

AGENDA

FLOWER MOUND PLANNING AND ZONING COMMISSION REGULAR MEETING

04/25/2022

FLOWER MOUND TOWN HALL, 2121 CROSS TIMBERS ROAD
FLOWER MOUND, TEXAS

6:30 P.M.

.....
AN AGENDA INFORMATION PACKET IS AVAILABLE ONLINE AT www.flower-mound.com/AgendaCenter
.....

Comments regarding any agenda item can be sent to the Commission by emailing pz@flower-mound.com.
Please silence or turn off all electronic devices in Jody Smith Hall

A. CALL MEETING TO ORDER

B. INVOCATION

C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG

D. PUBLIC COMMENT

The purpose of this item is to allow the public an opportunity to address the Commission regarding any item on this agenda that is not a "Public Hearing." Issues regarding daily operational or administrative matters should first be dealt with by calling Town Hall at 972-874-6000 during business hours. To speak to the Planning & Zoning Commission during public comment, please fill out a green comment form, which is located in the lobby of Town Hall.

In accordance with the Texas Open Meetings Act, the Commission is restricted from discussing or acting on items not listed on the agenda.

- Speakers are limited to 3 minutes; a tone will sound at 30 seconds left and when time has expired, and times may be adjusted by the Chair depending on the number of speakers.
- Speakers must address their comments to the Commission.
- Please state your name and address when speaking.

E. FUTURE AGENDA ITEMS

The purpose of this item is to allow the Chair and members of the Commission an opportunity to bring forward items they wish to discuss at a future meeting, with the understanding a consensus of the Commission is needed in order for that item to be placed on a future agenda and in accordance with the Town Council Agenda Setting Policy (Ord. 65-15).

F. DIRECTOR'S REPORT

1. Development Update

G. CONSENT ITEMS

This part of the agenda consists of non-controversial or "housekeeping" items required by law. Items may be removed from Consent by any Commissioner by making such request prior to a motion and vote.

1. Minutes of April 11, 2022: Consider approval of the minutes of the April 11, 2022, Planning and Zoning Commission Regular Session.

2. VP22-0002 – Middle School Addition No. 14 Lots 2, 3, & 4: Consider a request to partially vacate a previously approved plat (VP22-0002 – Middle School Addition No. 14 Lots 2, 3, & 4). The property is generally located north of Spinks Road and east of Long Prairie Road.

H. NON-DISCRETIONARY ITEMS

This part of the agenda consists of items that are in compliance with all applicable development standards; are not requesting waivers, exceptions or deviations; and do not require a public hearing.

3. DP21-0008 – Oakbridge Crossing: Consider a request for a Development Plan (DP21-0008 – Oakbridge Crossing) to develop a residential subdivision. The property is generally located east of Long Prairie Road and north of Spinks Road.

I. REGULAR ITEMS

This part of the agenda consists of discretionary items either relating to zoning or a requested variation from the Town's development standards. If a public hearing is required, it will be noted in the item caption on the agenda. Typically, the Planning & Zoning Commission will make a recommendation to Town Council on these types of projects.

4. SP21-0011 – Lakeside Parkway Office/Warehouse: Consider a request for a Site Plan (SP21-0011 – Lakeside Parkway Office/Warehouse) to develop an office-showroom warehouse facility with an exception to Section IV.C.5. of the Town's Engineering Design Criteria requirement to allow for an alternative detention pond wall design. The property is generally located northeast of Lakeside Parkway and Gerault Road.
5. ZPD21-0013 – Orchard Flower: Public Hearing to consider an ordinance for rezoning (ZPD21-0013 – Orchard Flower) to amend Planned Development No. 120 (PD-120) with Single-Family District-5 (SF-5) and Retail District-2 (R-2) uses, to modify the conceptual plans and elevations for the non-residential portion and modify the development standards, with an amendment to the previously approved exception to Sec 82-303 for the compatibility setback, and with certain modifications and exceptions to the Code of Ordinances. The property is generally located at the northwest corner of Flower Mound Road and Old Orchard Lane.

Pursuant to Section 551.071 of the Texas Government Code, the Planning and Zoning Commission reserves the right to consult in closed session with its attorney and to receive legal advice regarding any item listed on this agenda.

J. ADJOURNMENT – REGULAR SESSION

i. WORK SESSION

- a. Presentation and discussion on MPA21-0010 - Trails and Bikeways Master Plan.

I do hereby certify that the Notice of Meeting was posted on the bulletin board in Town Hall for the Town of Flower Mound, Texas, in a place convenient and readily accessible to the general public at all times and said Notice was also posted on the Town's website in accordance with GC Section 551.056 on the following date and time: April 21, 2022, at 4:30 p.m., at least 72 hours prior to the scheduled time of said meeting.

LauriAnn Cash, Executive Assistant

The Flower Mound Town Hall and Jody Smith Hall are wheelchair accessible. Requests for accommodations or interpretive services must be made at least 48 hours prior to this meeting by contacting Planning Services at 972-874-6350. Additional time limits will be provided to members of the public that need to address the Commission through a translator.



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: 1

CONSENT ITEM

DATE: April 25, 2022

FROM: LauriAnn Cash, Development Services Executive Assistant

ITEM: Consider approval of the minutes of the April 11, 2022, Planning and Zoning Commission Regular Session.

I. BACKGROUND INFORMATION

The Planning and Zoning Commission held a regular meeting on April 11, 2022.

II. ATTACHMENTS

1. Draft Minutes

THE FLOWER MOUND PLANNING & ZONING COMMISSION MEETING HELD ON THE 11TH DAY OF APRIL 2022, IN THE FLOWER MOUND TOWN HALL, LOCATED AT 2121 CROSS TIMBERS ROAD IN THE TOWN OF FLOWER MOUND, COUNTY OF DENTON, TEXAS AT 6:30 PM

The Planning & Zoning Commission met in a regular session with the following members present:

Brad Ruthrauff	Commissioner, Place 1
Robbie Cox	Commissioner, Place 2
Janvier Werner	Commissioner, Place 3
James Naylor	Commissioner, Place 4
Greg Wilson	Commissioner, Place 5
Donald Gilmore	Commissioner, Place 6
Kathryn Wells	Commissioner, Place 7
Jason Hobbs	Commissioner, Place 8
Brady Kilpper	Commissioner, Place 9

Constituting a quorum with the following members absent:

None

(Places 8 and 9 of the Commission do not vote on items unless they sit in place of one of the regular members, Places 1-7.)

And the following members of Town staff present:

Alicia Kreh	Town Attorney
Rachel Raggio	Town Attorney
Lexin Murphy	Director of Planning Services
Ray Watson	Director of Economic Development
Bob Pegg	Assistant Director of Engineering
Matt Hotelling	Senior Engineering Transportation Manager
Chuck Russell	Principal Planner
Claire Barnes	Planner
LauriAnn Cash	Executive Assistant

- A. **CALL REGULAR SESSION TO ORDER: 6:30 P.M.**
- B. **INVOCATION**
- C. **PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG**
- D. **PUBLIC COMMENT**

Speaker Names & Address	Subject
Patsy Mizeur, 1821 Castle Court	Citizen's Participation

Pursuant to Section 551.071 of the Texas Government Code, the Planning and Zoning Commission convened into closed session at 6:35 p.m.

At 6:56 p.m., the Planning and Zoning Commission reconvened into regular session.

E. FUTURE AGENDA ITEMS

None

F. DIRECTOR'S REPORT

1. Benchmark Cities – Development Applications/Community Engagement

G. CONSENT ITEMS

1. Minutes of March 28, 2022: Consider approval of the minutes of the March 28, 2022, Planning and Zoning Commission Regular Session.
2. RP21-0011 – Bolo Point Lot 1R: Consider a request for a Replat (RP21-0011 – Bolo Point Lot 1R) to create a residential lot. The property is generally located west of Long Lane and south of Bolo Lane.
3. RP22-0004 – Red Rock Addition Lot 1R, Block A: Consider a request for a Replat (RP22-0004 – Red Rock Addition Lot 1R, Block A) to amend a previously approved plat to create one residential lot. The property is generally located south of Ranch Road and west of Red Rock Lane.

Commission Deliberation

Commissioner Naylor moved to approve Consent Items 1, 2, and 3. Commissioner Wilson seconded the motion.

VOTE ON THE MOTION

AYES: Werner, Naylor, Wilson, Gilmore, Cox, Wells

NAYS: None

The motion to approve passed by a vote of 6 to 0.

H. REGULAR ITEMS

4. **Public Hearing to consider an ordinance amending the zoning (ZPD21-0014 – Cross Timbers Business Park) from Interim Holding (IH) and Agricultural District (A) to Planned Development District No. 188 (PD-188) with Campus Industrial and Industrial District-2 uses including a Comprehensive Sign Package, an exception to Section 82-302, Compatibility buffer, of the Code of Ordinances and with certain other waivers, exceptions and modifications to the Code of**

Ordinances. The property is generally located north of Cross Timbers Road and west of U.S. Highway 377.

Staff Presentation

Claire Barnes, Planner

Applicant Presentation

Brad Cooper, Crow Holdings Industrial
Will Munding, Crow Holdings Industrial

At 8:30 p.m., Chair Ruthrauff called for a recess prior to Public Hearing Comments.

At 8:49 p.m., Chair Ruthrauff called the meeting back in order to begin the Public Hearing Comments.

Spoke In Favor:

Names listed below don't necessarily reflect the order in which each person spoke.

Sheldon Anderson	7007 Hawk Road	Flower Mound
Patsy Mizeur	1821 Castle Court	Flower Mound
Brit Stock	4005 Rothschild Drive	Flower Mound

Spoke In Opposition:

Names listed below don't necessarily reflect the order in which each person spoke.

Carolyn Glover	6209 Savannah Oak Trail	Argyle
Christa Call	10612 Smoky Oak Trail	Argyle
Dax De La Porte	1360 Saddle Brook Court	Argyle
John Leonard	11500 Antler Ridge Way	Argyle
Kammie Leonard	11500 Antler Ridge Way	Argyle
Karlie Leonard	11500 Antler Ridge Way	Argyle
Kenzie Leonard	11500 Antler Ridge Way	Argyle
Manish Gupta	6909 Silver Grass Way	Argyle
Matthew Slaton	2001 Winthrop Hill Road	Argyle
Pratheb Nadevajah	7006 Hickory Falls Drive	Argyle
Stacey Leonard	11500 Antler Ridge Way	Argyle
Todd Bayuk	10845 Pedernales Falls Drive	Argyle
Virat Akarapu	6629 Elderberry Way	Argyle
Aamir Lakhani	11609 Rust Falls Road	Flower Mound
Alison Mosely	10925 Smoky Oak Trail	Flower Mound
Austin Cartlidge	11601 Slumber Falls Drive	Flower Mound
Beckett Klemetson	6925 Basket Flower Road	Flower Mound
Bob Van Hoef	6605 Roughleaf Ridge Road	Flower Mound
Brian Taylor	6909 Broomsedge Drive	Flower Mound
Caleb Barfield	11382 Misty Ridge Drive	Flower Mound

Chris Drew	5209 Ravine Ridge Court	Flower Mound
Chris Withrow	11490 Misty Ridge Drive	Flower Mound
Daisy Angel	11300 Dusty Trail Court	Flower Mound
Dan Klemetsen	6925 Basket Flower Road	Flower Mound
Dave Aistrup	6641 Elderberry Way	Flower Mound
Dennis Byington	6605 Elderberry Way	Flower Mound
Jerry Brown	11324 Bull Head Lane	Flower Mound
Joseph Valdez	6517 Elderberry Way	Flower Mound
Joshua Bostick	11383 Misty Ridge Drive	Flower Mound
Larry Mathis	6336 Savannah Oak Trail	Flower Mound
Luke Strensrud	5232 Ravine Ridge Court	Flower Mound
Pat Aistrup	6641 Elderberry Way	Flower Mound
Robert Haug	4904 Long Pond Trail	Flower Mound
Sam Smith	11213 Bull Head Lane	Flower Mound
Stacie Bambauer	6928 Basket Flower Road	Flower Mound
Victor Worley	11612 Little Elm Creek	Flower Mound
Alex Pisciotta	3716 Water Mill Way	Northlake
Deborah Dallas	105 Big Sky Circle	Northlake
Kim Pisciotta	3716 Watermill Way	Northlake
Laura Forster	6421 Dolan Falls Drive	Northlake
Rena Hardeman	(no address given)	Northlake
Valerie Del Rio	11700 Bull Creek Drive	Northlake
Eric Vitek	11316 Bull Head Lane	Roanoke
Kathy Nielsen	12094 Joyce Lane	Roanoke

Spoke, No Opposition or Support Indicated on Card

Paul Stone	1868 Meyerwood Lane	Flower Mound
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In Favor, Chose Not To Speak

None

In Opposition, Chose Not To Speak

Names listed below don't necessarily reflect the order in which cards were submitted.

Abhinay Burra	1501 Tanglewood Trail	Argyle
Andrew Hering	1016 Lamp Post Lane	Argyle
Aravind Kolanakudupu	6716 Oak Knoll Road	Argyle
Balakrishna Vunnam	1520 Twistleaf Road	Argyle
Bhanu Bhukya	11513 Feather Reed Road	Argyle
Dayanand Mamidyala	6301 Cedar Sage Trail	Argyle
Diane Campbell	6936 Basket Flower Road	Argyle
Frances Wuest	6804 Elderberry Way	Argyle
Gucci Kuithe	508 Westcreek Lane	Argyle
Haylie Leonard	11500 Antler Ridge Way	Argyle
Hunter Leonard	11500 Antler Ridge Way	Argyle
Ian Charlton	10924 Falling Leaf Trail	Argyle

Indira Kakarle	6629 Elderberry Way	Argyle
Jamie Brady	801 Swift Creek Road	Argyle
Jeff Anderson	6300 Cedar Sage Trail	Argyle
John Kocle	517 Cooper Street	Argyle
Katherine Oliverson	6366 Prairie Brush Trail	Argyle
Katrina Stauffer	7000 Hickory Falls Drive	Argyle
Kimberly Anderson	6300 Cedar Sage Trail	Argyle
Lauren Goodman	7017 Broomsedge Drive	Argyle
Mahesh Sirigi	11133 Aspen Leaf Drive	Argyle
Manish Jain	10905 Smoky Oak Trail	Argyle
MJ Sung	11609 Antler Ridge Way	Argyle
Mona Verma	6416 Prairie Brush Trail	Argyle
Nanda Akarapu	6629 Elderberry Way	Argyle
Nitin Dhal	6416 Prairie Brush Trail	Argyle
Paula Cuva	11409 Antler Ridge Way	Argyle
Premanshu Gupta	7012 Elk Springs Drive	Argyle
Ricky Reid	11709 Bull Creek Drive	Argyle
Ryan Kuithe	508 Westcreek Lane	Argyle
Satya Chivukula	10829 Pedernales Falls Drive	Argyle
Seetha Kavya Priya	10630 Smoky Oak Trail	Argyle
Sonal Patel	3709 Birchwood Court	Argyle
Srinivas Manchilcalapah	10630 Smoky Oak Trail	Argyle
Tiffany Baeou	517 Cooper Street	Argyle
Ushir Parikh	6316 Cedar Sage Trail	Argyle
Vaishali Jain	10905 Smoky Oak Trail	Argyle
Vasanth Lakshwi	10630 Smoky Oak Trail	Argyle
Vishnu Lingala	1505 Twistleaf Road	Argyle
Zachery Stauffer	7000 Hickory Falls Drive	Argyle
Jen De La Porte	1360 Saddle Brook Court	Bartonville
Keagan De La Porte	1360 Saddle Brook Court	Bartonville
Katy Grote	165 Double Oaks	Double Oak
Sandeep Gangireddy	11411 Lunard	Farmers Branch
Aaron Young	10920 Falling Leaf Trail	Flower Mound
Alicia Dzurenko	6604 Elderberry Way	Flower Mound
Alicia Lansberry	11401 Winecup Road	Flower Mound
Alina Lakhani	11609 Rust Falls Road	Flower Mound
Alison Flener	6617 Roughleaf Ridge Road	Flower Mound
Allison Mosely	10925 Smoky Oak Trail	Flower Mound
Amanda Buccheri	6500 Cooper Creek Road	Flower Mound
Amanda Hodges	11355 Gable Circle	Flower Mound
Amy Morones	4065 Bordeaux Circle	Flower Mound
Andrew Webb	6623 Dolan Falls Drive	Flower Mound
Angel Sanchez	6524 Elderberry Way	Flower Mound
Angela Webb	6625 Dolan Falls Drive	Flower Mound
Annie Lombardo	6901 Broomsedge Drive	Flower Mound
Anthony Daliso	11395 Misty Ridge Drive	Flower Mound
Ava Klemetsen	6925 Basket Flower Road	Flower Mound

Candice Pettit	11359 Gable Circle	Flower Mound
Carl Orr	3905 Long Meadow Drive	Flower Mound
Carolyn Strensrud	5232 Ravine Ridge Court	Flower Mound
Catherine Ascencio	10905 Smoky Oak Trail	Flower Mound
Catherine Davis	6379 Prairie Brush Trail	Flower Mound
Cherie Hart	11625 Slumber Falls Drive	Flower Mound
Cheryl Baxa	11613 Rust Falls Road	Flower Mound
Chris Vochoska	6401 Prairie Brush Trail	Flower Mound
Christine Fowler	1116 Smoky Oak Court	Flower Mound
Christine Taylor	6909 Broomsedge Drive	Flower Mound
Cindy Clark	8704 Baltusrol Drive	Flower Mound
Cindy Mathis	6336 Savannah Oak Trail	Flower Mound
Craig Morrow	4508 Tour 18 Drive	Flower Mound
Danielle Barfield	11382 Misty Ridge Drive	Flower Mound
David Hooper	4609 Largo Drive	Flower Mound
David Pettit	11359 Gable Circle	Flower Mound
David Pluss	11459 Misty Ridge Drive	Flower Mound
Daya Singh	6240 Cupleaf Road	Flower Mound
Debbie Worley	11612 Little Elm Creek	Flower Mound
Debra Van Hoef	6605 Roughleaf Ridge Road	Flower Mound
Denise Daliso	11395 Misty Ridge Drive	Flower Mound
Diana Mestas	6224 Cupleaf Road	Flower Mound
Donna Perrin	1509 Twistleaf Road	Flower Mound
Doris Aguirre	1359 Simmons Road	Flower Mound
Ed & Sharilyn Wilken	11620 Cedar Grove	Flower Mound
Ed Carty	7300 Bolo Lane	Flower Mound
Eddie Sanchez	6524 Elderberry Way	Flower Mound
Edward Luhman	11612 Slumber Falls Road	Flower Mound
Eleanor Drew	5209 Ravine Ridge Court	Flower Mound
Elizabeth Barber	4508 Tour 18 Drive	Flower Mound
Emily Valdez	6517 Elderberry Way	Flower Mound
Eric Hermann	10858 Smoky Oak Trail	Flower Mound
Erika Klemetsen	6925 Basket Flower Road	Flower Mound
Erin Kerry	5216 Ravine Ridge Court	Flower Mound
Gregorio Ybarra	11358 Bull Head Lane	Flower Mound
Gregory Amsterdam	5705 Pine Valley Drive	Flower Mound
Heather Luhman	11612 Slumber Falls Road	Flower Mound
Heidi Schmidt	6917 Broomsedge Drive	Flower Mound
Heidi Schultz-Berns	6612 Dolan Falls Drive	Flower Mound
Jackie Giangulio	6312 Cedar Sage Trail	Flower Mound
Jacob Nishida	6620 Dolan Falls Drive	Flower Mound
Jala Eruorigho	11216 Dusty Trail Court	Flower Mound
James Saxon	5113 High Ridge Trail	Flower Mound
Jan Carty	7300 Bolo Lane	Flower Mound
Jason Robbins	5201 Ravine Ridge Court	Flower Mound
Jayashree Yogeasha	6562 Wooded Falls Trail	Flower Mound
Jeff Allain	6953 Broomsedge Drive	Flower Mound

Jeff Brown	6709 Canyon Oak Court	Flower Mound
Jeff Mosley	10925 Smoky Oak Trail	Flower Mound
Jennifer Braddock	3604 Gallop Court	Flower Mound
Jim Thomas	6384 Prairie Brush Trail	Flower Mound
Jodi Sealy	6408 Prairie Brush Trail	Flower Mound
Jodua Rivere	10913 Smoky Oak Trail	Flower Mound
John Jobe	11358 Misty Ridge Drive	Flower Mound
Joseph Valdez	6517 Elderberry Way	Flower Mound
Josh Flener	6617 Roughleaf Ridge Road	Flower Mound
Karin Hargrove	6711 Canyon Oak Court	Flower Mound
Karyssa Rivere	10913 Smoky Oak Trail	Flower Mound
Katherine Davison	11405 Winecup Road	Flower Mound
Kathryn Orr	3905 Long Meadow Drive	Flower Mound
Keith Hart	11625 Slumber Falls Drive	Flower Mound
Kevin Gilster	1601 Twistleaf Road	Flower Mound
Khalid Touati	4833 Long Pond Trail	Flower Mound
Kimberly Cartlidge	11601 Slumber Falls Drive	Flower Mound
Lansine Brown	4912 Remington Park	Flower Mound
Laura Brown	11324 Bull Head Lane	Flower Mound
Laura Rossi	10924 Smoke Oak Trail	Flower Mound
Laurie Allain	6953 Broomsedge Drive	Flower Mound
Laverne Amsterdam	5705 Pine Valley Drive	Flower Mound
Laxman Katre	11559 Winecup Road	Flower Mound
Lilli Thomas	6384 Prairie Brush Trail	Flower Mound
Linda Hooper	4609 Largo Drive	Flower Mound
Lori Haug	4904 Long Pond Trail	Flower Mound
Lori Villalon-Arriaga	10913 Smoky Oak Trail	Flower Mound
Lynne Gwinn	6620 Roughleaf Ridge Road	Flower Mound
Macario Ruiz	11524 Feather Reed Road	Flower Mound
Marcos Angel	11300 Dusty Trail Court	Flower Mound
Maria Brown	6709 Canyon Oak Court	Flower Mound
Mark Flores	6312 Crossvine Trail	Flower Mound
Mary Panico	11617 Cedar Grove	Flower Mound
Meregen Chauary	4833 Long Pond Trail	Flower Mound
Michelle Jobe	11358 Misty Ridge Drive	Flower Mound
Nathan Bryan	6928 Basket Flower Road	Flower Mound
Nikki Whitacre	6921 Basket Flower Road	Flower Mound
Pati Gann	11616 Cedar Grove	Flower Mound
Pooja Keskar	11462 Misty Ridge Drive	Flower Mound
Renee Miphouvieng	11600 Bull Creek Drive	Flower Mound
Ricardo Gonzalez	6516 Elderberry Way	Flower Mound
Richard Perrin	1509 Twistleaf Road	Flower Mound
Rick Berns	6612 Dolan Falls Drive	Flower Mound
Riley Larza	11371 Bull Head Lane	Flower Mound
Rob Campbell	6345 Crossvine Trail	Flower Mound
Robert Hart	1524 Rustic Timbers Lane	Flower Mound
Rod Aldridge	6201 Whiskerbrush Road	Flower Mound

Ron Huebner	3908 Sunnyview Lane	Flower Mound
Ruth Angel	11300 Dusty Trail Court	Flower Mound
Sally Allen	11621 Cedar Grove	Flower Mound
Samantha Hooper	1524 Rustic Timbers Lane	Flower Mound
Sancy Vochoska	6401 Prairie Brush Trail	Flower Mound
Sandeep Manne	6304 Cedar Sage Trail	Flower Mound
Sandy Gilster	1601 Twistleaf Road	Flower Mound
Sarah Howell	6555 Dolan Falls Drive	Flower Mound
Scott Howell	6555 Dolan Falls Drive	Flower Mound
Scott Kerry	5216 Ravine Ridge Court	Flower Mound
Scott Morgan	6409 Whiskerbrush Road	Flower Mound
Shannon Robbins	5201 Ravine Ridge Court	Flower Mound
Shawnette Gauer	6921 Broomsedge Drive	Flower Mound
Shirley Lockett	6404 Prairie Brush Trail	Flower Mound
Shiva Julakanti	11508 Misty Ridge Drive	Flower Mound
Shrijan Shrestha	11355 Misty Ridge Drive	Flower Mound
Sonny Gann	11616 Cedar Grove	Flower Mound
Sravan Akinapally	6324 Crossvine Trail	Flower Mound
Stacie Campbell	6345 Crossvine Trail	Flower Mound
Stacy Pace	11609 Cedar Grove	Flower Mound
Stephanie Althouse	6610 Raintree Place	Flower Mound
Steven Souders	11374 Misty Ridge Drive	Flower Mound
Sumanth Mallya	11462 Misty Ridge Drive	Flower Mound
Susan Stillman	6512 Cooper Creek Road	Flower Mound
Sydney Braddock	3604 Gallop Court	Flower Mound
Tayton Morgan	6409 Whiskerbrush Road	Flower Mound
Terri Gonzalez	6516 Elderberry Way	Flower Mound
Tiffany Drew	5209 Ravine Ridge Court	Flower Mound
Tim Whisenant	2120 Helmsford Drive	Flower Mound
Todd Whitacre	6921 Basket Flower Road	Flower Mound
Tom Clark	8704 Baltusrol Drive	Flower Mound
Tracey Villalon-Arriaga	10913 Smoky Oak Trail	Flower Mound
Tracy Sealy	6408 Prairie Brush Trail	Flower Mound
Valerie Hall	11367 Bull Head Lane	Flower Mound
Vihay Tomen	11517 Feather Reed Road	Flower Mound
Vong Miphouvieng	11600 Bull Creek Drive	Flower Mound
Wesley Parton	10833 Pedernales Falls	Flower Mound
Yogeesha Kokkapuni	6562 Wooded Falls Trail	Flower Mound
Aiden Patel	1158 Berrydale Drive	Northlake
Amanda Vaughn-Vargas	1105 Daylily Drive	Northlake
Amber Olivo	4204 Alyssum Lane	Northlake
Amy Bruza	1005 Coralberry Drive	Northlake
Ana Yamamoto	3713 Brich Wood Court	Northlake
Ayush Patel	3709 Birchwood Court	Northlake
Bhanu Bikkumalla	1505 Tumbleweed Trail	Northlake
Bharat Subedi	1436 Monarch Trail	Northlake
Bowen Bolinger	3807 Applewood Lane	Northlake

Brian Fullenkamp	1404 Westview Lane	Northlake
Chitti Vasa	1037 Wimberly Lane	Northlake
Craig Bower	1717 Twistleaf Road	Northlake
Dan Irwin	1513 Westborough Drive	Northlake
Dana Anderson	3509 Northdale Lane	Northlake
Dane McWilliams	4212 Mistflower Way	Northlake
Daniel Olivo	4204 Alyssum Lane	Northlake
Dawn Schwalm	1108 Berrydale Drive	Northlake
Deanna & Jeff Garncarz	1020 Boxelder Trail	Northlake
Dheeraj Reddy	3721 Water Mill Way	Northlake
Divya Patel	1158 Berrydale Drive	Northlake
Durga Gudimetla	1025 Wimberly Drive	Northlake
Emad Kamel	4305 Mistflower Way	Northlake
Greg Anderson	3509 Northdale Lane	Northlake
Greg Vargas	1105 Daylily Drive	Northlake
Henry	1101 Uplands Drive	Northlake
Jake Morrell	3208 Willowbrooke Road	Northlake
James Gazlay	1101 Uplands Drive	Northlake
Jordan Morrell	3208 Willowbrooke Road	Northlake
Joseph Mistretta	1009 Daylily Drive	Northlake
Kathleen Reid	11709 Bull Creek Drive	Northlake
Kathryn Leonard	1005 Coralberry Drive	Northlake
Ken Fullenkamp	1404 Westview Lane	Northlake
Ken Schrage	3325 Meridian Drive	Northlake
Kevin Jones	1416 Tumbleweed Trail	Northlake
Krishna Patel	3709 Birchwood Court	Northlake
Linda Lange	4201 Cozy Pine Drive	Northlake
Margaret Mistretta	1009 Daylily Drive	Northlake
Matt Schwalm	1108 Berrydale Drive	Northlake
Mazin Shukri	3620 Water Mill Way	Northlake
Nick Halabi	1201 Coralberry Drive	Northlake
Nicki Gazlay	1101 Uplands Drive	Northlake
Praveen Kadipikonda	3332 Meridian Drive	Northlake
Ranjit Vidiyala	1513 Eagleton Lane	Northlake
Richard Lange	4201 Cozy Pine Drive	Northlake
Sandy Bolinger	3807 Applewood Lane	Northlake
Shailesh Patel	3709 Birchwood Court	Northlake
Shane Anderson	1428 Westview Lane	Northlake
Siwana Lewis	4213 Mistflower Way	Northlake
Suzi Irwin	1513 Westborough Drive	Northlake
Terri Shukri	3620 Water Mill Way	Northlake
Timothy Russell	1112 Daylily Drive	Northlake
Trivia Spencer	1109 Boxelder Trail	Northlake
Viral Patel	1158 Berrydale Drive	Northlake
William Beecher	4308 Greenthread Way	Northlake
Brady Larza	11371 Bull Head Lane	Roanoke
James Larza	11371 Bull Head Lane	Roanoke

Marisse Bostick	11383 Misty Ridge Drive	Roanoke
Susan Vitek	1131 Bull Head Lane	Roanoke

Chose Not To Speak, No Opposition or Support Indicated on Card

Jackie Saxon	5113 High Ridge Trail	Flower Mound
Mia Aldridge	6201 Whiskerbrush Road	Flower Mound
Ronald Hall	11367 Bull Head Lane	Flower Mound
Kathy Nelms	3207 Parkhurst Circle	Highland Village
Sharon Schneider	309 Village Tree	Highland Village
Mary Jo DiFonzo	6817 Palermo Trail	Lewisville
Kristin Anderson	1428 Westview Lane	Northlake

Commission Deliberation

Vice-Chair Cox moved to recommend denial of ZPD21-014 – Cross Timbers Business Park. Commissioner Gilmore seconded the motion.

VOTE ON THE MOTION

AYES: Wells, Cox, Gilmore, Wilson, Naylor, Werner

NAYS: None

The motion to recommend denial passed by a vote of 6 to 0.

At 10:51 p.m., Chair Ruthrauff called for a recess prior to the next scheduled Public Hearing item.

At 11:07 p.m., Chair Ruthrauff called the meeting back in order.

- 5. Public Hearing to consider an ordinance amending the zoning (ZPD21-0017 – Cummings Ranch) from Agricultural District (A) to Planned Development District No. 190 (PD-190) for a cluster development with certain modifications, waivers and exceptions to the Code of Ordinances. The property is generally located north of Cross Timbers Road and east of Red Rock Lane.**

Staff Presentation

Chuck Russell, Principal Planner

Applicant Presentation

Jason Kilpatrick, Ridinger Associates, Inc.
Dale Ridinger, Ridinger Associates, Inc.

Spoke In Favor:

Sheldon Anderson	7007 Hawk Road	Flower Mound
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Spoke In Opposition:

Names listed below don't necessarily reflect the order in which each person spoke.

Amy Morones	4065 Bordeaux Circle	Flower Mound
Brian Taylor	6909 Broomsedge Drive	Flower Mound
Chris Drew	5209 Ravine Ridge Court	Flower Mound
Fred Vincent	3933 Bordeaux Circle	Flower Mound
Glenda Straub	7201 Hawk Road	Flower Mound

In Favor, Chose Not To Speak

None

In Opposition, Chose Not To Speak

Names listed below don't necessarily reflect the order in which cards were submitted.

Connie Schoenrade	203 Colonial Court	Double Oak
Katherine Grote	165 Double Oaks	Double Oak
Christine Taylor	6909 Broomsedge Drive	Flower Mound
Dave Aistrup	6641 Elderberry Way	Flower Mound
Doris Aguirre	1359 Simmons Road	Flower Mound
Ed Carty	7300 Bolo Lane	Flower Mound
Heidi Schultz-Berns	6612 Dolan Falls	Flower Mound
Jack Allison	4027 Raintree Drive	Flower Mound
Jan Carty	7300 Bolo Lane	Flower Mound
Mary Vincent	3933 Bordeaux Circle	Flower Mound
Nathan Bryan	6928 Basket Flower Road	Flower Mound
Pat Aistrup	6641 Elderberry Way	Flower Mound
Richard Berns	6612 Dolan Falls	Flower Mound
Stephanie Althouse	6610 Raintree Place	Flower Mound
Tim Whisenant	2021 Helmsford Drive	Flower Mound

Commission Deliberation

Vice-Chair Cox moved to table the item to a date uncertain. Commissioner Wilson seconded the motion.

VOTE ON THE MOTION

AYES: Werner, Naylor, Wilson, Gilmore, Cox, Wells

NAYS: None

The motion to table to a date uncertain passed by a vote of 6 to 0.

I. ADJOURNMENT – REGULAR SESSION: 12:58 A.M. ON TUESDAY, APRIL 12, 2022

i. WORK SESSION: CANCELED

- a. Presentation and discussion on the Town's Trails and Bikeways Master Plan
- *During the Director's Report (Item F on the Agenda), Director of Planning Services – Lexin Murphy, announced that due to the number of people in attendance wishing to speak on Public Hearing items, the Work Session would be rescheduled to Monday, April 25, 2022.*

TOWN OF FLOWER MOUND, TEXAS

Lexin Murphy, Director of Planning Services

ATTEST:

LauriAnn Cash, Executive Assistant



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: 2

CONSENT ITEM

DATE: April 25, 2022

FROM: Claire Barnes, Planner

ITEM: Consider a request to partially vacate a previously approved plat (VP22-0002 – Middle School Addition No. 14 Lots 2, 3, & 4). The property is generally located north of Spinks Road and east of Long Prairie Road.

I. ITEM SUMMARY

This application has been reviewed by DRC and determined to be ready for consideration by the Planning and Zoning Commission.

II. APPLICATION ANALYSIS

The purpose of this application is to vacate 3 previously established lots in order to abandon the front building lines. Lots 2, 3, and 4, of the Middle School No. 14 Addition were approved by Town Council on June 7, 2004. On October 4, 2021, Lots 2 and 4 were rezoned to Planned Development No. 182 to create a proposed residential subdivision. As the previous plat had a 60' building line platted on all street frontages, these building lines would restrict the property unless vacated.

Section 90-128 of the Town's Land Development Regulations allows partial vacation of a plat with consent of the property owner(s). Once vacated, the plat has no legal effect and the property will revert back to unplatted tracts of land. Subsection (b) of the above referenced Code Section requires that a signed, acknowledged instrument declaring the plat vacated be approved and recorded in the manner prescribed for the original plat. Since the previous plat was approved by P&Z, the property owner's request to vacate that plat must also be approved by P&Z.

The owners of the subject property have obtained all required signatures from property owners of property that was part of the original plat.

The applicant has submitted a Development Plan (DP21-0008 – Oakbridge Crossing) that shows the future development for Lots 2 and 4. If development were proposed in the future for Lot 3, next steps for that property would be determined based on the proposal at that time.

III. ATTACHMENTS

A. Background Information

1. Vicinity Map
2. Letter of Intent
3. Copy of Recorded Plat

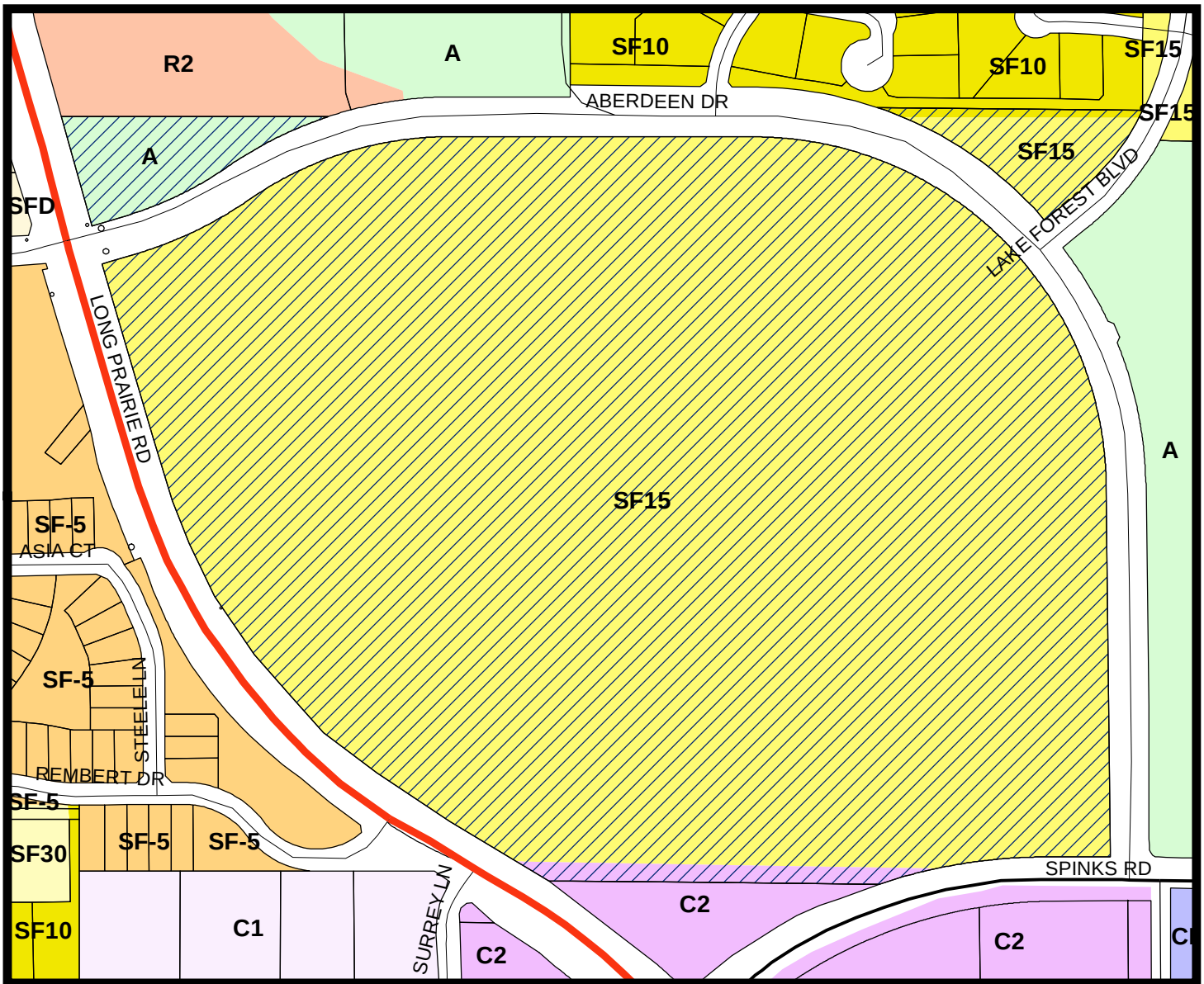
B. Application Details

1. Vacated Plat Affidavit



Vicinity Map

Reference Project: VP22-0002



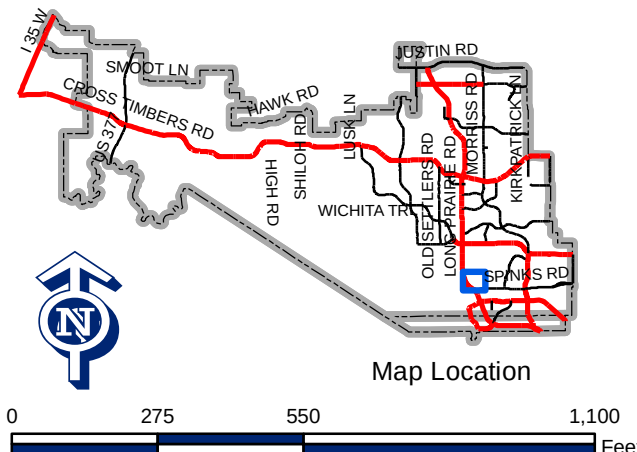
LEGEND

Agriculture	Campus Industrial	Commercial 1	Commercial 2	Retail 2
Single Family 5	Single Family 10	Single Family 15		
Single Family 30	Single Family Detached			

Subject Property

Visit www.fmdevmap.com to learn more about this project.

Visit <https://www.flower-mound.com/notifyme> to sign up for text message and/or email alerts for future projects.



Toll Brothers **LAND DEVELOPMENT**

PAVING THE WAY FOR AMERICA'S LUXURY HOMEBUILDER

April 1, 2022

Chuck Russell
Principal Planner
Town of Flower Mound
1001 Cross Timbers Road #2330
Flower Mound, TX 75028

RE: Oakbridge Crossing (Toll Brothers No. AEC19195)
Flower Mound, Texas

Dear Mr. Russell,

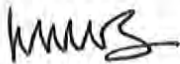
With the consent of the current property owner of Lot 1 of Block A, Lewisville Independent School District (LISD), Toll Brothers is pleased to submit this Letter of Intent to describe and explain the requested Vacation Plat.

The existing Record Plat for Middle School #14 Addition totals four lots and 122.042 acres. Toll Brothers is the current owner of Lots 2, 3, and 4 of Block A and the LISD is the current owner of Lot 1. There is a platted 60-foot building line on Lots 2, 3, and 4 which is inconsistent with the uses as defined in Ordinance No. 46-21. The vacation of a portion of said record plat will remove these building lines.

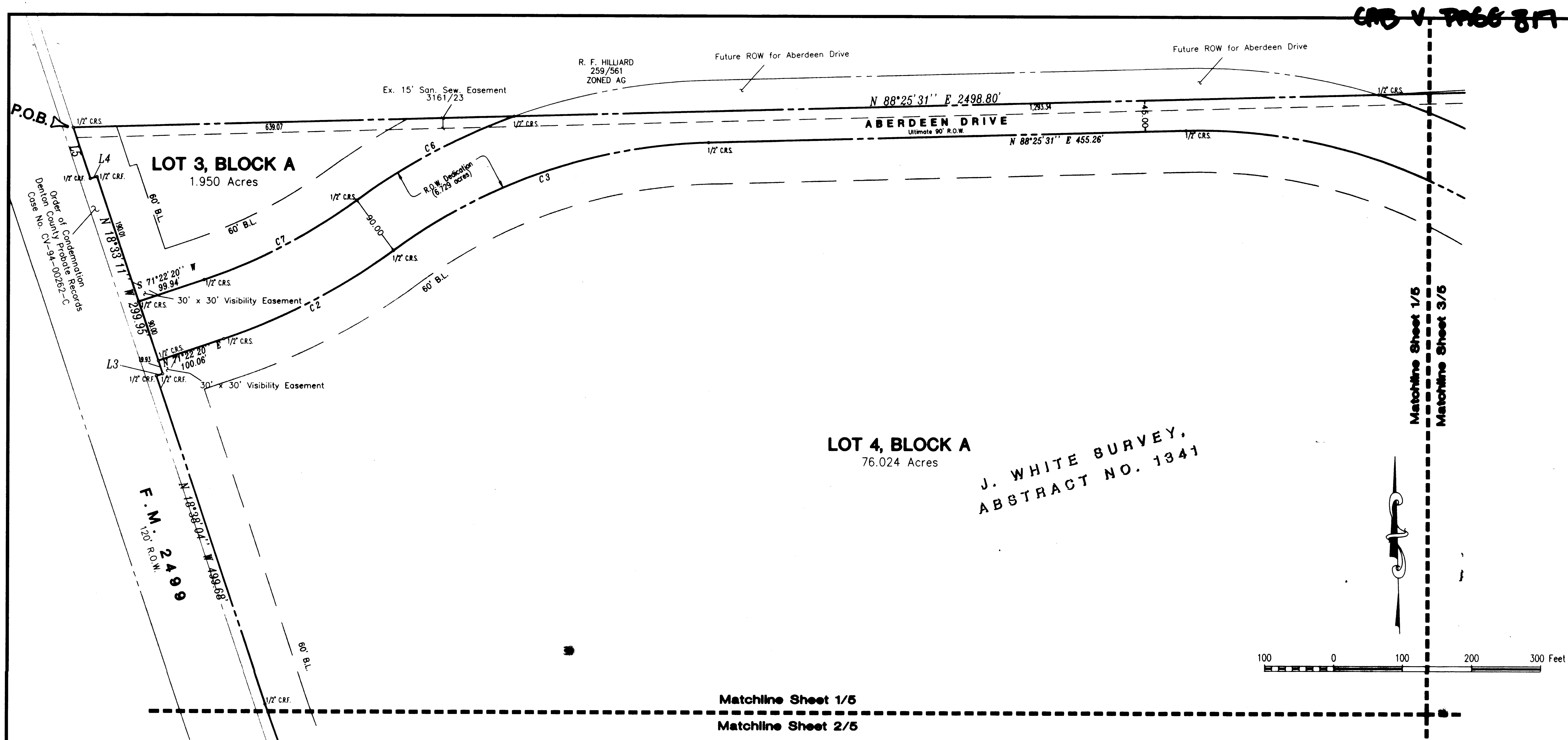
We respectfully request to vacate solely Lots 2, 3, and 4 of the Middle School #14 Addition as recorded in Cabinet V, Page 817 of the plat records of Denton County, Texas.

Please contact me at 817-329-7973 should you have any questions regarding our request.

Thank you,



Mike Boswell, VP of Land Development
Dallas/Austin Land Development



RECORD PLAT
Middle School #14 Addition
Lots 1 - 4, Block A
122.042 Acres

J. WHITE SURVEY, ABSTRACT NO. 1341
WILLIAM H. GIBSON SURVEY, ABSTRACT NO. 464
TOWN OF FLOWER MOUND
DENTON COUNTY, TEXAS

MIDDLE SCHOOL #14 ADDITION
LOTS 1 - 4, BLOCK A
122.042 ACRES
ZONED AG

122.042 Acres Total Area
-0.025 Acres F.M. 2499 - R.O.W. Dedication
-6.729 Acres Aberdeen Drive - R.O.W. Dedication
-0.932 Acres Spinks Road - R.O.W. Dedication
-0.439 Acres Lake Forest Boulevard - R.O.W. Dedication
113.917 Acres Net Areas

35.953 Acres - Lot 1
1.644 Acres - Lot 2
1.950 Acres - Lot 3
74.370 Acres - Lot 4

NOTES:

- Bearings based on the south line of Shadowridge South, Phase One, an addition to the Town of Flower Mound, Denton County, Texas, according to the plat thereof recorded in Cabinet K, Page 286 of the Plat Records of Denton County, Texas.
- No portion of subject property appears to lie in a Special Flood Hazard Area according to Flood Insurance Rate Map, Community/Panel No. 48121C0540 E dated April 2, 1997.
- Coordinates for the Southwest corner of the Middle School #14 Addition (POB) are grid values referred to the Texas Coordinate System, North Central Zone expressed in NAD '83 projection. The monuments were tied using GPS to station Numbers 18 & 19 of the Town of Flower Mound official control monument system with coordinates thereof provided by the Town of Flower Mound.
Northwest Corner (POB): N 7051141.36; E 2406740.51
Bearing and distance from the POB to Geo Point 18: S 64°13'24" E 3980.54'
Bearing and distance from the POB to Geo Point 19: S 81°57'24" E 7683.89'
- Lots 2 & 3 must be re-zoned prior to the issuance of a building permit. The current lot size does not meet the 2-acre minimum lot size requirement for Agricultural property. This property is currently Master Planned for Single Family Estate Residential.

LEGEND

RF	=	REBAR FOUND
CRS	=	CAPPED REBAR SET
B.L.	=	BUILDING LINE
U.E.	=	UTILITY EASEMENT
CRF	=	CAPPED REBAR FOUND
P.O.B.	=	POINT OF BEGINNING
CM	=	CONTROLLING MONUMENT
G&A	=	G&A CONSULTANTS, INC.
C.O.A.	=	CONTROL OF ACCESS
P.R.D.C.T.	=	PLAT RECORDS, DENTON COUNTY, TEXAS
R.P.R.D.C.T.	=	REAL PROPERTY RECORDS DENTON COUNTY, TEXAS
TBM	=	TEMP. BENCH MARK
LISD	=	LEWISVILLE INDEPENDENT SCHOOL DISTRICT

G & A Consultants, Inc.

SITE PLANNING • PLANNING
CIVIL ENGINEERING • LAND SURVEYING
LANDSCAPE ARCHITECTURE
Phone (972) 420-4860 • Fax (972) 420-4860
P.O. Box 1288 • Lewisville, Texas 75057

REV.: 02/20/04
04/02/04

1/5

DRAWN BY: S.M. DATE: 12/22/03 SCALE: 1"= 100' JOB NO. **03098**

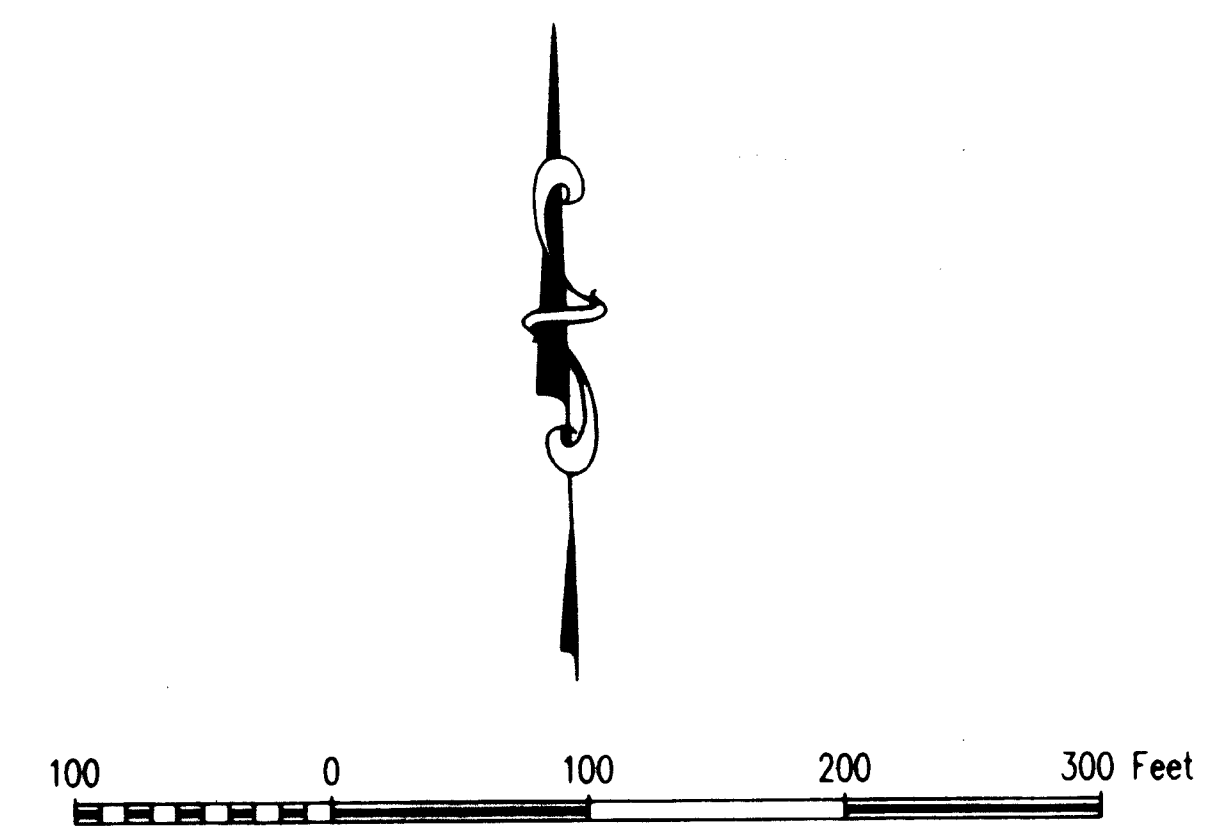
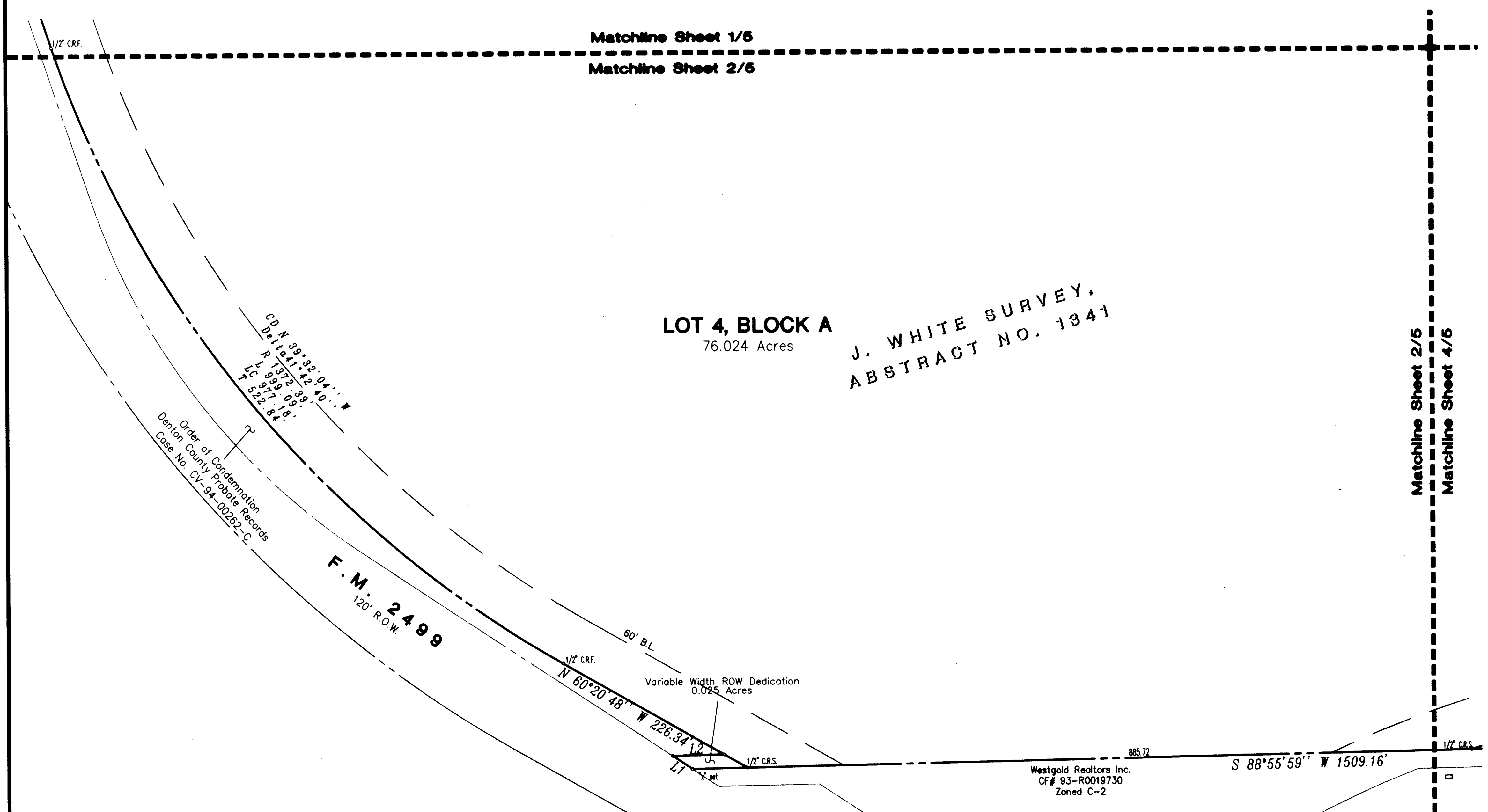
Owner
Lewisville Independent School District
P.O. Box 217
Lewisville, Texas 75067
1800 Timbercreek Road
Flower Mound, Texas 75028
(972) 420-4860
fax (972) 420-4845
Contact Mark Rose

Document Number: 106376
Amount: 215.00
Receipt Number: 129857
Linda Holden

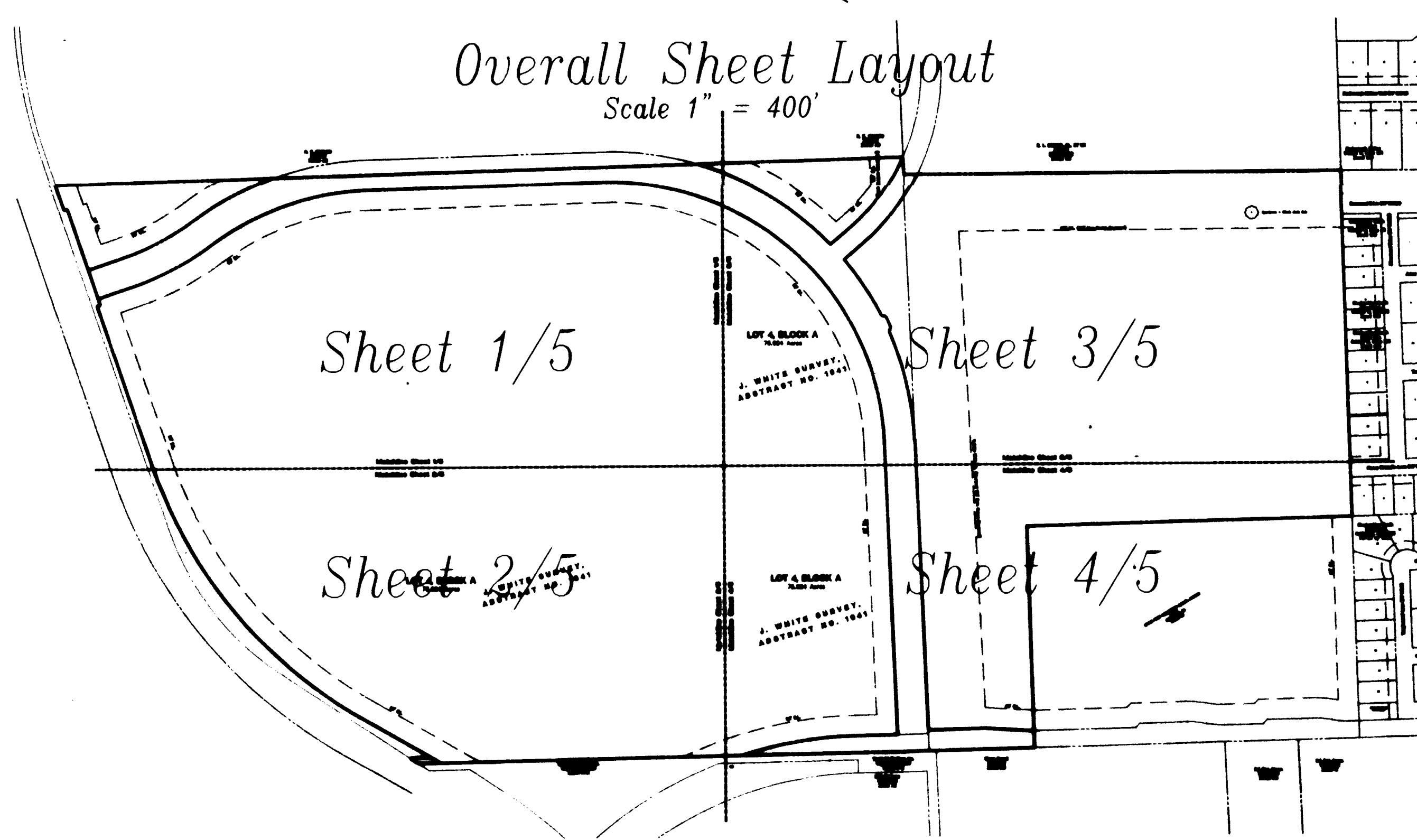
Filed for Record in:
Denton County
On: Nov 06, 2004 at 03:21P

Intended Use: School, Right-of-Way, & Vacant

CAB V PAGE 3/8



Overall Sheet Layout
Scale 1" = 400'



RECORD PLAT
Middle School #14 Addition
Lots 1 - 4, Block A
122.042 Acres
J. WHITE SURVEY, ABSTRACT NO. 1341
WILLIAM H. GIBSON SURVEY, ABSTRACT NO. 464
TOWN OF FLOWER MOUND
DENTON COUNTY, TEXAS

G & A Consultants, Inc.
SITE PLANNING • PLANNING
CIVIL ENGINEERING • LAND SURVEYING
LANDSCAPE ARCHITECTURE
Phone (972) 486-0712 • Fax (972) 486-0715
P.O. Box 1288 • Louisville, Texas 75067

REV: 02/20/04
04/02/04

DRAWN BY: S.M. DATE: 12/22/03 SCALE: 1" = 100' JOB NO. **03098**

2/5

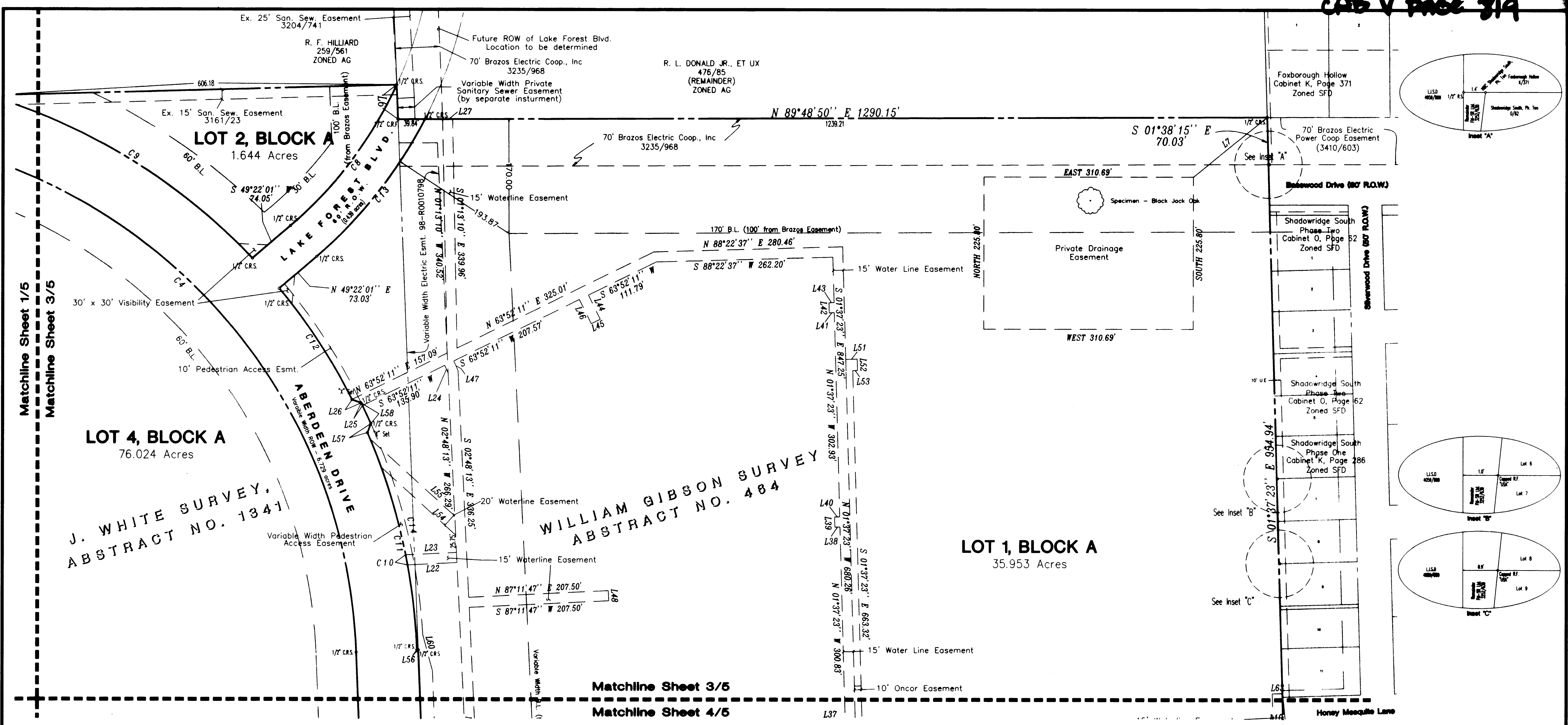
Original
Louisville Independent School District
P.O. Box 217
Louisville, Texas 75067
1800 Timbercreek Road
Flower Mound, Texas 75028
(972) 420-4880
fax (972) 420-4845
Contact Mark Rose

Plat
As a
Document Number: 106376
Amount: 215.00
Receipt Number - 129857
Linda Holden

Filed for Record in:
Denton County
On: Aug 06/2004 at 03:21P

Intended Use: School, Right-of-Way, & Vacant

CAB V PAGE 319



Matchline Sheet 1/5
Matchline Sheet 3/5

Matchline Sheet 3/5
Matchline Sheet 4/5

LOT 4, BLOCK A
76.024 Acres
J. WHITE SURVEY,
ABSTRACT NO. 1341

WILLIAM GIBSON SURVEY
ABSTRACT NO. 464

LOT 1, BLOCK A
35.953 Acres

RECORD PLAT
Middle School #14 Addition
Lots 1 - 4, Block A
122.042 Acres

J. WHITE SURVEY, ABSTRACT NO. 1341
WILLIAM H. GIBSON SURVEY, ABSTRACT NO. 464
TOWN OF FLOWER MOUND
DENTON COUNTY, TEXAS

G & A Consultants, Inc.

SITE PLANNING • LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING • LAND SURVEYING
PLANNING • DESIGN • CONSTRUCTION
P.O. Box 1000 • Lewisville, Texas 75077

REV.: 02/20/04
04/02/04

3/5

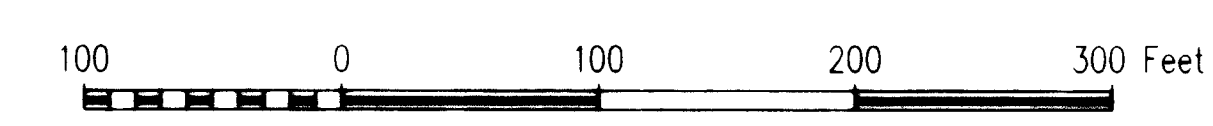
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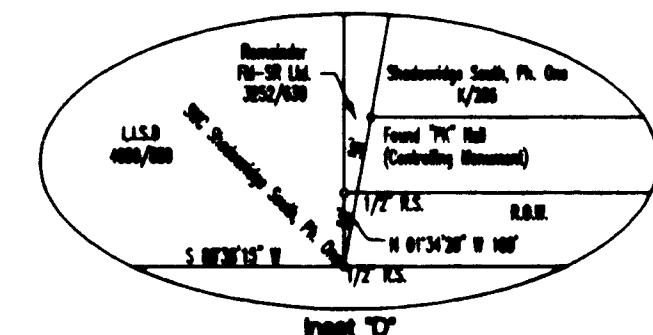
Owner
Lewisville Independent School District
P.O. Box 217
Lewisville, Texas 75067
1800 Timbercreek Road
Flower Mound, Texas 75028
(972) 420-4850
fax (972) 420-4845
Contact: Mark Ross

Amount
215.00
Document Number: 106376
Receipt Number: 129557
Linda Holden

Filed for Record in:
Denton County
On: Aug 06, 2004 at 03:21P

Intended Use: School, Right-of-Way, & Vacant





LINE TABLE								
NUMBER	DIRECTION	DISTANCE	NUMBER	DIRECTION	DISTANCE	NUMBER	DIRECTION	DISTANCE
L1	N 56°10' 41" W	29.19'	L31	N 01°21' 45" W	60.35'	L61	N 43°22' 37" E	8.65'
L2	N 88°56' 20" E	63.30'	L32	N 88°38' 15" E	15.00'	L62	N 01°37' 23" W	164.20'
L3	N 71°30' 44" E	9.70'	L33	S 01°21' 45" E	60.35'	L63	N 88°52' 30" E	15.07'
L4	S 74°01' 42" W	10.19'	L34	N 01°37' 23" W	101.08'			
L5	N 18°34' 59" W	78.15'	L35	S 88°22' 37" W	7.50'			
L6	S 02°17' 38" E	51.34'	L36	N 01°37' 23" W	15.00'			
L7	S 50°58' 00" W	141.21'	L37	N 88°22' 37" E	7.50'			
L8	S 88°38' 15" W	15.82'	L38	S 88°22' 37" W	7.50'			
L9	N 17°05' 06" E	132.61'	L39	N 01°37' 23" W	15.00'			
L10	N 86°32' 60" E	20.18'	L40	N 88°22' 37" E	7.50'			
L11	S 01°37' 23" E	15.08'	L41	S 88°22' 37" W	7.50'			
L12	S 86°14' 52" W	9.34'	L42	N 01°37' 23" W	15.00'			
L13	S 17°05' 05" W	117.08'	L43	N 88°22' 37" E	7.50'			
L14	N O T U S E D		L44	S 26°07' 49" E	40.00'			
L15	N 02°48' 13" W	12.60'	L45	S 63°52' 11" W	15.00'			
L16	S 87°11' 47" W	71.21'	L46	N 26°07' 49" W	40.00'			
L17	N 02°17' 38" W	15.00'	L47	S 23°47' 20" E	15.74'			
L18	N 87°11' 47" E	71.08'	L48	S 02°48' 13" E	15.00'			
L19	S 87°11' 47" W	68.31'	L49	S 88°38' 10" W	15.00'			
L20	N 02°17' 38" W	15.00'	L50	S 88°38' 15" W	10.00'			
L21	N 87°11' 47" E	68.17'	L51	N 88°22' 37" E	17.00'			
L22	S 87°11' 47" W	73.51'	L52	S 01°37' 23" E	17.00'			
L23	N 87°11' 47" E	75.64'	L53	S 88°22' 37" W	7.00'			
L24	N 23°47' 20" W	12.35'	L54	N 47°48' 01" W	72.30'			
L25	N 26°12' 19" W	4.44'	L55	S 47°48' 01" E	86.83'			
L26	N 69°51' 16" W	14.62'	L56	S 87°42' 22" W	2.00'			
L27	N 89°48' 50" E	15.00'	L57	N 20°34' 32" E	14.28'			
L28	S 02°48' 13" E	20.59'	L58	N 25°16' 32" W	33.91'			
L29	S 87°11' 47" W	15.00'	L59	N 46°49' 42" W	14.26'			
L30	N 02°48' 13" W	35.97'	L60	N 15°10' 17" W	55.04'			

V-820

**TOWN OF FLOWER MOUND
DENTON COUNTY, TEXAS**

Filed for Record in:
Deaton County

On: Aug 06, 2004 at 03:21

As a
Plat

Document Number: 104272

Amount 215.00

Receipt Number - 129837
By
Linda Holden

Intended Use: School, Right-of-Way, & Vacant

OWNER'S CERTIFICATE AND DEDICATION

STATE OF TEXAS : WHEREAS WE, Lewisville Independent School District, are the owners of all that certain lot, tract or parcel of land situated in the William H. Gibson Survey, Abstract Number 464 and the J. White Survey, Abstract Number 1341, Town of Flower Mound, Denton County, Texas, being all that certain called 86.725 acre tract of land described in deed to Lewisville Independent School District (LISD) recorded in Clerk's File Number 02-113787 of the Real Property Records of Denton County, Texas, and part of that certain called 78.96 acre tract of land described in deed to R. L. Donald, Jr. and wife, Lorraine Donald recorded in Volume 476, Page 85 of the Deed Records of Denton County, Texas, being part of that certain tract of land described in deed to Lewisville Independent School District (LISD) recorded in Volume 4059, Page 889, of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a $\frac{1}{2}$ " capped rebar (G & A) found at the northwest corner of said 86.725 acre LISD tract, being on the south line of that certain tract of land described in deed to E. F. Hilliard recorded in Volume 259, Page 561 of the Deed Records of Denton County, Texas, being the northeast corner of a tract of land described in an Order of Condemnation recorded in the Probate Court Records of Denton County, Texas, under Case Number CV-94-00151-C, said point being on the east right-of-way line of F. M. Highway 2499;

THENCE N 88°25'31" E, 2498.80 feet, along the south line of said Hilliard tract and the north line of said 86.725 acre LISD tract, to a $\frac{1}{2}$ " capped rebar (G & A) set at the northeast corner thereof being on the west line of that certain called 79.49 acre tract of land described in deed to R. L. Donald, Jr. Trust recorded in Clerk's File Number 93-00083746 of the Real Property Records of Denton County, Texas;

THENCE S 02°17'38" E, 51.34 feet, along the east line of said 86.725 acre LISD tract and the west line of said Donald tract, to a $\frac{1}{2}$ " capped rebar (G & A) found at the northwest corner of the second cited LISD tract;

THENCE N 89°48'50" E, 1290.15 feet, along the north line of said LISD tract, to a $\frac{1}{2}$ " rebar found at the northeast corner thereof, being on the west line of the Foxborough Hollow, an addition to the Town of Flower Mound according to the plat thereof recorded in Cabinet K, Page 371 of the Plat Records of Denton County, Texas;

THENCE S 01°38'15" E, 70.03 feet, along the east line of said Donald tract and the west line of said Foxborough Hollow, to a $\frac{1}{2}$ " rebar set at the southwest corner thereof and the northwest corner of that certain tract of land described in deed to FMSR, Ltd. recorded in Volume 3252, Page 630 of the Real Property Records of Denton County, Texas, said point being S 89°55'05" W, 1.43 feet from the northwest corner of Shadowridge South Phase One, an addition to the Town of Flower Mound according to the plat thereof recorded in Cabinet K, Page 286 of the Plat Records of Denton County, Texas, as located on the ground;

THENCE S 01°37'23" E, 954.94 feet, along the east line of said LISD tract and the west line of said FM-SR, Ltd. tract, to a $\frac{1}{2}$ " capped rebar (G & A) found at the northeast corner of Lot 1, Spinks Road Elementary School Addition, an addition to the Town of Flower Mound according to the plat thereof recorded in Cabinet S, Page 36 of the Plat Records of Denton County, Texas;

THENCE S 88°38'15" W, 959.37 feet, along the north line of said Lot 1, to a $\frac{1}{2}$ " capped rebar found at the northwest corner thereof;

THENCE S 01°37'23" E, along the west line of said Lot 1, passing at 605.00 feet, a $\frac{1}{2}$ " capped rebar (G & A) found at the southwest corner thereof and continuing a total distance of 655.00 feet, to an "X" set in concrete, being on the south line of said LISD tract and the north line of that certain tract of land described in deed to Mrs. Mae Powell recorded in Volume 373, Page 467 of the Deed Records of Denton County, Texas, and being in Spinks Road;

THENCE S 88°38'15" W, along the south line of said LISD tract, in Spinks Road and along the north line of said Powell tract, passing the northwest corner thereof and the northeast corner of that certain tract or land described in deed to KDH Partners recorded in Volume 4528, Page 1394 of the Real Property Records of Denton County, Texas, and continuing a total distance of 310.42 feet, to an "X" set at the southwest corner of said LISD tract, being the southeast corner of said 86.725 acre LISD tract;

THENCE S 88°55'59" W, along the south line of said 86.725 acre LISD tract and the north line of said Westgold Realtors tract, passing at 1441.72 feet a $\frac{1}{2}$ " capped rebar (G & A) set on the projected new east right-of-way line of F. M. Highway 2499 and continuing a total distance of 1509.16 feet to the old east right-of-way line of F. M. Highway 2499;

THENCE N 56°10'41" W, 29.19 feet, along said right-of-way line, to a $\frac{1}{2}$ " capped rebar (G & A) set at the southwest corner of said condemnation tract;

THENCE N 88°56'20" E, 63.30 feet, along the south line of said condemnation tract, to a $\frac{1}{2}$ " capped rebar (G & A) set at the southeast corner of said tract, being on the east right-of-way line of F.M. Highway 2499;

THENCE N 60°20'48" W, 226.34 feet, along the east line of said condemnation tract and the east right-of-way line of F. M. Highway 2499, to a capped rebar (S J & F) found at the point of curvature of a curve to the right;

THENCE Northwesterly, continuing along said right-of-way line and with the arc of said curve having a radius of 1372.39 feet, a central angle of 41°42'40", whose chord bears N 39°27'41" W, 977.18 feet, an arc length of 999.09 feet, to a capped rebar (S J & F) found;

THENCE N 18°38'04" W, 499.68 feet, continuing along said right-of-way line, to a capped rebar (S J & F) found;

THENCE N 71°30'44" E, 9.70 feet, continuing along said right-of-way line, to a capped rebar (S J & F) found;

THENCE N 18°33'11" W, 299.95 feet, continuing along said right-of-way line, to a capped rebar (S J & F) found;

THENCE S 74°01'42" W, 10.19 feet, continuing along said right-of-way line, to a capped rebar (S J & F) found;

THENCE N 18°34'59" W, 78.15 feet, continuing along said line, to the POINT OF BEGINNING and containing approximately 122.042 acres of land.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS: THAT WE, Lewisville Independent School District, acting through our duly authorized representative, do hereby adopt this Record Plat designating the hereinabove described tract of land as Middle School #14 Addition, an addition to the Town of Flower Mound. The easements shown hereon are hereby reserved for the purposes indicated. All streets, alleys and rights-of-way are hereby dedicated in fee simple to the Town of Flower Mound for municipal purposes. The utility and fire lane easements (streets, alleys and common areas) shall be open to the public, fire and police units, garbage and rubbish collection agencies and all public and private utilities for each particular use. No buildings, trees, shrubs or other improvements or growths shall be constructed, reconstructed or placed upon, over or across the utility easements as shown. Said utility easements being hereby reserved for the mutual use and accommodation of any utility using or desiring to use the same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which in any way endanger or interfere with the construction, maintenance or efficiency of its respective system on the utility easements, and all public utilities shall at all times have the right of ingress and egress to and from and upon the said utility easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining or adding to or removing all or parts of its respective system without the necessity at any time of procuring the permission of anyone. Any public utility shall have the right of ingress and egress to private property for the purposes of reading meters and any maintenance and service required or ordinarily performed by that utility. The Private Drainage Easement is private and shall be maintained by owner. The Water Line Easement is for the sole use of the Town's water line.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Flower Mound.

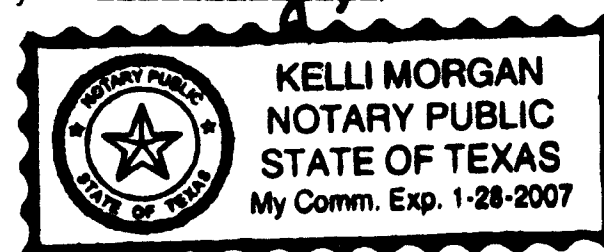
WITNESS OUR HAND this 12 day of July 2004

Dr. Jerry Roy, Superintendent
Lewisville Independent School District

STATE OF TEXAS : BEFORE ME, THE UNDERSIGNED AUTHORITY, personally appeared Dr. Jerry Roy, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purpose and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 12 day of July 2004

Kelli Morgan
Notary Public
State of Texas

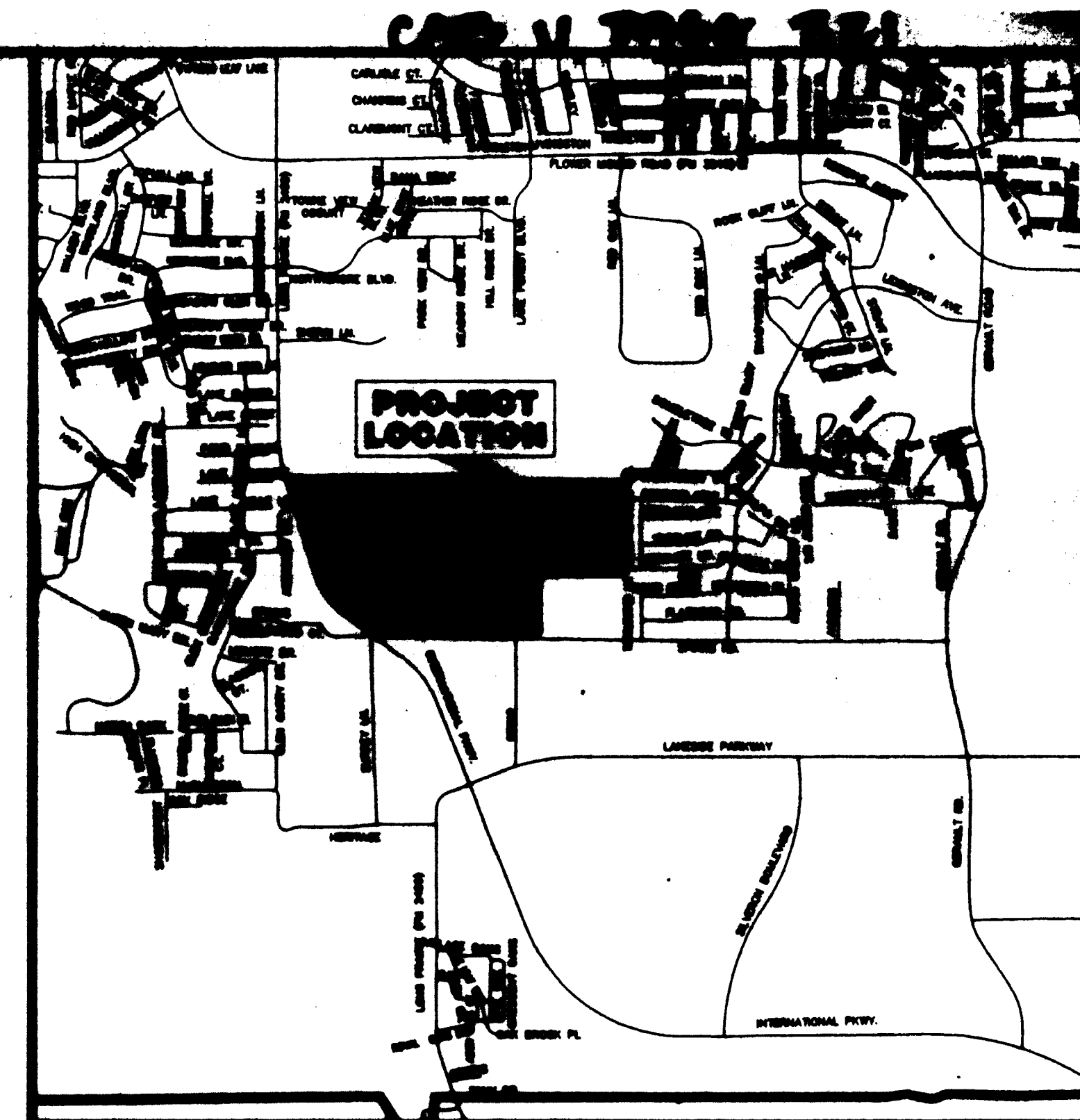


My commission expires the 28 day of January 2007

UTILITY CERTIFICATE

THE PLAT CORRECTLY REPRESENTS THE REQUIRED EASEMENTS FOR THE DEVELOPMENT

	BY	DATE
VERIZON	K. Guilem	7-13-04
ONCOR	Randy L. Cobi	7/9/04
COSERV	Randy L. Cobi	7/9/04
TXU	Bob L. Cobi	7-12-04
COMCAST	Bob L. Cobi	7-13-04



Vicinity Map 1"=2000'

CERTIFICATE OF APPROVAL

RECOMMENDED for approval this 10th day of May 2004 by the Planning and Zoning Commission of the Town of Flower Mound, Texas.

Nick Hollingshead, Chairman

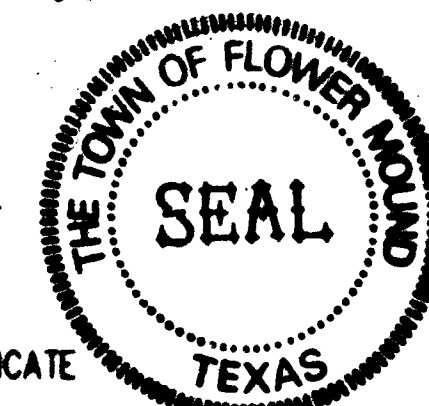
Douglas Powell, Assistant Executive Director of Development and Environmental Services

Judy A. Smith, Mayor

Appd. June 7, 2004 by Town Council

Signed and Sealed:

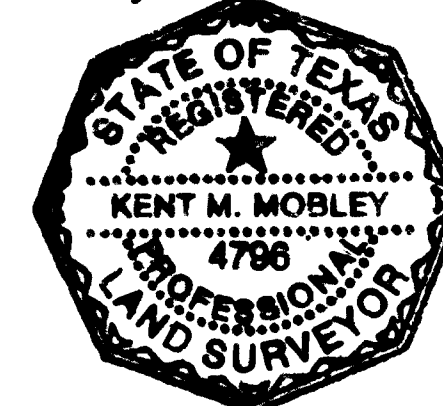
Paula Lawrence, Town Secretary



SURVEYOR'S CERTIFICATE

This is to certify that I, Kent Mobley, a Registered Professional Land Surveyor in the State of Texas, have plotted the above subdivision from an actual survey on the ground, and that this plat correctly represents that survey made by me or under my direction and supervision.

Kent Mobley
Texas Registration No. 4796



RECORD PLAT Middle School #14 Addition Lots 1 - 4, Block A 122.042 Acres

J. WHITE SURVEY, ABSTRACT NO. 1341
WILLIAM H. GIBSON SURVEY, ABSTRACT NO. 464
TOWN OF FLOWER MOUND
DENTON COUNTY, TEXAS

G & A Consultants, Inc.

SITE PLANNING • PLANNING
CIVIL ENGINEERING • LAND SURVEYING
LANDSCAPE ARCHITECTURE
Phone (972) 420-4862 • Fax (972) 420-4862
P.O. Box 1200 • Lewisville, Texas 75057

REV.: 02/20/04
04/02/04

5/5

DRAWN BY: S.M. DATE: 12/22/03 SCALE: 1"= 100' JOB NO. 03098

Owner
Lewisville Independent School District
P.O. Box 217
Lewisville, Texas 75067
1800 Timbercreek Road
Flower Mound, Texas 75028
(972) 420-4862
Fax (972) 420-4846
Contact Mark Rose

Filed for Record in:
Denton County
On: Aug 06/2004 at 03:21P
As a
Plat
Document Number: 104376
Amount: 215.00
Receipt Number: 129587
Linda Holden

Intended Use: School, Right-of-Way, & Vacant

V-821



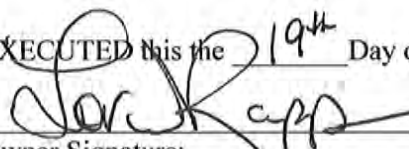
VACATION OF A PORTION OF A RECORD PLAT

STATE OF TEXAS }

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF Denton }

We the undersigned, being the owners of all lots located within the Middle School #14 Addition, in the Town of Flower Mound, Denton County, Texas, and being recorded in Volume/ Cabinet V, Page 817 of the Map and Plat Records of Denton County, Texas, on the 6th Day of August, 2004, to which reference is here made, desiring to vacate a portion of the Record Plat of said Addition, namely only those lots more particularly described as Lots 2, 3, and 4 of Block A in order to replat those lots as a permitted subdivision, in accordance with Zoning Ordinance No. 46-21, do hereby declare the same to be vacated, and said lots of said Record Plat of said Addition shall no longer be of any force and effect after vacating of said lots of said Record Plat has been approved by the Town of Flower Mound, Texas.

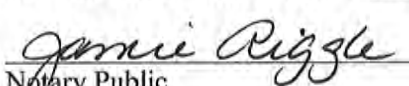
EXECUTED this the 19th Day of April, 2022.

 Owner Signature: _____

STATE OF TEXAS }

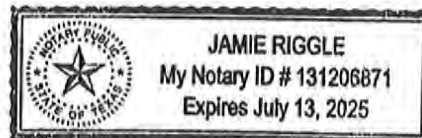
COUNTY OF Denton }

BEFORE ME, the undersigned, a Notary Public in and for said State of Texas, on this day personally appeared Lori Rapp, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 19th day of April, 2022.


 Notary Public

My Commission expires: July 13, 2025





EXECUTED this the 18th Day of April, 2022.

JMB
Owner Signature:

STATE OF TEXAS }

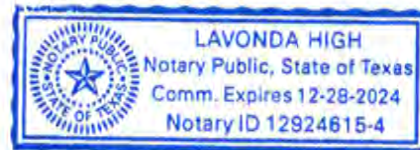
COUNTY OF Tarrant }

BEFORE ME, the undersigned, a Notary Public in and for said State of Texas, on this day personally appeared D. Mike Boswell, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 18th day of April, 2022.

Lavonda High
Notary Public

My Commission expires: 12/28/2024



Town of Flower Mound, TEXAS

The vacation of the above referred to Record Plat was approved by the Town of Flower Mound, Texas, on the _____ day of _____, _____.

TOWN OF FLOWER MOUND PLANNING AND ZONING COMMISSION

Brad Ruthrauff, Chairman
Planning and Zoning Commission

Lexin Murphy,
Director of Development Services

_____, 20_____
Date

SIGNED AND SEALED:

TOWN OF FLOWER MOUND

Theresa Scott, Town Secretary
Town of Flower Mound, Texas

_____, 20_____



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: 3

NON-DISCRETIONARY ITEM

DATE: April 25, 2022

FROM: Claire Barnes, Planner

ITEM: Consider a request for a Development Plan (DP21-0008 – Oakbridge Crossing) to develop a residential subdivision. The property is generally located east of Long Prairie Road and north of Spinks Road.

I. ITEM SUMMARY

This application has been reviewed by DRC and determined to be ready for consideration by the Planning and Zoning Commission. There are no outstanding issues.

This application will require final action by the Town Council.

II. APPLICATION ANALYSIS

A development plan is intended to show all the planning factors necessary to determine whether the proposed plan for land development is satisfactory from the standpoint of public health, safety and welfare and is in accordance with the general guidance provided by the comprehensive master plan. The purpose of this application is to obtain design approval for 127 buildable, single-family lots with a minimum lot size of 15,000 square feet. The site contains approximately 74.3763-acres. On October 4, 2021, Town Council approved a Master Plan Amendment (MPA21-0006 – Spinks Road Tract) and a Zoning change (ZPD21-0004 - Spinks Road Tract) for the property to change the land-use designation to low-density and the zoning to Planned Development No.182 (PD-182) with Single Family District-15 uses. The proposed development plan is in conformance with the PD-182 conceptual plans.

The proposed subdivision has two points of access from Aberdeen Drive. The development plan depicts 127 buildable residential lots and eight open space lots, including landscape buffers along Aberdeen Drive, Spinks Road, and Long Prairie Road. The plan also depicts approximately 2.004 acres of publicly accessible parkland located within the subdivision. The Development Plan proposes three phases of development in conformance with the PD phasing plan.

III. ATTACHMENTS

A. Background Information

1. Vicinity Map
2. Letter of Intent

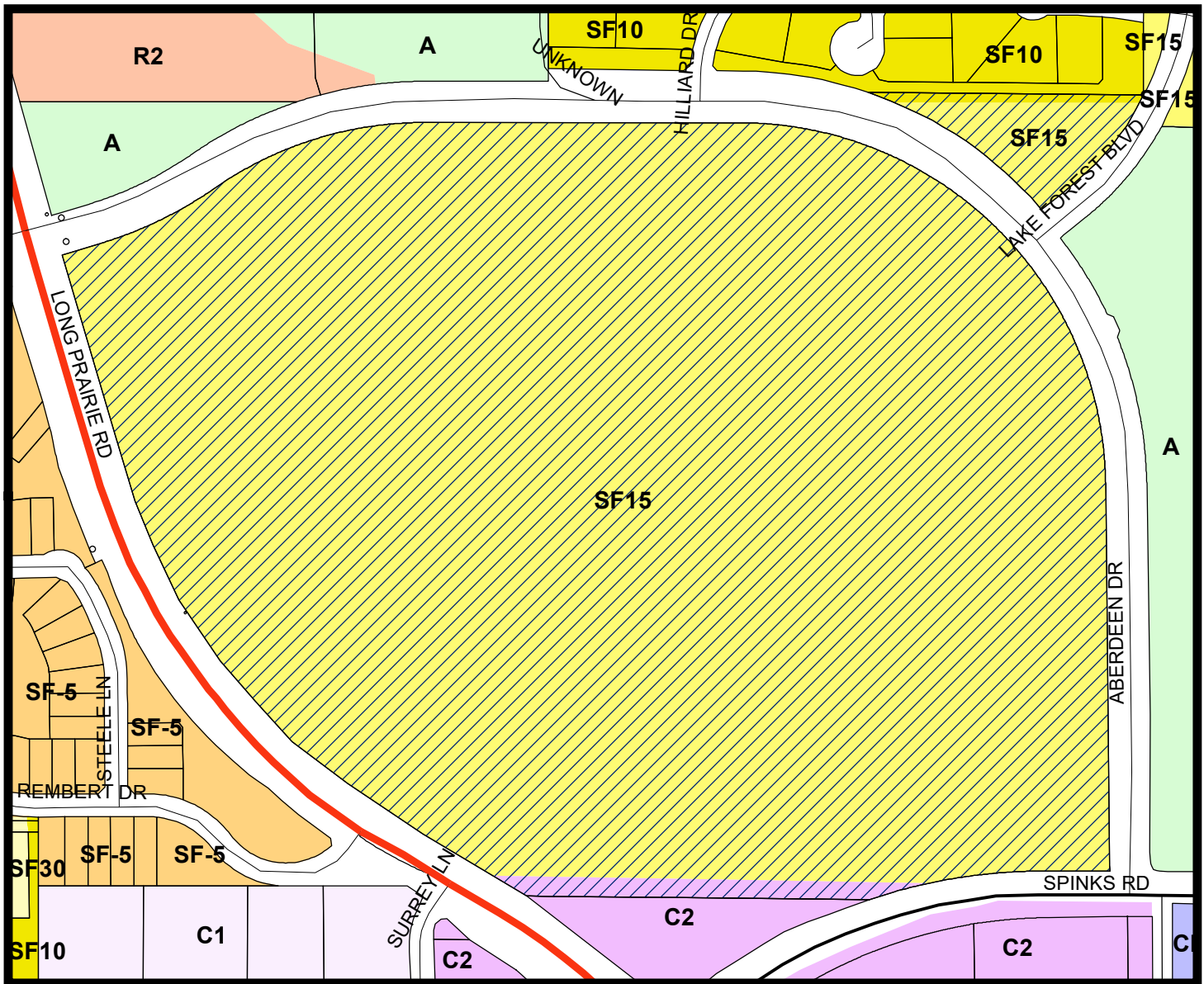
B. Application Details

1. Development Plan Package

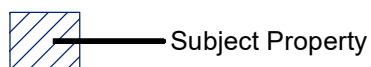
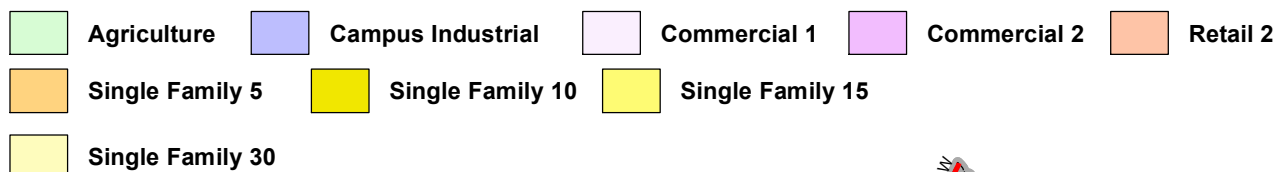


Vicinity Map

Reference Project: DP21-0008

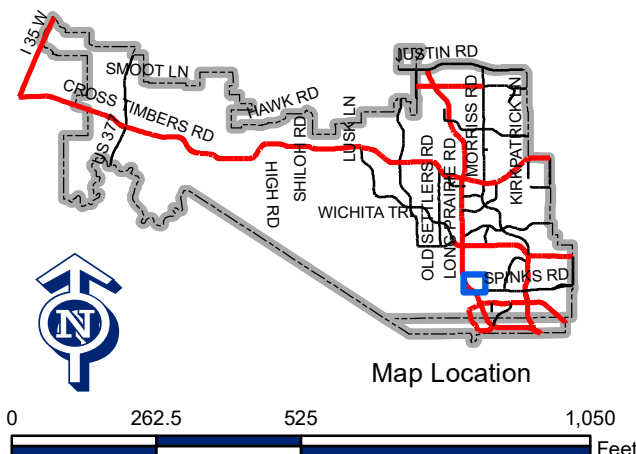


LEGEND



Visit www.fmdevmap.com to learn more about this project.

Visit <https://www.flower-mound.com/notifyme> to sign up for text message and/or email alerts for future projects.



Toll Brothers® **LAND DEVELOPMENT**

PAVING THE WAY FOR AMERICA'S LUXURY HOMEBUILDER

March 21, 2022

Chuck Russell
Principal Planner
Town of Flower Mound
1001 Cross Timbers Road #2330
Flower Mound, TX 75028

RE: Oakbridge Crossing (Toll Brothers No. AEC19195)
Flower Mound, Texas

Dear Mr. Russell,

Toll Brothers is pleased to submit this Letter of Intent to describe and explain the requested Development Plan.

The subject tracts total 76.020 acres. The Zoning Planned Development (PD #182) and Master Plan Amendment (MPA) were approved by the Planning and Zoning Commission on September 27, 2021 and by the Town Council on November 15, 2021. This Development Plan is in accordance with the approved PD #182 and MPA.

This project will consist of 127 residential lots, one town park, and six HOA maintained open spaces.

This proposed Development Plan has provided for landscape buffers, future right-of-way dedications and two points of access for safety considerations.

This project will be developed in four phases. This project will also process a vacation plat at a later date to remove the existing 60-foot building line adjacent to Aberdeen, FM 2499, and Spinks Road.

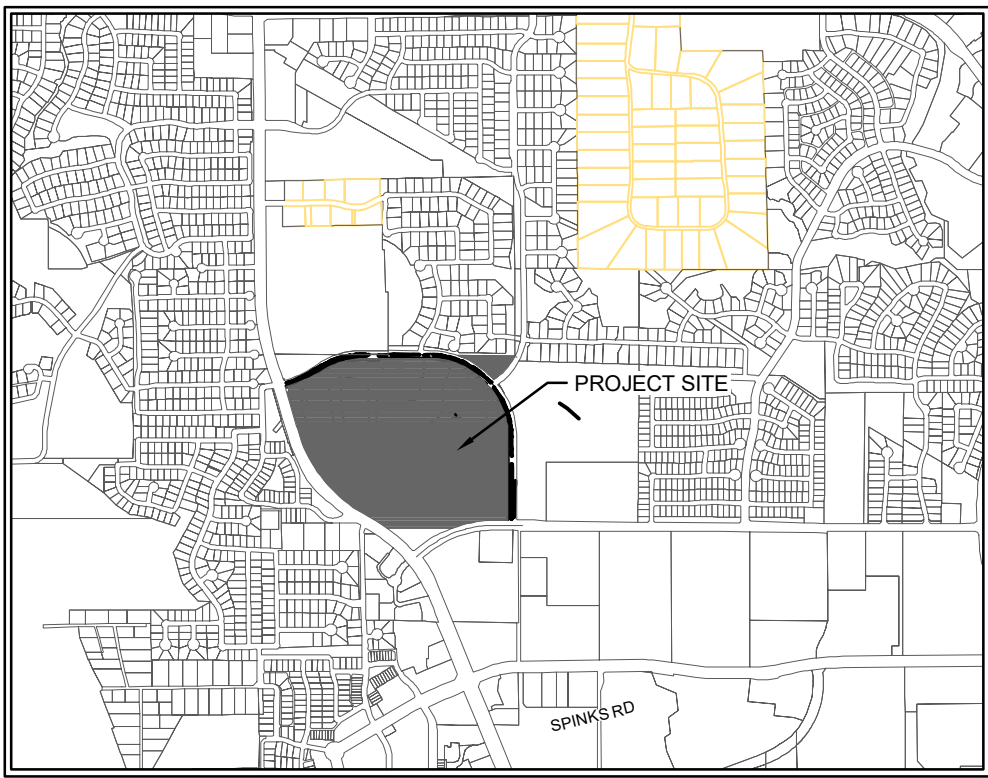
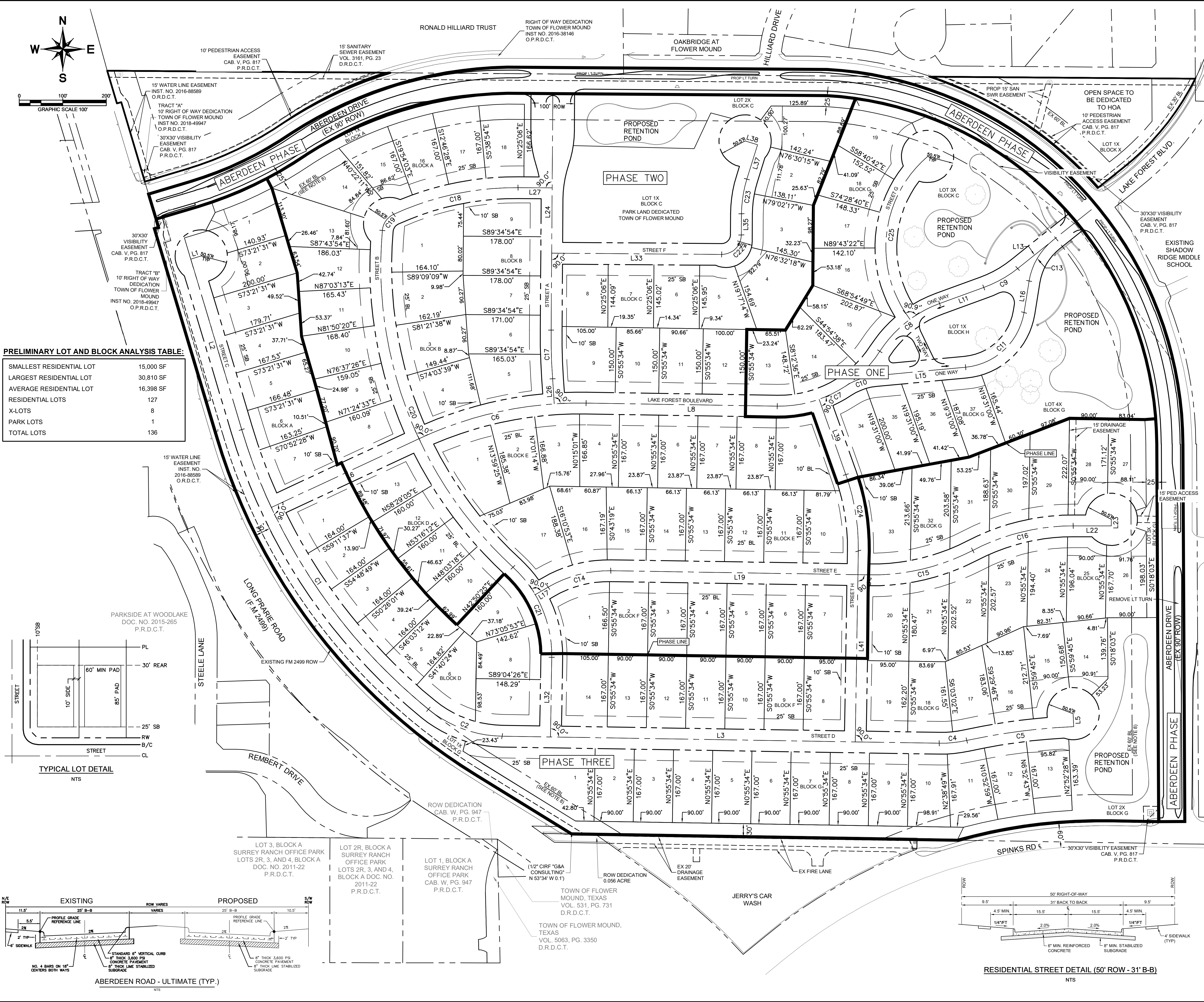
Please contact me at 817-329-7973 should you have any questions regarding our request.

Thank you,



Mike Boswell, VP of Land Development
Dallas/Austin Land Development

PLOTTED BY: RSC CASEY 4/26/24 1:24 PM
DWG NAME: N:\P\1\0682201\1\50 SPINKS ROAD\CD\PRELIMINARY\LAN\HETS\9-L PRELIMINARY PLAT.DWG (PRELIMINARY PLAT)
LAST SAVED: 4/22/2025 3:10 PM
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



VICINITY MAP
SCALE: 1" = 1,000'

LEGEND

P.R.D.C.T.	PUBLIC RECORDS DENTON COUNTY, TEXAS COUNTY, TEXAS
O.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
RW	RIGHT-OF-WAY
SB	SETBACK LINE
POB	POINT OF BEGINNING
o	BOUNDARY MONUMENT
HVSB	HIGH VOLTAGE SET BACK
SWME	SCREENING WALL MAINTENANCE EASEMENT
o	SPECIMEN TREE TO REMAIN

SITE DATA:

CURRENT ZONING CLASS = PD ORDINANCE 46-21
CURRENT USE = A (AGRICULTURAL)
PROPOSED ZONING CLASS = N/A
PROPOSED USE = SINGLE FAMILY RESIDENTIAL
GROSS AREA = 74.3763 AC (3,239,824 SF)
RIGHT-OF-WAY DEDICATION = 4.7093 AC (205,137 SF)
FLOODPLAIN = 0 AC
NET AREA = 69.6670 AC (3,239,824 SF)
PROPOSED GROSS DENSITY = 1.71 DU/AC
PROPOSED NET DENSITY = 1.71 DU/AC

DRAINAGE EASEMENT NOTES:

- UPKEEP AND MAINTENANCE OF THE PRIVATE DRAINAGE EASEMENT IS THE RESPONSIBILITY OF THE PROPERTY OWNER.
- UPKEEP AND MAINTENANCE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:
 - GRASS AND GROUND COVER SHALL BE KEPT TO A HEIGHT REQUIRED BY THE TOWN ORDINANCE.
 - THE DETENTION FACILITIES SHALL BE KEPT FREE OF DEBRIS AND LITTER, WITH PARTICULAR ATTENTION GIVEN TO KEEPING THE OUTLET STRUCTURE CLEAR AT ALL TIMES.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE FACILITIES AS REQUIRED TO ENSURE THAT THERE IS NO REDUCTION IN FUNCTION OR DETENTION CAPACITY.
 - NO DUMPING OF ANY TYPE IS PERMITTED WITHIN THIS EASEMENT AREA.

FLOODPLAIN NOTES:

According to Map No. 48121C0545G and 48121C0685G, dated April 18, 2011 of the National Flood Insurance Program Map, Flood Insurance Rate Map of Denton County, Texas, Federal Emergency Management Agency, Federal Insurance Administration, this property is within Zone "X-Unshaded", which is not a special flood hazard area. If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.

All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999849499.

DEVELOPMENT PLAN
FOR
OAKBRIDGE CROSSING

127 RESIDENTIAL LOTS / 8 OPEN SPACES / 1 PARK
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Toll Southwest, LLC 2855 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	DEVELOPER: Toll Southwest, LLC 2855 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	ENGINEER/SURVEYOR: Kimley-Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: CASEY ROSS, P.E.
--	--	--

DESIGNED MFB	DRAWN SDN	CHECKED JCR	SCALE AS SHOWN	DATE DEC 2021	KH PROJECT NO. 068622019	P-1
-----------------	--------------	----------------	-------------------	------------------	-----------------------------	-----

ZONING DATA TABLE:

DEVELOPMENT STD.	
MIN. LOT SIZE	15,000 SF
MIN. LOT WIDTH	80 FT
MIN. AREA/UNIT	1,800 SF
MIN. FRONT YARD	25 FT
MIN. SIDE YARD	10 FT
MIN. REAR YARD	30 FT
MAX. LOT COVERAGE	40%
MAX. HEIGHT (STORIES/FT)	3 STORIES / 35 FT

MASTER PLAN FEATURES:

LAND USE PLAN: LOW DENSITY

URBAN DESIGN PLAN: SF-15 PER PD #182

PARKS AND TRAILS PLAN: MULTI-USE TRAIL REQUIRED ALONG FM 2499

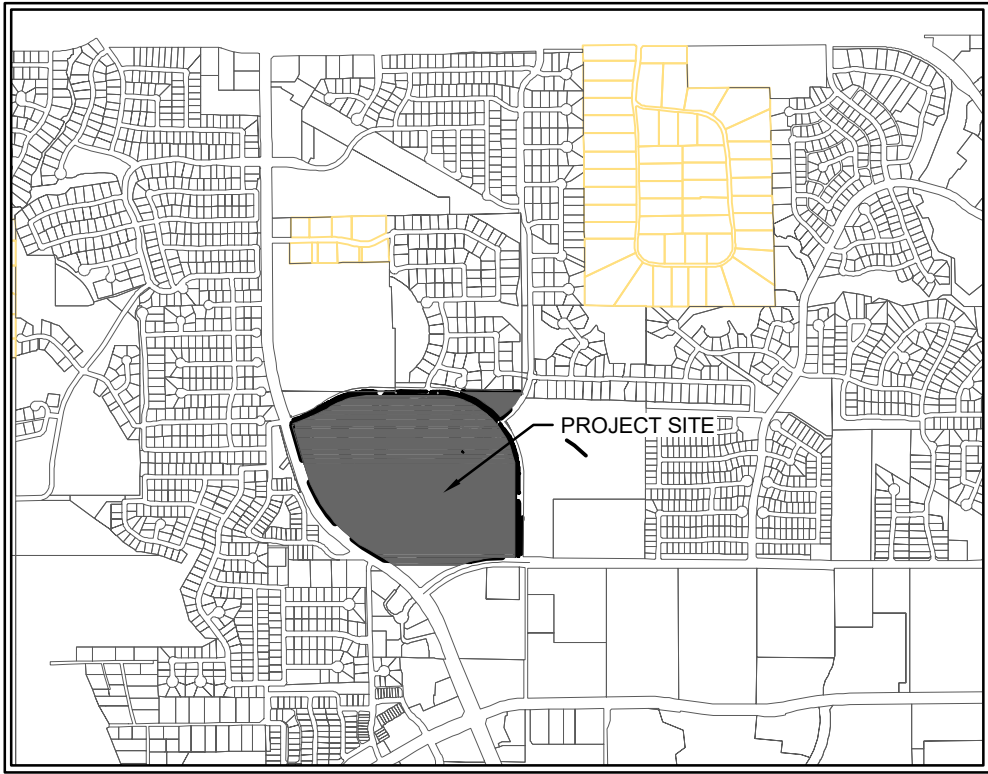
OPEN SPACE PLAN: N/A

THOROUGHFARE PLAN: SPINKS ROAD → URBAN MINOR ARTERIAL
FM 2499 → MAJOR ARTERIAL
ABERDEEN ROAD → URBAN MINOR ARTERIAL

WATER PLAN: EX. 12" IN SPINKS ROAD, ABERDEEN ROAD, AND LAKE FOREST BOULEVARD

WASTEWATER PLAN: EX. 12" IN ABERDEEN ROAD

ECONOMIC IMPACT: CONCEPT PLAN



VICINITY MAP

SCALE: 1" = 1,000'

DESCRIPTION OF SURVEYED PROPERTY:

Whereas Toll Southwest LLC is the owner a tract of land situated in the John White Survey, Abstract No. 1341, Town of Flower Mound, Denton County, Texas, and being described in a Deed without Warranty, as recorded in Instrument No. 222134 of the Official Records of Denton County, Texas, and being more particularly described as Lots 2 and 4, Block A, of Middle School #14 Addition, an Addition to the Town of Flower Mound, Denton County, Texas, according to the Map or Plat thereof recorded in Cabinet V, Page 817, of the Map and/or Plat Records, Denton County, Texas.

NOTES:

- ALL LOTS COMPLY WITH THE MINIMUM REQUIREMENTS OF THE TOWN'S PD ORDINANCE NO. 46-21.
- LOTS 1X OF BLOCK A, 2X AND 3X OF BLOCK C, 1X, 2X, 3X, AND 4X OF BLOCK G, AND LOT 1X OF BLOCK X WILL BE OWNED AND MAINTAINED BY THE HOA.
- LOT 1X OF BLOCK C WILL BE DEDICATED TO THE TOWN OF FLOWER MOUND AS PARK LAND. THE PARK WILL BE OWNED BY THE TOWN AND MAINTAINED BY THE HOA.
- DEVELOPMENT PLAN FOR INSPECTION PURPOSES ONLY; NOT AN OFFICIAL DOCUMENT APPROVED FOR RECORD PURPOSES.
- PURSUANT TO THE ORDINANCE NO. 36-92 OF THE TOWN OF FLOWER MOUND, TEXAS A MANDATORY HOMEOWNERS ASSOCIATION SHALL BE ESTABLISHED AND CREATED TO ASSUME AND BE RESPONSIBLE FOR THE CONTINUOUS AND PERPETUAL OPERATION MAINTENANCE AND/OR SUPERVISION OF DRAINAGE EASEMENTS, LANDSCAPING SYSTEMS OR THEIR PHYSICAL FACILITIES OF GROUND HELD IN COMMON AND NECESSARY OR DESIRABLE FOR THE WELFARE OF THE AREA OF SUBDIVISION OR THAT ARE OF COMMON USE OR BENEFIT. SAID MANDATORY HOMEOWNERS ASSOCIATION (HOA) SHALL BE RESPONSIBLE FOR THE CONTINUOUS AND PERPETUAL OPERATION MAINTENANCE AND/OR SUPERVISION OF THE LANDSCAPE SYSTEMS, FEATURES, OR ELEMENTS LOCATED IN PARKWAY COMMON AREA, BETWEEN SCREENING WALLS OR LIVING SCREENS, AND ADJACENT CURBS OR STREET PAVEMENT EDGES, ADJACENT TO DRAINAGE WAYS OR DRAINAGE STRUCTURES, OR AT SUBDIVISION ENTRYWAYS.
- LANDSCAPE BUFFER LOTS, OPEN SPACE LOTS, AND DRAINAGE EASEMENTS SHALL BE DEDICATED TO AND MAINTAINED BY THE HOA.
- ANY FENCE CONSTRUCTED ADJACENT AND/OR PARALLEL TO OPEN SPACE SHALL CONSIST OF WROUGHT IRON OR TUBULAR STEEL.
- EXISTING 60' BUILDING LINE SHALL BE ABANDONED VIA VACATION PLAT AT THE TIME OF RECORD PLAT SUBMITTAL.
- DRAINAGE EASEMENTS WITH OPEN CHANNEL MAY BE CROSSED BY TUBULAR STEEL FENCING. THERE MUST BE A MINIMUM OF 4' OF CLEARANCE BETWEEN THE LOWEST PART OF A FENCE AND THE TOP OF THE PRIVATE SWALE. DRAINAGE EASEMENTS MUST BE KEPT IN A STATE THAT WILL NOT INHIBIT FLOW.
- THIS PROPERTY IS SUBJECT TO PD #182.
- RETENTION PONDS SHALL BE DEDICATED AS PRIVATE DRAINAGE EASEMENTS ON RECORD PLAT.
- EXCAVATION FOR ALL THREE PHASES PLUS ABERDEEN WILL BE PERFORMED SIMULTANEOUSLY.
- ABERDEEN PHASE INCLUDES THE BURIAL OF THE EXISTING OVERHEAD.

PARK LAND DEDICATION:

REQUIRED DEDICATION IS 4.27 ACRES. LOT 1X OF BLOCK C (2.00 ACRES) WILL BE DEDICATED TO THE TOWN OF FLOWER MOUND AS PARK LAND. THE APPLICANT SHALL PAY \$442,650 IN PARK DEDICATION FEES AND DEDICATE 2.00 ACRES TO THE TOWN OF FLOWER MOUND.

	ACRES	FMV	FEES
REQUIRED	4.27	\$195,333	\$834,072
DEDICATION & FEES PROP.	2.00		\$390,000

PARK DEVELOPMENT FEES:

REQUIRED PARK DEVELOPMENT FEES ARE \$1,388 PER LOT FOR A TOTAL OF \$176,276.

TOTAL FEES PAID: \$620,348

AVIGATION EASEMENT AND RELEASE

WHEREAS, TOLL SOUTHWEST LLC, hereinafter called "Owner" (whether one or more), is the owner of that certain parcel of land situated in the Town of Flower Mound, Denton County, Texas, being more particularly described on the subdivision plat or in Exhibit "A" attached hereto and incorporated by reference herein, as the case may be;

NOW, THEREFORE, in consideration of the sum of ONE AND 00/100 (\$1.00) DOLLAR and other good and valuable consideration, the receipt and sufficiency of which is hereby fully acknowledged and confessed, Owner does hereby waive, release, remise, quitclaim and surrender to the Dallas-Fort Worth Regional Airport Board, the Cities of Dallas, Texas and Fort Worth, Texas, the Town of Flower Mound, Texas, municipal corporations, their successors and assigns, hereinafter collectively called "Cities," for the use and benefit of the public and its agencies, any and all claims for damages of any kind that Owner may now have or may hereafter have in the future by reason of the passage of all aircraft ("aircraft" being defined for the purposes of this instrument as any contrivance now known or hereafter invented, used, or designed for navigation or flight in the air) by whomsoever owned and operated, in the air space over Owner's property above a level measured 150 feet from the average ground level of said property as same presently exists, to an infinite height above said 150 feet from the average ground level, or the causing in all air space above the surface of Owner's property such noise, vibration, fumes, dust, fuel and lubricant particles, and all other effects that may be caused by the operation of aircraft landing at, or taking off from, or operating at or on the Dallas-Fort Worth Regional Airport; and Owner does hereby fully waive, remise and release any right or cause of action which it may now have or which it may in the future have against Cities, their successors and assigns, whether such claim be for injury to person or damages to or taking of proper ty, due to noise, vibration, fumes, dust, fuel and lubricant particles, and all other effects that may be caused or may have been caused by the operation of aircraft landing at, or taking off from, or operating and/or maintenance of aircraft or aircraft engines at or on said Dallas-Fort Worth Regional Airport. This instrument does not release the owners or operators of aircraft from liability for damage or injury to person or property caused by falling aircraft or falling physical objects from aircraft, except as stated herein with respect to noise, fumes, dust, fuel and lubricant particles.

It is agreed that this Release shall be binding upon Owner's heirs and assigns, and successors in interest to said property described on the subdivision plat or in Exhibit "A" attached hereto, as the case may be, and it is further agreed that this instrument shall be a covenant running with the land, and shall be recorded in the Deed Records of Denton County, Texas.

EXECUTED at _____, Texas, this _____ day of _____, A.D., 2022.

NAME

TITLE

DATE

ATTEST:

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____, A.D., 2022.

NOTARY PUBLIC in and for the State of Texas

My commission expires:

LINE	LENGTH	BEARING
L1	25.00	N73°21'30.97"E
L2	408.81	N16°38'29.03"W
L3	1003.91	S89°04'26.03"E
L5	30.00	S2°21'25.99"E
L6	374.40	S65°02'02.55"W
L8	438.93	N89°04'26.03"W
L11	108.09	S70°00'26.13"W
L13	216.79	S51°21'35.97"W
L15	208.02	S84°39'52.72"W
L16	73.57	N9°11'01.49"E
L17	34.38	S69°34'37.07"W
L19	592.71	N89°04'26.03"W
L22	87.65	N90°00'00.00"W
L23	15.00	S0°00'00.00"E
L24	543.12	N0°25'05.97"E
L26	57.81	N3°51'38.67"W
L27	78.39	N89°34'54.03"W
L32	182.90	N0°55'33.97"E
L33	390.18	N89°34'54.03"W
L35	48.69	S0°25'05.97"W
L37	82.54	S17°16'03.84"W
L38	30.00	S72°43'56.16"E
L39	183.53	S19°30'59.75"E
L41	438.71	S0°55'33.97"W

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C1	1312.39	783.79	S33°43'20"E	772.19	34°13'06"	403.97
C2	275.00	183.55	S69°57'09"E	180.16	36°14'33"	95.34
C4	275.00	63.66	N84°17'39"E	63.62	13°15'49"	31.97
C5	1422.92	247.86	S82°39'09"W	247.55	9°58'49"	124.24
C6	875.00	395.41	S77°58'48"W	392.06	25°53'31"	201.14
C7	275.00	279.09	S61°51'08"W	267.26	58°08'51"	152.90
C8	275.00	178.69	S51°23'34"W	175.56	37°13'43"	92.62
C9	275.00	89.50	S60°41'01"W	89.11	18°38'50"	45.15
C10	150.00	73.93	S70°32'43"W	73.18	28°14'20"	37.73
C11	150.00	197.61	N46°55'27"E	183.63	75°28'52"	116.10
C13	150.00	110.42	N30°16'19"E	107.94	42°10'34"	57.84
C14	275.00	150.47	S75°15'06"W	148.60	31°20'57"	77.17
C15	500.00	247.72	S76°43'58"W	245.19	28°23'11"	126.46
C16	500.00	239.64	S76°16'11"W	237.35	27°27'37"	122.17
C17	1500.00	112.03	N1°43'16"W	112.00	4°16'45"	56.04
C18	673.00	294.36	S77°53'15"W	292.01	25°03'36"	149.57
C19	45.00	47.38	S35°11'46"W	45.22	60°19'29"	26.15
C20	938.39	859.38	S21°12'08"E	829.66	52°28'18"	462.48
C21	275.00	232.13	N23°15'22"W	225.30	48°21'51"	123.49
C22	45.00	70.69	S45°25'06"W	63.64	90°00'00"	45.00
C23	275.00	80.87	S8°50'35"W	80.58	16°50'58"	40.73
C24	500.00	178.40	S9°17'43"E	177.45	20°26'34"	90.16
C25	275.00	414.42	S6°09'26"W	376.31	86°20'41"	257.99

LOT & BLOCK NUMBER	AREA (AC)	AREA (SF)
BLOCK A LOT 1	0.356	15520
BLOCK A LOT 2	0.363	15801
BLOCK A LOT 3	0.392	17087
BLOCK A LOT 4	0.354	15415
BLOCK A LOT 5	0.345	15030
BLOCK A LOT 6	0.346	15085
BLOCK A LOT 7	0.358	15599
BLOCK A LOT 8	0.345	15031
BLOCK A LOT 9	0.346	15059
BLOCK A LOT 10	0.356	15495
BLOCK A LOT 11	0.363	15827
BLOCK A LOT 12	0.377	16432
BLOCK A LOT 13	0.443	19294
BLOCK A LOT 14	0.442	19247
BLOCK A LOT 15	0.346	15075
BLOCK A LOT 16	0.373	16232
BLOCK A LOT 17	0.373	16232
BLOCK A LOT 18	0.368	16043
BLOCK B LOT 1	0.500	21793
BLOCK B LOT 2	0.419	18247
BLOCK B LOT 3	0.388	16902
BLOCK B LOT 4	0.376	16382
BLOCK B LOT 5	0.365	15901
BLOCK B LOT 6	0.347	15094
BLOCK B LOT 7	0.361	15705
BLOCK B LOT 8	0.368	16020
BLOCK B LOT 9	0.346	15081
BLOCK C LOT 1	0.432	18826
BLOCK C LOT 2	0.360	15681
BLOCK C LOT 3	0.408	17785
BLOCK C LOT 4	0.540	23528
BLOCK C LOT 5	0.353	15392
BLOCK C LOT 6	0.351	15276
BLOCK C LOT 7	0.348	15178
BLOCK C LOT 8	0.346	15080
BLOCK C LOT 9	0.419	18258
BLOCK C LOT 10	0.344	15000
BLOCK C LOT 11	0.344	15000
BLOCK C LOT 12	0.344	15000
BLOCK C LOT 13	0.346	15079
BLOCK C LOT 14	0.413	18004
BLOCK C LOT 15	0.421	18347
BLOCK C LOT 16	0.416	18129
BLOCK C LOT 18	0.349	15210
BLOCK C LOT 19	0.396	17237

LOT & BLOCK NUMBER	AREA (AC)	AREA (SF)
BLOCK D LOT 1	0.368	16050
BLOCK D LOT 2	0.347	15112
BLOCK D LOT 3	0.347	15112
BLOCK D LOT 4	0.347	15112
BLOCK D LOT 5	0.347	15123
BLOCK D LOT 6	0.381	16595
BLOCK D LOT 7	0.357	15548
BLOCK D LOT 8	0.360	15670
BLOCK D LOT 9	0.344	15004
BLOCK D LOT 10	0.349	15194
BLOCK D LOT 11	0.349	15194
BLOCK D LOT 12	0.349	15194
BLOCK D LOT 13	0.346	15082
BLOCK E LOT 1	0.481	20953
BLOCK E LOT 2	0.376	16398
BLOCK E LOT 3	0.353	15396
BLOCK E LOT 4	0.347	15121
BLOCK E LOT 5	0.345	15030
BLOCK E LOT 6	0.345	15030
BLOCK E LOT 7	0.345	15030
BLOCK E LOT 8	0.345	15030
BLOCK E LOT 9	0.459	19987
BLOCK E LOT 10	0.370	16124
BLOCK E LOT 11	0.345	15030
BLOCK E LOT 12	0.345	15030
BLOCK E LOT 13	0.345	15030
BLOCK E LOT 14	0.345	15030
BLOCK E LOT 15	0.352	15312
BLOCK E LOT 16	0.420	18283
BLOCK E LOT 17	0.554	24131
BLOCK F LOT 1	0.422	18366
BLOCK F LOT 2	0.345	15030
BLOCK F LOT 3	0.345	15030
BLOCK F LOT 4	0.345	15030
BLOCK F LOT 5	0.345	15030
BLOCK F LOT 6	0.345	15030
BLOCK F LOT 8	0.364	15865
BLOCK F LOT 9	0.345	15030
BLOCK F LOT 10	0.345	15030
BLOCK F LOT 11	0.345	15030
BLOCK F LOT 12	0.345	15030
BLOCK F LOT 13	0.345	15030
BLOCK F LOT 14	0.403	17535
BLOCK G LOT 1	0.707	30810
BLOCK G LOT 2	0.345	15030

LOT & BLOCK NUMBER	AREA (AC)	AREA (SF)
BLOCK G LOT 3	0.345	15030
BLOCK G LOT 4	0.345	15030
BLOCK G LOT 5	0.345	15030
BLOCK G LOT 6	0.345	15030
BLOCK G LOT 7	0.345	15030
BLOCK G LOT 8	0.345	15030
BLOCK G LOT 9	0.345	15030
BLOCK G LOT 10	0.359	15650
BLOCK G LOT 11	0.379	16528
BLOCK G LOT 12	0.352	15341
BLOCK G LOT 13	0.352	15319
BLOCK G LOT 14	0.345	15045
BLOCK G LOT 15	0.375	16333
BLOCK G LOT 16	0.428	18642
BLOCK G LOT 17	0.372	16196
BLOCK G LOT 18	0.348	15165
BLOCK G LOT 19	0.354	15409
BLOCK G LOT 20	0.381	16595
BLOCK G LOT 21	0.396	17228
BLOCK G LOT 22	0.416	18138
BLOCK G LOT 23	0.411	17907
BLOCK G LOT 24	0.406	17702
BLOCK G LOT 25	0.386	16820
BLOCK G LOT 26	0.388	16922
BLOCK G LOT 27	0.371	16154
BLOCK G LOT 28	0.416	18136
BLOCK G LOT 29	0.430	18740
BLOCK G LOT 30	0.395	17221
BLOCK G LOT 31	0.400	17428
BLOCK G LOT 32	0.434	18923
BLOCK G LOT 33	0.497	21652
BLOCK G LOT 34	0.367	15990
BLOCK G LOT 35	0.365	15885
BLOCK G LOT 36	0.395	17202
BLOCK G LOT 37	0.361	15744
BLOCKF LOT 7	0.384	15865
BOCK C LOT 17	0.345	15028

LOT & BLOCK NUMBER	AREA (AC)	AREA (SF)
BLOCK A LOT 1X	0.524	22844
BLOCK C LOT 1X	2.004	87285
BLOCK C LOT 2X	1.190	51820
BLOCK C LOT 3X	2.065	89945
BLOCK G LOT 1X	2.126	92616
BLOCK G LOT 2X	1.841	80192
BLOCK G LOT 3X	0.286	12438
BLOCK G LOT 4X	2.498	108813
BLOCK X LOT 1X	1.661	72364

DEVELOPMENT PLAN
FOR
OAKBRIDGE CROSSING

127 RESIDENTIAL LOTS / 8 OPEN SPACES / 1 PARK
BEING 74.376 ACRES

OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341

IN THE

TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Toll Southwest, LLC 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	DEVELOPER: Toll Southwest, LLC 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	ENGINEER/SURVEYOR: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Casey Ross, P.E.
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DESIGNED MFB	DRAWN SDN	CHECKED JCR	SCALE AS SHOWN	DATE DEC 2021	KH PROJECT NO. 068625019	P-2
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Oakbridge Crossing

TOWN OF FLOWER MOUND

L a n d s c a p e / S c r e e n i n g P l a n s

PROJECT TEAM

OWNER

Toll Brothers
Contact:
Mike Boswell
Demerius Seals
2555 SW Grapevine Parkway, Suite 100
Grapevine, TX 76051
832.470.2955

LANDSCAPE ARCHITECT



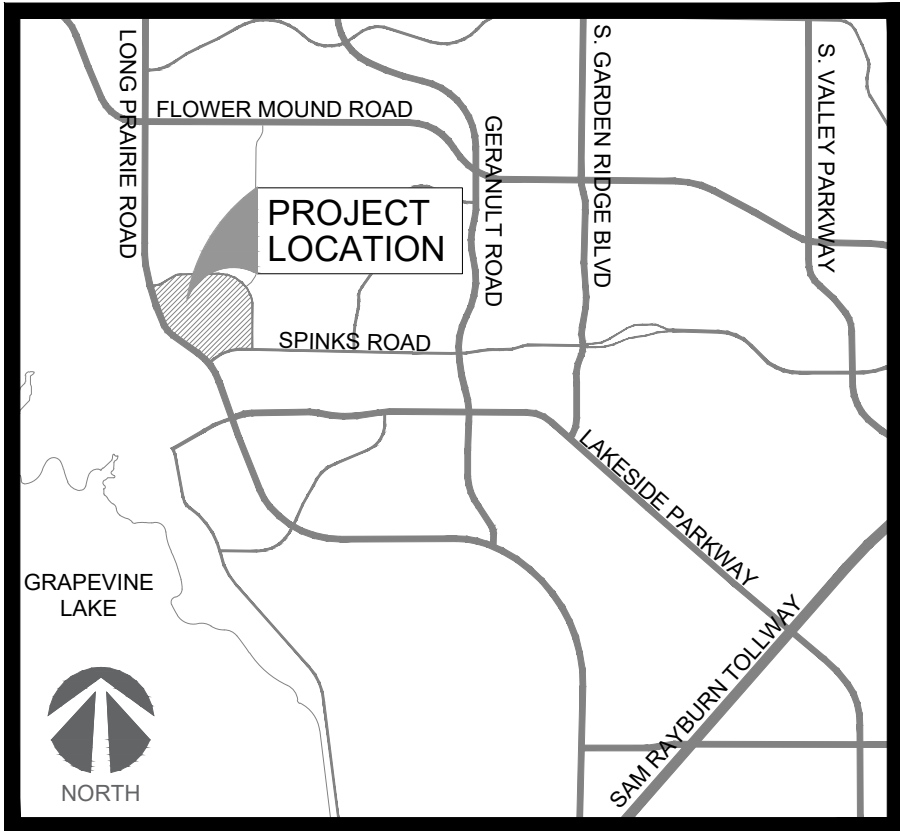
Green Door Studio
Contact:
Paul Cozzolino
PO Box 38415
Dallas, TX 75238
O: 972.855.8705

NOT FOR REGULATORY
APPROVAL,
PERMITTING, OR
CONSTRUCTION

Paul Cozzolino
03/22/2022

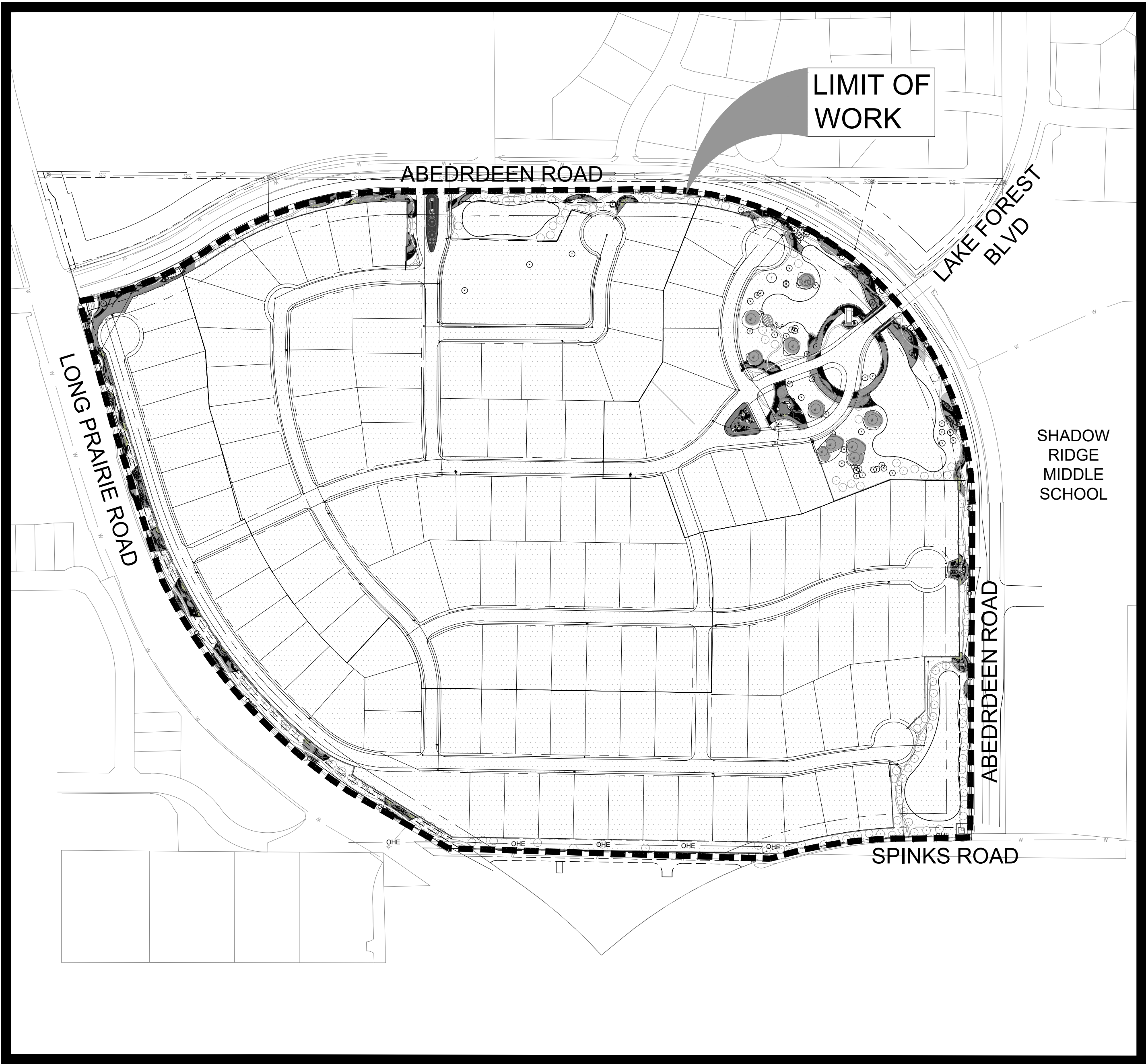
Sheet List Table

Sheet Number	Sheet Title
--	Cover
G-1.01	General Construction Notes
G-1.02	Overall Screening Plan
G-1.03	Overall Key Plan
L-1.01	Hardscape Layout
L-1.02	Hardscape Layout
L-1.03	Hardscape Layout
L-1.04	Hardscape Layout
L-1.05	Hardscape Layout
L-1.06	Hardscape Layout
L-1.07	Hardscape Layout
L-1.08	Hardscape Layout
L-1.09	Hardscape Layout
L-1.10	Hardscape Layout
L-1.11	Hardscape Layout
L-1.12	Hardscape Layout
L-2.01	Hardscape Details
L-2.02	Hardscape Details
L-2.03	Hardscape Details
L-3.01	Planting Layout
L-3.02	Planting Layout
L-3.03	Planting Layout
L-3.04	Planting Layout
L-3.05	Planting Layout
L-3.06	Planting Layout
L-3.07	Planting Layout
L-3.08	Planting Layout
L-3.09	Planting Layout
L-3.10	Planting Layout
L-3.11	Planting Layout
L-4.02	Planting Details Schedule and Notes
L-4.01	Planting Details Schedule and Notes

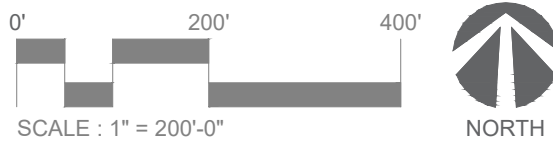


VICINITY MAP

N.T.S.



SITE MAP



ISSUED

12/13/2021	Development Plan Submittal
01/24/2022	Development Plan Submittal Comment Response
02/28/2022	Development Plan Submittal Comment Response
03/22/2022	Development Plan Submittal Comment Response

REVISIONS

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PROJECT NO. : 210001
DRW: P.C., F.Y.
RVW: P.C.

GENERAL CONSTRUCTION NOTES

- Unless otherwise indicated, the Owner's Representative for this project shall be a specifically designated landscape architect from Green Door Studio. The Contractor will be required to coordinate and correspond with the landscape architect from Green Door Studio and key consultants for the Owner.
- These drawings supplement other contractual information which may include Bid Instructions and Project Specifications. Anything mentioned in the Project Specifications and not in the drawings, or vice-versa, shall be of like effect as if shown on or mentioned in both. In case of a discrepancy between Drawings or Project Specifications, the matter shall be immediately submitted to the Owners Representative; without his decision said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense. The Landscape Contractor shall not take advantage of any apparent error or omission on the Drawings or in the Specifications. In the event the Contractor discovers such error or omission, he shall immediately notify the Owner's Representative. The Owner's Representative will then make such clarification and interpretations as may be deemed necessary for the Contractor to fulfill the intent of the Contract.
- The intent of these drawings, details and associated specifications is for the Contractor to provide the Owner with a complete, accurate, functionally and technically sound project as generally described in these documents. In most cases, unless explicitly noted otherwise, drawing symbols are used to represent complete-in-place systems to be provided as part of the base bid. All elements shown or implied by the drawings, if not specifically detailed or specified, shall be installed per building codes, manufacturer's recommendations, state highway department standards, city standards and specifications and standard industry practices.
- All work within this project shall conform to current local codes, ordinances, as well as all other applicable governing regulations in effect.
- The Contractor shall obtain, at his expense, all specialty permits needed for specific items included with the work, unless otherwise indicated in the Contract Documents. Contractor shall comply with all notifications and inspection requirements.
- Unless specifically noted otherwise in the Contract Documents, the Contractor shall obtain and coordinate all technical tests and reports by a certified independent laboratory or agency as outlined in the Specifications or these Drawings. The Owner may, at the Owner's sole discretion, provide separate testing and/or inspection service and the Contractor is required to fully coordinate with those consultants/contractors. Owner is to pay for all soils and materials testing.
- An Existing Condition Survey has been provided to the Owner by registered surveyors under separate contracts for the basis of design. It is not to be considered as part of these Contract Documents. These survey plans have been reformatted and included in these documents. The Contractor is required to visit the site to verify information. Without exception, any deviations or omissions found between these plans and existing site conditions shall immediately be brought to the attention of the Owner's Representative.
- Existing utility information and utility information for proposed work by others that is shown in these documents is approximate and for general information only. It is not intended to depict exact locations of all utilities. The Contractor shall notify all utility companies to stake and field verify the locations including depths of all utilities (existing, proposed by others, or currently under construction), prior to commencing any related operations. Contractor shall maintain utility locations/structures during all remaining phases of work. The Contractor shall report to the Owner's Representative any utilities that may conflict with proposed work. The Contractor shall explore, understand, and coordinate (with other Sub-Contractors) all utilities impacts prior to submitting bid and shall be responsible for any modifications or damages to utility lines, structures or injuries therefrom. For existing utility information contact The One-Call Board of Texas (OCB) at 811 or 800-545-6005. A minimum notice of 3 business days in advance of locational needs is required.
- These drawings do not specify safety materials, staffing, equipment, methods or sequencing to protect persons and property. It shall be the Contractor's sole responsibility to direct and implement safety operations, staffing, procedures to protect the Owner and his representatives, new improvements, property, other Landscape Contractors, the public and others.
- The Contractor shall meet periodically with the Owner's Representative to determine marshalling areas, on-site storage, and Contractor staff parking and to coordinate security issues, construction sequencing/phasing, scheduling, and maintaining public, emergency, handicapped or operations access before starting the related work. The Contractor shall meet any "Construction Criteria" or requirements shown on any Contract Documents, phasing plans or any imposed plan by the Owner as a part of the Base Bid.
- Some work in this Contract may occur concurrent with work by others. Phasing, sequencing and coordination, with work by others, and on-going facility operations in and around the site area, is a part of the scope of work for this project. Notice to proceed with work in any general area shall be obtained from the Owner.
- The Contractor will be required to complete all the work of this project according to these proposed drawings or subsequent clarification. A strict period of performance, including dates of substantial completion (for all and/or portions) and liquidation damages may be an integral element of the Contract.
- Any site improvements requiring removal under this contract shall be properly and legally disposed off-site or, at the Owner's option, surrendered/stockpiled in an approved on-site location per the direction of the Owner's Representative.
- The Contractor is required to maintain a complete and "up-to-date" set of all Contract Documents, including clarifications, change orders, etc., in good condition, at the construction site at all times. This set of documents will be made immediately available for review by the Owner's Representative and/or authorized Consultants upon request. Complete "As-Built" drawings and document submittals are also a requirement of this contract.
- Maintenance, warranties and performance guarantees may be a requirement of this contract - see specifications.
- Notes and details on specific drawings shall take precedence over general notes and typical details. The Contractor shall refer to all other Division Notes, Sheets Notes, Drawings and Project Contract Documents for additional information.
- The Contractor shall refer to other related drawings for all other related improvements that will impact this project and require coordination.

GRADING AND PLANTING PREPARATION NOTES

- These grading plans are intended to show vertical control of the site and are based upon the benchmarks, existing elevations and topography as provided by the Owner's surveyor. However, the Contractor, upon submittal of bid, agrees to accept the site grades and make all adjustments required to accomplish the work as proposed. Additionally proposed design elevations for adjacent construction projects may have to be incorporated if necessary. (Construction drawings for work by others, if applicable, are available upon request). Staking of future adjacent improvements, by this contract phase or by others, may be required if directed by the Owner's Representative to ensure proper coordination and requested staking is to be provided as part of this Base Bid.
- This Contractor shall verify all existing grades to remain and all adjacent new construction grades for compliance with those shown, prior to bid and construction. All deviations or conflicts with proposed work shall be reported immediately (with follow-up written) notice within 24 hours to the Owner's Representative for direction to proceed.
- It is this Contractor's responsibility to provide proper positive drainage throughout this contract area. Field conditions shall be verified in conjunction with the proposed elevations to ensure that adequate drainage is provided. Report deviations or conflicts to Owner's Representative.
- All design elevations shown are "finished grades" unless otherwise indicated. Contractors shall refer to drawings, details and specifications regarding depth of sub-grade materials required to construct project improvements.
- All topsoil and/or drainage way muck excavation shall be saved and stockpiled in approved locations for future use.
- The Contractor shall be responsible for finished grading of the project. The Contractor and Owner's Representative shall review the extent of grading prior to commencing work.
- The Contractor shall fine grade, rake and be responsible for positive drainage away from all structures and throughout site, with accurately set flow lines. No low spots or ponding of surface water will be accepted in the final work. No rocks or debris will be accepted. Final grade tolerances are +/-0.1 foot maximum.
- Prior to preparing Turf Sod, Turf Seed and Plant Bed areas, eradicate all weeds, briars and vines with post-emergent herbicide such as "Round-Up" applied by licensed personnel following manufacturers recommendations and taking all necessary precautions. After weed eradication and removal and the specified waiting period apply 10 lb of MicroLife Hummates Plus per 1,000 sq ft to restore soil health.
- Turf Sod and Turf Seed areas shall be raked smooth, removing and disposing of stones over 1" diameter and fine graded to feather into natural grade.
- Plant Beds to be prepared to a 6" depth to accommodate 4" depth of compost tilted and thoroughly blended with the native soil and 2" mulch layer. Bed preparation to include a minimum of (3) tilling's. Provide a 6' x 6' mockup of the bed preparation for Owner's Representative review and approval.

- 1st Till-
Till the soil surface to a minimum depth of 6". Stones larger than 1" diameter shall be removed and disposed of off-site.
- 2nd Till-
Spread 2" of compost on the surface of the tilled soil. Till the compost into the tilled soil to a minimum depth of 6" thoroughly blending the native soil with the compost. Smooth out the grade, rake and remove clods, stones larger than 1" diameter, and debris and dispose of off-site.
- 3rd Till-
Spread 2" of compost and organic fertilizer (2 lbs. per 100 sf) on the surface of the thoroughly blended/ tilled soil. Till the compost and the fertilizer into the blended/ tilled soil to a depth of 3". Smooth out the grade. Rake soil back from the edges to accommodate 2" mulch depth. In Bid Proposal furnish a unit price per cubic yard of placed compost. This unit price will be used in the adjustment of bed areas.

LAYOUT NOTES

- All work shown shall be field staked or otherwise denoted and subject to field verification, review and approval by the Owner's Representative prior to any constructions or demolition. Field staking of all proposed work and adjacent construction (even if future work by others) may be required by the Owner's Representative prior to approval of all improvements and adequate stakes shall be provided by Contractor's surveyor.
- To expedite the layout of the site layout coordinates and/or grids may have been established in the Drawings. These points shall be field staked by the Contractor's surveyor as a part of this contract. The establishment of these points shall be approved by the Owner's Representative prior to any construction in those areas and will assist the Contractor in the layout of all site improvements as shown on drawing or otherwise.
- The construction tolerances for this project are minimal and the dimensions shown are to be strictly adhered to.
- Computed dimensions shall take precedence over scaled dimensions. Large scale drawings shall take precedence over small scale drawings. Dimensions shown with (+/-) shall be the only layout information allowed to vary, and may only vary to the tolerances given.
- The Contractor is responsible to provide complete-in-place systems and a complete project, and any intermittent or periodic approvals received for portions of work, stakes, grades, or forms (by the Owner's Representative, architects, engineers, or others) shall not waive the Contractor's requirements to comply with the intent of any and all portions of this contract.
- Field staked locations for walks, roads, swales, walls, curbs, structures etc. may be requested by the Owner's Representative. Specific layout information will be provided to the Contractor by the Owner's Representative in AutoCAD (.dwg) format when requested.
- It is the intent and requirement of this contract to provide curvilinear walks, walls and curbs with smooth transitions and arcs (both horizontal and vertical). Straight segments and abrupt transitions will not be accepted unless shown as such on the plans. Wood curving forms may be required to obtain the proper effects.
- When indicated on the Drawings, improvements that are to be coordinated on site with the Owner's Representative will be field staked or painted for approval of layout by the Owner's Representative prior to installation. Notify the Owner's Representative a minimum of 24 hours in advance for review. Improvements installed without field approval by Owner's Representative may be rejected. Rejected work must be removed and replaced.

IRRIGATION NOTES

- It is the intent of this Contract for the Contractor to design and install a complete automatic 2-wire Weathermatic controlled irrigation system based on the information, details and specifications provided in these documents.
- The Contractor shall submit an irrigation plan for review and approval by the Owner's Representative prior to commencing work. Work completed before the approval of the plan may be rejected.
- The irrigation system shall be capable of applying full head to head coverage of 1" of water per week. Irrigation times shall be limited to two days per week between the hours of 7pm and 10am.
- The Contractor shall be responsible for becoming aware of all related existing conditions, utilities, pipes and structures, etc. prior to bidding and construction. The Contractor shall be held responsible for contacting all utility companies for field location of all underground utility lines, including depths, prior to any excavation. The Contractor shall notify the Owner's representative of apparent conflicts with construction and utilities so that adjustments can be planned prior to installation. Contractor shall take sole responsibility for any and all cost or other liabilities incurred due to damage of said utilities/structures/etc.
- The Contractor shall not willfully proceed with construction as designed when it is apparent that unknown obstructions and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Owner's Representative for clarification. The Contractor shall assume full responsibility for all liabilities, including necessary revisions due to failure to give such notification.
- Contractor shall be responsible for coordination with subcontractors and other contractors of related trades as required to accomplish the installation of the irrigation system and related operations. Refer to the Planting Plans for locations of trees, beds, edging, etc.
- Coordinate installation of irrigation system with installation of all adjacent planting, pavements, curb and related structures. Any damage to existing improvements is the responsibility of the Contractor.
- Contractor shall notify Owner's Representative 48 hours prior to commencement of work to coordinate project inspection schedules.
- The Contractor shall be a registered Landscape Irrigator in the State of Texas.
- It is the design and the final installation of the irrigation system shall conform to all TCEQ and local rules and regulations.
- It is the Contractor's responsibility to coordinate final locations of irrigation equipment with the Owner's Representative to avoid paving, utilities, etc.
- It is the responsibility of the Contractor to be familiar with grade differences, location of walls, structures and utilities. The Contractor shall replace or repair all items damaged by his work.
- It is the intent of these documents to have the Contractor provide a complete operational irrigation system. The Contractor shall verify water pressure prior to construction. The Contractor shall report any discrepancy between design pressure and actual pressure to the Owner's Representative prior to commencing work.
- The Contractor shall obtain all permits and licenses, pay all charges and fees and file all notices required and necessary to provide a complete and operational irrigation system.
- The Contractor shall supply the Owner's Representative complete "as-built" record drawings showing the location of all mainlines, valves (manual and electric), controllers and control and monitoring devices. "As-built" drawings shall include a complete schedule outlining each zone by controller, type of zone (rotor, spray, drip, bubbler, etc.), flow rate, precipitation rate and general location.
- The Contractor shall provide a typed and laminated schedule outlining each zone by controller, type of zone (rotor, spray, drip, bubbler, etc.), flow rate, precipitation rate and general location. A copy of this schedule shall be affixed to the inside door of each controller.
- Each controller shall be equipped with an approved rain sensor device. Mounting location of sensor shall be approved by Owner's Representative.
- Install all backflow prevention devices and piping between the point of connection and the backflow prevention devices per local codes and ordinances.
- Final location of backflow prevention devices and system controllers shall be approved by Owner's Representative.
- Electrical service will be provided at the location of the controller by others. It is the responsibility of the Contractor to make the final connection from the service to the controller.
- All sleeving under proposed walks, walls and other like improvements shall be located by a mark in the concrete at each end of sleeve locations. The mark shall be a "V" 4" long x 1/8th" deep pointing to the sleeve ends.
- All piping and wiring shall be installed in SCH 40 PVC sleeves. Install sleeving based on sleeve sizing guide below:

Pipe Size or Wire Quantity	Required Sleeve
3/4" - 1-1/4" Piping	2" PVC Sleeve
1 1/2" - 2" Piping	4" PVC Sleeve
2 1/2" - 3" Piping	6" PVC Sleeve
4" - Piping	8" PVC Sleeve
6" - Piping	10" PVC Sleeve
1 to 25 Control Wires	2" PVC Sleeve
26 to 75 Control Wires	3" PVC Sleeve
- Pipe velocity shall not exceed 5 feet per second. Minimum pipe sizes shall be as follows:

0-10 gpm use 3/4"
10-15 gpm use 1"
15-25 gpm use 1-1/4"
25-35 gpm use 1-1/2"
35-50 gpm use 2"
50-80 gpm use 2-1/2"
80-120 gpm use 3"
- All sprinkler heads shall be set perpendicular to the finished grade unless noted otherwise.
- The Contractor will be required flush and adjust all sprinkler heads and valves as necessary to provide optimal coverage with minimal overspray on to walks, streets, walls, fences, etc.
- All control wires are to be 14 AWG solid copper, insulated, direct burial wire, UF and UL listed. All wire connections between wires and to valves are to be made inside valve boxes using "King Brothers Snap Tite" wire connectors or approved equal.
- All equipment not otherwise detailed or specified shall be installed in accordance with the manufacture's instructions, recommendations and specifications.
- Some areas in these plans require temporary (manual or piped) irrigation. Refer to plans for these locations. Contractor is responsible for watering for establishment 90 days. Plants in these areas are not included in warranty.

PLANTING NOTES

- Contractor shall be responsible for becoming aware of all related existing conditions, utilities, pipes and structures, etc. prior to bidding and construction. The Contractor shall be held responsible for contacting all utility companies for field location of all underground utility lines, including depths, prior to any excavation. The Contractor shall notify the Owner's Representative of apparent conflicts with construction and utilities so that adjustments can be planned prior to installation. Contractor shall take sole responsibility for any and all cost or other liabilities incurred due to damage of said utilities/structures/etc.
- The Contractor shall not willfully proceed with construction as designed when it is apparent that unknown obstructions and/or grade differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Owner's Representative for clarification. The Contractor shall assume full responsibility for all liabilities, including necessary revisions due to failure to give such notification.
- Contractor shall be responsible for coordination with subcontractors and other contractors of related trades as required to accomplish the planting and related operations.
- The acceptable tolerances for this project are minimal and specific layout is required as shown on the layout, planting and other plans. Final location and staking of all plant materials shall be accepted by the Owner's Representative in advance of plantings.
- Coordinate installation of all plant material with installation of all adjacent irrigation, pavements, curb and related structures. Any damage to existing improvements is the responsibility of the Contractor.
- Contractor shall notify Owner's Representative 48 hours prior to commencement of work to coordinate project inspection schedules.
- The Contractor shall take all necessary scheduling and other precautions to avoid climatic damage to plants. A "planting" of specific calendar days is required to be submitted by the Contractor for approval and planting operations should occur per this approved schedule.
- If conflicts arise between size of areas and plans, Contractor is required to contact Owner's Representative for resolution. Failure to make such conflicts known to the Owner's Representative will result in Contractor's liability to relocate the materials.
- Plant names may be abbreviated on the drawings. See plant legend for symbols, abbreviations, botanical/common names, sizes, estimated quantities (if given) and other remarks.
- It is the Contractor's responsibility to furnish all plant materials free of pests or plant diseases. Pre-selected or "tagged" material must be inspected by the Contractor and certified pest and disease free. It is the Contractor's obligation to maintain and warranty all plant materials per the specifications. All plants shall be subject to Owner's approval prior to installation.
- Where provided, area takeoffs and plant quantity estimates in plant list are for information only. Contractor is responsible to do their own quantity take-offs for all plant materials and sizes shown on plans. In case of any discrepancies, plans take precedence over call-outs and/or the plant list(s).
- Contractor shall provide "per-unit costs" for every size of plant material, and by type, as called out on Planting Plans in the Bid Proposal. Unit cost to include the plant material itself and installation, including all labor, amendments, fertilizers, warranty, etc., as detailed and specified for each size, "complete in place".
- The Contractor is responsible to restore all areas of the site, or adjacent areas, where disturbed by operations of or related to the Contractor's work. Sod areas disturbed shall be restored with new sod. Native areas disturbed, if not already improved to meet other requirements of this contract, shall be restored consistent with type, rates and species of existing condition.
- All plants shall be nursery grown, Grade 1 plants meeting American Nursery and Landscape Association (ANLA) standards set forth in the "American Standard for Nursery Stock" (ANSI Z60.1-2004). Plants are to be typical in shape and size for species. Plants shall not be root-bound or loose in their containers. Handle all plants with care in transporting, planting and maintenance until inspection and final acceptance. Plants shall be installed to present their best side facing the viewer.
- The Contractor shall field verified tree spacing prior to planting to make sure tree spacing will not cause issues once the trees are mature.
- Warranty: Provide a one-year replacement warranty for all irrigated plant materials. Warranty shall cover plants which have died or partially died (thereby ruining their natural shape), but shall not include damage by vandalism, browsing, hail, abnormal freezes, drought or negligence by the Owner. The Warranty is intended to cover Contractor negligence, infestations, disease and damage or shock to plants. Plants replaced under Warranty will be warranted for one year following replacement.

PLANTING LAYOUT AND INSTALLATION NOTES

- The Contractor shall be responsible for accurately laying out the plant beds and lawn areas by scaling the Drawings. The Contractor shall provide paint lines/stakes/hose or other means to fully indicate the specific layout geometry of all bed lines for approval by Owner's Representative prior to installation. The Contractor's Base Bid shall anticipate minor adjustments as directed by the Owner's Representative in the field. Changes affecting quantities will be covered by unit prices.
- Following the approval of layout, the Contractor shall closely coordinate the installation of the irrigation system to conform to the approved layout.
- Install edging where decomposed granite trail meets planting bed and where decomposed granite trail meets gravel following manufacturer's installation instructions. Maintain an accurate layout with smooth curves and transitions, free of kinks and abrupt bends. Top of edging is to be 1" above soil level of adjacent turf. In Bid Proposal furnish a unit price per linear foot of edging installed. Bed edges where edging is not specified shall have a "spade edge".
- Provide matching sizes and forms for all species of trees and plants installed on grid or spaced equally in rows as shown on drawings. Adjust spacing (to "equal-equal") as necessary, subject to acceptance by the Owner's Representative.
- Unless otherwise indicated:
 - All groupings of groundcovers, perennials, ornamental grasses and annuals shall be triangularly spaced (equal-equal).
 - All planting areas including sod, seed and planting beds, shall receive soil amendments per the notes and specifications.
 - Sodded lawn shall have been grown between 9 and 18 months and shall be vigorous, well-rooted and healthy turf. Minimum thatch thickness shall be 3/4".
 - Specific plant bed areas may be called out to receive weed barrier fabric, see plans and details.
- All Plant Beds and pit planted plants shall receive a 2" depth layer of shredded hardwood mulch. Refer to plans, details and specifications for location and type of any alternate mulch used. In Bid Proposal furnish a unit price(s) per cubic yard of mulch(es) placed. This unit price(s) will be used in the adjustment of bed areas.
- Planting pits for 1, 3, & 5 gallon shrubs shall be at least 8" larger in diameter than the container size. Larger container sizes and B&B plants shall be planted in pits at least 18" larger in diameter than the ball size.
- Plants shall be installed to present their best side facing the viewer.
- Owner's Representative shall have final approval of plant material layout.

GENERAL LEGEND	
ABBREVIATIONS	
SYMBOL	DEFINITION
APPROX.	APPROXIMATE
B.O.C.	BACK OF CURB
B.W.	BOTTOM OF WALL = FINISHED GRADE
C.L.	CENTER LINE
CONC.	CONCRETE
DIA.	DIAMETER
D.I.	DRAIN INLET
DWG.	DRAWING
E.J.	EXPANSION JOINT
ESMT.	EASEMENT
E.Q.	EQUAL
F.O.C.	FRONT OF CURB
F.F.E.	FINISH FLOOR ELEVATION
F.G.	FINISH GRADE
HP	HIGH POINT
L.O.C.	LIMIT OF CONSTRUCTION
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TANGENT
QTY.	QUANTITY
R	RADIUS
REF.	REFERENCE
R.O.W.	RIGHT OF WAY
SAN	SANITARY SEWER
S.G.	SUB GRADE
S.J.	SCORE JOINT
SIM.	SIMILAR
S.S.	STAINLESS STEEL
STRM.	STORM
T.B.D.	TO BE DETERMINED
T.C.	TOP OF CURB
T.O.B.	TOP OF BANK
T.O.C.	TOP OF CURB
T.R.	TOP OF RAMP
T.S.	TOP OF STEP
T.W.	TOP OF WALL
TYP.	TYPICAL
VAR.	VARIES
W/	WITH
W/O	WITHOUT
W.L.	WATER LINE



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03/22/2022

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OAKBRIDGE CROSSING

TOWN OF FLOWER MOUND
DENTON COUNTY, TX

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General
Construction Notes

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date 03/22/2022

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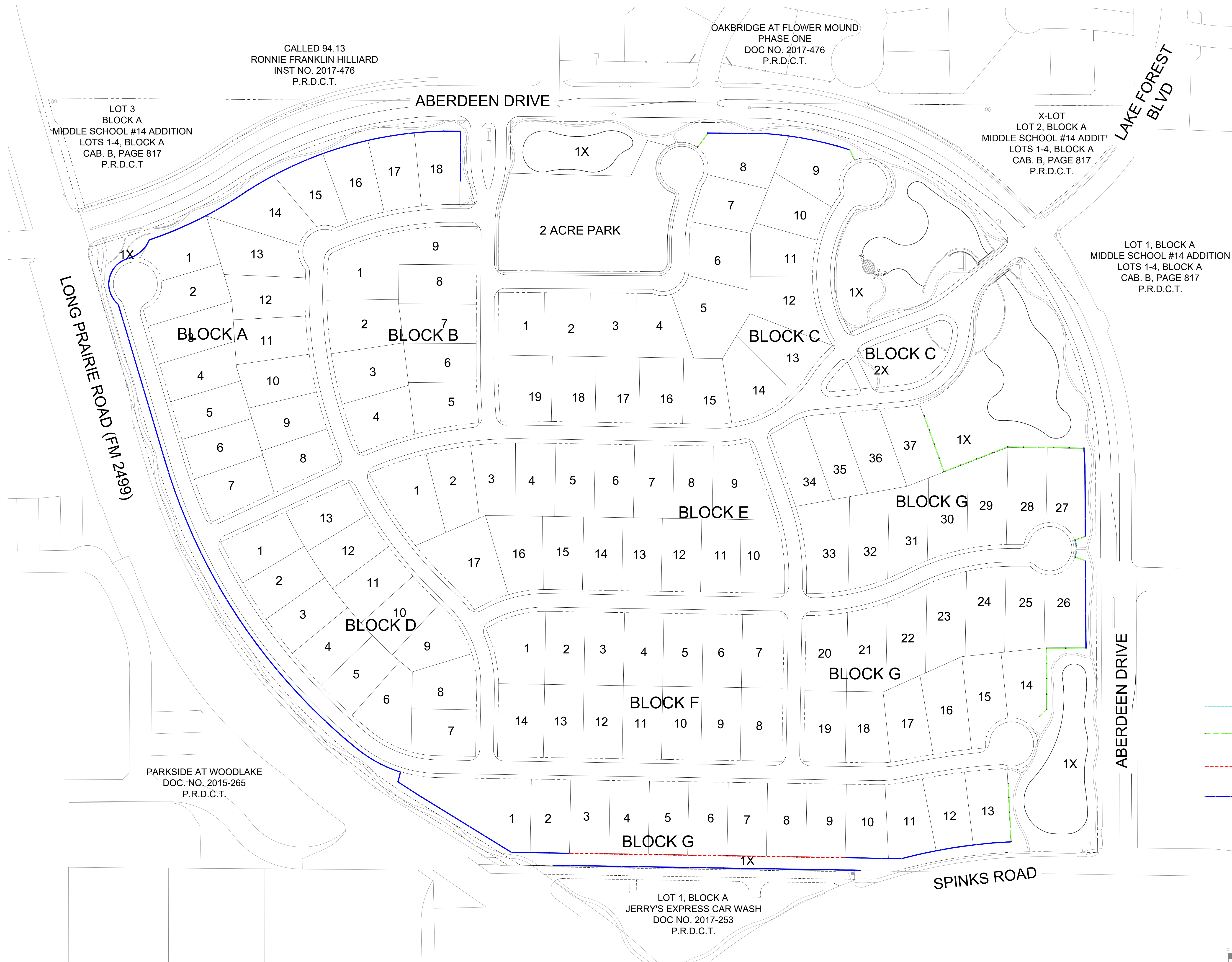
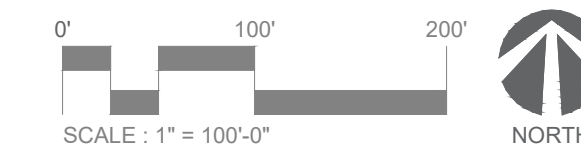
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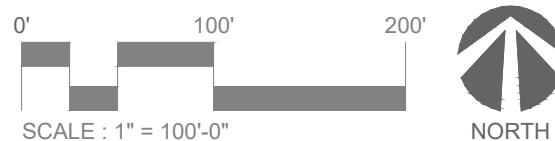
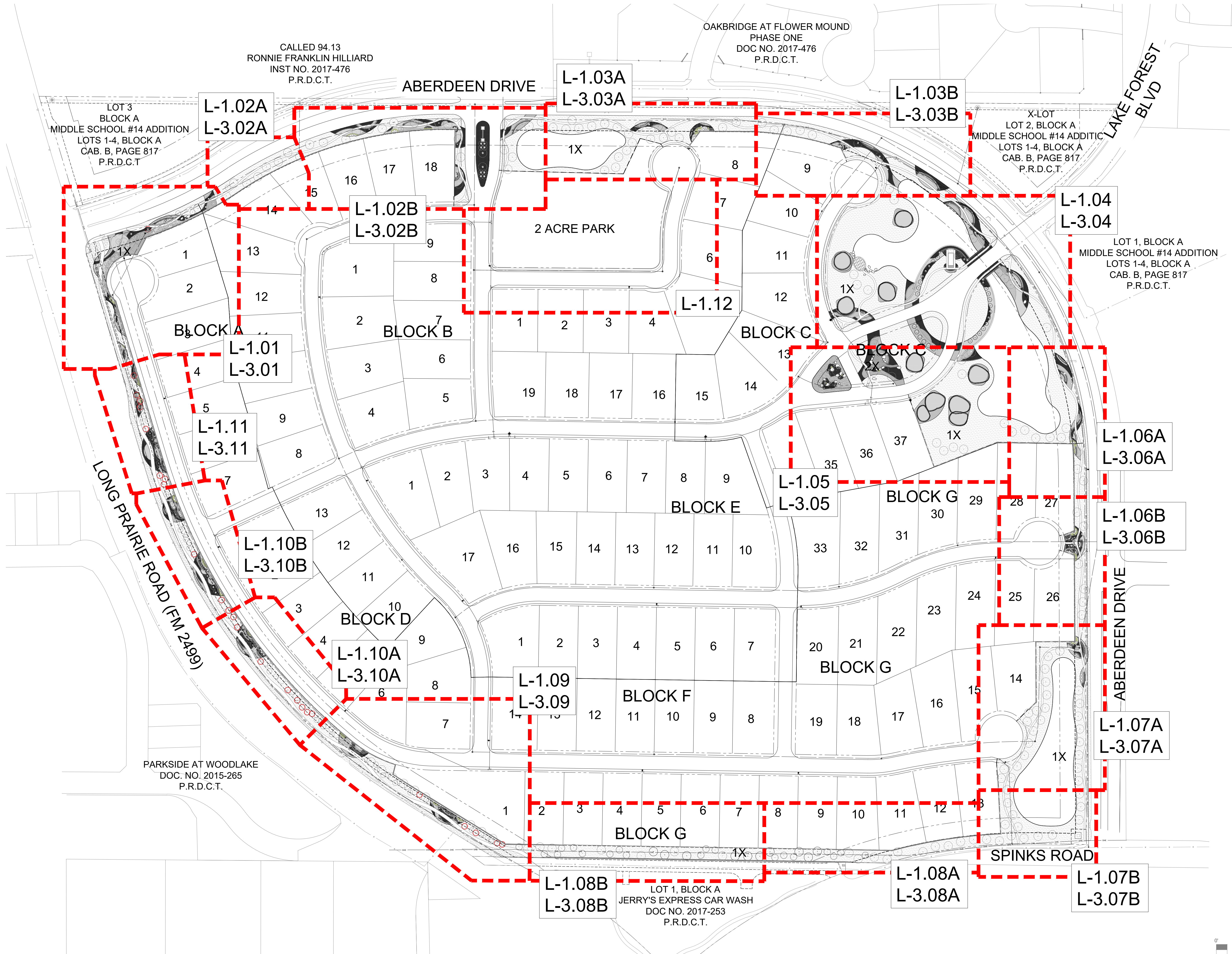
Overall Key Plan

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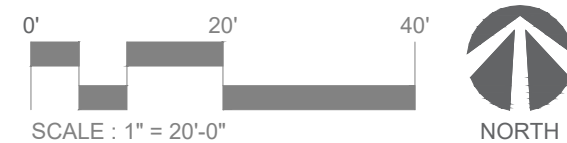
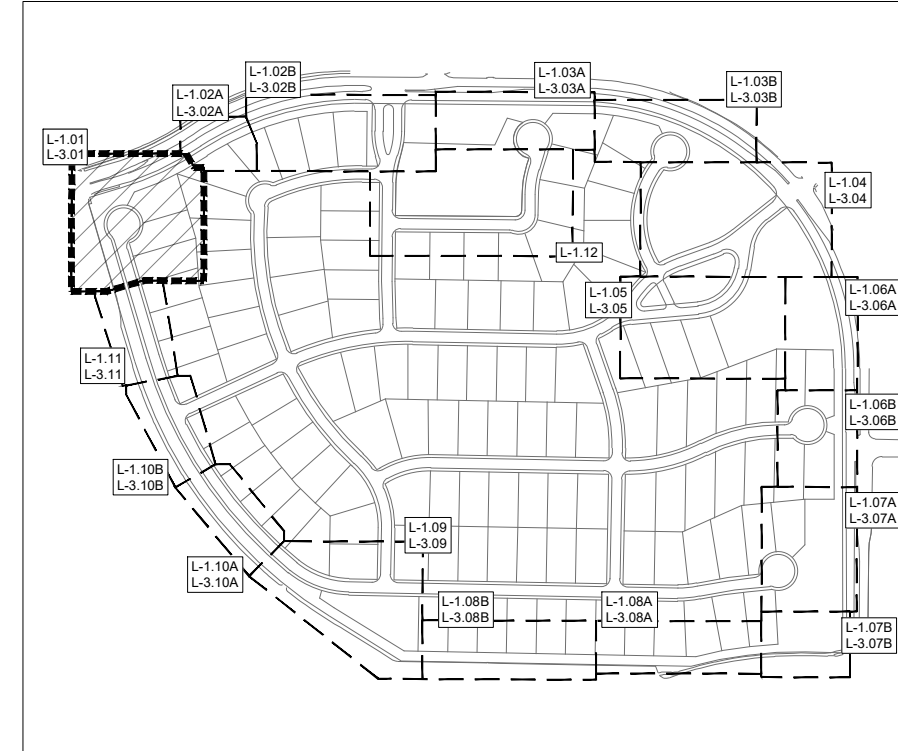
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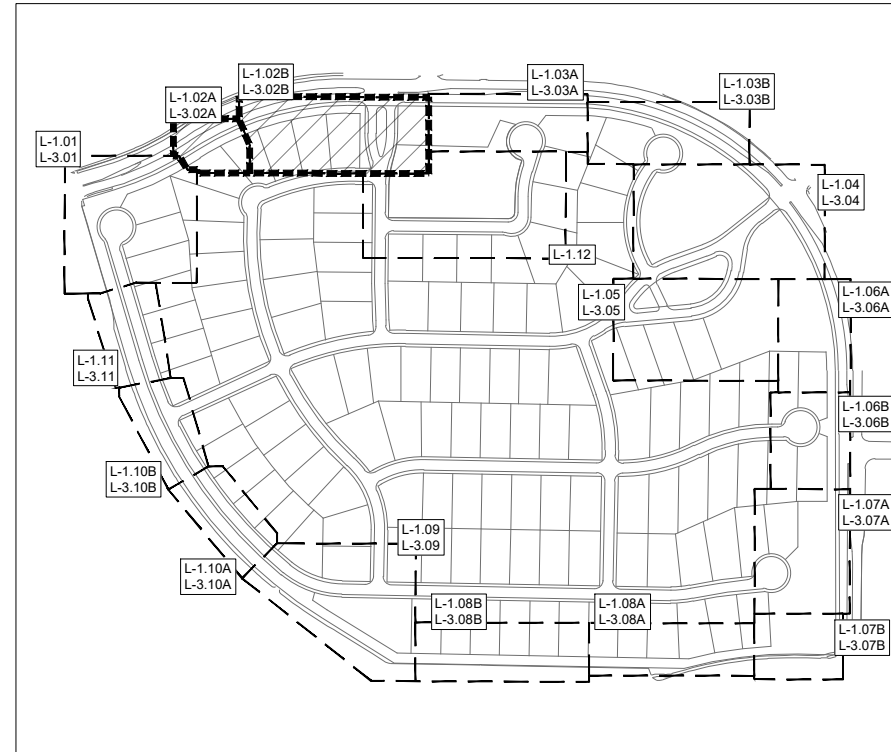
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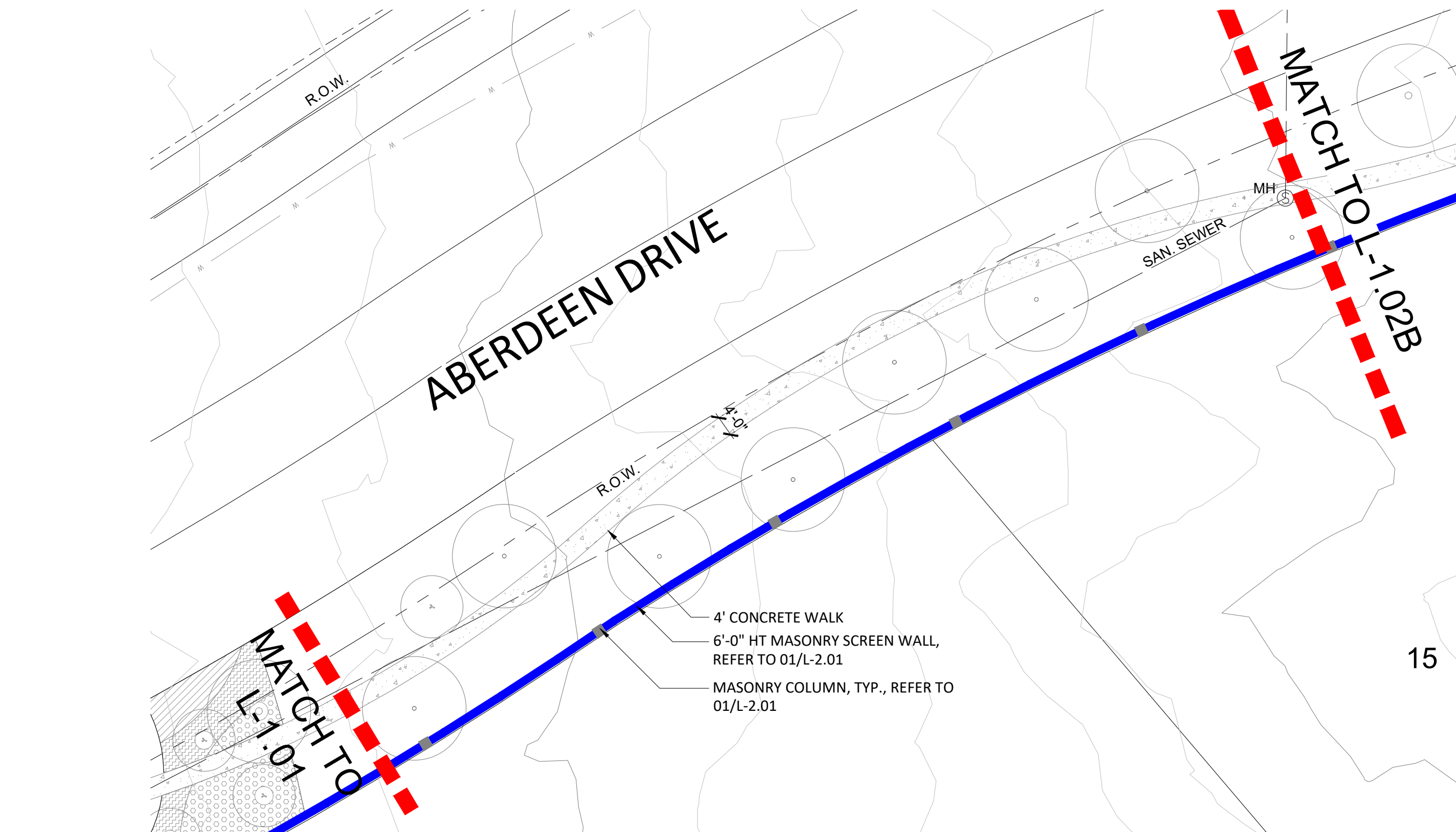
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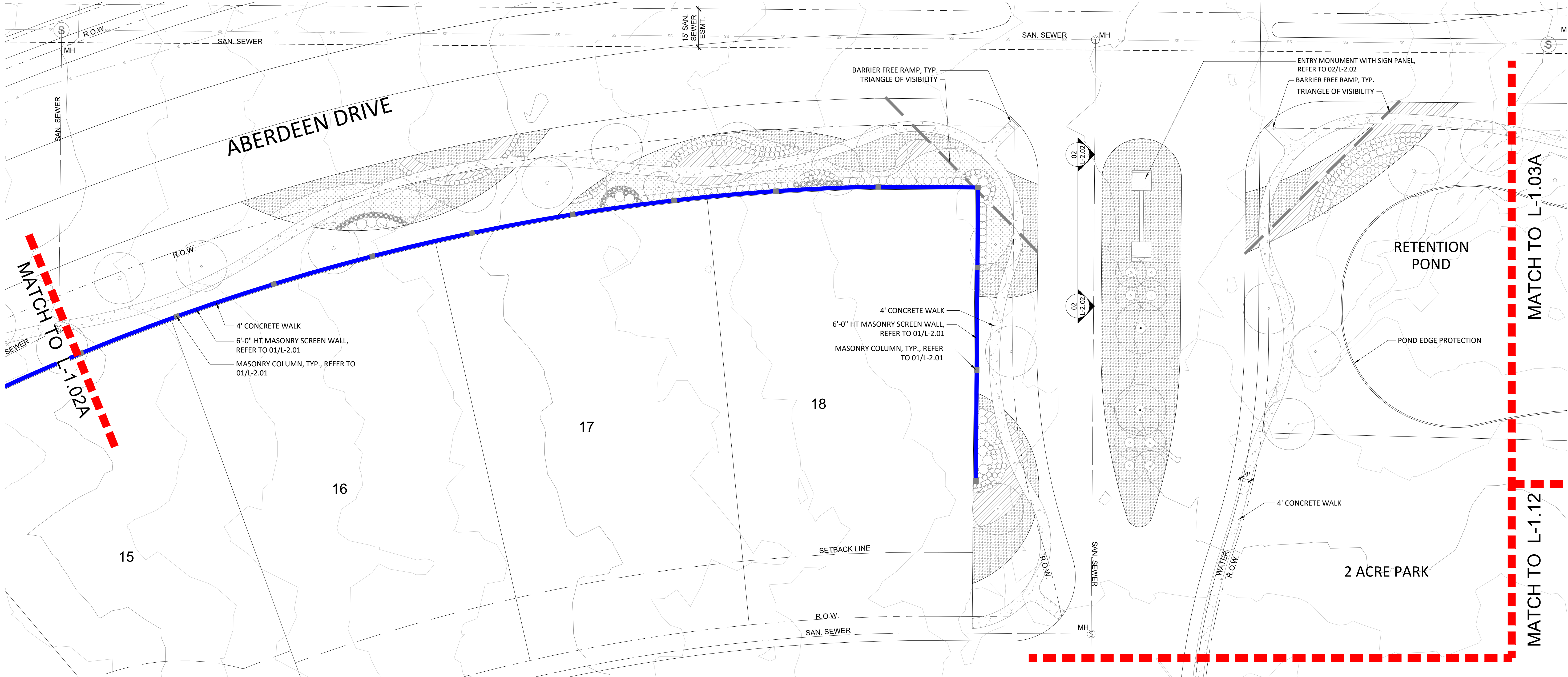
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A HARDSCAPE LAYOUT



B HARDSCAPE LAYOUT



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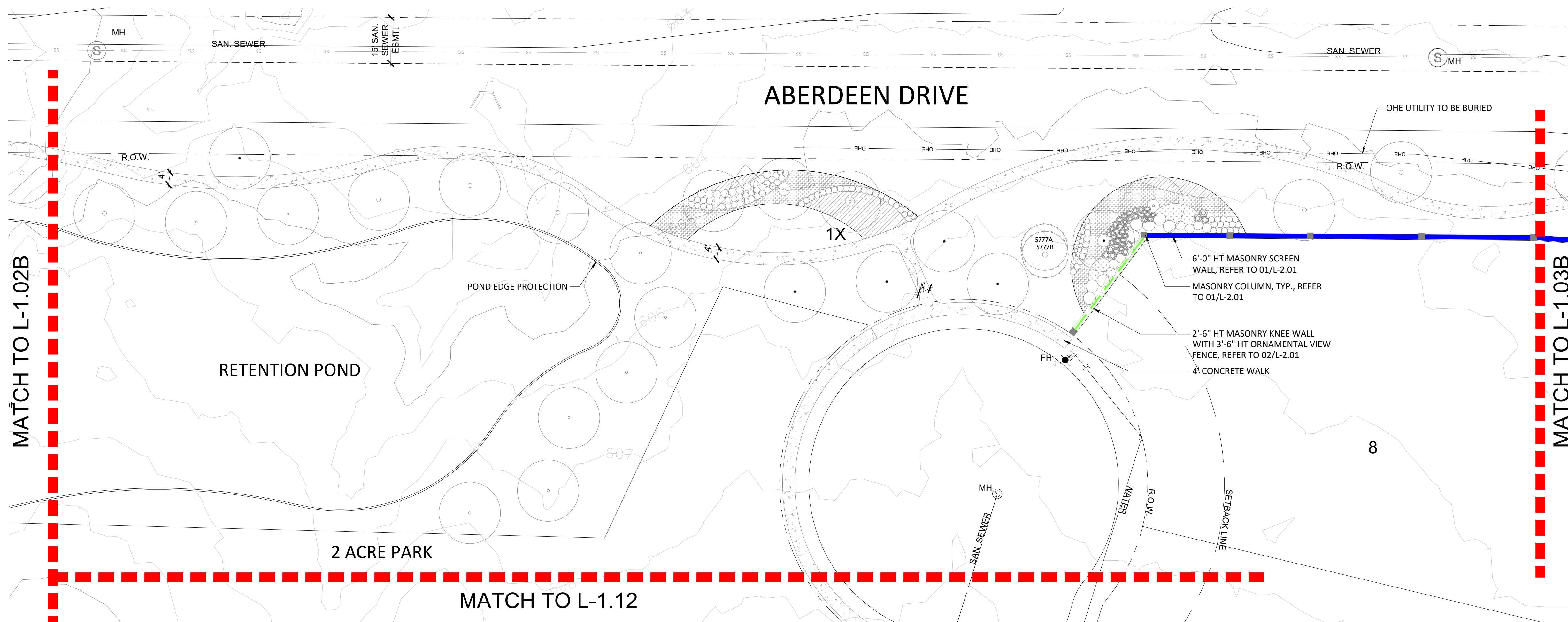
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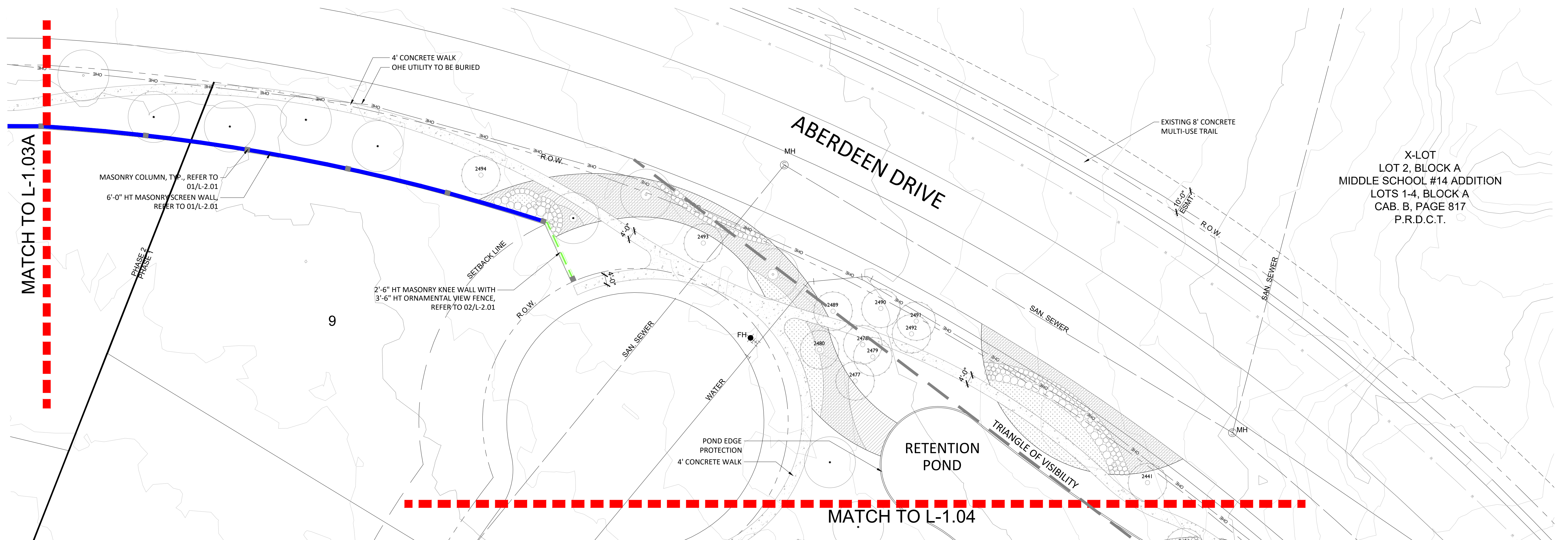
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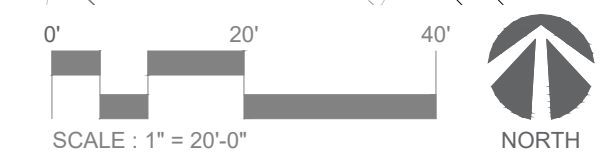
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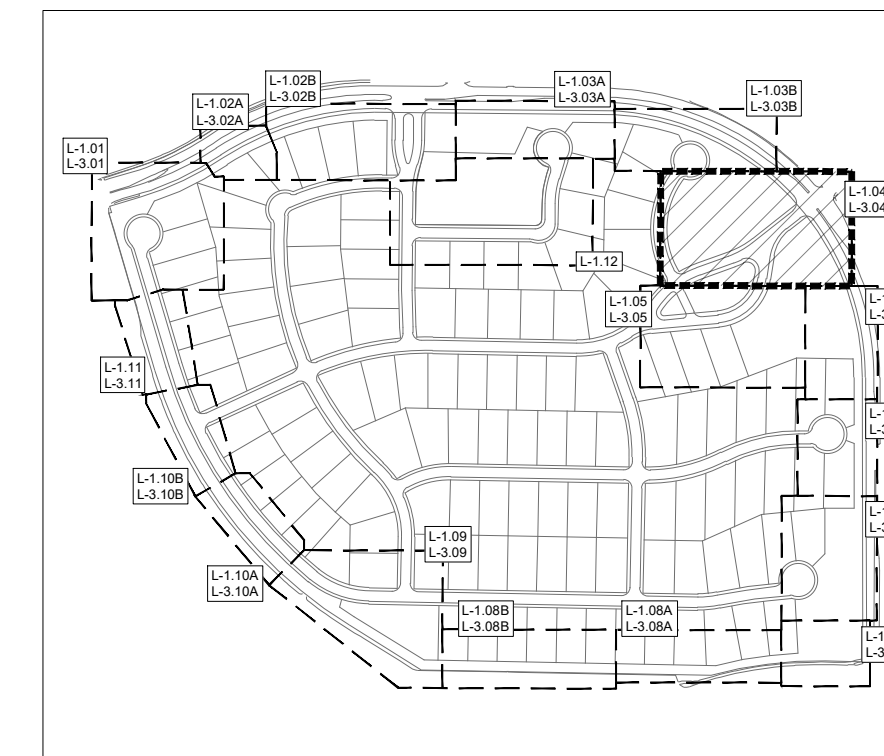
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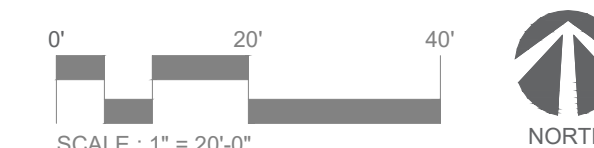
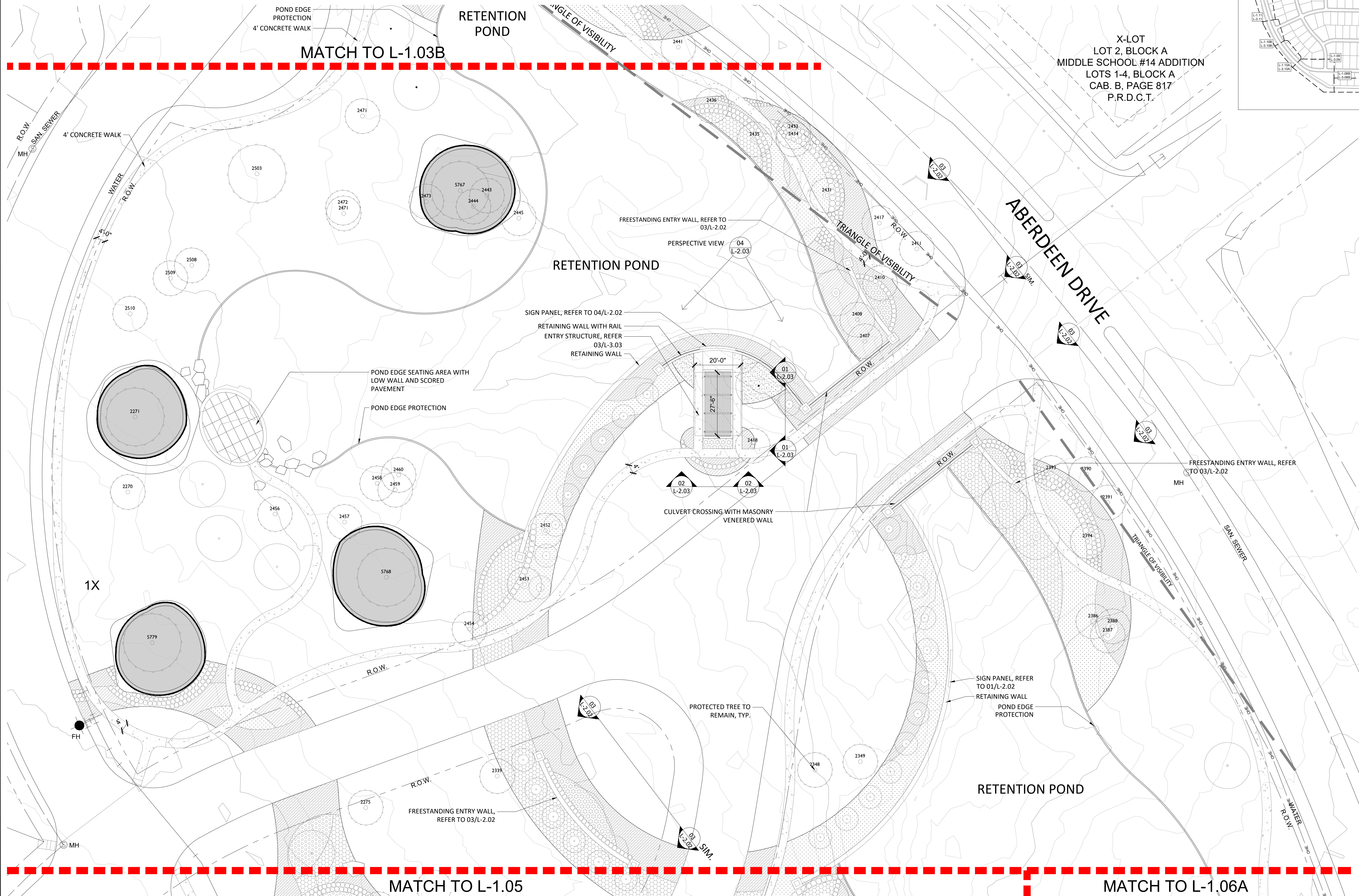
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LOT 2, BLOCK A
MIDDLE SCHOOL #14 ADDITION
LOTS 1-4, BLOCK A
CAB. B, PAGE 817
P.R.D.C.T.





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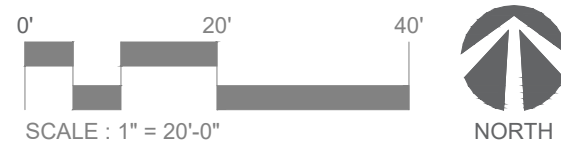
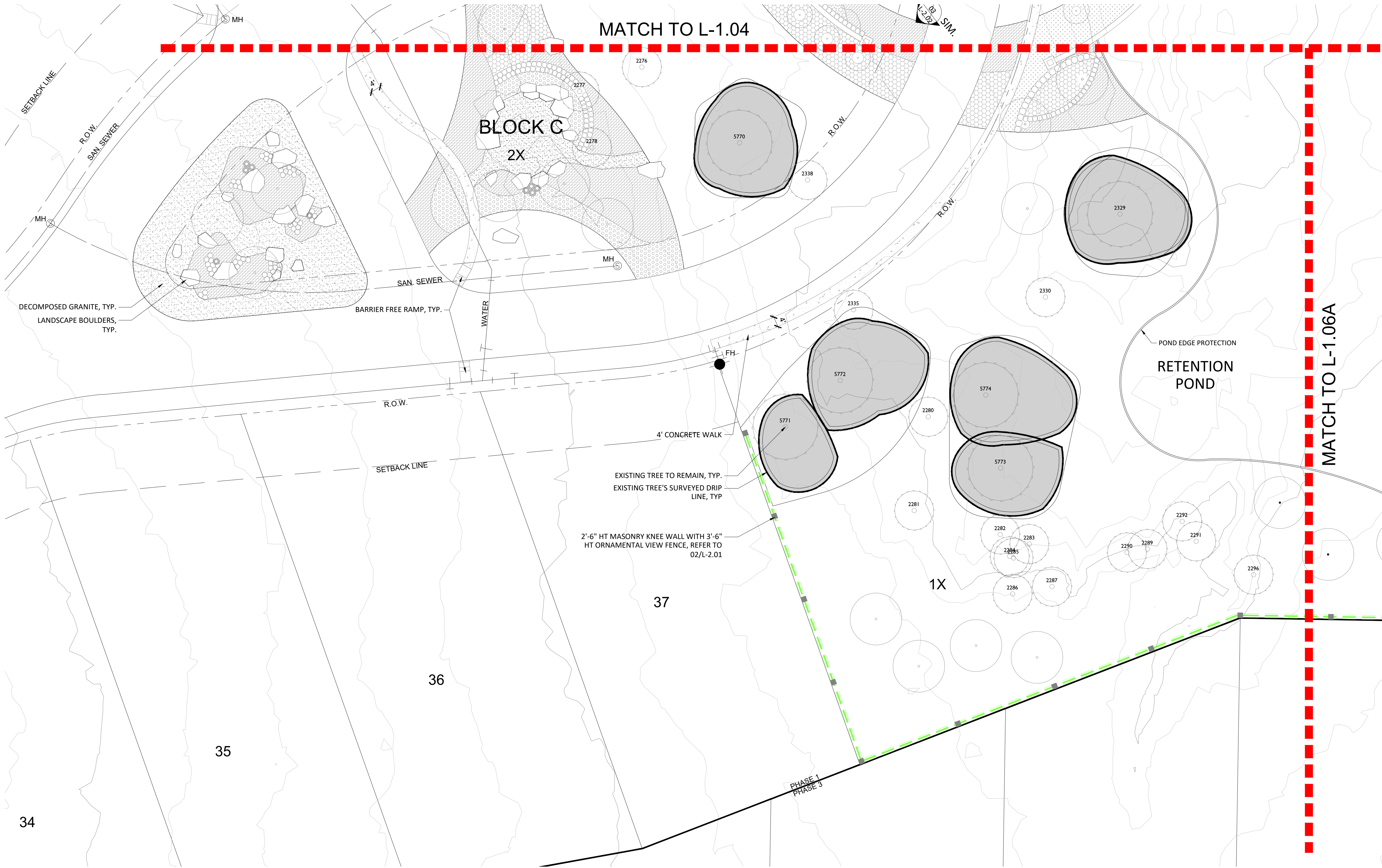
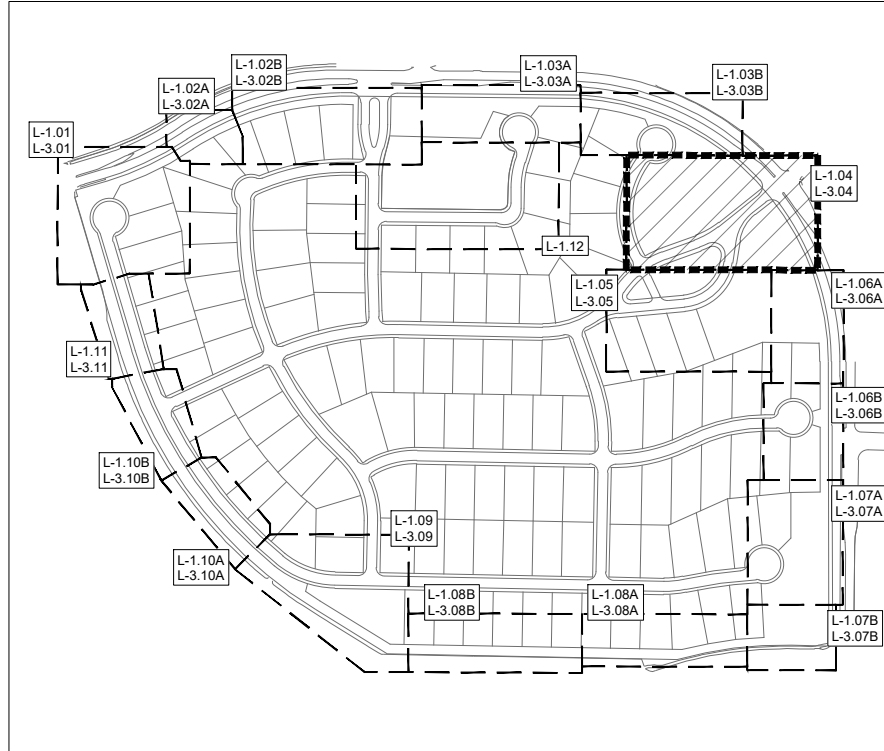
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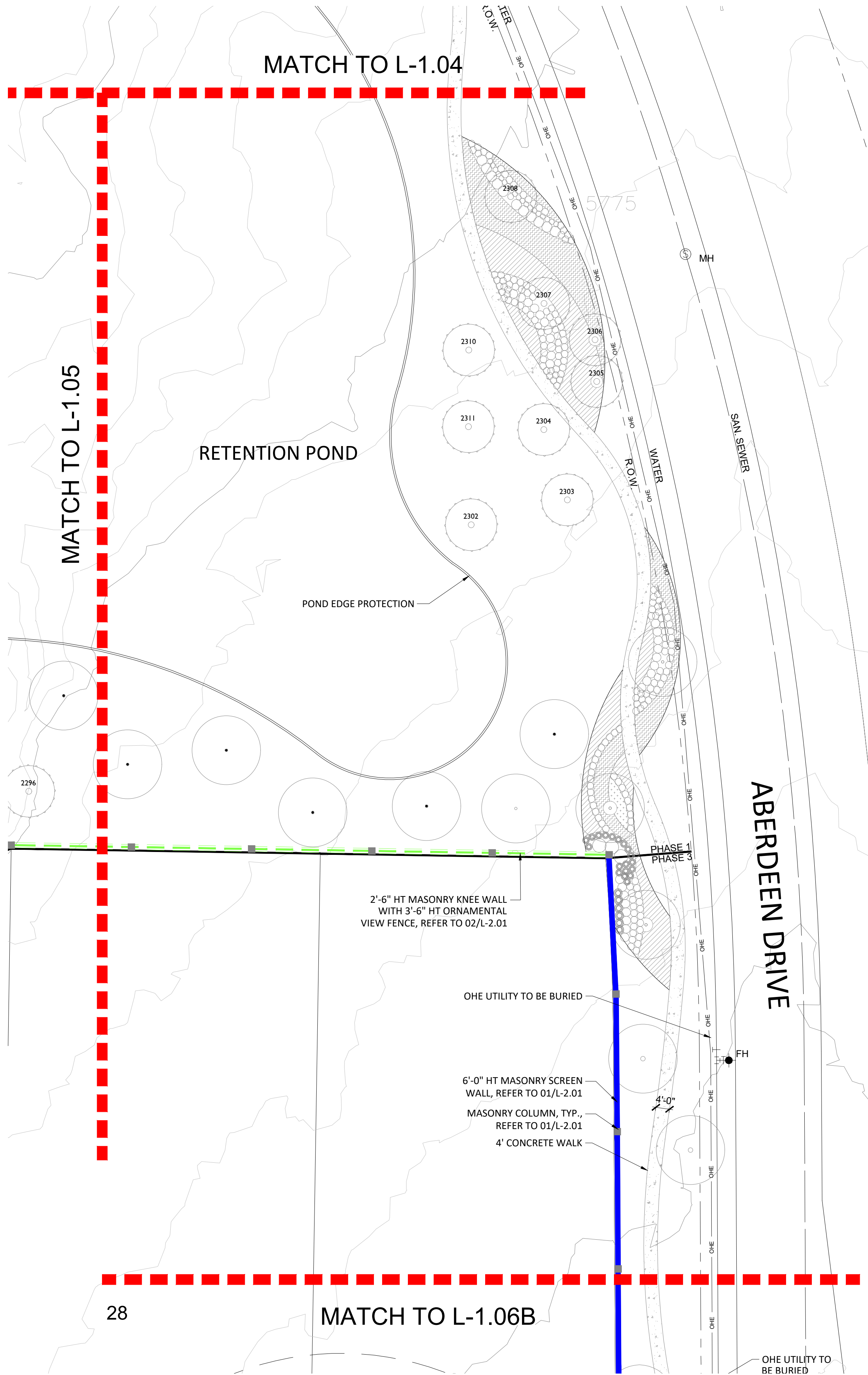
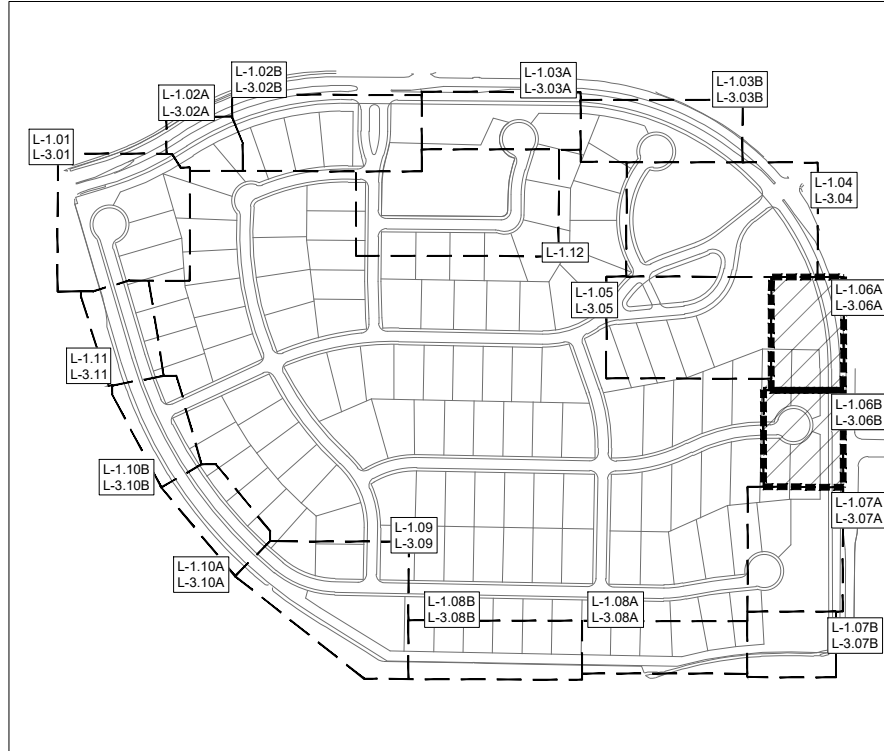
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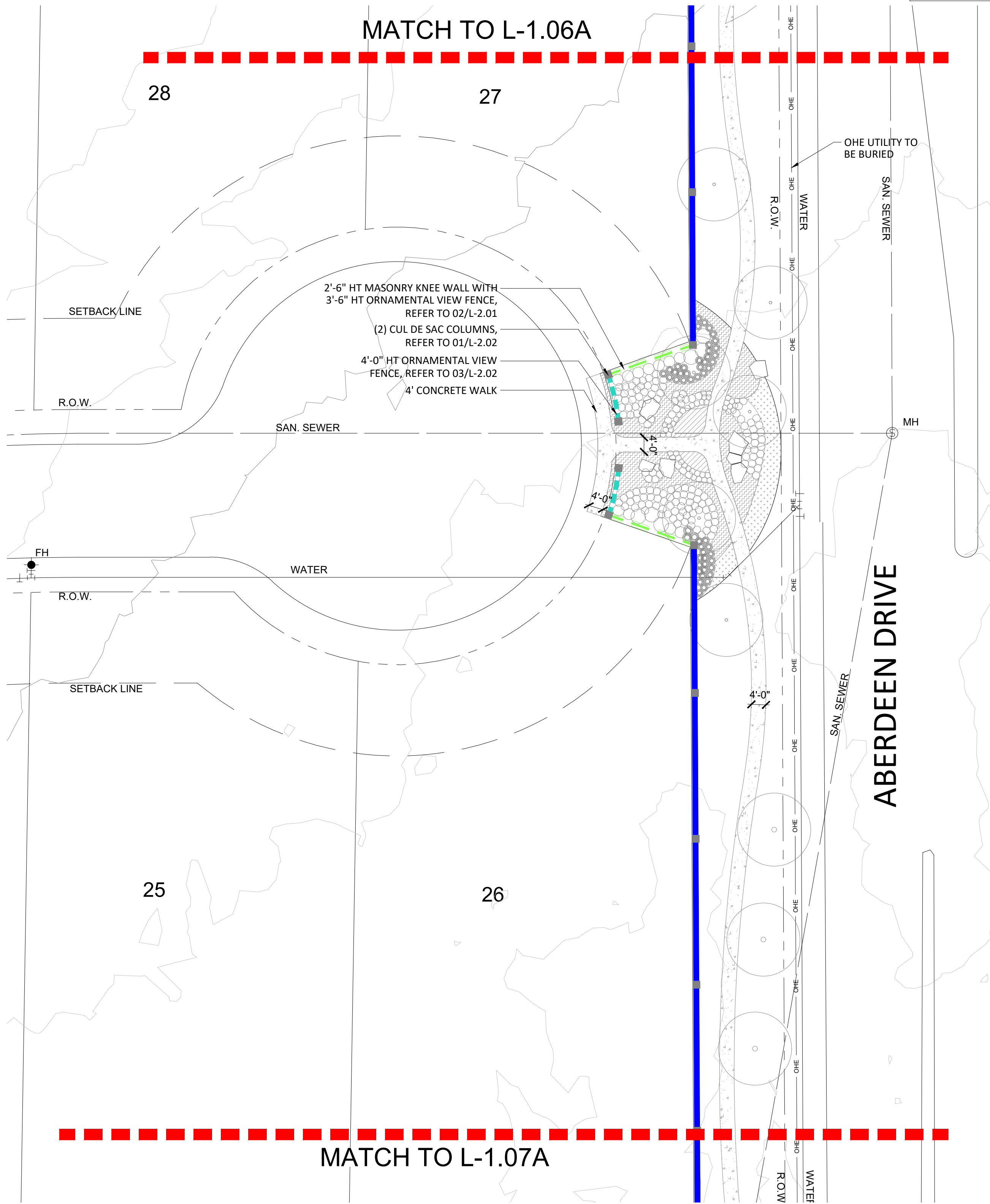
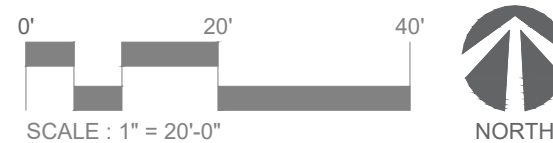
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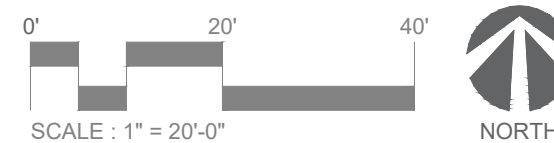
KEYMAP



A HARDSCAPE LAYOUT



B HARDSCAPE LAYOUT





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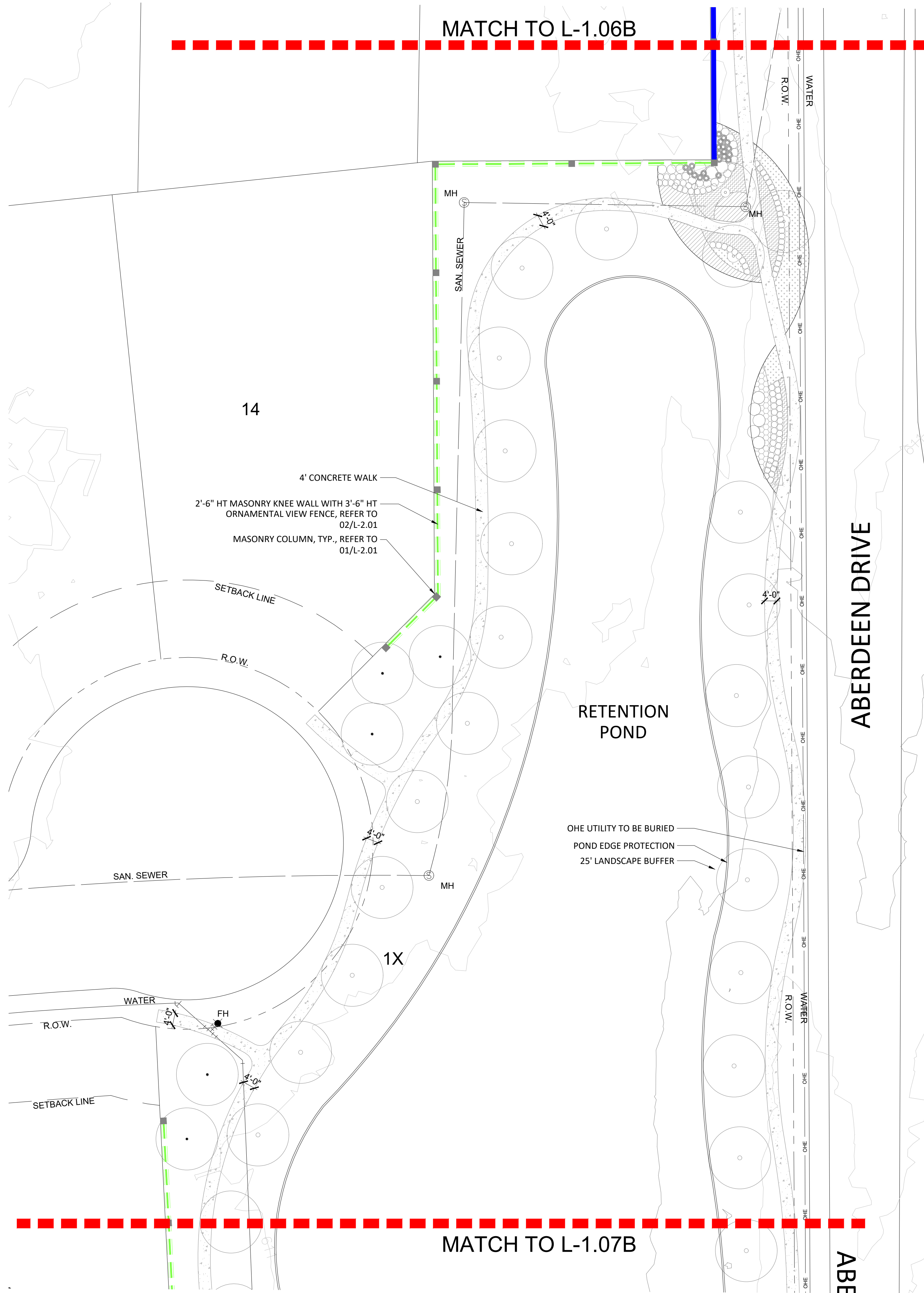
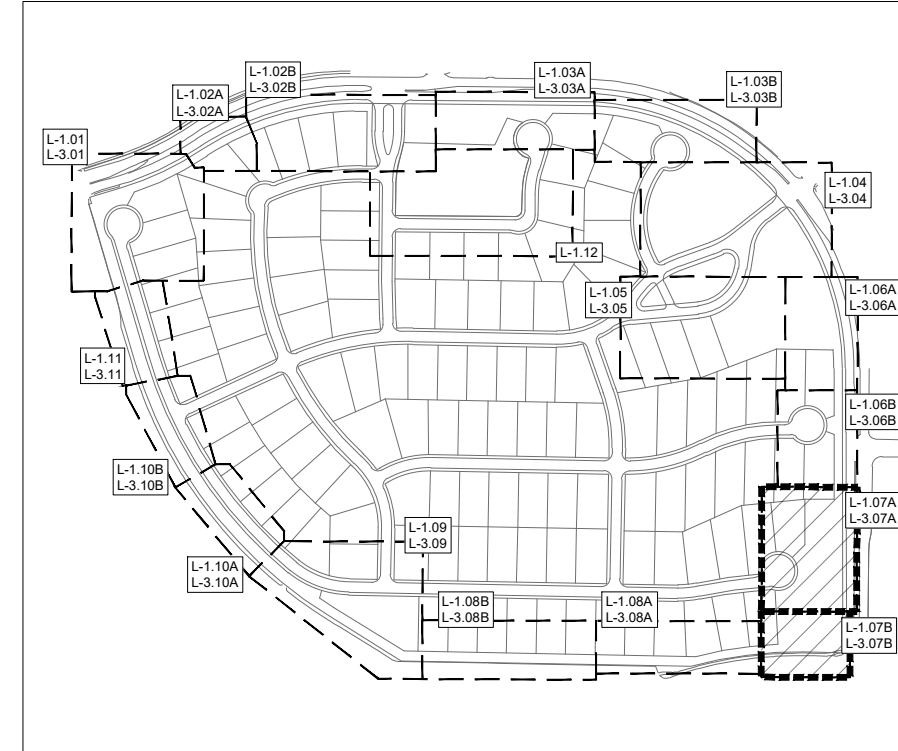
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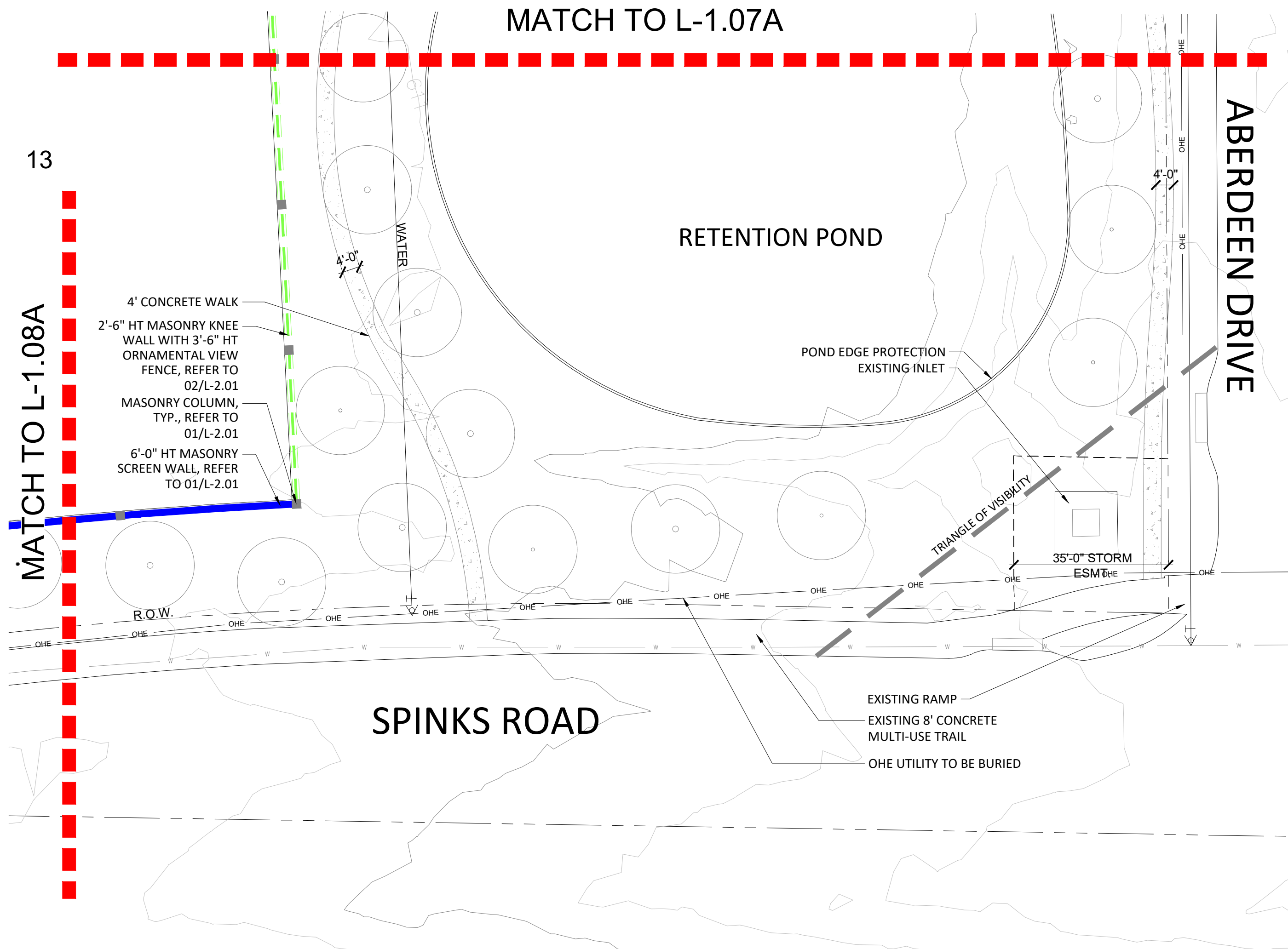
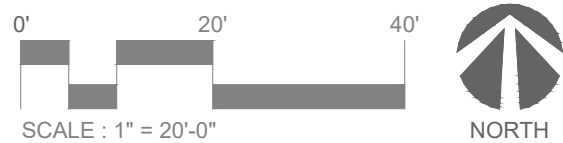
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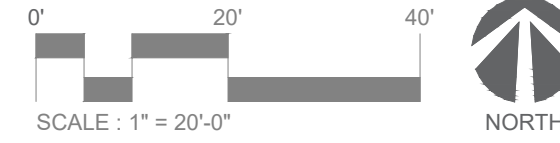
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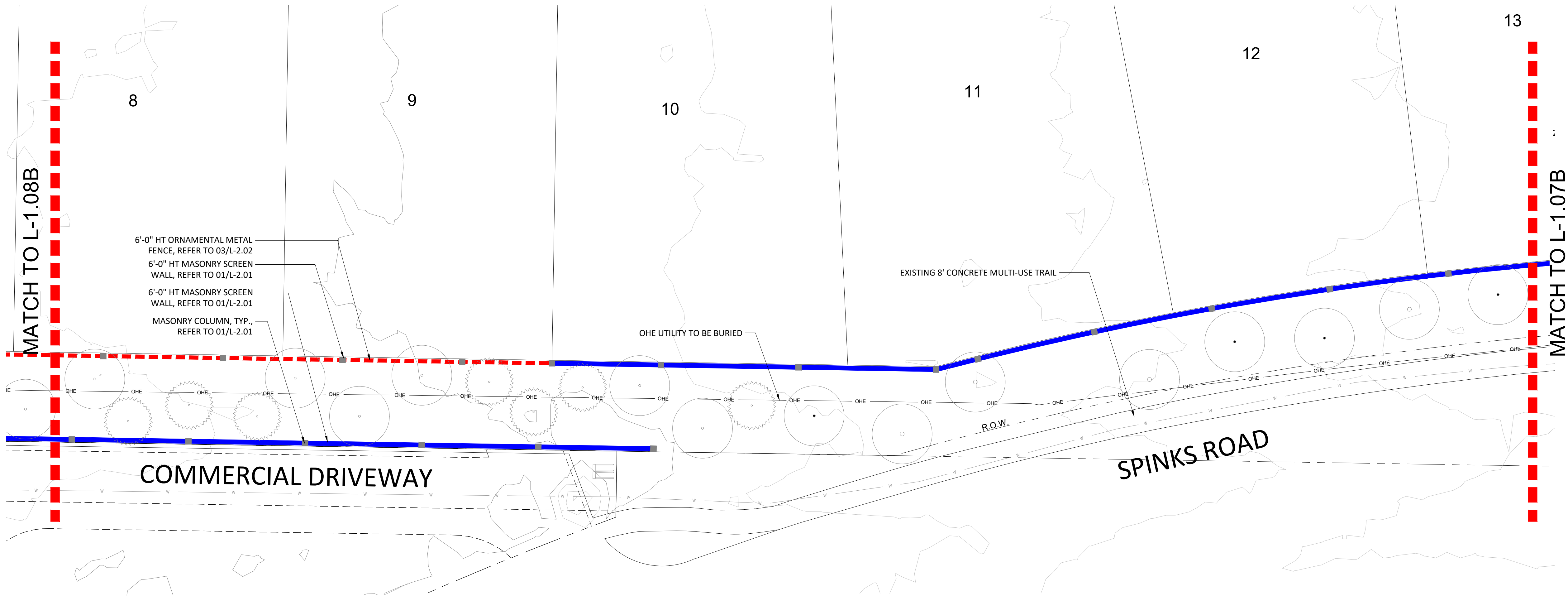
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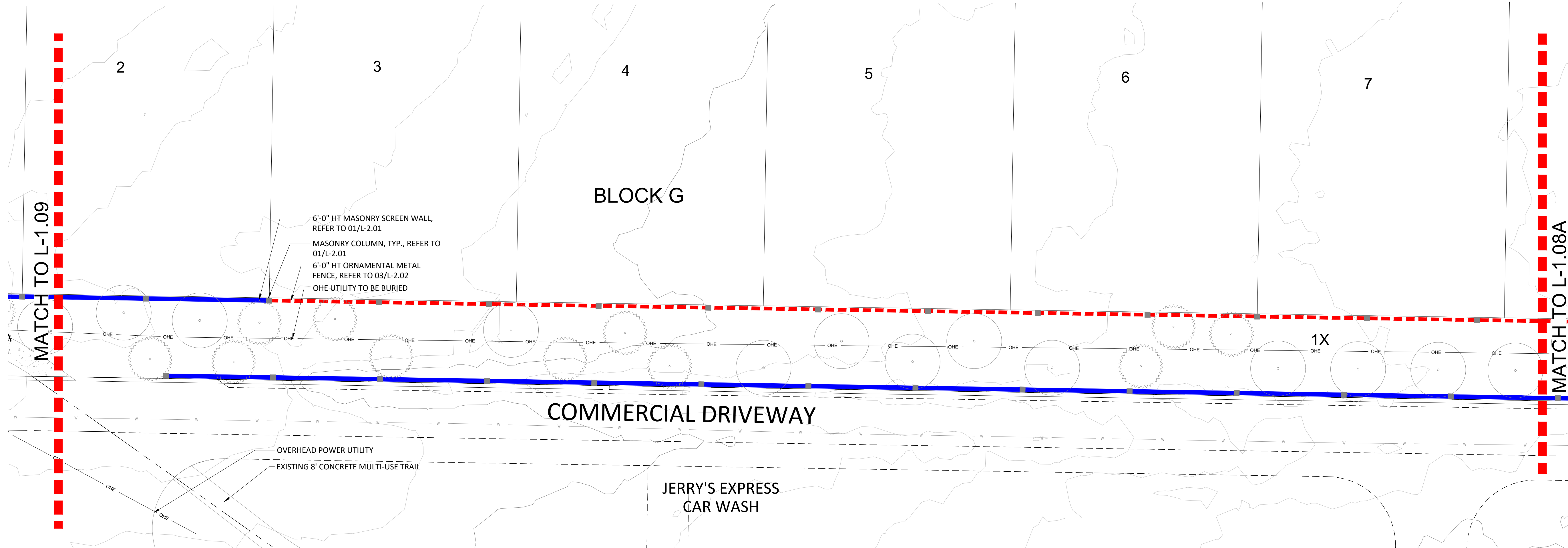
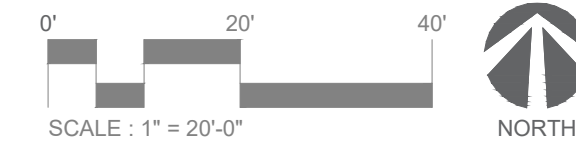
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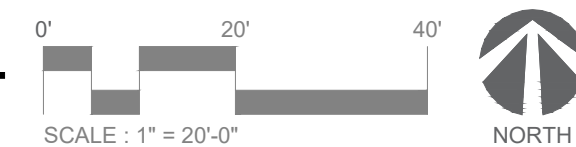
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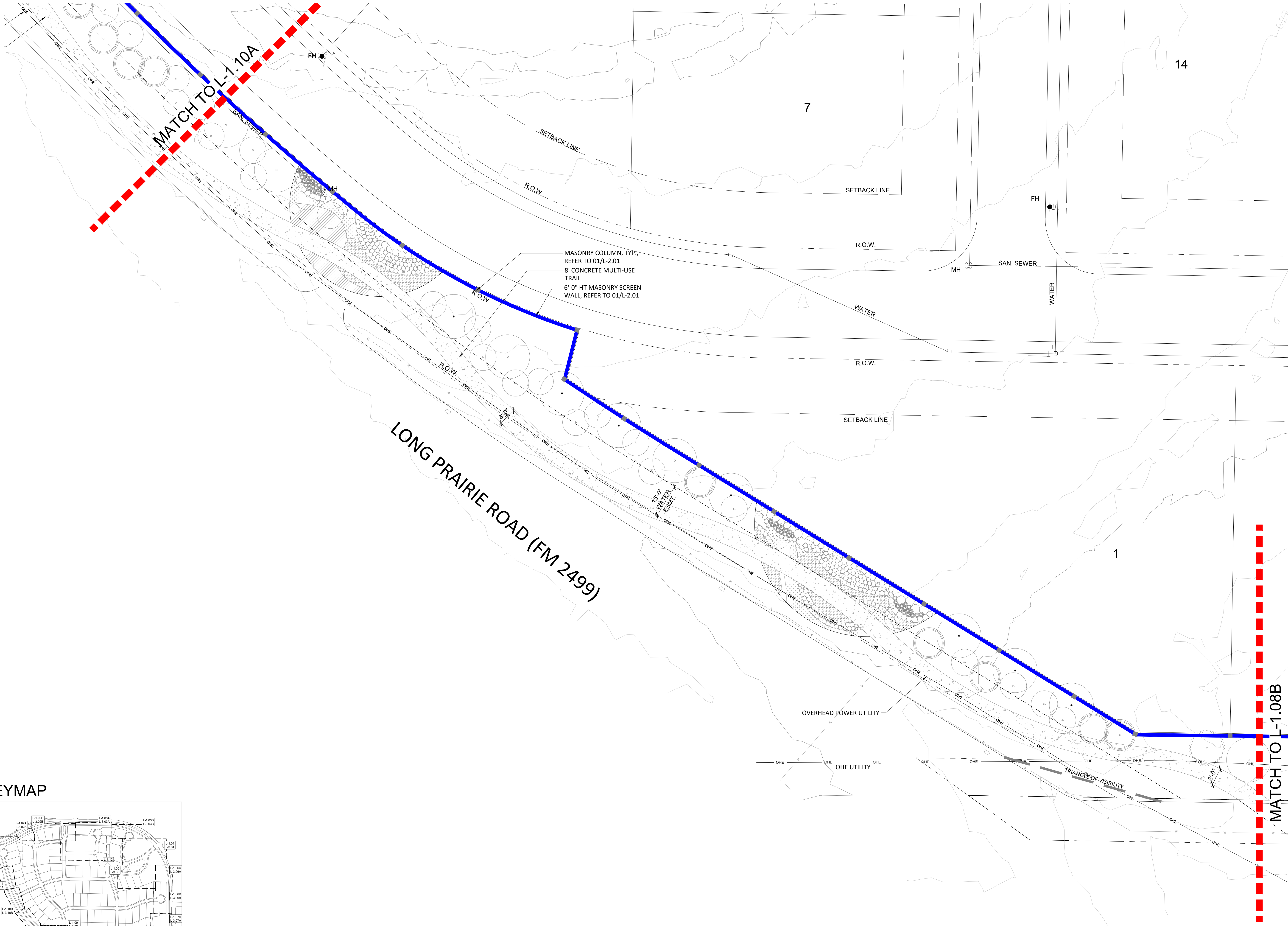
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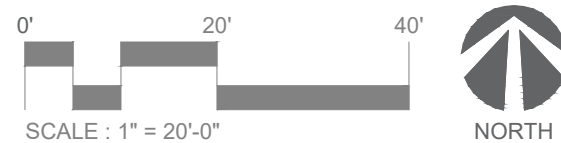
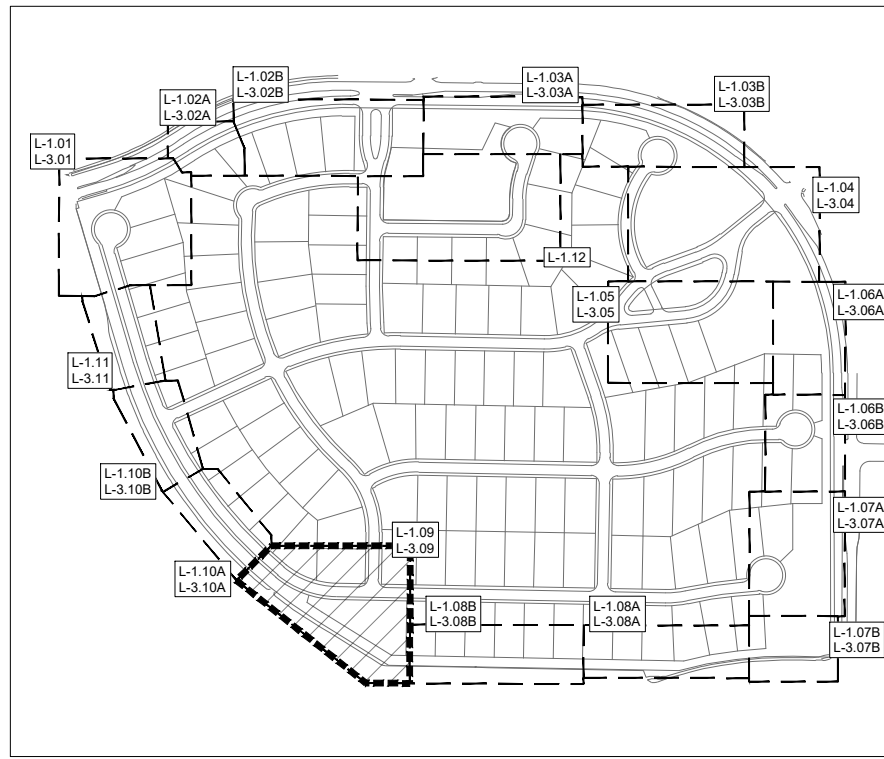
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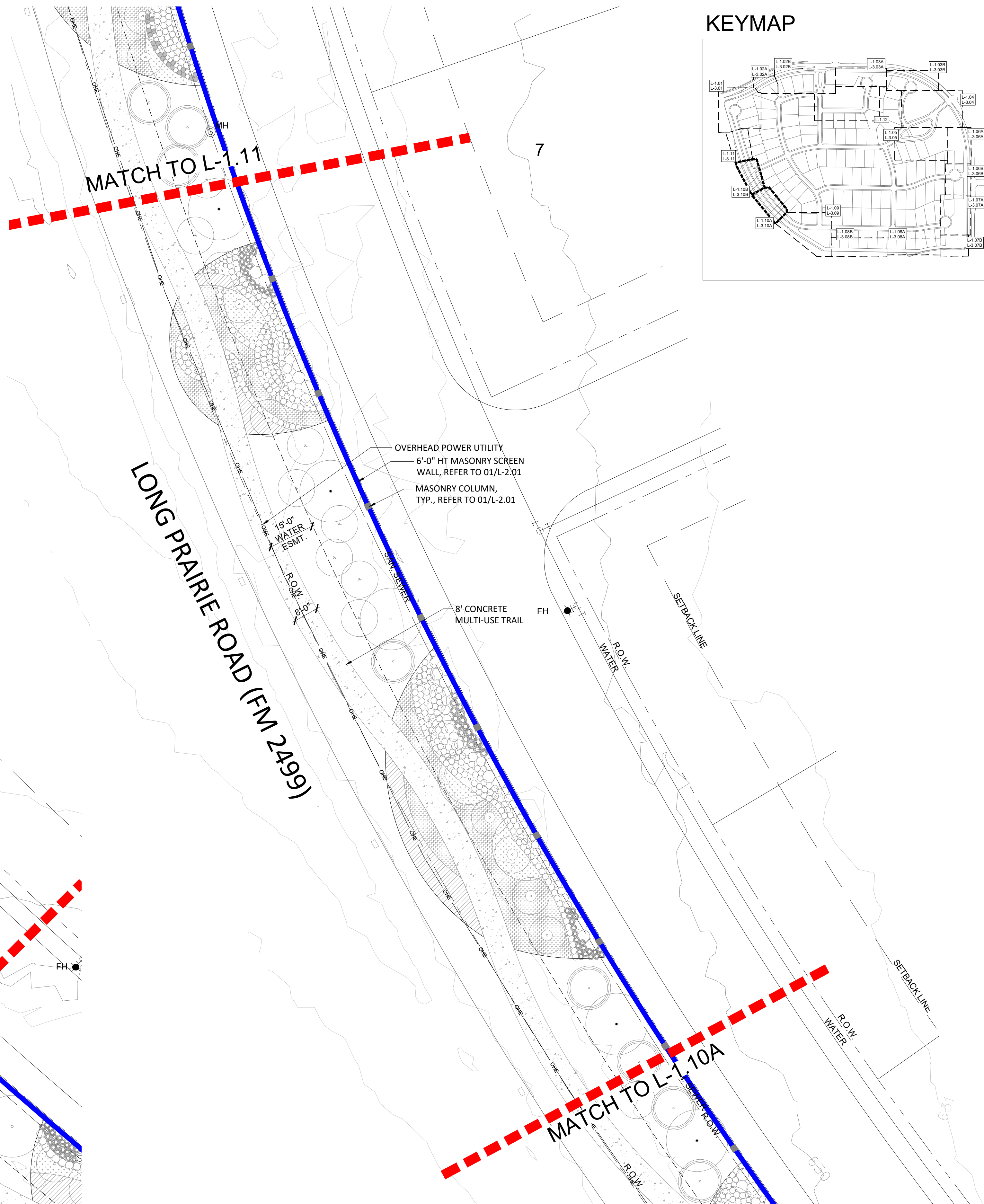
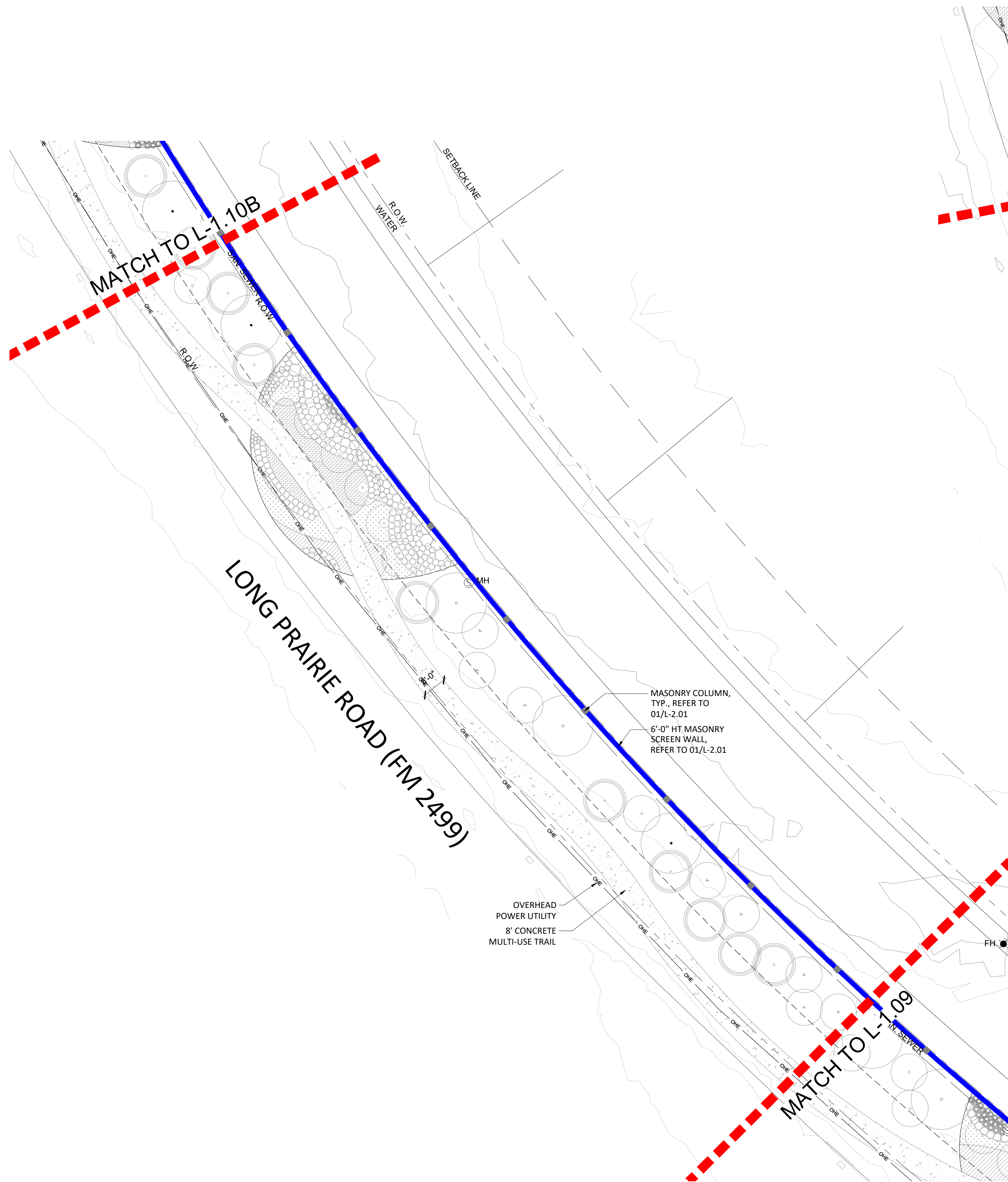
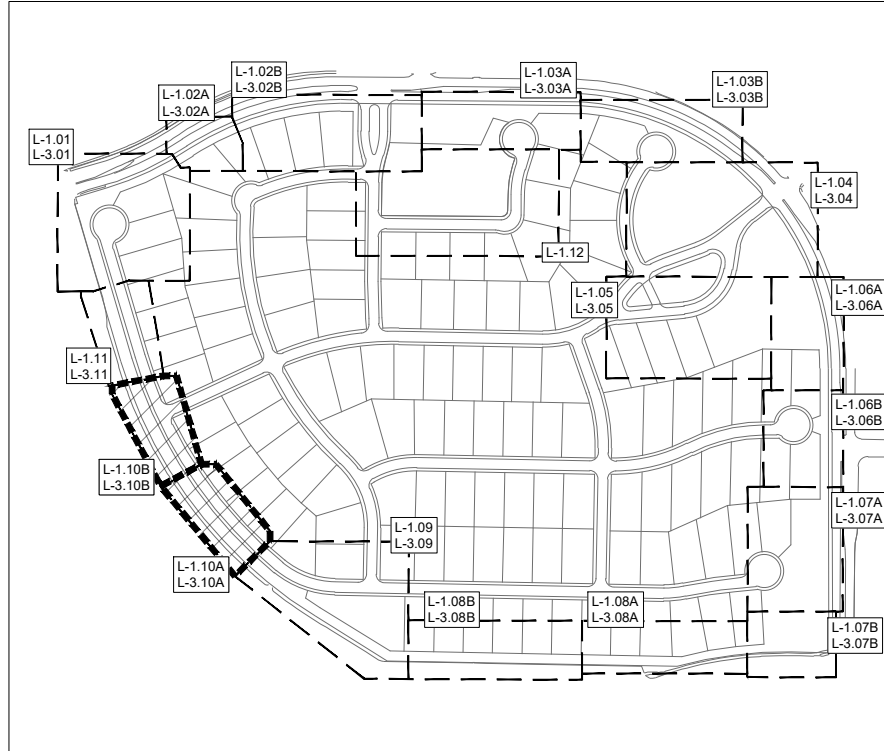
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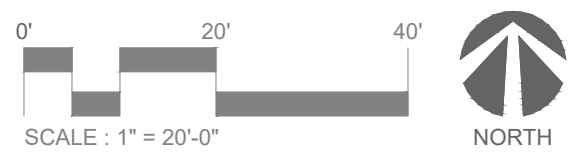
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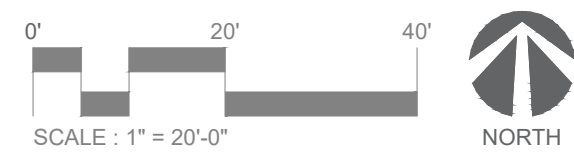
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Paul Cozzolino
03/22/2022

client
Toll Brothers
Demetrius Seals
2555 SW Grapevine
Parkway, Suite 100
Grapevine, TX 76051

OAKBRIDGE CROSSING
TOWN OF FLOWER MOUND
DENTON COUNTY, TX
Landscape / Screening Plans

issue	
12/13/2021	Development Plan Submittal
01/24/2022	Development Plan Submittal Comment Response
02/28/2022	Development Plan Submittal Comment Response
03/22/2022	Development Plan Submittal Comment Response

revisions	
△	

title
Hardscape Layout

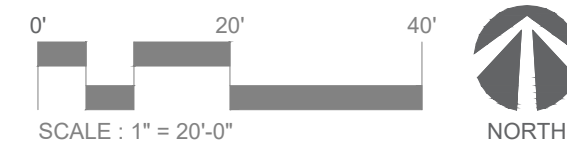
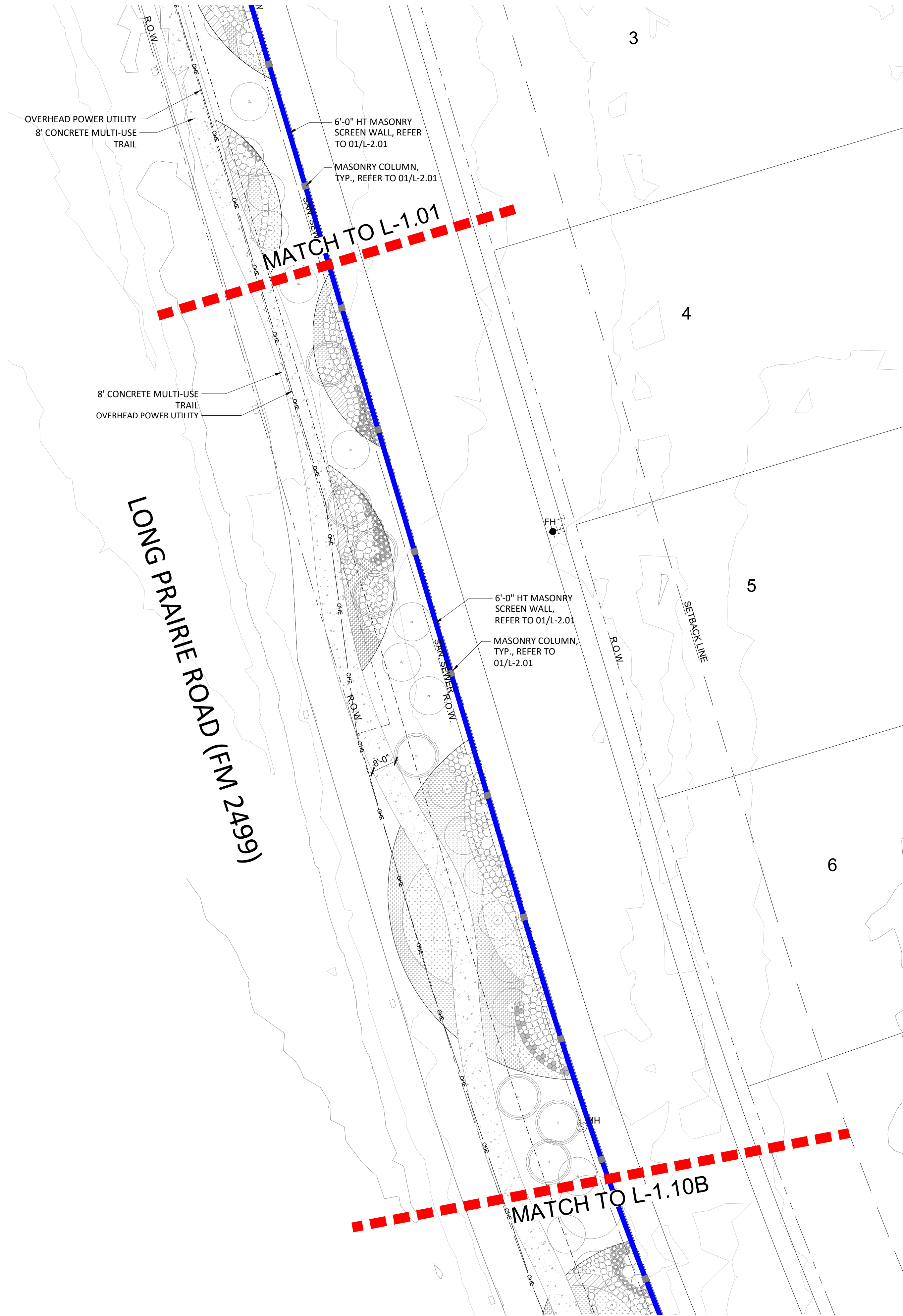
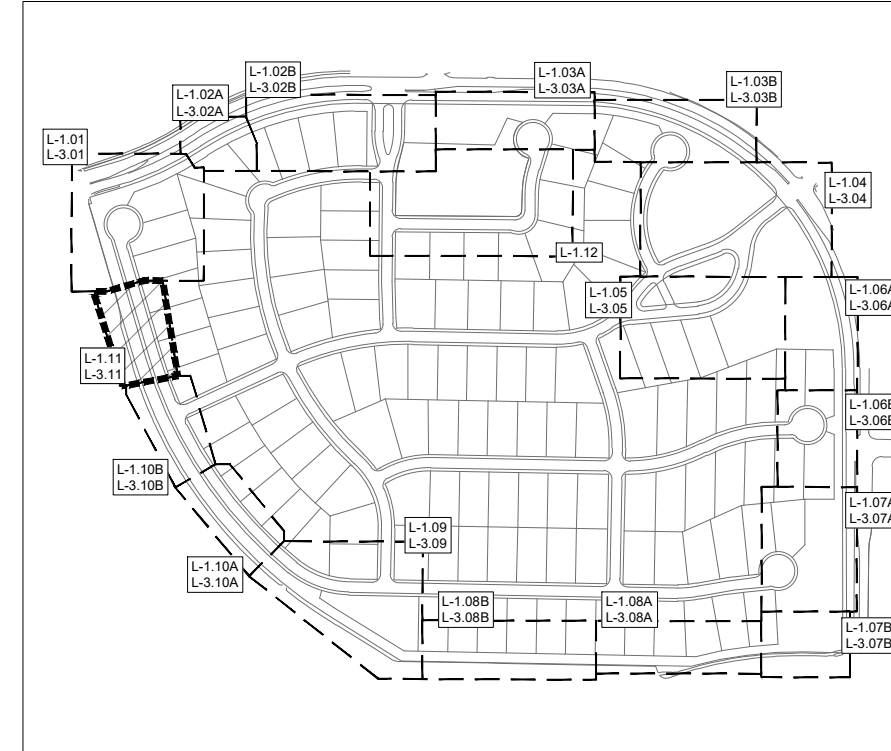
project number 210001

date 03/22/2022

sheet

L-1.11

KEYMAP





landscape architecture
PO Box 38415
Dallas, Texas 75238
972.855.8705

NOT FOR REGULATORY
APPROVAL,
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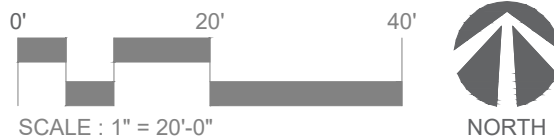
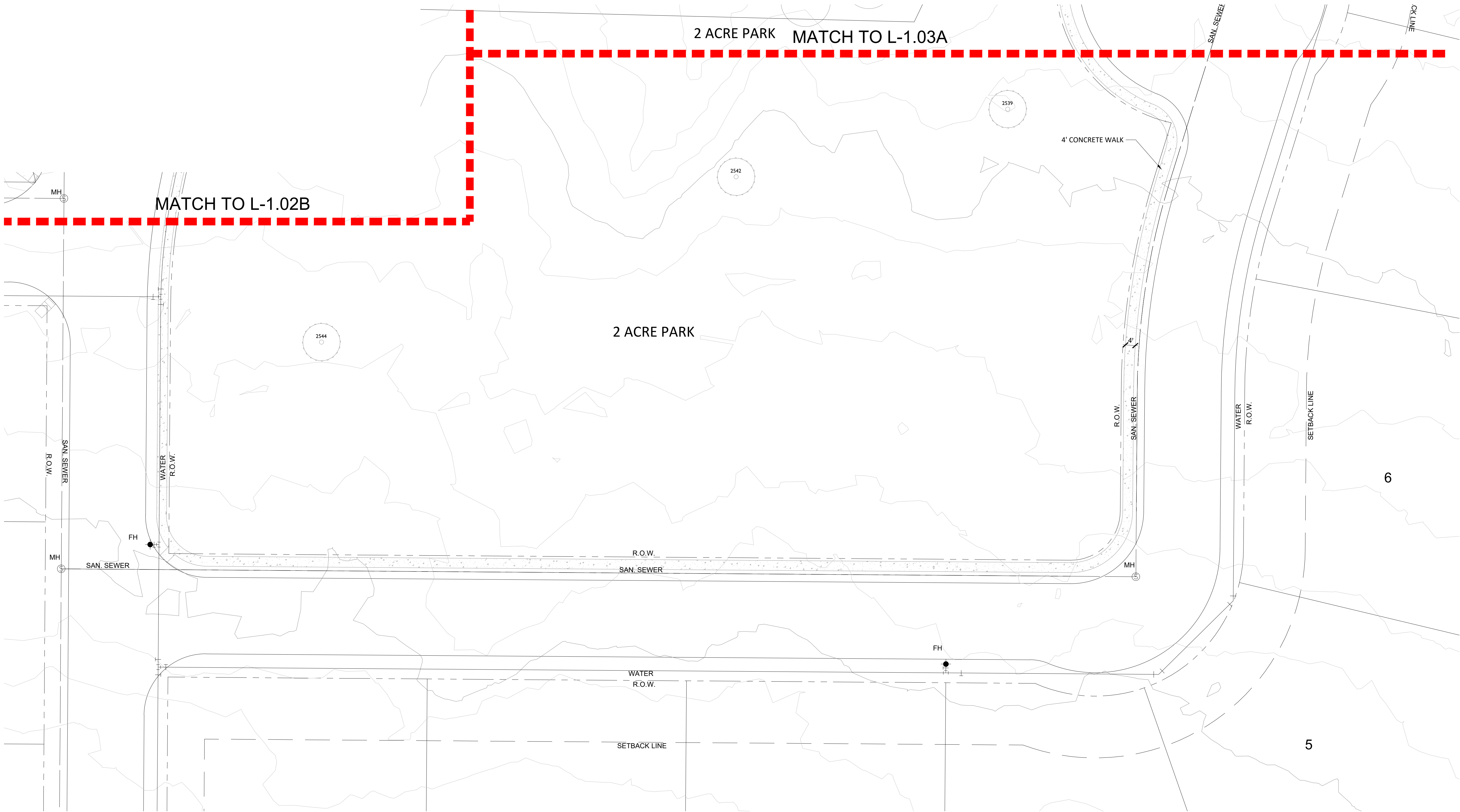
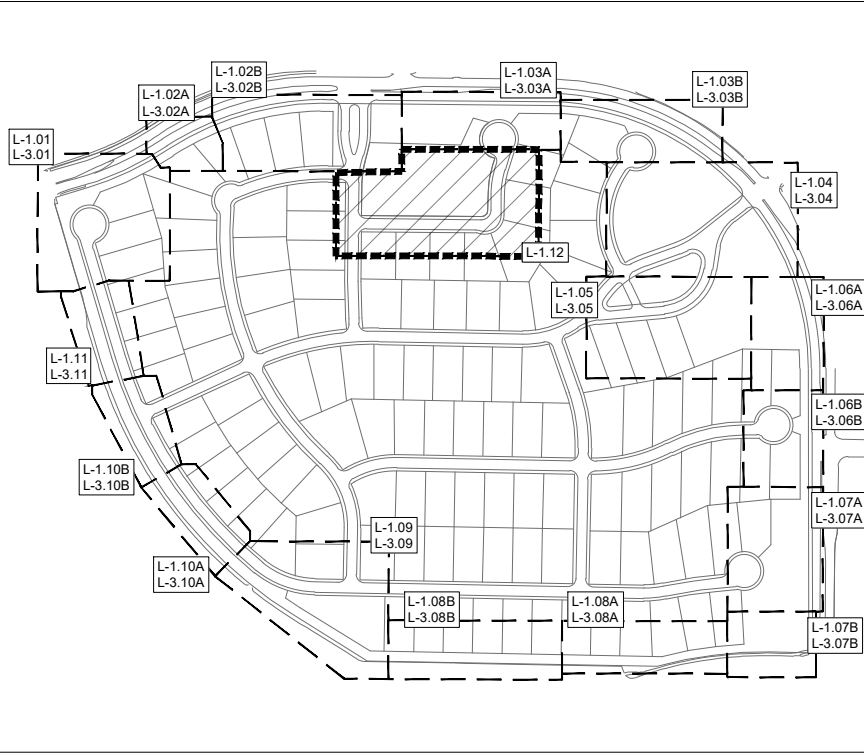
revisions
△

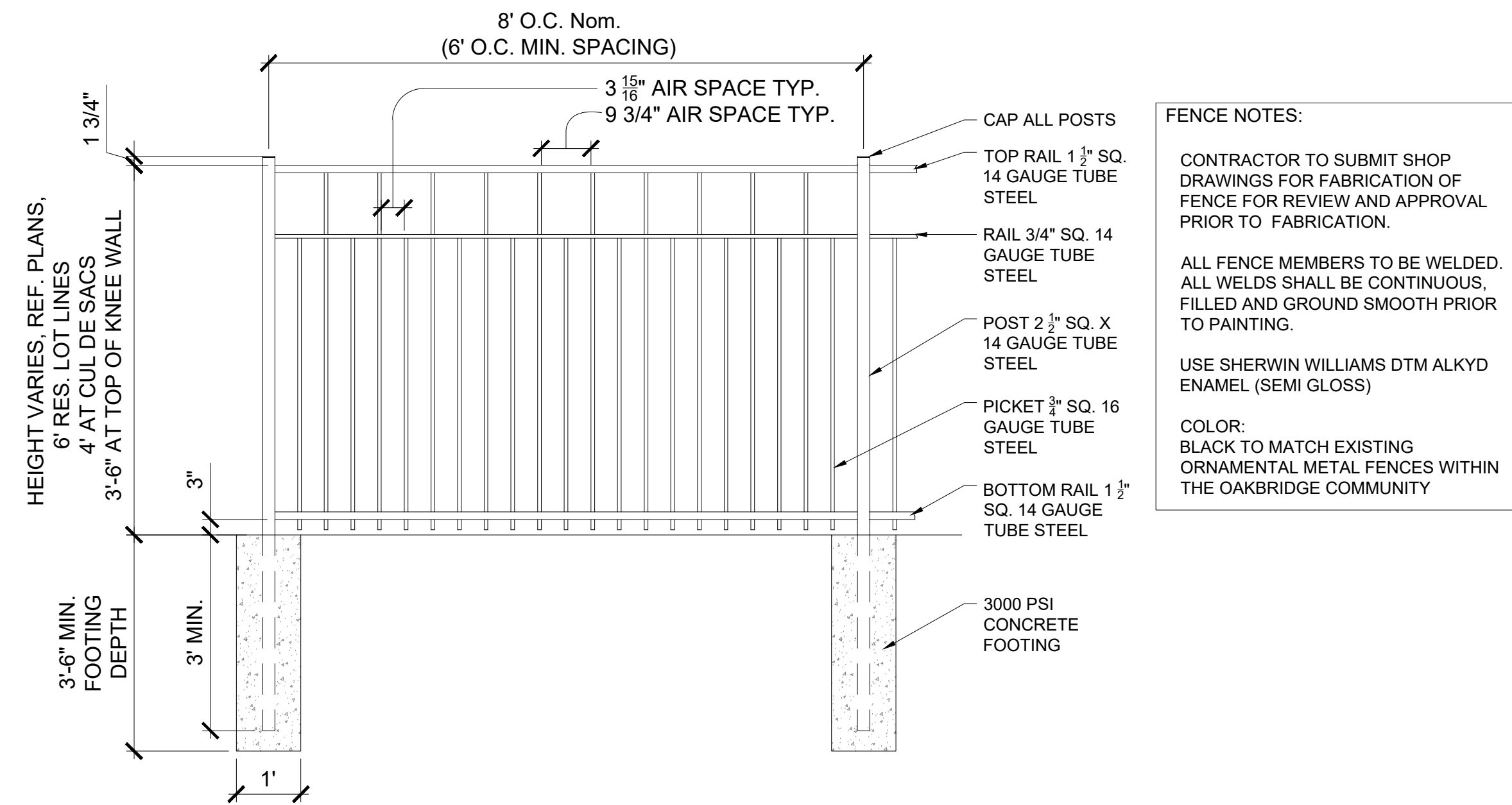
title
Hardscape Layout

project number 210001
date 03/22/2022
sheet

L-1.12

KEYMAP





FENCE NOTES:

CONTRACTOR TO SUBMIT SHOP
DRAWINGS FOR FABRICATION OF
FENCE FOR REVIEW AND APPROVAL
PRIOR TO FABRICATION.

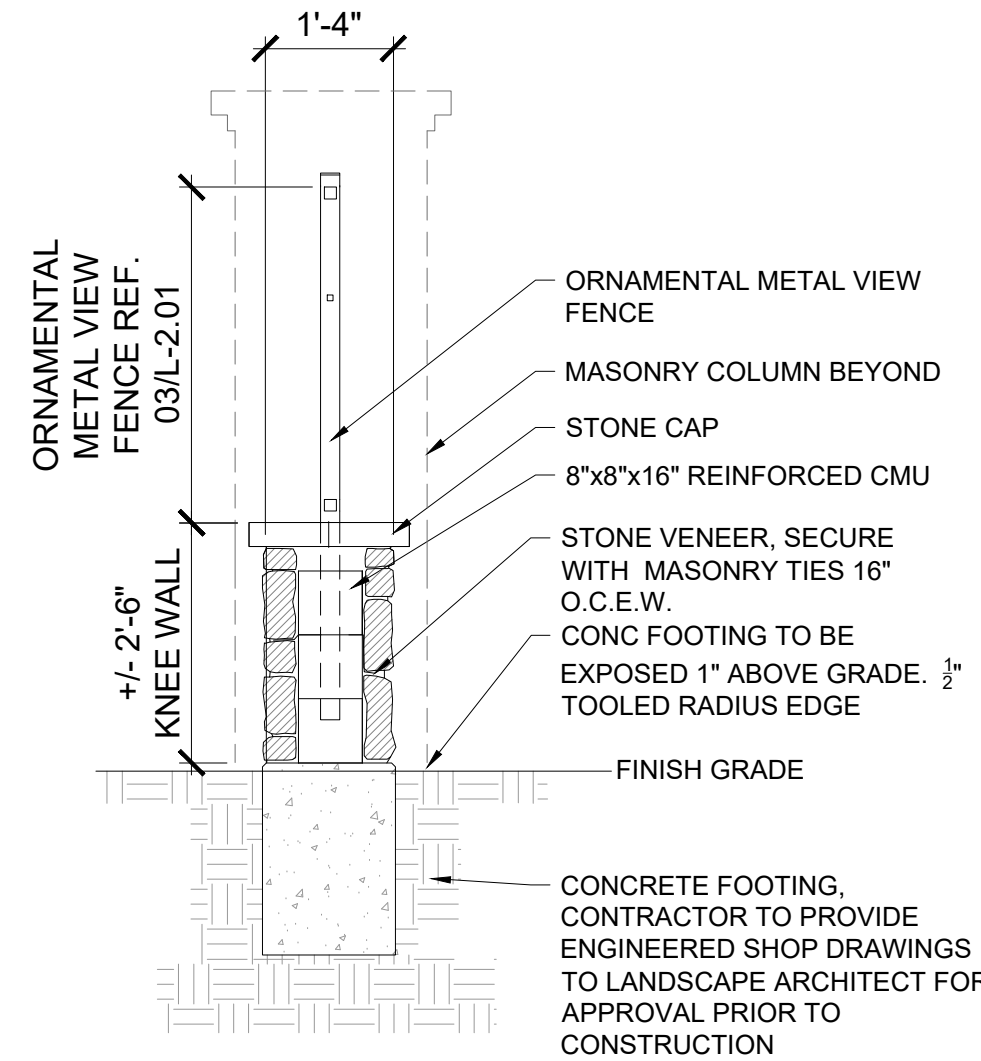
ALL FENCE MEMBERS TO BE WELDED.
ALL WELDS SHALL BE CONTINUOUS,
FILLED AND GROUND SMOOTH PRIOR
TO PAINTING.

USE SHERWIN WILLIAMS DTM ALKYD
ENAMEL (SEMI GLOSS)

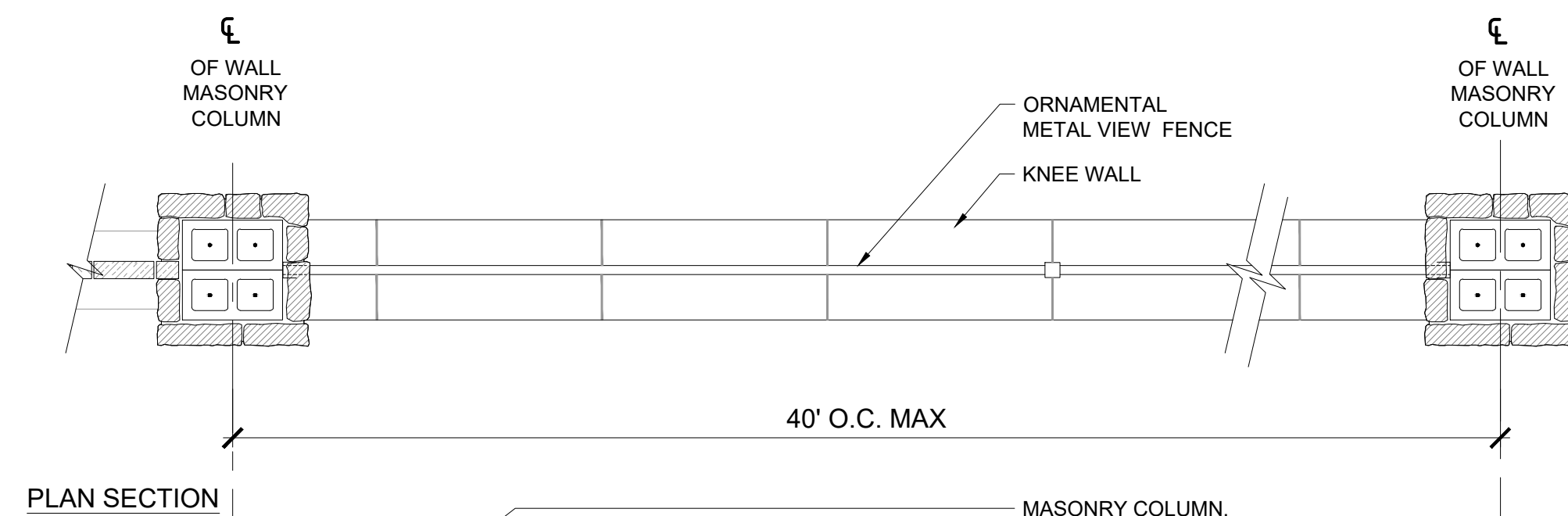
COLOR:
BLACK TO MATCH EXISTING
ORNAMENTAL METAL FENCES WITHIN
THE OAKBRIDGE COMMUNITY

03 ORNAMENTAL METAL VIEW FENCE

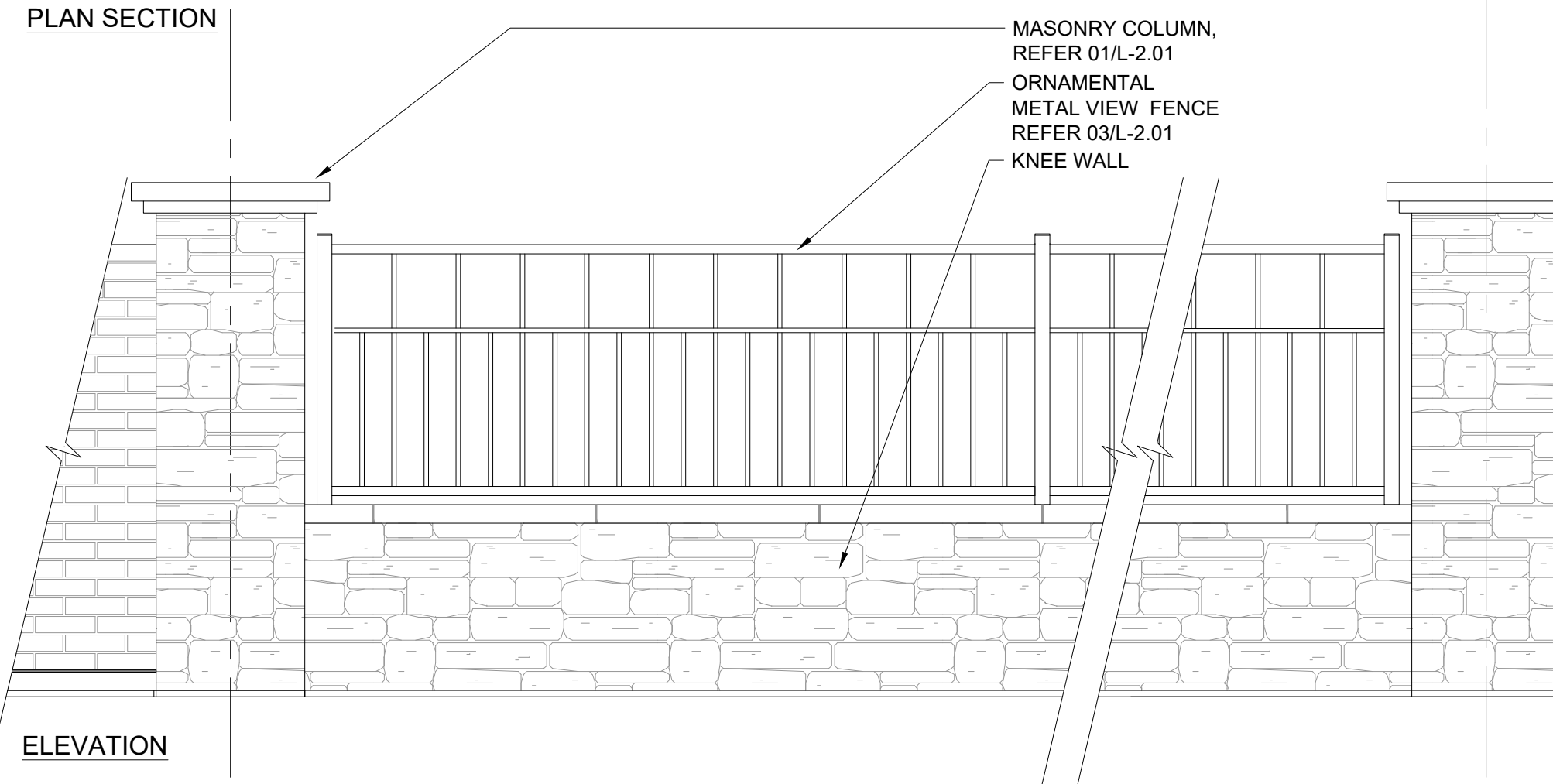
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SECTION



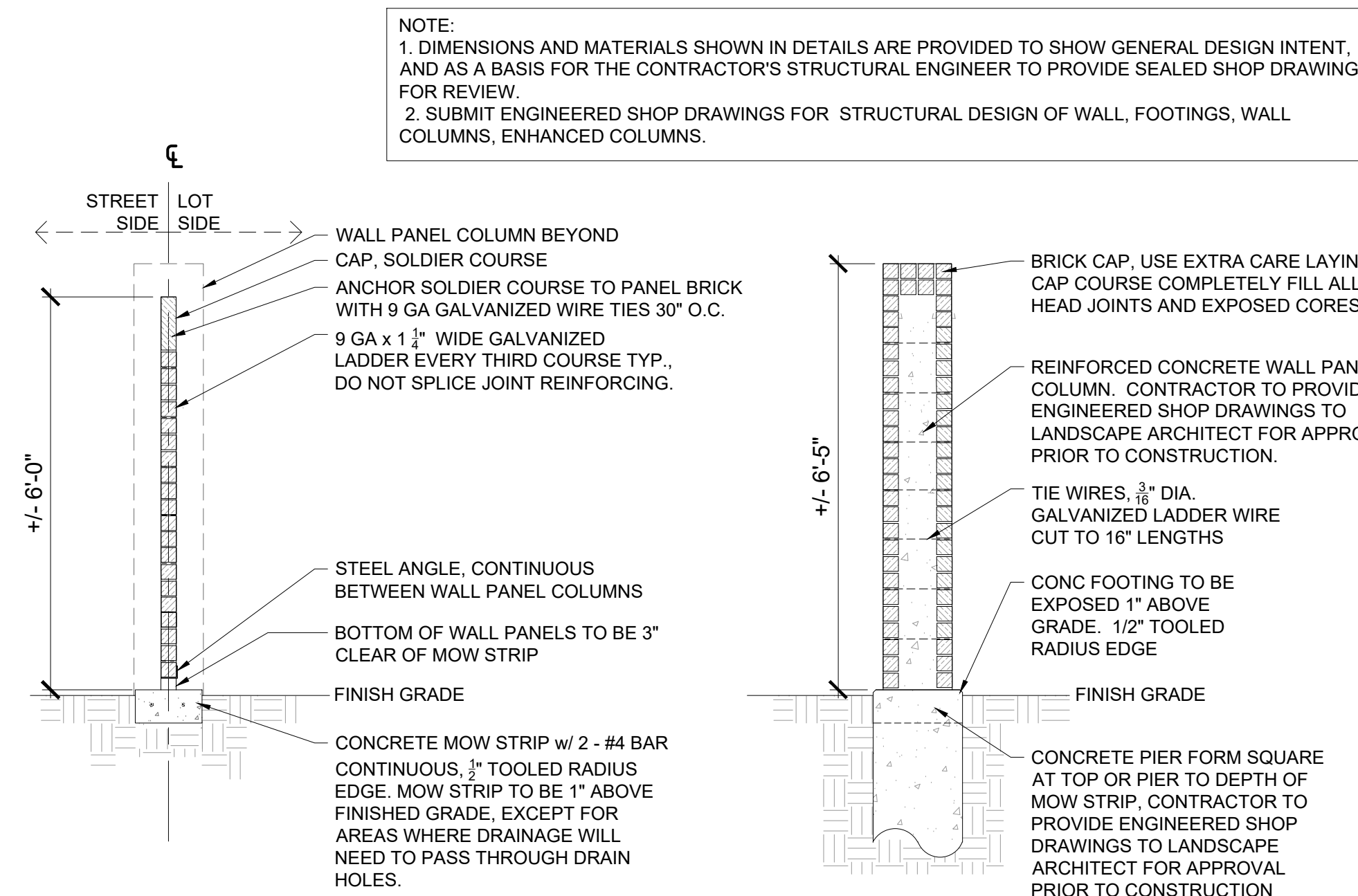
PLAN SECTION



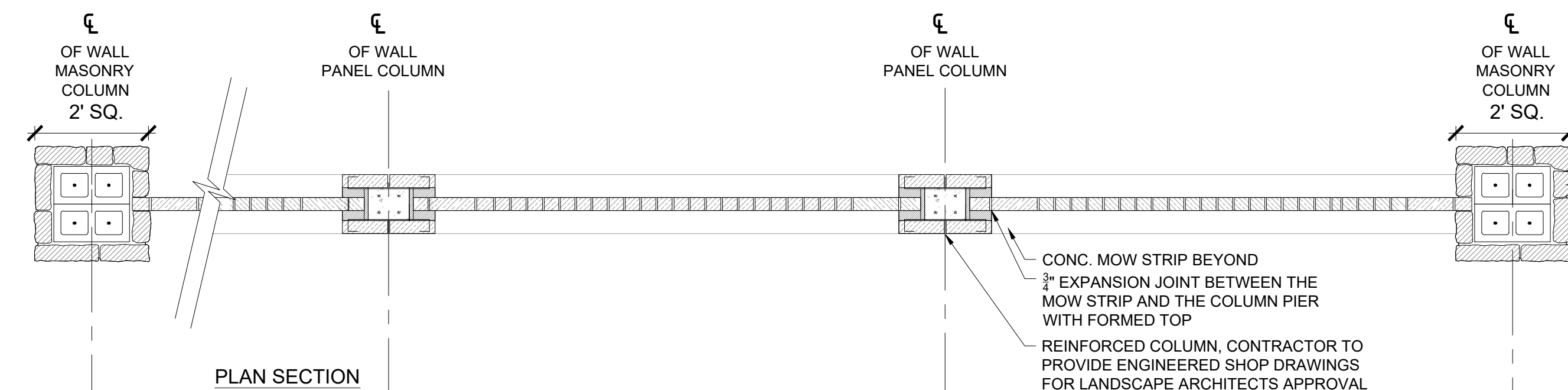
ELEVATION

02 MASONRY KNEE WALL WITH ORNAMENTAL METAL VIEW FENCE

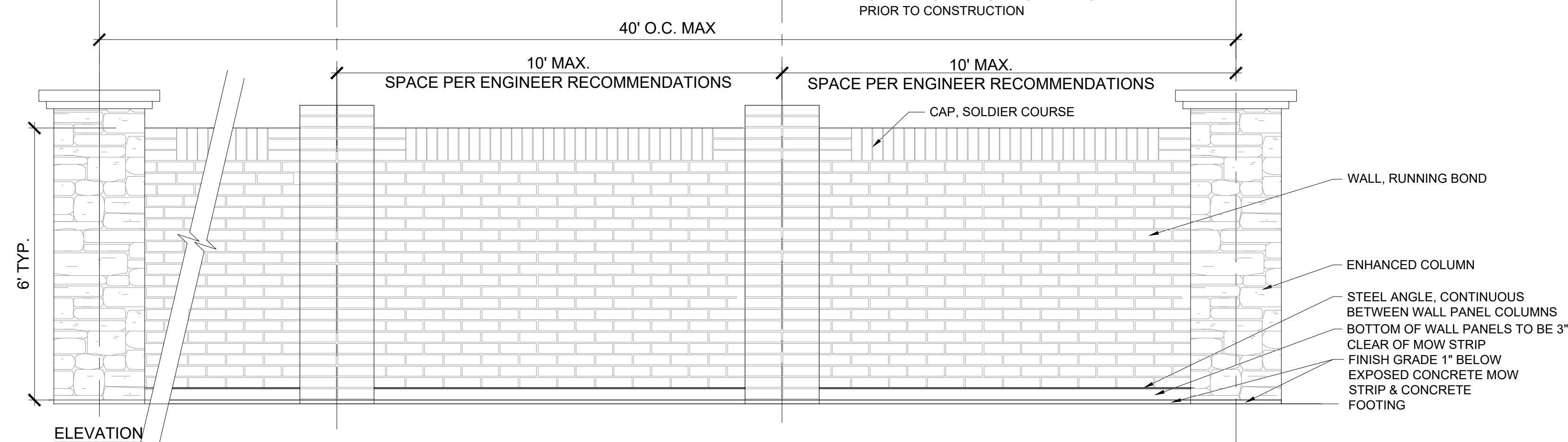
SCALE: 1/2" = 1'-0"



SECTION-WALL PANEL



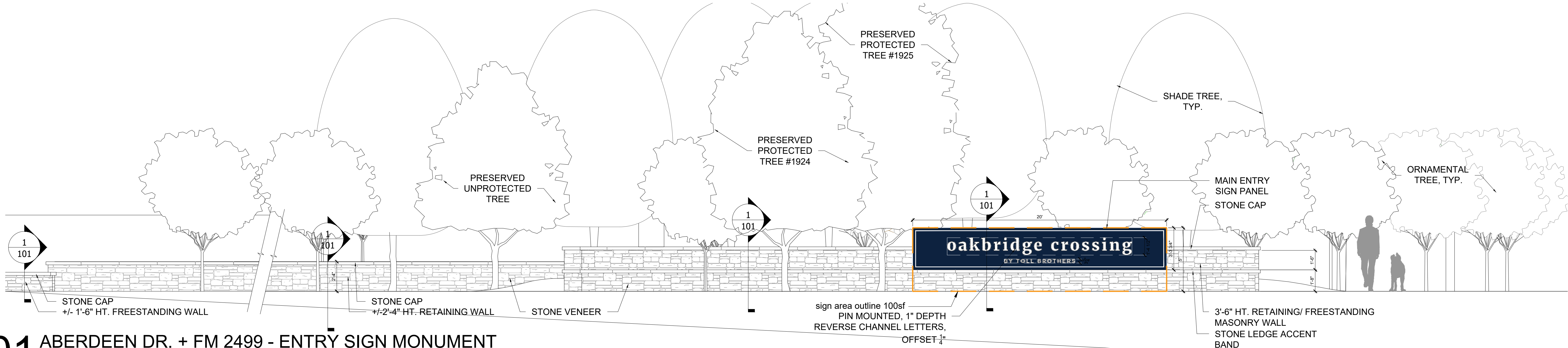
PLAN SECTION



ELEVATION

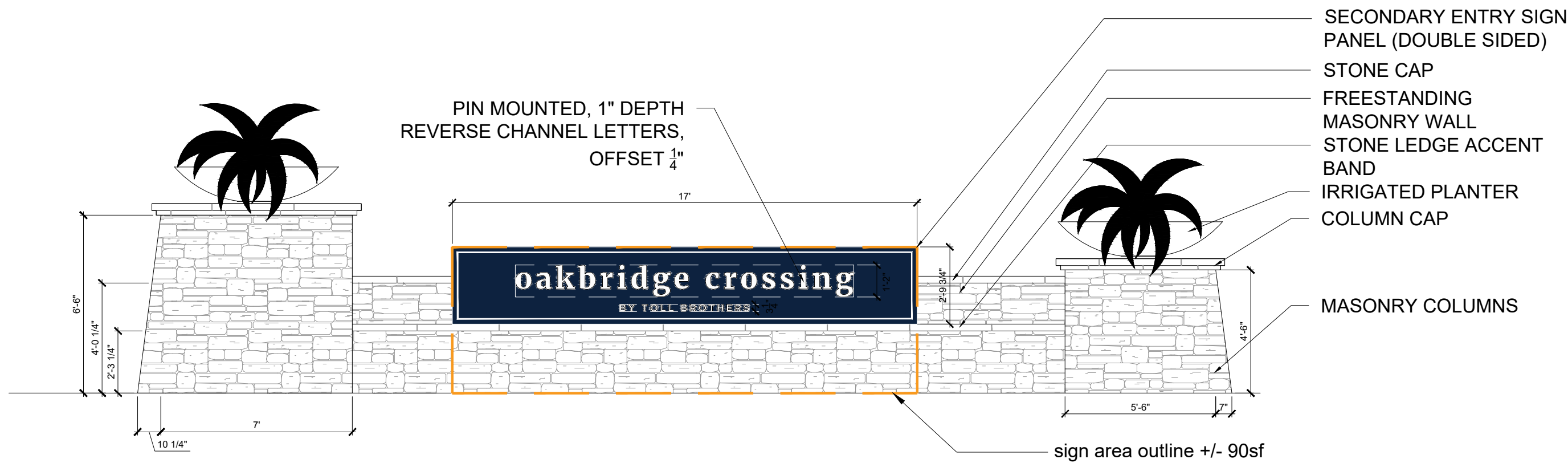
01 MASONRY SCREEN WALL WITH MASONRY COLUMNS

SCALE: 1/2" = 1'-0"



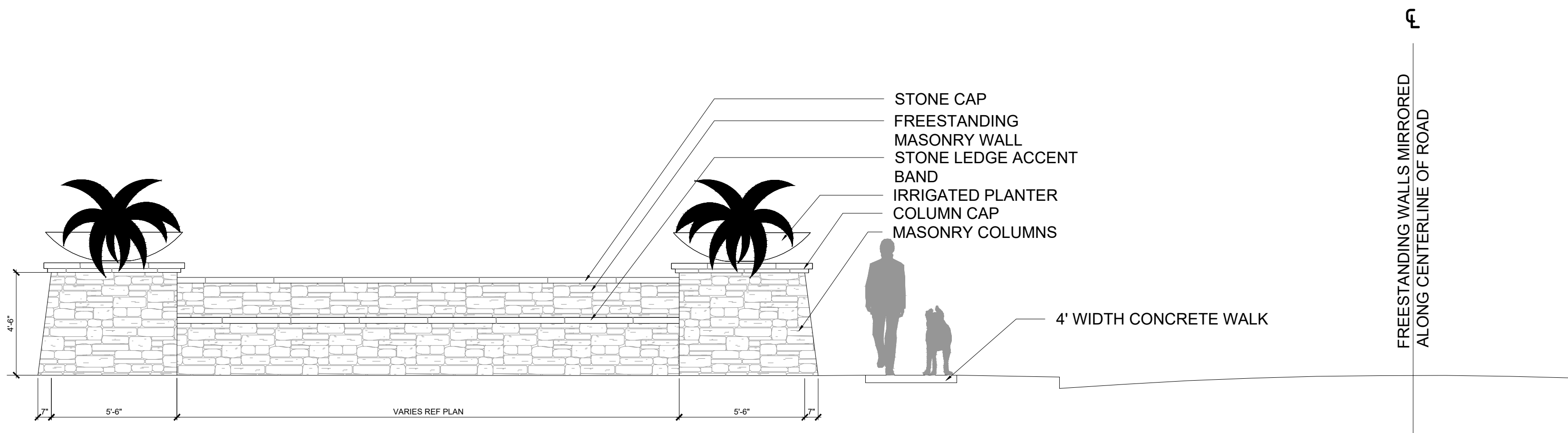
01 ABERDEEN DR. + FM 2499 - ENTRY SIGN MONUMENT

SCALE: 1/4" = 1'-0"



02 ABERDEEN DR. + STREET A - ENTRY SIGN WITH SIGN PANEL

SCALE: 1/4" = 1'-0"



03 ABERDEEN DR. + LAKE FOREST BLVD. FREESTANDING WALLS

SCALE: 1/4" = 1'-0"

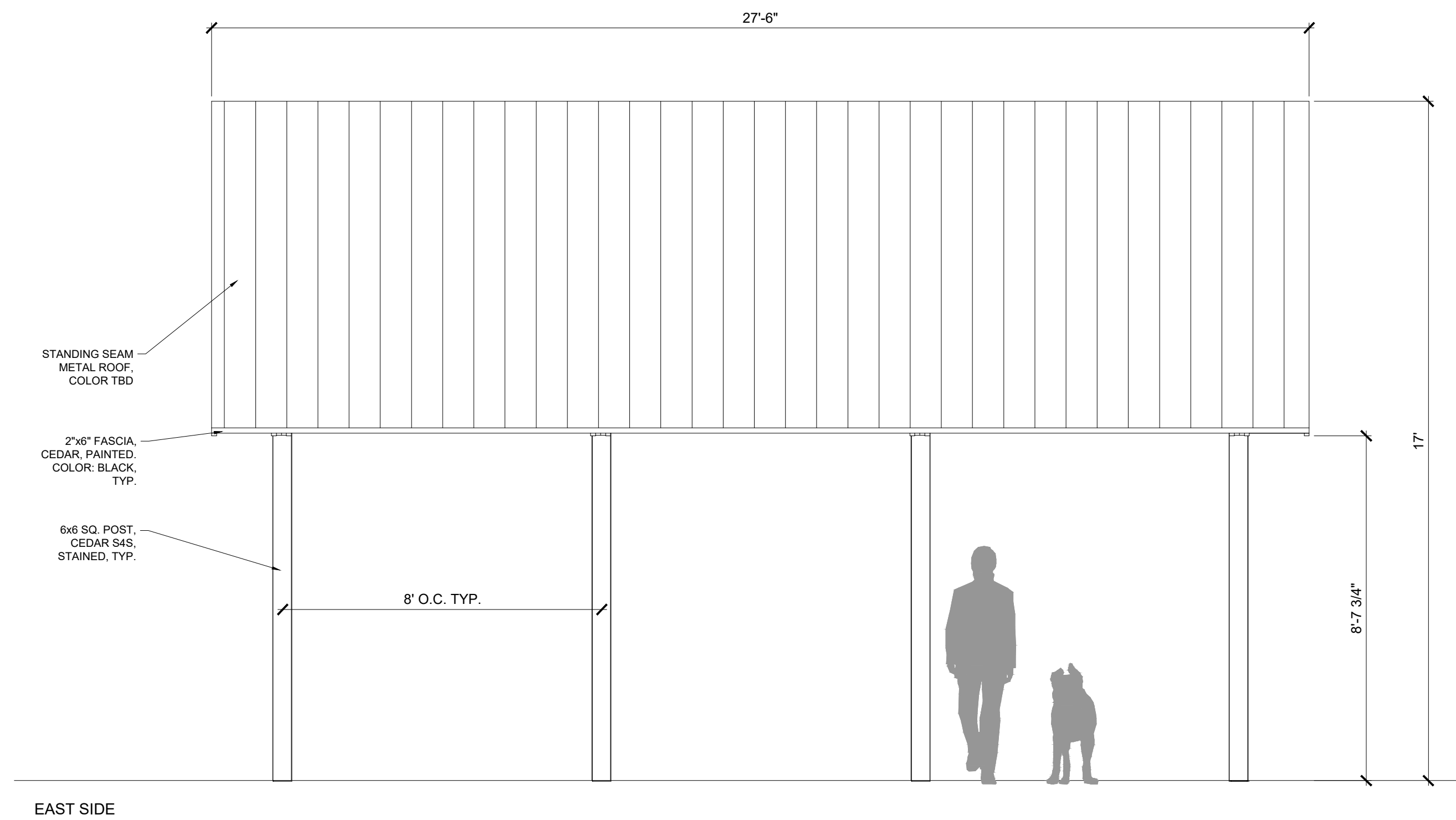
MONUMENT NOTES

- STRUCTURAL REQUIREMENTS
 - Contractor shall provide full engineered shop drawings for Landscape Architect's review, comment and approval.
 - Engineered shop drawings shall include all structural components of Primary and Secondary Monuments including but not limited to:
 - Concrete footings, foundations, drilled piers and related reinforcing
 - Stone walls, stone columns, freestanding walls and stone retaining walls and related cmu core and reinforcing.
 - Drainage gravel backfill and related components (gravel size, fabric, pipe, etc)
 - Metal Signs/ Sign Panels including connection to stone walls and columns
 - Engineer shall be registered and licensed to practice in the State of Texas
 - Contractor shall provide engineered structural drawings as a deferred submittal to city for review and approval, if required.
 - Contractor's engineer and/or steel fabricator shall meet with Landscape Architect to discuss design intent prior to shop drawing submittal.
 - Notify Landscape Architect during shop drawing submittal process of changes necessary to fulfill structural requirements.
- STONE
 - Type
 - Stone Veneer
 - Random lengths X 3"- 4" Width X 2"- 6" height coursed random ashlar stone. DO NOT MATCH RANDOM ASHLAR STONE PATTERN OF EXISTING COMMUNITY.
 - Sizes shall be irregular as indicated within elevation drawings.
 - Stone color intended to match existing stone within existing Oakbridge Community. See representative photo.
 - Submit sample for review and approval.
 - Stone Caps + Accent bands
 - Stone caps- to be 2'-3' lengths X widths per plan X 3" height, sawn all sides. Stone color TBD, but is to be within in the same family of the stone veneer. At column caps, a 2" height layer of stone matching the cap stone color and finish to be included.
 - Accent band stone- stone to match the stone caps finish and color.
 - Joints
 - Size varies $\frac{1}{4}$ " - $\frac{1}{2}$ ". Mortar color to match lightest portion of selected stone. Submit sample of mortar color for approval.
 - Vertical joints shall be deeply raked/ hidden so as to appear to be dry stacked
 - Joints for cap stone shall be flush with stone. Neatly transition to hidden joint for vertical face.
 - Weeps
 - Provide weeps at 32" O.C. all exposed surfaces of stone. Weep depth shall reach cmu core.
 - Submit stone/ masonry ties for review and approval.
 - Mockup
 - Provide 3'-6" tall x 3' wide representative mockup including vertical and cap stone components. Mockup shall demonstrate how stone will wrap at corners.
- METAL
 - Steel
 - Main Entry Sign Panel - 3/8" Steel Plate continous sheet, no seams.
 - Secondary Sign Panel 3/8" Steel Plate continous sheet, no seams.
 - Weld plate - Corten, size as indicated on the drawings
 - All steel shall be ASTM A-588
 - All exposed edges shall be lightly eased to eliminate sharp edges.
 - Steel shall be lightly sandblasted to remove scale and manufacturing irregularities
 - Painted finish using USE SHERWIN WILLIAMS DTM ALKYD ENAMEL (SEMI GLOSS)
Color- To be decided
 - Aluminum
 - Finish shall be brushed
 - Pin mounted channel letters at Main Entry Sign, to be height as shown in elevation with 1 $\frac{1}{2}$ " welded return
 - Pin mounted channel letters at Secondary Monument Sign, to be height as shown in elevation with 1 $\frac{1}{2}$ " welded return
 - All exposed edges shall be lightly eased to eliminate sharp edges.
 - Connection of pin mounted letters and logo to sign panel or stone column shall not be visible. Fasteners shall be aluminum. Protect aluminum against galvanic reaction by use of neoprene washers and bolt sleeves.
- DIGITAL FILES

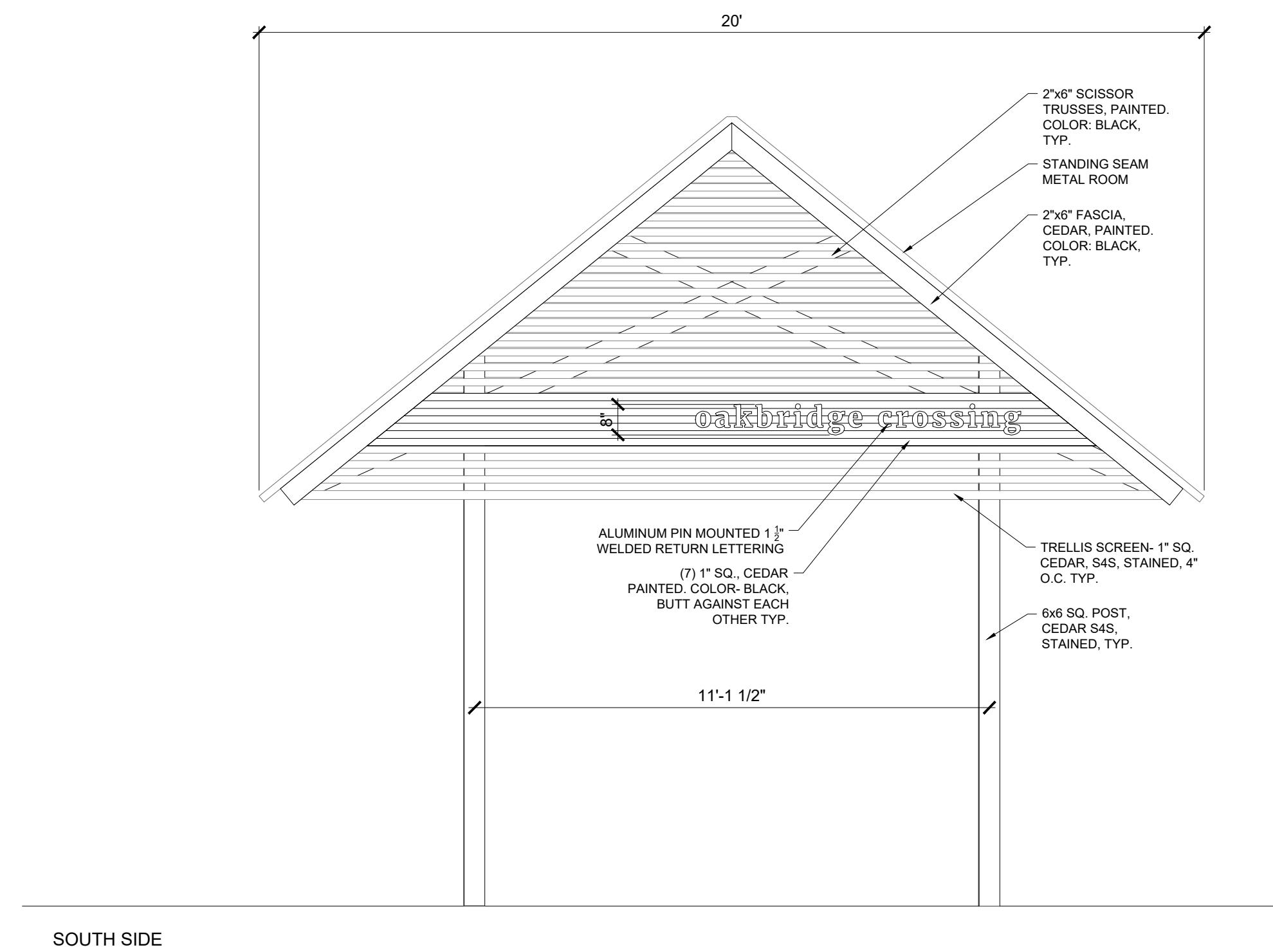
Landscape Architect to provide digital file of logo upon contractor's request.

REPRESENTATIVE PHOTO
Photo shows color of stone only,
reference notes for stone pattern.





01 ABERDEEN + LAKE FOREST ENTRY STRUCTURE: EAST SIDE ELEVATION
SCALE: 3/8" = 1'-0"



02 ABERDEEN + LAKE FOREST ENTRY STRUCTURE: SOUTH VIEW ELEVATION
SCALE: 3/8" = 1'-0"



03 ABERDEEN + LAKE FOREST ENTRY STRUCTURE
SCALE: NTS

NOTE:
1. DIMENSIONS AND MATERIALS SHOWN IN DETAILS ARE PROVIDED TO SHOW GENERAL DESIGN INTENT,
AND AS A BASIS FOR THE CONTRACTOR'S STRUCTURAL ENGINEER TO PROVIDE SEALED SHOP DRAWINGS
FOR REVIEW.
2. SUBMIT ENGINEERED SHOP DRAWINGS FOR STRUCTURAL DESIGN OF WALL, FOOTINGS, WALL
COLUMNS, ENHANCED COLUMNS.

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OAKBRIDGE CROSSING

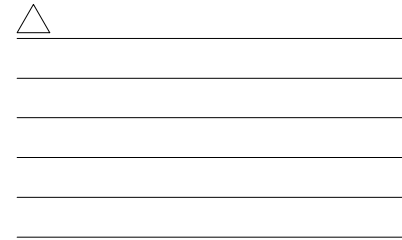
TOWN OF FLOWER MOUND
DENTON COUNTY, TX

Landscape / Screening Plans

issue

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Submittal01/24/2022 Development Plan
Submittal Comm
Response02/28/2022 Development Plan
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Response03/22/2022 Development Plan
Submittal Comm
Response

revisions



title

Planting Layout

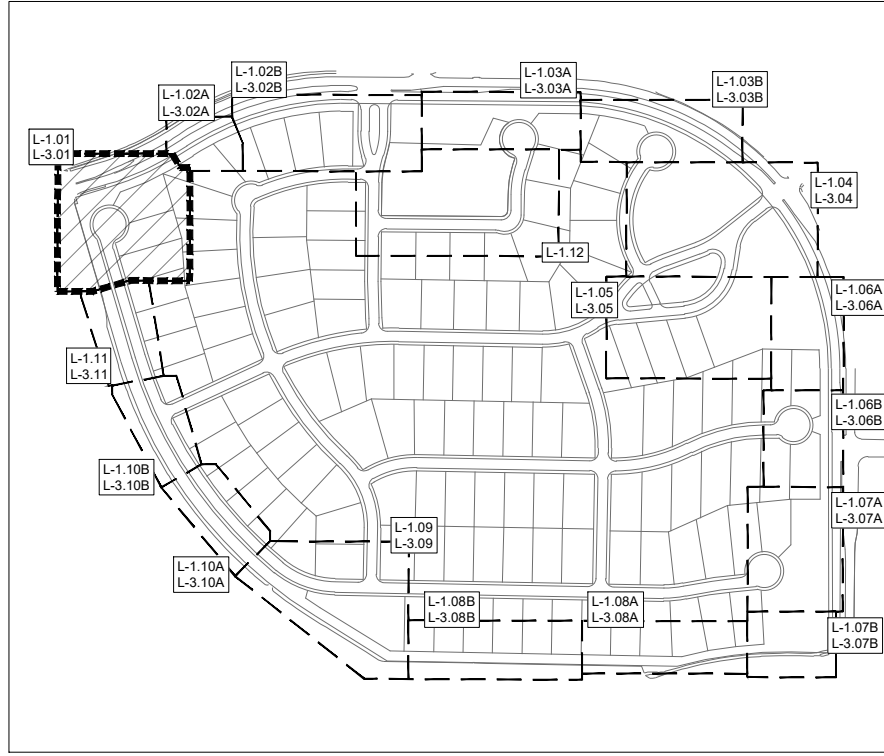
project number 210001

date 03/22/2022

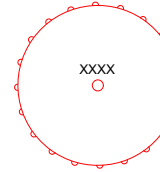
shee

L-3.01

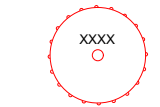
KEYMAP



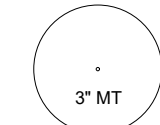
LEGEND



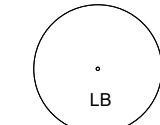
EXISTING SPECIMEN TREE TO REMAIN



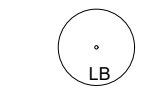
EXISTING PROTECTED TREE TO REMAIN



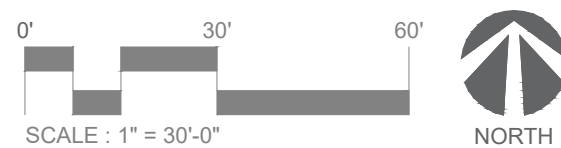
REQUIRED 3" MITIGATION TREE



REQUIRED LANDSCAPE BUFFER
SHADE TREE



REQUIRED LANDSCAPE BUFFER-
ORNAMENTAL TREE



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[illegible]

sheet

L-3.02

Legend:

- EXISTING SPECIMEN TREE TO REMAIN (Red dashed circle with 'XXXX' and a red dot)
- EXISTING PROTECTED TREE TO REMAIN (Red dashed circle with 'XXXX' and a red dot)
- REQUIRED 3" MITIGATION TREE (Black dashed circle with a black dot and '3" MT')
- REQUIRED LANDSCAPE BUFFER - SHADE TREE (Black dashed circle with a black dot and 'LB')
- REQUIRED LANDSCAPE BUFFER- ORNAMENTAL TREE (Black dashed circle with a black dot and 'LB')

This detailed site plan for a 2-acre park includes the following elements:

- Infrastructure:** Aberdeen Drive runs along the top. A San Sewer line with manholes (MH) is located at the top and bottom. A water line runs along the bottom right. A 25' landscape buffer is indicated on the left.
- Landscaping:** The plan features numerous trees and shrubs, each labeled with a code (e.g., CO, LB, BC, TRO, YH, CE, MT, NRS, SG-H, BS, WVC, BCHA, GCM, DWDM, AR, BM, SC-P, IS, DWM, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100) and a size/spacing code (e.g., 14 LF SE, 24 LF SE, 36 LF SE, 48 LF SE, 60 LF SE, 72 LF SE, 84 LF SE, 96 LF SE, 108 LF SE, 120 LF SE, 132 LF SE, 144 LF SE, 156 LF SE, 168 LF SE, 180 LF SE, 192 LF SE, 204 LF SE, 216 LF SE, 228 LF SE, 240 LF SE, 252 LF SE, 264 LF SE, 276 LF SE, 288 LF SE, 300 LF SE, 312 LF SE, 324 LF SE, 336 LF SE, 348 LF SE, 360 LF SE, 372 LF SE, 384 LF SE, 396 LF SE, 408 LF SE, 420 LF SE, 432 LF SE, 444 LF SE, 456 LF SE, 468 LF SE, 480 LF SE, 492 LF SE, 504 LF SE, 516 LF SE, 528 LF SE, 540 LF SE, 552 LF SE, 564 LF SE, 576 LF SE, 588 LF SE, 600 LF SE, 612 LF SE, 624 LF SE, 636 LF SE, 648 LF SE, 660 LF SE, 672 LF SE, 684 LF SE, 696 LF SE, 708 LF SE, 720 LF SE, 732 LF SE, 744 LF SE, 756 LF SE, 768 LF SE, 780 LF SE, 792 LF SE, 804 LF SE, 816 LF SE, 828 LF SE, 840 LF SE, 852 LF SE, 864 LF SE, 876 LF SE, 888 LF SE, 900 LF SE, 912 LF SE, 924 LF SE, 936 LF SE, 948 LF SE, 960 LF SE, 972 LF SE, 984 LF SE, 996 LF SE, 1008 LF SE, 1020 LF SE, 1032 LF SE, 1044 LF SE, 1056 LF SE, 1068 LF SE, 1080 LF SE, 1092 LF SE, 1104 LF SE, 1116 LF SE, 1128 LF SE, 1140 LF SE, 1152 LF SE, 1164 LF SE, 1176 LF SE, 1188 LF SE, 1200 LF SE, 1212 LF SE, 1224 LF SE, 1236 LF SE, 1248 LF SE, 1260 LF SE, 1272 LF SE, 1284 LF SE, 1296 LF SE, 1308 LF SE, 1320 LF SE, 1332 LF SE, 1344 LF SE, 1356 LF SE, 1368 LF SE, 1380 LF SE, 1392 LF SE, 1404 LF SE, 1416 LF SE, 1428 LF SE, 1440 LF SE, 1452 LF SE, 1464 LF SE, 1476 LF SE, 1488 LF SE, 1500 LF SE, 1512 LF SE, 1524 LF SE, 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LF SE, 2544 LF SE, 2556 LF SE, 2568 LF SE, 2580 LF SE, 2592 LF SE, 2604 LF SE, 2616 LF SE, 2628 LF SE, 2640 LF SE, 2652 LF SE, 2664 LF SE, 2676 LF SE, 2688 LF SE, 2700 LF SE, 2712 LF SE, 2724 LF SE, 2736 LF SE, 2748 LF SE, 2760 LF SE, 2772 LF SE, 2784 LF SE, 2796 LF SE, 2808 LF SE, 2820 LF SE, 2832 LF SE, 2844 LF SE, 2856 LF SE, 2868 LF SE, 2880 LF SE, 2892 LF SE, 2904 LF SE, 2916 LF SE, 2928 LF SE, 2940 LF SE, 2952 LF SE, 2964 LF SE, 2976 LF SE, 2988 LF SE, 3000 LF SE, 3012 LF SE, 3024 LF SE, 3036 LF SE, 3048 LF SE, 3060 LF SE, 3072 LF SE, 3084 LF SE, 3096 LF SE, 3108 LF SE, 3120 LF SE, 3132 LF SE, 3144 LF SE, 3156 LF SE, 3168 LF SE, 3180 LF SE, 3192 LF SE, 3204 LF SE, 3216 LF SE, 3228 LF SE, 3240 LF SE, 3252 LF SE, 3264 LF SE, 3276 LF SE, 3288 LF SE, 3300 LF SE, 3312 LF SE, 3324 LF SE, 3336 LF SE, 3348 LF SE, 3360 LF SE, 3372 LF SE, 3384 LF SE, 3396 LF SE, 3408 LF SE, 3420 LF SE, 3432 LF SE, 3444 LF SE, 3456 LF SE, 3468 LF SE, 3480 LF SE, 3492 LF SE, 3504 LF SE, 3516 LF SE, 3528 LF SE, 3540 LF SE, 3552 LF SE, 3564 LF SE, 3576 LF SE, 3588 LF SE, 3600 LF SE, 3612 LF SE, 3624 LF SE, 3636 LF SE, 3648 LF SE, 3660 LF SE, 3672 LF SE, 3684 LF SE, 3696 LF SE, 3708 LF SE, 3720 LF SE, 3732 LF SE, 3744 LF SE, 3756 LF SE, 3768 LF SE, 3780 LF SE, 3792 LF SE, 3804 LF SE, 3816 LF SE, 3828 LF SE, 3840 LF SE, 3852 LF SE, 3864 LF SE, 3876 LF SE, 3888 LF SE, 3900 LF SE, 3912 LF SE, 3924 LF SE, 3936 LF SE, 3948 LF SE, 3960 LF SE, 3972 LF SE, 3984 LF SE, 3996 LF SE, 4008 LF SE, 4020 LF SE, 4032 LF SE, 4044 LF SE, 4056 LF SE, 4068 LF SE, 4080 LF SE, 4092 LF SE, 4104 LF SE, 4116 LF SE, 4128 LF SE, 4140 LF SE, 4152 LF SE, 4164 LF SE, 4176 LF SE, 4188 LF SE, 4200 LF SE, 4212 LF SE, 4224 LF SE, 4236 LF SE, 4248 LF SE, 4260 LF SE, 4272 LF SE, 4284 LF SE, 4296 LF SE, 4308 LF SE, 4320 LF SE, 4332 LF SE, 4344 LF SE, 4356 LF SE, 4368 LF SE, 4380 LF SE, 4392 LF SE, 4404 LF SE, 4416 LF SE, 4428 LF SE, 4440 LF SE, 4452 LF SE, 4464 LF SE, 4476 LF SE, 4488 LF SE, 4500 LF SE, 4512 LF SE, 4524 LF SE, 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B PLANTING LAYOUT



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△	

title

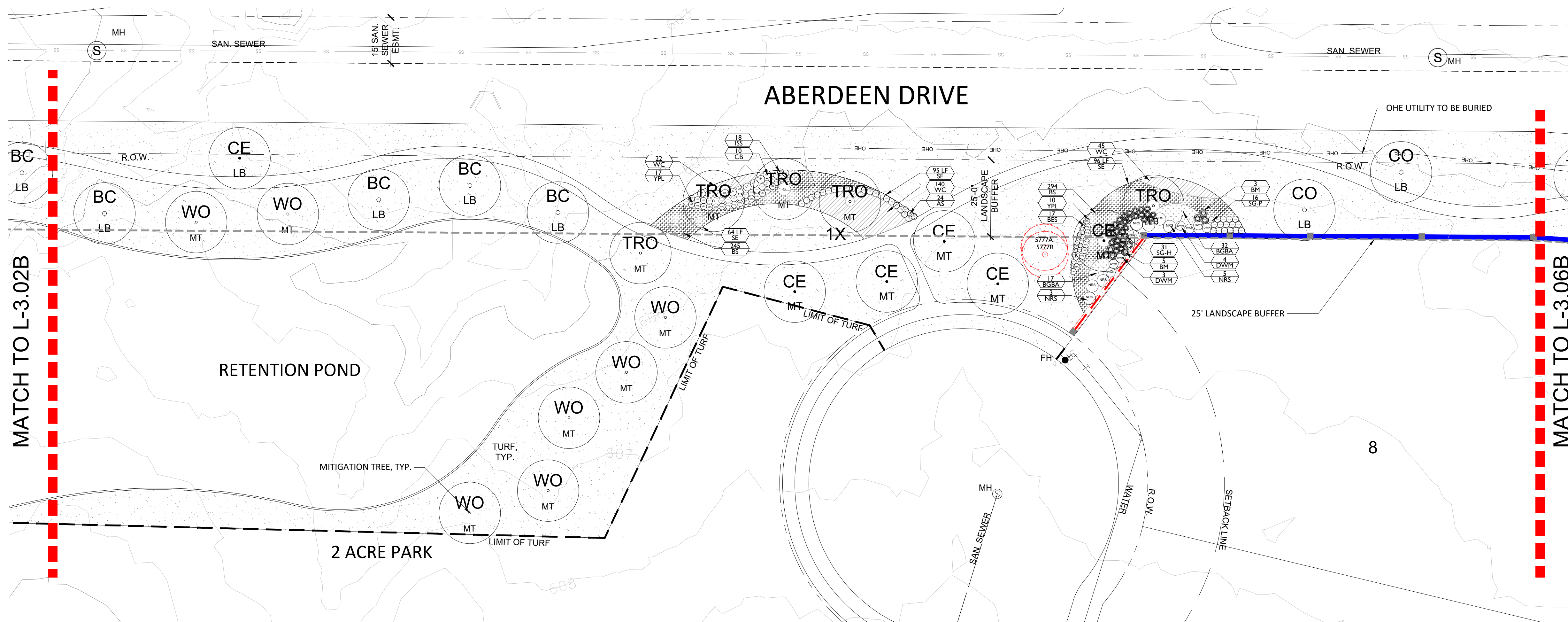
Planting Layout

project number 210001

date 03/22/2022

sheet

L-3.03



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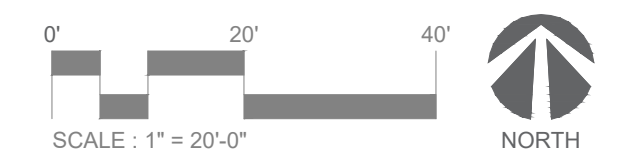
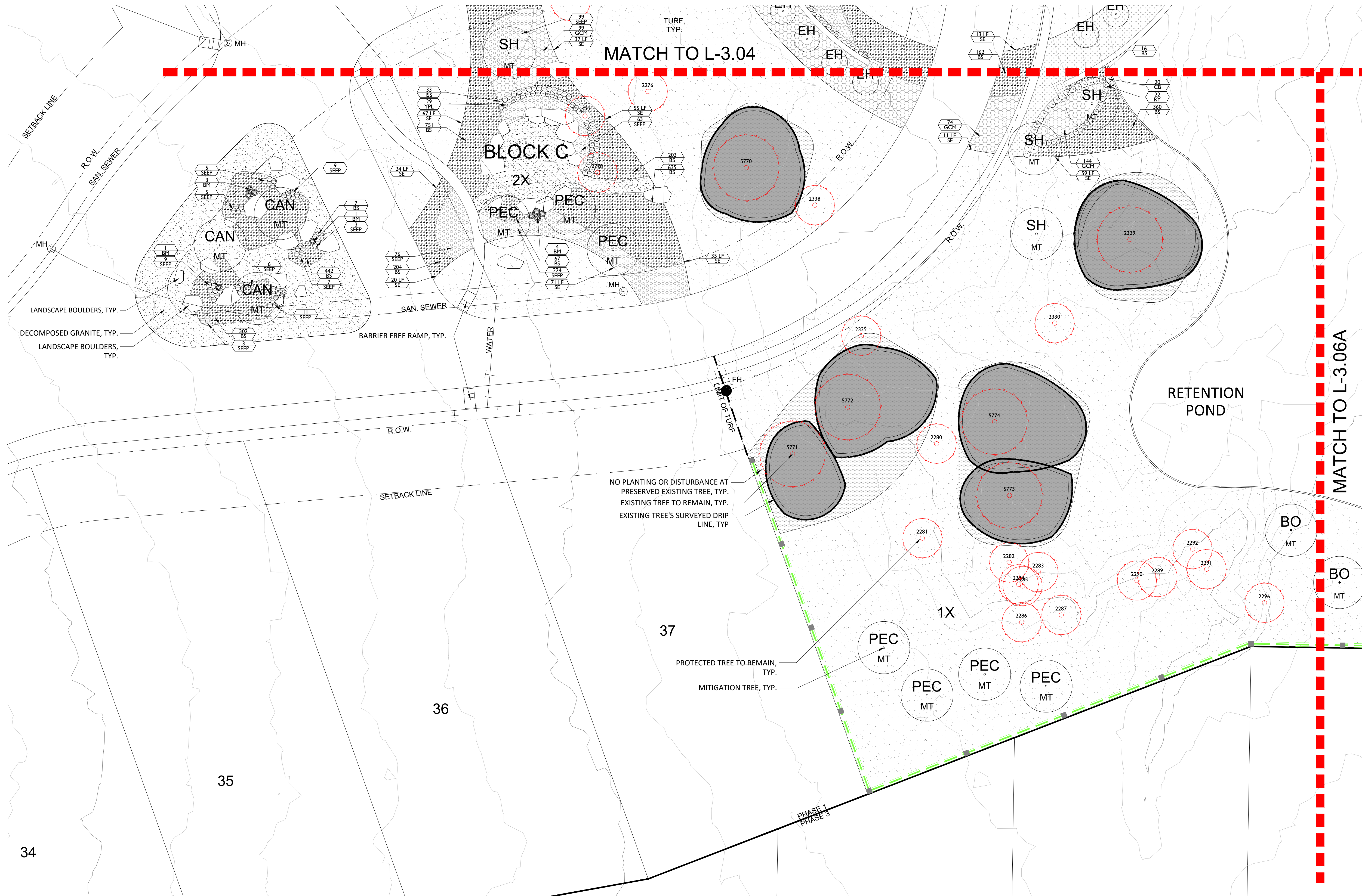
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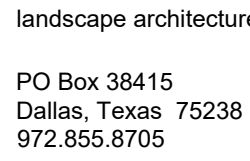
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L-3.05

Legend:

- XXXX (red dashed circle) EXISTING SPECIMEN TREE TO REMAIN
- XXXX (red solid circle) EXISTING PROTECTED TREE TO REMAIN
- * (black circle) 3" MT REQUIRED 3" MITIGATION TREE
- * (black circle) LB REQUIRED LANDSCAPE BUFFER - SHADE TREE
- * (black circle) LB REQUIRED LANDSCAPE BUFFER- ORNAMENTAL TREE

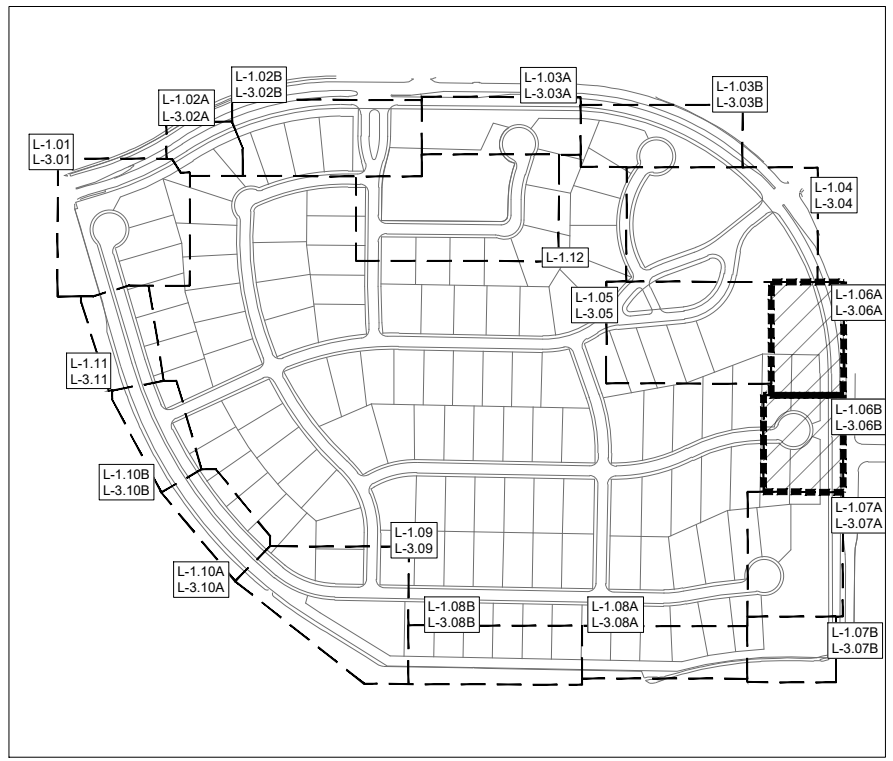




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03/22/2022

client
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Demerius Seals
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Parkway, Suite 100
Grapevine, TX 76051



XXXX
○

EXISTING SPECIMEN TREE TO REMAIN

XXXX
○

EXISTING PROTECTED TREE TO REMAIN

•
3" MT

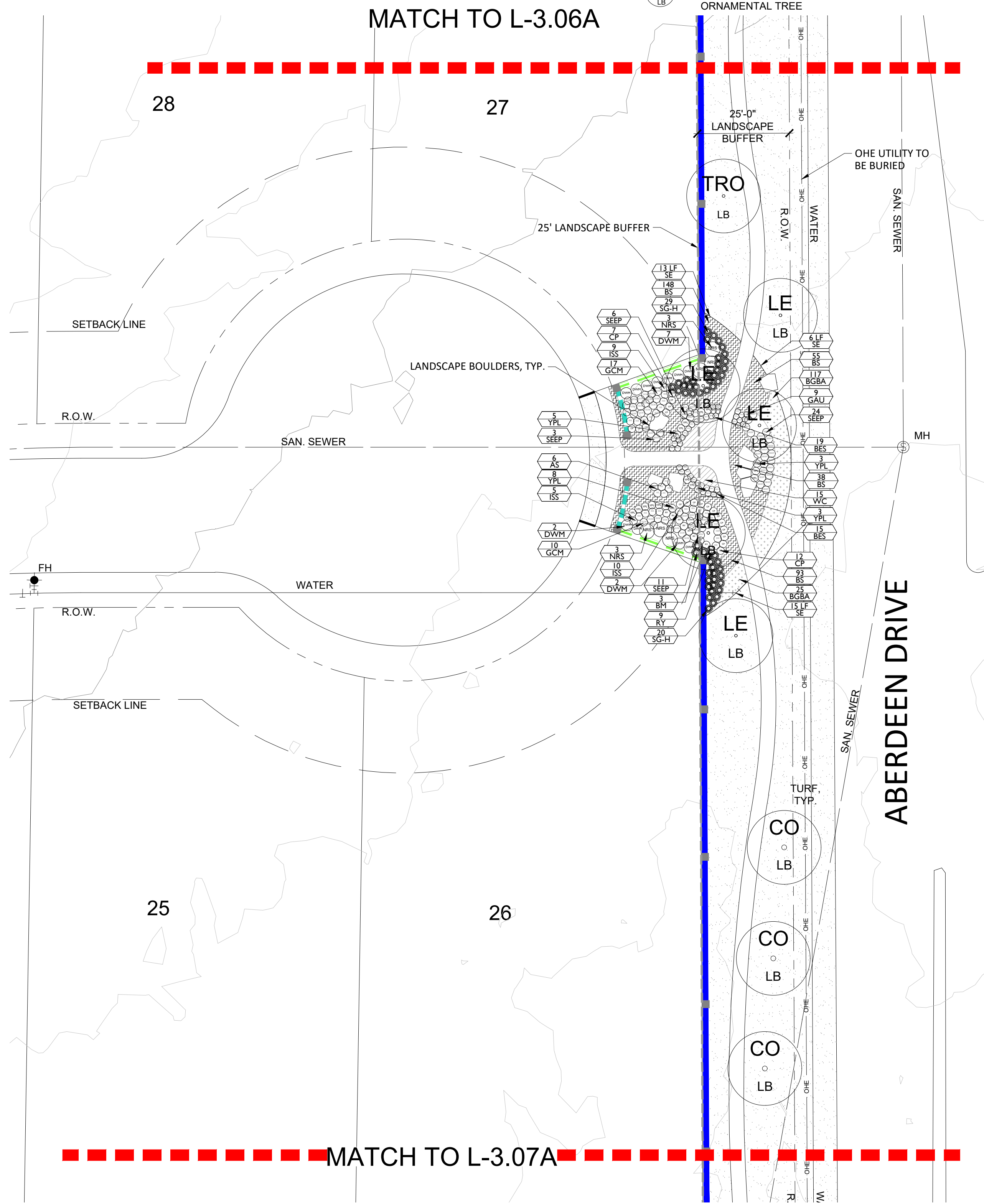
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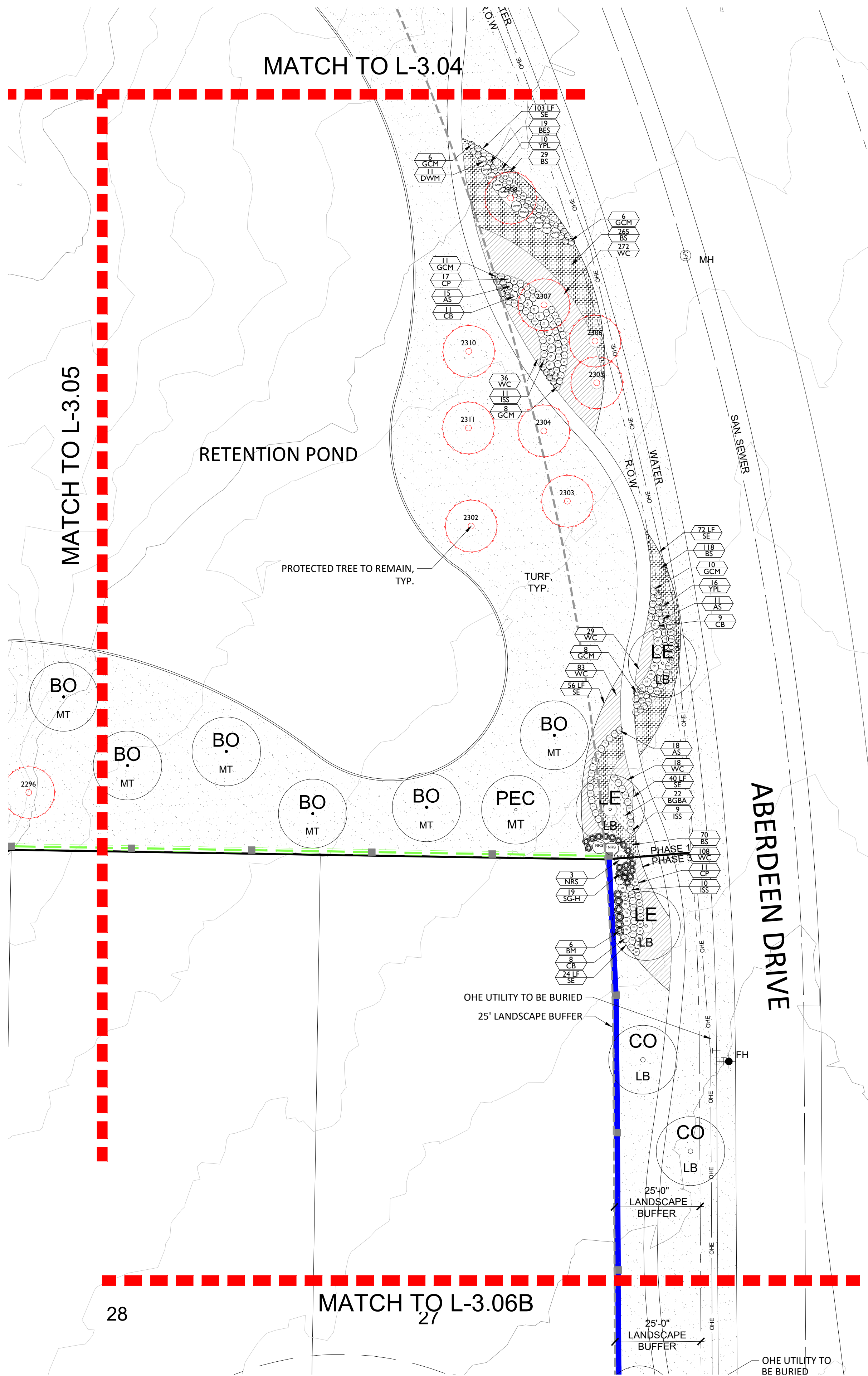
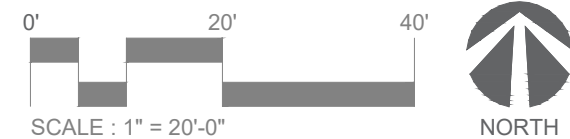
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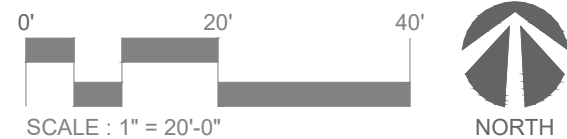
REQUIRED LANDSCAPE BUFFER - ORNAMENTAL TREE



B PLANTING LAYOUT



A PLANTING LAYOUT





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OAKBRIDGE CROSSING

TOWN OF FLOWER MOUND
DENTON COUNTY, TX

Landscape / Screening Plans

Issue	
12/13/2021	Development Plan Submittal
01/24/2022	Development Plan Submittal Comment Response
02/28/2022	Development Plan Submittal Comment Response
03/22/2022	Development Plan Submittal Comment Response

Revisions

title
Planting Layout

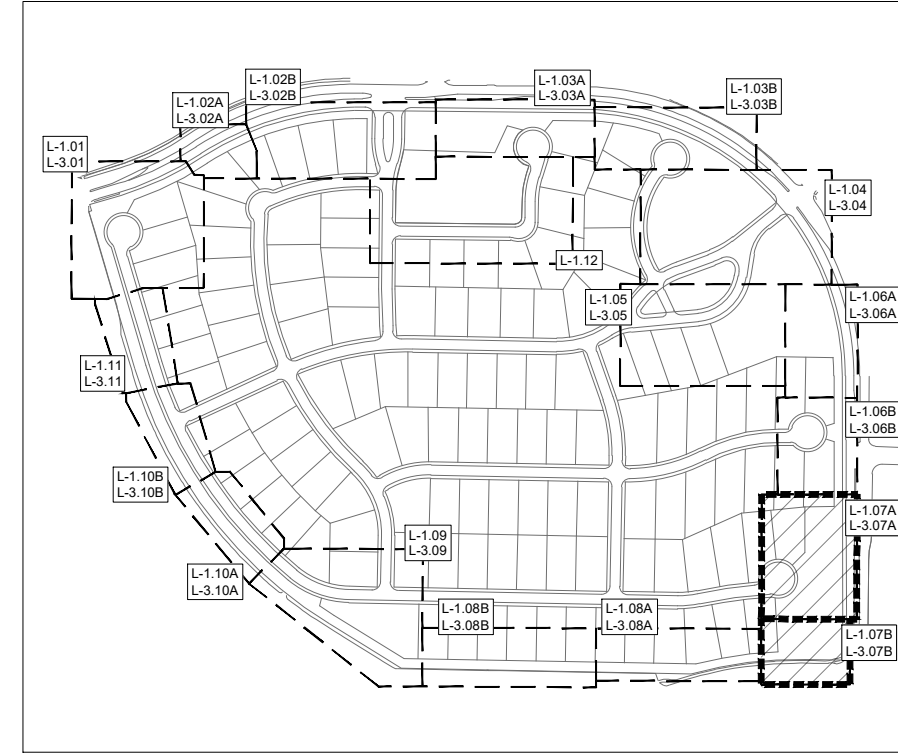
project number 210001

date 03/22/2022

sheet

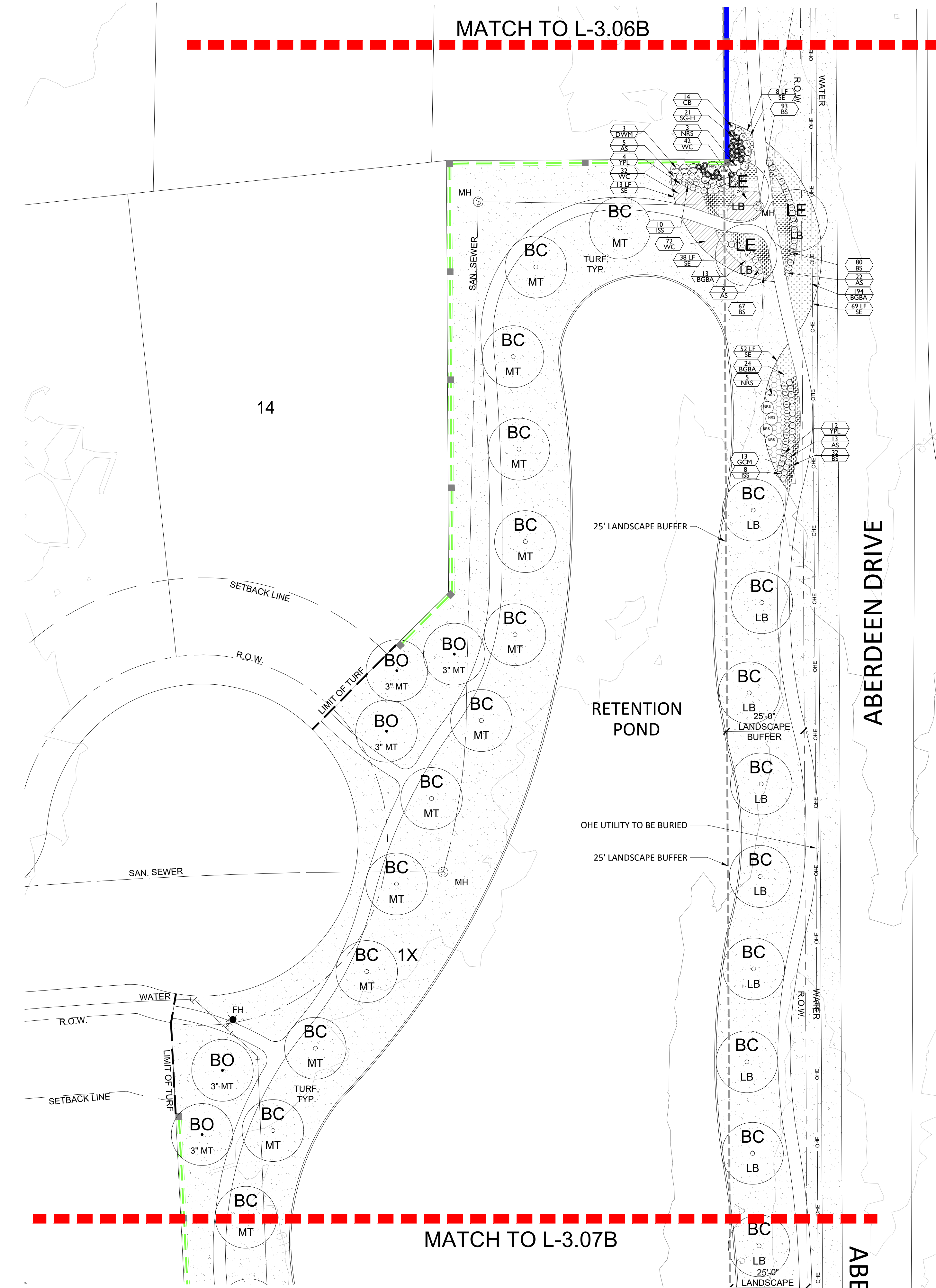
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KEYMAP

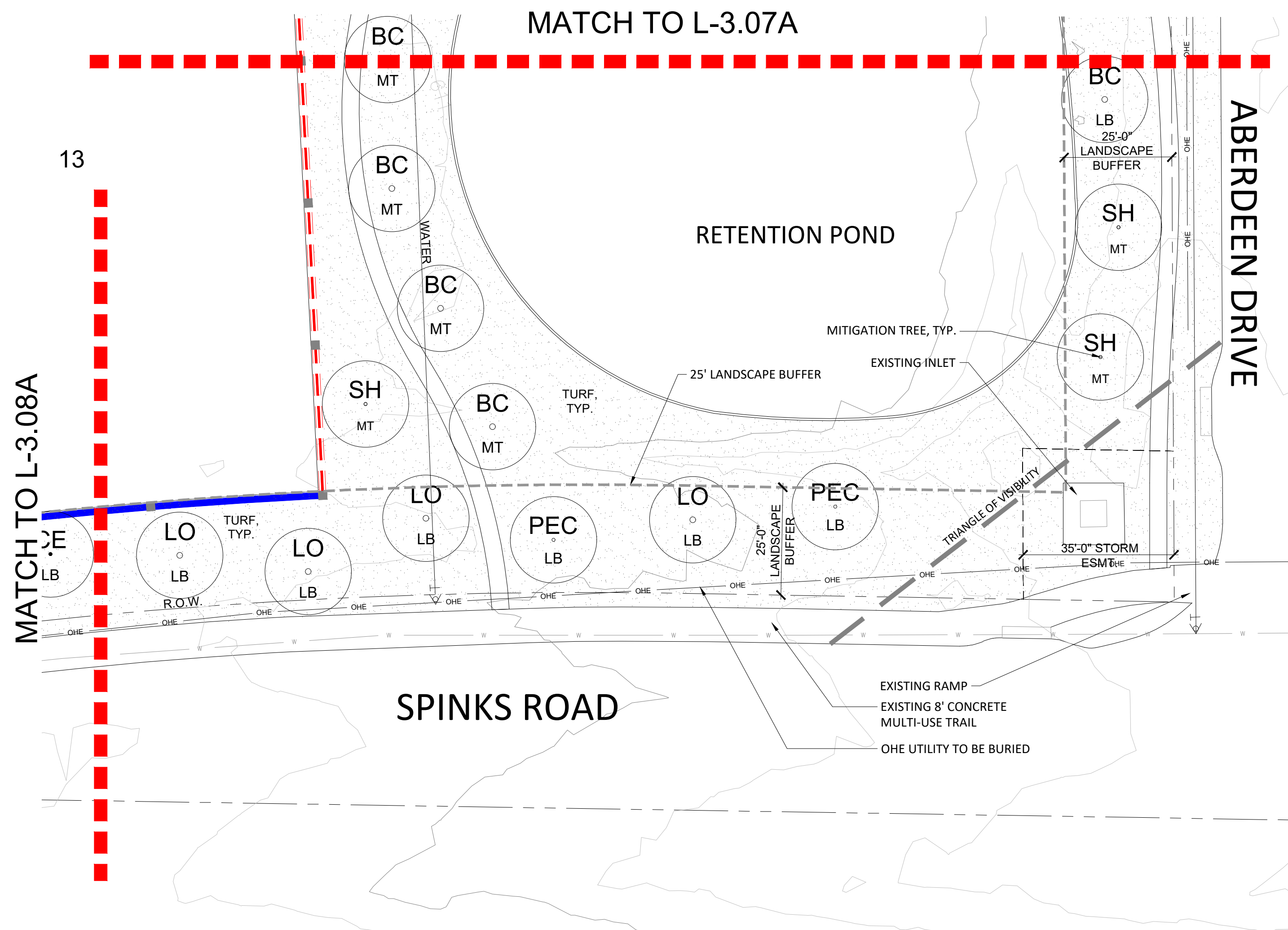
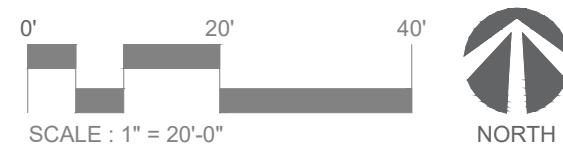


LEGEND

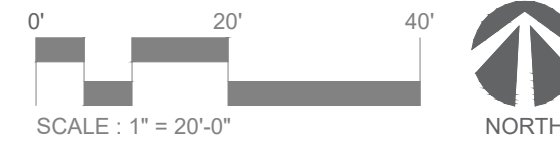
- EXISTING SPECIMEN TREE TO REMAIN
- EXISTING PROTECTED TREE TO REMAIN
- REQUIRED 3" MITIGATION TREE
- REQUIRED LANDSCAPE BUFFER - SHADE TREE
- REQUIRED LANDSCAPE BUFFER- ORNAMENTAL TREE

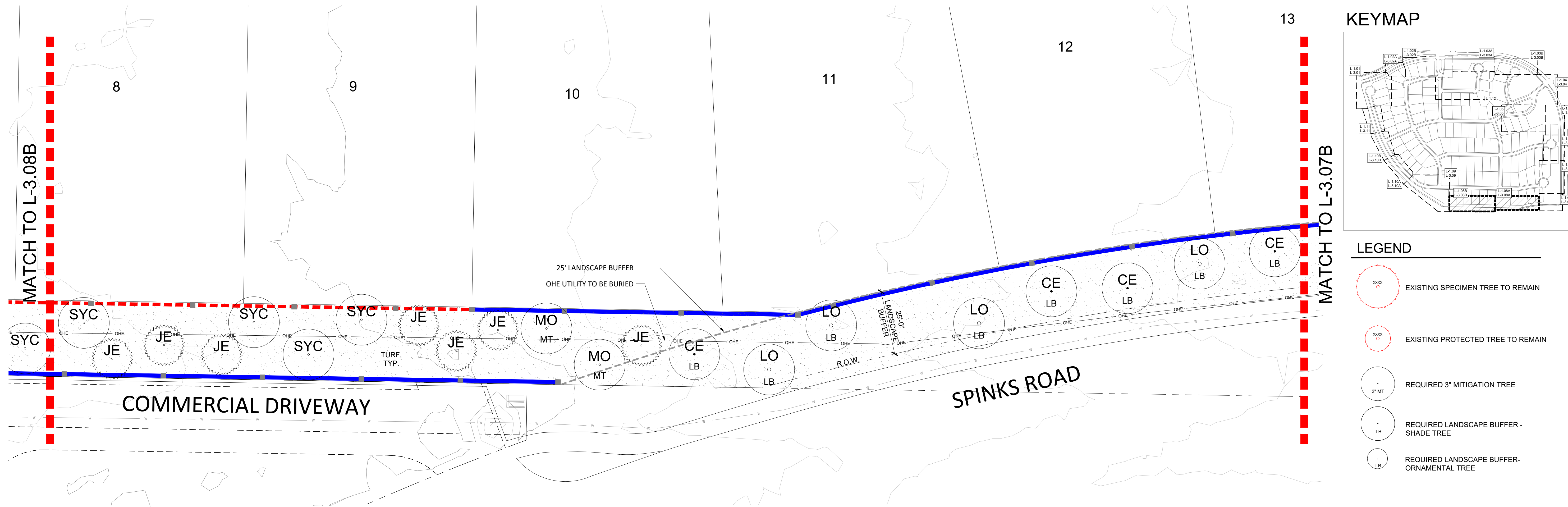


A PLANTING LAYOUT

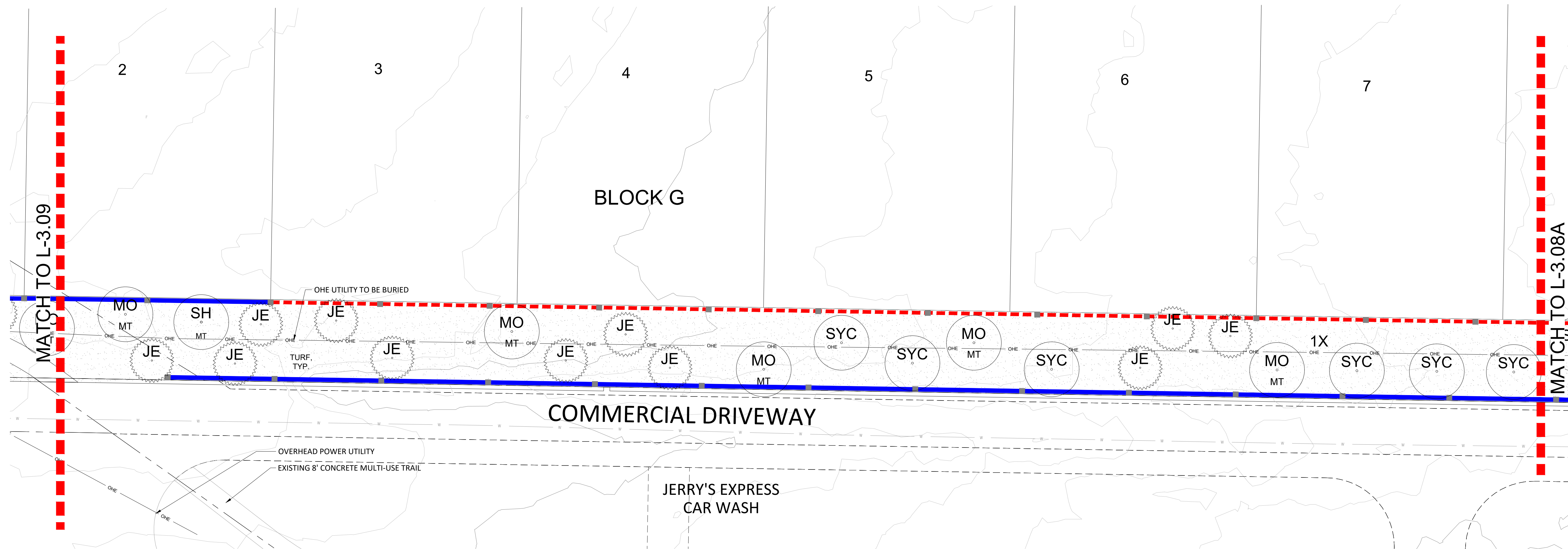


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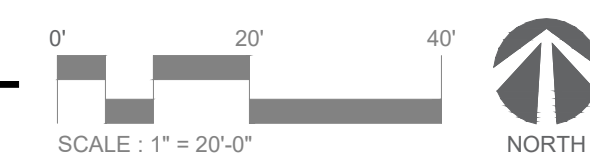




A PLANTING LAYOUT



B PLANTING LAYOUT



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OAKBRIDGE CROSSING

TOWN OF FLOWER MOUND
DENTON COUNTY, TX

Landscape / Screening Plans

issue

12/13/2021 Development Plan
Submittal01/24/2022 Development Plan
Submittal Comment
Response02/28/2022 Development Plan
Submittal Comment
Response03/22/2022 Development Plan
Submittal Comment
Response

revisions



title

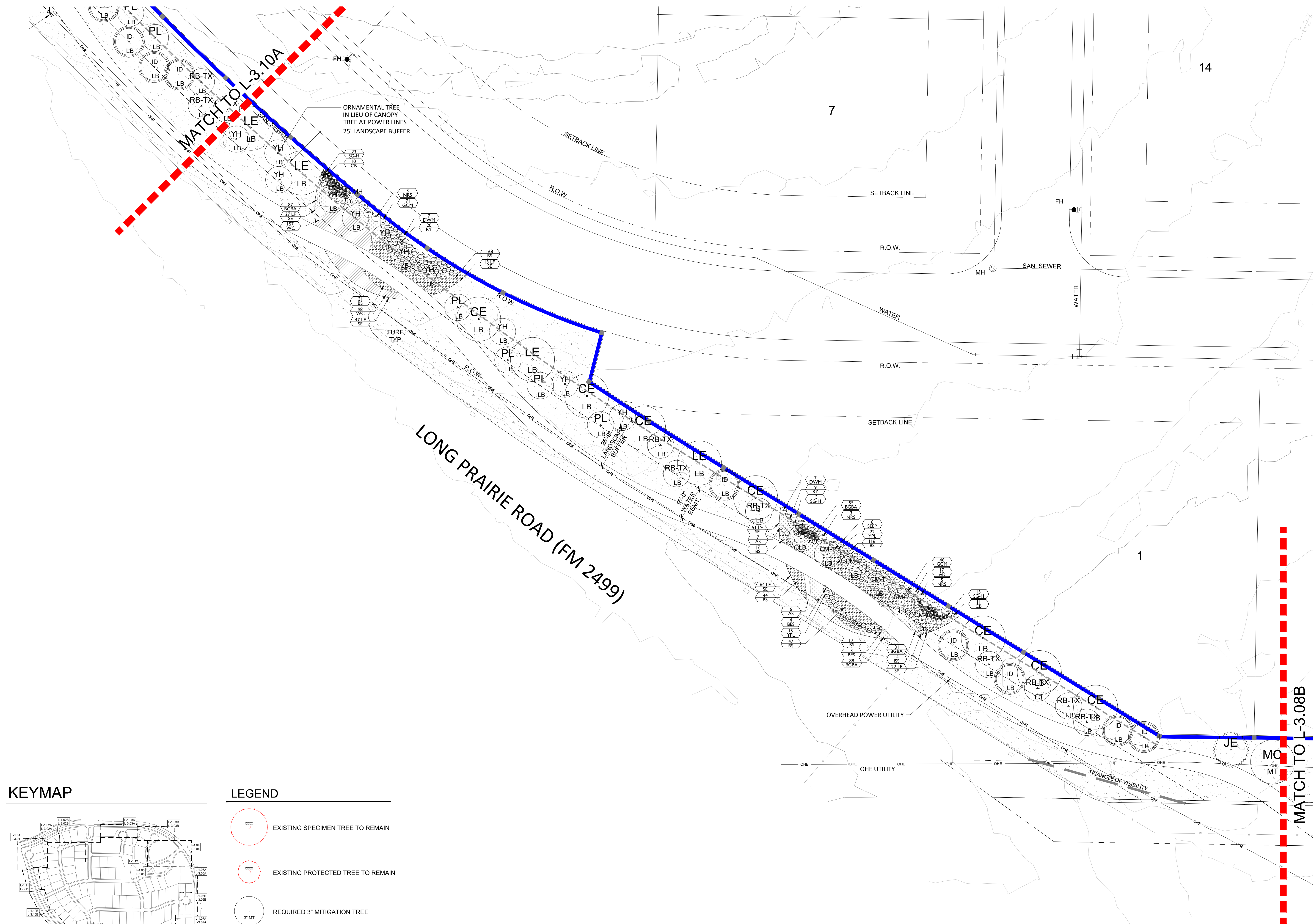
Planting Layout

project number 210001

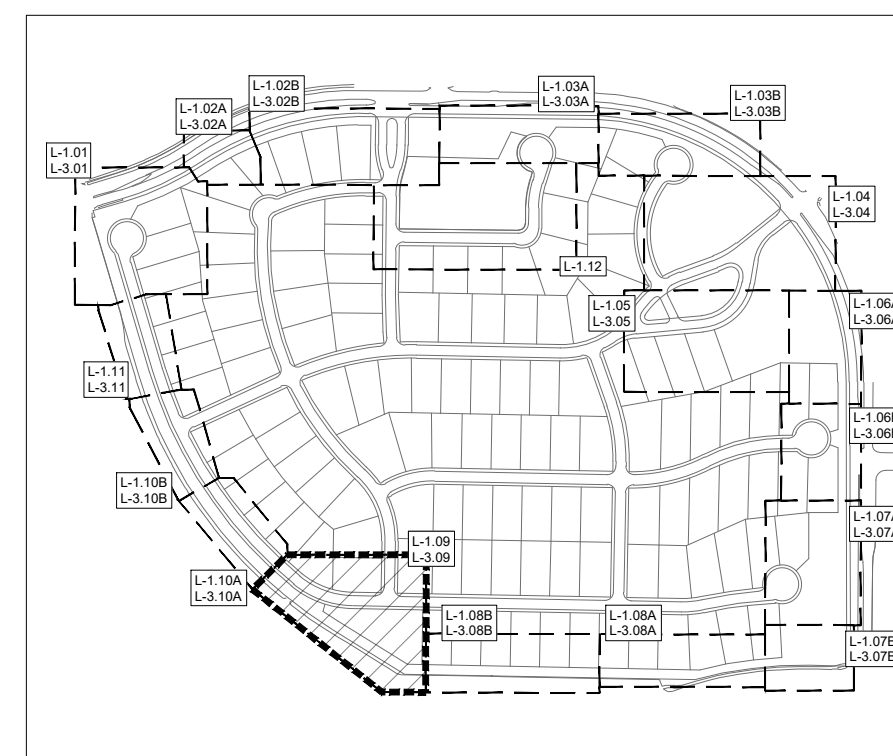
date 03/22/2022

sheet

L-3.09

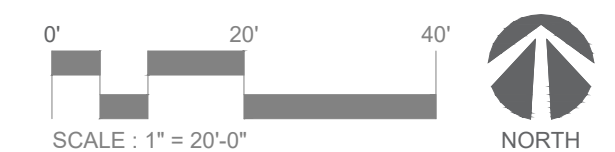


KEYMAP



LEGEND

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- Legend:
- EXISTING SPECIMEN TREE TO REMAIN
 - EXISTING PROTECTED TREE TO REMAIN
 - REQUIRED 3" MITIGATION TREE
 - REQUIRED LANDSCAPE BUFFER - SHADE TREE
 - REQUIRED LANDSCAPE BUFFER - ORNAMENTAL TREE





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OAKBRIDGE CROSSING
TOWN OF FLOWER MOUND
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Landscape / Screening Plans

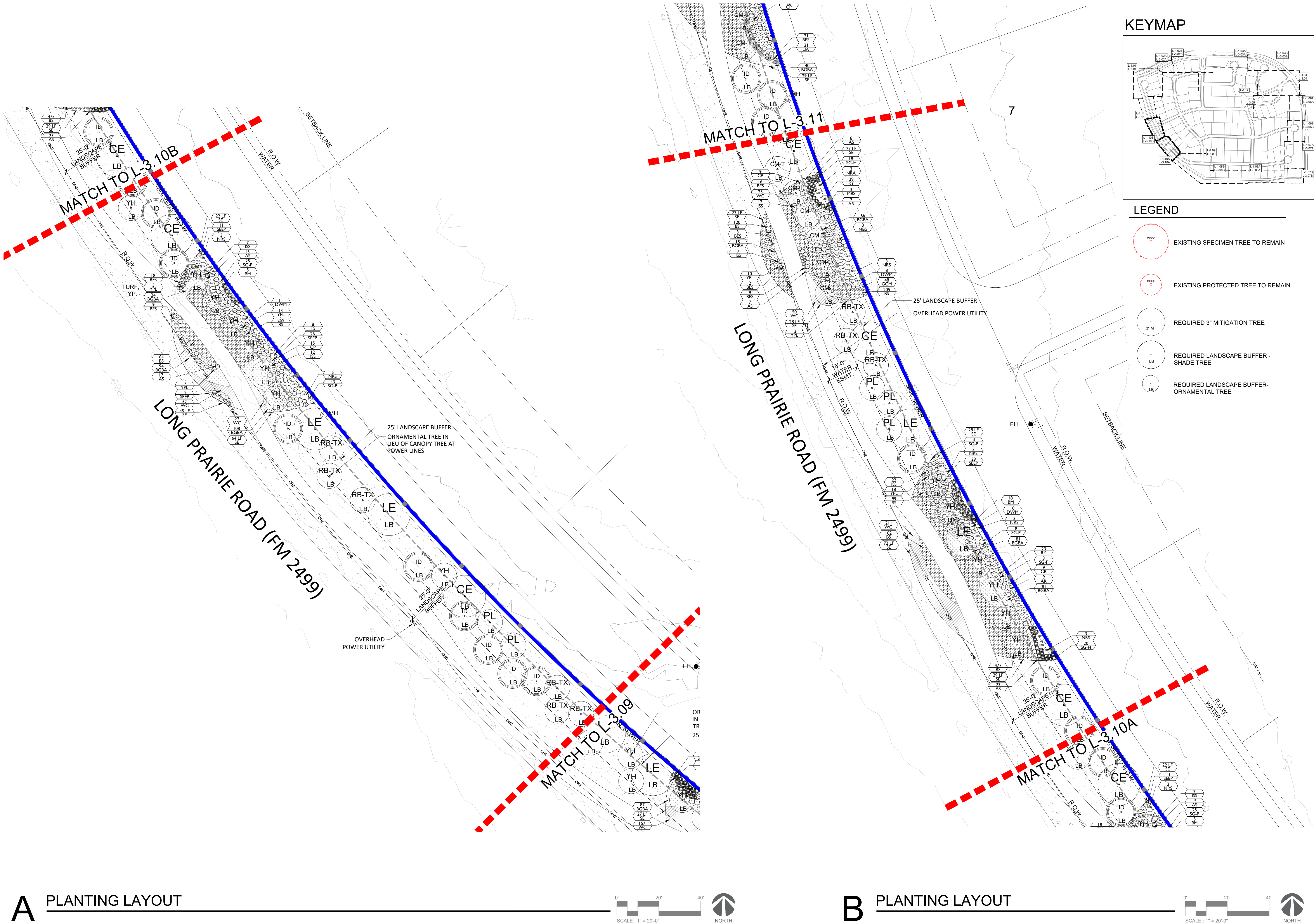
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01/24/2022	Development Plan Submittal Comment Response	
02/28/2022	Development Plan Submittal Comment Response	
03/22/2022	Development Plan Submittal Comment Response	

revisions	
△	

title
Planting Layout

project number 210001
date 03/22/2022
sheet

L-3.10



A PLANTING LAYOUT

B PLANTING LAYOUT

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OAKBRIDGE CROSSING

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issue

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Submittal Comm
Response02/28/2022 Development Plan
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Response03/22/2022 Development Plan
Submittal Comm
Response

revisions

title

Planting Layout

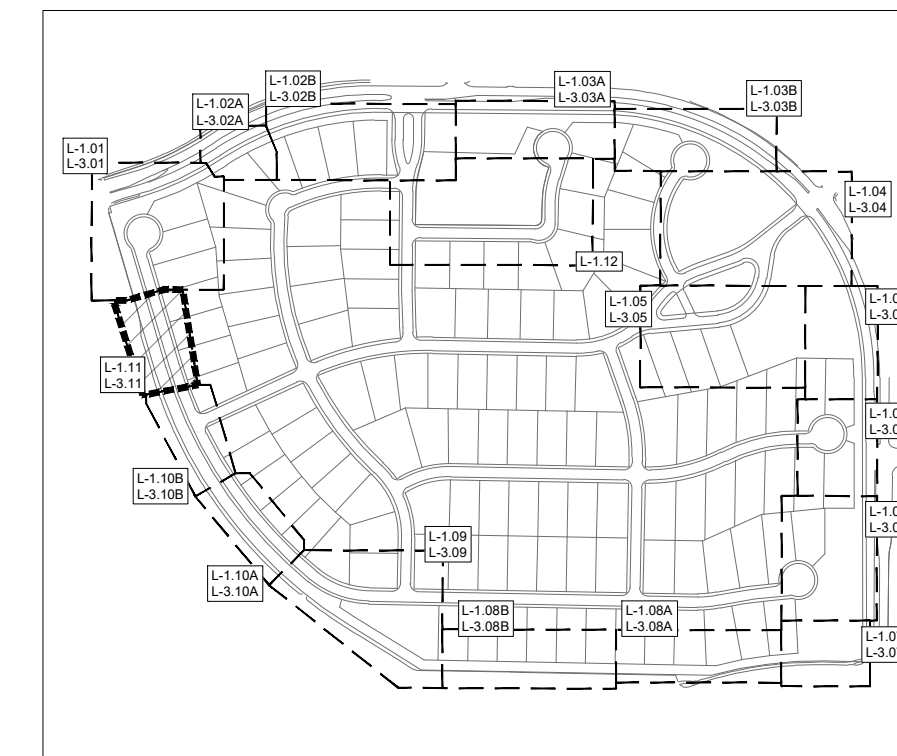
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date 03/22/2022

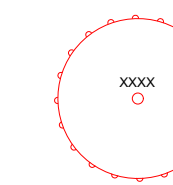
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L-3.11

KEYMAP



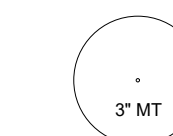
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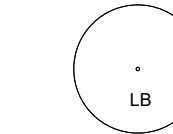
EXISTING SPECIMEN TREE TO REMAIN



EXISTING PROTECTED TREE TO REMAIN



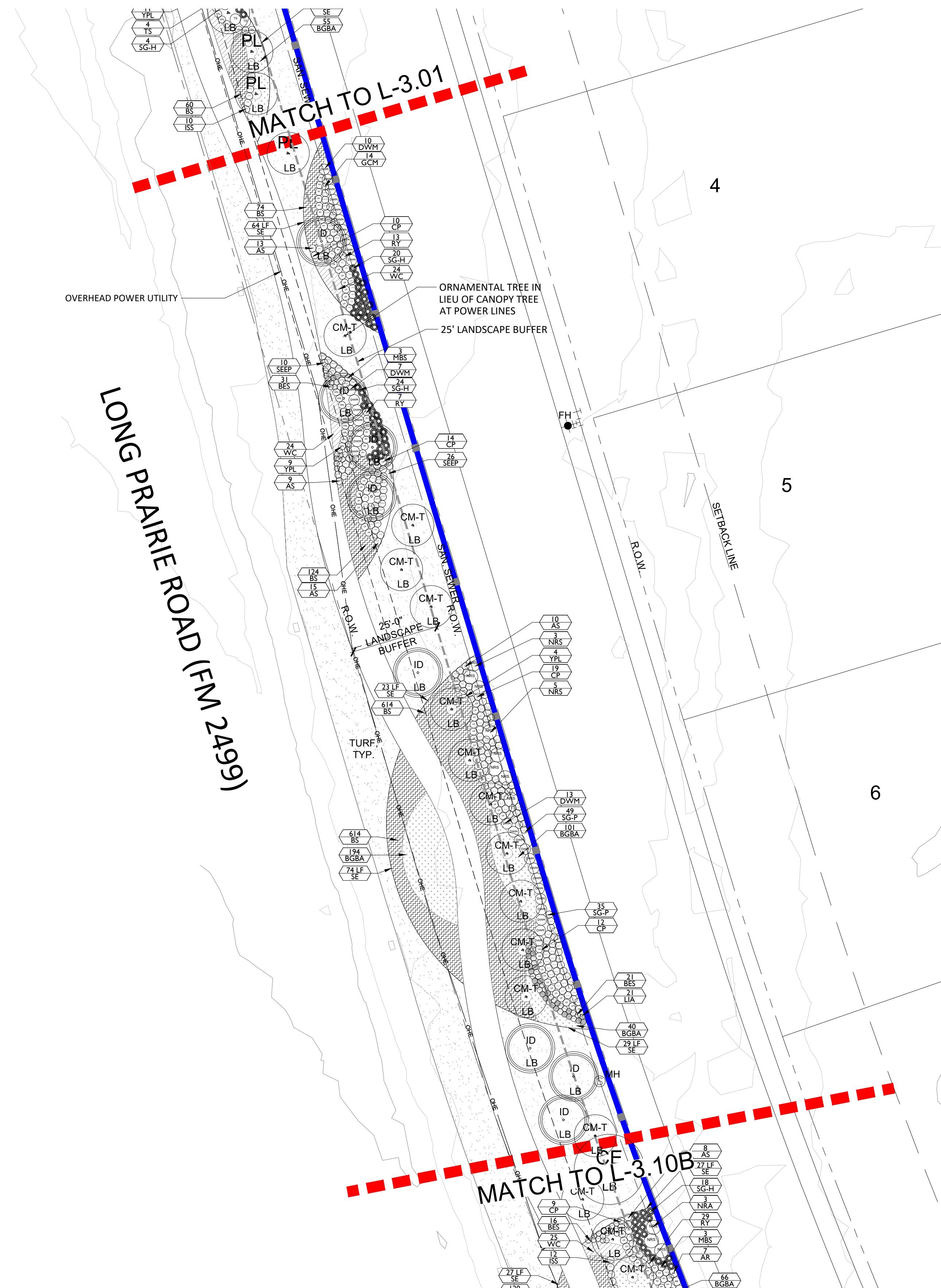
REQUIRED 3" MITIGATION TREE



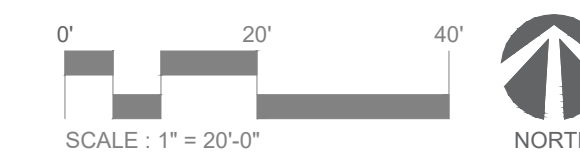
REQUIRED LANDSCAPE BUFFER
SHADE TREE



REQUIRED LANDSCAPE BUFFER-
ORNAMENTAL TREE



MATCH TO L-3.10B



PLANTING SCHEDULE

MITIGATION SUMMARY						
Required Mitigation Trees	Required Trees (inches)	Provided Trees	Provided Trees (inches)	Provided Trees	Excess / (Shortage)	Escrow Fee
109 - 3" Caliper Trees	327 inches	101 - 3" Caliper Trees	303 inches	101 - 3" Caliper Trees	(8 - 3" Caliper Trees 24 inches)	\$3,000

NOTE: Due to the preliminary nature of these drawings, trees provided for mitigation of removed trees is subject to change.

LANDSCAPE TABULATION CHART			
Street Buffer Landscape			
Street	Required	Provided	
Long Prairie Road	25' Buffer	25' Buffer	
Aberdeen Drive	25' Buffer	25' Buffer	
Spinks Road	25' Buffer	25' Buffer	
Street Buffer Trees			
Street	Standard	Required	Provided
Long Prairie Road - 1,688 LF	1 per 30 LF	57 Trees	20 Shade Trees 111 Ornamental Trees (in lieu of 37 Shade Trees at Overhead Utilities)
Aberdeen Drive - 2,688 LF	1 per 30 LF	90 Trees	62 Shade Trees 28 Preserved Protected Trees Tree #'s 1924, 1925, 2494, 2479, 2489, 2490, 2491, 2441, 2436, 2435, 2434, 2433, 2431, 2417, 2411, 2410, 2393, 2390, 2391, 2394, 2308, 2307, 2306, 2305, 2304, 2303
Spinks Road - 417 LF	1 per 30 LF	14 Trees	14 Shade Trees

	QTY	Name	CONT	Caliper (min.)	Height (min.)	Spread (min.)	Spacing	Comments	Mitigation Quantity	Landscape Buffer Quantity
SHADE TREES										
PEC	10	Carya illinoensis/ Native Pecan		3"				Full & Matched, Straight Central Leader	8	2
SYC	10	Platanus x acerifolia 'Morton Circle'/ Sycamore 'Exclamation Planetree'		3"					0	0
CAN	6	Quercus canbyi/ Canby Oak		3"					6	0
BO	11	Quercus marcoparpa / Bur Oak		3"					11	0
CO	16	Quercus muehlenbergii/ Chinquapin Oak		3"					0	16
WO	7	Quercus nigra / Water Oak		3"					7	0
MO	8	Quercus polymorpha/ Monterrey Oak		3"					8	0
SH	10	Quercus shumardi / Shumard Oak		3"					10	0
TRO	18	Quercus texana / Texas Red Oak		3"					11	7
LO	11	Quercus virginiana/ Live Oak		3"					0	11
BC	39	Taxodium distichum / Bald Cypress		3"					21	18
CE	36	Ulmus crassifolia / Cedar Elm		3"					19	17
LE	25	Ulmus paviolia / Lacebark Elm		3"					0	25
TOTAL:	207								101	96
ORNAMENTAL TREES										
RB-TX	27	Cercis canadensis var. texensis 'Oklahoma'/ Texas Redbud 'Oklahoma'	45 gal		8'	5'-6'		MULTI, 5 CANES MIN. .5" CAL MIN. PER CANE	-	16
EH	27	Ilex x attenuata 'Eagleston'/ Eagleston Holly	45 gal	3"	9'	5'		full to ground, full, matched	-	0
ID	25	Ilex decidua / Possum Haw	45 gal						-	24
YH	39	Ilex vomitoria / Yaupon Holly	45 gal						-	28
JE	19	Juniperus virginiana/ Eastern Red Cedar		3"				Full & Matched, Straight Central Leader		0
CM-T	24	Lagerstroemia fauriei 'Tuscarora' / Tuscarora Crape Myrtle	45 gal	see comments	10'	6'-7'		Multi-trunk, 3-5 canes min., 1.75"-2" cal. Ea, cane min., Matched	-	24
CM-M	9	Lagerstroemia fauriei 'Muskogee' / Muskogee Crape Myrtle	45 gal	see comments	10'	6'-7'		Multi-trunk, 3-5 canes min., 1.75"-2" cal. Ea, cane min., Matched	-	8
PL	21	Prunus mexicana / Mexican Plum	45 gal						-	14
TOTAL:	191								0	114
SHRUBS										
AR	57	Abelia x 'Rose Creek'/ Rose Creek Abelia	3		20"	20"	30"			
CP	182	Berberis thunbergii 'Crimson pygmy' / Crimson Pygmy Barberry	3		12"-14"	12"-14"	18"			
CB	227	Ilex x 'Cherry Bomb'/ Cherry Bomb Holly	3		16"-18"	18"	30"			
DWM	212	Myrica pusilla / Dwarf Southern Wax Myrtle	3		15"-18"	14"-16"	30"			
NRS	96	Illex x 'Nellie R. Stevens Holly' / Nellie R. Stevens Holly	30		6'-7"	3'-4"	48"	full to ground, full, matched		
RY	155	Hesperaloe parviflora / Red Yucca	3		20"-24"	20"-24"	30"			
TS	12	Leucophyllum frutescens 'Green Cloud' / Green Cloud Texas Sage	3		20"-24"	20"-24"	36"			
YPL	519	Yucca pallida / Pale Leaf Yucca	3		14"-16"	14"-16"	24"			
GRASSES										
BGBA	7,619	Bouteloua gracilis 'Blonde Ambition' / Blonde Ambition Blue Grama Grass	1		14"	12"	18"			
BM	57	Muhlenbergia lindheimeri / Bigh Muhly	1		16"	12"	30"			
GCM	1,883	Muhlenbergia capillaris / Gulf Coast Muhly	1		18"	12"	24"			
SEEP	1,203	Muhlenbergia reverchonii/ Seep Muhly	1		12"	12"	24"			
SG-H	303	Panicum virgatum 'Heavy Metal' / Heavy Metal Blue Switchgrass	1		14"-16"	14"-16"	24"			
SG-P	253	Panicum virgatum 'Prairie Skies'/ Prairie Skies Switchgrass	1		14"-16"	14"-16"	24"			
PERENNIALS										
AS	420	Salvia greggii 'Red' / Autumn Sage Red	1		16"	12"	18"			
BES	231	Rudbeckia fulgida var. fulgida/ Black Eyed Susan	1		16"	12"	18"			
GAU	22	Guara lindheimeri 'Belleza Dark Pink' Belleza Dark Pink Guara	1		10"	10"	18"			
ISS	418	Salvia x 'Indigo Spires'/ Indigo Spires Salvia	1		10"	10"	24"			
LIA	27	Liatris Spicata / Gayfeather	1				18"			
MBS	9	Salvia leucantha / Mexican Bush Sage	3		14"	20"	24"			
GROUNDCOVERS										
BS	20,408	Carex divulsa / Berkley Sedge	1				15"			
SC	830	Seasonal Color	4"				12"			
WC	3,692	Euonymus fortunei 'Colorata' / Purple-leaf Wintercreeper	1				18"			
SOD/SEED										
	299,061	Cynodon dactylon 'Tif 419' / Tif 419 Bermuda Grass	Sod		N/A	N/A				
MISC.										
SE	4,301	Steel Edge								
	44	Landscape Boulders								
MULCH	1,127 SF									
Notes										
1. NO MORE THAN 20% OF THE SAME SPECIES OF SHADE TREES MAY BE USED ON THIS PROJECT										
2. IF THERE ARE ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE PLANT LIST, THE DRAWINGS TAKE PRECEDENCE. CONTRACTOR TO VERIFY ALL QUANTITIES										

NOTE: All landscape buffer trees, and mitigation trees to be selected from the approved Town of Flower Mound tree list.

All proposed landscape areas to be fully irrigated



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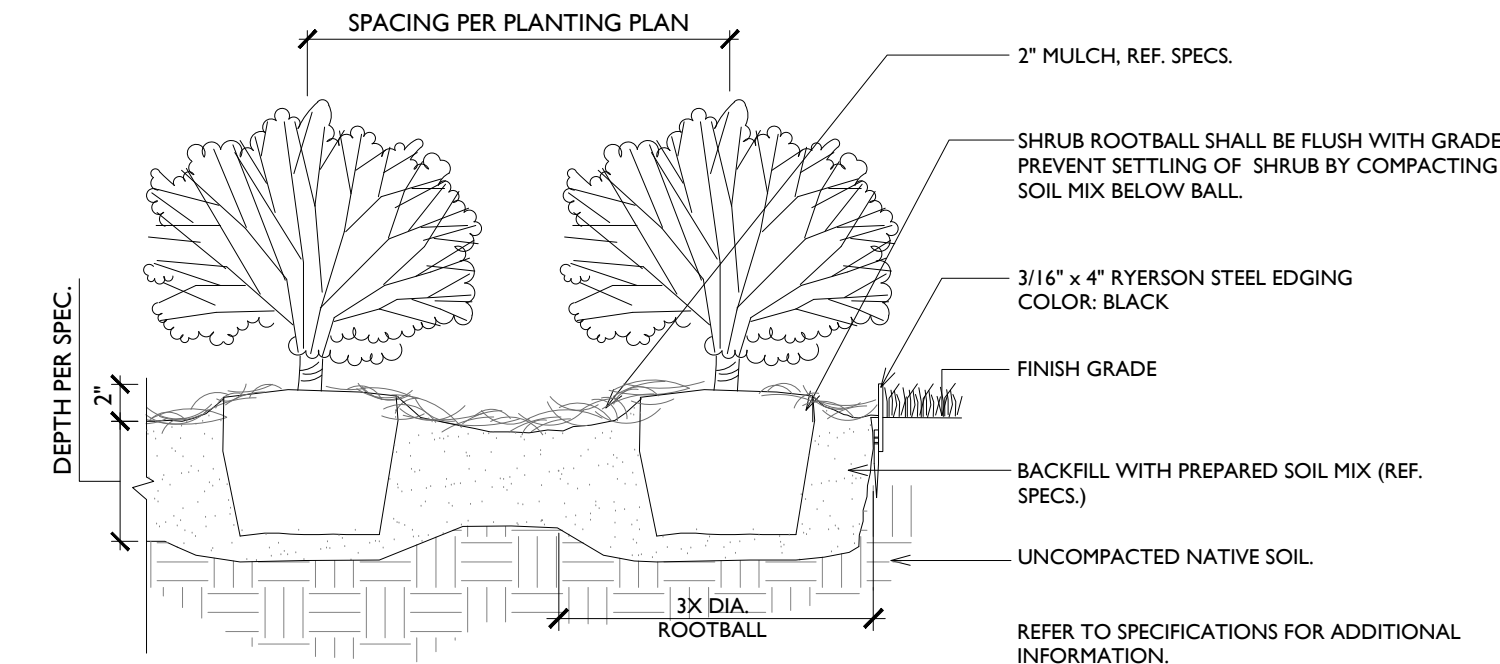
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Planting Details
Schedule and Notes

project number 210001

date 03/22/2022

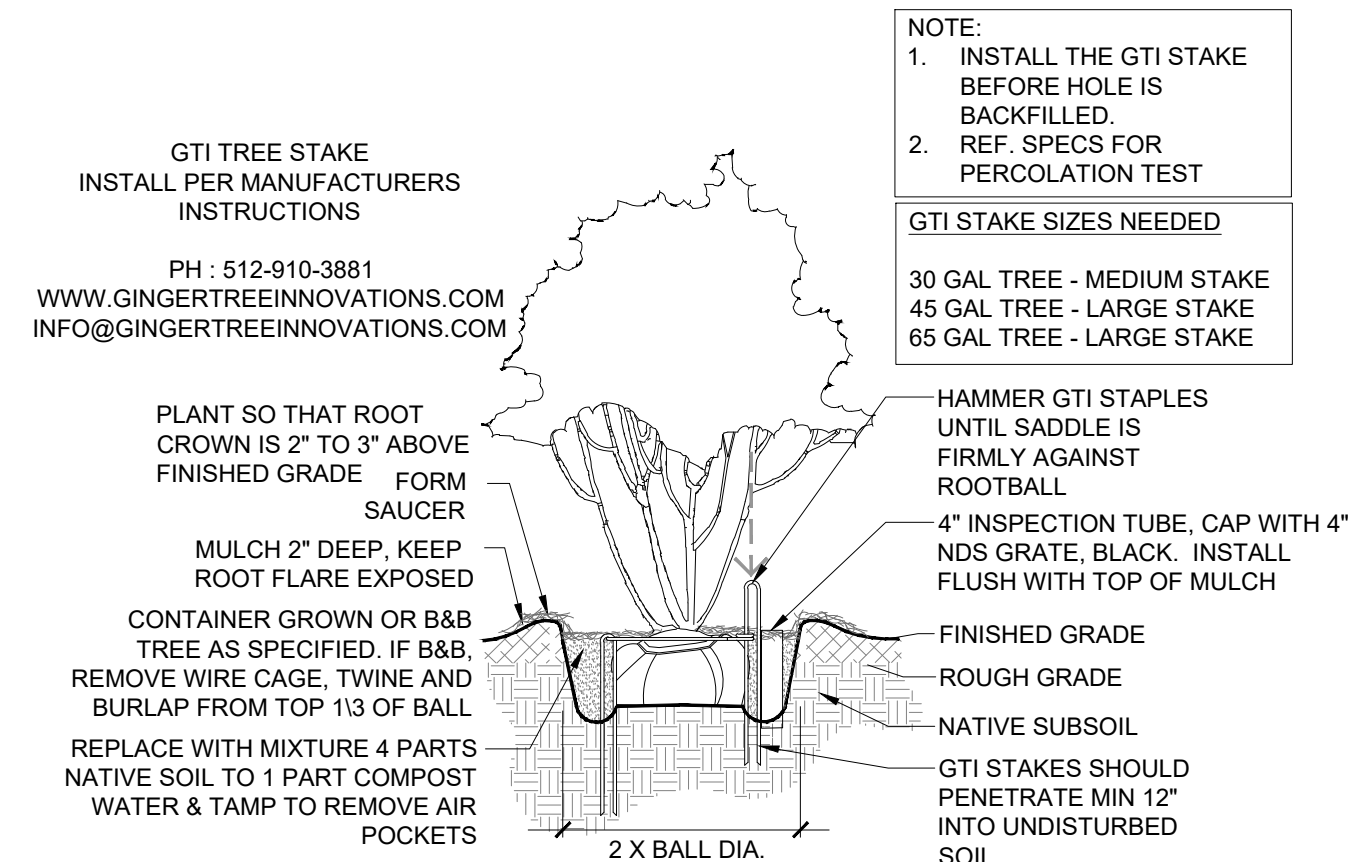
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04

SHRUB & PERENNIAL BED PLANTING

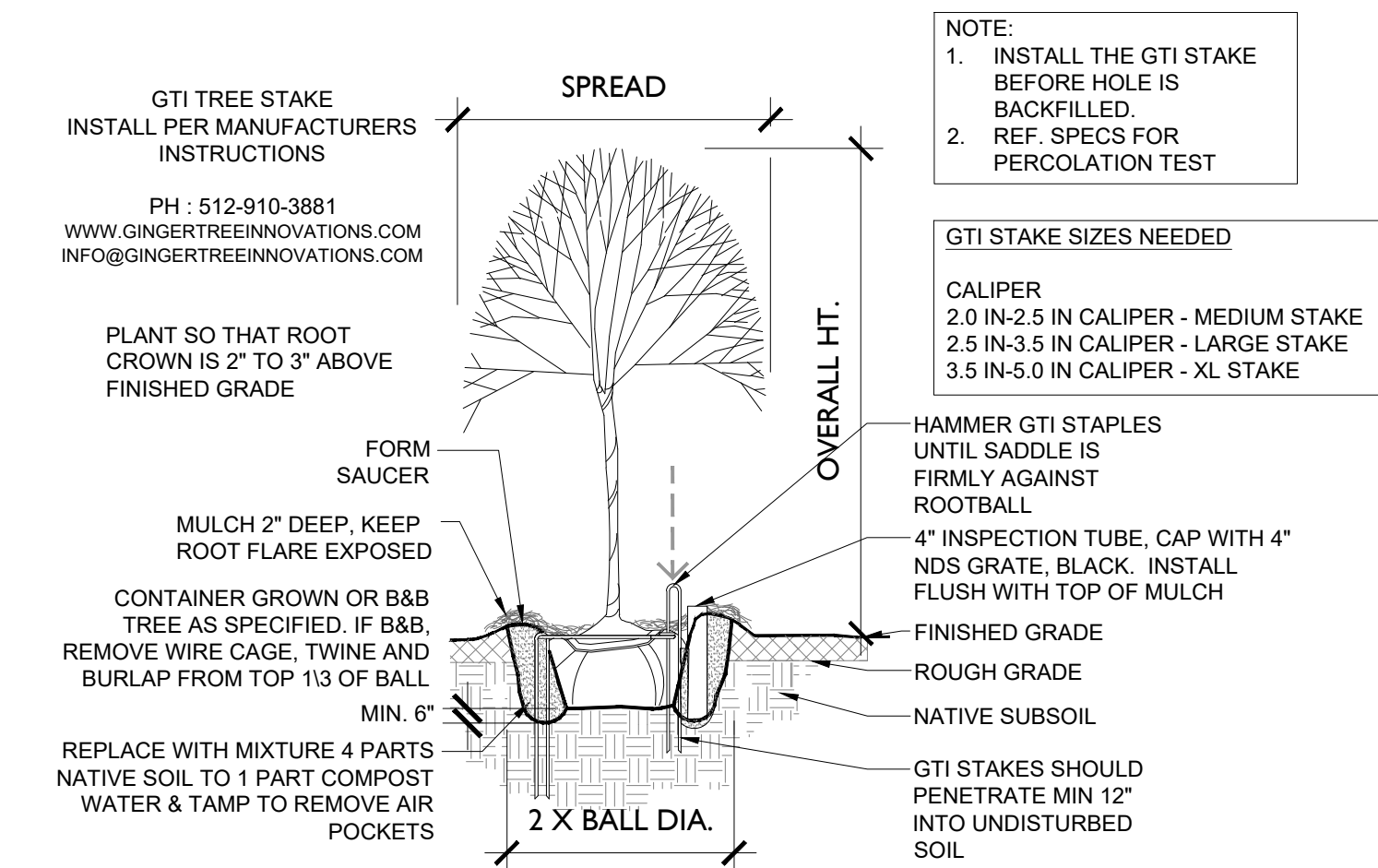
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03

ORNAMENTAL TREE PLANTING

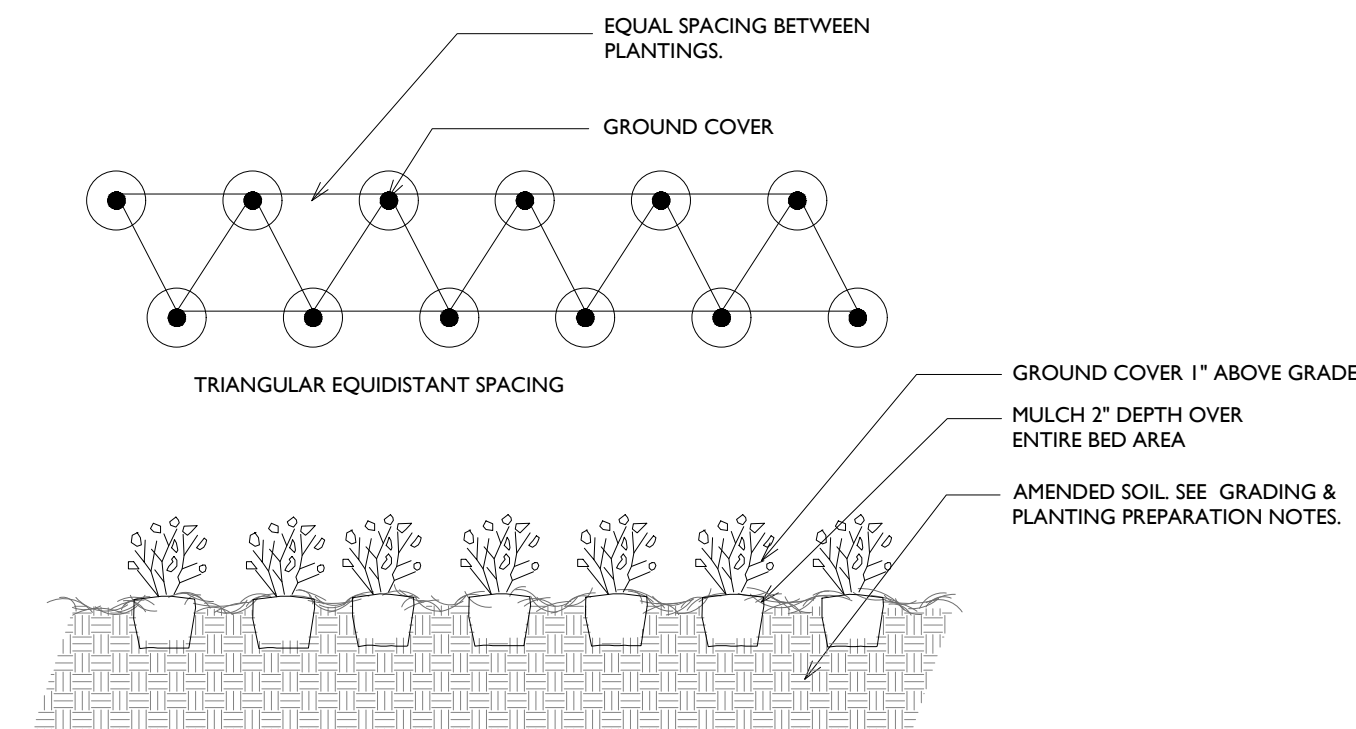
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02

CANOPY TREE PLANTING

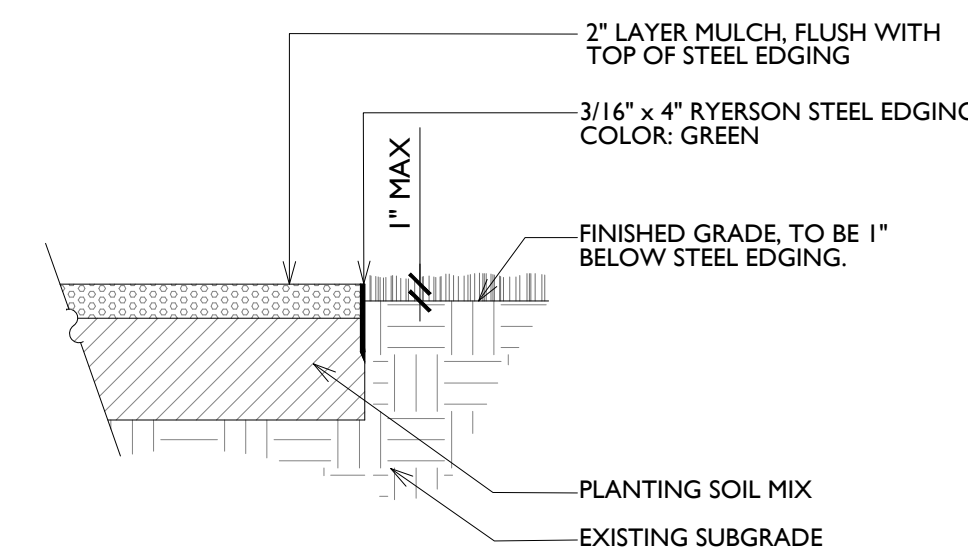
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05

GROUND COVER PLANTING

N.T.S.

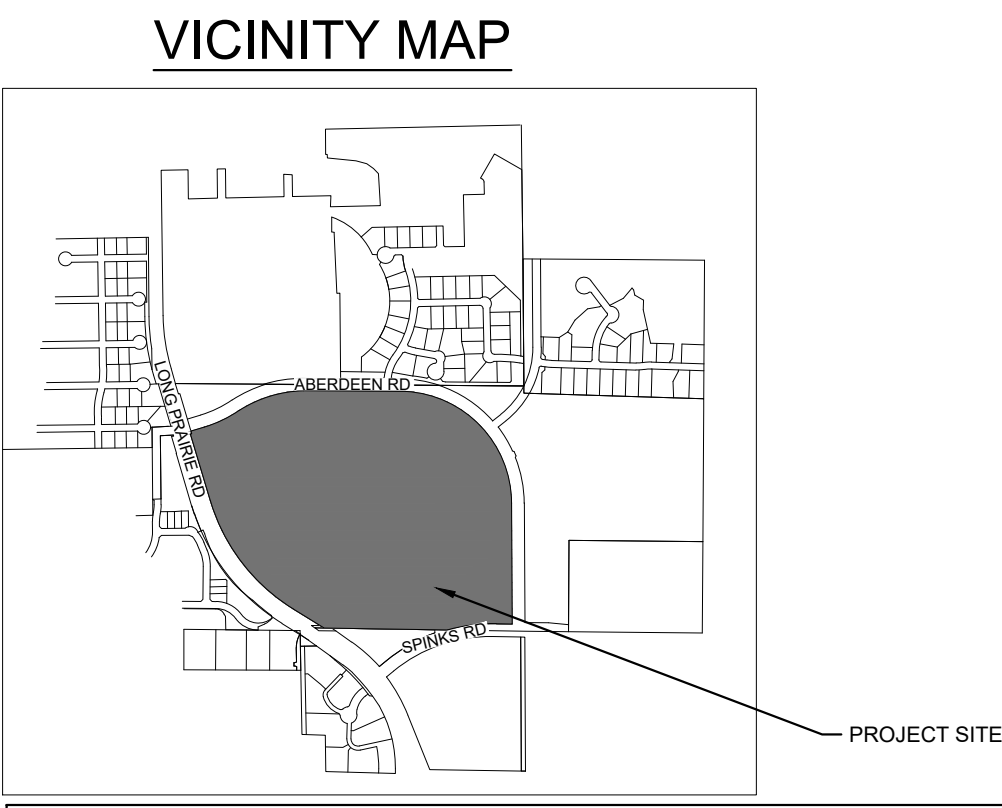
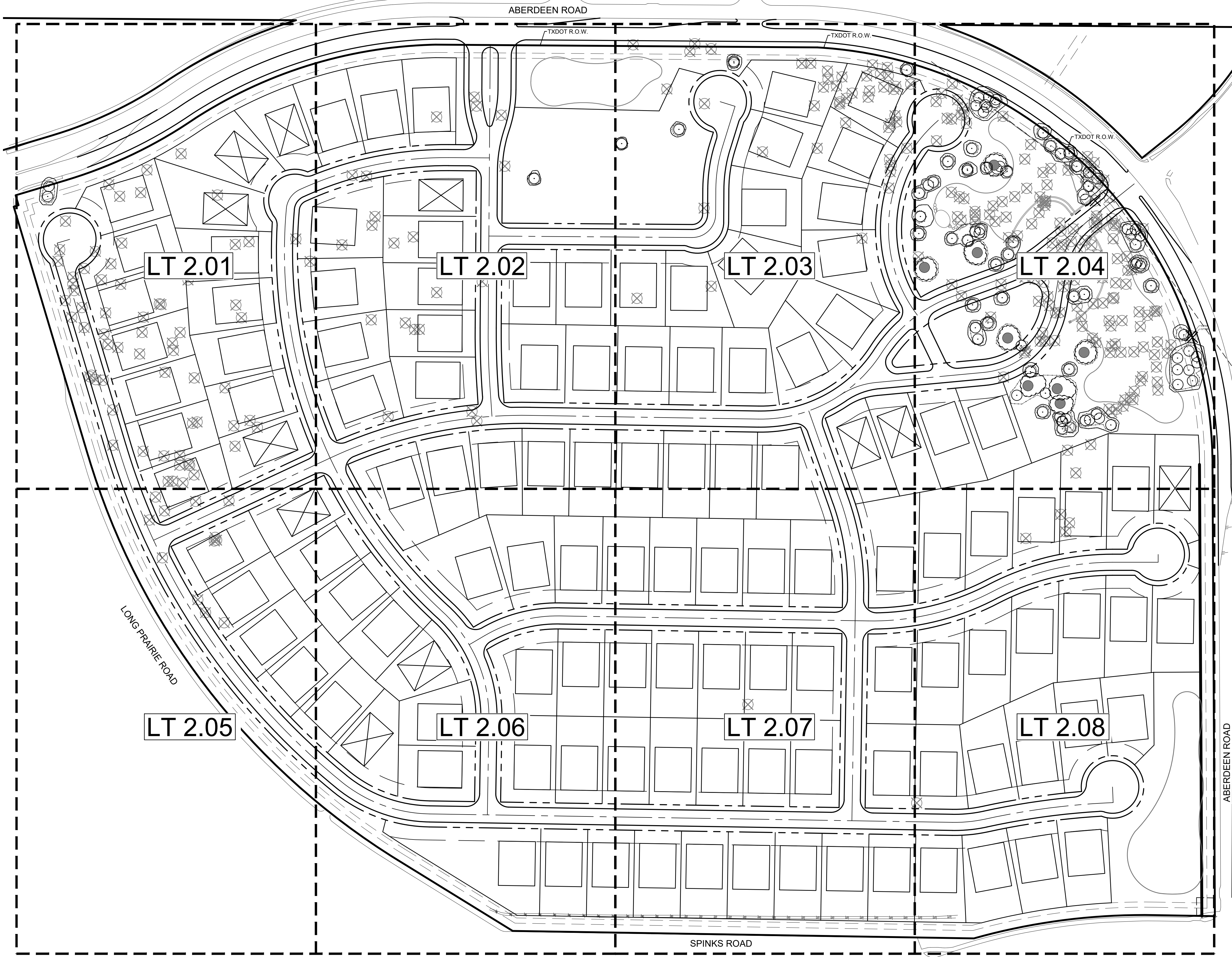


01

STEEL EDGE

N.T.S.

PLOTTED BY: KIMLEY-HORN, 3/21/2022 2:54 PM
DRAWN BY: KIMLEY-HORN, 3/21/2022 2:54 PM
LAST SAVED: 3/21/2022 2:54 PM
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TREE MITIGATION			
Total number of Specimen Trees:			8
Total number of Specimen Trees to Remain:			8
Tree Credits available for Specimen Trees to Remain:			46
Total number of Protected Trees:			377
Total number of Protected Trees to Remain:			92
Total number of Protected Trees to Remove:			285
Mitigation owed for protected trees to be removed:			282
Credits for protected trees to remain in the B.A. (less P.O.):			37
Credits for protected post oak trees to remain in the B.A.:			90
Total mitigation owed (3" cal. mitigation trees):			109
3" cal. Mitigation Trees to be Planted Onsite (See Sheet L-4.02):			67
Remaining Cash in lieu value (\$375/mitigation tree):			\$15,750

LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED

TREES 6-INCHES AND GREATER AT THE HEIGHT SPECIFIED IN THE TOWN OF FLOWER MOUND ORDINANCE WERE TAGGED.

NOTE:
ALL TREES SHOWN TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. NO VEHICULAR PARKING, STORAGE OF MATERIALS OR EQUIPMENT, CLEARING OF EQUIPMENT, EQUIPMENT WASH OUT OR ANY OTHER ACTION WHICH MAY CAUSE AN ADVERSE AFFECT ON EXISTING OR FUTURE PLANTING IS TO OCCUR IN OR AROUND TREES IN LANDSCAPE AREA WHICH MAY BE AFFECTED.

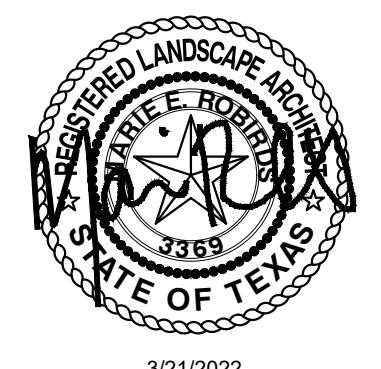
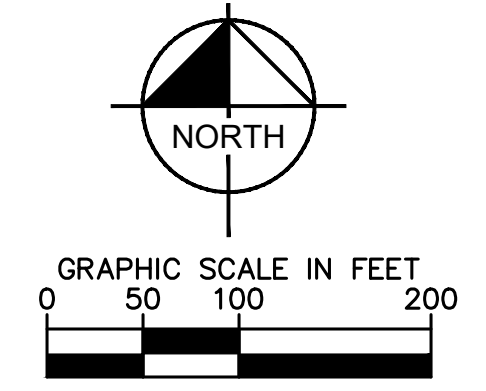
NOTE:
ALL DECLINING/HAZARDOUS TREES ARE TO BE REMOVED. CONTRACTOR TO REVIEW TREES WITH ARBORIST PRIOR TO REMOVAL.

NOTE:
ALL TREE CANOPY AREAS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION POSSIBLE AVAILABLE.

NOTE:
REMAINING CASH-IN-LIEU FOR TREE MITIGATION SHALL BE PAID AT, OR PRIOR TO, THE PRECONSTRUCTION MEETING.

NOTE:
NO WORK MAY BEGIN UNTIL THE REQUIRED TREE PROTECTION IS INSTALLED AND INSPECTED BY THE TOWN'S ENVIRONMENTAL SERVICES DEPARTMENT.

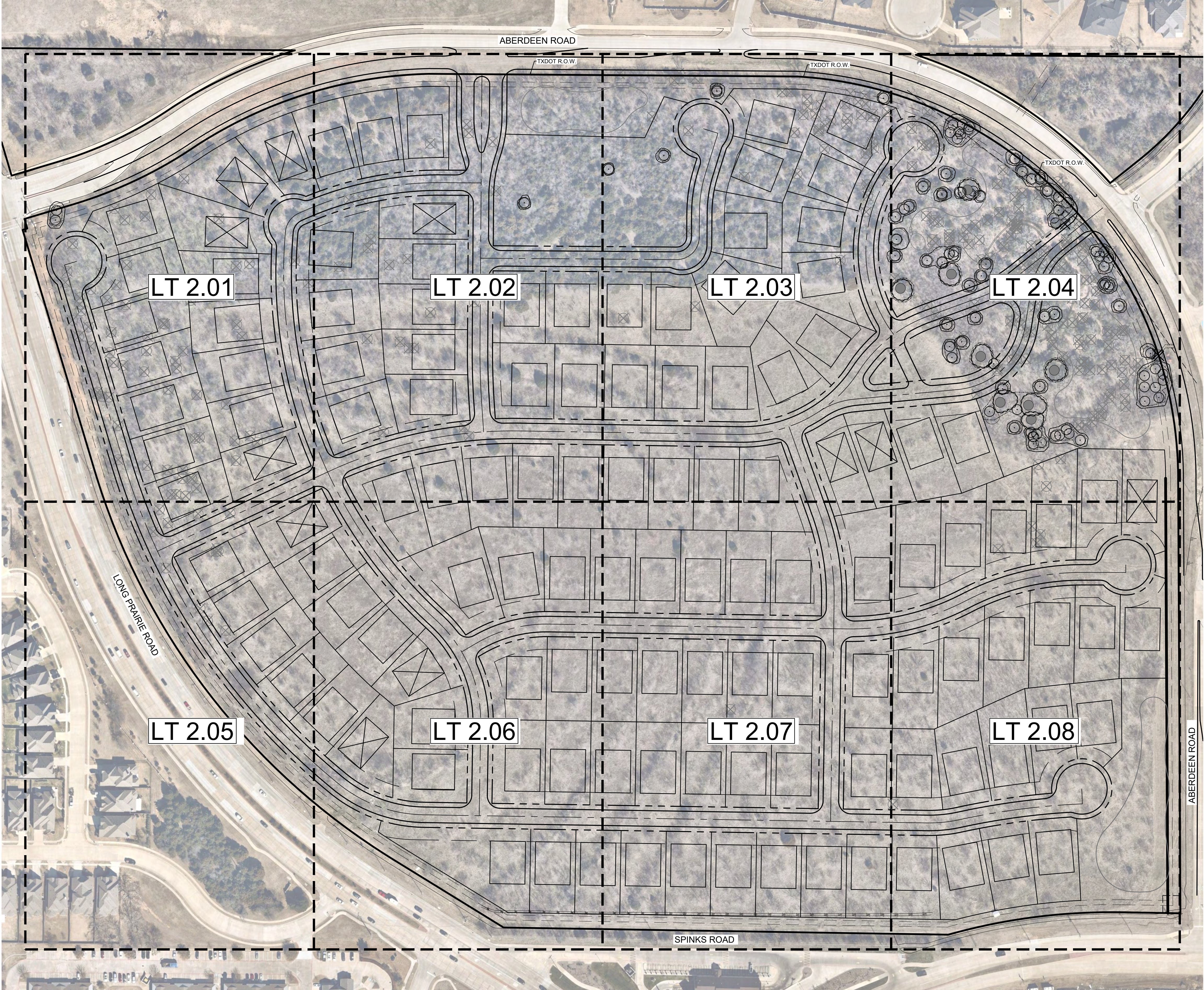
NOTE:
NO TREE PROTECTION FENCING SHALL BE PLACED WITHIN LIMITS OF POND EXCAVATION.



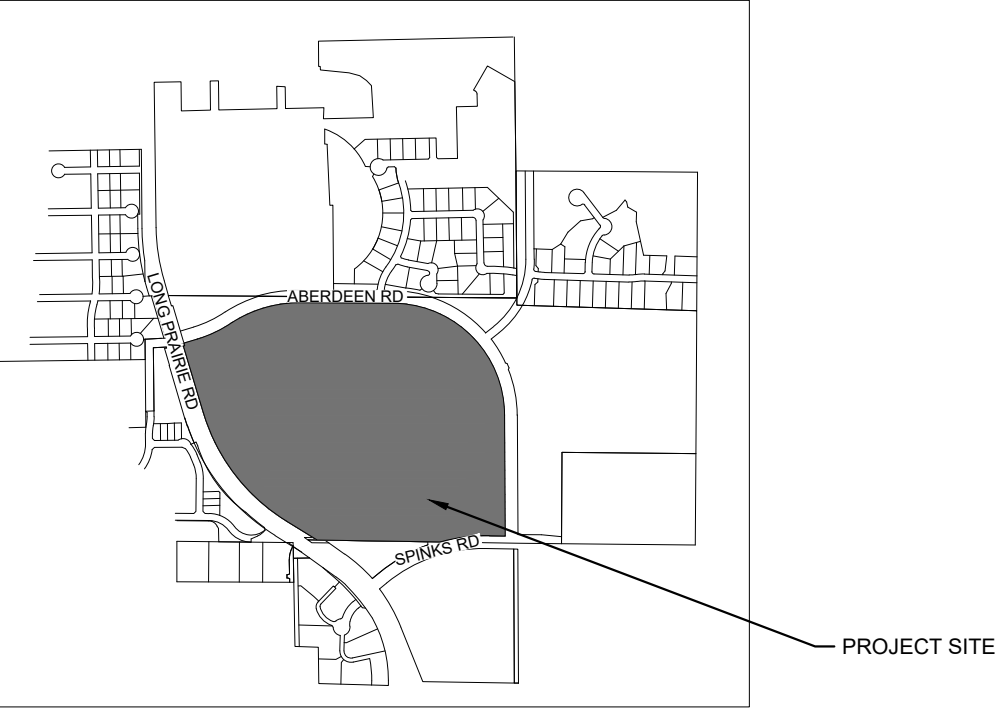
TREE SURVEY & TREE PRESERVATION PLAN FOR OAKBRIDGE CROSSING 132 RESIDENTIAL LOTS / 4 OPEN SPACES BEING 74.376 ACRES OUT OF THE JOHN WHITE SURVEY, ABSTRACT NO. 1341 IN THE TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS			
OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toll Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA	
DESIGNED MER	DRAWN MER	CHECKED MER	SCALE AS SHOWN
DATE 3/21/2022	KH PROJECT NO. PROJECT NUMBER		LT 1.01

PLOTTED BY: ROBERTS, MARIE 3/21/2022 4:56 PM
DRAWN NAME: KJPR CIVIL 06/25/2014 10:52 AM
LAST SAVED: 3/21/2022 2:28 PM

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VICINITY MAP



TREE MITIGATION

Total number of Specimen Trees:	8
Total number of Specimen Trees to Remain:	8
Tree Credits available for Specimen Trees to Remain:	46
Total number of Protected Trees:	377
Total number of Protected Trees to Remain:	92
Total number of Protected Trees to Remove:	285
Mitigation owed for protected trees to be removed:	282
Credits for protected trees to remain in the B.A. (less P.O.):	37
Credits for protected post oak trees to remain in the B.A.:	90
Total mitigation owed (3" cal. mitigation trees):	109
3" cal. Mitigation Trees to be Planted Onsite (See Sheet L-4.02):	67
Remaining Cash in lieu value (\$375/mitigation tree):	\$15,750

LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED

TREES 6-INCHES AND GREATER AT THE HEIGHT SPECIFIED IN THE TOWN OF FLOWER MOUND ORDINANCE WERE TAGGED.

NOTE:
ALL TREES SHOWN TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. NO VEHICULAR PARKING, STORAGE OF MATERIALS OR EQUIPMENT, CLEARING OF EQUIPMENT, EQUIPMENT WASH OUT OR ANY OTHER ACTION WHICH MAY CAUSE AN ADVERSE AFFECT ON EXISTING OR FUTURE PLANTING IS TO OCCUR IN OR AROUND TREES IN LANDSCAPE AREA WHICH MAY BE AFFECTED.

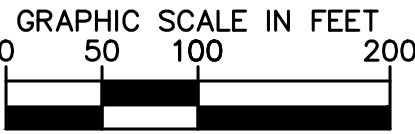
NOTE:
ALL DECLINING/HAZARDOUS TREES ARE TO BE REMOVED. CONTRACTOR TO REVIEW TREES WITH ARBORIST PRIOR TO REMOVAL.

NOTE:
ALL TREE CANOPY AREAS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION POSSIBLE AVAILABLE.

NOTE:
REMAINING CASH-IN-LIEU FOR TREE MITIGATION SHALL BE PAID AT, OR PRIOR TO, THE PRECONSTRUCTION MEETING.

NOTE:
NO WORK MAY BEGIN UNTIL THE REQUIRED TREE PROTECTION IS INSTALLED AND INSPECTED BY THE TOWN'S ENVIRONMENTAL SERVICES DEPARTMENT.

NOTE:
NO TREE PROTECTION FENCING SHALL BE PLACED WITHIN LIMITS OF POND EXCAVATION.



3/21/2022

TREE SURVEY & TREE PRESERVATION PLAN
FOR
OAKBRIDGE CROSSING

132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES

OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE

TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

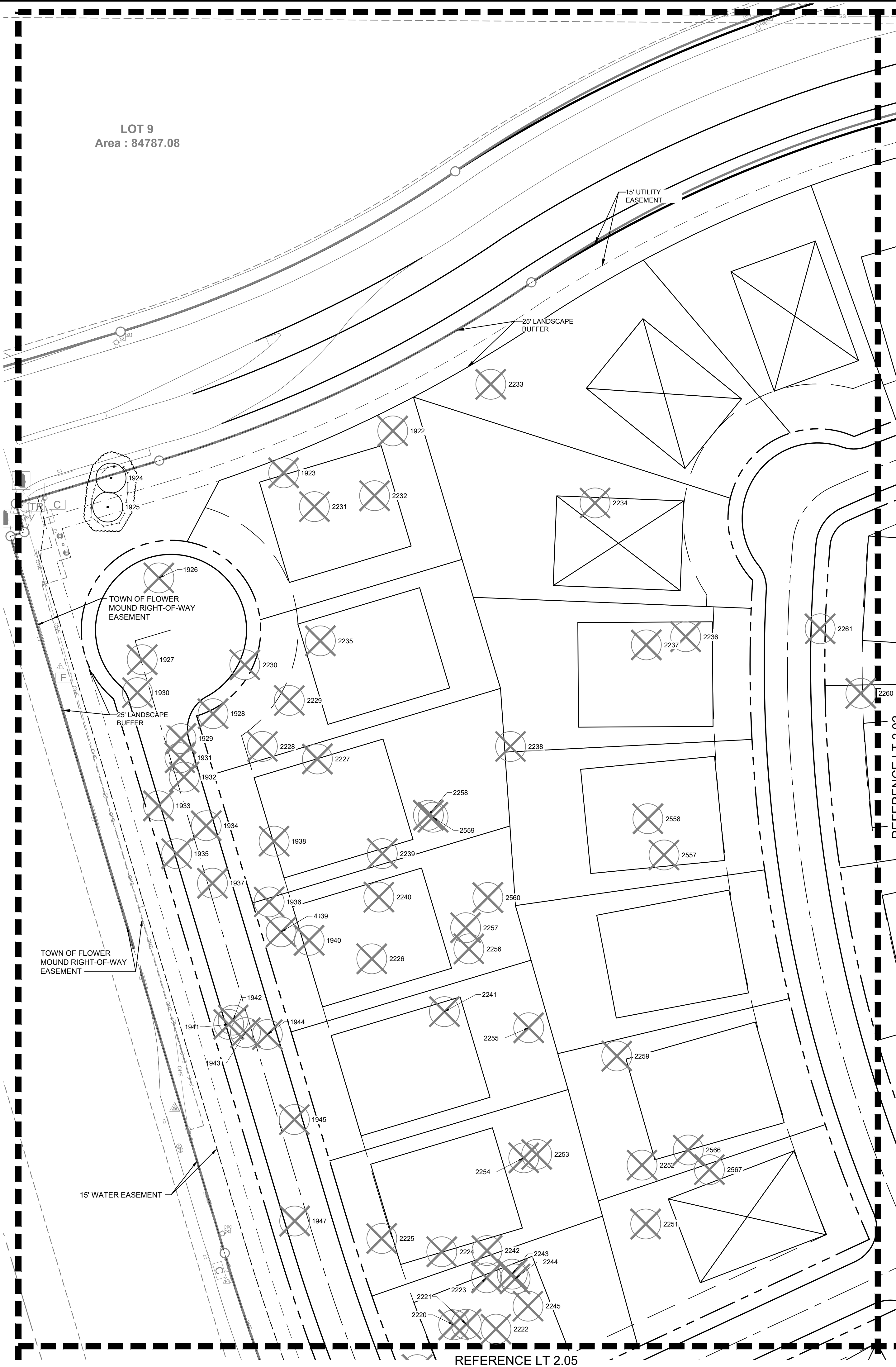
OWNER:
Lewisville Independent School
District
1665 W. Main Street
Lewisville, Texas 75067
Tel: (469) 713-5200

DEVELOPER:
Toil Brothers Inc.
2555 SW Grapevine Pkwy
Grapevine, TX 76051
Tel: (817) 329-7973
Contact: Mike Boswell

LANDSCAPE ARCHITECT:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Marie Robirds, PLA

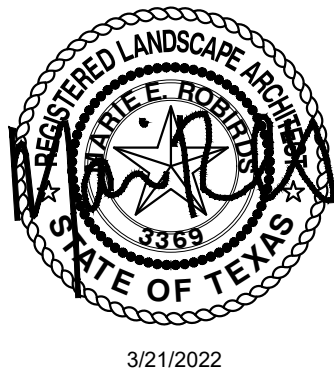
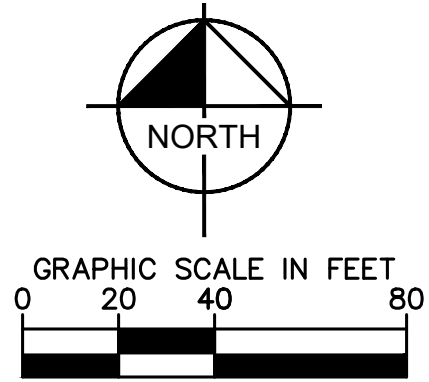
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	LT 1.02
MER	MER	MER	AS SHOWN	3/21/2022	PROJECT NUMBER	

PLOTTED BY: ROBERTS, MARIE 3/21/2022 2:47 PM
DRAWN BY: KJH
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LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



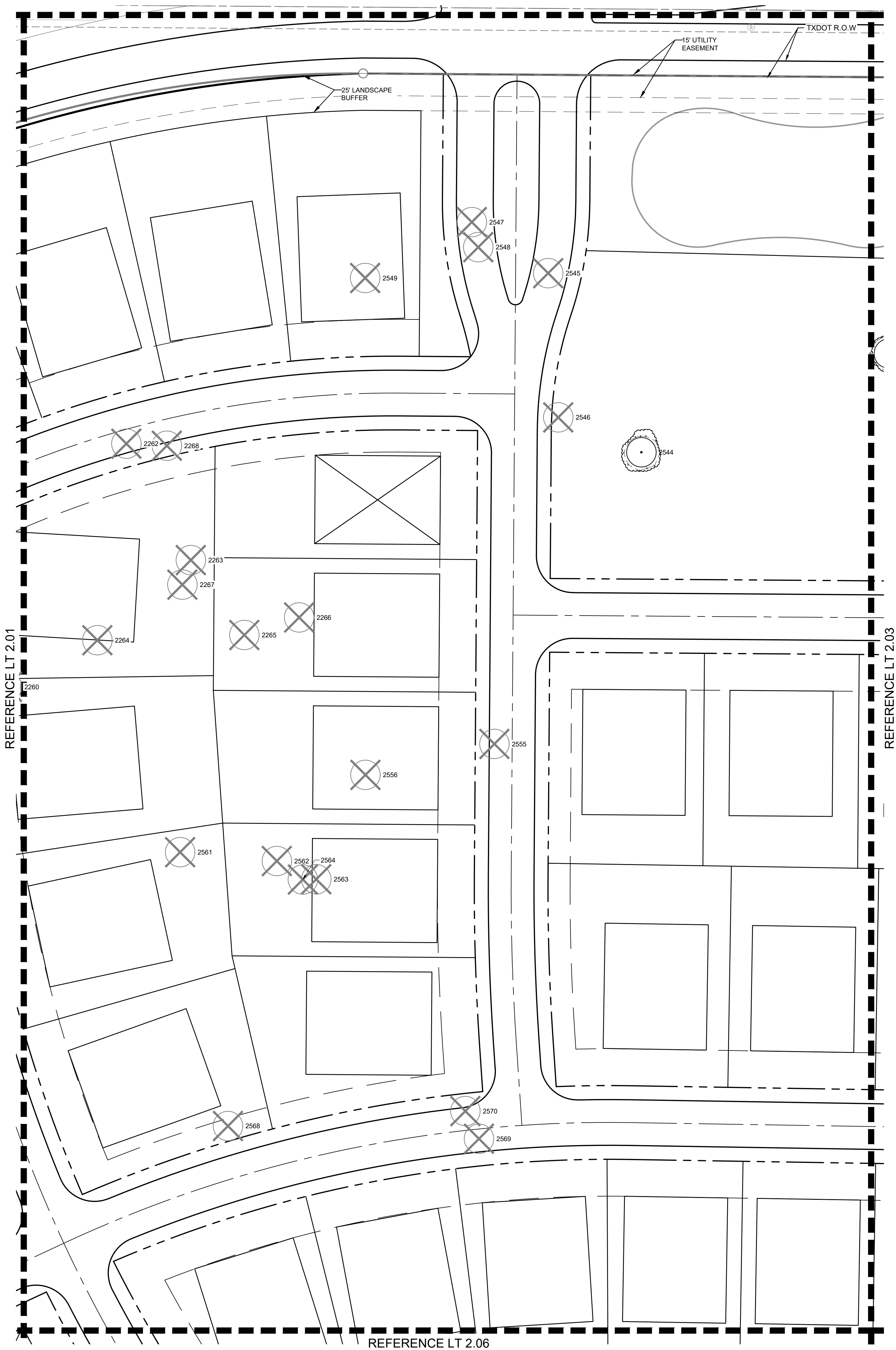
TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toil Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA
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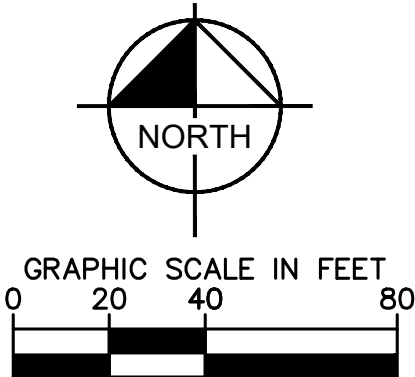
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LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



3/21/2022

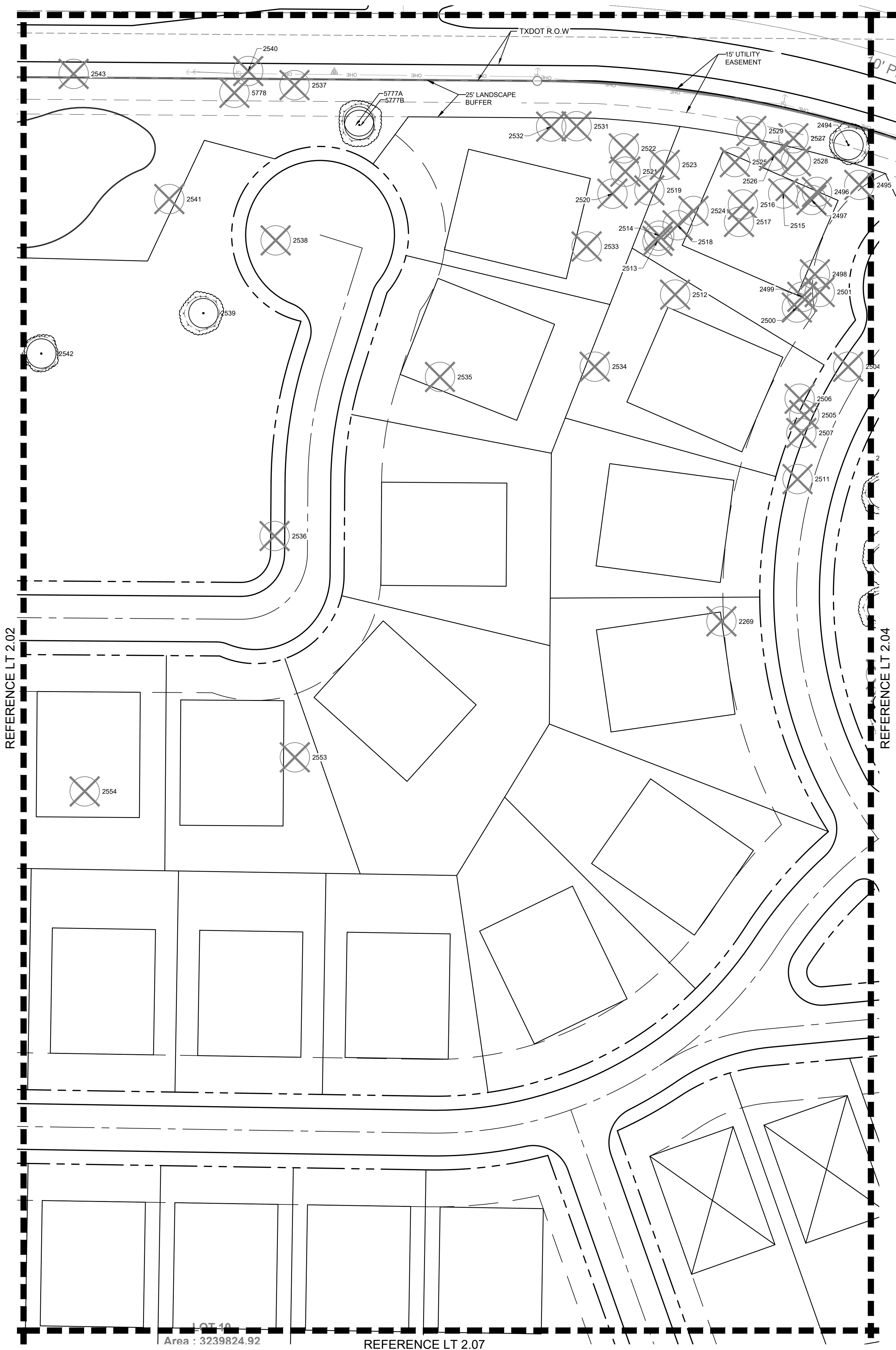
TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
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OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toil Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA
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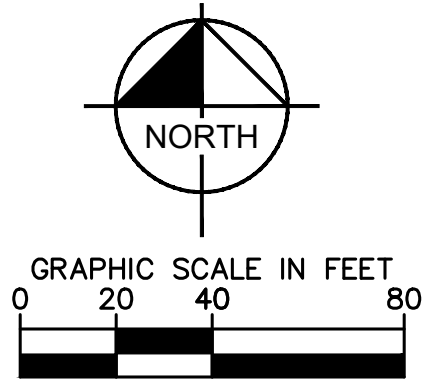
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LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

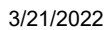
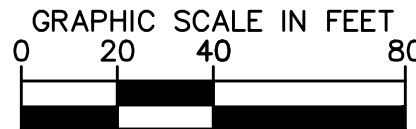
OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toil Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA
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NOTE:
BORE PITS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO PRESERVE/ PROTECT EXISTING TREES.



132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES

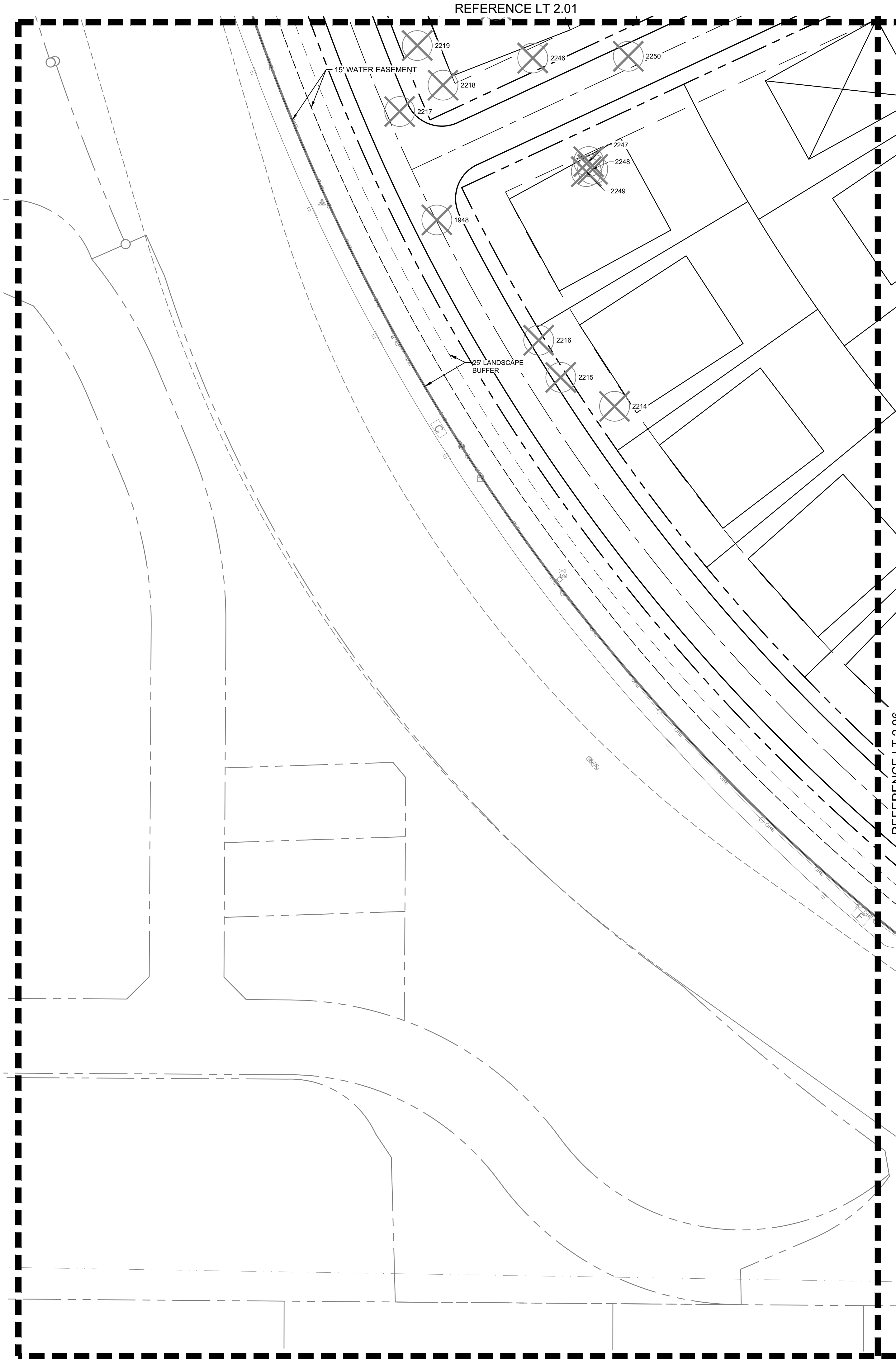
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

LANDSCAPE ARCHITECT:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Marie Robirds, PLA

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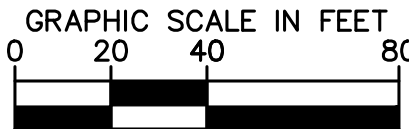
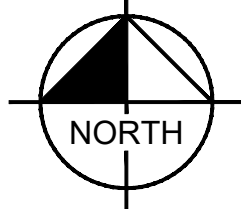
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LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



3/21/2022

TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER:
Lewisville Independent School
District
1665 W. Main Street
Lewisville, Texas 75067
Tel: (469) 713-5200

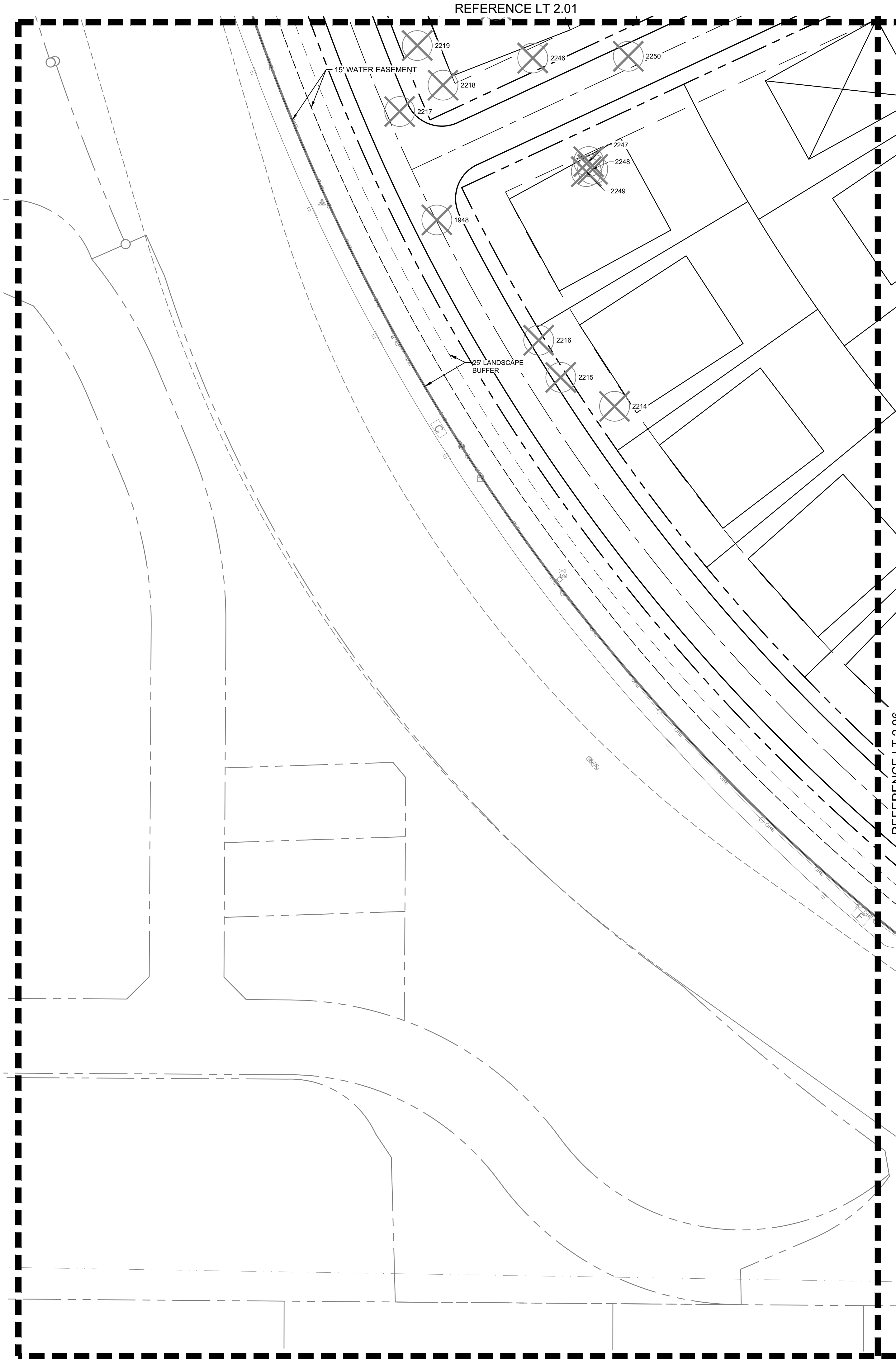
DEVELOPER:
Toil Brothers Inc.
2555 SW Grapevine Pkwy
Grapevine, TX 76051
Tel: (817) 329-7973
Contact: Mike Boswell

LANDSCAPE ARCHITECT:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Marie Robirds, PLA

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	LT 2.05
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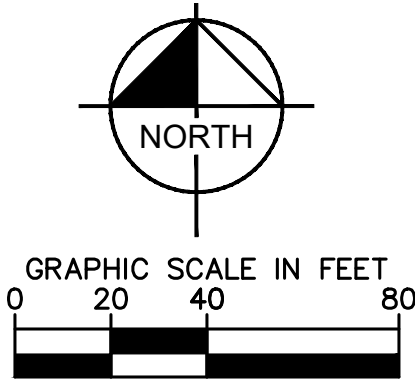
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LEGEND

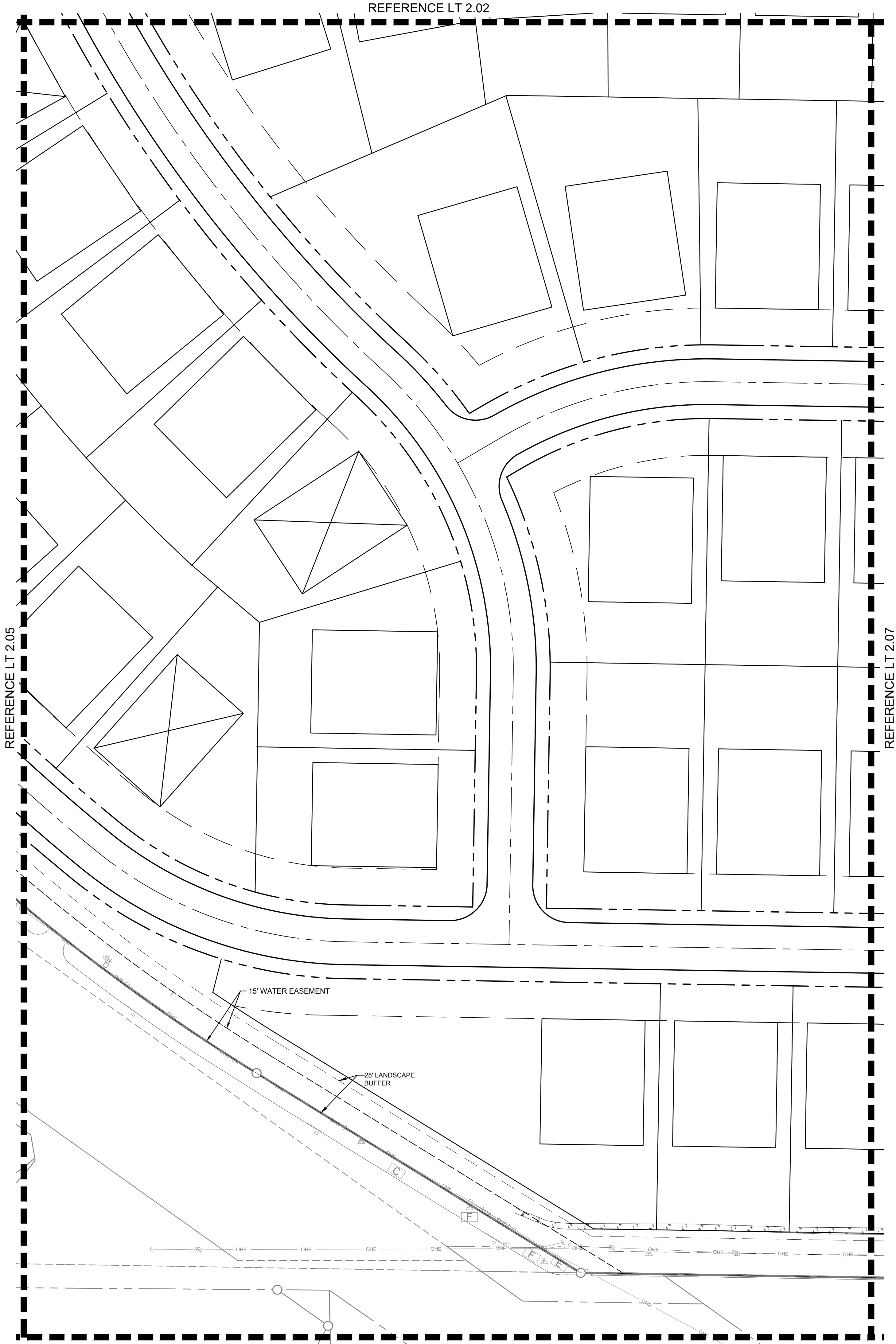
- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



TREE PRESERVATION ENLARGEMENT FOR OAKBRIDGE CROSSING 132 RESIDENTIAL LOTS / 4 OPEN SPACES BEING 74.376 ACRES OUT OF THE JOHN WHITE SURVEY, ABSTRACT NO. 1341 IN THE TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS						
OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200		DEVELOPER: Toil Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell		LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA		
DESIGNED MER	DRAWN MER	CHECKED MER	SCALE AS SHOWN	DATE 3/21/2022	KH PROJECT NO. PROJECT NUMBER	LT 2.05

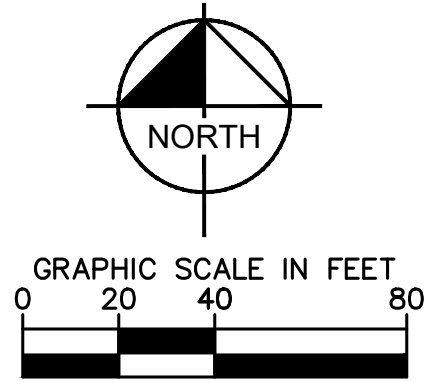
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LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



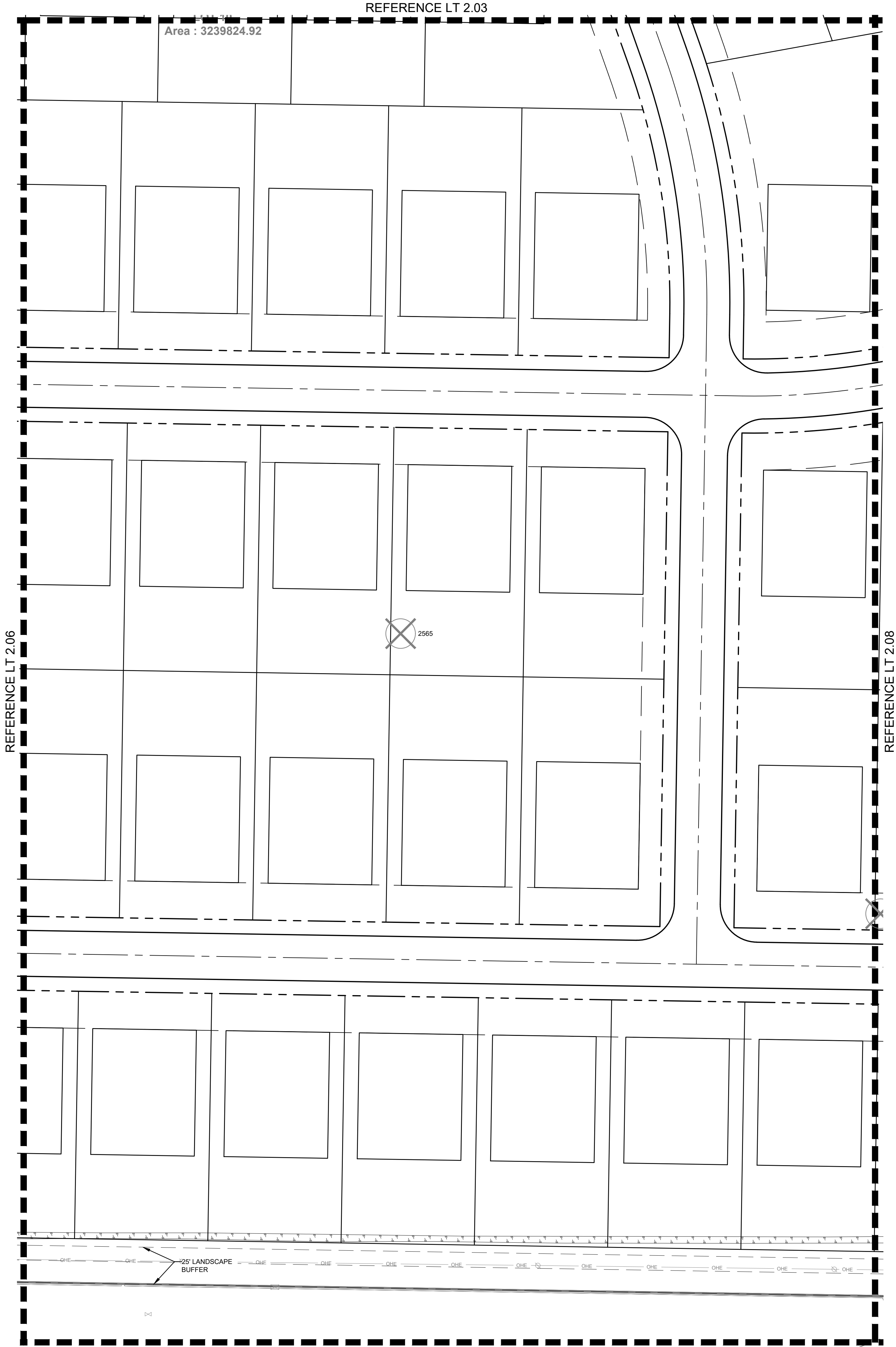
TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toll Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA
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DESIGNED MER	DRAWN MER	CHECKED MER	SCALE AS SHOWN	DATE 3/21/2022	KH PROJECT NO. PROJECT NUMBER	LT 2.06
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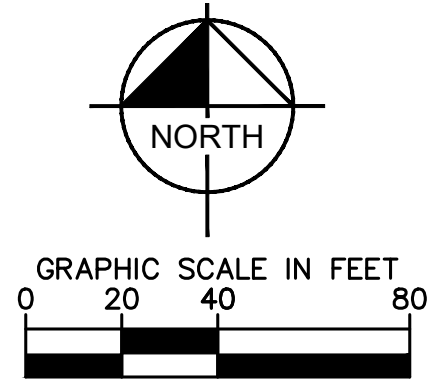
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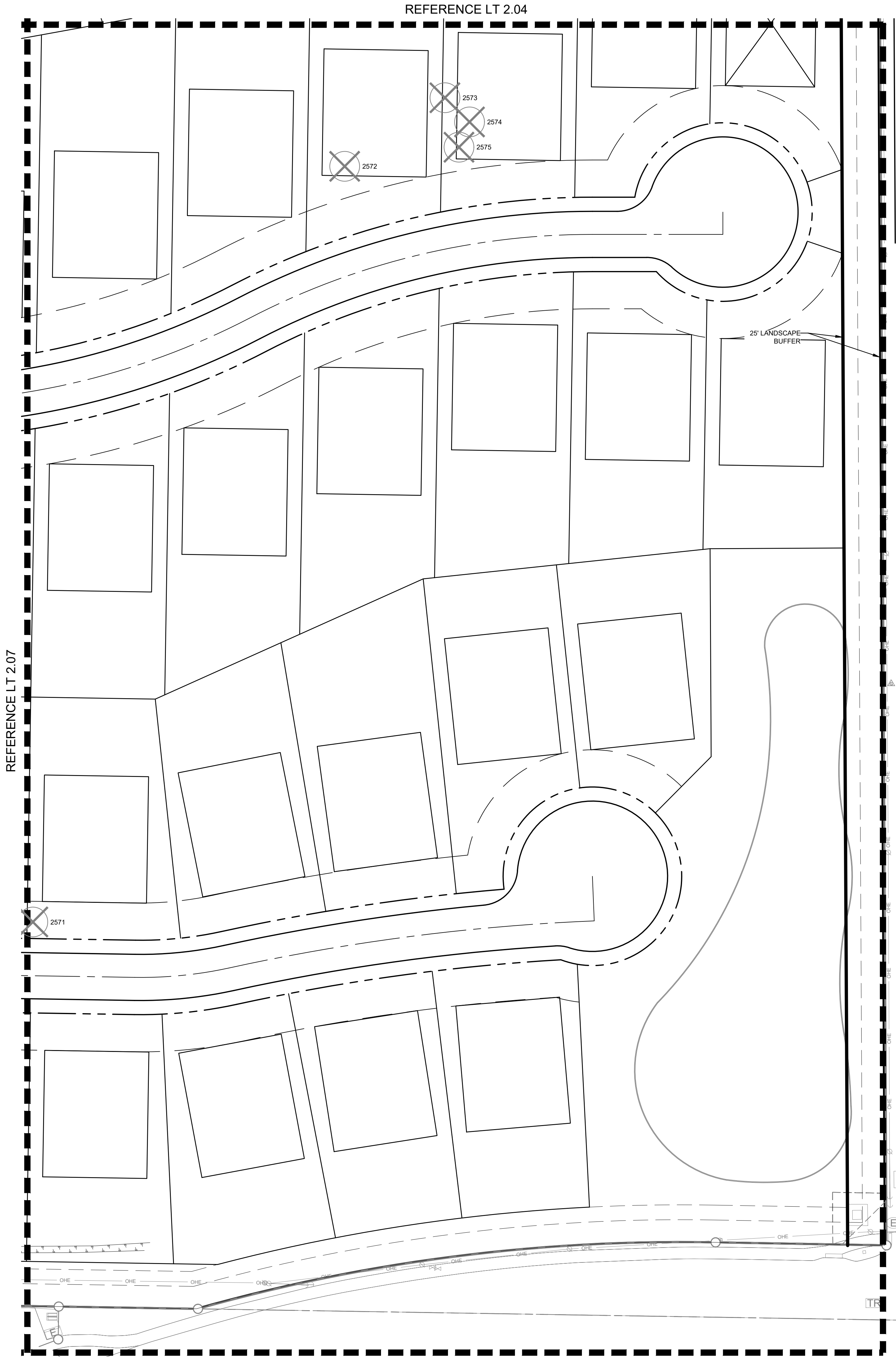
LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



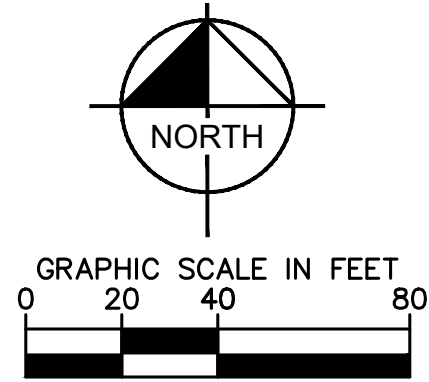
TREE PRESERVATION ENLARGEMENT
 FOR
OAKBRIDGE CROSSING
 132 RESIDENTIAL LOTS / 4 OPEN SPACES
 BEING 74.376 ACRES
 OUT OF THE
 JOHN WHITE SURVEY, ABSTRACT NO. 1341
 IN THE
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200		DEVELOPER: Toil Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell		LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA	
DESIGNED MER	DRAWN MER	CHECKED MER	SCALE AS SHOWN	DATE 3/21/2022	KH PROJECT NO. PROJECT NUMBER LT 2.07



LEGEND

- EXISTING SPECIMEN TREE TO REMAIN
- PROTECTED TREE TO REMAIN
- PROTECTED TREE TO BE REMOVED



3/21/2022

TREE PRESERVATION ENLARGEMENT
FOR
OAKBRIDGE CROSSING
132 RESIDENTIAL LOTS / 4 OPEN SPACES
BEING 74.376 ACRES
OUT OF THE
JOHN WHITE SURVEY, ABSTRACT NO. 1341
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TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS

OWNER: Lewisville Independent School District 1665 W. Main Street Lewisville, Texas 75067 Tel: (469) 713-5200	DEVELOPER: Toll Brothers Inc. 2555 SW Grapevine Pkwy Grapevine, TX 76051 Tel: (817) 329-7973 Contact: Mike Boswell	LANDSCAPE ARCHITECT: Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Marie Robirds, PLA
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DESIGNED MER	DRAWN MER	CHECKED MER	SCALE AS SHOWN	DATE 3/21/2022	KH PROJECT NO. PROJECT NUMBER	LT 2.08
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PLATTED BY: KIMLEY-HORN, INC. DATE: 01/20/22 2:46 PM
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TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	DISPOSITO	TRUNK	PROTECTED	SPECIMEN	NOTES	LOCATION	REMOVE/REMAIN	CREDIT	REPLACEMENT
1922	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1923	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1924	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
1925	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
1926	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1927	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1928	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1929	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1930	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1931	11	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1932	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1933	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1934	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1935	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1936	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1937	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1938	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1939	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1940	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1941	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1942	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1943	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1944	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1945	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1946	7	Callery pear	<i>Pyrus calleryana</i>	Healthy	Forked	NO			In Buildable Area	REMOVE		N/A - not protected tree
1947	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1948	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
1949	7	Callery pear	<i>Pyrus calleryana</i>	Healthy	Multi	NO			In Buildable Area	REMOVE		N/A - not protected tree
1950	11	Callery pear	<i>Pyrus calleryana</i>	Healthy	Multi	NO			In Buildable Area	REMOVE		N/A - not protected tree
2214	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2215	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2216	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2217	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2218	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2219	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2220	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2221	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2222	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2223	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2224	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2225	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2226	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2227	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2228	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2229	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2230	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2231	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2232	9	mexican plum	<i>Prunus mexicana</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2233	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2234	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2235	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2236	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2237	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2238	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2239	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2240	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2241	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2242	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2243	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2244	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2245	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2246	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2247	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2248	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2249	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2250	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2251	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2252	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2253	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2254	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2255	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2256	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2257	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2258	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2259	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2260	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2261	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2262	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2263	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2264	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2265	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2266	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2267	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2268	6	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2269	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2270	17	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2271	20	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2272	12	post oak	<i>Quercus stellata</i>	Declining	Multi	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2273	21	post oak	<i>Quercus stellata</i>	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2274	11	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2275	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMAIN	1	

TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	DISPOSITO	TRUNK	PROTECTED	SPECIMEN	NOTES	LOCATION	REMOVE/REMAIN	CREDIT	REPLACEMENT
2276	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2277	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2278	9	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2279	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2280	15	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2281	19	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2282	20	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2283	13	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2284	16	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2285	7	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	2	
2286	14	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2287	13	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2288	19	post oak	<i>Quercus stellata</i>	Declining	Multi	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2289	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMAIN	1	
2290	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2291	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMAIN	1	
2292	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2293	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2294	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2295	12	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2296	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMAIN	1	
2297	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2298	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2299	10	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2300	11	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2301	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2302	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2303	12	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2304	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Landscape Buffer	REMAIN		
2305	16	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2306	11	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Landscape Buffer	REMAIN		
2307	14	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2308	13	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2309	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2310	12	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMAIN	1	
2311	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2312	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2313	11	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2314	13	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2315	6	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2316	22	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2317	15	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2318	18	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2319	16	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2320	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2321	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2322	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2323	12	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2324	11	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2325	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2326	11	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2327	20	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2328	18	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2329	23	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES	SPECIMEN		In Buildable Area	REMAIN	6	
2330	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2331	19	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2332	15	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2333	12	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2334	14	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2335	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2336	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2337	7	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2338	6	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2339	8	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2340	17	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2341	15	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2342	21	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2343	12	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2344	13	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2345	19	post oak	<i>Quercus stellata</i>	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2346	12	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2347	14	post oak	<i>Quercus stellata</i>	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2348	13	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Multi	YES			In Buildable Area	REMAIN	1	
2349	18	post oak	<i>Quercus stellata</i>	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2350	10	cedar elm	<i>Ulmus crassifolia</i>	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree

PLOTTED BY: KIMLEY-HORN DATE: 01/07/2025 2:46 PM
DRAWN NAME: KJH/CVL/06/25/2015/SSD-SPNS-ROAD/LANDSCAPE/DESIGN/001 PERMIT CODE/PLANSHEET/UTL 3.0.DWG/UTL 3.0J
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TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	DISPOSITIO	TRUNK	PROTECTED	SPECIMEN	NOTES	LOCATION	REMOVE/ REMAIN	CREDIT	REPLACEMENT
2351	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2352	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2353	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2354	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2355	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2356	18	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2357	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2358	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2359	10	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2360	18	post oak	Quercus stellata	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2361	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2362	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2363	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2364	13	post oak	Quercus stellata	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2365	16	post oak	Quercus stellata	Hazard	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2366	13	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2367	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2368	12	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2369	14	cedar elm	Ulmus crassifolia	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2370	14	cedar elm	Ulmus crassifolia	Declining	Multi	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2371	9	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2372	11	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2373	8	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2374	11	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2375	12	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2376	6	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2377	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2378	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2379	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2380	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2381	7	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2382	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2383	11	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2384	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2385	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2386	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2387	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	2	
2388	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2389	12	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2390	11	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2391	12	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2392	14	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2393	13	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Landscape Buffer	REMAIN		
2394	16	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2395	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2396	9	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2397	16	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2398	15	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2399	8	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2400	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2401	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2402	8	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2403	8	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2404	9	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2405	11	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2406	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2407	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2408	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2409	15	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2410	12	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2411	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2412	13	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2413	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2414	14	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2415	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2416	7	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2417	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2418	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2419	12	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2420	18	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2421	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2422	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2423	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2424	19	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2425	9	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2426	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2427	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2428	19	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2429	12	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2430	21	post oak	Quercus stellata	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2431	15	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2432	12	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2433	16	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2434	7	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2435	15	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2436	15	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2437	18	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2438	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2439	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2440	19	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree

TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	DISPOSITION	TRUNK	PROTECTED	SPECIMEN	NOTES	LOCATION	REMOVE/REMAIN	CREDIT	REPLACEMENT
2441	15	post oak	Quercus stellata	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2442	14	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2443	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2444	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2445	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2446	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2447	6	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2448	19	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2449	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2450	14	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2451	15	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2452	17	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2453	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2454	17	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2455	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2456	8	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2457	11	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMAIN	1	
2458	9	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMAIN	1	
2459	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2460	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2461	20	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2462	20	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2463	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2464	11	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2465	6	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2466	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2467	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2468	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2469	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2470	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2471	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2472	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2473	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2474	20	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2475	8	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2476	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2477	7	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMAIN	1	
2478	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2479	8	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Landscape Buffer	REMAIN		
2480	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2481	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2482	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2483	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2484	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2485	8	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2486	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2487	18	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2488	9	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2489	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2490	9	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2491	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2492	7	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Landscape Buffer	REMAIN		
2493	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2494	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Landscape Buffer	REMAIN		
2495	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2496	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2497	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2498	21	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2499	10	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2500	12	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2501	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2502	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2504	18	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2505	19	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2506	14	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2507	13	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2508	20	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2509	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2510	16	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMAIN	4	
2511	10	cedar elm	Ulmus crassifolia	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2512	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2513	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2514	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2515	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2516	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree

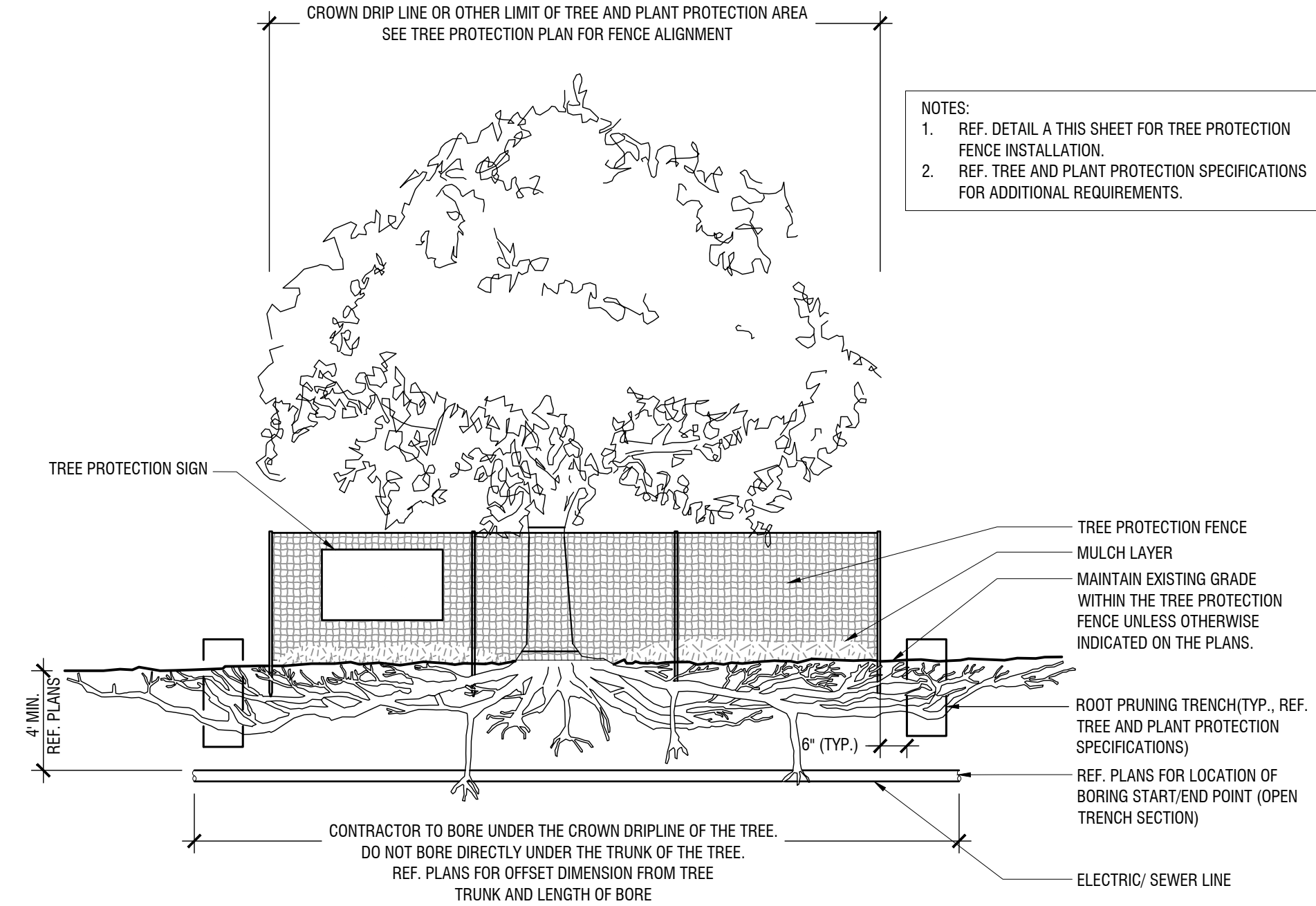
REVIEWED BY: KIMLEY-HORN, DATE: 02/21/2022, 2:46 PM, DWG NAME: K:\PRJ\CVL\066250\9\LSG\SPNS\ROAD\LANDSCAPE\DESIGN\01 PERMIT CODE\PLANSHEET\LT 3.0.DWG (LT 3.0)

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TAG#	DBH	COMMON NAME	SCIENTIFIC NAME	DISPOSITIO	TRUNK	PROTECTED	SPECIMEN	NOTES	LOCATION	REMOVE/ REMAIN	CREDIT	REPLACEMENT
2517	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2518	9	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2519	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2520	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2521	7	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2522	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2523	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2524	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2525	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2526	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2527	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2528	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2529	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2530	22	post oak	Quercus stellata	Healthy	Multi	YES		FORKED	TXDOT R.O.W.	REMOVE		N/A - in TXDOT R.O.W.
2531	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2532	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2533	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2534	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2535	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2536	8	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2537	23	post oak	Quercus stellata	Hazard	Multi	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2538	8	green ash	Fraxinus pennsylvanica	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2539	6	green ash	Fraxinus pennsylvanica	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2540	17	post oak	Quercus stellata	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2541	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2542	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2543	15	post oak	Quercus stellata	Declining	Single	NO			In Buildable Area	REMOVE		N/A - Declining Condition
2544	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMAIN	1	
2545	10	green ash	Fraxinus pennsylvanica	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2546	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2547	7	green ash	Fraxinus pennsylvanica	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2548	11	gum bumelia	Sideroxylon lanuginosum	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2549	9	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2550	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2551	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2552	8	mexican plum	Prunus mexicana	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2553	7	gum bumelia	Sideroxylon lanuginosum	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2554	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2555	7	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2556	7	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2557	7	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2558	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2559	6	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2560	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2561	8	cedar elm	Ulmus crassifolia	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2562	8	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2563	6	pecan	Carya illinoensis	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2564	9	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2565	6	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2566	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2567	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2568	6	gum bumelia	Sideroxylon lanuginosum	Healthy	Multi	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2569	7	cedar elm	Ulmus crassifolia	Healthy	Single	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2570	6	gum bumelia	Sideroxylon lanuginosum	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2571	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2572	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2573	7	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2574	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
2575	6	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
5767	20	cedar elm	Ulmus crassifolia	Healthy	Multi	YES	SPECIMEN		In Buildable Area	REMAIN	4	
5768	27	post oak	Quercus stellata	Healthy	Forked	YES	SPECIMEN		In Buildable Area	REMAIN	6	
5769	25	post oak	Quercus stellata	Declining	Forked	NO			In Buildable Area	REMOVE		N/A - Declining Condition
5770	26	post oak	Quercus stellata	Healthy	Single	YES	SPECIMEN		In Buildable Area	REMAIN	6	
5771	19	post oak	Quercus stellata	Healthy	Single	NO			In Buildable Area	REMAIN	4	
5772	25	post oak	Quercus stellata	Healthy	Forked	YES	SPECIMEN		In Buildable Area	REMAIN	6	
5773	32	post oak	Quercus stellata	Healthy	Multi	YES	SPECIMEN		In Buildable Area	REMAIN	6	
5774	32	post oak	Quercus stellata	Healthy	Single	YES	SPECIMEN		In Buildable Area	REMAIN	6	
5776	26	post oak	Quercus stellata	Healthy	Forked	YES		Multiple Trees	TXDOT R.O.W.	REMOVE		N/A - in TXDOT R.O.W.
5778	29	post oak	Quercus stellata	Healthy	Multi	YES		Multiple Trees	TXDOT R.O.W.	REMOVE		N/A - in TXDOT R.O.W.
5779	25	post oak	Quercus stellata	Healthy	Forked	YES	SPECIMEN		In Buildable Area	REMAIN	6	
2503A	11	post oak	Quercus stellata	Healthy	Forked	YES			In Buildable Area	REMAIN	2	
2503B	11	post oak	Quercus stellata	Healthy	Forked	YES			In Buildable Area	REMAIN	2	
5775A	15	cedar elm	Ulmus crassifolia	Declining	Forked	NO			In Buildable Area	REMOVE		N/A - Declining Condition
5775B	11	cedar elm	Ulmus crassifolia	Healthy	Forked	YES			In Buildable Area	REMOVE		(1) 2.5" - 3" cal. tree
5777A	10	post oak	Quercus stellata	Healthy	Multi	YES		Multiple Trees	In Buildable Area	REMAIN	2	
5777B	13	post oak	Quercus stellata	Healthy	Multi	YES		Multiple Trees	In Buildable Area	REMAIN	4	
- Kimley-Horn red tree tag series: 5767-5779												
- Specimen trees were tagged according to the Flower Mound Tree Preservation Ordinance*												
* Specimen trees are defined as any tree listed in the town's small protected tree list that measures 13-inches or more at DBH, medium protected tree list that measures 19-inches or more at DBH, or large protected tree list that measures 25-inches or more												

REVIEWED BY: KIMLEY-HORN AND ASSOCIATES, INC. DATE: 3/21/2022 2:30 PM
DRAWN BY: KIMLEY-HORN AND ASSOCIATES, INC. DATE: 3/21/2022 2:30 PM
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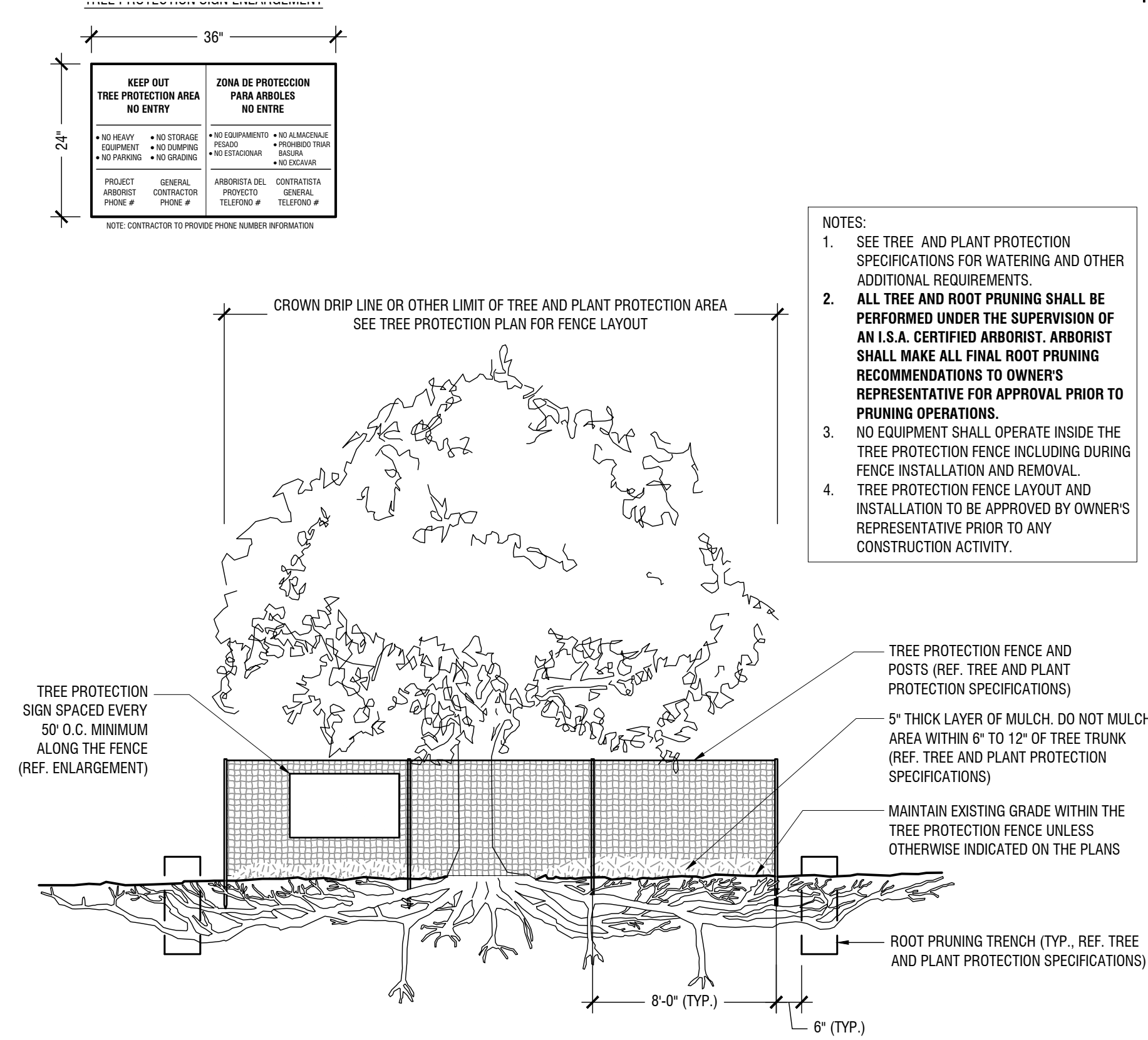


- NOTES:
1. REF. DETAIL A THIS SHEET FOR TREE PROTECTION FENCE INSTALLATION.
 2. REF. TREE AND PLANT PROTECTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TREE PROTECTION - UTILITY BORING UNDER CROWN DRIPLINE

Scale: NTS

B



- NOTES:
1. SEE TREE AND PLANT PROTECTION SPECIFICATIONS FOR WATERING AND OTHER ADDITIONAL REQUIREMENTS.
 2. ALL TREE AND ROOT PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN I.S.A. CERTIFIED ARBORIST. ARBORIST SHALL MAKE ALL FINAL ROOT PRUNING RECOMMENDATIONS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO PRUNING OPERATIONS.
 3. NO EQUIPMENT SHALL OPERATE INSIDE THE TREE PROTECTION FENCE INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
 4. TREE PROTECTION FENCE LAYOUT AND INSTALLATION TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITY.

TYPICAL TREE PROTECTION FENCING

Scale: NTS

A



3/21/2022

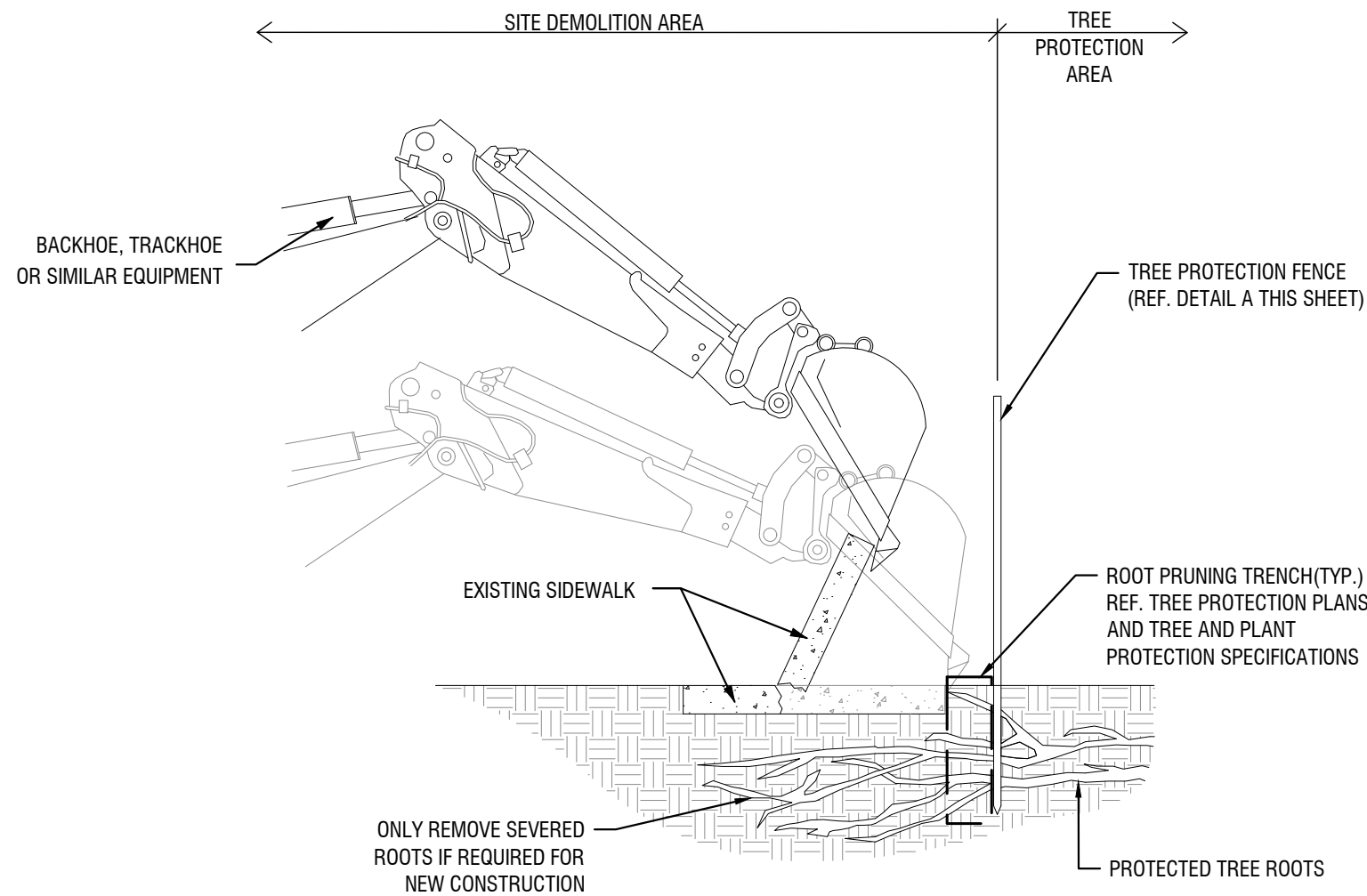
TREE PRESERVATION DETAILS							
FOR							
OAKBRIDGE CROSSING							
132 RESIDENTIAL LOTS / 4 OPEN SPACES							
BEING 74.376 ACRES							
OUT OF THE							
JOHN WHITE SURVEY, ABSTRACT NO. 1341							
IN THE							
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS							
OWNER:		DEVELOPER:			LANDSCAPE ARCHITECT:		
Lewisville Independent School District		Toll Brothers Inc.			Kimley»Horn		
1665 W. Main Street		2555 SW Grapevine Pkwy			6160 Warren Parkway, Suite 210		
Lewisville, Texas 75067		Grapevine, TX 76051			Frisco, TX 75034		
Tel: (469) 713-5200		Tel: (817) 329-7973			Tel: (972) 335-3580		
		Contact: Mike Boswell			Contact: Marie Robb, PLA		
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.		LT 3.04
MER	MER	MER	AS SHOWN	3/21/2022	PROJECT NUMBER		

PLOTTED BY: KIMLEY-HORN, 3/21/2022 2:46 PM
DRAWN NAME: KJFR, CIVIL, 06/25/2014, LISA SPINKS, ROAD/LANDSCAPE/DESIGN/001 PERMIT CODE/PLANSHEET/UT, 3.01.DWG[LT, 3.05]
LAST SAVED: 3/21/2022 2:39 PM

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- DEMOLITION SEQUENCE
1. PERFORM ANY ROOT PRUNING.
 2. INSTALL TREE PROTECTION FENCING
 3. CAREFULLY REMOVE SIDEWALK AND BASE MATERIAL, COORDINATE ALL DEMOLITION OPERATIONS AROUND PROTECTED TREES WITH ENGINEER AND PROJECT ARBORIST.

- NOTES:
1. PRIOR TO DEMOLITION ACTIVITIES, COORDINATE WITH OWNER'S REPRESENTATIVE.
 2. ALL TREE PROTECTION MEASURES MUST BE IN PLACE AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION ACTIVITIES.
 3. OWNER'S REPRESENTATIVE TO APPROVE ANY CANOPY THINNING AND/OR CANOPY RAISING PRUNING TO ALLOW FOR DEMOLITION ACTIVITIES PRIOR TO CONSTRUCTION.



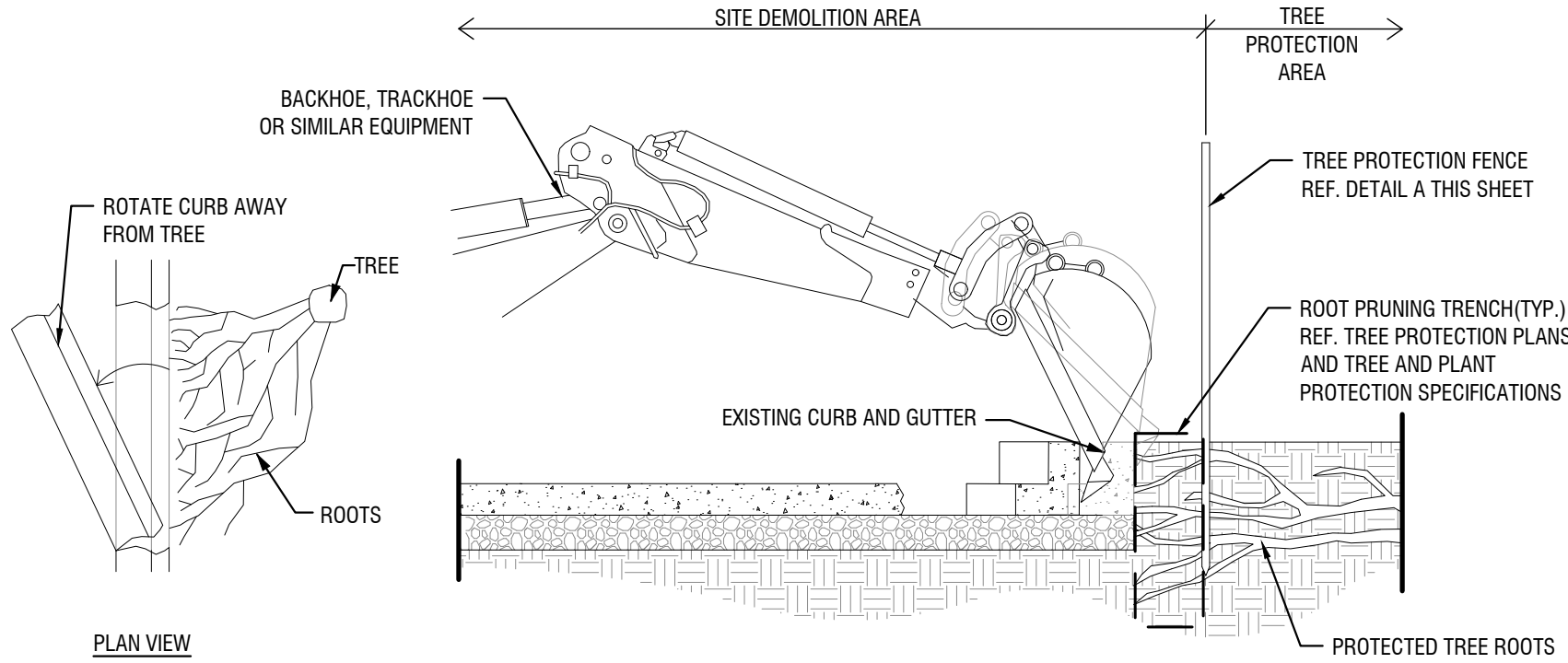
SIDEWALK DEMOLITION AROUND EXISTING TREE ROOTS

Scale: NTS

B

- DEMOLITION SEQUENCE:
1. PERFORM ANY ROOT PRUNING.
 2. INSTALL TREE PROTECTION FENCING
 3. BREAK OR CUT 6" SECTIONS OF CURB.
 4. CAREFULLY ROTATE CURB SECTIONS AWAY FROM ROOTS.
 5. COORDINATE ALL DEMOLITION OPERATIONS AROUND PROTECTED TREES WITH ENGINEER AND PROJECT ARBORIST.

- NOTES:
1. PRIOR TO DEMOLITION ACTIVITIES, COORDINATE WITH OWNER'S REPRESENTATIVE.
 2. ALL TREE PROTECTION MEASURES MUST BE IN PLACE AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO DEMOLITION ACTIVITIES.
 3. OWNER'S REPRESENTATIVE TO APPROVE ANY CANOPY THINNING AND/OR CANOPY RAISING PRUNING TO ALLOW FOR DEMOLITION ACTIVITIES PRIOR TO CONSTRUCTION.

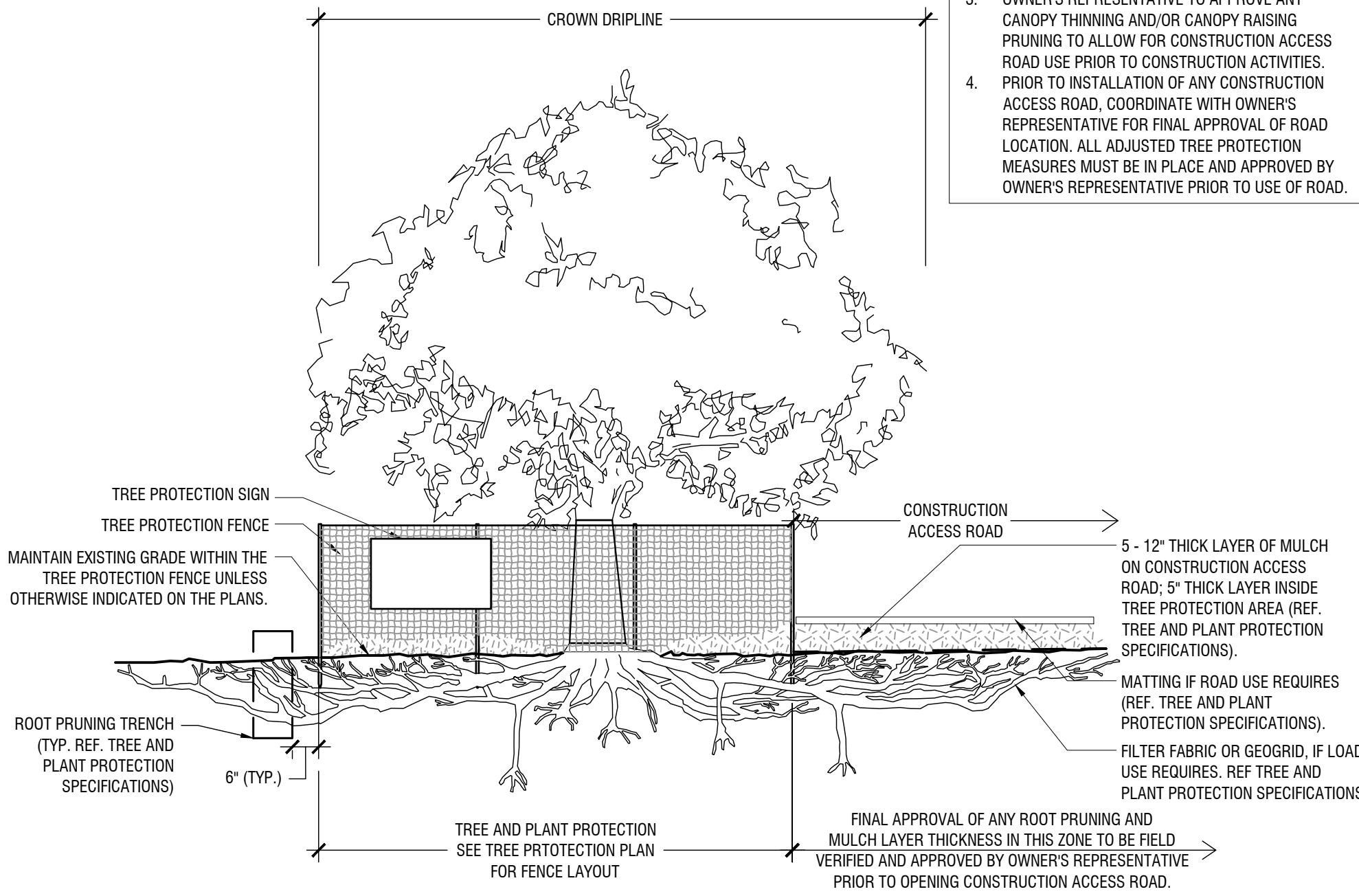


CURB DEMOLITION AROUND EXISTING TREE ROOTS

Scale: NTS

C

- NOTES:
1. REF. DETAIL A THIS SHEET FOR TREE PROTECTION FENCE INSTALLATION.
 2. REF. TREE AND PLANT PROTECTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 3. OWNER'S REPRESENTATIVE TO APPROVE ANY CANOPY THINNING AND/OR CANOPY RAISING PRUNING TO ALLOW FOR CONSTRUCTION ACCESS ROAD USE PRIOR TO CONSTRUCTION ACTIVITIES.
 4. PRIOR TO INSTALLATION OF ANY CONSTRUCTION ACCESS ROAD, COORDINATE WITH OWNER'S REPRESENTATIVE FOR FINAL APPROVAL OF ROAD LOCATION. ALL ADJUSTED TREE PROTECTION MEASURES MUST BE IN PLACE AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO USE OF ROAD.



TREE PROTECTION - CONSTRUCTION ACCESS ROAD

Scale: NTS

A



3/21/2022

TREE PRESERVATION DETAILS							
FOR							
OAKBRIDGE CROSSING							
132 RESIDENTIAL LOTS / 4 OPEN SPACES							
BEING 74.376 ACRES							
OUT OF THE							
JOHN WHITE SURVEY, ABSTRACT NO. 1341							
IN THE							
TOWN OF FLOWER MOUND, DENTON COUNTY, TEXAS							
OWNER:		DEVELOPER:			LANDSCAPE ARCHITECT:		
Lewisville Independent School District		Toll Brothers Inc.			Kimley»Horn		
1665 W. Main Street		2555 SW Grapevine Pkwy			6160 Warren Parkway, Suite 210		
Lewisville, Texas 75067		Grapevine, TX 76051			Frisco, TX 75034		
Tel: (469) 713-5200		Tel: (817) 329-7973			Tel: (972) 335-3580		
		Contact: Mike Boswell			Contact: Marie Robirds, PLA		
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.		LT 3.05
MER	MER	MER	AS SHOWN	3/21/2022	PROJECT NUMBER		



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: 4

REGULAR ITEM

DATE: April 25, 2022

FROM: Chuck Russell, Principal Planner

ITEM: Consider a request for a Site Plan (SP21-0011 – Lakeside Parkway Office/Warehouse) to develop an office-showroom warehouse facility with an exception to Section IV.C.5. of the Town's Engineering Design Criteria requirement to allow for an alternative detention pond wall design. The property is generally located northeast of Lakeside Parkway and Gerault Road.

I. ITEM SUMMARY

This application has been reviewed by DRC and determined to be ready for consideration by the Planning and Zoning Commission. There is one exception request to the Town's regulations, which necessitates special consideration by the Commission (see Analysis below).

This application will require final action by the Town Council.

II. APPLICATION ANALYSIS

The purpose of this request is to obtain site plan approval to develop an office-showroom warehouse facility. The property is located within Planned Development District-83 (PD-83) with Campus Industrial (CI) District uses. The subject property is currently undeveloped and contains approximately 2.41 acres. As part of the request, the applicant has asked for an exception to the Code of Ordinances. In summary (see Section III, below, for detail):

Exception:

- Exception to Section IV.C.5. of the Town's Engineering Design Criteria requirement to allow for an alternative detention pond wall design.

The site plan provides for two one-story buildings that contain 11,675 square feet and 10,900 square feet respectively (22,575 total square feet). Two points of access are being provided through cross access easements from Lakeside Parkway and Gerault Road.

The Town Code defines Office-showroom/warehouse as an establishment with a maximum of 75 percent of its total floor area devoted to storage and warehousing not accessible to the general public. The remaining floor area not used for storage and warehousing shall be devoted to retail and wholesale sales areas, sales office, and

display areas for products sold and distributed from the storage and warehousing areas. The applicant is proposing over 39 percent of the overall building square footage to be used as office and non-storage space.

The required parking for this use is one space per 250 square feet of retail and/or office and one space per 2,000 square feet of Showroom/warehouse for a total of 43 required parking spaces. The applicant is proposing 52 parking spaces, which is within the allowable 20 percent deviation.

The landscape plan exceeds the required number of street buffer trees to provide dense screening of the open area between the two buildings that will be used for storage delivery and pick up. The parking lot trees and the building's design are in compliance with the both the standards and the standards within PD 83.

III. EXCEPTIONS:

A. Exception to Section IV.C.5. of the Town's Engineering Design Criteria requirement to allow for an alternative detention pond wall design:

Section IV.C.5 of the Town's Engineering Design Criteria states in part:

"Detention storage volume will be in the form of vegetation established on a maximum 4:1 slope; or a combination of stone walls and vegetated slopes, alternating 3'-high walls (maximum exposed face) and 4:1 slopes with a minimum rise of 4' per tier".

The applicant is proposing to utilize vertical walls that will have a maximum depth of 7.5-feet in lieu of the alternating 3-foot high "stair-step" wall design. This will allow the applicant to use less space for the proposed dry detention pond. The detention facility will be surrounded by a minimum 4-foot-tall metal fence on three sides and a combination wall/fence along the north side of the facility for safety purposes. The wall/fence section will be constructed adjacent to the fire and access lane to prevent vehicles from breaching the barrier.

IV. ATTACHMENTS

A. Background Information

1. Vicinity Map
2. Letter of Intent

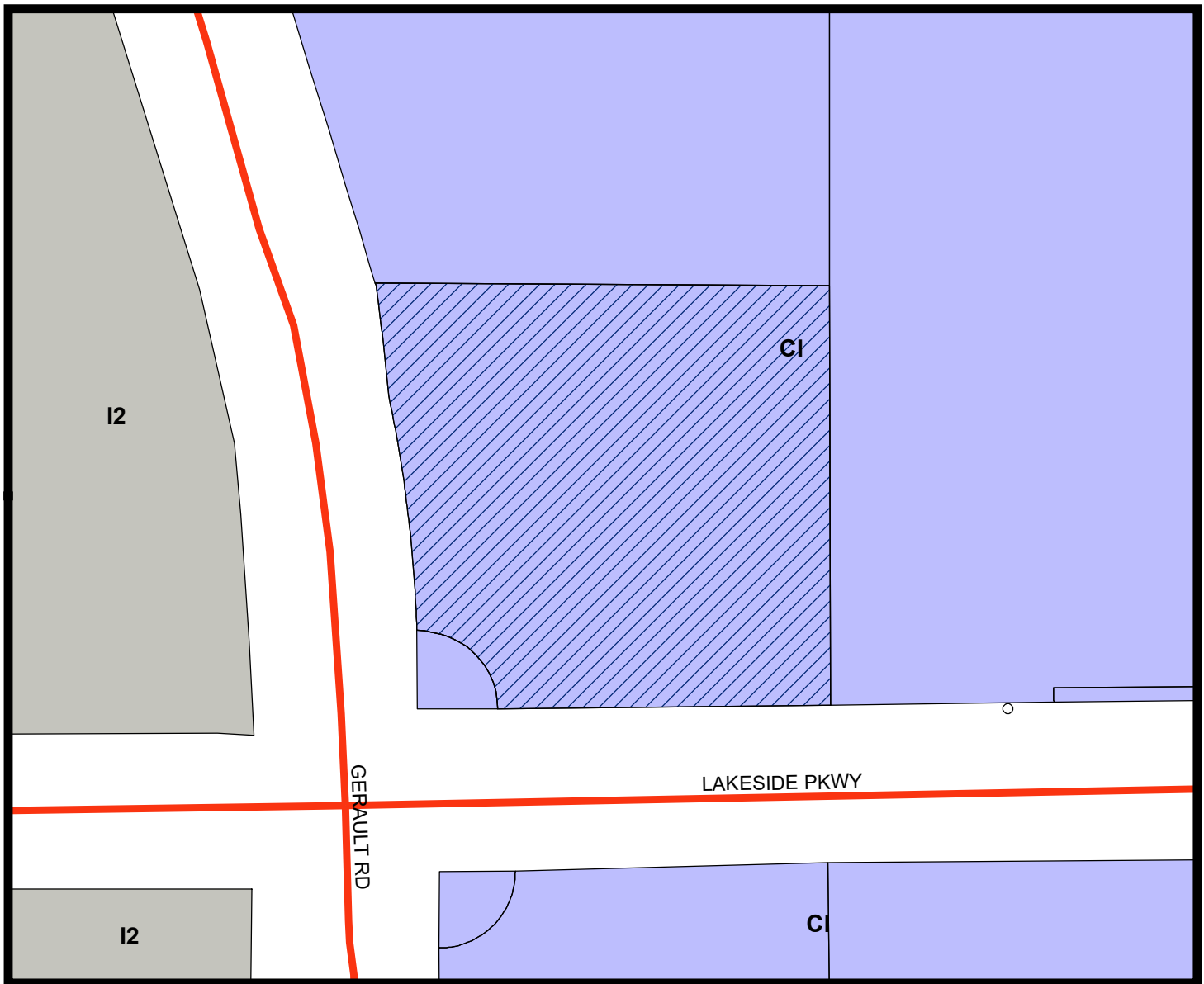
B. Application Details

1. Site Plan Package

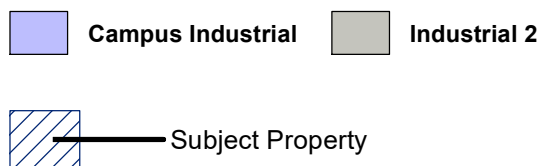


Vicinity Map

Reference Project: SP21-0011

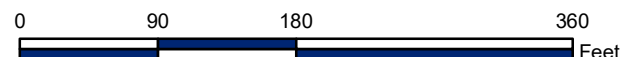
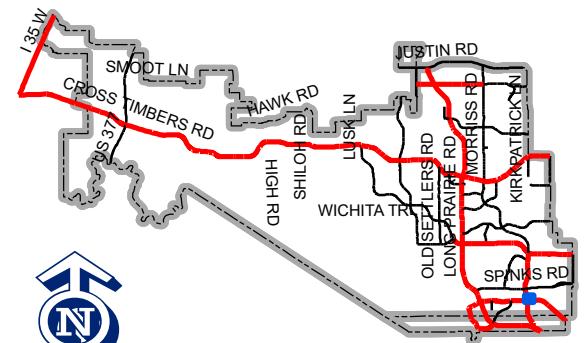


LEGEND



Visit www.fmdevmap.com to learn more about this project.

Visit <https://www.flower-mound.com/notifyme> to sign up for text message and/or email alerts for future projects.





T: 214.609.9271 | F: 469.359.6709 | W: triangle-engr.com | O: 1333 McDermott Drive, Suite 150, Allen, TX 75013

LETTER OF INTENT

March 29, 2022

Planning Department
Town of Flower Mound
2121 Cross Timber Road
Flower Mound, TX 75028

RE: Letter of Intent for submitting Site plan of Office Warehouse Development at Lakeside Parkway & Gerault Road, Flower Mound, TX

To Whom It May Concern,

This letter of intent is to inform the Town of Flower Mound about submitting the Site Plan request.

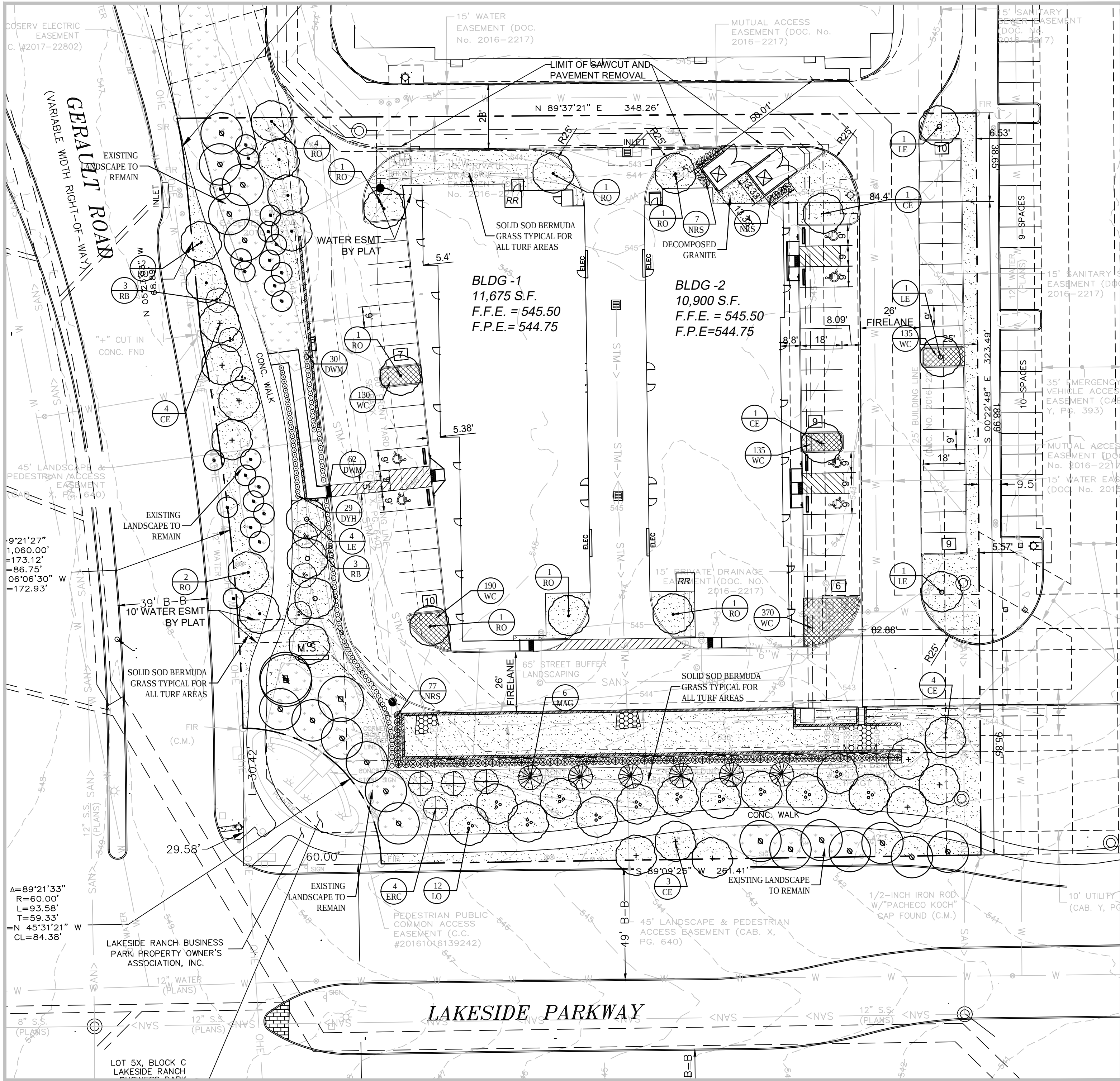
Site Data:

- a) Existing Zoning District: Planned Development (PD-83)
- b) Development plan Acreage: 2.4019 acres
- c) Proposed use: Office Warehouse
Proposed building area: 23,000 S.F. Office/Warehouse
Proposed parking spaces quantities: 65
Phase development: No
- d) Special consideration: Exception for wall height exceeding 36".

On December 6, 2004 the Town council of Town of Flower Mound approved the request for rezoning from Agricultural District (A) uses to Planned Development District-83 (PD-83) and with certain exceptions and modifications to Code of Ordinances, and consider adopting an ordinance for said amendment.

We believe the Office/Warehouse Development will be great addition to the Town of Flower Mound.

Triangle Engineering
TX PE FIRM #11525
Kiew Kam, P.E.
Senior Project Manager
469-331-8566



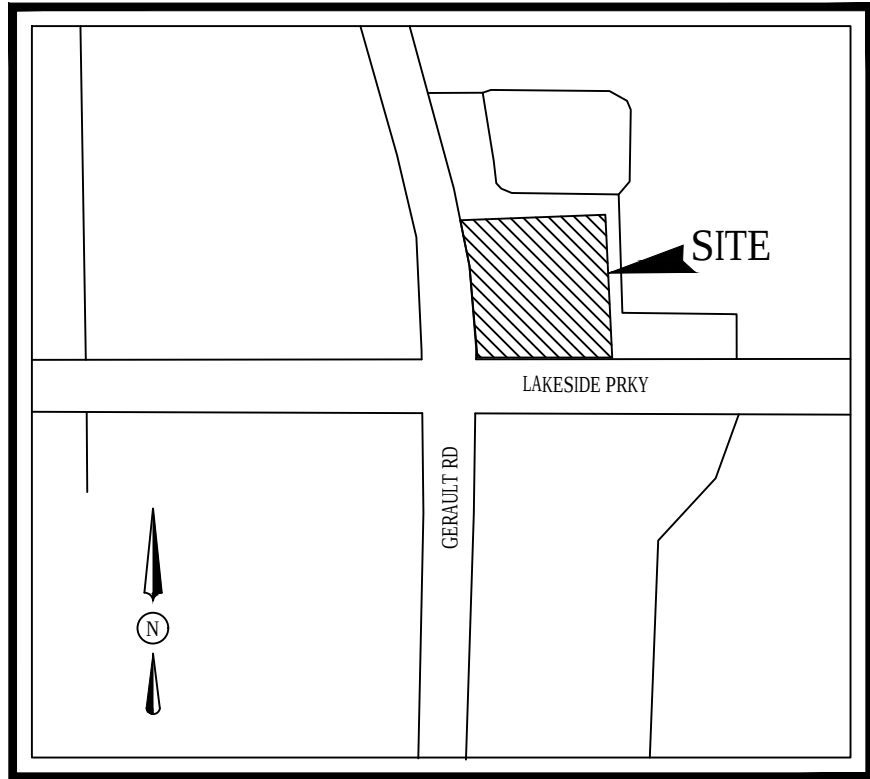
01 LANDSCAPE PLAN
SCALE 1"=30'-0"

GENERAL LAWN NOTES

1. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED ON CIVIL PLANS.
2. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
3. ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
4. IMPORTED TOPSOIL SHALL BE NATURAL, FRIABLE SOIL FROM THE REGION, KNOWN AS BOTTOM AND SOIL, FREE FROM LUMPS, CLAY, TOXIC SUBSTANCES, ROOTS, DEBRIS, VEGETATION, STONES, CONTAINING NO SALT AND BLACK TO BROWN IN COLOR.
5. ALL LAWN AREAS TO BE FINE GRADED, IRRIGATION TRENCHES COMPLETELY SETTLED, AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR ARCHITECT PRIOR TO INSTALLATION.
6. ALL ROCKS 3/4" DIAMETER AND LARGER, DIRT CLOUDS, STICKS, CONCRETE SPOILS, ETC. SHALL BE REMOVED PRIOR TO PLACING TOPSOIL AND ANY LAWN INSTALLATION
7. CONTRACTOR SHALL PROVIDE (1") ONE INCH OF IMPORTED TOPSOIL ON ALL AREAS TO RECEIVE LAWN.

SOLID SOD NOTES

1. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL DESIRED GRADE IN PLANTING AREAS AND 1" BELOW FINAL GRADE IN TURF AREAS.
2. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
3. ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
4. CONTRACTOR TO COORDINATE WITH ON-SITE CONSTRUCTION MANAGER FOR AVAILABILITY OF EXISTING TOPSOIL.
5. PLANT SOD BY HAND TO COVER INDICATED AREA COMPLETELY. INSURE EDGES OF SOD ARE TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS.
6. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE, FREE FROM UNNATURAL UNDULATIONS.
7. WATER SOD THOROUGHLY AS SOD OPERATION PROGRESSES.
8. CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE. THIS SHALL INCLUDE, BUT NOT LIMITED TO, MOWING, WATERING, WEEDING, CULTIVATING, CLEANING AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION.
9. CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF AN ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY IF NECESSARY.
10. IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1 AND MARCH 1, ALL SOD AREAS TO BE OVER-SEEDED WITH WINTER RYEGRASS, AT A RATE OF (4) POUNDS PER ONE THOUSAND (1000) SQUARE FEET.



VICINITY MAP
N.T.S.

LANDSCAPE NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
4. CONTRACTOR TO PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
5. ALL PLANTING BEDS AND LAWN AREAS TO BE SEPARATED BY STEEL EDGING. NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.
6. ALL LANDSCAPE AREAS TO BE 100% IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM AND SHALL INCLUDE RAIN AND FREEZE SENSORS.
7. ALL LAWN AREAS TO BE SOLID SOD BERMUDAGRASS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

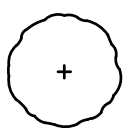
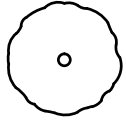
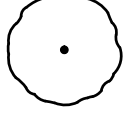
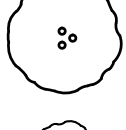
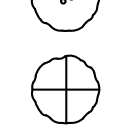
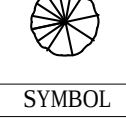
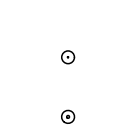
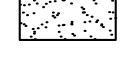
IRRIGATION NOTE

1. ALL LANDSCAPE TO BE 100% IRRIGATED.

OPEN SPACE NOTE

1. OPEN SPACE TO BE DEDICATED AND MAINTAINED BY THE SOUTHGATE PROPERTY OWNER'S ASSOCIATION.

PLANT MATERIAL SCHEDULE

SYMBOL	TREES			COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
	TYPE	QTY					
	CE	13	Cedar Elm	<i>Ulmus crassifolia</i>	3' cal.	B&B, 13' ht., 5' spread min., 5' clear trunk	
	LE	7	Lacebark Elm	<i>Ulmus parvifolia</i>	3' cal.	container, 13' ht., 5' spread min., 5' clear trunk	
	RO	15	Red Oak	<i>Quercus shumardi</i>	3' cal.	container, 13' ht., 5' spread min., 5' clear trunk	
	LO	12	Live Oak	<i>Quercus virginiana</i>	3' cal.	container, 13' ht., 5' spread min., 5' clear trunk	
	RB	6	Oklahoma Redbud	<i>Cercis canadensis</i>	2' cal.	container, 10' ht., 4' spread min.	
	ERC	4	Eastern Red Cedar	<i>Juniperus virginiana</i>	2' cal.	container, 10' ht., 4' spread min., full to base	
	MAG	6	Little Gem Magnolia	<i>Magnolia grandiflora</i> 'Little Gem'	2' cal.	container, 10' ht., 4' spread min., full to base	
SYMBOL	SHRUBS						
	TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS	
	DWM	92	Dwarf Wax Myrtle	<i>Myrica cerifera</i>	5 gal.	container grown, 36' ht., 24' spread	
	DYH	29	Dwarf Yaupon Holly	<i>Ilex vomitoria</i>	5 gal.	container grown, 36' ht., 24' spread	
	NRS	88	Nellie R. Stevens Holly	<i>Ilex x 'Nellie R. Stevens'</i>	7 gal.	container grown, 48' ht., 30' spread	
SYMBOL	GROUNDCOVERS		COMMON NAME	BOTANICAL NAME	SIZE	REMARKS	
	TYPE	QTY					
	WC	960	Purple Wintercreeper	<i>Euonymus fortunei</i> 'Coloratus'	4' pots	container, 3-12' runners min., 12" o.c.	
			419' Bermudagrass	<i>Cynodon dactylon</i> '419'	solid sod	refer to solid sod notes	

NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching within varieties.

NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching within varieties.

OWNER / DEVELOPER FLSC LTD. P.O. BOX 190746 DALLAS, TEXAS 75219 CONTACT: EDWIN GARCIA PHONE 949-293-5151	ENGINEER TRIANGLE ENGINEERING LLC TYPE FIRM # 11525 1784 W. McDERMOTT DRIVE, SUITE 110 ALLEN, TEXAS 75013 CONTACT: KIEW KAM, P.E. TEL: 469-331-8566	SURVEYOR A&W SURVEYORS, INC. P.O. BOX 870029 2220 GUS THOMASSON ROAD MESQUITE, TEXAS 75187 CONTACT: JOHN S. TURNER TEL: 972-681-4975
--	--	---

LANDSCAPE TABULATIONS

Street Buffer Landscaping			
Street		Required Buffer Width	Provided Buffer Width
Gerault Road		20'	20'
Lakeside Parkway		20'	20'
Street Buffer Trees			
Standard	Street Frontage	Required	Provided
1 Tree per 30 L.F.	Gerault Road - 315 L.F. Lakeside Parkway - 308 L.F.	11 Trees (3" cal.) 10 Trees (3" cal.)	11 Existing Trees 6 Existing Trees 4 Proposed Trees
Street Yard Trees			
Standard	Total Street Yard (Square Feet)	Required	Provided
Above 10,000 S.F. = 10-1 tree every 2,000 S.F. After 10,000 S.F.	Glensiew Avenue 26,519 S.F. Lakeside Parkway 25,122 S.F.	18 Trees (3" cal.) 18 Trees (3" cal.)	18 Trees (3" cal.) 18 Trees (3" cal.)
Parking Area Landscaping			
Standard	No. of Parking Spaces	Required	Provided
90 S.F. per 12 Spaces	51 Spaces	383 S.F.	1,249 S.F.
Parking Area Trees			
Standard	No. of Parking Spaces	Required	Provided
1 Tree per 10 Spaces	51 Spaces	5 Trees (3" cal.)	5 Trees (3" cal.)
All parking spaces to be located within 50' of a parking lot tree			
Parking Area Screening			
Standard		Required	Provided
All head in parking to be screened from street view		Landscape berm or screening shrubs (2' Ht.)	Screening Shrubs (3' Ht.)
Open Space - Linear Park - Gerault Street & Lakeside Parkway			
Standard		Required	Provided
Minimum Area		5% 5,231 SF	15% 15,874 SF
Minimum Width		15'	30'
Trees		30' O.C. (15' / 30' - 18' TREES)	4 Existing Trees (3" cal.) 2 Trees (3" cal.) 22 Existing Understory Trees (2" cal.) 16 Understory Trees (2" cal.)

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1784 W. McDERMOTT DR.
SUITE 110
ALLEN, TEXAS 75013
(469) 369-4448
CHRIS@STUDIOGREENSPOT.COM



WAREHOUSE/OFFICE DEVELOPMENT
GERAULT ROAD & LAKESIDE PARKWAY

FLOWER MOUND, TEXAS

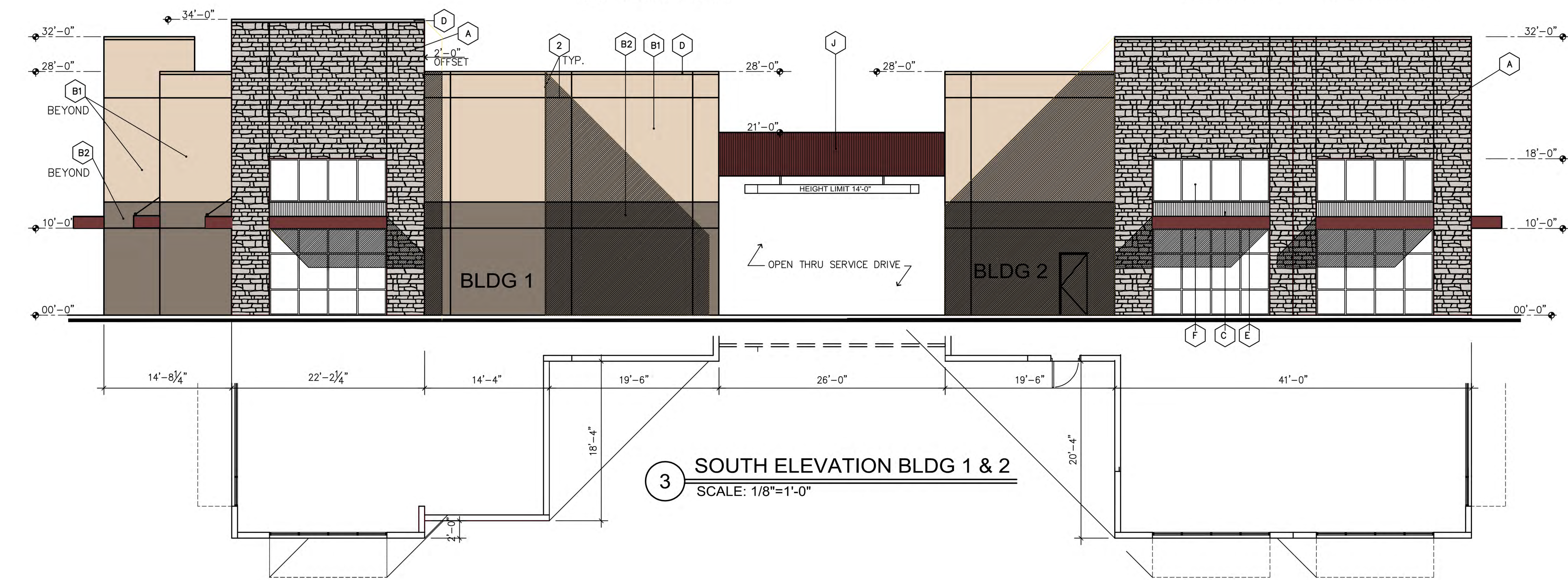
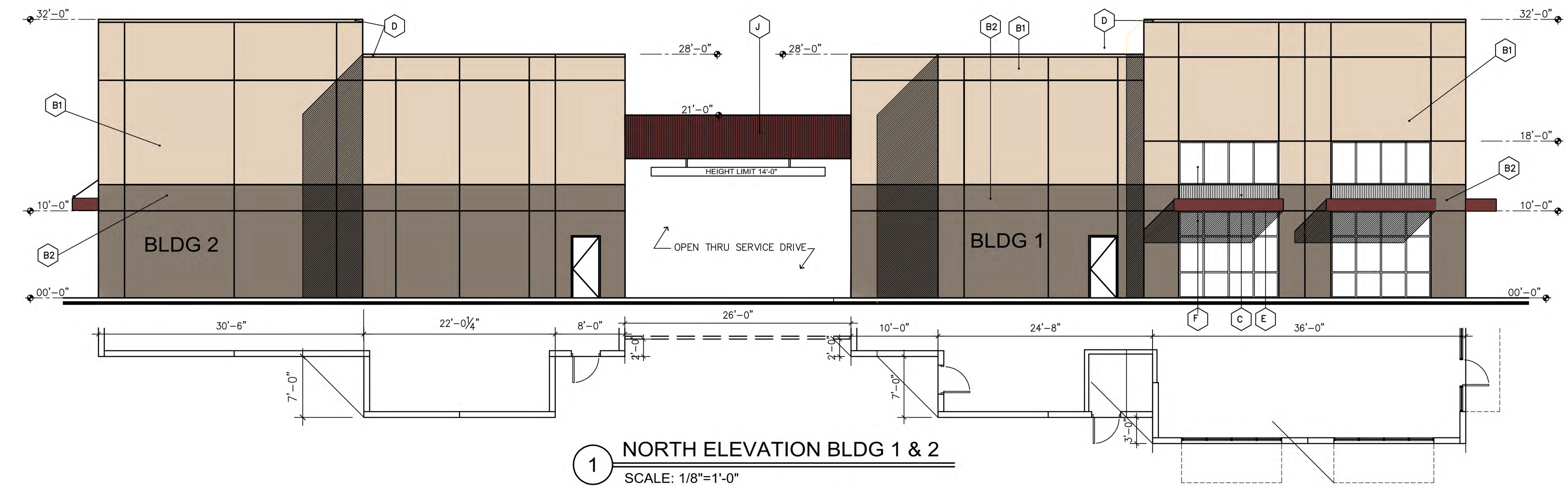
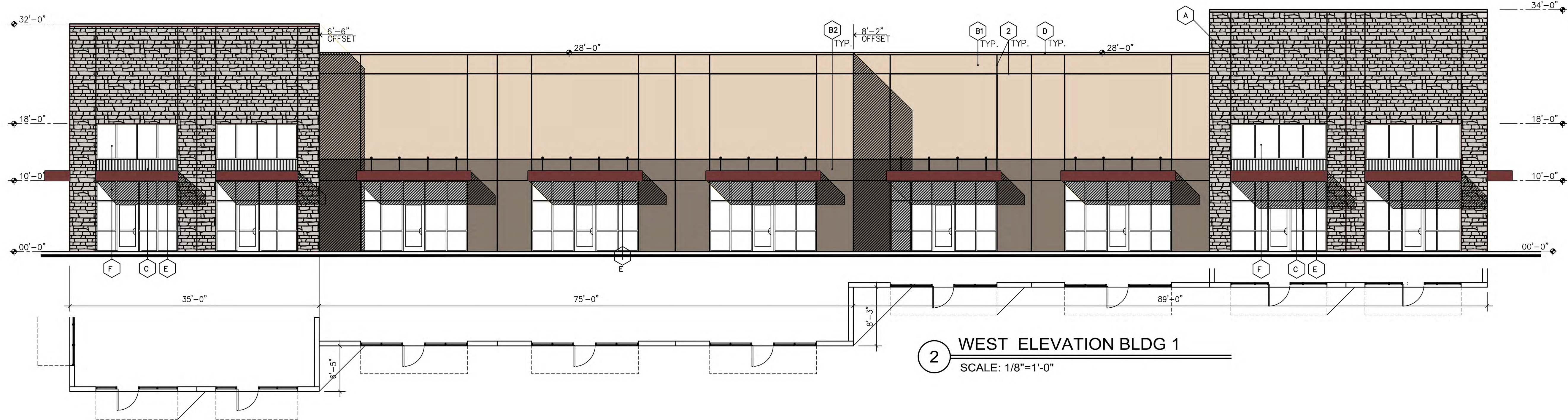
ISSUE:
FOR APPROVAL 08.16.2021
CITY COMMENTS 10.20.2021
CITY COMMENTS 11.17.2021
CITY COMMENTS 12.07.2021
CITY COMMENTS 01.12.2022
CITY COMMENTS 02.25.2022

DATE:
02.25.2022

SHEET NAME:
LANDSCAPE PLAN

SHEET NUMBER:

L.2



EXTERIOR FINISH SCHEDULE

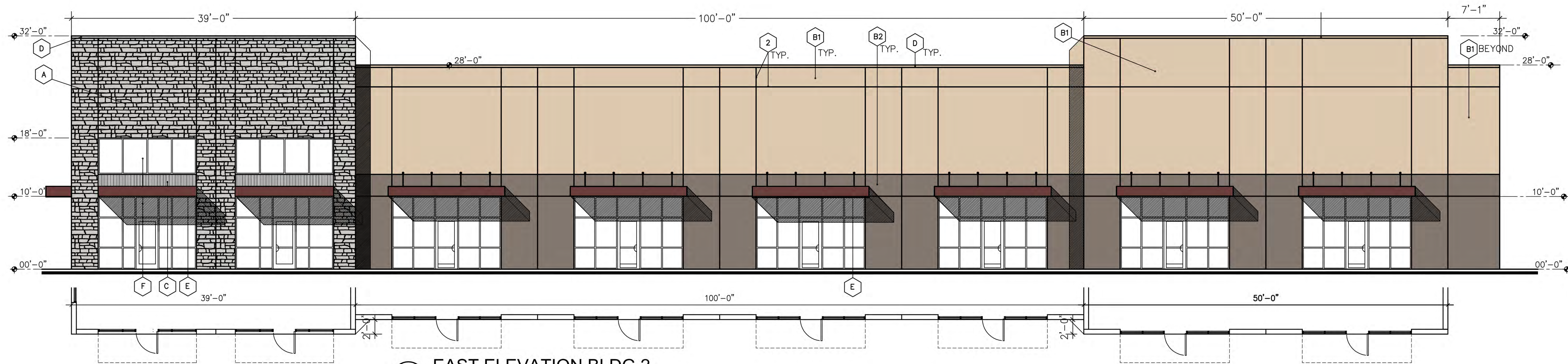
LEUDERS STONE	A 50% ROUGH BACK, BUFF MORTAR.
7 1/4" PRECAST CONCRETE PANEL PAINTED W/ COATING	B1 FIELD COLOR: SW 7030 ANEW GRAY
	B2 ACCENT COLOR: SW 7025 BACKDROP
PREFINISHED METAL PANEL CLADDING	C MATCH STOREFRONT FINISH
PREFINISHED METAL COPING	D COLOR: 560 20YY 68/102 RUSSIAN WHITE
METAL CANOPY	E PAINTED, COLOR: SW 7048 URBANE BRONZE
ANNODISED ALUM. STOREFRONT/ENTRY DOORS & WINDOW SYSTEM W/ 1" CLEAR INSULATED GLASS.	F ALUM. FRAME: ANNODISED ALUMINIUM GLASS: "CLEAR"
EXTERIOR HOLLOW METAL DOOR & FRAME	G PREFINISHED OR GALVANISED PAINTED TO MATCH ADJACENT
PREFINISH 12'X12' OVERHEAD LOADING DOOR	H COLOR TO MATCH CONCRETE PANEL- B1
SIGN BAND WITH METAL CLADDING FINISH & TRAFFIC HEIGHT CONTROL BAR	J METAL CLADDING TO MATCH STOREFRONT SYSTEM

KEY NOTES

- 16"X8" PREFINISHED OVERFLOW STEEL SCUPPER
COLOR TO MATCH-B1
- 3/4" CONCRETE PANEL JOINT
- ROOF LINE BEYOND



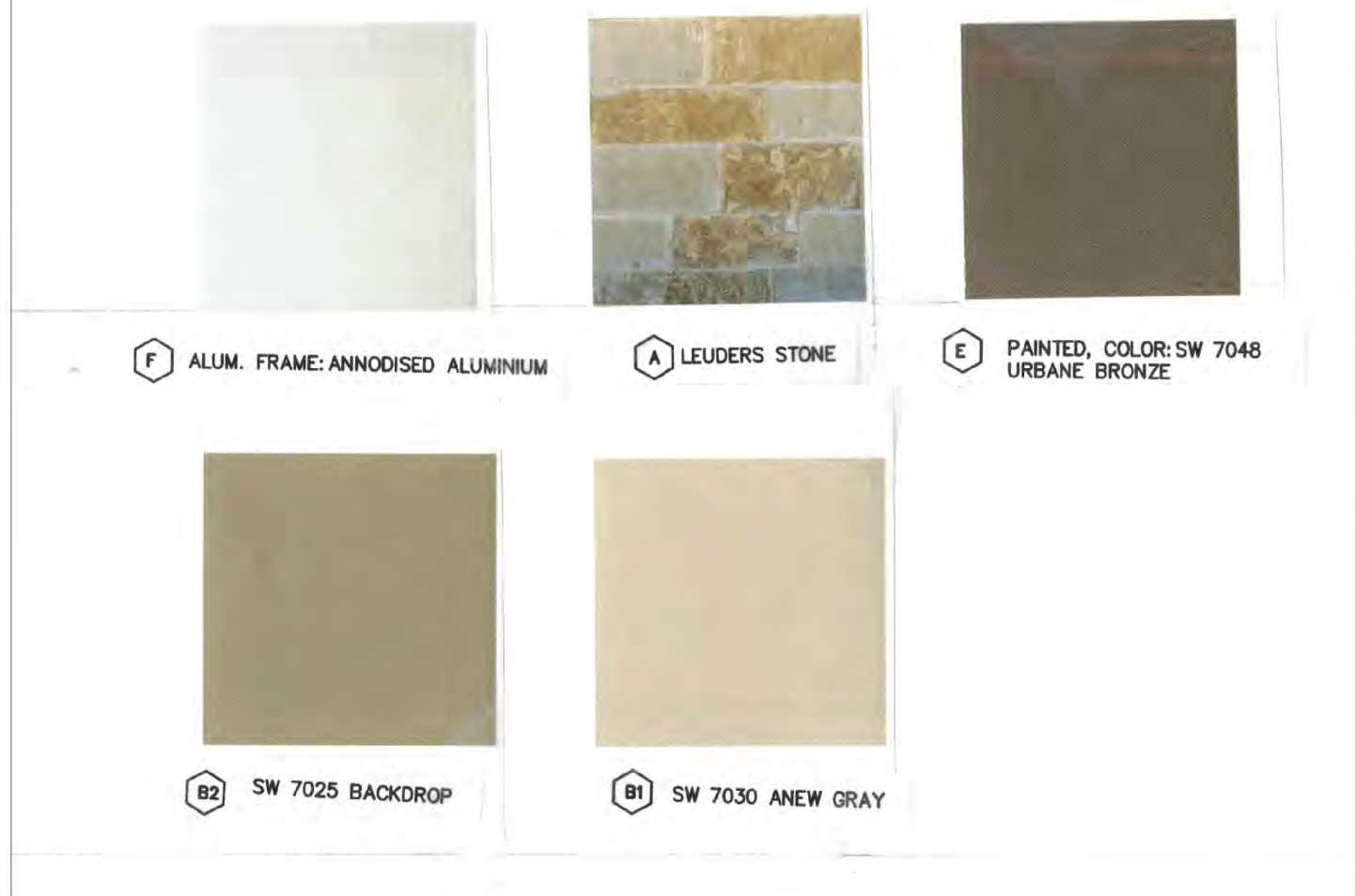
2-21-2022



EAST ELEVATION BLDG 2

SCALE: 1/8"=1'-0"

OFFICE WAREHOUSE LAKESIDE RANCH COLOR & SAMPLE CHART



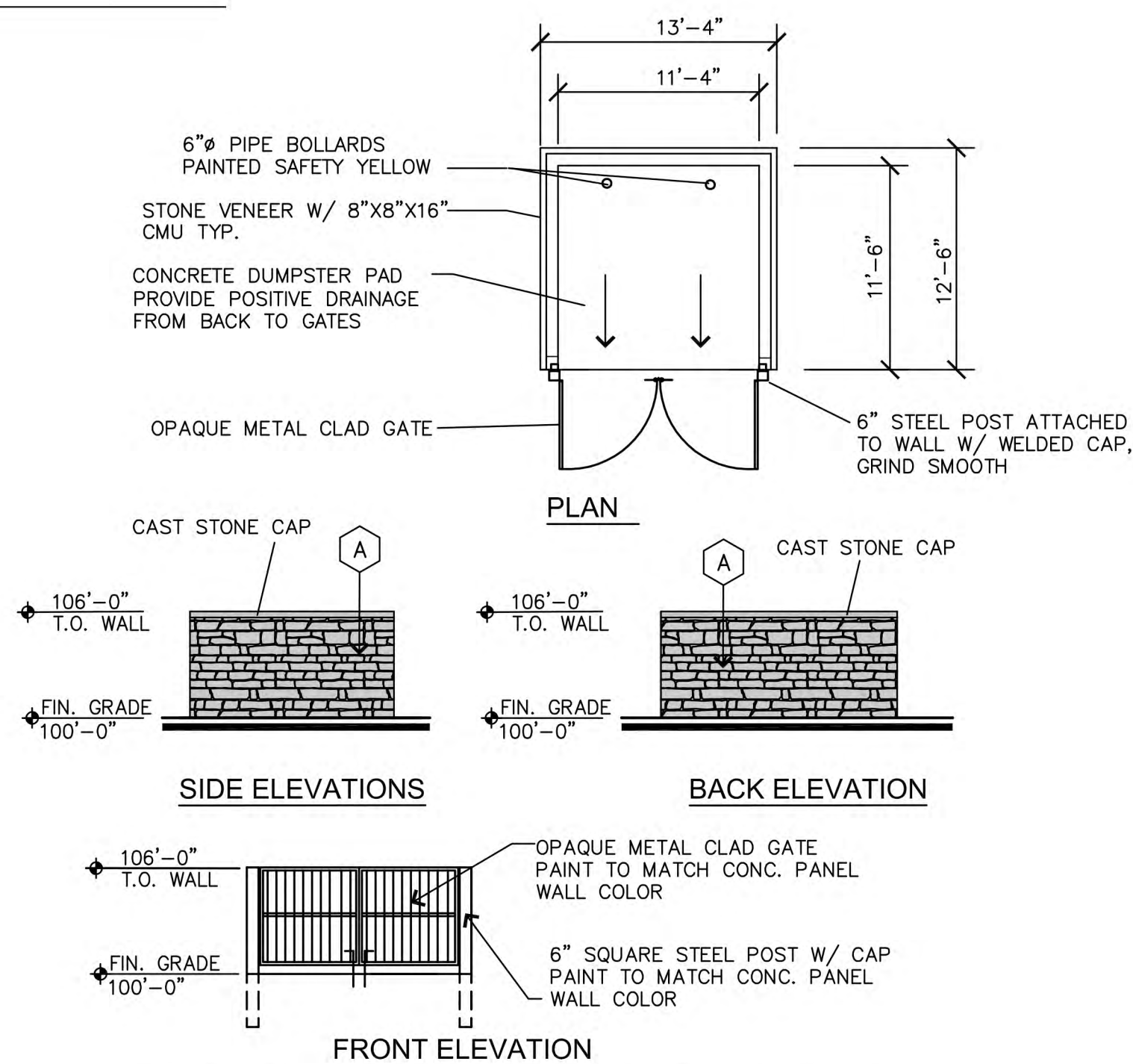
MATERIAL CALCULATION TABLE

		NORTH	SOUTH	EAST	WEST
1	TOTAL FACADE S.F.	4,084 SF	4,151.5 SF	5,852.3 SF	5,955 SF
2	FACADE S.F. (EXCLUSIVE OF DOORS & WINDOWS)	3,698 SF	3,521.5 SF	4,547.3 SF	4,455 SF
3	DOORS & WINDOWS S.F.	386 SF	630 SF	1,305 SF	1,500 SF
4	PRIMARY MASONRY TOTALS (MIN. 80%)	3517.2 SF AND 95.3%	3,252.5 SF AND 92.4%	4,333.5 SF AND 95.3%	4,187.3 SF AND 94%
	* STONE S.F.	_____	1,323 SF AND 37.6%	762 SF AND 16.8 %	840 SF AND 18.9 %
	* TIL WALL S.F.	3517.2 SF AND 95.3%	1,929.5 SF AND 54.8%	3,571.5 SF AND 78.5%	3,347.3 SF AND 75 %
5	SECONDARY MASONRY TOTALS (MAX. 20%)	_____	_____	_____	_____
6	METAL TOTALS (MAX. 20%)	171.8 SF AND 4.7%	269 SF AND 7.6%	213.8 SF AND 4.7%	267.7 SF AND 6%

SIGNS REQUIRE A SEPARATE BUILDING PERMIT, ANY SIGNS DEPICTED ON THE SUBJECT SITE PLAN/ELEVATIONS ARE NOT APPROVED AS A PART OF THIS REVIEW AND MUST COMPLY WITH ALL APPLICABLE TOWN REGULATIONS.

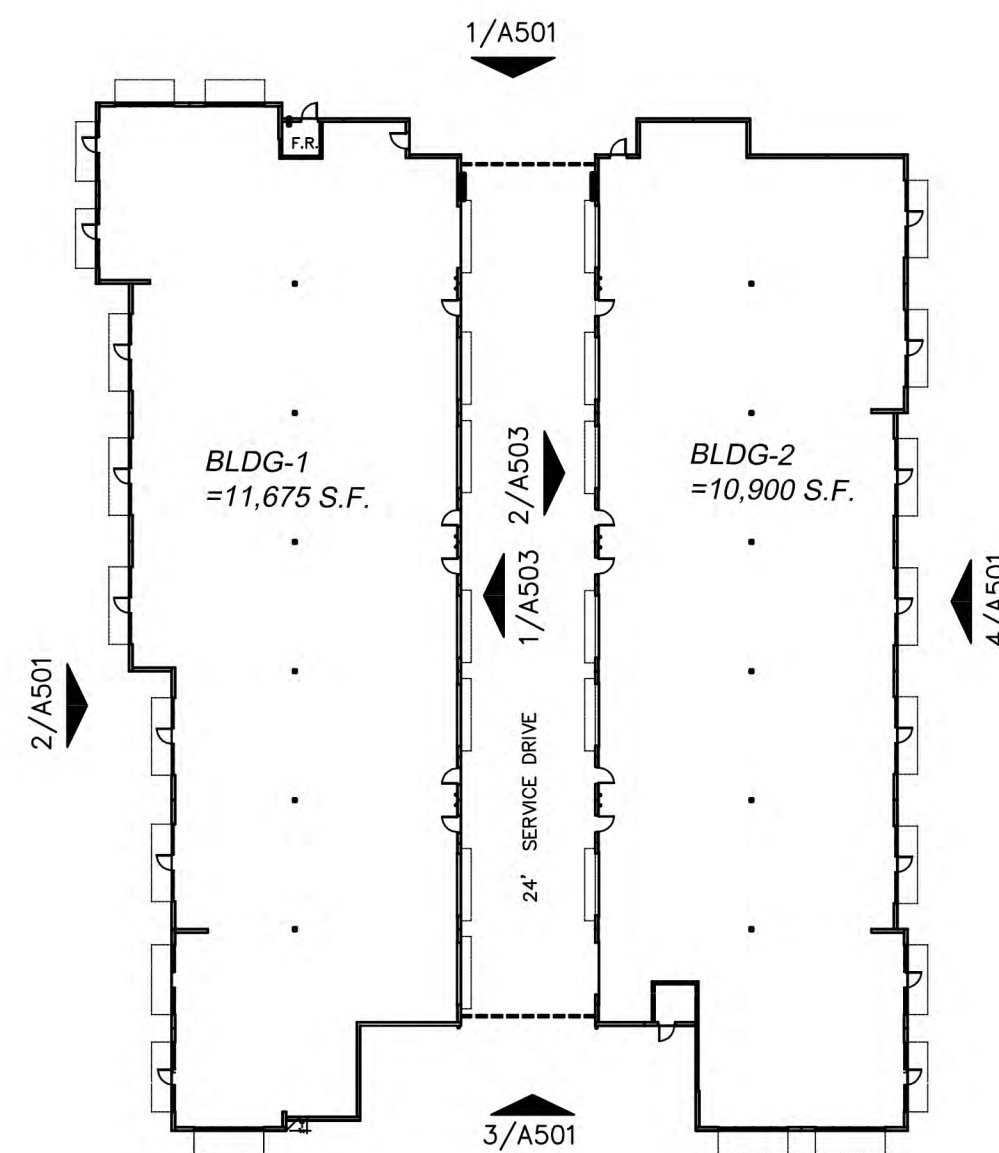
ELEVATIONS DESIGN IN COMPLIANCE WITH PD-83 STANDARD:

1. MATERIALS: ALL FACADE ELEVATIONS HAVE MORE THAN 80% PRIMARY MASONRY OF STONE & TILT WALL CONCRETE. TILT WALL CONCRETE ARE PROVIDED WITH DETAIL OF 3/4" PATTERN SCORINGS.
2. COLORS: MORE THAN 80% OF THE SOLID SURFACE FACADE ARE PROVIDED WITH NATURAL & EARTH TONE COLORS.
3. ARTICULATION: ALL BUILDING ELEVATIONS ARE LESS THAN 250 LINEAR FEET AND HAVE ARTICULATION IN DESIGN AS PER PD-83 REQUIREMENT.
4. ROOF: FLAT ROOF WITH CLOSED PARAPET WHICH SCREENS ALL ROOF APPARATUS SUCH AS ROOF MOUNTED HVAC EQUIPMENT AND VENTING ETC.
5. BUILDINGS FACING LAKESIDE PARKWAY & GERAULT ROAD ARE PROVIDED WITH BUMP UP TOWERS WITH HAND LAID STONE ACCENT.
6. UNIFIED DESIGN: THE TWO BUILDING FORMS & COLORS IN DESIGN ARE CONTEXTUAL, HARMONIOUS AND CONSISTENT TO EACH OTHER, AND TO THE BUILDING NEXT DOOR.
7. NO FRANCHISE ARCHITECTURE.
8. METAL: ALL METAL ARE FACTORY FINISHED.
9. GLASS ARE LOW E CLEAR 1" INSULATED GLASS (TINTED) AND NO REFLECTIVE GLASS.
10. EXTERNAL ELECTRICAL PANELS WILL BE PAINTED/TEXTURED TO MATCH THE MATERIAL AND COLOR OF THE BUILDING. TYP.



TRASH DUMPSTER ENCLOSURE

SCALE: 1/8"=1'-0"



KEY PLAN
NO SCALE

A Development of

OFFICE WAREHOUSE
DEVELOPMENT

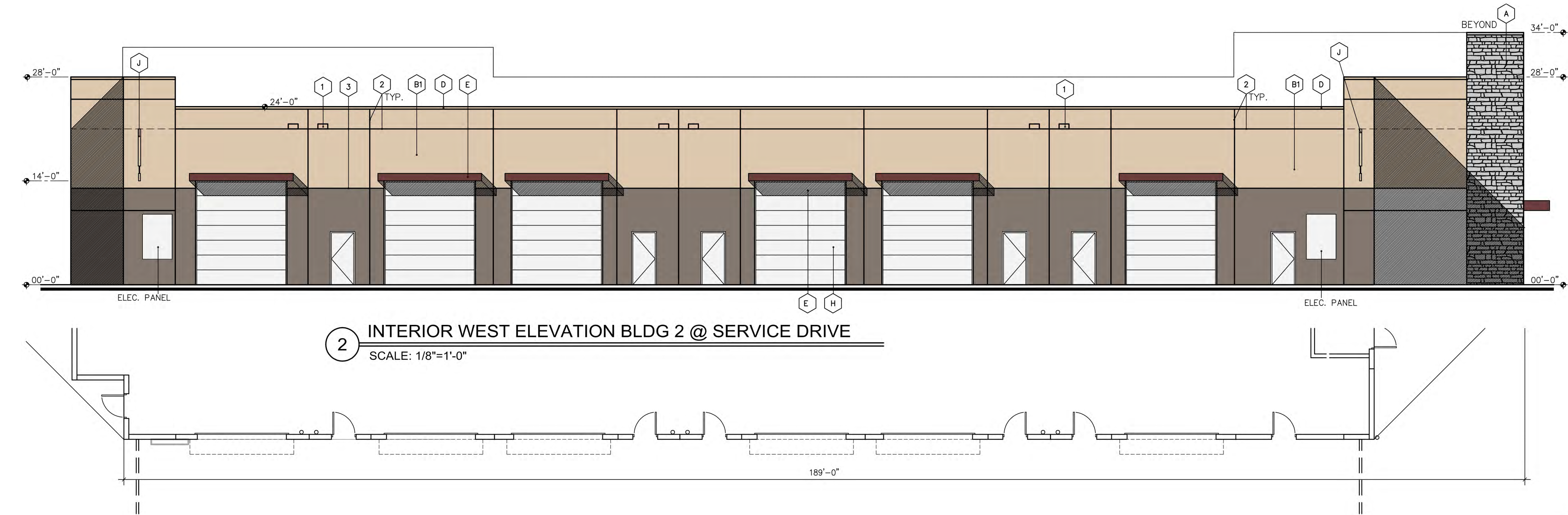
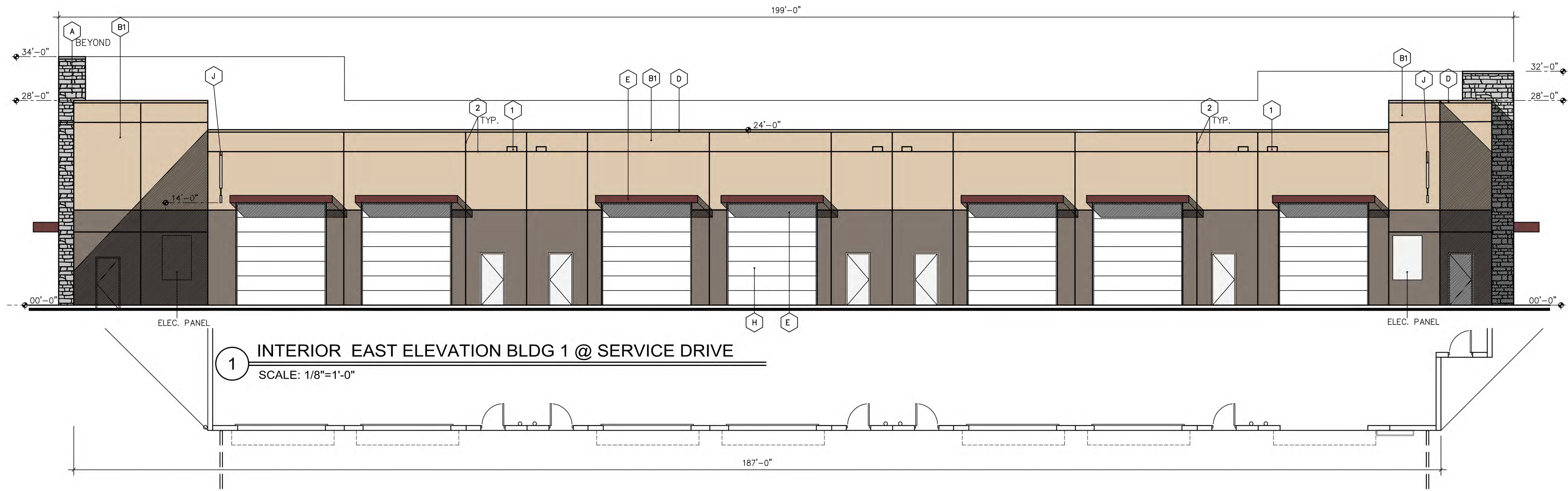
LAKESIDE RANCH BUSINESS PARK,
FLOWER MOUND, TX

REVISIONS:
2-21-2022 PER SITE PLAN REV.

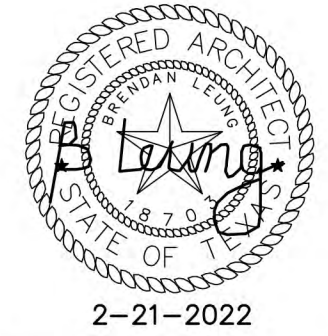
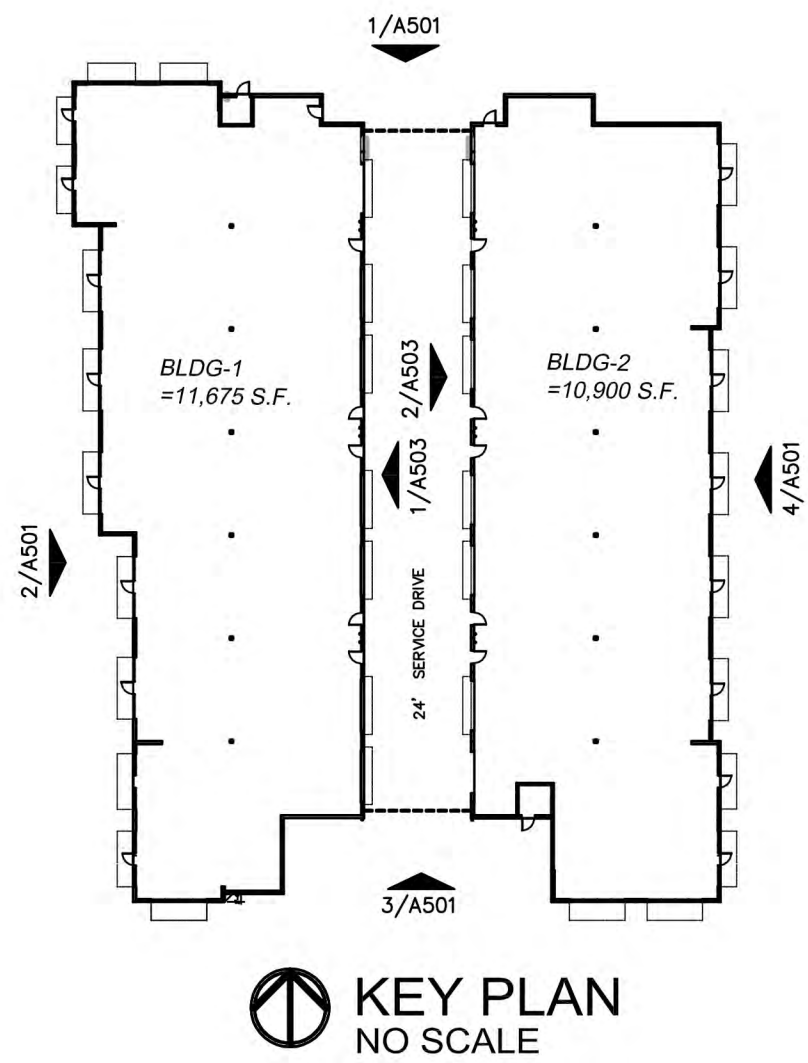
BUILDING
ELEVATIONS

DATE: 2-21-2022 SHEET NO:
PROJECT NO:
DRAWN BY: BL
CHECKED BY: -

A502



MATERIAL CALCULATION TABLE					
INTERIOR ELEVATIONS					
		WEST	EAST		
1	TOTAL FACADE S.F.	4,847 SF	4,940 SF		
2	FACADE S.F. (EXCLUSIVE OF DOORS & WINDOWS)	3,499 SF	3,568 SF		
3	DOORS & WINDOWS S.F.	1,348 SF	1,372 SF		
4	PRIMARY MASONRY TOTALS (MIN. 80%)	3396.4 SF AND 97.1%	3,460.8 SF AND 97%		
	* STONE S.F.	130 SF AND 3.7%	80 SF AND 2.2%		
	* TIL WALL S.F.	3,266.4 SF AND 93.4%	3380.8 SF AND 94.8%		
5	SECONDARY MASONRY TOTALS (MAX. 20%)				
6	METAL TOTALS (MAX. 20%)	102.6 SF AND 2.9%	107.2 SF AND 3 %		



A Development of

OFFICE WAREHOUSE
DEVELOPMENT
LAKESIDE RANCH BUSINESS PARK,
FLOWER MOUND, TX

REVISIONS:
2-21-2022 PER SITE PLAN REV.

BUILDING
INTERIOR
ELEVATIONS



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: 5

REGULAR ITEM

DATE: April 25, 2022

FROM: Claire Barnes, Planner

ITEM: Public Hearing to consider an ordinance for rezoning (ZPD21-0013 – Orchard Flower) to amend Planned Development No. 120 (PD-120) with Single-Family District-5 (SF-5) and Retail District-2 (R-2) uses, to modify the conceptual plans and elevations for the non-residential portion and modify the development standards, with an amendment to the previously approved exception to Sec 82-303 for the compatibility setback, and with certain modifications and exceptions to the Code of Ordinances. The property is generally located at the northwest corner of Flower Mound Road and Old Orchard Lane. *(On December 13, 2021, P&Z tabled the item to a date uncertain.)*

I. ITEM SUMMARY

This application has been reviewed by DRC and determined to be ready for consideration by the Planning and Zoning Commission.

This application will require final action by the Town Council.

Please note that after the application was tabled by P&Z, the applicant has since revised the plans to show a masonry compatibility wall in place of the previous wrought iron fence. The applicant has also removed the gate that previously provided access from the residential portion to the non-residential portion.

II. APPLICATION ANALYSIS

The purpose of the application is to request to amend the approved non-residential concept plans and concept elevations of Planned Development No. 120 (PD-120), including replacing the previously approved daycare building with a retail/office/restaurant building ("Area A").

The subject site is approximately 2.734 acres. The property is zoned Planned Development District-120 (PD-120) for retail uses.

On April 16, 2012, Town Council approved Ordinance No. 12-12 (ZPD06-11 – Orchard Flower), establishing PD-120. For the non-residential portion, the ordinance included a concept site plan, concept landscape plan, and concept elevations for two retail/office/restaurant buildings. On July 16, 2018, Town Council approved Ordinance No. 27-18 (ZPD18-0003 – The Goddard School at Orchard Flower) amending PD-120 to allow for a daycare facility in "Area A". This amendment included revised concept plans

and elevations. The request also included modifications to the development standards for the daycare use, including an exception to the compatibility setback to allow the daycare to be located less than 60 feet from the western property line.

On February 4, 2019, Town Council approved a site plan for the daycare facility ("Area A"), SP18-0019 Goddard School at Flower Mound. A site plan for "Area B", SP19-0013 Beall Retail Development, was approved by the Planning and Zoning Commission on September 23, 2019.

As part of this current application, the applicant is requesting to change "Area A" from a daycare facility back to a retail building. The amendment includes revising the elevations for the "Area A" building to make it look more like a retail building such as the one in "Area B". The applicant is also proposing changes to the previously approved elevations for "Area B", including, but not limited to, color modifications and window distribution. All proposed changes comply with the Town's Urban Design standards.

This application proposes to replace the playground area with a parking lot. All required landscaping is provided.

Some portions of the PD development standards are to be updated. Paragraphs F-10 through F-12, of Ordinance No. 12-12, pertain directly to the daycare use and are proposed to be removed. R-2 zoning typically requires a Specific Use Permit (SUP) for a day care center use. PD-120 permitted daycare uses by right, however, the applicant has agreed to amend the ordinance to require an SUP for any future daycare use.

Ordinance No. 12-12 originally showed the retail site as having a wrought-iron fence adjacent to the residential. Ord. No. 27-18 amended this so that the portion adjacent to the daycare site would be developed as masonry and the majority of the fence adjacent to "Area B" would remain wrought iron. However, since the first public hearing in December, the applicant has amended the plan to change the previous wrought-iron fence to masonry for both "Area A" and "Area B". If approved, the development standards would reflect this update to the PD fence standards. If the zoning amendment is approved, a site plan for "Area A" and an amended site plan for "Area B" will be required.

A. Exception to Section 82-303 Compatibility Setback

The residential compatibility standards apply when a non-residential development is proposed adjacent to an existing residential use or zoning, or property designated for residential use on the comprehensive master plan.

Town Code requires for non-residential, one-story buildings to be set back 60 feet from a property line if adjacent to residential property. When PD-120 was amended in 2018, Town Council granted the daycare facility an exception to this standard. The applicant is requesting that the compatibility setback exception apply to the proposed retail building as well. The setback exception allowed the daycare facility to be located less than 60 feet from the western property line. The concept plan shows the proposed "Area A" retail facility as 20 feet from the western property line.

III. CORRESPONDENCE

The Town Code requires both public notice in a newspaper of general circulation (Denton Record Chronicle) and notification of the property owners within 200 feet of the

subject property for all zoning application requests. ZPD21-0013 had a total of 34 Property Owner Notifications mailed. At the time this report was written, staff had not received any correspondence regarding this item.

IV. ATTACHMENTS

A. Background Information

1. Vicinity Map
2. Letter of Intent

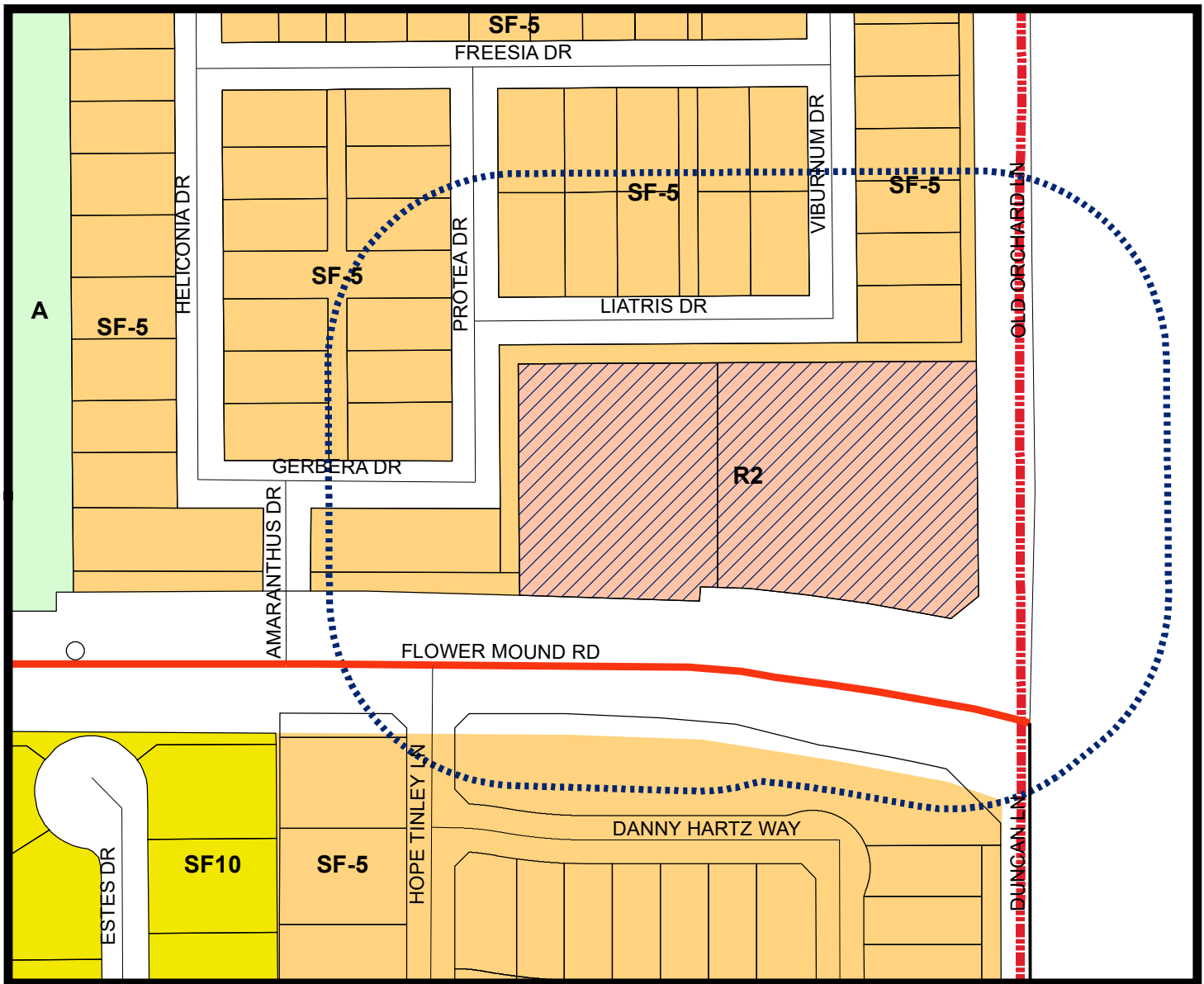
B. Application Details

1. Zoning Planned Development Package
2. DRAFT Planned Development (PD) Standards

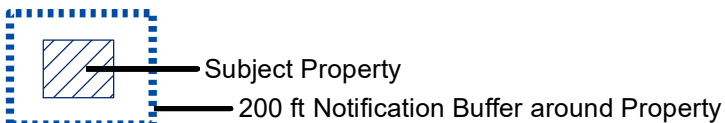


Vicinity Map

Reference Project: ZPD21-0013

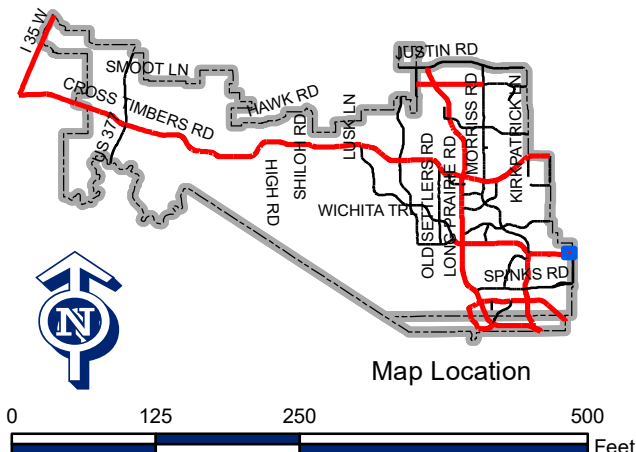


LEGEND



Visit www.fmdevmap.com to learn more about this project.

Visit <https://www.flower-mound.com/notifyme> to sign up for text message and/or email alerts for future projects.





T: 469.331.8566 | F: 469.213.7145 | W: triangle-engr.com | O: 1782 McDermott Drive, Allen, TX 75013

LETTER OF INTENT

ATTN: Poornima Kashyap,
Town of Flower Mound,
2121 Cross Timber Road
Flower Mound, Texas 75028
Phone: 972-874-6349

Date: Apr 12th, 2022

Subject: Letter of Intent for submitting PD Amendment for Retail Development at Flower Mound Road (F.M. 3040) & Old Orchard Lane, Flower Mound, Texas

Dear Madam,

This letter of intent is to inform Town of Flower Mound about requested PD amendment of Orchard Flower PD near NWC of Flower Mound Road (F.M. 3040) & Old Orchard Lane. The request is intended to amend part of Town of Flower Mound, Texas Ordinance No. 12-12 and the current Concept Plans of Orchard Flower PD.

For Town of Flower Mound, Texas Ordinance No.12-12, items below need to be updated as:

1. F.2 HOA residence requested the removal of sidewalk connectivity between residential and retail development.
2. F.7 At the request of HOA, wrought iron fence will be replaced with masonry wall.

For lot 1, the concept plan is being revised from Goddard School Daycare Development to Retail Building Development. The Goddard school elevations were residential in appearance while retail development elevation has been revised to match its proposed use of retail commercial. For lot 2, the access to the trail of northern residential area has been closed and the site layout has been revised accordingly. Also, the proposed screening wall on the northern side has been extended to the limits of existing screening wall. Below is the summary of changes requested:

Lot 1:

1. Replace "daycare facility" with "retail building" in paragraph G-5.
2. Delete standards with paragraph F-10, F-11 & F-12 as it was written specifically to address concerns regarding a daycare center.
3. G-5: Setback exception was approved on last PD amendment with drive aisle between two buildings. The proposed retail development will retain the similar layout with the exception accepted on approved PD.
4. Site plan changes: The Godard school site plan had play area on northwest corner which has been replaced by parking area in retail development plan.
5. Landscape changes: The Godard school site plan had play area on northwest corner which has been



T: 469.331.8566 | F: 469.213.7145 | W: triangle-engr.com | O: 1782 McDermott Drive, Allen, TX 75013

replaced by parking area in retail development plan. Trees has been added to match the parking requirement.

6. Architectural changes:

- a. Brick Veneer from Metro "Old South" to Acme "Mocha Ironspot"
- b. Brick accent Acme "Cape Cod" is added.
- c. Cultured Stone from Metro "Mocha ledge Stone" to Acme "Cream Limestone".
- d. Stucco1 from Sherwin Williams "Pure White – SW 7005" to Sherwin Williams "Accessible Beige SW 7036".
- e. Stucco 2 (trim) no change from Sherwin Williams "Latte SW 6108".

Lot 2:

1. Site plan changes: The trail connection from northern residential area to Beall Retail has been closed and site layout has been revised accordingly. The proposed screening wall on the northern side has been extend all the way to the existing screening wall.

Site Data:

- a) Existing Zoning District: PD-120
- b) Development Plan Acreage: Lot 1: 51,555 SF OR 1.184 acres
Lot 2: 67,512 SF OR 1.55 acres
- c) Proposed Use: Retail / Office / Restaurant.

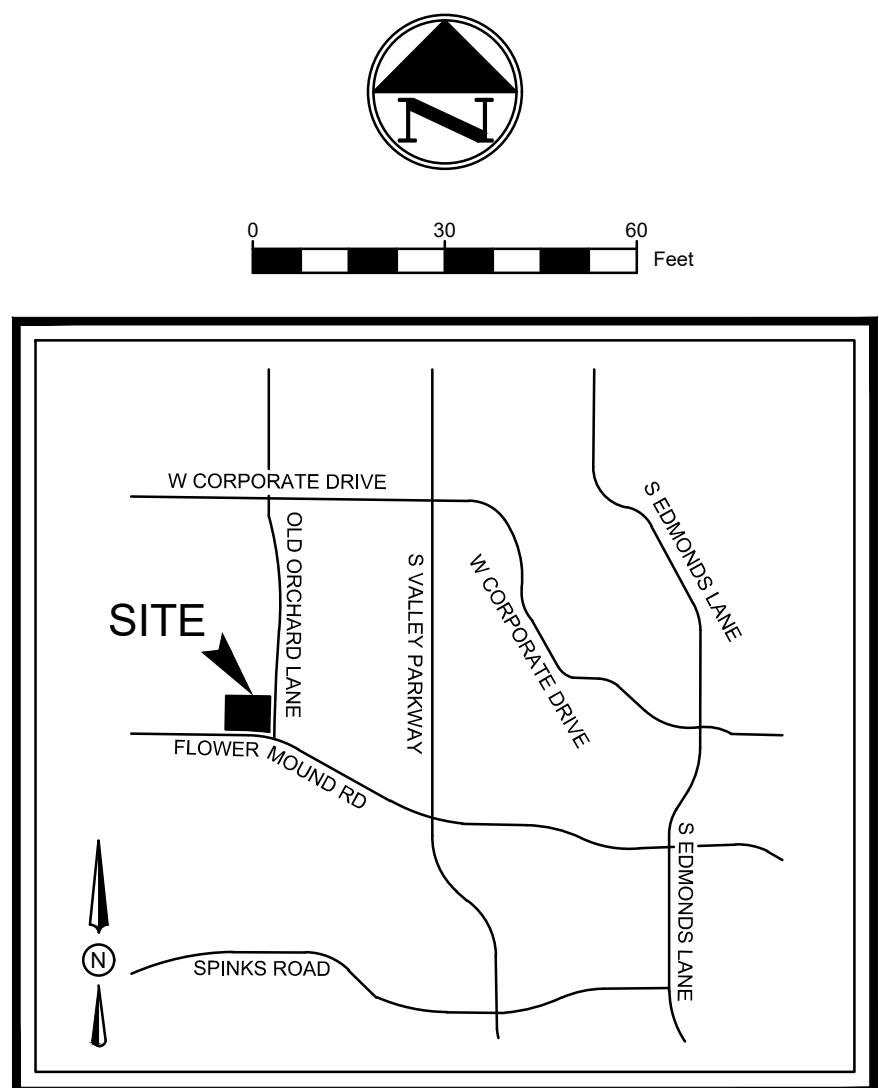
Let me know if you need anything addressed. Thank you in advance for your help on this procedure in getting staff's approval on above referenced project.

Sincerely,

Kiew Kam, P.E.

Triangle Engineering LLC.

RETAIL AT FLOWER MOUND LOT 1 & 2 BLOCK A, WINBORN ADDITION
DENTON COUNTY, TEXAS



VICINITY MAP
N.T.S.

LEGEND

EXISTING BOUNDARY	
EXISTING CURB	
EXISTING WATER MAIN	WTR
EXISTING SANITARY SEWER	SEWER
EXISTING SEWER MANHOLE	SSMH
EXISTING POWER POLE	PP
EXISTING STORM SEWER	EX RCP
EXISTING FIRE HYDRANT	FH
EXISTING STORM INLET	
EXISTING SCREEN WALL	
BOUNDARY LINE	
PROPOSED CURB	
PROPOSED HANDICAP SIGN	
PROPOSED HANDICAP LOGO	
PROPOSED FIRE HYDRANT	
PROPOSED WATER METER	
PROPOSED BACK FLOW PREVENTER	
PROP. BOLLARD	
PROP. STORM INLET	
PROP. FIRE DEPARTMENT CONNECTION	
PROP. MONUMENT SIGN	
PROP. 6' HIGH FENCE	
PROP. 4' HIGH SEPARATOR FENCE	
PROP. SITE LIGHT POLE	
PROP. SEWER MH BY DEVELOPER	
PROPOSED FIRE LANE	

ZONING DATA TABLE

DEVELOPMENT STANDARD	REQUIRED	PROVIDED
MIN. LOT SIZE	NO MIN.	NO MIN.
MIN. LOT WIDTH	NO MIN.	NO MIN.
MIN. AREA/UNIT	NO MIN.	NO MIN.
MIN. FRONT YARD	60' MIN.	60' MIN.
MIN. SIDE YARD	NO MIN.	NO MIN.
MIN. REAR YARD	60' MIN.	60' MIN.
MAX. LOT COVERAGE	50% MAX.	50% MAX.
MAX. FLOOR AREA RATIO	NO MAX.	NO MAX.
MAX. HEIGHT (STORIES/FT)	2 ST. / 35'	2 ST. / 35'

LEGEND

DRAINAGE EASEMENT	DE
WATERLINE EASEMENT	WE
FIRE HYDRANT	FH
BUILDING SETBACK	BS
LANDSCAPE BUFFER	LB

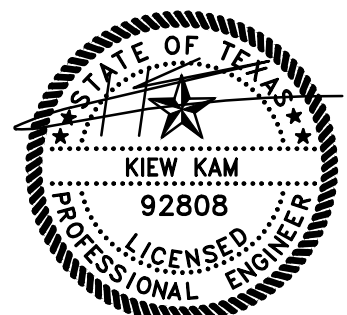
MASTER PLAN FEATURES TABLE

LAND USE PLAN	RETAIL
URBAN DESIGN PLAN	LONG PRAIRIE DISTRICT
PARKS AND TRAILS	FUTURE 8' MULTI-PURPOSE TRAIL TO BE INSTALLED ON THE NORTH SIDE OF FLOWER MOUND ROAD AND CONNECTED TO EXISTING 8' MULTI-PURPOSE TRAIL ON THE WEST SIDE OF OLD ORCHARD LANE
OPEN SPACE PLAN	NOT A CONSERVATION DEVELOPMENT
THOROUGHFARE PLAN	FLOWER MOUND ROAD - MAJOR ARTERIAL WITH 120 FEET OF ROW OLD ORCHARD LANE - URBAN COLLECTOR WITH 80 FEET OF ROW INGRESS/EGRESS DRIVEWAY OFF FLOWER MOUND ROAD INGRESS/EGRESS DRIVEWAY OFF OLD ORCHARD LANE CROSS ACCESS PROVIDED TO NEIGHBORING PROPERTY TO EAST
WATER PLAN	LONG PRAIRIE DISTRICT, 12 INCH WATER LINES ALONG NORTH SIDE FLOWER MOUND ROAD AND WEST SIDE OF OLD ORCHARD LANE
WASTEWATER PLAN	LONG PRAIRIE DISTRICT, 10 INCH SANITARY SEWER LINES ALONG NORTH SIDE OF FLOWER MOUND ROAD AND 10 LINE EXTENDED THROUGH PROPERTY A PORTION OF LINE EXTENDED THROUGH PROPERTY TO ABANDONED AS PART OF THIS DEVELOPMENT

PROJECT CONTACT LIST

OWNER/DEVELOPER BEALL LEGACY PARTNERS, LP 5712 COLLEYVILLE BLVD, STE 200 COLLEYVILLE, TX 76034 ROBERT BEALL 817-399-1100	ENGINEER TRIANGLE ENGINEERING LLC 1784 McDERMOTT DR., STE. 110 ALLEN, TX 75013 KARTAVYA PATEL 214-609-9271
SURVEYOR A&W SURVEYORS, INC. P.O. BOX 870029 MESQUITE, TX 75187 JOHN S. TURNER 972-681-4975	ARCHITECT PRIZM ARCHITECTS 580 DECKER DRIVE #170 IRVING, TX 75062 RODNEY ST. JOHN 972-714-0420

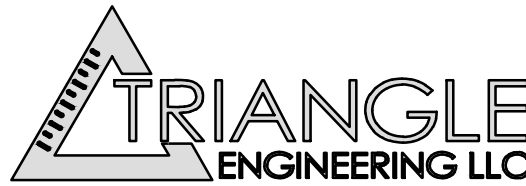
NO.	DATE	DESCRIPTION	BY
1	08-19-21	1ST PD AMENDMENT SUBMITTAL	KK
2	10-29-21	2ND PD AMENDMENT SUBMITTAL	KK
3	11-30-21	3RD PD AMENDMENT SUBMITTAL	KK
4	03-21-22	4TH PD AMENDMENT SUBMITTAL	KK
5	04-14-22	5TH PD AMENDMENT SUBMITTAL	KK



04/14/2022

ZPD21-0013

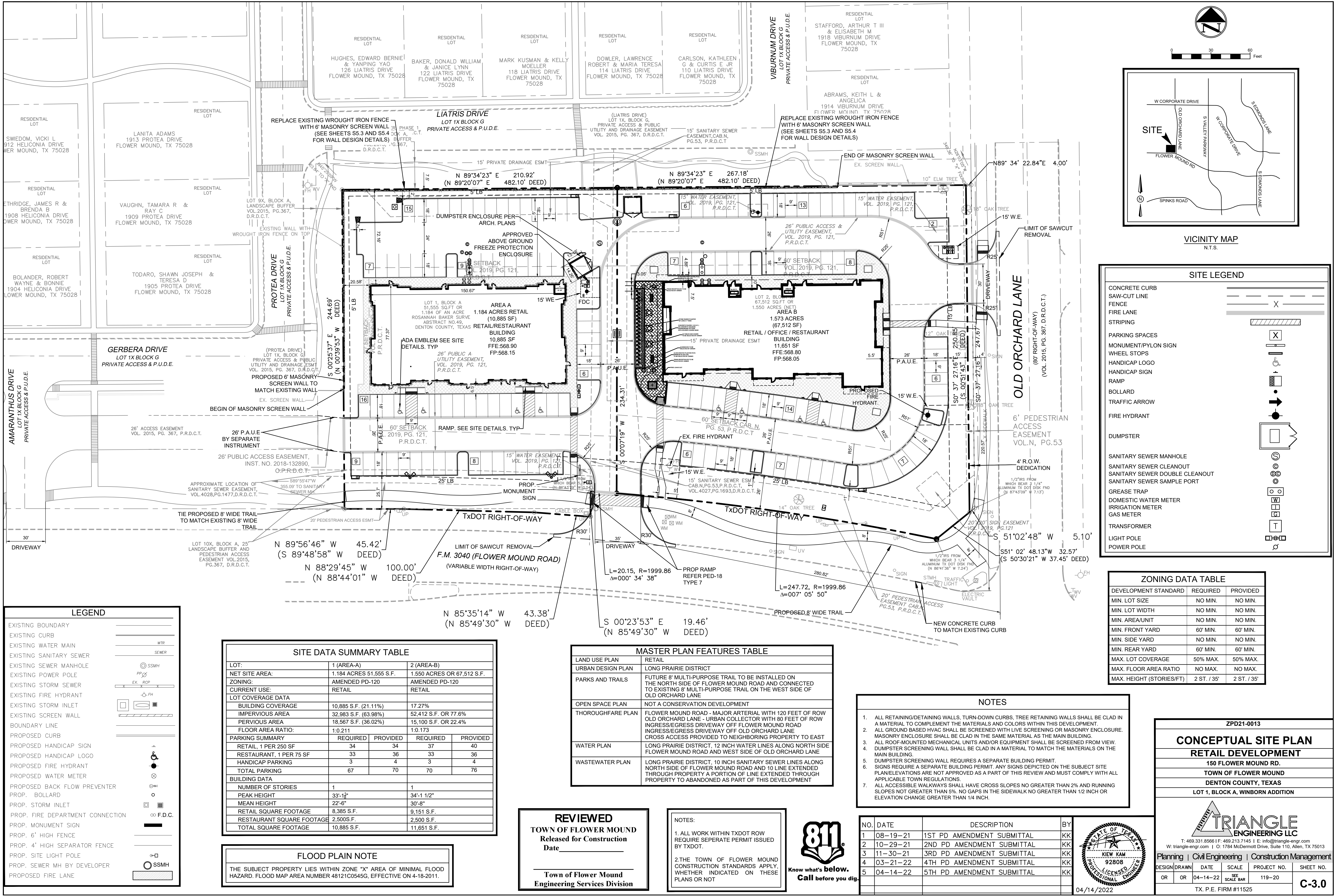
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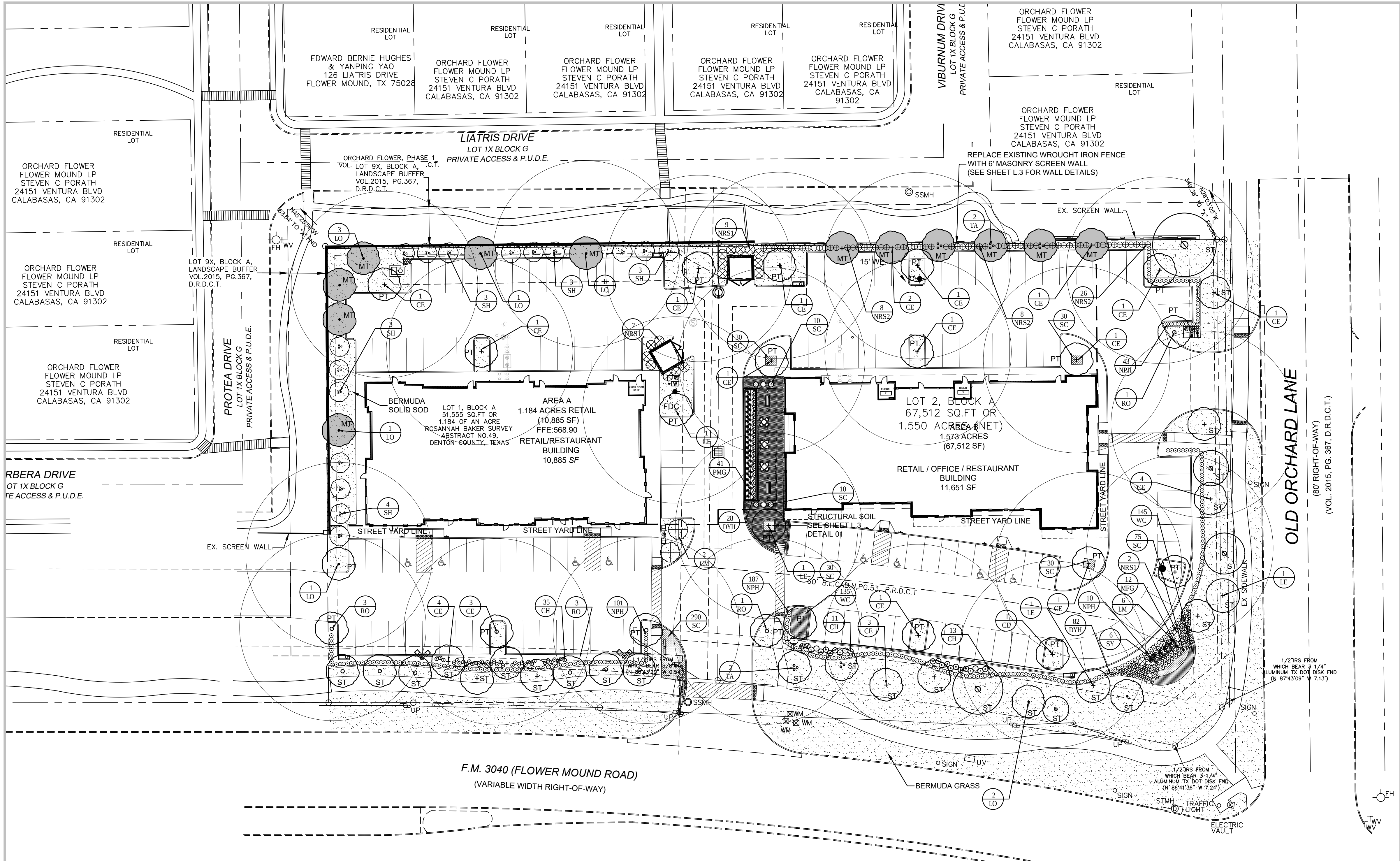


Planning | Civil Engineering | Construction Management

DESIGN/DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KK	OR	04-14-22	SCALE BAR	119-20
				ZE

TX. P.E. FIRM #11525





LANDSCAPE TABULATIONS - AREA A

Street Yard Landscaping				
Standard	Total Street Yard (Square Feet)	Required	Provided	
Min. 20% of street yard	20,328	4,066	4,687	
Street Yard Trees				
Standard	Total Street Yard (Square Feet)	Required	Provided	
10,000 to 110,000 10 trees for first 10,000 plus 1 tree per 2,500 ft. or excess of 10,000 s.f.	Flower Mound Road 20,328 s.f.	14	14- 3' Cal. Trees	
Trees required to satisfy other provisions of landscaping requirements and lying within the street yard may be used to satisfy the requirements of other sections.				
Street Buffer Trees				
Standard	Street Frontage (Linear Feet)	Required	Provided	
1 canopy tree per 30 l.f.	Flower Mound Road 188.78 l.f.	7	7- 3' Cal. Trees	
Parking Area Landscaping				
Standard	No. of Parking Spaces	Required	Provided	
90 s.f. per 12 spaces	70	525 s.f.	800 s.f.	
Parking Area Trees				
Standard	No. of Parking Spaces	Required	Provided	
1 tree per 10 spaces	70	7	8	

LANDSCAPE TABULATIONS - AREA B

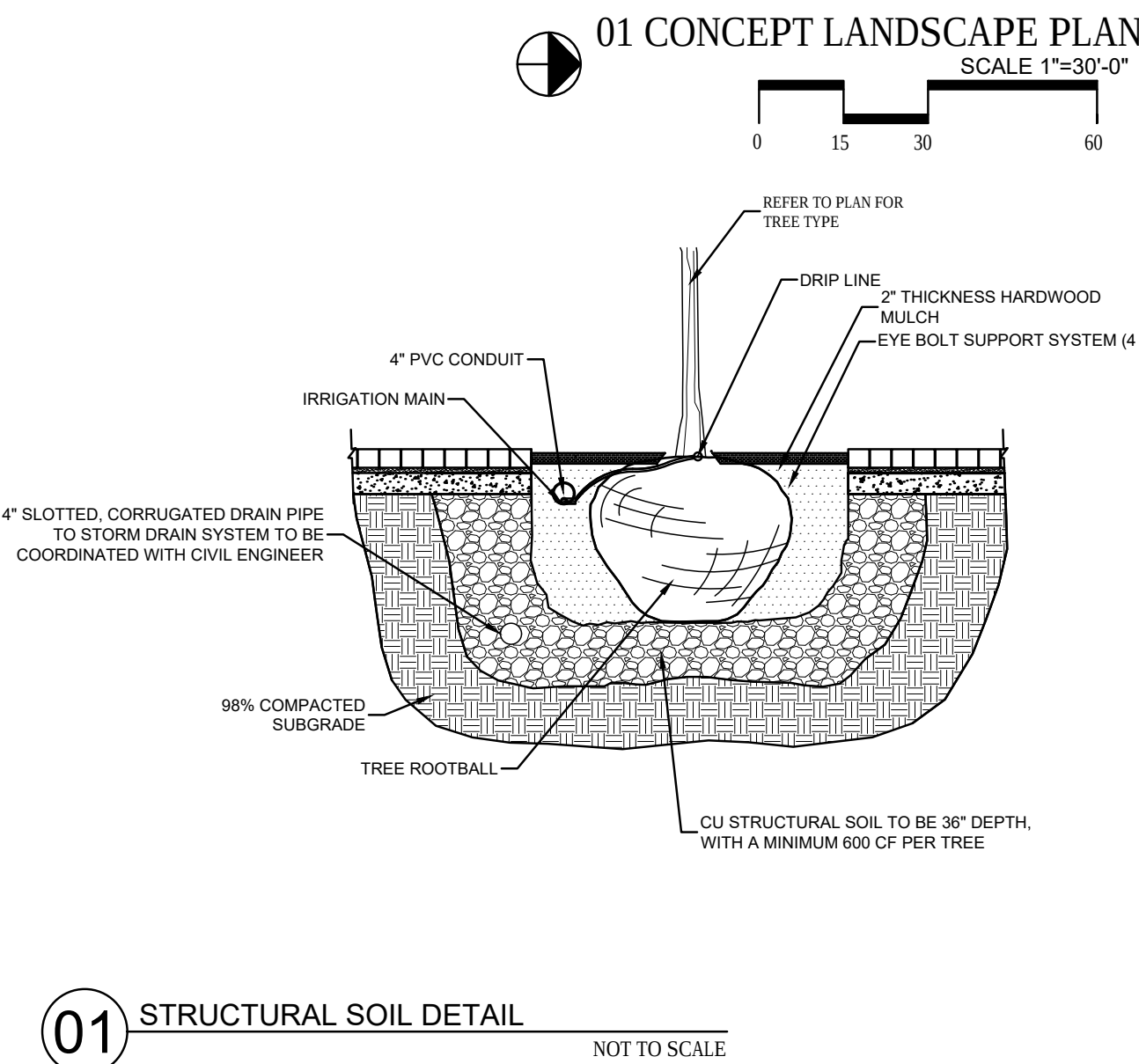
Street Yard Landscaping				
Standard	Total Street Yard (Square Feet)	Required	Provided	
Min. 20% of street yard	40,486	8,097	13,443	
Street Yard Trees				
Standard	Total Street Yard (Square Feet)	Required	Provided	
10,000 to 110,000 10 trees for first 10,000 plus (1) per 2,500 ft. or excess of 10,000 s.f.	Flower Mound Road & Old Orchard Ln. 40,486 s.f.	23	18- 3' Cal. Trees 5- Existing Trees	
Trees required to satisfy other provisions of landscaping requirements and lying within the street yard may be used to satisfy the requirements of other sections.				
Street Buffer Trees				
Standard	Street Frontage (Linear Feet)	Required	Provided	
1 per 30 l.f.	Flower Mound Road 248.01 l.f.	8	7- 3' Cal. Trees 1 Existing Trees	
1 per 30 l.f.	Old Orchard Lane 247.67 l.f.	8	5- 3' Cal. Trees 3 Existing Trees	
Parking Area Landscaping				
Standard	No. of Parking Spaces	Required	Provided	
90 s.f. per 12 spaces	76	570 s.f.	1,187 s.f.	
Parking Area Trees				
Standard	No. of Parking Spaces	Required	Provided	
1 tree per 10 spaces	76	8	13	

LEGEND

PT- PARKING LOT TREES
ST- STREET TREES
MT- MITIGATION TREES

PLANT MATERIAL SCHEDULE

TREES					
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
CM	2	Crepe Myrtle 'Dallas Red'	Lagerstroemia indica 'Dallas Red'	8' ht.	container, 3 or 5 trunks, tree form
CE	28	Cedar Elm	Ulmus crassifolia	3" cal.	container, 14' ht., 6' spread, 5' clear straight trunk
LE	3	Athena Lacebark Elm	Ulmus parvifolia 'Athena'	3" cal.	container, 14' ht., 6' spread, 5' clear straight trunk
LO	9	Live Oak	Quercus virginiana	3" cal.	container, 14' ht., 6' spread, 5' clear straight trunk
LM	6	Lil Gem Magnolia	Magnolia grandiflora 'Lil Gem'	8' ht.	container, 8' ht., 4' spread, full to base
RO	11	Shumard Red Oak	Quercus shumardii	3" cal.	container, 14' ht., 6' spread, 5' clear straight trunk
SH	16	Savannah Holly	Ilex americana 'Savannah'	8' ht.	container, 8' ht., 4' spread, tree form
TA	5	Texas Ash	Fraxinus albicans	3" cal.	container, 14' ht., 6' spread, 5' clear straight trunk
SHRUBS					
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
DYH	110	Dwarf Yaupon Holly	Ilex vomitoria 'Nana'	3 gal.	container grown, 20" spread
CH	58	Carissa Holly	Carissa cornuta 'Carissa'	7 gal.	container full, 30" spread
MFG	12	Mexican Feathergrass	Nassella tenuissima	3 gal.	container full, well rooted
PMG	41	Pink Muhly Grass	Muhlenbergia capillaris	3 gal.	container, 24" ht., 20" spread
NPH	331	Needlepoint Holly	Ilex cornuta 'Needlepoint'	7 gal.	container, 36" ht., 24" spread
NRS1	18	Nellie R. Stevens Holly	Ilex x 'Nellie R. Stevens'	6' ht.	container grown, 36" spread, full to base
NRS2	64	Nellie R. Stevens Holly	Ilex x 'Nellie R. Stevens'	7 gal.	container, 36" ht., 24" spread
GROUND COVERS					
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
SC	485	Seasonal Color	Euonymus fortunei 'Coloratus'	4" pots	selection by owner, 12" o.c.
WC	280	Purple Wintercreeper	Cynodon dactylon '419'	4" pots	container, 3- 12" runners min., 12" o.c.
Solid Sod refer to notes					
NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching within varieties.					



GENERAL LAWN NOTES

- FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED ON CIVIL PLANS.
- ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
- ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1\"/>

SOLID SOD NOTES

- FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3\"/>
- ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
- ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1\"/>
- CONTRACTOR TO COORDINATE WITH ON-SITE CONSTRUCTION MANAGER FOR AVAILABILITY OF EXISTING TOPSOIL.
- PLANT SOD BY HAND TO COVER INDICATED AREA COMPLETELY. INSURE EDGES OF SOD ARE TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS.
- ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE, FREE FROM UNNATURAL UNDULATIONS.
- WATER SOD THOROUGHLY AS SOD OPERATION PROGRESSES.
- CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE. THIS SHALL INCLUDE, BUT NOT LIMITED TO, MOWING, WATERING, WEEDING, CULTIVATING, CLEANING AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION.
- CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF AN ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY IF NECESSARY.
- IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1 AND MARCH 1, ALL SOD AREAS TO BE OVER-SEED WITH WINTER RYEGRASS, AT A RATE OF (4) POUNDS PER ONE THOUSAND (1000) SQUARE FEET.

LANDSCAPE NOTES

- CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
- CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
- CONTRACTOR TO PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
- ALL PLANTING BEDS AND LAWN AREAS TO BE SEPARATED BY STEEL EDGING. NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.
- ALL LANDSCAPE AREAS TO BE 100% IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM AND SHALL INCLUDE RAIN AND FREEZE SENSORS.
- ALL LAWN AREAS TO BE SOLID SOD BERMUDAGRASS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

SITE FURNISHING NOTES

- CONTRACTOR SHALL PROVIDE TURN-KEY INSTALLATION OF ALL PLANTERS INCLUDING, BUT NOT LIMITED TO, SHIPMENT, HANDLING, PLACEMENT, ETC.
- IRRIGATION AND DRAINAGE HOLES TO BE DRILLED ON SITE BY CONTRACTOR.
- BOTTOM OF POTS TO INCLUDE PEA GRAVEL, 4\"/>

MASONRY WALL DETAILS

FIND MASONRY WALL DETAILS ON SHEET S5.3 AND S5.4
EXTERIOR MATERIALS TO MATCH EXISTING WALL

FENCE DETAILS

FIND FENCE DETAILS ON SHEET C7.2

SITE FURNISHINGS

- TABLE SHALL BE:
PARC CENTRE 30\"/>
- CHAIRS TO BE:
PARC CENTRE- CHAIR NO ARMS
STANDARD COLOR TO BE DETERMINED
AVAILABLE FROM: LANDSCAPE FORMS
QUANTITY- 2
LARA MOFFAT
(269) 337-1309
- BENCHES TO BE:
NEOCOMBO BENCH- 59\"/>
- LITTER RECEPTACLE TO BE:
PETOSKEY LITTER RECEPTACLE- HINGED LID
STANDARD COLOR TO BE DETERMINED
AVAILABLE FROM: LANDSCAPE FORMS
QUANTITY- 2
LARA MOFFAT
(269) 337-1309

PLANTER NOTES

- PLANTERS SHALL BE:
DECORATIVE PLANTERS, 36\"/>
- CONTRACTOR SHALL PROVIDE TURN-KEY INSTALLATION OF ALL PLANTERS INCLUDING, BUT NOT LIMITED TO, SHIPMENT, HANDLING, PLACEMENT, ETC.
- IRRIGATION AND DRAINAGE HOLES TO BE DRILLED ON SITE BY CONTRACTOR.
- BOTTOM OF POTS TO INCLUDE PEA GRAVEL, 4\"/>
- ALL PLANTERS ARE TO HAVE MICRO SPRAY IRRIGATION INSTALLED.

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1784 W. McDERMOTT DR.
SUITE 110
ALLEN, TEXAS 75013
(469) 369-4448
CHRIS@STUDIOGREENSPOT.COM



04.19.2022

RETAIL PROJECT

FLOWER MOUND ROAD
FLOWER MOUND, TEXAS

ISSUE:

FOR APPROVAL 08.12.2021
CITY COMMENTS 11.24.2021
CITY COMMENTS 03.24.2022
CITY COMMENTS 04.13.2022
CITY COMMENTS 04.19.2022

DATE:

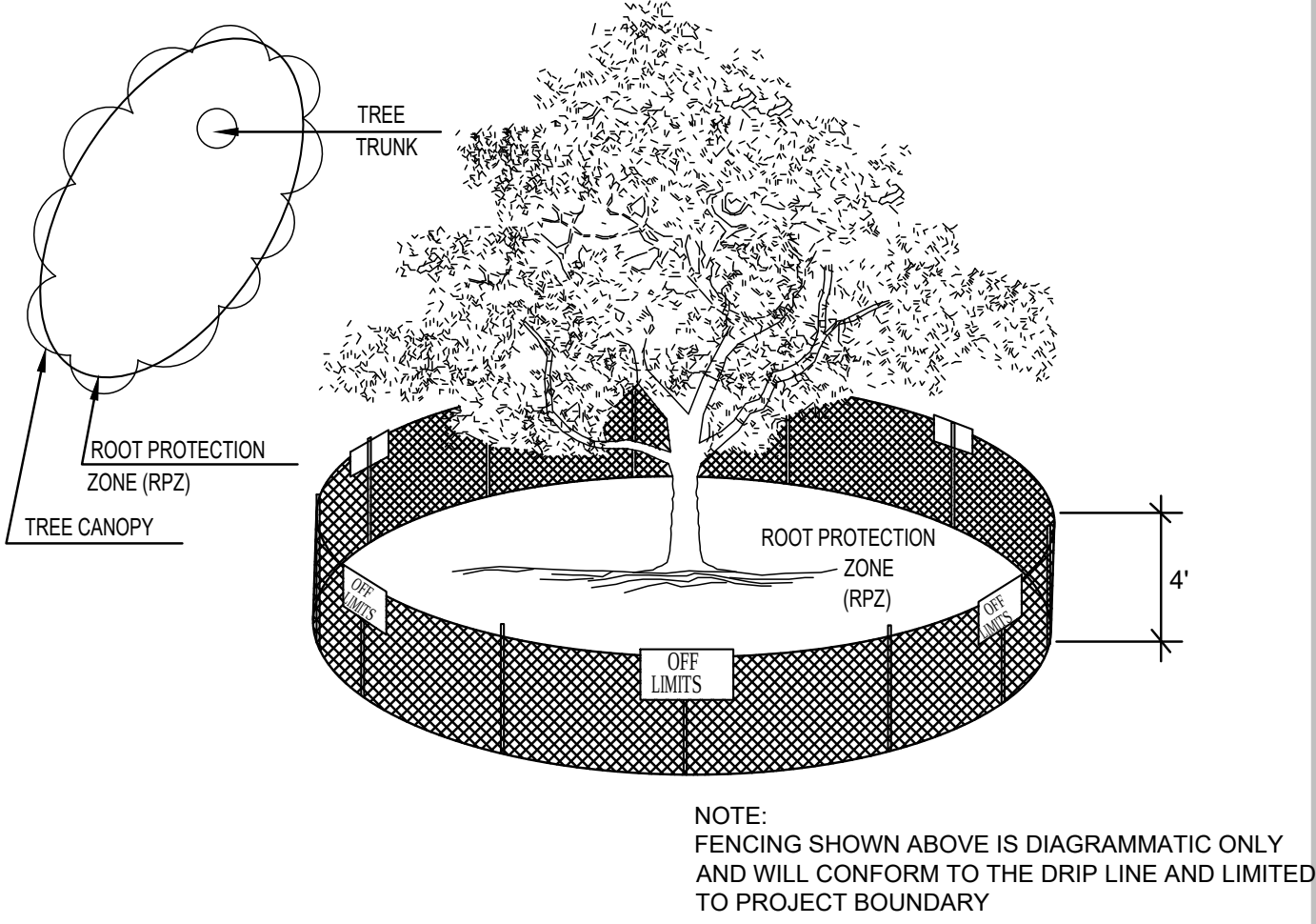
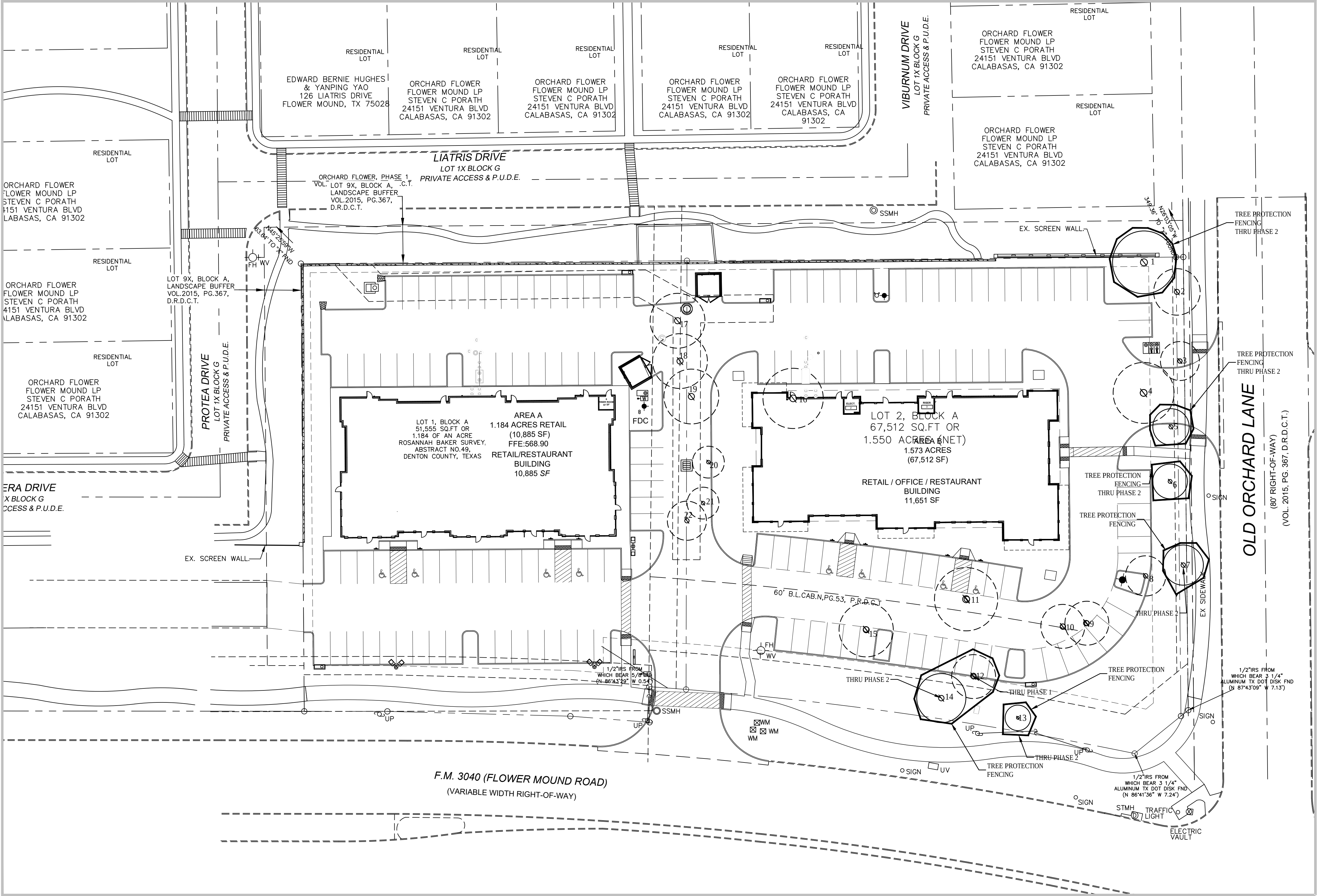
04.19.2022

SHEET NAME:

CONCEPT LANDSCAPE PLAN

SHEET NUMBER:

L.4



01 TREE PROTECTION FENCE A
NOT TO SCALE

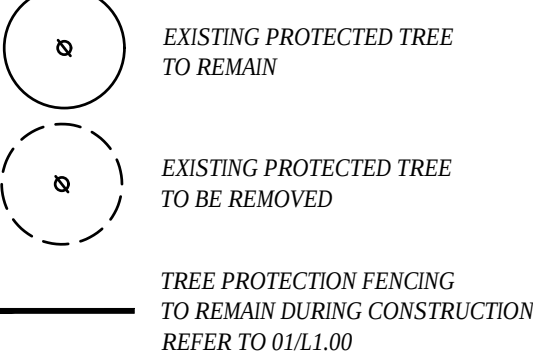
EXISTING TREE NOTES

- Existing trees to remain shall be protected during construction from tree structure damage and compaction of soil under and around drip line (canopy) of tree.
- If any root structure is damaged during adjacent excavation/construction, notify the Landscape Architect immediately. It is recommended that a licensed Arborist be secured for the treatment of any possible tree wounds.
- Any fine grading done within the critical root zones of the protected trees must be done by hand. No earth moving equipment is allowed within the critical root zone of the trees.
- Material Storage: No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the drip line of any tree.
- Equipment Cleaning/Liquid Disposal: No equipment may be cleaned, toxic solutions, or other liquid chemicals shall be deposited within the limits of the drip line of a tree. This would include but not be limited to paint, oil, solvents, asphalt, concrete, mortar, primers, etc.
- Tree Attachments: No signs, wires or other attachments, other than those of a protective nature shall be attached to any tree.
- Vehicular Traffic: No vehicular and construction equipment traffic or parking is allowed within the limits of the drip line of trees.
- Boring of Utilities: May be permitted under protected trees in certain circumstances. The minimum length of the bore shall be the width of the tree's canopy and shall be a minimum depth of forty-eight (48") inches.
- Trenching: Any irrigation trenching which must be done within the critical root zone of a tree shall be dug by hand and enter the area in a radial manner. Structural roots shall be initially exposed through the use of an air spade within the root protection zone.
- Tree Flagging: All trees to be removed from the site shall be flagged by the Contractor with bright red vinyl tape (3" width) wrapped around the main trunk at a height of four (4) feet above grade. Flagging shall be approved by Landscape Architect prior to any tree removal. Contractor shall contact Landscape Architect with 72 hour notice to schedule on-site meeting.
- Protective Fencing: All trees to remain, as noted on drawings, shall have protective fencing located at the tree's drip line. The protective fencing must be installed before any construction related activities commence on the site. The protective fencing may be comprised of snow fencing, orange vinyl construction fencing, chain link fence or other similar fencing with a four (4) foot approximate height. The protective fencing will be located as indicated on the Tree Protection Detail(s).
- Construction Pruning: In a case where a low hanging limb is broken during the course of construction, the Contractor shall notify the Landscape Architect immediately. In no instance shall the Contractor prune any portion of the damaged tree without the prior approval and under the supervision of the Landscape Architect.
- Mitigation for the removal of a each protected tree is (1) 3" caliper mitigation tree or \$375

TREE SURVEY FIELD DATA

NO.	DIA. INCHES	SPECIES (COMMON NAME)	SPECIES (BOTANICAL NAME)	CONDITION	REMARKS	CREDITS	MITIGATION REQUIRED
1	10.5	LACEBARK ELM	ULMUS PARVIFOLIA	GOOD	UNPROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE
2	14.5	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED		
3	14	CREPE MYRTLE	LAGERSTROEMIA INDICA	GOOD	UNPROTECTED TREE TO BE REMOVED		
4	11.5	LACEBARK ELM	ULMUS PARVIFOLIA	GOOD	UNPROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE
5	9.75	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO REMAIN		
6	11.25	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO REMAIN		
7	14	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO REMAIN	3	1- 3" CAL. TREE
8	13	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO REMAIN		
9	13.5	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED		
10	13	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE
11	11	LACEBARK ELM	ULMUS PARVIFOLIA	GOOD	UNPROTECTED TREE TO BE REMOVED		
12	13.5	AMERICAN ELM	ULMUS AMERICANA	FAIR	PROTECTED TREE TO BE REMOVED		
13	2	CREPE MYRTLE	LAGERSTROEMIA INDICA	GOOD	UNPROTECTED TREE TO REMAIN	3	1- 3" CAL. TREE
14	14.5	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO REMAIN		
15	15	AUSTRIAN PINE	PINUS NIGRA	GOOD	PROTECTED TREE TO BE REMOVED		
16	10	LACEBARK ELM	ULMUS PARVIFOLIA	GOOD	UNPROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE
17	12.5	AMERICAN ELM	ULMUS AMERICANA	FAIR	PROTECTED TREE TO BE REMOVED		
18	10.25	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED		
19	16	AMERICAN ELM	ULMUS AMERICANA	DECLASSIFIED	UNPROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE
20	10	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED		
21	6	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED		
22	6	LIVE OAK	QUERCUS VIRGINIANA	GOOD	PROTECTED TREE TO BE REMOVED	3	1- 3" CAL. TREE

EXISTING TREE LEGEND



11 TREES REQUIRED TO BE MITIGATED- (1) 3" CALIPER TREE PER TREE
L.3 FOR REPLACEMENT TREES.

LANDSCAPE ARCHITECT
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1784 W. McDERMOTT DR.
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(469) 369-4448
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04.13.2022

RETAIL PROJECT
FLOWER MOUND ROAD
FLOWER MOUND, TEXAS

ISSUE:
FOR APPROVAL 08.12.2021
CITY COMMENTS 10.25.2021
CITY COMMENTS 03.24.2022
CITY COMMENTS 04.13.2022

DATE:
04.13.2022

SHEET NAME:
CONCEPT
TREE PRESERVATION PLAN
SHEET NUMBER:

L.1



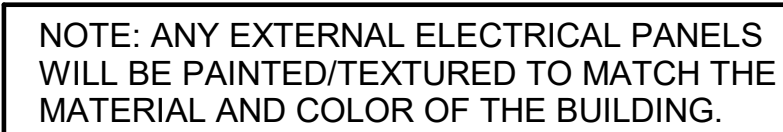
MATERIAL SPECIFICATIONS	
MATERIAL NAME	SPECIFICATION
BRICK VENEER	ACME BRICK - "MOCHA IRONSPOT"
BRICK ACCENT	ACME BRICK - "CAPE COD"
CULTURE STONE	ACME BRICK - "CREAM LIMESTONE"
ROOFING	STANDING SEAM METAL ROOF - BERRIDGE MEDIUM BRONZ
STUCCO	SHERWIN WILLIAMS - "ACCESSIBLE BEIGE SW 7036"
STUCCO TRIM	SHERWIN WILLIAMS - "LATTE - SW 6108"

ELEVATION MATERIAL CALCULATIONS								
	EAST	%	WEST	%	NORTH	%	SOUTH	%
TOTAL FACADE AREA	1659	100	1884	100	3110	100	3558	100
DOORS/WINDOWS	556	34	569	30	627	20	1298	36
FACADE AREA LESS DOORS & WINDOWS	1103	66	1315	70	2483	80	2260	64
PRIMARY MASONRY								
BRICK VENEER	361	22	185	10	1298	42	542	15
CULTURE STONE	648	39	1061	56	668	21	1559	44
STUCCO-1	32	2	0	0	429	14	22	1
SOLDIER COURSE	52	3	53	3	81	3	108	3
ACCENT MATERIAL								
ROUGH CEDAR	10	1	16	1	7	0	29	1

ZPD21-0013

[illegible]

Scale	As indicated
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② WEST ELEVATION (RIGHT) P&Z
1/8" = 1'-0"



ELEVATION MATERIAL CALCULATIONS								
	EAST	%	WEST	%	NORTH	%	SOUTH	%
TOTAL FACADE AREA	1659	100	1884	100	3110	100	3558	100
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STUCCO-1	32	2	0	0	429	14	22	1
SOLDIER COURSE	52	3	53	3	81	3	108	3
ACCENT MATERIAL								
ROUGH CEDAR	10	1	16	1	7	0	29	1

ZPD21-0013

Scale	As indicated
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CEDAR TRIM SHALL BE ROUGH CEDAR

MATERIAL SPECIFICATIONS	
MATERIAL NAME	SPECIFICATION
BRICK VENEER	ACME BRICK - "MOCHA IRONSPOT"
BRICK ACCENT	ACME BRICK - "CAPE COD"
CULTURE STONE	ACME BRICK - "CREAM LIMESTONE"
ROOFING	STANDING SEAM METAL ROOF - BERRIDGE MEDIUM BRONZ
STUCCO	SHERWIN WILLIAMS - "ACCESSIBLE BEIGE SW 7036"
STUCCO TRIM	SHERWIN WILLIAMS - "LATTE - SW 6 108"

ARCHITECTS DESIGNERS PLANNERS
580 DECKER DRIVE, SUITE 170
IRVING, TEXAS 75062
(972) 714-0420, FAX (972) 714-0282

RODNEY C. St.JOHN, AIA
REGISTERED ARCHITECT
TEXAS NO. 14791

ZPD21-0013

[illegible]

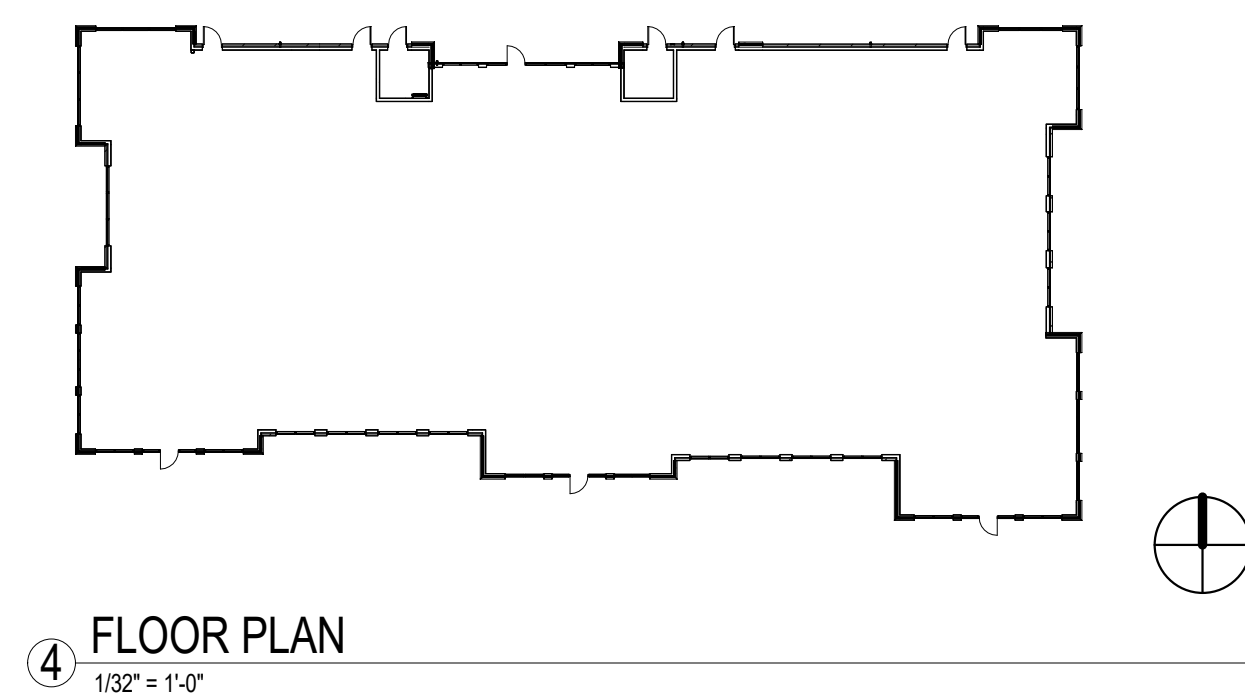
BEALL LEGACY PARTNERS, l.p.
BEALL RETAIL
DEVELOPMENT

CONCEPT ELEVATIONS

Checked by	RCS
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P&Z-3

Scale	As indicated
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NOTE: ANY EXTERNAL ELECTRICAL PANELS
WILL BE PAINTED/TEXTURED TO MATCH THE
MATERIAL AND COLOR OF THE BUILDING.

THIS DOCUMENT IS FOR INTERIM
REVIEW ONLY AND NOT
INTENDED TO BE USED FOR
CONSTRUCTION, BIDDING, OR
PERMIT PURPOSES.

RODNEY C. St.JOHN, AIA
REGISTERED ARCHITECT
TEXAS NO. 14791

STANDING SEAM METAL ROOF

GUTTER - COLOR TO MATCH ROOF

STUCCO - TRIM

CREAM LIMESTONE

STOREFRONT GLAZING

BRICK SOLDIER COURSE

WALL SCONCE

STONE WATERTABLE

STOREFRONT GLAZING

BRICK VENEER

BRICK - MOCHA IRONSPOT

BERRIDGE MEDIUM BRONZE

BERRIDGE MEDIUM BRONZE

1'-0"

24' - 10"

6' - 11 1/2"

6' - 11 1/2"

33' - 11 1/2"

T.O. TOWER
25' - 8"

TO PARAPET
24' - 10"

CREAM LIMESTONE

BRICK - CAPE COD

Level 1
0' - 0"

BRICK SOLDIER COURSE

BRICK - CAPE COD

CULTURED STONE

19' - 7 1/8"

4' - 7 7/8"

20' - 6 7/8"

30' - 10"

CEDAR TRIM SHALL BE ROUGH CEDAR

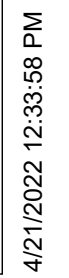
MATERIAL SPECIFICATIONS	
MATERIAL NAME	SPECIFICATION
BRICK VENEER	ACME BRICK - "MOCHA IRONSPOT"
BRICK ACCENT	ACME BRICK - "CAPE COD"
CULTURE STONE	ACME BRICK - "CREAM LIMESTONE"
ROOFING	STANDING SEAM METAL ROOF - BERRIDGE MEDIUM BRONZE
STUCCO	SHERWIN WILLIAMS - "ACCESSIBLE BEIGE SW 7036"
STUCCO TRIM	SHERWIN WILLIAMS - "LATTE - SW 6108"

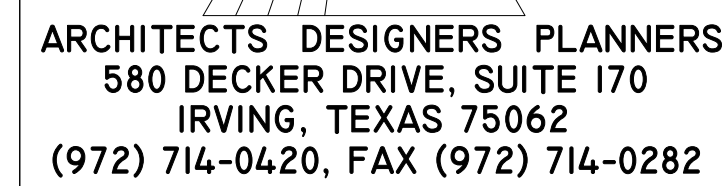
BEALL LEGACY PARTNERS, I.p. BEALL RETAIL DEVELOPMENT	
CONCEPT ELEVATIONS	
Project number	0.009.0319
Date	11/29/2021
Drawn by	PA
Checked by	RCS
P&Z-4	
Scale	As indicated

ZPD21-0013

[illegible]

NINE OAKS PLAZA CONCEPTUAL ELEVATIONS	
Project number	0.009.0421
Date	11/29/21
Drawn by	PA
Checked by	RCS
P&Z -1	
Scale	As indicated





RODNEY C. St.JOHN, AIA
REGISTERED ARCHITECT
TEXAS NO. 14791

[illegible]

NINE OAKS PLAZA

CONCEPTUAL ELEVATIONS

P&Z -2

Scale	As indicated
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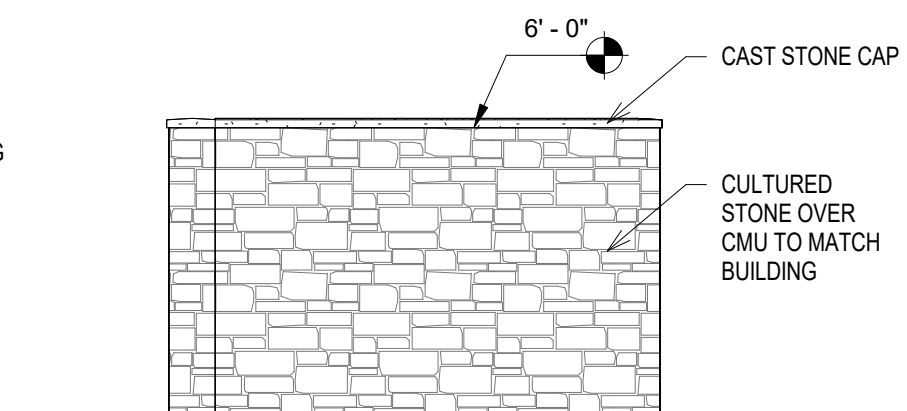


6'-0"

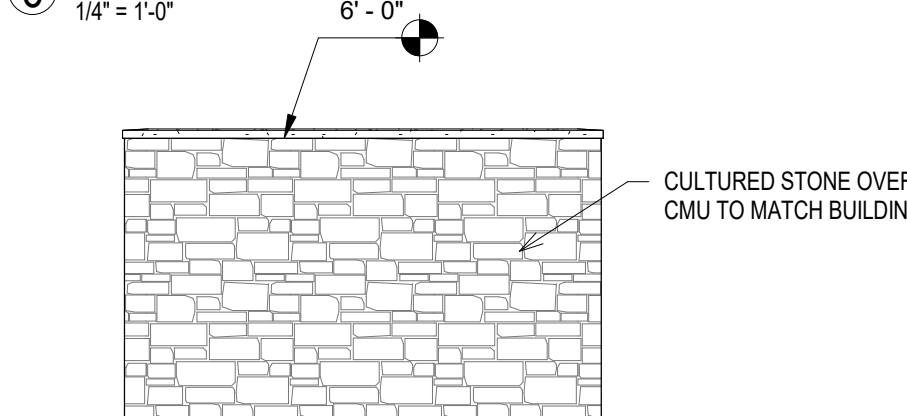
CAST STONE CAP

METAL GATE PAINTED TO MATCH SW LATTICE - SW 6100

⑤ TRASH ENCLOSURE FRONT ELEV P&Z BW



TRASH ENCLOSURE SIDE ELEV P&Z C BW



7 TRASH ENCLOSURE REAR ELEV P&Z BW

MATERIAL SPECIFICATIONS	
MATERIAL NAME	SPECIFICATION
BRICK VENEER	ACME BRICK - "MOCHA IRONSPOT"
BRICK ACCENT	ACME BRICK - "CAPE COD"
CULTURE STONE	ACME BRICK - "CREAM Limestone"
ROOFING	STANDING SEAM METAL ROOF - BERRIDGE MEDIUM BRON
STUCCO	SHERWIN WILLIAMS - "ACCESSIBLE BEIGE SW 7036"
STUCCO TRIM	SHERWIN WILLIAMS - "LATTE - SW 6108"

ELEVATION MATERIAL CALCULATIONS							
	EAST	%	WEST	%	NORTH	%	SOUTH
TOTAL FAÇADE AREA	1681	100	1681	100	3057	100	3382
DOORS/WINDOWS	240	14	240	14	241	8	1130
FAÇADE AREA LESS DOORS & WINDOWS	1441	86	1441	86	2816	92	2252
PRIMARY MASONRY							
BRICK VENEER	437	26	437	26	749	26	459
CULTURE STONE	626	37	626	37	1571	51	1104
STUCCO	336	20	336	20	426	14	618
ACCENT MATERIAL							
ROUGH CEDAR	42	2	42	2	70	2	71

Exhibit “B”

Development Standards

B. Retail District-2 (R-2) uses. Development of the Retail District-2 (R-2) area designated on the Concept Plan, attached hereto as Exhibit “C,” for Retail District-2 (R-2) uses, comprising approximately 2.756 acres, shall be in compliance with all regulations applicable to Retail District-2 (R-2) uses contained in the Town’s Land Development Regulations as amended, except as otherwise provided in this Ordinance.

1. Permitted Uses: Only the following permitted uses may be allowed by right in areas designated on Exhibit “C” as Retail District-2 (R-2) uses.

Accessory retail/service uses
 Accessory use, general, subject to section 98-972
 Antique shop
 Art gallery or handicraft sales
 Art supply store
 Auto parts and accessory sales (indoors)
 Bait and sporting goods sales
 Bakery or confectionery shop, retail
 Bank or savings and loan
 Book or stationary store or newsstand
 Cleaning/laundry pickup station only
 Cleaning/laundry shop with pickup station
 Cleaning shop or laundry pickup station
 Convenience store
 Custom personal service
 Dancing, drama, or music school or studio
~~Day care center~~
 Drugstore or pharmacy
 Florist
 Fraternal club or lodge
 Hardware store
 Health club or athletic club
 Laboratory, medical and dental
 Laboratory, scientific and research
 Local utility line
 Mortuary or funeral home
 Off-street parking, accessory
 Office, general business and professional
 Office, medical or dental
 Optical sales
 Parking lot, commercial
 Personal improvement services
 Pet store, subject to section 98-988
 Plant nursery or garden shop
 Public building, shop or yard
 Restaurant, fast food
 Restaurant, general
 Retail, general (indoors)
 Retail, single tenant (less than 25,000 square feet)
 Sewage pump station
 Supermarket

Telephone equipment station
 Theater
 Travel bureau or consultant

2. Specific Uses: Only the following specific uses may be permitted in areas designated on Exhibit "C" as Retail District-2 (R-2) uses subject to approval of a Specific Use Permit (SUP) by the Town Council:

Amusement and recreation (indoors), subject to section 98-973
 Assembly hall
 Communication tower, commercial, subject to 98-977
 Convenience store with gasoline sales
 Day care center
 Lithographic or print shop
 Museum, library or art gallery, public
 Recreation center
 Veterinary hospital (inside pens)
 Veterinary hospital (inside pens), subject to section 98-998

3. Temporary Uses: Only the following temporary uses may be permitted in areas designated on Exhibit "C" as Retail District-2 (R-2) uses subject to approval of a temporary use permit in accordance with the procedures and standards of section 78-87 of the Code, "Temporary Use Permits":

Asphalt/concrete batch plant, temporary, subject to section 98-974
 Building material yard and construction office
 Field office, temporary

4. Minimum and maximum dimensions.

- i. Minimum lot area per dwelling. There shall be no minimum lot area per dwelling unit requirement in the area designated for Retail District-2 (R-2) uses.
- ii. Minimum lot width. There shall be no minimum lot width requirement in the area designated for Retail District-2 (R-2) uses.
- iii. Minimum floor area per unit. There shall be no minimum floor area per dwelling unit requirement in the area designated for Retail District-2 (R-2) uses.
- iv. Minimum front yard. There shall be no minimum front yard requirement in the area designated for Retail District-2 (R-2) uses, subject to section 98-1026.
- v. Minimum side yard. There shall be no minimum side yard requirement in the area designated for Retail District-2 (R-2) uses, subject to section 98-1027.
- vi. Minimum rear yard. The minimum rear yard in the area designated for Retail District-2 (R-2) uses shall be 15 feet for all uses, subject to section 98-1028.
- vii. Maximum lot coverage. The maximum lot coverage in the area designated for Retail District-2 (R-2) uses shall be 50 percent for all uses, subject to section 98-1029.

- viii. Maximum floor area ratio. There shall be no maximum floor area ratio requirement in the area designated for Retail District-2 (R-2) uses.
- ix. Maximum height. The maximum height of buildings and structures in the area designated for Retail District-2 (R-2) uses shall be two stories or 35 feet for all uses, subject to section 98-1031

D. Architectural Standards: Development of Planned Development District No. 120 (PD-120) is subject to the Town's Urban Design Plan and the following specific building component elements:

1. The Development's Architectural theme will be in conformance with the Town's Urban Design Plan, and will utilize stone, brick, rough cedar, stucco, finished concrete tilt- wall, sloped metal roof accents, and ornamental iron and steel accents.
2. Building Component Standards; Building Elevation Profiles and Roof Form shall substantially conform to the approved Concept Elevations (Exhibit "E").
3. The unified design theme depicted on the Concept Elevations (Exhibit E) shall be required within the development.
4. Contrasting wall planes, architectural elements, and rooflines shall be used to create exemplary and enduring elevations. Building entries will be identified by various architectural features including canopies and portals.
5. All building elevations will be articulated to meet or exceed the Town of Flower Mound Urban Design Plan. Buildings will reflect an architectural prominence, with particular attention being paid to architectural quality on the facades, rooflines, and elevations visible from Arterial Roadways.
6. Franchise utility panels and connection points shall be painted to match the color and texture of the building and located so that they are not visible from public roadways, except that Franchise utility panels and connection points facing Arterial Roadways will be kept at a minimum and adequately screened, with additional landscaping or other approved material during the Site Plan approval process, to obstruct visibility from Flower Mound Road.
7. Colors should be earth tones, bronze metal color, or members of the beige, brown, and yellow family of color.
8. Roof pitches shall conform to the Town's Master Plan. Sloped roofing shall be required for structures 15,000 square feet in area and less. Buildings of one or two stories over 15,000 square feet in area may have a flat or low-slope roof, but shall use a parapet wall or mansard roof along the building perimeter, so that the flat or low-slope roof and any roof top mounted mechanical equipment is not visible from the public right-of-way or from neighboring residential buildings.

9. Specific Building Material Standards shall include:

- a. A minimum of eighty percent (80%) of the building wall area (not including doors and windows) on any elevation shall be of a primary masonry identified within the Town's Urban Design Plan. Up to twenty percent (20%) of any wall surface material on any elevation may be fiber cement board, cementitious plaster, E.I.F.S., CMU, or a combination of all.
- b. The use of exposed standard concrete shall not be utilized for any elevation.
- c. Unpainted metal, galvanized metal, or metal subject to rusting shall not be used. All exposed metals shall have a factory-applied finish, if available. Weathered steel will be permitted for signage.
- d. Outward facing mirrored glass shall not be used.
- e. Not more than fifteen percent (15%) of any elevation shall be comprised of a color that is not considered an earth or wood tone. White or shades of white shall be considered an earth tone color.

F. Miscellaneous Standards:

- 1. Any use utilizing a drive-through facility shall be subject to Section 82-82 of the Town's Land Development Regulations as amended, at the time of the site plan submittal.
- 2. Open Space Amenity and Pedestrian connectivity requirements within Planned Development District No. 120 (PD-120) shall incorporate the standards for such space as described by the Town's Urban Design Plan and include the following specific elements:
 - a. Town required eight-foot wide trail shall be provided along FM 3040 and Old Orchard Lane.
 - b. Internal sidewalks shall be provided that establish connection from the trail to the internal sidewalks within both residential and non-residential portions of the property. ~~There will be a direct connection point between the residential area and the retail area, allowing residents the ability to walk directly to and from retailers and restaurants.~~
 - c. There will be 4-foot wide concrete walking paths that run in the open space areas between the residential lots within the proposed residential development.
 - d. Pedestrian open space shall be composed of hardscape and planting materials that offer visual and physical relief from the necessary parking and built environment.
 - i. Non-residential open space shall include walkways that provides connectivity to and from the eight-foot hike and bike trail ~~as well as to and from the residential area.~~
Phase 1: 'Amenity Area' as shown on the Exhibit "C" (Concept Plan) and Exhibit "D" (Concept Landscape Plan) shall include the following and shall be installed prior to the issuance of a

certificate of occupancy for the first building.

- Minimum of three seating items that may include a combination of any of the following: benches, seat walls, or large stones.
- Minimum of one raised planter having a minimum size of 400 square feet and minimum 20 inches tall with a seat wall.
- Minimum 800 square feet shade structure consisting of a material that complements the building.
- Minimum four decorative planter pots of 25 gallons each.
- Minimum of 1,500 square feet of outdoor seating/dining area.
- Enhanced pavement consisting of patterned colored concrete, brick pavers, or combination thereof within the 'Amenity Area.'
- Maintenance agreement for landscaping and 'Amenity Area' shall be provided at the time of record plat application.

Phase 2: In addition to the above amenities within 'Amenity Area,' Area B shall include the following amenities and shall be installed prior to the issuance of a certificate of occupancy for the second building.

- Minimum of one seating item that may include a combination of any of the following: benches, seat walls, or large stones.
- Minimum of five tree wells having a size of 5' x 6' minimum with a minimum of 600 cubic yards of CU-Structural Soil surrounding the outside of the 5'x6' tree well. Tree well shall be clad in a material to complement the main building.
- Minimum three decorative planter pots of 25 gallons each.
- Enhanced pavement consisting of patterned colored concrete, brick pavers, or combination thereof, around the building located in Area B.

ii. Residential open space identified amenities include a central amenity center adjacent to a pool, benches, a small linear pocket park, a water feature/detention pond with easy access to all residents, a small fruit orchard, and nice small open grassed areas for general recreational use.

- At least two canopy trees shall be provided on all residential lots adjacent to the internal open space areas with a third canopy tree provided in the open space area adjacent to each such residential lot.
- The open space area shall be maintained by the Homeowner's Association for the community.

3. Retention / Detention pond Requirements:

- a. Maintain a minimum of 4 feet of water depth
- b. Pond areas shall meet the minimum requirements of the Town's Design Criteria and Construction Standards.
- c. Retention pond area retaining walls shall utilize stacked stone, stone veneer, cut stone or engineered block walls that complement

the material standards and colors for the development.

- d. A private maintenance agreement for the retention pond(s) shall be provided upon submittal of a record plat for the development.
 - e. A fountain feature shall be provided in each retention pond.
 - f. Any pump equipment for the fountain features that is above ground shall be screened in accordance with section 82-272 "Outdoor storage areas". Such screening shall be designed and constructed of materials that complement the development.
4. Site retaining wall requirements:
- a. All site retaining walls shall utilize stacked stone, stone veneer, cut stone, or fauxstone that complements the material standards and colors for the development.
5. Reciprocal Easement requirements:
- a. The development shall be subject to an overall reciprocal easement agreement granting cross-access to and from the property to the west. A copy of said agreement shall be provided to the Town of Flower Mound with the Record Plat for the development.
 - b. The development shall be subject to an overall reciprocal shared parking agreement for all uses on the site. A copy of said agreement shall be provided to the Town of Flower Mound with the Record Plat for the development.
6. Monument signage at Gateway corner:
- a. At the time of record plat for the non-residential portion, an easement measuring 20 feet by 20 feet (20' x 20') shall be provided at the southeast corner of the site as depicted on Exhibit "C" (Concept Plan) for a future Town Gateway Monument sign.
7. Fencing standards:
- a. All residential lots adjacent to open space areas, excluding subdivision perimeter fencing, shall have a minimum four foot (4') tall wrought iron fence in accordance with the Town of Flower Mound's Land Development Regulations on the property line that is common to the open space. All other areas of residential lots, not adjacent to open space areas, shall have typical wooden fencing that conforms to the Town's regulations.
 - b. A six-foot tall ~~wrought iron fence masonry wall~~ shall be constructed between the residential and retail areas, ~~with a pedestrian wrought iron gate allowing access between the areas.~~
 - i. ~~Notwithstanding the foregoing, a six-foot tall masonry wall shall be constructed between the residential and retail areas from the southern terminus of the perimeter screening wall adjacent to Old Orchard Lane and the residential portion of this~~

~~development extending in a westerly direction a distance of approximately ninety feet (90') as shown on Exhibit "C" (Concept Plan).~~

- ~~ii. Notwithstanding the foregoing, existing wrought iron fence between the residential and non-residential portions shall be partially replaced by a six-foot tall masonry wall beginning at the eastern terminus of the perimeter screening wall adjacent to Gerbera Drive and extending north to the northwest corner of the non-residential portion and then extending in an eastwardly direction along north property line of Area A and extending at least 20 feet into Area B to screen the dumpster located within Area B, for a total length of approximately 230 (230') linear feet of masonry wall as shown on Exhibit "C" (Concept Plan).~~

8. Compatibility buffer:

- a. A 25-foot compatibility landscape buffer shall be provided between the residential and retail developments. Five foot of the compatibility landscape buffer shall be provided within the retail portion of the development and the remaining 20 feet of the compatibility landscape buffer shall be provided within the residential portion of the development.
- b. Appropriate scaled landscape plants shall be installed on both sides of the six-foot tall wrought iron fence and masonry wall situated between the residential and retail areas of the development.
- c. A minimum of 11 three-inch caliper mitigation trees shall be planted within the five-foot landscape buffer on the non-residential portion. A minimum of five mitigation trees planted within Area A shall be live oak trees or similar evergreen trees in order to provide year round screening. Area A shall also include a continuous dense eight-foot tall (at the time of planting) evergreen shrubs planted within the five-foot landscape buffer.
- d. In addition to meeting the requirements of Sec. 82-272. - Outdoor storage areas of the Town's code of ordinance, any dumpster located in close proximity to the northern property line of the non-residential area shall be screened with minimum six-foot tall evergreen shrubs.
- e. One native shade tree, a minimum of three-inch caliper and of species included in section 94-242 of the Flower Mound Code, Approved tree lists, shall be provided at a ratio of one tree per 600 square feet within the required compatibility buffer area.

9. Phasing requirements:

- a. If the development of Planned Development District No. 120 (PD-120) includes phasing of any nature, such phasing shall be detailed in the subsequent development application, be it a Development Plan, Record Plat, or a Site Plan.
- b. Notwithstanding the foregoing, the first phase of development shall include the detention reservoirs, fire lanes and median cuts/turn

lanes to support the first phase; curb cuts, utilities, amenity area within the first phase; eight-foot wide TownTrail along FM 3040 and Old Orchard for the entire length of the property; and perimeter landscaping for the residential portion. A Certificate of Occupancy shall not be issued for the first building until all of the above improvements are complete.

- c. The first phase of non-residential shall include fire lanes required for phase one construction as depicted on Exhibit 'C', perimeter landscaping along entire length of FM 3040, Old Orchard, and within the five foot landscape buffer along the western and northern property lines, masonry wall along the western and northern property lines as set forth herein-above, and amenities located within the 'AmenityArea.' A Certificate of Occupancy shall not be issued for the first building until all of the above improvements are complete.

~~10. Hours of Operation:~~

- ~~a. Day care center hours of operation are limited to between 6:30 a.m. to 7:00 p.m., Monday through Friday, except that special events such as an open house or tour of the site are allowed on weekends.~~
- ~~b. Outdoor playground areas associated with the day care center are limited to between 9:00 a.m. and 5:00 p.m., Monday through Friday, except that special events such as an open house or tours of the site are allowed on weekends.~~

~~11. Commercial Kitchen:~~

~~A commercial grade kitchen for food preparation is prohibited in association with a day care center.~~

~~12. Sound:~~

~~Equipment generating sound outside the day care (such as a bell tone) is prohibited.~~

G. Exceptions and Variances:

The following exceptions shall be granted with the approval of Planned Development District No. 120 (PD-120):

1. An exception to Section 90-311, Street design standards, as authorized by Section 90-301, Exception to street standards, of the Code of Ordinances to allow for a reduced driveway spacing that permits the eastern-most road into the development to be placed two hundred eighty feet (280') away from the intersection of Old Orchard Road and Flower Mound Road.
- ~~2. An exception to Section 82-302(1), requirement for a brick wall or masonry wall between the residential and retail portion within this development to allow for the screening and fencing set forth herein-above.~~
3. An exception to Sec 82-302(2), requirement for a 25-foot landscape

buffer within the retail portion of this development to allow for the screening and fencing set forth herein-above.

4. An exception to Sec 82-302(2), requirement for a continuous dense six-foot understory plants, and native shade trees, a minimum of three-inch caliper, at a ratio of one tree per 400 square feet of the buffer area between the residential and retail portion within this development to allow for the screening and fencing set forth herein-above.
5. An exception to Sec 82-303 (1), requirement for a 60-foot building setback for a single-story building to allow the proposed ~~day-care facility~~ retail building to be located at a minimum distance of 20 feet from the western property line of Area A.



PLANNING AND ZONING COMMISSION

AGENDA ITEM NO: i

WORK SESSION ITEM

DATE: April 25, 2022

FROM: Chuck Jennings, Director of Parks and Recreation

ITEM: **MPA21-0010 – Trails and Bikeways Master Plan**

The Town adopted its first comprehensive parks and trails master plan in 1989, which was updated in 1994, 2001, 2010, and 2017. These plans briefly touched on trails and did not cover bikeways. This Trails and Bikeways Master Plan is a comprehensive study that is just focusing on these two areas. The plan will serve as a roadmap to guide short and long-range priorities for the trails and bikeways network in Flower Mound over the next 10+ years. As part of the planning process, an assessment of existing conditions and future needs was conducted for **off-street trails, on-street bikeways, equestrian trails, and nature trails.**

The Town of Flower Mound entered into a Professional Services Agreement with Halff Associates on February 1, 2021, which was broken into five phases: Phase 1 – Community Understanding, Phase 2 – Community Visioning, Phase 3 – Needs Assessment, Phase 4 – Proposed Network, and Phase 5 – Action Plan. Staff held a kickoff meeting on February 23, 2021, with Halff regarding the master plan and the consultant toured many of the Town's trails and bikeways in March and April of 2021.

Throughout the months of May and June, the consulting team conducted a community input survey which had close to 1,000 responses. The team hosted visioning meetings on May 4 and 5 that included three stakeholder listening sessions, a Steering Committee meeting, Technical Working Group meeting, and a public open house at the Community Activity Center, where over 80 people attended including some from the Town Council and various Town Boards and Commissions. For residents that could not attend these meetings, the Town offered residents the opportunity to visit a virtual engagement room which mimicked the items discussed and questions asked at the public open house. Some questions that were asked of different groups and of the public at the different meetings included the following:

- What is your vision for the future of trails and bikeways in Flower Mound?
- What are some of the challenges related to trails and bikeways in Flower Mound today?
- In your opinion, what is the most important action item that should result from this plan?
- What one word would you use to describe Trails and Bikeways in Flower Mound Today?
- What one word would you use to describe how you envision Trails and Bikeways in Flower Mound in the Future?
- Where are trails and bikeways most needed in Flower Mound?
- Where do barriers to walking, running, cycling, or horseback riding exist in Flower Mound today?

Key take away from the engagement included:

- Creating more of an east/west connection
- Filling in gaps in the system

- Providing a variety of trail types throughout the Town
- Providing more connections to the USACE trails
- More designated bikeway accommodations
- Additional trail access points, trailheads, and trail amenities
- Completing the loops for equestrian trails

Halff was also tasked with performing a deep assessment on five different corridors within Flower Mound. The consultant toured these areas in July and August to fully understand the opportunities, constraints, and feasibility of constructing trail or bikeways. The five areas studied were Cross Timbers E/W Connection, Shiloh Dr., Long Prairie Rd. (Veloweb corridor), Gaston Park/Long Prairie Rd., and Timber Creek trail connection. The study of the five corridors will be included in the overall master plan and will address crossings, overhead clearance, utility conflicts, property ownership and estimates of probable costs.

As part of the master plan process Halff Associates contracted with Civic Brand to develop a project brand identity package to be used throughout the planning process and in marketing pieces. In addition to the project branding, Civic Brand was responsible for the creation and updating of the project webpage (www.flowermoundtrailsplan.com). The website will remain active three months after the completion of the project. Civic Brand worked with Halff and Town staff to create three short, informative videos regarding trails and bikeways to generate excitement about the plan. Lastly, Civic Brand worked with staff to develop trail branding considerations. Signage is typically provided at trailheads and at key decision-making points along a trail. Signage can mark access points to the trail, provide directional and distance guidance for trail users, direct users to locations of key amenities along the trails, and provide brand recognition of the trail system. Halff has incorporated their recommendations into the draft master plan.

The draft master plan will be presented at various meetings throughout April with final approval occurring in June. The schedule below details the upcoming meeting dates:

- o April 7 Parks Board / Transportation Commission – Joint Work Session
- o April 21 Town Council – Work Session
- o April 25 Planning & Zoning Commission – Work Session
- o May 5 Parks Board – Public Hearing
- o May 10 Transportation Commission - – Public Hearing
- o May 23 Planning & Zoning Commission - Public Hearing
- o June 6 Town Council - Public Hearing for the approval of the Master Plan

To keep up with Flower Mound's growth, new development and redevelopment, and shifting demographic trends, developing a Trails and Bikeways Master Plan is essential to ensure that these facilities meet the needs of the community today and in the future.

The Planning and Zoning Commission makes recommendations to the Town Council regarding all updates to the Town's Master Plan. Town staff is requesting input regarding the Draft Master Plan.

I. ATTACHMENTS

A. Draft Parks, Recreation, and Open Space Master Plan

DRAFT 4.7.2022

TRAILS & BIKEWAYS MASTER PLAN FLOWER MOUND, TEXAS

ACKNOWLEDGMENTS

The following individuals are recognized for their significant contributions to the preparation of the Town of Flower Mound Trails and Bikeways Master Plan.

STEERING COMMITTEE

Aarush Das
Sara DiPietro
Mehul Desai
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Karissa Hiegel
Simon Hodgson
David Johnson
Craig Martin
Dale Olson
Lee Robodos
Brad Ruthrauff
Teresa Thomason
Mary Kay Walker
Matthew Wang
Michelle Win

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Tiffany Bruce
John Chapman
Melissa Demmitt
Matt Hotelling
Clay Riggs
Brian Waltenburg
JP Walton
Matt Woods

TOWN COUNCIL

Mayor Derek France
Adam Schiestel
Sandeep Sharma
Ben Bumgarner
Jim Engel
Ann Martin

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Rick Kenyon (Vice Chair)
Scott Langley
Allen Pichon
Holly Royer
Mark Mayer
Jennifer Romaszewski

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Janvier Werner
James Naylor
Greg Wilson
Donald Gilmore
Kathryn Wells
Jason Hobbs
Brady Kilpper

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Charles Jostes
Cheryl Moore
Chris Reed
Charles Landry
Marie Jackson
Louis Viscusi

TOWN OF FLOWER MOUND

Chuck Jennings
Mark Long
Clayton Litton
John Habern
Kelli Repasz

CONSULTANT TEAM

Halff Associates Inc.

Lenny Hughes, PLA
Kendall Howard, AICP
Brennan Kane, Associate AIA
Kailey Saver, AICP
Haley Carruthers

CivicBrand

Ryan Short
Brisa Byford

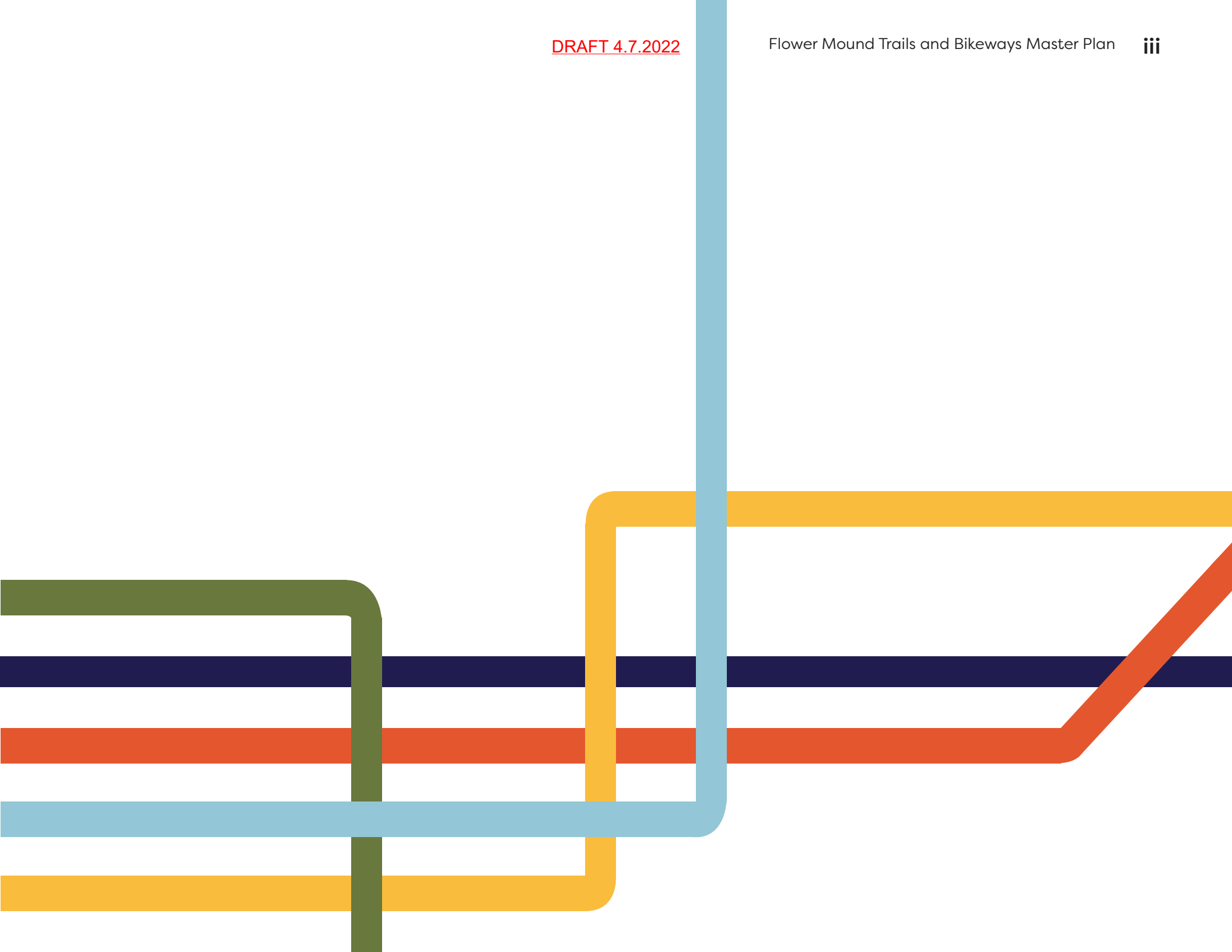
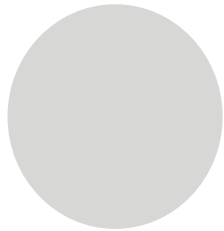


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LIST OF ACRONYMS

AASHTO: American Association of State Highway Transportation Officials
ACS: American Community Survey
ADA: Americans with Disabilities Act
ADAAG: Americans with Disabilities Act Accessibility Guidelines
CRIS: Crash Record Information System
CTETA: Cross Timbers Equestrian Trail Association
DFW: Dallas-Fort Worth
DORBA: Dallas Off-Road Bicycle Association
ESRI: Environmental Systems Research Institute
ISD: Independent School District
ITE: Institute of Transportation Engineers
LOS: Level of Service
NACTO: National Association of City Transportation Officials
NCTCOG: North Central Texas Council of Governments
PRMP: Parks and Recreation Master Plan
PROWAG: Public Rights-of-Way Accessibility Guidelines
ROW: Right-of-Way
RRFB: Rectangular Rapid Flashing Beacons
TAS: Texas Accessibility Standards
TMUTCD: Texas Manual on Uniform Traffic Control Devices
TTI: Texas Transportation Institute
TxDOT: Texas Department of Transportation
USACE: U.S. Army Corps of Engineers

Introduction
Plan Purpose
Benefits of Active Transportation
Planning Process
Plan Structure
Vision & Goals



01 INTRODUCTION



INTRODUCTION

The Town of Flower Mound Trails and Bikeways Master Plan serves as a blueprint for the future implementation of on-street bikeways and off-street trail facilities throughout the town. The facilities recommended in this plan provide safe routes for cycling, walking, running, hiking, paddling, and horseback riding throughout the town and connecting to adjacent communities.

BACKGROUND

The Town of Flower Mound is located in Denton County. The town lies on the northern shore of Lake Grapevine, approximately 23 miles northwest of Dallas and 23 miles northeast of Fort Worth. With its proximity to the Dallas Fort Worth Airport, major employers and entertainment opportunities, a unique and cultivated environment, great schools, and high-quality public facilities, Flower Mound has become a desirable place to live in the Dallas-Fort Worth (DFW) Metroplex. The Town's population has grown 20% in the last 10 years and is projected to roughly double in size to 117,555 residents by 2045¹. While the eastern side of the town is primarily built out, there is an abundant amount of open space and vacant land in the western portion of Flower Mound. As the town continues to grow, the demand for a high-quality trails and bikeways system will continue to increase for both recreation and commuting purposes.

In 2017, the Town of Flower Mound updated their parks and recreation master plan. While this plan addressed trails, it did not provide the detailed guidance and implementation necessary to create a comprehensive system. The Town's intent was to later develop a trails and bikeways master plan to better assess the community's trail system needs today and in the future.

The trails and bikeways in Flower Mound today include a variety of branded trails named after wildflowers on the eastern side of town and soft surface trails used by hikers, mountain bikers, and equestrian users around Grapevine Lake. While these are great amenities and provide residents and visitors with active recreation opportunities, overall the trails are not well-connected and lack way-finding. This plan identifies key opportunities to expand and enhance the trails and bikeways system to connect residents to schools, parks, neighborhoods, entertainment centers, and adjacent communities.

1. Source: NCTCOG Regional Data Center, 2020.



HERITAGE PARK

PLAN PURPOSE

The purpose of the Trails and Bikeways Master Plan is to guide the development of network recommendations, design guidelines, and implementation recommendations for a system of off-street trails and on-street bikeways that will connect users to key destinations within Flower Mound and provide connections to adjacent communities. This plan will augment previous planning efforts to create community and provide active and healthy lifestyle opportunities.

A key component of the Trails and Bikeways Master Plan is a needs assessment which determines the existing conditions of the trail system, compares it to similar communities, and explores opportunities to enhance the network. A corresponding implementation plan provides a guide for trail and bikeway development and design through the next decade.

KEY OBJECTIVES OF THIS PLAN:

- Create a *vision* for the trails and bikeways system based on a robust public engagement process;
- Conduct a *needs assessment* to determine how Flower Mound aligns with benchmark communities and where trails and bikeways are needed;
- Identify a *comprehensive and connected network* of trails and bikeways to be implemented over the next 20+ years;
- Provide *design standards and policy recommendations* for the system; and,
- Provide guidance necessary to *implement the plan* in short, mid, and long-range targets.



BENEFITS OF ACTIVE TRANSPORTATION

The benefits of active transportation are well documented and include: healthier lifestyles, economic benefits, safer spaces, and social benefits.

HEALTH BENEFITS

\$1 invested in trails can yield a return of investment ranging from \$1.65 to \$13.40 in medical benefits

ECONOMIC BENEFITS

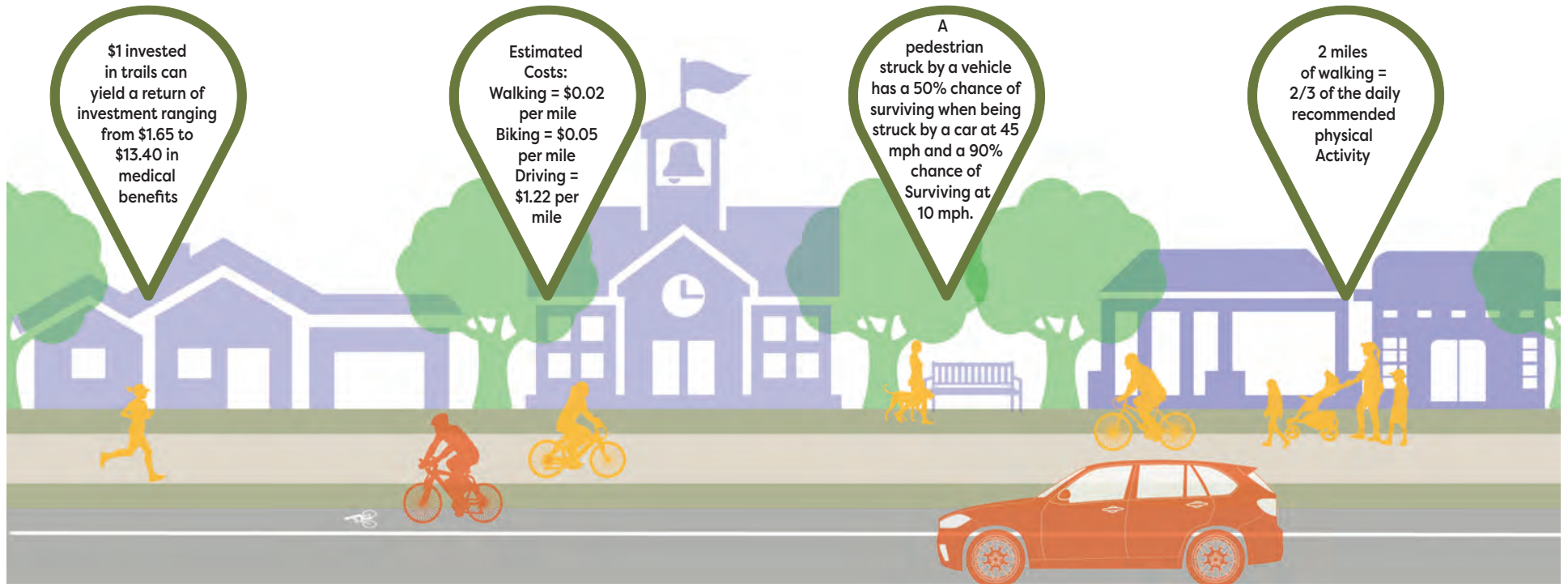
Estimated Costs:
Walking = \$0.02 per mile
Biking = \$0.05 per mile
Driving = \$1.22 per mile

SOCIAL BENEFITS

A pedestrian struck by a vehicle has a 50% chance of surviving when being struck by a car at 45 mph and a 90% chance of surviving at 10 mph.

SAFETY BENEFITS

2 miles of walking = 2/3 of the daily recommended physical Activity



Source: <https://www.saferoutespartnership.org/healthy-communities/101/facts>

Source: Active Transportation and Health Economic Impact Study, Southern California Association of Governments

Source: "Impact Speed and a Pedestrian's Risk of Severe Injury or Death," Brian Teft, September 2011, <http://aaaafoundation.org/wp-content/ds/2018/02/2011PedestrianRiskVsSpeedReport.pdf>

Source: <https://www.saferoutespartnership.org/>

By providing a safe and connected trails and bikeways system, walking and biking becomes more convenient. It is easier to incorporate physical activity into daily life when there is an accessible system. Active transportation can help combat obesity, improve mental health, and improve moods.

Proximity to parks and trails can have a positive impact on property values. There has been an increased demand for walkable places in Flower Mound, as illustrated in the Town Plan. Walking and biking can reduce costs associated with vehicle ownership, like routine maintenance, gas, and wear and tear on tires.

Trails and bikeways can connect residents to neighborhoods, parks, schools, entertainment areas, and surrounding communities. By activating the public realm, you can create social spaces that encourage interaction, and increase safety along corridors. Trails and bikeways provide safe, equitable transportation options.

Roadways can be designed to be safer for all roadway users. Improvements include reduction in the number or width of travel lanes, widths, and speeds as well as intersection and mid-block crossing improvements. This can lead to less severe crashes, increased comfort, and usability of the roadway system for all users.

PLANNING PROCESS

The development of this plan spanned approximately 15 months, starting in February 2021 and concluding in April 2022. Throughout this process, Town staff, a designated steering committee, stakeholders, elected/appointed officials, and citizens were engaged to guide the master plan recommendations. The resulting community-driven vision forms the foundation for the future of trails and bikeways in Flower Mound for the next decade.

Phase 1: Community Understanding

The first step in any planning process is understanding the existing trails and bikeways system in the Town. This includes assessing the trails system, identifying strengths and opportunities, as well as gaining an understanding of the current population and relevant studies that may impact the Trails and Bikeways Master Plan.

Phase 2: Community Visioning

Engaging the community for their vision to create the overall system helps to create the vision and goals for plan. Engagement opportunities included virtual engagement rooms, public open houses, an online survey, interactive maps, and pop-up tents at community events.

Phase 3: Needs Assessment

An analysis of the needs and overall trails system compared to national best practices helps to identify recommendations for the proposed trails and bikeways network. This includes assessing the existing network, identifying safety issues and barriers, determining where gaps may exist, and assessing demand for new facilities.

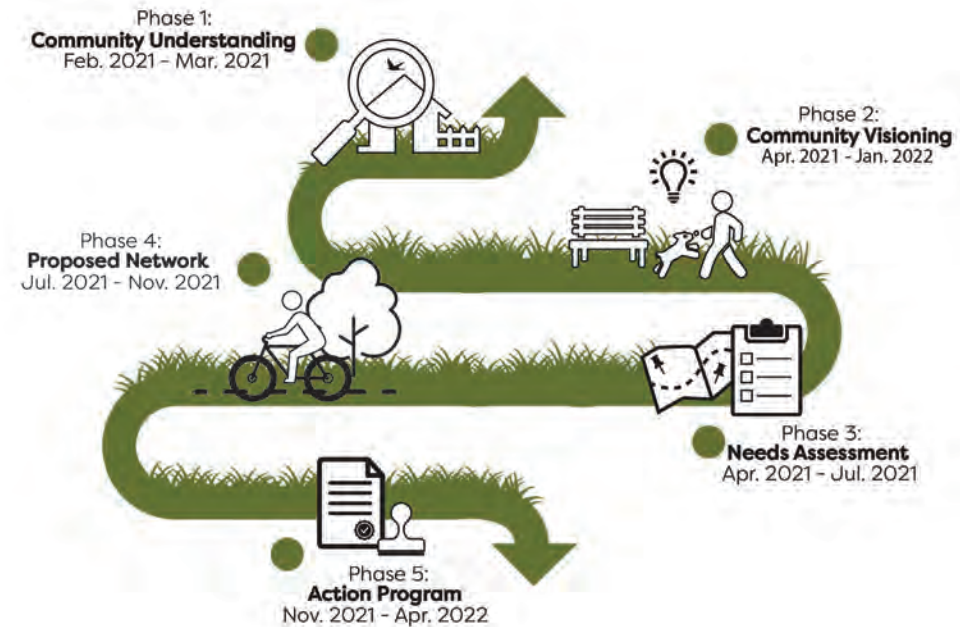
Phase 4: Proposed Network

Based on the needs assessment, a proposed network was created based on the barriers, opportunities, and desires of the community. The proposed network includes a variety of facility types, guidance on facility design standards, and policies related to bikeway and trail development.

Phase 5: Action Program

Finally, an action plan was developed to provide implementation strategies to create the proposed network. Recommendations for implementation are prioritized by short-term (1-5 years), mid-term (6-10 years), and long-term (10+ years) priorities.

FIGURE 1.1 PLANNING PROCESS



PUBLIC VISIONING EXERCISES

PLAN STRUCTURE

The Flower Mound Trails and Bikeways Master Plan is separated into seven chapters.

01

Introduction – Describes the plan purpose and background and provides the plan's vision and goals.

02

Community Context – Provides an overview of the Town of Flower Mound, including demographics, relevant plans and studies, and the existing trails and bikeways system.

03

Trails & Bikeways System Needs – Documents the analysis undertaken which determines the needs for additional trails and bikeways by determining the current level of service, community needs, and barriers and opportunities for the system.

04

Trails & Bikeways System Network – Creates a proposed network and facility hierarchy to connect neighborhoods to key destinations and to surrounding communities.

05

Trails & Bikeways Standards – Provides design guidelines for the creation of bikeway facilities, roadway crossing safety, trailheads and amenities, signage/way-finding, maintenance, and a framework for a branding system.

06

Implementation – Prioritizes projects and provides implementation strategies for short and long-term improvements. This chapter identifies policy recommendations, potential projects, and potential funding mechanisms and partnerships to develop the system.

07

Appendix – Provides additional data, graphics, and resources to support the Trails and Bikeways Master Plan.

PLAN VISION AND GOALS

Visioning was a substantial part of the public engagement process. In the first phase of the project, the Town hosted a variety of meetings among key stakeholders and the general public. During those meetings, attendees were asked how they envision walking, cycling, riding, and paddling in Flower Mound in the future. Input from the engagement helped shape the vision and goals for the Town of Flower Mound Trails and Bikeways Master Plan.

PLAN VISION

The Town of Flower Mound will have a connected, safe, and accessible system of trails and bikeways that promotes public health, economic development, and active transportation to improve overall quality of life for residents and visitors for generations to come.

GOAL 1: CONNECTED COMMUNITY

Create a complete trails and bikeways system that connects the community with active transportation options.

Objective 1.1: Increase trail level of service.

Objective 1.2: Provide trail and bikeway connections to key destinations.

Objective 1.3: Fill in gaps in the existing trail system.



**PUBLIC VISIONING EXERCISES:
ARTS FESTIVAL**

GOAL 2: SAFE AND ACCESSIBLE SYSTEM

Ensure the trails and bikeway system is safe, comfortable, and accessible for users of all abilities and ages.

Objective 2.1: Provide a variety of facility types appropriate for different abilities.

Objective 2.2: Improve overall safety and comfort of existing facilities.

Objective 2.3: Address areas identified as barriers within the existing trail system.

GOAL 3: USER FRIENDLY

Improve awareness, signage, and usability of the trails and bikeways system.

Objective 3.1: Increase awareness of the existing trail and bikeway system.

Objective 3.2: Create a consistent brand across the trails system so it is easily recognizable.

Objective 3.3: Install wayfinding signage to direct users to destinations along the trails.

GOAL 4: UNIQUE SYSTEM

Design and construct trails that support the health and wellness of the community and natural environment.

Objective 4.1: Provide for safe and convenient active transportation options.

Objective 4.2: Provide for interpretative and educational opportunities along trails.

Objective 4.3: Utilize an environmentally-friendly and context-sensitive approach to developing and maintaining trails.



INDIAN BLANKET TRAIL

GOAL 5: PARTNERSHIPS

Leverage partnerships between the Town and the community, internal and external organizations, and outside agencies to achieve a connected trails and bikeways system.

Objective 5.1: Pursue joint projects with surrounding cities, the County, NCTCOG, TxDOT, USACE, and utility providers.

Objective 5.2: Maintain relationships with user groups to solicit feedback on the trails and bikeways system.

Objective 5.3: Work with other departments to incorporate bicycle and pedestrian accommodations into ongoing or upcoming projects.

GOAL 6: FUNDING

Pursue a variety of funding sources for trails and bikeway development.

Objective 6.1: Apply for grant funding to implement trail and bikeway projects.

Objective 6.2: Continue to work with developers to ensure trails and bikeways are included with new development.

Objective 6.3: Coordinate with user and volunteer groups to help fund improvements to trails and bikeways.



LAKESIDE MIXED USE DEVELOPMENT

History
Demographics
Planning Guidelines
Existing Trails and Bikeways System



02 COMMUNITY CONTEXT



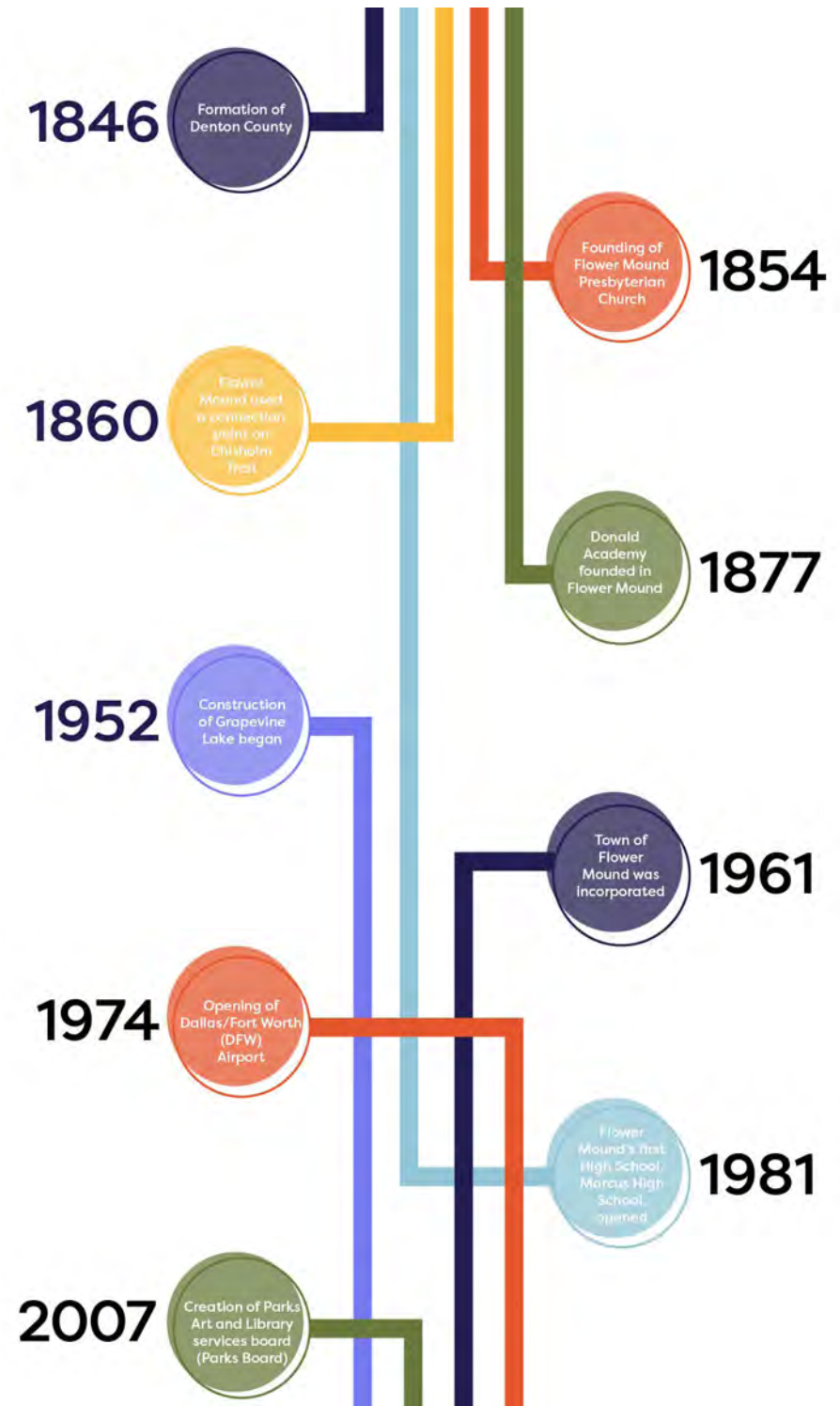
HISTORY

Based off archaeological surveys completed by the U.S. Army Corps of Engineers (USACE), people settled in Denton County as early as 4,000 – 2,500 B.C. However, in 1846 Denton County was officially formed in Texas. During the 1840s, the area of Flower Mound was used as religious camps and was permanently inhabited during the 1850s. In 1854, Flower Mound Presbyterian Church was founded. Flower Mound's most unique feature is its natural landscape. This made the area a great location for the Chisholm Trail. During the 1860s, along what would be Interstate 35 West (I-35W) today, the Chisholm Trail provided a network to over six million cattle during the 20-year period following the Civil War. In 1877, Donald Academy was founded in Flower Mound and was the largest rural school in Denton County. The school catered to grades first to tenth.

Transitioning into the 20th century, the landscape of Flower Mound began to truly take its form. In 1952, the construction of Grapevine Lake began and lasted for about a year. With the opening of road networks during the late 1950s like I-35 East, regional visitors could travel more easily throughout the Dallas-Fort Worth Area. To avoid being annexed by the City of Irving, in 1961 the Town of Flower Mound incorporated, and Bob Rheudasil became the first mayor of the Town. With the opening of Dallas/Fort Worth (DFW) Airport in 1974, Flower Mound's population boomed. During this decade, the first school in the Lewisville Independent School District opened in Flower Mound, Timber Creek Elementary. Then in 1981, Marcus High School, Flower Mound's first high school within the town boundaries, opened its doors to students. While the first traces of Flower Mound's Park Board dates before 1985, in 2007 the Town's Parks, Art and Library Services Board was created which is now readily recognized as today's parks board. Over the years, Flower Mound has continued to expand and build a community filled with recreation opportunities for its residents.



FIGURE 2.1: HISTORICAL TIMELINE OF FLOWER MOUND



DEMOGRAPHICS

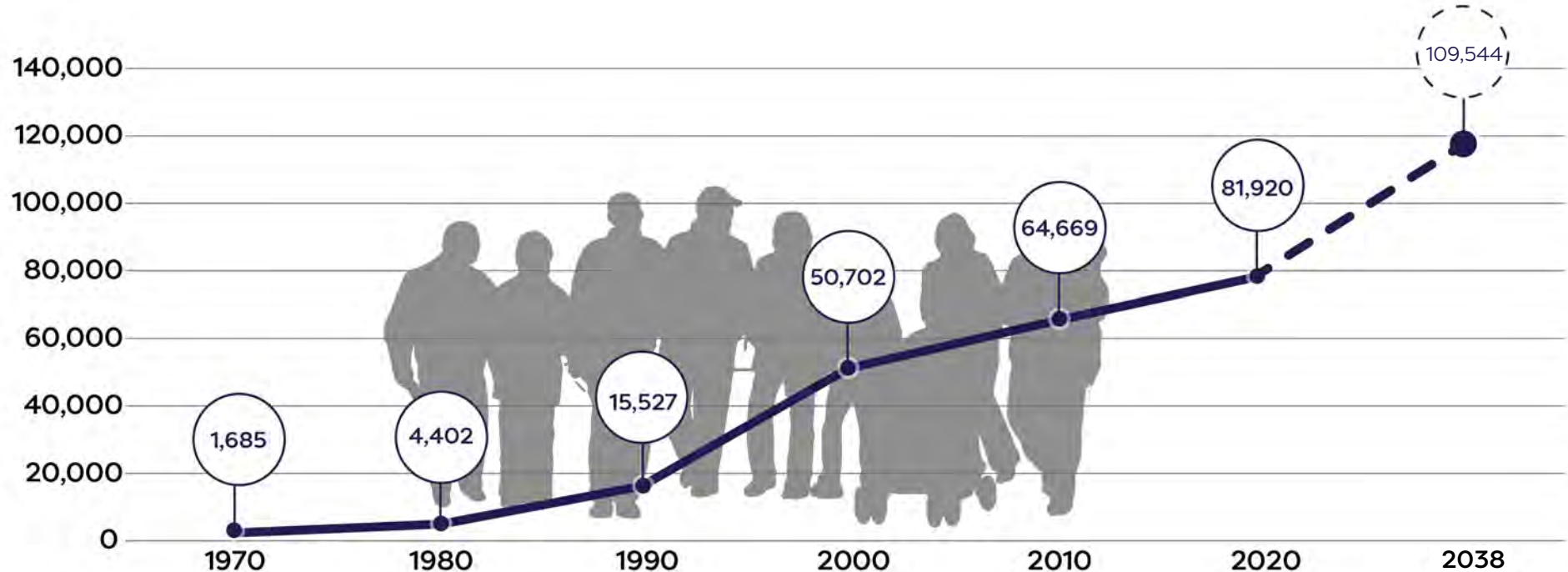
The demographic makeup of a community is significant in the beginning of the planning process. Demographic characteristics such as population growth, age, gender, race, and income help paint the landscape of a community and contribute to what the needs are for different trails and bikeways.

GROWTH TRENDS

Flower Mound experienced a significant increase in population during the 1970s. This corresponds with many neighboring communities as the entire region saw a huge population boom during this time with the opening of DFW Airport in 1974 and subsequent expansion of road networks and job opportunities. Over the next 30 years, Flower Mound's population would continue to expand exponentially, with the most significant growth period occurring during the 1980s. After the 1990s, Flower Mound's population growth began to plateau. However, the town has seen an increase in their population by 54 percent since 2000. Based off population projections by the Town of Flower Mound, by 2038 the Town will be built-out with a population of approximately 109,544 residents. This would be about a 50 percent increase over the next 20 years.



FIGURE 2.2: FLOWER MOUND POPULATION GROWTH



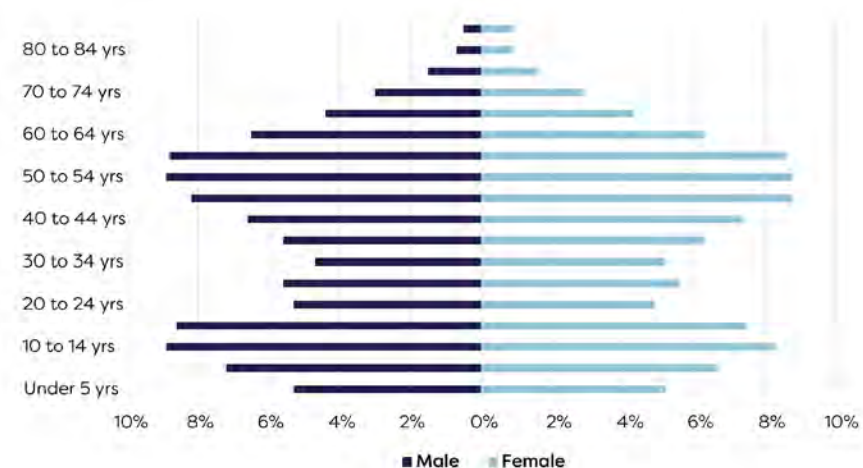
Source: Town of Flower Mound Planning Department

AGE AND GENDER CHARACTERISTICS

Flower Mound's population is characterized by two principal age groups: middle-aged adults and children. In 2020, individuals between the ages of 45-54 represented the largest portion of the population, equaling 17.4 percent. The next largest age group is between the ages of 55-64 making up 11 percent. The third largest group is younger adults between the ages of 10-14. Together these three cohorts reflect an older population being dominant in Flower Mound along with a strong presence of families. This idea can also be reinforced through the Town's median age of 39 years. This is older than both Denton County's median age of 35 and the state of Texas median age of 34.

Females make up 50.8 percent of the overall population. However, males in Flower Mound surpass their female counterparts between the ages of 5 to 24 and 50 to 74. The age groups where females surpass males is children under the age of 5 and individuals between the ages 30 to 49 and 70+.

FIGURE 2.3: AGE AND GENDER, 2020



RACE AND ETHNICITY CHARACTERISTICS

In 2020, 77.7 percent of Flower Mound's population identified as white, followed by 12.5 percent of residents identifying as Asian, and 4.4 percent identifying as Black. The percentage of residents that identify as Hispanic ethnicity is 9.9 percent. Over the past ten years, Flower Mound's overall population has increased by about 27 percent and during that time most racial and ethnic groups saw an increase as well. The group with the largest percent increase was the Asian population (85 percent increase from 2010 to 2020). The second group that saw the second largest increase was Black residents with a percent increase of 74 percent.

TABLE 2.1: RACE AND ETHNICITY CHARACTERISTICS

Race	2010	2020	Percent Change
Total Population	64,669	81,920	26.7%
White	83.8%	77.7%	- 17.3%
Black	3.2%	4.4%	74.4%
American Indian and Alaska Native	0.5%	0.5%	23.5%
Asian	8.6%	12.5%	85.4%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%	45%
Other Race	1.6%	2.1%	62.9%
Two or More Races	2.2%	2.7%	59%
Ethnicity			
Hispanic or Latino (of any race)	8.4%	9.9%	49.7%

Source: U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2020.

HOUSEHOLD CHARACTERISTICS

The majority of Flower Mound's housing stock is occupied and owned. In 2020, 99 percent of housing units were occupied. Since 2010, this percentage has increased by 2 percent. Of the occupied housing units in Flower Mound, 83.9 percent are owned, meaning that the remaining 15.4 percent are rented. The remaining 0.8 percent represents vacant units. These housing characteristics have stayed relatively consistent since 2010. The average housing value is currently \$403,416, which is one of the highest average values in the DFW region. 51.1 percent of houses in Flower Mound fall within the value bracket of \$300,000 to \$499,999.

The median household income in Flower Mound is \$138,873. This is significantly higher than the median household income of Denton County (\$86,913) and the state (\$61,874). Of the residents that live in Flower Mound, 68.8 percent of the population make \$100,000 or more. These housing characteristics indicate that many households in Flower Mound have higher disposable incomes than other communities in the DFW region to spend on recreation and leisure.

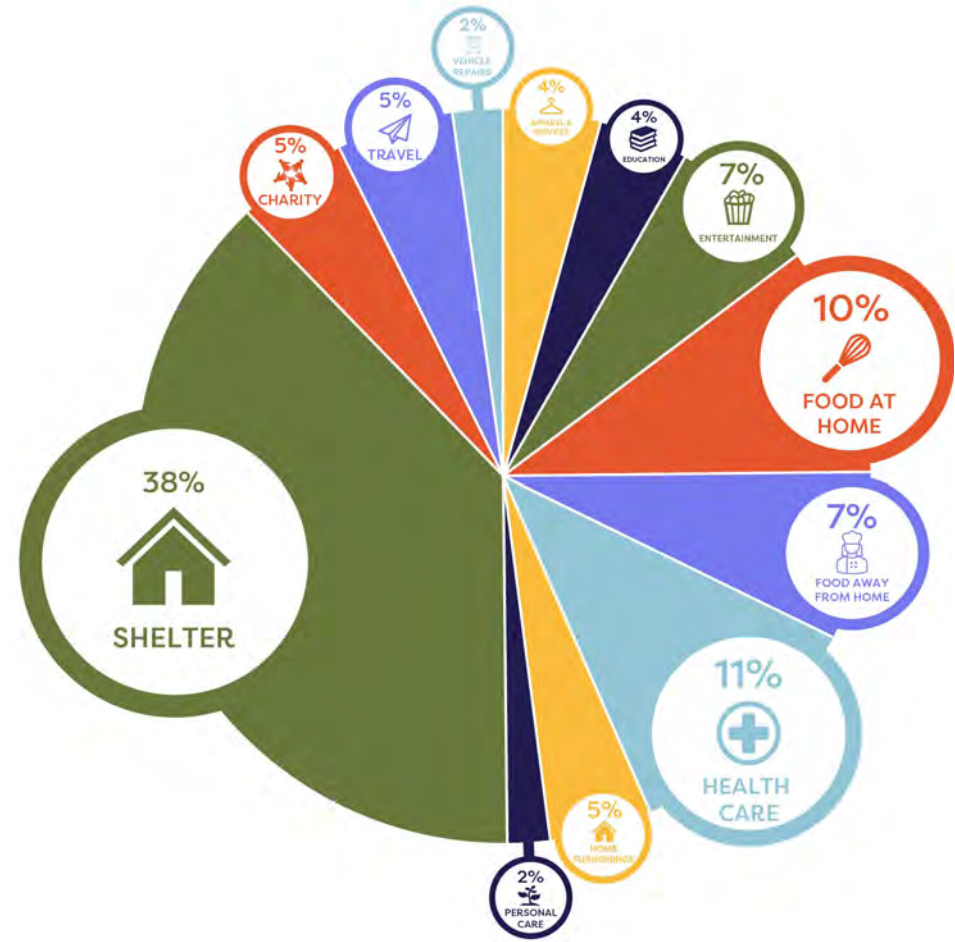
Figure 2.4 displays Flower Mound's consumer spending in 2020. Consumer spending shows the amount spent on a goods and services by households in Flower Mound in the year of 2020. The largest category individuals in Flower Mound spent money on was towards their houses (38 percent). The second largest category was spent towards health care costs (11 percent). Followed by food categories, such as food at home (10 percent) and food away from home (7 percent).

TABLE 2.2: HOUSEHOLD CHARACTERISTICS (2010-2020)

	2010	2020
Total Housing Units	43,097	51,244
Occupied Housing Units (%)	90.6%	91.1%
Vacant Housing Units (%)	9.4%	8.8%
Owner-Occupied Housing Units	18,488	22,747
Median Mortgage Cost	\$1,545	\$1,698
Renter-Occupied Housing Units	47.7%	46.7%
Median Rent	\$782	\$1,082
Total Households	95,794	126,100
Median Household Income	\$44,415	\$60,018

Source: 2015-2019 American Community Survey 5-Year Estimates; 2006-2010 American Community Survey 5-Year Estimates.

FIGURE 2.4: CONSUMER SPENDING



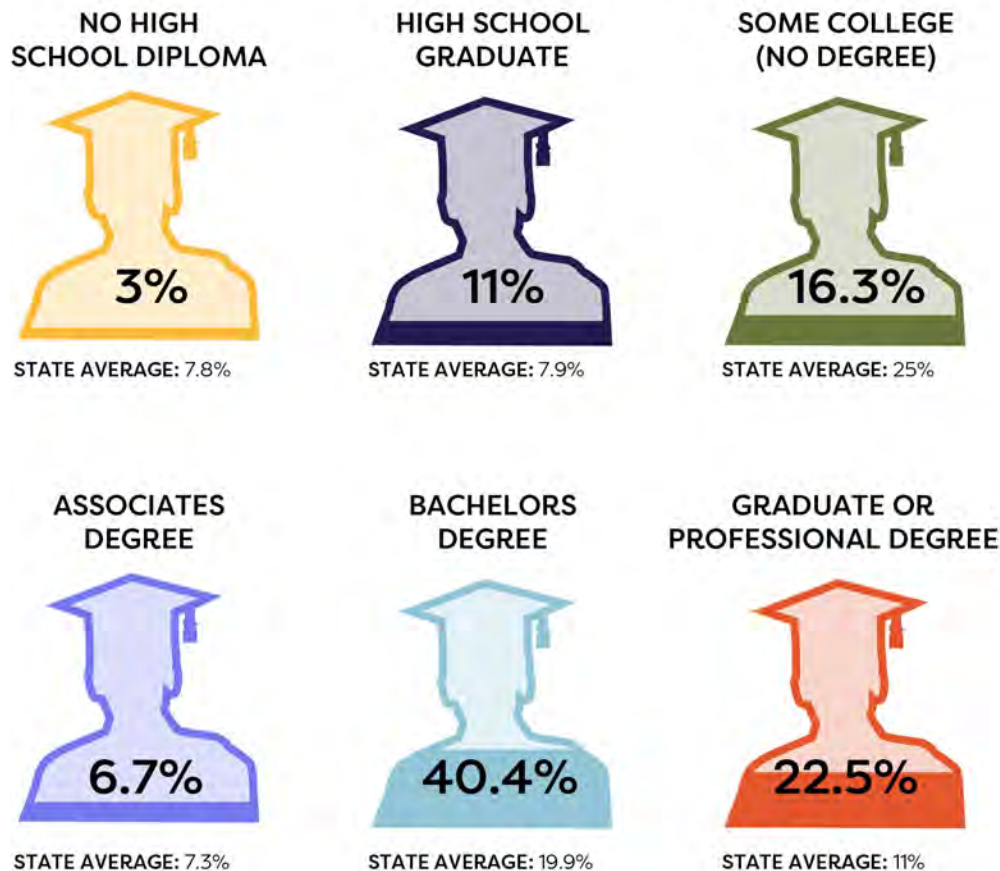
Source: U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2020.



EDUCATIONAL ATTAINMENT

Among the residents in Flower Mound who are over the age of 25, 40.4 percent have a bachelor's degree. This percentage is higher than the Denton County average at 30.8 percent and the state average at 19.9 percent. The next largest group is residents who earned their graduate or a professional degree, which make up 22.5 percent of Flower Mound's population. This percentage is also higher than the Denton County average of 15.4 percent and the state average of 11 percent. Overall, most of the population who are over the age of 25 have received a bachelor's degree or higher.

FIGURE 2.5: EDUCATIONAL ATTAINMENT, 2020



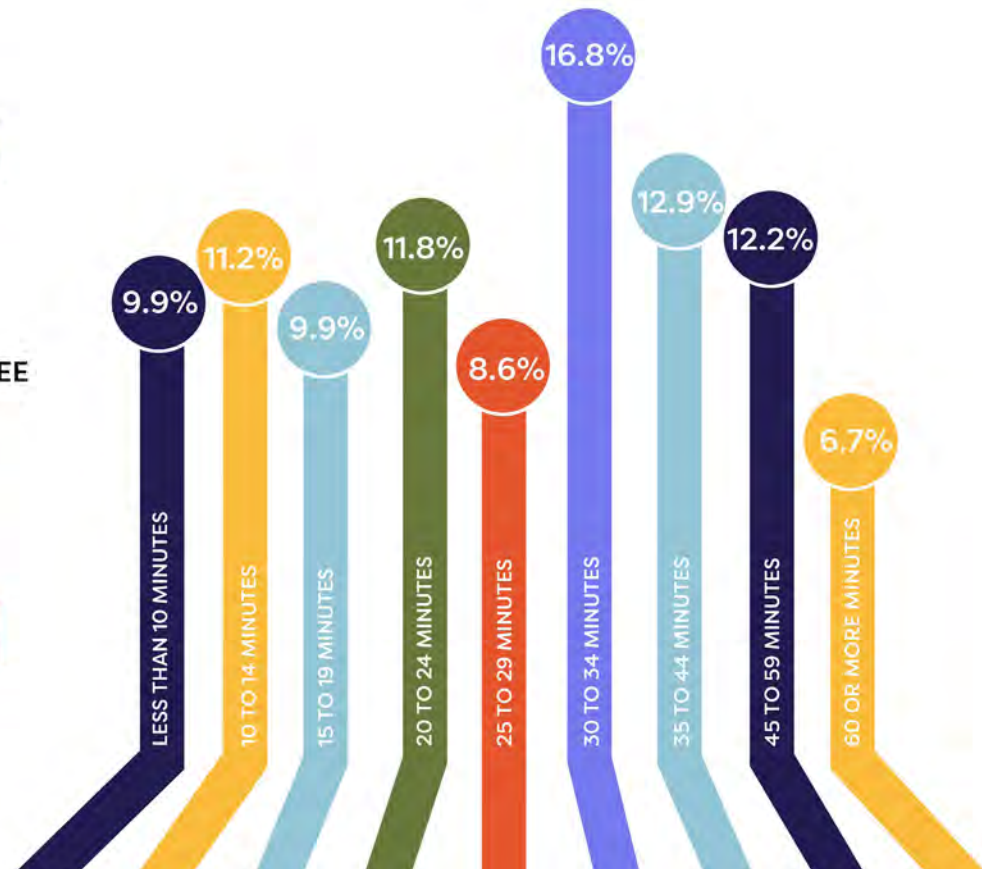
Source: U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2020.

COMMUTE TIME

According to the Census Bureau, the average commute time in 2019 was 28.4 minutes. Over the past five years, this number has decreased from 29.2 minutes and currently is at its lowest. For the working population over the age of 16, the most common commute time frame was between 30-34 minutes (16.8 percent). Additionally, 21.1 percent of the population in Flower Mound have a shorter commute time between 10-19 minutes and 25.1 percent of the population have a longer commute time between 35 – 59 minutes. In 2019, most of the population used a car, truck, or van as a means of transportation to work (86.6 percent). This number has fallen slightly since 2014. Over the past five years, Flower Mound has seen an increase of its population working from home and biking to work.

FIGURE 2.6: AVERAGE COMMUTE TIME, 2019

Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates.

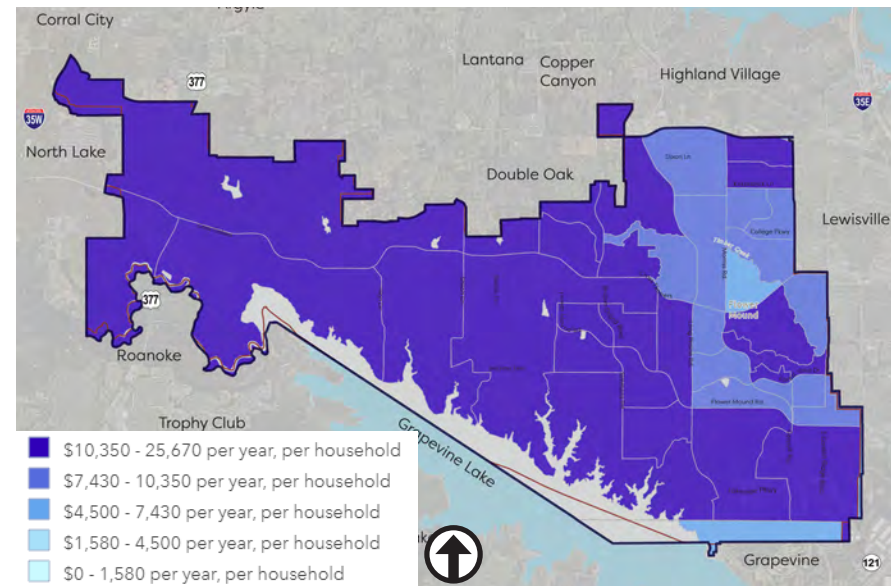


HEALTH

Figure 2.7 displays the average amount spent on healthcare per household in Flower Mound in 2021. All residents in the Town spend at least \$4,500 per year towards their health. However, the largest proportion of the Town spends in the highest bracket that ranges between \$10,350 - \$25,670 a year. This aligns with healthcare services being the second largest category of consumer spending for the Town.

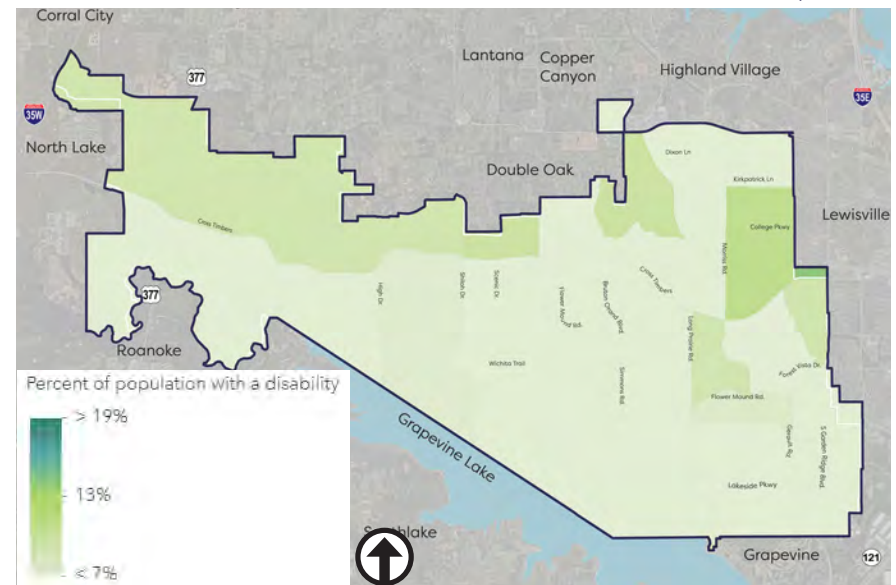
Figure 2.8 displays the percent of population with a disability, based off the six different types of disabilities: mobility/physical, visual, mental health, intellectual, hearing, and learning. Overall, Flower Mound has a low percentage of its population with a disability; in 2019, 5.8 percent of Flower Mound residents had a disability. The largest share of the population with a disability was residents over the age of 65 (55 percent). They are also concentrated on the east side of Flower Mound between Kirkpatrick St and Cross Timbers, primarily around the Pink Evening Primrose Trail.

FIGURE 2.7: HEALTH SPENDING, 2021



Source: ESRI's 2021 U.S. Consumer Spending Data in Census 2010 Geo-graphics, Business Analyst.

FIGURE 2.8: PERCENT OF POPULATION WITH A DISABILITY, 2014



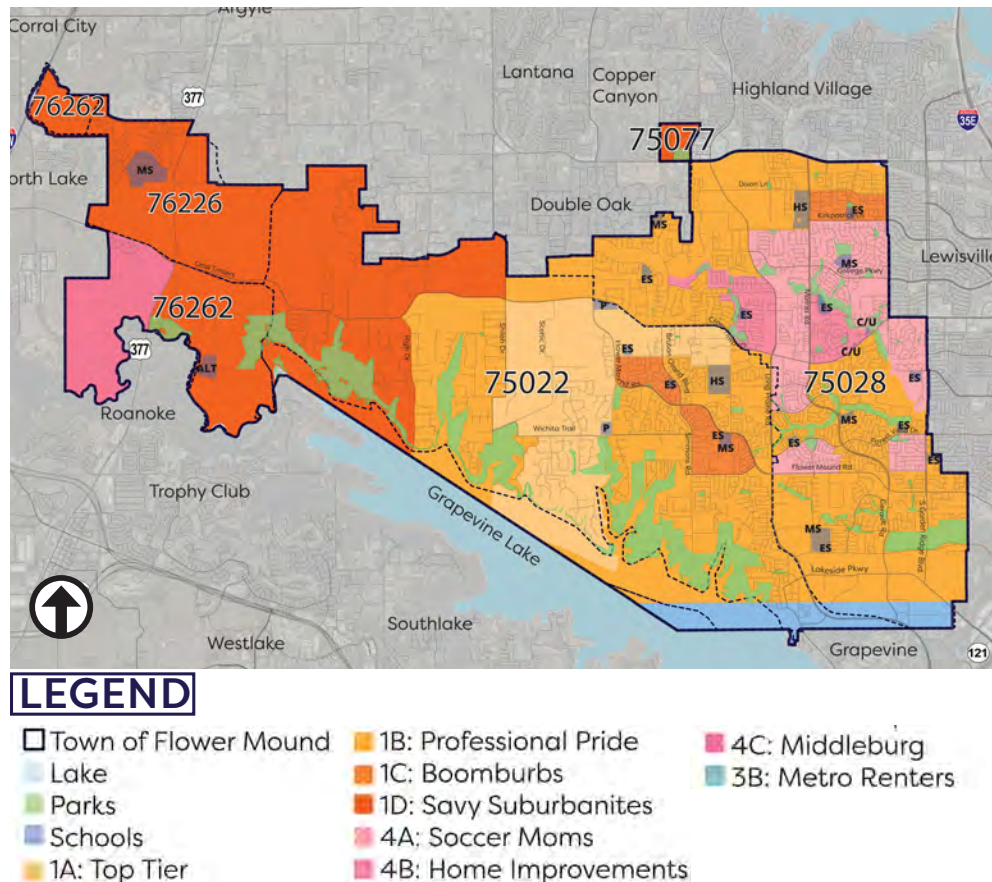
Source: 2010-2014 American Census Survey 5 year-data, Business Analyst.



ESRI TAPESTRY SEGMENTS

ESRI (Environmental Science and Research Institute) is a demographic and mapping company that uses spatial data to help inform communities. The ESRI tapestry market segmentation identifies markets in each community using its geographic, socioeconomic, and demographic characteristics. This helps communities better understand their consumer market. Based on Census block groups in Flower Mound, the top three most represented segments within Flower Mound are “Professional Pride,” “Soccer Moms,” and “Boomburbs”. Page 25 and 26 display all the segments that are represented within Flower Mound along with their associated characteristics and definitions. **Figure 2.9** displays the location of zip codes in Flower Mound and the associated tapestry segments.

FIGURE 2.9: ESRI TAPESTRY SEGMENTS



1A TOP TIER

This segment is considered the wealthiest Tapestry market; members earn more than three times the average US household income. They are also highly educated and more than one in three residents have a postgraduate degree. They are socially responsible consumers that aim for a balanced lifestyle and take interest in expanding their knowledge.

Median Household Income

\$173,200

Median Age

47.3

Average Household Size

2.84

1B PROFESSIONAL PRIDE

These residents are well-educated, career professionals that work in fields such as science, technology, law, or finance. They are goal-oriented and have well established families. Households in this segment like routine as a daily ingredient to their lifestyle.

Median Household Income

\$138,100

Median Age

40.8

Median Household Size

3.13

1C BOOMBURBS

This is a new growth market with many well-educated young professionals with new families. The unemployment in this segment is low and most households have more than two workers. They are well connected to the newest technology and trends. Physical fitness is a priority for this group and leisure activities include sports such as hiking, biking, and golf.

Median Household Income

\$113,400

Median Age

34

Median Household Size

3.25

1D SAVVY SUBURBANITES

This segment includes residents who are well educated and well capitalized. They are informed shoppers and do extensive research prior to making a purchase. They are in older neighborhoods and include families that have no children or adult children. Their suburban lifestyle has a focus on the outdoors like gardening or active pursuits.

Median Household Income

\$108,700

Median Age

45.1

Median Household Size

2.85



4A SOCCER MOMS

These residents are an affluent and family-oriented market. The neighborhoods have a country flavor that are in the suburban periphery of metropolitan areas. This group carries a higher level of debt with the largest proportion having only some college. They favor time saving services and purchases revolve around family-oriented products. Outdoor activities are an important aspect of this group's lifestyle.

Median Household Income

\$90,500

Median Age

37

Median Household Size

2.97

4B HOME IMPROVEMENT

This group is comprised of primarily married couple families that own a single-family home. They have high participation in the labor force and households typically have 2+ workers. Majority of incomes go towards paying off student loans, home mortgages, and eating out.

Median Household Income

\$72,100

Median Age

37.7

Median Household Size

2.88

4C MIDDLEBURG

These residents have transformed from the easy pace of country living to semi-rural subdivisions. They are family-oriented consumers and typically a younger demographic. 65 percent have a high school diploma or some college and have a labor force participation rate typical of a younger population. Outdoor activities popular with this segment include hunting, fishing, and baseball.

Median Household Income

\$59,800

Median Age

36.1

Median Household Size

2.75

3B METRO RENTERS

This segment is highly mobile and well educated with many still enrolled in college. Socializing is important to them as well as environmentally safe practices. They participate in leisure activities such as outdoor activities and yoga. They are very well connected and get a lot of their information via technology.

Median Household Income

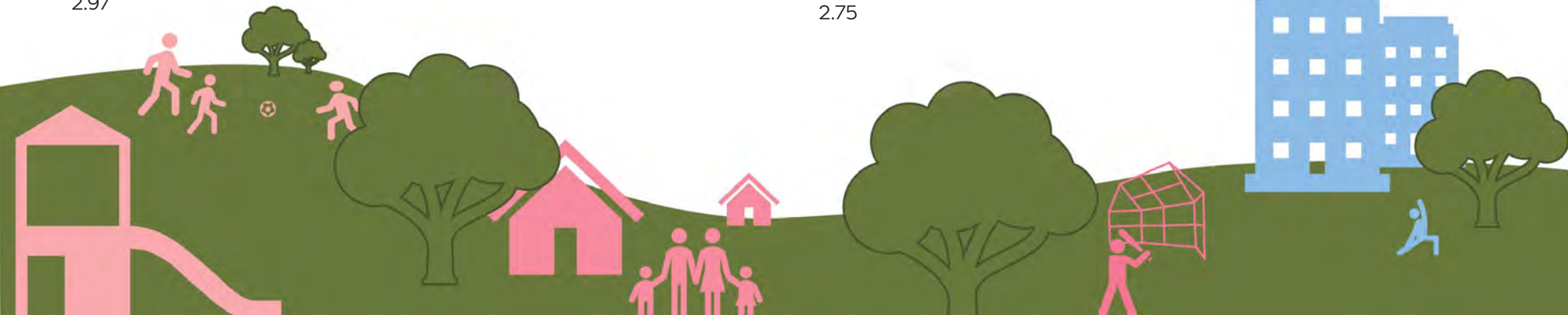
\$67,000

Median Age

32.5

Median Household Size

1.67



PLANNING GUIDANCE

PARKS AND RECREATION MASTER PLAN UPDATE

The 2017 Parks and Recreation Master Plan (PRMP) provides a framework for strategies regarding acquisition and development of recreation facilities for Flower Mound in the future. This plan focuses on the needs of the community within the next five to ten years and uses insights through engagement efforts as a foundation. The primary outcomes of the master plan were to identify a vision for the Parks and Recreation Department, determine the level of needs in current offerings, identify new opportunities that can be met by the department, complete initial testing on strategies for funding, and identify possible parks/facility components for new and future facilities. Finally, this plan identifies a variety of recommendations for the direction of the Parks and Recreation facilities for implementation.

According to the PRMP's level of service analysis, **paved multi-use trails were listed as the highest priority need** out of all parks and recreation amenities assessed as part of the plan. Nature trails and unpaved multi-use trails were also listed as a high priority. Additionally, the overall quality of walking/biking trails was identified as the highest-ranking response for survey takers when asked which services should receive the most attention over the next five years. Equestrian trails were ranked near the bottom in several questions related to identifying needs and priorities moving forward.

The strategic recommendations in the Parks and Recreation Master Plan outline action plans towards the community vision. There are four core community visions that are summarized by parkland and trails community mandates, facilities, programming, and operations and staffing. These four concepts each have a set of strategies that can be used as a road map for the future.

FIGURE 2.10: PRIORITIZED PROGRAM RANKING IN PARKS MASTER PLAN

Facility	Priority
Paved multi-use trails	High
Small neighborhood parks	
Nature trails (paved and unpaved)	
Large community parks	
Outdoor swimming pools/water parks	
Outdoor amphitheaters	
Off-leash dog park	
Unpaved multi-use trails	
Community garden	Medium
Outdoor water splash pads	
Picnic areas/pavilions	
Outdoor tennis courts	
Playground equipment	
Indoor gymnasiums	
Outdoor basketball courts	
Disc golf course	
Outdoor fishing areas	
Soccer fields	Low
Campgrounds	
Skate park	
Baseball & softball fields	
Football & lacrosse fields	
Boardwalks	
Cricket fields	
Equestrian trails	



BLUEBONNET TRAIL

ECONOMIC DEVELOPMENT PLAN

The mission of the economic development plan is to expand the commercial tax base and increase sales tax revenue through resiliency and sustainability efforts. This plan outlines goals, objectives, and strategies to create a diversified and regionally competitive economy within Flower Mound. One major goal outlined in this plan is to develop community resources that contribute to a business environment to encourage development. One example of a strategy that supports this concept is the prioritization of transportation and mobility planning to ensure the efficiency of the thoroughfare system. Another example is maintaining comprehensive park systems and preserving the natural environment that enhance the quality of life and support economic goals. Together, these strategies work to support the community in encouraging high-quality development and promote economic activity.



OPEN SPACE PLAN

A previous vision for Flower Mound identified that a key goal was focused on preservation. The open space plan creates the foundation of a vision for how to adequately produce strategies towards defining and conserving open spaces. These strategies provide an array of techniques to maintain the town's unique natural environment. The plan highlights that it is not to be used as simply an inventory but instead provides an appropriate menu of protection techniques for agricultural, natural, and scenic open spaces in Flower Mound. This plan also determines funding strategies with the best potential as well as voluntary and incentive opportunities for landowners. Finally, the plan does reference providing trail connections throughout open space areas, but also notes that paved recreational trails are not the primary intended use of open space in Flower Mound.



LAND USE PLAN

The Land Use Plan aims to promote more efficient uses of land within Flower Mound. The plan goals center around preservation of the unique natural environment, mitigation efforts of rapid urbanization, creation of a balanced tax base, and development efforts that have exemplary quality and design. These goals reflect Flower Mound's vision of the community and dictates the shape of the town and identifies strategies achieved. The specific land use categories can be found in this plan in more detail, along with specific details regarding six major planning areas which include: Lakeside Business District, Long Prairie District, Cross Timbers Protection Area, Cross Timbers Conservation Development District, Prairie Vista District and Denton Creek District.

The Lakeside Business District prioritizes commercial development to spark economic growth. Long Prairie District is 90 percent developed, however any future uses will comply with emphasizing quality of life and preserving remaining natural landscapes. The Cross Timbers Protection Area covers the areas within the Long Prairie District where Cross Timbers exist. The purpose is to preserve the remnants of the Cross Timbers that have been compromised due to urbanization and enact development standards to uphold the remaining Cross Timbers environmental character. The Cross Timbers Conservation Development District and the Prairie Vista District preserve the ecological area in central Flower Mound. Lastly, the Denton Creek District prioritizes future growth and economic opportunity through supporting uses such as commercial, industrial development, mixed office, retail, and residential uses.

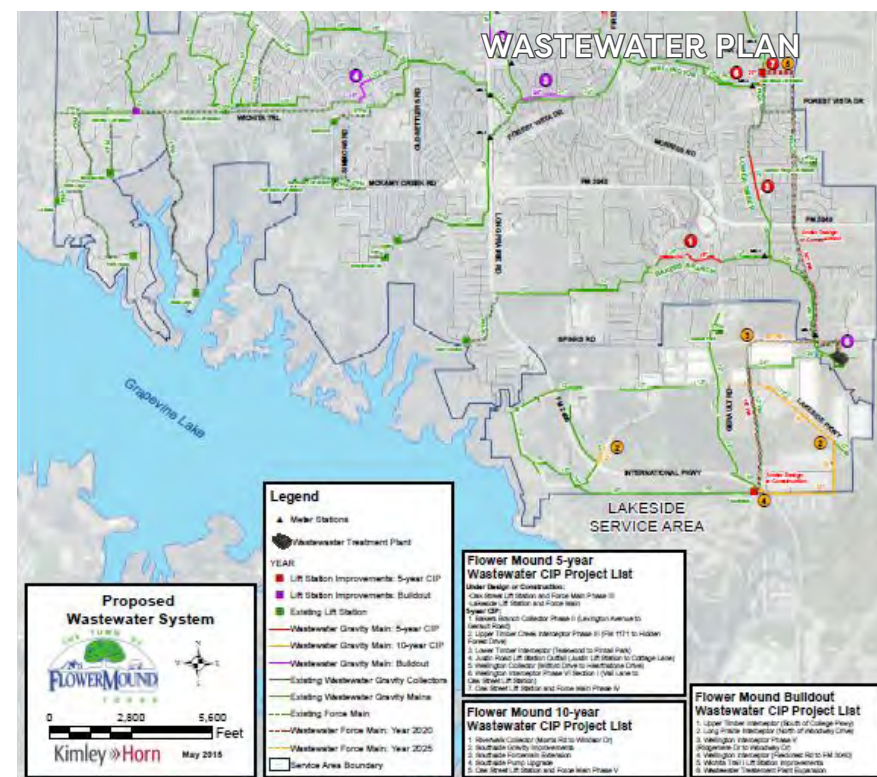
FIGURE 2.11: DISTRIBUTION OF LAND USES FROM THE TOWN OF FLOWER MOUND'S MASTER PLAN

Land Use	Percentage of the Acreage	Flexibility Factor
Non-residential Uses*	45%	-25%
Public Uses	5%	±5%
Residential Uses**	45%	25%
Civic/Open Space (Public and Private)	5%	+10%
Total	100%	

**Non-residential uses shall include retail, office, hospitality, entertainment, etc.*

*** Residential uses above commercial uses shall not be included in the calculation of percentage of residential uses in the overall development*





URBAN DESIGN PLAN

The Flower Mound Urban Design Plan provides design guidelines for landscaping elements and architectural standards for non-residential buildings. This was created as part of the Flower Mound Master Plan and was reviewed via community engagement and focus groups. The purpose of the plan is to provide structure to establish community-wide architectural standards for non-residential projects and landscape, gateway, and intersection treatments in the five districts outlined in the land use plan. Each district has a distinct goal that aims to strengthen the community and character identity of the following districts:

- Lakeside Business District
- Long Prairie District
- Cross Timbers Conservation Development District
- Denton Creek District
- Prairie Vista District

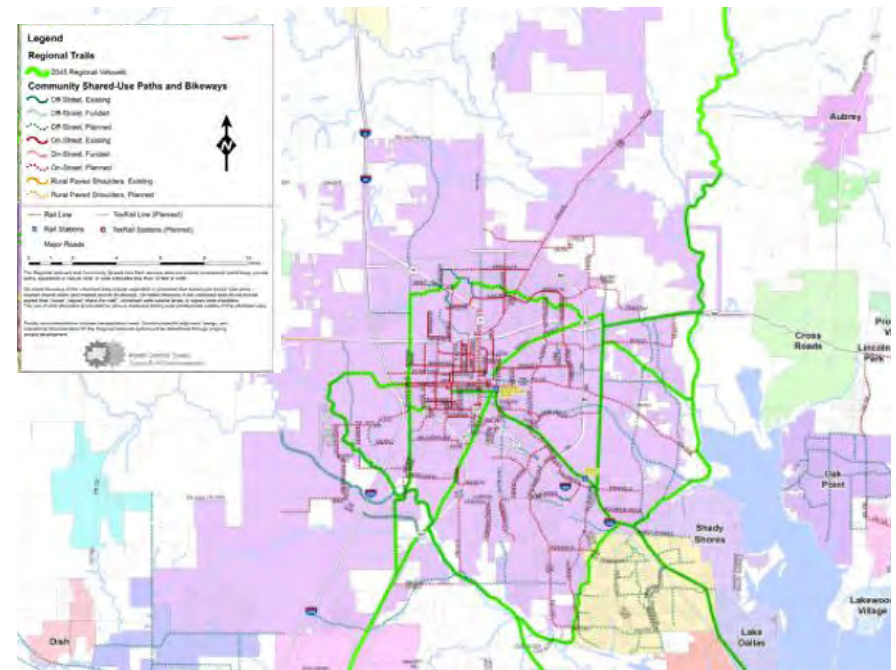


NCTCOG VELOWEB

The North Central Texas Council of Governments (NCTCOG) Regional Veloweb is a regional network of off-street shared use trails. These trails serve as a network of active transportation for multiple user groups including bicyclists, pedestrians, and other non-motorized modes of transportation. The Veloweb is updated by NCTCOG and the latest version of the regional network is included in the NCTCOG Mobility 2045 plan. This plan contains 1,876 miles of off-street trails that has planned connections in 10 counties and 105 cities in North Central Texas. Determining the alignments for the Veloweb trails are achieved through collaborative planning efforts between NCTCOG staff and local governments.

The Mobility 2045 Plan outlines the Veloweb trail segments as existing, funded and planned. Within the context of Flower Mound, all the Veloweb segments are categorized as 'planned' trails. Most of the planned trails are north to south making connections to neighboring communities.

FIGURE 2.12: NCTCOG VELOWEB REGIONAL MAP



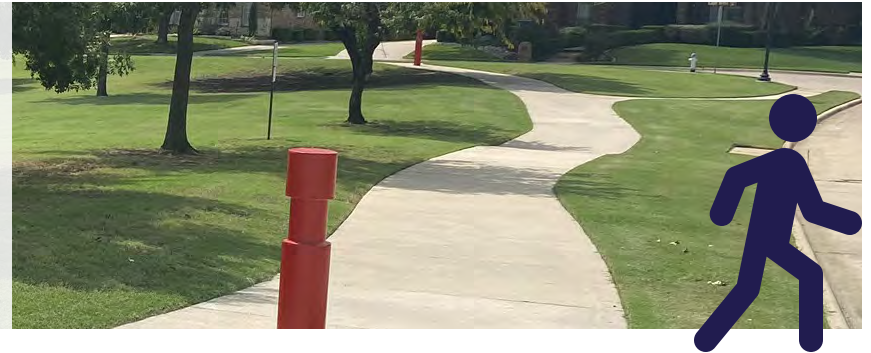
EXISTING TRAILS AND BIKEWAYS SYSTEM

The Flower Mound trail system has diverse offerings for its residents and visitors from across the region and beyond. These trails aim to connect residential neighborhoods to schools, parks, and commercial centers and expand mobility for its residents. Flower Mound has a unique natural landscape that adds to the overall experience of trail users. Currently, there are 62.2 miles of 8' or wider paved Town trails, 5.6 miles of on-street bikeways, 13 miles of equestrian trails, and 34.5 miles of trails owned and maintained by other entities within Flower Mound. **Figure 2.13** and **Table 2.3** displays Flower Mound's inventory of trails and on-street bikeways.

For the purpose of this inventory the following facility definitions are used:

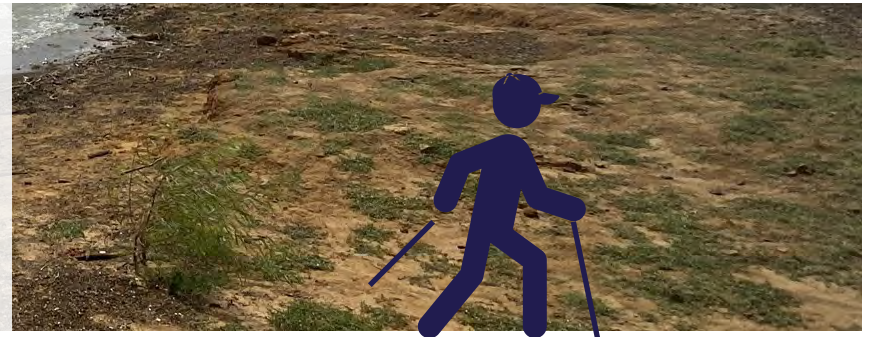
Town Trails:

Trails that are owned and mostly maintained by the Town of Flower Mound. These trails include multi-use paved trails that are between 4-foot and 10-foot in width, soft-surface trails, and equestrian soft-surface trails that range between 15-foot to 50-foot. The Town has developed a trail naming system for much of the existing trail system; the majority of existing trails are named after various wildflowers. These trails are referred to as “branded trails”.



Other Trails:

Multi-use soft-surface paths for hiking and mountain biking that are located within the Town of Flower Mound but are not owned or maintained by the Town. The Dallas Off-Road Bicycle Association (DORBA) maintains over 30 miles of soft-surface trails on USACE land along the shores of Grapevine Lake.

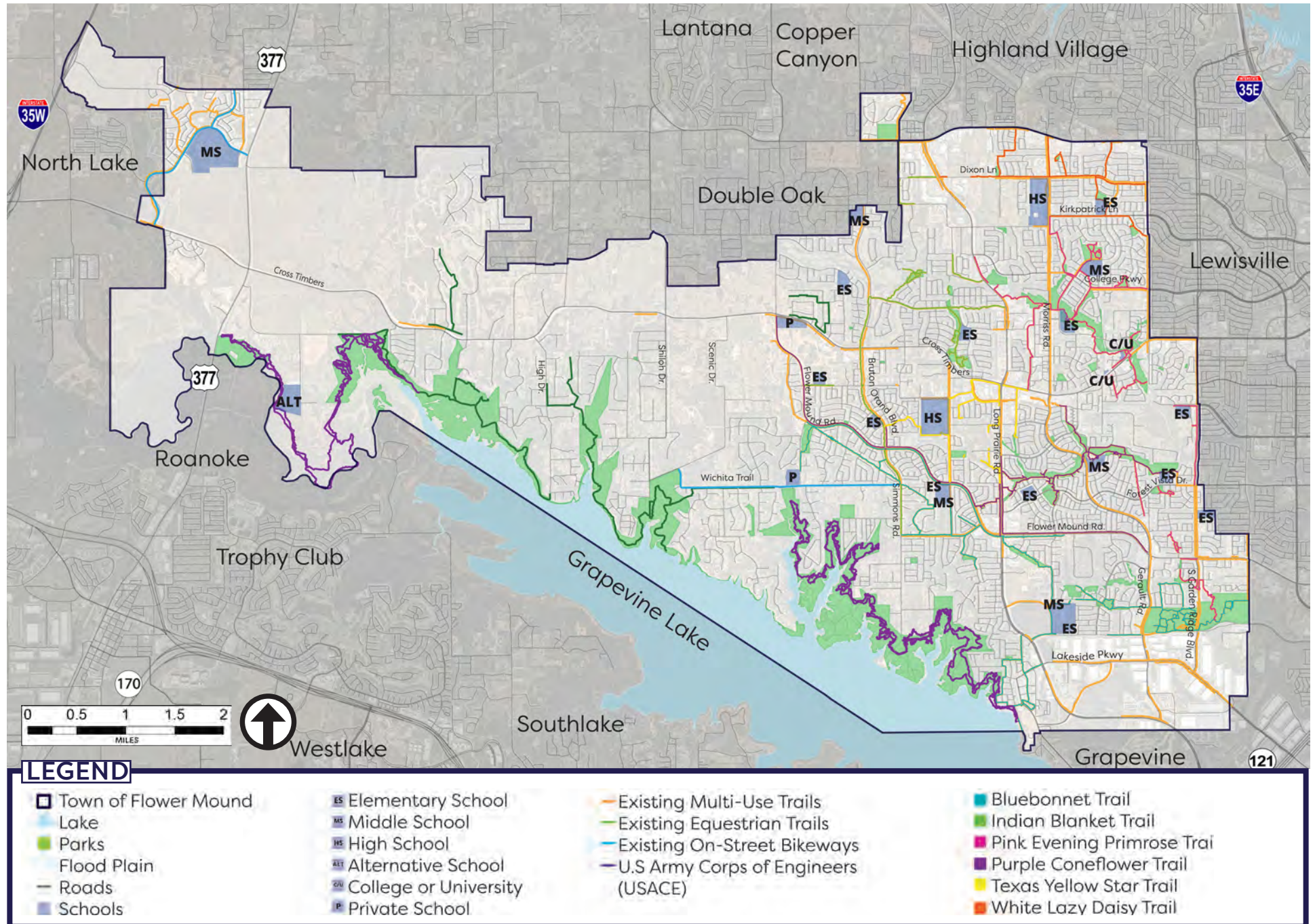


On-Street Bikeways:

Designated accommodations for bicyclists within a roadway such as bike lanes and shared-use lanes. There are existing on-street bikeways along Wichita, Waketon, and Canyon Falls in Flower Mound today.



FIGURE 2.13: EXISTING TRAILS



TOWN TRAILS

Flower Mound's town trails include paved multi-use, soft-surface, and equestrian trails. These trails are owned and mostly maintained by the Town of Flower Mound. Currently, there are 62.2 miles of multi-use trails within Flower Mound's trail system that are 8 feet or wider. 70.6 percent of those paved multi-use trails that are 8 feet or wider are within Flower Mound's designated branded trail network, which are named after wildflowers found in Texas. The Bluebonnet Trail has the most mileage out of all the branded multi-use trails and connects to the town's most prominent park, Heritage Park. There is one short segment of the Pink Evening Primrose trail that is made from decomposed granite. Another type of soft-surface trail maintained by the Town is the equestrian trails. There is a total of 13 miles of equestrian trails located within neighborhoods in the central portion of Flower Mound.

TABLE 2.3: TOWN TRAIL INVENTORY

Trail Name	Length (Miles)	Width (Feet)	Surface Type
Bluebonnet Trail	18.7	4'-10'	Cement
Indian Blanket Trail	8.4	5'-10'	Cement
Pink Evening Primrose Trail	13.0	4'-10'	Cement/Soft-Surface
Purple Coneflower Trail	12.0	4'-8'	Cement
Texas Yellow Star Trail	4.9	4'-8'	Cement
White Lazy Daisy Trail	5.7	4'-10'	Cement
Unnamed Multi-Use Trails	40.9	4'-10'	Cement
Connectors (Unnamed)	1.9	4'	Cement
Equestrian Trails	13.0	15'-50'	Soft-Surface
Total Length	118.5		
Total Length* (8ft or wider) (*Does not include equestrian or soft-surface trails)	62.2		
Total Length* (Less 8ft) (*Does not include equestrian or soft-surface trails)	43.3		

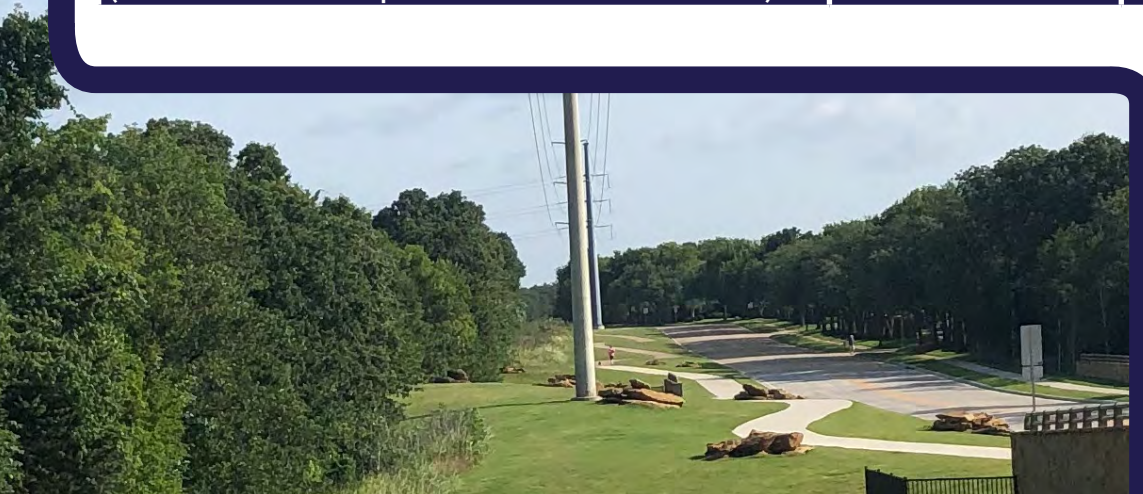
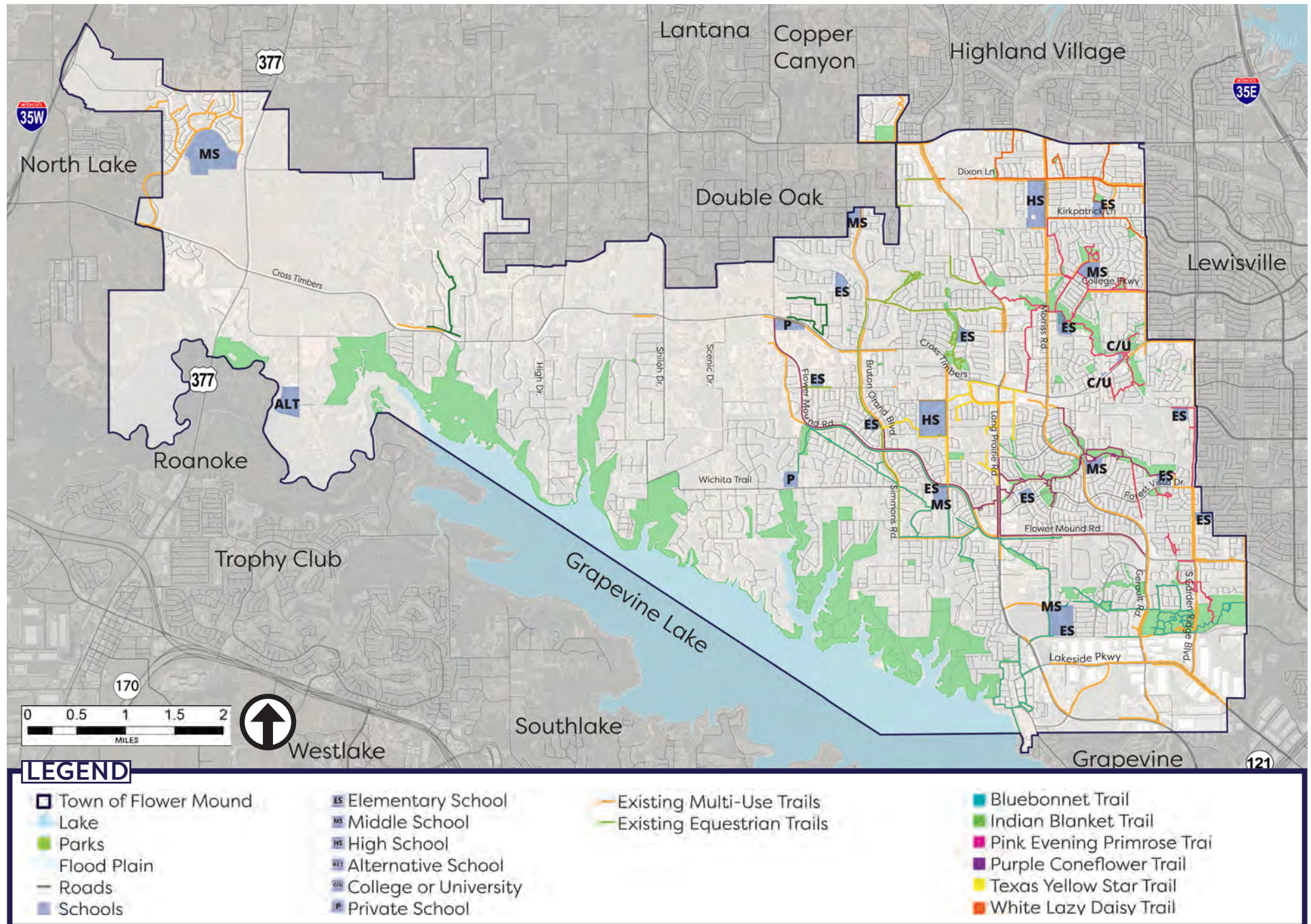


FIGURE 2.14: EXISTING TOWN TRAILS



While there are segments of the existing branded trails that are 4-foot – 6-foot in width, to be considered multi-use trails, the facilities should be at least 8-foot wide, but preferably 10-foot. **Figure 2.15** depicts the breakdown of the widths of existing trails. The majority of trails today are 8-foot wide; but 34 percent are 6-foot or narrower. The needs assessment in Chapter 3 goes into more detail about the need for wider trails.

FIGURE 2.15: EXISTING TOWN MULTI-USE TRAIL WIDTH PERCENTAGES

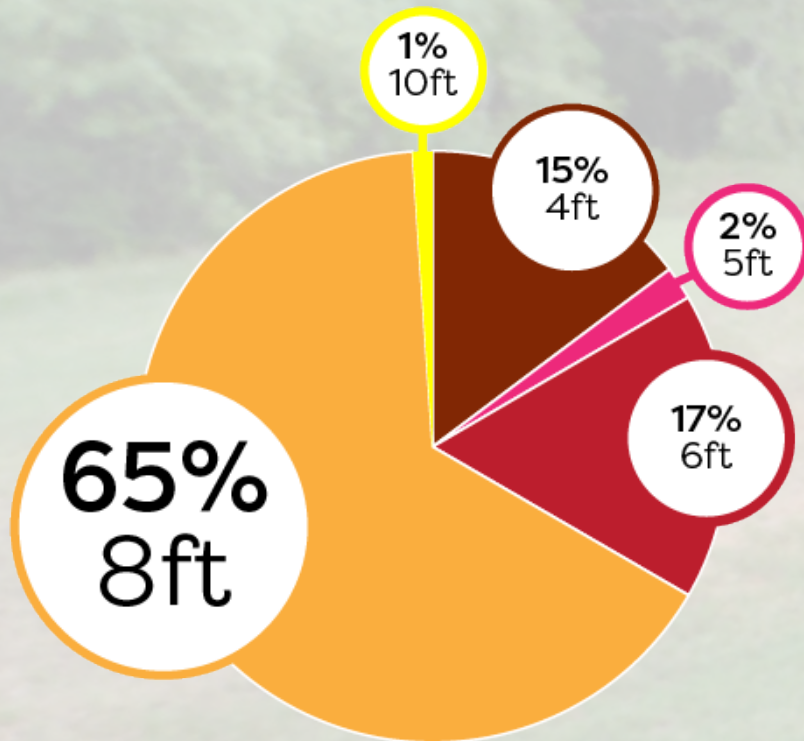
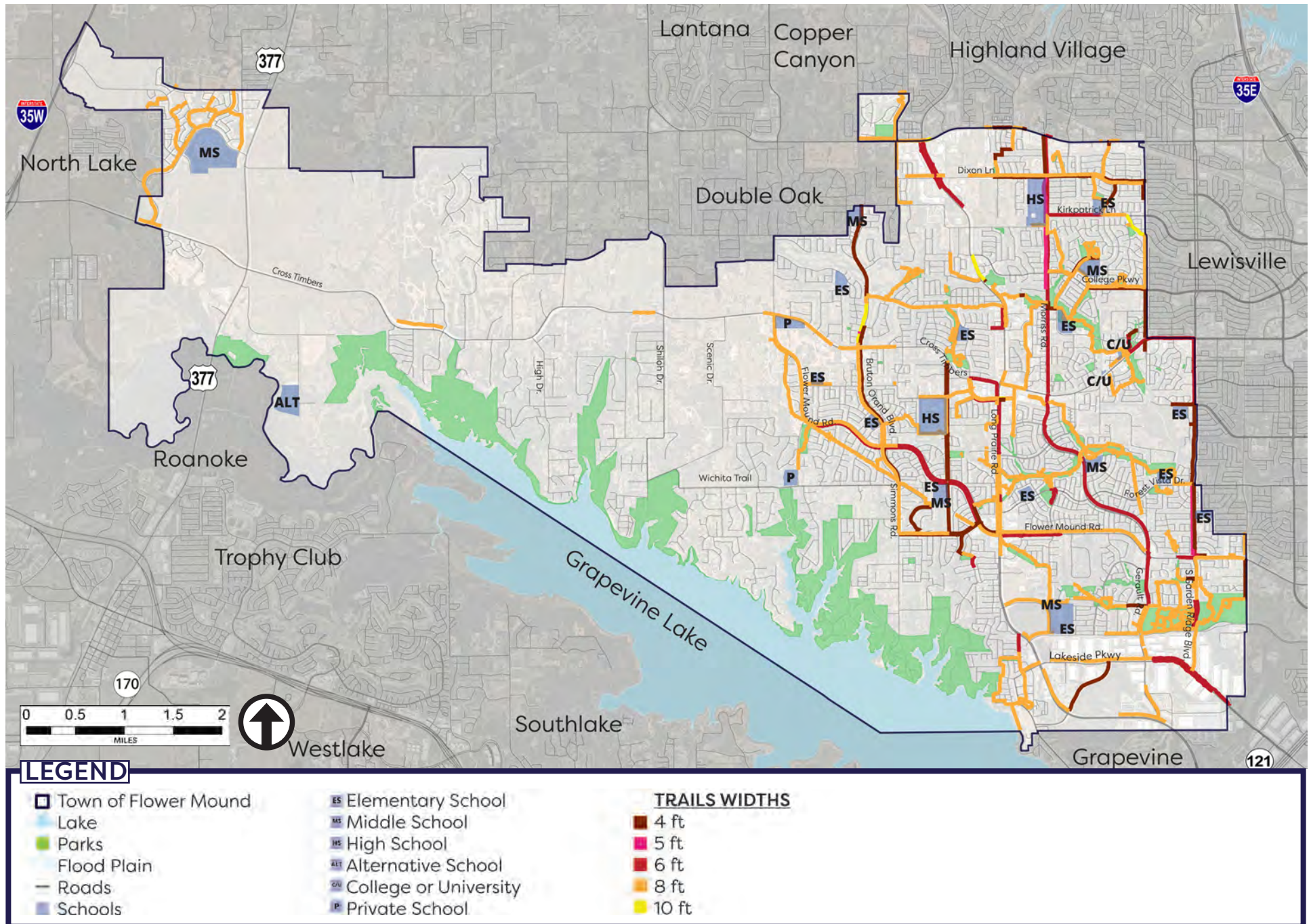


FIGURE 2.16: EXISTING TOWN MULTI-USE TRAILS BY WIDTH



OTHER TRAILS

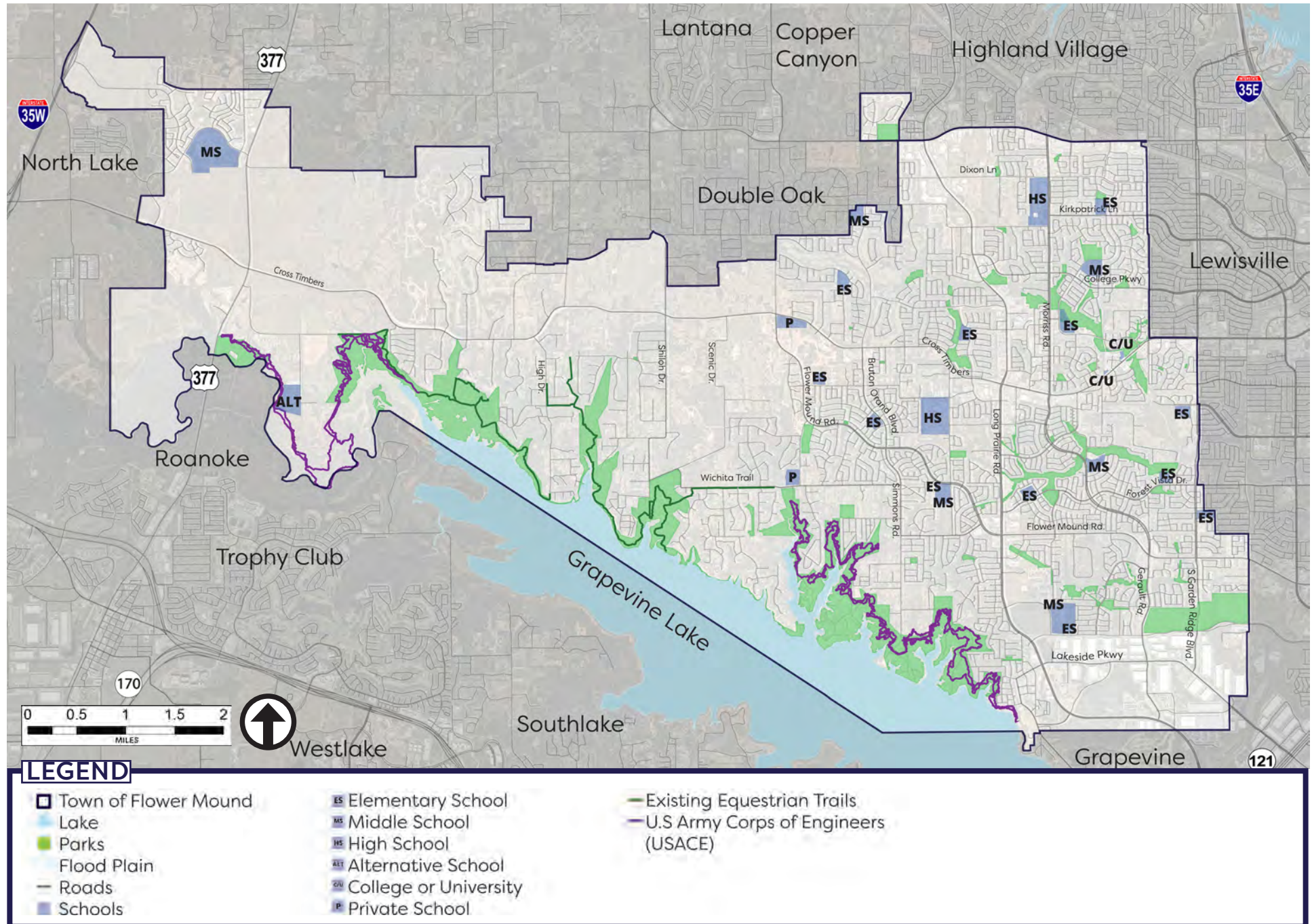
Flower Mound's proximity to Grapevine Lake adds to the natural landscape of the town. Many of the soft-surface trails in Flower Mound are located along the northern shore of Grapevine Lake on the Town's southern border. These trails are located on United States Army Corps of Engineers (USACE) property and are maintained by DORBA (Dallas Off-Road Bicycle Association). The USACE trails are primarily used for mountain biking, hiking, and, where designated, equestrian use.

TABLE 2.4: OTHER TRAILS INVENTORY

Trail Name	Length (Miles)	Width (Feet)	Surface Type
Blue Diamond	0.6	6'	Soft-Surface
Boy Scout Loop	3.0	6'	Soft-Surface
Knob Hill	12.9	6'	Soft-Surface
MAAD East Loop	3.5	6'	Soft-Surface
MAAD West Loop	3.3	6'	Soft-Surface
Murrell Loop	3.3	6'	Soft-Surface
North Shore Far West	2.7	6'	Soft-Surface
Rockledge Loop	2.3	6'	Soft-Surface
Twin Coves Loop	2.7	6'	Soft-Surface
Undesignated	0.2	N/A	Soft-Surface
Total Length	34.5		



FIGURE 2.17: EXISTING OTHER TRAILS





ON-STREET BIKEWAYS

Flower Mound currently has a limited offering for existing on-street bikeways. The types of on-street bikeways in Flower Mound are primarily designated bike lanes that are located on Wichita Trail and Canyon Falls Drive. There are also shared lane markings on Prairie Ridge Road and Waketon Street.

TABLE 2.5: ON-STREET BIKEWAY INVENTORY

Bikeway Name	Length (Miles)	Accommodation
Canyon Falls Drive	1.9	Bike Lane
Prairie Ridge Road	0.5	Shared Lane Markings
Waketon Street	0.8	Shared Lane Markings
Wichita Trail	2.4	Bike Lane
Total Length	5.6	

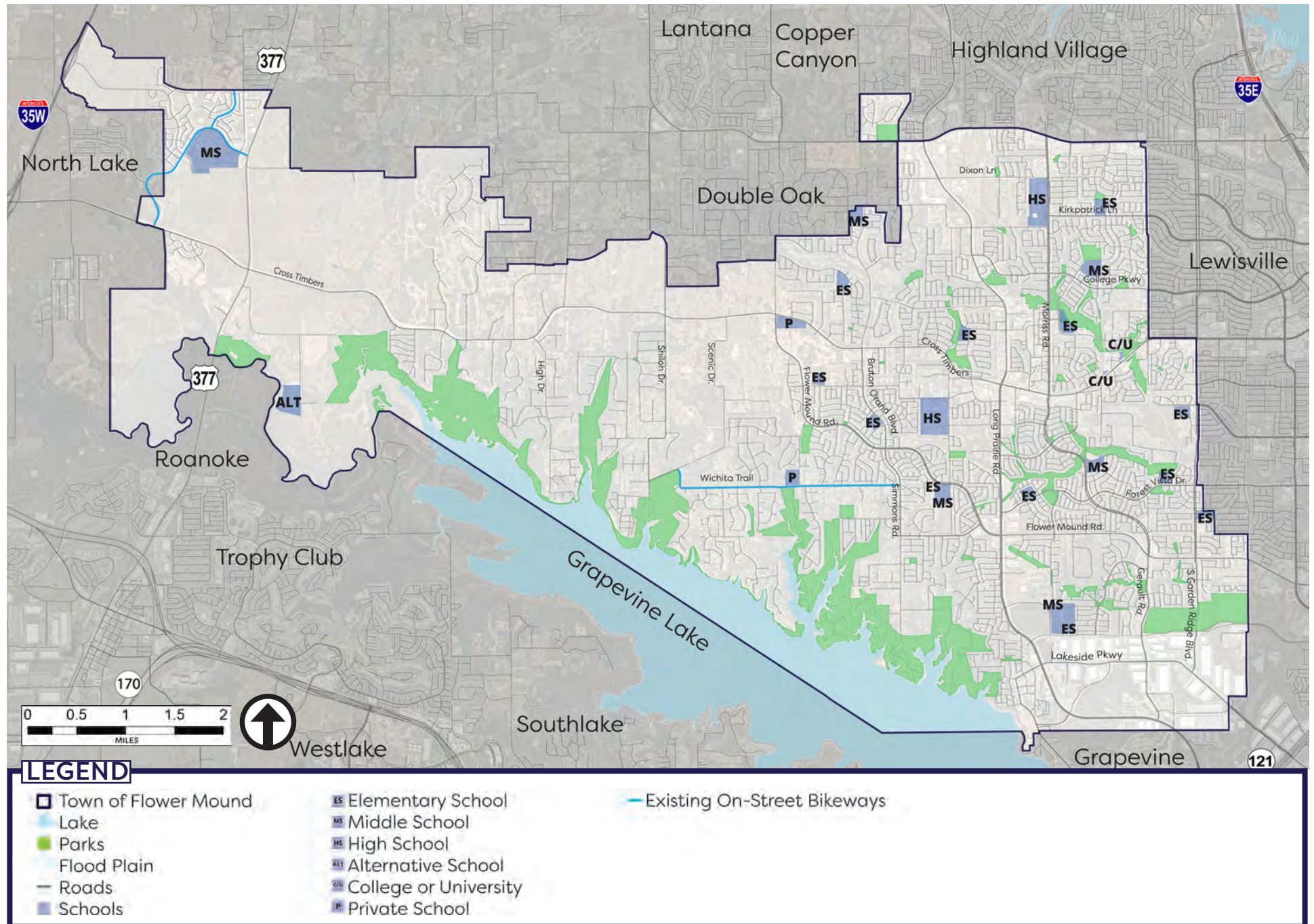


SHARED-USE LANE



CYCLISTS

FIGURE 2.18: EXISTING ON-STREET BIKEWAYS



CURRENTLY PLANNED SYSTEM

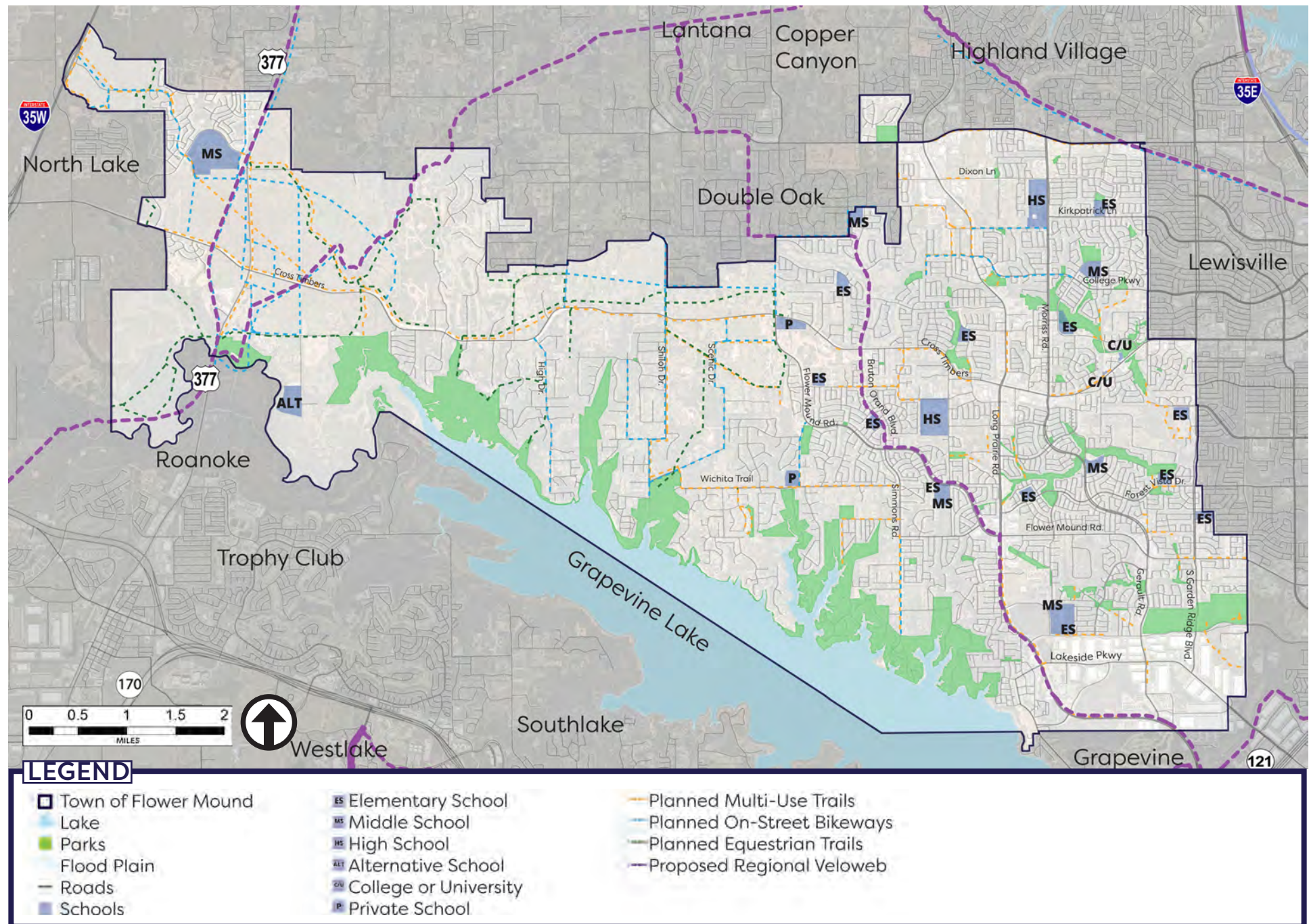
The 2017 Park and Trails Plan established a network of planned trails and bikeways for the town. This plan identified over 50 miles of additional Town Trails and nearly 30 miles of additional on-street bikeways. These planned routes aim to fill gaps in the current trails system in Flower Mound and increase regional and internal connectivity. The currently planned trails will be reviewed as part of this planning effort to determine if they are still warranted and feasible.

TABLE 2.6: EXISTING & CURRENTLY PLANNED SYSTEM

Facility Type	Existing Length (miles)	Planned Length (miles)
Town Trails (8' or wider)	62.2	53.4
On-Street Bikeways	5.6	29.0
Equestrian Trails	13.0	22.7
Total Length	80.8	105.1



FIGURE 2.19: 2017 MASTER PLAN PROPOSED TRAILS & BIKEWAYS



**System Users
Community Input
Needs Assessment
Barriers & Opportunities**



03 TRAILS AND BIKEWAYS SYSTEM NEEDS



A comprehensive trails and bikeways system is designed based on the needs of the community, the opportunities that exist, and the barriers that may prevent connections. This chapter describes Flower Mound's identified needs based on existing conditions, safety issues, standards, and benchmarking. This chapter also identifies needs based on community engagement, existing barriers in the trail system, and opportunities for new trail and bikeway corridors.

SYSTEM USERS

Trails and bikeways can be designed to serve a range of users that express and exhibit different needs, interests, and abilities. Communities that recognize and acknowledge the overlapping needs and preferences of their residents are best able to develop a trails and bikeways system that efficiently accommodates multiple user groups.



PEDESTRIANS

A large number of people use trails for recreational purposes and some use them for commuting purposes as well. Walking is a great option for passive recreation because it is affordable and accessible for most people. It is also important to provide pedestrian connections for residents without access to a vehicle. Therefore, it is crucial that trails provide connectivity between neighborhoods and nearby destinations to encourage walking. When developing trails for pedestrians it is important to design them to be safe, enjoyable, and comfortable.



RUNNERS/JOGGERS

Trail systems are great locations for runners and joggers who seek opportunities for sports, leisure, and fitness since they provide a safe, off-street environment away from motor vehicles. Multi-use trails provide adequate space for runners and joggers to safely and comfortably pass other users and provides enough space for running groups and meet-ups. Runners prefer either paved or soft-surface trails, so providing options for both is important.



BICYCLISTS

Bicyclists consist of three groups: the occasional rider (children and seniors); the recreational rider (basic); and, the more experienced rider (advanced).

Children and Seniors

Children and seniors represent some of a community's most vulnerable demographic groups and therefore require easily accessible trail routes that are simple and easy to navigate. When developing trails and bikeways, it is important to provide spaces that are safe and comfortable for children and seniors. These groups typically prefer to ride on an off-street trail that is located away from the roadway to minimize potential interaction with motorists.

Basic

Bicyclists who fall within the basic skill category typically ride for leisure and prefer off-street trails or sidepaths adjacent to roadways. This user group is less likely to cycle as a mode of transportation since they are generally less confident riders. However, they are more likely to ride on-street within residential neighborhoods with low traffic speeds and within parks.

Advanced

Experienced bicyclists typically view cycling as a mode of transportation and are more comfortable using on-street facilities. These bicyclists are confident on roadways and undeterred by various roadway conditions, including sharing lanes with motor vehicle traffic. Users within this group may be part of a cycling organization or view cycling as a viable commuting option for some of their weekly trips. If advanced riders use trails, implementing speed control elements is recommended to reduce the potential for conflict with slower trail users.



MOUNTAIN BIKERS

Mountain bikers use soft-surface off-road trails for recreation and fitness purposes. Soft-surface trails can incorporate features such as jumps, ramps, and grade changes to add obstacles for the trail users. These narrow trails can be designed for beginners through advanced riders and typically attract visitors from outside of the community.



HIKERS

Hikers use soft-surface off-road trails for recreation, leisure, and fitness purposes. Hikers enjoy physical activity in a more natural setting. Hiking trails can be designed with grade changes and switch backs to add variation for beginners to advanced hikers.



EQUESTRIAN USERS

Equestrian trails are enjoyed by people on horseback as a way to explore nature and ride in a different environment than arena riding. These trails are often soft-surface and natural. Equestrian trails may be designed primarily for horseback riding, or they may be shared for soft-surface walking, jogging, and biking. If multiple users are allowed, the trails should provide etiquette on sharing the trail for all users.



PADDLE SPORTS

Kayakers and canoers utilize a network of waterway trails. These trails, sometimes called paddling trails or blueways, are accessed through launch points along a river, creek, lake, or other body of water. Paddlers may consist of people in kayaks, canoes, small non-motorized boats, or paddle boards and may have varying experience levels.



COMMUNITY INPUT

Engaging with current and future trail system users to collaborate on the vision and goals of the trail system is a crucial part of the planning process. Establishing engagement sessions that reach a variety of residents in Flower Mound help the Town benchmark needs of the community regarding opportunities and barriers in the existing trails system. Various engagement methods were utilized that involved a variety of stakeholders and the community. These engagement efforts included a steering committee representing a diverse selection of community members and interests, a technical working group comprised of town staff, listening sessions, and in-person and online public engagement.

STEERING COMMITTEE

The Steering Committee is comprised of community leaders and key community stakeholders to review and guide the plan development. Members included representatives from cycling, running, and riding groups, boards and commissions, Lewisville ISD, and students. This committee met three times during the process to help with identifying trails and bikeways needs, visioning, reviewing findings and preliminary recommendations, and recommending approval of the final plan.



TECHNICAL WORKING GROUP

The Technical Working Group is comprised of town staff members from various departments to assist with review and development of the plan. During the planning process, the group met three times to discuss current and future needs, review preliminary recommendations, and provide final guidance on the draft plan. Having input from different departments throughout the process helped to ensure that the recommendations were feasible.



STAKEHOLDER LISTENING SESSIONS

During the initial phase of the project, visioning meetings with community organizations and key community representatives were conducted to solicit feedback on the strengths and weaknesses of the Town's existing trails and bikeways system. These meetings were designed to assess the needs and desires for the trails and bikeways system in the Town. Invited groups included governmental agencies, trail and bikeway user groups, economic development groups, and education groups.



OPEN HOUSE

Two public open houses were offered to solicit feedback from the community during the planning process. The first was conducted in person and virtually to determine the needs and vision of the community for the trails and bikeways system. The second meeting was held at the end of the project to allow the community to review and provide feedback on the draft master plan.



POP-UP EVENTS

The team attended Town of Flower Mound events to increase awareness of upcoming engagement opportunities (discussed on page 45) and to collect information about the existing trails and bikeways system in Flower Mound. The pop-up events included the Arts in the Park inaugural event and a Friday night concert series event in Heritage Park.



BOARD & COMMISSION MEETINGS

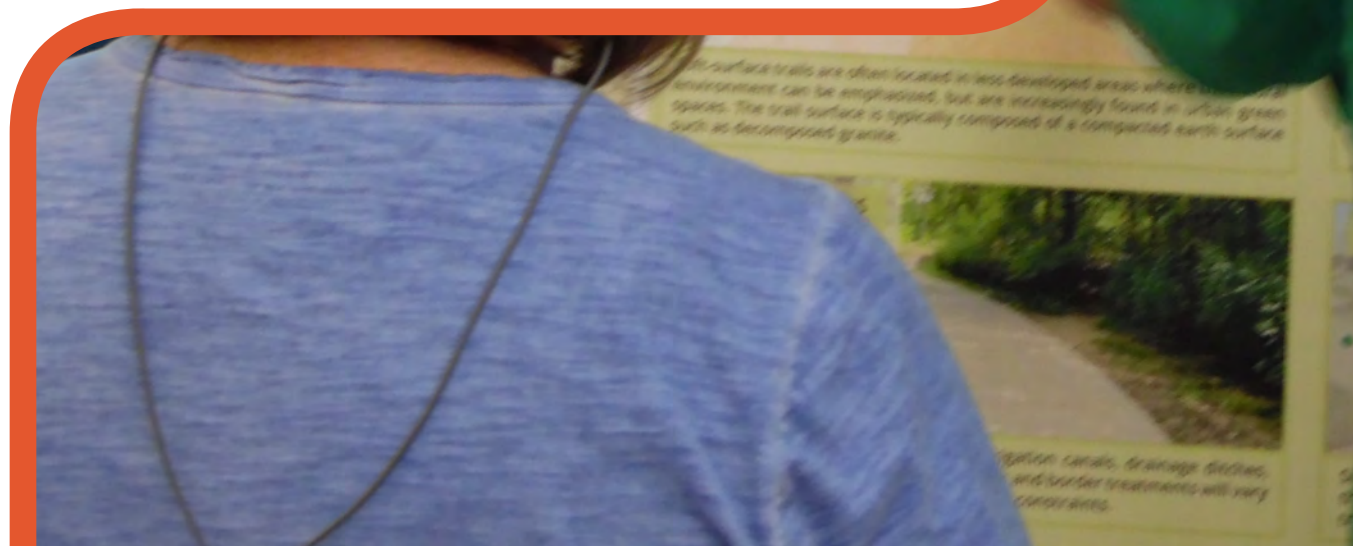
Presentations to the Parks Board, Transportation Commission, Planning & Zoning Commission, and Town Council during the process allowed the team to gather additional input and review draft recommendations for the plan.



ONLINE ENGAGEMENT

Several online engagement methods were used to reach people who weren't able to attend events in person.

- The **Project Website** was established to advertise upcoming meetings, update the community on the status of the project, allow for input, access virtual engagement rooms and community surveys, and share data and reports created through the process.
- A **Community-wide Online Survey** was conducted early in the process to garner feedback on the community's trails and bikeways system. There were a total of 947 responses received between May and June 2021.
- A **Virtual Public Engagement Room** was developed to mimic the activities conducted at the first public open house in May 2021 in an online setting. The site generated roughly 1,300 views and nearly 100 people provided input via the virtual public engagement room stations.
- An **Interactive Map** was developed to allow residents to give location-specific input on needed connections within the system.
- A series of **Educational Videos** were developed about the Flower Mound trails and bikeways system and the master plan initiative. The videos outlined the plan process, reviewed the current conditions and plan goals, and provided an overview of the plan recommendations.



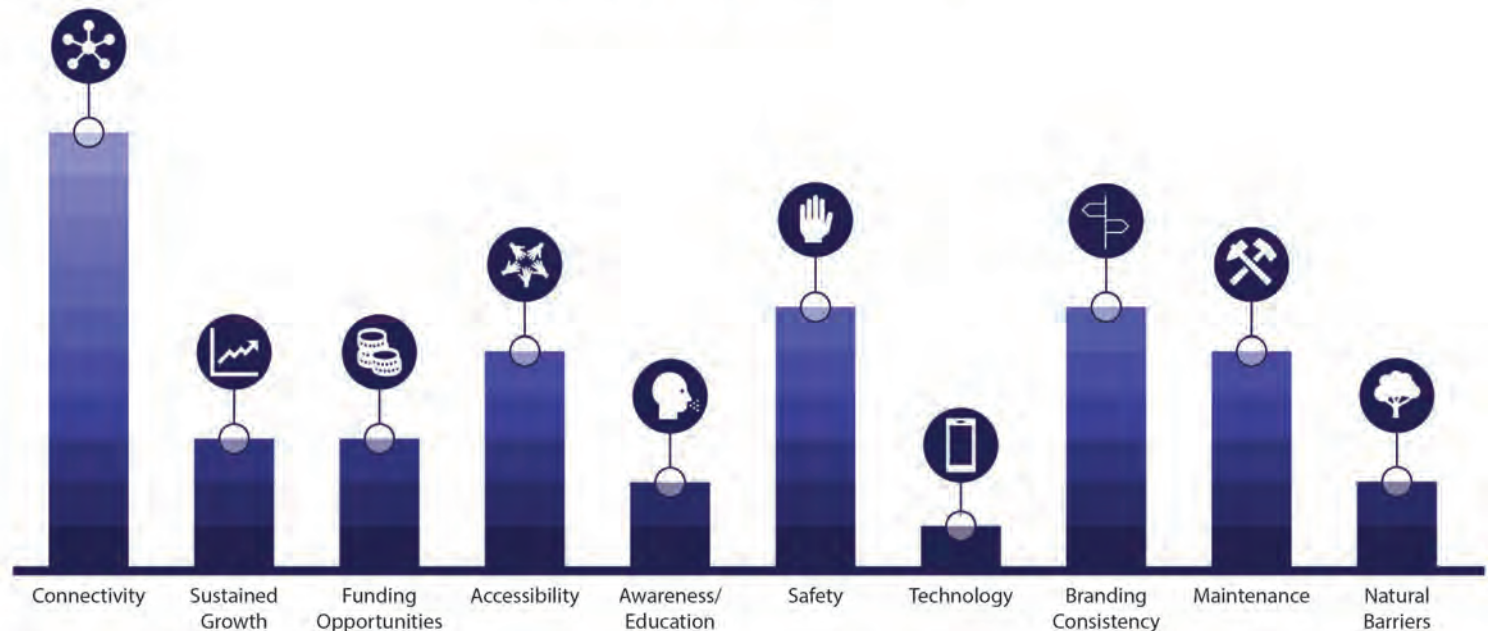
Steering Committee, Technical Working Group, and Stakeholder Listening Sessions



**WHAT IS YOUR
VISION FOR
THE FUTURE
OF TRAILS AND
BIKEWAYS IN
FLOWER MOUND?**



WHAT ARE SOME OF
THE CHALLENGES
RELATED TO TRAILS
AND BIKEWAYS IN
FLOWER MOUND
TODAY?



ENGAGEMENT RESULTS:

Public Open House & Virtual Public Engagement Room

The following questions were asked during the first public open house in May 2021 and within the virtual public engagement room that was available immediately following the open house. The following graphics are a summary of the feedback that was received during those meetings.

WHAT ONE WORD
WOULD YOU USE TO
DESCRIBE TRAILS
AND BIKEWAYS IN
FLOWER MOUND
TODAY?



WHAT ONE WORD
WOULD YOU USE TO
DESCRIBE HOW YOU
ENVISION TRAILS
AND BIKEWAYS IN
FLOWER MOUND IN
THE FUTURE?



ENGAGEMENT RESULTS:

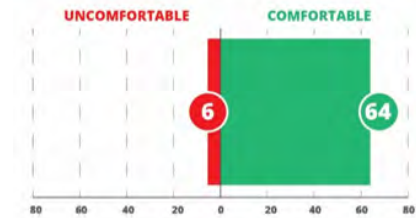
Public Open House & Virtual Public Engagement Room

The following graphics summarize feedback received during the public open house and virtual public engagement room. Participants were asked to choose if they would feel comfortable or uncomfortable using the depicted facility. The number below each picture show the total responses for each.

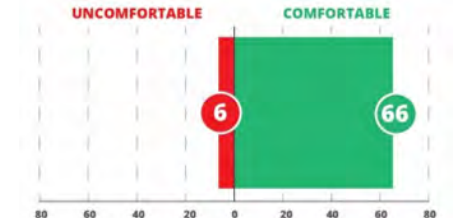
WHAT IS YOUR
LEVEL OF
COMFORT WITH
THE FOLLOWING
TYPES OF ON-
STREET BICYCLE
FACILITIES?
(TOP 3 OF 6)



**WIDE
SHOULDER**

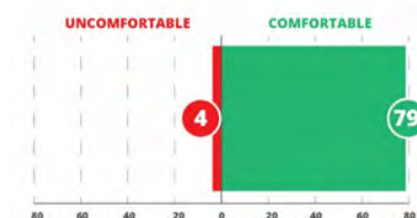
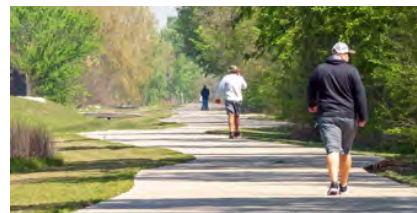


CYCLE TRACK

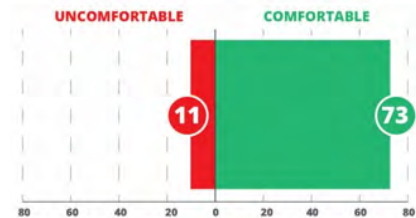


**BUFFERED
BIKE LANE**

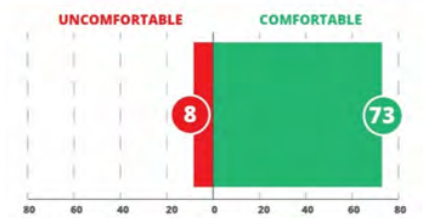
WHAT IS YOUR
LEVEL OF COMFORT
WITH THE
FOLLOWING TYPES
OF OFF-STREET
TRAILS?
(TOP 3 OF 6)



**SHARED-USE
PATH
(PAVED)**



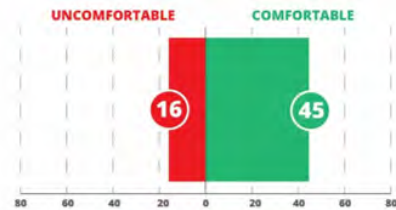
**SIDEPATH
(PAVED)**



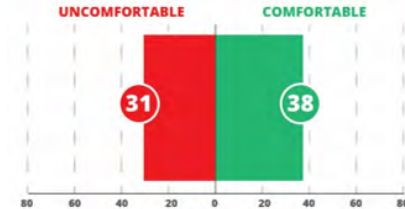
**SHARED-USE
PATH
(SOFT SURFACE)**

ENGAGEMENT RESULTS: Public Open House & Virtual Public Engagement Room

WHAT IS YOUR
LEVEL OF
COMFORT WITH
THE FOLLOWING
TYPES OF
EQUESTRIAN
PATHS?



**SOFT-SURFACE
(AWAY FROM ROAD)**



**SOFT-SURFACE
(ADJACENT TO ROAD)**

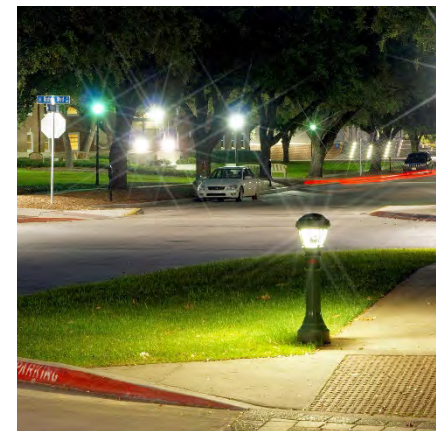
WHAT ARE YOUR
TOP THREE
PREFERRED TRAIL
AMENITIES THAT
YOU WOULD LIKE
TO SEE ALONG
TRAILS IN FLOWER
MOUND?



**WAYFINDING
SIGNAGE**



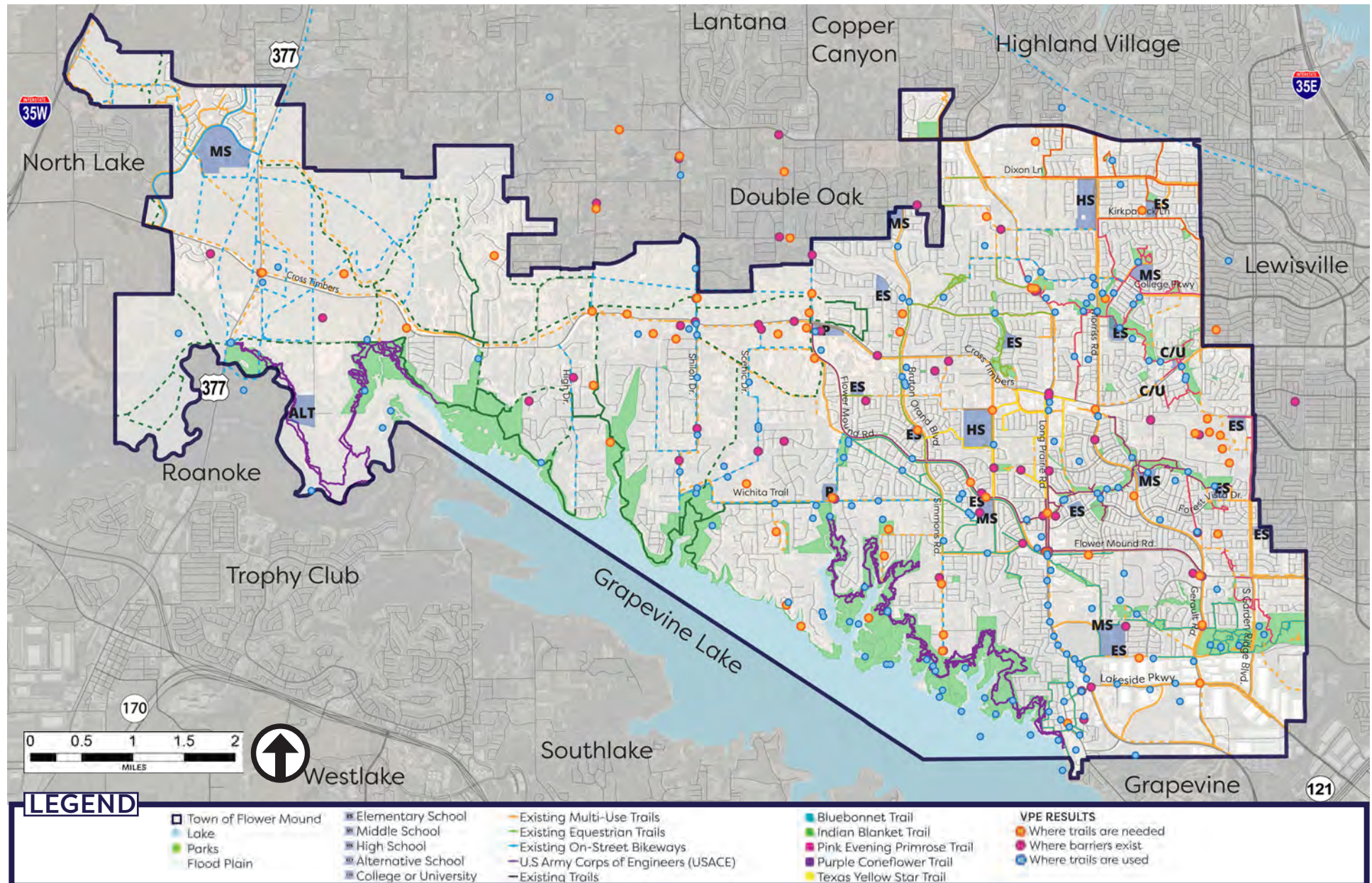
PARKING



LIGHTING

ENGAGEMENT RESULTS: Virtual Public Engagement Room

FIGURE 3.1: VIRTUAL ENGAGEMENT ROOM RESULTS

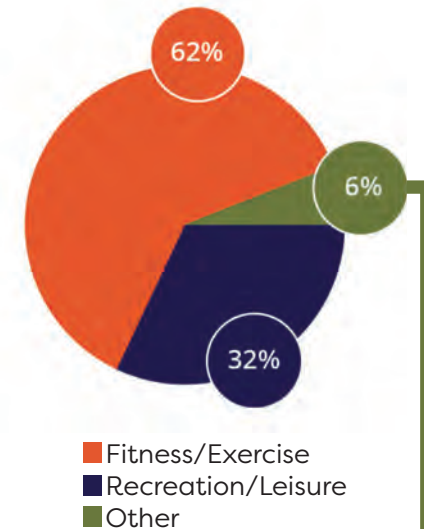


ENGAGEMENT RESULTS: Public Open House & Virtual Public Engagement Room

WHAT TYPE
OF TRAIL OR
BIKEWAY
IN FLOWER
MOUND DO
YOU GENERALLY
USE?



WHAT IS YOUR
PRIMARY
PURPOSE FOR
USING A TRAIL
OR BIKEWAY IN
FLOWER MOUND?



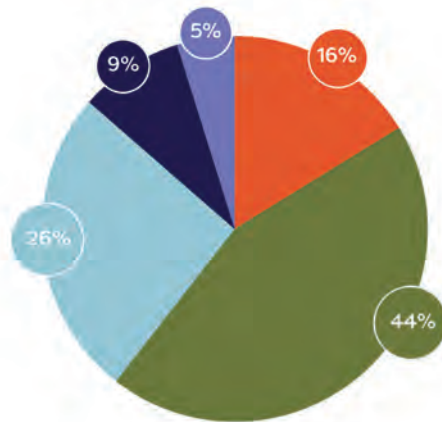
Other (6%) Breakdown



Commute to work/school	(20%)
Trips in neighborhood	(18%)
Run errands	(6%)
Visit friends/family	(8%)
I do not use a trail/bikeway	(18%)
Other	(31%)

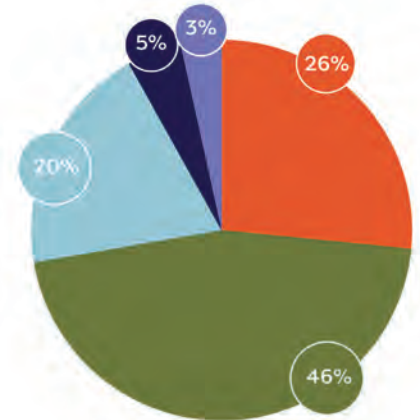
ENGAGEMENT RESULTS: Public Open House & Virtual Public Engagement Room

HOW OFTEN DID
YOU USE TRAILS OR
BIKEWAYS IN FLOWER
MOUND PRE-COVID?



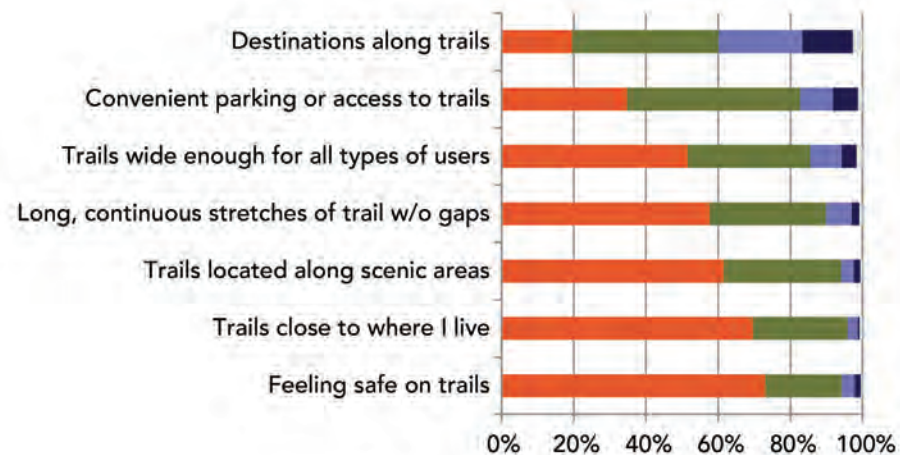
■ Daily
■ A few times a week
■ A few times a month
■ A few times a year
■ Never

HOW OFTEN DID
YOU USE TRAILS OR
BIKEWAYS IN FLOWER
MOUND DURING
COVID?



■ Daily
■ A few times a week
■ A few times a month
■ A few times a year
■ Never

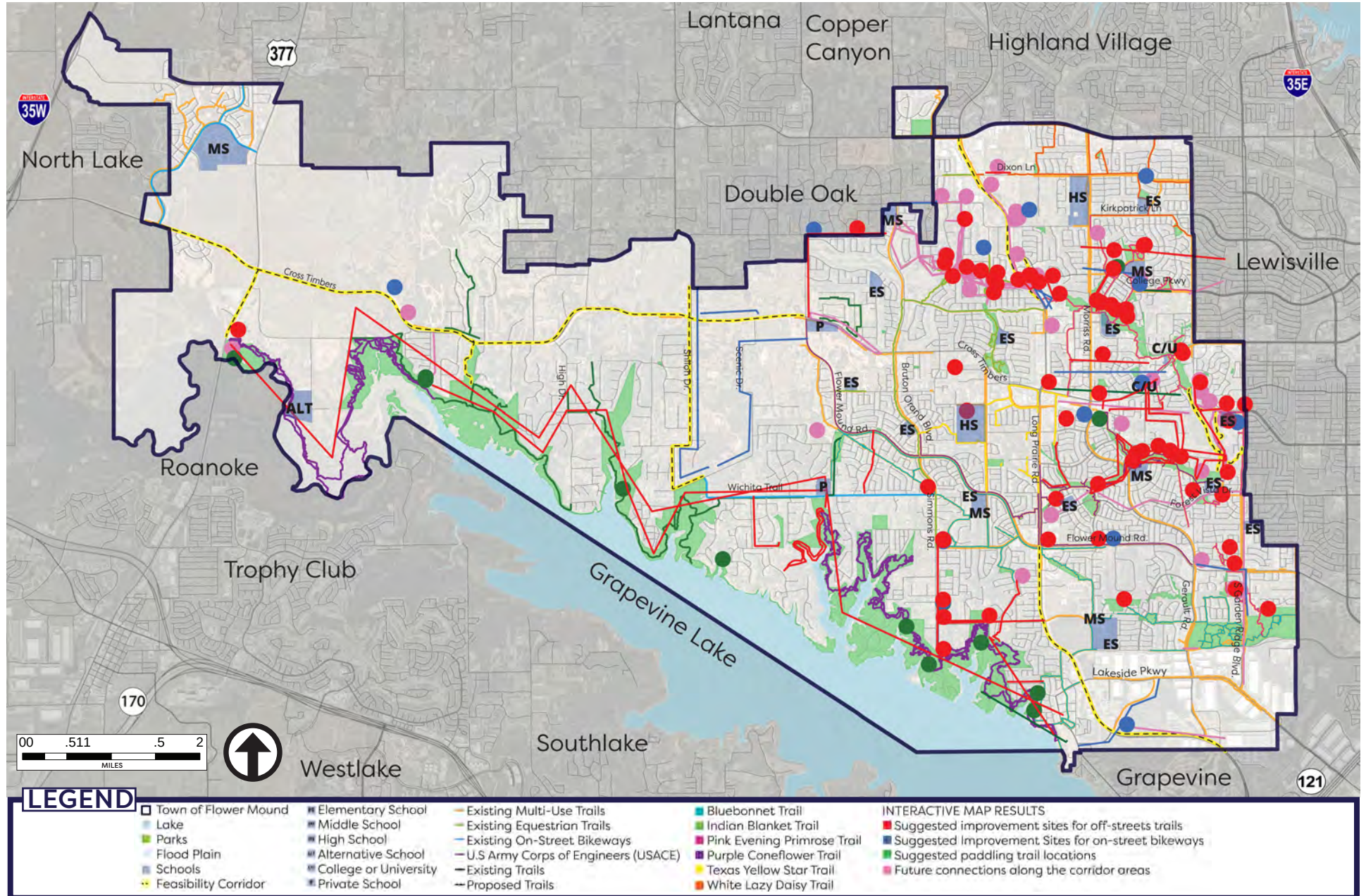
HOW IMPORTANT
ARE EACH OF
THE FOLLOWING
FEATURES OF TRAIL
FACILITIES?



■ Very important
■ Important
■ No opinion
■ Not very important
■ Not Important at all

ENGAGEMENT RESULTS: Interactive Online Map

FIGURE 3.2: INTERACTIVE ONLINE ENGAGEMENT MAP



ENGAGEMENT KEY TAKEAWAYS:

- Filling in gaps in the system for overall better connectivity is needed.
- Wayfinding and directional signage is needed to help users identify what trail they are on and where they are going.
- Intersection crossings should be improved in many areas.
- Additional amenities, such as lighting, parking, and drinking fountains, are desired throughout the trail system.
- Off-street trails are preferred by a majority of respondents to roadside trails.



PURPLE CONEFLOWER TRAIL

NEEDS ASSESSMENT

As indicated in the previous section, the residents of Flower Mound have established that trails and bikeways are very important to their community. As the population in the town continues to increase, an additional burden will be placed on existing trail and bikeway facilities. This section provides the current state of Flower Mound's trails and bikeways today and projected into the future.

To evaluate the needs of the community, assessments of the existing system were conducted. Based on the assessment findings, recommendations for the future network can be proposed to ensure users of all ages and abilities are considered. Assessments are based on community input, trail evaluations, trail level of service, comparison to benchmark communities, opportunities and barriers, roadway characteristics, and potential corridor assessments.

TRAIL EVALUATION

This planning process evaluated the existing named trails in the Flower Mound system. The assessment considered trail surface conditions, railway clearance, grades and slopes, roadside clearance, street intersections/trail crossings, constructed railway features, safety/security, signage and wayfinding, and trailheads. This section provides the key findings from each of the evaluations.



PINK EVENING PRIMROSE TRAIL



KNOB HILLS TRAIL

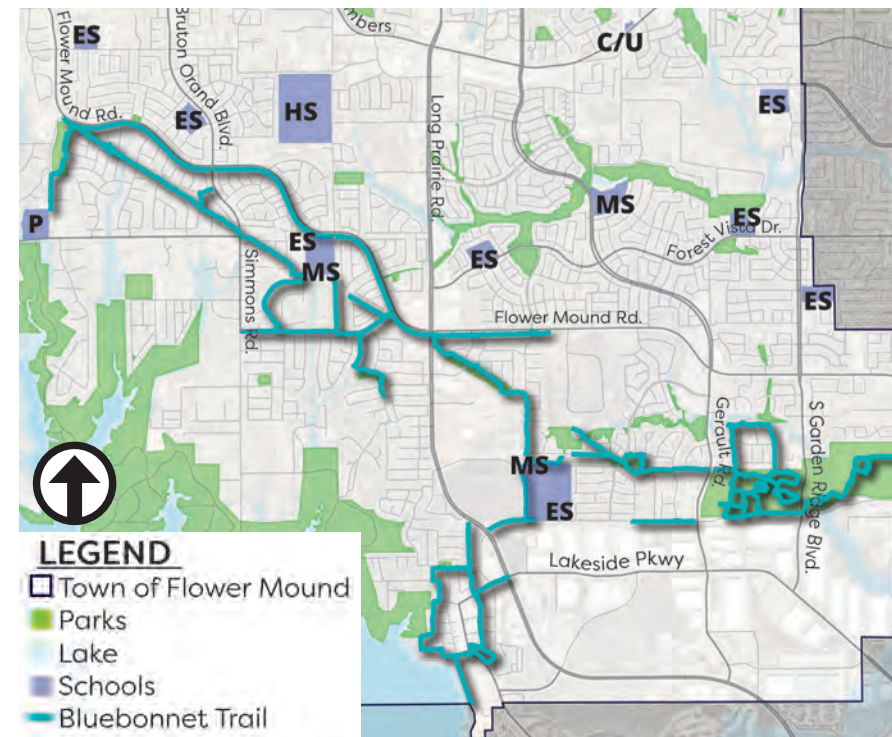
BLUEBONNET TRAIL

Length: 18.07 miles

The Bluebonnet Trail runs from Bakersfield Park in the far southeastern corner of the town to the northwest ending at Post Oak Park. The trail is the longest of all the six branded trails (see page 27). There are numerous neighborhood connections to the trail; while the trail provides access to residents, it is disconnected in areas and features some segments that are only 4' in width. The trail is generally in good condition with adequate vertical and horizontal clearance. Most of the trail is designed at a grade and slope that is comfortable. However, the segment along Winding Oaks Drive and Pasadena Place includes switchbacks and a slope that may not be ADA accessible.

Improvements to intersection crossings are needed, both within the neighborhoods and along major corridors such as FM 2499. There are benches, waste receptacles, and pet waste stations scattered along the trail, however additional facilities such as water fountains, bike racks, and bike repair stations would improve the overall user experience. Additional signage and trail branding are needed for wayfinding and safety. Finally, the trail connects to many parks, schools, and other named trails, but additional segments would better connect the community.

FIGURE 3.3: BLUEBONNET TRAIL KEY MAP



Trail marker in a neighborhood



Trail within a power line easement



Retaining wall adjacent to trail



Trailhead marker

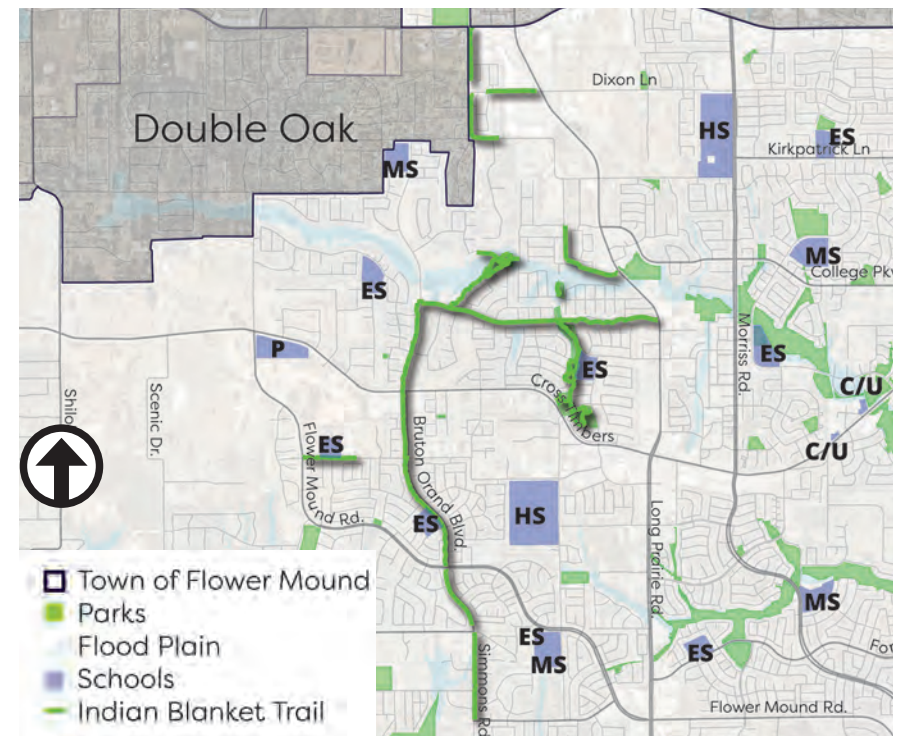
INDIAN BLANKET TRAIL

Length: 8.33 miles

The Indian Blanket Trail runs along West Windsor Drive, south to Simmons Road, connects Westchester Park to Spring Lake Park, and eventually connects to the Bluebonnet Trail. The trail segments north of Windsor Drive are largely disconnected, and there are portions of the trail that are only 4'-6' in width. The trail is generally in good condition with adequate vertical and horizontal clearance and designed at a grade and slope that is comfortable.

Improvements to intersection crossings are needed throughout the trail corridor. There are benches, waste receptacles, and pet waste stations, however additional facilities such as water fountains and bike racks could improve the overall user experience. Additional signage is needed for wayfinding and safety. The addition of trailheads would better identify the branding and location of the trail. Finally, the trail provides good access to neighborhoods, but aside from parks and schools there are not many destinations accessible from the trail.

FIGURE 3.4: INDIAN BLANKET TRAIL KEY MAP



Trail adjacent to roadway



Signalized pedestrian crossing



8' trail segment



Amphitheater in Park

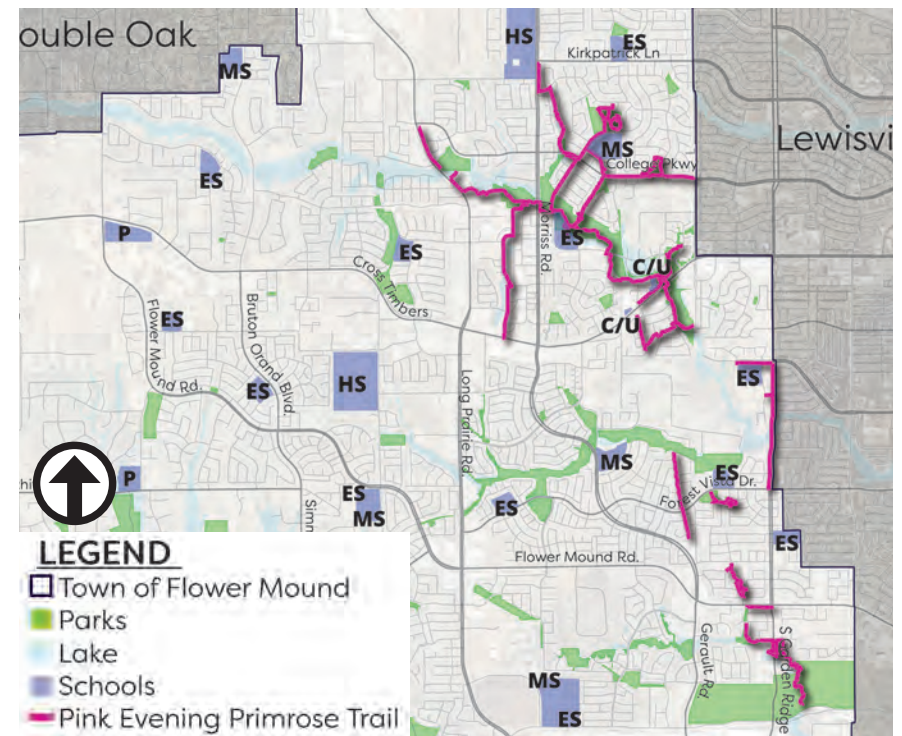
PINK EVENING PRIMROSE TRAIL

Length: 12.18 miles

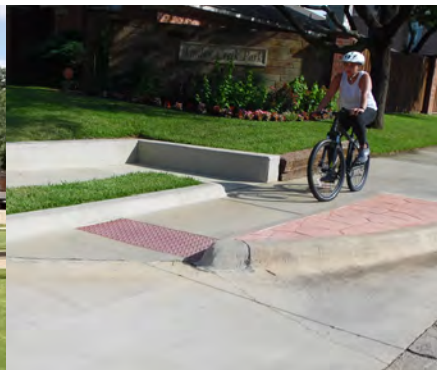
The Pink Evening Primrose Trail is a north-south trail corridor in the far eastern portion of Flower Mound. The trail runs through numerous neighborhoods and connects to schools, parks, and the Bluebonnet Trail. The trail width varies from 6' to 8'. The trail is generally in good condition with adequate vertical clearance, however in some areas trees, vegetation, and retaining walls present horizontal clearance constraints. Most of the trail is designed at a grade and slope that is ADA accessible, but there are a few areas along the trail that are a little steep. The trail includes a few pedestrian activated signals, but additional improvements to intersection crossings are needed. The trail also travels under two major roadways: Morriss Road near the Riverwalk and Cross Timbers Road (FM 1171). Both undercrossings would be safer if they were wider and if they had more cautionary signage to ensure users slow down when approaching the bridge. There are many segmented parts of the overall trail that could be better connected.

There are benches, waste receptacles, fitness stations, and pet waste stations located along the trail, however those facilities are mainly around the Timber Trails Park. Additional facilities such as water fountains, bike racks, and bike repair stations installed along the trail would improve the experience for trail users. Additional signage is needed for wayfinding and safety. Some of the corners and bends in the trail are difficult to navigate and views of oncoming traffic by trail users are obscured. There are also older bridges that should be assessed by a structural engineer to ensure their safety. Finally, the trail connects parks and schools but filling the gaps in the overall corridor would improve connectivity to schools, parks, and key destinations such as Riverwalk.

FIGURE 3.5: PINK EVENING PRIMROSE TRAIL KEY MAP



Red bollards designating trail



Intersection ramp



Trail bridge near Riverside



Fitness station along trail

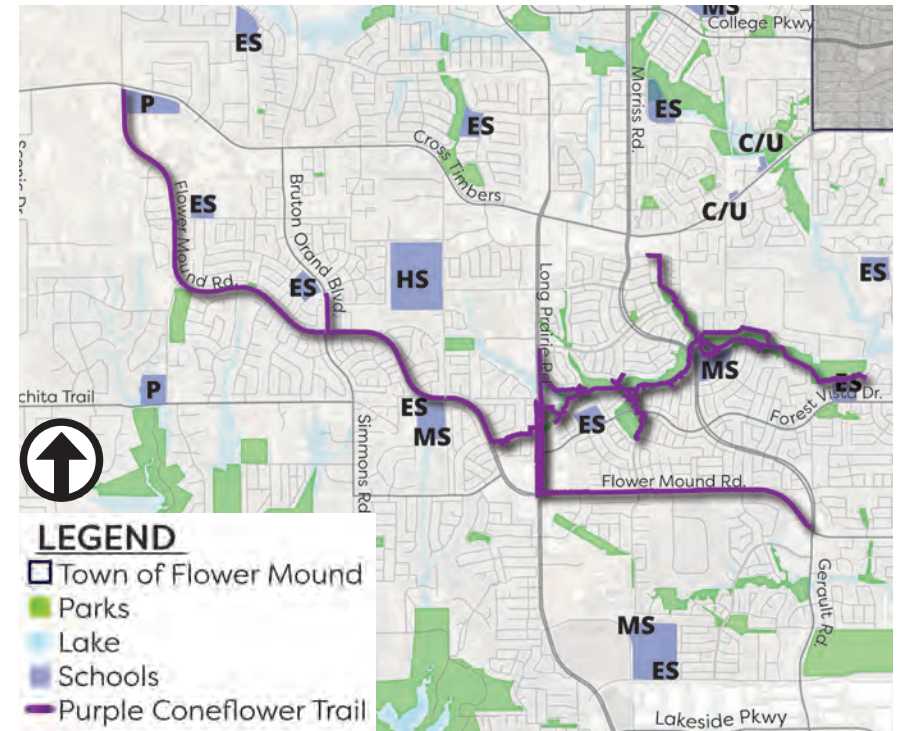
PURPLE CONEFLOWER TRAIL

Length: 11.93 miles

The Purple Coneflower Trail is an east/west corridor located north of the Bluebonnet Trail and connects the Tree Farm to Liberty Elementary School. While the trail provides access to numerous residents, it is disconnected in areas and has segments that are 4' to 6' in width in neighborhood loops. Additionally, the segment located along Flower Mound Road is only 4' wide. It is generally in good condition with adequate vertical and horizontal clearance. Most of the trail is designed at a grade and slope that is comfortable, but a few segments have steep slopes and grading issues. Improvements to some intersection crossings are needed as there are fewer pedestrian activated signals along this trail compared to others within the town. Long Prairie Road (FM 2499) poses a significant barrier as the only way to get across now is at a signalized intersection.

There are standard amenities such as benches, waste receptacles, and pet waste stations, but enhancements to the amenities such as water fountains, lighting, and bike repair stations could improve trail experiences. Red bollards are prevalent along the trail, and there are two larger trailheads. Additional signage is needed for wayfinding and safety. Finally, the trail connects parks and schools, but additional routes or segments would better connect the community to other trails and destinations.

FIGURE 3.6: PURPLE CONEFLOWER TRAIL KEY MAP



Pedestrian bridge over creek



Red bollards within a neighborhood



Trail leading to a park



Trailhead

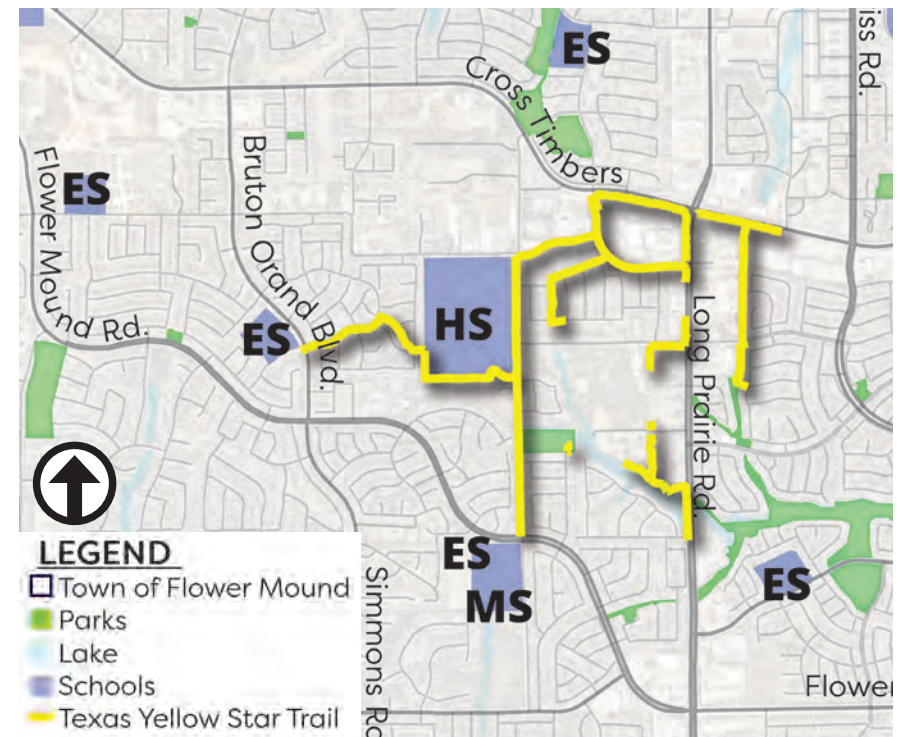
TEXAS YELLOW STAR TRAIL

Length: 4.73 miles

The Texas Yellow Star Trail is a shorter trail corridor in central Flower Mound. It links Wellington Elementary School and Flower Mound High School to the surrounding community. The trail is in good condition, with most segments being 8'-10' in width, and primarily runs adjacent to Old Settlers Road. Newer sections of trail that have been built with recent development are in very good condition. Much of the landscape is maintained by non-municipal entities such as homeowner associations.

The trail has adequate vertical and horizontal clearance and is designed at a grade and slope that is accessible for most users. Improvements to intersection crossings are needed. There are minimal amenities along the trail so additional trail amenities would improve the trail experience. Additional signage is needed for wayfinding and safety. The trail connects parks and schools, but additional routes or segments would better connect the community.

FIGURE 3.7: TEXAS YELLOW STAR TRAIL KEY MAP



Red bollards within a neighborhood

Trail near the high school

Overgrowth along trail

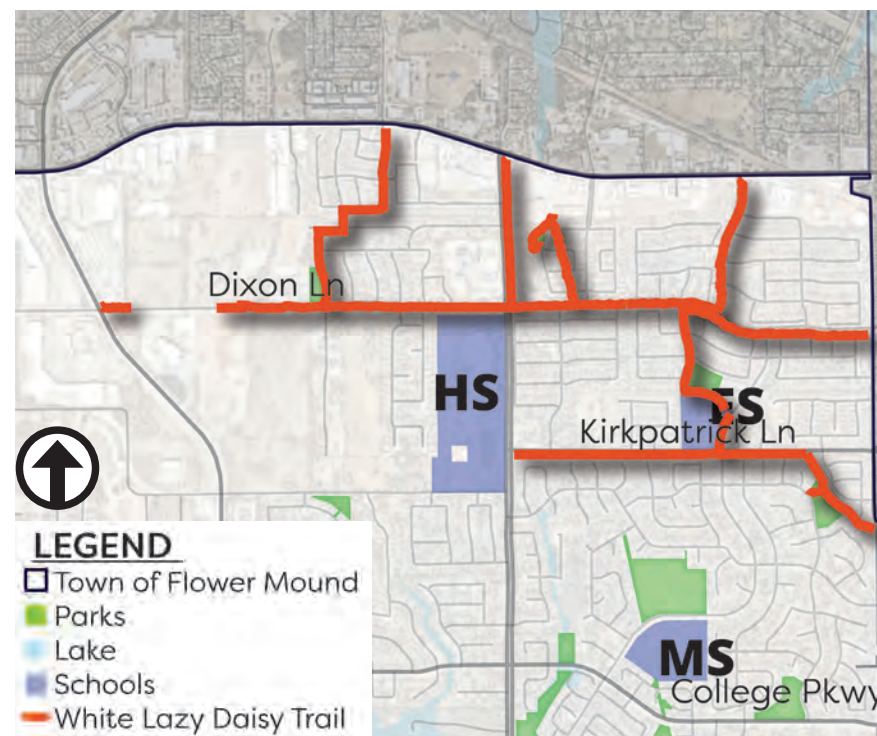
Neighborhood access point

WHITE LAZY DAISY TRAIL

Length: 5.78 miles

The White Lazy Daisy Trail is located in northern Flower Mound and connects Dixon Park to Prairie Trail Elementary School. There are numerous neighborhood connectors to the trail. The trail is in good condition, is mostly 8' in width, and runs adjacent to the roadway with some shade provided by vegetation. There is adequate vertical and horizontal clearance, with some vegetation encroachment. Most of the trail is designed at a grade and slope that is comfortable, however, portions along Valley Ridge Boulevard are steep and may not allow for ADA accessibility. Improvements to intersection crossings are needed as crosswalks, signage, improved ramps, and lighting is lacking along the corridor. There are limited amenities along the trail. Additional signage is needed for wayfinding and safety.

FIGURE 3.8: WHITE LAZY DAISY TRAIL KEY MAP



Curb ramp

Trail between houses

Trail adjacent to a school

Intersection crossing

OVERALL TRAIL EVALUATION KEY FINDINGS

- Wayfinding and directional signage along the trail system is needed.
- Four-foot wide segments should not be considered “trails”, instead they should be denoted as connectors to the trail system.
- Roadway crossings need to be improved to increase the safety for trail users, especially at major intersections that are identified as barriers to the system.
- Additional amenities along the trail are needed, such as bike racks, and lighting.
- Maps located at trailheads are outdated and with a rapidly growing system will likely continue to be. Alternatives such as QR codes that link to an online map should be explored.
- Emergency call boxes, lighting, cameras, and other safety factors should be included to increase safety and comfort.
- An overall ADA assessment of the trail system would confirm where trails are not ADA accessible.



BLUEBONNET TRAIL

TRAIL LEVEL OF SERVICE

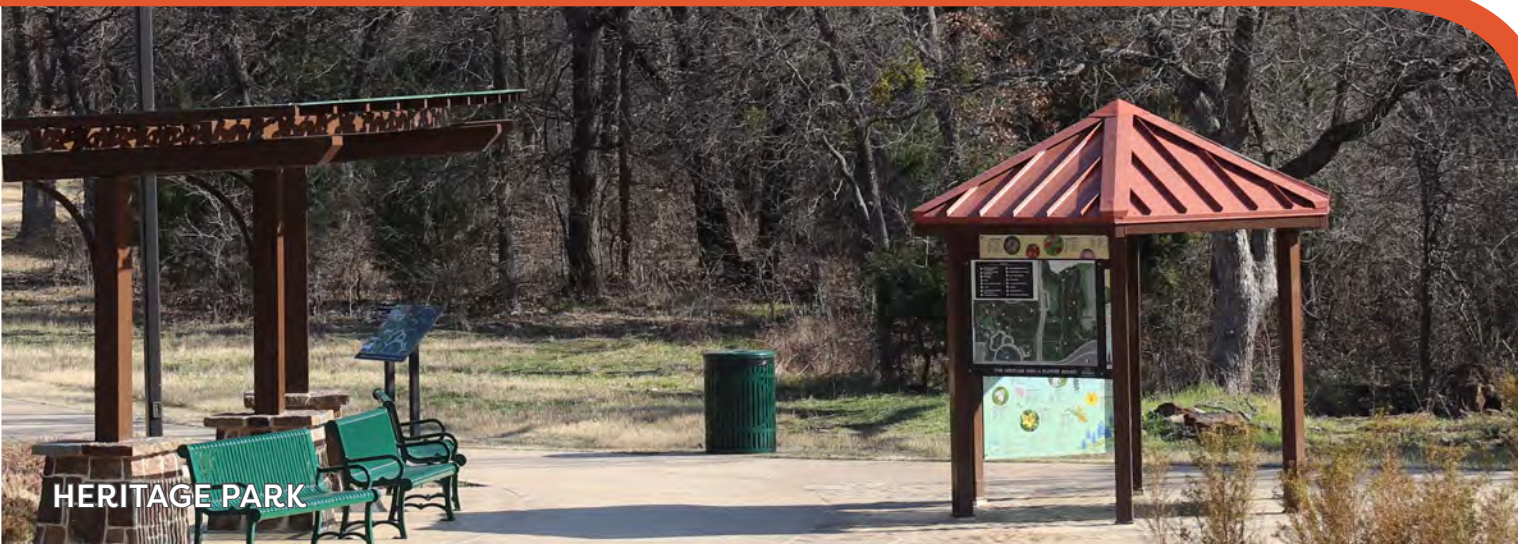
Level of Service (LOS) is a metric used to compare the miles of trail within a community with the total population. The LOS analysis includes an assessment of existing and proposed trails and compares it to existing and future populations. **Table 3.1** below shows the level of service for 6-foot and wider paths and 8-foot and wider paths. In order to compare to other communities, the LOS figures for trails 8-foot or wider is recommended to meet regional standards. The Future LOS represents the level of service if no additional trails were built between now and 2038, indicating that the level of service would decrease with expected additional population growth. A target LOS is defined in **Chapter 4**.

TABLE 3.1: TRAIL LEVEL OF SERVICE

2020 Population* (Current Population)		78,080	
2038 Population** (Projected Build-Out Population)		109,544	
Trails = 6' or wider multi-use paths		Trails = 8' or wider multi-use paths	
Current LOS - 2020	1 mile per 867 residents (1.15 miles per 1,000)	Current LOS- 2020	1 mile per 1,251 residents (0.80 miles per 1,000)
Future LOS - 2038 (No additional trails built)	1 mile per 1,217 residents (0.82 miles per 1,000)	Future LOS -2038 (No additional trails built)	1 mile per 1,756 residents (0.57 miles per 1,000)
Future LOS - 2038 (All currently proposed trails built)	1 mile per 769 residents (1.30 miles per 1,000)	Future LOS-2038 (All currently proposed trails built)	1 mile per 947 residents (1.06 miles per 1,000)

*Source: NCTCOG Regional Data Center, 2020.

**Source: Town of Flower Mound.



HERITAGE PARK

BENCHMARK COMMUNITIES

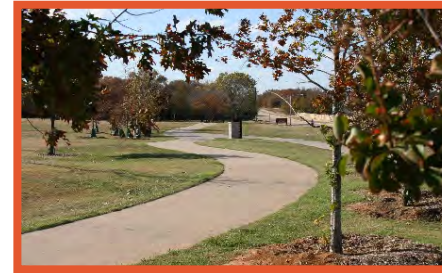
When analyzing the current LOS for Flower Mound, it is important to consider how it compares to cities of similar size and demographic composition in the DFW region. The population-per-mile benchmark is used to compare to the different cities; the lower the population-per-mile, the higher the LOS is for the trail system. Based on an average of many DFW communities, a regional benchmark of 1 mile of trail for every 1,200 residents has been established. The following communities are frequently used by Flower Mound to compare amenity and facility offerings. The following comparison only considers existing paved trails that are 8' or greater in width. Flower Mound has a current (2021) LOS of 1 mile per 1,251 residents. This ratio is better than the other identified benchmark communities, which indicates that Flower Mound has more trails per resident than the other communities but does not indicate the connectivity and accessibility of the overall system by comparison. Additionally, LOS just looks at the quantity of trails, not at the quality or condition of trails.



COLLEYVILLE

1 mile per 1,330 residents

Population: 26,462
Existing Trail Miles: 20
City Area: 8,384 Acres



LEWISVILLE

1 mile per 5,172 residents

Population: 106,386
Existing Trail Miles: 21
City Area: 23,488 Acres



GRAPEVINE

1 mile per 2,424 residents

Population: 53,317
Existing Trail Miles: 22
City Area: 20,480 Acres



MCKINNEY

1 mile per 3,515 residents

Population: 182,055
Existing Trail Miles: 52
City Area: 40,320 Acres



KELLER

1 mile per 2,783 residents

Population: 46,813
Existing Trail Miles: 17
City Area: 11,840 Acres



FLOWER MOUND

1 mile per 1,251 residents

Population: 78,080
Existing Trail Miles: 62.4*
City Area: 27,776

**Includes paved multi-use paths 8' or wider*

BICYCLE AND PEDESTRIAN CRASH DATA

To identify potential safety issues for the existing bicycle and pedestrian network in Flower Mound, bicycle and pedestrian crash data was evaluated. The database used for this section is the Texas Department of Transportation (TxDOT) Crash Record Information System (CRIS) 2016-2020 bicycle and pedestrian crash data. Only reported crashes are represented in the data, so if a minor crash occurs that was not reported to the police, this data would not reflect it. The points displayed in **Table 3.2** represent the number of crash types in Flower Mound. **Figure 3.9** represents the locations of bicycle and pedestrian crashes separated by user type (bicycle or pedestrian) and crash type (fatal or non-fatal).

Of all crashes involving a bicyclist and/or pedestrian between 2016-2020, sixty-five percent involved bicycles and were mostly non-fatal. Thirty five percent involved pedestrians and were mostly non-fatal. A common thread for the crashes is that they occurred along major roadways mainly at intersections where the trail system exists on at least one side of the road. The crashes can be contributed to gaps in the system and unsafe, unidentified, or non-existent pedestrian crossings. The fatal pedestrian crash was in the same location as a non-fatal bicycle crash and a non-fatal pedestrian crash, indicating that the intersection may need improvements. The fatal bicycle crash occurred on a six-lane major thoroughfare between two existing neighborhoods and close to Heritage Park. Without appropriate signage and advanced warning, motorized vehicles may not be aware of pedestrians and bicyclists crossing roadways or using facilities along roadways.

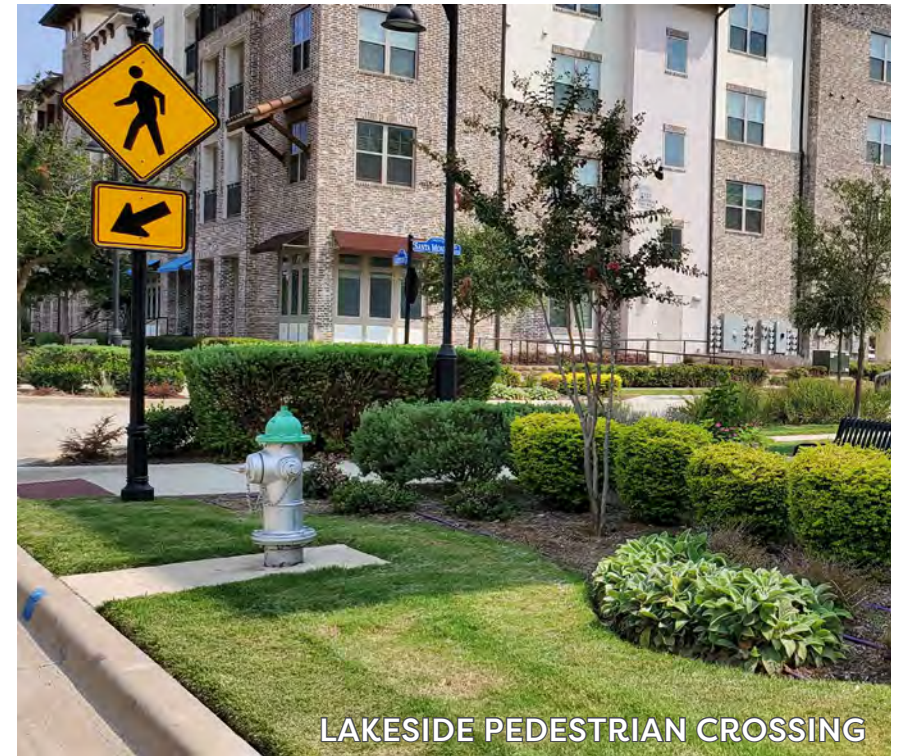
TRAIL USAGE

Strava is a Global Positioning System (GPS) application that allows runners, cyclists, and walkers to track their preferred routes or discover popular routes used by other users. Recent Strava data for Flower Mound is shown as a heat map in **Figure 3.10** on page 67 to indicate the most frequently used trail facilities while **Figure 3.11** on page 67 displays the most frequently used bikeway facilities. Strava data was used to show where people are biking and walking in Flower Mound today. As illustrated by Figures 3.12 and 3.13, major trails are heavily used, as well as sidewalks along major roadways and within neighborhoods. Sidewalks, bike lanes, and trails are more prevalent and used in the eastern part of Flower Mound. Both figures illustrate the locations of gaps in the system, where barriers may exist, and where trails and bikeways can be added.

TABLE 3.2: BICYCLE AND PEDESTRIAN CRASH DATA

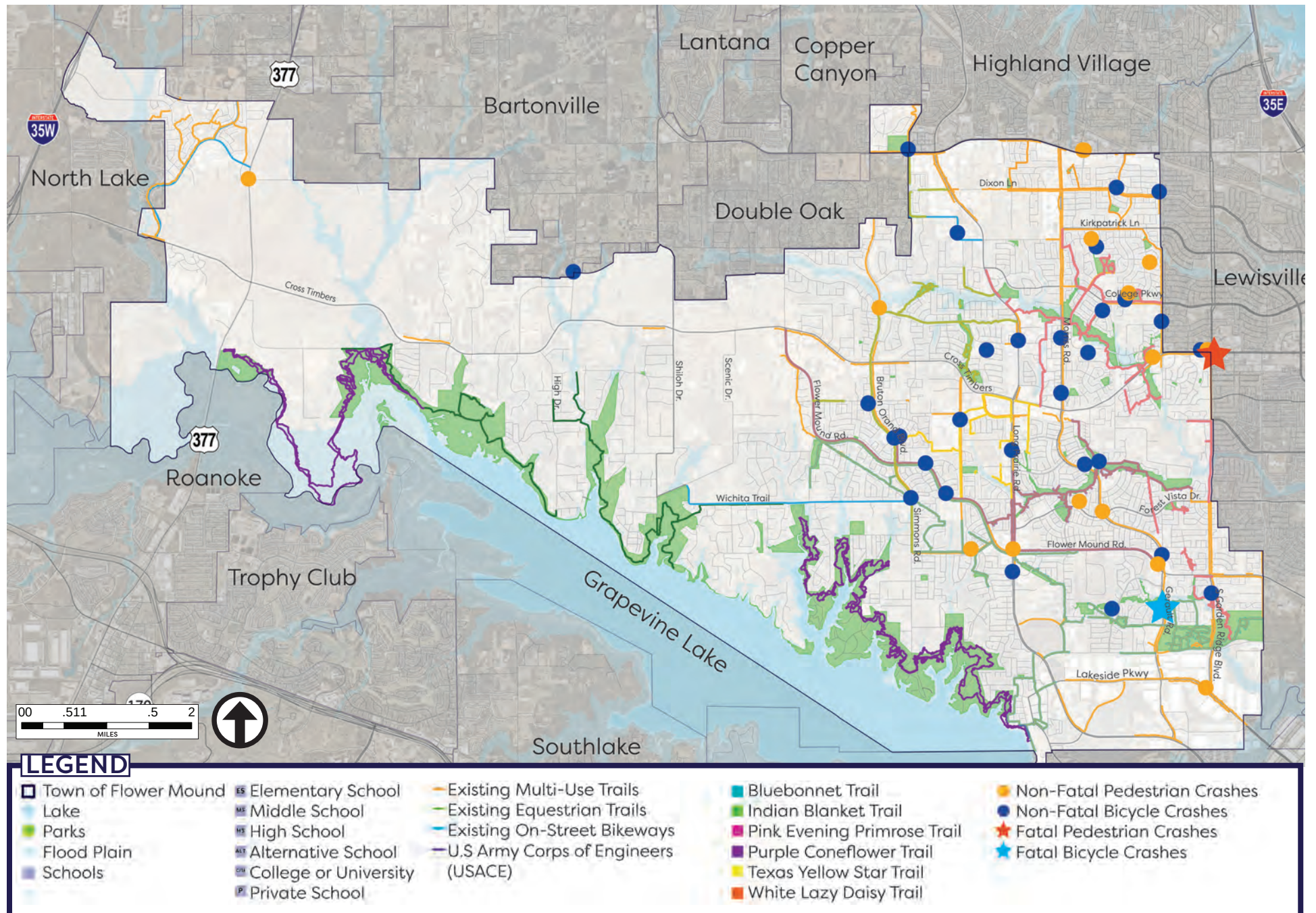
Crash Type	Number of Crashes
Non-Fatal Bicycle	31
Fatal Bicycle	1
Non-Fatal Pedestrian	16
Fatal Pedestrian	1

Source: TxDOT Motor Vehicle Crash Data for Flower Mound, 2016-2020



LAKESIDE PEDESTRIAN CROSSING

FIGURE 3.9: BICYCLE AND PEDESTRIAN CRASH MAP, 2016 - 2020



Source: TxDOT Motor Vehicle Crash Data for Flower Mound, 2016-2020

ON-STREET BIKEWAY ASSESSMENT

The goal of recommending new bikeway designations is to provide safe on-street bicycle routes throughout Flower Mound that increase connectivity between neighborhoods and to regional destinations. The three types of on-street bikeway accommodations that are preferred by planning participants are shared-use lanes, standard bike lanes, and buffered bike lanes. These accommodations were determined by examining multiple attributes of Flower Mound's existing roadway system such as speed limit, existing traffic volumes, available capacity, and right-of-way widths. Examples of these facilities can be found on page 48 in the engagement section. As a reminder, bicyclists can also use sidepaths or off-street trails if they do not wish to ride in the street.

SHARED – USE LANES

Shared-use lanes are the easiest to implement and are proposed for roadways with low speeds and volumes since cyclists share the lane with motor vehicles. Utilizing these bikeway accommodations along Flower Mound's local and collector roads provides opportunities to expand upon the existing network and connect key areas.

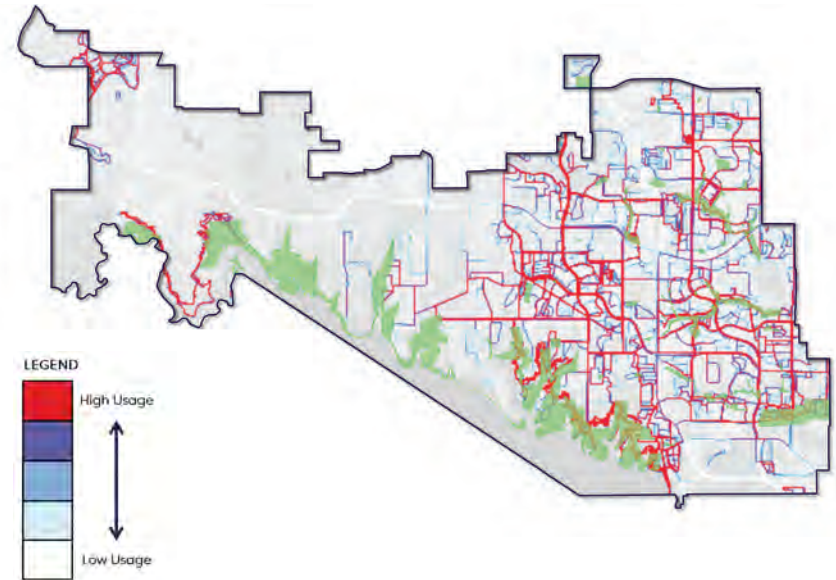
STANDARD BIKE LANES

Standard bike lanes are recommended along roadways that have slightly higher speeds and volumes for the safety of the user. These designations are also recommended on roadways that have the available width to accommodate modifications. Standard bike lanes offer increased comfort for cyclists and can encourage use by those that don't feel comfortable in a shared lane.

BUFFERED BIKE LANE

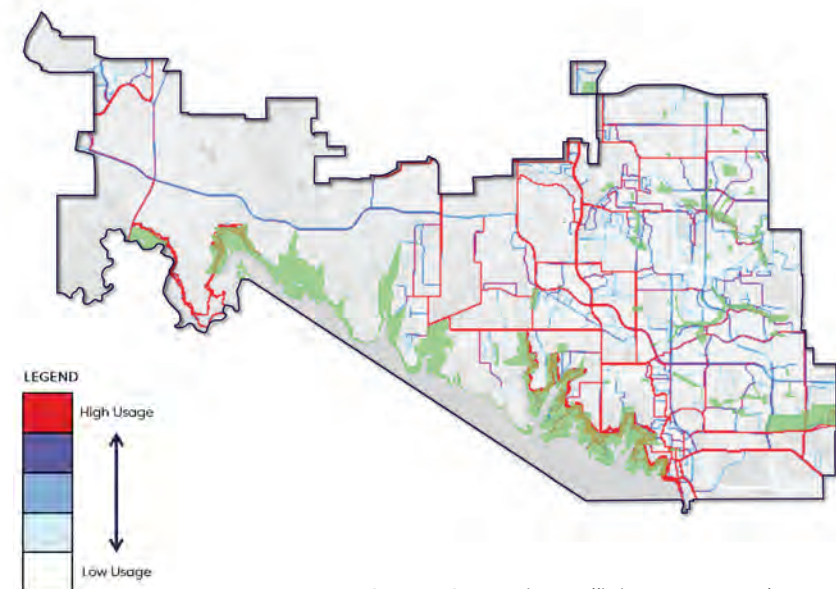
Similar to standard bike lanes, buffered bike lanes are offered along roadways that have higher speeds and volumes that need a spatial separation from the motor vehicles. However, these act as a major arterial for the bikeway network of a community. A buffered bike lane is used to connect major destinations and are proposed along major arterials in a community.

FIGURE 3.10: STRAVA PEDESTRIAN HEAT MAP, MAY 2021



Source: Strava, <https://labs.strava.com/>

FIGURE 3.11: STRAVA BICYCLE HEAT MAP, MAY 2021



Source: Strava, <https://labs.strava.com/>

BARRIERS AND OPPORTUNITIES

Based on the needs assessment and public input described earlier in this chapter, a series of barriers and opportunities were identified to help further expand the trails and bikeways system.

BARRIERS

The major barriers that exist in Flower Mound today can be divided into the following four categories and are shown in **Figure 3.12** on page 69.



SAFETY ISSUES

This type of barrier includes major safety concerns along the trails such as lack of cautionary signage, unsafe roadway crossings, steep slopes or drop-offs, and poor visibility. Safety issues may discourage use of trails and bikeways because a user cannot cross roadways or maneuver trails safely. Improved roadway crossings throughout the system could improve safety for trail and bikeway users. Slope concerns exist along the Texas Yellow Star Trail and the White Lazy Daisy Trail. There is a need for additional cautionary signage at each of the trail crossings under roadway bridges.



PHYSICAL BARRIERS

This type of barrier includes major roadways, rail lines, and water features which may present difficulties to connect the trail system. Intersections with Flower Mound Road, Cross Timbers Road, Gerault Road, and Long Prairie Road present major challenges to the safety and accessibility of the trails and bikeways system. Flower Mound Road is a major physical barrier along the entire system, as it is a six-lane, heavily traveled roadway with high posted speed limits.



ACCESSIBILITY

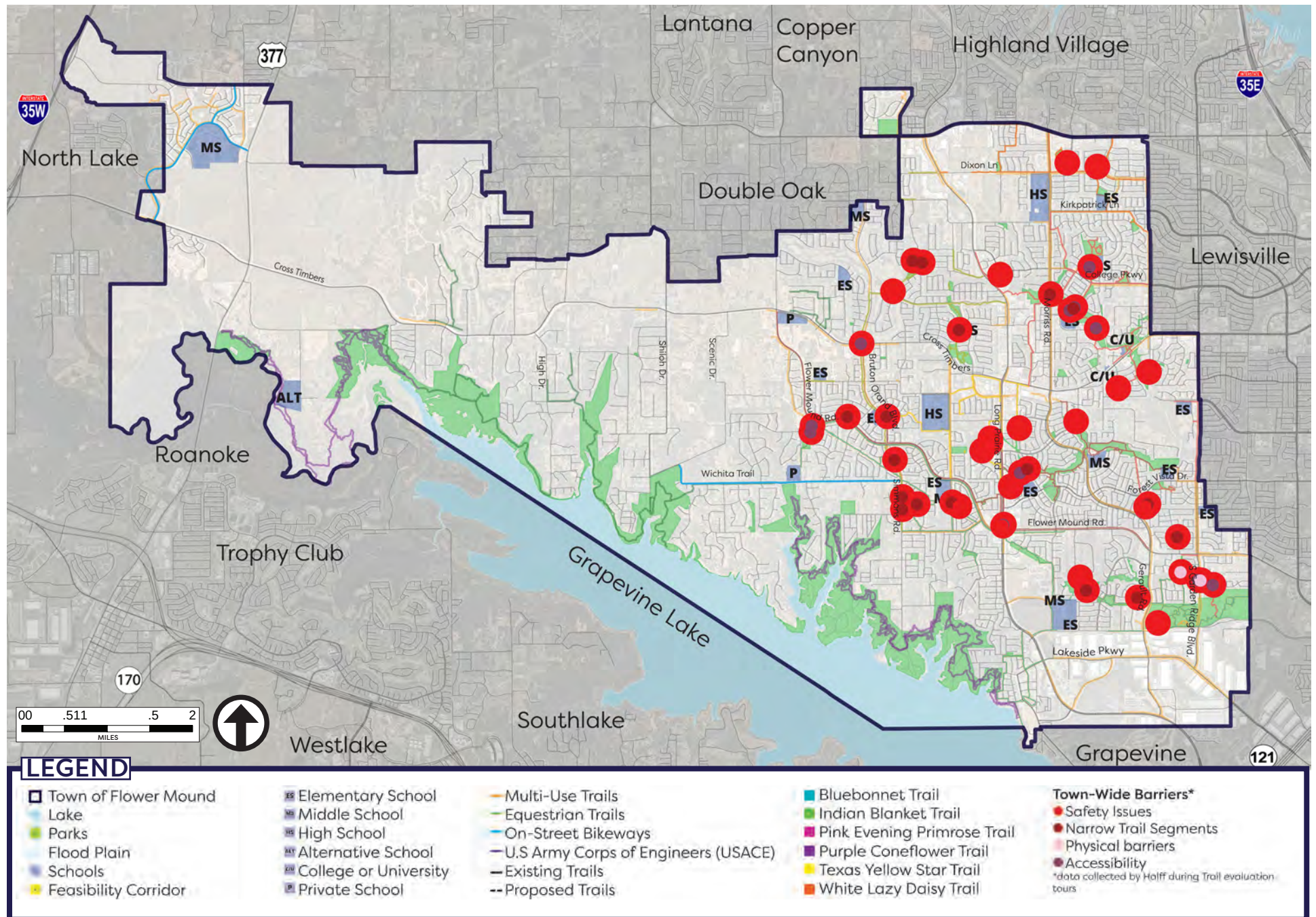
This type of barrier includes trail segments that are too narrow, including trails that are less than 8' in width. These segments may not be able to be widened due to right-of-way constraints, physical barriers, or may include bridges and infrastructure that cannot be widened. Narrow segments existing throughout the system, but are especially frequent within neighborhoods and internal to parks. As shown in **Figure 3.14**, just 64 percent of the trail system is 8 foot or wider. Narrow segments should be evaluated to see if they can be widened to meet national standards for trail widths.



NARROW TRAIL SEGMENTS

This type of barrier includes potential ADA compliance, lack of wayfinding/directional signage, and locations where trails dead end without warning. The entire trail system would benefit from increased wayfinding signage, but this would be especially useful where named trails intersect, or to provide direction to key destinations in Flower Mound.

FIGURE 3.12: MAJOR BARRIERS FOR TRAILS & BIKEWAYS IN FLOWER MOUND



OPPORTUNITIES

Based on the needs assessment, evaluation of the existing trail system, and stakeholder input, opportunities for the trails and bikeways system were identified. These opportunities serve as a framework for the recommendations presented later in the document. **Figure 3.15** on page 72 shows opportunities in map form and the following categories are described below and on page 71.



CONNECTIONS TO MAJOR DESTINATIONS

Connections throughout the town were identified as important by system users. Key destinations include schools, parks, libraries, and activity centers such as Lakeside, Riverwalk, Parker Square, Grapevine Lake, Town Hall, and Stone Creek. Providing better connectivity to these places can reduce dependence on automobiles and encourage active transportation and healthier lifestyles.



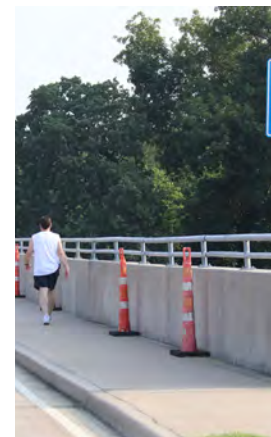
INTERJURISDICTIONAL CONNECTIONS

Interjurisdictional connections present opportunities to connect Flower Mound to adjacent communities like Grapevine, Coppell, Lewisville, Highland Village, Double Oak, North Lake, Roanoke, and Trophy Club. Improving bicycle and pedestrian connections to these communities, either through the expansion of the Regional Veloweb trailway system or through new connections, will enhance regional connectivity and provide access to key activity centers for residents of the region.



ACCESSIBILITY

The overall trails and bikeways system can be enhanced through filling in gaps in the existing system and providing for better connections to existing neighborhoods. Gaps in the system exist along all named and unnamed trails in Flower Mound. Potential new trails and connections would improve the accessibility of the system.



CORRIDORS TO WIDEN

Segments of trails that are less than 8 feet in width should be widened where possible to meet current standards and best practices. Opportunities to widen existing trails exist along Long Prairie Road, Gerault Road, S. Garden Ridge Blvd, Lakeside Parkway, and many other roads in eastern Flower Mound, as shown in **Figure 3.13**.

OPPORTUNITIES CONTD.



ADDITIONAL CONNECTIVITY OPPORTUNITIES

Opportunities to expand the system exist throughout the town. This plan considers five feasibility corridors discussed later in this plan and utility corridors as places where new trails can be constructed to expand the system. It also looks at new paddling launch points for a paddling trail system, additional locations for trails along greenways or creeks, and improved intersection crossings to improve overall connectivity of the system.



PLACEMAKING

Placemaking can help strengthen and improve a community or system by improving the public realm. Placemaking strategies that can improve the trails and bikeways system in Flower Mound include branding of the trail system through trail naming, wayfinding, and trailheads. Interpretive signage can be included along trails to help educate the community about environmental resources, arts, culture, and history. Intersections of trails can be designed to match the brand of the trail systems.



AMENITIES

Amenities can improve the overall experience for trail users. They provide shade, shelter, places to rest, and places to dispose of waste. Trailheads can be used to identify the start and end of trails. Wayfinding signage can help people identify where they are and where they want to go, while providing for branding along the trail. Other amenities that can improve user experience along trails and bikeways include: bike racks, bike repair stations, waste receptacles, benches, pet waste stations, lighting, and parking.

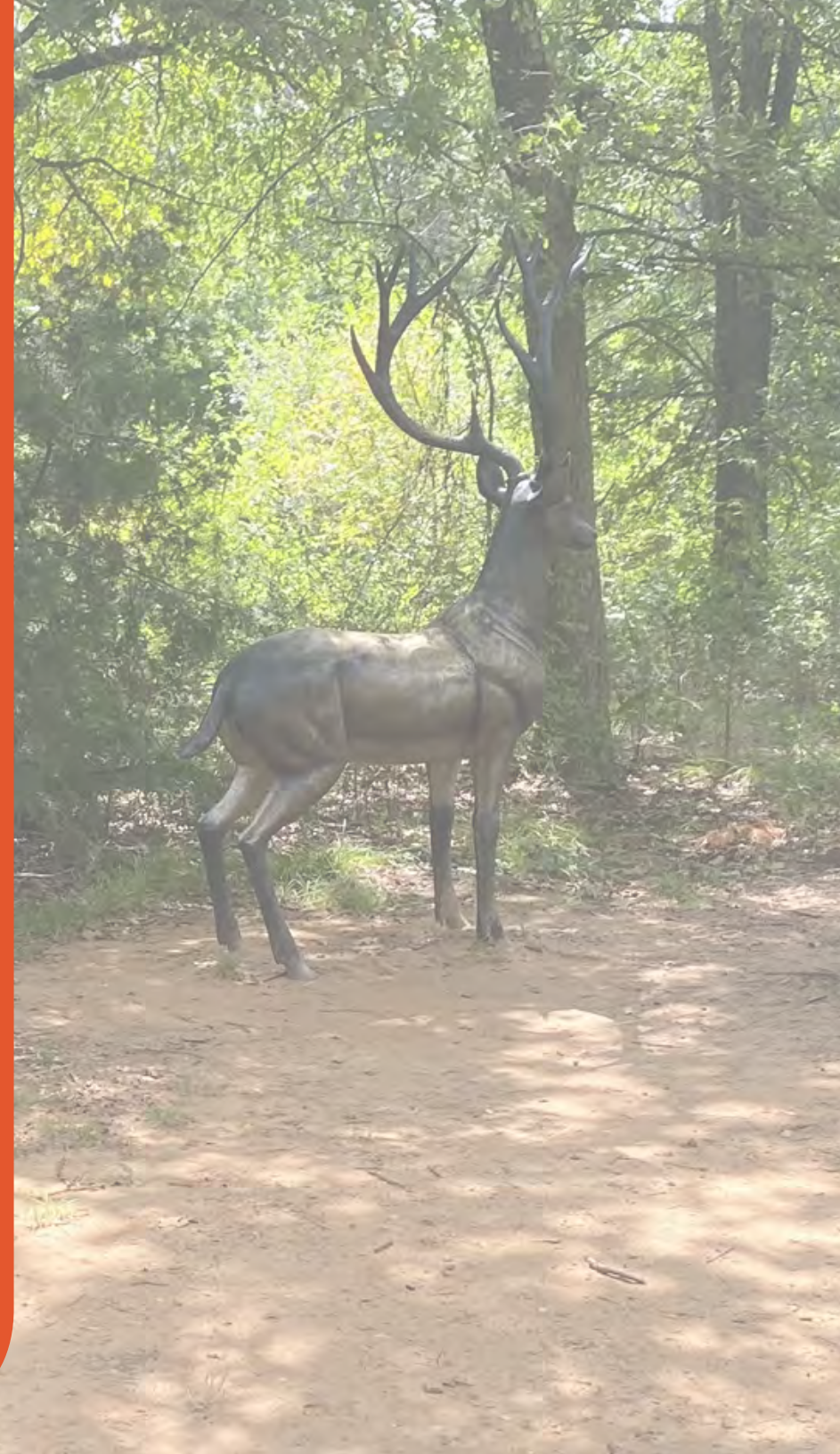
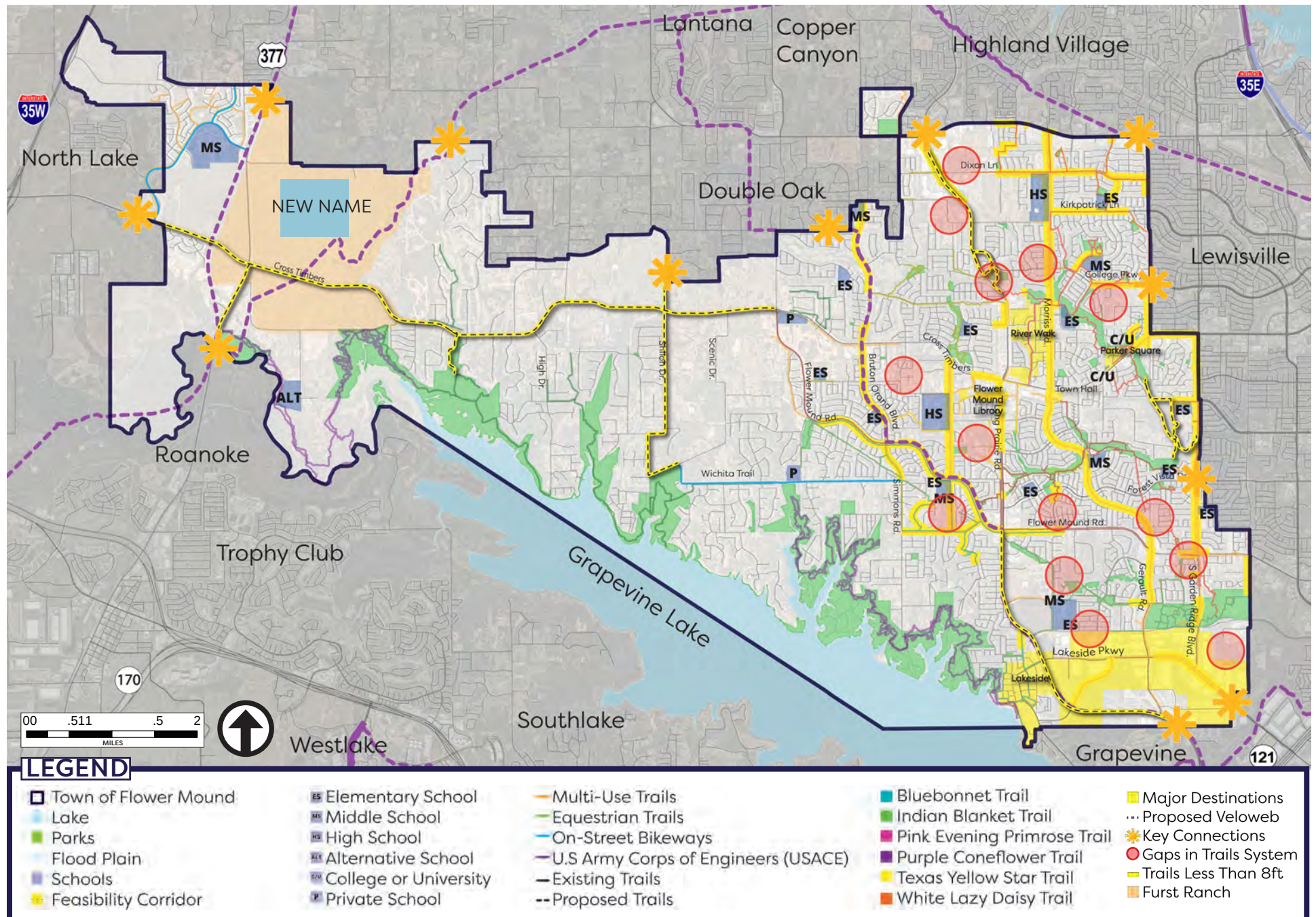
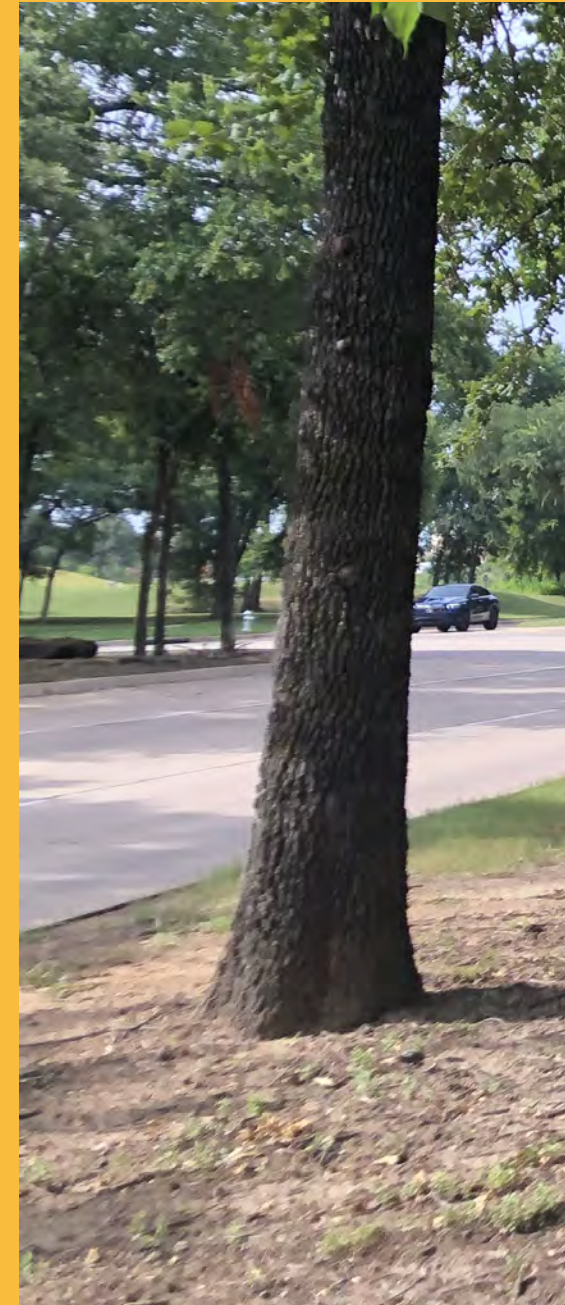


FIGURE 5.1: MAJOR OPPORTUNITIES FOR TRAILS & BIKEWAYS IN FLOWER MOUND



**Corridor Identification
Facility Hierarchy
Recommended Network**



O4 TRAILS & BIKEWAYS SYSTEM NETWORK



This plan proposes a well-connected network of on- and off-street trails and bikeways throughout the town. The proposed network was developed through a combination of research, field observation, and community input, much of which has been summarized in preceding chapters. The network depicted intends to encourage recreation, active transportation, and healthy living for generations to come.

CORRIDOR IDENTIFICATION

Five primary evaluation criteria were considered to determine the suitability of the trails and bikeways network in Flower Mound. These criteria, listed below, are used to help determine the level of impact and feasibility of each segment. Not all trails align with each criterion.

Connects the system – The segment would provide connections to the existing or planned system by filling a gap within the existing network.

Connects to destinations – The segment would provide connections to community destinations such as parks, schools, entertainment, and employment opportunities.

Addresses safety issues – The segment would address safety concerns to improve access to the system.

Increases access – The segment is located close to residential areas and would provide additional connectivity to neighborhoods.

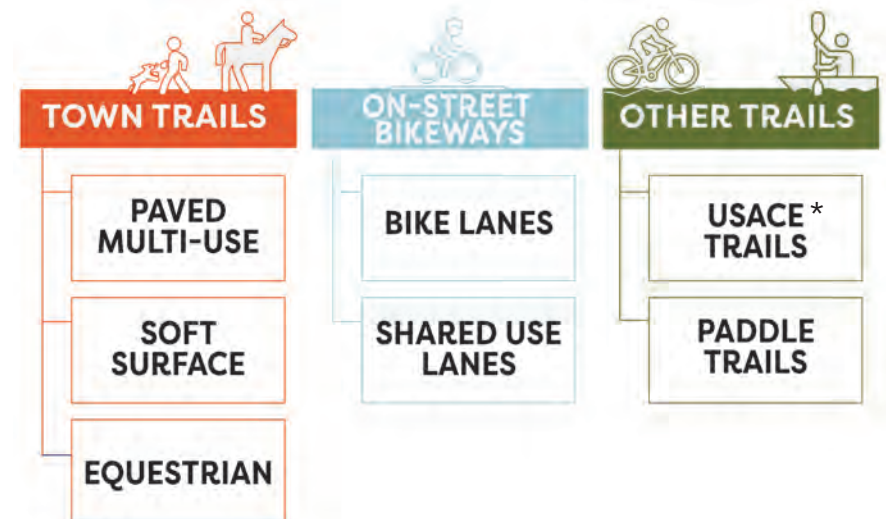
Feasibility of corridor – The segment should be generally feasible to construct. Elements considered during a planning level review include available right-of-way or easements, lane widths, property ownership, topography, and floodplain.

FACILITY HIERARCHY

The Town of Flower Mound's network includes town trails, connectors, on-street bikeway facilities, and other trails, as shown in **Figure 4.1**. Each facility is designed to accommodate specific users. This section discusses key characteristics of each facility hierarchy. More details on design characteristics of each facility type is included in Chapter 5.



FIGURE 4.1: FACILITY HIERARCHY



* US Army Corps of Engineers

TOWN TRAILS

Town Trails provide a high level of comfort for users based on widths and locations of the trails. These trails include paved multi-use trails, soft surface trails, and equestrian trails that are maintained by the Town.



PAVED MULTI-USE TRAILS

Paved multi-use trails can be located adjacent to roadways, within utility easements, or within parks and greenways. These wide, paved facilities are comfortable for bicycle and pedestrian users of various ages and abilities. The minimum width for trails is recommended to be 12', however, 10' may be applicable in areas where there are existing ROW constraints. This is consistent with AASHTO and regional standards. For trails designated as part of the Regional Veloweb, the trail should be 12' to meet NCTCOG standards and provide for a high level of comfort. These paths can be used for recreational uses or for commuting when they connect to employment centers and schools.



PAVED MULTI-USE TRAIL



SOFT SURFACE TRAILS

Soft surface trails maintained by the Town should be designed with decomposed granite or another soft surface material, and can be used in environmentally sensitive areas and should be a minimum of 8' in width. Soft surface trails provide recreational opportunities, connect people to nature, and can be less expensive to construct. There is heavier maintenance required on these trails to maintain ADA accessibility. Anticipated users include walkers, joggers, and people wanting to experience the outdoors.



SOFT SURFACE TRAIL



EQUESTRIAN TRAILS

Equestrian trails are trails for primary use by people on horseback. These natural surface trails can be located through wooded and vegetated areas to provide people with alternative riding experiences and allows them to explore nature. The surface material is typically compacted earth with a width of approximately 15'. Where possible, considerations for hitching posts and trailer parking should be incorporated into equestrian trailheads.



BRIDLEWOOD EQUESTRIAN TRAIL

ON-STREET BIKEWAYS

BIKE LANES



Bike lanes are designated spaces on roadways with relatively higher volumes and travel speeds. Based on AASHTO and Town standards, the minimum width of a bike lane is 5' to provide a more comfortable space for bicyclists. When the facilities are buffered with either striping or a physical barrier, bike lanes can be attractive for a wider range of comfort levels.

SHARED-USE LANES



Shared-use lanes are designated roadways with low traffic volumes and speeds, and include pavement markings on the road to indicate the street is to be shared between vehicles and bicyclists. Pavement markings include arrows and a bicycle, and the roads typically include shared lane signage. In lower traffic areas such as residential streets, these roadways can be designated with just signage and not pavement markings.



SHARED-USE LANE

OTHER TRAILS

OTHER SOFT SURFACE TRAILS



The US Army Corps of Engineers (USACE) owns soft-surface trails along Grapevine Lake that are maintained by the Dallas Off-Road Bicycling Association (DORBA) and the Cross Timbers Equestrian Trails Association (CTETA). These trails provide recreational opportunities for mountain bikers, hikers, people on horseback, and nature seekers. Any proposed changes to the trail system should be coordinated with the USACE. These trails vary in width and are typically compacted dirt.



USACE TRAIL AT GRAPEVINE LAKE

PADDLING TRAILS



Paddling trails located on Grapevine Lake are designated water way trails that provide the opportunity to explore the lake, engage with nature, bird watch, fish, and experience similar water-based activities. Paddling trails are associated with a series of launch points where paddling users can put in and take out their watercraft. Considerations for interactions with operators of motorized boats is important.



TWIN COVES PARK KAYAK LAUNCH

OTHER FACILITIES



CONNECTORS

Connectors are enhanced sidewalks up to 8' in width that connect neighborhoods to key destinations, such as employment centers, entertainment opportunities, schools, and parks. All new connectors or reconstruction of existing connectors should be widened 6'-8' where feasible. This facility type is typically found along major roadways that have constraints restricting the construction of a wider multi-use path. These facilities differ from other sidewalks within the Town since they fill in key gaps in the overall trail and bikeway system.



HIERARCHY SUMMARY

Table 4.1 provides a summary of the key characteristics of each proposed facility type. For additional descriptions of the design of each facility type, please refer to Chapter 5.

TABLE 4.1: HIERARCHY SUMMARY

Facility Type	Preferred Surface Material	Width (Feet)	Primary Users	Locations
Town Trails				
Paved Multi-Use Trails	Concrete	12', 10' if existing ROW constraints	Pedestrian and Cyclist	Adjacent to roadways, greenbelt corridors, utility easements, within parks
Soft Surface Trails	Decomposed Granite	8'	Pedestrians	Areas of environmental interest
Equestrian Trails	Compacted Earth	15'	Equestrian Users	Located away from roadways
On-Street Bikeways				
Bike Lanes	Pavement	5' minimum	Cyclist	Roadways with speeds less than 45 mph
Shared-Use Lanes	Pavement	14' lane width	Cyclist	Roadways with speeds less than 35 mph
Other Trails				
USACE Trails	Compacted Earth	Varies	Hikers, Mountain Bikers, Equestrian	Within USACE land
Paddling Trails	n/a	n/a	Kayaks, Canoes	Along Grapevine Lake
Other Facilities				
Connectors	Concrete	6'-8' depending on existing ROW constraints	Pedestrians	Adjacent to roadways

RECOMMENDED NETWORK

The recommended network of trails, bikeways, and connectors were informed by public input, needs assessments, corridor evaluations, and guidance from the overall plan goals. This section discusses the proposed network and subsequent impacts to future levels of service (see Chapter 3 for level of service definition).

COMBINED RECOMMENDATIONS

The combined recommendations create a robust trails and bikeways system throughout Flower Mound to connect residents to key destinations and to the larger DFW region. Some of the key components of the network recommendations are described below.

Major Destinations in Flower Mound include parks, schools, major employers, and entertainment centers. As development occurs in these areas, there are opportunities to enhance the system by widening existing facilities, filling in gaps, and constructing new facilities. As development occurs in western Flower Mound, connections should be provided to future destinations.

Regional Connections are important to connect residents to opportunities in surrounding communities. Interjurisdictional connections include trails and bikeways that can connect Flower Mound's citizens to all the DFW Metroplex has to offer, and improves overall regional connectivity, mobility, and recreation.

Filling in Gaps in the existing trail and bikeway system was identified as a priority through the master plan public input process. Many of the existing trail gaps are located in the eastern part of Town that is primarily built-out. This plan sought to fill in strategic gaps to provide more continuous trail segments. Many of these gaps are found along the branded trails such as the Pink Evening Primrose Trail and the Bluebonnet Trail.

TABLE 4.2: RECOMMENDED SYSTEM WIDE FACILITY MILEAGE

Facility Type	Existing Mileage	Recommended Mileage	Total Mileage
Town Trails	59.6	82.1	141.6
On-Street Bikeways	4.7	34.8	39.5
Other Trails	34.5	2.3	36.8
Total	113.5	129.8	243.3

HOW TO USE THE MAP

The Trails and Bikeways Master Plan recommendations map should serve as a blueprint for town staff, leaders, and developers when considering new trails and bikeways within Flower Mound. Whenever a new development or redevelopment is proposed, the associated recommended trail facility is required to be constructed by the developer. Moreover, whenever a roadway is built, expanded, or reconstructed, the proposed bikeway accommodations should be included. Furthermore, future updates to the Thoroughfare Plan may necessitate modifications to the alignments of trails adjacent to roadways and on-street bikeway accommodations. Finally, the Trails and Bikeways Master Plan map may be amended by the Town Council; it is recommended that these modifications occur annually to reflect facilities that are built and other needed changes.

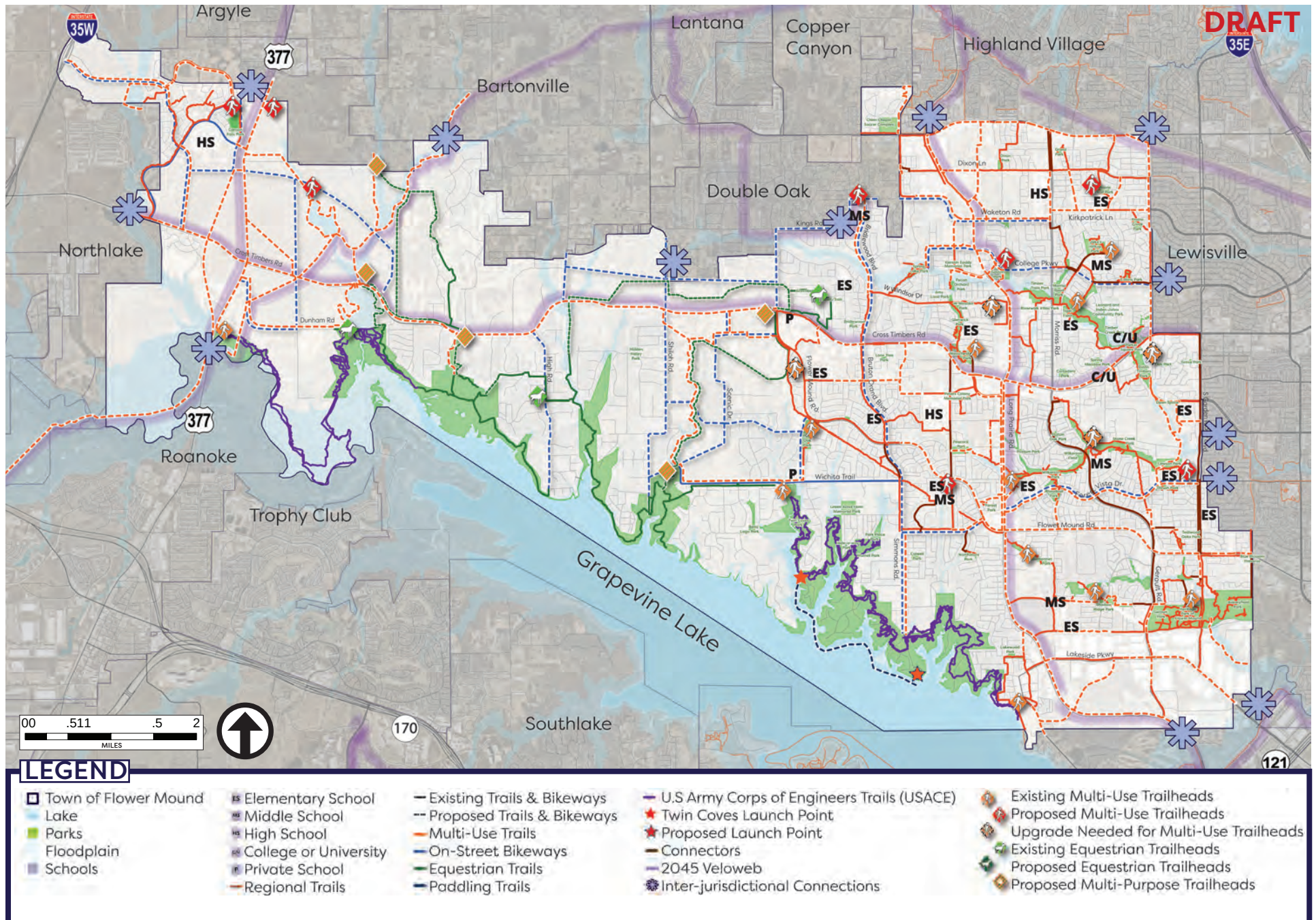
Figure 4.2 on the facing page represents the collective network recommendations for the Town of Flower Mound. **Table 4.2** provides details on the existing and proposed mileage of all facility types. **Table 4.3** shows how implementing these recommendations would change the Town's level of service.

TABLE 4.3: BUILD-OUT LEVEL OF SERVICE (LOS)*

2020 Population	78,080
2038 Population	109,544
Current Trail LOS (2020)	1 mile per 1,310 residents
Future Trail LOS (2038)	1 mile per 1,318 residents
All Recommend Trails LOS (2038)	1 mile per 898 residents

**Trails included in LOS calculations just includes paved multi-use trails.*

FIGURE 4.2: COMBINED RECOMMENDATIONS MAP



TOWN TRAIL RECOMMENDATIONS

Figure 4.3 illustrates the network of town trails intended to accommodate both pedestrians and bicyclists. The designated facilities aim to provide town-wide connectivity to destinations and the larger DFW Region.

PAVED MULTI-USE TRAILS

The proposed paved multi-use trails create town-wide connections and fill in gaps in the existing trail network along major roadways, along greenways, and through utility easements. These trails connect to the regional system, improve connectivity throughout the Town, and provide Flower Mound's residents better access to destinations such as parks, schools, entertainment, and employment centers. Flower Mound has the ability to use undeveloped land and floodways throughout the Town to improve access to the overall trail system. The recommended segments include widening existing trails to meet new standards, and constructing new trails to improve the overall network.

SOFT SURFACE TRAILS

Soft surface trails will primarily exist on the USACE property along Grapevine Lake. Beyond the existing soft-surface trails that are managed by the Town today, there are no additional soft-surface trails recommended since they are not accessible to all users.

EQUESTRIAN TRAILS

The Town of Flower Mound has an active and avid equestrian community. This plan seeks to connect existing trails, create trail loops, and enhance the overall equestrian trails network to connect riders with nature. There are opportunities to finish trail loops where development is proposed on the more natural, west side of Town. The addition of trails to connect north of Cross Timbers Road to the USACE trails along Grapevine Lake are provided at locations where trails either already exist, or where there will be enhanced trail crossing infrastructure, such as an underpass.

TABLE 4.4: TOWN TRAILS RECOMMENDATION SUMMARY

Facility Type	Existing Mileage	Recommended Mileage	Total Mileage
Paved Multi-use Trails	59.6	82.1	141.6
Soft Surface Trails	0.1	0	0.12
Equestrian Trails	14.6	10.9	25.5
Total	74.2	93.0	167.22

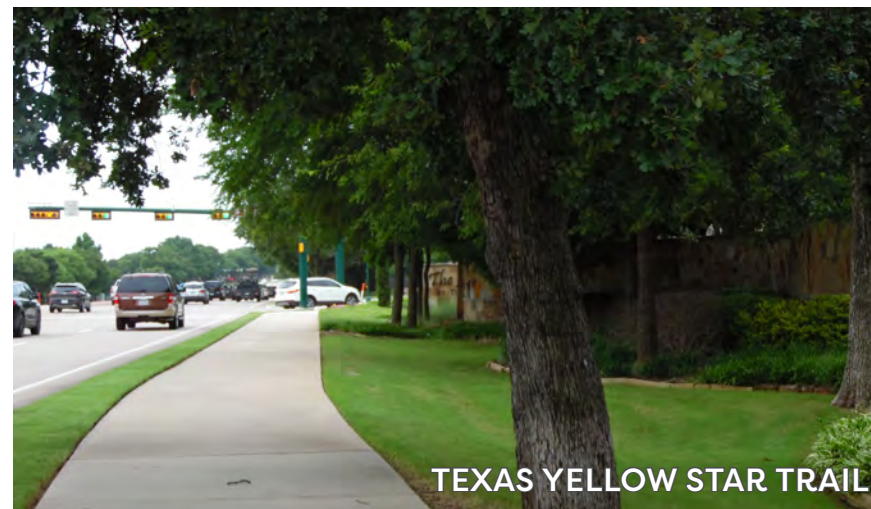
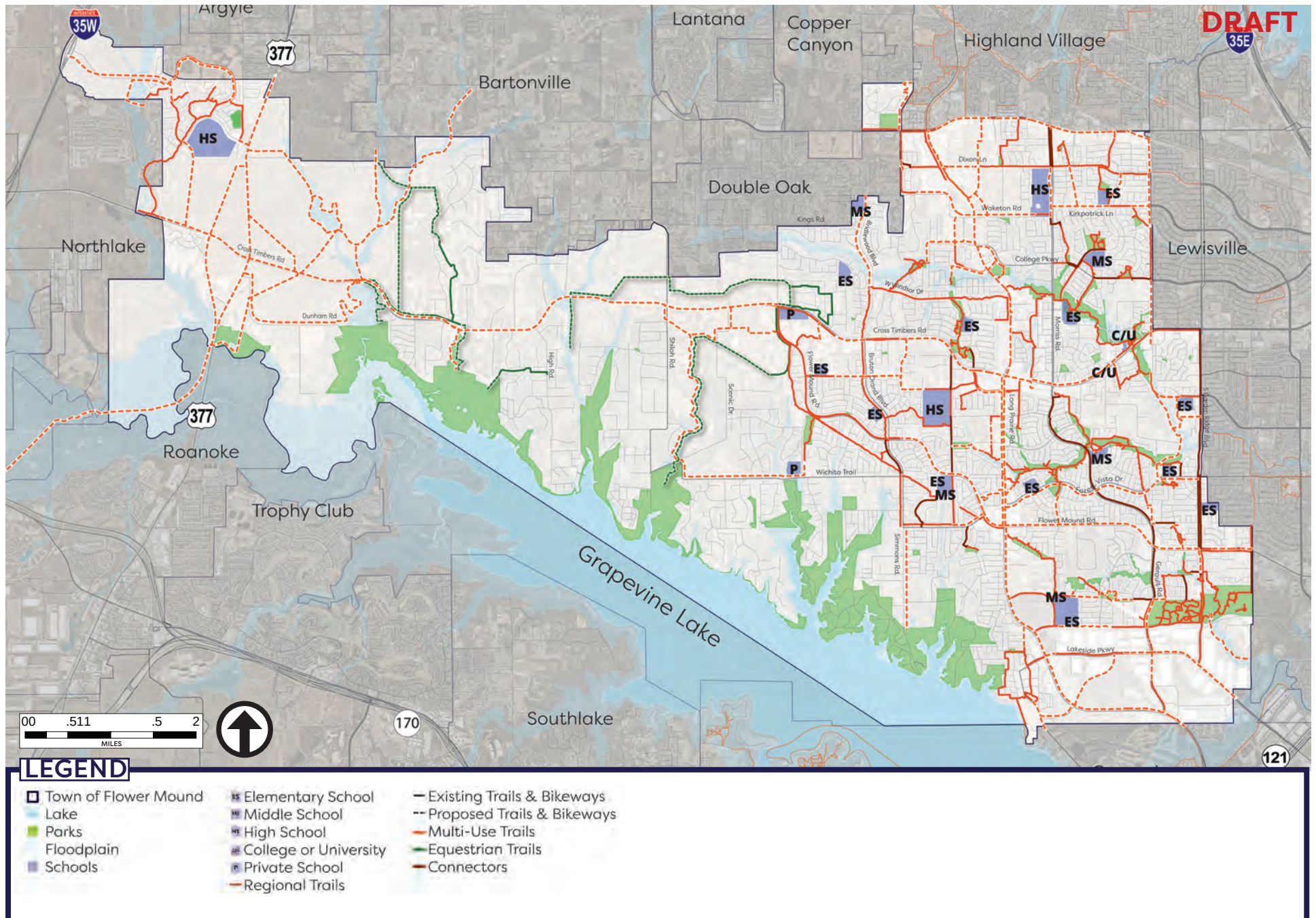


FIGURE 4.3: TOWN TRAILS RECOMMENDATIONS MAP



ON-STREET BIKEWAYS RECOMMENDATIONS

BIKE LANES

Bike lanes have been recommended for the roadways that have relatively higher speeds and volumes and have the available right-of-way, or pavement width, to accommodate the modifications necessary to install bike lanes. Proposed bike lanes were designated along roadways where continuous and comfortable routes for residents are feasible. They provide key connections to the mountain biking trails along Grapevine Lake and to the proposed or existing Town Trails. Generally, riders feel an increased level of comfort on separated facilities, such as bike lanes, and as such they should be implemented opportunistically. The Town should consider designs to add bike lanes where feasible when roads throughout the Town are reconstructed, whether they are shown on this map or not. Future updates to the thoroughfare plan can also indicate where additional bike lanes are feasible.

SHARED-USE LANES

Shared-use lanes can be easily implemented and require little change to the existing roadway. A majority of the bikeway facilities on the east side of Town are shared-use lanes due to existing constraints. These routes are on local roads or collectors with low volumes and speeds, which are more ideal for creating a comfortable riding experience for users of all ages and abilities. These routes connect residents to the trail system, bike lanes, and destinations throughout the Town.

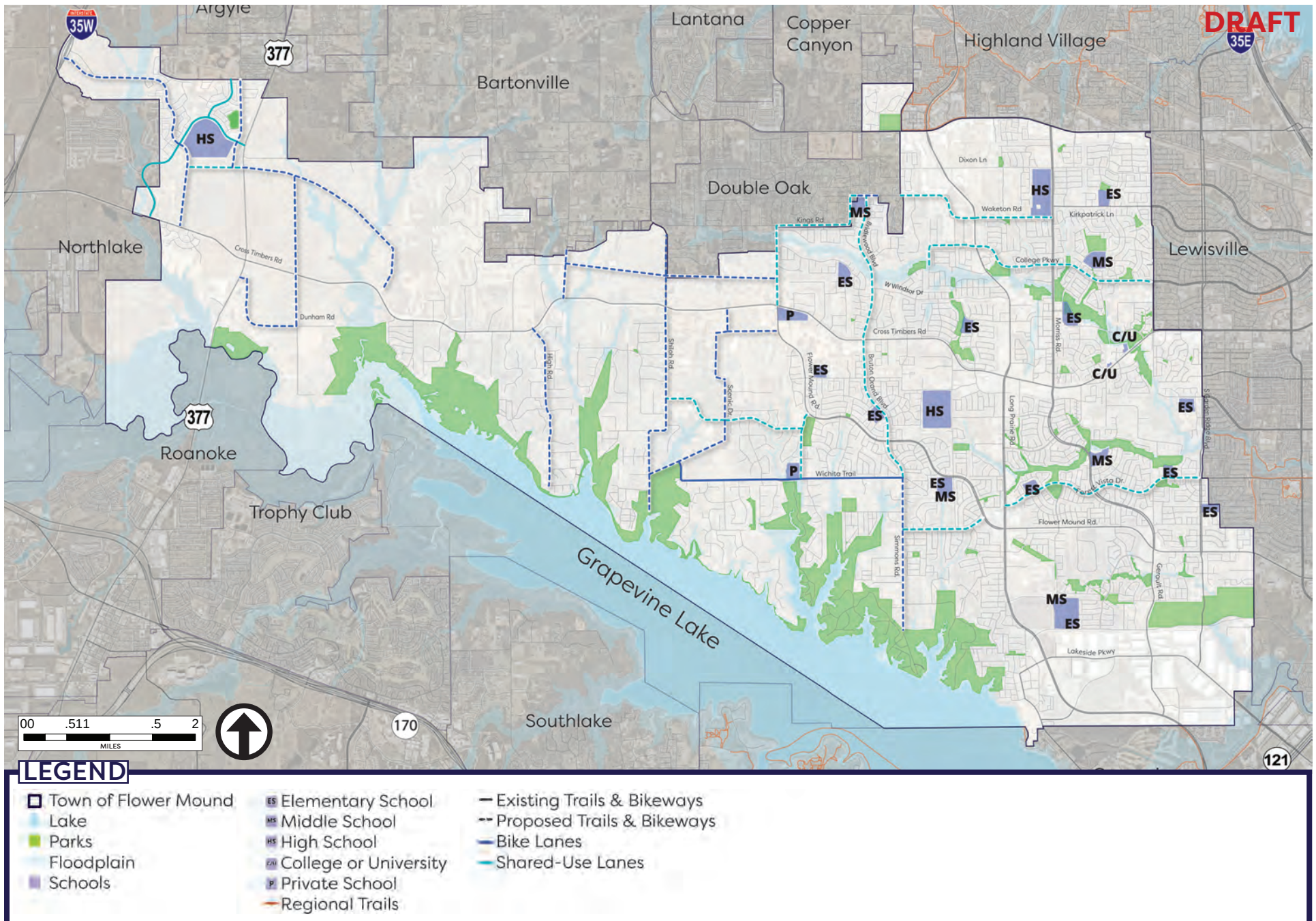


TABLE 4.5: ON-STREET BIKEWAYS RECOMMENDATION SUMMARY

Facility Type	Existing Mileage	Recommended Mileage	Total Mileage
Bike Lanes	2.4	16.5	18.9
Shared-Use Lanes	2.3	18.3	20.6
Total	4.7	34.8	39.5



FIGURE 4.4: ON-STREET BIKEWAYS RECOMMENDATIONS MAP



OTHER TRAILS RECOMMENDATIONS

Other trails include the USACE soft-surface trails along Grapevine Lake and paddling trails in Grapevine Lake. These are diverse trails intended to serve a variety of users.

USACE TRAILS

USACE Trails are soft-surface trails located along Grapevine Lake and are maintained by DORBA and CTETA. This plan does not propose any additional trails on USACE property; additional trails would need to be planned by the USACE based on their requirements. These trails primarily serve mountain bikers, hikers, and equestrian users and attract people from around the DFW region.

PADDLING TRAILS

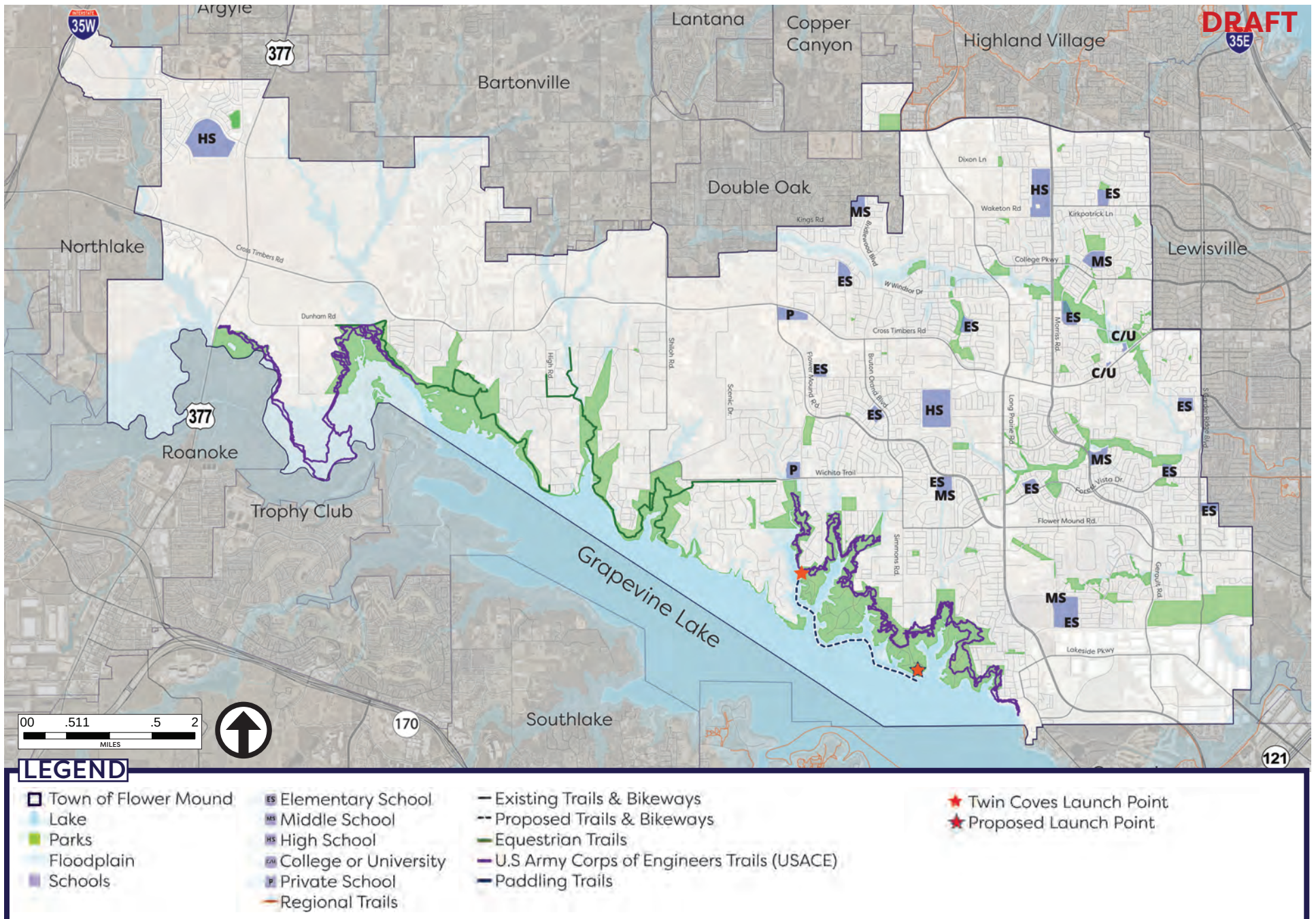
Paddling Trails are shown with proposed and existing launch points. These trails are intended to serve water users, including kayakers, canoers, and paddle boarders, exclusively.

TABLE 4.6: OTHER TRAILS RECOMMENDATION SUMMARY

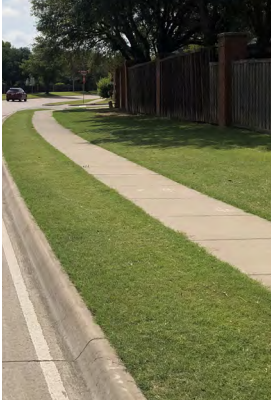
Facility Type	Existing Mileage	Recommended Mileage	Total Mileage
USACE Trails	34.5	0	34.5
Paddling Trails	0	2.3	2.3
Total	34.5	2.3	36.8



FIGURE 4.5: OTHER TRAILS RECOMMENDATIONS MAP



OTHER CONSIDERATIONS



TOWN CONNECTORS

These are sidewalks that connect trails to major destinations and are usually on major roadways such as collectors and arterials, where existing constraints prohibit widening to a trail. The desired width for connectors is 8', however where existing constraints exist and sidewalks cannot be widened, they should be a minimum of 6'.



TRAILHEADS

Key entrances to the trail system should be designated by trailheads. They should be distributed throughout the town at major destinations, such as at community parks and entertainment centers. Features typically found at a trailhead include parking, restrooms, wayfinding and regulation signage, drinking fountains, benches, bike repair stations, and trash receptacles.



TRAIL ACCESS POINTS

For a trail system to be comprehensive and connected, there should be multiple access points to the trails from existing and planned developments adjacent to the trail system. Trail access points do not have amenities like a trailhead, but they can include signage and branding associated with both the trail system and the place they are tying in from to establish sense of place.



PADDLING LAUNCH POINTS

Flower Mound has the unique opportunity to create water-based recreation around Grapevine Lake. By providing a network of launch points, residents can explore different parts of the lake, have multiple entrance and exit points, and engage in different experiences based on the surroundings of each launch point. Launch points should be in areas with flat banks or beaches that have shallow water close to the shoreline or along creek segments with established launch pads.



MAJOR PEDESTRIAN CROSSINGS

There are two types of roadways crossings. This section includes basic descriptions, more detailed design considerations for roadway crossings are provided in Chapter 5.



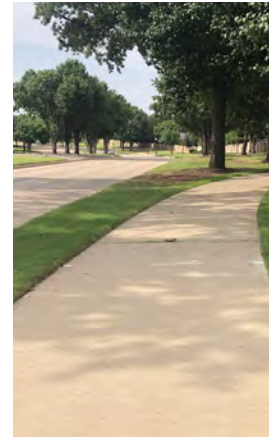
Roadway Intersections

Intersections are an important design consideration when creating a trails and bikeway system. Major roadways crossings are a barrier to connectivity in Flower Mound. Intersections should be enhanced for pedestrian crossings including signage, high emphasis pavement markings, and signalization. Major intersections include Long Prairie and Cross Timbers, Long Prairie and Flower Mound Road, and cross Timbers and US 377.



Mid-block Crossings

Mid-block crossings are where facilities cross a road at a location between intersections. They should be designed to alert drivers to trail users crossing the road through signage, rectangular rapid flashing beacons, and pavement markings relative to the roadway where the trails are crossing. Existing mid-block crossings in Flower Mound include along Gerault, Garden Ridge, and Morriss. Where a trail crosses a local road or neighborhood street, advanced signage and pavement markings should be included to alert drivers that people may be crossing the road.



INTERJURISDICTIONAL CONNECTIONS

The recommended network should take advantage of opportunities to connect residents to surroundings trails and bikeways in communities like Double Oak, Copper Canyon, Highland Village, Grapevine, and Lewisville. Interjurisdictional connections allow Flower Mound residents to access amenities and entertainment throughout the DFW Metroplex.

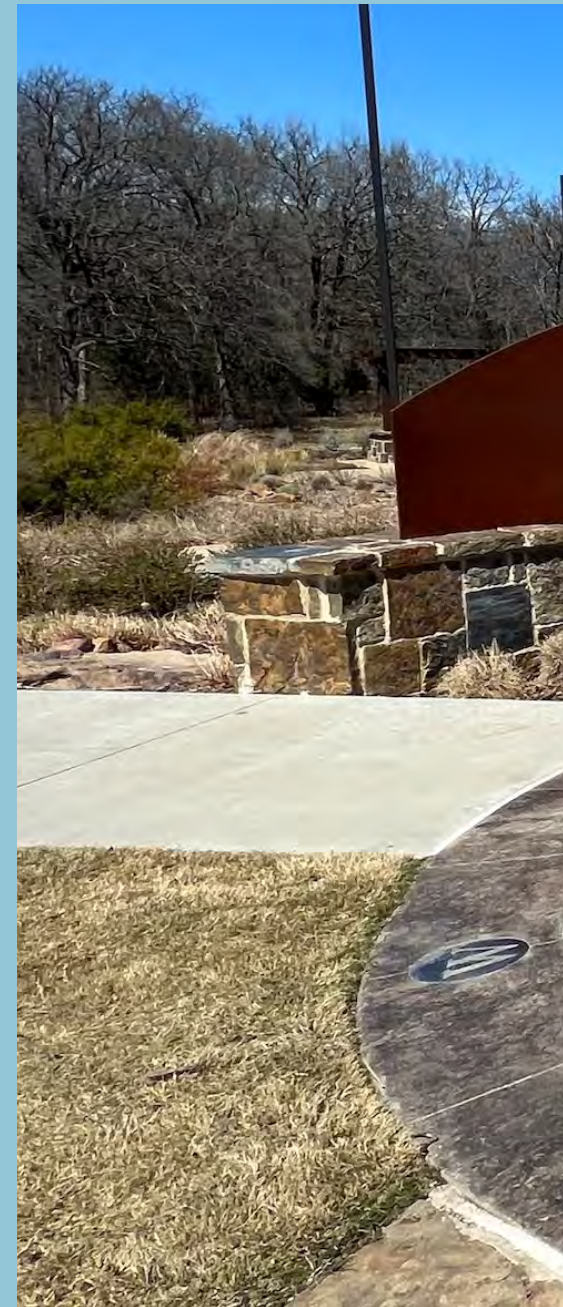


REGIONAL VELOWEB

The Regional Veloweb is an expansive network of off-street shared-use paths that can accommodate multiple user groups including bicyclists, pedestrians, and other non-motorized modes of transportation throughout the DFW Region. The Veloweb is compiled and continuously updated by the NCTCOG through planning efforts with local jurisdictions. The latest version of the regional network is included in the NCTCOG Mobility 2045 plan and contains 1,883 miles of off-street trails.

The NCTCOG Mobility 2045 Plan has established a hierarchy of existing, funded, and planned Veloweb trail segments. The Veloweb segments in Flower Mound include Long Prairie Road from Grapevine to Highland Village, Cross Timbers Road, 377, and an east/west connection from 377 to Bartonville. These corridors may be prime candidates for funding sources that place importance on creating regional connections. Veloweb routes in Flower Mound are shown in **Figure 4.2.**

Design Guidelines Toolbox Using the Toolbox



05 TRAILS & BIKEWAYS DESIGN STANDARDS



HERITAGE PARK NATURE TRAIL

DESIGN GUIDELINES TOOLBOX

This plan proposed a diverse network of trail and bikeways to accommodate different types of users. These facilities have design standards intended to provide safety and convenience for various users. It is important to note that all trails and bikeways should at a minimum meet the American Association of State Highway and Transportation Officials (AASHTO), TxDOT, and Town of Flower Mound standards and should exceed those standards if and where possible. This section outlines design considerations related to various aspects of trail and bikeway facilities. Listed below are sources for the most commonly used standards for pedestrian and bicycle facility design; the recommended standards in this plan complies with these sources:

- **AASHTO**: American Association of State Highway and Transportation Officials
- **ADAAG**: American with Disabilities Act Accessibility Guidelines
- **ITE**: Institute of Transportation Engineers
- **NACTO**: National Association of City Transportation Officials
- **PROWAG**: Public Rights-of-Way Accessibility Guidelines
- **TAS**: Texas Accessibility Standards
- **TMUTCD**: Texas Manual on Uniform Traffic Control Devices
- **TTI**: Texas Transportation Institute
- **TxDOT**: Texas Department of Transportation
- **NCTCOG**: North Central Texas Council of Governments

The intent is after this master plan is adopted, the Town will incorporate the design considerations described in this chapter into the applicable development regulations (subdivision ordinance, technical standards manual, etc.).

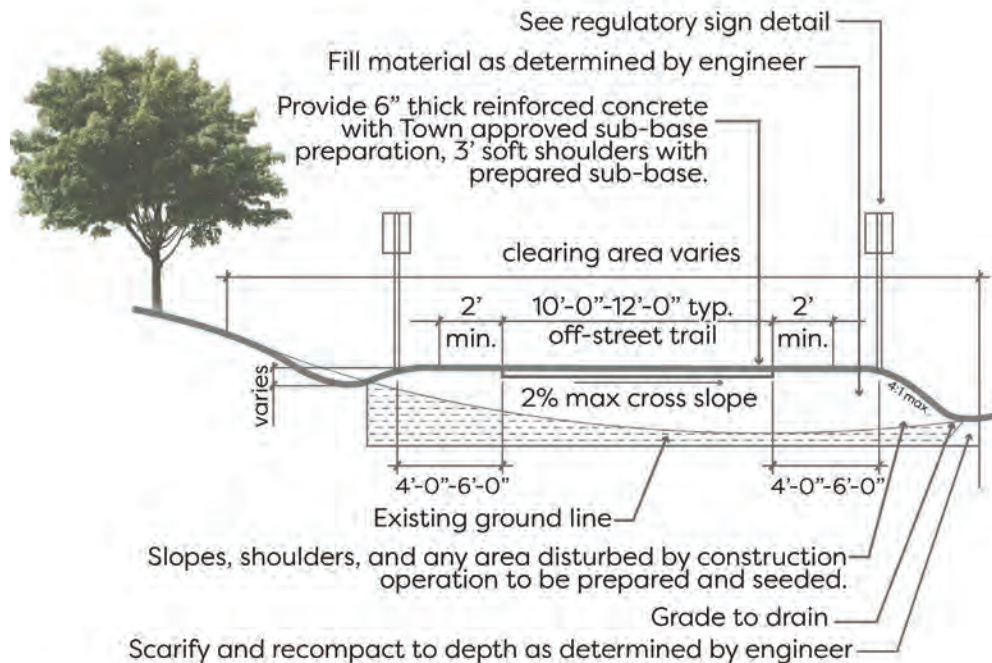


PAVED MULTI-USE TRAILS

Paved multi-use trails include trails located off-street and adjacent to the roadway. This first section outlines design features for paved multi-use trails to:

- Utilize guidelines to protect existing natural features along the trails. Canopy trees should be protected where feasible, and natural drainage patterns should be supported to reduce any impacts to the existing water systems. They should follow the natural topography.
- Alignment of trails should provide visual and experiential diversity. Extreme curves or long straight segments should be avoided where possible, except where tree preservation or other obstructions necessitate such an alignment.
- Intersections with trails and roadways should be located where sight lines are not obstructed, trail users are clearly visible, and should occur in locations that are strategic and necessary for the circulation of the trail system.
- Trails should align with all crosswalks and incorporate handicap accessible ramps that meet the ADAAG, PROWAG, and TAS standards.

FIGURE 5.1: TYPICAL TRAIL CROSS-SECTION

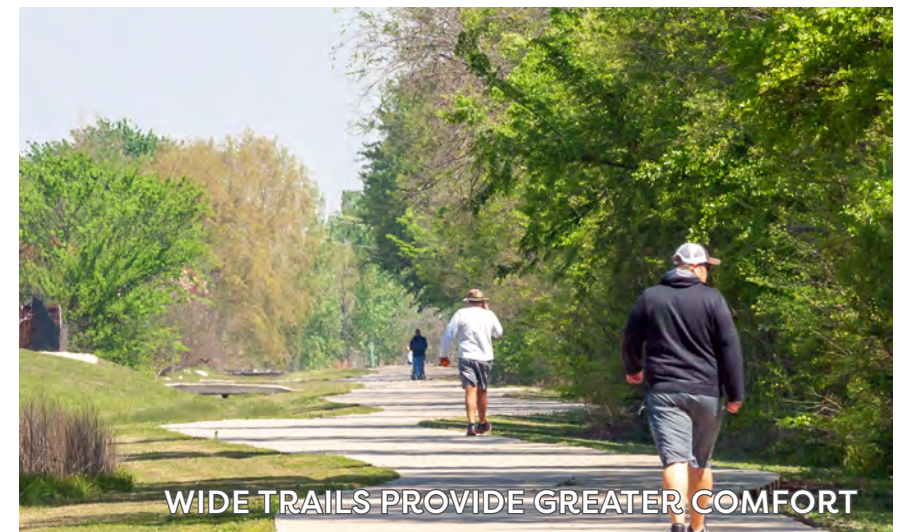


TRAIL WIDTH

Paved multi-use trails include existing and future Town trails as well as Veloweb trails. While the existing trails mainly are 8', where feasible they should be widened to 10' – 12'. All newly constructed multi-use trails should be a minimum of 12' in width, unless there are existing ROW constraints, then 10' may be considered. [Figure 5.1](#) illustrates a typical off-street trail cross-section.

As discussed in previous chapters, there are several gaps that exist in the existing trail system. Where a gap in the trail system is being filled, the Town should reserve the right to determine the required width to fill the gap in the system based on the following criteria. All trail segments do not have to meet all the criteria, the Town has the ability to determine feasibility on a case-by-case basis.

- Distance of the gap to be filled, for example it may not make sense to have a 100 foot stretch of 12' trail when the adjacent segments are eight feet.
- Available right-of-way or easement constraints.
- Location of existing utilities and the inability to relocate them.
- Presence of environmentally sensitive resources.
- Other property constraints, such as existing infrastructure.



PAVEMENT STRUCTURE

Paved multi-use trail pavement should be six inches thick reinforced concrete with a heavy broom finish. Expansion joints should be placed in the trail at an interval of 40' for 10' wide trails and 50' to 60' for 12' wide trails. Expansion joints should be topped and sealed with a self-leveling elastomeric joint compound and should be flush with the top surface of pavement on both sides of the joint. Control joints should be placed at intervals equal to the trail width and the depth should be one-fourth of the pavement thickness. The joints should be saw-cut and 1/4" wide. In order to provide the most user comfort, the finished surface of trails should not vary more than 1/4" from the lower edge of an 8' long straight edge when laid on the surface in any direction.

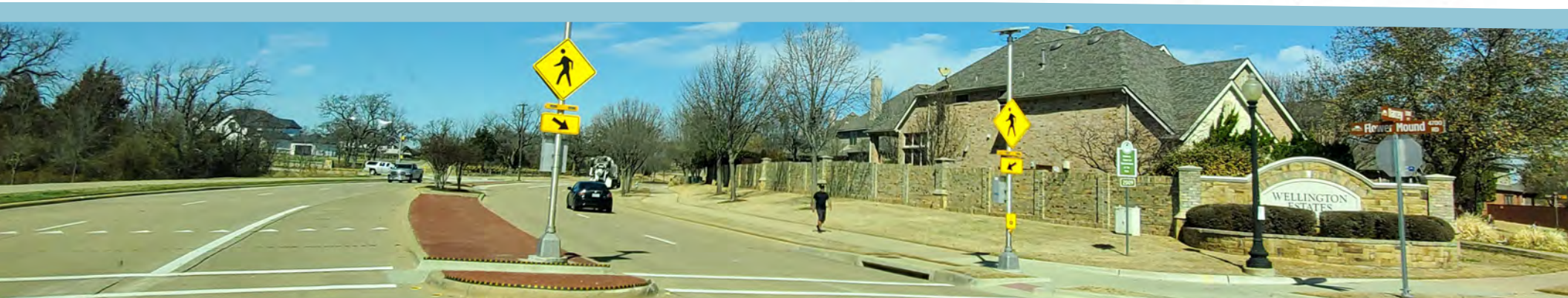
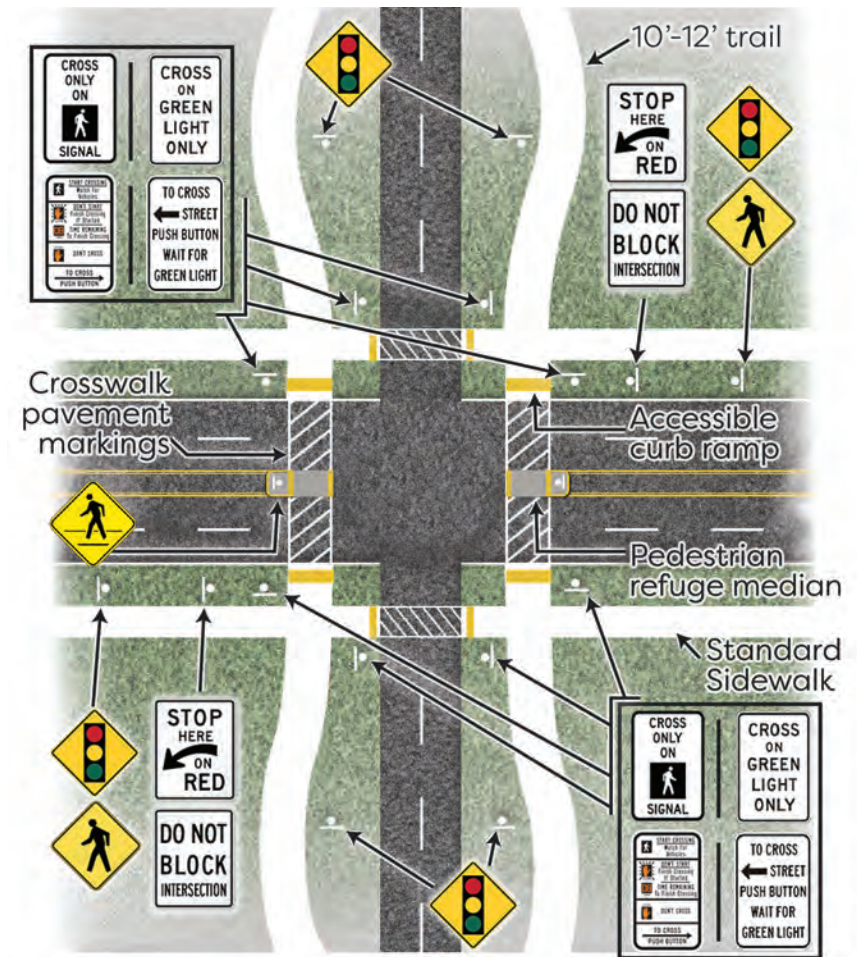
INTERSECTION TREATMENTS

Proper intersection treatments are important to reduce potential conflicts between trail users and motorists. In order to reduce conflict points, the corner radius for a 90-degree intersection should typically be 15'.

Trail crossings should include the appropriate signage, crosswalk markings, and pedestrian signals as generally depicted in [Figure 5.2](#). An alternative, more expensive option for crossing roadways is to construct a pedestrian bridge or tunnel to provide a fully separated roadway crossing experience without conflicts from automobiles. There are several examples of trail underpasses in Flower Mound today that avoid an at-grade crossing for trail users.

Additional intersection crossing considerations are provided later in this section.

FIGURE 5.2: TYPICAL INTERSECTION TREATMENT



RECTANGULAR RAPID FLASHING BEACONS AND MEDIAN REFUGE ISLANDS ENHANCE SAFETY AT INTERSECTIONS

EASEMENTS

When a trail is located away from a roadway, such as in a utility easement or adjacent to natural features, a 50' minimum easement is required. This is to ensure there is enough room to align trails away from creeks where erosion could impact the usability of the trail. For trails adjacent to a railroad, an easement of 20' outside of the railway foul zone is needed to ensure there is enough room for track maintenance.

VERTICAL AND HORIZONTAL CLEARANCE

Vertical clearance refers to the area above a trail that is to remain clear from obstructions. The recommended vertical clearance over a trail is 10' or higher; this height accommodates maintenance, patrol, and emergency vehicle access. All underpasses and tunnels should be a minimum of 8' in height and where there are vertical clearances less than 10', warning signage should be posted. In order to meet clearance standards for safety and visibility along trails, tree removal or pruning may be necessary in some areas. The trail evaluation section in Chapter 3 identified areas along existing trails that need to have vegetation scaled back; some of these areas are along trails that are not maintained by the Town so coordination with the HOA or other entity is needed.

The recommended horizontal clearance is the area on each side of the trail to remain free of obstructions. This area enhances the aesthetics, function, and safety for trail users. The desired horizontal clearance is two feet to five feet on each side of trail for heavily used trails. When a trail is adjacent to a roadway, the greatest separation in the form of a landscaped buffer, should be provided between trail users and vehicular travel lanes, where space exists. According to AASHTO, a five foot buffer from the trail facility and the roadway is recommended for optimum user comfort and safety.

OTHER CONSIDERATIONS

Design Speed

Design speed refers to the preferred speed of the fastest common user, so on multi-use trail, that would be an experienced cyclist. For paved multi-use trails, a minimum design speed of 20 mph should generally be used if the trail grade is less than 5 percent slope. In areas where strong prevailing winds exist or the trail grade exceeds 5 percent, a trail design speed of 30 mph is recommended.

Trail Drainage

Trail drainage should be designed to have adequate drainage away from the trail to mitigate flooding and debris after rain events. This requires the cross-slope of areas adjacent to trail shoulders to have at least a 2 percent minimum slope away from the trail and for the trail surfaces themselves to have a cross slope of 1 percent. Greater cross slope along the trail can make it difficult for some users to safely navigate the trail.

Visual Clearance

Trails should be designed to prevent blindspots. Blindspots create conflicts between users, creating safety concerns. Where blindspots exist, the trail should be widened, striped, and signed to provide the greatest awareness of oncoming trail traffic. Advanced warning can improve awareness and reduce potential conflicts.



BLUE BONNET TRAIL

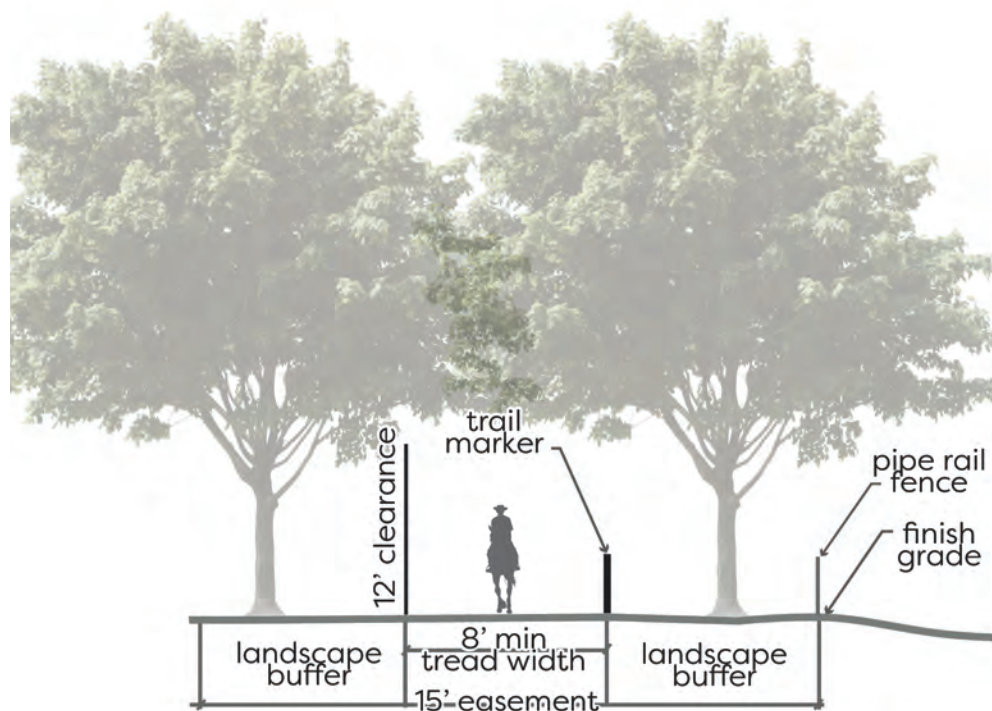
SOFT SURFACE TRAILS

EQUESTRIAN TRAILS

Equestrian trails are designed to provide outdoor experiences to people on horseback in rural or urban settings. Trails should be designed to be comfortable for users and provide space and buffers for multiple users, regardless of location. They should create safe loops with variety of amenities to ensure they are usable and safe.

In Flower Mound, the Town maintains several miles of equestrian trail and there is additional mileage located on the USACE land by Grapevine Lake. The recommended design considerations in this section only refers to the equestrian trails maintained by the Town.

FIGURE 5.3: TYPICAL EQUESTRIAN TRAIL CROSS-SECTION



Equestrian Trail Widths

Equestrian trails should be a minimum of 8' within a 15' easement. The trail surface within the easement should be a minimum of 8' in width, this provides space for passing. The vertical clearance for equestrian trails should be 12' to allow for space for a person on horseback. Trees may need to be pruned or removed in some cases to meet vertical clearance requirements.

Surface Materials

Trails should generally be native materials, such as compacted dirt. In rural and preserve settings, they may include rivers or creek crossings, hills, woods, and other natural features. In urban areas, where multiple users are intended, the trails may be more compact, and comprised of crushed granite, dirt, or other accessible surfaces.

Amenities

Amenities along the trail may differ based on the intended purpose and user of the trail. If the trail is designed to be challenging and provide jumps, they may be offset from the trail to allow for more novice users to not encounter obstacles. Trails should also be marked by trailheads, provide adequate parking for vehicles and trailers, and informational signage with information about trail length, amenities, and etiquette. Posts should be provided to allow for the temporary tie up of horses.



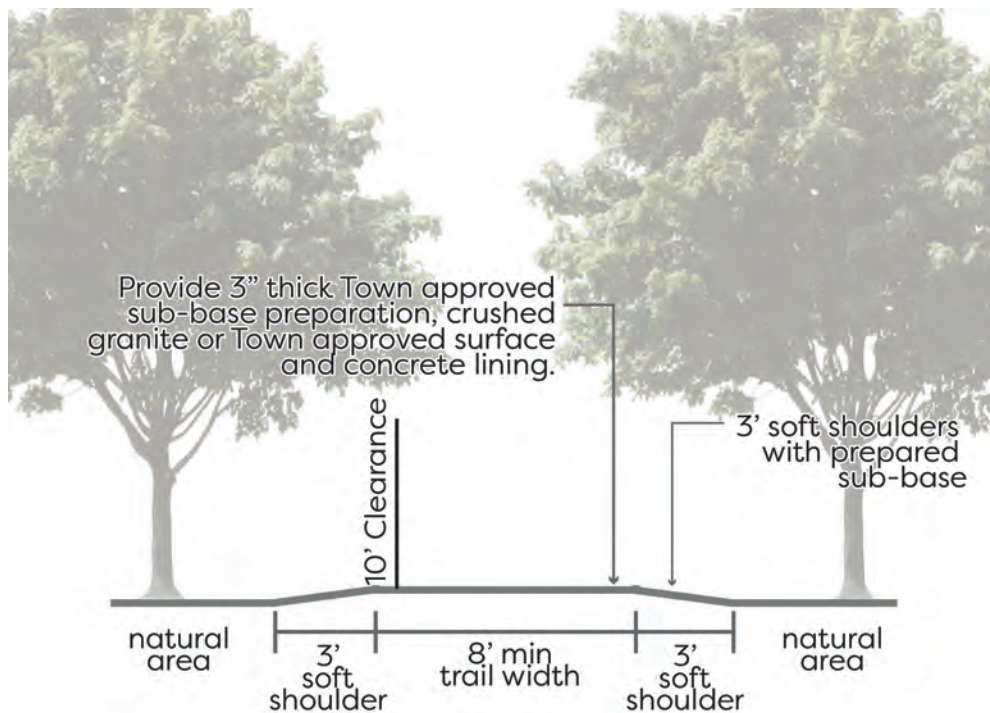
OTHER SOFT-SURFACE TRAILS

Other soft-surface trails may include natural trails through nature preserves, such as the USACE trails along Grapevine Lake, and town maintained soft-surface trails through parks and adjacent to roadways. Soft-surface trails are typically designed for hikers, mountain bikers, and equestrian users. Soft surface trails maintained by DORBA do not have provided standards.

Town Maintained Soft-Surface Trails

Town maintained soft-surface trails should be a minimum of 8' in width. They should include a clear zone of at least 3' on each side and a vertical clearance of at least 10' in height. Trees may need to be cut down or pruned to ensure proper vertical clearance. The trails should be a firm, stable surface such as decomposed granite. In order to maintain form, the trail should be lined by concrete, metal, or a similar hard lining.

FIGURE 5.4: TYPICAL SOFT SURFACE TRAIL CROSS-SECTION



ON-STREET BIKEWAYS

Two types of on-street bikeways are identified on the recommended network: bike lanes and shared-use lanes. This section outlines key considerations for each type of facility in order to:

- Determine appropriate facility types based on roadway travel speeds, traffic volumes, available pavement widths, and roadway functional classification.
- Identify continuous bicycle routes through high demand corridors to provide connections throughout the Town and to adjacent communities.
- Provide guidance on pavement markings, signage, or a combination along identified and future routes to communicate safety procedures and provide wayfinding.



BIKE LANES

Bike lanes are a portion of the travel lane marked for the exclusive use by people on bicycles. This space is separated from travel lanes by striping and signage. Benefits of bike lanes include: enabling people to ride at a constant speed; making bicycles and their space physically visible; and, encouraging people on bicycles to use the street rather than sidewalks where the conflicts with pedestrians are greater. Bike lanes are typically implemented on roadways with relatively higher speeds and traffic volumes.

Width

Width is important to consider when designing your system. The minimum width for a standard one-direction bike lane is 5' from the face of curb or on an open shoulder to allow people on bicycles to be far enough from the curb to avoid debris and drainage grates.

Bike lanes can either be standard bike lanes or separated bike lanes as shown in [Figures 5.5](#) and [5.6](#). Standard bike lanes have a painted stripe that separates the bicycle traffic from vehicles while the buffered bike lanes have a minimum 3' painted or physical buffer between the bike lane and the travel lane.

Markings

Markings should follow the MUTCD, including a one-way directional arrow, bike lane marking, and a solid white stripe. They should be placed at regular intervals in accordance with guidance from the MUTCD and AASHTO. Where a buffer exists, additional white striped hatches and an additional white stripe are needed. When the bike lane is between on-street parking and vehicular travel lanes, the lane should be lined on each side with a white stripe so vehicles that are parking are aware of the boundaries.

Signage

Signage required for bike lanes include those that state the bike lane is for cyclist use only. 'Bike Lane' signs should generally be provided adjacent to lane markings but not at all markings to avoid overuse, unless otherwise noted by national or Town standards. Signage, along with the pavement markings, can improve visibility and awareness of people on bicycles for motorists.

FIGURE 5.5: TYPICAL STANDARD BIKE LANE

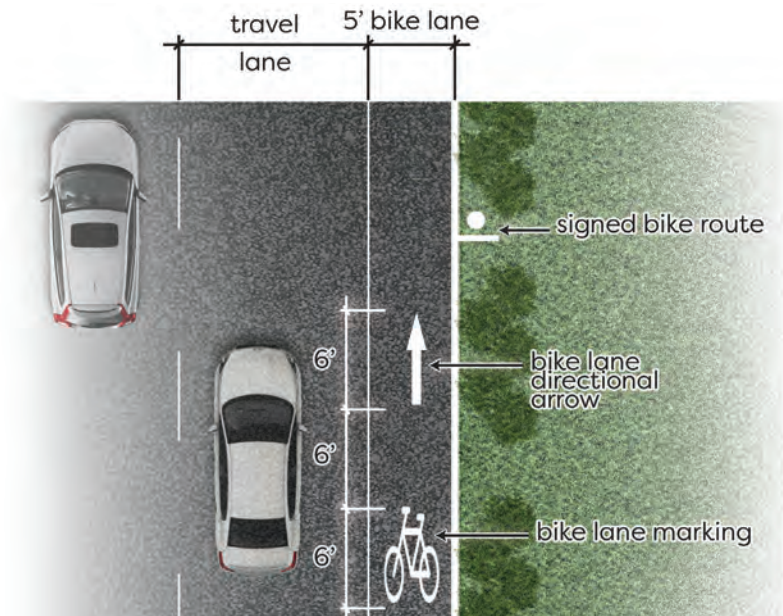


FIGURE 5.6: TYPICAL BUFFERED BIKE LANE

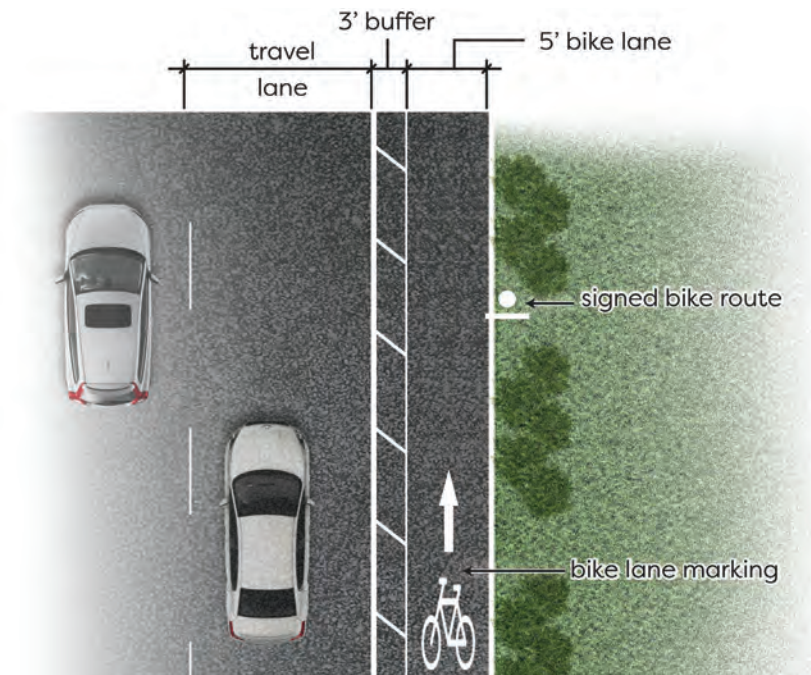
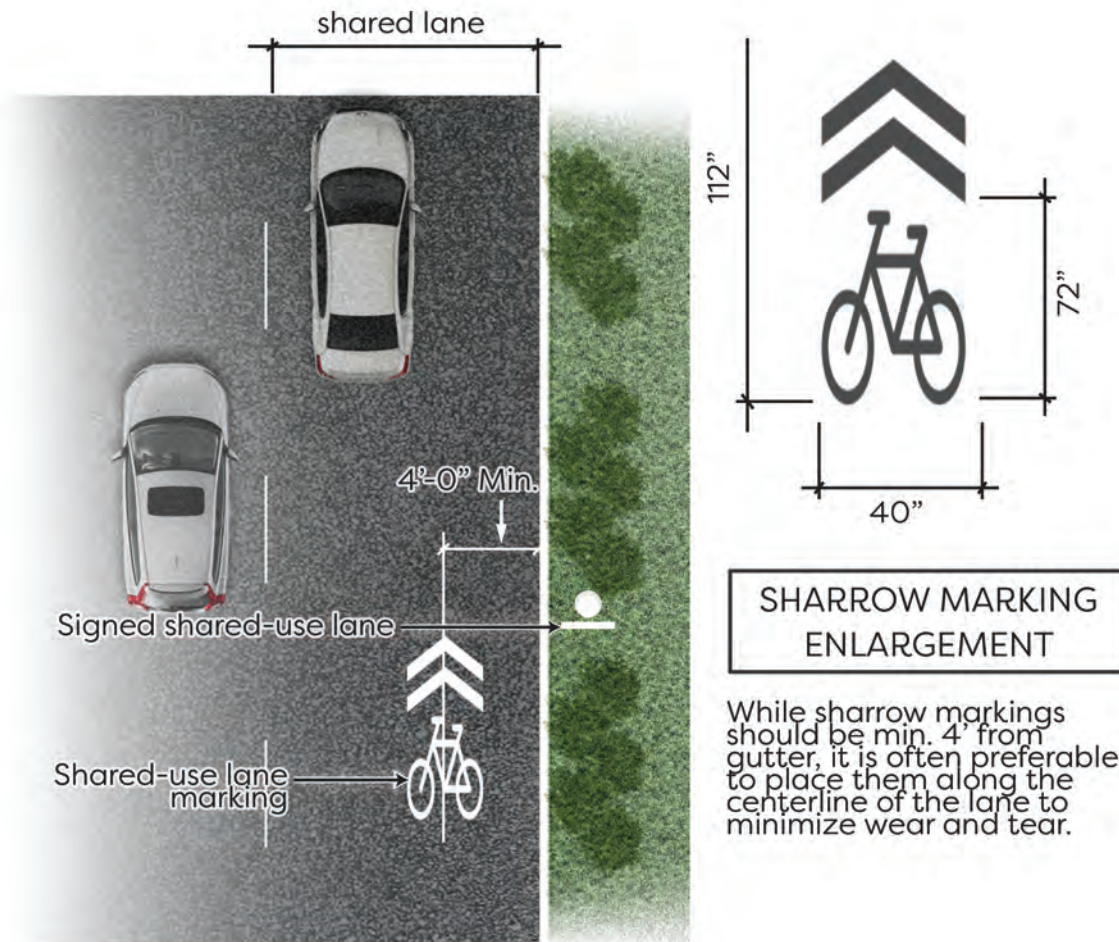


FIGURE 5.7: TYPICAL SHARED-USE LANE



SHARED-USE LANES

Shared-use lanes are when a lane on a street is designed for both drivers and people on bicycles. The designation is usually shown by pavement markings and/or signage. This accommodation is typically used on a street with a relatively low travel speeds (less than 35 mph) and relatively low volumes since there is no physical separation between the cyclists and motor vehicles.

Roadway Lane Width

Bike lane width that supports shared-use should meet or exceed 14', not including the curb and gutter where they exist. If the lane is less than 14', then cyclists may ride in the middle of the lane. If the lane is 14' or greater, state law dictates that the cyclist must ride near the curb.

Shared-Use Markings

Shared-use lane markings should be located a minimum of 4' from the curb on roadways without on-street parking and a minimum of 5' from the outside of the parking lane on roads with on-street parking. Markings should occur immediately after intersections and at intervals of not greater than 250' unless otherwise required by the Town.

Signage

Signage should be provided along shared-use lanes. Required signage includes 'Share the Road' and 'Bicycle May Use Full Lane' signs, which alert motorists that they may encounter people on bicycles and encourage respectful shared use of the roadway.

Signed Route Considerations

Signed route considerations for residential streets with low speeds and low volumes should have signage without accompanying pavement markings. This would include 'Share The Road' and 'Bicycle May Use Full Lane' signage.

BIKEWAY INTERSECTION TREATMENTS

Intersections are the point where multiples modes of transportation meet, facilities overlap, and should be designed in a safe and efficient matter. At a minimum, intersections should clearly imply how to navigate the intersection for all users through signalization, pavement markings, aligning turning movements, and providing logical routes. Some best practices for intersection treatments related to bikeways include:

Bike Boxes

Bike boxes can be used at intersections where there is not enough width to continue a separate bike facility and a designated right-turn lane. Bike boxes are defined spaces at the head of signalized intersections which provide safe, comfortable, and visible spaces for people on bicycles at intersections. To effectively communicate the purpose of the bike box, appropriate signage and pavement markings are required.

An ingress lane within the bike lane, defined by colored pavement, should be provided as cyclists approach the bike box at intersections. Change in pavement color alerts riders of approaching intersections and community cyclists' priority to motorists. Signage such as 'Stop Here on Red', 'Yield to Bikes' and 'No Turn on Red' are examples of informative signage directing users how to share the roadway at these types of intersections.

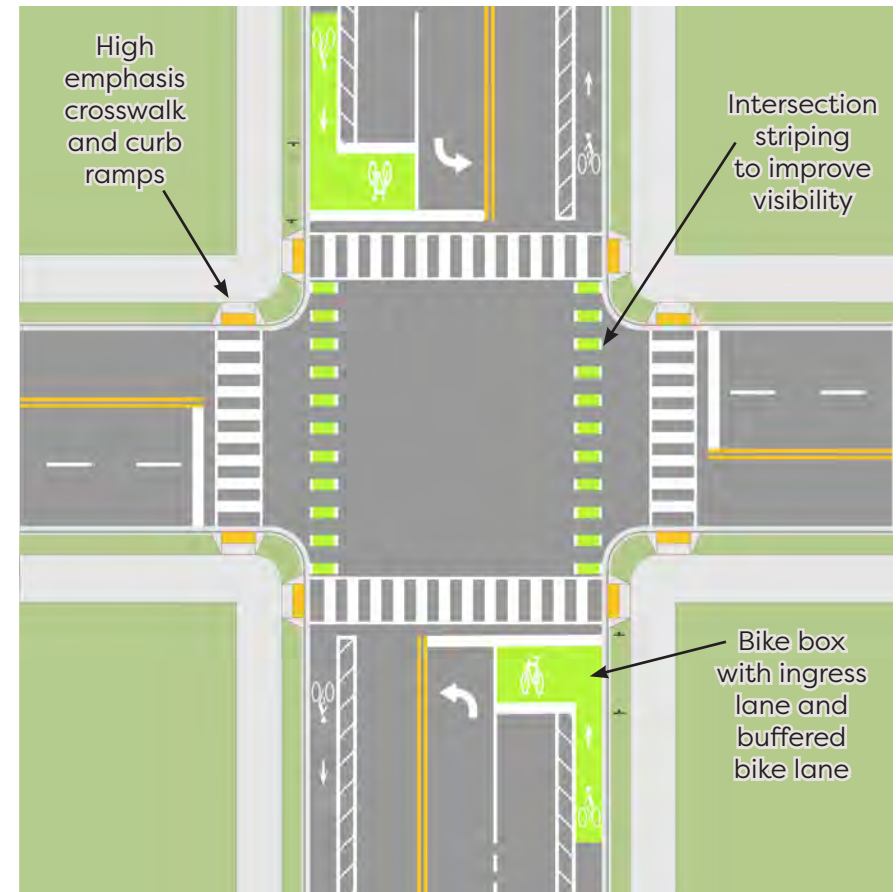
Driveway Crossings

Driveway crossings may include additional elements such as color, signs, signalization, and pavement markings. Continuing marked bicycle facilities at driveway intersections ensures that separation, positioning, and awareness is maintained through the intersection conflict areas.

OTHER CONSIDERATIONS

On-street bikeways should be safe and usable; they should have a smooth surface, uniform width, and should be free of encroachments and bumps such as utility lids, wide cracks, and longitudinal joints. Grates should be bicycle-safe without longitudinal openings to avoid tires being stuck. The use of uneven surfaces such as brick, pavers, or stamped concrete is not recommended along on-street bikeways.

FIGURE 5.8: TYPICAL BIKE BOX TREATMENT



PADDLING TRAILS

A well-designed paddling trail network should include consistent signage and branding, various launch points, and amenities for users of various skill levels, interests, and comforts.

LAUNCH POINTS

Launch points should take into consideration cost, topography, and accommodate expected volume of users. Launch points can be unimproved locations on shallow beaches or easily accessible creeks. Using this type of launch point can increase access quickly, however, may lack formal amenities that draw users to the site, such as parking and restrooms. More formal launch points can also be installed where there are existing motorized boat launches, however, special consideration should be given to the location of these launches to best reduce conflicts between paddle users and motorized boats. An informational kiosk should be provided at all launch points. Each kiosk should include information regarding waterway conservation, ethics, route guidance (including length and difficulty), and rules for paddling. Signage directing people to the launch points should be provided to increase awareness of the facility.

SIGNAGE/MARKERS

Signage and markers are important for a waterway system. Signage should guide paddle trail users, provide information for all waterway users to inform them of potential conflicts, and guide people on the water to other launch points and destinations. Signage at launch points can provide safety information, encourage the use of personal flotation devices, and provide emergency information. The TPWD has paddling trail markers that can be installed along the route. Trail markers can be installed on posts along the shore, or in the water attached to buoys.



TPWD PADDLING TRAIL TYPICAL SIGNAGE

Image Source: Texas Parks and Wildlife

CONNECTORS

As presented in Chapter 4, connectors are sidewalks that fill a gap in the trail network where limitations for a wider facility exist. This section describes the design objectives for pedestrian facilities, such as connectors, including:

- Location of the sidewalk to be within, or parallel to the right-of-way within a pedestrian easement, with a buffer from vehicular traffic, preferably at least 2' wide.
- Crossings at intersections should be given priority considerations to improve safety and reduce potential conflicts.
- ADA compliant ramps should be placed at intersections, driveways, and roadway crossings.

WIDTH

Connector width is important when designing Town Connectors. Because connectors are used to improve system connectivity and higher pedestrian volumes are anticipated, the desired width is 8'. The minimum acceptable width for a connector is 6' where there are existing constraints such as right-of-way or utilities. All new connectors and improvements to existing connectors should be widened to the greatest extent possible.

INTERSECTION TREATMENTS

Intersection treatments are needed to ensure safety at conflict points. It is recommended that pedestrian crossings at roadway intersections and driveways be designed in a manner that reinforces the right-of-way of pedestrians and prioritizes their safety. To reduce conflicts at intersections, the corner radius for a 90-degree intersection should typically be 15'. Curb extensions can better align crossings at intersections, force vehicles to make slower turns by reducing turning radii, and improve visibility for pedestrians crossing the street.

STANDARD PEDESTRIAN CROSSINGS

Standard pedestrian crossings use a combination of pavement markings, signals, and accessible ramps to cross intersecting streets with two-way traffic. Highly visible 'zebra' pavement striping is recommended as they better alert motor vehicles to yield to pedestrians. Routine maintenance of the crosswalk striping is recommended to ensure they are visible.

ENHANCED CROSSWALKS

Enhanced crosswalks may use a combination of pavement markings, pavement materials, mid-block crossing islands, and pedestrian signals such as rapid flashing beacons or pedestrian hybrid beacons to increase driver awareness of pedestrian activity and increase comfort of walkers.

DRIVEWAY CROSSINGS

Driveway crossings along major and minor thoroughfares should be designed to provide safety for pedestrians. Sidewalks and sidepaths should be set back from the back of curb at a sufficient distance to avoid crossing driveway aprons to maintain existing cross slopes and meet ADA accessibility standards. The Town should evaluate its driveway spacing and access management standards in order to improve the pedestrian realm and reduce conflicts between pedestrians, bicyclists, and motor vehicles.



ENHANCED CROSSWALKS

INTERSECTION CONSIDERATIONS

A well-designed intersection facilitates the movements in a safe and efficient manner. Conflicts between uses should be reduced by heightened visibility, denoting clear roadway use through signage and pavement markings, and by ensuring users are aware of each other.

MEDIAN REFUGE ISLANDS

Median refuge islands are protected spaces positioned in the center of the roadway used to facilitate bicycle and pedestrian crossings by having an additional protected stop when crossing at an intersection. This treatment is most appropriate for roadways with higher volumes, faster speeds, and wider pavement widths. Refuge medians reduce crossing lengths, increase visibility of crossing movements, calm traffic through physical design, and prioritize crossing movements. Medians should be a minimum of 6' in width, be well lit, and if any vegetation is included it should be low to improve visibility. Median refuge islands are preferred at signalized intersections, however they can also be a treatment for mid-block crossings.



CURB RAMPS

Curb ramps should be designed for the use of mobility devices (including scooters, walkers, and crutches), provide direction and guidance for roadway crossings, and meet all ADA and PROWAG standards. One curb ramp should be provided for each crosswalk, which usually translates to two per corner, and one on each side of the crosswalk. This provides direction and reduces crossing distances as opposed to when there is one crosswalk per corner. Curb ramps should be sloped to provide a smooth transition from sidewalk to crosswalk. In some cases, curb extensions can be installed to better align crosswalks, reduce crossing distances, and slow turning movements for vehicles.

TRAFFIC CONTROL SIGNAGE

Traffic control signage should indicate crossing features for all roadway users based on guidance from the MUTCD. Signage should be highly visible and capture the attention of all users approaching the crossing area. Intersections can be further enhanced by flashing beacons, pavement markings, or change in pavement material. It is important to note that placing too many traffic control devices at one crossing can be overwhelming and may result in the loss of impact.



CROSSWALKS

Crosswalks should be clearly marked and highly visible. Where a crosswalk is signalized, leading pedestrian signals and longer walk signal times can improve accessibility for pedestrians. To minimize conflicts, other pedestrian crossing tools can include protected only left-turn phases, prohibiting right turns on red where sight lines may be reduced or where a leading pedestrian interval is used, and signage to remind drivers to yield to pedestrians. Intersections can include raised crosswalks to slow vehicles and improve visibility of pedestrians. Additional considerations should be included for pedestrians that are visually or hearing impaired. Implementing elements such as Accessible Pedestrian Signals (APS) with integrated audio devices, detectable warning surfaces or tactile pavement, and flashing lights can aid in creating a safe and comfortable pedestrian crossing environment.

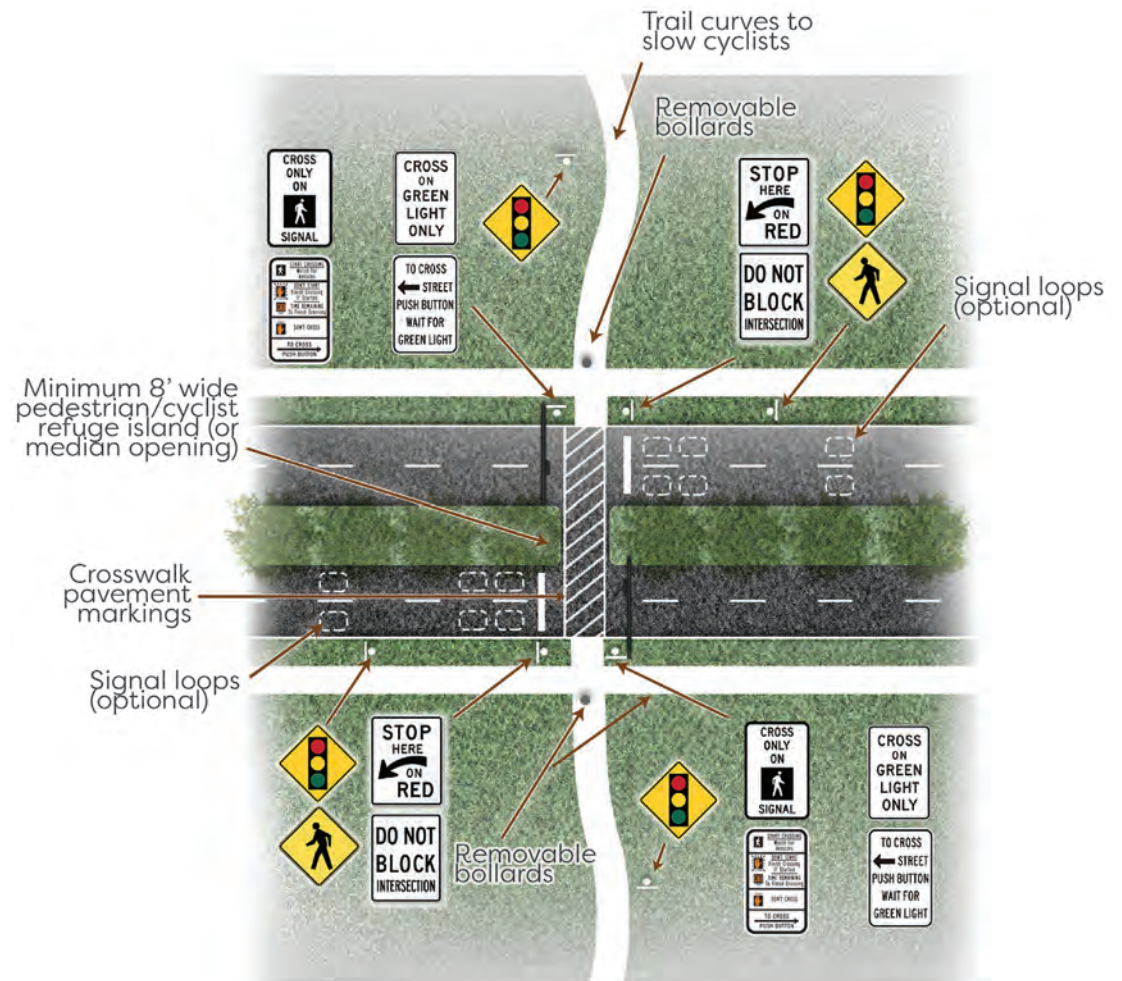
MID-BLOCK CROSSINGS

Where a trail crosses a roadway not at an intersection, special consideration should be given to inform drivers that someone may cross the road. [Figure 5.9](#) shows typical treatments for mid-block crossings, including rectangular rapid flashing beacons (RRFB), pavement markings, and signage. Local roads may not require a RRFB due to lower roadway speed and volumes. In some cases, the mid-block crossing area can be raised in order to provide a flat crossing surface and slow automobiles at the crossing area.

RECTANGULAR RAPID FLASHING BEACONS

Rectangular Rapid Flashing Beacons (RRFB) are highly visible traffic control devices that help alert motor vehicles of mid-block crossings. RRFB's include rectangular lights that flash at an irregular pattern when pressed by pedestrians crossing the street. These lights are positioned below a crossing sign and above a crosswalk arrow. The sign is pedestrian activated, typically by using a push button. The crossings can be accompanied by advanced signage and stop lines on each side of the intersection to alert drivers to the upcoming mid-block crossing.

FIGURE 5.9: MID-BLOCK CROSSING



TRAIL FEATURES

Trail features can enhance the overall user experience of a trail. This includes improved access, signage, and amenities to support users along the trails. This section details trail amenity features to be considered when designing trails throughout the town. The Parks and Recreation Department will need to determine the placement of each amenity type throughout the network based on the intended goals of each trail.

TRAILHEADS

Trailheads are located at key entrances to the trail system allowing users to access a trail, including within community parks and major destinations. Features typically found at a trailhead include:

- Parking: A minimum of 10 spaces for major trailheads and five spaces at minor trailheads. Shared parking should be encouraged where appropriate.
- Restrooms are appropriate at major trailheads
- Informational Signage should include a larger kiosk with a map, rules and regulations, contact information
- Lighting promotes safety and accessibility.
- Amenities could be provided at all trailheads benches, trash receptacles, bike rack, drinking fountains, and bike repair stations

The typical trailhead amenities described here are appropriate for enhancing existing trailheads as well as to guide required amenities for future trailheads. [Figures 10](#) and [11](#) show how major and minor trailheads can be designed.

TRAIL ACCESS POINTS

Trail access points are locations along an off-street trail where users can access a trail. Access points can be found at parks, trail intersections, or minor destinations. Typically, they consist of a brief, paved spur that connects to an existing sidewalk. Trail markers and directional signage should aid users in wayfinding. Additional trail amenities at trail access points are not required.

TRAIL SIGNAGE

The trail network should be identified by consistent signage. Branding is covered in more detail later in this section.

FIGURE 5.10: EXAMPLE MAJOR TRAILHEAD



FIGURE 5.11: EXAMPLE MINOR TRAILHEAD



TRAIL AMENITIES

BIKE RACKS

Bike racks allow trail users to safely secure their bicycles while stopping at destinations along the trail, such as parks and entertainment centers. Bike racks should be located at trailheads and where the trail intersects with key destinations.

BIKE REPAIR STATIONS

Bike repair stations are self-service stations that include tools to perform basic repairs and maintenance to bicycles, including filling deflated tires or changing a flat tire. Such stations should be placed near bicycle parking found at key destinations like parks, schools, and commercial areas.

PARKING

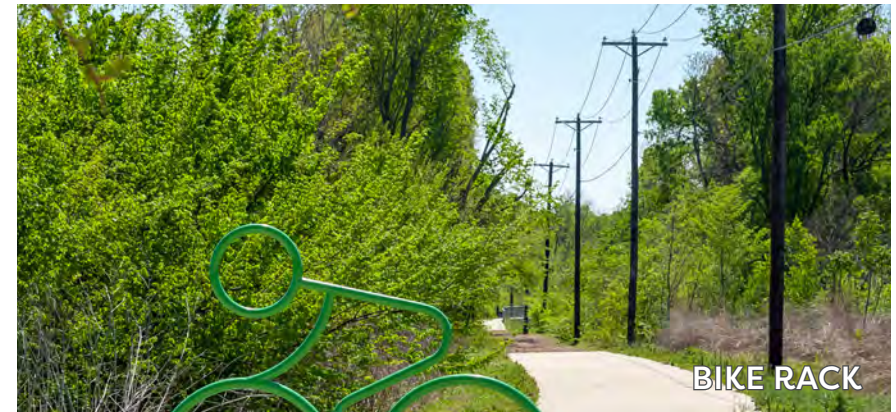
Parking should be provided at all trailheads, with a minimum of 10 spaces. Providing parking allows residents who cannot walk or bike to the trail network the ability to utilize the trail system. Alternative ADA accessible parking surfaces, such as permeable pavement or pavers can be considered where appropriate for parking areas.

TRASH RECEPTACLES

Trash receptacles improve the overall cleanliness of the trail system. They allow users of the trail to dispose of trash in areas where there is a demonstrated need. Typically, these are found only at trailheads. Pet waste stations should be provided along the trail at regular intervals for the easy disposal and collection of pet waste.

SEATING

Seating such as benches, provide respite points along the trails. They should be placed at regular intervals along trails along with other amenities such as hydration stations and trash receptacles.



BIKE RACK



WASTE RECEPTACLES



BIKE REPAIR STATION

SHADE

Shade should be provided where possible along the trail to provide comfort and cooling along the trail during the summer months. Shade trees should be placed along trails at regular intervals, but it is important that they remained trimmed to maintain at least ten feet vertical clearance from the trail. Where shade trees cannot be placed due to constraints, shade structures can be included near benches, trail markers, scenic viewing points, and other resting places along the trail.

HYDRATION STATIONS

Drinking fountains or water bottle fill stations provide trail users and their pets hydration opportunities while using the trail. Hydration stations should be located at trailheads where there is existing water infrastructure to connect to, such as at parks. Otherwise, there is a risk that the water can become stagnant with little use.

FITNESS STATIONS

Fitness stations placed along trails are particularly useful for joggers and cyclists seeking to stretch, warm up, and cool down before or after a run or bike ride. Similar to those located within a park, a fitness station offers trail users an opportunity to engage with static exercise equipment and further their health goals.

INFORMATIONAL KIOSKS

Information kiosks should provide information on amenity locations, trail rules, trail distances, and regulations. They should be placed at all trailheads to convey trail information and provide a sense of place and safety for trail users.



INFORMATIONAL KIOSK



HYDRATION STATIONS



FITNESS STATIONS

TRAIL BRANDING

SIGNAGE

Signage is typically provided at trailheads and at key decision-making points along a trail. Signage can mark access points to the trail, provide directional and distance guidance for trail users, direct users to locations of key amenities along the trails, and provide brand recognition of the trail system. Signage can help identify and brand a trail for users.

FIGURE 5.12: BRANDING CONSIDERATIONS



WAYFINDING

Wayfinding helps trail users identify their location on a trail or bikeway, distance to key destinations, and provides directional and distance guidance for preferred routes. Wayfinding can be provided along trails or bikeways by using MUTCD approved signage. Wayfinding includes maps, directional signage, mile markers, and trailhead markers.

MAP

Maps should be included at all major and minor trailheads to help identify the trail network and branded segments.

DIRECTIONAL

Directional signage guides users of the trail system. It provides them with mileage, location information, and directions. These should be placed at trailheads and major trail access points to help guide trail goers along the trail.

TRAILHEAD MARKERS

Trailhead markers are located at trail access points. They can also be located where a trail meets a street right-of-way, where an access point into the trail system is located. They should include the trail and intended users of the trail.

MILE MARKERS

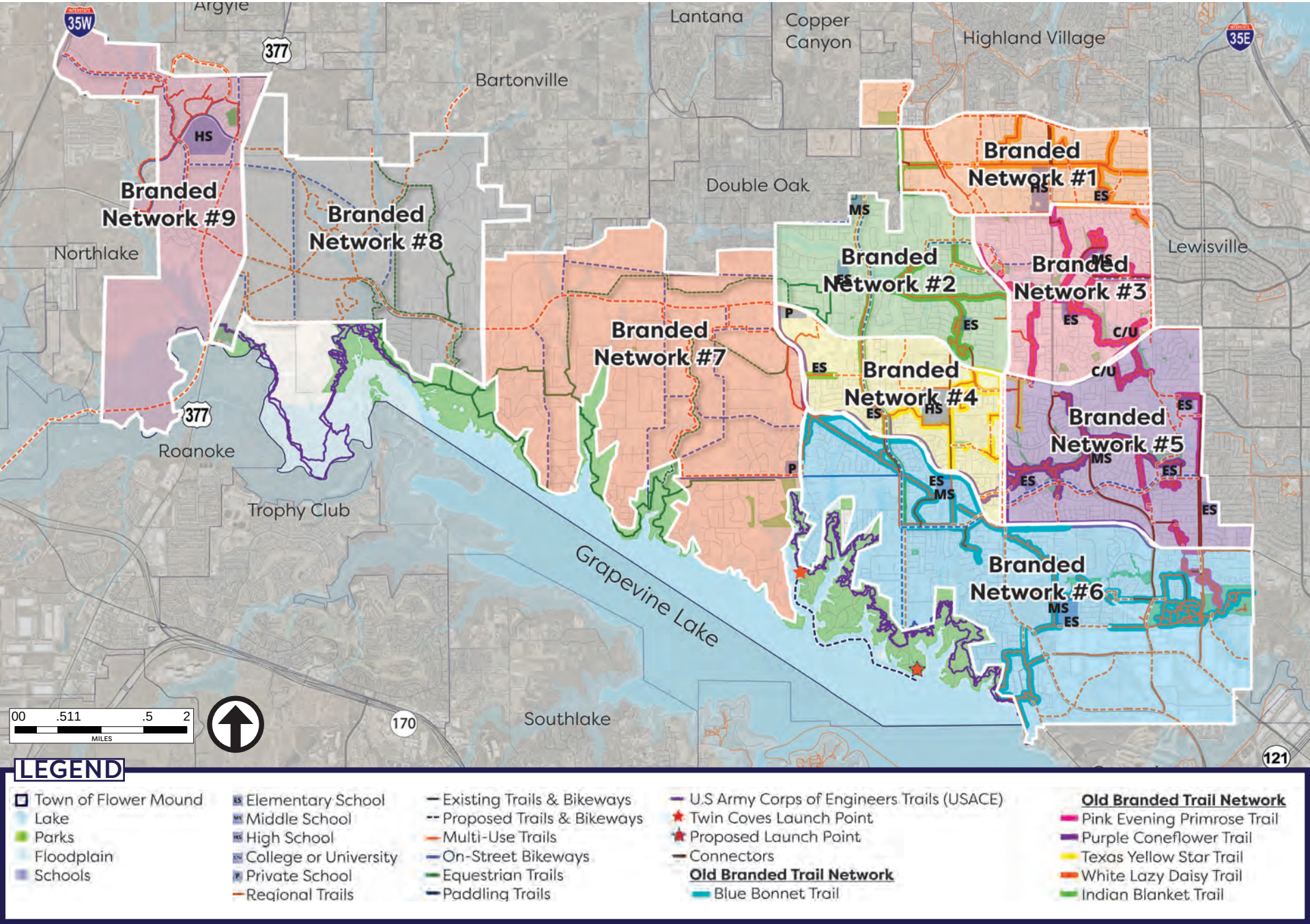
Trail markers should be placed at regular intervals along the trail to identify mileage, provide direction, and provide location information for emergency situations. They can help users be informed as to how far they've traveled. At a minimum, trail markers should be installed at every trailhead, trail access point, and trail intersection, however, trail markers should ideally be placed along the trail at $\frac{1}{4}$ to $\frac{1}{2}$ mile intervals.

DIGITAL SIGNAGE CONSIDERATIONS

A QR code can be included on all signage, which can take a trail user to a website to track where they are located on the trail network. A QR code is a matrix that is readable by a phone camera, and is linked to a specific website.



FIGURE 5.13: RECOMMENDED TRAIL REGIONS OF FLOWER MOUND



FUTURE BRANDING NAMES

The current branding system for the Flower Mound trails system is based on North Texas wildflowers. To help facilitate clear wayfinding while on the trails, [Figure 5.13](#) represents new proposed networks for branded trails in Flower Mound. As Flower Mound grows and more trails are constructed, this will help create clear guidelines on which branded system new trails would fall into. These networks are based off of major roadways and geographies. Using this system to identify new branded trail corridors and rename existing ones helps with overall branding and placemaking along each trail segment and maintenance needs.

Additional trail names need to be considered as more trails are constructed in rural and undeveloped areas of the Town.

New branded networks can build on the Texas wildflower theme. A list of potential trails include:

- Goldenrod
- Winecup
- Sunflower
- Basketflower
- Rain Lily
- Prickly Pear Cactus

Another option for new networks can enhance the nature theme by using plants found in the natural environment. Examples include:

- Texas Sage (shrub)
- Trumpet Vine (vines)
- Post Oak (tree)



RAIN LILY



BASKET FLOWER



SUNFLOWER

SAFETY AND SECURITY

LIGHTING

Lighting is important to consider when designing trails. Properly installing and maintaining lighting along a trail improves safety for trail users at dawn and dusk and in dark spaces such as densely wooded areas and underneath roadway overpasses. Lighting can improve visibility, increase access and convenience, and give trail users a sense of safety when using trails outside of daylight hours. Because nighttime etiquette is not always followed, proper lighting can help to increase visibility of trail users and reduce the likelihood of crashes. AASHTO recommends lighting to be installed in tunnels or overpasses, at trailheads, at bridge entrances and exits, at public gathering places, along streets, at crosswalks, at path intersections, and to illuminate key signage.

BRIDGES & LOW WATER CROSSINGS

Bridges and low water crossings should be designed by a Texas Professional Engineer and meet all Town or State established engineering standards. Low water crossings should not exceed four feet from the path to the waterway flowline unless otherwise approved by the Town Engineer. Any crossing exceeding this separation will require a bridge to ensure the trail meets all accessibility requirements. For creek crossings that require a short span, box culverts can be used with handrails.

TRAIL SAFETY RAILINGS

Safety railings should be provided where there is significant topography changes within five feet of the trail shoulder. The top of the railing should be a minimum of four feet higher than the trail surface. Railing should be horizontal to avoid catching bicycle handlebars and should be constructed in accordance with the latest International Building Code regulations.

WEB BASED TRAIL SAFETY

Web based trail safety is when there is a downloadable smart phone application (app) that can help a resident track their location on the trail system. The app can be used in tandem with trail signage to allow a trail user to identify their location in case of emergency. In addition to the app, QR codes to connect users to websites and maps to identify where they are on the trail system. There may be strategic locations to provide wireless internet services for trail users, such as in parks or at major trailheads.



MAINTENANCE

Trails and bikeways should be regularly maintained to ensure they meet vertical and horizontal clearance requirements, they are free of debris, and maintain their integrity.

MOWING AND LANDSCAPING

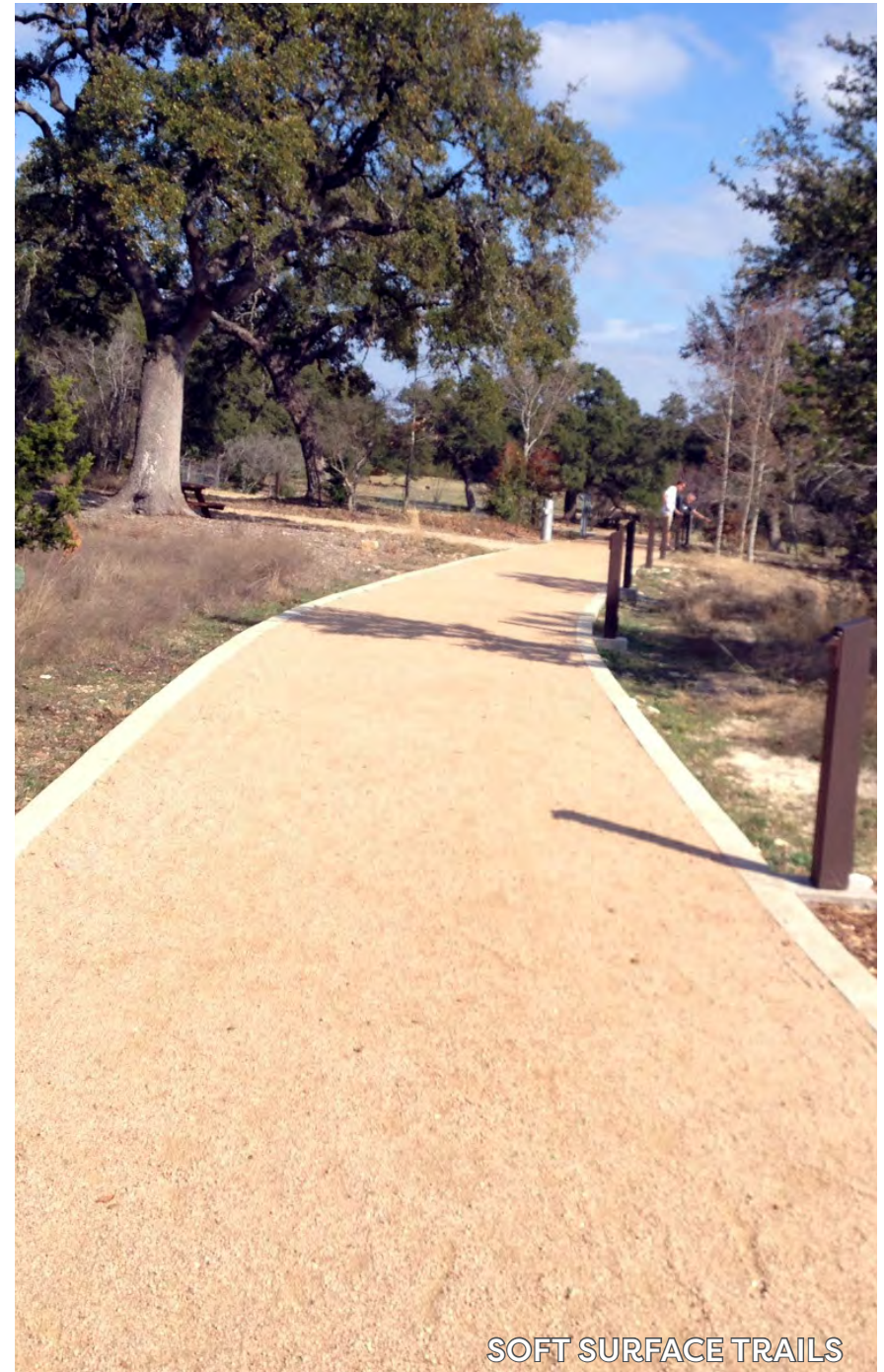
In order to ensure there is no debris or obstructions encroaching on trail surfaces, routine mowing and weed wacking is recommended. Removal or "cutting back" of vegetation in the clearance zones is required to maintain a safe environment along the trails.

SOFT SURFACE TRAILS

Soft surface trails should be maintained regularly to ensure they meet ADA requirements, have a compact surface, and are free from debris and animals such as snakes. This may need to be done more frequently than for paved trails.

VOLUNTEER GROUPS

Volunteer groups can be utilized to support the Town's maintenance program. The Town can support "Adopt a Trail" or "Friends of the Trail" groups that help with litter clean-up, tree planting, and raising funds for trail amenities. Trail volunteer groups can help with security patrolling along trails and identify maintenance concerns to Town staff.



USING THE TOOLBOX

UPDATING STANDARDS

The design considerations included in this chapter represent guidance for future updates to the Town's development ordinances. Upon adoption of the overall Trails and Bikeways Master Plan, these recommendations should be codified into the Town of Flower Mound Code of Ordinances and the Design Criteria and Construction Manual where applicable.

DEVELOPMENT REGULATIONS

The character and minimum dedication standards related to trails should be updated to reflect this plan's design considerations. The design considerations included in this chapter represent guidance for future updates to the Town's development ordinances. Examples where updates should be considered include Land Development Regulations Article V, Division 5: Sidewalks and Subdivision Regulations Article 6 Division 8: Parks and Recreational Areas. Both sections should be updated to reflect the standards in this document, including width of sidewalks and trails, and trail classifications. An audit of the existing regulations can identify other necessary amendments to implement this plan.

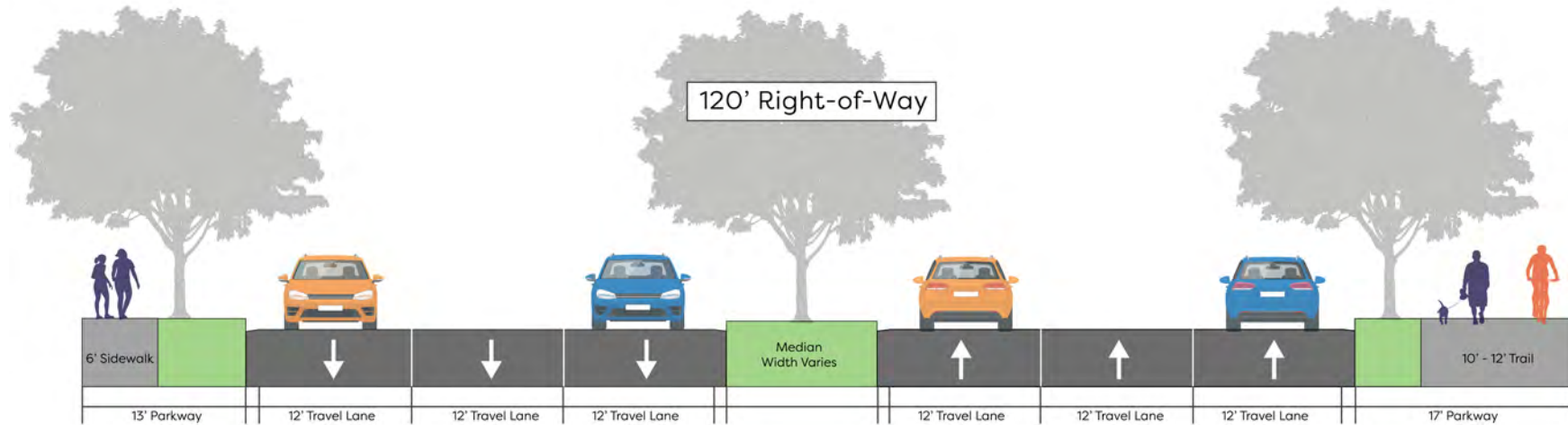
INTEGRATION WITH THOROUGHFARE PLAN

The Town Thoroughfare Plan was last updated in 2013, however minor amendments have occurred since then. The plan specifies a variety of thoroughfare types, each with its own function and typical cross-section. Some of the cross-sections include specifications on the type and width of trail, pedestrian, or bikeway facility, but not all of the cross-sections address these multi-modal facilities. In order to better accommodate trail and bikeway facilities into future updates of the thoroughfare plan, modifications to the roadway cross-sections should be considered. [Figures 5.14 - 5.25](#) on the following pages depict possible updates to the cross-sections as they exist today to more fully integrate trail and bikeway accommodations as recommended in this master plan. The following cross-sections are proposed modifications to the cross-sections from the Town Thoroughfare Plan. These recommendations may need to be modified as necessary to account for existing conditions and constraints. Nothing in this plan should prohibit or limit the use easements or landscape buffers outside of the right-of-ways to enhance or improve the location of trails along roadway corridors.

ENGINEERING DESIGN STANDARDS

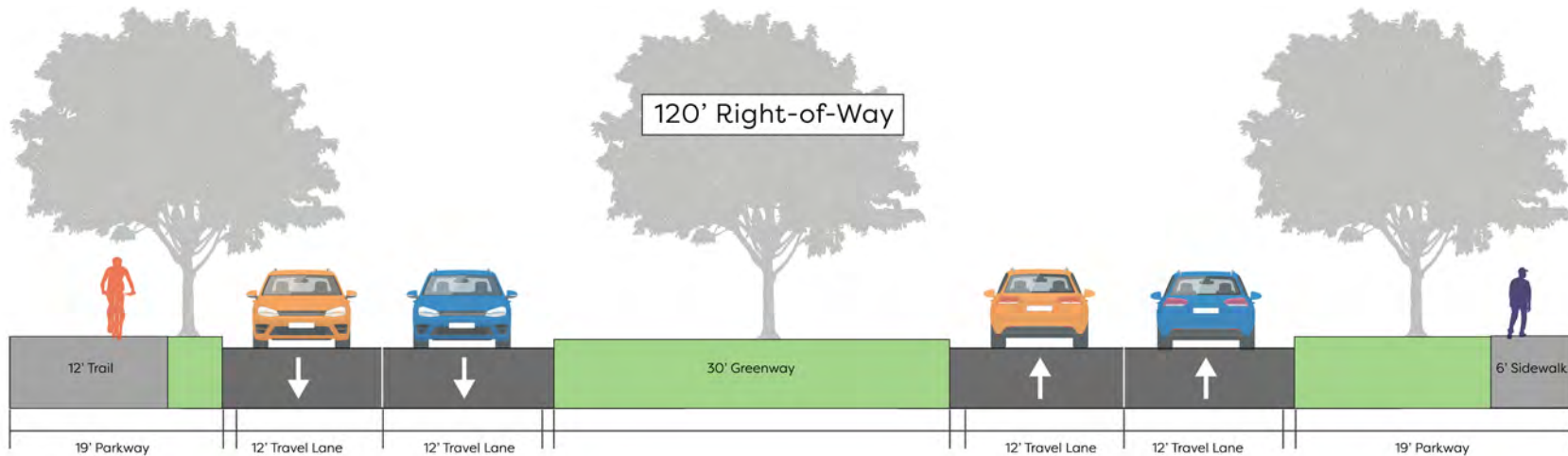
The thoroughfare plan is codified through Engineering Design Standards (EDS). The EDS should be updated to reflect recommendations outlined in this plan, including any lane widths, right-of-ways widths, design speeds considerations, driveway spacing to improve the pedestrian realm, and similar topics.

FIGURE 5.14: MAJOR ARTERIAL PROPOSED CROSS-SECTION



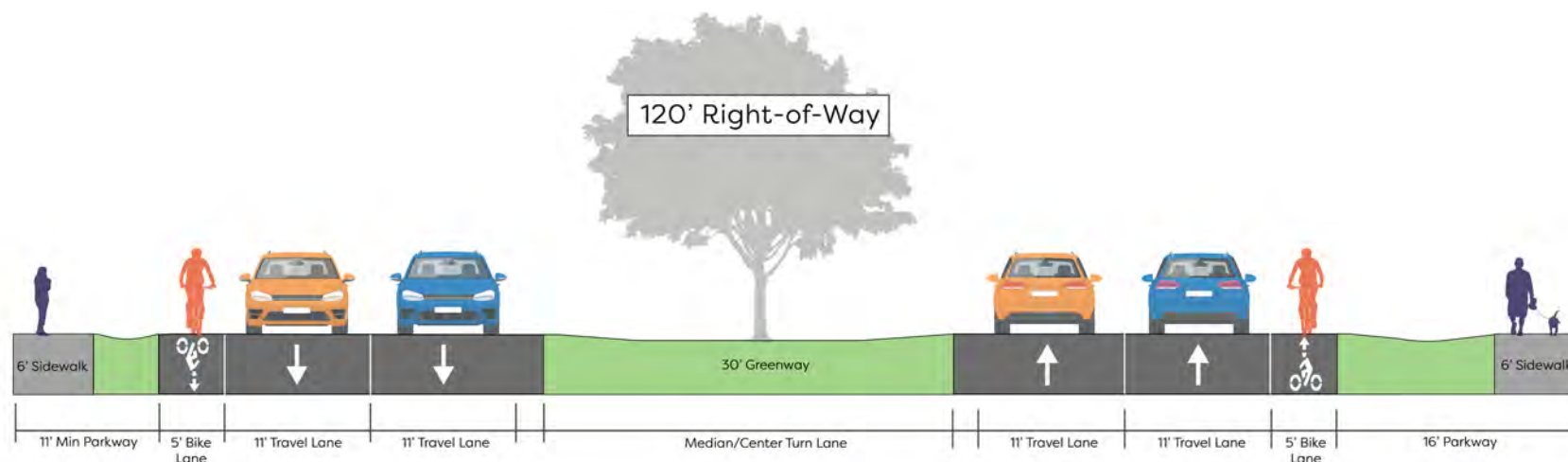
Major arterials include roads such as FM 1171, US HWY 377 and FM 2499. While these roads are mostly built-out, any new construction or reconstruction should consider minimizing the median in order to increase the buffer between pedestrian zones and motor vehicles. The road should also include a 6' wide sidewalk and 12' wide shared-use path where able.

FIGURE 5.15: GREENWAY URBAN ARTERIAL PROPOSED CROSS-SECTION



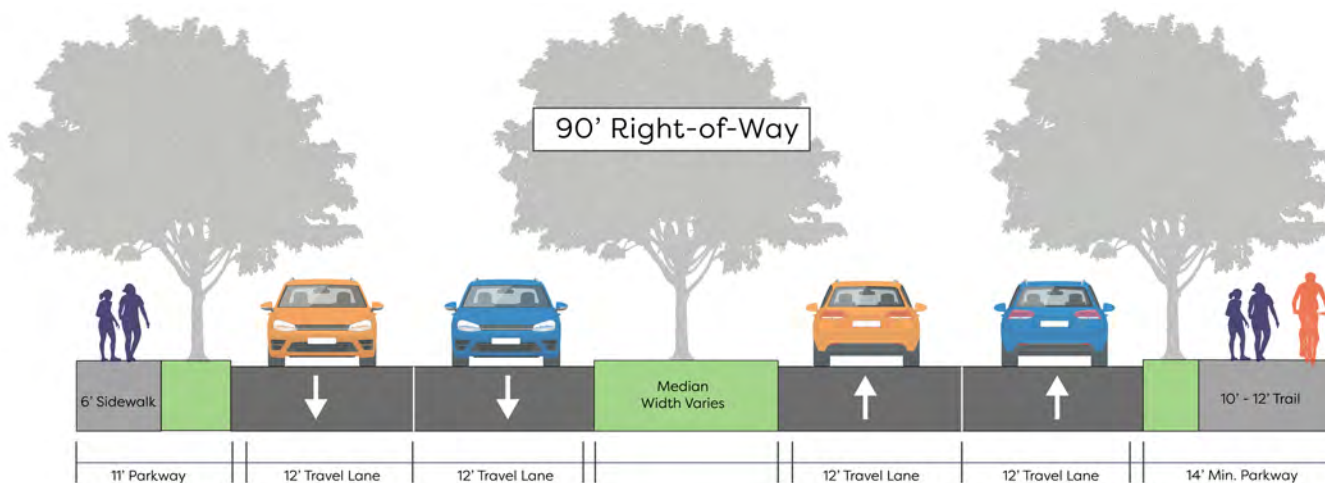
Greenway urban arterials include roads such as Garden Ridge Trail. This corridor should include a 12' wide shared use path where possible in order to create a comfortable shared realm. If the corridor is redeveloped, the median should be reduced in order to increase the width of the landscape buffer.

FIGURE 5.16: GREENWAY RURAL ARTERIAL PROPOSED CROSS-SECTION



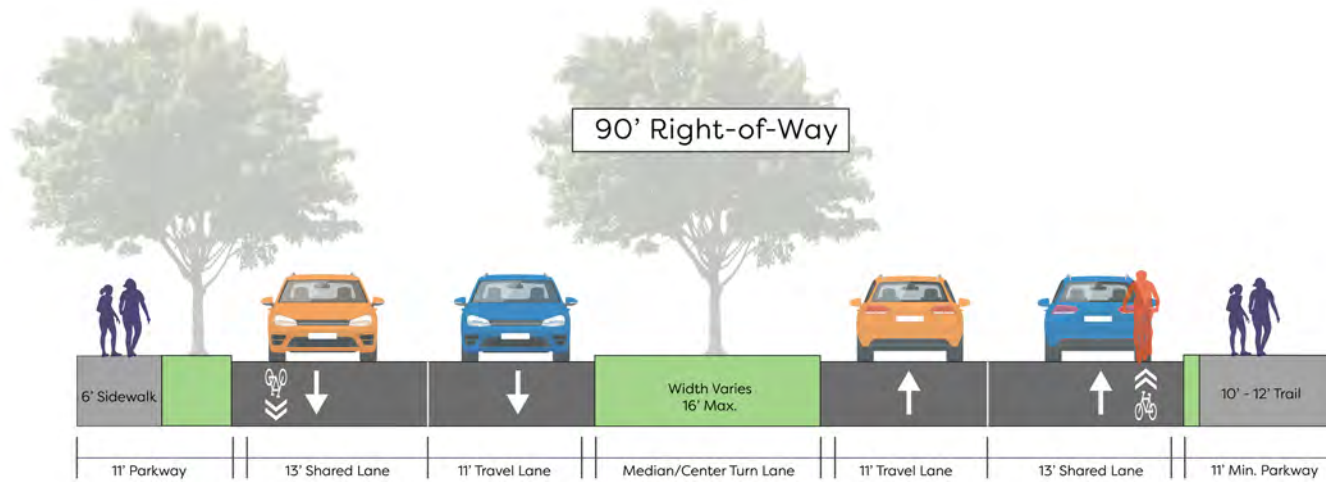
Greenway rural arterials are a future roadway classification in west Flower Mound. This roadway should include a landscaped median/center turn lane, bike lanes on each side of the road, and sidewalks with a minimum width of 6' on each side. If possible, the center turn lane should be reduced to the minimum necessary width in order to widen the parkways for landscape buffers between the sidewalk and motor vehicle lanes.

FIGURE 5.17: URBAN MINOR ARTERIAL PROPOSED CROSS-SECTION



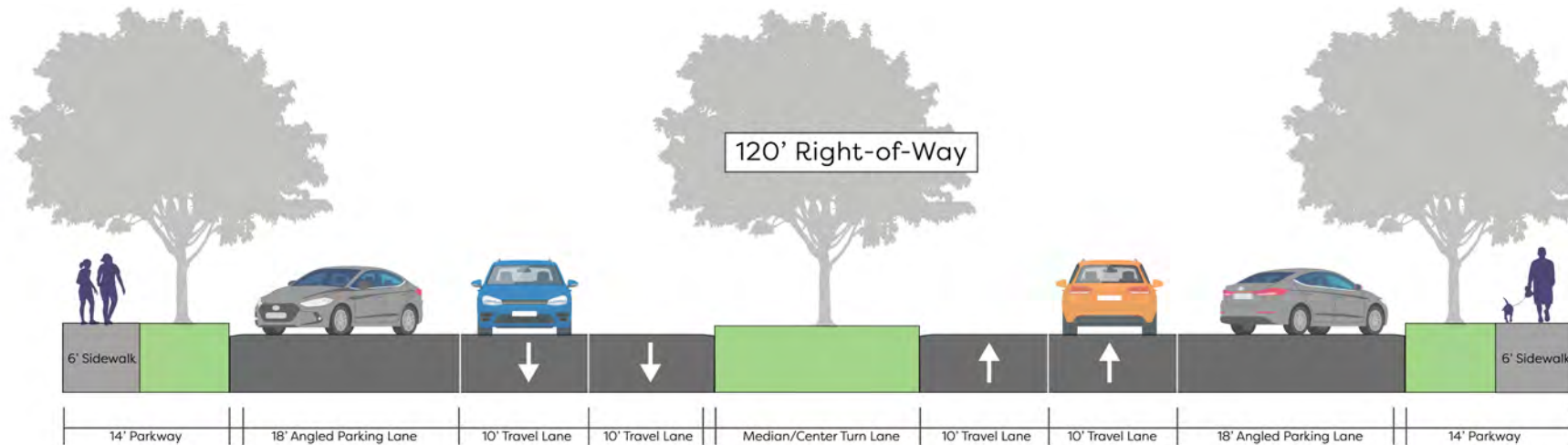
Urban minor arterials include a majority of the built roads in eastern Flower Mound, such as Flower Mound Road and Morris Road which move people and vehicles to destinations throughout the Town. Where able, this roadway cross-section should include a 10'-12' shared use path, a six foot sidewalk, and landscaped medians. It is recommended that when redevelopment of minor arterials occurs, the median be reduced in order to increase buffers and landscaped areas between the pedestrian ways and travel lanes. All new minor arterials should include 100' right-of-ways to ensure there adequate space to accommodate all facilities.

FIGURE 5.18: URBAN MINOR ARTERIAL WITH SHARED LANE PROPOSED CROSS-SECTION



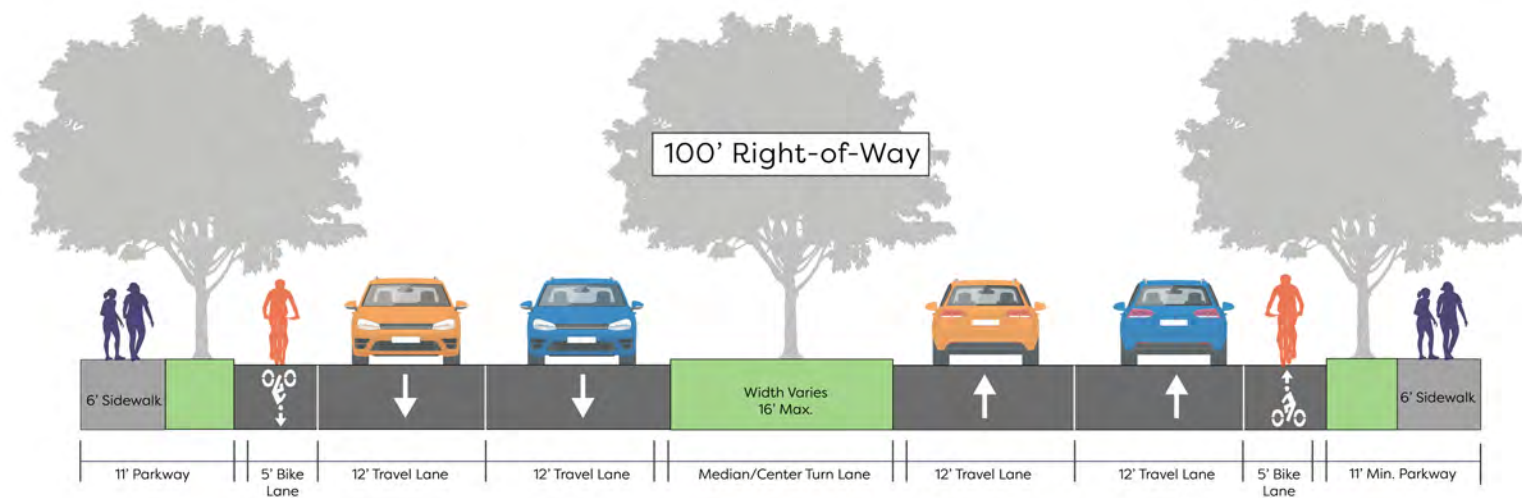
Urban minor arterials with shared-use lane is a new subclassifications of the urban minor arterial. In order to facilitate bicycle movement throughout the city, this roadway can include a shared-use lane by reducing the internal lane width, which allows the outside lane to be 13' with the additional 1' curb and gutter, making the total lane width 14'. This cross-section should include a 6' sidewalk and a 10'-12' shared use path.

FIGURE 5.19: URBAN MINOR ARTERIAL WITH ON-STREET PARKING PROPOSED CROSS-SECTION



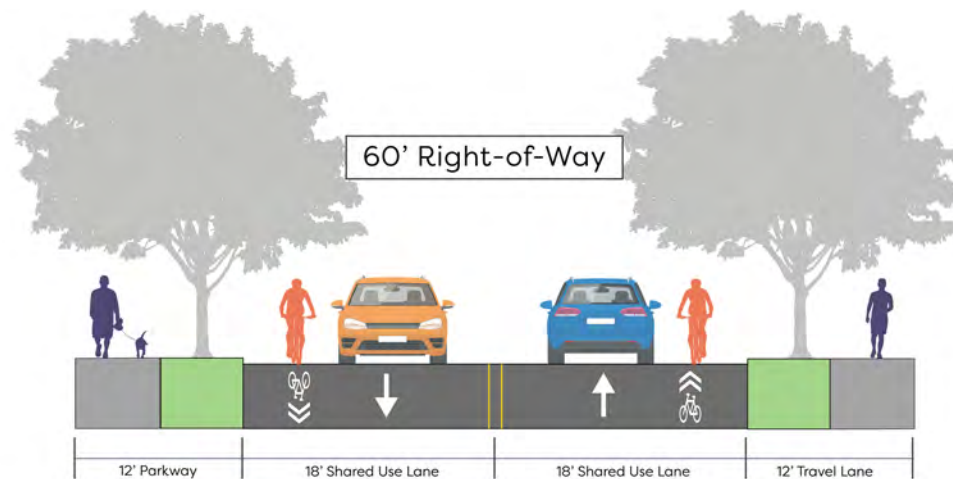
Urban minor arterials with on-street parking are found within the Lakeside Development. These roads are intended to provide parking for the shops and restaurants and provide wide sidewalks to encourage walking throughout the community. No changes have been proposed to this cross-section. Any new roadway segments should consider providing enhanced sidewalks where pedestrian volumes are expected to be higher.

FIGURE 5.20: URBAN MINOR ARTERIAL WITH BIKE LANES PROPOSED CROSS-SECTION



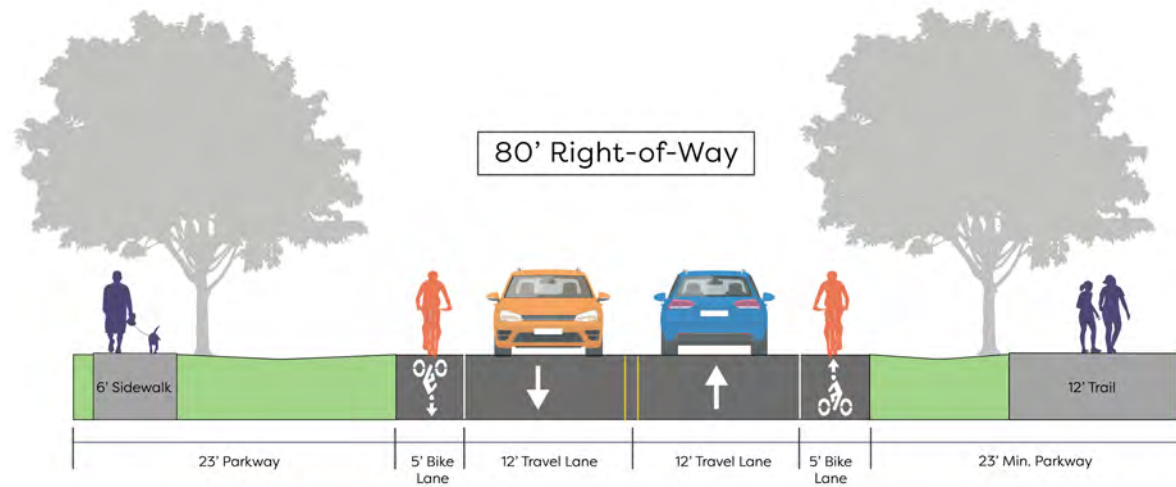
Urban minor arterials with bike lanes include roadways in west Flower Mound, including Canyon Falls Drive and other future corridors in the Canyon Falls Development. This cross-section provides 5' wide dedicated bike lanes, and 6' wide sidewalks on each side of the road.

FIGURE 5.21: URBAN COLLECTOR PROPOSED CROSS-SECTION



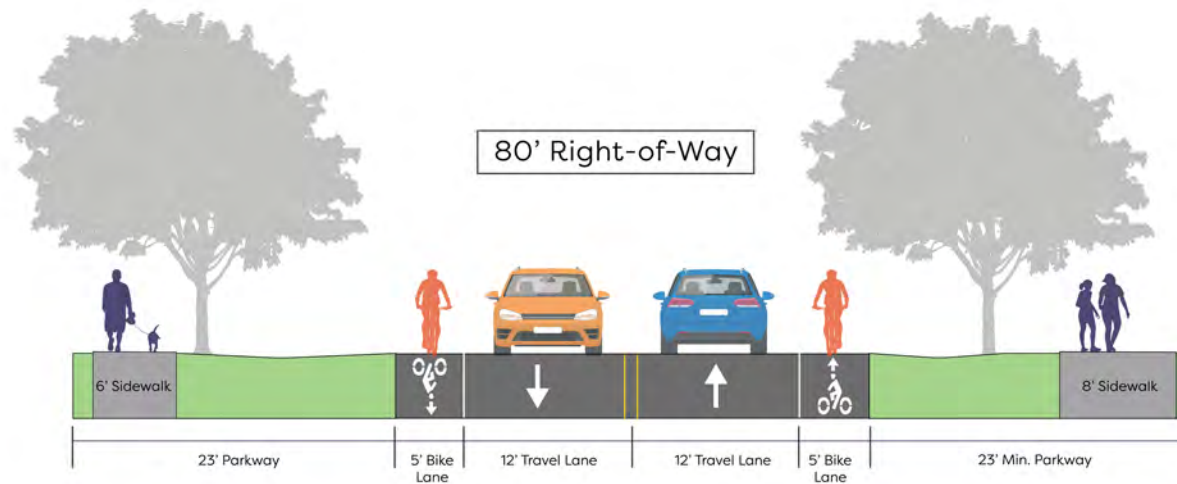
Urban collectors are roads in Flower Mound connect residents to arterial roadways. These include roads like Quail Run, Kirkpatrick Lane, and Lake Forest Boulevard. This cross-section should include shared-use lanes, and 6' wide sidewalks buffered by landscaping. It would be appropriate to consider 5' bike lanes on urban collectors in place of the shared-use lane markings.

FIGURE 5.22: RURAL COLLECTOR PROPOSED CROSS-SECTION - A



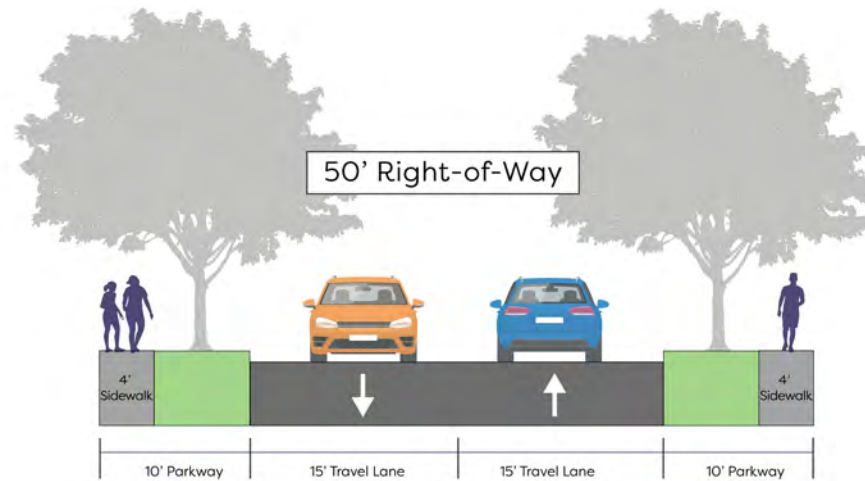
Rural collectors are roads in Flower Mound mainly found on the rural and undeveloped areas of the Town. These corridors should include bike lanes and 6' wide sidewalks. Where identified on the trails master plan, they should also include a 12' wide shared-use path.

FIGURE 5.23: RURAL COLLECTOR PROPOSED CROSS-SECTION - B



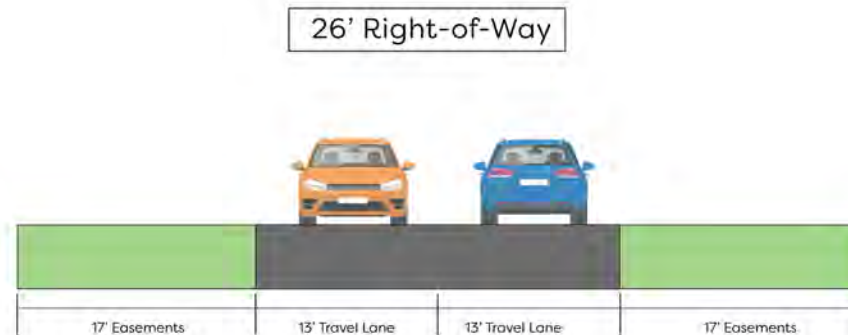
Rural collectors are roads in Flower Mound mainly found on the rural and undeveloped areas of the Town. These corridors should include bike lanes and collectors, with a 6' - 8' wide sidewalks.

FIGURE 5.24: LOCAL RESIDENTIAL URBAN PROPOSED CROSS-SECTION



Local residential urban roads are primarily residential roadways. There are no recommended changes to this cross-section. These roads can be considered for shared-use path signage due to the lower speeds and volumes. There should be connectivity from residential streets to the town-wide trails and bikeways system.

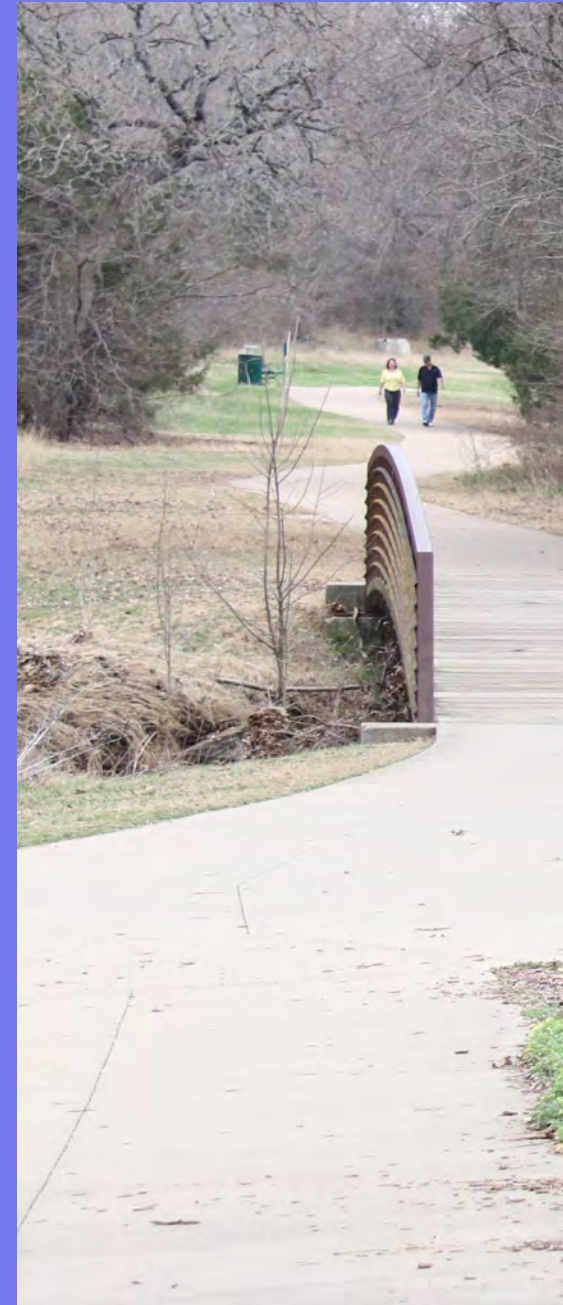
FIGURE 5.25: LOCAL RESIDENTIAL ESTATE PROPOSED CROSS-SECTION



Local residential estate roads are mainly local roads within large lot subdivisions. There are no recommended changes to this cross-section.

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Corridor Prioritization Implementation Plan Conclusion



O6 IMPLEMENTATION



Implementation of this plan's trails and bikeways recommendations will take time, funding, and coordination amongst various partners. This chapter presents a prioritized list of projects to implement over time by facility type. Also presented are policies, programs, and projects that can help support implementation of the trail and bikeway corridors. Funding opportunities and details on plan administration are also discussed.

CORRIDOR PRIORITIZATION

As described in Chapter 4, this master plan recommends over 90 miles of new trail and bikeway facilities in Flower Mound. All of the recommendations cannot be implemented at once, so the project team conducted a prioritization process to compare and rank the most important projects. A set of prioritization criteria was established and refined with the Steering Committee and Technical Working Group. Once the criteria were set, each proposed trail and bikeway segment was scored based on the established criteria and given an overall score, which was then translated to high, medium, and low priorities.

- **High Priority:** Corridors that should be initiated in the first five years of plan implementation.
- **Medium Priority:** Corridors that should be initiated in years five to ten of plan implementation.
- **Low Priority:** Corridors that should be initiated beyond year ten of plan implementation.



PURPLE CONEFLOWER TRAIL

TOWN MULTI-USE TRAILS

The Town's multi-use trail network will provide critical connections, improve existing corridors and facilities, and enhance safety for trail users. This section includes the action program for the Town to consider investment over the planning horizon.

CRITERIA

The criteria in [Table 6.1](#) were used to score each of the town paved multi-use trail segments in order to determine the proposed timing for implementation. In order to determine the weighted score for each project, the criteria were assigned a weight based on the level of importance determined by the Steering Committee, Technical Working Group, and planning team.

TABLE 6.1: TOWN MULTI-USE TRAIL CRITERIA DESCRIPTIONS

Criteria	Description
Connects to key destinations	The trail segment connects residents to parks, schools, major shopping centers, or employment centers.
Connects to the existing trail/ bikeway network	The trail segment provides a connection to the existing trail/bikeway network to create loops, primary routes, and high connectivity throughout the system.
Creates an interjurisdictional connection	The trail segment connects residents to surrounding communities and improves regional connectivity.
Located on the designated Regional Veloweb	The trail segment is part of the designated Regional Veloweb and connects residents to the greater DFW Metroplex. The Regional Veloweb provides funding opportunities through NCTCOG.
Solves a safety issue or overcomes a barrier	The trail segment addresses an identified safety issue or barrier.
Fills a gap in the existing system	The trail segment fills a gap in the existing system by connecting two segments of existing trail.
Improves an existing trail	The trail segment widens an existing facility to enhance the comfort along the trail.
Ease of implementation	The trail segment is feasible to construct. Factors considered for this criterion include property ownership, topography, floodplain, and barriers.
Amount of environmentally sensitive areas disturbed	The trail segment provides the least disruption of natural areas.
Facilitates bicycling/walking to school	The trail segment provides safe, off-street routes for students of all ages to get to school from their homes.
Population density	The trail segment provides access to higher population densities.
Primary Trail	The trail segment is located on the primary trail or loop trail, as shown in Figure 6.9 on page 138.

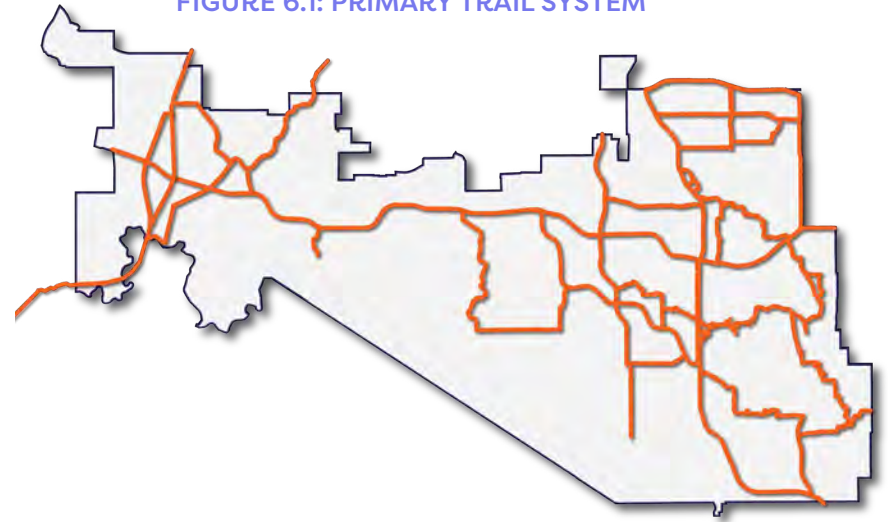
PRIMARY TRAIL CORRIDORS

Primary trails, shown in [Figure 6.1](#), are characterized by their accessibility through the Town. They are major east/west and north/south trails through Flower Mound, primarily located on major roadways like Long Prairie, Cross Timbers, and US-377. Many of these longer corridors are also part of the Regional Veloweb, which provide regional and local connectivity and can support major trailheads at main trail junctions. Primary trails can also be located through greenways and off major corridors to create loops and linkages to parks, schools, and destinations.

Primary trails provide residents with continual corridors for walking, jogging, or general exercise purposes. In contrast, intersecting loop trails bring diversity to the system and create various milegags for trail users. Loops create scenic or relaxing experiences by connecting to off-road trail segments, improving shade along trails, and providing access to nature and exploration.

The concept of primary trail corridors was used as a scoring criteria (see [Table 6.1](#) on page 124). While not all projects that scored as "high priority" are located on the primary trail system, primary trails should be used to identify grant and bond program projects.

FIGURE 6.1: PRIMARY TRAIL SYSTEM



TOWN MULTI-USE TRAIL NETWORK ACTION PLAN

There are a total of 82.1 miles of recommended off-street trails, 21 percent of which are designated as high priority, 24 percent as medium priority, and 55 percent as low priority, as shown in [Figure 6.2](#) (page 127). [Figure 6.3](#) (page 128) and [Table 6.2](#) represent the action plan for the Town's multi-use trail network.

[Table 6.2](#) provides the **Corridor ID** for the trail projects shown from north to south; the **Facility Type** to determine if it's a multi-use trail, part of the Regional Veloweb, or one of the more detailed feasibility corridors; the **Corridor** to describe where the segment is located; the **Length** of each project; and the **Priority** of the project based on the weighted criteria.

In eastern Flower Mound, most trail corridors recommend filling gaps in the existing system and upgrading existing trails and sidewalks to reflect the recommendations of this plan. New trail segments include trails along greenways, easements, and undeveloped land.

In western Flower Mound, new trail segments are recommended through undeveloped land and along major corridors. It is anticipated that many of these trail segments will be constructed by private developers in conjunction with property development.

FIGURE 6.2: TOWN MULTI-USE TRAIL PRIORITY BREAKDOWN

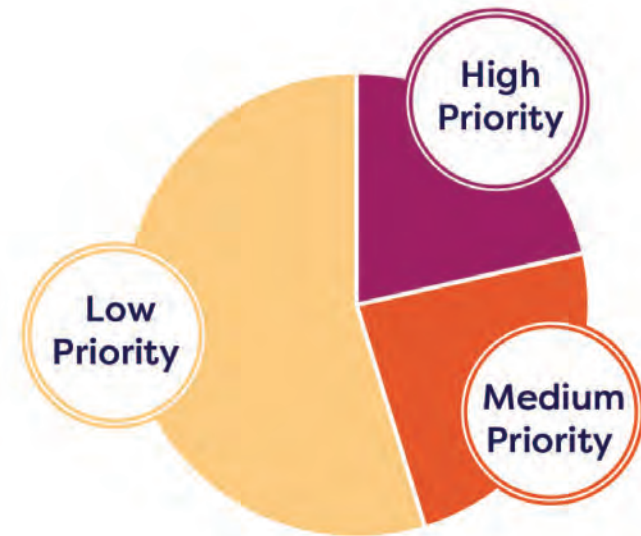


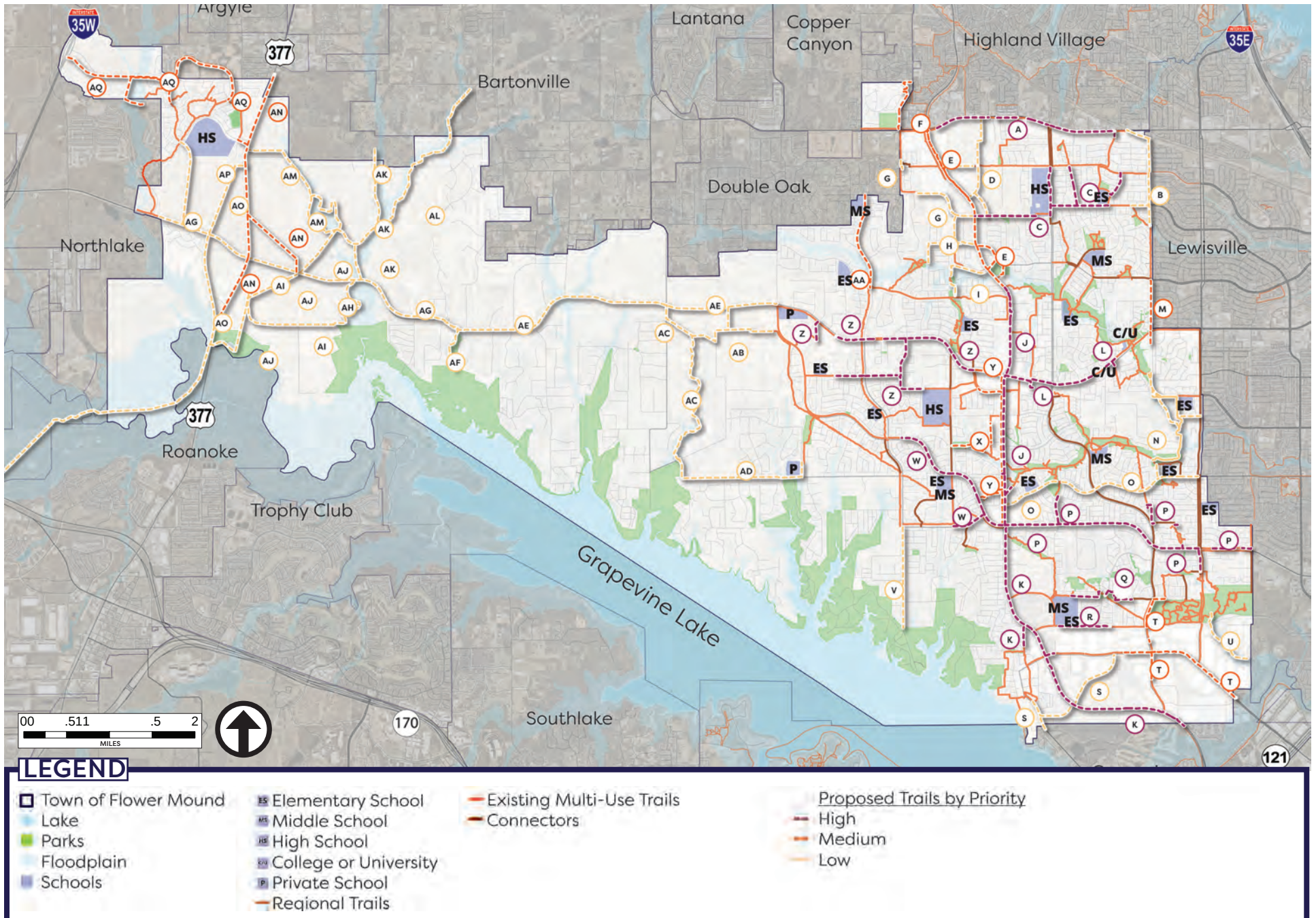
TABLE 6.2: TOWN MULTI-USE TRAILS RECOMMENDATION SUMMARY

Corridor ID	Facility Type	Corridor	Length (miles)	Priority
A	Multi-Use	Justin Rd		High
B	Multi-Use	Lone Buck Dr		Low
C	Multi-Use	Waketon/Morris/Kirkpatrick Ln		High
D	Multi-Use	Easement/Dixon Ln		Low
E	Proposed Veloweb	Long Prairie Rd/College Pkwy		Medium
F	Multi-Use	Chin Chapel Rd		Medium
G	Multi-Use	Chinn Chapel Rd/Waketon Rd		Low
H	Multi-Use	Rippy Rd/Pecan Meadows		Low
I	Multi-Use	Rippy Rd/Birch St		Low
J	Proposed Veloweb	Long Prairie Rd		High
K	Proposed Veloweb	Long Prairie Rd		High
L	Proposed Veloweb	Cross Timbers Rd		High

TABLE 6.2: TOWN MULTI-USE TRAILS RECOMMENDATION SUMMARY

Corridor ID	Facility Type	Corridor	Length (miles)	Priority
M	Multi-Use	Kirkpatrick Ln		Medium
N	Feasibility Corridor	Kirkpatrick Ln/Timber Creek Easement		Low
O	Multi-Use	Forest Vista Dr		Low
P	Multi-Use	Flower Mound Rd./Garden Ridge Blvd.		High
Q	Multi-Use	Shadow Ridge Park/Sweet Water Ln		High
R	Multi-Use	Spinks Rd		High
S	Multi-Use	Lakeside Pkwy/Lakeside Village Pkwy		Low
T	Multi-Use	Lakeside Pkwy/Gerault Rd.		Medium
U	Multi-Use	Easement by Water Treatment Plant		Low
V	Multi-Use	Simmons Rd		Low
W	Multi-Use	Flower Mound Rd./McKamy Creek		High
X	Multi-Use	Peacock Park		Medium
Y	Multi-Use	Long Prairie Rd		Medium
Z	Multi-Use	Cross Timbers Rd/Auburn Dr/Quail Rn/Peters Colony		High
AA	Multi-Use	Bridlewood Blvd		Medium
AB	Multi-Use	Walsingham/Scenic		Low
AC	Proposed Veloweb	Shiloh Easement		Low
AD	Multi-Use	Wichita Trail		Low
AE	Proposed Veloweb	1171 - Cross Timbers		Low
AF	Feasibility Corridor	Floodplain		Low
AG	Feasibility Corridor	1171 - Cross Timbers		Low
AH	Multi-Use	Floodplain		Low
AI	Multi-Use	Dunham Rd		Low
AJ	Proposed Veloweb	Future Corridor		Low
AK	Multi-Use	Floodplain		Low
AL	Proposed Veloweb	Floodplain		Low
AM	Multi-Use	Furst Ranch (Future Development)		Medium
AN	Proposed Veloweb	377		Medium
AO	Multi-Use	Railroad Corridor		Low
AP	Multi-Use	Future Corridor		Low
AQ	Multi-Use	Prairie Ridge Rd/Denton Creek Blvd		Medium

FIGURE 6.3: TOWN MULTI-USE TRAILS RECOMMENDED NETWORK



ON-STREET BIKEWAYS

On-street bikeways include bike lanes and shared-use lanes to improve active transportation town-wide. Many of the identified routes are frequently used by bicyclists, and connect residents to destinations and the region. On-street facilities can provide critical connections where other facilities may be constrained.

CRITERIA

The following criteria in [Table 6.3](#) was used to score each of the on-street bikeway segments in order to determine the proposed timing for implementation. In order to determine the weighted score for each project, the criteria were assigned a weight based on the level of importance determined by the Steering Committee, Technical Working Group, and planning team. Many of the criteria are similar to the trails, as they help to create a complete network. Level of comfort and level of coordination are specific to the bikeways in order to evaluate rights-of-way constraints and user preference.



TABLE 6.3: ON-STREET BIKEWAYS CRITERIA

Criteria	Description
Connects to the existing trail/ bikeway network	The bikeway segment provides a connection to the existing trail/bikeway network to create loops, primary routes, and high connectivity throughout the system.
Creates an interjurisdictional connection	The bikeway segment connects residents to surrounding communities and improves regional connectivity.
Solves a safety issue or overcomes a barrier	The bikeway segment addresses an identified safety issue or barrier.
Level of Comfort	The bikeway segment provides a high level of comfort. Comfort is a critical factor for the development of bikeways; the more comfortable a facility is perceived, the greater chance the facility will be utilized by users of all ages and abilities. The level of comfort of a roadway takes into consideration traffic volumes, speeds, and pavement widths.
Fills a gap in the existing system	The bikeway segment fills gap in the existing system by connecting two segments of existing bikeways. The existing system is relatively disjointed, filling in gaps will help improve connectivity, particularly on the east side of the Town.
Improves an existing facility	The bikeway segment improves a facility that cyclists currently use.
Ease of implementation	The bikeway segment is feasible to construct. Factors considered for this criterion include rights-of-way widths, speed of roadway, pavement widths, and roadway constraints.
Level of coordination needed with other entities	The bikeway segment requires little coordination with other entities. Bikeways are easier to implement when less coordination is needed. Entities that may need to be coordinated with include TxDOT, railroads, utility companies, and the USACE.
Population Density	The bikeway segment provides access to higher population densities.

ON-STREET BIKEWAYS NETWORK ACTION PLAN

There are a total of 39.5 miles of recommended on-street bikeways, 41 percent of which are designated as high priority, 18 percent as medium priority, and 41 percent as low priority, as shown in [Figure 6.4](#). [Figure 6.5](#) and [Table 6.4](#) represent the action plan for on-street bikeways in Flower Mound.

[Table 6.5](#) provides the **Corridor ID** for the bikeway projects shown from north to south; the **Facility Type** to determine if it's a shared-use lane or bike lane; the **Corridor** to describe where the segment is located; the **Length** of each project; and the **Priority** of the project based on the weighted criteria.

In eastern Flower Mound, bikeways provide connections to surrounding communities, and connect to parks, schools, and destinations.

In western Flower Mound, bikeways connect residents to the USACE trails, are proposed with future roadways, and connect residents to parks and schools.

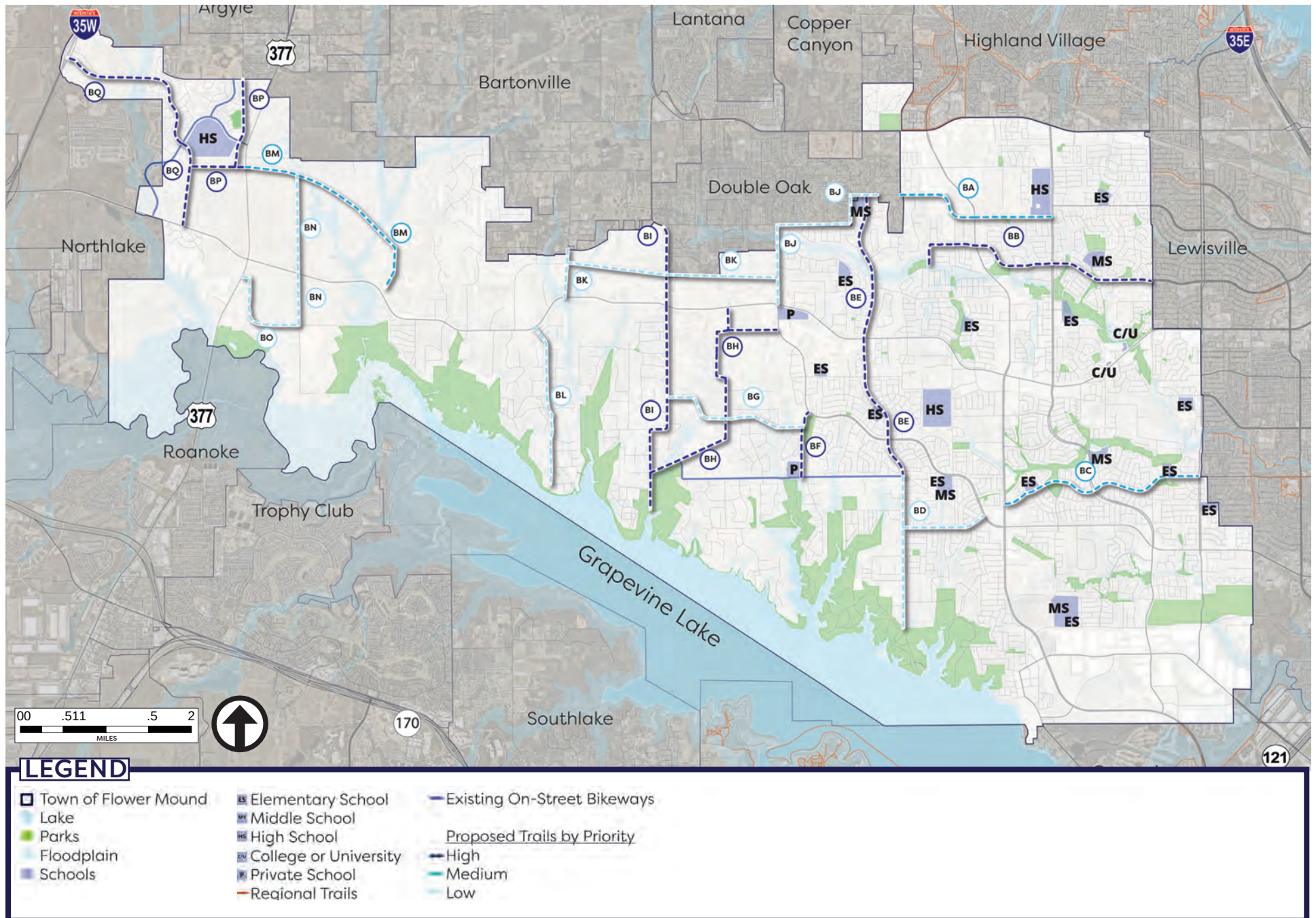
FIGURE 6.4: ON-STREET BIKEWAYS PRIORITY BREAKDOWN



TABLE 6.4: ON-STREET BIKEWAYS RECOMMENDATION SUMMARY

Corridor ID	Facility Type	Corridor	Length (miles)	Priority
BA	Shared-Use Lane	Waketon Rd		Medium
BB	Shared-Use Lane	College Pkwy		High
BC	Shared-Use Lane	Forest Vista Dr		Medium
BD	Shared-Use Lane	Simmons Rd		Low
BE	Shared-Use Lane	Bridlewood Blvd./Burton Orand Blvd		High
BF	Shared-Use Lane	Skillern Rd		High
BG	Shared-Use Lane	River Hill Dr		Low
BH	Bike Lane/Shared-Use Lane	Scenic Dr		High
BI	Bike Lane	Shiloh Rd		High
BJ	Shared-Use Lane/Bike Lane	Lusk Ln/Kings Rd/Waketon Rd		Low
BK	Bike Lane	Red Rock Ln/Future Corridor		Low
BL	Bike Lane	High Rd.		Low
BM	Bike Lane	Future Corridor		Medium
BN	Bike Lane	Future Corridor		Low
BO	Bike Lane	Dunham Rd		Low
BP	Shared-Use Lane/Bike Lane	Future Corridor/Stonecrest Dr		High
BQ	Bike Lane	Denton Creek Blvd		High

FIGURE 6.5: ON-STREET BIKEWAYS RECOMMENDED NETWORK



NON-TRADITIONAL TRAIL FACILITIES

For the non-traditional trails, including town equestrian trails and paddling trails, 25 percent are high priority trails, 63 percent are medium priority trails, and 12 percent are low priority trails, as shown in [Figure 6.6](#). [Figure 6.7](#) and [Table 6.5](#) represent the action plan for non-traditional trail facilities, including equestrian trails and paddling trails.

TOWN EQUESTRIAN TRAILS

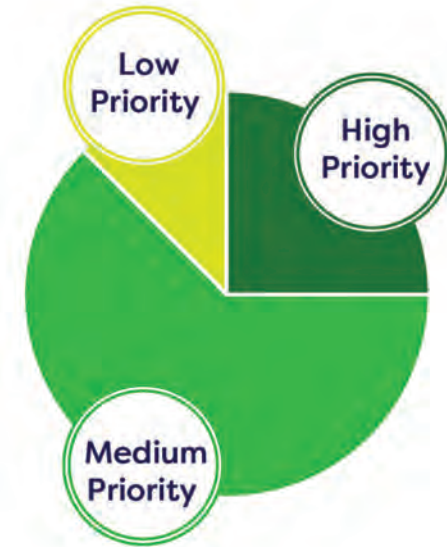
There are a total of 10.9 miles of equestrian trails recommended in this master plan. While there is not a set of established prioritization criteria for equestrian trails specifically, based on feedback from citizens and stakeholders, the most important components were:

- Completing existing equestrian trail loops
- Providing more connections to the existing USACE equestrian trails

OTHER TRAILS - PADDLING TRAILS

There are 2 miles of paddling trails recommended in this master plan. Similar to equestrian trails, there is not a set of established prioritization criteria for paddling trails. Given that there is only one primary recommended segment, this corridor was given a prioritization of medium priority based on the anticipated complexity to complete.

FIGURE 6.6: NON-TRADITIONAL TRAILS PRIORITY BREAKDOWN



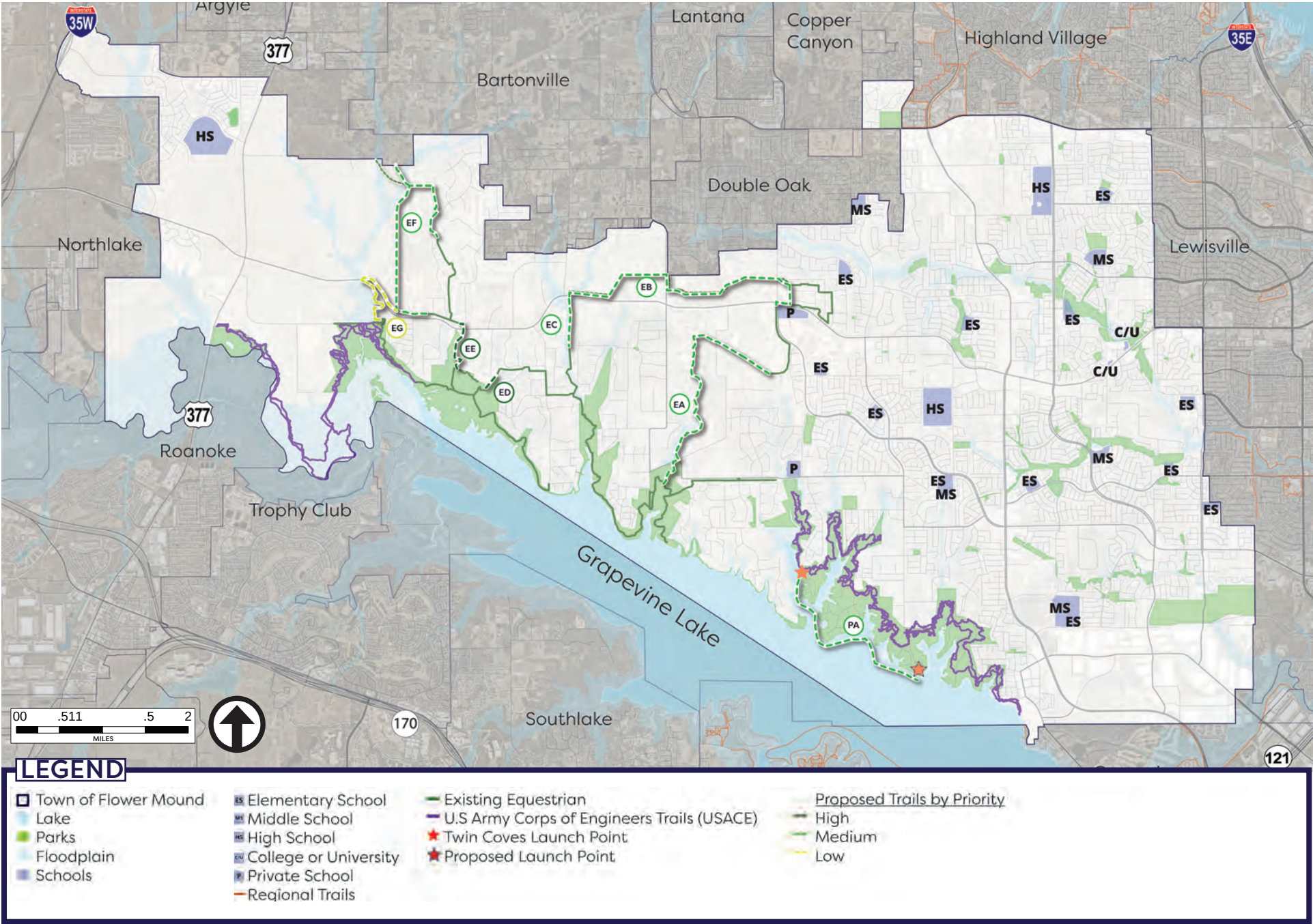
OTHER TRAILS - USACE TRAILS

This plan does not recommend additional USACE soft surface trails. Important considerations include implementing cautionary signage to reduce potential conflict from different users.

TABLE 6.5: NON-TRADITIONAL TRAILS RECOMMENDATION SUMMARY

Corridor ID	Facility Type	From	To	Priority
EA	Equestrian	Melville Cir	Rocky Point	Medium
EB	Equestrian	Brindle Wy	Cross Timbers	Medium
EC	Equestrian	Cross Timbers	Raintree Pl	Medium
ED	Equestrian	Hidden Brook Farm		High
EE	Equestrian	Cross Timbers	Hidden Ridge Dr	High
EF	Equestrian	Cross Timbers	Montalcino	Medium
EG	Equestrian	Cross Timbers		Low
PA	Paddling	Twin Coves	Murrel Park	Medium

FIGURE 6.7: NON-TRADITIONAL TRAIL PRIORITIZATION



PLAN IMPLEMENTATION

TYPICAL FACILITY COSTS

While implementing each corridor will pose different challenges, it is beneficial to establish typical facility costs to help with planning and budgeting. [Table 6.6](#) represents the typical planning level cost range for all of the facility types recommended in this master plan.

These cost ranges are based on recent project bids, current market trends, and engineering standards and design methods. Each estimate considers general cost elements, demolition, transportation, and grading costs based on similar projects. *It is important to note that these cost estimate ranges are at a pre-design level and will likely change as additional planning, design, and engineering occurs for each project.*

TABLE 6.6: TYPICAL PROJECT COSTS BY FACILITY

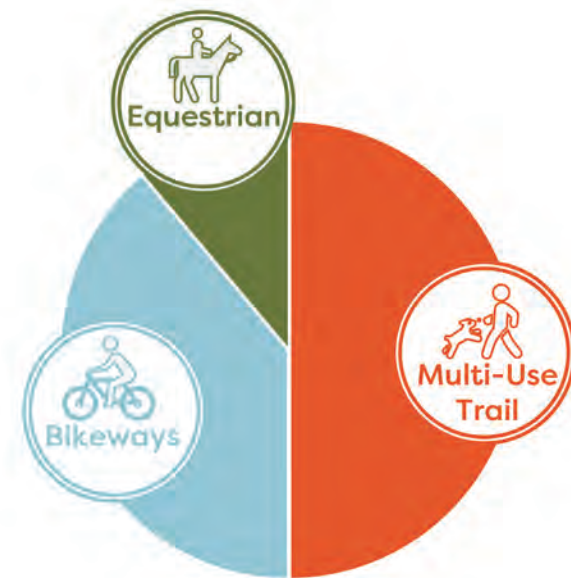
Facility Type	Parameters	Typical Cost Range
Paved Multi-Use Trail	12' paved trail	\$1.35 – \$1.9M per mile
Paved Multi-Use Trail	10' paved trail	\$1.35 – \$1.9M per mile
Connector	8' paved wide sidewalk	\$1.0M – \$1.4M per mile
Soft-Surface Trail	8' decomposed granite trail with grading	\$600,000 – \$900,000 per mile
Equestrian Trail	8' natural surface trail with grading	\$250,000 – 400,000 per mile
Bike Lane	Lane striping, signage, and pavement markings on both sides of the street	\$95,000 per mile (existing street surface)
Shared-Use Lane	Signage, pavement markings	\$75,000 per mile (existing street surface)
Shared-Use Lane	Signage	\$3,000 per mile
Paddling Trail	Signage, informational signage kiosk,	\$2,000 – \$10,000 per mile based on signage
Sidewalk	6' sidewalk	\$900,000 – \$1.6M per mile

Note: Costs for a specific trail or bikeway facility will vary based on site conditions and as additional planning, design, and engineering occurs. An inflation rate of 3% per year should be factored into any project cost. Chapter 5 includes typical crosssections and additional design considerations for these facility types. Source of cost estimates is Half Associates, Inc. based on similar projects.

PRIORITY PROJECTS

[Figure 6.8](#) illustrates the percentage of the high priority projects by facility type. Overall, 50 percent of the high priority projects are for Town multi-use trails, 39 percent are for bikeways, and 11 percent are for equestrian trails. All high priority projects are combined into a single systemwide prioritization map and table, shown in [Figure 6.9](#) (page 136) and [Table 6.7](#) (page 135).

FIGURE 6.8: PRIORITY BREAKDOWN



[Table 6.7](#) (page 135) provides the **Corridor ID** for the high priority projects; the **Facility Type** to determine if it's a multi-use trail, bikeway, or equestrian trail; the **Corridor** to describe where the segment is located; the **Length** of each project; and the **Cost Estimate Range** of the project based on the average of the planning level typical project costs; and **Partnerships** to identify potential funding partners for the construction of the system. Due to the length of many of the prioritized trail and bikeway segments, a variety of funding mechanisms may need to be utilized in order to complete the network, including private developer funds, Town funds, state entities such as TxDOT, regional funding opportunities with NCTCOG, and voter approved bond projects.

Most high priority Town multi-use trails are located in eastern Flower Mound. These trails enhance safe routes to school, fill in critical gaps, and connect residents to destinations in Flower Mound and the DFW region. These corridors can be implemented as one project with voter approved bonds or grant programs, or they can be divided into smaller segments to be included in the Town's annual budget.

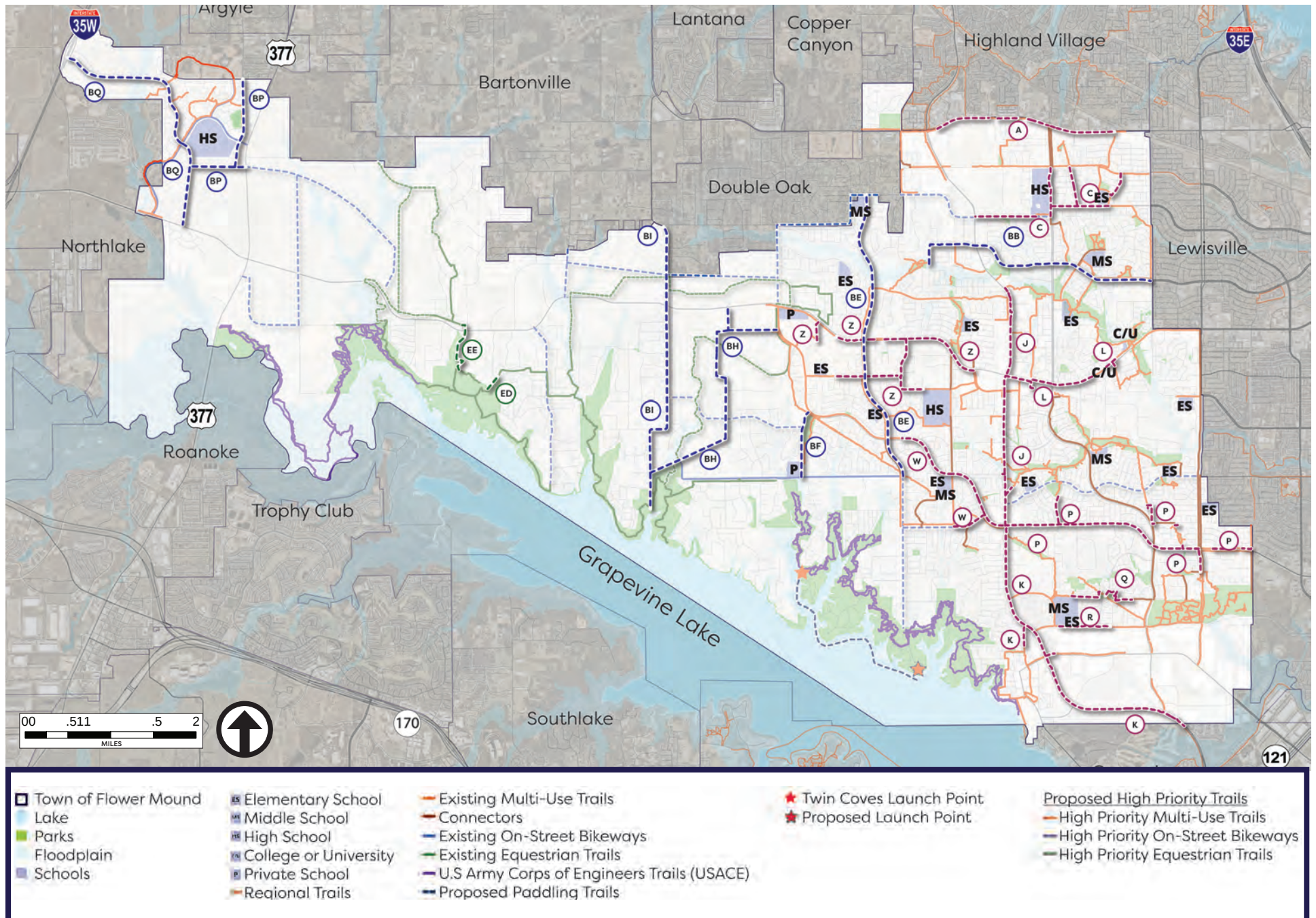
High priority bikeway corridors are located throughout Flower Mound. These were identified as heavily used corridors by bicyclists during the needs assessment, and should be improved to enhance safety and awareness of multiple roadway users. High priority bikeways provide residents with access to parks, schools, existing trails and bikeways, and surrounding jurisdictions.

TABLE 6.7: PRIORITY TRAILS RECOMMENDATION SUMMARY

Corridor ID	Corridor	Facility Type	Length (miles)	Average Cost Estimate	Funding Partnerships
A	Justin Rd	Multi-Use	1.7	\$2,763,600	Developer, CIP, Bond
C	Waketon/Morris/Kirkpatrick Ln	Multi-Use	2.3	\$3,802,653	Developer, CIP, Bond
J	Long Prairie Rd	Proposed Veloweb	2.5	\$4,119,589	Developer, CIP, NCTCOG, Bond
K	Long Prairie Rd	Proposed Veloweb	3.5	\$5,696,871	Developer, CIP, NCTCOG, Bond
L	Cross Timbers Rd	Proposed Veloweb	1.12	\$1,824,699	Developer, CIP, NCTCOG, Bond
P	Flower Mound Rd./Garden Ridge Blvd.	Multi-Use	3.18	\$5,169,875	Developer, CIP, NCTCOG, Bond
Q	Shadow Ridge Park/Sweet Water Ln	Multi-Use	0.77	\$1,255,926	Developer, CIP
R	Spinks Rd	Multi-Use	0.53	\$856,482	Developer, CIP
W	Flower Mound Rd./McKamy Creek	Multi-Use	1.87	\$2,953,822	Developer, CIP, Bond
Z	Cross Timbers Rd/Auburn Dr/Quail Rn/Peters Colony	Multi-Use, Proposed Veloweb	2.98	\$4,837,647	Developer, CIP, NCTCOG, Bond
BB	College Pkwy	Shared-Use Lane	2.57	\$192,649	CIP, NCTCOG, Developer
BE	Bridlewood Blvd./Burton Orand Blvd	Shared-Use Lane	3.01	\$225,985	Transportation Funds, CIP, NCTCOG
BF	Skillern Rd	Shared-Use Lane	0.67	\$50,034	Transportation Funds, CIP, NCTCOG
BH	Scenic Dr	Bike Lane/Shared-Use Lane	2.80	\$226,775	Transportation Funds, CIP, NCTCOG
BI	Shiloh Rd	Bike Lane	3.01	\$285,904	Transportation Funds, CIP, NCTCOG
BP	Future Corridor/Stonecrest Dr	Shared-Use Lane/Bike Lane	0.90	\$85,667	Transportation Funds, CIP, NCTCOG
BQ	Denton Creek Blvd	Bike Lane	1.73	\$163,998	Transportation Funds, CIP, NCTCOG
ED	Hidden Brook Farm	Equestrian	0.58	\$363,736	Developer, CIP
EE	Cross Timbers	Equestrian	0.16	\$100,288	Developer, CIP

*Corridor ID is based on the Action Plan for each facility type (see pages 125-132)

FIGURE 6.9: HIGH PRIORITY TRAIL AND BIKEWAY CORRIDORS



OTHER CONSIDERATIONS

Figure 6.10 (page 138) shows proposed trailhead locations and major conflict points. While these considerations have not been included in the prioritization tables, they should be considered for future funding opportunities in order to improve safety, accessibility, and usability of the overall trails and bikeways network.

TRAILHEADS

Potential trailhead locations are depicted in **Figure 6.10** (page 138). Trailheads identified include equestrian, multi purpose, and multi-use.

Equestrian Trailheads

Equestrian trailheads are located at major entry points to the equestrian trail system. These should include a variety of amenities including informational signage, parking, and tie ups. **This plan does not propose any new equestrian trailhead. The new trailheads for equestrian trails are identified as multi purpose trailheads.** Existing trailheads should be evaluated and enhanced in order to provide the necessary amenities for horseback riding and accessing existing equestrian trails.

Multi Purpose Trailheads

Multi purpose trailheads are located in locations where multi-use trails and equestrian trails converge. Due to their location and anticipated user demand, a wider range of amenities should be provided, including parking areas with trailer parking and automobile parking, lighting, seating, signage, waste receptacles, bike amenities, shade, and similar amenities. The location of horse tie-ups should be away from the bike and pedestrian entry to the trail system to reduce user conflict. Signage should include a map, directional, safety precautions, and rules and regulations for using the trail for the various users. **This plan proposes 5 new multi purpose trailheads.**

Multi-Use Trailheads

Multi-use trail trailheads are located where trails converge, or at trail entry points for pedestrians and bicyclists. These should include parking, benches, signage, waste receptacles, and similar amenities described in Chapter 5.

The anticipated user volume, space limitations, and similar elements may determine the classification of trailhead. Existing trailheads are used to mark entry of trails from neighborhoods, but may not include recommended amenities to enhance access and usability of the trail. These should be enhanced where identified on **Figure 6.9**. **The plan proposes 12 new or enhanced trailheads.**



MAJOR CONFLICT POINTS

Major Intersections

Intersection design recommendations were discussed in Chapter 5. **Figure 6.9** (page 138) shows locations where intersection improvements and enhancements may be necessary to improve safety in the trail system. Major intersections are generally located where a trail crosses an arterial roadway, or where a trail crosses at least four lanes of traffic. Intersections should be analyzed ensure they maximize safety and reduce conflicts.

Major intersections are along the following corridors:

- Flower Mound Road
- Long Prairie Road
- Cross Timbers Road
- Morriss Road
- Simmons Road/Bruton Orand Boulevard

Mid-Block Crossings

There may be additional intersections and mid-block crossings that are not identified on this map which should be evaluated for safety improvements and enhancements, especially where a trail crosses a road mid-block. The level of design may vary based on the roadway conditions.

Mid-block crossings are along the following corridors:

- Lexington Avenue
- College Parkway
- Northshore Boulevard
- Garden Road
- Forest Vista Drive

Existing Trail Improvements

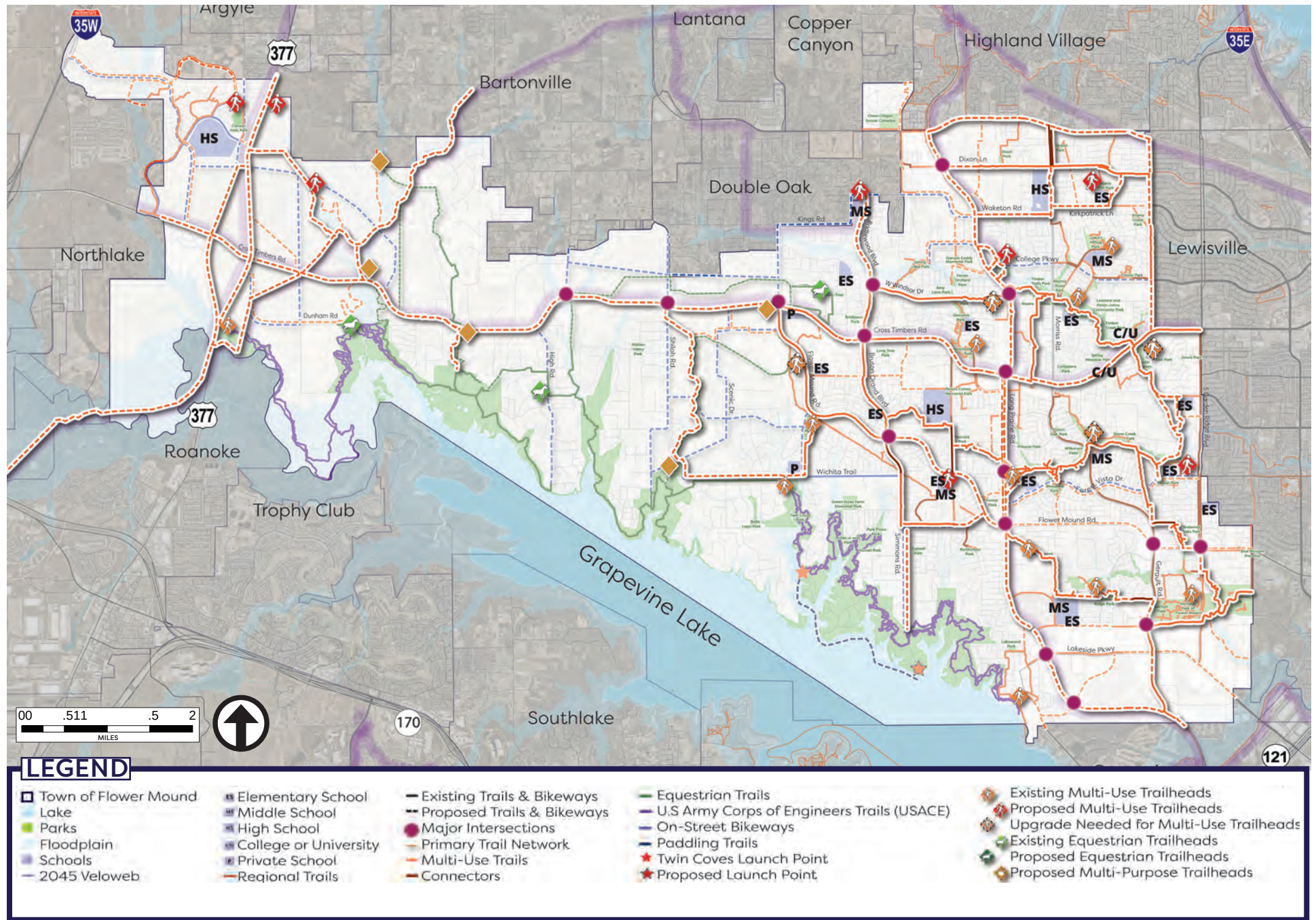
The existing system was addressed in Chapter 3. During the assessment, various maintenance and safety concerns were analyzed. Concerns to be evaluated include blindspots, i.e. where there is a 90 degree turn in the trail, bridge replacement needs, and low hanging vegetation. While some concerns can be fixed relatively easily, some need further investigation.

Areas for further investigation include:

- **Pink Evening Primrose Trail** - Blind curves at Rustic Timbers Park/ Parker Square Park and various locations along Timber Creek
- **Bluebonnett Trail** - Various locations along the gasline easement should be studied in further detail, or alternative accesible routes identified.
- **All trails** - low hanging vegetation should be removed on a regular basis
- **All trails** - extreme curves are discouraged, where extreme curves do exist, they should be studied to determine if there are opportunities to ease the curve.



FIGURE 6.10: PRIMARY TRAILS, TRAILHEADS, AND MAJOR INTERSECTIONS



POLICIES, PROGRAMS, AND PROJECTS

There are various policy changes, programs, and projects that can be completed to support the implementation of Flower Mound's recommended trails and bikeways network. The master plan goals and objective previously presented in Chapter 1 identifies initiatives that should be considered to help with overall plan implementation, and proposes metrics for tracking the plan's implementation.

GOAL 1: CONNECTED COMMUNITY

Create a complete trails and bikeways system that connects the community with active transportation options.

OBJECTIVES:

- **1.1:** Increase trail level of service.
- **1.2:** Provide trail and bikeway connections to key destinations.
- **1.3:** Fill in gaps in the existing trail system.

INITIATIVES:

- **Policy:** Attain a target level of service for trails of 1 mile per 1,000 residents.
- **Project:** Undergo design of the feasibility and high priority corridors.

METRICS:

- Increased levels level of service:
 - Mileage of off-street trails within Flower Mound.
 - Mileage of on-street bikeways in Flower Mound.
 - Mileage of new and improved connectors in Flower Mound.
 - Mileage of equestrian trails in Flower Mound.
- Greater percentage of bicycle and pedestrian mode share counts from the Census
- Number of interjurisdictional connections

GOAL 2: SAFE & ACCESSIBLE SYSTEM

Ensure the trails and bikeway system is safe, comfortable, and accessible for users of all abilities and ages.

OBJECTIVES:

- **2.1:** Provide a variety of facility types appropriate for users of different abilities.
- **2.2:** Improve overall safety and comfort of existing facilities.
- **2.3:** Address areas identified as barriers within the existing trail system.

INITIATIVES:

- **Policy:** Implement additional roadway crossing improvements.
- **Project:** Tie trail makers and system branding to the EMS system
- **Policy:** Incorporate the design standards included in this master plan into the Town's standards.
- **Policy:** Implement blindspot and safety improvements on existing trails.
- **Project:** Evaluate high-frequency crash locations on an annual basis

METRICS:

- Number of crashes involving bicyclists
- Number of crashes involving pedestrian
- Number of roadway crossings improved (at intersections or mid-block)
- Number of blindspots improved

GOAL 3: USER FRIENDLY

Improve awareness, signage, and usability of the trails and bikeways system.

OBJECTIVES:

- **3.1:** Increase awareness of the existing trail and bikeway system.
- **3.2:** Create a consistent brand across the trails system so it is easily recognizable.
- **3.3:** Install wayfinding signage to direct users to destinations along the trails.

INITIATIVES:

- **Program:** Implement the systemwide wayfinding and branding plan for the trails and bikeways system.
- **Program:** Develop a bicycle etiquette/awareness program that addresses cyclist and motor vehicle etiquette.
- **Project:** Install trail counters along the system to determine areas with most usage.
- **Project:** Create a smart phone application that links to a GPS system to provide guidance and assistance on the trail.

METRICS:

- Number of new trailhead installations
- Facility usage from trail counters and Strava data
- Number of new amenities along the trail including:
 - Amenities (benches, trash receptacles, bike racks, bike repair stations, and similar)
 - Parking areas
 - Wayfinding features

GOAL 4: UNIQUE SYSTEM

Design and construct trails that support the health and wellness of the community and natural environment.

OBJECTIVES:

- **4.1:** Provide trails through natural areas, parks, and open space.
- **4.2:** Provide for interpretative and educational opportunities along trails.
- **4.3:** Utilize an environmentally-friendly and context-sensitive approach to developing and maintaining trails.

INITIATIVES:

- **Project:** Install interpretative signage that educates users on historic, cultural, and natural resources.
- **Project/Program:** Install new shade trees and explore additional shade opportunities along the trails.
- **Policy:** Encourage trails around stormwater ponds and through natural areas.

METRICS:

- Miles of trail constructed in greenways
- Number of new shade trees planted along trails
- Number of interpretive signage installations

GOAL 5: PARTNERSHIPS

Leverage partnerships between the Town and the community, internal and external organizations, and outside agencies to achieve a connected trails and bikeways system.

OBJECTIVES:

- **5.1:** Pursue joint projects with surrounding cities, the County, NCTCOG, TxDOT, TPWD, USACE, and utility providers.
- **5.2:** Maintain relationships with user groups to solicit feedback on the trails and bikeways system.
- **5.3:** Work with other departments to incorporate bicycle and pedestrian accommodations into ongoing or upcoming projects.

INITIATIVES:

- **Policy:** Provide NCTCOG with updated trail files so they can update their regional maps.
- **Project:** Update the Town's thoroughfare plan to include the additional bicycle/pedestrian accommodations recommended in this plan.
- **Program/Policy:** Work with the City of Grapevine to identify future kayak/canoe launch points to apply for TPWD Trail funding.
- **Program/Policy:** Work with adjacent cities to identify interjurisdictional trail opportunities and funding options.

METRICS:

- Miles of trail completed on the Regional Veloweb
- Miles of trail completed on USACE lands
- Number of meetings with outside entities regarding trail and bikeway planning, design, and construction with the construction and reconstruction of roadways

GOAL 6: FUNDING

Pursue a variety of funding sources for trails and bikeway development.

OBJECTIVES:

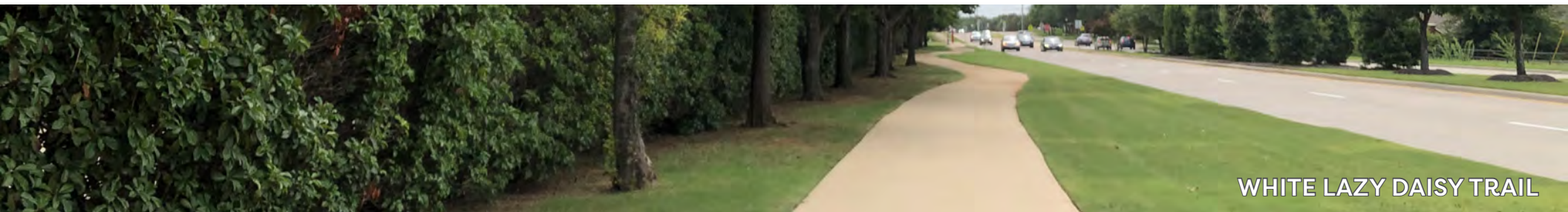
- **6.1:** Apply for grant funding to implement trail and bikeway projects.
- **6.2:** Continue to work with developers to ensure trails and bikeways are included with new development.
- **6.3:** Coordinate with user and volunteer groups to help fund improvements to trails and bikeways.

INITIATIVES:

- **Policy:** Utilize the prioritization criteria developed for this master plan to prioritize future CIP projects for trails and bikeways.
- **Policy:** Utilize 4B Sales Tax funds for trail infrastructure projects.
- **Project:** Submit applications for Transportation Alternative and Safe Routes to School funding where applicable.

METRICS:

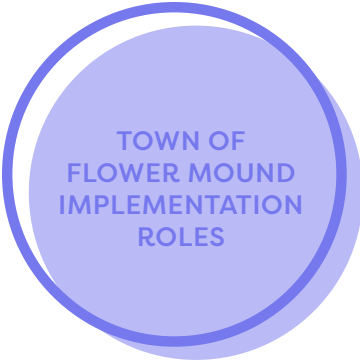
- Amount of grant funding received for trail and bikeway implementation
- Percent of Town's budget dedicated to trail and bikeway implementation



PLAN ADMINISTRATION

IMPLEMENTATION ROLES

There are various public and private entities that will have roles in the implementation and maintenance of the Trails and Bikeways Master Plan.



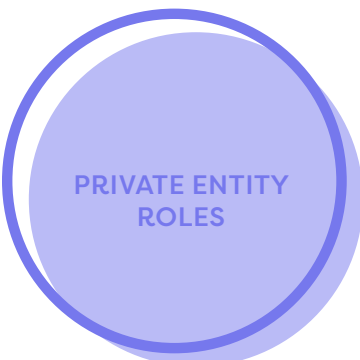
TOWN OF FLOWER MOUND IMPLEMENTATION ROLES

- The **Parks and Recreation Department** will incorporate trails into park facilities, maintain the trail infrastructure, and track the progress of the plan.
- The **Transportation Services Department** will prioritize bicycle facilities in the design and implementation of roadway construction projects and coordinate thoroughfare plan updates consistent with this plan.
- The **Planning Department** will continue to coordinate the construction of trails identified within the plan with new development projects and provide updates to the land development code and subdivision regulations.
- **Elected and Appointed Officials** are responsible for supporting the plan and determining funding eligibility for projects.



OTHER PUBLIC ENTITY IMPLEMENTATION ROLES

- **TxDOT** will coordinate the construction of trails and bikeways in construction or improvement projects, provide facility types which are consistent with the plan, and support bikeway designation efforts.
- **Denton County** will partner with the Town to identify and develop the bicycle and pedestrian network.
- **Utility Companies** will continue to support the development of off-street trails within utility easements given appropriate design measure for the trails are followed.



PRIVATE ENTITY IMPLEMENTATION ROLES

- **Developers** will be responsible for the construction of trails and bikeways within development projects consistent with this plan to enhance connectivity and user experience for the overall network.
- **Foundations/Non-Profits** will continue to support the construction, maintenance, and implementation of trails and bikeways.
- **Homeowners Associations** will continue to maintain trails within their neighborhoods and support the implementation of the plan.

FUNDING OPPORTUNITIES

There are a variety of funding opportunities to implement the vision of this plan. This section outlines typical funding opportunities at local, state, and federal levels but does not represent a comprehensive list of funding sources.

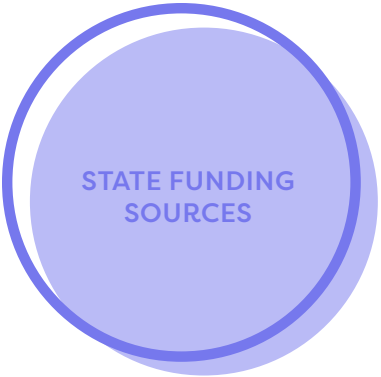


- The **General Fund** is used for smaller repair and replacement efforts and routine maintenance for existing parks and facilities. It also funds the administration and services provided by the Town of Flower Mound. The general fund provides funds for routine pavement and sidewalk maintenance.
- The **Special Revenue Fund** are funds from special revenue sources to support the development of new facilities. In Flower Mound, these include:
 - Park Development Fund
 - Street Maintenance Tax
 - 4B Parks Sales Tax funding
- **Capital Improvement Program (CIP)** Expenditures provide funding for significant public improvements, such as the construction of new parks, replacement of park equipment, new trail construction, and street construction and maintenance projects which can include on and off-street bicycle facilities.



The North Central Texas Council of Governments (NCTCOG) appropriates funds for transportation improvement projects from the Federal Government and TxDOT. NCTCOG then administers the funds to local jurisdictions for the construction of projects which improve mobility and air quality throughout the region. **They administer the following funds:**

- **The Transportation Alternatives Program (TAP)** are funds for the construction of on- and off-road bicycle and pedestrian facilities, shared-use paths, similar bicycle and pedestrian safety measures, and Safe Routes to School (SRTS) projects. These projects focus on interconnectivity within communities, to destinations such as schools and employment centers, and connections to the region.
- **Transportation Improvement Program (TIP)** is a short-term planning document for various transportation related projects in the DFW region. This plan is updated every two years and is created in concert with TxDOT, local governments, and transportation authorities. The program implements projects identified in the Master Transportation Plan (MTP) through 2045.



STATE FUNDING SOURCES

- **Transportation Alternatives Set-Aside Program** are funds administered by TxDOT for bicycle and pedestrian infrastructure projects in communities with less than 200,000 people. These projects focus on interconnectivity within communities, to destinations such as schools and employment centers, and connections to the region.
- **National Recreational Trails Grants** are administered by the Texas Parks and Wildlife Division (TPWD) for the construction of new recreational trails, to improve existing trails, to develop trailheads and amenities, and to acquire land for trail construction. The reimbursable grants can be up to 80 percent of the project cost for non-motorized trail projects up to \$300,000.
- **Outdoor Recreation Grants** provide 50 percent matching grant funds to cities, counties, Municipal Utility Districts (MUDs), and other special districts with a population less than 500,000 to acquire and develop parkland or to renovate existing public recreation areas. There are two funding cycles per year with a maximum award of \$500,000. Projects must be completed within three years of approval. Application deadlines are October 1st of each year (the master plans submission deadline is 60 days prior to application deadline). Award notifications occur 6 months after deadlines.



FEDERAL FUNDING SOURCES

- **Rebuilding American Infrastructure with Sustainability and Equity (RAISE)** Discretionary Grants are available on a competitive basis for projects that will have a significant impact on local and regional travel. The Department of Transportation administers funding. Projects can include roadway, rail, and alternative transportation.
- **Congestion and Air Quality Improvement Program (CMAQ)** funds are for projects that help improve air quality. Bicycle and pedestrian facilities are eligible for these funds because they act as an alternative mode of transportation and reduce emissions from automobiles.
- **Surface Transportation Block Grant Program (STBG)** funds are for projects that address mobility needs for bicycle and pedestrian improvement projects. Federal funds are allocated to TxDOT to distribute. TxDOT works with MPO's to administer the funds for eligible and prioritized projects.

CONCLUSION

The Flower Mound Trails and Bikeways Master Plan is a community-driven vision for creating a comprehensive and diverse network of trails and bikeways. When the recommendations from this plan are implemented, the Town will have a safe, well-connected, and accessible trails and bikeways network for users of all ages and abilities.

