



**NOTICE OF REGULAR PLANNING & ZONING COMMISSION MEETING  
FOR THE TOWN OF CROSS ROADS  
TUESDAY, MAY 7, 2024 AT 7:00 P.M.**

**LOCATION:**

**IN PERSON at 1401 FM 424, CROSS ROADS, TEXAS 76227**

**OR**

**Join Zoom Meeting**

**<https://us02web.zoom.us/j/81620024477>**

**Meeting ID: 816 2002 4477**

**One tap mobile**

**+13462487799,,81620024477# US (Houston)**

**\*Note: All applicants should attend in person.**

1. Call to Order.
2. Roll Call.
3. Citizens Input. (Items on the agenda and not on the agenda)  
*Please state your full name before speaking. Please limit your comments to three minutes in duration: you are restricted from passing your time or any portion of unused minutes to another citizen for comment.*
4. Staff report on status of development projects.
5. Discuss and consider approval of February 6, 2024 meeting minutes.
6. CONDUCT A PUBLIC HEARING, discuss and consider a recommendation on a replat application for Block A, Lot 1R of the Dozier Real Estate Addition property located east of US Hwy 377 and north of Azteca Ln. in the Town of Cross Roads extraterritorial jurisdiction. (2024-0108-01REPLAT)
7. CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for approximately 25.7945 acres of land being the southern portion of Tract 105 in the J. Bridges Survey, Abstract 36 (DCAD ID 191232) generally located approximately 625 feet south of Liberty Road fronting both US 377 and Liberty Road at 8690 Liberty Road within the Town of Cross Roads ETJ. (2024-0304-05FLUP)
8. CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for an approximate 22.55 acre parcel located at 1001 Moseley Rd. approximately 675 feet south of the intersection of US 380 and Moseley Rd. described as the eastern portion of Tract 65 in the R.J. Moseley Survey, Abstract 803 within the Town limits of Cross Roads, Texas. (2024-0304-06FLUP)

9. CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for approximately 2.005 acres described as Tract 67 of the R.J. Moseley Survey, Abstract 803, generally located on the ramp traveling eastbound from US 380 to northbound US 377 at 201 S US 377. (2024-0304-07FLUP)
10. Discuss and consider a recommendation to the Town Council on a preliminary plat application for a 25.4 acre parcel located on the west side of FM 720 approximately 1480 feet south of the intersection of FM 720 and US Hwy 380 and just north of Quail Hollow Ln. in the Town of Cross Roads Extraterritorial Jurisdiction (ETJ). (2024-0205-01PPLAT)
11. Discuss and consider a recommendation to the Town Council on a final plat application for a 1.76 acre parcel located just to the east of 11911 US 380, Cross Roads, Denton County, Texas. (2024-0304-08FPLAT)
12. Planning & Zoning Commission requests for Future Agenda Items.  
*No Planning & Zoning Commission deliberation or discussion may take place during this agenda item.*

### *Adjourn*

### *Future Events and Meetings*

*All citizens are invited to participate; schedule may change.*

- *Municipal District Development Meeting – Thursday, May 9, 2024 at 6:00 p.m.*
- *Town Council Meeting - Wednesday, May 15, 2024 at 6:00 p.m.*
- *Town Council Meeting – Monday, June 3, 2024 at 6:00 p.m.*
- *Planning and Zoning Commission Meeting – Tuesday, June 4, 2024 at 7:00 p.m.*

**A QUORUM OF COUNCIL MEMBERS MAY BE PRESENT.  
NO ACTION BY THE TOWN COUNCIL WILL BE TAKEN AT THIS MEETING.**

### **CERTIFICATION**

I, the undersigned authority, do hereby certify that this Public Meeting Notice was posted on the official bulletin board at the Town Hall of the Town of Cross Roads, Texas on or by Friday, May 3rd, 2024, at 5:00 p.m., in accordance with Chapter 551, Texas Government Code.

As authorized by Section 551.071 of the Texas Government Code, this meeting may be convened into closed executive session for seeking confidential legal advice from the Town Attorney on any agenda item listed herein.



This facility is wheelchair accessible and accessible parking spaces are available. For requests, please contact Town Hall at 940-365-9693. Reasonable accommodation will be made to assist your needs.

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Donna Butler, Town Secretary

I certify that the attached notice and agenda of items to be considered by the Town Council of the Town of Cross Roads was removed by me from the front window of the Town of Cross Roads Town Hall, 1401 FM 424, Cross Roads, Texas, on the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_, Title: Town Secretary



**MINUTES OF REGULAR PLANNING & ZONING COMMISSION MEETING  
FOR THE TOWN OF CROSS ROADS  
TUESDAY, FEBRUARY 6, 2024 AT 7:00 P.M.  
LOCATION:  
IN PERSON at 1401 FM 424, CROSS ROADS, TEXAS 76227  
OR  
VIRTUALLY by Zoom Meeting**

1. Called to order at **7:01 P.M.**
2. Roll Call: **Chairperson Lagano; Commissioners Bryant, Hodge, and Yip. Commissioner Cook was absent.**
3. Citizens Input. (Items on the agenda and not on the agenda)  
**None.**
4. Staff report on status of development projects.  
**Town Administrator Kristi Gilbert gave the development update. There is one replat and one preliminary plat expected to be on the March agenda.**
5. Discuss and consider approval of January 2, 2024 meeting minutes.  
**Motion to approve the January 2, 2024 meeting minutes made by Bryant;  
Second by Yip;  
Approval of minutes passed 4 to 0.**
6. Discuss and consider a recommendation to the Town Council on a preliminary plat application for a 1.76 acre parcel located just to the East of 11911 US 380, Cross Roads, Denton County, Texas. The purpose of this plat is to create a lot to develop a car care facility. (2023-1204-01PPLAT)  
**Motion to approve the preliminary plat made by Bryant;  
Second by Hodge  
Approval of preliminary plat passed 4 to 0.**
7. Planning & Zoning Commission requests for Future Agenda Items.  
**None.**

***Adjourned at 7:06 P.M.***

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Brian Lagano, Planning and Zoning Chairperson

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Donna Butler, Town Secretary



# PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 6, Page 1 of 24

Meeting Date:

May 7, 2024

Agenda Item:

CONDUCT A PUBLIC HEARING, discuss and consider a recommendation on a replat application for Block A, Lot 1R of the Dozier Real Estate Addition property located east of US Hwy 377 and north of Azteca Ln. in the Town of Cross Roads extraterritorial jurisdiction. (2024-0108-01REPLAT)

Prepared by:

Rodney Patterson, Building Official

Description:

Applicant Aaron Davis submitted a replat application for the Dozier Real Estate Addition on January 8, 2024. The purpose of the submittal is to replat a previously platted 12.95 acre lot (1R Block A) in the Dozier Real Estate Addition to facilitate additional commercial development. The Town Engineer performed a technical review of the replat application and construction drawings on January 22, 2024. The applicant has been through several rounds of submissions to address the Town Engineer's comments. On April 2, 2024, the Town Engineer notified staff that all comments had been addressed.

Recommended Action:

Staff recommends approval of the replat based upon the Town Engineer's acceptance of the plans as presented.

Attachments:

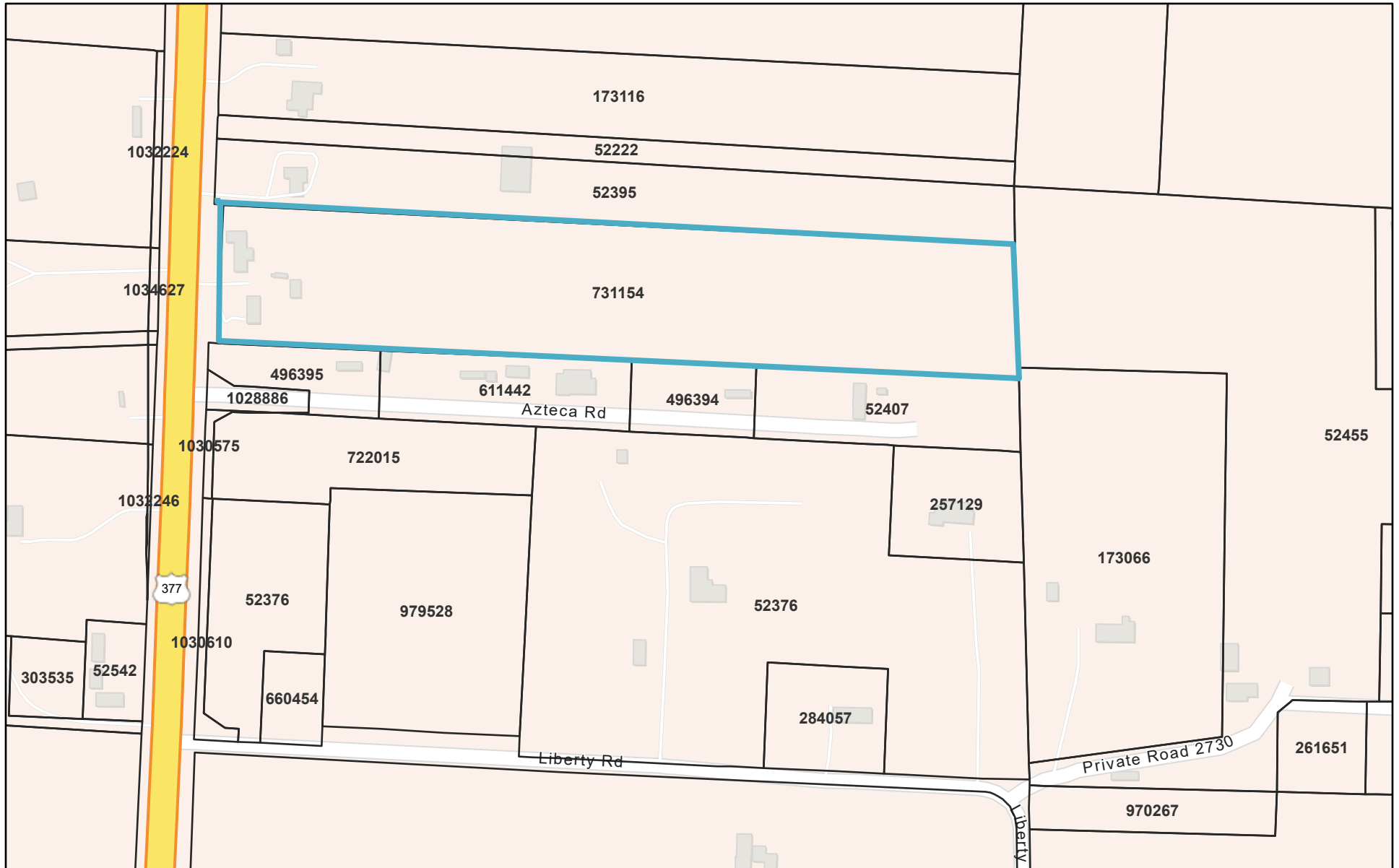
Location Map

Engineer Comments – 3/28/2024

Final Plans

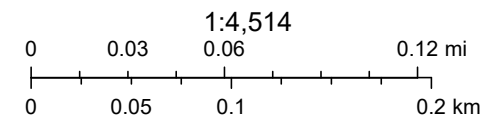
Application

# Dozier Addition Replat Map



2/15/2024, 8:51:14 AM

 Parcels



## Rodney Patterson

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**From:** Leigh Hollis <lhollis@halff.com>  
**Sent:** Tuesday, April 2, 2024 3:20 PM  
**To:** Rodney Patterson  
**Cc:** Donna Butler; Kristi Gilbert  
**Subject:** RE: 04-02-24 RE: Dozier Addition Replat

### Notice: External Email

Rodney,

We have no further comments. Thanks!



**Leigh A. Hollis, PE**  
*Senior Vice President*

**Halff**  
**O:** 817.764.7467  
**E:** lhollis@halff.com

We improve lives and communities  
by turning ideas into reality.

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**From:** Rodney Patterson <r.patterson@crossroadstx.gov>  
**Sent:** Tuesday, April 2, 2024 9:49 AM  
**To:** Leigh Hollis <lhollis@halff.com>  
**Cc:** Donna Butler <d.butler@crossroadstx.gov>; Kristi Gilbert <k.gilbert@crossroadstx.gov>  
**Subject:** FW: 04-02-24 RE: Dozier Addition Replat

See attached for latest revisions.

Thanks,

Rodney

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

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**From:** [falgunip1227@gmail.com](mailto:falgunip1227@gmail.com) <[falgunip1227@gmail.com](mailto:falgunip1227@gmail.com)>  
**Sent:** Tuesday, April 2, 2024 9:45 AM  
**To:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; 'Aaron Davis' <[aaron@sbmres.com](mailto:aaron@sbmres.com)>; lhollis <[lhollis@halff.com](mailto:lhollis@halff.com)>; 'Mark Hickman' <[markredhick@gmail.com](mailto:markredhick@gmail.com)>; 'Andrew Hickman' <[ahickmang@gmail.com](mailto:ahickmang@gmail.com)>; 'Wayne Killian' <[wayne@sbmres.com](mailto:wayne@sbmres.com)>  
**Subject:** 04-02-24 RE: Dozier Addition Replat

### Notice: External Email

Attached are just the revised sheets per comment below. The HMS files did not change.

Falguni Patel  
Project Manager  
214.995.5533  
[falgunip1227@gmail.com](mailto:falgunip1227@gmail.com)

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**From:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Sent:** Monday, April 1, 2024 9:58 AM  
**To:** [falgunip1227@gmail.com](mailto:falgunip1227@gmail.com)  
**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>  
**Subject:** Dozier Addition Replat

See comment below from the Town Engineer on discrepancy.

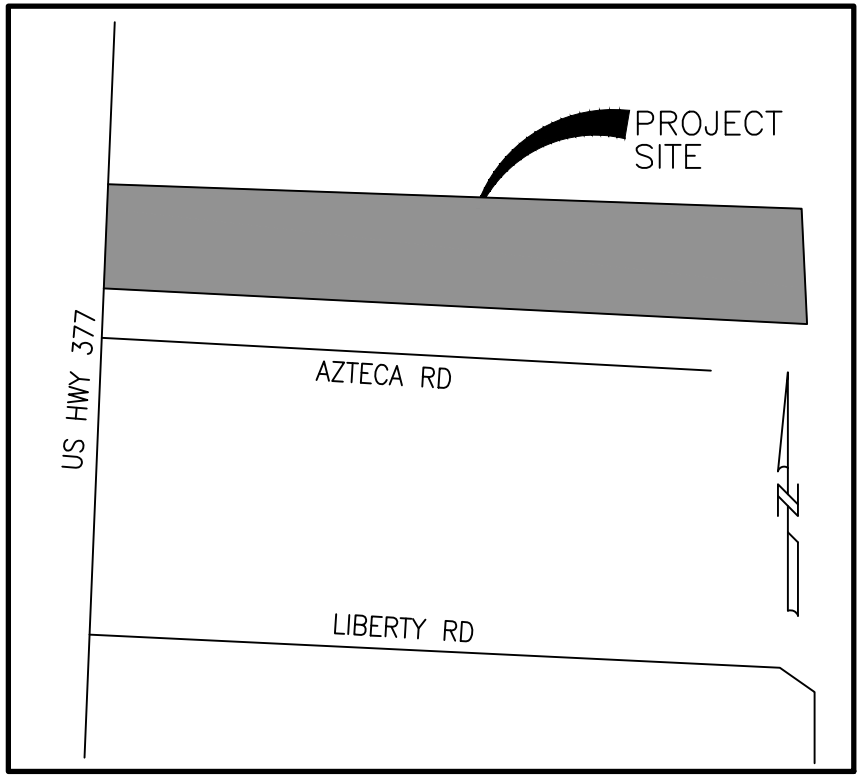
“Comments have been addressed. However, there is now a discrepancy between the sheets and HMS model for the length of the proposed spillway. This is also causing minor discrepancies in the results between the sheets and HMS. These need to be resolved before final approval. “

Thank You,

Rodney Patterson  
Building Official  
Town of Cross Roads  
[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)  
940-365-9693

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

CONSTRUCTION PLANS  
FOR  
CROSS ROADS COMMERCIAL  
12.95 AC±  
IN  
TOWN OF CROSS ROADS ETJ, DENTON CO, TX



VICINITY MAP  
NTS

FOR  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

APRIL 2024

SHEET INDEX	
SHT #	SHEET TITLE
1	COVER SHEET
	REPLAT
2	OVERALL SITE LAYOUT
3	SITE PLAN
4	PAVING PLAN
5	EXISTING DRAINAGE AREA MAP
6	PROPOSED DRAINAGE AREA MAP
7	SITE GRADING AND DRAINAGE PLAN – SHEET 1 OF 2
8	SITE GRADING AND DRAINAGE PLAN – SHEET 2 OF 2
9	PIPE AND CHANNEL CONTRIBUTING AREA MAP
10	PIPE PROFILE AND CALCULATIONS
11	PROPOSED POND DETAILS
12	PROPOSED POND CALCULATIONS
13	WATER PLAN
14	EROSION CONTROL PLAN
15	MUSTANG WATER DETAILS
16	MUSTANG WATER DETAILS
17	MUSTANG WATER DETAILS
18	STORMWATER STANDARD DETAILS

PLAN SUBMITTALS		
No	DATE	COMMENTS
1	12-11-23	1ST SUBMITTAL – TOWN OF CROSS ROADS
2	02-05-24	2ND SUBMITTAL – TOWN OF CROSS ROADS
3	02-16-24	3RD SUBMITTAL – TOWN OF CROSS ROADS
4	03-22-24	4TH SUBMITTAL – TOWN OF CROSS ROADS
5	03-29-24	5TH SUBMITTAL – TOWN OF CROSS ROADS
6	04-03-24	APPROVED – TOWN OF CROSS ROADS

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF INTERIM  
REVIEW UNDER THE  
AUTHORITY OF  
MARK H. HICKMAN,  
P.E. 78409.  
IT IS NOT TO BE USED  
FOR CONSTRUCTION  
BIDDING OR PERMITTING

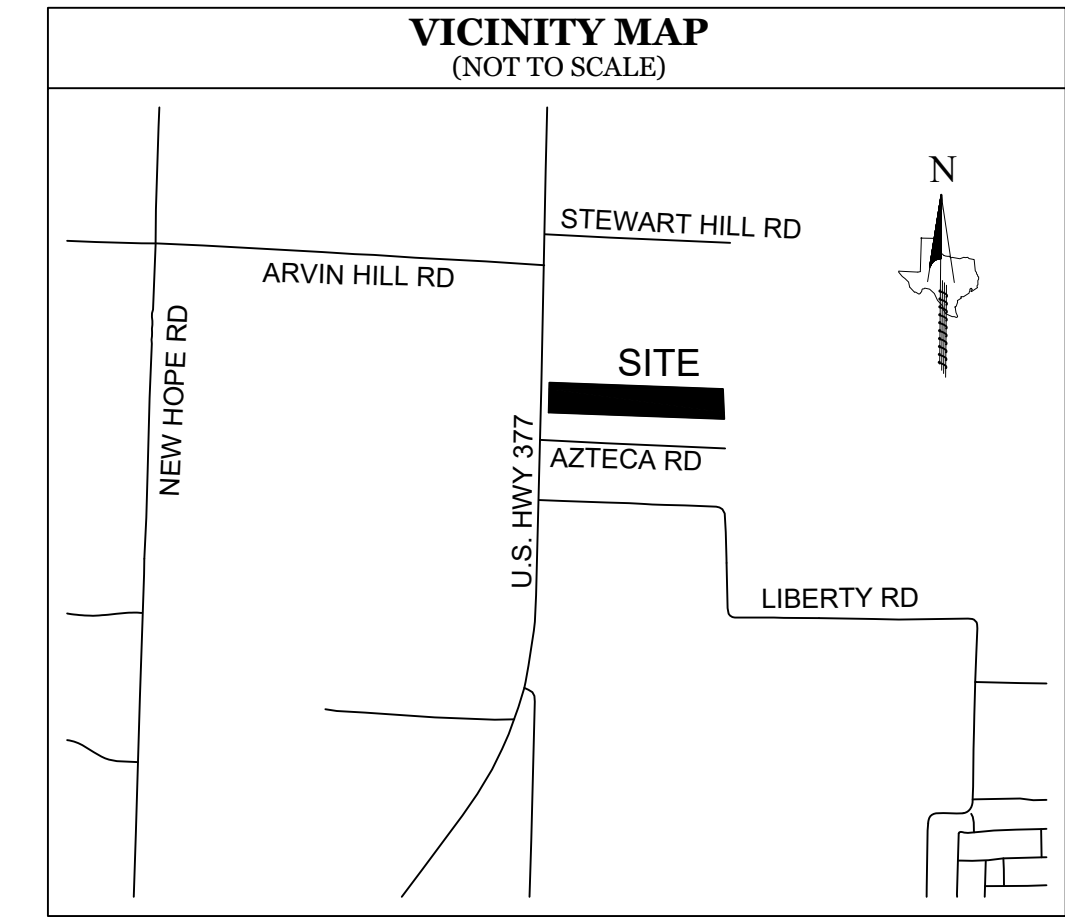
HRV Consultants, LLC.  
18332 FM 1778  
NEWPORT NEWS, VA 23602  
972.877.4175  
FIRM NO 22655

COVER SHEET  
CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ETJ, DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: 04.03.24  
SCALE: N/A  
JOB NO: 2301-449  
DRAWN BY: FP  
CHECKED BY: MHH

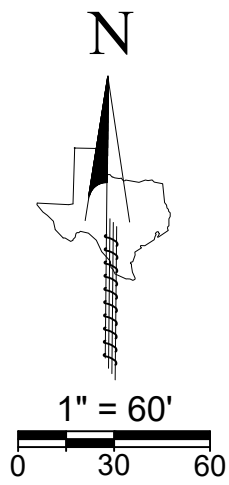
SHEET  
1





CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING
C1	44.22'	126.00'	20°06'23"	N 81°21'19" E
C2	15.99'	44.00'	20°49'08"	S 81°42'28" W
C3	34.02'	54.00'	36°05'54"	N 69°50'28" W
C4	18.89'	30.00'	36°05'06"	N 69°50'04" W
C5	12.61'	30.00'	24°05'09"	S 21°56'47" W
C6	30.04'	54.00'	31°52'33"	S 18°03'05" W
C7	47.12'	30.00'	90°00'00"	N 47°07'23" E
C8	47.12'	30.00'	90°00'00"	S 42°52'37" E
C9	47.12'	30.00'	90°00'00"	N 47°07'23" E
C10	47.12'	30.00'	90°00'00"	S 42°52'37" E
C11	34.01'	54.00'	36°05'06"	S 69°50'04" E
C12	18.90'	30.00'	36°05'54"	S 69°50'28" E
C13	25.98'	54.00'	27°43'39"	S 20°12'32" W
C14	16.69'	30.00'	31°52'33"	N 18°03'05" E

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 87°53'40" W	20.00'
L2	N 87°52'37" W	20.00'
L3	S 88°35'27" E	69.88'
L4	N 71°18'06" E	157.03'
L5	S 87°53'12" E	437.12'
L6	N 87°52'37" W	877.54'
L7	N 02°07'23" E	24.00'
L8	S 87°53'59" E	488.93'
L9	N 02°06'01" E	274.94'
L10	S 88°28'33" E	228.12'
L11	N 87°52'37" W	427.73'
L12	S 87°52'37" E	54.25'
L13	N 02°07'23" E	120.00'
L14	S 87°52'37" E	24.00'
L15	S 02°07'23" W	120.00'
L16	S 87°52'37" E	278.00'
L17	N 02°07'23" E	120.00'
L18	N 87°52'37" W	24.00'
L19	S 02°07'23" W	120.00'
L20	S 87°52'37" E	293.54'
L21	S 02°06'35" W	24.00'
L22	N 02°06'48" E	58.08'
L23	S 87°53'12" E	24.00'
L24	S 02°06'48" W	58.08'
L25	N 87°53'59" W	608.49'



- GENERAL NOTES**
- This property is located in "Non-shaded Zone X" according to the F.E.M.A. Flood Insurance Rate Map dated April 18, 2011 as shown on Map Number 48121C0265G.
  - The purpose of this replat is to dedicate easements for site development.
  - The grid coordinates shown on this plat are based on GPS observations utilizing the Alterra RTKNET Cooperative network. NAD 83(2011) State Plane Coordinate System (Texas North Central Zone - 4202).
  - Selling a portion of this addition by metes and bounds is a violation of City Ordinance and State Law, and is subject to fines and/or withholding of utilities and building permits.
  - The bearings shown on this survey are based on GPS observations utilizing the AllTerra RTK Network. North American Datum of 1983 (Adjustment Realization 2011).
  - The elevations shown on this plat are based on GPS observations utilizing the AllTerra RTK Network. North American Vertical Datum of 1988, (Geoid 12A).

LEGEND	
PG	= PAGE
VOL	= VOLUME
CAB	= CABINET
POB	= POINT OF BEGINNING
IRF	= IRON ROD FOUND
CIRS	= 1/2" IRON ROD WITH GREEN PLASTIC CAP STAMPED "EAGLE SURVEYING" SET
CIRF	= CAPPED IRON ROD FOUND
DOC. NO.	= DOCUMENT NUMBER
P.R.D.C.T.	= PLAT RECORDS DENTON COUNTY, TEXAS
O.R.D.C.T.	= OFFICIAL RECORDS DENTON COUNTY, TEXAS

**CERTIFICATE OF SURVEYOR**

STATE OF TEXAS      \$  
COUNTY OF DENTON      \$

I, **MATTHEW RAABE**, Registered Professional Land Surveyor, do hereby certify that this plat was prepared from an actual survey made on the ground and that the monuments shown hereon were found or placed with 1/2-inch iron rods with green plastic caps stamped "EAGLE SURVEYING" under my direction and supervision in accordance with the current provisions of the Texas Administrative Code and the Ordinances of the City of Denton County, Texas.

**PRELIMINARY**

this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document

Matthew Raabe, R.P.L.S. # 6402      Date \_\_\_\_\_

STATE OF TEXAS      \$  
COUNTY OF DENTON      \$

BEFORE ME, the undersigned authority, on this day personally appeared **MATTHEW RAABE**, 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 considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public in and for the State of Texas

CALLLED 1.000 ACRES  
MARIA GUADALUPE CERVANTES  
DOC. NO. 2011-94405  
O.R.D.C.T.

CALLLED 2.060 ACRES  
JUANA LOPEZ  
DOC. NO. 2018-29796  
O.R.D.C.T.

TRACT 1  
CALLLED 18.2656 ACRES  
JKM MANAGEMENT, LLC.  
DOC. NO. 2021-222285  
O.R.D.C.T.

TRACT 1  
CALLLED 8.819 ACRES  
JKM MANAGEMENT, LLC.  
DOC. NO. 2022-65673  
O.R.D.C.T.

**APPROVAL BLOCK**

Recommended for Approval

Chairperson, Planning and Zoning Commission      Date \_\_\_\_\_

Mayor, Town of Cross Road      Date \_\_\_\_\_

The undersigned, Town Secretary, of the Town of Cross Roads, Texas, hereby certifies that the foregoing final plat of the Dozier Real Estate Addition to the Town of Cross Roads was submitted to the Town Council on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and the Council, by formal action, then and there accepted the dedication of streets, alleys, parks, easements, public parks, and water and sewer lines, as shown and set forth in and upon said plat, and said Council further authorizes the Mayor to note the acceptance thereof for construction by signing his/her name as herein above subscribed.

Witness my hand this \_\_\_\_\_ day of \_\_\_\_\_, AD, 20\_\_\_\_.

\_\_\_\_\_  
Town Secretary

**OWNER'S CERTIFICATE & DEDICATION**

STATE OF TEXAS      \$  
COUNTY OF DENTON      \$

WHEREAS, **DOZIER REAL ESTATE, LLC** is the owner of 12.95 acre tract of land out of the J. Bridge Survey, Abstract Number 36, situated in Extraterritorial Jurisdiction of the Town of Cross Roads, Denton County, Texas, being a portion of a called 13.10 tract of land conveyed to Dozier Real Estate, LLC by General Warranty Deed of record in Document Number 2015-103831 of the Official Records of Denton County, Texas, being all of Lot 1, Block A of Dozier Real Estate Addition, a subdivision of record in Document Number 2018-178 of the Plat Records of Denton County, Texas, and being more particularly described by metes and bounds as follows:

**COMMENCING**, at a 1/2" iron rod found in the East right-of-way line of U.S. Highway 377 (variable width right-of-way), being the Northwest corner of a called 1.498 acre tract of land conveyed to Juan Manuel Torres, Jr. and Elizabeth Torres by Warranty Deed of record in Document Number 2011-94406 of the Official Records of Denton County, Texas and the Southwest corner of a called 0.14 acre Right-of-Way Dedication of Lot 1, Block A of said Dozier Real Estate Addition;

**THENCE**, along the North line of said 1.498 acre tract, being the common South line of said Right-of-Way Dedication, a distance of 20.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set for the **POINT OF BEGINNING**, being the Southeast corner of said Right-of-Way Dedication and the Southwest corner of said Lot 1;

**THENCE**, N01°24'33"E, along the East right-of-way line of said U.S. Highway 377, the East line of said Right-of-way Dedication, being the common West line of said Lot 1, a distance of 310.49 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set in the South line of 8.126 acre tract of land conveyed to JKM Management, LLC by Special Warranty Deed with Vendor's Lien of record in Document Number 2021-220707 of the Official Records of Denton County, Texas, being the Northeast corner of said Right-of-Way Dedication and the Northwest corner of said Lot 1, from which a 1/2" iron rod found bears N87°52'37"W, a distance of 20.00 feet, being the Southwest corner of said 8.126 acre tract ;

**THENCE**, S87°52'37"E, along the South line of said 8.126 acre tract, being the common North line of said Lot 1,aid 8.819 acre tract, a distance of 1808.07 feet to a 1/2" iron rod found in the West line of a called called 18.2656 acre tract of land conveyed to JKM Management, LLC by Special Warranty Deed of record in Document Number 2021-222285 of the Official Records of Denton County, Texas, being the Southeast corner of said 8.819 acre tract and the Northeast corner of said Lot 1;

**THENCE**, S02°27'06"E, along the the West line of said 18.2656 acre tract, the West line of a called 8.819 acre tract of land conveyed to JKM Management, LLC by General Warranty Deed with Vendor's Lien of record in Document Number 2022-65673 of the Official Records of Denton County, Texas, being the common East line of said Lot 1, a distance of 310.90 feet to a 1/2" iron rod found, being the Northeast corner of a called 2.060 acre tract of land conveyed to Juana Lopez by Statement of Ownership of record in Document Number 2018-29796 of the Official Records of Denton County, Texas and the Southeast corner of said Lot 1;

**THENCE**, N87°53'40"W, along the North line of said 2.060 acre tract, the North line of a called 1.000 acre tract of land conveyed to Maria Guadalupe Cervantes by Warranty Deed of record in Document Number 2011-94405 of the Official Records of Denton County, Texas, the North line of a called 2.00 acre tract of land conveyed to Jose Torres and Veronica Torres by Special Warranty Deed of record in Document Number 2008-85588 of the Official Public Records of Denton County, Texas, the North line of said 1.498 acre tract, being the common South line of said Lot 1, a distance of 1829.00 feet to a 1/2" iron rod with green plastic cap stamped "EAGLE SURVEYING" set for the **POINT OF BEGINNING** and containing 12.95 acres or 564,090 square feet or land, more or less.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, **DOZIER REAL ESTATE, LLC**, do hereby adopt this plat, designating herein described property as **DOZIER REAL ESTATE ADDITION, LOT 1R, BLOCK A** an addition to the Extraterritorial Jurisdiction of the Town of Cross Road, Denton County, Texas, and does hereby dedicate to public use forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown for the purpose and consideration therein expressed. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the drainage and utility easements as shown. Said drainage and utility easements being hereby reserved for the mutual use and accommodation of all public utilities desiring to use same. All and any public utility shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on the drainage and utility easement and all public utilities shall at all times have the full right of ingress and egress to or from and upon the said drainage and utility easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or parts of its respective systems without the necessity at any time of procuring the permission of anyone. Furthermore, the drainage easements and facilities therein are subject to the following: the Owner shall be responsible for all maintenance of the drainage easements after facilities are constructed and the Owner agrees to indemnify the Town of Crossroads, Texas, to the fullest extent authorized by Texas state law for any claim made against or damages assessed against Town of Crossroads, Texas, by any third party.

OWNER: **DOZIER REAL ESTATE, LLC**

BY: \_\_\_\_\_ Date \_\_\_\_\_  
NAME/TITLE

STATE OF TEXAS      \$  
COUNTY OF \_\_\_\_\_      \$

BEFORE ME, the undersigned authority, on this day personally appeared \_\_\_\_\_, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public in and for the State of Texas

**DOZIER REAL ESTATE ADDITION  
LOT 1R, BLOCK A  
REPLAT**

BEING 12.95 ACRES  
J. BRIDGES SURVEY, ABSTRACT NO. 36  
IN THE EXTRATERRITORIAL JURISDICTION OF THE TOWN OF  
CROSS ROADS, DENTON COUNTY, TEXAS

Project


2306.091-08

Date

03/22/2024

Drafter

EN

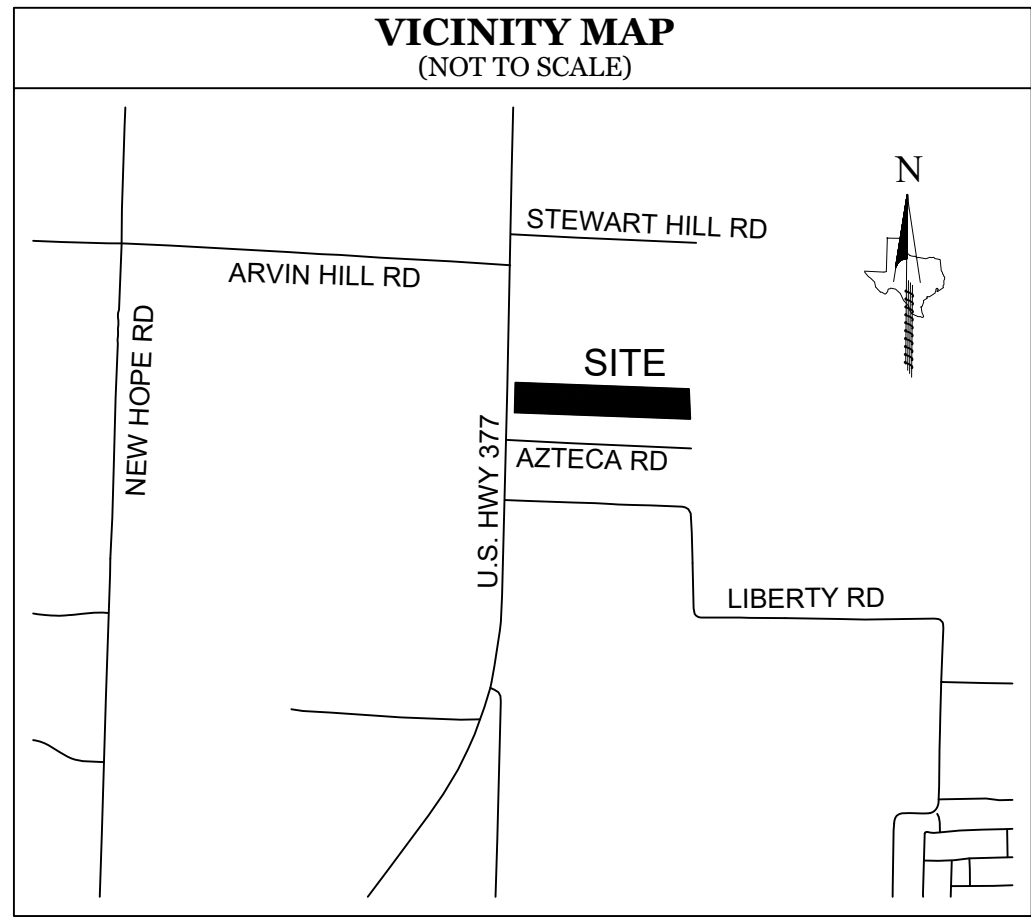


**EAGLE SURVEYING, LLC**  
222 S. Elm Street, Suite: 200  
Denton, TX 76201  
(940) 222-3009  
TX Firm #10194177

**SURVEYOR**  
Eagle Surveying, LLC  
Contact: Erick Nolasco  
222 S. Elm Street, Suite: 200  
Denton, TX 76201  
(940) 222-3009

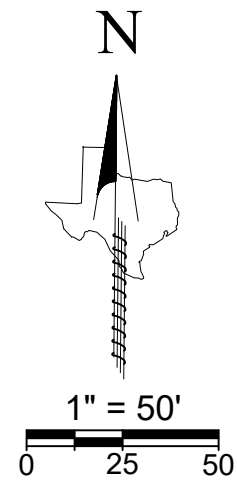
**OWNER**  
James D. & Cynthia K. Gordon  
8001 Tudor Lane  
Arglye, TX 76226





CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING
C1	44.22'	126.00'	20°06'23"	N 81°21'19" E
C2	15.99'	44.00'	20°49'08"	S 81°42'28" W
C3	34.02'	54.00'	36°05'54"	N 69°50'28" W
C4	18.89'	30.00'	36°05'06"	N 69°50'04" W
C5	12.61'	30.00'	24°05'09"	S 21°56'47" W
C6	30.04'	54.00'	31°52'33"	S 18°03'05" W
C7	47.12'	30.00'	90°00'00"	N 47°07'23" E
C8	47.12'	30.00'	90°00'00"	S 42°52'37" E
C9	47.12'	30.00'	90°00'00"	N 47°07'23" E
C10	47.12'	30.00'	90°00'00"	S 42°52'37" E
C11	34.01'	54.00'	36°05'06"	S 69°50'04" E
C12	18.90'	30.00'	36°05'54"	S 69°50'28" E
C13	25.98'	54.00'	27°33'39"	S 20°12'32" W
C14	16.69'	30.00'	31°52'33"	N 18°03'05" E

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 87°53'40" W	20.00'
L2	N 87°52'37" W	20.00'
L3	S 88°35'27" E	69.88'
L4	N 71°18'05" E	157.03'
L5	S 87°53'12" E	437.12'
L6	N 87°52'37" W	877.54'
L7	N 02°07'23" E	24.00'
L8	S 87°53'59" E	488.93'
L9	N 02°06'01" E	274.94'
L10	S 88°28'33" E	228.12'
L11	N 87°52'37" W	427.73'
L12	S 87°52'37" E	54.25'
L13	N 02°07'23" E	120.00'
L14	S 87°52'37" E	24.00'
L15	S 02°07'23" W	120.00'
L16	S 87°52'37" E	278.00'
L17	N 02°07'23" E	120.00'
L18	N 87°52'37" W	24.00'
L19	S 02°07'23" W	120.00'
L20	S 87°52'37" E	293.54'
L21	S 02°06'35" W	24.00'
L22	N 02°06'48" E	58.08'
L23	S 87°53'12" E	24.00'
L24	S 02°06'48" W	58.08'
L25	N 87°53'59" W	608.49'

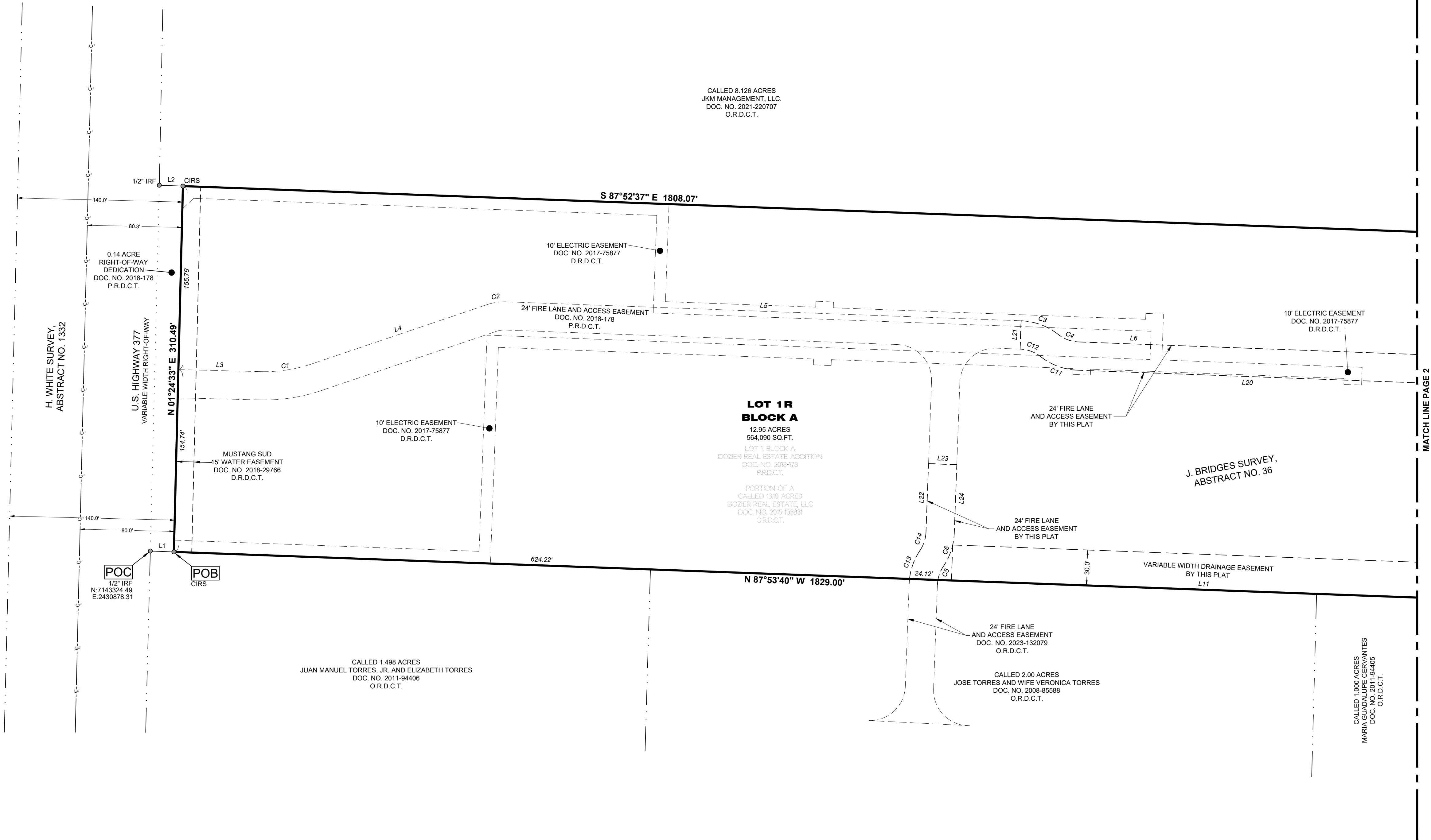


**GENERAL NOTES**

- This property is located in "Non-shaded Zone X" according to the F.E.M.A. Flood Insurance Rate Map dated April 18, 2011 as shown on Map Number 48121C0265G.
- The purpose of this replat is to dedicate easements for site development.
- The grid coordinates shown on this plat are based on GPS observations utilizing the Allterra RTKNET Cooperative network, NAD 83(2011) State Plane Coordinate System (Texas North Central Zone - 4202).
- Selling a portion of this addition by metes and bounds is a violation of City Ordinance and State Law, and is subject to fines and/or withholding of utilities and building permits.
- The bearings shown on this survey are based on GPS observations utilizing the Allterra RTK Network, North American Datum of 1983 (Adjustment Realization 2011).
- The elevations shown on this plat are based on GPS observations utilizing the Allterra RTK Network, North American Vertical Datum of 1988, (Geoid 12A).

**LEGEND**

PG = PAGE  
VOL = VOLUME  
CAB = CABINET  
POB = POINT OF BEGINNING  
IRF = IRON ROD FOUND  
CIRS = 1/2" IRON ROD WITH GREEN PLASTIC CAP STAMPED "EAGLE SURVEYING" SET  
CIRF = CAPPED IRON ROD FOUND  
DOC. NO. = DOCUMENT NUMBER  
P.R.D.C.T. = PLAT RECORDS DENTON COUNTY, TEXAS  
O.R.D.C.T. = OFFICIAL RECORDS DENTON COUNTY, TEXAS



**DOZIER REAL ESTATE ADDITION  
LOT 1R, BLOCK A  
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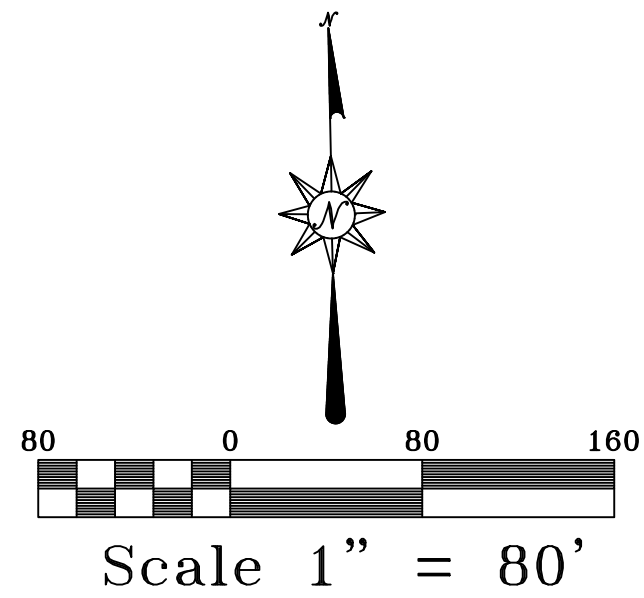
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**SURVEYOR**  
Eagle Surveying, LLC  
Contact: Erick Nolasco  
222 S. Elm Street, Suite: 200  
Denton, TX 76201  
(940) 222-3009

**OWNER**  
Dozier Real Estate, LLC  
P.O. Box 822  
Aubrey, TX 76227



BEFORE YOU DIG CALL:  
1-800-245-4545

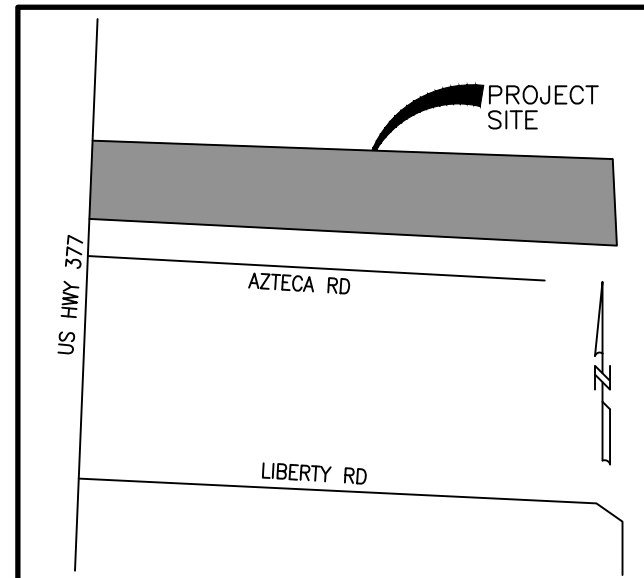


TEXAS ONE CALL SYSTEM

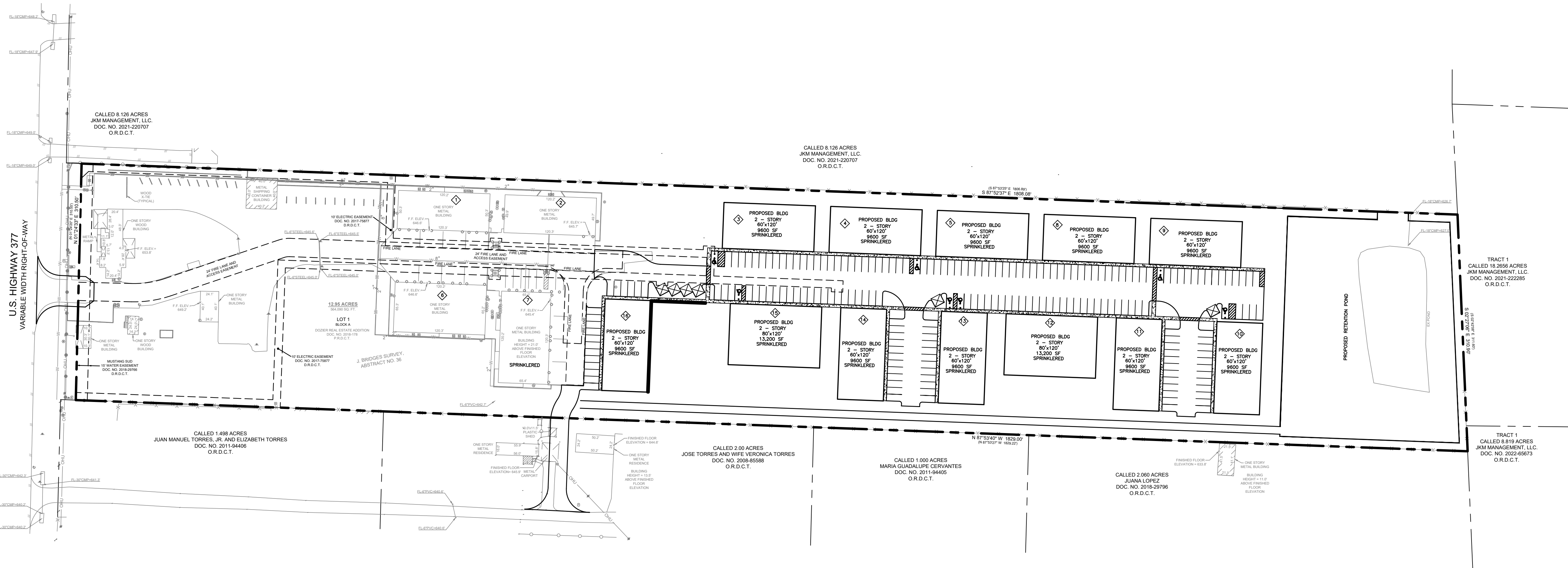
NOTE:  
CONTRACTOR TO VERIFY HORIZONTAL & VERTICAL  
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AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES  
EXISTING UTILITIES SHOWN ON THESE PLANS  
ARE BASED ON COMBINATION OF FIELD SURVEY  
& CITY RECORD DRAWINGS.

NOTES:

1. PROPERTY ADDRESS:  
4234 US 377  
AUBREY, TX 76227
2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S. ELM ST., SUITE 200  
DENTON, TX 76201  
940-222-3009



VICINITY MAP  
NTS



SURVEOR'S NOTES:

BENCHMARK:

ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK,  
NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

FLOOD ZONE NOTE:

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED  
APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER  
48121C02650. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION  
REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA MAP.

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF INTERIM  
REVIEW UNDER THE  
AUTHORITY OF  
MARK H. HICKMAN,  
P.E. 78409.  
IT IS NOT TO BE USED  
FOR CONSTRUCTION  
BIDDING OR PERMITTING

HRV Consultants, LLC.

18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175

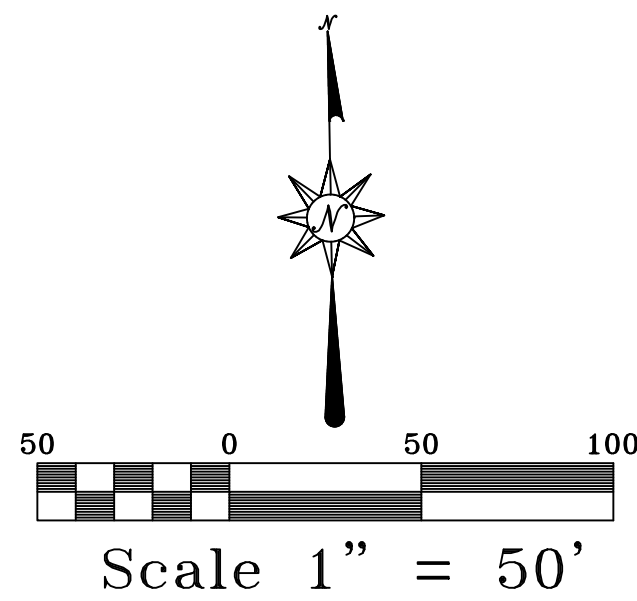
FIRM NO 22655

OVERALL SITE PLAN  
CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ETJ, DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: 04.03.24  
SCALE: 1"=80'  
JOB NO: 2301-449  
DRAWN BY: FP  
CHECKED BY: MHH

SHEET  
2





BEFORE YOU DIG CALL:  
1-800-245-4545



TEXAS ONE CALL SYSTEM

NOTE:  
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AUBREY, TX 76227
2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

SITE LAYOUT NOTES:

1. ALL FIRE LANES ARE MIN 24' WIDE WITH MIN 30' INSIDE RADIUS AND MIN 54' OUTSIDE RADIUS. FIRE LANES SHALL BE CONSTRUCTED AND STRIPED PER CITY OF FATE FIRE DEPT REQUIREMENTS.
2. ALL PARKING STALLS, INCLUDING HANDICAP STALLS, SHALL BE 9' WIDE x 18' DEEP UNLESS SHOWN OTHERWISE. VAN ACCESSIBLE SPACE SHALL BE 9' MIN WIDE x 18' DEEP.
3. ALL OTHER DRIVING LANES SHALL BE MIN 24' WIDE AND CONSTRUCTED PER THE PAVING PLAN UNLESS SHOWN OTHERWISE.

SITE LEGEND:

- PROP 24' FIRE LANE & ACCESS EASEMENT
1. PROPOSED TAS PARKING STALL SIGN; SEE BLDG PLANS
  2. PROPOSED 5' ACCESS AISLE
  3. PROPOSED 9' ACCESS AISLE
  4. PROPOSED 4' CONC SIDEWALK
  5. PROPOSED DUMPSTER
  6. PROPOSED RETAINING WALL - DESIGN BY OTHERS
  7. PROPOSED CONCRETE CHANNEL
  8. PROPOSED FIRE HYDRANT
  9. PROPOSED RETAINING WALL

ADA/TAS SLOPE REQUIREMENTS	
ACCESSIBLE ROUTE	<5% SLOPE <2% CROSS SLOPE
RAMP & CURB RAMP	<8.33% (1:12) <2% CROSS SLOPE
TAS PARKING & ACCESS AISLE	<2% SLOPE IN ANY DIRECTION

CONTRACTOR TO ENSURE THAT GRADES ALONG ADA ROUTES MEET THESE SLOPE REQUIREMENTS

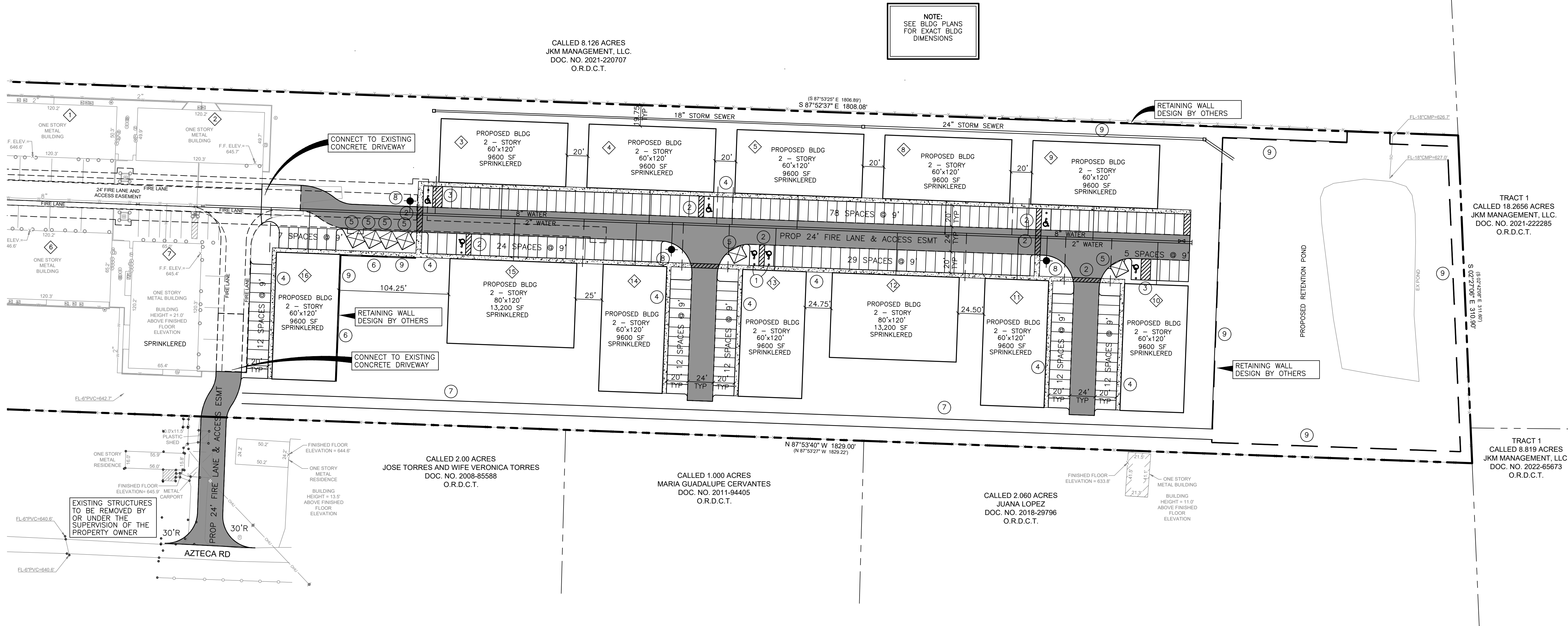
ADA BARRIER-FREE RAMP REQUIREMENTS:

1. TEXTURE: SHALL CONSIST OF EXPOSED CRUSHED STONE, AGGREGATE, ROUGHENED CONCRETE, RUBBER, RAISED ABRASIVE STRIPS, OR TRUNCATED DOMES (SEE TAS/ADS STDS FOR ADDITIONAL OPTIONS). SURFACE MUST BE DETECTABLE UNDER FOOT. SURFACES THAT ARE RAISED OR ETCHED IN A WAY THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
2. CONTRAST: FOR PURPOSES OF WARNING, THE FULL WIDTH AND DEPTH OF CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING SURFACES.
3. RAMPS WITHIN THE PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED PER COUNTY/TXDOT STD. TRUNCATED DOMES AT PLATFORM BOARDING EDGES SHALL BE A MIN OF 24" WIDE AND SHALL EXTEND THE FULL LENGTH OF THE PUBLIC USE AREA OF THE PLATFORM.

NOTE:  
PARKING & ACCESSIBLE ROUTES FOR DISABLED PERSONS SHALL BE DESIGNATED, DESIGNED & CONSTRUCTED PER COUNTY, TAS & ADA REQUIREMENTS

EX LEGEND

- Temporary Benchmark
- Water Valve
- Fire Hydrant
- Water Meter
- Water Vault
- Water Utility Mark
- Telecommunications Riser
- Electric Box
- Electric Meter
- Electric Transformer
- Guy Wire
- Power Pole
- Metal Post
- Cable Riser
- Air Conditioning Unit
- Sanitary Clean Out
- Septic Lid
- Bollard
- Mail Box
- Sign



SURVEOR'S NOTES:

BENCHMARK:

ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK, NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

FLOOD ZONE NOTE:

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER 48121C02650. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA MAP.

SITE SUMMARY (PROPOSED)

EXISTING USE	COMMERCIAL
PROP. USE	COMMERCIAL
LOT AREA	12.95 AC (564,102 SF)
PROP. BLDG. AREA TOTAL	122,400 SF
PROP. BLDG. HT (2-STORY)	SEE BLDG. PLANS
PARKING	
PROVIDED TOTAL	203 SPACES (196 REG; 7 H/C)
IMPERVIOUS AREA	289,621 SF (51%)

SITE PLAN NOTES:

1. FIRE LANES SHALL BE DESIGNED AND CONSTRUCTED PER COUNTY STANDARDS.
2. ALL SIGNAGE BY SEPARATE PERMIT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING IMPROVEMENTS IN THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION. REPAIRS SHALL BE EQUAL TO OR BETTER THAN CONDITION PRIOR TO CONSTRUCTION.
4. THE SANITATION CONTAINER SCREENING WALLS SHALL BE CONSTRUCTED PER COUNTY STANDARDS.

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF MARK H. HICKMAN, P.E. 78409. IT IS NOT TO BE USED FOR CONSTRUCTION BIDDING OR PERMITTING

HRV Consultants, LLC.

18332 FM 1778  
NEWPORT, TEXAS 75753  
972.877.4175

FIRM NO. 22655

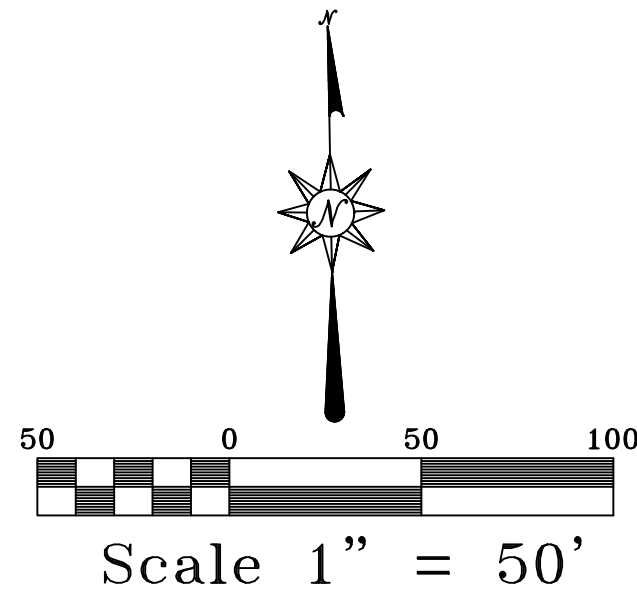
SITE PLAN  
CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ET AL, DENTON COUNTY, TX

SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: 04.03.24  
SCALE: 1"=50'  
JOB NO: 2301-449  
DRAWN BY: FP  
CHECKED BY: MHH

SHEET  
3





BEFORE YOU DIG CALL:  
1-800-245-4545



TEXAS ONE CALL SYSTEM

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DENTON, TX 76201  
940-222-3009

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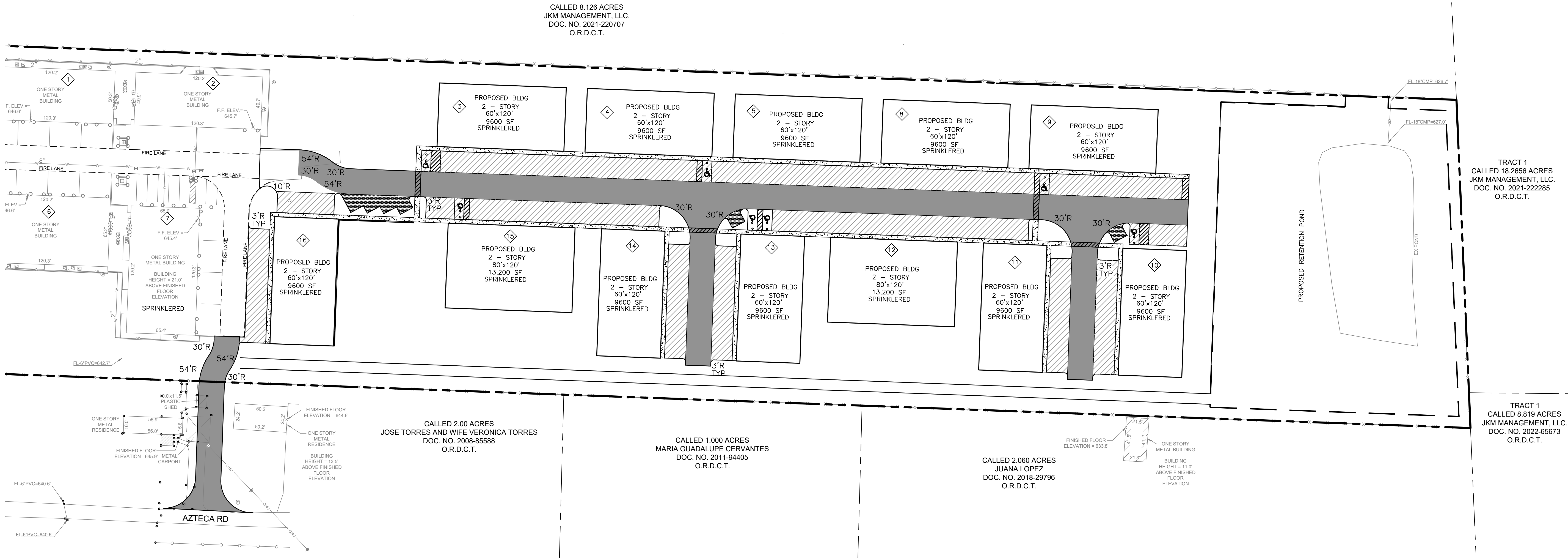
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EX LEGEND	
	Temporary Benchmark
	Water Valve
	Fire Hydrant
	Water Meter
	Water Vault
	Water Utility Mark
	Telecommunications Riser
	Electric Box
	Electric Meter
	Electric Transformer
	Guy Wire
	Power Pole
	Metal Post
	Cable Riser
	Air Conditioning Unit
	Sanitary Clean Out
	Septic Lid
	Bollard
	Mail Box
	Sign



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18332 FM 1778  
NEWPORT, TEXAS 75773  
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FIRM NO. 22655

PAVING PLAN  
CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ETJ, DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: 04.03.24  
SCALE: 1"=50'  
JOB NO: 2301-449  
DRAWN BY: FP  
CHECKED BY: MHH

SHEET  
4

SURVEOR'S NOTES:

BENCHMARK:

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FLOOD ZONE NOTE:

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER 48121C02650. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA MAP.

NOTE:  
ALL PAVEMENT RECOMMENDATIONS SHOWN ON THIS PLAN TO BE VERIFIED WITH SOILS REPORT PREPARED BY HENLEY JOHNSTON & ASSOC REPORT NO 16608G

PAVING NOTES

1. SAW CUT CONCRETE AREAS PER SOILS REPORT.
2. THE CONTRACTOR SHALL NOTIFY THE OWNER 3 DAYS PRIOR TO ANY CONCRETE POUR.
3. ANY WORK DONE IN THE CITY RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH CITY REQUIREMENTS.
4. ALL BARRIER FREE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY, ADA & TAS STD. SPECIFICATIONS AND DETAILS.
5. EXPANSION JOINTS PER SOILS REPORT.
6. AFTER CONSTRUCTION, THE CONSTRUCTION AND EXPANSION JOINTS SHOULD BE INSPECTED AS REQUIRED AND RESEALED, IF NECESSARY.
7. SOILS REPORT SHALL BE REVIEWED BY CONTRACTOR PRIOR TO BEGINNING ANY CONSTRUCTION.

PAVING RECOMMENDATIONS

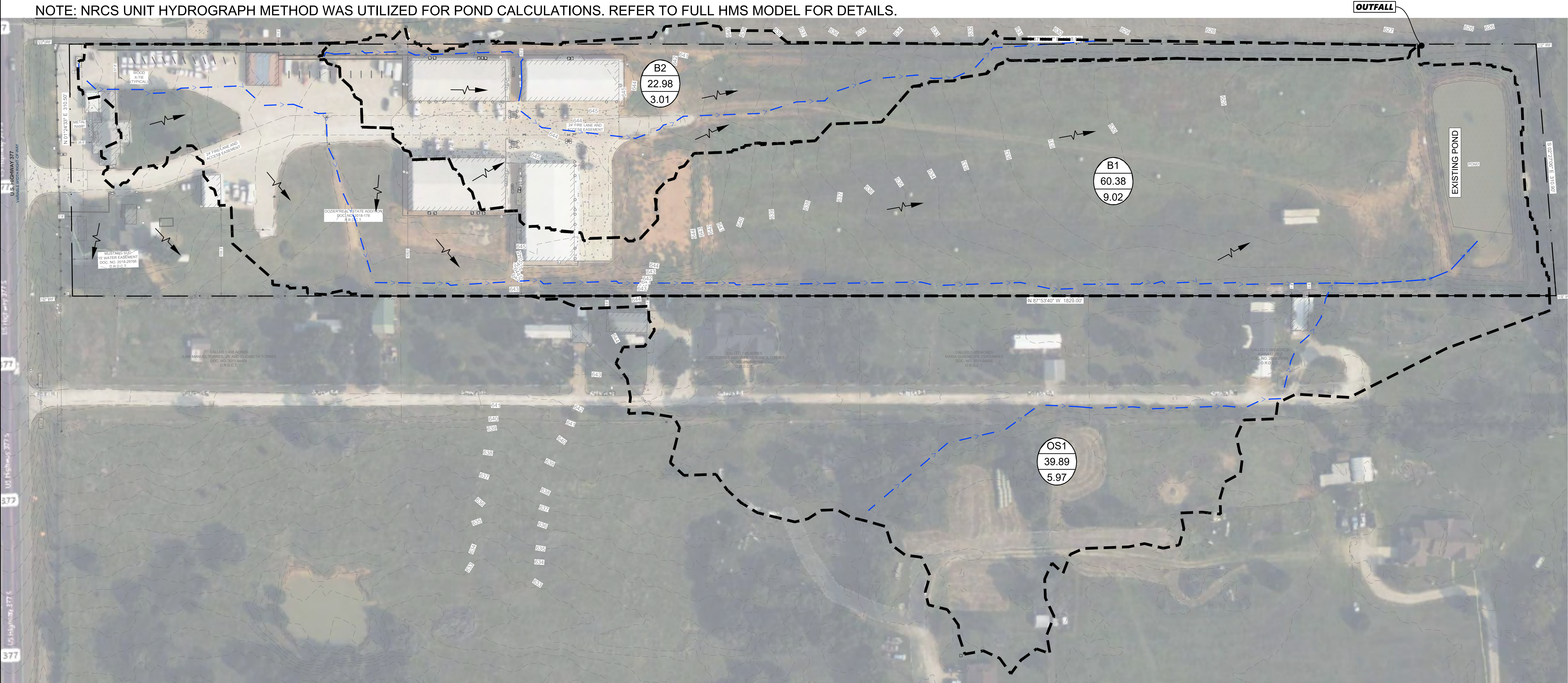
RECOMMENDATIONS TAKEN FROM SOILS REPORT. SEE SOILS REPORT FOR ADDITIONAL INFORMATION, REINFORCEMENT, SUBGRADE & OPTIONS.

- FIRE LANE/HEAVY DUTY - 7" MIN CONC THICKNESS, 4000 PSI, #3 @ 18"OCW; #4 SMOOTH DOWELS AT EXPANSION JOINTS ON 12" CENTERS; 6" RECOMPACTED SUBGRADE TO MIN 95% ASTM-D-698
- PARKING SPACES - 6" MIN CONC THICKNESS, 3000 PSI, #3 @ 18"OCW; #4 SMOOTH DOWELS AT EXPANSION JOINTS ON 12" CENTERS; 6" RECOMPACTED SUBGRADE TO MIN 95% ASTM-D-698
- DUMPSTER AREA - 8" MIN CONC THICKNESS, 3000 PSI, #3 @ 18"OCW; #4 SMOOTH DOWELS AT EXPANSION JOINTS ON 12" CENTERS; 6" RECOMPACTED SUBGRADE TO MIN 95% ASTM-D-698
- SIDEWALK - 4" MIN CONC THICKNESS, 2" CUSHION SAND; #3 @ 18" OCW



DRAINAGE CALCULATIONS														
SUBBASIN	OUTFALL	AREA (ACRES)	AREA (MI2)	Tc (mins)	Lag Time (mins)	HYDR. SOIL CL	CN (PERV)	IMP. RATIO (%)	Q <sub>2</sub> (cfs)	Q <sub>5</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>25</sub> (cfs)	Q <sub>50</sub> (cfs)	Q <sub>100</sub> (cfs)
EX-B1	OUTFALL	9.02	0.0141	20	12	B	69.00	13	10.86	21.33	27.09	39.21	47.57	60.38
EX-B2	OUTFALL	3.01	0.0047	20	12	B	69.00	48	6.08	9.87	11.86	15.95	18.74	22.98
OS-1	OUTFALL	5.97	0.0093	20	12	B	69.00	13.4	7.22	14.13	17.93	25.93	31.44	39.89

NOTE: NRCS UNIT HYDROGRAPH METHOD WAS UTILIZED FOR POND CALCULATIONS. REFER TO FULL HMS MODEL FOR DETAILS.



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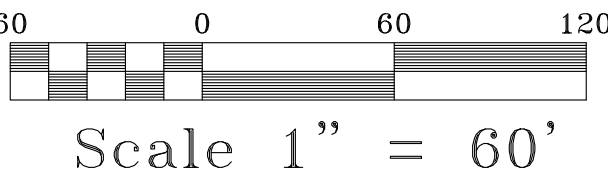
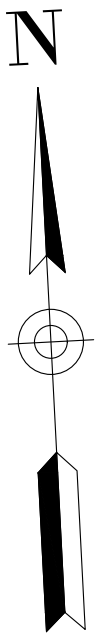
- NOTES:**
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  2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
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**SURVEOR'S NOTES:**  
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TEXAS ONE CALL SYSTEM

**LEGEND**

- PROPOSED AREA DESIGNATION
- RUNOFF IN C.F.S. (100 YR.)
- DRAINAGE AREA (ACRES)
- PROPOSED DRAINAGE AREA DIVIDE
- DIRECTION OF FLOW
- EXISTING CONTOURS (1-FT INT.)
- EXISTING FLOW PATHS
- PROPERTY BOUNDARY



Scale 1" = 60'

REV	NO	DESCRIPTION	DATE

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**HRV Consultants, LLC.**  
18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175  
FIRM NO 22655

EXISTING DRAINAGE AREA MAP  
CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: XX.XX.XX  
SCALE: 1"=60'  
JOB NO: 2301-449  
DRAWN BY: HD  
CHECKED BY: MHH

SHEET  
5



DRAINAGE CALCULATIONS

SUBBASIN	OUTFALL	AREA (ACRES)	AREA (MI2)	Tc (mins)	Lag Time (mins)	HYDR. SOIL CL	CN (PERV)	IMP. RATIO (%)	Q <sub>2</sub> (cfs)	Q <sub>5</sub> (cfs)	Q <sub>10</sub> (cfs)	Q <sub>25</sub> (cfs)	Q <sub>50</sub> (cfs)	Q <sub>100</sub> (cfs)
OS-1	TO PROP. CHANNEL	5.97	0.0093	20	12	B	69.00	13.4	7.22	14.13	17.93	25.93	31.44	39.89
PR-B1	TO PROP. CHANNEL	7.74	0.0121	10	6	B	69.00	60.88%	22.82	35.48	42.04	55.45	64.52	78.25
PR-B2	TO INLET A-2	0.65	0.0010	10	6	B	69.00	60.47%	1.88	2.92	3.47	4.57	5.32	6.46
PR-B3	TO INLET A-3	0.83	0.0013	10	6	B	69.00	59.74%	2.42	3.78	4.49	5.93	6.90	8.38
PR-B4	TO INLET A-4	0.93	0.0015	10	6	B	69.00	47.67%	2.46	3.99	4.79	6.45	7.57	9.28
PR-B5	DIRECTLY TO POND	1.88	0.0029	10	6	B	69.00	8.00%	2.66	5.39	6.88	10.02	12.18	15.52

NOTE: NRCS UNIT HYDROGRAPH METHOD WAS UTILIZED FOR POND CALCULATIONS. REFER TO FULL HMS MODEL FOR DETAILS.



**NOTE:**  
CONTRACTOR TO VERIFY HORIZONTAL & VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY CONSTRUCTION/EXCAVATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON COMBINATION OF FIELD SURVEY & CITY RECORD DRAWINGS

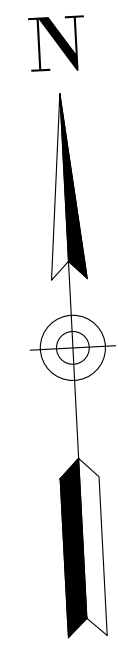
- NOTES:**
1. PROPERTY ADDRESS:  
4294 US 377  
AUBREY, TX 76227
  2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

**SURVEOR'S NOTES:**  
**BENCHMARK:**  
ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK. NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

**FLOOD ZONE NOTE:**  
THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER 48121C0265G. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA MAP.

**BEFORE YOU DIG CALL:  
1-800-245-4545**

  
TEXAS ONE CALL SYSTEM



- LEGEND**
- OS3  
5.4  
14.8
  - PROPOSED AREA DESIGNATION
  - RUNOFF IN C.F.S. (100 YR.)
  - DRAINAGE AREA (ACRES)
  - PROPOSED DRAINAGE AREA DIVIDE
  - DIRECTION OF FLOW
  - PROPOSED SWALES/CHANNEL
  - EXISTING CONTOURS (1-FT INT.)
  - EXISTING FLOW PATHS
  - PROPERTY BOUNDARY
- 60 0 60 120  
Scale 1" = 60'

DATE: XX.XX.XX	REVISION DESCRIPTION	BY	DATE
SCALE: 1"=60'			
JOB NO: 2301-449			
DRAWN BY: HD			
CHECKED BY: MHH			
SHEET 6			

**HRV Consultants, LLC.**  
18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175  
FIRM NO 22655

**PROPOSED DRAINAGE AREA MAP**  
CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093



**NOTE:**  
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LOCATION OF ALL EXISTING UTILITIES PRIOR  
TO BEGINNING ANY CONSTRUCTION/EXCAVATION  
AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES  
EXISTING UTILITIES SHOWN ON THESE PLANS  
ARE BASED ON COMBINATION OF FIELD SURVEY  
& CITY RECORD DRAWINGS

NOTES:

- 1 PROPERTY ADDRESS:  
4294 US 377  
AUBREY, TX 76227
- 2 BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

**SURVEOR'S NOTES:**

**BENCHMARK:**

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NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

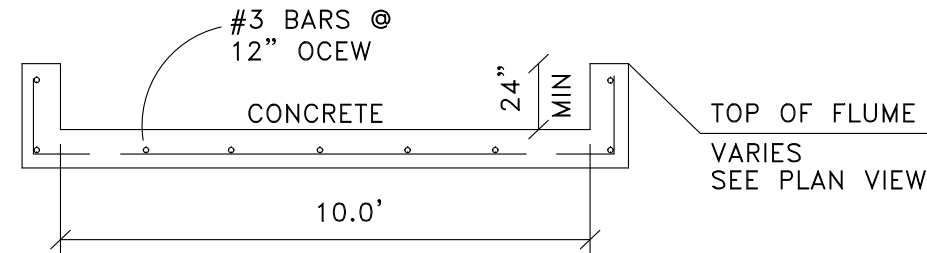
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**BEFORE YOU DIG CALL:**  
**1-800-245-4545**



TEXAS ONE CALL SYSTEM



CHANNEL DETAIL (TYP)

QUANTITIES	
TOTAL CUT	14,270.00 CU.YD
TOTAL FILL	11,300.00 CU.YD


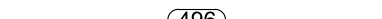






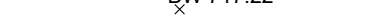

NOTES:

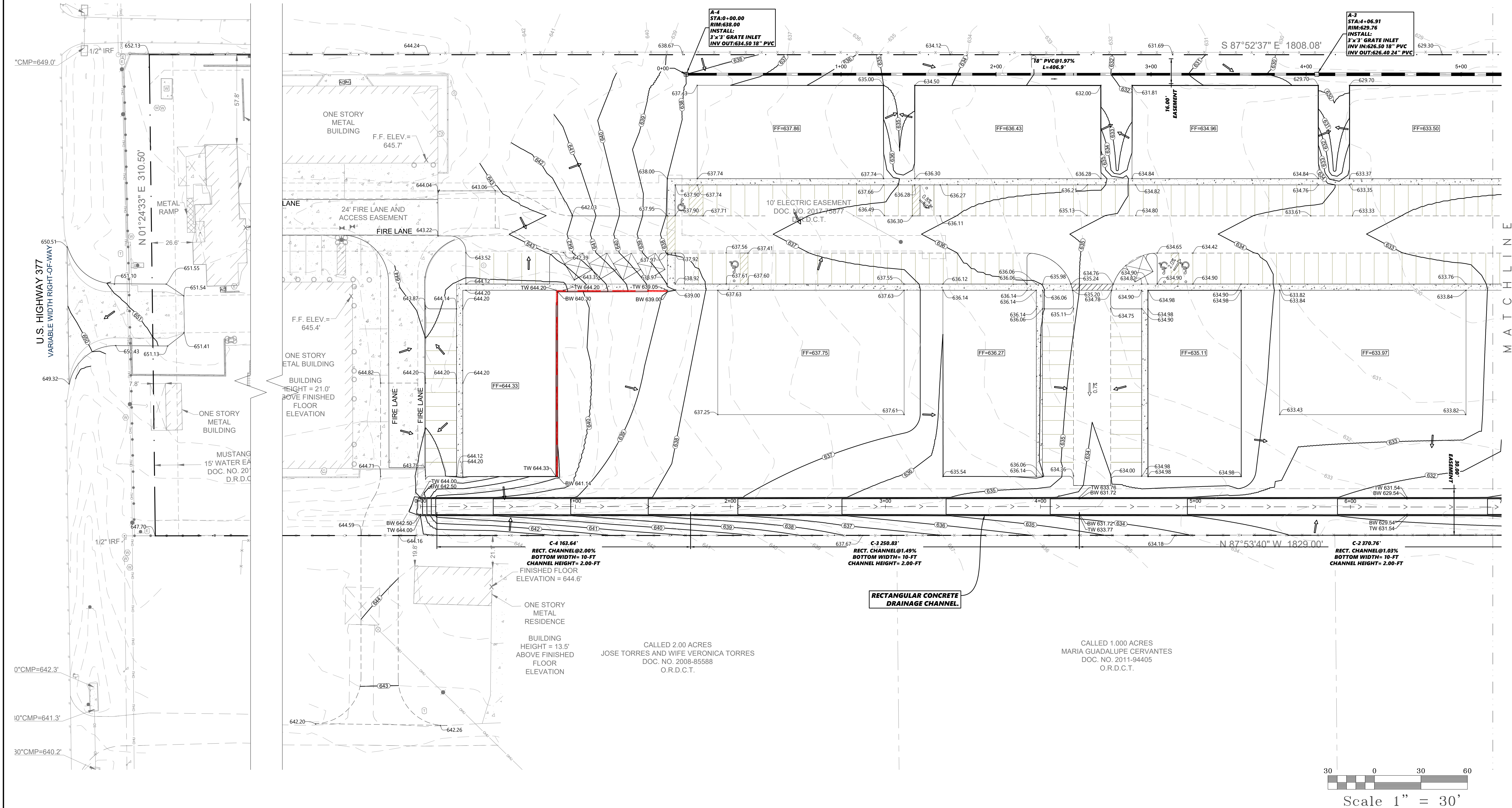
- CUT/FILL IS CALCULATED TAKING PAVEMENT DEPTH IN TO CONSIDERATION
- TOP SOIL CLEARING IS NOT INCLUDED IN THE ABOVE CALCULATIONS

**NOTE:**  
PER BUILDING CODE,  
SUPPORTING GEOTECHNICAL AND STRUCTURAL  
ANALYSIS MAY BE NEEDED IF THE WALL, PLUS  
THE HEIGHT OF THE FOOTING, OF THE  
PROPOSED RETAINING WALL IS EQUAL TO OR  
GREATER THAN 4-FT.



## LEGEND

- |   |                               |
|---|-------------------------------|
|  | EXISTING CONTOURS (1-FT INT.) |
|  | PROPOSED CONTOURS (1-FT INT.) |
|  | PROPOSED SWALE/CHANNEL        |
|  | SPOT LEVEL                    |
|  | LOW POINT                     |
|  | HIGH POINT                    |
|  | TOP OF WALL                   |
|  | BOTTOM OF WALL                |
|  | RETAINING WALL                |
|  | PROPOSED FLOW ARROW           |



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PURPOSE OF INTERIM  
REVIEW UNDER THE  
AUTHORITY OF  
MARK H. HICKMAN,  
P.E. 78409.  
IS NOT TO BE USED  
FOR CONSTRUCTION  
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HRV Consultants, LLC.  
18332 FM 1778

ADA, TEXAS 75173  
972.877.4175  
FIRM NO 22655

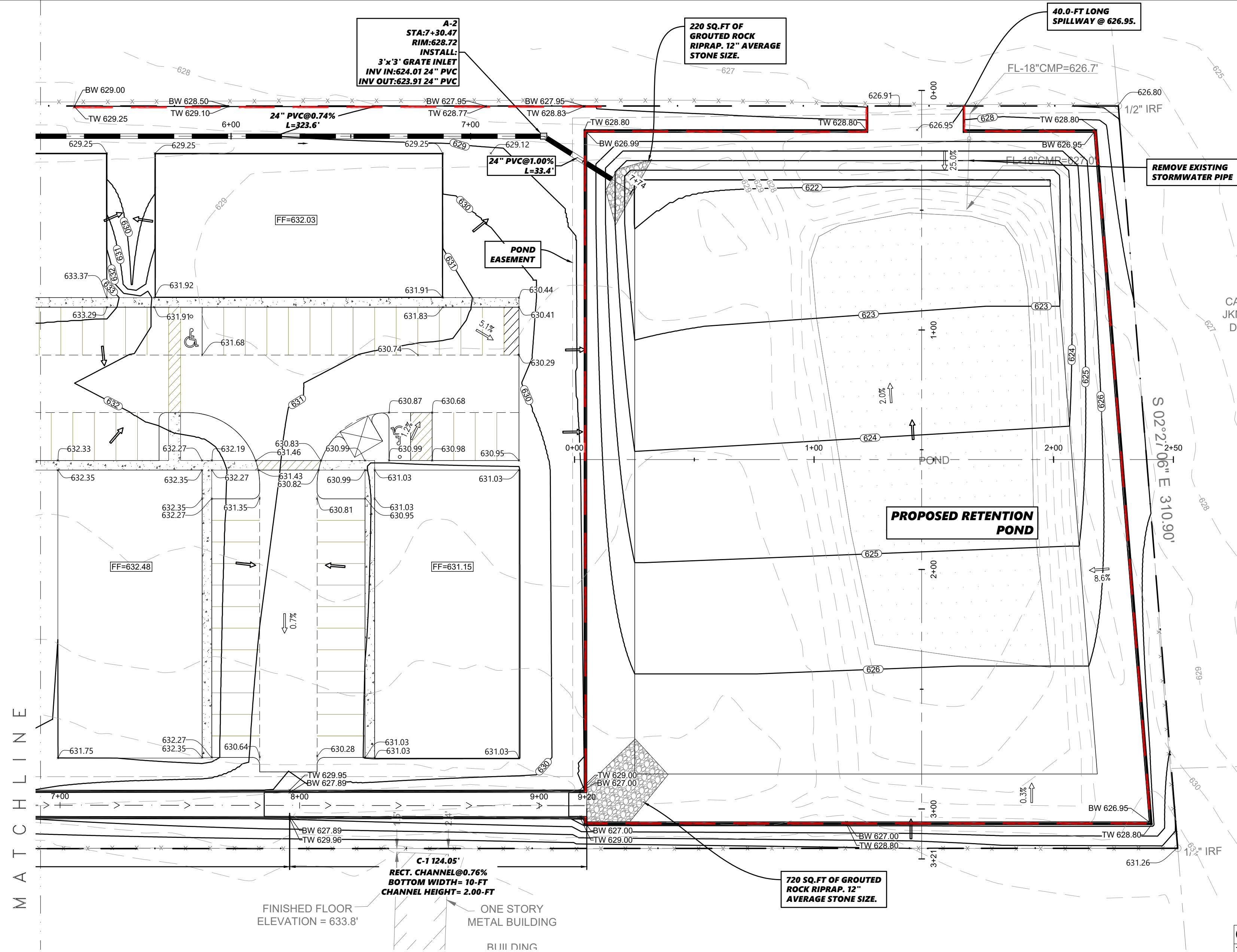
**CROSS ROADS COMMERCIAL**  
DENTON COUNTY, TX

**M REAL ESTATE SERVICES**  
**709 WEST RUSK ST**  
**ROCKWALL, TX 75087**  
**214-557-9093**

DATE:	XX.XX.XX
SCALE:	1"=30'
3 NO:	2301-449
DRAWN BY:	HD
CHECKED BY:	MHH

7





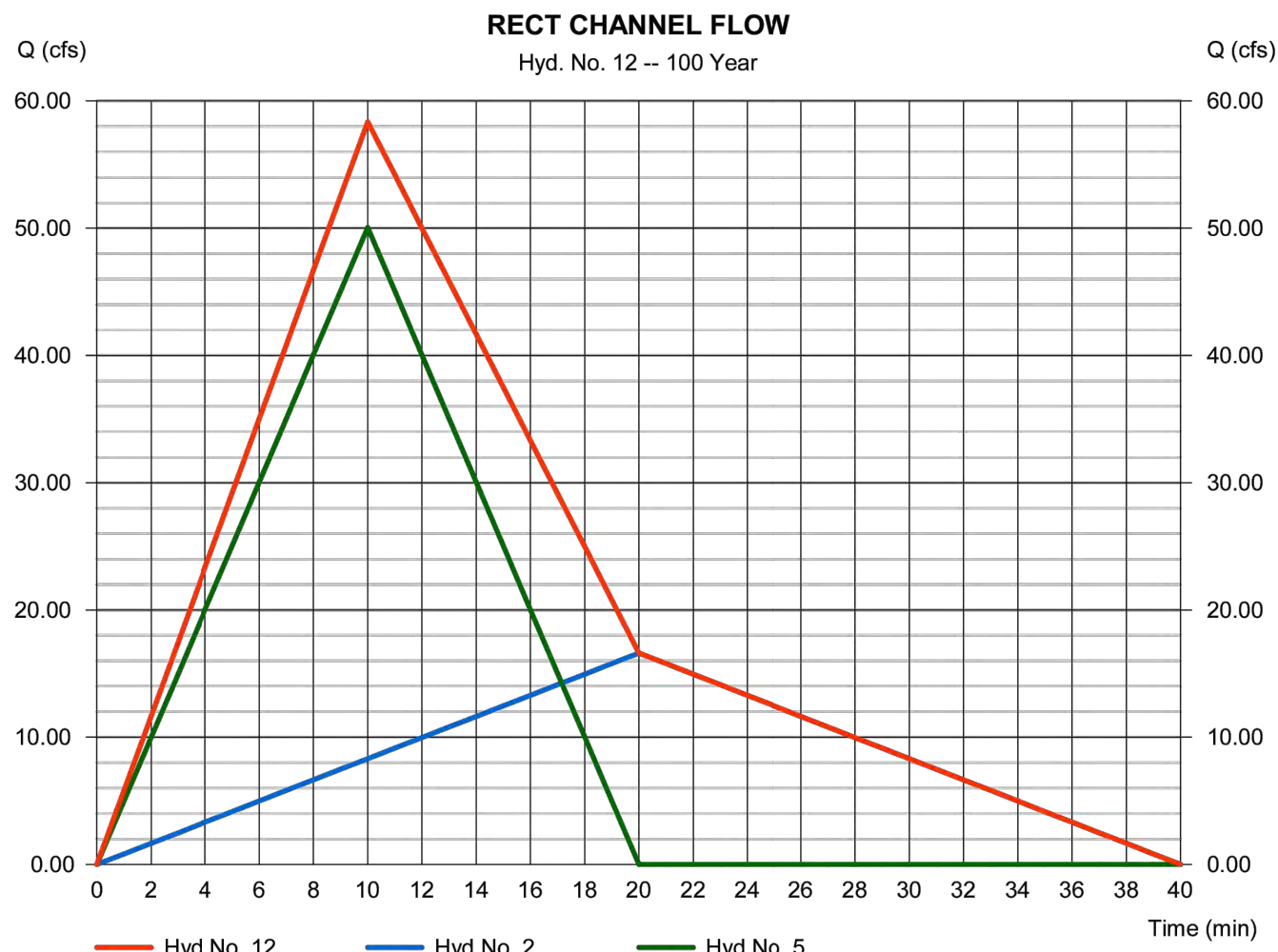
### Hydrograph Report

Hydroflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024  
Wednesday, 03 / 20 / 2024

**Hyd. No. 12**  
RECT CHANNEL FLOW

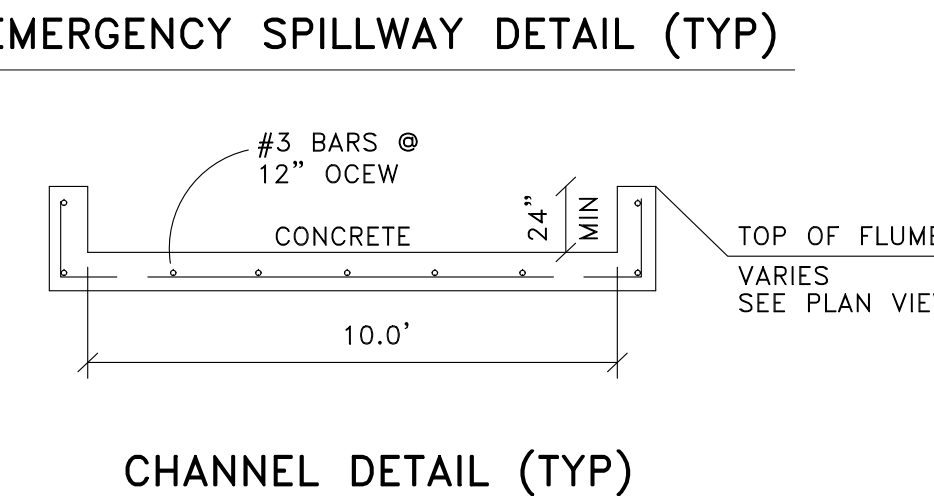
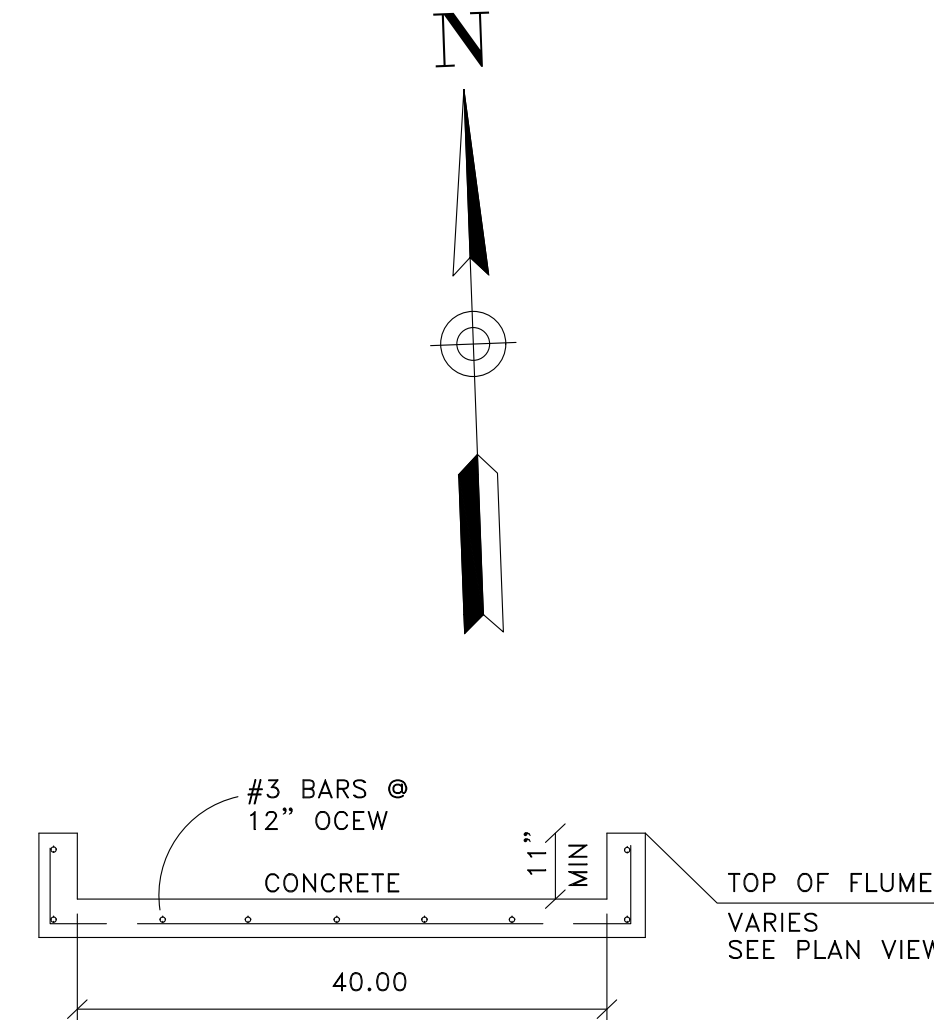
Hydrograph type = Combine  
Storm frequency = 100 yrs  
Time interval = 1 min  
Inflow hyds. = 2, 5

Peak discharge = 58.36 cfs  
Time to peak = 10 min  
Hyd. volume = 49,969 cuft  
Contrib. drain. area = 13.710 ac



### LEGEND

- EXISTING CONTOURS (1-FT INT.)
- PROPOSED CONTOURS (1-FT INT.)
- PROPOSED SWALE/CHANNEL
- SPOT LEVEL
- LOW POINT
- HIGH POINT
- TOP OF WALL
- BOTTOM OF WALL
- RETAINING WALL



QUANTITIES	
TOTAL CUT	14,270.00 CU.YD
TOTAL FILL	11,300.00 CU.YD

- NOTES:**
- CUT/FILL IS CALCULATED TAKING PAVEMENT DEPTH IN TO CONSIDERATION
  - TOP SOIL CLEARING IS NOT INCLUDED IN THE ABOVE CALCULATIONS

#### SURVEOR'S NOTES:

#### BENCHMARK:

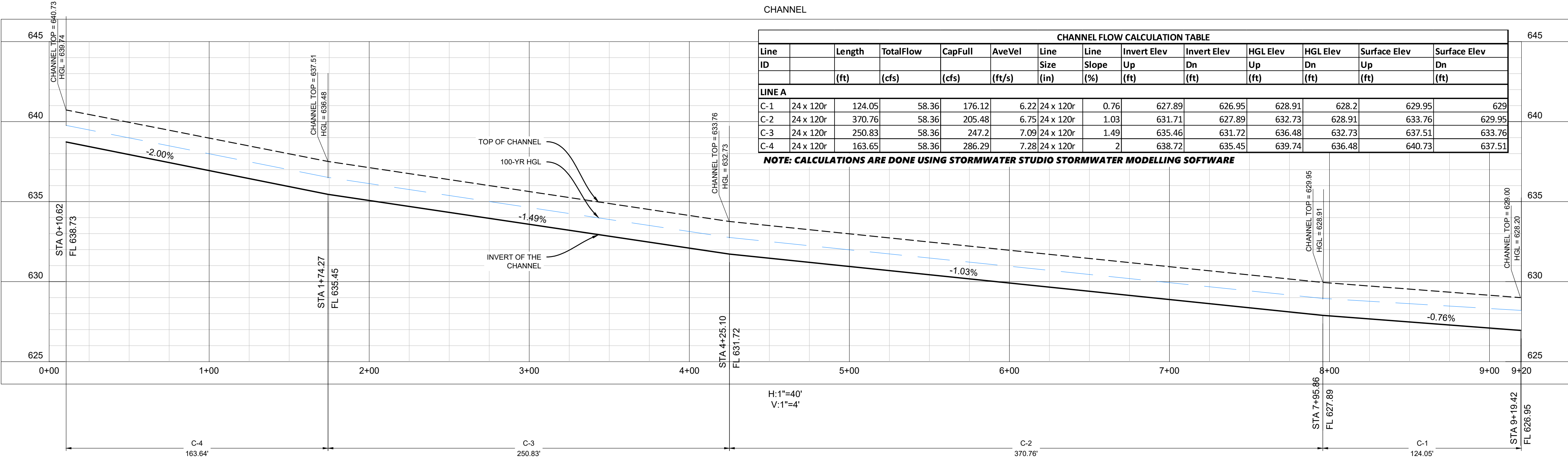
ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK. NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

#### FLOOD ZONE NOTE:

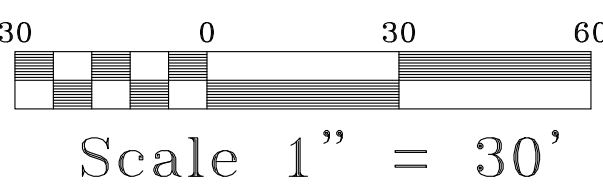
THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER 48121022656. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA.MAP.

#### NOTES:

- PROPERTY ADDRESS:  
4294 US 377  
AUBREY, TX 76227
- BOUDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009



BEFORE YOU DIG CALL:  
1-800-245-4545



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**HRV Consultants, LLC.**  
18333 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175  
FIRM NO. 226655

**SITE GRADING AND DRAINAGE LAYOUT-S2**  
CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

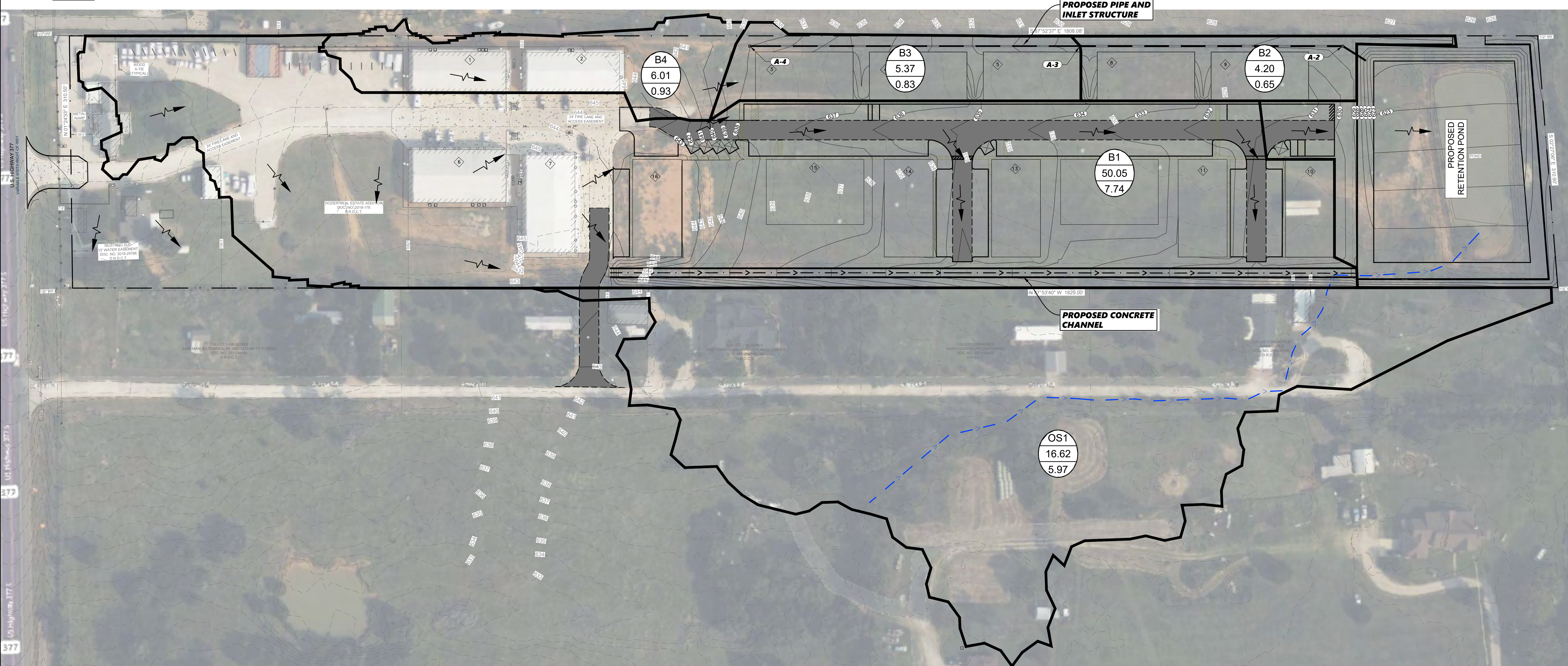
DATE: XX.XX.XX  
SCALE: 1"=30'  
JOB NO: 2301-449  
DRAWN BY: HD  
CHECKED BY: MHH

SHEET  
8



DRAINAGE CALCULATIONS									
SUBBASIN	OUTFALL	AREA (ACRES)	Tc (mins)	C (IMP)	C (PERV)	IMP. RATIO (%)	C (COMPOSITE)	I <sub>100</sub> (in/hr)	Q <sub>100</sub> (cfs)
OS-1	TO PROP. CHANNEL	5.97	20	0.95	0.30	13.4	0.4	6.96	16.62
PR-B1	TO PROP. CHANNEL	7.74	10	0.95	0.30	64.11%	0.7	9.24	50.05
PR-B2	TO INLET A-2	0.65	10	0.95	0.30	76.29%	0.7	9.24	4.20
PR-B3	TO INLET A-3	0.83	10	0.95	0.30	59.74%	0.7	9.24	5.37
PR-B4	TO INLET A-4	0.93	10	0.95	0.30	47.67%	0.7	9.24	6.01

NOTE: RATIONAL METHOD WAS UTILIZED TO SIZE PIPES AND CHANNELS WITHIN THE SITE.



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- NOTES:**
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4294 US 377  
AUBREY, TX 76227
  2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

**SURVEOR'S NOTES:**  
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BEFORE YOU DIG CALL:  
1-800-245-4545

  
TEXAS ONE CALL SYSTEM

**LEGEND**

- OS3 5.4 14.8
- PROPOSED AREA DESIGNATION
- RUNOFF IN C.F.S. (100 YR.)
- DRAINAGE AREA (ACRES)
- PROPOSED DRAINAGE AREA DIVIDE
- DIRECTION OF FLOW
- PROPOSED SWALES/CHANNEL
- EXISTING CONTOURS (1-FT INT.)
- EXISTING FLOW PATHS
- PROPERTY BOUNDARY

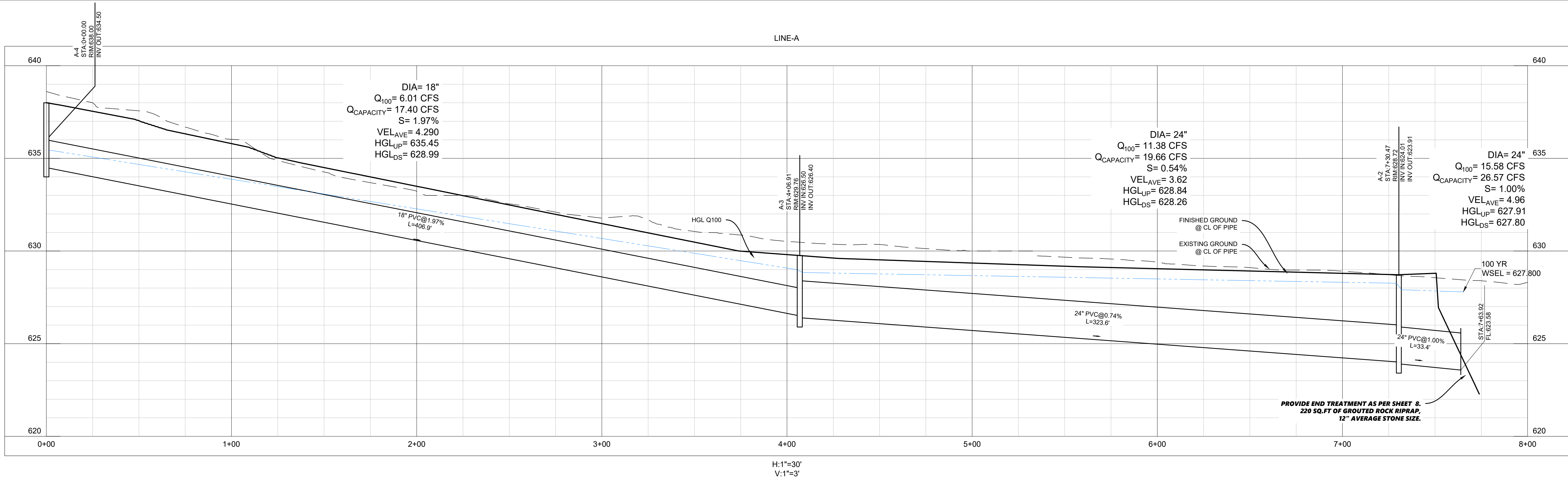
Scale 1" = 60'

DATE: XX.XX.XX	REVISION DESCRIPTION	BY	DATE
SCALE: 1"=60'			
JOB NO: 2301-449			
DRAWN BY: HD			
CHECKED BY: MHH			
SHEET 9			

**HRV Consultants, LLC.**  
18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175  
FIRM NO 22655

**PIPE AND CHANNEL CONTRIBUTING AREA MAP**  
CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093





PIPE FLOW CALCULATION TABLE

PIPE FLOW CALCULATION TABLE																					
Line	Line	Line	Line	Downstream								Upstream								Pipe	
ID	Size	Q	Full Cap.	InvertElev	Depth	Area	HGLElev	Vel	VelHead	EGLElev	Length	InvertElev	Depth	Area	HGLElev	Vel	VelHead	EGLElev	nValue	EnergyLoss	
	(in)	(cfs)	(cfs)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(sqft)	(ft)	(ft/s)	(ft)	(ft)		(ft)	
LINE A																					
A2 TO OUT_A	24	15.58	26.57	623.58	2	3.14	627.8	4.96	0.38	628.18	33.4	623.91	2	3.14	627.91	4.96	0.38	628.3	0.011	0.114	
A3 TO A2	24	11.38	22.97	624.01	2	3.14	628.26	3.62	0.2	628.46	323.56	626.4	2	3.14	628.84	3.62	0.2	629.05	0.011	0.587	
A4 TO A3	18	6.01	17.42	626.5	1.5	1.77	628.99	3.4	0.18	629.17	406.91	634.52	0.94	1.16	635.45	5.18	0.42	635.87	0.011	6.704	

NOTE: CALCULATIONS ARE DONE USING STORMWATER STUDIO STORMWATER MODELLING SOFTWARE

INLET CALCULATION TABLE

Inlet	Inlet	Grate	Q				Depth	Efficiency
Id	Type	Size	Catchment	Carryover	Captured	Bypassed	Inlet	
		(ftxft)	(cfs)	(cfs)	(cfs)	(cfs)	(ft)	(%)
LINE A								
A2	Grate Inlet on Grade (TYP)	3x3	4.2	3.37	7.57	0	0.5	----
A3	Grate Inlet on Grade (TYP)	3x3	5.37	2.36	4.36	3.37	0.27	56
A4	Grate Inlet in Sag (TYP)	3x3	6.01	0	3.65	2.36	0.25	61

NOTE: CALCULATIONS ARE DONE USING STORMWATER STUDIO STORMWATER MODELLING SOFTWARE

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HRV Consultants, LLC.

18332 FM 1778  
NEWPORT NEWS, TEXAS 75773  
972.877.4175

FIRM NO 22655

PIPE PROFILE AND CALCULATIONS

CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: XX.XX.XX  
SCALE: 1"=30'  
JOB NO: 2301-449  
DRAWN BY: HD  
CHECKED BY: MHH

SHEET  
10

**NOTE:**  
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- NOTES:**
1. PROPERTY ADDRESS:  
4294 US 377  
AUBREY, TX 76227
  2. BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S. ELM ST., SUITE 200  
DENTON, TX 76201  
940-222-3009

**SURVEOR'S NOTES:**

**BENCHMARK:**

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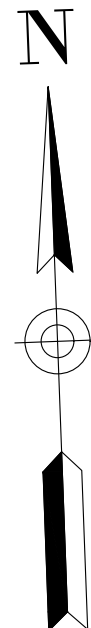
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**BEFORE YOU DIG CALL:  
1-800-245-4545**



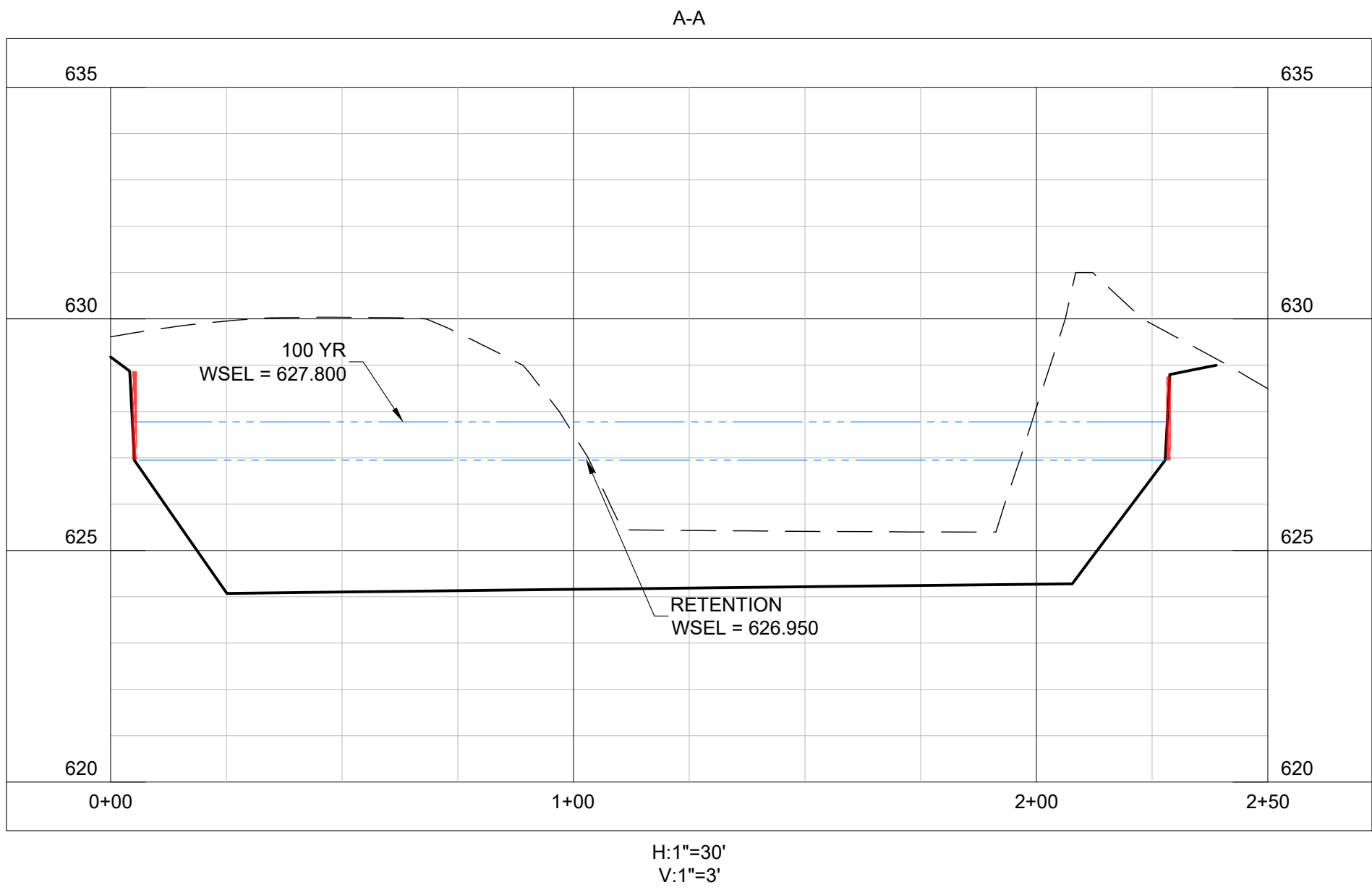
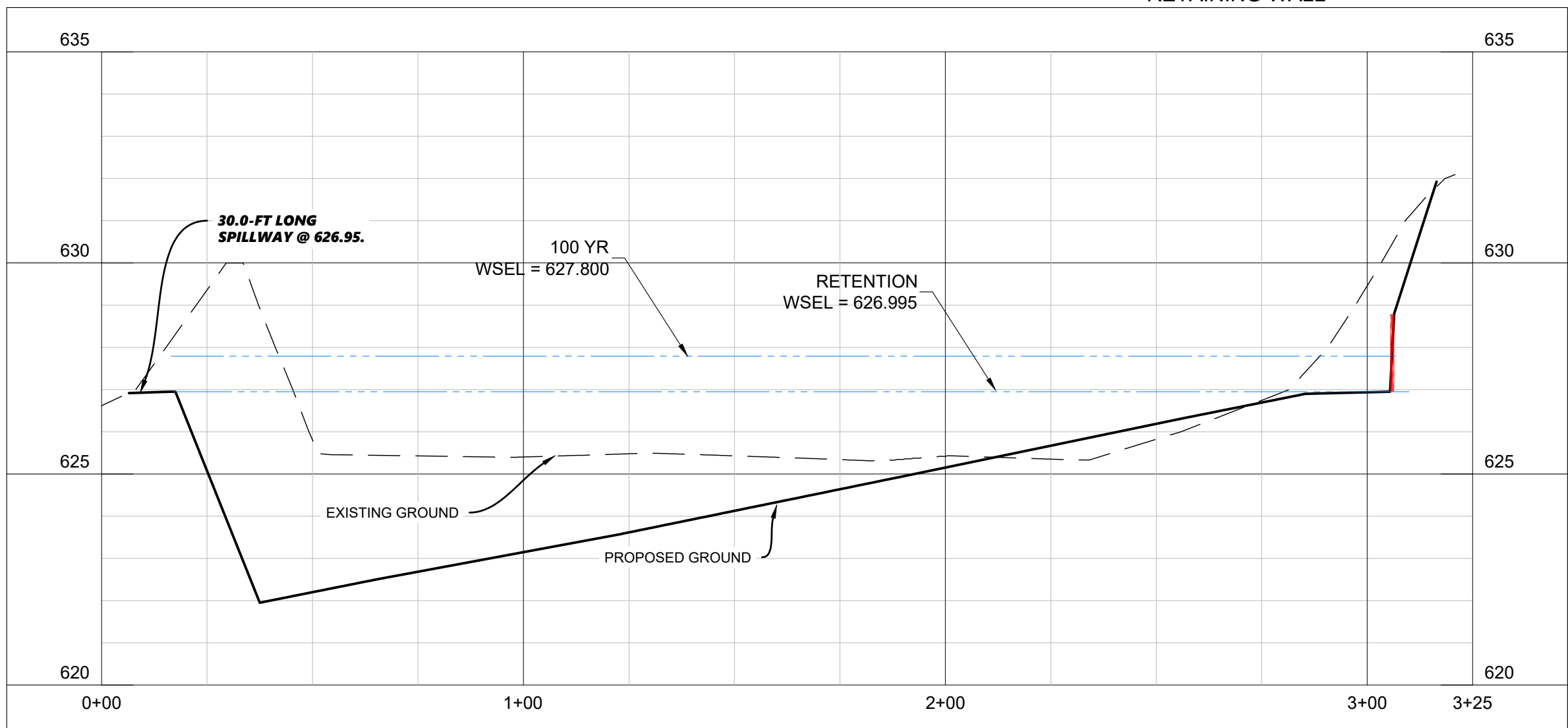
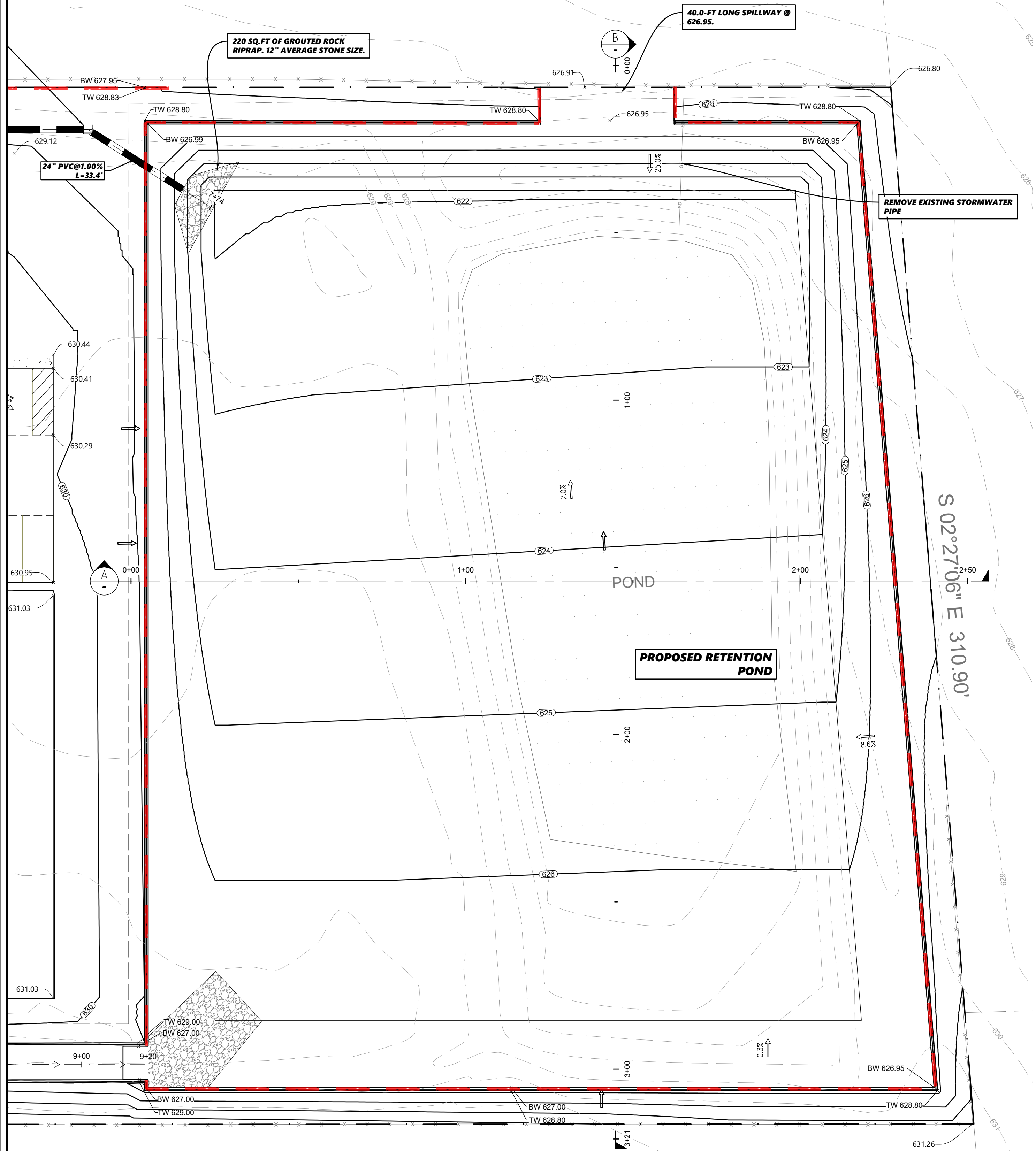
**TEXAS ONE CALL SYSTEM**



Scale 1" = 20'

**LEGEND**

- 461 — EXISTING CONTOURS (1-FT INT.)
- 498 — PROPOSED CONTOURS (1-FT INT.)
- < - < - PROPOSED SWALE/CHANNEL
- 717.32 SPOT LEVEL
- LP 717.32 LOW POINT
- HP 717.22 HIGH POINT
- TW 717.32 TOP OF WALL
- BW 717.22 BOTTOM OF WALL
- RETAINING WALL



Detention Analysis Summary - Pond				
Storm	Analysis Point		Peak Flow Leaving Pond (cfs)	Peak Elevation (m.s.l.)
	Peak Pre-Dev Flows(cfs)	Peak Post-Dev Flows(cfs)		
2-YR	24.11	37.62	19.94	627.3
5-YR	45.32	62.64	37.00	627.4
10-YR	56.90	75.90	46.72	627.5
25-YR	81.00	103.33	67.65	627.6
50-YR	97.76	122.00	82.35	627.7
100-YR	123.25	150.56	105.24	627.8

Analysis Point				
Storm	Existing Flows		Proposed Flows	
2-YR	24.11	CFS	19.94	CFS
5-YR	45.32	CFS	37.00	CFS
10-YR	56.90	CFS	46.72	CFS
25-YR	81.00	CFS	67.65	CFS
50-YR	97.76	CFS	82.35	CFS
100-YR	123.25	CFS	105.24	CFS

NOTE: ALL PROPOSED FLOWS LEAVING THE PROPERTY ARE LESS THAN OR EQUAL TO EXISTING CONDITION FLOWS

POND STAGE STORAGE			
STAGE (FT)	AREA (SQ.FT)	STORAGE (CU.FT)	STORAGE (AC.FT)
626.95	64,300.00	0.00	0
627	64,300.00	3,214.00	0.0738
628	64,300.00	112,525.00	2.5832
629	64,300.00	118,900.00	2.7296

**NOTE: THE PROPOSED POND WAS SIZED USING HEC-HMS AND NRCS UNIT HYDROGRAPH METHOD WAS UTILIZED. REFER TO POND CALCULATION SHEET FOR HMS OUTPUTS**

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**HRV Consultants, LLC.**  
18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175  
FIRM NO 22655

**PROPOSED POND DETAILS**  
CROSS ROADS COMMERCIAL  
DENTON COUNTY, TX  
SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE: XX.XX.XX  
SCALE: 1"=20'  
JOB NO: 2301-449  
DRAWN BY: HD  
CHECKED BY: MHH

SHEET  
11

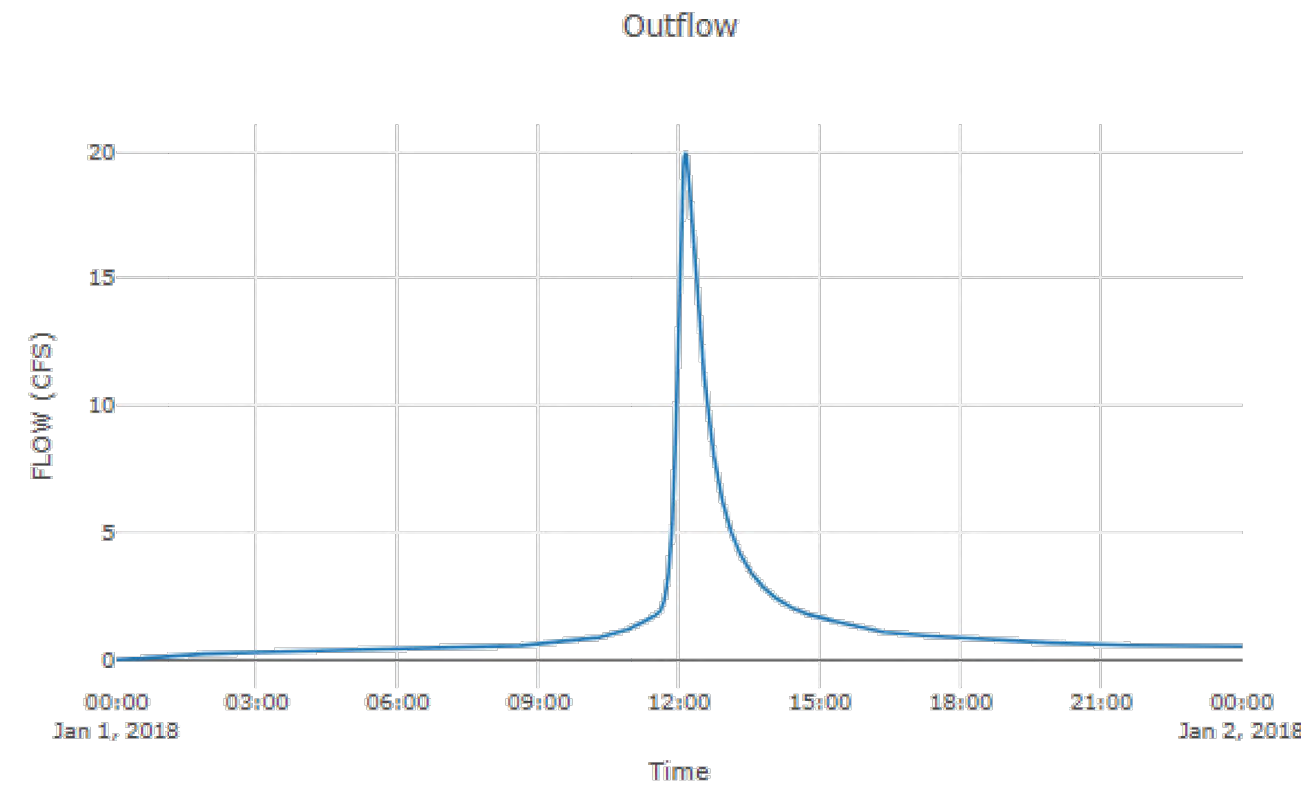


**Project:** Cross Roads  
**Simulation Run:** 002-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	19.94
Time of Peak Discharge	01Jan2018, 12:08
Volume (IN)	1.81
Peak Inflow (CFS)	37.62
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	2.75
Maximum Storage (AC - FT)	0.63
Peak Elevation (FT)	627.23
Discharge Volume (AC - FT)	2.72

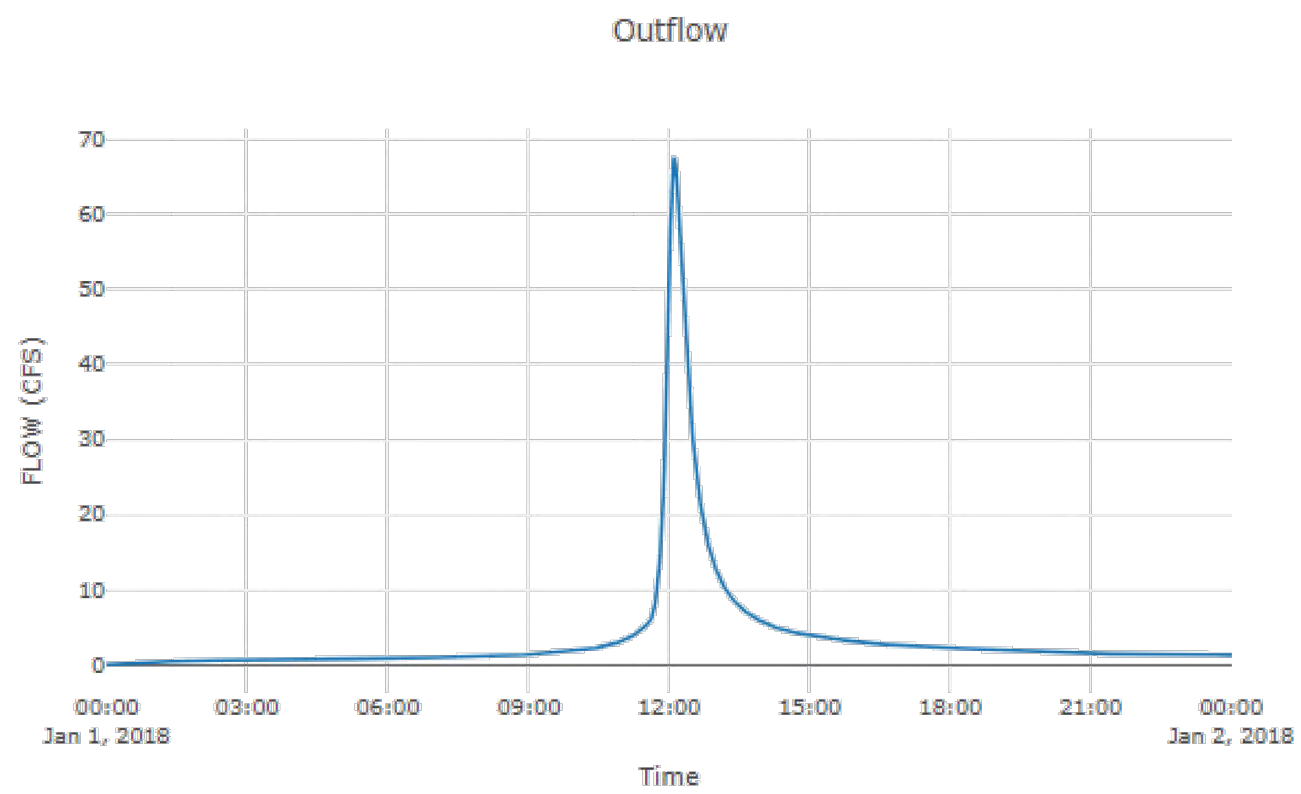


**Project:** Cross Roads  
**Simulation Run:** 025-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	67.65
Time of Peak Discharge	01Jan2018, 12:07
Volume (IN)	4.78
Peak Inflow (CFS)	103.54
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	7.23
Maximum Storage (AC - FT)	1.5
Peak Elevation (FT)	627.59
Discharge Volume (AC - FT)	7.17

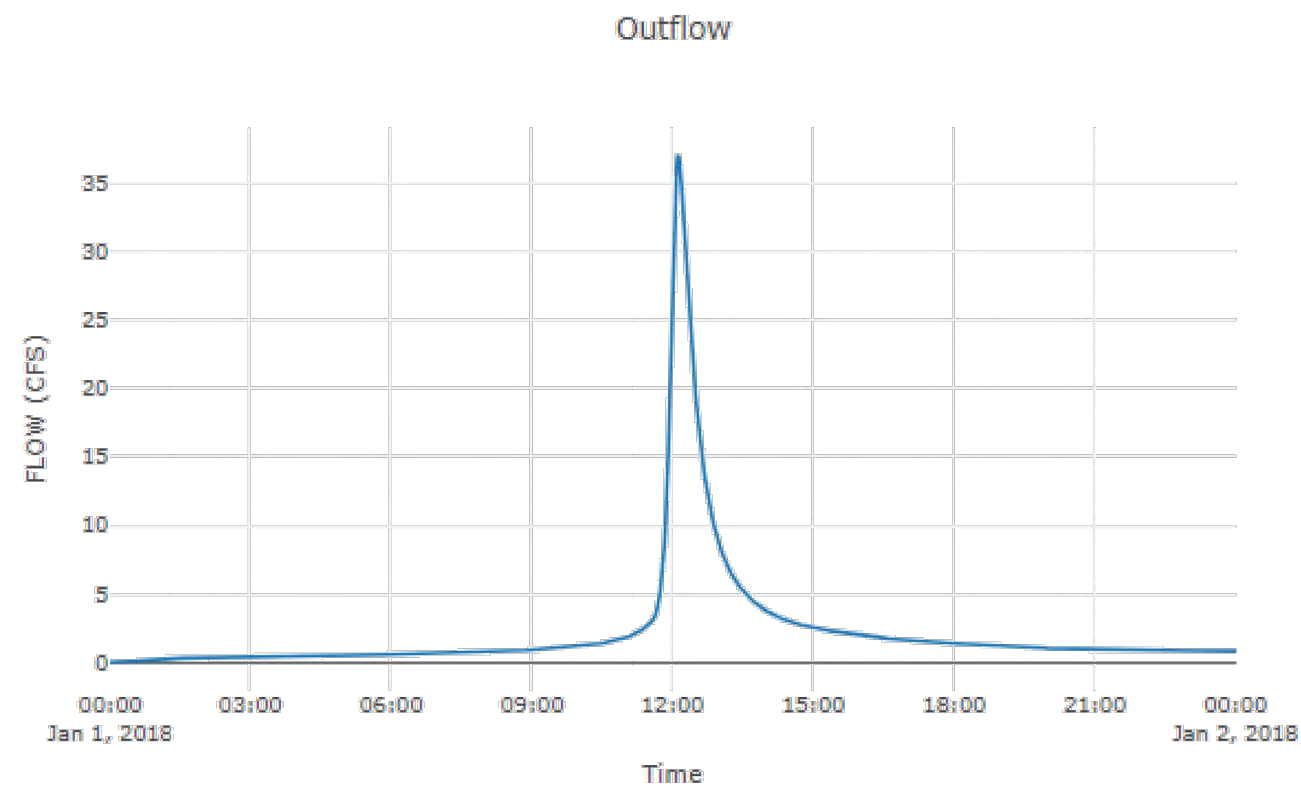


**Project:** Cross Roads  
**Simulation Run:** 005-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	37.08
Time of Peak Discharge	01Jan2018, 12:08
Volume (IN)	2.94
Peak Inflow (CFS)	62.64
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	4.45
Maximum Storage (AC - FT)	0.98
Peak Elevation (FT)	627.38
Discharge Volume (AC - FT)	4.4

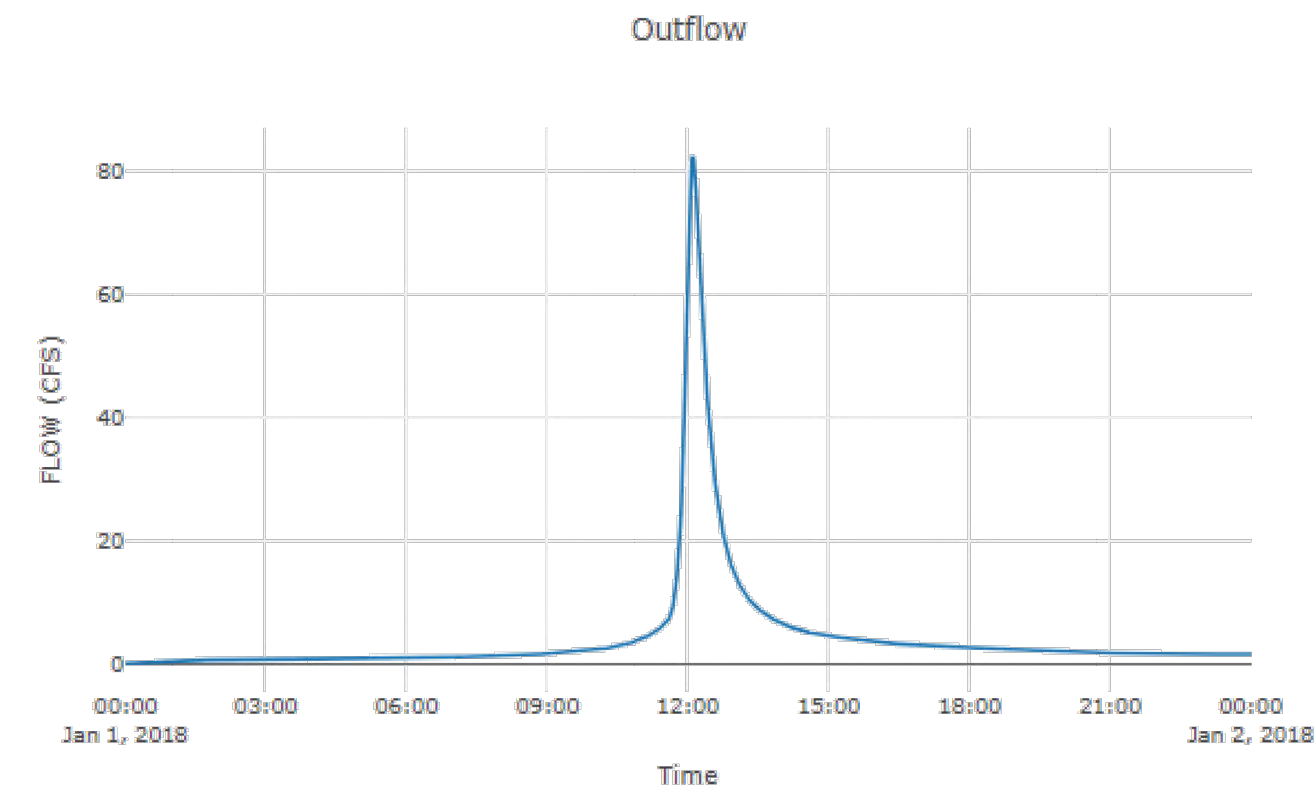


**Project:** Cross Roads  
**Simulation Run:** 050-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	82.35
Time of Peak Discharge	01Jan2018, 12:07
Volume (IN)	5.64
Peak Inflow (CFS)	122.07
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	8.52
Maximum Storage (AC - FT)	1.71
Peak Elevation (FT)	627.68
Discharge Volume (AC - FT)	8.45

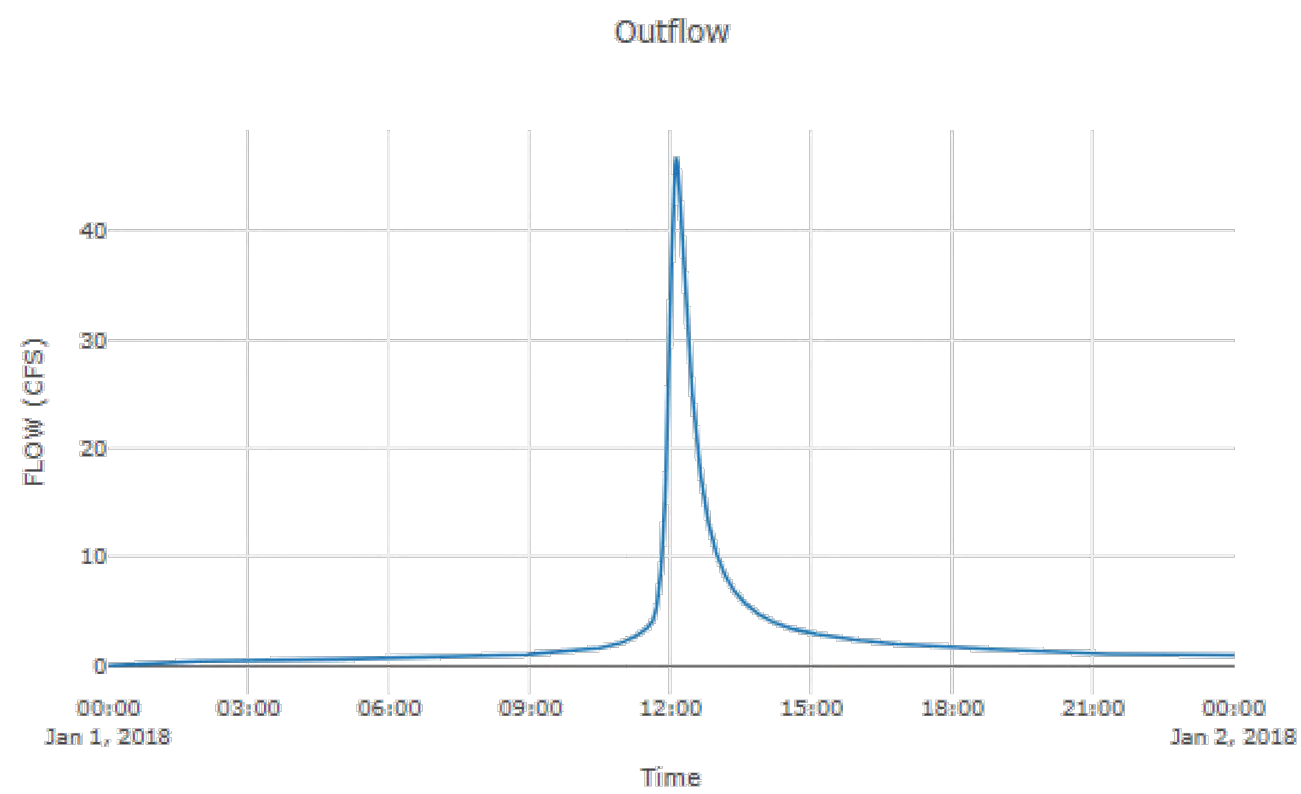


**Project:** Cross Roads  
**Simulation Run:** 010-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	46.73
Time of Peak Discharge	01Jan2018, 12:07
Volume (IN)	3.54
Peak Inflow (CFS)	75.9
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	5.35
Maximum Storage (AC - FT)	1.16
Peak Elevation (FT)	627.45
Discharge Volume (AC - FT)	5.3

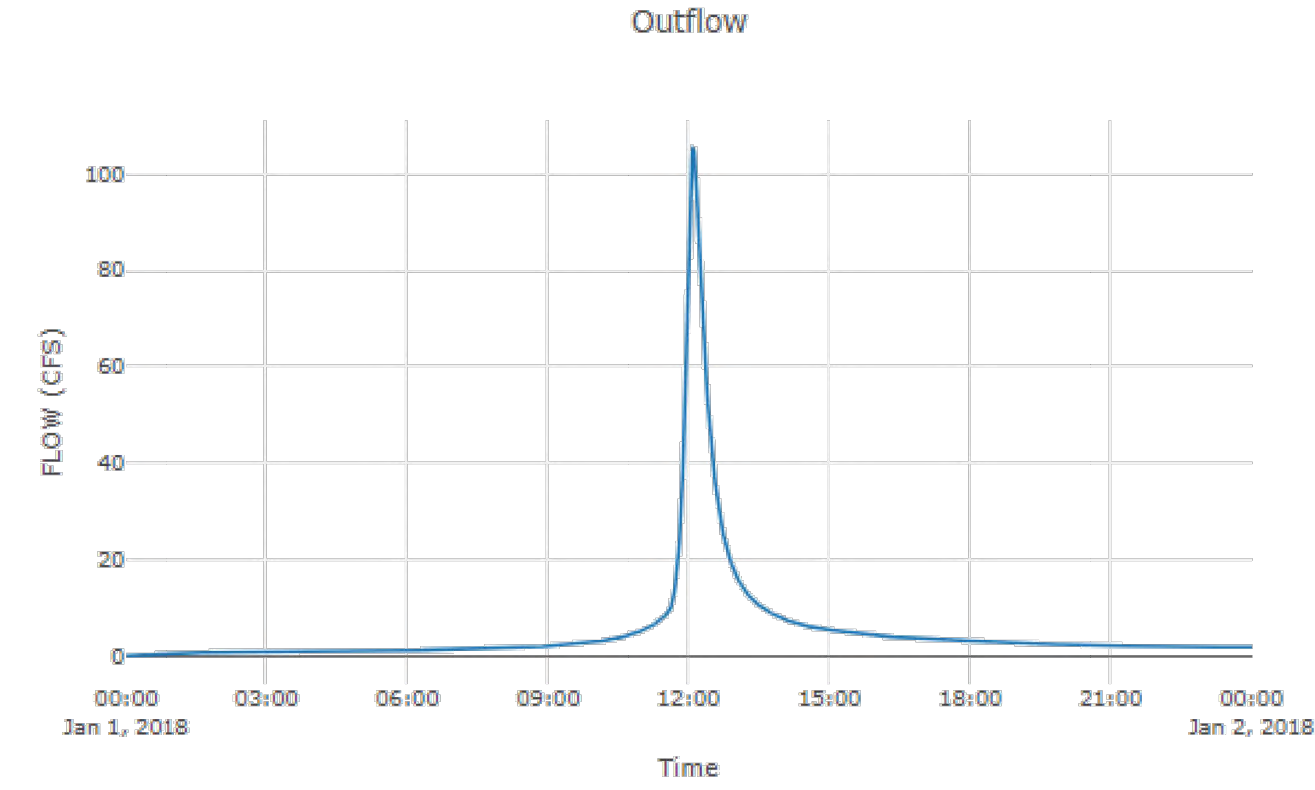


**Project:** Cross Roads  
**Simulation Run:** 100-YR SCS  
**Simulation Start:** 31 December 2017, 24:00  
**Simulation End:** 2 January 2018, 00:01

**HMS Version:** 4.11  
**Executed:** 28 March 2024, 22:18

**Reservoir: POND**

Results: POND	
Peak Discharge (CFS)	105.24
Time of Peak Discharge	01Jan2018, 12:06
Volume (IN)	6.95
Peak Inflow (CFS)	150.57
Time of Peak Inflow	01Jan2018, 12:00
Inflow Volume (AC - FT)	10.5
Maximum Storage (AC - FT)	2.03
Peak Elevation (FT)	627.8
Discharge Volume (AC - FT)	10.41



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HRV Consultants, LLC.

18332 FM 1778  
NEWPORT NEWS, TEXAS 75773  
972.877.4175

FIRM NO 22655

PROPOSED POND CALCULATIONS

CROSS ROADS COMMERCIAL

DENTON COUNTY, TX

SBM REAL ESTATE SERVICES

709 WEST RUSK ST

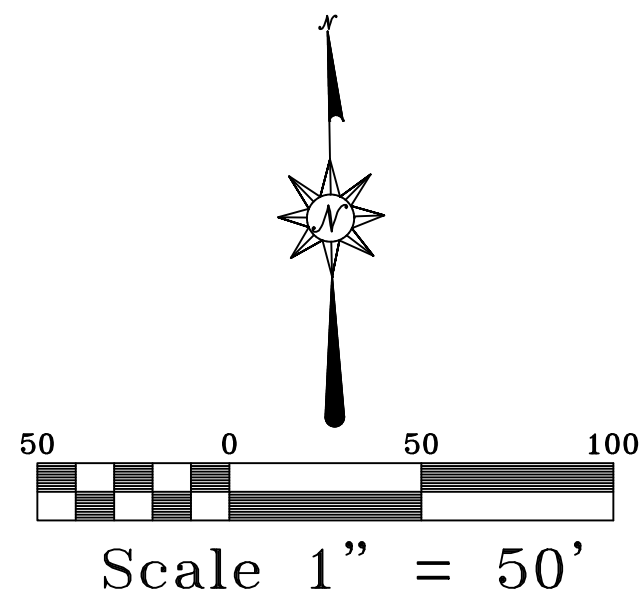
ROCKWALL, TX 75087

214-557-9093

DATE: XX.XX.XX  
SCALE: NTS  
JOB NO: 2301-449  
DRAWN BY: HD  
CHECKED BY: MHH

SHEET  
12





BEFORE YOU DIG CALL:  
1-800-245-4545



TEXAS ONE CALL SYSTEM

NOTE:  
CONTRACTOR TO VERIFY HORIZONTAL & VERTICAL  
LOCATION OF ALL EXISTING UTILITIES PRIOR  
TO BEGINNING ANY CONSTRUCTION/EXCAVATION  
AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES  
EXISTING UTILITIES SHOWN ON THESE PLANS  
ARE BASED ON COMBINATION OF FIELD SURVEY  
& CITY RECORD DRAWINGS

NOTES:

- 1 PROPERTY ADDRESS:  
4294 US 377  
AUBREY, TX 76227
- 2 BOUNDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

\*\*\* NOTE \*\*\*  
WATER PROVIDED BY  
MUSTANG SUD

FIRE LINE TO BE SIZED  
BY OTHERS  
SIZE SHOWN ON THESE PLANS  
TO BE VERIFIED AND ADJUSTED  
AS NECESSARY

SANITARY SEWER SHALL  
BE BY SEPTIC SYSTEM  
DESIGN BY OTHERS

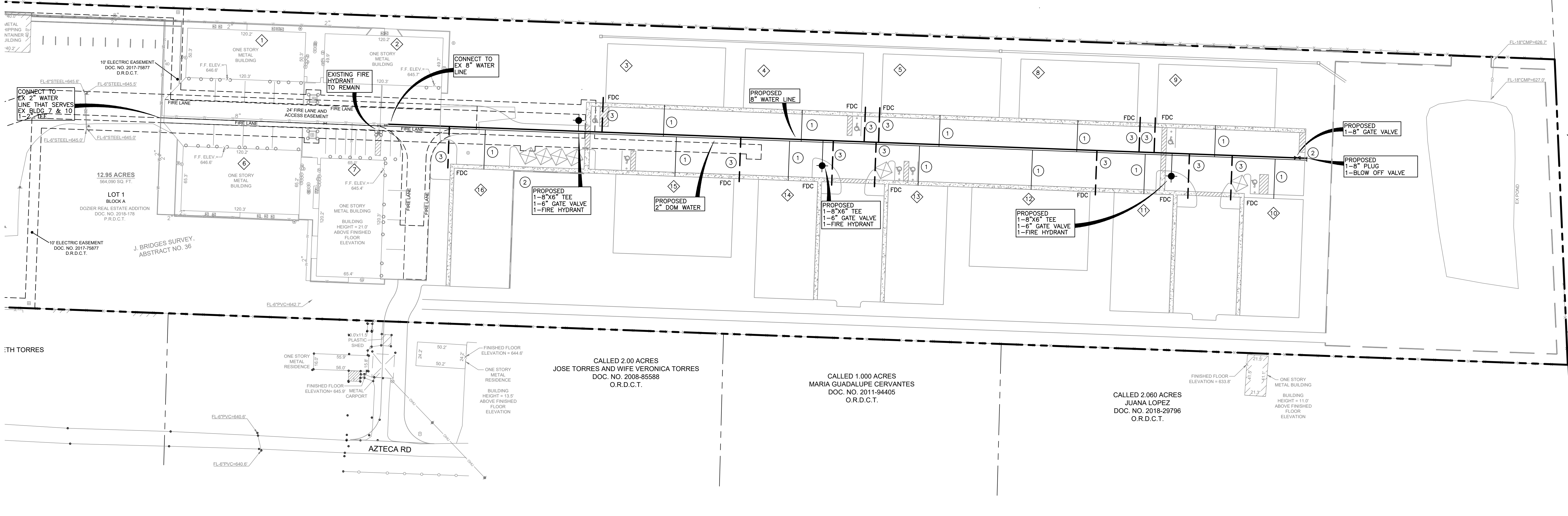
KEY NOTES:

- ① 1" SERVICE TO BLDG  
1-2"x1" TEE
- ② 1-2" PLUG
- ③ 1-8"x4" TEE  
1-4" GATE VALVE  
1-4" FIRE LINE

EX LEGEND

- Temporary Benchmark
- Water Valve
- Fire Hydrant
- Water Meter
- Water Vault
- Water Utility Mark
- Telecommunications Riser
- Electric Box
- Electric Meter
- Electric Transformer
- Guy Wire
- Power Pole
- Metal Post
- Cable Riser
- Air Conditioning Unit
- Sanitary Clean Out
- Septic Lid
- Bollard
- Mail Box
- Sign

CALLED 8.126 ACRES  
JKM MANAGEMENT, LLC.  
DOC. NO. 2021-220707  
O.R.D.C.T.



CALLED 2.00 ACRES  
JOSE TORRES AND WIFE VERONICA TORRES  
DOC. NO. 2009-85588  
O.R.D.C.T.

CALLED 1.000 ACRES  
MARIA GUADALUPE CERVANTES  
DOC. NO. 2011-94405  
O.R.D.C.T.

CALLED 2.060 ACRES  
JUANA LOPEZ  
DOC. NO. 2018-29796  
O.R.D.C.T.

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HRV Consultants, LLC.

18332 FM 1778  
NEWPORT, TEXAS 75773  
972.877.4175

FIRM NO 22655

WATER PLAN  
CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ETJ, DENTON COUNTY, TX

SBM REAL ESTATE SERVICES  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

SURVEOR'S NOTES:

BENCHMARK:

ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK.  
NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

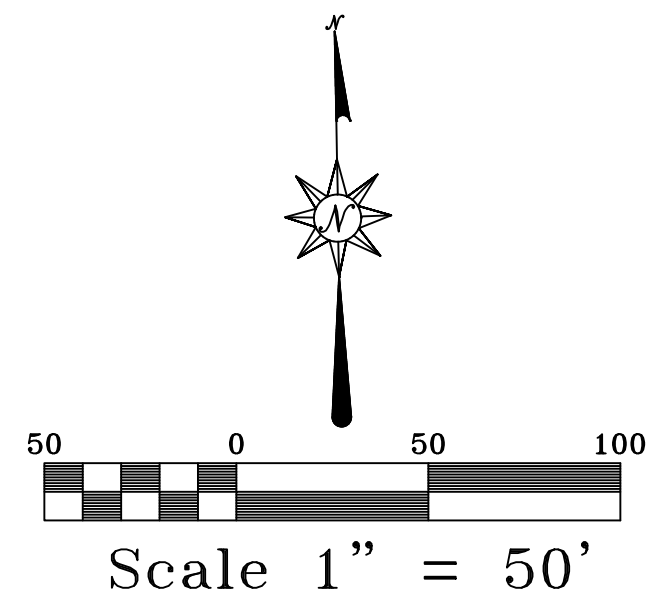
FLOOD ZONE NOTE:

THIS PROPERTY IS LOCATED IN NON-SHADED ZONE "X" AS SCALED FROM THE FEMA FIRM DATED  
APRIL 18, 2011 AND IS LOCATED IN COMMUNITY NUMBER 480774 AS SHOWN ON MAP NUMBER  
48121C02650. THE LOCATION OF THE FLOOD ZONE IS APPROXIMATE. FOR ADDITIONAL INFORMATION  
REGARDING FLOOD ZONE DESIGNATION, PLEASE CONTACT 1-877-FEMA MAP.

DATE: 04.03.24  
SCALE: 1"=50'  
JOB NO: 2301-449  
DRAWN BY: FP  
CHECKED BY: MHH

SHEET  
13





BEFORE YOU DIG CALL:  
1-800-245-4545



TEXAS ONE CALL SYSTEM

NOTE:  
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& CITY RECORD DRAWINGS

NOTES:

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4294 US 377  
AUBREY, TX 76227
- 2 BOUDARY/TOPO SURVEY PROVIDED BY:  
EAGLE SURVEYING, LLC  
222 S ELM ST, SUITE 200  
DENTON, TX 76201  
940-222-3009

### MAINTENANCE SCHEDULE

SILT FENCE

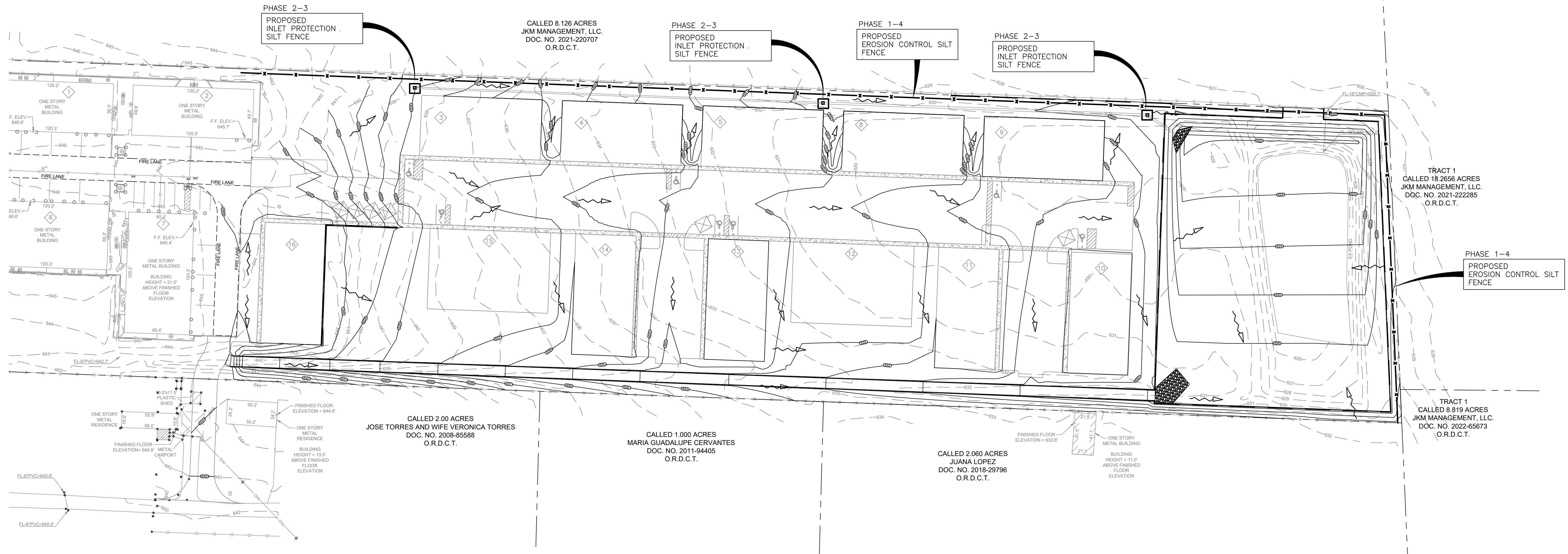
SILT FENCE SHOULD BE INSPECTED WEEKLY AND AFTER MAJOR RAIN EVENTS TO ENSURE THAT THE DEVICE IS FUNCTIONING PROPERLY. REMOVE SEDIMENT FROM BEHIND FENCE WHEN THE DEPTH OF SEDIMENT HAS BUILT UP TO ONE-THIRD THE HEIGHT OF THE FENCE ABOVE GRADE. INSPECT THE BASE OF THE FENCE TO ENSURE THAT IT HAS NOT BECOME DEVELOPED AND RE-TRENCH AS NECESSARY. INSPECT FENCE POSTS TO ENSURE THAT THEY ARE PROPERLY SUPPORTING THE FENCE. STRAIGHTEN, RESET AND ADD POSTS IF NECESSARY. IF FILTER FABRIC IS RIPPED, DAMAGED OR DETERIORATED, REPLACE IT IN ACCORDANCE WITH THE ORIGINAL SPECIFICATIONS AND DETAILS.

## CONSTRUCTION SEQUENCE

- PHASE 1 - GRADING  
PHASE 2 - UTILITY INSTALLATION  
PHASE 3 - PAVING  
PHASE 4 - LANDSCAPE/SOIL STABILIZATION

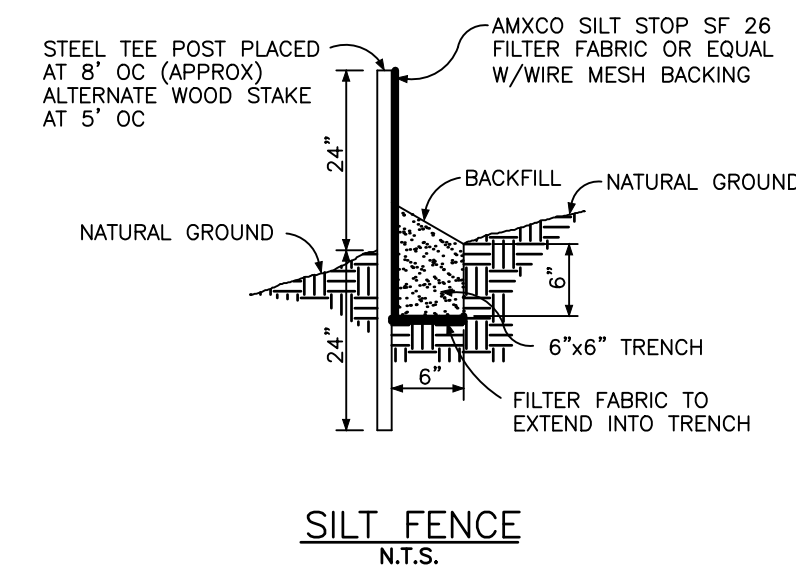
DISTRUBED AREA:

8.4 Ac±



EROSION CONTROL NOTES

- |    |  |     |   |
|----|--|-----|---|
| 1. | SOIL EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE CURRENT CITY/COUNTY REQUIREMENTS.   | 6.  | CONTRACTOR TO CONSTRUCT A PIT OR WASH BASIN FOR "WASH OUT" OF CONCRETE TRUCKS. CONTRACTOR TO CONSTRUCT AN ENCLOSURE TO STORE ALL TRASH AND WASTE MATERIALS UNTIL PROPER DISPOSAL AT OFF-SITE FACILITY.  |
| 2. | SEDIMENT TRAPS, SILT FENCE, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT ON-SITE MUST BE CONSTRUCTED AND FUNCTIONAL BEFORE ANY GRADING OR LAND DISTURBANCE TAKES PLACE.  | 7.  | CONTRACTOR TO SUPPLY SILT PROTECTION FOR ANY TEMPORARY FUEL STORAGE TANK ON SITE DURING CONSTRUCTION.   |
| 3. | PERMANENT OR TEMPORARY SOIL STABILIZATION MUST BE APPLIED TO DENUDED AREAS WITHIN FIFTEEN (15) DAYS AFTER FINAL GRADE IS ESTABLISHED ON ANY PORTION OF THE PROJECT. SOIL STABILIZATION MUST ALSO BE APPLIED WITHIN FIFTEEN (15) DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN SIXTY (60) DAYS. INCLUDES APPLICATION OF WATER OR MATERIALS ON AREAS TO BE PAVED.  | 8.  | EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBING ACTIVITIES ON THE PROJECT.  |
| 4. | THE CITY/COUNTY & APPROPRIATE STATE AGENCIES SHALL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHOD USED AND THE OVERALL EFFECTIVENESS OF THE EROSION CONTROL PROGRAM. IF AN EROSION AND SEDIMENT ON-SITE INSPECTION INDICATES THAT THE APPROVED CONTROL MEASURES ARE NOT EFFECTIVE IN CONTROLLING EROSION AND SEDIMENTATION OR IF BECAUSE OF CHANGED CIRCUMSTANCES, THE APPROVED PLAN CAN NOT BE CARRIED OUT, ADDITIONAL MEASURES MAY BE REQUIRED TO BE INSTALLED. | 9.  | ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY ENGINEERING DEPT.  |
| 5. | ALL EROSION CONTROL DEVICES SHALL BE INSPECTED DAILY BY THE SITE FOREMAN. ANY STRUCTURES THAT ARE DAMAGED OR INOPERATIVE WILL BE IMMEDIATELY REPAIRED OR REPLACED.   | 10. | IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED. OR FOR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.   |
|    |  | 11. | IF OFF-SITE SOIL BORROW OR SPOIL SITES ARE USED IN CONJUNCTION WITH THIS PROJECT, THIS INFORMATION SHALL BE DISCLOSED AND SHOWN ON THE EROSION CONTROL PLAN. OFF-SITE BORROW AND SPOIL AREAS ARE CONSIDERED A PART OF THE PROJECT SITE AND THEREFORE SHALL COMPLY WITH CITY REQUIREMENTS. |



**SURVEOR'S NOTES:**

**BENCHMARK:**

ELEVATIONS ARE BASED ON GPS OBSERVATIONS UTILIZING THE ALLTERRA RTK NETWORK.  
NORTH AMERICAN DATUM OF 1983 (ADJUSTMENT REALIZATION 2011).

FLOOD ZONE NOTE:

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18332 FM 1778

NEVADA, TEXAS 75173  
972.877.4175  
FIRM NO 22655

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CROSS ROADS COMMERCIAL  
TOWN OF CROSS ROADS ETJ, DENTON COUNTY,

**SBM REAL ESTATE SERVICES**  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

1000000

DATE:	04.03.24
SCALE:	1"=50'
DRAWING NO:	2301-449
DRAWN BY:	FP
CHECKED BY:	MHH

EET  
4



MSUD GENERAL NOTES

1. All construction shall be in accordance with the standard specifications of Mustang Special Utility District, which has also adopted the latest edition of the "Standard Specifications For Public Works Construction - North Central Texas" herein referred to as "NCTCOG" specifications. Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76011.
2. Where specified name brands are indicated, products of equal or better may be considered for approval upon submittal of all supporting data to the MSUD Engineer for review.
3. The contractor shall provide for temporary 3" Cold Mix Asphaltic Concrete as per NCTCOG Item 302.3 to be placed over all vehicular traveled areas until the final repairs/improvements are made.
4. All newly installed pipes and fittings must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
5. The existence and locations of all underground utilities shown on the drawings were obtained from available records and are approximate. Neither the owner nor the engineer assumes any responsibility for utilities not shown or not in the location shown. The contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans.
6. Any contractor/subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from operations. Said existing improvements shall include but not be limited to berms, ditches, fences, plants, irrigation. Any removal or damage to existing improvements shall be replaced or repaired by the contractor at his expense and shall be approved by the engineer.
7. Contractor shall shore all trenches and conduct all construction and operations in accordance with Occupation Safety and Health Administration (OSHA) requirements.
8. All construction and materials shall comply with Mustang SUD specifications. Any construction and/or materials not covered in Mustang SUD specifications shall be in accordance with NCTCOG specifications or the AWWA.
9. It shall be the contractor's responsibility to provide adequate record drawings to the engineer/Mustang SUD immediately after construction.
10. It shall be contractor's responsibilities to verify location, elevation and dimensions of adjacent and/or conflicting utilities in advance of construction in order that adjustments can be made to provide adequate clearance, if required. The contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from the contractor's operation shall be restored at his expense. The engineer shall be notified when proposed facility's grades conflict with existing utility's grades.
11. All materials for water and wastewater shall be domestic. Any exceptions made will be at Mustang's or the Engineer's discretion.

MSUD WATER NOTES:

GENERAL:

1. All water lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 290.
2. All water lines shall be designed, manufactured, and installed in accordance with current Mustang SUD water standards details.
3. All pipes and appurtenances shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by ANSI.
4. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
5. Contractor to provide a curve in waterline to avoid storm drain inlets at all locations.
6. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. shall not be installed in the same trench as water service lines. Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.

PIPE:

7. All PVC water pipe shall be BLUE in color for potable and PURPLE in color for non-potable.
8. All PVC pipe shall be installed with metallic detector tape.
9. Water mains up to and including 12" diameter shall be AWWA C900-16 DR18 (Pressure Class 235). Mustang SUD reserves the right to require AWWA C900-16 DR14 (Pressure Class 305) for higher pressure applications as determined by Mustang SUD's Engineer. Water mains greater than 12" diameter may be AWWA C900-16 DR18 (Pressure Class 235) OR one of the following:
  - 9.1. Reinforced Concrete Cylinder Pipe (RCCP) C303 pressure class 150 or greater as specified by the Engineer.
  - 9.2. Ductile Iron pipe with Polywrap and cement mortar lining (AWWA C104), thickness class 51 or greater.
10. Embedment: For Pipe sizes 12" and smaller, the Embedment shall be as per the MSUD "Pipe Embedment Detail".
11. Cover
  - 11.1. The following minimum covers over the waterline is required:
    - 11.1.1. 48" of cover over waterlines up to and including 12" diameter.
    - 11.1.2. 60" to 72" of cover over waterlines larger than 12" in diameter.
  - 11.2. Water mains buried with over 72" of cover shall be approved by the MSUD Engineer.
  - 11.3. The minimum cover over all Water mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the MSUD "Cap Detail".
12. Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
13. The Contractor is responsible to install the pipe in a way that the writing on the pipe is installed on the side up and is readable from the top of the ditch.
17. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
18. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
19. The pipe shall have beveled or chamfered ends according to manufacturer recommendations when using in MJ fittings.
20. When PVC water pipe is installed in casing, casing spacers must be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the Bells. Plastic spacers such as RACI or approved equal shall be used.
21. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

FITTINGS:

22. The Contractor shall use cast iron or ductile iron fittings, complete with Polywrap.
23. All fittings shall be MJ unless specified otherwise.
24. All fittings shall be blocked per the MSUD Water Standard Details.
25. Tapping sleeves shall be ductile iron and manufactured by Mueller, Tyler Union or approved equal.
26. Please also refer to NCTCOG Item 502.5.2 specifications.
27. The use of 90° bends in water mains is prohibited without approval of MSUD Engineer. Two 45° bends are allowed.
28. Install 12"x12"x3" concrete block under fittings installed on PVC pipe.
29. Restrained joints such as Mega-Lug or equal are required at all fittings.
30. All ductile iron fittings and restraints shall manufactured domestically.

VALVES:

31. Valves installed on waterlines 12" in diameter or less shall be vertical gate valves.
32. Valves installed on waterlines larger than 12" in diameter shall be butterfly valves. An offset vault shall be installed at the butterfly valve operator.
33. All gate valves shall have non-rising stems and resilient sealed wedge.
34. All potable-water pipe air release valve stabilization poles shall be painted blue in color.
35. All valves and fire hydrants shall be in line with the property line, where possible.
36. All valve locations shall be marked with "V" stamped or cut on the curb.
37. Install 12"x12"x3" concrete block under valves installed on PVC pipe.
38. Contractor to provide extensions for all valve stacks and fire hydrant leads/risers for all water lines deeper than 48" depth.

TESTING:

39. Hydrostatic test as per NCTCOG Item 506.5 specifications shall be performed
40. Water system shall be disinfected in accordance with American Water Works Association (AWWA) C651 (current edition) and then flushed and sampled before being placed in service. Samples shall be collected in accordance with Mustang SUD testing requirements.
41. All temporary test points to have corporation stops at the main. All temporary testing & chlorination points shall be removed at the corporation stop prior to final acceptance.
42. The Contractor shall take a sample of water from a tap on a sterilized main in the presence of a MSUD Representative and submit the sample(s) to an approved Testing Laboratory for analysis. After receiving approved sample, the Contractor, along with MSUD Representative, shall place sterilized lines into service.
43. All fire hydrants shall be flow and pressure tested and marked (tag and color coded paint) in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants", latest edition. Copies of each test report for each fire hydrant, including a map showing the location of the fire hydrant being flow tested and the location of the pressure hydrant, shall be provided to Mustang SUD prior to acceptance of the system and the beginning of service. See WATER STANDARD DETAILS (1 OF 2) for Fire Hydrant Flow Test Report form.

MSUD WASTEWATER NOTES:

GENERAL:

1. All wastewater lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 217.
2. All wastewater lines shall be designed, manufactured, and installed per Mustang SUD wastewater standard details.
3. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
4. Wastewater system shall be tested in accordance with TCEQ for allowable leakage and pipe deflection before being placed in service. Test results shall be provided to Mustang SUD.
5. All wastewater manholes, drop manholes, wet wells, and force-main-to-gravity transition manholes shall be lined with Quadex ultra-high build epoxy or approved equal.
6. All force main ductile iron pipe and fittings shall be lined with Protecto 401 (P401) ceramic epoxy or approved equal.
7. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.
8. All curvature shall be accomplished by the manual bending of the pipe lengths in the trench. Mechanical means will not be allowed to accomplish design radii. No deflection of joints will be allowed.
9. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
10. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
11. All gravity main fittings shall be rubber gasket push on type.

PIPE:

12. All PVC pipe shall be installed with metallic detector tape.
13. All PVC gravity or pressure wastewater pipe shall be green in color.
14. Wastewater mains shall be Polyvinyl Chloride PVC SDR-35 for depths of burial up to 11.5'. Wastewater mains placed deeper than 11.5' shall be PVC SDR-26 unless specified and approved otherwise by the MSUD Engineer.
15. For creek crossings, the pipe shall be Ductile Iron Class 52.
16. Nominal diameter for sanitary sewer pipeline shall be 8" minimum. Residential and commercial service lines are excluded from this requirement.
17. Embedment shall be as per the "Wastewater Pipe Embedment Detail" on this sheet.
18. The minimum cover over all Wastewater mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the "Cap Detail" on this sheet.
19. Clay cut-off walls shall be constructed as per the details and specifications on this sheet.
20. PVC wastewater pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and protected from other elements.
21. When PVC wastewater pipe is installed in casing, casing spacers shall be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the bells. Plastic spacers such as RACI or approved equal shall be used.
22. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

WASTEWATER SERVICE NOTES:

23. All property corners shall be staked with iron pins prior to the installation of any wastewater services. The locations of the wastewater service shall be staked according to the plans.
24. Wastewater services to be marked with "W" stamped or cut in the curb and painted green.
25. Contractor shall install locator pads or balls on the end of sewer services.

TESTING:

- The following tests shall be performed and a written report provided to Mustang SUD:
26. Televising as per NCTCOG Item 507.5.2 specifications. Camera shall pan around to show service connections.
  27. Low pressure air testing as per TCEQ 31 TAC 217.57.
  28. Mandrel deflection test as per TCEQ 31 TAC 217.57.
  29. Infiltration/Exfiltration test as per TCEQ 31 TAC 217.57.
  30. Manholes shall be tested per TCEQ 31 TAC 217.58.
  31. Provide final air test and clean prior to project acceptance or final walk-through.

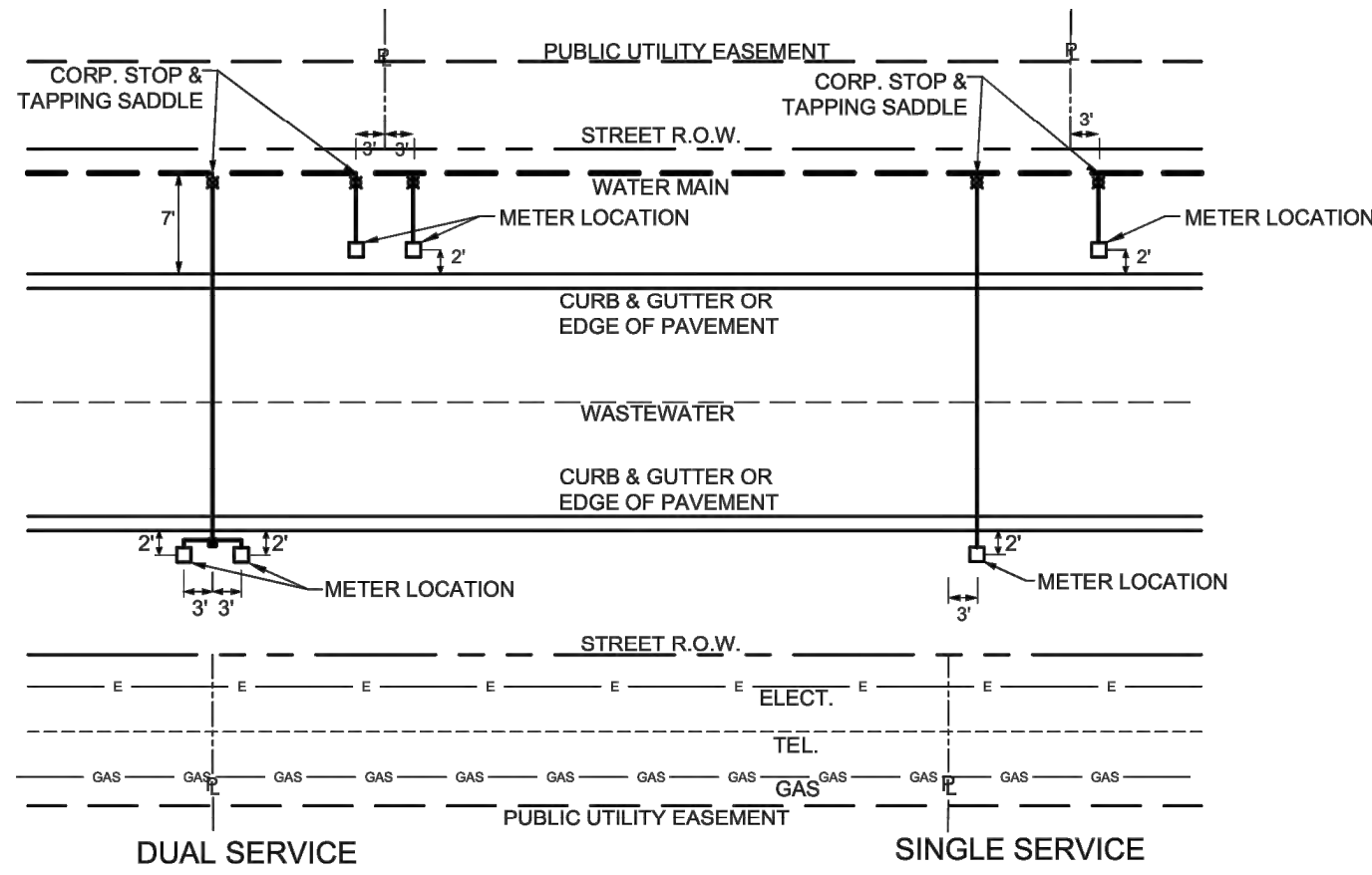
SYSTEM DESIGN VALUES:

WATER:

Average Day Demand = 288 GPD/Connection  
Maximum Day Demand = 0.6 gpm  
Peak Hour Demand = 1.032 gpm  
Single-family Residential = 3.2 people per unit  
Multi-family Residential = 2.25 people per unit

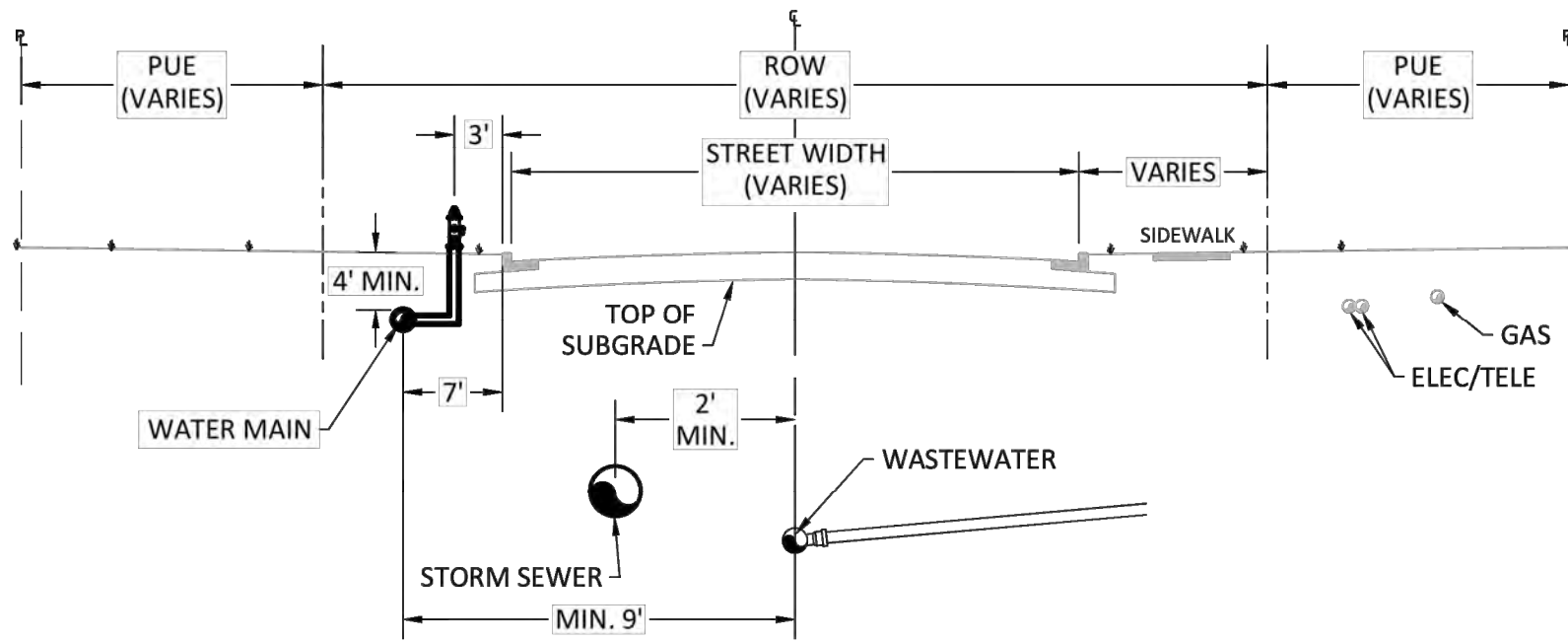
WASTEWATER:

SF Average Day Generation = 250 gpd/connection  
MF Average Day Generation = 175 gpd/connection  
SF Maximum Day Generation = 1000 gpd/connection  
MF Maximum Day Generation = 700 gpd/connection  
Single-family Residential = 3.2 people per unit  
Multi-family Residential = 2.25 people per unit



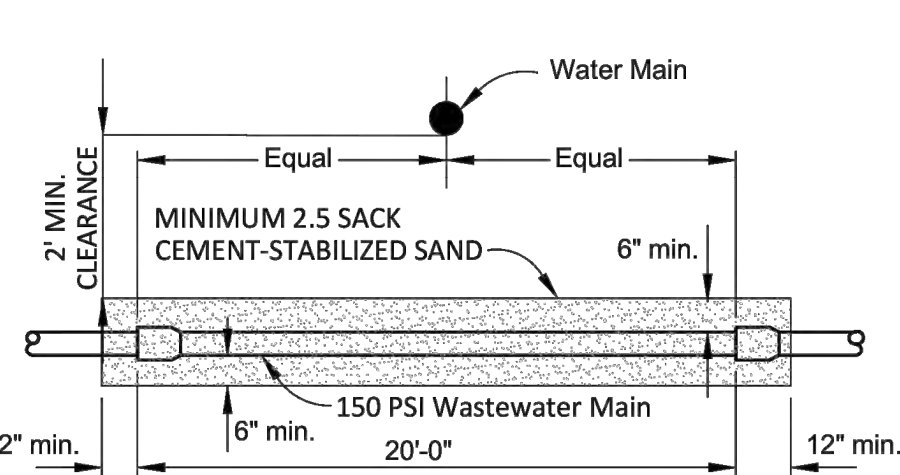
TYPICAL WATER LINE/SERVICE LOCATION LAYOUT DETAIL

N.T.S.



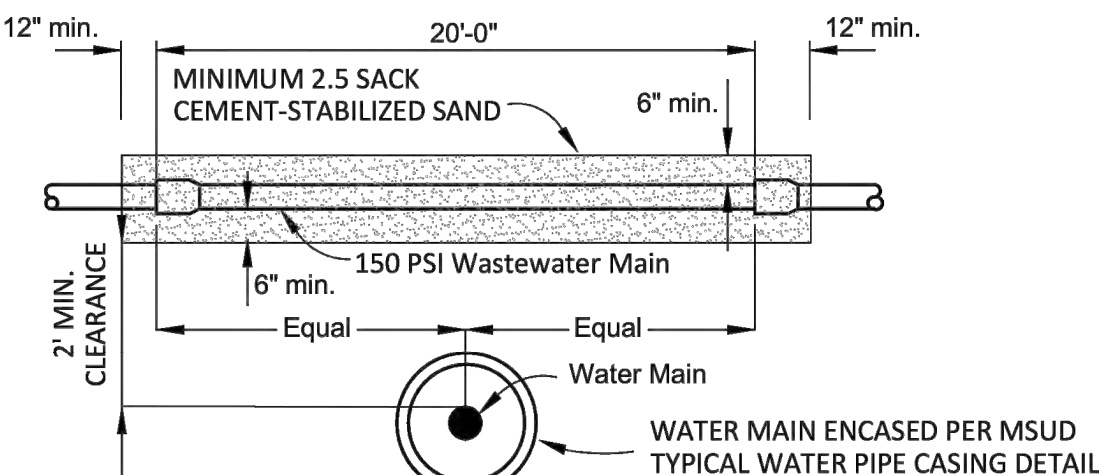
TYPICAL UTILITY PROFILE CURB & GUTTER ROAD SECTION

N.T.S.



WATER OVER WASTEWATER CROSSING

N.T.S.



WATER UNDER WASTEWATER CROSSING

N.T.S.

NOTES:

1. WHERE A WATER MAIN CROSSES A WASTEWATER MAIN OR LATERAL AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, A FULL JOINT (20') OF PRESSURE-RATED PVC PIPE (150 PSI MIN.) SHALL BE USED ON THE WASTEWATER MAIN OR LATERAL, CENTERED ABOUT THE WATER MAIN.
2. ADDITIONALLY, WHERE A WASTEWATER MAIN CROSSES OVER A WATER MAIN, AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE CENTERED ABOUT THE WASTEWATER MAIN.

NO.	REVISION	BY	DATE



MUSTANG SPECIAL  
UTILITY DISTRICT

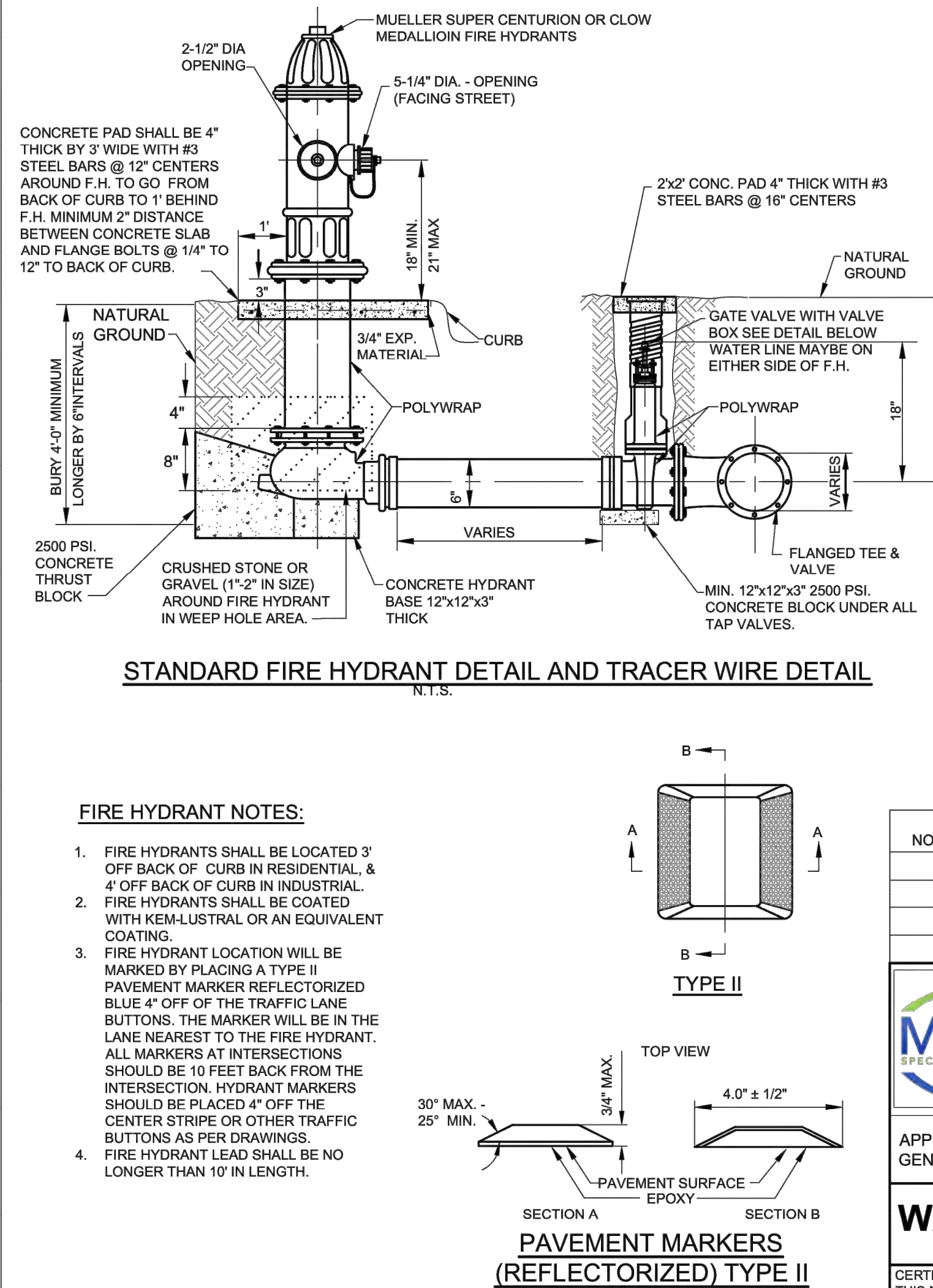
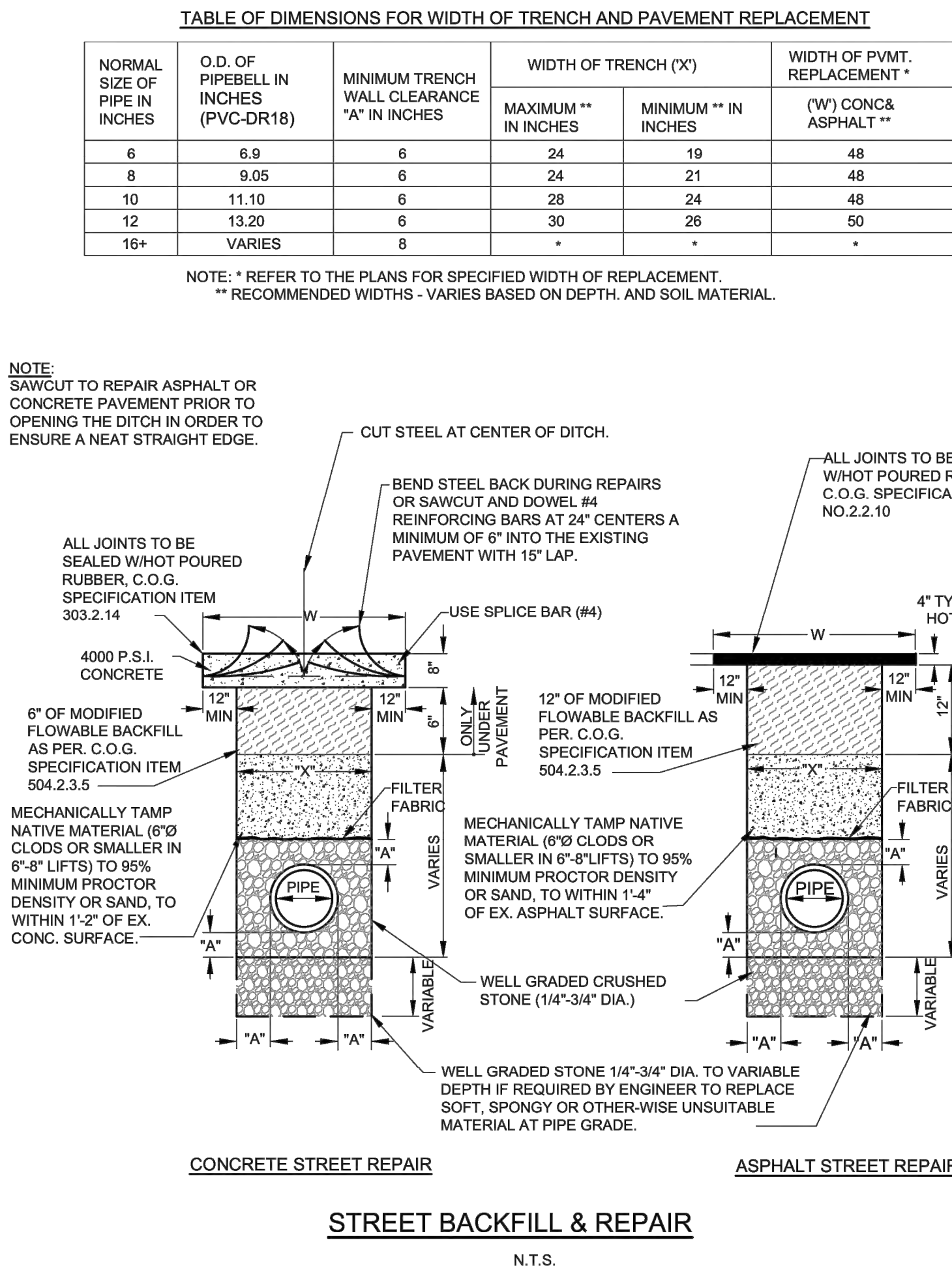
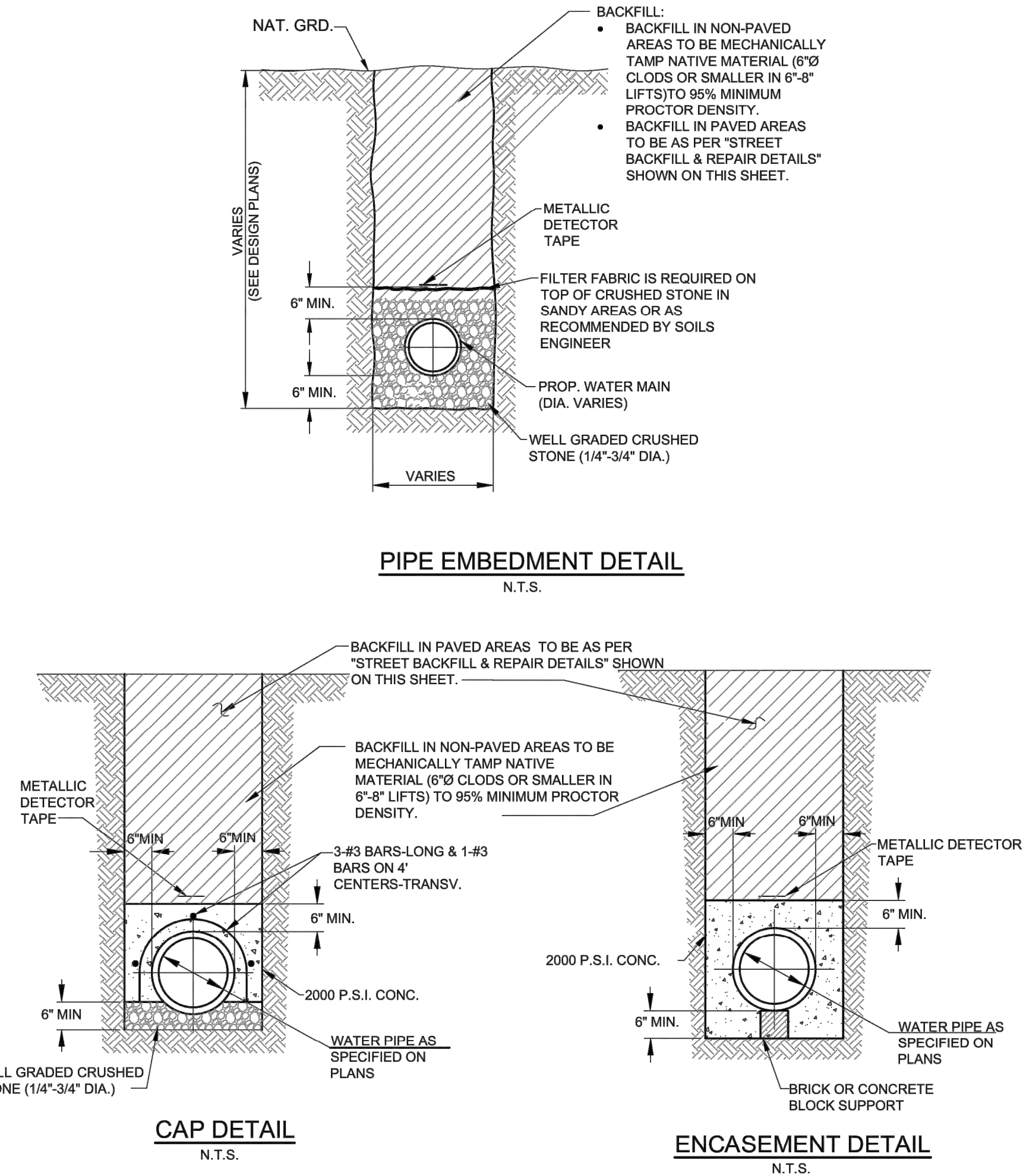
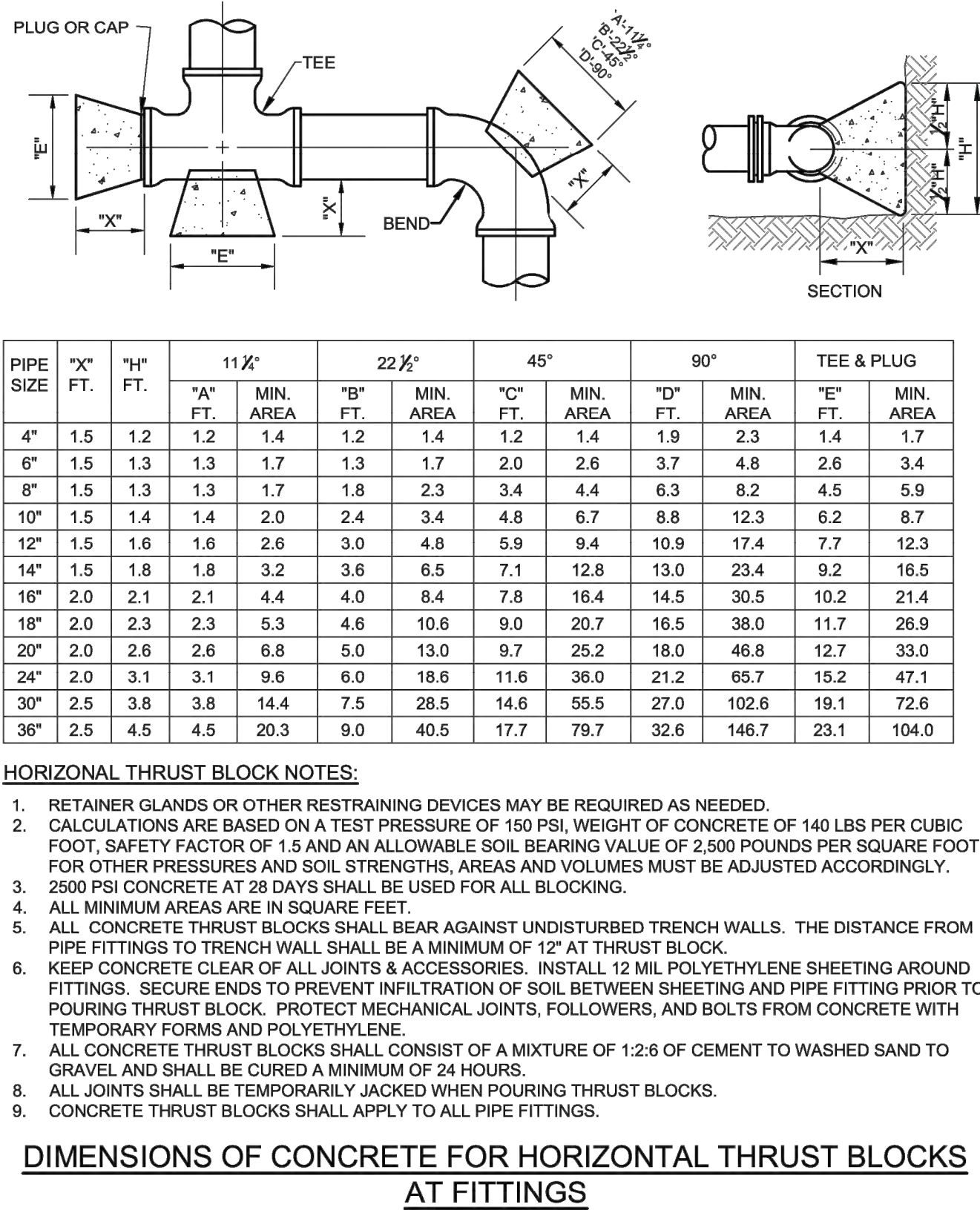
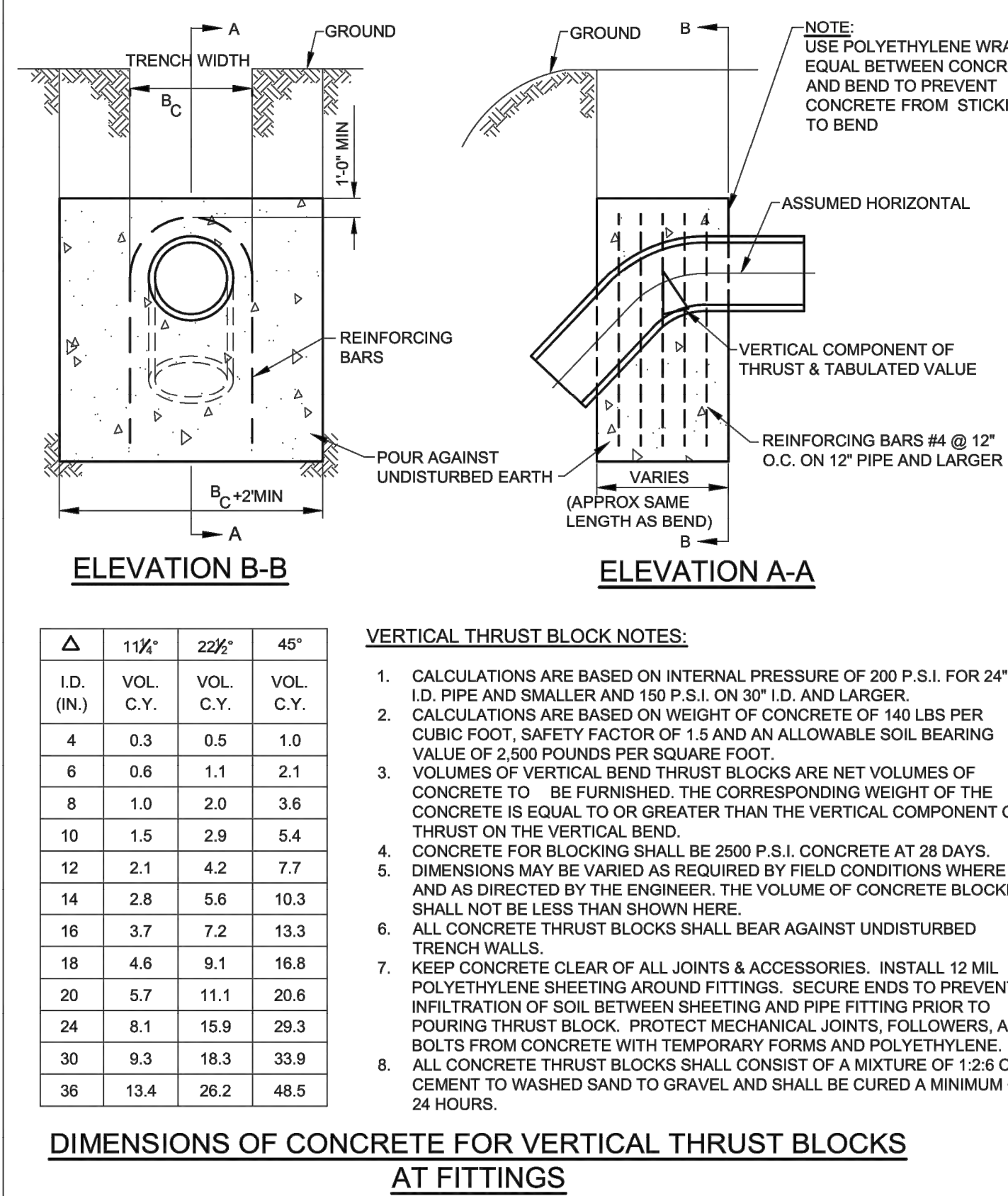
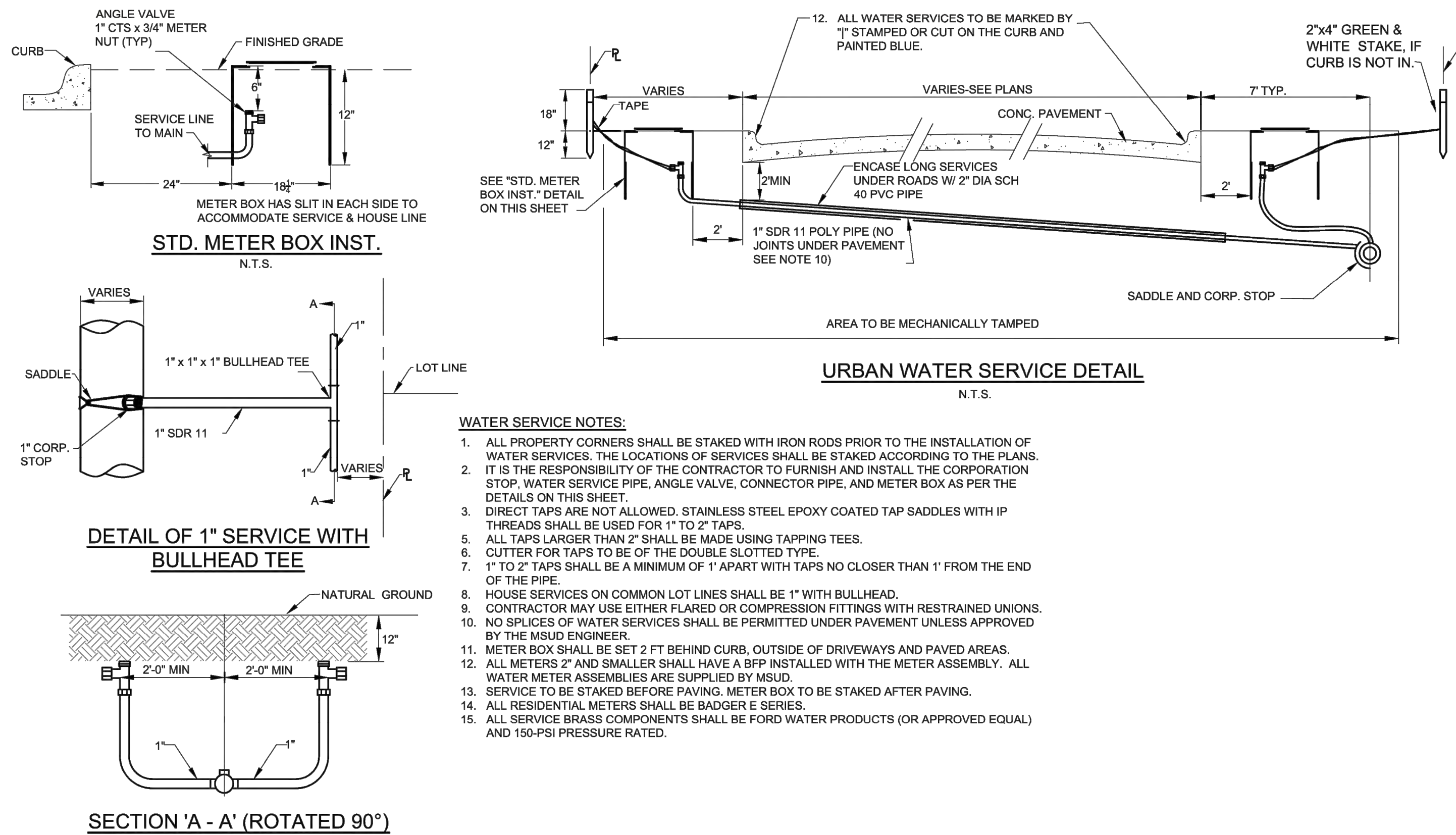
APPROVED BY MSUD  
GENERAL MANAGER: C. BOYD

DATE: 2020-09-14

GENERAL NOTES

CERTIFICATION:  
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.





**Sample Fire Hydrant Flow Test Report**  
**Fire Hydrant Flow Test Report (NFA 291)**

Location \_\_\_\_\_ Date \_\_\_\_\_

Test Performed By \_\_\_\_\_ Time \_\_\_\_\_ M.

Representative of \_\_\_\_\_

Mustang SUD Witness \_\_\_\_\_

Purpose of Test \_\_\_\_\_

If Pumps Affect Test, Indicate Pumps Operating \_\_\_\_\_

Fire Hydrant	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>
Nozzle Size				
Pitot Reading				
Elev. Difference from Test Hydrant (B)				
Discharge Coeff.				
Flow (gpm)				

Static B \_\_\_\_\_ psi Residual B \_\_\_\_\_ psi

Projected Results @ 20 psi Residual \_\_\_\_\_ gpm; or @ \_\_\_\_\_ psi Residual \_\_\_\_\_ gpm

Remarks \_\_\_\_\_

Location map: Show line sizes and distance to next distribution system intersection. Show valves and hydrant branch size. Indicate north. Show flowing hydrants - Label A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>. Show location of static and residual - Label B.

Indicate B Hydrant \_\_\_\_\_ Sprinkler \_\_\_\_\_ Other (Identify) \_\_\_\_\_

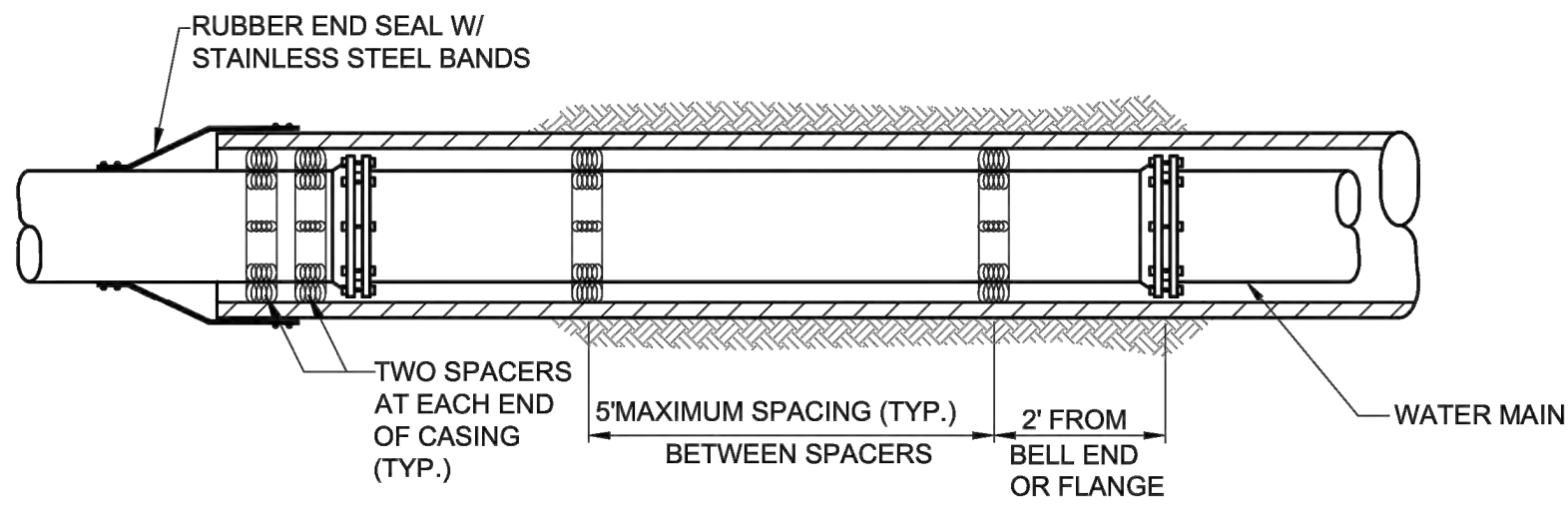
**MUSTANG SPECIAL UTILITY DISTRICT**

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

**WATER STANDARD DETAILS (1 OF 2)**

CERTIFICATION: THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

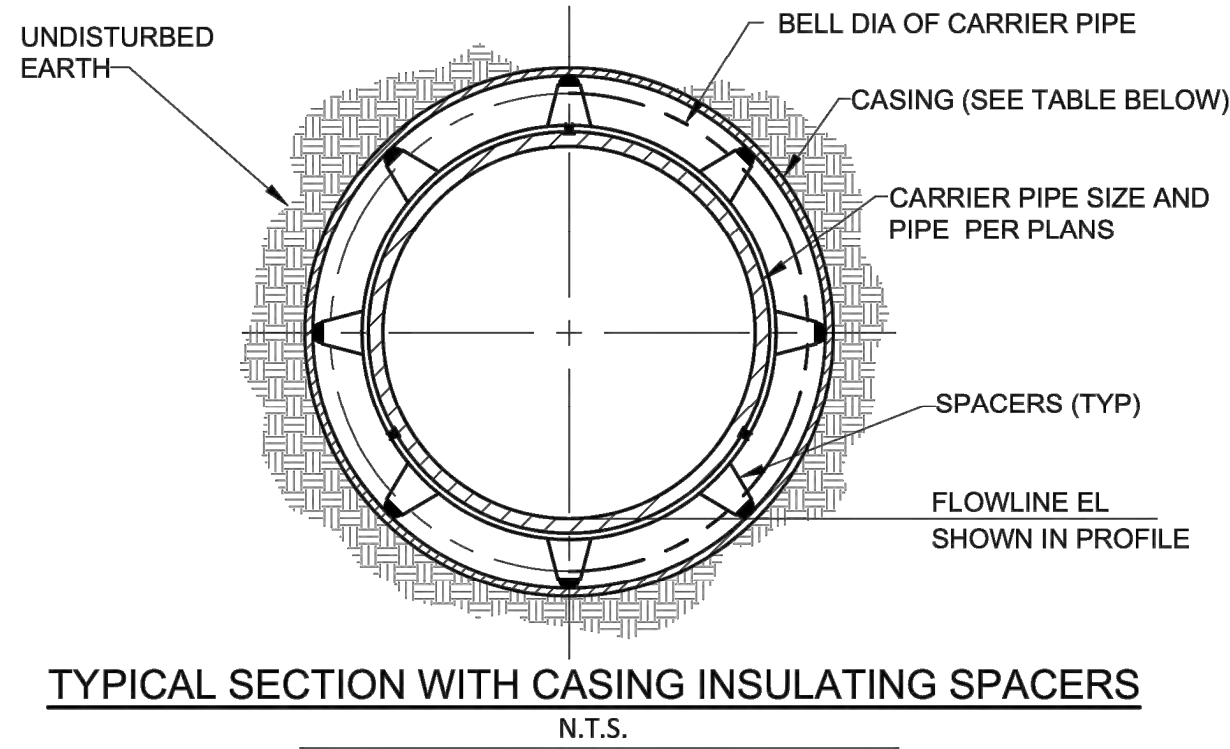




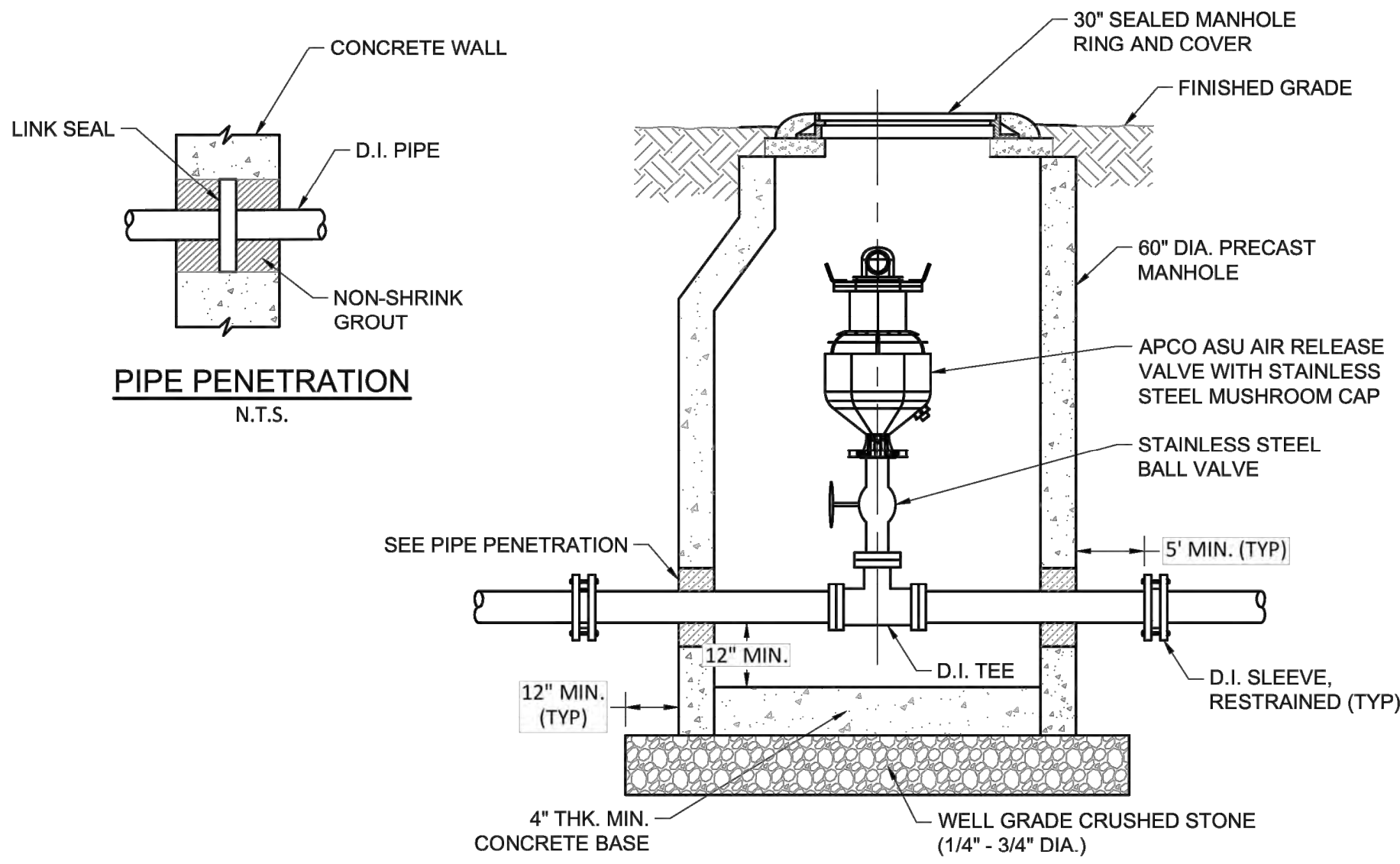
CASING NOTES:

1. CASING MATERIAL SHALL BE STEEL PER TxDOT REQUIREMENTS AT ALL TxDOT ROAD CROSSINGS.
2. CASING MATERIAL SHALL BE SDR-26/PS115 PVC AT ALL OTHER CROSSINGS UNLESS SPECIFICALLY REQUIRED BY MSUD ENGINEER.
3. CASING SIZE SHALL BE PER THE TABLE PROVIDED HEREON.
4. CASING SPACERS SHALL BE USED TO INSTALL CARRIER PIPE INSIDE THE ENCASMENT PIPE. TO PROVIDE SUPPORT AROUND THE PERIPHERY OF THE PIPE SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THE SPACERS SHALL BE OF A PROJECTION TYPE THAT HAS A MINIMUM NUMBER OF PROJECTIONS AROUND THE CIRCUMFERENCE TOTALING THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM NUMBER OF 18 PROJECTIONS.
5. CASING SPACERS SHALL HAVE A MAXIMUM SPACING SPAN OF 5 FEET. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG-TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACERS DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE FOR CLASS SPACER USED. SPACERS SHALL HAVE A MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON PLANS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS, TO FASTEN TIGHTLY ONTO THE CARRIER PIPE, SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
6. SPACERS SHALL BE RACI HIGH DENSITY POLYETHYLENE OR AS APPROVED BY MSUD ENGINEER.

TYPICAL WATER PIPE CASING DETAIL  
(AT ROADWAYS AND/OR STORM DRAIN CROSSINGS)  
N.T.S.

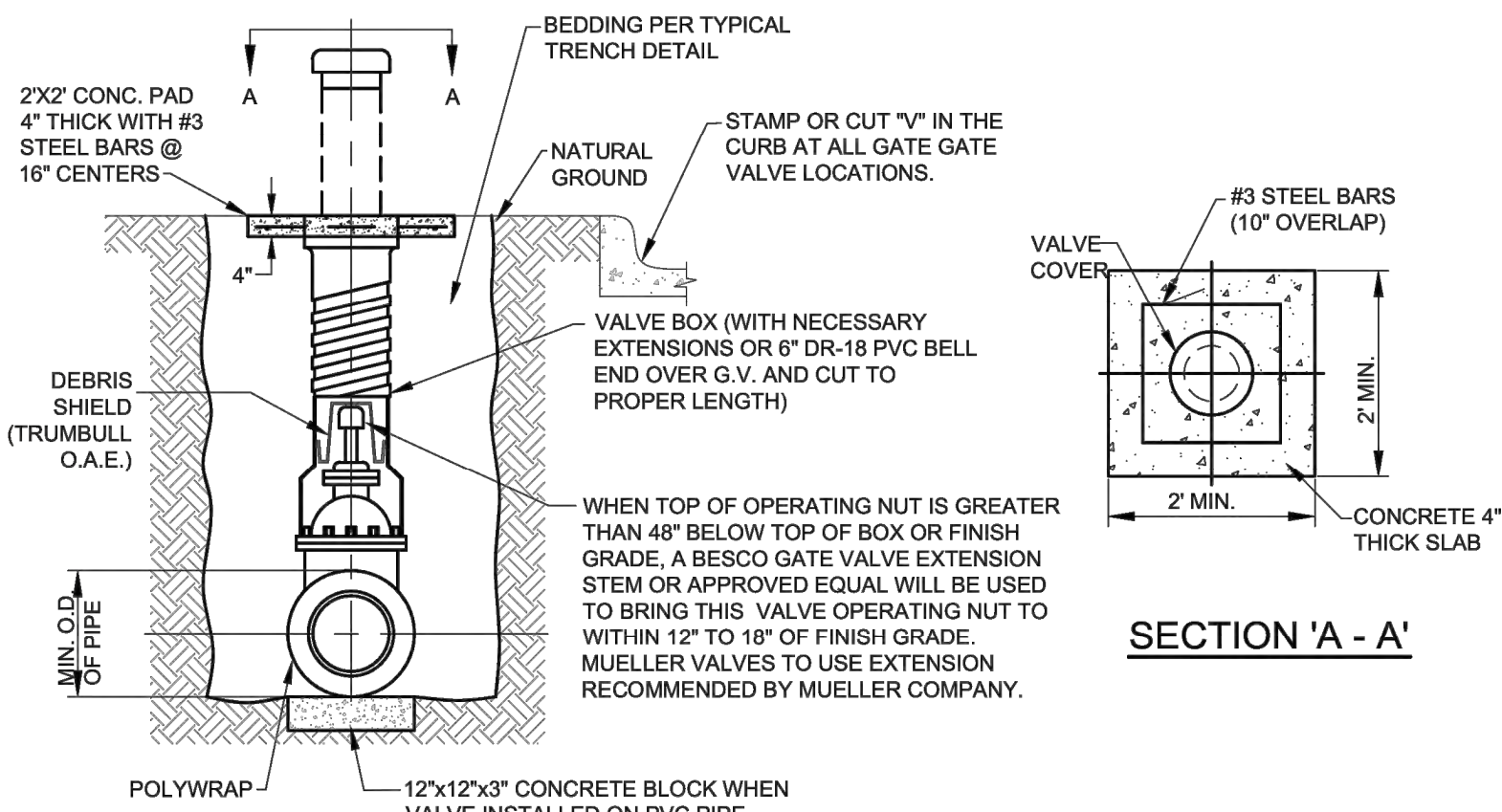


CASING SCHEDULE	
WATER LINE NOMINAL SIZE (IN)	CASING NOMINAL SIZE (IN)
2	4
4	6
6	8
8	12
10	16
12	18
14 & 16	24
18	30
20	30
24	36
27	36
30	42
36	48

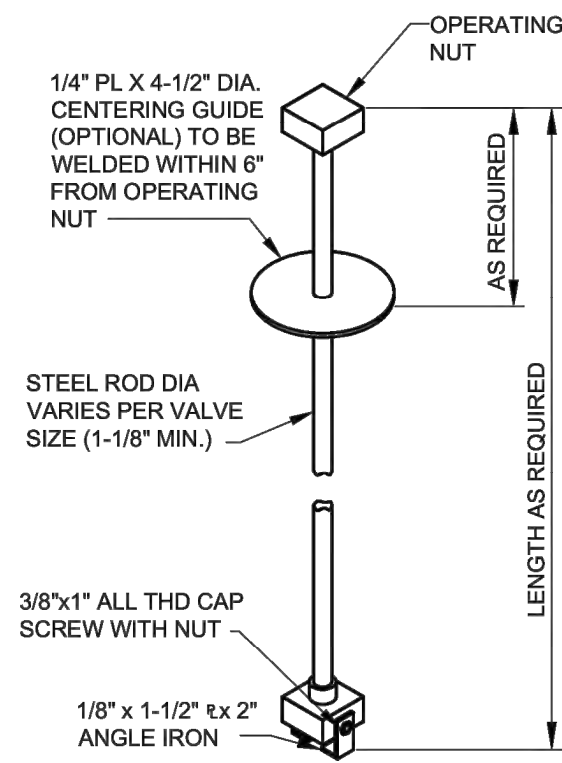


- NOTES:
1. ALL PIPING, EXCEPT AS NOTED, TO BE DUCTILE IRON WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS AND NUTS.
  2. RIM ELEVATION SHALL BE SET 12" ABOVE FINISHED GRADE UNLESS INSTALLED IN PAVED AREA

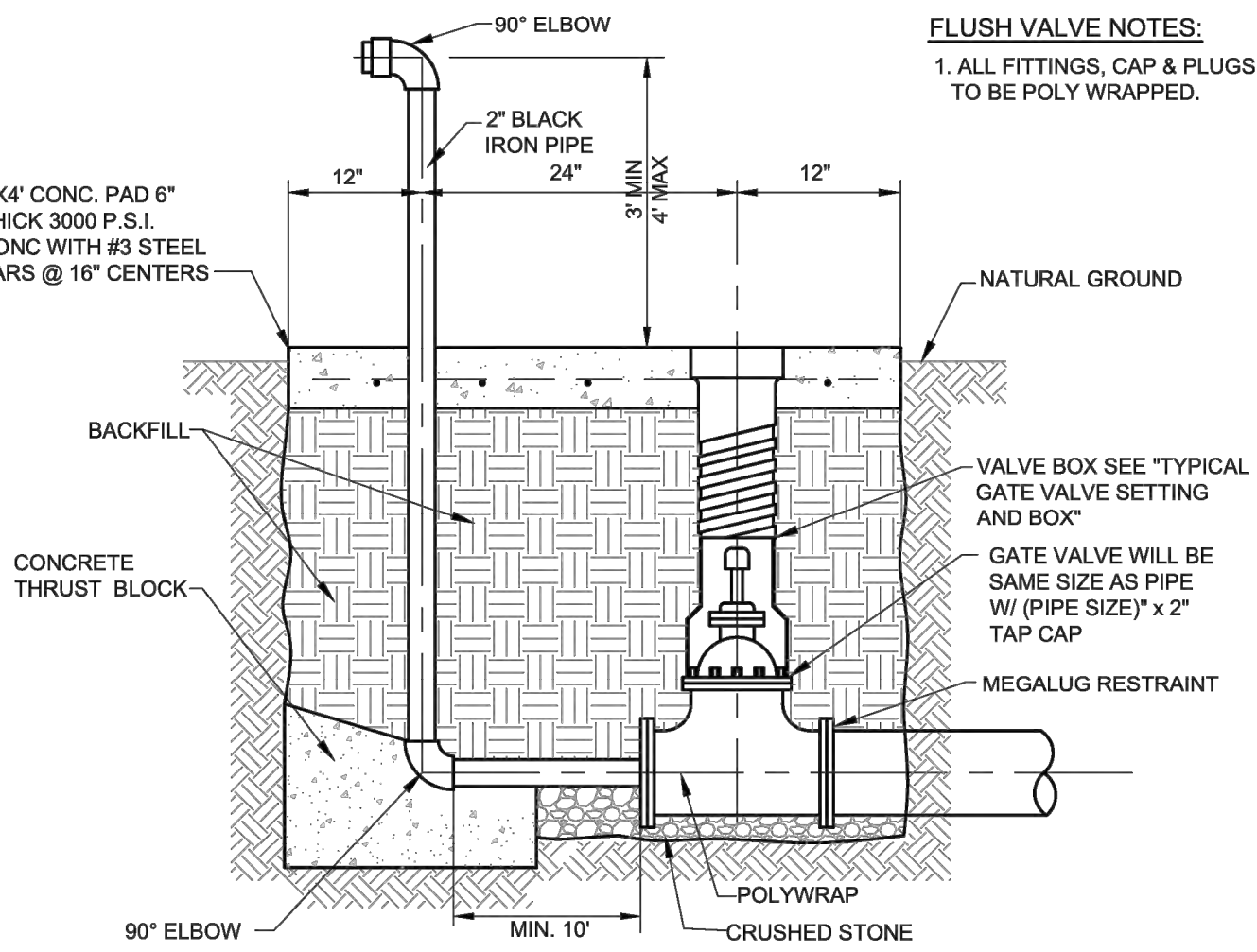
COMBINATION AIR RELEASE VALVE AND VAULT DETAIL  
N.T.S.



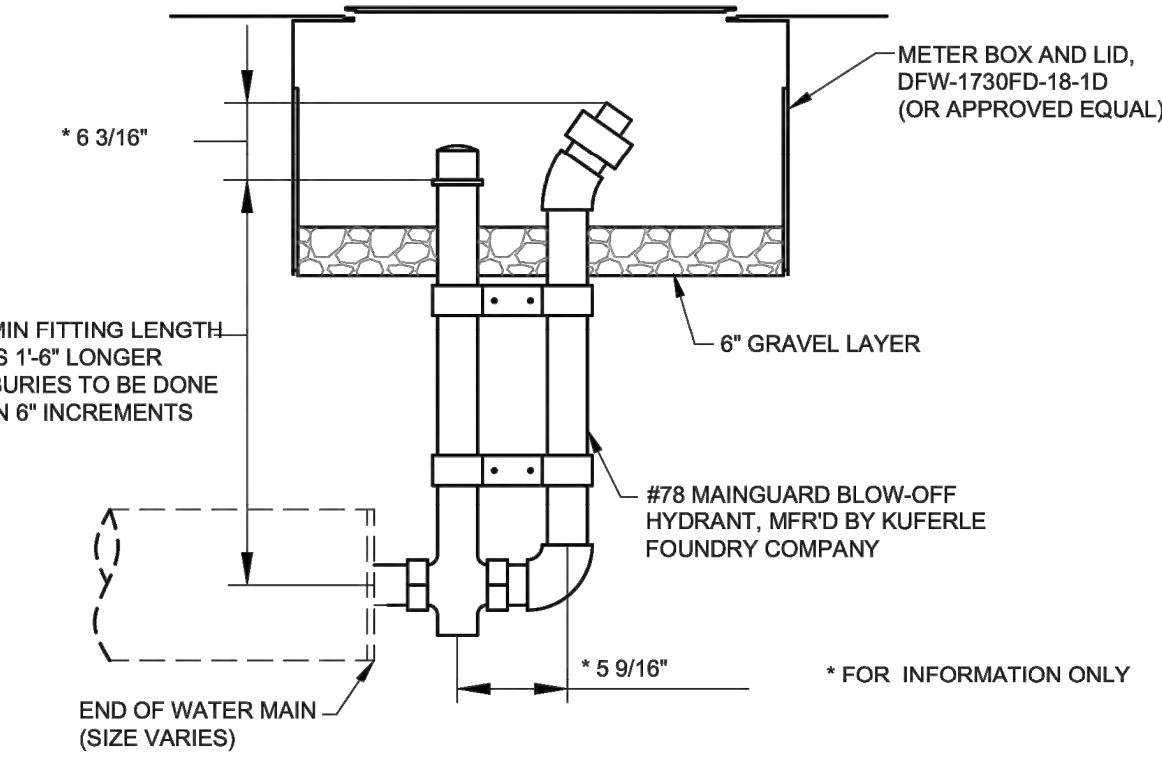
TYPICAL VALVE SETTING AND BOX  
N.T.S.



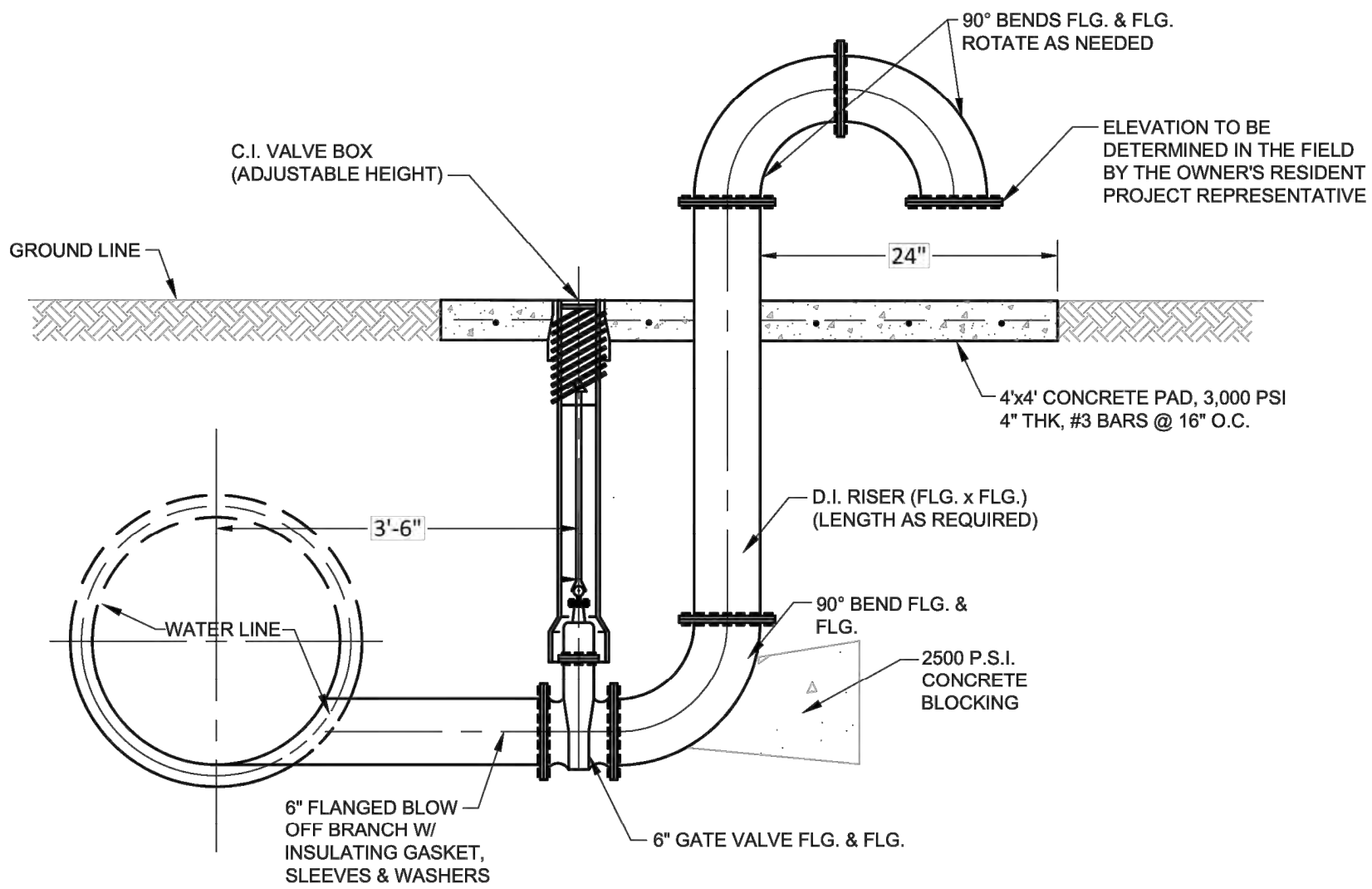
VALVE EXTENSION STEM  
N.T.S.



END-OF-LINE/TEMPORARY FLUSH VALVE  
N.T.S.



RESIDENTIAL FLUSH VALVE  
N.T.S.



MAIN LINE FLUSH VALVE  
N.T.S.

NO.	REVISION	BY	DATE



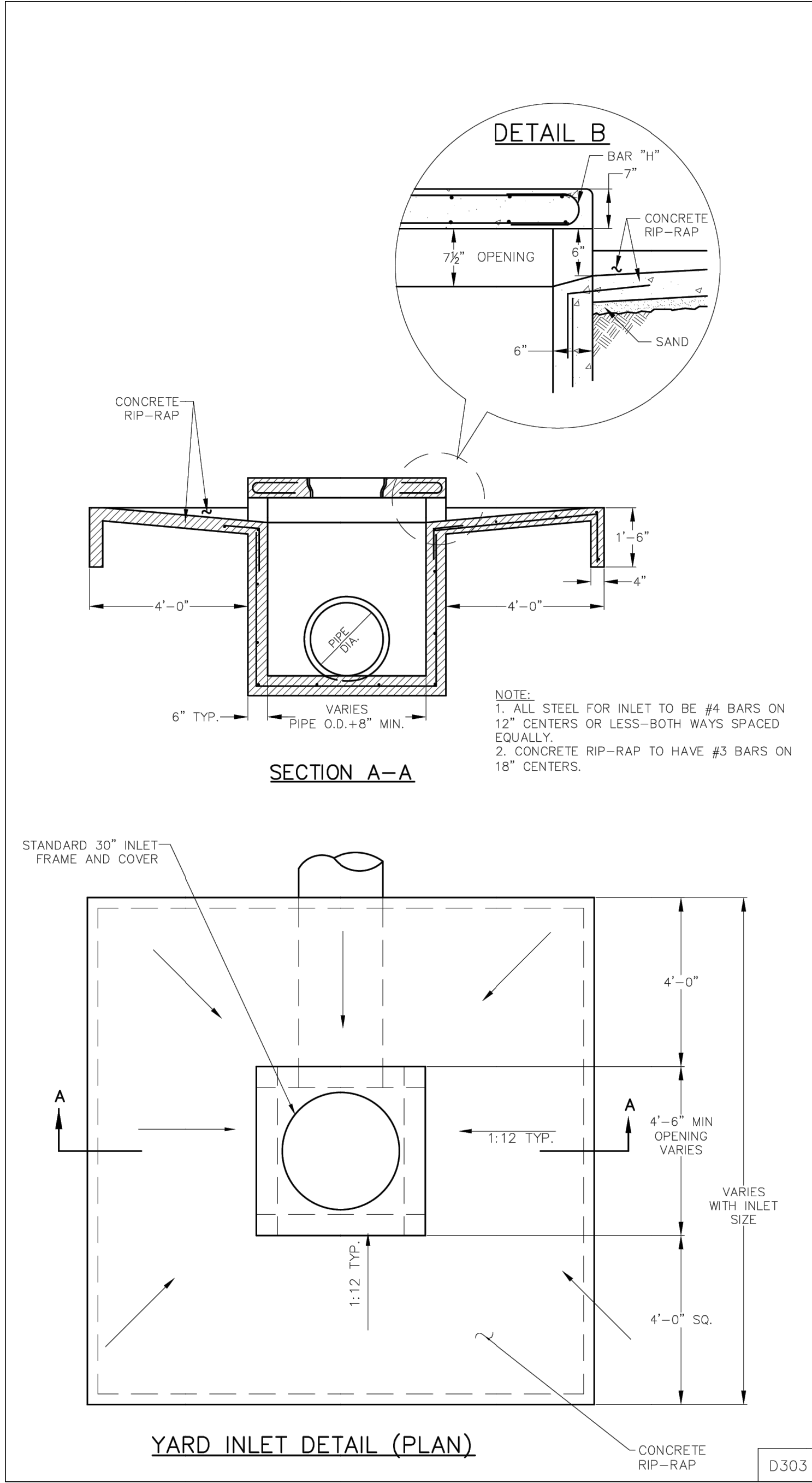
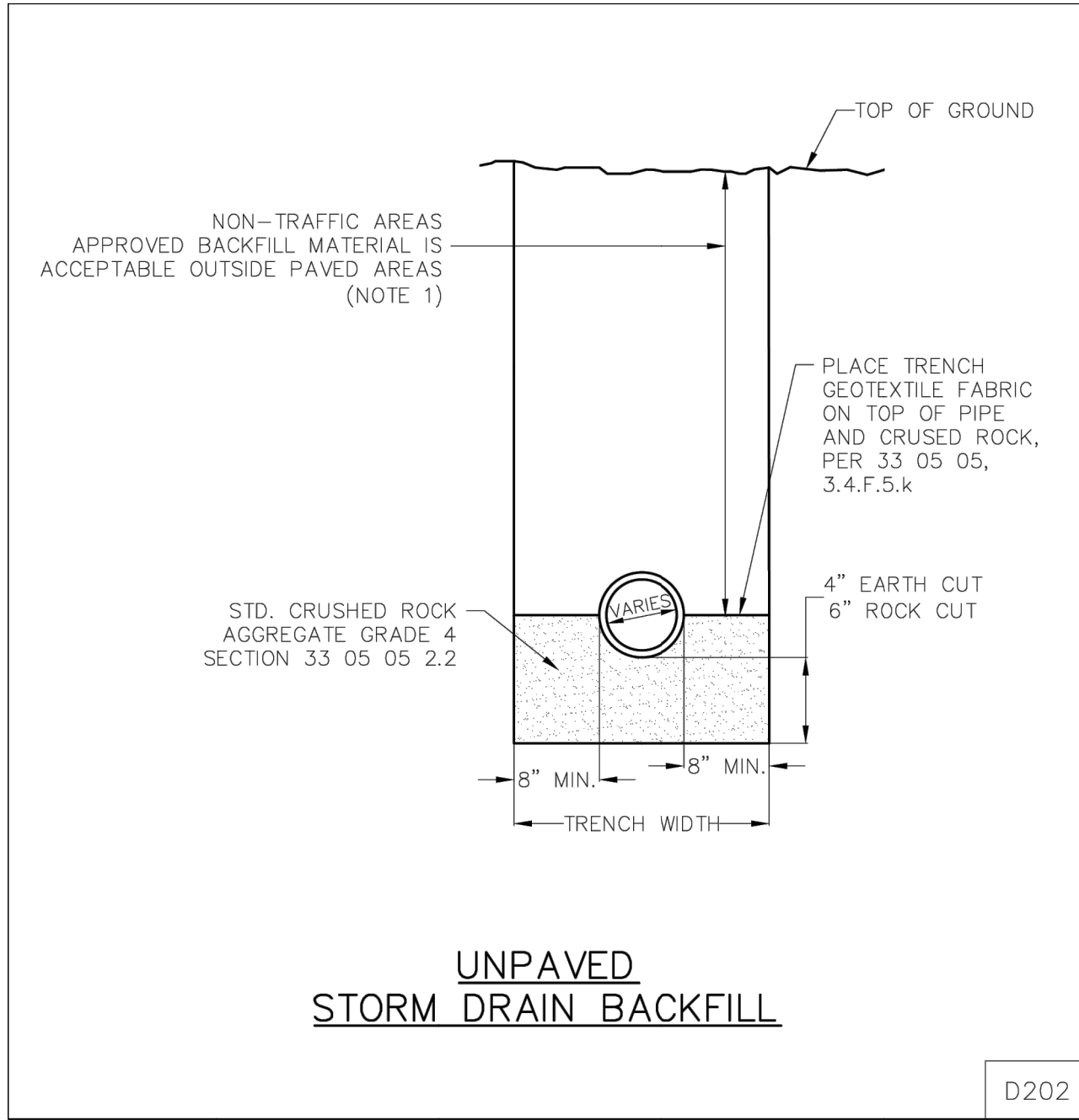
APPROVED BY MSUD  
GENERAL MANAGER: C. BOYD

DATE: 2020-09-14

WATER DETAILS (2 OF 2)

CERTIFICATION:  
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.





**DETAILS ARE OBTAINED FROM CITY OF DENTON 2021 STANDAR DETAILS**

REV	NO	REVISION DESCRIPTION	BY	DATE

THIS DOCUMENT IS  
RELEASED FOR THE  
PURPOSE OF INTERIM  
REVIEW UNDER THE  
AUTHORITY OF  
MARK H. HICKMAN,  
P.E. 78409.  
IT IS NOT TO BE USED  
FOR CONSTRUCTION  
BIDDING OR PERMITTING

**HRV Consultants, LLC.**  
18332 FM 1778  
NEVADA, TEXAS 75173  
972.877.4175  
  
FIRM NO. 22655

**STORMWATER STANDARD DETAILS**

**CROSS ROADS COMMERCIAL**  
DENTON COUNTY, TX

**SBM REAL ESTATE SERVICES**  
709 WEST RUSK ST  
ROCKWALL, TX 75087  
214-557-9093

DATE:	XX.XX.XX
SCALE:	NTS
JOB NO:	2301-449
DRAWN BY:	HD
CHECKED BY:	MHH

SHEET



# PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 7, Page 1 of 6

Meeting Date:  
May 7, 2024

Agenda Item:

CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for approximately 25.7945 acres of land being the southern portion of Tract 105 in the J. Bridges Survey, Abstract 36 (DCAD ID 191232) generally located approximately 625 feet south of Liberty Road fronting both US 377 and Liberty Road at 8690 Liberty Road within the Town of Cross Roads ETJ. (2024-0304-05FLUP)

Prepared by:  
Rodney Patterson, Building Official

Description:

On March 4, 2024, property owner Jeff Sorensen submitted an application for a future land use map amendment. The subject property is comprised of approximately 25.7945 acres of land identified as the southern portion of Tract 105 of the J. Bridges Survey Abstract No. 36, being approximately 25.7945 acres of land generally located approximately 625 feet south of Liberty Road fronting both US 377 and Liberty Road at 8690 Liberty Road. The remainder of Tract 105 includes approximately 32.99 acres in the Cross Roads extraterritorial jurisdiction (ETJ) owned by two different parties.

The property is currently designated as Rural Estates on the comprehensive land use plan. Staff feels a change to Commerce is appropriate and would support future development plans that would include uses in the C-2 Commercial 2 zoning district based on the proximity to US 377 and other compatible uses in the vicinity.

Attached is a review letter from Staff drafted March 20, 2024.

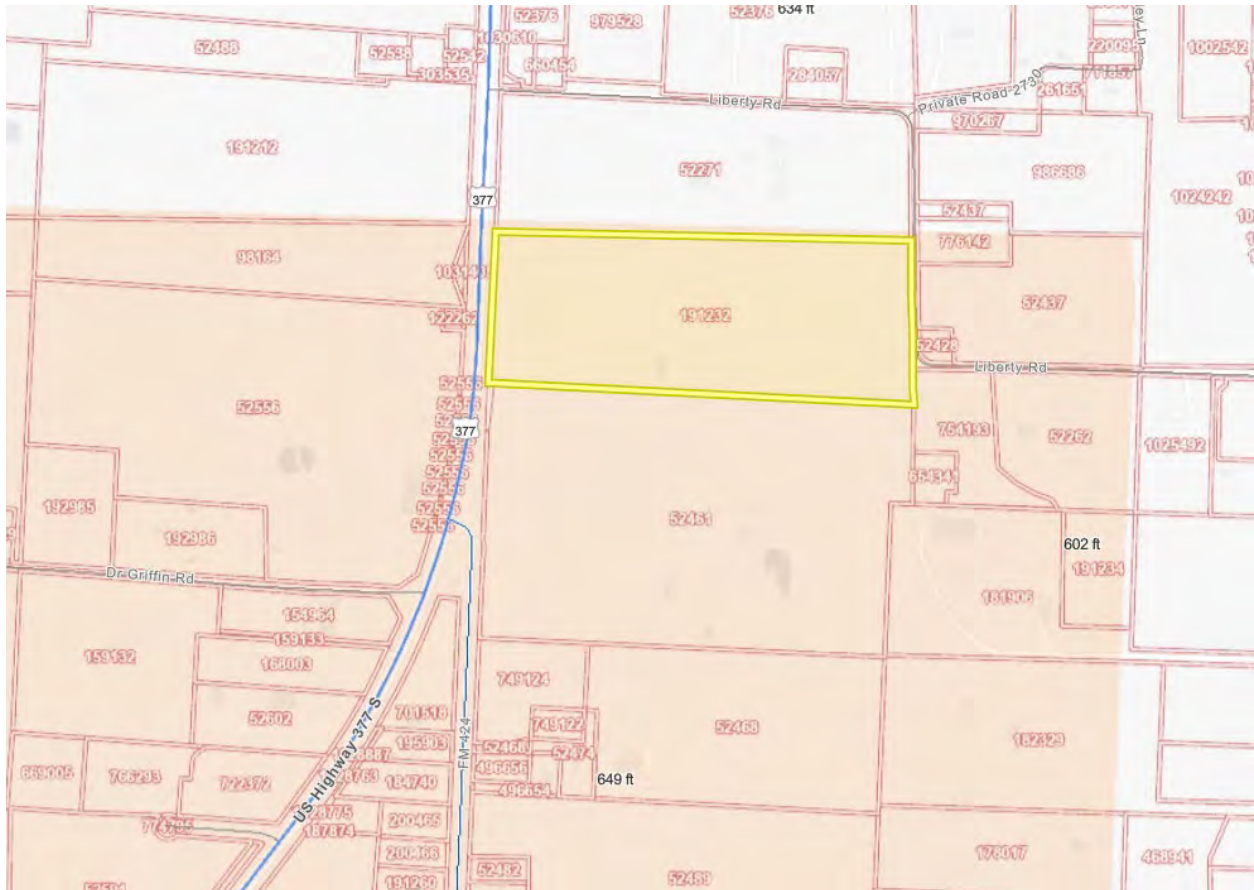
Recommended Action:

Staff recommends approval of the request to amend the future land use map from Rural Estates to Commerce.

Attachments:

Location Map  
Staff Review – March 20, 2024  
Application  
Survey

Location Map for Application 2024-0304-05FLU





**Town of Cross Roads**  
 3201 US Hwy 380, Suite 105  
 Cross Roads, Texas 76227  
 940-365-9693 office | 469-375-5905 fax

## Staff Review Comments

**Project:** Cross Roads 377 Future Land Use Plan amendment from Rural Estates to Commerce for future development (2024-0304-05FLU)

**Location:** The southern portion of tract 105 of the J. Bridges Survey Abstract No. 36, being approximately 25.7945 acres of land generally located approximately 625 feet south of Liberty Road fronting both US 377 and Liberty Road at 8690 Liberty Road (DCAD ID 191232)

**Date of Review:** March 20, 2024

**Reviewer:** Rodney Patterson, Building Official

**Recommendation:** Staff is recommending approval of the Future Land Use map amendment.

**Deadline to Submit Revisions or comments:** NA

### Comments:

The Town is in receipt of application No. 2024-0304-05FLU by applicant and owner Jeff Sorensen on March 4, 2024. The subject property is comprised of approximately 25.7945 acres of land identified as the southern portion of Tract 105 of the J. Bridges Survey Abstract No. 36, being approximately 25.7945 acres of land generally located approximately 625 feet south of Liberty Road fronting both US 377 and Liberty Road at 8690 Liberty Road. The remainder of Tract 105 includes approximately 32.99 acres in the Cross Roads extraterritorial jurisdiction (ETJ) owned by two different parties. The applicant has requested that the future land use for this property be changed from Rural Estates to Commerce.

The proposed designation is in line with the Town Council's vision of the 377 corridor being reserved for commercial uses.

The Town of Cross Roads adopted a new Comprehensive Land Use Plan on March 20, 2023. The new plan does not contain the C-1 Commercial 1 and C-2 Commercial 2 designations currently reflected in the Town's zoning regulations. The most appropriate similar designations in the new plan are Business Services and Commerce. Revisions to the comprehensive zoning ordinance are underway so that there is a clear delineation as to which land use plan designation is associated with each zoning classification. Staff's comments are based on the interpretation that the Business Services land use plan designation is associated with the C-1 Commercial 1 zoning district and the Commerce land use plan designation is associated with the C-2 Commercial 2 zoning district.



***Town of Cross Roads***

*3201 US Hwy 380, Suite 105*

*Cross Roads, Texas 76227*

*940-365-9693 office | 469-375-5905 fax*

The subject property is currently zoned A Agricultural. The property is surrounded by the following current zoning designations:

North:	ETJ
East:	A Agricultural
South:	A Agricultural
West:	US 377 and A Agricultural

The subject property is currently designated as Rural Estates on the Future Land Use Map. The surrounding property has the following designations on the Future Land Use Map:

North:	ETJ
East:	Rural Estates
South:	Rural Estates
West:	Rural and Ranch Living

If the request is approved, the result will be a property whereby it is appropriate to seek a zoning change to C-2 Commercial 2 or a Planned Development.



TOWN OF CROSS ROADS  
DEVELOPMENT APPLICATIONDATE: 3/4/24APPLICATION #: 2024-0304-05FLUPROJECT: Cross Roads 377

Before submitting an application, the applicant should consult with Town Staff to discuss the feasibility of the request and any additional requirements.

Applications are only received on the dates listed on the Submission Schedule.

## DEVELOPMENT APPLICATION

     Zone Change         Technical Site Plan         Grading    X Future land use Miscellaneous

Land Owner Name Jeff & Cam Sorensen Signature Jeff PaulsenOwner Mailing Address 2600 Lakeview Ct. Prosper TX 75078Owner Contact Phone 214-727-1015 Email jsorensen@titanfence.comApplicant Name Jeff Sorensen Signature Jeff PaulsenProject Contact Mailing Address same as aboveProject Contact Phone same as above Email same as aboveProposed Project Name Future Commercial Development Location Future Commercial DevelopmentAbstract, Lot, Block J Bridges Abstract #36 DCAD ID 191232Current Zoning ^ 1/Rural Estates Requested Zoning CommerceNumber of Lots 1 Acres 30

## REQUIRED SUBMISSION DOCUMENTS

1. Filing Fee; see page 6 of Master Fee Schedule.
2. Legal Description and plat of the subject site typed and attached separately or the subdivision name with lot and block number.
3. Map - A location map clearly showing the site in relation to adjacent streets and distance to nearest thoroughfare.
4. Site Plan (Commercial)
5. Drawings: one full, two 11x17
6. Electronic copy of all the above; this may be sent by email on submission day.

## ADDITIONAL INFORMATION

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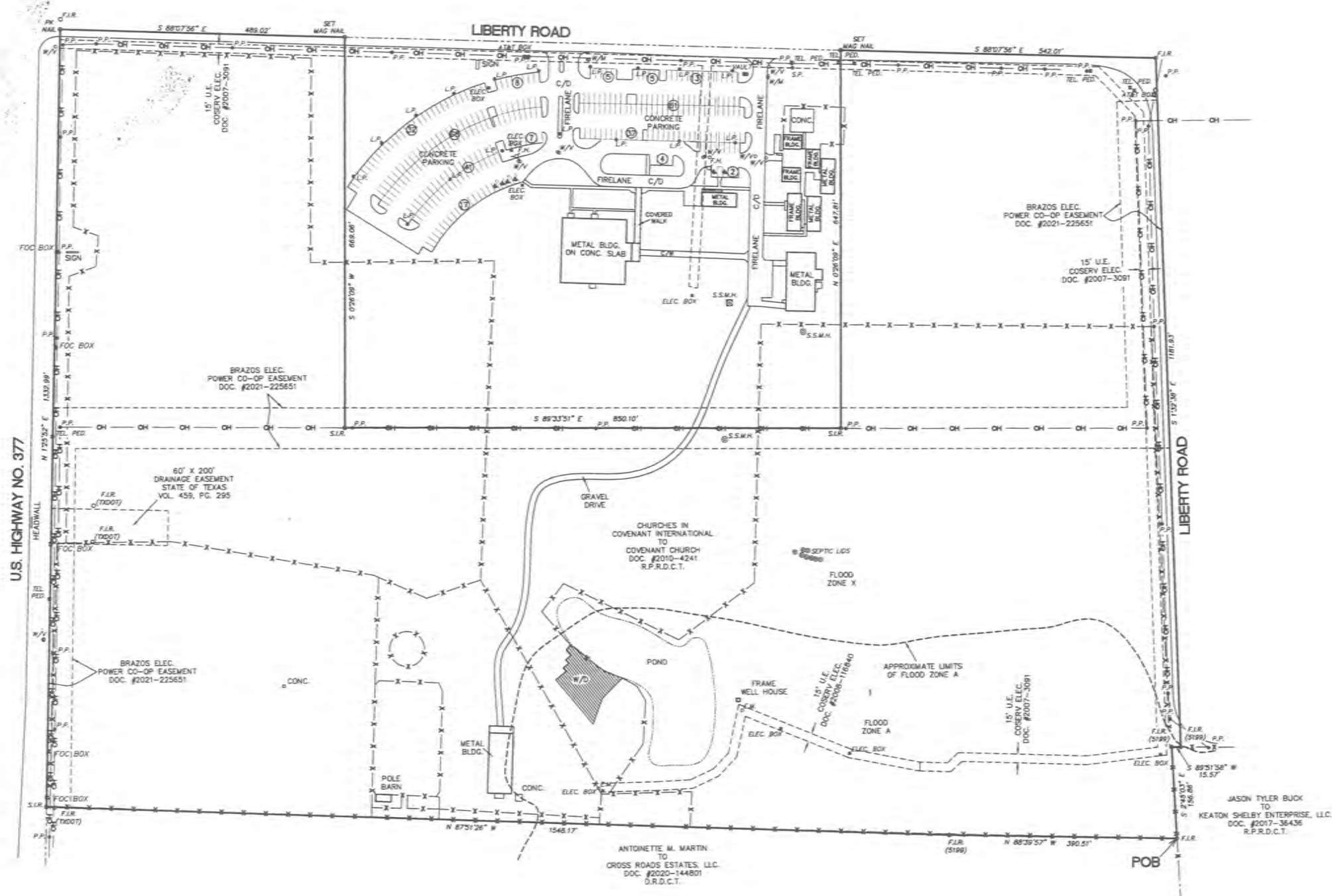
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FIELD NOTES  
45.915 ACRES

BEING all that certain lot, tract, or parcel of land situated in the J. Bridges Survey Abstract Number 36 in the Town of Crossroads, Denton County, Texas, being a part of that certain tract of land conveyed by deed from Churches in Covenant International to Covenant Church recorded under Document Number 2010-4241, Real Property Records, Denton County, Texas and being more particularly described as follows:

BEGINNING at an iron rod found for corner in the west line of that certain tract of land conveyed by deed from Jason Tyler Buck to Keaton Shelby Enterprise, LLC recorded under Document Number 2017-36436, Real Property Records, Denton County, Texas, said point being the northeast corner of that certain tract of land conveyed by deed from Antonette M. Martin to Cross Roads Estates, LLC recorded under Document Number 2020-144801 Real Property Records, Denton County, Texas;

THENCE N 88° 39' 57" W, 390.51 feet with the north line of said Martin tract to a capped iron rod marked 5199 found for corner;

THENCE N 87° 51' 26" W, 1548.17 feet with said north line of said Martin tract to a capped iron rod marked RPLS 4561 set for corner in the east line of United States Highway Number 377, a public roadway;

THENCE N 01° 25' 52" E, 1332.99 feet with said east line of said U. S. Highway to a PK nail for corner in Liberty Road, a public roadway;

THENCE S 88° 07' 56" E, 489.02 feet with said Liberty Road to a mag nail set for corner;

THENCE S 00° 26' 09" W, 669.06 feet to a capped iron rod marked RPLS 4561 set for corner;

THENCE S 69° 33' 51" E, 850.10 feet to a capped iron rod marked RPLS 4561 set for corner;

THENCE N 00° 26' 09" E, 847.81 feet to a mag nail set for corner in said Liberty Road;

THENCE S 88° 07' 56" E, 542.01 feet with said Liberty Road to an iron rod found for corner at a bend in said Liberty Road;

THENCE S 01° 32' 38" E, 1181.93 feet with said Liberty Road to a capped iron rod marked 5199 found for corner in the north line of said Keaton Shelby Enterprise tract;

THENCE S 89° 51' 58" W, 15.57 feet with said north line of said Keaton Shelby Enterprise tract to a capped iron rod marked 5199 found for corner, said point being the northwest corner of said Keaton Shelby Enterprise tract;

THENCE S 02° 45' 03" E, 156.86 feet with said west line of said Keaton Shelby Enterprise tract to the PLACE OF BEGINNING and containing 45.915 acres.

TO THE LIENHOLDERS AND/OR THE OWNERS AND/OR PURCHASERS OF THE PREMISES SURVEYED AND TO REUNION TITLE:  
I hereby certify that on the 16th day of December, 2022, this survey was made on the ground as per the field notes shown on this survey and is true, correct and accurate as to the boundaries and areas of the subject property and the size, location and type of buildings and improvements thereon if any, and as to the other matters shown hereon, and correctly shows the location of all visible easements and rights-of-way and of all rights-of-way easements and other matters of record of which I have knowledge or have been advised, whether or not of record, affecting the property. Except as shown on the survey, there are no encroachments upon the subject property by improvements on adjacent property, there are no encroachments on adjacent property, streets or alleys by any improvements on the subject property and there are no conflicts or protrusions.  
I further certify that only portion of subject property lies within a special flood hazard area according to the FLOOD INSURANCE RATE MAP for Denton County and Incorporated Area, Map Number 48121C0265G, dated April 18, 2011. (Subject property lies in A and Zone X approximately as shown.)

SURVEY PLAT  
45.915 ACRES IN THE  
J. BRIDGES SURVEY A-36  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS

B.L. = BUILDING LINE	CATV = CABLE TV BOX
C.C.P. = COVERED PATIO/PORCH	C.D. = CONCRETE DRIVE
C.D. = SAWHAY SEWER CULVERT	C.P. = CONCRETE PILING/PORCH
C.W. = CONCRETE SEWER	D.E. = DRAINAGE EASEMENT
C.S. = CONCRETE SEWER	E.P. = ELEC. POLE
F.P. = FLOOD PROOF	F.L.R. = FLOOD LINE
S.P. = SERVICE POLE	S.S.M.H. = SET CHAINED 1/2" RPLS 4561 IRON ROD
STW = SANITARY SEWER	STW = SANITARY SEWER MANHOLE
W.D. = WOOD DECK	W.M. = WATER METER
W.V. = WATER VALVE	U.E. = UTILITY EASEMENT
FENCE = FENCE	OVERHEAD POWER LINE = OH



4238-1-35 NORTH





## PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 8, Page 1 of 6

Meeting Date:

May 7, 2024

Agenda Item:

CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for an approximate 22.55 acre parcel located at 1001 Moseley Rd. approximately 675 feet south of the intersection of US 380 and Moseley Rd. described as the eastern portion of Tract 65 in the R.J. Moseley Survey, Abstract 803 within the Town limits of Cross Roads, Texas. (2024-0304-06FLUP)

Prepared by:

Rodney Patterson, Building Official

Description:

On March 4, 2024, property owner Jeff Sorensen submitted an application for a future land use map amendment for 22.55 acres of land identified as the eastern most portion Tract 65 in the R.J. Moseley Survey, Abstract 803 on the east side of Moseley Road. Mr. Sorensen has not submitted development plans for the subject portion to date, however, he has indicated his desire to develop the land as commercial in conjunction with adjacent property he has purchased to the east of this location.

The property is currently designated as Rural Estates on the comprehensive land use plan. Staff feels a change to Commerce is appropriate and would support future development plans that would include uses in the C-2 Commercial 2 zoning district or a planned development district that would include substantial sales tax generating property.

Attached is a review letter from Staff dated March 20, 2024.

Recommended Action:

Staff recommends approval of the request to amend the future land use map from Rural Estates to Commerce.

Attachments:

Location Map

Staff Review – March 20, 2024

Application

Survey





**Town of Cross Roads**  
 3201 US Hwy 380, Suite 105  
 Cross Roads, Texas 76227  
 940-365-9693 office | 469-375-5905 fax

## Staff Review Comments

**Project:** Cross Roads Business Park 22 Acre Tract Future Land Use Plan amendment from Rural Estates to Commerce for future commercial development (2024-0304-06FLU)

**Location:** Tract 65 in the R. J. Moseley Survey Abstract No. 803, being approximately 22.55 acres of land generally located at 1001 Moseley Road approximately 675 feet south of US 380 (Part of DCAD ID 38613)

**Date of Review:** March 20, 2024

**Reviewer:** Rodney Patterson, Building Official

**Recommendation:** **Staff is recommending approval of the Future Land Use map amendment.**

**Deadline to Submit Revisions or comments:** NA

### Comments:

The Town is in receipt of application No. 2024-0304-06FLU by applicant and owner Jeff Sorensen on March 4, 2024. The subject property is comprised of 22.55 acres of land identified as Tract 65 in the R.J. Moseley Survey, Abstract 803. The applicant has requested that the future land use for this property be changed from Rural Estates to Commerce.

The Town of Cross Roads adopted a new Comprehensive Land Use Plan on March 20, 2023. The new plan does not contain the C-1 Commercial 1 and C-2 Commercial 2 designations currently reflected in the Town's zoning regulations. The most appropriate similar designations in the new plan are Business Services and Commerce. Revisions to the comprehensive zoning ordinance are underway so that there is a clear delineation as to which land use plan designation is associated with each zoning classification. Staff's comments are based on the interpretation that the Business Services land use plan designation is associated with the C-1 Commercial 1 zoning district and the Commerce land use plan designation is associated with the C-2 Commercial 2 zoning district.

The subject property is currently zoned A Agricultural. The property is surrounded by the following current zoning designations:

North:	C-2 Commercial 2
East:	A Agricultural
South:	A Agricultural
West:	Moseley Rd. and A Agricultural



***Town of Cross Roads***

*3201 US Hwy 380, Suite 105*

*Cross Roads, Texas 76227*

*940-365-9693 office | 469-375-5905 fax*

The subject property is currently designated as Rural Estates on the Future Land Use Map. The surrounding property has the following designations on the Future Land Use Map:

North:	Commerce and Business Services
East:	Commerce and Rural Estates
South:	Rural Estates
West:	Moseley Rd. and Rural Estates

If the request is approved, the result will be a property whereby it is appropriate to seek a zoning change to C-2 Commercial 2 or a Planned Development.

TOWN OF CROSS ROADS  
DEVELOPMENT APPLICATION

DATE: 3/4/24  
 APPLICATION #: 2024-0304-06 FLU  
 PROJECT: Cross Roads Park (22 ac)

Before submitting an application, the applicant should consult with Town Staff to discuss the feasibility of the request and any additional requirements.

Applications are only received on the dates listed on the Submission Schedule.

## DEVELOPMENT APPLICATION

   Zone Change       Technical Site Plan       Grading    X Miscellaneous Future Land Use map Amend

Land Owner Name Jeff & Cara Sorensen    Signature Jeff Paul Sm  
 Owner Mailing Address 2600 Lakeview Ct. Prosper TX 75678  
 Owner Contact Phone 214-727-1075    Email jsorensen@titanfence.com  
 Applicant Name Jeff Sorensen    Signature Jeff Paul Sm  
 Project Contact Mailing Address same as above  
 Project Contact Phone same as above    Email same as above  
 Proposed Project Name Future Commercial Development    Location Future Commercial Development  
 Abstract, Lot, Block RJ Moseley Abstract #803    DCAD ID 38613  
 Current Zoning Rural Estates    Requested Zoning Commerce  
 Number of Lots       Acres   

## REQUIRED SUBMISSION DOCUMENTS

1. Filing Fee; see page 6 of Master Fee Schedule.
2. Legal Description and plat of the subject site typed and attached separately or the subdivision name with lot and block number.
3. Map - A location map clearly showing the site in relation to adjacent streets and distance to nearest thoroughfare.
4. Site Plan (Commercial)
5. Drawings: one full, two 11x17
6. Electronic copy of all the above; this may be sent by email on submission day.

## ADDITIONAL INFORMATION

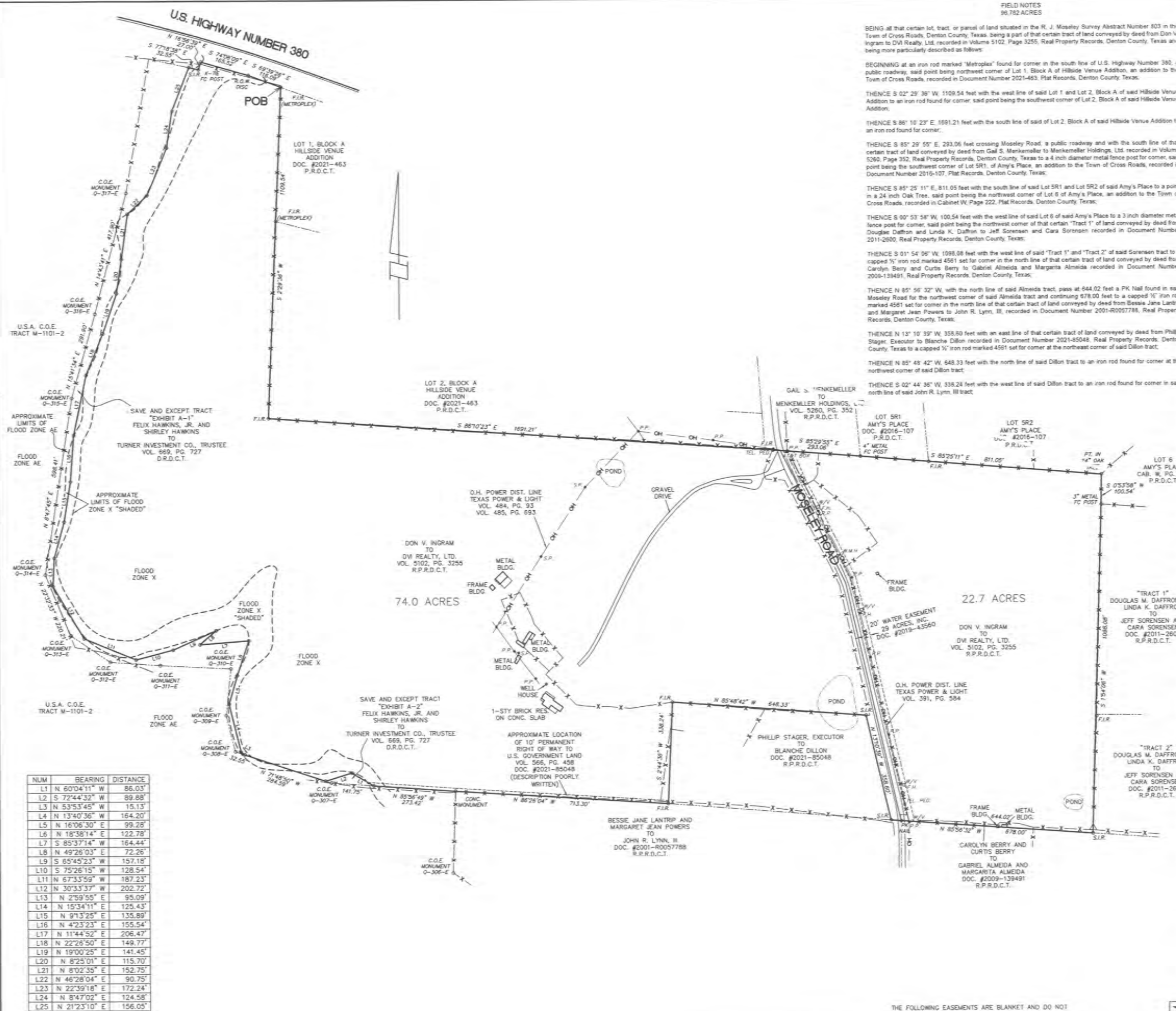
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THESE N 86° 26' 04" W, 713.30 feet with said north line of said John R. Lynn, III tract to a concrete monument for corner at the northwest corner of said John R. Lynn, III tract;

THESE N 85° 56' 45" W, 273.42 feet to a point for corner near the southeast corner of that certain save and except tract "Exhibit A-2" described in deed from Felix Hawkins, Jr. and Shirley Hawkins to Turner Investment Co., Trustee, recorded in Volume 669, Page 727, Deed Records, Denton County, Texas, from which United States Corps of Engineers monument number Q-307-E bears N 85° 56' 45" W, 141.75 feet;

THESE N 60° 04' 11" W, 86.03 feet along or near the northerly line of said save and except tract "Exhibit A-2" described in Volume 669, Page 727, to a point for corner;

THESE S 72° 44' 32" W, 89.88 feet along or near the northerly line of said save and except tract "Exhibit A-2" described in Volume 669, Page 727, to a point for corner in a northerly line of United States Corps of Engineers tract number M-1101-2;

THESE N 71° 48' 50" W, 284.58 feet with said northerly line of United States Corps of Engineers tract number M-1101-2 to a point for corner, from which United States Corps of Engineers monument number Q-308-E bears N 71° 48' 50" W, 32.55 feet, said point being near the southeast corner of that certain save and except tract "Exhibit A-1" described in said deed from Felix Hawkins, Jr. and Shirley Hawkins to Turner Investment Co., Trustee, recorded in Volume 669, Page 727, Deed Records, Denton County, Texas;

THESE N 53° 53' 45" W, 15.13 feet along or near a northerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 13° 40' 36" W, 164.20 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 16° 06' 30" E, 99.28 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 18° 38' 14" E, 122.78 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE S 85° 37' 14" W, 164.44 feet along or near a northerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 49° 26' 03" E, 72.26 feet along or near a southerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE S 65° 45' 23" W, 157.18 feet along or near a northerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE S 75° 26' 15" W, 128.54 feet along or near a northerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 67° 33' 59" W, 187.23 feet along or near a northerly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 30° 33' 37" W, 202.72 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 2° 59' 55" E, 95.09 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 15° 34' 11" E, 125.43 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 9° 13' 25" E, 135.89 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 4° 23' 23" E, 155.54 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 11° 44' 52" E, 206.47 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 22° 26' 50" E, 149.77 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 19° 00' 25" E, 141.45 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 8° 25' 01" E, 115.70 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 8° 02' 35" E, 152.75 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 46° 28' 04" E, 90.75 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 22° 39' 18" E, 172.24 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 8° 47' 02" E, 124.58 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner;

THESE N 21° 23' 10" E, 156.05 feet along or near an easterly line of said save and except tract "Exhibit A-1" described in Volume 669, Page 727, to a point for corner in said south line of said U.S. Highway Number 380;

THESE S 77° 18' 38" E, 32.55 feet with said south line of said U.S. Highway Number 380 to a capped 1/2" iron rod marked 4561 set for corner in said south line of said U.S. Highway Number 380;

THESE N 16° 56' 39" E, 27.00 feet with said south line of said U.S. Highway Number 380 to cross the fence post for corner in said south line of said U.S. Highway Number 380;

THESE S 74° 08' 09" E, 165.52 feet with said south line of said U.S. Highway Number 380 to a TxDOT right of way disc found in said south line of said U.S. Highway Number 380;

THESE S 89° 39' 28" E, 116.09 feet with said south line of said U.S. Highway Number 380 to the PLACE OF BEGINNING and containing 96.782 acres of land.

TO THE LIENHOLDERS AND/OR THE OWNERS AND/OR PURCHASERS OF THE PREMISES SURVEYED AND TO TITLE RESOURCES  
I hereby certify that on the 16th day of January, 2023, this survey was made on the ground as per the field notes shown on this survey and is true, correct and accurate as to the boundaries and areas of the subject property and the location and type of buildings and improvements thereon if any, and as to the other matters shown hereon, and correctly shows the location of all visible easements and rights-of-way and of all rights-of-way easements and other matters of record of which I have knowledge or have been advised, whether or not of record affecting the property. Except as shown on the survey, there are no encroachments upon the subject property by improvements on adjacent property, there are no encroachments on adjacent property, streets or alleys by any improvements on the subject property and there are no conflicts or protrusions.  
I further certify that only portion shown of subject property lies within a special flood hazard area according to the FLOOD INSURANCE RATE MAP for Denton County and Incorporated Area, Map Number 48121C0385G, dated April 18, 2011. (Subject property lies in Zone AE, Zone X "shaded" and Zone X approximately as shown).

Jerald D. Yensen, Professional Land Surveyor  
Texas R.P.L.S. No. 4561

**SURVEY PLAT**  
96.782 ACRES IN THE  
R.J. MOSELEY SURVEY A-803  
TOWN OF CROSSROADS,  
DENTON COUNTY, TEXAS

PURCHASER: SORESEN INDUSTRIES, INC.

LANDMARK SURVEYOR May 7, 2024 Planning and Zoning Agenda, Page 40 of 124

THE FOLLOWING EASEMENTS ARE BLANKET AND DO NOT VISIBLY AFFECT SUBJECT PROPERTY:  
LOVE STAR GAS COMPANY, VOL. 146, PG. 410  
MUSTANG W.S.C. C.F. #97-0008022

Base of Bearing is the State Plane Coordinate System, Texas North Central Zone (4202), North American Datum of 1983, as determined from GPS observations.



## PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 9, Page 1 of 6

Meeting Date:

May 7, 2024

Agenda Item:

CONDUCT A PUBLIC HEARING, discuss and consider a recommendation to the Town Council on an application by property owner Jeff Sorensen to amend the future land use map from Rural Estates to Commerce for approximately 2.005 acres described as Tract 67 of the R.J. Moseley Survey, Abstract 803, generally located on the ramp traveling eastbound from US 380 to northbound US 377 at 201 S US 377. (2024-0304-07FLUP)

Prepared by:

Rodney Patterson, Building Official

Description:

On March 4, 2024, property owner Jeff Sorensen submitted an application for a future land use map amendment. The applicant has submitted a request for Tracts 66 and 67, in the R. J. Moseley Survey Abstract No. 803, totaling 7.10 acres of land, however, Tract 66 is currently designated as Commerce on the Future Land Use Plan. As such, Staff's recommendation is limited to Tract 67 being 2.005 acres of land identified as DCAD ID 38308. Mr. Sorensen has not submitted development plans for the subject portion to date, however, he has indicated his desire to develop the land as commercial in conjunction with adjacent property he has purchased to the west of this location.

The property is currently designated as Rural Estates on the comprehensive land use plan. Staff feels a change to Commerce is appropriate and would support future development plans that would include uses in the C-2 Commercial 2 zoning district or a planned development district with the adjacent property that would include substantial sales tax generating property.

Attached is a review letter from Staff dated March 20, 2024.

Recommended Action:

Staff recommends approval of the request to amend the future land use map from Rural Estates to Commerce.

Attachments:

Location Map

Staff Review – March 20, 2024

Application

Survey



Location Map for Application 2024-0304-07FLUP





**Town of Cross Roads**  
 3201 US Hwy 380, Suite 105  
 Cross Roads, Texas 76227  
 940-365-9693 office | 469-375-5905 fax

## Staff Review Comments

**Project:** Cross Roads Business Park 7 Acre Tract Future Land Use Plan amendment from Rural Estates to Commerce for future commercial development (2024-0304-07FLU)

**Location:** Tracts 66 and 67, in the R. J. Moseley Survey Abstract No. 803, being 7.10 acres of land generally located on the ramp traveling eastbound from US 380 to northbound US 377 at 201 S US 377 (DCAD ID 38306 and 38308)

**Date of Review:** March 20, 2024

**Reviewer:** Rodney Patterson, Building Official

**Recommendation:** Staff is recommending approval of the Future Land Use map amendment.

**Deadline to Submit Revisions or comments:** NA

### Comments:

The Town is in receipt of application No. 2024-0304-07FLU by applicant and owner Jeff Sorensen on March 4, 2024. The applicant has submitted a request for Tracts 66 and 67, in the R. J. Moseley Survey Abstract No. 803, totaling 7.10 acres of land, however, Tract 66 is currently designated as Commerce on the Future Land Use Plan. As such, Staff's recommendation is limited to Tract 67 being 2.005 acres of land identified as DCAD ID 38308. The subject property is currently zoned as A Agricultural and designated as Rural Estates on the future land use map. The applicant has requested that the future land use for this property be changed from Rural Estates to Commerce.

The Town of Cross Roads adopted a new Comprehensive Land Use Plan on March 20, 2023. The new plan does not contain the C-1 Commercial 1 and C-2 Commercial 2 designations currently reflected in the Town's zoning regulations. The most appropriate similar designations in the new plan are Business Services and Commerce. Revisions to the comprehensive zoning ordinance are underway so that there is a clear delineation as to which land use plan designation is associated with each zoning classification. Staff's comments are based on the interpretation that the Business Services land use plan designation is associated with the C-1 Commercial 1 zoning district and the Commerce land use plan designation is associated with the C-2 Commercial 2 zoning district.

The subject property is currently zoned A Agricultural. The property is surrounded by the following current zoning designations:

North: A Agricultural



***Town of Cross Roads***

*3201 US Hwy 380, Suite 105*

*Cross Roads, Texas 76227*

*940-365-9693 office | 469-375-5905 fax*

East: A Agricultural  
South: A Agricultural  
West: A Agricultural

The subject property is currently designated as Rural Estates on the Future Land Use Map. The surrounding property has the following designations on the Future Land Use Map:

North: Commerce  
East: Governmental and Public  
South: Rural Estates  
West: Rural Estates

If the request is approved, the result will be a property whereby it is appropriate to seek a zoning change to C-2 Commercial 2 or a Planned Development in conjunction with the Cross Roads Business Park 22 Acre Project.



TOWN OF CROSS ROADS  
DEVELOPMENT APPLICATION

DATE: 3/4/24  
 APPLICATION #: 2024-0304-07 FLU  
 PROJECT: ~~Titan Expansion~~ Business Park (7ac)

Before submitting an application, the applicant should consult with Town Staff to discuss the feasibility of the request and any additional requirements.

Applications are only received on the dates listed on the Submission Schedule.

## DEVELOPMENT APPLICATION

   Zone Change    Technical Site Plan    Grading X Future Land Use Miscellaneous

Land Owner Name Jeff & Cara Sorensen Signature Jeff Paul Sorensen

Owner Mailing Address 2600 Lakeview Ct. Prosper TX 75078

Owner Contact Phone 214-727-1075 Email jsorensen@titanfence.com

Applicant Name Jeff Sorensen Signature Jeff Paul Sorensen

Project Contact Mailing Address same as above

Project Contact Phone same as above Email same as above

Proposed Project Name Future Commercial Development Location Future Commercial Development

Abstract, Lot, Block RJ Moseley #803, tract 1 & 2 DCAD ID 38306/38308

Current Zoning    1 Rural Estates Requested Zoning Commerce

Number of Lots 2 tracts Acres 7.10

## REQUIRED SUBMISSION DOCUMENTS

1. Filing Fee; see page 6 of Master Fee Schedule.
2. Legal Description and plat of the subject site typed and attached separately or the subdivision name with lot and block number.
3. Map - A location map clearly showing the site in relation to adjacent streets and distance to nearest thoroughfare.
4. Site Plan (Commercial)
5. Drawings: one full, two 11x17
6. Electronic copy of all the above; this may be sent by email on submission day.

## ADDITIONAL INFORMATION

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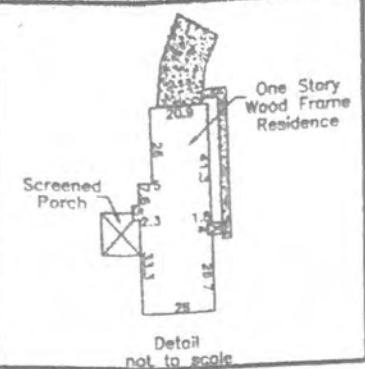


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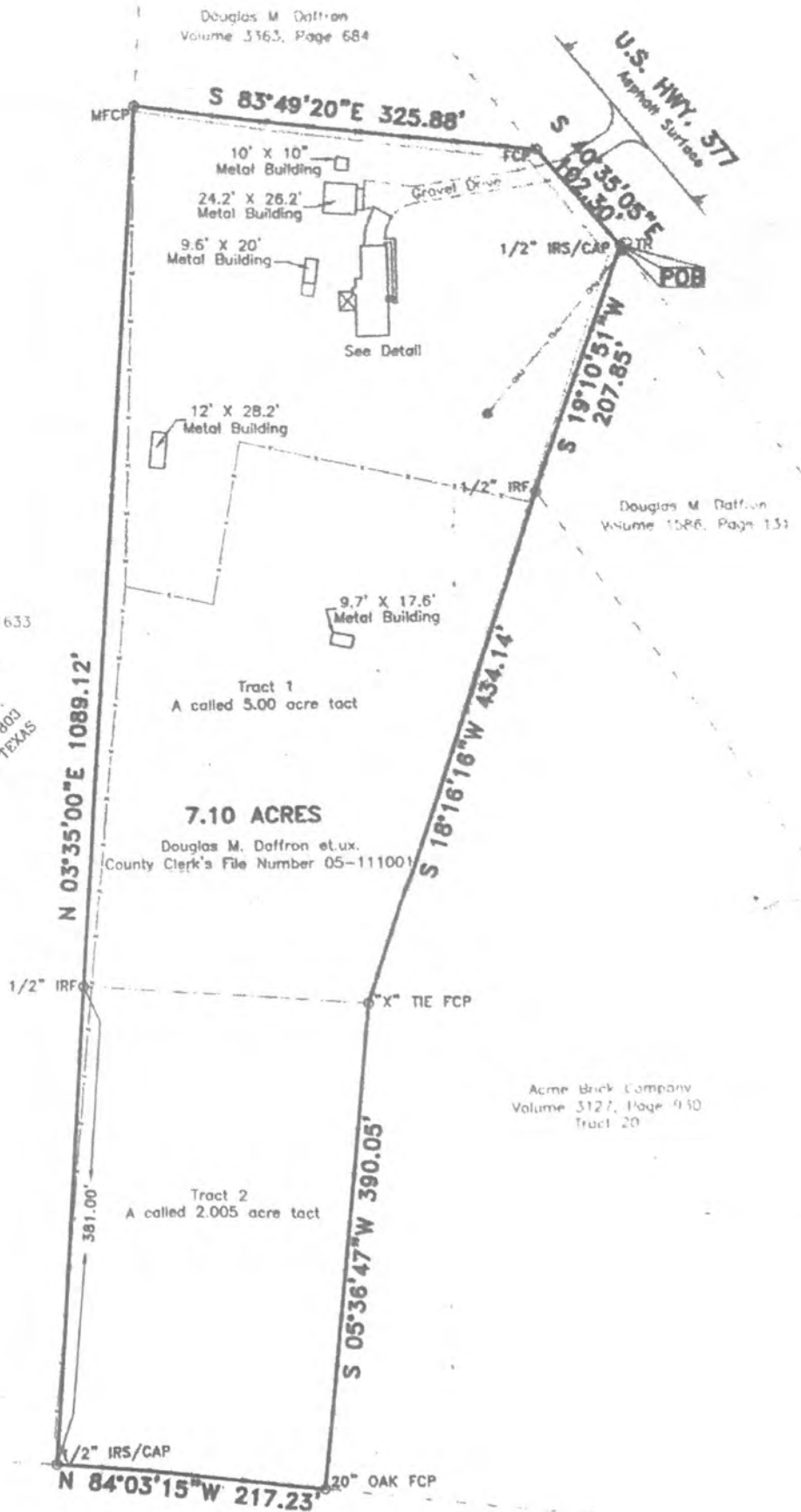
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Titan Expansion



DVI Realty, Ltd.  
County Clerk's File Number 02-0071633

R.J. MOSELY SURVEY.  
ABSTRACT NUMBER 803  
DENTON COUNTY, TEXAS

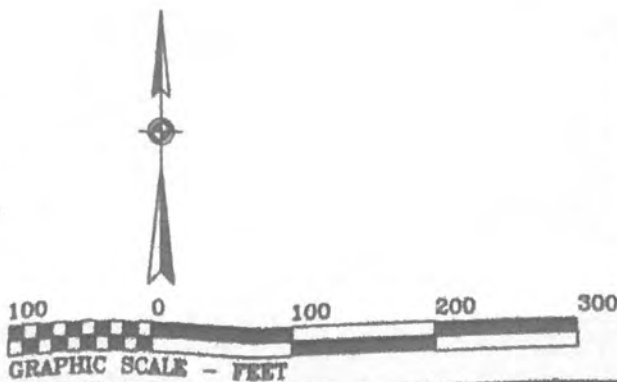


Acme Brick Company  
Volume 3127, Page 910  
Tract 20

Allan Wilbur Anders  
County Clerk's File Number 99-0108014

## LEGEND

- BM - BENCHMARK (BM)
- SC - SURVEY CORNER
- CM - CONTROLLING MONUMENT
- DB - BEARING BASIS
- WR - IRON ROD FOUND
- IRS - 1/2" IRON ROD SET
- CAP - PLASTIC CAP
- FCP - FENCE CORNER POST
- MFCP - METAL FCP
- WFCP - WOOD FCP
- PL - PLAT OR DEED CALL
- POB - POINT OF BEGINNING
- POC - POINT OF COMMENCEMENT
- ROW - RIGHT-OF-WAY
- CE - COMMUNICATION EASEMENT
- DE - DRAINAGE EASEMENT
- EE - ELECTRIC EASEMENT
- UE - UTILITY EASEMENT
- WE - WATERLINE EASEMENT
- PUE - PUBLIC UTILITY EASEMENT
- BCM - BURIED CABLE MARKER
- BPM - BURIED PIPELINE MARKER
- ER - ELECTRIC RISER
- ET - ELECTRIC TRANSFORMER
- SS - SANITARY SEWER
- ST - STORM SEWER
- TR - TELEPHONE RISER
- LP - LIGHT POLE (LP)
- PP - POWER POLE (PP)
- UR - UTILITY RISER (UR)
- TH - FIRE HYDRANT (TH)
- WV - WATER VALVE (WV)
- WM - WATER METER (WM)
- WH - SEWER MANHOLE (WH)
- GM - GAS METER (GM)
- GVS - GAS VALVE/TEST STATION
- PT - PROPANE TANK (PT)
- PL - PROPERTY LINE (PL)
- APL - ADJACENT PL
- ASL - ABSTRACT/SURVEYLINE
- BL - BUILDING LINE (BL)
- EL - EASEMENT LINE
- CL - CENTERLINE
- FL - FLOOD BOUNDARY
- CLT - CABLE/TV LINE
- EL - ELECTRIC LINE
- GL - GAS/PETROLEUM LINE
- OL - OVERHEAD UTILITY
- SL - SEWER LINE
- TL - TELEPHONE LINE
- WL - WATER LINE
- CF - CHAINLINK FENCE
- IF - IRON FENCE
- PF - PIPE FENCE
- WF - WIRE FENCE
- WF - WOOD FENCE
- WF - WOOD FENCE



		JOB #:	050747-001
		DATE:	10/24/05
P.O. BOX 116 KRUM, TX 76249 940-482-6723 OFFICE 940-482-6723 HOME		DRAFT:	A.C.
		REVIEW:	H.C.J.

BEING  
ABST



## PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 10, Page 1 of 48

Meeting Date:

May 7, 2024

Agenda Item:

Discuss and consider a recommendation to the Town Council on a preliminary plat application for a 25.4 acre parcel located on the west side of FM720 approximately 1480 ft. south of the intersection of FM720 and US Hwy 380 and just north of Quail Hollow Ln. in the Town of Cross Roads ETJ. The purpose of this plat is to create a lot to develop a multi-family project. (2024-0205-01PPLAT)

Prepared by:

Rodney Patterson, Building Official

Description: On February 5, 2024, applicant Joe Lehman on behalf of landowner Ben Louise Properties LTD submitted a preliminary plat application for a 25.4 acre parcel located in the N. Jones Survey Abstract 622 (DCAD Parcel ID's 38002, 121938, 191221). The property on the west side of FM720 approximately 1480 ft. south of the intersection of FM720 and US Hwy 380 and just north of Quail Hollow Ln. The purpose of this plat is to create a lot to develop a multi-family project. The Town Engineer performed a technical review of the preliminary plat application and construction drawings beginning on February 20, 2023 with several rounds of comments since that date. On April 18, 2024, the Town Engineer stated that there was a minor comment related to indicating right-of-way lines which could be addressed with the final plat.

Recommended Action:

Staff recommends approval of the preliminary plat contingent on addressing the Town Engineer's comment related to right-of-way lines (Section 10.04.002).

Attachments:

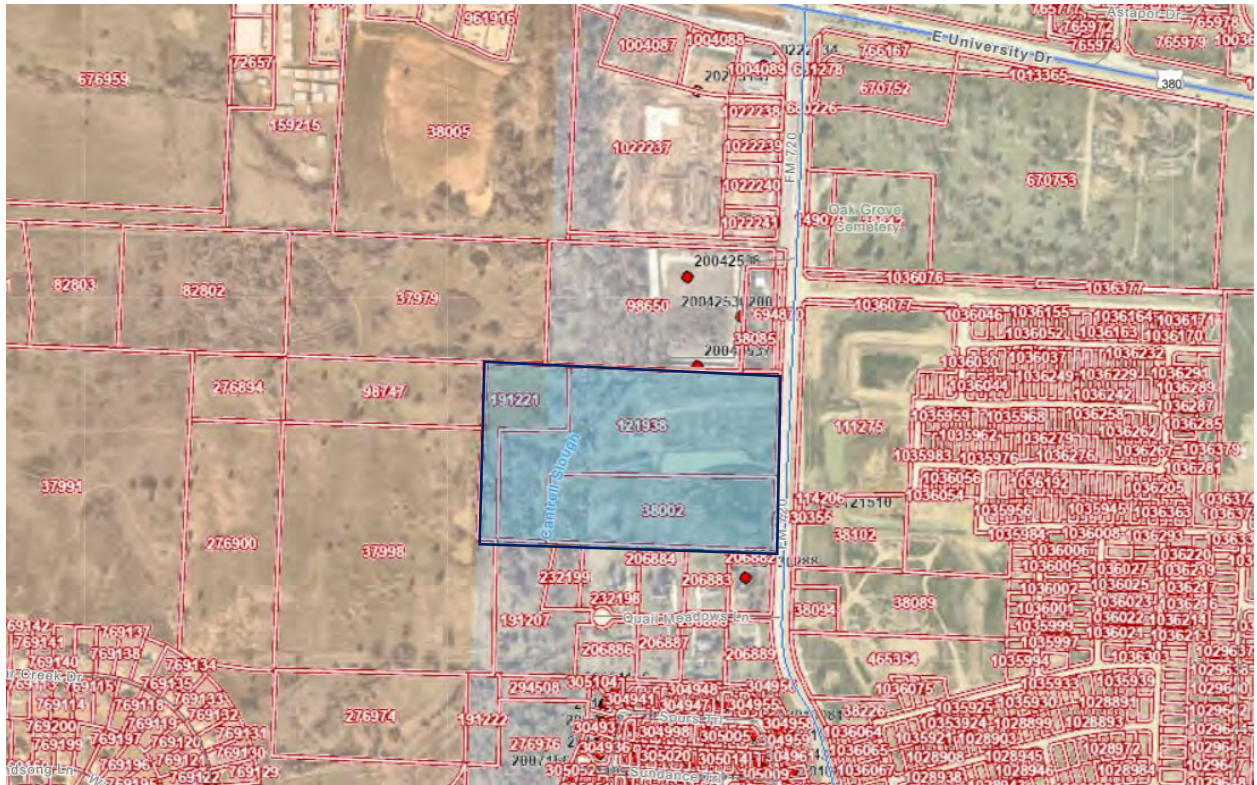
Location Map

Engineers Review Comments

Application and Plans



### Vicinity Map DHI South





## Rodney Patterson

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**From:** Leigh Hollis <lhollis@halff.com>  
**Sent:** Thursday, April 18, 2024 1:05 PM  
**To:** Rodney Patterson  
**Cc:** Donna Butler; Joseph Buchanan; Kristi Gilbert  
**Subject:** DHI Review

### Notice: External Email

Rodney,

Here is the link to the DHI review: <https://files.halff.com/wl/?id=NcZ3WkaleS1Plq9jY6SYBnc4jpScjKLi>

Please note that there is one minor comment on the preliminary plat which can be addressed without a resubmittal. The rest of the comments can transfer to the final plat. Please let me know if you have any questions or need anything else.

Thanks!



**Leigh A. Hollis, PE**  
*Senior Vice President*

**Halff**  
**O:** 817.764.7467  
**E:** lhollis@halff.com

We improve lives and communities  
by turning ideas into reality.

# TOWN OF CROSS ROADS PLATTING APPLICATION

DATE: 02-05-2024APPLICATION: 2024-0205-01PPLATPROJECT: DHI CROSS ROADS

Completed applications will be considered received on  
the due date specified on the yearly Submission Schedule.  
PLEASE VERIFY MEETING DATES.

## TYPE OF PLAT

Preliminary ☒ \_\_\_\_\_ Replat ☐ \_\_\_\_\_  
Final ☐ \_\_\_\_\_ Administrative/Amending ☐ \_\_\_\_\_

## PLEASE SPECIFY THE PRIMARY CONTACT

Land Owner Name Ben Louise Properties, Ltd.Signature Applicant Name Joe LehmanSignature Project Contact Mailing Address 501 W. President George Bush Hwy., Suite 200Project Contact Phone 469-395-0515Email joe.lehman@spiarsengineering.comProposed Project Name DHI Cross RoadsLocation West of FM 720, north of Quail Meadows Lane.Lot/Block 1/AAbstract N. Jones Survey, Abstract No. 662DCAD ID 38002, 121938, 191221Number of Lots Created 1

## REQUIRED SUBMISSION DOCUMENTS

Fee ☒ \_\_\_\_\_ Legal Description ☒ \_\_\_\_\_  
Location Map ☒ \_\_\_\_\_ Drawings (1 full, 2 half) ☒ \_\_\_\_\_

Site Plan (Commercial) ☒ \_\_\_\_\_ Electronic copy of application ☒ \_\_\_\_\_  
Electronic copy of drawings ☒ \_\_\_\_\_  
OTHER (Specify) \_\_\_\_\_

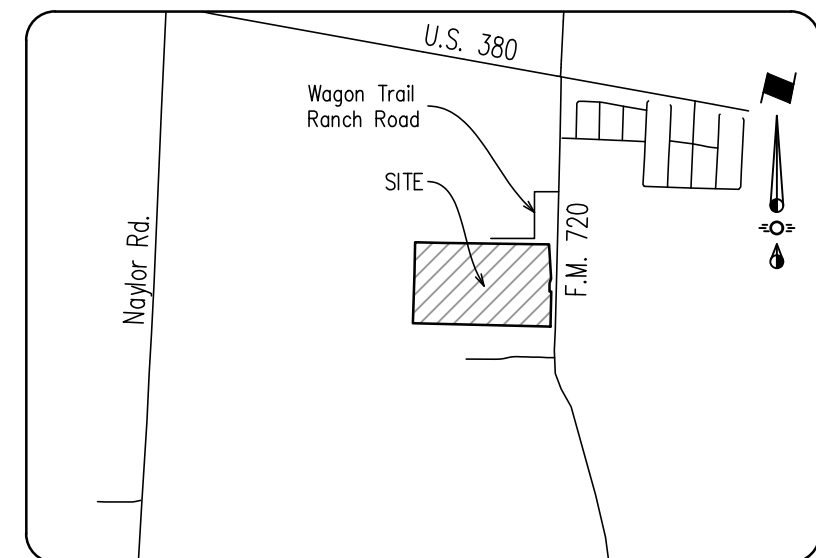
## APPLICATION EXPLANATION

### Explanation and Description of Request or Project

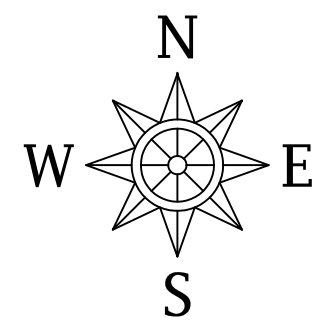
Preliminary Plat submittal for a garden style multifamily development with 290 units on 25.4 acres.

Before submitting an application, the applicant should consult with the Town Administrator to discuss the feasibility of the request and any additional requirements.

3RD REVIEW COMMENT  
RESPONSE - SPIARS ENG.  
4/22/2024 - BCB



Vicinity Map  
MS



0 40 80 160  
1 inch = 80 ft.

LEGEND	
○	1/2" IRON ROD W/ PLASTIC CAP STAMPED "SPIARSENG" SET, UNLESS OTHERWISE NOTED.
IRF	IRON ROD FOUND
CIRF	CAPPED IRON ROD FOUND
●	POWER POLE
⊙	SAN. SEWER MANHOLE
⊙	STORM SEWER MANHOLE
⊙	LIGHT POLE/STANDARD
⊙	GUY WIRE ANCHOR
⊙	BOLLARD
⊙	SIGNPOST
⊙	HANDICAP PARKING
⊙	FIRE HYDRANT
⊙	GAS MARKER
⊙	GROUND LIGHT
⊙	UNDERGROUND ELECTRIC LINE MARKER
⊙	UNDERGROUND CABLE MARKER
⊙	GAS TEST LEAD
⊙	GAS METER
⊙	GAS LINE MARKER
⊙	FIBEROPTIC CABLE MARKER
⊙	FIRE SPRINKLER CONTROL BOX
⊙	ELECTRIC BOX
⊙	ELECTRIC METER
⊙	IRRIGATION CONTROL VALVE
⊙	WATER VALVE
⊙	WATER METER
⊙	SANITARY SEWER CLEANOUT
⊙	CHAIN LINK FENCE
⊙	GUARD RAIL FENCE
⊙	BARBED WIRE FENCE
⊙	WOOD FENCE
⊙	OVERHEAD POWER LINE
⊙	CONTROL MONUMENT
⊙	MAG NAIL FOUND
⊙	UM UTILITY MANHOLE
⊙	PFC POINT FOR CORNER

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C1	11.34'	30.00'	21°36'36"	N 77°46'51" W	11.22'
C2	47.12'	30.00'	90°00'00"	S 48°23'21" W	42.43'
C3	6.46'	30.00'	12°20'36"	S 04°46'57" E	6.45'
C4	15.71'	30.00'	30°00'00"	S 25°57'15" E	15.53'
C5	29.32'	56.00'	30°00'00"	N 25°57'15" W	28.99'
C6	45.83'	30.00'	87°32'01"	S 54°53'46" E	41.50'
C7	28.44'	165.00'	9°52'37"	S 86°27'03" W	28.41'
C8	16.62'	30.00'	31°44'21"	N 75°31'10" E	16.41'
C9	16.70'	30.00'	31°53'59"	N 72°39'39" W	16.49'
C10	34.95'	135.00'	14°50'06"	S 83°58'18" W	34.86'
C11	7.17'	30.00'	134°14'41"	N 84°32'30" E	7.15'
C12	103.66'	56.00'	16°03'28"	S 35°34'55" E	89.48'
C13	8.41'	30.00'	16°03'28"	N 09°25'05" E	8.38'
C14	40.27'	30.00'	76°54'26"	N 37°03'52" W	37.31'
C15	28.75'	30.00'	54°54'06"	N 10°51'31" E	27.66'
C16	17.00'	56.00'	17°23'48"	S 07°53'37" E	16.94'
C17	87.96'	56.00'	90°00'00"	S 49°48'17" W	79.20'
C18	78.79'	56.00'	80°36'35"	N 48°53'25" E	72.45'
C19	41.90'	30.00'	80°01'31"	S 49°35'54" E	38.58'
C20	16.85'	30.00'	32°11'12"	N 75°17'45" E	16.63'

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C21	47.43'	30.00'	90°35'04"	N 43°54'11" W	42.64'
C22	47.12'	30.00'	90°00'00"	N 48°23'21" E	42.43'
C23	47.12'	30.00'	90°00'00"	N 43°36'39" W	42.43'
C24	47.12'	30.00'	90°00'00"	N 48°23'21" E	42.43'
C25	37.71'	30.00'	72°01'08"	S 52°36'05" E	35.28'
C26	9.11'	30.00'	17°23'48"	S 07°53'37" E	9.07'
C27	47.12'	30.00'	90°00'00"	S 49°48'17" W	42.43'
C28	47.12'	30.00'	90°00'00"	N 43°36'39" W	42.43'
C29	12.06'	56.00'	12°20'36"	S 04°46'57" E	12.04'
C30	29.32'	56.00'	30°00'00"	S 25°57'15" E	28.99'
C31	15.71'	30.00'	30°00'00"	N 25°57'15" W	15.53'
C32	93.79'	30.00'	179°07'21"	N 79°02'39" E	60.00'
C33	76.60'	56.00'	78°22'05"	N 50°08'18" W	70.76'
C34	41.03'	30.00'	78°22'05"	S 50°08'18" E	37.91'
C35	75.90'	56.00'	77°39'24"	N 49°46'57" W	70.22'
C36	18.20'	30.00'	34°40'23"	S 71°13'58" E	17.92'
C37	20.27'	56.00'	20°44'38"	N 65°08'46" W	20.16'
C38	59.60'	30.00'	113°49'39"	S 18°36'15" E	50.27'
C39	65.50'	30.00'	125°05'55"	N 79°08'29" W	53.24'
C40	70.39'	56.00'	72°01'08"	S 52°36'05" E	65.85'

Line Table		
Line #	Bearing	Distance
L1	S 88°36'39" E	100.04'
L2	N 01°23'21" E	375.53'
L3	N 10°57'15" W	143.86'
L4	N 40°57'15" W	12.27'
L5	N 10°57'15" W	9.49'
L6	N 88°36'39" W	22.17'
L7	S 88°36'39" E	22.14'
L8	N 77°41'39" E	11.18'
L9	S 88°36'39" E	493.22'
L10	S 17°26'49" W	175.17'
L11	S 01°23'21" W	123.51'
L12	S 75°31'05" E	170.42'
L13	S 14°28'55" W	22.39'
L14	S 38°18'34" W	194.67'
L15	S 16°35'31" E	9.08'
L16	S 00°46'17" W	40.16'
L17	N 89°11'43" W	381.59'
L18	N 88°36'39" E	92.90'
L19	N 01°23'21" E	119.66'
L20	S 88°36'39" E	45.00'

Line Table		
Line #	Bearing	Distance
L21	S 88°36'39" E	26.00'
L22	N 88°36'39" W	45.00'
L23	N 01°23'21" E	10.50'
L24	S 88°36'39" E	325.30'
L25	S 16°35'31" E	180.96'
L26	S 00°46'17" W	40.16'
L27	N 89°11'43" W	381.59'
L28	N 01°23'21" W	148.47'
L29	S 10°57'15" E	143.86'
L30	S 40°57'15" E	12.27'
L31	N 10°57'15" W	71.02'
L32	N 10°57'15" W	169.31'
L33	N 88°36'39" W	153.99'
L34	N 54°46'22" W	22.09'
L35	N 75°31'05" W	114.25'
L36	N 38°18'34" E	72.71'
L37	S 16°35'31" E	66.77'
L38	S 88°36'39" E	325.30'
L39	N 10°57'15" W	169.31'
L40	N 10°57'15" W	52.20'

Line Table		
Line #	Bearing	Distance
L41	S 88°36'39" E	220.60'
L42	S 01°19'17" W	5.06'
L43	S 88°36'39" E	20.00'
L44	N 01°33'49" E	5.02'
L45	S 88°36'39" E	37.61'
L46	S 17°26'49" W	175.17'
L47	S 01°23'21" W	91.87'
L48	N 88°36'39" W	153.99'
L49	S 88°09'30" E	134.67'
L50	S 43°36'39" E	117.33'
L51	S 88°36'39" E	268.26'
L52	S 78°29'23" E	344.23'
L53	N 11°30'37" E	7.58'
L54	S 78°29'23" E	30.11'
L55	S 11°30'37" E	32.58'
L56	N 78°29'23" W	372.13'
L57	N 88°36'39" W	276.40'
L58	N 43°36'39" W	117.44'
L59	N 88°09'21" W	123.95'
L60	S 88°38'45" E	25.01'

Line Table		
Line #	Bearing	Distance
L61	S 01°23'21" W	25.00'
L62	N 88°36'39" W	25.00'
L63	S 88°36'39" E	25.01'
L64	S 01°23'21" W	15.00'
L65	N 88°36'39" W	24.99'
L66	S 00°46'17" W	134.14'
L67	S 38°18'34" W	40.55'
L68	S 61°52'00" W	35.23'
L69	S 19°43'28" W	46.10'
L70	S 12°19'00" W	21.76'
L71	S 67°10'00" W	22.40'
L72	S 37°20'15" W	80.94'
L73	S 14°15'10" E	25.18'
L74	S 14°23'20" E	78.65'
L75	S 76°13'01" E	173.70'
L76	S 39°54'42" E	18.52'
L77	S 00°10'18" E	49.46'
L78	S 24°52'06" W	55.55'
L79	S 16°34'58" W	70.49'
L80	S 26°00'38" W	108.97'

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C41	40.66'	30.00'	77°39'24"	N 49°46'57" W	37.62'
C42	76.60'	56.00'	78°22'05"	S 50°08'18" E	70.76'
C43	41.03'	30.00'	78°22'05"	N 50°08'18" W	37.91'
C44	53.59'	30.00'	102°20'36"	N 40°13'03" E	46.74'
C45	47.06'	30.00'	89°52'42"	S 47°40'18" E	42.38'
C46	47.11'	30.00'	89°57'54"	N 46°24'24" E	42.41'
C47	55.53'	30.00'	106°03'28"	S 35°34'55" E	47.94'
C48	15.69'	56.00'	16°03'28"	N 09°25'05" E	15.64'
C49	47.12'	30.00'	90°00'00"	S 49°48'17" W	42.43'
C50	34.79'	22.00'	90°36'21"	S 30°54'50" E	31.28'
C51	119.57'	250.00'	27°24'14"	S 10°54'55" W	118.44'
C52	55.85'	50.00'	63°59'38"	S 48°22'12" W	52.99'

PRELIMINARY PLAT  
**DHI CROSS ROADS ADDITION**  
LOT 1, BLOCK A  
IN THE TOWN OF CROSS ROADS, DENTON COUNTY, TEXAS  
N. Jones Survey, Abstract No. 662  
1,106,623 Sq. Ft./25.405 Acres

Denton Independent  
School District  
Document No. 2023-14047 DRDCT

Printed By: Bateson Plt Date: 4/19/2024 11:48 AM

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Drawing: 03/2023 2025/23-107 DHI Cross Roads Addition Preliminary Plat.dwg Saved By: Bmawd Save Time: 4/19/2024 11:18:25 AM

NOTES:

- This replat was prepared without the benefit of a commitment for title insurance. No research was performed for any easements other than that shown on the record plat of this property. Therefore, easements, agreements, and other documents may exist that affect the subject property that are not shown on this replat.
- Basis of bearing: Texas State Plane Coordinate System, North Central Zone 4202, North American Datum of 1983. Adjustment Realization 2011.
- Selling a portion of this addition by metes and bounds is a violation of Town ordinance and state law and is subject to fines and withholding of utilities and building permits.

ENGINEER / SURVEYOR  
Spiars Engineering, Inc.  
765 Custer Road, Suite 100  
Plano, TX 75075  
Telephone: (972) 422-0077  
TBPE No. F-2121  
Contact: Joe Lehman

OWNER  
Ben, Louise Properties LTD  
6608 Riverside Dr  
Plano, TX 76227  
Telephone: (XXX) XXX-XXXX  
Contact: Client Contact

DEVELOPER  
D.R. Horton  
1341 Horton Circle  
Arlington, TX 76011  
Telephone (817) 390-8200  
Contact: Andrew Wiley  
Email: ajwiley@drhorton.com



OWNER'S CERTIFICATE  
STATE OF TEXAS §  
COUNTY OF DENTON §

WHEREAS DHI Cross Roads Addition, a tract of land situated in the N. Jones Survey, Abstract No. 662, Denton County, Texas, being all of a tract conveyed to Louise Ben Properties, Ltd., by deed recorded in Document No. 1998-116366 of the Deed Records of Denton County, Texas (DRDCT), with the subject tract being more particularly described as follows:

BEGINNING at a Mag Nail found at the southeast corner of MAWG 1 LLC, by deed recorded in Document No. 2020-195450 of the Deed Records of Denton County, Texas and lying in the west right-of-way line of F.M. 720 (variable width right-of-way);

THENCE along said west line of F.M. 720, the following courses and distances:

Along a curve to the left having a central angle of 01°10'30", a radius of 2929.79 feet, a chord of S 03°31'21" E - 60.08 feet, an arc length of 60.09 feet;

S 04°06'36" E, 149.61 feet;

Along a tangent curve to the right having a central angle of 02°43'04", a radius of 2799.79 feet, a chord of S 02°45'03" E - 132.80 feet, an arc length of 132.81 feet;

S 19°14'09" W, 50.00 feet;

S 00°16'45" W, 81.90 feet;

N 87°45'01" E, 18.06 feet;

S 01°20'17" W, 350.14 feet to the northeast corner of Lot 1, Block A of Quail Meadows, Phase I, an addition to Denton County, Texas, according to the plat thereof recorded in Document No. 98-R0031904 of the Plat Records of Denton County, Texas;

THENCE, N 88°36'39" W, 1373.80 feet to an interior ell corner of a tract of land conveyed to Denton Independent School District (DISD), by deed recorded in Document No. 2023-14047 of the Deed Records of Denton County, Texas;

THENCE, N 01°41'40" E, 495.25 feet;

THENCE, N 01°19'21" E, 312.50 feet to an interior ell corner of said DISD tract;

THENCE, S 88°42'42" E, 276.29 feet to the southwest corner of Lynn D. Yocum and Carol Yocum, by deed recorded in Document No. 2004-122652 of the Deed Records of Denton County, Texas;

THENCE, S 89°11'43" E, 912.50 feet to the southeast corner of said Yocum tract and the southwest corner of said MAWG 1 tract;

THENCE, S 89°26'40" E, 149.13 feet to the POINT OF BEGINNING with the subject tract containing 1,106,623 square feet or 25.405 acres of land.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That We, **Ben, Louise Properties LTD**, do hereby adopt this plat designating the hereinabove described property as **CROSS ROADS ADDITION**, an Addition to the City of Roanoke, and do hereby dedicate to the public use forever the streets and alleys 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 which in any way endanger or interfere with the construction, maintenance or efficiency of its respective systems on any of these easement strips and any public utility shall at all times have the right of ingress and egress to and from and upon the said easement strip for the purpose of constructing, reconstructing, inspecting, and patrolling, without the necessity at any time of procuring the permission of anyone. This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Roanoke, Texas.

Witness our hands at Dallas County, Texas, this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

By: **Ben, Louise Properties LTD**,  
a Texas limited liability company  
its General Partner

\_\_\_\_\_  
Manager

STATE OF TEXAS §  
COUNTY OF DENTON §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared **Bay W. Miltenberger**, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public, State of Texas

NOTES:

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- Selling a portion of this addition by metes and bounds is a violation of Town ordinance and state law and is subject to fines and withholding of utilities and building permits.

SURVEYOR'S CERTIFICATE

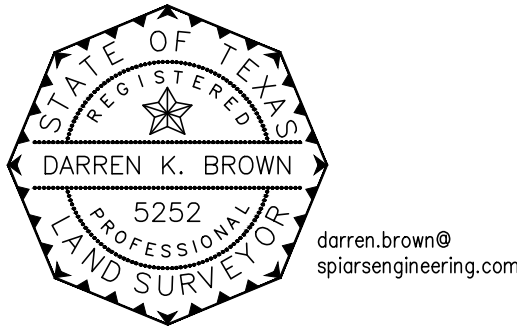
To: DHIC, LLC, National Title Group, LLC and Old Republic National Title Insurance Company, and their respective successors and assigns:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys jointly established and adopted by ALTA and NSPS, and includes optional items 1, 2, 3, 4, 7(a), 8, 9, 11, 12, 13, 16, 17 and 18 of Table A thereof. The field work was completed on 5/16/23.

Date of Plat or Map: 4/8/2024

PRELIMINARY  
DOCUMENT SHOULD NOT BE  
RECORDED FOR ANY REASON

\_\_\_\_\_  
Darren K. Brown, RPLS 5252



Part of the subject land is located in a 100-year Flood Plain or in an identified "flood prone area," as defined pursuant to the Flood Disaster Protection Act of 1973, as amended, as reflected by Flood Insurance Rate Map Panel 48121C0405G, effective on 04/18/2011. The property is located in Zone "A" (No base flood elevations determined) and Zone "X" (areas determined to be outside the 500-year floodplain).

STATE OF TEXAS §  
COUNTY OF DENTON §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared Darren K. Brown, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public, State of Texas

PRELIMINARY PLAT FOR REVIEW PURPOSES ONLY

Recommended for Approval	
_____	
Chairperson, Planning and Zoning Commission	Date
Town of Cross Roads, Texas	
Approved for Preparation of Final Plat	
_____	_____
Mayor, Town of Cross Roads	Date

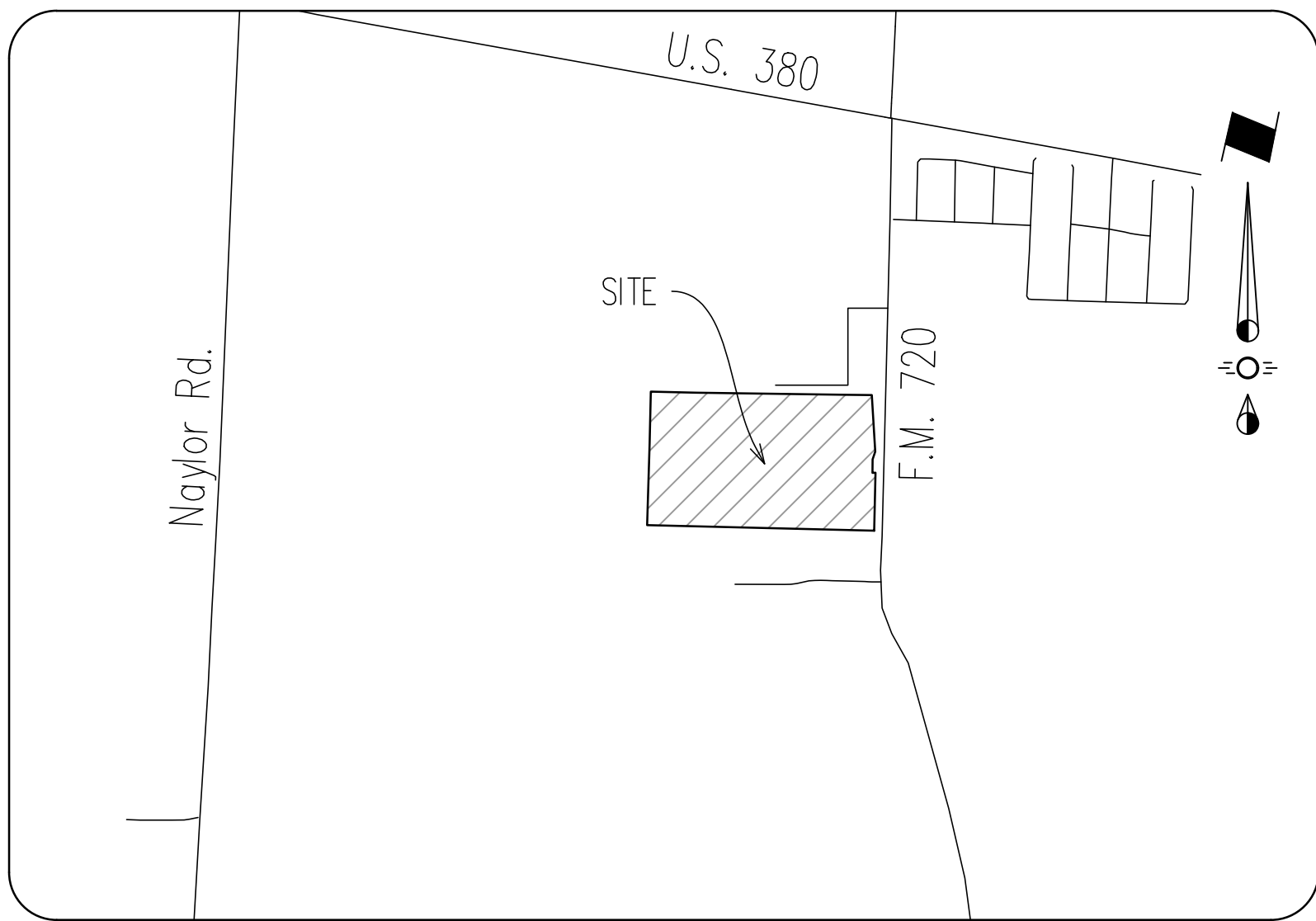
PRELIMINARY PLAT  
**DHI CROSS ROADS ADDITION**  
LOT 1, BLOCK A  
IN THE TOWN OF CROSS ROADS, DENTON COUNTY, TEXAS  
N. Jones Survey, Abstract No. 662  
1,106,623 Sq. Ft./25.405 Acres



3RD REVIEW COMMENT  
RESPONSE - SPIARS ENG.  
4/22/2024 - BCB

# CONSTRUCTION PLANS FOR DHI CROSS ROADS LOT 1, BLOCK A DHI CROSS ROADS ADDITION TOWN OF CROSS ROADS, TEXAS DENTON COUNTY

TOWN OF CROSSROADS PROJECT # XXXX-X



Vicinity Map  
NTS

APPROVAL:

MUSTANG S.U.D. \_\_\_\_\_ DATE \_\_\_\_\_

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, MUSTANG SPECIAL UTILITY DISTRICT MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

Notes:

1. Prior to beginning any construction or construction staking, it shall be the Contractor's responsibility to contact the civil engineer to ensure that all parties are in possession of the most current set of CD's.
2. All construction within Town of Cross Roads R.O.W. or easements shall conform to City Details available from Town of Cross Roads Development Services Department.
3. No work shall occur within Texas Department of Transportation R.O.W. without a permit.

## Index of Drawings

- C0 Cover
- C0.1 Preliminary Plat
- C0.2 Preliminary Plat
- C1 Demolition Plan
- C2 Demolition Plan
- C3 Paving & Horizontal Control Plan
- C4 Paving & Horizontal Control Plan
- C5 Paving & Horizontal Control Plan
- C6 Grading Plan
- C7 Grading Plan
- C8 Grading Plan
- C9 Grading Plan
- C10 Grading Plan
- C11 Grading Plan
- C12 Existing Drainage Area Map
- C13 Proposed Drainage Area Map
- C14 Drainage Plan
- C15 Drainage Plan
- C16 Drainage Profiles
- C17 Drainage Profiles
- C18 Drainage Profiles
- C19 Drainage Profiles
- C20 Drainage Profiles
- C21 Drainage Profiles
- C22 Drainage Calculations
- C23 Water Plan
- C24 Water Plan
- C25 Sanitary Sewer Plan
- C26 Sanitary Sewer Plan
- C27 Sanitary Sewer Profiles
- C28 Sanitary Sewer Profiles
- C29 Sanitary Sewer Profile
- C30 Erosion Control Plan
- C31 Drainage Details
- C32 Drainage Details
- C33 Drainage Details
- C34 Mustang SUD Details
- C35 Mustang SUD Details
- C36 Mustang SUD Details
- C37 Mustang SUD Details
- C38 Mustang SUD Details
- C39 Mustang SUD Details

DEVELOPER  
DHI Communities  
1341 Horton Circle  
Arlington, TX 76011  
Telephone (214) 707-8252  
Contact: Andrew Wiley  
Email: ajwiley@drhorton.com

Prepared By:  
**SPIARS**  
ENGINEERING & SURVEYING  
501 W. President George Bush Hwy., Suite 200 • Richardson, TX 75080 • 972.422.0077  
TBPE No F-2121 • TBLPS No. F-10043100 • www.spiarseng.com  
Kevin Wier • kevin.wier@spiarsengineering.com

This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138208

Date: April 8, 2024  
It is not to be used for construction.



3RD REVIEW COMMENT  
RESPONSE - SPIARS ENG.  
4/22/2024 - BCB

Denton Independent  
School District  
Document No. 2023-14047 DRDCT

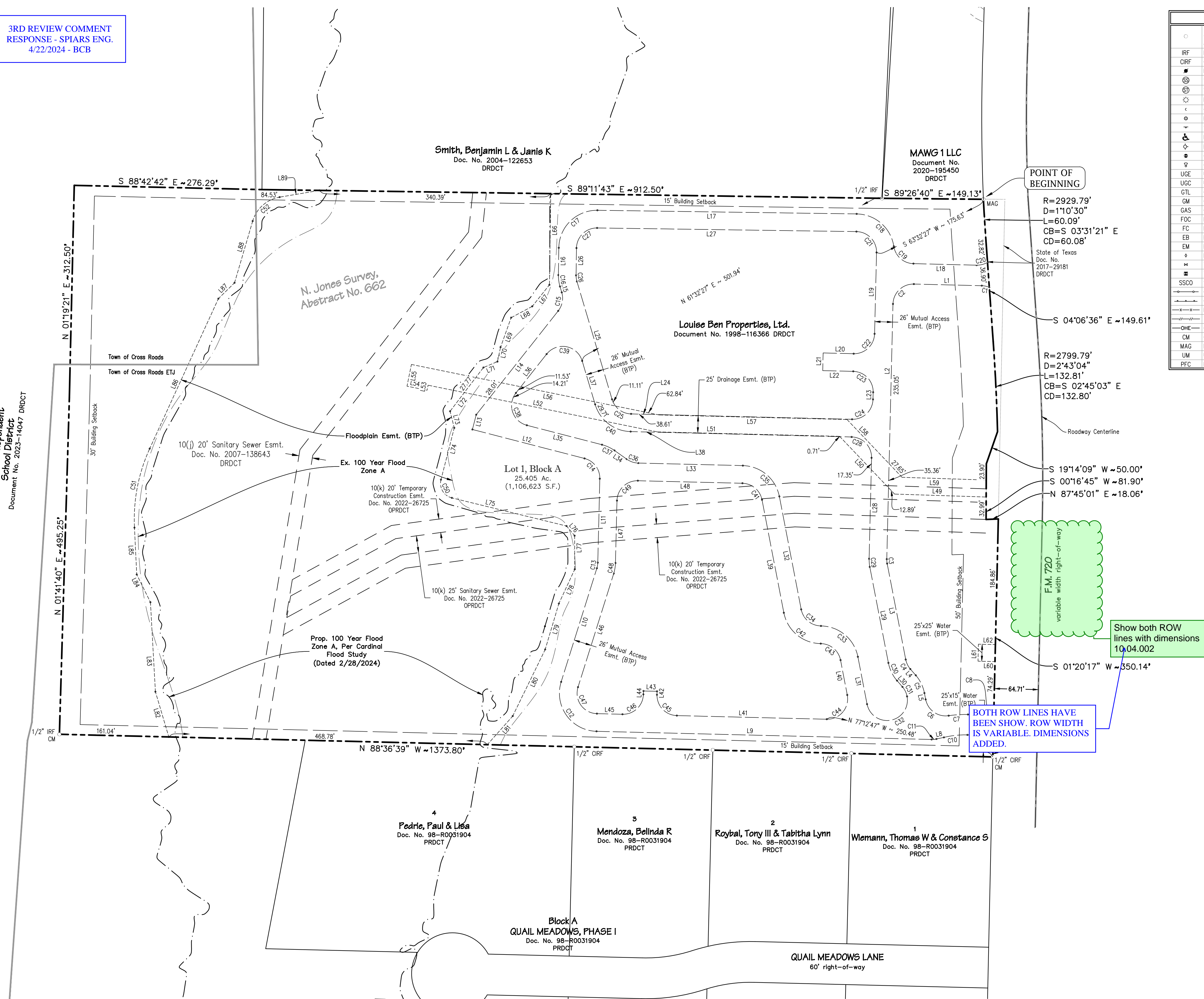
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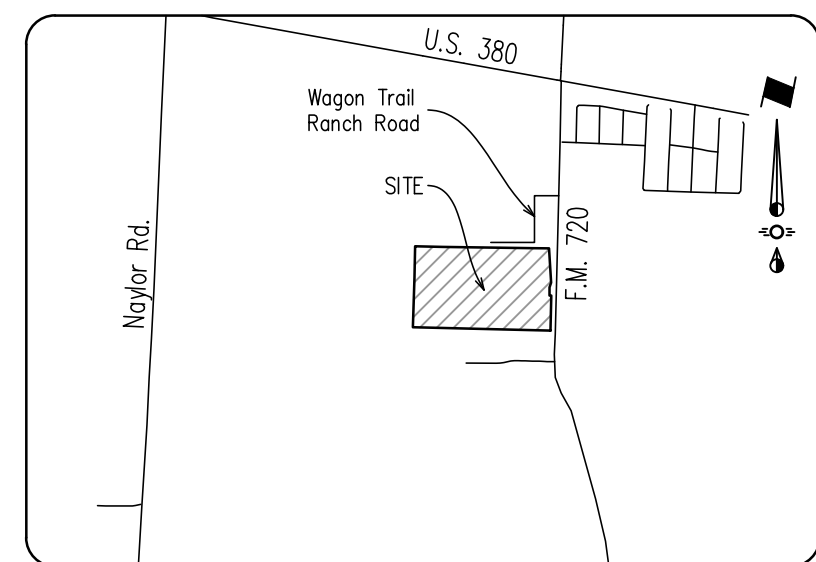
Drawing: 03/2023 2025/23-107 DHI Cross Roads/CAD/Preliminary Plat.dwg Saved By: BCB/PLP Save Time: 4/19/2024 11:18:25 AM

#### NOTES:

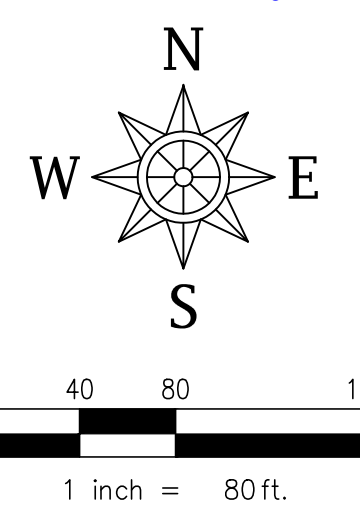
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LEGEND	
○	1/2" IRON ROD W/ PLASTIC CAP STAMPED "SPIARSENG" SET, UNLESS OTHERWISE NOTED.
IRF	IRON ROD FOUND
CIRF	CAPPED IRON ROD FOUND
●	POWER POLE
⊙	SAN. SEWER MANHOLE
⊙	STORM SEWER MANHOLE
⊙	LIGHT POLE/STANDARD
⊙	GUY WIRE ANCHOR
⊙	BOLLARD
⊙	SIGNPOST
⊙	HANDICAP PARKING
⊙	FIRE HYDRANT
⊙	GAS MARKER
⊙	GROUND LIGHT
⊙	UNDERGROUND ELECTRIC LINE MARKER
⊙	UNDERGROUND CABLE MARKER
GTL	GAS TEST LEAD
GM	GAS METER
GAS	GAS LINE MARKER
FOC	FIBEROPTIC CABLE MARKER
FC	FIRE SPRINKLER CONTROL BOX
EB	ELECTRIC BOX
EM	ELECTRIC METER
⊙	IRRIGATION CONTROL VALVE
⊙	WATER VALVE
⊙	WATER METER
SSCO	SANITARY SEWER CLEANOUT
⊙	CHAIN LINK FENCE
⊙	GUARD RAIL FENCE
⊙	BARBED WIRE FENCE
⊙	WOOD FENCE
⊙	OVERHEAD POWER LINE
⊙	CONTROL MONUMENT
MAG	MAG NAIL FOUND
UM	UTILITY MANHOLE
PFC	POINT FOR CORNER



Vicinity Map



Line Table

Line #	Bearing	Distance
L1	S 88°36'39" E	100.04'
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L5	N 10°57'15" W	9.49'
L6	N 88°36'39" W	22.17'
L7	S 88°36'39" E	22.14'
L8	N 77°41'39" E	11.18'
L9	S 88°36'39" E	493.22'
L10	S 17°26'49" W	175.17'
L11	S 01°23'21" W	123.51'
L12	S 75°31'05" E	170.42'
L13	S 14°28'55" W	22.39'
L14	S 38°18'34" W	194.67'
L15	S 16°35'31" E	9.08'
L16	S 00°46'17" W	40.16'
L17	N 89°11'43" W	381.59'
L18	N 88°36'39" E	92.90'
L19	N 01°23'21" E	119.66'
L20	S 88°36'39" E	45.00'

Line Table

Line #	Bearing	Distance
L21	S 88°36'39" E	26.00'
L22	N 88°36'39" W	45.00'
L23	N 01°23'21" E	10.50'
L24	S 88°36'39" E	325.30'
L25	S 16°35'31" E	180.96'
L26	S 00°46'17" W	40.16'
L27	N 89°11'43" W	381.59'
L28	S 01°23'21" W	148.47'
L29	S 10°57'15" E	143.86'
L30	S 43°36'39" E	117.33'
L31	N 10°57'15" W	71.02'
L32	N 10°57'15" W	169.31'
L33	N 88°36'39" W	153.99'
L34	N 54°46'22" W	22.09'
L35	N 75°31'05" W	114.25'
L36	N 38°18'34" E	72.71'
L37	S 16°35'31" E	66.77'
L38	S 88°36'39" E	325.30'
L39	N 10°57'15" W	169.31'
L40	N 10°57'15" W	52.20'

Line Table

Line #	Bearing	Distance
L41	S 88°36'39" E	220.60'
L42	S 01°19'17" W	5.06'
L43	S 88°36'39" E	20.00'
L44	N 01°33'49" E	5.02'
L45	S 88°36'39" E	37.61'
L46	S 17°26'49" W	175.17'
L47	S 01°23'21" W	91.87'
L48	N 88°36'39" W	153.99'
L49	S 88°36'39" E	134.67'
L50	S 43°36'39" E	117.33'
L51	S 88°36'39" E	268.26'
L52	S 78°29'23" E	344.23'
L53	N 11°30'37" E	7.58'
L54	S 78°29'23" E	30.11'
L55	S 11°30'37" E	32.58'
L56	N 78°29'23" W	372.13'
L57	N 88°36'39" W	276.40'
L58	N 43°36'39" W	117.44'
L59	N 88°36'39" W	123.95'
L60	N 88°36'45" E	25.01'

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C1	11.34'	30.00'	21°39'36"	N 77°46'51" W	11.27'
C2	47.12'	30.00'	90°00'00"	S 48°23'21" W	42.43'
C3	6.46'	30.00'	12°20'36"	S 04°46'57" E	6.45'
C4	15.71'	30.00'	30°00'00"	S 25°57'15" E	15.53'
C5	29.32'	56.00'	30°00'00"	N 25°57'15" W	28.99'
C6	49.83'	30.00'	87°32'01"	S 54°33'49" E	41.50'
C7	28.44'	165.00'	9°52'37"	S 86°27'03" W	28.41'
C8	16.62'	30.00'	31°44'21"	N 75°31'10" E	16.41'
C9	16.70'	30.00'	31°53'59"	N 72°39'39" W	16.49'
C10	34.95'	135.00'	14°50'06"	S 83°58'18" W	34.86'
C11	7.17'	30.00'	13°41'41"	N 84°32'30" E	7.15'
C12	103.66'	56.00'	16°03'28"	S 35°34'55" E	89.48'
C13	8.41'	30.00'	16°03'28"	N 09°25'05" E	8.38'
C14	40.27'	30.00'	76°54'26"	N 37°03'52" W	37.31'
C15	28.75'	30.00'	54°54'06"	N 10°51'31" E	27.66'
C16	17.00'	56.00'	17°23'48"	S 07°53'37" E	16.94'
C17	87.96'	56.00'	90°00'00"	S 49°48'17" W	79.20'
C18	78.79'	56.00'	80°36'35"	N 48°53'25" E	72.45'
C19	41.90'	30.00'	80°01'31"	S 49°35'54" E	38.58'
C20	16.85'	30.00'	32°11'12"	N 75°17'45" E	16.63'

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C21	47.43'	30.00'	90°35'04"	N 43°54'11" W	42.64'
C22	47.12'	30.00'	90°00'00"	N 48°23'21" E	42.43'
C23	47.12'	30.00'	90°00'00"	N 43°36'39" W	42.43'
C24	47.12'	30.00'	90°00'00"	N 48°23'21" E	42.43'
C25	37.71'	30.00'	72°01'08"	S 52°36'05" E	35.28'
C26	9.11'	30.00'	17°23'48"	S 07°53'37" E	9.07'
C27	47.12'	30.00'	90°00'00"	S 49°48'17" W	42.43'
C28	47.12'	30.00'	90°00'00"	N 43°36'39" W	42.43'
C29	12.06'	56.00'	12°20'36"	S 04°46'57" E	12.04'
C30	29.32'	56.00'	30°00'00"	S 25°57'15" E	28.99'
C31	15.71'	30.00'	30°00'00"	N 25°57'15" W	15.53'
C32	93.79'	30.00'	17°07'21"	N 79°02'39" E	60.00'
C33	76.60'	56.00'	78°22'05"	N 50°08'18" W	70.76'
C34	41.03'	30.00'	78°22'05"	S 50°08'18" E	37.91'
C35	75.90'	56.00'	77°39'24"	N 49°48'57" W	70.22'
C36	18.20'	30.00'	34°40'23"	S 71°13'58" E	17.92'
C37	20.27'	56.00'	20°44'38"	N 65°08'46" W	20.16'
C38	59.60'	30.00'	11°34'39"	S 18°36'15" E	50.27'
C39	65.50'	30.00'	12°50'55"	N 79°08'29" W	53.24'
C40	70.39'	56.00'	72°01'08"	S 52°36'05" E	65.85'

Line Table

Line #	Bearing	Distance
L61	S 01°23'21" W	25.00'
L62	N 88°36'39" W	25.00'
L63	S 88°36'39" E	25.01'
L64	S 01°23'21" W	15.00'
L65	N 88°36'39" W	24.99'
L66	S 00°46'17" W	134.14'
L67	S 38°18'34" W	40.55'
L68	S 16°35'31" E	35.23'
L69	S 19°43'52" W	46.10'
L70	S 12°19'31" W	21.76'
L71	S 67°10'07" W	22.40'
L72	S 37°20'15" W	80.94'
L73	S 14°15'16" W	25.18'
L74	S 14°23'02" W	78.65'
L75	S 76°13'01" E	173.70'
L76	S 39°54'42" E	18.52'
L77	S 00°10'18" E	49.46'
L78	S 24°52'06" W	55.55'
L79	S 16°34'58" W	70.49'
L80	S 26°00'38" W	108.99'

Line Table

Line #	Bearing	Distance
L81	S 47°37'18" W	56.26'
L82	N 16°33'36" W	69.38'
L83	N 03°10'14" W	131.84'
L84	N 26°17'59" W	45.50'
L85	N 02°47'12" W	69.00'
L86	N 24°37'02" E	242.63'
L87	N 45°32'18" E	33.31'
L88	N 16°22'23" E	94.59'
L89	N 80°22'01" E	59.46'

Curve Table

Curve #	Length	Radius	Delta	Chord Bearing	Chord Dist.
C41	40.66'	30.00'	77°39'24"	N 49°46'57" W	37.62'
C42	76.60'	56.00'	78°22'05"	S 50°08'18" E	70.76'
C43	41.03'	30.00'	78°22'05"	N 50°08'18" W	37.91'
C44	53.59'	30.00'	102°20'36"	N 40°13'03" E	46.74'
C45	47.06'	30.00'	89°52'42"	S 47°40'18" E	42.38'
C46	47.11'	30.00'	89°57'54"	N 46°24'24" E	42.41'
C47	55.53'	30.00'	106°03'28"	S 35°34'55" E	47.94'
C48	15.69'	56.00'	16°03'28"	N 09°25'05" E	15.64'
C49	47.12'	30.00'	90°00'00"	S 48°23'21" W	42.43'
C50	34.79'	22.00'	90°36'21"	S 30°54'50" E	31.28'
C51	119.57'	250.00'	27°24'14"	S 10°54'55" W	118.44'
C52	55.85'	50.00'	63°59'38"	S 48°22'12" W	52.99'

## PRELIMINARY PLAT DHI CROSS ROADS ADDITION LOT 1, BLOCK A IN THE TOWN OF CROSS ROADS, DENTON COUNTY, TEXAS N. Jones Survey, Abstract No. 662 1,106,623 Sq. Ft./25.405 Acres

ENGINEER / SURVEYOR  
Spiars Engineering, Inc.  
765 Custer Road, Suite 100  
Plano, TX 75075  
Telephone: (972) 422-0077  
TBPE No. F-2121  
Contact: Joe Lehman

OWNER  
Ben, Louise Properties LTD  
6608 Riverside Dr  
Plano, TX 76227  
Telephone: (XXX) XXX-XXXX  
Contact: Client Contact

DEVELOPER  
D.R. Horton  
1341 Horton Circle  
Arlington, TX 76011  
Telephone (817) 390-8200  
Contact: Andrew Wiley  
Email: ajwiley@drhorton.com



OWNER'S CERTIFICATE

STATE OF TEXAS §  
COUNTY OF DENTON §

WHEREAS DHI Cross Roads Addition, a tract of land situated in the N. Jones Survey, Abstract No. 662, Denton County, Texas, being all of a tract conveyed to Louise Ben Properties, Ltd., by deed recorded in Document No. 1998-116366 of the Deed Records of Denton County, Texas (DRDCT), with the subject tract being more particularly described as follows:

BEGINNING at a Mag Nail found at the southeast corner of MAWG 1 LLC, by deed recorded in Document No. 2020-195450 of the Deed Records of Denton County, Texas and lying in the west right-of-way line of F.M. 720 (variable width right-of-way);

THENCE along said west line of F.M. 720, the following courses and distances:

Along a curve to the left having a central angle of 01°10'30", a radius of 2929.79 feet, a chord of S 03°31'21" E - 60.08 feet, an arc length of 60.09 feet;

S 04°06'36" E, 149.61 feet;

Along a tangent curve to the right having a central angle of 02°43'04", a radius of 2799.79 feet, a chord of S 02°45'03" E - 132.80 feet, an arc length of 132.81 feet;

S 19°14'09" W, 50.00 feet;

S 00°16'45" W, 81.90 feet;

N 87°45'01" E, 18.06 feet;

S 01°20'17" W, 350.14 feet to the northeast corner of Lot 1, Block A of Quail Meadows, Phase I, an addition to Denton County, Texas, according to the plat thereof recorded in Document No. 98-R0031904 of the Plat Records of Denton County, Texas;

THENCE, N 88°36'39" W, 1373.80 feet to an interior ell corner of a tract of land conveyed to Denton Independent School District (DISD), by deed recorded in Document No. 2023-14047 of the Deed Records of Denton County, Texas;

THENCE, N 01°41'40" E, 495.25 feet;

THENCE, N 01°19'21" E, 312.50 feet to an interior ell corner of said DISD tract;

THENCE, S 88°42'42" E, 276.29 feet to the southwest corner of Lynn D. Yocum and Carol Yocum, by deed recorded in Document No. 2004-122652 of the Deed Records of Denton County, Texas;

THENCE, S 89°11'43" E, 912.50 feet to the southeast corner of said Yocum tract and the southwest corner of said MAWG 1 tract;

THENCE, S 89°26'40" E, 149.13 feet to the POINT OF BEGINNING with the subject tract containing 1,106,623 square feet or 25.405 acres of land.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That We, **Ben, Louise Properties LTD**, do hereby adopt this plat designating the hereinabove described property as **CROSS ROADS ADDITION**, an Addition to the City of Roanoke, and do hereby dedicate to the public use forever the streets and alleys 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 which in any way endanger or interfere with the construction, maintenance or efficiency of its respective systems on any of these easement strips and any public utility shall at all times have the right of ingress and egress to and from and upon the said easement strip for the purpose of constructing, reconstructing, inspecting, and patrolling, without the necessity at any time of procuring the permission of anyone. This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Roanoke, Texas.

Witness our hands at Dallas County, Texas, this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

By: **Ben, Louise Properties LTD**,  
a Texas limited liability company  
its General Partner

\_\_\_\_\_  
Manager

STATE OF TEXAS §  
COUNTY OF DENTON §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared **Bay W. Miltenberger**, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public, State of Texas

NOTES:

- This replat was prepared without the benefit of a commitment for title insurance. No research was performed for any easements other than that shown on the record plat of this property. Therefore, easements, agreements, and other documents may exist that affect the subject property that are not shown on this replat.
- Basis of bearing: Texas State Plane Coordinate System, North Central Zone 4202, North American Datum of 1983. Adjustment Realization 2011.
- Selling a portion of this addition by metes and bounds is a violation of Town ordinance and state law and is subject to fines and withholding of utilities and building permits.

SURVEYOR'S CERTIFICATE

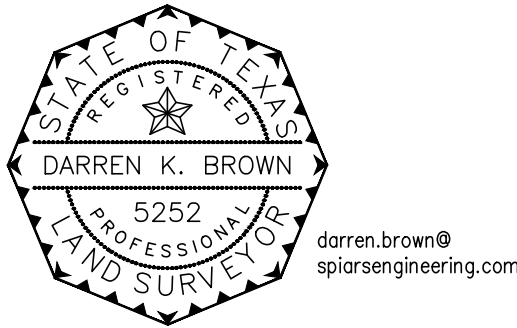
To: DHIC, LLC, National Title Group, LLC and Old Republic National Title Insurance Company, and their respective successors and assigns:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys jointly established and adopted by ALTA and NSPS, and includes optional items 1, 2, 3, 4, 7(a), 8, 9, 11, 12, 13, 16, 17 and 18 of Table A thereof. The field work was completed on 5/16/23.

Date of Plat or Map: 4/8/2024

PRELIMINARY  
DOCUMENT SHOULD NOT BE  
RECORDED FOR ANY REASON

\_\_\_\_\_  
Darren K. Brown, RPLS 5252



Part of the subject land is located in a 100-year Flood Plain or in an identified "flood prone area," as defined pursuant to the Flood Disaster Protection Act of 1973, as amended, as reflected by Flood Insurance Rate Map Panel 48121C0405G, effective on 04/18/2011. The property is located in Zone "A" (No base flood elevations determined) and Zone "X" (areas determined to be outside the 500-year floodplain).

STATE OF TEXAS §  
COUNTY OF DENTON §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared Darren K. Brown, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the \_\_\_\_\_ day of \_\_\_\_\_, 2024.

\_\_\_\_\_  
Notary Public, State of Texas

PRELIMINARY PLAT FOR REVIEW PURPOSES ONLY

Recommended for Approval

\_\_\_\_\_  
Chairperson, Planning and Zoning Commission      Date  
Town of Cross Roads, Texas

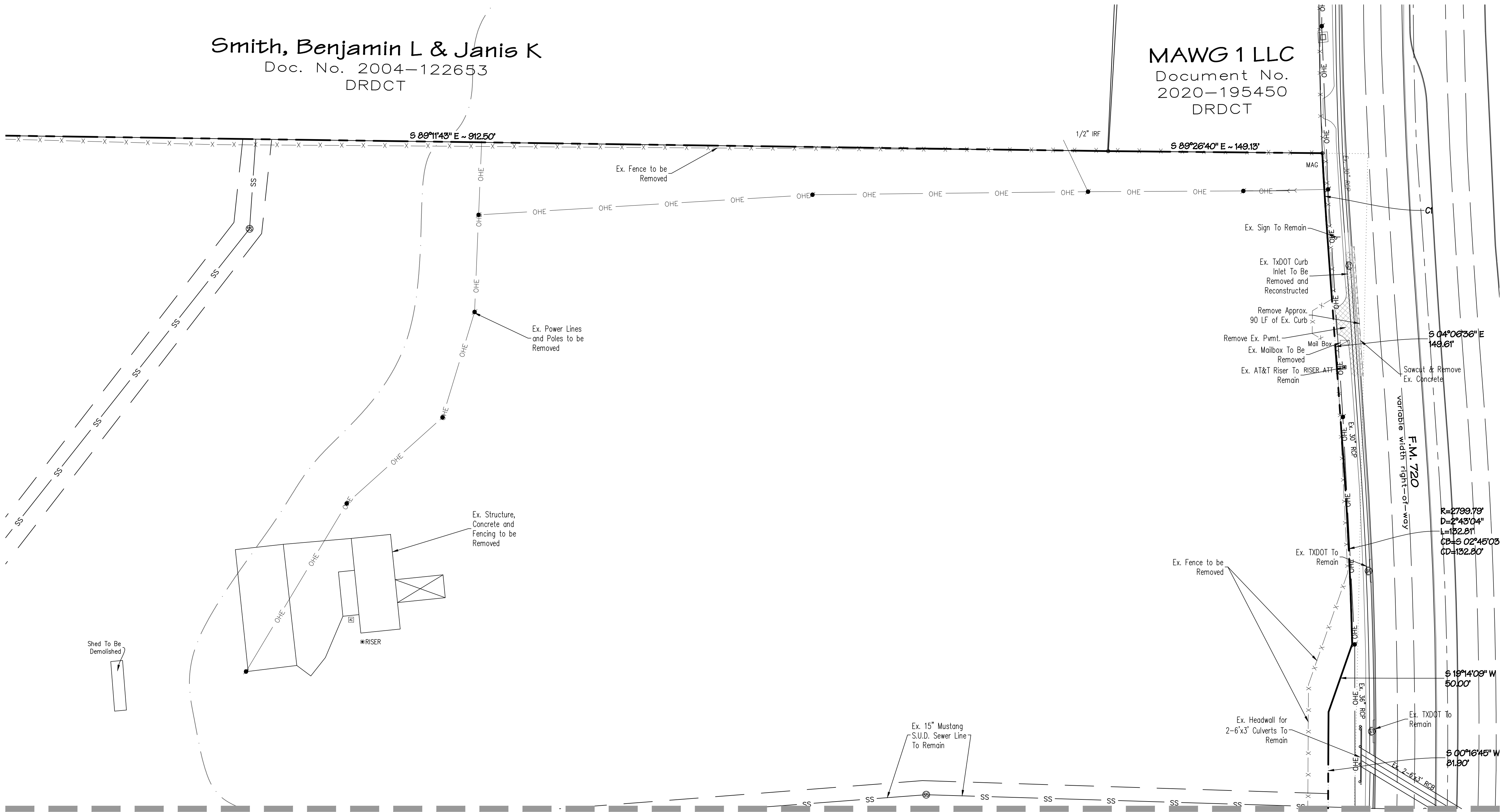
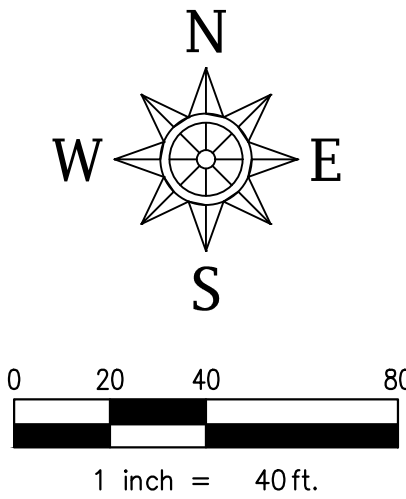
Approved for Preparation of Final Plat

\_\_\_\_\_  
Mayor, Town of Cross Roads      Date

PRELIMINARY PLAT  
**DHI CROSS ROADS ADDITION**  
LOT 1, BLOCK A  
IN THE TOWN OF CROSS ROADS, DENTON COUNTY, TEXAS  
N. Jones Survey, Abstract No. 662  
1,106,623 Sq. Ft./25.405 Acres

Smith, Benjamin L & Janis K  
Doc. No. 2004-122653  
DRDCT

MAWG 1 LLC  
Document No.  
2020-195450  
DRDCT



MATCHLINE SHT. C2

**DEMOLITION GENERAL NOTES**

- Contractor shall abide by the Demolition Specifications and all applicable Town of Cross Roads requirements, ordinances, etc.
- Contractor shall notify all affected utility companies a minimum of one week prior to demolition in order to comply with their requirements.
- Contractor shall maintain positive drainage at all times during the demolition process.
- Contractor shall protect all existing utilities during the demolition process.
- Contractor shall perform work in a manner to eliminate hazards to persons or property, and avoid interference with adjacent areas, utilities, and structures.
- Contractor shall provide temporary barricades, fences, warning signs, guardrails, warning lights, etc.
- Contractor shall protect existing structures, landscaping materials, and appurtenances which are not being demolished.
- All materials removed shall be disposed of offsite in a legal manner.
- Contractor shall refer to the Storm Water Pollution Prevention Plan for erosion and pollution control during the demolition process. The Contractor shall provide any additional erosion or pollution prevention devices as required during the demolition process in order to completely conform with the Town of Cross Roads and TCEQ requirements.
- No tree shall be removed without prior approval by the Owner & City Arborist.

**DEMOLITION LEGEND**

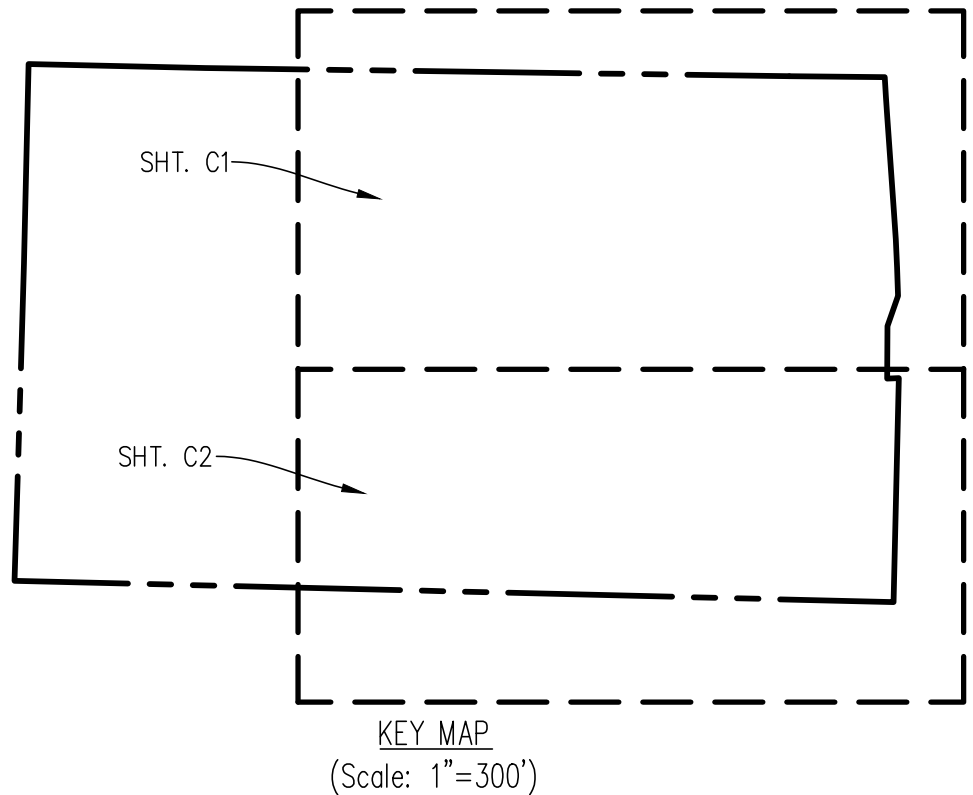
- Remove Existing Concrete Pavement
- Remove Existing Tree - Reference Landscape Architect Plans for removal & mitigation.

**CAUTION !!!  
EXISTING UTILITIES**

EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION, TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

CALL TEXAS ONE-CALL (811) OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

**Note:**  
The Contractor Shall Perform All Earthwork And Compaction Operations, Including But Not Limited To, Placement Of Fill During Earthwork Operations, Backfilling, Trench Backfilling, Utility Backfilling, Liming, And Subgrade Placement According To The Geotechnical Recommendations And Town Standards. The Contractor Shall Use The Most Stringent Requirement If There Is A Conflict On Any Fill Or Backfill Operations. The Contractor Shall Inquire In Written Format With The Engineer Of Record Should There Be Any Questions Regarding Fill And Backfill Requirements.



**BENCHMARKS:**

BM1  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128 feet north of the southeast corner of the subject tract.  
Northing = 7129231.12, Easting = 2434303.33, Elevation = 575.46

BM2  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet south of the northeast corner of the subject tract.  
Northing = 7129851.13, Easting 2434291.34, Elevation = 576.86



This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138208

Date: April 8, 2024  
It is not to be used for construction.

**DHI CROSS ROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
DEMOLITION PLAN

Date	Revisions

Scale: As Shown

Drawn By: SCH

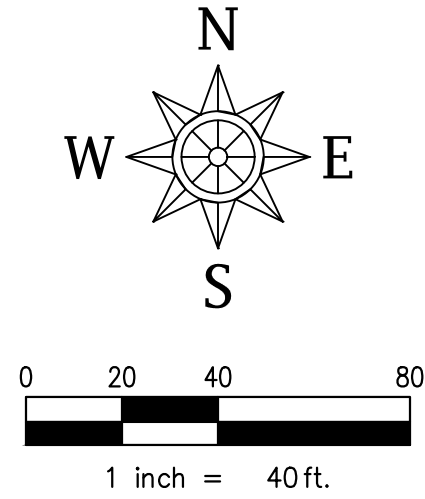
Checked By: JKL

**Sheet C1**

SEI No. 23-107



MATCHLINE SHT. C1



**Pedrie, Paul & Lisa**  
Doc. No. 98-R0031904  
PRDCT

**Mendoza, Belinda R**  
Doc. No. 98-R0031904  
PRDCT

**Roybal, Tony III & Tabitha Lynn**  
Doc. No. 98-R0031904  
PRDCT

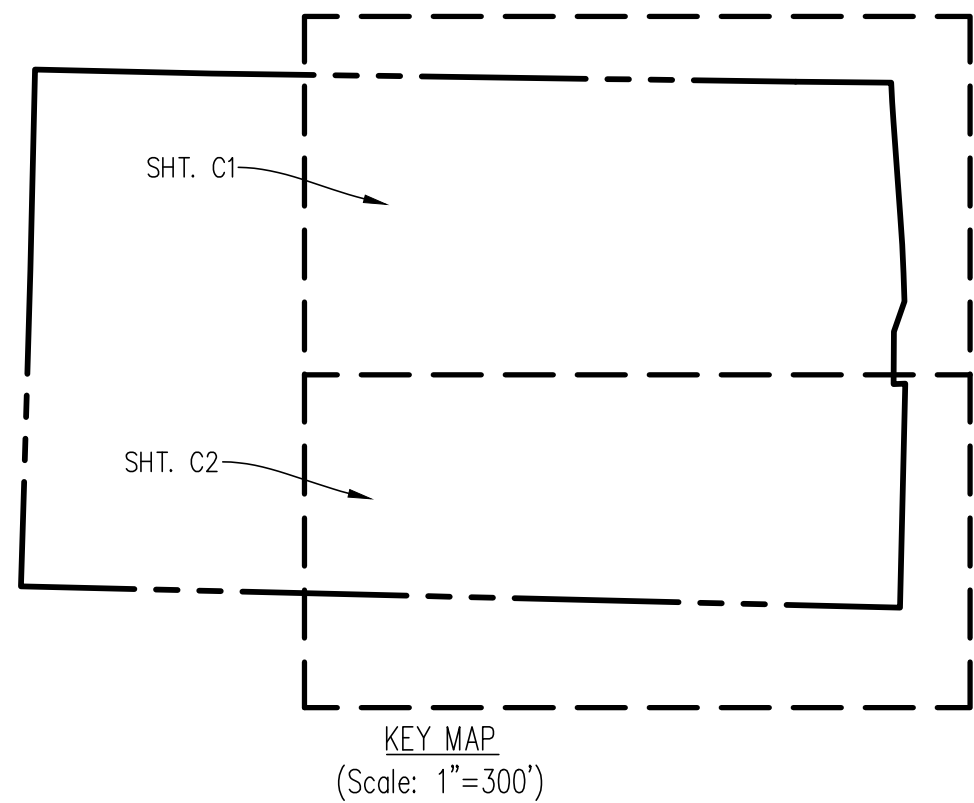
**Wiemann, Thomas W & Constance S**  
Doc. No. 98-R0031904  
PRDCT

**CAUTION !!!  
EXISTING UTILITIES**

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CALL TEXAS ONE-CALL (811) OR OTHER UTILITY LOCATION SERVICES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SPIARS ENGINEERING, INC. IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES OR DEPICTING EXACT LOCATIONS OF UTILITIES ON DRAWINGS.

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**DEMOLITION LEGEND**

- Remove Existing Concrete Pavement
- Remove Existing Tree — Reference Landscape Architect Plans for removal & mitigation.

**BENCHMARKS:**

**BM1**  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128 feet north of the southeast corner of the subject tract.  
Northing — 7129231.12, Easting — 2434303.33, Elevation = 575.46

**BM2**  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet south of the northeast corner of the subject tract.  
Northing — 7129851.13, Easting 2434291.34, Elevation = 576.86

**SPIARS**  
ENGINEERING & SURVEYING  
765 Custer Road, Suite 100 • Plano, TX 75075 • 972.422.0077  
TBPE No F-2121 • TBLPS No. F-10043100 • www.spiarseng.com

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Date: April 8, 2024  
It is not to be used for construction.

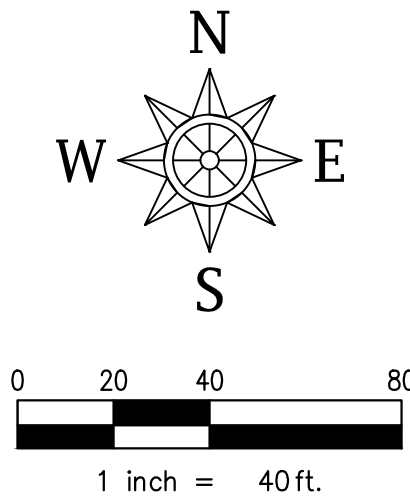
**DHI CROSS ROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
DEMOLITION PLAN

Date					
Revisions					
Scale: As Shown					
Drawn By: SCH					
Checked By: JKL					
Sheet <b>C2</b>					
SEI No. 23-107					

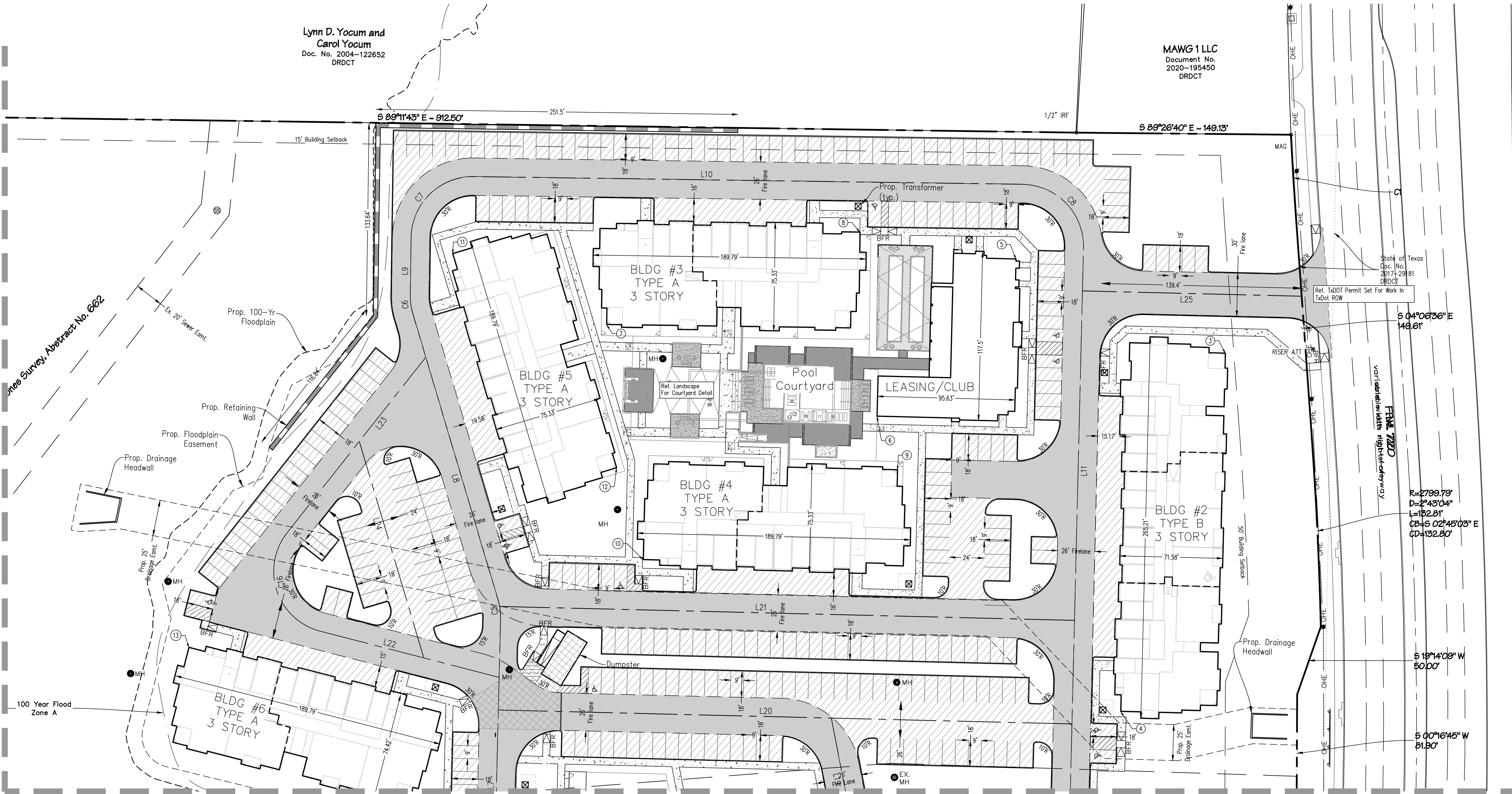


Lynn D. Yocum and  
Carol Yocum  
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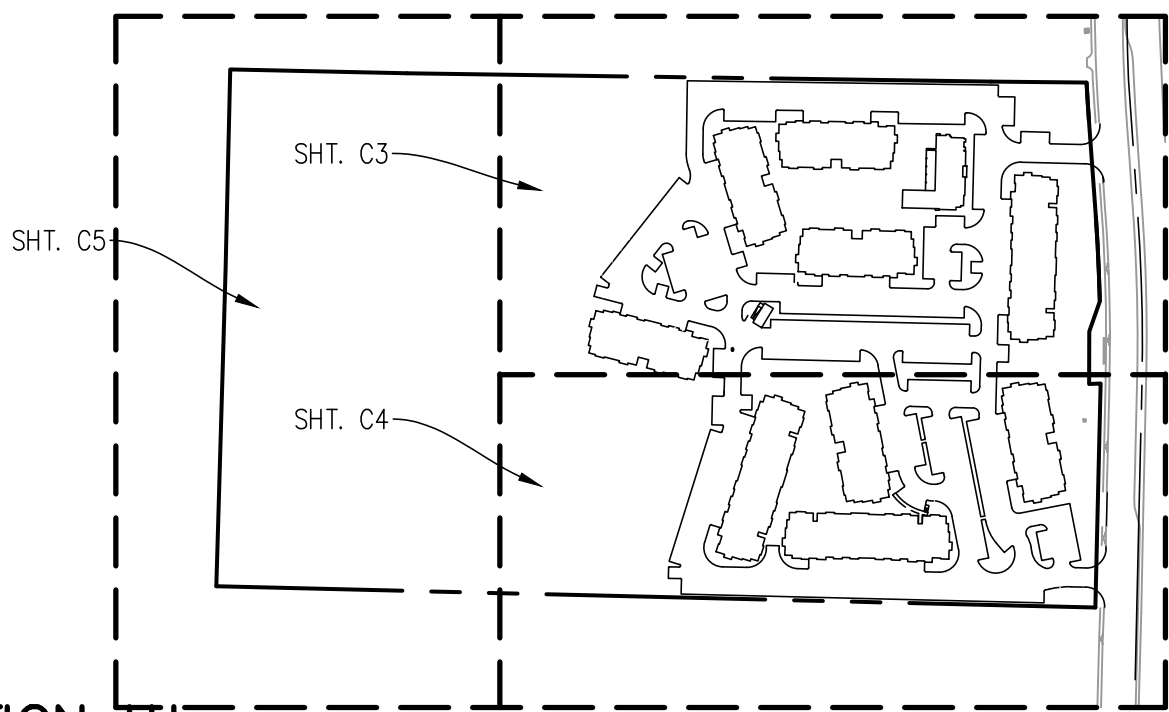
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Document No.  
2020-195450  
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MATCHLINE SHT. C5



MATCHLINE SHT. C4



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**PAVING GENERAL NOTES:**

- All materials and construction shall conform to the Town of Cross Roads Standard Details and Specifications & NCTCOG 5th Edition.
- It shall be the responsibility of the Contractor to protect all public utilities in the construction of this project. All manholes, cleanouts, valve boxes, fire hydrants, etc. must be adjusted to proper line and grade by the Contractor prior to and after the placing of permanent paving. Utilities must be maintained to proper line and grade during construction of this project.
- The Contractor shall be responsible for coordinating with all the appropriate utility companies for the location of all utilities within the construction area.
- The Paving Contractor shall not place permanent pavement until all sleeving for irrigation, electric, gas, telephone, cable TV, site lighting, etc. has been installed. It shall be the Paving Contractor's responsibility to insure that all sleeving is in place prior to placing permanent paving.
- All paving and earthwork operations shall conform to the recommendations in the Geotechnical Investigation, Investigation by Alpha Testing, Project G240232, Dated February 29, 2024 and the Town Standard Construction Details.
- All dimensions are to face of curb or edge of building unless otherwise noted.
- Irrigation sleeves shall be 4" PVC conduit. Ends shall be capped or temporarily plugged, red flag tied to each end and brought to surface 2' behind curb. Minimum depth shall be 18 inches below proposed grade.
- Concrete shall have a minimum compressive strength at 28 days of 3600 psi for pavement and curbs; 3000 psi for sidewalks.

- Refer to Architectural Plans for exact building and related sidewalk dimensions.
- Fences, berms walls, shrubs, trees, signs, structures, etc. are limited to a maximum height of 2 feet above the adjacent curb within visibility easements.
- Contractor shall install traffic control for any work within R.O.W. to conform to part VI of the "Texas Manual on Uniform Traffic Control Devices."
- Reference Site Details (Sheet C25) for pavement section details.
- Longitudinal (Key) Joints shall be placed as necessary.
- Contractor shall extend all paving joints through curbs.
- Contractor shall verify building and parking lot layout with the Architect prior to forming of buildings, walks and parking lot areas.
- Contractor shall back fill against top of curbs at 4:1 max. slope to existing grade unless noted otherwise.
- Slope of paving shall not exceed 2% at handicap accessible spaces.
- Contractor shall grade pavement around sidewalks & curbs for positive drainage to an inlet or designated drainage area.
- All landings at doors to be flush with finish floor.
- The detention system shall be completely installed & functioning prior to any concrete/paving installation (including building slab).

**PAVEMENT LEGEND**

	4" 3000 psi Conc. Pavement W/#3 @ 24" O.C.E.W. On 6" Compacted Subgrade O.C.E.X. (Private Sidewalk)
	5" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Compacted Subgrade (Parking and Drive Isles)
	6" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Lime Stabilized Subgrade (Firelane)
	7" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Lime Stabilized Subgrade (Dumpster)
	BFR Barrier Free Ramp (Per City Standards)

**BENCHMARKS:**

BM1  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128 feet north of the southeast corner of the subject tract.  
Northing - 7129231.12, Easting - 2434303.33, Elevation = 575.46

BM2  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet south of the northeast corner of the subject tract.  
Northing - 7129551.13, Easting 2434291.34, Elevation = 576.86

DHI CROSS ROADS

LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS

PAVING & HORIZONTAL CONTROL PLAN

**SPIARS**  
ENGINEERING & SURVEYING  
765 Custer Road, Suite 100 • Plano, TX 75075 • 972.422.0077  
TBLPS No. F-10043100 • www.spiarseng.com

This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138208

Date: April 8, 2024  
It is not to be used for construction.

Date	Revisions

Scale: As Shown

Drawn By: SCH

Checked By: JKL

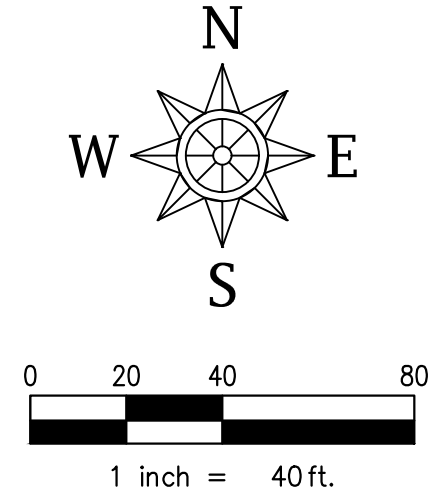
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SEI No. 23-107



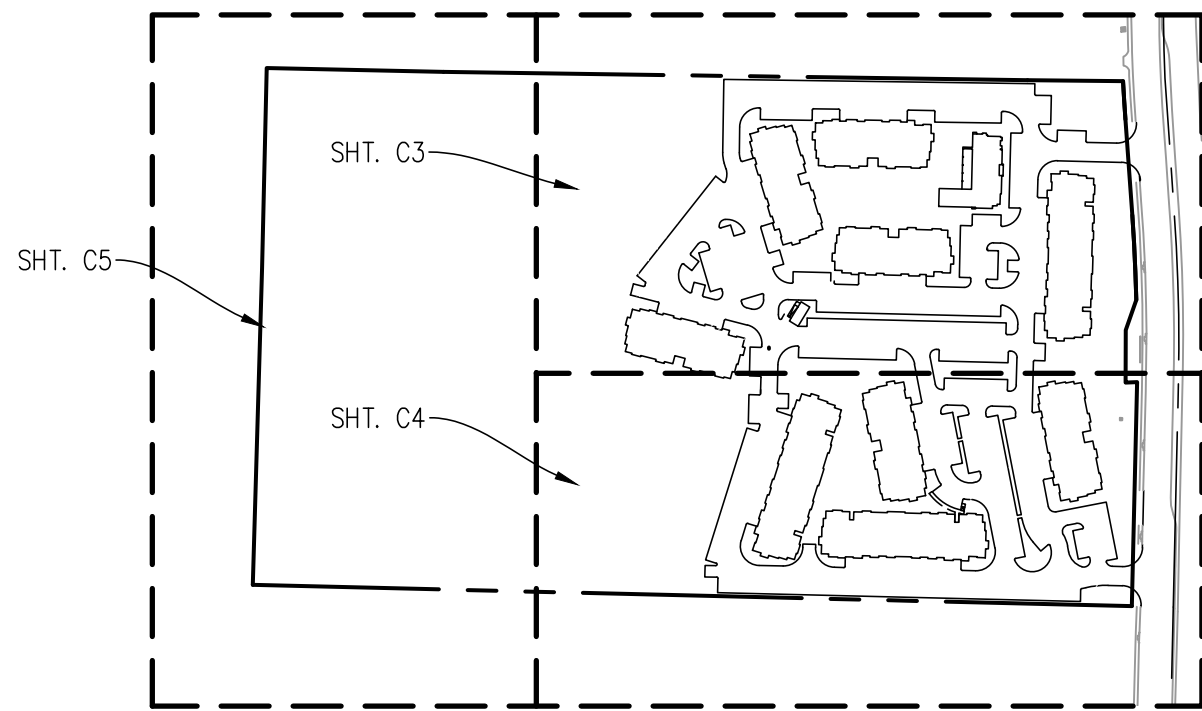
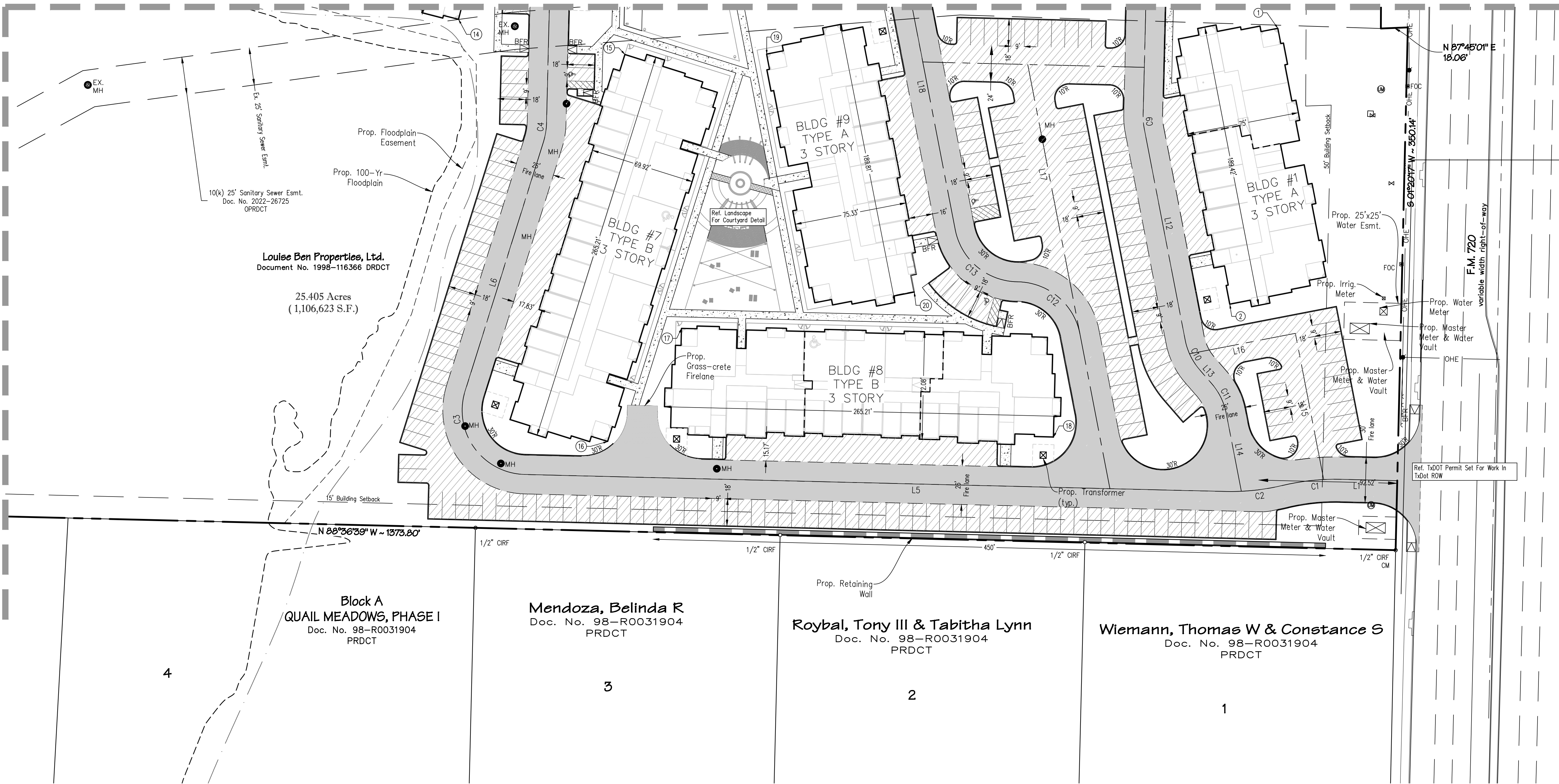
MATCHLINE SHT. C5

MATCHLINE SHT. C3



Plotted by: bbeson Plot Date: 4/8/2024 11:49 AM

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(Scale: 1"=300')

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Point Table		
Point #	Northing	Easting
1	7129453.2863	2434207.1421
2	7129268.5533	2434174.9508
3	7129772.1679	2434226.4726
4	7129523.1921	2434153.7070
5	7129837.6575	2434080.8821
6	7129728.3838	2433984.2879
7	7129792.1072	2433796.2878
8	7129856.3476	2433972.4574
9	7129691.1110	2433998.5239
10	7129628.6708	2433821.7082

Point Table		
Point #	Northing	Easting
11	7129841.4100	2433689.2354
12	7129692.5059	2433803.2097
13	7129567.7119	2433505.8335
14	7129459.2973	2433658.8329
15	7129435.7696	2433770.1701
16	7129176.6342	2433758.6546
17	7129252.3504	2433808.0193
18	7129179.5849	2434056.9951
19	7129436.0469	2433865.0161
20	7129276.6663	2433963.8108

Line Table		
Line #	Length	Direction
L1	37.97'	N 88°36'39" W
L5	468.94'	N 88°36'39" W
L6	175.17'	N 17°26'49" E
L7	198.36'	N 01°23'21" E
L8	207.20'	N 16°35'31" W
L9	40.16'	N 00°48'17" E
L10	381.59'	S 89°11'43" E
L11	450.63'	S 01°23'21" W
L12	143.86'	S 10°57'15" E
L13	12.27'	S 40°57'15" E
L14	53.04'	S 10°57'15" E

Line Table		
Line #	Length	Direction
L15	99.75'	N 10°57'15" W
L16	72.16'	S 79°02'45" W
L17	289.31'	N 10°57'15" W
L18	114.48'	N 10°57'15" W
L19	89.44'	N 10°57'15" W
L20	399.00'	S 88°36'39" E
L21	399.85'	S 88°36'39" E
L22	128.51'	S 75°31'05" E
L23	155.54'	S 38°18'34" W
L24	156.38'	N 16°35'31" W
L25	152.47'	N 88°36'39" W

Curve Table					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Distance
C1	38.84'	150.00'	014.84°	S 83°58'18" W	38.73'
C2	38.84'	150.00'	014.84°	S 83°58'18" W	38.73'
C3	79.60'	43.00'	106.06°	N 35°34'55" W	68.71'
C4	12.05'	43.00'	016.06°	N 09°25'05" E	12.01'
C5	13.49'	43.00'	017.98°	N 07°36'05" W	13.44'
C6	13.06'	43.00'	017.40°	N 07°53'37" W	13.01'
C7	67.54'	43.00'	090.00°	N 45°48'17" E	60.81'
C8	67.98'	43.00'	090.58°	S 43°54'11" E	61.12'
C9	9.26'	43.00'	012.34°	S 04°46'57" E	9.25'
C10	22.51'	43.00'	030.00°	S 25°57'15" E	22.26'
C11	22.51'	43.00'	030.00°	S 25°57'15" E	22.26'
C12	58.81'	43.00'	078.37°	N 50°08'18" W	54.34'
C13	58.81'	43.00'	078.37°	N 50°08'18" W	54.34'
C16	85.43'	43.00'	113.83°	S 18°36'15" E	72.06'

**PAVEMENT LEGEND**

- 4" 3000 psi Conc. Pavement W/#3 @ 24" O.C.E.W. On 6" Compacted Subgrade O.C.E.X. (Private Sidewalk)
- 5" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Compacted Subgrade (Parking and Drive Isles)
- 6" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Lime Stabilized Subgrade (Firelane)
- 7" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Lime Stabilized Subgrade (Dumpster)
- BFR Barrier Free Ramp (Per City Standards)

**BENCHMARKS:**

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DHI CROSS ROADS

LOT 1, BLOCK A

TOWN OF CROSS ROADS

DENTON COUNTY, TEXAS

PAVING & HORIZONTAL CONTROL PLAN

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Date: April 8, 2024  
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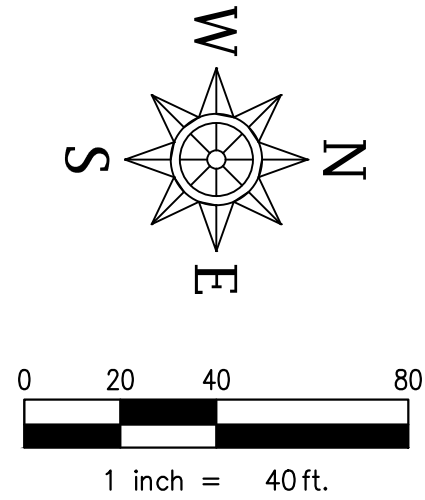
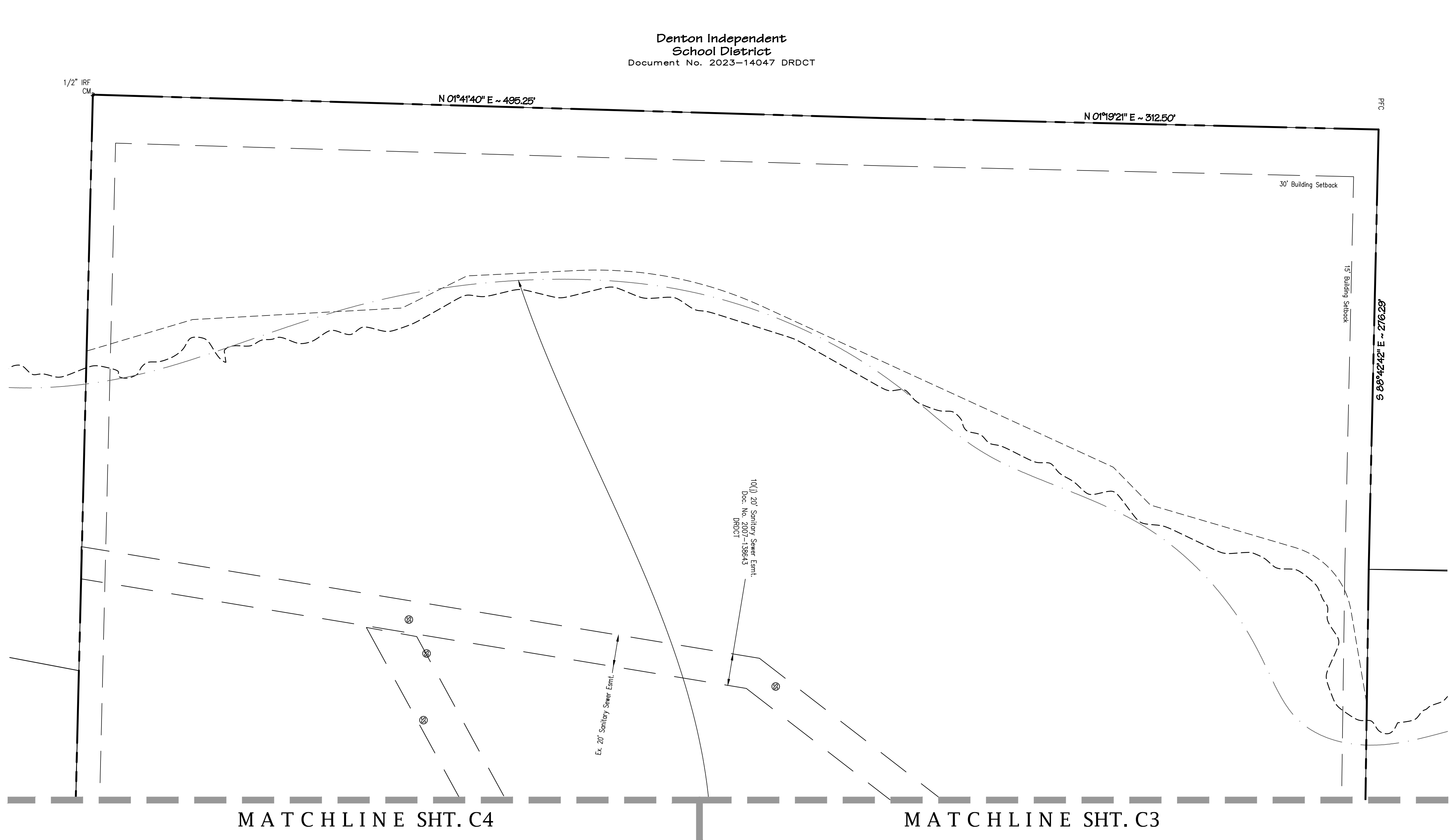
Date	Revisions

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Drawn By: SCH  
Checked By: JKL  
**Sheet C4**  
SEI No. 23-107



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**PAVEMENT LEGEND**

- |  |   |
|--|---|
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|  | 6" 3500 psi Conc. Pavement W/#3 @ 18" O.C.E.W. Over 6" Lime Stabilized Subgrade (Firelane)          |
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|  | BFR Barrier Free Ramp (Per City Standards)  |

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**DHI CROSS ROADS**

**LOT 1, BLOCK A**

**TOWN OF CROSS ROADS**

**DENTON COUNTY, TEXAS**

**PAVING & HORIZONTAL CONTROL PLAN**

Revisions	Date

Scale: As Shown

Drawn By: SCH

Checked By: JKL

**Sheet C5**

SEI No. 23-107

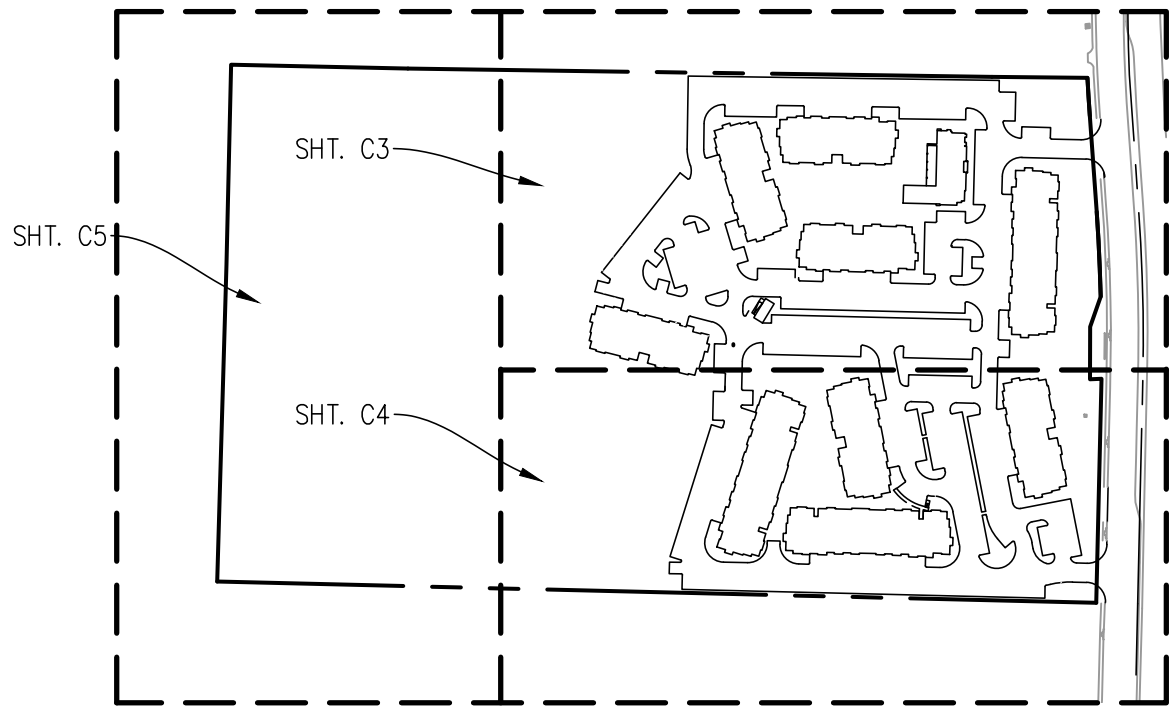
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**MATCHLINE SHT. C4**

**MATCHLINE SHT. C3**



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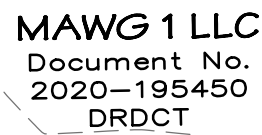
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MATCHLINE SHT. C11

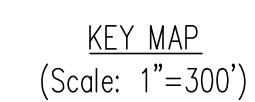


1. All materials and construction shall conform to the Town's Cross Roads Standard Construction Details and Specifications, except as noted herein and approved by the Town.
2. Contractor shall be responsible for maintaining trench safety requirements in accordance with Town Standards, Texas State Law, and O.S.H.A. Standards for all excavation in excess of five feet in depth.
3. The location of all utilities located on these plans are taken from existing public records. The exact location and elevation of all public utilities must be determined by the Contractor. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
4. It shall be the responsibility of the Contractor to protect all public utilities in the construction of this project. All manholes, clean-outs, valve boxes, fire hydrants, etc. must be adjusted to proper line and grade by the Contractor prior to and after the placing of permanent paving. Utilities must be maintained to proper line and grade during construction of the paving for this development.
5. Drainage should be maintained away from the foundations, both during and after construction.
6. All earthwork operations, pavement installation, etc. shall conform to the Geotechnical Investigation, Alpha Report No. G240232 prepared by Alpha Testing, Inc., dated February 29, 2024.
7. Trees shall remain unless specified otherwise on the Landscape Plan or approved by the Owner.
8. Prior to starting construction, the Contractor shall make certain that all required permits and approvals have been obtained. No construction or fabrication shall begin until the Contractor has received and thoroughly reviewed all plans and other documents approved by all of the permitting authorities.
9. In the event an item is not covered in the Town's specifications, the Town Engineer's decision shall apply.
10. Barricading, traffic control, and project signs shall conform to Texas Department of Transportation standards
11. The Contractor shall verify the suitability of all existing and proposed site conditions, including grades and dimensions before commencement of any construction. In the event of any conflict, and prior to commencement of any construction, immediately notify Engineer. Minor adjustments of finish grade to accomplish spot drainage are acceptable if necessary, upon prior approval of Engineer. All paving installed shall "flush out" at any juncture with existing paving.
12. Proposed spot elevations are finished grade elevations (Top of pavement, top of sod, etc.)
13. Erosion control shall be in place prior to the disturbance of any existing surface.
14. All sidewalk and crosswalk slopes shall conform to ADA requirements as follows:  
1:20 longitudinal (along the walk) max.  
1:50 transverse (across the walk) max.

The diagram illustrates various surveying symbols and their corresponding meanings:

- 79.00**: Gutter/Top of Pwmt. Elevation
- T/C=79.00**: Top of Curb Elevation
- RIM=79.00**: Manhole Rim Elevation
- TW=XXX.XX  
NG=XXX.XX**: Top/Bottom of Retaining Wall Elevation
- 684**: Proposed Contour
- 684**: Existing Contour
- xxTC=684.50  
G=684.00**: Existing Spot Elevation
- Direction of Flow**: Indicated by an arrow pointing left.
- Flowpath**: Indicated by a line with arrows pointing left.

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May 7, 2024 Planning and Zoning Agenda, Page 61 of 124

TOWN OF CROSS ROADS  
DEKALB COUNTY, TENNESSEE

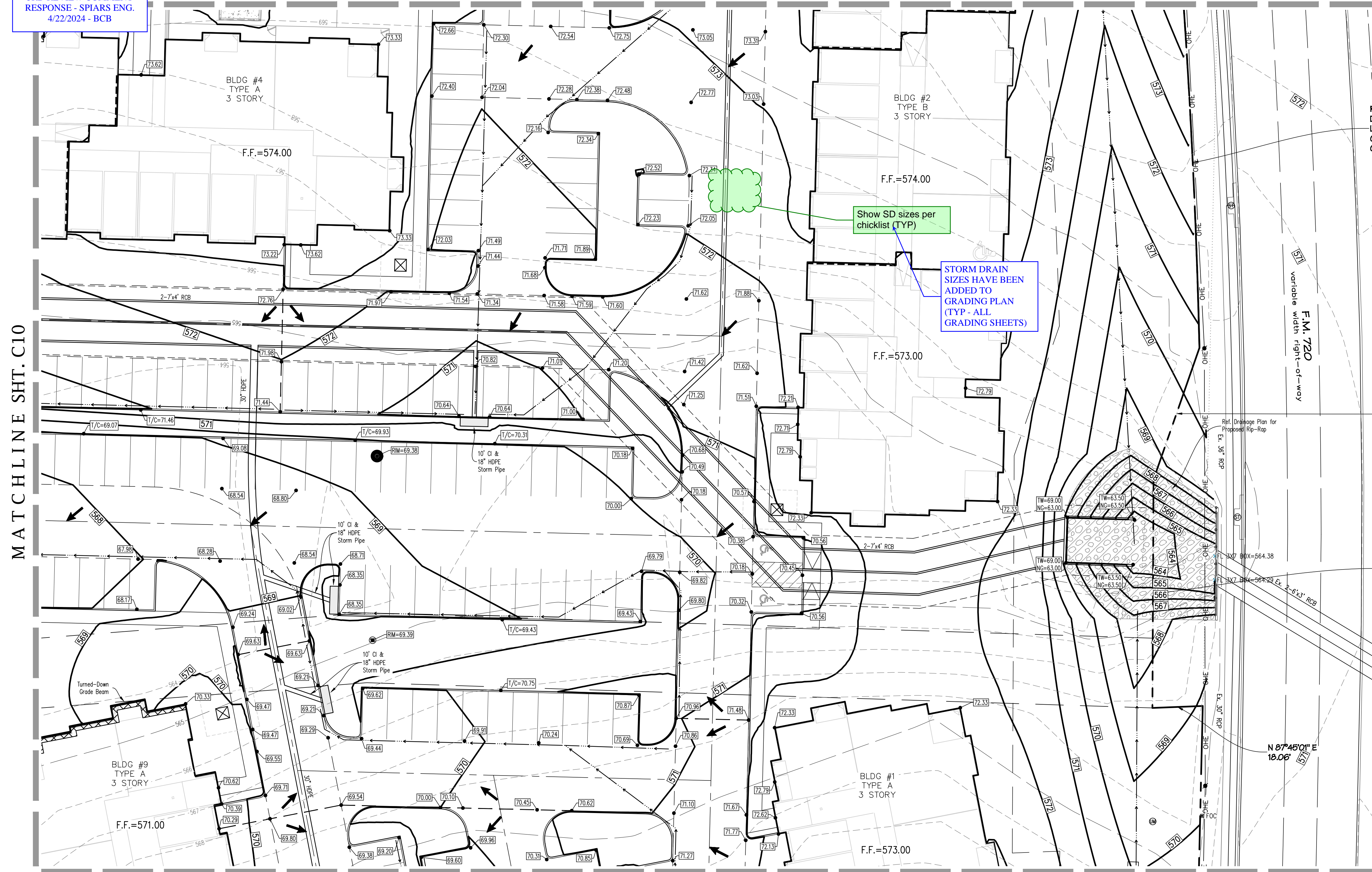
## GRADING PLAN

is plan is released for the  
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SEPH K. LEHMAN, P.E. 138208

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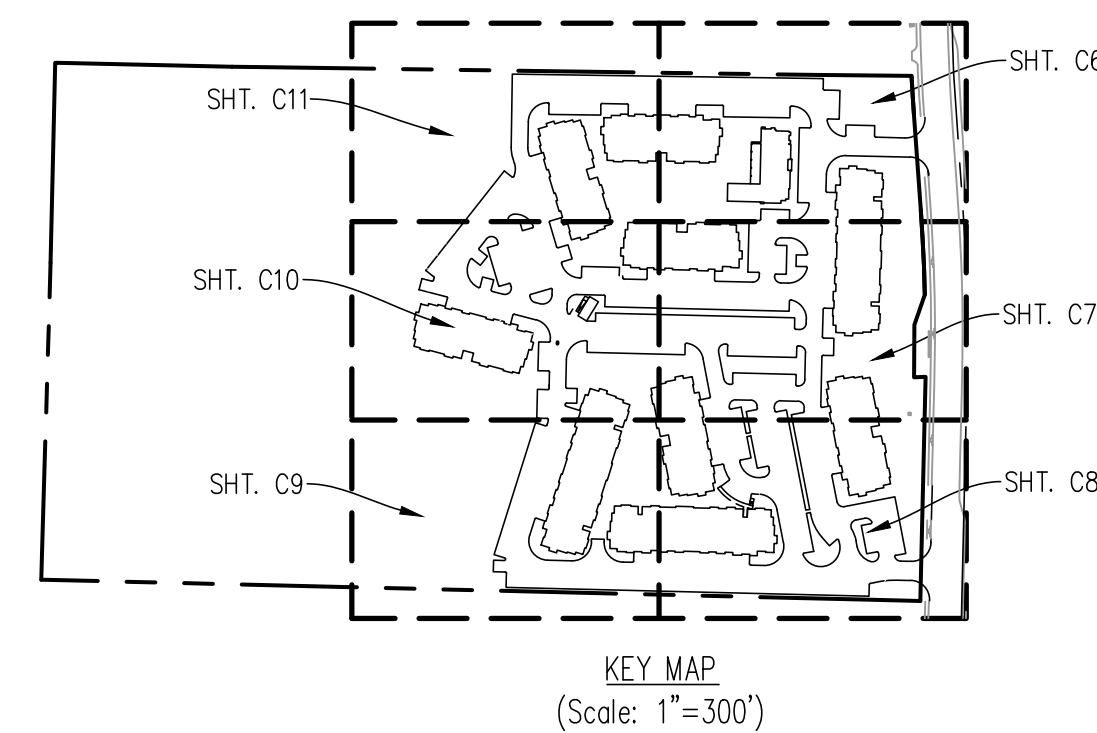


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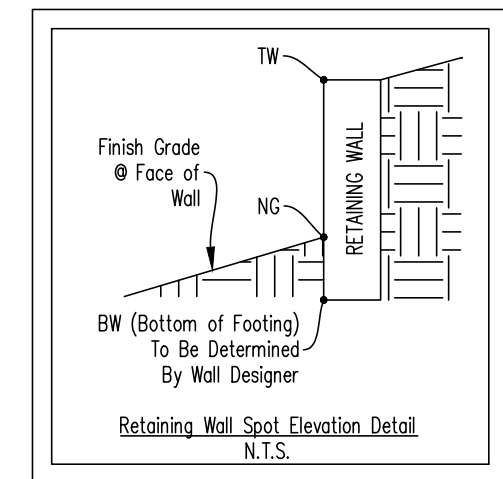


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LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
GRADING PLAN


Scale: <b>As Shown</b>
Drawn By: <b>SCH</b>
Checked By: <b>JKL</b>
Sheet <b>C7</b>
Proj. No. 23-107



## MATCHLINE SHT. C9

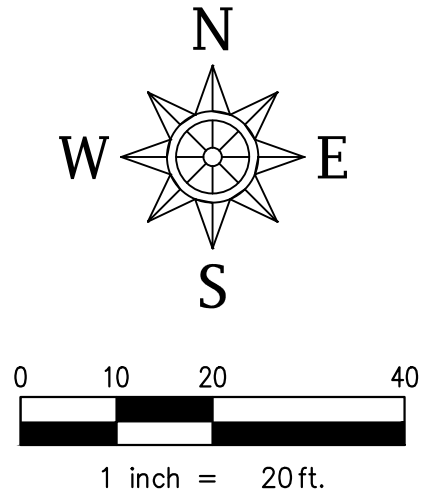
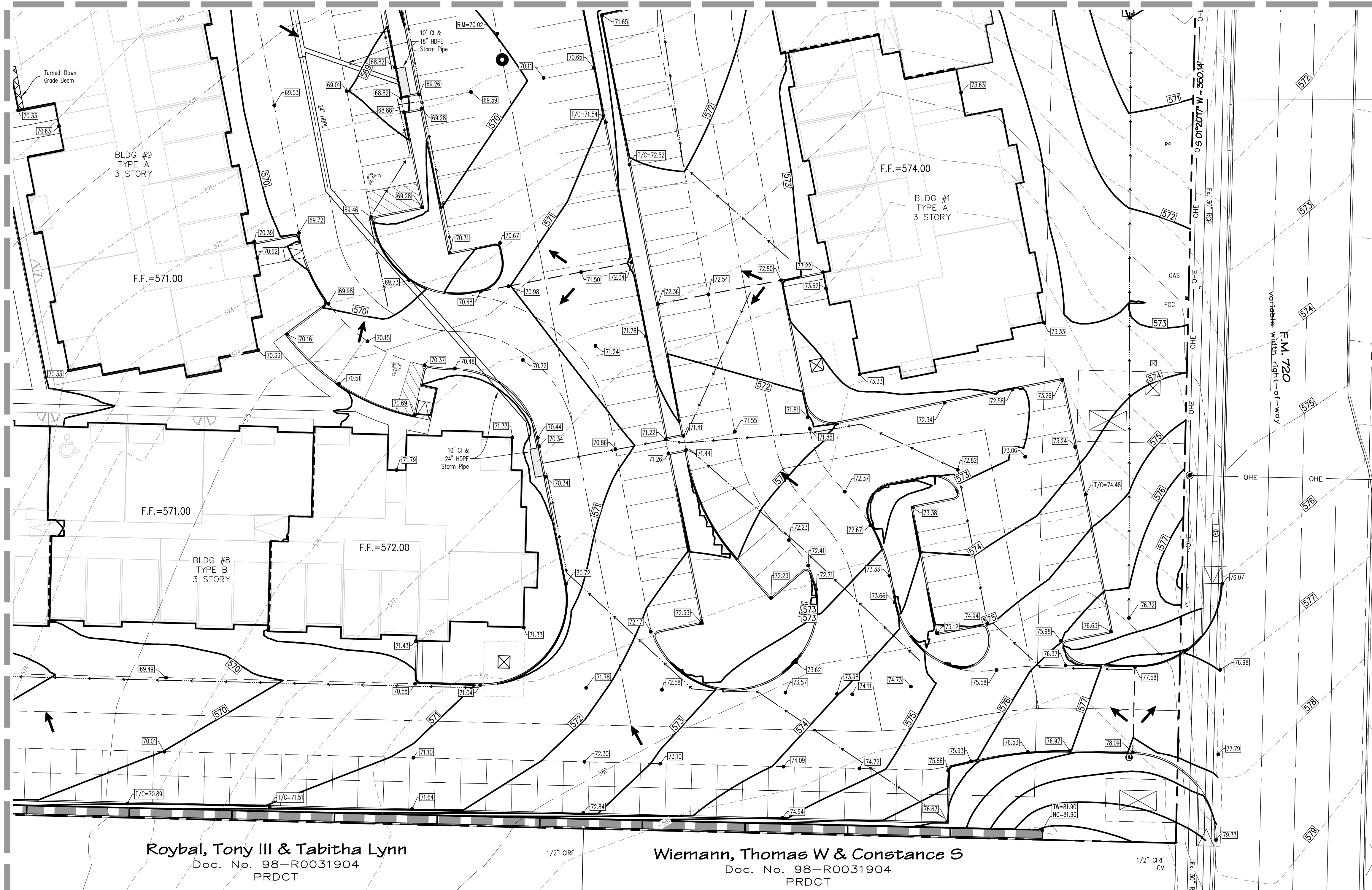
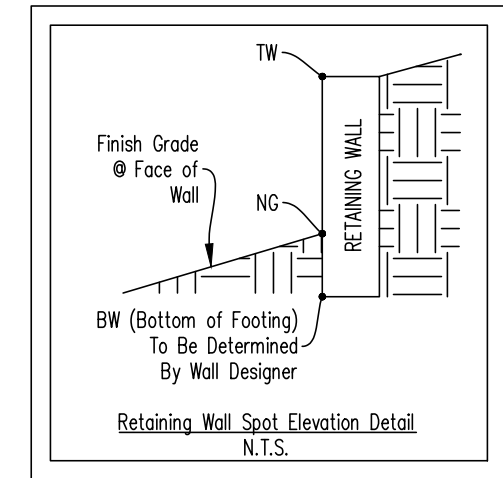


Figure 10.1: Symbols and Abbreviations for Elevation and Direction of Flow

Symbol	Description
	Gutter/Top of Pvm. Elevation
	Top of Curb Elevation
	Manhole Rim Elevation
	Top/Bottom of Retaining Wall Elevation
	Proposed Contour
	Existing Contour
	Existing Spot Elevation
	Direction of Flow
	Flowpath



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TBP# No F-2121 • TBLPS No. F-10043100 • [www.spiarseng.com](http://www.spiarseng.com)

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LOT 1, BLOCK A  
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**GRADING PLAN**

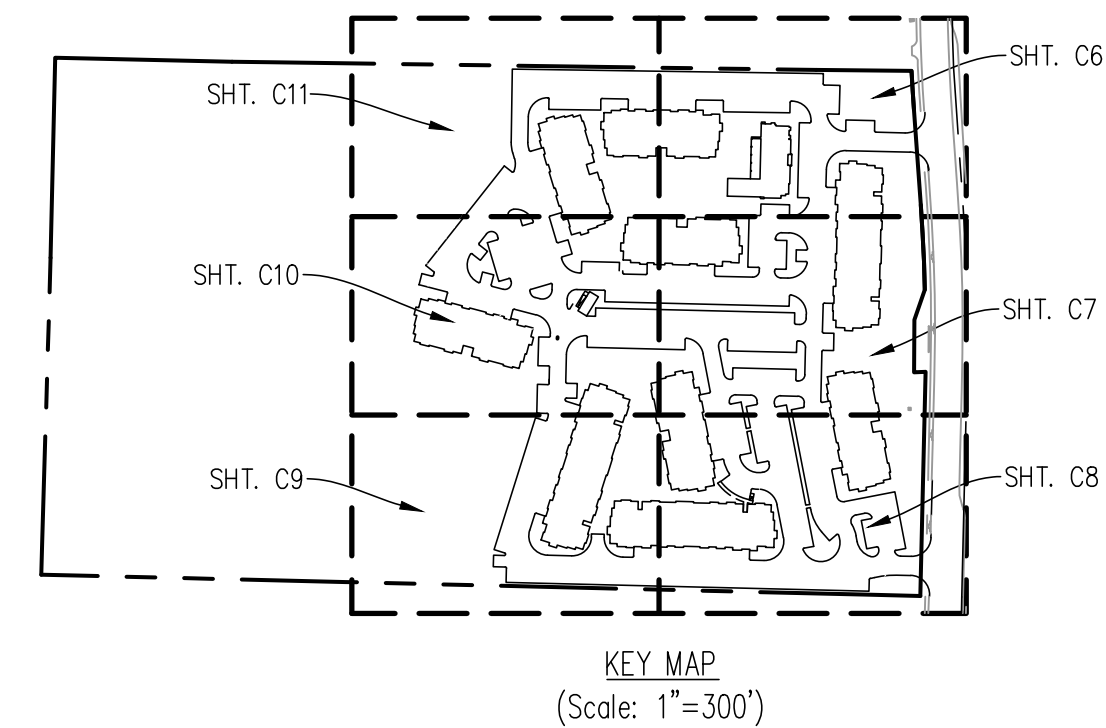
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Sheet <b>C8</b>
No. 23-107

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BENCHMARKS:

BM1  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128  
feet north of the southeast corner of the subject tract.  
Northing - 7129231.12, Easting - 2434303.33, Elevation = 575.46

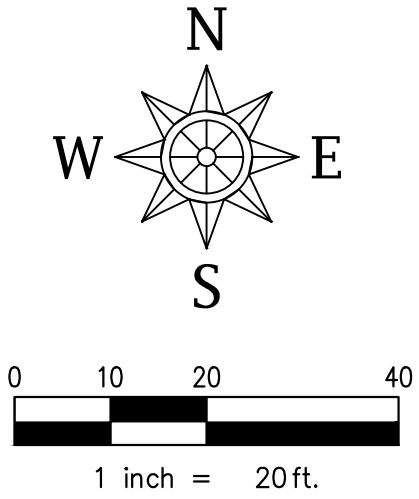
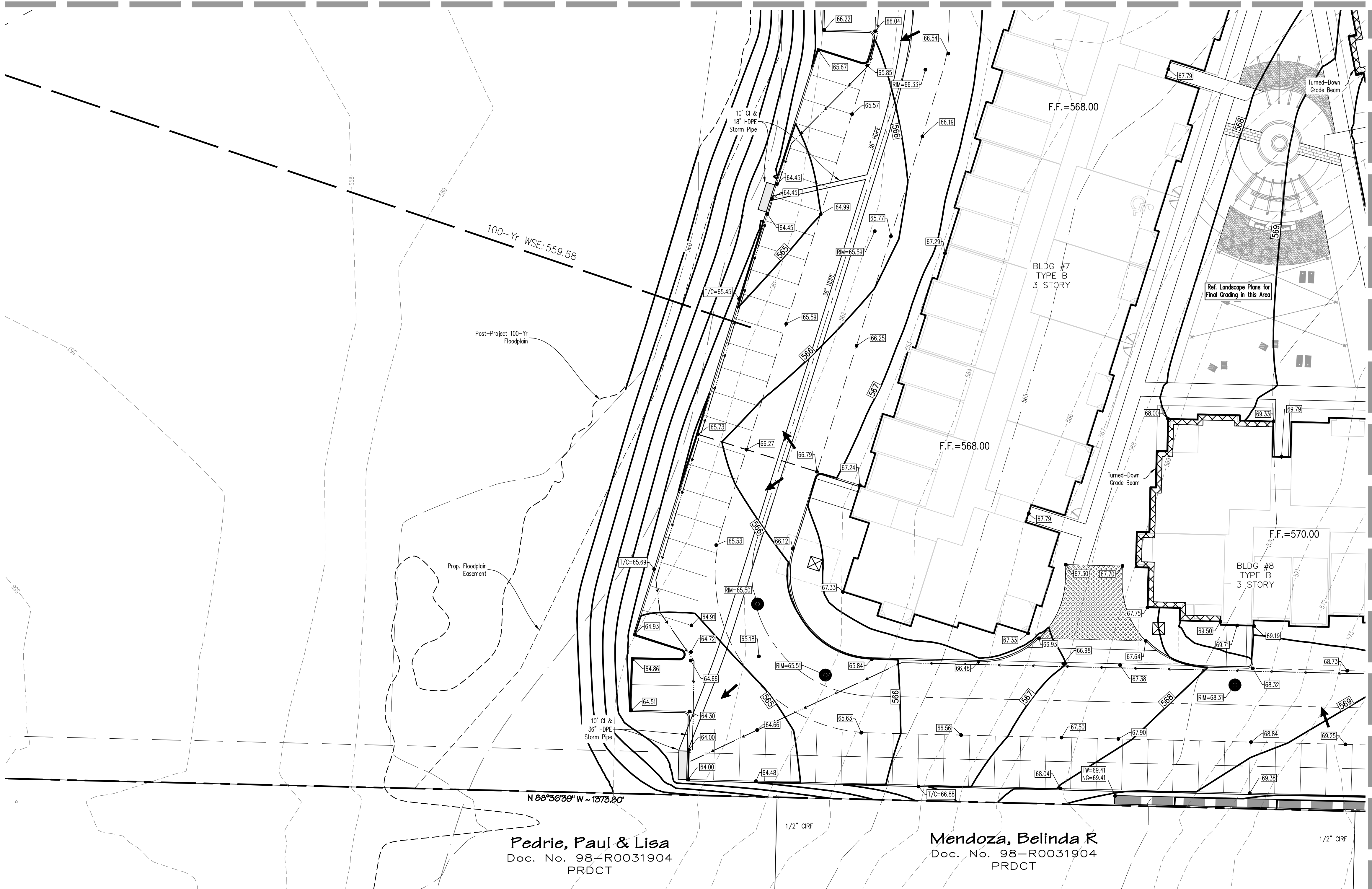
BM2  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet  
south of the northeast corner of the subject tract.  
Northing - 7129851.13, Easting 2434291.34, Elevation = 576.86



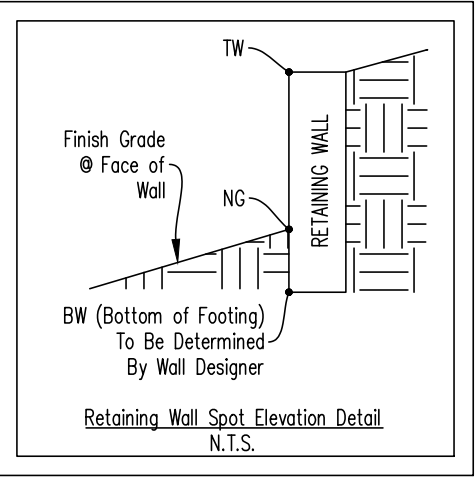
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MATCHLINE SHT. C10



- LEGEND**
- 79.00 Gutter/Top of Pmnt. Elevation
  - T/C=79.00 Top of Curb Elevation
  - RIM=79.00 Manhole Rim Elevation
  - TW=XX.XX NG=XX.XX Top/Bottom of Retaining Wall Elevation
  - 684 Proposed Contour
  - 684 Existing Contour
  - TC=684.50 G=684.00 Existing Spot Elevation
  - Direction of Flow
  - Flowpath



MATCHLINE SHT. C8

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Date: April 8, 2024  
It is not to be used for construction.

**DHI CROSS ROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
GRADING PLAN

Date	
Revisions	

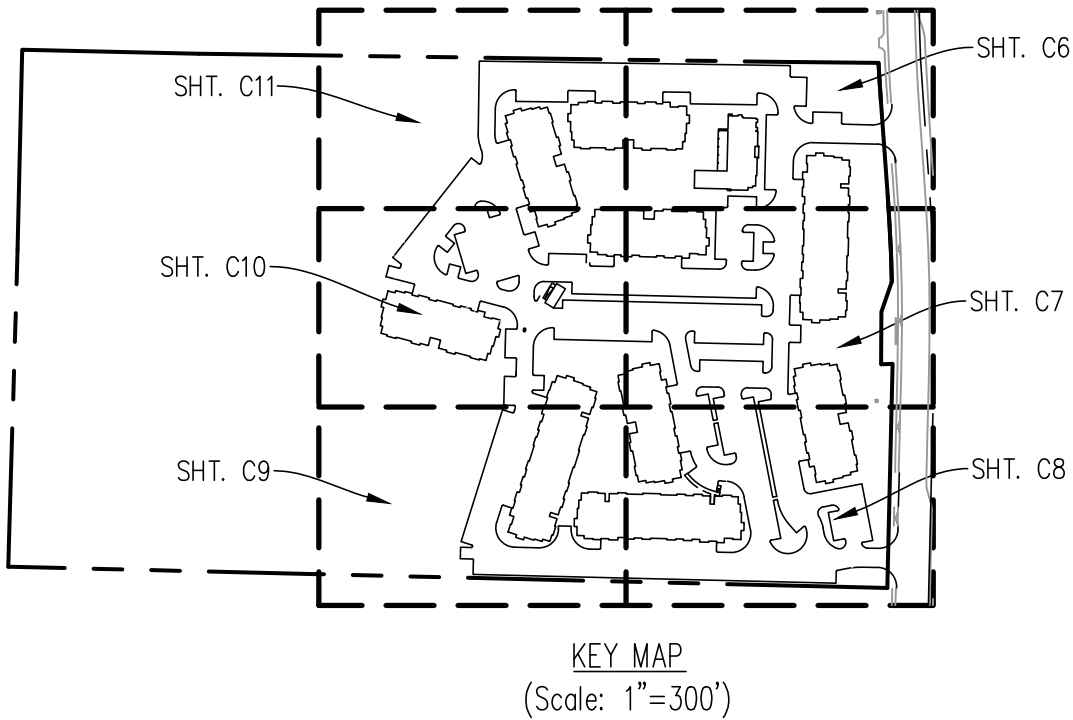
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Checked By: **JL**  
Sheet **C9**  
SEI No. 23-107

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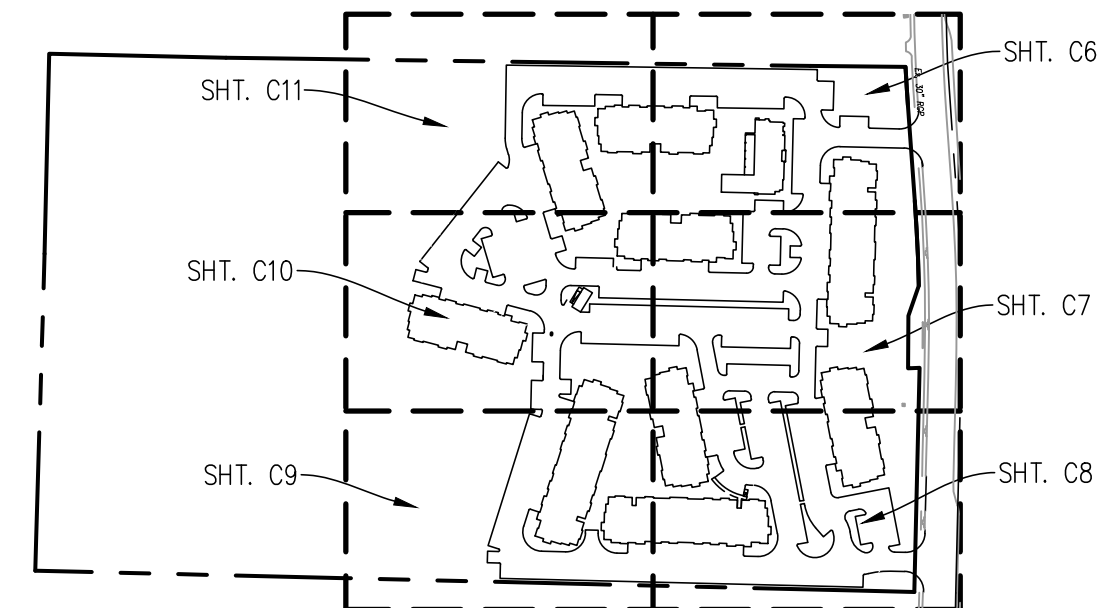
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Northing - 7129851.13, Easting 2434291.34, Elevation = 576.86



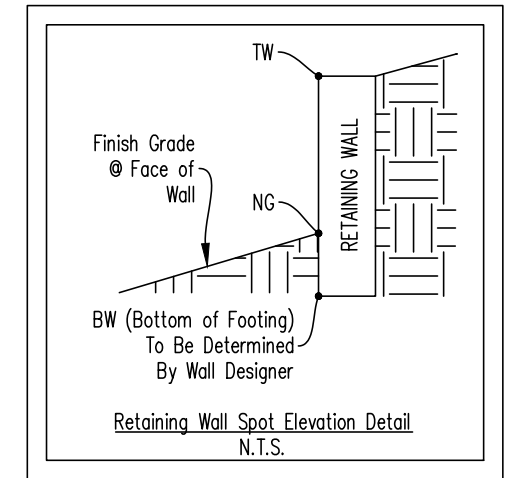
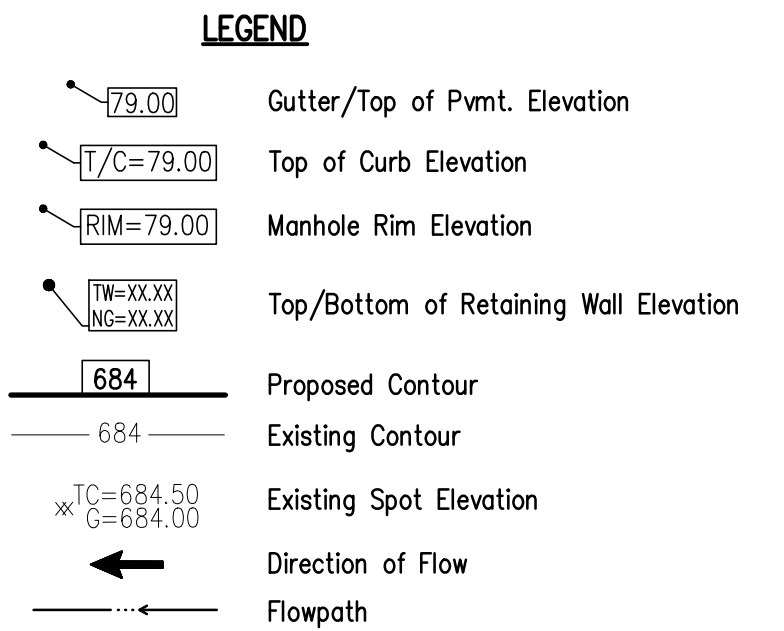
## M A T C H L I N E S H T. C9



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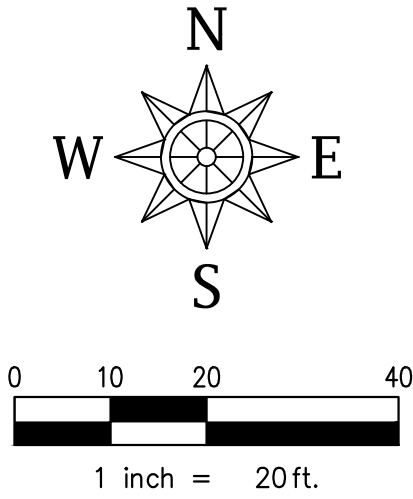
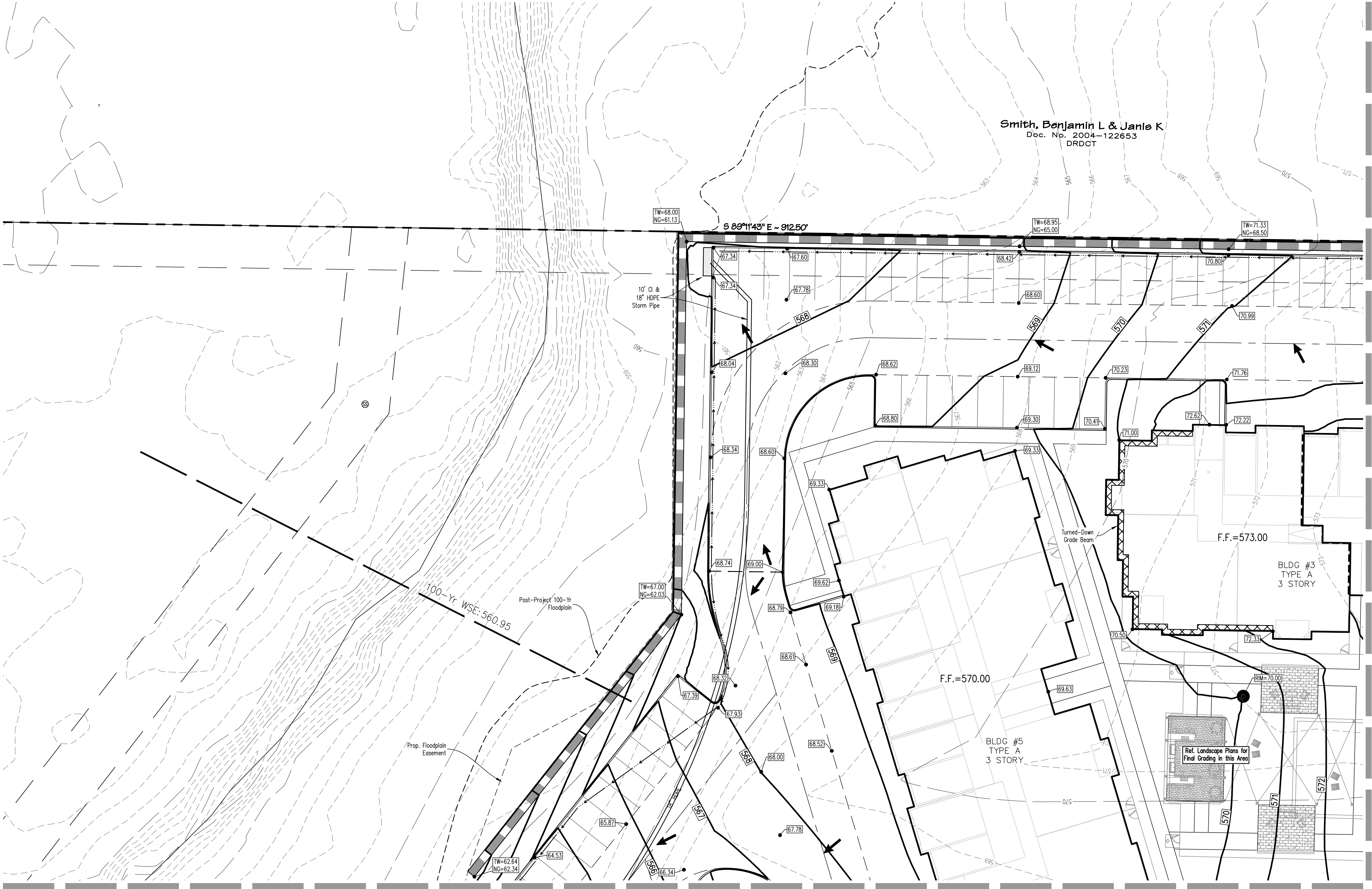
is plan is released for the  
purpose of interim review and  
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SEPH K. LEHMAN, P.E. 138208  
Date: April 8, 2024  
This document is not to be used for  
instruction.

LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
GRADING PLAN

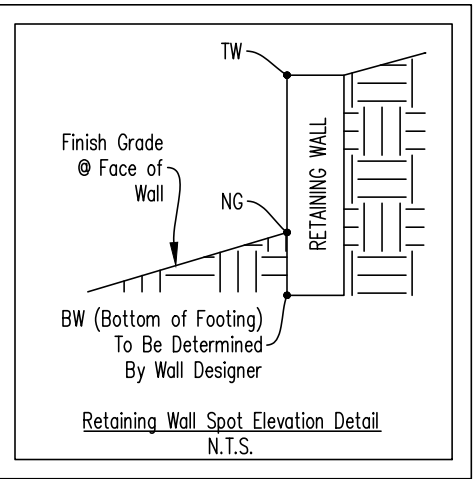

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Checked By: <b>JKL</b>
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Proj. No. 23-107



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Scale: 1"=300' Plot Time: 4/9/2024 12:02:19 AM



- LEGEND**
- Gutter/Top of Pmt. Elevation
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Date	
Revisions	

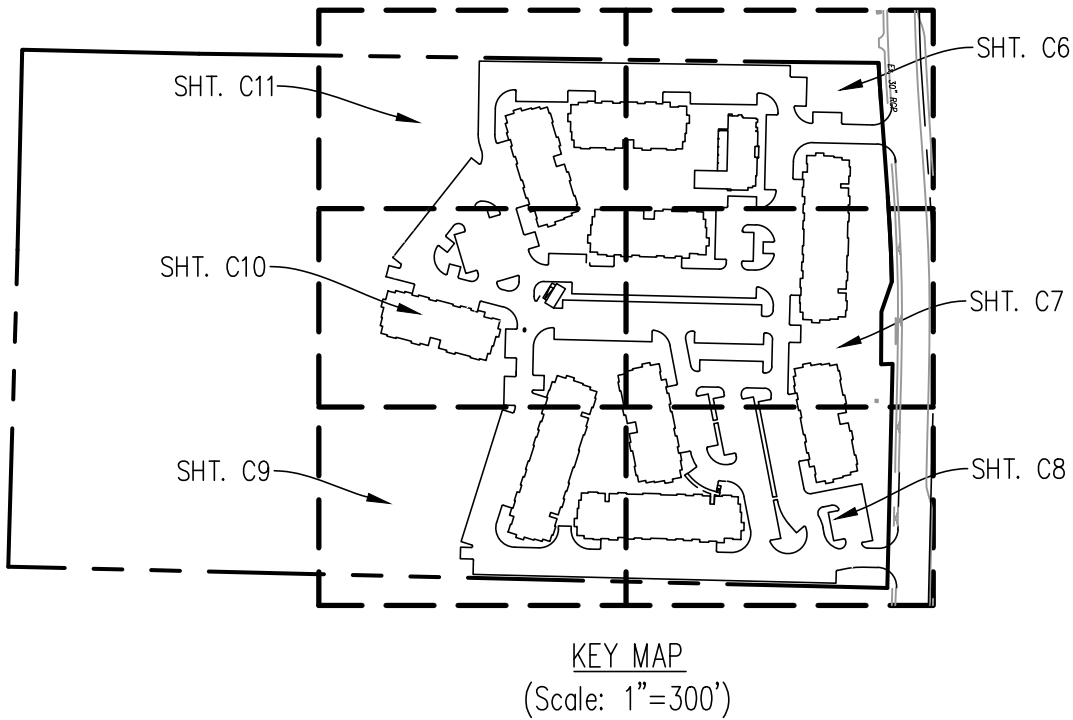
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SEI No. 23-107

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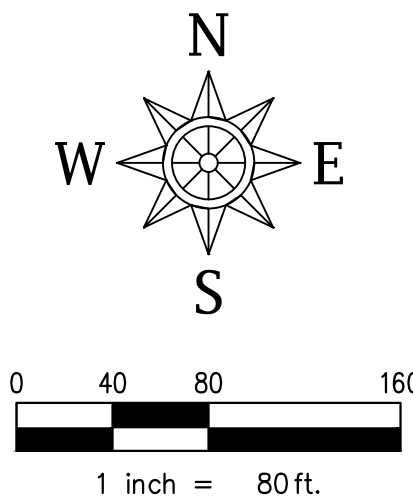
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### DRAINAGE CRITERIA

$$Q = C I A$$
$$C = 0.30 / 0.85$$
$$I_{100} = 8.74 \text{ in/hr}$$
$$t_c = 10 \text{ Min.}$$

D.A. No.

 Study Area
  Drainage Divide Line

1 Design Point

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# HI CROSS ROADS

LOT 1, BLOCK A

TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS

## EXISTING DRAINAGE AREA MAP

Drainage Area Table							
Drainage Area No.	Drainage Area (Acres)	C	tc (Min.)	Antecedent	I100 (in./hr.)	Q100 (cfs)	Comments
EX 1	25.11	0.30	20	1.25	9.57	90.1	To Ex. Drainage Channel
EX 2	0.30	0.30	20	1.25	9.57	1.1	To Ex. Drainage Channel
OS 1	0.28	0.95	10	1.18	9.57	2.7	To Ex. TxDOT C.I.
OS 2	0.28	0.95	10	1.18	9.57	2.7	To Ex. TxDOT C.I.
OS 3	0.45	0.95	10	1.18	9.57	4.3	To Ex. TxDOT C.I.
OS 4	0.05	0.30	20	1.25	9.57	0.2	To Ex. Drainage Channel
OS 5	0.27	0.95	10	1.18	9.57	2.6	To Ex. TxDOT C.I.
OS 6	0.20	0.95	10	1.18	9.57	1.9	To Ex. TxDOT C.I.
OS 7	3.09	0.30	20	1.25	9.57	11.1	To Ex. Drainage Channel
OS 8	2.29	0.30	20	1.25	9.57	8.2	To Ex. Drainage Channel
OS 9	0.10	0.30	20	1.25	9.57	0.4	To Ex. Drainage Channel
OS 10	0.73	0.30	10	1.25	9.57	2.6	To Drainage Area Ex. 2

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SEI No. 23-107

May 7, 2024 Planning and Zoning Agenda Page 67 of 120

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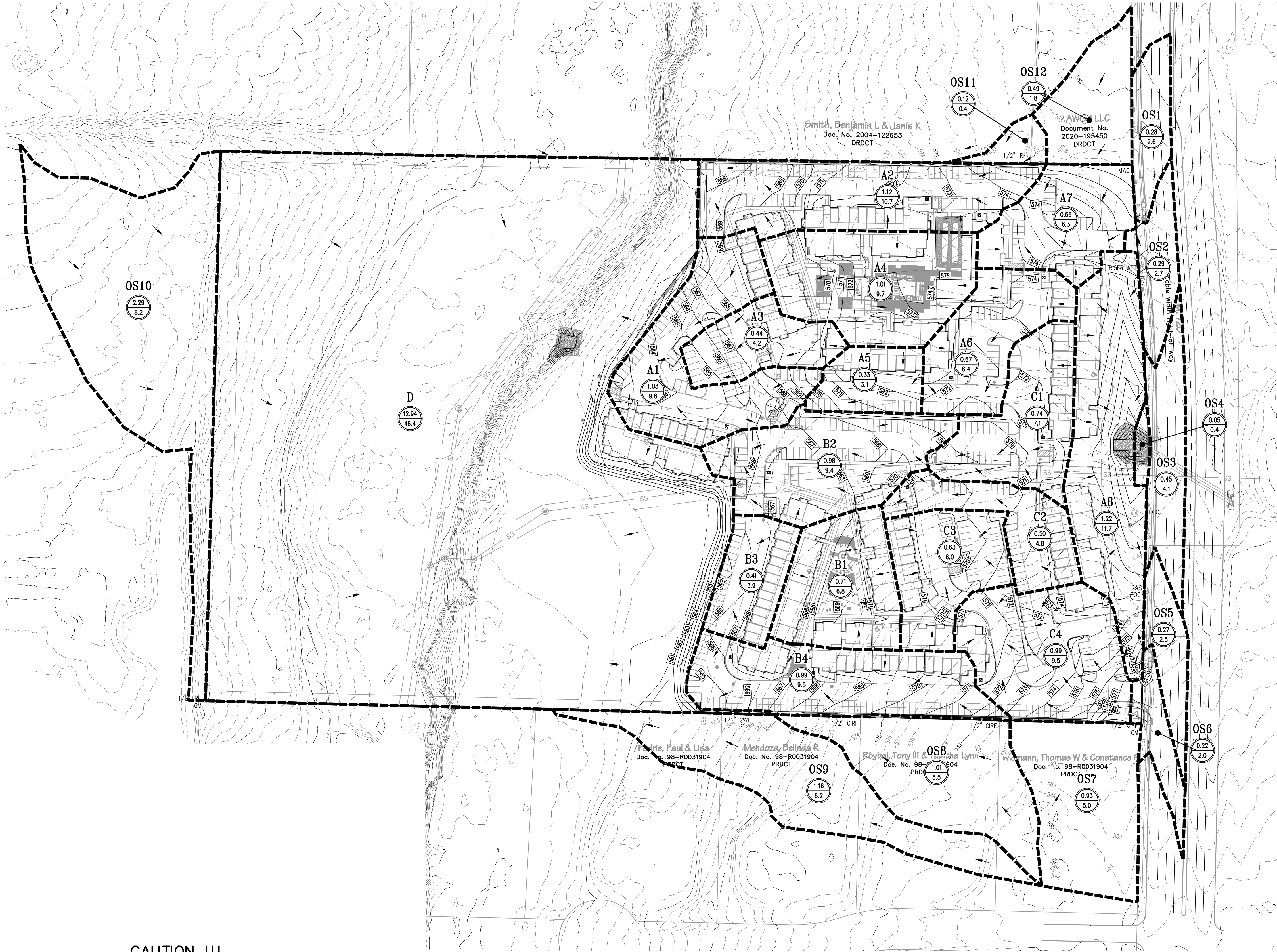
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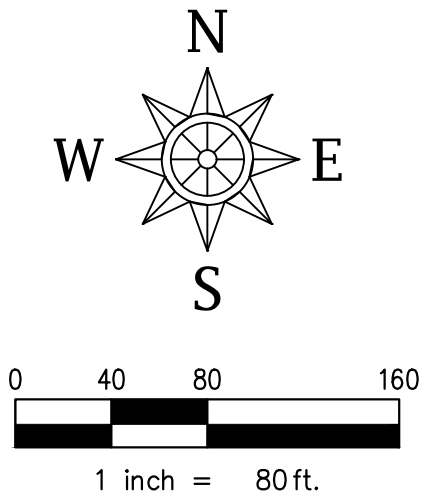
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**DRAINAGE CRITERIA**

Q = C I A  
C = 1.18  
I<sub>100</sub> = 8.74 in/hr  
tc = 10 Min.

- D.A. No. → A
- ⊗ XX ⊗ → Acres  
                  → Q 100(cfs)
- Drainage Divide Line
- 1 Design Point
- Drainage Arrows



Drainage Area Table

Drainage Area No.	Drainage Area (Acres)	C	Antecedent	tc (Min.)	I100 (in./hr.)	Q100 (cfs)	Comments
A1	1.03	0.85	1.18	10	9.57	9.8	To Prop. 10' C.I.
A2	1.12	0.85	1.18	10	9.57	10.7	To Prop. 10' C.I.
A3	0.44	0.85	1.18	10	9.57	4.2	To Prop. 10' C.I.
A4	1.01	0.85	1.18	10	9.57	9.7	To Prop. 10' C.I.
A5	0.33	0.85	1.18	10	9.57	3.1	To Prop. 10' C.I.
A6	0.67	0.85	1.18	10	9.57	6.4	To Prop. 10' C.I.
A7	0.66	0.85	1.18	10	9.57	6.3	To Prop. 10' C.I.
A8	1.22	0.85	1.18	10	9.57	11.7	To Prop. 10' C.I.
B1	0.71	0.85	1.18	10	9.57	6.8	To Prop. 10' C.I.
B2	0.98	0.85	1.18	10	9.57	9.4	To Prop. 10' C.I.
B3	0.41	0.85	1.18	10	9.57	3.9	To Prop. 10' C.I.
B4	0.99	0.85	1.18	10	9.57	9.5	To Prop. 10' C.I.
C1	0.74	0.85	1.18	10	9.57	7.1	To Prop. 10' C.I.
C2	0.50	0.85	1.18	10	9.57	4.8	To Prop. 10' C.I.
C3	0.63	0.85	1.18	10	9.57	6.0	To Prop. 10' C.I.
C4	0.99	0.85	1.18	10	9.57	9.5	To Prop. 10' C.I.
D	12.94	0.30	1.25	10	9.57	46.4	To Ex. Drainage Channel
OS1	0.28	0.95	1.18	10	9.57	2.6	To TxDot Curb Inlet
OS2	0.29	0.95	1.18	10	9.57	2.7	To TxDOT Curb Inlet
OS3	0.45	0.95	1.18	10	9.57	4.1	To TxDOT Curb Inlet
OS4	0.05	0.85	1.25	10	9.57	0.4	To Ex. Drainage Channel
OS5	0.27	0.95	1.18	10	9.57	2.5	To TxDOT Curb Inlet
OS6	0.22	0.95	1.18	10	9.57	2.0	To TxDOT Curb Inlet
OS7	0.93	0.45	1.25	10	9.57	5.0	To Drainage Area B4
OS8	1.01	0.45	1.25	10	9.57	5.5	To Drainage Area B4
OS9	1.16	0.45	1.25	10	9.57	6.2	To Drainage Area D
OS10	2.29	0.30	1.25	10	9.57	8.2	To Drainage Area D
OS11	0.12	0.30	1.25	10	9.57	0.4	To Drainage Area A2
OS12	0.49	0.30	1.25	10	9.57	1.8	To Drainage Area A7

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**DHI CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**  
**PROPOSED DRAINAGE AREA MAP**

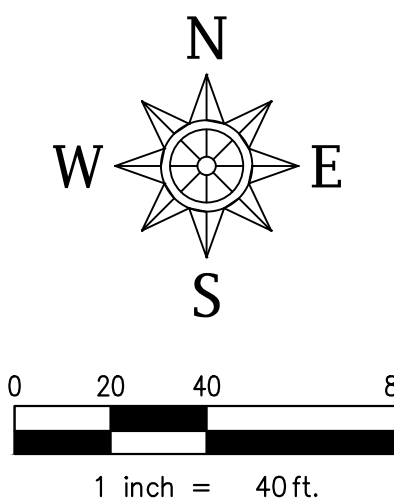
Revisions	Date

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Drawn By: **SCH**  
Checked By: **JKL**  
**Sheet C13**  
SEI No. 23-107



Smith, Benjamin L & Janis K  
Doc. No. 2004-122653  
DRDCT

MAWG 1 LLC  
Document No.  
2020-195450  
DRDCT



### DRAINAGE GENERAL NOTES

1. All materials and construction shall conform to the Town of Cross Roads Standard Construction Details and Specifications, except as noted herein and approved by the Town.
2. Contractor shall be responsible for maintaining trench safety requirements in accordance with City Standards, Texas State Law, and O.S.H.A. Standards for all excavation in excess of five feet in depth.
3. The location of all utilities located on these plans are taken from existing public records. The exact location and elevation of all public utilities must be determined by the Contractor. It shall be the duty of the Contractor to ascertain whether any additional facilities other than those shown on the plans may be present.
4. It shall be the responsibility of the Contractor to protect all public utilities in the construction of this project. All manholes, clean-outs, valve boxes, fire hydrants, etc. must be adjusted to proper line and grade by the Contractor prior to and after the placing of permanent paving. Utilities must be maintained to proper line and grade during construction of the paving for this development.
5. Drainage should be maintained away from the foundations, both during and after construction.
6. Backfill for utility lines should be carefully placed so that they will be stable. Where utility lines pass through the parking lot, the top 6" should be compacted similarly to the remainder of the lot. Utility ditches should be visually inspected during the excavation process to ensure that undesirable fill is not used.
7. Concrete for inlets and drainage structures shall be 4200 psi at 28 days.
8. If rock is encountered in the trench, rock spoil shall not be used in the upper 1.5 feet of the trench.
9. All earthwork operations, pavement installation, etc. shall conform to the Geotechnical Investigation.
10. Four-foot RCP sections with beveled ends shall be used if pipe radius is less than 100 feet.
11. All PVC shall be placed on a 1.0% minimum slope unless otherwise noted.
12. Stone Rip-Rap shall be durable natural stone with a Bulk Specific Gravity of at least 2.50.
13. Type 2 Filter Fabric shall be placed below all Stone Rip-Rap. Filter Fabric shall meet TxDOT DMS-6200 specifications.

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**DRAINAGE PLAN**

[illegible]

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May 7, 2024 Planning and Zoning Agenda, Page 69 of 124

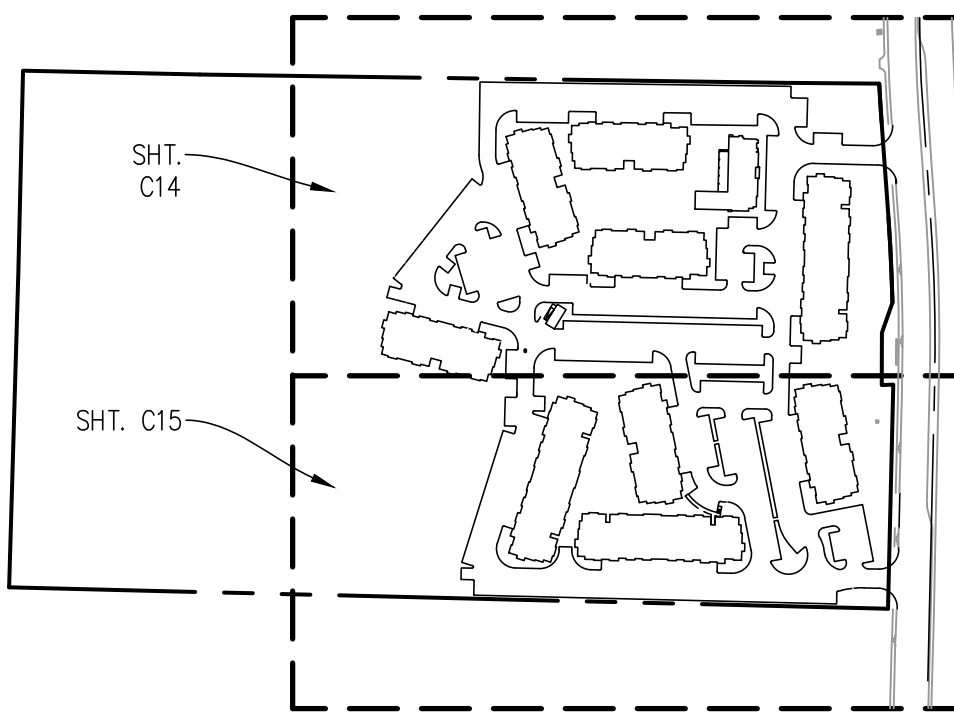
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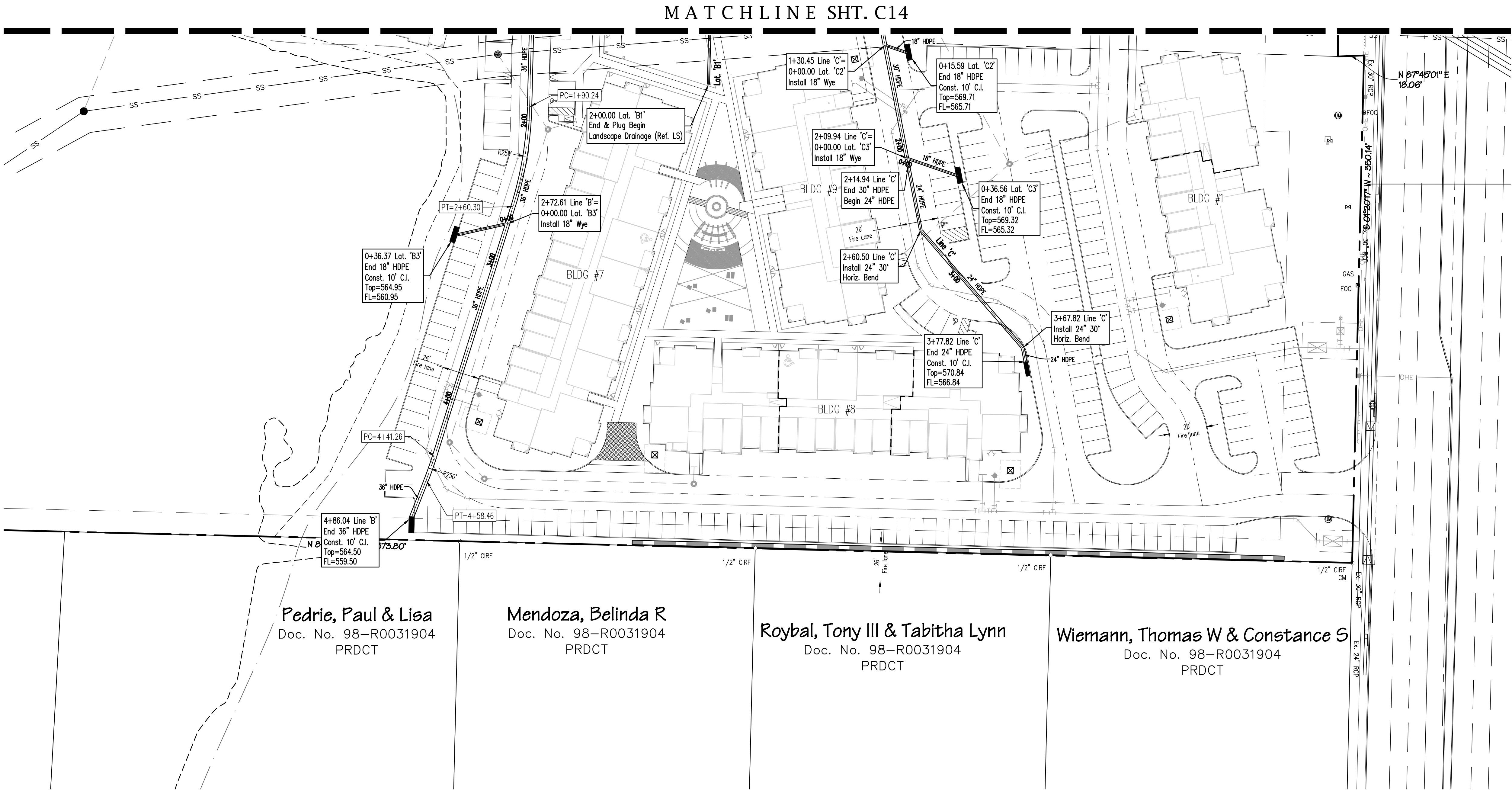
KEY MAP  
(Scale: 1"=300')





Plotted by: Bessam Plot Date: 4/9/2024 11:52 AM

Drawing: C:\2023\4055\24-107-DHI Cross Roads\24-107-DHI Cross Roads.dwg Saved By: Bessam Save Time: 4/9/2024 10:27:49 AM



This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138208  
Date: April 8, 2024  
It is not to be used for construction.

**DHI CROSS ROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
DRAINAGE PLAN

Revisions	Date

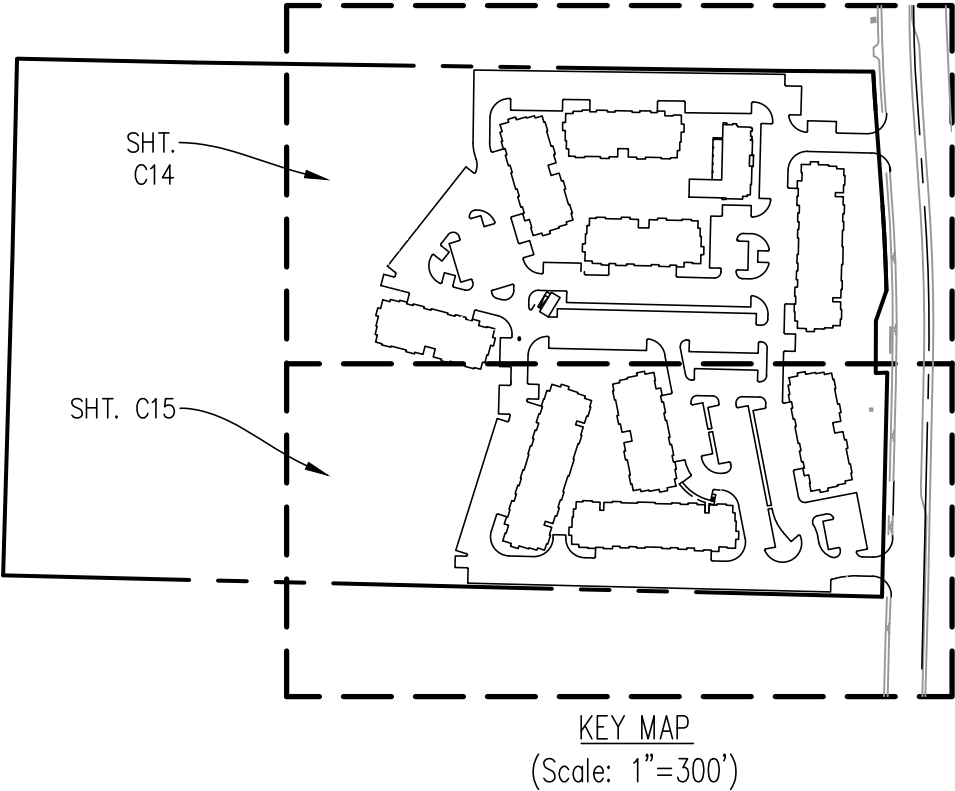
Scale: As Shown  
Drawn By: SCH  
Checked By: JKL  
**Sheet C15**  
SEI No. 23-107

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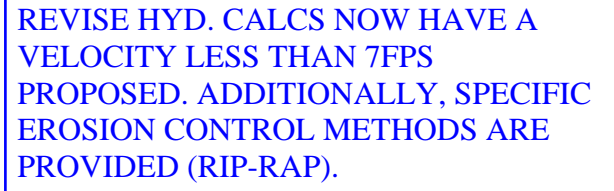


**BENCHMARKS:**

BM1  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128 feet north of the southeast corner of the subject tract.  
Northing - 7129231.12, Easting - 2434303.33, Elevation = 575.46

BM2  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet south of the northeast corner of the subject tract.  
Northing - 7129851.13, Easting 2434291.34, Elevation = 576.86





Qcap SHOWN IS USING MANNINGS FORMULA. ACTUAL Qcap IS LIMITED BY THE HGL AND TW/HW CONDITIONS. PLEASE CONFIRM IF YOU ARE REQUESTING REVISION OF Qcap TO SHOW  $Q_{cap} = Q_{100}$ . (CAPACITY LIMITED BY HYDRAULICS)

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**EDHI CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**

---

**DRAINAGE PROFILE**

This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138204

Date: April 8, 202

It is not to be used for construction.

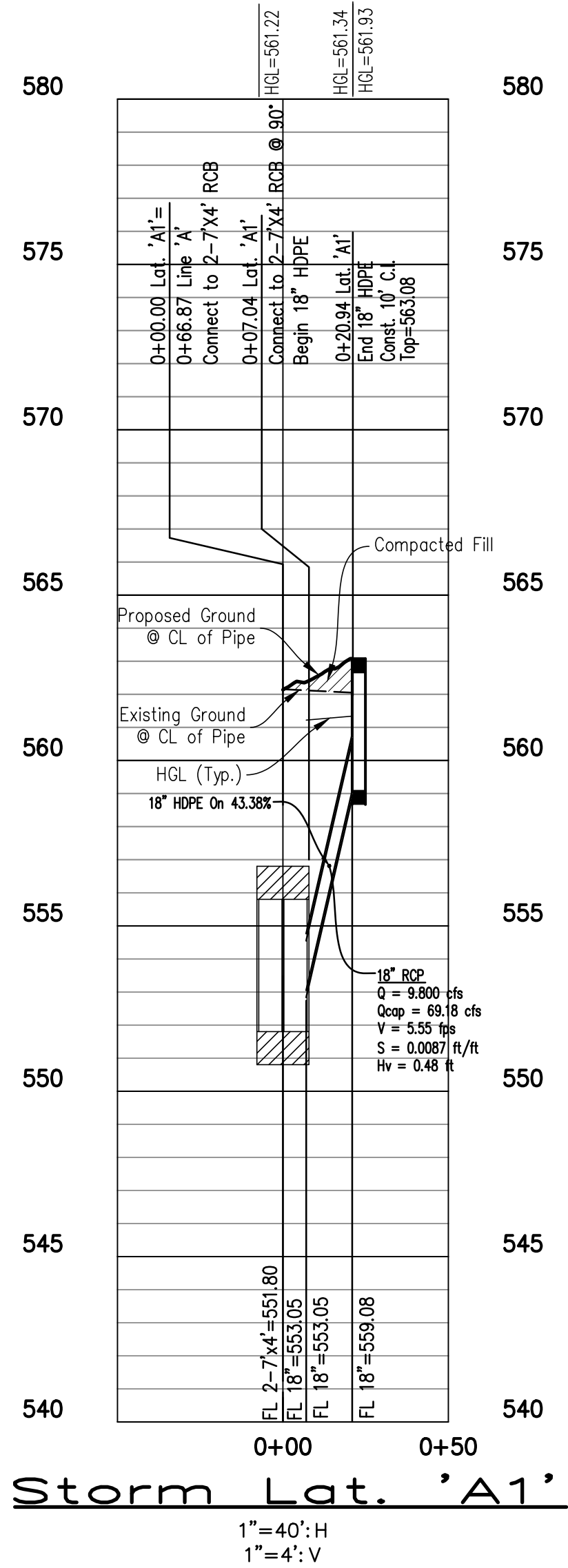
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 TBPE No. F-2121 • TBPLS No. F-10033100 • www.spiarseng.com

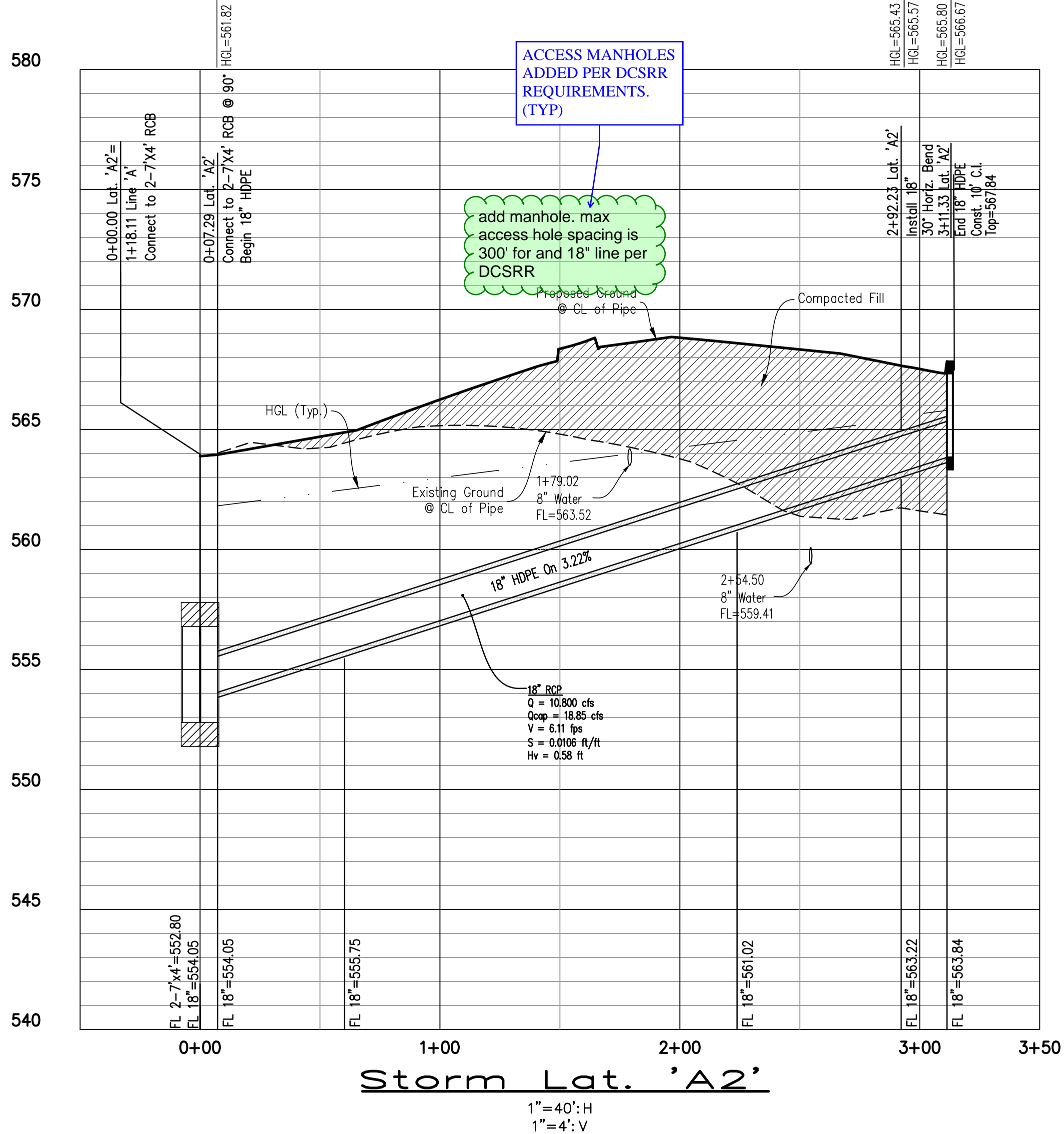


Drawing: 6. 2022. 4055. 2-10' 3rd Cross Roads (A1) Drainage Planning. Created By: Beaman. Date: 4/9/2024. 10:27:49 AM. Printed by: Beaman. Plot Date: 4/9/2024. 11:52 AM.

3RD REVIEW COMMENT  
RESPONSE - SPIARS ENG.  
4/22/2024 - BCB

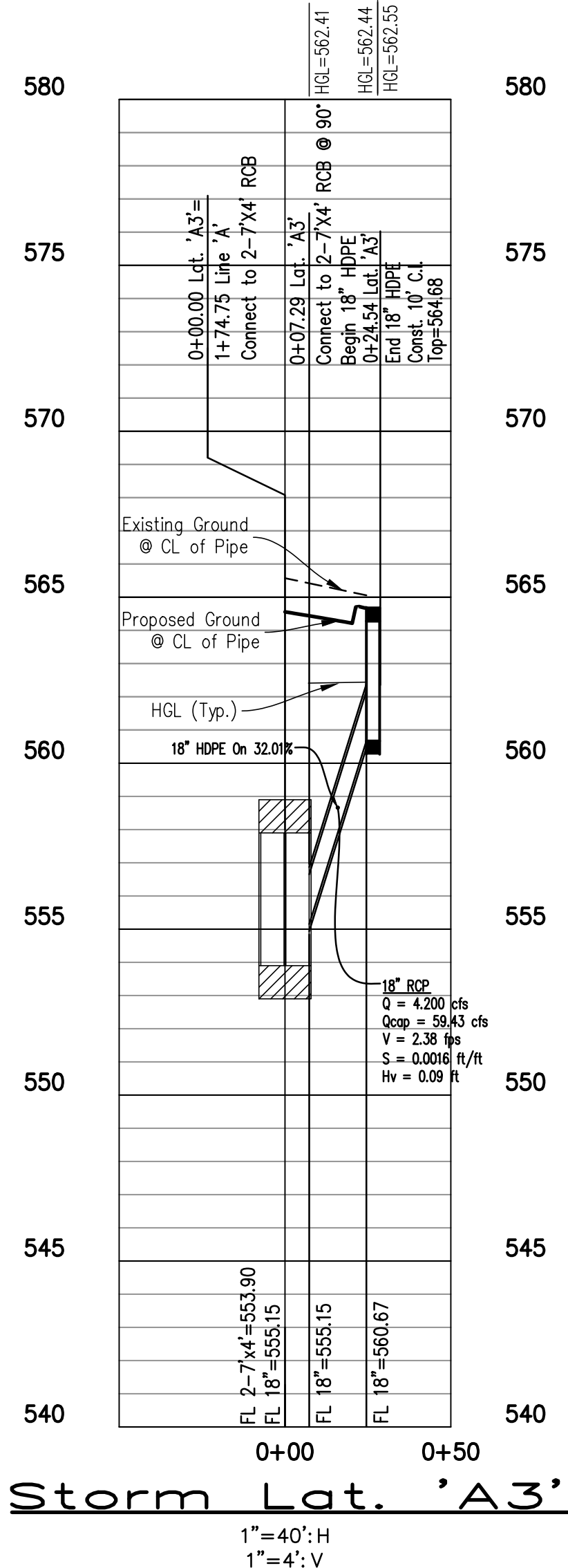


HGL REVISED BASED  
UPON UPDATED  
FLOOD STUDY/HYD  
CALCS. (TYP)



ACCESS MANHOLES  
ADDED PER DCSRR  
REQUIREMENTS.  
(TYP)

add manhole. max  
access hole spacing is  
300' for and 18" line per  
DCSRR



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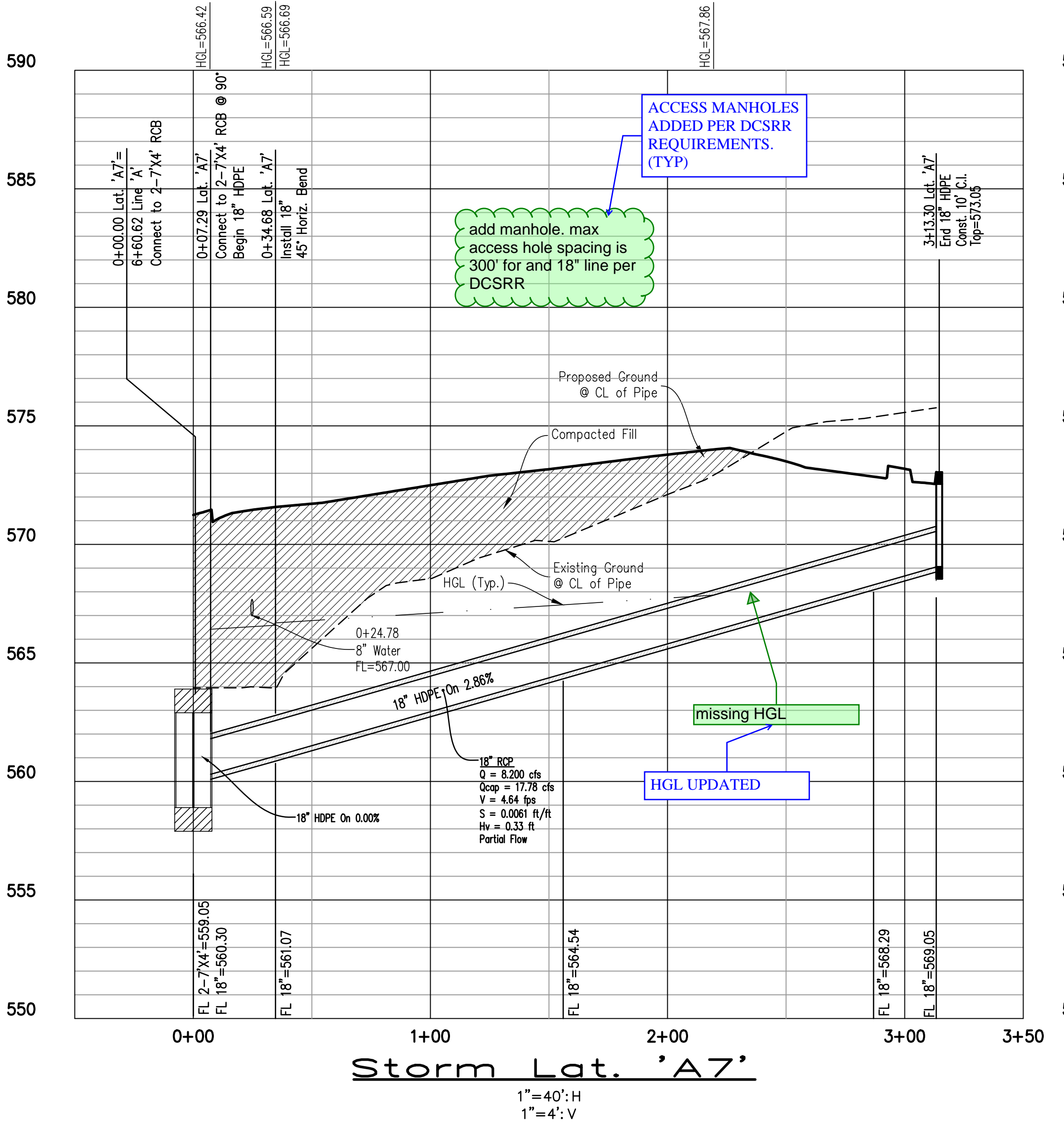
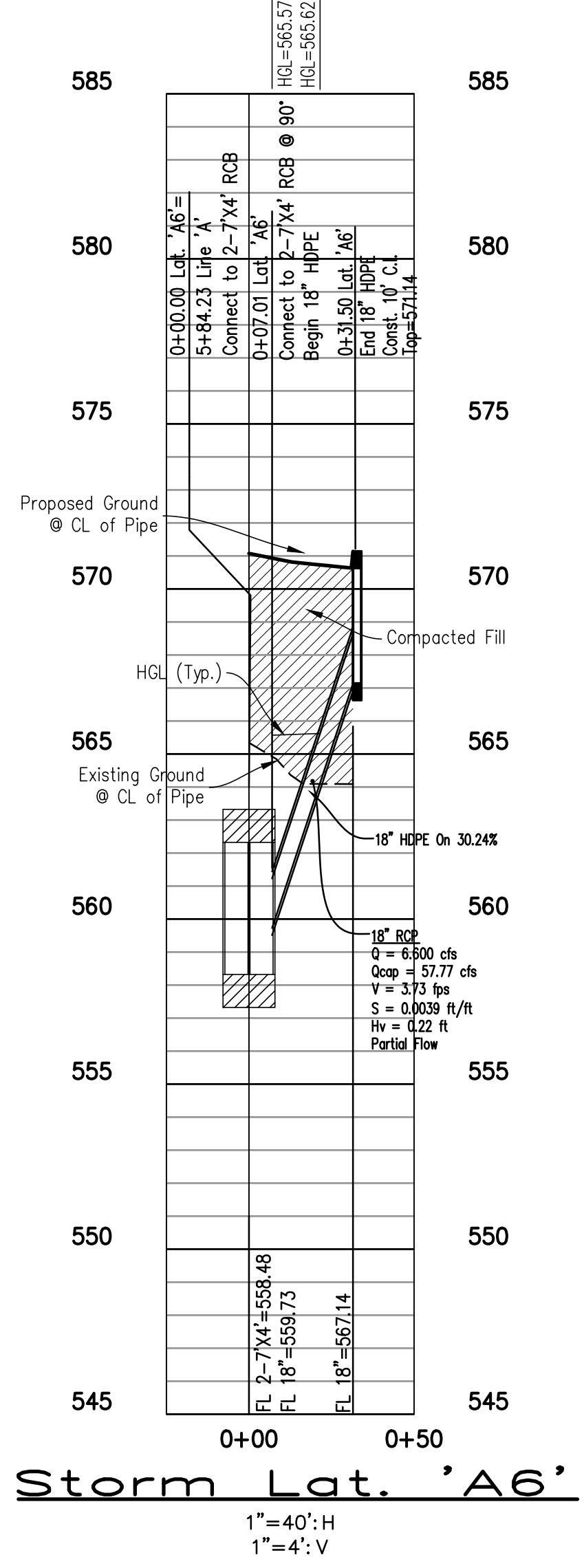
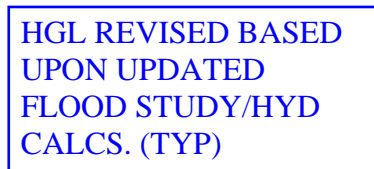
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DHI CROSS ROADS  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
DRAINAGE PROFILE

Revisions	Date

Scale: As Shown  
Drawn By: SCH  
Checked By: JKL  
Sheet C17  
SEI No. 23-107





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**CROSSROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS

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**DRAINAGE PROFILE**

[illegible]

Scale: As Shown

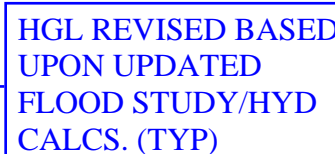
Drawn By: SCH

Checked By: Jk

Sheet C18

SEI No. 23-107





ACCESS MANHOLES  
ADDED PER DCSRR  
REQUIREMENTS.  
(TYP)

add manhole. max  
access hole spacing is  
400' for a 36" line per  
DCSRR

What is this denoting?

### UTILITY CROSSINGS UPDATED (TYP)



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**DDHI CROSS ROADS**  
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**DRAINAGE PROFILES**

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Date: April 8, 2024

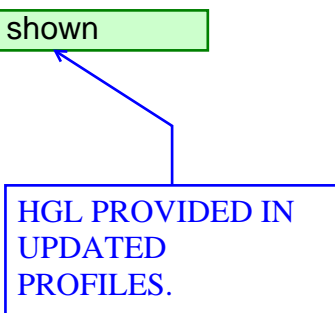
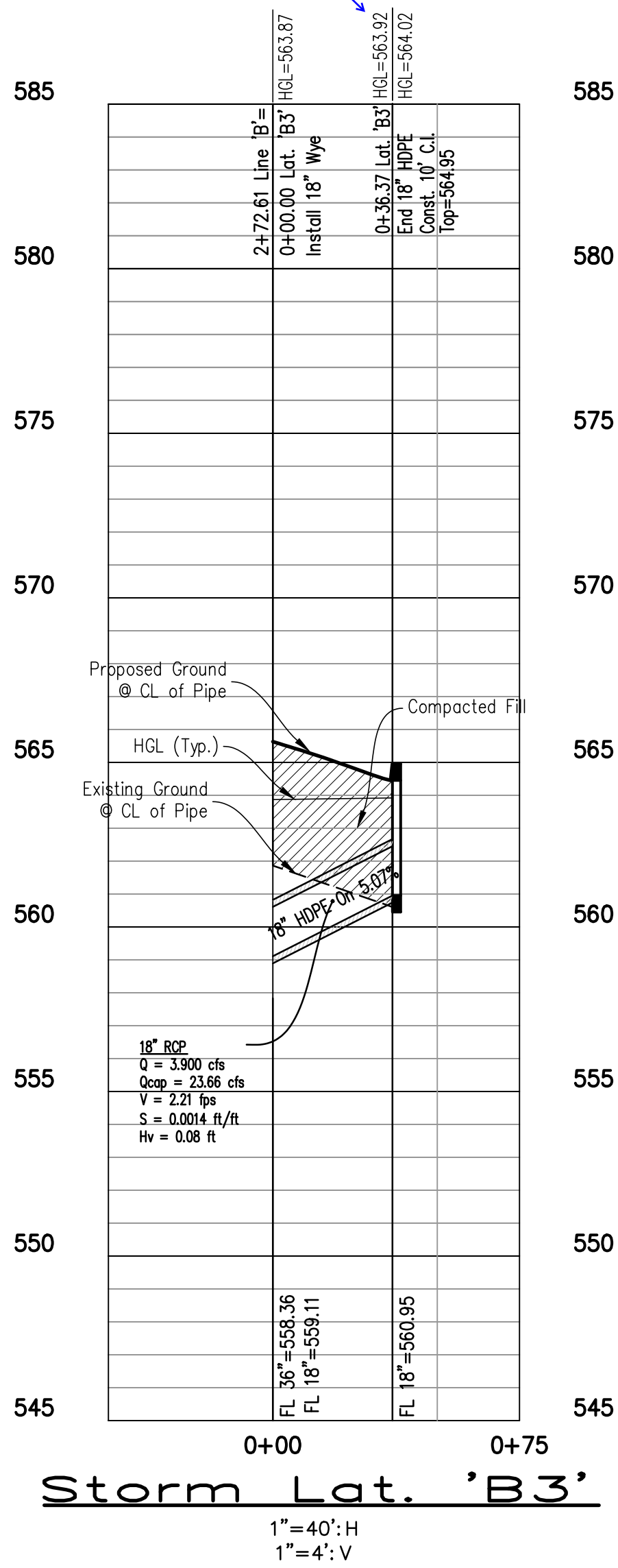
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HGL REVISED BASED  
UPON UPDATED  
FLOOD STUDY/HYD  
CALCS. (TYP)



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[illegible]

Scale: As Shown

Drawn By: SCH

Checked By: JKL

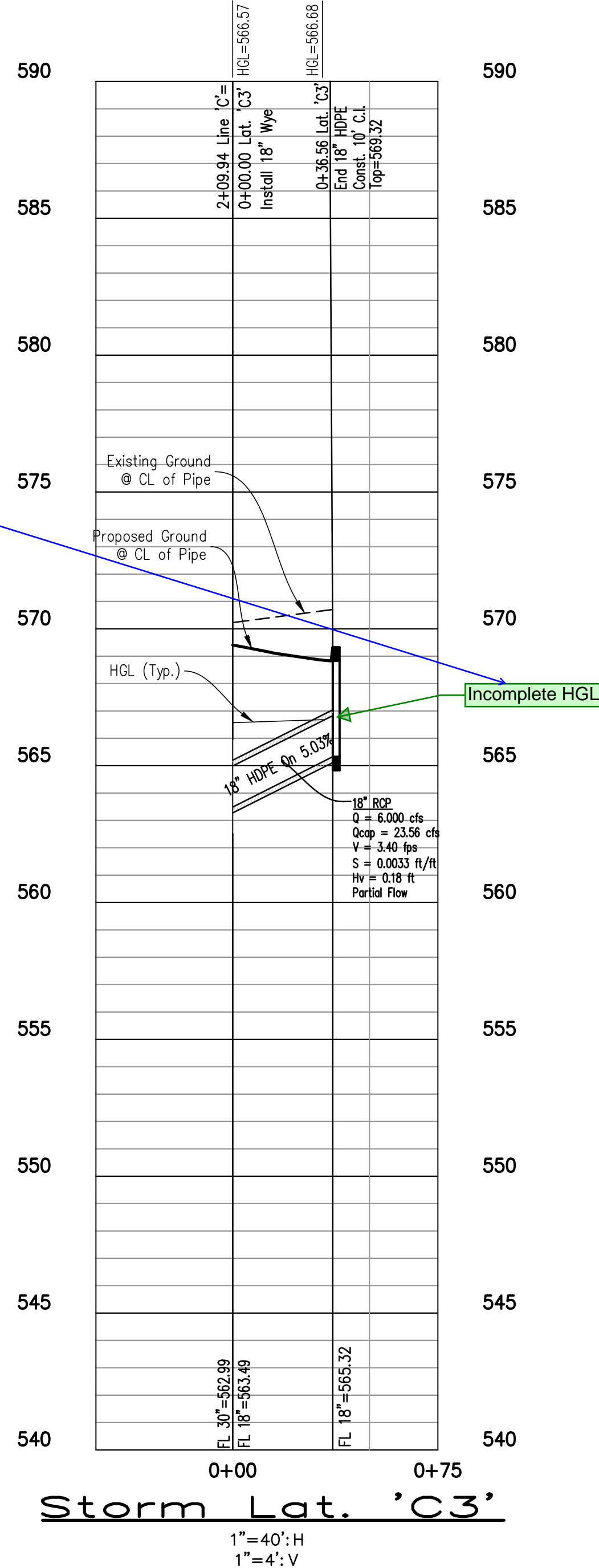
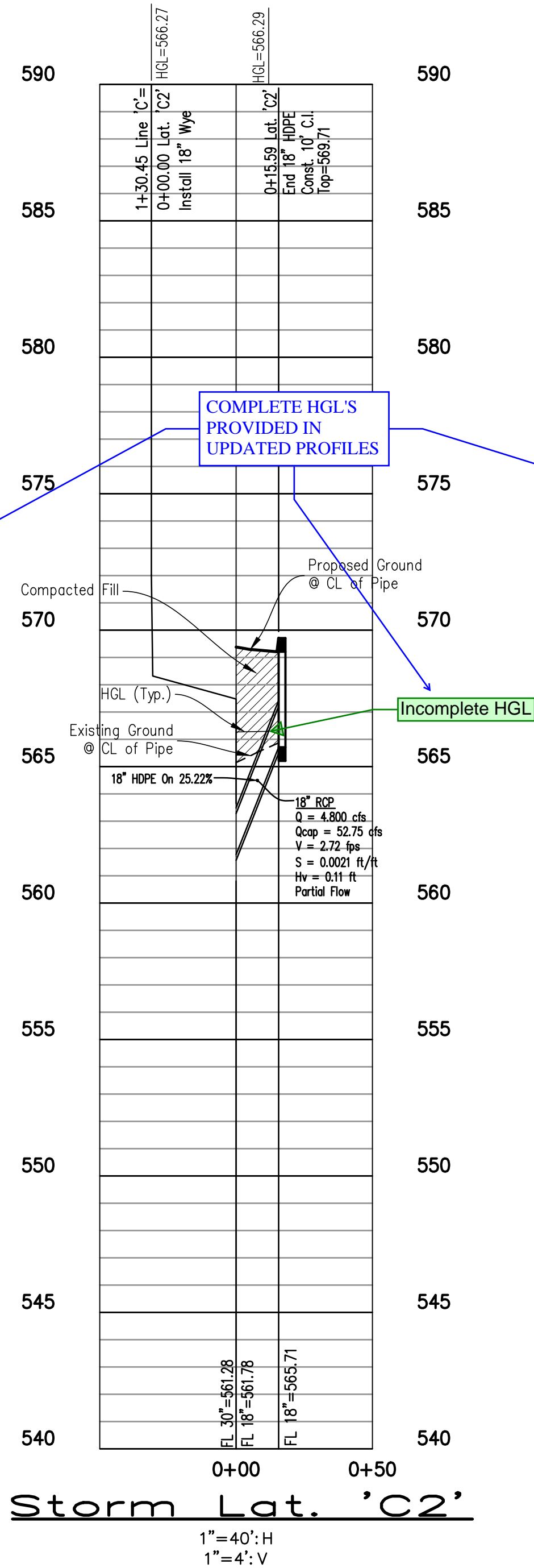
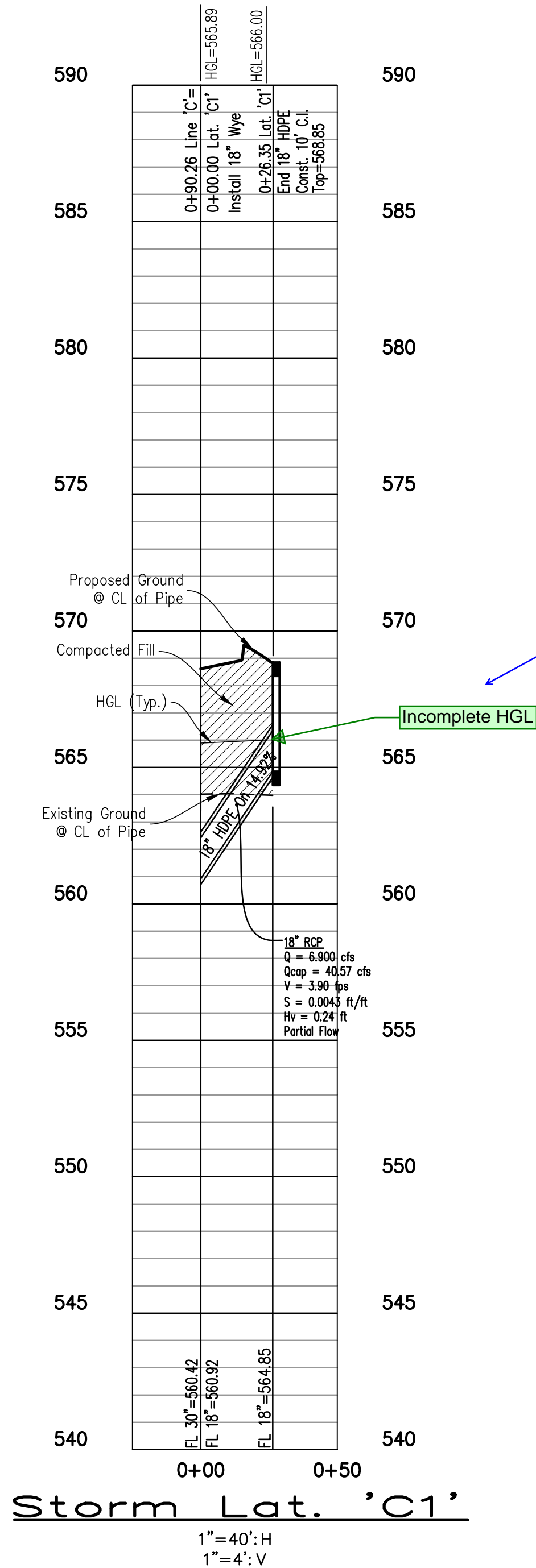
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SEI No. 23-107



3RD REVIEW COMMENT  
RESPONSE - SPIARS ENG.  
4/22/2024 - BCB

HGL REVISED BASED  
UPON UPDATED  
FLOOD STUDY/HYD  
CALCS. (TYP)



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**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**  
**DRAINAGE PROFILES**

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- Provide more information and landscape plans for A4 and B1. Show calculations

CURB INLET CAPACITY CALCULATIONS																
INLET		D.A. No.	Q (c.f.s.)	CO (c.f.s.)	Q_Total (c.f.s.)	n	Sx (ft./ft.)	S (ft./ft.)	T (ft.)	y (ft.)	Lr (ft.)	La (ft.)	Ql (c.f.s.)	Qco (c.f.s.)	Carryover to:	Remarks
ID	Location															
A1	Sump	A1	9.76		9.76	0.019	0.0100	0.0000	N/A	0.45	9.56	10	9.76	0.00		
A2	Sump	A2	10.72		10.72	0.019	0.0100	0.0000	N/A	0.50	5.24	10	10.72	0.00		
A3	Sump	A3	4.21		4.21	0.019	0.0100	0.0000	N/A	0.30	6.64	10	4.21	0.00		
A5	Sump	A5	3.16		3.16	0.019	0.0300	0.0000	N/A	0.25	6.48	10	3.16	0.00		
A6	Sump	A6	6.60		6.60	0.019	0.0100	0.0000	N/A	0.35	9.37	10	6.60	0.00		
A7	Sump	A7	6.32		6.32	0.019	0.0100	0.0000	N/A	0.35	8.76	10	6.32	0.00		
B2	Sump	B2	9.38		9.38	0.019	0.0300	0.0000	N/A	0.45	9.01	10	9.38	0.00		
B3	Sump	B3	3.90		3.90	0.019	0.0300	0.0000	N/A	0.25	9.07	10	3.90	0.00		
B4	Sump	B4	9.47		9.47	0.019	0.0200	0.0000	N/A	0.45	9.15	10	9.47	0.00		
C1	Sump	C1	6.89		6.89	0.019	0.0100	0.0000	N/A	0.35	9.97	10	6.89	0.00		
C2	Sump	C2	4.79		4.79	0.019	0.0100	0.0000	N/A	0.30	8.16	10	4.79	0.00		
C3	Sump	C3	6.03		6.03	0.019	0.0100	0.0000	N/A	0.35	8.16	10	6.03	0.00		
C4	Sump	C4	9.09		9.09	0.019	0.0200	0.0000	N/A	0.45	8.59	10	9.09	0.00		

Scale: As Shown

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Drawn By: SCH

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Checked By: JKL

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Sheet **C22**

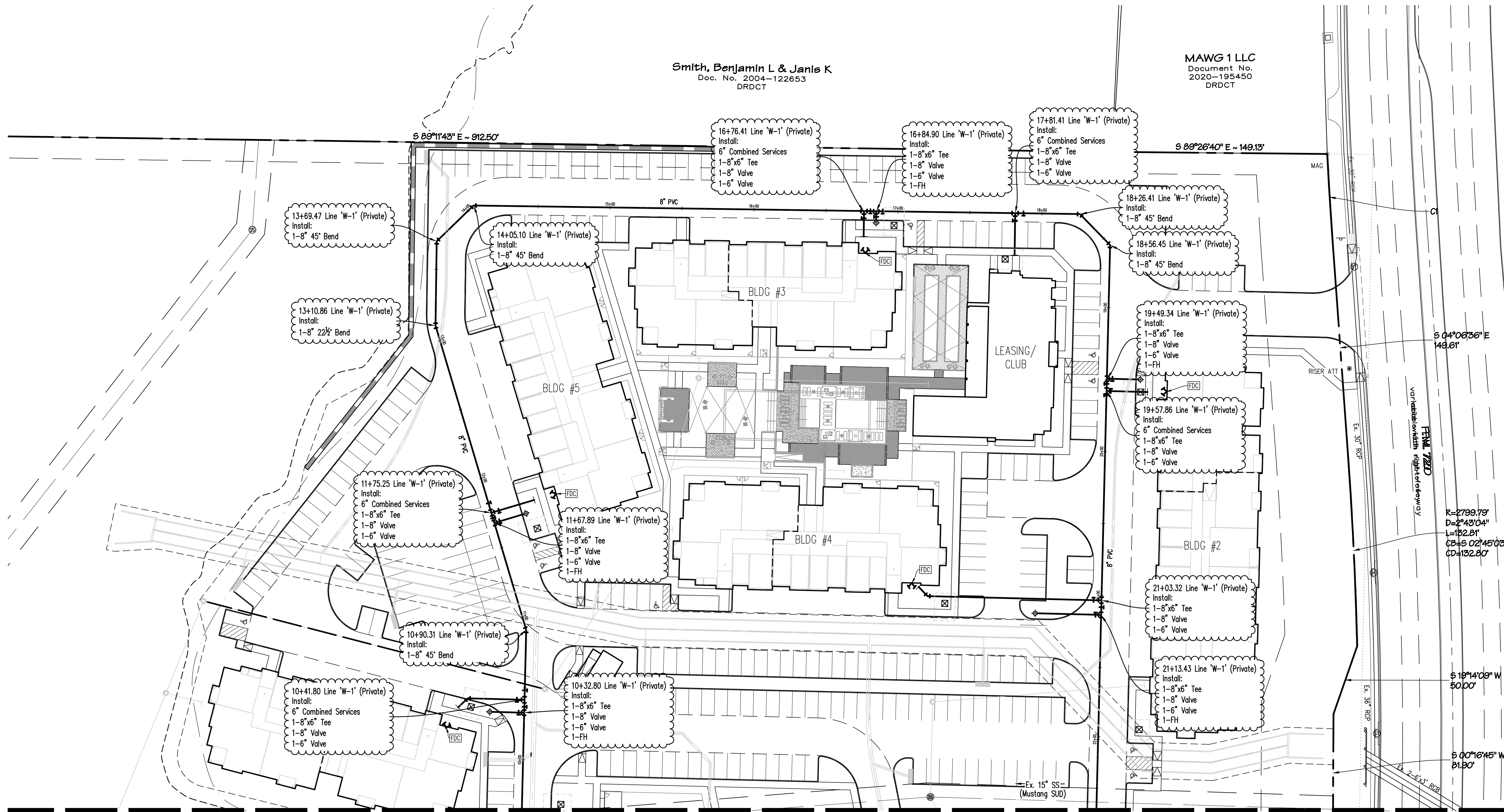
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SEI No. 23-107



Printed by: Benson Plot Date: 4/9/2024 12:24 PM

Drawing: 23-023 (285) 23-107 DHI Cross Roads Water Plan.dwg Saved By: Benson Save Time: 4/9/2024 12:24 PM



MATCHLINE SHT. C24

#### Contractor Field Verification Note:

Contractor shall field locate and verify the horizontal and vertical location of all existing and proposed Mustang SUD utilities prior to construction. No connection or modification to an existing Mustang SUD utility shall be made without the presence of a Mustang SUD representative.

#### CAUTION !!! EXISTING UTILITIES

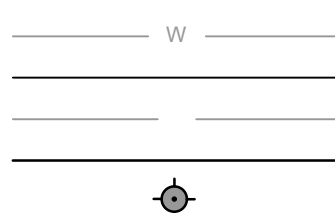
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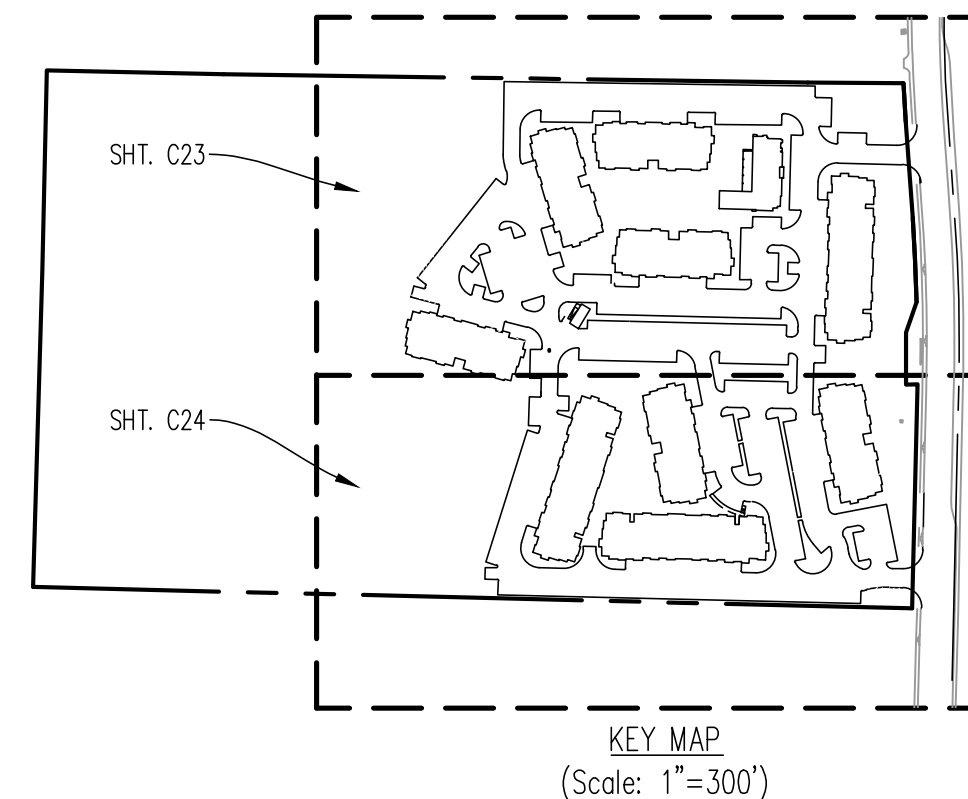
#### Note:

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#### LEGEND



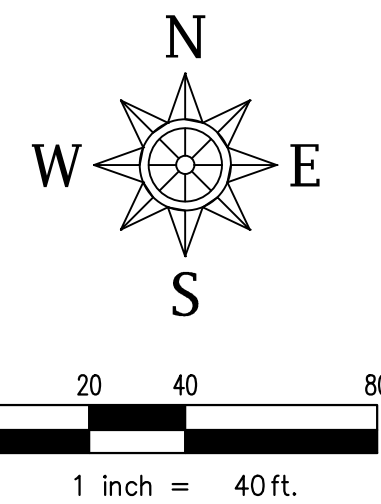
Ex. Water Line  
Prop. Water Main  
Ex. Sanitary Sewer Main  
Prop. Sanitary Sewer Main  
Prop. Fire Hydrant



#### BENCHMARKS:

BM1  
BEING a MAG Nail set in concrete curb line on the west side of FM 720 128 feet north of the southeast corner of the subject tract.  
Northing = 7129231.12, Easting = 2434303.33, Elevation = 575.46

BM2  
BEING "X" found in concrete curb inlet on the west side of FM 720 74 feet south of the northeast corner of the subject tract.  
Northing = 7129851.13, Easting 2434291.34, Elevation = 576.86



#### WATER GENERAL NOTES

- All materials and construction shall conform to the Town Standard Construction Details and Specifications, except as noted herein and approved by the City.
- Contractor shall be responsible for maintaining trench safety requirements in accordance with City Standards, Texas State Law, and O.S.H.A. Standards for all excavation in excess of five feet in depth.
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- Backfill for utility lines should be carefully placed so that the utility will be stable. Where utility lines cross the parking lot, the top 6" should be compacted similarly to the remainder of the lot. Utility ditches should be visually inspected during the excavation process to ensure that undesirable fill is not used.
- If rock is encountered in the trench, rock spoil shall not be used in the upper 1.5 feet of the trench. The upper 1.5 feet of the trench is to be backfilled only with quality topsoil.
- All water mains shall be C-900 PVC SDR 18. Domestic and fire water service lines shall be per Building Code requirements.
- All ductile iron fittings shall be of the mechanical joint type or slip joint and shall be Class D, or Class 250 on sizes 12" and smaller in accordance with A.W.W.A. Specification C-110-64 and C-111-64.
- All 6" and smaller water mains shall have a minimum cover of 42"; all 8" and larger water mains shall have a minimum cover of 48" or sufficient cover to clear other utilities as measured from top of pipe to existing ground level or finished grade, whichever is greater.
- Fire hydrants shall be placed 4' to 7' from back of curb located as shown on the plans.
- Fire hydrants shall be City approved and color coded.
- All gate valves shall be City approved.
- All water and sanitary mains and services shall have a 10' min. lateral separation.

This plan is released for the purpose of interim review and pricing under the authority of JOSEPH K. LEHMAN, P.E. 138208

Date: April 8, 2024  
It is not to be used for construction.

**DHI CROSS ROADS**  
LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS  
WATER PLAN

Date	
Revisions	

Scale: As Shown

Drawn By: SCH

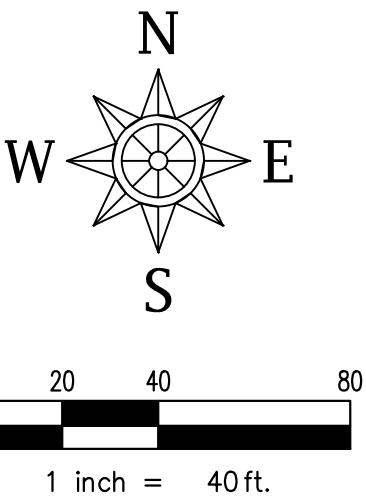
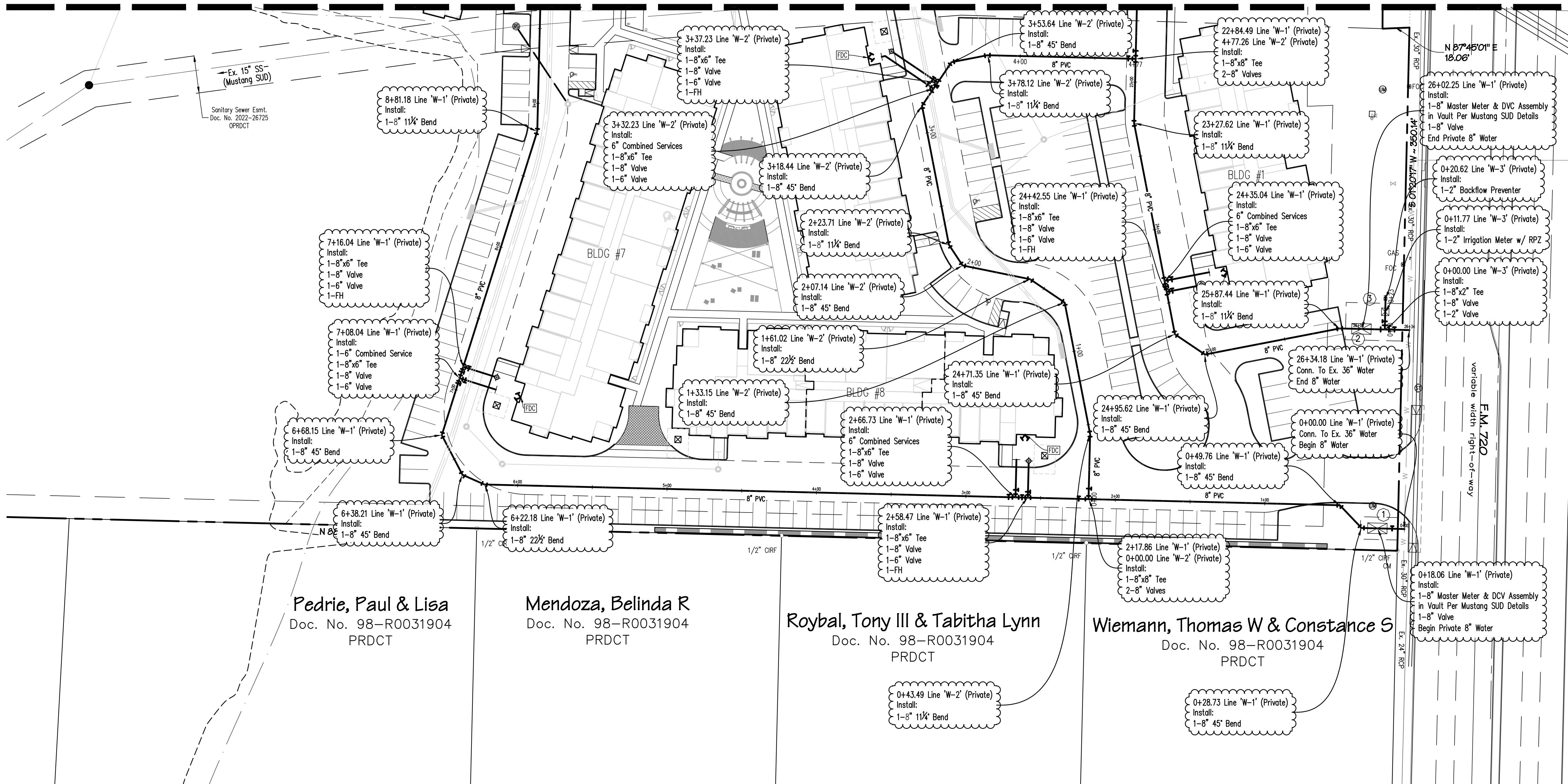
Checked By: JKL

Sheet C23

SEI No. 23-107



MATCHLINE SHT. C23



WATER GENERAL NOTES

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12. Fire hydrants shall be City approved and color coded.
13. All gate valves shall be City approved.
14. All water and sanitary mains and services shall have a 10' min. lateral separation.

Contractor Field Verification Note:

Contractor shall field locate and verify the horizontal and vertical location of all existing and proposed Mustang SUD utilities prior to construction. No connection or modification to an existing Mustang SUD utility shall be made without the presence of a Mustang SUD representative.

**CAUTION !!!**  
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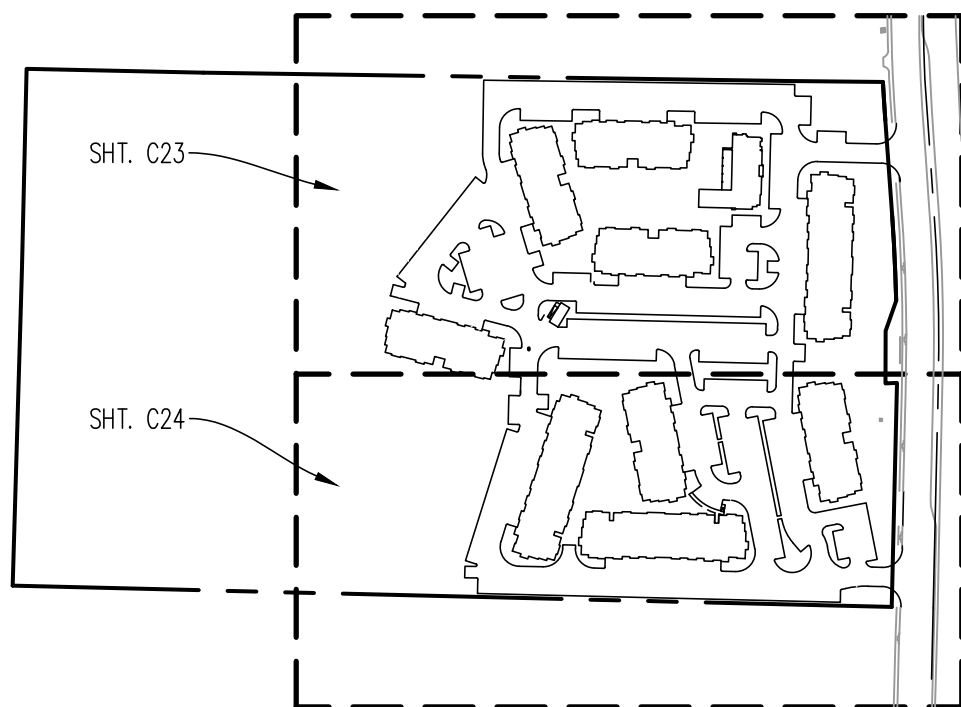
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Water Meter Schedule				
I.D.	Type	Size	No.	Sewer
①	Dom. Combo Meter	8"	1	8"
②	Dom. Combo Meter	8"	1	8"
③	Irrig. Meter	2"	1	N/A

LEGEND

	Ex. Water Line
	Prop. Water Main
	Ex. Sanitary Sewer Main
	Prop. Sanitary Sewer Main
	Prop. Fire Hydrant



BENCHMARKS:

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Date: April 8, 2024  
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**DHI CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**  
**WATER PLAN**

Date	Revisions

Scale: As Shown

Drawn By: SCH

Checked By: JKL

Sheet C24

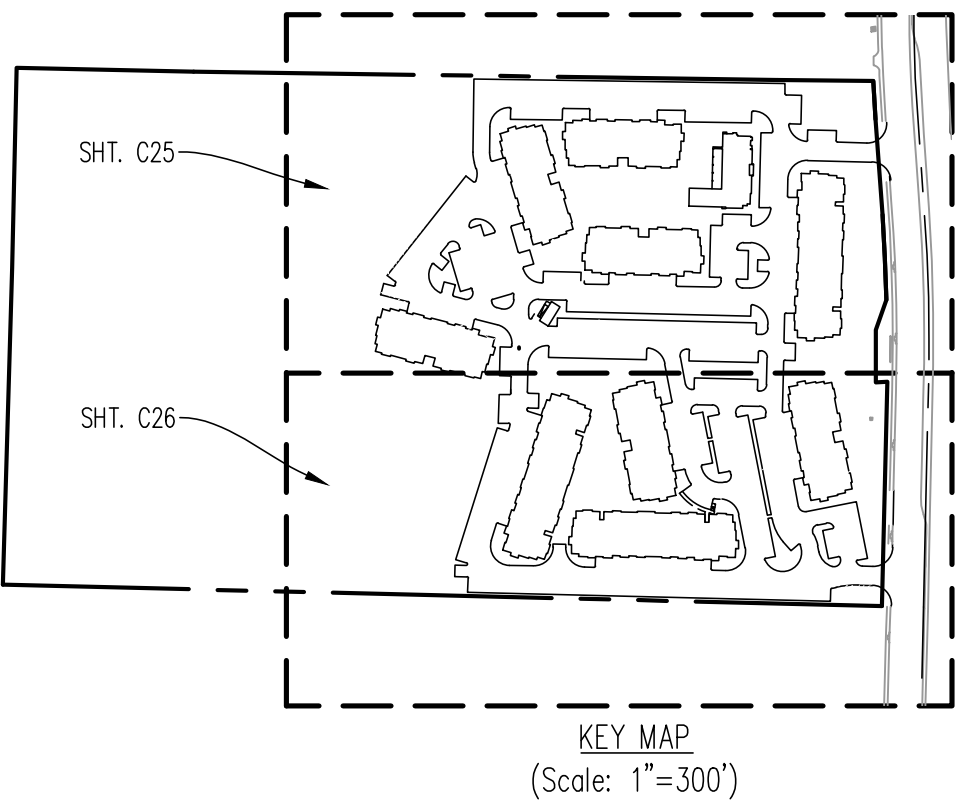
SEI No. 23-107





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8. Sanitary sewer manholes shall be constructed of cast-in-place concrete or precast concrete with cast iron frames and cover per City/Town of details.
9. Concrete blocking shall be provided on water mains at all tees, fire hydrants, and bends per City/Town of standards. Payment for concrete blocking shall be subsidiary to pipe installation and shall be included in the bid price thereof.
10. Class "H" Embedment, per SD-20, shall be used for PVC water mains.
11. All water meters to be placed in a non-traffic area.
12. Refer to Plumbing Plans for exact water and sewer service locations.
13. Sanitary sewer lines shall be PVC per ASTM 3034, SDR-35.
14. Fire sprinkler line shall be sized and installed by a state licensed fire sprinkler contractor.

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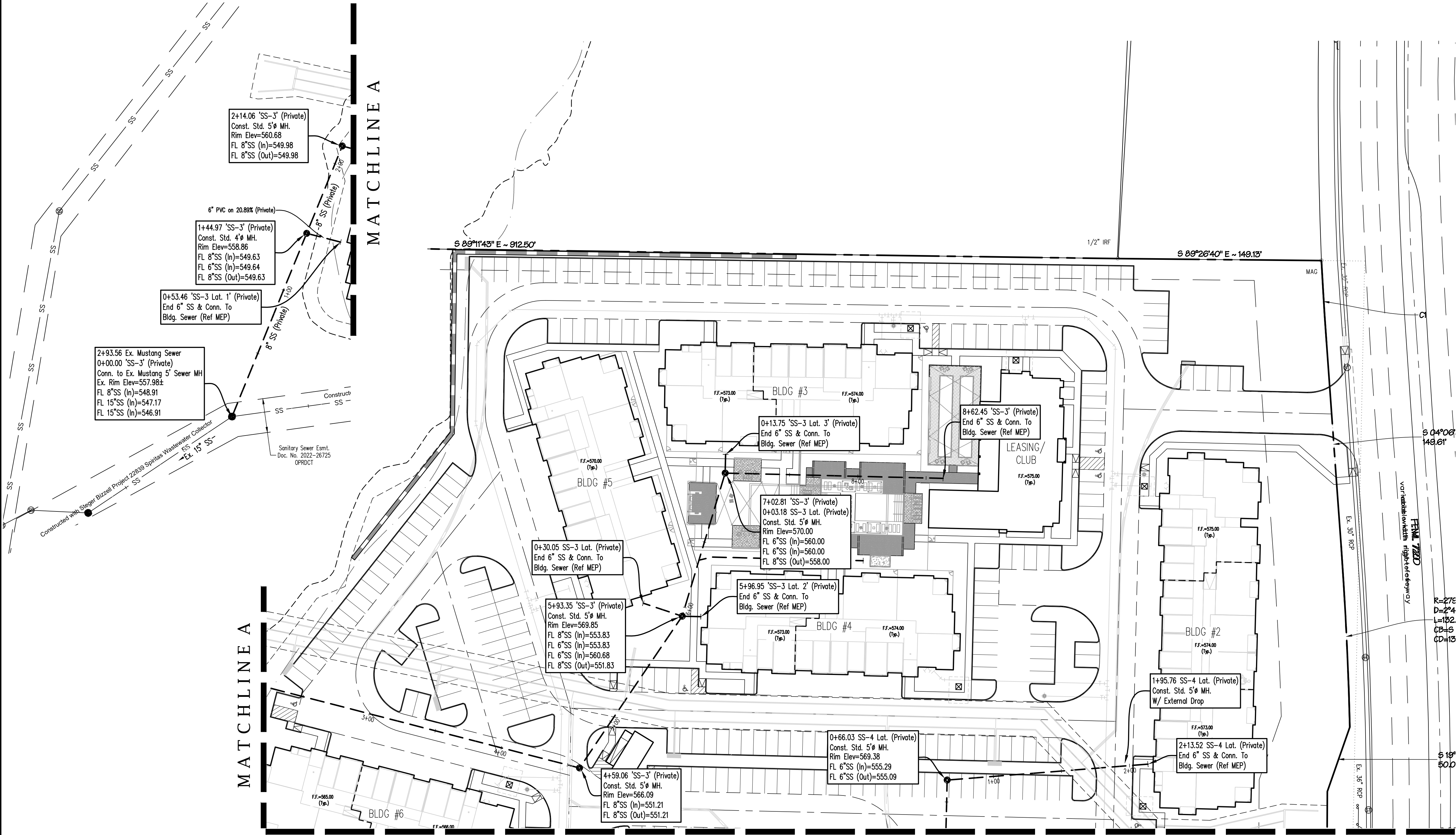


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Plotted by: bbeeson Plot Date: 4/8/2024 12:20 PM

Drawing: G:\2023 J08S\23-107 CHI Cross Roads\CAD\Sanitary Sewer Plan.dwg      Saved By: Bbeeson      Save Time: 4/8/2024 12:20:08 PM





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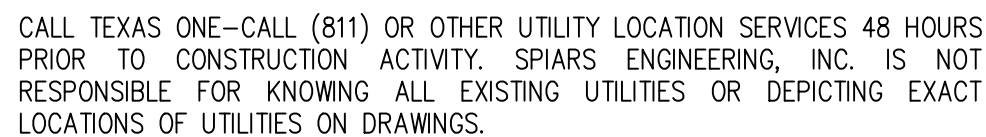
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**DDHI CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**

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**SANITARY SEWER PLAN**





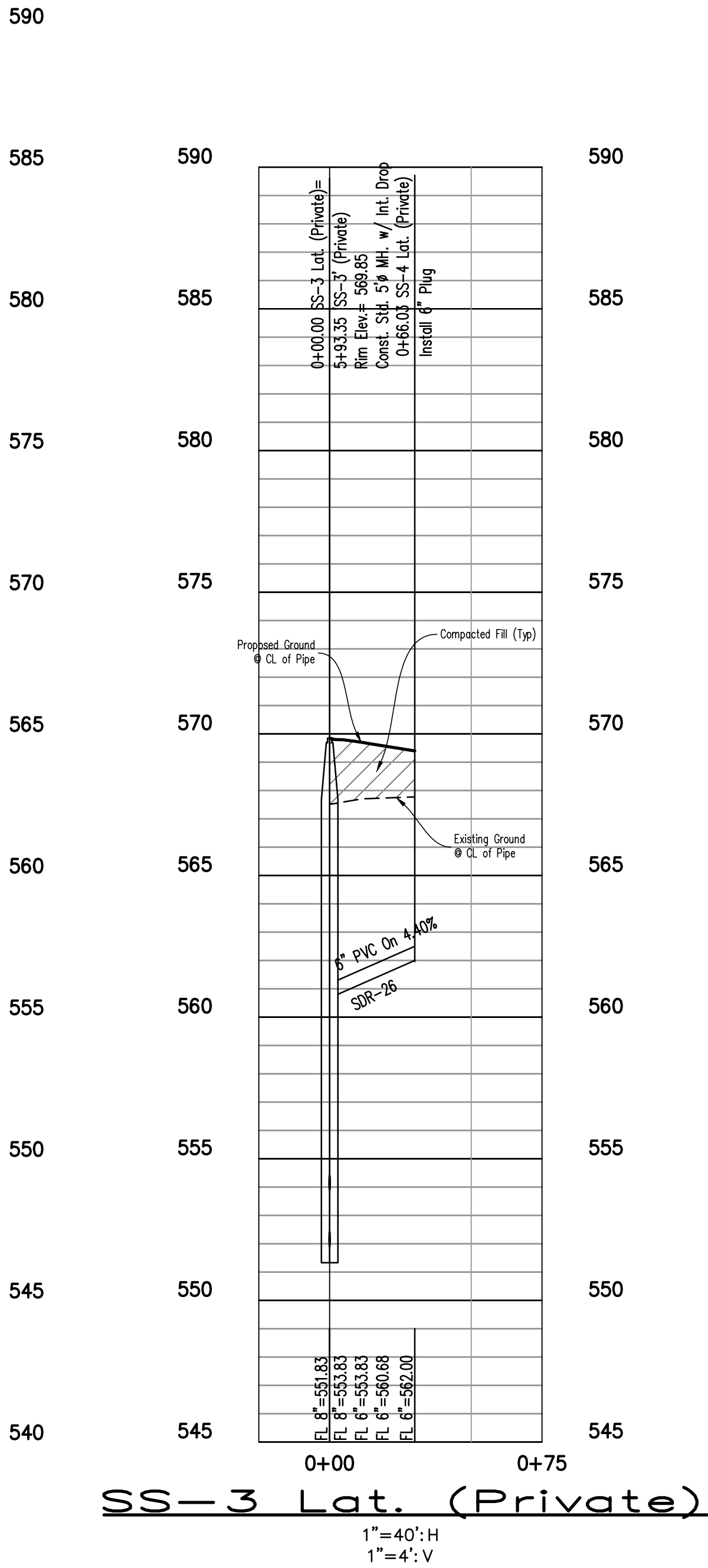
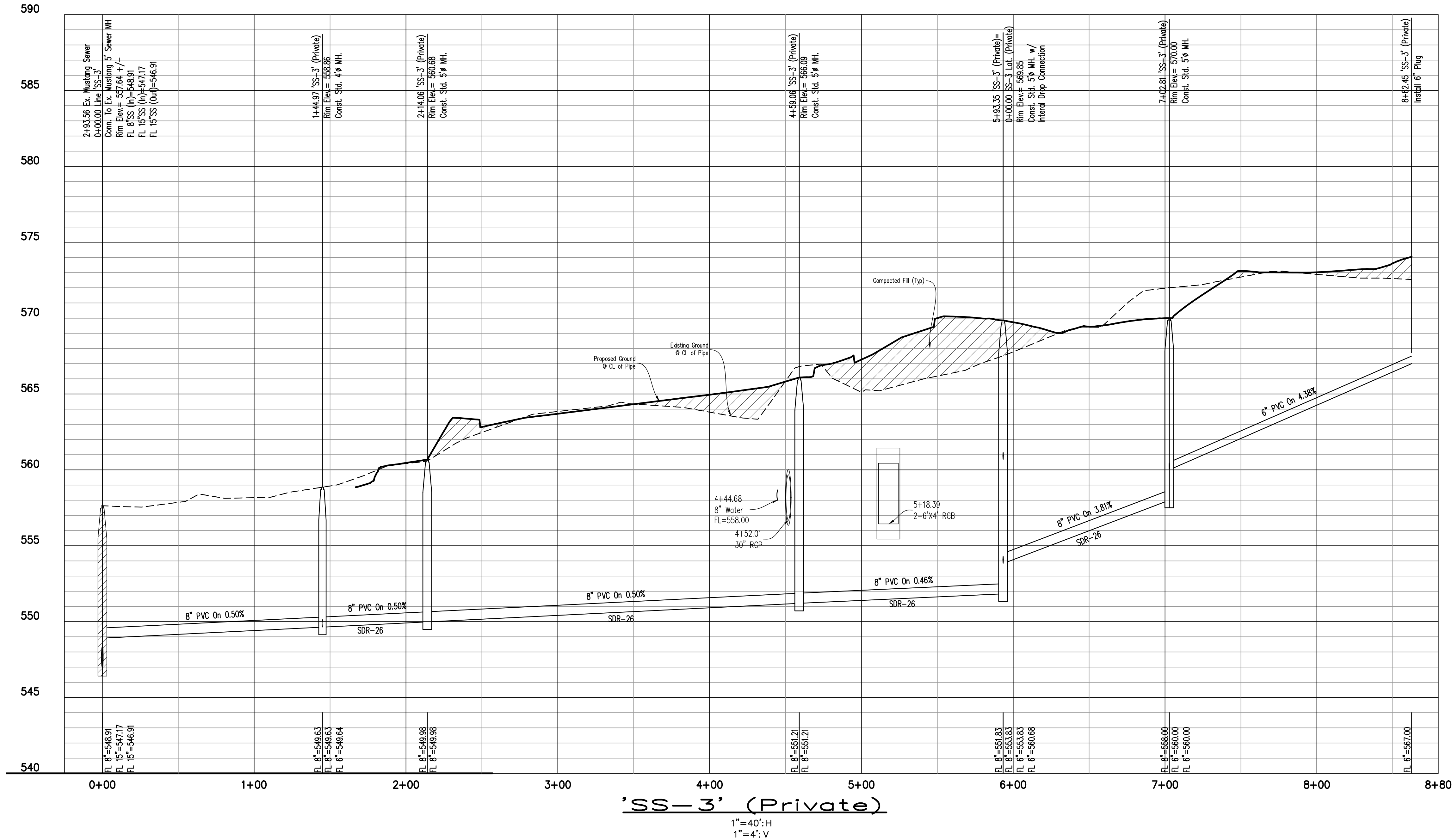
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Plotted by: Blanton Plot Date: 4/9/2024 11:52 AM

Drawing: 6: 2023 40553-02-107 Int Cross Roads (C) Sanitary Sewer Plan (mg) Saved By: Blanton Save Time: 4/9/2024 11:22:28 AM



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**DHI CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**  
**SANITARY SEWER PROFILES**

Revisions	Date

Scale: **As Shown**  
Drawn By: **SCH**  
Checked By: **JKL**  
**Sheet C28**  
SEI No. 23-107





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Profile view of a sewer line. The vertical axis shows elevation in feet (550 to 590). The horizontal axis shows stationing (0+00 to 0+50). The diagram includes the following information:

- Existing Ground:** Represented by a solid line.
- Proposed Ground:** Represented by a dashed line.
- CL of Pipe:** Centerline of the pipe, shown as a vertical line.
- Manhole Details:**
  - Top of Manhole (TOM) at station 0+13.75, elevation 570.00.
  - Bottom of Manhole (BOM) at station 0+13.75, elevation 563.00.
  - Manhole Diameter: 6'.
  - Manhole Slope: 2%.
  - Manhole Angle: 40°.
- Labels:**
  - 0+00.00 'SS-3 Lat. 3' (Private)=
  - 7+02.81 'SS-3' (Private)
  - Rim Elev. = 570.00
  - Const. Std. 5' MH.
  - 0+13.75 'SS-3 Lat. 3' (Private)
  - Install 6' Plug
- Elevation Data:**
  - FL 8" = 558.00
  - FL 6" = 560.00
  - FL 6" = 560.00
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**I CROSS ROADS**  
**LOT 1, BLOCK A**  
**TOWN OF CROSS ROADS**  
**DENTON COUNTY, TEXAS**

---

**SANITARY SEWER PROFILE**

[illegible]



1. Stone shall be 3 to 5 inch diameter crushed rock or acceptable crushed Portland Cement Concrete.
2. When necessary, vehicles shall be cleaned to remove sediment prior to entrance onto a public roadway. When washing is required, it shall be done on a area stabilized with crushed stone, with drainage flowing away from the road. All sediment shall be prevented from entering any storm drain, ditch, or watercourse using approved methods.
3. The entrance shall maintained in a condition which will prevent tracking or flowing of sediment onto paved surfaces. This may require periodic top dressing with additional stone as conditions demand. All sediment spilled, dropped, washed, or tracked onto paved surfaces shall be removed immediately.
4. The entrance must be properly graded, or incorporate a drainage slope to prevent runoff from leaving the construction site.



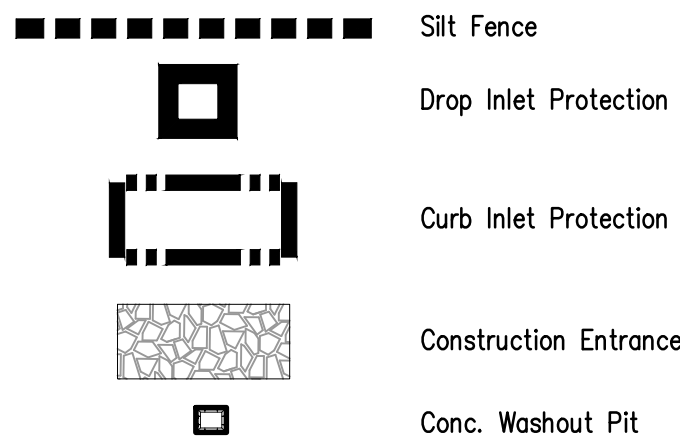
### STABILIZED CONSTRUCTION ENTRANCE



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### BMP LEGEND

PHASES 1-4 Silt Fence  
PHASES 1-4 Inlet Protection  
PHASES 1-4 Construction Entrance

## CONSTRUCTION SCHEDULE AND PHASING

- |          |  |
|----------|--|
| PHASE 1. | Install Phase 1 BMP'S<br>Rough Grading                   |
| PHASE 2. | Install Phase 2 BMP'S<br>Utility Installation            |
| PHASE 3. | Install Phase 3 BMP'S<br>Building Construction<br>Paving |
| PHASE 4. | Install Phase 4 BMP'S<br>Soil Stabilization/Landscaping  |

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**SPIARS**  
ENGINEERING & SURVEYING

765 Cluster Road, Suite 100 • Plano, TX 75075 • 972.422.0077  
TBPB No. F-121 • TBLPS No. F-10043100 • [www.spiars.net](http://www.spiars.net)

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LOT 1, BLOCK A  
TOWN OF CROSS ROADS  
DENTON COUNTY, TEXAS

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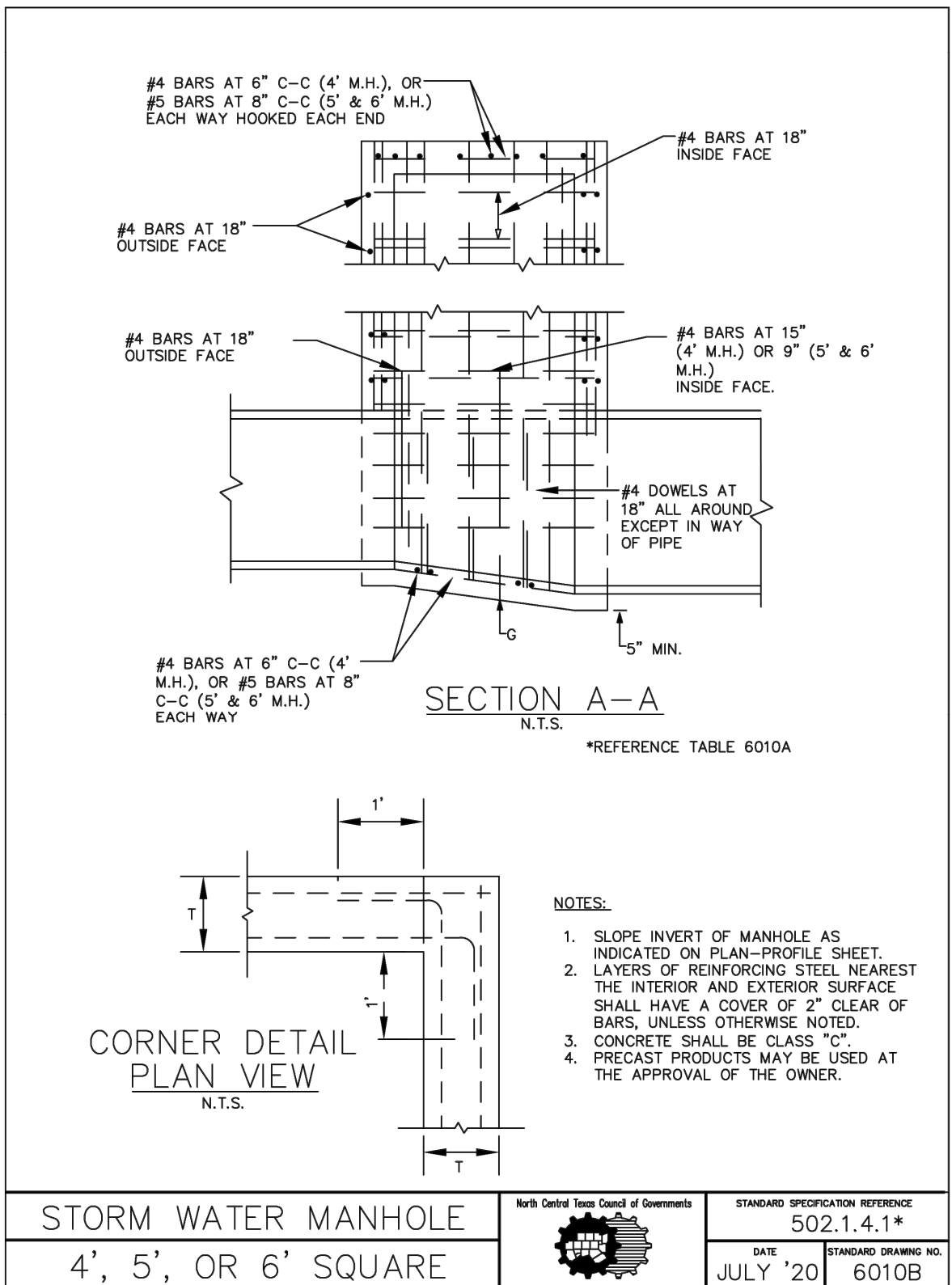
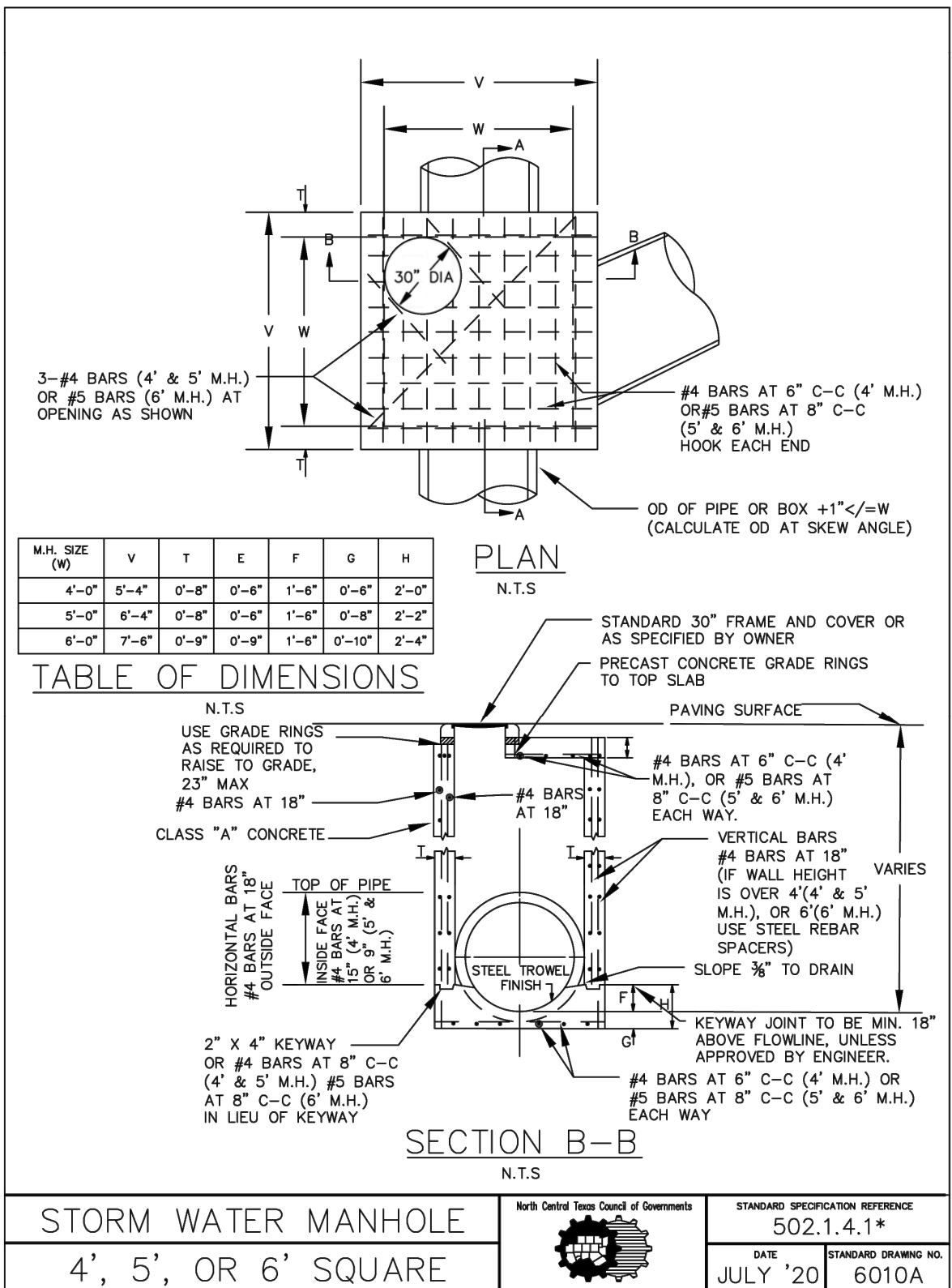
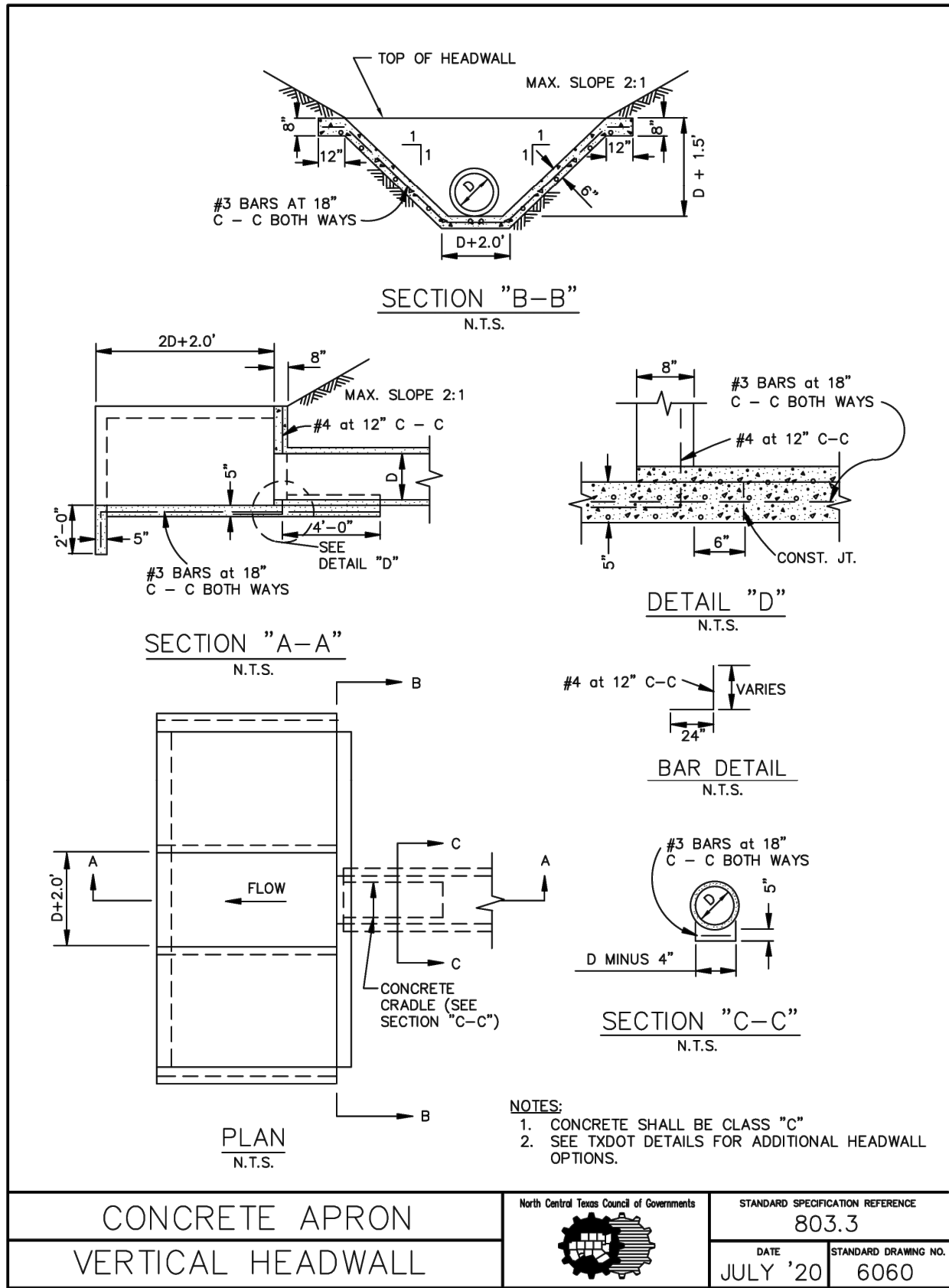
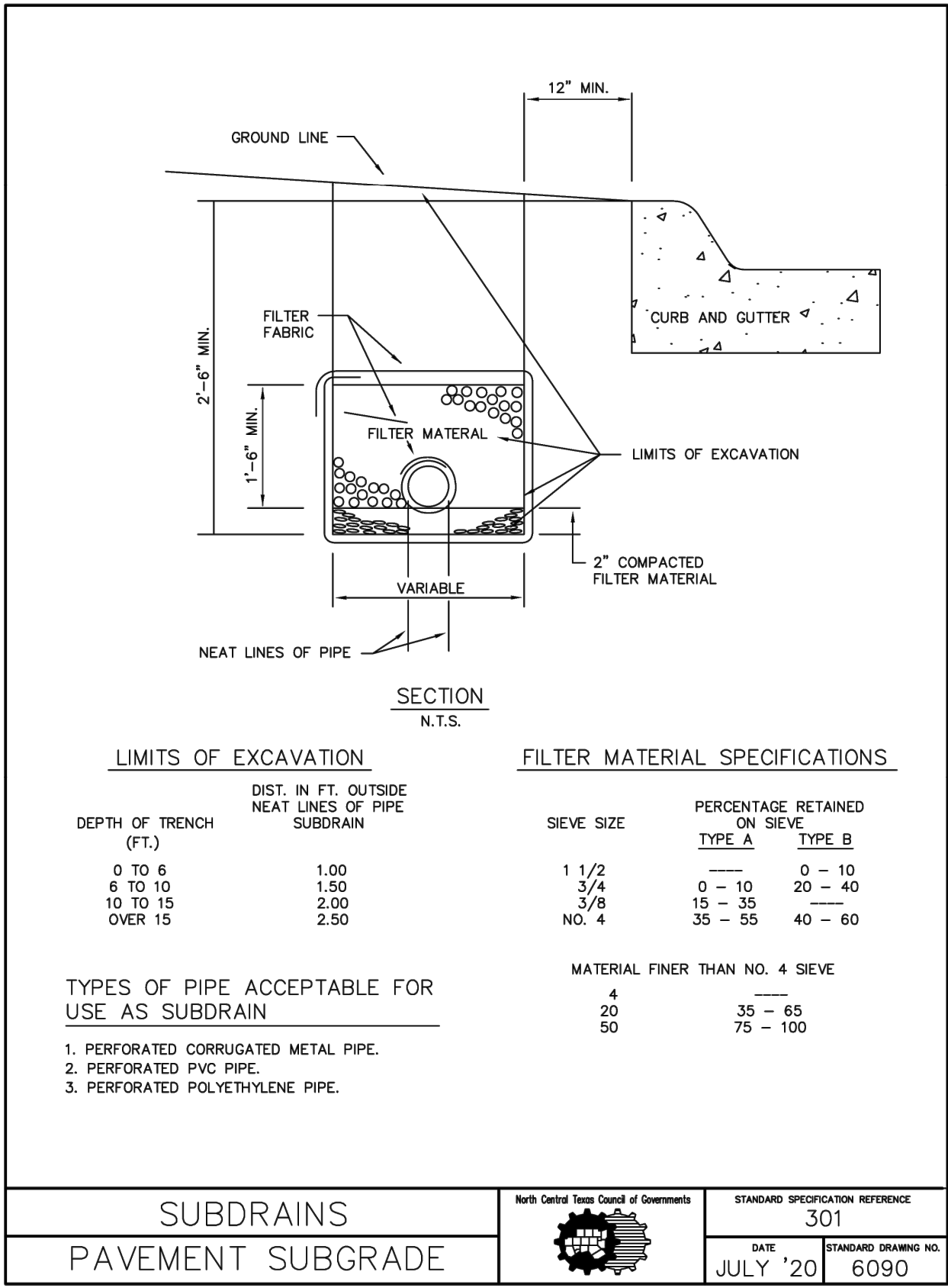
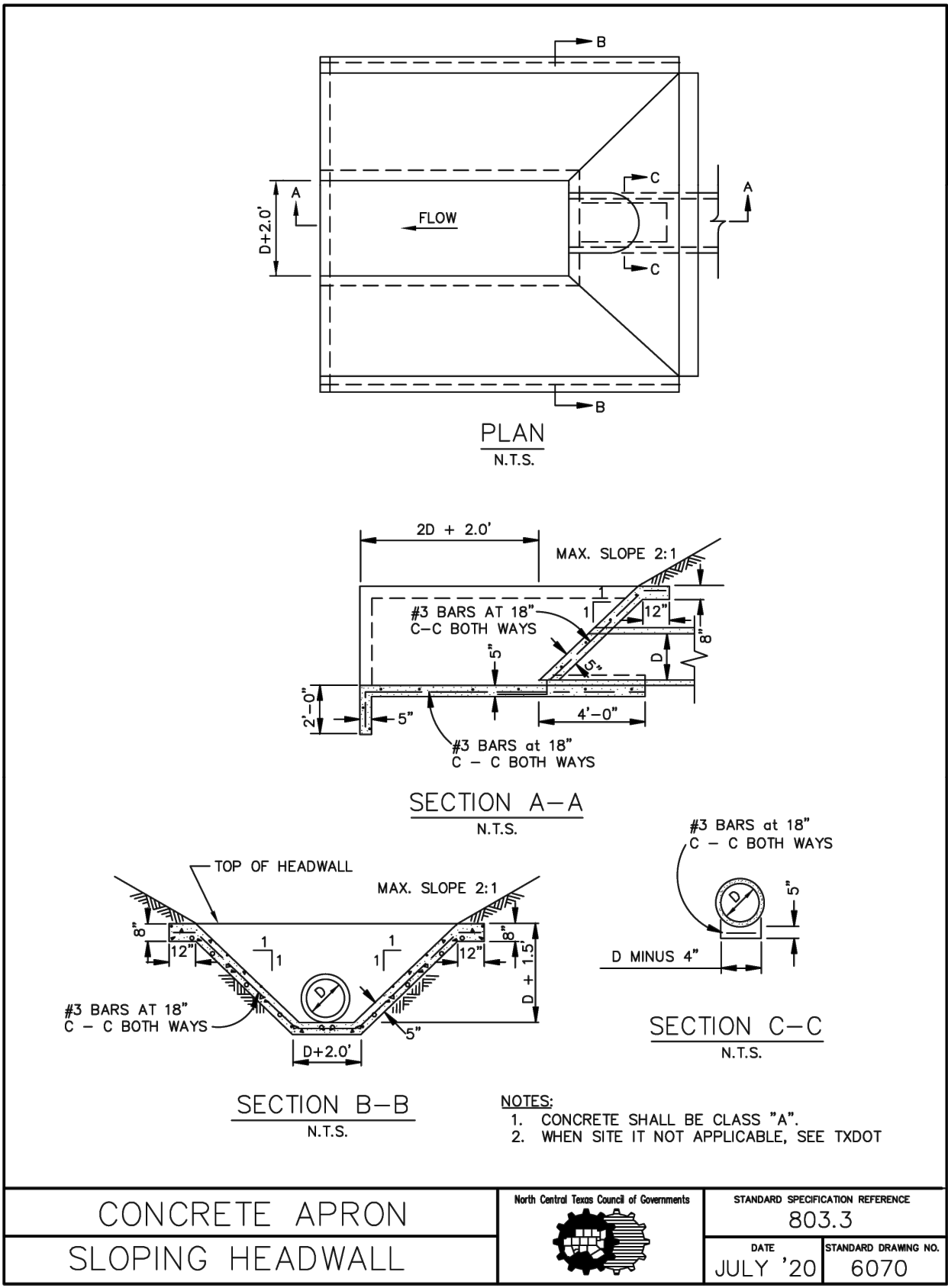
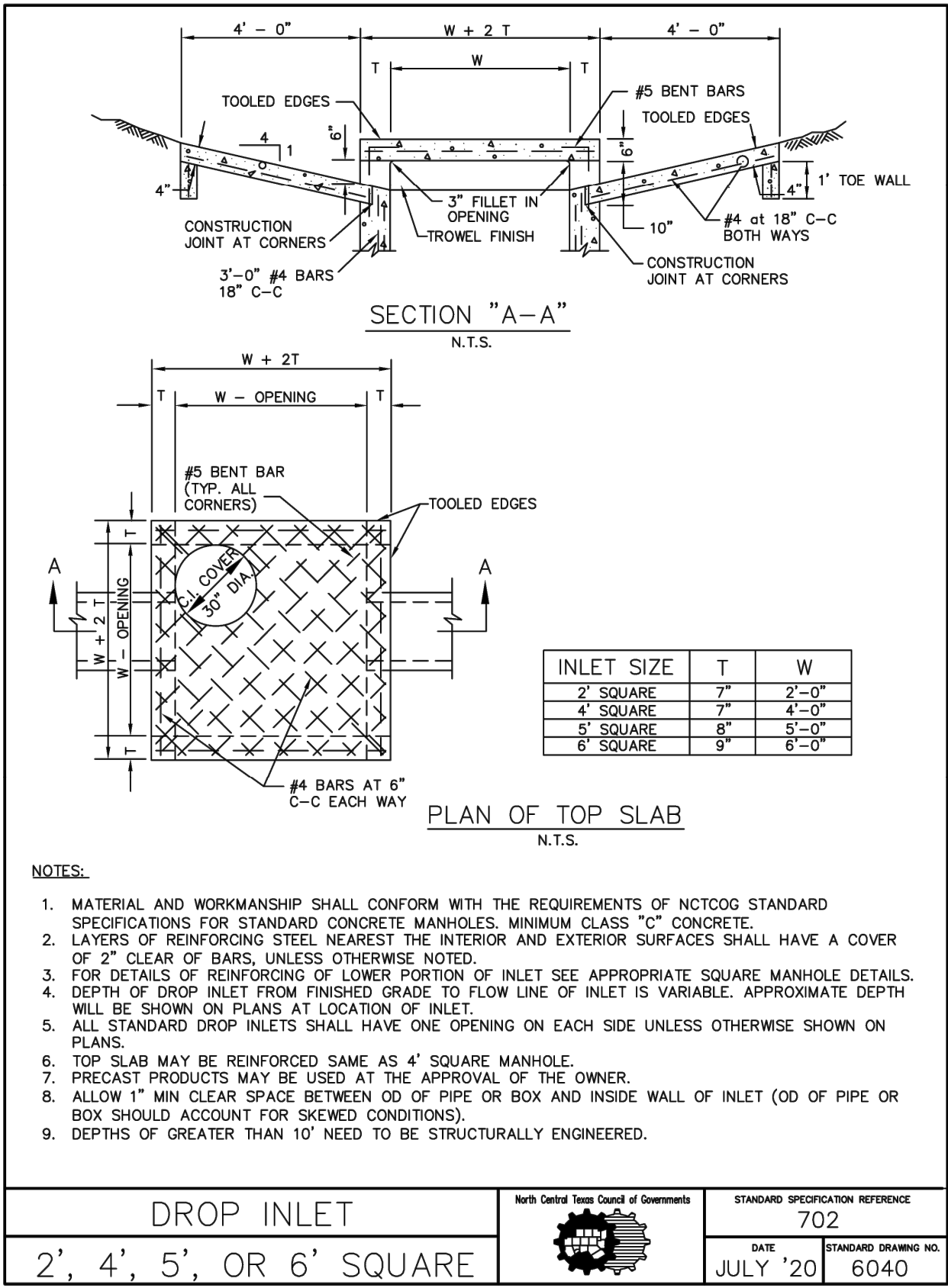
**EROSION CONTROL PLAN**

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Sheet C30

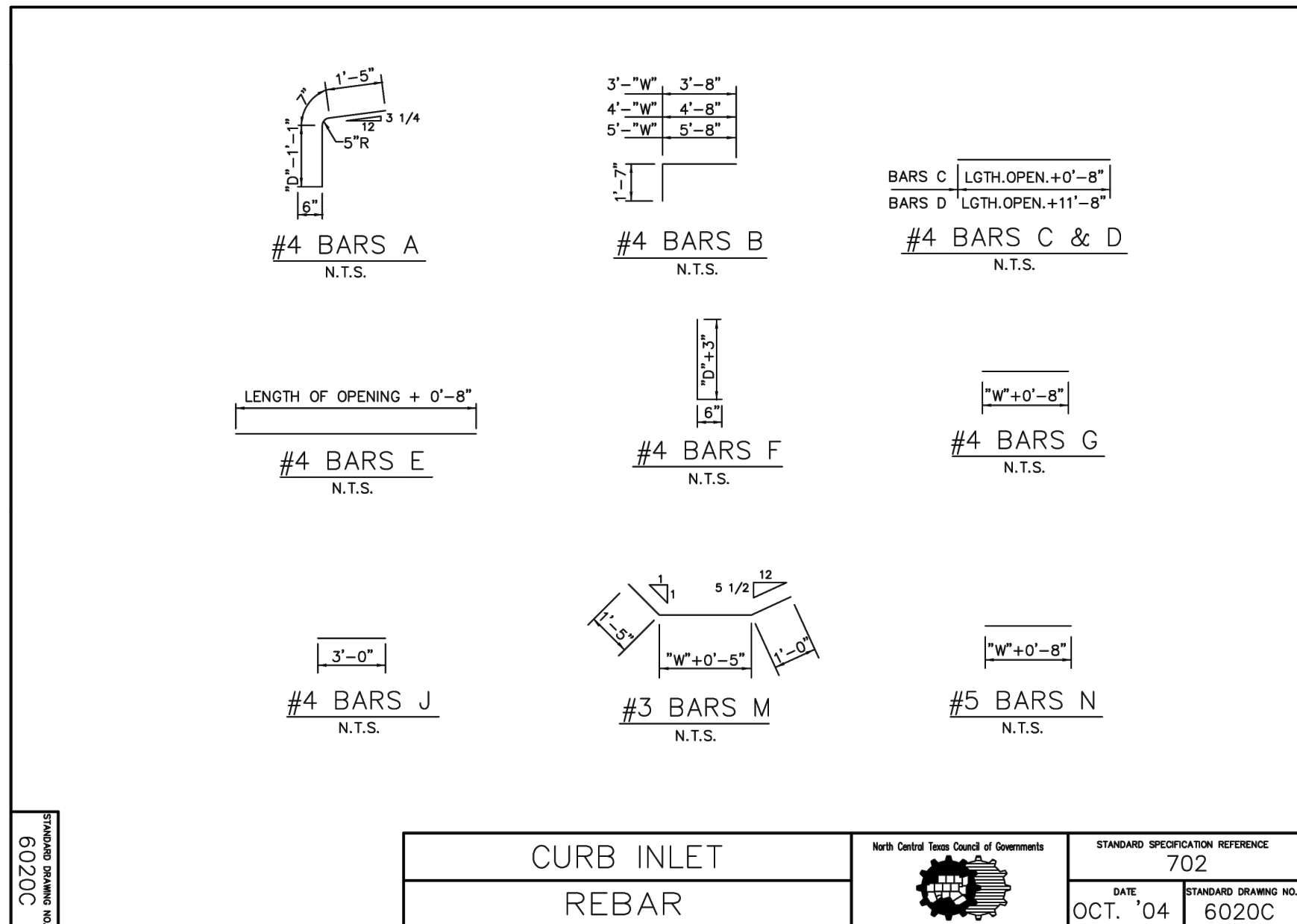
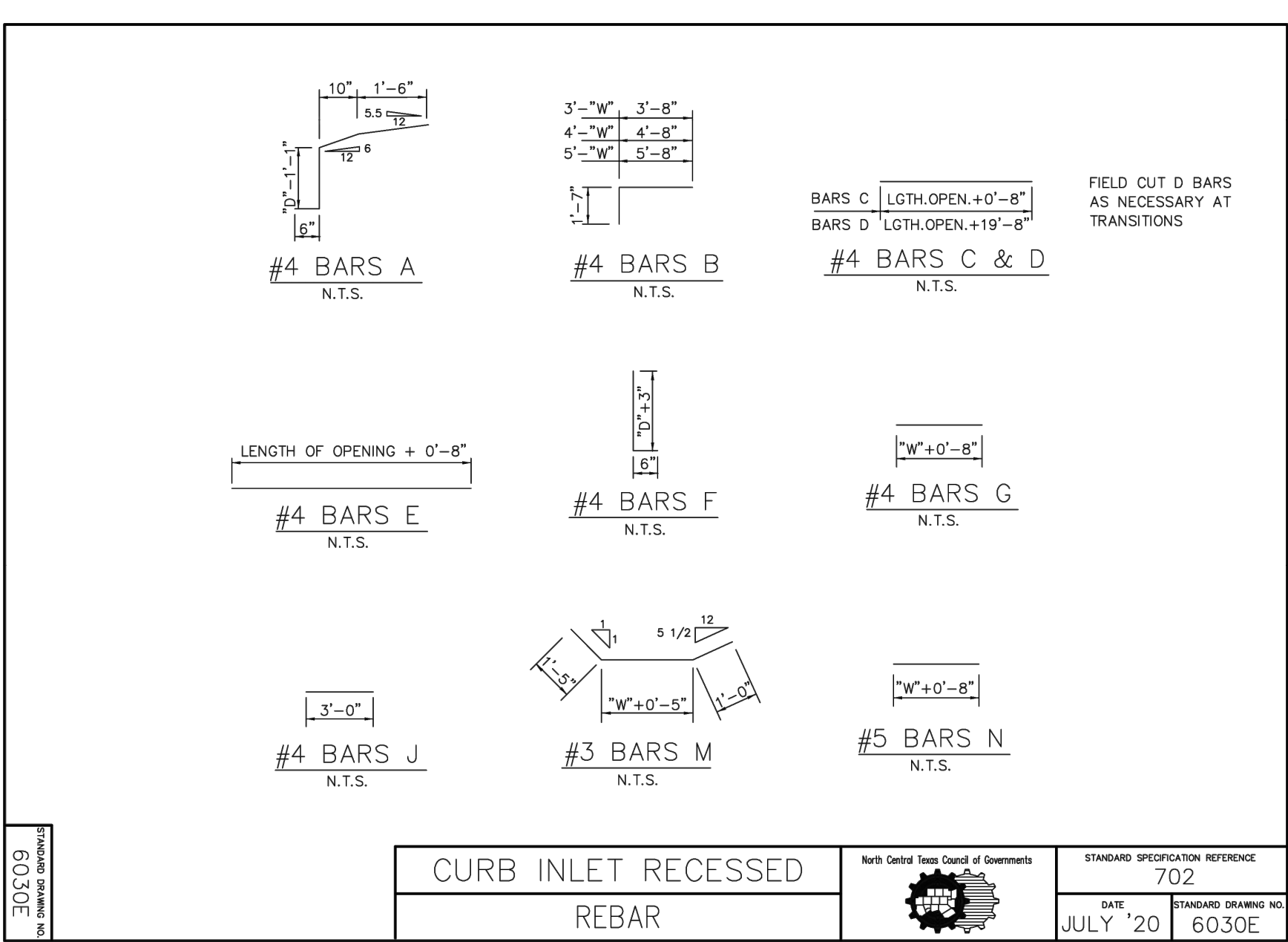
SEI No. 23-107



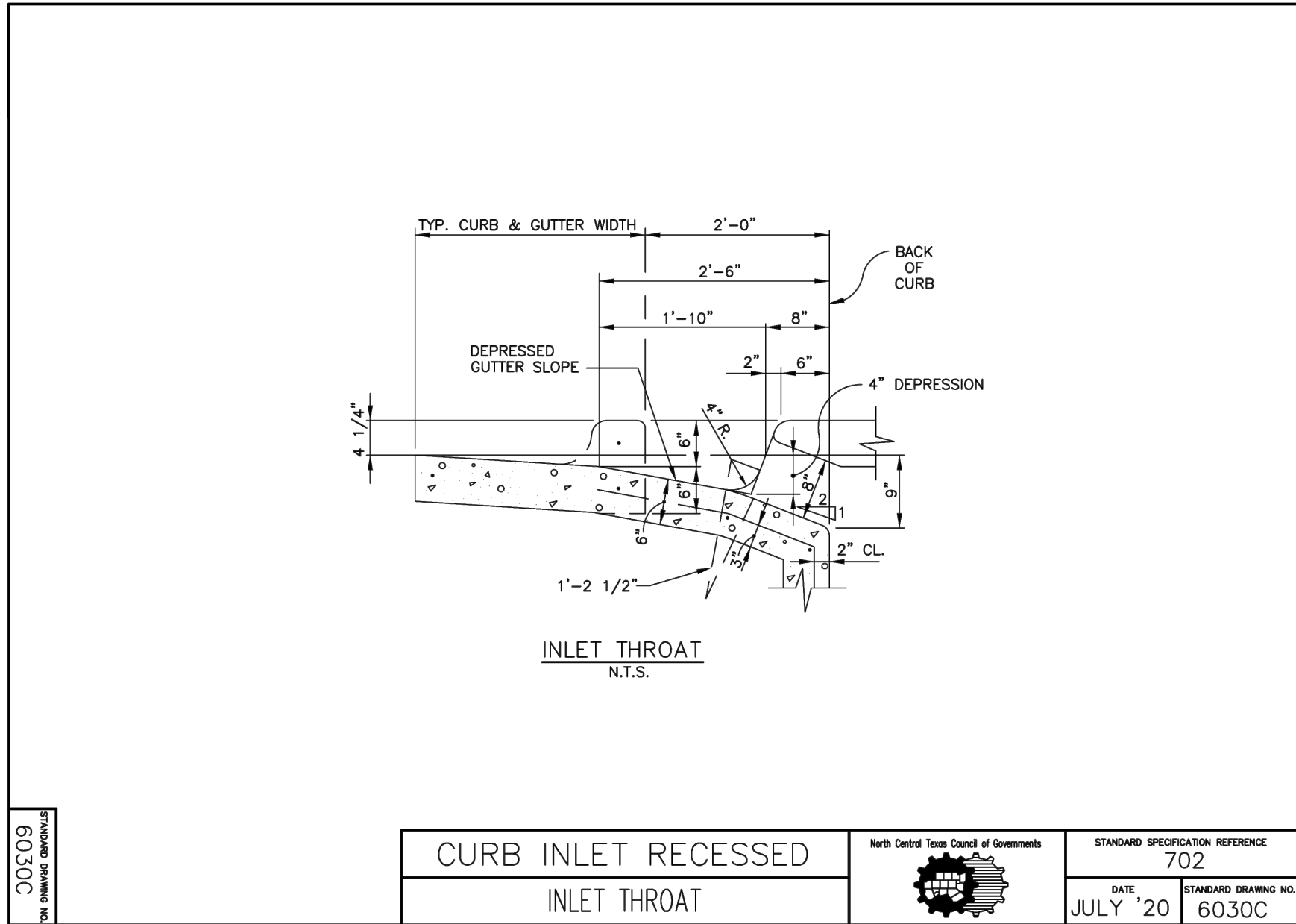
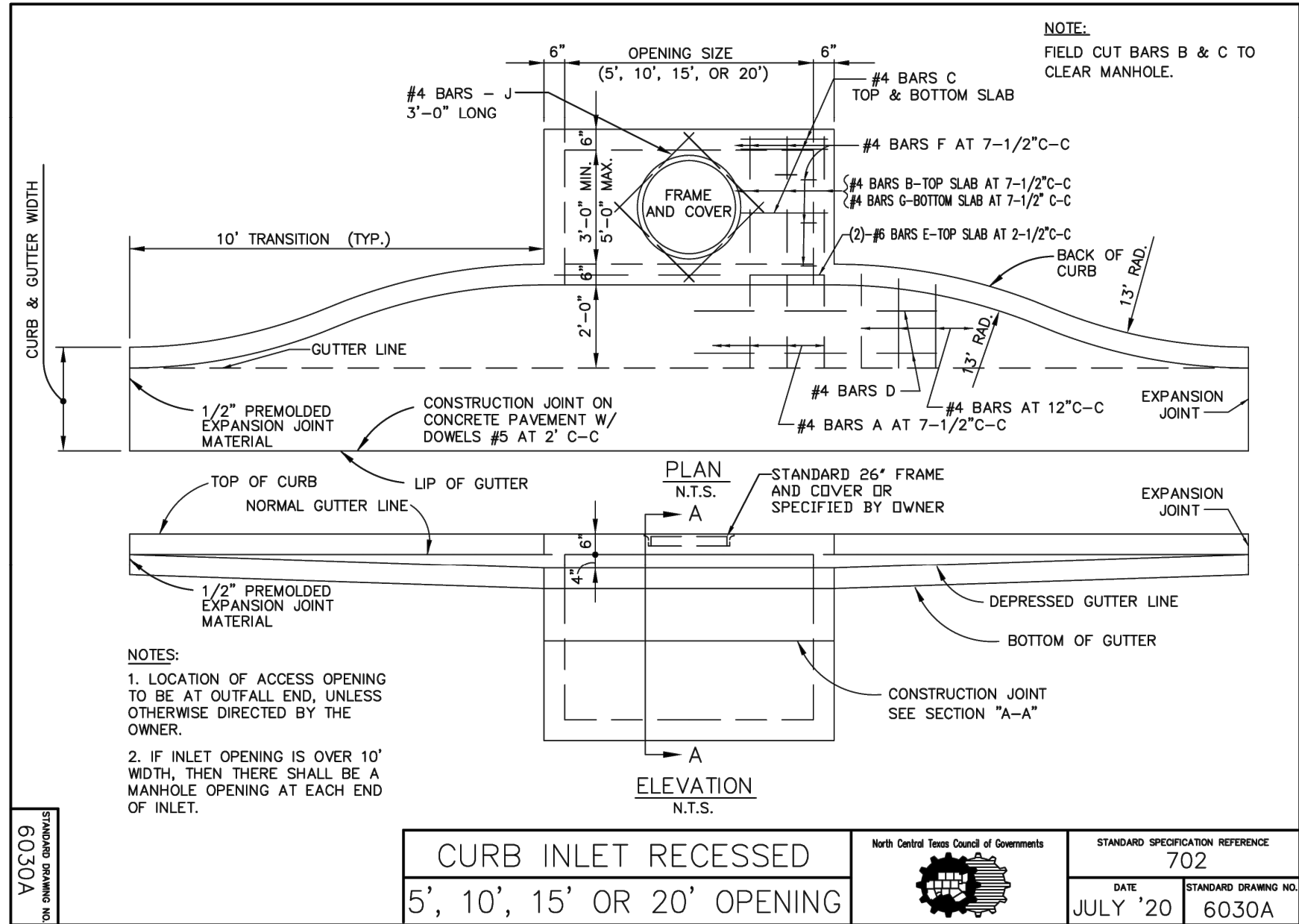
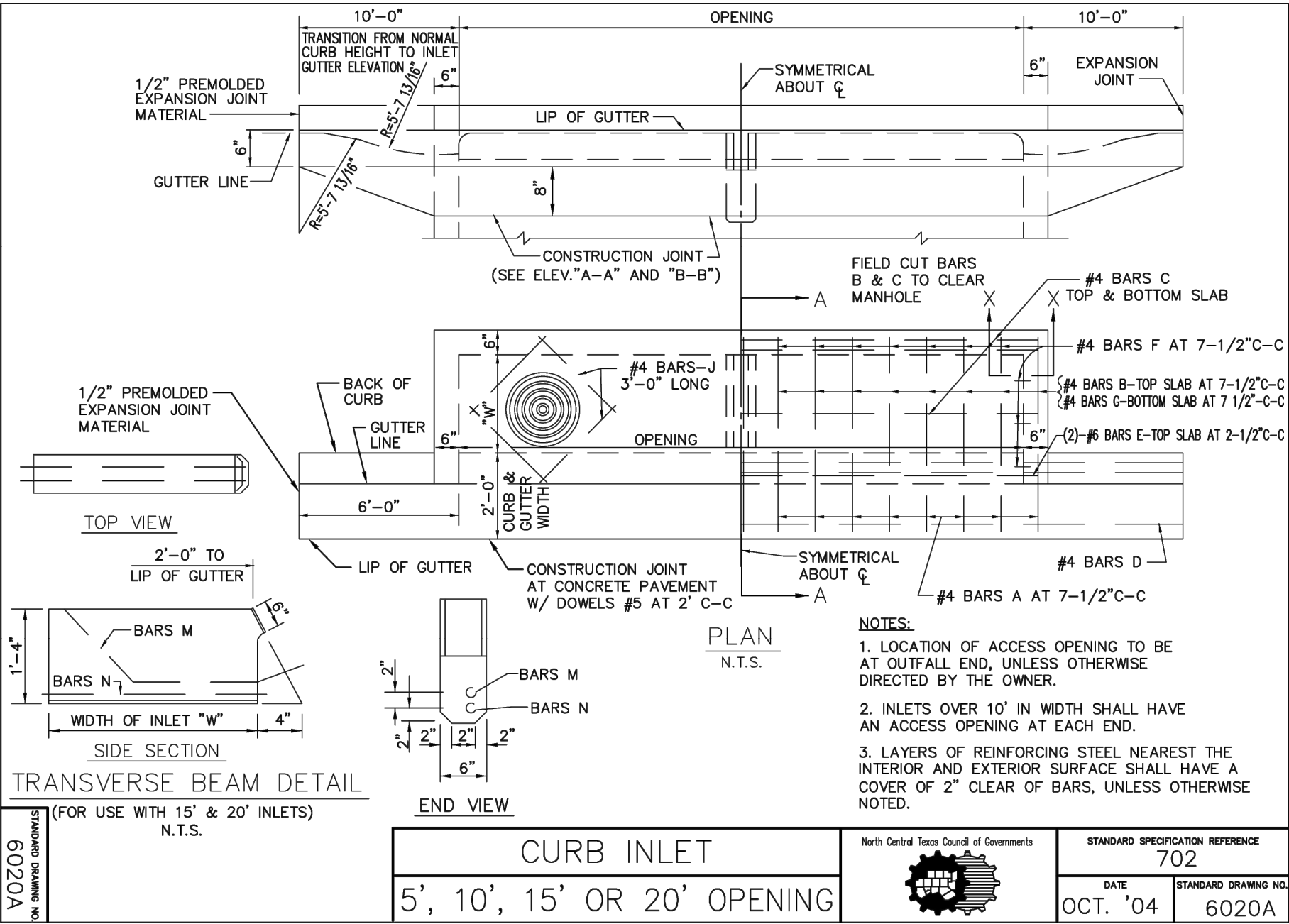
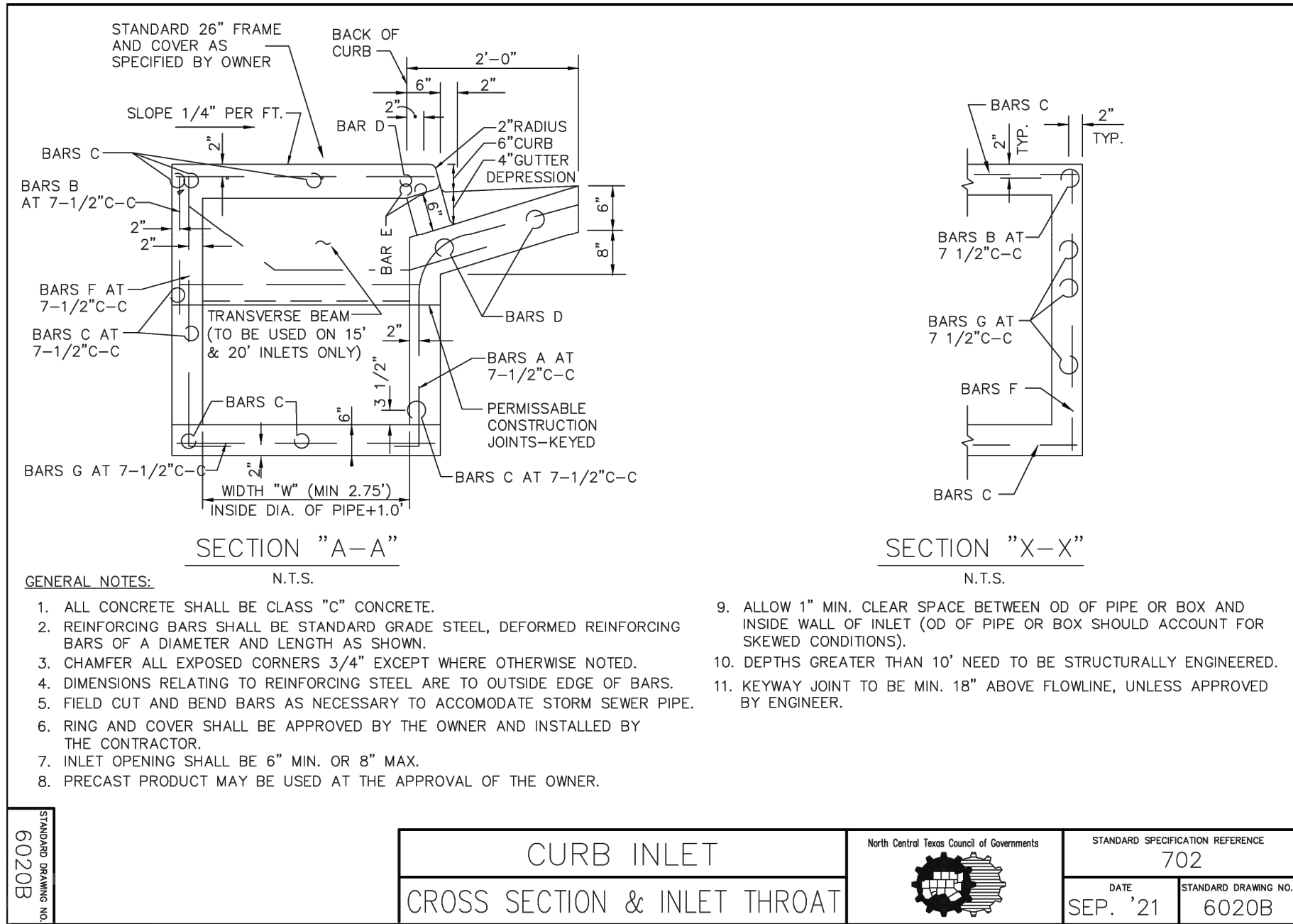


Date	
Revisions	









Revisions	Date



MSUD GENERAL NOTES

- All construction shall be in accordance with the standard specifications of Mustang Special Utility District, which has also adopted the latest edition of the "Standard Specifications For Public Works Construction - North Central Texas" herein referred to as "NCTCOG" specifications. Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76011.
- Where specified name brands are indicated, products of equal or better may be considered for approval upon submittal of all supporting data to the MSUD Engineer for review.
- The contractor shall provide for temporary 3" Cold Mix Asphaltic Concrete as per NCTCOG Item 302.3 to be placed over all vehicular traveled areas until the final repairs/improvements are made.
- All newly installed pipes and fittings must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
- The existence and locations of all underground utilities shown on the drawings were obtained from available records and are approximate. Neither the owner nor the engineer assumes any responsibility for utilities not shown or not in the location shown. The contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans.
- Any contractor/subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from operations. Said existing improvements shall include but not be limited to berms, ditches, fences, plants, irrigation. Any removal or damage to existing improvements shall be replaced or repaired by the contractor at his expense and shall be approved by the engineer.
- Contractor shall shore all trenches and conduct all construction and operations in accordance with Occupation Safety and Health Administration (OSHA) requirements.
- All construction and materials shall comply with Mustang SUD specifications. Any construction and/or materials not covered in Mustang SUD specifications shall be in accordance with NCTCOG specifications or the AWWA.
- It shall be the contractor's responsibility to provide adequate record drawings to the engineer/Mustang SUD immediately after construction.
- It shall be contractor's responsibilities to verify location, elevation and dimensions of adjacent and/or conflicting utilities in advance of construction in order that adjustments can be made to provide adequate clearance, if required. The contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from the contractor's operation shall be restored at his expense. The engineer shall be notified when proposed facility's grades conflict with existing utility's grades.
- All materials for water and wastewater shall be domestic. Any exceptions made will be at Mustang's or the Engineer's discretion.

MSUD WATER NOTES:

GENERAL:

- All water lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 290.
- All water lines shall be designed, manufactured, and installed in accordance with current Mustang SUD water standards details.
- All pipes and appurtenances shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by ANSI.
- All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
- Contractor to provide a curve in waterline to avoid storm drain inlets at all locations.
- Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. shall not be installed in the same trench as water service lines. Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.

PIPE:

- All PVC water pipe shall be BLUE in color for potable and PURPLE in color for non-potable.
- All PVC pipe shall be installed with metallic detector tape.
- Water mains up to and including 12" diameter shall be AWWA C900-16 DR18 (Pressure Class 235). Mustang SUD reserves the right to require AWWA C900-16 DR14 (Pressure Class 305) for higher pressure applications as determined by Mustang SUD's Engineer. Water mains greater than 12" diameter may be AWWA C900-16 DR18 (Pressure Class 235) OR one of the following:
  - Reinforced Concrete Cylinder Pipe (RCCP) C303 pressure class 150 or greater as specified by the Engineer.
  - Ductile iron pipe with Polywrap and cement mortar lining (AWWA C104), thickness class 51 or greater.
- Embedment: For Pipe sizes 12" and smaller, the Embedment shall be as per the MSUD "Pipe Embedment Detail".
- Cover
  - The following minimum covers over the waterline is required:
    - 48" of cover over waterlines up to and including 12" diameter.
    - 60" to 72" of cover over waterlines larger than 12" in diameter.
  - Water mains buried with over 72" of cover shall be approved by the MSUD Engineer.
  - The minimum cover over all Water mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the MSUD "Cap Detail".
- Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
- The Contractor is responsible to install the pipe in a way that the writing on the pipe is installed on the side up and is readable from the top of the ditch.
- All ductile iron pipe, fittings and restraints shall be manufactured domestically.
- All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mills thick.
- The pipe shall have beveled or chamfered ends according to manufacturer recommendations when using in MJ fittings.
- When PVC water pipe is installed in casing, casing spacers must be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the Bells. Plastic spacers such as RACI or approved equal shall be used.
- Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

FITTINGS:

- The Contractor shall use cast iron or ductile iron fittings, complete with Polywrap.
- All fittings shall be MJ unless specified otherwise.
- All fittings shall be blocked per the MSUD Water Standard Details.
- Tapping sleeves shall be ductile iron and manufactured by Mueller, Tyler Union or approved equal.
- Please also refer to NCTCOG Item 502.5.2 specifications.
- The use of 90° bends in water mains is prohibited without approval of MSUD Engineer. Two 45° bends are allowed.
- Install 12"x12"x3" concrete block under fittings installed on PVC pipe.
- Restrained joints such as Mega-Lug or equal are required at all fittings.
- All ductile iron fittings and restraints shall manufactured domestically.

VALVES:

- Valves installed on waterlines 12" in diameter or less shall be vertical gate valves.
- Valves installed on waterlines larger than 12" in diameter shall be butterfly valves. An offset vault shall be installed at the butterfly valve operator.
- All gate valves shall have non-rising stems and resilient sealed wedge.
- All potable-water pipe air release valve stabilization poles shall be painted blue in color.
- All valves and fire hydrants shall be in line with the property line, where possible.
- All valve locations shall be marked with "V" stamped or cut on the curb.
- Install 12"x12"x3" concrete block under valves installed on PVC pipe.
- Contractor to provide extensions for all valve stacks and fire hydrant leads/risers for all water lines deeper than 48" depth.

TESTING:

- Hydrostatic test as per NCTCOG Item 506.5 specifications shall be performed
- Water system shall be disinfected in accordance with American Water Works Association (AWWA) C651 (current edition) and then flushed and sampled before being placed in service. Samples shall be collected in accordance with Mustang SUD testing requirements.
- All temporary test points to have corporation stops at the main. All temporary testing & chlorination points shall be removed at the corporation stop prior to final acceptance.
- The Contractor shall take a sample of water from a tap on a sterilized main in the presence of a MSUD Representative and submit the sample(s) to an approved Testing Laboratory for analysis. After receiving approved sample, the Contractor, along with MSUD Representative, shall place sterilized lines into service.
- All fire hydrants shall be flow and pressure tested and marked (tag and color coded paint) in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants", latest edition. Copies of each test report for each fire hydrant, including a map showing the location of the fire hydrant being flow tested and the location of the pressure hydrant, shall be provided to Mustang SUD prior to acceptance of the system and the beginning of service. See WATER STANDARD DETAILS (1 OF 2) for Fire Hydrant Flow Test Report form.

MSUD WASTEWATER NOTES:

GENERAL:

- All wastewater lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 217.
- All wastewater lines shall be designed, manufactured, and installed per Mustang SUD wastewater standard details.
- All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
- Wastewater system shall be tested in accordance with TCEQ for allowable leakage and pipe deflection before being placed in service. Test results shall be provided to Mustang SUD.
- All wastewater manholes, drop manholes, wet wells, and force-main-to-gravity transition manholes shall be lined with Quadex ultra-high build epoxy or approved equal.
- All force main ductile iron pipe and fittings shall be lined with Protecto 401 (P401) ceramic epoxy or approved equal.
- Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.
- All curvature shall be accomplished by the manual bending of the pipe lengths in the trench. Mechanical means will not be allowed to accomplish design radii. No deflection of joints will be allowed.
- All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mills thick.
- All ductile iron pipe, fittings and restraints shall be manufactured domestically.
- All gravity main fittings shall be rubber gasket push on type.

PIPE:

- All PVC pipe shall be installed with metallic detector tape.
- All PVC gravity or pressure wastewater pipe shall be green in color.
- Wastewater mains shall be Polyvinyl Chloride PVC SDR-35 for depths of burial up to 11.5'. Wastewater mains placed deeper than 11.5' shall be PVC SDR-26 unless specified and approved otherwise by the MSUD Engineer.
- For creek crossings, the pipe shall be Ductile Iron Class 52.
- Nominal diameter for sanitary sewer pipeline shall be 8" minimum. Residential and commercial service lines are excluded from this requirement.
- Embedment shall be as per the "Wastewater Pipe Embedment Detail" on this sheet.
- The minimum cover over all Wastewater mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the "Cap Detail" on this sheet.
- Clay cut-off walls shall be constructed as per the details and specifications on this sheet.
- PVC wastewater pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and protected from other elements.
- When PVC wastewater pipe is installed in casing, casing spacers shall be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the bells. Plastic spacers such as RACI or approved equal shall be used.
- Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

WASTEWATER SERVICE NOTES:

- All property corners shall be staked with iron pins prior to the installation of any wastewater services. The locations of the wastewater service shall be staked according to the plans.
- Wastewater services to be marked with "I" stamped or cut in the curb and painted green.
- Contractor shall install locator pads or balls on the end of sewer services.

TESTING:

- The following tests shall be performed and a written report provided to Mustang SUD:
- Televising as per NTCOG Item 507.5.2 specifications. Camera shall pan around to show service connections.
  - Low pressure air testing as per TCEQ 31 TAC 217.57.
  - Mandrel deflection test as per TCEQ 31 TAC 217.57.
  - Infiltration/Exfiltration test as per TCEQ 31 TAC 217.57.
  - Manholes shall be tested per TCEQ 31 TAC 217.58.
  - Provide final air test and clean prior to project acceptance or final walk-through.

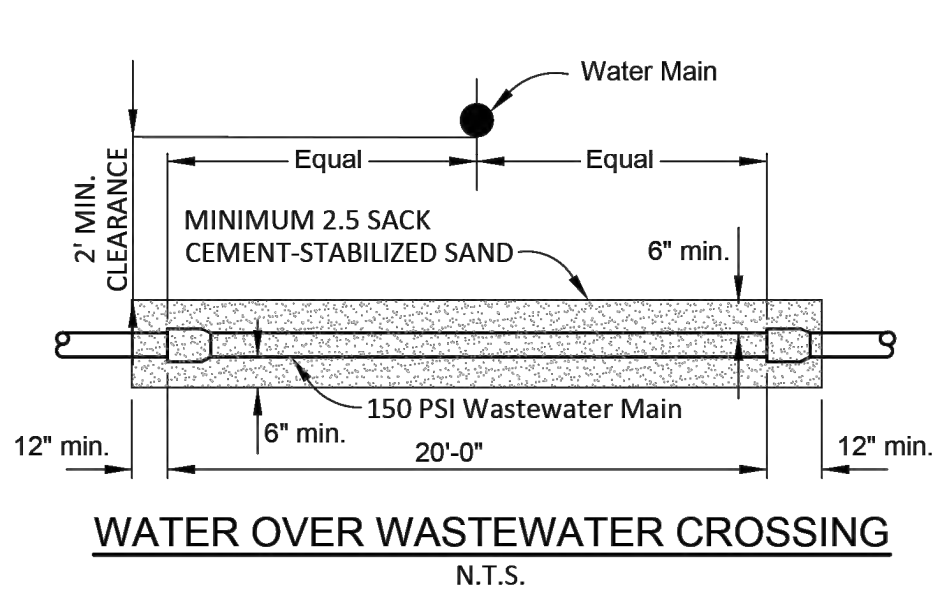
SYSTEM DESIGN VALUES:

WATER:

Average Day Demand = 288 GPD/Connection  
Maximum Day Demand = 0.6 gpm  
Peak Hour Demand = 1,032 gpm  
Single-family Residential = 3.2 people per unit  
Multi-family Residential = 2.25 people per unit

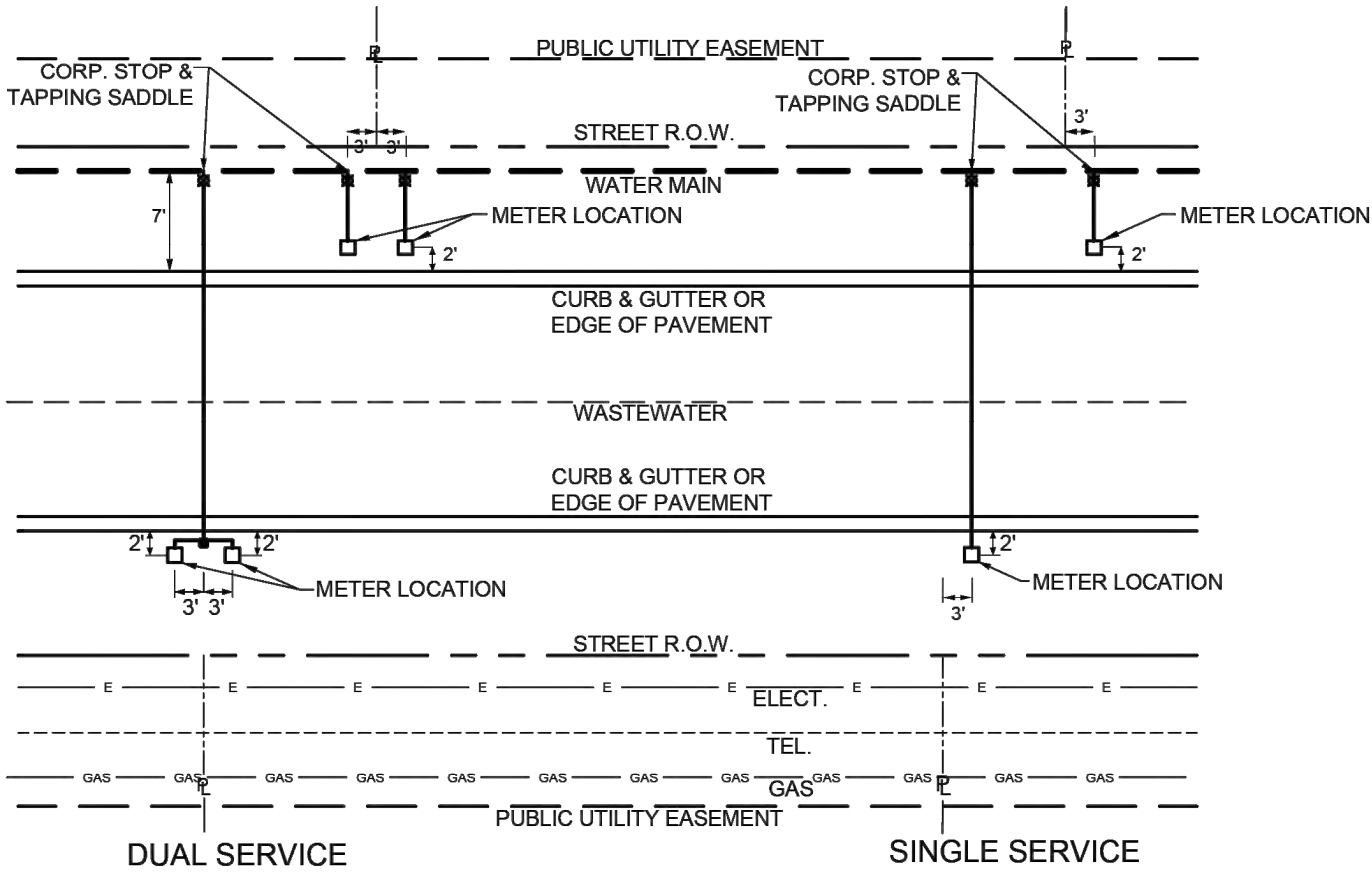
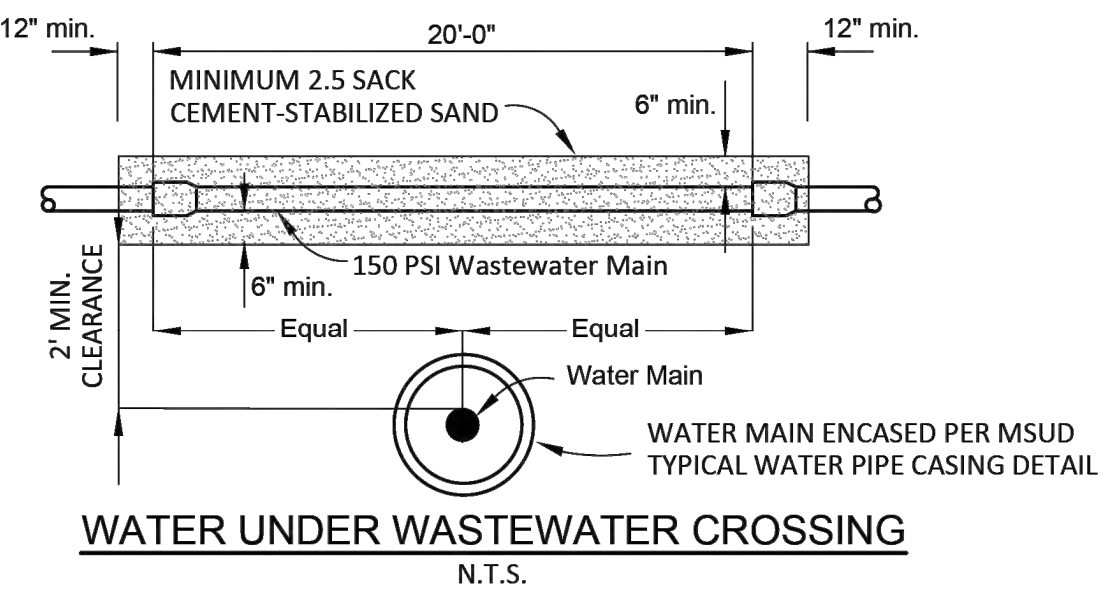
WASTEWATER:

SF Average Day Generation = 250 gpd/connection  
MF Average Day Generation = 175 gpd/connection  
SF Maximum Day Generation = 1000 gpd/connection  
MF Maximum Day Generation = 700 gpd/connection  
Single-family Residential = 3.2 people per unit  
Multi-family Residential = 2.25 people per unit

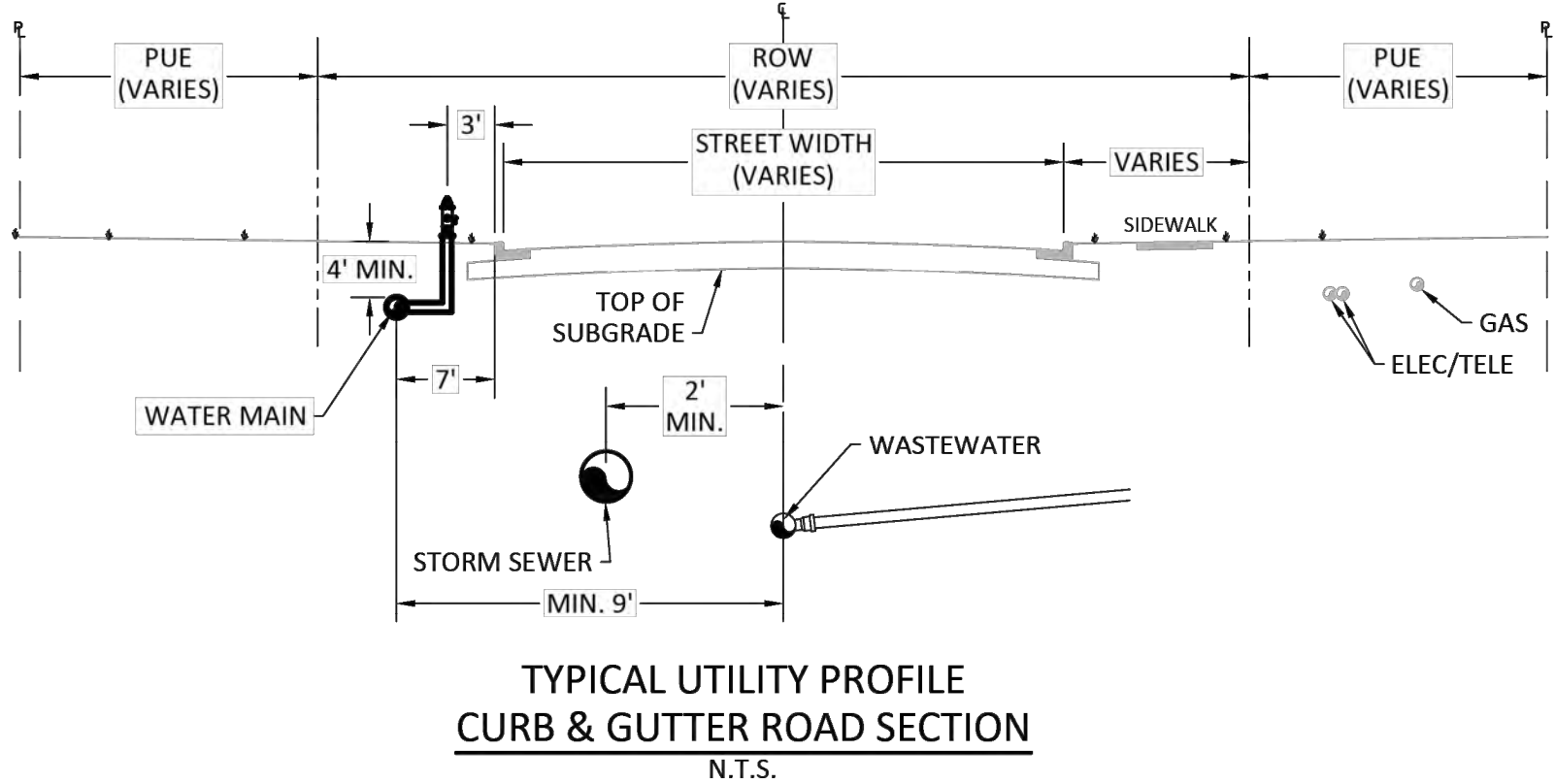


NOTES:


- WHERE A WATER MAIN CROSSES A WASTEWATER MAIN OR LATERAL AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, A FULL JOINT (20') OF PRESSURE-RATED PVC PIPE (150 PSI MIN.) SHALL BE USED ON THE WASTEWATER MAIN OR LATERAL, CENTERED ABOUT THE WATER MAIN.
- ADDITIONALLY, WHERE A WASTEWATER MAIN CROSSES OVER A WATER MAIN, AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE CENTERED ABOUT THE WASTEWATER MAIN.



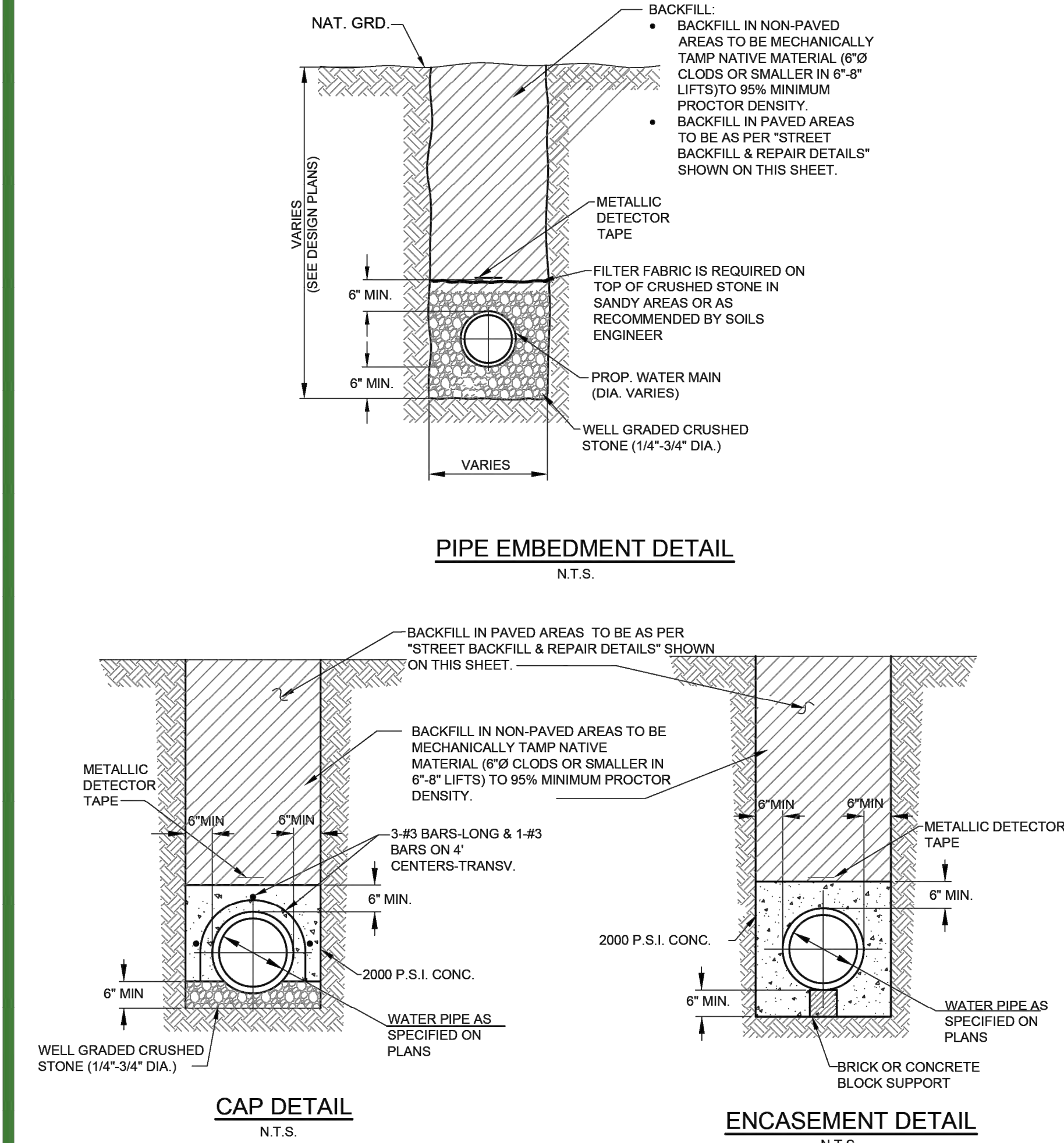
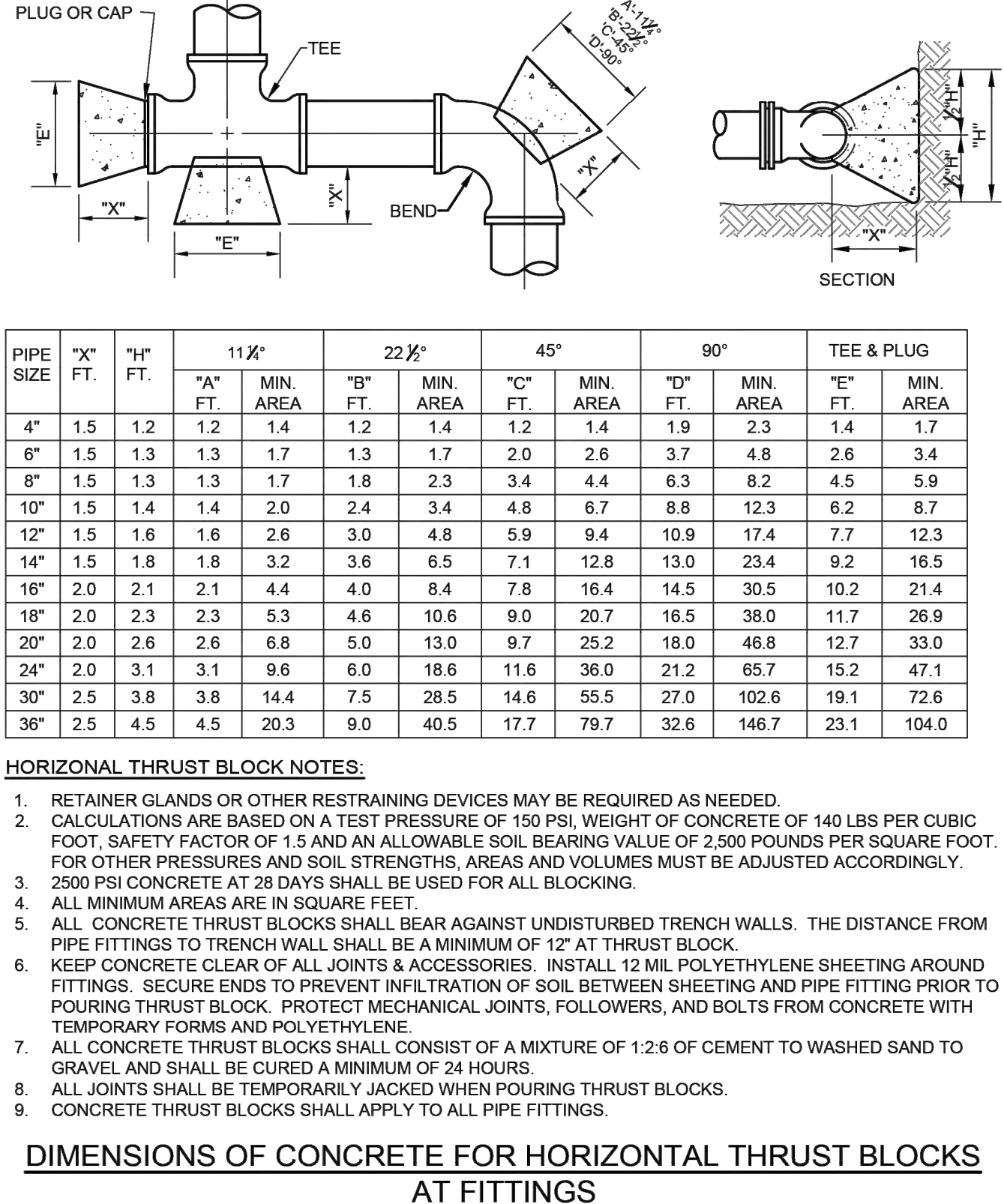
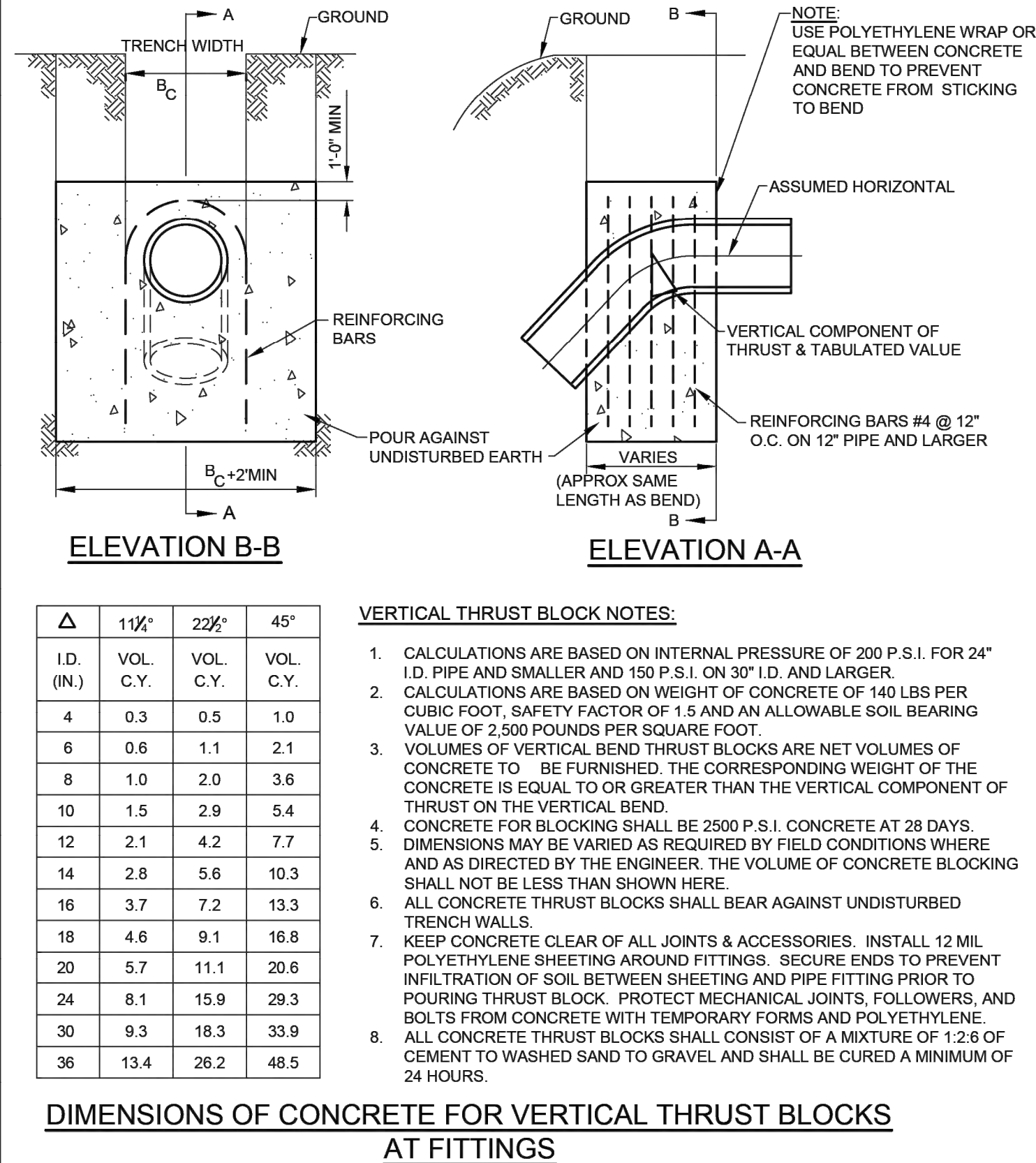
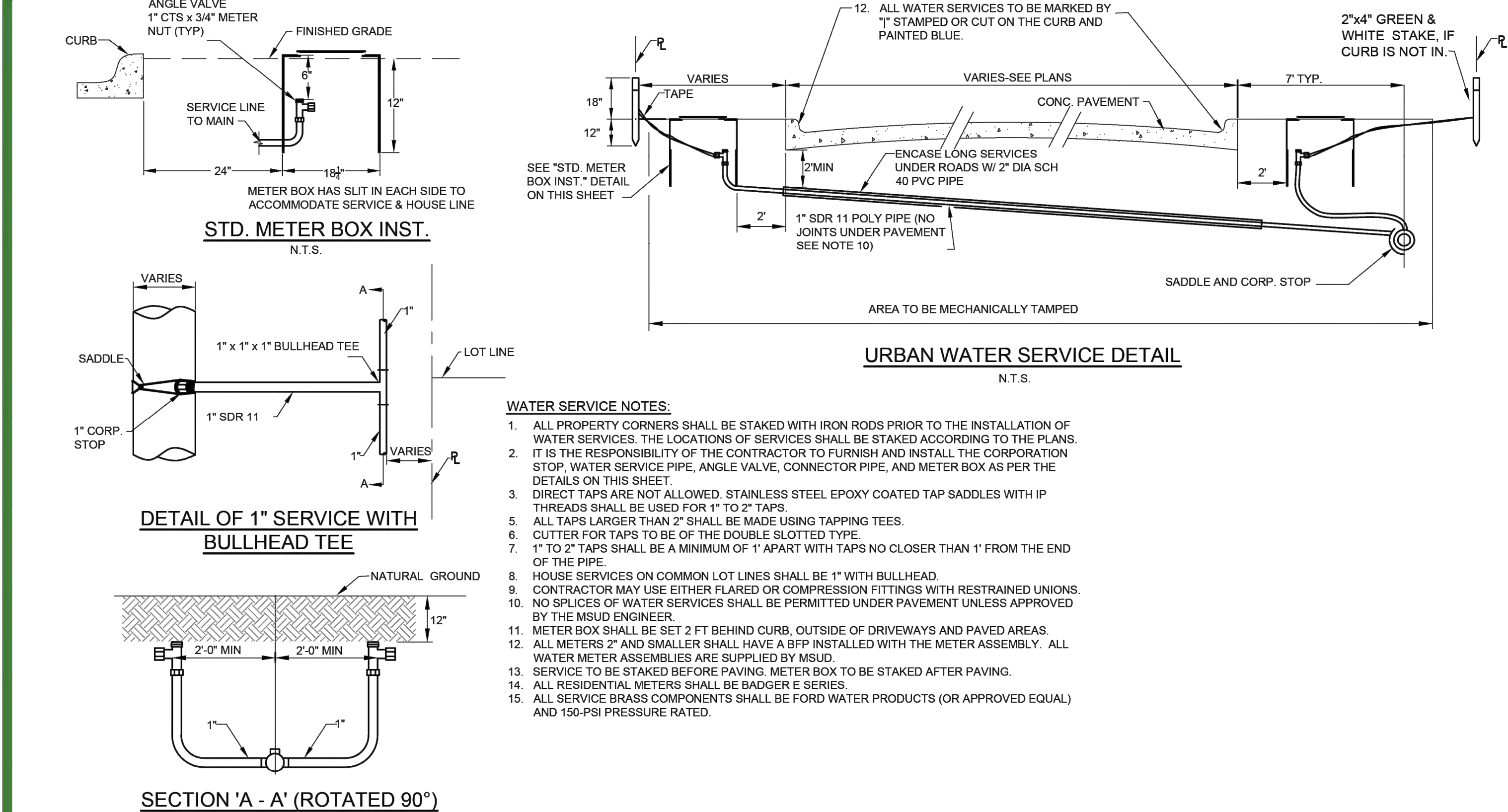
TYPICAL WATER LINE/SERVICE LOCATION LAYOUT DETAIL  
N.T.S.



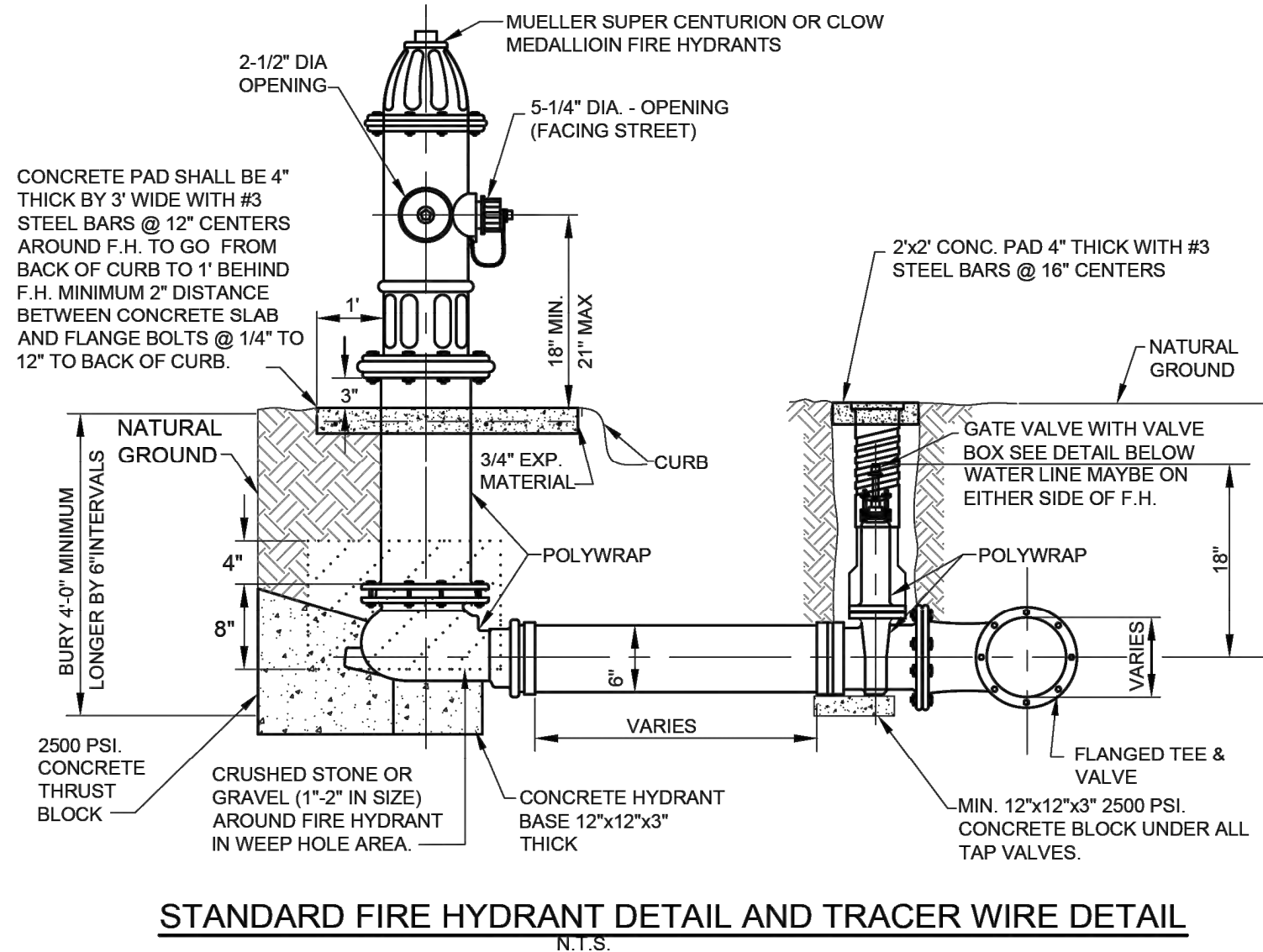
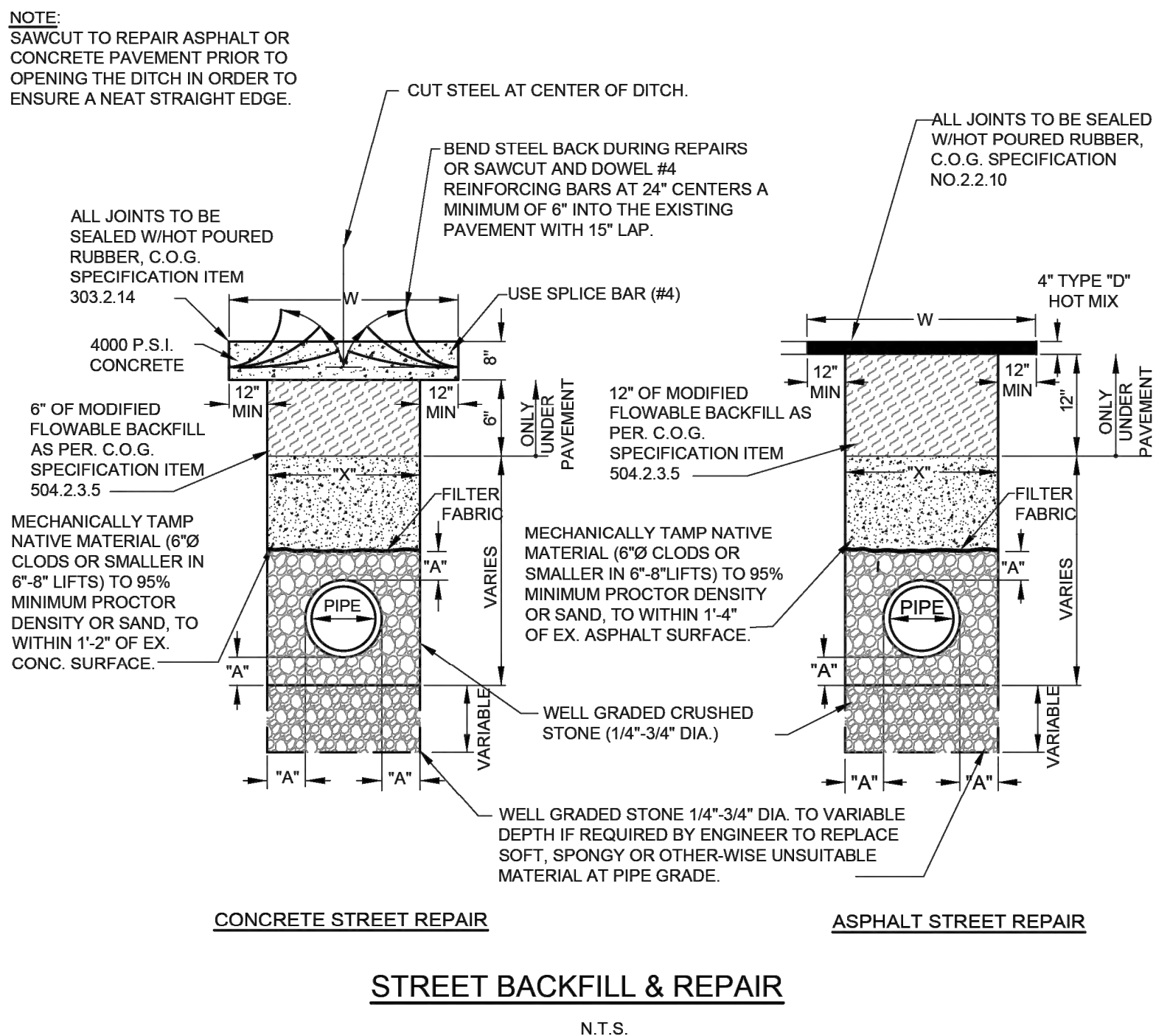
TYPICAL UTILITY PROFILE  
CURB & GUTTER ROAD SECTION  
N.T.S.

NO.	REVISION	BY	DATE
<div><div><div>MUSTANG SPECIAL UTILITY DISTRICT</div></div></div>			
APPROVED BY MSUD GENERAL MANAGER: C. BOYD      DATE: 2020-09-14			
<div>GENERAL NOTES</div> <div>CERTIFICATION: THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.</div>			





<b>NORMAL SIZE OF PIPE IN INCHES</b>	<b>O.D. OF PIPEBELL IN INCHES (PVC-DR18)</b>	<b>MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES</b>	<b>WIDTH OF TRENCH ('X')</b>		<b>WIDTH OF PVMT. REPLACEMENT *</b>
			<b>MAXIMUM ** IN INCHES</b>	<b>MINIMUM ** IN INCHES</b>	<b>('W') CONC&amp; ASPHALT **</b>
6	6.9	6	24	19	48
8	9.05	6	24	21	48
10	11.10	6	28	24	48
12	13.20	6	30	26	50
16+	VARIES	8	*	*	*



# Sample Fire Hydrant Flow Test Report (NFPA 291)

Location \_\_\_\_\_ Date \_\_\_\_\_

Test Performed By \_\_\_\_\_ Time \_\_\_\_\_ M.

Representative of \_\_\_\_\_

Mustang SUD Witness \_\_\_\_\_

Purpose of Test \_\_\_\_\_

\_\_\_\_\_

If Pumps Affect Test, Indicate Pumps Operating \_\_\_\_\_

Fire Hydrant	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>
Nozzle Size				
Pitot Reading				
Elev. Difference from Test Hydrant (B)				
Discharge Coeff.				
Flow (gpm)				

Static B \_\_\_\_\_ psi      Residual B \_\_\_\_\_ psi

Projected Results @ 20 psi Residual \_\_\_\_\_ gpm; or @ \_\_\_\_\_ psi Residual \_\_\_\_\_ gpm

Remarks \_\_\_\_\_

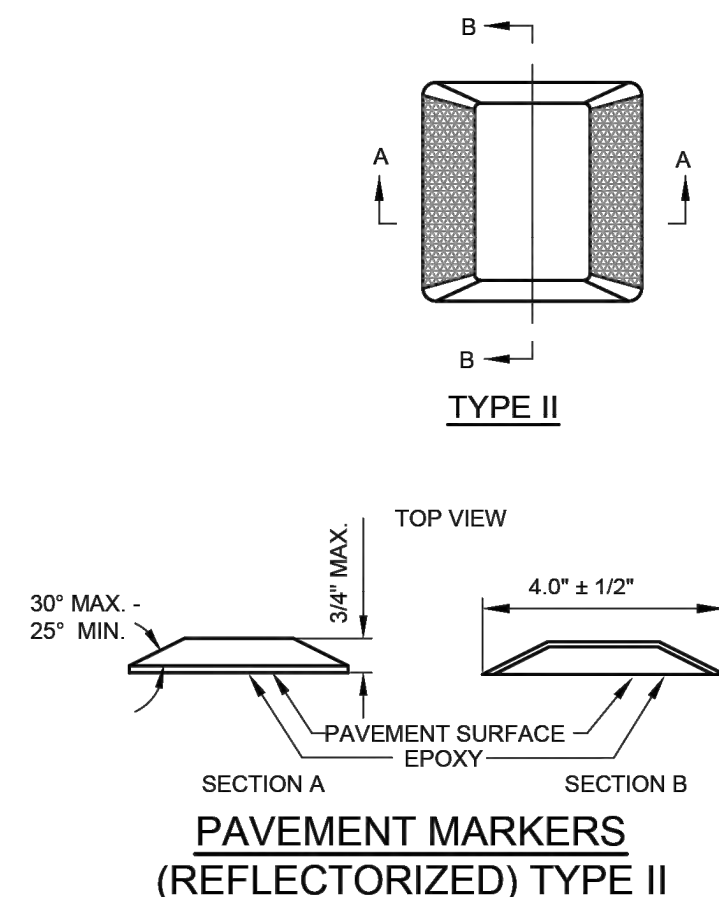
\_\_\_\_\_

\_\_\_\_\_

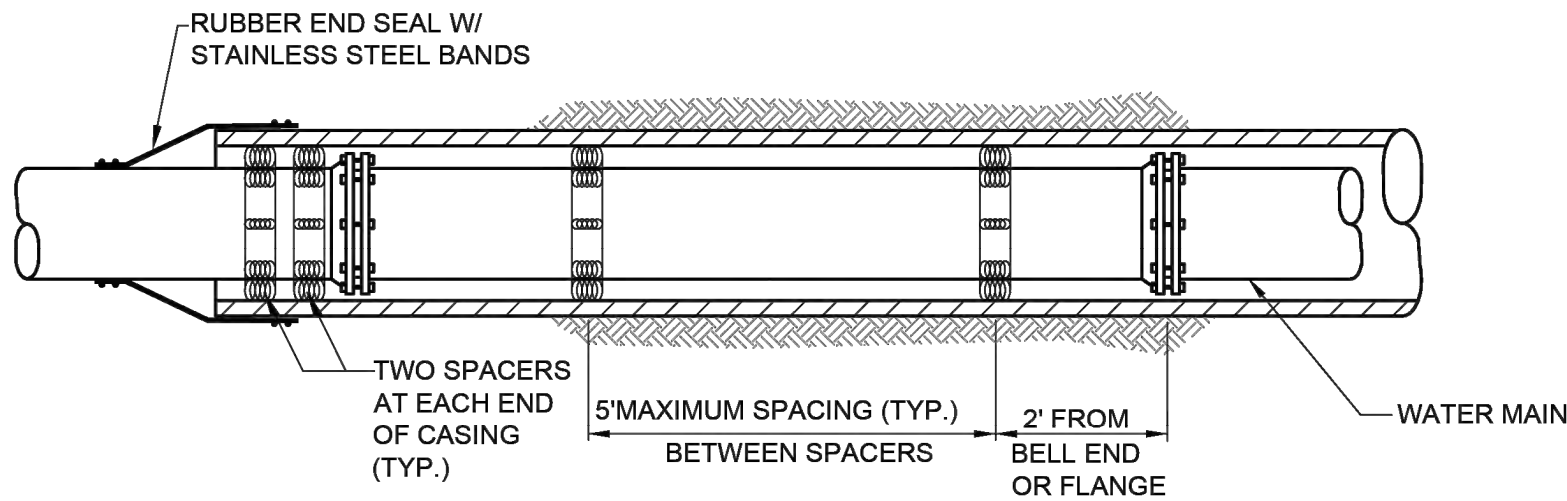
Location map: Show line sizes and distance to next distribution system intersection. Show valves and hydrant branch size. Indicate north. Show flowing hydrants - Label A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>. Show location of static and residual - Label B.

Indicate B    Hydrant \_\_\_\_\_    Sprinkler \_\_\_\_\_    Other (identify) \_\_\_\_\_

NOTE: Mail, hand-deliver or otherwise provide this completed report to the Mustang Special Utility District prior to acceptance of the system and beginning of service.





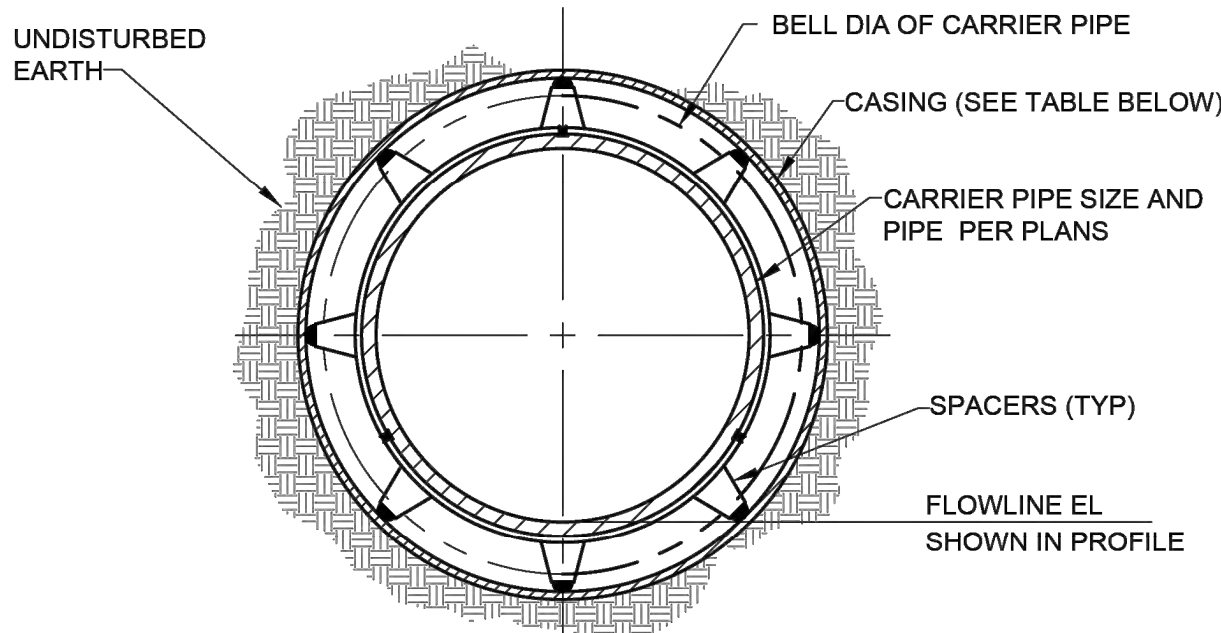


**CASING NOTES:**

1. CASING MATERIAL SHALL BE STEEL PER TxDOT REQUIREMENTS AT ALL TxDOT ROAD CROSSINGS.
2. CASING MATERIAL SHALL BE SDR-26/PS115 PVC AT ALL OTHER CROSSINGS UNLESS SPECIFICALLY REQUIRED BY MSUD ENGINEER.
3. CASING SIZE SHALL BE PER THE TABLE PROVIDED HEREON.
4. CASING SPACERS SHALL BE USED TO INSTALL CARRIER PIPE INSIDE THE ENCASEMENT PIPE. TO PROVIDE SUPPORT AROUND THE PERIPHERY OF THE PIPE SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THE SPACERS SHALL BE OF A PROJECTION TYPE THAT HAS A MINIMUM NUMBER OF PROJECTIONS AROUND THE CIRCUMFERENCE TOTALING THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM NUMBER OF 18 PROJECTIONS.
5. CASING SPACERS SHALL HAVE A MAXIMUM SPACING SPAN OF 5 FEET. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG-TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACERS DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE FOR CLASS SPACER USED. SPACERS SHALL HAVE A MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON PLANS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS, TO FASTEN TIGHTLY ONTO THE CARRIER PIPE, SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
6. SPACERS SHALL BE RAGI HIGH DENSITY POLYETHYLENE OR AS APPROVED BY MSUD ENGINEER.

**TYPICAL WATER PIPE CASING DETAIL**

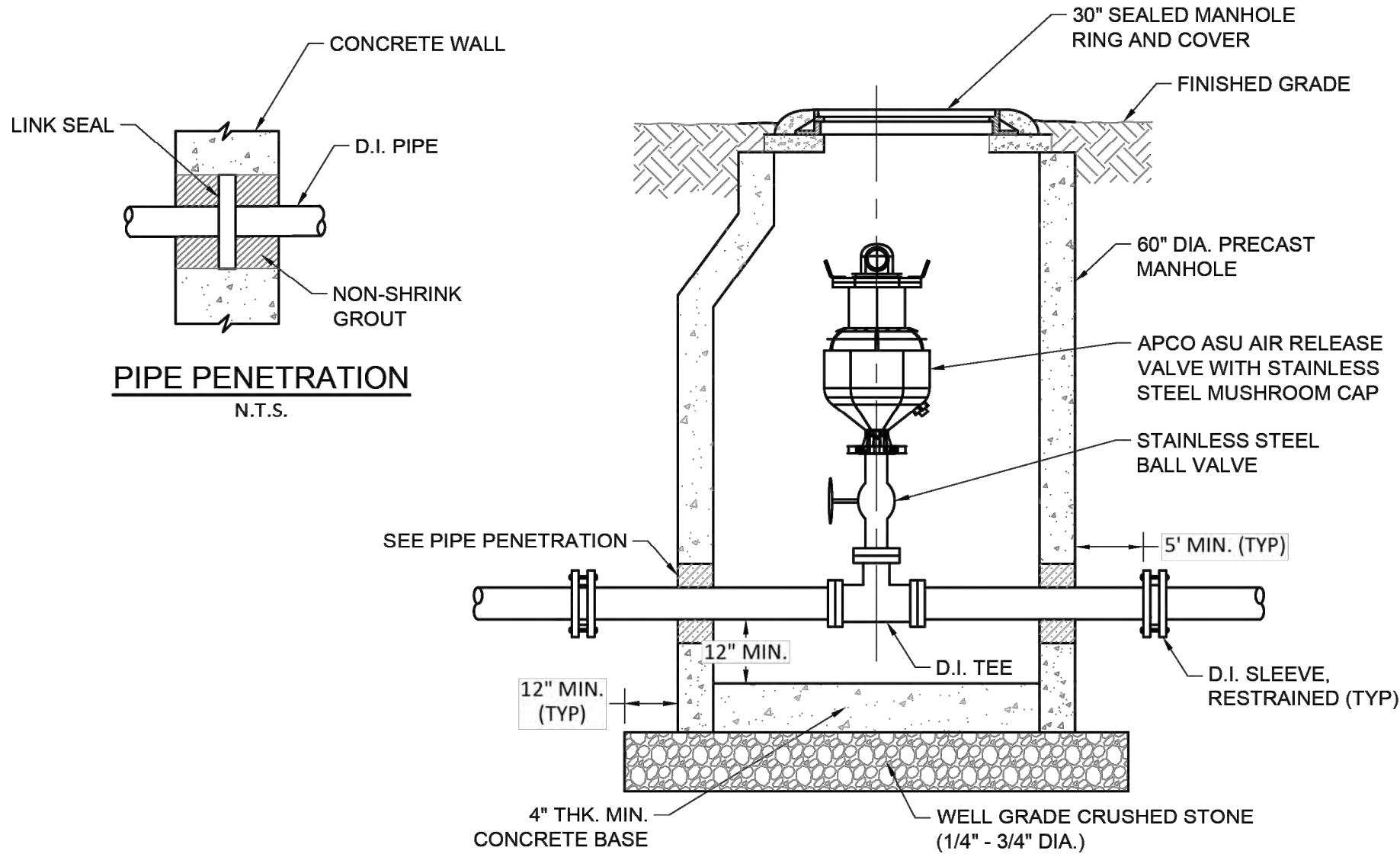
(AT ROADWAYS AND/OR STORM DRAIN CROSSINGS)  
N.T.S.



**TYPICAL SECTION WITH CASING INSULATING SPACERS**

N.T.S.

CASING SCHEDULE	
WATER LINE NOMINAL SIZE (IN)	CASING NOMINAL SIZE (IN)
2	4
4	6
6	8
8	12
10	16
12	18
14 & 16	24
18	30
20	30
24	36
27	36
30	42
36	48

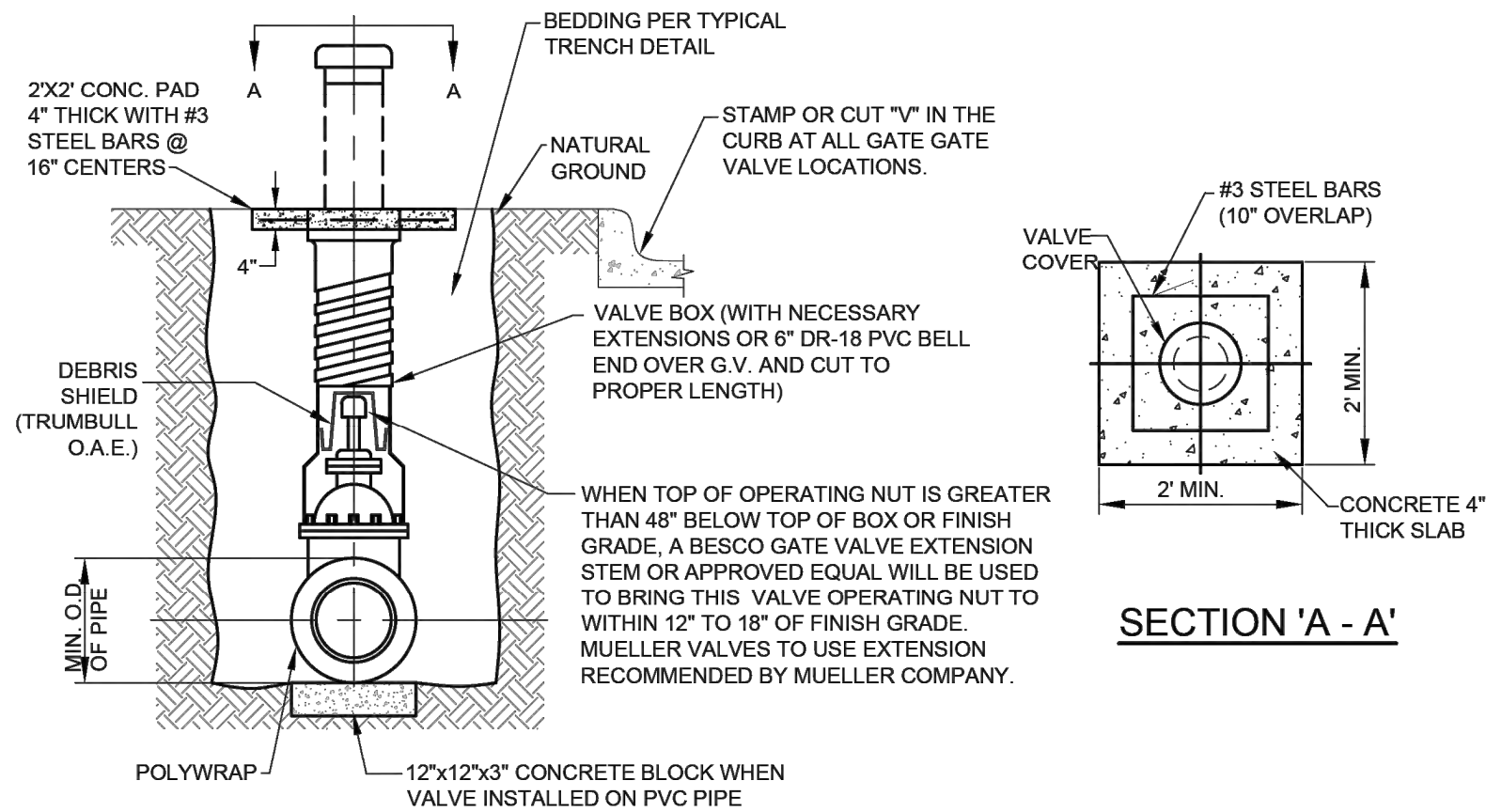


**NOTES:**

1. ALL PIPING, EXCEPT AS NOTED, TO BE DUCTILE IRON WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS AND NUTS.
2. RIM ELEVATION SHALL BE SET 12" ABOVE FINISHED GRADE UNLESS INSTALLED IN PAVED AREA

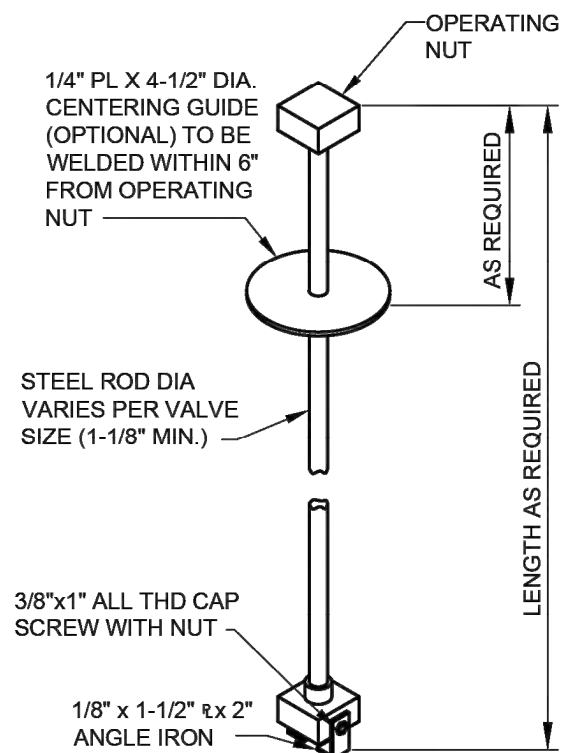
**COMBINATION AIR RELEASE VALVE AND VAULT DETAIL**

N.T.S.



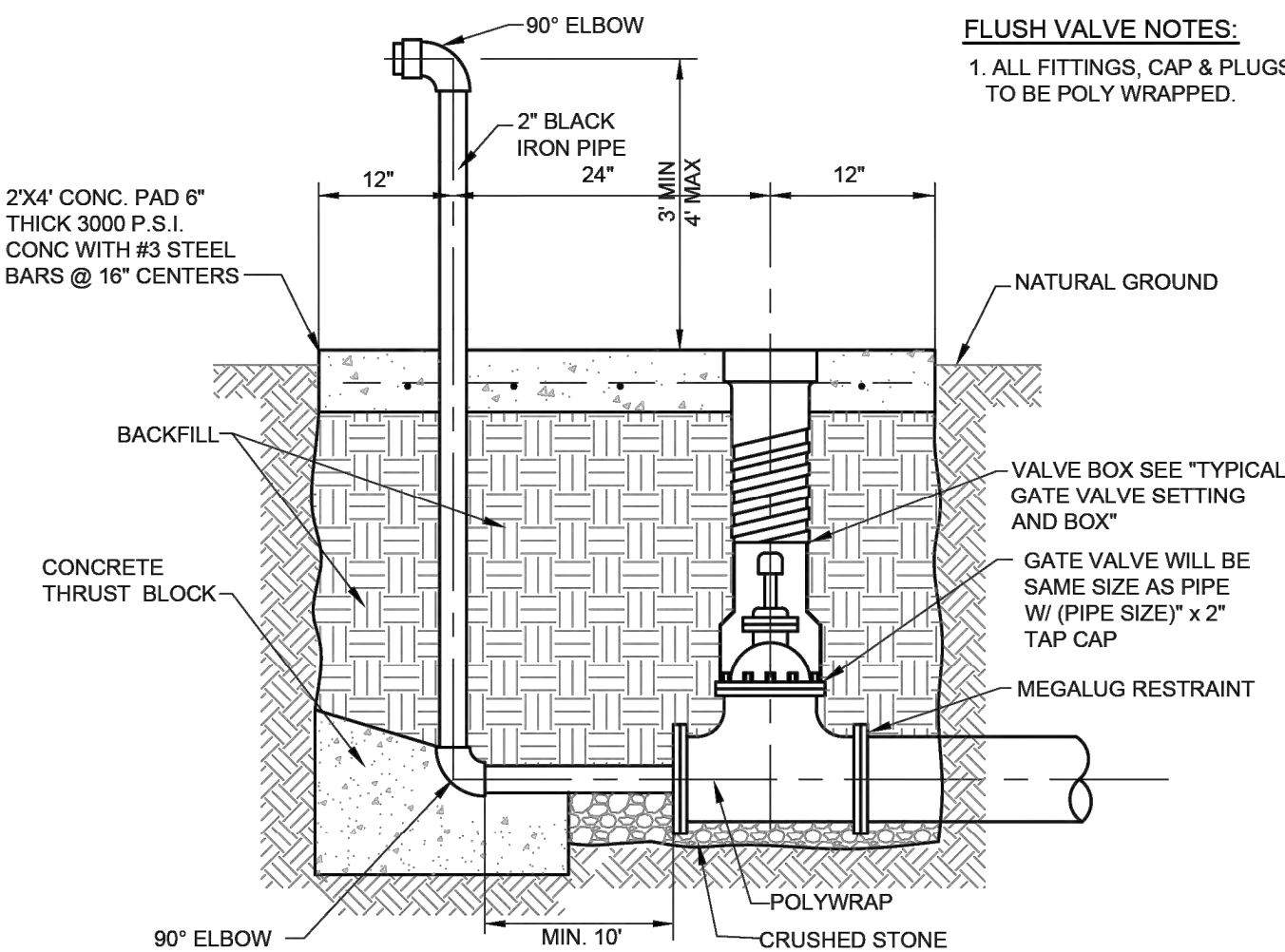
**TYPICAL VALVE SETTING AND BOX**

N.T.S.



**VALVE EXTENSION STEM**

N.T.S.

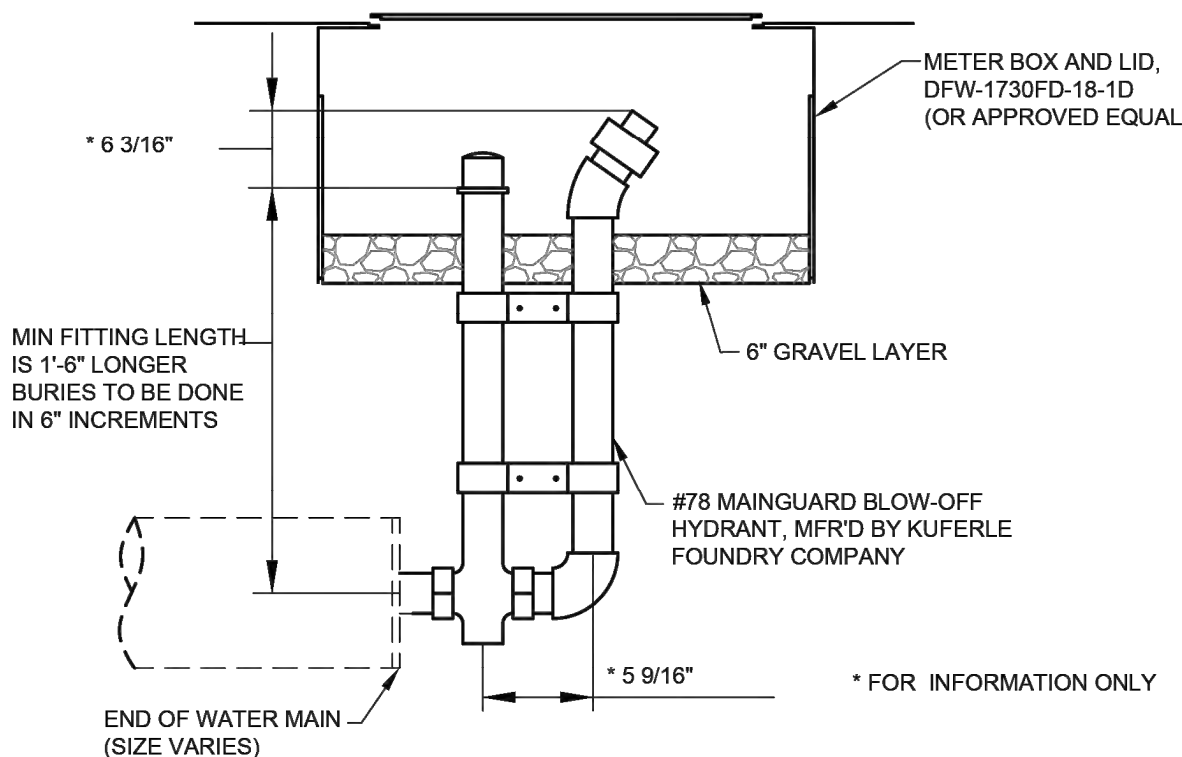


**END-OF-LINE/TEMPORARY FLUSH VALVE**

N.T.S.

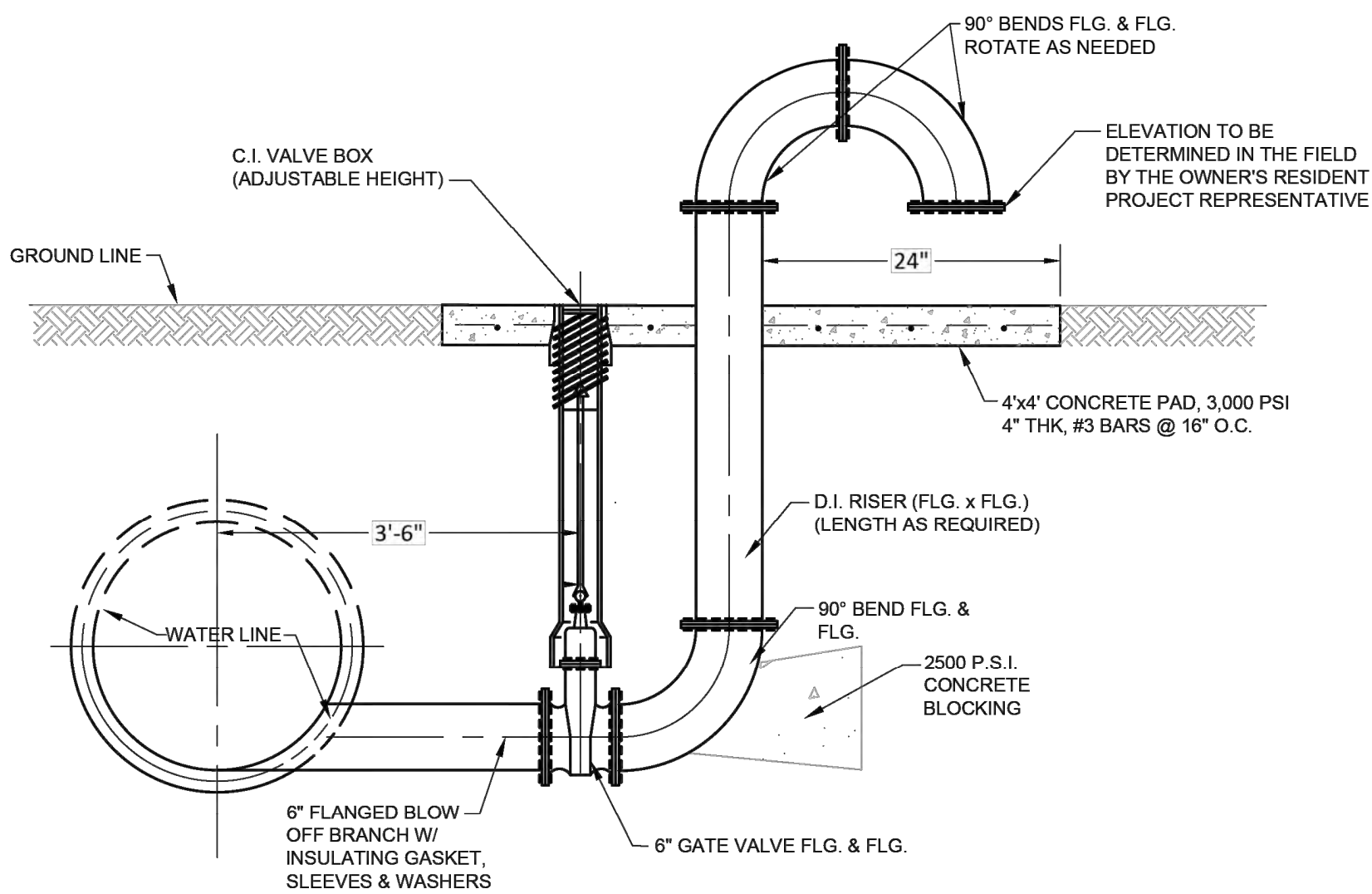
**FLUSH VALVE NOTES:**

1. ALL FITTINGS, CAP & PLUGS TO BE POLY WRAPPED.



**RESIDENTIAL FLUSH VALVE**

N.T.S.



**MAIN LINE FLUSH VALVE**

N.T.S.

NO.	REVISION	BY	DATE



**MUSTANG SPECIAL  
UTILITY DISTRICT**

APPROVED BY MSUD  
GENERAL MANAGER: C. BOYD

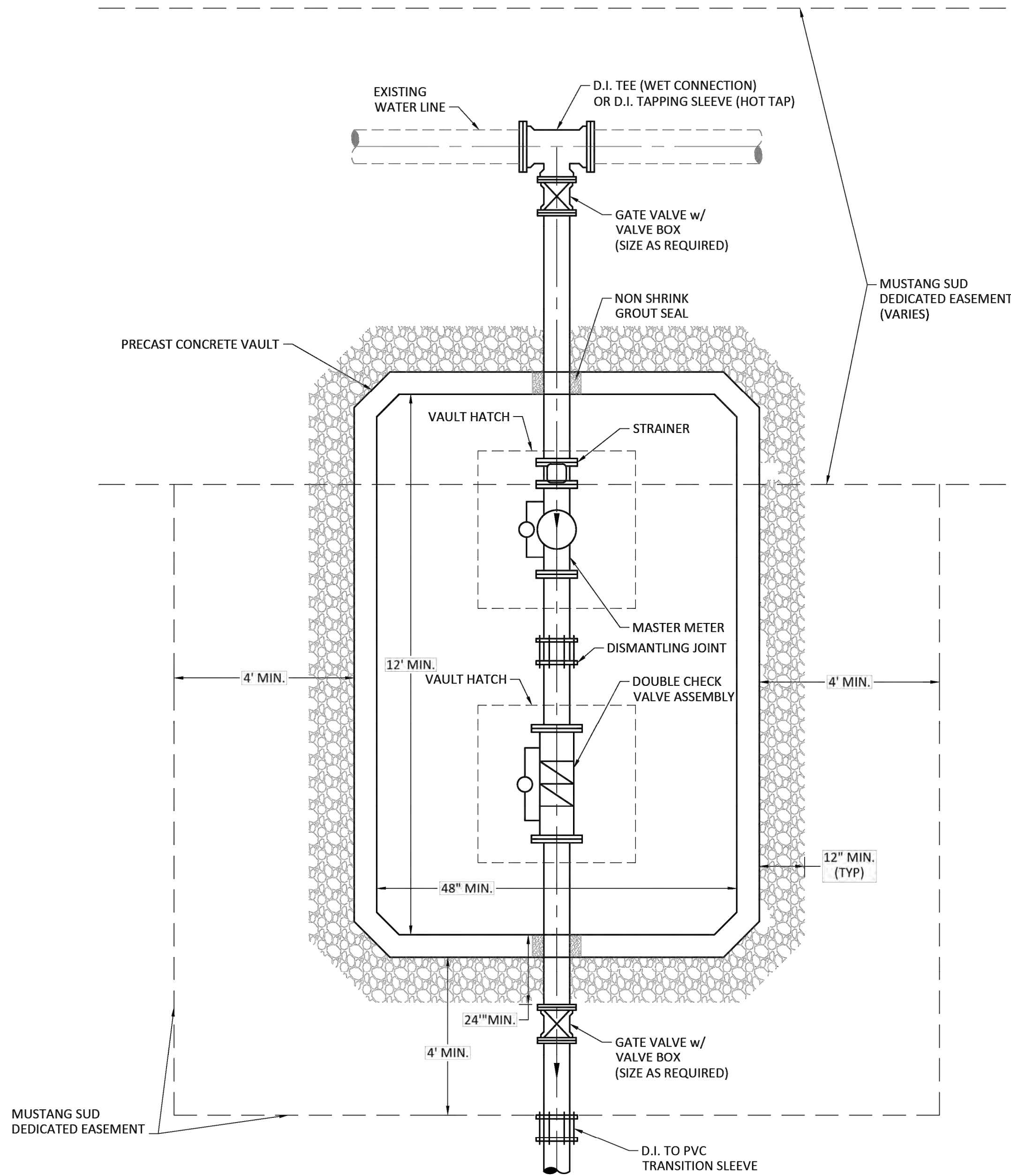
DATE: 2020-09-14

**WATER DETAILS (2 OF 2)**

CERTIFICATION:  
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

C36



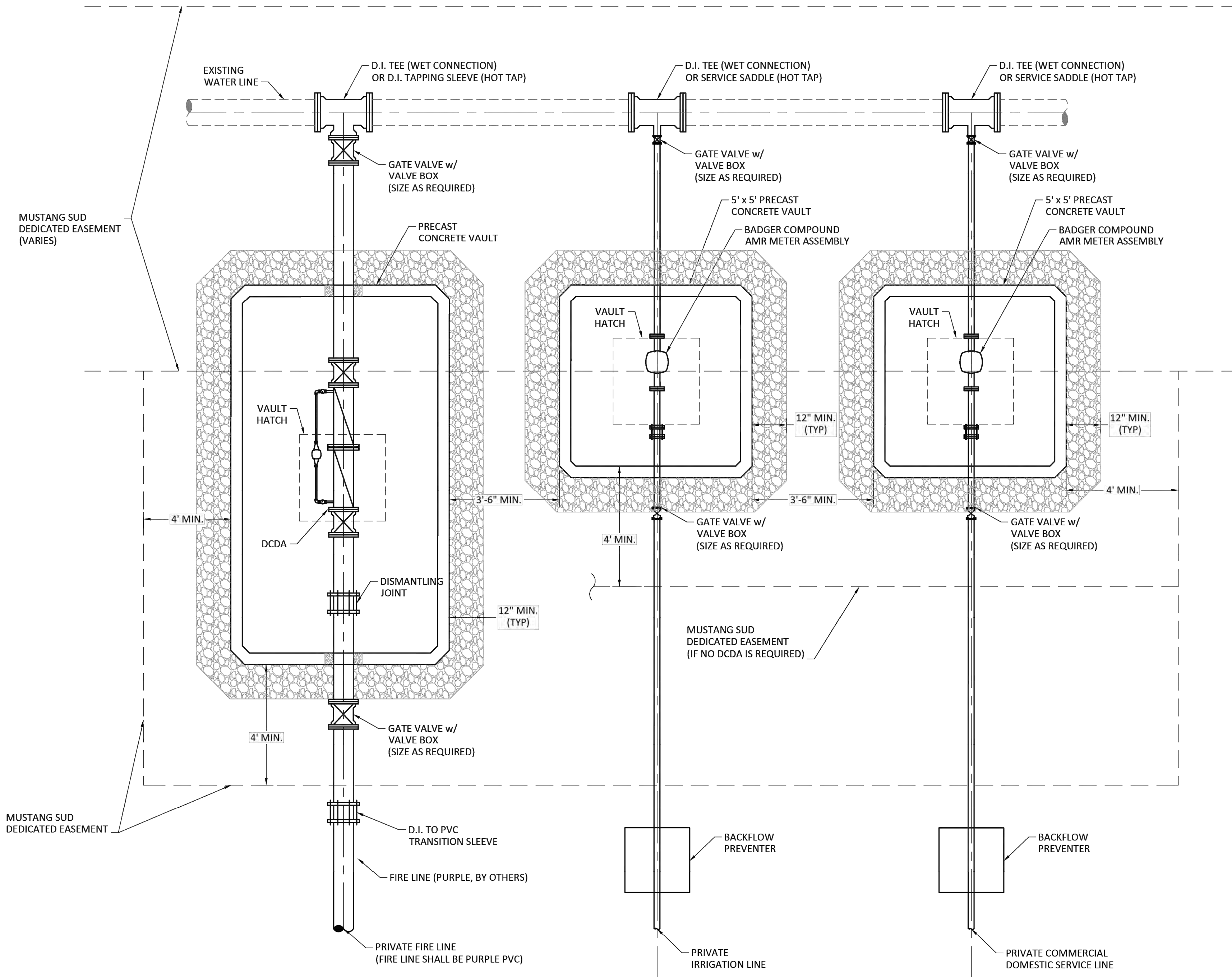


NOTES:

1. ALL WORK NOT SPECIFICALLY IDENTIFIED AS BEING SUPPLIED BY MUSTANG S.U.D. SHALL BE COMPLETED AT OWNER'S EXPENSE.
2. SIZE ON SIZE HOT TAPS SHALL NOT BE ALLOWED.
3. CONCRETE VAULTS SHALL BE EQUAL TO THAT AS DESIGNED AND MANUFACTURED BY CAPITAL PRECAST, INC.
4. CONCRETE VAULT LID AND HATCHES SHALL BE TRAFFIC RATED.
5. VAULT HATCHES SHALL BE 42"x42" ALUMINUM WITH LIFT ASSIST AND SLAM LOCK.
6. MASTER METER SHALL BE BADGER RECORDALL.
7. MASTER METER SHALL BE EQUIPPED WITH AN AMR/AMI REMOTE METER READING SYSTEM AS MANUFACTURED BY BADGER METER COMPATIBLE FOR USE WITH THE SPECIFIED METER. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, ELECTRICAL AND SERVICE REQUIRED FOR A COMPLETE, OPERATING SYSTEM.
8. DOUBLE CHECK VALVE ASSEMBLY SHALL BE WATTS 775 OR APPROVED EQUAL.
9. CONCRETE VAULT SHALL HAVE NO BOTTOM.
10. VAULT SHALL BE SET ON 12" OF 1"-2" Ø WASHED GRAVEL.
11. VAULT SHALL BE MINIMUM 72" DEEP AND INCLUDE AN ALUMINUM OR STAINLESS STEEL LADDER WITH SAFETY EXTENSION.
12. VAULTS LIDS SHALL BE 6" TO 12" ABOVE FINISHED GRADE IN UNPAVED AREAS.
13. CLEARANCE BETWEEN PIPING AND VAULT FLOOR SHALL BE 12" MINIMUM.
14. ADJUSTABLE PIPE SUPPORTS SHALL BE PROVIDED UNDER THE MASTER METER AND CHECK VALVE ASSEMBLY.
15. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
16. ALL PIPING THROUGH THE VAULT SHALL BE DUCTILE IRON.

MASTER METER WITH DOUBLE CHECK INSTALLATION

N.T.S.



NOTES:

1. ALL WORK NOT SPECIFICALLY IDENTIFIED AS BEING SUPPLIED BY MUSTANG S.U.D. SHALL BE COMPLETED AT OWNER'S EXPENSE.
2. CONCRETE VAULTS SHALL BE EQUAL TO THAT AS DESIGNED AND MANUFACTURED BY CAPITAL PRECAST, INC.
3. VAULT SIZE MAY VARY DEPENDING UPON METER SIZE.
4. MUSTANG S.U.D. SHALL SUPPLY METERS UP TO 2".
5. MUSTANG S.U.D. SHALL SUPPLY A CHECK VALVE FOR RESIDENTIAL METERS ONLY.
6. MUSTANG S.U.D. DOES NOT SUPPLY ANY TYPE OF DOUBLE CHECK DETECTOR ASSEMBLY (DCDA).
7. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
8. SIZE ON SIZE HOT TAPS SHALL NOT BE ALLOWED.
9. VAULT HATCHES SHALL BE 42"x42" ALUMINUM WITH LIFT ASSIST AND SLAM LOCK.
10. VAULTS LIDS SHALL BE 6" TO 12" ABOVE FINISHED GRADE IN UNPAVED AREAS.
11. CLEARANCE BETWEEN PIPING AND VAULT FLOOR SHALL BE 12" MINIMUM.
12. DCDA VAULT SHALL BE MINIMUM 72" DEEP AND INCLUDE AN ALUMINUM OR STAINLESS STEEL LADDER WITH SAFETY EXTENSION.
13. CONCRETE VAULTS SHALL HAVE NO BOTTOM.
14. VAULT SHALL BE SET ON 12" OF 1"-2" Ø WASHED GRAVEL.
15. ALL PIPING THROUGH DCDA VAULT SHALL BE DUCTILE IRON.

DOUBLE CHECK DETECTOR ASSEMBLY, IRRIGATION AND  
COMMERCIAL DOMESTIC METER INSTALLATION

N.T.S.

NO.	REVISION	BY	DATE



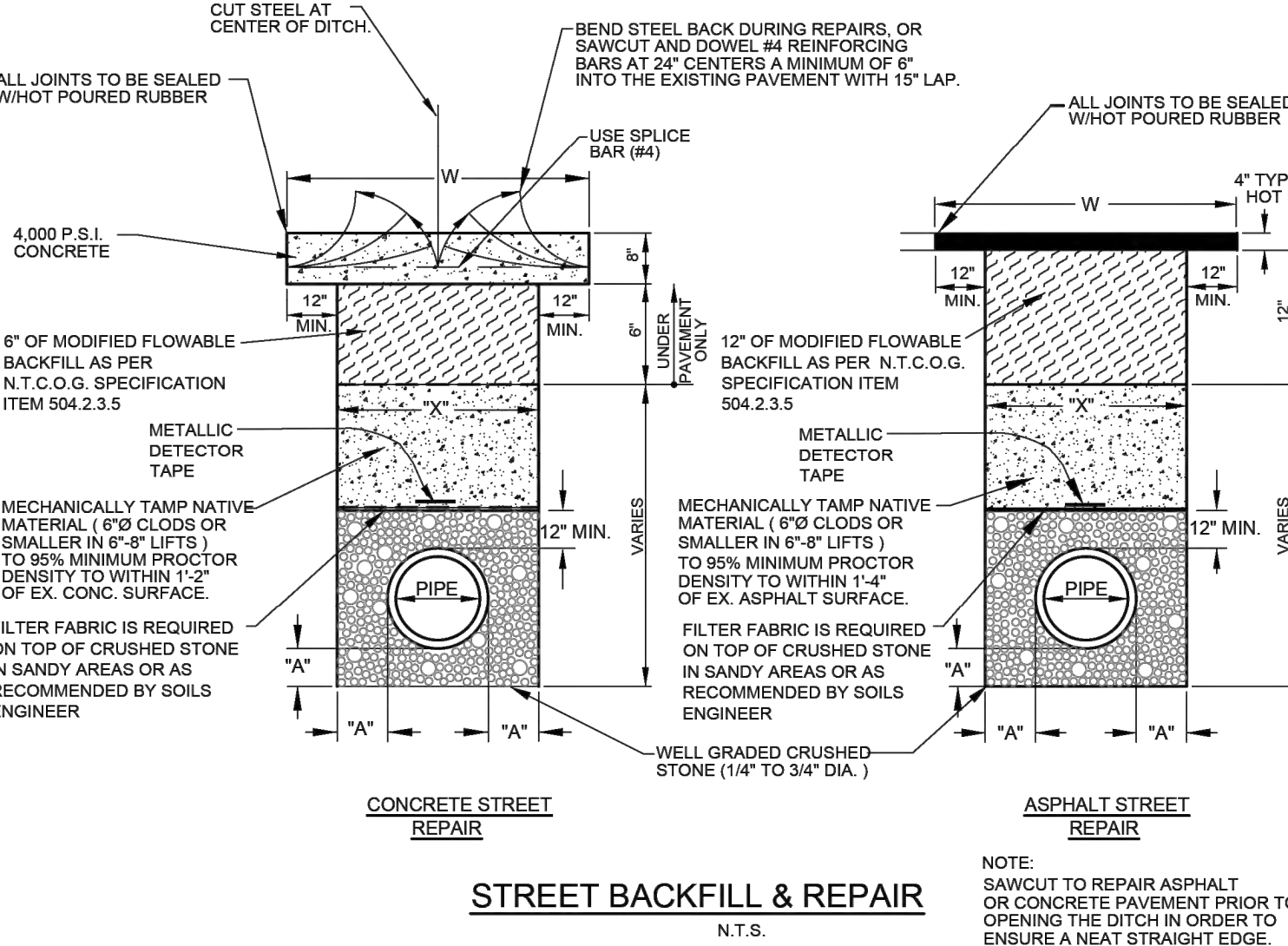
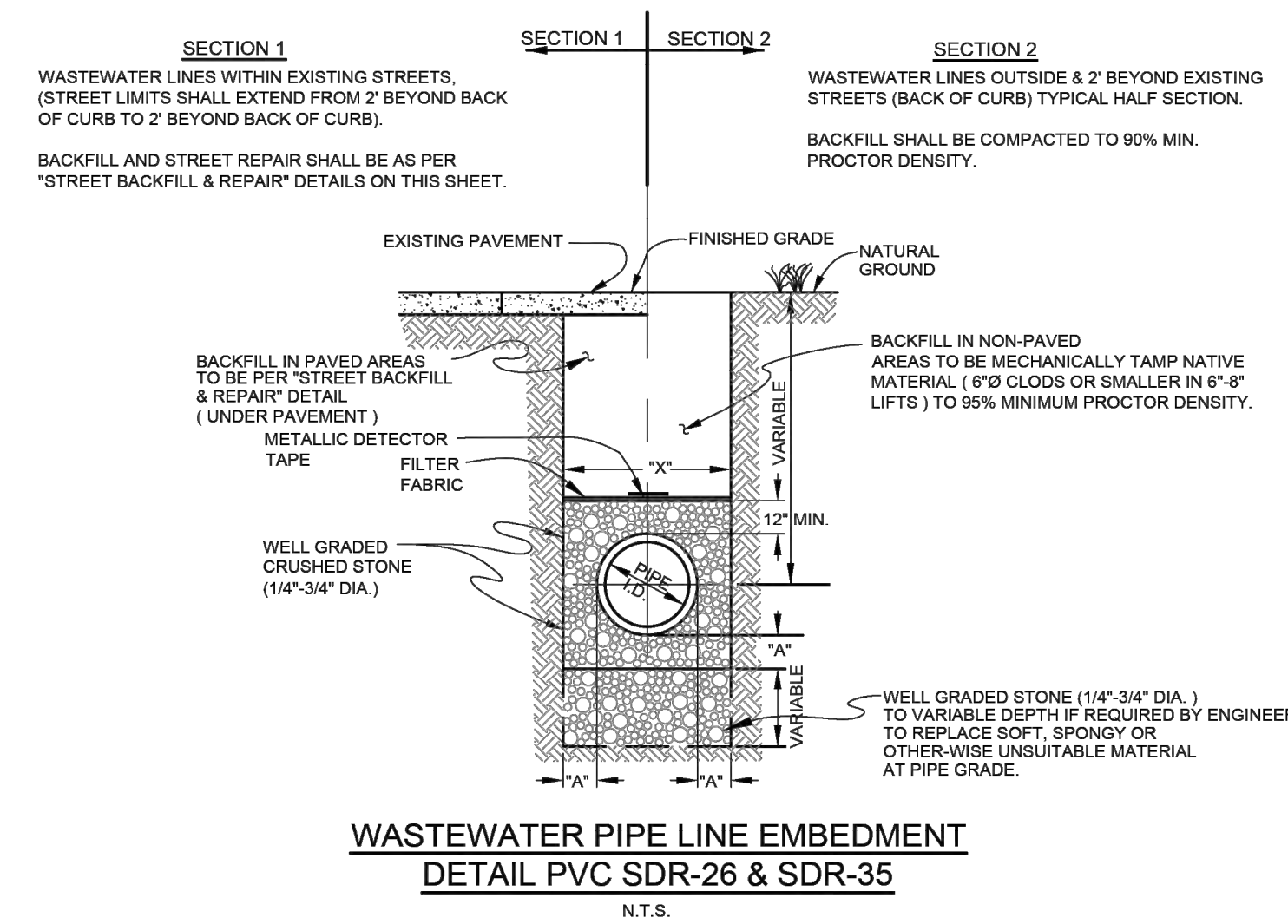
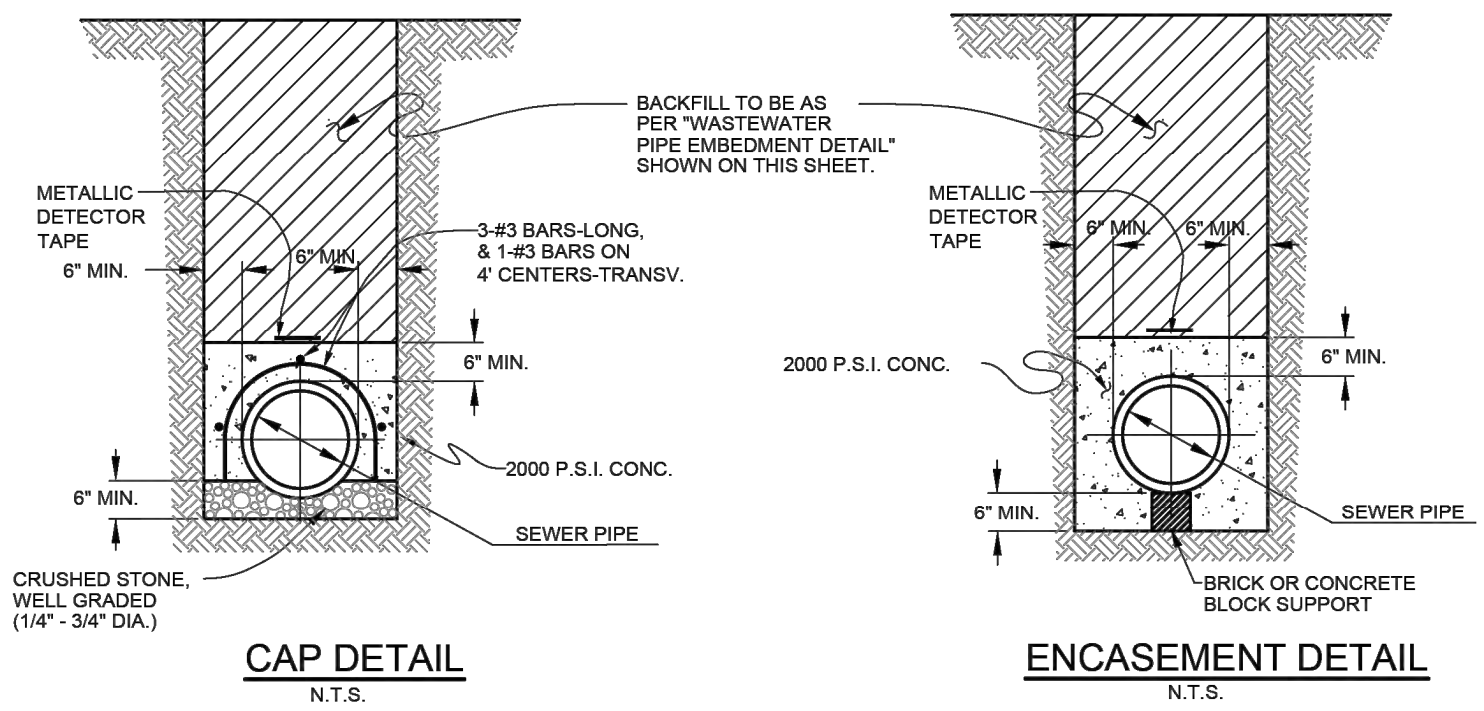
APPROVED BY MSUD  
GENERAL MANAGER: C. BOYD      DATE: 2020-09-14

COMMERCIAL AND DCDA DETAILS

CERTIFICATION:  
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

C37

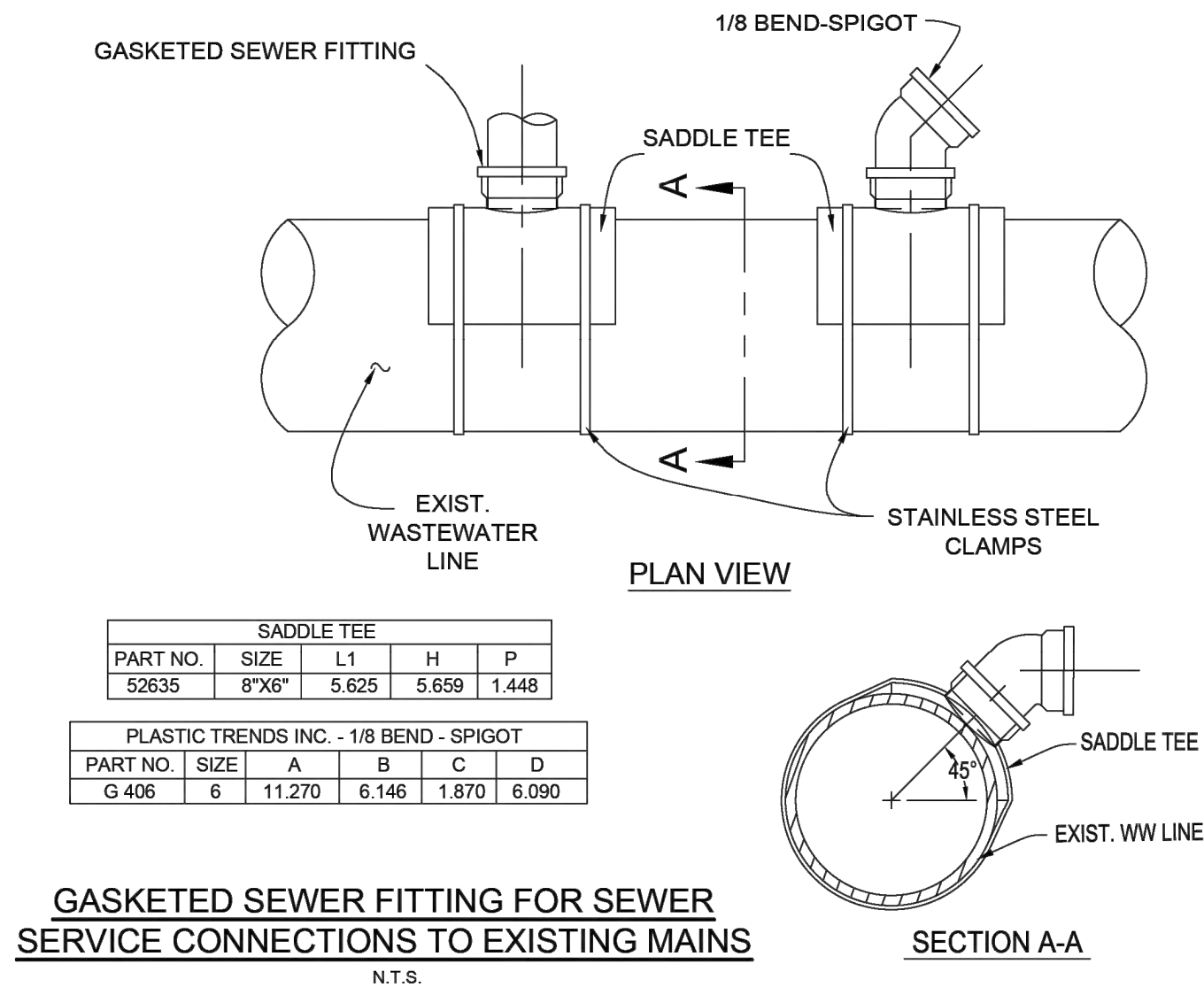




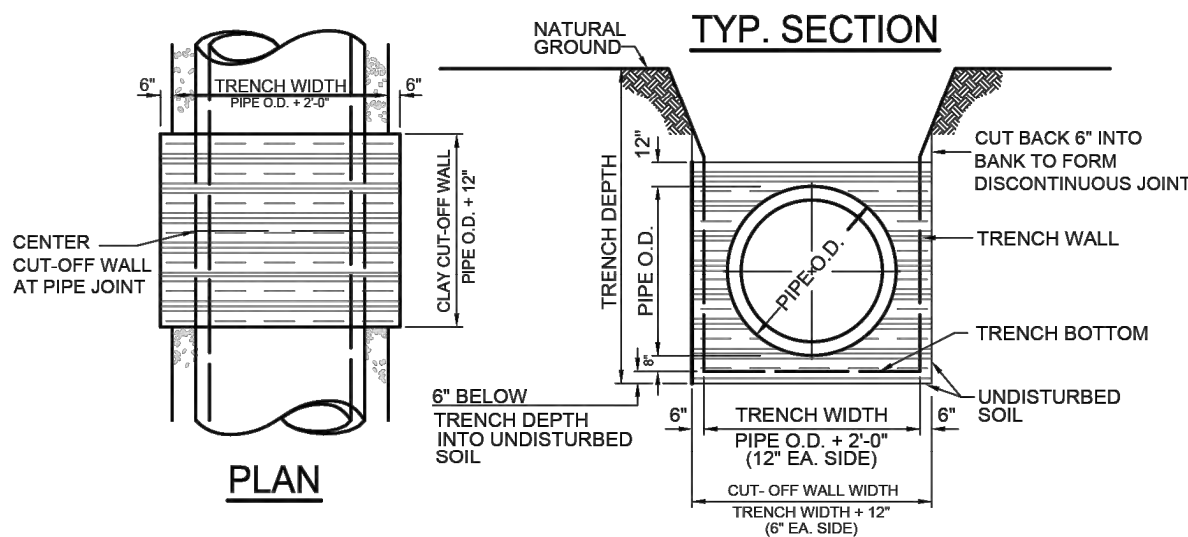
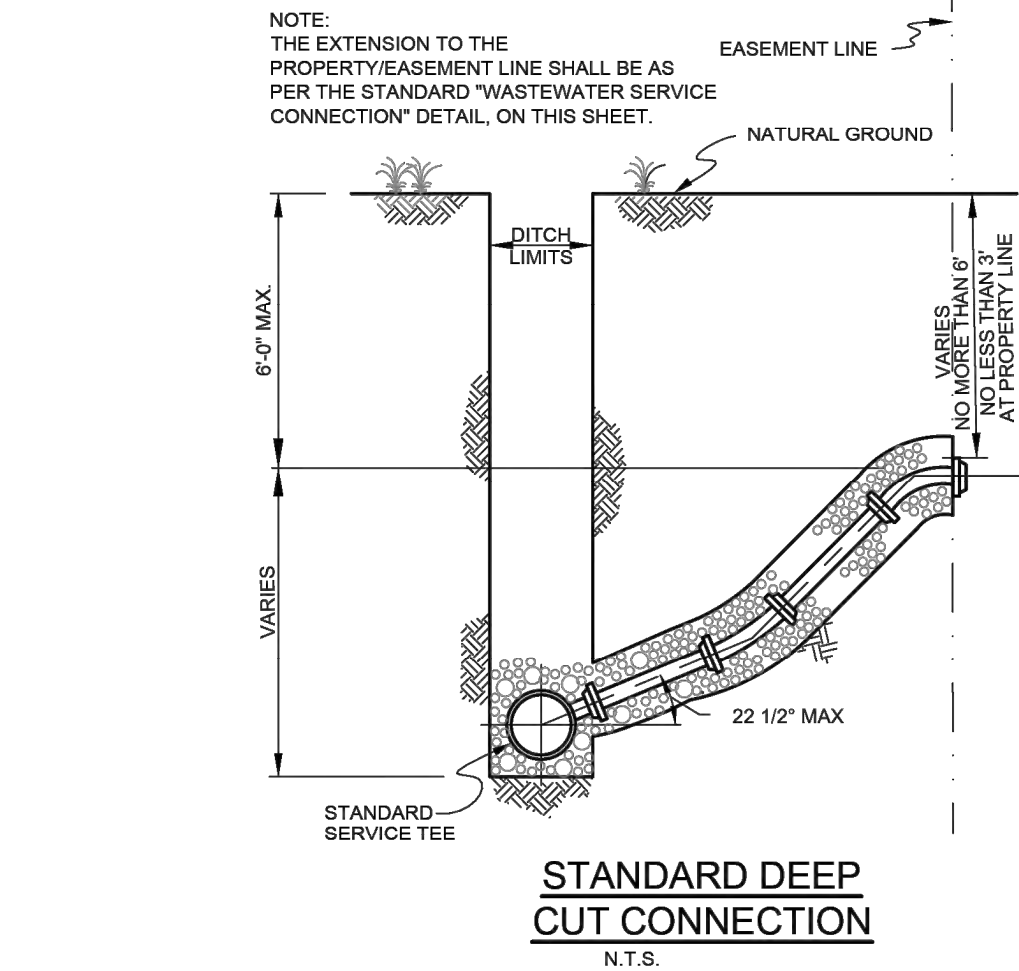
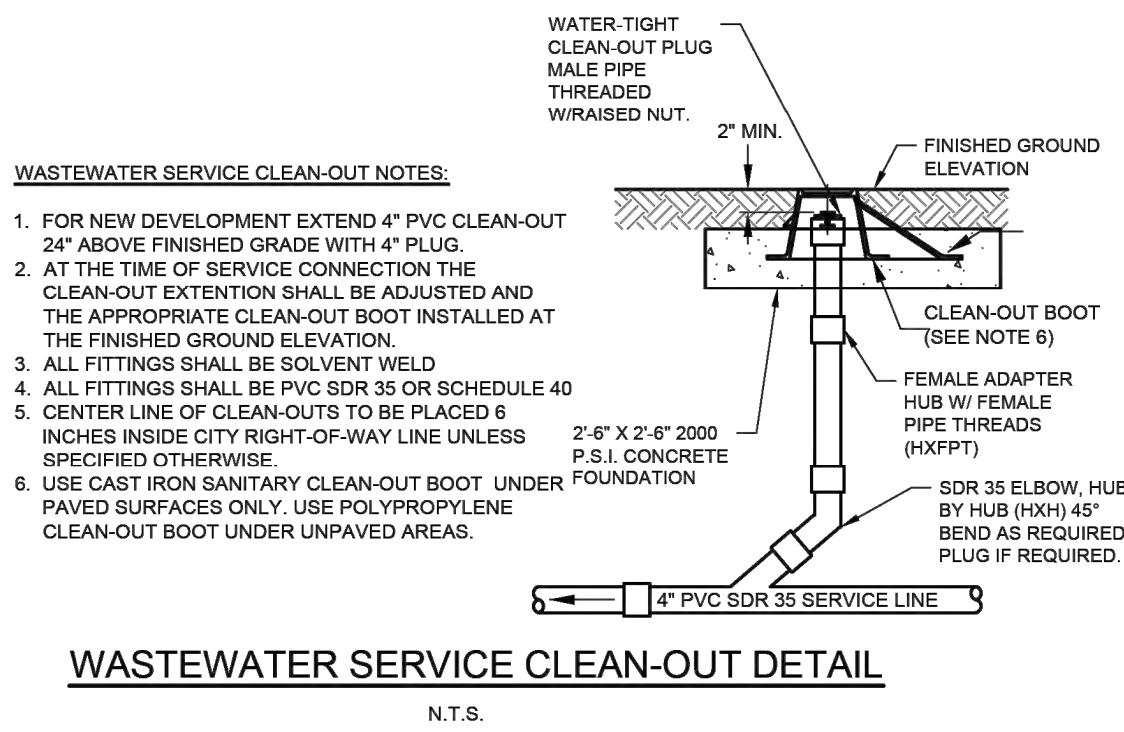
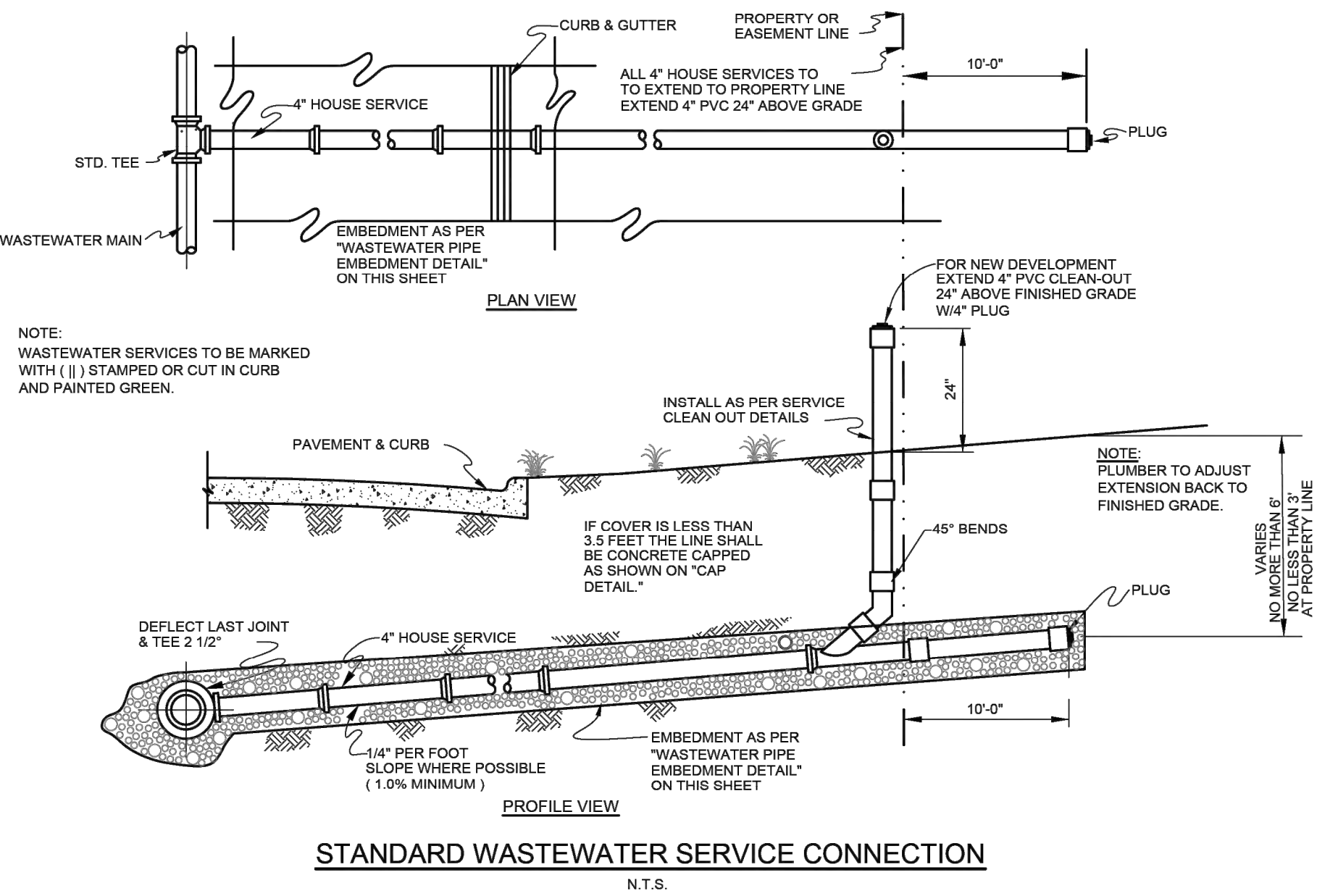
NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPE BELL IN INCHES (PVC-SDR35)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ('X')		WIDTH OF PYMT. REPLACEMENT *
			MAXIMUM ** IN INCHES	MINIMUM ** IN INCHES	('W') CONC. & ASPHALT **
4	4.67	6	24	18	42
6	6.74	6	24	19	48
8	8.99	6	24	21	48
10	11.27	6	28	24	48
12	13.27	6	30	26	50
15	16.45	8	37	33	57
18	20.73	8	41	37	61
21	24.42	8	45	41	65
24	27.21	8	48	44	68
27	30.61	8	51	47	71

NOTE: \* REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.  
\*\* RECOMMENDED WIDTHS - VARIES BASED ON DEPTH, AND SOIL MATERIAL.

**TABLE OF DIMENSIONS FOR WIDTH OF TRENCH  
AND PAVEMENT REPLACEMENT**




- NOTES:
1. FLEXIBLE SADDLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
  2. SADDLE TEE SHALL BE ORIENTATED 45° TO MAIN.
  3. EXCAVATE AROUND EXISTING 8-INCH PIPE, EXPOSING SUFFICIENT ROOM FOR S.S. CLAMPS.
  4. THOROUGHLY CLEAN AND DRY THE MATING SURFACE WITH RAG OR PAPER TOWEL MAKE SURE THEY ARE FREE OF DUST AND MOISTURE.
  5. MARK THE SIZE OF THE HOLE TO BE CUT USING THE GASKET SKIRT OR THE SADDLE ITSELF AS THE TEMPLATE.
  6. SAW OUT THE SECTION OF THE PIPE WHERE THE SADDLE WILL BE LOCATED, WITH A SABER OR KEY HOLE SAW.
  7. TEST TO MAKE SURE SADDLE FITS HOLE PROPERLY.
  8. SERVICE PIPE SHALL NOT EXTEND MORE THAN ONE-HALF INCH INTO THE MAIN.
  9. PLACE GASKET SKIRT AND SADDLE OVER OPENING AND TIGHTEN BAND CLAMPS EVENLY UNTIL SADDLE IS FIRMLY ATTACHED TO THE PIPE. APPLY PRESSURE ON THE SADDLE AGAINST THE PIPE WHILE TIGHTENING THE CLAMPS AS INDICATED ABOVE. DO NOT OVER TIGHTEN, DO NOT STRIP THREAD.
  10. REPLACE THE BEDDING AND BACKFILL IN ACCORDANCE WITH THE TRENCH EMBEDMENT DETAIL.



- CLAY CUT-OFF WALL NOTES:
1. CLAY CUT-OFF WALLS SHALL BE CONSTRUCTED AT 250 FOOT INTERVALS ALONG ALL WASTEWATER MAIN INSTALLATIONS BETWEEN MANHOLES.
  2. THE CLAY CUT-OFF WALL SHALL BE PLACED AT THE MID POINT OF THE LENGTH OF THE PIPE BEING PLACED, BUT NOT AT A LOCATION WHERE A LATERAL OR SERVICE CONNECTS TO THE MAIN. THE MINIMUM CLEARING IS 10 FEET.
  3. MATERIAL FOR CLAY CUT-OFF WALL TO BE CLEAN MATERIAL WITH NO LUMPS LARGER THAN 3". CLAY TO HAVE P.I. OF 30 TO 40. MATERIAL TO BE PLACED IN 6" LIFTS, MOISTENED TO OPTIMUM MOISTURE CONTENT AND COMPACTED WITH HAND HELD MECHANICAL TAMPERS, WITHOUT DAMAGING THE PIPE.

NO.	REVISION	BY	DATE



**MUSTANG SPECIAL  
UTILITY DISTRICT**

APPROVED BY MSUD  
GENERAL MANAGER:

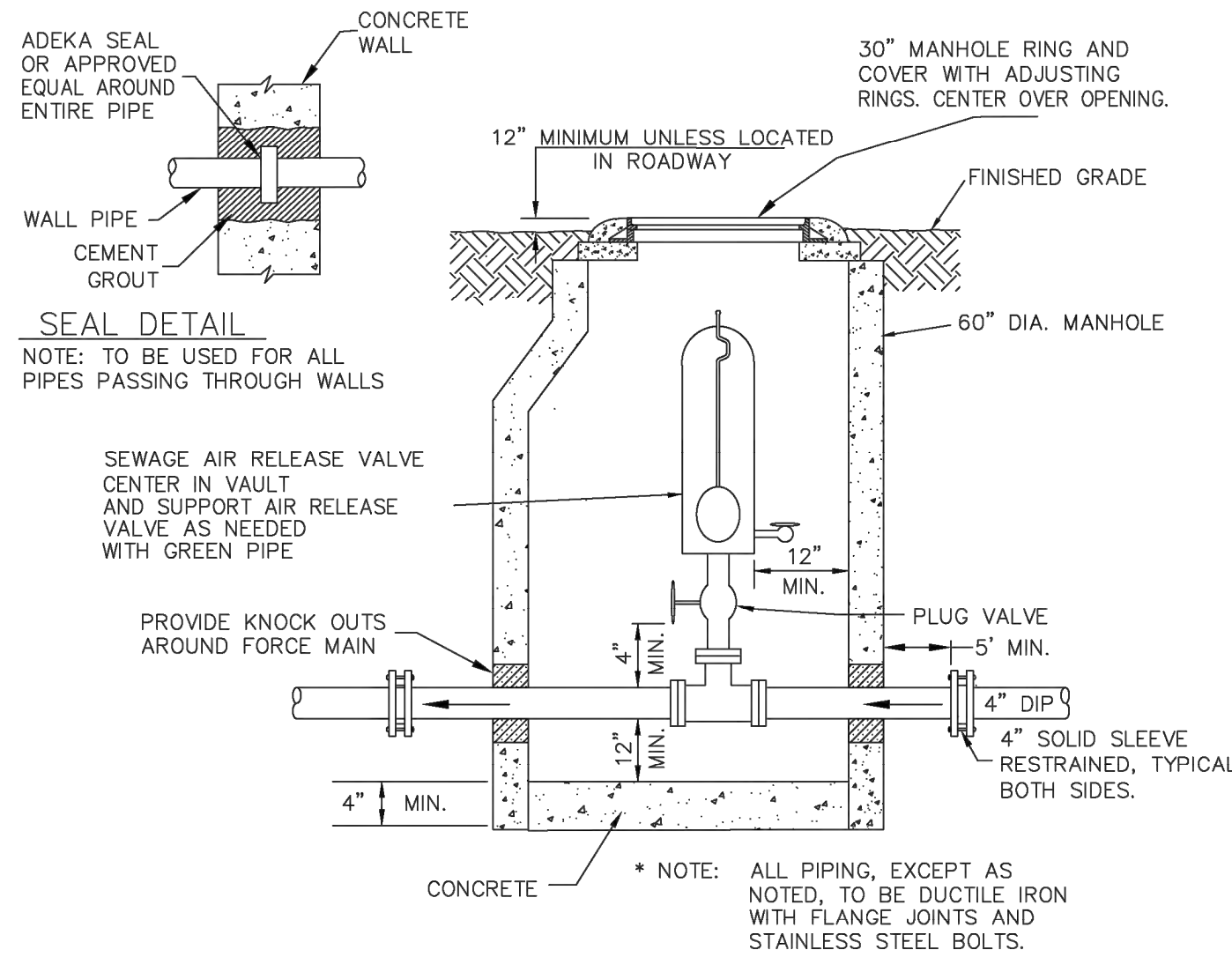
Chris Boyd

DATE: 7/27/2020

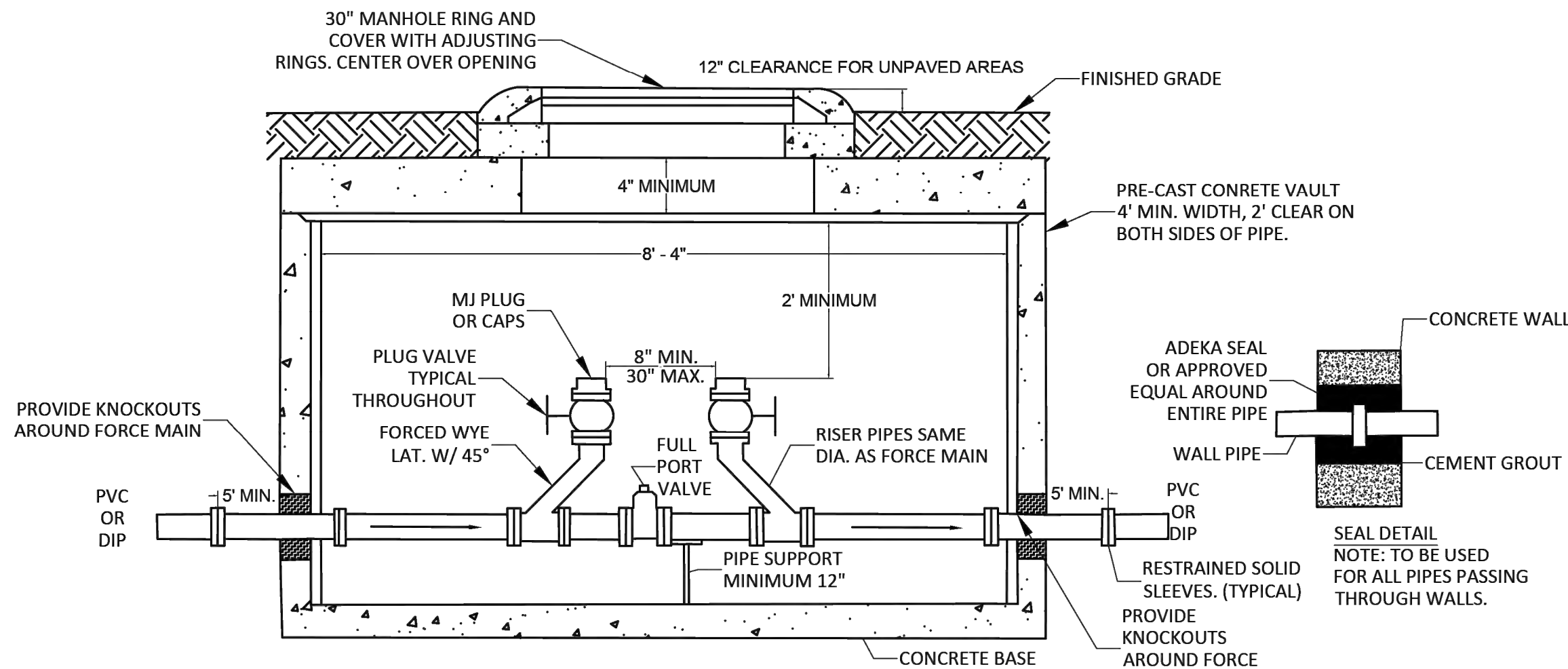
**WASTEWATER STANDARD DETAILS (1 OF 2)**

CERTIFICATION:  
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

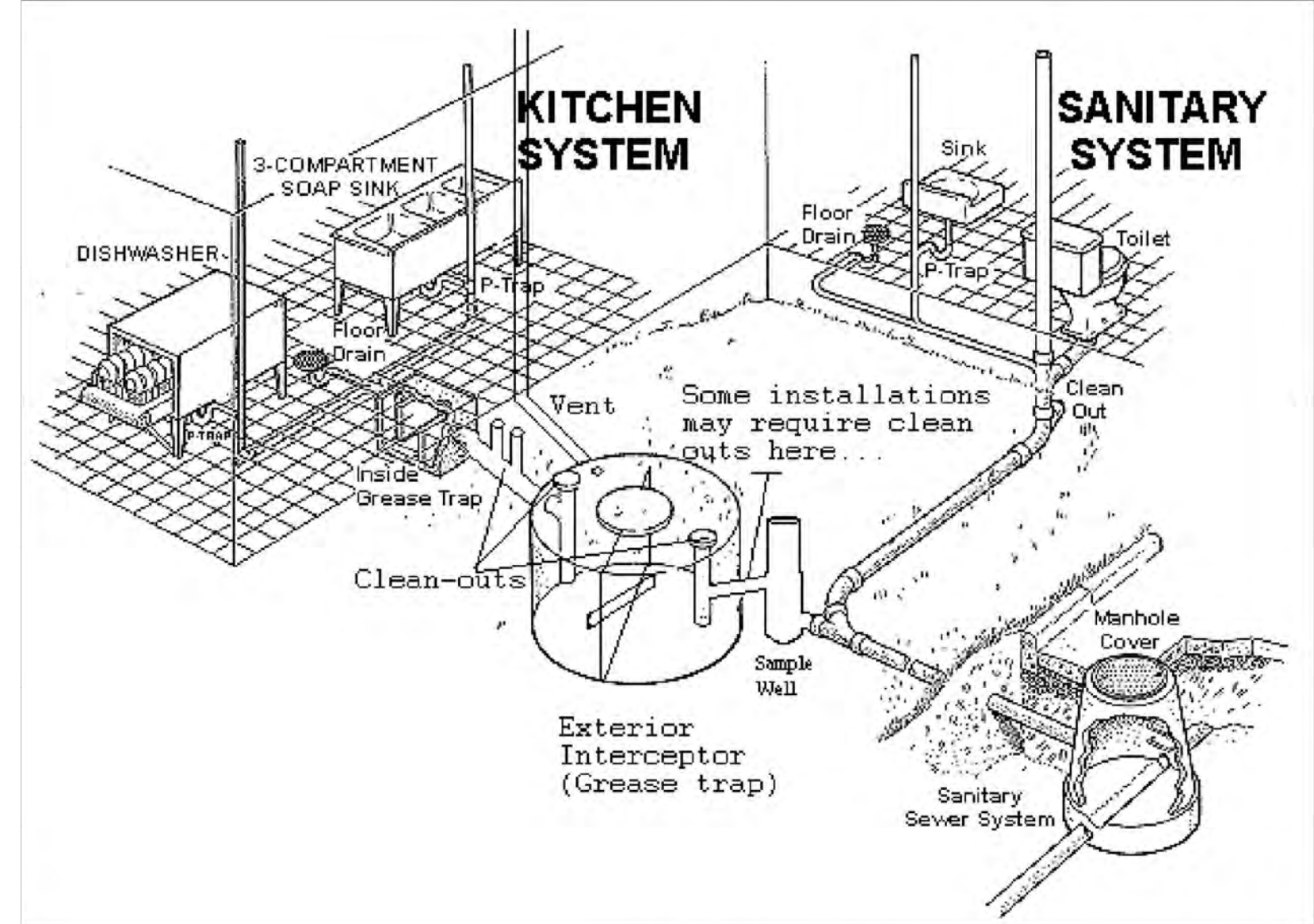




SEWER AIR RELEASE VALVE  
N.T.S.

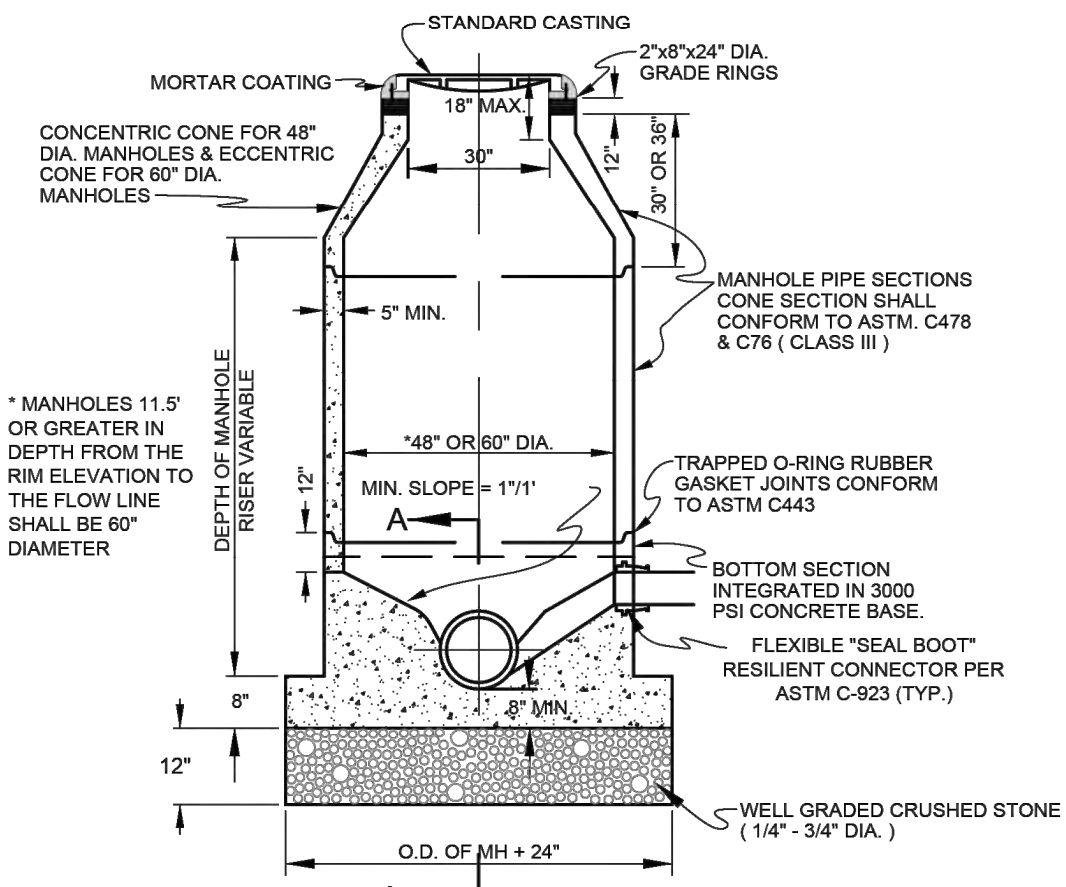


TWO-WAY FORCE MAIN CLEAN-OUT  
N.T.S.

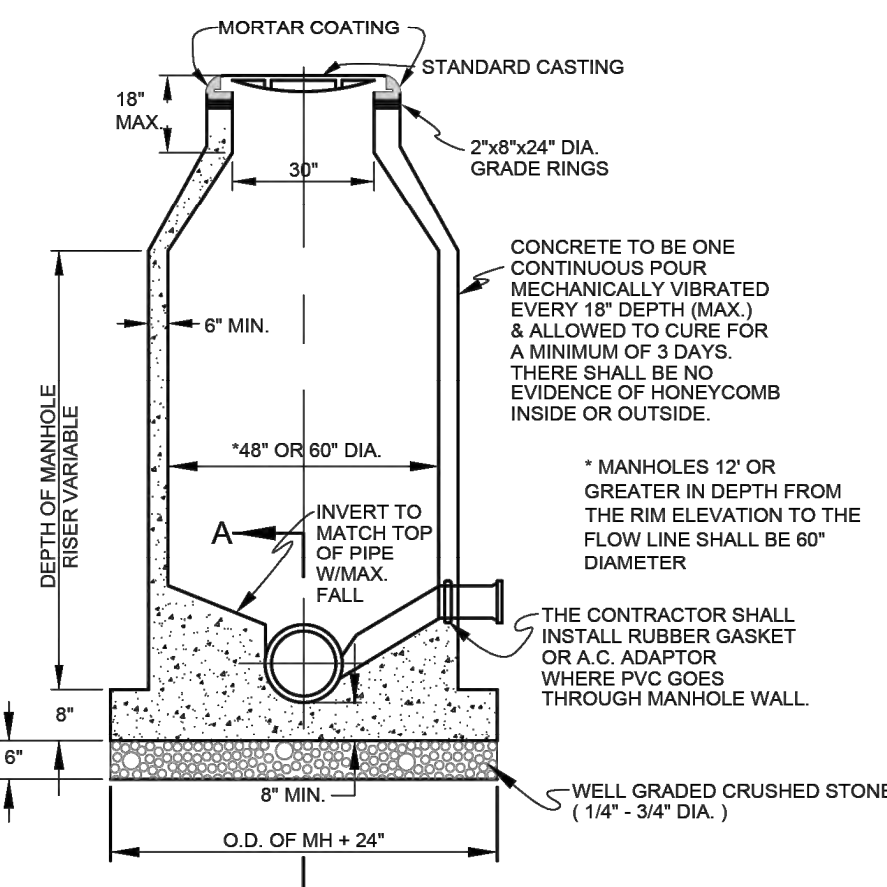


Typical Plumbing Layout  
N.T.S.

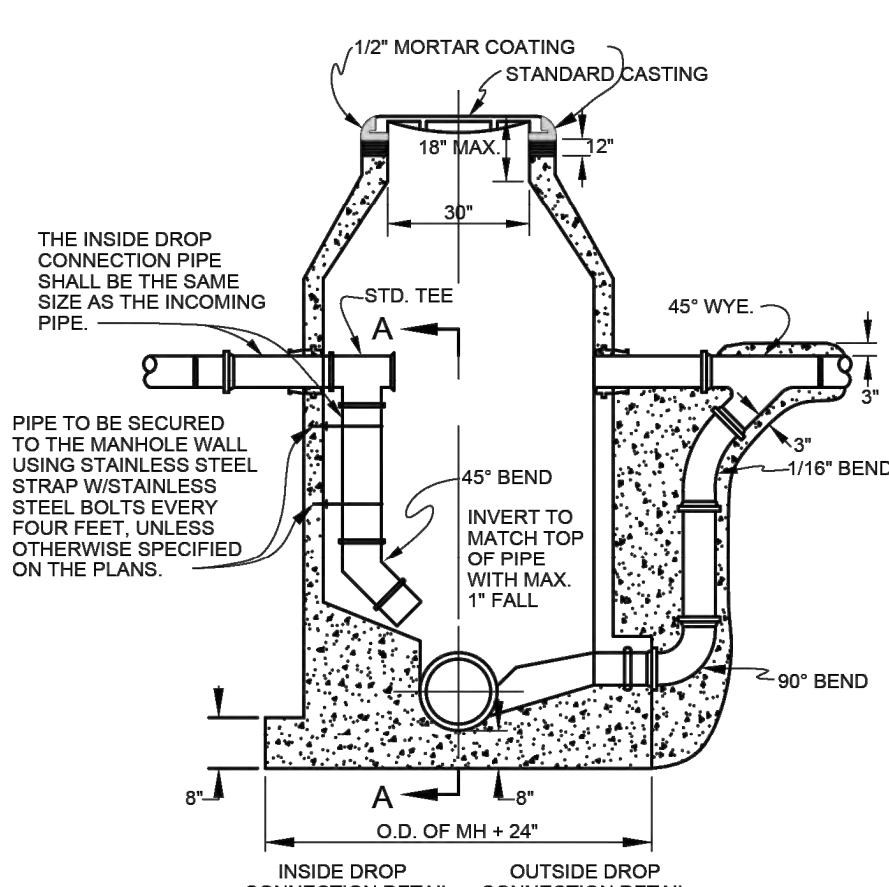
NOTE: MUSTANG SPECIAL UTILITY DISTRICT REQUIRES RESTAURANTS, FOOD PROCESSING FACILITIES, AUTOMOTIVE REPAIR FACILITIES, CAR WASHES, COMMERCIAL LAUNDRIES, AND ALL OTHER FACILITIES THAT THE DISTRICT DEEMS NECESSARY TO INSTALL AND MAINTAIN GREASE OR GRIT TRAPS. IT IS THE RESPONSIBILITY OF THE GENERATORS TO ENSURE THAT THEIR GREASE TRAPS, AND THE WASTEWATER DISCHARGED FROM THEM, ARE IN COMPLIANCE WITH ALL DISTRICT REQUIREMENTS.



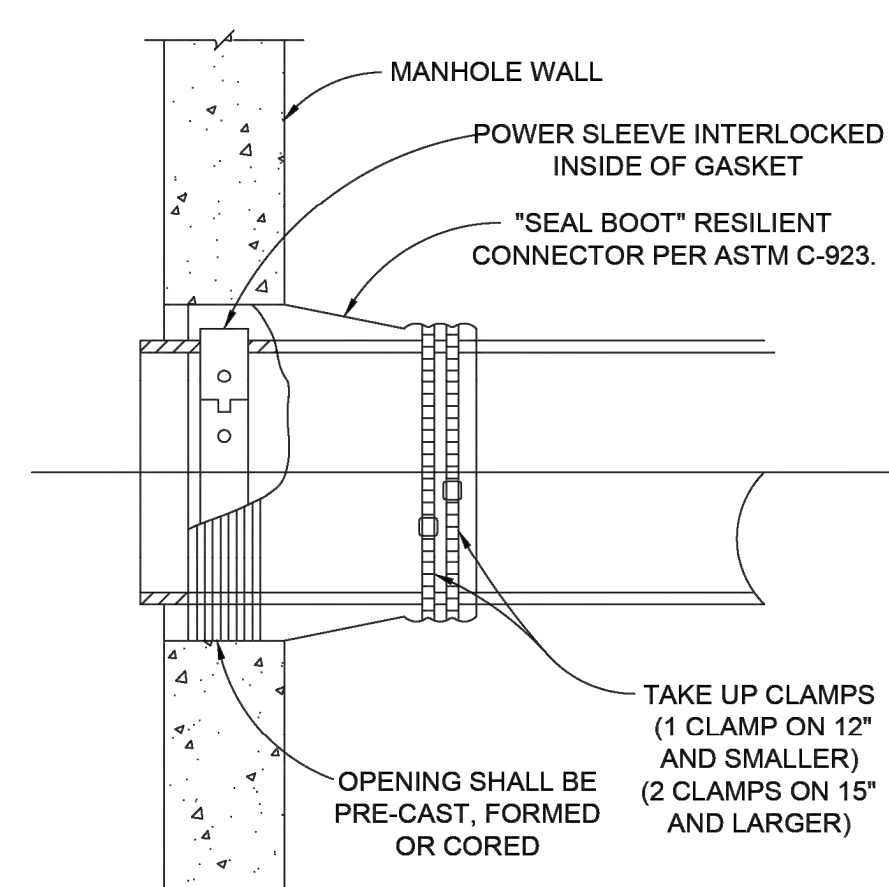
PRECAST CONCRETE MANHOLE  
N.T.S. SEE CONCRETE MANHOLE NOTES.



POURED IN PLACE CONCRETE MANHOLE  
N.T.S. SEE CONCRETE MANHOLE NOTES.



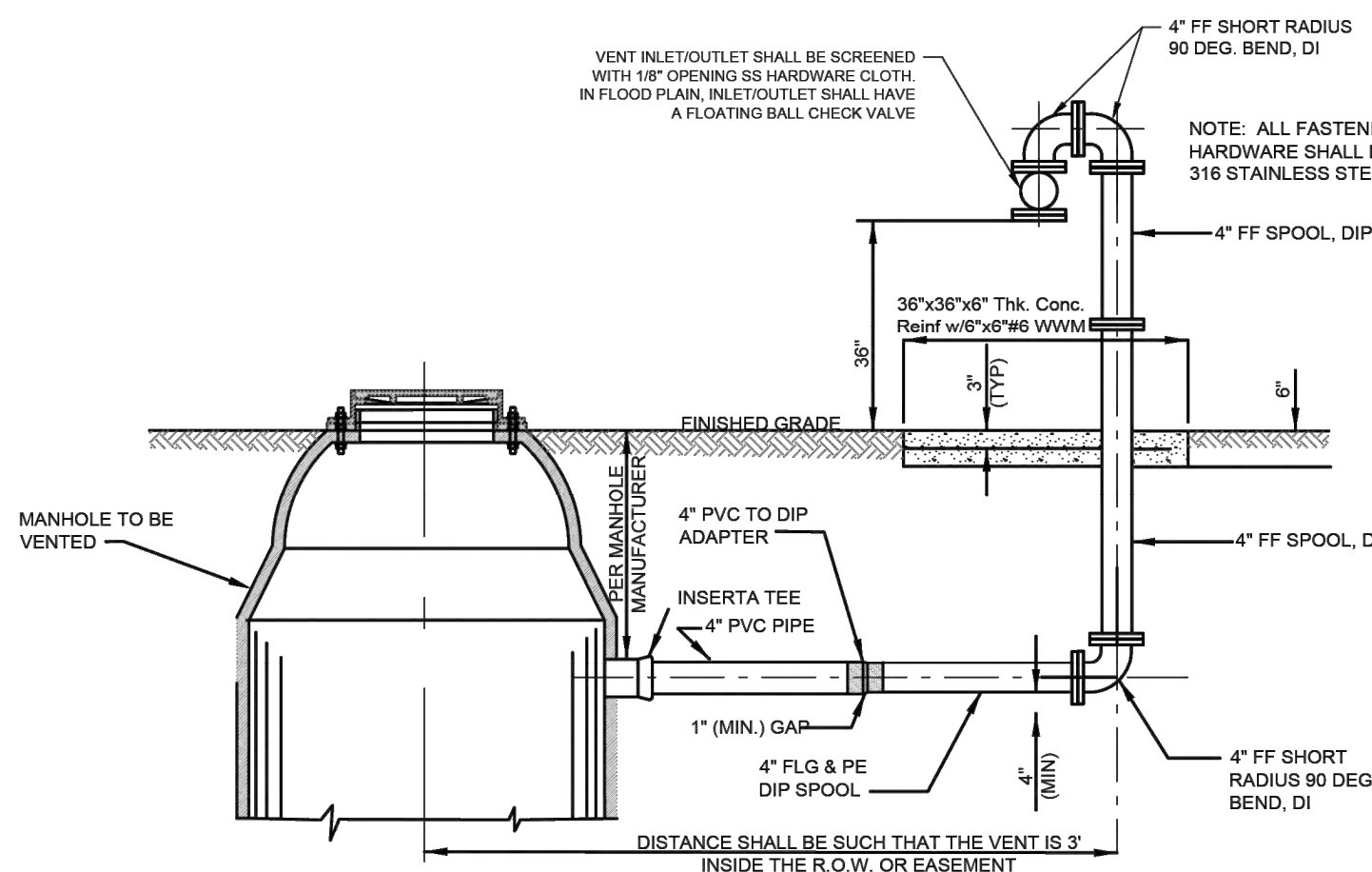
STANDARD DROP CONNECTION TO MANHOLE  
N.T.S. SEE CONCRETE MANHOLE NOTES.



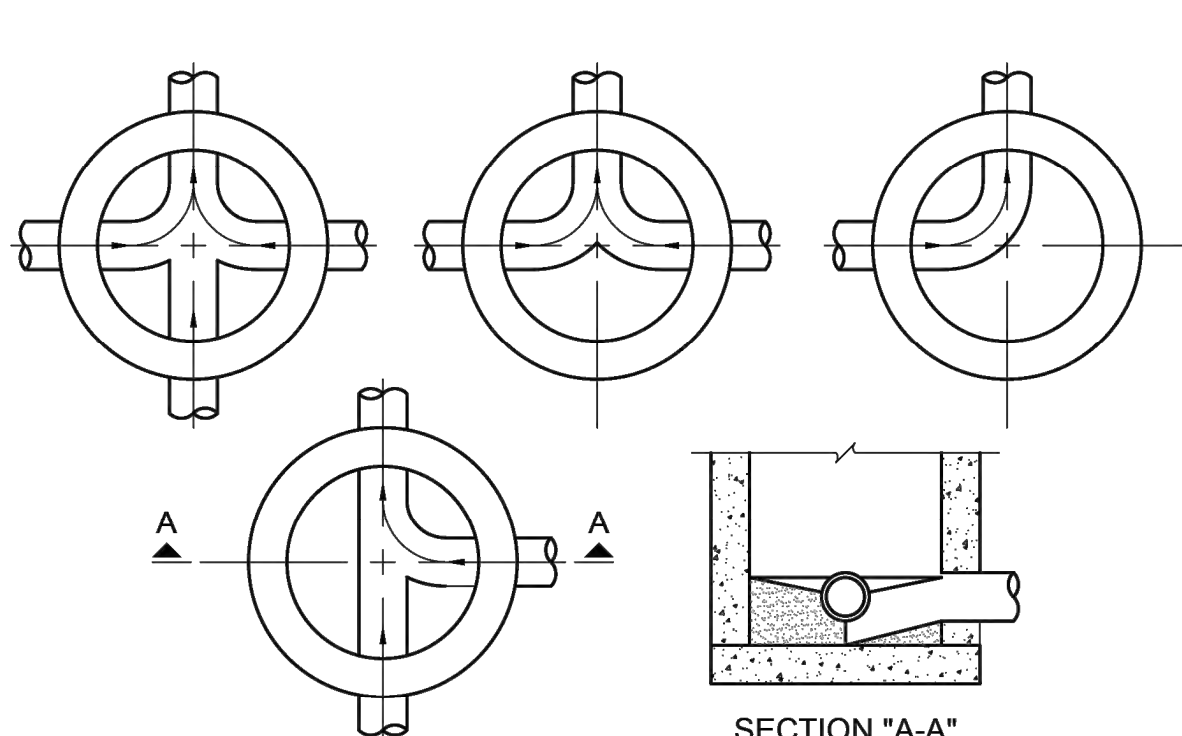
FLEXIBLE "SEAL BOOT" CONNECTOR  
N.T.S.

CONCRETE MANHOLE NOTES:

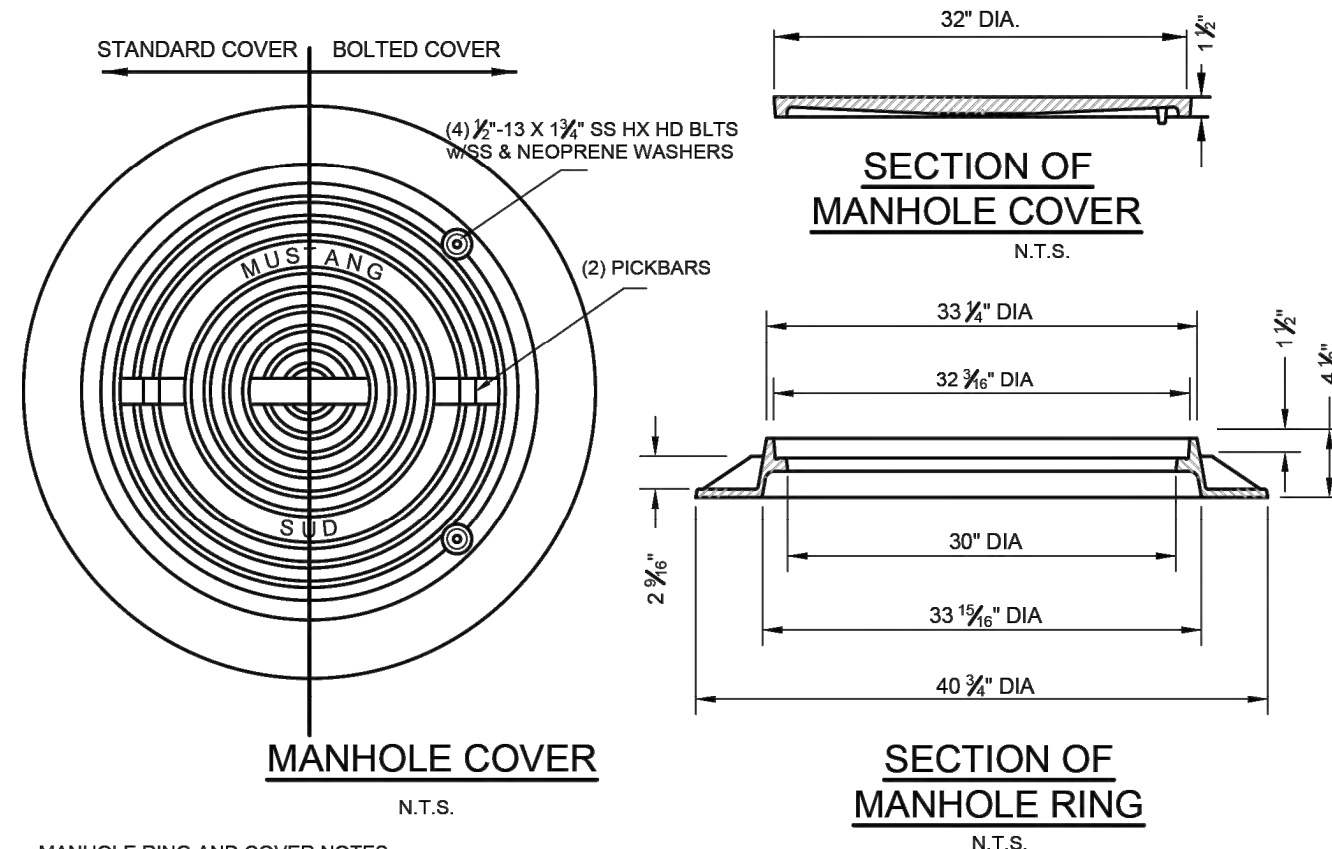
1. CONCRETE FOR ALL PRECAST AND POURED IN PLACE MANHOLES SHALL BE 6.5 SACK, 4200 P.S.I. SULPHATE RESISTANT CONCRETE.
2. THE DIAMETER OF THE CONCRETE BASE SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE MANHOLE PLUS 2 FT.
3. STEPS SHALL NOT BE INSTALLED IN MANHOLE.
4. ALL NEW MANHOLES SHALL BE MARKED WITH "MH" STAMPED OR CUT IN THE CURB.
5. USE DROP CONNECTIONS WHEN CONNECTING LINE EXCEEDS 24" ABOVE THE MANHOLE FLOWLINE.
6. USE OUTSIDE DROP CONNECTIONS ON ALL NEW MANHOLES.
7. USE INSIDE DROP CONNECTION ON EXISTING MANHOLES ONLY.
8. PROVIDE RAIN PANS INTEGRATED WITH RIM.
9. MANHOLES IN OFFSITE/UNPAVED AREAS SHALL BE SET WITH TOP OF MANHOLE 12" ABOVE FINISHED GRADE (CANNOT BE ACHIEVED WITH GRADE RINGS).
10. MANHOLES IN OFFSITE/UNPAVED AREAS ALL SHALL HAVE TYPE "S" RING AND COVER AND MAINTAIN MINIMUM 12" CLEARANCE WITHOUT GRADE RINGS.
11. ALL MANHOLE LADDERS MUST BE STAINLESS STEEL AND BOLTED IN PLACE.



MANHOLE VENT DETAIL  
N.T.S.



MANHOLE FLOOR PLAN  
N.T.S.



MANHOLE COVER  
N.T.S.

SECTION OF MANHOLE RING  
N.T.S.

NO.	REVISION	BY	DATE



MUSTANG SPECIAL  
UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WASTEWATER STANDARD DETAILS (2 OF 2)

CERTIFICATION: THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.





# PLANNING AND ZONING AGENDA BRIEFING SHEET

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Item 11, Page 1 of 30

Meeting Date:

May 7, 2024

Agenda Item:

Discuss and consider a recommendation to the Town Council on a final plat application for a 1.76 acre parcel located east of 11911 US 380, Cross Roads, Denton County, Texas. (2024-0304-08FPLAT)

Prepared by:

Rodney Patterson, Building Official

Description:

On March 4, 2024, applicant John Linton on behalf of landowner 720 & 380 LTD submitted a final plat application for a 1.76 acre parcel located just to the east of 11911 US 380 also known as Lot 3, Block A, Greenway Cross Roads Addition. The purpose of the plat is to create a single commercial lot for the construction of a Take 5 vehicle maintenance facility. The Town Engineer performed a technical review of the preliminary plat application and construction drawings on March 15, 2024. Comments were sent to the applicant and a subsequent resubmittal was received on March 22, 2024. The Town Engineer provided comments which were forwarded to the applicant on April 2, 2024. Plans were resubmitted on April 8, 2024 and after a final review, the Town Engineer indicated that they had no further comments pending submittal of the closure report and acceptance of the Letter of Map Amendment (LOMA) by FEMA.

Recommended Action:

Staff recommends approval conditioned on receipt of a closure report and approved Letter of Map Amendment by FEMA before the plat may be filed.

Attachments:

Location Map

Engineers Review Comments

Application



# Project Aerial

US 380, East of Rosa's Cafe





## Rodney Patterson

---

**From:** Leigh Hollis <lhollis@halff.com>  
**Sent:** Tuesday, April 9, 2024 10:07 AM  
**To:** Rodney Patterson  
**Cc:** Donna Butler; Kristi Gilbert  
**Subject:** RE: Take 5 Oil Final Plat

### Notice: External Email

Rodney,

We still need the closure report. After that, assuming it all checks out and receipt of the LOMA confirmation, we have no further comments. Thanks!

**Leigh A. Hollis, PE**  
*Senior Vice President*

**Halff**  
**O:** 817.764.7467  
**E:** lhollis@halff.com

---

**From:** Rodney Patterson <r.patterson@crossroadstx.gov>  
**Sent:** Monday, April 8, 2024 3:21 PM  
**To:** Leigh Hollis <lhollis@halff.com>  
**Cc:** Donna Butler <d.butler@crossroadstx.gov>; Kristi Gilbert <k.gilbert@crossroadstx.gov>  
**Subject:** FW: Take 5 Oil Final Plat

Updated plat documents for Take 5. I have prepared the LOMA letter and will send it to her.

Thanks,

Rodney

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

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**From:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>  
**Sent:** Monday, April 8, 2024 3:16 PM  
**To:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>; Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>  
**Cc:** Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Sandra Nadira <[sandra@altargrp.com](mailto:sandra@altargrp.com)>; Austin Haynes <[austin@altargrp.com](mailto:austin@altargrp.com)>; John Linton <[john@altargrp.com](mailto:john@altargrp.com)>; Christopher Scott <[c.scott@altargrp.com](mailto:c.scott@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>  
**Subject:** RE: Take 5 Oil Final Plat

### Notice: External Email



Hi Rodney and Donna,  
Please see final plat updated document for the Town's review.  
We are hoping the amended letter can come our way as well, when the Town's consultant is finished with his research.  
This way we can update the document with the updated LOMA info.  
Please let me know if anything else is needed for the review.  
Thank you,



**Gabby McGinnis,**  
**Associate AIA**

Altar Group  
Architecture | Engineering  
713-534-3490  
[www.altargrp.com](http://www.altargrp.com)

---

**From:** Gabby McGinnis  
**Sent:** Thursday, April 4, 2024 11:02 AM  
**To:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Sandra Nadira <[sandra@altargrp.com](mailto:sandra@altargrp.com)>; Austin Haynes <[austin@altargrp.com](mailto:austin@altargrp.com)>; John Linton <[john@altargrp.com](mailto:john@altargrp.com)>; Christopher Scott <[c.scott@altargrp.com](mailto:c.scott@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>  
**Subject:** RE: Take 5 Oil Final Plat

Hi Rodney,  
We have our plat comments, but as far as drainage please see email from Leigh.  
Our team understands that the only drainage concern pending is the FEMA approval for the LOMA, and if you can provide an update as to when we should expect the amended letter from the Town (if possible to be amended) this is the only item needed to be resubmitted to FEMA.  
Can we set up a call to discuss with you on this on Monday morning?  
We just want to make sure we are relating the correct information to our client and project when we are able to continue the final plat review.  
The plat comments have been sent to our survey team and I should have the updated document by Monday as well.  
Thank you,



**Gabby McGinnis,**  
**Associate AIA**

Altar Group  
Architecture | Engineering  
713-534-3490  
[www.altargrp.com](http://www.altargrp.com)



**From:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Sent:** Thursday, April 4, 2024 7:53 AM  
**To:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>  
**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Sandra Nadira <[sandra@altargrp.com](mailto:sandra@altargrp.com)>; Austin Haynes <[austin@altargrp.com](mailto:austin@altargrp.com)>; John Linton <[john@altargrp.com](mailto:john@altargrp.com)>; Christopher Scott <[c.scott@altargrp.com](mailto:c.scott@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>  
**Subject:** RE: Take 5 Oil Final Plat

Yes, you may reach out to the engineer directly if you have questions concerning the comments.

Thanks,

Rodney

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

**From:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>  
**Sent:** Wednesday, April 3, 2024 2:08 PM  
**To:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Sandra Nadira <[sandra@altargrp.com](mailto:sandra@altargrp.com)>; Austin Haynes <[austin@altargrp.com](mailto:austin@altargrp.com)>; John Linton <[john@altargrp.com](mailto:john@altargrp.com)>; Christopher Scott <[c.scott@altargrp.com](mailto:c.scott@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>  
**Subject:** RE: Take 5 Oil Final Plat

**Notice:** External Email

Hi Rondey,  
 Thank you so much for sending these our way.  
 Do you happen to know when the town's consultant may be able to be out on site for the no fill letter update?  
 Can you also let me know if it's acceptable to reach out to the engineers for pending comments on their drainage concerns? Or if you can provide clarification on that, we'd appreciate it.  
 Thank you,



**Gabby McGinnis,**  
**Associate AIA**

Altargroup  
 Architecture | Engineering  
 713-534-3490  
[www.altargrp.com](http://www.altargrp.com)

**From:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>  
**Sent:** Tuesday, April 2, 2024 1:14 PM  
**To:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>



**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>

**Subject:** FW: Take 5 Oil Final Plat

See updated comments from the Town Engineer.

Thanks,

Rodney

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

---

**From:** Leigh Hollis <[lhollis@halff.com](mailto:lhollis@halff.com)>

**Sent:** Monday, April 1, 2024 2:33 PM

**To:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>

**Cc:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>

**Subject:** RE: Take 5 Oil Final Plat

**Notice:** External Email

Rodney,

Please see attached markups on the Take 5 Oil final plat. There are no additional comments on the construction plans. Please let me know if you have any questions or need anything else. Thanks!

---

>

**Sent:** Friday, March 22, 2024 2:11 PM

**To:** Leigh Hollis <[lhollis@halff.com](mailto:lhollis@halff.com)>

**Cc:** Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>

**Subject:** FW: Take 5 Oil Final Plat

Leigh, here's the latest revisions from Take 5 Oil. They didn't include the plat, stating it would be sent later.

Donna Butler, TRMC

Town Secretary

Town of Cross Roads

[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)

Office: 940-365-9693 ext. 301

Cell: 940-365-6443

**Town Hall and Municipal Court Business Hours:**  
**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

ATTENTION: Please note any correspondence, such as e-mail or letters, sent to Town Staff or Town Officials may become a public record and made available for Public/Media review.

PUBLIC OFFICIALS: A "Reply to All" of this e-mail may lead to violations of the Texas Open Meetings Act. Please reply only to the sender.



**Leigh A. Hollis, PE**  
Senior Vice President

**Halff**  
O: 817.764.7467  
E: [lhollis@halff.com](mailto:lhollis@halff.com)

---

**From:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>  
**Sent:** Friday, March 22, 2024 1:52 PM  
**To:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>  
**Cc:** John Linton <[john@altargrp.com](mailto:john@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>; [Rodney@evergreendesigngroup.com](mailto:Rodney@evergreendesigngroup.com); Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>; Christopher Scott <[c.scott@altargrp.com](mailto:c.scott@altargrp.com)>; Sandra Nadira <[sandra@altargrp.com](mailto:sandra@altargrp.com)>; Austin Haynes <[austin@altargrp.com](mailto:austin@altargrp.com)>  
**Subject:** RE: Take 5 Oil Final Plat

**Notice:** External Email

Hi Donna,  
 I am awaiting the final plat document from our survey team and will update you once we receive it.  
 Please see our updated Civil set as well as comment responses for our final plat submittal.  
 I will send a link with the attached and updated plat document shortly.  
 Do I need to send hard copies to the town on this?  
 Thank you and hope you have a great weekend!



**Gabby McGinnis,**  
Associate AIA  
 Altar Group  
 Architecture | Engineering  
 713-534-3490  
[www.altargrp.com](http://www.altargrp.com)

---

**From:** John Linton <[john@altargrp.com](mailto:john@altargrp.com)>  
**Sent:** Friday, March 15, 2024 5:05 PM  
**To:** Gabby McGinnis <[gabby@altargrp.com](mailto:gabby@altargrp.com)>; Rafael Ruiz <[rafael@altargrp.com](mailto:rafael@altargrp.com)>  
**Subject:** FW: Take 5 Oil Final Plat



**John D. Linton, AIA**  
 Altar Group  
 Architecture | Engineering  
 713-248-7752

---

**From:** Donna Butler <[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)>  
**Sent:** Friday, March 15, 2024 3:18 PM



**To:** John Linton <[john@altargrp.com](mailto:john@altargrp.com)>

**Cc:** Rodney Patterson <[r.patterson@crossroadstx.gov](mailto:r.patterson@crossroadstx.gov)>; Kristi Gilbert <[k.gilbert@crossroadstx.gov](mailto:k.gilbert@crossroadstx.gov)>

**Subject:** Take 5 Oil Final Plat

You don't often get email from [d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov). [Learn why this is important](#)

John, here is the link to the Town Engineer's comments on the final plat submittal for Take 5

Oil: <https://files.half.com/wl/?id=ckBrnE1kav4dQnMyHblhYA1YV5qHJdNJ>.

Donna Butler, TRMC

Town Secretary

Town of Cross Roads

[d.butler@crossroadstx.gov](mailto:d.butler@crossroadstx.gov)

Office: 940-365-9693 ext. 301

Cell: 940-365-6443

**Town Hall and Municipal Court Business Hours:**

**Monday – Thursday; 8:30 a.m. to 5:00 p.m.**

[ATTENTION: Please note any correspondence, such as e-mail or letters, sent to Town Staff or Town Officials may become a public record and made available for Public/Media review.](#)

[PUBLIC OFFICIALS: A "Reply to All" of this e-mail may lead to violations of the Texas Open Meetings Act. Please reply only to the sender.](#)



# TOWN OF CROSS ROADS PLATTING APPLICATION



DATE: \_\_\_\_\_

APPLICATION # \_\_\_\_\_

PROJECT: \_\_\_\_\_

Completed applications will be considered received on  
the due date specified on the yearly Submission Schedule.  
**PLEASE VERIFY MEETING DATES.**

## TYPE OF PLAT

Preliminary \_\_\_\_\_ Replat \_\_\_\_\_  
Final \_\_\_\_\_ Administrative/Amending \_\_\_\_\_

## PLEASE SPECIFY THE PRIMARY CONTACT

Land Owner Name 720 + 380, Ltd.  
by: TODD PETTY VP of GP

Signature 

Applicant Name \_\_\_\_\_

Signature 

Project Contact Mailing Address \_\_\_\_\_

Project Contact Phone \_\_\_\_\_

Email \_\_\_\_\_

Proposed Project Name \_\_\_\_\_

Location \_\_\_\_\_

Lot/Block \_\_\_\_\_

Abstract \_\_\_\_\_

DCAD ID \_\_\_\_\_

Number of Lots Created \_\_\_\_\_

## REQUIRED SUBMISSION DOCUMENTS

Fee \_\_\_\_\_

Legal Description \_\_\_\_\_

Location Map \_\_\_\_\_

Drawings (1 full, 2 half) \_\_\_\_\_

Site Plan (Commercial) \_\_\_\_\_

Electronic copy of application \_\_\_\_\_

Electronic copy of drawings \_\_\_\_\_

OTHER (Specify) \_\_\_\_\_

## APPLICATION EXPLANATION

Explanation and Description of Request or Project

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Before submitting an application, the applicant should consult with the Town Administrator to discuss the feasibility of the request and any additional requirements.





## Town of Cross Roads

3201 US 380, STE 105 • Cross Roads, Texas 76227 • 940.365.9693

### PROFESSIONAL SERVICES DEPOSIT INFORMATION

All submissions requiring the services of the Town Civil Engineer and/or the Town Attorney, including, but not limited to platting, construction plans and planned development applications, will be required to place a Professional Services Deposit at the time of project submission per Town of Cross Roads Code of Ordinances, Chapter 10, Article 9 FILING FEES AND CHARGES:

#### Sec. 10.09.001 Fee structure

- (a) The town shall determine the base fees and charges for plat review. The town council shall adopt a fee schedule.
- (b) Fees shall be charged on all plats, regardless of action taken by the planning and zoning commission and whether the plat is approved or denied by the town council.
- (c) If the amount deposited is less than the actual cost of reviewing and processing the plat, the balance shall be collected before final consideration of the plat. An administrative fee equal to fifteen percent (15%) of the total of the application fee and processing costs in excess of the original fee will be charged.
- (d) The town may also assess against the applicant, developer or subdivider additional costs incurred by the town for engineering fees and legal fees associated with the review and consideration of a plat in the amount incurred by the town. The payment of these additional fees shall be a condition of plat approval or a prerequisite to the acceptance of any improvements or the issuance of any building permits.

#### Sec. 10.09.002 Procedure

All fees or charges shall be paid in advance and no action of the planning and zoning commission or any other board or agency shall be valid until the fee or charge has been paid to the town.

Applicants will be billed monthly for any professional services incurred in the previous month. The professional services deposit made at time of submission will be in an amount as indicated on the Town's fee schedule and will be used towards the last invoice incurred for the project. Applicant will be billed if last invoice exceeds the Professional Services Deposit. Any remaining balance upon project and invoice completion will be refunded to the applicant.

#### PROFESSIONAL SERVICES CONTACT INFORMATION

Name: \_\_\_\_\_  
Email: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
Project: \_\_\_\_\_

I have read and acknowledge the Professional Services Deposit Process.

*Gabby McGinnis*

Applicant's Signature

\_\_\_\_\_ Date

**Town of Cross Roads' Use Only**

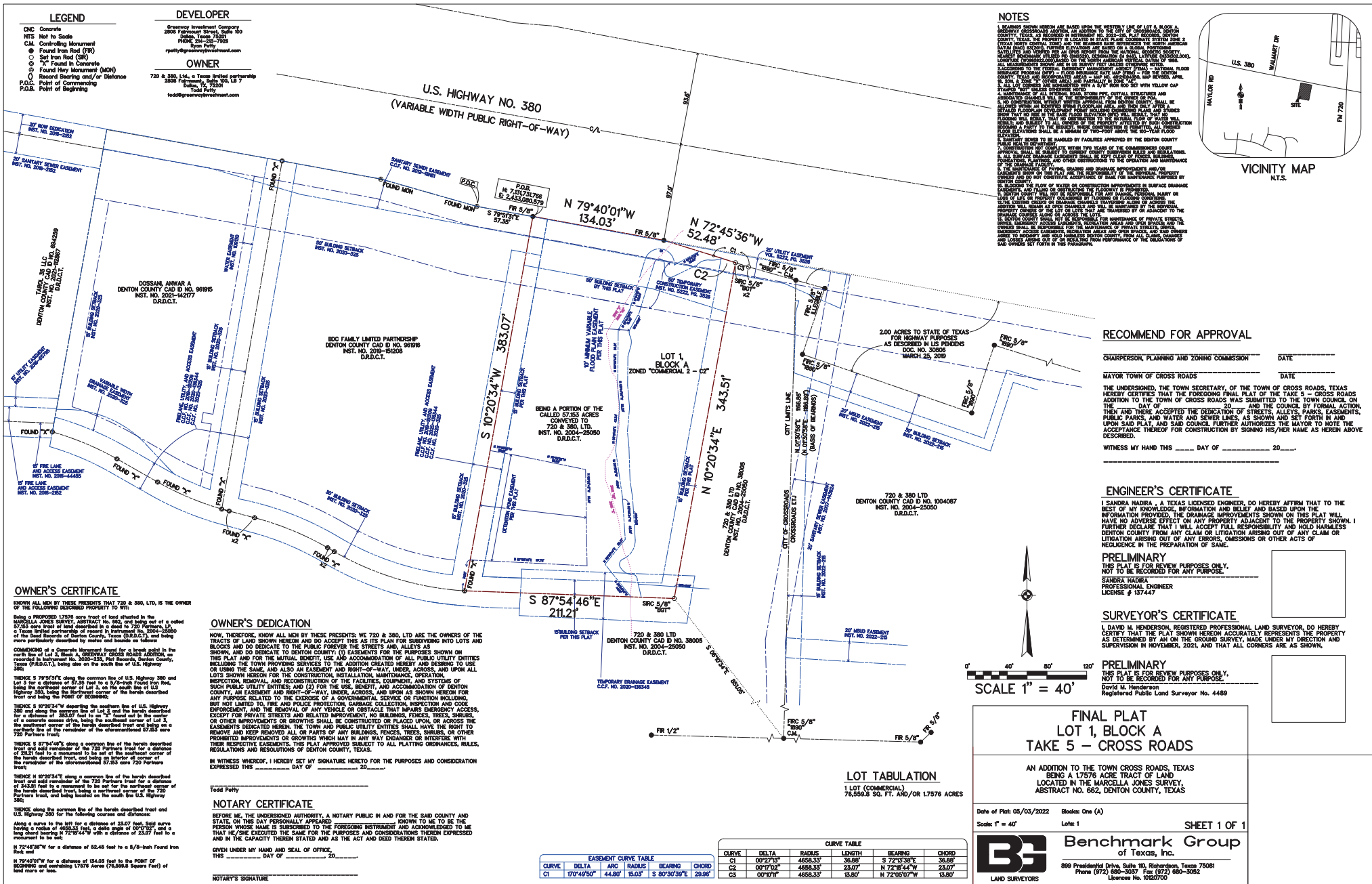
Date completed application received: \_\_\_\_\_

Amount Deposited: \_\_\_\_\_

Receipt Number: \_\_\_\_\_

Professional Services Deposit Number: \_\_\_\_\_







PERMIT DOCUMENTS

FOR

# TAKE 5 OIL CHANGE

US HWY 380  
CROSS ROADS, TX 76227

MARCH 2024

**OWNER:**  
DRIVEN BRANDS, INC  
CHURCH STREET, SUITE 700  
CHARLOTTE, NC 28202  
CONTACT: FAITH BURNETT  
PHONE: 980-224-4537  
E-MAIL: FAITH.BURNETT@DRIVENBRANDS.COM

**ARCHITECT:**  
ALTAR GROUP, PLLC  
PO BOX 1305  
CYPRESS, TX 77410  
CONTACT: JOHN LINTON  
PHONE: 713-248-7752  
E-MAIL: JOHN@ALTARGRP.COM

**CIVIL ENGINEER:**  
ALTAR GROUP, PLLC  
PO BOX 1305  
CYPRESS, TEXAS 77410  
CONTACT: AUSTIN HAYNES  
PHONE: 281-794-3015  
E-MAIL: AUSTIN@ALTARGRP.COM

**SURVEYOR:**  
BENCHMARK GROUP OF TEXAS  
899 PRESIDENTIAL DRIVE, SUITE 110,  
RICHARDSON, TX 75081  
PHONE: 972-680-3037  
E-MAIL: COMMBGT@GMAIL.COM

**GEOTECHNICAL ENGINEER:**  
TERRACON CONSULTANTS, INC  
FORT WORTH, TEXAS  
PROJECT NUMBER: 95235047  
REPORT DATE: MAY 25, 2023



LOCATION MAP  
SCALE : 1" = 5,000'



VICINITY MAP  
SCALE : 1" = 1,000'

Sheet Number	Sheet Title
	PRELIMINARY PLAT
C-001	COVER SHEET
C-002	GENERAL CONSTRUCTION NOTES
	SURVEY
C-030	DEMO PLAN
C-100	SITE PLAN
C-130	EROSION AND SEDIMENT CONTROL PLAN
C-131	EROSION AND SEDIMENT CONTROL PLAN DETAILS
C-200	PAVING PLAN
C-300	GRADING PLAN
C-400	DRAINAGE PLAN
C-401	EXISTING VS PROPOSED DRAINAGE PLAN
C-402	DRAINAGE CALCULATIONS
C-500	UTILITY PLAN
C-501	SEWER PROFILES
C-502	STORM PROFILES
C-510	SITE PLAN DETAILS
C-520	PAVING DETAILS
C-530	DRAINAGE DETAILS
C-540	UTILITY DETAILS
LP-1	LANDSCAPE PLANTING
L-2	LANDSCAPE PLANTING DETAILS AND SPECS
TD	TREE DISPOSITION
TD-2	TREE DISPOSITION DETAILS AND SPECS



**FLOOD PLAIN STATEMENT:**

ACCORDING TO MAP NO. 48121C0405G OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAPS FOR DENTON COUNTY, TEXAS, AND INCORPORATED AREAS DATED APRIL 18, 2011, THE SUBJECT TRACT IS SITUATED WITHIN ZONE X (AREAS OF MODERATE TO MINIMAL FLOOD HAZARD) AND PARTIALLY IN ZONE AE (AREAS THAT PRESENT A 1% ANNUAL CHANCE OF FLOODING). SFE-959, LOMR 12-08-0589P.



PO BOX 1305  
CYPRESS, TEXAS 77410





15. **SURVEYING:** ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DEVELOPER SHALL PROVIDE THE PROPERTY CORNERS AND TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEYOR TO PERFORM ALL ADDITIONAL

26. **PARKING OF CONSTRUCTION EQUIPMENT:** AT NIGHT AND DURING ALL OTHER PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS APPROVED BY THE DEVELOPER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE DEVELOPER, THE GOVERNING AUTHORITIES, THE PUBLIC, ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE

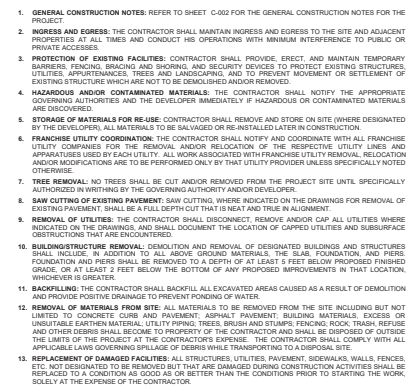
AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THESE RECORD PRINTS WILL BE REVIEWED BY THE DEVELOPER EACH MONTH PRIOR TO THE PRELIMINARY REVIEW OF CONTRACTOR'S REQUEST FOR PAYMENT. IF THE DRAWINGS ARE NOT COMPLETE, ACCURATE AND UP-TO DATE, THE DEVELOPER WILL NOT ACCEPT THE PAYMENT REQUEST. THE COMPLETED SET OF "RECORD" DRAWINGS MUST BE DELIVERED TO THE DEVELOPER BEFORE REQUESTING FINAL PAYMENT.

C-002

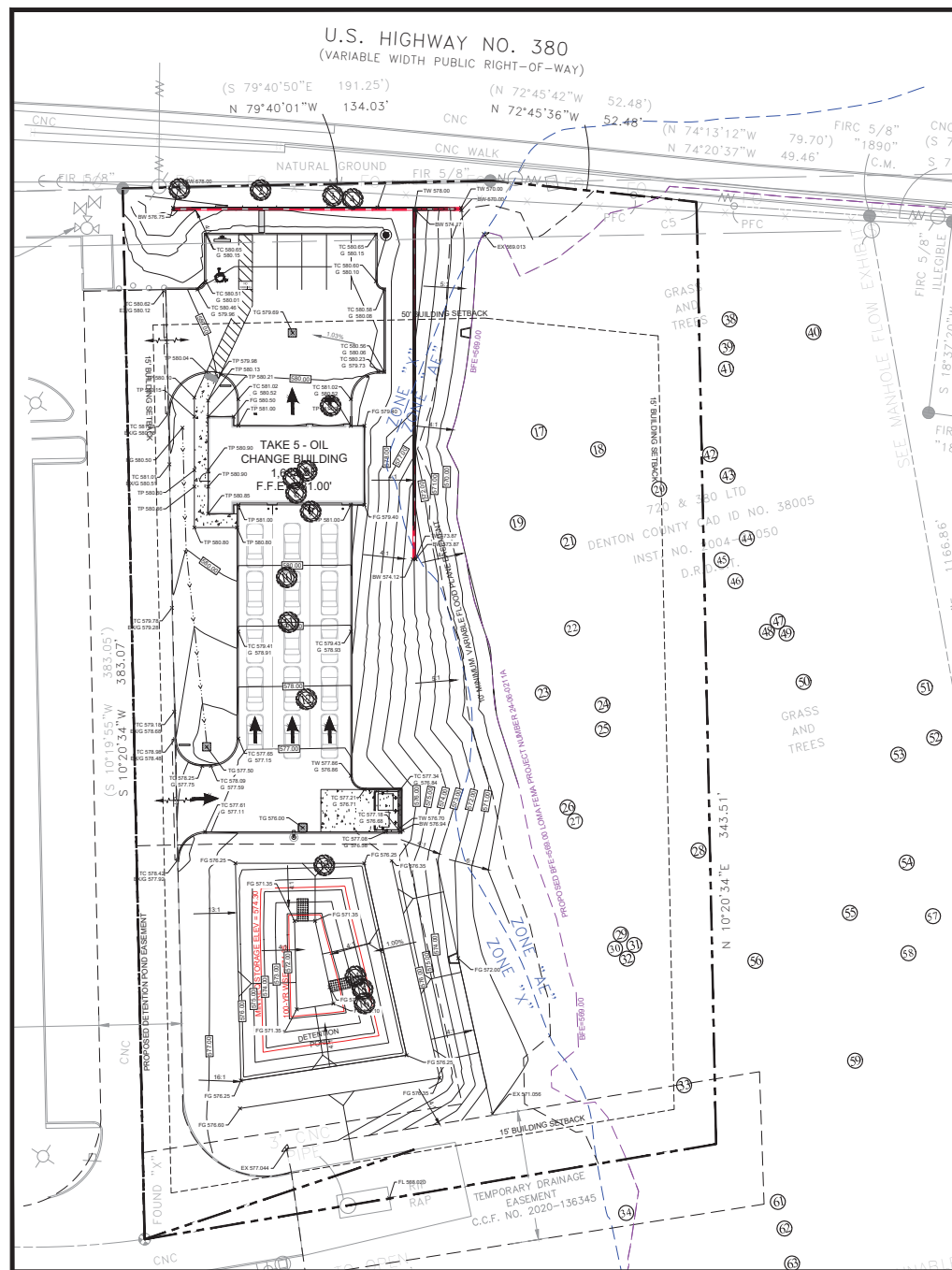








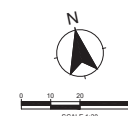




TREE DEMOLITION PERMIT		
EXISTING TREE TO BE REMOVED		
TREES TO BE REMOVED		
TREE #	SPECIES	SIZE
1	ELM	21"
2	ELM	13"
3	PORT OAK	12"
4	PORT OAK	13"
5	PORT OAK	14"
6	ELM	9"
7	ELM	9"
8	ELM	5"
9	ELM	17"
10	ELM	10"
11	ELM	10"
12	ELM	14"
13	ELM	16"
14	ELM	17"
15	ELM	14"
16	ELM	17"

TREE #	SPECIES	SIZE
17	ELM	11"
18	ELM	13"
19	ELM	24"
20	PECAN	20"
21	ELM	23"
22	PECAN	28"
23	ELM	13"
24	ELM	10"
25	ELM	10"
26	ELM	23"
27	JUNPER	7"
28	PECAN	14"
29	ELM	12"
30	PORT OAK	12"
31	ELM	9"
32	ELM	9"
33	ELM	17"
34	PECAN	28"
35	PECAN	30"
36	PORT OAK	14"
37	PECAN	30"
38	ELM	13"
39	ELM	11"
40	PECAN	12"
41	ELM	19"
42	PERMISSUM	10"
43	ELM	22"
44	PECAN	16"
45	PECAN	21"
46	PECAN	16"
47	ELM	15"
48	ELM	10"
49	ELM	14"
50	ELM	17"
51	ELM	18"
52	ELM	16"
53	ELM	18"
54	ELM	16"
55	ELM	13"
56	ELM	16"
57	PECAN	20"
58	PECAN	22"
59	ELM	12"
60	PECAN	21"
61	ELM	10"
62	ELM	13"
63	ELM	15"



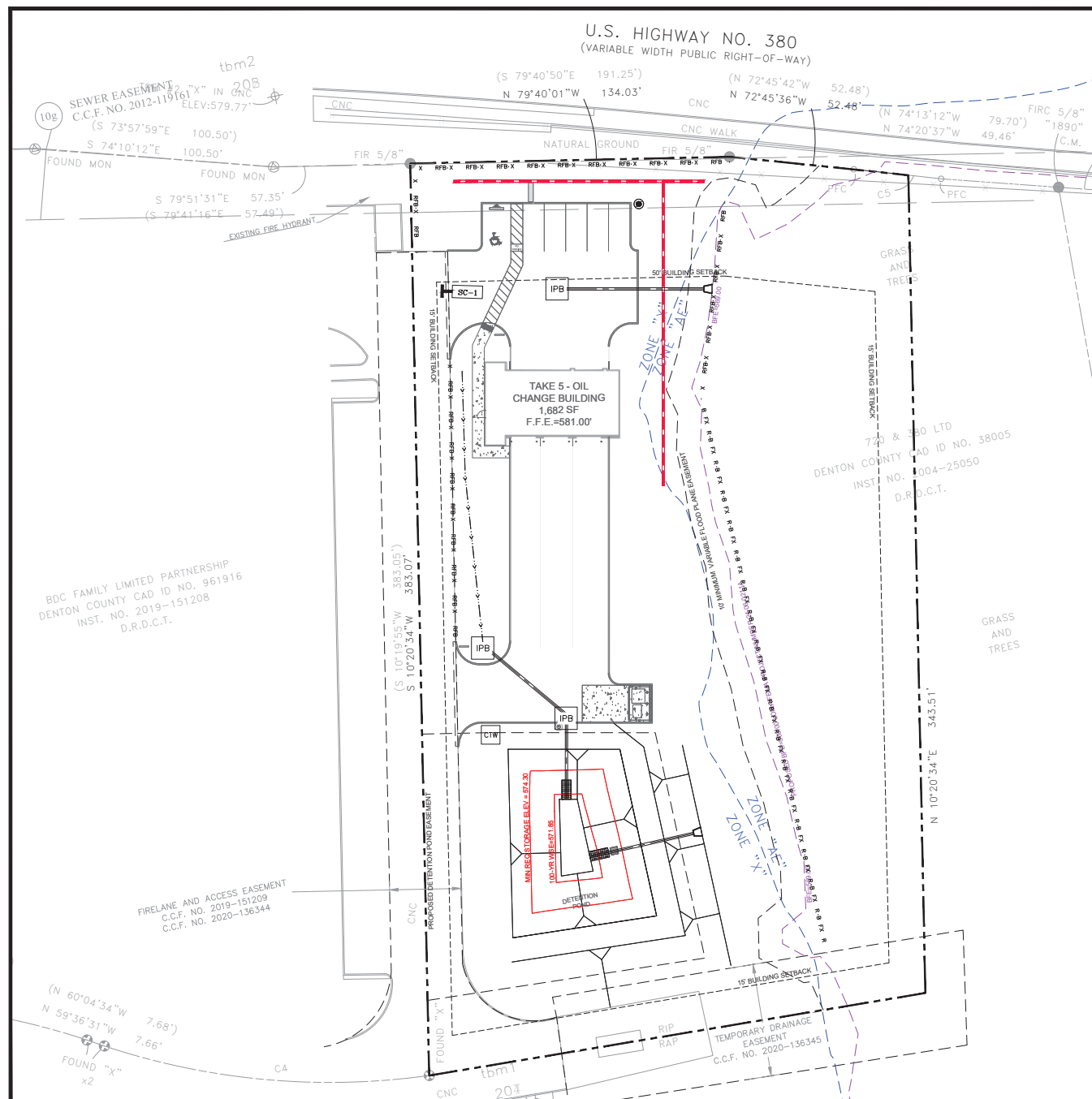


TREE #	SPECIES	SIZE
1	LAUREL	12"
2	LAUREL	12"
3	LAUREL	12"
4	LAUREL	12"
5	LAUREL	12"









LEGEND

- | X RFB   |  | FILTER FABRIC FENCE                         |
|---|--|---|
|  |  | CONSTRUCTION ENTRANCE                       |
|  |  | CONCRETE TRUCK WASHOUT                      |
|  |  | INLET PROTECTION BARRIER (SEE SWPPP NOTE 6) |

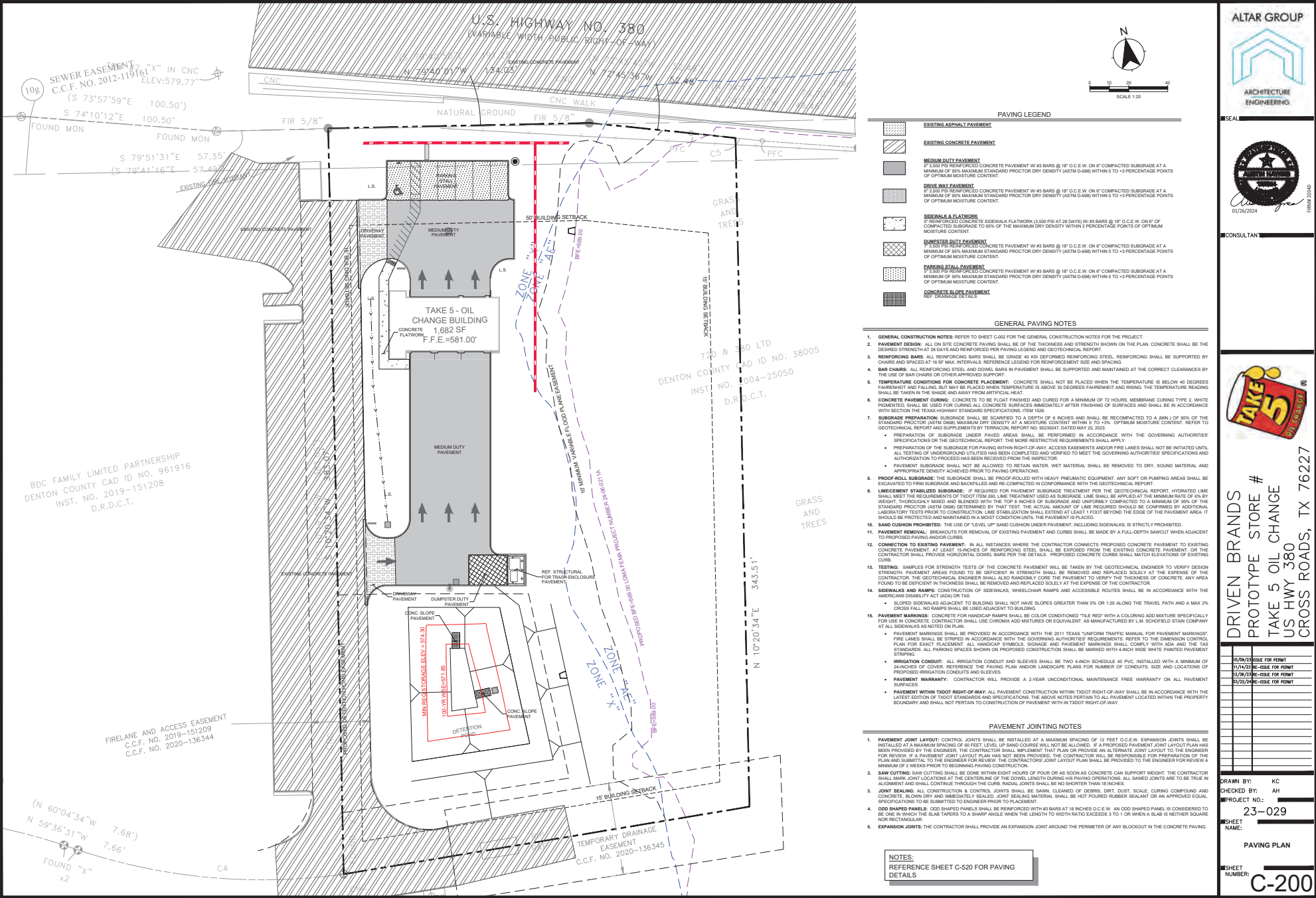
## SWPPP NOTES

- |    |   |
|----|---|
| 1. | REFERENCE EROSION AND SEDIMENT CONTROL DETAILS SHEET C-131 FOR INSTALLATION INSTRUCTIONS FOR CONTROL FEATURES.  |
| 2. | CONTRACTOR TO PROVIDE CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN AS REQUIRED BY THE LOCAL REGULATIONS.  |
| 3. | TEMPORARY SEEDING SHALL BE APPLIED TO AREAS WHERE ACTIVITY HAS BEEN FOR 14 DAYS OR MORE.  |
| 4. | HYDROMULCHING SHALL BE APPLIED TO DISTURBED AREAS UPON COMPLETION OF CONSTRUCTION ACTIVITIES.   |
| 5. | SEEDING TO BE BROADCAST SEEDING WITH COMBINED COARSE LINER (OR APPROXIMATE EQUIVALENT) OR 800 ANCHORED USING FOUR 6IN BY 1.5IN BY 6MM 1/4 GAUGE "U" STAPLES PER 500 SQ.FOOT FOR DISTURBED AREAS WITH SLOPES OF 3:1 OR STEEPER AND FOR UNDISTURBED AREAS AT TOP OF SLOPES AND SLOPE CHANGES. |
| 6. | UTILIZE BATTLE DUNE (STAGE II) PILES AS CONSTRUCTION DISTURBED AREAS.   |

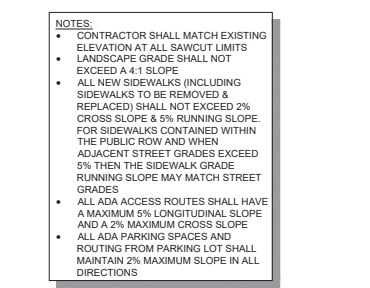


<div><p><b>GENERAL NOTES:</b></p><ol style="list-style-type: none"><li>1. MINIMUM LENGTH (S) AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.</li><li>2. CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.</li><li>3. UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.</li><li>4. WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR ENLARGE STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.</li><li>5. PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.</li><li>6. PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.</li><li>7. MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20' WIDTH FOR TWO WAY TRAFFIC.</li></ol></div>		<div><p><b>GENERAL NOTES:</b></p><ol style="list-style-type: none"><li>1. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.</li><li>2. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.</li><li>3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.</li><li>4. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.</li></ol></div>		<div><p><b>GENERAL NOTES:</b></p><ol style="list-style-type: none"><li>1. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.</li><li>2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.</li></ol></div>		<div><p>ALTAR GROUP</p><p>ARCHITECTURE ENGINEERING</p><p>01/26/2024</p><p>CONSULTANT</p></div>
01	STABILIZED CONSTRUCTION ACCESS	02	REINFORCED FILTER FABRIC BARRIER	03	INLET PROTECTION BARRIERS FOR STAGE II INLETS	<div><p>DRIVEN BRANDS</p><p>PROTOTYPE STORE #</p><p>TAKE 5 OIL CHANGE</p><p>US HWY 380</p><p>CROSS ROADS, TX 76227</p></div>
<div><p><b>GENERAL NOTES:</b></p><ol style="list-style-type: none"><li>1. POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.</li><li>2. VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.</li><li>3. UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR. AFTER REMOVAL OF THE CONCRETE WASTE, THE WASHOUT PIT SHALL BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.</li><li>4. CONCRETE WASHOUT PIT SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER BRULE, DITCH, OR WATERWAY.</li><li>5. CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.</li></ol></div>		<div><p><b>GENERAL NOTES:</b></p><ol style="list-style-type: none"><li>1. FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.</li></ol></div>		<div><p>DRIVEN BRANDS</p><p>PROTOTYPE STORE #</p><p>TAKE 5 OIL CHANGE</p><p>US HWY 380</p><p>CROSS ROADS, TX 76227</p></div>		
04	CONCRETE TRUCK WASHOUT AREA	05	INLET PROTECTION BARRIERS FOR STAGE I INLETS	<div><p>DRIVEN BRANDS</p><p>PROTOTYPE STORE #</p><p>TAKE 5 OIL CHANGE</p><p>US HWY 380</p><p>CROSS ROADS, TX 76227</p></div>		

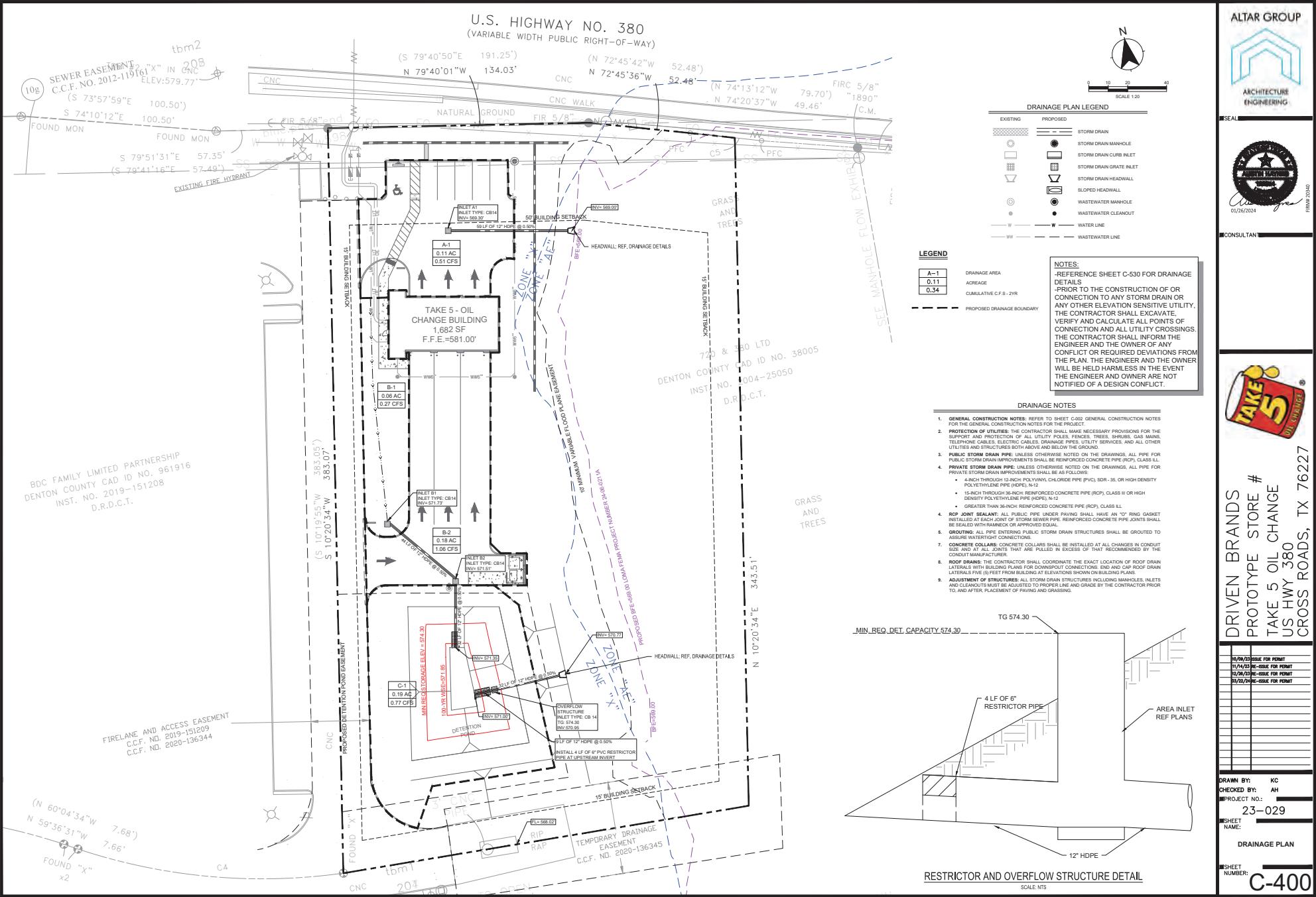








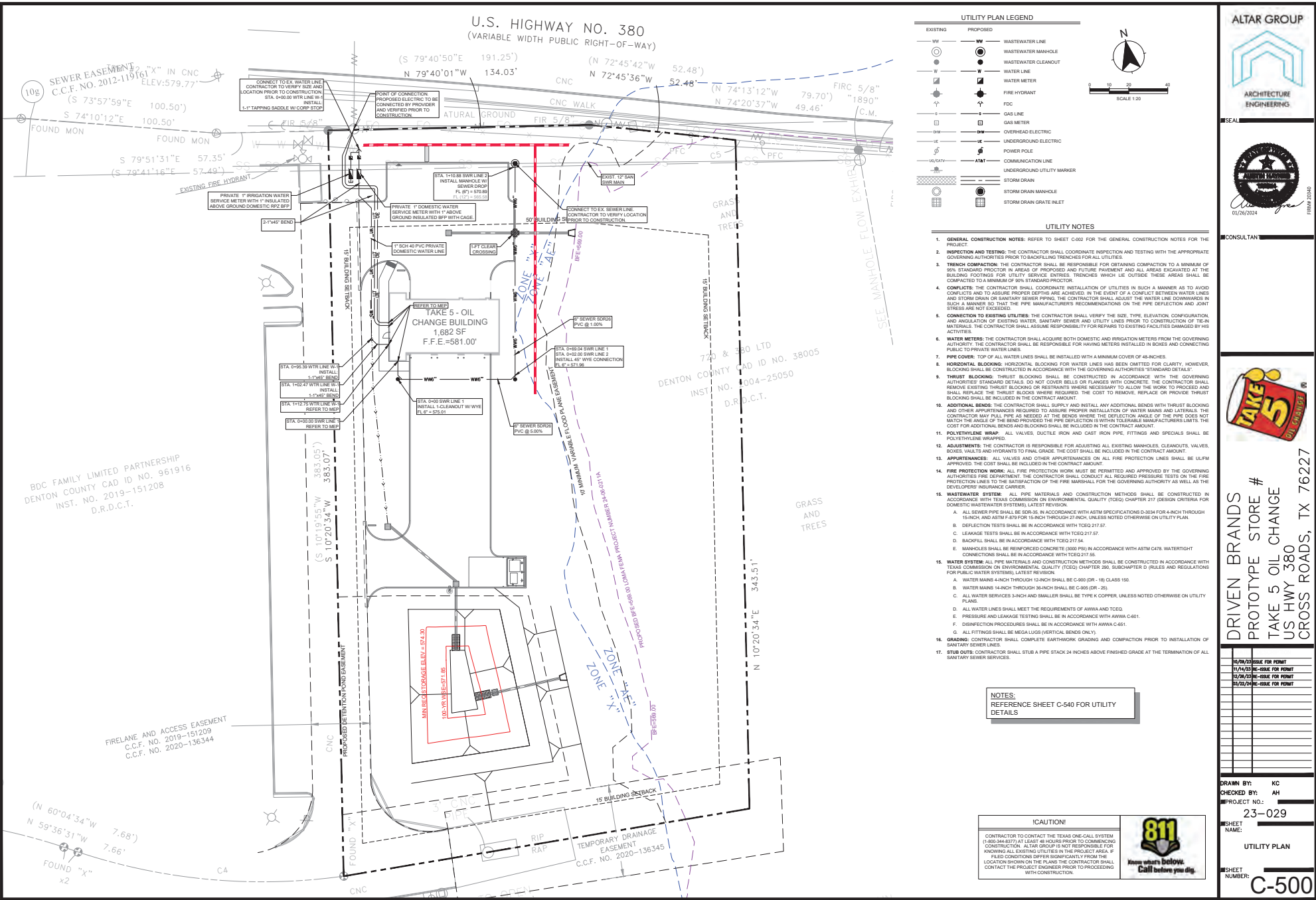




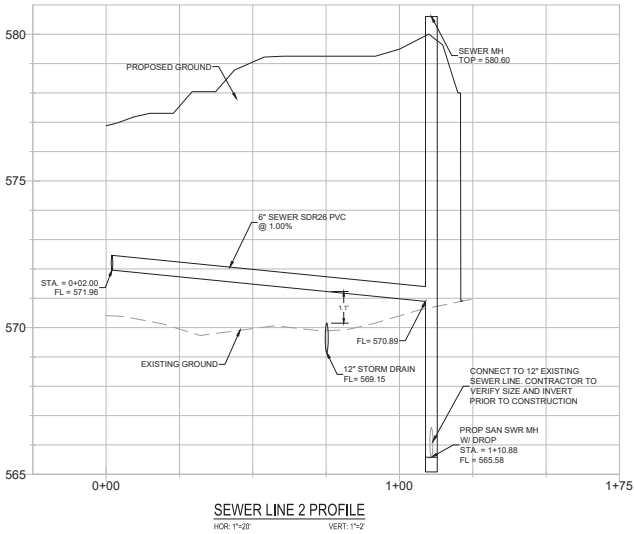
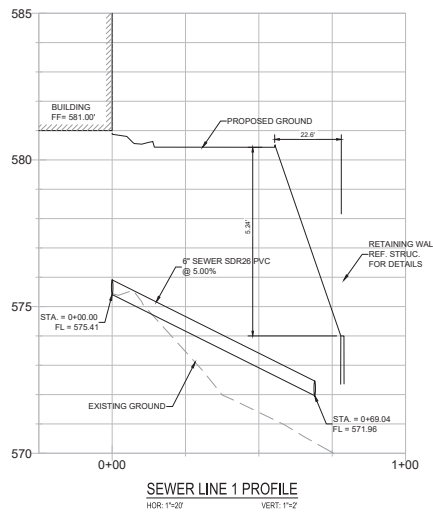
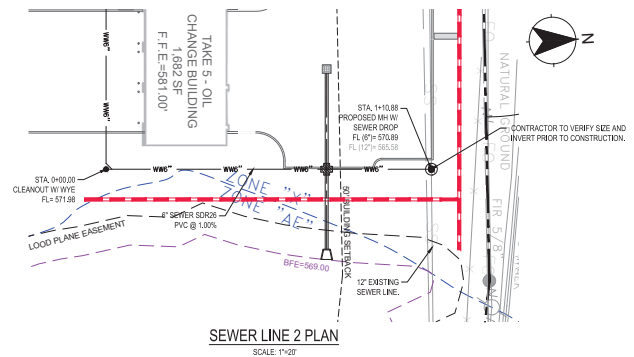
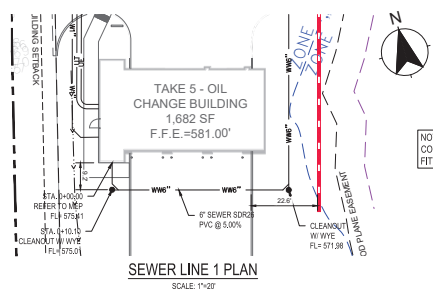












**CAUTION!**

CONTRACTOR TO CONTACT THE TEXAS ONE-CALL SYSTEM (1-800-344-8377) AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION. ALTAR GROUP IS NOT RESPONSIBLE FOR KNOWING ALL EXISTING UTILITIES IN THE PROJECT AREA. IF FILED CONDITIONS DIFFER SIGNIFICANTLY FROM THE LOCATION SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

**ALTAR GROUP**

ARCHITECTURE  
ENGINEERING

SEAL

CONSULTANT

**DRIVEN BRANDS**

PROTOTYPE STORE #

TAKE 5 OIL CHANGE

US HWY 380

CROSS ROADS, TX 76227

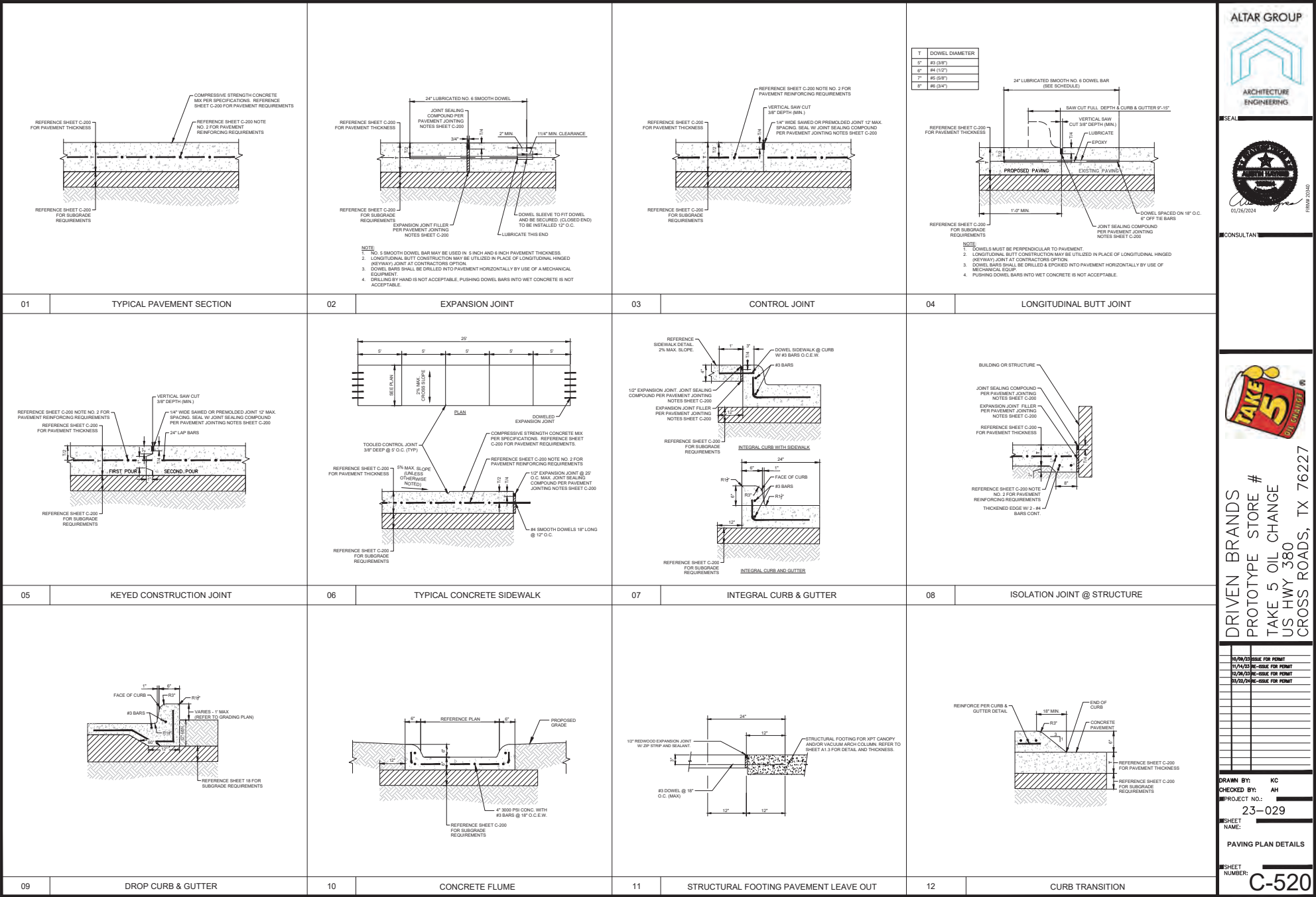
DATE	DESCRIPTION
10/09/23	ISSUE FOR PERMIT
11/04/23	ISSUE FOR PERMIT
12/08/23	ISSUE FOR PERMIT
03/02/24	ISSUE FOR PERMIT

DRAWN BY: KC  
CHECKED BY: AH  
PROJECT NO.: 23-029  
SHEET NAME: SEWER PROFILES  
SHEET NUMBER: C-501



May 7, 2024 Planning and Zoning Agenda, Page 121 of 124





ALTAR GROUP

ARCHITECTURE  
ENGINEERING

01/26/2024

CONSULTANT

DRIVEN BRANDS

PROTOTYPE STORE #

TAKE 5 OIL CHANGE

US HWY 380

CROSS ROADS, TX 76227

10/09/23 - DATE FOR PRINT

11/14/23 - DATE FOR PRINT

12/04/23 - DATE FOR PRINT

01/26/24 - DATE FOR PRINT

DRAWN BY: KC

CHECKED BY: AH

PROJECT NO.: 23-029

SHEET NAME: PAVING PLAN DETAILS

SHEET NUMBER: C-520







