

Scott Shelburne, Chairman
Anne Sundquist, Vice Chairman
Josh Jakubik, Secretary
Holly Knee
Tom Mayhew
Robert Barker III

City Administrator, Don Doering
City Attorney, Leonard Schneider
City Engineer, Tim Robertson
Baxter & Woodman, Mike Kurzy
Interim City Secretary, Christian Gable



NOTICE OF PUBLIC MEETING PLANNING & ZONING COMMISSION

AGENDA
REGULAR MEETING
THURSDAY, AUGUST 17, 2023 - 4:30 P.M.
Sewall Smith Council Chambers
18111 Buddy Riley Blvd., Magnolia, Texas 77354

1. CALL TO ORDER

- a. INVOCATION
- b. PLEDGE OF ALLEGIANCE
- c. ROLL CALL AND CERTIFICATION OF QUORUM

2. CONSENT AGENDA

This portion of the agenda consists of items considered to be routine and will be enacted by one motion unless separate discussion is requested by a Commission member or a citizen.

a. CONSIDERATION – APPROVAL OF MINUTES

Consideration and possible action to approve the minutes of the special meeting held July 25, 2023.

b. CONSIDERATION – APPROVAL OF MINUTES

Consideration and possible action to approve the minutes of the special meeting held August 3, 2023.

3. CITIZENS COMMENTS, REQUESTS OR PETITIONS FROM THE PUBLIC

(This agenda item provides an opportunity for citizens to address the City Council on any matter not on the agenda).

Comments shall be limited to three (3) minutes per person. Comments by the governing body shall be limited to:

- a. Statements of specific factual information given in response to an inquiry;*
- b. A recitation of existing policy in response to an inquiry;*
- c. A proposal to place the subject on a future agenda.*

4. ANNOUNCEMENTS

(Hear announcements concerning items of community interest from the Board Members of the Planning Commission and City Staff for which no action will be taken or discussed.

5. UPDATE ON CITY OF MAGNOLIA DEVELOPMENTS (Staff)
6. CONSIDERATION AND POSSIBLE ACTION TO APPROVE SITE PLAN FOR 5POINT CREDIT UNION
7. CONSIDERATION AND POSSIBLE ACTION TO APPROVE SITE PLAN FOR VALVOLINE
8. FUTURE AGENDA ITEMS
9. ADJOURN

The Planning & Zoning Commission of the City of Magnolia, Texas, reserves the right to adjourn into Closed Executive Session at any time during the course of this meeting to discuss any of the matters listed above as authorized by Title 5, Chapter 551, of the Texas Government Code. 551.071(Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices), 551.086 (Deliberations about competitive matters), and 551.087 (Deliberation about Economic Development Matters).

Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services are requested to contact the City Secretary's office at (281-305-0550), two working days prior to the meeting for appropriate arrangements.

CERTIFICATE

I certify that a copy of the *Notice of Meeting* was posted on the City Hall bulletin board, a place convenient and readily accessible to the general public at all times, and to the City's website, www.cityofmagnolia.com, in compliance with Chapter 551, Texas Government Code.

DATE _____
 TIME _____
 TAKEN DOWN _____



 Christian Gable, Interim City Secretary

Scott Shelburne, Chairman
Anne Sundquist, Vice Chairman
Josh Jakubik, Secretary
Holly Knee
Tom Mayhew
Robert Barker III



City Administrator, Don Doering
City Attorney, Leonard Schneider
City Engineer, Tim Robertson
Baxter & Woodman, Mike Kurzy
Interim City Secretary, Christian Gable

MINUTES OF THE PLANNING & ZONING COMMISSION SPECIAL MEETING – JULY 25, 2023

A meeting of the Planning & Zoning Commission was held on July 25, 2023, beginning at 4:31pm in the Sewall Smith Council Chambers located at 18111 Buddy Riley Blvd., Magnolia, Texas 77354.

1. CALL TO ORDER

Chairman Shelburne called the meeting to order at 4:31 pm.

a. INVOCATION

Tom Mayhew delivered the invocation.

b. PLEDGE OF ALLEGIANCE

Chairman Shelburne led the Pledge of Allegiance.

c. ROLL CALL AND CERTIFICATION OF QUORUM

Chairman Shelburne called roll and certified a quorum present with the following Planning & Zoning Commission members in attendance: Scott Shelburne, Josh Jakubik, Holly Knee and Tom Mayhew.

Absent: Anne Sundquist, Robert Barker III.

2. CONSENT AGENDA

This portion of the agenda consists of items considered to be routine and will be enacted by one motion unless separate discussion is requested by a Commission member or a citizen.

a. CONSIDERATION – APPROVAL OF MINUTES

Consideration and possible action to approve the minutes of the regular meeting held June 15, 2023.

MOTION: Upon a motion to approve the Consent Agenda made by Tom Mayhew and seconded by Holly Knee, the Commission members voted, and the motion carried unanimously, 3-0.

3. CITIZENS COMMENTS, REQUESTS OR PETITIONS FROM THE PUBLIC

(This agenda item provides an opportunity for citizens to address the City Council on any matter not on the agenda).

Comments shall be limited to three (3) minutes per person. Comments by the governing body shall be limited to:

a. Statements of specific factual information given in response to an inquiry;

b. A recitation of existing policy in response to an inquiry;

c. A proposal to place the subject on a future agenda.

None

4. ANNOUNCEMENTS

(Hear announcements concerning items of community interest from the Board Members of the Planning Commission and City Staff for which no action will be taken or discussed.)

None

5. UPDATE ON CITY OF MAGNOLIA DEVELOPMENTS (Staff)

Planning Coordinator Christian Gable explained that the Magnolia Village development is booming in response to the recently approved development agreement.

Chairman Shelburne explained that Jersey Mike's is expected to open this month, Teriyaki Madness and MOD Pizza should be under construction by the end of the month, and Great Clips should be completed within 2 weeks.

City Administrator Don Doering reported that, for the first time in history, the City of Magnolia has 5 operational water wells. We are issuing connections on a limited procedure program and Stage 2 water restrictions still apply.

6. CONSIDERATION AND POSSIBLE ACTION TO APPROVE ESCONDIDO SANDRA DEE LANE SECTION 1, PRELIMINARY PLAT, +/- 1.925 ACRES

Chairman Shelburne explained that changes have been made to this submittal in accordance to last month's comments.

MOTION: Upon a motion to approve made by Holly Knee and seconded by Josh Jakubik, the Commission members voted, and the motion carried unanimously, 3-0.

7. CONSIDERATION AND POSSIBLE ACTION TO APPROVE ESCONDIDO GIRASOL STREET AND RESERVE, PRELIMINARY PLAT, +/- 13.384 ACRES

MOTION: Upon a motion to approve made by Josh Jakubik and seconded by Tom Mayhew, the Commission members voted, and the motion carried unanimously, 3-0.

8. CONSIDERATION AND POSSIBLE ACTION TO APPROVE ESCONDIDO SECTION 5, FINAL PLAT, +/- 29.567 ACRES

MOTION: Upon a motion to approve made by Tom Mayhew and seconded by Holly Knee, the Commission members voted, and the motion carried unanimously, 3-0.

9. PRESENTATION BY MAGNOLIA PARAGON, LLC REGARDING DEVELOPMENT AGREEMENT

Kevin Mokos, Magnolia Paragon representative, gave a presentation of an upcoming mixed-use development based on the slideshow included in the meeting packet.

Christina Miller with ABHR assisted in answering questions regarding the presentation.

The following comments were made by the Commission members regarding the proposed development agreement:

- Page 3, under the definition of "District", it speaks of MUD 108 and later on mentions MUD 131. This was clarified as MUD 108 and will be revised.

- Page 4, under the definition of “Permitted Variances”, the Commission recommended a change in wording to prevent variance approval requirements through the Board of Adjustments. This will be revised.
- Page 7, paragraph 3.05, should be voided considering the completion of the Mill Creek Road realignment.
- Page 8 was asked to be revised to mention names of specific water plants.
- Page 11, Section 4.09, was asked to be revised to require a traffic impact study.
- Page 17, the Commission requested a change in the length of the term of the agreement to 15 years.
- The Commission voiced concerns about the proposed 40-foot residential lot widths and spoke in preference of 45-foot lot widths instead.
- The Commission voiced concerns about the proposed open-space and how they differ from City Codes and the Comprehensive Plan. Changes are expected to be made regarding open space.

Tyler Eaton, also involved in the development project, explained the pond placements, slopes, and drainage direction within the development leading into the ponds.

10. FUTURE AGENDA ITEMS

Chairman Shelburne suggested scheduling a special meeting to go over the requested revisions to the Paragon Development Agreement on August 3rd.

11. ADJOURN

MOTION: Upon a motion to adjourn made by Holly Knee and seconded by Josh Jakubik, the Commission members voted, the motion carried unanimously, and Chairman Shelburne adjourned the meeting at 5:33 pm.

Planning & Zoning Commission

Scott Shelburne, Chairman

CERTIFICATION

I certify this to be a true and correct copy of the minutes of the special meeting of the City of Magnolia Planning and Zoning Commission held on July 25, 2023.

ATTEST:

Christian Gable, Interim City Secretary



Scott Shelburne, Chairman
Anne Sundquist, Vice Chairman
Josh Jakubik, Secretary
Holly Knee
Tom Mayhew
Robert Barker III



City Administrator, Don Doering
City Attorney, Leonard Schneider
City Engineer, Tim Robertson
Baxter & Woodman, Mike Kurzy
Interim City Secretary, Christian Gable

MINUTES OF THE PLANNING & ZONING COMMISSION SPECIAL MEETING – AUGUST 3, 2023

A meeting of the Planning & Zoning Commission was held on August 3, 2023, beginning at 4:33pm in the Sewall Smith Council Chambers located at 18111 Buddy Riley Blvd., Magnolia, Texas 77354.

1. CALL TO ORDER

Chairman Scott Shelburne called the meeting to order at 4:33 pm.

a. INVOCATION

Tom Mayhew delivered the invocation.

b. PLEDGE OF ALLEGIANCE

Chairman Shelburne led the Pledge of Allegiance.

c. ROLL CALL AND CERTIFICATION OF QUORUM

Chairman Shelburne called roll and certified a quorum present with the following Planning & Zoning members in attendance: Scott Shelburne, Josh Jakubik, Holly Knee, Tom Mayhew and Robert Barker III.

Absent: Anne Sundquist

2. CITIZENS COMMENTS, REQUESTS OR PETITIONS FROM THE PUBLIC

(This agenda item provides an opportunity for citizens to address the City Council on any matter not on the agenda).

Comments shall be limited to three (3) minutes per person. Comments by the governing body shall be limited to:

a. Statements of specific factual information given in response to an inquiry;

b. A recitation of existing policy in response to an inquiry;

c. A proposal to place the subject on a future agenda.

None

3. ANNOUNCEMENTS

(Hear announcements concerning items of community interest from the Board Members of the Planning Commission and City Staff for which no action will be taken or discussed.)

None

4. UPDATE ON CITY OF MAGNOLIA DEVELOPMENTS (Staff)

Planning Coordinator Christian Gable presented the Commission with a list of businesses coming into the City and where they stand in stages of development.

5. CONSIDERATION - MAGNOLIA PARAGON, LLC DEVELOPMENT AGREEMENT

Kevin Mokos, Magnolia Paragon representative, and Christina Miller with ABHR returned to present the revised agreement in accordance with comments made by the Commission at the previous meeting.

Commission member Robert Barker provided the following comments regarding the agreement:

- Section 3.03, the word “variances” is still included and needs to be changed.
- Section 4.01, the last sentence mentions the city issuing plats. Verbiage needs to be revised.
- Density concerns were expressed for the proposed units per acre. Christina Miller stated that she will clarify the 25 units per acre.
- Section 4.06, under paragraph B, the addition of the word “maintenance” was requested.
- Section 5.03, under paragraph C, Robert Barker requested to remove or revise language regarding a mortgagee.
- Section 8.03, the reduction of the stated “7 years” was requested to be changed to 5 years.
- Section 9.15, the word “District” should be changed to “Developer”.
- Robert Barker requested definition of the term “plus or minus”.

Chairman Shelburne asked for clarity regarding the term “luxury apartments”. Kevin Mokos clarified the apartments will lean more toward Class A.

MOTION: Upon a motion to approve the Development Agreement between the City and Magnolia Paragon, LLC subject to the changes discussed made by Tom Mayhew and seconded by Holly Knee, the Commission members voted, and the motion carried unanimously, 4-0.

6. FUTURE AGENDA ITEMS

Christina Miller with ABHR announced that TxDOT will be doing medians instead of Gulf Coast Commercial for Magnolia Village. Magnolia Village South will be updating their land plan in the future as well.

7. ADJOURN

MOTION: Upon a motion to adjourn made by Josh Jakubik and seconded by Robert Barker III, the Commission members voted, the motion carried unanimously, and Chairman Shelburne adjourned the meeting at 5:32 pm.

Planning & Zoning Commission

Scott Shelburne, Chairman

CERTIFICATION

I certify this to be a true and correct copy of the minutes of the special meeting of the City of Magnolia Planning and Zoning Commission held on August 3, 2023.

ATTEST:

Christian Gable, Interim City Secretary





SITE WORK PERMIT APPLICATION

18111 Buddy Riley Blvd.
Magnolia, Texas 77354
Phone: 281-356-2266
Fax: 281-259-7811
www.cityofmagnolia.com

Please fill out completely except for shaded areas.

Job Address 13341 FM 1488			Permit Number	
Legal Description Hampton Tillons Survey	Lot No. Abstract 556	Block		Tract PAD site I
Owner: 5Point Credit Union	Mailing Address: 3700 Skyline Drive Nederland, Texas 77627			Phone: 409-726-8280
Contractor: Sustainable Modular Management, Inc.	Mailing Address: 2500 Legacy Drive, Suite 100 Frisco, TX 75034			Phone: 972-619-7303
Use of Building Residential <input type="radio"/> Commercial <input checked="" type="radio"/>		Flood Zone Yes <input type="radio"/> No <input checked="" type="radio"/>		
Class of Work <input checked="" type="checkbox"/> New <input type="checkbox"/> Addition <input type="checkbox"/> Repair <input type="checkbox"/> Alteration <input type="checkbox"/> Paving <input type="checkbox"/> Storm <input type="checkbox"/> Sewer <input type="checkbox"/> Water <input type="checkbox"/> Other				
Describe Construction Work Site work construction required for a new 3,375 square foot retail banking building. Site Work scope includes earthwork, underground water / sewer / site drainage / electrical services, site concrete pavement, site lighting, and landscaping				
Engineer: LJA Engineering	Mailing Address: 1904 W. Grand Parkway N. Suite 100 Katy, Texas 77449			Phone: 713-953-5200
Applicant needs to complete the following spaces. Do not write in shaded spaces. State "N/A" to those sections that do not apply to the structure or work you are performing.				
NOTICE			Total Project Valuation \$ 522,606.00	
<p>This permit becomes null and void if work or construction authorized is not commenced within six (6) months, or if construction or work is abandoned for a period of six (6) months at any time after work is commenced. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law relating to construction, nor does it give authorization or approval to encroach on any easement or property or violate any deed restrictions. The City of Magnolia shall never be liable for any damage or loss by reason of the issuance hereof. Each holder and other persons acting under authority of this permit are personally responsible for compliance with all of the above provisions and assume the entire risks incidental to the work being permitted.</p> <p style="text-align: center;">I hereby certify that I have read and examined this application and know the same to be true and correct.</p>			Acreage or Lot Size 0.95 ACRES	
			Office Use Only	
			Plan/Inspection fee 0.5%	\$
			Permit Fee 2%	\$
			Water Impact fee	\$
			Sewer Impact Fee	\$
			Total Amount Due	\$
Signature of Contractor or Authorized Agent			City Inspector Notes	
Signature of Contractor or Authorized Agent			Date	
Printed Name of Contractor or Authorized Agent			Date	
Signature of City Inspector			Date	
PLEASE NOTE THERE SHALL BE NO REFUND OF FEES.				

CONSTRUCTION PLANS FOR UTILITIES AND STORM DRAINAGE TO SERVE 5 POINT CREDIT UNION

WATER, SANITARY SEWER, DRAINAGE & PAVING

13341 FM 1488
CITY OF MAGNOLIA
MONTGOMERY COUNTY, TEXAS 77354
LJA JOB NO. 4034-0001
JULY 2023

LJA Engineering Inc.

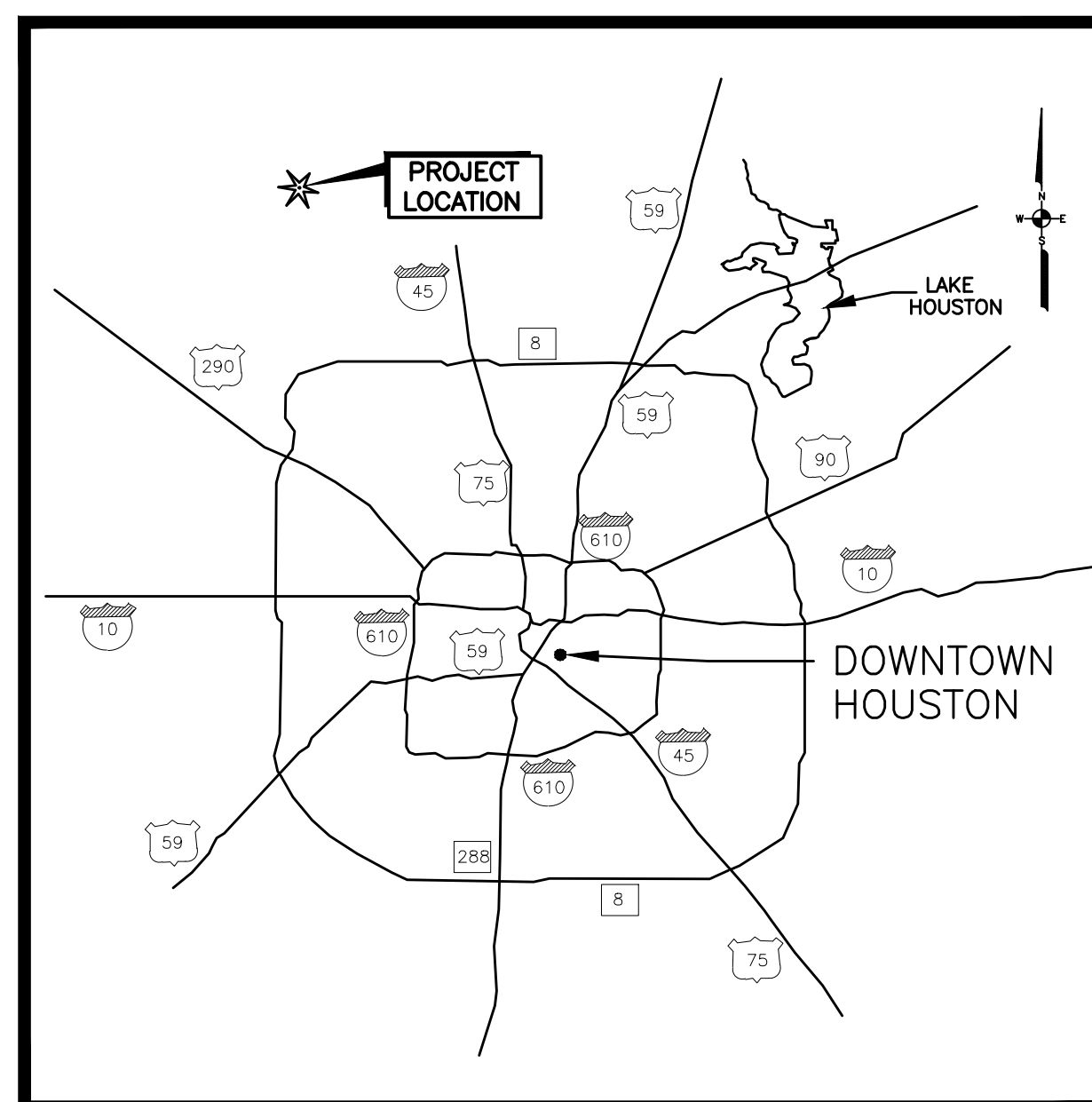
1904 W. Grand Pkwy N.
 Suite 100
 Katy, Texas 77449

Phone 713.953.5200
 Fax 713.953.5026
 FRN - F-1386

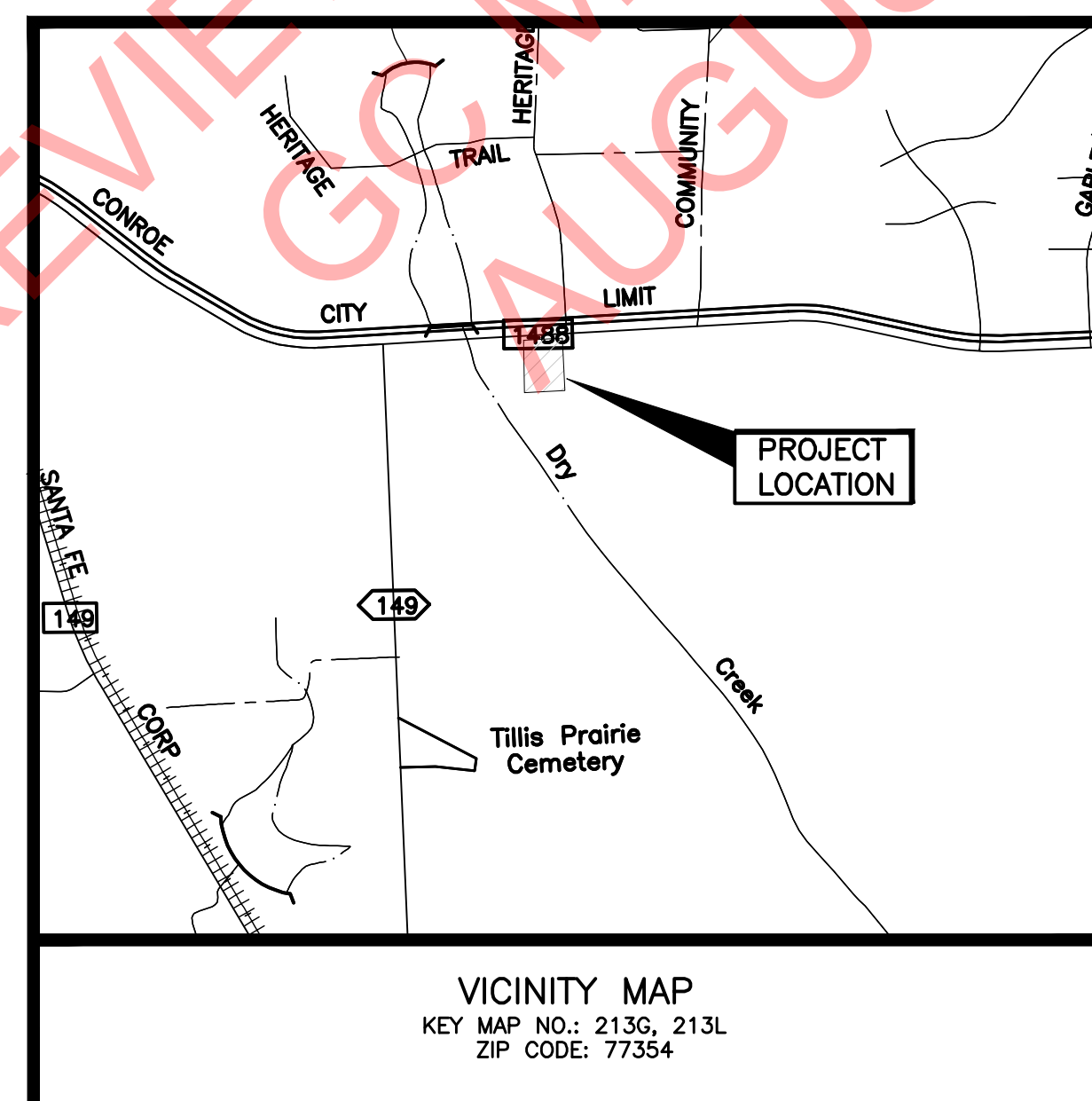


INDEX OF DRAWINGS

SHEET NUMBER	SHEET TITLE
C1	COVER SHEET
C2	GENERAL NOTES
C3	EXISTING CONDITIONS (FOR REFERENCE ONLY)
C4	OVERALL SITE PLAN
C5	DIMENSION CONTROL PLAN
C6	UTILITY PLAN
C7	GRADING & PAVING PLAN
C8	DRAINAGE AREA MAP
C9	DRAINAGE AREA CALCULATIONS
C10	FIRE LANE PLAN
C11	STORM WATER POLLUTION PREVENTION PLAN
C12	STORM WATER POLLUTION PREVENTION DETAILS
C13	PAVEMENT DETAILS
C14	SANITARY SEWER DETAILS
C15	STORM SEWER DETAILS
C16	WATER DETAILS



LOCATION MAP
 SCALE: N.T.S.



VICINITY MAP
 KEY MAP NO.: 213G, 213L
 ZIP CODE: 77354

SANITARY SEWER AND PORTABLE WATER:

DUSTIN ONEAL, PRESIDENT
 MONTGOMERY COUNTY MUD 108
 3200 SOUTHWEST FWY
 SUITE 2600
 HOUSTON, TX 77027-7537
 BUSINESS PHONE: (713) 860-6400

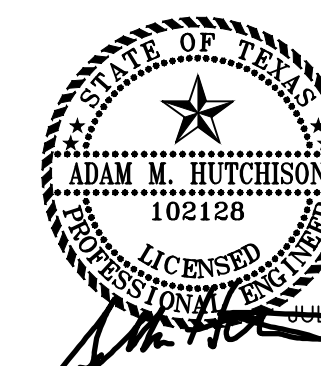
TAYLOR BAUMGARTNER, DISTRICT ENGINEER
 LJA ENGINEERING INC
 2929 BRIARPARK DR STE 600
 HOUSTON, TX 77042-3703
 BUSINESS PHONE: (713) 953-5039

ELECTRIC

SOTERO (CHARLES) BROWNE
 (832) 773-6057
 SOTERO.BROWNE@CENTERPOINTENERGY.COM

GAS

HAROLD FELLON
 (713) 945-2468
 HAROLD.FELLON@CENTERPOINTENERGY.COM



FLOODPLAIN INFORMATION

NO PORTION OF THE SUBJECT SITE IS LOCATED WITHIN THE 100 YEAR SPECIAL FLOOD HAZARD AREA ACCORDING TO THE MOST RECENT OFFICIAL INSURANCE RATE MAP, DATED AUGUST 18, 2014 MAP NUMBER 48339C0485G, ZONE(S) "X".

BENCHMARK NOTE

ELEV. 231.72'

FLOODPLAIN REFERENCE MARK NO. 100195 IS A BRASS DISK LOCATED FROM THE INTERSECTION OF FM 1488 AND FM 1774, SOUTHWEST ALONG FM 1774 0.4 MILES TO NICHOLS SAWMILL RD., SOUTH ALONG NICHOLS SAWMILL RD. 0.8 MILES TO THE BENCHMARK ON THE RIGHT.
 ELEVATION: 231.72 (NAV088)(2001 ADJUSTMENT)

TEMPORARY BENCHMARK (T.B.M.) ELEV. 229.00'

CUT "X" ON THE SOUTHWEST CORNER OF A CONCRETE BASE OF A TSCB PEDESTAL LOCATED AT SOUTHWEST CORNER OF THE INTERSECTION OF FM 1488 AND SPUR 149.
 ELEVATION: 229.00

Acad Version: 12/4/06 (MS Tech)
 User Name: jprince
 Date/Time: Thu, 27 Jul 2023, 8:00pm
 File Name: C:\Projects\4034\0001\DWG\213G.dwg
 Layer: Title Block
 Plot Style: CTB
 Converter: Pktdwg.plt
 Output File: C:\Users\jprince\Documents\4034\0001\DWG\213G.dwg

PRIVATE PLANS - UTILITIES AND STORM DRAINAGE TO SERVE 5 POINT CREDIT UNION; CITY OF MAGNOLIA, TX 77354

GENERAL CONSTRUCTION NOTES:

- 1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES, AND STORM DRAINAGE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF MAGNOLIA DESIGN STANDARDS.
2. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER AND STORM DRAINAGE LINES.
4. CONTRACTOR SHALL NOTIFY THE CITY OF MAGNOLIA 5 DAYS PRIOR TO COMMENCING CONSTRUCTION.
5. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
6. CONTRACTOR SHALL COMPLY WITH THE LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.
7. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
8. ANY DAMAGE TO ANY OF THE EXISTING PAVEMENT AND/OR UTILITIES MUST BE REPAIRED IMMEDIATELY.
9. THE CONTRACTOR, ON BEHALF OF THE OWNER, IS TO OBTAIN ALL PERMITS REQUIRED BY THE CITY OF MAGNOLIA PRIOR TO STARTING CONSTRUCTION OF UTILITIES AND/OR CURBS.
10. GUIDELINES SET FORTH IN THE TEXAS 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES', AS CURRENTLY AMENDED, SHALL BE OBSERVED.
11. THE WORK AREAS WITH DIRECT PUBLIC ACCESS SHALL BE BARRICADED AND ILLUMINATED DURING DARKNESS AND PERIODS OF INACTIVITY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAFEGUARDING AND PROTECTING ALL MATERIAL AND EQUIPMENT STORED ON THE JOB SITE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHIPPING OF ALL MATERIALS, THE LOADING AND UNLOADING OF ALL PIPE, VALVES, HYDRANTS, MANHOLES AND OTHER ACCESSORIES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PRACTICES AND SHALL AT ALL TIMES BE PERFORMED WITH CARE TO AVOID ANY DAMAGE TO THE MATERIAL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SHIPPING AND STORING OF ALL MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE SUCH MATERIAL AT THE POINT OF DELIVERY AND TO REJECT ALL DEFECTIVE MATERIAL.
15. ALL PIPE AND REINFORCEMENT STEEL SHALL BE KEPT FREE OF DIRT AND OTHER DEBRIS. ANY DAMAGE TO THE COATING OF THE VARIOUS MATERIALS MUST BE REPAIRED.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE AND POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION OF PROPOSED FACILITIES.
17. ACCESS TO ALL EXISTING STREETS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
18. UNLESS OTHERWISE NOTED, PLACEMENT OF UTILITIES IN EASEMENTS SHALL BE GOVERNED BY THE STANDARD 10' AND 14' EASEMENTS AS ADOPTED BY THE UTILITY COORDINATING COMMITTEE FOR THE HOUSTON METROPOLITAN AREA, AS CURRENTLY AMENDED OR REVISED.
19. NO CONNECTIONS MADE TO EXISTING WATER LINES OR SANITARY SEWERS SHALL BE PLACED INTO SERVICE UNTIL ALL PROPOSED LINES OR SEWERS HAVE BEEN THOROUGHLY CLEANED, TESTED, AND APPROVED BY THE ENGINEER.
20. ALL STATIONS ARE CENTERLINE OF STREET RIGHT-OF-WAY UNLESS OTHERWISE NOTED.
21. ALL GEOLOGICAL REPORTS FOR THIS PROJECT (IF ANY) ARE AVAILABLE FOR REFERENCE AT THE OFFICE OF THE ENGINEER.
22. SURFACE RESTORATION: AT THE END OF ALL CONSTRUCTION PROJECTS, THE CONTRACTOR SHALL RESTORE THE EXISTING FACILITIES WITHIN THE PROPERTY EQUAL TO OR BETTER THAN EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
23. FINAL ACCEPTANCE OF THE UTILITIES WILL NOT BE GIVEN TO THE CONTRACTOR UNTIL THEY ARE INSPECTED AND APPROVED BY THE CITY OF MAGNOLIA.
24. SEE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL ENVIRONMENTAL NOTES AND DETAILS.
25. THESE PLANS WERE PREPARED TO MEET OR EXCEED CITY OF MAGNOLIA AND MONTGOMERY COUNTY SUBDIVISION RULES AND REGULATIONS AS CURRENTLY AMENDED.
26. CONSTRUCTION WILL BE MONITORED BY A REGISTERED PROFESSIONAL ENGINEER TO ENSURE COMPLIANCE WITH THE CONSTRUCTION PLANS AND SPECIFICATIONS.
27. APPROVAL BY CITY OF MAGNOLIA WILL BE DEEMED VOID IF CONSTRUCTION IS NOT BEGUN WITHIN ONE YEAR OF APPROVAL.
28. CONTRACTOR SHALL PREPARE A SET OF 'RECORD' DRAWINGS SHOWING ANY FIELD CHANGES MADE TO THE APPROVED ENGINEERING PLANS AND SUBMIT TO THE DESIGN ENGINEER.
29. ALL UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
30. MANHOLES SHALL BE PER CITY OF MAGNOLIA STANDARD DETAILS.
31. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ROOT SYSTEMS OF SHRUBS, PLANTS AND TREES ALONG AREAS OF EXCAVATION.
32. ALL UNSATISFACTORY AND/OR WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE AND DEBRIS SHALL BE DISPOSED OFFSITE BY THE CONTRACTOR.
33. ALL MANHOLES ARE TO BE CONSTRUCTED TO ALLOW FOR A MINIMUM OF ONE FOOT (1') OF VERTICAL ADJUSTMENT.
34. ALL SEWER TRENCHES UNDER OR WITHIN ONE FOOT OF PROPOSED AND/OR FUTURE PAVEMENT OR CURB SHALL BE BACKFILLED WITH 2.0 SACKS OF CEMENT PER TON CEMENT-STABILIZED SAND TO A POINT ONE FOOT (1') BELOW PAVEMENT/SUBGRADE. THE REMAINING BACKFILL SHALL BE MADE WITH COMPACTED SUITABLE MATERIAL.

GENERAL CONSTRUCTION NOTES (CONT.):

- 35. CONTRACTOR SHALL REMOVE DAILY ALL MUD, DIRT AND DEBRIS DEPOSITED OR DROPPED ON EXISTING PAVEMENT DUE TO HIS CONSTRUCTION ACTIVITY.
36. THE USE OF WELL POINT SYSTEMS, WHEN REQUIRED BY TRENCH CONDITIONS, SHALL BE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
37. CONTRACTOR SHALL PROTECT ALL TREES ADJACENT TO WORK AREA.
38. CONTRACTOR SHALL PROVIDE ONE FOOT (1') MINIMUM CLEARANCE AT STORM SEWER, SANITARY SEWER AND WATER LINE CROSSINGS.
39. ALL AREAS UNNECESSARILY DISTURBED ALONG SIDE AND BACK-OF-LOT EASEMENTS OUTSIDE PROJECT LIMITS AS A RESULT OF CONSTRUCTION WORK SHALL BE SEEDED AND FERTILIZED IN ACCORDANCE WITH SEEDING SPECIFICATIONS BY THE CONTRACTOR(NO SEPARATE PAY).
40. RIM ELEVATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY.
41. WATER, SANITARY SEWER, AND DRAINAGE CONTRACTOR SHALL AT COMPLETION OF HIS WORK FILL AND GRADE ALL UTILITY EASEMENTS (WET AND DRY) AS WELL AS LOW SPOTS IN LOTS FOR POSITIVE DRAINAGE, AS DIRECTED BY EITHER THE OWNER OR ENGINEER.
42. UTILITY CONTRACTOR OR SWPPP CONTRACTOR, AS DETERMINED BY OWNER, SHALL PROVIDE TEMPORARY SILT BARRIER FENCE ON ALL NON-CURB INLETS WHICH WILL REMAIN IN PLACE AFTER UNDERGROUND CONSTRUCTION IS COMPLETE.
43. UTILITY CONTRACTOR OR SWPPP CONTRACTOR, AS DETERMINED BY THE OWNER, SHALL PROVIDE SILT BARRIER FENCE ON ALL STAGE 1 CURB INLETS. (NO SEPARATE PAY)

SANITARY SEWER CONSTRUCTION NOTES:

- 1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MAGNOLIA STANDARD SPECIFICATIONS AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD EXHIBITION TEST.
2. ALL MANHOLES ARE TO BE PER CITY OF MAGNOLIA STANDARD DETAILS.
3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF MAGNOLIA DETAILS UNLESS OTHERWISE NOTED.
4. SANITARY SEWER PIPE 4" AND SMALLER SHALL BE SCHEDULE 40 PVC.
5. ALL SDR-26 PVC PIPE SHALL MEET ASTM SPECIFICATION D-3034, USE 'FULL BODIED' SDR-26 PVC FITTINGS WITH APPROPRIATE ADAPTERS.
6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE FOOT (1') BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BEDDING AND BACKFILLED WITH CEMENT STABILIZED SAND.
8. ALL SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES (12") AND NINE FEET (9') SHALL HAVE A MINIMUM OF ONE 18" JOINT OF 150 PSI DUCTILE IRON OR (GREEN) PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE.
9. CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF NINE FEET (9') BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET FOUR TO SIX INCHES (4" - 6") ABOVE THE SURROUNDING LEVEL.
11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF MAGNOLIA AS CURRENTLY REVISED.
12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE.
13. INFILTRATION/EXFILTRATION OR LOW-PRESSURE AIR TEST SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
14. 'S.S.E.' INDICATES 'SANITARY SEWER EASEMENT'
15. FOR SANITARY MANHOLES (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ADJUTING/CONTAINING PAVED SURFACE.
16. ALL SANITARY SEWER MANHOLES SHALL HAVE STAINLESS STEEL INFLOW PROTECTORS INSTALLED AFTER FINAL ADJUSTMENT OF MANHOLE RIMS.
17. ALL SANITARY SERVICE LEADS SHALL BE 6" DIA. MIN. AND LAID WITH A MINIMUM GRADE OF 0.70%.
18. WHEN MAKING A CONNECTION TO AN EXISTING SANITARY SEWER MANHOLE THE CONTRACTOR SHALL PLUG DOWN STREAM END OF THE PROPOSED SANITARY SEWER.
19. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 317.2 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.
B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES.
6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'
10" 547 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'
15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'
WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.

STORM DRAINAGE CONSTRUCTION NOTES:

- 1. STORM SEWER SHALL BE REINFORCED CONCRETE PIPE (ASTM C-76, CLASS III), AND SHALL BE INSTALLED, BEDDED, AND BACK FILLED IN ACCORDANCE WITH THE CITY OF MAGNOLIA STANDARD DETAILS.
2. ALL STORM SEWER CONSTRUCTED IN SIDELOT EASEMENT SHALL BE R.C.P (ASTM C-76, CLASS III) AND SHALL BE EMBEDDED IN ACCORDANCE WITH THE CITY OF MAGNOLIA STANDARD DETAILS.
3. ALL SEWER UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE BACKFILLED WITH 2.0 SACK CEMENT/TON STABILIZED SAND SUBGRADE.
4. ALL TRENCH BACKFILL SHALL BE IN 8' LIFTS, WITH TESTS TAKEN AT 100 FOOT INTERVALS IN EACH LIFT, AND MECHANICALLY COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST (ASTM D-698/ASHSTO T99).
5. CIRCULAR AND ELLIPTICAL REINFORCED CONCRETE PIPE SHALL BE INSTALLED USING RUBBER GASKET JOINT CONFORMING TO ASTM C443 AND ASTM C877 RESPECTIVELY.
6. ALL STORM SEWER PIPES AND INLET LEADS SHALL BE 24" AND LARGER R.C.P. (ASTM C-76, CLASS III).
7. ALL PROPOSED PIPE STUB-OUTS FROM MANHOLES AND INLET LEADS ARE TO BE PLUGGED WITH 8" BRICK WALLS UNLESS OTHERWISE NOTED.
8. MINIMUM HORIZONTAL CLEARANCE BETWEEN ANY STORM PIPE AND BOX SHALL BE AT LEAST 48-INCHES FROM EXTERIOR OF THE STORM PIPE OR BOX TO THE EXTERIOR OF THE EXISTING OR PROPOSED PUBLIC OR PRIVATE UTILITY AND OTHER APPURTENANCES.
9. ADJUST MANHOLE COVERS TO GRADE CONFORMING TO REQUIREMENTS OF SECTION 02086-ADJUSTING MANHOLES, INLETS, AND VALVE BOXES TO GRADE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, MAINTAINING, AND RESTORING ANY BACK SLOPE DRAINAGE SYSTEM DISTURBED AS A RESULT OF THIS WORK.
11. ALL DITCHES SHALL BE GRADED TO PROPOSED ELEVATIONS TO INSURE PROPER DRAINAGE.
12. ALL DRIVEWAYS WILL BE LOCATED TO AVOID EXISTING CURB INLET STRUCTURES.
13. STORM SEWER DETENTION FACILITIES LOCATED WITHIN THE DISTRICT WILL BE MAINTAINED BY THE MUD DISTRICT NO. 108.

WATERLINE CONSTRUCTION NOTES:

- 1. WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF MAGNOLIA RULES AND REGULATIONS, STANDARD SPECIFICATIONS, AND CONSTRUCTION DETAILS.
2. 4" THRU 12" WATER LINES SHALL BE P.V.C. CLASS 235, DR-18, AWWA C-900 AND 1" THRU 3" WATER LINES SHALL BE PVC SCHEDULE 40.
3. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AS NECESSARY TO PREVENT PIPE MOVEMENT.
4. ALL WATER LINES UNDER PROPOSED OR FUTURE PAVING AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL BE ENCASED IN BANK SAND TO 12" OVER PIPE AND BACKFILLED WITH CEMENT STABILIZED SAND TO WITHIN ONE (1) FOOT OF SUBGRADE.
5. ALL WATER LINE AND SEWER LINE CROSSINGS SHALL BE CONSTRUCTED PER CITY OF MAGNOLIA AND TCEQ REGULATIONS.
6. ALL WATER VALVES SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF AWWA C-500 AND SHALL BE OF THE RESILIENT SEAT TYPE.
7. ALL WATER LINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651 AND THE TEXAS STATE DEPARTMENT OF HEALTH.
8. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
9. 4" THRU 12" FITTINGS SHALL BE DUCTILE IRON PRESSURE FITTINGS PER ANSI A21.10, OR PUSH ON FITTINGS PER ANSI A21.11, PRESSURE RATED AT 150 PSIG.
10. HYDROSTATIC TESTING: ALL WATER PIPE SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE LATEST CITY OF MAGNOLIA STANDARD CONSTRUCTION SPECIFICATIONS.
11. ALL WATER LINES TO HAVE 4" MINIMUM COVER TO FINISHED GRADE AND MINIMUM 12" CLEARANCE TO OTHER UTILITIES AT CROSSING UNLESS OTHERWISE NOTED ON PLANS.
12. CONTRACTOR SHALL KEEP WATER PIPE CLEAN AND CAP (OR OTHERWISE EFFECTIVELY COVER) OPEN PIPE ENDS TO EXCLUDE INSECTS, ANIMALS OR OTHER SOURCES OF CONTAMINATION FROM UNFINISHED PIPE LINES AT TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
13. UNLESS OTHERWISE NOTED, ALL WATER LINES 12" AND SMALLER SHALL HAVE A MINIMUM OF 4" OF COVER, AND WATER LINES 16" AND LARGER SHALL HAVE A MINIMUM OF 5' OF COVER.
14. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL UNDERGROUND TESTS, BENDS AND LATERALS.
15. ALL ABOVE GROUND DUCTILE IRON PIPE CONNECTIONS SHALL BE FLANGED.
16. ALL FLANGES BELOW GRADE SHALL HAVE STAINLESS STEEL BOLTS AND NUTS.
17. ALL WATER VALVES SHALL OPEN CLOCKWISE.
18. ALL BELOW GRADE VALVES SHALL BE GASKETED, HUB-END GATE VALVES WITH A CAST IRON BOX, EXCEPT WHERE FLANGES ARE CALLED OUT ON THE PLANS.
19. ALL FLANGES BELOW GRADE SHALL BE INSULATED.
20. ALL WATERLINES SHALL BE ENCASED IN BANK SAND TO AT LEAST 6" ABOVE THE PIPE.
21. MAINTAIN MINIMUM 9-FOOT HORIZONTAL CLEARANCE BETWEEN OUTSIDE OF SANITARY SEWER MANHOLE AND WATERLINE.
22. WATER LINES PARALLEL TO SANITARY LINES SHALL BE INSTALLED WITH AT LEAST A 9-FOOT CLEARANCE AND IN SEPARATE TRENCHES.
23. CENTER OF FIRE HYDRANT TO BE LOCATED 3'-0" FROM BACK OF CURB WITH CENTER LINE OF STEAMER NOZZLE 22-INCHES ABOVE FINISHED GRADE, UNLESS OTHERWISE SHOWN.
24. WATERLINE SHALL BE CONSTRUCTED SUCH THAT ALL CROSSES AND TEES WILL NOT BE LOCATED UNDER PROPOSED OR FUTURE PAVING.
25. UTILITY CONTRACTOR TO TURN FIRE HYDRANTS AND MAKE ALL FINAL ADJUSTMENTS AFTER COMPLETION OF PAVING. NO SEPARATE PAY.

PAVING CONSTRUCTION NOTES:

- 1. ALL PAVING SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF MAGNOLIA AND MONTGOMERY COUNTY REQUIREMENTS AS CURRENTLY AMENDED.
2. ALL TEMPORARY AND PERMANENT SIGNAGE MUST COMPLY WITH THE 'TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' AS CURRENTLY AMENDED.
3. ALL ROAD WIDTHS, CURB RADII, AND CURB ALIGNMENT SHOWN INDICATE BACK OF CURB.
4. ALL INTERSECTION CURB RETURN RADII SHALL BE 25 FEET AND ALL CUL-DE-SAC RETURN RADII SHALL BE 35 FEET UNLESS NOTED OTHERWISE.
5. TRANSVERSE EXPANSION JOINTS SHALL BE INSTALLED AT EACH CURB RETURN AND AT A MAXIMUM SPACING OF 60 FEET.
6. WHEN A 6" THICK CONCRETE ROADWAY INTERSECTS WITH A THICKER CONCRETE ROADWAY, THE THICKER CONCRETE SHALL BE CONSTRUCTED FOR THE ENTIRE INTERSECTION, TO THE ENDS OF ALL CURB RETURNS.
7. THE PAVING CONTRACTOR SHALL PROTECT ALL UTILITIES AND SHALL REPAIR OR REPLACE AT HIS EXPENSE ANY FACILITIES DAMAGED DURING PAVING OR GRADING OPERATIONS.
8. THE PAVING CONTRACTOR SHALL CLEAR AND STRIP ALL LOTS AND STREET RIGHTS-OF-WAY OF ALL ORGANICS (VEGETATION, ROOTS ONE INCH (1") AND GREATER, ORGANIC SOIL LAYER) AT NO SEPARATE PAY.
9. AREAS TO BE FILLED SHALL BE SCARIFIED AND COMPACTED TO AT LEAST 95% OF MAXIMUM STANDARD PROCTOR DRY DENSITY PER ASTM D-698, TO A DEPTH OF 8" PRIOR TO FILL PLACEMENT.
10. THE PAVEMENT SUBGRADE IS TO BE SCARIFIED, LIME STABILIZED (AMOUNT AS DETERMINED BY LAB TESTS) AND COMPACTED TO 95% STANDARD PROCTOR DRY DENSITY PER ASTM D-698.

PAVING CONSTRUCTION NOTES (CONT.):

- 11. NECESSARY TESTING OF SUBGRADE AND ASPHALT PAVEMENT TO PROVE THAT THESE ITEMS MEET REQUIREMENTS SHALL BE DONE BY A COMMERCIAL TESTING LABORATORY APPROVED BY THE OWNER.
12. REINFORCEMENT STEEL FOR PAVEMENT SHALL BE SUPPORTED WITH PLASTIC CHAIRS AT EIGHTEEN INCH (18") MAXIMUM SPACING, EACH WAY.
13. A CONTINUOUS LONGITUDINAL REINFORCING BAR SHALL BE USED IN THE CURBS.
14. STREET NAME SIGNS FOR ALL STREETS SHALL BE LOCATED ATOP EACH STOP SIGN AT ALL INTERSECTIONS.
15. CONCRETE DESIGN MIX AND TEST DATA SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL.
16. DOUBLE REFLECTORIZED BLUE TRAFFIC MARKERS SHALL BE PLACED SIX INCHES (6") OFFSET OF THE CENTERLINE AT ALL FLUSHING VALVE LOCATIONS BY THE PAVING CONTRACTOR.
17. ADA ACCESSIBLE RAMPS SHALL BE INSTALLED WITH STREET PAVING PER PLANS AND COMPLY TO CURRENT ADA AND TLR REGULATIONS.
18. THE ONLY AUTHORITY PERMITTED TO ADD WATER TO A CONCRETE TRUCK MUST COME FROM THE APPROVED COMMERCIAL TESTING LABORATORY OR THE ENGINEER.
19. CONCRETE CURB SHALL BE 4"x12" MOUNTABLE CURB UNLESS OTHERWISE NOTED.
20. ALL TOP OF CURB ELEVATIONS ARE BASED ON 6-INCH CURB.
21. STORM SEWER DETENTION FACILITIES LOCATED WITHIN THE DISTRICT WILL BE MAINTAINED BY THE MUD DISTRICT NO. 108.

PERMIT NOTES:

- 1. CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED BY REGULATION OF CITY OF MAGNOLIA AND MONTGOMERY COUNTY, TEXAS FOR FLOOD PLANNING MANAGEMENT PRIOR TO STARTING CONSTRUCTION.
2. OWNER TO OBTAIN ALL PERMITS REQUIRED BY CITY OF MAGNOLIA AND MONTGOMERY COUNTY, TEXAS PRIOR TO STARTING CONSTRUCTION OF UTILITY AND/OR CULVERTS WITHIN MONTGOMERY COUNTY ROAD RIGHTS-OF-WAY.

DRY UTILITY NOTES:

- 1. LOCATIONS OF HUGHES PIPELINE MAIN LINES ARE SHOWN IN AN APPROXIMATE LOCATION ONLY.
2. WHEN EXCAVATING WITHIN EIGHTEEN INCHES (18") OF THE INDICATED LOCATION OF HUGHES PIPELINE FACILITIES, ALL EXCAVATION MUST BE ACCOMPLISHED USING NON-MECHANIZED EXCAVATION PROCEDURES.
3. WHEN HUGHES PIPELINE FACILITIES ARE EXPOSED, SUFFICIENT SUPPORT MUST BE PROVIDED TO THE FACILITIES TO PREVENT EXCESSIVE STRAIN TO THE PILING.
4. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE THESE UNDERGROUND FACILITIES.

WARNING: OVERHEAD ELECTRICAL FACILITIES

- 1. OVERHEAD LINES MAY EXIST ON THE PROPERTY. WE HAVE NOT ATTEMPTED TO MARK THOSE LINES SINCE THEY ARE CLEARLY VISIBLE, BUT YOU SHOULD LOCATE THEM PRIOR TO BEGINNING ANY CONSTRUCTION.
2. TEXAS LAW, SECTION 752, HEALTH AND SAFETY CODE, FORBIDS ALL ACTIVITIES IN WHICH PERSONS OR THINGS MAY COME WITHIN SIX FEET (6') OF LIVE OVERHEAD HIGH VOLTAGE LINES.
3. TO ARRANGE FOR LINES TO BE TURNED OFF OR REMOVED CALL CENTERPOINT ENERGY AT (713) 207-2222.

CAUTION: AT&T FACILITIES

- 1. THE LOCATION OF SOUTHWESTERN BELL TELEPHONE COMPANY UTILITIES ARE NO LONGER PROVIDED BY AT&T AND ARE NOT SHOWN ON THESE DRAWINGS.
2. LANE CLOSURE PERMITS ARE TO BE OBTAINED WHEN REQUIRED.
3. CONTRACTOR SHALL COVER EXCAVATIONS WITH STEEL PLATES, ANCHORED PROPERLY, DURING NON-WORKING HOURS AND OPEN LANES FOR TRAFFIC FLOWS.

WARNING: UNDERGROUND ELECTRICAL FACILITIES

- 1. UNDERGROUND ELECTRICAL FACILITIES EXIST IN THE AREA OF THIS PROJECT.
2. LANE CLOSURE PERMITS ARE TO BE OBTAINED WHEN REQUIRED.
3. CONTRACTOR SHALL COVER EXCAVATIONS WITH STEEL PLATES, ANCHORED PROPERLY, DURING NON-WORKING HOURS AND OPEN LANES FOR TRAFFIC FLOWS.

TRAFFIC NOTES:

- 1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TEXAS MUTCD, MOST RECENT EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. LANE CLOSURE PERMITS ARE TO BE OBTAINED WHEN REQUIRED.
3. CONTRACTOR SHALL COVER EXCAVATIONS WITH STEEL PLATES, ANCHORED PROPERLY, DURING NON-WORKING HOURS AND OPEN LANES FOR TRAFFIC FLOWS.
4. IF THE CONTRACTOR DESIRES TO BLOCK A LANE FOR WHICH NO "TRAFFIC CONTROL PLANS" WERE SUBMITTED.
5. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF "TRAFFIC CONTROL PLANS" DURING CONSTRUCTION THAN WHAT IS OUTLINED IN THE CONTRACT DRAWINGS.
6. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" AND LANE/SIDEWALK CLOSURE PERMITS SHALL BE AVAILABLE FOR INSPECTION AT JOB SITE ALL TIMES.
7. SPECIAL TRENCH BACKFILL NOTES:
1. ALL TRENCH BACKFILL FOR UTILITIES SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY PER ASTM D-698.
2. DENSITIES SHALL BE TAKEN AT APPROXIMATE 100-FOOT INTERVALS FOR EACH LIFT, OR AS RECOMMENDED BY THE TESTING LAB, OR AS OTHERWISE DIRECTED BY THE ENGINEER.
3. THE TESTING LAB SHALL BE PAID BY THE OWNER EXCEPT RETESTS REQUIRED DUE TO THE FAILURE OF THE FIRST TEST SHALL BE PAID BY THE CONTRACTOR.
4. LIFTS SHALL BE 8-INCH MAXIMUM, MEASURED LOOSE.
5. ALL TRENCH BACKFILL SHALL BE CONSIDERED SUBDIARY TO THE PIPE.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

- 1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D.
2. All newly installed pipes and related products must conform to American National Standards Institute (ANSI)/NSF International Standard 61 and must be certified by an organization accredited by ANSI [§290.44(a)(3)].
3. Plastic pipe for use in public water systems must bear the NSF International Seal of Approval (NSF-pw) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less [§290.44(a)(2)].
4. No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or released for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).
5. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions.
6. The maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures is 0.25 percent [§290.44(b)].
7. The contractor shall install appropriate air release devices with vent openings to the atmosphere covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent [§290.44(d)(1)].
8. The contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation [§290.44(f)(1)].
9. When waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the waterline shall be installed in a separate waterport pipe encasement.
10. Pursuant to 30 TAC §290.44(a)(2), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5).
11. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes.
12. The separation distance from a potable waterline to a wastewater man or lateral manhole or cleanout shall be a minimum of nine feet.
13. Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line.
14. Suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines.
15. Waterlines shall not be installed closer than ten feet to septic tank drainfields.
16. The contractor shall disinfect the new waterlines in accordance with AWWA Standard C-651, then flush and sample the lines before being placed into service.

Q = (LD^2/P)1/48.000

Where:

- Q = the quantity of makeup water in gallons per hour,
L = the length of the pipe section being tested, in feet,
D = the nominal diameter of the pipe in inches, and
P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

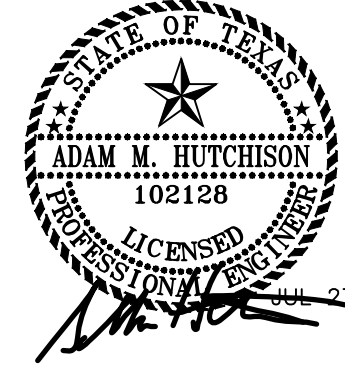
- The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

L = (SD^2/P)1/48.000

Where:

- L = the quantity of makeup water in gallons per hour,
S = the length of the pipe section being tested, in feet,
D = the nominal diameter of the pipe in inches, and
P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

- 11. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes.
12. The separation distance from a potable waterline to a wastewater man or lateral manhole or cleanout shall be a minimum of nine feet.
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NOTE: IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

Table with 2 columns: DATE, REVISION. The table is currently empty.

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE, COMMUNITY ROAD MAGNOLIA, TX 77354

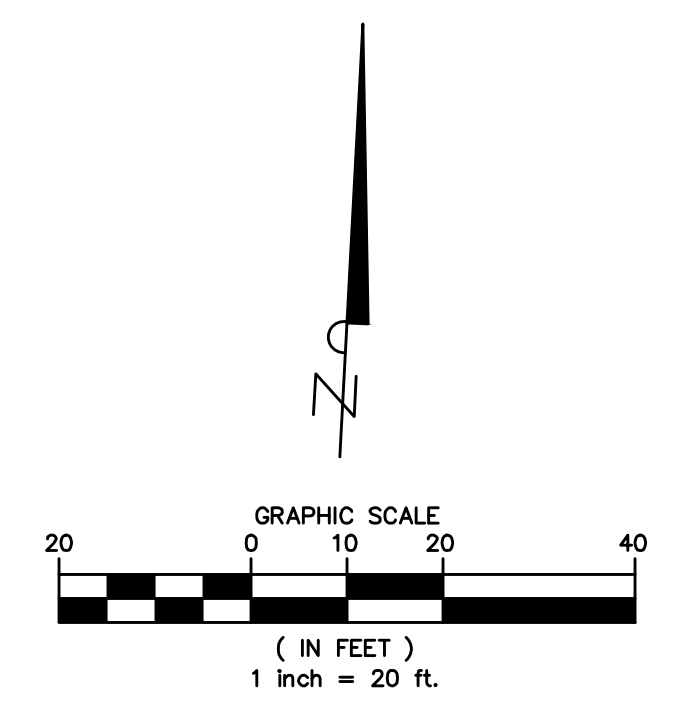
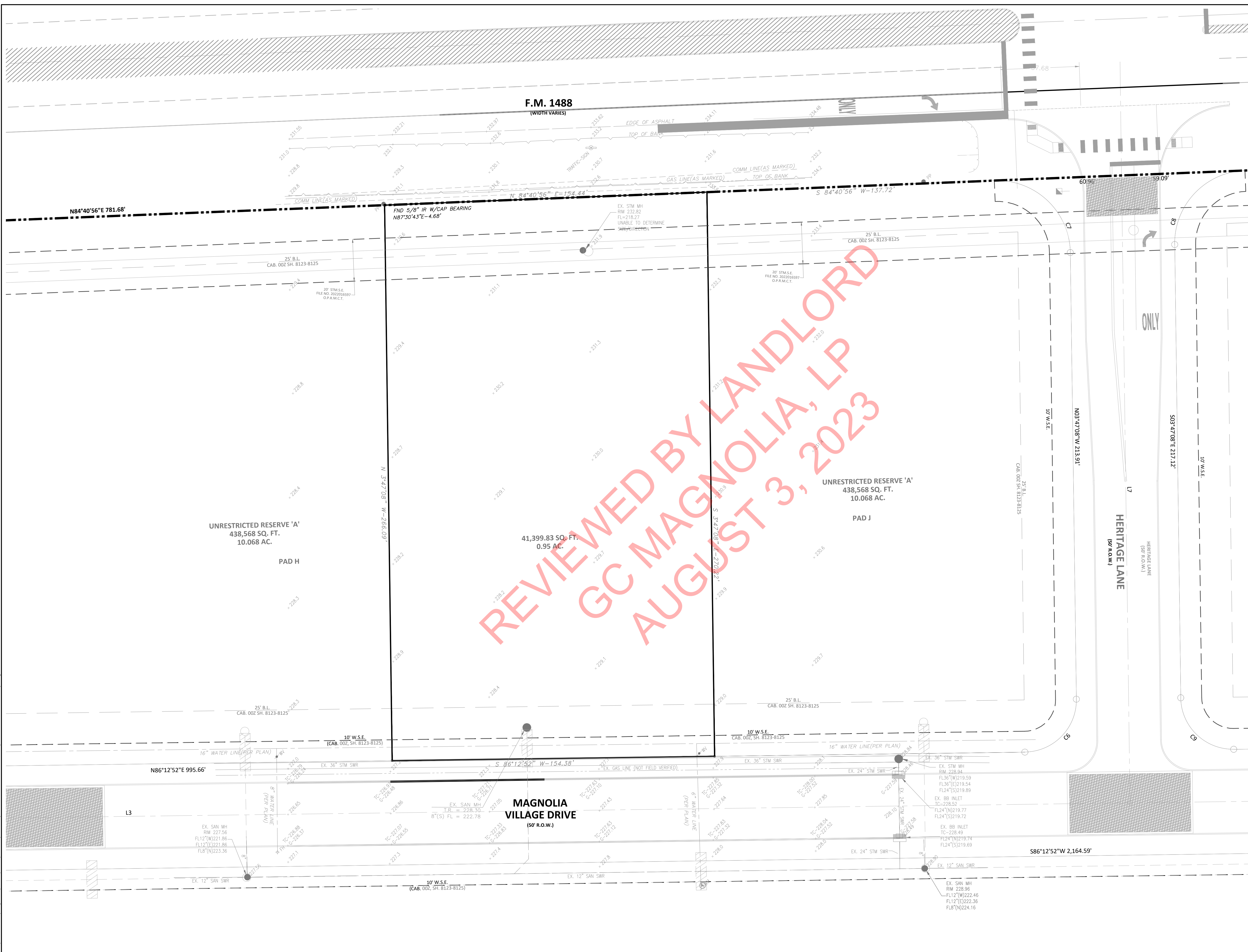
UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK

GENERAL NOTES

LJA Engineering Inc. 1904 W. Grand Parkway N. Suite 100 Katy, Texas 77449 Phone 713.953.5200 Fax 713.953.5026 FRN-F-1386

LJA Project No.: 4034-0001

Table with 2 columns: SUBMITTED, SCALE, DATE, SURVEYED BY, F B NO. and DESIGNED BY, DRAWN BY, SHEET NO., CITY DWG NO.



FLOODPLAIN INFORMATION:
 NO PORTION OF THE SUBJECT SITE IS LOCATED WITHIN THE 100 YEAR SPECIAL FLOOD HAZARD AREA ACCORDING TO THE MOST RECENT OFFICIAL INSURANCE RATE MAP, DATED AUGUST 18, 2014 MAP NUMBER 48339C0485G, ZONE(S) "X".

PRIMARY BENCHMARK: ELEV.=231.72'
 FLOODPLAIN REFERENCE MARK NO. 100195 IS A BRASS DISK LOCATED FROM THE INTERSECTION OF FM 1488 AND FM 1774, SOUTHEAST ALONG FM 1774 0.4 MILES TO NICHOLS SAWMILL RD., SOUTH ALONG NICHOLS SAWMILL RD. 0.8 MILES TO THE BENCHMARK ON THE RIGHT.
 ELEVATION: 231.72 (NAVOD88)(2001 ADJUSTMENT)

TEMPORARY BENCHMARK: ELEV.=229.00'
 CUT "X" ON THE SOUTHWEST CORNER OF A CONCRETE BASE OF A TSCB PEDESTAL LOCATED AT SOUTHEAST CORNER OF THE INTERSECTION OF FM 1488 AND SPUR 149.
 ELEVATION: 229.00

REVIEWED BY LANDLORD
 GC MAGNOLIA, LP
 AUGUST 3, 2023

NOTE:
 IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE,
 COMMUNITY ROAD
 MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE
 TO SERVE FIVE POINT BANK

TOPOGRAPHIC SURVEY
 (FOR REFERENCE ONLY)

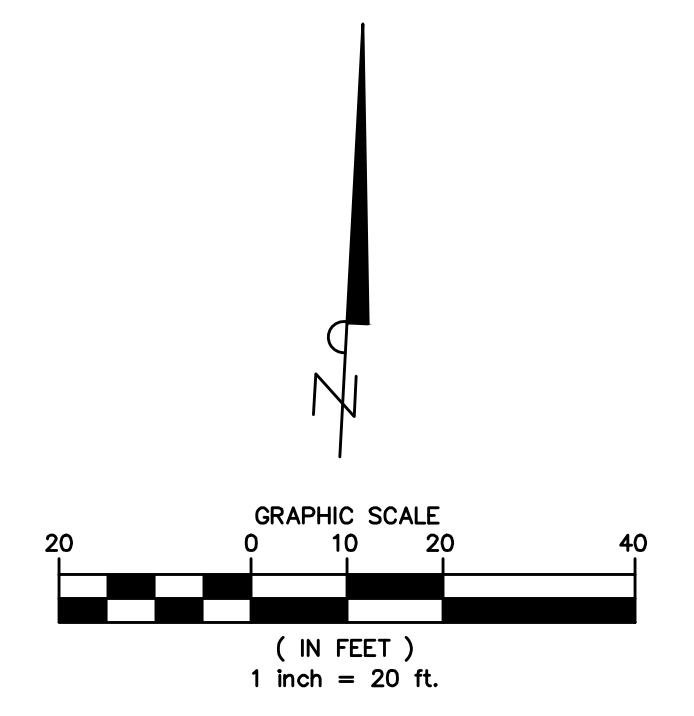
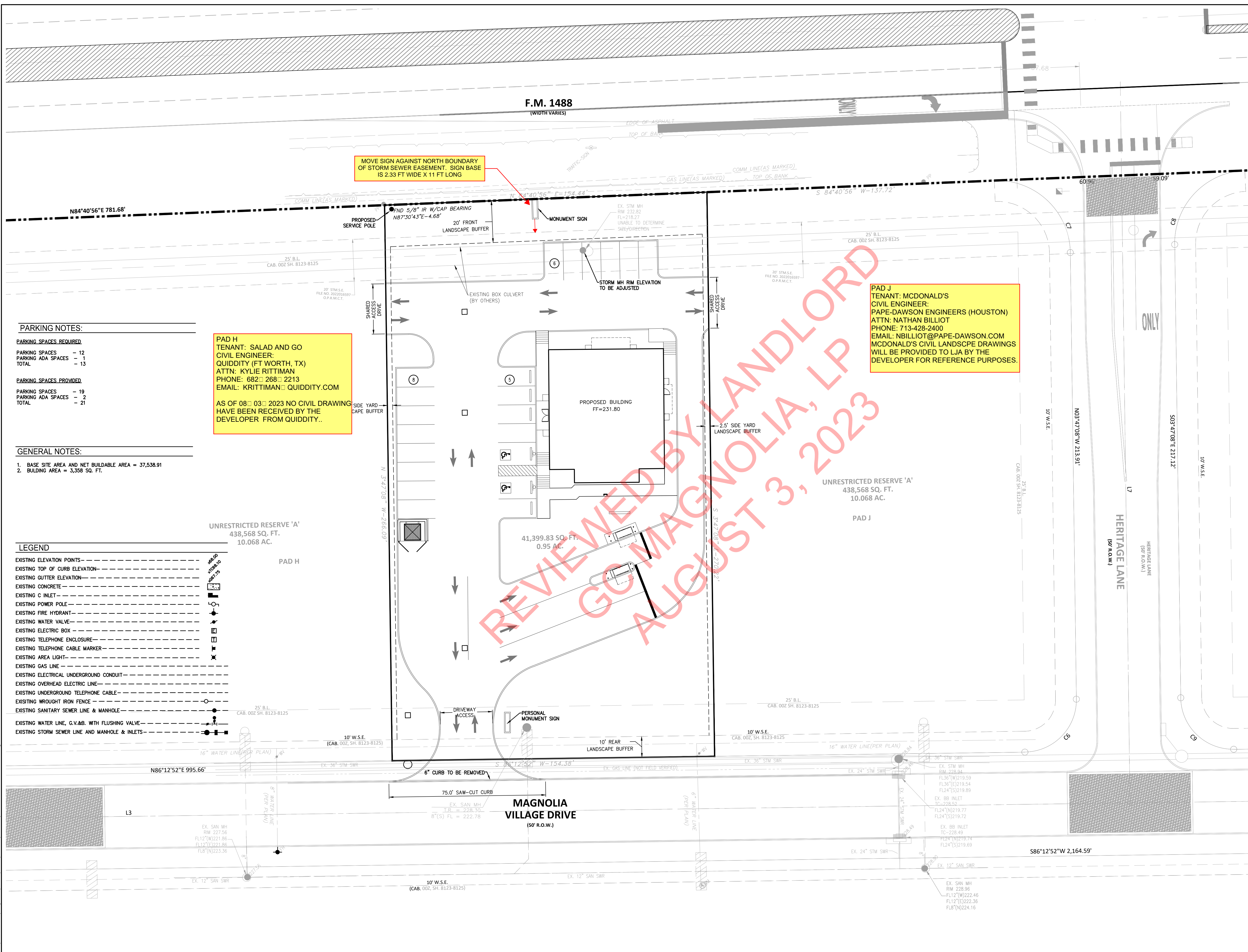
LJA Engineering Inc.
 1904 W. Grand Parkway N. Phone 713.953.5200
 Suite 100 Phone 713.953.5026
 Katy, Texas 77449 Fax 713.953.5026
 FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED:	DESIGNED BY: AH/BS
SCALE: 1"=20'	DRAWN BY: MN
DATE: JUNE, 2023	SHEET NO. C3 OF C16
SURVEYED BY: PREJEAN & COMPANY, INC.	CITY DWG NO:
F B NO:	

Date: Time: Thu, 27 Jul 2023 - 5:00pm User Name: jromez Path Name: I:\Projects\4034\0001\CAD\Private\C3_Topographic_Survey (FOR REFERENCE ONLY).dwg

PRIVATE PLANS - UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK; CITY OF MAGNOLIA, TX 77354



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 ELEVATION: 229.00

PARKING NOTES:

PARKING SPACES REQUIRED
 PARKING SPACES - 12
 PARKING ADA SPACES - 1
 TOTAL - 13

PARKING SPACES PROVIDED
 PARKING SPACES - 19
 PARKING ADA SPACES - 2
 TOTAL - 21

PAD H
 TENANT: SALAD AND GO
 CIVIL ENGINEER:
 QUIDDITY (FT WORTH, TX)
 ATTN: KYLIE RITTIMAN
 PHONE: 682-268-2213
 EMAIL: KRITTIMAN@QUIDDITY.COM

AS OF 08-03-2023 NO CIVIL DRAWING HAVE BEEN RECEIVED BY THE DEVELOPER FROM QUIDDITY..

PAD J
 TENANT: MCDONALD'S
 CIVIL ENGINEER:
 PAPE-DAWSON ENGINEERS (HOUSTON)
 ATTN: NATHAN BILLIOT
 PHONE: 713-428-2400
 EMAIL: NBILLIOT@PAPE-DAWSON.COM
 MCDONALD'S CIVIL LANDSCAPE DRAWINGS WILL BE PROVIDED TO LJA BY THE DEVELOPER FOR REFERENCE PURPOSES.

GENERAL NOTES:

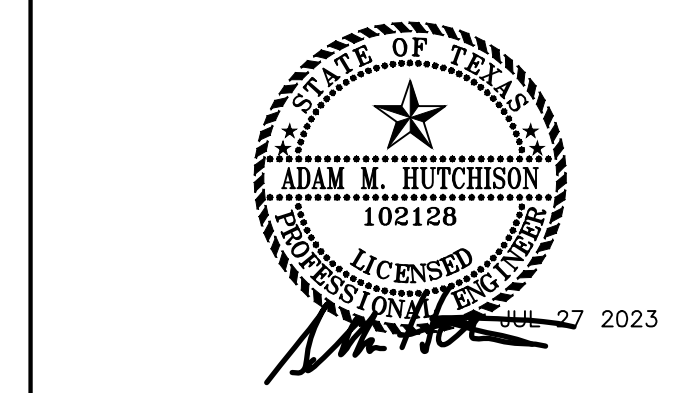
1. BASE SITE AREA AND NET BUILDABLE AREA = 37,538.91
2. BUILDING AREA = 3,358 SQ. FT.

LEGEND

EXISTING ELEVATION POINTS	---
EXISTING TOP OF CURB ELEVATION	---
EXISTING GUTTER ELEVATION	---
EXISTING CONCRETE	■
EXISTING C INLET	○
EXISTING POWER POLE	⊙
EXISTING FIRE HYDRANT	⊙
EXISTING WATER VALVE	⊙
EXISTING ELECTRIC BOX	⊙
EXISTING TELEPHONE ENCLOSURE	⊙
EXISTING TELEPHONE CABLE MARKER	⊙
EXISTING AREA LIGHT	⊙
EXISTING GAS LINE	---
EXISTING ELECTRICAL UNDERGROUND CONDUIT	---
EXISTING OVERHEAD ELECTRIC LINE	---
EXISTING UNDERGROUND TELEPHONE CABLE	---
EXISTING WROUGHT IRON FENCE	---
EXISTING SANITARY SEWER LINE & MANHOLE	---
EXISTING WATER LINE, G.V.&B. WITH FLUSHING VALVE	---
EXISTING STORM SEWER LINE AND MANHOLE & INLETS	---

UNRESTRICTED RESERVE 'A'
 438,568 SQ. FT.
 10.068 AC.

UNRESTRICTED RESERVE 'A'
 438,568 SQ. FT.
 10.068 AC.



NOTE:
 IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE,
 COMMUNITY ROAD
 MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE
 TO SERVE FIVE POINT BANK

OVERALL SITE PLAN

LJA Engineering Inc.
 1904 W. Grand Parkway N. Phone 713.953.5200
 Suite 100 Fax 713.953.5026
 Katy, Texas 77449 FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED:	DESIGNED BY: AH/BS
SCALE: 1"=20'	DRAWN BY: MN
DATE: JUNE, 2023	SHEET NO. C4 OF C16
SURVEYED BY: PREJEAN & COMPANY, INC.	CITY DWG NO:
F B NO:	

Date: Time: Thu, 27 Jul 2023 - 5:01pm User Name: jgomez
 Path Name: I:\Projects\2023\4034\CAD\Private\C4_OVERALL SITE PLAN.dwg

PRIVATE PLANS - UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK; CITY OF MAGNOLIA, TX 77354

PROJECT: Five Point Bank
 JOB NO.: 4034-0001
 DATE: 5/22/2023
 BY: JA

Total Acreage: 0.95

COM 5 YR	
b=	70
d=	7.7
e=	0.749

5 YR FREQUENCY

Line	MANHOLES/		Area	Total Area	C Factor	tc	I (5 yr)	Q (5 yr)	Total Q	Reach	Pipe size	Slope	n	Design Q	Design V	Slope	Friction	Flowline		Actual V	H.G.L. Slope	Y	Hydr.Grad.		TC/NG	TC - H.G.	
	INLETS from	to																ac.	ac.				min.	c.f.s.			c.f.s.
Stm Sys																											
A	1	JB	0.30	0.30	0.80	10.00	8.14	1.95	1.95	48	12	HDPE	0.44%	0.011	2.79	3.6	0.211	0.103	226.45	226.24	2.5	0.215	1	228.91	228.81	229.70	0.79
A	2	JB	0.08	0.08	0.80	10.27	8.04	0.51	1.95	40	8	HDPE	1.00%	0.011	1.43	4.1	0.400	0.743	227.80	227.40	5.6	1.857	0.66667	228.81	228.07	229.70	0.89
		JB	0.00	0.38	0.80	10.49	7.97	2.42	2.42	113	12	HDPE	0.44%	0.011	2.79	3.6	0.497	0.373	226.24	225.74	3.1	0.330	1	227.68	227.31	229.70	2.02
		A3	0.53	0.91	0.80	11.12	7.77	5.66	5.66	42	12	HDPE	0.44%	0.011	2.79	3.6	0.185	0.753	225.74	225.56	7.2	1.794	1	227.31	226.56	228.60	1.29
		A4	0.04	0.95	0.80	11.35	7.70	5.85	5.85	24	18	HDPE	0.26%	0.011	6.33	3.6	0.062	0.053	224.60	224.54	3.3	0.221	1.5	226.10	226.04	228.35	2.25

PROJECT: Five Point Bank
 JOB NO.: 4034-0001
 DATE: 5/22/2023
 BY: JA

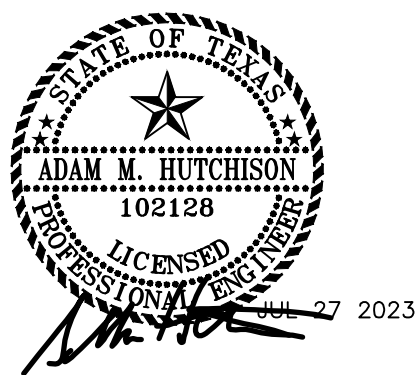
Total Acreage: 0.38

MoCo 100 YR	
b=	145.71
d=	15.69
e=	0.7898

100 YR FREQUENCY

Line	MANHOLES/		Area	Total Area	C Factor	tc	I (5 yr)	Q (5 yr)	Total Q	Reach	Pipe size	Slope	n	Design Q	Design V	Slope	Friction	Flowline		Actual V	H.G.L. Slope	Y	Hydr.Grad.		TC/NG	TC - H.G.	
	INLETS from	to																ac.	ac.				min.	c.f.s.			c.f.s.
Stm Sys																											
A	1	JB	0.30	0.30	0.80	10.00	11.22	2.69	2.69	48	12	0.44%	0.011	2.79	3.6	0.211	0.195	226.45	226.24	3.4	0.407	1	230.36	230.16	229.70	-0.66	
A	2	JB	0.08	0.08	0.80	10.27	11.13	0.71	2.69	40	8	1.00%	0.011	1.43	4.1	0.400	1.417	227.80	227.40	7.7	3.541	0.66667	230.16	228.74	229.70	-0.46	
		JB	0.00	0.38	0.80	10.49	11.06	3.36	3.36	113	12	0.44%	0.011	2.79	3.6	0.497	0.716	226.24	225.74	4.3	0.634	1	228.74	228.03	229.70	0.96	
		A3	0.53	0.91	0.80	11.12	10.85	7.90	7.90	42	12	0.44%	0.011	2.79	3.6	0.185	1.471	225.74	225.56	10.1	3.502	1	228.03	226.56	228.60	0.57	
		A4	0.04	0.95	0.80	11.35	10.78	8.19	8.19	24	18	0.26%	0.011	6.33	3.6	0.062	0.104	224.60	224.54	4.6	0.432	1.5	226.14	226.04	228.35	2.21	

REVIEWED BY LANDLO
 GC MAGNOLIA, LP
 AUGUST 2023



NOTE:
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DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE,
 COMMUNITY ROAD
 MAGNOLIA, TX 77354

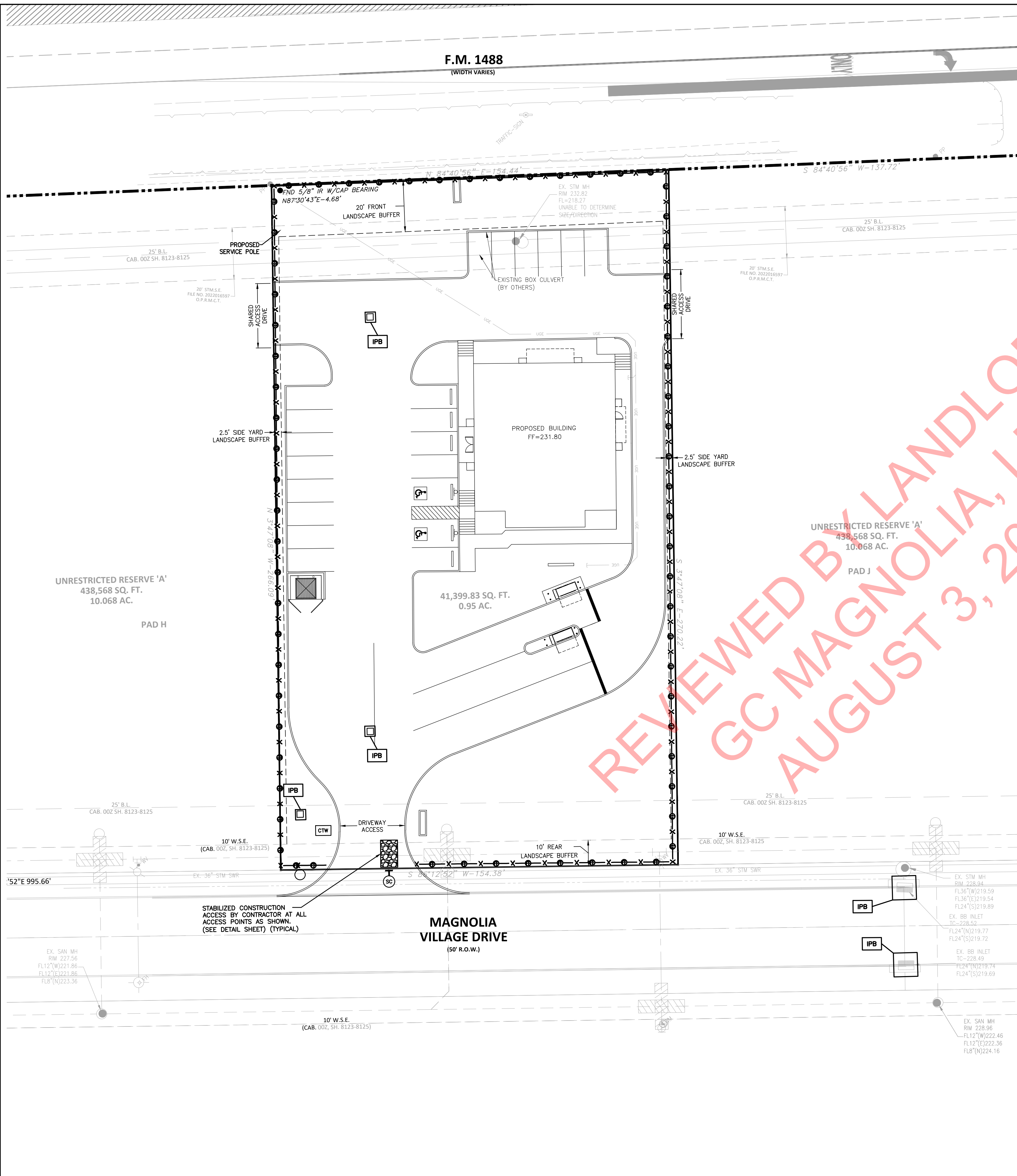
UTILITIES AND STORM DRAINAGE
 TO SERVE FIVE POINT BANK

DRAINAGE AREA CALCULATIONS

LJA Engineering Inc.
 1904 W. Grand Parkway N. Phone 713.953.5200
 Suite 100 Fax 713.953.5026
 Katy, Texas 77449 FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED:	DESIGNED BY: AH/BS
SCALE:	DRAWN BY: MN
DATE: JUNE, 2023	SHEET NO. C9 OF C16
SURVEYED BY: PREJEAN & COMPANY, INC.	CITY DWG NO:
F B NO:	



LEGEND

- EXISTING ELEVATION POINTS ---
- EXISTING TOP OF CURB ELEVATION ---
- EXISTING GUTTER ELEVATION ---
- EXISTING CONCRETE ---
- EXISTING C INLET ---
- EXISTING POWER POLE ---
- EXISTING FIRE HYDRANT ---
- EXISTING WATER VALVE ---
- EXISTING ELECTRIC BOX ---
- EXISTING TELEPHONE ENCLOSURE ---
- EXISTING TELEPHONE CABLE MARKER ---
- EXISTING AREA LIGHT ---
- EXISTING GAS LINE ---
- EXISTING ELECTRICAL UNDERGROUND CONDUIT ---
- EXISTING OVERHEAD ELECTRIC LINE ---
- EXISTING UNDERGROUND TELEPHONE CABLE ---
- EXISTING WROUGHT IRON FENCE ---
- EXISTING SANITARY SEWER LINE & MANHOLE ---
- EXISTING WATER LINE, G.V.&B. WITH FLUSHING VALVE ---
- EXISTING STORM SEWER LINE AND MANHOLE & INLETS ---
- ROCK FILTER DAM ---
- STABILIZED CONSTRUCTION ACCESS ---
- STAGE I & II INLET PROTECTION BARRIER ---
- CONCRETE TRUCK WASH ---
- FILTER FABRIC FENCE ---

NOTES:

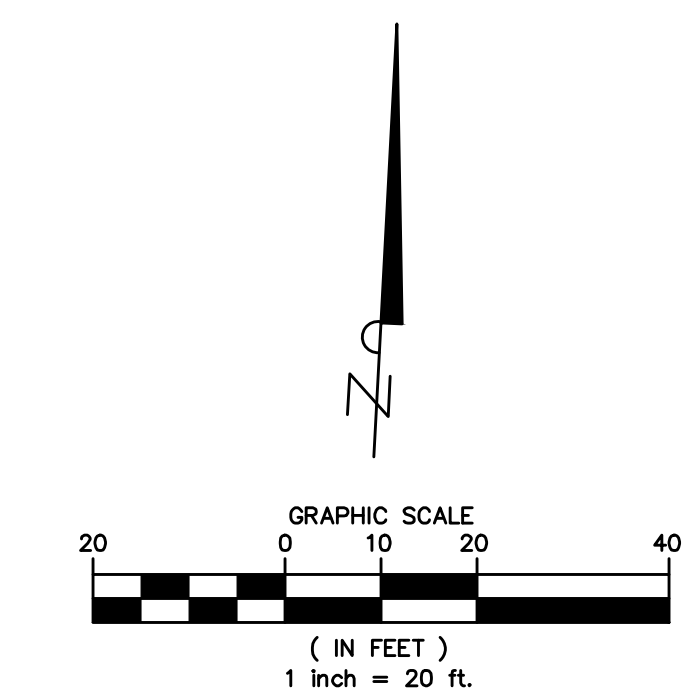
1. FOR STORMWATER POLLUTION PREVENTION PLAN DETAILS, REF: SHEET C12.
2. FILTER FABRIC FENCE SHALL BE INSTALLED ON SITE AS INDICATED ON PLAN PRIOR TO CONSTRUCTION.
3. PROVIDE STAGE I & STAGE II INLET PROTECTION. SEE SHEET C12 FOR DETAILS.

EROSION AND SEDIMENT CONTROLS

1. SEDIMENT WILL BE RETAINED ON SITE TO THE MAXIMUM EXTENT PRACTICABLE.
2. CONTROL MEASURE WILL BE PROPERLY SELECTED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICE. IF DAMAGED OR RENDERED INEFFECTIVE, THE EROSION AND SEDIMENT CONTROLS WILL BE REPAIRED OR REPLACED IMMEDIATELY.
3. WHEN PUMPING (DEWATERING) STANDING STORM WATER FROM THE SITE, THE OPERATOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES (BMPs) FROM THE STORM WATER MANAGEMENT HANDBOOK FOR CONSTRUCTION ACTIVITIES THAT ADDRESS DEWATERING ACTIVITIES. UNTREATED/DIRECT DISCHARGE INTO A STORM SEWER WILL NOT BE ALLOWED.
4. IF THE INTERIM PERIOD BETWEEN CONSTRUCTION OF UTILITIES AND STREET CONSTRUCTION WILL BE MORE THAN 21 DAYS, THE STREET RIGHTS-OF-WAY WILL BE MULCHED OR OTHERWISE STABILIZED WITHIN 14 DAYS.
5. AFTER PAVING COMPLETION, NEWLY GRADED AREAS AND ALL EXPOSED SOILS WILL BE COMPLETELY STABILIZED.

MAINTENANCE

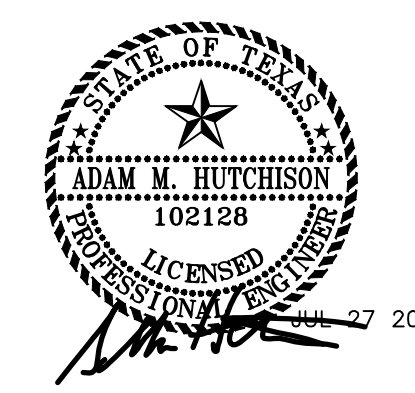
1. EROSION AND SEDIMENT CONTROL MEASURES THAT HAVE BEEN IMPROPERLY INSTALLED OR HAVE BEEN DISABLED, RUN-OVER, REMOVED OR OTHERWISE RENDERED INEFFECTIVE MUST BE REPLACED OR CORRECTED IMMEDIATELY.
2. MAINTENANCE AND REPAIRS WILL BE CONDUCTED WITHIN 24 HOURS OF INSPECTION REPORT.



FLOODPLAIN INFORMATION:
NO PORTION OF THE SUBJECT SITE IS LOCATED WITHIN THE 100 YEAR SPECIAL FLOOD HAZARD AREA ACCORDING TO THE MOST RECENT OFFICIAL INSURANCE RATE MAP, DATED AUGUST 18, 2014 MAP NUMBER 48339C0485G, ZONE(S) "X".

PRIMARY BENCHMARK: ELEV.=231.72'
FLOODPLAIN REFERENCE MARK NO. 100195 IS A BRASS DISK LOCATED FROM THE INTERSECTION OF FM 1488 AND FM 1774, SOUTHEAST ALONG FM 1774 0.4 MILES TO NICHOLS SAWMILL RD., SOUTH ALONG NICHOLS SAWMILL RD. 0.8 MILES TO THE BENCHMARK ON THE RIGHT.
ELEVATION: 231.72 (NAVD88)(2001 ADJUSTMENT)

TEMPORARY BENCHMARK: ELEV.=229.00'
CUT "X" ON THE SOUTHWEST CORNER OF A CONCRETE BASE OF A TSCB PEDESTAL LOCATED AT SOUTHEAST CORNER OF THE INTERSECTION OF FM 1488 AND SPUR 149.
ELEVATION: 229.00



NOTE:
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DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE, COMMUNITY ROAD
MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK

STORM WATER POLLUTION PREVENTION PLAN

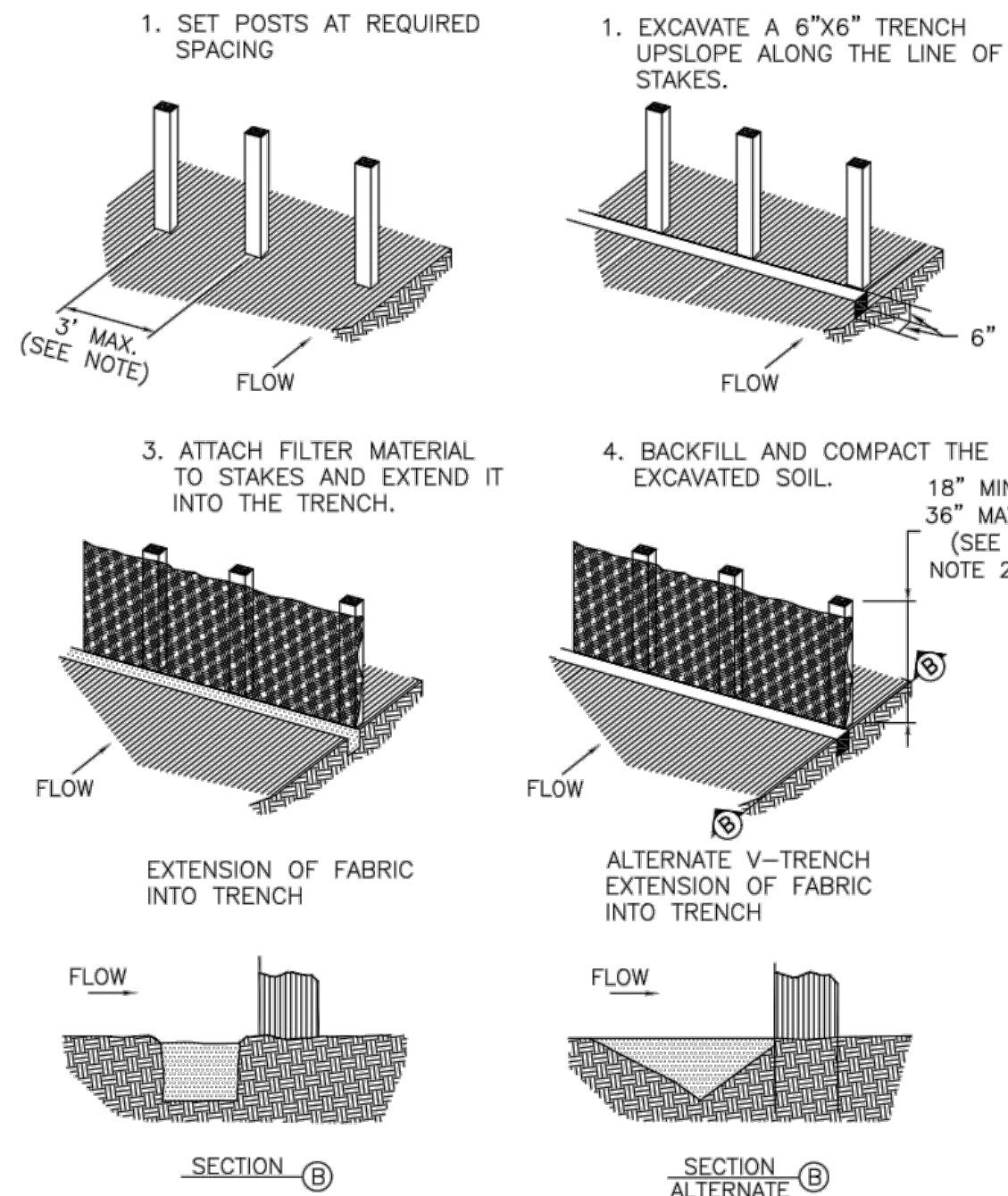
LJA Engineering Inc.
1904 W. Grand Parkway N. Phone 713.953.5200
Suite 100 Fax 713.953.5026
Katy, Texas 77449 FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED:	DESIGNED BY: AH/BS
SCALE: 1"=20'	DRAWN BY: MN
DATE: JUNE, 2023	SHEET NO. C11 OF C16
SURVEYED BY: PREJEAN & COMPANY, INC.	CITY DWG NO:
F B NO:	

Date: Time: Thu, 27 Jul 2023 - 5:04pm User Name: jromaz Path Name: I:\Projects\4034\0001\CAD\Private\C11_STORM_WATER_POLLUTION_PREVENTION_PLAN.dwg

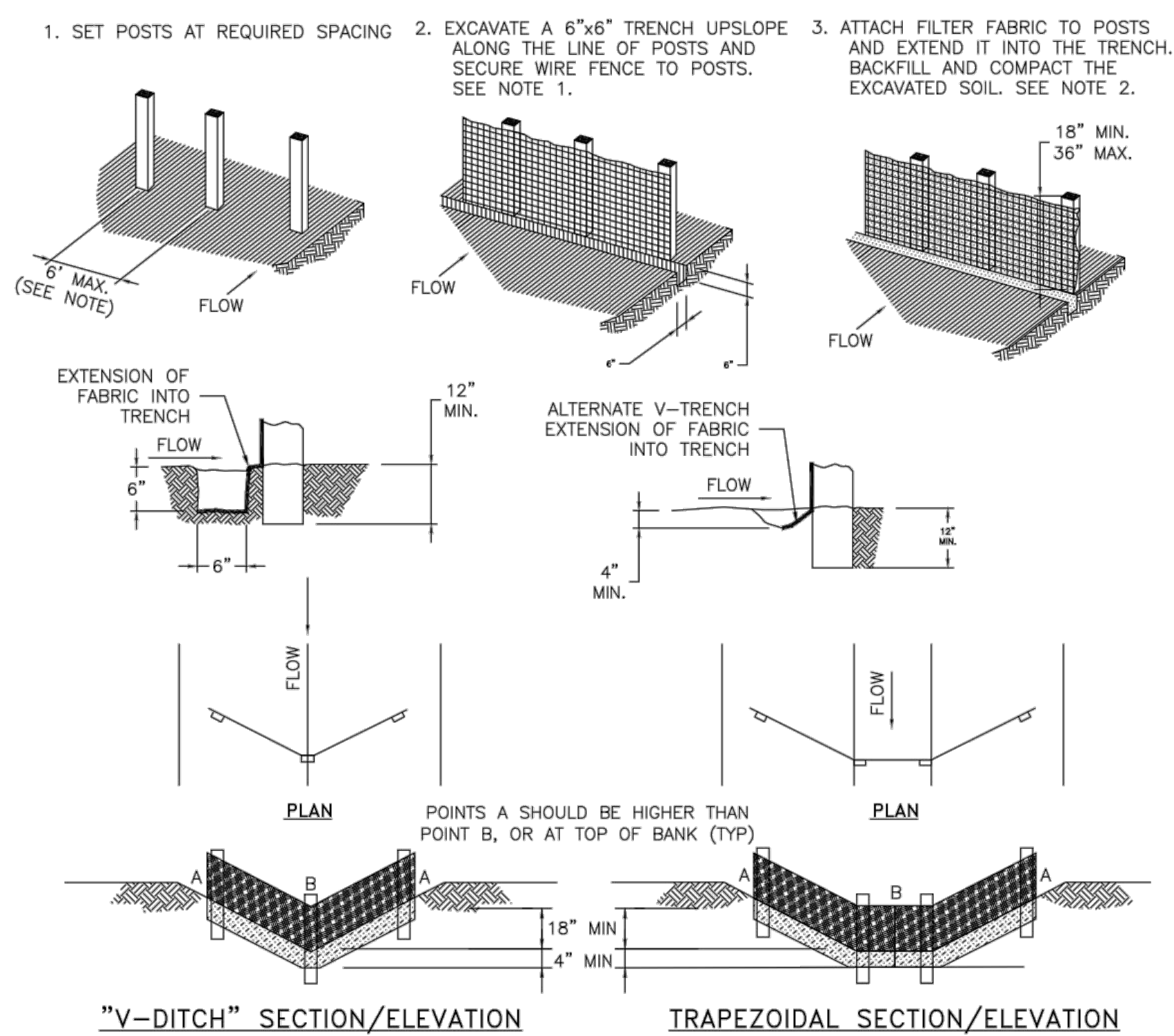
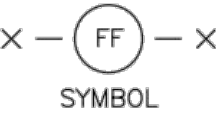
PRIVATE PLANS - UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK; CITY OF MAGNOLIA, TX 77354



CONSTRUCTION NOTES:

- 2-INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 6 FEET MAX.
- ATTACH FILTER FABRIC TO WOODEN STAKES.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED.
- REMOVE SEDIMENT DEPOSIT WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

FILTER FABRIC BARRIER



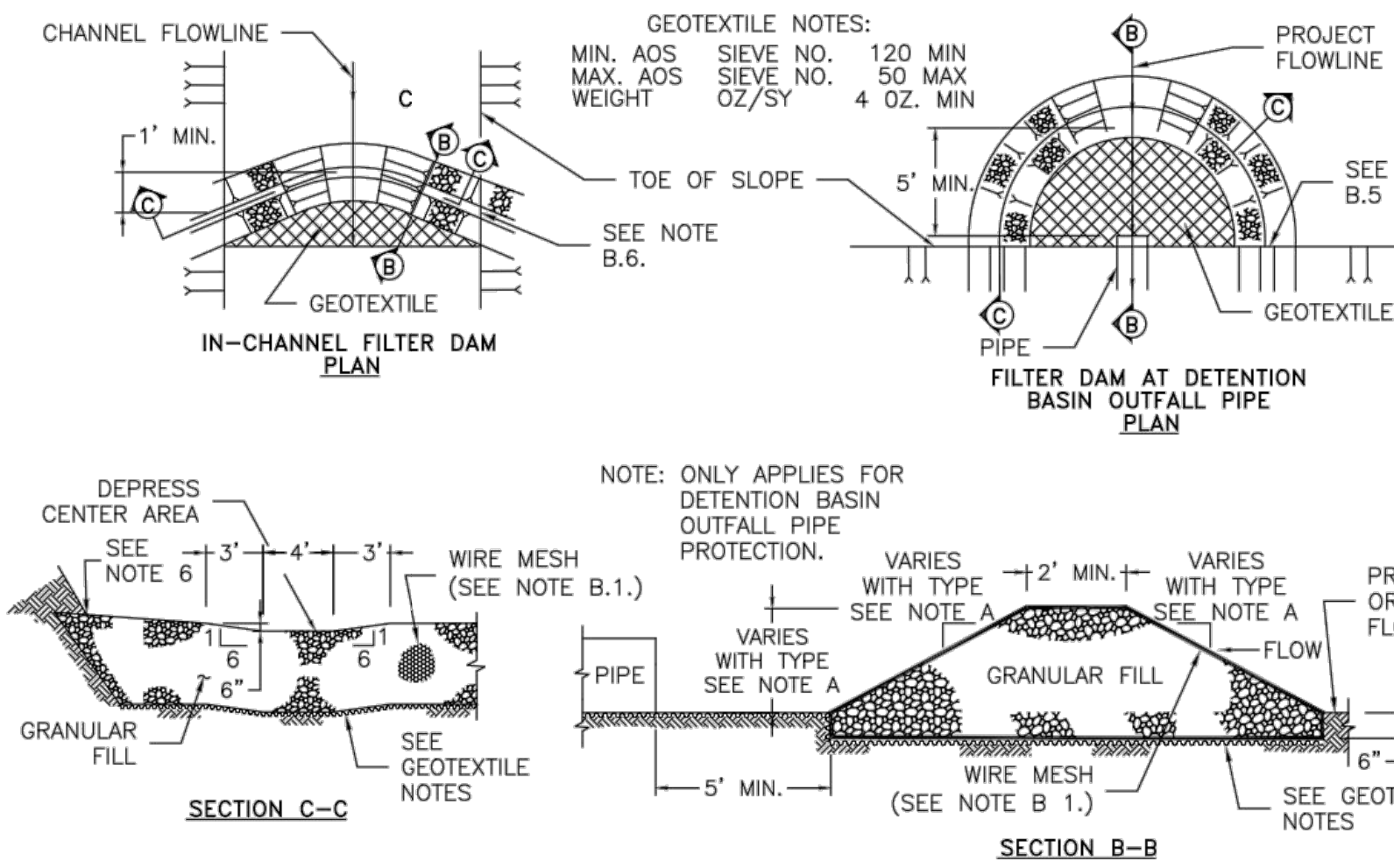
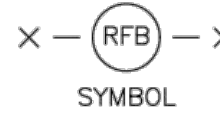
"V-DITCH" SECTION/ELEVATION

TRAPEZOIDAL SECTION/ELEVATION

GENERAL NOTES:

- SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR THE WIRES.
- SECURELY FASTEN FILTER FABRIC TO MESH FENCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
- WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
- REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

REINFORCED FILTER FABRIC BARRIER



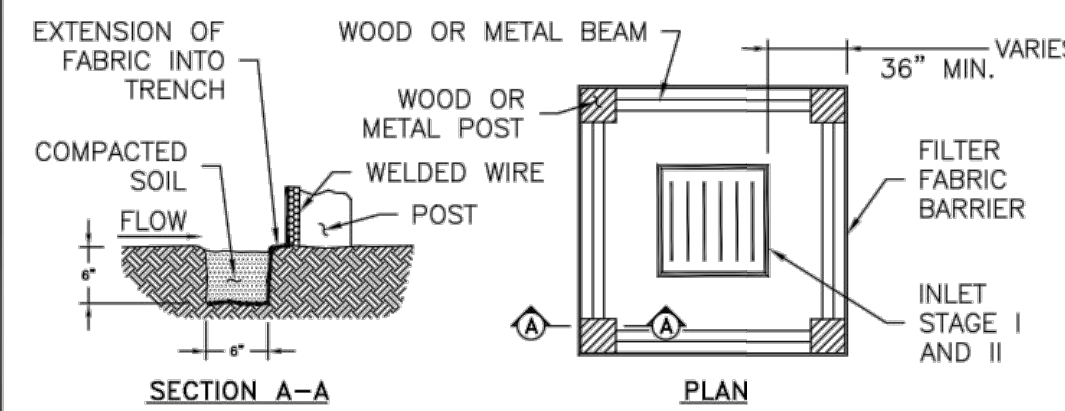
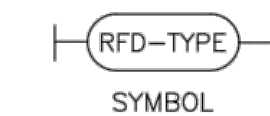
A. TYPES OF FILTER DAMS

- TYPE 1 (NON-REINFORCED)**
 - HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 2:1 (MAXIMUM).
- TYPE 2 (REINFORCED)**
 - HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 2:1 (MAXIMUM).
- TYPE 3 (REINFORCED)**
 - HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 3:1 (MAXIMUM).
- TYPE 4 (GABION)**
 - HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
- TYPE 5. AS SHOWN ON THE PLANS.**

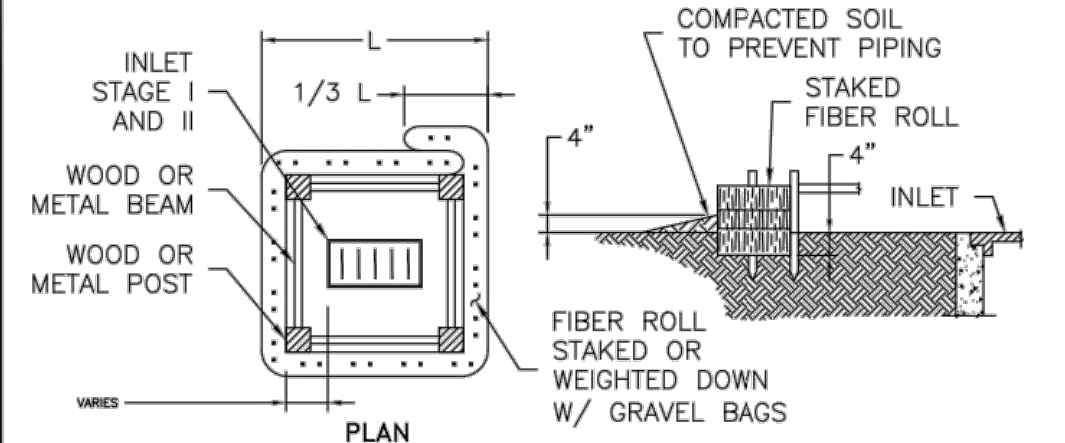
B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

- TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
- PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4.
 - 4-8 INCHES FOR ROCK FILTER DAM TYPE REFER TO GRANULAR FILL IN SPECIFICATION SECTION No. 02378 RIPRAP AND GRANULAR FILL.
- FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
- IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
- EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.

FILTER DAM



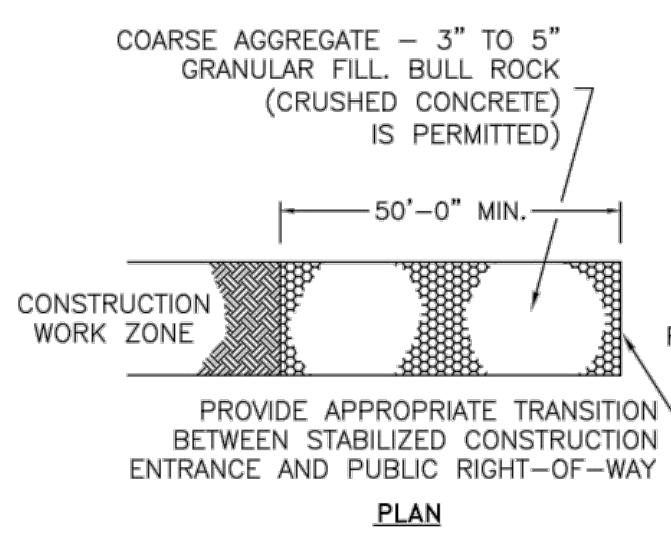
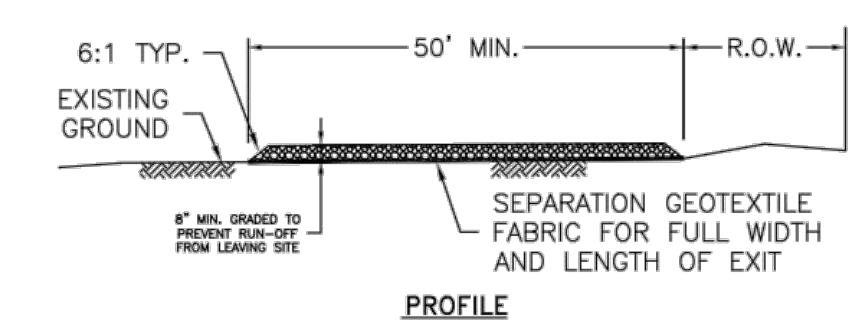
INLET PROTECTION BARRIER WITH REINFORCED FILTER FABRIC



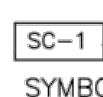
INLET PROTECTION BARRIER WITH FILTER ROLLS

- GENERAL NOTES:**
- FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

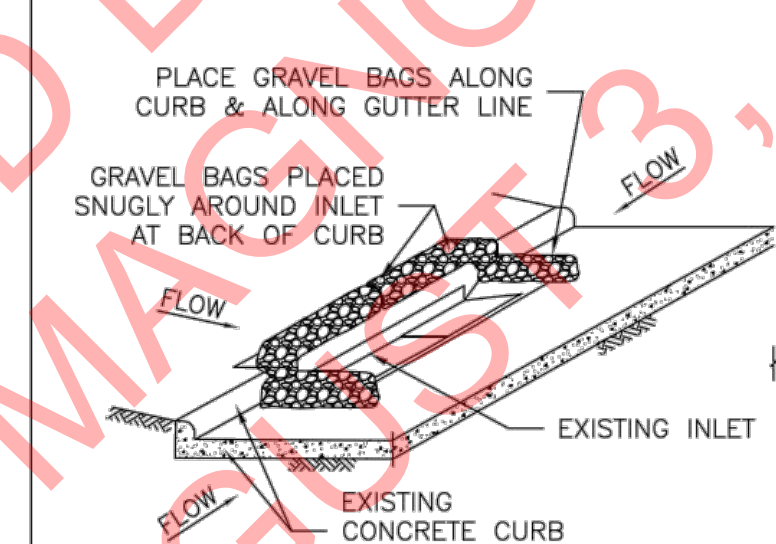


STABILIZED CONSTRUCTION ACCESS



GENERAL NOTES:

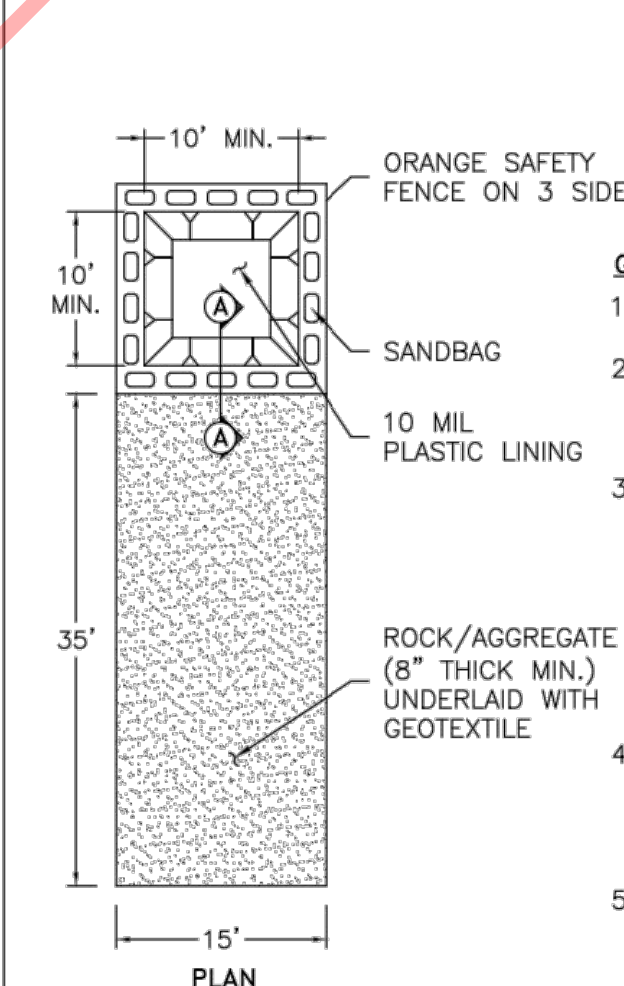
- POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
- VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.
- UPON THE CONCRETE SETTING UP (CURING, DRYING OUT), THE CONCRETE WASTE SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED 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. CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
- CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.



INLET PROTECTION BARRIERS FOR STAGE II INLETS



- GENERAL NOTES:**
- REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
 - GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.

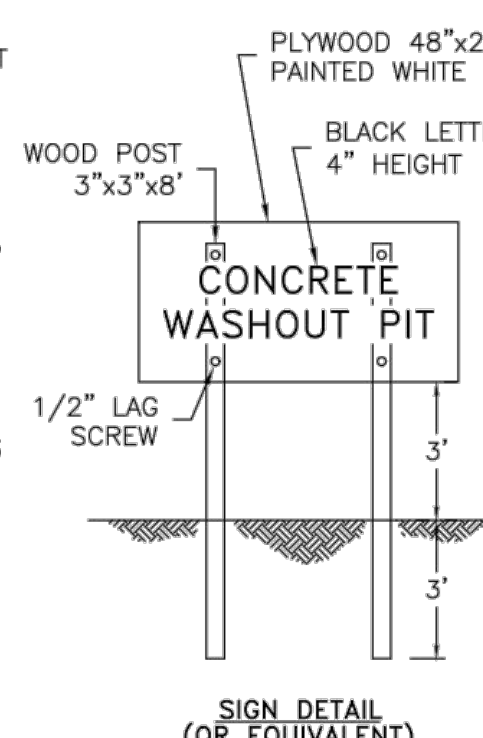


CONCRETE TRUCK WASHOUT AREA



GENERAL NOTES:

- POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
- VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT AND NOWHERE ELSE.
- 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.
- CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
- CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

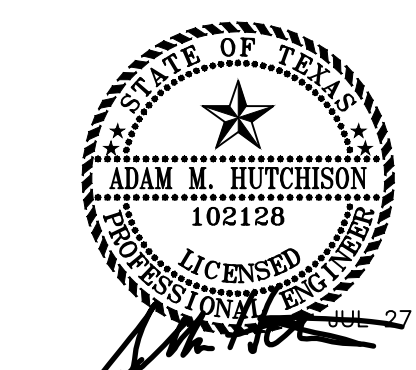


SIGN DETAIL (OR EQUIVALENT)

NO.	REVISIONS	DATE	NAME



- A. TYPES OF FILTER DAMS**
- TYPE 1 (NON-REINFORCED)**
 - HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 2:1 (MAXIMUM).
 - TYPE 2 (REINFORCED)**
 - HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 2:1 (MAXIMUM).
 - TYPE 3 (REINFORCED)**
 - HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 3:1 (MAXIMUM).
 - TYPE 4 (GABION)**
 - HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - TYPE 5. AS SHOWN ON THE PLANS.**
- B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.**
- TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
 - PLACE ON MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
 - 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2, AND 4 AND 4-8 INCHES FOR ROCK FILTER DAM TYPE 3.
 - REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO. 02378-RIPRAP AND GRANULAR FILL.
 - WIRE MESH: FOLD AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
 - IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
 - SEE SPECIFICATION SECTION NO. 02364-FILTER DAMS.
 - EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT



NOTE: IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

DATE	REVISION

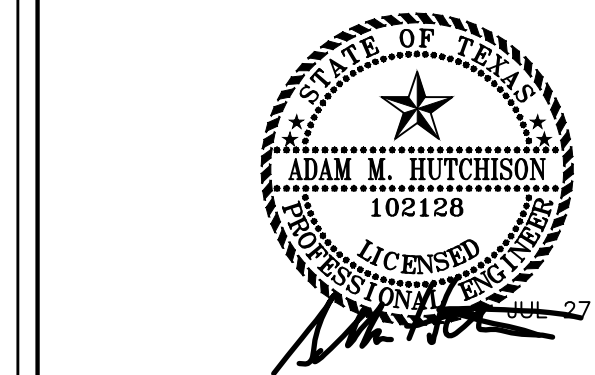
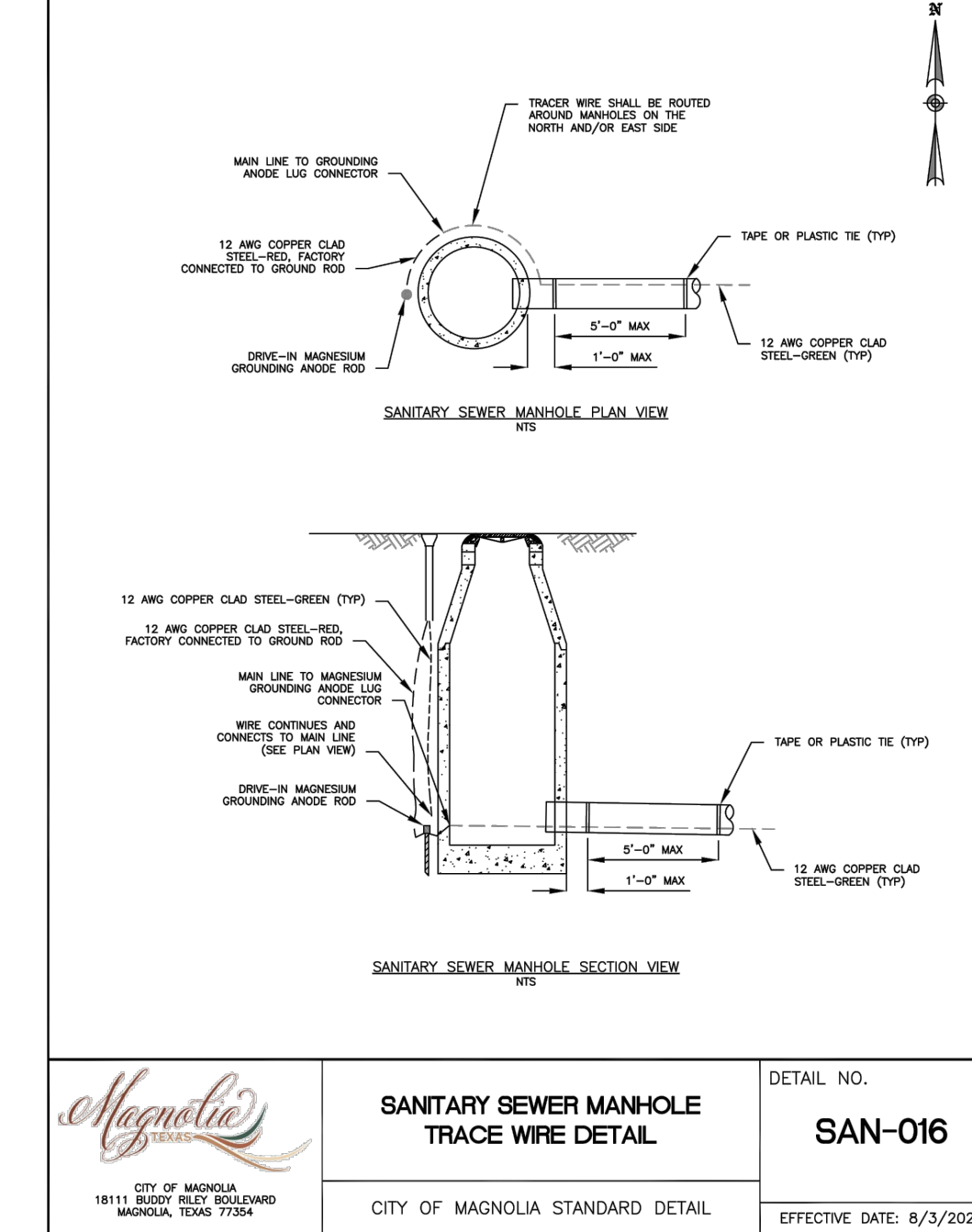
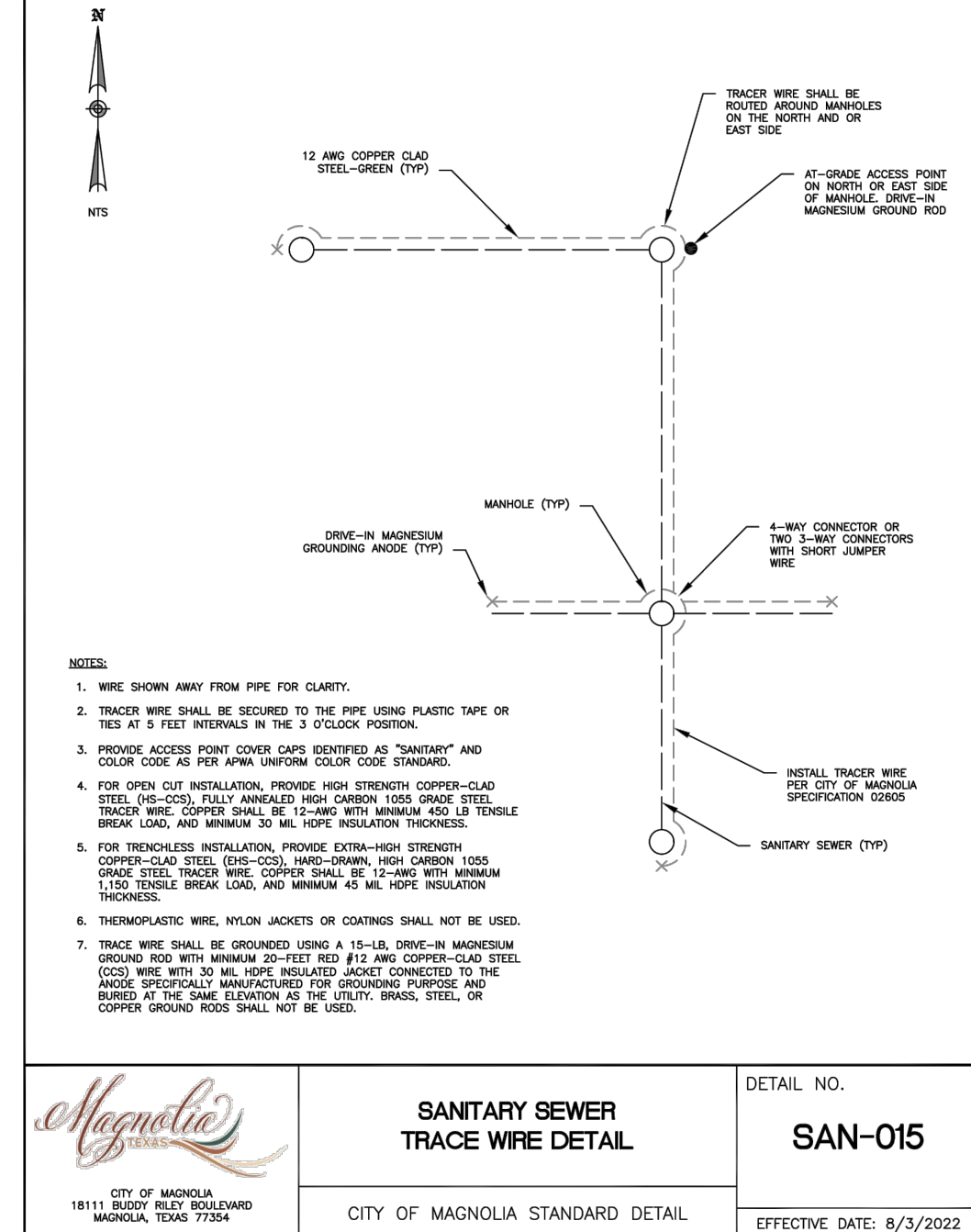
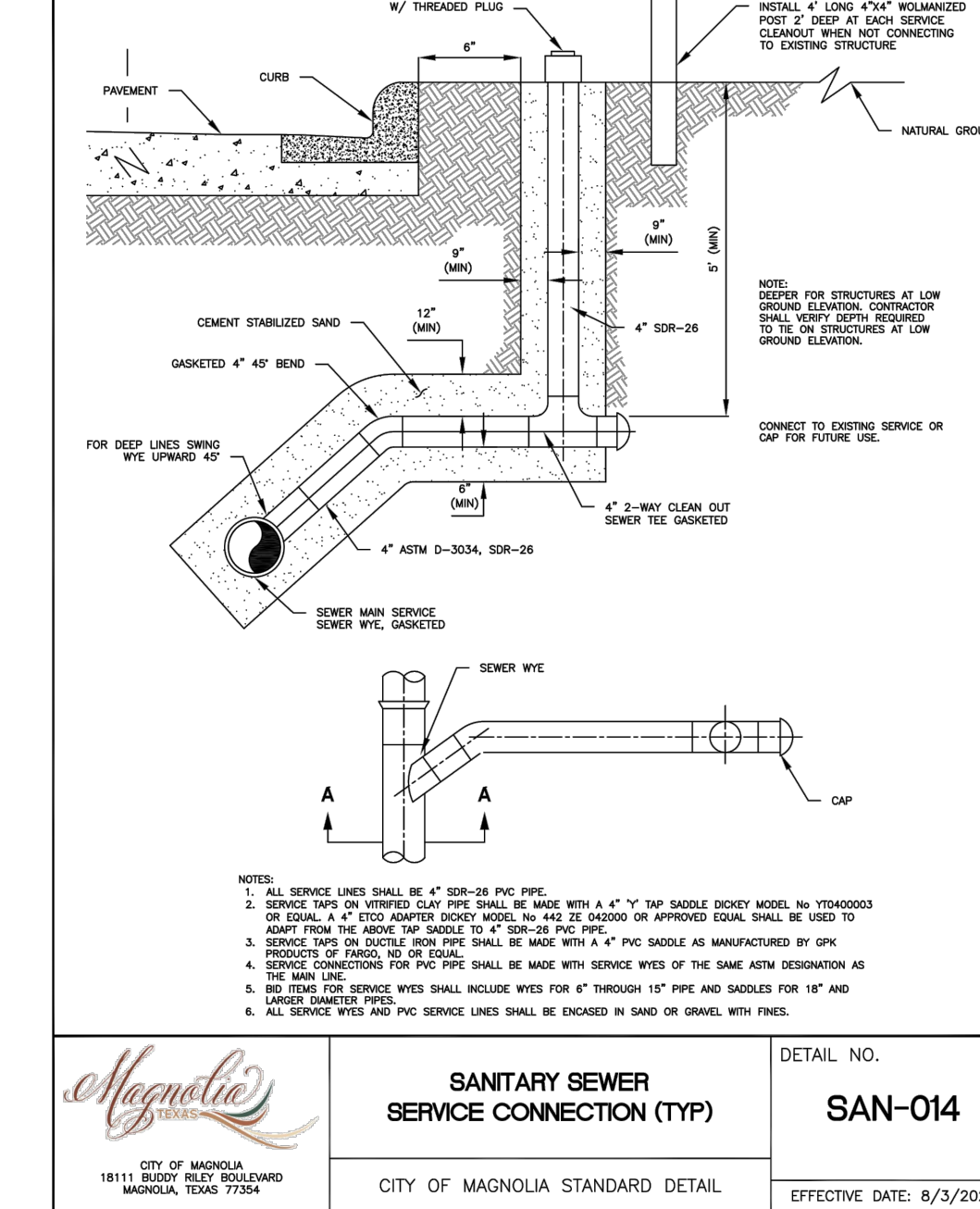
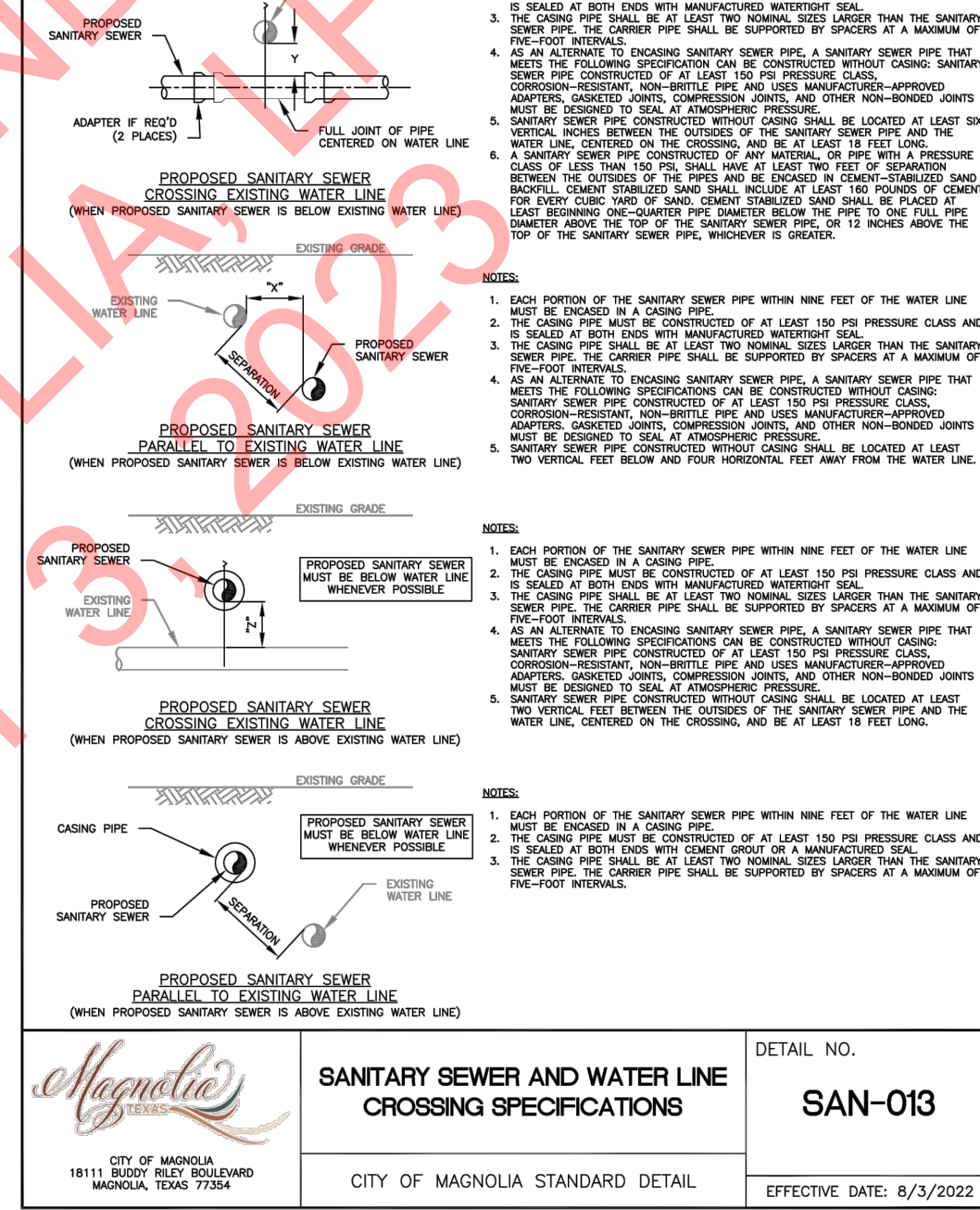
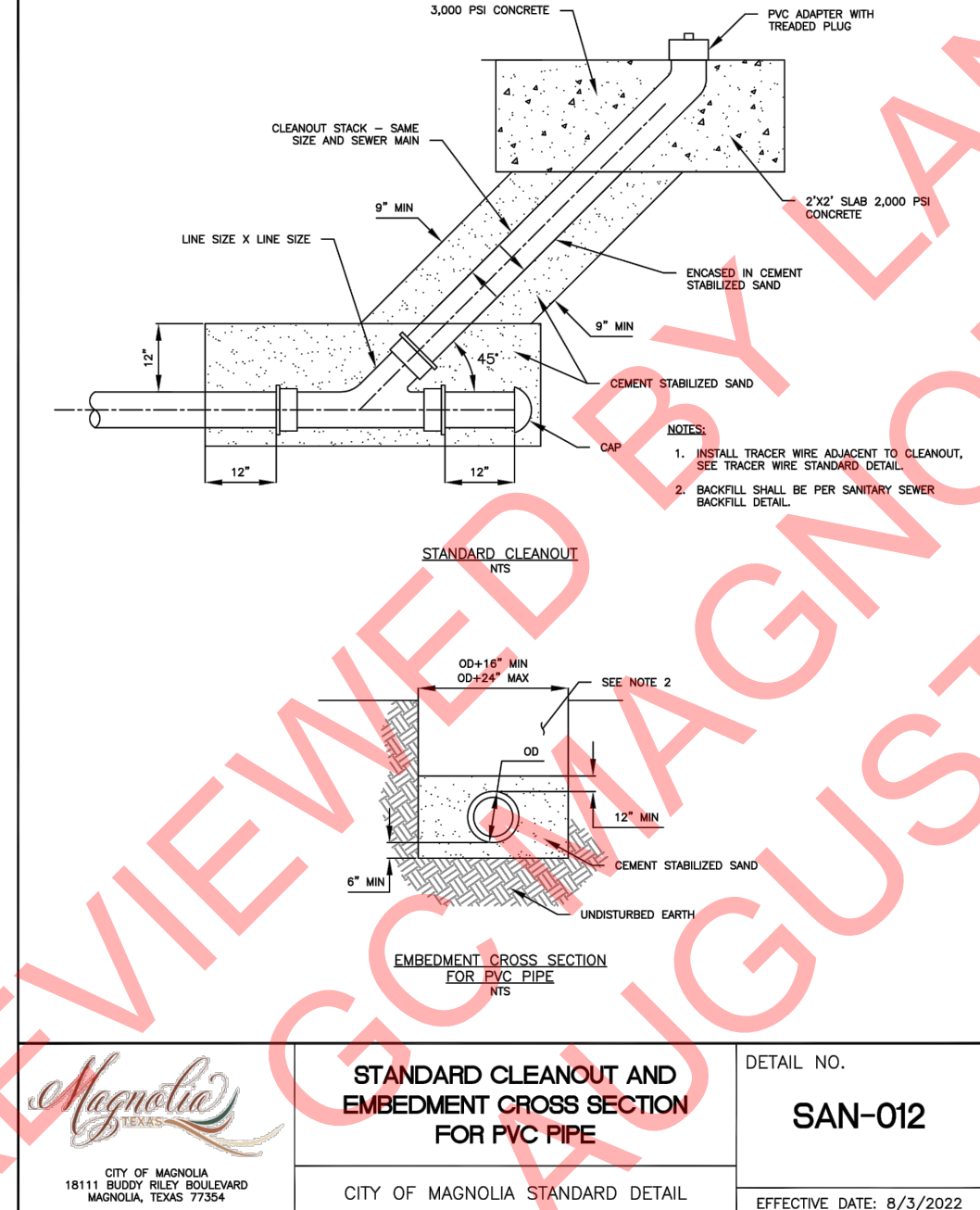
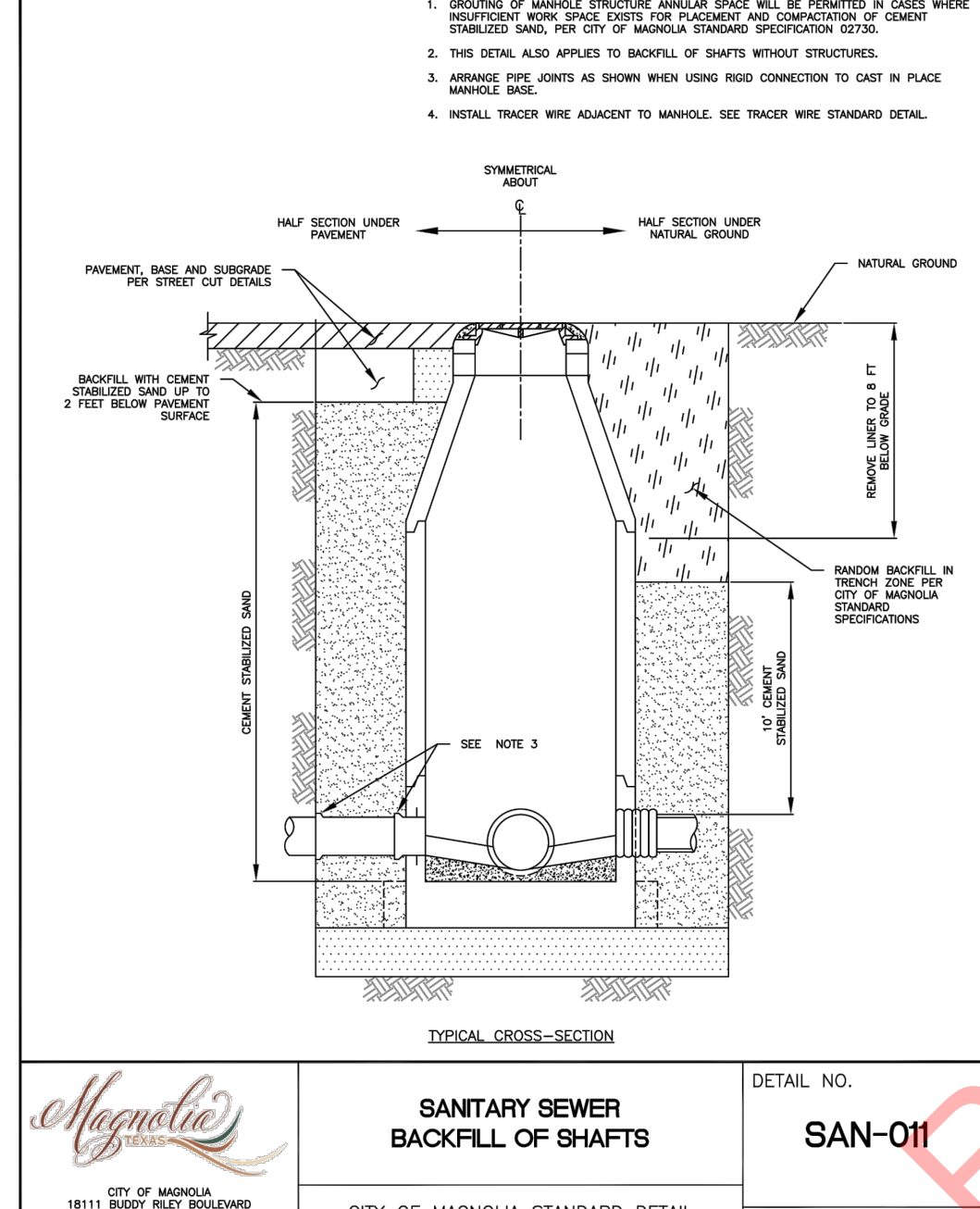
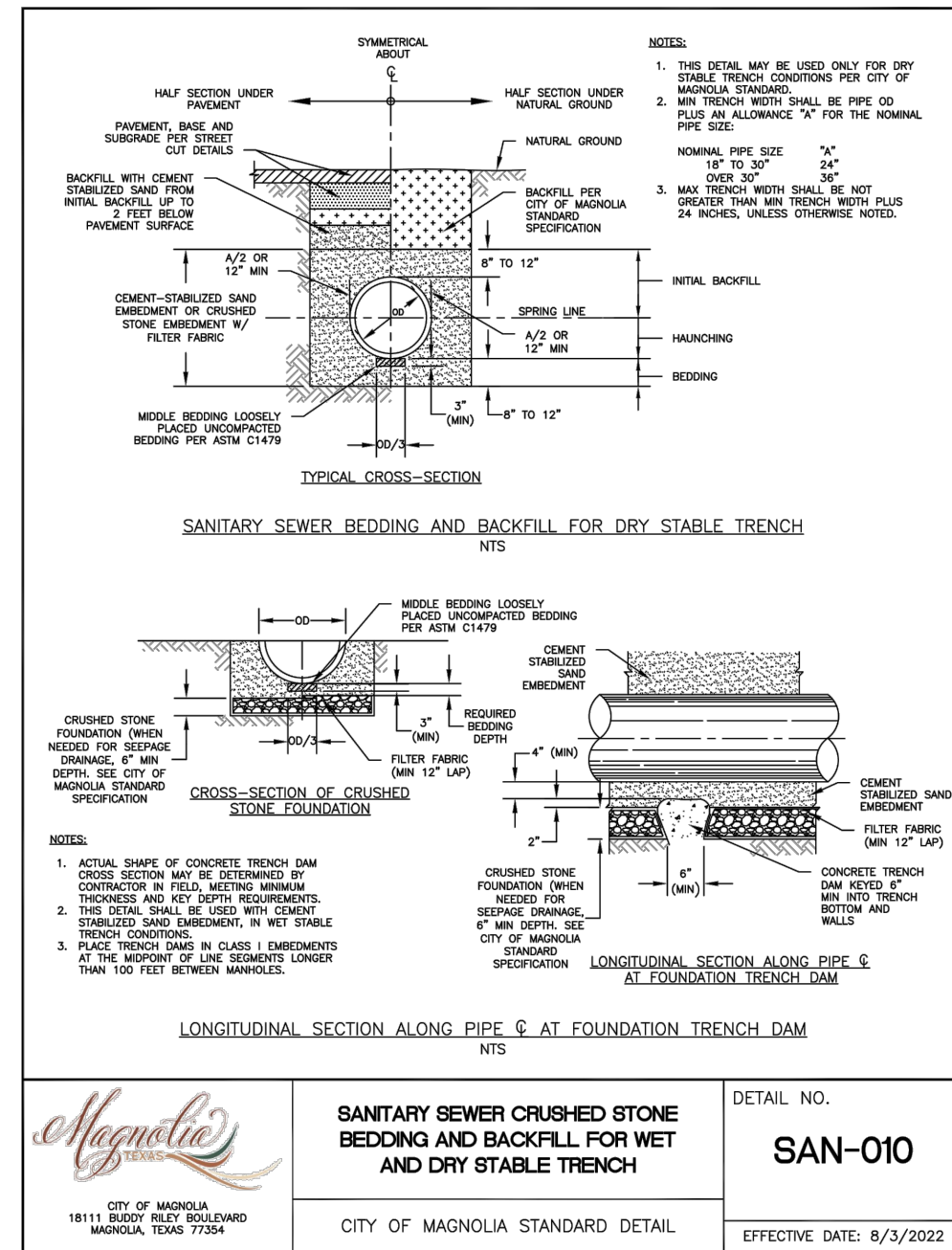
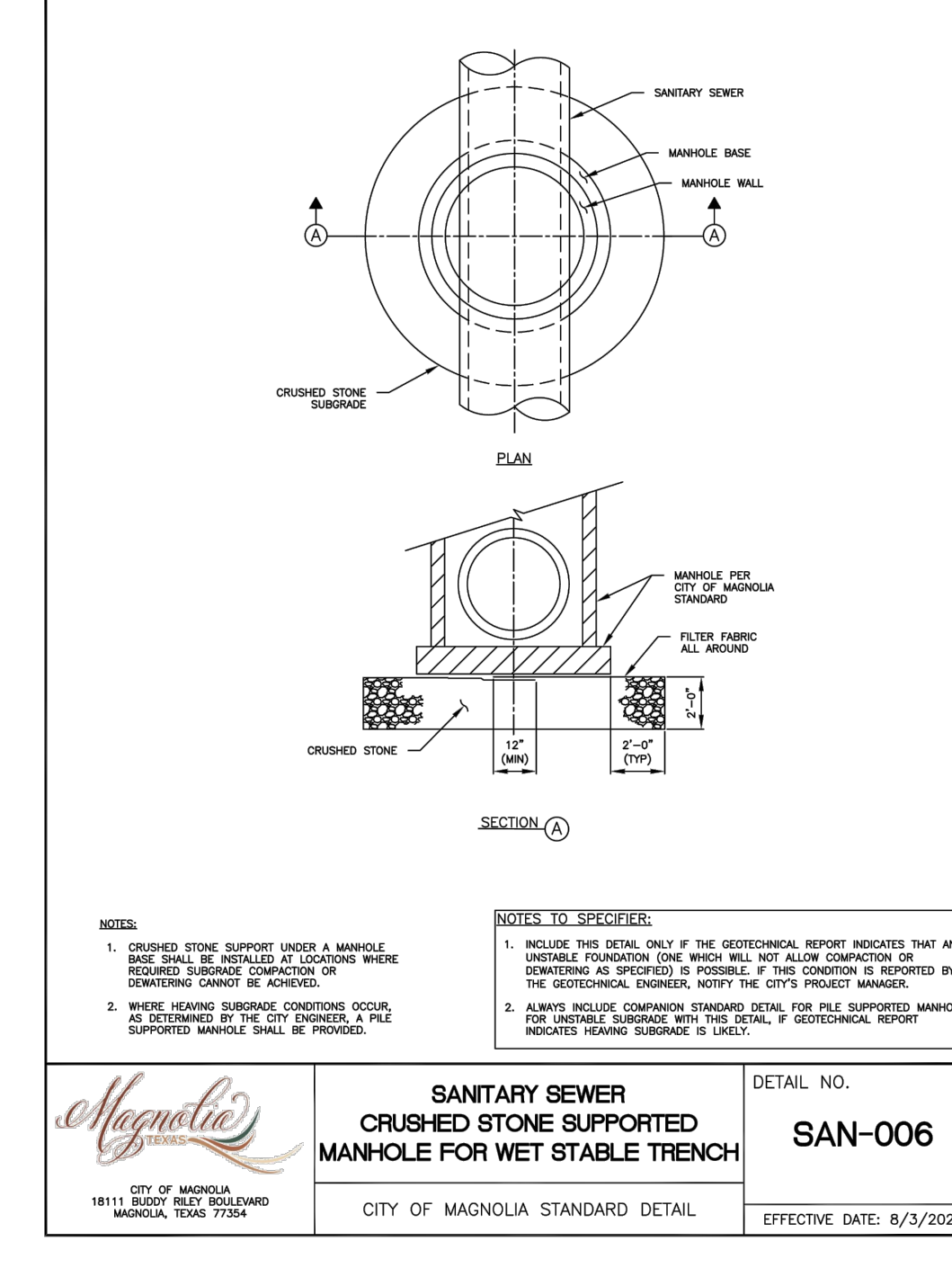
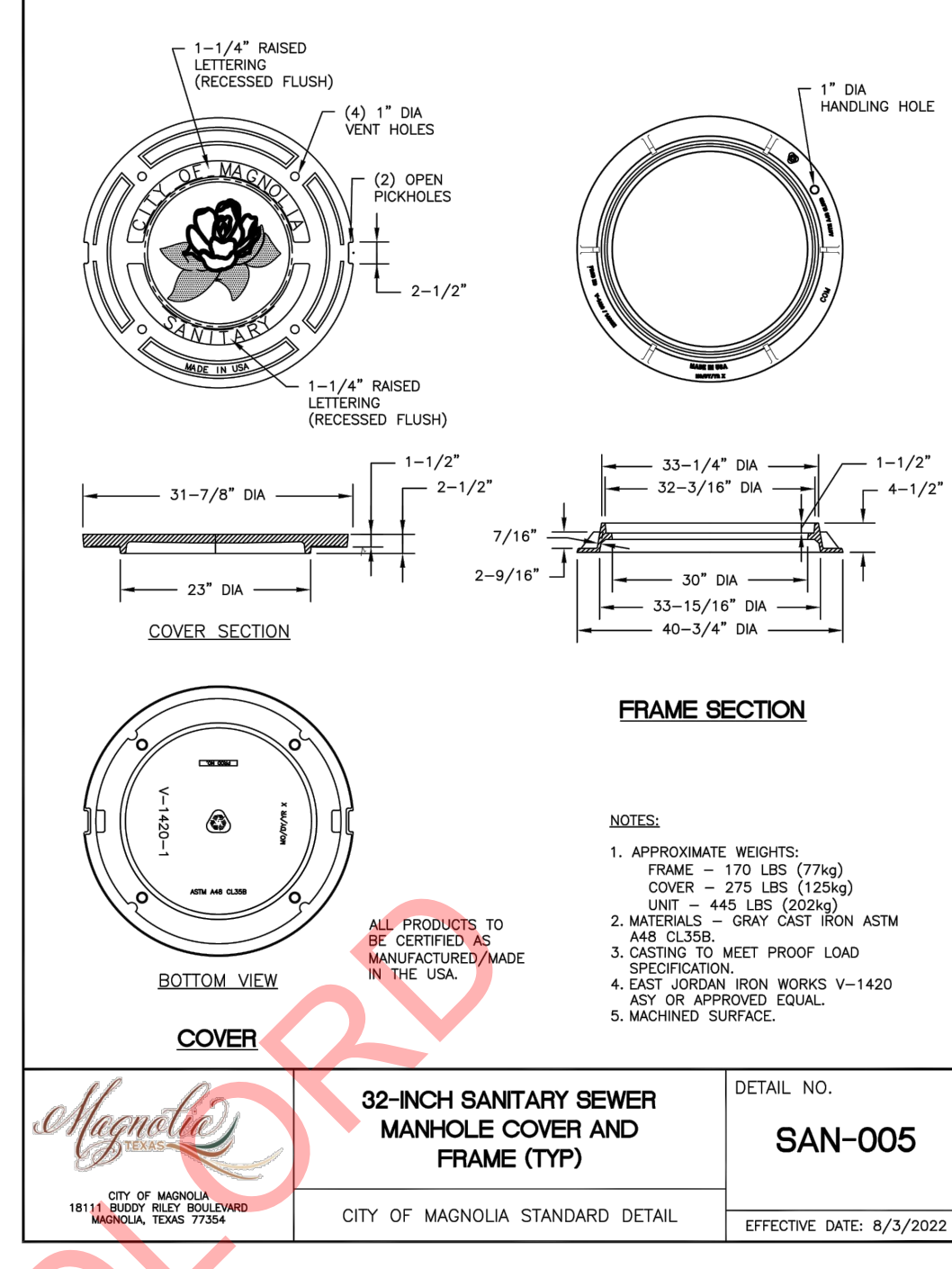
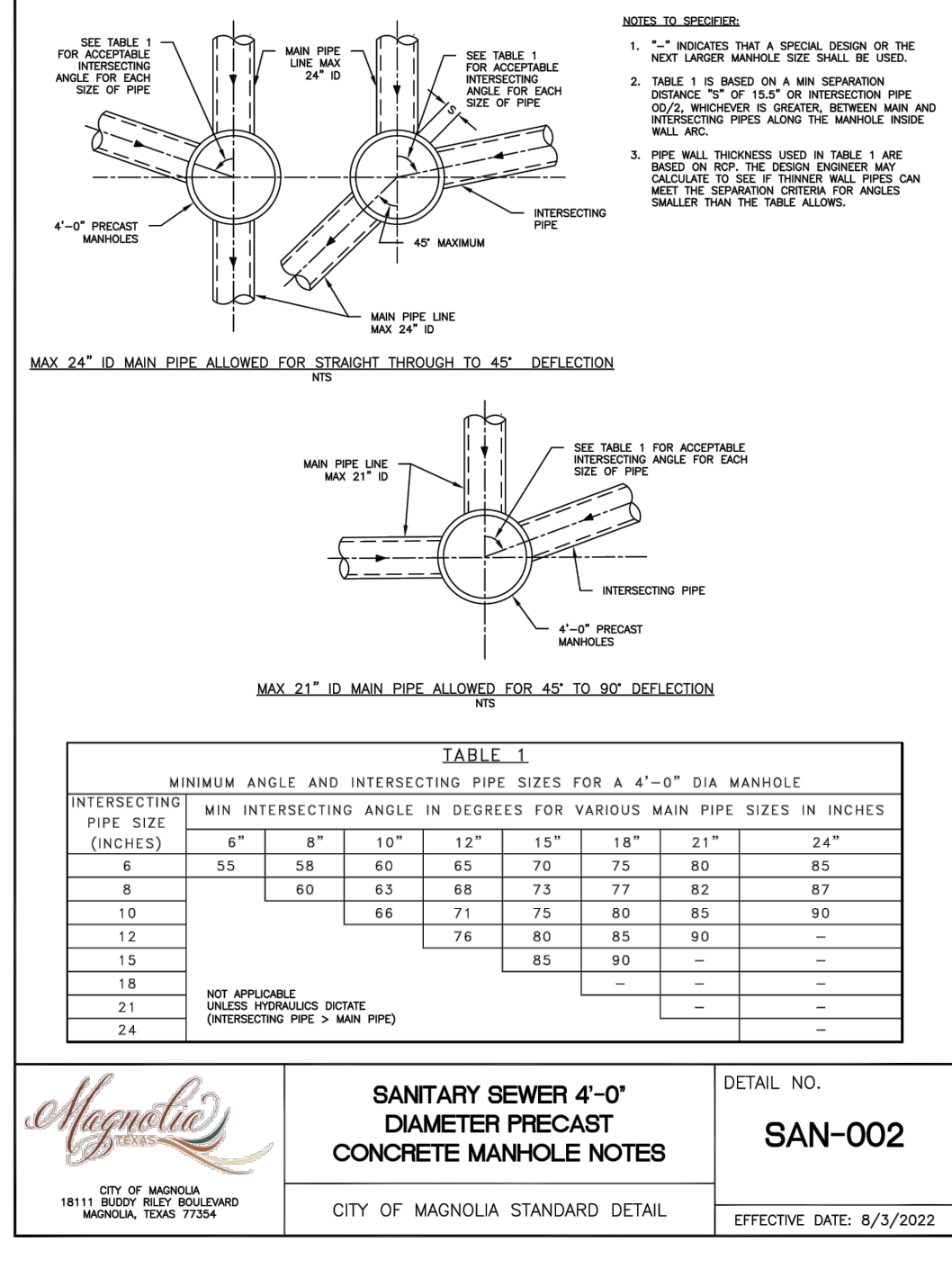
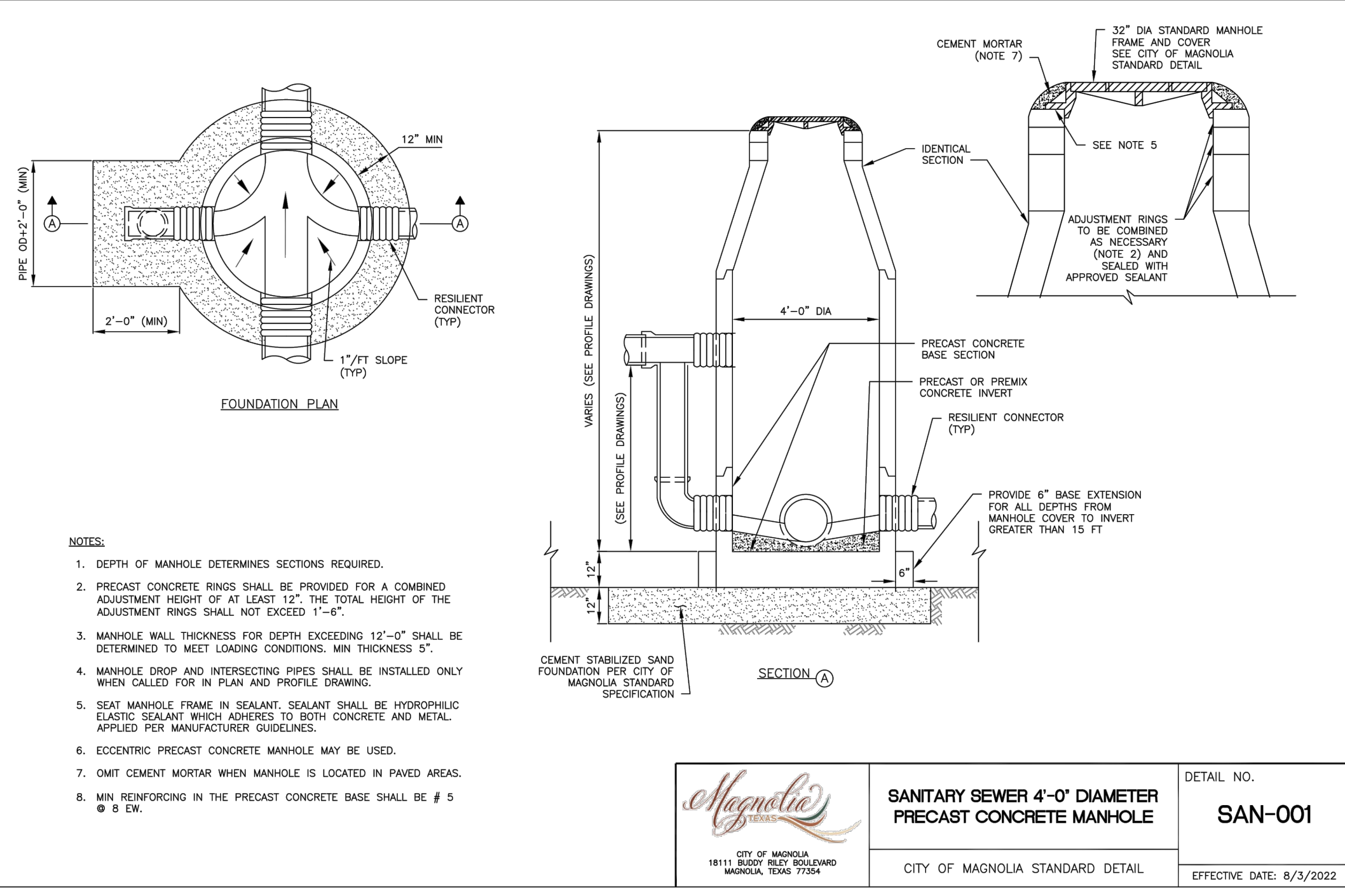
MAGNOLIA VILLAGE DRIVE, HERITAGE LANE, COMMUNITY ROAD, MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK

STORM WATER POLLUTION PREVENTION PLAN DETAILS

LJA Engineering Inc. 1904 W. Grand Parkway N. Suite 100 Katy, Texas 77449
 Phone 713.953.5200 Fax 713.953.5026 FRN-F-1386

LJA PROJECT NO.: 4034-0001
 SUBMITTED: SCALE: 1"=20'
 DATE: JUNE, 2023
 SURVEYED BY: PREJEAN & COMPANY, INC.
 DESIGNED BY: AH/BS
 DRAWN BY: MN
 SHEET NO. C12 OF C16
 CITY DWG NO:
 F B NO:



NOTE: IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE, COMMUNITY ROAD
MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK

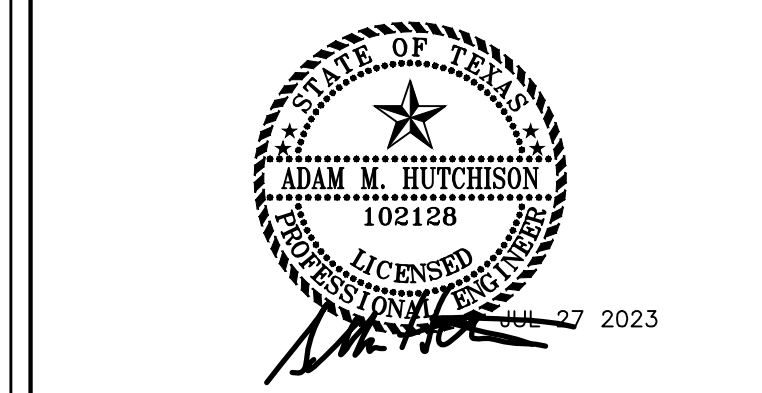
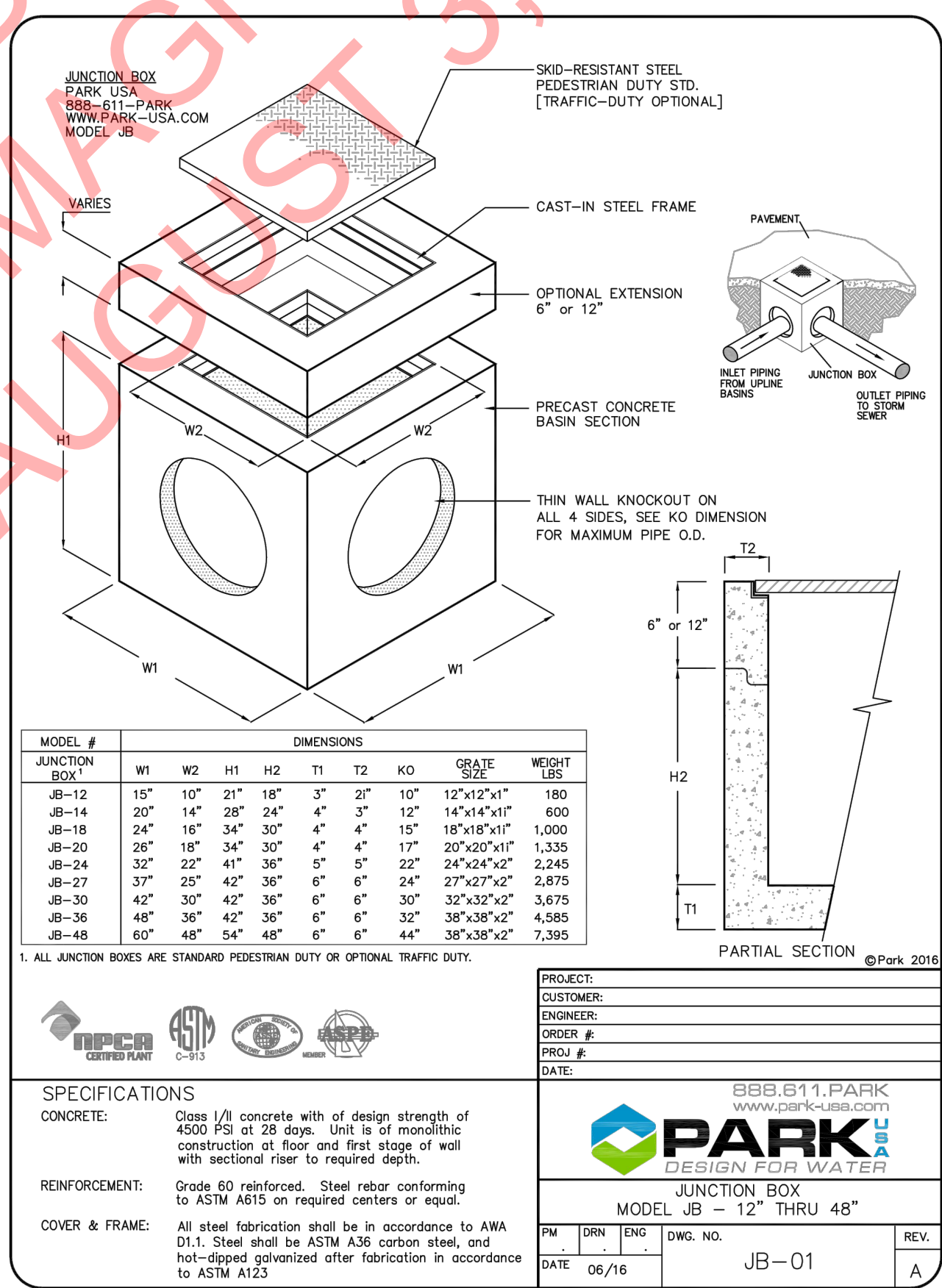
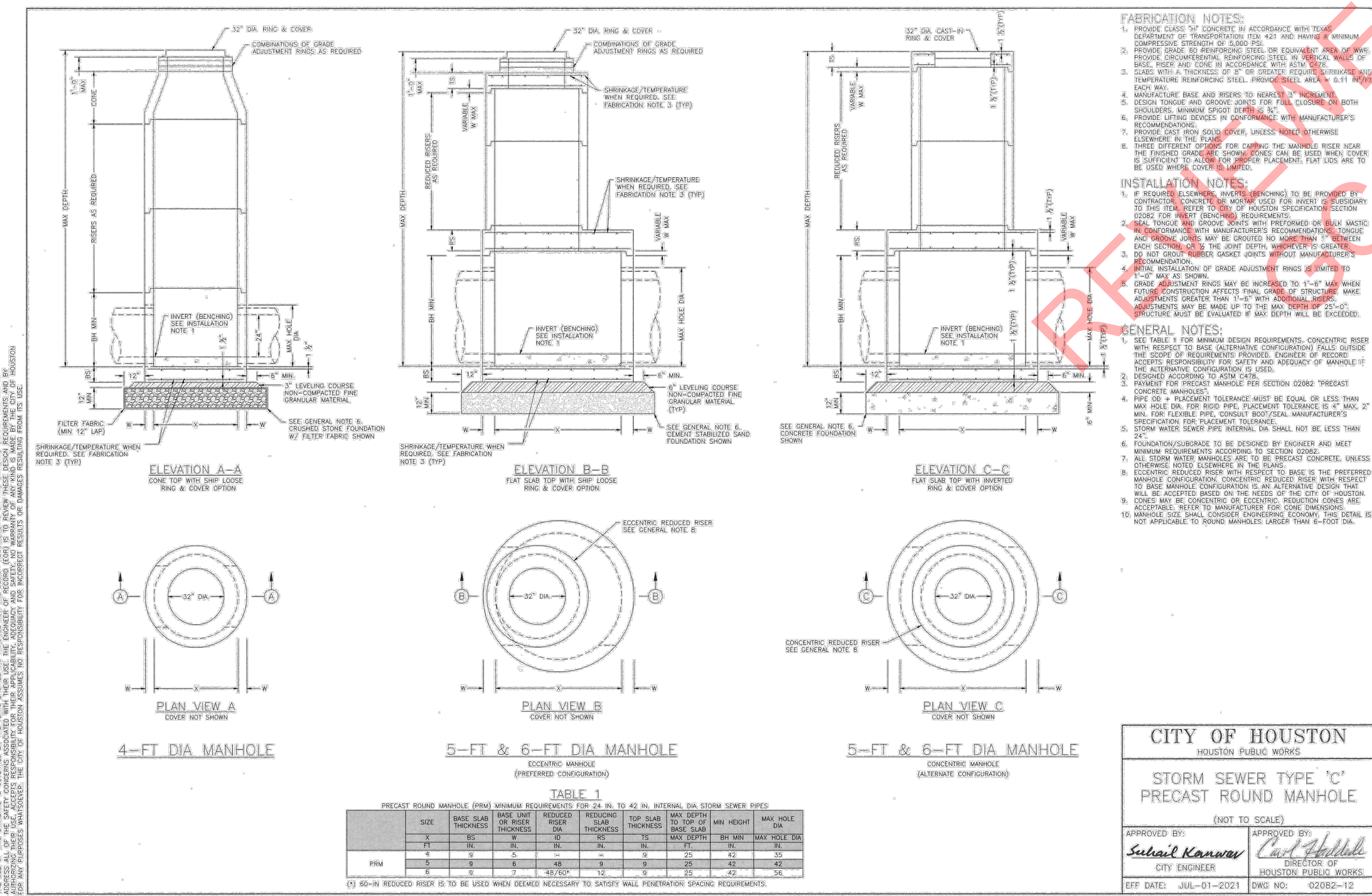
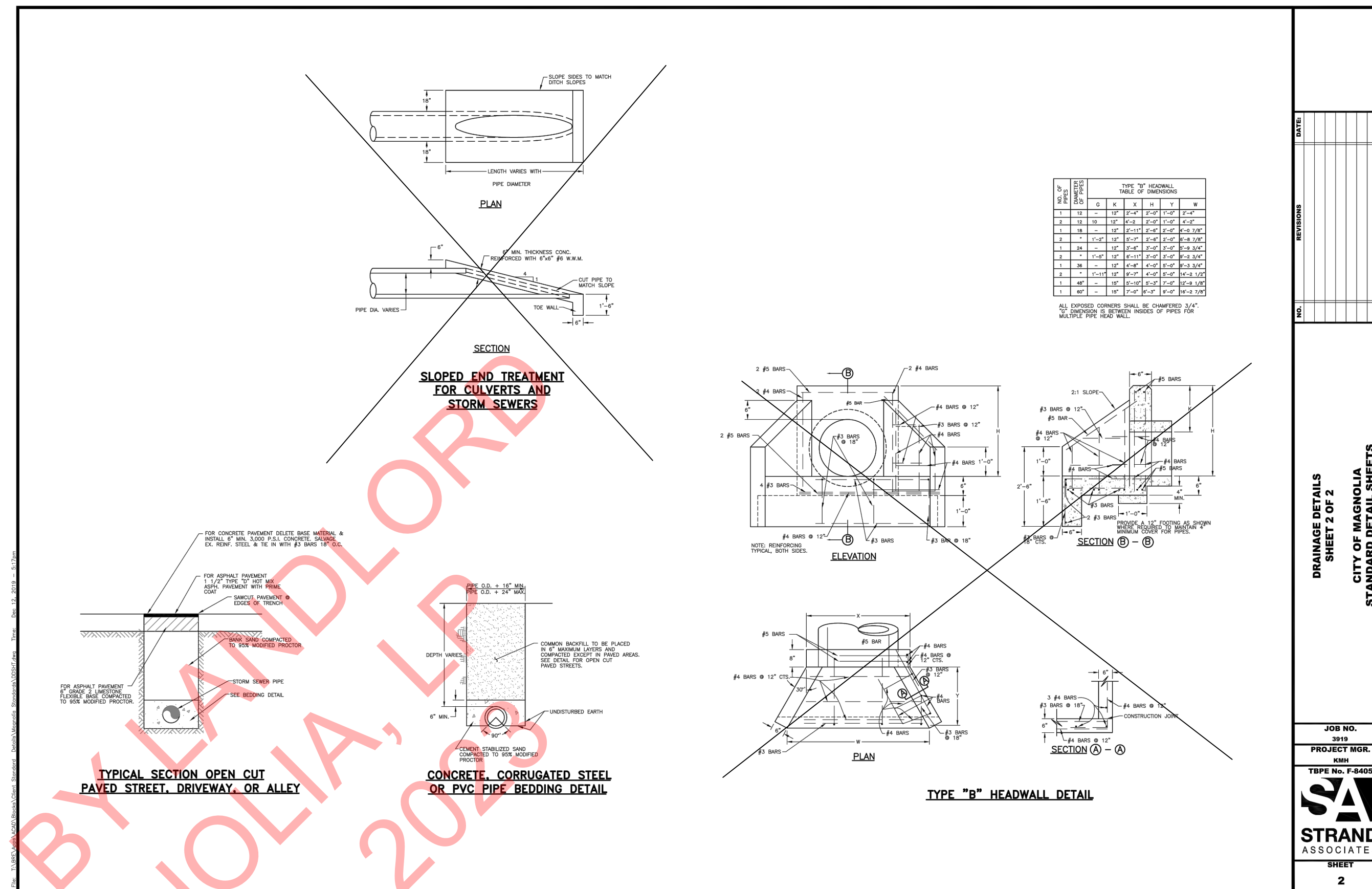
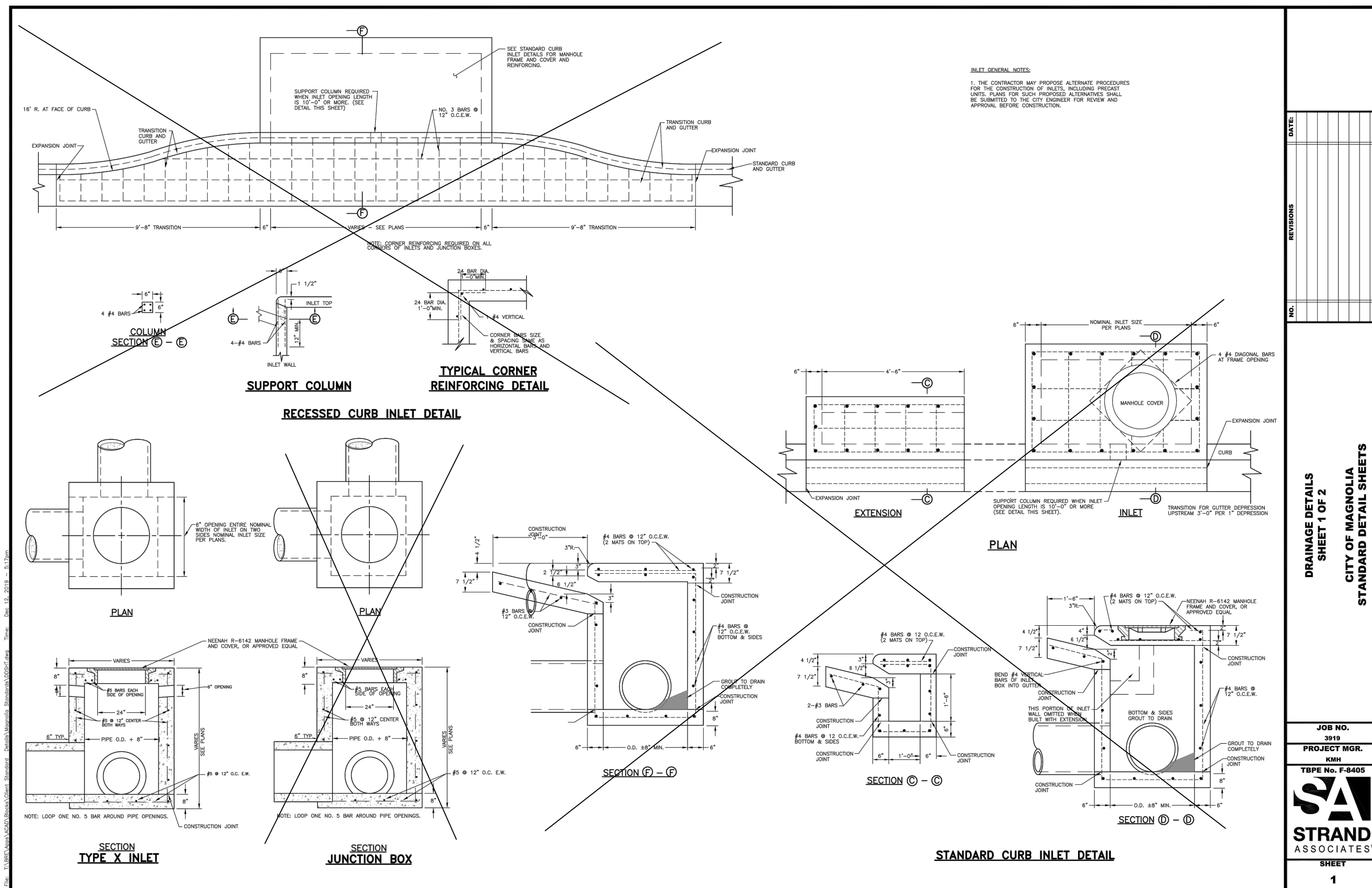
SANITARY SEWER DETAILS

LJA Engineering Inc.
1904 W. Grand Parkway N. Suite 100
Katy, Texas 77449

Phone 713.953.5200
Fax 713.953.5026
FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED: SCALE: N.T.S.
DATE: JUNE, 2023
SURVEYED BY: PREJEAN & COMPANY, INC.
DESIGNED BY: AH/BS
DRAWN BY: MN
SHEET NO. C14 OF C16
CITY DWG NO:
F B NO:



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MAGNOLIA VILLAGE DRIVE, HERITAGE LANE, COMMUNITY ROAD
MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE TO SERVE FIVE POINT BANK

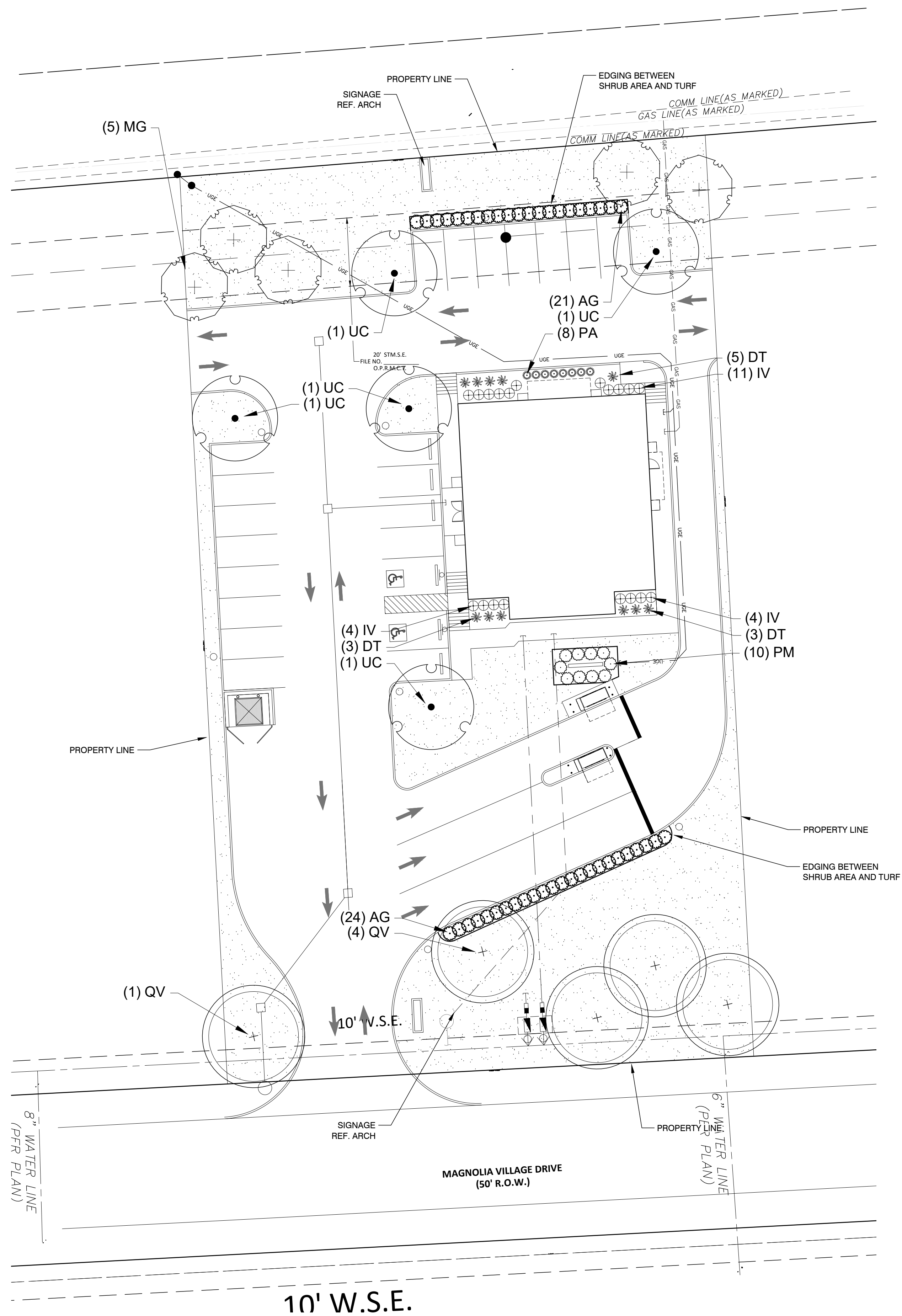
STORM SEWER DETAILS

LJA Engineering Inc.
 1904 W. Grand Parkway N. Phone 713.953.5200
 Suite 100 Fax 713.953.5026
 Katy, Texas 77449 FRN-F-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED: _____ **DESIGNED BY:** AH/BS
SCALE: N.T.S. **DRAWN BY:** MN
DATE: JUNE, 2023 **SHEET NO. C15 OF C16**
SURVEYED BY: PREJEAN & COMPANY, INC. **CITY DWG NO.:** _____
F B NO.: _____

F.M. 1488(WIDTH VARIES)(PUBLIC)



PLANT SCHEDULE

TREES	CODE	COMMON / BOTANICAL NAME	SIZE	CONTAINER	QTY
	MG	Little Gem Magnolia / Magnolia grandiflora 'Little Gem' Street Tree	CONT.	3" Cal	5
	QV	Live Oak / Quercus virginiana Street Tree	CONT.	3" Cal	5
	UC	Cedar Elm / Ulmus crassifolia Parking Lot Tree	CONT.	3" Cal	5
SHRUBS	CODE	COMMON / BOTANICAL NAME	SIZE	QTY	
	AG	Glossy Abelia / Abelia grandiflora 'Rose Creek' 36" o.c., 24" min.	3 gal	45	
	DT	Variegated Flax Lily / Dianella tasmanica 'Variegata' 42" o.c., 18" min.	3 gal	11	
	IC	Dwarf Burford Holly / Ilex cornuta 'Dwarf Burford' 24" min.	5 gal	2	
	IV	Dwarf Yaupon Holly / Ilex vomitoria 'Nana' 36" o.c., 24" min.	5 gal	19	
	PA	Pennisetum alopecuroides 'Little Bunny' / 12" min. Dwarf Fountain Grass	3 gal	8	
	PM	Japanese Yew / Podocarpus macrophyllus 48" Tall Min.	30 gal	10	
GROUND COVERS	CODE	COMMON / BOTANICAL NAME	SIZE	QTY	
	CD	Bermuda Grass / Cynodon dactylon 'Tiftuf'	sod	14,155 sf	

LANDSCAPE CALCULATIONS

TOTAL SITE AREA:	41,400 SF
NET BUILDABLE AREA:	25,951 SF
TOTAL FLOOR AREA:	3,357 SF
LANDSCAPE AREA REQUIRED:	6,210 SF (15% REQUIRED)
LANDSCAPE AREA PROVIDED:	15,449 SF (37.3%)
FRONT BUFFER/STREET TREES	
FM 1488 - 154 LF	
STREET TREES REQUIRED:	5 TREES - 30' O.C.
STREET TREES PROVIDED:	5 TREES
SHRUBS REQUIRED:	CONTINUOUS HEDGE
SHRUBS PROVIDED:	AS REQUIRED
MAGNOLIA VILLAGE DR - 154 LF	
STREET TREES REQUIRED:	5 TREES - 30' O.C.
STREET TREES PROVIDED:	5 TREES
SHRUBS REQUIRED:	CONTINUOUS HEDGE
SHRUBS PROVIDED:	AS REQUIRED
PARKING LOT TREES	
TREES REQUIRED:	5 TREES - EACH ISLAND & END ISLAND
TREES PROVIDED:	5 TREES

GENERAL PLANTING NOTES

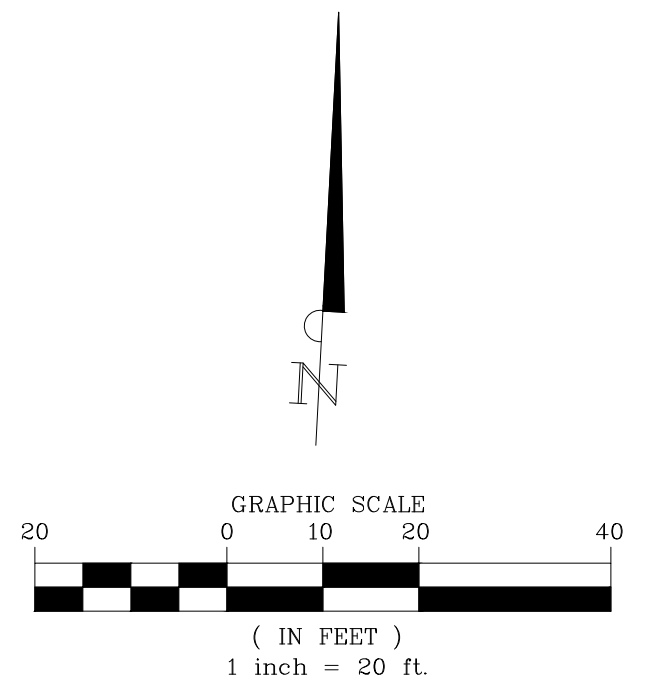
- BY SUBMITTING A PROPOSAL FOR THE LANDSCAPE PLANTING SCOPE OF WORK, THE CONTRACTOR CONFIRMS THAT HE HAS READ, AND WILL COMPLY WITH, THE ASSOCIATED NOTES, SPECIFICATIONS, AND DETAILS WITH THIS PROJECT, INCLUDING ALL APPLICABLE JURISDICTION REQUIREMENTS.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY THE OWNER OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY OWNER OF ANY CONFLICTS. UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND THE DESIGNER DOES NOT GUARANTEE THAT LOCATIONS SHOWN ARE EXACT. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL EXISTING VEGETATION (EXCEPT WHERE NOTED TO REMAIN).
- ALL PLANT LOCATIONS ARE DIAGRAMMATIC. ACTUAL LOCATIONS SHALL BE VERIFIED WITH THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT ALL REQUIREMENTS OF THE PERMITTING AUTHORITY ARE MET (I.E., MINIMUM PLANT QUANTITIES, PLANTING METHODS, TREE PROTECTION METHODS, ETC.).
 - THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING PLANT QUANTITIES; PLANT QUANTITIES SHOWN ON LEGENDS AND CALLOUTS ARE FOR GENERAL INFORMATION ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND THE PLANT LEGEND, THE PLANT QUANTITY AS SHOWN ON THE PLAN (FOR INDIVIDUAL SYMBOLS) OR CALLOUT (FOR GROUND COVER PATTERNS) SHALL TAKE PRECEDENCE.
 - NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT. IF SOME OF THE PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE IN WRITING (VIA PROPER CHANNELS).
 - THE CONTRACTOR SHALL, AT A MINIMUM, PROVIDE REPRESENTATIVE PHOTOS OF ALL PLANTS PROPOSED FOR THE PROJECT. THE CONTRACTOR SHALL ALLOW THE OWNER OR OWNER'S REPRESENTATIVE TO INSPECT, AND APPROVE OR REJECT, ALL PLANTS DELIVERED TO THE JOBSITE. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS.
- THE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE IN A HEALTHY CONDITION FOR 90 DAYS AFTER ACCEPTANCE BY THE OWNER. REFER TO SPECIFICATIONS FOR CONDITIONS OF ACCEPTANCE FOR THE START OF THE MAINTENANCE PERIOD, AND FOR FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD.
- PROVIDE AND INSTALL HYDROMULCH IN ALL DISTURBED AREAS OUTSIDE OF PROPERTY LIMITS (UNLESS SHOWN AS SOD).
- SEE SPECIFICATIONS AND DETAILS FOR FURTHER REQUIREMENTS.

MULCHES

AFTER ALL PLANTING IS COMPLETE, CONTRACTOR SHALL INSTALL 3" LAYER OF 1-1/2" SHREDDED HARDWOOD MULCH, NATURAL (UNDYED), IN ALL PLANTING AREAS (EXCEPT FOR TURF AREAS). ABSOLUTELY NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED (SUBJECT TO THE CONDITIONS AND REQUIREMENTS OF THE "GENERAL GRADING AND PLANTING NOTES" AND SPECIFICATIONS).

ROOT BARRIERS

THE CONTRACTOR SHALL INSTALL ROOT BARRIERS NEAR ALL NEWLY-PLANTED TREES THAT ARE LOCATED WITHIN FIVE (5) FEET OF PAVING OR CURBS. ROOT BARRIERS SHALL BE "CENTURY" OR "DEEP-ROOT" 24" DEEP PANELS (OR EQUAL). BARRIERS SHALL BE LOCATED IMMEDIATELY ADJACENT TO HARDSCAPE. INSTALL PANELS PER MANUFACTURER'S RECOMMENDATIONS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR USE ROOT BARRIERS OF A TYPE THAT COMPLETELY ENCIRCLE THE ROOTBALL.



FLOODPLAIN INFORMATION:
NO PORTION OF THE SUBJECT SITE IS LOCATED WITHIN THE 100 YEAR SPECIAL FLOOD HAZARD AREA ACCORDING TO THE MOST RECENT OFFICIAL INSURANCE RATE MAP, DATED AUGUST 18, 2014 MAP NUMBER 48339C0485G, ZONE(S) "X".

PRIMARY BENCHMARK: ELEV.=231.72'
FLOODPLAIN REFERENCE MARK NO. 100195 IS A BRASS DISK LOCATED FROM THE INTERSECTION OF FM 1488 AND FM 1774, SOUTHEAST ALONG FM 1774 0.4 MILES TO NICHOLS SAWMILL RD., SOUTH ALONG NICHOLS SAWMILL RD. 0.8 MILES TO THE BENCHMARK ON THE RIGHT.
ELEVATION: 231.72 (NAVD88)(2001 ADJUSTMENT)

TEMPORARY BENCHMARK: ELEV.=229.00'
CUT "X" ON THE SOUTHWEST CORNER OF A CONCRETE BASE OF A TSCB PEDESTAL LOCATED AT SOUTHEAST CORNER OF THE INTERSECTION OF FM 1488 AND SPUR 149.
ELEVATION: 229.00

NOTE:
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DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE,
COMMUNITY ROAD
MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE
TO SERVE FIVE POINT BANK

LANDSCAPE PLAN



06/16/2023



LJA Engineering Inc.
1904 W. Grand Parkway N. Phone 713.953.5200
Suite 100 Fax 713.953.5026
Katy, Texas 77449 FRN-F-1386

LJA PROJECT NO.: 4034-0001
SUBMITTED: DESIGNED BY: JP
SCALE: 1"=20' DRAWN BY: MN
DATE: APRIL, 2023 SHEET NO. OF C15
SURVEYED BY: PREJEAN & COMPANY, INC. CITY DWG NO:
F B NO: **LP-1**

PLANTING SPECIFICATIONS

GENERAL

- A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR**
- ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING.
 - A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.
 - THE LANDSCAPE CONTRACTOR MUST HOLD A VALID NURSERY AND FLORAL CERTIFICATE ISSUED BY THE TEXAS DEPARTMENT OF AGRICULTURE, AS WELL AS OPERATE UNDER A COMMERCIAL PESTICIDE APPLICATOR LICENSE ISSUED BY EITHER THE TEXAS DEPARTMENT OF AGRICULTURE OR THE TEXAS STRUCTURAL PEST CONTROL BOARD.
- B. SCOPE OF WORK**
- WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.
 - THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK.

PRODUCTS

- A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.**
- B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:**
- FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2004. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMATIC CONDITIONS.
 - ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).
 - ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTABLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL.
 - ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
 - CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.
 - ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
- C. SOD:** PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.
- D. SEED:** PROVIDE BLEND OF SPECIES AND VARIETIES AS NOTED ON THE PLANS, WITH MAXIMUM PERCENTAGES OF PURITY, GERMINATION, AND MINIMUM PERCENTAGE OF WEED SEED AS INDICATED ON PLANS. EACH BAG OF SEED SHALL BE ACCOMPANIED BY A TAG FROM THE SUPPLIER INDICATING THE COMPOSITION OF THE SEED.
- E. TOPSOIL:** SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN 1/2 INCH, FOREIGN MATTER, PLANTS, ROOTS, AND SEEDS.
- F. COMPOST:** WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 5.5 TO 6; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISEMIS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE USED.
- G. FERTILIZER:** AN EQUAL PART MIXTURE OF TOPSOIL, SAND AND COMPOST.
- H. FERTILIZER:** GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).
- I. MULCH:** SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.
- J. WEED FABRIC:** 5 OUNCE, WOVEN, NEEDLE-PUNCHED FABRIC, SUCH AS DEWITT PRO5 LANDSCAPE FABRIC (OR APPROVED EQUAL).
- K. TREE STAKING AND GUYING**
- STAKES: 6" LONG GREEN METAL T-POSTS.
 - GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.108 INCH DIAMETER.
 - STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE.
- L. STEEL EDGING:** PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN, ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL.
- M. PRE-EMERGENT HERBICIDES:** ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES.

METHODS

- A. SOIL PREPARATION**
- BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST.
 - SOIL TESTING:
 - AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, PH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT. EACH SAMPLE SUBMITTED SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL.
 - CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG WITH THE SOIL SAMPLES.
 - THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR THE FOLLOWING (AS APPROPRIATE): GENERAL SOIL PREPARATION AND BACKFILL MIXES, PRE-PLANT FERTILIZER APPLICATIONS, AND ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.
 - THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT.
 - FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:
 - TURF: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
 - NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
 - AMMONIUM PHOSPHATE 16-20-0 - 15 LBS PER 1,000 S.F.
 - AGRICULTURAL GYPSUM - 100 LBS PER 1,000 S.F.
 - TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING:
 - NITROGEN STABILIZED ORGANIC AMENDMENT - 4 CU. YDS. PER 1,000 S.F.
 - 12-12-12 FERTILIZER - 10 LBS. PER CU. YD.
 - AGRICULTURAL GYPSUM - 10 LBS. PER CU. YD.
 - IRON SULPHATE - 2 LBS. PER CU. YD.
 - CONTRACTOR SHALL ENSURE THAT THE GRADE IN SOD AREAS SHALL BE 1" BELOW FINISH GRADE AFTER INSTALLING SOIL AMENDMENTS, AND 2" BELOW FINISH GRADE IN SHRUB AREAS AFTER INSTALLING SOIL AMENDMENTS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL.
 - ONCE SOIL PREPARATION IS COMPLETE, THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

B. GENERAL PLANTING

- REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.
- EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES, APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE.
- TRENCHING NEAR EXISTING TREES:
 - CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE TRUNKS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1" FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).
 - ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ.
 - ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.
 - ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

C. TREE PLANTING

- TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO INCHES.
 - SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE.
 - FOR CONTAINER TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS OUT FROM THE ROOTBALL.
 - INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO THREE INCHES ABOVE THE SURROUNDING GRADE.
 - BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
 - THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN, THE LANDSCAPE CONTRACTOR SHALL STRAIGHTEN THE TREE, OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES:
 - 15 - 30 GAL TREES: TWO STAKES PER TREE
 - 45 - 100 GAL TREES: THREE STAKES PER TREE
 - 100+ GAL TREES: FOUR STAKES PER TREE
 TREE STAKES SHALL BE POSITIONED AS NEEDED TO STABILIZE THE TREE.
 - UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE. COVER THE INTERIOR OF THE TREE RING WITH THE WEED BARRIER CLOTH AND TOPDRESS WITH MULCH (TYPE AND DEPTH PER PLANS).
- D. SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING**
- DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST RECOMMENDATIONS.
 - INSTALL THE WEED BARRIER CLOTH, OVERLAPPING IT AT THE ENDS. UTILIZE STEEL STAPLES TO KEEP THE WEED BARRIER CLOTH IN PLACE.
 - WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING BEDS, COVERING THE ENTIRE PLANTING AREA.

E. SODDING

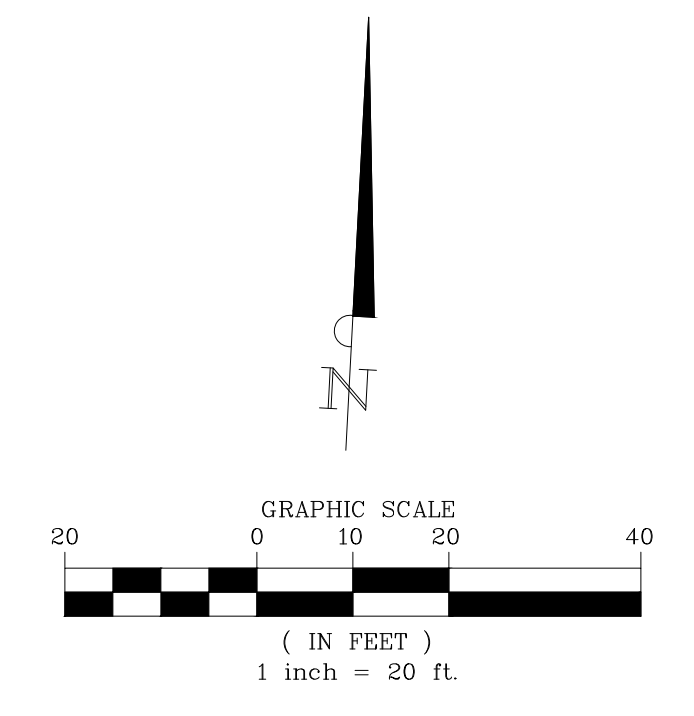
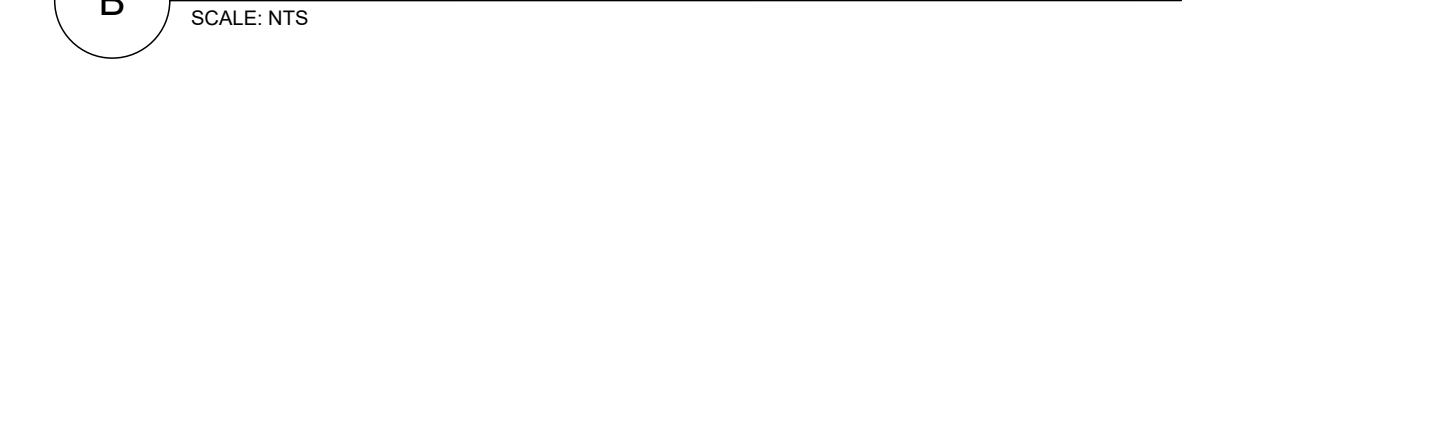
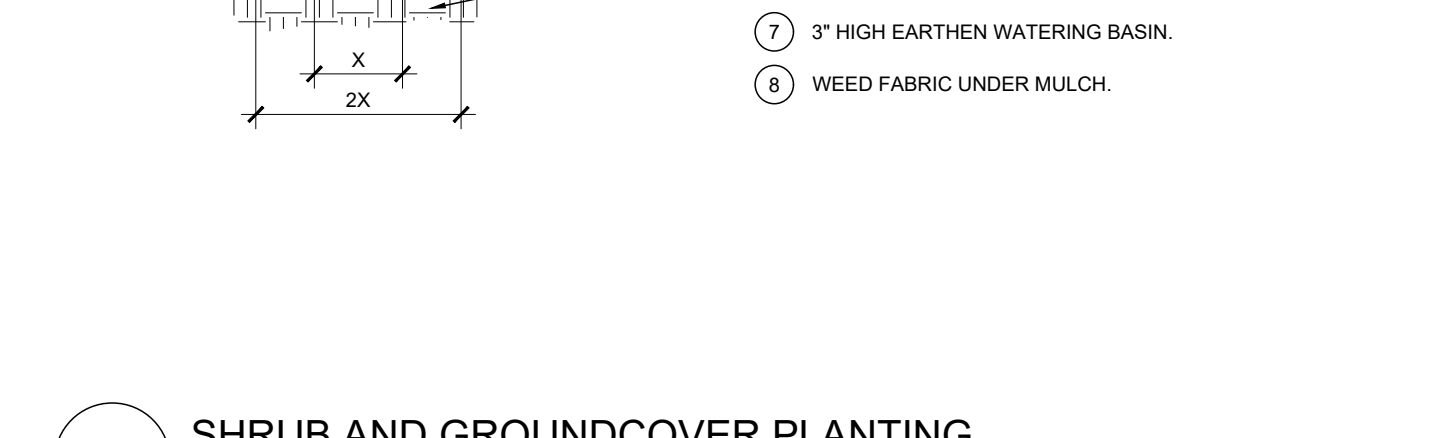
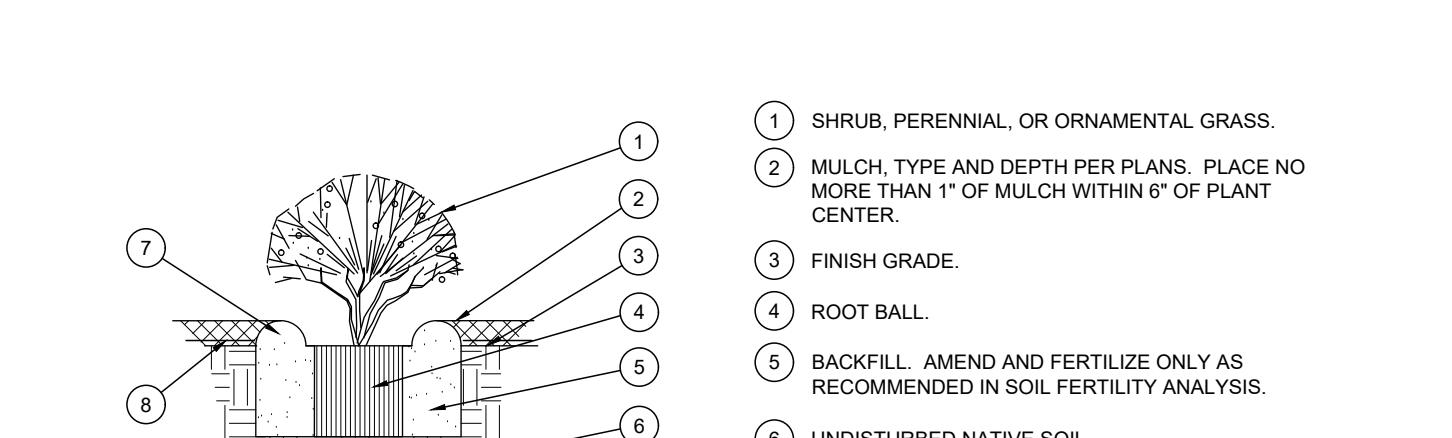
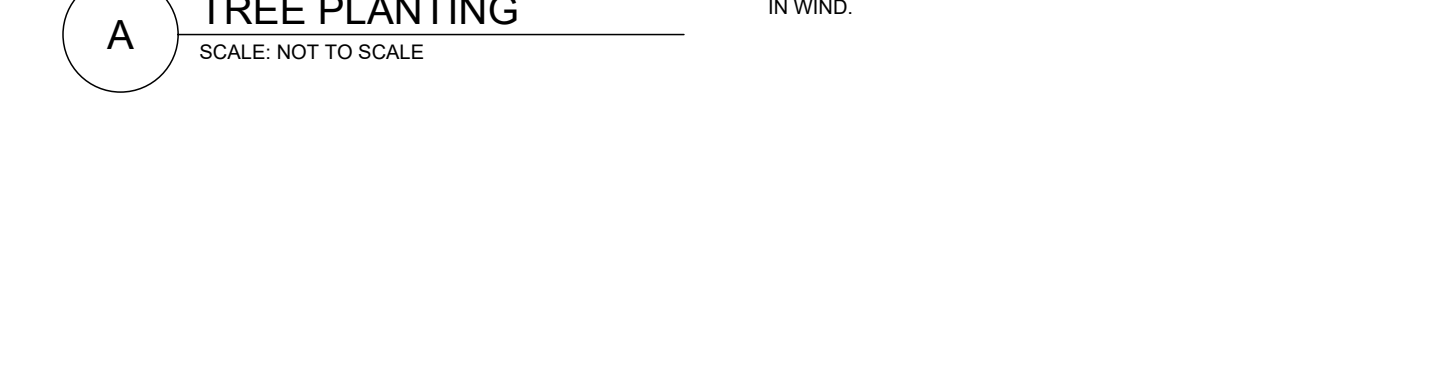
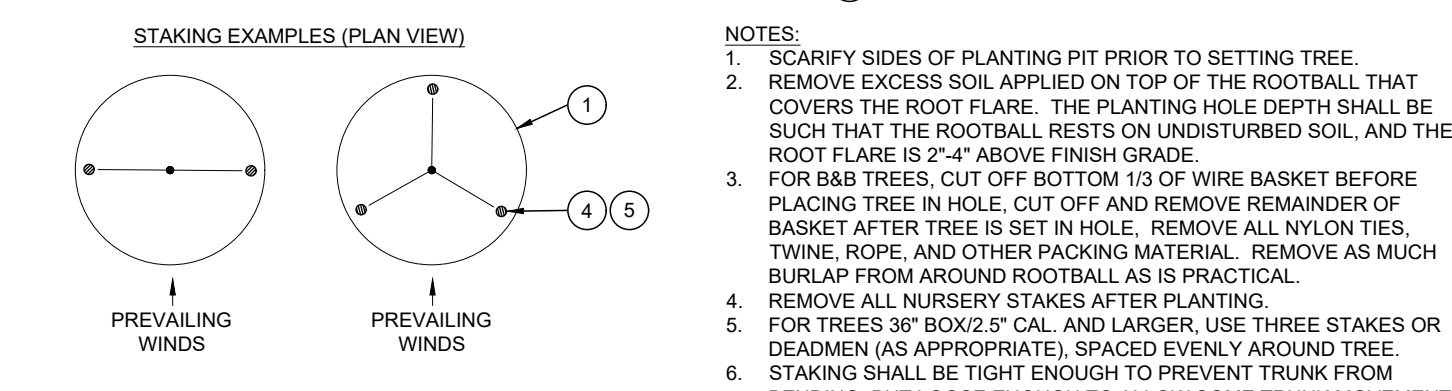
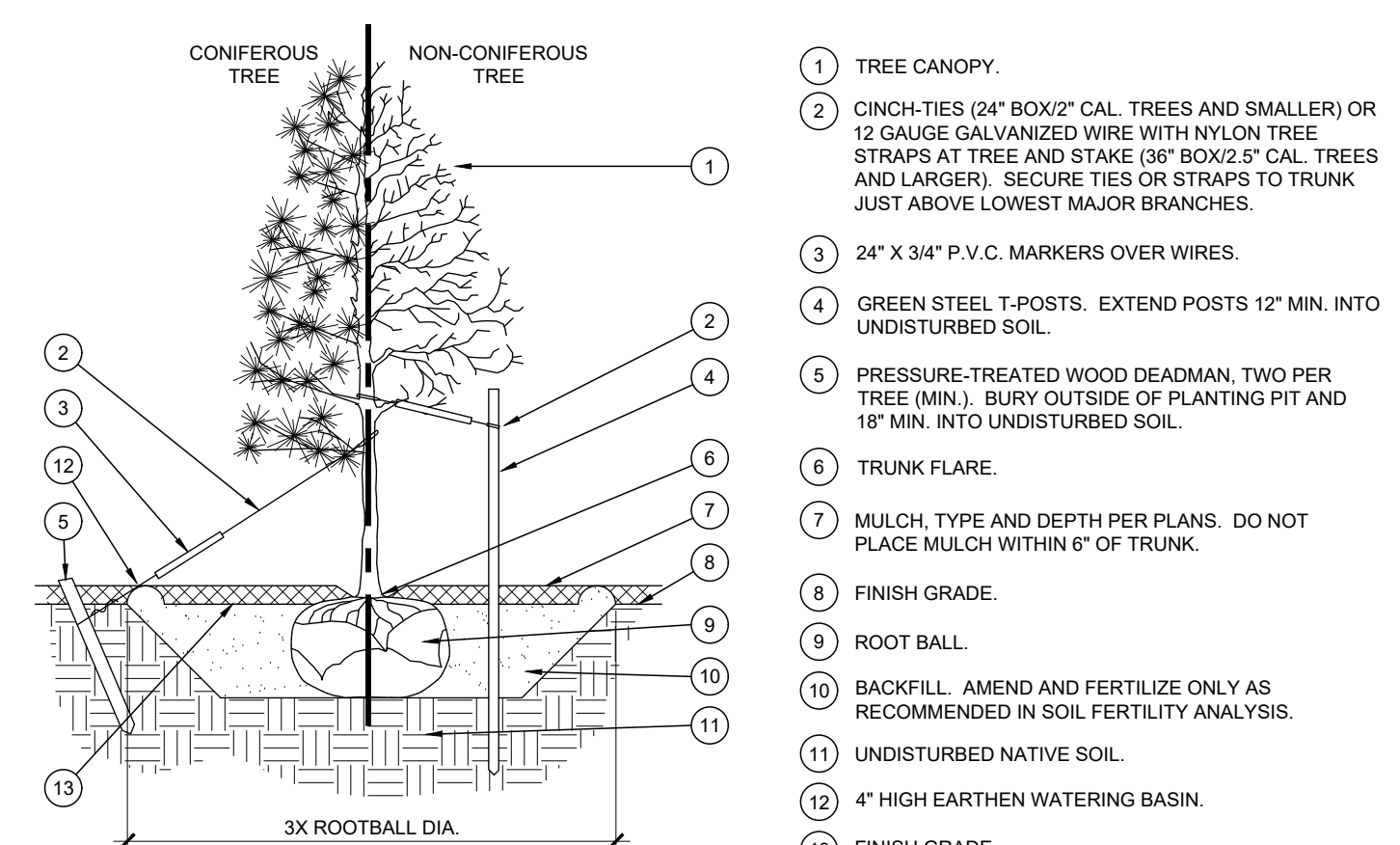
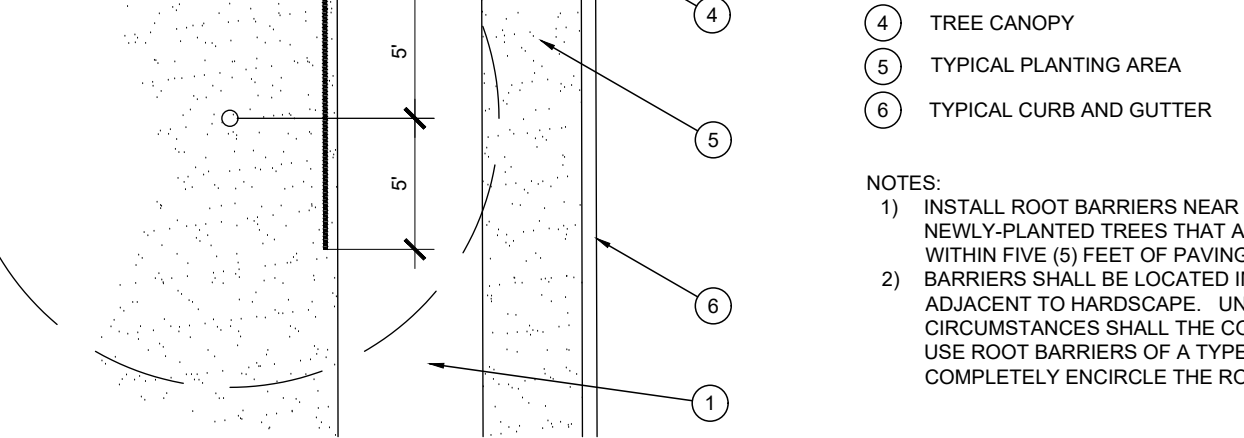
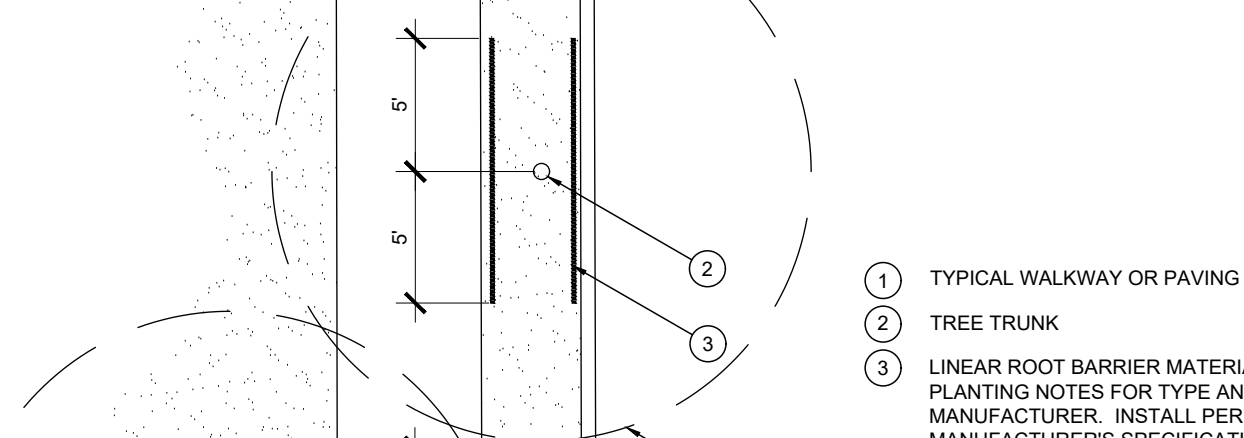
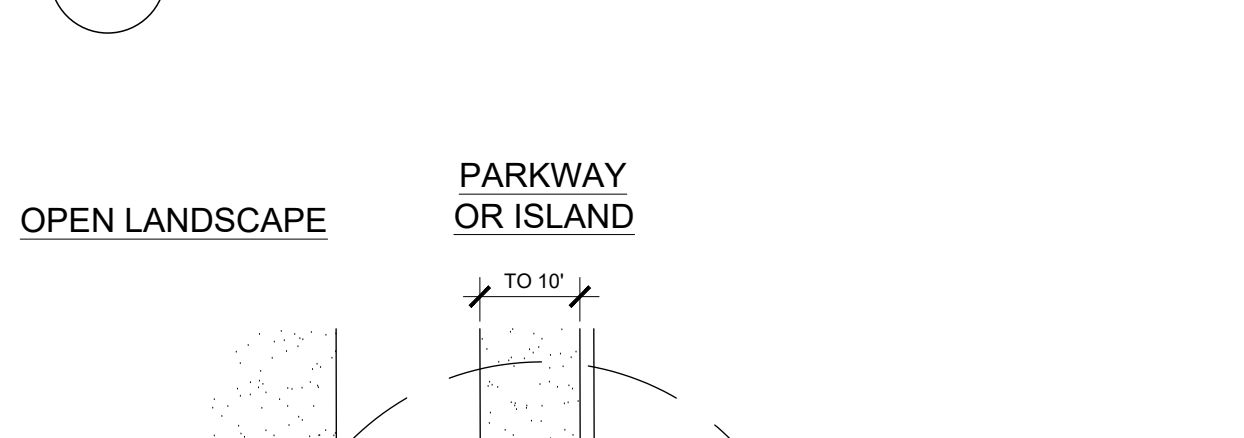
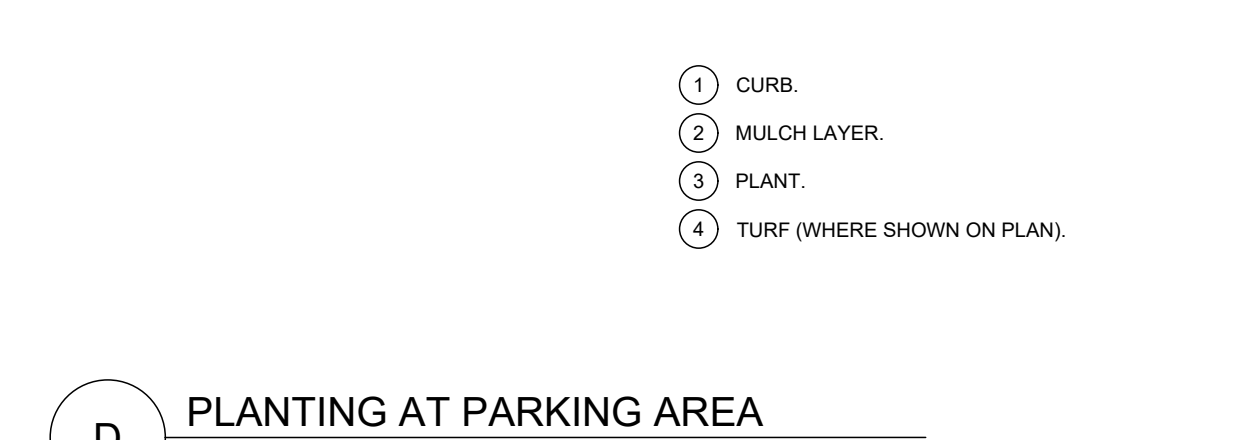
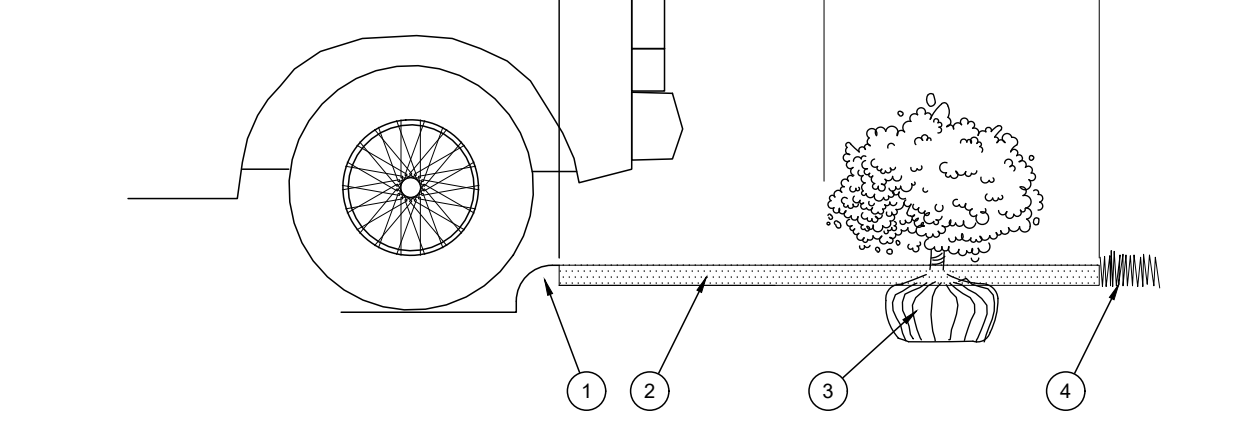
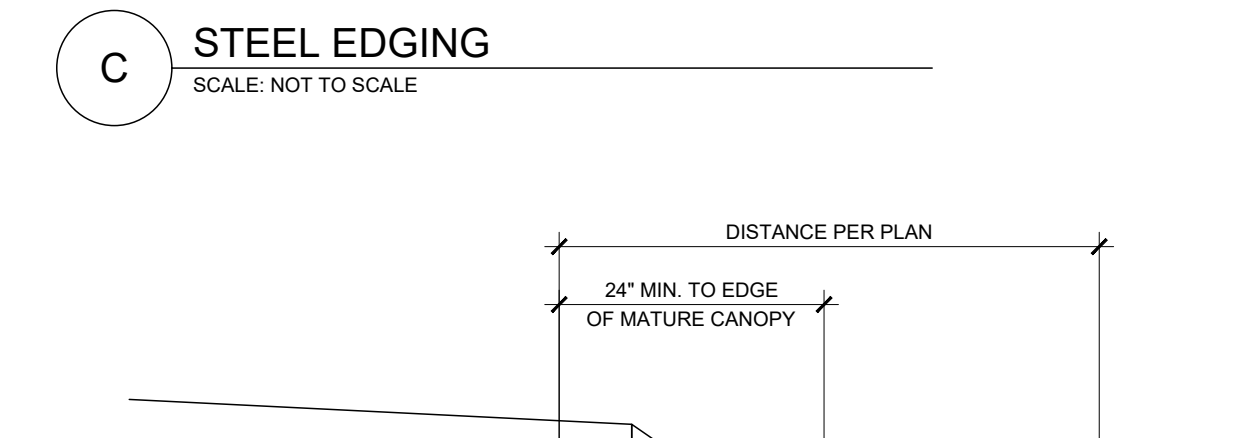
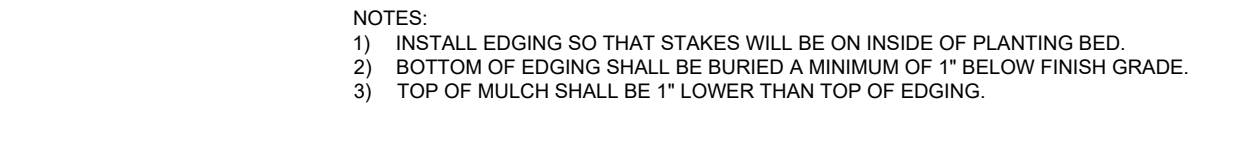
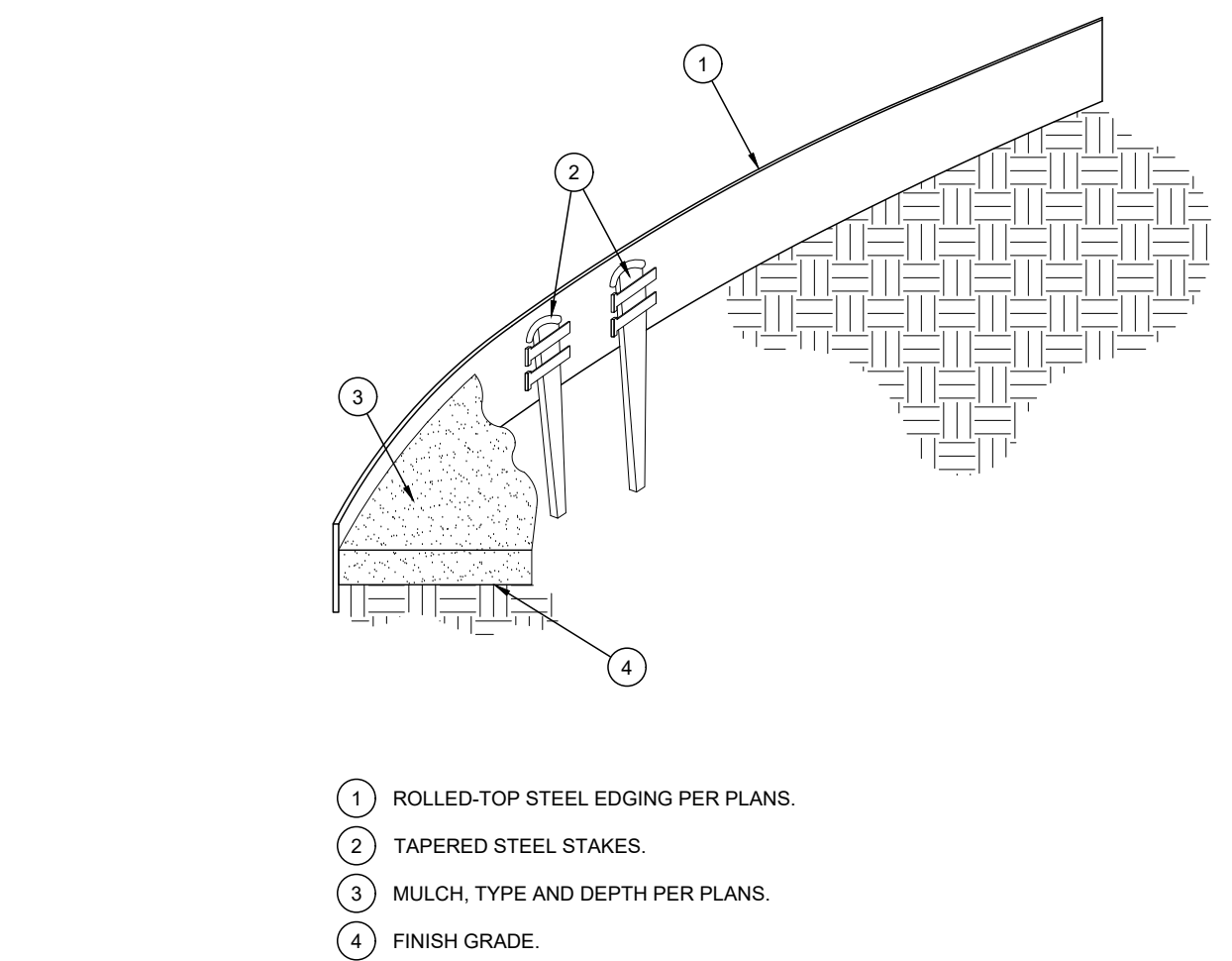
- SOD VARIETY TO BE AS SPECIFIED ON THE LANDSCAPE PLAN.
 - LAY SOD WITHIN 24 HOURS FROM THE TIME OF STRIPPING. DO NOT LAY IF THE GROUND IS FROZEN.
 - LAY THE SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. BUTT ENDS AND SIDES OF SOD STRIPS - DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES.
 - ROLL THE SOD TO ENSURE GOOD CONTACT OF THE SOD'S ROOT SYSTEM WITH THE SOIL UNDERNEATH.
 - WATER THE SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER PLANTING TO OBTAIN AT LEAST SIX INCHES OF PENETRATION INTO THE SOIL BELOW THE SOD.
- F. HYDROMULCHING**
- THE HYDROMULCH MIX (PER 1,000 SF) SHALL BE AS FOLLOWS:
 - WINTER MIX (OCTOBER 1 - MARCH 31)
 - 50# CELLULOSE FIBER MULCH
 - 2# UNHULLED BERMUDA SEED
 - 2# ANNUAL RYE SEED
 - 15# 15-15-15 WATER SOLUBLE FERTILIZER
 - SUMMER MIX (APRIL 1 - SEPTEMBER 30)
 - 50# CELLULOSE FIBER MULCH
 - 2# HULLED BERMUDA SEED
 - 15# 15-15-15 WATER SOLUBLE FERTILIZER

G. CLEAN UP

- DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS IN A NEAT, ORDERLY CONDITION.
- DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.
- UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
- WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.
- THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

I. LANDSCAPE MAINTENANCE

- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTling OF PLANTS THAT HAVE SETTLED, MOWING AND AERATION OF LAWNS, WEEDING, RESEEDING AREAS WHICH HAVE NOT GERMINATED WELL, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
- SHOULD SEEDING AND/OR SODDING AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.
- TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
 - THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
 - ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
 - SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1 1/2 INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE ROTOTILLED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.
- WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS
 - THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, SOD, SEEDING/HYDROMULCHED AREAS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY.
 - AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.



FLOODPLAIN INFORMATION:
NO PORTION OF THE SUBJECT SITE IS LOCATED WITHIN THE 100 YEAR SPECIAL FLOOD HAZARD AREA ACCORDING TO THE MOST RECENT OFFICIAL INSURANCE RATE MAP, DATED AUGUST 18, 2014 MAP NUMBER 48339C0485G, ZONE(S) "X".

PRIMARY BENCHMARK: ELEV.=231.72'
FLOODPLAIN REFERENCE MARK NO. 100195 IS A BRASS DISK LOCATED FROM THE INTERSECTION OF FM 1488 AND FM 1774, SOUTHEAST ALONG FM 1774 0.4 MILES TO NICHOLS SAWMILL RD., SOUTH ALONG NICHOLS SAWMILL RD. 0.8 MILES TO THE BENCHMARK ON THE RIGHT.
ELEVATION: 231.72 (NAVD88)(2001 ADJUSTMENT)

TEMPORARY BENCHMARK: ELEV.=229.00'
CUT "X" ON THE SOUTHWEST CORNER OF A CONCRETE BASE OF A TSCB PEDESTAL LOCATED AT SOUTHEAST CORNER OF THE INTERSECTION OF FM 1488 AND SPUR 149.
ELEVATION: 229.00

NOTE:
IN CASE OF CONFLICT BETWEEN DETAILS SHOWN ON THIS SHEET AND THE CITY MAGNOLIA DESIGN STANDARDS, THE MORE STRINGENT SHALL APPLY.

DATE	REVISION

MAGNOLIA VILLAGE DRIVE, HERITAGE LANE,
COMMUNITY ROAD
MAGNOLIA, TX 77354

UTILITIES AND STORM DRAINAGE
TO SERVE FIVE POINT BANK

LANDSCAPE
SPECIFICATIONS &
DETAILS

LJA Engineering Inc.
1904 W. Grand Parkway N. Phone 713.953.5200
Suite 100 Fax 713.953.5026
Katy, Texas 77449 FRN-7-1386

LJA PROJECT NO.: 4034-0001

SUBMITTED: DESIGNED BY: JP
SCALE: 1"=20' DRAWN BY: MN
DATE: APRIL, 2023 SHEET NO. OF C15
SURVEYED BY: PREJEAN & COMPANY, INC. CITY DWG NO:
F B NO: LP-2



06/16/2023





Site Plan Application Form

This form shall be submitted with each application for a site plan.

CONTACT INFORMATION

Applicant

Tiffany Bray - Harrison French & Assoc.

Name

1705 S. Walton Blvd. Ste. 3

Street Address

Bentonville, AR 72712

City, State Zip

479-273-7780

Phone

Fax

tiffany.bray@hfa-ae.com

E-mail

Architect (if different)

Jami Cook - Harrison French & Assoc.

Name

1705 S. Walton Blvd. Ste. 3

Street Address

Bentonville, AR 72712

City, State Zip

479-273-7780

Phone

Fax

jami.cook@hfa-ae.com

E-mail

Property Owner (if different)

James L. Goettee, Jr. - SHADYSIDE LAND COMPANY LLC

Name

2131 SAN FELIPE ST

Street Address

HOUSTON, TX 77019-5620

City, State Zip

713-899-5600

Phone

Fax

jgoettee@western-general.com

E-mail

Engineer/Land Surveyor (if different)

Garrett Small - Harrison French & Assoc.

Name

1705 S. Walton Blvd. Ste. 3

Street Address

Bentonville, AR 72712

City, State Zip

479-273-7780

Phone

Fax

garrett.small@hfa-ae.com

E-mail

Project Name: VIOC Magnolia, TX Lot#: _____ Reviewer: _____

PROPERTY PROFILE

Site Address TBD (Near FM 1488 & SPUR 149) Magnolia TX 77354

Legal Description Heritage Green Portion of Unrestrictive Reserve "A" Block 1 - See enclosed survey for full legal description.
(Subdivision) (Lot) (Block)

Current Zoning AC Auto-Urban Commercial

Present Use of Property

Undeveloped, Vacant Land within Heritage Green

Proposed Use of the Property

Our client is looking to develop this portion of the Heritage Green commercial subdivision into a Valvoline Instant Oil Change facility, with three service bays, having a building footprint of 2,039 SF, and a basement component.

Total Area of Site 0.9456 Ac.

Project Name: VIOC Magnolia, TX Lot#: _____ Reviewer: _____

July 21, 2023

Mr. Don Doering
City Administrator
City of Magnolia
18111 Buddy Riley Boulevard
Magnolia, Texas, 77354

Subject: Site Development Plans for Valvoline - Plan Review Letter
City of Magnolia
B&W Job No. 2325429.00

Dear Mr. Don Doering:

We received the revised site development plans for the proposed Valvoline on June 23, 2023. On behalf of the City of Magnolia (the "City"), we have reviewed the submitted documents and offer no objection to the approval of this project, subject to the following comments:

1. Sheet C-4.2 – Revise Utility Note U37 to "Min. 24" Vertical Separation".
2. The developer shall be responsible for all aspects of this project and will provide final certification that all improvements have been constructed in conformance with the approved plans and specifications.
3. In the event that any portion of this development may change at a future date, the City reserves the right to review and approve the proposed changes prior to initiating the change.

Please make all the revisions as requested and submit a revised set of plans to this office for final approval. Should you have any questions or require additional information, please contact the undersigned or Michael A. Kurzy, P.E. at (281) 350-7027.

Sincerely,



Tommy Cormier Jr., P.E.
Project Engineer

Baxter & Woodman, INC.
Consulting Engineers
TBPELS Registration No. F-21783

August 10, 2023

Mr. Don Doering
City Administrator
City of Magnolia
18111 Buddy Riley Boulevard
Magnolia, Texas 77354

Reference: Valvoline Site Plan Review
City of Magnolia
AEI Job No. 2325429.00

Dear Mr. Doering:

We received documents for the Valvoline Site in Heritage Green on July 24, 2023. On behalf of the City of Magnolia (the "City"), we have reviewed the submitted documents and offer no objection to approval of this project, subject to the following comments:

1. For further review and context of location please provide an exhibit of a conceptual drawing showcasing the entire development if available
2. Before the building permit can be approved,
 - a. Provide evidence the lift station is energized.
 - b. Send the recorded park dedication and easement.
 - c. Send the approved maintenance bond.

Should you have any questions or require additional information, please contact the undersigned or Michael A. Kurzy, P.E. at (281) 350-7027.

Sincerely,

Cristin Emshoff

Cristin Emshoff, MUP, ENV SP
Urban Planner

Baxter & Woodman Consulting Engineers
TBPELS Registration No. F-21783

XC: Ms. Christian Gable – City of Magnolia
Mr. Don Doering – City of Magnolia
Mr. Tim Robertson – City of Magnolia
Ms. Tiffany Bray - HFA
Mr. Michael A. Kurzy, P.E. – Baxter & Woodman Consulting Engineers
Ms. Karleigh Brown – Baxter and Woodman Consulting Engineers
Mr. Tommy Cormier, Jr., PE – Baxter & Woodman Consulting Engineers



July 24, 2023

Mr. Don Doering
City Administrator
City of Magnolia
18111 Buddy Riley Boulevard
Magnolia, Texas 77354

**Regarding: Valvoline Instant Oil Change
Near FM 1488 & SPUR 149, Magnolia, Texas
B&W Reference Number: 2325429.00
HFA Project Number: 06-22-20027**

Mr. Doering

In response to the conditions listed on the Letter of No Objection that was issued by Tommy Cormier, Jr. and Michael Kurzy of Baxter & Woodman on July 21, 2023, please refer to the responses below and the attached revised drawings.

1. **Sheet C-4.2:** Revise Utility Note U37 to “Min. 24” Vertical Separation”.

RESPONSE: Utility note U37 has been revised to “Min. 24” Vertical Separation.”

2. The developer shall be responsible for all aspects of this project and will provide final certification that all improvements have been constructed in conformance with the approved plans and specifications.

RESPONSE: Acknowledged.

3. In the event that any portion of this development may change at a future date, the City reserves the right to review and approve the proposed changes prior to initiating the change.

RESPONSE: Acknowledged.

Sincerely,

Tiffany Bray
Permit Administrator
Harrison French & Associates



May 15, 2023

RE: Site Plan Petition
Valvoline Instant Oil Change
Heritage Green (Near FM 1488 & SPUR 149)
Magnolia, Texas

Description of Proposal

This application is a request for development of an oil change facility with related site and infrastructure improvements within the subject parcel. Related site work and building permit applications to be submitted sequentially pending approval of this Site Plan application.

Our client is looking to develop this portion of the Heritage Green commercial subdivision into a Valvoline Instant Oil Change facility, with three service bays, having a building footprint of 2,039 SF, and a basement component. Please see our included site plan for full details.

Valvoline Instant Oil Change, being a three bay oil change facility, is estimated to have a daily traffic of 60 vehicles per day. Based on previous developments, and the time associated with the oil change service, we do not anticipate this store to cause a significant amount of traffic. We can provide calculations upon request.

We look forward to developing in the City of Magnolia and discussing this item with you. If we can provide any additional project information, please contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Kelsey Kreher'.

Kelsey Kreher
Civil Team Lead
(479) 273-7780x355

DRAINAGE REPORT

VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

17 May 2023

HFA Project Number: 06-22-20027

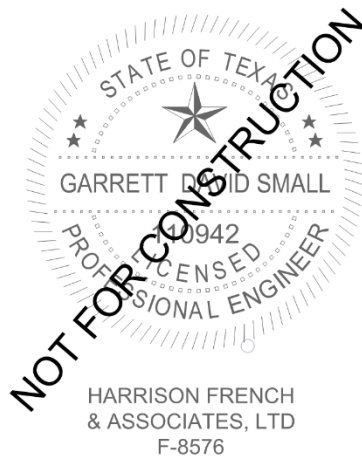
Prepared for:

Valvoline Instant Oil Change
100 Valvoline Way
Lexington, KY 40509
(859) 357-7641

Prepared by:

HFA

Harrison French & Associates
1705 S. Walton Blvd., Ste 3
Bentonville, AR 72712
479-273-7780



Garrett David Small, P.E.

State of Texas No.: 110942



Harrison French & Associates

1705 S. Walton Blvd., Ste 3
Bentonville, AR 72712
479-273-7780

Christian Gable
Planning Coordinator
&
Magnolia Engineering Department
City of Magnolia, TX
18111 Buddy Riley Blvd
Magnolia, TX 77354

Re: Drainage Report - PEAK FLOWS to existing storm sewer network

City of Magnolia,

This report is intended to demonstrate compliance with the City of Magnolia, TX Drainage Requirements, and that the proposed development is in accordance with approved “Heritage Green Commercial Reserve Civil Plans” and associated drainage calculations prepared by Jones Carter (dated 01/12/2021), these plans will be referred to as the “landlord’s drainage/detention plan” for the rest of this letter.

Post-development peak flow rates from this property are to be directed entirely into the proposed private stormwater system constructed with the above referenced development. These peak flow rates are accepted by their private stormwater system.

EXISTING CONDITIONS:

In existing conditions, the 0.93-acre site is made up of 100% pervious cover. Per our Geotech report, the site contains sandy silt soils within the first 3 feet of the soil profile. The site is a part of “basin FUT COMM-2” per “landlord’s drainage/detention plan”. See sheet “C-5.1 PRE-DEVELOPMENT DRAINAGE PLAN” and refer “landlord’s drainage/detention plan” for a delineation of these basins. The Rational Method was used to find the peak flow rates for these drainage areas.

PROPOSED CONDITIONS:

A detention pond has been designed for the overall development and details on this pond can be found in the “landlord’s drainage/detention plan”.

In proposed conditions, our 0.93-acre site has 5 drainage basins. The weighted “C” Runoff Coefficients for each of these basins can be found on sheet “C-5.3 SUB-DRAINAGE AREA MAP”. The aggregate weighted “C” Runoff Coefficient for our site is “C” = 0.72. This is less than the anticipated “C” Runoff Coefficient per the “landlord’s drainage/detention plan”.

Each of our proposed basins is contained within the “landlord’s drainage/detention plan”. Per the “landlord’s drainage/detention plan”, the weighted “C” Runoff Coefficient value is “C” = 0.95 for post-development.

After laying out our proposed site, a smaller weighted “C” Runoff Coefficient value was calculated, due to proposed pervious/impervious areas. This reduction in overall weighted “C” Runoff Coefficient value will result in lower developed flows and allow the proposed Valvoline site to tie directly into the drainage improvements shown in the “landlord’s drainage/detention plan”.

All pervious/impervious areas, weighted “C” Runoff Coefficient values, peak flows for each basin, and storm inlet capacities have been calculated. These calculations can be found in the tables on sheet “C-5.2 POST-DEVELOPMENT DRAINAGE PLAN”.

All Runoff Coefficient values used were from the Montgomery County Drainage Manual. The precipitation frequency estimates were based on “NOAA Atlas 14, Volume 11, Version 2, Conroe Sep. 2018, from Montgomery County IDF Curves Revised Figure 2.1”. For our design calculations we used the 100-year storm precipitation frequency.

WEIGHTED "C" VALUE:

Our Proposed Site:

Post-Development Runoff Coefficient Calculation						
	Impervious Area (acre)	"C" value (concrete / roof)	Pervious Area (Acre)	"C" value (sandy lawns)	Total Area (acres)	Runoff Coefficient
Basin A	0.00	0.85	0.07	0.08	0.07	0.08
Basin B	0.23	0.85	0.01	0.08	0.24	0.81
Basin C	0.05	0.85	0.00	0.08	0.05	0.85
Basin D	0.30	0.85	0.02	0.08	0.32	0.79
Basin E	0.20	0.85	0.05	0.08	0.25	0.68
Total	0.77	0.85	0.16	0.08	0.93	0.72

“Basin Future Comm-2” from Overall Development vs Our Proposed Site:

Composite Runoff Coefficient	
	Runoff Coefficient
Heritage Green Design	0.95
Post-Development Calculated	0.72
Percent Decrease	0.76
*Refer to Heritage Green Commercial Reserve plans for more information.	

DRAINAGE BASIN FLOW RATES:

Per the “landlord’s drainage/detention plan” the time of concentration for the existing inlet our drainage system ties to, the time of concentration is 22.4 minutes. With this Tc and per “NOAA Atlas 14, Volume 11, Version 2, Conroe Sep. 2018, from Montgomery County IDF Curves Revised Figure 2.1”, the flow rates for each of the basins on our site are as follows:

Heritage Green Design											
				Intensity (in/hr) for 22.4 minute Tc. Calculated per Heritage Green Development				Flow Rate (cfs)			
	Area	Runoff Coefficient	Sum of C*A	2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

Post-Development Calculated Values											
	Area	Runoff Coefficient	Sum of C*A	2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Basin A	0.07	0.08	0.01	3.95	5.48	6.91	8.95	0.02	0.03	0.04	0.05
Basin B	0.24	0.81	0.19	3.95	5.48	6.91	8.95	0.76	1.06	1.34	1.73
Basin C	0.05	0.85	0.04	3.95	5.48	6.91	8.95	0.17	0.23	0.29	0.38
Basin D	0.32	0.79	0.25	3.95	5.48	6.91	8.95	1.00	1.39	1.76	2.28
Basin E	0.25	0.68	0.17	3.95	5.48	6.91	8.95	0.68	0.94	1.18	1.53

Runoff Coefficient (C) is 0.08 for Sandy Lawns (Pervious), 0.85 for Concrete Pavement (Impervious), and 0.85 for Building Area, Per Montgomery County Drainage Manual. See Weighted "C" Value Calculations Table.

Peak Flowrate Comparison Summary:

Stormwater Peak Flowrate Summary			
Storm Event	Heritage Green Flowrates (cfs)	Post-Development Calculated Flowrates (cfs)	Difference (cfs)
2-year	5.14	2.64	-2.50
5-year	7.12	3.66	-3.47
25-year	8.98	4.61	-4.37
100-year	11.64	5.97	-5.66
*Refer to Heritage Green Commercial Reserve plans for more information.			

STORM SEWER SYSTEM CALCUATIONS:

The proposed curb inlet is composed of a 4’ box and curb inlet opening of 4’. The curb inlet is in a low point along the northern side of the site, across from the entrance bays. Flows from the drive aisles are directed to this curb inlet. The grate inlet is located on the south side of the property, in front of the exit bays and within the drive isle. Flows from the south portion of the property are directed toward this grate inlet. See sheet “C-5.0 GRADING PLAN” for storm drainage structures layout.

The proposed storm sewer line will take flows captured in the proposed curb inlet and grate inlet and direct them to the proposed curb inlet junction box that is shown on the “landlord’s drainage/detention plan”.

INLET AREA FLOW RATES AND DESIGN:

INLET FLOW CALCULATION TABLE FOR INLETS ON SAG: 100-YEAR STORM														
INLET ID #	INLET LOC.	INLET DESC.	AREA	RUNOFF COEFF.	TOTAL Tc	I	RUNOFF	TOTAL FLOW	CLOGGING FACTOR*	INLET OPENNING LENGTH**	INLET CAPACITY Qi	PONDING DEPTH AT CURB	ROADWAY CROSS SLOPE	SPREAD AT INLET
			(ac)	C	(min)	(in/hr)	(CA)	(cfs)	(%)	(ft)	(cfs)	(ft)	(ft/ft)	(ft)
#1-1	Basin B	R-4884-A TYPE C GRATE INLET	0.24	0.81	22.40	1.73	0.19	0.34	50.00	6.00	3.18	0.11	0.02	5.58
#1-2	Basin B	JUNCTIO N BOX	0.00	0.00	22.40	1.73	0.00	0.34	0.00	0.00	---	---	0.02	---
#1-3	Basin D	INLET	0.32	0.79	22.40	2.28	0.25	0.58	20.00	4.00	3.39	0.15	0.02	7.68

SUMMARY:

In summation, the proposed development is calculated to have a lower weighted “C” Runoff Coefficient (“C” = 0.72) than that estimated by “landlord’s drainage/detention plan” (“C” = 0.95), demonstrating that the proposed Valvoline will adhere to their detention calculations and that our site flows will be accepted by their proposed infrastructure. The proposed improvements were designed to the 100-year storm event using the rational method and the flows are accepted by the improvements provided and designed for our site and are shown in the “landlord’s drainage/detention plan”. Our site adheres to the City of Magnolia drainage requirements.

Sincerely,

Garrett Small, P.E.
Civil+Landscape Lead
Harrison French & Associates, LTD
(479)273-7780x461
Garrett.Small@hfa-ae.com
HV

Attachments:

“C-5.1 PRE-DEVELOPMENT DRAINAGE PLAN”
“C-5.2 POST-DEVELOPMENT DRAINAGE PLAN”
“C-5.3 SUB-DRAINAGE AREA MAP”
“C-5.0 GRADING PLAN”

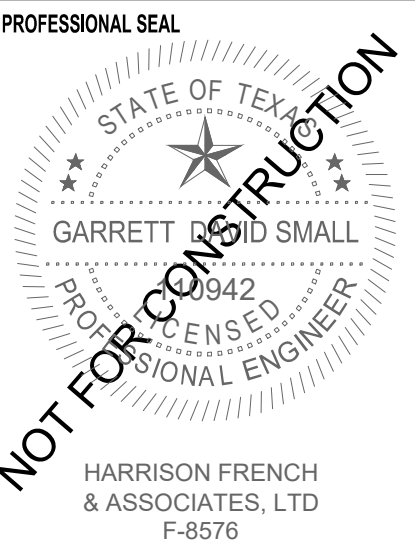
Not attached but referenced:

“Heritage Green Commercial Reserve Civil Plans” and associated drainage calculations prepared by Jones Carter (dated 01/12/2021)

Prepared by HFA for the City of Magnolia, TX. Dated 05/17/2023.

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DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO.: 110942

PROFESSIONAL IN CHARGE
 GARRETT DAVID SMALL

PROJECT MANAGER
 KK

QUALITY CONTROL
 WFM

DRAWN BY
 JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
 MAGNOLIA, TX

PROJECT NUMBER
 06-22-20027

SHEET NAME
POST-DEVELOPMENT DRAINAGE PLAN

SHEET #
C-5.2

NOT ISSUED FOR CONSTRUCTION

PROPOSED LEGEND:

- PROPERTY LINE
- DRAINAGE BASIN
- PROPOSED CONTOUR
- PROPOSED STORM SEWER PIPE
- PROPOSED STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
- PROPOSED DRAINAGE STRUCTURES
- DRAINAGE SLOPE AND DIRECTION

Composite Runoff Coefficient	
	Runoff Coefficient
Heritage Green Design	0.95
Post-Development Calculated	0.72
Percent Decrease	0.76

*Refer to Heritage Green Commercial Reserve plans for more information.

Post-Development Runoff Coefficient Calculation						
	Impervious Area (acre)	"C" value (concrete / roof)	Pervious Area (Acre)	"C" value (sandy lawns)	Total Area (acres)	Runoff Coefficient
Basin A	0.00	0.85	0.07	0.08	0.07	0.08
Basin B	0.23	0.85	0.01	0.08	0.24	0.81
Basin C	0.05	0.85	0.00	0.08	0.05	0.85
Basin D	0.30	0.85	0.02	0.08	0.32	0.79
Basin E	0.20	0.85	0.05	0.08	0.25	0.68
Total	0.77	0.85	0.16	0.08	0.93	0.72

Heritage Green Design											
	Area	Runoff Coefficient	Sum of C*A	Intensity (in/hr) for 22.4 minute Tc. Calculated per Heritage Green				Flow Rate (cfs)			
				2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

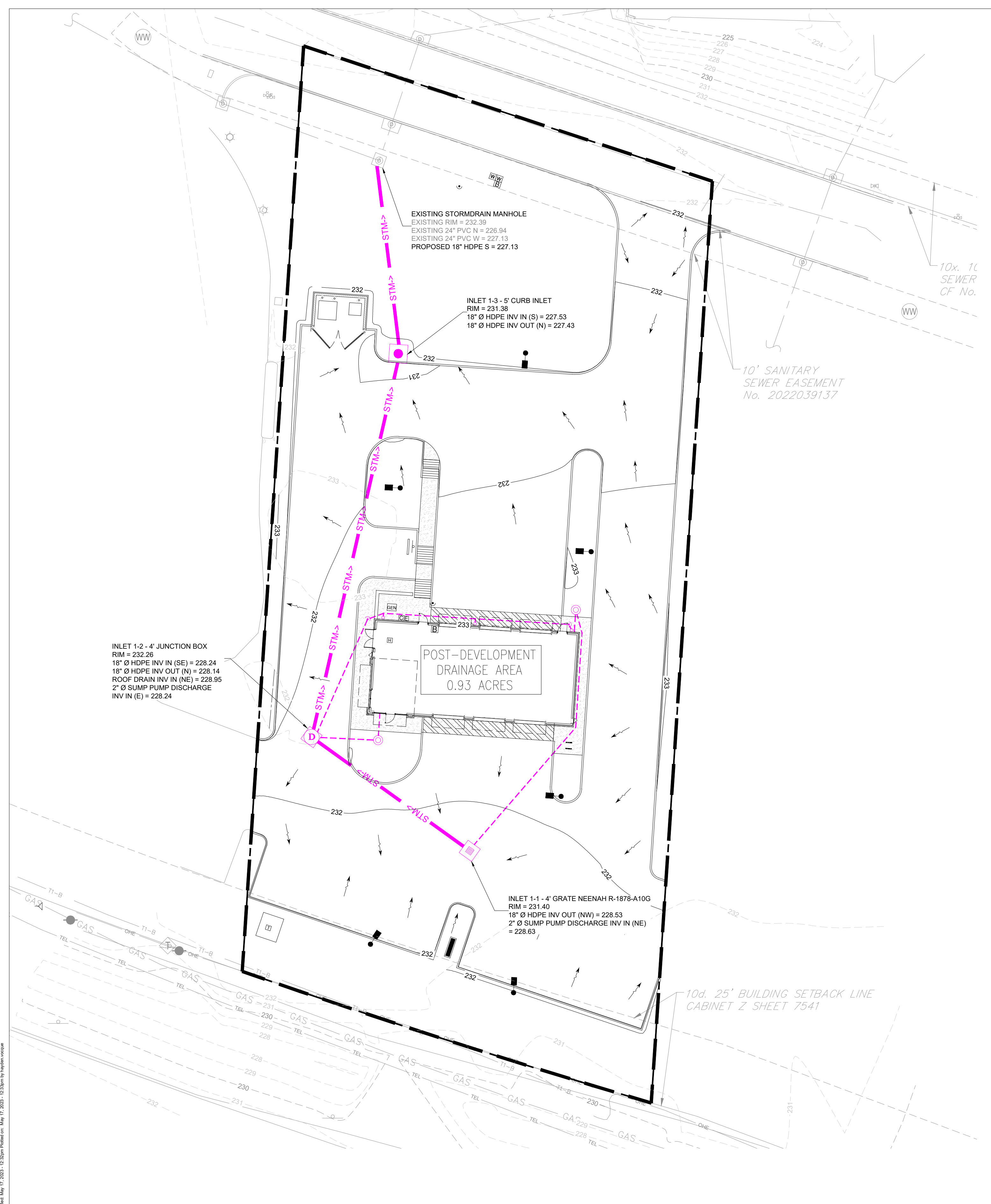
Post-Development Calculated Values											
	Area	Runoff Coefficient	Sum of C*A	2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Basin A	0.07	0.08	0.01	3.95	5.48	6.91	8.95	0.02	0.03	0.04	0.05
Basin B	0.24	0.81	0.19	3.95	5.48	6.91	8.95	0.76	1.06	1.34	1.73
Basin C	0.05	0.85	0.04	3.95	5.48	6.91	8.95	0.17	0.23	0.29	0.38
Basin D	0.32	0.79	0.25	3.95	5.48	6.91	8.95	1.00	1.39	1.76	2.28
Basin E	0.25	0.68	0.17	3.95	5.48	6.91	8.95	0.68	0.94	1.18	1.53

Stormwater Peak Flowrate Summary			
Storm Event	Heritage Green Flowrates (cfs)	Post-Development Calculated Flowrates (cfs)	Difference (cfs)
2-year	5.14	2.64	-2.50
5-year	7.12	3.66	-3.47
25-year	8.98	4.61	-4.37
100-year	11.64	5.97	-5.66

*Refer to Heritage Green Commercial Reserve plans for more information.

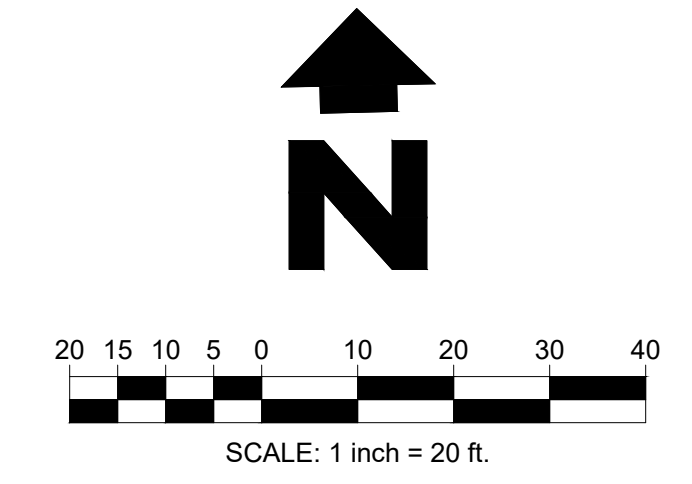
REFERENCE THE HERITAGE GREEN COMMERCIAL RESERVE CIVIL PLANS AND DRAINAGE CALCULATIONS PREPARED BY JONES CARTER. FLOW RATES IN THE TABLE ABOVE ARE FROM THE HERITAGE GREEN COMMERCIAL RESERVE DRAINAGE CALCULATIONS PAGES DATED 01/12/2021.

NOTE THAT THE DRAINAGE BASINS IN THE PLANS AVAILABLE AT THE TIME OF DESIGN DO NOT MATCH THE SITE'S AREA, THEREFORE THE HERITAGE GREEN RUNOFF DOES NOT MATCH THE CALCULATED VALUES IN THESE PLANS. CALCULATIONS WILL BE UPDATED ACCORDINGLY.



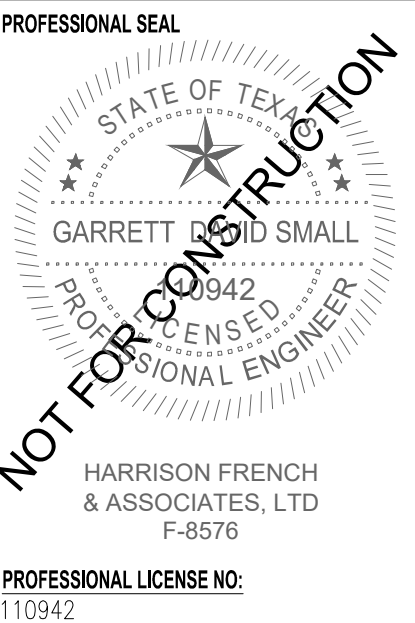
INLET FLOW CALCULATION TABLE FOR INLETS ON SAG: 100-YEAR STORM

INLET ID #	INLET LOCATION	INLET TYPE	INLET DESCRIPTION	AREA (ac)	RUNOFF COEFF.	TOTAL Tc (min)	I (in/hr)	RUNOFF UPSTREAM (CA)	TOTAL FLOW Qp (cfs)	CLOGGING FACTOR* (%)	INLET OPENNING LENGTH** (ft)	INLET CAPACITY Qi (cfs)	PONDING DEPTH AT CURB (ft)	ROADWAY SPREAD CROSS SLOPE (ft/ft)	AT INLET (ft)	
1	#1-1	Basin B	SAG NEENAH R-4884-A TYPE C GRATE INLET	0.24	0.81	22.40	1.73	0.19	0.00	0.34	50.00	6.00	3.18	0.11	0.02	5.58
2	#1-2	Basin B	---	0.00	0.00	22.40	1.73	0.00	0.00	0.34	0.00	---	---	0.02	---	
3	#1-3	Basin D	SAG CURB INLET	0.32	0.79	22.40	2.28	0.25	0.00	0.58	20.00	4.00	3.39	0.15	0.02	7.68



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PROFESSIONAL CHARGE
GARRETT DAVID SMALL
PROJECT MANAGER
KK
QUALITY CONTROL
WFM
DRAWN BY
JKP / ENH
PROJECT NAME



VALVOLINE INSTANT OIL CHANGE
FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027
SHEET NAME
SUB-DRAINAGE AREA MAP
SHEET #
C-5.3

PROPOSED LEGEND:

	PROPERTY LINE
	DRAINAGE BASIN
	PROPOSED CONTOUR
	PROPOSED STORM SEWER PIPE
	PROPOSED STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
	PROPOSED DRAINAGE STRUCTURES

Composite Runoff Coefficient	
	Runoff Coefficient
Heritage Green Design	0.95
Post-Development Calculated	0.72
Percent Decrease	0.76

*Refer to Heritage Green Commercial Reserve plans for more information.

Post-Development Runoff Coefficient Calculation						
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Basin C	0.05	0.85	0.00	0.08	0.05	0.85
Basin D	0.30	0.85	0.02	0.08	0.32	0.79
Basin E	0.20	0.85	0.05	0.08	0.25	0.68
Total	0.77	0.85	0.16	0.08	0.93	0.72

Heritage Green Design											
	Area	Runoff Coefficient	Sum of C*A	Intensity (in/hr) for 22.4 minute Tc				Flow Rate (cfs)			
				2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

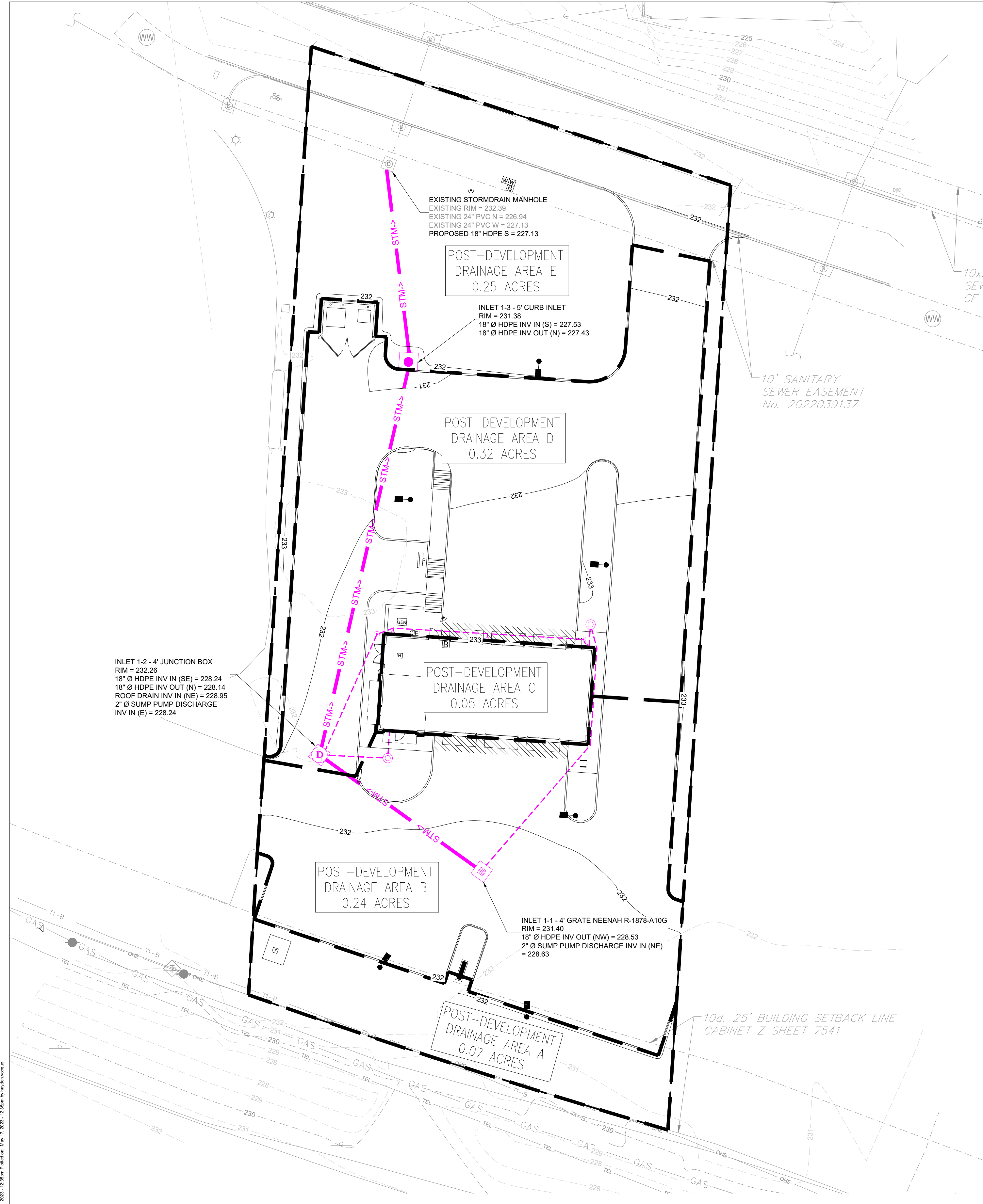
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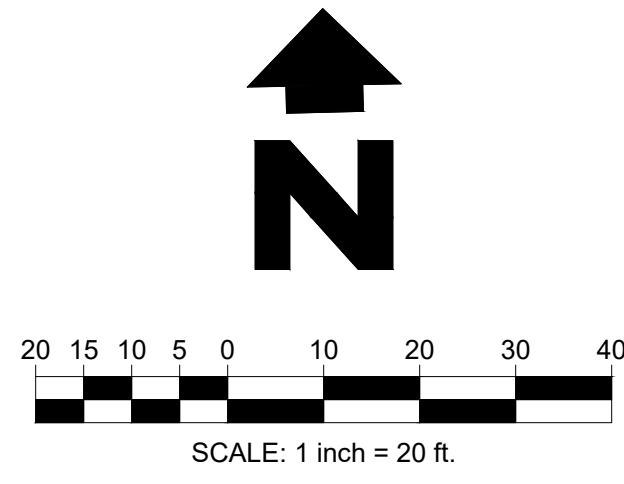
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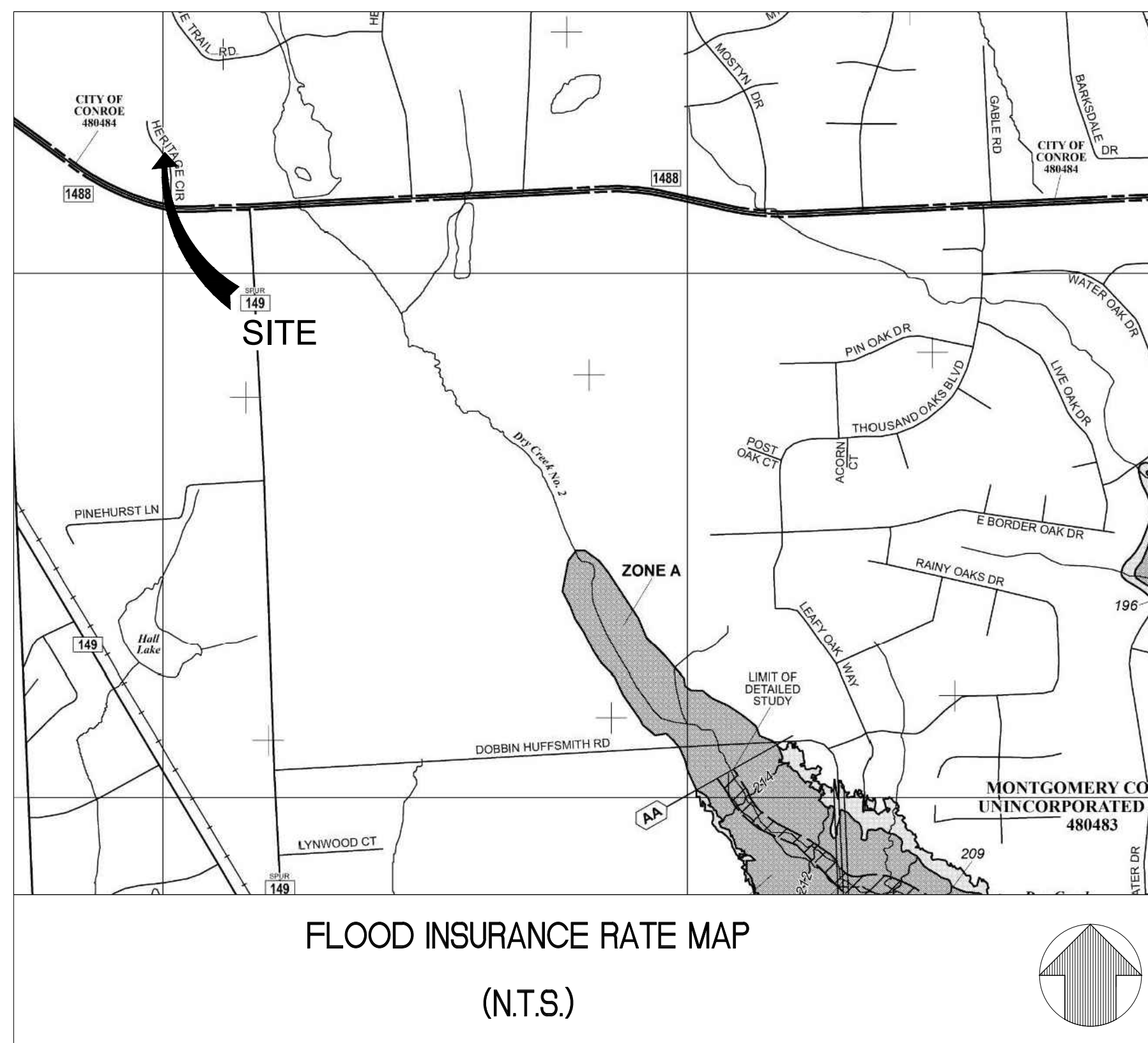
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INLET ID #	INLET LOCATION	INLET TYPE	INLET DESCRIPTION	AREA (ac)	RUNOFF COEFF. C	TOTAL Tc (min)	I (in/hr)	RUNOFF UPSTREAM BYPASS (CA)	TOTAL FLOW Qp (cfs)	CLOGGING FACTOR* (%)	INLET OPENNING LENGTH** (ft)	INLET CAPACITY Qi (cfs)	PONDING DEPTH AT CURB (ft)	ROADWAY SPREAD CROSS SLOPE (ft/ft)	ROADWAY SPREAD AT INLET (ft)
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DRAWING INDEX AND ISSUANCE LOG		DATE	ISSUE	PERMIT SET	REVISION 1	REVISION 2	REVISION 3	REVISION 4	REVISION 5	REVISION 6	REVISION 7	REVISION 8
PERMIT SET		04/06/23	OWNER REVIEW SET									
SHEET #	SHEET NAME	05/17/23	OWNER REVIEW SET									
C-1.0	COVER SHEET											
C-1.1	GENERAL NOTES											
C-2.0	ALTA SURVEY											
C-3.0	DEMOLITION PLAN											
C-3.1	EROSION CONTROL PLAN PHASE 1 OF 2											
C-3.2	EROSION CONTROL PLAN PHASE 2 OF 2											
C-4.0	SITE PLAN											
C-4.1	PAVING PLAN											
C-4.2	UTILITY PLAN											
C-4.3	FIRE LANE PLAN											
C-5.0	GRADING PLAN											
C-5.1	PRE-DEVELOPMENT DRAINAGE PLAN											
C-5.2	POST-DEVELOPMENT DRAINAGE PLAN											
C-5.3	SUB-DRAINAGE AREA MAP											
C-6.0	LANDSCAPE PLAN											
C-6.1	LANDSCAPE DETAILS											
C-6.2	IRRIGATION PLAN											
C-6.3	IRRIGATION DETAILS											
C-10.0	DETAILS SHEET 1 OF 2											
C-10.1	DETAILS SHEET 2 OF 2											
C-10.2	CITY DETAILS SHEET 1 OF 2											
C-10.3	CITY DETAILS SHEET 2 OF 2											
ATTACHMENT												

SITE DEVELOPMENT PLAN



FM1488 NEAR SPUR 149
MAGNOLIA
MONTGOMERY COUNTY, MAGNOLIA
ZONING: AC AUTO URBAN COMMERCIAL

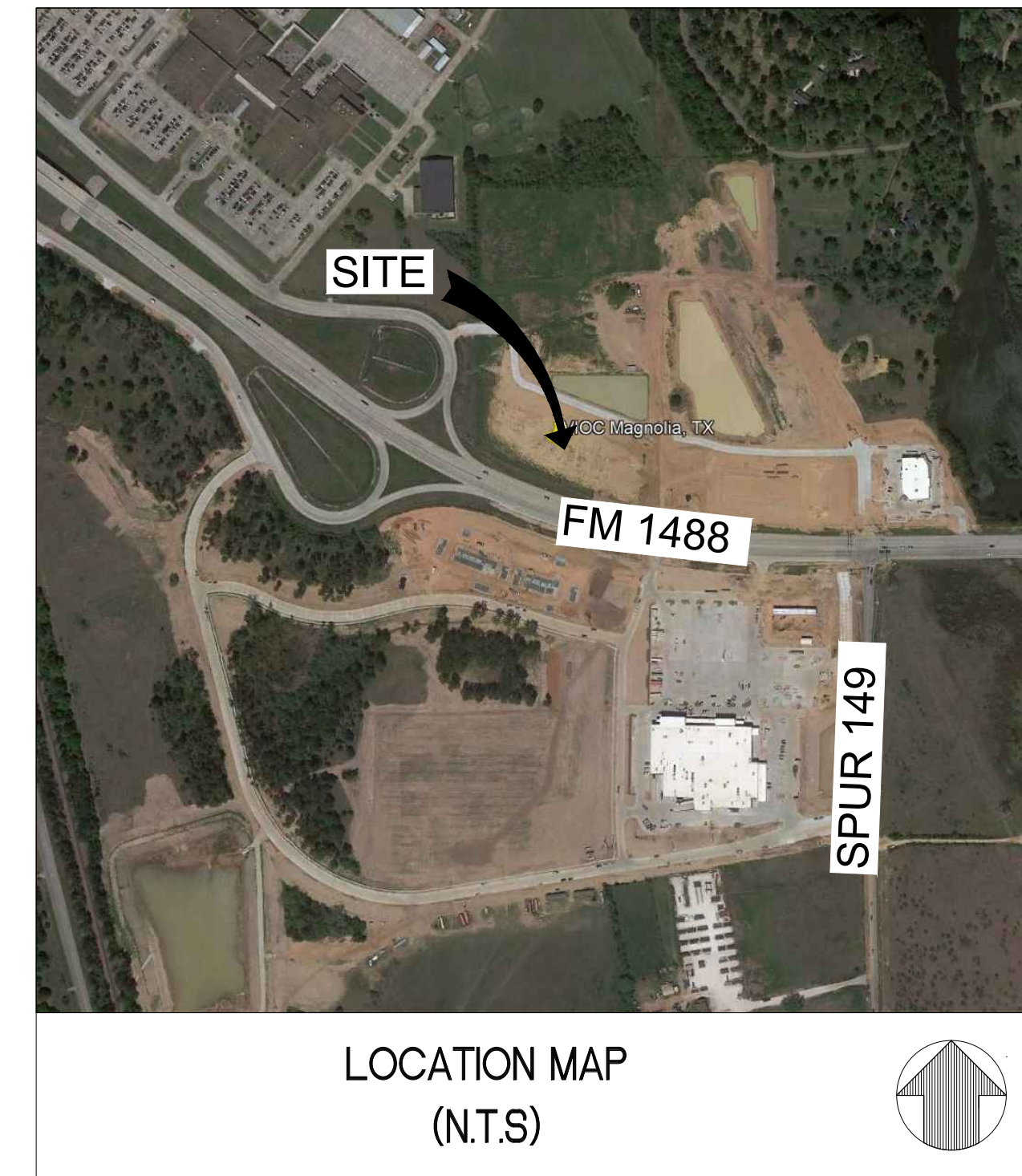
OWNER/DEVELOPER:

VALVOLINE
JAMES BOUTCHYARD, PROJECT MANAGER
100 VALVOLINE WAY
LEXINGTON, KY
210-915-0042
JAMES.BOUTCHYARD@VALVOLINE.COM

ENGINEER:



CONTACT: KELSEY KREHER
1705 S. WALTON BLVD, SUITE 3
BENTONVILLE, AR, 72712
CELL: (816) 872-7190
(479) 273-7780, EXT. 355



CONTACTS:

OWNER'S REP.

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James Boutchyard
100 Valvoline Way
Lexington, KY 40509
Bus: (210) 915-0042

CIVIL P.M.

Harrison French & Associates
LTD
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Bentonville, AR 72712
479.273.7780
Kelsey Kreher

STRUCTURAL ENGINEER

Harrison French & Associates
LTD
1705 S. Walton Blvd., Suite 3
Bentonville, AR 72712
479.273.7780
Lungshen (Tiger) Tsao

PUBLIC WORKS

1811 Buddy Riley Blvd.
Magnolia, TX 77354
Burt Smith, Public Works Director

ELECTRIC

Reliant Energy
1423 Red Ventures Dr.
Fort Mill, SC 29707

OWNER'S P.M.

Valvoline Instant Oil Change
Lonny Brass
100 Valvoline Way
Lexington, KY 40509
Bus: (762) 778-9228

ARCHITECT

Harrison French & Associates
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1705 S. Walton Blvd., Suite 3
Bentonville, AR 72712
479.273.7780
Jami Cook

PLANNING & ZONING

City of Magnolia
1811 Buddy Riley Blvd.
Christian Gable, Planning Coordinator
281-356-0547

GAS

Just Energy
5251 Westheimer Rd. Ste. 1000
Houston, TX 77056

LUBE EQUIPMENT SUPPLIER

Alernite
7845 Little Ave.
Charlotte, NC 28226
Bus: (800) 233-0400

LANDSCAPE ARCHITECT

Harrison French & Associates
LTD
1705 S. Walton Blvd., Suite 3
Bentonville, AR 72712
479.273.7780
Rick McGraw

FIRE

Magnolia Fire Dept.
Jimmy Williams
936-538-8288

WATER/WASTEWATER

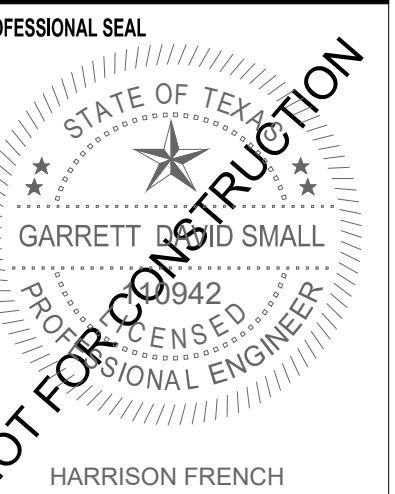
Magnolia Public Works
1811 Buddy Riley Blvd.
Magnolia, TX 77354
Burt Smith, Public Works Director



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Bentonville, Arkansas 72712
www.hfa-ac.com

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DATE	ISSUE
05/03/2023	OWNER REVIEW SET
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PROFESSIONAL LICENSE NO.: 110942

PROFESSIONAL IN CHARGE: GARRETT DAVID SMALL

PROJECT MANAGER: KK

QUALITY CONTROL: WFM

DRAWN BY: JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER: 06-22-20027

SHEET NAME: COVER SHEET

SHEET #: C-1.0

NOT ISSUED FOR CONSTRUCTION



Know what's below.
Call before you dig.

SURVEYOR
ALTA/NSPS LAND TITLE SURVEY
QUIDDITY
4350 LOCKHILL-SELMA RD, SUITE 100
SAN ANTONIO, TX 78249
(210) 494-5511
SURVEYOR'S JOB NO. 17066-0011-00

JOB NO. 06-22-20027

GEOTECHNICAL ENGINEER:
GILES ENGINEERING ASSOCIATES, INC.
2626 LOMBARDY LANE SUITE
DALLAS, TX 75220
(214) 358-5884
PROJECT NO. F-4090

GENERAL NOTES

- The contractor shall retain a full set of latest approved construction plans and specifications on site during all construction activities. Local authority's standards shall supersede all HFA standards.
- The contractor will maintain any required access to adjacent properties.
- Any temporary construction easements required for private work related to the project shall be acquired by the owner. No work will be performed on private property without written permission of the affected property owner.
- Coordinate start-up and all construction activities with the owner.
- Construction methods and materials, not specified in these plans, are to meet or exceed the site work specifications provided by HFA, or as otherwise specified by the owner.
- All construction work and utility work outside of property boundaries shall be performed in cooperation with, and in accordance with, regulations of the authorities concerned.
- Public convenience and safety: the contractor shall conduct all work in a manner that will insure, as far as practicable, the least obstruction to traffic; and shall provide for the convenience and safety of the general public and residents along, and adjacent to, highways in the construction area in an adequate and satisfactory manner, in accordance with the DOT standard specifications for highway construction.
- All aerial images are for reference only and are not to scale.
- All imported fill shall be free of rocks greater than 12" in diameter and any detrimental organic material or refuse debris.
- Safety railings are required on any retaining wall 30" or greater in height.
- Proposed spot elevations are at top of finished curb unless otherwise specified.
- The general contractor will be held solely responsible for and shall take all precautions necessary to avoid damage to adjacent properties during the construction phases of this project.
- In accordance with generally accepted construction practices, the contractor shall be completely responsible for conditions of the job site. Including the safety of all persons and property during the duration of the construction. This will be applicable 24 hours a day.
- All dimensions shown are to the face of curb unless otherwise noted.
- All signs and traffic control devices to follow the guidelines of the MUTCD.
- The contractor shall refer to the architectural plans for all building dimensions. The contractor shall immediately notify the architect and engineer in the event there are discrepancies determined between plans.
- The design, inspection and certification of any retaining wall over 4FT shall be by a registered engineer.
- All work shall be done in strict accordance with the project specifications.
- The contractor shall ensure all necessary permits are obtained prior to construction.
- The contractor shall maintain all existing parking, sidewalks, drives, etc. clear and free from any construction activity, and/or material, to ensure easy and safe pedestrian and vehicular traffic to and from the site.
- The contractor shall refer to the architectural plans for exact locations and dimensions of the precise building dimensions and exact building utility entrance points.
- The engineer of record shall review and approve material submittals.
- The demolition of any existing underground storage tanks, fueling dispensers, or fueling related appurtenances such as supply lines, shall be removed per local, state and federal requirements.
- The contractor shall maintain the site and provide 6' tall chain link security fence around the site until such time as the owner takes over.
- The contractor is responsible for providing traffic control throughout the project, including proper traffic control devices and/or personnel as required. This includes both vehicular and pedestrian traffic control. Traffic control shall be in accordance with MUTCD.

EROSION CONTROL NOTES

- Erosion control measures are to be installed prior to demolition commencing.
- If top soil or other soil is to be stockpiled for more than 30 days, a temporary cover of annual rye or other suitable grass shall be planted. Stockpile is to be a minimum distance of 25' from all drainage structures.
- Silt fences shall be repaired to their original conditions if damaged. Sediment shall be removed from the silt fences when it reaches one-half the height of the silt fence.
- When silt fence or wattles are not placed at a constant elevation following contours on steep slopes, the "J" hoop method should be used (at 50FT intervals) to create ponding and prevent erosion of the trench backfill of silt fence installation
- The contractor shall incorporate permanent erosion control features at the earliest practical time. Temporary erosion control measures will be used to correct conditions that develop during construction that were unforeseen during the design stage, that are needed prior to installation of permanent erosion control features, or that are needed temporarily to control erosion that develops during normal construction projects, but are not associated with permanent control features on the project.
- All storm water pollution prevention measures shall be initiated as soon as possible.
- All wash water from concrete trucks, vehicle and equipment cleaning, etc. shall be detained and properly treated or disposed.
- General contractor shall denote the temporary parking and storage area which shall also be used as the equipment maintenance and cleaning area, and area for portable facilities, office trailers and toilet facilities.
- The contractor will implement best management practices as required by SWPPP. Additional BMPs shall be implemented as necessary as the project progresses at no additional cost to the owner throughout all phases of construction.
- The contractor shall obtain and follow the SWPPP as approved by local and state agencies.
- Disturbed portions of the site where construction activity has stopped for at least 14 days shall require temporary seed.
- Contractor shall be responsible for removing sediment from detention structures at all points throughout construction.
- The contractor shall adjust erosion control measures throughout grading as necessary to perform effectively.
- Re-vegetation shall be required to meet the following performance standards (sediment controls shall remain in place until re-vegetation is established).
- A minimum of 4 inches of topsoil shall be required to be either existing or installed in areas to be re-vegetated. Any application of topsoil and seeding under the drip line of a tree should be minimized to 3 inches so as not to damage the trees root system.
- All construction to be stabilized at the end of each working day. This includes back filling of trenches for utility construction and placement of gravel or bituminous paving for road construction.
- Provide complete and uniform coverage that minimizes erosion and runoff.
 - Zero to 10% grade: re-vegetation shall be a minimum of seeding and mulching.
 - 10:1 up to 4:1 grade: re-vegetation shall be a minimum of hydro-seeding with mulch and fertilizer, sod, or groundcover. Said planting shall provide complete and uniform coverage that minimizes erosion and runoff.
 - 4:1 to 3:1 grade: The slope shall be covered with landscape fabric and hydro-seeded with mulch and fertilizer, or staked sod, or groundcover. Said planting shall provide complete and uniform coverage that minimizes erosion and runoff.
 - More than 3:1 grade: any finish grade over 3:1 shall be stabilized with one or more of the following:
 - Retaining walls; cribbing with landscape fabric; terracing with groundcover; riprap; staked sod (up to 2:1 slope)
 - If cribbing, terracing, or riprap is used, the slope's stability and erodibility must be equivalent to or better than its predevelopment state.
- Permanent Erosion Control:** The developer shall incorporate permanent erosion control features at the earliest practical time. Temporary erosion control measures will be used to correct conditions that develop during construction that were unforeseen during the design stage, that are needed prior to installation of permanent erosion control features, or that are needed temporarily to control erosion that develops during normal construction projects, but are not associated with permanent control features on the project.

- Dust:** Where excessive dust may become a problem, a plan for spraying water on heavily traveled dirt areas shall be addressed.
- Construction Exits:** A stabilized rock exit is required on construction sites. Rock exits must be at least 20' wide by 50' long by 6" thick stabilized rock having a minimum average diameter of 3". If there is an existing curb, loose material such as fill dirt or gravel shall not be used to ramp up to it from the street. Temporary wooden ramps in front of curbs are acceptable.
- Debris, Mud, and Soil in Public Streets:** debris, mud and soil shall not be allowed on public streets but if any debris, mud, or soil from development sites reaches the public street it shall be immediately removed via sweeping or other methods of physical removal. Debris, mud, or soil in the street may not be washed off the street or washed into the storm drainage system. Storm drainage systems downstream of a development site should be protected from debris, mud, or soil in the event that debris, mud, or soil reaches the drainage system.
- Franchise and Private Utilities:** the property owner or main contractor onsite will be responsible for restoring all erosion and sediment control systems and public infrastructure damaged or disturbed by underground private or franchise utility construction such as water and sewer service leads, telephone, gas, cable, etc. Erosion and sediment control systems must be immediately restored after each utility construction.

Erosion Control Planning Sequence To Be Used (If not specified on Erosion Control Plan)

Phase I

- Install stabilized construction entrances/exits.
- Prepare temporary parking and storage areas. upon implementation and installation of the following: trailers, parking, lay down, porta-potty, wheel wash, concrete wash-out, mason's area, fuel and materials storage containers, solid waste containers, etc., denote them on the site maps throughout the construction progress.
- Construct the silt fences on the site.
- Halt all activities and contact the civil engineer consultant to perform inspection of BMPs. general contractor shall schedule and conduct storm water pre-construction meeting with engineer and all ground-disturbing contractors before proceeding with construction.
- Clear and grub the site.
- Start construction of the building pad and structures.
- Begin grading the site.

Phase II

- Temporarily seed disturbed areas.
- Install utilities, underdrains, storm sewers, curbs and gutters.
- Install rip-rap around out structures.
- Install inlet protection around all storm sewer structures.
- Complete grading and install permanent seeding and planting.
- Remove all temporary erosion and sediment control devices if site is stabilized.

DEMOLITION NOTES

- The location of the utilities shown have been determined by information gathered and shall not be used as exact. contractor shall contact the appropriate utility companies to verify exact locations prior to demolition.
- The contractor shall coordinate with the proper utility companies for removal and relocations of the respective utility. The contractor shall verify any work that may be done by the utility companies.
- Contractor shall protect the public with best management practices.
- Contractor shall protect and maintain all existing structures, pavement, and vegetation that is not to be disturbed and is responsible for any damages to them.
- The contractor shall properly dispose of all materials resulting from operation according to governing authorities and shall obtain the proper permits required for disposal and demolition.
- The contractor shall maintain continuous access to adjacent properties during construction and avoid any property damage during construction.
- The contractor shall install erosion and sediment control devices prior to demolition.
- The contractor shall be responsible for maintaining services to any necessary utilities during construction.
- For all items noted to be removed, remove not only the above ground elements, but also remove all underground elements as well including, but not limited to; foundations, gravel fills, tree roots, pipes, tanks, etc.
- Backfill all excavations resulting from the demolition work meeting the requirements for fill outlined in the geotechnical investigation report for this site.
- Asbestos and any other hazardous material shall be properly permitted and removed by the contractor. Contractor shall secure all permits for demolition and removal of materials from the site.
- Limit saw-cut and pavement removal to only those areas where it is required as shown on these plans. any damage incurred to any surrounding areas shall be repaired / replaced at the responsibility of the contractor. Contractor shall protect existing adjacent structures, pavement, utilities, landscape, etc. from damage during construction.
- Demolition and removal of underground storage tanks, fueling dispensers, and fueling related appurtenances such as supply lines shall be removed and disposed of per local, state, and federal requirements. Contractor shall field verify exact location of supply lines and appurtenances and remove per requirements. Contractor shall secure all permits for demolition and removal of materials from the site.
- Contractor shall ensure that services to all utilities to be removed has been discontinued and shut off. All utility lines shall be capped per utility company standards.
- Contractor shall coordinate with adjacent property owners prior to demolition of materials along property lines.

SITE NOTES

- Unless otherwise shown, all curb radii shall be 2'.
- Asphalt concrete surface and base course materials should meet or exceed the requirements as outlined in the specifications or as specified by the state or local jurisdiction, whichever is more stringent.
- An independent testing laboratory, selected and paid for by the contractor and approved by the owner, shall be retained to perform construction testing of in-place asphalt concrete courses for compliance with requirements for thickness and surface smoothness requirements as specified in the construction specifications.
- All removal of asphalt pavement will be saw cut.
- Curbs must be caulked before backfilled and street paved. Acceptable suppliers are: Omni Seal 50, Percola 864 and 865, Dow Corning 888, or pre-approved equal.
- Concrete pipe shall meet local jurisdiction or DOT specs. No damaged or repaired pipe will be allowed.
- Any damage to the existing public street due to construction shall be repaired/replaced at the contractors expense.
- Provide a smooth line by full depth saw cut for street widening (typ).
- All existing curb cuts will be removed and replaced with standard curb, any curb to remain that is currently damaged or cracked shall be removed and replaced with standard curb, and curb damaged during construction shall be removed and replaced.
- Driveway approaches shall be constructed of Portland cement concrete with a broom finish.
- Detectable warnings are required when constructing or altering curb ramps. A 24 in wide strip of detectable warning (truncated domes) should be installed at the bottom of a curb ramp to indicate the transition from the sidewalk to the street or as indicated on drawings.
- Minimum density for asphalt shall be 92% of the maximum theoretical density.
- Subgrade shall be compacted to 95% of standard proctor.
- Base course shall be compacted to 95% of modified proctor on local and residential streets.

Concrete Notes:

- Concrete paving and structures should conform to project specification and details. If a discrepancy is found the more stringent shall apply.
- An independent testing laboratory, selected and paid for by the contractor, and approved by owner, shall be retained to perform construction testing of concrete for compliance with requirements of the construction specifications.
- Vertical concrete surfaces exposed to the general public shall be wet-rubbed to a smooth finish after forms have been removed. Horizontal surfaces shall be broomed as required in the construction specifications.

PAVING NOTES

- Place expansion joint between medium duty and heavy duty concrete.
- Contractor to provide diagonal control joint from corners of paving transitions.

GRADING NOTES

- Proposed contours are at finished grade.
- The construction area shall be cleared, grubbed, and stripped of topsoil and organic matter from all areas to be occupied by building and paving. Topsoil for replacement on slopes may be stockpiled on site. Excess topsoil may be wasted in fill slopes, except that no topsoil will be wasted within 10 feet of the edge of the building or paved area. Burning of timber and debris shall comply with AHJ ordinances.
- Areas to receive fill shall be scarified and the top 8 inch depth compacted to 95% standard proctor of the maximum laboratory density. Any unsuitable areas shall be undercut and replaced with suitable material before any fill material can be applied.
- Off-site fill material (gravely clay), shall have a plasticity index of 15 or less and a CBR value greater than 3. Off-site fill material shall be approved by the engineer prior to bringing on site.
- Areas that are to be cut to subgrade levels shall be proof-rolled with a fully loaded tandem-axle dump truck or similar approved construction equipment to detect unsuitable soils. Cut areas are to be scarified and recompacted to 95% standard proctor and tested by a geotechnical engineer prior to placement of base material.
- In all areas of excavation, if unsuitable soils are encountered, a qualified geotechnical engineer shall recommend to the owner on the methods of undercutting and replacement of properly compacted, approved fill material. All proof-rolling and undercutting shall be performed during a sufficient duration of dry weather.
- An independent certified testing laboratory, selected and paid for by the contractor, and approved by the owner, shall be retained to perform construction testing of the subgrade for compliance with the minimum requirements of subgrade compaction. For base course and asphalt paving see typical sections and specs.
- All slopes are to be 3H:1V or flatter unless otherwise indicated.
- Contractor shall refer to the stormwater pollution prevention plan and report for stormwater quality control including erosion and sediment control. Proper measures shall be practiced to prevent erosion along the edge of property, toe of slope, and along ditches. Mud and debris are not allowed to flow onto adjacent properties or public roadways.
- The contractor is to remove and dispose of all debris, rubbish and other materials resulting from previous and current demolition operations.
- The contractor is responsible for meeting all permit requirements for the disposal of materials from the site.
- All disturbed areas shall receive 4 inches of topsoil and be re-vegetated. Vegetation must be established to minimize erosion prior to issuance of certificate of occupancy.
- Prior to the installation of storm or sanitary sewer, the contractor shall excavate, verify and calculate all crossings and inform the owner and the engineer of any conflicts prior to construction. The engineer will not be held liable if the engineer is not notified of design conflicts.
- All graded and otherwise disturbed areas shall be stabilized within 15 days immediately after grading or disturbance has ceased.
- Permanent improvements such as streets, storm sewers, curb and gutters, and other features for control of runoff shall be scheduled coincidental to removing vegetative cover from the area so that large areas are not left exposed beyond the capacity of temporary control measures.
- Erosion and sediment control systems must be immediately restored after each utility construction. The property owner or main contractor onsite will be responsible for restoring all erosion and sediment control systems and public infrastructure damaged or disturbed by underground private or franchise utility construction such as water and sewer service leads, telephone, gas, cable, etc.
- All curbs shall be 6 inches above finish grade unless otherwise specified.
- Prior to demolition occurring, erosion control devices are to be installed per BMP sequence.
- All storm sewer pipe connections to structures shall be grouted to insure connection at structure is water tight. All storm sewer structures shall have a smooth uniform poured mortar invert from invert in to invert out.
- All drainage structures shall meet H20 loading when in paved traffic areas. And be flush with finished grades in paved areas.
- Existing drainage structures to remain shall be inspected and repaired as necessary. Remove all silt and debris.
- Fills shall be limited to 10FT vertical height unless information demonstrating slope stability, erosion control, and drainage control is provided along with re-vegetation.
- Transition gutter to allow a 4 inch depression at curb inlets. (12FT for upstream side and sags and 4FT for downstream side)
- Steps are required in storm drain manholes that are at 4FT of depth and greater. Centerline of manhole lid shall be 2FT from the wall where steps are located. Steps shall be copolymer polypropylene plastic with steel core.
- Contractor to provide positive drainage away from buildings for paved and unpaved areas.
- Pipe lengths shown are approximate. Contractor to confirm all pipe lengths.

UTILITY NOTES

- Existing utilities shown on plans have been shown in their approximate locations per available information.
- Construction shall not start on any public utility system until written approval has been received from the appropriate utility authorities, and the owner, and contractor have been notified by HFA.
- Contractor shall not open, turn off, interfere with, or attach any pipe or hose to or tap any water main unless duly authorized to do so by the AHJ. Any adverse consequences of any scheduled or unscheduled disruptions of service to the public are to be the liability of the contractor. HFA and the owner are to be held harmless.
- All trenching, backfilling and pipe laying is to meet all OSHA requirements.
- The location, description and size of all above-ground and under-ground facilities, structures and utilities have been determined with due care and diligence, using current techniques, equipment and proper accuracy control procedures. However, information shown hereon is not warranted to be correct in every detail because of inaccuracies in or lack of existing data or maps and the inability to verify in the field. Persons using information contained hereon are hereby cautioned accordingly.
- Refer to building plans for site lighting electrical plans.
- All designs are subject to the AHJ's latest design criteria (water, sewer, streets and drainage). Review for plat approval is not approval of public improvements, and all proposed improvements are subject to further review at the time construction plans are submitted.
- Water and sewer impact fees will apply for the additional impact to the system. The fees will be based on the AHJ's standard requirements. These will be paid for by the owner.
- All utility service lines to be connected to new mains or relocated as needed for installation of storm sewer system.
- All conduits placed by contractor must have 48" of cover at final grade and marked with posts to identify the ends of conduits. There must be a minimum separation of 12" between electrical conduits and conduits for other utilities.
- Service taps on existing mains shall be made by the city, and fees paid by owner.
- All underground lines to be inspected prior to back filling.
- Dimensions shown are to center of pipe or fitting.
- Testing of water and sewer lines shall be at contractor's expense.
- Tops of existing manholes shall be raised as necessary to be flush with proposed pavement elevations, and manholes in unpaved areas are to be 1" above finished grades.
- All utilities under paved areas shall receive High-quality granular base course backfill full depth.
- Maintain minimum horizontal separation of 10' between water and sewer and 5' between other underground utilities such as storm sewer, electrical, gas, and conduits.
- All water, gas and electrical meters within the project area are to be abandoned and returned to the appropriate authority.
- Coordination of all conduit placement shall be made with utility providers and installed by general contractor.
- All water and sewer force main fittings shall be restrained through the use of thrust blocking per detail sheets or approved equal.
- Proposed utilities that are to be buried in the same trench shall be coordinated with and approved by the involved utilities.
- The contractor shall field verify depth and location of all utilities prior to construction of proposed utilities. All proposed utilities shall be constructed in accordance with governing agency.
- The governing AHJ shall be notified no less than 48 hours prior to the installation of public utilities, infrastructure, roadway, etc. Testing shall be coordinated with the AHJ by the engineer of record as required.
- Contractor to confirm all clearance heights of overhead utilities. If finished elevation of grading reduces clearance of lowest line to less than 16.5', contractor shall contact utility, owner, and engineer. HFA is not responsible for any damage to overhead utilities.

LANDSCAPE NOTES

- All plant material to arrive at the site with moist soil.
- Structural soil must be indicated on plans and inspected by the landscape architect at the time of installation.
- Wheel stops or curb are required between parking and landscaping.
- Wire baskets and burlap to be removed during tree planting.
- Locate all utilities and site lighting conduits before landscape construction begins. Landscape contractor to contact "one call" prior to beginning work.
- Notify the professional of record or their designated representative of any layout discrepancies prior to planting.
- Maintain 5' min horizontal separation between tree plantings and water sanitary sewer lines.
- All planting to be completed according to details, specifications or AHJ requirements, whichever is more stringent.
- All plant materials shall meet requirements established by the American Standard of Nursery Stock.
- All disturbed areas not receiving plantings or sod, shall receive seeding per Landscape Plan. These areas should receive water until grass has been established.
- If irrigation is not to be installed, sufficient hose bibs shall be installed to meet the needs of site plantings.
- Plant quantities shown in plant schedule are for reference only and shall be verified with the plan by the landscape contractor.
- All trees and natural areas shown on the plan to be preserved shall be protected during construction with temporary fencing.
- Protective fences shall be erected according to details for tree protection, if required.
- Protective fences shall be installed prior to the start of any site preparation work and shall be maintained throughout all phases of the construction project.
- Erosion and sedimentation control barriers shall be installed or maintained in a manner which does not result in soil build-up within tree driplines.
- Protective fences shall surround the trees or group of trees and will be located at or beyond the dripline. For natural areas, protective fences shall follow the limit of construction line, in order to prevent the following: a. soil compaction in the root zone area resulting from vehicular traffic or storage of equipment. b. root zone disturbances due to grade changes (greater than 6"). c. wounds to exposed roots, trunk, or limbs by mechanical equipment. d. other activities detrimental to trees such as chemical storage, cement truck cleaning, and fires.
- Exceptions to installing fences at driplines may be permitted in the following cases:
 - Where there is to be an approved grade change, impermeable paving surface, tree well, or other such site development.
 - Where permeable paving is to be installed within a tree's dripline, erect the fence at the outer limits of the permeable paving area.
 - Where trees are close to proposed building, erect the fence to allow 6 to 10 feet of workspace between the fence and the building.
 - Where there are severe space constraints due to tract size, or other special requirements.
 - Where any of the above exceptions result in a fence being closer than 4 feet to a tree trunk. Protect the trunk with strapped on planking to a height of 8 feet (or limits of lower branching) in addition to the reduced fencing provided.
- Trees approved for removal shall be removed in a manner which does not impact trees to be preserved.
- Any roots exposed by construction activity shall be pruned flush with the soil, backfill root areas with good quality top soil as soon as possible. If exposed root areas are not backfilled within 2 days, cover them with organic material in a manner which reduces soil temperature and minimizes water loss due to evaporation.
- Any trenching required for the installation of landscape irrigation shall be placed as far from existing tree trunks as possible.
- No landscape topsoil grading greater than 4 inches shall be permitted within the dripline of trees. No soil is permitted on the root flares of any tree.
- Pruning to provide clearance for structures, vehicular traffic, and equipment shall take place before construction begins.
- All finished pruning must be done according to recognized, approved standards of the industry (reference the American National Standard, ANSI-A300 pruning, 2008 or later)

IRRIGATION NOTES

- Contractor shall locate all underground utilities prior to starting work on the site. Utilities shown on this plan are approximated, and should be verified on the civil utility plan and in the field.
- Contractor is responsible for all permits, licenses, meters, taps, and impact fees required to install the system.
- Contractor shall refer to the Irrigation Plan for head, line, and valve placement relative to the proposed planting plan. Irrigation system shall provide 100% head-to-head coverage.
- Contractor shall adjust heads and nozzles to provide 100% coverage in the areas indicated on the plan. Avoid conflicts with existing and proposed plant material, paving, structures, and utility lines. Adjustable arc nozzles shall be substituted in place of fixed arc nozzles as necessary to prevent over spray onto pavement. Irrigation heads shall be placed and adjusted to prevent spray onto buildings or walkways.
- Verify in the field, the location of lines, heads, or valves within the drip line of any existing trees. Hand excavate or bore within the dripline of any tree.
- Irrigation contractor shall coordinate installation of the system with the landscape contractor so that all plant material will be watered in accordance with the intent of the plans.
- The professional of record or owner's representative shall approve the flagged layout of the system prior to trenching.
- All main line piping shall be buried to have a minimum cover of 18". All lateral piping downstream of the mainline shall be buried to have a minimum cover of 12".
- All wiring from the irrigation controller to the remote control valves shall be uf-14 direct burial cable. All wire splices shall be made in valve boxes only.
- The irrigation contractor is responsible to coordinate the placement of sleeves prior to paving. Sleeve material shall be schedule 40 and at a minimum depth of 18".
- The irrigation contractor is required to repair with approved in kind materials any damage including but not limited to the building, structures, paving, or plantings. Damage to utilities by the irrigation contractor shall be reported to the owner's representative, and the regulating utility provider.
- Contractor shall not willfully install the irrigation system when it is obvious in the field that obstructions, grade differences or discrepancies in equipment usage, area dimensions or static water pressure exist that might not have been present or known information in the design. Such obstructions or differences shall be brought to the attention of the owner's representative. In the event this notification is not performed, the contractor shall assume full responsibility for any revision necessary at no additional cost to the owner.
- Irrigation contractor is responsible for repairing all lawns disturbed outside of or construction disturbance areas. All irrigation disturbance outside of construction disturbance shall have the trenches backfilled with topsoil, as described in the general landscape notes and be graded smooth per the grading plan. Irrigation contractor shall follow the general landscape notes for seeding or sodding for repairing required lawn areas.



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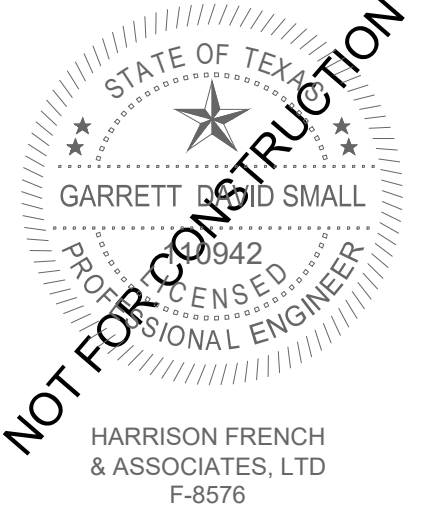
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DATE ISSUE

05/03/2023 OWNER REVIEW SET

05/17/2023 PERMIT SET

PROFESSIONAL SEAL



PROFESSIONAL LICENSE NO:

110942

PROFESSIONAL IN CHARGE

GARRETT DAVID SMALL

PROJECT MANAGER

KIK

QUALITY CONTROL

WFM

DRAWN BY

JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER

06-22-20027

SHEET NAME

GENERAL NOTES

SHEET

C-1.1



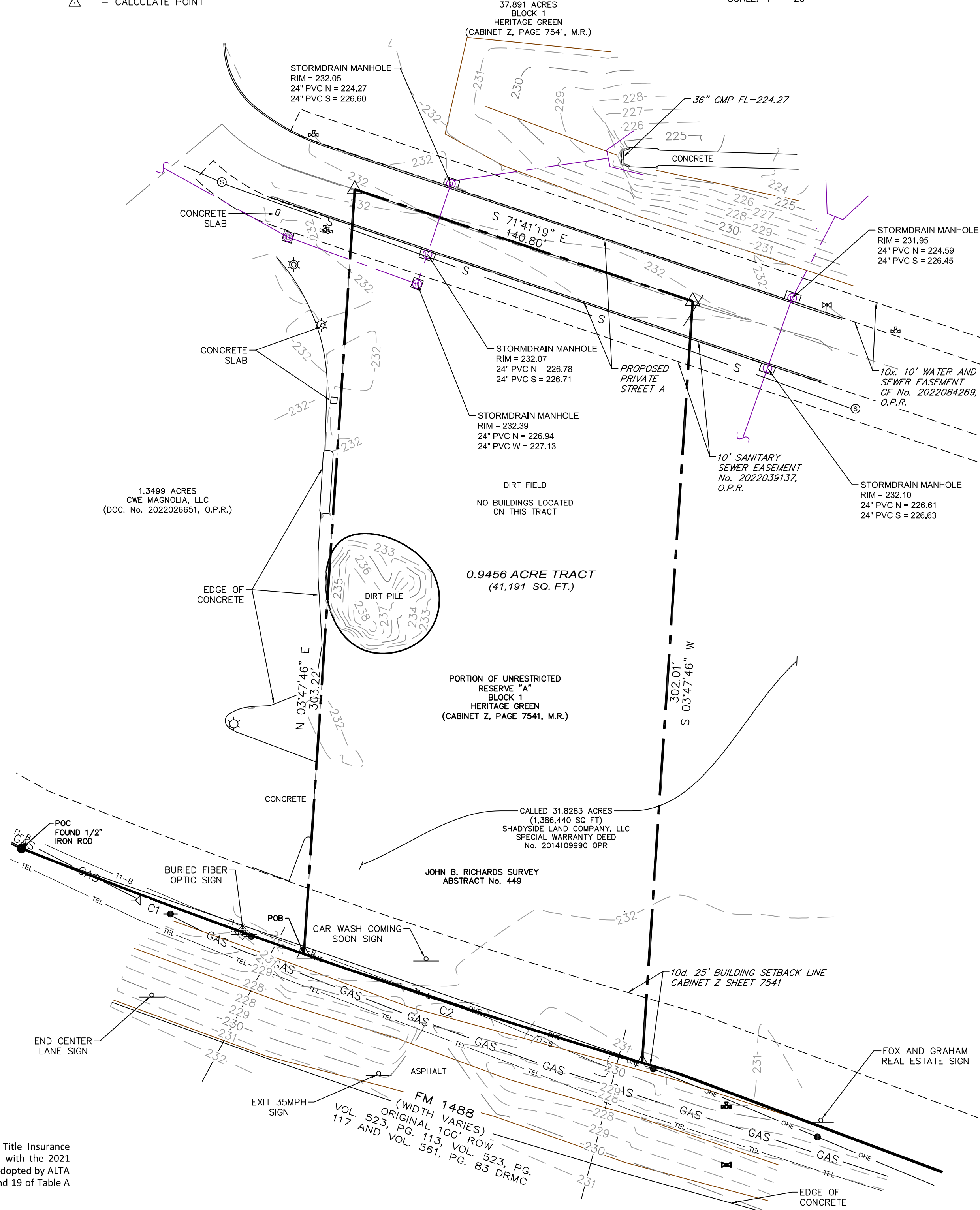
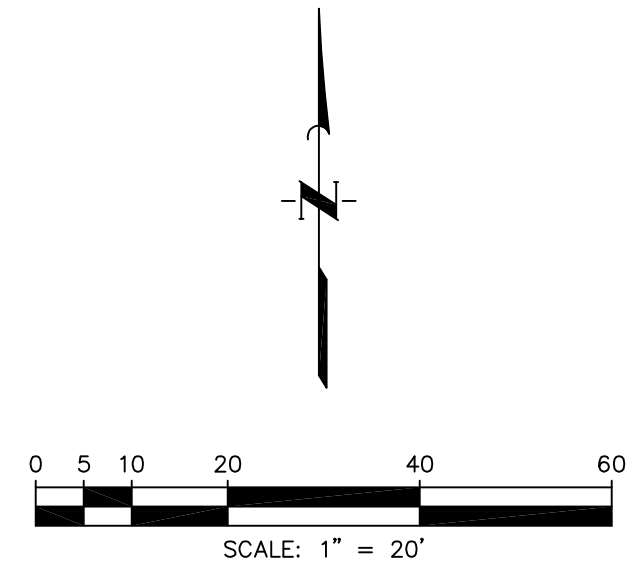
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GENERAL NOTES

- 1. This survey was performed utilizing that certain title report prepared by Fidelity National Title Insurance Company, OH NCS No. GLV2201921 & G.F. No. SAT-41-4000412202860-CV (Issue Date: October 10, 2022, Effective Date: September 27, 2022) pursuant to Section 663.16(b) of the Professional Land Surveying Practices Act (revised August, 2013) and reflects only those easements and encumbrances of record mentioned therein. Quiddity performed no additional research of the public records. The surveyed tract may be subject to additional government regulations and restrictions prior to further site development.
2. The graphic location of the subject tract superimposed upon the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, Community Panel No. 48333C0485G, effective date August 18, 2014, indicates that the subject tract is located within Zone "X" (un-shaded) which is defined by FEMA as "areas determined to be outside the 0.2% annual chance floodplain" commonly known as the 500-year floodplain. Zone "X" (un-shaded) is outside of any FEMA established flood hazard zone. This statement does not imply that any portion of the subject tract is totally free of potential flood hazard. Localized flooding can occur due to natural and/or man-made influences. This flood statement shall not create any liability on the part of Quiddity or the undersigned.
3. This survey does not provide any determination concerning wetlands, fault lines, toxic wastes (or any other environmental issue), archeological sites or obscured or poorly marked gravestones. An expert consultant should address such matters.
4. The subject tract has access to the public street right-of-way of F.M. 1488 (Cabinet Z, Page 7541).
5. All square footage quantities shown on this survey are based upon the mathematical closure of the boundary courses and distances. Said quantities do not indicate the positional accuracy of the boundary monumentation.
6. The bearings shown hereon are Texas State Coordinate System GRID, Central Zone (NAD'83), as determined by Global Positioning System (GPS). The unit of linear measurement is U.S. Survey Feet. Please review the record instruments cited herein to compare the survey bearings and distances with the record calls.
7. All elevations shown hereon are NAVD'88 datum, as determined by Global Positioning System (GPS). The contour interval is one foot.
8. The underground improvements shown hereon are based upon a SUE Investigation Drawing prepared by Vosburg Welsh and S.U.E. (dated November 18, 2022).
9. Quiddity makes no assessment whether the ramps or other handicap accessible structures shown hereon meet the standards of the Americans with Disabilities Act (ADA). An expert consultant should address such matters.
10. This survey does not reflect lease interests.
11. The word "certify" is understood to be an expression of professional judgment by the surveyor, which is based on his best knowledge, information and belief. As such, it constitutes neither a guarantee nor a warranty, expressed or implied.
12. The adjoining ownership information was obtained from the Montgomery County Appraisal District tax rolls and may not reflect the current ownership status.
13. This tract is situated within Zone "AC" (Auto-Urban Commercial) per City of Magnolia Planning & Zoning web site checked on November 18, 2022 and is therefore subject to the restrictions stipulated by the City of Magnolia for said zone.
14. Zoning Requirements:
Source of Zoning Information: National Due Diligence Services.
Phone Number: (877) 439-2582
The effective date of the current zoning requirements is 11/21/2022.
The current zoning classification is: AC- Auto-Urban Commercial - Based on the zoning report provided to surveyor.
The property is zoned within the City of Magnolia.
Building Setback Requirements:
-Front: 25'
-Side: 25'
-Back: 25'
-Building Height Restrictions: 40' maximum 45' per the unified development code. No building shall be higher than 60' per first amendment to utility development agreement and chapter 380 agreement.
-Floor Space Area Restrictions: N/A
15. There are no buildings or parking spaces located within this tract.
16. There was evidence of recent earth moving work, building construction, or building additions observed in the process of conducting the fieldwork.
17. No information was found of proposed changes in street right of way lines or evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.

SYMBOL LEGEND

- O - SET 1/2-INCH IRON ROD
- FIRE HYDRANT
- SIGN
- POWER POLE
- LIGHT POLE
- GUY ANCHOR
- IRRIGATION CONTROL VALVE
- STORM DRAIN MANHOLE
- MAP RECORDS MONTGOMERY COUNTY
- OFFICIAL PUBLIC RECORDS MONTGOMERY COUNTY
- WATER VALVE
- POINT OF BEGINNING
- POINT OF COMMENCEMENT
- CALCULATE POINT



CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	02°28'05"	2767.68'	119.22'	S69°28'47"E	119.21'
C2	02°54'32"	2767.91'	140.52'	N72°10'00"W	140.50'

SURVEYOR'S CERTIFICATE:

Subject to the General Notes shown hereon:

This is to certify to Valvoline LLC, a Delaware limited liability company and Fidelity National Title Insurance Company 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 Items 1 through 7(a) and 7(b)(1); Items 8, 9, 11(b), 13, 14, 16, 17, and 19 of Table A thereof. The fieldwork was completed on November 9, 2022.

Date of Plat or Map: January 4, 2023

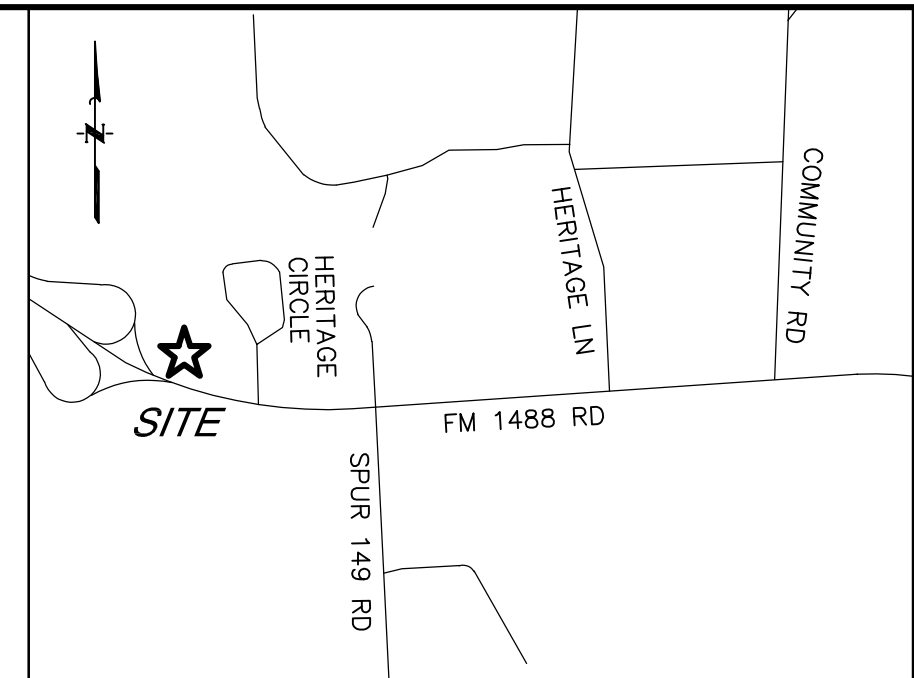
QUIDDITY

PRELIMINARY

Troy A. Trobaugh
Registered Professional Land Surveyor No. 6241
Signature Date: January 4, 2023

1. The following restrictive covenants of record itemized below (We must either insert specific recording data or delete this exception):

- THOSE RECORDED IN CABINET Z, SHEET 7541 OF THE MAP RECORDS OF MONTGOMERY COUNTY, TEXAS, AND THOSE RECORDED UNDER 8412009 AND AMENDED BY 2020032811, 202114496 AND CORRECTED BY 2021148100, 2022026651, 2022026652, AND 2022026656 OF THE OFFICIAL PUBLIC RECORDS OF MONTGOMERY COUNTY, TEXAS. (THE PROPERTY RELEASED UNDER THE 1ST AMENDMENT (09/18/2021) INCLUDES THE SUBJECT TRACT.)
10. The following matters and all terms of the documents creating or offering evidence of the matters (We must insert matters or delete this exception):
d. A building setback line, as disclosed by said map/plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas.
Affects: 25 feet wide along the western lower north property line; along the most eastern west property line along a portion of the most northern property line; along FM 1488 and along Heritage Green Circle Right of Ways. (As shown hereon.)
e. A building setback line, as disclosed by said map/plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas.
Affects: 70 feet wide along a portion of the most northern property line; along the most western east property line; and along the lower north property line. (Does not affect subject tract.)
f. A building setback line, as disclosed by said map/plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas.
Affects: 15 feet wide along the most linear westerly property line(s) and along the most eastern property line. (Does not affect subject tract.)
g. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract(s):
Purpose: landscape buffer
Affects: 20 feet wide
Recording No: Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
h. Easement(s) for the purpose(s) shown below and rights incidental thereto as delineated or as offered for dedication, on the map of said tract(s):
Purpose: take easement along the most eastern property line
Affects: 20 feet wide
Recording No: Cabinet Z, Sheet 89-E and Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
i. An easement 150 feet wide containing 14,783 acres as granted to Houston Lighting and Power Company, as set out in instrument dated July 2, 1963, recorded under Clerk's File No. 8339810 of the Official Public Records of Real Property of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
j. Pipeline easement 50 feet wide granted to Sinclair Pipe Line Company, as set out in instrument dated November 9, 1922, recorded in Volume 108, Page 48 of the Deed Records of Montgomery County, Texas, and by instrument dated January 4, 1923, recorded in Volume 108, Page 89 of the Deed Records of Montgomery County, Texas, Amended by Agreement and Partial Release dated February 21, 1972, recorded by Amco Pipe Line Company, recorded in Volume 766, Page 821 of the Deed Records of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
k. Water and reserve easement recorded in Volume 472 Page 515 of the Deed Records of Montgomery County, Texas, granting an easement and right-of-way pertaining overflow and backwaters to extend over onto the subject property. (Does not affect subject tract.)
l. Electrical easement 10 feet wide traversing the western portion of subject property, together with an unobstructed aerial easement 20 feet wide from a plane 20 feet above the ground upward adjoining thereto as granted to Houston Lighting & Power Company by instrument recorded in Volume 618 Page 789 of the Deed Records of Montgomery County, Texas and located as shown on sketch attached thereto. (Does not affect subject tract.)
m. An easement Ten (10) feet in width and 1107.7 feet in length, adjacent to and adjoining the Amco Pipe Line, the centerline of said easement as located by the sketch appended thereto together with an unobstructed aerial easement Ten (10) feet in width extending upward from a plane sixteen feet above ground level adjoining both sides thereof, granted to Houston Lighting and Power Company, as set out in instrument dated April 19, 1984, recorded under Clerk's File No. 8437000 of the Official Public Records of Real Property of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
n. Easements granted to Houston Lighting & Power Company by instrument recorded under Clerk's File No. 8500418 of the Real Property Records of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. Affected by Release of Easement dated February 13, 2020, recorded by CenterPoint Energy Houston Electric, LLC, by instrument recorded under Clerk's File No. 2020014358 of the Official Public Records of Montgomery County, Texas. (Does not affect subject tract.)
o. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Houston Lighting & Power Company
Purpose: easement for electric distribution facilities and appurtenances
Recording Date: May 5, 1986
Recording No: Clerk's File No. 861845 of the Official Public Records of Montgomery County, Texas.
Affects: an unobstructed easement ten (10) feet wide, the location of the centerline of which is shown by the dot-dash symbol on Sketch No. 168-552, hereto attached and made a part hereof, together with unobstructed aerial easements ten (10) feet wide, beginning at a plane sixteen (16) feet above the ground and extending upward, located on both sides of and adjoining said ten (10) foot wide easement, and including the necessary guy easement shown on said attached sketch. (Does not affect subject tract.)
p. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: Houston Lighting & Power Company, a Texas corporation
Purpose: easement for electric distribution facilities and appurtenances
Recording Date: June 16, 1993
Recording No: Clerk's File No. 933152 of the Official Public Records of Real Property of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas.
Affects:
1. An easement ten (10) feet wide, the location of the centerline of which is shown by a dot-dash symbol on Sketch No. 83-208, attached hereto and made a part hereof, along with unobstructed aerial easements ten (10) feet wide, beginning at a plane sixteen (16) feet above the ground and extending upwards, located on both sides of and adjoining said ten (10) foot wide easement.
2. Three (3) feet wide easements at three (3) separate locations to the Grantor's guy easement purposes, the location of the centerline of each is shown by a guy symbol on said attached sketch. (Does not affect subject tract.)
q. Easement 10 feet wide beginning on the easterly line of the 150' E. & P. easement and extending in a northerly direction together with an unobstructed aerial easement 10 feet wide from a plane 10 feet above the ground upward adjoining thereto as granted to Houston Lighting & Power Company, a Texas corporation, as set forth by instrument dated October 31, 1994, recorded under Clerk's File No. 9487014 of the Real Property Records of Montgomery County, Texas and located as shown on sketch attached thereto, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
r. Easement 10 feet wide centered on electrical distribution facilities, together with an unobstructed aerial easement 10 feet wide from a plane 10 feet above the ground upward adjoining thereto as granted to Houston Lighting & Power Company, a Texas corporation, by instrument dated November 25, 1995, recorded under County Clerk's File No. 9702076 of the Real Property Records of Montgomery County, Texas and located as shown on sketch attached thereto, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
s. Right-of-Way easement 50 feet wide and Temporary Work Spaces granted to BridgeTex Pipeline Company, L.L.C. dated May 22, 2013, recorded under Clerk's File No. 2013079804 of the Official Public Records of Montgomery County, Texas, and shown on plat recorded in Cabinet Z, Sheet 7541 of the Map Records of Montgomery County, Texas. (Does not affect subject tract.)
t. Pipe line easement and consent dated granted to BridgeTex Pipeline Company, L.L.C. dated October 29, 2013, recorded under Clerk's File No. 2013114403 of the Official Public Records of Montgomery County, Texas, executed by CENTERPOINT ENERGY HOUSTON ELECTRIC, L.L.C. a Texas corporation, as set forth by instrument dated July 8, 1996, recorded in Volume 623, Page 448 of the Deed Records of Montgomery County, Texas. (Does not affect subject tract.)
u. Guy easement granted by James S. Dugan and wife, Carrie Bell Dugan to Houston Lighting & Power Company by instrument dated July 8, 1996, recorded in Volume 623, Page 448 of the Deed Records of Montgomery County, Texas. (Does not affect subject tract.)
v. A 20' wide drainage and utility easement reserved in deed recorded under Montgomery County Clerk's File No. 9468570. (Does not affect subject tract.)
w. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: CenterPoint Energy Houston Electric, LLC
Purpose: electric easement and appurtenances
Recording Date: June 28, 2022
Recording No: Clerk's File No. 2022061617 of the Official Public Records of Montgomery County, Texas.
Affects:
1. An easement ten (10) feet wide, the location of which is shown by the hatched area on Plat Nos. 22-0223 and 22-0223A, attached hereto and made a part hereof, together with an unobstructed aerial easement eleven (11) feet six (6) inches wide, beginning at a plane sixteen (16) feet above the ground and extending upward, located on both sides of and adjoining said ten (10) foot wide easements. (Does not affect subject tract.)
2. Easements ten (10) feet wide, the location of the centerline of which are shown by the dashed symbols on said attached Plat No. 22-0223A and Plat Nos. 22-0223B and 22-0223C, attached hereto and made a part hereof, together with an unobstructed aerial easement ten (10) feet wide, beginning at a plane sixteen (16) feet above the ground and extending upward, located on both sides of and adjoining said ten (10) foot wide easements. (Does not affect subject tract.)
x. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: The City of Magnolia
Purpose: water and sewer easement
Recording Date: September 23, 2022/Recording No: Texas Clerk's File No. 2022034298 of the Official Public Records of Montgomery County
Affects: 15 feet wide containing 0.1135 acres as described by metes and bounds description attached thereto. (Does not affect subject tract.)
y. Easement(s) for the purpose(s) shown below and rights incidental thereto, as granted in a document:
Granted to: The City of Magnolia
Purpose: water and sewer easement
Recording No: Volume 217, Page 637 of the Deed Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
aa. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Volume 217, Page 637 of the Deed Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
ab. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Volume 220, Page 27 of the Deed Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
ac. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Volume 254, Page 76 of the Deed Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
ad. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Volume 307, Page 107 of the Deed Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
ae. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Clerk's File No. 2014025799 of the Official Public Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
af. Interest in and to oil, gas and other minerals and/or royalties, bonuses, rentals and all other rights relating thereto as set forth in the document:
Recording No: Clerk's File No. 948870 of the Official Public Records of Montgomery County, Texas.
Said mineral interest not traced subsequent to the date of the above-deed instrument. (Not a survey matter.)
ag. Leases(s) for coal, lignite, oil, gas or other minerals, together with rights incidental thereto recorded under Clerk's File No(s), 946008, 9509722, 9509973, 9567445, 9849884 of the Official Public Records of Montgomery County, Texas. Reference to which instrument is here made for particulars. No further search of title has been made as to the interest(s) evidenced by this instrument, and the Company makes no representation as to the ownership or holder of such interest(s). (Not a survey matter.)
ah. All terms, conditions, and provisions of that certain Service Plan contained in Ordinance No. O-2014-020 Amending Territory to the City of Magnolia, Texas, recorded under Clerk's File No. 2014082290 of the Official Public Records of Montgomery County, Texas. (Not a survey matter.)
ai. All terms, conditions, and provisions of that certain Service Plan contained in Ordinance No. O-2015-017 Amending Territory to the City of Magnolia, Texas, recorded under Clerk's File No. 2015104272 of the Official Public Records of Montgomery County, Texas. (Not a survey matter.)
aj. Reciprocal easements, for the purpose(s) shown below and rights incidental thereto as created by the following document:
Document: Reciprocal Access Easement Agreement, Executed by DANIEL L. MORGAN and REBECCA E. MORGAN and SHADYSIDE LAND COMPANY, L.L.C. a Texas limited liability company
Purpose: common thoroughways, access ways and/or sidewalks
Recording Date: August 9, 2019
Recording No: Clerk's File No. 2019079128 of the Official Public Records of Montgomery County, Texas. (Does not affect subject tract.)
ak. All terms, conditions, and provisions of that certain Service Plan contained in Ordinance No. O-2020-015 Amending Territory to the City of Magnolia, Texas, recorded under Clerk's File No. 2020060473 of the Official Public Records of Montgomery County, Texas. (Not a survey matter.)
al. First Amendment to Utility Development Agreement and Chapter 380 Agreement
Executed by: City of Magnolia and ShadySide Land Company, L.L.C. a Texas limited liability company
Recording Date: March 29, 2022
Recording No: Clerk's File No. 2022039137 of the Official Public Records of Montgomery County, Texas. (Affects, no plat/easement(s).)



VICINITY MAP
NOT TO SCALE

FIDELITY NATIONAL TITLE INSURANCE COMPANY
SCHEDULE B EXCEPTIONS FROM COVERAGE
Effective Date: September 27, 2022, 8:00 AM
GF No.: SAT-41-4000412202860-CV
Issued: October 10, 2022, 8:00 AM
Commitment No. 4000412202860

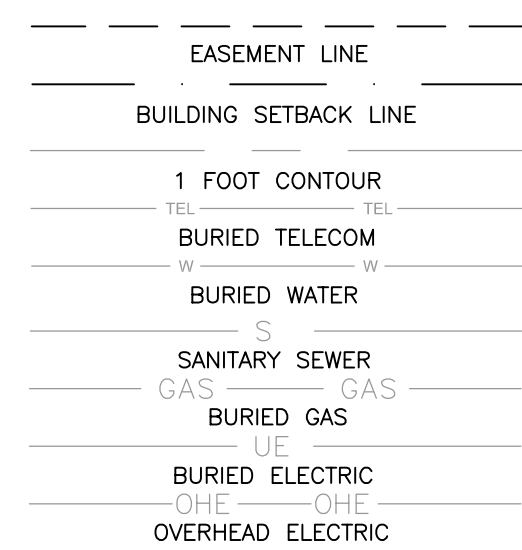
Legal description of land:
UNRESTRICTED RESERVE "A", IN BLOCK ONE (1), OF HERITAGE GREEN, A SUBDIVISION IN MONTGOMERY COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN CABINET Z, SHEET 7541, OF THE MAP RECORDS OF MONTGOMERY COUNTY, TEXAS; SAVE AND EXCEPT THE FOLLOWING TRACTS OF LAND:
THAT CERTAIN 2.380 ACRES GRANTED TO FIRST BITS MAGNOLIA, LLC, A TEXAS LIMITED LIABILITY COMPANY, BY DEED DATED OCTOBER 8, 2021, RECORDED UNDER CLERK'S FILE NO. 2021144697 OF THE OFFICIAL PUBLIC RECORDS OF MONTGOMERY COUNTY, TEXAS, AND, THAT CERTAIN 1.3499 ACRES GRANTED TO CWE MAGNOLIA, LLC, A TEXAS LIMITED LIABILITY COMPANY, BY DEED DATED MARCH 1, 2022, RECORDED UNDER CLERK'S FILE NO. 2022026651 OF THE OFFICIAL PUBLIC RECORDS OF MONTGOMERY COUNTY, TEXAS.

LEGAL DESCRIPTION OF LAND:
COMMENCING AT A 1/2-INCH IRON ROD with a "Jones Carter" (JC) cap found at the Northwest right-of-way setback of F.M. 1488 (Variable in width - Volume 523, Page 113 Deed Records Montgomery County, Texas D.R.M.C.);

THENCE, with the northeasterly line of said right-of-way along the arc of a curve to the left having a radius of 2767.68 feet, a central angle of 02°28'05", along chord bearing of South 69°28'47" East, 119.21 feet, and a total arc length of 119.22 feet to a calculated point for the POINT OF BEGINNING and the southwest corner of herein described tract;

THENCE, over-and-across said Block 1 the following four (4) courses and distances:

- 1. North 03°47'46" East, 303.22 feet to a point for corner;
2. South 71°41'19" East, 140.80 feet to a point for corner;
3. South 03°47'46" West, 302.01 feet to a point for corner in the northeasterly line of said F.M. 1488;

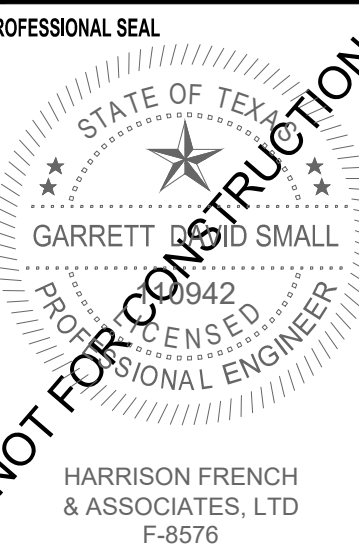
- 4. with said right-of-way along the arc of a curve to the right having a radius of 2767.91 feet, a central angle of 02°54'32", a long chord bearing of North 72°10'00" West, 140.50 feet, and a total arc length of 140.52 feet to the POINT OF BEGINNING, containing 0.9456 of an acre of land in Montgomery County, Texas as shown on Drawing No. 18077 filed under Job No. 17066-0011-00 in the office of Quiddity, San Antonio, Texas.


ALTA/NSPS LAND TITLE SURVEY
OF
0.9456 ACRES
IN
BLOCK 1, HERITAGE GREEN
SUBDIVISION
CITY OF MAGNOLIA
MONTGOMERY COUNTY, TEXAS



TBPELS Registration Nos. F-23290 & 10046100
4350 Lockhill-Selma Road, Suite 100 • San Antonio, Texas 78249 • 210.494.5511
Austin • College Station • Dallas • Georgetown • Houston • Rosenberg • Round Rock • San Antonio • The Woodlands

DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO.: 110942

PROFESSIONAL IN CHARGE
GARRETT DAVID SMALL

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
JKP / ENH

PROJECT NAME



**VALVOLINE
INSTANT
OIL CHANGE**

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027

SHEET NAME
DEMOLITION PLAN

SHEET #
C-3.0

GENERAL DEMOLITION NOTES:

- ANY DEMOLITION IS TO BE PERFORMED IN STRICT CONFORMANCE WITH ALL APPLICABLE CITY, COUNTY AND STATE, AND/OR GOVERNING BODY'S STANDARDS.
- THE DEMOLITION PLAN SHALL BE DONE IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION REPORT.
- EROSION AND SEDIMENT CONTROL MEASUREMENTS SHALL BE MAINTAINED AT ALL TIMES DURING DEMOLITION.
- THE PURPOSE OF THIS DRAWING IS TO CONVEY THE OVERALL SCOPE OF WORK AND IT IS NOT INTENDED TO COVER ALL DETAILS OR SPECIFICATIONS REQUIRED TO COMPLY WITH GENERALLY ACCEPTED DEMOLITION PRACTICES. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE, SCOPE OF WORK, AND ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO BIDDING AND COMMENCING THE WORK. THE DEMOLITION CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES, OR PROCEDURES USED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND IS LIABLE FOR THE SAFETY OF THE PUBLIC OR CONTRACTOR'S EMPLOYEES DURING THE COURSE OF THE PROJECT.
- THE DEMOLITION PLAN IS INTENDED TO SHOW REMOVAL OF KNOWN SITE FEATURES AND UTILITIES AS SHOWN ON THE SURVEY. THERE MAY BE OTHER SITE FEATURES, UTILITIES, STRUCTURES, AND MISCELLANEOUS ITEMS BOTH BURIED AND ABOVE GROUND THAT ARE WITHIN THE LIMITS OF WORK THAT MAY NEED TO BE REMOVED FOR THE PROPOSED PROJECT THAT ARE NOT SHOWN HEREON. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF SUCH ITEMS AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL CONTACT RESPECTIVE UTILITY COMPANIES PRIOR TO DEMOLITION TO COORDINATE DISCONNECTION AND REMOVAL OF EXISTING UTILITIES WITHIN THE AREA OF WORK.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER THESE UTILITIES ARE SHOWN ON THE PLAN OR NOT.
- UPON DISCOVERY OF ANY UNDERGROUND TANKS, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE. NO REMOVAL OF TANKS SHALL OCCUR UNTIL AUTHORIZED BY OWNER.
- BUILDING AND APPURTENANCES DESIGNATED FOR DEMOLITION SHALL NOT BE DISTURBED BY THE CONTRACTOR UNTIL HE HAS FURNISHED WITH NOTICE TO PROCEED BY THE OWNER. AS SOON AS SUCH NOTICE HAS BEEN GIVEN, THE CONTRACTOR SHALL PERFORM THE DEMOLITION, UNDER THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
- ALL EXISTING UTILITIES WITHIN THE EXISTING BUILDING ARE TO BE REMOVED, WHERE CONFLICTS OCCUR WITH GRADE, BEAMS, PILES, PROPOSED UTILITIES AND TRENCH BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS AND GEOTECHNICAL REPORT.
- FOUNDATIONS, FLOORS, FLOOR SLABS, AND ANY OTHER UNDERGROUND BUILDING STRUCTURES SHALL BE REMOVED IN ACCORDANCE WITH THE SPECIFICATIONS, AREAS OF STRUCTURE REMOVAL SHALL BE BACKFILLED IN ACCORDANCE WITH SPECIFICATIONS AND THE GEOTECHNICAL REPORT.
- DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL CITY, STATE, AND FEDERAL LAWS AND ORDINANCES.
- ALL MATERIAL, EXCEPT THAT BELONGING TO A PUBLIC UTILITY COMPANY OR DENOTED FOR SALVAGE, SHALL BECOME PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE OWNER OF WATER, ELECTRIC, OR GAS METERS WHEN THE METERS ARE READY FOR REMOVAL, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTING ALL UTILITIES IN COMPLIANCE WITH LOCAL REQUIREMENTS. DISCONNECT TRANSFORMERS AS REQUIRED FOR BUILDING DEMOLITION.
- AS SOON AS DEMOLITION WORK HAS BEEN COMPLETED, THE FINAL GRADE OF BACKFILL IN DEMOLITION AREAS SHALL BE COMPACTED PER THE GEOTECHNICAL REPORT TO PRESENT A NEAT, WELL DRAINED APPEARANCE, AND TO PREVENT WATER FROM DRAINING UNNECESSARILY ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL GRADE SITE TO EXISTING STORM DRAINAGE SYSTEM TO REMAIN ON SITE.
- EXISTING TREES TO REMAIN SHOULD BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.
- THE CONTRACTOR IS TO COORDINATE WORK IN THIS PROJECT TO ENSURE ACCESS TO ADJACENT PROPERTIES AT ALL TIMES.
- THE USE OF EXPLOSIVES SHALL NOT BE PERMITTED.

EXISTING LEGEND:

---	EASEMENT LINE
---	BUILDING SETBACK LINE
---	1 FOOT CONTOUR
---	BURIED TELECOM
---	BURIED WATER
---	SANITARY SEWER
---	BURIED GAS
---	BURIED ELECTRIC
---	OVERHEAD ELECTRIC
○	SET 1/2-INCH IRON ROD
⊙	FIRE HYDRANT
△	SIGN
◆	POWER POLE
☆	LIGHT POLE
⊙	GUY ANCHOR
⊙	IRRIGATION CONTROL VALVE
⊙	STORM DRAIN MANHOLE
M.R.	MAP RECORDS MONTGOMERY COUNTY
O.P.R.	OFFICIAL PUBLIC RECORDS MONTGOMERY COUNTY
W	WATER VALVE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
△	CALCULATE POINT

PROPOSED LEGEND:

---	PROPERTY LINE
---	PROPOSED CURB
---	PROPOSED CURB & GUTTER
---	PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
---	PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
---	WATER METER, (SEE UTILITY PLAN)
---	SEWER STRUCTURES, (SEE UTILITY PLAN)
---	PROPOSED EASEMENT LINE, SEE NOTE FOR WIDTH AND DESCRIPTION
---	PROPOSED SAW CUT

PROJECT INFORMATION

THE PROPOSED PROJECT WILL CONSTRUCT A VEHICLE SERVICE STATION CONSISTING OF A 3,263 S.F. BUILDING AND ASSOCIATED PARKING AREA.

ACREAGE OF SITE IS 0.8456 ACRES.

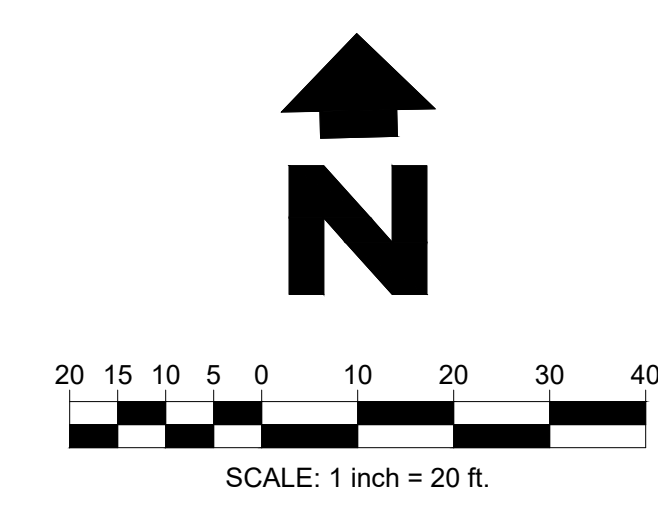
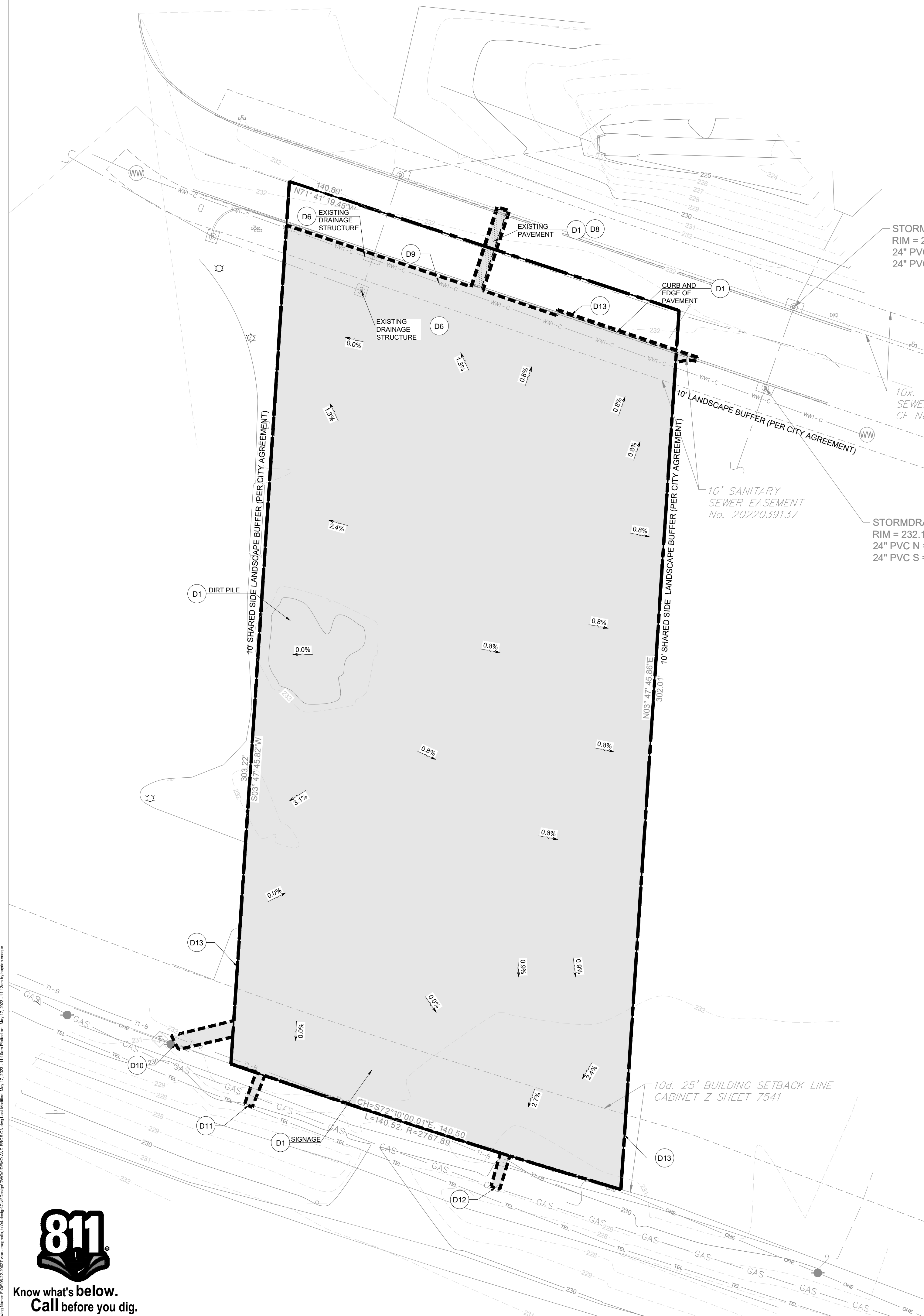
DISTURBED ACREAGE OF SITE (INCLUDING OFF-SITE WORK) IS 0.624 ACRES.

ANTICIPATED CONSTRUCTION START DATE IS SEPT. 15, 2023, AND COMPLETION DATE IS APRIL 15, 2024.

VALVOLINE'S CONTRACTOR TO TAKE APPROPRIATE MEASURES TO KEEP SEDIMENT FROM ESCAPING SITE AND ALL ACCUMULATED SEDIMENT SHALL BE CLEANED OUT AND REMOVED FROM SITE.

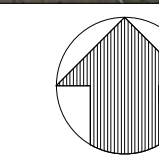
DEMOLITION KEY NOTES

- | | |
|-----|--|
| D1 | EXISTING TO BE REMOVED |
| D2 | EXISTING TO REMAIN |
| D6 | EXISTING STRUCTURE TO BE PROTECTED DURING DEMOLITION AND CONSTRUCTION PHASES. |
| D7 | EXISTING TREES AND SHRUBS TO BE PROTECTED |
| D8 | CONTRACTOR TO COORDINATE WITH LOCAL WATER SEWER DEPARTMENT FOR REMOVAL AND/OR POINT OF CONNECTION |
| D9 | CONTRACTOR TO COORDINATE WITH LOCAL SANITARY SEWER DEPARTMENT FOR REMOVAL AND/OR POINT OF CONNECTION |
| D10 | CONTRACTOR TO COORDINATE WITH LOCAL ELECTRIC COMPANY FOR REMOVAL AND/OR POINT OF CONNECTION |
| D11 | CONTRACTOR TO COORDINATE WITH LOCAL TELEPHONE COMPANY FOR REMOVAL AND/OR POINT OF CONNECTION |
| D12 | CONTRACTOR TO COORDINATE WITH LOCAL GAS COMPANY FOR REMOVAL AND/OR POINT OF CONNECTION |
| D13 | DEMOLITION LIMITS |





LOCATION MAP
(N.T.S)



GENERAL SITE NOTES:

- CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
- IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
- TRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS, AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
- ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE STATE AND LOCAL GOVERNMENT AGENCY'S LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
- ALL HANDICAP SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE AND LOCAL CODE.
- NOTIFY THE CITY INSPECTOR TWENTY-FOUR (24) HOURS BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
- THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS, AND STAKES.
- ARCHITECTURAL PLANS ARE TO BE USED FOR BUILDING STAKE OUT.
- ALL DIMENSIONS ARE FROM FACE OF BUILDING, CURB, AND WALL UNLESS OTHERWISE SPECIFIED ON PLANS.
- CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL INSIDE OR OUTSIDE CONTRACT LIMITS DUE TO CONSTRUCTION OPERATION.
- ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL ROAD WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNMENT AGENCY SPECIFICATIONS.
- STANDARD/HEAVY DUTY PAVEMENT AND CONCRETE SECTIONS SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY GILES ENGINEERING ASSOCIATES, DATED DECEMBER 29, 2022.
- ALL CURB RADII SHALL BE 5' UNLESS OTHERWISE NOTED ON THE PLANS.

SITE KEY NOTES

- S1 STRAIGHT CURB. SEE DETAIL ON SHEET C-10.1.
- S2 INTEGRAL CURB AND SIDEWALK. SEE DETAIL ON SHEET C-10.1.
- S5 TAPER CURB TO MATCH EXISTING. SEE DETAIL ON SHEET C-10.0.
- S6 TAPER CURB FROM 6" TO 0" OVER 10'. SEE DETAIL ON SHEET C-10.0.
- S7 LIMITS OF SAWCUT.
- S8 MATCH EXISTING PAVEMENT ELEVATION.
- S9 EXISTING PAVEMENT TO REMAIN.
- S11 HEAVY DUTY CONCRETE PAVING (PER PAVING PLAN)
- S12 PATCH AND REPAIR ASPHALT/CONCRETE PAVING. SEE PAVING PLAN AND SEE DETAIL ON SHEET C-10.3.
- S13 CONCRETE SIDEWALK. SEE DETAIL ON SHEET C-10.1.
- S14 BLACK "COLOR TOP" CONCRETE SEALER BY SHERWIN WILLIAMS.
- S15 SIDEWALK RAMP @ 8.33% MAX. SEE DETAIL ON SHEET C-10.1.
- S16 DETECTABLE WARNINGS PER ADA REQUIREMENTS
- S17 MONUMENT / PYLON SIGN (PER ARCH. PLANS)
- S18 DUMPSTER ENCLOSURE (PER ARCH. PLANS)
- S19 U-SHAPED BIKE RACK. SEE DETAIL ON SHEET C-10.0.
- S20 CONDENSING UNIT. REFER TO MECHANICAL PLANS
- S21 CONCRETE WHEEL STOP. SEE DETAIL ON SHEET C-10.0.
- S22 CONCRETE PAD (PER LOCAL CODES)
- S23 ADA ACCESSIBLE PARKING SPACE AND AISLE STRIPING & SYMBOL OF ACCESSIBILITY. SEE DETAIL ON SHEET C-10.0.
- S24 VAN ACCESSIBLE PARKING SIGN. SEE DETAIL ON SHEET C-10.0.
- S26 DIRECTIONAL TRAFFIC ARROW. SEE DETAIL ON SHEET C-10.0.
- S27 FIRE LANE STRIPING (PER LOCAL CODES)
- S28 PARKING STALL STRIPING. SEE DETAIL ON SHEET C-10.0.
- S30 4" WIDE PAINTED STRIPES, 2' OFF CENTER @ 45° (PER LOCAL CODES)
- S31 PEDESTRIAN CROSSWALK STRIPING. (PER LOCAL CODES)
- S32 PEDESTRIAN CROSSING SIGN. PER LOCAL CODES.
- S33 EXISTING FIRE HYDRANT
- S35 TRANSFORMER PAD LOCATION (SEE UTILITY PLAN)
- S37 LIGHT POLE (TYPICAL-PER LIGHTING PLAN)
- S38 LANDSCAPE AREA (PER LANDSCAPE PLAN)
- S39 LANDSCAPE ISLAND (PER LANDSCAPE PLAN)
- S43 "STOP" SIGN. SEE DETAIL ON SHEET C-10.0.
- S44 MECHANICAL SCREEN WALL (PER ARCH. PLANS)

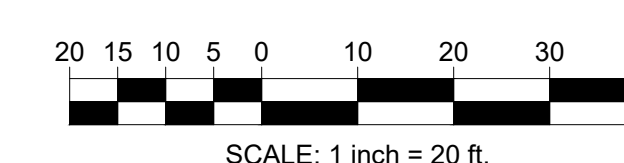
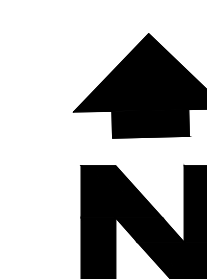
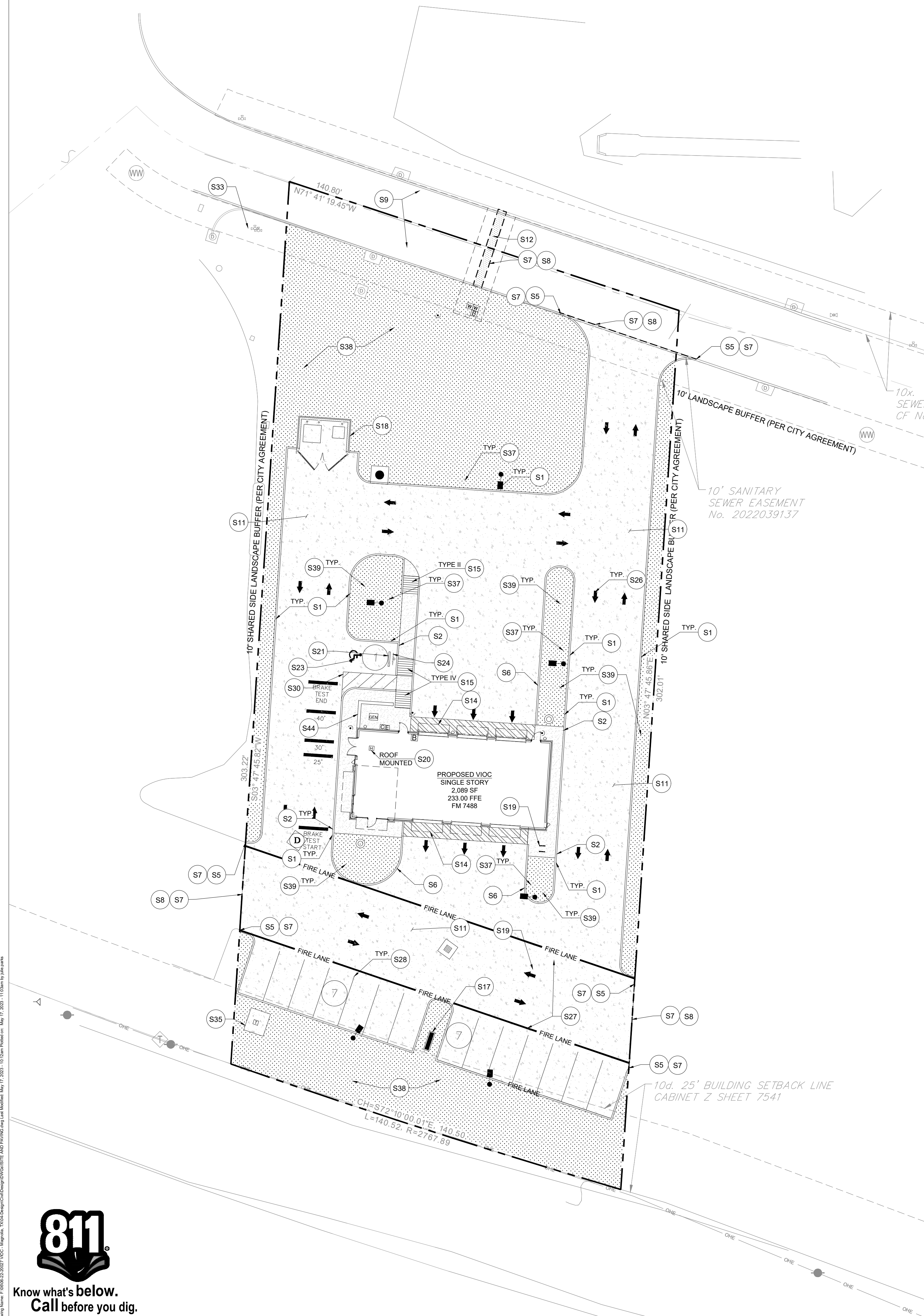
EXISTING LEGEND:

- SET 1/2-INCH IRON ROD
 - FIRE HYDRANT
 - SIGN
 - ⊙ POWER POLE
 - ⊙ LIGHT POLE
 - ⊙ GUY ANCHOR
 - ⊙ IRRIGATION CONTROL VALVE
 - ⊙ STORM DRAIN MANHOLE
 - ⊙ MAP RECORDS MONTGOMERY COUNTY
 - ⊙ OFFICIAL PUBLIC RECORDS MONTGOMERY COUNTY
 - ⊙ WATER VALVE
 - ⊙ POINT OF BEGINNING
 - ⊙ POINT OF COMMENCEMENT
 - ⊙ CALCULATE POINT
- EASEMENT LINE
 - BUILDING SETBACK LINE
 - 1 FOOT CONTOUR
 - BURIED TELECOM
 - BURIED WATER
 - SANITARY SEWER
 - GAS
 - BURIED GAS
 - BURIED ELECTRIC
 - OVERHEAD ELECTRIC

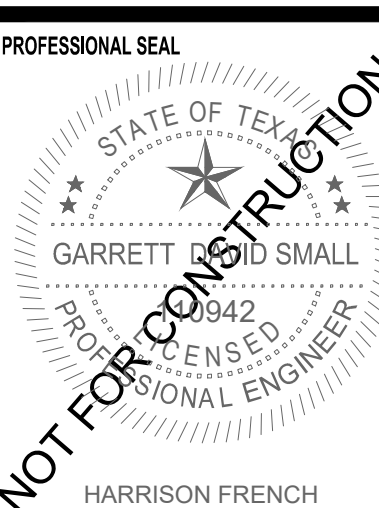
PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
- PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
- WATER METER, (SEE UTILITY PLAN).
- SEWER STRUCTURES, (SEE UTILITY PLAN).
- PROPOSED EASEMENT LINE, SEE NOTE FOR WIDTH AND DESCRIPTION
- PROPOSED SAW CUT
- PROPOSED FIRE LANE STRIPING
- PROPOSED HEAVY DUTY CONCRETE PAVEMENT. REFER TO PAVING PLAN.
- PATCH AND REPAIR ASPHALT OR CONCRETE PAVEMENT. PER CITY OF MAGNOLIA SPECIFICATIONS. REFER TO PAVING PLAN AND DETAIL ON C-10.3
- PROPOSED CONCRETE SIDEWALK PAVEMENT. REFER TO PAVING PLAN.
- PROPOSED BLACK "COLOR TOP" CONCRETE SEALER BY SHERWIN WILLIAMS.

SITE DATA SUMMARY:	
VALVOLINE TRACT: (AFTER ROW DEDICATION)	0.95 ACRES/ 41,191 SF
ZONING	AC
BUILDING	2,089 SF
FAR:	0.05
LOT COVERAGE:	0.63 (27,479 SF)
PARKING REQUIRED:	15 (1 ACCESS. PARKING SPACES)
PARKING PROVIDED:	15 (1 ACCESS. PARKING SPACES)
PERVIOUS COVER:	13,712 SF (33% LANDSCAPED AREA)
IMPERVIOUS COVER:	27,479 SF (77% IMPERVIOUS AREA)
REQUIRED BICYCLE PARKING	N/A
PROVIDED BICYCLE PARKING	2



DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO: 110942

PROFESSIONAL IN CHARGE
GARRETT DAVID SMALL

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

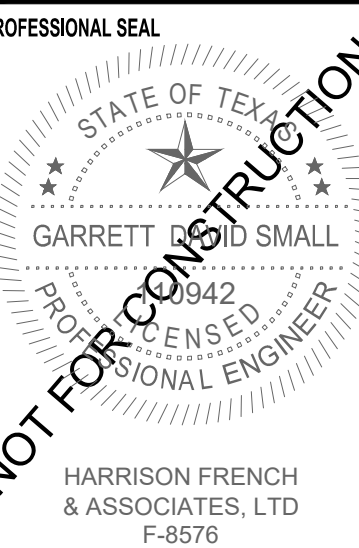
FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027

SHEET NAME
SITE PLAN

SHEET #
C-4.0

DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO.: 110942

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GARRETT DAVID SMALL

PROJECT MANAGER
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QUALITY CONTROL
WFM

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JKP / ENH

PROJECT NAME



**VALVOLINE
INSTANT
OIL CHANGE**

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027

SHEET NAME
PAVING PLAN

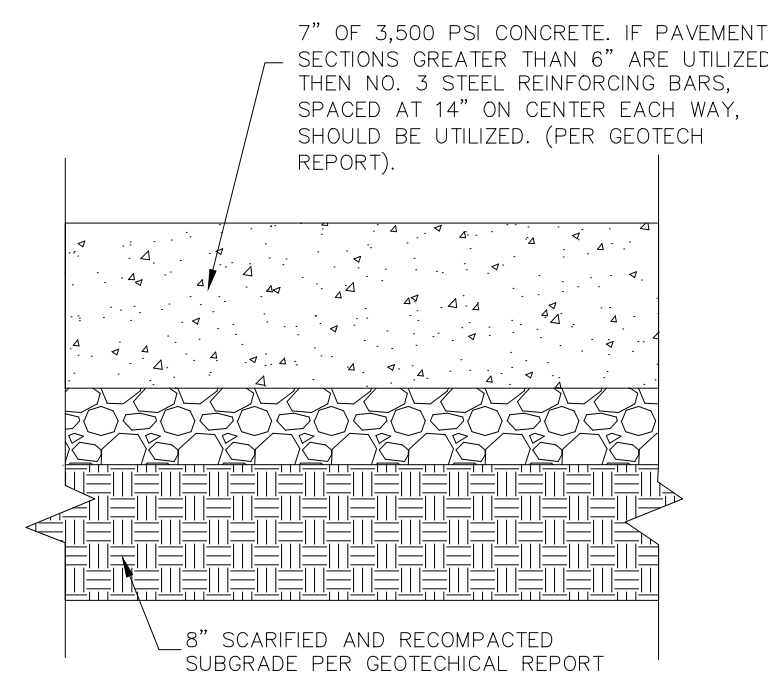
SHEET #
C-4.1

GENERAL PAVING NOTES:

1. CONTRACTOR MUST SECURE ALL NECESSARY PERMITS PRIOR TO STARTING WORK.
2. IF THE CONTRACTOR, IN THE COURSE OF THE WORK, FINDS ANY DISCREPANCIES BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR IN THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND THE ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH A DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS, AND DIMENSIONS SHOWN HEREON BEFORE BEGINNING CONSTRUCTION.
4. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE TO THE STATE AND LOCAL GOVERNMENT AGENCY LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
5. ALL HANDICAP SITE FEATURES SHALL BE CONSTRUCTED TO MEET ALL FEDERAL, STATE AND LOCAL CODE.
6. NOTIFY THE COUNTY INSPECTOR TWENTY-FOUR (24) HOURS BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.
7. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, REFERENCE POINTS, AND STAKES.
8. ARCHITECTURAL PLANS ARE TO BE USED FOR BUILDING STAKE OUT.
9. ALL DIMENSIONS ARE FROM FACE OF BUILDING, CURB, AND WALL UNLESS OTHERWISE SPECIFIED ON PLANS.
10. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE.
11. CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ANY EXISTING ITEM AND/OR MATERIAL INSIDE OR OUTSIDE CONTRACT LIMITS DUE TO CONSTRUCTION OPERATION.
12. ALL STREET SURFACES, DRIVEWAYS, CULVERTS, CURB AND GUTTERS, ROADSIDE DRAINAGE DITCHES AND OTHER STRUCTURES THAT ARE DISTURBED OR DAMAGED IN ANY MANNER AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS.
13. ALL ROAD WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE STATE AND LOCAL GOVERNMENT AGENCY SPECIFICATIONS.
14. STANDARD/HEAVY DUTY PAVEMENT AND CONCRETE SECTIONS SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY GILES ENGINEERING ASSOCIATES DATED DECEMBER 29TH, 2022 AND SHOWN ON DETAIL, THIS SHEET.

PAVING KEY NOTES

- P1 MATCH EXISTING PAVEMENT ELEVATION. SEE DETAIL ON SHEET C-10.0.
- P2 EXISTING PAVEMENT TO REMAIN
- P3 CONCRETE SIDEWALK. SEE DETAIL ON SHEET C-10.1.
- P8 HEAVY DUTY CONCRETE PAVING. SEE DETAIL THIS SHEET.
- P9 PATCH AND REPAIR ASPHALT OR CONCRETE PAVEMENT. PER MAGNOLIA ENGINEERING DEPARTMENT BACKFILL DETAIL FOR WATERLINE UNDER PAVEMENT. SEE DETAIL ON SHEET C-10.3.
- P17 CURB INLET. SEE DETAIL ON SHEET C-10.1.
- P18 FIRE LANE. SEE FIRE LANE PLAN SHEET C-4.3.



**HEAVY DUTY
CONCRETE PAVING**
N.T.S.

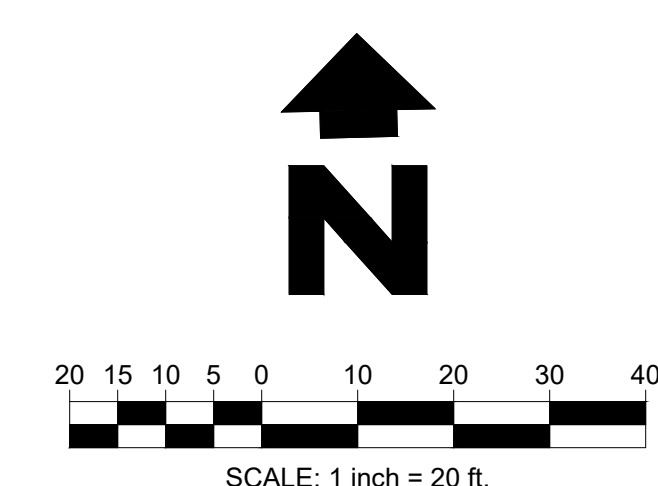
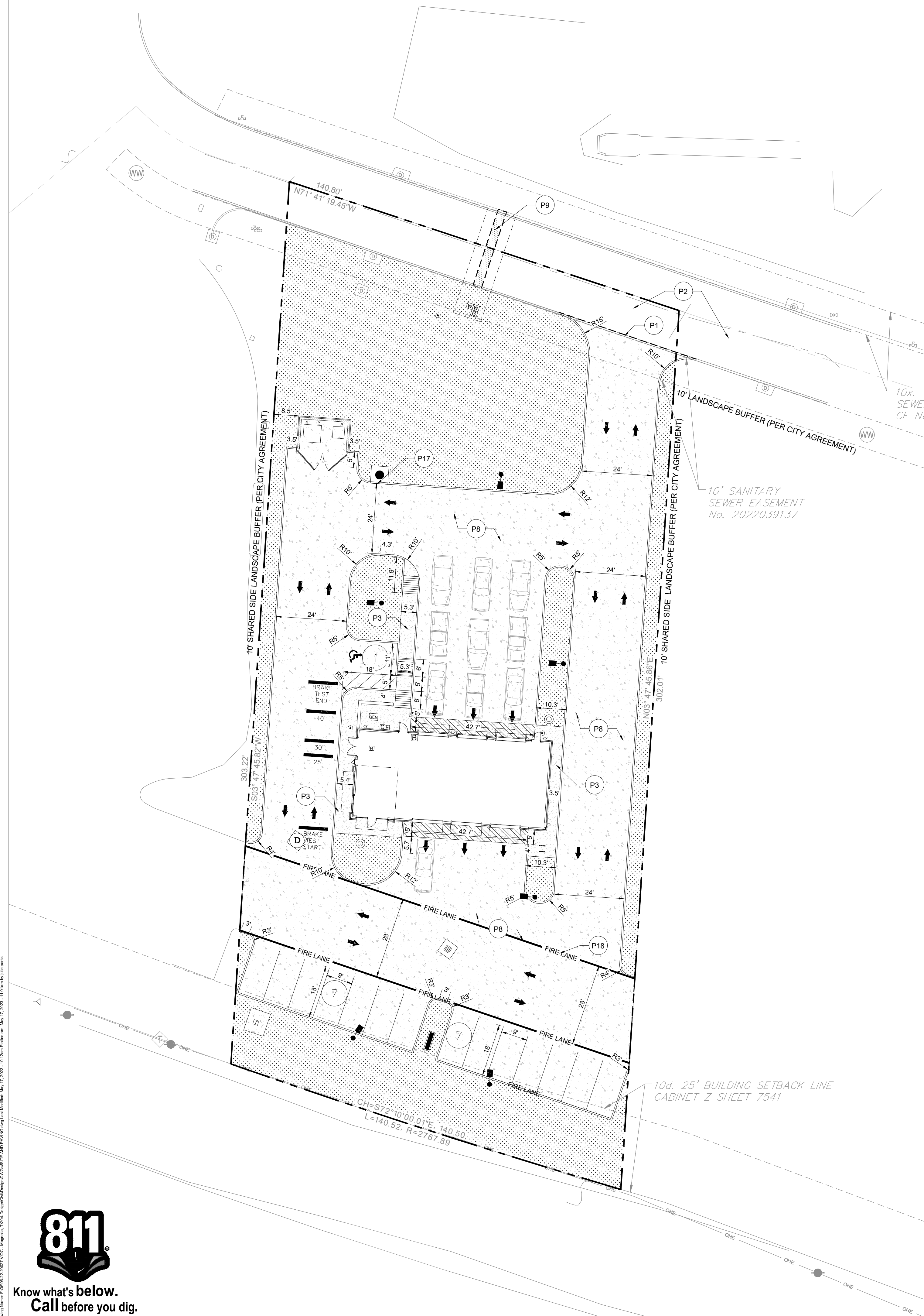
EXISTING LEGEND:

- - SET 1/2-INCH IRON ROD
- ⊕ - FIRE HYDRANT
- ⊙ - SIGN
- ⊖ - POWER POLE
- ⊛ - LIGHT POLE
- ⊙ - GUY ANCHOR
- ⊖ - IRRIGATION CONTROL VALVE
- ⊙ - STORM DRAIN MANHOLE
- ⊖ - MAP RECORDS MONTGOMERY COUNTY
- ⊙ - OFFICIAL PUBLIC RECORDS MONTGOMERY COUNTY
- ⊖ - WATER VALVE
- ⊙ - POINT OF BEGINNING
- ⊖ - POINT OF COMMENCEMENT
- ⊙ - CALCULATE POINT

- EASEMENT LINE
- BUILDING SETBACK LINE
- 1 FOOT CONTOUR
- TEL --- BURIED TELECOM
- W --- BURIED WATER
- S --- SANITARY SEWER
- GAS --- BURIED GAS
- UE --- BURIED ELECTRIC
- OHE --- OVERHEAD ELECTRIC

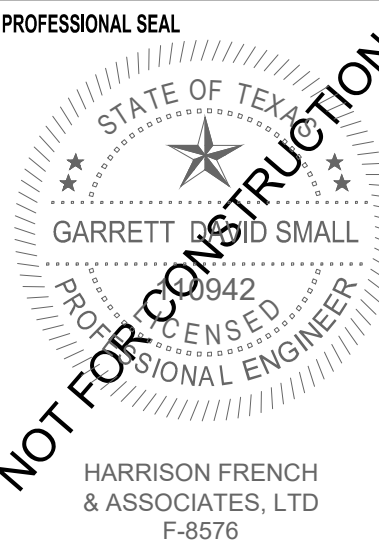
PROPOSED LEGEND:

- PROPERTY LINE
- PROPOSED CURB
- PROPOSED CURB & GUTTER
- PROPOSED SITE LIGHT, SEE PHOTOMETRIC PLAN
- PROPOSED DRAINAGE STRUCTURES (SEE GRADING/DRAINAGE PLANS)
- PROPOSED PARKING SPACES
- PROPOSED EASEMENT LINE
- PROPOSED SAW CUT
- PROPOSED FIRE LANE STRIPING
- HEAVY STANDARD DUTY CONCRETE PAVEMENT. SEE DETAIL THIS SHEET.
- PATCH AND REPAIR ASPHALT OR CONCRETE PAVEMENT. PER CITY OF MAGNOLIA SPECIFICATIONS. REFER TO PAVING PLAN AND DETAIL ON C-10.3
- PROPOSED CONCRETE SIDEWALK PAVEMENT.
- PROPOSED BLACK "COLOR TOP" CONCRETE SEALER BY SHERWIN WILLIAMS.



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DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO.: 110942

PROFESSIONAL IN CHARGE
GARRETT DAVID SMALL

PROJECT MANAGER
KK

QUALITY CONTROL
WFM

DRAWN BY
JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

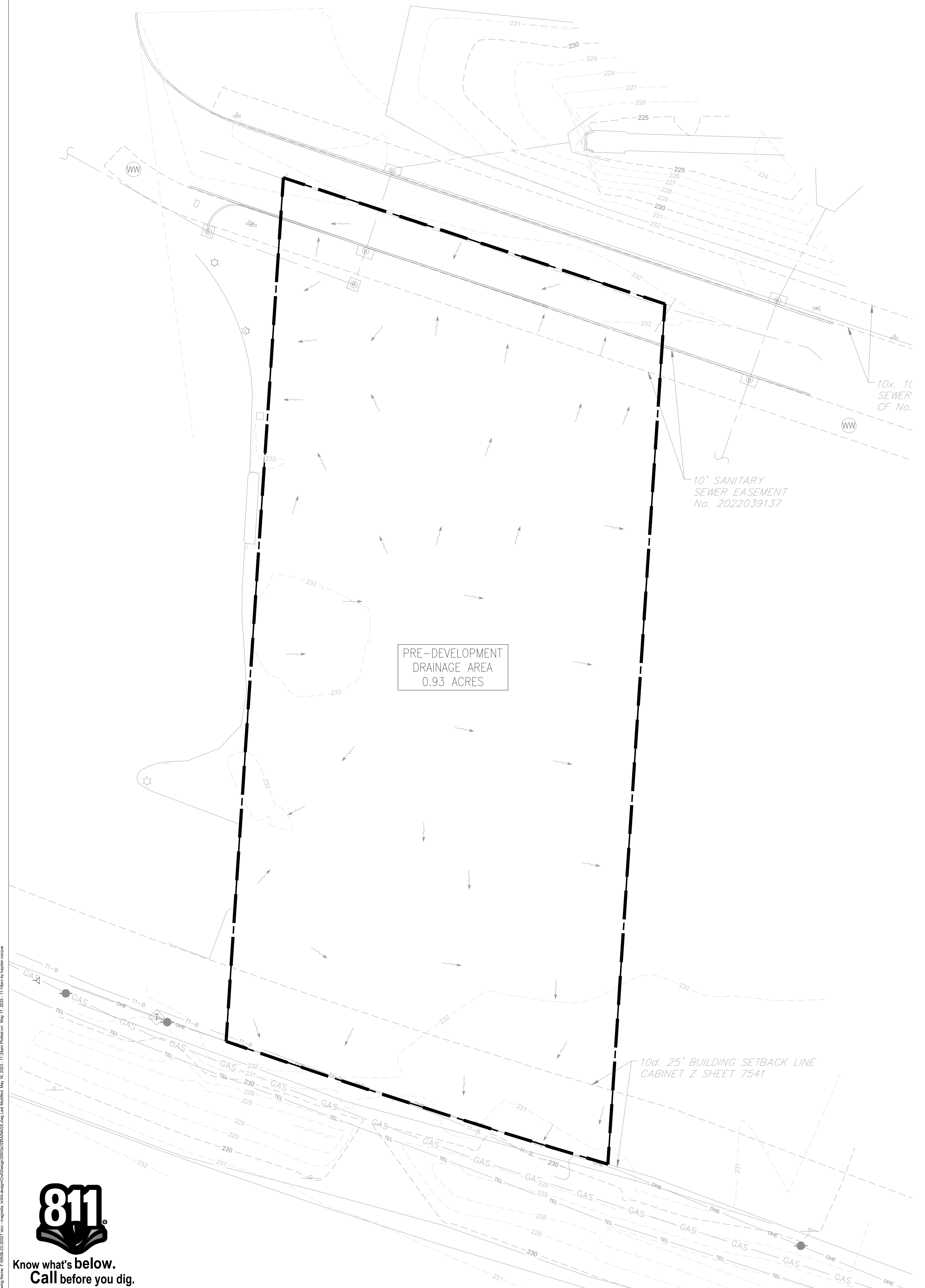
PROJECT NUMBER
06-22-20027

SHEET NAME
PRE-DEVELOPMENT DRAINAGE PLAN

SHEET #
C-5.1

PROPOSED LEGEND:

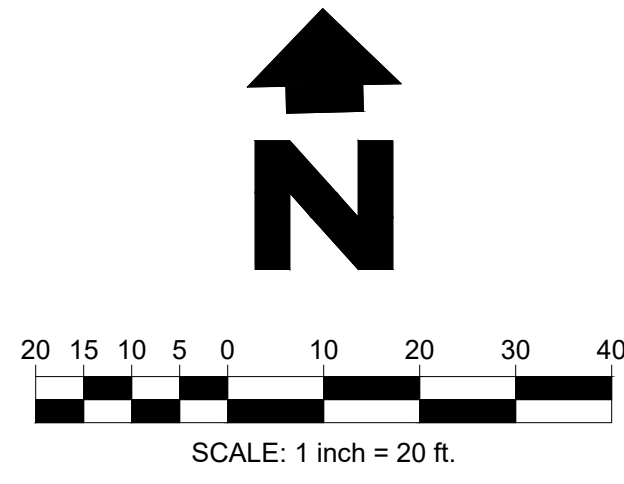
- PROPERTY LINE
- DRAINAGE BASIN
- DRAINAGE DIRECTION



Heritage Green Design											
	Area	Runoff Coefficient	Sum of C*A	Intensity (in/hr) for 22.4 minute Tc. Calculated per Heritage Green				Flow Rate (cfs)			
				2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

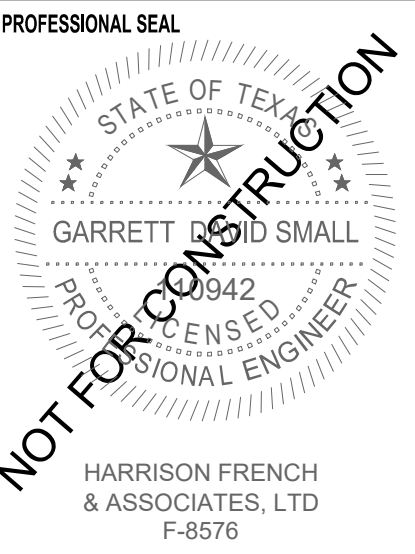
REFERENCE THE HERITAGE GREEN COMMERCIAL RESERVE CIVIL PLANS AND DRAINAGE CALCULATIONS PREPARED BY JONES CARTER. FLOW RATES IN THE TABLE ABOVE ARE FROM THE HERITAGE GREEN COMMERCIAL RESERVE DRAINAGE CALCULATIONS PAGES DATED 01/12/2021.

NOTE THAT THE DRAINAGE BASINS IN THE PLANS AVAILABLE AT THE TIME OF DESIGN DO NOT MATCH THE SITE'S AREA, THEREFORE THE HERITAGE GREEN RUNOFF DOES NOT MATCH THE CALCULATED VALUES IN THESE PLANS. CALCULATIONS WILL BE UPDATED ACCORDINGLY.



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PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
 MAGNOLIA, TX

PROJECT NUMBER
 06-22-20027

SHEET NAME
POST-DEVELOPMENT DRAINAGE PLAN

SHEET #
C-5.2

NOT ISSUED FOR CONSTRUCTION

PROPOSED LEGEND:

- PROPERTY LINE
- DRAINAGE BASIN
- PROPOSED CONTOUR
- PROPOSED STORM SEWER PIPE
- PROPOSED STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
- PROPOSED DRAINAGE STRUCTURES
- DRAINAGE SLOPE AND DIRECTION

Composite Runoff Coefficient	
	Runoff Coefficient
Heritage Green Design	0.95
Post-Development Calculated	0.72
Percent Decrease	0.76

*Refer to Heritage Green Commercial Reserve plans for more information.

Post-Development Runoff Coefficient Calculation						
	Impervious Area (acre)	"C" value (concrete / roof)	Pervious Area (Acre)	"C" value (sandy lawns)	Total Area (acres)	Runoff Coefficient
Basin A	0.00	0.85	0.07	0.08	0.07	0.08
Basin B	0.23	0.85	0.01	0.08	0.24	0.81
Basin C	0.05	0.85	0.00	0.08	0.05	0.85
Basin D	0.30	0.85	0.02	0.08	0.32	0.79
Basin E	0.20	0.85	0.05	0.08	0.25	0.68
Total	0.77	0.85	0.16	0.08	0.93	0.72

Heritage Green Design											
	Area	Runoff Coefficient	Sum of C*A	Intensity (in/hr) for 22.4 minute Tc. Calculated per Heritage Green				Flow Rate (cfs)			
				2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

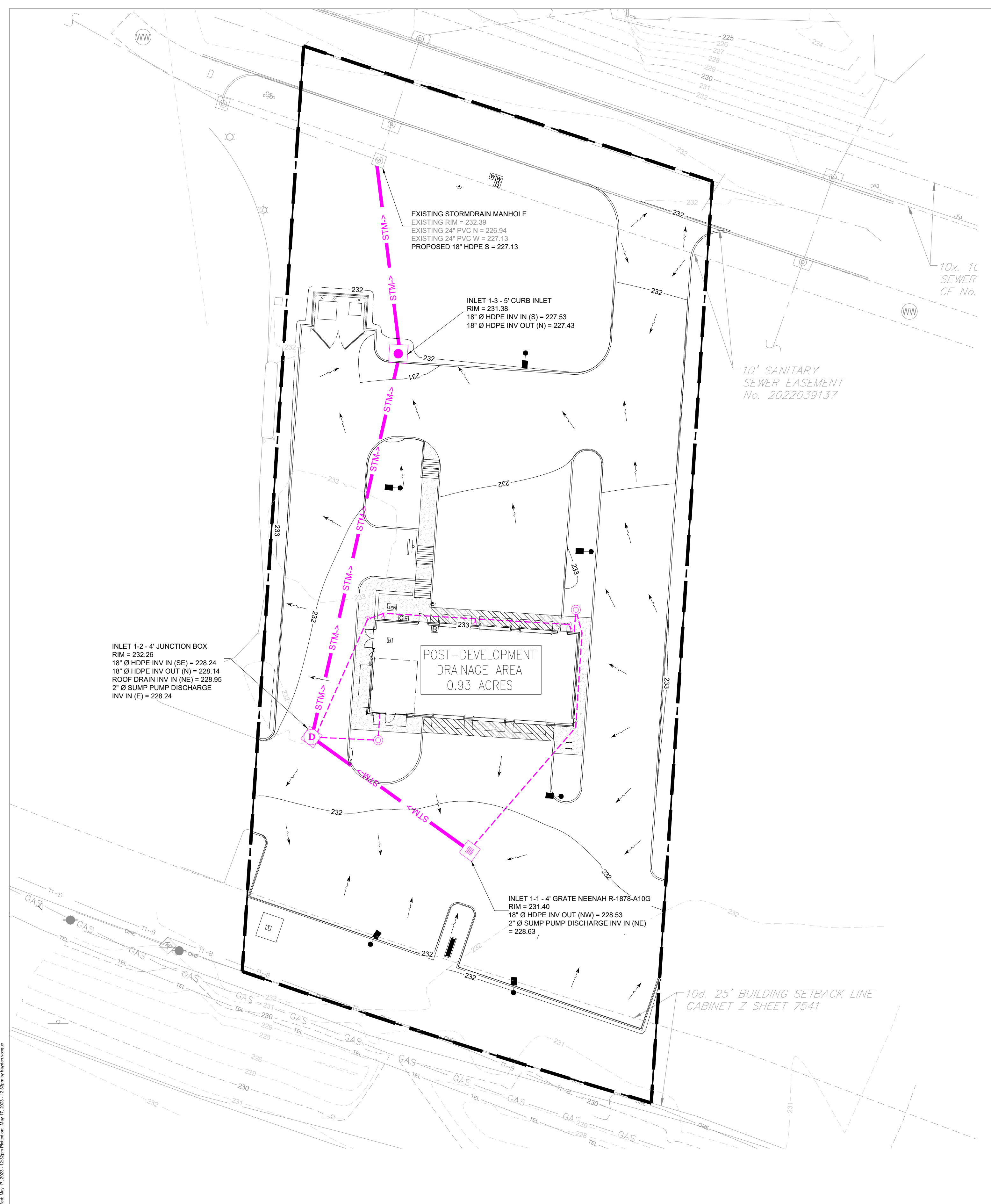
Post-Development Calculated Values											
	Area	Runoff Coefficient	Sum of C*A	2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Basin A	0.07	0.08	0.01	3.95	5.48	6.91	8.95	0.02	0.03	0.04	0.05
Basin B	0.24	0.81	0.19	3.95	5.48	6.91	8.95	0.76	1.06	1.34	1.73
Basin C	0.05	0.85	0.04	3.95	5.48	6.91	8.95	0.17	0.23	0.29	0.38
Basin D	0.32	0.79	0.25	3.95	5.48	6.91	8.95	1.00	1.39	1.76	2.28
Basin E	0.25	0.68	0.17	3.95	5.48	6.91	8.95	0.68	0.94	1.18	1.53

Stormwater Peak Flowrate Summary			
Storm Event	Heritage Green Flowrates (cfs)	Post-Development Calculated Flowrates (cfs)	Difference (cfs)
2-year	5.14	2.64	-2.50
5-year	7.12	3.66	-3.47
25-year	8.98	4.61	-4.37
100-year	11.64	5.97	-5.66

*Refer to Heritage Green Commercial Reserve plans for more information.

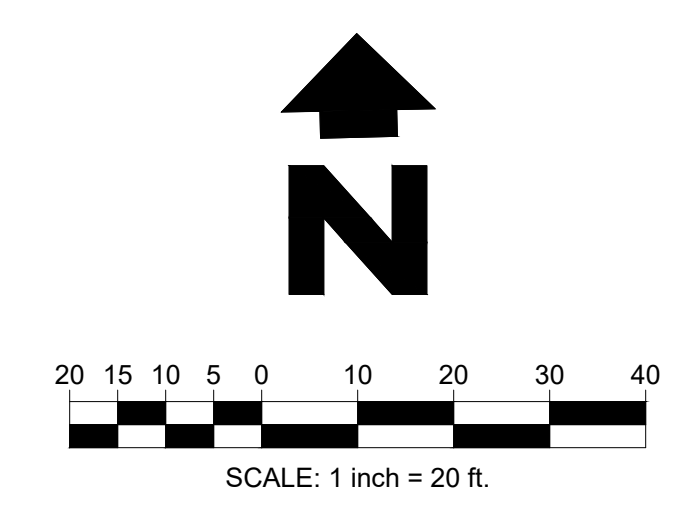
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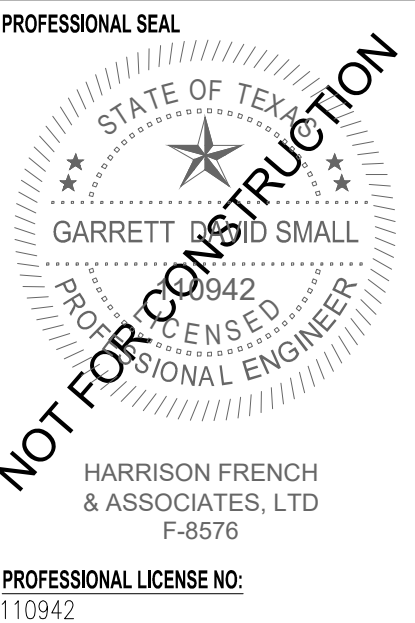
INLET FLOW CALCULATION TABLE FOR INLETS ON SAG: 100-YEAR STORM

INLET ID #	INLET LOCATION	INLET TYPE	INLET DESCRIPTION	AREA (ac)	RUNOFF COEFF.	TOTAL Tc (min)	I (in/hr)	RUNOFF UPSTREAM (CA)	TOTAL FLOW Qp (cfs)	CLOGGING FACTOR* (%)	INLET OPENNING LENGTH** (ft)	INLET CAPACITY Qi (cfs)	PONDING DEPTH AT CURB (ft)	ROADWAY SPREAD CROSS SLOPE (ft/ft)	AT INLET (ft)
1	#1-1	Basin B	NEENAH R-4884-A TYPE C GRATE INLET	0.24	0.81	22.40	1.73	0.19	0.34	50.00	6.00	3.18	0.11	0.02	5.58
2	#1-2	Basin B	JUNCTION BOX	0.00	0.00	22.40	1.73	0.00	0.34	0.00	0.00	---	---	0.02	---
3	#1-3	Basin D	CURB INLET	0.32	0.79	22.40	2.28	0.25	0.58	20.00	4.00	3.39	0.15	0.02	7.68



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PROJECT MANAGER
KK
QUALITY CONTROL
WFM
DRAWN BY
JKP / ENH
PROJECT NAME



VALVOLINE INSTANT OIL CHANGE
FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027
SHEET NAME
SUB-DRAINAGE AREA MAP
SHEET #
C-5.3

PROPOSED LEGEND:

	PROPERTY LINE
	DRAINAGE BASIN
	PROPOSED CONTOUR
	PROPOSED STORM SEWER PIPE
	PROPOSED STORM SEWER ROOF DRAIN AND SUMP PUMP PIPE
	PROPOSED DRAINAGE STRUCTURES

Composite Runoff Coefficient	
	Runoff Coefficient
Heritage Green Design	0.95
Post-Development Calculated	0.72
Percent Decrease	0.76

*Refer to Heritage Green Commercial Reserve plans for more information.

Post-Development Runoff Coefficient Calculation						
	Impervious Area (acre)	"C" value (concrete / roof)	Pervious Area (Acre)	"C" value (sandy lawns)	Total Area (acres)	Runoff Coefficient
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Basin C	0.05	0.85	0.00	0.08	0.05	0.85
Basin D	0.30	0.85	0.02	0.08	0.32	0.79
Basin E	0.20	0.85	0.05	0.08	0.25	0.68
Total	0.77	0.85	0.16	0.08	0.93	0.72

Heritage Green Design											
	Area	Runoff Coefficient	Sum of C*A	Intensity (in/hr) for 22.4 minute Tc				Flow Rate (cfs)			
				2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Future Comm-2	1.38	0.95	1.30	3.95	5.48	6.91	8.95	5.14	7.12	8.98	11.64

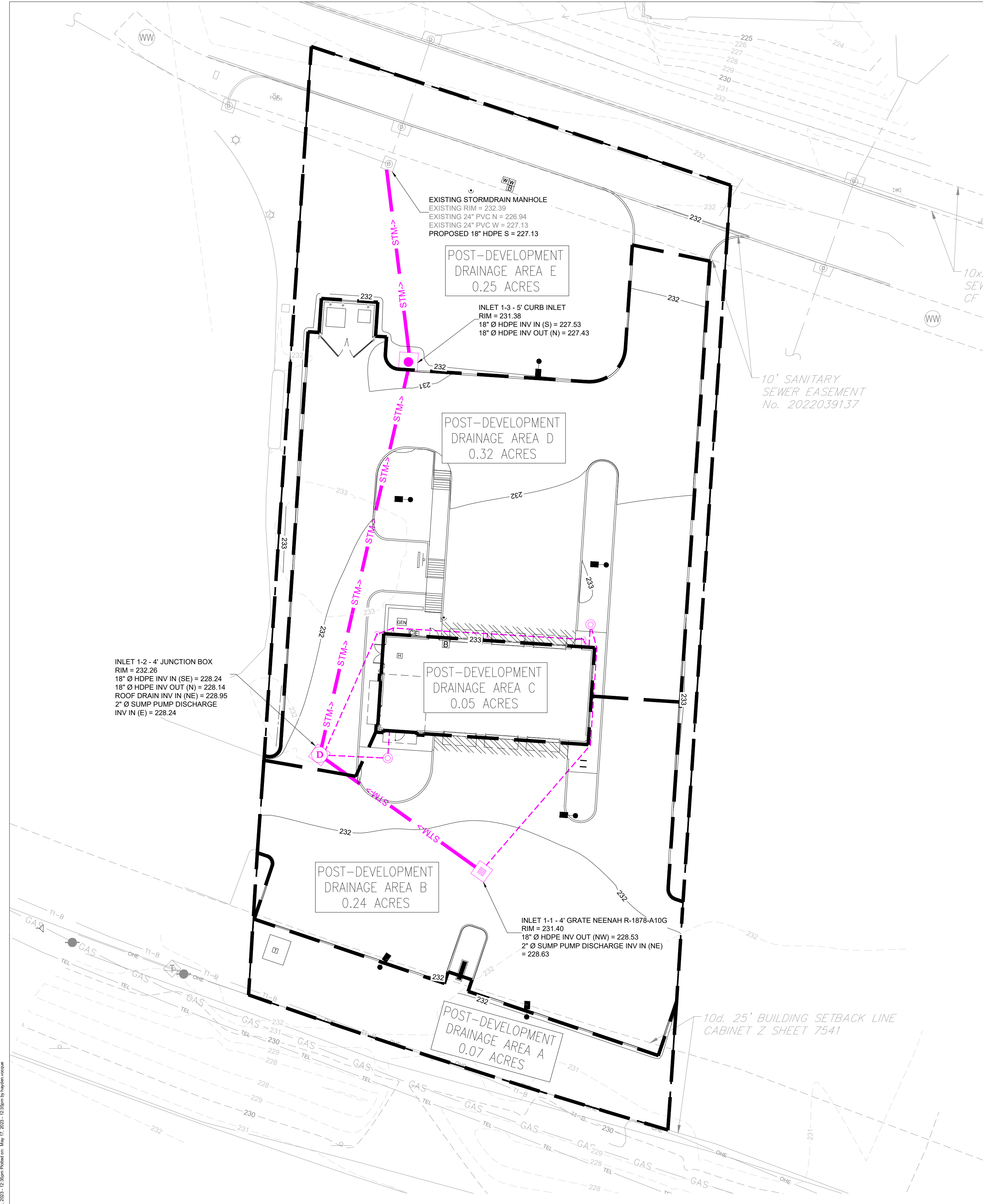
Post-Development Calculated Values											
	Area	Runoff Coefficient	Sum of C*A	2 Year	5 Year	25 Year	100 Year	2 Year	5 Year	25 Year	100 Year
Basin A	0.07	0.08	0.01	3.95	5.48	6.91	8.95	0.02	0.03	0.04	0.05
Basin B	0.24	0.81	0.19	3.95	5.48	6.91	8.95	0.76	1.06	1.34	1.73
Basin C	0.05	0.85	0.04	3.95	5.48	6.91	8.95	0.17	0.23	0.29	0.38
Basin D	0.32	0.79	0.25	3.95	5.48	6.91	8.95	1.00	1.39	1.76	2.28
Basin E	0.25	0.68	0.17	3.95	5.48	6.91	8.95	0.68	0.94	1.18	1.53

Stormwater Peak Flowrate Summary			
Storm Event	Heritage Green Flowrates (cfs)	Post-Development Calculated Flowrates (cfs)	Difference (cfs)
2-year	5.14	2.64	-2.50
5-year	7.12	3.66	-3.47
25-year	8.98	4.61	-4.37
100-year	11.64	5.97	-5.66

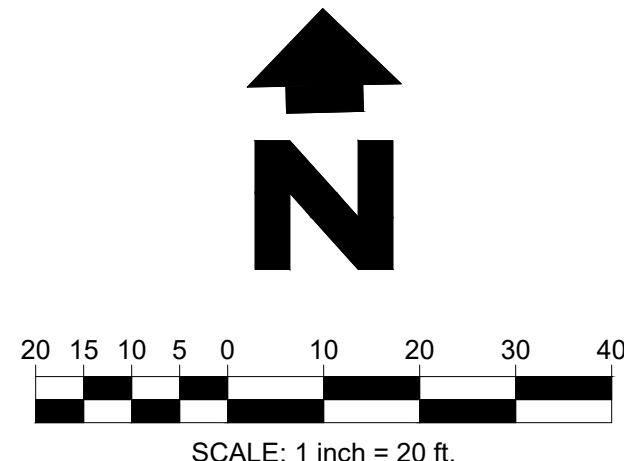
*Refer to Heritage Green Commercial Reserve plans for more information.

REFERENCE THE HERITAGE GREEN COMMERCIAL RESERVE CIVIL PLANS AND DRAINAGE CALCULATIONS PREPARED BY JONES CARTER. FLOW RATES IN THE TABLE ABOVE ARE FROM THE HERITAGE GREEN COMMERCIAL RESERVE DRAINAGE CALCULATIONS PAGES DATED 01/12/2021.

NOTE THAT THE DRAINAGE BASINS IN THE PLANS AVAILABLE AT THE TIME OF DESIGN DO NOT MATCH THE SITE'S AREA, THEREFORE THE HERITAGE GREEN RUNOFF DOES NOT MATCH THE CALCULATED VALUES IN THESE PLANS. CALCULATIONS WILL BE UPDATED ACCORDINGLY.

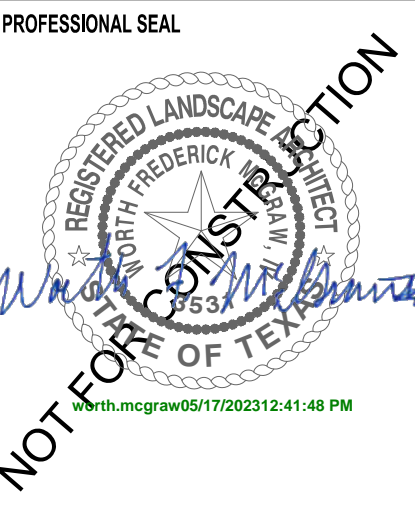


INLET ID #	INLET LOCATION	INLET TYPE	INLET DESCRIPTION	AREA (ac)	RUNOFF COEFF. C	TOTAL Tc (min)	I (in/hr)	RUNOFF UPSTREAM BYPASS (CA)	TOTAL FLOW Qp (cfs)	CLOGGING FACTOR* (%)	INLET OPENNING LENGTH** (ft)	INLET CAPACITY Qi (cfs)	PONDING DEPTH AT CURB (ft)	ROADWAY SPREAD CROSS SLOPE (ft/ft)	AT INLET (ft)
1	#1-1	Basin B	SAG NEENAH R-4884-A TYPE C GRATE INLET	0.24	0.81	22.40	1.73	0.19	0.34	50.00	6.00	3.18	0.11	0.02	5.58
2	#1-2	Basin B	JUNCTION BOX	0.00	0.00	22.40	1.73	0.00	0.34	0.00	0.00	---	---	0.02	---
3	#1-3	Basin D	SAG CURB INLET	0.32	0.79	22.40	2.28	0.25	0.58	20.00	4.00	3.39	0.15	0.02	7.68



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DATE	ISSUE
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05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO:
110942

PROFESSIONAL IN CHARGE
GARRETT, DAVID SMALL

PROJECT MANAGER
KIK

QUALITY CONTROL
WFM

DRAWN BY
JKP / ENH

PROJECT NAME



VALVOLINE
INSTANT
OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER
06-22-20027

SHEET NAME
LANDSCAPE PLAN

SHEET #
C-6.0

NOT ISSUED FOR CONSTRUCTION

PLANT SCHEDULE

TREES	CODE	QTY	COMMON / BOTANICAL NAME	CONT	CAL	SIZE
	RB	16	Eastern Redbud / Cercis canadensis	B & B	2.5 - 3" Cal	6'-8'
	MGL	3	Little Gem Dwarf Southern Magnolia / Magnolia grandiflora 'Little Gem'	B & B	2.5 - 3" Cal	10'-12'
	LO	3	Southern Live Oak / Quercus virginiana	B & B	2.5 - 3" Cal	10'-12'
	CE	3	Cedar Elm / Ulmus crassifolia	B & B	2.5 - 3" Cal	10'-12'
SHRUBS	CODE	QTY	COMMON / BOTANICAL NAME	CONT		
	GA	57	Glossy Abelia / Abelia x grandiflora	5 gal		
	TS	152	Green Cloud Texas Sage / Leucophyllum frutescens 'Green Cloud'	5 gal		
	LK	132	Little Kitten Eulalia Grass / Miscanthus sinensis 'Little Kitten'	5 gal		
GROUND COVERS	CODE	QTY	COMMON / BOTANICAL NAME	CONT		
	CD	8,688 sf	Bermudagrass / Cynodon dactylon	sod		
	VE	478	Blue Princess Verbena / Verbena x hybrida 'Blue Princess'	1 gal		
	TD	421	Creeping Oxeye / Wedelia trilobata	1 gal		

GENERAL LANDSCAPE NOTES:

THIS PLAN IS FOR LANDSCAPE LAYOUT ONLY. ALL GRADING, UTILITIES, SITE STRUCTURES, ETC. ARE FOR REFERENCE ONLY AND SHALL BE VERIFIED WITH CIVIL PLANS AND IN THE FIELD.

ALL PLANT MATERIALS SHALL ARRIVE AT THE SITE WITH SOIL MOIST.

CONTRACTORS SHALL HAVE UNDERGROUND UTILITIES LOCATED, LEGIBLY MARKED, AND SHALL REPAIR ANY AND ALL DAMAGE WHICH MAY OCCUR AS A RESULT OF LANDSCAPE INSTALLATION. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATED, AND SHOULD BE VERIFIED ON THE CIVIL UTILITY PLAN AND IN THE FIELD.

UNDER NO CIRCUMSTANCES WILL LANDSCAPE WORK BE APPROVED FOR PAYMENT IF PLANT SIZE AND GENERAL HEALTH ARE NOT AS REQUIRED ON PLAN.

ALL TREES MUST BE STRAIGHT TRUNKED, FULL HEADED AND MEET ALL REQUIREMENTS AS SPECIFIED.

ALL PLANTS ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND THE OWNER BEFORE, DURING AND AFTER INSTALLATION.

THE LANDSCAPE ARCHITECT MUST APPROVE ANY ALTERATIONS OR REVISIONS TO THE LANDSCAPE PLAN.

THE CONTRACTOR SHALL PROTECT EXISTING FEATURES ON SITE.

ALL DISTURBED AREAS ON AND OFF THE SITE, INCLUDING THE TEMPORARY DETENTION AREA, SHALL BE COMPLETELY HYDROSEEDDED OR SODDED WITH GRASS SEED SPECIFIED ON PLANS.

SEEDING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER BED PREPARATION. HYDROSEED MIXTURE SHALL CONTAIN CELLULOSE MULCH APPLIED AT A RATE OF 2,000 LBS/ACRE, WITH A MAXIMUM OF 50 LBS/100 GAL. OF WATER. IF SEEDING IS DELAYED AFTER MIXING 1/2 - 2 HOURS ADD AN ADDITIONAL 50% OF SEED MIX. IF DELAY IS LONGER THAN 2 HOURS, BEGIN WITH NEW MIXTURE.

MAINTENANCE:
 SEEDED AREAS ARE TO BE WATERED ENOUGH TO MAINTAIN ADEQUATE SURFACE SOIL MOISTURE FOR PROPER SEED GERMINATION. WATERING SHALL CONTINUE FOR ALL GRASSED AREAS FOR NOT LESS THAN 30 DAYS FOLLOWING SEEDING OR UNTIL A HEALTHY STAND OF GRASS, WITH 90% OR MORE COVERAGE, IS ACHIEVED. IMMEDIATELY RESEED, FERTILIZE, AND MULCH DAMAGED AREAS OR ANY AREA THAT FAILS TO ACHIEVE THE COVERAGE SPECIFIED ABOVE UNTIL A HEALTHY STAND OF GRASS, WITH 90% OR MORE COVERAGE, IS ACHIEVED.

THE LANDSCAPE CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THESE PLANS, BEFORE PRICING THE WORK.

THE LANDSCAPE CONTRACTOR SHALL FULLY MAINTAIN ALL PLANTING (INCLUDING BUT NOT LIMITED TO WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) OF PLANTING AREAS AND LAWNS FOR 90 DAYS AFTER SUBSTANTIAL COMPLETION.

THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR ONE (1) YEAR BEGINNING AT THE DATE OF SUBSTANTIAL COMPLETION. THE LANDSCAPE CONTRACTOR SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD (AS PER DIRECTION OF THE OWNER).

ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS.

STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1) REPRESENT GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR ALL NEW PLANT MATERIAL. ALL NEW PLANT MATERIAL SHALL BE PLANTED AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN NATIONAL STANDARDS INSTITUTE REQUIREMENTS FOR TREE, SHRUB, AND OTHER WOODY PLANT MAINTENANCE (ANSI A300 PARTS 1 THROUGH 6).

ALL TOPSOIL (4"-5" IN PLANTING BEDS) (1"-2" FOR SEED AND SOD AREAS) APPLIED TO THE SITE SHALL BE LOAMY, FRABLE SOIL, CONTAINING A MINIMUM OF 1.5 PERCENT BY DRY WEIGHT ORGANIC MATTER FREE FROM SUBSOIL, REFUSE, ROOTS, HEAVY OR STIFF CLAY, STONES LARGER THAN 25 MM (1 IN.), NOXIOUS SEEDS, STICKS, BRUSH, LITTER, AND OTHER DELETERIOUS SUBSTANCES, SUITABLE FOR THE GERMINATION OF SEEDS AND THE SUPPORT OF VEGETATIVE GROWTH. THE PH VALUE SHALL BE BETWEEN 5.5 AND 6.5.

ALL PLANTING AREAS SHALL BE TOP DRESSED WITH SHREDDED HARDWOOD MULCH AT A MIN. 4" DEPTH ON DEWITT PRO 5 LANDSCAPE FABRIC. TOP OF MULCH SHALL BE EVEN WITH TOP OF CURBS OR EDGING. SEE CIVIL PLANS FOR ELEVATIONS. SECURE FABRIC WITH PINS OR STAPLES (2"x5"). PINS SHALL BE PLACED AT 5' O.C. AND JOINTS SHALL OVERLAP BY 12".

LANDSCAPE EDGING TO BE STEEL AND SHALL BE DARK IN COLOR.

THIS SHEET IS FOR THE PURPOSE OF LANDSCAPING ONLY. ALL GRADING, UTILITIES, SITE FEATURES, ETC. ARE FOR REFERENCE ONLY. PLEASE REFER TO CIVIL PLANS FOR MORE DETAILS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT INSTALLED LANDSCAPING DOES NOT INTERFERE WITH OR OBSTRUCT ANY ADA PATHS OR OTHER VEHICULAR OR PEDESTRIAN USE AREAS. IT SHALL BE THE OWNER'S RESPONSIBILITY TO MAINTAIN ALL LANDSCAPING SO AS TO NOT INTERFERE WITH OR OBSTRUCT ANY ADA PATHS OR OTHER VEHICULAR OR PEDESTRIAN USE AREAS.

CITY OF MAGNOLIA - TREE AND SHRUB ORDINANCE:

1) TREE AND SHRUB PLANTING REQUIREMENTS
 A) STREET TREES: SEC. 8-2-1.03-B-3. DEVELOPMENT LANDSCAPING
 Length of property Lineal feet as measured along each street separately.
 There must be one street tree for every 30 linear feet (feet measured on the property line.)

STREET NAME	LINEAL FEET	TREE PLANTING REQUIREMENT	TOTAL TREES PROPOSED
FM 1488	140 / 30	5	5

* NOTE: TREES CANNOT BE PLANTED WITHIN HL&P AND PIPELINE EASEMENTS
 B) PARKING LOT trees: Sec. 8-2-1.03-C-3 DEVELOPMENT LANDSCAPING
 Each parking lot island must have 1 canopy tree.
 Each parking lot corner must have 2 canopy trees or 4 non-canopy trees

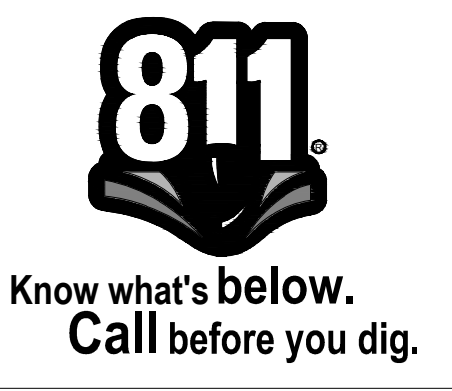
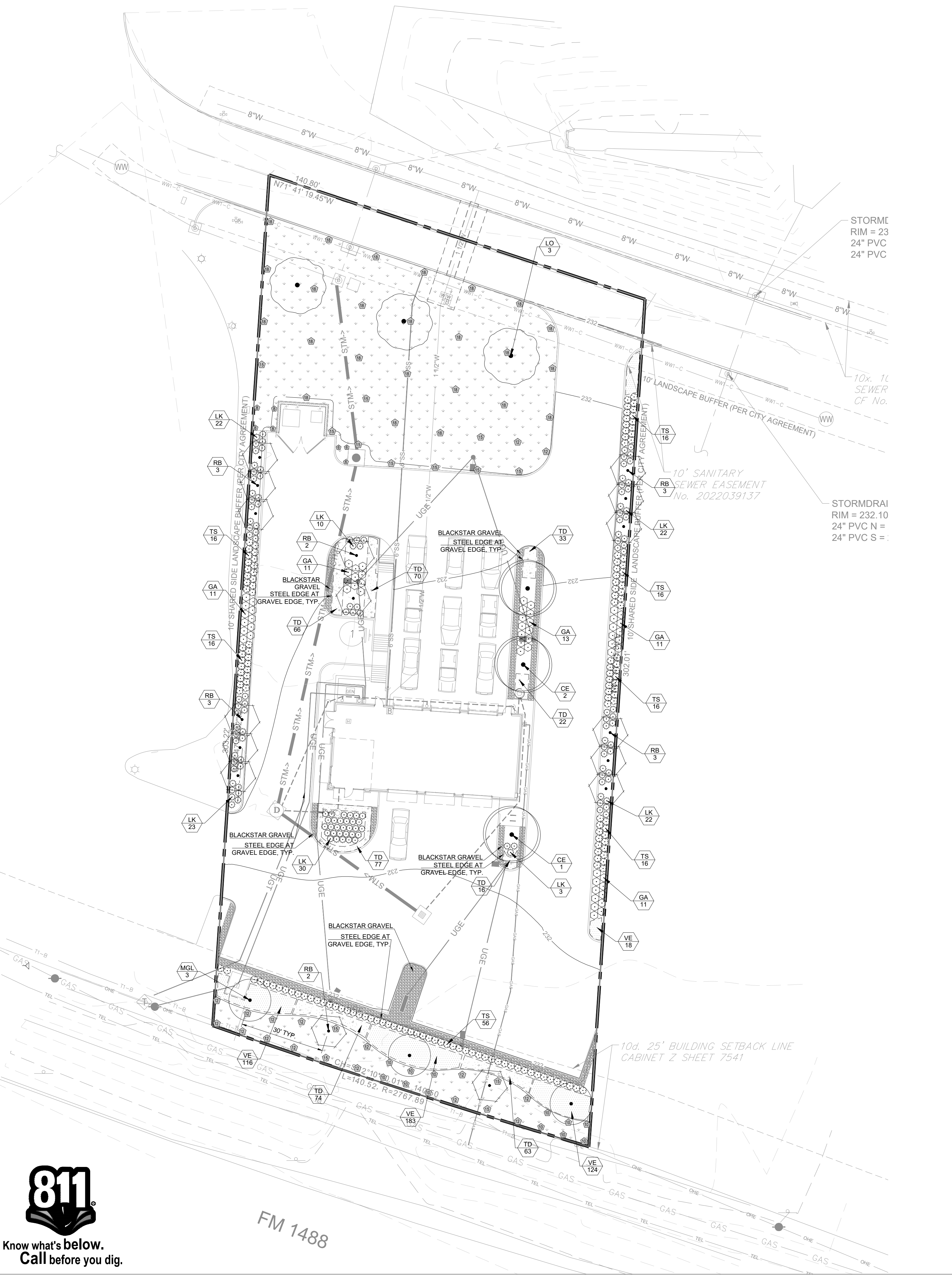
TOTAL # OF PROPOSED PARKING ISLANDS	# OF ISLANDS	TREE PLANTING REQUIREMENT	CANOPY TREES	NON-CANOPY TREES	TOTAL TREES PROVIDED:
1	1 / 1	1	1	N/A	3 CANOPY TREES 2 NON-CANOPY TREES

* NOTE: TREES CANNOT BE PLANTED WITHIN HL&P AND PIPELINE EASEMENTS
 C) SHRUBS: SEC. 8-2-1.03-B-3. DEVELOPMENT LANDSCAPING
 A continuous shrub row is required to be 5ft on center or grouped to equal the same amount of shrubs.
 Ornamental grasses can only make up 25% of shrub requirement.

LINEAL FEET OF PROPERTY LINE	REQUIREMENT	TOTAL SHRUB REQUIREMENT	TOTAL SHRUBS PROPOSED
140	140 / 2.5	56	56

BUFFERYARD PER CITY AGREEMENT

FRONT	REAR	SIDES
20FT	10FT	10FT SHARED BUFFER, 5FT PER TENANT



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DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET



PROFESSIONAL LICENSE NO.: 110942

PROFESSIONAL IN CHARGE: GARRETT DAVID SMALL

PROJECT MANAGER: KK

QUALITY CONTROL: WFM

DRAWN BY: JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

PROJECT NUMBER: 06-22-20027

SHEET NAME: IRRIGATION PLAN

SHEET # **C-6.2**

NOT ISSUED FOR CONSTRUCTION

NOTE TO CONTRACTOR:
ALL DISTURBED AREAS SHALL RECEIVE SEED OR SOD ACCORDING TO LANDSCAPE PLAN. ALL AREAS RECEIVING SEED OR SOD AND NOT COVERED BY THE AUTOMATIC IRRIGATION SYSTEM SHALL BE HAND WATERED UNTIL VEGETATION IS ESTABLISHED AND ABLE TO SUSTAIN ITSELF IN A CONSISTENTLY HEALTHY CONDITION.

GENERAL IRRIGATION NOTES:
LINE LAYOUT AND EQUIPMENT PLACEMENT IS DIAGRAMMATIC. ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS AND TO ACHIEVE 100% COMPLETE COVERAGE. ALL HEADS, LINES, VALVES, AND OTHER IRRIGATION EQUIPMENT SHALL BE LOCATED AND ROUTED THROUGH LANDSCAPE AREAS WHENEVER POSSIBLE AND SHALL BE LOCATED WITHIN THE BOUNDS OF THE PROPERTY. LOCATION OF IRRIGATION CONTROLLER & WEATHER STATION SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND/OR OWNER. SEE CIVIL UTILITY PLANS FOR EXACT LOCATION OF WATER METER.
SPRAY HEADS SHALL BE ADJUSTED SO AS TO NOT SPRAY UNDER PRESERVED TREES.
THE CONTRACTOR SHALL DISCUSS ANY IRRIGATION LOCATED WITHIN AN EASEMENT WITH THE OWNER AND FULLY INFORM THEM OF ALL LIABILITY OF FUTURE DAMAGE TO THEIR SYSTEM BY EASEMENT OWNER.
ALL EQUIPMENT IS TO BE RAINBIRD - NO SUBSTITUTIONS.

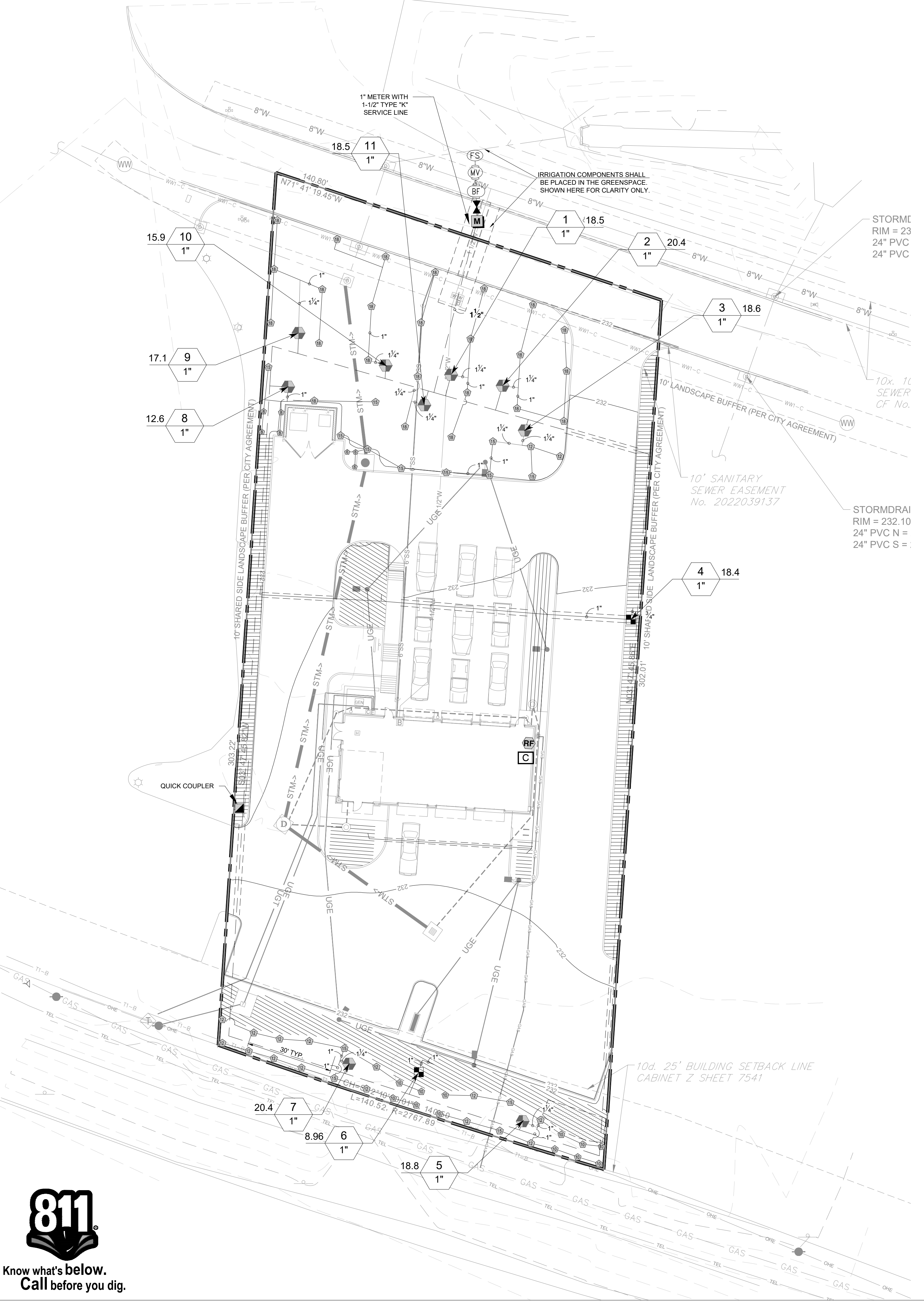
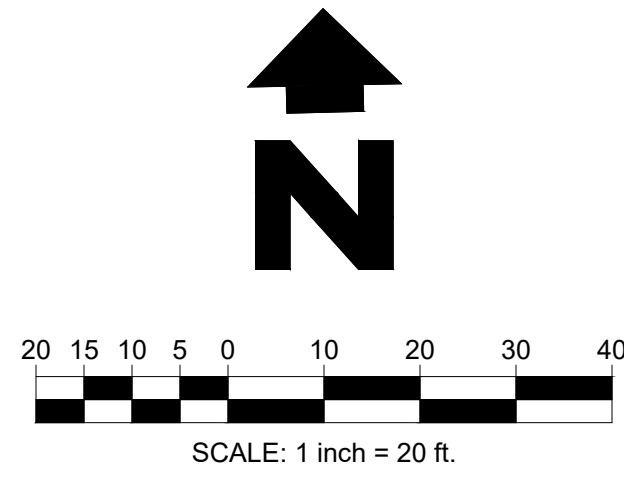
GENERAL IRRIGATION NOTES:
CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO STARTING WORK ON THE SITE. UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATED, AND SHOULD BE VERIFIED ON THE CIVIL UTILITY PLAN AND IN THE FIELD.
CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, LICENSES, METERS, TAPS, AND IMPACT FEES REQUIRED TO INSTALL THE SYSTEM.
CONTRACTOR SHALL REFER TO THE LANDSCAPE PLAN FOR HEAD, LINE, AND VALVE PLACEMENT RELATIVE TO THE PROPOSED PLANTING PLAN. IRRIGATION SYSTEM SHALL PROVIDE 100% HEAD-TO-HEAD COVERAGE.
CONTRACTOR SHALL ADJUST HEADS AND NOZZLES TO PROVIDE 100% COVERAGE IN THE AREAS INDICATED ON THE PLAN. AVOID CONFLICTS WITH EXISTING AND PROPOSED PLANT MATERIAL, PAVING, STRUCTURES, AND UTILITY LINES. ADJUSTABLE ARC NOZZLES SHALL BE SUBSTITUTED IN PLACE OF FIXED ARC NOZZLES AS NECESSARY TO PREVENT OVER SPRAY ONTO PAVEMENT. IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED TO PREVENT SPRAY ONTO BUILDINGS OR WALKWAYS.
VERIFY IN THE FIELD, THE LOCATION OF LINES, HEADS, OR VALVES WITHIN THE DRIP LINE OF ANY EXISTING TREES. HAND EXCAVATE OR BORE WITHIN THE DRIPLINE OF ANY TREE.
IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS.
ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAINLINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12".
ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY.
THE IRRIGATION CONTRACTOR IS RESPONSIBLE TO COORDINATE THE PLACEMENT OF SLEEVES PRIOR TO PAVING. SLEEVE MATERIAL SHALL BE SCHEDULE 40 AND AT A MINIMUM DEPTH OF 18".
THE IRRIGATION CONTRACTOR IS REQUIRED TO REPAIR WITH APPROVED IN KIND MATERIALS ANY DAMAGE INCLUDING BUT NOT LIMITED TO: THE BUILDING, STRUCTURES, PAVING, OR PLANTINGS. DAMAGE TO UTILITIES BY THE IRRIGATION CONTRACTOR SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE, AND THE REGULATING UTILITY PROVIDER.
THE IRRIGATION SYSTEM SHALL BE DESIGNED TO OPERATE BASED ON AN AVAILABLE WATER PRESSURE OF 41 PSI. IF PRESSURE IS LESS THAN 41 PSI, CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD. IF PRESSURE IS GREATER THAN 100 PSI, A PRESSURE REDUCING VALVE SHALL BE INSTALLED FOR SAFE OPERATION OF THE IRRIGATION SYSTEM.
CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DISCREPANCIES IN EQUIPMENT USAGE, AREA DIMENSIONS OR STATIC WATER PRESSURE EXIST THAT MIGHT NOT HAVE BEEN PRESENT OR KNOWN INFORMATION IN THE DESIGN. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
IRRIGATION CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL LAWNS DISTURBED OUTSIDE OF CONSTRUCTION DISTURBANCE AREAS. ALL IRRIGATION DISTURBANCE OUTSIDE OF CONSTRUCTION DISTURBANCE SHALL HAVE THE TRENCHES BACKFILLED WITH TOPSOIL AS DESCRIBED IN THE GENERAL LANDSCAPE NOTES AND BE GRADED SMOOTH PER THE GRADING PLAN. IRRIGATION CONTRACTOR SHALL FOLLOW THE GENERAL LANDSCAPE NOTES FOR SEEDING OR SODDING FOR REPAIRING REQUIRED LAWN AREAS.
THIS SHEET IS FOR THE PURPOSE OF IRRIGATION LAYOUT ONLY. ALL GRADING, UTILITIES, SITE FEATURES, ETC. ARE FOR REFERENCE ONLY. PLEASE REFER TO CIVIL PLANS FOR MORE DETAILS.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	GPM	RADIUS	DETAIL
8	Rain Bird 1804-SAM-PRS VAN Series	3	Adj	30		6'	
8	Rain Bird 1804-SAM-PRS VAN Series	4	Adj	30	0.01	8'	
10	Rain Bird 1804-SAM-PRS VAN Series	12	Adj	30	0.01	10'	
12	Rain Bird 1804-SAM-PRS VAN Series	16	Adj	30	0.01	12'	
15	Rain Bird 1804-SAM-PRS VAN Series	13	Adj	30	0.01	15'	
18	Rain Bird 1804-SAM-PRS VAN Series	24	Adj	30	0.01	18'	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL				
■	Rain Bird XCZ-100-PRB-COM Wide Flow Drip Control Kit for Commercial Applications. 1in. Ball Valve with 1in. PESB Valve and 1in. Pressure Regulating 40psi Quick-Check Basket Filter. 0.3 GPM-20 GPM	2					
▨	Area to Receive Dripline	4,062 L.F.					
▨	Rain Bird XFD-04-12 XFD On-Surface Pressure Compensating Landscape Dripline. 0.4 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. UV Resistant. Specify XF insert fittings.	4,062 L.F.					
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL				
●	Rain Bird PGA-PRS-D Globe 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe. With Pressure Regulator Module.	9					
■	Quick Coupler Valve	1					
⊘	Shut Off Valve	1					
⊘	Rain Bird PGA-PRS-D Globe (2) 1" 1in., 1-1/2in., 2in. Electric Master Valve, Globe. With Pressure Regulator Module.	1					
⊘	Zum 375 1" Reduced Pressure Principle Assembly. Sizes 1/2in., 3/4in., 1in., 1-1/4in., 1-1/2in., 2in.	1					
C	Rain Bird ESPLXME2 12 Station Traditionally-Wired, Commercial Controller. Indoor/Outdoor, Plastic Wall-Mount Enclosure.	1					
FS	Rain Bird FS-100-B 1in. Flow Sensor, Brass Model. Suggested Operating Range 2.0 GPM to 40.0 GPM. Size for Flow Not According to Pipe Size. Rain Bird Compatible Controllers: ESP-LXIVM(P) LXID LXME2(P) ME3, or Controllers Accepting Custom K-Factor and Offset. Install in Rain Bird Valve Box.	1					
M	Water Meter 1"	1					
---	Irrigation Lateral Line: PVC Schedule 40	1,168 L.F.					
---	Irrigation Mainline: PVC Schedule 40	899.3 L.F.					
---	Pipe Sleeve: PVC Schedule 40	229.4 L.F.					
○	Valve Callout						
○	Valve Number						
○	Valve Flow						
○	Valve Size						

CRITICAL ANALYSIS

Generated: 2023-05-02 17:31
P.O.C. NUMBER: 01
Water Source Information:
FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.5 GPM
PRESSURE AVAILABLE
Static Pressure at POC: 65.00 PSI
Elevation Change: 5.00 ft
Service Line Size: 1 1/2"
Length of Service Line: 5 ft
Pressure Available: 63.00 psi
DESIGN ANALYSIS
Maximum Station Flow: 20.43 GPM
Flow Available at POC: 37.5 GPM
Residual Flow Available: 17.07 GPM
Critical Station:
Design Pressure: 4 PSI
Friction Loss: 4.88 PSI
Fittings Loss: 0.47 PSI
Elevation Loss: 0 PSI
Loss through Valve: 19.49 PSI
Pressure Req. at Critical Station: 54.66 PSI
Loss for Fittings: 0.14 PSI
Loss for Main Line: 1.44 PSI
Loss for POC to Valve Elevation: 0 PSI
Loss for Backflow: 0 PSI
Loss for Water Meter: 1.88 PSI
Critical Station Pressure at POC: 58.12 PSI
Pressure Available: 83 PSI
Residual Pressure Available: 4.88 PSI



Date Plotted: 05/02/2023 10:02 AM
 Plotter: HP DesignJet T1100e
 Plot Scale: 1" = 20'
 User: jkp
 Project: 06-22-20027
 Sheet: C-6.2

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DATE	ISSUE
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05/17/2023	PERMIT SET

PROFESSIONAL SEAL
STATE OF TEXAS
GARRETT DAVID SMALL
1942
PROFESSIONAL ENGINEER
HARRISON FRENCH & ASSOCIATES, L.T.D.
F-8576
PROFESSIONAL LICENSE NO. 110942

PROFESSIONAL IN CHARGE
GARRETT DAVID SMALL
PROJECT MANAGER
JK
QUALITY CONTROL
JMK
DRAWN BY
JMK / ENH
PROJECT NAME

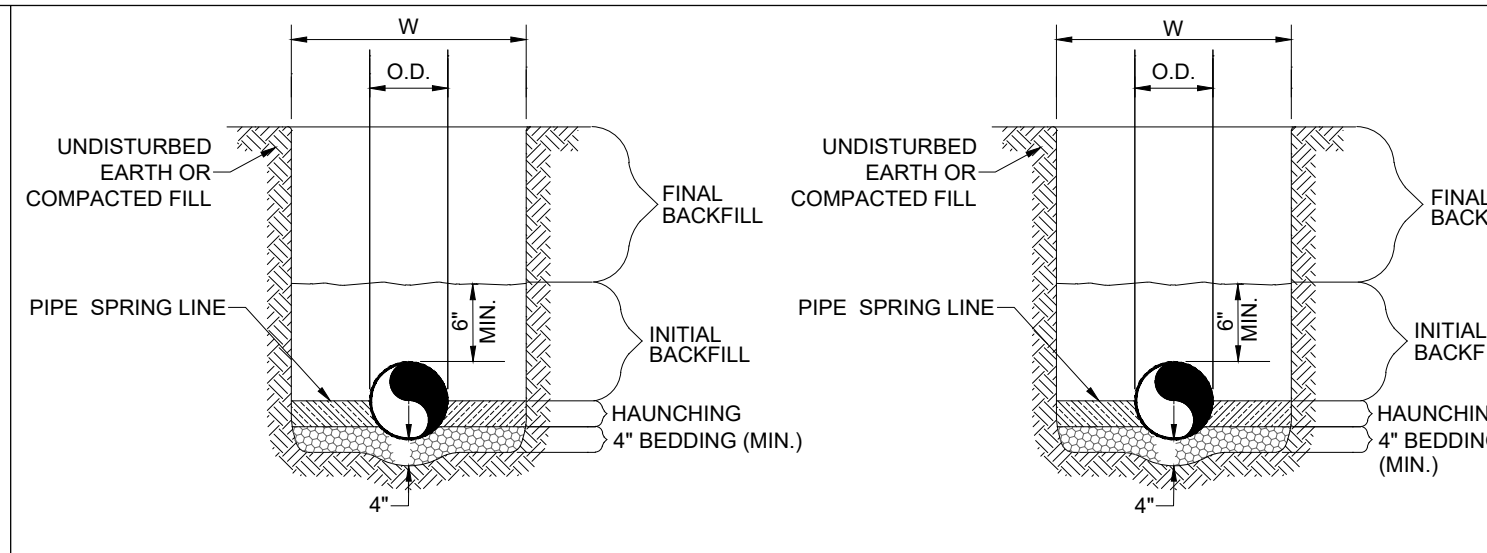


VALVOLINE INSTANT OIL CHANGE
FM 1488 NEAR SPUR 149
MAGNOLIA, TX

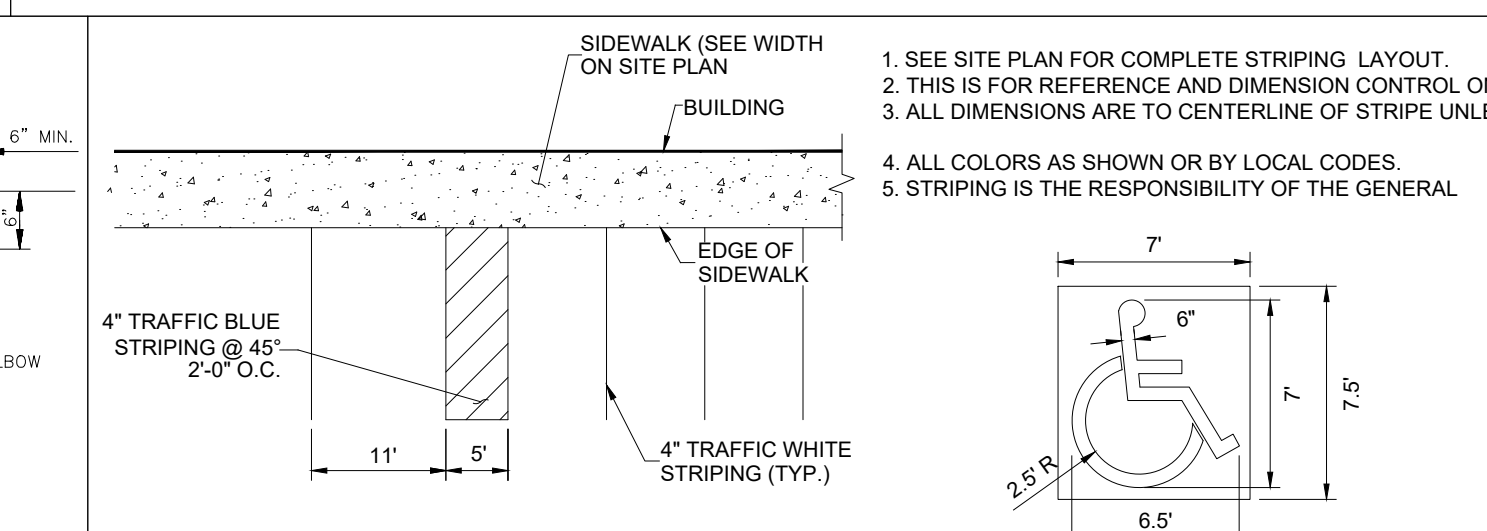
PROJECT NUMBER
06-22-20027

SHEET NAME
DETAILS SHEET 1 OF 2

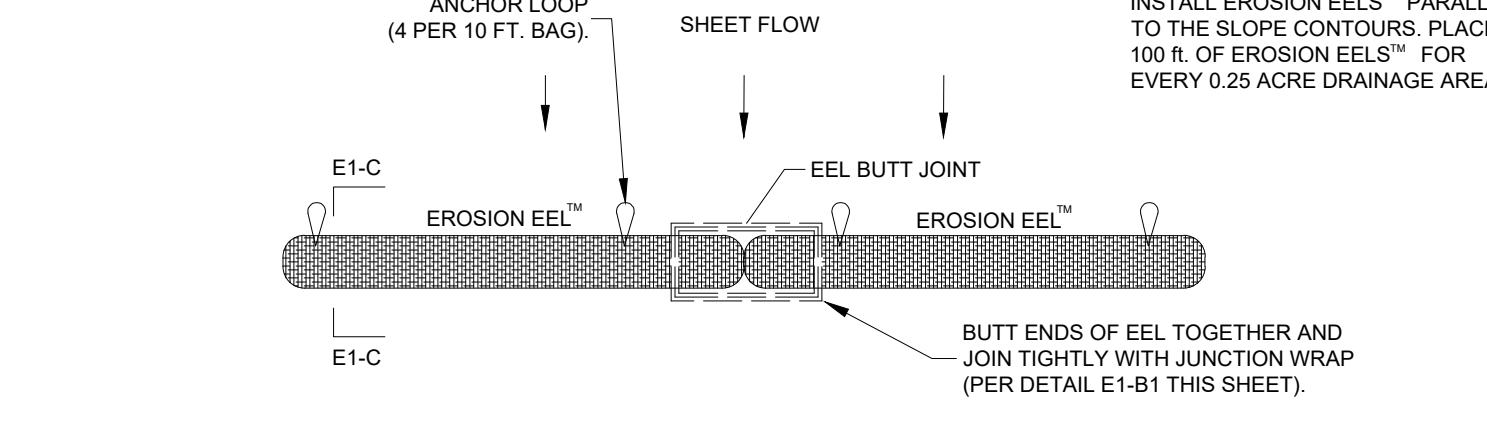
SHEET #
C-10.0



- GENERAL NOTES**
1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
 2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
 3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
 4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
 5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.
 6. FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 85% STANDARD PROCTOR.
 7. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321-89.
 8. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
 9. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
 10. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES. (SEE SPECIFICATIONS)



ACCESSIBLE PARKING SYMBOL
INSTALL EROSION EELS™ PARALLEL TO THE SLOPE CONTOURS. PLACE 100 LB OF EROSION EELS™ FOR EVERY 0.25 ACRE DRAINAGE AREA.



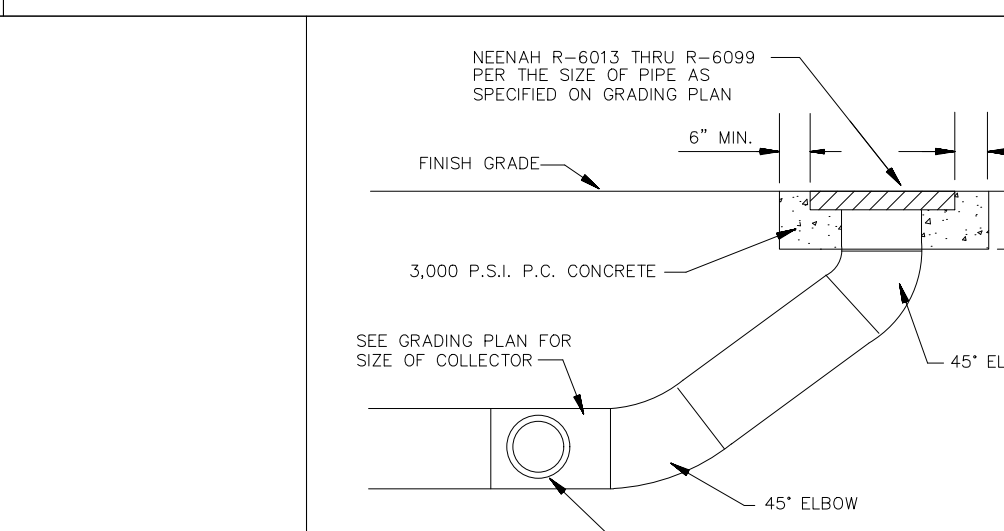
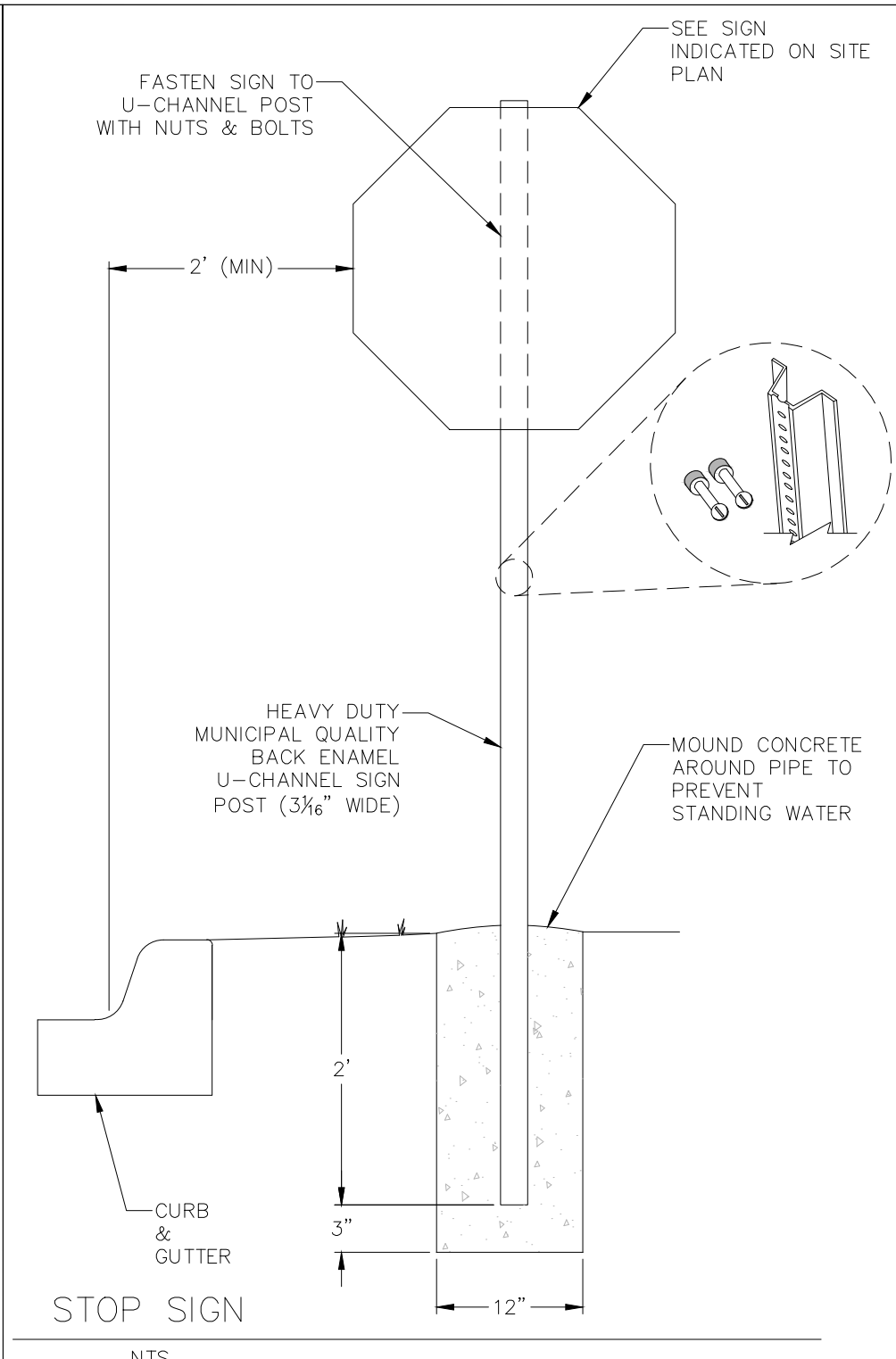
DETAIL E1-B: INTERCEPTING SHEET FLOW PERPENDICULAR TO FLOW PATH - PLAN VIEW

- GENERAL NOTES:**
1. EROSION EELS™ USED IN PERIMETER CONTROL APPLICATIONS SHALL HAVE A SPECIFICATION MIXTURE 1.1 OR 1.2.
 - a. MIXTURE SPECIFICATION 1.1. A FILTER MIXTURE COMPRISED OF 50% SHREDDED RUBBER AND 50% WOOD CHIP PARTICLES BY VOLUME. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03.
 - b. MIXTURE SPECIFICATION 1.2. A FILTER MIXTURE COMPRISED OF 1/3 SHREDDED RUBBER, 1/3 WOOD CHIPS, AND 1/3 RECYCLED SYNTHETIC FIBERS. THE SHREDDED RUBBER SHALL BE WASHED AND PROCESSED TO REMOVE MOST, IF NOT ALL, METAL COMPONENTS. THE RUBBER SHALL BE DERIVED FROM RECYCLED TIRES AND SHALL BE SHREDDED TO PRODUCE A MAXIMUM PARTICLE SIZE OF +/- 3/4 INCH. THE WOOD CHIPS SHALL BE PRODUCED FROM HARDWOOD TREES AND SHALL CONFIRM TO AASHTO CERTIFICATION SPECIFICATION MP 9-03. THE SYNTHETIC FIBERS SHALL BE PRODUCED FROM RECYCLED, MANUFACTURED MATERIALS, SUCH AS, BUT NOT LIMITED TO, PRE-CONSUMER SCRAP CARPET, TIRE CHORD, AND TIRE FIBER MATERIALS.
 2. EROSION EELS™ SHALL BE MANUFACTURED FROM A WOVEN GEOTEXTILE COVERING WITH INTERIOR FILTER MATERIALS SUCH AS 100% SHREDDED RUBBER (MIXTURE SPECIFICATION 1.0, 50% SHREDDED RUBBER/50% AASHTO-CERTIFIED WOOD CHIPS (MIXTURE SPECIFICATION 1.1)).
 3. LENGTHS OF EROSION EELS™ SHALL BE EITHER A NOMINAL +/-10 FT. OR +/- 4.5 FT. NOMINAL DIAMETER SHALL BE +/-9.5 INCHES.
 4. EROSION EELS™ CAN BE PLACED AT THE TOP, ON THE FACE, OR AT THE TOE OF SLOPES TO INTERCEPT RUNOFF. REDUCE FLOW VELOCITY, RELEASE THE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT FROM THE RUNOFF.
 5. EROSION EELS™ SHALL BE INSTALLED ALONG THE GROUND CONTOUR, AT THE TOE OF SLOPES, AT AN ANGLE TO THE CONTOUR TO DIRECT FLOW AS A DIVERSION BERM, AROUND INLET STRUCTURES, IN A DITCH AS A CHECK DAM TO HELP REDUCE SUSPENDED SOLIDS LOADING AND RETAIN SEDIMENT, OR AS A GENERAL FILTER FOR ANY DISTURBED SOIL AREA.
 6. NO TRENCHING IS REQUIRED FOR INSTALLATION OF EROSION EELS™.
 7. PREPARE BED FOR EEL INSTALLATION BY REMOVING ANY LARGE DEBRIS INCLUDING ROCKS, SOIL CLODS, AND WOODY VEGETATION. EROSION EELS™ CAN ALSO BE PLACED OVER PAVED SURFACES INCLUDING CONCRETE AND ASPHALT WITH NO SURFACE PREPARATION REQUIRED.
 8. RAKE BED AREA WITH A HAND RAKE OR BY DRAG HARROW.
 9. DO NOT PLACE EEL DIRECTLY OVER RILL AND GULLIES UNTIL AREA HAS BEEN HAND-EXCAVATED AND RAKED TO PROVIDE A LEVEL BEDDING SURFACE. ALL SURFACES SHALL BE UNIFORMLY COMPACTED FOR MAXIMUM SEATING OF EELS IN PLACE. FOR LOCATIONS WHERE EELS WILL BE PLACED IN CONCENTRATED FLOWS (SUCH AS CHECK DAMS, INLET PROTECTION) AND FOR PERIMETER CONTROLS AT PRIMARY DISCHARGE LOCATIONS, BED THE EELS IN A FLOCCAT CRADLE PER THE DETAILED DRAWINGS.
 11. FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE AREA SHALL BE 10 ACRES.
 12. IF MORE THAN ONE EROSION EEL™ IS PLACED IN A ROW, THE EELS SHALL BE OVERLAPPED A MINIMUM OF 12 INCHES TO PREVENT FLOW AND SEDIMENT FROM PASSING THROUGH THE FIELD JOINT. COMPRESS THE TWO EELS OF THE OVERLAP TIGHTLY TOGETHER EITHER BY HAND OR MANUFACTURER-APPROVED MECHANIZED MEANS.
 13. WHEN USED IN DITCHES AS A CHECK DAM, EROSION EELS™ SHALL BE INSTALLED PER MANUFACTURER'S DETAILS.
 14. FOR CHECK DAM APPLICATIONS, EROSION EELS™ SHALL BE PLACED PERPENDICULAR TO THE FLOW OF THE WATER. EROSION EELS™ SHALL CONTINUE UP THE SIDES SLOPES A MINIMUM OF 3 FEET ABOVE THE DESIGN FLOW DEPTH.
 15. EROSION EELS™ SHALL REMAIN IN PLACE UNTIL FULLY ESTABLISHED VEGETATION HAS COMPLETELY DEVELOPED OR UNTIL THE STORAGE CAPACITY/FUNCTIONAL LIFE OF THE EEL HAS BEEN EXHAUSTED REQUIRING REPLACEMENT WITH NEW EELS.)
 16. ANCHORING POSTS FOR CHECK DAM APPLICATIONS SHALL HAVE A MINIMUM WEIGHT OF 1.25 LBS/FT STEEL T-POSTS (5 TO 7 FT. LENGTHS) ROLLED FROM HIGH CARBON STEEL. POSTS SHOULD BE HOT-DIP GALVANIZED OR COATED WITH A WEATHER-RESISTANT PAINT FOR STEEL APPLICATION. POSTS SHOULD BE EQUIPPED WITH A METAL ANCHOR PLATE. INSTALL PER DETAILS ON THIS SHEET.
 17. PLACE T-POSTS THROUGH HANDLE OF BAGS. DO NOT DRIVE POSTS THROUGH EROSION EELS. T-POSTS ARE TO BE EMBEDDED A MINIMUM OF 2 FT INTO GROUND.

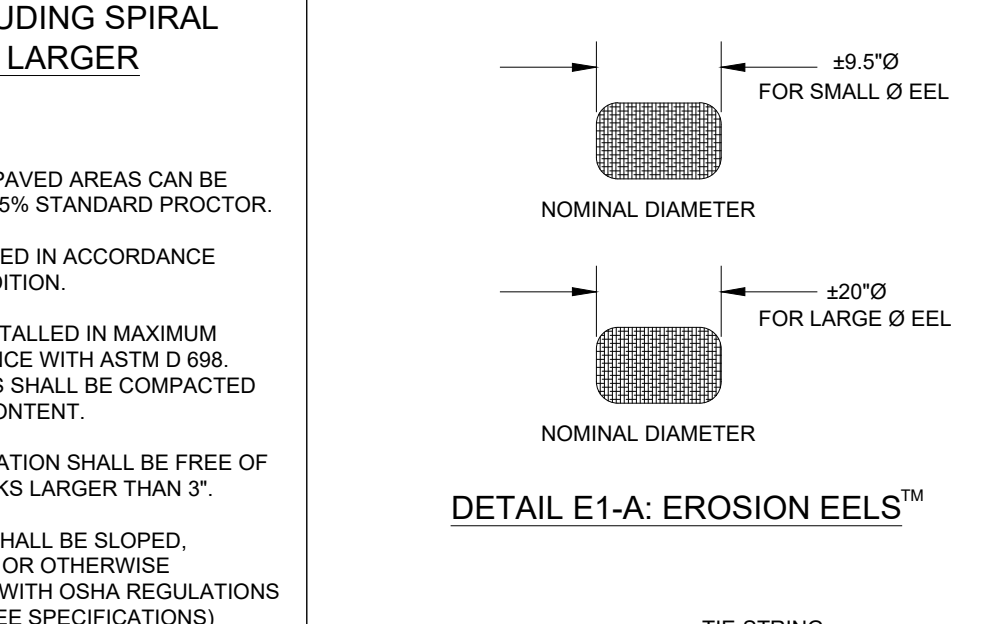
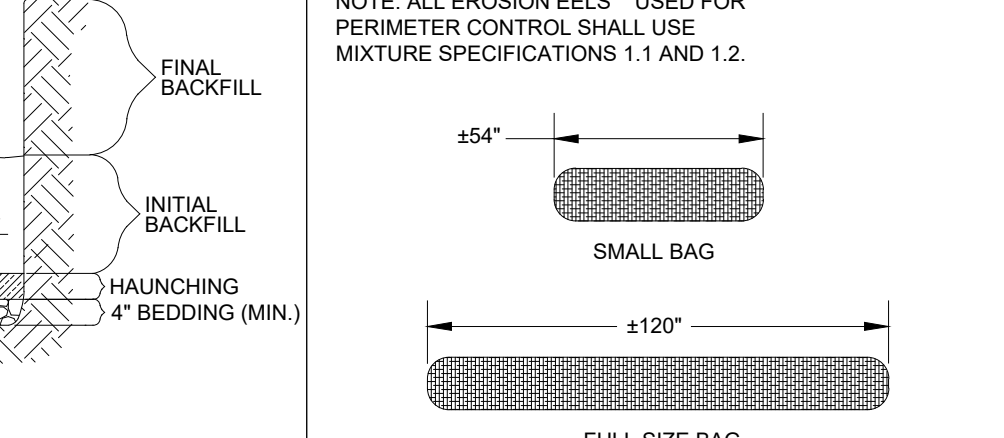
SPACING RECOMMENDATIONS FOR THE EROSION EEL™ FOR PERIMETER CONTROLS AND INTERCEPTING SHEET FLOW ON SLOPES

SLOPE(%)	SINGLE EEL SPACING(FT)	* STACKED DUAL EEL SPACING(FT)
0.5	300	N/A
1	200	N/A
2	150	N/A
3	80	N/A
4	50	N/A
5	40	N/A
6	35	N/A
8	30	N/A
10	25	N/A
15	+17	+25
20	+12	+25
25	N/A	+15
30	N/A	+10
33	N/A	+8

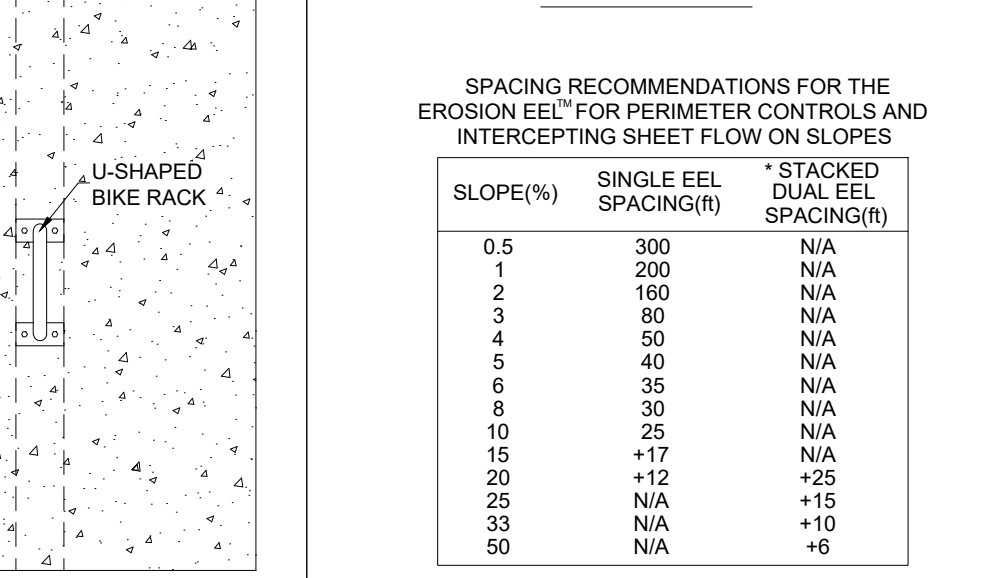
EROSION EELS™ SEDIMENT BARRIER
N.T.S.



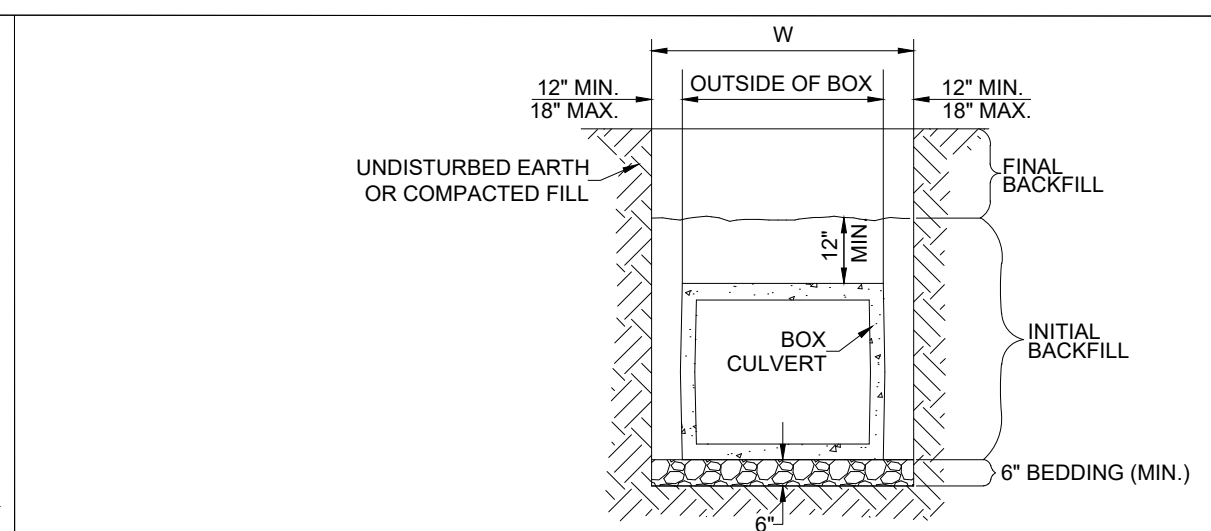
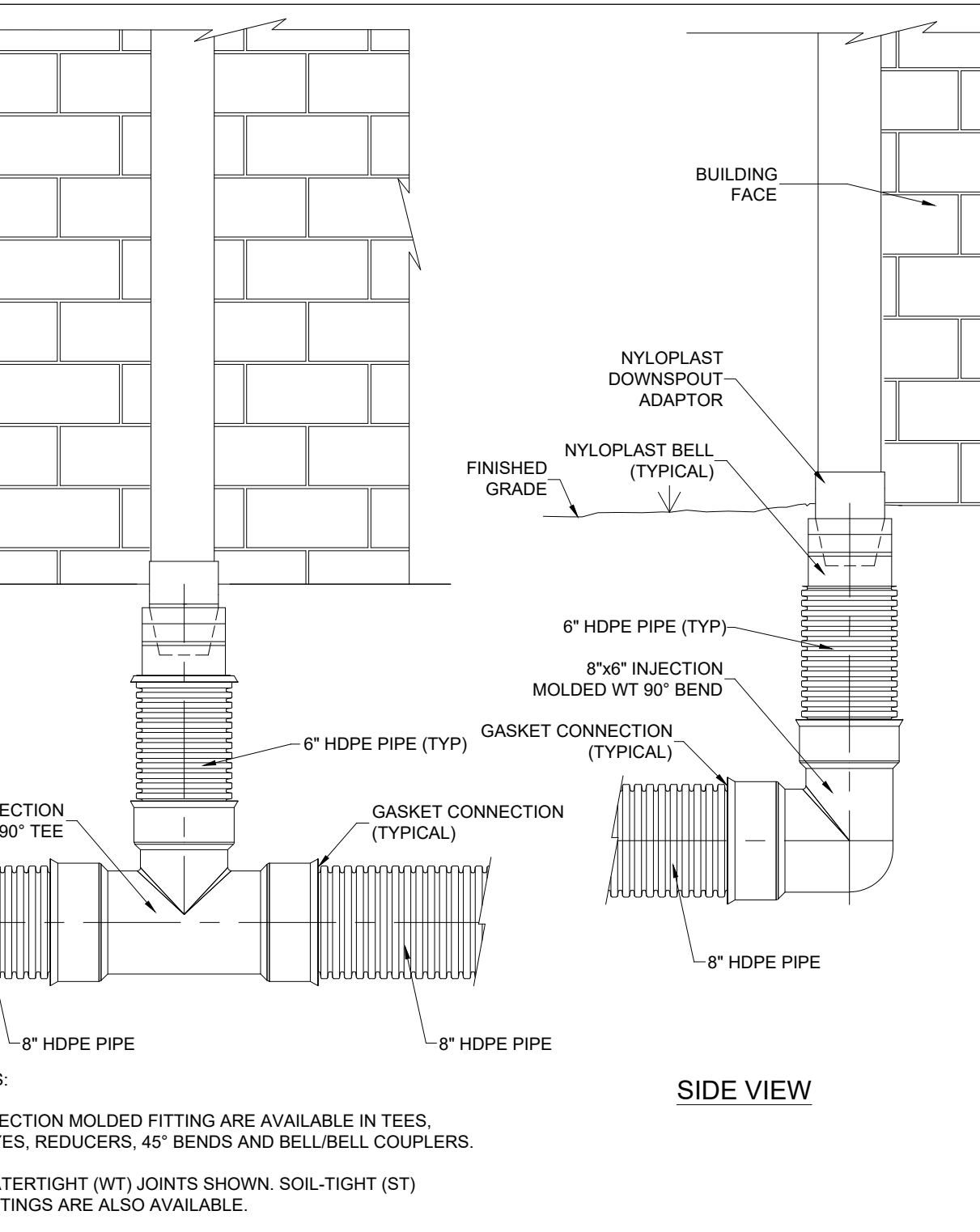
STORM DRAIN CLEAN-OUT
N.T.S.



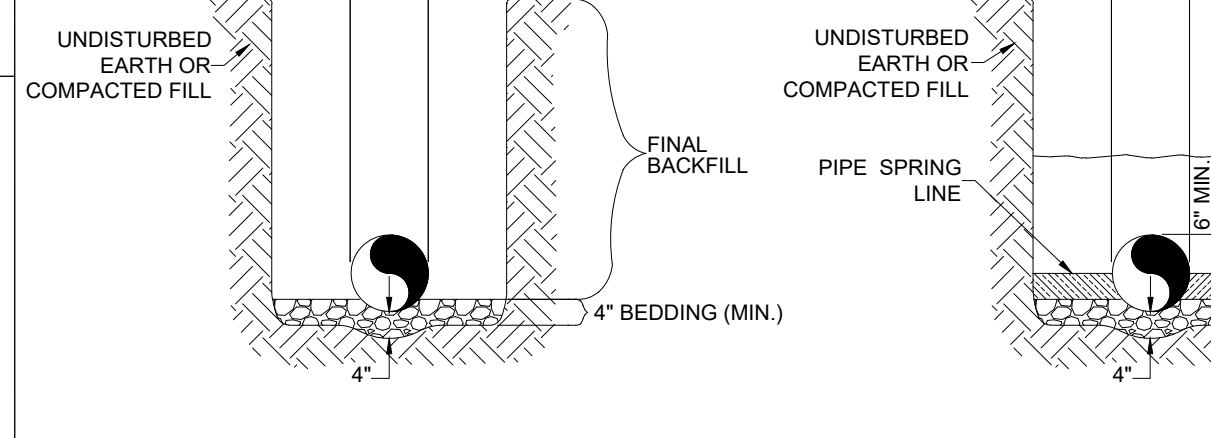
DETAIL E1-B1



EROSION EELS™ SEDIMENT BARRIER
N.T.S.



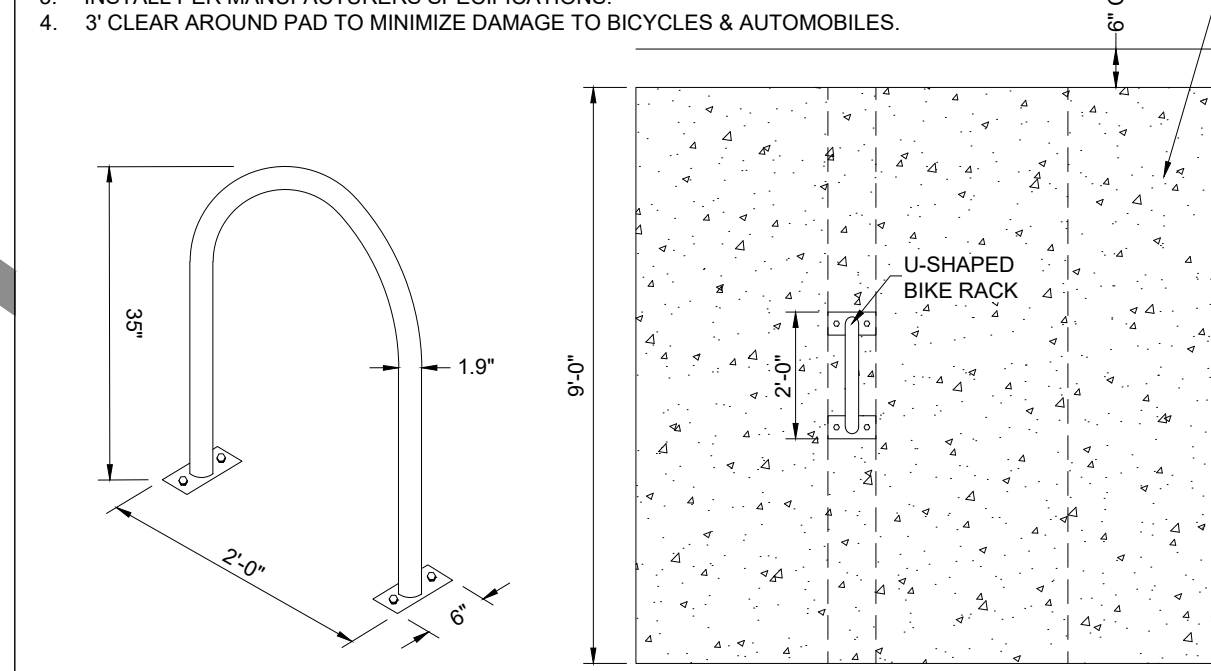
CONCRETE BOX CULVERT
N.T.S.



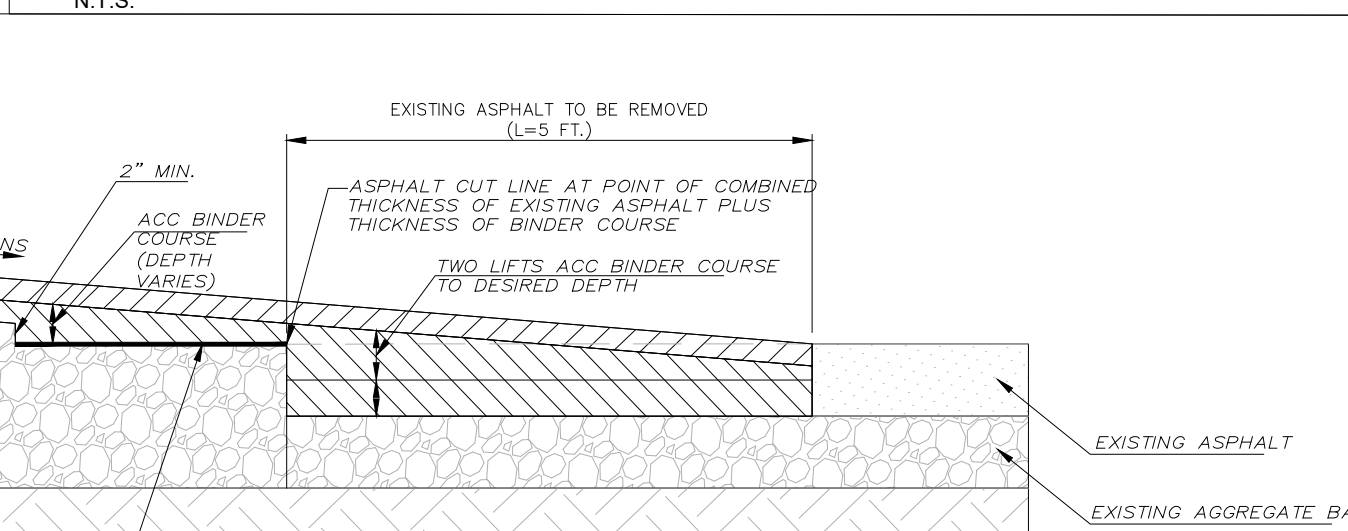
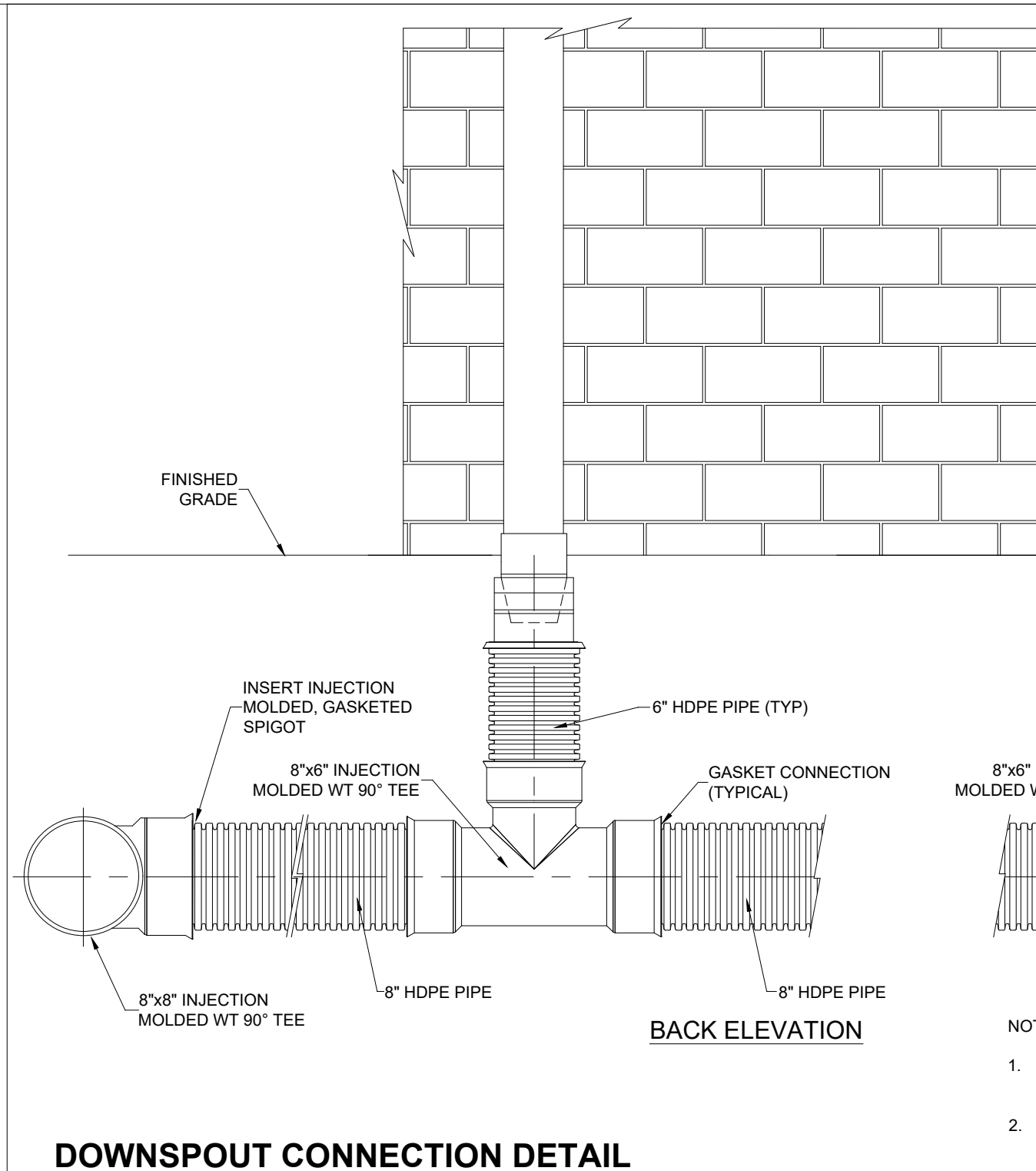
REINFORCED CONCRETE PIPE (RCP) & SPIRAL RIB PIPE SMALLER THAN 60"Ø
GENERAL NOTES

1. BEDDING SHALL BE CLASS I-A WORKED BY HAND. IF GROUNDWATER IS ANTICIPATED, THEN BEDDING SHALL BE CLASS I-B COMPACTED TO 85% STANDARD PROCTOR.
2. HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A OR CLASS I-B OR CLASS II COMPACTED TO 85% PROCTOR.
3. INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 85% STANDARD PROCTOR.
4. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR.
5. FINAL BACKFILL SHALL BE CLASS I, II, OR III COMPACTED AS NOTED IN NOTES 3. AND 4.

STORM SEWER TRENCH AND BEDDING
N.T.S.

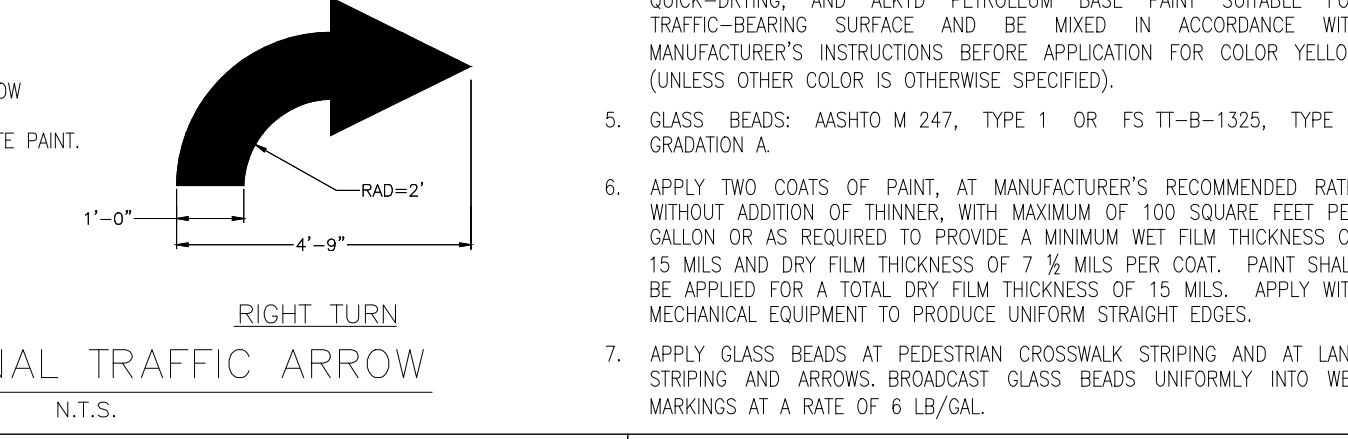


U-SHAPED BIKE RACK
N.T.S.

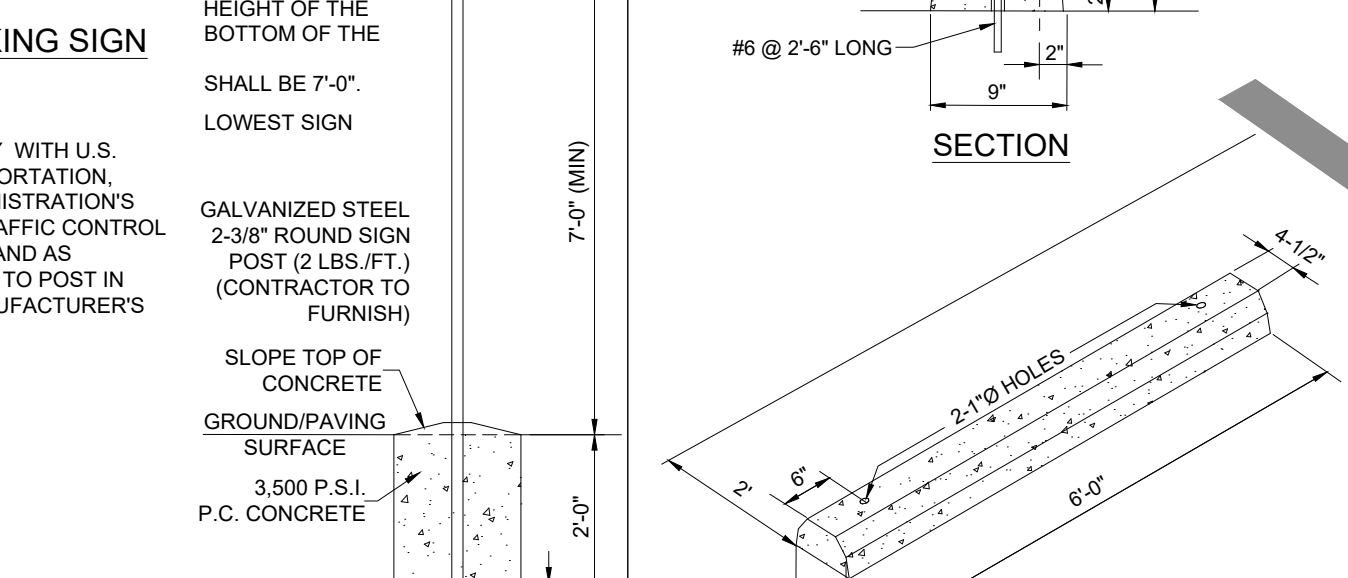


MATCH EXISTING PAVEMENT ELEVATION (PAVEMENT TRANSITION)
N.T.S.

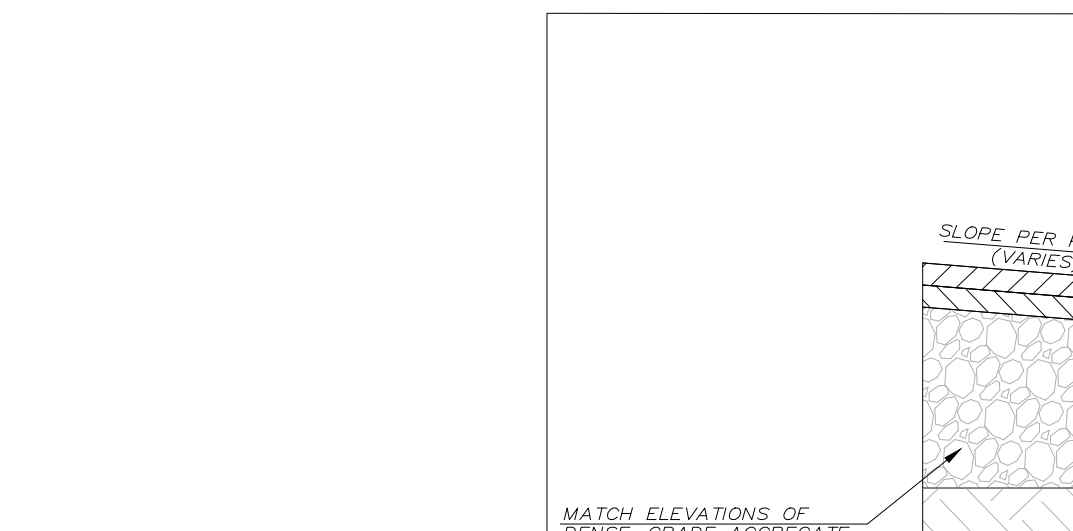
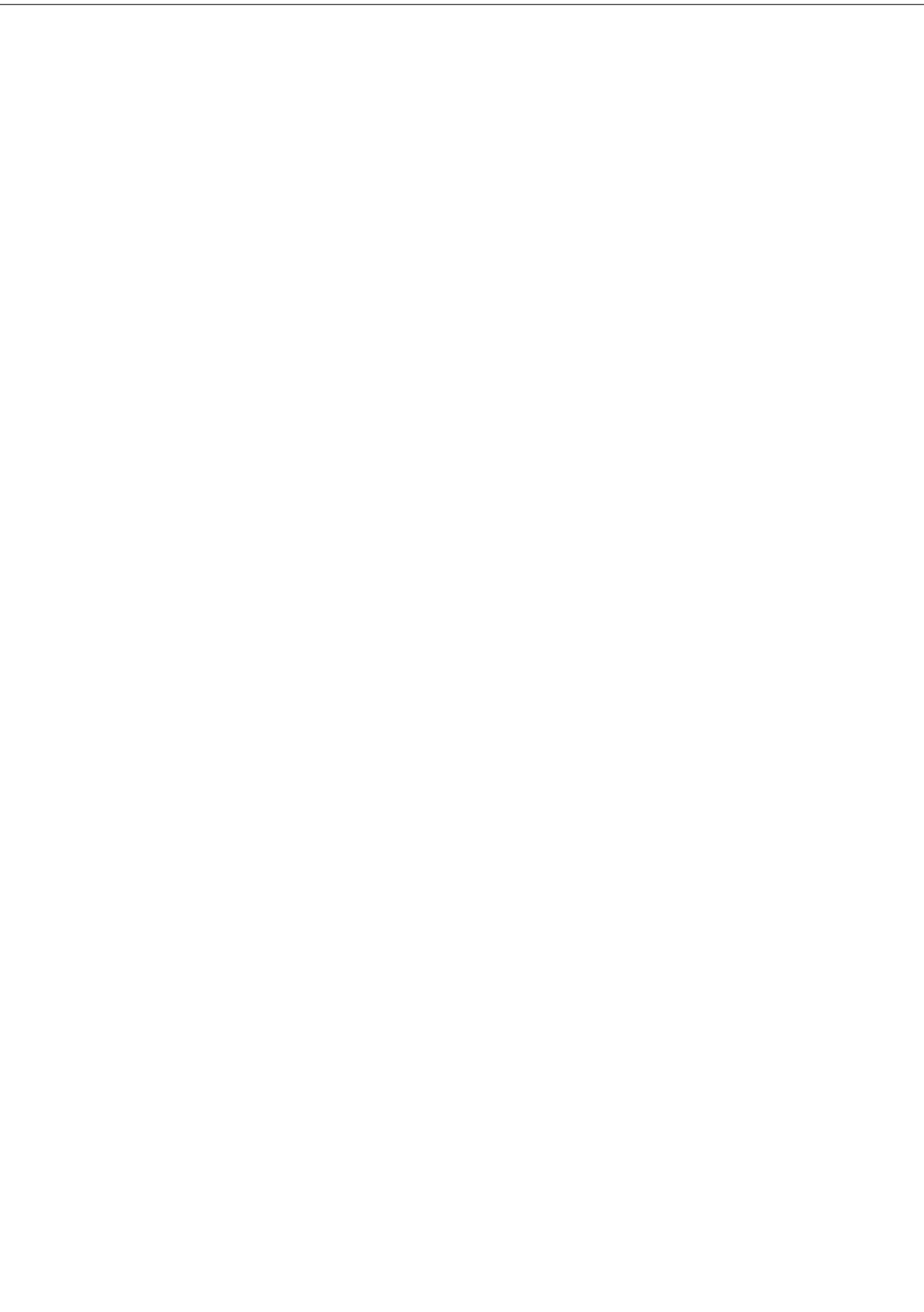
- MINIMUM REQUIREMENTS:**
1. USE TRAINED AND EXPERIENCED PERSONNEL IN APPLYING THE PRODUCTS AND OPERATING THE EQUIPMENT REQUIRED FOR PROPERLY PERFORMED WORK.
 2. PAINT SHALL BE WATERBORNE OR SOLVENT BORNE. COLOR SHALL BE REFLECTIVE WHITE UNLESS OTHERWISE SPECIFIED. PAVEMENT MARKING PAINTS SHALL COMPLY WITH APPLICABLE STATE AND LOCAL LAWS ENACTED TO ENSURE COMPLIANCE WITH FEDERAL CLEAN AIR STANDARDS. PAINT MATERIALS SHALL CONFORM TO THE RESTRICTIONS OF THE LOCAL AIR POLLUTION CONTROL DISTRICT.
 3. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FEDERAL SPECIFICATION TT-P-1952 (LATEST REVISION) AND ALL APPLICABLE ASTM STANDARDS WITHIN THIS SPECIFICATION.
 4. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FEDERAL SPECIFICATION A-2-2886 OR AASHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING, AND ALKYL PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC-BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION FOR COLOR YELLOW (UNLESS OTHER COLOR IS OTHERWISE SPECIFIED).
 5. GLASS BEADS: AASHTO M 247, TYPE I OR FS TT-B-1325, TYPE 1, GRADATION A.
 6. APPLY TWO COATS OF PAINT, AT MANUFACTURER'S RECOMMENDED RATE, WITHOUT ADDITION OF THINNER, WITH MAXIMUM OF 100 SQUARE FEET PER GALLON OR AS REQUIRED TO PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS AND DRY FILM THICKNESS OF 7 1/2 MILS PER COAT. PAINT SHALL BE APPLIED FOR A TOTAL DRY FILM THICKNESS OF 15 MILS. APPLY WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES.
 7. APPLY GLASS BEADS AT PEDESTRIAN CROSSWALK STRIPING AND AT LANE STRIPING AND ARROWS. BROADCAST GLASS BEADS UNIFORMLY INTO WET MARKINGS AT A RATE OF 6 LB/GAL.



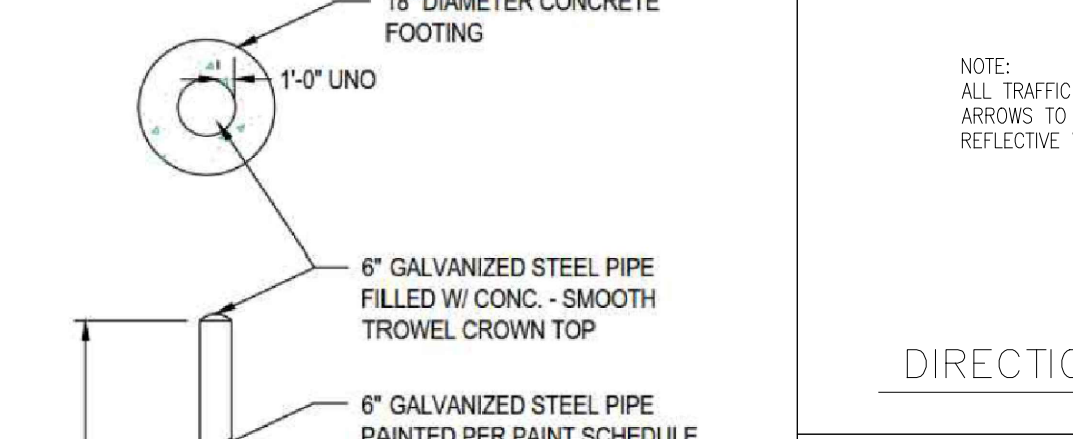
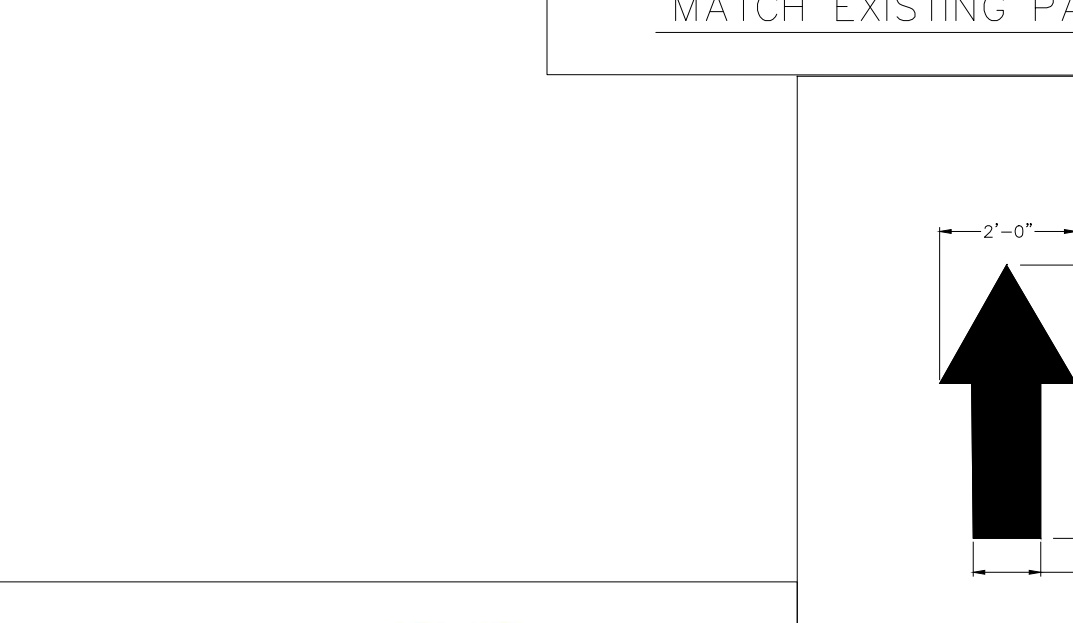
DIRECTIONAL TRAFFIC ARROW
N.T.S.



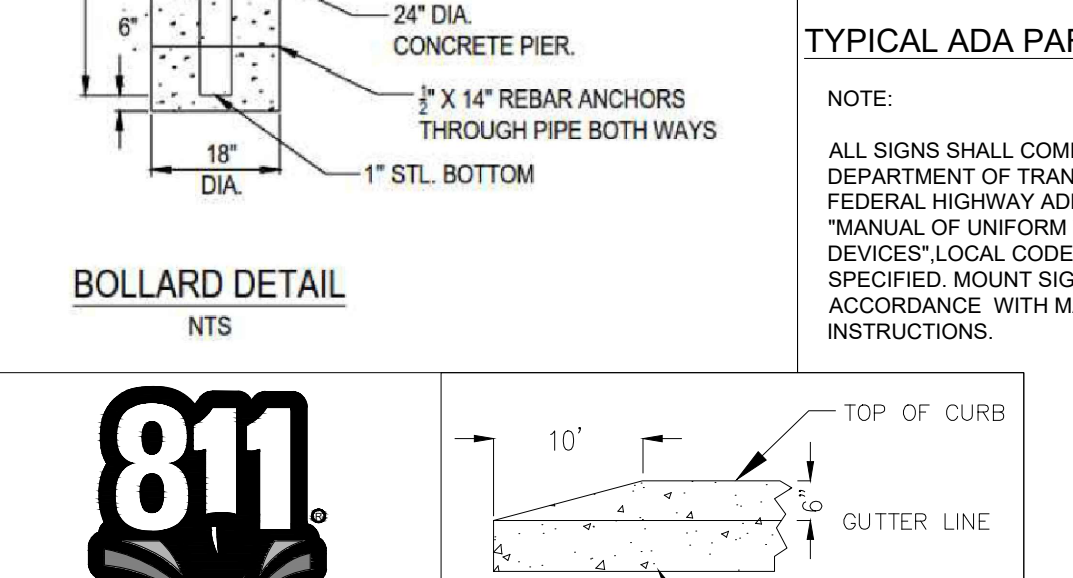
TYPICAL ADA PARKING SIGN
N.T.S.



BOLLARD DETAIL
N.T.S.



PRECAST CONCRETE WHEELSTOP
N.T.S.



U-SHAPED BIKE RACK
N.T.S.

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DATE	ISSUE
05/03/2023	OWNER REVIEW SET
05/17/2023	PERMIT SET

PROFESSIONAL SEAL

PROFESSIONAL LICENSE NO. 110942

PROFESSIONAL IN CHARGE GARRETT DAVID SMALL

PROJECT MANAGER JJK

QUALITY CONTROL WFM

DRAWN BY JJK / ENH

PROJECT NAME

PROJECT NUMBER 06-22-2027

SHEET NAME

CITY DETAILS SHEET 1 OF 2

SHEET #

C-10.2

NOT ISSUED FOR CONSTRUCTION

VALVOLINE

INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149

MAGNOLIA, TX

PROJECT NUMBER 06-22-2027

SHEET NAME

CITY DETAILS SHEET 1 OF 2

SHEET #

C-10.2

NOT ISSUED FOR CONSTRUCTION

STREET CUT PAVEMENT REPLACEMENT - ASPHALT PAVEMENT FOR PAVEMENT OF ALL AGES

NOTES:

- EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO RAVEL WAY.
- REPLACE BASE TO SAME THICKNESS PLUS TWO INCHES (2") FOR EXTENT OF EXCAVATION. USE APPROVED BASE MATERIAL.
- SURFACE COURSE:
 - REMOVE AND OVERLAY FULL WIDTH OF EXISTING SURFACE WITH 1" OF REINFORCING STEEL. EXTEND 10" BEYOND EDGE OF EXCAVATION.
 - IF EXISTING REINFORCING IS SPACING OF 12" OR GREATER, PROVIDE HORIZONTAL JOINTS. JOINTS SHALL BE REINFORCED WITH 2" BARS, 24" LONG, 24" O.C. C-C.
 - REPLACE PAVEMENT MARKINGS.
- REPLACE CURB WHEN ADJACENT LANE IS REPAIRED. LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.

ADDITIONAL REQUIREMENTS FOR ASPHALT OVERLAY ON CONCRETE PAVEMENT:

- REPLACE CONCRETE FOR EXTENT OF EXCAVATION. REPLACE TO SAME THICKNESS PLUS TWO INCHES (2").
- WIDTH:
 - EXCAVATION EXTENSIVE WIDER THAN HALF OF A LANE. REPLACE ENTIRE LANE OF CONCRETE. OTHERWISE USE STANDARD DETAIL.
- REMOVE AND OVERLAY 1" OF REINFORCING STEEL. EXTEND 10" BEYOND EDGE OF EXCAVATION. PROVIDE HORIZONTAL JOINTS. JOINTS SHALL BE REINFORCED WITH 2" BARS, 24" LONG, 24" O.C. C-C.
- REPLACE PAVEMENT MARKINGS.
- REPLACE CURB WHEN ADJACENT LANE IS REPAIRED. LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.

STREET CUT PAVEMENT REPLACEMENT - CONCRETE PAVEMENT OVER 5 YEARS IN AGE

NOTES:

- EXTENT OF PAVEMENT REPAIR SHALL BE PERPENDICULAR AND PARALLEL TO RAVEL WAY.
- REPLACE ENTIRE PANEL WIDTH AND LENGTH TO NEAREST CONSTRUCTION OR EXPANSION JOINT BEYOND EDGE OF EXCAVATION.
- REMOVE AND EXPOSE 1" OF REINFORCING STEEL WITHIN EXISTING PAVEMENT. PROVIDE HORIZONTAL JOINTS. JOINTS SHALL BE REINFORCED WITH 2" BARS, 24" LONG, 24" O.C. C-C.
- REPLACE CURB WHEN ADJACENT LANE IS REPAIRED. LOCATIONS UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
- SPECIALTY PAVEMENTS (E. BRICK PAVEMENT) TO BE REPAIRED WITH MATCHING PAVEMENT.
- REPLACE PAVEMENT MARKINGS.

STREET CUT CONCRETE PAVEMENT REPLACEMENT DETAILS

DETAIL NO. PAV-07

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

STREET CUT ASPHALT PAVEMENT REPLACEMENT DETAILS

DETAIL NO. PAV-08

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

IN-CHANNEL FILTER DAM PLAN

GEOTEXTILE NOTES:

MIN. AOS SIEVE NO. 120 MIN
MAX. AOS SIEVE NO. 50 MAX
OZ./SY 4 OZ. MIN

SECTION C-C

FILTER DAM AT DETENTION BASIN OUTFALL PIPE

SECTION B-B

NOTE: ONLY APPLIES FOR DETENTION BASIN OUTFALL PIPE PROTECTION.

A. TYPES OF FILTER DAMS

- TYPE 1 (NON-REINFORCED)
 - HEIGHT - 18-24 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM)
 - SLOPES - 2:1 (MAXIMUM).
- TYPE 2 (REINFORCED)
 - HEIGHT - 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 2:1 (MAXIMUM).
- TYPE 3 (REINFORCED)
 - HEIGHT - 36-48 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
 - SLOPES - 2:1 (MAXIMUM).
- TYPE 4 (GABION)
 - HEIGHT - 30 INCHES (MINIMUM). MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM.
 - TOP WIDTH - 2 FEET (MINIMUM).
- TYPE 5. AS SHOWN ON THE PLANS.

B. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS.

- TYPE 2 AND 3 FILTER DAMS: SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
- PLACE GRANULAR FILL ON THE WIRE MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
- 3-5 INCHES FOR ROCK FILTER DAM TYPES 1, 2 AND 4. GRANULAR FILL IN SPECIFICATION SECTION NO. 02378 RIPRAP AND GRANULAR FILL.
- FOLD WIRE MESH AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
- IN STREAMS: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
- EMBED ONE FOOT MINIMUM INTO SLOPE AND RAISE ONE FOOT HIGHER THAN CENTER OF DEPRESSED AREA AT SLOPE.

REINFORCED FILTER FABRIC BARRIER

SYMBOL

FILTER DAM

SYMBOL

"V-DITCH" SECTION/ELEVATION

TRAPEZOIDAL SECTION/ELEVATION

GENERAL NOTES:

- SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
- SECURELY FASTEN FILTER FABRIC TO MESH FENCING, WITH TIES SPACED EVERY 24 INCHES AT TOP AND MIDSECTION.
- WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
- REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

INLET PROTECTION BARRIERS FOR STAGE II INLETS

GENERAL NOTES:

- REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-THIRD THE HEIGHT OF THE BARRIER.
- GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.

STABILIZED CONSTRUCTION ACCESS

GENERAL NOTES:

- MINIMUM LENGTH IS AS SHOWN ON CONSTRUCTION DRAWINGS OR 50 FEET, WHICHEVER IS MORE.
- CONSTRUCT AND MAINTAIN CONSTRUCTION EXIT WITH CONSTANT WIDTH ACROSS ITS LENGTH, INCLUDING ALL POINTS OF INGRESS OR EGRESS.
- UNLESS SHOWN ON THE CONSTRUCTION DRAWINGS, STABILIZATION FOR OTHER AREAS WILL HAVE THE SAME AGGREGATE THICKNESS AND WIDTH REQUIREMENTS AS THE STABILIZED CONSTRUCTION EXIT.
- WHEN SHOWN ON THE CONSTRUCTION DRAWINGS, WIDEN OR LENGTHEN STABILIZED AREA TO ACCOMMODATE A TRUCK WASHING AREA. PROVIDE OUTLET SEDIMENT TRAP FOR THE TRUCK WASHING AREA.
- PROVIDE PERIODIC TOP DRESSING WITH ADDITIONAL COARSE AGGREGATE TO MAINTAIN THE REQUIRED DEPTH OR WHEN SURFACE BECOMES PACKED WITH MUD.
- PERIODICALLY TURN AGGREGATE TO EXPOSE A CLEAN DRIVING SURFACE.
- MINIMUM 14' WIDTH FOR ONE WAY TRAFFIC AND 20' WIDTH FOR TWO WAY TRAFFIC.

CONCRETE TRUCK WASHOUT AREA

GENERAL NOTES:

- POST A SIGN READING "CONCRETE WASHOUT PIT" NEXT TO THE PIT.
- VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASHOUT THEIR TRUCKS IN THE PIT 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.
- CONCRETE WASHOUT PITS SHALL NOT BE LOCATED DIRECTLY ADJACENT TO, NOR AT ANY TIME DRAIN INTO THE STORM SEWER SYSTEM OR ANY OTHER SWALE, DITCH, OR WATERWAY.
- CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCKS EQUIPMENT.

CONSTRUCTION NOTES:

- 2-INCH THICK BY 2 INCH WOODEN STAKES TO BE SET AT MAX SPACING OF 3 FEET AND EMBEDDED A MIN OF 8 INCHES. IF PREASSEMBLED BARRIER WITH SUPPORT NETTING IS USED, SPACING OF POST MAY BE INCREASED TO 8 FEET MAX.
- ATTACH FILTER FABRIC TO WOODEN STAKES.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED 6 INCHES AT THE POSTS, AND FOLDED TOGETHER, AND ATTACH TO A POST.
- REMOVE SEDIMENT DEPOSIT WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

GENERAL NOTES:

- FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

SYMBOL

CONCRETE TRUCK WASHOUT AREA

SYMBOL

811
Know what's below.
Call before you dig.

Magnolia
CITY OF MAGNOLIA
18111 BUDDY RILEY BOULEVARD
MAGNOLIA, TEXAS 77054

STREET CUT CONCRETE PAVEMENT REPLACEMENT DETAILS

DETAIL NO. PAV-07

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

Magnolia
CITY OF MAGNOLIA
18111 BUDDY RILEY BOULEVARD
MAGNOLIA, TEXAS 77054

STREET CUT ASPHALT PAVEMENT REPLACEMENT DETAILS

DETAIL NO. PAV-08

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

Magnolia
CITY OF MAGNOLIA
18111 BUDDY RILEY BOULEVARD
MAGNOLIA, TEXAS 77054

INLET PROTECTION BARRIERS FOR STAGE II INLETS

DETAIL NO. IPB-II

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

Magnolia
CITY OF MAGNOLIA
18111 BUDDY RILEY BOULEVARD
MAGNOLIA, TEXAS 77054

STABILIZED CONSTRUCTION ACCESS

DETAIL NO. SC-1

CITY OF MAGNOLIA STANDARD DETAIL

EFFECTIVE DATE: 8/3/2022

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DATE 05/03/2023
ISSUE OWNER REVIEW SET
05/17/2023 PERMIT SET

PROFESSIONAL SEAL

NOT FOR CONSTRUCTION

PROFESSIONAL LICENSE NO. 110942

PROFESSIONAL IN CHARGE GARRETT, DAVID, SMALL

PROJECT MANAGER KIK

QUALITY CONTROL WFM

DRAWN BY JKP / ENH

PROJECT NAME



VALVOLINE INSTANT OIL CHANGE

FM 1488 NEAR SPUR 149
MAGNOLIA, TX

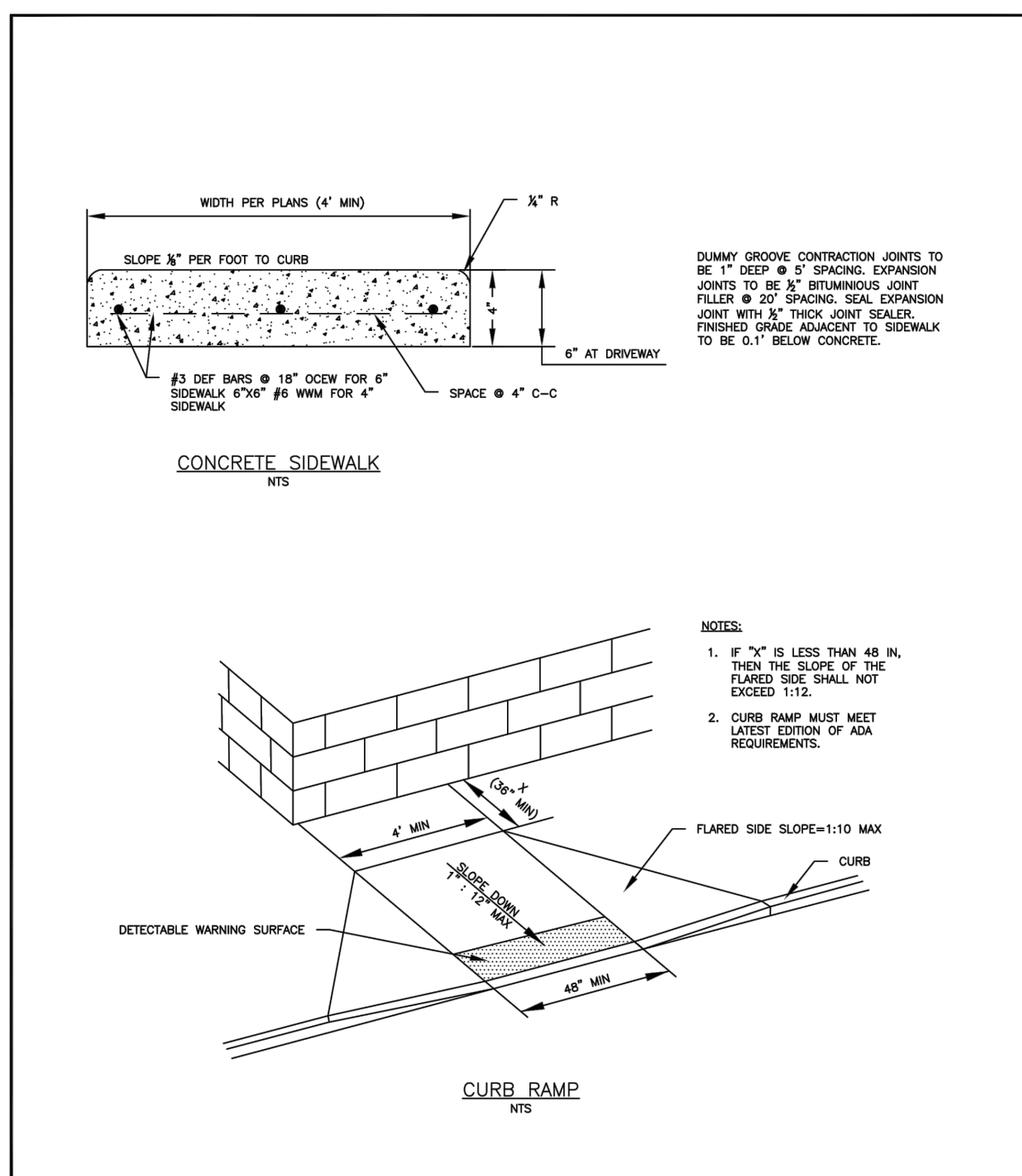
PROJECT NUMBER 06-22-20027

CITY DETAILS SHEET
2 OF 2

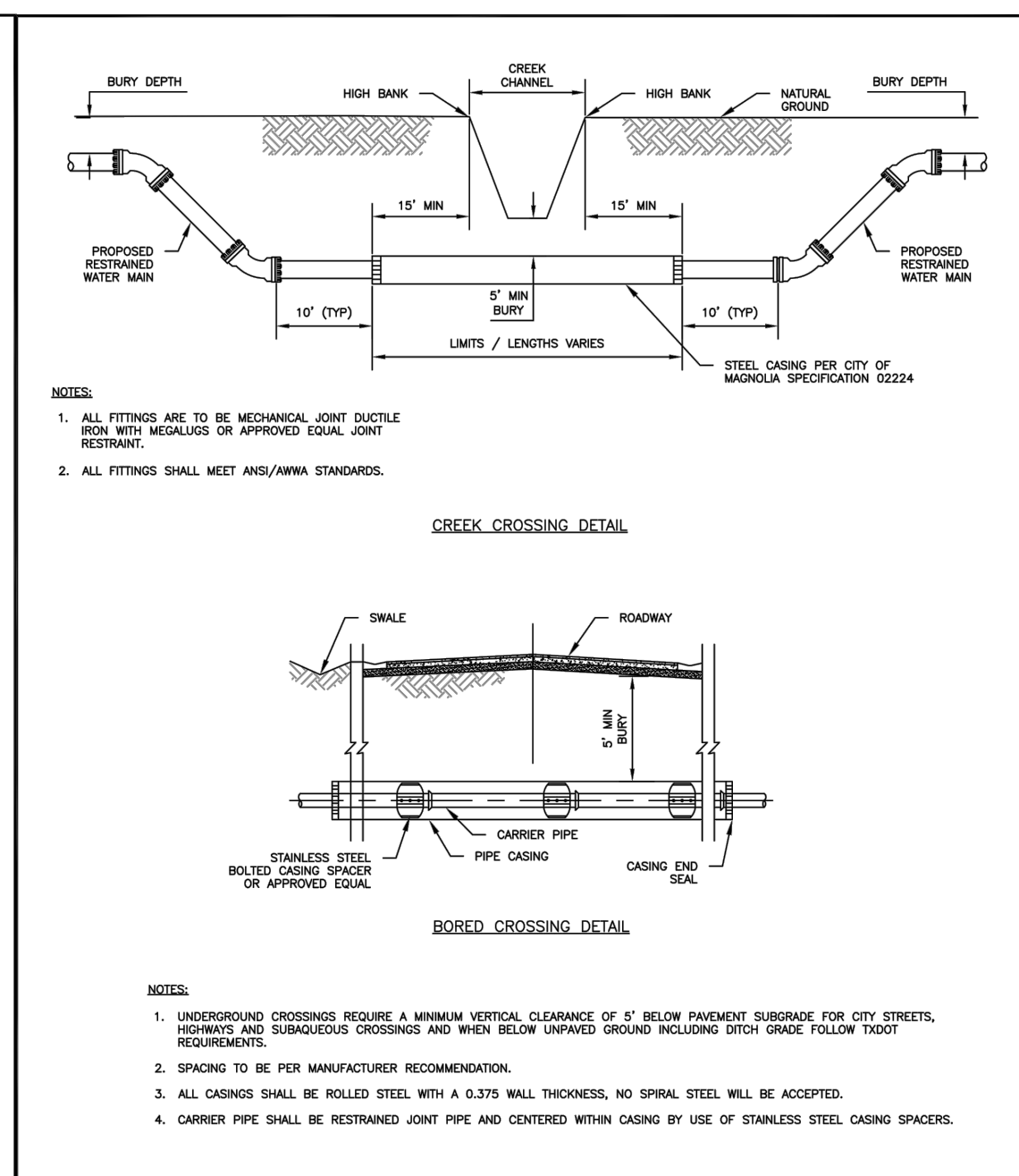
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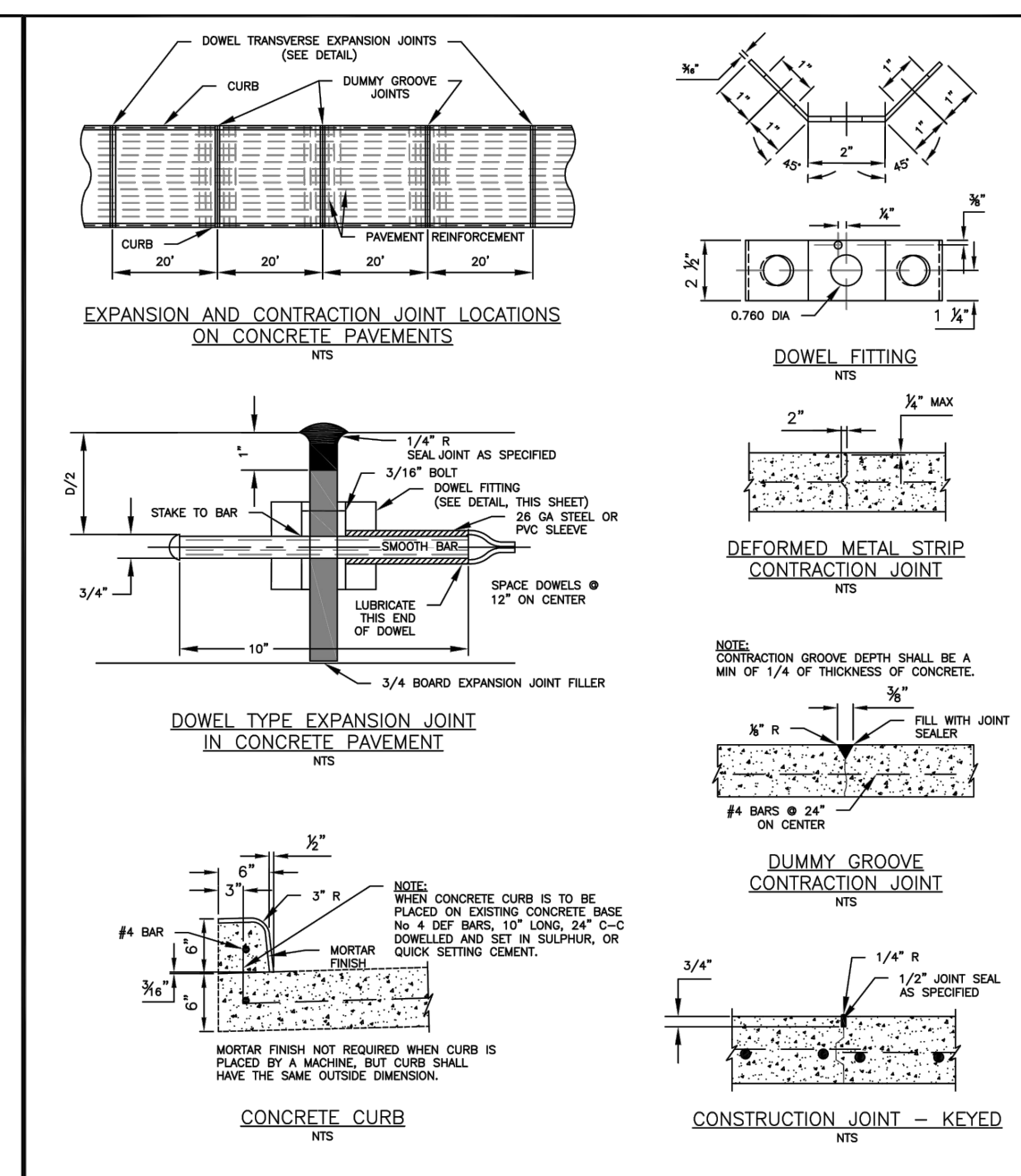
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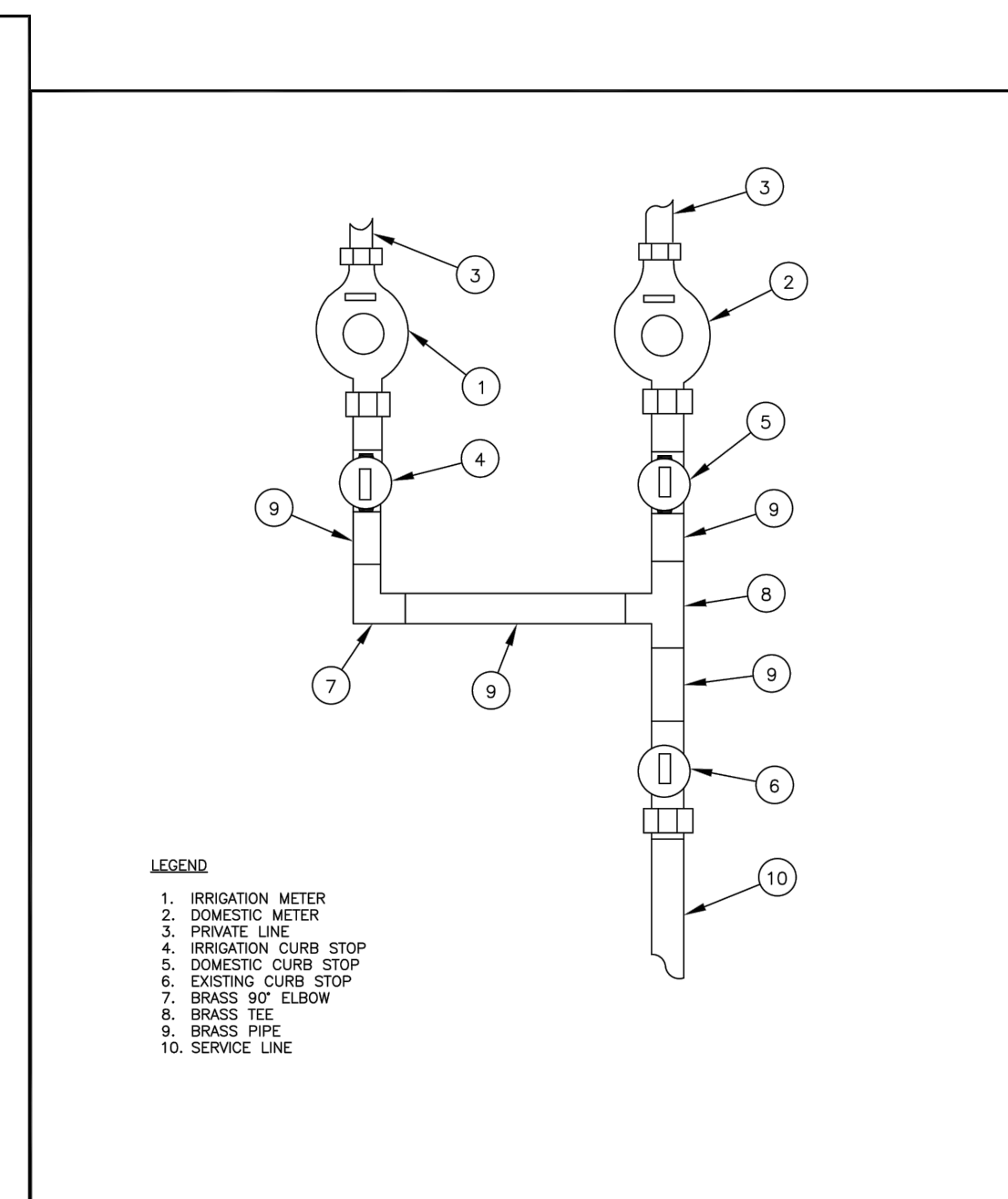
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CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



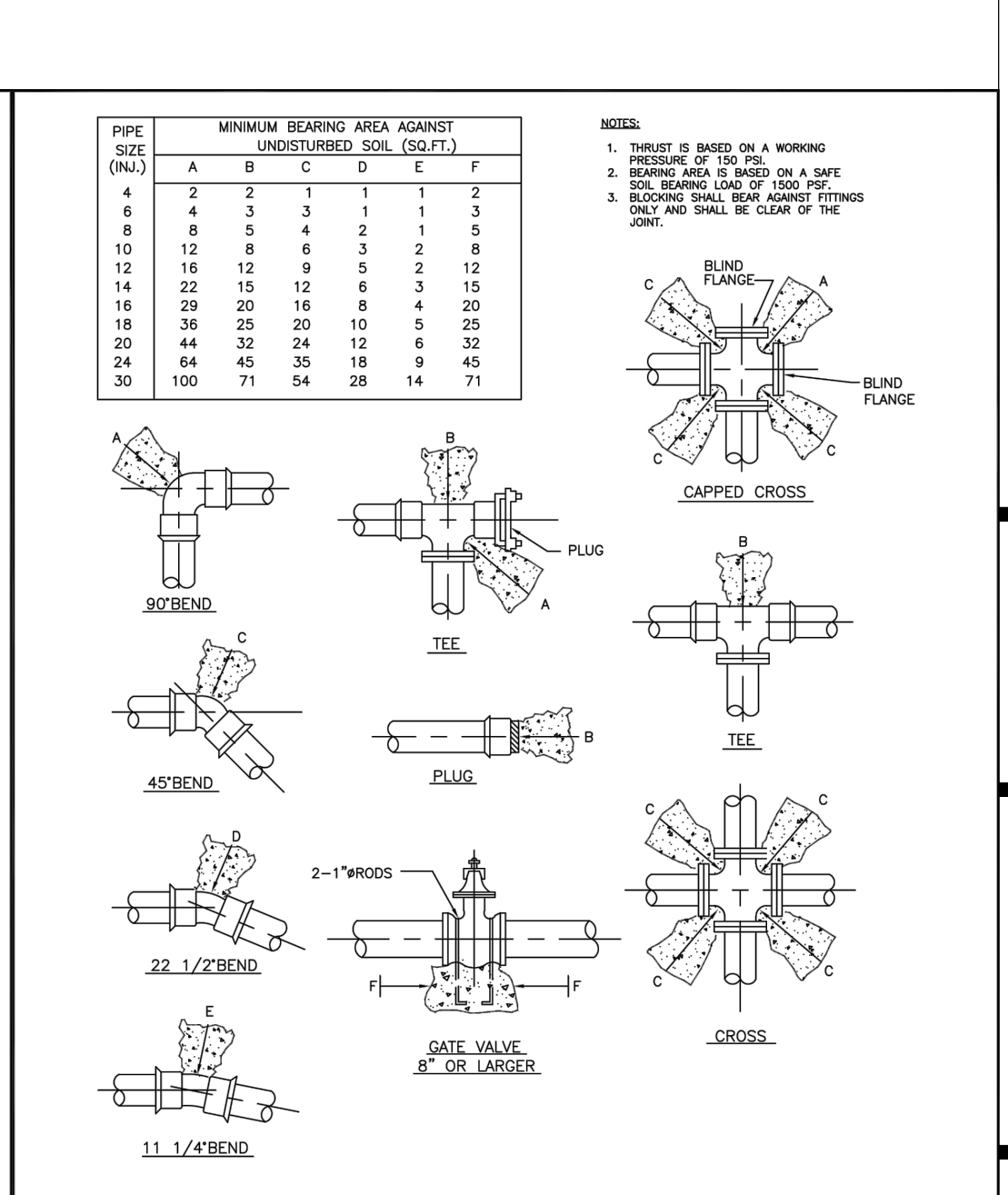
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CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



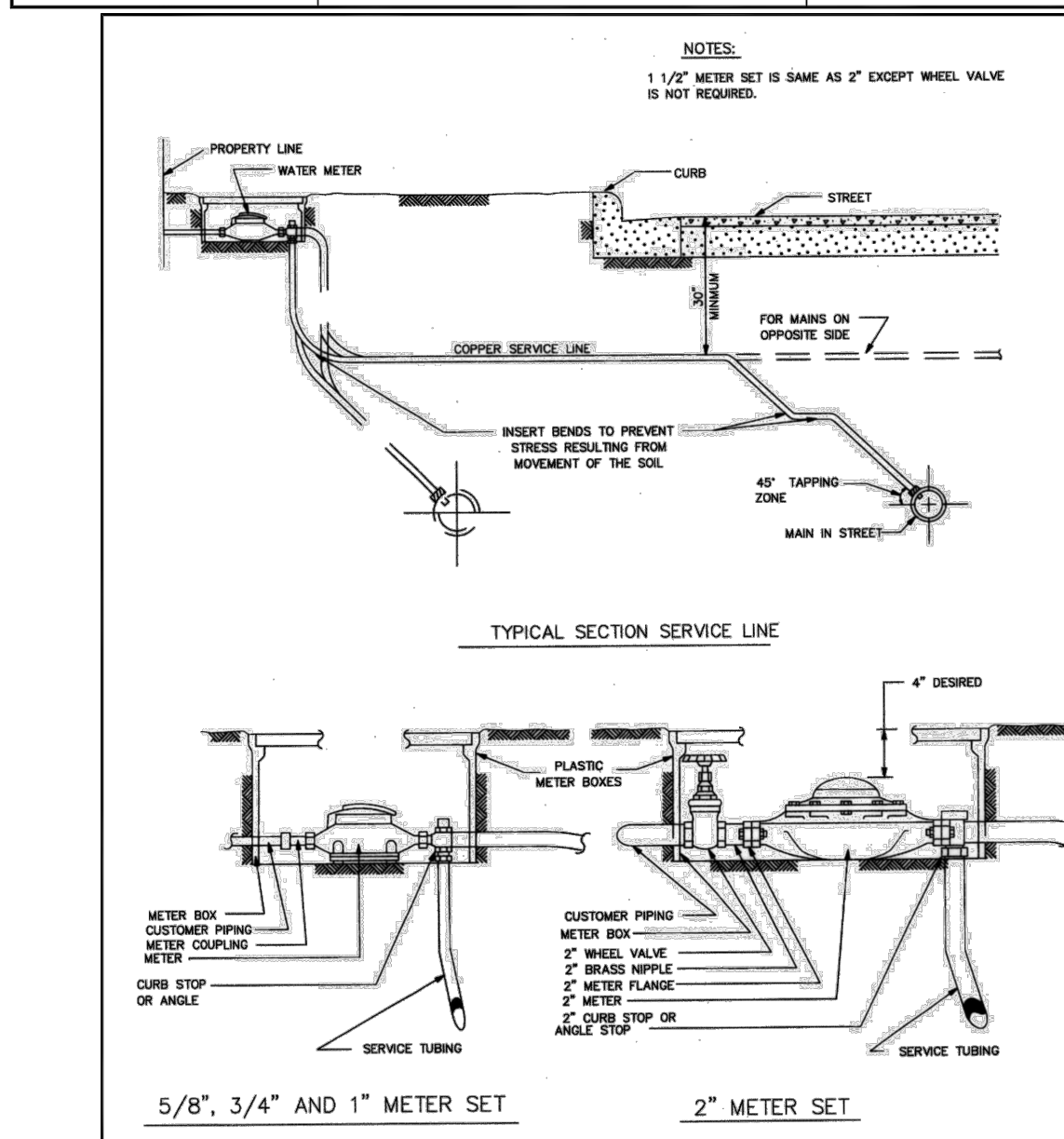
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EFFECTIVE DATE: 8/3/2022		



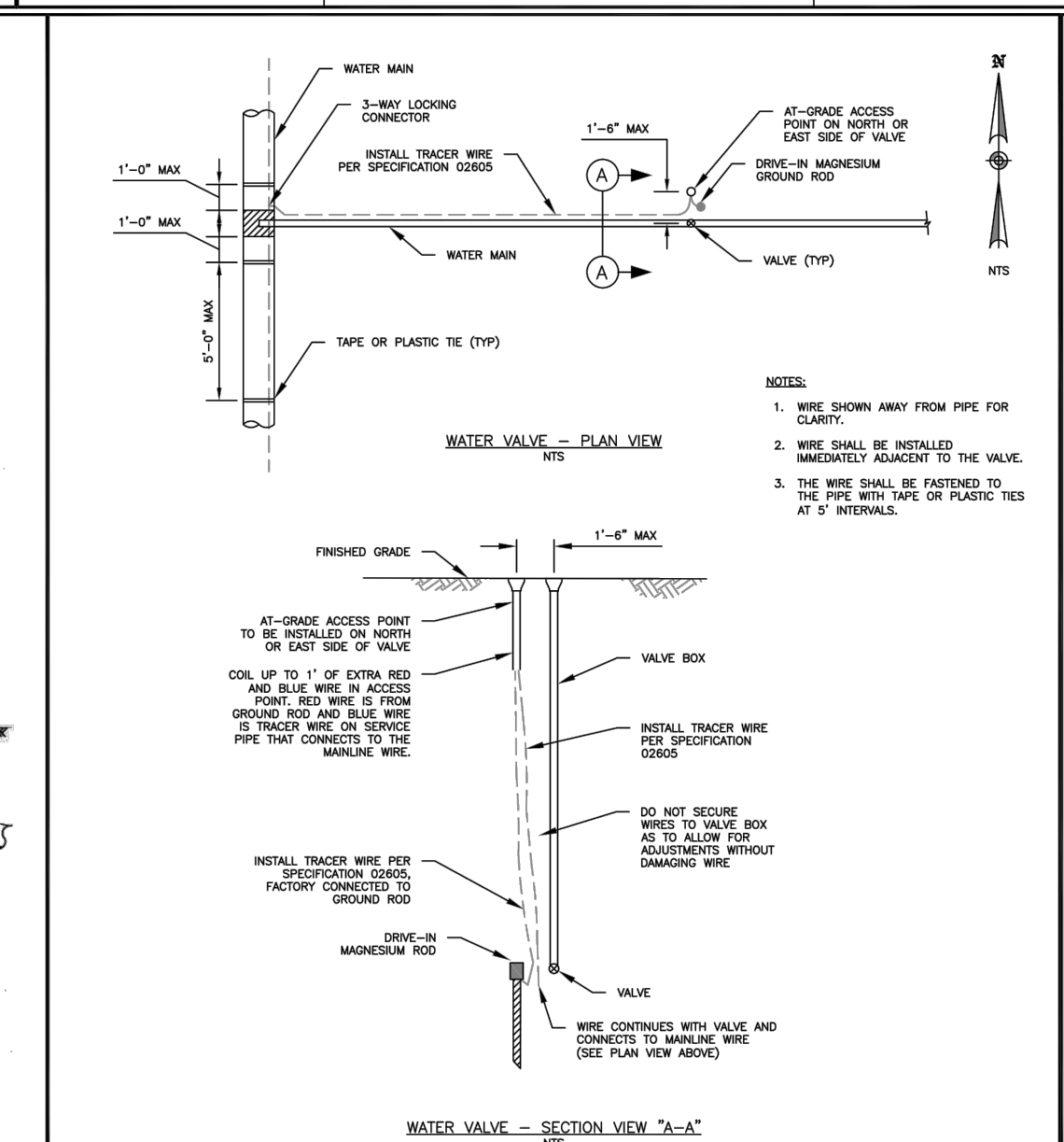
	SCHEMATIC IRRIGATION TEE OFF DOMESTIC 3/4\"/> 	DETAIL NO. WTR-08
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EFFECTIVE DATE: 8/3/2022		



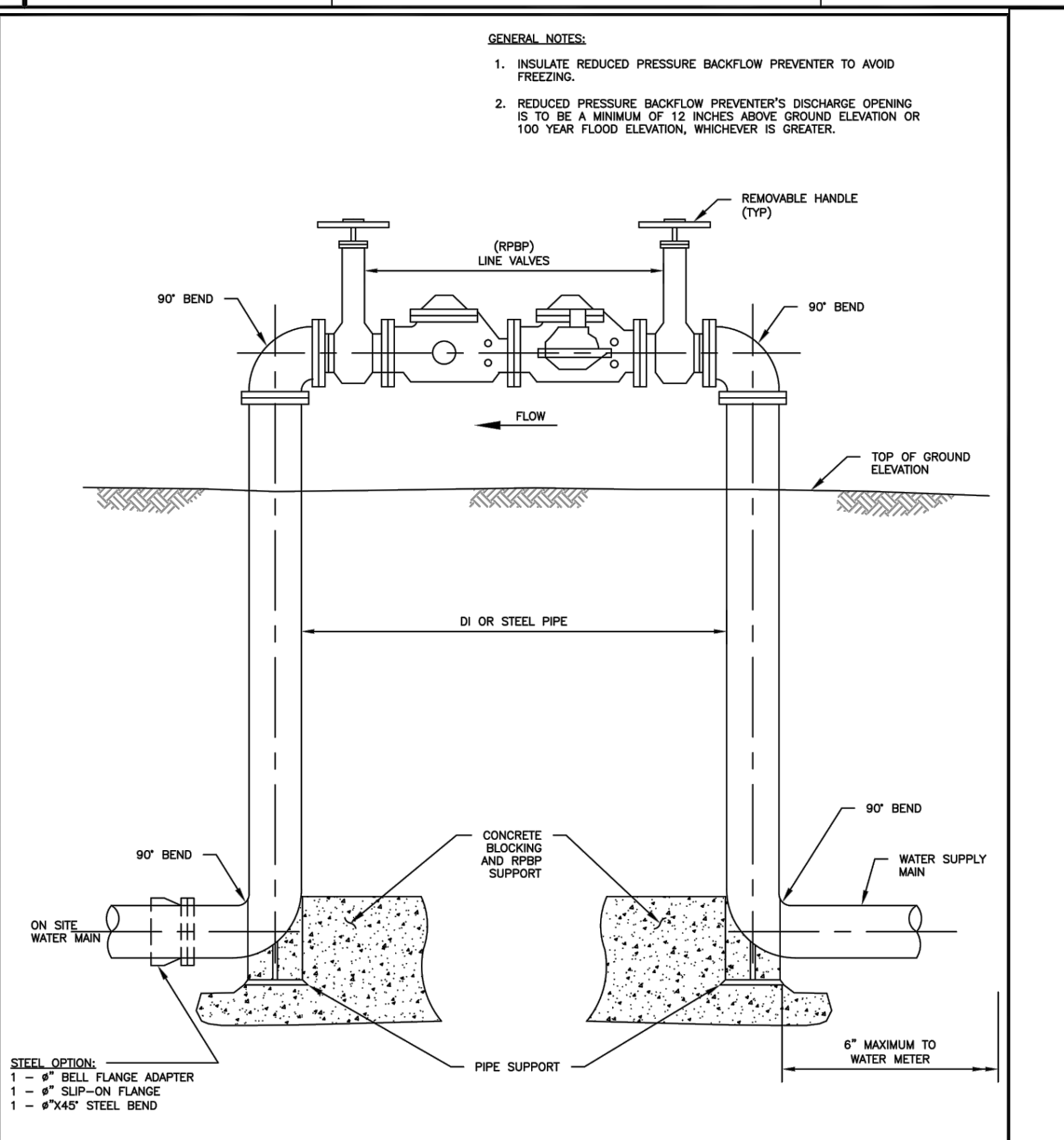
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CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



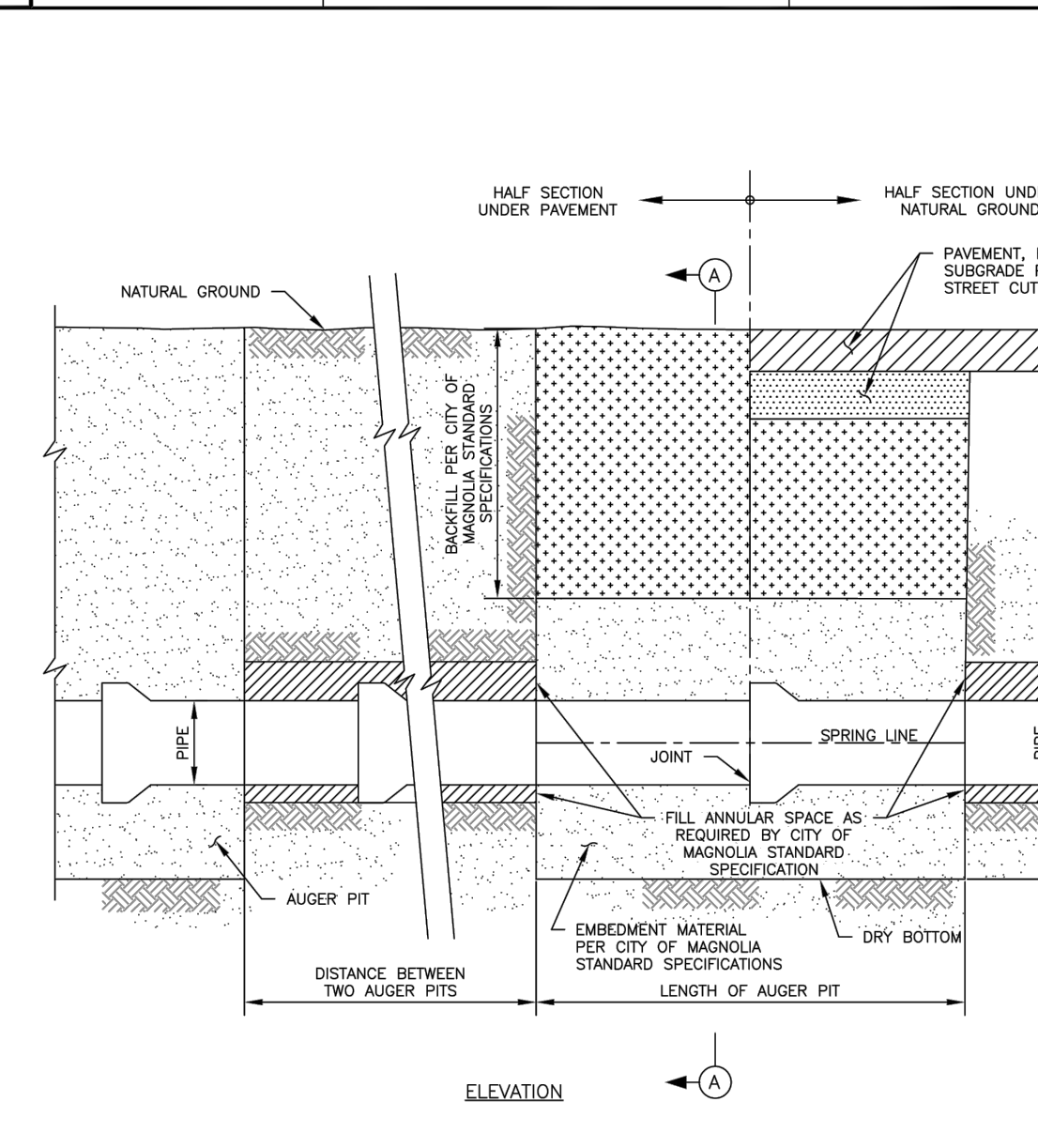
	TYPICAL METER SETTINGS	DETAIL NO. WTR-13
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EFFECTIVE DATE: 8/3/2022		



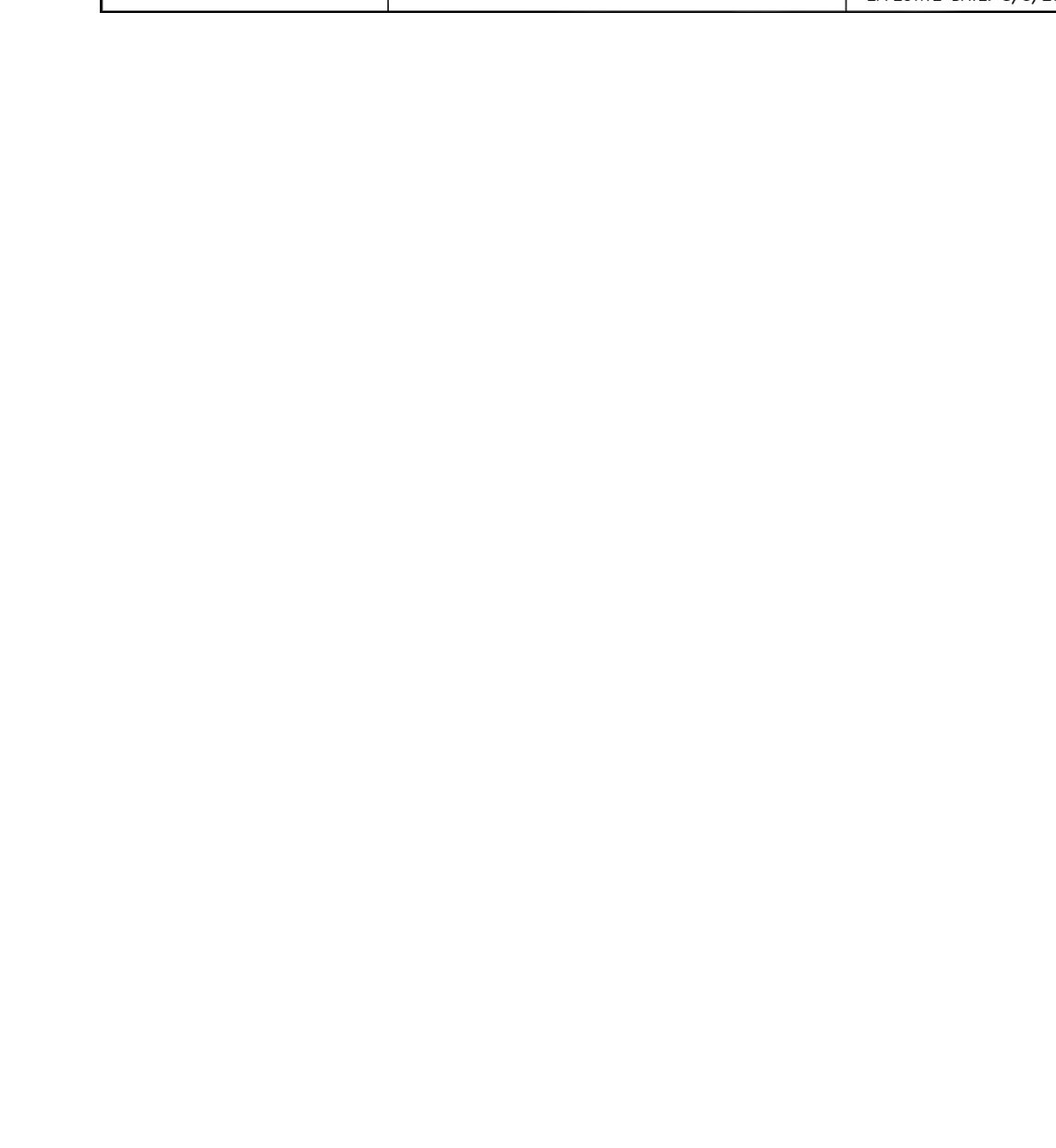
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EFFECTIVE DATE: 8/3/2022		



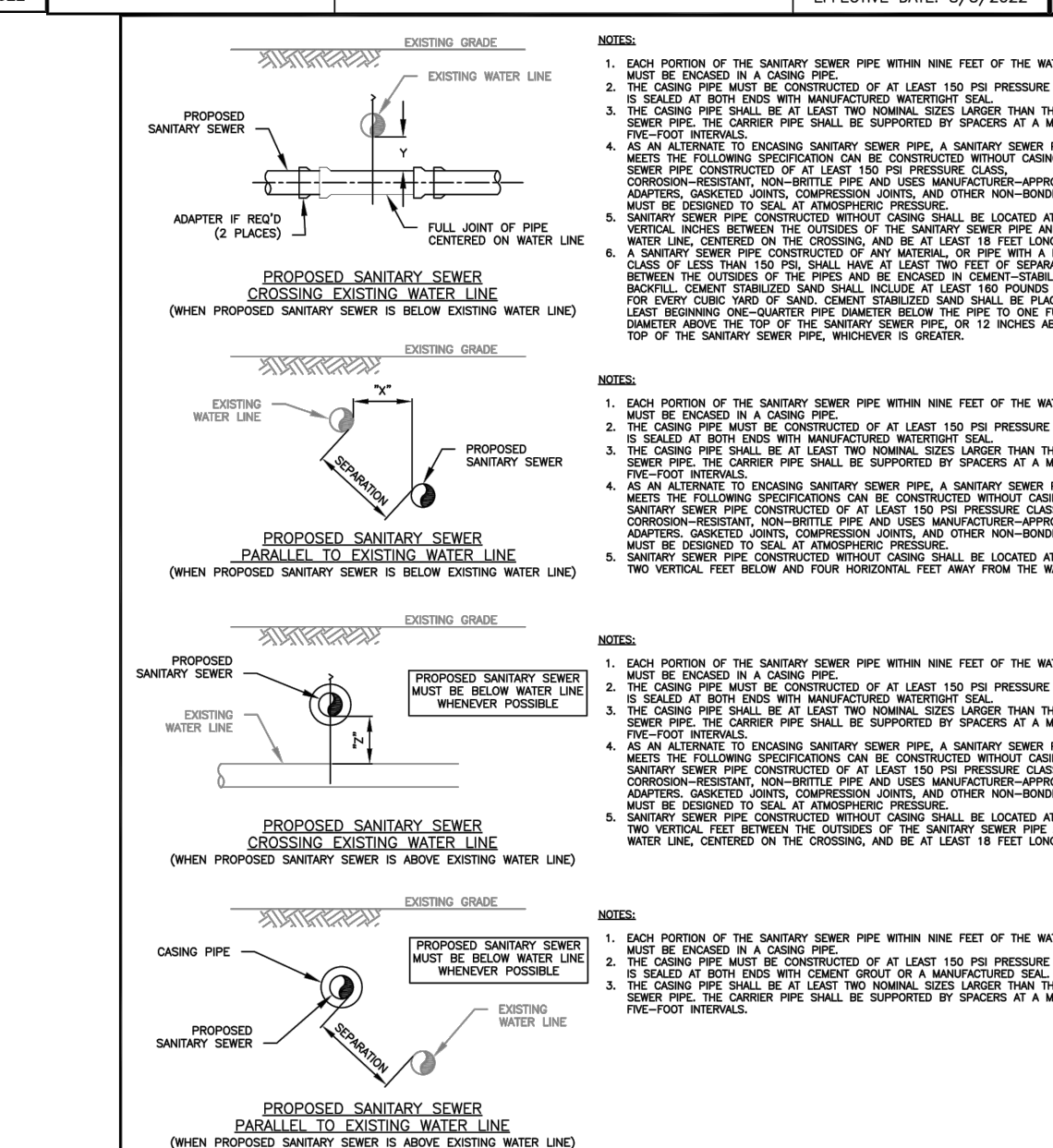
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CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



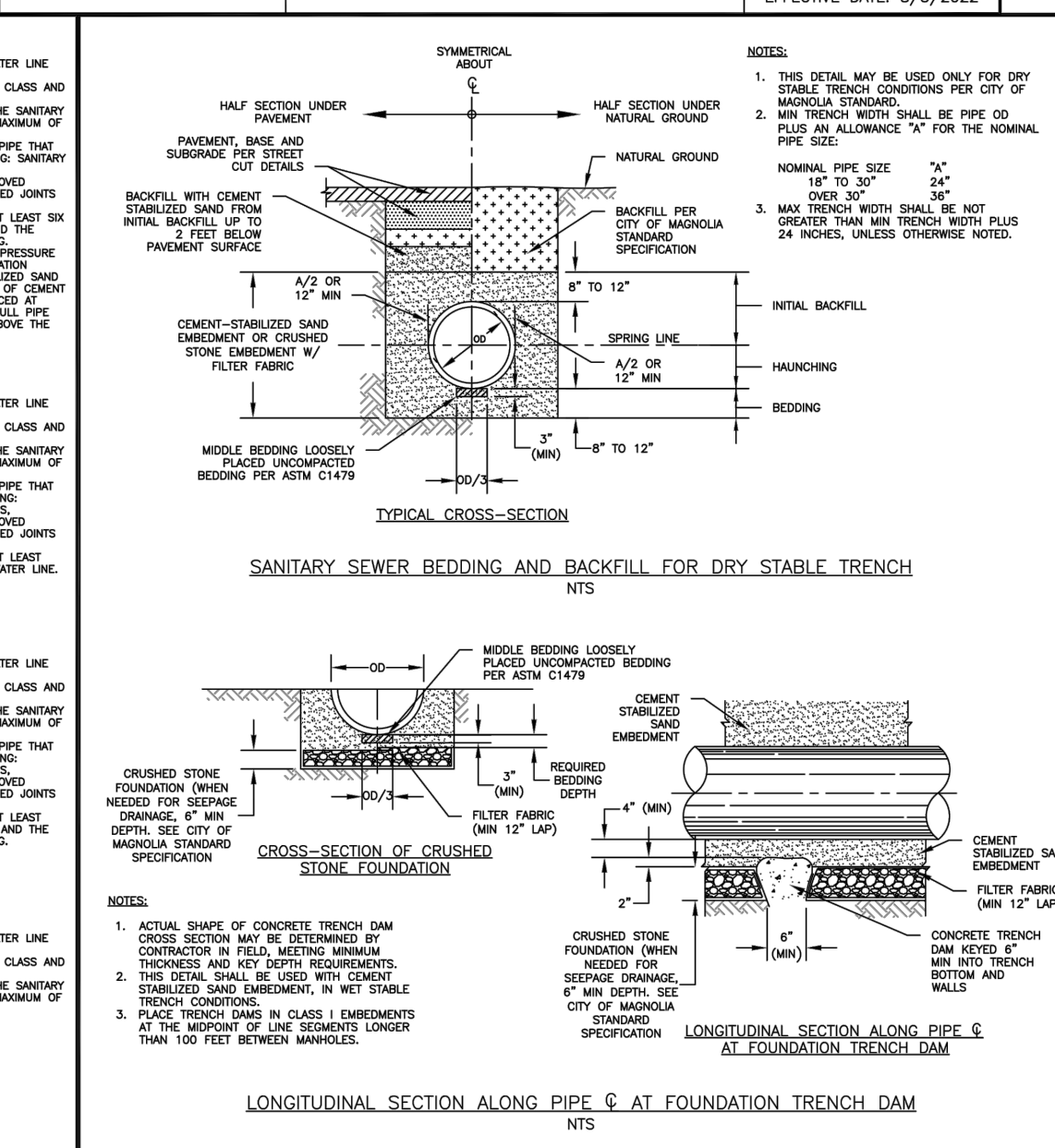
	BEDDING AND BACKFILL AUGER PIT AND AUGER HOLE	DETAIL NO. WTR-02
CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



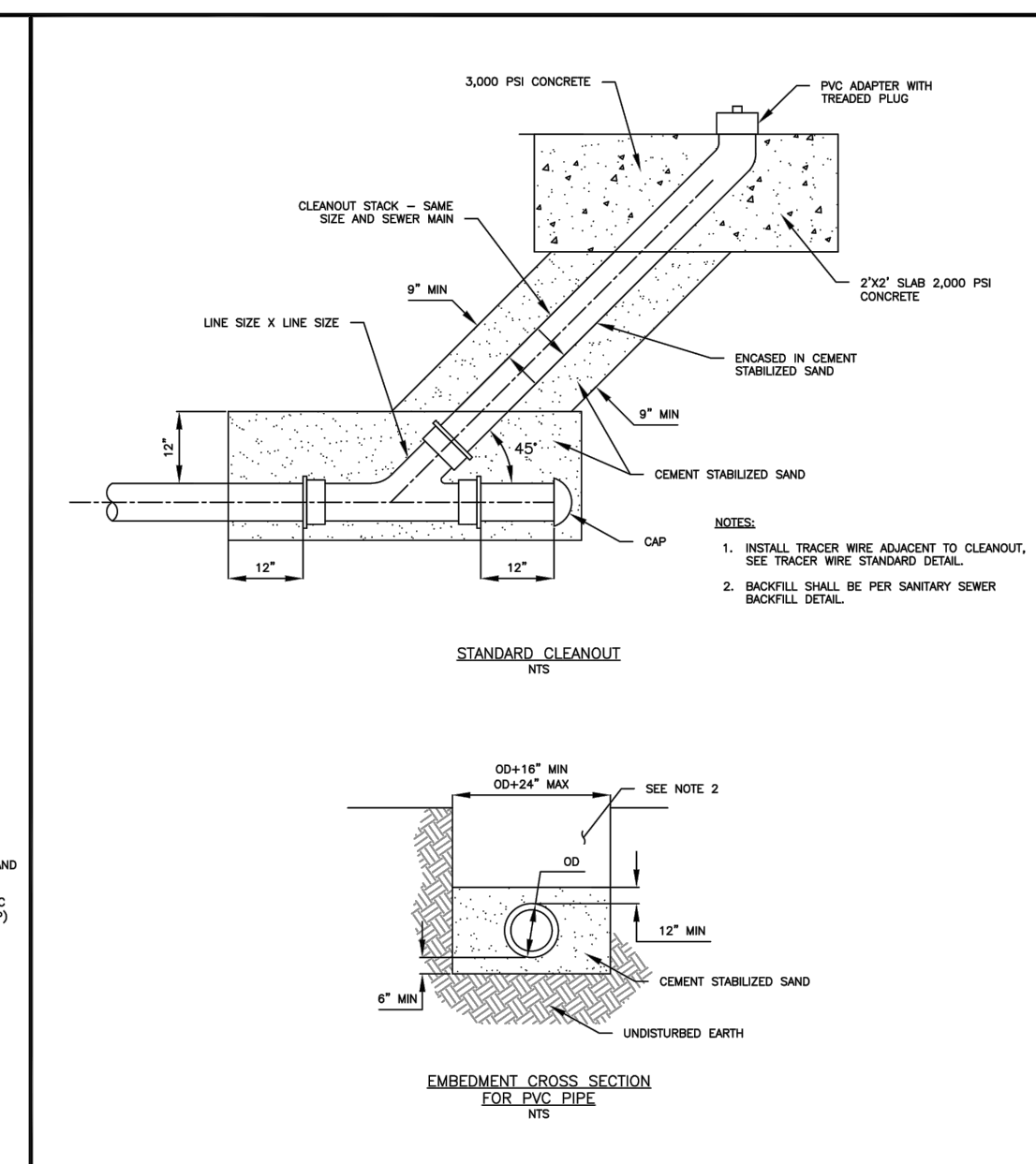
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CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



	SANITARY SEWER CRUSHED STONE BEDDING AND BACKFILL FOR WET AND DRY STABLE TRENCH	DETAIL NO. SAN-010
CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



	STANDARD CLEANOUT AND EMBEDMENT CROSS SECTION FOR PVC PIPE	DETAIL NO. SAN-012
CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		



	SANITARY SEWER SERVICE CONNECTION (TYP)	DETAIL NO. SAN-014
CITY OF MAGNOLIA STANDARD DETAIL		
EFFECTIVE DATE: 8/3/2022		

