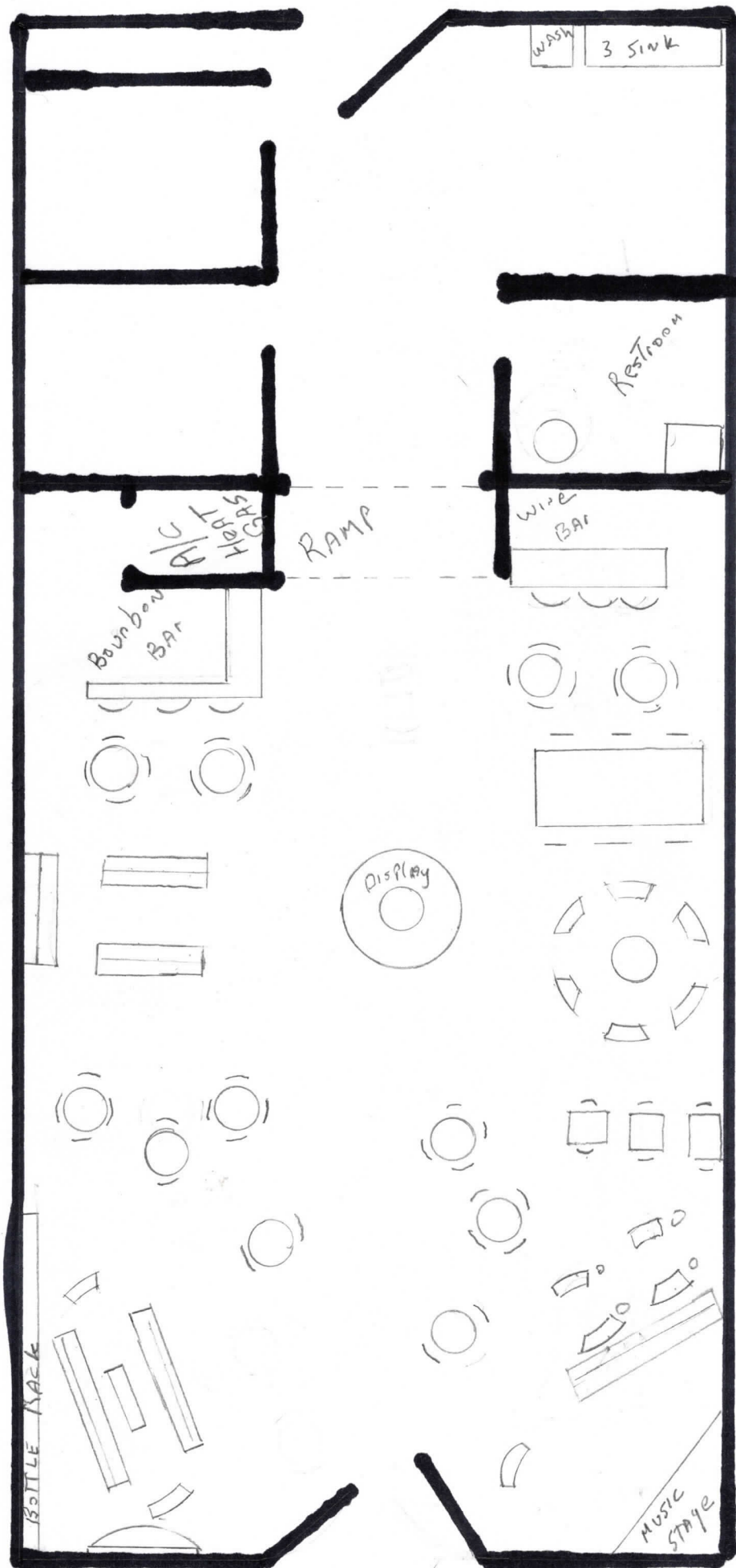
### CHALLENGES

As the original town of Justin, the infrastructure in this area is amongst the oldest in town, which can be a challenge with new development and right-sizing the services needed for higher intensity.

### AREAS OF FOCUS

4th Street has developed as the main street and is off of the FM 156 corridor, which is highly vehicular and not conducive to downtown development. Transitioning the businesses and services into the existing residential neighborhood should also be focused on to ensure appropriate action on the edges of the commercial area.







**ORDINANCE NO. 806-25**

**AN ORDINANCE OF THE CITY OF JUSTIN, TEXAS, APPROVING A SPECIFIC USE PERMIT FOR A WINE AND BOURBON BAR (GRAPES TO WINE+) LOCATED AT 112 W. 4TH STREET IN THE OLD TOWN DISTRICT; PROVIDING FOR CONDITIONS; PROVIDING FOR INCORPORATION OF PREMISES; PROVIDING A CUMULATIVE CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, Dan and Hazel Adams (the "Applicants") submitted an application for a Specific Use Permit (SUP) to allow the use of a wine and bourbon bar, known as "Grapes to Wine+," at 112 W. 4th Street, within the Old Town District of the City of Justin, Texas; and

**WHEREAS**, the property is currently owned by the City of Justin and the proposed use aligns with the City's intent to activate and revitalize the Old Town area with unique and locally supported businesses; and

**WHEREAS**, the City Council adopted the Unified Development Code (UDC) in February 2025, which requires a Specific Use Permit for all bar uses; and

**WHEREAS**, in accordance with the requirements of the UDC, a public hearing was properly noticed and held before the Planning and Zoning Commission on May 20, 2025, and before the City Council on May 22, 2025 and June 26, 2025; and

**WHEREAS**, the Planning and Zoning Commission recommended approval of the Specific Use Permit subject to certain conditions, and the City Council finds that the proposed use meets the criteria set forth in the UDC and the goals of the Imagine Justin Comprehensive Plan adopted in 2023.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** The above and foregoing premises are true and correct and are incorporated herein and made a part of this Ordinance for all purposes.

**SECTION 2.** The City of Justin hereby approves a Specific Use Permit (SUP) for the operation of a wine and bourbon bar known as Grapes to Wine+ at 112 W. 4th Street, legally described as OT JUSTIN BLK 32, LOT 23.

**SECTION 3.** This Ordinance shall be cumulative of all other ordinances of the City of Justin and shall not repeal any of the provisions of said ordinances except as expressly provided herein.



**SECTION 4.** If any provision of this Ordinance or the application thereof to any person or circumstance shall be held to be invalid, such invalidity shall not affect the other provisions of this Ordinance which can be given effect without the invalid provision or application.

**SECTION 5.** This Ordinance shall take effect immediately upon its passage and approval by the City Council of the City of Justin, Texas.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 26th day of June 2025.

**On first reading, the 22<sup>nd</sup> day of May 2025.**

**On the second and final reading, the 26<sup>h</sup> day of June 2025.**

**APPROVED:**

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James Clark, Mayor

**ATTEST:**

---

Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

---

City Attorney





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 1. (ACTION ITEM(S))

Title: Consider approving Resolution 760-25 authorizing the City Manager or designee to negotiate and execute a lease agreement with Grapes to Wine+; and take appropriate action.

Department: Administration

Contact: Matthew Cyr, Director of Planning and Development

---

**Recommendation:**

Staff recommends approval with the following conditions: 1. The City Attorney review and approve the lease agreement 2. Any other conditions from City Council or EDC/CDC

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**Background:**

Staff will discuss in executive session in accordance with State Laws.

---

**City Attorney Review:** No

---

**Attachments:**

1. Resolution GW+ Lease



## **RESOLUTION NO. 760-25**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, AUTHORIZING THE CITY MANAGER OR DESIGNEE TO NEGOTIATE AND EXECUTE A LEASE AGREEMENT WITH GRAPES TO WINE+ FOR THE CITY-OWNED PROPERTY LOCATED AT 112 W. 4TH STREET; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Justin acquired the property located at 112 W. 4th Street in March 2025 with the intent to support economic development and activate the Old Town District with unique and locally oriented businesses; and

**WHEREAS**, Dan and Hazel Adams, doing business as Grapes to Wine+, have submitted a proposal to lease the property for the purpose of operating a wine and bourbon bar that aligns with the City's revitalization and downtown development goals; and

**WHEREAS**, the proposed use has been reviewed and is subject to a Specific Use Permit (SUP) in accordance with the City's Unified Development Code (UDC); and

**WHEREAS**, the City Council desires to authorize the City Manager or designee to negotiate and execute a lease agreement with Grapes to Wine+, subject to the terms and conditions acceptable to the City and consistent with the goals of the Old Town District.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS, THAT:**

**SECTION 1.** That the City Manager or designee is hereby authorized to negotiate and execute a lease agreement with Grapes to Wine+ for the use of the City-owned property located at 112 W. 4th Street, Justin, Texas, for the purpose of operating a wine and bourbon bar.

**SECTION 2.** That the lease agreement shall include such terms and conditions as are determined necessary and appropriate by the City Manager or designee, in consultation with the City Attorney, and shall be consistent with the City's development goals for the Old Town District.

**SECTION 3.** That this Resolution shall become effective immediately upon its passage.

**SECTION 5:** That this resolution shall take effect immediately upon its passage.

**DULY PASSED** by the City Council of the City of Justin, Texas, on the 8th day of May 2025.



**APPROVED:**

---

James Clark, Mayor

**ATTEST:**

---

Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

---

City Attorney





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 2. (ACTION ITEM(S))

Title: Consider approving Resolution 758-25 for Architectural Services with FGMArchitects in the amount of \$148,415 related to the renovation of City Hall, Joe Merle Morris Community Center, Police Department, Council Chambers, and the design of a New Gymnasium; and take appropriate action.

Department: Administration

Contact: Jarrod Greenwood, City Manager

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**Recommendation:**

Staff recommends approving Resolution 758-25, as presented.

---

**Background:**

This facility was originally constructed as an elementary school in the 1960s and currently houses several essential municipal functions, including City Administration, Police Department, Utility Billing, Library, Municipal Court, City Council Chambers, and Development Services.

As the City of Justin has grown, so too have the demands on this facility. In its current state, the building has proven inadequate for the City's expanding operational and community needs.

The Needs Assessment that Council approved in August 2024, resulted in a list of significant deficiencies/issues, which included:

- Original 1964 construction has aging infrastructure that is no longer capable of handling the demands of current needs:
    - Substandard electrical
    - Lack of meeting space
    - Leaking roofs
    - Poor air quality
  - Lack of ADA accessibility and overall code compliance
  - Absence of fire sprinklers
  - Poor air circulation and climate control throughout
  - No climate control in the gymnasium;
  - Significant drainage issues around the building and site
-



To address these issues and plan for the future, staff recommends entering into an agreement with FGMArchitects to perform Phase One **for** professional design services, including:

- Programming and schematic design
- Site civil engineering planning
- Development of cost estimates
- Preparation of preliminary design materials suitable for public engagement and future funding considerations

FGMArchitects' Phase One Fee is \$148,415, which includes a \$5,200 credit for previously completed field work. The scope also includes community presentations and support during public meetings as needed.

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**City Attorney Review:** N/A

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**Attachments:**

1. Resolution 758-25 Agreement with FGMArchitects For City Hall-Community Ctr Remodel
2. FGMA Proposal\_Justin City Hall, PD, Council Chambers & New Gymnasium 2025-04-22



**CITY OF JUSTIN  
RESOLUTION 758-25**

**A RESOLUTION OF THE CITY COUNCIL OF CITY OF JUSTIN, AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH FGMARCHITECTS FOR PHASE ONE DESIGN SERVICES FOR THE RENOVATION OF CITY HALL, JOE MERLE MORRIS COMMUNITY CENTER, POLICE DEPARTMENT, COUNCIL CHAMBERS, AND THE DESIGN OF A NEW GYMNASIUM; AUTHORIZING THE CITY MANAGER TO EXECUTE SAID AGREEMENT.**

**WHEREAS**, the current Community Center was constructed as an elementary school in the late 1960's and over the years has been remodeled to serve the City of Justin as a Community Center; and

**WHEREAS**, the current municipal operations conducted within the facility include: city administration; police; utility billing; library; municipal court; City Council meetings; senior citizen programs; youth sports; economic development/community development corporation; and building permitting and development services; and

**WHEREAS**, the requests and needs to utilize the facilities are increasing as the community continues to grow; and

**WHEREAS**, the current state of the facilities are not able to handle these additional requests and needs to utilize the facilities are increasing as the community continues to grow; and

**WHEREAS**, City Council approved Resolution 703-24 for a Needs Assessment of the facility on August 22, 2024; and

**WHEREAS**, a report was presented on February 27, 2025 to Council of the deficiencies found, which included: the structure was built in 1964; it is not ADA accessible; there are no fire sprinklers; the facility/campus is not ADA compliant; the facility/campus is not Code compliant, the existing gymnasium is not climate controlled, and there are water drainage issues in and around the building; and

**WHEREAS**, the proposed Agreement with FGMArchitects will provide for a preliminary set of project documents and budget based on the recommended improvements/renovations to allow Council an opportunity to determined what course of action might be necessary to best meet the current and future needs of the community; and

**WHEREAS**, the City Council finds that the passage of this resolution is in the best interest of the citizens of Justin.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS:**

**SECTION 1:** That, all matters stated in the Recitals hereinabove are found to be true and correct and are incorporated herein by reference as if copied in their entirety.

**SECTION 2:** That the City of Justin City Council hereby approves Resolution 758-25, authorizing the City Manager to enter into an agreement with FGMArchitects for Phase One professional architectural and engineering services for the renovation of City Hall, Joe Merle



Morris Community Center, Police Department, Council Chambers, and the design of a New Gymnasium in the amount of \$148,415, attached as ***Exhibit "A"***.

**SECTION 3:** If any portion of this Resolution shall, for any reason, be declared invalid by any court of competent jurisdiction, such invalidity shall not affect the remaining provisions hereof and the Council hereby determines that it would have adopted this Resolution without the invalid provision.

**SECTION 4:** That this resolution shall become effective from and after its date of passage.

**DULY PASSED** and approved by the City Council of the City of Justin, Texas, by a vote on this the 22<sup>nd</sup> day of May 2025.

**APPROVED:**

---

James Clark, Mayor

**ATTEST:**

---

Amy Piukana, City Secretary

**APPROVED AS TO FORM:**

---

Matthew Boyle, City Attorney





April 22<sup>nd</sup>, 2025

Mr. Jarrod Greenwood  
City Manager  
City of Justin  
415 N. College Ave.  
Justin, Texas 76247

Subject: **Fee Proposal for Professional Design Services: Renovations to Existing City Hall Administration, Police Department, Council Chambers & New Gymnasium**

Dear Mr. Greenwood,

FGM Architects Inc. (FGMA) is pleased to submit this proposal for the above-mentioned work. On the following pages we have summarized our understanding of the project, identified our project team, outlined our scope of work and proposed a fee for our professional services.

Please review the following information and let me know if you have any questions or concerns. We look forward to continuing our good working relationship with the City of Justin on this important project.

Sincerely,

Charlie Kearns | Principal  
[charliekearns@fgmarchitects.com](mailto:charliekearns@fgmarchitects.com)





## PROJECT UNDERSTANDING

The City of Justin (City) has asked FGMA to provide programming, schematic design and cost estimating services to identify the total project costs for the renovation of the existing City Hall building and the addition of a new Gymnasium on the same site. It is our understanding that the programming documents, schematic plans, renderings and cost estimates will be used for the purpose of educating the citizens about the project for a potential general obligation bond election in the future.

The City has identified the following areas of concern to be addressed as part of this project:

- Provide Programming and Schematic Design for the existing City Hall facility to provide for better utilization of the space for:
  - City Administration
  - City Council Chamber
  - Police Headquarters
  - Municipal Court
  - Adaptive Re-Use of the Existing Gymnasium for Council Chambers and Flex Space
- Provide Schematic Drawings / Design Narrative and a cost estimate to address the drainage issues of the entire existing City Hall site.
- Provide Schematic Design documents / Design Narratives and a cost estimate for a new gymnasium of approximately 8,500sf to be located on the existing city hall site.
- Present our findings to the City Council, attend Town Hall meetings and other events as requested by the City of Justin to assist in answering questions on the scope and cost estimates.

Based upon previous Rough Order of Magnitude (ROM) estimates the anticipated construction budgets at this time for the City Hall Renovation are \$8,000,000.00 with an additional \$400,00.00 for site parking and drainage improvements. The ROM for the construction of a New Gymnasium is \$3,850,00.00.

Our proposed professional services will be performed in two phases. Phase One, as presented in this proposal, includes the Programming, Schematic Design deliverables and cost estimates. Phase Two, to be part of a subsequent proposal, will include preparation of design documents to be used for bidding, permitting and construction administration services should the City elect to move forward with the funding and completion of these projects.

## DESIGN TEAM

Design team members and roles are listed below:

|                |                                                    |
|----------------|----------------------------------------------------|
| FGM Architects | Architect                                          |
| Westwood       | Civil Engineer                                     |
| JQ Engineering | Structural Engineer                                |
| MD Engineering | Mechanical/Electrical/Plumbing/Technology Engineer |
| McAdams        | Landscape Architect                                |









#### PRELIMINARY PROJECT SCHEDULE

Based on our current understanding of the City's goals and objectives and the scope of professional services described above, we have prepared a Preliminary Project Schedule upon which our Proposal is based. We will review this schedule with the city at the project kick-off meeting to clarify and confirm the assumptions made.

We propose to start work on June 2, 2025, and complete the project August 29, 2025.

| <u>Phase/Activities</u>                       | <u>Duration</u> |
|-----------------------------------------------|-----------------|
| Kick-Off / Programming Meeting                | week 1          |
| Prepare conceptual design                     | week 2-5        |
| Owner review/approval                         | week 6          |
| Schematic Design Drawings / Design Narratives | week 7-10       |
| Cost estimating                               | week 11-12      |
| Final review/approval                         | week 13         |

#### ASSUMPTIONS

The FGMA team has made the following assumptions in the preparation of this Proposal:

- FGMA has included the design (SD Narratives) of conventional Architectural, Structural, Mechanical, Electrical, Plumbing and Civil Engineering systems as part of this Proposal. Specialty consultation services such as vibration, audio visual, datacom, acoustic, signage, security, environmental, and material testing are not included in this Proposal. If these services are required, FGMA will work with the city to select an appropriate consultant; consultant fees would be treated as a reimbursable expense.
- LEED documentation is not included in this Proposal.
- Energy modeling is not included in this Proposal.
- Geotechnical investigation is not included in this proposal.
- Existing building drawings and any other pertinent documents shall be made available to the FGMA team for its use by the beginning of the Scope Investigation Phase. The FGMA team shall perform a visual site survey to verify the existing conditions and will double-check key dimensions; however, detailed, measured drawings will not be prepared.
- Performance verification of the existing building systems is not included in the scope of this Proposal.





## COMPENSATION

### Phase One:

#### **City Hall Renovation Project** (including Parking/Drainage design)

A/E Fee is based on 12.5% of the Budgeted Cost of the Work

Programming, Schematic Design and Cost Estimating    \$115,500

#### **New Gymnasium Project** (including Parking and Drainage design)

A/E Fee is based on 9.0% of the Budgeted Cost of the Work

Programming, Schematic Design and Cost Estimating    \$38,115

#### **Phase One Professional Services Fee**

\$153,615

Credit for Previous Field Measurement and Programming of City Hall

-\$5,200

#### **Proposed Total Fee**

**\$148,415**

Additional Services: For any Additional Services authorized by the City beyond the scope of this Proposal, FGMA and its consultants shall be compensated either based on their standard hourly rates for the professional and technical employees engaged on the Project or based on a negotiated lump sum.

ACCEPTED BY:

Jarrold Greenwood

City Manager

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 3. (ACTION ITEM(S))

Title: Consider approving Resolution 761-25 appointing an alternate member to the Parks and Recreation Board; and take appropriate action.

Department: Administration

Contact: Joshua Little, Public Works Director

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**Recommendation:**

Staff recommends the appointment of Jason Palmer to Alternate Place 8 for the Parks and Recreation Board.

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**Background:**

Mr. Alwyn Dowell was recently appointed to Place 5 regular seat. This created a vacancy for the Place 8 Alternate position. The Parks Board recently reviewed the application for an alternate position submitted by Jason Palmer. The Parks Board is recommending the City Council consider appointing Jason Palmer to the Place 8 Alternate.

**Current places:**

• **Members**

- Place 1: Jacqueline Steinbacher - Vice Chairperson
  - Place 2: Mark Allen
  - Place 3: Gary Foree
  - Place 4: Robin Amerine - Chairperson
  - Place 5: Alwyn Dowell
  - Place 6: Marcus Gallegos
  - Place 7: Amy Shadowens
  - Place 8: (Alt#1)
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**City Attorney Review:** N/A

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**Attachments:**

1. Resolution 761-25 Jason Palmer to Place 8 Park Board



## **RESOLUTION 761-25**

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS APPOINTING JASON PALMER TO PLACE 8 ALTERNATE SEAT ON THE PARKS AND RECREATION BOARD.**

WHEREAS, a vacancy exists on the City of Justin Parks and Recreation Board in Place 8; and

WHEREAS, Jason Palmer will be appointed to fill the Place 8 alternate seat; and

WHEREAS, the City Council wishes to fill the vacancy on the Parks and Recreation Board; and

WHEREAS, the City of Justin City Council declares it in the best interests of the health, safety, and welfare of the public to adopt this resolution; and

WHEREAS, all prerequisites for the adoption of this resolution have been met, including but not limited to the Open Meetings Act.

### **NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF JUSTIN, TEXAS:**

Sec. 1. That all matters stated hereinabove

Sec. 2. Jason Palmer is hereby appointed to the Parks and Recreation Board to complete the current term of Place 8 for a term expiring December 31, 2026.

Sec. 3. Sec. 3. That this Resolution shall take effect immediately upon passage.

**AND IT IS SO RESOLVED AND APPROVED THIS 22nd OF MAY,  
2025.**

**ATTEST:**

**CITY OF JUSTIN**

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Amy M. Piukana  
City Secretary

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James Clark  
Mayor





City Council Coversheet  
May 22, 2025  
415 N. COLLEGE AVE.

Agenda Item: 3. (CEREMONIAL ITEM(S))

Title: Consider and take action to appoint a Mayor Pro Tem

Department: Administration

Contact: Amy Piukana, City Secretary

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**Recommendation:**

The City Staff recommends the City Council appoint a member of the City Council to serve as Mayor Pro Tem for a one-year term.

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**Background:**

The City Charter Chapter 3.05 states that the Mayor Pro-Tem shall be elected by the City Council at the first regular meeting after each election. The Mayor Pro-Tem serves the duties of the Mayor during the absence of the Mayor.

The following is a list of past Mayor Pro Tems:

- Shelby St. Claire (2024 to Present)
  - John Mounce (2022-2024)
  - James Clark (2021 to 2022)
  - Lynn Crites (2019-2021)
  - Alan Woodall (2018-2019)
  - David Wilson (2017-2018)
  - David Speicher (2015-2017)
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**City Attorney Review:** No

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**Attachments:**

None