



## AGENDA

### Planning and Zoning Commission Meeting

January 11, 2024 | 6:30 PM

Council Chambers

City Hall | 665 Country Club Road, Lucas, Texas

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*Notice is hereby given that a meeting of the City of Lucas Planning and Zoning Commission will be held on January 11, 2024, at 6:30 pm at Lucas City Hall, 665 Country Club Road, Lucas, Texas 75002-7651, at which time the following agenda will be discussed. As authorized by Section 551.071 of the Texas Government Code, the Planning and Zoning Commission may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney on any item on the agenda at any time during the meeting.*

If you would like to watch the meeting live, you may go to the City's live streaming link at <https://www.lucastexas.us/departments/public-meetings/>.

#### **How to Provide Input at a Meeting:**

**Speak In Person:** Request to Speak forms will be available at the meeting. Please fill out the form and give to the Assistant City Manager prior to the start of the meeting. This form will also allow a place for comments.

**Submit Written Comments:** If you are unable to attend a meeting and would like to submit written comments regarding a specific agenda item, email Kent Souriyasak, Assistant City Manager at [kent@lucastexas.us](mailto:kent@lucastexas.us) no later than 3:30 pm the day of the meeting. The email must contain the person's name, address, phone number, and the agenda item(s) for which comments will be made. Any requests received after 3:30 pm will not be included at the meeting.

#### **Call to Order**

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- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

#### **Training Agenda**

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1. Provide training for the Planning and Zoning Commission conducted by the City Attorney.  
(Presenter: City Attorney Courtney Morris)

#### **Consent Agenda**

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*All items listed under the consent agenda are considered routine and are recommended to the Planning and Zoning Commission for a single vote approval. If discussion is desired, an item may be removed from the consent agenda for a separate vote.*

2. Consent Agenda:
  - A. Approval of the minutes of the December 14, 2023 Planning and Zoning Commission meeting.

## Regular Agenda

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3. Consider approving a request by Sudhir Sakaria on behalf of 3R Land Properties L.C. for a preliminary plat for Sandalwood Estates, an addition to the City of Lucas being all of a 25.13-acre tract of land located in the Lewis P. Turner Survey, Abstract Number 901, and the John Gary Survey, Abstract Number 349, otherwise known as 7259 East Parker Road, Lucas, Texas. **(Presenter: Development Services Director Joe Hilbourn)**
4. Consider the appointment of a Chairman and Vice-Chairman of the Planning and Zoning Commission to serve for a period of one year with a term ending December 31, 2024. **(Planning and Zoning Commission)**

## Executive Session

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*As authorized by Section 551.071 of the Texas Government Code, the Planning and Zoning Commission may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney regarding any item on the agenda at any time during the meeting. This meeting is closed to the public as provided in the Texas Government Code.*

5. Executive Session: There is not an executive session scheduled for this meeting.

## Adjournment

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6. Adjournment.

## Certification

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*I do hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, Texas 75002 and on the City's website at [www.lucastexas.us](http://www.lucastexas.us) on or before 5:00 p.m. on January 5, 2024.*

  
\_\_\_\_\_  
Kent Souriyasak, Assistant City Manager

*In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to Assistant City Manager Kent Souriyasak at 972-912-1213 or by email at [kent@lucastexas.us](mailto:kent@lucastexas.us) at least 48 hours prior to the meeting.*



**City of Lucas**  
**Planning and Zoning Commission**  
**Agenda Request**  
**January 11, 2024**

Item No. 01

Requester: City Attorney Courtney Morris

**Agenda Item Request**

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Provide training for the Planning and Zoning Commission conducted by the City Attorney.

**Background Information**

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The Planning and Zoning Commission serves as a recommending body and advises the City Council on matters related to the development and use of private property and implementation of the City's Comprehensive Plan and Code of Ordinances. The Planning and Zoning Commission considers requests for zoning changes, specific use permits, site plan approvals, the subdivision or platting of land, and makes recommendations to the City Council regarding these matters.

The City Attorney will provide training to the Planning and Zoning Commission on topics including authority, role of the commission, membership, voting procedures, conducting meetings and hearings, public information act, open government training, and more.

**Attachments/Supporting Documentation**

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NA

**Budget/Financial Impact**

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NA

**Recommendation**

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NA

**Motion**

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NA



**City of Lucas**  
**Planning and Zoning Commission**  
**Agenda Request**  
**January 11, 2024**

Item No. 02

Requester: Planning and Zoning Commission

**Agenda Item Request**

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Consent Agenda:

- A. Approval of the minutes of the December 14, 2023 Planning and Zoning Commission meeting.

**Background Information**

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NA

**Attachments/Supporting Documentation**

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1. Minutes of the December 14, 2023 Planning and Zoning Commission Meeting

**Budget/Financial Impact**

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NA

**Recommendation**

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Staff recommends approval of the consent agenda as presented.

**Motion**

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I make a motion to approve the consent agenda as presented.



## MINUTES

### PLANNING AND ZONING COMMISSION MEETING

December 14, 2023 | 6:30 PM

Council Chambers

City Hall | 665 Country Club Road, Lucas, Texas

**Commissioners Present:**

Chairman Tommy Tolson  
Vice-Chairman Joe Williams  
Commissioner Peggy Rusterholtz  
Commissioner Chris Bierman  
Commissioner James Foster  
Alternate Commissioner Sean Alwardt

**Staff Present:**

City Manager Joni Clarke  
Assistant City Manager Kent Souriyasak  
Development Services Director Joe Hilbourn

**Staff Absent:**

City Attorney Courtney Morris

**Commissioners Absent:**

Alternate Commissioner Frank Hise

**City Council Liaison Absent:**

Mayor Jim Olk

### Call to Order

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The meeting was called to order at 6:30 pm and the Pledge of Allegiance was recited.

### Consent Agenda

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**1. Consent Agenda:****A. Approval of the minutes of the November 9, 2023 Planning and Zoning Commission meeting.**

Chairman Tolson proposed a correction to the minutes of the November 9, 2023 Planning and Zoning Commission meeting under agenda item number two to clarify the applicant has withdrawn their request.

**MOTION:** A motion was made by Commissioner Foster, seconded by Commissioner Rusterholtz to approve the consent agenda with the proposed correction to the minutes of the November 9, 2023 Planning and Zoning Commission meeting. The motion passed unanimously by a 5 to 0 vote.

### Regular Agenda

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**2. Consider approving the amended site plan requested by the property owner Wal-Mart Real Estate on behalf of Panda Express for a restaurant located at 2662 West Lucas Road, Lucas, Texas, on a 0.975-acre tract of land situated in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A of the Wal-Mart Lucas Addition.**

Development Services Director Joe Hilbourn gave a presentation on this item. There was no discussion on this item.

**MOTION:** A motion was made by Commissioner Bierman, seconded by Commissioner Rusterholtz to approve the amended site plan requested by the property owner Wal-Mart Real Estate on behalf of Panda Express for a restaurant located at 2662 West Lucas Road, Lucas, Texas, on a 0.975-acre tract of land situated in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A of the Wal-Mart Lucas Addition. The motion passed unanimously by a 5 to 0 vote.

- 3. Consider approving the site plan, landscape plan, elevations, and tree survey requested by Panda Express for a restaurant located at 2662 West Lucas Road, Lucas, Texas, on 0.975-acre tract of land situated in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A of the Wal-Mart Lucas Addition.**

Development Services Director Joe Hilbourn gave a presentation on this item. The Planning and Zoning Commission had questions about trees, signs, elevations, and the fire lane at the site. Mr. Hilbourn indicated the trees would be reduced due to utility line conflicts, the Panda Express restaurant sign would still be needed and placed on the monument sign, and the fire lane would be continuous.

**MOTION:** A motion was made by Commissioner Foster, seconded by Commissioner Rusterholtz to approve the site plan, landscape plan, elevations, and tree survey requested by Panda Express for a restaurant located at 2662 West Lucas Road, Lucas, Texas, on 0.975-acre tract of land situated in the W. Snider Survey, Abstract Number 821, being part of Lot 1, Block A of the Wal-Mart Lucas Addition. The motion passed unanimously by a 5 to 0 vote.

- 4. Executive Session: There is not an executive session scheduled for this meeting.**

Chairman Tolson indicated there was no executive session scheduled.

- 5. Adjournment.**

Chairman Tolson gave special remarks on behalf of the Planning and Zoning Commission thanking Commissioner Rusterholtz for her service.

Chairman Tolson adjourned the meeting at 6:44 pm.

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Tommy Tolson, Chairman

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Kent Souriyasak, Assistant City Manager



# City of Lucas

## Planning and Zoning Commission

### Agenda Request

### January 11, 2024

Item No. 03

Requester: Development Services Director Joe Hilbourn

#### **Agenda Item Request**

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Consider approving a request by Sudhir Sakaria on behalf of 3R Land Properties L.C. for a preliminary plat for Sandalwood Estates, an addition to the City of Lucas being all of a 25.13-acre tract of land located in the Lewis P. Turner Survey, Abstract Number 901, and the John Gary Survey, Abstract Number 349, otherwise known as 7259 East Parker Road, Lucas, Texas.

#### **Background Information**

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The property is located on the north side of East Parker Road approximately one-third of a mile east of Lewis Lane. The property is currently zoned R-1 (Single Family Residential, 1-acre lots).

The proposed subdivision includes 20 lots where 19 are residential building lots and one open space lot for detention. The civil construction plans were reviewed and approved by the City's Engineering Department. A tree survey was submitted where a total of 214 inches of tree caliper will have to be mitigated at the final plat and entrance landscape stage.

A Conditional Letter of Map Revision (CLOMR) has been submitted to the Federal Emergency Management Agency (FEMA). City staff has a copy of the CLOMR and the flood study. The water main is looped. The entrance is split, and the cul-de-sac is oversized to mitigate a dead end exceeding 600 feet and more than 10 lots. The Texas Department of Transportation (TxDOT) has approved both the road connection to Parker Road and the drainage being released into the TxDOT drainage system.

#### **Attachments/Supporting Documentation**

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1. Preliminary Plat
2. Site Plan
3. Development Application
4. Preliminary Plat Checklist
5. Tree Survey
6. Civil Construction Plans

#### **Budget/Financial Impact**

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NA

#### **Recommendation**

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Staff recommends approval of the preliminary plat as presented.



**City of Lucas**  
**Planning and Zoning Commission**  
**Agenda Request**  
**January 11, 2024**

Item No. 03

**Motion**

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I make a motion to approve/deny request by Sudhir Sakaria on behalf of 3R Land Properties L.C. for a preliminary plat for Sandalwood Estates, an addition to the City of Lucas being all of a 25.13-acre tract of land located in the Lewis P. Turner Survey, Abstract Number 901, and the John Gary Survey, Abstract Number 349, otherwise known as 7259 East Parker Road, Lucas, Texas.



NOTE: CONTOURS INSIDE SUBDIVISION BOUNDARY ARE SURVEYED ON THE GROUND AND CONTOURS OUTSIDE SUBDIVISION BOUNDARY ARE TAKEN FROM NCTCDG LIDAR CONTOURS AND ARE APPROXIMATE.

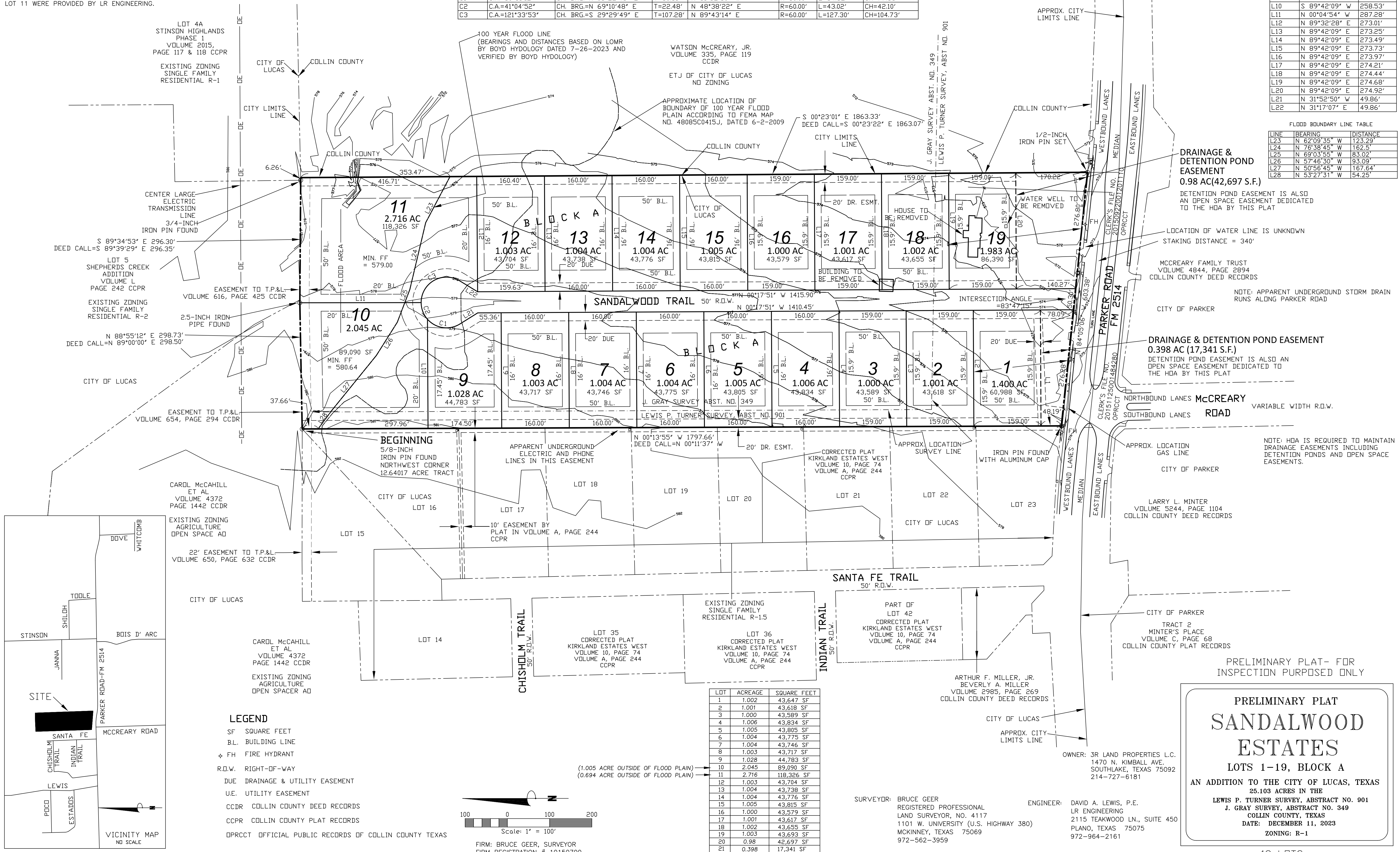
LOTS OR PORTIONS OF LOTS WITHIN THE FLOODPLAIN OR AREA OF SPECIAL FLOOD HAZARD REQUIRE A DEVELOPMENT PERMIT PRIOR TO ISSUANCE OF A BUILDING PERMIT OR COMMENCEMENT OF CONSTRUCTION INCLUDING SITE GRADING, ON ALL OR PART OF THOSE LOTS.

BEARING BASE: GRID NORTH USING ALLTERRA GPS NETWORK  
MINIMUM FINISH FLOOR ELEVATIONS AS SHOWN ON LOT 10 AND LOT 11 WERE PROVIDED BY LR ENGINEERING.

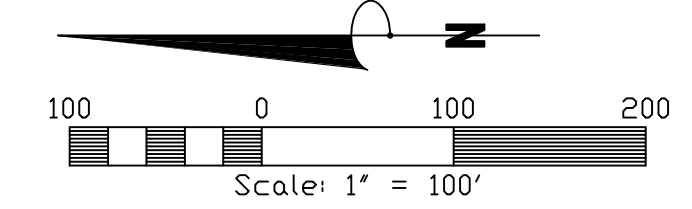
NUMBER	DELTA ANGLE	CHORD DIRECTION	TANGENT	TANGENT DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	C.A.=80°31'12"	CH. BRG.=N 08°22'46" E	T=50.81'	N 31°52'50" W	R=60.00'	L=84.32'	CH=77.55'
C2	C.A.=41°04'52"	CH. BRG.=N 69°10'48" E	T=22.48'	N 48°38'22" E	R=60.00'	L=43.02'	CH=42.10'
C3	C.A.=121°33'53"	CH. BRG.=S 29°29'49" E	T=107.28'	N 89°43'14" E	R=60.00'	L=127.30'	CH=104.73'

NUMBER	DIRECTION	DISTANCE
L1	S 89°42'09" W	274.60'
L2	S 89°42'09" W	274.42'
L3	S 89°42'09" W	274.24'
L4	S 89°42'09" W	274.06'
L5	S 89°42'09" W	273.87'
L6	S 89°42'09" W	273.69'
L7	S 89°42'09" W	273.51'
L8	S 89°42'09" W	273.32'
L9	S 89°42'09" W	273.14'
L10	S 89°42'09" W	258.53'
L11	N 00°04'54" W	287.28'
L12	N 89°32'28" E	273.01'
L13	N 89°42'09" E	273.25'
L14	N 89°42'09" E	273.49'
L15	N 89°42'09" E	273.73'
L16	N 89°42'09" E	273.97'
L17	N 89°42'09" E	274.21'
L18	N 89°42'09" E	274.44'
L19	N 89°42'09" E	274.68'
L20	N 89°42'09" E	274.92'
L21	N 31°52'50" W	49.86'
L22	N 31°17'07" E	49.86'

LINE	BEARING	DISTANCE
L23	N 62°09'35" W	123.29'
L24	N 78°38'45" W	162.15'
L25	N 69°03'55" W	83.02'
L26	N 57°46'30" W	93.09'
L27	N 50°56'45" W	167.64'
L28	N 53°27'31" W	54.25'



- LEGEND**
- SF SQUARE FEET
  - B.L. BUILDING LINE
  - FH FIRE HYDRANT
  - R.O.W. RIGHT-OF-WAY
  - DUE DRAINAGE & UTILITY EASEMENT
  - U.E. UTILITY EASEMENT
  - CCDR COLLIN COUNTY DEED RECORDS
  - CCPR COLLIN COUNTY PLAT RECORDS
  - DPRCCT OFFICIAL PUBLIC RECORDS OF COLLIN COUNTY TEXAS



LOT	ACREAGE	SQUARE FEET
1	1.002	43,647 SF
2	1.001	43,618 SF
3	1.000	43,589 SF
4	1.006	43,834 SF
5	1.005	43,805 SF
6	1.004	43,775 SF
7	1.004	43,746 SF
8	1.003	43,717 SF
9	1.028	44,783 SF
10	2.045	89,090 SF
11	2.716	118,326 SF
12	1.003	43,704 SF
13	1.004	43,738 SF
14	1.004	43,776 SF
15	1.005	43,815 SF
16	1.000	43,579 SF
17	1.001	43,617 SF
18	1.002	43,655 SF
19	1.003	43,693 SF
20	0.98	42,697 SF
21	0.398	17,341 SF

(1.005 ACRE OUTSIDE OF FLOOD PLAIN)  
(0.694 ACRE OUTSIDE OF FLOOD PLAIN)

FIRM: BRUCE GEER, SURVEYOR  
FIRM REGISTRATION # 10150700

PRELIMINARY PLAT  
**SANDALWOOD  
ESTATES**  
LOTS 1-19, BLOCK A  
AN ADDITION TO THE CITY OF LUCAS, TEXAS  
25.103 ACRES IN THE  
LEWIS P. TURNER SURVEY, ABSTRACT NO. 901  
J. GRAY SURVEY, ABSTRACT NO. 349  
COLLIN COUNTY, TEXAS  
DATE: DECEMBER 11, 2023  
ZONING: R-1

OWNER: 3R LAND PROPERTIES L.C.  
1470 N. KIMBALL AVE.  
SOUTHLAKE, TEXAS 75092  
214-727-6181

SURVEYOR: BRUCE GEER  
REGISTERED PROFESSIONAL  
LAND SURVEYOR, NO. 4117  
1101 W. UNIVERSITY (U.S. HIGHWAY 380)  
MCKINNEY, TEXAS 75069  
972-562-3959

ENGINEER: DAVID A. LEWIS, P.E.  
LR ENGINEERING  
2115 TEAKWOOD LN., SUITE 450  
PLANO, TEXAS 75075  
972-964-2161

OWNERS CERTIFICATE

STATE OF TEXAS )
COUNTY OF COLLIN )

WHEREAS WE, 3R LAND PROPERTIES L.C., are the owners of the property situated in the City of Lucas described as follows:

SITUATED in the Lewis P. Turner survey, abstract no. 901 and in the J. Gray survey, abstract no. 349, being a survey of the 12.576 acre tract described in a correction deed from Nelda Rae Owens and Myrna Marie Godier to 3R Land Properties, L. C., recorded as clerk's file no. 202200078425 of the Official Public Records of Collin County, Texas and a part of the 12.64017 acre tract described in a deed from Phillip E. Kennedy and wife, Margaret Jean Kennedy, to 3R Properties L.C. recorded in volume 5024, page 1136 of the Collin County deed records, being described by metes and bounds as follows:

BEGINNING at a 5/8-inch iron pin found at the northwest corner of said 12.64017 acre tract and the northeast corner of the corrected plat of Kirkland Estates West recorded in volume 10, page 74 and volume A, page 244 of the Collin County plat records;

THENCE North 88°55'12" East, (Deed Call = North 89°00'00" East, 298.50 feet) with the north line of said 12.64017 acre tract, 298.73 feet to a 2.5-inch iron pipe found at the northeast corner of said 12.64017 acre tract and the northwest corner of said 12.576 acre tract;

THENCE South 89°34'53" East, (Deed Call = South 89°39'29" East, 296.35 feet) with the north line of said 12.576 acre tract, passing at 290.04 feet a 3/4-inch iron pin found and continuing in all, 296.30 feet to a point at the northeast corner of said 12.576 acre tract;

THENCE South 00°23'01" East, 1863.33 feet (Deed Call = South 00°23'22" East, 1863.07 feet) to a 1/2-inch iron pin set in the north right-of-way line of Parker Road(FM 2514), at the northeast corner of the 0.1715 acre tract recorded as clerk's file no. 20150922001201110;

THENCE North 84°05'06" West, with the north right-of-way line of said Parker Road and with the north line of said 0.1715 acre tract, passing at 298.10 feet, the northwest corner of said 0.1715 acre tract and the northeast corner of the 0.1458 acre tract recorded as clerk's file no. 20151125001484280, continuing with the north line of said 0.1458 acre tract, in all 603.38 feet to an iron pin found with aluminum cap at the northwest corner of said 0.1458 acre tract; same being in the west line of said 12.64017 acre tract and the east line of said Kirkland Estates West.

THENCE North 00°13'55" West, (Deed Call = North 00°11'37" West) with the west line of said 12.64017 acre tract and the east line of said Kirkland Estates West, 1797.66 feet to the PLACE OF BEGINNING and containing 25.130 acres.

STATE OF TEXAS )
COUNTY OF COLLIN )

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That we, 3R LAND PROPERTIES L.C., Owners, do hereby bind themselves and their heirs, assignees and successors of title this plat designating the hereinabove described property as SANDALWOOD ESTATES LOTS 1-19, BLOCK A, an addition to the City of Lucas, and do hereby dedicate to the public use forever the streets, alleys, and right-of-way easements shown thereon, and do hereby reserve the easement strips shown on this plat for the mutual use and accommodation of garbage collection agencies and all public utilities desiring to use or using same. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other improvements or growths that in any way endanger or interfere with the construction, maintenance or efficiency of its respective systems on any of these easements strips, and any public utility shall at all times have the right of ingress and egress to and from and upon the said easement strips for the purpose of constructing, reconstructing, inspecting, patrolling, without the necessity at any time of procuring the permission of anyone. Additionally, we certify that we are the sole owners of the dedicated property and that no other's interest is attached to this property unless otherwise indicated on the required Mortgage Holder Certification that is included on this plat. Furthermore, as the owner of the property described herein, and in consideration of establishing the subdivision described herein, we agree to the following:

- Every owner of fee simple title to every individual lot within the subdivision shall be a member of the homeowners' association;
• The homeowners' association shall have the authority to collect membership fees;
• As applicable as it pertains to conditions shown herein, the homeowners' association shall be responsible for the maintenance of all common areas, screening walls, landscaped areas, private streets and alleys.
• The homeowners' association shall grant the City the right of access to any areas to abate any nuisances on such areas and attach a lien upon each individual lot for the prorated costs of abatement.
• The homeowners' association shall indemnify and hold the City harmless from any and all costs, expenses, suits, demands, liabilities, damages, or otherwise, including attorney fees and costs of suit, in connection with the City's maintenance of common areas.
• The homeowners' association shall, where additional rights-of-way has been dedicated for the purpose of providing landscaping, additional areas for sidewalks, walls or other amenities, enter into a license agreement with the City and shall be responsible for the installation and maintenance of all landscape areas in the public rights-of-way.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Lucas, Texas.

By: Sudhir Sakaria, Managing Owner

STATE OF TEXAS )
COUNTY OF COLLIN )

Before me, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared Sudhir Sakaria, Managing Owner, known to me to be the person whose names are subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purpose and considerations therein expressed.

Given under my hand and seal of office, this \_\_\_ day of \_\_\_, 20\_\_.

Notary Public in and for The State of Texas

SURVEYORS CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

That I, Bruce Geer, do hereby certify that I prepared this plat from an actual on the ground survey of the land as described and that the corner monuments shown thereon were properly placed under my personal supervision in accordance with the Platting Rules and Regulations of the City of Lucas Planning and Zoning Commission.

PRELIMINARY-THIS DOCUMENT SHALL NOT TO BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

Bruce Geer, Registered Professional Land Surveyor No. 4117

STATE OF TEXAS: )
COUNTY OF COLLIN: )

Before me, the undersigned authority, a notary public in and for the state, on this day personally appeared Bruce Geer known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office, this the \_\_\_ day of \_\_\_, 20\_\_.

Notary Public in and for the State of Texas

CITY APPROVAL CERTIFICATE

This plat is hereby approved by the Planning and Zoning Commission of the City of Lucas, Texas.

Tommy Tolson, Chairman, Planning and Zoning Commission

Date

ATTEST:

Signature

Date

Name & Title

The Director of Public Works of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinances and with engineering construction standards and processes adopted by the City of Lucas, Texas as to which his/her approval is required.

Scott Holden, Director of Public Works

Date

The Director of Development Services of the City of Lucas, Texas hereby certifies that to the best of his/her knowledge or belief, this subdivision plat conforms to all requirements of the Code of Ordinances, or as may have been amended or modified, as allowed, by the Planning and Zoning Commission as to which his/her approval is required.

Joseph Hilbourn, Development Services Director

Date

Health Department Certification:

I, as a representative of Collin County Development Services, do hereby certify that the on-site sewage facilities described on this plat conform to the applicable OSSF laws of the State of Texas, that site evaluations have been submitted representing the site conditions in the area in which on-site sewage facilities are planned to be used.

Designated Representative for Collin County Development Services

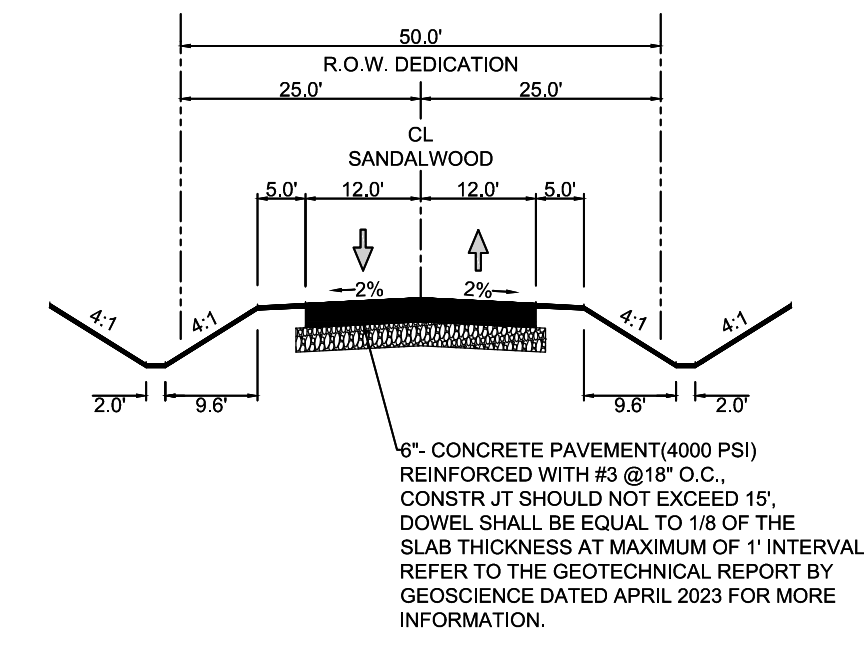
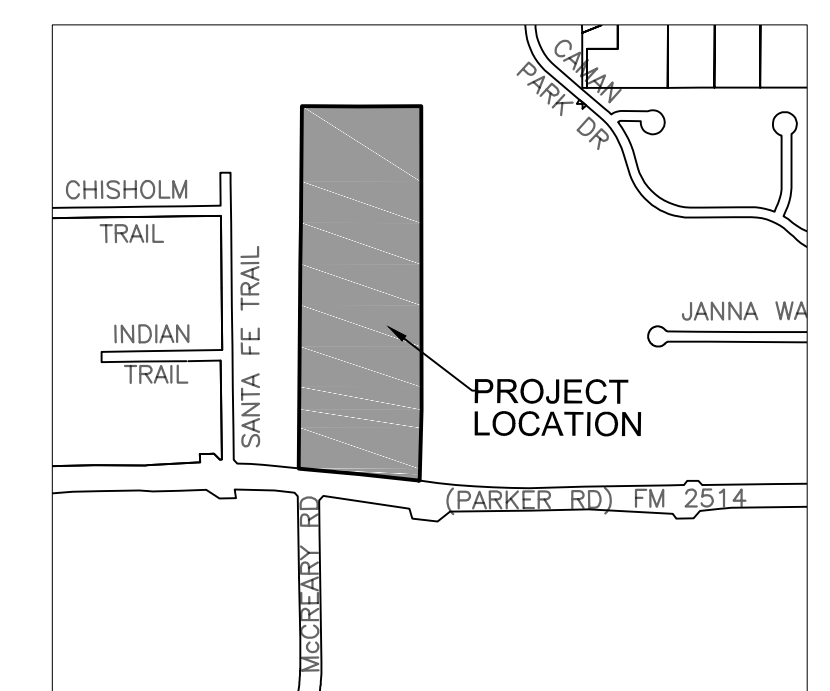
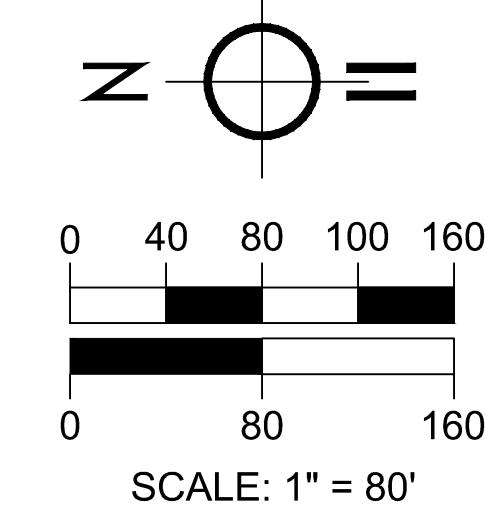
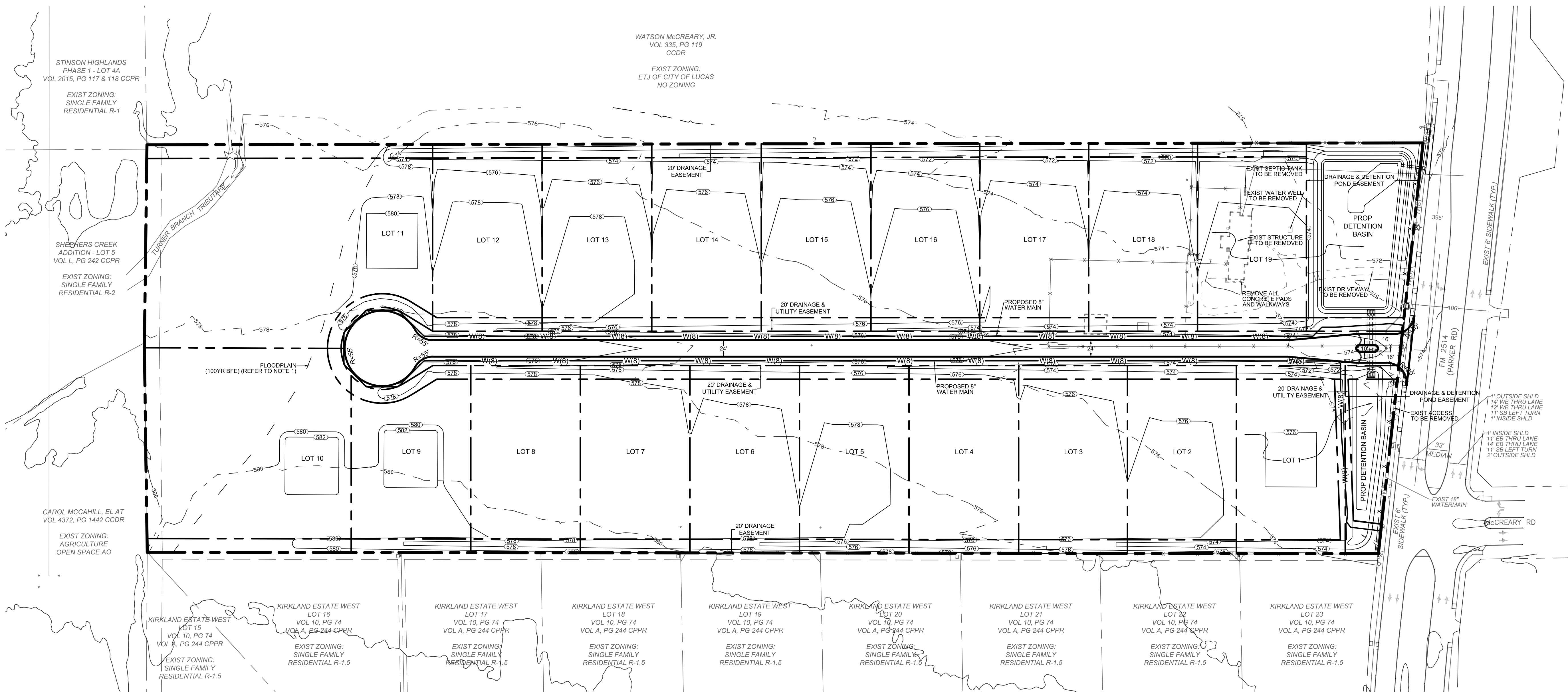
OWNER: 3R LAND PROPERTIES L.C.
1470 N. KIMBALL AVE.
SOUTHLAKE, TEXAS 75092
214-727-6181

SURVEYOR: BRUCE GEER
REGISTERED PROFESSIONAL
LAND SURVEYOR, NO. 4117
1101 W. UNIVERSITY (U.S. HIGHWAY 380)
MCKINNEY, TEXAS 75069
972-562-3959

ENGINEER: DAVID A. LEWIS, P.E.
LR ENGINEERING
2115 TEAKWOOD LN., SUITE 450
PLANO, TEXAS 75075
972-964-2161

PRELIMINARY PLAT- FOR
INSPECTION PURPOSED ONLY

PRELIMINARY PLAT
SANDALWOOD
ESTATES
LOTS 1-19, BLOCK A
AN ADDITION TO THE CITY OF LUCAS, TEXAS
25.103 ACRES IN THE
LEWIS P. TURNER SURVEY, ABSTRACT NO. 901
J. GRAY SURVEY, ABSTRACT NO. 349
COLLIN COUNTY, TEXAS
DATE: DECEMBER 11, 2023
ZONING: R-1



**NOTES**

1. FLOOD PLAIN (100YR BFE) IS BASED ON LOMR BY BOYD HYDROLOGY PLLC DATED 7/26/2023.

SITE DATA SUMMARY TABLE						
EXISTING ZONING: R1.5 (RE-ZONED TO R1, CITY OF LUCAS PLANNING AND ZONING)						
LOT	PROPOSED USE	LOT AREA		BUILDING SIZE (MAIN & ACCESSORY BUILDING)		BUILDING HEIGHT
		(SF)	(AC)	(SF)	(%)	
1	SINGLE-FAMILY RESIDENCE	60,988	1.4001	NOT TO EXCEED 13,094 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
2	SINGLE-FAMILY RESIDENCE	43,618	1.0013	NOT TO EXCEED 13,085 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
3	SINGLE-FAMILY RESIDENCE	43,589	1.0007	NOT TO EXCEED 13,076 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
4	SINGLE-FAMILY RESIDENCE	43,834	1.0063	NOT TO EXCEED 13,150 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
5	SINGLE-FAMILY RESIDENCE	43,805	1.0056	NOT TO EXCEED 13,141 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
6	SINGLE-FAMILY RESIDENCE	43,775	1.0049	NOT TO EXCEED 13,132 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
7	SINGLE-FAMILY RESIDENCE	43,746	1.0043	NOT TO EXCEED 13,123 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
8	SINGLE-FAMILY RESIDENCE	43,717	1.0036	NOT TO EXCEED 13,115 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
9	SINGLE-FAMILY RESIDENCE	44,783	1.0281	NOT TO EXCEED 13,434 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
10	SINGLE-FAMILY RESIDENCE	89,090	2.0452	NOT TO EXCEED 26,727 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
11	SINGLE-FAMILY RESIDENCE	118,326	2.7164	NOT TO EXCEED 35,497 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
12	SINGLE-FAMILY RESIDENCE	43,704	1.0033	NOT TO EXCEED 13,111 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
13	SINGLE-FAMILY RESIDENCE	43,738	1.0041	NOT TO EXCEED 13,121 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
14	SINGLE-FAMILY RESIDENCE	43,776	1.0050	NOT TO EXCEED 13,132 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
15	SINGLE-FAMILY RESIDENCE	43,815	1.0059	NOT TO EXCEED 13,144 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
16	SINGLE-FAMILY RESIDENCE	43,579	1.0004	NOT TO EXCEED 13,073 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
17	SINGLE-FAMILY RESIDENCE	43,617	1.0013	NOT TO EXCEED 13,085 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
18	SINGLE-FAMILY RESIDENCE	43,655	1.0022	NOT TO EXCEED 13,096 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES
19	SINGLE-FAMILY RESIDENCE	86,390	1.9832	NOT TO EXCEED 13,108 SF	NOT TO EXCEED 30% OF LOT	NOT TO EXCEED 35 FT OR TWO AND ONE-HALF STORIES

REV	DATE	DESCRIPTION

## SITE PLAN

### SANDALWOOD ESTATES

LOTS 1 - 19, BLOCK A  
OUT OF THE

LEWIS P TURNER SURVEY, ABSTRACT NO. 901; AND  
JOHN GARY SURVEY, ABSTRACT NO. 349  
COLLIN COUNTY, TEXAS

<b>PROJECT OWNER(S)</b> 3R LAND PROPERTIES L.C. 1470 N. KIMBALL AVE SOUTHLAKE TX 76092	<b>SURVEYOR</b> BRUCE GEER, R.P.L.S. 1101 W. UNIVERSITY DR (US 380) MCKINNEY TX 75069 PH: 972-562-3959	<b>ENGINEER</b> DAVID LEWIS, P.E. 2115 TEAKWOOD LN SUITE 450 PLANO TX 75075 PH: 972-964-2161 DATE: January 3, 2024
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## DEVELOPMENT APPLICATION

### City of Lucas, Texas

NAME OF SUBDIVISION AND/OR PROJECT: SANDALWOOD ESTATES

ITEM SUBMITTED	APPLICATION FEE
<b>Site Plan</b> \$300 + \$10 per acre (i.e. \$500 for a 20 acre site plan)	_____
<b>Tree Survey/Conservation Plan</b>	_____ N/A _____
<b>Tree Removal &amp; Site Clearing Permit</b> \$250	_____
<b>Architectural Plan</b> \$250 + \$50 for any reviews or presentations of amended plans	_____
<b>Landscape Plan</b> \$200 + \$50 for any reviews or presentations of amended plans	_____
<b>Park Site Dedication</b> \$1,000 per lot or land dedication per Lucas City Ordinance Sec. 10.03.122	_____
<b>TOTAL FEES SUBMITTED</b>	_____

Collin County Appraisal District Short Account Number(s): \_\_\_\_\_

Physical Location of Property: 7259 Parker Rd (northeast of McCreary Intersection)  
(Address and General Location – approximate distance to nearest existing street corner)

Brief Legal Description of Property (must also attach accurate metes and bounds description):  
Lewis P. Turner Survey, Abstract No. 901 (Tract 4 & 5), and J. Gary Survey, Abstract No. 349 (Tract 6 & 7)  
(Survey/Abstract No. and Tracts; or platted Subdivision Name with Lots/Block)

Acreage: 25.13 (Total) Existing # of Lots/Tracts: 4 Existing Zoning: R1.5

**OWNER'S NAME:** 3R LAND PROPERTIES L.C. Contact Phone: 214-727-6181

Applicant/Contact Person: Sudhir Sakaria Title: Managing Owner

Company Name: 3R LAND PROPERTIES L.C.

Street/Mailing Address: 1470 N. Kimball Ave

City: Southlake State: TX Zip code: 76092

Phone: ( ) 214-727-6181 Fax: ( ) \_\_\_\_\_ Email Address: manakiinc@yahoo.com

**ENGINEER/REPRESENTATIVE'S NAME:** David Lewis, P.E. - LR Engineering

Contact Person: David Lewis, P.E. Title: Principal

Street/Mailing Address: 2115 Teakwood Ln, Suite 450

City: Plano State: TX Zip code: 75075

Phone: ( ) 972-964-2161 Fax: ( ) 972-964-2037 Email Address: engineering@lrtexas.com



NAME OF SUBDIVISION and/or PROJECT: SANDALWOOD ESTATES

**\*\*READ BEFORE SIGNING BELOW:** If there is more than one property owner, complete a separate sheet with the same wording as below. The City requires all original signatures. If applicant is other than the property owner, a "Power of Attorney" with original, notarized signatures is required. (Notaries are available upon submittal)

**ALL APPLICATIONS MUST BE COMPLETE, ACCOMPANIED BY THE APPLICABLE CHECKLIST AND TAX CERTIFICATE SHOWING TAXES PAID, BEFORE THEY WILL BE SCHEDULED FOR P&Z AGENDA.** It is the applicant's responsibility to be familiar with, and to comply with, all City submittal requirements (in the Zoning & Subdivision Ordinances, and any separate submittal policies, requirements and/or checklists that may be required from City staff), including the number of plans to be submitted, application fees, etc. Please contact City staff in advance for submittal requirements. [Drawings will not be returned to applicant.]

**ALL PARCELS/PROPERTIES MUST MATCH IN ACREAGE ALL OTHER DOCUMENTS SUBMITTED WITH NO AMBIGUITY.**

**SUBMISSIONS:** Failure to submit all materials to the City with this application will result in delays scheduling the agenda date.

**NOTICE OF PUBLIC RECORDS.** The submission of plans/drawings/etc. with this application makes such items public record, and the applicant understands that these items may be viewed by the general public. Unless the applicant expressly states otherwise in writing, submission of this application (with associated plans/drawings/etc.) will be considered consent by the applicant that the general public may view and/or reproduce (i.e., copy) such documents.

Applicant agrees to pay any and all monies due to the City including but not limited to park pro rata fee, Tree Removal Permit fee, 3% of construction cost (developer to provide contracts for verification) and including but not limited to other fees that may be required prior to final plat approval.

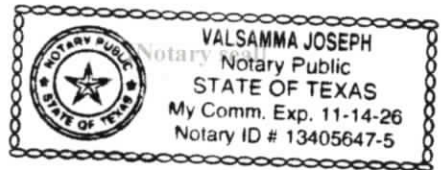
STATE OF TEXAS }  
COUNTY OF COLLIN }

BEFORE ME, a Notary Public, on this day personally appeared SUDHIR SAKARIA the undersigned who, under oath, stated the following: "I hereby certify that I am the owner, or duly authorized agent of the owner, (proof attached) for the purposes of this application; that all information submitted herein is true and correct. I understand that submitting this application does not constitute approval, and incomplete applications will result in delays and possible denial."

[Signature]  
\*\*Owner / Agent (circle one)

SUBSCRIBED AND SWORN TO before me, this the 20th day of June, 2023

Notary Public in and for the State of Texas: [Signature]



<b>Official Use Only:</b>	<b>Action Taken</b>
Planning & Zoning: _____	Date: _____
City Council: _____	Date: _____
Applicant Withdrew: Yes or No	Applicant Made a Written Withdrawal: Yes or No
	Date: _____



## PRELIMINARY AND FINAL PLAT Minimum Requirements Checklist

Project Name SANDALWOOD ESTATES Preparer BRUCE GEEB

This checklist is provided to assist you in addressing the minimum requirements for Preliminary Plat submission. Confirm that all information is included on the submitted plans by checking the box next to the required information. Checking the box certifies to the City that you have completely and accurately addressed the issue. This completed form must be returned at the time of application submittal.

If an exception or modification to the regulations is requested, the reason and/or request for each shall be provided both directly on the plan and on a separate sheet on letterhead with sufficient details as to allow a determination by the appropriate approving body. Additional information may be required. Reference the specific requirement. Plans are to be submitted complete in all detail as shown by the checklist. Should plans be determined to be incomplete, they may either be returned to the applicant without further review or marked up with needed changes. If a preliminary plat is required, a Tree Survey/Preservation Plan is also required as part of the submittal requirements with and at the time of preliminary plat submittal. Refer to the Development Plan Application packet for the needed application and checklist.

- I have made the decision NOT to waive the statutory time limits (30 days) in accordance with section 212 of the Texas Local Government Code. I understand and acknowledge that the City may DENY my plat application if not complete as determined by staff within the 30-day time period.
- The required number of copies of the preliminary plat and the approved engineering and construction plans for all public infrastructure improvements in accordance with the design standards of the City, to include all streets, water mains and services, sewer system and services, and drainage systems required to develop the proposed subdivision.
- The name, address and telephone number of the owner, the surveyor, and engineer responsible for the preparation of the final plat.
- The name of the subdivision and location map showing adjacent subdivisions, street names (which shall conform, whenever possible, to existing street names and be approved by the Post Office) and lot and blocks numbers in accordance with a systematic arrangement.
- An accurate boundary survey description of the property, with bearings and distances, referenced to survey lines, existing property descriptions and established subdivisions, and showing the lines of adjacent tracts, the layout, dimensions and names of adjacent streets and alleys and lot lines shown in dashed lines.
- Existing boundary of adjacent street, and alley rights-of-way and boundaries of right-of-way (ROW) dedication are indicated, street names are labeled, and ROW widths are dimensioned.
- Scale, north point, date, lot and block numbers.
- The name and location of adjacent subdivisions or unplatted tracts drawn to scale shown in ~~center~~ **DASHED** lines and in sufficient detail to accurately show the existing streets, alleys and other features that may influence the layout and development of the propose subdivision. The abstract name and number, and name of the owner of the adjacent unplatted tracts should be shown.
- Exact location of lots, streets, public highways, alleys, parks and other features, with accurate dimensions in feet and decimal fractions of feet, with the length of radii and of arcs of all curves, internal angles, points of curvatures, length and bearings of the tangents, and with all other surveyor information necessary to reproduce the plat on the ground. Dimensions shall be shown from all angle points.
- All lots on building sites shall conform to the minimum standards for area, width and depth prescribed by the zoning district or districts in which the subdivision is located and state the area size of each lot. Internal lot lines are clearly indicated, shown to scale, and labeled with bearings and distances.
- Building setback lines and the location of utility easements.
- Topographic information showing contour lines with intervals up to one (1') foot indicating the terrain, drainage pattern of the area, and the drainage basin areas within the proposed subdivision. Topographic information showing contour lines with intervals up to two (2) feet indicating the terrain, the drainage pattern of the area, and the drainage basin areas outside the boundaries of the proposed subdivision.
- The layout and dimensions of proposed storm drainage areas, easements and rights-of-way necessary for drainage within and outside the boundaries of the proposed subdivision.
- N/A** The location and purpose of all proposed parks or other areas offered for dedication to public use.



# PRELIMINARY AND FINAL PLAT Minimum Requirements Checklist

- The location of all existing property lines, buildings, sewer or water mains, storm drainage areas, water and wastewater facilities, fire hydrants, gas mains or other underground structures, easements of record or other existing features.
- The location, size and identification of any physical features of the property, including water courses, ravines, bridges, culverts, existing structures, drainage or other significant topographic features located on the property or within one hundred fifty feet (150') of the proposed subdivision.
- Copy of any deed restrictions, restrictive covenants, special use permit or planned development district ordinance regulating the property.
- The angle of intersection of the centerlines of all intersecting streets which are intended to be less than ninety (90°) degrees.
- In accordance with the city floodplain management regulations, of the Code of Ordinances, as amended, the floodplain and floodway lines and base flood elevations as shown on the current effective flood insurance rate maps for the city shall be shown, where applicable. A notation shall be shown on the face of the preliminary plat stating: "Lots or portions of lots within the floodplain or areas of special flood hazard require a development permit prior to issuance of a building permit or commencement of construction including site grading, on all or part of those lots".
- Floodplain and floodway lines and base flood elevations as shown on the current effective flood insurance rate maps for the City should be shown, where applicable.
- NA*  For a preliminary plat of land located outside the city limits where sanitary sewer does not exist or where street improvement standards vary from those specified by the city, such differences shall be noted.
- A certificate of ownership and dedication of all streets, alleys, easements, parks and other land intended for public use, signed and acknowledged before a Notary Public by the owner and lien holders of the property, along with complete and accurate metes and bounds description of the land subdivided and the property dedicated to public use.
- Receipt showing all taxes on the subject property are paid.
- Certification by a surveyor, to the effect that the preliminary plat represents a survey made by the Surveyor, and that all the necessary survey monuments are correctly shown thereon.
- NA*  A preliminary plat provided in multiple sheets shall include a key map showing the entire subdivision at smaller scale with lot and block numbers and street names on one (1) of the sheets or on a separate sheet of the same size.
- Copy of any proposed property owner or homeowners' association agreements, covenants and restrictions.
- Front and exterior side or corner setback lines are shown and labeled.
- Abstract lines, survey lines, county lines, school ISD boundary and corporate boundaries are shown and clearly labeled.
- A title block is provided in the lower right corner that includes large, boldly printed:

Per Flood  
Study By  
BOYD  
HYDROLOGY

(Subdivision Name)  
Preliminary Plat

Lot(s) \_\_\_\_\_, Block(s) \_\_\_\_\_ (survey, abstract and tract number)

If a replat, include:

Replat of Lot(s) \_\_\_\_\_, Block(s) \_\_\_\_\_

- A log of submittal/revision dates since submitted to the City.
- NA*  The purpose of a replat or amending plat is stated on the face of the plat document.
- NA*  If the proposal is a replat or amending plat, the existing lot numbers and block numbers or letters are shown as light dotted lines, with lot number designation followed by R for replats or an A for amending plats.
- Location of property lines, owner or subdivision name(s) and recording information of abutting properties is indicated. Unplatted property or any streets or alleys within a 500-foot radius of subject property are shown and identified/labeled as appropriate.



## PRELIMINARY AND FINAL PLAT Minimum Requirements Checklist

- Medians, median openings; turn lanes, deceleration/acceleration lanes and stacking distance is indicated within 200 feet of the property. The entire median, left-turn lane and/or deceleration lane and median opening serving a site is shown.
- Each lot is dimensioned, and the square footage of each lot is indicated.
- Each lot is numbered, and block groups are assigned a letter. Homeowner's association and other open space areas are identified with tract number.
- The location of existing underground and above ground utilities, flood plain boundaries and state or federally protected areas, such as wetlands, are indicated.
- The location of existing structures or other features proposed to remain and those proposed for removal.
- Existing easements are indicated by a light, dashed line and labeled indicating dimension, purpose and County recording information.
- Location, dimension, and purpose of proposed easements are indicated by a medium-weight, dashed line. Required and proposed ingress/egress or access easements are shown, clearly labeled and tied down, as appropriate.
- Existing zoning is shown.
- Location and area of parks, drainage ways, creeks and open space is indicated and labeled.
- Legal description/metes and bounds description is included.
- Include any notes required by the various affected agencies/utilities.
- Residential minor streets shall be designed and platted so that no street segment shall have a straight line for more than 1,000 feet before altering its course by at least 20 degrees.
- Sites to be reserved or dedicated for parks, playgrounds and/or other public uses are indicated and labeled.
- Preliminary water plans are included with this submittal.
- Contours are indicated with intervals of two (2) feet for property five acres or less and five (5) feet for property more than five acres.
- A note is included that states whether or not the property is in the 100-year flood plain, with the FIRM Community Panel reference number and map date.
- A note shall be added to the plat stating: **"Preliminary Plat - For Inspection Purposes Only."**

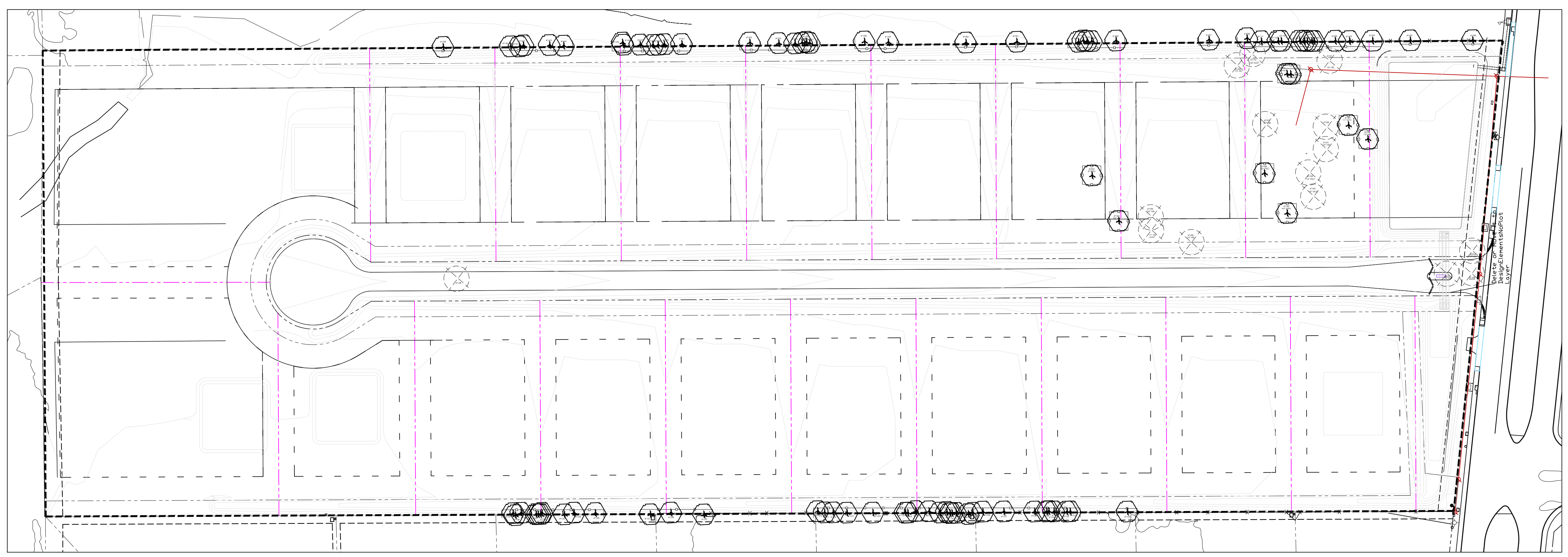
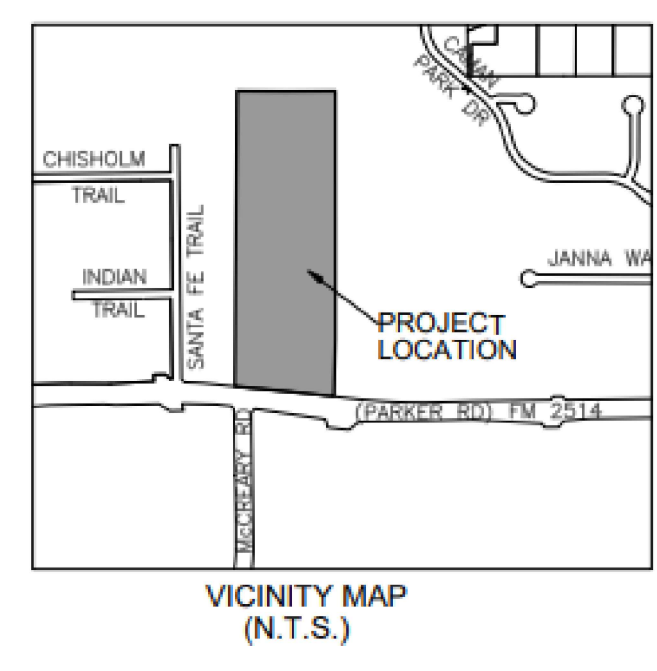
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UTILITIES



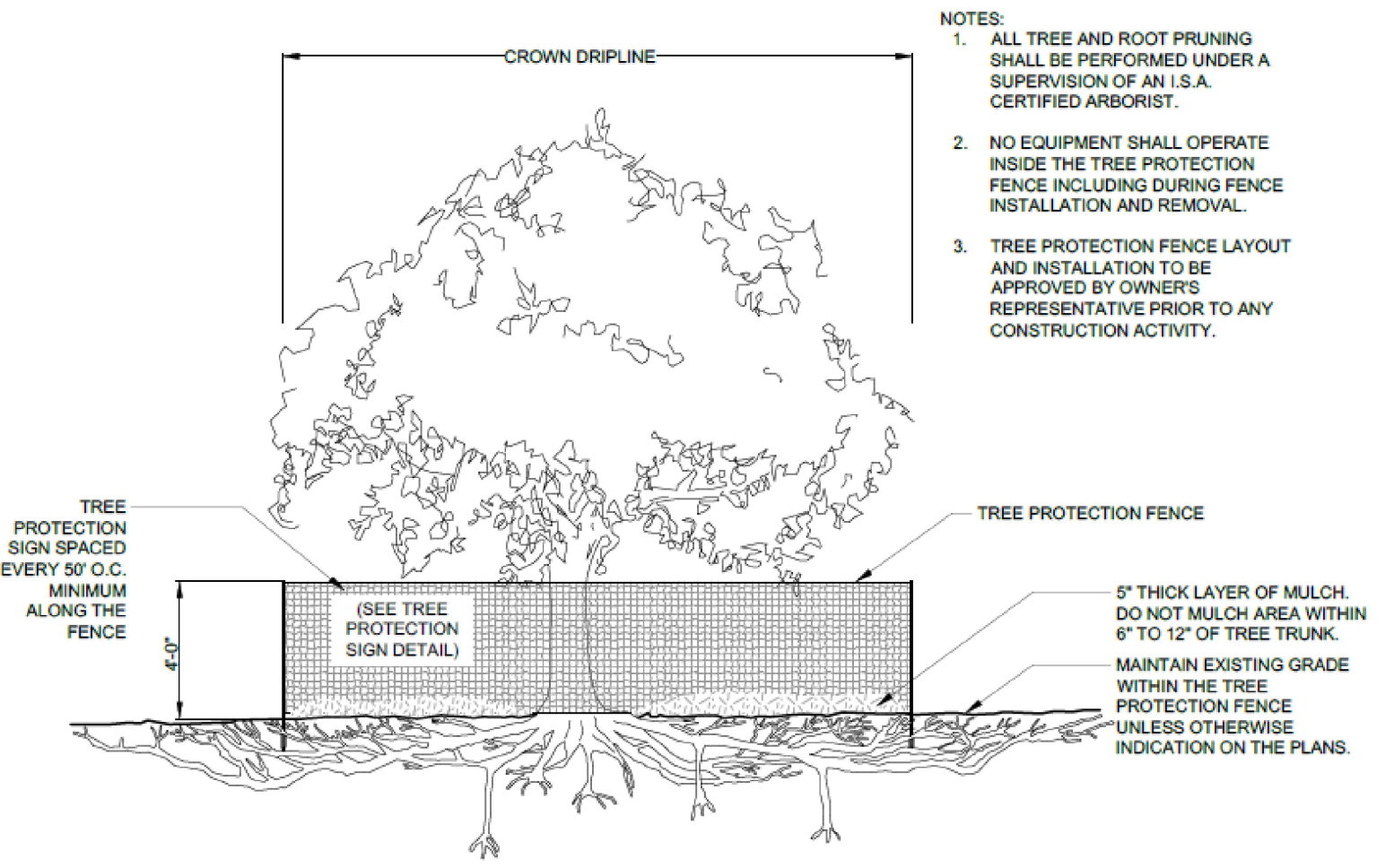
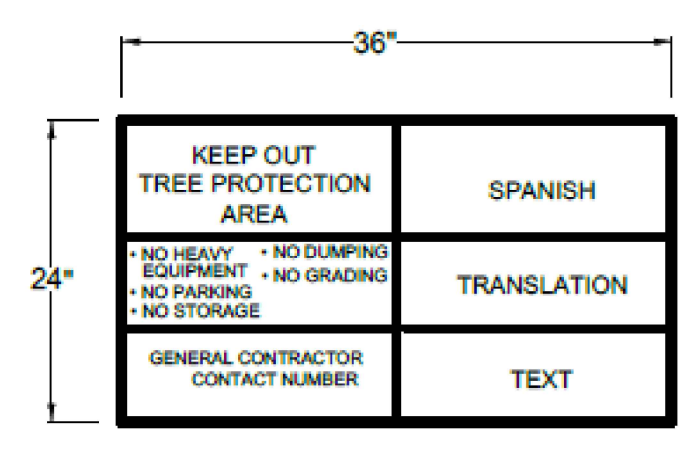
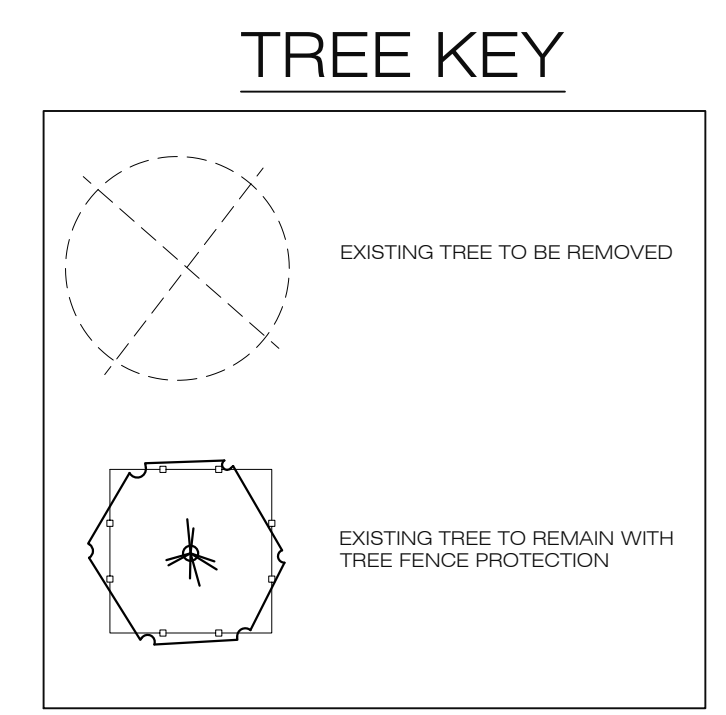
PROJECT STATUS:  
PRELIMINARY  
PROJECT MANAGER:  
JCL  
DESIGN MANAGER:  
JCL  
PROJECT DATE:  
100923  
REVISION DATE:

EXISTING TREE CHART

TREE ID	TREE CALIPER AT DBH (in)	COMMON NAME	CONDITION	PRESERVE (P) OR REMOVE	CALIPER MITIGATION REQUIRED (in)
100	24	HACKBERRY	HEALTHY	P	0
101	32	HACKBERRY	HEALTHY	P	0
102	12	HACKBERRY	HEALTHY	P	0
103	10	HACKBERRY	HEALTHY	P	0
104	7	HACKBERRY	HEALTHY	P	0
105	8	HACKBERRY	HEALTHY	P	0
106	6	HACKBERRY	HEALTHY	P	0
107	11	HACKBERRY	HEALTHY	P	0
108	10	HACKBERRY	HEALTHY	P	0
109	8	HACKBERRY	HEALTHY	P	0
110	10	HACKBERRY	HEALTHY	P	0
111	7	HACKBERRY	HEALTHY	P	0
112	16	HACKBERRY	HEALTHY	P	0
113	7	HACKBERRY	HEALTHY	P	0
114	7	HACKBERRY	HEALTHY	P	0
115	13	HACKBERRY	HEALTHY	P	0
116	12	HACKBERRY	HEALTHY	P	0
117	6	HACKBERRY	HEALTHY	P	0
118	9	HACKBERRY	HEALTHY	P	0
119	13	HACKBERRY	HEALTHY	P	0
120	12	HACKBERRY	HEALTHY	P	0
121	12	HACKBERRY	HEALTHY	P	0
122	12	HACKBERRY	HEALTHY	P	0
123	7	HACKBERRY	HEALTHY	P	0
124	19	HACKBERRY	HEALTHY	P	0
125	36	COTTONWOOD	HEALTHY	P	0
126	12	CEDAR	HEALTHY	P	0
127	12	HACKBERRY	HEALTHY	P	0
128	17	HACKBERRY	HEALTHY	P	0
129	9	HACKBERRY	HEALTHY	P	0
130	7	HACKBERRY	HEALTHY	P	0
131	10	HACKBERRY	HEALTHY	P	0
132	9	HACKBERRY	HEALTHY	P	0
133	9	HACKBERRY	HEALTHY	P	0
134	8	HACKBERRY	HEALTHY	P	0
135	8	HACKBERRY	HEALTHY	P	0
136	6	HACKBERRY	HEALTHY	P	0
137	12	HACKBERRY	HEALTHY	P	0
138	9	CEDAR	HEALTHY	REMOVE	9
139	30	HACKBERRY	HEALTHY	P	0
140	8	HACKBERRY	HEALTHY	P	0
141	7	HACKBERRY	HEALTHY	P	0
142	14	HACKBERRY	HEALTHY	P	0
143	23	HACKBERRY	HEALTHY	P	0
144	18	HACKBERRY	HEALTHY	P	0
145	12	HACKBERRY	HEALTHY	P	0
146	22	HACKBERRY	HEALTHY	P	0
147	8	HACKBERRY	HEALTHY	P	0
148	8	HACKBERRY	HEALTHY	P	0
149	11	HACKBERRY	HEALTHY	P	0
150	16	HACKBERRY	HEALTHY	P	0
151	12	HACKBERRY	HEALTHY	P	0
152	27.5	HACKBERRY	HEALTHY	P	0
153	9	HACKBERRY	HEALTHY	P	0
154	15.5	HACKBERRY	HEALTHY	P	0
155	7	HACKBERRY	HEALTHY	P	0
156	6	HACKBERRY	HEALTHY	P	0
157	12	HACKBERRY	HEALTHY	P	0
158	28	HACKBERRY	HEALTHY	P	0
159	10	HACKBERRY	HEALTHY	P	0
160	13	HACKBERRY	HEALTHY	P	0
161	24	HACKBERRY	HEALTHY	P	0
162	11	FRUITLESS MULBERRY	HEALTHY	P	0
163	9	HACKBERRY	HEALTHY	P	0
164	6	HACKBERRY	HEALTHY	P	0
165	13	HACKBERRY	HEALTHY	P	0
166	24	HACKBERRY	HEALTHY	P	0
167	12	HACKBERRY	HEALTHY	P	0
168	13	AMERICAN ELM	HEALTHY	REMOVE	13
169	31	HACKBERRY	HEALTHY	P	0
170	16	COTTONWOOD	DECLINING	REMOVE	0
171	8	HACKBERRY	HEALTHY	P	0
172	10	HACKBERRY	HEALTHY	P	0
173	8	HACKBERRY	HEALTHY	P	0
174	24	HICKORY	HEALTHY	P	0
175	14	HICKORY	HEALTHY	P	0
176	9	HACKBERRY	HEALTHY	P	0
177	12	HACKBERRY	HEALTHY	P	0
178	6	COTTONWOOD	DECLINING	REMOVE	0
179	6	HACKBERRY	HEALTHY	P	0
180	8	HACKBERRY	HEALTHY	P	0
181	19	HACKBERRY	HEALTHY	REMOVE	19
182	9	HACKBERRY	HEALTHY	P	0
183	17	HACKBERRY	HEALTHY	P	0
184	10	HACKBERRY	HEALTHY	P	0
185	10	HACKBERRY	HEALTHY	P	0
186	14	HICKORY	HEALTHY	P	0
187	20	HACKBERRY	DECLINING	REMOVE	0
188	32	PECAN	HEALTHY	P	0
189	15	HACKBERRY	DEAD	REMOVE	0
190	11	SYCAMORE	HEALTHY	P	0
191	14	HACKBERRY	HEALTHY	REMOVE	14
192	15	HACKBERRY	HEALTHY	P	0
193	12	PECAN	HEALTHY	REMOVE	12
194	14	FRUITLESS MULBERRY	DECLINING	REMOVE	0
195	44	ASH	HEALTHY	P	0
196	14	HACKBERRY	HEALTHY	REMOVE	14
197	14	HACKBERRY	HEALTHY	REMOVE	14
198	32	HACKBERRY	HEALTHY	REMOVE	32
199	39	HACKBERRY	HEALTHY	P	0
200	8	CEDAR	HEALTHY	P	0
201	10	HACKBERRY	HEALTHY	REMOVE	10
202	6	HACKBERRY	HEALTHY	REMOVE	6
203	17	AMERICAN ELM	HEALTHY	REMOVE	17
TOTAL CALIPER INCH AT DBH TO BE MITIGATED:					160

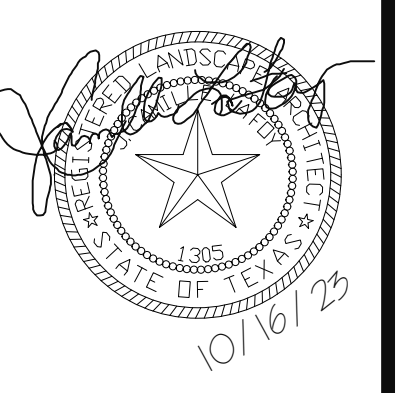


01 EXISTING TREE PLAN  
SCALE: 1" = 80'-0"  
TRUE NORTH



- NOTES:
- ALL TREE AND ROOT PRUNING SHALL BE PERFORMED UNDER A SUPERVISION OF AN I.S.A. CERTIFIED ARBORIST.
  - NO EQUIPMENT SHALL OPERATE INSIDE THE TREE PROTECTION FENCE INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
  - TREE PROTECTION FENCE LAYOUT AND INSTALLATION TO BE APPROVED BY OWNERS REPRESENTATIVE PRIOR TO ANY CONSTRUCTION ACTIVITY.

SANDALWOOD ESTATES  
TREE SURVEY & CONSERVATION PLAN  
LUCAS, TX

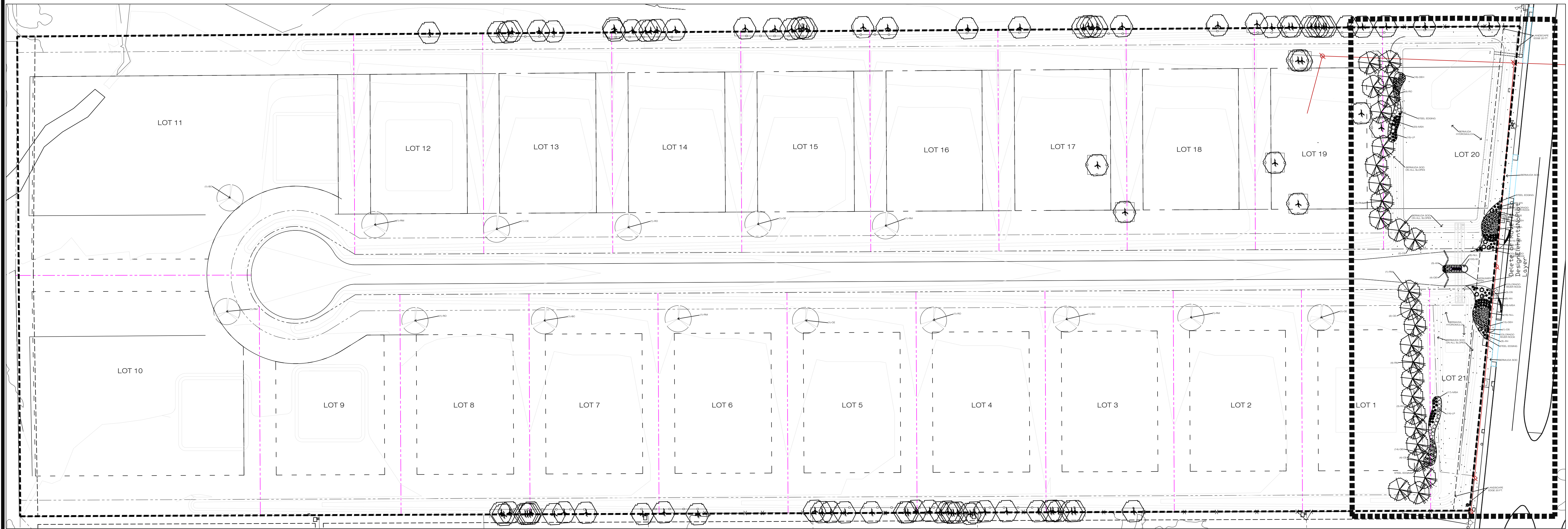
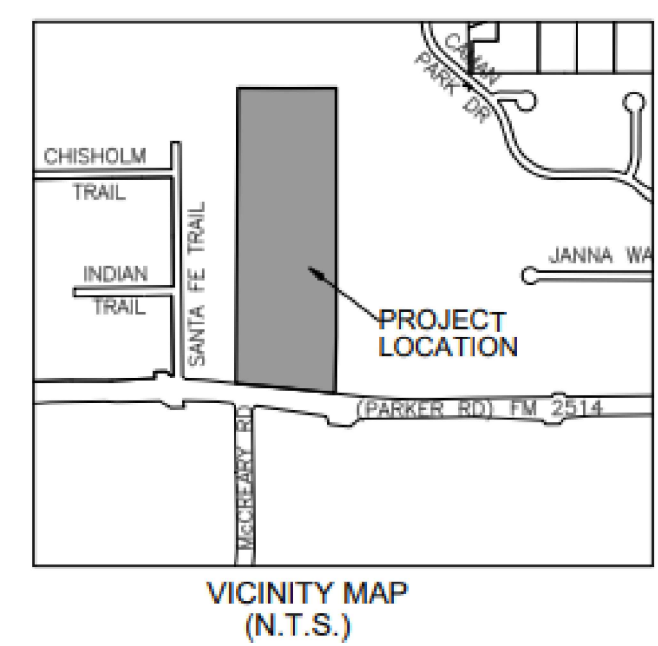


JCL  
J. CAMILLE LA FOY  
LANDSCAPE ARCHITECTURE CONSULTING  
1010 NORTH GREENVILLE AVENUE #642  
AUSTIN, TEXAS 78703  
TEL: 214-800-8439

JOB NUMBER:  
23140

SHEET NUMBER  
L1.00

PROJECT STATUS:  
PRELIMINARY  
PROJECT MANAGER:  
JCL  
DESIGN MANAGER:  
JCL  
PROJECT DATE:  
100923  
REVISION DATE:



**01 OVERALL LANDSCAPE PLAN**  
SCALE: 1" = 60'-0"

TRUE NORTH

SHEET NOTES:  
REFER TO SHEET L1.02 FOR ENLARGED LANDSCAPE PLAN.

**LANDSCAPE REQUIREMENTS**

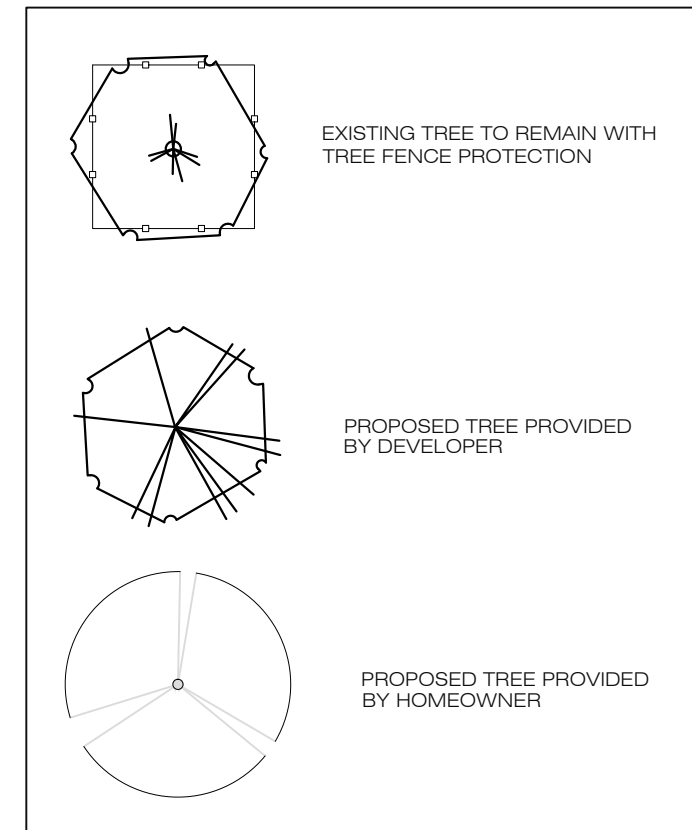
ZONE: R-1  
Site - 1,093,042 s.f. or 25 ac.  
City of Lucas - Article 3.18  
Tree Conservation & Landscaping

Landscape Edge:  
(1) Shade Tree and (8) Shrubs for every 20 l.f.\*\*  
Parker Rd. - 20' wide @ 531 l.f.  
\*\*Landscape edge is in TxDOT ROW. Trees are proposed along top of detention area.

Required	Provided
28 Trees	28 Trees
225 Shrubs	250 Shrubs

Tree Mitigation:  
Mitigation Required - 160 cal. inches  
(28) 4" trees - Landscape Edge = 112 cal. inches  
(15) 4" trees - 1 tree ea. lot = 60 cal. inches  
Mitigation Provided - 172 cal. inches

**TREE KEY**



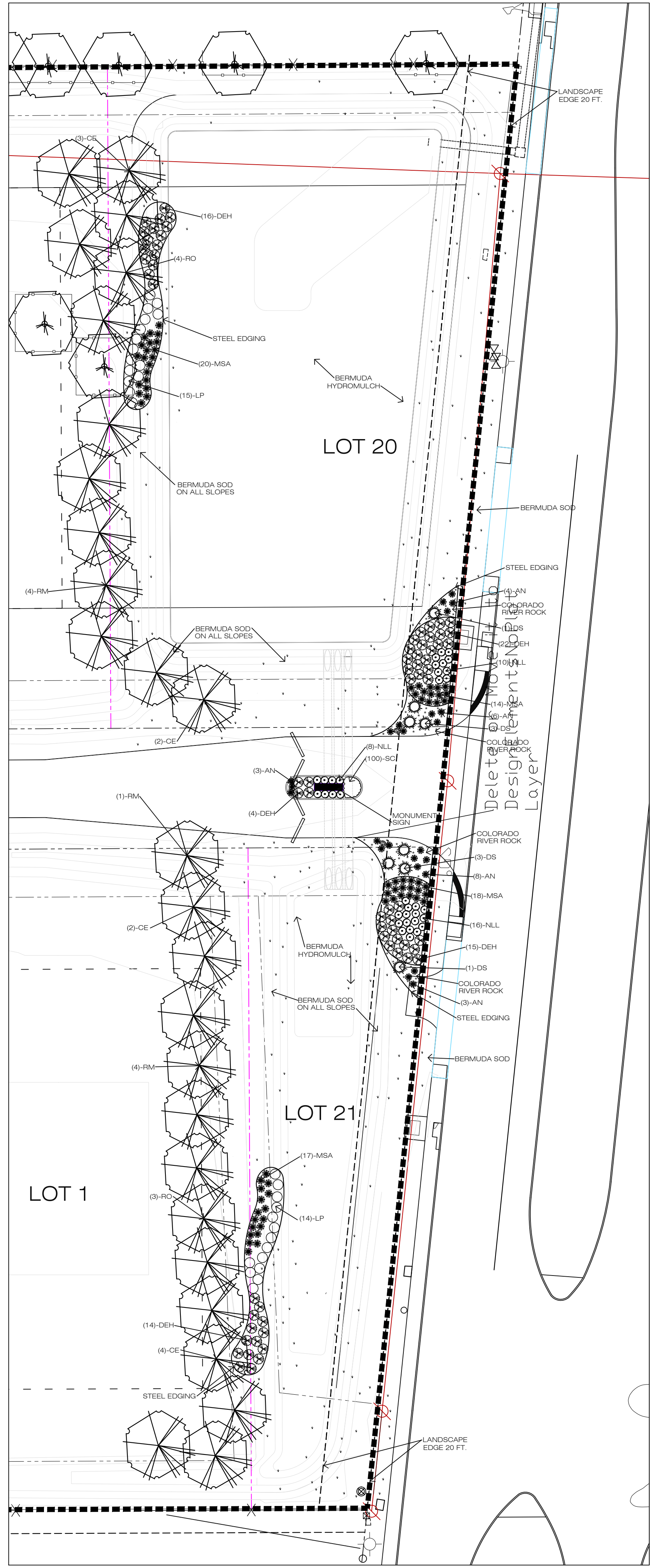
SANDALWOOD ESTATES  
LANDSCAPE PLAN  
LUCAS, TX



JCL  
J. CAMILLE LA FOY  
LANDSCAPE ARCHITECTURE CONSULTING  
1010 NORTH GREENVILLE AVENUE  
LUCAS, TX 74601  
214-502-2829

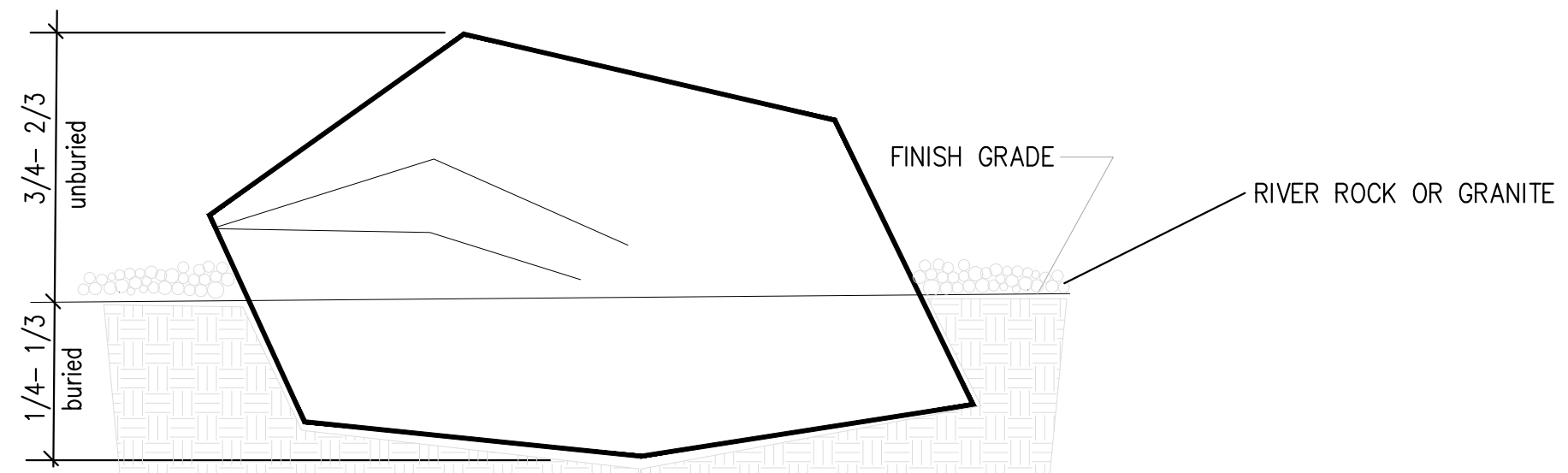
JOB NUMBER:  
23140

SHEET NUMBER  
**L1.01**

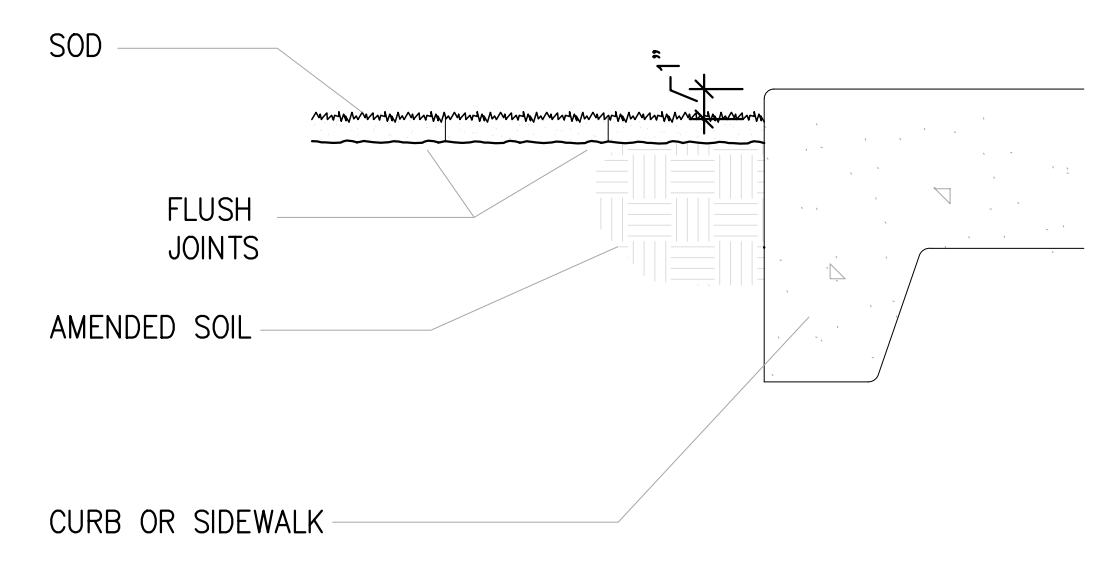


**PLANT MATERIAL LIST**

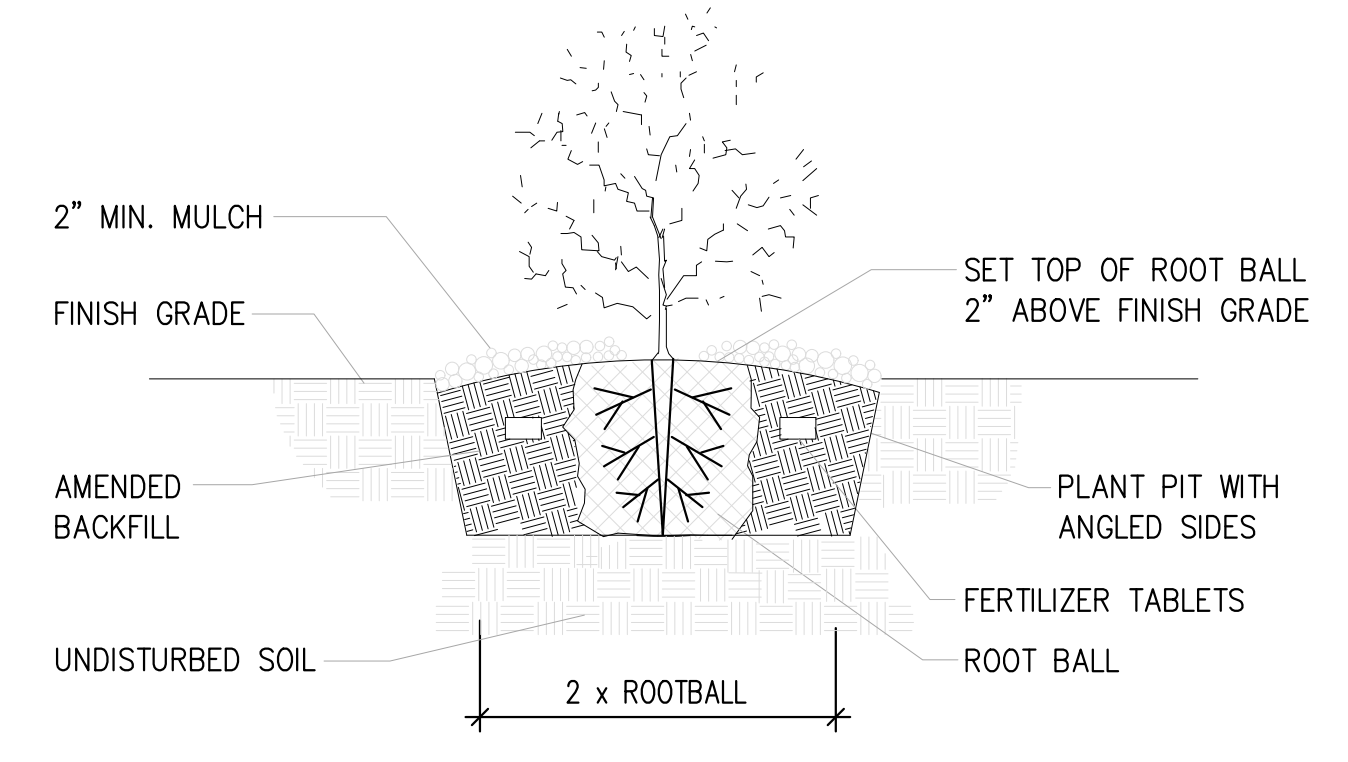
KEY	QUANTITY	LARGE TREES DESCRIPTION	SIZE
RM	16	ACER RUBRUM X 'AUTUMN GLORY' RED MAPLE	4" CAL., MIN. 4' SPD., MIN. 12 FT. HT.
CE	15	ULMUS CRASSIFOLIA CEDAR ELM	4" CAL., MIN. 4' SPD., MIN. 12 FT. HT.
RO	10	QUERCUS RUBRA RED OAK	4" CAL., MIN. 4' SPD., MIN. 12 FT. HT.
BC	3	TAXODIUM DISTICHUM BALD CYPRESS	4" CAL., MIN. 4' SPD., MIN. 12 FT. HT.
KEY	QUANTITY	LARGE SHRUBS DESCRIPTION	SIZE
LP	29	LOROPETALUM CHINENSE 'JAZZ HANDS' JAZZ HANDS LOROPETULUM	5 GAL., MIN. 24" HT.
DEH	71	DISTYLUM 'EMERALD HEIGHTS' EMERALD HEIGHTS DISTYLUM	5 GAL., MIN. 24" HT.
DS	8	DASYLIRION WHEELERI DESERT SPOON	5 GAL., MIN. 24" HT.
NLL	49	NANDINA DOMESTICA 'LEMON LINE' LEMON LINE NANDINA	5 GAL., MIN. 24" HT.
KEY	QUANTITY	ORNAMENTAL GRASSES DESCRIPTION	SIZE
AN	24	YUCCA GLORIOSA VARIEGATA VARIEGATED ADAMS NEEDLE	1 GAL., 10" HT.
MSA	69	MUHLENBERGIA CAPILLARIS PINK MUHLY GRASS	1 GAL., 10" HT.
KEY	QUANTITY	BLOOMING DESCRIPTION	SIZE
SC	100	SEASONAL COLOR	4" POT, 8" O.C.



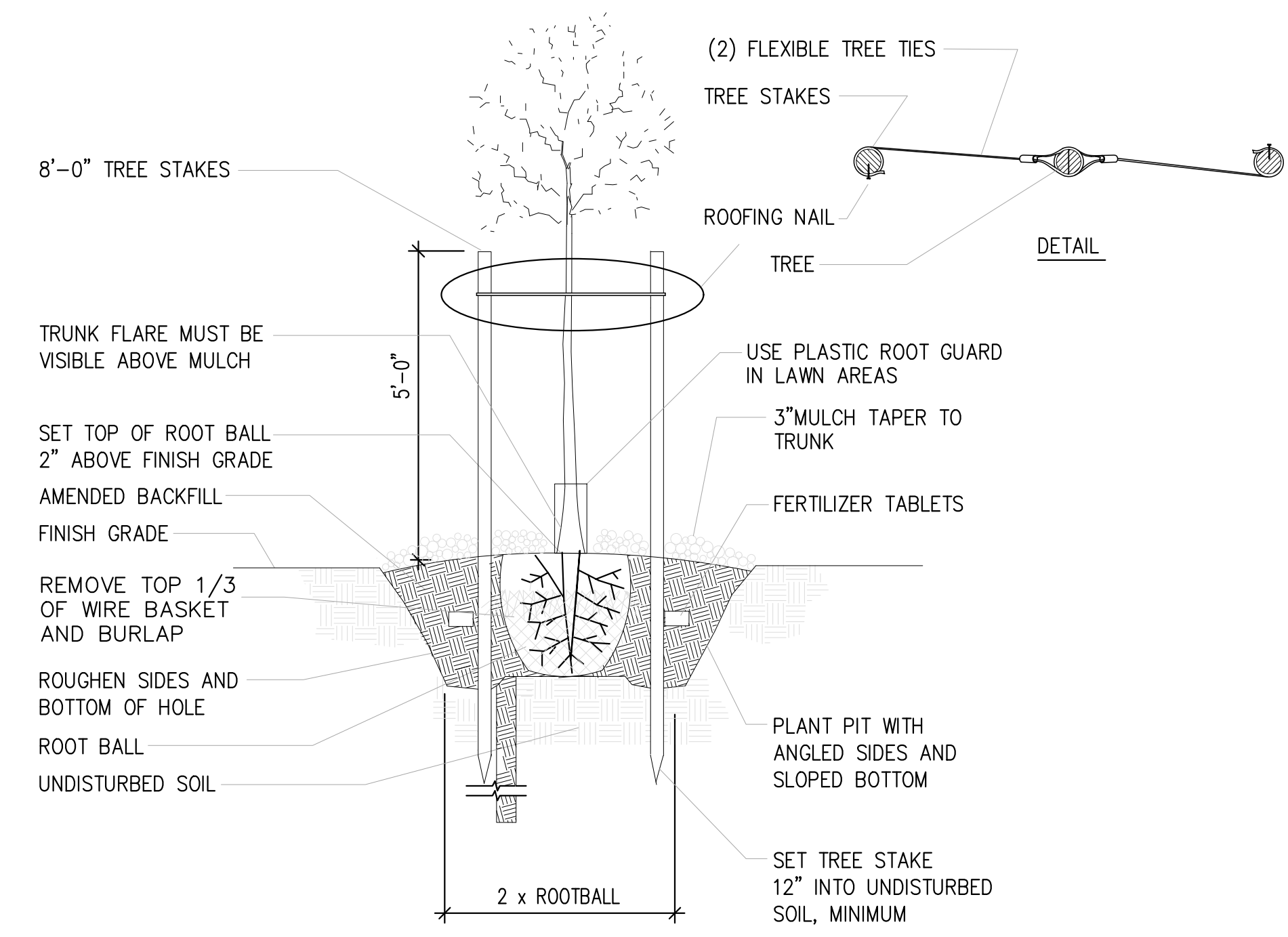
**BOULDER PLACEMENT DETAIL**  
SCALE: NTS



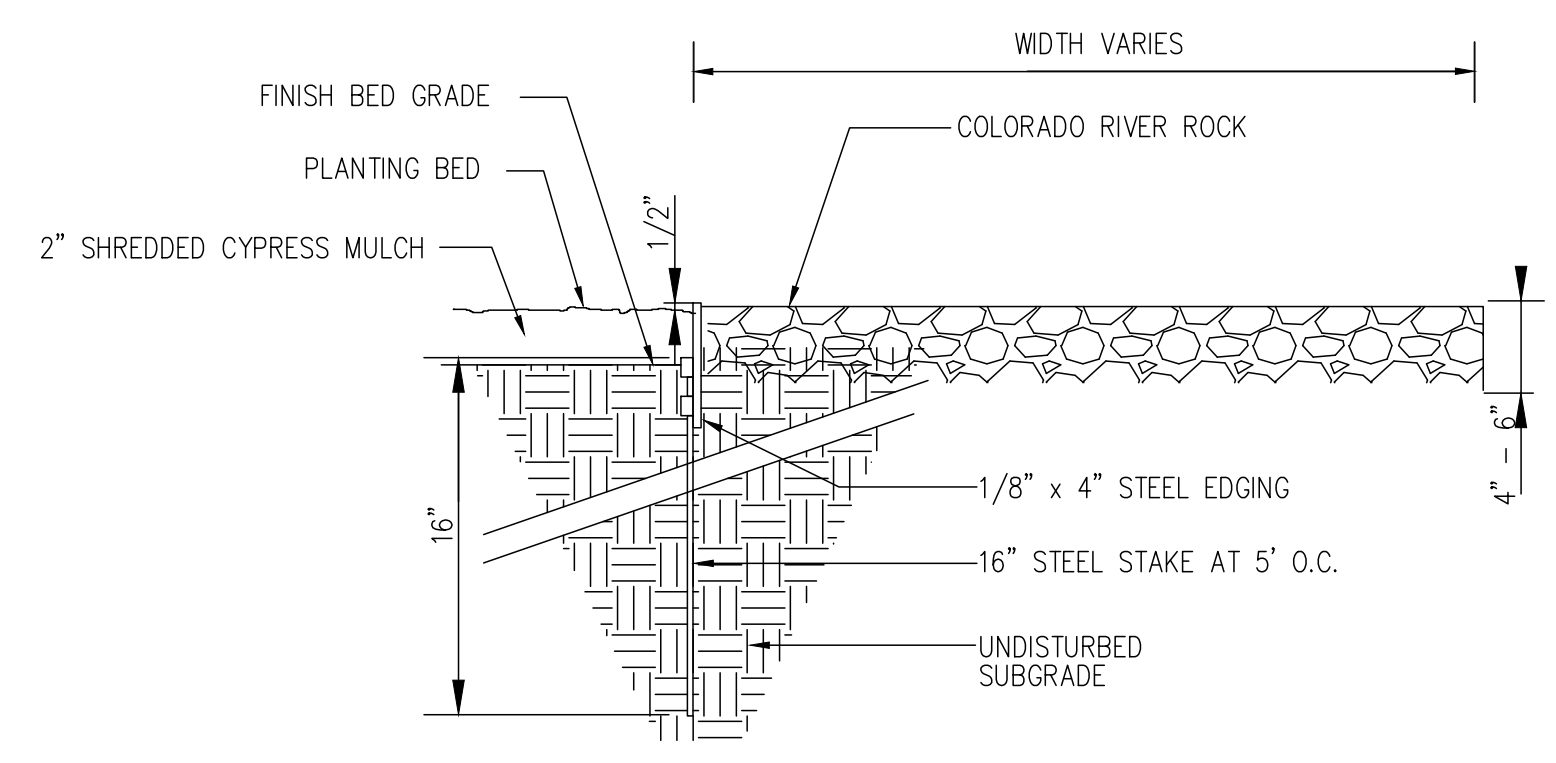
**SOD INSTALLATION**  
SCALE: NTS



**SHRUB PLANTING DETAIL**  
SCALE: NTS



**TREE PLANTING AND STAKING**  
SCALE: NTS

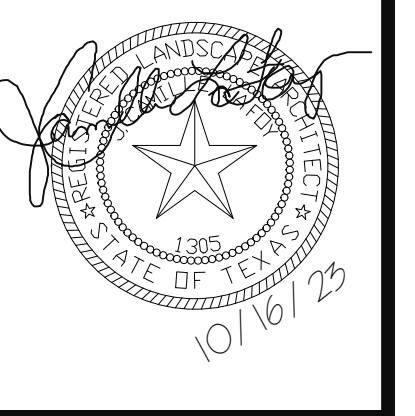


**STEEL EDGING DETAIL**  
SCALE: NTS

**01 ENLARGED LANDSCAPE PLAN**  
SCALE: 1" = 30'-0"



SANDALWOOD ESTATES  
ENLARGED LANDSCAPE  
PLAN  
LUCAS, TX



**JCL**  
J. CAMILLE LA FOY  
LANDSCAPE ARCHITECTURE CONSULTING  
1010 NORTH GREENVILLE AVENUE  
AUSTIN, TEXAS 78703  
TEL: 214-502-0339

JOB NUMBER:  
23140

SHEET NUMBER  
**L1.02**

# DEVELOPMENT PLANS FOR SANDALWOOD ESTATES CITY OF LUCAS COLLIN COUNTY, TEXAS



**VICINITY MAP**  
NOT TO SCALE

## INDEX

1	COVER
2	DEMOLITION PLAN
3-4	PAVING PLAN
5	INGRESS & EGRESS LAYOUT PLAN
6	CUL-DE-SAC LAYOUT PLAN
7-8	GRADING PLAN
9-10	DETENTION BASIN LAYOUT PLAN
11	PROPOSED DITCH (WEST) - PLAN & PROFILE
12	PROPOSED DITCH (EAST) - PLAN & PROFILE
13	DAM - PRE-DEVELOPED
14	DAM - DEVELOPED
15	DETENTION BASIN SIZING CALCULATIONS
16	DAM - PROPOSED DITCHES
17	EROSION CONTROL PLAN
18	WATER PLAN
19-25	CONSTRUCTION DETAILS
26-29	TRAFFIC CONTROL STANDARDS

REV.	DATE	DESCRIPTION
01/22/23	-	CITY OF LUCAS - CIVIL PLANS (COLL COMMENTS 11/2/23)
01/22/23	-	CITY OF LUCAS - CIVIL PLANS (APPROVED PROJECT REVIEW)
01/22/23	-	CITY OF LUCAS - CIVIL PLANS (FINAL LAYOUT)

**LR ENGINEERING**  
STRUCTURAL DESIGN & INSPECTION  
PHONE 972-964-2101  
FAX 972-964-2037  
ENGINEERING@LRTEXAS.COM  
FORM # F-15682

2115 TAKWOOD LANE  
SUITE 4650  
PLANO, TEXAS 75075



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF ENGINEERS, ARCHITECTS AND LAND SURVEYORS, STATE OF TEXAS.

SANDALWOOD ESTATES DEVELOPMENT  
COVER SHEET  
FM 2514 (PARKER RD)  
LUCAS, TEXAS 75002  
ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
OWNER(S): 3R LAND PROPERTIES

2022-0535B  
SHEET  
1

ADVANCED NOTICE: MINIMUM OF 2 WORKING DAYS BUT NOT MORE THAN 14 DAYS.  
MARKS VALID: UP TO 14 DAYS



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REV	DATE	DESCRIPTION
12/15/23	-	CITY OF LUCAS - CIVIL PLANS TOOL COMMENTS (1/23)
12/15/23	-	CITY OF LUCAS - CIVIL PLANS APPROVED TxDOT PERMIT
12/15/23	-	CITY OF LUCAS - CIVIL PLANS PRELIMINARY

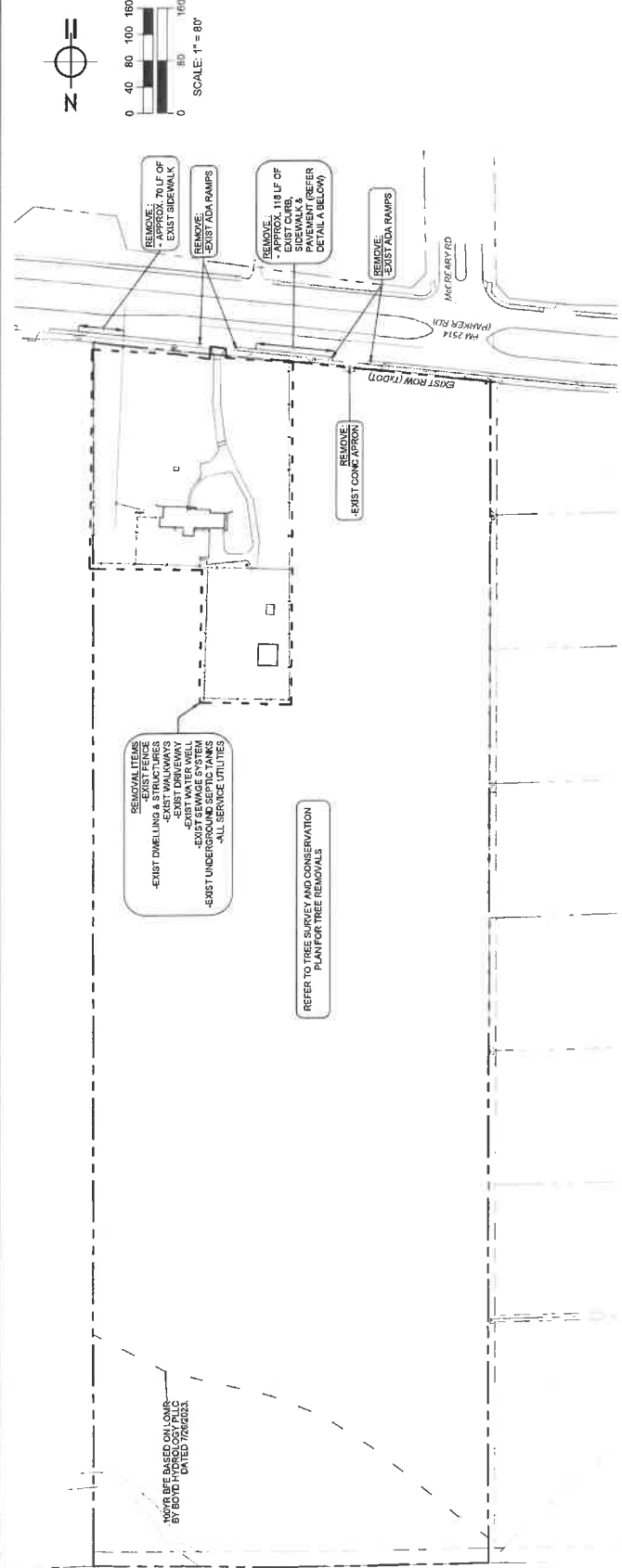
**RE ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 2115 TEAKWOOD LANE  
 SUITE #450  
 PLANO, TEXAS 75075  
 PHONE 972-984-2161  
 FAX 972-984-2037  
 ENGINEERING@RETEAS.COM  
 FIRM # F-15852



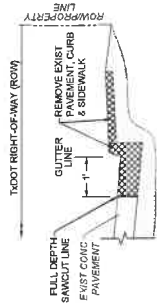
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID A. LEWIS, ENGINEER ON 12/15/2023.

SANDALWOOD ESTATES DEVELOPMENT  
 DEMOLITION PLAN  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
**2**



**DEMOLITION PLAN**



**DETAIL A - PAVEMENT REMOVAL WITHIN TxDOT ROW**  
 (NOT TO SCALE)

**DEMOLITION NOTES**

1. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITIONS OR REMOVALS. ANY DISCREPANCIES OR CONFLICT SHOULD BE INFORMED TO THE CONTRACTOR.
2. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY OWNER(S) FOR REMOVAL OF EXISTING SERVICE LINES. REMOVAL AND DEMOLITION WORK OF UTILITIES SHALL COMPLY WITH THEIR RESPECTIVE GUIDELINES AND POLICIES.
3. THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNER REGARDING OF ANY DISCREPANCIES OR CONFLICTS. CONTRACTOR SHALL NOT PROCEED WITH WORK UNTIL A RESOLUTION PLAN FOR THE CONCERNING ITEM IS DISCUSSED WITH THE UTILITY OWNER.
4. BUILDING DWELLING DEMOLITION AND REMOVAL MAY REQUIRE A PERMIT FROM CITY OF LUCAS. CONTRACTOR SHALL SECURE ALL NECESSARY PERMIT REQUIRED PRIOR TO BUILDING DEMOLITION.
5. THE CONTRACTOR SHALL DISPOSE ALL REMOVAL AND DEMOLITION MATERIAL IN ACCORDANCE WITH THE LOCAL CITY, COUNTY AND STATE REGULATIONS AND LAWS.
6. ALL WORK WITHIN THE TxDOT RIGHT-OF-WAY (ROW) SHALL ADHERE TO TxDOT STANDARDS AS APPLICABLE.

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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUGAS - CIVIL PLANS (COL COMMENTS 1/19/23)
2	01/03/24	CITY OF LUGAS - CIVIL PLANS (REVISED) (NOT PREPARED)

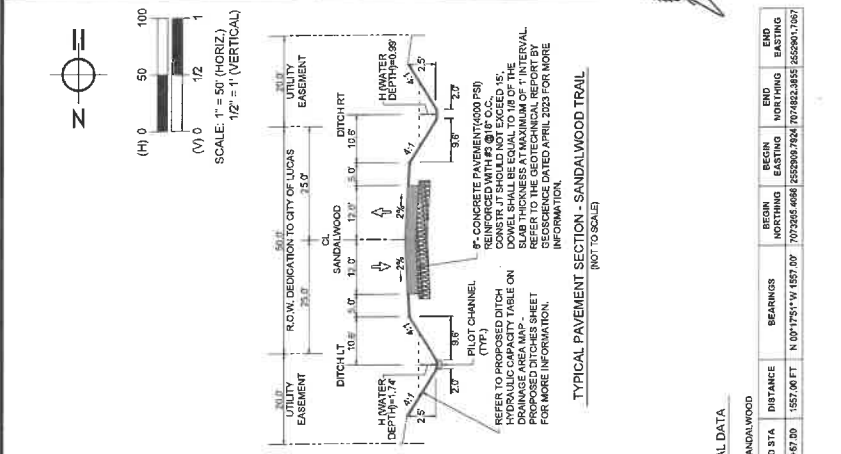
**R ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 2115 TEAKWOOD LANE  
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 PLANO, TEXAS 75075  
 PHONE 972-984-2181  
 FAX 972-984-2017  
 ENGINEERING@RTEXAS.COM  
 FIRM #F-15622



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY LAW ON 11/16/2023.

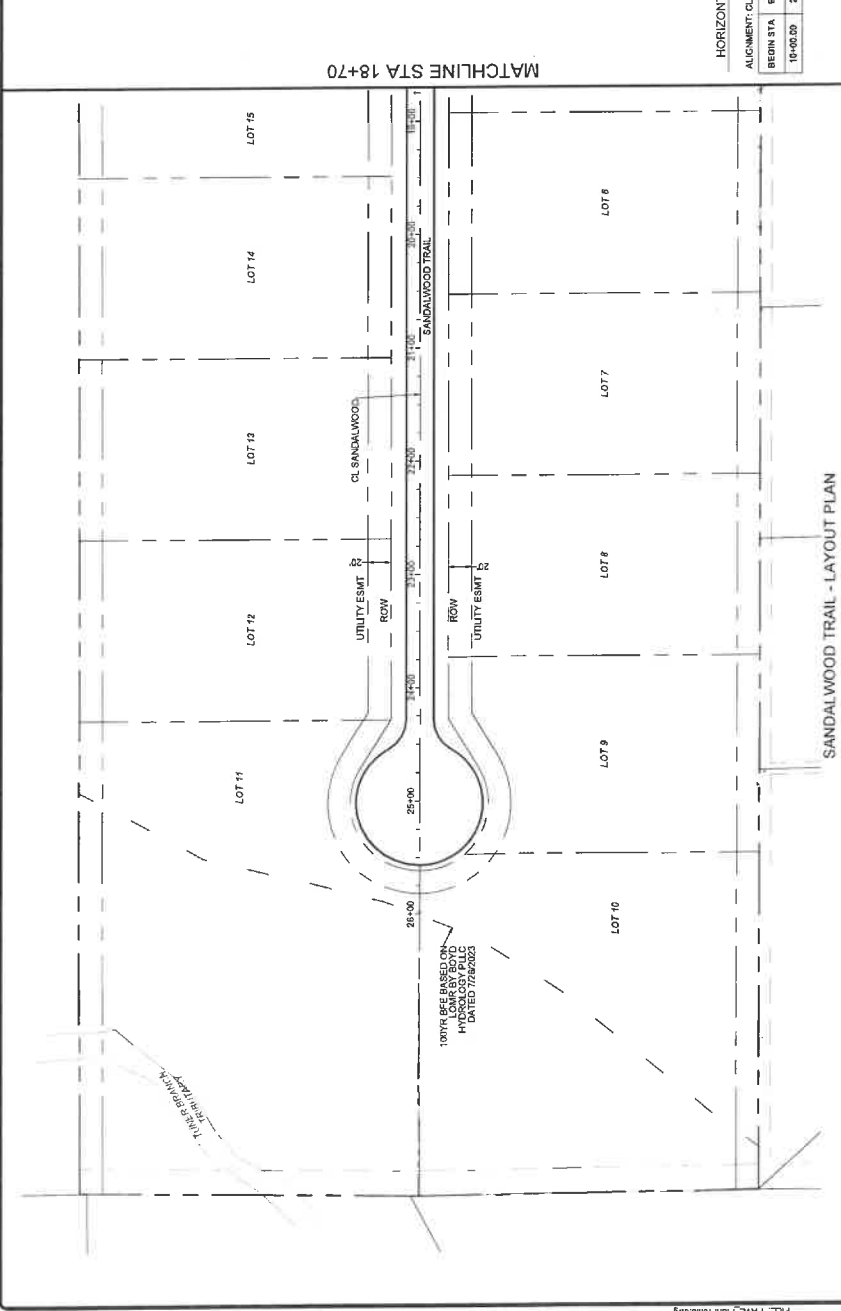
SANDALWOOD ESTATES DEVELOPMENT  
 PAVING PLAN 1 OF 2  
 FM 2514 (PARKER RD)  
 LUGAS, TEXAS 75002  
 ABS 0349 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
**3**



**HORIZONTAL DATA**

ALIGNMENT	CL SANDALWOOD	BEGIN STA	END STA	DISTANCE	BEARINGS	BEGIN NORTING	BEGIN EASTING	END NORTING	END EASTING
19+00.00	25+67.20	1557.00 FT	N 0°17'51" W 1957.00'	707.255 4656	S55S06°75'01"	1074822.3852	6552901.7597		



**SANDALWOOD TRAIL - PROFILE**

PROP	EXIST	28+00	25+00	24+00	23+00	22+00	21+00	20+00	19+00
581									
580									
579									
578									
577									
576									
575									
574									
573									

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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUCAS - CIVIL PLANS (TOOL COMMENTS 11/23)
2	12/15/23	CITY OF LUCAS - CIVIL PLANS (APPROVED TOOIT PERMIT)
3	12/15/23	CITY OF LUCAS - CIVIL PLANS (REMARKS)

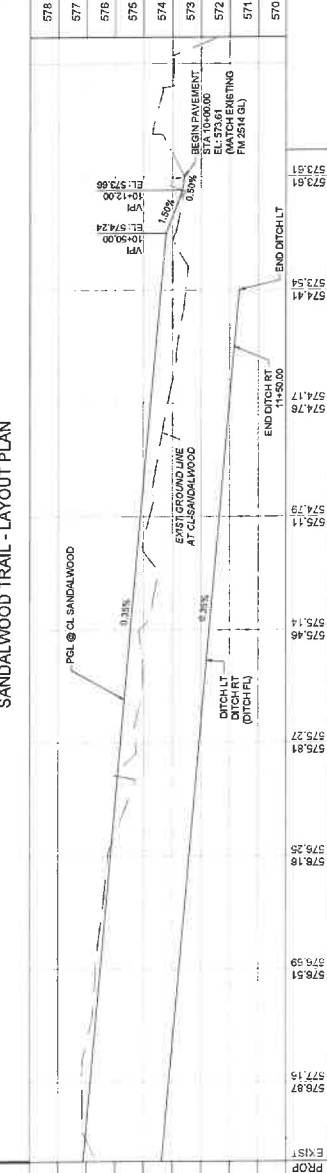
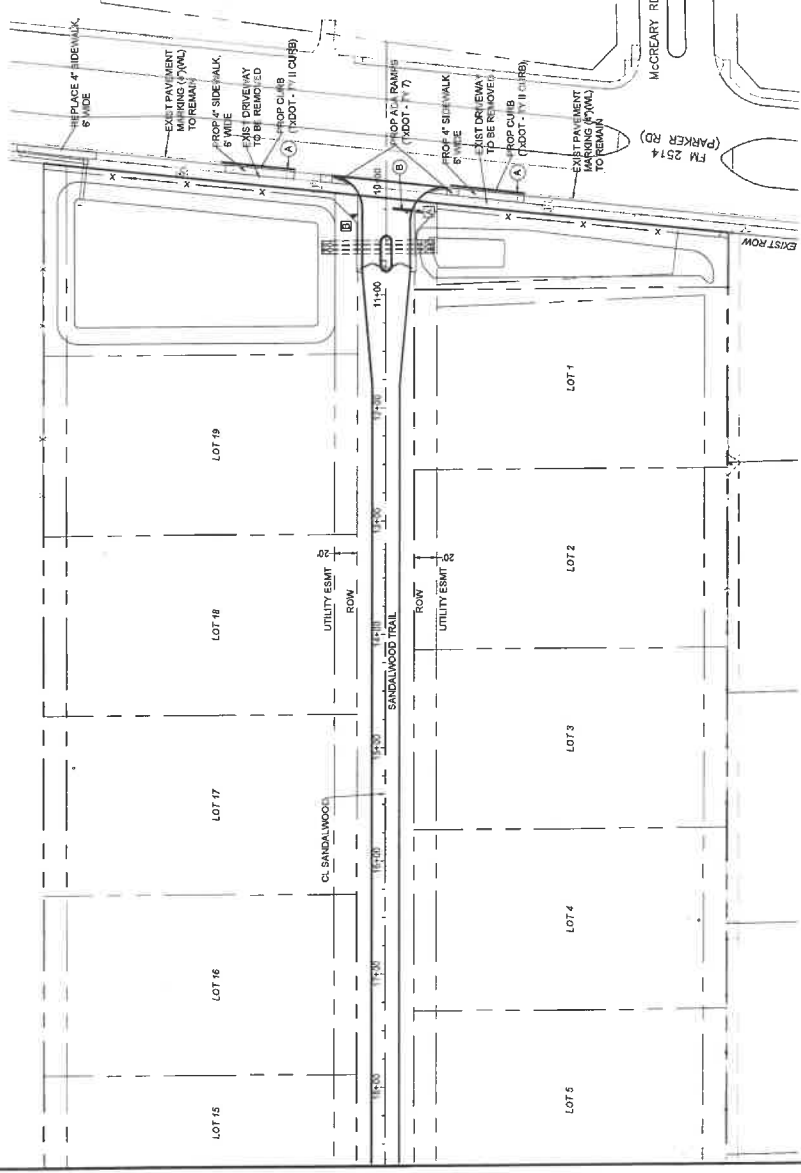
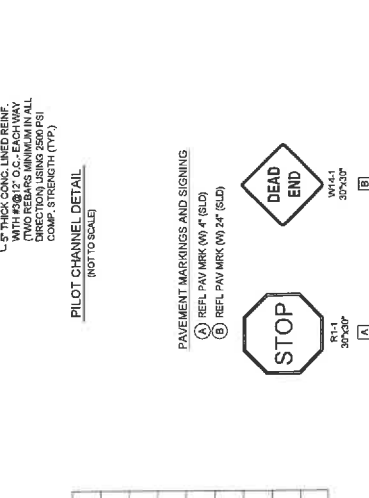
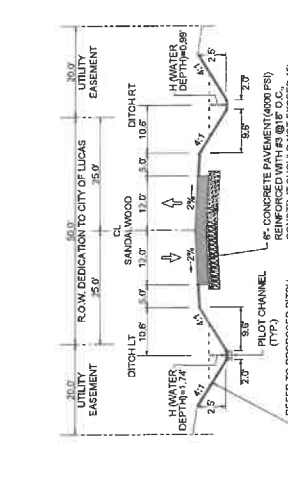
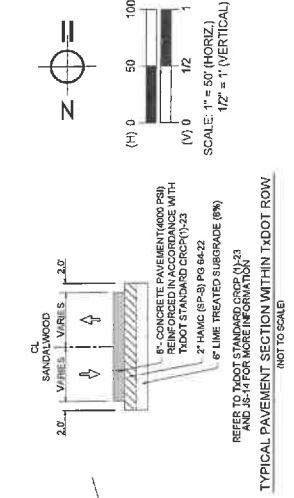
**ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 SUITE #600  
 PHONE 972-964-2181  
 FAX 972-964-2037  
 EMPLOYER@LRTKTXAS.COM  
 2116 TEAWOOD LANE  
 PLANO, TEXAS 75075  
 FIRM # F-15652



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF ENGINEERING ON 05/26/2023 ON 05/26/2023

SANDALWOOD ESTATES DEVELOPMENT  
 PAYING PLAN 2 OF 2  
 FM 2514 (PARKER RD)  
 LUCAS TRACT 4 & 5  
 ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-05358  
 SHEET  
 4



MATCHLINE STA 18+70

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REV	DATE	DESCRIPTION
1	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)
2	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)
3	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)

REV	DATE	DESCRIPTION
1	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)
2	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)
3	12/15/23	FOR LUCAS - CIVIL PLANS (LOCAL COMMENTS 11/23)

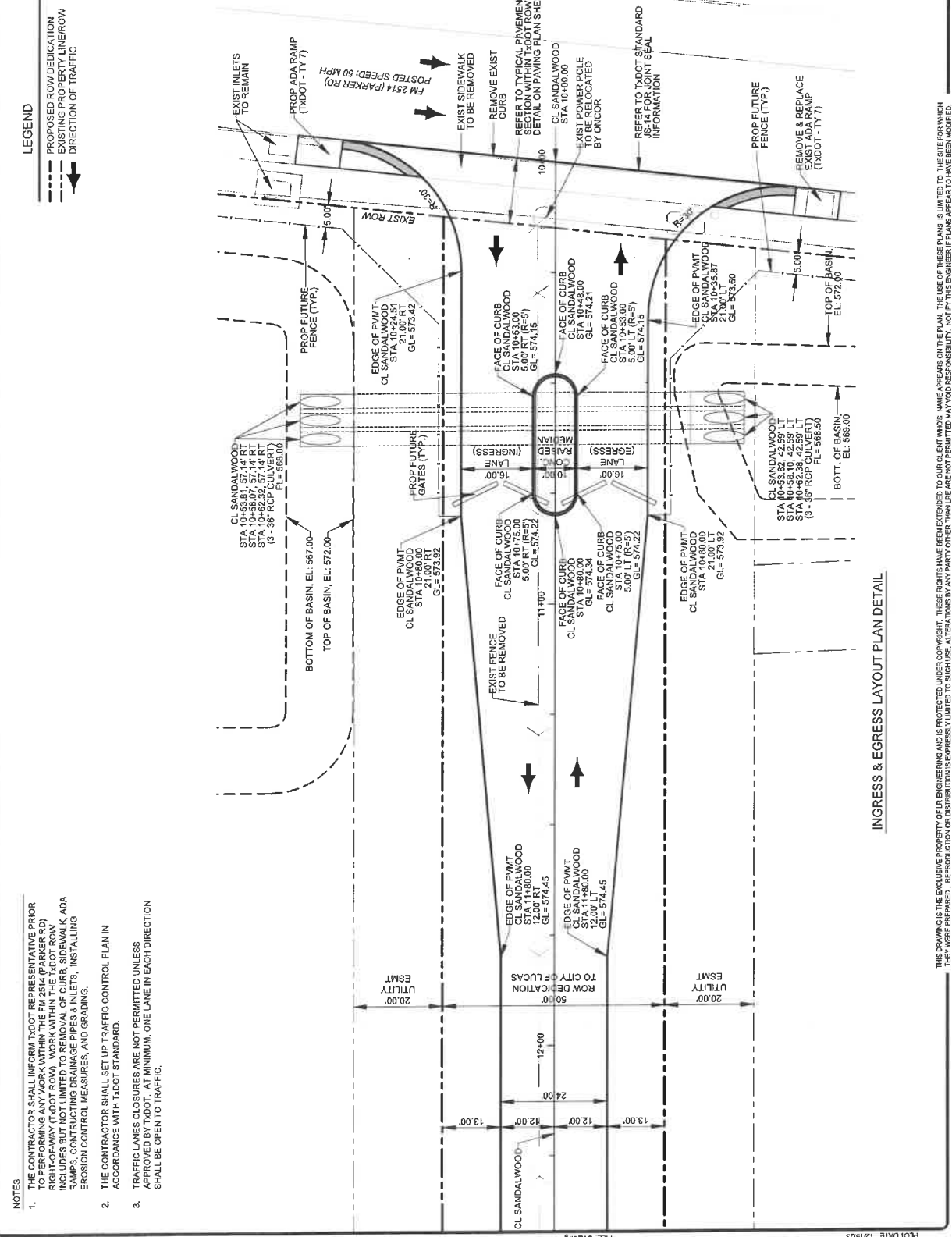
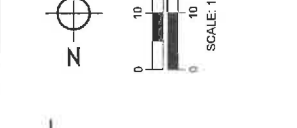
**R ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 1715 TEAKWOOD LANE  
 SUITE #450  
 PLANO, TEXAS 75075  
 PHONE 972-964-2161  
 FAX 972-964-2037  
 ENGINEERING@RTEAS.COM  
 P.M. # 1-5853



THIS SEAL APPEARING ON THIS DOCUMENT HAS AUTHORIZED R. A. LUCAS TO SEAL THIS PLAN ON 12/15/23

**SANDALWOOD ESTATES DEVELOPMENT**  
 INGRESS & EGRESS LAYOUT PLAN  
 FM 2514 (PARKER RD)  
 LUCAS TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
**5**



**NOTES**

- THE CONTRACTOR SHALL INFORM TxDOT REPRESENTATIVE PRIOR TO PERFORMING ANY WORK WITHIN THE FM 2514 (PARKER RD) RIGHT-OF-WAY (TxDOT ROW). WORK WITHIN THE TxDOT ROW SHALL BE IN ACCORDANCE WITH THE TxDOT ROW MANUAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE TxDOT REPRESENTATIVE AND THE CITY OF LUCAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE TxDOT REPRESENTATIVE AND THE CITY OF LUCAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE TxDOT REPRESENTATIVE AND THE CITY OF LUCAS.
- THE CONTRACTOR SHALL SET UP TRAFFIC CONTROL PLAN IN ACCORDANCE WITH TxDOT STANDARD.
- TRAFFIC LANES, CLOSURES ARE NOT PERMITTED UNLESS APPROVED BY TxDOT. AT MINIMUM, ONE LANE IN EACH DIRECTION SHALL BE OPEN TO TRAFFIC.

PLATE DATE: 12/15/23  
 FILE: DTL.dwg  
 INGRESS & EGRESS LAYOUT PLAN DETAIL  
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REV	DATE	DESCRIPTION
1	01/20/23	CITY OF LUCAS - CIVIL PLANS (RESUBMIT)
2	01/20/23	CITY OF LUCAS - CIVIL PLANS (APPROVED 7/20/23)
3	01/20/23	CITY OF LUCAS - CIVIL PLANS (CIVIL COMMENTS 1/19/23)

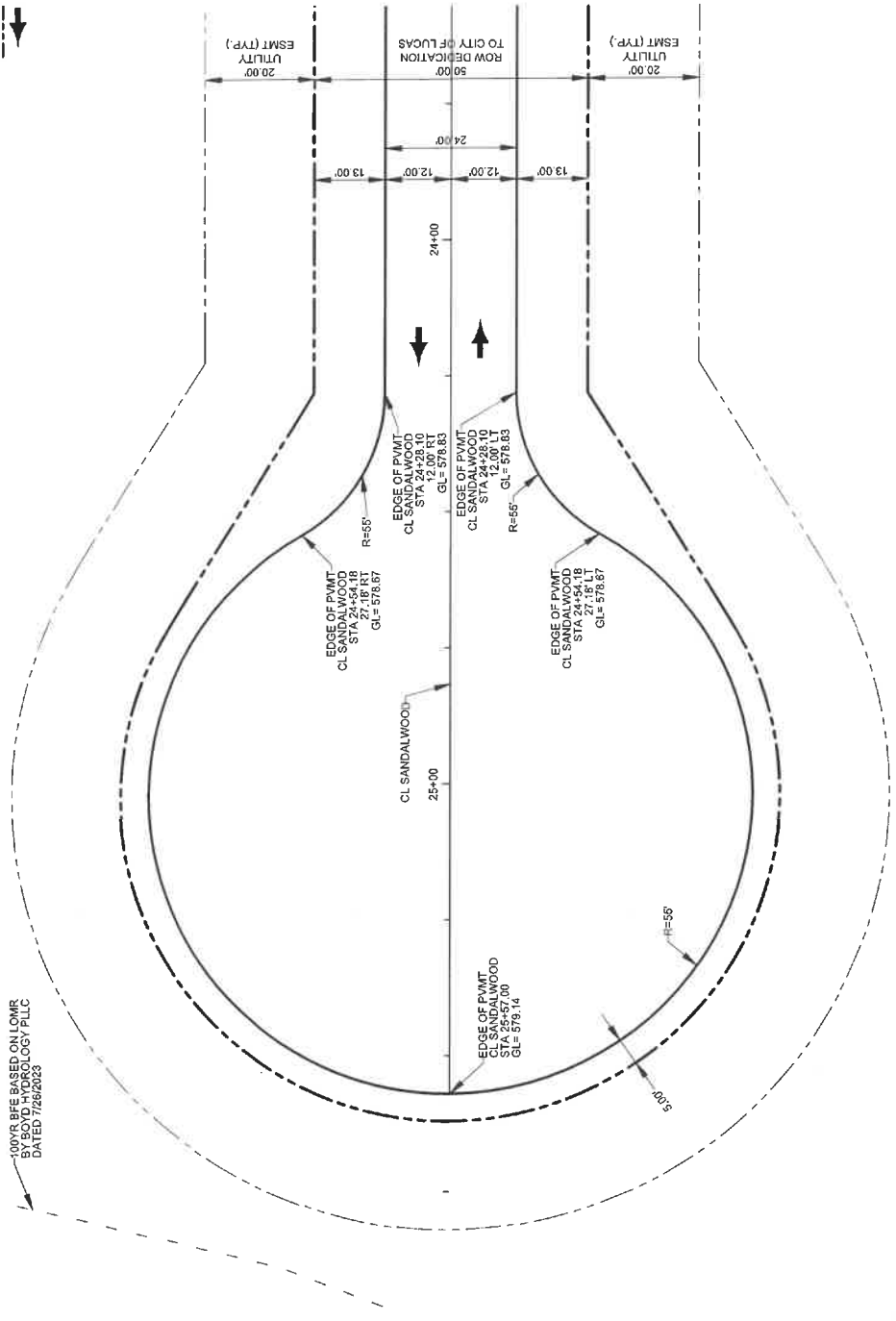
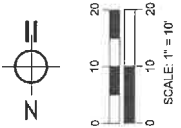
**R ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 2115 TEAMWOOD LANE  
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 PLANO, TEXAS 75075  
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 FAX 972-984-2037  
 ENGINEERING@RTEXAS.COM  
 FIRM # F-15652



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DANA A. LUCAS, A.P.E. #0060 OF TEXAS.

SANDALWOOD ESTATES DEVELOPMENT  
 CUL-DE-SAC LAYOUT PLAN  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0518B  
 SHEET  
**6**



100YR BFE BASED ON LOMR  
 BY BOYD HYDROLOGY PLLC  
 DATED 7/28/2023

CUL-DE-SAC LAYOUT PLAN DETAIL

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REV	DATE	DESCRIPTION
1	12/1/22	CITY OF LUCAS - CIVIL PLANS (CCL COMMENTS 1/12/23)
2	12/1/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOOT PERCENT)
3	12/1/22	CITY OF LUCAS - CIVIL PLANS (RESUBMIT)

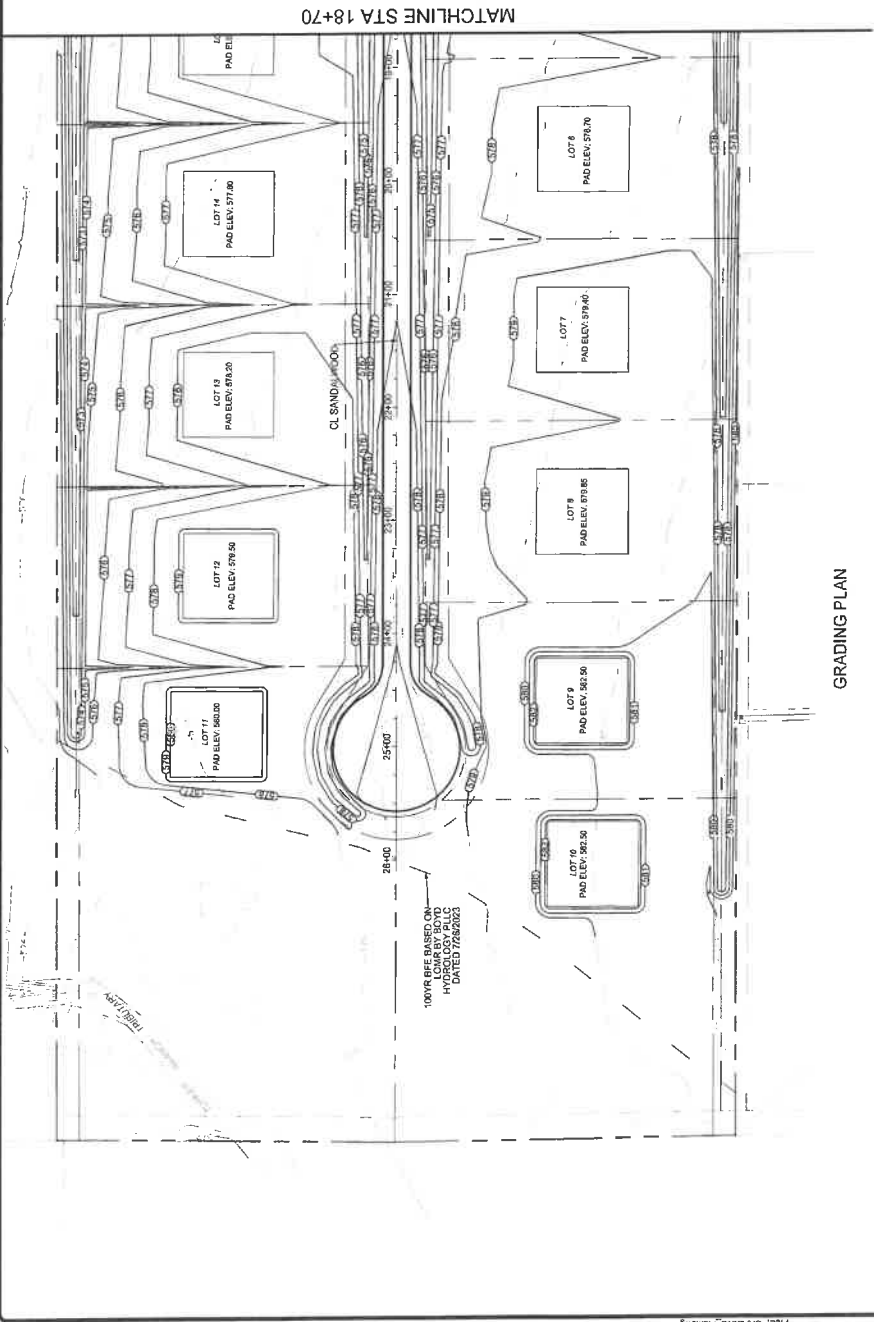
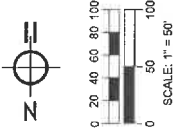
**R ENGINEERING**  
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 2145 TEAWOOD LANE  
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 FAX 972-984-2037  
 ENGINEERING@R.ENG.COM  
 FIRM # 19552



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID A. LEWIS ON 12/26/22

SANDALWOOD ESTATES DEVELOPMENT  
 GRADING PLAN 1 OF 2  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
 7



GRADING PLAN

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REV	DATE	DESCRIPTION
1	12/15/23	ISSUED FOR PERMITS
2	01/10/24	REVISED PER COMMENTS
3	01/10/24	REVISED PER COMMENTS
4	01/10/24	REVISED PER COMMENTS
5	01/10/24	REVISED PER COMMENTS

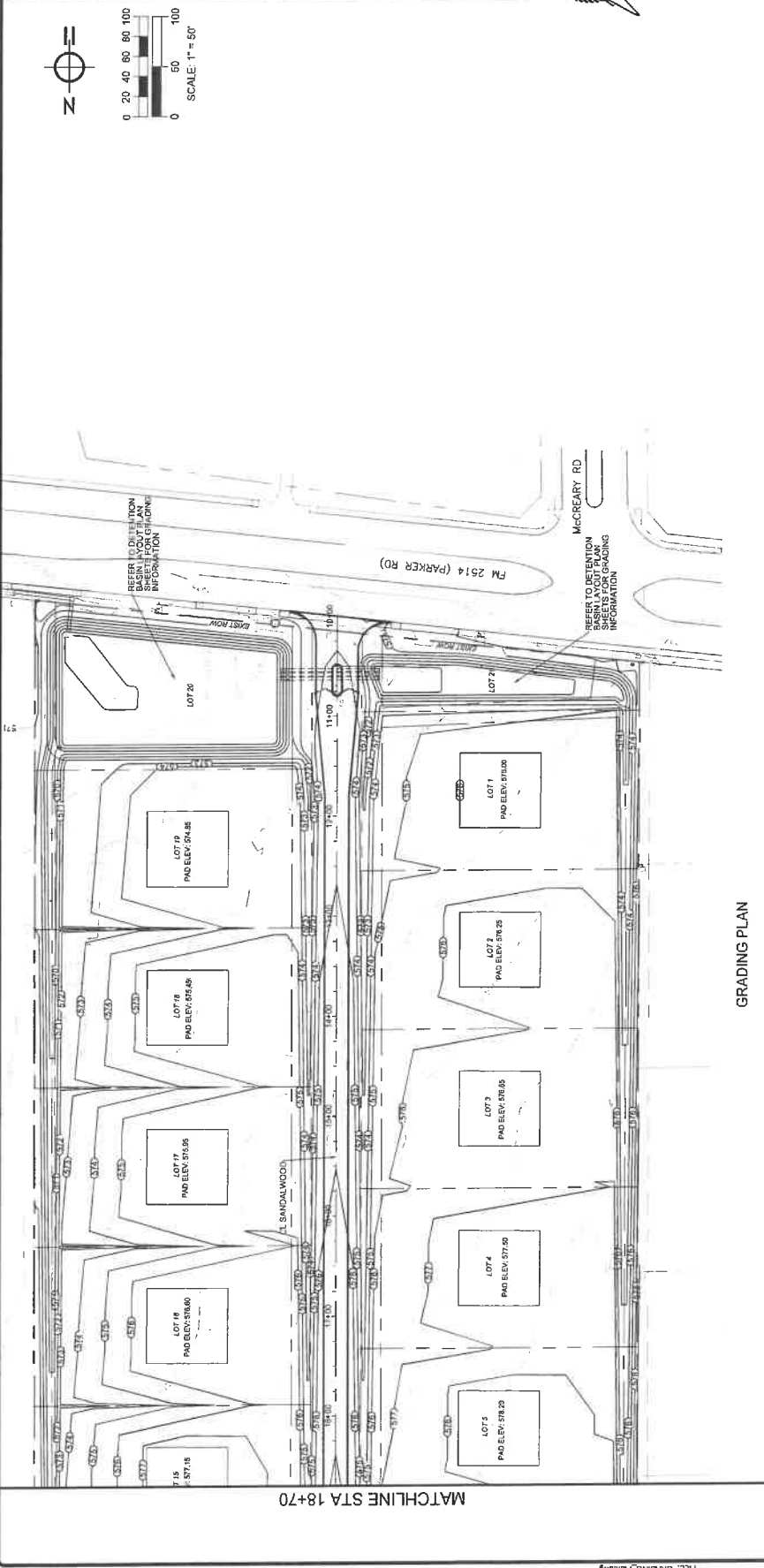
**R ENGINEERING**  
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 FAX 972-984-2037  
 FIRM # P-15852



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SANDALWOOD ESTATES DEVELOPMENT  
 GRADING PLAN 2 OF 2  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-05358  
 SHEET  
**8**



GRADING PLAN

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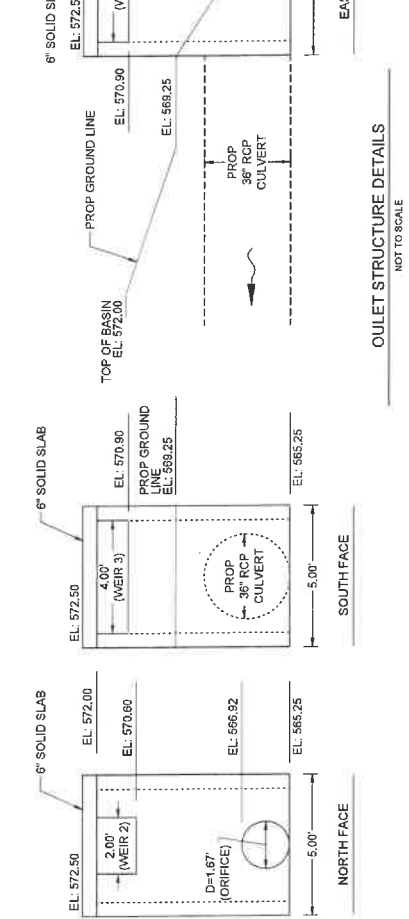
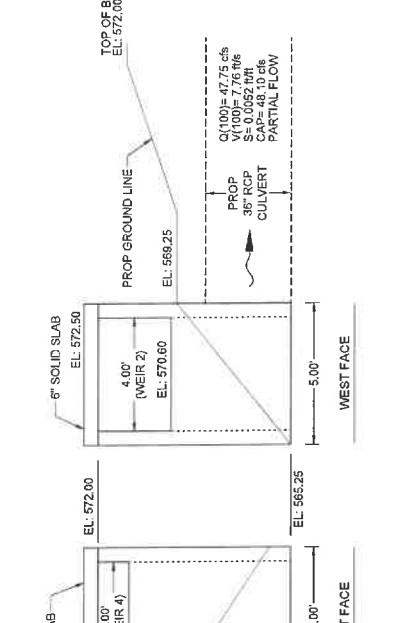
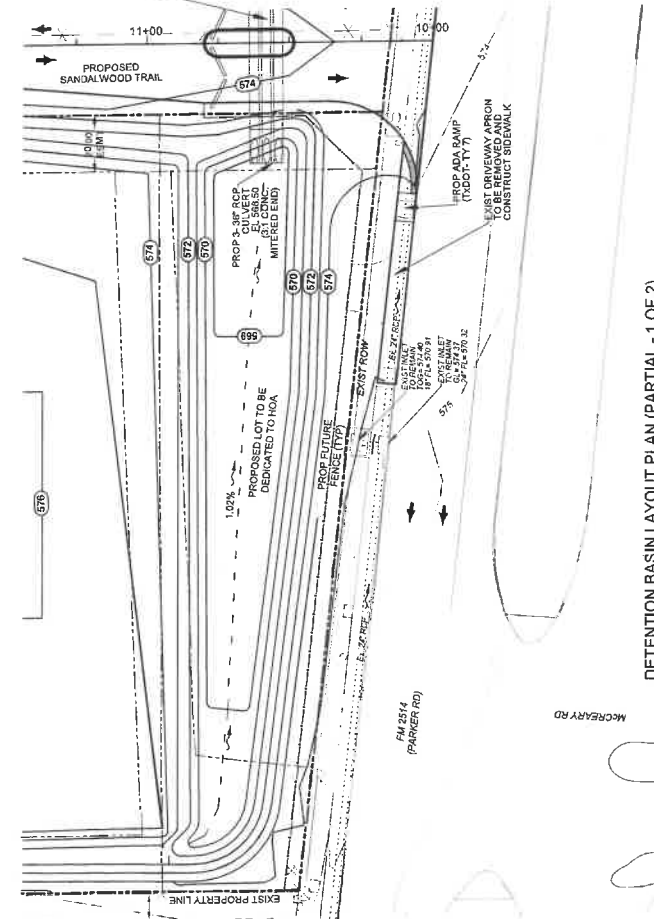
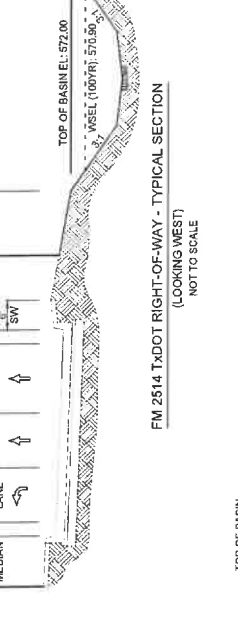
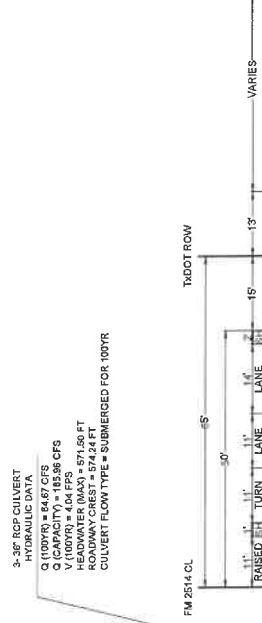
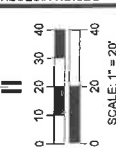
SANDALWOOD ESTATES DEVELOPMENT  
DETENTION BASIN LAYOUT PLAN - 1 OF 2  
FM 2514 (PARKER RD)  
LUCAS TRACT 4 & 5: A8S 0349 TRACT 6 & 7  
OWNER(S): 3R LAND PROPERTIES

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ENGINEERING@TRTXAS.COM  
FIRM # 1-5862

REV	DATE	DESCRIPTION
1	12/19/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 1/2/23)
2	12/19/23	CITY OF LUCAS - CIVIL PLANS (APPROVED TIDOT PERMIT)
3	12/19/23	CITY OF LUCAS - CIVIL PLANS (PERMITS)



OULET STRUCTURE DETAILS  
NOT TO SCALE

DETENTION BASIN LAYOUT PLAN (PARTIAL - 1 OF 2)

DESIGN HISTORY

3-36" RCP CULVERT  
HYDRAULIC DATA:  
D (CAPACITY) = 145.56 CFS  
V (100YR) = 4.04 FPS  
HEADWATER (HAW) = 571.50 FT  
HEADWATER (HWA) = 571.50 FT  
CULVERT FLOW TYPE = SUBMERGED FOR 100YR

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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUMAS - CIVIL PLANS (POOL COMMENTS 1/19/23)
2	01/23/24	CITY OF LUMAS - CIVIL PLANS (FINAL REVIEW)
3	02/13/24	CITY OF LUMAS - CIVIL PLANS (FINAL REVIEW)

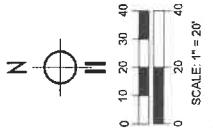
**JR ENGINEERING**  
 STRUCTURAL DESIGN & INSPECTION  
 PHONE 972-964-2151  
 FAX 972-964-2077  
 EMAIL ENGINEERING@JRETXAS.COM

215 TEMWOOD LANE  
 SUITE 4605  
 PLANO, TEXAS 75075  
 FROM #1-8482



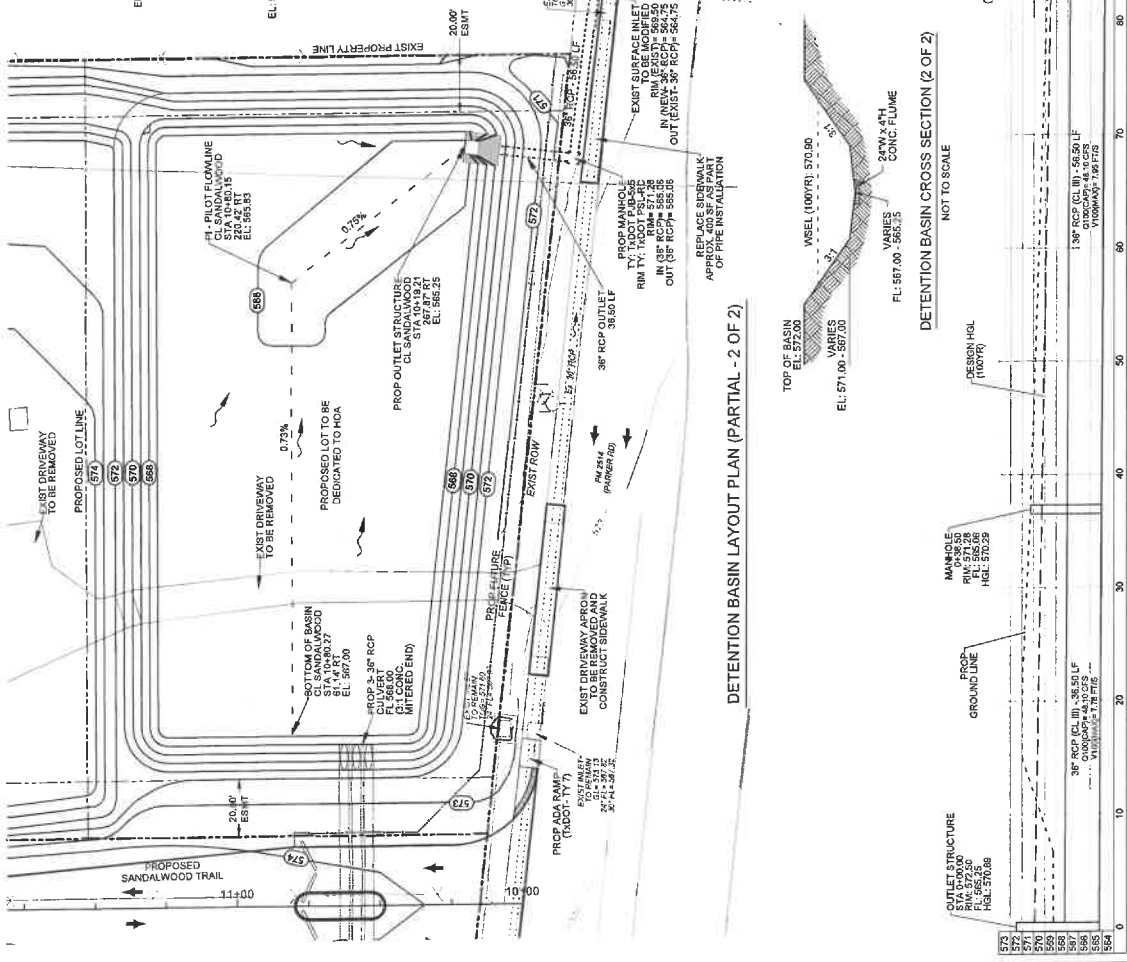
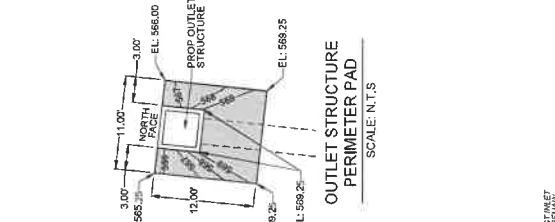
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OWNER(S): 3P LAND PROPERTIES  
 TRACT 4 & 5, ABS 0349 TRACT 8 & 7  
 DETENTION BASIN LAYOUT PLAN 2 OF 2



### STAGE STORAGE

Elevation (ft)	Depth (ft)	Area (sf)	Vol (Cumulative) (cf)	Time (hr)
565.25	0	0	0	0.000
566.00	0.75	2,846.65	1,067.49	0.025
567.00	1.75	21,815.08	13,368.56	0.308
568.00	2.75	33,771.39	35,151.93	0.680
569.00	3.75	27,867.61	59,539.55	1.393
570.00	4.75	21,952.63	67,022.26	1.462
571.00	5.75	28,757.90	66,539.49	1.528
572.00	6.75	29,524.97	69,453.33	1.594
573.00	7.75	30,340.12	72,445.09	1.663
574.00	8.75	31,107.37	75,515.96	1.734
575.00	9.75	31,916.71	78,667.17	1.806
576.00	10.75	32,738.12	81,899.91	1.880
577.00	11.75	33,571.61	85,215.39	1.956
578.00	12.75	34,417.19	88,614.43	2.034
579.00	13.75	35,275.74	92,099.48	2.114
580.00	14.75	36,031.18	95,664.83	2.196
581.00	15.75	36,810.29	99,306.90	2.280
582.00	16.75	37,611.24	103,027.98	2.365
583.00	17.75	38,433.99	106,830.24	2.452
584.00	18.75	39,278.58	110,715.87	2.542
585.00	19.75	40,144.97	114,687.04	2.633
586.00	20.75	41,032.22	118,745.90	2.726
587.00	21.75	41,957.99	122,894.41	2.821
588.00	22.75	42,943.91	127,133.51	2.919
589.00	23.75	43,943.42	131,463.42	3.018
590.00	24.75	44,955.28	135,889.89	3.147
591.00	25.75	46,000.44	140,417.09	3.286



### STAGE DISCHARGE

Elevation (ft)	ORIFICE HI (ft)	ORIFICE C <sub>d</sub>	WEIR 1 L <sub>w</sub> (ft)	WEIR 1 C <sub>d</sub>	WEIR 2 L <sub>w</sub> (ft)	WEIR 2 C <sub>d</sub>	WEIR 3 L <sub>w</sub> (ft)	WEIR 3 C <sub>d</sub>	WEIR 4 L <sub>w</sub> (ft)	WEIR 4 C <sub>d</sub>	Outlet (cfs)
565.25	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
566.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
567.00	0.915	0.915	10.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.08
568.00	1.915	1.915	14.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.99
569.00	2.915	1.800	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00
569.20	3.015	1.831	18.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.31
569.40	3.115	1.861	18.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.61
569.60	3.215	1.890	18.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.90
569.80	3.315	1.919	19.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.19
569.90	3.415	1.948	19.48	0.15	0.00	0.00	0.00	0.00	0.00	0.00	19.63
569.95	3.465	1.977	19.77	0.77	0.00	0.00	0.00	0.00	0.00	0.00	20.54
570.00	3.515	2.004	20.04	1.66	0.00	0.00	0.00	0.00	0.00	0.00	21.70
570.05	3.565	2.032	20.32	2.75	0.00	0.00	0.00	0.00	0.00	0.00	23.07
570.10	3.615	2.059	20.59	4.01	0.00	0.00	0.00	0.00	0.00	0.00	24.60
570.15	3.665	2.086	20.86	5.42	0.00	0.00	0.00	0.00	0.00	0.00	26.28
570.20	3.715	2.112	21.12	6.96	0.00	0.00	0.00	0.00	0.00	0.00	28.08
570.25	3.765	2.139	21.39	8.63	0.00	0.00	0.00	0.00	0.00	0.00	30.01
570.30	3.815	2.164	21.64	10.41	0.00	0.00	0.00	0.00	0.00	0.00	32.05
570.35	3.865	2.190	21.90	12.30	0.00	0.00	0.00	0.00	0.00	0.00	34.20
570.40	3.915	2.215	22.15	14.29	0.00	0.00	0.00	0.00	0.00	0.00	36.44
570.45	3.965	2.240	22.40	16.38	0.00	0.00	0.00	0.00	0.00	0.00	38.78
570.50	4.015	2.265	22.65	18.56	0.21	0.00	0.00	0.00	0.00	0.00	41.43
570.55	4.065	2.289	22.89	20.83	0.59	0.00	0.00	0.00	0.00	0.00	44.32
570.60	4.115	2.313	23.13	23.19	1.09	0.00	0.00	0.00	0.00	0.00	47.51
570.65	4.165	2.337	23.37	25.63	1.68	0.42	0.00	0.00	0.00	0.00	51.52
570.70	4.215	2.361	23.61	28.16	2.37	1.17	6.17	6.17	6.17	6.17	61.52
570.75	4.265	2.385	23.85	30.78	3.17	1.53	15.32	15.32	15.32	15.32	81.36

DETENTION BASIN CROSS SECTION (2 OF 2)  
 NOT TO SCALE

PROFILE - OUTLET STRUCTURE TO EXISTING INLET

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SANDALWOOD ESTATES DEVELOPMENT  
PROPOSED DITCH (WEST) - PLAN & PROFILE

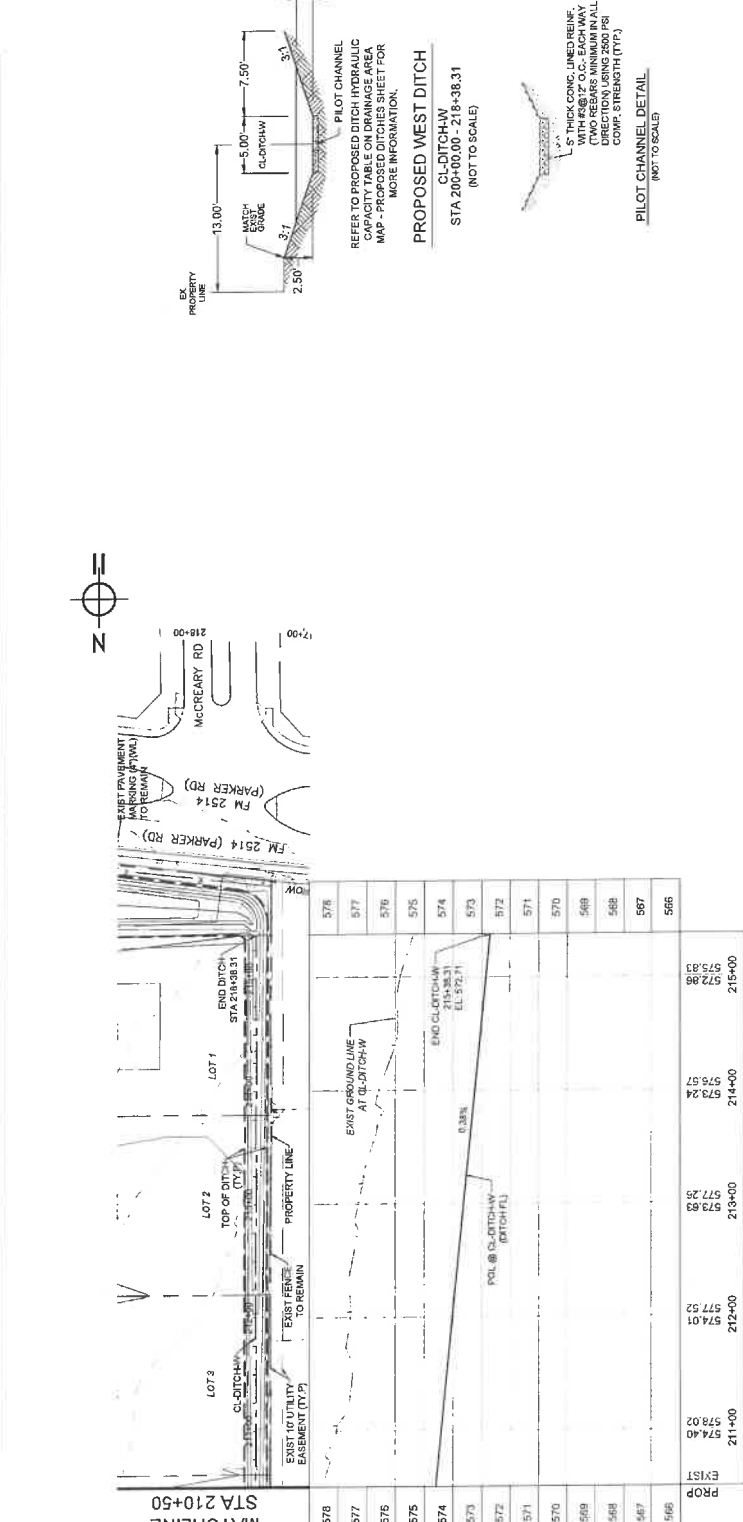
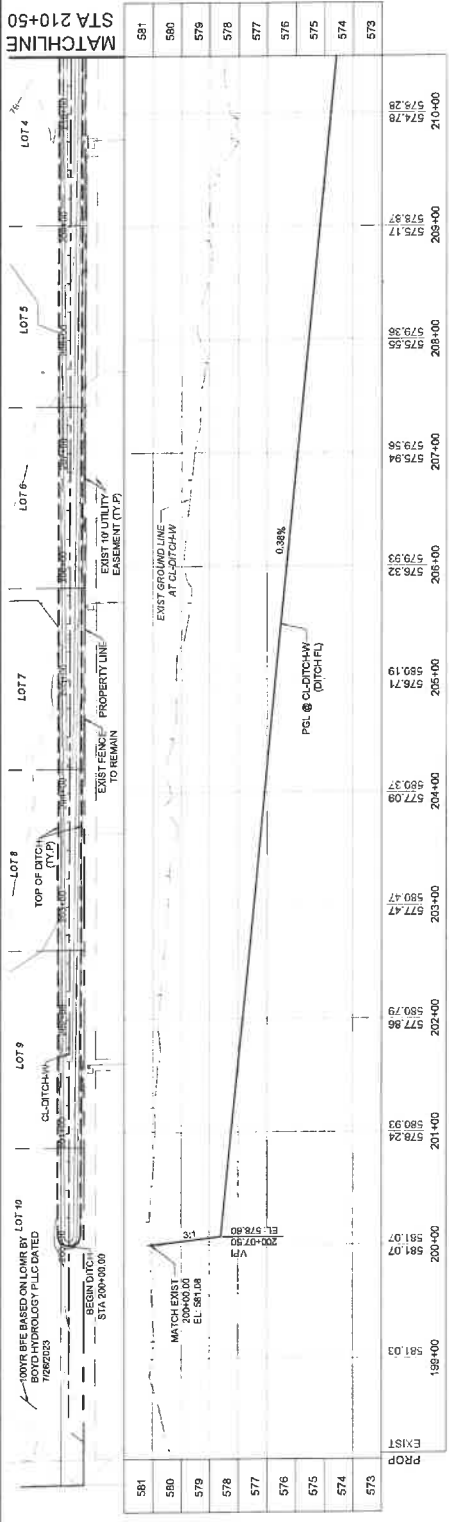
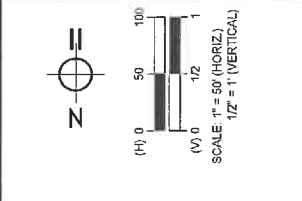
FM 2514 (PARKER RD)  
LUCAS, TEXAS 75002  
ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
OWNER(S): 3R LAND PROPERTIES



**ENGINEERING**  
STRUCTURAL DESIGN & INSPECTION

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PRM # 16652

REV	DATE	DESCRIPTION
1	12/15/23	ISSUED FOR PERMITS
2	01/11/24	REVISED TO REFLECT COMMENTS
3	02/05/24	REVISED TO REFLECT COMMENTS
4	02/20/24	REVISED TO REFLECT COMMENTS
5	03/11/24	REVISED TO REFLECT COMMENTS
6	03/11/24	REVISED TO REFLECT COMMENTS
7	03/11/24	REVISED TO REFLECT COMMENTS
8	03/11/24	REVISED TO REFLECT COMMENTS
9	03/11/24	REVISED TO REFLECT COMMENTS
10	03/11/24	REVISED TO REFLECT COMMENTS



STATION	PROP ELEV	EXIST ELEV
219+00	566	578
218+80	567	579
218+60	568	580
218+40	569	581
218+20	570	582
218+00	571	583
217+80	572	584
217+60	573	585
217+40	574	586
217+20	575	587
217+00	576	588
216+80	577	589
216+60	578	590
216+40	579	591
216+20	580	592
216+00	581	593
215+80	582	594
215+60	583	595
215+40	584	596
215+20	585	597
215+00	586	598
214+80	587	599
214+60	588	600
214+40	589	601
214+20	590	602
214+00	591	603
213+80	592	604
213+60	593	605
213+40	594	606
213+20	595	607
213+00	596	608
212+80	597	609
212+60	598	610
212+40	599	611
212+20	600	612
212+00	601	613
211+80	602	614
211+60	603	615
211+40	604	616
211+20	605	617
211+00	606	618
210+80	607	619
210+60	608	620
210+40	609	621
210+20	610	622
210+00	611	623

PROPOSED WEST DITCH  
CL-DITCH-W  
STA 200+00.00 - 218+38.31  
(NOT TO SCALE)

REFER TO PROPOSED DITCH HYDRAULIC CAPACITY TABLE ON DRAINAGE AREA MAP - PROPOSED DITCHES SHEET FOR MORE INFORMATION.

PILOT CHANNEL  
H (WATER DEPTH) = 1.68'

PILOT CHANNEL DETAIL  
(NOT TO SCALE)

5" THICK CONC. LINED REINFORCED CONCRETE CHANNEL (TWO REBARS MINIMUM ALL DIRECTION) USING 2500 PSI COMP. STRENGTH (TYP.)

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WORK BE BASED ON LOTS BY LOT 10  
PRODUCT # 1682233  
7/6/2023

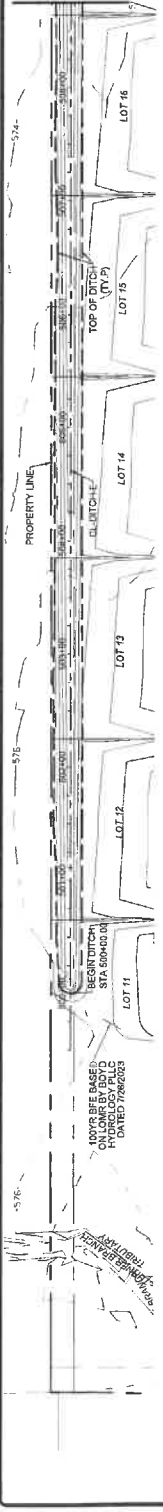
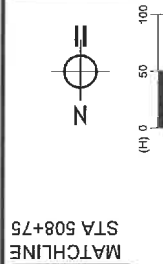
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2	11/20/23	REVISED PER COMMENTS
3	11/20/23	REVISED PER COMMENTS
4	11/20/23	REVISED PER COMMENTS
5	11/20/23	REVISED PER COMMENTS

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 PHONE 972-864-2151  
 FAX 972-864-2037  
 ENGINEERING@URTEXAS.COM  
 FIRM # F-1652

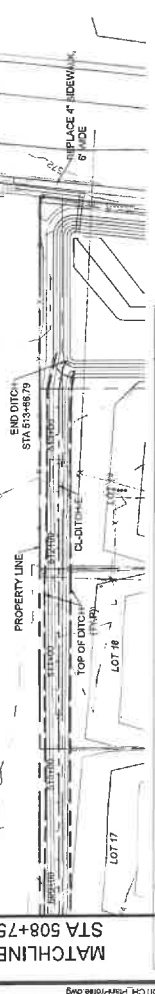


SANDALWOOD ESTATES DEVELOPMENT  
 PROPOSED DITCH (EAST) - PLAN & PROFILE  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

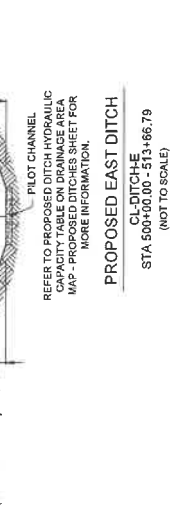
2022-0535B  
 SHEET  
 12



STATION	EXISTING ELEVATION	PROPOSED ELEVATION	DEPTH
577	574.21	574.21	0.00
576	574.28	574.28	0.00
575	571.12	571.12	0.00
574	575.08	575.08	0.00
573	571.44	571.44	0.00
572	575.51	575.51	0.00
571	571.76	571.76	0.00
570	575.72	575.72	0.00
569	572.08	572.08	0.00
568	578.30	578.30	0.00
567	572.40	572.40	0.00
566	576.82	576.82	0.00
565	572.72	572.72	0.00
564	578.48	578.48	0.00
563	573.04	573.04	0.00
562	575.77	575.77	0.00
561	575.04	575.04	0.00
560	578.82	578.82	0.00
559	572.72	572.72	0.00
558	576.82	576.82	0.00
557	572.08	572.08	0.00



STATION	EXISTING ELEVATION	PROPOSED ELEVATION	DEPTH
574	574.21	574.21	0.00
573	574.28	574.28	0.00
572	571.12	571.12	0.00
571	575.08	575.08	0.00
570	571.44	571.44	0.00
569	575.51	575.51	0.00
568	571.76	571.76	0.00
567	575.72	575.72	0.00
566	572.08	572.08	0.00
565	578.30	578.30	0.00
564	572.40	572.40	0.00
563	576.82	576.82	0.00
562	572.72	572.72	0.00
561	578.48	578.48	0.00
560	573.04	573.04	0.00
559	575.77	575.77	0.00
558	575.04	575.04	0.00
557	578.82	578.82	0.00
556	572.72	572.72	0.00
555	576.82	576.82	0.00
554	572.08	572.08	0.00
553	575.04	575.04	0.00
552	571.12	571.12	0.00
551	575.08	575.08	0.00
550	571.44	571.44	0.00
549	575.51	575.51	0.00
548	571.76	571.76	0.00
547	575.72	575.72	0.00
546	572.08	572.08	0.00
545	578.30	578.30	0.00
544	572.40	572.40	0.00
543	576.82	576.82	0.00
542	572.72	572.72	0.00
541	578.48	578.48	0.00
540	573.04	573.04	0.00
539	575.77	575.77	0.00
538	575.04	575.04	0.00
537	578.82	578.82	0.00
536	572.72	572.72	0.00
535	576.82	576.82	0.00
534	572.08	572.08	0.00
533	575.04	575.04	0.00
532	571.12	571.12	0.00
531	575.08	575.08	0.00
530	571.44	571.44	0.00
529	575.51	575.51	0.00
528	571.76	571.76	0.00
527	575.72	575.72	0.00
526	572.08	572.08	0.00
525	578.30	578.30	0.00
524	572.40	572.40	0.00
523	576.82	576.82	0.00
522	572.72	572.72	0.00
521	578.48	578.48	0.00
520	573.04	573.04	0.00
519	575.77	575.77	0.00
518	575.04	575.04	0.00
517	578.82	578.82	0.00
516	572.72	572.72	0.00
515	576.82	576.82	0.00
514	572.08	572.08	0.00
513	575.04	575.04	0.00



PROPOSED EAST DITCH  
 CL-DITCH  
 STA 500+00 - 513+66.79  
 (NOT TO SCALE)

REFER TO PROPOSED DITCH CAPACITY TABLE ON DRAINAGE AREA MAP - PROPOSED DITCHES SHEET FOR MORE INFORMATION.

5" THICK CONC. LINED REINF. WITH #2 @ 12" O.C. EACH WAY. DIRECTION USING 2500 PSI COMP. STRENGTH (TYP.)  
 (NOT TO SCALE)

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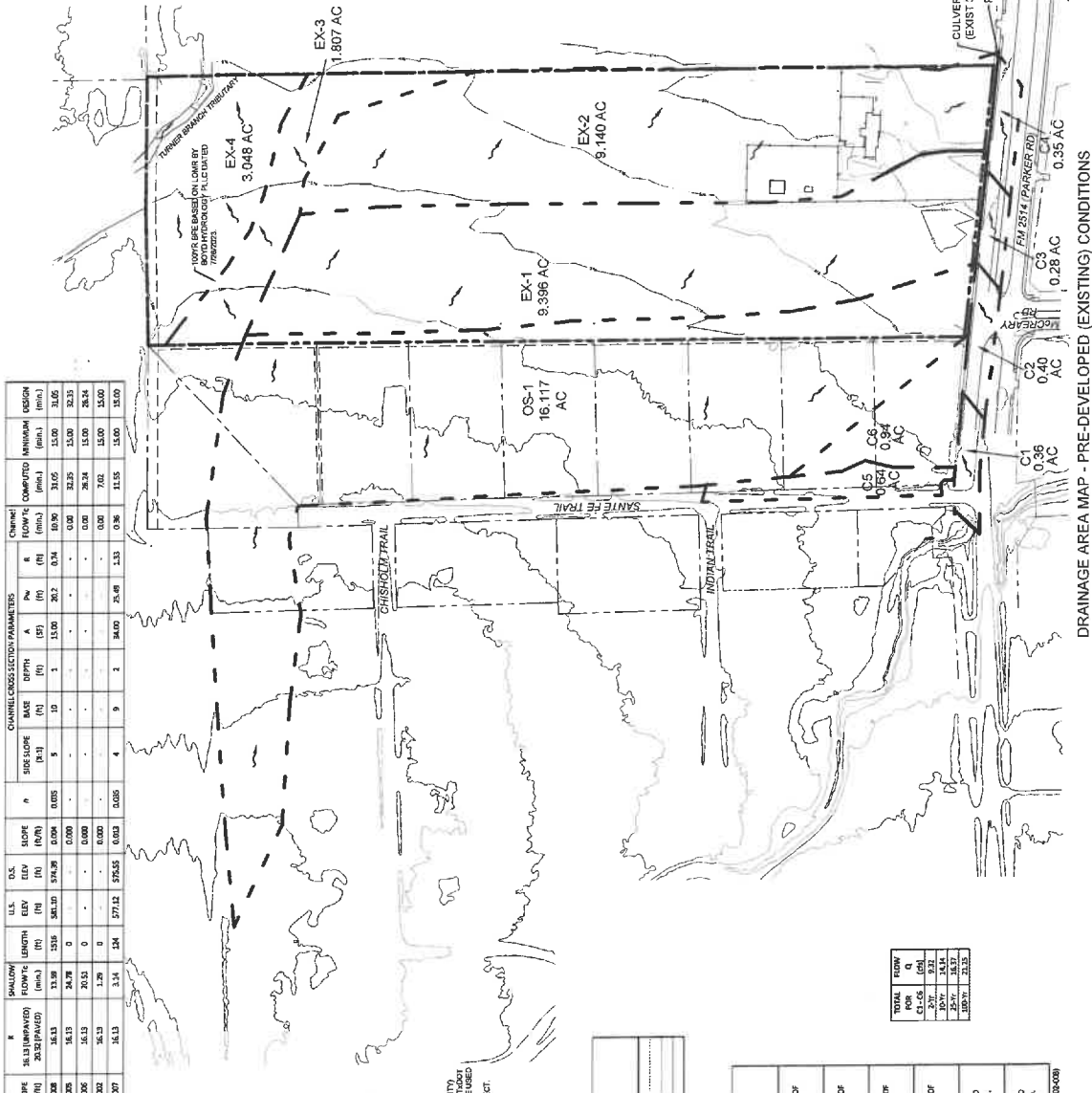
REV.	DATE	DESCRIPTION
1	12/15/23	DESIGN HISTORY
2	12/15/23	CITY OF UCCS - CIVIL PLANS (00L COMMENTS 11/23)
3	12/15/23	CITY OF UCCS - CIVIL PLANS (APPROVED PROJECT PERMIT)
4	12/15/23	CITY OF UCCS - CIVIL PLANS (APPROVED PROJECT PERMIT)

**R ENGINEERING**  
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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE STATE BOARD OF PROFESSIONAL ENGINEERS ON 12/15/23  
 OWNER(S): 3R LAND PROPERTIES  
 LACS 2514 (PARKER RD) TRACT 4 & 5, ABS 0349 TRACT 8 & 7  
 LACS 2514 (PARKER RD) TRACT 4 & 5, ABS 0349 TRACT 8 & 7  
 LACS 2514 (PARKER RD) TRACT 4 & 5, ABS 0349 TRACT 8 & 7  
 DRAINAGE AREA MAP - PRE-DEVELOPED

2022-0535B  
 SHEET  
**13**



DA	LENGTH (ft)	WIDTH (ft)	SLOPE (ft/ft)	DRAINAGE AREA (AC)	R <sub>w</sub>	P <sub>2</sub>	SWEET POINT (ft)	U.S. LENGTH (ft)	U.S. ELEV (ft)	D.S. ELEV (ft)	SLOPE (ft/ft)	n	SIDE SLOPE (H:1)	CHANNEL CROSS-SECTION PARAMETERS			CHANNEL FLOW FC (ft/s)	MINIMUM DESIGN (ft/s)				
														DEPTH (ft)	BASE (ft)	WIDTH (ft)						
OS-1	274.2	50	580.00	580.00	0.007	0.50	4.10	1175	593.50	581.10	0.008	0.035	5	10	1	15.00	20.2	0.4	10.30	31.05	15.00	31.05
EX-1	1795.50	50	580.00	580.29	0.007	0.50	4.10	1165	586.29	577.41	0.005	0.035	5	10	1	15.00	20.2	0.4	10.30	31.05	15.00	31.05
EX-2	1533.00	50	578.50	577.80	0.014	0.50	4.10	5.73	577.80	569.52	0.005	0.035	5	10	1	15.00	20.2	0.4	10.30	31.05	15.00	31.05
EX-3	1100.00	50	578.00	579.60	0.016	0.50	4.10	5.73	579.60	579.32	0.002	0.035	5	10	1	15.00	20.2	0.4	10.30	31.05	15.00	31.05
EX-4	434.00	50	579.33	579.02	0.006	0.50	4.10	8.05	579.02	577.12	0.007	0.035	4	9	1	14.00	24.49	1.53	0.36	11.55	15.00	15.00
EX-5	1807.00	50	579.33	579.02	0.006	0.50	4.10	8.05	579.02	577.12	0.007	0.035	4	9	1	14.00	24.49	1.53	0.36	11.55	15.00	15.00

CONCENTRATION VALUES ARE DETERMINED USING THE NRCS CHOW EQUATION (1959) - ARTICLE 11.07.04.0.

LINE OF CONCENTRATION ARE DETERMINED BASED ON AVAILABLE ELEVATION DATA FROM HYDROLOGIC AND FIELD TOPOGRAPHIC SURVEY.

FLOW COMPUTATION - PRE-DEVELOPED (UNDEVELOPED)

300-YR EVENT PARAMETER COMPARISON	DRAINAGE AREA (AC)	CONCENTRATION (ft/min)	LENGTH (ft)	WIDTH (ft)	DEPTH (ft)	AREA (sq ft)
OS-1 SURFACE RUNOFF	580	16.17	24.11	18.78	1.12	37.81
EX-1 SURFACE RUNOFF	580.29	16.17	24.11	18.78	1.12	37.81
EX-2 SURFACE RUNOFF	577.80	16.17	24.11	18.78	1.12	37.81
EX-3 SURFACE RUNOFF	579.60	16.17	24.11	18.78	1.12	37.81
EX-4 SURFACE RUNOFF	579.02	16.17	24.11	18.78	1.12	37.81
EX-5 SURFACE RUNOFF	579.02	16.17	24.11	18.78	1.12	37.81
TOTAL	2907.11	16.17	24.11	18.78	1.12	37.81

CHANNEL FLOWS (DESIGNED CAPACITY) FOR PRE-DEVELOPED CHANNELS WILL BE USED AS EXISTING CONDITIONS FOR THE PROJECT.

CHISHOLM TRAIL AND SANTIFE TRAIL (PRE-EXISTING) ON THIS PROJECT.

OS-1 SURFACE RUNOFF (274.2)

EX-1 SURFACE RUNOFF (1795.5)

EX-2 SURFACE RUNOFF (1533.0)

EX-3 SURFACE RUNOFF (1100.0)

EX-4 SURFACE RUNOFF (434.0)

EX-5 SURFACE RUNOFF (1807.0)

TOTAL FLOWS (PRE-DEVELOPED)

DRAINAGE AREA EX-3

DRAINAGE AREA EX-4

DRAINAGE AREA EX-5

DRAINAGE AREA EX-1

DRAINAGE AREA EX-2

DA	DESIGN STORM FREQUENCY	DESIGN INTENSITY (ft/hr)	DESIGN PEAK FLOW (cfs)	DESIGN FLOW (cfs)	DESIGN POINT OF INTEREST
OS-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-2	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-3	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-4	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-5	1:100	4.57	6.00	6.00	POINT OF INTEREST
TOTAL	1:100	4.57	6.00	6.00	POINT OF INTEREST

DA	DESIGN STORM FREQUENCY	DESIGN INTENSITY (ft/hr)	DESIGN PEAK FLOW (cfs)	DESIGN FLOW (cfs)	DESIGN POINT OF INTEREST
OS-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-2	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-3	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-4	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-5	1:100	4.57	6.00	6.00	POINT OF INTEREST
TOTAL	1:100	4.57	6.00	6.00	POINT OF INTEREST

DA	DESIGN STORM FREQUENCY	DESIGN INTENSITY (ft/hr)	DESIGN PEAK FLOW (cfs)	DESIGN FLOW (cfs)	DESIGN POINT OF INTEREST
OS-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-1	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-2	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-3	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-4	1:100	4.57	6.00	6.00	POINT OF INTEREST
EX-5	1:100	4.57	6.00	6.00	POINT OF INTEREST
TOTAL	1:100	4.57	6.00	6.00	POINT OF INTEREST

INFORMATION IS BASED ON 1:100 RECORD PLANS (CSI: 28742-008 FOR FM 2514 PARKER ROAD RECONSTRUCTION IN COLLIN COUNTY).

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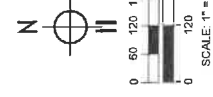
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IN THE EVENT OF ANY DISCREPANCY BETWEEN THESE PLANS AND THE FIELD SURVEY, THE FIELD SURVEY SHALL CONTROL.





REV.	DATE	DESCRIPTION
1	12/19/23	CITY OF LUCAS - CIVIL PLANS APPROVED FOR PERMIT
2	03/25/24	CITY OF LUCAS - CIVIL PLANS APPROVED FOR PERMIT
3	05/15/24	CITY OF LUCAS - CIVIL PLANS APPROVED FOR PERMIT

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THE SEAL APPEARS ON THIS DOCUMENT AS AUTHORIZED BY STATE REGULATION ON 12/19/23

SANDALWOOD ESTATES DEVELOPMENT  
 DRAINAGE AREA MAP - DEVELOPED  
 LUCAS TRACT 4 & 5, ABS 0349 TRACT 6 & 7  
 ABS A0901 TRACT 4 & 5, ABS 0349 TRACT 6 & 7  
 OWNERS(S): 3R LAND PROPERTIES

2022-05358  
 SHEET  
 14

DA	LENGTH (ft)	U.S. ELEV. (ft)	S.S. ELEV. (ft)	SLOPE (ft/ft)	$P_n$	FLOW RATE (cfs)	TIME (min)	CONCENTRATION (ppm)
A	2900	502.00	500.00	0.006	0.50	4.30	6.56	13.87
B	100	502.00	499.00	0.030	0.02	0.10	3.15	0
EX-4	604	501.25	499.00	0.023	0.02	0.10	4.10	0

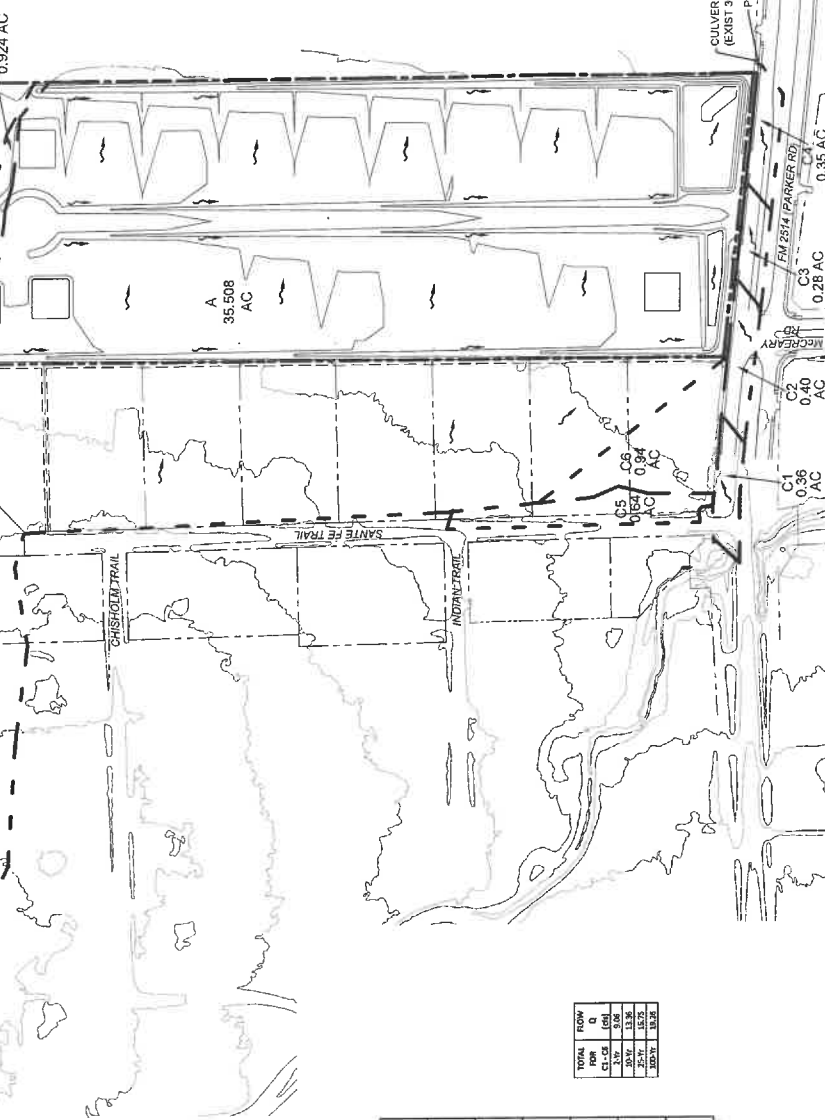
TIME OF CONCENTRATION ARE DETERMINED BASED ON AVAILABLE ELEVATION DATA FROM RTCP AND FIELD TOPOGRAPHIC SURVEY.

DA	LAND USE	AREA (AC)	% TOTAL	$C_p$
A	UNGLASSIFIED RESIDENTIAL	35.328	1.00	0.55
B	UNGLASSIFIED RESIDENTIAL	35.000	1.00	0.55
EX-4	OPEN SPACE	3.048	1.00	0.35

COEFFICIENT VALUES ARE BASED ON CITY OF LUCAS 5002 PARTICLE (40/70).

CHANNEL CROSS SECTION PARAMETERS	SHALLOW FLOW (UNPAVED)		CHANNEL CROSS SECTION PARAMETERS		CHANNEL CROSS SECTION PARAMETERS	
	LENGTH (ft)	WIDTH (ft)	DEPTH (ft)	SIDE SLOPE (H:V)	ROUGHNESS COEFFICIENT (n)	DESIGN VELOCITY (ft/s)
A	2900	10	3	1.5	0.08	27.23
B	100	10	3	1.5	0.08	27.23
EX-4	604	10	3	1.5	0.08	27.23

CHANNEL CROSS SECTION PARAMETERS: US ELEV. (ft), S.S. ELEV. (ft), SLOPE (ft/ft), P, K, SHALLOW FLOW (UNPAVED) VELOCITY (ft/s), DEPTH (ft).



FLOW COMPUTATION - DEVELOPED (UNDETAILED)

DESIGN STORM	TC (min)	INTENSITY (in/hr)	AREA (Ac)	RUNOFF COEFFICIENT	FLOW Q (cfs)	NOTES
A	15	7.13	35.328	0.55	66.46	DRAINAGE AREA DRAIN TO PROPOSED DEPRESSION BASIN.
B	15	15.00	0.924	0.55	2.00	DRAINAGE AREA RUNOFFS TO PROPOSED DEPRESSION BASIN (DA-1).
EX-4	15	15.00	3.048	0.35	5.87	FLOOD PLAIN DISCHARGE TO UPPER BRANCH TRIBUTARY
TOTAL					74.26	

RUNOFF COEFFICIENT VALUES ARE BASED ON CITY OF LUCAS ORDINANCE 2022-04-00045 (ADOPTED 4/7/22)

UNDETAILED OFF-SITE FLOWS

DA ID	DESIGN STORM	TC (min)	INTENSITY (in/hr)	AREA (Ac)	RUNOFF COEFFICIENT	FLOW Q (cfs)	NOTES
11C1	15	10.00	6.50	6.90	0.19	3.34	EXISTING ROAD PAVEMENT AREA OF FM 2514
11C2	15	10.00	6.50	0.40	0.30	0.71	EXISTING ROAD PAVEMENT AREA OF FM 2514
11C3	15	10.00	6.50	0.20	0.30	0.36	EXISTING ROAD PAVEMENT AREA OF FM 2514
11C4	15	10.00	6.50	0.30	0.30	0.52	EXISTING ROAD PAVEMENT AREA OF FM 2514
11C5	15	18.14	5.91	0.60	0.60	1.04	OFF-SITE RUNOFF FROM EXISTING OFF-SITE DEVELOPMENT (EXISTING)
11C6	15	13.57	6.50	0.80	0.80	1.34	OFF-SITE RUNOFF FROM EXISTING OFF-SITE DEVELOPMENT (EXISTING)

11C1-11C6: EXISTING ROAD PAVEMENT AREA (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 158, 205, 205-02-008)

11C5-11C6: EXISTING OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C7-11C8: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C9-11C10: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C11-11C12: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C13-11C14: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C15-11C16: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C17-11C18: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C19-11C20: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

11C21-11C22: OFF-SITE DEVELOPMENT (AS RECORDED IN LUCAS COUNTY RECORDS PLAN 205-02-008)

DRAINAGE AREA MAP - DEVELOPED (PROPOSED) CONDITIONS

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REV	DATE	DESCRIPTION	DESIGN HISTORY
1	11/15/23	CITY OF LUCAS - CIVIL PLANS APPROVED FOR PERMIT	
2	11/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 11/23)	
3	11/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 11/23)	

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID A. LEWIS ON 11/15/2023  
 SANDALWOOD ESTATES DEVELOPMENTS  
 DETENTION BASIN SIZING CALCULATIONS  
 LUCAS, TEXAS 75002  
 FM 2514 (PARKER RD)  
 TRACT 4 & 5; ARS 0349 TRACT 8 & 7  
 OWNER(S): 3R LAND PROPERTIES

DETECTION BASIN ALLOWED RELEASE		DAID = A	A
		A = 35.538	AC
		C = 0.55	
		Tc = 27.33	Minutes
		10-Yr	25-Yr
		100-Yr	
		1.97	4.12
		4.82	5.85
		58.00	94.13
		114.25	
		30.00	46.00
		53.00	69.00
		14.14	21.25
		0.00	0.00
		0.00	0.00
		31.86	36.63
		47.75	

**25-YEAR STORM EVENT**

Tc (min)	I <sub>15yr</sub> (in/hr)	Q <sub>ave</sub> (ft <sup>3</sup> /s)	PROPTO BASIN Vol <sub>15yr</sub> (ft <sup>3</sup> )	PROPTO BASIN Vol <sub>15yr</sub> (ft <sup>3</sup> )	STORM DURATION AT PEAK (min)	Q <sub>channel</sub> =	25-Yr		36.63 cfs	
							OUTFLOW Vol <sub>25yr</sub> (ft <sup>3</sup> )	REQUIRED STORAGE Vol <sub>25yr</sub> (ft <sup>3</sup> )		
5	9.720	189.83	56,947.73	32.23	35.41658	21,531.15				
10	7.800	152.33	91,397.59	37.23	40,910.93	50,486.66				
15	6.440	125.77	113,192.40	42.23	46,405.28	66,787.12				
30	4.450	86.91	156,430.49	57.23	63,988.33	93,542.16				
60	2.820	57.72	206,996.11	87.23	95,854.43	130,141.68				
120	1.800	36.72	264,349.86	117.23	161,796.63	102,563.38				
180	1.460	28.12	305,721.23	207.23	227,718.86	79,002.40				
360	0.882	17.19	371,214.94	387.23	425,515.43	0.00				
720	0.522	10.16	498,708.44	747.23	821,106.63	0.00				
1440	0.307	6.06	523,075.45	1467.23	1,612,295.03	0.00				

**2-YEAR STORM EVENT**

Tc (min)	I <sub>2yr</sub> (in/hr)	Q <sub>ave</sub> (ft <sup>3</sup> /s)	PROPTO BASIN Vol <sub>2yr</sub> (ft <sup>3</sup> )	PROPTO BASIN Vol <sub>2yr</sub> (ft <sup>3</sup> )	STORM DURATION AT PEAK (min)	Q <sub>channel</sub> =	2-Yr		20.68 cfs	
							OUTFLOW Vol <sub>2yr</sub> (ft <sup>3</sup> )	REQUIRED STORAGE Vol <sub>2yr</sub> (ft <sup>3</sup> )		
5	5.940	116.00	34,801.39	32.23	20,000.30	14,800.09				
10	4.760	92.96	55,775.97	37.23	23,103.04	32,672.92				
15	3.950	77.14	69,427.02	42.23	26,205.79	43,221.23				
30	2.750	53.71	96,670.53	57.23	35,514.02	61,156.51				
60	1.790	34.96	125,847.45	87.23	54,130.50	71,716.96				
120	1.110	21.69	156,078.66	147.23	91,363.44	64,715.52				
180	0.826	15.21	175,861.54	207.23	126,596.30	46,465.15				
360	0.494	9.37	208,695.17	387.23	240,235.23	0.00				
720	0.291	5.66	244,664.32	747.23	463,692.90	0.00				
1440	0.171	3.32	286,947.83	1467.23	910,463.26	0.00				

**RESULTS**

	DISCHARGE TO FLOODPLAIN (NORTHEAST)		
	EXISTING (cfs)	PROPOSED (cfs)	DIFFERENCE (cfs)
2-Yr	2.50	2.01	-0.49
10-Yr	3.48	2.80	-0.68
25-Yr	4.07	3.27	-0.80
100-Yr	4.95	3.98	-0.97

**OUTFALL AT CULVERTIA**

	EXISTING			PROPOSED			TOTAL DIFFERENCE (cfs)
	EXISTING (cfs)	DETENTION BASIN RELEASE (cfs)	UNDETAINED (cfs)	EXISTING (cfs)	DETENTION BASIN RELEASE (cfs)	UNDETAINED (cfs)	
2-Yr	30.00	39.19	9.32	30.00	39.19	28.51	-1.49
10-Yr	46.00	28.08	26.14	46.00	28.08	42.23	-3.77
25-Yr	53.00	36.64	16.37	53.00	36.64	52.81	-0.19
100-Yr	69.00	47.41	21.25	69.00	47.41	68.66	-0.34

\* REFER TO STAGE STORAGE DISCHARGE TABLE FOR DETENTION BASIN RELEASE VALUES.

**100-YEAR STORM EVENT**

Tc (min)	I <sub>100yr</sub> (in/hr)	Q <sub>ave</sub> (ft <sup>3</sup> /s)	PROPTO BASIN Vol <sub>100yr</sub> (ft <sup>3</sup> )	PROPTO BASIN Vol <sub>100yr</sub> (ft <sup>3</sup> )	STORM DURATION AT PEAK (min)	Q <sub>channel</sub> =	100-Yr		47.75 cfs	
							OUTFLOW Vol <sub>100yr</sub> (ft <sup>3</sup> )	REQUIRED STORAGE Vol <sub>100yr</sub> (ft <sup>3</sup> )		
5	11.900	232.40	69,719.96	32.23	46,184.47	23,531.49				
10	9.590	186.12	111,669.11	37.23	53,330.61	58,388.30				
15	7.840	153.11	137,799.46	42.23	60,493.16	77,906.29				
30	5.400	105.46	189,835.77	57.23	81,980.19	107,845.59				
60	3.580	69.82	251,694.01	87.23	124,944.15	136,746.66				
120	2.350	45.89	330,437.45	147.23	210,602.38	119,535.07				
180	1.620	31.94	383,869.89	207.23	296,600.51	97,019.38				
360	1.190	22.07	476,673.60	387.23	559,694.89	0.00				
720	0.673	13.08	565,258.95	747.23	1,070,883.66	0.00				
1440	0.395	7.81	674,936.06	1467.23	2,101,761.20	0.00				

**10-YEAR STORM EVENT**

Tc (min)	I <sub>10yr</sub> (in/hr)	Q <sub>ave</sub> (ft <sup>3</sup> /s)	PROPTO BASIN Vol <sub>10yr</sub> (ft <sup>3</sup> )	PROPTO BASIN Vol <sub>10yr</sub> (ft <sup>3</sup> )	STORM DURATION AT PEAK (min)	Q <sub>channel</sub> =	10-Yr		31.86 cfs	
							OUTFLOW Vol <sub>10yr</sub> (ft <sup>3</sup> )	REQUIRED STORAGE Vol <sub>10yr</sub> (ft <sup>3</sup> )		
5	8.230	161.90	48,569.62	32.23	30,802.14	17,767.48				
10	6.650	128.87	77,922.31	37.23	35,580.63	42,341.68				
15	5.400	107.41	96,670.53	42.23	40,569.11	56,311.42				
30	3.810	74.41	133,932.63	57.23	54,694.58	79,218.05				
60	2.500	48.82	175,764.60	87.23	83,565.51	92,399.89				
120	1.590	31.05	213,573.57	147.23	140,707.37	83,865.30				
180	1.200	23.44	253,103.02	207.23	198,049.23	55,053.79				
360	0.728	14.26	307,959.98	387.23	370,074.82	0.00				
720	0.451	8.40	351,778.13	747.23	724,215.99	0.00				
1440	0.253	4.88	421,835.04	1467.23	1,402,228.34	0.00				

NOTES  
 1. RAINFALL INTENSITY VALUES ARE BASED ON CITY OF LUCAS ORDINANCE 2022-04-00945 (ADOPTED 4/7/22).

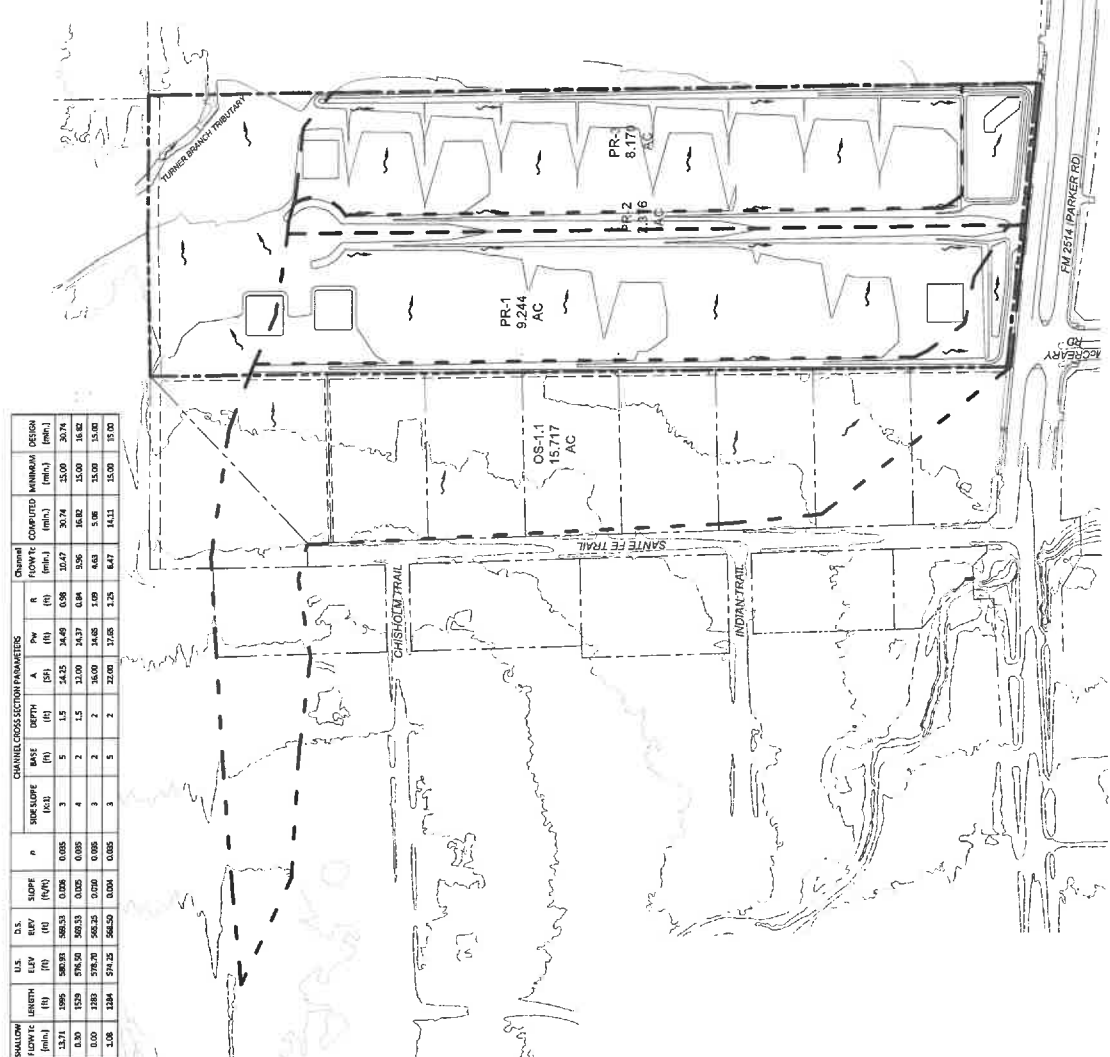
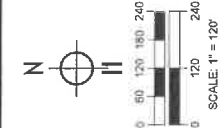
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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUCAS - CIVIL PLANS PERMIT
2	12/15/23	CITY OF LUCAS - CIVIL PLANS PERMIT
3	12/15/23	CITY OF LUCAS - CIVIL PLANS PERMIT

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 FIRM # F-15682



DRAINAGE AREA MAP - PROPOSED DITCHES  
 LUCAS, TEXAS 75002  
 FM 2514 (PARKER RD)  
 ABS A0901 TRACT 4 & 5, ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES



DA	LENGTH (FT)	D.S. ELEV (FT)	SLOPE (FT/100)	P <sub>2</sub> (FT)	FROM FC LENGTH (FT)	U.S. ELEV (FT)	D.S. ELEV (FT)	SLOPE (FT/100)	K (CALCULATED)	SHALLOW FROM FC LENGTH (FT)	U.S. ELEV (FT)	D.S. ELEV (FT)	SLOPE (FT/100)	CHANNEL CROSS SECTION PARAMETERS				DESIGN MINIMUM (FPM)							
														DEPTH (FT)	BASE (FT)	SIDE SLOPE (H:1)	ρ		SHOULDER (FT)	DEPTH (FT)	BASE (FT)	SIDE SLOPE (H:1)	ρ	FROM FC LENGTH (FT)	U.S. ELEV (FT)
OS-1.1	3235	39	59.00	290.00	0.00	4.00	0.58	1.00	16.13	12.11	2995	2803.8	580.33	0.008	0.005	3	5	1.5	24.25	24.69	0.08	10.47	30.74	15.00	30.74
PR-1	1094	39	58.00	275.00	0.00	0.50	0.58	0.00	16.13	0.00	2750	2750.0	580.33	0.005	0.005	4	2	1.5	21.00	24.37	0.04	3.06	16.02	15.00	16.82
PR-2	1090	37	57.00	275.00	0.00	0.50	0.49	0.00	16.13	0.00	2750	2750.0	580.33	0.005	0.005	3	2	2	16.00	24.68	1.09	4.03	3.06	15.00	15.00
PR-3	1090	37	57.00	275.00	0.00	0.50	0.49	0.00	16.13	0.00	2750	2750.0	580.33	0.005	0.005	3	5	2	22.00	24.26	2.25	8.47	14.11	15.00	15.00

FROM AN ACTORS, FIELD PHOTOGRAPHIC SURVEY AND PROPOSED GRADING PLAN

DAID	LAND USE	AREA (AC)	% TOTAL	C	C <sub>u</sub>
OS-1.1	Single Family Residential	15.717	1.00	0.55	0.55
PR-1	Single Family Residential	9.244	1.00	0.55	0.55
PR-2	Single Family Residential	8.177	1.00	0.55	0.55
PR-3	Single Family Residential	8.179	1.00	0.55	0.55

COEFFICIENT VALUES ARE BASED ON CITY OF LUCAS ORDINANCE (AMENDED SWD) - ARTICLE 13.07.02

**FLOW COMPUTATION - (DEVELOPED, UNDEVELOPED)**

DAID	DESIGN STORM FREQUENCY (100-YR)	TR (HRS)	WETLANDS ADJUSTMENT (%)	WATERWAY ADJUSTMENT (%)	CONCENTRATION (FT)	FLOW (CFS)	NOTES
OS-1.1	2.57	30.74	0.00	15.717	0.55	21.00	DRAINAGE AREA DRAIN TO PROPOSED DITCH (WEST), PROPOSED DITCH (WEST).
PR-1	2.57	16.82	0.00	9.244	0.55	11.50	DRAINAGE AREA DRAIN TO PROPOSED SANDALWOOD TRAIL DITCH (EAST).
PR-2	2.57	15.00	0.00	8.177	0.55	11.50	DRAINAGE AREA DRAIN TO PROPOSED SANDALWOOD TRAIL DITCH (EAST).
PR-3	2.57	15.00	0.00	8.179	0.55	11.50	DRAINAGE AREA DRAIN TO PROPOSED DITCH (EAST).

RAMPFALL INTENSITY VALUES ARE BASED ON CITY OF LUCAS ORDINANCE 2022-04-06 (FOR FREQ 100-YR)

**PROPOSED DITCH HYDRAULIC CAPACITY - DEVELOPED, UNDEVELOPED**

DITCH	LOCATION	DESIGN FLOW (CFS)	DESIGN VELOCITY (FT/SEC)	DESIGN DEPTH (FT)	DESIGN VELOCITY (FT/SEC)	DESIGN DEPTH (FT)
WEST DITCH (DITCH #1)	ALONG WEST PROPERTY LINE	46.33	0.0058	2.75	1.68	2.50
DITCH (DITCH #2)	ALONG SANDALWOOD TRAIL	18.33	0.0035	2.40	1.71	2.50
DITCH (DITCH #3)	ALONG SANDALWOOD TRAIL	10.15	0.0035	1.75	0.99	2.50
DITCH (DITCH #4)	ALONG SANDALWOOD TRAIL	8.13	0.0032	2.40	1.53	2.50

**DRAINAGE AREA MAP - DEVELOPED (PROPOSED) CONDITIONS**

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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 1/10/23)
2	12/15/23	CITY OF LUCAS - CIVIL PLANS (REVISED PERMIT)
3	12/15/23	CITY OF LUCAS - CIVIL PLANS (REVISED PERMIT)

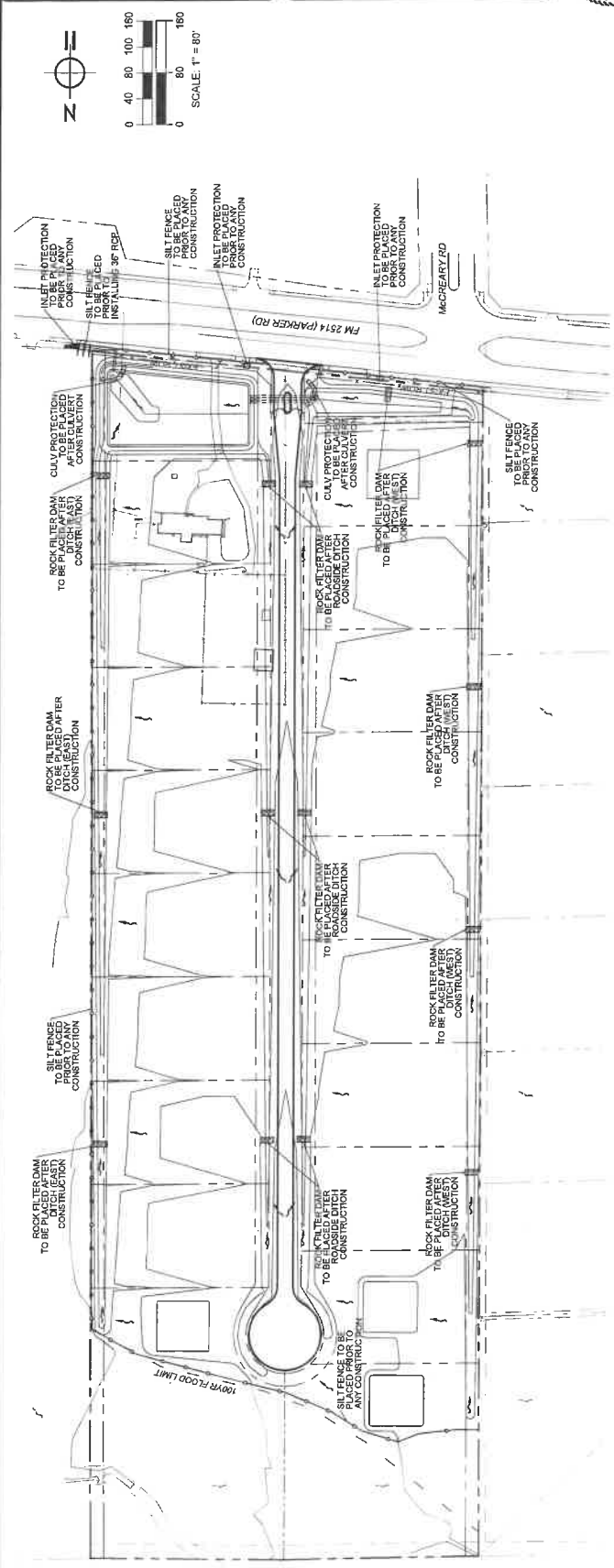
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 PLANO, TEXAS 75075  
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 FAX 972-964-2152  
 EMO@ENGINEERING@LUCAS.COM  
 FIRM # 1-1652



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ORDER OF THE BOARD ON 01/25/2023

SANDALWOOD ESTATES DEVELOPMENT  
 EROSION CONTROL PLAN  
 FM 2514 (PARKER RD)  
 LUCAS TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 8 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-03388  
 SHEET  
 17



EROSION CONTROL PLAN

**SEQUENCE OF CONSTRUCTION**

1. INSTALL SILT FENCE AND INLET PROTECTION AS SHOWN IN THE EROSION CONTROL PLAN PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES.
2. LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION OR GRADING.
3. CONSTRUCT DETENTION BASIN IN ACCORDANCE WITH THE DETENTION BASIN PLAN.
4. INSTALL DETENTION BASIN OUTLET STRUCTURE AND/OR OUTLET PIPES. OUTLET STRUCTURE AND/OR OUTLET PIPE SHALL BE COVERED AND PROTECTED AS TO NOT ALLOW ANY PASSING OF SEDIMENTS.
5. CONSTRUCT DITCH (WEST) AS SHOWN ON THE PLAN. ROCK FILTER DAMS SHALL BE PLACED AFTER DITCH CONSTRUCTION AS SHOWN IN THE EROSION CONTROL PLAN.
6. INSTALL ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH THE UTILITIES PLAN.
7. INSTALL CULVERT(S) UNDER SANDALWOOD TRAIL. UPSTREAM END OF THE CULVERT(S) SHALL BE COVERED AND PROTECTED AS TO NOT ALLOW ANY PASSING OF SEDIMENTS.
8. CONSTRUCT SANDALWOOD TRAIL PAVEMENT AND ADJACENT ROADSIDE DITCHES. ROCK FILTER DAMS SHALL BE PLACED AFTER DITCH CONSTRUCTION AS SHOWN IN THE EROSION CONTROL PLAN.
9. CONSTRUCT DITCH (WEST) AS SHOWN ON THE PLAN. ROCK FILTER DAMS SHALL BE PLACED AFTER DITCH CONSTRUCTION AS SHOWN IN THE EROSION CONTROL PLAN. NO SILT FENCE SHALL BE INSTALLED ALONG THE WEST PROPERTY LINE AS IT WOULD PREVENT NATURAL COURSE OF RUNOFF FLOW AND MAY CAUSE LOCAL FLOODING TO THE NEIGHBORING PROPERTY(IES).
10. PERFORM FINAL GRADING OF THE OVERALL SITE.
11. ESTABLISH VEGETATION BY MEANS OF SPREADING SEEDS OR HYDRO-SEEDING.
12. REMOVE ALL SEDIMENT CONTROL DEVICES (ROCK FILTER DAMS, SILT FENCE, AND INLET & CULVERT PROTECTIONS) UPON VISUAL EVIDENCE OF VEGETATION.

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REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 1/13/23)
2	01/06/24	CITY OF LUCAS - CIVIL PLANS (APPROVED TPOD PERMIT)
3	02/02/24	CITY OF LUCAS - CIVIL PLANS (APPROVED TPOD PERMIT)

REV	DATE	DESCRIPTION
1	12/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 1/13/23)
2	01/06/24	CITY OF LUCAS - CIVIL PLANS (APPROVED TPOD PERMIT)
3	02/02/24	CITY OF LUCAS - CIVIL PLANS (APPROVED TPOD PERMIT)

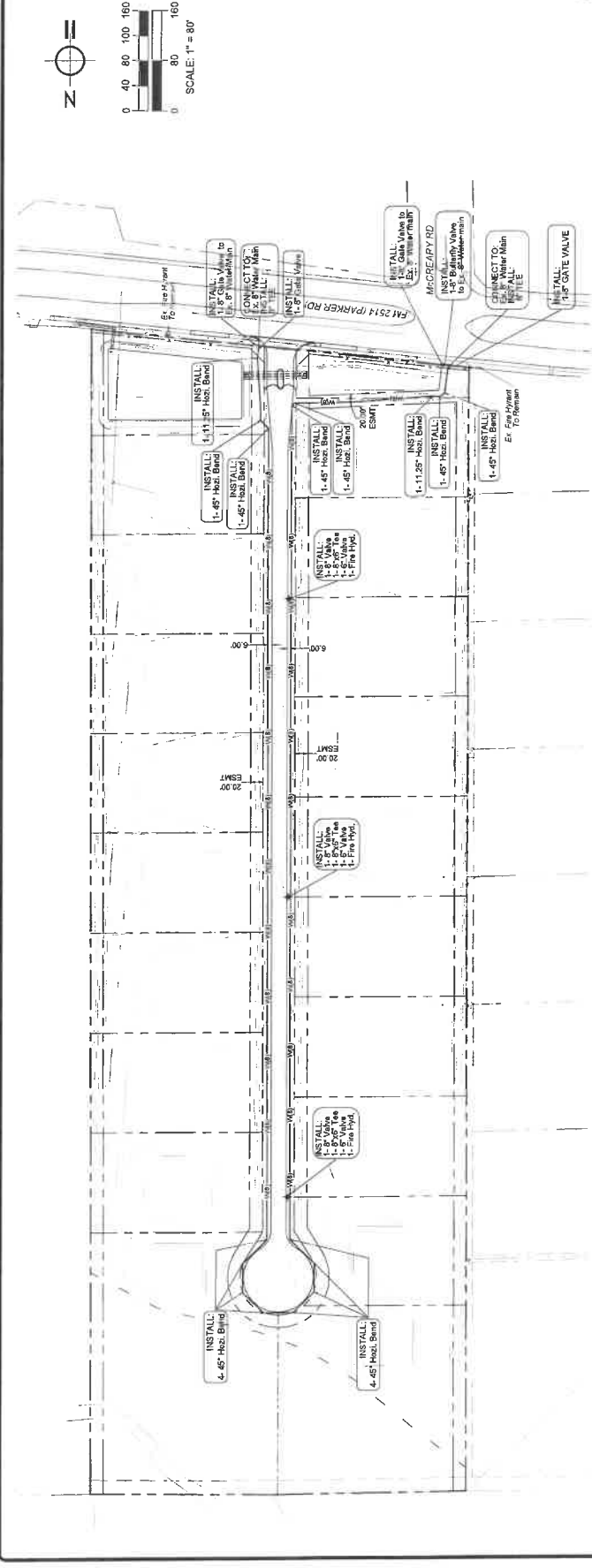
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 FIRM # F-16652



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SANDALWOOD ESTATES DEVELOPMENT  
 WATER PLAN  
 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
 18



WATER PLAN

WATER NOTES

- CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION OR GRADING. ANY DISCREPANCIES OR CONFLICT SHOULD BE INFORMED TO THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND/OR UTILITY OWNER REGARDING OF ANY DISCREPANCIES OR CONFLICTS. CONTRACTOR SHALL NOT PROCEED WITH WORK UNTIL A UTILITY CONFIRMATION FOR THE CONCERNING ITEM IS DISCUSSED WITH THE ENGINEER AND/OR UTILITY OWNER.
- ALL WATER MAIN DISTRIBUTION LINES AND FEEDER LINES SHALL BE PVC - AWWA C900 DR 18 UNLESS OTHERWISE NOTED TO BE OTHERWISE SPECIFICATIONS AND DETAILS SHALL BE SUBMITTED TO THE ENGINEER AND/OR UTILITY OWNER FOR AN APPROVAL.
- WATER MAIN DISTRIBUTION LINES AND FEEDER LINES SHALL BE IN BLUE COLOR, OR A BLUE TRACER WIRE AND TRACER WIRE SHALL BE INSTALLED IN THE BACKFILL MATERIAL OVER THE TOP OF THE LINES.
- IT IS RECOMMENDED THE CONTRACTOR TO SUBMIT PRODUCT SPECIFICATIONS AND DETAILS FOR AN APPROVAL PRIOR TO PURCHASING SUCH PRODUCTS.
- WATER LINES SHALL BE EMBEDDED IN TRENCHES SO AS TO PROVIDE A BACKFILL DEPTH OF NOT LESS THAN FIVE (5) FEET FROM THE PROPOSED SURFACE GROUND TO THE TOP OF THE PIPE. THE PIPE SHALL BE BACKFILLED WITH CLASS B+ EMBEDEDMENT AS PER THE NCTCOG STANDARDS.
- CONCRETE THRUST BLOCKS SHALL BE USED AT ALL TEES AND BENDS AND BE COMPUTED FOR 150 LB/SQ. IN. OF INTERNAL PRESSURE.
- CUTOFF VALVES SHALL BE RESINENT SEATED GATE VALVES.

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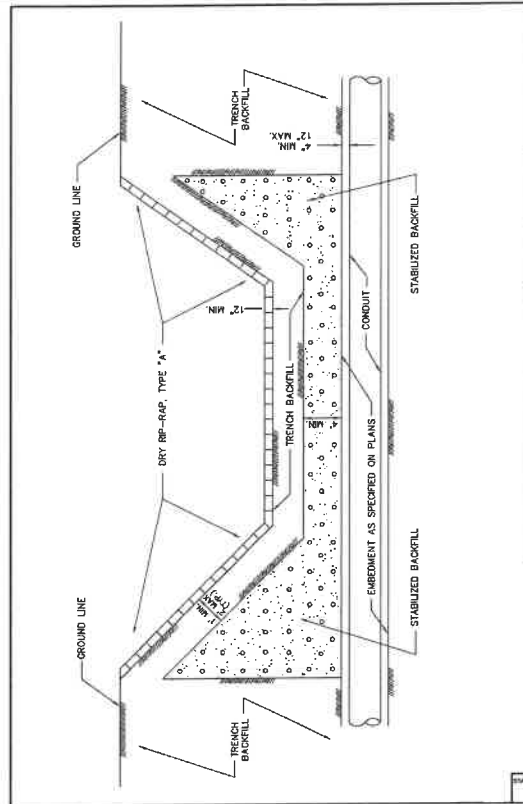
SANDALWOOD ESTATES DEVELOPMENT  
CONSTRUCTION DETAILS 1 OF 7  
TM 2314 (PARL 20)  
LUMAS 1 TEXAS (5002)  
PABS 00901 TRACT 4 & 5; ABS 0349 TRACT 0 & 7  
OWNER(S): 3R LAND PROPERTIES



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FIRM # F-16622

REV	DATE	DESCRIPTION
1	10/23/23	CITY OF LUMAS - CIVIL PLANS PRELIMINARY
2	10/23/23	CITY OF LUMAS - CIVIL PLANS APPROVED (TPOOT PERMITS)
3	10/23/23	CITY OF LUMAS - CIVIL PLANS (TPOOL COMMENTS 10/23/23)

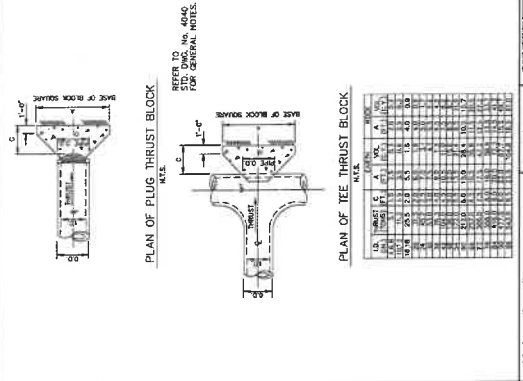
DESIGN HISTORY



**INFILTRATION PROTECTION  
CONDUIT UNDER CHANNEL**

STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
504.803  
DRAWING NO.: 3080

1800 COUNTY ROAD 6010, SUITE 100, PLANO, TX 75075



**HORIZONTAL THRUST BLOCK  
AT TEES AND PLUGS**

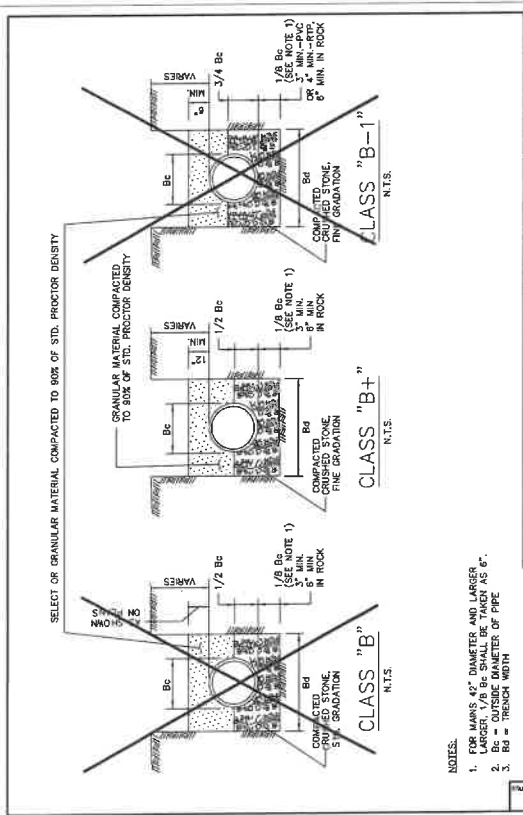
STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
502.4

**TABLES OF DIMENSIONS AND QUANTITIES**

**HORIZONTAL THRUST BLOCK AT PIPE BEND**

STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
502.4

A = 45°		A = 90°		A = 135°		A = 180°	
NO.	DESCRIPTION	A	B	A	B	A	B
1	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
2	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
3	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
4	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
5	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
6	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
7	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
8	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
9	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
10	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5



**EMBEDMENT  
CLASS "B+", "B+", & "B-1"**

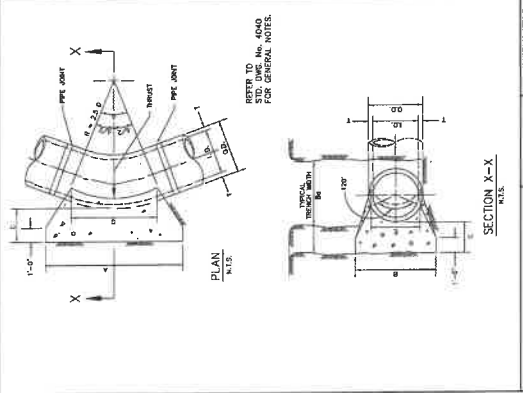
STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
504.5

**TABLES OF DIMENSIONS AND QUANTITIES**

**HORIZONTAL THRUST BLOCK AT PIPE BEND**

STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
502.4

A = 11.25°		A = 22.50°		A = 45.00°		A = 67.50°	
NO.	DESCRIPTION	A	B	A	B	A	B
1	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
2	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
3	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
4	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
5	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
6	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
7	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
8	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
9	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5
10	MINIMUM CLEARANCE (IN)	1.5	1.5	1.5	1.5	1.5	1.5



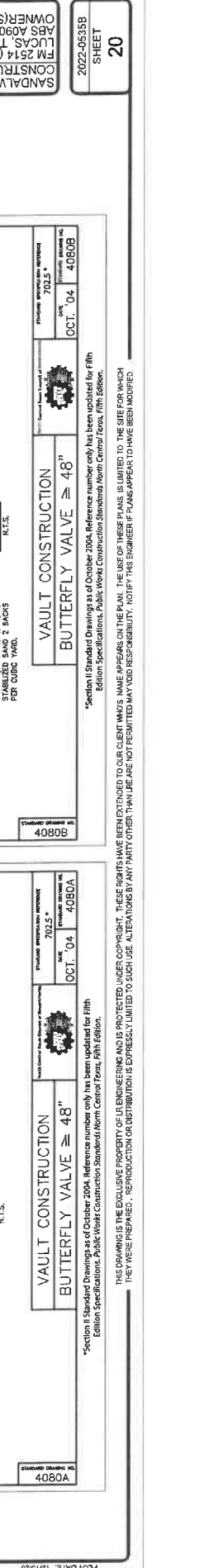
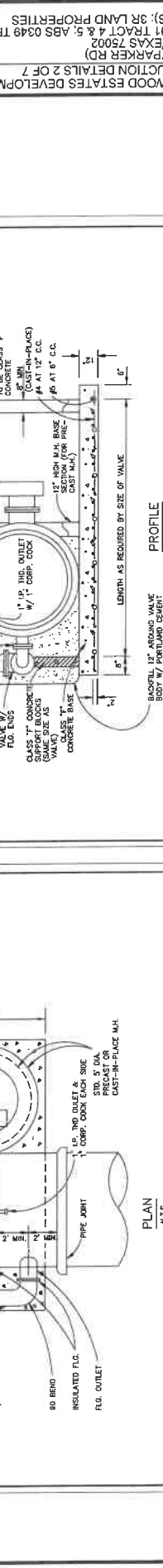
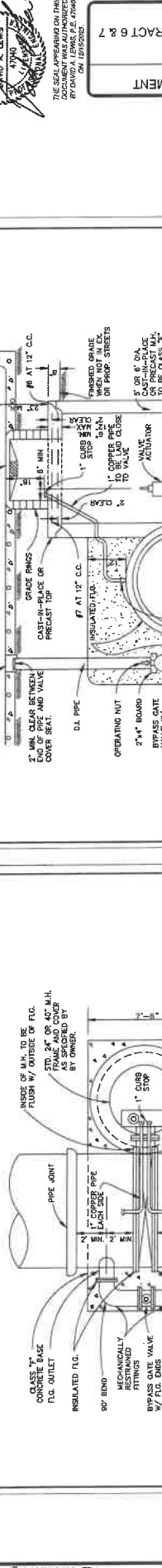
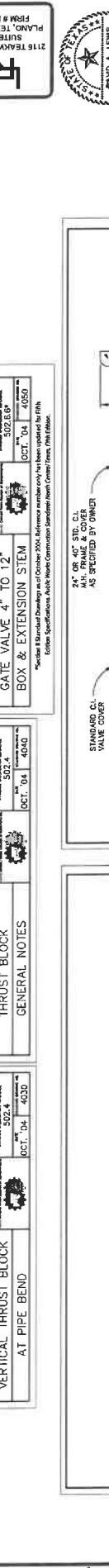
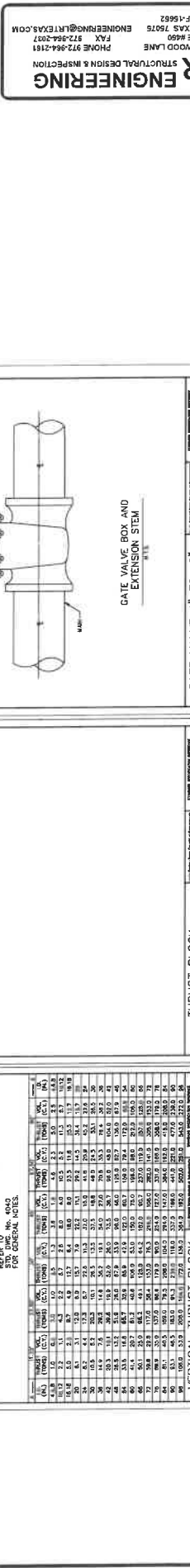
**HORIZONTAL THRUST BLOCK  
AT PIPE BEND**

STANDARD SPECIFICATIONS APPROVED  
DATE: OCT. '04  
502.4

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 FIRM # F-15452

DESIGN HISTORY

REV.	DATE	DESCRIPTION
1	10/23/23	CITY OF URBAS - CIVIL PLANS (COL COMMENTS)
2	10/23/23	CITY OF URBAS - CIVIL PLANS (APPROVED) TYPED PERMIT
3	10/23/23	CITY OF URBAS - CIVIL PLANS (APPROVED) TYPED PERMIT



SECTION II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. Public World Construction Standards North Central Texas, Fifth Edition.

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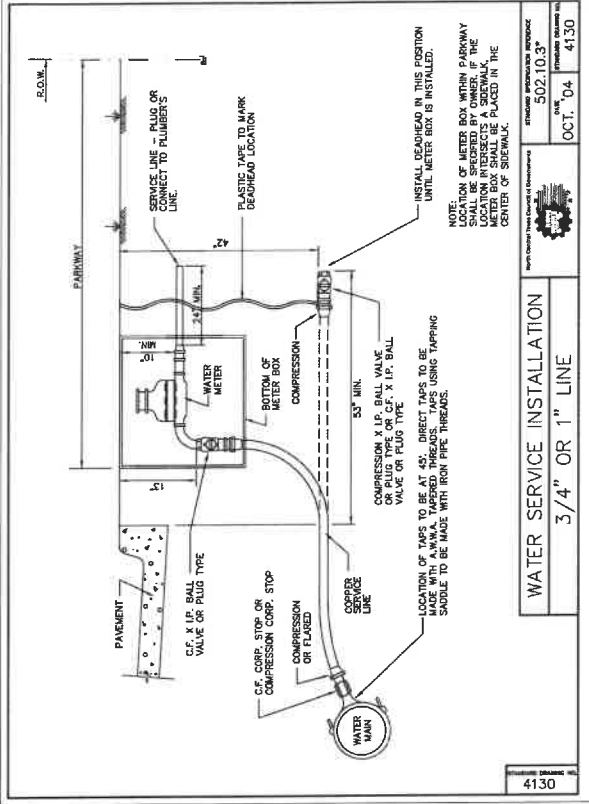
REV.	DATE	DESCRIPTION
1	12/23/22	CITY OF LUCAS - CIVIL PLANS (CITY COMMENTS 11/23/22)
2	01/26/23	CITY OF LUCAS - CIVIL PLANS (CITY COMMENTS 1/26/23)
3	02/15/23	CITY OF LUCAS - CIVIL PLANS (CITY COMMENTS 2/15/23)

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OWNER(S): 3R LAND PROPERTIES  
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 FM 2514 (PARKER RD)  
 LUCAS, TEXAS 75002  
 CONSTRUCTION DETAILS 3 OF 7  
 SANDALWOOD ESTATES DEVELOPMENT

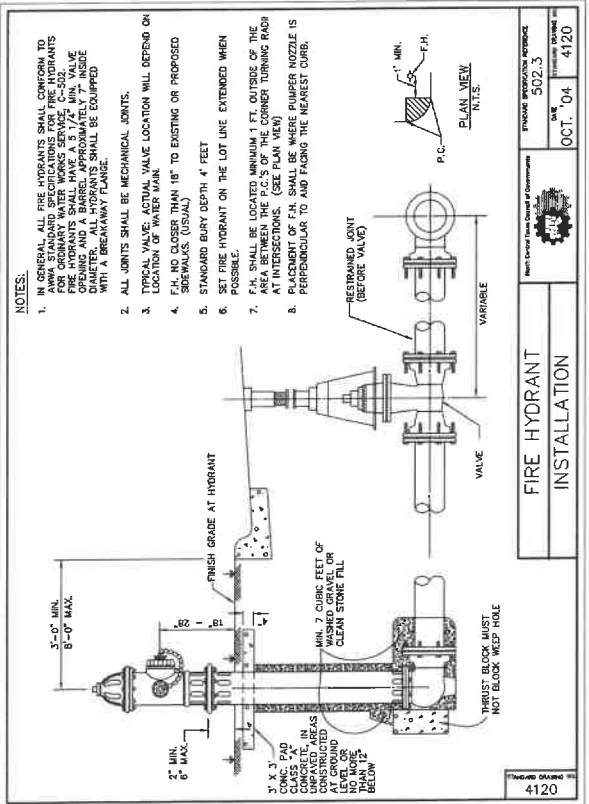
2022-05358P  
 SHEET  
**21**



**WATER SERVICE INSTALLATION**  
 3/4" OR 1" LINE

502.10.3  
 OCT. '04  
 4130

\*Section 10 Standard Drawings as of October 2004, Reference number only has been updated for Fifth Edition Specifications, Public Works Construction Standards North Central Texas, Fifth Edition.



**FIRE HYDRANT INSTALLATION**

502.3  
 OCT. '04  
 4120

NOTES:  
 1. IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS...  
 2. ALL JOINTS SHALL BE MECHANICAL JOINTS.  
 3. TYPICAL VALVE, ACTUAL VALVE LOCATION WILL DEPEND ON LOCATION OF WATER MAIN.  
 4. SIZE SHALL BE 8\"/>

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REV.	DATE	DESCRIPTION
1	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)
2	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)
3	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)

**ENGINEERING**  
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 U.S. # 14



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF PROFESSIONAL ENGINEERS ON 09/01/2026 ON 09/01/2026  
 SANDALWOOD ESTATES DEVELOPMENT  
 CONSTRUCTION DETAILS 4 OF 7  
 PLAN 1111  
 FIRM # 214 PARKER RD  
 LANSING, TEXAS 75002  
 OWNER(S): 3R LAND PROPERTIES  
 TRACT 4 & 5; ABS 0349 TRACT 6 & 7

### DESIGN HISTORY

REV.	DATE	DESCRIPTION
1	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)
2	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)
3	12/15/23	CITY OF LANSING - CIVIL PLANS (FOR COMMENTS 1/19/23)

### GENERAL NOTES

- ALL REINFORCING STEEL SHALL BE ASTM A603 GRADE 60 EPOXY COATED BARS UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE SUPPLIED BY THE SAME SOURCE UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE SUPPLIED BY THE SAME SOURCE UNLESS OTHERWISE NOTED.
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### CONCRETE PAYING DETAILS JOINT SEALS

### CONCRETE CURB, CURB AND CUTTER

### GENERAL NOTES

- REINFORCE ALL CONCRETE WITH 1% STEEL UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE SUPPLIED BY THE SAME SOURCE UNLESS OTHERWISE NOTED.
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### CONCRETE PAYING DETAILS JOINT SEALS

### CONCRETE CURB, CURB AND CUTTER

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### CONCRETE PAYING DETAILS JOINT SEALS

### CONCRETE CURB, CURB AND CUTTER

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### CONCRETE PAYING DETAILS JOINT SEALS

### CONCRETE CURB, CURB AND CUTTER



REV	DATE	DESCRIPTION
6/27	12/15/23	CITY OF LUCAS - CIVIL PLANS (PRELIMINARY)
12/15/23	12/15/23	CITY OF LUCAS - CIVIL PLANS (COL COMMENTS 1/15/23)

DESIGN HISTORY

**H ENGINEERING**  
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 ENGINEERING@HETEXAS.COM  
 PHONE 972-644-1611  
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 FIRM # F-15652



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID A. LEWIS, P.E. #17904 ON 12/15/23

SANDALWOOD ESTATES DEVELOPMENT  
 CONSTRUCTION DETAILS 6 OF 7  
 LUCAS, TEXAS 75002  
 FM 2514 (PARKER RD)  
 ABS 00901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
 OWNER(S): 3R LAND PROPERTIES

2022-0535B  
 SHEET  
**24**

**PRECAST SLAB LID**  
 SHEET 2 OF 2

**DETAIL 'A'**  
 PRECAST SLAB LID  
 SHOWING REINFORCEMENT AND CONNECTIONS TO ADJACENT SLABS.

**GENERAL NOTES:**

1. ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE IN FEET AND INCHES (FRACTIONS TO NEAREST 1/8").
2. REINFORCEMENT SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
3. ALL REINFORCEMENT SHALL BE EPOXY COATED BARS (ECC) UNLESS OTHERWISE NOTED.
4. ALL REINFORCEMENT SHALL BE DEVELOPED AND ANCHORED AS SHOWN.
5. ALL REINFORCEMENT SHALL BE TYPED AND SIZED AS SHOWN.
6. ALL REINFORCEMENT SHALL BE PLACED AS SHOWN.
7. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT CLEARANCES AS SHOWN.
8. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT SPACING AS SHOWN.
9. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT LAP LENGTH AS SHOWN.
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11. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT ANGLE AS SHOWN.
12. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT OFFSET AS SHOWN.
13. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT TOLERANCES AS SHOWN.
14. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT CONSTRUCTION TOLERANCES AS SHOWN.
15. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT FINISH AS SHOWN.
16. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT PROTECTION AS SHOWN.
17. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT CURING AS SHOWN.
18. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT STORAGE AS SHOWN.
19. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT HANDLING AS SHOWN.
20. ALL REINFORCEMENT SHALL BE PLACED WITH THE CORRECT INSTALLATION AS SHOWN.

**TABLE:**

ITEM	DESCRIPTION	QUANTITY	UNIT
1	PRECAST CONCRETE SLAB LID	1	EA
2	REINFORCEMENT BARS	10	EA
3	WELDED WIRE MESH	1	EA
4	GROUT	1	EA
5	FORMWORK	1	EA
6	BRICKWORK	1	EA
7	PAINT	1	EA
8	FINISH	1	EA
9	INSTALLATION	1	EA
10	PROTECTION	1	EA
11	CURING	1	EA
12	STORAGE	1	EA
13	HANDLING	1	EA
14	INSTALLATION	1	EA
15	PROTECTION	1	EA
16	CURING	1	EA
17	STORAGE	1	EA
18	HANDLING	1	EA
19	INSTALLATION	1	EA
20	PROTECTION	1	EA

**PRECAST SLAB LID**  
 SHEET 2 OF 2

**PLAN VIEW STYLES 5H & 5G**

**PLAN VIEW STYLES 5I & 5F**

**PLAN VIEW STYLES 5C & 5B**

**PLAN VIEW STYLES 5A & 5D**

**ELEVATION VIEWS:**

- STYLE 5H
- STYLE 5I
- STYLE 5G
- STYLE 5F
- STYLE 5C
- STYLE 5B
- STYLE 5A
- STYLE 5D

**DETAIL 'A'**  
 PRECAST SLAB LID  
 SHOWING REINFORCEMENT AND CONNECTIONS TO ADJACENT SLABS.

**PIPE AND BOX GROUTED CONNECTIONS FOR PRECAST STRUCTURES**

**TYPICAL HALF ELEVATION**

**TYPICAL HALF ELEVATION**

**TYPICAL HALF ELEVATION**

**TYPICAL HALF ELEVATION**

**TYPICAL PARTIAL ELEVATION OF PRECAST SAFETY END TREATMENTS**

**GENERAL NOTES:**

1. ALL DIMENSIONS UNLESS OTHERWISE NOTED ARE IN FEET AND INCHES (FRACTIONS TO NEAREST 1/8").
2. REINFORCEMENT SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
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**PIPE CONNECTION DETAIL**

**SECTION A-A**

**DETAIL 'B'**

**GENERAL NOTES:**

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DESIGN HISTORY table with columns: DATE, REVISIONS, CITY OF LUCAS - CIVIL PLANS (REV. COMMENTS), CITY OF LUCAS - CIVIL PLANS (APPROVED PROJECT PERMIT).

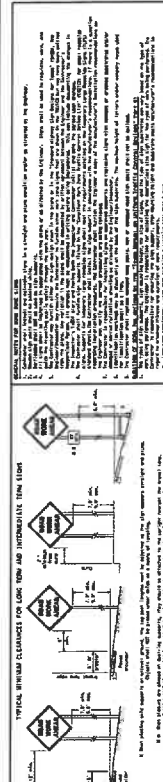
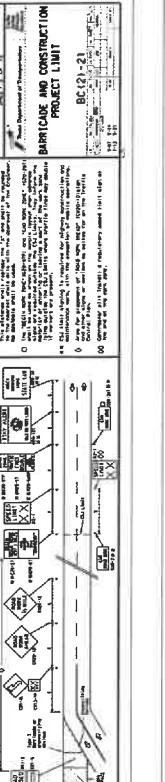
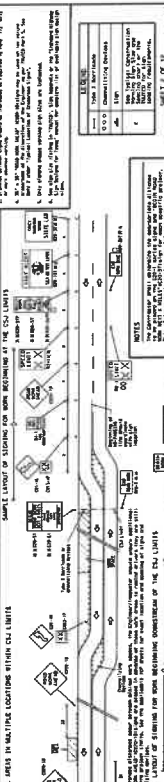
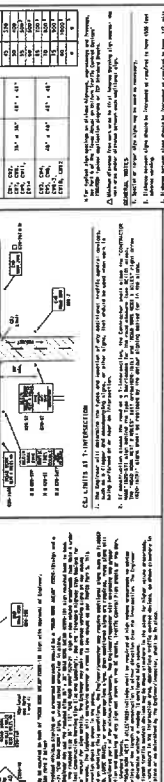
VEGETATION ESTABLISHMENT SHEET (VEGETATION) EC 13-16. Includes sections for SOODLING FOR EROSION CONTROL, SEEDING SCHEDULE, and VEGETATIVE MATERIALS. Includes a table for SEEDING SCHEDULE and lists of SEEDS, MULCHES, and VEGETATIVE MATERIALS.

TEMPORARY EROSION CONTROL MEASURES CONSTRUCTION DETAILS EC 13-16. Includes sections for SURFACE PREPARATION, SOODLING, VEGETATIVE MATERIALS, and SEEDING FOR EROSION CONTROL. Includes diagrams for various erosion control measures like grass strip, silt fence, and silt trap.

TEMPORARY EROSION CONTROL MEASURES CONSTRUCTION DETAILS EC 13-16. Includes sections for GENERAL NOTES TYPE 1 and TYPE 2, and details for SILT TRAP, SILT FENCE, and GRASS STRIP.

TEMPORARY EROSION CONTROL MEASURES CONSTRUCTION DETAILS EC 13-16. Includes sections for GENERAL NOTES TYPE 3, TYPE 4, and TYPE 5, and details for SILT TRAP, SILT FENCE, and GRASS STRIP.

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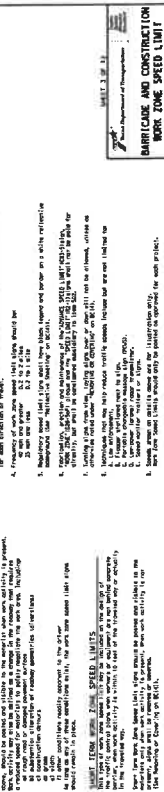
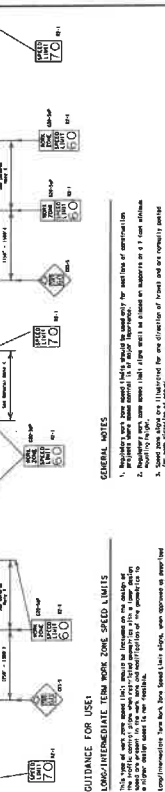
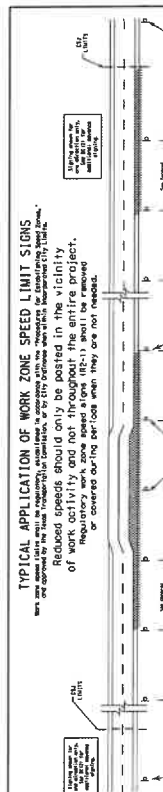
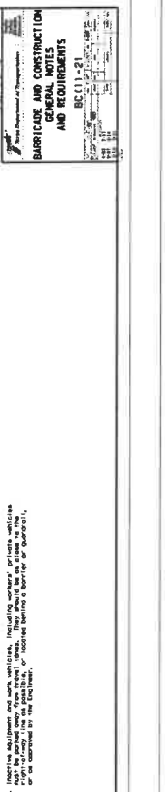
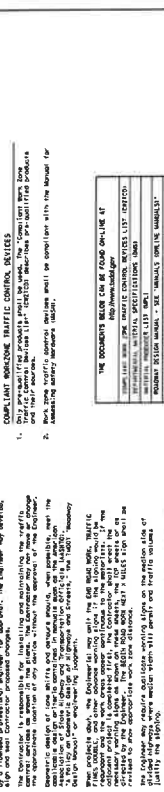


**WORKER SAFETY NOTES:**

- When an area is to be worked on, it is to be completely enclosed by the construction barrier system and all workers are to be within the barrier system. The barrier system shall be installed in a manner that provides a clear path for the workers to exit the work area in the event of an emergency.
- When an area is to be worked on, it is to be completely enclosed by the construction barrier system and all workers are to be within the barrier system. The barrier system shall be installed in a manner that provides a clear path for the workers to exit the work area in the event of an emergency.
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**COMPLIANT WORKER TRAFFIC CONTROL DEVICES**

- When an area is to be worked on, it is to be completely enclosed by the construction barrier system and all workers are to be within the barrier system. The barrier system shall be installed in a manner that provides a clear path for the workers to exit the work area in the event of an emergency.
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SANDALWOOD ESTATES DEVELOPMENT  
TRAFFIC CONTROL STANDARDS OF 4  
FM 2514 (PARKER RD)  
LUCAS, TEXAS 75002  
ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
OWNER(S): 3R LAND PROPERTIES



THIS SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF ENGINEERING EXAMINERS ON 05/26/2022

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ENGINEERING@TJLEWIS.COM  
**TJ ENGINEERING**  
STRUCTURAL DESIGN & INSPECTION

**DESIGN HISTORY**

REV	DATE	DESCRIPTION
001	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
002	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
003	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
004	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
005	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
006	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
007	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
008	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
009	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)
010	04/18/22	CITY OF LUCAS - CIVIL PLANS (APPROVED FOR PERMIT)

**TYPE 3 BARRICADE POST AND BIELD TYPICAL APPLICATION**

**PERMISSIVE USE**

**TRAFFIC CONTROL FOR MATERIAL STOCKPILES**

**STANDARD WORK ZONE PAVEMENT MARKING DETAILS**

**PAVEMENT MARKING PATTERNS**

**BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS**

**TYPE 1 BARRICADES**

**TYPICAL STRIPPING DETAIL FOR BARRICADE RAIL**

**FOR RAIL OR POST-TYPE BARRICADES**

**WORK ZONE PAVEMENT MARKINGS**

**DELETED/REMOVED PAVEMENT MARKINGS**

**MULTILANED WORK ZONE PAVEMENT MARKINGS**

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REV	DATE	DESCRIPTION
01	02/27/23	CITY OF LUCAS - CIVIL PLANS (PRELIMINARY)
02	02/27/23	CITY OF LUCAS - CIVIL PLANS (APPROVED) (NOT PERMITTED)
03	02/27/23	CITY OF LUCAS - CIVIL PLANS (FOR COMMENTS) (10/23)

**TE ENGINEERING**  
STRUCTURAL DESIGN & INSPECTION

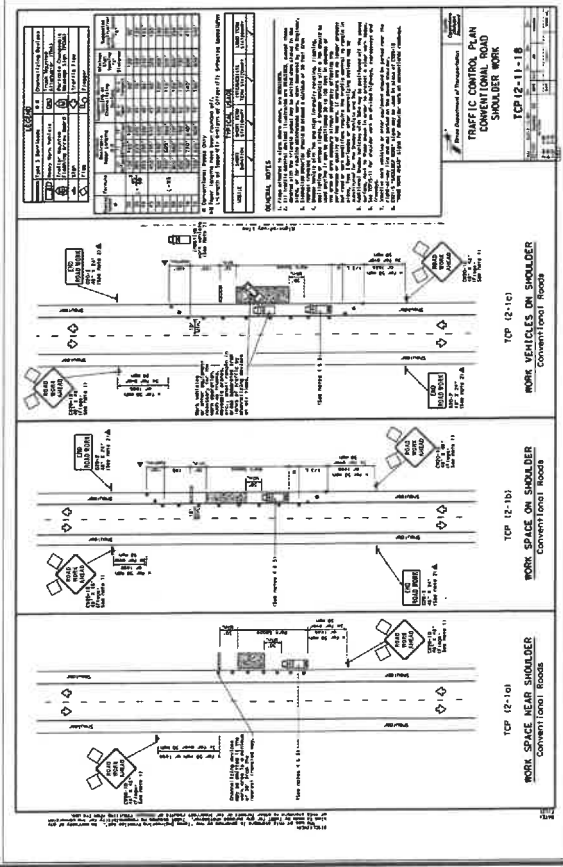
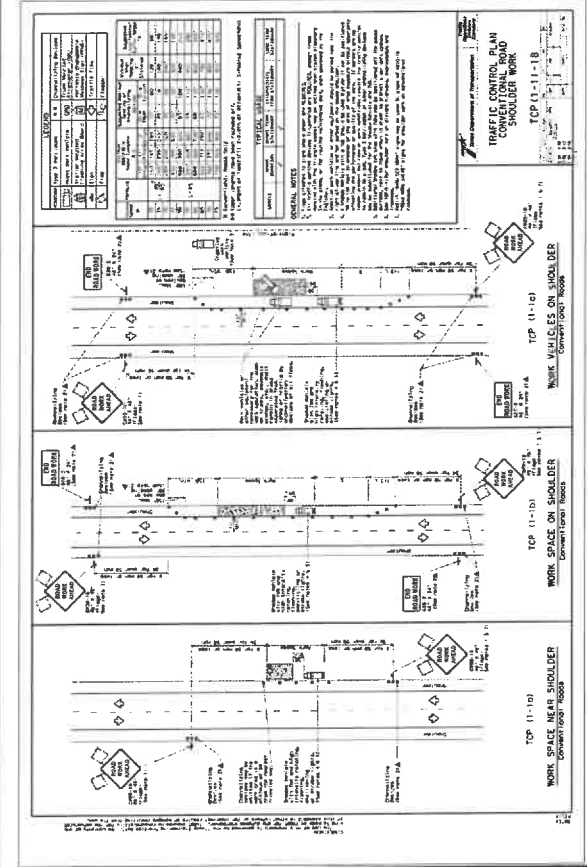
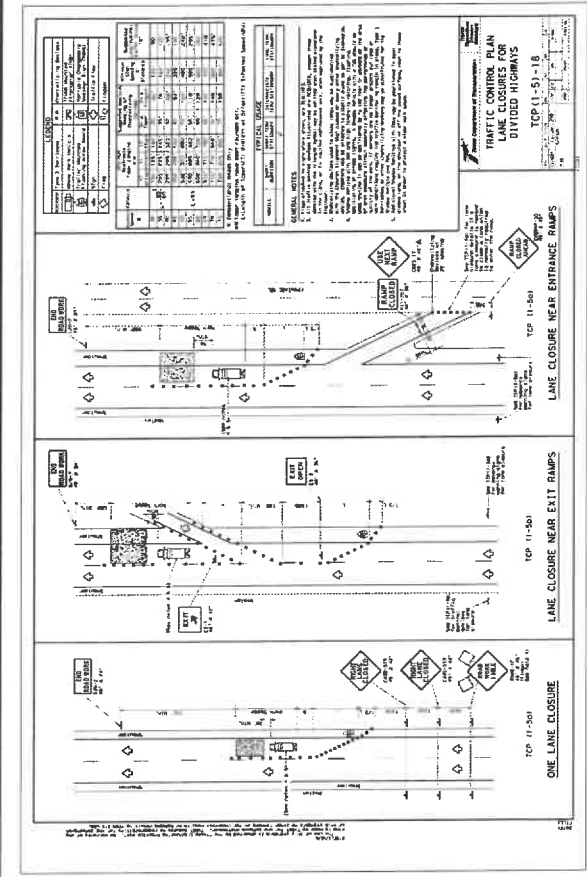
2115 TEAWOOD LANE  
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FIRM # F-15652  
PHONE 972-964-2151  
FAX 972-964-0371  
ENGINEERING@TEENGINEERING.COM



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE STATE OF TEXAS ON 12/31/2023

OWNER(S): 3R LAND PROPERTIES  
ABS A0901 TRACT 4 & 5; ABS 0349 TRACT 6 & 7  
LUCAS, TEXAS 75002  
FM 2514 (PARKER RD)  
TRAFFIC CONTROL STANDARDS 4 OF 4

2022-0535B  
SHEET  
29



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**City of Lucas**  
**Planning and Zoning Commission**  
**Agenda Request**  
**January 11, 2024**

Item No. 04

Requester: Planning and Zoning Commission

**Agenda Item Request**

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Consider the appointment of a Chairman and Vice-Chairman of the Planning and Zoning Commission to serve for a period of one year with a term ending December 31, 2024.

**Background Information**

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Per Section 1.05.035 of the Code of Ordinances, the Planning and Zoning Commission shall elect a chairman and vice-chairman from its membership annually. The Planning and Zoning Commission is composed of five regular members and two alternate members appointed by the City Council. Alternate members shall serve in the absence of one or more regular members when requested to do so by the presiding officer of the Planning and Zoning Commission.

**Attachments/Supporting Documentation**

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NA

**Budget/Financial Impact**

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NA

**Recommendation**

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NA

**Motion**

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I make a motion to appoint \_\_\_\_\_ as Chairman and \_\_\_\_\_ as Vice-Chairman of the Planning and Zoning Commission for a period of one year with a term ending December 31, 2024.



**City of Lucas**  
**Planning and Zoning Commission**  
**Agenda Request**  
**January 11, 2024**

Item No. 05

Requester: Planning and Zoning Commission

**Agenda Item Request**

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Executive Session: There is not an executive session scheduled for this meeting.

**Background Information**

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As authorized by Section 551.071 of the Texas Government Code, the Planning and Zoning Commission may convene into closed Executive Session for the purpose of seeking confidential legal advice from the City Attorney regarding any item on the agenda at any time during the meeting. This meeting is closed to the public as provided in the Texas Government Code.

**Attachments/Supporting Documentation**

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NA

**Budget/Financial Impact**

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NA

**Recommendation**

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NA

**Motion**

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NA