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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN

FOR

HUB COMMERICAL DEVELOPMENT PICP

JULY 2025

PREPARED FOR

FORTUNE COMMERCIAL DEVELOPMENT, LLC
4413 APOLLONIA WAY
LEANDER, TEXAS 78641

PREPARED BY

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LJA JOB NO. A3452.0401

8/26/2025

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: HUB COMMERCIAL DEVELOPMENT						**2. Regulated Entity No.:**			
3. Customer Name: FORTUNE COMMERICIAL DEVELOPMENT						**4. Customer No.:**			
5. Project Type: **(Please circle/check one)**	(New)		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	(CZP)	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		(Non-residential)			**8. Site (acres):**			4.15
9. Application Fee:	$4,000		**10. Permanent BMP(s):**			Batch Det. WQ Basin			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Brushy Creek			

Application Distribution

Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	X
Region (1 req.)	___	___	X
County(ies)	___	___	X
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell X Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. CHARLES R. HAGER V, P.E. Print Name of Customer/Authorized Agent 8/26/2025 Signature of Customer/Authorized Agent — Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Charles Hager V, P.E.

Date: 7/31/2025

Signature of Customer/Agent:

Regulated Entity Name: Hub Commercial Development

Project Information

1. County: Williamson
2. Stream Basin: Brushy Creek
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

   Contact Person: Sohil Maknoija
   Entity: Fortune Commerical Development, LLC
   Mailing Address: 4413 Apollonia Way
   City, State: Leander, TX Zip: 78641
   Telephone: (512) 657-3675 Fax: _____
   Email Address: sohilhmak@gmail.com

5. Agent/Representative (If any):

Contact Person: Charles Hager V, P.E.
Entity: LJA Engineering, INC
Mailing Address: 7500 Rialto Boulevard, **Building 2, Suite 100**
City, State: Austin, Texas Zip: **78735**
Telephone: (512) 439-4700 Fax: _____
Email Address: chager@lja.com

6. Project Location:

☒ The project site is located inside the city limits of Leander.
☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
☐ The project site is not located within any city's limits or ETJ.

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

HUB Commercial development will be situated on the west side of CR 269 between Hero Way and RM 2243.

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

9. ☒ **Attachment B - USGS Quadrangle Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') is attached. The map(s) clearly show:

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:

☒ Area of the site
☒ Offsite areas
☒ Impervious cover
☒ Permanent BMP(s)
☒ Proposed site use
☒ Site history
☒ Previous development
☒ Area(s) to be demolished

11. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site
☐ Existing residential site

☐ Existing paved and/or unpaved roads
☒ Undeveloped (Cleared)
☐ Undeveloped (Undisturbed/Not cleared)
☐ Other: _____

12. The type of project is:

☐ Residential: # of Lots: _____
☐ Residential: # of Living Unit Equivalents: _____
☒ Commercial
☐ Industrial
☐ Other: _____

13. Total project area (size of site): 4.151 Acres

Total disturbed area: 4.151 Acres

14. Estimated projected population: 0

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	***Sq. Ft.***	***Sq. Ft./Acre***	***Acres***
Structures/Rooftops	6,150	÷ 43,560 =	0.14
Parking	34,556	÷ 43,560 =	0.79
Other paved surfaces	3,124	÷ 43,560 =	0.072
Total Impervious Cover	43,830	÷ 43,560 =	1.01

Total Impervious Cover 1.01 **÷ Total Acreage** 4.151 **X 100 =** 24**% Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

☒ N/A

18. Type of project:

- ☐ TXDOT road project.
- ☐ County road or roads built to county specifications.
- ☐ City thoroughfare or roads to be dedicated to a municipality.
- ☐ Street or road providing access to private driveways.

19. Type of pavement or road surface to be used:

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

Length of R.O.W.: _____ feet.
Width of R.O.W.: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

Length of pavement area: _____ feet.
Width of pavement area: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

22. ☐ A rest stop will be included in this project.

☐ A rest stop will not be included in this project.

23. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

24. ☒ **Attachment E - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

25. ☒ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☐ N/A

26. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

☐ **Attachment F - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☒ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the Leander Wastewater Plan (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

34. ☒ The Site Plan must have a minimum scale of 1" = 400'.

    Site Plan Scale: 1" = 40'.

35. 100-year floodplain boundaries:

    ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

    ☒ No part of the project site is located within the 100-year floodplain.

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRM PANEL 48491C0455F, Effective December 20, 2019 .

36. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

    ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

39. ☒ Areas of soil disturbance and areas which will not be disturbed.

40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. ☒ Locations where soil stabilization practices are expected to occur.

42. ☒ Surface waters (including wetlands).

    ☐ N/A

43. ☒ Locations where stormwater discharges to surface water.

    ☐ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    ☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

47. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

☐ N/A

48. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.

☐ N/A

49. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

☐ N/A

50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.

☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.

☒ The site will not be used for low density single-family residential development.

51. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

    ☐ **Attachment I - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
    ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
    ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

52. ☒ **Attachment J - BMPs for Upgradient Stormwater**.

    ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
    ☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
    ☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

53. ☒ **Attachment K - BMPs for On-site Stormwater**.

    ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.
    ☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

54. ☒ **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

    ☐ N/A

55. ☒ **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

    ☐ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☐ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
    ☐ Contains a discussion of record keeping procedures

    ☐ N/A

57. ☐ **Attachment O - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

58. ☒ **Attachment P - Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that result in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

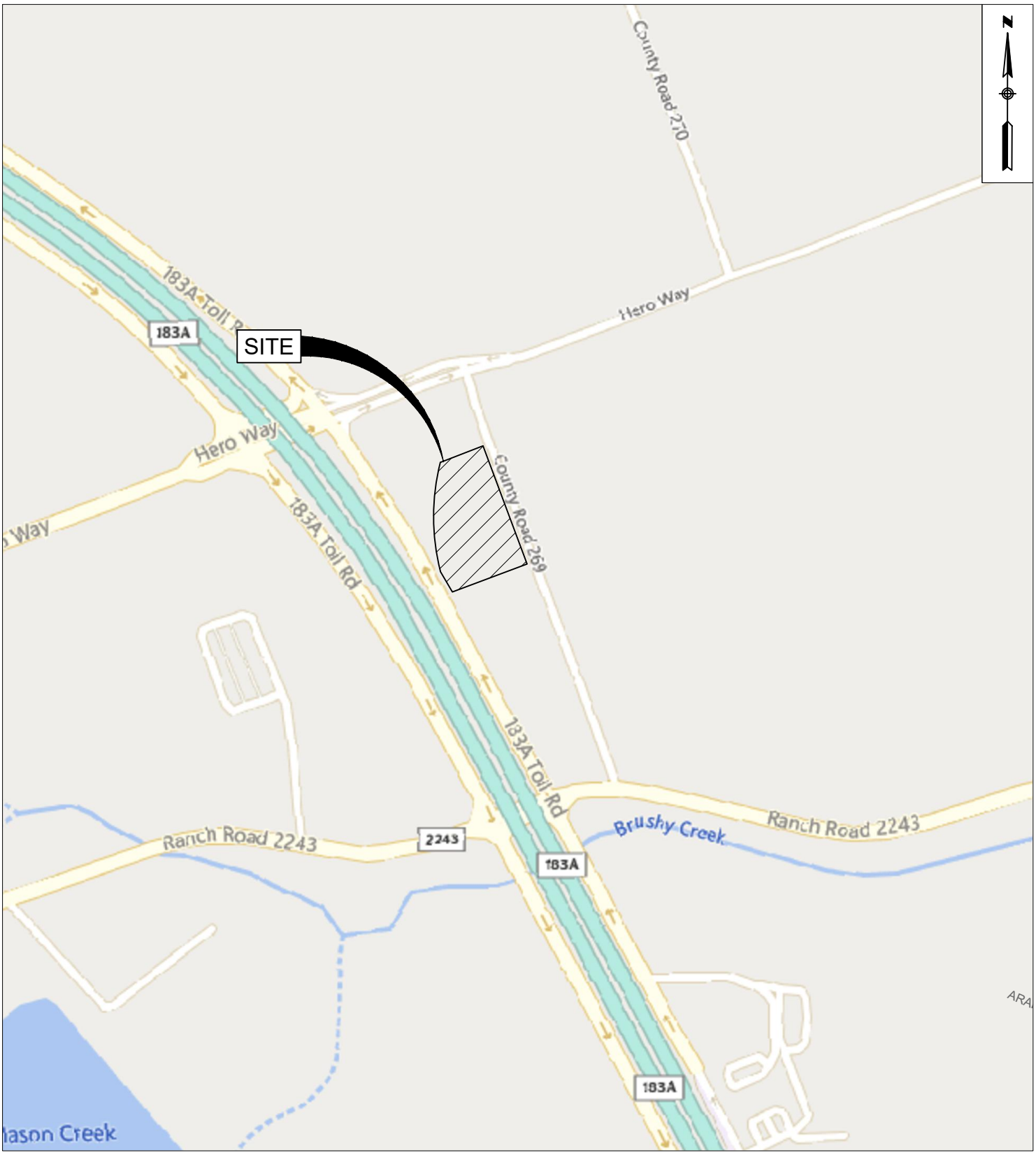
61. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. ☒ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

☒ The Temporary Stormwater Section (TCEQ-0602) is included with the application.

ATTACHMENT A – Road Map



LJA Engineering, Inc.

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Suite 100
Austin, Texas 78735

Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

ROAD MAP

HERO WAY 5.65-AC

HERO WAY RD & 183A TOLL ROAD,
LEANDER, TEXAS 78641

ATTACHMENT A

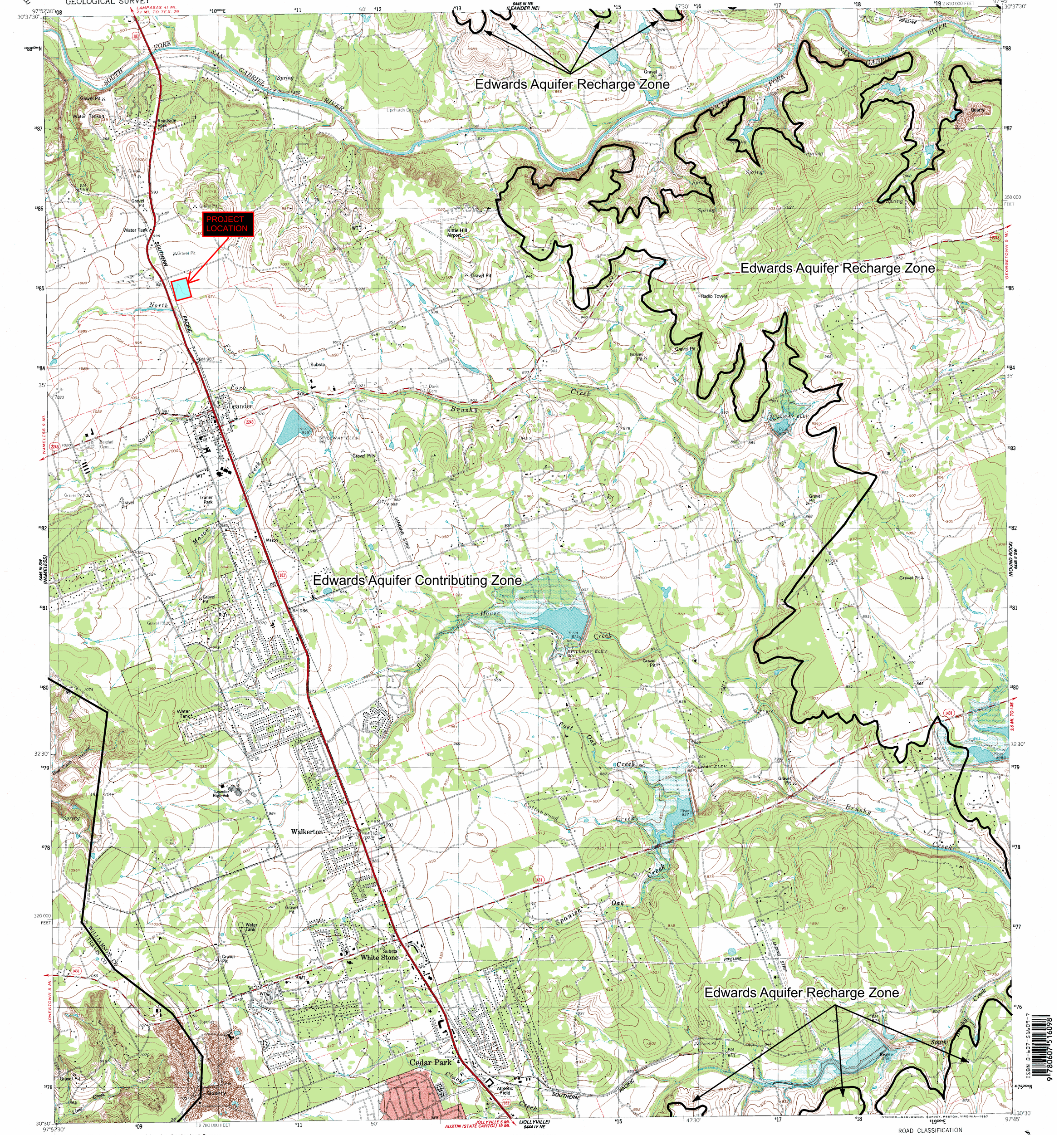
600 300 0 600 1200

SCALE IN FEET

1" = 600'

ATTACHMENT B – USGS Quadrangle Map

ATTACHMENT B



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1963. Revised from aerial photographs taken 1985. Field checked 1986. Map edited 1987

Projection and 10,000-foot grid ticks: Texas coordinate system, central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983 move the projection lines 17 meters south and 28 meters east as shown by dashed corner ticks

Fine red dashed lines indicate selected fence line

UTM GRID AND 1987 MAGNETIC NORTH DECLINATION AT CENTER OF MAP DIAGRAM IS APPROXIMATE

Red tint indicates areas in which only landmark buildings are shown

Areas covered by dashed light-blue pattern are subject to controlled inundation

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

3097–321

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

LEANDER, TEX.
30097–E7–TF–024

1987

DMA 6445 III SE–SERIES V882

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program

Regulatory Zones

30 TAC Chapter 213- Edwards Aquifer
Effective May 1985

This map was produced by the Groundwater Planning and Assessment Team of the Texas Commission on Environmental Quality to detail the boundaries of the regulatory zones of the Edwards Aquifer Protection Program, as described in Texas Administrative Code Title 30, Part 1, §213.3. No other claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information about the Edwards Aquifer Protection Program, please contact the TCEQ Regional Offices in San Antonio or Austin. Printed June 2006.

ATTACHMENT C - PROJECT NARRATIVE

The proposed Hub Commercial Development improvements include ROW improvements to County Road 269 and 183A Frontage Road, and Site Development Plans of Lot 1 that include a convenience store / gas station (6,150 SF and 16 fueling lanes). The subject site is 4.151 acres located in the Elijah D. Harmon Survey, Abstract No. 6 in Willamson County (recorded in Document No. 216086336 O.P.R.W.C.T.). The subdivision's County Tax ID Number is: R346169. The site is located on the west side of CR 269 between Hero Way and RM 2243. The subject site is currently undeveloped and will be zoned GC-3-A PUD for a C-store and Gas Station use.

The entire site drains to Brushy Creek located near RM 2243. No portion of the subject tract is within the 100-Year Flood Plain, as shown on the FEMA Flood Insurance Rate Map for Williamson County, Texas, Map NO. 48491C0455F, with an effective date of December 20, 2019. The subdivision's FEMA FIRMETTE. The subdivision is located within Edward's Aquifer Contributing Zone per TCEQ maps. Water Quality improvements are indicated on the enclosed PICP and SDP plans sets and are required to be sized to serve the subject subdivision and future improvements.

Water quality treatment will be provided for the project by a proposed batch detention water quality with staked detention basin BMP which shall be designed in accordance with TCEQ criteria. The water quality pond is sized to treat the entire development, and this application is provided for the initial Lot 1 site development improvements and associated public improvements.

The BMP is designed to treat 3.26-acres of runoff and associated impervious cover. The current project improvements propose approximately 43,830-sf of impervious cover within the subdivision that drains to the pond and approximately 11,768-sf of other impervious cover for required public access improvements that will not drain to the pond and therefore are being treated via compensatory water quality treatment. The BMP does not receive offsite or upgradient stormwater from outside of the subdivision. The project includes diversions and improvements to prevent offsite areas from impacting the BMP.

Developed condition flows are conveyed in the BMP via natural overland condition, engineered swales, and stormwater collection systems. The BMP is designed to provide the ultimate 18,107-cf water quality volume (14,906-cf required as part of this application), or up to the design water quality elevation of 937.33, with weirs and other detention improvements proposed above that elevation to meet detention requirements. The basin's top of bank will be set to 940.60', with a 100-year stormwater elevation of 940.10'. The BMP is designed with a grassed bottom sloped at 1% to the water quality intake riser. Water within the water quality volume of the BMP is designed to flow through the intake riser and 6" pipe to a 4' diameter control manhole. The manhole includes a logic controlled actuator valve that will hold the water quality volume after rain events as required for batch detention water quality ponds, releasing only water quality flow to the proposed outfall (10'x3' RCBC). The 6" drain line will have a 6" inline check valve to prevent any backflow into the BMP.

Temporary erosion controls consisting of silt fence, rock berms, concrete washout, and stabilized construction entrances, and limits of construction fencing will be installed per the site plan's Erosion and Sedimentation Control Plan prior to commencement of ground disturbance. Permanent erosion controls will include seeding/hydro mulch on all unpaved areas and rock ripraps at storm sewer and detention pond outlets. There are no existing improvements to be demolished.

ATTACHMENT D – FACTORS AFFECTING SURFACE WATER QUALITY

The following factors could have an impact on surface and groundwater quality during construction:

1. Non-Stormwater Discharges: It is expected that the following non-stormwater discharges will occur from the site during the construction period:

   - Water from water line flushing
   - Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred)
   - Uncontaminated groundwater (from dewatering of excavation)
   - All non-storm water discharges will be directed towards erosion control structures prior to discharge

2. Material Inventory: The materials or substances listed below are expected to be present onsite during construction:

   - Concrete and concrete products
   - Metal reinforcing materials - rebar, welded wire fabric
   - Fertilizers
   - Petroleum-based products
   - Wood
   - Plastic (PVC) and metal pipe and fittings
   - Paints
   - Rock, gravel, sand, and soil

The following factors could have an impact on surface and groundwater quality after construction:

1. Increased Impervious Cover: The total area of the site 4.151-AC is previously undeveloped with an impervious cover percentage of 0.0%. The proposed improvements for this application will increase impervious cover to 30.9% of the subdivision area.

2. Revegetation / Water Quality Treatment of Stormwater: Permanent erosion controls will include seeding/hydro mulch on all unpaved areas and rock riprap at storm sewer and detention pond outlets. Runoff from the completed project will be routed to the proposed water quality and detention system.

ATTACHMENT E – VOLUME AND CHARACTER OF STORMWATER

The proposed site improvements will generate 1.01 acres of impervious cover over the 3.26-acre (onsite) drainage area captures by the proposed batch detention water quality pond. Surface runoff from all areas of the developed area of the subdivision will be captured by the proposed swales, gutters, and storm drain inlets and conveyed by storm sewers to the BMP.

The proposed water quality improvements consist of a single treatment method via a proposed Batch Detention Water Quality Basin with Stacked Detention (Pond A). There is a 6" PVC intake riser that will treat and route water quality flows to the outfall of the Pond A, which outfalls under the proposed driveway located on 183A Frontage Rd. The proposed Pond A will receive impervious cover runoff from the developed portion of the 4.151-ac site / 3.26-ac drainage area and requires a water quality capture volume of 14,906 cubic feet (CF), per the attached TCEQ TSS Removal Calculations. To meet TCEQ requirements, the required water quality capture depth is 4.0 inches, which results in a required water quality volume of 12,421 CF + 20% additional volume. The water quality volume provided is 18,107 CF. All runoff volume associated with the 4.0-inch capture depth will enter the proposed water quality pond and collect in the grassed basin. The stormwater will filter through a 6" intake riser and logic-controlled actuator before ultimately discharging to the site's outfall.

The proposed Water Quality Pond is sufficient to provide adequate TSS removal per TCEQ requirements. There are no known additional water quality treatment requirements and will not include secondary or tertiary water quality treatment.

Upon the initial rain event, the stormwater will convey through Water Quality Pond A and discharge through a 6" perforated riser PVC pipe that treats and routes flow back to the main pond 36" RCP outfall. Pond A is designed to have a logic-controlled actuator on the 6" discharge pipe that will allow for the pond to drain between 24 and 72 hours. Per the requirements for batch detention, Water Quality Pond A is intended to drain within 60 hours.

Stormwater runoff in excess of the initial 4.0-inch water quality capture depth for Pond A will flow over the proposed Outfall Control Structure weirs into the Outfall Control Structure. The stacked detention portion of the pond provides 2-, 10-, 25-, and 100-year detention for the site.

Pond A drainage area runoff coefficients for the 25-year and 100-year events before construction are estimated to be 0.39 and 0.46, respectively. The post construction run off coefficients are expected to be 0.27 and 0.95 for the overall developed site, respectively.

The water quality calculations are based on the TCEQ Technical Guidance Manual (July 2005) for the proposed water quality pond, which is provided on the next page.

ATTACHMENT E

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **Pond A - For Lot 1 & PICP Improvements**
Date Prepared: **8/25/2025**

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	**Williamson**	
Total project area included in plan * =	**4.15**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	**1.01**	acres
Total post-development impervious cover fraction * =	**0.24**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**876**	lbs.

*** The values entered in these fields should be for the total project area.**

Number of drainage basins / outfalls areas leaving the plan area = **1**

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = **D1.1**

Total drainage basin/outfall area =	**3.26**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.01**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.31**	
$L_{M\ THIS\ BASIN}$ =	**876**	lbs.

Compensitory Drainage Provided by Lot 1 Water Quality Pond Summary

Total drainage basin/outfall area =	**1.20**	acres	<--AREAS WITH NEW IMPERVIOUS COVER NOT DRAINING TO BMP
Predevelopment impervious area within drainage basin/outfall area =	**0.15**	acres	(SEE SHEET DM03, AREAS C1-C3 & RTL)
Post-development impervious area within drainage basin/outfall area =	**0.41**	acres	
Post-development impervious fraction within drainage basin/outfall area =	**0.34**		
$L_{M\ (Compensitory)}$ =	**230**	lbs.	
$L_{M\ (TOTAL)}$ =	**1106**	lbs.	

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Extended Detention** (Batch Detention Basin)
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**3.26**	acres
A_I =	**1.01**	acres
A_P =	**2.25**	acres
L_R =	**1049**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1106** lbs.

F = **1.05**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.26**	
On-site Water Quality Volume =	**12421**	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	**0**	acres
Off-site Impervious cover draining to BMP =	**0**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2484**	cubic feet
Total Capture Volume (required water quality volume(s) x 1.20) =	**14906**	cubic feet

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin =	**14906**	cubic feet
PROVIDED WATER QUALITY VOLUME=	**18107**	cubic feet

ATTACHMENT F – Suitability Letter from Authorized Agent (if OSSF is proposed)
Not Applicable.

ATTACHMENT G – Alternative Secondary Containment Methods
Not Applicable.

ATTACHMENT H – AST Containment Structure Drawings (if AST is proposed)
Not Applicable.

ATTACHMENT I – 20% or Less Impervious Cover Waiver
Not applicable.

ATTACHMENT J – BMPs for Upgradient Stormwater
Not Applicable.

ATTACHMENT K – BMPs for On-Site Stormwater
Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fences will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will be rough graded to act as sediment traps for the project. All runoff from the developed site will be directed into the rough-cut water quality ponds using silt fence and grading during construction until curb and gutter is installed. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas through use of a sand filter type water quality pond. The storm water runoff from the developed site areas will be collected in storm drain inlets and storm drainpipes and conveyed to the specified splitter box and water quality pond improvements. The functionality of the proposed water quality improvements is as described previously in Attachment E.

ATTACHMENT L – BMPs for Surface Streams
Temporary Controls: Prior to site clearing, grading and excavation, the stabilized construction entrance will be installed, tree protection/limit of construction fencing will be installed, and silt fences will be installed at the downstream edge of disturbed areas where shallow sheet runoff occurs. Rock berms will be placed where more concentrated flow occurs. The water quality ponds will be rough graded to act as a sediment trap for the project. All runoff from the developed site will be directed into the rough-cut water quality pond using silt fence and grading during construction until curb and gutter is installed. During all aspects of construction, the contractor shall maintain these controls. The contractor will be responsible for stabilization practices (revegetation). The contractor will be responsible for removing the temporary controls once the revegetation is established.

Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas through use of a sand filter type water quality pond. The storm water runoff from the developed site areas will be collected in storm drain inlets and storm drainpipes and conveyed to the specified splitter box and water quality improvements. The functionality of the proposed water quality improvements is as described previously in Attachment E.

ATTACHMENT M – CONSTRUCTION PLANS
The Hub Commercial Development 4.151-AC construction and site plans are attached to this application.

ATTACHMENT N - INSPECTION, MAINTENANCE, REPAIR, AND RETROFIT PLAN
See attached document labeled "Maintenance Plan for Permanent Best Management Practices for Hub Commercial Development".

ATTACHMENT O – Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs
Not Applicable

ATTACHMENT P – Measures for Minimizing Surface Stream Contamination
Permanent Controls: After construction there will be runoff from building surfaces, paved areas and managed lawn/landscape areas. These areas will be mitigated by permanent revegetation of disturbed areas through use of a sand filter type water quality pond. The storm water runoff from the developed site areas will be collected in storm drain inlets and storm drainpipes and conveyed to the Water Quality Pond A. The functionality of the proposed water quality improvements is as described previously in Attachment E.

Stormwater runoff more than the provided water quality volume will flow over the proposed splitter weir into the adjacent detention basin. The proposed detention basins will provide 2-, 10-, 25-, and 100-Year detention for the contributing drainage area and associated impervious cover. The only uncontrolled discharges from the proposed site will be from existing undisturbed areas that will decrease in size post construction due to the proposed involvement.

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Charles Hager V, P.E.

Date: 8/25/2025

Signature of Customer/Agent:

Regulated Entity Name: Hub Commercial Development

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site:

   These fuels and/or hazardous substances will be stored in:

   ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Brushy Creek

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures**. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☒ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

ATTACHMENTS TO FORM 0602

ATTACHMENT A - Spill Response Actions

Possible sources of a hydrocarbon or other hazardous substance spill would be from a construction vehicle leaking fuel, lubricants, coolants, etc. Potential leakage is not likely to be significant and any soil that appears to be contaminated will be removed and disposed of in a TCEQ certified landfill. If it is determined that a reportable spill has occurred as defined in 30 TAC Chapter 327, the TCEQ shall be notified by phone at the regional office (512) 339-2929 or at the State Emergency Response Center (800) 832-8224 as soon as possible. Requirements under 30 TAC Chapter 327 will be followed to ensure that the spill is contained and disposed of in an expedient and thorough manner and that proper authorities are kept informed throughout the process.

ATTACHMENT B – Potential Sources of Contamination

Other potential sources of contamination could come from the use of asphaltic and concrete products during the construction of the site driveways and parking areas, thus tracking offsite onto area streets during wet weather periods and stockpiling of solid waste. During the construction of the site, silt fencing will remain in place and collect any contaminants should they migrate due to an unforeseen rain event. The stabilized construction entrances will remain in place to minimize vehicle tracking and wheel washing will occur should the contractor wish to continue construction during wet site conditions. Solid waste will be placed in on-site containers and will be disposed of in permitted dump sites.

ATTACHMENT C – Sequence of Major Activities

The sequencing of construction will generally take place in the following manner. Most of the activities following rough grading will not further disturb the site. The site is located within the Little Barton Creek Watershed.

1. Install erosion controls and tree protection per approved plans. (±5.5 acres)
2. Hold pre-construction conference. Erosion controls will be revised, if needed, to comply with City of Bee Cave and Travis County inspectors' directives and revised construction schedule relative to the water quality plan requirements and the erosion/sedimentation control and tree protection plan.
3. Rough grade site and install rough grading of ponds to serve as temporary Sediment Basins. (±5.5 acres)
4. Temporary controls to be inspected and maintained weekly and prior to anticipated rainfall events, and after rainfall events, as needed.
5. Install all utilities to be located under the proposed pavement. (±1 acres)
6. Begin building construction. (±5.5 acres)
7. Insure that all underground utility crossings under proposed pavement are completed. Prepare subgrade and lay first course base material. (±1 acres)
8. Install curb and gutter and sidewalks. (±1 acres).
9. Lay final base course. (±1.5 acres)

10. Lay final course (asphalt or concrete). (±1.5 acres)
11. Complete all underground installations. (±1 acres)
12. Complete final grading and building improvements. (±5.5 acres)
13. Install landscaping and initiate permanent revegetation. (±4 acres)
14. Permanent controls will be cleaned. (±1 acres)
15. Complete permanent erosion control and site restoration. Final inspection by the environmental and landscape inspectors will be scheduled after receipt of concurrence letters from the engineer and landscape architect. Remove temporary erosion/sedimentation controls and tree protection. Restore any areas disturbed during removal of erosion/sedimentation controls.

ATTACHMENT D – Temporary Best Management Practices and Measures

a. The site will divert upgradient stormwater. All disturbed areas on-site are to be captured and routed via onsite drainage improvements to the proposed onsite water quality basin, where the water will be treated and discharged. The offsite drainage will be collected by onsite and offsite (public) stormwater improvements and conveyed to existing channels with permanent erosion control improvements such as rock berms and permanent seeding. Temporary erosion and sediment controls will be provided within the project limits and along the property line where offsite drainage discharges to the site until final stabilization is achieved.

b. Silt fence is proposed throughout the project limits to prevent pollution of stormwater runoff for areas that exhibit sheet flow characteristics. Rock berms are installed at areas of concentrated flow to prevent erosion and transport of sediment from the site and also decrease flow velocities. Temporary sediment traps and inlet protection measures will be used to hold stormwater runoff and allow sediment to settle during construction. Before construction begins, silt fence and tree protection will be in place. The principal potential pollutant on site is sediment caused by disturbance during construction. The controls installed will be monitored on a regular basis and after any significant rainfall to ensure effective operation.

c. There are no known sensitive features on the site. During construction, silt fence will be installed to capture sediment. The silt fence will remain in place until restoration of the site has been achieved. Runoff from the site will be captured by proposed inlets and conveyed by storm sewer to the existing offsite sedimentation/filtration water quality basin. The inlets will be protected during construction with inlet protection. Larger storm events will flow over the splitter box weir into the detention basin.

d. There are no naturally-occurring sensitive features identified by the geotechnical report that will receive developed discharge from the proposed site.

ATTACHMENT E – Request to Temporarily Seal a Feature

No request is anticipated for this project.

ATTACHMENT F – Structural Practices

Contractor will construct and maintain silt fence, rock berms, a stabilized construction entrance, and other temporary and permanent erosion and sedimentation controls as appropriate to prevent pollutants from exiting the site during construction.

ATTACHMENT G – Drainage Area Map

The onsite drainage area map is included with the attached set of plans.

ATTACHMENT H – Temporary Sediment Pond(s) Plans and Calculations

The proposed batch detention water quality basin will both act as a sediment basin should any of the other erosion controls fail. Approximately 3.26 acres drain to the proposed Water Quality Basin A. Assuming 1,800 cubic feet (cf) per acre, the required capture volumes for Basin A is 5,861 cf. The rough-graded Basin A will provide a capture volume of 15,000 cf and 18,107 cf once the final wall improvements are completed.

ATTACHMENT I – Inspection and Maintenance for BMPs.

Inspection and maintenance for Best Management Practices is taken from the TCEQ Manual, "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices", dated July 2005.

Temporary Sediment Traps:

1. Install permanent stake in each sediment trap with half-foot increments to indicate sediment build-up.
2. When sediment reaches 50% of the sediment trap design capacity, trap is to be cleaned out.

Silt Fence:

1. Inspect all fencing weekly, and after any rainfall.

2. Remove sediment when buildup reaches 6 inches.

3. Replace any torn fabric or install a second line of fencing parallel to the torn section.

4. Replace or repair any section crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicular access points.

5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Rock Berms:

1. Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.

2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

3. Repair any loose wire sheathing.

4. The berm should be reshaped as needed during inspection.

5. The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.

6. The rock berm should be left in place until all upstream areas are stabilized and accumulated silt is removed.

Stabilized Construction Entrance:

1. The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

2. All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

5. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Concrete Washout Area:

1. Routine inspection in accordance with section 1.4.18 of TCEQ Manual: RG-348 of the area to ensure that sufficient quantity and volume remain to contain all liquid and concrete waste generated by washout operations.

2. Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.

3. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
4. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

ATTACHMENT J – Schedule of Interim and Permanent Soil Stabilization Practices

The following are the proposed stabilization (temporary and permanent) practices:

Temporary Vegetative Stabilization:

1. From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Cereal Rye Grain at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.
2. From March 2 through September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000 SF.
    A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
    B. Hydro-mulch shall comply with Table 1, below.

Material	Description	Longevity	Typical Applications	Application Rates
100 % or any blend of wood, cellulose, straw, and/or cotton plant material (except no mulch shall exceed 30% paper)	70% or greater Wood/Straw 30% or less Paper or Natural Fibers	0-3 months	Moderate slopes; from flat to 3:1	1500 to 2000 lbs per acre

    C. Temporary erosion control shall be acceptable when the grass has grown at least 1-1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
    D. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Permanent Vegetative Stabilization:

1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a heigh of less than one-half (1/2) inch and the area shall be re-seeded in accordance with 2, below.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1,000 square feet with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.
    A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.

B. Hydro-mulch shall comply with Table 2, below.

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers 10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	2500 to 4000 lbs per acre (see manufacturers recommendations)
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3000 to 4500 lbs per acre (see manufacturers recommendations)

C. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one week.

D. Permanent erosion control shall be acceptable when the grass has grown at least 1-1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.

E. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **Pond A - For Lot 1 & PICP Improvements**
Date Prepared: **8/25/2025**

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	**Williamson**	
Total project area included in plan * =	**4.15**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	**1.01**	acres
Total post-development impervious cover fraction * =	**0.24**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**876**	lbs.

*** The values entered in these fields should be for the total project area.**

Number of drainage basins / outfalls areas leaving the plan area = **1**

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = **D1.1**

Total drainage basin/outfall area =	**3.26**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**1.01**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.31**	
$L_{M\ THIS\ BASIN}$ =	**876**	lbs.

Compensitory Drainage Provided by Lot 1 Water Quality Pond Summary

Total drainage basin/outfall area =	**1.20**	acres	<--AREAS WITH NEW IMPERVIOUS COVER NOT DRAINING TO BMP
Predevelopment impervious area within drainage basin/outfall area =	**0.15**	acres	(SEE SHEET DM03, AREAS C1-C3 & RTL)
Post-development impervious area within drainage basin/outfall area =	**0.41**	acres	
Post-development impervious fraction within drainage basin/outfall area =	**0.34**		
$L_{M\ (Compensitory)}$ =	**230**	lbs.	
$L_{M\ (TOTAL)}$ =	**1106**	lbs.	

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Extended Detention** (Batch Detention Basin)
Removal efficiency = **91** percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	**3.26**	acres
A_I =	**1.01**	acres
A_P =	**2.25**	acres
L_R =	**1049**	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = **1106** lbs.

F = **1.05**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.26**	
On-site Water Quality Volume =	**12421**	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	**0**	acres
Off-site Impervious cover draining to BMP =	**0**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**2484**	cubic feet
Total Capture Volume (required water quality volume(s) x 1.20) =	**14906**	cubic feet

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin =	**14906**	cubic feet
PROVIDED WATER QUALITY VOLUME=	**18107**	cubic feet

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I SOHIL MAKNOJIA,
Print Name

MANAGING MEMBER,
Title - Owner/President/Other

of FORTUNE COMMERCIAL DEVELOPMENT LLC.
Corporation/Partnership/Entity Name

have authorized CHARLES HAGER
Print Name of Agent/Engineer

of LJA
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

8/15/25
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Sohil Makwana known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 15th day of August, 2025

NOTARY PUBLIC

Dirgha Kafle
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Nov 8 2026

DIRGHA KAFLE
Notary ID #134055519
My Commission Expires
November 8, 2026

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Hub Commercial Development
Regulated Entity Location: West side of CR 269 between Hero Way and RM 2243
Name of Customer: FORTUNE COMMERCIAL DEVELOPMENT, LLC
Contact Person: Sohil Maknojia Phone: (512) 657-3675
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

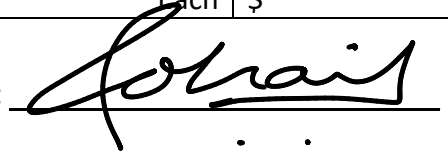
☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	4.51 Acres	$ $4,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: 

Date: 8/25/2025

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	***Fee***
Extension of Time Request	$150

TCEQ Office Use Only
Permit No.:
RN:
CN:
Region:

Notice of Intent (NOI) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) under the TPDES Phase II MS4 General Permit (TXR040000)

IMPORTANT:

- Use the INSTRUCTIONS to fill out each question in this form.
- Use the CHECKLIST to make certain you filled out all required information. Incomplete applications WILL delay approval or result in automatic denial.
- Once processed your authorization can be viewed at: http://www.tceq.texas.gov/goto/wq-dpa

APPLICATION FEE:

- You must pay the **$100** Application Fee to TCEQ for the paper application to be complete.
- Payment and NOI must be mailed to separate addresses.
- Did you know you can pay on line?
  - Go to https://www3.tceq.texas.gov/epay/index.cfm
  - Select Fee Type: GENERAL PERMIT MS4 PHASE II STORM WATER DISCHARGE NOI APPLICATION
- **Provide your payment information below, for verification of payment:**

Mailed ☐ Check/Money Order No.: _____
Name Printed on Check: _____
EPAY ☐ Voucher No.: _____
Is the Payment Voucher copy attached? ☐ Yes

One (1) copy of the NOI and Stormwater Management Program (SWMP) with the completed SWMP Cover Sheet MUST be submitted with the original NOI and SWMP.

Is the copy attached? ☐ Yes

RENEWAL: Is this NOI a Renewal of an existing Phase II MS4 General Permit Authorization?
(Note: An authorization cannot be renewed after June 11, 2014.)

☐ Yes The existing authorization number is: TXR04_____
(If an authorization number is not provided, a new number will be assigned.)

☑ No

1) OPERATOR (Applicant)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? You may search for your CN at:
http://www.tceq.texas.gov/goto/cr-customer
CN_____

b) What is the Legal Name of the entity (applicant) applying for this permit?
Fortune Commercial Development, LLC
(The exact legal name must be provided.)

c) What is the contact information for the Operator (Applicant)? The mailing address must be recognized by the US Postal Service. You may verify the address at:
https://tools.usps.com/go/ZipLookupAction!input.action
Prefix (Mr. Ms. Miss): Mr.
First/Last Name: Sohil Maknoija Suffix: _____
Title: Owner Credential: _____
Phone Number: (512) 657-3675 Ext: _____ Fax Number: _____
E-mail: sohilmak@gmail.com
Mailing Address: 4413 Apollonia Way
Internal Routing (Mail Code, Etc.): _____
City: Leander State: Texas ZIP Code: 78641
If outside USA: Territory: _____ Country Code: _____ Postal Code: _____

d) Indicate the type of Customer (The instructions will help determine your customer type):
☐ Federal Government ☐ State Government ☐ County Government
☐ City Government ☑ Other Government

e) Number of Employees:
☑ 0-20; ☐ 21-100; ☐ 101-250; ☐ 251-500; or ☐ 501 or higher

2) ANNUAL BILLING CONTACT

The Operator is responsible for paying the annual fee. The annual fee will be assessed to authorizations active on September 1 of each year. TCEQ will send a bill to the address provided in this section. The Operator is responsible for terminating the permit when it is no longer needed.
Is the billing contact and contact information the same as the Operator identified in Section 1) above?
☐ Yes, go to Section 3).

☑ No, complete section below

Prefix (Mr. Ms. Miss): Mr.
First/Last Name: Charles R. Hager, P.E., Dallas McNamara Suffix: _____
Title: Senior Director, Graduate Engineer Credential: P.E.
Organization Name: LJA Engineering, Inc.
Phone Number: (512) 439-4700 Ext: _____ Fax Number: _____
E-mail: chager@lja.com, dmcnamara@lja.com
Mailing Address: 7500 Rialto Blvd, Building 2, Suite 100
Internal Routing (Mail Code, Etc.): _____
City: Austin State: TX ZIP Code: 78735

3) APPLICATION CONTACT

If TCEQ needs additional information regarding this application, who should be contacted?

Is the application contact and contact information the same as the Operator identified in Section 1) above?

☑ Yes, go to Section 4).

☐ No, complete section below

Prefix (Mr. Ms. Miss):_____
First/Last Name:_____Suffix: _____
Title:_____Credential:_____
Organization Name:_____
Phone Number:_____ Ext:_____ Fax Number:_____
E-mail:_____
Mailing Address:_____
Internal Routing (Mail Code, Etc.):_____
City:_____ State:_____ ZIP Code:_____
Mailing Information if outside USA:
Territory:_____Country Code:_____Postal Code:_____

4) REGULATED ENTITY (RE) INFORMATION

If the site of your business is part of a larger business site or if other businesses were located at this site before yours, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at:
http://www.tceq.texas.gov/goto/cr-searchrn

If the site is found, provide the assigned Regulated Entity Reference Number and provide the information for the site to be authorized through this application below. The site information for this authorization may vary from the larger site information.

a) TCEQ issued RE Reference Number (RN): RN_____

b) Name that is used to identify the small MS4 (Example: City of XXX MS4)
City of Leander MS4

c) Provide a brief description of the regulated MS4 boundaries: (Example: Area within the City of XXXX limits that is located within the xxx (e.g. Dallas) urbanized area):

City of Leander location within Williamson County.

d) City where the largest residential population exists within the regulated MS4 boundaries:
Leander

e) ZIP code where the largest residential population exists within the regulated MS4 boundaries:
78641

f) County where the largest residential population exists within the regulated MS4 boundaries:
Williamson

Is the MS4 located within additional counties?

☐ Yes – If Yes, what county (or counties)?

☑ No

g) Latitude: 30 deg. 35 min. 11 sec. Longitude: 97 deg. 50 min. 12.5 sec.

5) GENERAL CHARACTERISTICS

a) Is the project/site located on Indian Country Lands?

☐ Yes – If Yes, you must obtain authorization through EPA, Region 6.

☑ No

b) What is applicant's Standard Industrial Classification (SIC) code?
SIC Code: 5411

c) What is the category or level of the MS4 based on the population served?

☑ **Level 1:** Operators of traditional small MS4s that serve a population of less than 10,000 within an urbanized area (UA).

☐ **Level 2:** Operators of traditional small MS4s that serve a population of at least 10,000 but less than 40,000 within an UA.

This category also includes all non-traditional small MS4s such as counties, drainage districts, transpiration entities, military bases, universities, colleges, correctional institutions, municipal utility districts and other special districts regardless of population served within the UA, unless the non-traditional MS4 can demonstrate that it meets the criteria for a waiver from permit coverage based on the population served.

☐ **Level 3:** Operators of traditional small MS4s that serve a population of at least 40,000 but less than 100,000 within an UA.

☐ **Level 4:** Operators of traditional small MS4s that serve a population of 100,000 or more within an UA.

d) Has TCEQ "designated" the small MS4 as needing coverage under this general permit?

☐ N/A

☑ Yes

☐ No - If No and no portion of the small MS4 is located within an UA as determined by the 2000 or 2010 Decennial Census by the U.S Bureau of Census requiring a NOI be submitted, the operator is not eligible for coverage under this general permit through the NOI.

e) What is your annual reporting year?

☑ Calendar year

☐ MS4 general permit year

☐ Fiscal year – If Fiscal year, what is the last day of the fiscal year?_____

f) Stormwater Management Program (SWMP)

1. I certify that the SWMP submitted with this Notice of Intent has been developed according to the provisions of this general permit TXR040000.

   ☐ Yes

   ☑ No – If No, the application is considered incomplete and may be returned.

2. I certify that the SWMP Cover Sheet is completed and attached to the front of the SWMP.

   ☐ Yes

   ☑ No – If No, the application is considered incomplete and may be returned.

3. Who is the person responsible for implementing or coordinating implementation of the SWMP? (Note: All contact information requested below is required.)

   First/Last Name: Charles R. Hager, P.E.
   Title: Senior Director
   Company: LJA Engineering, Inc.
   Phone Number: (512) 439-4700 Ext: _____ Fax Number: _____
   E-mail: chager@LJA.com
   Mailing Address: 7500 Rialto Blvd, Building 2, Suite 100
   Internal Routing (Mail Code, Etc.): _____
   City: Austin State: TX ZIP Code: 78735

g) 7th Minimum Control Measure (MCM) for Municipal Construction Activities

1. Is the MCM for authorization to discharge stormwater from municipal construction activities included with the attached SWMP?

   ☐ Yes – If Yes, what are the boundaries within which those activities will occur? (Note: If the boundaries are located outside of the urbanized area, then the entire SWMP must also incorporate the additional areas.)

   ☑ No

2. Is the discharge or potential discharge from regulated construction activities within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer?

   ☑ Yes – If Yes, please note that a copy of the agency approved Water Pollution Abatement Plan (WPAP) required by the Edward Aquifer Rule (30 TAC Chapter 213) must be either included or referenced in the construction stormwater pollution prevention plan(s).

   ☐ No

h) Discharge Information

1. What is the name of the water body (ies) receiving stormwater from the MS4?

2. What is the classified segment number(s) that receives discharges, directly or indirectly, from the small MS4?

   Do you discharge directly or indirectly?

   Indirectly

3. Are any of the surface water body (ies) receiving discharges from the small MS4 on the latest EPA-approved Clean Water Act (CWA) §303(d) list of impaired waters or the Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)?

   ☐ Yes – If Yes:

   What is the name of the impaired water body (ies) receiving the discharge from the small MS4?

   What is/are the pollutant(s) of concern?

   ☑ No

4. Is the discharge into any other MS4 prior to discharge into surface water in the state?

   ☐ Yes – If Yes, what is the name of the MS4 Operator?

   ☑ No

i) Edwards Aquifer

Is the discharge or potential discharge from the MS4 within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer?

☑ Yes - If Yes, complete certification below by checking "Yes".

☐ No

I certify that a copy of the TCEQ approved WPAP required by the Edwards Aquifer Rule (30 TAC Chapter 213) is either included or referenced in the SWMP.

☑ Yes

j) Public Participation Process

The Office of Chief Clerk will send the operator or person responsible for publishing, the notice of the executive director's preliminary determination of the NOI and SWMP, in a newspaper of general circulation in the county where the small MS4 is located. If multiple counties, notice must be published at least once in the newspaper of general circulation in the county containing the largest resident population.

The applicant must file with the Chief Clerk a copy of an affidavit of the publication within 60 days of receiving the written instructions from the Office of Chief Clerk.

1. I will comply with the Public Participation requirements described in Part II.E.12 of the general permit.
   ☑ Yes
   ☐ No – If No, coverage under this general permit is not obtainable.

2. Who is the person responsible for publishing notice of the executive director's preliminary determination on the NOI and SWMP? (Note: All contact information requested below is required.)
   First/Last Name: Charles R. Hager, P.E.
   Title: Senior Director
   Company: LJA Engineering, Inc.
   Phone Number: (512) 439-4700 Ext: Fax Number:
   E-mail: chager@LJA.com
   Mailing Address: 7500 Rialto Blvd, Building 2, Suite 100
   Internal Routing (Mail Code, Etc.):
   City: Austin State: TX ZIP Code: 78735

3. What is the name and location of the public location where copies of the NOI and SWMP, as well as the executive director's general permit and fact sheet, may be reviewed?
   Name of Public Place:
   TBD
   Address of Public Place:
   TBD
   County of Public Place:
   TBD

6) CERTIFICATION

Check Yes to the certifications below. Failure to indicate Yes to ***ALL*** items may result in denial of coverage under the general permit.

a) I certify that I have obtained a copy and understand the terms and conditions of the Phase II (Small) MS4 General Permit TXR040000. ☑ Yes

b) I certify that the small MS4 qualifies for coverage under the general permit TXR040000. ☑ Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☑ Yes

d) I understand that authorization active on September 1st of each year will be accessed an Annual Water Quality Fee. ☑ Yes

Operator Certification:

I, Charles R. Hager, P.E. (*Typed or printed name*) Senior Director (*Title*)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under **30 Texas Administrative Code §305.44** to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature: (*Use blue ink*) Date: 8/25/2025

NOTICE OF INTENT CHECKLIST (TXR040000)

- Did you complete everything? Use this checklist to be sure!
- Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

This checklist is for use by the operator to ensure a complete application. Missing information may result in denial of coverage under the general permit. (See NOI process description in the Instructions)

Application Fee:

If paying by Check:

- ☐ Check was mailed **separately** to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
- ☐ Check number and name on check is provided in this application.

If using ePay:

- ☐ The voucher number is provided in this application or a copy of the voucher is attached.

AUTHORIZATION NUMBER:

- ☐ Authorization number provided – if this application is for renewal of an existing authorization.

OPERATOR INFORMATION - Confirm each item is complete:

- ☐ Customer Number (CN) issued by TCEQ Central Registry
- ☑ Legal name as filed to do business in Texas (Call TX SOS 512/463-5555)
- ☑ Name and title of responsible authority signing the application
- ☑ Mailing address is complete & verifiable with USPS. www.usps.com
- ☑ Phone numbers/e-mail address
- ☑ Type of operator (entity type)
- ☑ Number of employees
- ☑ Billing address is complete & verifiable with USPS. http://www.usps.com

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE - Confirm each item is complete:

- ☑ MS4/Regulated Entity Name
- ☑ Site description
- ☑ Latitude and longitude http://www.tceq.texas.gov/gis/sqmaview.html
- ☑ County
- ☐ Site/project physical address. Do not use a rural route or post office box.
- ☑ Business description

GENERAL CHARACTERISTICS - Confirm each item is complete:

- ☑ Indian Country Lands –the facility is not on Indian Country Lands
- ☑ Standard Industrial Classification (SIC) Code www.osha.gov/oshstats/sicser.html
- ☑ Level of MS4
- ☑ Qualifying TCEQ "Designated" small MS4
- ☑ Annual Reporting Year
- ☐ 7th Minimum Control Measurement (MCM) for Municipal Construction Activities
- ☑ Discharge information
- ☑ Edwards Aquifer rule
- ☑ Public participation information

CERTIFICATION

- ☑ Certification statements have been checked indicating "Yes"
- ☑ Signature meets 30 Texas Administrative Code (TAC) 305.44 and is original.
- ☐ Stormwater Management Program (SWMP), and completed SWMP Cover Sheet are attached to the NOI.

Notice of Intent (NOI) for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) under the TPDES Phase II MS4 General Permit (TXR040000)

General Information and Instructions

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

BY REGULAR U.S. MAIL:
Texas Commission on Environmental Quality
Applications Review and Processing Team
(MC-148)
P.O. Box 13087
Austin, Texas 78711-3087

BY OVERNIGHT/EXPRESS MAIL:
Texas Commission on Environmental Quality
Applications Review and Processing Team
(MC-148)
12100 Park 35 Circle
Austin, TX 78753

TCEQ Contact List:

Small Business and Local Government Assistance	800/447-2827
Application – status and form questions:	512/239-4671
Technical questions:	512/239-4671
Environmental Law Division:	512/239-0600
Records Management - obtain copies of forms:	512/239-0900
Reports from databases (as available):	512/239-DATA (3282)
Cashier's office:	512/239-0357 or 512/239-0187

Notice of Intent Process:

When your NOI and SWMP is received by the program, the form will be processed as follows:

1) **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(s) on the form must be verified with the US Postal service as receiving regular mail delivery. Never give an overnight/express mailing address.

   An application will not be declared administratively complete or approved if delinquent fees and/or penalties of $25 or more are owed to the TCEQ. All such fees must be paid prior to approval of the NOI.

2) **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.

3) **Technical Review of SWMP**: More information may be requested by phone or technical NOD letter mailed to the SWMP contact. The executive director's preliminary determination on the NOI and SWMP will be prepared and filed with the TCEQ Chief Clerk.

4) **Public Participation Process:** The TCEQ Chief Clerk will mail written instructions for publishing the executive director's preliminary determination on the NOI and SWMP at least once in the newspaper of general circulation in the county where the small MS4 is located. If applicable, a public meeting may be held.

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal *(Core Data Form should be submitted with the renewal form)*

☐ Other

2. Customer Reference Number *(if issued)*

CN

Follow this link to search for CN or RN numbers in Central Registry**

3. Regulated Entity Reference Number *(if issued)*

RN

SECTION II: Customer Information

4. General Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*

FORTUNE COMMERCIAL DEVELOPMENT, LLC

If new Customer, enter previous Customer below:

7. TX SOS/CPA Filing Number

0805048085

8. TX State Tax ID (11 digits)

3208975841

9. Federal Tax ID

(9 digits)

10. DUNS Number *(if applicable)*

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

Fortune Commercial Development, LLC
4413 Apollonia Way

City	Leander	**State**	TX	**ZIP**	78461	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*

17. E-Mail Address *(if applicable)*

maknojiasohail@gmail.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 657-3675		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Hub Commercial Development

23. Street Address of the Regulated Entity: ***(No PO Boxes)***								
	City		**State**		**ZIP**		**ZIP + 4**	
24. County								

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	West side of CR 269 between Hero Way and RM 2243.

26. Nearest City	State	Nearest ZIP Code
Leander	TX	78641

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	35	11	97	50	12.5

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
5411		457110	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Commercial

34. Mailing Address:								
	City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
( ) -		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

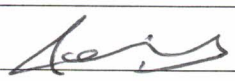
SECTION IV: Preparer Information

40. Name:	Charles Hager V, P.E.	**41. Title:**	Senior Director

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(303) 564-2715		( ) -	chager@lja.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Fortune Commercial Development, LLC	**Job Title:**	Owner
Name *(In Print):*	SOHIL MAKNOJIA	**Phone:**	(512) 657- **3675**
Signature:		**Date:**	8/15/25

HUB COMMERCIAL DEVELOPMENT

LOT 1 SITE DEVELOPMENT PLAN

CITY OF LEANDER PROJECT NO. SD-24-0285

SUBMITTED FOR APPROVAL BY:
LJA ENGINEERING, INC.

STATE OF TEXAS · CHARLES R. HAGER V · 127034 · LICENSED PROFESSIONAL ENGINEER

07/29/2025
DATE

CHARLES R. HAGER, P.E. #127034
LICENSED PROFESSIONAL ENGINEER

THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, REGULATORY COMPLIANCE, AND ADEQUACY OF THESE PLANS AND/OR SPECIFICATIONS WHETHER OR NOT THE PLANS AND/OR SPECIFICATIONS WERE REVIEWED BY THE CITY ENGINEER(S).

FLOODPLAIN INFORMATION:
NO PORTION OF THE SUBJECT TRACT IS WITHIN THE 100-YEAR FLOODPLAIN, AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP FOR WILLIAMSON COUNTY, TEXAS, MAP NO. 48491C0455F, WITH AN EFFECTIVE DATE OF DECEMBER 20, 2019.

LEGAL DESCRIPTION:
4.151 ACRES OF LAND SITUATED IN WILLIAMSON COUNTY, TEXAS, OUT OF THE ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6, AND BEING THE REMAINING PORTION OF THAT SAME PROPERTY CALLED 5.221 ACRES, CONVEYED TO GP LIBERTY HILL LLC, AND DESCRIBED IN THAT GENERAL WARRANTY DEED RECORDED UNDER DOCUMENT NO. 2016086336, OF THE OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS.

AQUIFER NOTE:
THE PROJECT LIES WITHIN THE BOUNDARY OF THE EDWARDS AQUIFER CONTRIBUTING ZONE.

WATERSHED NOTE:
THE PROJECT LIES WITHIN THE SOUTH BRUSHY CREEK-BRUSH CREEK WATERSHED.

RELATED PROJECT INFORMATION:
CR 269 & HERO WAY MINOR PUD - ZONING CASE Z-23-0081 (ORDINANCE NO. 23-081-00)
SHORT FORM FINAL PLAT DETERMINATION - FP-24-0136 - APPROVED ON 2/22/2024
HUB COMMERCIAL PICP - PICP 24-0184
HUB COMMERCIAL FINAL PLAT - FP-24-0202

CONTACT INFORMATION FOR COORDINATION AND EMERGENCY:

CITY OF LEANDER ADMINISTRATION	(512) 528-2702
CITY OF LEANDER ENGINEERING	(512) 528-2760
CITY OF LEANDER PUBLIC WORKS	(512) 259-2640
CITY OF LEANDER PLANNING	(512) 528-2763
CITY OF LEANDER FIRE	(512) 528-2847
CITY OF LEANDER PERMITS	(512) 528-2846
CITY OF LEANDER PARKS AND RECREATION	(512) 528-2993

FIRE DEPARTMENT DATA

FIRE FLOW TEST INFORMATION (12/02/2024)

FLOW HYDRANT (CR 269 - ADJACENT TO LOT 3)

STATIC PRESSURE	= 89 PSI
VELOCITY PRESSURE	= 70 PSI
FLOW RATE	= 1,404 GPM
FLOW RATE @ 20 PSI	= 3,784 GPM

TEST HYDRANT (CR 269 - ADJACENT TO LOT 1)

STATIC PRESSURE	= 89 PSI
RESIDUAL PRESSURE	= 78 PSI
FLOW RATE @ 20 PSI	= 3,784 GPM

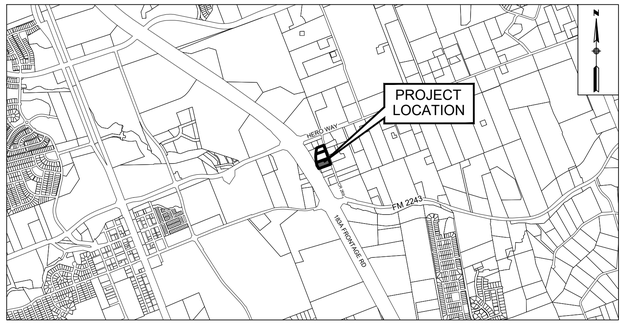
LEANDER FIRE DEPARTMENT SUMMARY (2015 IFC DESIGN STANDARDS)	
	LOT 1
MAX. FIRE FLOW DEMAND @ 20 PSI (GPM)	1,500
PROPOSED USE	COM.
IFC CONSTRUCTION CLASSIFICATION	R2, V-A
LARGEST BUILDING FIRE AREA (SF)	6,118
AUTO FIRE SPRINKLER SYSTEM (NFPA)	13
REDUCED FIRE FLOW DEMAND @ 20 PSI	1,500

DOMESTIC / FIRE / IRR. WATER SUMMARY	
	LOT 1
LAND USE	COM.
TOTAL DOMESTIC LUE'S	5.1
AV. DOMESTIC DEMAND (GPM)	6.6
PEAK DOMESTIC DEMAND (GPM)	11.2
IRR. WATER DEMAND* (GPM)	15
PROPOSED DOM. METER	2" Turb.
GPM RANGE	4-190
SERVICE UNITS	16
PROPOSED IRRIGATION METER*	1.5" Turb.
GPM RANGE	4-120
SERVICE UNITS	9
BACKFLOW DEVICE (FIRE)	N/A
BACKFLOW DEVICE (IRR)*	1.5"
*IRRIGATION IMPROVEMENTS REQUIRE SEPARATE PERMIT	

PROJECT SUMMARY	
	LOT 1
SITE AREA (AC)	1.47
ZONING	GC-3-A PUD
PROP. LAND USE	COMM. / RESTAURANT
FUTURE LAND USE	EMPLOYMENT CENTER
EX. IMPERVIOUS COVER (SF)	0
PROP. IMPERVIOUS COVER (AC)	0.91
PROP. IMPERVIOUS COVER (SF)	39,519
PROP. IMPERVIOUS COVER (%)	62%
PROP. BLDG IMP. COVER (SF)	6,148

REVISIONS / CORRECTIONS

Correction / Revision Number	Description	Revise (R) Replacement (RP) Add (A) Void (V) Sheet No.'s	Total	Net Change Imp. Cover (sq. ft.)	Total Site Imp. Cover (sq. ft. and %)	City of Leander Approval Date	City of Leander Approval Date



LOCATION MAP
1" = 2000'

ADDRESS: 1550 CR 269
LEANDER, WILLIAMSON COUNTY
TEXAS 78641

ZONING: CASE Z-23-0081
CR 269 & HERO WAY MINOR PUD
GC-3-A (GENERAL COMMERCIAL)

SUBDIVISION AREA: 4.151 ACRES

FILING DATE: JANUARY 14, 2025

APPROVED BY:

Robin M. Griffin, AICP, Executive Director of Development Services	Date
Emily Truman, P.E., CFM, City Engineer	Date
Ashlea Boyle, CPRE, Director of Parks and Recreation	Date
Chief Joshua Davis, Fire Marshal	Date
Gina Ellison, P.E., Executive Director of Public Works	Date

DEVELOPER/OWNER: FORTUNE COMMERCIAL DEVELOPMENT LLC
4413 APOLLONIA WAY
LEANDER, TEXAS 78641
CONTACT PERSON: SOHIL MAKNOJIA
PHONE: (512) 657-3675

ENGINEER : LJA ENGINEERING, INC.
7500 RIALTO BOULEVARD, BUILDING II, SUITE 100
AUSTIN TEXAS 78735
CONTACT PERSON: CHARLES R. HAGER V, P. E.
PHONE: (512) 439-4700

SURVEYOR : LJA SURVEYING, INC.
9830 COLONNADE BOULEVARD, SUITE 300
SAN ANTONIO, TEXAS 78230
CONTACT PERSON: GORDON N. ANDERSON, R.P.L.S.
PHONE: (210) 503-2700

CONTOUR DATA : ON-SITE & ROW CONTOURS: GROUND SURVEY BY LJA SURVEYING (1-FT INTERVAL)
OFFSITE CONTOURS: GIS
BASIS OF BEARING ESTABLISHED FROM THE TEXAS STATE PLAN COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE (4203), NAD 83

Sheet List Table

Sheet No.	Sheet Title
01	COVER SHEET
02	GENERAL NOTES
03	FINAL PLAT SHEET 1
04	FINAL PLAT SHEET 2
05	FINAL PLAT SHEET 3
06	EXISTING CONDITIONS AND DEMO PLAN
07	EXISTING CONDITIONS DRAINAGE AREA MAP
08	DEVELOPED CONDITIONS DRAINAGE AREA MAP
09	ONSITE DEVELOPED CONDITIONS DRAINAGE AREA MAP
10	EROSION AND SEDIMENTATION CONTROL PLAN
11	EROSION AND SEDIMENTATION CONTROL NOTES & DETAILS
12	WATER QUALITY & DETENTION PLAN & PROFILE1
13	WATER QUALITY & DETENTION PLAN & PROFILE
14	DETAILED SITE PLAN
15	SITE PLAN NOTES & DETAILS - SHEET 1
16	SITE PLAN NOTES & DETAILS - SHEET 2
17	GRADING PLAN
18	STORM SEWER PLAN AND PROFILE
19	WATERLINE PLAN
20	WASTEWATER PLAN AND PROFILE
21	STANDARD DETAILS 1
22	STANDARD DETAILS 2
23	STANDARD DETAILS 3
24	STANDARD DETAILS 4
25	STANDARD DETAILS 5
26	STANDARD DETAILS 6
27	STANDARD DETAILS 7
28	STANDARD DETAILS 8
29	LANDSCAPE PLAN 1
30	LANDSCAPE PLANE NOTES AND DETAILS
31	MAJOR STREETSCAPE PLAN

CITY OF LEANDER APPROVAL

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN - F-1386

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

I:\AA\25248\01\Submittal Sheets\SDP - Lot 1\AA2524801-CV01.dwg
Last Modified - Aug 01, 25 - 12:43
Print Date/Time - Aug 30, 25 - 14:18:37

REVISED AUGUST 1, 2024

CITY CONTACTS:
ENGINEERING MAIN LINE: 512-528-2721
PLANNING DEPARTMENT: 512-528-2750
PUBLIC WORKS MAIN LINE: 512-259-2640
STORMWATER INSPECTIONS: 512-285-0055
UTILITIES MAIN LINE: 512-259-1142
UTILITIES ON-CALL: 512-690-4760

1. CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.
2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.
   a. **REFRESH ALL LOCATES *BEFORE* 14 DAYS** – LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.
   b. **REPORT PIPELINE DAMAGE IMMEDIATELY** – IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259-2640.
3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE:
   a. BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR
   b. ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.
   c. PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.
   d. CONNECTING TO THE EXISTING WATER LINES.
   e. THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.
4. ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.
5. **EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.**
6. BURNING IS PROHIBITED.
7. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.
8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
9. NO BLASTING IS ALLOWED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.
11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.
13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.
14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.
15. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.
16. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.
17. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
18. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
20. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
22. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

PUD PROHIBITED USES

1. ANIMAL HOSPITAL OR ANIMAL BOARDING INCLUDING A CREMATORY ASSOCIATED WITH SUCH USE ON SITE, OR CREMATORY ASSOCIATED WITH A CEMETERY.
2. EQUIPMENT AND FURNITURE OR OTHER SIMILAR GOODS SALES, REPAIR AND SERVICE.
3. FARMS OR TRUCK GARDENS, LIMITED TO THE PROPAGATION AND CULTIVATION OF PLANS AND PROVIDED FURTHER THAT NO POULTRY OR LIVESTOCK.
4. FUNERAL HOME, INCLUDING EMBALMING AND CREMATORY FACILITIES ASSOCIATED WITH AN ON SITE FUNERAL HOME OR CEMETERY.
5. MANUFACTURED HOUSING SALES AND ACCESSORY BUILDING SALES.
6. OFFICE/WAREHOUSE INCLUDING PAINTING, PLUMBING OR OTHER SIMILAR COMMERCIAL SERVICE.
7. TRANSPORTATION RELATED FACILITIES INCLUDING COMMERCIAL PARKING LOTS, PASSENGER TERMINALS, TAXI CAB STATIONS AND MASS TRANSIT TERMINALS.
8. NEW VEHICLE AND MAJOR EQUIPMENT SALES, RENTAL OR LEASING, REPAIR OF NEW OR USED VEHICLES, BODY SHOP.
9. WHOLESALE ACTIVITIES WITH LESS THAN 3,500 SQUARE FEET OF GROSS AREA OF THE BUSINESS.
10. CAR WASHES.

NOTE: BELOW IS GENERAL SEQUENCE OF CONSTRUCTION. THE ENGINEER OF RECORD SHALL UPDATE BELOW WITH NOTES SPECIFIC TO THE PROJECT.

1. REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
2. SET UP E/S CONTROLS AND TREE PROTECTION AND REACH OUT TO CITY FOR INSPECTION.
3. SET UP TEMPORARY TRAFFIC CONTROLS.
4. CONSTRUCT THE DRAINAGE PONDS AND STORM WATER FEATURES.
5. START UTILITY, ROAD, GRADING, FRANCHISE UTILITY AND ALL NECESSARY INFRASTRUCTURE CONSTRUCTION. [NOTE: PLEASE UPDATE AS PER THE PROJECT]
6. REQUEST FINAL WALKTHROUGH AND CONDUCT WALKTHROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.
7. ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

1. THE CITY OF LEANDER ENVIRONMENT INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
2. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6" TOPSOIL. THE 6" MINIMUM SOIL DEPTH SHALL CONSISTS OF 75% SOIL BLENDED WITH 25% COMPOST.
3. ALL DISTURBED AREAS SHALL BE RE-VEGETATED USING ONLY APPROVED GRASSES FROM THE GROW GREEN GUIDE.
4. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
5. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
6. ANY ON-SITE SPOILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPOIL SHALL NOT EXCEED 10 FEET IN ANY AREA.
7. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
8. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164-WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARITIES OF BERMUDA SHALL NOT BE USED.
9. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.
10. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
11. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

WATER AND WASTEWATER GENERAL NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:

WATER SERVICE	"W" ON TOP OF CURB
WASTEWATER SERVICE	"S" ON TOP OF CURB
VALVE	"V" ON TOP OF CURB

3. OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	PERCENT RETAINED BY WEIGHT
1/2"	0
3/8"	0-2
#4	40-85
#10	95-100

6. DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

WATER NOTES

1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
2. CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
6. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.
7. ALL DEAD-END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONAL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURER'S RECOMMENDATION AND/OR ENGINEER'S DESIGN.
8. PIPE MATERIAL FOR WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-P-W).
9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
12. ALL WATER METER BOXES SHALL BE:

a. SINGLE, 1" METER AND BELOW	DFW37F-12-1CA, OR EQUAL
b. DUAL, 1" METERS AND BELOW	DFW39F-12-1CA, OR EQUAL
c. 1.5" SINGLE METER	DFW65C-14-1CA, OR EQUAL
d. 2" SINGLE METER	DFW1730F-12-1CA, OR EQUAL

13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER NOTES

1. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
2. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE". ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSABILITY STANDARDS (TAS).
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
6. ALL DRAINAGE PIPE IN PUBLIC RIGHT-OF-WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT-OF-WAY OR EASEMENTS.
7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY MLA GEOTECHNICAL DATED NOVEMBER 13, 2024. . PAVEMENT RECOMMENDATIONS ARE AS FOLLOWS: (SEE TABLE BELOW)

Expected Traffic	Average Daily Truck Traffic	Flexible Pavement		Rigid Pavement	
		HMAC	CLB	JRPCC	CLB
Passenger Vehicles	1	2	8	6	-
Heavy Duty Trucks*	Up to 10	2	10	6	-

13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCKPILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT-OF-WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT-OF-WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT-OF-WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

DRY UTILITY NOTES

1. CONTACTOR SHALL MAINTAIN MINIMUM 24" CLEARANCE FROM ALL EXISTING UTILITIES.
2. FOR PUBLIC WATER & WASTEWATER LINE EMERGENCIES, CONTACT THE CITY OF LEANDER PUBLIC WORKS EMERGENCY 24-HOUR ON-CALL LINE AT 512-690-4760.
3. THE CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES THAT ARE TO BE EXTENDED, TIED TO, CROSSED, OR ALTERED; OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.
4. CONTACT THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT FOR EXISTING WATER, WASTEWATER, STREET LIGHT ELECTRICAL WIRING, AND TRAFFIC SIGNAL WIRING LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
   a. LOCATE REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET.
   b. REFRESH ALL LOCATES BEFORE 14 DAYS – LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.
   c. REPORT ALL DAMAGE TO CITY INFRASTRUCTURE IMMEDIATELY – IF YOU WITNESS OR EXPERIENCE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT BY PHONE. IF DAMAGE IS WITNESSED OR EXPERIENCED AFTER HOURS, CALL THE CITY OF LEANDER UTILITIES ON-CALL LINE AT THE NUMBER LISTED ABOVE.
5. A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT & CITY OF LEANDER REPRESENTATIVES PRIOR TO INSTALLATION OF EROSION/SEDIMENTATION CONTROLS & TREE PROTECTION MEASURES AS WELL AS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER PLANNING DEPARTMENT AT 512-528-2750 AT LEAST THREE (3) DAYS PRIOR TO MEETING DATE.
6. CITY OF LEANDER NOISE ORDINANCE PROHIBITS CONSTRUCTION ACTIVITY BETWEEN THE HOURS OF 9 PM AND 7 AM. REQUESTS FOR EXCEPTIONS TO THE ORDINANCE MUST BE MADE TO LEANDER CITY COUNCIL.
7. CONTRACTOR SHALL BORE UNDER ALL DRIVEWAYS, STREET CROSSINGS AND OTHER PAVED AREAS OPEN CUT CROSSING SHALL NOT BE ALLOWED.
8. CONTRACTOR SHALL REPLACE ALL DAMAGED PAVEMENT, CURB & GUTTER, SIDEWALK, CURB INLETS AND ALL OTHER INFRASTRUCTURE DAMAGED BY CONSTRUCTION PER CITY OF LEANDER STANDARDS & SPECIFICATIONS.
9. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING AFTER CONSTRUCTION.
10. ALL UNDERGROUND UTILITY LINES SHALL CROSS UNDERNEATH WATERLINES.
11. THE MINIMUM DEPTH OF COVER FOR UTILITY LINES INSTALLED UNDER CITY OF LEANDER ROADWAYS SHALL BE 36" BENEATH FINISHED GRADE.

1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

BENCHMARK NOTES

ALL BEARINGS AND COORDINATES SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203) NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) EPOCH 20100.00 COORDINATES SHOWN ARE IN SURFACE VALUES, AND MAY BE CONVERTED TO GRID BY MULTIPLYING BY A SURFACE FACTOR OF 0.999880014. DISTANCES SHOWN ARE U.S. SURVEY FEET DISPLAYED IN SURFACE VALUES. SURVEY OBSERVATIONS WERE MADE ON THE GROUND USING A COMBINATION OF RTK AND STATIC NETWORKS.

BENCHMARK LIST
TBM #1
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,186,134.79
GRID EASTING: 3,081,551.84
ELEVATION: 951.476'
TBM #2
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,185,403.27
GRID EASTING: 3,082,007.75
ELEVATION: 934.354'

GENERAL CONSTRUCTION NOTES

GENERAL
WE UNDERSTAND CURRENT PLANS ARE THAT THE ROADWAYS WILL LIKELY CONSIST OF FLEXIBLE PAVEMENTS. THEREFORE, WE HAVE PREPARED THE FOLLOWING RECOMMENDATIONS FOR THE DESIGN AND CONSTRUCTION OF FLEXIBLE PAVEMENT SYSTEMS. WE UNDERSTAND THE PROPOSED PAVEMENTS FOR THIS DEVELOPMENT WILL BE DESIGNED AND CONSTRUCTED IN GENERAL ACCORDANCE WITH THE CITY OF AUSTIN DESIGN STANDARDS. THESE GUIDELINES REQUIRE THAT STREETS BE DESIGNED USING THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) "GUIDE FOR DESIGN OF PAVEMENT STRUCTURES".

SUBGRADE DESIGN CONSIDERATIONS
BASED ON THE SUBSURFACE INFORMATION OBTAINED AT THE SOIL BORINGS DRILLED ALONG THE ALIGNMENT OF THE PROPOSED STREETS, THE PAVEMENT SUBGRADE SOIL PROFILE GENERALLY CONSISTS OF A FIRM TO STIFF FAT CLAY (CH). AS A PART OF ANY PAVEMENT DESIGN, THE STRENGTH OF THE UNDERLYING SUBGRADE MUST BE TAKEN INTO CONSIDERATION. THIS IS OFTEN ACCOMPLISHED BY PERFORMING A LABORATORY CALIFORNIA BEARING RATIO (CBR) TEST TO APPROXIMATE A SOIL RESILIENT MODULUS WHICH IS UTILIZED IN THE DESIGN. BASED UPON THE FINDINGS OF OUR EXPLORATORY BORINGS AND RESULTS OF LABORATORY TESTING, OUR EXPERIENCE WITH SIMILAR SOILS IN NEARBY SUBDIVISION UNITS, WE HAVE USED A DESIGN CBR OF APPROXIMATELY TWO (2) FOR THE PAVEMENTS WITHIN THIS DEVELOPMENT. TRAFFIC INFORMATION WAS NOT AVAILABLE AT THE TIME OF THIS REPORT; THEREFORE, ESALS WERE ESTIMATED AND CATEGORIZED AS LIGHT-DUTY AND HEAVY-DUTY TRAFFIC.

GEOTECHNICAL REPORT NOTES

ALL EARTHWORK, GRADING AND SITE IMPROVEMENTS SHALL FOLLOW THE RECOMMENDATIONS IN "*GEOTECHNICAL INVESTIGATION FOUNDATION AND PAVEMENT RECOMMENDATIONS*" GEOTECHNICAL REPORT BY MLA GEOTECHNICAL DATED NOVEMBER 13, 2024.

TCEQ NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
2. ALL PLASTIC PIPE FOR USE IN PUBLIC WATER SYSTEMS MUST ALSO BEAR THE NATIONAL SANITATION FOUNDATION 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.
3. NO PIPE WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.
4. WATER TRANSMISSION AND DISTRIBUTION LINES MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. HOWEVER, THE TOP OF THE WATER LINE MUST BE LOCATED BELOW THE FROST LINE AND IN NO CASE SHALL THE TOP OF THE WATERLINE BE LESS THAN 24 INCHES BELOW GROUND SURFACE.
5. THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULAS.
6. ALL WATERLINES SHALL BE HYDROSTATIC LEAK TESTED IN CONFORMANCE WITH AWWA C600-93 FOR DUCTILE IRON PIPE AND AWWA C605-94 FOR PVC PIPE.
7. ALL WATERLINES SHALL BE DISINFECTED IN CONFORMANCE WITH AWWA C651-92.

TCEQ 217.53(d) SEPARATION DISTANCES

(d) SEPARATION DISTANCES BETWEEN PUBLIC WATER SUPPLY PIPES AND WASTEWATER COLLECTION PIPES OR MANHOLES.

(1) COLLECTION SYSTEM PIPES MUST BE INSTALLED IN TRENCHES SEPARATE FROM PUBLIC WATER SUPPLY TRENCHES.

(2) COLLECTION SYSTEM PIPES MUST BE NO CLOSER THAN NINE FEET IN ANY DIRECTION TO A PUBLIC WATER SUPPLY LINE.

(3) IF A NINE-FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY.

(A) IF A COLLECTION SYSTEM PARALLELS A PUBLIC WATER SUPPLY PIPE THE FOLLOWING REQUIREMENTS APPLY.

(i) A COLLECTION SYSTEM PIPE MUST BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC MEETING ASTM SPECIFICATIONS WITH AT LEAST 150 POUNDS PER SQUARE INCH (PSI) PRESSURE RATING FOR BOTH THE PIPE AND JOINTS.

(ii) A VERTICAL SEPARATION MUST BE AT LEAST TWO FEET BETWEEN THE OUTSIDE DIAMETERS OF THE PIPES

(iii) A HORIZONTAL SEPARATION MUST BE AT LEAST FOUR FEET BETWEEN OUTSIDE DIAMETERS OF THE PIPES

(iv) A COLLECTION SYSTEM PIPE MUST BE BELOW A PUBLIC WATER SUPPLY PIPE.

(B) IF A COLLECTION SYSTEM PIPE CROSSES A PUBLIC WATER SUPPLY PIPE, THE FOLLOWING REQUIREMENTS APPLY:

(i) IF A COLLECTION SYSTEM IS CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, THE FOLLOWING REQUIREMENTS APPLY:

(I) A MINIMUM SEPARATION DISTANCE IS SIX INCHES BETWEEN OUTSIDE DIAMETERS OF PIPES.

(II) A COLLECTION SYSTEM PIPE MUST BE BELOW A PUBLIC WATER SUPPLY PIPE.

(III) COLLECTION SYSTEM PIPE JOINTS MUST BE LOCATED AS FAR AS POSSIBLE FROM AN INTERSECTION WITH A PUBLIC WATER SUPPLY LINE.

(ii) IF A COLLECTION SYSTEM PIPE CROSSES UNDER A PUBLIC WATER SUPPLY PIPE AND THE COLLECTION SYSTEM PIPE IS CONSTRUCTED OF ACRYLONITRILE BUTADIENE STYRENE (ABS) TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE, OR CONCRETE PIPE WITH GASKETED JOINTS, THE FOLLOWING REQUIREMENTS APPLY:

(I) A MINIMUM SEPARATION DISTANCE IS TWO FEET.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CONTRIBUTING ZONE PLAN GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
4. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
5. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
7. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.
9. IF PORTIONS OF THE SITE WILL HAVE A CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
10. THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
    - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
    - -THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
11. THE HOLDER OF ANY APPROVED CZP MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES (BMPS) OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
    B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
    C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
    D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.
12. THE ENGINEER OF RECORD SHALL UPDATE THE NOTES TO BE SPECIFIC OF THE PROJECT.

AUSTIN REGIONAL OFFICE	SAN ANTONIO REGIONAL OFFICE
12100 PARK 35 CIRCLE, BUILDING A	14250 JUDSON ROAD
AUSTIN, TEXAS 78753-1808	SAN ANTONIO, TEXAS 78233-4480
PHONE (512) 339-2929	PHONE (210) 490-3096
FAX (512) 339-3795	FAX (210) 545-4329

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
GENERAL NOTES
183A FRONTAGE ROAD, LEANDER, TX 78641

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-GN01

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER V
127034
LICENSED
PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER:

GN01

SHEET NO. 02 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

I:\A3452\0401\Submittal Sheets\SDP - Lot 1\A3452-0401-GN01.dwg
User: dmcnamara
Last Modified: Aug. 05, 25 - 15:05
Plot Date/Time: Aug. 05, 25 - 15:07:26

BENCHMARK LIST:

1
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,186,134.79
GRID EASTING: 3,081,551.84
ELEVATION: 951.476'

2
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,185,403.27
GRID EASTING: 3,082,007.75
ELEVATION: 934.354'

PROJECT ADDRESS:

1550 CR 269
LEANDER, TEXAS 78641
SITE AREA: 4.151 ACRES

BEARING BASIS:

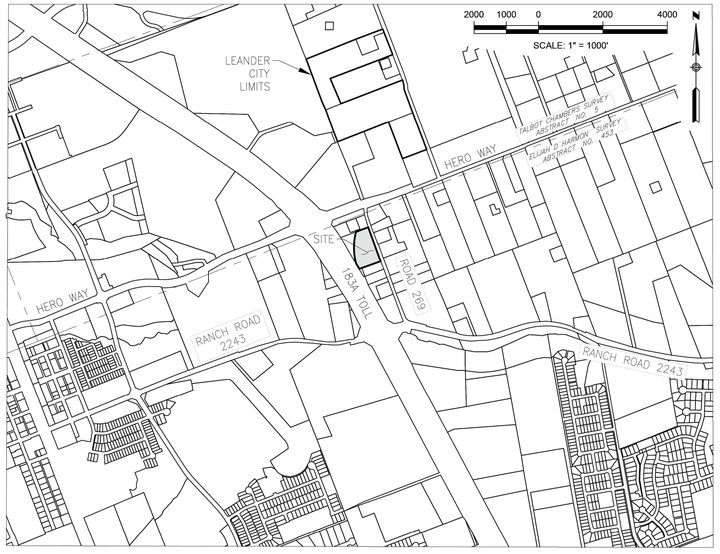
ALL BEARINGS BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE (4203), NAD83, ALL DISTANCES, ACREAGE AND COORDINATES ARE SURFACE. TO ADJUST TO GRID, MULTIPLY SURFACE VALUES BY A COMBINED SCALE FACTOR OF 0.99988001144.

OBSERVATIONS WERE COLLECTED USING A COMBINATION OF RTK AND THE VRS NETWORK.

SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PLAT MAP
3	NOTES & SIGNATURES

HUB COMMERCIAL
FINAL PLAT



VICINITY MAP

OWNER/DEVELOPER: FORTUNE COMMERCIAL DEVELOPMENT, LLC
3980 HERO WAY
LEANDER, TX 78641

ENGINEER: LJA ENGINEERING, INC.
7500 RIALTO BOULEVARD, BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
CONTACT PERSON: CHARLES HAGER, P.E.
PHONE: (512) 439-4700
FAX: (512) 493-4716

SURVEYOR: LJA SURVEYING, INC.
9830 COLONNADE BOULEVARD, SUITE 300
SAN ANTONIO, TEXAS 78230
T.B.P.E.L.S. FIRM NO. 10194382
CONTACT PERSON: GORDON N. ANDERSON
R.P.L.S. No. 6617
PHONE: (512) 767-7398

AGENT: LJA ENGINEERING, INC.
7500 RIALTO BOULEVARD, BUILDING II, SUITE 100
AUSTIN, TEXAS 78735
CONTACT PERSON: CHARLES HAGER, P.E.
PHONE: (512) 439-4700
FAX: (512) 493-4716

FILING DATE: 1/14/2025

PROJECT SUMMARY:

	LOT 1	LOT 2	LOT 3	ROW	TOTAL
SITE AREA AC.	1.471	1.675	0.832	0.173	4.151
EX. LAND USE	VACANT	VACANT	VACANT	VACANT	VACANT
PROP. LAND USE	COMM.	COMM.	COMM.	ROW	COMM.

SITE AREA TABLE:

TOTAL EXISTING SITE AREA	4.151-AC
R.O.W. TO BE DEDICATED BY PLAT	0.173-AC
TOTAL NET SITE AREA:	3.978-AC

LAND USE AREA TABLE:

COMMERCIAL AREA:	3.978-AC

A
FINAL PLAT
OF
HUB COMMERCIAL
4.151 ACRES
OUT OF THE
ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6
IN THE
CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS

LJA SURVEYING, INC.
9830 COLONNADE BLVD.
SUITE 300
SAN ANTONIO, TEXAS 78230
PHONE 210-503-2700
TBPELS FIRM NO. 10194382

CITY OF LEANDER PROJECT No. FP-24-0202

THIS PLAT FILED IN 1/14/2025

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Date: 1/14/2025 4:04:19 PM Plotted By: Gordon Anderson

CITY OF LEANDER APPROVAL

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
FINAL PLAT SHEET 1
183A FRONTAGE ROAD, LEANDER, TX 78641

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-FP01

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

FP01

SHEET NO. 03
OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

BENCHMARK LIST:

1
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,186,134.79
GRID EASTING: 3,081,551.84
ELEVATION: 951.476'

2
5/8" IRON ROD WITH LJA CONTROL CAP
GRID NORTHING: 10,185,403.27
GRID EASTING: 3,082,007.75
ELEVATION: 934.354'

PROJECT ADDRESS:

1550 CR 269
LEANDER, TEXAS 78641
SITE AREA: 4.151 ACRES

BEARING BASIS:

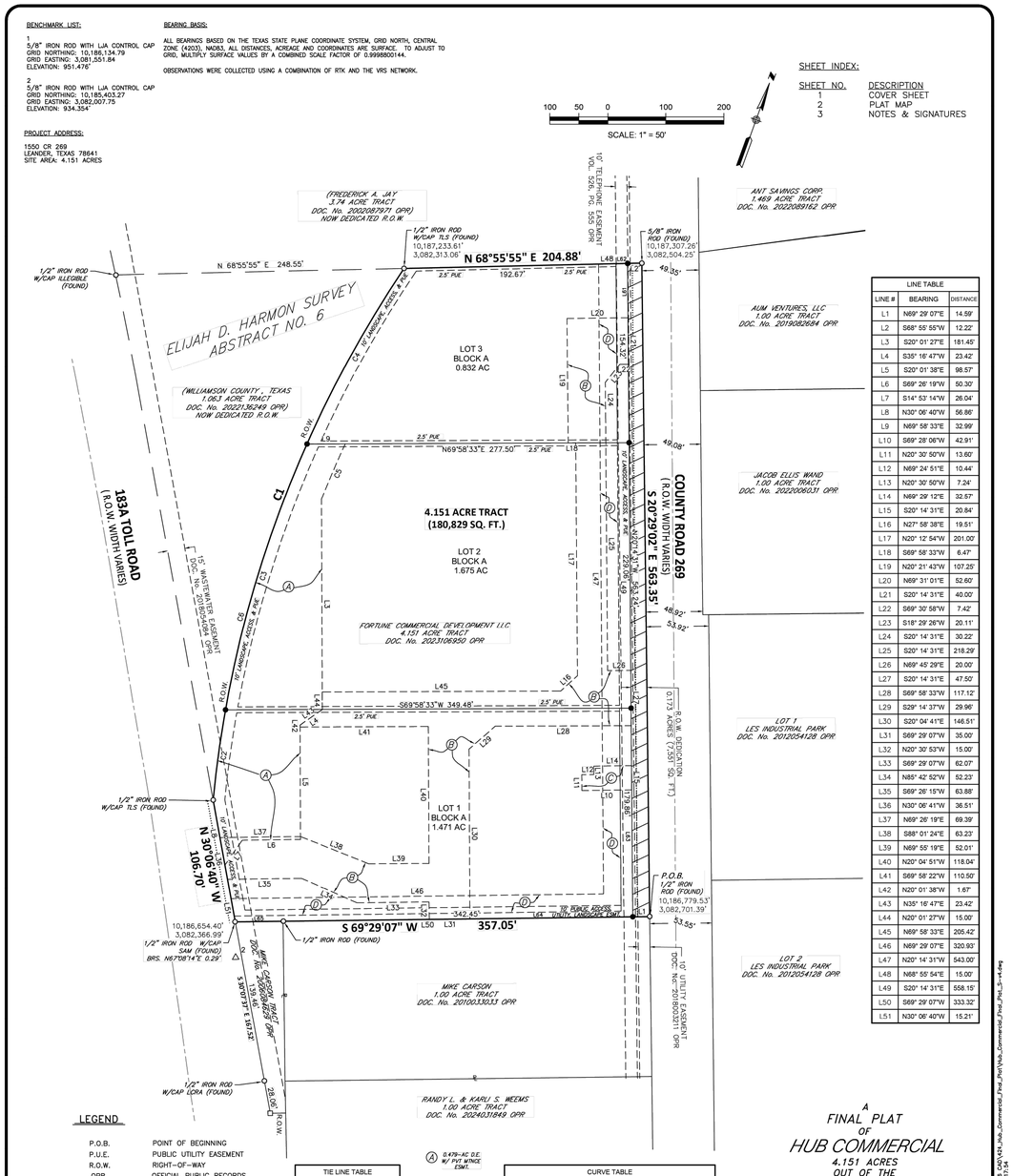
ALL BEARINGS BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE (4203), NAD83, ALL DISTANCES, ACREAGE AND COORDINATES ARE SURFACE. TO ADJUST TO GRID, MULTIPLY SURFACE VALUES BY A COMBINED SCALE FACTOR OF 0.99988500144.

OBSERVATIONS WERE COLLECTED USING A COMBINATION OF RTK AND THE VRS NETWORK.

SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PLAT MAP
3	NOTES & SIGNATURES

100 50 0 100 200
SCALE: 1" = 50'



LINE TABLE		
LINE #	BEARING	DISTANCE
L1	N69° 29' 07"E	14.59'
L2	S68° 55' 55"W	12.22'
L3	S20° 01' 27"E	181.45'
L4	S35° 16' 47"W	23.42'
L5	S20° 01' 38"E	98.57'
L6	S69° 26' 19"W	50.30'
L7	S14° 53' 14"W	26.04'
L8	N30° 06' 40"W	56.86'
L9	N69° 58' 33"E	32.99'
L10	S69° 28' 06"W	42.91'
L11	N20° 30' 50"W	13.60'
L12	N69° 24' 51"E	10.44'
L13	N20° 30' 50"W	7.24'
L14	N69° 29' 12"E	32.57'
L15	S20° 14' 31"E	20.84'
L16	N27° 58' 38"E	19.51'
L17	N20° 12' 54"W	201.00'
L18	S69° 58' 33"W	6.47'
L19	N20° 21' 43"W	107.25'
L20	N69° 31' 01"E	52.60'
L21	S20° 14' 31"E	40.00'
L22	S69° 30' 58"W	7.42'
L23	S18° 29' 26"W	20.11'
L24	S20° 14' 31"E	30.22'
L25	S20° 14' 31"E	218.29'
L26	N69° 45' 29"E	20.00'
L27	S20° 14' 31"E	47.50'
L28	S69° 58' 33"W	117.12'
L29	S29° 14' 37"W	29.96'
L30	S20° 04' 41"E	146.51'
L31	S69° 29' 07"W	35.00'
L32	N20° 30' 53"W	15.00'
L33	S69° 29' 07"W	62.07'
L34	N85° 42' 52"W	52.23'
L35	S69° 26' 15"W	63.88'
L36	N30° 06' 41"W	36.51'
L37	N69° 26' 19"E	69.39'
L38	S88° 01' 24"E	63.23'
L39	N69° 55' 19"E	52.01'
L40	N20° 04' 51"W	118.04'
L41	S69° 58' 22"W	110.50'
L42	N20° 01' 38"W	1.67'
L43	N35° 16' 47"E	23.42'
L44	N20° 01' 27"W	15.00'
L45	N69° 58' 33"E	205.42'
L46	N69° 29' 07"E	320.93'
L47	N20° 14' 31"W	543.00'
L48	N68° 55' 54"E	15.00'
L49	S20° 14' 31"E	558.15'
L50	S69° 29' 07"W	333.32'
L51	N30° 06' 40"W	15.21'

TIE LINE TABLE		
LINE #	BEARING	DISTANCE
L61	S20° 14' 31"E	46.65'
L62	S68° 55' 55"W	10.00'
L63	S20° 14' 31"E	109.36'
L64	S69° 29' 07"W	140.32'
L65	S69° 29' 07"W	41.13'

CURVE TABLE					
CURVE #	ARC LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	491.95'	991.00	28°26'33"	N00° 02' 48"W	486.91'
C2	78.54'	991.00	04°32'26"	N11° 59' 51"W	78.52'
C3	240.43'	991.00	13°54'02"	N02° 46' 37"W	239.84'
C4	172.98'	990.93	10°00'07"	N09° 10' 26"E	172.76'
C5	51.89'	961.00	3°05'38"	S03° 25' 58"W	51.89'
C6	316.96'	991.00	18°20'28"	N05° 02' 50"W	317.59'

LEGEND

P.O.B.	POINT OF BEGINNING
P.U.E.	PUBLIC UTILITY EASEMENT
R.O.W.	RIGHT-OF-WAY
OPR	OFFICIAL PUBLIC RECORDS WILLIAMSON COUNTY, TEXAS
ESMT.	EASEMENT
PVMT.	PAVEMENT
	SUBJECT BOUNDARY LINE
	ADJOINER/LOT LINE
	EASEMENT LINE
	APPROXIMATE CENTERLINE
	HISTORIC R.O.W. LINE
	SIDEWALK LINE
	R.O.W. DEDICATION

(A) 0.479-AC D.E. W/ PVT WNCE. ESMT.
(B) 0.708-AC ACCESS ESMT.
(C) 0.019-AC WATER ESMT.
(D) 0.302-AC 15' WW ESMT.

△ CONTROL (AS NOTED IN BENCHMARK LIST)
○ IRON ROD FOUND (AS NOTED)
□ TXDOT TYPE II MONUMENT FOUND
● 5/8" IRON ROD W/ CAP "LJA SURVEYING" SET

A FINAL PLAT OF HUB COMMERCIAL
4.151 ACRES
OUT OF THE
ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6
IN THE
CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS

LJA SURVEYING, INC.
9830 COLONNADE BLVD. SUITE 300
SAN ANTONIO, TEXAS 78230
PHONE 210-503-2700
TBPELS FIRM NO. 10194382

CITY OF LEANDER PROJECT No. FP-24-0202

THIS PLAT FILED IN 1/14/2025

S:\Clients\LJA Projects\LJA3452\LJA3452-0401\CAD\A3452-Hub_Commercial_Final_Plat\Hub_Commercial_Final_Plat_S-1-4.dwg
User: bobpfarr Plot Date/Time: Apr. 07, 25 - 14:17:54

CITY OF LEANDER APPROVAL

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
FINAL PLAT SHEET 2
183A FRONTAGE ROAD, LEANDER, TX 78641

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: C.CRH
DRAWN BY: R.RMB
CHECKED BY: C.CRH
DRAWING NAME: A3452-0401-FP01

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

FP02

SHEET NO. 04
OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL
FINAL PLAT

SHEET INDEX:

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PLAT MAP
3	NOTES & SIGNATURES

THE STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT, FORTUNE COMMERCIAL DEVELOPMENT, LLC, A TEXAS LIMITED LIABILITY COMPANY, AS THE OWNER OF THAT CERTAIN 4.151 ACRE TRACT OF LAND RECORDED IN DOCUMENT NUMBER 2023106950, OF THE OFFICIAL RECORDS OF WILLIAMSON COUNTY, TEXAS DOES HEREBY CERTIFY THAT THERE ARE NO LIEN HOLDERS AND DEDICATES TO THE PUBLIC FOREVER USE OF ALL ADDITIONAL ROW, STREETS, ALLEYS, EASEMENTS, PARKS, AND ALL OTHER LANDS INTENDED FOR PUBLIC DEDICATION, OR WHEN THE SUBDIVIDER HAS MADE PROVISION FOR PERPETUAL MAINTENANCE THEREOF, TO THE INHABITANTS OF THE SUBDIVISION AS SHOWN HEREON TO BE KNOWN AS:

"HUB COMMERCIAL FINAL PLAT"

_____ _____
FORTUNE COMMERCIAL DEVELOPMENT, LLC DATE
3980 HERO WAY
LEANDER, TX 78641
CONTACT PERSON: _____
PHONE: _____

THE STATE OF TEXAS §
COUNTY OF WILLIAMSON §

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS THE DAY OF___, 20___, PERSONALLY APPEARED_____ AS CONTACT OF FORTUNE COMMERCIAL DEVELOPMENT LLC, A DULY AUTHORIZED AGENT WITH AUTHORITY TO SIGN SAID DOCUMENT, PERSONALLY KNOWN TO ME (AND PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT (S)HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE ON THIS THE __ DAY OF _____ 20___.

NOTARY PUBLIC–STATE OF _____

PRINTED NAME: _____
MY COMMISION EXPIRES: _____

FINAL PLAT NOTES:

1) THIS SUBDIVISION IS WHOLLY CONTAINED WITHIN THE CURRENT CORPORATE LIMITS OF THE CITY OF LEANDER, TEXAS.
2) NO LOT IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO THE CITY OF LEANDER WATER DISTRIBUTION AND WASTEWATER FACILITIES.
3) A BUILDING PERMIT IS REQUIRED FROM THE CITY OF LEANDER PRIOR TO CONSTRUCTION OF ANY BUILDING OR SITE IMPROVEMENTS ON ANY LOT IN THIS SUBDIVISION.
4) NO BUILDINGS, FENCES, LANDSCAPING OR OTHER STRUCTURES ARE PERMITTED WITHIN DRAINAGE EASEMENTS SHOWN EXCEPT AS APPROVED BY THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT.
5) PROPERTY OWNER SHALL PROVIDE FOR ACCESS TO DRAINAGE EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY THE CITY OF LEANDER.
6) ALL EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS OR HER ASSIGNS.
7) IN ADDITION TO THE EASEMENTS SHOWN HEREIN, A TEN (10') FOOT WIDE PUBLIC UTILITY, LANDSCAPE, AND ACCESS EASEMENT SHALL BE DEDICATED ALONG AND ADJACENT TO ALL RIGHT–OF–WAY AND THE SOUTHERN SUBDIVISION BOUNDARY AND A TWO AND A HALF (2.5') FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG ALL SIDE LOT LINES AND THE NORTHERN SUBDIVISION BOUNDARY.
8) NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATE MAP PANEL #48491C0455F OF WILLIAMSON COUNTY, EFFECTIVE ON DECEMBER 20, 2019.
9) BUILDING SETBACKS NOT SHOWN HEREON SHALL COMPLY WITH THE MOST CURRENT ZONING ORDINANCE OF THE CITY OF LEANDER.
10) ALL UTILITY LINES MUST BE LOCATED UNDERGROUND.
11) APPROVAL OF THIS FINAL PLAT DOES NOT CONSTITUTE THE APPROVAL OF VARIANCES OR WAIVERS TO ORDINANCE REQUIREMENTS.
12) ALL DRIVE LANES, FIRE LANES, AND DRIVEWAYS WITHIN THIS SUBDIVISION SHALL PROVIDE FOR RECIPROCAL ACCESS FOR INGRESS AND EGRESS TO ALL OTHER LOTS WITHIN THE SUBDIVISION AND TO ADJACENT PROPERTIES.
13) SIDEWALKS SHALL BE INSTALLED ON THE SUBDIVISION SIDES OF 183A TOLL ROAD AND CR 269. THOSE SIDEWALKS NOT ABUTTING A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL LOT (INCLUDING SIDEWALKS ALONG STREET FRONTAGES OF LOTS PROPOSED FOR SCHOOLS, CHURCHES, PARK LOTS, DETENTION LOTS, DRAINAGE LOTS, LANDSCAPE LOTS, OR SIMILAR LOTS), SIDEWALKS ON ARTERIAL STREETS TO WHICH ACCESS IS PROHIBITED, SIDEWALKS ON DOUBLE FRONTAGE LOTS ON THE SIDE TO WHICH ACCESS IS PROHIBITED, AND ALL SIDEWALKS ON SAFE SCHOOL ROUTES SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED.
14) PUBLIC UTILITIES ARE REQUIRED TO BE EXTENDED ALONG PUBLIC RIGHTS–OF–WAY. THESE IMPROVEMENTS ARE REQUIRED TO BE SUBMITTED AS A PUBLIC IMPROVEMENT CONSTRUCTION PLAN SET CONCURRENTLY WITH THE SHORT FORM FINAL PLAT APPLICATION.
15) A WAIVER TO THE PERIMETER BLOCK LENGTH REQUIREMENTS FOR THE PEDESTRIAN ACCESS TO QUALIFY AS A BREAK IN THE BLOCK WILL NEED TO BE REVIEWED BY THE PLANNING AND ZONING COMMISSION CONCURRENTLY WITH THE PLAT APPLICATION.
16) RIGHT–OF–WAY DEDICATION WILL BE REQUIRED AT THE FINAL PLAT STAGE FOR CR 269 IN COMPLIANCE WITH THE TRANSPORTATION MASTER PLAN.

BEARING BASIS:
ALL BEARINGS BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD83, ALL DISTANCES AND COORDINATES ARE SURFACE. TO ADJUST TO GRID, MULTIPLY SURFACE VALUES BY A COMBINED SCALE FACTOR OF 0.999880014.

OBSERVATIONS WERE COLLECTED USING A COMBINATION OF RTK AND THE VRS NETWORK.

FIELD NOTE DESCRIPTION

BEING A 4.151 ACRE (180,831 SQUARE FEET) TRACT OF LAND SITUATED IN WILLIAMSON COUNTY, TEXAS, OUT OF THE ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6, AND BEING THE REMAINING PORTION OF THAT SAME PROPERTY CALLED 5.221 ACRES, CONVEYED TO GP LIBERTY HILL LLC, AND DESCRIBED IN THAT GENERAL WARRANTY DEED RECORDED UNDER DOCUMENT NO. 2160863336, OF THE OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS (O.P.R.W.C.TX.), SAID 4.151 ACRE (180,829 SQUARE FEET) TRACT BEING MORE PARTICULARLY ESCRIBED AS FOLLOWS:

BEGINNING AT A FOUND 1/2–INCH IRON ROD ON THE WEST RIGHT OF WAY (R.O.W.) LINE OF COUNTY ROAD 269 (VARIABLE WIDTH) AND NORTHEAST CORNER OF A CALLED 1.00 ACRE TRACT CONVEYED TO MIKE CARSON, DESCRIBED AND RECORDED IN DOCUMENT NO. 2010033033, O.P.R.W.C.TX., SAME BEING THE SOUTHEAST CORNER OF SAID GP LIBERTY HILL LLC TRACT;

THENCE SOUTH 69°29'07" WEST ALONG THE NORTH LINE OF SAID 1.00 ACRE TRACT, IN PART, ALONG THE NORTH LINE OF A CALLED 1.97 ACRE TRACT CONVEYED TO MIKE CARSON, DESCRIBED AND RECORDED IN DOCUMENT NO. 2006084629, O.P.R.W.C.TX., AND THE SOUTH LINE OF SAID GP LIBERTY HILL LLC TRACT, AT 315.50 FEET PASSING A 1/2–INCH IRON ROD FOUND FOR THE NORTHWEST CORNER OF SAID 1.00 ACRE TRACT, CONTINUING FOR A TOTAL OF 357.05 FEET TO A 1/2–INCH IRON ROD WITH YELLOW CAP STAMPED "SAM INC" FOUND IN THE EAST R.O.W. LINE OF U.S. HIGHWAY 183A (VARIABLE WIDTH) AND SOUTHWEST CORNER OF SAID GP LIBERTY HILL LLC TRACT;

THENCE NORTH 30°06'40" WEST ALONG SAID EAST R.O.W. LINE AND WEST LINE OF SAID GP LIBERTY HILL LLC TRACT, A DISTANCE OF 106.70 FEET TO A 1/2–INCH IRON ROD WITH PINK CAP STAMPED "TLS" FOUND FOR THE SOUTH CORNER OF A CALLED 1.063 ACRE TRACT OF LAND CONVEYED TO WILLIAMSON COUNTY, TEXAS, DESCRIBED AND RECORDED IN DOCUMENT NO. 2022136249, O.P.R.W.C.TX, AND BEGINNING OF A NON–TANGENT CURVE TO THE RIGHT;

THENCE, ALONG THE EAST LINE OF SAID 1.063 ACRE TRACT, OVER AND ACROSS SAID GP LIBERTY HILL LLC TRACT, 491.95 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 991.00 FEET, A DELTA ANGLE OF 28°26'33", AND A CHORD WHICH BEARS NORTH 02°02'48" WEST A DISTANCE OF 486.91 FEET TO A 1/2–INCH IRON ROD WITH PINK CAP STAMPED "TLS" FOUND IN THE SOUTH LINE OF A CALLED 3.74 ACRE TRACT OF LAND CONVEYED TO FEDERICK A. JAY, DESCRIBED AND RECORDED IN DOCUMENT NO. 2002087971, O.P.R.W.C.TX, THE NORTHEAST CORNER OF SAID 1.063 ACRE TRACT, AND BEING THE NORTHWEST CORNER OF THE REMAINDER OF SAID GP LIBERTY HILL LLC TRACT, FROM WHICH POINT A 1/2–INCH IRON ROD WITH ILLEGIBLE YELLOW CAP FOUND FOR THE SOUTHWEST CORNER OF SAID 3.74 ACRE TRACT BEARS SOUTH 68°55'55" WEST, A DISTANCE OF 248.55 FEET;

THENCE NORTH 68°55'55" EAST ALONG THE SOUTH LINE OF SAID 3.74 ACRE TRACT AND NORTH LINE OF THE REMAINDER OF SAID GP LIBERTY HILL LLC TRACT, A DISTANCE OF 204.88 FEET TO A FOUND 5/ 8–INCH IRON ROD ON THE WEST R.O.W. LINE OF COUNTY ROAD 269,AND BEING THE SOUTHWEST CORNER OF SAID 3.74 ACRE TRACT AND NORTHEAST CORNER OF SAID GP LIBERTY HILL LLC TRACT;

THENCE SOUTH 20°29'02" EAST ALONG SAID R.O.W. LINE AND EAST LINE OF SAID GP LIBERTY HILL TRACT, A DISTANCE OF 563.35 FEET TO THE POINT OF BEGINNING OF SAID 4.151 ACRE (180,831 SQUARE FEET) TRACT OF LAND

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT I, GORDON N. ANDERSON, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF LAND SURVEYING AND HEREBY STATE THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE ON–THE–GROUND SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH ALL CITY OF LEANDER ORDINANCE AND CODES, AND THAT ALL EXISTING EASEMENTS OF RECORD AS FOUND ON THE TITLE POLICIES PROVIDED BY OLD REPUBLIC TITLE INSURANCE COMPANY, GF NO. 2312010–LBH, HAVING AN EFFECTIVE DATE OF APRIL 18, 2023, AND ISSUED DATE APRIL 25, 2023 AND HAVE BEEN NOTED OR SHOWN HEREON. NOTHING FURTHER DATED WITHIN 1 YEAR.

STATE OF TEXAS REGISTERED GORDON N. ANDERSON 6617 PROFESSIONAL LAND SURVEYOR

_____ _____
GORDON N. ANDERSON, R.P.L.S. No. 6617 DATE
LJA SURVEYING, INC.,
9830 COLONADE BOULEVARD, SUITE 300
SAN ANTONIO, TEXAS 778230
T.B.P.L.S. FIRM NO. 10194382

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT I, CHARLES R. HAGER, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING, AND DO HEREBY STATE THAT THIS PLAT CONFORMS WITH THE APPLICABLE ORDINANCES OF THE CITY OF LEANDER, TEXAS.

STATE OF TEXAS CHARLES R. HAGER V 127034 LICENSED PROFESSIONAL ENGINEER

_____ _____
CHARLES R. HAGER V, P.E. No. 127034 DATE
LJA ENGINEERING, INC.,
7500 RIALTO BOULEVARD, BUILDING II, SUITE 100
AUSTIN, TEXAS 78735

CITY OF LEANDER §
CERTIFICATE OF APPROVAL §

APPROVED THIS THE DAY OF ___, 20___ A.D. AT A PUBLIC MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF LEANDER, TEXAS AND AUTHORIZED TO BE FILED FOR RECORD BY THE COUNTY CLERK OF COUNTY.

_____ _____
JAMES OLIVER, CHAIRMAN DATE:
PLANNING & ZONING COMMISION
CITY OF LEANDER, TEXAS

_____ _____
ATTEST: DATE:
VERONICA TOVAR, RECORDING SECRETARY
PLANNING AND ZONING COMMISION
CITY OF LEANDER, TEXAS

THE STATE OF TEXAS §
COUNTY OF WILLIAMSON §

I, NANCY RISTER, CLERK OF COUNTY COURT, OF SAID COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE ___ DAY OF _____, _____, A.D., AND DULY RECORDED ON THE ___ DAY OF _____, _____, A.D., AT ___ O'CLOCK ___.M. IN THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS IN INSTRUMENT NO. _____.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT THE COUNTY COURT OF SAID COUNTY OF OFFICE IN GEORGETOWN, TEXAS, THE DATE LAST SHOWN ABOVE WRITTEN.

_____
NANCY RISTER, CLERK COUNTY COURT OF WILLIAMSON COUNTY, TEXAS

BY: _____, DEPUTY

LJA SURVEYING, INC.
9830 COLONNADE BLVD. SUITE 300 SAN ANTONIO, TEXAS 78230
PHONE 210-503-2700
TBPELS FIRM NO. 10194382

CITY OF LEANDER PROJECT No. FP-24-0202

THIS PLAT FILED IN 1/14/2025 3 OF 3

A
FINAL PLAT
OF
HUB COMMERCIAL
4.151 ACRES
OUT OF THE
ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6
IN THE
CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS

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CITY OF LEANDER APPROVAL

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
FINAL PLAT SHEET 3
183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	DESCRIPTION	BY	DATE

REVISIONS

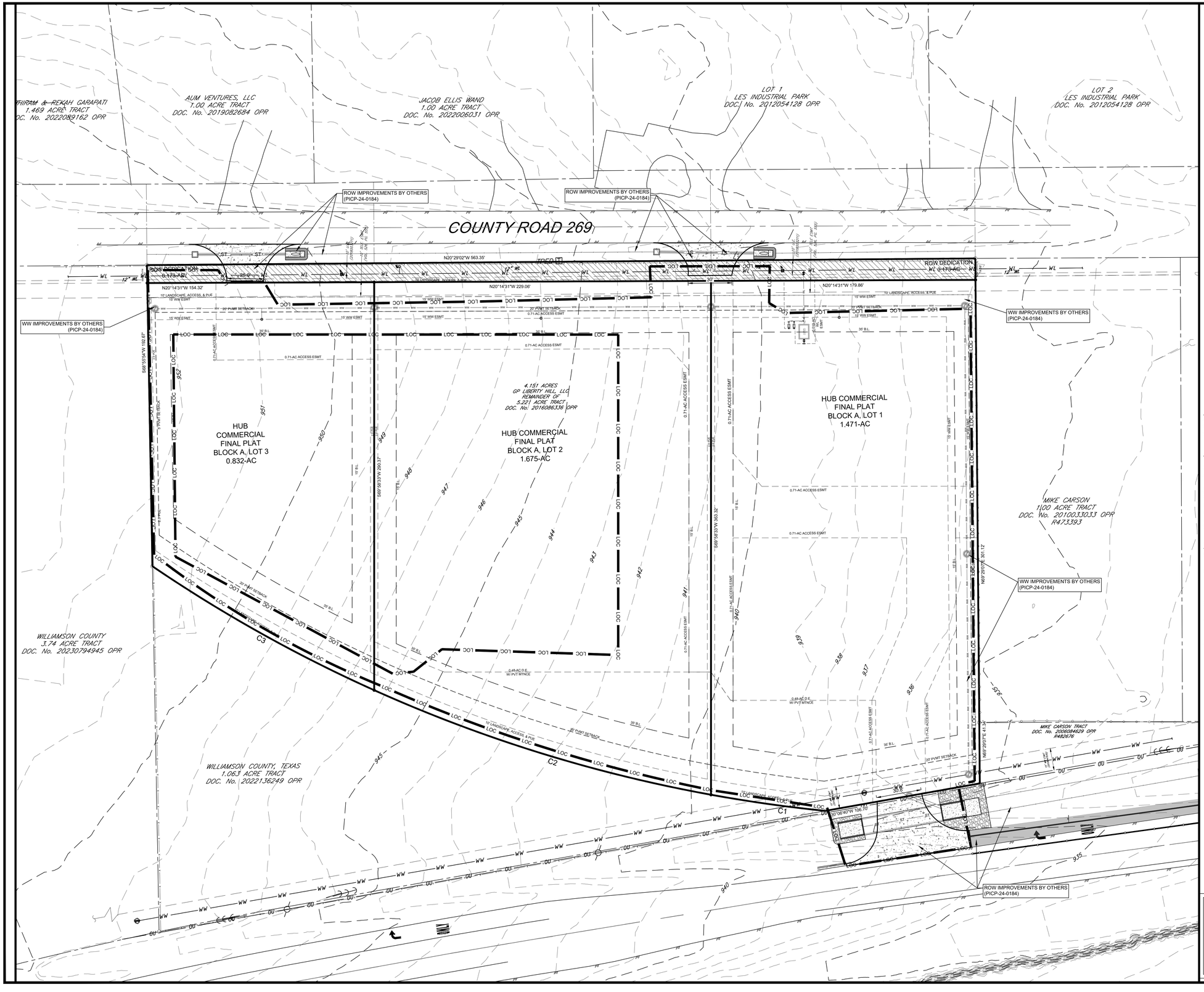
DATE: 7/29/2025
DESIGNED BY: C.CRH
DRAWN BY: R.RMB
CHECKED BY: C.CRH
DRAWING NAME: A3452-0401-FP01

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

FP03

SHEET NO. 05
OF 31 SHEETS



40 20 0 40 80
SCALE IN FEET

LEGEND

- SURVEYED CONTOUR MAJOR
- SURVEYED CONTOUR MINOR
- NON-SURVEYED CONTOUR
- PROPERTY LINE
- LOT LINE
- LIMITS OF CONSTRUCTION
- WATER LINE
- WASTEWATER LINE
- STORM SEWER LINE
- GAS LINE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- TELECOM
- FENCE
- EDGE OF PAVEMENT

BEARING BASIS:
ALL BEARINGS BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE (4203), NAD83. SURFACE TO GRID CONVERSION FACTOR IS 0.999880014.

UTILITY NOTE:
THE SURVEYOR MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED (UTILITIES SHOWN HEREON MAY BE EXAGGERATED FOR GRAPHIC REPRESENTATION ONLY) ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, ONLY THE VISIBLE ABOVE GROUND UTILITY STRUCTURES.

GENERAL NOTES:

1. THIS PROJECT LIES WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
2. THERE ARE NO WETLANDS OR SENSITIVE FEATURE PROTECTION ZONES LOCATED WITHIN THE BOUNDARY OF THE PROJECT, AS DISCUSSED IN THE PHASE 1 ESA PREPARED BY HORIZON ENVIRONMENTAL SERVICES, INC. DATED JULY 12, 2023.
3. THERE ARE NO NATURAL SLOPES GREATER THAN 15% WITHIN THE PROJECT BOUNDARY.
4. NO PORTION OF THE PROJECT IS LOCATED WITHIN A 100-YR FLOODPLAIN PER FEMA MAP NO. 48491C0455F, DATED DECEMBER 20, 2019.
5. SURVEY WAS COMPLETED BY LJA SURVEYING ON 2/1/24 AND ALL VISABLE IMPROVEMENTS ARE SHOWN HEREON. THERE ARE NO EXISTING TREES WITHIN THE PROJECT BOUNDARY.

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

HUB COMMERCIAL DEVELOPMENT LOT 1 SITE DEVELOPMENT PLAN

EXISTING CONDITIONS AND DEMO PLAN

183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: c:\a3452-01-ex.dwg

7/29/2025

STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

EX01

SHEET NO. 06 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

I:\A3452\0401\Submittal Sheets\SDP – Lot 1\A3452-0401-EX-CONDITIONS.dwg
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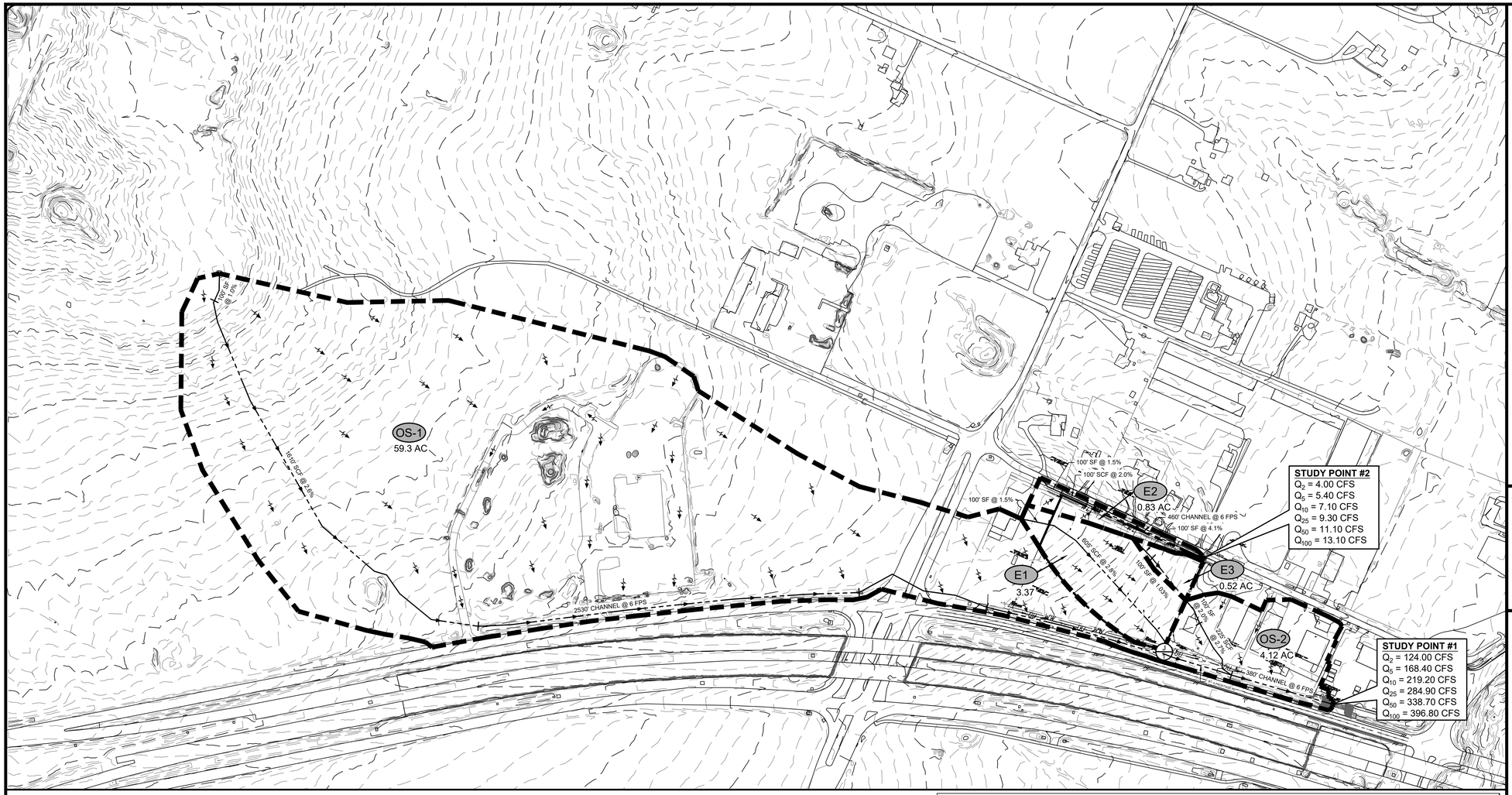
Last Modified: Jul. 28, 25 – 07:33
Plot: Daily/Tiller Aug. 01, 25 – 08:35:44



200 100 0 200 400

SCALE IN FEET

LEGEND

10 / 2.59 ACRES	DRAINAGE AREA NUMBER AND ACREAGE
	DRAINAGE AREA
	PROPERTY LINE
	TC PATH
SF	SHEET FLOW
SCF	SHALLOW CONCENTRATED FLOW
	FLOW DIRECTION ARROW

NOTES
1. PROJECT LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE PER TCEQ MAPS.
2. THERE IS NO FLOODPLAIN PRESENT ON THE SITE. THE AREA LIES IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS IDENTIFIED BY THE FEDERAL EMERGENCY AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, AS SHOWN ON MAP NO., 48491C0275E, EFFECTIVE SEPTEMBER 26, 2008.
3. EXISTING OFFSITE CONTOURS TAKEN FROM CITY OF LEANDER LIDAR.
4. EXISTING ONSITE CONTOURS TAKEN FROM LJA SURVEY FIELD TOPOGRAPHIC SURVEYS.

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
EXISTING CONDITIONS DRAINAGE AREA MAP
183A FRONTAGE ROAD, LEANDER, TX 78641

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-DM01

HEC-HMS DM01

Drainage Area Calculations

HUB Commercial Development, Leander, Texas 78641

NOAA ATLAS 14 Volume 11 Version 2.0 HEC-HMS 24Hr Rainfall Distribution Precipitation Data

Existing Conditions Soils
DoC - Doss silty clay, moist, Type D
FaB - Fairlie clay, Type D

Existing Ground Cover
Pasture, Good Condition (Type D Soils)
Pavement, Roofs, Sidewalks, Etc.

Existing Conditions Drainage Calculations (Per HEC-HMS Drainage Model)

AREA NAME	AREA AC.	AREA MI.^{2}	IMPERVIOUS COVER %	IMPERVIOUS COVER Ac.	IMPERVIOUS COVER MI.^{2}	Type D Pasture (CN: 80) Ac.	Type D Pasture (CN: 80) MI.^{2}	Composite CN	Tc (lag) min.	Q2 CFS	Q5 CFS	Q10 CFS	Q25 CFS	Q50 CFS	Q100 CFS
E1	3.37	0.0053	0.00%	0.00	0.0000	3.373	0.0053	80	10.92	7.10	10.00	13.80	18.40	22.30	26.40
OS-1	59.31	0.0927	13.99%	8.30	0.0130	51.014	0.0797	83	20.68	112.30	151.60	198.00	257.00	305.30	357.30
									JUNCTION #1	***117.10***	***158.50***	***207.10***	***269.80***	***321.10***	***376.40***
OS-2	4.12	0.0064	44.52%	1.83	0.0029	2.283	0.0036	88	9.22	13.80	17.20	22.10	27.60	32.20	37.10
									STUDY POINT #1	***124.00***	***168.40***	***219.20***	***284.90***	***338.70***	***396.80***
E2	1.00	0.0016	16.30%	0.16	0.0003	0.834	0.0013	83	9.88	2.80	3.60	4.80	6.30	7.40	8.70
E3	0.52	0.0008	0.00%	0.00	0.0000	0.518	0.0008	80	7.00	1.30	1.80	2.50	3.30	4.00	4.70
									STUDY POINT #2	***4.00***	***5.40***	***7.10***	***9.30***	***11.10***	***13.10***

Time of Concentration Calculations - Existing Conditions

Drainage Area	SHEET L(ft)	SHEET Slope	SHEET 2-Year P	SHEET n	SHEET Tc (Min.)	SCF L(ft)	SCF Paved?	SCF Slope	SCF Tc (Min.)	Storm Sewer/Channel L(ft)	Storm Sewer/Channel V (fps)	Storm Sewer/Channel Tc (Min.)	Total Tc (Min.)	60% Lag Tc (Min.)
E1	100	1.50%	3.92	0.24	14.5	605	NO	2.81%	3.7		-		18.2	10.9
E2	100	1.50%	3.92	0.24	14.5	100	NO	2.00%	0.7	460	6.0	1.3	16.5	9.9
E3	100	4.10%	3.92	0.24	9.7	195	NO	1.03%	2.0		-		11.7	7.0
OS-1	100	1.00%	3.92	0.24	17.0	1610	NO	2.55%	10.4	2530	6.0	7.0	34.5	20.7
OS-2	100	2.00%	3.92	0.24	12.9	225	NO	2.67%	1.4	380	6.0	1.1	15.4	9.2

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER:

DM01

SHEET NO.
07
OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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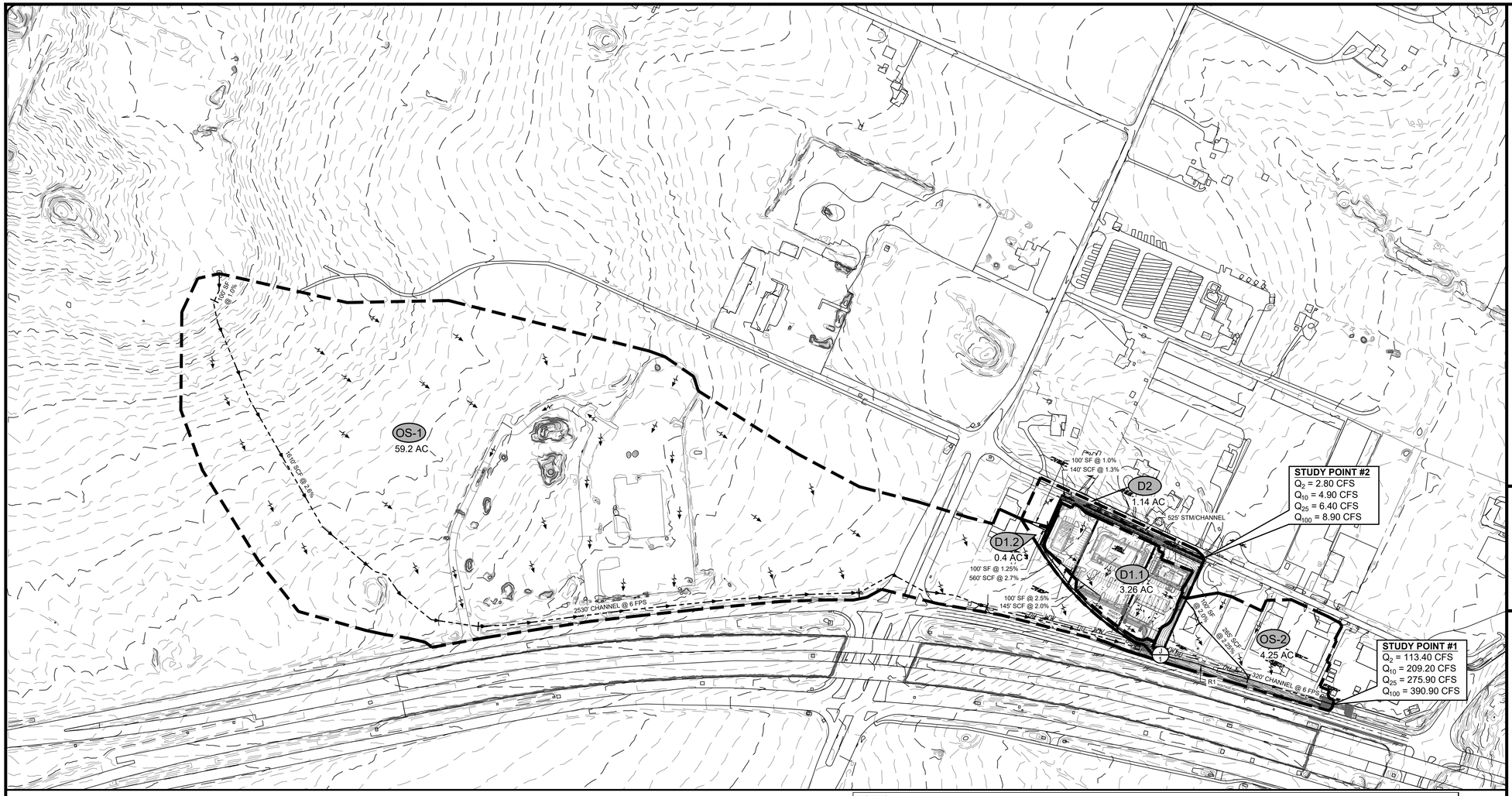
Last Modified: Feb. 26, 25 – 15:56
Plot Date/Time: Aug. 01, 25 – 08:55:58



200 100 0 200 400
SCALE IN FEET

LEGEND

- 10 / 2.59 ACRES — DRAINAGE AREA NUMBER AND ACREAGE
- DRAINAGE AREA
- PROPERTY LINE
- TC PATH
- SF — SHEET FLOW
- SCF — SHALLOW CONCENTRATED FLOW
- FLOW DIRECTION ARROW

NOTES
1. PROJECT LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE PER TCEQ MAPS.
2. THERE IS NO FLOODPLAIN PRESENT ON THE SITE. THE AREA LIES IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS IDENTIFIED BY THE FEDERAL EMERGENCY AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, AS SHOWN ON MAP NO., 48491C0455F, EFFECTIVE DECEMBER 20, 2019.
3. EXISTING OFFSITE CONTOURS TAKEN FROM CITY OF LEANDER LIDAR.
4. EXISTING ONSITE CONTOURS TAKEN FROM LJA SURVEY FIELD TOPOGRAPHIC SURVEYS.

SITE PLAN FOR LOTS 1 -3 ARE SHOWN FOR REFERENCE ONLY AND SUBJECT TO CHANGE. FUTURE SITE PLAN APPLICATIONS SHALL DEMONSTRATE CONFORMANCE WITH THIS OVERALL DEVELOPED CONDITIONS DRAINAGE ANALYSIS.

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
DEVELOPED CONDITIONS DRAINAGE AREA MAP
183A FRONTAGE ROAD, LEANDER, TX 78641

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-DM02.DWG

OVERALL DRAINAGE SUMMARY

Storm Event	Exist. Study Point #1 (cfs)	Dev. Study Point #1 (cfs)
2yr	124.00	113.40
5yr	168.40	157.80
10yr	219.20	209.20
25yr	284.90	275.90
50yr	338.70	331.00
100yr	396.80	390.90
Storm Event	**Exist. Study Point #2 (cfs)**	**Dev. Study Point #2 (cfs)**
2yr	4.00	2.80
5yr	5.40	3.70
10yr	7.10	4.90
25yr	9.30	6.40
50yr	11.10	7.60
100yr	13.10	8.90

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER V
127034
LICENSED
PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DM02

SHEET NO. 08 OF 31 SHEETS

HEC-HMS DM02

Drainage Area Calculations

HUB Commercial Development, Leander, Texas 78641

NOAA ATLAS 14 Volume 11 Version 2.0 HEC-HMS 24Hr Rainfall Distribution Precipitation Data

Existing Soils
DoC - Doss silty clay, moist, Type D
FaB - Fairlie clay, Type D

Proposed Ground Cover
Pasture, Good Condition (Type D Soils)
Pavement, Roofs, Sidewalks, Etc.

Developed Conditions Drainage Calculations (Per HEC-HMS Drainage Model) (OFFSITE ROUTED THRU POND)

AREA NAME	AREA AC.	AREA MI.²	IMPERVIOUS COVER %	IMPERVIOUS COVER Ac.	IMPERVIOUS COVER MI.²	Type D Pasture (CN: 80) Ac.	Type D Pasture (CN: 80) MI.²	Exist. CN	Composite CN	Tc (lag) min.	Q2 CFS	Q5 CFS	Q10 CFS	Q25 CFS	Q50 CFS	Q100 CFS
D1.1	3.26	0.0051	85.99%	2.80	0.0044	0.456	0.0007	80	95	7.61	12.70	15.60	19.60	24.30	28.20	32.40
										POND A INFLOW	***12.70***	***15.60***	***19.60***	***24.30***	***28.20***	***32.40***
										POND A OUTFALL (DETAINED)	***4.50***	***7.00***	***10.30***	***15.20***	***19.10***	***23.30***
D1.2	0.40	0.0006	0.00%	0.00	0.0000	0.400	0.0006	80	80	11.46	0.80	1.10	1.50	2.00	2.50	2.90
OS-1	59.22	0.0925	14.01%	8.30	0.0130	50.919	0.0796	80	83	20.68	101.90	140.90	186.70	245.90	294.50	347.10
										JUNCTION #1	***106.90***	***148.60***	***197.70***	***261.00***	***313.40***	***370.10***
OS-2	4.25	0.0066	43.80%	1.86	0.0029	2.391	0.0037	80	88	9.36	12.40	15.80	20.90	26.70	31.50	36.70
										STUDY POINT #1	***113.40***	***157.80***	***209.20***	***275.90***	***331.00***	***390.90***
D2	1.14	0.0018	25.52%	0.29	0.0005	0.849	0.0013	80	85	11.84	2.80	3.70	4.90	6.40	7.60	8.90
										STUDY POINT #2	***2.80***	***3.70***	***4.90***	***6.40***	***7.60***	***8.90***

Time of Concentration Calculations - Developed Conditions

Drainage Area	SHEET L(ft)	SHEET Slope	SHEET 2-Year P	SHEET n	SHEET Tc (Min.)	SCF L(ft)	SCF Paved?	SCF Slope	SCF Tc (Min.)	STORM SEWER / CHANNEL L(ft)	STORM SEWER / CHANNEL n	STORM SEWER / CHANNEL Dia./Width (ft)	STORM SEWER / CHANNEL Avg. Slope	STORM SEWER / CHANNEL V (fps)	STORM SEWER / CHANNEL Tc (Min.)	Total Tc (Min.)	60% Lag Tc (Min.)
D1.1	100	2.50%	3.92	0.24	11.8	145	YES	2.00%	0.8	20	0.013	2	1.0%	6	0.1	12.7	7.6
D1.2	100	1.25%	3.92	0.24	15.6	560	NO	2.68%	3.5							19.1	11.5
D2	100	1.00%	3.92	0.24	17.0	140	NO	1.30%	1.3	525	0.035	N/A	3.0%	6	1.5	19.7	11.8
OS-1	100	1.00%	3.92	0.24	17.0	1610	NO	2.55%	10.4	2530	0.035	N/A	2.5%	6.0	7.0	34.5	20.7
OS-2	100	2.00%	3.92	0.24	12.9	265	NO	2.25%	1.8	320	0.035	N/A	3.0%	6.0	0.9	15.6	9.4

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

CITY OF LEANDER PROJECT NO. SD-24-0285

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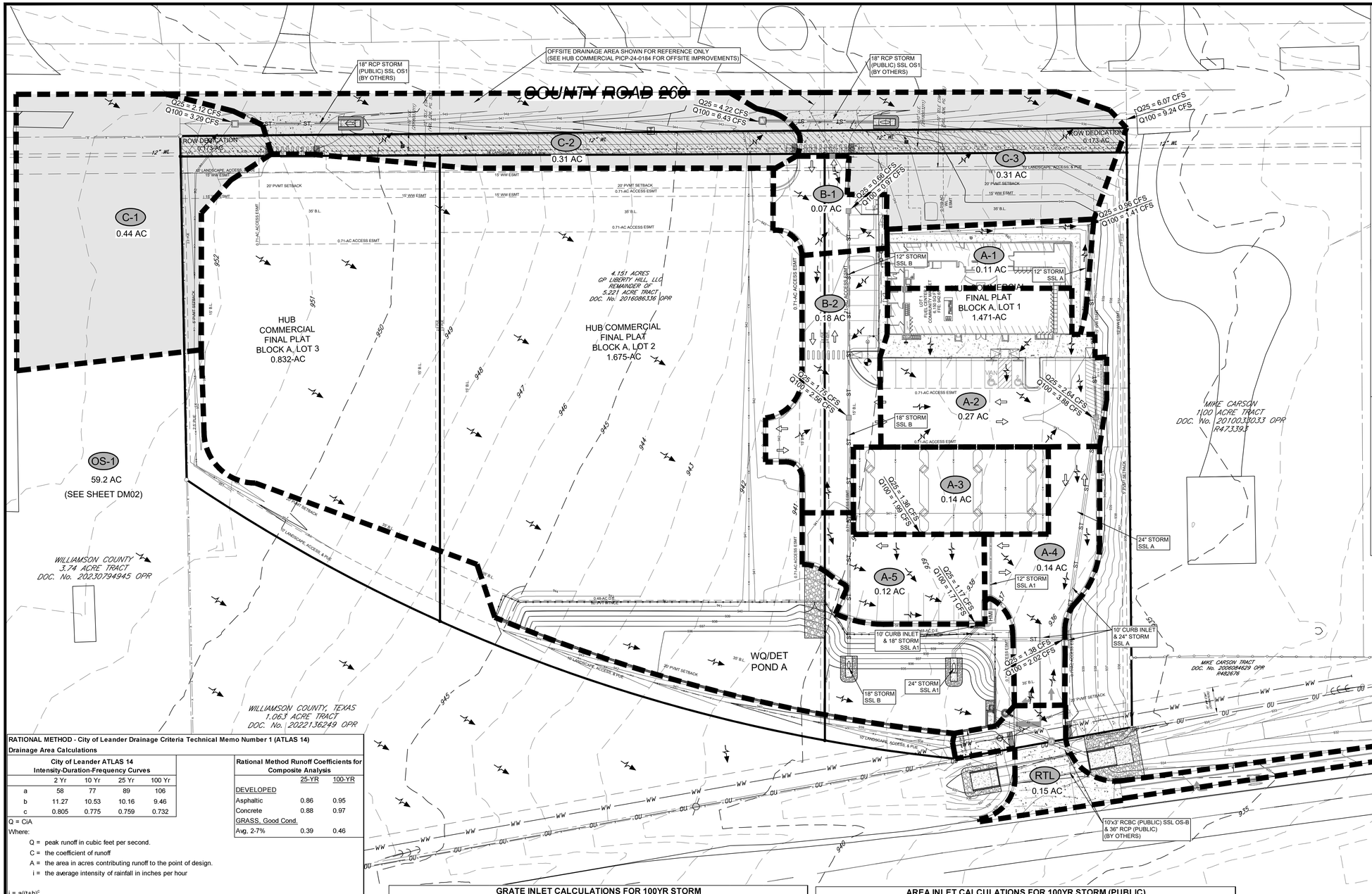

30 15 0 30 60
SCALE IN FEET

LEGEND

- 10 / 2.59 AC — DRAINAGE AREA NUMBER AND ACREAGE
- DRAINAGE AREA
- PROPERTY LINE
- FLOW DIRECTION ARROW
- Q25 = 7.9 cfs / Q100 = 10.9 cfs — Q_{25} / Q_{100}

NOTES
1. PROJECT LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE PER TCEQ MAPS.
2. THERE IS NO FLOODPLAIN PRESENT ON THE SITE. THE AREA LIES IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), AS IDENTIFIED BY THE FEDERAL EMERGENCY AGENCY, NATIONAL FLOOD INSURANCE PROGRAM, AS SHOWN ON MAP NO., 48491C0455F, EFFECTIVE DECEMBER 20, 2019.
3. EXISTING OFFSITE CONTOURS TAKEN FROM CITY OF LEANDER LIDAR.
4. EXISTING ONSITE CONTOURS TAKEN FROM LJA SURVEY FIELD TOPOGRAPHIC SURVEYS.

RATIONAL METHOD - City of Leander Drainage Criteria Technical Memo Number 1 (ATLAS 14)
Drainage Area Calculations

City of Leander ATLAS 14 Intensity-Duration-Frequency Curves

	2 Yr	10 Yr	25 Yr	100 Yr
a	58	77	89	106
b	11.27	10.53	10.16	9.46
c	0.805	0.775	0.759	0.732

Rational Method Runoff Coefficients for Composite Analysis

	25-YR	100-YR
DEVELOPED		
Asphaltic	0.86	0.95
Concrete	0.88	0.97
GRASS, Good Cond.		
Avg. 2-7%	0.39	0.46

Q = CiA
Where:
- Q = peak runoff in cubic feet per second.
- C = the coefficient of runoff
- A = the area in acres contributing runoff to the point of design.
- i = the average intensity of rainfall in inches per hour

$i = a/(t+b)^c$
Where,
- t = Time of concentration for the entire drainage area of interest
- T(sht flow) = Ln/(42s^0.5) T(shallow concentrated flow) = Ln/(60s^0.5)
- where,
- L = Length of the reach in ft.
- n = Manning's n
- s = Slope of the ground in ft/ft

Developed Conditions Drainage Calculations (Site Calculations)

DRAINAGE AREA	AREA (AC)	PERV. (AC)	IMP. (AC)	C25	C100	ToC (min.)	I25	I100	Q25 (cfs)	Q100 (cfs)
A1	0.110	0.021	0.089	0.770	0.856	5	11.30	15.00	0.96	1.41
A2	0.270	0.000	0.270	0.860	0.950	5	11.30	15.00	2.62	3.85
A3	0.140	0.000	0.140	0.860	0.950	5	11.30	15.00	1.36	1.99
A4	0.142	0.000	0.142	0.860	0.950	5	11.30	15.00	1.38	2.02
A5	0.120	0.000	0.120	0.860	0.950	5	11.30	15.00	1.17	1.71
B1	0.070	0.004	0.066	0.833	0.922	5	11.30	15.00	0.66	0.97
B2	0.180	0.000	0.180	0.860	0.950	5	11.30	15.00	1.75	2.56
C1	0.440	0.406	0.034	0.427	0.498	5	11.30	15.00	2.12	3.29
C2	0.310	0.173	0.137	0.598	0.676	5	11.30	15.00	2.09	3.15
C3	0.305	0.209	0.096	0.538	0.615	5	11.30	15.00	1.86	2.81
RTL	0.149	0.005	0.143	0.843	0.932	5	11.30	15.00	1.42	2.08

GRATE INLET CALCULATIONS FOR 100YR STORM

MODELED AS AN ORIFICE $Q=C_0 A_G (2 g d)^{.5}$, C_0=0.67 — MODELED AS A WEIR $Q=C_w P d^{1.5}$, Cw=3.0 — NOTE: Calculations assume inlets are 50% clogged.

AREA #	Q100 (CFS)	Flow Area (Sq. In.)	Inlet Size / Type	Nominal Area (SF)	Area (50% clogged) (SF)	Perimeter (FT)	$d_{ORIFICE}$ (FT)	d_{WEIR} (FT)	d_{allow} (FT)	Is $d_{orifice}$ or $d_{weir} > d_{allow}$?
A1	1.41	243	18"x18" GRATE	1.69	0.84	6.00	0.10	0.18	0.50	NO
A2	3.88	972	36"x36" GRATE	6.75	3.38	12.00	0.05	0.23	0.50	NO
A3	1.99	8280	115'Lx6"W GRATE	57.50	28.75	231.00	0.00	0.02	0.50	NO
B1	0.97	972	36"x36" GRATE	6.75	3.38	12.00	0.00	0.09	0.50	NO
B2	2.56	972	36"x36" GRATE	6.75	3.38	12.00	0.02	0.17	0.50	NO

SUMP INLET CALCULATIONS FOR 100YR STORM

Weir Equation
$Q = C_w h^{1.5} L$
C_w = 3.5
If $h_{weir} > 0.5$, use orifice equation
$Q=C_0 A_G (2 g d)^{.5}$, C_0 =0.67, A_G = Lx7"/12

INLET NO.	FLOW (CFS)	Q_{BYPASS} (CFS)	Q_{TOTAL} (CFS)	L (FT)	WEIR CALC Q/L or A (CFS/LF)	WEIR CALC h_{weir}(FT) (a+Yo)	ORIFICE CALC A_g (SF)	ORIFICE CALC $h_{orifice}$ (FT)	h_{allow} (FT)	INLET TYPE
A4	2.02	0.0	2.02	9.0	0.22	0.18	4.50	0.26	0.98	10' Curb Inlet
A5	1.71	0.0	1.71	9.0	0.19	0.16	4.50	0.25	0.98	10' Curb Inlet

AREA INLET CALCULATIONS FOR 100YR STORM (PUBLIC)

MODELED AS AN ORIFICE $Q=C_0 A_G (2 g d)^{.5}$, C_0=0.67 — MODELED AS A WEIR $Q=C_w P d^{1.5}$, Cw=3.0 — NOTE: Calculations assume inlets are 50% clogged.

AREA #	Q100 (CFS)	Flow Area (Sq. In.)	Inlet Size / Type	Nominal Area (SF)	Area (50% clogged) (SF)	Perimeter (FT)	$d_{ORIFICE}$ (FT)	d_{WEIR} (FT)	d_{allow} (FT)	Is $d_{orifice}$ or $d_{weir} > d_{allow}$?
C1	3.29	864	36"x36" AREA	6.00	3.00	6.00	0.04	0.32	0.50	NO
C2	6.43	864	36"x36" AREA	6.00	3.00	12.00	0.16	0.32	0.50	NO

CITY OF LEANDER APPROVAL

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HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
ONSITE DEVELOPED CONDITIONS DRAINAGE AREA MAP

183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	DESCRIPTION	BY	DATE
R1	SW REMOVAL, REVISED MH LOCATION.		
R1	REVISED SW LOCATION		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: AS4525-0501-DM09

7/29/2025
STATE OF TEXAS — CHARLES R. HAGER V — 127034 — LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER:

DM03

SHEET NO. 09 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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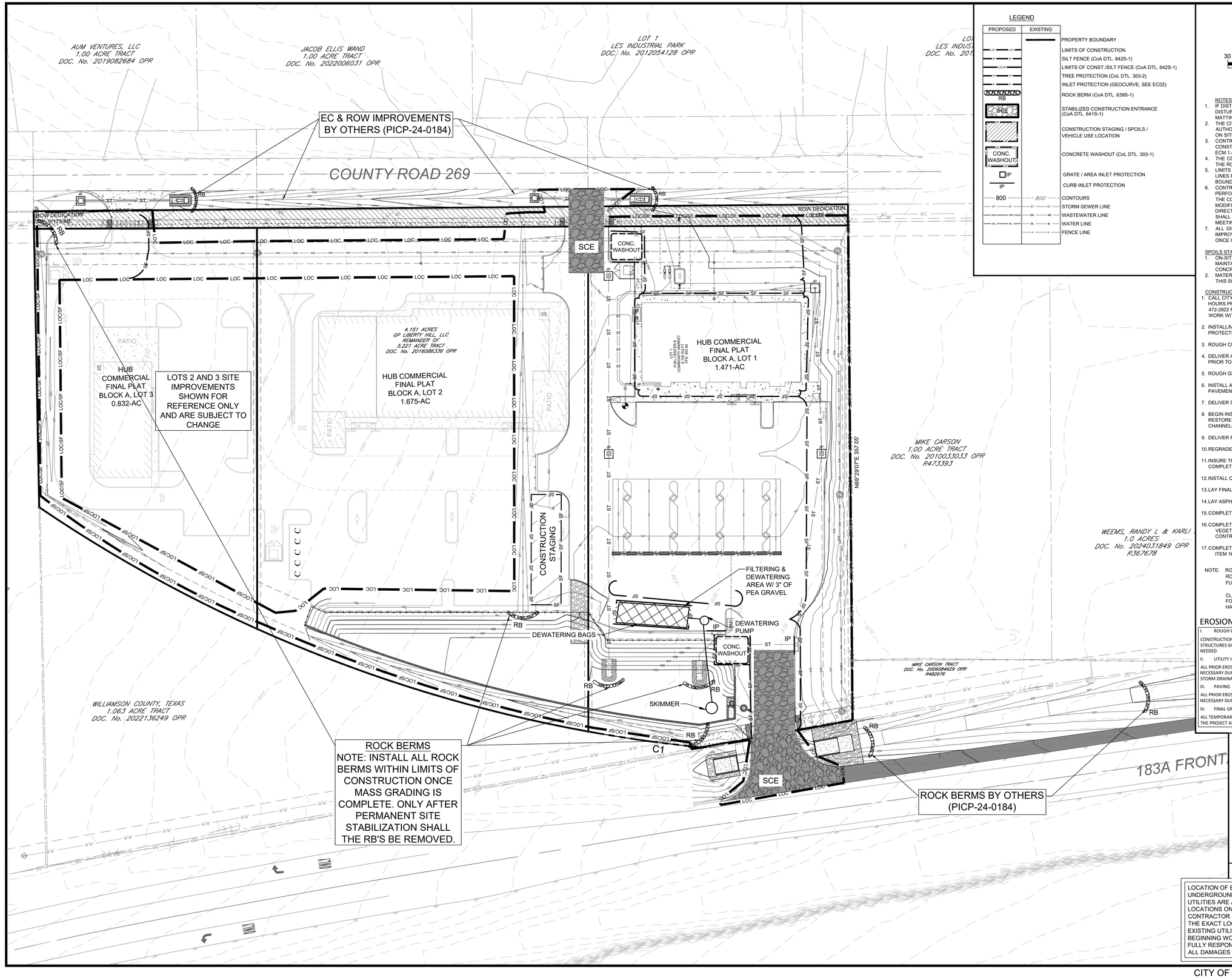

LEGEND

PROPOSED	EXISTING	
		PROPERTY BOUNDARY
LOC	LOC	LIMITS OF CONSTRUCTION
SF	SF	SILT FENCE (CoA DTL. 642S-1)
LOC/SF	LOC/SF	LIMITS OF CONST./SILT FENCE (CoA DTL. 642S-1)
TP	TP	TREE PROTECTION (CoL DTL. 303-2)
IP	IP	INLET PROTECTION (GEOCURVE, SEE EC02)
RB		ROCK BERM (CoA DTL. 639S-1)
SCE		STABILIZED CONSTRUCTION ENTRANCE (CoA DTL. 641S-1)
		CONSTRUCTION STAGING / SPOILS / VEHICLE USE LOCATION
CONC. WASHOUT		CONCRETE WASHOUT (CoL DTL. 303-1)
IP		GRATE / AREA INLET PROTECTION
IP		CURB INLET PROTECTION
800	800	CONTOURS
ST	ST	STORM SEWER LINE
WW	WW	WASTEWATER LINE
WL	WL	WATER LINE
x	x	FENCE LINE

30 15 0 30 60
SCALE IN FEET

NOTES:
1. IF DISTURBED AREA IS NOT WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE RESTABLALIZED BY REVEGETATION MATTING. (ECM 1.4.4.B.3, SECTION 5.1)
2. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT HAVE MIGRATED ONTO THE ROADS A MINIMUM OF ONCE DAILY.
5. LIMITS OF CONSTRUCTION AND SILT FENCE SHOWN OFF BOUNDARY LINES FOR CLARITY ONLY. SILT FENCE SHALL BE PLACED WITHIN TRACT BOUNDARIES.
6. CONTRACTOR SHALL MAINTAIN THE DE-WATERING SYSTEM TO ENSURE PERFORMANCE. IF THE DE-WATERING SYSTEM IS NOT PERFORMING, THE CONTRACTOR MUST IMMEDIATELY MAKE THE NECESSARY MODIFICATIONS, FOLLOWING THE ENVIRONMENTAL INSPECTOR'S DIRECTION TO ENSURE ADEQUATE PERFORMANCE. CONTRACTOR SHALL PROVIDE THE DE-WATERING PLAN AT THE PRE-CONSTRUCTION MEETING.
7. ALL DISTURBED AREAS OUTSIDE OF IMPERVIOUS COVER AND RIPRAP IMPROVEMENTS ARE TO BE PERMANENTLY SEEDED AND STABILIZED ONCE CONSTRUCTION OF THE AREA IS COMPLETE.

SPOILS STAGING NOTES:
1. ON-SITE EROSION CONTROL MEASURES TO BE ESTABLISHED AND MAINTAINED AROUND TEMPORARY/PERMANENT SPOILS LOCATIONS, CONCRETE WASHOUT, AND CONTRACTOR STAGING AREAS.
2. MATERIALS STOCKPILE TO BE REMOVED PRIOR TO ACCEPTANCE OF THIS SUBDIVISION.

CONSTRUCTION SEQUENCE
1. CALL CITY OF LEANDER PUBLIC WORKS DEPARTMENT AT 259-2640, 48 HOURS PRIOR TO BEGINNING ANY WORK. CALL THE ONE CALL CENTER AT 472-2822 FOR UTILITY LOCATIONS AND OBTAIN PERMIT FOR ANY WORK WITHIN CITY OF LEANDER R.O.W.
2. INSTALL/MAINTAIN EXISTING TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING.
3. ROUGH CUT ALL REQUIRED OR NECESSARY PONDS.
4. DELIVER APPROVED ROUGH CUT SHEETS TO THE CITY OF LEANDER PRIOR TO CLEARING AND GRUBBING.
5. ROUGH GRADE STREETS.
6. INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT.
7. DELIVER STORM SEWER CUT SHEETS TO THE CITY OF LEANDER.
8. BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE DISTURBED AREA AS MUCH AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.
9. DELIVER FINAL GRADE CUT SHEETS TO THE CITY OF LEANDER.
10. REGRADE STREETS TO SUBGRADE.
11. INSURE THAT ALL UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY FIRST COURSE BASE MATERIAL ON ALL STREETS.
12. INSTALL CURB AND GUTTER.
13. LAY FINAL BASE COURSE ON ALL STREETS.
14. LAY ASPHALT.
15. COMPLETE ALL UNDERGROUND INSTALLATIONS WITH THE R.O.W.
16. COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION. REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.
17. COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED BY ITEM 16.

NOTE: ROUGH GRADING ONLY - STEPS 1 THROUGH 3 ONLY.
ROUGH GRADING AND UTILITIES ONLY - STEPS 1 THROUGH 4 ONLY.
FULL DEVELOPMENT PERMIT - ENTIRE SEQUENCING

CLEARING AND GRUBBING UNDER A DEVELOPMENT PERMIT, SOLELY FOR THE PURPOSE OF SURVEYING AND SOIL EXPLORATION, SHALL BE HANDCUTTING OR BLADE-UP OPERATION.

EROSION CONTROL SCHEDULE AND SEQUENCING

I. ROUGH GRADING

CONSTRUCTION ENTRANCE/EXIT, SILT FENCE PROTECTION, AND STONE OVERFLOW STRUCTURES SHALL BE INSTALLED PRIOR TO THE INITIATION OF ROUGH GRADING, AS NEEDED

II. UTILITY INSTALLATION

ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING UTILITY INSTALLATION. INLET PROTECTION SHALL BE INSTALLED AS STORM DRAINAGE SYSTEM IS CONSTRUCTED.

III. PAVING

ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING PAVING AND THROUGHOUT THE REMAINDER OF THE PROJECT.

IV. FINAL GRADING/SOIL STABILIZATION/LANDSCAPING

ALL TEMPORARY EROSION CONTROL MEASURES TO BE REMOVED AT THE CONCLUSION OF THE PROJECT AS DIRECTED BY THE CITY OR COUNTY.

CITY OF LEANDER APPROVAL

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HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
EROSION AND SEDIMENTATION CONTROL PLAN

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-EC01.dwg

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

EC01

SHEET NO. 10 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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Last Modified: Jul. 16, 25 – 11:01
Plot Date/Time: Aug 05, 25 – 13:48:54

EROSION AND SEDIMENTATION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTIVE FENCING PRIOR TO ANY WORK (CLEARING, GRUBBING OR EXCAVATION). CONTACT STORMWATER INSPECTOR FOR ON SITE INSPECTION PRIOR TO BEGINNING CONSTRUCTION.
2. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
3. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
4. ANY ON-SITE SPOILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPOILS SHALL NOT EXCEED 10 FEET IN ANY AREA.
5. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
6. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164--WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARIETIES OF BERMUDA SHALL NOT BE USED. TIFWAY419 SOD OR OTHER GRASS SPECIES FOUND WITHIN COA GROW GREEN GUIDE ARE PERMITTED. NON-SEEDING VARIETIES OF BERMUDA CAN ONLY BE PLANTED BY SOD OR SPRIGS.
7. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.
8. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
9. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION

1. ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.

2. PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.

3. PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.

4. EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.

5. PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE). 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 OR MATERIALS;

B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ABORIST;

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.

6. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:

A. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;

B. WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE);

C. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;

D. WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY ARBORIST AT 974-1876 TO DISCUSS ALTERNATIVES.

SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

7. 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 FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.

8. TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.

9. 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.

10. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.

11. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.

12. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).

13. ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).

14. DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

SPECIAL CONSTRUCTION TECHNIQUES

PRIOR TO EXCAVATION WITHIN TREE DRIPLINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.

IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC, PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH. ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.

PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.

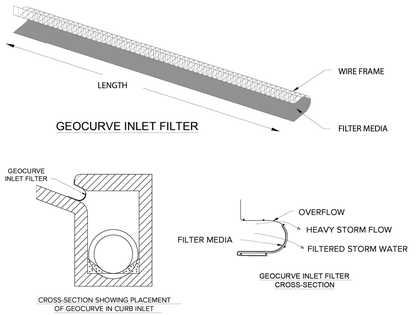
WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.

WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

GeoCurve Product Data Sheet

GEOCURVE
STORMWATER CURB INLET FILTER

The GeoCurve Stormwater Curb Inlet Filter prevents sediment and debris from entering the storm sewer system, while complying to stormwater management requirements (SWPPP). The GeoCurve's compression fit technology allows the product to fit snug within the mouth of the inlet, hidden from oncoming traffic and pedestrians.



GEOCURVE INLET FILTER

GeoSolutions, Inc. | 13812 Aston Street, Houston, TX 77040
(713) 714-8243 | www.geocurve.net

EROSION CONTROL SCHEDULE AND SEQUENCING

I. ROUGH GRADING

CONSTRUCTION ENTRANCE/EXIT, SILT FENCE PROTECTION, AND STONE OVERFLOW STRUCTURES SHALL BE INSTALLED PRIOR TO THE INITIATION OF ROUGH GRADING, AS NEEDED

II. UTILITY INSTALLATION

ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING UTILITY INSTALLATION. INLET PROTECTION SHALL BE INSTALLED AS STORM DRAINAGE SYSTEM IS CONSTRUCTED.

III. PAVING

ALL PRIOR EROSION CONTROL MEASURES INSTALLED ABOVE TO BE MAINTAINED AS NECESSARY DURING PAVING AND THROUGHOUT THE REMAINDER OF THE PROJECT.

IV. FINAL GRADING/SOIL STABILIZATION/LANDSCAPING

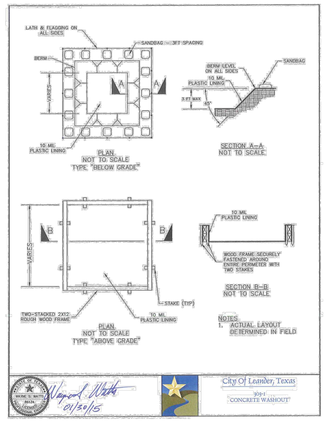
ALL TEMPORARY EROSION CONTROL MEASURES TO BE REMOVED AT THE CONCLUSION OF THE PROJECT AS DIRECTED BY THE CITY OR COUNTY.

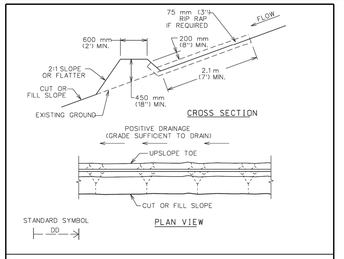
CONSTRUCTION SEQUENCE

1. CALL CITY OF LEANDER PUBLIC WORKS DEPARTMENT AT 259-2640 48 HOURS PRIOR TO BEGINNING ANY WORK. CALL THE ONE CALL CENTER AT 472-2822 FOR UTILITY CALL CENTER AT 472-2822 FOR UTILITY LOCATIONS AND OBTAIN PERMIT FOR ANY WORK WITHIN CITY OF LEANDER R.O.W.
2. INSTALL TEMPORARY EROSION CONTROLS AND TREE PROTECTION FENCING PRIOR TO ANY CLEARING AND GRUBBING.
3. ROUGH CUT ALL REQUIRED OR NECESSARY PONDS.
4. DELIVER APPROVED ROUGH CUT SHEETS TO THE CITY OF LEANDER PRIOR TO CLEARING AND GRUBBING.
5. ROUGH GRADE STREETS.
6. INSTALL ALL UTILITIES TO BE LOCATED UNDER THE PROPOSED PAVEMENT.
7. DELIVER STORM SEWER CUT SHEETS TO THE CITY OF LEANDER.
8. BEGIN INSTALLATION OF STORM SEWER LINES. UPON COMPLETION, RESTORE AS MUCH DISTURBED AREA AS MUCH AS POSSIBLE, PARTICULARLY CHANNELS AND LARGE OPEN AREAS.
9. DELIVER FINAL GRADE CUT SHEETS TO THE CITY OF LEANDER.
10. REGRADE STREETS TO SUBGRADE.
11. INSURE THAT ALL UNDERGROUND UTILITY CROSSINGS ARE COMPLETED. LAY FIRST COURSE BASE MATERIAL ON ALL STREETS.
12. INSTALL CURB AND GUTTER.
13. LAY FINAL BASE COURSE ON ALL STREETS.
14. LAY ASPHALT.
15. COMPLETE ALL UNDERGROUND INSTALLATIONS WITH THE R.O.W.
16. COMPLETE PERMANENT EROSION CONTROL AND RESTORATION OF SITE VEGETATION. REMOVE AND DISPOSE OF TEMPORARY EROSION CONTROLS.
17. COMPLETE ANY NECESSARY FINAL DRESS UP OF AREAS DISTURBED BY ITEM 16.

NOTE: ROUGH GRADING ONLY - STEPS 1 THROUGH 3 ONLY.
ROUGH GRADING AND UTILITIES ONLY - STEPS 1 THROUGH 4 ONLY.
FULL DEVELOPMENT PERMIT - ENTIRE SEQUENCING

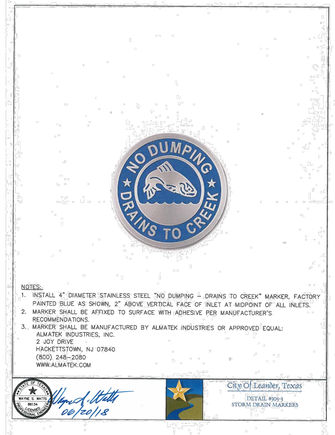
CLEARING AND GRUBBING UNDER A DEVELOPMENT PERMIT, SOLELY FOR THE PURPOSE OF SURVEYING AND SOIL EXPLORATION, SHALL BE HANDCUTTING OR BLADE-UP OPERATION.



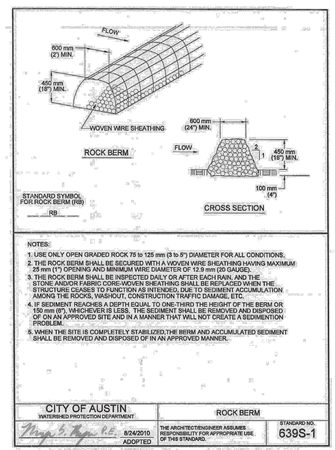


GENERAL NOTES :
1. ALL DIKES SHALL BE MACHINE COMPACTED.
2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. a. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
b. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE, SUCH AS A ROCK BERM, BRUSH BERM, STONE OUTLET STRUCTURE, SEDIMENT TRAP OR SEDIMENT BASIN OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
4. UNLESS OTHERWISE SPECIFIED, EROSION STABILIZATION SHALL BE OPEN GRADED ROCK 75 TO 125 mm (3 TO 5 inches) IN DIAMETER EMBEDDED IN SOIL SURFACE.
5. INSPECTION SHALL BE CONDUCTED WEEKLY OR AFTER EACH RAINFALL EVENT.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		DIVERSION DIKE
RECORD COPY SIGNED BY J. PATRICK MURPHY	3/27/00	THE ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
ADOPTED		STANDARD NO. 622S-1

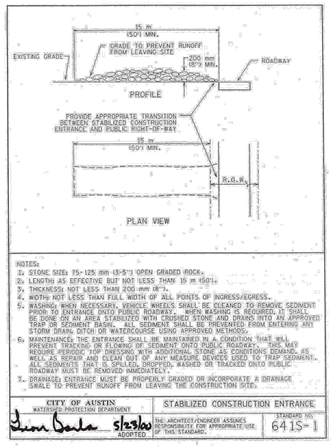


NOTES:
1. INSTALL 4" DIAMETER STAINLESS STEEL "NO DUMPING – DRAINS TO CREEK" MARKER, FACTORY PAINTED BLUE AS SHOWN, 2" ABOVE VERTICAL FACE OF INLET AT MIDPOINT OF ALL INLETS.
2. MARKER SHALL BE AFFIXED TO SURFACE WITH ADHESIVE PER MANUFACTURER'S RECOMMENDATIONS.
3. MARKER SHALL BE MANUFACTURED BY ALMATEK INDUSTRIES OR APPROVED EQUAL:
ALMATEK INDUSTRIES, INC.
2 JOY DRIVE
HADDETTSTOWN, NJ 07840
(800) 248--2080
WWW.ALMATEK.COM



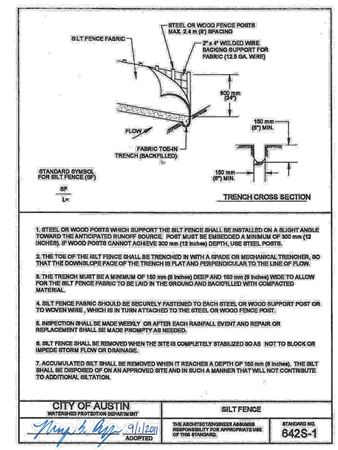
NOTES:
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM .25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC/CORE/WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, IT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		ROCK BERM
8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:
1. STONE SIZE: 75-125 mm (3"-5") OPEN GRADED ROCK.
2. LENGTH AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WASHING SHALL BE REQUIRED IF TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY OCCURS DESPITE THE USE OF A STABILIZED CONSTRUCTION ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		STABILIZED CONSTRUCTION ENTRANCE
5/29/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 inches) DEPTH, USE STEEL POSTS.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.

3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

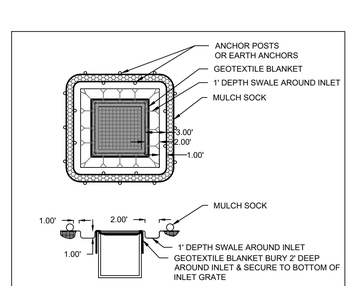
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

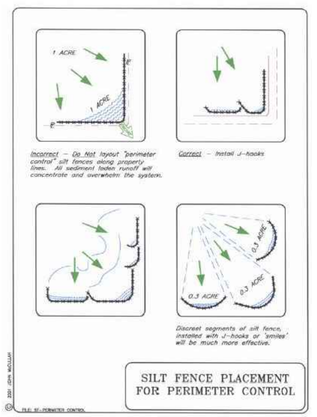
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

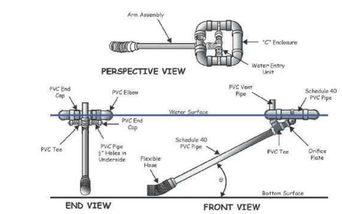
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT		SILT FENCE
9/1/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

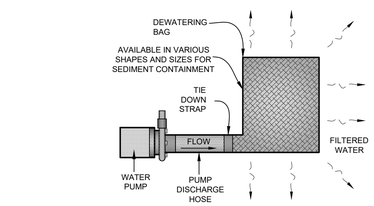


GRATE INLET PROTECTION DETAIL (N.T.S.)





TEMP. DEWATERING SKIMMER DETAIL
NOT TO SCALE



SEDIMENT BAG (DEWATERING) DETAIL
N.T.S.

DESCRIPTION:
A GRAVITY BAG FILTER, ALSO REFERRED TO AS A DEWATERING BAG, IS A SQUARE OR RECTANGULAR BAG MADE OF NON-WOVEN GEOTEXTILE FABRIC THAT COLLECTS SAND, SILT, AND FINES.

APPROPRIATE APPLICATIONS:
EFFECTIVE FOR THE REMOVAL OF SEDIMENTS (GRAVEL, SAND, AND SILT). SOME METALS ARE REMOVED WITH THE SEDIMENT.

IMPLEMENTATION:
WATER IS PUMPED INTO ONE SIDE OF THE BAG AND SEEPS THROUGH THE BOTTOM AND SIDES OF THE BAG.

A SECONDARY BARRIER, SUCH AS A ROCK FILTER BED OR STRAW/HAY BALE BARRIER IS PLACED BENEATH AND BEYOND THE EDGES OF THE BAG TO CAPTURE SEDIMENTS THAT ESCAPE THE BAG.

MAINTENANCE:
INSPECTION OF THE FLOW CONDITIONS, BAG CONDITION, BAG CAPACITY, AND THE SECONDARY BARRIER IS REQUIRED.

REPLACE THE BAG WHEN IT NO LONGER FILTERS SEDIMENT OR PASSES WATER AT A REASONABLE RATE. THE BAG IS DISPOSED OF OFFSITE.

Rock Riprap Gradation Table

Rock Riprap Class by Median Particle Diameter (D50)		D15 (in)		D50 (in)		D85 (in)		D100 (in)
Class	Diameter (in)	Min	Max	Min	Max	Min	Max	Max
I	6	3.7	5.2	5.7	6.9	7.8	9.2	12
II	9	5.5	7.8	8.5	10.5	11.5	14	18
III	12	7.3	10.5	11.5	14	15.5	18.5	24
IV	15	9.2	13	14.5	17.5	19.5	23	30
V	18	11	15.5	17	20.5	23.5	27.5	36
VI	21	13	18.5	20	24	27.5	32.5	42
VII	24	14.5	21	23	27.5	31	37	48
VIII	30	18.5	26	28.5	34.5	39	46	60
IX	36	22	31.5	34	41.5	47	55.5	72
X	42	25.5	36.5	40	48.5	54.5	64.5	84

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
EROSION AND SEDIMENTATION CONTROL NOTES & DETAILS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-EC02

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

EC02

SHEET NO. 11 OF 31 SHEETS

I:\A3452\0401\Submittal Sheets\SDP - Lot 1\A3452-0401-ec02.dwg
User: dmcmorra
Last Modified: Dec. 16, 24 - 13:31
Plot Date/Time: Aug 01, 25 - 08:31:02

BATCH DETENTION WATER QUALITY
W/ STACKED DETENTION POND CALCULATIONS
FOR TCEQ WPAP PERMITTING IN WILLIAMSON COUNTY
POND A (LOT 1 + PICP)

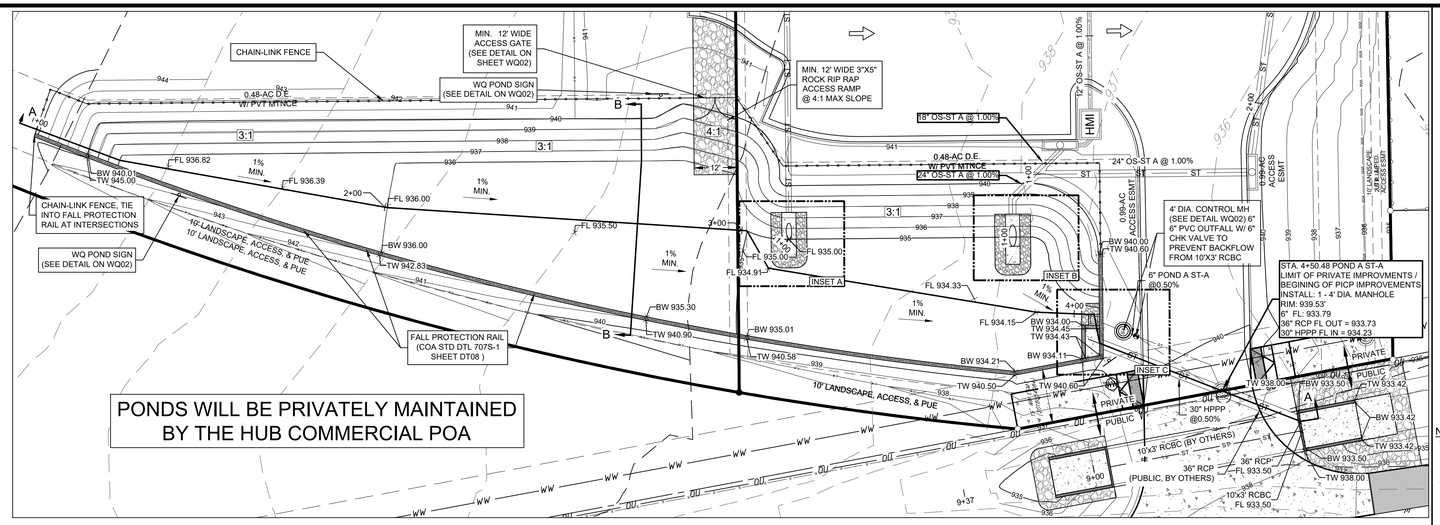
DRAINAGE AREA DATA:

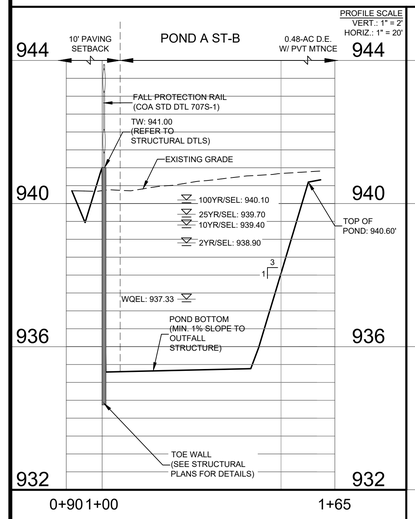
THE WATER QUALITY CONTROL IS TO BE BATCH DETENTION (91% REMOVAL EFFICIENCY)		
DRAINAGE AREA TO CONTROL (A_C)	3.26	ACRES
ONSITE DRAINAGE AREA TO CONTROL	3.26	ACRES
OFFSITE DRAINAGE AREA TO CONTROL	0.00	ACRES
DRAINAGE AREA IMPERVIOUS COVER (IC)	30.90%	PERCENT
DRAINAGE AREA IMPERVIOUS COVER (A_I)	1.01	ACRES
AV. ANNUAL PRECIPITATION (P)	32.00	IN
L_M TOTAL TO POND	876	LBS
L_M COMPENSITORY	230	LBS
L_M TOTAL	1106	LBS
PERVIOUS AREA REMAINING IN DA (A_P)	2.25	ACRES
TSS LOAD REMOVED BY PROP. WQ POND (L_R)	1049	LBS
FRACTION OF ANNUAL RUNOFF / OUTFALL AREA (F)	1.05	
RAINFALL DEPTH	4.00	IN
POST-DEV. RUNOFF COEFFICIENT	0.26	
ON-SITE WATER QUALITY VOL. REQUIRED (WQV)	12,421	CF
OFF-SITE WATER QUALITY VOL. REQUIRED (WQV)	0	CF
TOTAL CAPTURE VOLUME (WQV x 1.20)	14,906	CF

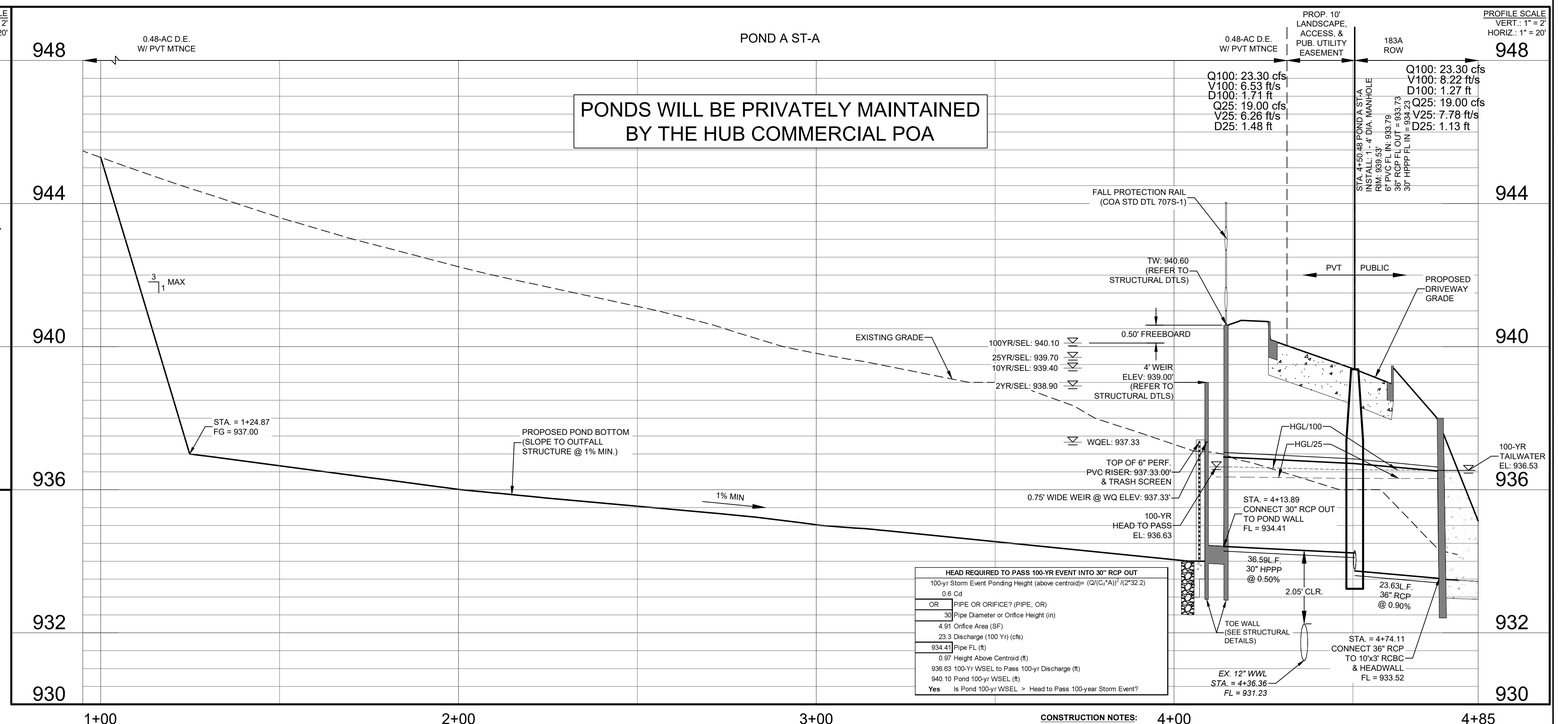
WATER QUALITY CONTROL CALCULATIONS:	REQUIRED	PROVIDED
THE WATER QUALITY CONTROL IS TO BE BATCH DETENTION		
WATER QUALITY VOLUME (WQV = CD*DA*3630)	14,906 CF	18,107 CF
MAX PONDING DEPTH ABOVE WQ OUTLET (H)		3.33 FT
WATER QUALITY ELEVATION		937.33 FT MSL

BATCH DETENTION BASIN:

ELEV.	AREA [SF]	VOL. [CF]	TOT. VOL. [CF]
934.00	0	0	0
935.00	3,125	1,563	1,563
936.00	7,218	5,171	6,734
937.00	9,160	8,189	14,923
938.00	10,135	9,647	24,570
939.00	11,136	10,635	35,206
940.60	12,152	18,631	53,837







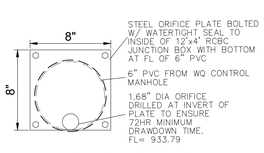
Water Quality Drawdown Calculations			
Time (HRS)	Drawdown Percentage (%)	Remaining WQ Volume	WQ Stage Elevation (FT)
0:00	0	18,107	937.33
12:00	0	18,107	937.33
24:00	25	13,580	936.84
36:00	50	9,053	936.28
48:00	75	4,527	935.73
60:00	100	0	934.00

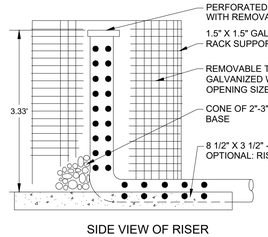
Note: Batch Det. Requires 12-hr Lag and to be drained w/in the next 48-hrs.

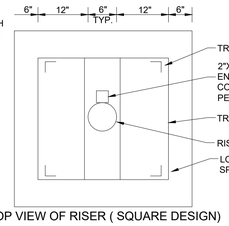
DRAWDOWN CALCULATION FOR BATCH DET WQ BASIN

WQ VOLUME =	18107 CF		
MINIMUM DRAWDOWN TIME = 36 HR = 129600 SECONDS			(48 HRS w/ 12-HR DELAY)
FLOW = 18107 CF / 129600 SEC =	0.140 CFS		
HEAD= 996.12-993.75	= 3.58 (POND AVG HEAD TO ORIFICE CL)		
A = 0.140 CFS/(.60 *	(64.4 *3.58) ^.5)=	0.015335 SF	
R =(A/(3.14))^.5 =	0.07 FT		
D (in.) = 2R * 12 =	1.68 inch orifice		
D =0.0153 * .60 * (64.4 * 3.58)^.5 =	0.140 CFS		
DRAWDOWN TIME =	18107 CF / 0.140 CFS	= 129600 SEC	= 36 HRS

THEREFORE, POND WILL DRAWDOWN IN LESS THAN 72 HRS



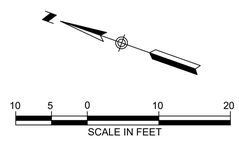




INTAKE RISER DETAIL
NOT TO SCALE

CONSTRUCTION NOTES:

1. FOR THE POND AND BERMS, EARTHWORK SHALL BE IN CONFORMANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND EARTHWORK SECTION OF THE GEOTECHNICAL REPORT.
2. EMBANKMENT SHALL BE INSTALLED IN LIFTS AND COMPACTED PER GEOTECHNICAL REPORT.
3. ALL WORK SHALL BE PERFORMED WITHIN LIMITS OF CONSTRUCTION.
4. CONTRACTOR TO PROOF ROLL BOTTOM AND SIDES OF POND TO ENSURE FIRM BOTTOM. IF BOTTOM APPEARS FRACTURED CONTRACTOR TO NOTIFY ENGINEER PRIOR TO PLACEMENT OF SAND BED ON TOPSOIL.
5. THE CONTRACTOR WILL BE REQUIRED TO PERFORM TESTING REQUIREMENTS TO SATISFY CITY OF LEANDER INSPECTIONS. THIS SHALL INCLUDE BUT NOT LIMITED TO PROVIDING NECESSARY WATER AS REQUESTED BY INSPECTOR.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR POSITIVE DRAINAGE IN BASIN AREA.
8. CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN FOR ALL RETAINING WALLS GREATER THAN 4 FEET HIGH AS A SUBMITTAL TO THE ENGINEER PRIOR TO CONSTRUCTION.
6. CONTRACTOR TO OVER EXCAVATE IN POND AREAS AS REQUIRED FOR PLACEMENT OF TOPSOIL & LINER PER THIS SHEET.
7. THE DETENTION AND BATCH WATER QUALITY BASIN IS TO BE CONSTRUCTED FIRST IN THE SEQUENCE OF CONSTRUCTION (SOC) BEFORE SITE CLEARING AND GRADING TO ACT AS A SEDIMENTATION POND DURING CONSTRUCTION.
8. A DE-WATERING METHOD/PLAN FOR THE POND MUST BE APPROVED BY THE CITY ENVIRONMENTAL INSPECTOR IF THE TEMPORARY SEDIMENTATION POND IS DE-WATERED AFTER RAINFALL EVENTS. THE DE-WATERING METHOD/PLAN MUST MINIMIZE THE DISCHARGE OF SUSPENDED SEDIMENTS IN THE PONDED WATER TO THE GREATEST EXTENT FEASIBLE.
9. ALL WALLS SHALL BE INTEGRALLY TINTED IN AN EARTHEN TONE AND TEXTURED TO APPEAR AS IF CONSTRUCTED OF STONE OR BRICK.



LEGEND

- BOUNDARY LINE/ R.O.W.
- 990 — PROPOSED CONTOURS
- 990 — EXISTING CONTOURS
- CONCRETE
- ROCK RIPRAP

NOTES

1. PROJECT LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
2. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS, AND PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE CITY OF LEANDER, THE DESIGN ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED WATER QUALITY & DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS.
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4. NON WOVEN FILTER FABRIC WITH A MINIMUM OPENING OF 0.15 MM (U.S. SIEVE SIZE 100) SHALL BE WRAPPED AROUND THE RISER. THE RISER SHALL BE DOUBLE WRAPPED WITH FILTER FABRIC UNTIL THE CONTRIBUTING DRAINAGE AREA IS VEGETATED AND STABILIZED.
5. DISCHARGE COEFFICIENTS FOR OUTLETS TO CONTROL DISCHARGE TIME ARE 0.6.
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11. ALL SIDE SLOPES, EARTHEN EMBANKMENTS, AND POND BOTTOMS, SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ESTABLISHED EMBANKMENT CONSTRUCTION REQUIREMENTS (STANDARD SPECIFICATION 132S).

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
WATER QUALITY & DETENTION PLAN & PROFILE1

183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-WQ01.DWG

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

WQ01

SHEET NO. 12 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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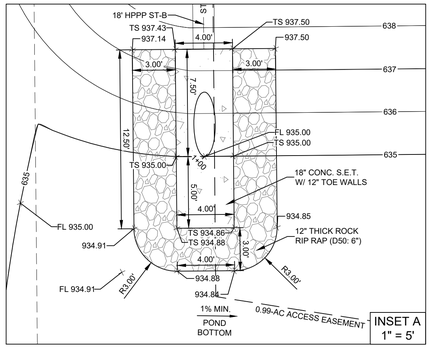
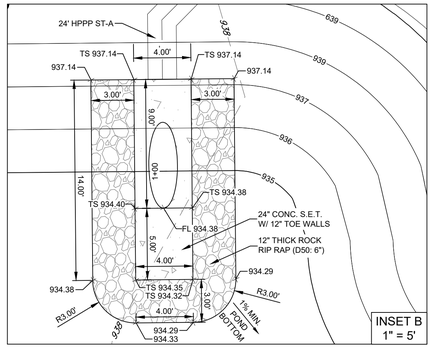
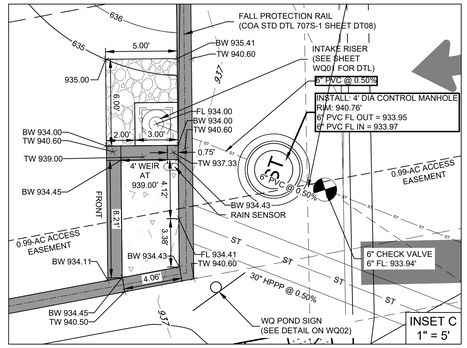
Plot Date/Time: Aug. 20, 25 - 15:54:02







DETENTION POND A SUMMARY

STORM EVENT	INFLOW (CFS)	Time to Peak (hrs)	OUTFLOW (CFS)	Time to Peak (hrs)	WS ELEV.
2YR	12.70	12:09	4.50	12:27	938.90
10YR	19.60	12:09	10.30	12:21	939.40
25YR	24.30	12:09	15.20	12:18	939.70
100YR	32.40	12:09	23.30	12:15	940.10

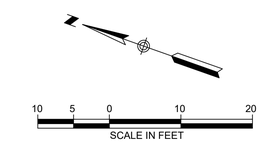
Detention Pond - Stage Storage Table

Elevation (FT)	Area (AC)	A1+A2+SQR (A1*A2) (AC)	Incremental Volume (AC-FT)	Cumulative Volume (AC-FT)
934.00	0.000	0.000	0.000	0.000
935.00	0.072	0.072	0.024	0.024
936.00	0.166	0.346	0.115	0.139
937.00	0.210	0.563	0.188	0.327
938.00	0.233	0.664	0.221	0.548
939.00	0.256	0.732	0.244	0.792
940.00	0.279	0.802	0.267	1.060
940.60	0.286	0.812	0.433	1.226

Outlet Structure - Stage Discharge Table

Stage / Elevation	0.75' Weir @ 937.33' Coef.: 3 ft.5/S Q (cfs)	4.0' Weir @ 939.00' Coef.: 3 ft.5/S Q (cfs)	TOTAL Q (cfs)
934.00	0.00	0.00	0.00
935.00	0.00	0.00	0.00
936.00	0.00	0.00	0.00
937.00	0.00	0.00	0.00
938.00	1.01	0.00	1.01
939.00	2.69	0.00	2.69
940.00	3.04	11.40	14.44
940.60	3.04	22.34	25.38

NOTE:
COEFFICIENTS FOR WEIRS ARE MODELED AS 3.0 $ft^{5/s}$



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- 990 — PROPOSED CONTOURS
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811 Know what's below. Call before you dig.

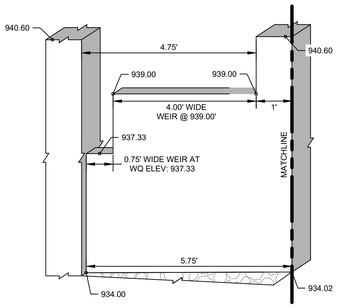
WATER QUALITY POND MAINTENANCE

FACILITY OPERATOR:
FORTUNE COMMERCIAL DEVELOPMENT, LLC
(512) 657-3675

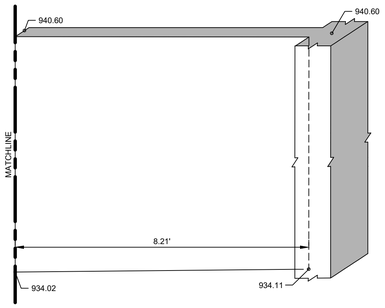
EDWARDS AQUIFER ID:

TCEQ REGION 11: (512) 339-2929

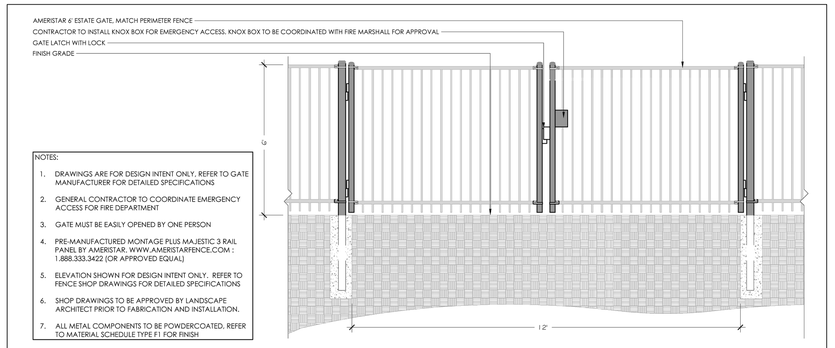
WQ POND SIGN (RG-348A)
(N.T.S.)



POND A OUTFALL BOX (SIDE)
1" = 2'



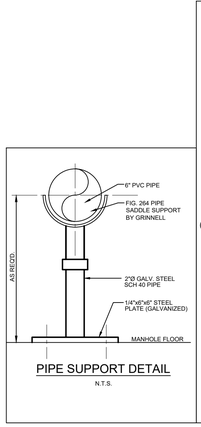
POND A OUTFALL BOX (FRONT)
1" = 2'



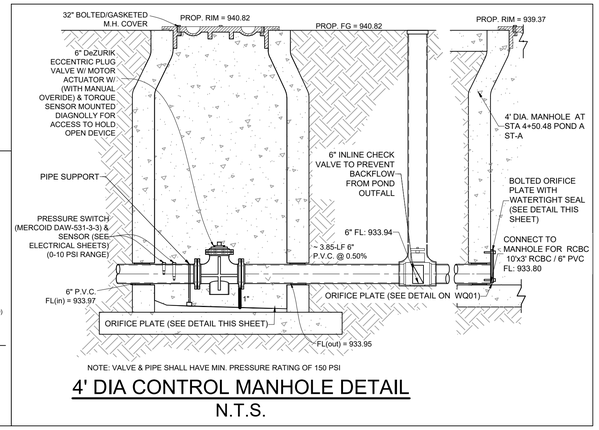
NOTES:

1. DRAWINGS ARE FOR DESIGN INTENT ONLY. REFER TO GATE MANUFACTURER FOR DETAILED SPECIFICATIONS
2. GENERAL CONTRACTOR TO COORDINATE EMERGENCY ACCESS FOR FIRE DEPARTMENT
3. GATE MUST BE EASILY OPENED BY ONE PERSON
4. PRE-MANUFACTURED MONTAGE PLUS MAJESTIC 3 RAIL PANEL BY AMERISTAR. WWW.AMERISTARFENCE.COM ; 1.888.333.3422 (OR APPROVED EQUAL)
5. ELEVATION SHOWN FOR DESIGN INTENT ONLY. REFER TO FENCE SHOP DRAWINGS FOR DETAILED SPECIFICATIONS
6. SHOP DRAWINGS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.
7. ALL METAL COMPONENTS TO BE POWDERCOATED. REFER TO MATERIAL SCHEDULE TYPE F1 FOR FINISH

POND ACCESS GATE
1/2" = 1'-0"
P-RE-2714O-DETA-12



PIPE SUPPORT DETAIL
N.T.S.



NOTE: VALVE & PIPE SHALL HAVE MIN. PRESSURE RATING OF 150 PSI

4' DIA CONTROL MANHOLE DETAIL
N.T.S.

LOT 1 / INITIAL IMPROVEMENT DESIGN CALCULATIONS

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Pond A - For Lot 1 & PICP Improvements
Date Prepared: 8/25/2025

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicates location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2 A_N \times P$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	4.16	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	1.61	acres
Total post-development impervious cover fraction * =	0.34	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	876	lbs.

*** The values entered in these fields should be for the total project area.**

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin)

Drainage Basin/Outfall Area No. =	**D1.1**	
Total drainage basin/outfall area =	3.26	acres
Predevelopment impervious area within drainage basin/outfall area =	1.01	acres
Post-development impervious area within drainage basin/outfall area =	1.61	acres
Post-development impervious fraction within drainage basin/outfall area =	0.31	
$L_{M\ THIS\ BASIN}$ =	876	lbs.

Compensitory Drainage Provided by Lot 1 Water Quality Pond Summary

Total drainage basin/outfall area =	1.20	acres	<--AREAS WITH NEW IMPERVIOUS COVER NOT DRAINING TO BMP (SEE SHEET DM03, AREAS C1-C3 & RTU)
Predevelopment impervious area within drainage basin/outfall area =	0.41	acres	
Post-development impervious area within drainage basin/outfall area =	0.41	acres	
Post-development impervious fraction within drainage basin/outfall area =	0.34		
$L_{M\ Compensitory}$ =	230	lbs.	
$L_{M\ TOTAL}$ =	1106	lbs.	

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Extended Detention** (Batch Detention Basin)
Removal efficiency = 91 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x $P \times (A_N \times 34.6 + A_P \times 0.54)$

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	3.26	acres
A_I =	1.61	acres
A_P =	2.25	acres
L_R =	1049	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ = 1106 lbs.

F = 1.05

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	4.00	inches
Post Development Runoff Coefficient =	0.28	
On-site Water Quality Volume =	12421	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0	acres
Off-site Impervious cover draining to BMP =	0	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	2484	cubic feet
Total Capture Volume (required water quality volume(s) x F, 20) =	**14906**	cubic feet

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin =	14906	cubic feet
PROVIDED WATER QUALITY VOLUME=	19107	cubic feet

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN &
WATER QUALITY & DETENTION PLAN &
PROFILE
183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-WQ01.DWG

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

WQ02

SHEET NO. 13 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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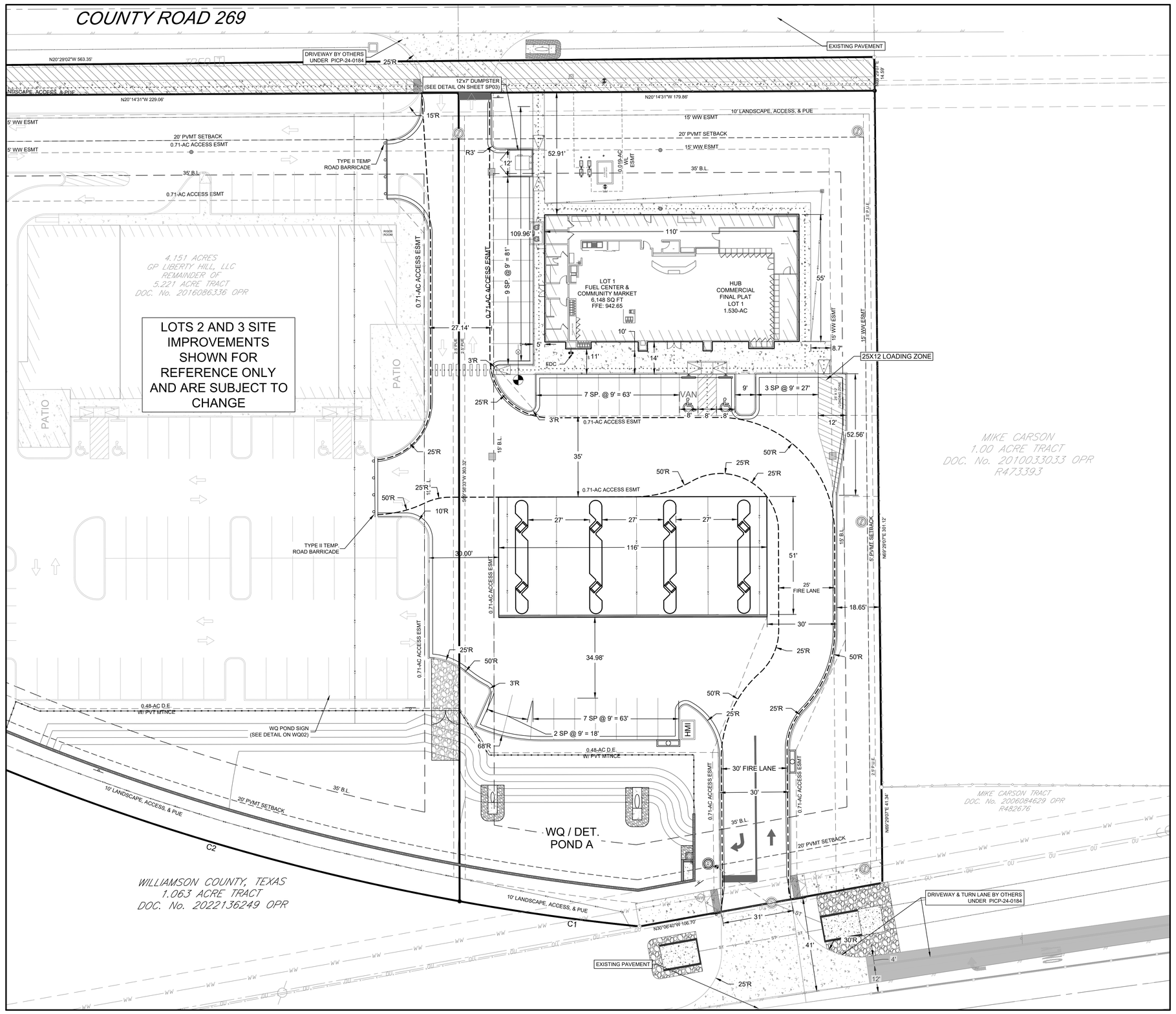


20 10 0 20 40

SCALE IN FEET

LEGEND

- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPERTY LINE
- PROPOSED PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- DRAINAGE CENTERLINE
- ZONING BOUNDARY
- WQZ WATER QUALITY / BUFFER ZONE
- ST STORM SEWER LINE
- WW WASTEWATER LINE
- WASTEWATER SERVICE
- WL WATER LINE
- WATER SERVICE
- R.O.W. DEDICATION (EXISTING / NEW)

BEARING BASIS:
ALL BEARINGS BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE (4203), NAD83. COORDINATES GIVEN IN SURFACE.

UTILITY NOTE:
THE SURVEYOR MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED /UTILITIES SHOWN HEREON MAY BE EXAGGERATED FOR GRAPHIC REPRESENTATION ONLY) ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, ONLY THE VISIBLE ABOVE GROUND UTILITY STRUCTURES.

LEGAL DESCRIPTION:
BEING 17.82 ACRES OF LAND, MORE OR LESS, OUT OF THE HENRY GARMES SURVEY, ABSTRACT NO. 269, IN WILLIAMSON COUNTY, TEXAS, AND BEING ALL OF A CALLED 17.825 ACRE TRACT OF LAND AS CONVEYED IN A SUBSTITUTE TRUSTEE'S DEED FROM ROBERT E. TESCH TO EQUITY SECURED CAPITAL, L.P., DATED 01-05-2012 AS RECORDED IN DOCUMENT NO. 2012001125 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, (O.P.R.W.C.) AND BEING THAT SAME TRACT OF LAND CONVEYED FROM EQUITY SECURED CAPITAL, L.P. TO REAGAN GABRIELS REAL ESTATE, L.L.C. DATED 12-30-2021 AS RECORDED IN DOCUMENT NO. 2022000020, OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS. (O.P.R.W.C.)

FLOODPLAIN NOTE:
NO PORTION OF THE SUBJECT TRACT IS WITHIN THE 100-YEAR FLOODPLAIN, AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP FOR WILLIAMSON COUNTY, TEXAS, MAP NO. 48491C0455F, WITH AN EFFECTIVE DATE OF DECEMBER 20, 2019.

LEGAL DESCRIPTION:
4.151 ACRES OF LAND SITUATED IN WILLIAMSON COUNTY, TEXAS, OUT OF THE ELIJAH D. HARMON SURVEY, ABSTRACT NO. 6, AND BEING THE REMAINING PORTION OF THAT SAME PROPERTY CALLED 5.221 ACRES, CONVEYED TO GP LIBERTY HILL LLC, AND DESCRIBED IN THAT GENERAL WARRANTY DEED RECORDED UNDER DOCUMENT NO. 2016086336, OF THE OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS.

ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FIELDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONCRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHERN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

HUB COMMERCIAL DEVELOPMENT LOT 1 SITE DEVELOPMENT PLAN

DETAILED SITE PLAN

183A FRONTAGE ROAD, LEANDER, TX 78641

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-SP01.DWG

7/29/2025

STATE OF TEXAS
CHARLES R. HAGER IV
127034
LICENSED PROFESSIONAL ENGINEER
CIVIL

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

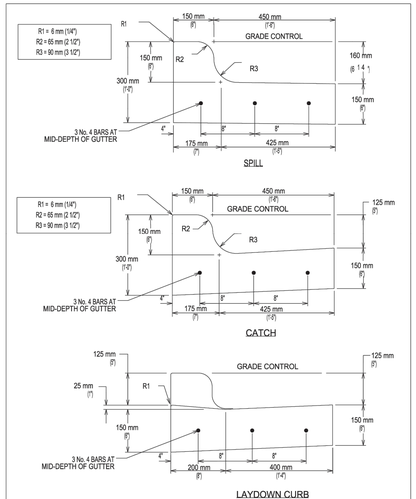
JOB NUMBER: A3452-0401

SP01

SHEET NO. 14 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

I:\A3452\0401\Submittal Sheets\SP - Lot 1\A3452-0401-sp01.dwg
User: dmccormick
Last Modified: Jul. 31, 25 - 12:55
Plot Date/Time: Aug. 01, 25 - 08:01:49

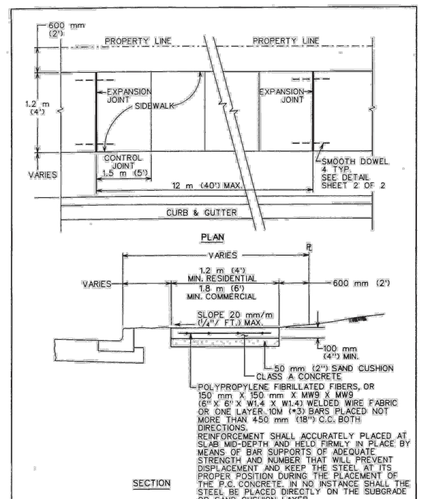


CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS — REINFORCED CURB AND GUTTER SECTION

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 430S-2

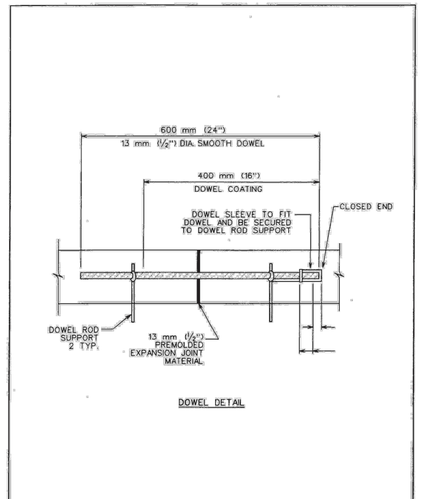


CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS — SIDEWALK

Bill Gardner 3/24/08 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 432S-1 1 OF 3



CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS — SIDEWALK

Bill Gardner 3/24/08 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 432S-1 2 OF 3

SITE PLAN NOTES

1. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
2. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
3. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE BOTH DURING AND AFTER CONSTRUCTION.
4. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
5. GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
6. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
7. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: SEPTEMBER 16,2019, CONDUCTED BY TITLE RESOURCES GUARANTY COMPANY) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
8. THIS IS A TYPE 2 (SITE COMPONENT) AND TYPE B (ARCHITECTURAL COMPONENT) DEVELOPMENT, WHICH INCLUDES HIGH BUILDING STANDARDS AND A REQUIREMENT OF FOUR DIFFERENT DESIGN FEATURES. SINCE THE SITE IS BEING DEVELOPED AT 15.3 UNITS/ACRE, PER ORDINANCE 05-018-30, THE EXTERIOR SURFACE AREA OF BUILDINGS/STRUCTURES SHALL BE COMPRISED OF AT LEAST EIGHTY-FIVE (85%) PERCENT MASONRY FOR FIRST STORY WALLS AND FIFTY (50%) PERCENT MASONRY FOR EACH ADDITIONAL STORY; AND COMPLY WITH THE TYPE B ARCHITECTURAL COMPONENT.
9. PER CZO, PROJECTS WITHIN 400 FEET OF US 183 MAY NOT PROPOSE OR PERMIT: MINI-WAREHOUSES OR SELF STORAGE FACILITIES. BOAT AND RV STORAGE, MATERIALS SALVAGE UNLESS ENCLOSED WITHIN A BUILDING, SEXUALLY-ORIENTED BUSINESSES OR MOTOR VEHICLE SALVAGE.

FIRE PLAN NOTES

1. FIRE LANE STRIPING: FIRE APPARATUS ACCESS ROADS SHALL BE CONTINUOUSLY MARKED BY PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE. THE WORDS "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") WHITE LETTERS AT 25 FT.ALONG BOTH SIDES OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. WHERE A CURB IS AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE OF THE CURB.
2. FIRE LANE SIGNS: SIGNS SHALL READ "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" AND SHALL BE 12" WIDE AND 18" HIGH. SIGNS SHALL BE PAINTED ON A WHITE BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAN 2" LETTERING. SIGNS SHALL BE PERMANENTLY AFFIXED TO A STATIONARY POST AND THE BOTTOM OF THE SIGN SHALL BE SIX FEET, SIX INCHES (6'6") ABOVE FINISHED GRADE. SIGNS SHALL BE SPACED NOT MORE THAN THIRTY-FIVE FEET (35') APART. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALLS OR AS APPROVED BY THE FIRE CODE OFFICIAL.

FIRE LANE NOTES

1. ALL FIRE LANE STRIPING SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. FIRE LANES SHALL BE CONTINUOUSLY MARKED BY RED TRAFFIC PAINT THAT IS MINIMUM SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.
3. "FIRE LANE - TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") TYPE D WHITE BLOCK LETTERS AT TWENTY-FIVE FOOT (25') INTERVALS, OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANE.
4. WHERE A 6" BARRIER CURB EXISTS, THE FIRE LANE STRIPING SHALL BE ON BOTH THE VERTICAL FACE OF THE CURB AND TOP OF CURB. "FIRE LANE - TOW AWAY ZONE" SHALL BE MARKED IN 4" WHITE BLOCK LETTERS ON FACE OF CURB ONLY.
5. WHERE A FIRE LANE IS ADJACENT TO PARKING SPACES THE FIRE LANE STRIPING SHALL BE AN 8" RED STRIPE PAINTED ON THE DRIVE SURFACE WITH 4" WHITE LETTERS STATING "FIRE LANE NO PARKING TOW-AWAY ZONE." FIRE LANE STRIPING SHALL EXTEND BEHIND ALL PARKING SPACES.
6. WHERE A FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, OR OTHER FIRE PROTECTION EQUIPMENT IS LOCATED ON A FIRE LANE, THE FIRE LANE SHALL BE A MINIMUM OF TWENTY-SIX FEET (26') IN WIDTH, EXCLUSIVE OF SHOULDERS. "THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

HUB Commercial Final Plat - Lot 1 - Site Development Plan Summary

Address: TBD CR 269 or Hwy 183A, Leander, Texas, 78642

Total Subdivision Area	=	4.151	Ac.	180,829 SF	
Lot 1, Block A Site Area	=	1.471	Ac.	64,082 SF	
Land Use Summary					
Zoning	=	GC-3-A PUD (General Commercial, Site Comp. 3 & Arch. Comp. A)			
PUD	=	CR 269 & Hero Way Minor PUD (Z-23-0081)			
Proposed Use	=	C-Store / Gas Station			
Existing Use	=	Undeveloped / Vacant			
Future Use	=	Employment Center			
Allowable Impervious Cover (80% N.S.A.)	=	1.177	Ac. (80%)	51,266 SF	
Min. Front (ROW) Setback	=	35	FT		
Side Setback	=	15	FT		
Street Side Setback	=	15	FT		
Rear Setback	=	20	FT		
Paving Setback (excludes Access Esmts)	=	5	FT		
Maximum Bldg Height	=	35	FT		

Building Summary		Height		GFA	
Bldg. Height / Gross Floor Area					
Retail (R2, V-A Cons. Type)	=	23' 5"	(1-story)	5,773 SF	Note: 35' Ht.
Restaurant (R2, V-A Cons. Type)	=	23' 5"	(1-story)	325 SF	to top of
Riser Rooms (R2, V-A Cons. Type)	=	23' 5"	(1-story)	20 SF	parapet on
			Total =	6,118 SF (GFA)	front of store

LOT 1 Parking Calculations

Required Parking

Land Use	Area (SF)	Space / SF	Total Req'd Off Street Spaces
Retail	5,773	1 per 250	23.1
Restaurant	325	1 per 100	3.3

Required Parking (Total)	=	**27 Spaces**					
Provided Parking		Standard	Loading	ADA	Van ADA	**Total**	
Surface Spaces	=	28	1	1	1	**31**	
Total Provided Parking	=	**31**	**Spaces (> 27 Required Spaces)**				

Provided ADA Parking

Total No. of Provided Std. Parking Spaces	=	28	Spaces
Total No. of Required ADA Spaces	=	2	(26-50 space parking lot = 2 spaces)
Total No. of Required & Provided Van ADA Spaces	=	2	(1 per 8 ADA Spaces)

BIKE PARKING	REQUIRED	PROVIDED
1 Space per 30 Parking Spaces	1	2

Impervious Cover Summary				**% Lot Area**	
Total Imp Cover	=	**0.907**	**Ac.**	**61.7%**	**39,519 SF**
Total Bldg Coverage	=	0.141	Ac.	**9.6%**	6,148 SF
Total Parking/Drives	=	0.694	Ac.	**47.2%**	30,226 SF
Total Walks/Decks	=	0.072	Ac.	**4.9%**	3,120 SF
Total Transformers/Condensors/Misc.	=	0.001	Ac.	**0.0%**	25 SF

NOTE:
1. 2% MAX. SLOPE IN FULL AREAS OF HANDICAP SPACES
2. ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS

HANDICAP PARKING/RAMP DETAIL
NTS

INSTALLED IN FRONT OF EACH HANDICAP SPACE

HANDICAP SIGN
NTS

NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN — DEPARTMENT OF PUBLIC WORKS — SIDEWALK

Bill Gardner 3/24/08 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 432S-1 3 OF 3

NOTE:
1. ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS

RAMP (PERPINDICULAR) DETAIL
NTS

TYPICAL PARKING SPACE
NTS

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN

SITE PLAN NOTES & DETAILS - SHEET 1

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-SITE DETAILS

7/29/2025

STATE OF TEXAS — CHARLES R. HAGER — 127034 — LICENSED PROFESSIONAL ENGINEER

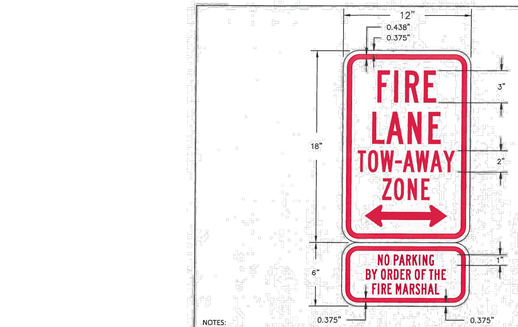
LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

SP02

SHEET NO. 15 OF 31 SHEETS

I:\A3452\0401\Submittal Sheets\SDP - Lot 1\A3452-0401-SITE DETAILS.dwg
User: dmcmurrey
Last Modified: Jul. 31, 25 - 13:06
Plot Date/Time: Aug 01, 25 - 08:38:01



NOTES:

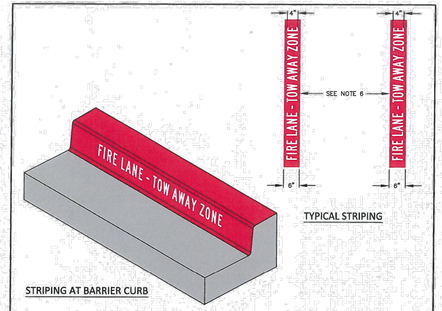
1. 12-INCH BY 18-INCH AND 12-INCH BY 6-INCH, 0.080 INCH THICK ALUMINUM BLANKS. COVERED WITH 3M DIAMOND GRADE, WHITE, REFLECTIVE SHEETING. BORDER AND LETTERING SHALL BE CUT FROM RED 3M ELECTRO CUT FILM
2. ALL FONTS SHALL BE TRAFFIC CAD SERIES B OR FHWA SERIES B
3. SIGNS SHALL BE PERMANENTLY AFFIXED TO A STATIONARY POST AND THE BOTTOM OF THE SIGN ASSEMBLY SHALL BE SIX FEET, SIX INCHES (6'-6") ABOVE FINISHED GRADE.
4. SIGNS SHALL BE SPACED NOT MORE THAN 35' APART.
5. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALLS AS APPROVED BY THE FIRE CODE OFFICIAL.
6. IF THE SIGN IS AT THE END OF A FIRE ZONE, THE SIGN SHALL HAVE A SINGLE-HEADED ARROW POINTING IN THE DIRECTION OF THE ZONE. IF THE SIGN IS AT AN INTERMEDIATE POINT IN THE ZONE, THE SIGN SHALL HAVE A DOUBLE-HEADED ARROW POINTING IN BOTH DIRECTIONS.
7. FIRE LANE SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE APPARATUS ACCESS ROADS THAT ARE TWENTY FEET (20') TO TWENTY-SIX FEET (26') WIDE.
8. FIRE LANE SIGNS SHALL BE POSTED ON ONE SIDE OF FIRE APPARATUS ACCESS ROADS MORE THAN TWENTY-SIX FEET (26') WIDE AND LESS THAN THIRTY-TWO FEET (32') WIDE.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS · MICHAEL LAFFERTY · 118708 · LICENSED PROFESSIONAL ENGINEER · 2017-01-28

FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-1
FIRE LANE SIGN ASSEMBLY



STRIPING AT BARRIER CURB

TYPICAL STRIPING

NOTES:

1. ALL FIRE LANE STRIPING SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. FIRE LANES SHALL BE CONTINUOUSLY MARKED BY RED TRAFFIC PAINT THAT IS MINIMUM SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.
3. "FIRE LANE - TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") TYPE D WHITE BLOCK LETTERS AT TWENTY-FIVE FOOT (25') INTERVALS, OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANE.
4. WHERE A 6" BARRIER CURB EXISTS, THE FIRE LANE STRIPING SHALL BE ON BOTH THE VERTICAL FACE OF THE CURB AND TOP OF CURB. "FIRE LANE - TOW AWAY ZONE" SHALL BE MARKED IN 4" WHITE BLOCK LETTERS ON FACE OF CURB ONLY.
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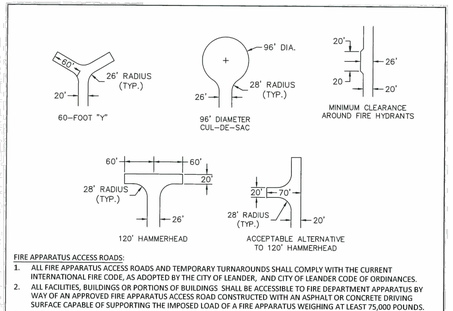
6. WHERE A FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, OR OTHER FIRE PROTECTION EQUIPMENT IS LOCATED ON A FIRE LANE, THE FIRE LANE SHALL BE A MINIMUM OF TWENTY-SIX FEET (26') IN WIDTH, EXCLUSIVE OF SHOULDERS.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS · MICHAEL LAFFERTY · 118708 · LICENSED PROFESSIONAL ENGINEER · 2017-01-28

FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-2
FIRE LANE STRIPING



FIRE APPARATUS ACCESS ROADS:

1. ALL FIRE APPARATUS ACCESS ROADS AND TEMPORARY TURNAROUNDS SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. ALL FACILITIES, BUILDINGS OR PORTIONS OF BUILDINGS SHALL BE ACCESSIBLE TO FIRE DEPARTMENT APPARATUS BY WAY OF AN APPROVED FIRE APPARATUS ACCESS ROAD CONSTRUCTED WITH AN ASPHALT OR CONCRETE DRIVING SURFACE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF A FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS.
3. FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED TEN-PERCENT (10%) IN GRADE WITHOUT THE APPROVAL OF THE FIRE MARSHAL.
4. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF ONE HUNDRED AND FIFTY FEET (150') IN LENGTH SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS IN ACCORDANCE WITH THE TABLE BELOW.

LENGTH (FEET)	WIDTH (FEET)	TURNAROUNDS REQUIRED
0-150	20	NONE REQUIRED
151-500	20	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
501-750	26	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
OVER 750		SPECIAL APPROVAL REQUIRED

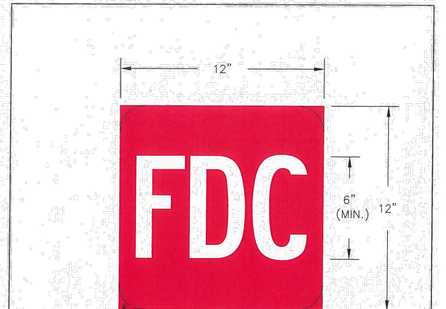
5. GATES SECURING FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN TWENTY FEET (20') IN WIDTH WHERE A SINGLE GATE IS PROVIDED. WHERE A FIRE APPARATUS ROAD CONSISTS OF A DIVIDED ROADWAY, THE GATE WIDTH SHALL BE NOT LESS THAN TWELVE FEET (12').
6. ALL GATE LOCKS SHALL COMPLY WITH CITY OF LEANDER CODE OF ORDINANCES SECTION 506.1.1.
7. GATES SECURING FIRE APPARATUS ACCESS ROADS SHALL BE OF THE SWINGING OR SLIDING TYPE.
8. FIRE APPARATUS ACCESS ROADS SHALL BE TWENTY-SIX FEET (26') IN WIDTH FOR TWENTY-FEET (20') IN BOTH DIRECTIONS FROM FIRE HYDRANTS, AT MINIMUM, TO PROVIDE MINIMUM CLEARANCE FOR EMERGENCY OPERATIONS.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS · MICHAEL LAFFERTY · 118708 · LICENSED PROFESSIONAL ENGINEER · 2016-08-15

FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-3
FIRE APPARATUS ACCESS ROADS & TURNAROUNDS



NOTES:

1. 12-INCH BY 12-INCH, 0.080 INCH THICK ALUMINUM BLANKS. COVERED WITH 3M DIAMOND GRADE, WHITE, REFLECTIVE SHEETING. LETTERING SHALL BE UPPER CASE, MINIMUM OF 6" IN HEIGHT WITH 1-1/4" LETTER STROKE, AND CUT FROM RED 3M ELECTRO CUT FILM.
2. ALL FONTS SHALL BE TRAFFIC CAD SERIES B OR FHWA SERIES B.
3. ON BUILDINGS, WHERE THE FIRE DEPARTMENT CONNECTION (FDC) IS NOT VISIBLE FROM THE FIRE LANE, THE FDC SHALL BE INDICATED BY AN APPROVED SIGN MOUNTED AS DIRECTED BY THE FIRE MARSHAL.
4. SIGN SHALL BE INSTALLED WITH ITS HORIZONTAL CENTERLINE A MINIMUM OF FOUR FEET (4') ABOVE THE FIRE DEPARTMENT CONNECTION AND PROVIDING AN UNOBSTRUCTED VIEW FROM THE FIRE DEPARTMENT ACCESS ROAD, TO INCLUDE CONSIDERATION FOR FUTURE VEGETATIVE GROWTH.
5. NO WATER-BASED ADHESIVES ARE PERMISSIBLE FOR USE IN ANY PART OF THE SIGN.

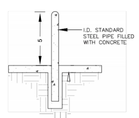
*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS · MICHAEL LAFFERTY · 118708 · LICENSED PROFESSIONAL ENGINEER · 2017-01-28

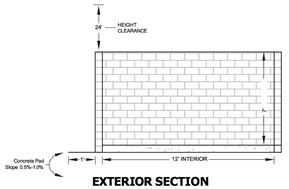
FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-4
FIRE DEPARTMENT CONNECTION SIGN

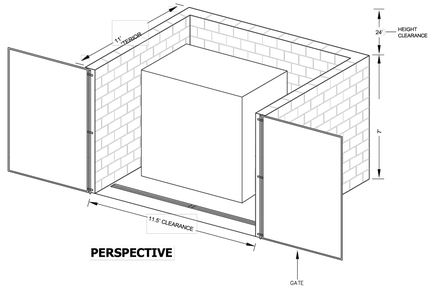
APPENDIX 1: CONTAINER ENCLOSURE DRAWINGS



BOLLARD



EXTERIOR SECTION

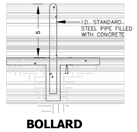


PERSPECTIVE

5 0 5
SCALE FEET

Site Design Standards for Solid Waste Containers
Page 2

REPUBLIC SERVICES
SITE DESIGN STANDARDS FOR SOLID WASTE CONTAINERS



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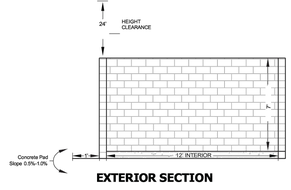
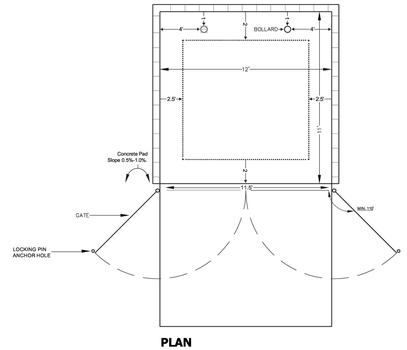


EXTERIOR SECTION

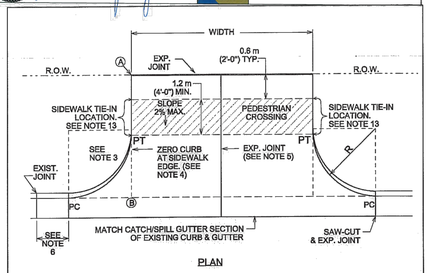


PLAN

5 0 5
SCALE FEET

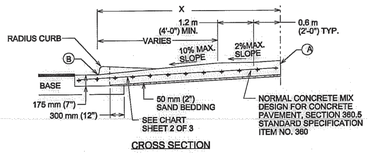
Site Design Standards for Solid Waste Containers
Page 1

REPUBLIC SERVICES
SITE DESIGN STANDARDS FOR SOLID WASTE CONTAINERS



PLAN

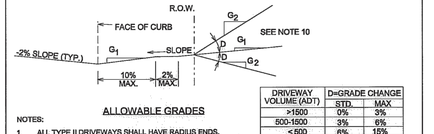
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT(A)ABOVE POINT(B)IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CROSS SECTION

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/24/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



ALLOWABLE GRADES

DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
<500	6%	15%

NOTES:

1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE-SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL: SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 65% OF PARCEL FRONTAGE AT 30 METERS (100 FEET); WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2 IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 8.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/24/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
SITE PLAN NOTES & DETAILS - SHEET 2

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-SITE DETAILS

STATE OF TEXAS · CHARLES R. HAGER · 127034 · LICENSED PROFESSIONAL ENGINEER · 7/29/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

SP03

SHEET NO. 16 OF 31 SHEETS

I:\A3452\0401\Submittal Sheets\SDP - Lot 1\A3452-0401-SITE DETAILS.dwg
User: dmcmorro
Last Modified: Jul. 31, 25 - 13:06
Plot Date/Time: Aug. 01, 25 - 08:38:06

COUNTY ROAD 269

DRIVEWAY (BY OTHERS - PICP-24-0184)

ROW DEDICATION 0.173-AC

0.71-AC ACCESS ESMT

TYPE II BARICADE

HUB COMMERCIAL FINAL PLAT BLOCK A, LOT 3 0.832-AC

4.131 ACRES GP LIBERTY HILL, LLC REMAINDER OF 5.221 ACRE TRACT DOC. No. 2016086336 OPR

HUB COMMERCIAL FINAL PLAT BLOCK A, LOT 2 1.675-AC

HUB COMMERCIAL FINAL PLAT BLOCK A, LOT 1 1.471-AC

LOT 1 FUEL CENTER & COMMERCIAL MARKET (5N SO FT) FFE: 942.65

PATIO

RISER ROOM

DO NOT ENTER

HMI

VAN

LOTS 2 AND 3 SITE IMPROVEMENTS SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE

WQ POND A (DETAILED GRADING ON SHEET WQ01)

18"S.E.T. FL 935.00

24"S.E.T. FL 934.38

3:1

4:1

WILLIAMSON COUNTY, TEXAS 1.063 ACRE TRACT DOC. No. 2022136249 OPR

DRIVEWAY & ROW IMPROVEMENTS (BY OTHERS - PICP-24-0184)

20 10 0 20 40

SCALE IN FEET

LEGEND

PROPOSED	EXISTING	
800		CONTOURS
		PROPOSED RETAINING WALL
		ACCESSIBLE ROUTE
100.00		TOP OF PAVEMENT
100.00 TC		TOP OF CURB/CONCRETE
100.00 TG		TOP OF GRATE
100.00 LP		LOW POINT
100.00 HP		HIGH POINT
100.00 FS		FINISHED SLAB
100.00 TW		TOP OF WALL
100.00 BW		BOTTOM OF WALL
100.00 FG		FINISHED GROUND
ST	ST	STORM SEWER LINE
WW	WW	WASTEWATER LINE
WL	WL	WATER LINE
		WATER VALVE
		FIRE HYDRANT
	WWMH	WASTEWATER MANHOLE
	SSMH	STORMSEWER MANHOLE
		1/2" REBAR FOUND (OR AS NOTED)
		WATER METER
		UTILITY POLE
	OU	OVERHEAD UTILITIES
		ELEC. UTILITY
		ELEC. MANHOLE
		LIGHT POLE
		TELEPHONE UTILITY
		UG FIBER OPTIC MARKER
		TELEPHONE MANHOLE
		UNDERGROUND GAS MARKER
	G	CHAIN LINK FENCE

NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RADII ARE 3' UNLESS OTHERWISE NOTED.
3. ALL SIDEWALKS SHALL BE 6' WIDE. ALL TRAILS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
4. ALL SPOT ELEVATIONS ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.
5. ALL SIDEWALKS SHALL HAVE A MAX. RUNNING SLOPE OF 5%.
6. ALL SIDEWALKS SHALL HAVE A MAX. CROSS SLOPE OF 2%.
7. RAMPS SHALL NOT EXCEED 8.33%. RAMPS LONGER THAN 6' REQUIRE HANDRAILS. RAMPS LONGER THAN 30' REQUIRE A LEVEL LANDING.
8. ALL PAVEMENT SHALL BE CONCRETE WITH CURB AND GUTTER.

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

CITY OF LEANDER PROJECT NO. SD-24-0285

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
GRADING PLAN

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-GRADING PLAN

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

GP01

SHEET NO. 17 OF 31 SHEETS

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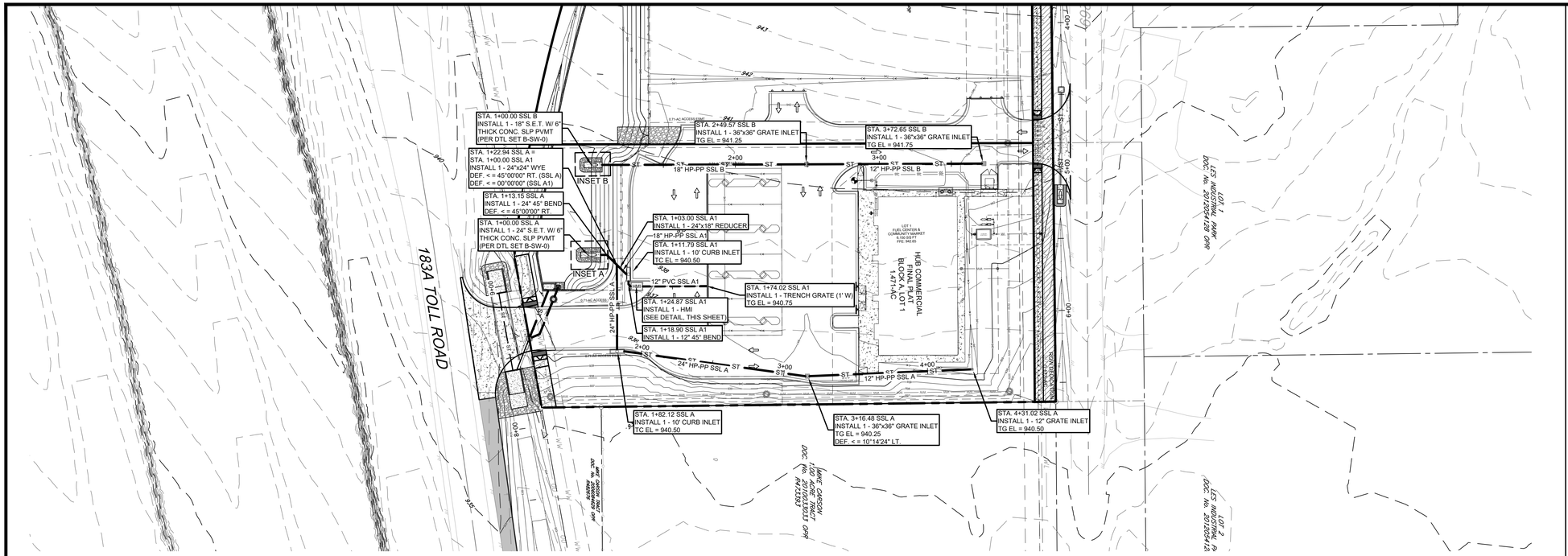
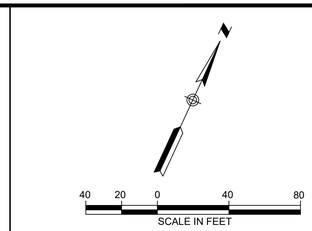
Last Modified: Jul. 31, 25 – 09:49
Plot Date/Time: Aug. 01, 25 – 08:38:23





LEGEND

PROPOSED	EXISTING	
ST	ST	STORM SEWER LINE
WW	WW	WASTEWATER LINE
		WASTEWATER SERVICE
WL	WL	WATER LINE
		WATER SERVICE
		WATER VALVE
		FIRE HYDRANT
	WWMH	WASTEWATER MANHOLE
	SSMH	STORMSEWER MANHOLE
		CURB INLET
		GRATE INLET
		1/2" REBAR FOUND (OR AS NOTED)
		1/2" REBAR WITH CAP FOUND
		1/2" REBAR WITH CHAPARRAL CAP SET
		WATER METER
		UTILITY POLE
	OU	OVERHEAD UTILITIES
		ELEC. UTILITY
		ELEC. MANHOLE
		LIGHT POLE
	T	TELEPHONE UTILITY
		UNDERGROUND FIBER OPTIC MARKER
		TELEPHONE MANHOLE
		UNDERGROUND GAS MARKER
		CHAIN LINK FENCE

NOTES:

1. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.

2. CONTRACTOR TO FILL AND COMPACT TO 95% DENSITY IN FILL SECTIONS OVER STORM SEWER LINES. 2.0'(MIN) COVER OVER WATER PRIOR TO CONSTRUCTION.

3. ALL STORM SEWER PIPE SHALL BE HP-PP OR ACCEPTED EQUAL. ALL PUBLIC STORM SEWERS SHALL BE RCP. STORM SEWER LINES OUTSIDE OF PAVEMENT AND EASEMENTS MAY BE INSTALLED AS PVC OR ACCEPTED EQUAL.

4. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH _____ COUNTY SPECIFICATIONS.

5. ALL BENDS AND FITTINGS SHALL BE PREFABRICATED BY MANUFACTURER. NO FIELD FABRICATION OF FITTINGS IS ALLOWED.

Outfall Rip Rap Sizing (SSL A)	
Q_{100} =	10.99 cfs
A =	3.14 ft2 (24" HP-PP)
V =	3.50 fps (V=Q/A)
D_{50} =	1.66 (D_{50} = 0.0105$V^{2.05}$) inches min.
	USE 3"-5" DIA. RIP-RAP

Outfall Rip Rap Sizing (SSL B)	
Q_{100} =	3.53 cfs
A =	1.77 ft2 (18" HP-PP)
V =	2.00 fps (V=Q/A)
D_{50} =	0.52 (D_{50} = 0.0105$V^{2.05}$) inches min.
	USE 3"-5" DIA. RIP-RAP

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STORM SEWER PLAN AND PROFILE

REVISIONS NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-ST01

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

ST01

SHEET NO. 18 OF 31 SHEETS

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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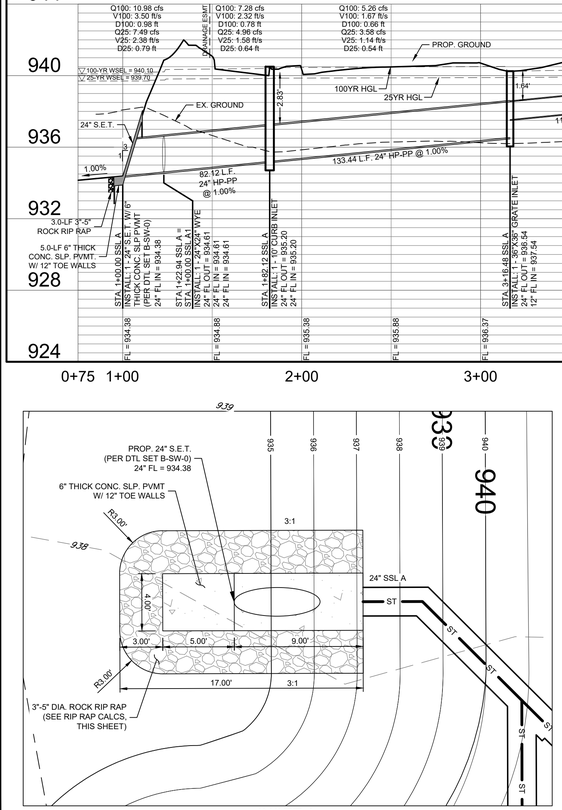
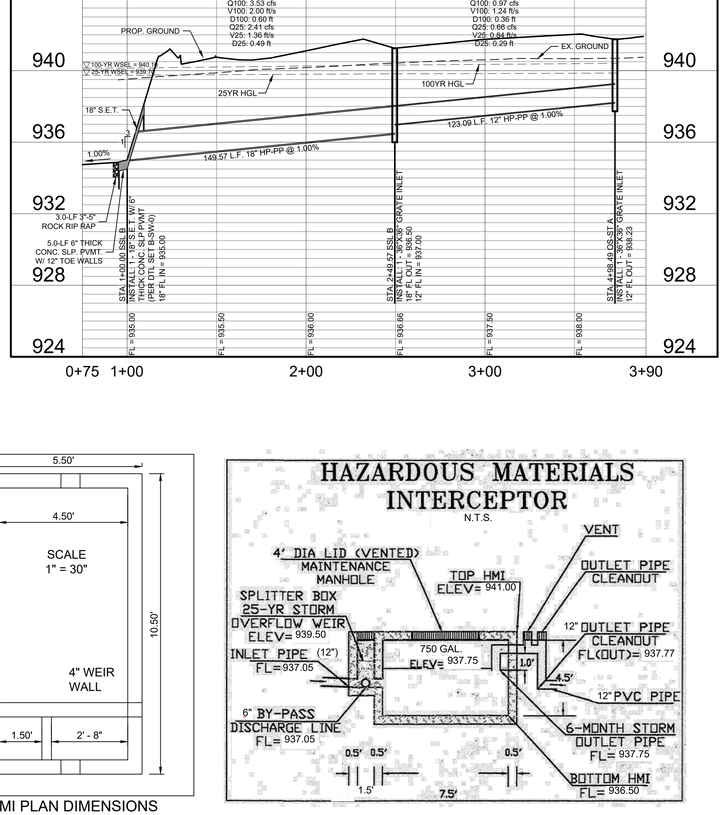
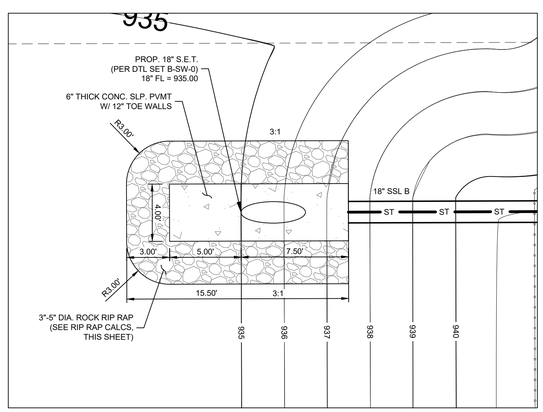
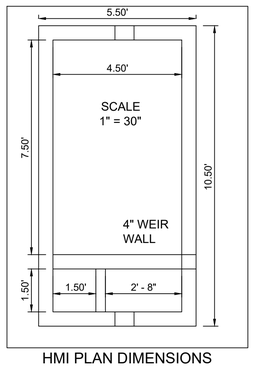




INSET A
(SCALE: 1" = 5')



INSET B
(SCALE: 1" = 5')



HMI PLAN DIMENSIONS
(SCALE: 1" = 30')

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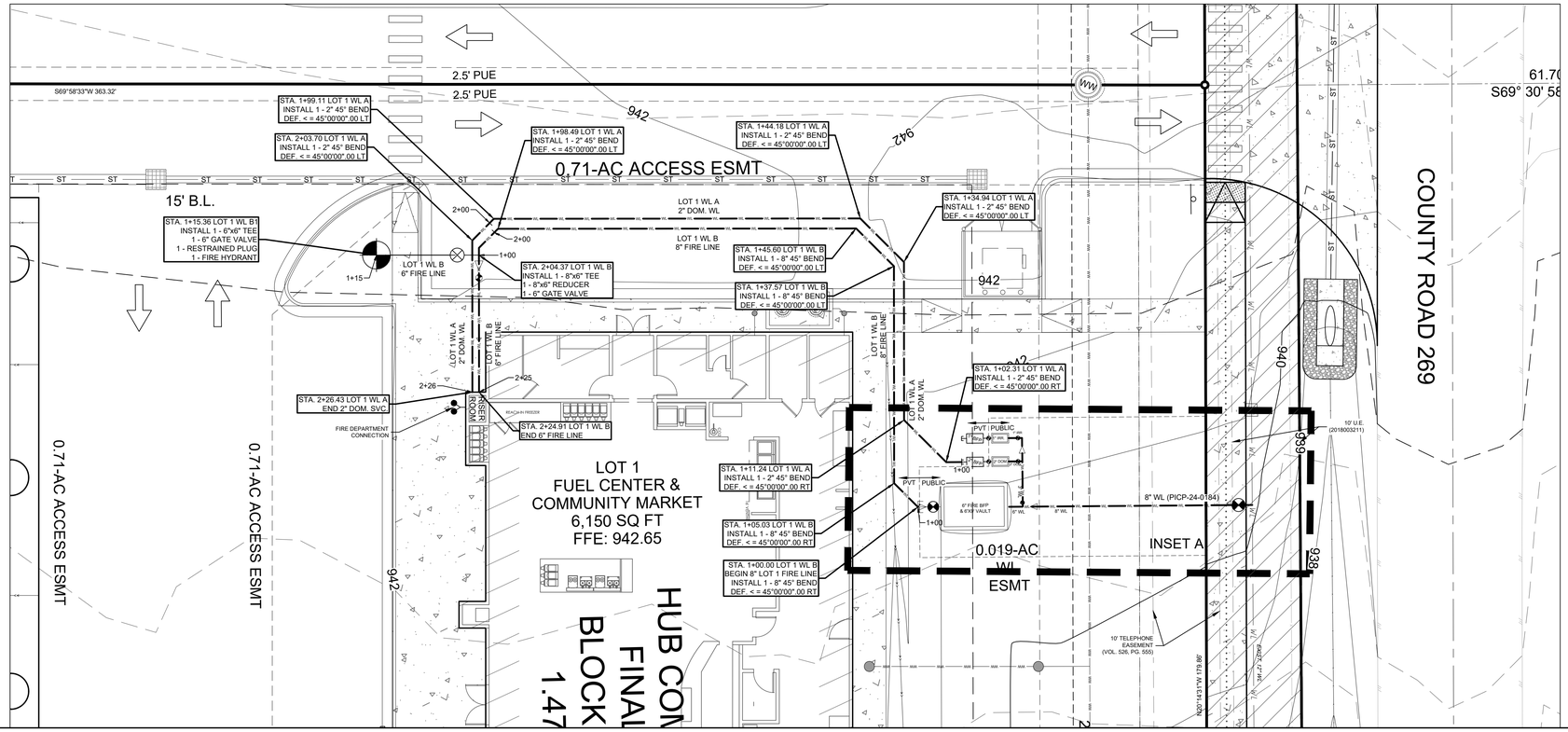
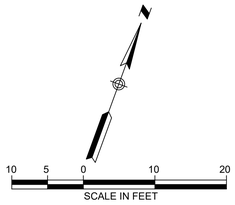
User: dmcmorris
Last Modified: Jul 31, 25 - 09:49
Plot Date/Time: Aug 01, 25 - 08:36:43





LEGEND

PROPOSED	EXISTING	
ST	ST	STORM SEWER LINE
WW	WW	WASTEWATER LINE
		WASTEWATER SERVICE
WL	WL	WATER LINE
		WATER SERVICE
		WATER VALVE
		FIRE HYDRANT
	WWMH	WASTEWATER MANHOLE
	SSMH	STORMSEWER MANHOLE
		CURB INLET
		GRATE INLET
		1/2" REBAR FOUND (OR AS NOTED)
		1/2" REBAR WITH CAP FOUND
		1/2" REBAR WITH CHAPARRAL CAP SET
		WATER METER
		UTILITY POLE
	OU	OVERHEAD UTILITIES
		ELEC. UTILITY
		ELEC. MANHOLE
		LIGHT POLE
		TELEPHONE UTILITY
		UNDERGROUND FIBER OPTIC MARKER
		TELEPHONE MANHOLE
		UNDERGROUND GAS MARKER
		CHAIN LINK FENCE

WATER NOTES:

1. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.

2. POTABLE WATER LINES SHALL BE DR-14 C-900 PVC OR CL 350 DIP. ALL WATER LINES WITHIN EASEMENTS, INCLUDING PRIVATE STREETS, TO BE CL 350 DUCTILE IRON. FIRE HYDRANT LEADS SHALL BE CLASS 350 DUCTILE IRON.

3. CONTRACTOR TO FILL AND COMPACT TO 98% DENSITY IN FILL SECTIONS OVER WATER LINES. 2.0'(MIN) COVER OVER WATER PRIOR TO CONSTRUCTION.

4. N0. 10 SOLID COPPER WIRE SHALL BE INSTALLED AS TRACER WIRE ABOVE ALL NONMETALLIC WATER LINES

5. ALL SERVICE LINES SHALL INCLUDE GATE VALVE AT MAIN LINE.

6. THIS PROJECT HAS PRIVATE HYDRANTS LOCATED WITHIN THE PROPERTY. THE PROPERTY OWNER IS REQUIRED TO COMPLY WITH LEANDER FIRE CODE. FAILURE TO COMPLY MAY RESULT IN CIVIL AND/OR CRIMINAL REMEDIES AVAILABLE TO THE CITY. THE PERFORMANCE OF THIS OBLIGATION SHALL ALWAYS REST WITH THE OWNER OF RECORD. FIRE HYDRANTS ON PRIVATE PROPERTY ARE REQUIRED TO BE SERVICED, MAINTAINED AND FLOWED ANNUALLY, USING A CONTRACTOR REGISTERED WITH THE CITY TO PROVIDE THE SERVICE.

7. ALL ON-SITE UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS REQUIRED BY THE UTILITY TO BE OTHERWISE LOCATED (SECTION 25-2-1125).

8. TAPPING SLEEVES TO BE SMITH-BLAIR 663 OR JCM 439 ALL STAINLESS TAPPING SLEEVES.

9. WATER SERVICE IS PROVIDED BY THE CITY OF LEANDER.

10. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL WATER AND WASTEWATER CROSSINGS CONFORM TO TCEQ DESIGN CRITERIA.

11. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.

12. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.

13. MINIMUM FOUR (4') FOOT OF COVER IS REQUIRED ON ALL WATER LINES.

14. ALL PROPOSED FILL OUTSIDE OF PAVEMENT SHALL BE COMPACTED IN LIFTS TO 90%.

15. CHANGES IN DIRECTIONS OF PVC PIPE SHALL ONLY BE BY USE OF FITTINGS OR BY DEFLECTING STRAIGHT PIPE SECTIONS AT JOINTS. LONGITUDINAL BENDING OF PVC PIPE IS NOT ALLOWED. DEFLECTION OF PVC PIPE AT FITTINGS IS NOT ALLOWED. DEFLECTION OF STRAIGHT PVC PIPE SECTIONS SHALL NOT EXCEED 1 DEGREE AT EACH JOINT (EVEN IF JOINT RESTRAINT DEVICES ARE INSTALLED). DEFLECTION OF PIPE JOINTS AT FITTINGS IS ONLY ALLOWED ON DUCTILE IRON PIPE.

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN

WATERLINE PLAN

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-WL01.dwg

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

WL01

SHEET NO. 19 OF 31 SHEETS

HUB Commercial Development in Leander, Texas
Lot 1 - Water / Wastewater Demand Summary

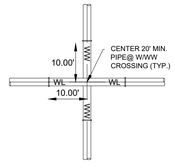
Description	SF	LUE per SF	Land Use	LUE's	Area (AC)
Restaurant	325	1 / 200	Commercial	1.63	1.53
Retail	5,773	1 / 1660	Commercial	3.48	
			TOTAL	5	1.53

Water Flow Calculation

Average Day Demand
Q = 268.88 GPD* LUE = **1,372.0 GPD**

Peak Hour
Q = 1,194.53 GPD * LUE = **6,095.34 GPD**

Maximum Day Demand
Q = 635.90 GPD * LUE = **3,244.8 GPD**



WATER & WASTEWATER CROSSING DETAIL

6 INCHES TO 2 FEET OF CLEARANCE
1. ANY CROSSING WHERE A WASTEWATER PIPE CROSSES BENEATH A WATER LINE AND MUST BE CONSTRUCTED WITH LESS THAN 2 FEET BETWEEN THE PIPES' OUTER WALLS MUST BE CONSTRUCTED USING 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE WITHIN NINE FEET OF THE WATER LINE (18 FOOT LENGTH TOTAL).
2. THE CROSSING PIPES MUST HAVE AT LEAST 6 INCHES OF SEPARATION BETWEEN OUTER EDGES AND BE CENTERED AT THE CROSSING.
3. CROSSING PIPE MUST BE TERMINATED AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE

2 FEET OR MORE OF CLEARANCE BETWEEN PIPES
1. ANY CROSSING WHERE A WASTEWATER PIPE CROSSES BENEATH A WATER LINE AND IS NOT CONSTRUCTED USING USING 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE WITHIN NINE FEET OF THE WATER LINE (18 FOOT LENGTH TOTAL).
2. THE CROSSING PIPES MUST HAVE AT LEAST 2 FEET OF SEPARATION BETWEEN OUTER EDGES AND BE CENTERED AT CROSSING.
3. THEY CROSSING PIPE MUST BE ENCASED IN CEMENT-STABILIZED SAND BACKFILL THAT MEETS THE REQUIREMENTS STATED IN SUBPARAGRAPH D OF TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CHAPTER 217 (7)(D).

FIRE DEPARTMENT DATA

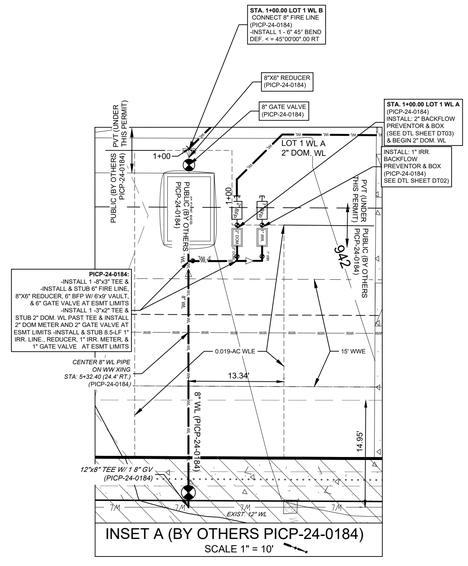
FIRE FLOW TEST INFORMATION (12/02/2024)

FLOW HYDRANT (CR 269 - ADJACENT TO LOT 3)
STATIC PRESSURE = 89 PSI
VELOCITY PRESSURE = 70 PSI
FLOW RATE = 1,404 GPM
FLOW RATE @ 20 PSI = 3,784 GPM

TEST HYDRANT (CR 269 - ADJACENT TO LOT 1)
STATIC PRESSURE = 89 PSI
RESIDUAL PRESSURE = 78 PSI
FLOW RATE @ 20 PSI = 3,784 GPM

K. FRISE MODELING RESULTS (04/25/25)

LOT 1
MIN. PRESSURE = 123 PSI (1,179 HGL)
MAX. PRESSURE = 137 PSI (1,207 HGL)
FIRE FLOW AVAILABLE = 3,980 GPM AT 26 PSI RESIDUAL



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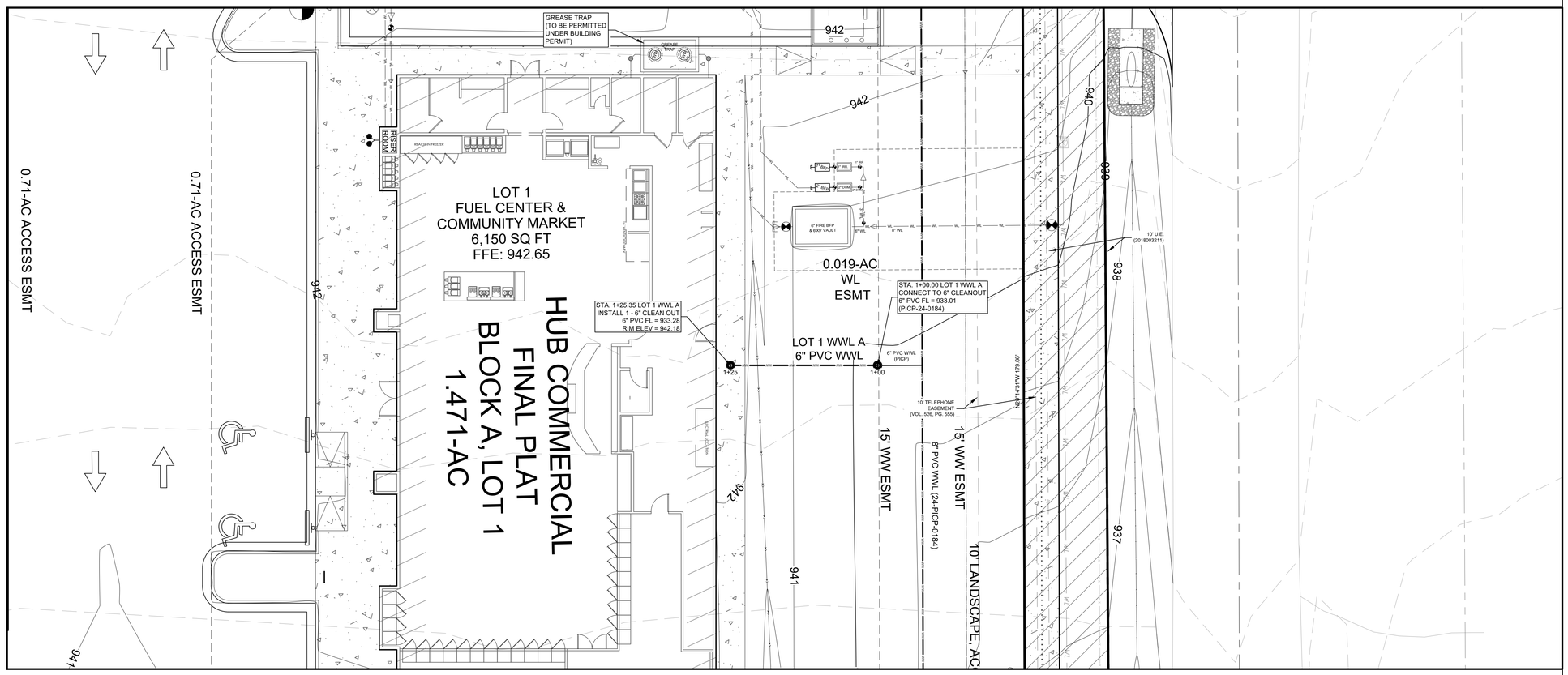
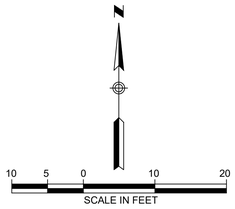
Plot Date/Time: Aug. 01, 25 – 08:39:50

CITY OF LEANDER PROJECT NO. SD-24-0285





LEGEND

PROPOSED	EXISTING	
ST	ST	STORM SEWER LINE
WW	WW	WASTEWATER LINE
		WASTEWATER SERVICE
WL	WL	WATER LINE
		WATER SERVICE
		WATER VALVE
		FIRE HYDRANT
		WASTEWATER MANHOLE
		STORMSEWER MANHOLE
		CURB INLET
		GRATE INLET
		1/2" REBAR FOUND (OR AS NOTED)
		1/2" REBAR WITH CAP FOUND
		1/2" REBAR WITH CHAPARRAL CAP SET
		WATER METER
		UTILITY POLE
	OU	OVERHEAD UTILITIES
		ELEC. UTILITY
		ELEC. MANHOLE
		LIGHT POLE
		TELEPHONE UTILITY
		UNDERGROUND FIBER OPTIC MARKER
		TELEPHONE MANHOLE
		UNDERGROUND GAS MARKER
		CHAIN LINK FENCE

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
WASTEWATER PLAN AND PROFILE

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-WW01.dwg

HUB Commercial Development in Leander, Texas
Lot 1 - Water / Wastewater Demand Summary

Description	SF	LUE per SF	Land Use	LUE's	Area (AC)
Restaurant	325	1 / 200	Commercial	1.63	1.53
Retail	5,725	1 / 1660	Commercial	3.45	
			TOTAL	5	1.53

Wastewater Flow Calculation

Average Dry Weather Flow

Q = 245 GPD * LUE = 1,243.1 GPD
Q =0.170 GPM * LUE = 0.9 GPM

Peak Dry Weather

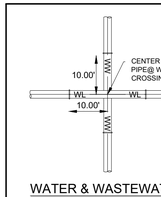
Q = ((18 + (0.0206* F)^0.5) /(4+(0.0206*F)^0.5) * F = 3.8 GPM
= 5,454.56 GPD

Inflow/Infiltration

Q = AREA * 750 GPD/1440 = 1.53 acres * 0.5208 = 0.8 GPM

Peak Wet Weather

Peak Dry Weather + Inflow/Infiltration = **4.6** **GPM**



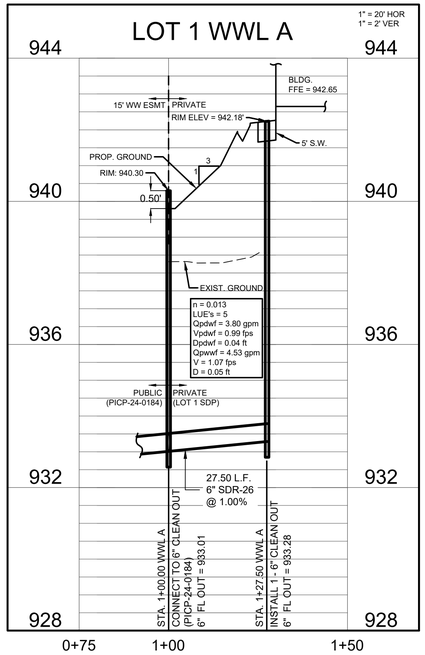
WATER & WASTEWATER
CROSSING DETAIL

6 INCHES TO 2 FEET OF CLEARANCE

1. ANY CROSSING WHERE A WASTEWATER PIPE CROSSES BENEATH A WATER LINE AND MUST BE CONSTRUCTED WITH LESS THAN 2 FEET BETWEEN THE PIPES' OUTER WALLS MUST BE CONSTRUCTED USING 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE WITHIN NINE FEET OF THE WATER LINE (18 FOOT LENGTH TOTAL).
2. THE CROSSING PIPES MUST HAVE AT LEAST 6 INCHES OF SEPARATION BETWEEN OUTER EDGES AND BE CENTERED AT THE CROSSING.
3. CROSSING PIPE MUST BE TERMINATED AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE

2 FEET OR MORE OF CLEARANCE BETWEEN PIPES

1. ANY CROSSING WHERE A WASTEWATER PIPE CROSSES BENEATH A WATER LINE AND IS NOT CONSTRUCTED USING USING 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE WITHIN NINE FEET OF THE WATER LINE (18 FOOT LENGTH TOTAL).
2. THE CROSSING PIPES MUST HAVE AT LEAST 2 FEET OF SEPARATION BETWEEN OUTER EDGES AND MUST BE CENTERED AT CROSSING.
3. THEY CROSSING PIPE MUST BE ENCASED IN CEMENT-STABILIZED SAND BACKFILL THAT MEETS THE REQUIREMENTS STATED IN SUBPARAGRAPH D OF TEXAS COMMISSION ON ENVIRONMENTAL QUALITY CHAPTER 217 (7)(D).



WASTEWATER NOTES:

1. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES HORIZONTALLY AND VERTICALLY PRIOR TO CONSTRUCTION.
2. MANDREL TESTING WILL BE REQUIRED ON ALL FLEXIBLE GRAVITY WASTEWATER PIPE AS PER TCEQ RULES.
3. ALL GRAVITY WASTEWATER LINES SHALL BE SDR-26 WWL ASTM D3034 UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO FILL AND COMPACT TO 98% DENSITY IN FILL SECTIONS OVER WASTEWATER LINES. 2.0'(MIN) COVER OVER WASTEWATER PRIOR TO CONSTRUCTION.
5. ALL SERVICES SHALL TERMINATE WITH A 2-WAY CLEANOUT.
6. ALL ON-SITE UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS REQUIRED BY THE UTILITY TO BE OTHERWISE LOCATED (SECTION 25-2-1125).

729/2025
STATE OF TEXAS
CHARLES R. HAGER V
127034
LICENSED PROFESSIONAL ENGINEER

CITY OF LEANDER APPROVAL

LOCATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT OCCUR.

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

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

WW01

SHEET NO. 20 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

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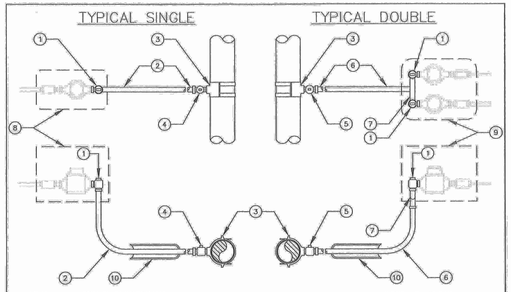
Last Modified: Jul. 16, 25 – 17:05
Plot Date/Time: Aug. 01, 25 – 08:19

TYPICAL SINGLE



TYPICAL DOUBLE

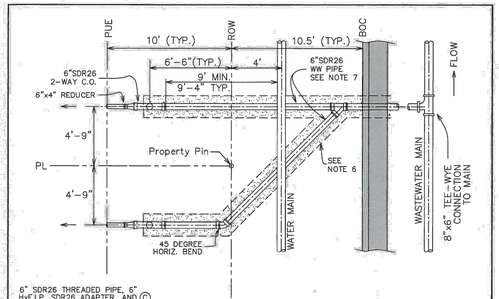
ITEM	SIZE & DESCRIPTION	SPEC. OR EQUAL
1	1" X 1" ANGLE METER STOP, LOCKING	AS APPROVED
2	1" SDR9 POLYETHYLENE TUBING	CLASS 250
3	EPOXY COATED DUCTILE IRON TAPPING SADDLE	AS APPROVED
4	1" CORPORATION STOP	AS APPROVED
5	1 1/2" CORPORATION STOP	AS APPROVED
6	1 1/2" SDR9 POLYETHYLENE TUBING	CLASS 250
7	BRASS U-BRANCH, 1 1/2" X 1"	FORD, OR EQUAL
8	METER BOX, SINGLE	DFW37F-12-ICA, OR EQUAL
9	METER BOX, DOUBLE	DFW39F-12-ICA, OR EQUAL
10	3" SCH. 40 PVC SLEEVE FOR LONG SIDE SERVICES (TYP.)	

NOTES:
1. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
2. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS.
3. BRANCH CONNECTION AND BOTH ANGLE METER STOPS SHALL BE INSTALLED PRIOR TO FIRST METER INSTALLATION.
4. SLEEVES FOR LONG-SIDE SERVICE TO BEGIN AND TERMINATE 6" BEHIND BACK OF CURB.
5. TOP OF METER BOXES SHOULD BE 1" ABOVE GROUND.
6. METER BOX SHALL BE BEHIND CURB AT ROW/PROPERTY LINE OR EASEMENT. METER BOX SHALL NOT BE INSTALLED IN SIDEWALK, DRIVEWAY OR VEHICULAR TRAVEL AREA.
7. 1" X 3/4" BRASS METER BUSHING REQUIRED FOR 5/8" AND 3/4" METERS.
8. AXIS OF METER ASSEMBLY (LINE THROUGH METER STOP, METER, CHECK VALVE, PIPING AND OWNER'S CUTOFF) SHALL BE 11" BELOW TOP OF BOX. METER BOXES ARE SIZED TO ACCOMMODATE METER STOP, WATER METER AND CHECK VALVE.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

Wayne A. Watts 11/24/15

City Of Leander, Texas
DETAIL #101-1
WATER SERVICE CONNECTIONS



NOTES:
- Ⓐ WATER MAIN SHALL CROSS ABOVE 6" WASTEWATER SERVICE, TWO-FOOT (2') MINIMUM VERTICAL SEPARATION.
- Ⓑ TO BE INSTALLED AND INSPECTED DURING SUBDIVISION CONSTRUCTION. UTILITY CONTRACTOR INSTALLS SERVICE STUB WITH PLUG OR CAP.
- Ⓒ 2-WAY CLEANOUTS, 6" HxF.I.P. ADAPTER, REDUCER, AND 4" SERVICE LINE INSTALLED BY BLDG. PLUMBER. PERMITS DEPARTMENT SHALL INSPECT CUSTOMER'S WASTEWATER LINE AND ALL APPURTENANCES INSTALLED BY BUILDING PLUMBER.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

Wayne A. Watts 09/26/18

City Of Leander, Texas
DETAIL #101-2
1 OF 2
WASTEWATER SERVICE CONNECTIONS

NOTES

1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER CONNECTION TO MAIN, 6" HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH, AND PLUG(S) FOR 6" SERVICE BRANCH STUB. CONTRACTOR TIES MYLAR TAPE TO END OF 6" STUB, WRAPS 3 TIMES AROUND LENGTH OF PVC BURIED TO THE DEPTH OF THE 6" STUB AND TIES TO TOP OF PVC EXTENDING A MINIMUM OF 2 FEET ABOVE GROUND.

   ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 1% (1/8" PER FOOT) MINIMUM TO 45° MAXIMUM. DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER. IF GREATER THAN 8', OTHERWISE THE INSTALLED DEPTH WILL TYPICALLY BE 6' TO 8'. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, REFER TO DETAIL 520-6. ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY CITY OF LEANDER CONSTRUCTION INSPECTION PERSONNEL.

2. CUSTOMER REMOVES PLUG FROM 6" SERVICE LINE STUB, INSTALLS 6" 2-WAY CLEANOUT, 6" BY 4" REDUCER, RISER FOR CLEANOUT, 6" HxF.I.P. ADAPTER, 6" THREADED PLUG, AND 4" SERVICE LINE TO STRUCTURE. IF WASTEWATER WILL NOT SATISFACTORILY FLOW BY GRAVITY FROM STRUCTURE AND SEWER SERVICE STUB TO WASTEWATER MAIN, PUMP EQUIPMENT MUST BE PROVIDED BY THE CUSTOMER AS PART OF CUSTOMER'S WASTEWATER SYSTEM.

3. CUSTOMER IS RESPONSIBLE FOR PUBLIC PIPING SYSTEM UNTIL WASTEWATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF TWO (2) YEARS FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO CITY SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL 2-WAY-CLEANOUTS REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.

4. CITY OF LEANDER ACTIVITY IS LIMITED TO INSPECTION OF CONNECTIONS TO THE CITY'S WASTEWATER SYSTEM. FOR MAINTENANCE PURPOSES, THE CITY'S RESPONSIBILITY ENDS AT THE CUSTOMER'S WASTEWATER CONNECTION TO THE 2-WAY-CLEANOUT.

5. PIPING AND TUBING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATION SECTION 510.3 (14) UNLESS OTHERWISE NOTED ON THIS DETAIL; MATERIALS SHALL BE AS SPECIFIED IN 510.2 (2)(A) AND (3)(B). BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED BY SECTION 510.3 (25). SERVICE LINES IN THESE AREAS SHALL HAVE A MINIMUM COVER BELOW FINAL STREET GRADE OF 42". ANY EXCEPTION MUST BE SPECIFICALLY APPROVED BY THE ENGINEER.

6. ALL SANITARY SEWER PIPE WITHIN 9' OF WATER MAINS SHALL BE BEDDED IN CEMENT STABILIZED SAND PER TCEQ CHAPTER 217 & 290 REQUIREMENTS. BEDDING SHALL EXTEND A MINIMUM OF 12" ABOVE PIPE, 4" BELOW PIPE, AND 12" BEYOND JOINTS AT EACH END.

7. PIPE MATERIAL FOR WASTEWATER SERVICES SHALL BE 6" SDR-26 PVC D2241 160 PSI RATED.

8. NO METER BOX OR CLEAN OUT SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEERING DEPT.

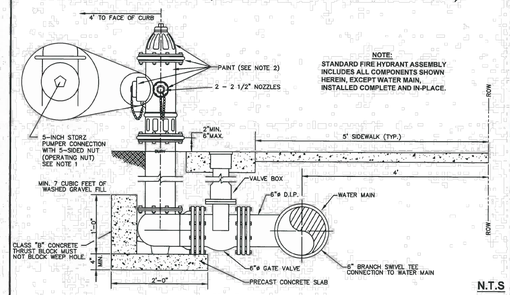
9. NO JOINTS SHALL BE PERMITTED BETWEEN THE 6"x6" HORIZONTAL WYE AND THE 6" 2-WAY CLEANOUT EXCEPT FOR THE 6" 45-DEGREE BEND REQUIRED FOR DOUBLE SERVICES.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

Wayne A. Watts 09/26/18

City Of Leander, Texas
DETAIL #101-2
2 OF 2
WASTEWATER SERVICE CONNECTIONS

FIRE HYDRANTS LACKING INTEGRAL STORZ CONNECTOR SHALL BE REJECTED (NO STORZ ADAPTERS ALLOWED)



N.T.S

NOTES:
1. FIRE HYDRANT SHALL BE CLOW MEDALLION F2545, AMERICAN DARLING B-84-B-5, MUELLER SUPER CENTURION, EJ 5CD250 WATERMASTER, KENNEDY K81D GUARDIAN, AVK 2780, OR APPROVED EQUAL. WA SUBMITTAL PROCESS. THE PRIMARY FEATURES REQUIRED INCLUDE: FACTORY INSTALLED INTEGRAL 5-INCH STORZ PUMPER NOZZLE; 1.5-INCH PENT OPERATING NUT ON NOZZLE CAP; OPEN LEFT; FACTORY PAINTED.
2. HYDRANTS SHALL BE FACTORY PAINTED WITH FLYNT ALUMINUM SILVER PAINT OR SHERWIN WILLIAMS SILVER B59S11. HYDRANTS WILL NOT BE ACCEPTED IF PAINTED AFTER DELIVERY OR IF PAINT IS FLAT IN APPEARANCE.
3. ALL DUCTILE OR CAST IRON FITTINGS AND/OR PIPE SHALL BE POLYWRAPPED.
4. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL FITTINGS SHALL BE EQUIPPED WITH JOINT RESTRAINT "MEGALUG" OR APPROVED EQUAL. ALL ANCHOR FITTING TO BE CONCRETE THRUST BLOCKED.
5. BLUE, BI-DIRECTIONAL REFLECTIVE PAVEMENT MARKER, ULTIMATE WET NIGHT VISIBILITY SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION AT THE CORRESPONDING ROADWAY STATION OFFSET 6" (SIX INCHES) FROM CENTER OF STREET TO THE SIDE HYDRANT IS LOCATED. AT INTERSECTIONS, MARKERS SHALL BE PLACED ON BOTH ROADWAYS ADJACENT TO HYDRANT.

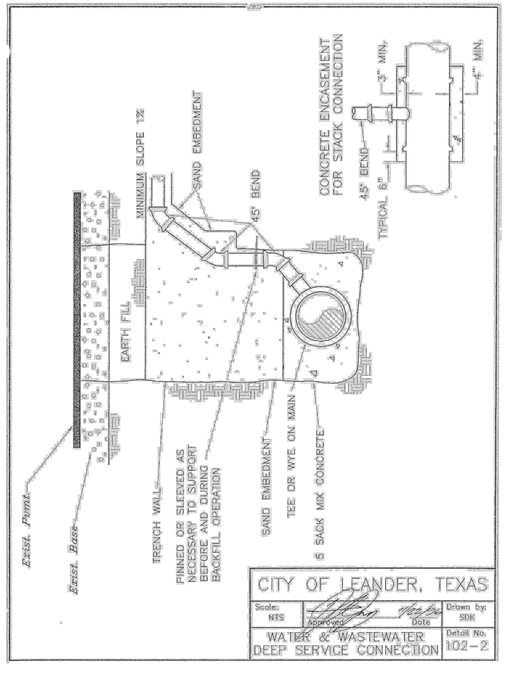
LOCATION:

6. SET F.H. ON LOT LINE (EXTENDED WHEN POSSIBLE)
7. F.H. LOCATED AT STREET INTERSECTIONS SHALL BE PLACED A MINIMUM OF TEN FEET (10') FROM RADIUS TANGENT POINT.
8. NO OBSTRUCTIONS SHALL BE PERMITTED WITHIN THREE FEET (3') IN ALL DIRECTIONS FROM F.H.
9. 5-INCH STORZ PUMPER NOZZLE SHALL FACE THE FIRE LANE OR TRAVEL WAY UNLESS OTHERWISE NOTED.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

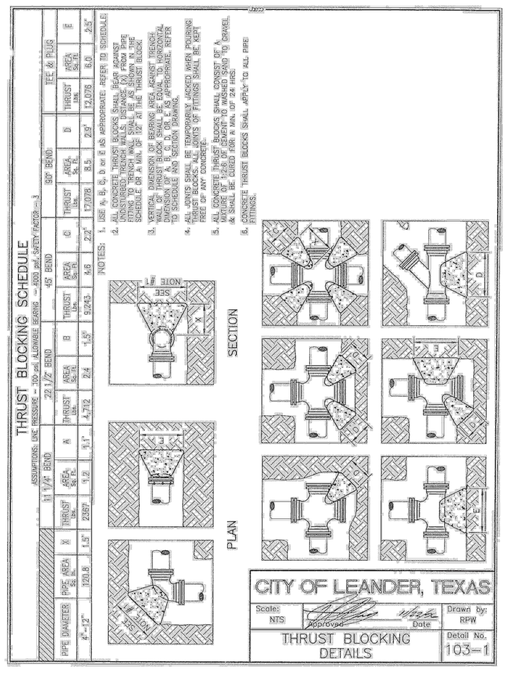
Wayne A. Watts 02/05/19

City Of Leander, Texas
DETAIL #101-4
STANDARD FIRE HYDRANT ASSEMBLY



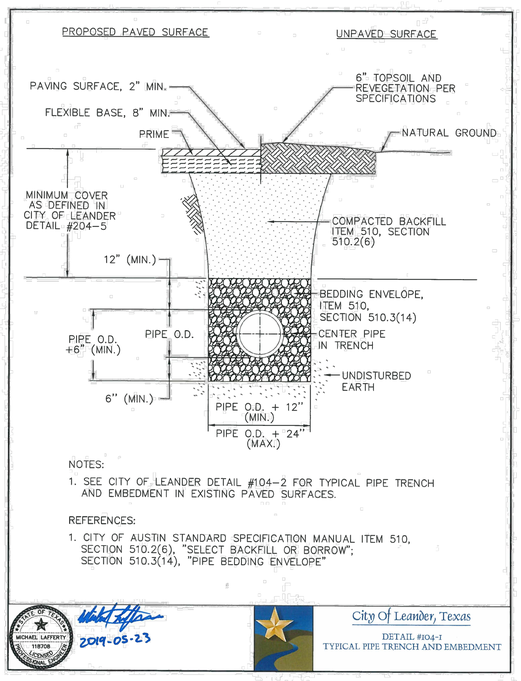
CITY OF LEANDER, TEXAS

Scale: NTS	Approved:	Date	Drawn by: SDK
WATER & WASTEWATER DEEP SERVICE CONNECTION			Detail No. 102-2



CITY OF LEANDER, TEXAS

Scale: NTS	Approved:	Date	Drawn by: BPW
THRUST BLOCKING DETAILS			Detail No. 103-1



NOTES:
1. SEE CITY OF LEANDER DETAIL #104-2 FOR TYPICAL PIPE TRENCH AND EMBEDMENT IN EXISTING PAVED SURFACES.

REFERENCES:
1. CITY OF AUSTIN STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

STATE OF TEXAS · MICHAEL LAFFERTY · 119706 · LICENSED PROFESSIONAL ENGINEER

2019-05-23

City Of Leander, Texas
DETAIL #104-1
TYPICAL PIPE TRENCH AND EMBEDMENT

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN

STANDARD DETAILS 1

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-01-STANDARD DETAILS

7/29/2025
STATE OF TEXAS · CHARLES R. HAGER · 127034 · LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT01

SHEET NO. 21 OF 31 SHEETS

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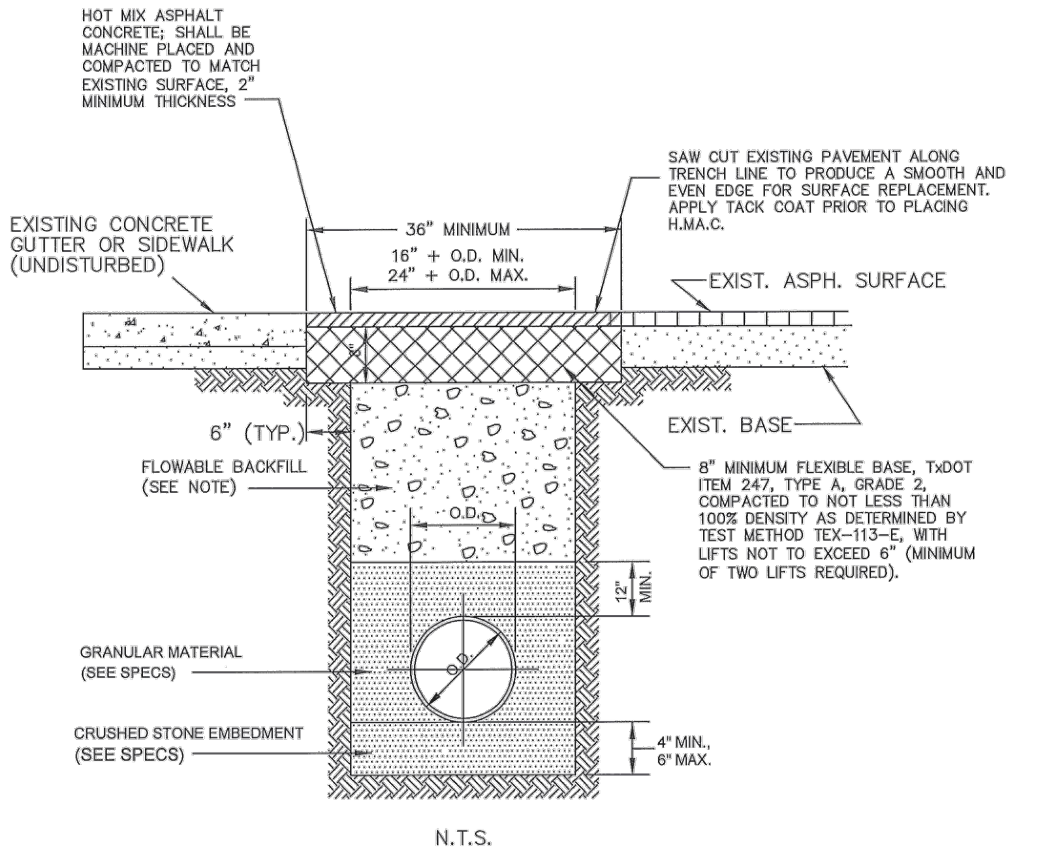
Plot Date/Time: Aug 01, 25 - 08:46:34

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STANDARD DETAILS 2



N.T.S.

NOTES:

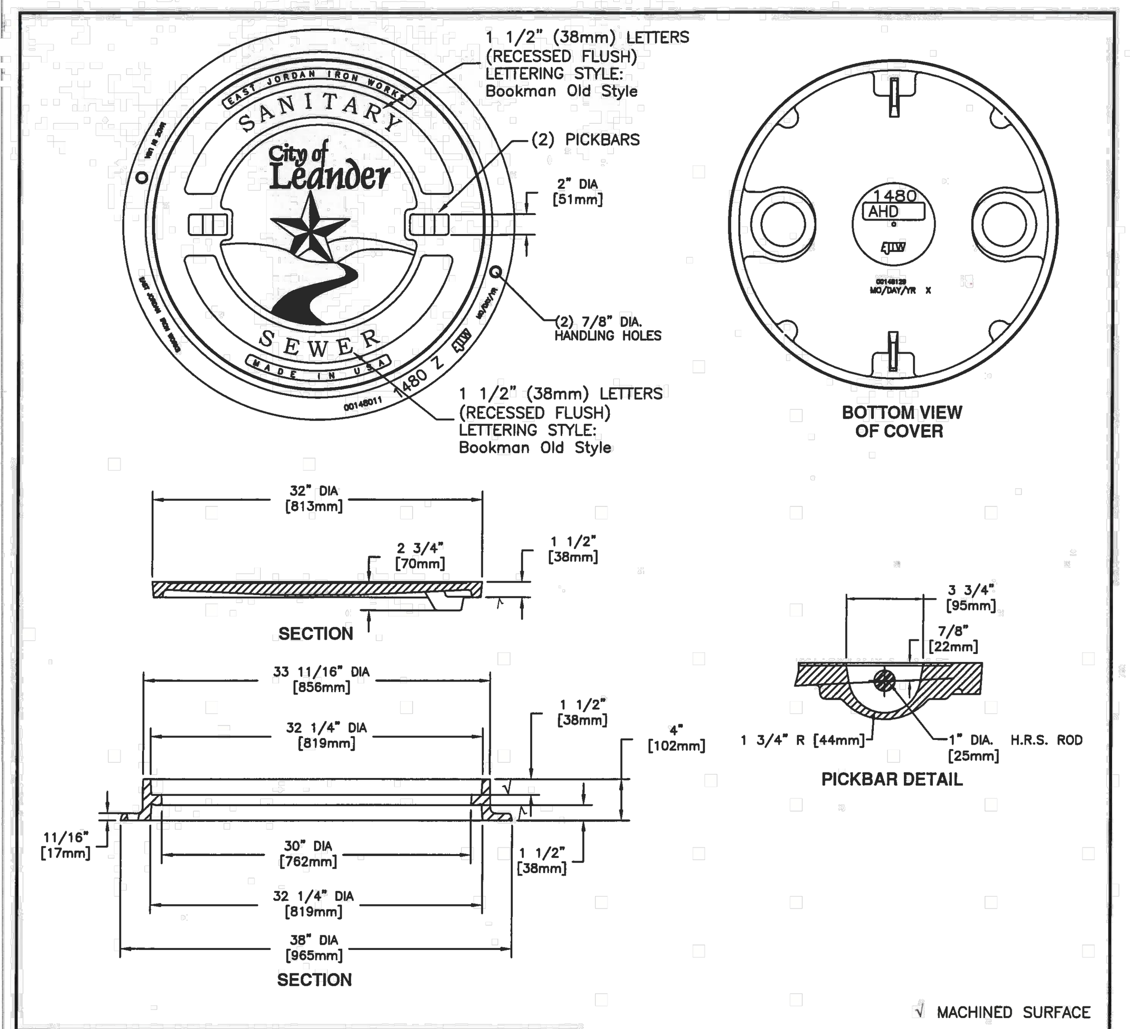
FLOWABLE BACKFILL SHALL CONSIST OF A MIXTURE OF NATIVE SOILS OR MANUFACTURED MATERIALS, CEMENT AND/OR FLY ASH, AND WATER WHICH PRODUCES A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 250 AND 450 PSI AFTER 28 DAYS. ANY MATERIALS USED SHALL BE PRIMARILY GRANULAR, WITH A PLASTICITY INDEX <12 AND WITH 100% PASSING A 3/4 INCH SIEVE. THE FLOWABLE MIXTURE SHALL BE MIXED IN A PUG MILL, CONCRETE MIXER, OR TRANSIT MIXER AND SHALL HAVE A MINIMUM SLUMP OF 5 INCHES. THE FLOWABLE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PACEMENT OF ANY OVERLAYING MATERIAL.

ONE CONCRETE CYLINDER WILL BE REQUIRED FOR TESTING AND WILL BE FABRICATED BY THE CITY INSPECTOR.

THE PUBLIC WORKS DEPARTMENT IS TO BE CONTACTED AT 259-2640 PRIOR TO COMMENCEMENT OF BACKFILL OPERATIONS.

STATE OF TEXAS — WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER — 07/20/12

City Of Leander, Texas
DETAIL #104-2
TYPICAL TRENCH AND H.M.A.C. SURFACE REMOVAL AND REPLACEMENT DETAIL

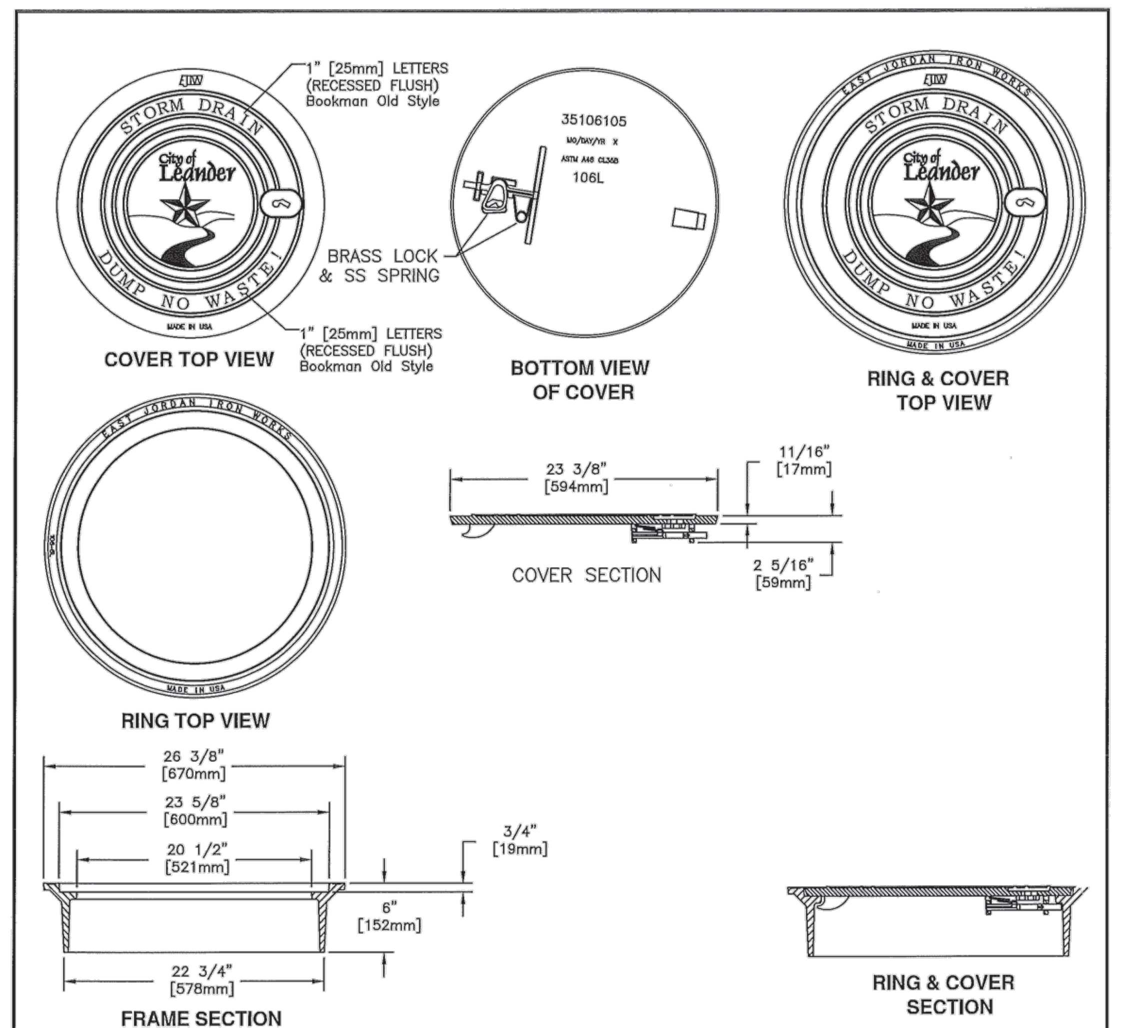


MANHOLE ASSEMBLY	EST. WT. COVER: 200 LBS 91kg FRAME: 155 LBS 70kg UNIT: 355 LBS 161kg
EAST JORDAN IRON WORKS PRODUCT NO. 00148107 OR NEENAH FOUNDRY DF-1274 LEANDER SANITARY	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

LOAD RATING
HEAVY DUTY (H20)

STATE OF TEXAS — WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER — 02/22/16

City Of Leander, Texas
DETAIL #107-1
SANITARY SEWER MANHOLE COVER

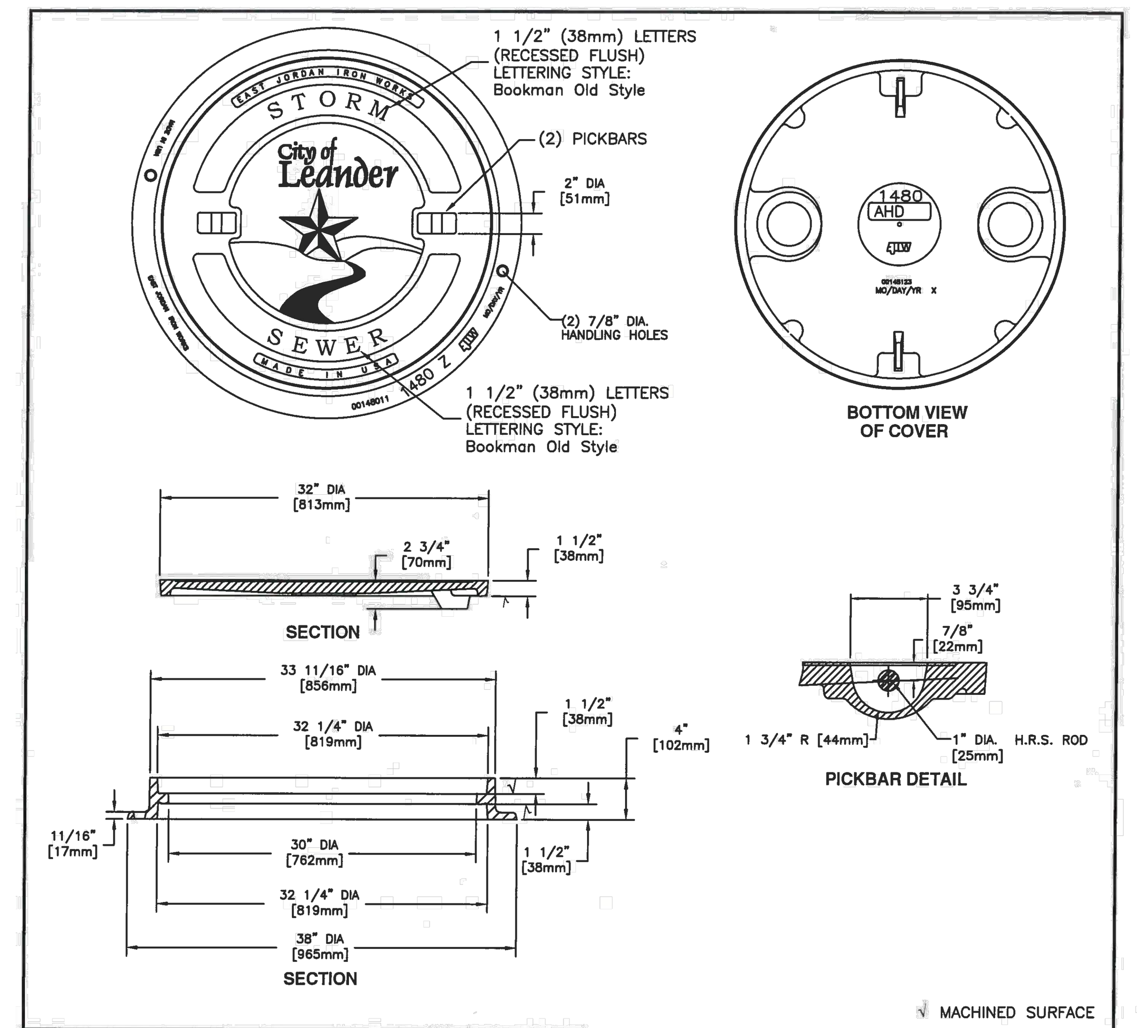


MANHOLE ASSEMBLY WITH LOCK	EST. WT. COVER: 86 LBS 39kg RING: 95 LBS 43kg TOTAL: 181 LBS 82kg
EAST JORDAN IRON WORKS PRODUCT NO. 35505205 OR APPROVED EQUAL	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

LOAD RATING
NON-TRAFFIC

STATE OF TEXAS — WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER — 02/04/14

City Of Leander, Texas
DETAIL #107-2
STORM SEWER INLET COVER (LOCKING)

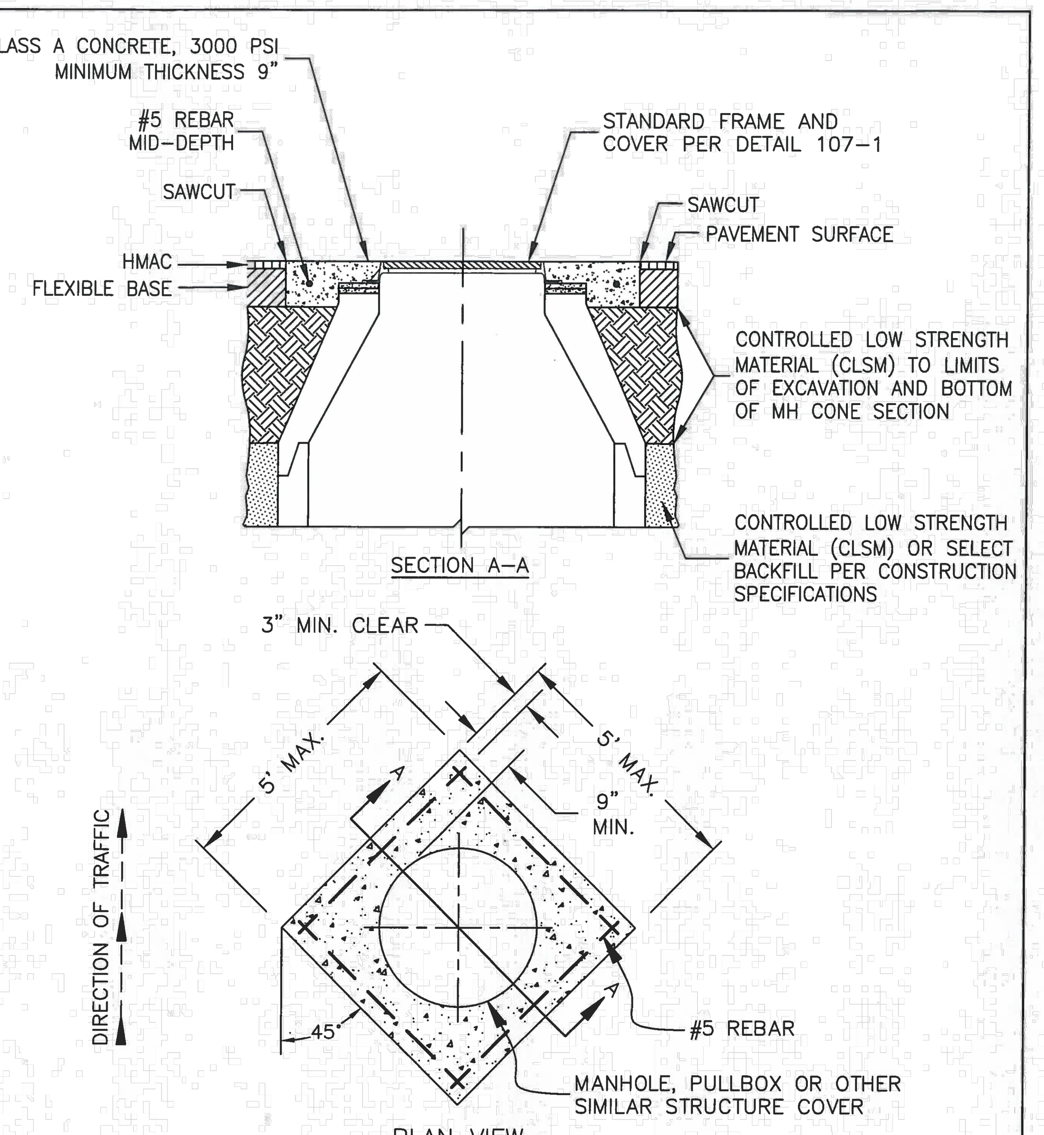


MANHOLE ASSEMBLY	EST. WT. COVER: 200 LBS 91kg FRAME: 155 LBS 70kg UNIT: 355 LBS 161kg
EAST JORDAN IRON WORKS PRODUCT NO. 00148105 OR NEENAH FOUNDRY DF-1274 LEANDER STORM	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

LOAD RATING
HEAVY DUTY (H20)

STATE OF TEXAS — WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER — 02/22/16

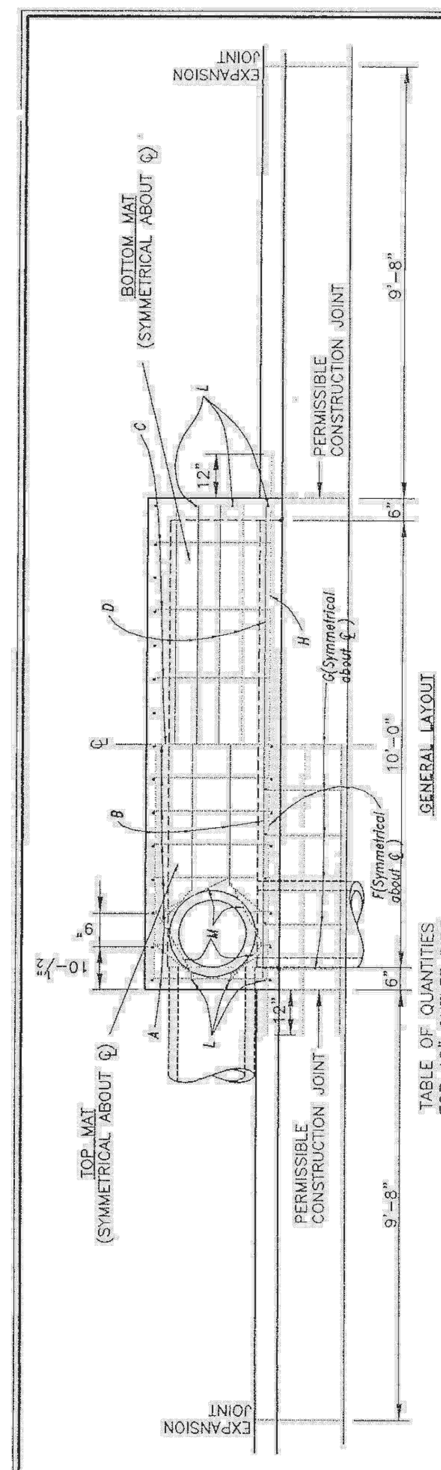
City Of Leander, Texas
DETAIL #107-3
STORM SEWER MANHOLE COVER (HEAVY DUTY)



NOTES:
1. CONCRETE SHALL BE CLASS A, 3000 PSI MINIMUM AND SHALL BE REINFORCED WITH #5 BARS AS SHOWN. THE CONCRETE SHALL EXTEND TO SAW CUT PAVEMENT EDGE.
2. PLACEMENT OF CLSM SHALL BE BELOW FLEXIBLE BASE LAYER TO LIMITS OF EXCAVATION.
3. INSTALLATION OF HMAC OVER CONCRETE ADJUSTMENT SHALL NOT BE ALLOWED.
4. INSTALLATION OF CONCRETE CASTING ADJUSTMENT IS REQUIRED FOR ALL TYPES OF MANHOLES TO BE LOCATED IN THE ROADWAY.

STATE OF TEXAS — WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER — 02/22/17

City Of Leander, Texas
DETAIL #107-4
MANHOLE CASTING ADJUSTMENT



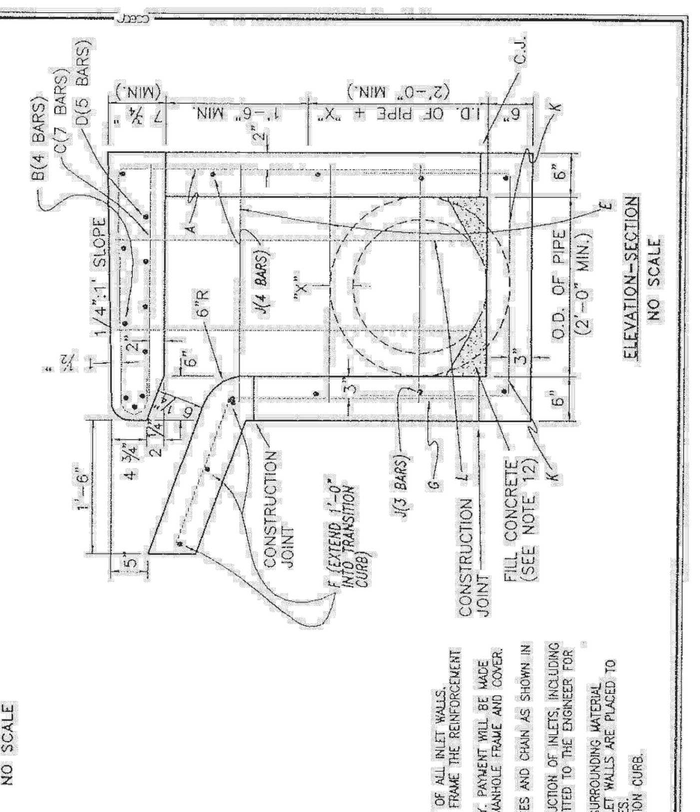


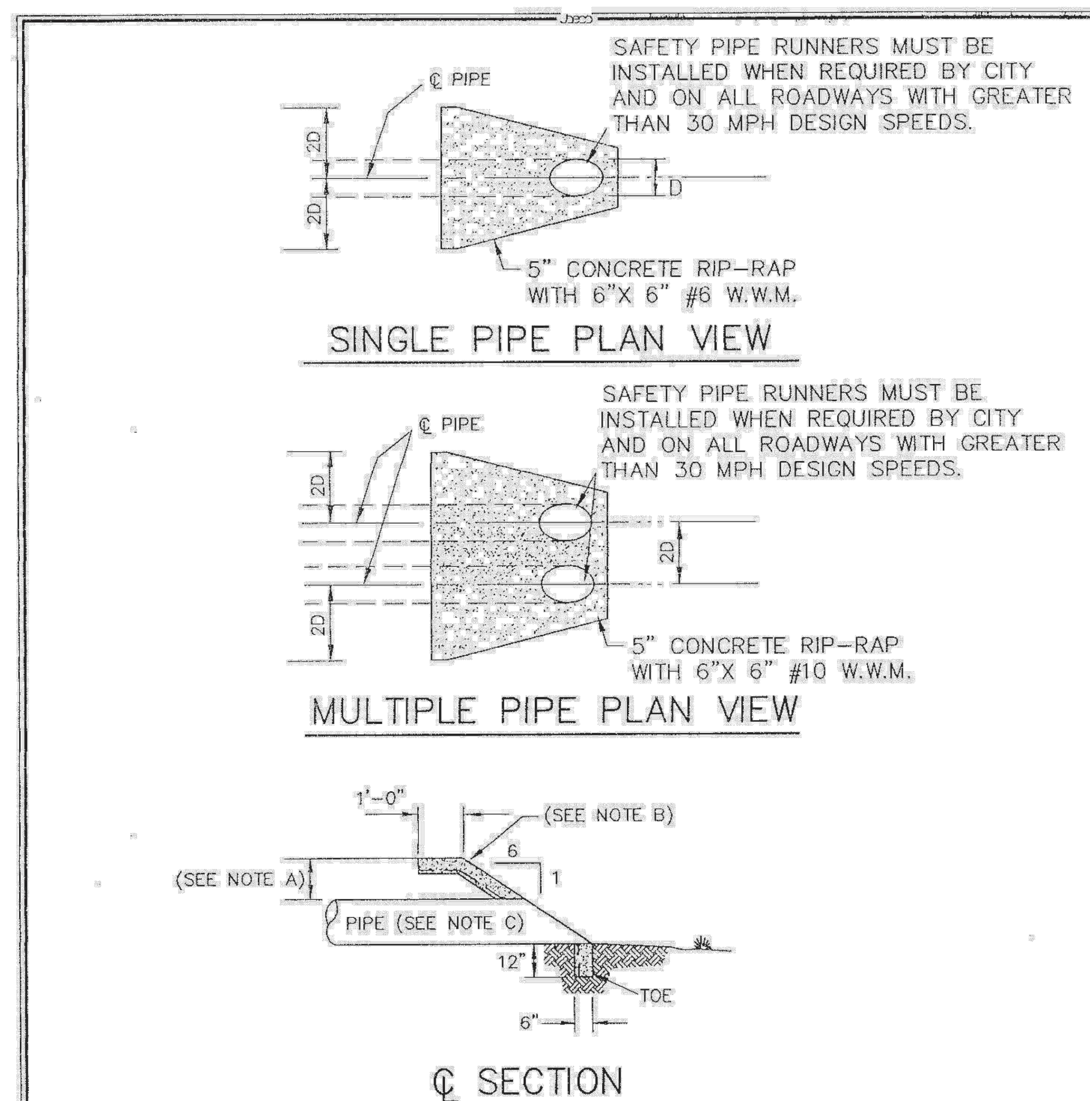
TABLE OF QUANTITIES FOR 18" OUTLET PIPE

REINFORCING STEEL QUANTITIES					
BARS	NUMBER	SIZE	SPACING	LENGTH	WEIGHT
A	15	4	9"*	7'-0"	73
B	4	4	10"	10'-8"	29
C	7	4	18"	2'-6"	12
D	5	6	6"	10'-8"	80
E	6	4	12"	2'-6"	10
F	3	4	10"	13'-0"	35
G	11	4	12"	4'-3"	31
H	1	6	--	13'-0"	20
J	7	4	12"	10'-8"	50
K	30	4	9"*	2'-7½"	52
L	6	4	12"*	4'-4"	17
M	4	4	--	1'-8"avg.	4
TOTAL STEEL, LB.					413
TOTAL CONCRETE, CY.					4.06

*EXCEPT AS SHOWN ON PLANS

INLET GENERAL NOTES
1. ALL CONCRETE SHALL BE 5 SACK MIX.
2. ALL REINFORCING STEEL SHALL BE GRADE 40.
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.
5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND COVER.
7. CHAMFER ALL EXPOSED EDGES 3/4".
8. MANHOLE FRAME AND COVERS SHALL BE FURNISHED WITH THE CAST-ON EYES AND CHAIN AS SHOWN IN THE CAST-ON EYE AND COVER CHAIN DETAILS.
9. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
10. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.
11. PAYMENT FOR INLETS AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
12. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE.

CITY OF LEANDER, TEXAS
Scale: NTS — Approved — Date 11/22/96 — Drawn by: RPW
STD. 10' CURB INLET DETAIL — Detail No. 201-2



NOTES:
A. MIN. COVER TO BE DETERMINED BY CITY ENGINEER.
B. 5" CONCRETE RIP-RAP WITH 6"X 6" #10 W.W.M. SHALL BE INSTALLED.
C. PIPE SIZE AND NUMBER TO BE DESIGNATED BY CITY ENGINEER.

CITY OF LEANDER, TEXAS
Scale: NTS — Approved — Date 3/26/97 — Drawn by: RPW
SAFETY END FOR CULVERT PIPE — Detail No. 202-3

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-STANDARD DETAILS

STATE OF TEXAS — CHARLES R. HAGER V — 127034 — LICENSED PROFESSIONAL ENGINEER — 7/29/2025

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT02

SHEET NO. 22 OF 31 SHEETS

CITY OF LEANDER PROJECT NO. SD-24-0285

I:\A3452\0401\Submittal Sheets\SDP – Lot 1\A3452-0401-standard details.dwg
User: dmcnamara
Last Modified: Feb. 25, 25 – 12:34
Plot Date/Time: Aug. 01, 25 – 08:40:41

ARTERIAL ROADWAYS	
DROPOFF HEIGHT/ CONDITION	RAIL OPTIONS
< 30" DROPOFF	TXDOT PRD-13 TY C or TY E
≥ 30" DROPOFF OR ALONG BICYCLE PATH	TXDOT PRD-13 TY E

ALL OTHER ROADWAY CLASSIFICATIONS	
DROPOFF HEIGHT/ CONDITION	RAIL OPTIONS
< 30" DROPOFF	TXDOT PRD-13 TY C, TXDOT PRD-13 TY E, or COA 707S-2
≥ 30" DROPOFF OR ALONG BICYCLE PATH	TXDOT PRD-13 TY E or COA 707S-2

NOTES:

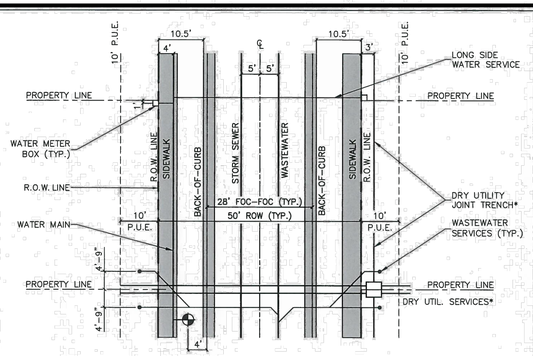
1. BICYCLE PATHS INCLUDE ALL SIDEWALKS OR PATHS GREATER THAN SIX FEET (6') IN WIDTH.
2. HANDRAIL TYPE AND FINISH SHALL REMAIN CONSISTENT AT EACH INSTALLATION LOCATION (CULVERT CROSSING, DROPOFF, ETC.).
3. ALL HANDRAIL INSTALLED ALONG ARTERIAL ROADWAYS SHALL BE GALVANIZED.
4. HANDRAIL INSTALLED ALONG ALL OTHER ROADWAYS SHALL BE GALVANIZED OR FACTORY POWDER-COATED BLACK.

REFERENCES:

1. CITY OF AUSTIN STANDARD NO. 707S-2 PEDESTRIAN HANDRAIL OPTION 1.
2. TEXAS DEPARTMENT OF TRANSPORTATION PEDESTRIAN HANDRAILS DETAIL PRD-13.

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER
2020-04-07

City Of Leander, Texas
DETAIL #202-4
PEDESTRIAN HANDRAIL



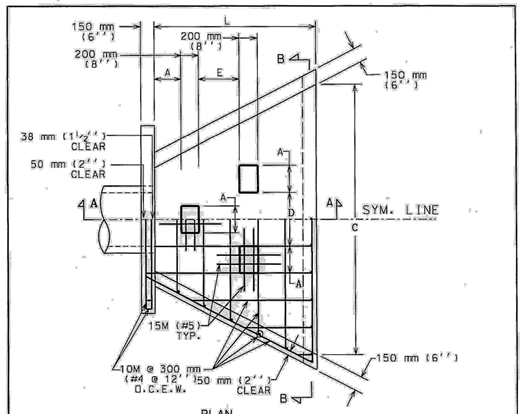
MINIMUM COVER BELOW FINISH-GRADE	
STORM SEWER	BELOW SUBGRADE
WASTEWATER	48"
WATER	36"
ELECTRIC PRIMARY*	30"
ELECTRIC SECONDARY*	24"
GAS*	24"
TELECOMMUNICATIONS*	24"

RESIDENTIAL STREET
NOT TO SCALE

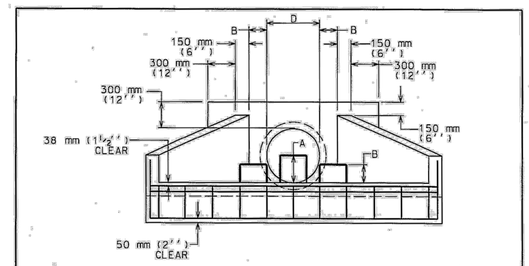
*NOTE:
ALL GAS, ELECTRIC, AND TELECOMMUNICATION LINES SHALL BE INSTALLED PER THE UTILITY PROVIDER'S STANDARDS AND SPECIFICATIONS.

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
6/05/18

City Of Leander, Texas
DETAIL #204-5
UTILITY ASSIGNMENTS
WITHIN RESIDENTIAL DEVELOPMENT



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
Bill Gardner 8/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 1 OF 2



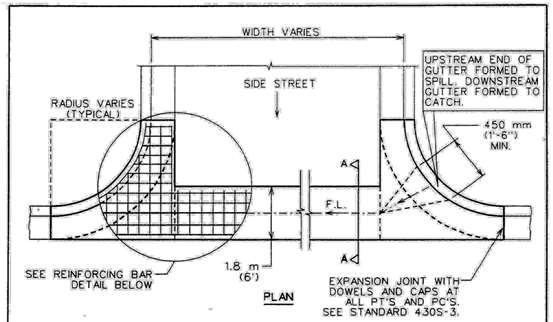
SECTION B-B

NOTES:
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S. CONCRETE FOR STURCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

D	457 mm (18")	533 mm (21")	610 mm (24")	685 mm (27")	765 mm (30")	838 mm (33")	914 mm (36")	1.067 m (42")	1.219 m (48")	1.372 m (54")	1.524 m (60")	
A	225 mm (9")	250 mm (10")	300 mm (12")	350 mm (14")	375 mm (15")	400 mm (16")	450 mm (18")	525 mm (21")	600 mm (24")	675 mm (27")	750 mm (30")	
B	150 mm (6")	175 mm (7")	200 mm (8")	225 mm (9")	250 mm (10")	275 mm (11")	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	
C	2.29 m (90")	2.67 m (105")	3.05 m (120")	3.43 m (135")	3.81 m (150")	4.19 m (165")	4.57 m (180")	5.33 m (210")	6.10 m (240")	6.86 m (270")	7.62 m (300")	
L	1.37 m (54")	1.60 m (63")	1.83 m (72")	2.06 m (81")	2.29 m (90")	2.51 m (99")	2.74 m (108")	3.20 m (126")	3.66 m (144")	4.11 m (162")	4.57 m (180")	
E	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	700 mm (28")	800m (32")	900 mm (36")	1000 mm (40")	

DIMENSIONS IN MILLIMETERS, METERS AND (INCHES).
DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 fps) REQUIRE ROCK OUTLET PROTECTION.

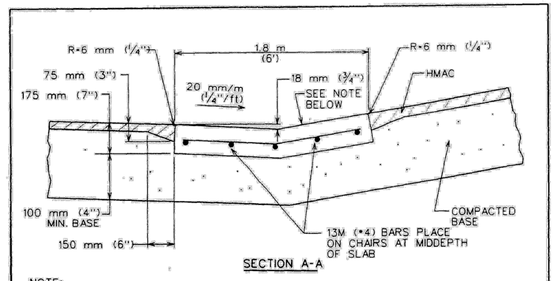
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
Bill Gardner 8/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 2 OF 2



REINFORCING BAR DETAIL

NOTE:
ALTERNATE 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB TO BE CONTINUOUS ACROSS EXPANSION JOINT. BREAK BOND 150 mm (6") ON EACH SIDE OF EXPANSION JOINT.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CONCRETE VALLEY GUTTER	
Bill Gardner 6/12/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 436S-2 1 OF 2

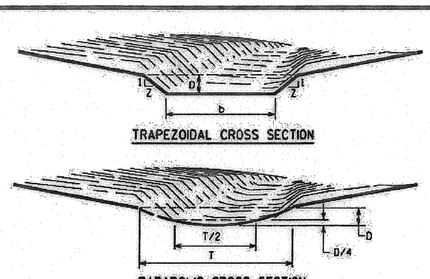


SECTION A-A

NOTE:
ADJUST SLOPE FROM 20 mm/m (¼"/ft) MINIMUM TO THE SLOPE OF THE SIDE STREET.

NOTES:
1. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
2. CONCRETE FOR THE VALLEY GUTTER SHALL BE CLASS A, ITEM 403S, "CONCRETE FOR STRUCTURES".
3. MONOLITHIC CURB AND GUTTER SHALL BE MEASURED BY PLAN QUANTITY PER SQUARE FEET AND PAID AS VALLEY GUTTER.
4. THE UPSTREAM CURB MID POINT MUST BE AT OR LOWER THAN THE BEGINNING P.C. AND 0.5% MINIMUM HIGHER THAN THE OPPOSING MID POINT.
5. ALLOWABLE CONSTRUCTION JOINT AT THE CENTER LINE WHEN TRAFFIC FLOW MUST BE MAINTAINED, CONSTRUCTED AS A CONTROL JOINT.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CONCRETE VALLEY GUTTER	
Bill Gardner 6/12/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 436S-2 2 OF 2



STANDARD SYMBOL
GW

GENERAL NOTES:

1. EXCEPT AS INDICATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE, ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.

2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, TYPICAL SECTIONS AND CROSS-SECTION INDICATED ON THE DRAWINGS AND SHALL BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES, WHICH COULD IMPEDE NORMAL FLOW.

3. FILL SHALL CONFORM TO STANDARD SPECIFICATION ITEM NO. 132S, "EMBANKMENT".

4. EARTHEN CHANNELS SHALL ALWAYS BE STABILIZED WITH THE APPROPRIATE SOIL RETENTION BLANKET WHICH SHALL CONFORM TO STANDARD SPECIFICATION ITEM NO. 605S, "SOIL RETENTION BLANKET".

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	GRASS LINED SWALE	
10/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 627S-1

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STANDARD DETAILS 3

NO.	REVISIONS DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: ANSI/ARCHSTANDARD DETAILS

7/29/2025
STATE OF TEXAS CHARLES R. HAGER 127034 LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401
DT03
SHEET NO. 23 OF 31 SHEETS

I:\A3452\0401\Submittal Sheets\SDP - Lot 1\A3452-0401-standard details.dwg
User: dmcmorris
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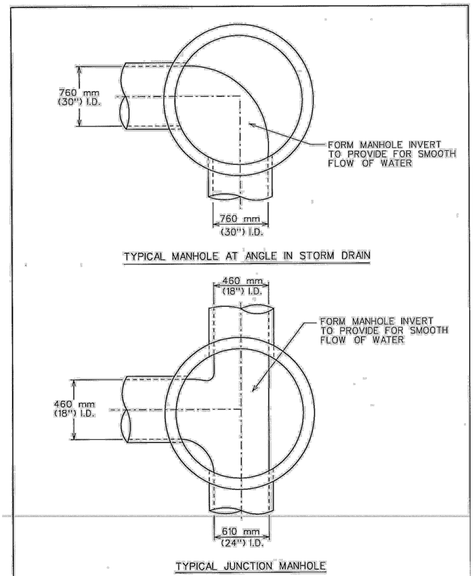
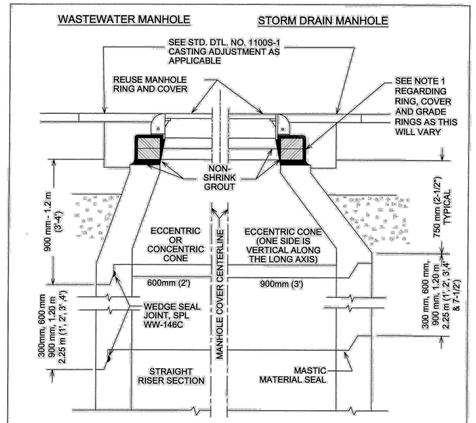
Plot Date/Time: Aug 01 25 - 08:40:46

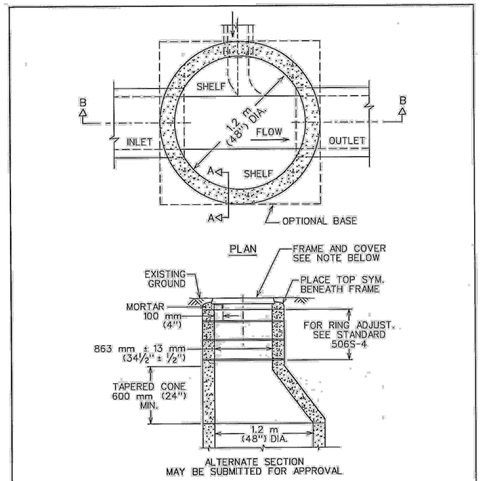


CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	MANHOLE INVERT PLAN
George E. Ortwell 2/14/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-1



1. SEE "MINOR MANHOLE HEIGHT ADJUSTMENT" STANDARDS 506S-4 AND 506S-4A FOR ADDITIONAL INFORMATION.
2. MANHOLE SECTIONS TEMPORARILY REMOVED FOR ROADWAY CONSTRUCTION MAY BE REUSED ONLY WITH WRITTEN APPROVAL OF THE INSPECTOR. WEDGE SEALS SHALL NOT BE REUSED.
3. ANY COMBINATION OF REMOVING THE GRADE RINGS, AND/OR THE MANHOLE CONE, AND/OR THE STRAIGHT RISER SECTION OF THE MANHOLE SHALL BE ACCEPTABLE TO TEMPORARILY LOWER THE MANHOLE GRADE FOR RECONSTRUCTION.
4. WHILE THE MANHOLE IS TEMPORARILY LOWERED, A SHEET OF STEEL SUITABLE TO SUPPORT ALL IMPOSED LOADS SHALL BE USED TO COVER THE OPENING. STEEL SHALL BE PLACED SO THE SHEET WILL NOT MOVE UNDER ANY & ALL TRAFFIC CONDITIONS.
5. SUB-GRADE AND BASE MATERIALS SHALL BE COMPACTED TO 95% AND 100% DENSITIES, RESPECTIVELY. COMPACTION SHALL BE BY MECHANICAL TAMPING TO THE DENSITIES SPECIFIED, SEE STD. DTL. NO .1100S-1.

CITY OF AUSTIN AUSTIN WATER UTILITY	MAJOR MANHOLE ADJUSTMENT
Kathi K Flowers 8-31-2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-2

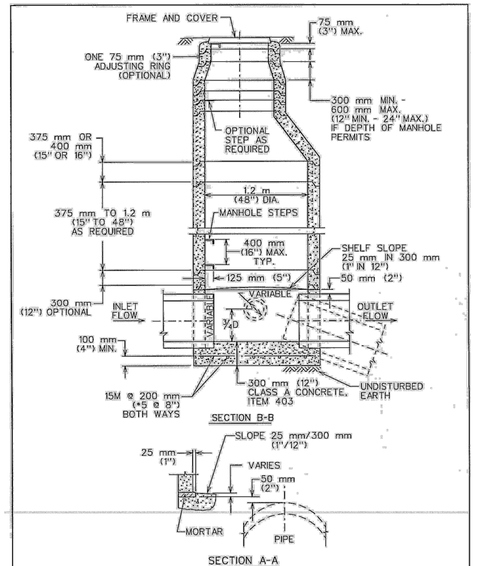


NOTE:
USE 800 mm (32") FRAME AND COVER.

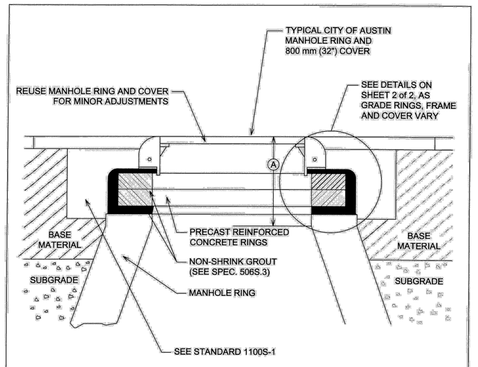
MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24")
1.5 m (5')	750 mm TO 1.1 m (30 TO 42")
1.8 m (6')	1.2 TO 1.4 m (48 TO 54")
2.1 m (7')	1.5 TO 1.7 m (60 TO 66")

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE
George E. Ortwell 2/14/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-3 1 OF 2



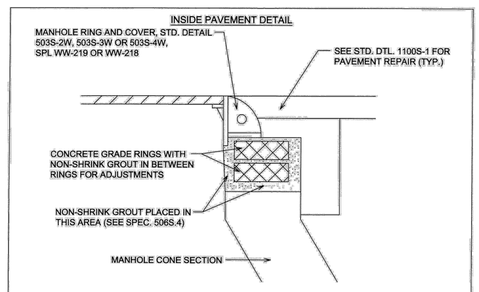
CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE
George E. Ortwell 2/14/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-3 2 OF 2



(A) VERTICAL FACE = ALLOWABLE THROAT OR CHIMNEY HEIGHT
= NEW CONSTRUCTION = 525mm = (21") Max.
= EXISTING CONSTRUCTION = 675mm (27") Max.

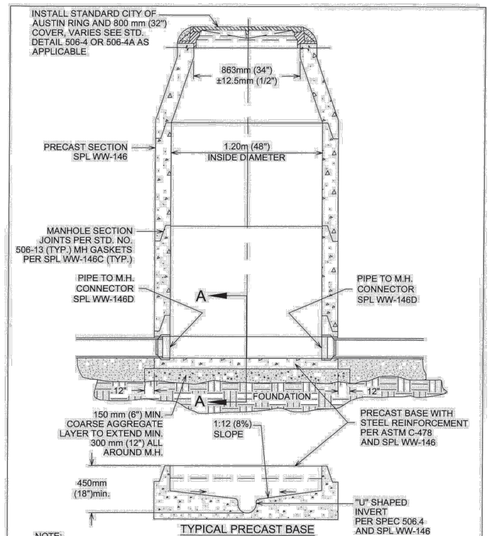
NOTES:
1. NON-SHRINK GROUT SHALL NOT EXCEED 25 mm (1") IN ANY DIMENSION.
2. SUB-GRADE AND BASE MATERIALS SHALL BE COMPACTED ACCORDING TO ITEMS 201S AND 210S, RESPECTIVELY, OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. REFER TO STANDARD 1100S-1 FOR REPAIRS AROUND MANHOLES.
4. SEE STANDARD 506S-4A FOR HDPE RING INSTALLATION (FOR USE IN PAVED AREAS ONLY).

CITY OF AUSTIN AUSTIN WATER UTILITY	MINOR MANHOLE ADJUSTMENT & NEW MANHOLE CONSTRUCTION
Kathi K Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-4 1 OF 2



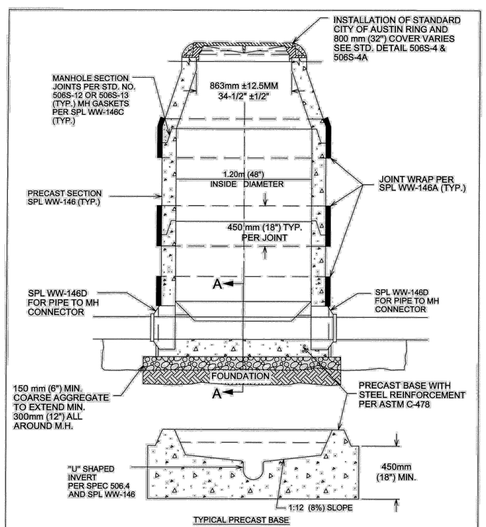
NOTES:
1. FOR USE IN UNPAVED AREAS ONLY
2. WHEN USED WITHIN 100-YEAR FLOODPLAIN, SEE DTL. 506S-6 FOR ADDITIONAL M.H. REQUIREMENTS.
3. DIMENSION B=150-300 mm (6"-12") FOR M.H. LOCATED IN 100-YR FLOOD PLAN.
=50-300 mm (2"-12") FOR M.H. OUTSIDE 100-YR FLOOD PLAN.

CITY OF AUSTIN AUSTIN WATER UTILITY	MINOR MANHOLE ADJUSTMENT & NEW MANHOLE CONSTRUCTION
Kathi K Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-4 2 OF 2



NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MH FOUNDATION SHALL MEET OR EXCEED STD. SPEC. 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	WASTEWATER MANHOLE ON PRECAST BASE
Kathi K Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-10



NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MANHOLE FOUNDATION SHALL MEET OR EXCEED SPEC. 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	WATER TIGHT WASTEWATER MANHOLE ON PRECAST BASE
Kathi K Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
	STANDARD NO. 506S-6

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STANDARD DETAILS 4

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: AMD\ARCHT-STANDARD DETAILS

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT04

SHEET NO. 24
OF 31 SHEETS

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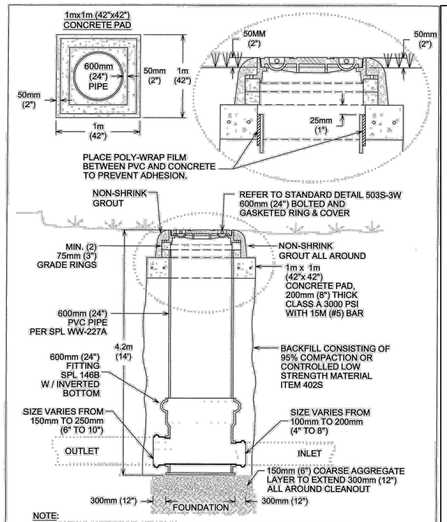
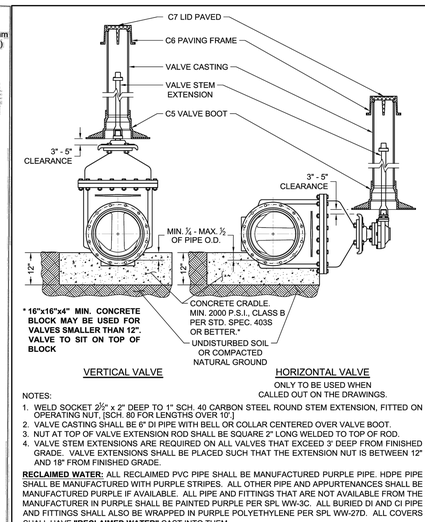
User: dmcnamara
Last Modified: Fri, 25, 25 - 12:34
Plot Date/Time: Aug 01 25 - 08:40:53



NOTE:
1. CLEAN OUT FOUNDATION SHALL MEET OR EXCEED STD, SPEC 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	LARGE DIAMETER CLEANOUT	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-14



* 16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK

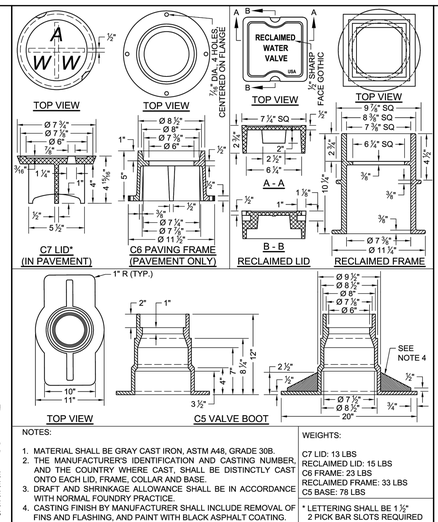
VERTICAL VALVE

HORIZONTAL VALVE
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:
1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 80 FOR LENGTHS OVER 10'.]
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 7' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 1 OF 4



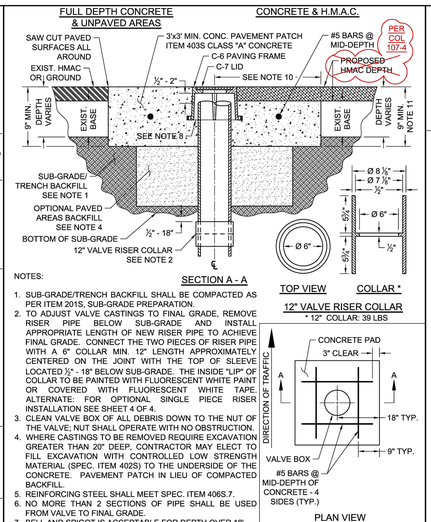
NOTES:
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:
C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 76 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 2 OF 4

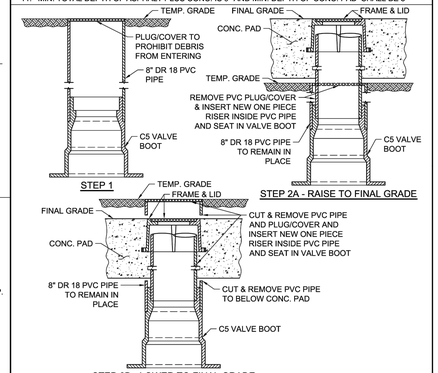
FULL DEPTH CONCRETE & UNPAVED AREAS



NOTES:
1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 203S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 3 OF 4

NOTES (CON'T):
8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"



CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 4 OF 4

NOTE:
1. WASTEWATER CLEANOUT FRAME AND LID SHALL NOT BE PLACED IN PAVED AREAS, INCLUDING SIDEWALKS, DRIVEWAYS, OR PARKING LOTS, AND MUST BE LOCATED A MINIMUM OF 6" FROM ALL PAVED AREAS.

CITY OF AUSTIN AUSTIN WATER	WASTEWATER CLEANOUT FRAME AND LID	
JEFF A. KYLE 08/16/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-03 1 OF 1

NOTES:
1. IF PC CONCRETE IS USED AROUND THE MANHOLE, THE CONCRETE SHALL BE REINFORCED WITH #5 (15M) BARS AS SHOWN. THE CONCRETE SHALL EXTEND TO EDGE OF SAW CUT PAVEMENT EDGE.
2. REQUIREMENTS FOR NEW MANHOLE CONSTRUCTION AND MINOR MANHOLE ADJUSTMENTS IN NEW, RECONSTRUCTION AND REPAVING PROJECTS ARE INCLUDED IN STANDARD DETAILS 506S-4 AND 506S-4A.
3. REQUIREMENTS FOR WATER VALVE ADJUSTMENTS ARE INCLUDED IN STANDARD DETAILS 511S-13A AND 511S-13B.
4. REPLACEMENT HMAC SURFACE LAYER SHALL BE OF THE TYPE AND THICKNESS BASED ON FUNCTIONAL CLASSIFICATION:
   a) MIN. 2" (50 mm) HMAC TYPE "D" FOR TRENCH REPAIR IN LOCAL/RESIDENTIAL STREETS.
   b) MIN. 3" (75 mm) HMAC TYPE "C" FOR TRENCH REPAIR IN COLLECTOR/ARTERIAL STREETS. SEE ITEM 340S, SECTION 340S.6.
5. REFER TO UCM SECTION 5.8.3 FOR ADDITIONAL BACKFILL REQUIREMENTS.

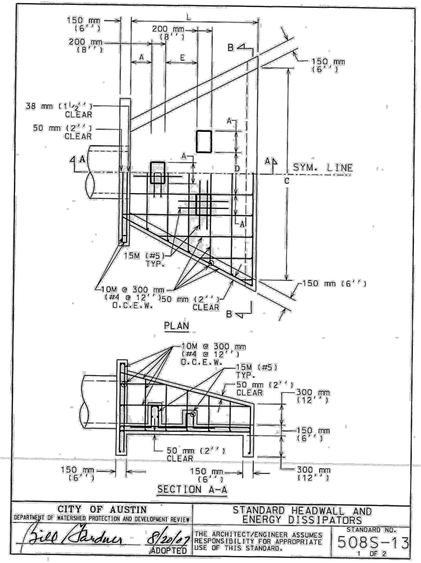
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CASTING ADJUSTMENT	
11/9/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1100S-1

DIMENSIONS		
	WASTEWATER ACCESS STRUCTURE	GATE VALVE
T	3" BELOW TOP OF CONE (9" MIN.)	6"
W	12"	8"

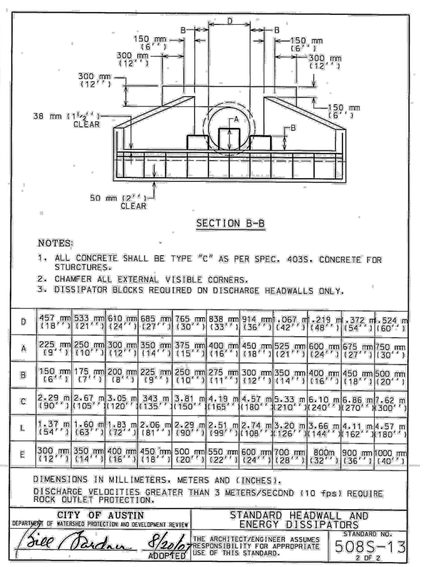
NOTES:
1. THE CONCRETE COLLAR SHALL BE REINFORCED WITH #4 BARS AS SHOWN. THE CONCRETE SHALL EXTEND TO EDGE OF SAW CUT PAVEMENT EDGE.
2. REBAR WILL BE PLACED IN TWO LAYERS. FIRST LAYER (1/3 T) FROM TOP OF COLLAR AND SECOND LAYER (2/3 T) FROM TOP OF COLLAR. IF (T) IS 12" OR LESS ONE LAYER OF REBAR WILL BE USED, PLACED MID POINT BETWEEN TOP AND BOTTOM OF COLLAR.
3. REQUIREMENTS FOR NEW MANHOLE CONSTRUCTION AND MINOR MANHOLE ADJUSTMENTS IN NEW RECONSTRUCTION AND REAPING PROJECTS ARE INCLUDED IN DETAIL NO. 506S-3-SM, 506S-8-SM, 506S-8A-SM AND 506S-10-SM.
4. REFER TO TRENCH DETAIL FOR ADDITIONAL BACKFILL REQUIREMENTS WITH APPROPRIATE CONDITIONS.

REFERENCES
DETAIL 506S-4-SM

The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2020	Concrete Riser Collar	
RECORDED COPY SIGNED BY LAURIE MOYER, P.E.	2-15-2015 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	1100S-1-SM N.T.S. STANDARD DETAIL



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
Bill Gardner 8/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 1 OF 2



NOTES:
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S. CONCRETE FOR STRUCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

D	457 mm (18")	533 mm (21")	610 mm (24")	685 mm (27")	765 mm (30")	838 mm (33")	914 mm (36")	1,067 m (42")	1,219 m (48")	1,372 m (54")	1,524 m (60")	
A	225 mm (9")	250 mm (10")	300 mm (12")	350 mm (14")	375 mm (15")	400 mm (16")	450 mm (18")	525 mm (21")	600 mm (24")	675 mm (27")	750 mm (30")	
B	150 mm (6")	175 mm (7")	200 mm (8")	225 mm (9")	250 mm (10")	275 mm (11")	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	
C	2.29 m (90")	2.67 m (105")	3.05 m (120")	3.43 m (135")	3.81 m (150")	4.19 m (165")	4.57 m (180")	5.33 m (210")	6.10 m (240")	6.86 m (270")	7.62 m (300")	
L	1.37 m (54")	1.60 m (63")	1.83 m (72")	2.06 m (81")	2.29 m (90")	2.51 m (99")	2.74 m (108")	3.20 m (126")	3.66 m (144")	4.11 m (162")	4.57 m (180")	
E	300 mm (12")	350 mm (14")	400 mm (16")	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	700 mm (28")	800m (32")	900 mm (36")	1000 mm (40")	

DIMENSIONS IN MILLIMETERS, METERS AND (INCHES).
DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 fps) REQUIRE ROCK OUTLET PROTECTION.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
Bill Gardner 8/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 2 OF 2

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN

STANDARD DETAILS 5

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: CRH
DRAWN BY: RMB
CHECKED BY: CRH
DRAWING NAME: A3452-0401-STANDARD DETAILS

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT05

SHEET NO. 25 OF 31 SHEETS

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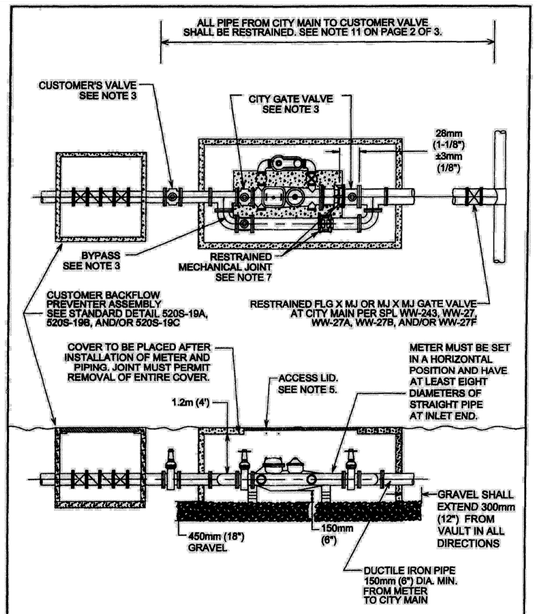
User: dmcnamara
Last Modified: Fri, 25 - 12:34
Plot Date/Time: Aug 01, 25 - 08:40:58



CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 1 OF 3

NOTES:

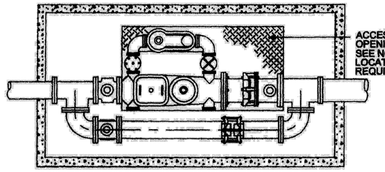
1. VAULT PER SPL WW-298 OR APPROVED EQUAL. VAULT SHALL INCLUDE THRUST COLLAR WALL PIPES IF CAST IN PLACE. ALL PIPE SHALL BE RESTRAINED REGARDLESS IF VAULT PRE-CAST OR CAST IN PLACE, RESTRAINED BOTH WAYS. H20 LOADING REQUIRED FOR ALL VAULTS.
2. METER VAULT SHALL BE BEHIND CURB AND/OR WALK, AND NOT IN VEHICULAR TRAFFIC AREA.
3. MAIN LINE AND BYPASS GATE VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BONDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE HAND-WHEELS. BYPASS VALVES SHALL HAVE HAND-WHEELS. PROPERTY OWNER'S VALVE SHALL NOT BE LOCATED IN THE CITY OF AUSTIN METER VAULT. HAND-WHEEL EXCEPTION: IF HAND-WHEEL IS NOT LOCATED WITHIN 300mm (12") HORIZONTALLY OF ACCESS HATCH, GATE VALVE SHALL BE INSTALLED WITH OPERATING NUT ACCESSIBLE FROM RING AND COVER LOCATED ON VAULT LID PER SPL WW-822.
4. APPROVAL REQUIRED IF HEIGHT OF VAULT EXCEEDS 1.8m (72"), CONTACT THE PIPELINE ENGINEERING DIVISION OF AUSTIN WATER UTILITY. METER SHALL BE LEGIBLE TO READ FROM TOP OF VAULT.
5. ACCESS LID SHALL BE 1.2 m x 1.8 m (4'x6') DOUBLE LEAF PER SPL WW-614 (H2O LOADING REQUIRED) WITH SLAM LOCK BY HALLIDAY PRODUCTS OR APPROVED EQUAL. LOCK TO INCLUDE SECURITY OPERATOR.
6. ALL BURIED PIPE SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATIONS 510.3 (14); BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY 510.3 (25). ALL BURIED PIPE SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT PER SPL WW-27D.
7. FITTINGS IN VAULT SHALL BE FLANGED WITH EXCEPTION OF ONE RESTRAINED MJ ON MAIN AND BYPASS LINES EACH PER SPL WW-27A.
8. VOIDS AT PIPE WALL HOLES SHALL BE FILLED WITH NON-SHRINK GROUT, OR OTHER SEAL OR SEALANT PER SPL WW-146A.
9. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT. ADDITIONAL DRAINAGE CONSIDERATION SUCH AS CONNECTION OF VAULT TO STORM SEWER, LATERAL DRAIN LINES FROM GRAVEL BED OR OTHER MEANS SHALL BE REQUIRED IF CONDITIONS CAUSE WATER TO COLLECT IN VAULT.
10. BYPASS AND MAIN PIPE SHALL BE SAME DIAMETER. ALL PIPE FROM CITY MAIN TO CUSTOMERS VALVE SHALL BE D.I.
11. ALL EQUIPMENT IN VAULT SHALL BE REMOVABLE WITHOUT ADDITIONAL RESTRAINT OR SUPPORT OF PIPE.
12. ALL CLEARANCES INDICATED ARE MINIMUM, ADDITIONAL CONSIDERATION SHALL BE MADE FOR ACCESS TO ALL COMPONENTS IN VAULT. ALL CLEARANCES SHALL BE INCLUDED ON PLANS SUBMITTED FOR APPROVAL TO AUSTIN WATER UTILITY.
13. LOCATION OF ACCESS DOORS ARE SHOWN TO INDICATE POSSIBLE LOCATION. AN ENGINEER LICENSED BY THE STATE OF TEXAS SHALL DETERMINE SIZE OF VAULT, LOCATION OF ACCESS DOOR AND/OR VALVE CASINGS APPROPRIATE FOR EQUIPMENT, ACCESS, MAINTENANCE AND CLEARANCES. METER VAULTS PER SPL WW-298 ARE ACCEPTABLE IF ALL DESIGN PARAMETERS ARE MET AND SO DETERMINED BY TEXAS LICENSED ENGINEER.

CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 2 OF 3

NOTES:

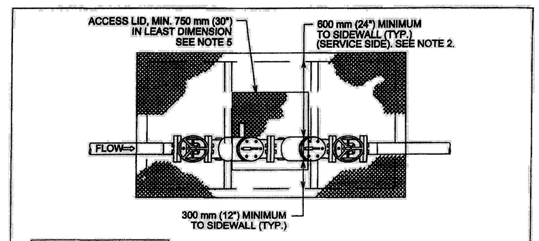
14. IN ALL CASES, MINIMUM CLEARANCE FROM WALL TO TEST PORTS SHALL BE 600mm (24"). LICENSED ENGINEER SHALL CONFIRM WITH METER MANUFACTURER LOCATION OF TEST PORTS PRIOR TO SUBMITTAL OF PLANS TO AUSTIN WATER UTILITY FOR APPROVAL. PLANS SHALL INDICATE LOCATION OF TEST PORTS.
15. VAULT SIZES INDICATED ON WATER METER SCHEDULE ARE SUGGESTIONS. ACTUAL EQUIPMENT, PIPE LAYOUT, CLEARANCE, ACCESS AND OTHER INFORMATION SHALL BE TAKEN INTO CONSIDERATION BY AN ENGINEER LICENSED BY THE STATE OF TEXAS.

MINIMUM CLEARANCES	
6"	-FLOOR TO ANY PART OF FIRELINE METER ASSEMBLY -INTERIOR WALL TO FLANGE.
12"	-INTERIOR WALL TO PARALLEL PIPE, VALVE OR METER. -ALL AROUND FIRELINE METER ASSEMBLY
24"	-INTERIOR WALL TO TEST PORTS
48"	-TOP OF PIPE TO INTERIOR TOP OF VAULT



WATER METER SCHEDULE				
WATER METER SIZE	SIZE OF BY-PASS	BY-PASS VALVE W/HANDWHEEL	MAIN LINE VALVE WITH HANDWHEEL	VAULT SIZE PER SPL WW-298, SEE NOTE 16
150 mm x 50 mm (6" x 2")	150 mm (6")	150 mm (6")	150 mm (6")	2.4m x 3.6m (8' x 12')
200 mm x 50 mm (8" x 2")	200 mm (8")	200 mm (8")	200 mm (8")	3.0m x 3.6m (10' x 12')
250mm x 50mm (10" x 2")	250 mm (10")	250 mm (10")	250 mm (10")	3.0m x 4.5m (10' x 15')

CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 3 OF 3

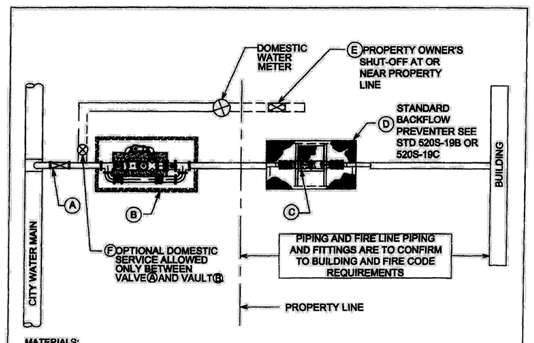


CITY OF AUSTIN AUSTIN WATER UTILITY	STANDARD BACKFLOW PREVENTER ON FIRE LINE WITH MASTER METER	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19B 1 OF 2

NOTES:

1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL HAVE LAB AND FIELD APPROVAL FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
2. ALL TEST PORTS SHALL BE DIRECTED UPWARD AND PLUGGED. TEST PORTS ARE LOCATED ON SERVICE SIDE. PLUGS SHALL BE NON-FERROUS.
3. BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED IN THE UPRIGHT HORIZONTAL POSITION, UNLESS OTHERWISE APPROVED. BACKFLOW PREVENTION ASSEMBLIES SHALL NOT BE ROTATED ON THEIR AXIS.
4. CLEARANCE SHALL BE AS INDICATED,AND IN THE STANDARD CROSS CONNECTION ORDINANCES AND UCM.
5. ACCESS OPENING MUST BE LARGE ENOUGH TO REMOVE LARGEST PORTION OF BACKFLOW PREVENTER, BUT NOT LESS THAN 750 mm (30") IN LEAST DIMENSION.
6. TEST AND MAINTENANCE REPORT SHALL BE RECEIVED BY AUSTIN WATER UTILITY'S SPECIAL SERVICE DIVISION WITHIN 5 DAYS AFTER BEING INSTALLED.
7. VAULT SHALL NOT BE INSTALLED IN TRAFFIC AREA.
8. VAULT DEPTH MAY NOT EXCEED 1.8m (72"), BOTTOM OF LID TO TOP OF FLOOR.
9. HAND WHEELS SHALL BE HORIZONTALLY LOCATED WITHIN 300mm (12") OF ACCESS OPENING.
10. FOR ACCESS DOORS SEE SPL WW-614 OR APPROVED EQUAL (H20 LOADING REQUIRED).
11. FOR VAULT SEE SPL WW-298 OR APPROVED EQUAL (H20 LOADING REQUIRED).
12. VAULT PIPE WALL VOIDS SHALL BE SEALED WITH NON-SHRINK GROUT OR SEALANT PER SPL WW-146A OR APPROVED EQUAL.
13. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT. ADDITIONAL DRAINAGE CONSIDERATION SUCH AS CONNECTION OF VAULT TO STORM SEWER, LATERAL DRAIN LINES FROM GRAVEL BED OR OTHER MEANS SHALL BE REQUIRED IF CONDITIONS CAUSE WATER TO COLLECT IN VAULT.

CITY OF AUSTIN AUSTIN WATER UTILITY	STANDARD BACKFLOW PREVENTER ON FIRE LINE WITH MASTER METER	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19B 2 OF 2



MATERIALS:

- (A) TAPPING, RESTRAINED OR FLANGED VALVE (GATE, IRON BODY WITH MJ OUTLET). SEE SPL WW-243, WW-27, WW-27A, AND/OR WW-27B.
- (B) FIRELINE OR MASTER METER, SEE STD. DETAIL 520S-17.
- (C) CUSTOMER'S BACKFLOW PREVENTION ASSEMBLY AS REQUIRED BY CROSS CONNECTION ORDINANCES. SEE SPL WW-293 OR APPROVEL EQUAL.
- (D) VAULT AND ACCESS DOOR SHALL BE PER SPL WW-298 OR SPL WW-614, RESPECTIVELY, OR APPROVED EQUAL. SEE STD. DETAIL 520S-19B OR 19C. VAULT SHALL NOT BE LOCATED IN A TRAFFIC AREA.
- (E) CUSTOMER'S SHUT-OFF VALVE ON DOMESTIC WATER LINE.
- (F) DOMESTIC WATER SERVICE LINE VALVE.

NOTES:

1. FIRE LINE SHALL BE A MINIMUM OF 150 mm (6") & GREATER THAN OR EQUAL TO METER SIZE IN THE STREET RIGHT-OF-WAY. PLANS SHALL BE PREPARED BY A LICENSED ENGINEER.
2. ALL BURIED PIPE SHALL BE WRAPPED COMPLETELY WITH A MINIMUM OF 0.2 mm (8 MIL) POLYETHYLENE FILM.
3. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS: BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
4. FOR STD. DETAILS 520S-19A, 19B, AND 19C, MASTER METER MEANS METER FOR FIRE AND DOMESTIC SERVICE.
5. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT. ADDITIONAL DRAINAGE CONSIDERATION SUCH AS CONNECTION OF VAULT TO STORM SEWER, LATERAL DRAIN LINES FROM GRAVEL BED OR OTHER MEANS SHALL BE REQUIRED IF CONDITIONS CAUSE WATER TO COLLECT IN VAULT.

CITY OF AUSTIN AUSTIN WATER UTILITY	STANDARD FIRE LINE INSTALLATION WITH OR WITHOUT MASTER METER	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19A

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STANDARD DETAILS 6

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: C.CRH
DRAWN BY: D.RMB
CHECKED BY: C.CRH
DRAWING NAME: A3452-01-STANDARD DETAILS

7/29/2025

STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT06

SHEET NO. 26 OF 31 SHEETS

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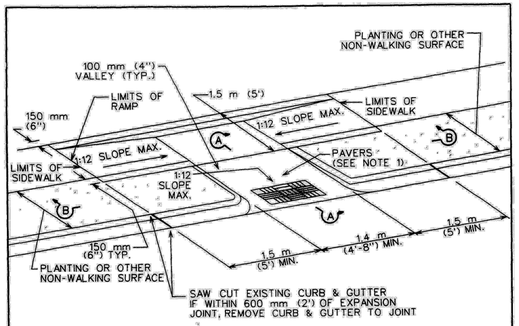
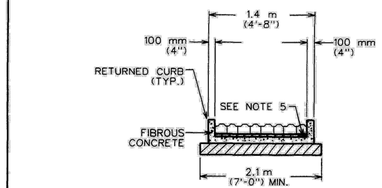


SECTION A-A

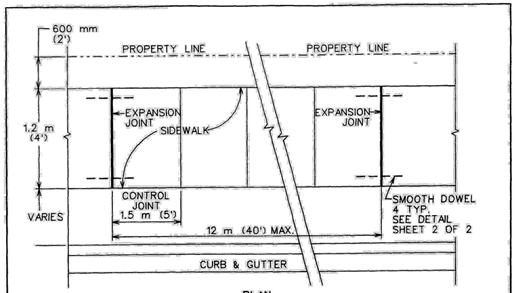
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3F 1 OF 2



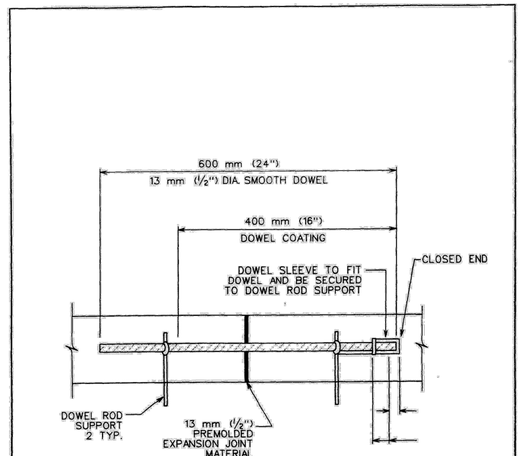
SECTION B-B

GENERAL NOTES:
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
2. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9"), A NOMINAL HEIGHT OF 5 mm (0.2") AND A NOMINAL CENTER TO CENTER SPACING OF 60 mm (2.35") AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Ref: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. A BASKET WEAVE PAVER PATTERN SHALL BE USED UNLESS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PAVER PATTERN VARIES PER MANUFACTURER'S RECOMMENDATIONS. REFER TO STANDARD DETAIL 432S-5 FOR PAVER BASE PREPARATION DETAILS.
3. THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B).
4. TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIC REQUIREMENTS.
5. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 6 mm (1/4") JOINT SIZE. GAPS LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
6. MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5. MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S, CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
7. CURB RAMPS WITH 100 mm (4") CONCRETE VALLEY MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS	
Bill Gardner 3/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3F 2 OF 2

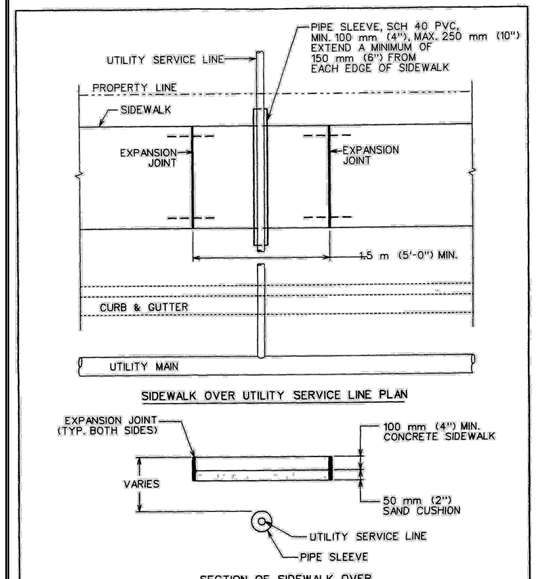


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3



DOWEL DETAIL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3

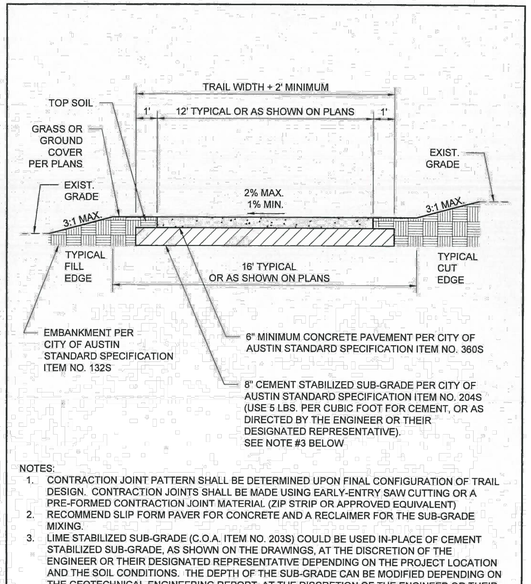


SIDEWALK OVER UTILITY SERVICE LINE PLAN

SECTION OF SIDEWALK OVER UTILITY SERVICE LINES

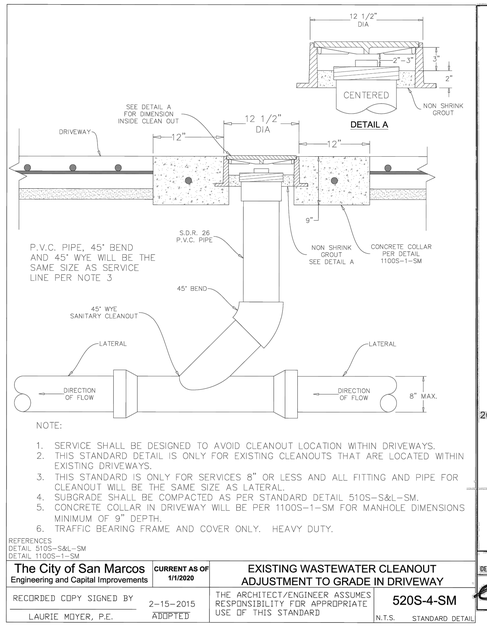
NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 3 OF 3



NOTES:
1. CONTRACTION JOINT PATTERN SHALL BE DETERMINED UPON FINAL CONFIGURATION OF TRAIL DESIGN. CONTRACTION JOINTS SHALL BE MADE USING EARLY-ENTRY SAW CUTTING OR A PRE-FORMED CONTRACTION JOINT MATERIAL (ZIP STRIP OR APPROVED EQUIVALENT)
2. RECOMMEND SLIP FORM PAVER FOR CONCRETE AND A RECLAIMER FOR THE SUB-GRADE MIXING.
3. LIME STABILIZED SUB-GRADE (C.O.A. ITEM NO. 203S) COULD BE USED IN-PLACE OF CEMENT STABILIZED SUB-GRADE, AS SHOWN ON THE DRAWINGS, AT THE DISCRETION OF THE ENGINEER OR THEIR DESIGNATED REPRESENTATIVE DEPENDING ON THE PROJECT LOCATION AND THE SOIL CONDITIONS. THE DEPTH OF THE SUB-GRADE CAN BE MODIFIED DEPENDING ON THE GEOTECHNICAL ENGINEERING REPORT, AT THE DISCRETION OF THE ENGINEER OR THEIR DESIGNATED REPRESENTATIVE.
4. IF USING A CUT SECTION WITH 3:1 MAXIMUM SIDE SLOPE, A SWALE (U-SHAPED) SHALL BE PROVIDED ON THE SIDE OF THE TRAIL TO PREVENT WATER FROM INUNDATING THE TRAIL.
5. ALL WORK IN CRITICAL WATER QUALITY ZONE TO COMPLY WITH CITY OF AUSTIN LDC § 25-8-261.

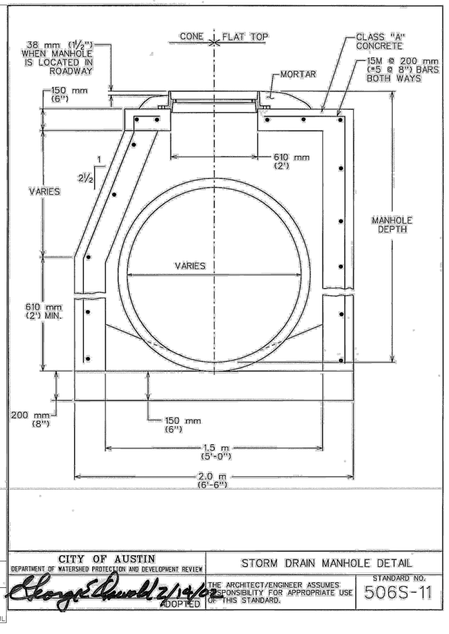
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL CONCRETE URBAN TRAIL DETAIL	
Perry Moon 12/7/2018 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 1302S-1 1 OF 1



NOTE:
1. SERVICE SHALL BE DESIGNED TO AVOID CLEANOUT LOCATION WITHIN DRIVEWAYS.
2. THIS STANDARD DETAIL IS ONLY FOR EXISTING CLEANOUTS THAT ARE LOCATED WITHIN EXISTING DRIVEWAYS.
3. THIS STANDARD IS ONLY FOR SERVICES 8" OR LESS AND ALL FITTING AND PIPE FOR CLEANOUT WILL BE THE SAME SIZE AS LATERAL.
4. SUBGRADE SHALL BE COMPACTED AS PER STANDARD DETAIL 510S-S&L-SM.
5. CONCRETE COLLAR IN DRIVEWAY WILL BE PER 1100S-1-SM FOR MANHOLE DIMENSIONS MINIMUM OF 9" DEPTH.
6. TRAFFIC BEARING FRAME AND COVER ONLY. HEAVY DUTY.

REFERENCES
DETAIL 510S-S&L-SM
DETAIL 1100S-1-SM

The City of San Marcos Engineering and Capital Improvements	CURRENT AS OF 1/1/2020	EXISTING WASTEWATER CLEANOUT ADJUSTMENT TO GRADE IN DRIVEWAY	
RECORDED COPY SIGNED BY LAURIE MOYER, P.E.	2-15-2015 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	520S-4-SM N.T.S. STANDARD DETAIL



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STORM DRAIN MANHOLE DETAIL	
George Hurd 7/14/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-11

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN
STANDARD DETAILS 7

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

DATE: 7/29/2025
DESIGNED BY: cGRH
DRAWN BY: cBMB
CHECKED BY: cGRH
DRAWING NAME: ANSI/ANSI-STANDARD DETAILS

7/29/2025
STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER
CHAZ

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT07

SHEET NO. 27 OF 31 SHEETS

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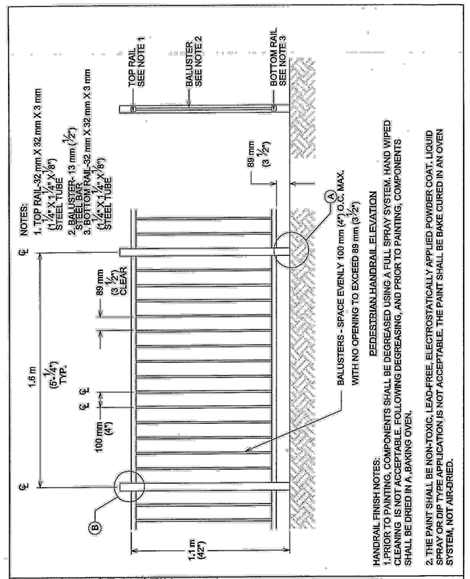
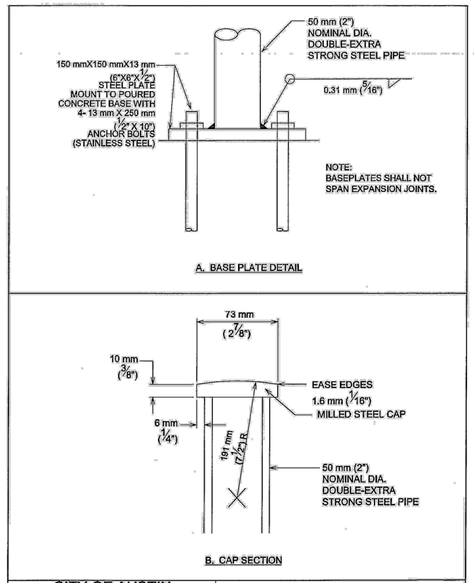
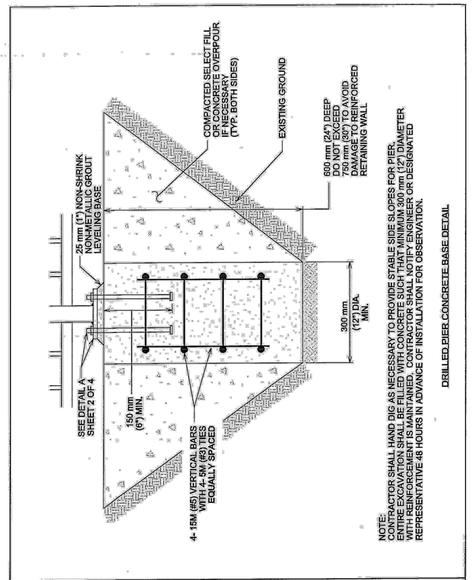
Last Modified: Feb. 25, 25 - 12:34
Plot Date/Time: Aug 01, 25 - 08:41:07



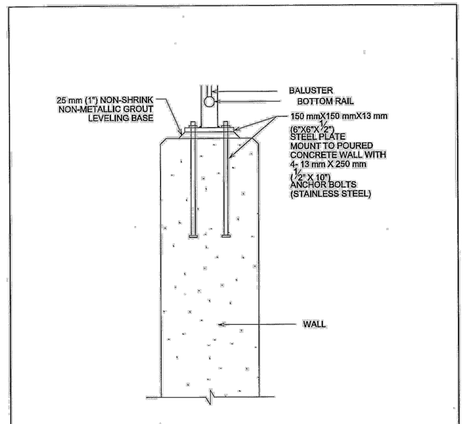
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	
Keli Bumstead-Tovar 1/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707S-1 1 OF 4



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	
Keli Bumstead-Tovar 1/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707S-1 2 OF 4

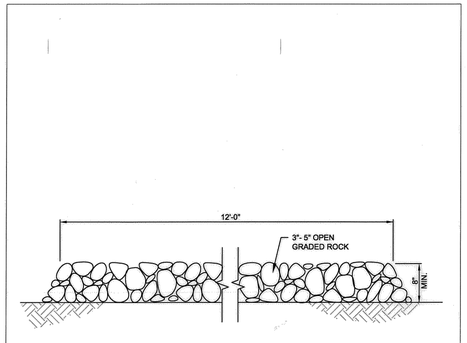


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	
Keli Bumstead-Tovar 1/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707S-1 3 OF 4



WALL MOUNTING DETAIL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	
Keli Bumstead-Tovar 1/4/11 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 707S-1 4 OF 4



NOTES:
1. STONE SIZE: 75–125 mm (3–5") OPEN GRADED ROCK.
2. THICKNESS: NOT LESS THAN 200 mm (8").
3. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	POND MAINTENANCE ROAD CROSS SECTION	
E. D. L., P.E. 1/19/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 662S-2

HUB COMMERCIAL DEVELOPMENT
LOT 1 SITE DEVELOPMENT PLAN

STANDARD DETAILS 8

REVISIONS

NO.	DESCRIPTION	BY	DATE

DATE: 7/29/2025
DESIGNED BY: C&RH
DRAWN BY: D&MB
CHECKED BY: C&RH
DRAWING NAME: ANSI24x36-STANDARD DETAILS

7/29/2025

STATE OF TEXAS
CHARLES R. HAGER
127034
LICENSED PROFESSIONAL ENGINEER

LJA Engineering, Inc.
7500 Rialto Boulevard
Building II, Suite 100
Austin, Texas 78735
Phone 512.439.4700
Fax 512.439.4716
FRN-F-1386

JOB NUMBER: A3452-0401

DT08

SHEET NO. 28 OF 31 SHEETS

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Last Modified: Feb. 25, 25 - 12:34
Plot Date/Time: Aug 01, 25 - 08:41:13

SEPERATE IRRIGATION PERMIT(S) ARE REQUIRED AND SHALL BE SUBMITTED FOR AND PERMITTED UNDER A SEPERATE APPLICATION AND PLAN SET.

COUNTY ROAD 269

HUB COMMERCIAL FINAL PLAT LOT 3 0.876-AC

HUB COMMERCIAL FINAL PLAT LOT 2 1.745-AC

HUB COMMERCIAL FINAL PLAT LOT 1 1.530-AC

4.151 ACRES
GP LIBERTY HILL, LLC
REMAINDER OF
5.221 ACRE TRACT
DOC. No. 2016086336 OPR

WILLIAMSON COUNTY, TEXAS
1.063 ACRE TRACT
DOC. No. 2022136249 OPR

MIKE CARSON
1.00 ACRE TRACT
DOC. No. 2010033033

MIKE CARSON TRACT
DOC. No. 2006084629 OPR

183A FRONTAGE ROAD

(3) SHADE TREES FOR EAST SETBACK

(12) SHRUBS FOR EAST SETBACK

(3) SHADE TREES FOR SOUTH SETBACK

(11) SHRUBS FOR SOUTH SETBACK

(3) SHADE TREES FOR WEST SETBACK

(11) SHRUBS FOR SOUTH SETBACK

SOD / HYDRO AREA, TYP.

PROPERTY LINE

APPROXIMATE LIMITS OF DISTURBANCE

WASTEWATER EASEMENT

TRASH ENCLOSURE

FRONT LANDSCAPE AREA

LOT 1 BOUNDARY

50' PARKING RADIUS

SHADE TREE FOR PARKING, TYP.

VAN

GRAVEL, TYP.

DETENTION POND SCREENING

0.99-AC ACCESS ESMT

10' LANDSCAPE, ACCESS, & PUE

20' PVMT SETBACK

15' WW ESMT

35' B.L.

15' B.L.

5' PVMT SETBACK

25' PUE

0 20' 40' 60' 80'

REVISIONS

Date	Description

REGISTERED LANDSCAPE ARCHITECT
BRADLEY T. JONES
2859
STATE OF TEXAS
08/06/24

HUB COMMERCIAL - LOT 1
CITY OF LEANDER, TEXAS
LANDSCAPE CITY SUBMITTAL PLAN

DATE: 08-06-24

SCALE: 1" = 20'

ECOLAND DESIGN GROUP
11150 GRONDA CIRCLE, SUITE A, AUSTIN, TEXAS 78759
WWW.ECOLANDDESIGNGROUP.COM | 512-344-8004

Sheet: 29 31

JOB#: E234-04

XX-SDP-XXX

LARGE TREES

QUANTITY	SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE & CONDITION
3		Cedar Elm	Ulmus crassifolia	4" caliper, 10' Ht. minimum
3		Mexican Sycamore	Platanus mexicana	4" caliper, 10' Ht. minimum
3		Live Oak	Quercus virginiana	4" caliper, 10' Ht. minimum
3		Monterey Oak	Quercus polymorpha	4" caliper, 10' Ht. minimum
3		Shumard Red Oak	Quercus shumardii	4" caliper, 10' Ht. minimum

SHRUBS

QUANTITY	SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE AND CONDITION
7	BM	Muhly, Big	Muhlenbergia lindheimeri	5 gallon, 24" Ht. minimum
94	Wm	Southern Wax Myrtle, Dwf.	Myrica pusilla	5 gallon, 24" Ht. minimum
10	Th	Golden Shower Thryallis	Galphimia glauca	5 gallon, 24" Ht. minimum
10	Gm	Muhly, Gulf	Muhlenbergia capillaris	5 gallon, 24" Ht. minimum
15	Ts	Sage, Texas	Leucophyllum frutescens 'Compactum'	5 gallon, 24" Ht. minimum

TURF GRASS

SYMBOL	QUANTITY	COMMON NAME	SCIENTIFIC NAME	SIZE AND CONDITION
	+/- 69,000	Tiffway 419 Bermuda Grass	Cynodon dactylon var. "Tiffway 419	SF - Solid sod free of weeds

MISCELLANEOUS

SYMBOL	QUANTITY	DESCRIPTION
	+/- TBD	SF 3" depth ⅜" limestone gravel w/ weed mat
	+/- TBD	SF 3" depth, compacted decomposed granite
	+/- TBD	SF 3" depth native hardwood mulch
	+/- TBD	L.F. Bender board, poly edging 1/8" x 5" with 12" stakes. Finish: Black-Note: bottom 1/2 of edging to be installed below grade, typ.

NOTE:
- **No more than fifty percent (50%) of the required trees shall be of the same species**

LOT 1 LANDSCAPE CALCULATIONS

	Required	Provided
Total Project Area:	N/A	66,638 sf
15% Required Landscape Area:	9,996 sf (15%)	16,887 sf (25%)
50% FRONT LANDSCAPING		
Total Required Landscape Area:	9,996 sf	16,887 sf
50% Required Between BLDGS & PL:	4,998 sf	10,143 sf
Total Trees:	18 (35")	15 (60")
Total Trees Between BLDGS & PL:	9 (18")	5 (20")
Total Shrubs:	35	142
Total Shrubs Between BLDGS & PL:	18	18

NOTE:
Irrigation system requires a separate irrigation application for the Irrigation permit

TOTAL CALIPER INCHES TO BE REPLACED	0"
CALIPER INCHES REPLACED ON SITE	0"
(0) SHADE TREES X 4" CAL. = 0"	
SIGNIFICANT TREES SAVED OVER 50%	0"
POTENTIAL PAYMENT TO TREE FUND: 0" X $150 = $00	
POTENTIAL PAYMENT TO TREE FUND: 0" X $300 = $00	

LANDSCAPE WORKSHEET - HUB COMMERCIAL LOT 1

Overall Required Landscape Area

	%		SQFT		Total
Multi-Family	20%	X		=	0
Office/Professional	15%	X		=	0
Commercial	15%	X	66638	=	9995.7
Industrial/Manufacturing	10%	X		=	0
School/Church/Community	15%	X		=	0
Park	15%	X		=	0

Provided Landscape Area

	SQFT	%
Total Area	66638	
Total Provided	26,059	39.11

*The minimum percentage of landscape area may include setback areas. However, the setback areas are required to be landscaped even if they exceed the above percentage.

Setback Areas

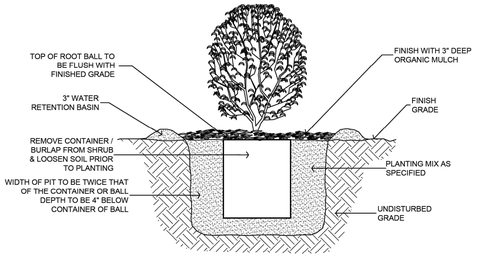
	SQFT					Units	REQUIRED Trees	REQUIRED Inches	REQUIRED Shrubs	PROVIDED Trees	PROVIDED Inches	PROVIDED Shrubs	DIFFERENCE Inches	DIFFERENCE Shrubs
East 10'	1770	÷	600	=	2.95	Units	6	12	12	3	12	12	0	0
North 5'	0	÷	600	=	0	Units	0	0	0	0	0	0	0	0
West 10'	1830	÷	600	=	3.05	Units	6	12	12	3	12	12	0	0
South 5'	1685	÷	600	=	2.8083	Units	6	11	11	3	12	11	1	0

IRRIGATION NOTES

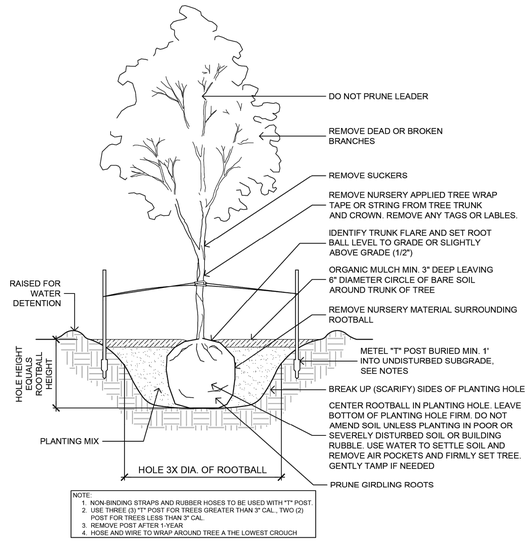
SEPERATE IRRIGATION PERMIT(S) ARE REQUIRED AND SHALL BE SUBMITTED FOR AND PERMITTED UNDER A SEPERATE APPLICATION AND PLAN SET.

LANDSCAPE NOTES

- THE DEVELOPER AND SUBSEQUENT OWNERS OF THE LANDSCAPED PROPERTY, OR THE MANAGER OR AGENT OF THE OWNER, SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE AREAS. SAID AREAS SHALL BE MAINTAINED SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE AT ALL TIMES AND SHALL BE KEPT FREE OF REFUSE AND DEBRIS. ALL PLANTED AREAS SHALL BE PROVIDED WITH AN AUTOMATIC IRRIGATION SYSTEM AND WATERED AS NECESSARY TO ENSURE CONTINUOUS HEALTHY GROWTH AND DEVELOPMENT. MAINTENANCE SHALL INCLUDE THE REPLACEMENT OF ALL DEAD PLANT MATERIAL IF THAT MATERIAL WAS USED TO MEET THE REQUIREMENTS OF THE LANDSCAPE ORDINANCE.
- TREE CALIPER IS THE TRUNK DIAMETER OF A TREE AT TWELVE (12") INCHES ABOVE NATURAL GRADE PER THE COMPOSITE ZONING ORDINANCE
- ALL NEW LANDSCAPES ARE REQUIRED TO HAVE A MINIMUM OF SIX INCHES (6") OF SOIL DEPTH IN AREAS PLANTED WITH TURFGRASS. THIS SIX-INCH (6") MINIMUM SOIL DEPTH WILL CONSIST OF 75 PERCENT SOIL BLENDED WITH 25 PERCENT COMPOST. THE SOIL/COMPOST BLEND SHALL BE INCORPORATED INTO THE TOP TOW INCHES OF THE NATIVE SOIL. THE SIX-INCH (6") DEPTH REQUIREMENT DOES NOT APPLY TO THE AREA BETWEEN THE DRIP LINE AND TRUNK OF EXISTING TREES, SHRUBS BEDS OR WILDSCAPE AREAS. AREAS WITH EXISTING NATIVE VEGETATION THAT REMAIN UNDISTURBED SHALL BE EXEMPT FROM THE SOIL DEPTH PROVISIONS; PROVIDED THAT NATIVE SOIL AND VEGETATION IN SUCH AREA IS FENCED DURING CONSTRUCTION AND PROTECTED FROM DISTURBANCE AND COMPACTION DURING THE CONSTRUCTION PROCESS.
- ALL DISTURBED AREAS AND ROW WILL BE RE-VEGETATED BY THE DEVELOPER
- ALL INVASIVE SPECIES SHALL BE REMOVED FROM THE PROPERTY
- NO MORE THAN 50% OF THE SAME SPECIES MAY BE PLANTED TO MEET THE TREE PLANTING REQUIREMENTS
- IN THE EVENT OF A CONFLICT WITH TREE REMOVAL/PRESERVATION CALL OUTS ON PLAN SHEET(S) VERSUS TREE REMOVAL/PRESERVATION MATRIX, THE TREE REMOVAL/PRESERVATION MATRIX SHALL APPLY. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY WITH CITY STAFF SHOULD ANY INCONSISTENCY EXIST WITHIN AN APPROVAL PLAN SET. NO IN-FIELD CHANGES ARE MADE TO APPROVED PLANS, NO EXCEPTIONS.
- A MINIMUM PERVIOUS AREA 3 FEET IN RADIUS AND NOT LESS THAN 50% OF THE CALCULATED DRIP LINE AREA IS PROVIDED AROUND THE TRUNKS OF ALL EXISTING AND PROPOSED TREES
- NO LANDSCAPING OVER 3 FEET HIGH IS LOCATED WITHIN 40 FEET OF THE INTERSECTION OF ANY STREET. (MEASURED FROM THE EDGE OF PAVEMENT AS IF THE CURBS OR PAVEMENT EDGES ARE NOT ROUNDED OFF AND INTERSECT AT A RIGHT ANGLE).



A SHRUB PLANTING DETAIL
SECTION
SCALE: N.T.S.



NOTE:
1. NON-BINDING STRAPS AND RUBBER HOSES TO BE USED WITH "T" POST.
2. USE THREE (3) "T" POST FOR TREES GREATER THAN 3" CAL., TWO (2) POST FOR TREES LESS THAN 3" CAL.
3. REMOVE POST AFTER 1-YEAR
4. HOSE AND WIRE TO WRAP AROUND TREE A THE LOWEST CROUCH

B TREE PLANTING DETAIL
SECTION
SCALE: N.T.S.

REVISIONS

Date	Description

REGISTERED LANDSCAPE ARCHITECT
BRADLEY T. JONES
2858
STATE OF TEXAS
08/06/24

HUB COMMERCIAL - LOT 1
CITY OF LEANDER, TEXAS
LANDSCAPE CITY SUBMITTAL PLAN

DATE: 08-06-24

SCALE: 1" = 20'

ECOLAND DESIGN GROUP
11100 CIRCLE DR, SUITE A AUSTIN, TEXAS 78736
WWW.ECOLANDDESIGNGROUP.COM | 512-344-8264

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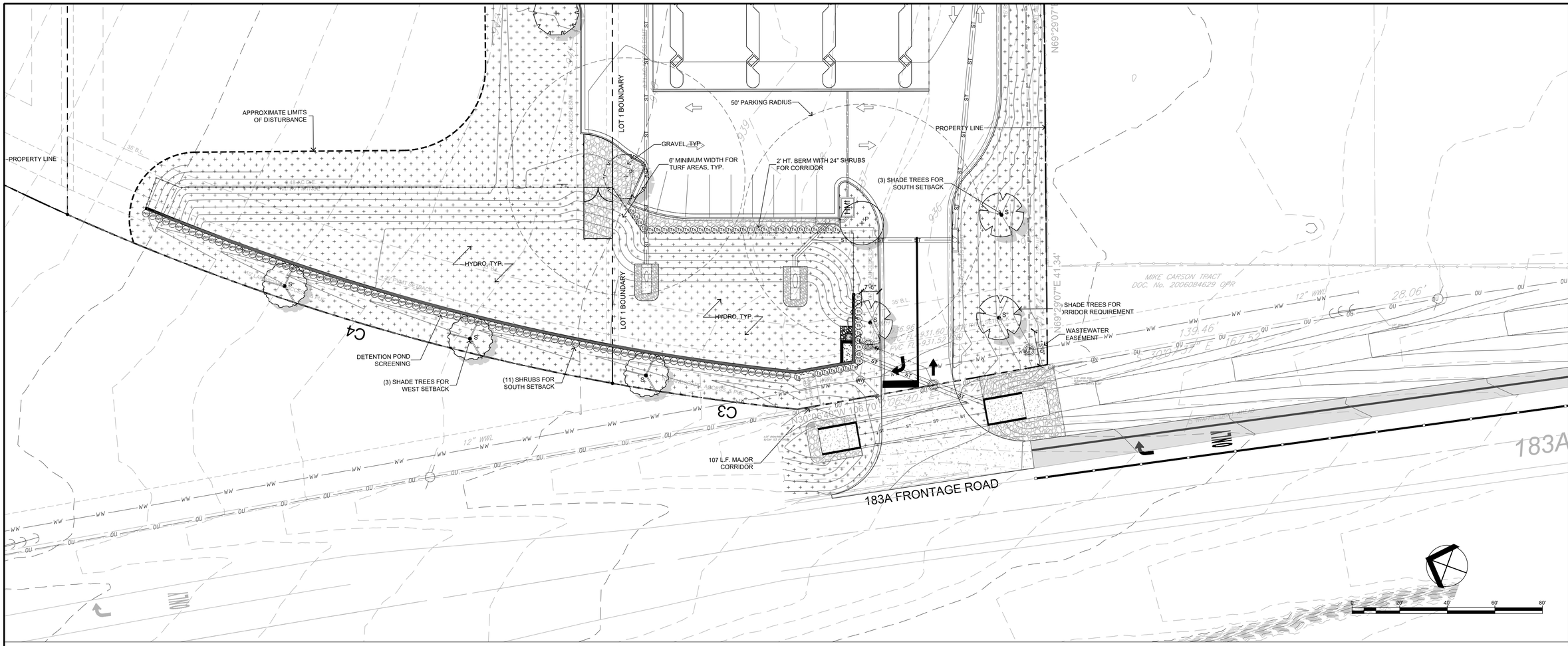
JOB#: E234-04

XX-SDP-XXX



RONALD REAGAN BLVD: CORRIDOR MATERIAL SCHEDULE

SHADE TREES

Mexican Sycamore

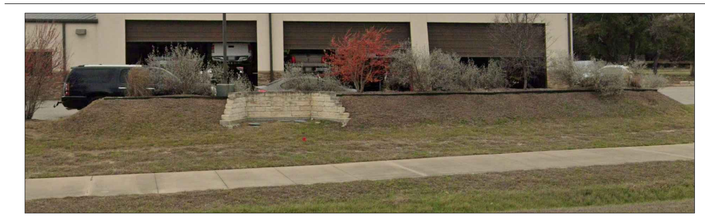
SCREENING PLANTS: SHRUBS

Texas Sage

Dwarf Waxmyrtle

Golden Shower Thryallis

24" BERM WITH PLANTING



SEPERATE IRRIGATION PERMIT(S) ARE REQUIRED AND SHALL BE SUBMITTED FOR AND PERMITTED UNDER A SEPERATE APPLICATION AND PLAN SET.

LARGE TREES			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE & CONDITION
	Mexican Sycamore	Platanus mexicana	4" caliper, 10' Ht. minimum

SHRUBS			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE AND CONDITION
Ts	Sage, Texas	Leucophyllum frutescens 'Compactum'	5 gallon, 24" Ht. minimum
Wm	Southern Wax Myrtle, Dwf.	Myrica pusilla	5 gallon, 24" Ht. minimum
Th	Golden Shower Thryallis	Galphimia glauca	5 gallon, 24" Ht. minimum

REVISIONS

Date	Description

BRADLEY T. JONES — REGISTERED LANDSCAPE ARCHITECT — 2858 — STATE OF TEXAS
07/22/25

HUB COMMERCIAL - LOT 1
CITY OF LEANDER, TEXAS
LANDSCAPE SUBMITTAL: MAJOR CORRIDOR

DATE: 07-22-25

SCALE: 1" = 20'

ECOLAND DESIGN GROUP
CT 1100 ROUND ROCK AVENUE, SUITE 220, ROUND ROCK, TEXAS 78681
WWW.ECOLANDDESIGNGROUP.COM T 512.344.4884

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