AUSTIN CIVIL ENGINEERING

Sep 18, 2023

Franklin Anciano
License & Permit Specialist
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, TX 78753
Phone: 512-239-7017
Email: Franklin.Anciano@tceq.texas.gov

RE: Administrative review of the Offices at William Cannon – WPAP

Dear Franklin Anciano.

Thank you kindly for your review of the Water Pollution Abatement Plan. The following comments were received September 18, 2023. The application has been revised, updated and corrected accordingly to address your comments. Responses to the comments are as follows **(in blue):**

Permanent Stormwater Section (TCEQ-0600)

- Attachment F - Construction Plans. Please P.E. sign, seal, and date TSS calculations.
  ACE Response: TSS calculations have been signed, sealed, and dated.

- Core Data Form (TCEQ-10400) Please sign form.
  ACE Response: The form has been signed. See page 124.

If you have any questions regarding this update, please do not hesitate to contact our office (512) 306-0018, or TeamH@austincivil.com. Thank you for your review of this project.

Sincerely,

Calvin Weiman, P.E.
Austin Civil Engineering

9/19/2023

Water Pollution Abatement Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **General Information Form (TCEQ-0587)**

  Attachment A - Road Map
  Attachment B - USGS / Edwards Recharge Zone Map
  Attachment C - Project Description

- **Geologic Assessment Form (TCEQ-0585)**

  Attachment A - Geologic Assessment Table (TCEQ-0585-Table)
  Attachment B - Stratigraphic Column
  Attachment C - Site Geology
  Attachment D - Site Geologic Map(s)

- **Water Pollution Abatement Plan Application Form (TCEQ-0584)**

  Attachment A - Factors Affecting Surface Water Quality
  Attachment B - Volume and Character of Stormwater
  Attachment C - Suitability Letter from Authorized Agent (if OSSF is proposed)
  Attachment D - Exception to the Required Geologic Assessment (if requested)
  Site Plan

- **Temporary Stormwater Section (TCEQ-0602)**

  Attachment A - Spill Response Actions
  Attachment B - Potential Sources of Contamination
  Attachment C - Sequence of Major Activities
  Attachment D - Temporary Best Management Practices and Measures
  Attachment E - Request to Temporarily Seal a Feature (if requested)
  Attachment F - Structural Practices
  Attachment G - Drainage Area Map
  Attachment H - Temporary Sediment Pond(s) Plans and Calculations
  Attachment I - Inspection and Maintenance for BMPs
  Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

- **Permanent Stormwater Section (TCEQ-0600)**

  Attachment A - 20% or Less Impervious Cover Waiver (if requested for multi-family, school, or small business site)
  Attachment B - BMPs for Upgradient Stormwater
  Attachment C - BMPs for On-site Stormwater
  Attachment D - BMPs for Surface Streams
  Attachment E - Request to Seal Features (if sealing a feature)
  Attachment F - Construction Plans
  Attachment G - Inspection, Maintenance, Repair and Retrofit Plan
  Attachment H - Pilot-Scale Field Testing Plan (if proposed)
  Attachment I -Measures for Minimizing Surface Stream Contamination

- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- **Application Fee Form (TCEQ-0574)**
- **Check Payable to the "Texas Commission on Environmental Quality"**
- **Core Data Form (TCEQ-10400)**

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: The Offices at William Cannon						**2. Regulated Entity No.:**			
3. Customer Name: Jubilee Christian Center						**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):**		6.37	
9. Application Fee:	$5,000		**10. Permanent BMP(s):**			Partial Sedimentation/Biofiltration Pond/ Irrigation System.			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Travis		**14. Watershed:**			Williamson Creek			

Application Distribution

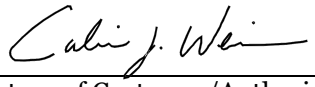
Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which 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	_X_ _Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	_X_ _Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___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. Calvin J. Weiman
Print Name of Customer/Authorized Agent
 08/09/2023
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):	

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) 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.

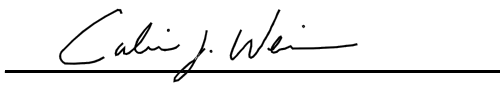
Signature

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 **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Calvin J. Weiman

Date: 08/09/2023

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: The Offices at William Cannon
2. County: Travis
3. Stream Basin: Williamson Creek
4. Groundwater Conservation District (If applicable): Barton Springs/Edwards Aquifer
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☐ SCS
   ☐ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: Jimmy Seal
   Entity: Jubilee Christian Center
   Mailing Address: 2909 W William Cannon Dr
   City, State: Austin, TX Zip: 78745
   Telephone: (512) 627-3050 FAX: _____
   Email Address: jseal777@gmail.com

8. Agent/Representative (If any):

   Contact Person: Calvin J. Weiman
   Entity: Austin Civil Engineering, Inc.
   Mailing Address: 9501B Menchaca Rd #220
   City, State: Austin, TX Zip: 78748
   Telephone: 512-306-0018 FAX: _____
   Email Address: cw@austincivil.com

9. Project Location:

   ☒ The project site is located inside the city limits of Austin.
   ☐ 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.

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    3101 W WILLIAM CANNON DR, AUSTIN, TEXAS 78745

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

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

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

    ☐ Survey staking will be completed by this date: _____

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. 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

15. 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/Uncleared)
- ☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

- ☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

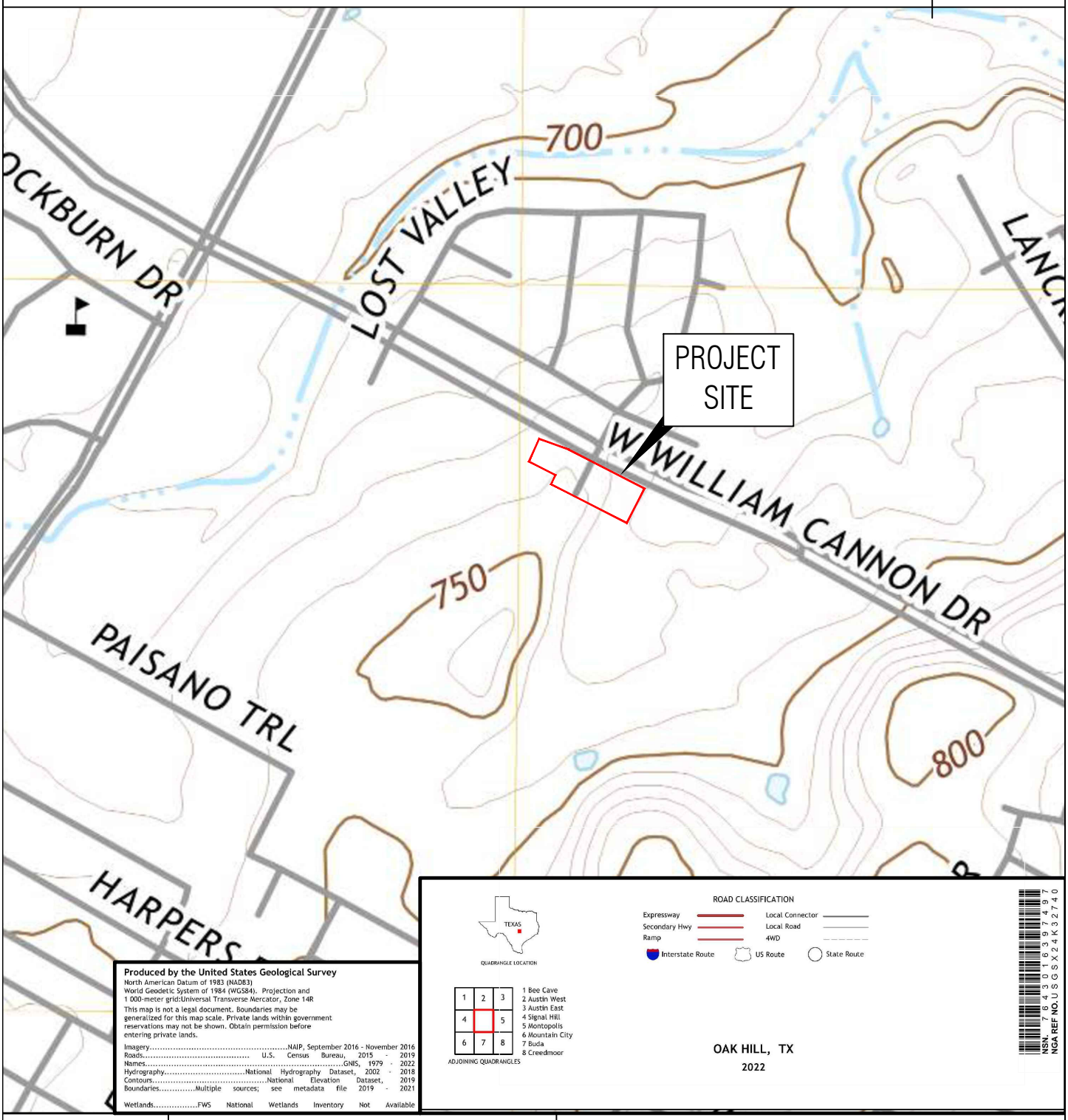
19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ☐ TCEQ cashier
- ☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

20. ☒ 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. The copies must be submitted to the appropriate regional office.

21. ☐ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

EXHIBIT ROAD MAP	THE OFFICES AT WILLIAM CANNON 3101 W William Cannon Dr Austin, Texas 78745 N.T.S.	**AUSTIN CIVIL ENGINEERING, INC.** TBPE FIRM # F-001018 9501 B MANCHACA RD, SUITE. 220 AUSTIN, TX 78748 PH: (512) 306-0018



EXHIBIT

USGS

THE OFFICES AT WILLIAM CANNON

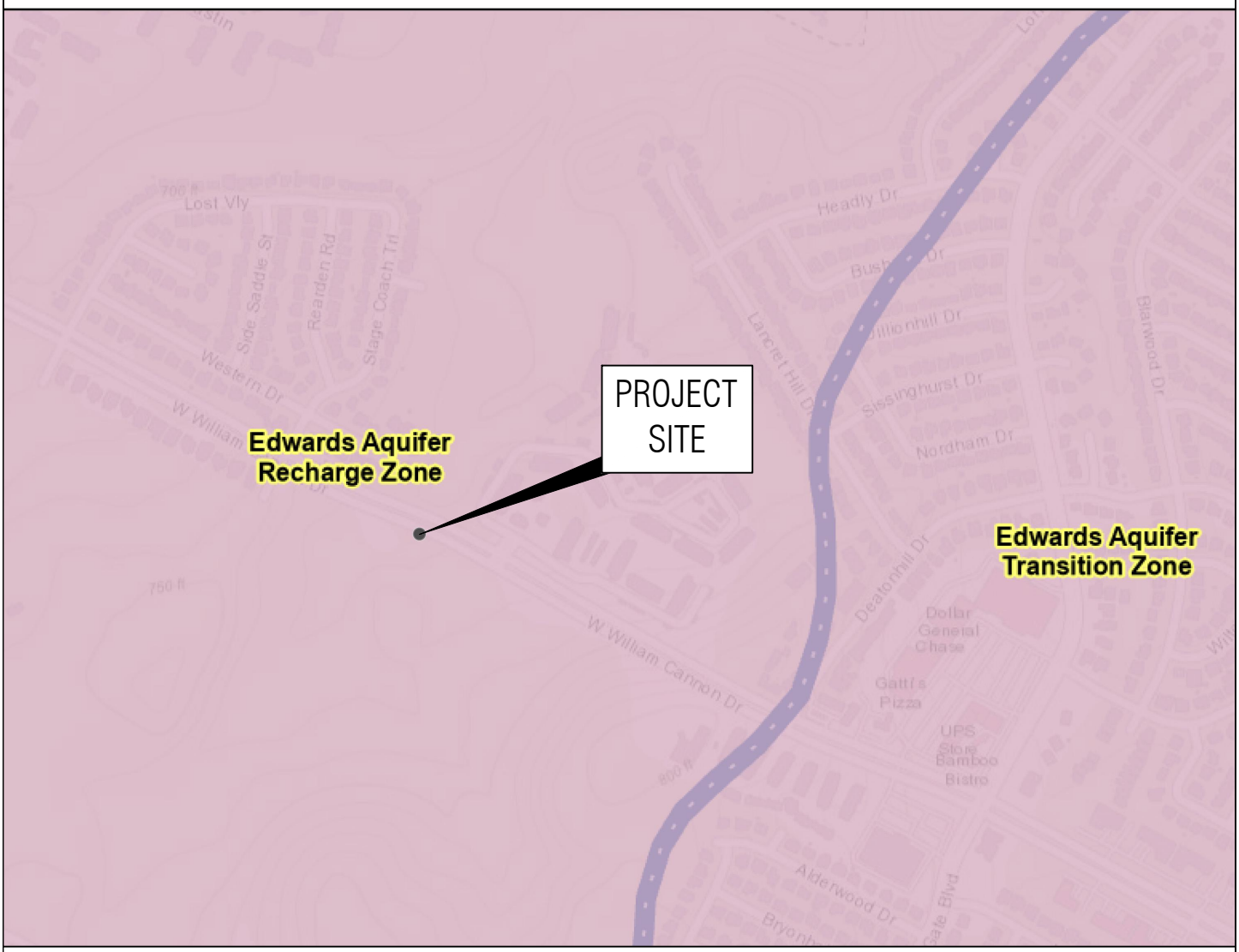
3101 W William Cannon Dr
Austin, Texas 78745

N.T.S.

AUSTIN CIVIL ENGINEERING, INC.

TBPE FIRM # F-001018
9501 B MANCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

NORTH
SCALE: N.T.S.



US Congressional Districts
Edwards Aquifer Label
Edwards Aquifer Boundary
Edwards Aquifer Boundary central line
City/Place
Groundwater Conservation Districts
Barton Springs/Edwards Aquifer CD
TX Counties

EXHIBIT

Edwards Aquifer Map

THE OFFICES AT WILLIAM CANNON
3101 W William Cannon Dr
Austin, Texas 78745

N.T.S.

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MANCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

AUSTIN CIVIL ENGINEERING

General Information Form

Attachment C: Project Description

The site consists of lots 52, 53, 54, 55 which are legally described as Lot 52 Less N35FT Av Western Hills, Lot 53 Less N30FT Av Western Hills +.261AC Vacated ROW, Lot 54 Less N30FT Western Hills +.261AC Vacated ROW, LOT 55 Less N30FT Western Hills, respectively, for a total of 6.37 acres.

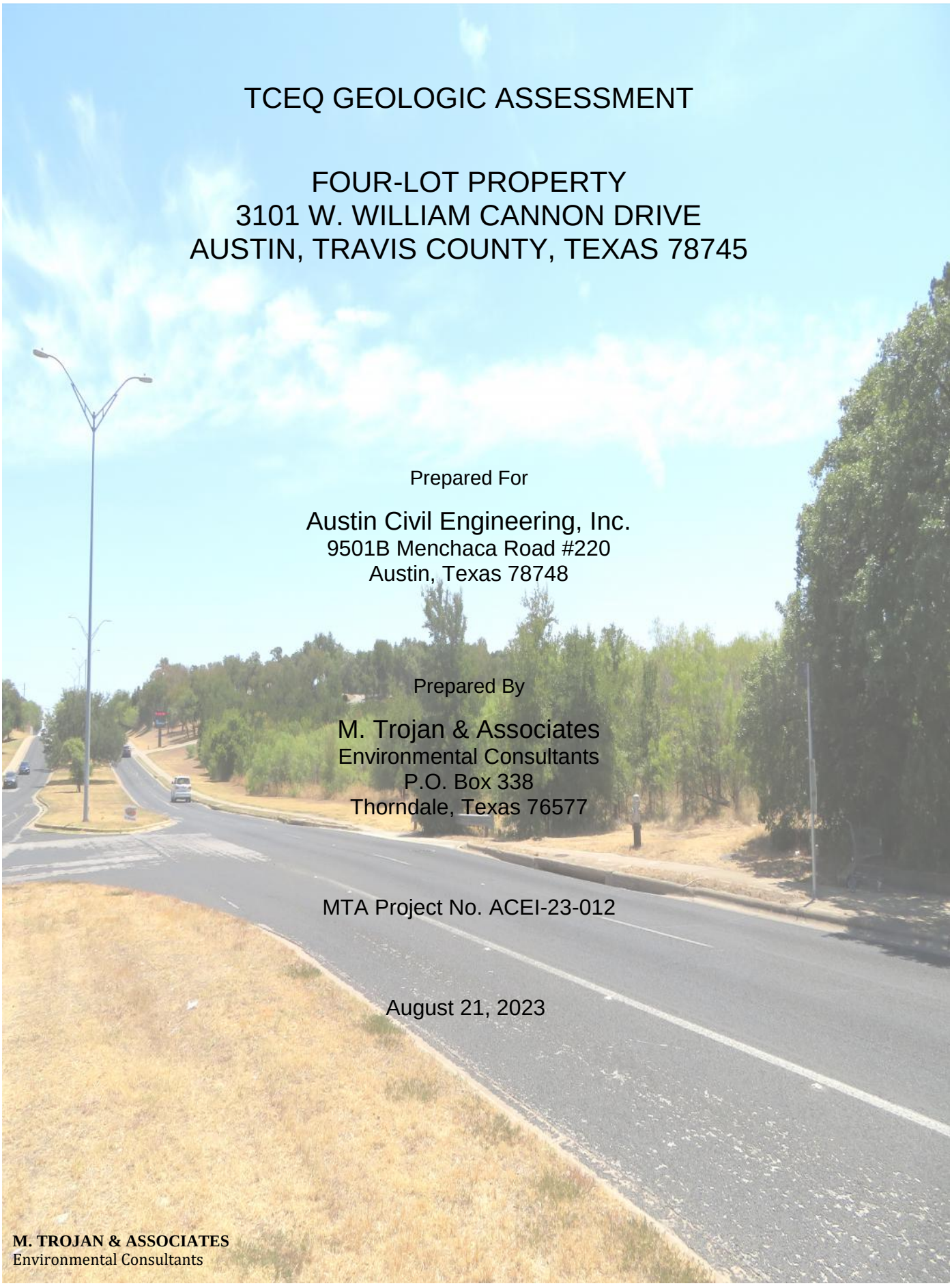
The site is off W William Cannon Drive between West Gate Blvd and Brodie Ln. The existing site is currently undeveloped, a portion of off-site drainage is flowing through the site. In general, the site drains from the southeast property corner and towards the northwest property corner.

The proposed development of the site will include a 18,381 square-foot office building with parking, drives, detention pond, water quality pond, waterline, and wastewater force main (FM). The on-site developed stormwater drains via sheet flow to a proposed pond inflow structure to discharge into the detention and water quality pond. The detention pond is sized to hold stormwater runoff rates below the predeveloped runoff for all storm events 2, 10, 25 and 100-year based on NOAA ATLAS 14 stormwater precipitation.

The lots are located within the Barton Springs Zone (BSZ); therefore, the design will require two SCMs in series, in this case a Partial Sedimentation/Biofiltration Pond and Irrigation System. The proposed system will treat a total of 3.35 acres of drainage basin areas which is comprised of 2.81 acres of on-site drainage area and 0.54 acres of off-site drainage area, although all of the impervious cover proposed within the development is 1.42 acres, the water quality system is designed to treat the volume of water calculated for the maximum impervious cover allowed of 2.16 acres (64.20% of drainage basin areas to be treated), being required to treat 3,163 cubic feet of water, the proposed system will over-treat according to TCEQ requirements, providing a water quality volume of 19,619 cubic feet.

TCEQ GEOLOGIC ASSESSMENT

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745



Prepared For

Austin Civil Engineering, Inc.
9501B Menchaca Road #220
Austin, Texas 78748

Prepared By

M. Trojan & Associates
Environmental Consultants
P.O. Box 338
Thorndale, Texas 76577

MTA Project No. ACEI-23-012

August 21, 2023

M. TROJAN & ASSOCIATES
Environmental Consultants

August 21, 2023

Amador Rojas
Austin Civil Engineering, Inc.
9501B Menchaca Road #220
Austin, Texas 78748

Subject: Report of TCEQ *Geologic Assessment*
Four-Lot Property
3101 W. William Cannon Drive
Austin, Travis County, Texas 78745
MTA Project No. ACEI-23-012

Mr. Rojas:

M. Trojan & Associates is pleased to submit this report of a Texas Commission on Environmental Quality (TCEQ) *Geologic Assessment* for the above referenced property. This *Geologic Assessment* was performed in accordance with the TCEQ requirements and instructions for completing TCEQ Form 0585.

I appreciate the opportunity to assist you in your environmental matters associated with the subject property. Should you have any questions or require additional information, please feel free to contact me at (512) 917-3695, or forward an email to mtrojan0316@gmail.com.

Respectfully,

Michael Trojan, PG
M. TROJAN & ASSOCIATES

Certified Professional Geoscientist #1109 (TX)

c: MTA Project File ACEI-23-012

TABLE OF CONTENTS

ATTACHMENTS

1.0 TCEQ FORM 0585

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge/Transition Zones and Relating to 30 TAC §213.5(b)(3), 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. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Michael Trojan, PG Telephone: (512) 917-3695

Representing: M. Trojan & Associates Fax:

Signature of Geologist:

Michael Trojan, PG
Certified Professional Geoscientist #1109 (TX)

Regulated Entity Name: Four-Lot Property
3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Project Information

1. Date(s) Geologic Assessment was performed: August 15, 2023

2. Type of Project:

X	WPAP		AST
	SCS		UST

3. Location of Project:

X	Recharge Zone
	Transition Zone
	Contributing Zone within the Transition Zone

4. [X] **Attachment A – Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. [X] Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map (refer to Attachment D).

Table 1 – Soil Units, Infiltration, Characteristics and Thickness

Soil Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (feet)
Ferris-Heiden complex, 8-20% slopes, severely eroded (FhF3)	D	5.0+
Heiden clay, 3-5% slopes, eroded (HeC2)	D	6.7+
Eckrant very stony clay, 5-18% slopes (TaD)	D	up to 0.7

* Soil Group Definitions (Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. [X] **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. [X] **Attachment C – Site Geology and Features**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. [X] **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan.

   Applicant's Site Plan Scale: unknown
   Site Geologic Map Scale: 1" = 200'
   Site Soils Map Scale (if more than 1 soil type): 1" = 200'

9. Method of collecting positional data:

   [X] Global Positioning System (GPS) technology.
   [ ] Other method(s). Please describe method of data collection: _____

10. [ ] The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. [X] Surface geologic units are shown and labeled on the Site Geologic Map.

12. [X] Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    [ ] Geologic or manmade features were not discovered on the project site during the field investigation.

13. [X] The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section

    [ ] There are 0 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply).

    [ ] The wells are not in use and have been properly abandoned.

[ ] The wells are not in use and will be properly abandoned.

[ ] The wells are in use and comply with 16 TAC Chapter 76.

[X] There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. [X] 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. The copies must be submitted to the appropriate regional office.

2.0 OVERVIEW

M. Trojan & Associates was retained to conduct a Geologic *Assessment* for a four-lot property located at 3101 W. William Cannon Drive in Austin, Travis County, Texas 78745 (refer to Figures 1 and 2 of Attachment D). All aspects of the *Geologic Assessment* were conducted by Mr. Michael Trojan, PG (Certified Professional Geoscientist #1109 in Texas), and the assessment was performed in accordance with Texas Commission on Environmental Quality (TCEQ) requirements and instructions for completing TCEQ Form 0585. The assessment included reconnaissance of the entire property as well as bordering portions of all neighboring properties.

Based on information obtained from the TCEQ, the study area is located on the Edwards Aquifer Recharge Zone. Accordingly, the objective of the *Geologic Assessment* was to identify any naturally occurring geologic (karst) or manmade features that may significantly contribute to recharge of the subsurface. The Edwards Aquifer rules define sensitive features as:

> *" . . . those that have potential for interconnectedness between the surface and the Edwards Aquifer and where rapid infiltration to the subsurface may occur."*

The scope of the *Geologic Assessment* included the following general components:

- Review of published soils and geologic/hydrogeologic information;
- Field evaluation of topographic features;
- Field evaluation of soil types and horizons, relative thicknesses, and hydrologic characteristics (visual only);
- General review of the subsurface geologic units beneath the property as well as geologic units exposed at ground surface (if visible);
- Field evaluation of geologic conditions to determine the presence or absence of caves, solution cavities, solution-enlarged fractures, faults, other natural bedrock features, sinkholes, swallets or swallow holes in drainage features, non-karst closed depressions, manmade features in bedrock, and any other natural or manmade features, and evaluation of such features with respect to their potential ability to convey infiltrating surface water to the underlying subsurface; and
- Preparation of TCEQ Form 0585 for presentation of the findings of this assessment.

3.0 GENERAL PROPERTY DESCRIPTION AND SITE DEVELOPMENT

3.1 Study Area

The study area consists of four lots that together comprise approximately 6.37 acres of undeveloped, densely-wooded land on the south side of W. William Cannon Drive and approximately 0.33 miles northwest of the W. William Cannon Drive and West Gate Blvd. intersection (refer to Figures 1 and 2 of Attachment D and photographs included in Attachment E). As of the writing of this *Geologic Assessment*, there are no improvements on the property.

3.2 Proposed Site Development

As of the writing of this *Geologic Assessment*, the central portion of the property is proposed to be developed as an office building complex, including an office building and paved driveways and parking areas.

3.3 Previously Published Reports

No previously published, site-specific technical reports were reviewed as part of this *Geologic Assessment*.

4.0 GEOLIC ASSESSMENT LIMITATIONS

This *Geologic Assessment* was conducted in accordance with rules and guidelines set forth by the TCEQ, as well as consistent with standard methods and practices generally employed by professionals engaged in conducting karst assessments. Still, the scope of the *Geologic Assessment* presents certain limitations. The primary limitations include:

1. The field reconnaissance is conducted to effectively identify the geologic conditions/features at the subject property. However, certain site conditions may render features undetectable as a result of obstruction by: (1) soil cover, (2) very dense, inaccessible vegetation, (3) manmade cover including, but not limited to driveways, concrete slabs, soil and debris piles/mounds, and/or (4) stormwater runoff ground cover following significant rainfall events.

2. The scope of the *Geologic Assessment* does not include identification of features that may be discovered at the time of site development – during excavation, trenching, grading and/or leveling.

3. While this *Geologic Assessment* is confident of the identification of karst features, or lack thereof, the regulatory community reserves the right to conduct a reconnaissance of the study area. At times, regulatory field inspectors may identify additional potential karst features that, in their professional opinion, may require consideration in terms of proposed development on the study area. In this event, the author of this *Geologic Assessment* and the developer are provided the opportunity to conduct additional field investigation of such features, including employment of certain invasive methodologies (e.g., excavation), to either confirm or refute the field findings of the regulatory field inspectors.

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Four-Lot Property, 3101 W. William Cannon Drive, Austin, Texas 78745

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	>1.6	
ONSITE																				
MB-1	30.210403	-97.823384	MB	30	Kdg	20	25						N	≤5	≤35	≤35		N/A	N/A	streambed
MB-2	30.210213	-97.823521	MB	30	Kdg	12	12						N	≤5	≤35	≤35		N/A	N/A	streambed
OFFSITE																				
MB-3	30.210095	-97.823753	MB	30	Kdg	12	20						N	≤5	≤35	≤35		N/A	N/A	streambed
MB-4	N/A	N/A	MB	30	Kdg	unk	unk	unk					X	≤5	≤35	≤35		N/A	N/A	hillside
MB-5	30.210586	-97.823306	MB	30	Kdg	12	100						X	≤5	≤35	≤35		N/A	N/A	hillside

* DATUM:_____

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

_____

Date: August 21, 2023

Sheet 1 of 1

ATTACHMENT B

STRATIGRAPHIC COLUMN

SYSTEM	SERIES	GROUP	FORMATION	LITHOLOGY/ THICKNESS
QUATERNARY				TERRACE AND ALLUVIUM SAND, SILT, CLAY, AND GRAVEL THICKNESS NOT REPORTED
CRETACEOUS	UPPER CRETACEOUS (GULFIAN)	AUSTIN		CHALK, MARL, AND LIMESTONE 325–420 FEET THICK
		EAGLE FORD	EAGLE FORD	SHALE AND SILTY LIMESTONE TO CALCAREOUS SILTSTONE 25–65 FEET THICK
			BUDA	LIMESTONE UP TO 45 FEET THICK
			DEL RIO	CLAY 40–70 FEET THICK
			GEORGETOWN	LIMESTONE AND MARL 30–80 FEET THICK
	LOWER CRETACEOUS (COMANCHEAN)	FREDERICKSBURG	EDWARDS	LIMESTONE AND DOLOSTONE 60–350 FEET THICK
			COMANCHE PEAK	LIMESTONE AND MARL UP TO 80 FEET THICK
			WALNUT FORMATION	LIMESTONE AND MARL UP TO 130 FEET THICK
			PALUXY SAND	SAND UP TO 10 FEET THICK

Geologic unit that directly underlies the subject property

M. TROJAN & ASSOCIATES
Environmental Consultants
P.O. Box 338
Thorndale, Texas 76577
(512) 917-3695

Scale: No Scale
Date: August 21, 2023
Project: TCEQ Geologic Assessment
MTA Project: ACEI-23-012

STRATIGRAPHIC COLUMN

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745

ATTACHMENT C

SITE GEOLOGY AND FEATURES

TOPOGRAPHY AND SURFACE WATER HYDROLOGY

The majority of the study area slopes toward the northwest (refer to Figure 3 of Attachment D). Topographic elevations on the study area range between approximately 763 and 712 feet above mean sea level (msl), with the highest elevations located at/near the southeast property corner and the lowest elevations within a stream bed near the northwest corner (at W. William Cannon Drive).

As is depicted on refer to Figure 3 of Attachment D), majority of storm water runoff generated on the study area flows to an onsite stream located on the western-most part of the property (Note: Some runoff generated on the eastern-most part of the property discharges directly to W. William Cannon Drive). The onsite stream segment is described as follows:

> The stream on the western-most part of the study area qualifies as an intermittent stream. The stream exhibits well-defined bed and bank features, as well as an approximate ordinary high water mark (OHWM) (refer to Figure 3 of Attachment D and photograph in Attachment E). The stream segment has been improved at two locations with concrete stream bed/bank liners. On the day of the site reconnaissance of this *Geologic Assessment*, the stream was observed to be dry. The stream exhibits a densely-wooded riparian zone.

The study area lies in the Kincheon Branch of the Williamson Creek watershed. According to review of a FEMA Flood Insurance Rate Map, Travis County GIS and COA GIS, no portion of the study area lies within a floodplain; however, the onsite stream segment exhibits a designated CWQZ and WQTZ (refer to Figure 3 of Attachment D).

SOILS

According to the *Soil Survey of Travis County, Texas*, the soils that are reported to cover the study area are as follows (also refer to Figure 4 of Attachment D for soil type locations):

Ferris-Heiden complex, 8-12% slopes, severely eroded (FhF3)
- Typical Profile: H1 - 0 to 6 inches: clay
  H2 - 6 to 36 inches: clay
  H3 - 36 to 60 inches: silty clay
- Hydrologic Soil Group: D

Heiden clay, 3-5% slopes, eroded (HeC2)
- Typical Profile: A - 0 to 13 inches: clay
  Bss - 13 to 22 inches: clay
  Bkss - 22 to 58 inches: clay

CBdk - 58 to 80 inches: clay
Hydrologic Soil Group: D

Eckrant very stony clay, 5-18% slopes (TaD)
Typical Profile: A1 - 0 to 5 inches: very stony clay
A2 - 5 to 8 inches: extremely flaggy clay
R - 8 to 30 inches: bedrock
Hydrologic Soil Group: D

Based on the *Soil Survey* and as is depicted on Figure 4 of Attachment D, the Ferris-Heide complex and Heiden clay soils cover the central and southeastern parts of the study area, while the Eckrant soils cover the northwestern third of the property. Shallow probes/excavations were made at various locations across the property and observations of the soil characteristics confirmed the presence of soils similar to those described in the *Soil Survey*. With the exception of the relatively thin Eckrant soils, soils across the study area were observed to be thick.

GEOLOGY

The study area is reported to be underlain by the Del Rio clay and Georgetown Formation (Kdg) (refer to the stratigraphic column in Attachment B and Figure 5 of Attachment D). The Del Rio clay and Georgetown Formation are described in geologic publications as follows:

Del Rio Formation

The Del Rio Formation (commonly referred to as the Del Rio Clay) is overlain by the Buda Limestone (Kbu) and underlain by the Georgetown Formation (Kgt). The Del Rio Formation is comprised of medium gray to blue-gray clay with thin beds of highly calcareous sandstone and siltstone. A complete section of the Del Rio Formation may range up to approximately 70 feet in thickness.

Georgetown Formation

The Georgetown Formation (Kgt) consists of limestone and marl (mostly limestone). The limestone is light gray, fine grained, nodular, and moderately indurated. Some limestone is white, hard, brittle, and thick bedded. The Georgetown also includes some shale that is light gray to yellowish gray, marly, and soft. The thickness is reported to range 30 to 80 feet, and the formation thins southward.

Given the consistent soil cover across the entire study area, no bedrock was observed at ground surface on the interior of the property. The exceptions to this include

exposed bedrock (road cut) along the western extent of the north property boundary – along W. William Cannon Drive – and along parts of the bed of the onsite intermittent stream on the western-most of the property (refer to photographs in Attachment E).

SENSITIVE KARST AND MANMADE FEATURES

Onsite Features

The field reconnaissance of the study area included search for and identification of sensitive karst and manmade features, as defined by TCEQ, and to note potential ground recharge points that may be associated with such features. The field reconnaissance entailed walking 25-foot spaced transects across the entire study area. The results of the reconnaissance are provided below.

Caves

Based on TCEQ criteria, a cave is a natural underground open (or filled) space formed by dissolution of limestone that is large enough for an average-sized person to enter. When a surface cave opening is encountered, then the subsurface extent of the cave is relevant in terms of subsurface recharge.

Based on observations made across the entire study area, no cave openings/caves were identified.

Solution Cavities

Based on TCEQ criteria, a solution cavity is a natural cavity or depression formed as a result of dissolution of limestone. This category is designed to capture features that are not large enough for a normal-sized person to enter but appear to be part of a system of interconnected voids that connect the surface with the subsurface. The size and geometry of the feature is defined by in-place bedrock. Solution cavities also include areas where dissolution has increased the opening size and permeability along bedding planes as well as fractures.

Based on observations made across the entire study area, no solution cavities were identified.

Solution-Enlarged Fractures

Based on TCEQ criteria, a solution-enlarged fracture is one that shows evidence of being locally enlarged by dissolution of limestone, recognized

by measurable (larger than hairline) openings and miss-matched fracture surface shapes.

Based on observations made across the entire study area, no solution-enlarged fractures were identified.

Faults

Based on TCEQ criteria, a fault is defined as a fracture along which there has been displacement of one side of the fracture relative to the other side. Displaced geologic materials and/or an abrupt change in surface topography can both be indicative of the presence of a fault.

Based on observations made across the entire study area, no faults were identified. Moreover, information obtained from technical publications reviewed as part of this *Geologic Assessment* suggests that no known faults are located within the study area or in the close proximity.

Swallet or Swallow Holes

Based on TCEQ criteria, a swallet or swallow hole may include a focused recharge feature in an intermittent drainage or stream in karst terrain. Some swallow holes have a surface expression, for example, a cave opening or formation of a whirlpool in the stream at high flow. The general case is that fine soil and sediment as well as gravel are deposited over the bedrock feature during falling stages of flow, thereby intermittently or frequently obscuring the feature.

Based on observations made across the entire study area, no swallet or swallow holes were identified.

Sinkholes

Based on TCEQ criteria, a sinkhole represents a shallow, broad topographic depression formed in response to karst processes. Sinkholes are pragmatically defined as features greater than six (6) feet in diameter with more than six (6) inches of topographic relief. Sinkholes are usually circular in map view. In cross section they may be subtle swales or funnel-shaped pits and some have exposed rimrock at the perimeter. The presence of a sinkhole implies that processes including collapse, subsidence, and soil sapping over geologic time have caused the land surface to sink below the surrounding area.

Based on observations made across the entire study area, no sinkholes were identified.

Other Natural Bedrock Features

Based on TCEQ criteria, other natural bedrock features include vuggy rock and reef deposits that may contain large holes or vugs.

Based on observations made across the entire study area, no other natural bedrock features were identified.

Non-karst Closed Depressions

Based on TCEQ criteria, a non-karst closed depression is a natural or non-natural topographic depression that is not formed by karst processes and is not bedrock floored. A feature larger than six (6) feet in at least one direction and with six (6) inches or more of topographic relief should be considered as a feature.

Based on observations made across the entire study area, no non-karst closed depressions were identified.

Zones

Based on TCEQ criteria, a zone is an area in which any type of karst feature occurs along a trend or in a cluster. Clustered or aligned features are more likely to be an indicator of an integrated flow system at depth than isolated features. Alignment is expected in areas where conduit flow is strongly influenced by structurally controlled fractures.

Based on observations made across the entire study area, no zones were identified.

Manmade Features in Bedrock

Based on TCEQ criteria, manmade features in bedrock may include water wells, sanitary sewer lines, storm sewer lines, trenches, quarries, and other cultural features that intersect bedrock and can potentially increase the rate of recharge to the subsurface.

Based on observations made across the entire study area, the following manmade features in bedrock were identified:

Onsite Manmade Feature in Bedrock MB-1

Latitude: 30.210403
Longitude: -97.823384
Dimensions: 20' X 25'

Onsite Feature MB-1 represents a concrete stream bed liner within the onsite intermittent stream on the western-most part of the study area (refer to the Geologic Assessment Table in Attachment A, Figure 6 of Attachment D and photograph in Attachment E).

The liner is engineered and installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the feature is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that this feature does not present an environmental issue with respect to development on the property.

Onsite Manmade Feature in Bedrock MB-2

Latitude: 30.210213
Longitude: -97.823521
Dimensions: 12' X 12'

Onsite Feature MB-2 represents a concrete weir and stream bed liner within the onsite intermittent stream on the western-most part of the study area (refer to the Geologic Assessment Table in Attachment A, Figure 6 of Attachment D and photograph in Attachment E).

The weir and liner are engineered and installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the feature is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that this feature does not present an environmental issue with respect to development on the property.

Offsite Features

The field reconnaissance also included inspection of neighboring properties a distance of approximately 200 feet (as practical) from all boundaries of the study area for identification of offsite sensitive karst and/or manmade features in bedrock that could be deemed as significant in terms of development on the study area. The following offsite features were identified:

Offsite Manmade Feature in Bedrock MB-3

Latitude: 30.210095
Longitude: -97.823753
Dimensions: 12' X 20'

Onsite Feature MB-3 represents a concrete stream bed liner within the offsite portion of the intermittent stream on the western-most part of the study area (refer to the Geologic Assessment Table in Attachment A, Figure 6 of Attachment D and photograph in Attachment E).

The liner is engineered and installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the feature is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that this feature does not present an environmental issue with respect to development on the property.

Offsite Manmade Feature in Bedrock MB-4

Latitude: N/A
Longitude: N/A
Dimensions: N/A

Features represented by offsite Feature MB-4 qualify as manmade features in bedrock. The features include any/all underground infrastructure that has been installed along the W. William Cannon Drive roadway (refer to Geologic Assessment Table in Attachment A and Figure 6 of Appendix D). These features are engineered and represent fully-enclosed wet and dry lines (Note: This assessment has no knowledge of the installation details).

The infrastructure is installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the underground infrastructure is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that the features do not present an environmental issue with respect to development on the property.

Offsite Manmade Feature in Bedrock MB-5

Latitude: 30.210586
Longitude: -97.823306
Dimensions: 12' X 100'

Offsite Feature MB-5 qualifies as a manmade feature in bedrock and represents an underground concrete storm water culvert that crosses

beneath W. William Cannon Drive (refer to Geologic Assessment Table in Attachment A, Figure 6 of Appendix D and photograph in Attachment E).

The feature is installed in bedrock that presumably showed no evidence of karst features during the installation process. Therefore, it is assessed that the underground infrastructure is not significant in the potential to increase the rate of recharge to the subsurface. It is further assessed that the feature will not be affected by future development on the tract.

POTENTIAL FOR FLUID MOVEMENT TO THE SUBSURFACE

Based on review of available information and visual observations made during the field reconnaissance, this *Geologic Assessment* presents the following observations regarding the potential for recharge of the subsurface within the study area:

- Characteristics of soils that cover the study area are the primary factors that influence potential subsurface recharge on the property. The presence of Ferris-Heiden, Heiden and Eckrant soils with reported very slow permeability suggests overall very slow recharge potential to the subsurface.

- No "defined" karst recharge points with focused recharge potential were observed to be located on the study area.

ATTACHMENT D

SITE GEOLOGIC MAPS

M. TROJAN & ASSOCIATES
Environmental Consultants

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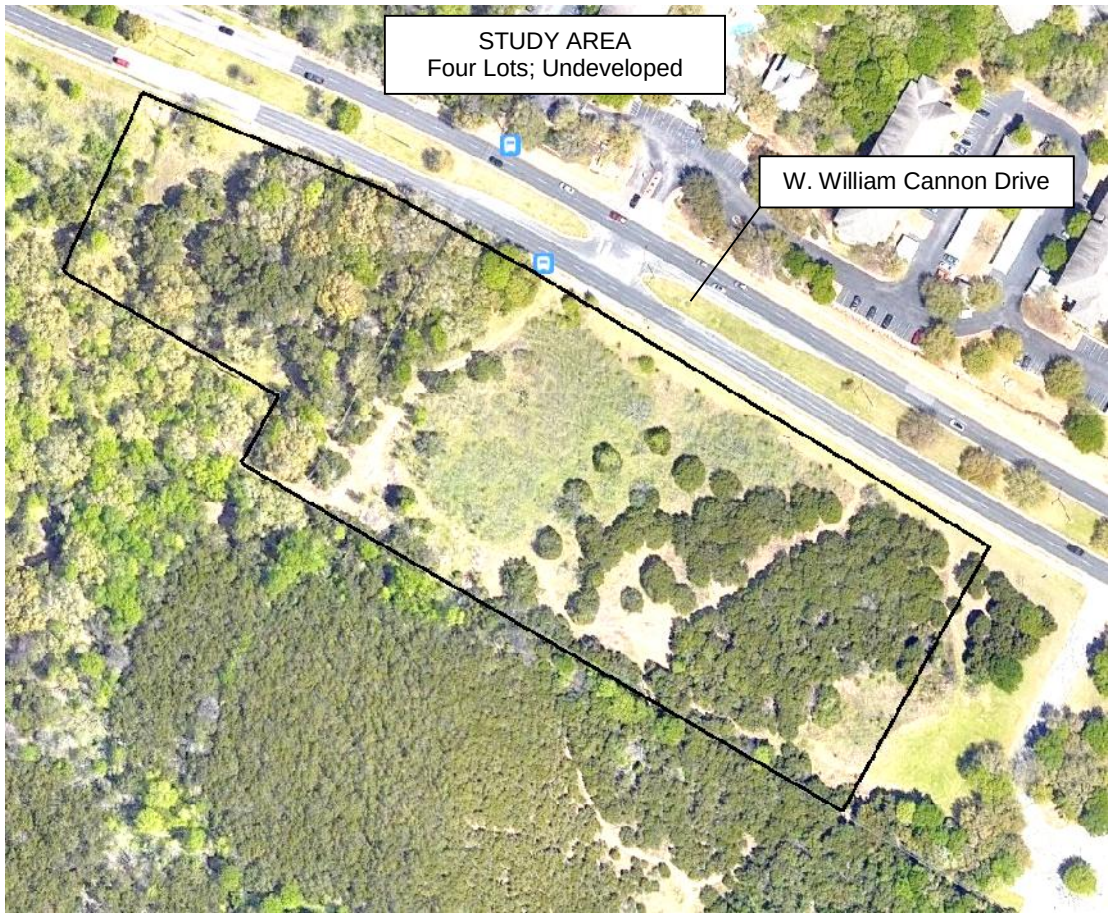
Thorndale, Texas 76577
(512) 917-3695

Scale:	No Scale
Date:	August 21, 2023
Project:	TCEQ Geologic Assessment
MTA Project:	ACEI-23-012

FIGURE 1

SITE LOCATION MAP

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745



M. TROJAN & ASSOCIATES
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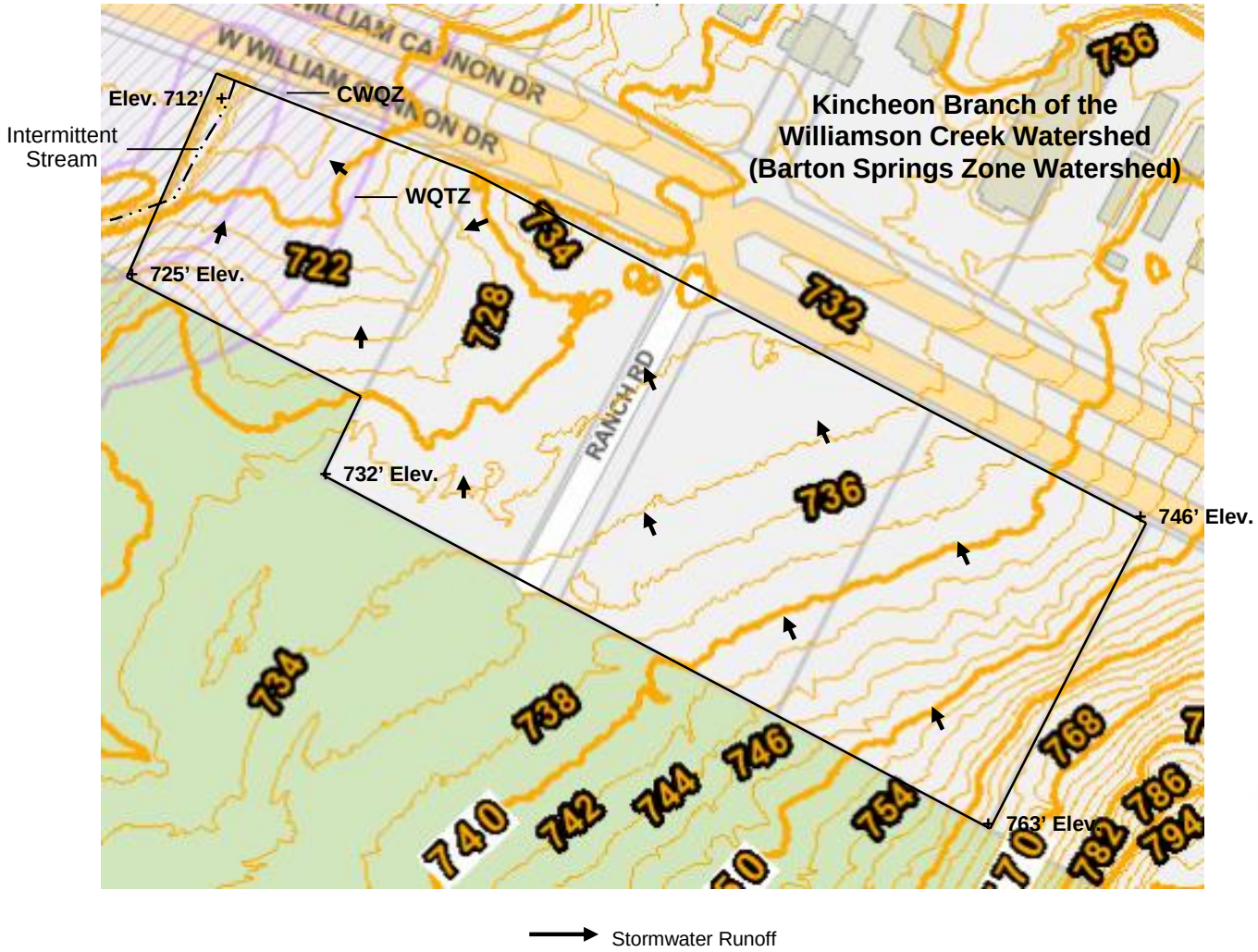
(512) 917-3695

Scale: 1" = 200' (approx.)
Date: August 21, 2023
Project: TCEQ Geologic Assessment
MTA Project: ACEI-23-012

FIGURE 2

SITE AERIAL PHOTOGRAPH

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745



M. TROJAN & ASSOCIATES
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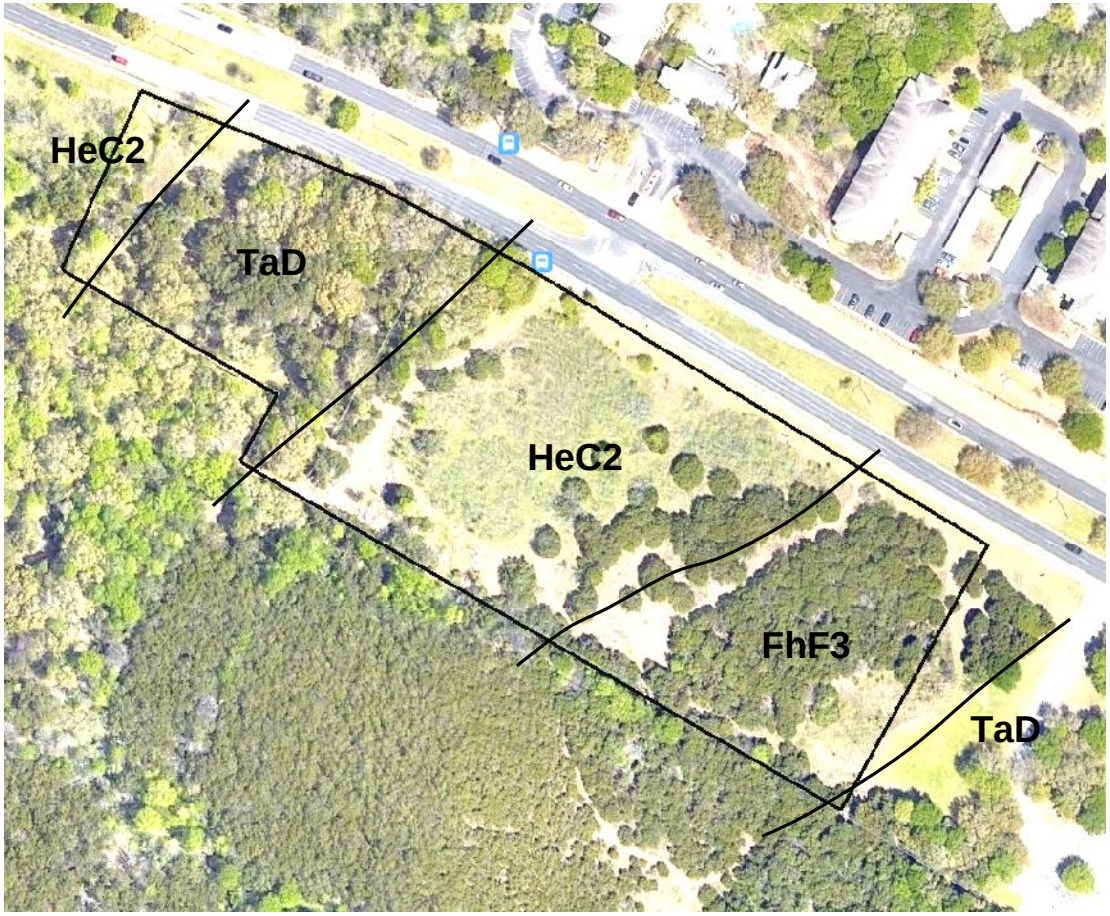
Scale: 1" = 140' (approx.)
Date: August 21, 2023
Project: TCEQ Geologic Assessment
MTA Project: ACEI-23-012

FIGURE 3

SURFACE WATER HYDROLOGY

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745



STATE OF TEXAS
MICHAEL TROJAN
GEOLOGY
No. 1109
LICENSED
PROFESSIONAL GEOSCIENTIST

FhF3 – Ferris-Heiden complex, 8-20% slopes, severely eroded / HeC2 – Heiden clay, 3-5% slopes, eroded / TaD – Eckrant very stony clay, 5-18% slopes

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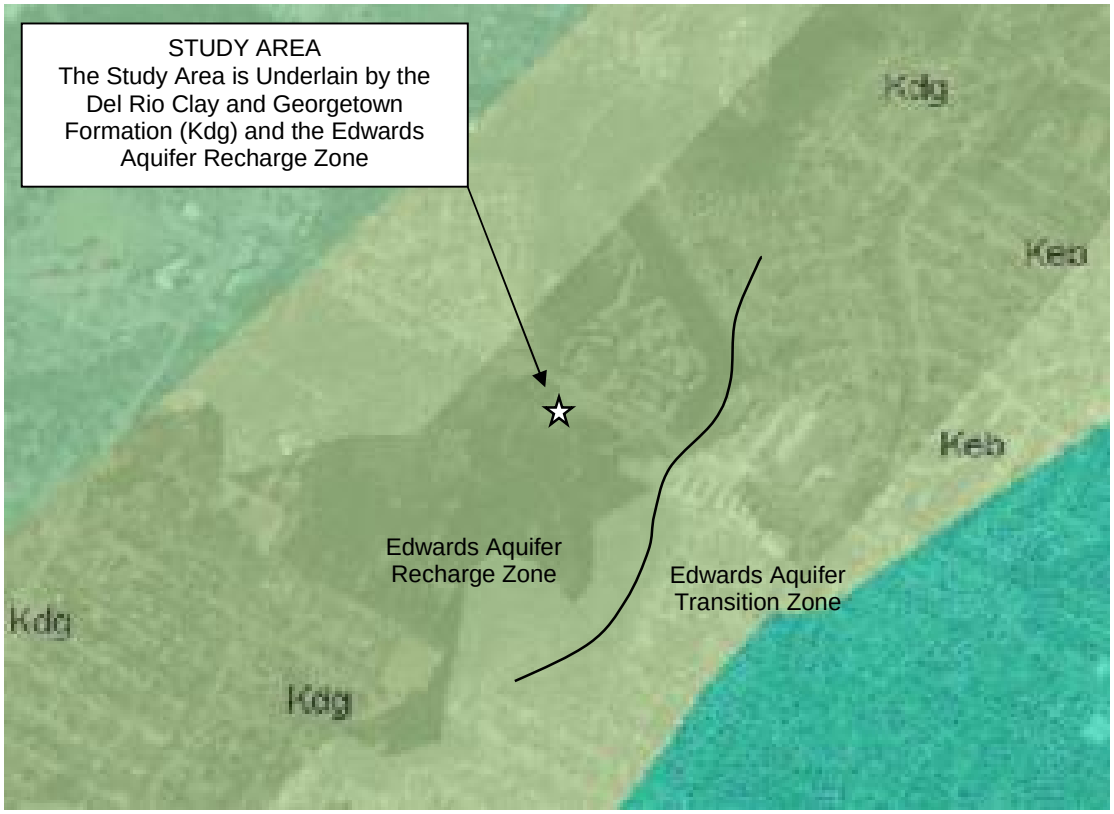
Scale: 1" = 200' (approx.)
Date: August 21, 2023
Project: TCEQ Geologic Assessment
MTA Project: ACEI-23-012

FIGURE 4

SITE SOILS MAP

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745



STATE OF TEXAS
MICHAEL TROJAN
GEOLOGY
No. 1109
LICENSED PROFESSIONAL GEOSCIENTIST

Kdg– Del Rio Clay and Georgetown Formation / KeB – Eagle Ford Clay and Buda Limestone Undivided

NOTE: Study area location is approximate
Source: Geologic Atlas of Texas, Austin Sheet

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(512) 917-3695

Scale: No Scale
Date: August 21, 2023
Project: TCEQ Geologic Assessment
MTA Project: ACEI-23-012

FIGURE 5

GENERAL GEOLOGIC MAP

FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745

ONSITE FEATURES

MB-1: Manmade feature in bedrock (concrete stream bed liner)

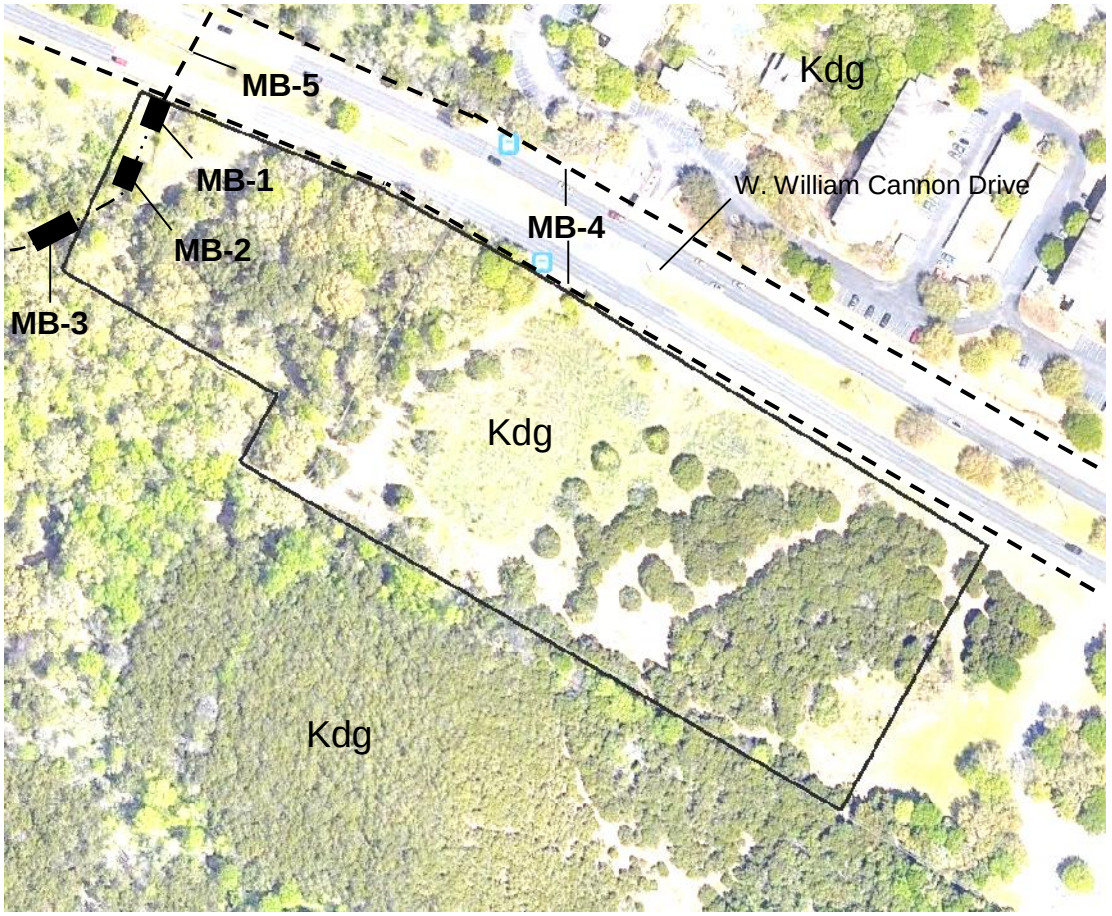
MB-2: Manmade feature in bedrock (concrete stream weir and bed liner)

OFFSITE FEATURES (within 200')

MB-3: Manmade feature in bedrock (concrete stream bed liner)

MB-4: Area of manmade features in bedrock (underground infrastructure)

MB-5: Manmade feature in bedrock (underground culvert)



NO ONSITE OR OFFSITE KARST FEATURES IDENTIFIED

NOTES

Kdg – Del Rio Clay and Georgetown Formation
Refer to Attachment C for feature details.

M. TROJAN & ASSOCIATES
Environmental Consultants

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Scale:	1" = 200' (approx.)
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MTA Project	ACEI-23-012

FIGURE 6

SITE GEOLOGIC MAP

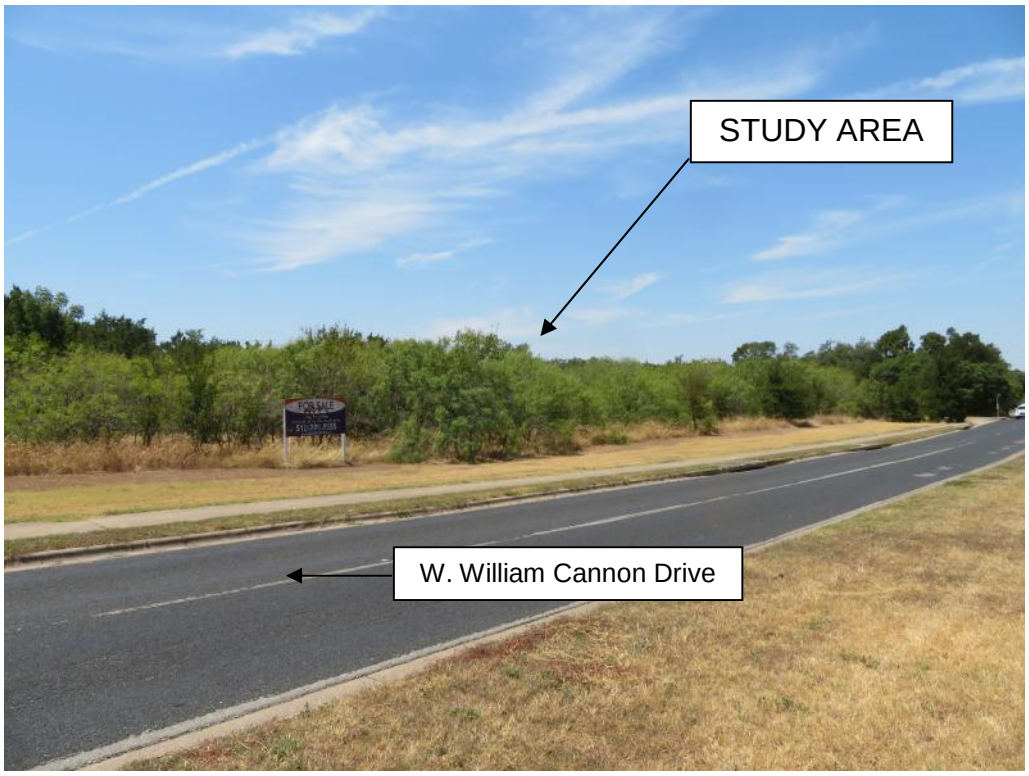
FOUR-LOT PROPERTY
3101 W. WILLIAM CANNON DRIVE
AUSTIN, TRAVIS COUNTY, TEXAS 78745

ATTACHMENT E

SITE PHOTOGRAPHS

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 1]



Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of the northern-most part of the study area along W. William Cannon Drive.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 2]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of typical landscape on the interior of the study area.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 3]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: Second view of typical landscape on the interior of the study area.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 4]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of a segment of the intermittent stream on the western-most part of the study area.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 5]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of typical bedrock outcrop (road cut) along the west part of the north property boundary along W. William Cannon Drive.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 6]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of onsite manmade feature in bedrock MB-1 and offsite manmade feature in bedrock MB-5.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 7]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of onsite manmade feature in bedrock MB-2.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 7]

Project: TCEQ Geologic Assessment
Site: Four-Lot Property
Location: 3101 W. William Cannon Road, Austin, Travis County, Texas 78745

Description: View of offsite manmade feature in bedrock MB-3.

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), 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.

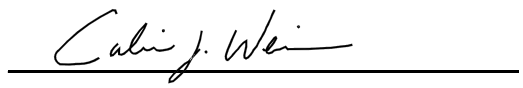
Signature

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 **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Calvin J. Weiman

Date: 08/09/2023

Signature of Customer/Agent:



Regulated Entity Name: The Offices at William Cannon

Regulated Entity Information

1. The type of project is:

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

2. Total site acreage (size of property):6.37

3. Estimated projected population:T.B.D.

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	18,381	÷ 43,560 =	0.4220
Parking	40,880	÷ 43,560 =	0.9385
Other paved surfaces	2,462	÷ 43,560 =	0.0565
Total Impervious Cover	61,723	÷ 43,560 =	1.42

Total Impervious Cover 1.42 **÷ Total Acreage** 6.37 **X 100 =**22.29**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

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

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. 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.

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

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

10. 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.

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

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

12. ☐ 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

13. ☒ **Attachment B - 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 the 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

14. The character and volume of wastewater is shown below:

100% Domestic	9216Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 9216	

15. Wastewater will be disposed of by:

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

- ☐ **Attachment C - 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):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☐ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

- ☐ The SCS was previously submitted on_____.
- ☐ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☒ The sewage collection system will convey the wastewater to the South Austin Regional WWTP (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

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

Site Plan Scale: 1" = 40'.

18. 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): The FEMA Flood Insurance Rate Map No. 48453C0580H, Date: September 26, 2008.

19. ☒ 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, open space, etc. are shown on the plan.

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

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly abandoned.
☐ The wells are not in use and will be properly abandoned.
☐ The wells are in use and comply with 16 TAC §76.

☒ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☐ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☒ No sensitive geologic or manmade features were identified in the Geologic Assessment.

☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
23. ☒ Areas of soil disturbance and areas which will not be disturbed.
24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
25. ☒ Locations where soil stabilization practices are expected to occur.
26. ☐ Surface waters (including wetlands).

    ☒ N/A
27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.
28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ 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. The copies must be submitted to the appropriate regional office.
30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

AUSTIN CIVIL ENGINEERING

PROJECT: The Offices at William Cannon
Address: 3101 W William Cannon Dr, Austin, Texas 78745

Owner: Jubilee Christian Center

Water Pollution Abatement Plan Application

Attachment A

Factors Affecting Water Quality

Potential sources of pollution include:

- Runoff and erosion of sediment and pollutants from exposed soil due to clearing and grubbing, grading, landscaping, and other earthwork activities.
- Runoff from the construction equipment storage and maintenance. This may include typical automotive fluids, lubricants, and fuels.
- Runoff from construction product staging, storage, and waste. This may include materials that can degrade the quality of receiving waters and make them unsafe for consumption and aquatic life.
- Runoff from paving operations may contain hydrocarbons and polyaromatic hydrocarbons.
- Runoff from lawn and landscape chemicals such as pesticides and herbicides
- Total Suspended Solids (TSS)

Once construction is complete, the runoff from the site will be directed to the partial sedimentation/biofiltration pond via overland flow.

Attachment B

Volume and Character of Stormwater

Modeling of the runoff for the site was conducted under the assumption of Hydrologic soil group D conditions. Stormwater runoff from the site will be captured and routed to the partial sedimentation/biofiltration pond which provides approximately 30,150.70 cubic feet of storage. Detailed plans and calculations for the water quality pond facilities are included in the attached plan set.

- Through the proposed water quality pond and drainage structures, the character and volume of the stormwater runoff leaving the site is within the required design parameters of the TCEQ.
- See attached plans and stormwater runoff calculations.

Attachment C

Suitability Letter from Authorized Agent – **This section is not applicable.**

AUSTIN CIVIL ENGINEERING

Attachment D

Exception to the required geologic Assessment - **This section is not applicable.**

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.

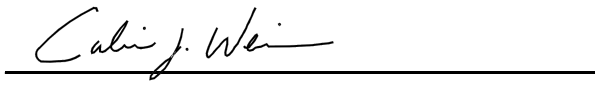
Signature

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: Calvin J. Weiman

Date: 08/09/2023

Signature of Customer/Agent:



Regulated Entity Name: The Offices at William Cannon

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: Gasoline/Disel Fuel

   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: Natural canal to the north-west of the property (KINCHEON BRANCH)

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.

AUSTIN CIVIL ENGINEERING

PROJECT: The Offices at William Cannon
Address: 3101 W William Cannon Dr, Austin, Texas 78745

Owner: Jubilee Christian Center

TEMPORARY STORMWATER SECTION

Attachment A

Spill Response Actions

The following is a description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances. The proceeding excerpts are from the City of Austin Watershed Department Clean Water Fact Sheets:

Petroleum Spills Response

Do not flush spills away with water. Instead, contain them immediately, before they reach a storm drain and spread to a creek or lake. Also, do not put yourself or others in danger. Before containment, evaluate what materials have spilled, make a thorough assessment of risk, and determine how to contain the spill safely. If safe containment is possible, immediately stop the spread of liquids using absorbent materials. Keep spill containment and clean up materials appropriate for the type and quantities of hazardous chemicals used or stored at your facility. The Watershed Protection Department provides a list of absorbent material suppliers. Immediately block off nearby drain (sanitary or storm sewer). It is much more costly to decontaminate inside of a storm sewer pipe and /or restore a contaminated creek than it is to purchase spill containment materials.

Always wear appropriate safety equipment such as gloves, coveralls, goggles, and respirators. Access Materials Safety Data Sheets (MSDS) for information about spilled materials. Keep MSDSs readily available for each chemical used or stored at the facility. A MSDS contains information that enables persons responsible for handling, using or encountering chemicals to estimate the likely harm, potential hazards and risks that might arise in emergency situations involving those chemicals. Obtain a MSDS free of charge by calling the manufacturer's phone number from the label on the chemical container.

Never leave spills unattended. Designate someone to make spill notification phone calls. **Immediately notify** the following agencies:

Local: City of Austin Fire Department by dialing 911;

State: The TCEQ requires spills/emergency release situations to be reported per 30 TAC Sections 327.1-327.5 effective May 23, 1996. Report spills to Environmental Release Hotline or the Texas Commission on Environmental Quality (TCEQ) 1-800-832-8224; TCEQ Local office at 339-2929; or TCEQ (24-Hours) at 512/239-2507 or 512/463-7727.

Federal: National Response Center (NRC) 1-800-424-8802 (Notification of the National Response Center does not constitute notice to the state).

Clean up surfaces contaminated by hazardous chemicals only if you are trained, experienced, and qualified. Excavate spills on previous (e.g. soil) surfaces as quickly as possible to prevent spread of the contamination. Contact the Watershed Protection Department for soil cleanup instructions. Sweep up and containerize dry material spills on impervious surfaces (e.g. pavement) for proper disposal. Absorb liquid spills on impervious surfaces with sorbent materials (e.g. clay sorbent, pads, booms, etc.) and containerize for proper disposal. Do not use wet/dry shop vacuum for gasoline, solvents, or other volatile fluids because of explosion hazards.

Post a site-specific spill contingency plan at your facility. This should provide step-by-step instructions in the event of a spill. Practice these steps in a "spill drill." The Watershed Protection Department provides information regarding spill contingency plans and a fact sheet detailing proper spill handling. A phone number is provided at the end of this fact sheet.

Construction Products/Wastes Spills Response

Immediately clean up spills to prevent environmental impacts, especially spreading of the spill to a storm drain and waterway. Never leave spills unattended or flush a spill with water.

Prevent spills, as much as possible, through prevention planning. Inspect vehicles and heavy equipment for leaks and repair promptly. Inspect portable toilets routinely for leaks and keep them in a secured area away from traffic and possible vandalism.

Clean up non-hazardous spills on impervious (paved) surfaces by using a sorbent material (e.g. kitty litter, sand, peat, etc.), and disposed of the waste properly. Contain hazardous or large non-hazardous or large non-hazardous spills, if it is safe, and immediately contact the City of Austin Fire Department by dialing 911.

Excavate or remediate spills on pervious (soil) surfaces as quickly as possible to prevent the spread of the contamination. Any surfaces contaminated by hazardous or toxic materials should be remediated by experienced, qualified individuals to protect the health and safety of yourself and the general public.

Report all spills to the Watershed Protection Department to receive proper clean up instructions, especially for hazardous materials and large volume spills.

A material safety data sheet (MSDS) should be readily available for each hazardous chemical used and stored at the site. A MSDS contains information that enables persons responsible for handling, using or encountering chemicals to estimate the likely harm, potential hazards and risks that might arise in emergency situations involving those

chemicals. Obtain a MSDS by calling the manufacturer's phone number from the label on the chemical container.

Collect and dispose of cleaning activity waste properly.

Clean without creating any discharge of soaps, detergents, oil or other pollutants to a storm sewer or waterway. Ideally, wash equipment and vehicles at an approved wash facility over a drain to the sanitary sewer. If any washing must be done on site, use plain water only and make sure the wash water does not create silty runoff.

When cleaning paint equipment outside, contain wastewater in a bucket or other container and dispose of it properly. Dispose of water based or latex paint wastewater in the sanitary sewer (e.g. sink, toilet). Collect and dispose oil-based paint wastes, including solvents through a hazardous waste disposal company.

When cleaning paved areas, sweep up debris, pre-treat oil stains and slick spots with dry solvent (make a paste with water, kitty litter and powdered soap), and clean large areas with approved equipment such as vacuum scrubbers that collect the wastewater for proper disposal to a sanitary drain.

The following are excerpts from the TCEQ TPDES SWPPP Worksheet instructions draft 12/02/03:

Reportable Quantities for Regulated Substances

30 Texas Administrative Code §327.4

(a) Hazardous substances. The reportable quantities for hazardous substances shall be:
(1) For spills or discharges onto land--the quantity designated as the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §§302.4; or
(2) For spills or discharges into waters in the state--the quantity designated as the Final RQ in Table 302.4 in 40 CFR §§302.4, except where the Final RQ is greater than 100 pounds in which case the RQ shall be 100 pounds.
(b) Oil, petroleum product, and used oil.
(1) The RQ for crude oil and oil other than that defined as petroleum product or used oil shall be:
(A) For spills or discharges onto land--210 gallons (five barrels); or
(B) For spills or discharges directly into water in the state-quantity sufficient to create a sheen.
(2) The RQ for petroleum product and used oil shall be:
(A) Except as noted in subparagraph (B) of this paragraph, for spills or discharges onto land--25 gallons;
(B) For spills or discharges to land from PST exempted facilities--210 gallons (five barrels); or
(C) For spills or discharges directly into water in the state--quantity sufficient to create a sheen.

(c) Industrial solid waste or other substances. The RQ for spills or discharges into water in the state shall be 100 pounds.

Source Note: The provisions of this §§327.4 adopted to be effective May 23, 1996, 21 TexReg 4228.

AUSTIN CIVIL ENGINEERING

Attachment B

Potential Sources of Contamination

- Runoff and erosion of sediment and pollutants from exposed soil due to clearing and grubbing, grading, landscaping and other earthwork activities.
- Runoff from the construction equipment storage and maintenance. This may include typical automotive fluids, lubricants and fuels.
- Runoff from construction product staging, storage, and waste. This may include materials that can degrade the quality of receiving waters and make them unsafe for consumption and aquatic life.
- Runoff from paving operations may contain hydrocarbons and polyaromatic hydrocarbons.
- Runoff from lawn and landscape chemicals such as pesticides and herbicides
- Total Suspended Solids (TSS)

Attachment C

Sequence of Major Activities

(Construction may be concurrent with other elements, but must be completed in the order shown below) - See attached plans.

A. Install erosion controls as indicated on approved site plan.
   a. Silt Fence **(1,828 LF)**
   b. Construction Entrance **(1 EA)**
   c. Install tree protection. **(835 LF)**
   d. Triangular filter dike **(90 LF)**

B. Contact "the city". Schedule on-site pre-construction coordination meeting.
C. Evaluation of temporary erosion control installation. Review construction schedule with the erosion control plan.
D. Inspect and maintain all controls as per general notes.
E. The lots do not have impervious cover so only general cleaning of the area to be developed will be required. **[3.23 acres]**
F. Construct proposed elements. **[1.42 acres]**
G. Complete construction and install landscaping. **[3.23 acres]**
H. Re-vegetate disturbed areas or complete a developer's contract for the re-vegetation along with the engineer's concurrence letter. **[1.81acres]**
I. Project engineer inspects job and writes concurrence letter to the city. Final inspection is scheduled upon receipt of letter.
J. Receive operating permit and city clearance for occupancy.
K. Remove temporary erosion/sedimentation controls upon inspector's approval of adequate re-vegetation.

AUSTIN CIVIL ENGINEERING

Attachment D

Temporary Best Management Practices and Measures

- A stabilized construction entrance to trap sediment and prevent it from being tracked offsite.
- The primary temporary erosion and sedimentation control is silt fencing placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events from entering the drainage ways and receiving waters by capturing the sediment before it is able to leave the site.
- The rough-cut ponds will be used for a temporary control in capturing sediment in the site stormwater runoff.
- To prevent or reduce the discharge to pollutants to stormwater from concrete waste all concrete washout performed on site will be done within the designated concrete washout area.
- All construction debris and litter shall be collected and disposed of in designated temporary spoils and contractor staging area. Construction waste receptacles will be emptied when full and removed when project is completed.

Attachment E

Request to Temporarily Seal a Feature – This section is not applicable.

Attachment F

Structural Practices

- The primary structural practice to divert flows away from exposed soil is the silt fence placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events from entering the drainage ways and receiving waters.
- The rough cut ponds will be used as a temporary sedimentation basin
- Curb-and-gutter, when constructed, will also prevent flows from exposed soils.

Attachment G

Drainage Area Map – See attached drainage area map.

AUSTIN CIVIL ENGINEERING

Attachment H

Temporary Sediment Pond(s) Plans and Calculations

The rough cut detention and sedimentation ponds will be utilized as a temporary sediment pond. See the attached civil construction set for plans and calculations. The temporary sedimentation pond will be drained by means of a water skimmer (see example below) until the final discharge piping and headwall structure are complete.

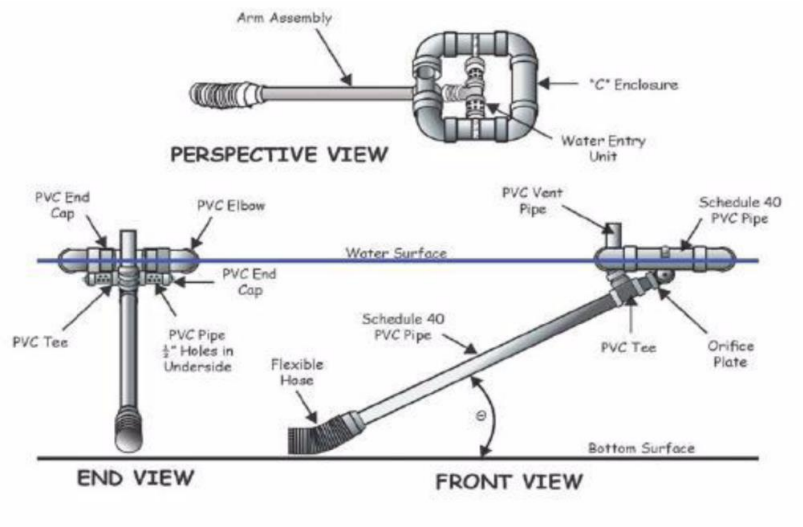


Figure 6.64a Schematic of a skimmer, from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.

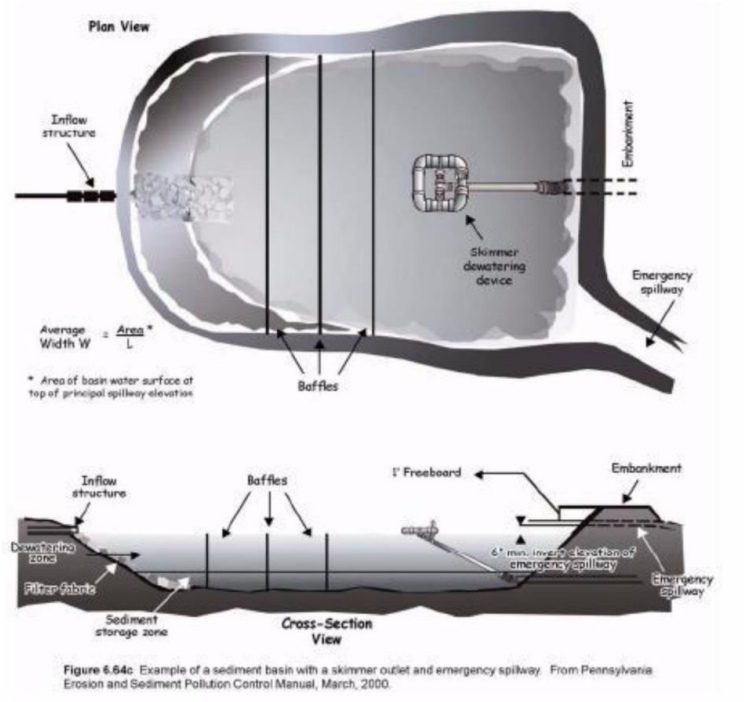


Figure 6.64c Example of a sediment basin with a skimmer outlet and emergency spillway. From Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.

AUSTIN CIVIL ENGINEERING

Attachment I

Inspection and Maintenance for BMPs. Taken from RG-348, Chapter 1.

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.

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 sections 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 vehicle 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.

Concrete Washout Area

1. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
2. Avoid mixing excess amounts of fresh concrete.
3. Perform washout of concrete trucks in designated areas only.
4. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
5. Do not allow excess concrete to be dumped onsite, except in designated areas.
6. Locate washout 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.

7. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
8. Plastic lining 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.
9. 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 the temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbances caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Triangular Sediment Filter Dikes

1. Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.

2. Inspect and realign dikes as needed to prevent gaps between sections.

3. Accumulated silt should be removed after each rainfall and disposed of in a manner which will not cause additional siltation.

4. After the site is completely stabilized, the dikes and any remaining silt should be removed. Silt should be disposed of in a manner that will not contribute to additional siltation.

Temporary Sedimentation Basin

1. Inspection should be made weekly and after each rainfall. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Repair should be made promptly as needed by the contractor.

2. Trash and other debris should be removed after each rainfall to prevent clogging of the outlet structure.

3. Accumulated silt should be removed, and the basin should be re-graded to its original dimensions at such point that the capacity of the impoundment has been reduced to 75% of its original storage capacity.

4. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.

AUSTIN CIVIL ENGINEERING

Attachment J

Schedule of Interim and Permanent Soil Stabilization Practices

As many trees and natural area as possible have been preserved, please refer to the erosion and sedimentation control plan located in the civil construction set of the "General Information" section.

All areas disturbed areas shall be restored as noted below.

A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil [see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees. The topsoil shall be composed of 3 parts of soil mixed with 1-part compost, by volume. The compost shall be Dillo Dirt or an equal approved by the Engineer, or designated representative. The approved equal, if used, shall meet the definition of compost (as defined by the U.S. Composting Council). The soil shall be locally available native soil that meets the following specifications:

- Shall be free of trash, weeds, deleterious materials, rocks, and debris.
- 100% shall pass through a 0.375-inch (3/8") screen.
- Soil Texture class to be Loam, Sandy Clay Loam, or Sandy Loam in accordance with the USDA texture triangle. Soil known locally as "red death" or Austin Sandy Loam is not an allowable soil. Textural composition shall meet the following criteria:

Texture Class	Minimum	Maximum
Clay	5%	25%
Silt	10%	50%
Sand	30%	80%

Topsoil salvaged from the existing site may often be used, but it should meet the same standards as set forth in these standards.

B. (From 30 TAC 213.5(b)(4)(D)(i)(-b-): Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Where the initiation of stabilization measures by the 14th day after construction activity temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated a soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after

construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

The vegetative stabilization of areas disturbed by construction shall be as follows:

TEMPORARY VEGETATIVE STABILIZATION:

A. From September 15 to March 1, seeding shall be with or include a cool season cover crop: (Western Wheatgrass (Pascopyrum smithii) at 5.6 pounds per acre, Oats (Avena sativa) at 4.0 pounds per acre, Cereal Rye Grain (Secale cereale) at 45 pounds per acre. Contractor must ensure that any seed application requiring a cool season cover crop does not utilize annual ryegrass (Lolium multiflorum) or perennial ryegrass (Lolium perenne). Cool season cover crops are not permanent erosion control.

B. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre or a native plant seed mix conforming to Item 604S or 609S.

   a) Fertilizer shall be applied only if warranted by a soil test and shall conform to Item No. 606S, Fertilizer. Fertilization should not occur when rainfall is expected or during slow plant growth or dormancy. Chemical fertilizer may not be applied in the Critical Water Quality Zone.

   b) Hydromulch shall comply with Table 1, below.

   c) Temporary erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95% total coverage so that all areas of a site that rely on vegetation for temporary stabilization are uniformly vegetated, and provided there are no bare spots larger than 10 square feet.

   d) When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, and Standard Specification 604S or 609S.

Table 1: Hydromulching for Temporary Vegetative Stabilization

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 height of less than one-half (½) inch and the area shall be re-seeded in accordance with Table 2 below. Alternatively, the cool season cover crop can be mixed with Bermudagrass or native seed and installed together, understanding that germination of warm-season seed typically requires soil temperatures of 60 to 70 degrees.

2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 45 pounds per acre with a purity of 95% and a minimum pure live seed (PLS) of 0.83. Bermuda grass is a warm season grass and is considered permanent erosion control. Permanent vegetative stabilization can also be accomplished with a native plant seed mix conforming to Item 604S or 609S.

a) Fertilizer use shall follow the recommendation of a soil test. See Item 606S, Fertilizer. Applications of fertilizer (and pesticide) on City-owned and managed property requires the yearly submittal of a Pesticide and Fertilizer Application Record, along with a current copy of the applicator's license. For current copy of the record template contact the City of Austin's IPM Coordinator.

b) Hydromulch shall comply with Table 2, below.

c) Water the seeded areas immediately after installation to achieve germination and a healthy stand of plants that can ultimately survive without supplemental water. Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil. Maintain the seedbed in a moist condition favorable for plant growth. All watering shall comply with City Code Chapter 6-4 (Water Conservation), at rates and frequencies determined by a licensed irrigator or other qualified professional, and as allowed by the Austin Water Utility and current water restrictions and water conservation initiatives.

d) Permanent erosion control shall be acceptable when the grass has grown at least 1½ inches high with a minimum of 95 percent for the non-native mix, and 95 percent coverage for the native mix so that all areas of a site that rely on vegetation for stability must be uniformly vegetated, and provided there are no bare spots larger than 10 square feet.

e) When required, native plant seeding shall comply with requirements of the City of Austin Environmental Criteria Manual, Items 604S and 609S.

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	2,500 to 4,000 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	3,000 to 4,500 lbs per acre (see manufacturers recommendations)

AUSTIN CIVIL ENGINEERING

Table 2: Hydromulching for Permanent Vegetative Stabilization

Permanent 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)(C), (D)(Ii), (E), and (5), 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.

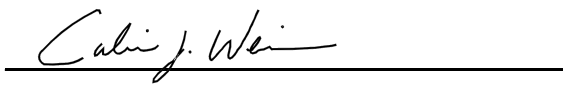
Signature

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 **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Calvin J. Weiman

Date: 08/09/2023

Signature of Customer/Agent



Regulated Entity Name: The Offices at William Cannon

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

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

   ☐ N/A

2. ☒ 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

3. ☒ 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

4. 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.

5. 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 A - 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.

6. ☒ **Attachment B - 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.

7. ☒ **Attachment C - 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.

8. ☐ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☒ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)
☒ TCEQ construction notes
☒ All geologic features
☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - 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

13. ☒ **Attachment I -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 results in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ 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.

    ☐ N/A

15. ☒ 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.

    ☐ N/A

AUSTIN CIVIL ENGINEERING

PROJECT: The Offices at William Cannon
Address: 3101 W William Cannon Dr, Austin, Texas 78745

Owner: Jubilee Christian Center

Permanent Storm Water Section

Attachment A
20% or Less Impervious Cover Waiver – This item is not applicable.

Attachment B
BMPs for Upgradient Stormwater

The runoff from three off-site drainage basins discharges into the lots to be developed, of which only the *Offsite Dev. DA 1* would cross the proposed development with the new impervious cover, all discharge from the area would be treated by the partial sedimentation/biofiltration pond and irrigation system, the other areas would not be affected by the development and would follow their natural course.

Attachment C
BMPs for On-site Stormwater

The runoff from drainage basin **Dev. DA 2** within the lots will be directed to the partial sedimentation/biofiltration pond and irrigation system via overland flow. The water quality pond is required to have a total capture volume of 11,482 cubic feet and analysis of the proposed water system indicates an available storage of 11,898 cubic feet at the maximum WS elevation of 732.75 msl.

Attachment D
BMPs for Surface Streams – This item is not applicable.

Attachment E
Request to Seal Features – This item is not applicable.

Attachment F
See attached Civil Construction plans and support exhibits.

Attachment G
Inspection, Maintenance, Repair and Retrofit Plan – **See attached G.**

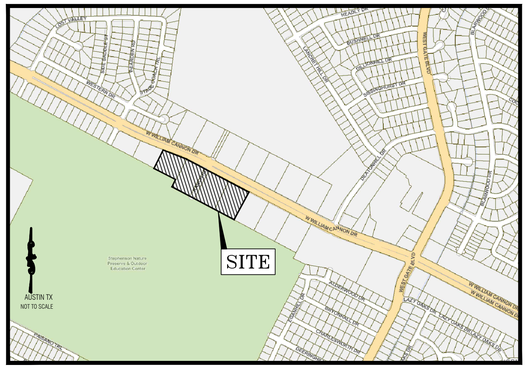
Attachment H
Pilot-Scale Field Testing Program – This item is not applicable.

Attachment I
Measures for Minimizing Surface Stream Contamination

AUSTIN CIVIL ENGINEERING

To minimize surface stream contamination, the proposed runoff during construction will be directed towards the temporary BMPs via overland flow. Once the development has been completed, the water runoff will be directed to the water quality and detention facilities, which will have an outlet structure designed to prevent erosion and decrease flows and velocities of the discharged water.

VICINITY MAP



CITY OF AUSTIN GRID # E17 MAPSCO PG: 643K , 643P

THE OFFICES AT WILLIAM CANNON

3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

CASE NUMBER: SP-2023-0271C
SUBMITTAL DATE: 07/18/2023

SHEET INDEX

PROJECT DATA

ACREAGE:	LOT 52 = 1.37 AC, LOT 53 = 1.56 AC, LOT 54 = 1.73 AC, LOT 55 = 1.71 AC TOTAL: 6.37 AC
LEGAL DESCRIPTION:	LOT 52 LESS N30FT WESTERN HILLS LOT 53 LESS N30FT AV WESTERN HILLS +.261AC VACATED ROW LOT 54 * LESS N30FT WESTERN HILLS +.261AC VACATED ROW LOT 55 * LESS N30FT WESTERN HILLS
ADDRESS:	3101 W WILLIAM CANNON DR AUSTIN,TEXAS 78754
ZONING:	LO-CO
LAND USE SUMMARY:	COMMON AREA AND UN-DEVELOPED
DATE:	07/14/2023
BENCHMARK:	BENCHMARK #1 ELEVATION: 732.13' DESCRIPTION: MAG NAIL WITH DOUCET SHINER SET IN TOP OF CONCRETE STORM INLET. LOCATED ON THE SOUTH RIGHT-OF-WAY LINE OF WEST WILLIAM CANNON DRIVE APPROXIMATELY 1,440 FEET SOUTHEAST FROM THE INTERSECTION OF WEST WILLIAM CANNON DRIVE AND STAGECOACH TRAIL.
STREET CLASSIFICATION:	MAJOR ARTERIAL ROAD
UNIFIED DEVELOPMENT AGREEMENT:	_____

GENERAL NOTES

- THIS SITE IS LOCATED WITHIN THE EDWARD'S AQUIFER RECHARGE ZONE.
- THIS PROJECT IS LOCATED IN THE WILLIAMSON CREEK WATERSHED, CLASSIFIED AS BARTON SPRINGS ZONE, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN CONFORMANCE WITH THE TERMS AND CONDITIONS OF THE CITY OF AUSTIN WATERSHED DEVELOPMENT ORDINACE
- THIS TRACT IS WITHIN THE ZONE "X" AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA) FLOOD INSURANCE RATE MAP PANEL NO. 48453C0580 H, REVISED DATE SEPTEMBER 26, 2008 FOR TRAVIS COUNTY, TEXAS. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR / CIVIL ENGINEER.
- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- ENGINEER HAS RESEARCHED CODES, ORDINANCES AND OTHER REQUIREMENTS OF LOCAL, STATE AND FEDERAL JURISDICTION INCLUDING FIRE DEPARTMENTS OF CITY AND COUNTY. THE PROPOSED SITE PLAN IS IN COMPLIANCE WITH THESE REQUIREMENTS. IN ADDITION THE ENGINEER AND DEVELOPER HAVE HAD MEETINGS WITH AND COMMUNICATED WITH THE CITY STAFF REGARDING THE PROPOSED DEVELOPMENT. NO FORMAL SUBMISSION TO THE CITY HAS BEEN MADE, HOWEVER BASED ON THE PREDEVELOPMENT MEETINGS AND PRELIMINARY REVIEWS CITY STAFF DOES NOT SEE ANY REASON THAT THE PROPOSED PLAN WOULD NOT BE APPROVED.
- WATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
- WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN.
- * CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION *.
- THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.
- RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AS CONSTRUCTED (THE SURVEYOR/ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES, ONLY THE VISIBLE ABOVE GROUND UTILITY STRUCTURES.) THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 811, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF UTILITY CROSSING PRIOR TO BEGINNING CONSTRUCTION.
- THE SIZE AND LOCATION OF UTILITY STRUCTURES, (IF SHOWN), MAY BE EXAGGERATED FOR GRAPHICAL CLARITY.
- ALL TREES ARE TO BE PROTECTED DURING CONSTRUCTION,
- APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH THE APPLICABLE CITY REGULATIONS ONLY. APPROVAL BY OTHER GOVERNMENTAL ENTITIES MAY BE REQUIRED PRIOR TO THE START OF CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR DETERMINING WHAT ADDITIONAL APPROVALS MAY BE NECESSARY.
- RETAINING WALLS OVER FOUR FEET IN HEIGHT, MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL, SHALL BE ENGINEERED AND WILL REQUIRE A SEPARATE PERMIT (UNIFORM BUILDING CODE 106.2.5).
- STORMWATER CONTROL MEASURES REQUIRED FOR COMMERCIAL AND MULTI-FAMILY DEVELOPMENT WILL BE MAINTAINED BY THE PROPERTY OWNER.

OWNER

JUBILEE CHRISTIAN CENTER
JIMMY SEAL
2909 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745
PHONE: (512) 627-3050

UTILITIES

AUSTIN WATER UTILITY
CITY OF AUSTIN
625 E. 10TH STREET
AUSTIN, TEXAS 78701
CONTACT:
PHONE: (512) 972-0238

TELEPHONE
AT&T
712 EAST HUNTLAND DRIVE, ROOM 229
AUSTIN, TEXAS 78752
CONTACT: MICHAEL THURMAN
PHONE: (512) 870-4708

ELECTRIC
AUSTIN ENERGY CONTACT
DON PLEASANT
2412 KRAMER LANE, BLDG. C
AUSTIN, TEXAS 78758
PHONE: (512) 505-7223

ONE-CALL
UTILITY LOCATING SERVICE
CONTRACTOR TO CALL BEFORE DIGGING !! PHONE:
1(800) DIG-TESS = 1(800) 344-8377

CONSULTANTS

CIVIL ENGINEER
AUSTIN CIVIL ENGINEERING, INC.
9501-B MENCHACA ROAD, SUITE 220
AUSTIN, TEXAS 78748
PHONE: (512) 306-0018

SURVEYOR
D&A DOUCET & ASSOCIATES
7401 B. HIGHWAY 71 W, SUITE 160
AUSTIN, TEXAS 78735
PHONE: (512) 583-2600

LANDSCAPE

AUSTIN, TEXAS
PHONE: (512) ___-____

STATE OF TEXAS

COUNTY OF TRAVIS
I, CALVIN J. WEIMAN, P.E., DO HEREBY CERTIFY THAT THE ENGINEERING WORK BEING SUBMITTED HEREIN COMPLIES WITH THE TEXAS ENGINEERING PRACTICE ACT, INCLUDING SECTION 131.152(e). I HEREBY ACKNOWLEDGE THAT ANY MISREPRESENTATION REGARDING THIS CERTIFICATION CONSTITUTES A VIOLATION OF THE ACT, AND MAY RESULT IN CRIMINAL, CIVIL AND/OR ADMINISTRATIVE PENALTIES AGAINST ME, AS AUTHORIZED BY THE ACT.

STATE OF TEXAS · CALVIN J. WEIMAN · 141995 · LICENSED · PROFESSIONAL · ENGINEER

07/14/23
CALVIN J. WEIMAN, P.E. DATE

APPLICABLE WATERSHED ORDINANCE OPERATING PERMIT:_____

WHERE APPLICABLE UNDER 25-8-233 :_____

WPDR SIGN-OFF AND DATE: _____

ACCEPTED FOR CONSTRUCTION:

REVIEWED BY:

DEVELOPMENT SERVICE DEPARTMENT DATE

AUSTIN WATER DATE

AUSTIN FIRE DEPARTMENT DATE

INDUSTRIAL WASTE DATE

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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

NUMBER	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO.'S	TOTAL # SHEETS IN PLAN SET	NET CHANGE IMP. COVER (SQ. FT.)	TOTAL SITE IMP. COVER (SQ. FT.)/%	CITY OF AUSTIN APPROVAL-DATE

THE CRITICAL ENVIRONMENTAL FEATURE (CEF) BUFFERS MUST BE MAINTAINED PER CITY OF AUSTIN CODE AND CRITERIA. EXISTING DRAINAGE AND NATIVE VEGETATION SHALL REMAIN UNDISTURBED TO ALLOW THE WATER QUALITY FUNCTION OF THE BUFFER. INSPECTION AND MAINTENANCE OF BUFFER SHALL OCCUR SEMIANNUALLY IN ACCORDANCE TO CITY OF AUSTIN CODE AND CRITERIA.

ALL ACTIVITIES WITHIN THE CRITICAL ENVIRONMENTAL FEATURES (CEF) BUFFER MUST COMPLY WITH THE CITY OF AUSTIN CODE AND CRITERIA. THE NATURAL VEGETATIVE COVER MUST BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE; CONSTRUCTION IS PROHIBITED; AND WASTEWATER DISPOSAL OR IRRIGATION IS PROHIBITED

SITE PLAN APPROVAL SHEET 1 OF 26
FILE NUMBER: SP-2023-0271C APPLICATION DATE: 07/18/2023
APPROVED BY COMMISSION ON: _____ UNDER SECTION 112 (or 142) OF CHAPTER 25-5 OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81, LDC) _____
CASE MANAGER KATE CASTLES
PROJECT EXPIRATION DATE (ORD.#970905-A):_____ DWPZ____DDZ 100%

~~Director, Development Services Department~~
RELEASE FOR GENERAL COMPLIANCE: _____ ZONING: LO-CO
Rev. 1 _____ Correction 1: _____
Rev. 2 _____ Correction 2: _____
Rev. 3 _____ Correction 3: _____

Final plat must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the Project Expiration Date.

SP-2023-0271C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS · CALVIN J. WEIMAN · 141995 · LICENSED · PROFESSIONAL · ENGINEER
07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22-050		DATE: 7/14/23	
CAD: DA/MM		CHK'D BY:	
ENGINEER: CW		CHK'D BY:	
SCALE:			

COVER SHEET

SITE CIVIL PLAN

1 of 26

STANDARD CONSTRUCTION NOTES NOVEMBER 23, 2017

1. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.

2. CONTRACTOR MUST OBTAIN A STREET CUT PERMIT FROM AUSTIN TRANSPORTATION DEPARTMENT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT–OF–WAY OF A PUBLIC STREET OR ALLEY.

3. AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER AND WASTEWATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY AUSTIN TRANSPORTATION INSPECTION OR DEVELOPMENT SERVICES DEPARTMENT (DSD) INSPECTIONS AT THE NUMBER INDICATED ON THE PLANS BY THE AW PLAN REVIEWER.

4. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1–800–344–8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.

5. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.

6. THE CITY SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE.

7. ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04.

8. PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.

9. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 510.3(22) AND SPL WW 27–A and WW 27–F.

10. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 511S.4 AND SHALL BE PAINTED FLYNT ALUMINUM OR EQUAL. FIRE HYDRANTS AND ASSOCIATED VALVES, TEN (10) YEARS AND OLDER WILL BE REQUIRED TO BE REPLACED WITH A NEW FIRE HYDRANT AND APPERTENUNANCES.

11. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)–(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.

12. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.

13. WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS PE, THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD OR REPLACED THE FULL LENGTH WITH TYPE K COPPER MATERIAL. ANY TIME PB IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE SERVICE LINE SHALL BE REPLACED FULL LENGTH WITH TYPE K COPPER MATERIAL. NOTE: FULL LENGTH IS FROM CORPORATION STOP TO METER.

14. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF SEVENTY–TWO (72) HOURS IN ADVANCE.

15. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972–0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.

16. WATER AND WASTE WATER SERVICES WILL NEED TO BE REPLACED UP TO THE MAIN. REPAIR COUPLINGS ARE NOT ALLOWED ON NEW INSTALLTIONS.

17. ALL MANHOLES IN UNPAVED AREAS PROVIDING DIRECT ACCESS TO A WASTEWATER LINE SHALL BE WATERTIGHT AND BEAR THE WORDING AND INSIGNIA FOR THE CITY OF AUSTIN.

18. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.

19. ALL WATER AND WASTEWATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED IN CHAPTER 290 – DRINKING WATER STANDARDS, CHAPTER 217 – DESIGN CRITERIA FOR SEWERAGE SYSTEMS AMD CHAPTER 210 – DESIGN CRIERIA FOR RECLAIMED SYSTEMS OF TCEQ RULES.

20. CONTRACTOR'S PERSONNEL THAT PERFORM BUTT FUSION AND ELECTROFUSION ON OR TO HDPE PIPE AND FITTINGS MUST HAVE CURRENT QUALIFICATION TRAINING CERTIFICATE ISSUED BY MCELROY OR COMPARABLE TRAINING PROGRAM.

21. SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL STRUCTURAL ENGINEER, REGISTERED IN THE STATE OF TEXAS, SHALL BE SUBMITTED FOR AUSTIN WATER APPROVAL FOR LARGE DIAMETER PRE–CAST MANHOLES, JUNCTION BOXES, WET WELLS, AND SIMILAR STRUCTURES. THE SHOP DRAWINGS SHALL INCLUDE FLOWLINE ELEVATIONS OF ALL INCOMING AND OUTGOING PIPES, ELEVATION OF TRANSITION FROM LARGE DIAMETER SECTIONS TO 48" ID SECTION, TOP OF MANHOLE ELEVATION, SURROUNDING GROUND ELEVATION, AS WELL AS SPECIAL CONSTRUCTION CONSIDERATIONS THAT ARE SPECIFIED IN THE CONTRACT DRAWINGS.

22. VALVE STEM EXTENSIONS SHALL CONSIST OF A SINGLE PIECE OF IRON ROD OF THE REQUIRED LENGTH WITH A SOCKET ON ONE END AND NUT ON THE OTHER.

23. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE ESSENTIALLY "LEAD FREE" ACCORDING TO THE US SAFE DRINKING WATER ACT. EXAMPLES ARE VALVES (CORPORATION STOP, CURB STOP, AND PRESSURE REDUCING), NIPPLES, BUSHINGS, PIPE, FITTINGS, BACKFLOW PREVENTERS AND FIRE HYDRANTS. TAPPING SADDLES AND 2 INCH AND LARGER GATE VALVES ARE THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT EITHER BY MARKINGS ON THE COMPONENT OR ON THE PACKAGING SHALL NOT BE INSTALLED.

24. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR TO RETURN TO: PIPELINE OPERATIONS DISTRIBUTION SYSTEM MAINTENANCE, VALVES AND HYDRANT SERVICES, SUPERVISING AW PIPELINE TECHNICIAN AT 512–972–1133

25. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT, SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE DSD INSPECTOR.

26. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT INFORMATION FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.

27. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.

28. ALL GRAVITY LINES SHALL BE INSTALLED DOWNSTREAM TO UPSTREAM.

29. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.

30. PROTECTED STREET STATUS IS SUBJECT TO CHANGE OVER TIME. IT IS THE OWNER'S RESPONSIBILITY TO CONFIRM THE STREET STATUS PRIOR TO CONSTRUCTION AS PROTECTED STREET STATUS WILL DIRECTLY IMPACT THE CONSTRUCTION COSTS. IF PROTECTED STREETS ARE PROPOSED TO BE DISTURBED, APPROVAL FROM THE STREET AND BRIDGE DIVISION OF THE TRANSPORTATION DEPARTMENT IS REQUIRED.

ELECTRIC GENERAL NOTES

1. AUSTIN ENERGY HAS THE RIGHT TO PRUNE AND/OR REMOVE TREES, SHRUBBERY AND OTHER OBSTRUCTIONS TO THE EXTENT NECESSARY TO KEEP THE EASEMENTS CLEAR. AUSTIN ENERGY WILL PERFORM ALL TREE WORK IN COMPLIANCE WITH CHAPTER 25–8, SUBCHAPTER B OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
2. THE OWNER/DEVELOPER OF THIS SUBDIVISION/LOT SHALL PROVIDE AUSTIN ENERGY WITH ANY EASEMENT AND/OR ACCESS REQUIRED, IN ADDITION TO THOSE INDICATED, FOR THE INSTALLATION AND ONGOING MAINTENANCE OF OVERHEAD AND UNDERGROUND ELECTRIC FACILITIES. THESE EASEMENTS AND/OR ACCESS ARE REQUIRED TO PROVIDE ELECTRIC SERVICE TO THE BUILDING AND WILL NOT BE LOCATED SO AS TO CAUSE THE SITE TO BE OUT OF COMPLIANCE WITH CHAPTER 25–8 OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE.
3. THE OWNER SHALL BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY EROSION CONTROL, REVEGETATION AND TREE PROTECTION. IN ADDITION, THE OWNER SHALL BE RESPONSIBLE FOR ANY INITIAL TREE PRUNING AND TREE REMOVAL THAT IS WITHIN TEN FEET OF THE CENTER LINE OF THE PROPOSED OVERHEAD ELECTRICAL FACILITIES DESIGNED TO PROVIDE ELECTRIC SERVICE TO THIS PROJECT. THE OWNER SHALL INCLUDE AUSTIN ENERGY'S WORK WITHIN THE LIMITS OF CONSTRUCTION FOR THIS PROJECT.
4. THE OWNER OF THE PROPERTY IS RESPONSIBLE FOR MAINTAINING CLEARANCES REQUIRED BY THE NATIONAL ELECTRIC SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, CITY OF AUSTIN RULES AND REGULATIONS AND TEXAS STATE LAWS PERTAINING TO CLEARANCES WHEN WORKING IN CLOSE PROXIMITY TO OVERHEAD POWER LINES AND EQUIPMENT. AUSTIN ENERGY WILL NOT RENDER ELECTRIC SERVICE UNLESS REQUIRED CLEARANCES ARE MAINTAINED. ALL COSTS INCURRED BECAUSE OF FAILURE TO COMPLY WITH THE REQUIRED CLEARANCES WILL BE CHARGED TO THE OWNER.

EROSION & SEDIMENTATION CONTROL

1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SODDED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURE OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.
3. SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS AND SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL BE REGULARLY INSPECTED BY THE CITY OF AUSTIN FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY ENGINEER, THEY ARE WARRANTED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL OF THE PROJECT BY THE ENGINEER AND THE CITY ENVIRONMENTAL INSPECTOR. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER.

GENERAL CONSTRUCTION NOTES

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF AUSTIN MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

2. CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1–800–344–8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.

3. CONTRACTOR SHALL NOTIFY THE CITY OF AUSTIN – SITE & SUBDIVISION DIVISION TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE–CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT HTTP://AUSTINTEXAS.GOV/PAGE/COMMERCIAL–SITE–AND–SUBDIVISION–INSPECTIONS FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.

4. FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, AUSTIN TEXAS.)

5. ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.

6. UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS: RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT (INSIDE THE CITY LIMITS); OR INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE–MILE ETJ)

DEVELOPER INFORMATION

OWNER JUBILEE CHRISTIAN CENTER JIMMY SEAL
PHONE # (512) 627-3050
OWNER ADDRESS 2909 W WILLIAM CANNON DR AUSTIN, TX. 78745
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS HUNTER SHADBURNE P.E. AUSTIN CIVIL ENG
PHONE # PHONE: (512) 306-0018
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE CONTRACTOR TO BE SELECTED
PHONE # PHONE: (512) ___-____
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE CONTRACTOR TO BE SELECTED
PHONE # PHONE: (512) ___-____

AMERICANS WITH DISABILITIES ACT

THE CITY OF AUSTIN HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE

FILL PLACEMENT & COMPACTION

THE BORROW SOILS INCORPORATED INTO THE EMBANKMENT SHOULD BE PLACED IN LIFTS SUCH THAT ALL LIFTS ARE BONDED TOGETHER, THE SPECIFIC DENSITIES ARE MET THROUGHOUT EACH LIFT, THE MOISTURE CONTENT IS UNIFORM THROUGHOUT THE FILL, AND CLODS ARE BROKEN DOWN AND BONDED INTO THE REST OF THE LIFT THICKNESS SHOULD WITHOUT NESTING AND VOIDS. THE MAXIMUM LOOSE LIFT THICKNESS SHOULD BE ABOUT 8 INCHES AND COMPACTED TO 95% OF TxDOT TEST METHOD TEX–113–E MOISTURE CONTENTS SHOULD BE MAINTAINED WITH THE RANGE OF −1% TO +3% OF OPTIMUM MOISTURE CONTENT. BORROW SOILS MORE THAN ABOUT 3% DRY OF OPTIMUM SHOULD BE PRE WETTED IN THE BORROW AREA, AND SHOULD NOT BE PLACED ON THE FILL UNTIL THEIR MOISTURE CONTENTS HAVE EQUILIBRATED. THE EXISTING SLOPES SHOULD BE BENCHED TO ALLOW THE EMBANKMENT MATERIAL TO BE PLACED IN HORIZONTAL LIFTS, RATHER THAN PLATING THE EXITING SLOPES.

COMPATIBILITY

1. HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.

2. THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 D.B.A. AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.

3. ALL EXTERIOR LIGHTING SHALL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL USES, OR PROPERTY ZONED RESIDENTIAL.

4. EXTERIOR LIGHTING ABOVE THE SECOND FLOOR IS PROHIBITED WHEN ADJACENT TO RESIDENTIAL PROPERTY.

5. ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF–5 OR MORE RESTRICTIVE.

ORDINANCE REQUIREMENTS

1. ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE A SITE PLAN AMENDMENT AND APPROVAL FROM THE DEVELOPMENT SERVICES DEPARTMENT.

2. APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE APPROVAL; FIRE CODE APPROVAL; OR BUILDING, DEMOLITION, OR RELOCATION PERMITS APPROVAL. A CITY DEMOLITION OR RELOCATION PERMIT CAN ONLY BE ISSUED ONCE THE HISTORIC REVIEW PROCESS IS COMPLETED.

3. ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE CITY OF AUSTIN LAND DEVELOPMENT CODE. THE OWNER IS RESPONSIBLE FOR ALL COSTS OF RELOCATION OF, OR DAMAGE TO, UTILITIES.

4. ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.

5. A SITE DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NONCONSOLIDATED OR LAND USE COMMISSION APPROVED SITE PLANS.

6. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF AUSTIN —OR IDENTIFY THE SERVICE PROVIDER IF OTHER THAN THE CITY OF AUSTIN.

7. NO CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR THE PROPOSED RESIDENTIAL CONDOMINIUM PROJECT UNTIL THE OWNER OR OWNERS OF THE PROPERTY HAVE COMPLIED WITH CHAPTER 81 AND 82 OF THE PROPERTY CODE OF THE STATE OF TEXAS OR ANY OTHER STATUTES ENACTED BY THE STATE CONCERNING CONDOMINIUMS.

8. FOR CONSTRUCTION WITHIN THE RIGHT–OF–WAY, A R.O.W. EXCAVATION PERMIT IS REQUIRED.

FIRE DEPARTMENT

1. THE AUSTIN FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL–WEATHER DRIVING SURFACE."

2. HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE FOUR–INCH OPENING AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE FOUR–INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH THREE– TO SIX–FOOT SETBACKS FROM THE CURBLINE(S). NO OBSTRUCTION IS ALLOWED WITHIN THREE FEET OF ANY HYDRANT AND THE FOUR–INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.

3. TIMING OF INSTALLATION: WHEN FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION. WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE FIRE CHIEF, ARE PROVIDED, THE ABOVE MAY BE MODIFIED OR WAIVED.

4. ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE–VEHICLE ANY PERVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.

5. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES.

6. FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH CITY OF AUSTIN FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL.

7. VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 14 FEET FOR FULL WIDTH OF ACCESS DRIVE.

APPENDIX P-1 - EROSION CONTROL NOTES

1.THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2.THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE COA ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY COA EV PLAN REVIEWERS AS WELL AS COA EV INSPECTORS.
— PLAN SHEETS SUBMITTED TO THE CITY OF AUSTIN MUST SHOW THE FOLLOWING:

✓ DIRECTION OF FLOW DURING GRADING OPERATIONS.
✓ LOCATION, DESCRIPTION, AND CALCULATIONS FOR OFF-SITE FLOW DIVERSION STRUCTURES.
✓ AREAS THAT WILL NOT BE DISTURBED; NATURAL FEATURES TO BE PRESERVED.
✓ DELINEATION OF CONTRIBUTING DRAINAGE AREA TO EACH PROPOSED BMP (E.G., SILT FENCE, SEDIMENT BASIN, ETC.)
✓ LOCATION AND TYPE OF E&S BMPS FOR EACH PHASE OF DISTURBANCE.
✓ CALCULATIONS FOR BMPS AS REQUIRED.
✓ LOCATION AND DESCRIPTION OF TEMPORARY STABILIZATION MEASURES.
✓ LOCATION OF ON-SITE SPOILS, DESCRIPTION OF HANDLING AND DISPOSAL OF BORROW MATERIALS, AND DESCRIPTION OF ON-SITE PERMANENT SPOILS DISPOSAL AREAS, INCLUDING SIZE, DEPTH OF FILL AND REVEGETATION PROCEDURES.
✓ DESCRIBE SEQUENCE OF CONSTRUCTION AS IT PERTAINS TO ESC INCLUDING THE FOLLOWING ELEMENTS:

1.INSTALLATION SEQUENCE OF CONTROLS (E.G. PERIMETER CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC.)
2.PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
3.SEQUENCE OF GRADING OPERATIONS AND NOTATION OF TEMPORARY STABILIZATION MEASURES TO BE USED
4.SCHEDULE FOR CONVERTING TEMPORARY BASINS TO PERMANENT WQ CONTROLS
5.SCHEDULE FOR REMOVAL OF TEMPORARY CONTROLS
6.ANTICIPATED MAINTENANCE SCHEDULE FOR TEMPORARY CONTROLS
— CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW:

3.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
3.2 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
3.3 STABILIZE SOILS
3.4 PROTECT SLOPES
3.5 PROTECT STORM DRAIN INLETS
3.6 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
3.7 RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
3.8 ESTABLISH STABILIZED CONSTRUCTION EXITS
3.9 ANY ADDITIONAL BMPS

— NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).

— FOR ANY STRUCTURAL BMPS, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.

— FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.

3.THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4.A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT, 974-2278, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. COA APPROVED ESC PLAN AND TPDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COA EV INSPECTOR AT THIS TIME.
5.ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY AUTHORIZED COA STAFF. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
6.THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER- INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE 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.
7.PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8.ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF AUSTIN ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
9.TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:
A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
• TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.

AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.

• SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.

THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

1.FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH OR INCLUDE A COOL SEASON COVER CROP: (WESTERN WHEATGRASS (PASCOPYRUM SMITHII) AT 5.6 POUNDS PER ACRE, OATS (AVENA SATIVA) AT 4.0 POUNDS PER ACRE, CEREAL RYE GRAIN (SECALE CEREALE) AT 45 POUNDS PER ACRE. CONTRACTOR MUST ENSURE THAT ANY SEED APPLICATION REQUIRING A COOL SEASON COVER CROP DOES NOT UTILIZE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) OR PERENNIAL RYEGRASS (LOLIUM PERENNE). COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
2.FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE OR A NATIVE PLANT SEED MIX CONFORMING TO ITEMS 604S OR 609S.
A. FERTILIZER SHALL BE APPLIED ONLY IF WARRANTED BY A SOIL TEST AND SHALL CONFORM TO ITEM NO. 606S, FERTILIZER. FERTILIZATION SHOULD NOT OCCUR WHEN RAINFALL IS EXPECTED OR DURING SLOW PLANT GROWTH OR DORMANCY. CHEMICAL FERTILIZER MAY NOT BE APPLIED IN THE CRITICAL WATER QUALITY ZONE.
B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95% TOTAL COVERAGE SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR TEMPORARY STABILIZATION ARE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET.
D. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, AND STANDARD SPECIFICATIONS 604S OR 609S.

TABLE 1: HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

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	1,500 to 2,000 lbs per acre

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 HEIGHT OF LESS THAN ONE-HALF (½) INCH AND THE AREA SHALL BE RE-SEEDED IN ACCORDANCE WITH TABLE 2 BELOW. ALTERNATIVELY, THE COOL SEASON COVER CROP CAN BE MIXED WITH BERMUDAGRASS OR NATIVE SEED AND INSTALLED TOGETHER, UNDERSTANDING THAT GERMINATION OF WARM-SEASON SEED TYPICALLY REQUIRES SOIL TEMPERATURES OF 60 TO 70 DEGREES.
2.FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE WITH A PURITY OF 95% AND A MINIMUM PURE LIVE SEED (PLS) OF 0.83. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL. PERMANENT VEGETATIVE STABILIZATION CAN ALSO BE ACCOMPLISHED WITH A NATIVE PLANT SEED MIX CONFORMING TO ITEMS 604S OR 609S.
A. FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 606S, FERTILIZER. APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, ALONG WITH A CURRENT COPY OF THE APPLICATOR'S LICENSE. FOR CURRENT COPY OF THE RECORD TEMPLATE CONTACT THE CITY OF AUSTIN'S IPM COORDINATOR.
B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
C. WATER THE SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO ACHIEVE GERMINATION AND A HEALTHY STAND OF PLANTS THAT CAN ULTIMATELY SURVIVE WITHOUT SUPPLEMENTAL WATER. APPLY THE WATER UNIFORMLY TO THE PLANTED AREAS WITHOUT CAUSING DISPLACEMENT OR EROSION OF THE MATERIALS OR SOIL. MAINTAIN THE SEEDBED IN A MOIST CONDITION FAVORABLE FOR PLANT GROWTH. ALL WATERING SHALL COMPLY WITH CITY CODE CHAPTER 6-4 (WATER CONSERVATION), AT RATES AND FREQUENCIES DETERMINED BY A LICENSED IRRIGATOR OR OTHER QUALIFIED PROFESSIONAL, AND AS ALLOWED BY THE AUSTIN WATER UTILITY AND CURRENT WATER RESTRICTIONS AND WATER CONSERVATION INITIATIVES.
D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH A MINIMUM OF 95 PERCENT FOR THE NON-NATIVE MIX, AND 95 PERCENT COVERAGE FOR THE NATIVE MIX SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY MUST BE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 16 SQUARE FEET.
E. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEMS 604S AND 609S.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

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	2,500 to 4,000 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 manufactures recommendations)

10.DEVELOPER INFORMATION:
OWNER JUBILEE CHRISTIAN CENTER JIMMY SEAL
PHONE # (512) 627-3050
ADDRESS 2909 W WILLIAM CANNON DR AUSTIN, TX. 78745
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS: HUNTER SHADBURNE P.E. AUSTIN CIVIL ENG
PHONE # (512) 306-0018
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE: CONTRACTOR TO BE SELECTED
PHONE # (512) ___-____
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE: CONTRACTOR TO BE SELECTED
PHONE # (512) ___-____

11.THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT AT 974-2278 AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

TRENCH SAFETY NOTES

1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD OR COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE TRENCH SAFETY PLAN REVIEWED, SIGNED, AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.
2. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED TO THE ENGINEER FOR REVIEW BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET OR MORE IN DEPTH OR TRENCHES LESS THAT 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE, THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGNED BY A PROFESSIONAL ENGINEER, ARE SUBMITTED TO AND ACCEPTED BY THE CITY OF AUSTIN.

APPENDIX P–6:–REMEDIAL TREE CARE NOTES AERATION AND SUPPLEMENTAL NUTRIENT REQUIREMENTS FOR TREES WITHIN CONSTRUCTION AREAS

- AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE PROGRAM PER ENVIRONMENTAL CRITERIA MANUAL SECTION 3.5.4, PRESERVED TREES WITHIN THE LIMITS OF CONSTRUCTION MAY REQUIRE SOIL AERATION AND SUPPLEMENTAL NUTRIENTS. SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. THE CITY ARBORIST MAY REQUIRE THESE ANALYSES AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSES INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION, SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ORGANIC MATERIAL OR BENEFICIAL MICROORGANISMS ARE NEEDED TO IMPROVE SOIL HEALTH. MATERIALS AND METHODS ARE TO BE APPROVED BY THE CITY ARBORIST (512–974–1876) PRIOR TO APPLICATION. THE OWNER OR GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND IENSURE COORDINATION WITH THE CITY ARBORIST.
- PRE–CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION. MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION, SOIL TREATMENT, MULCHING, AND PROPER PRUNING.
- POST–CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. CONSTRUCTION ACTIVITIES OFTEN RESULT IN A REDUCTION IN SOIL MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY. TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS AS APPROVED BY THE CITY ARBORIST. THE PROPOSED NUTRIENT MIX SPECIFICATIONS AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED BY THE CITY ARBORIST PRIOR TO APPLICATION (FAX # 512–974–3010). CONSTRUCTION WHICH WILL BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT ½ RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CITY ARBORIST. WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED TO THE CITY ARBORIST, PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. P.O. BOX 1088, AUSTIN, TX 78767. THIS NOTE SHOULD BE REFERENCED AS ITEM #1 IN THE SEQUENCE OF CONSTRUCTION.

TREE AND NATURAL AREA PROTECTION STANDARD PLAN NOTES:

BEFORE CONSTRUCTION

- ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED PER ECM 3.6.1.
- TREE PROTECTION SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE WORK, INCLUDING DEMOLITION OR SITE PREPARATION. REFER TO ECM 3.6.1.A.
- FENCING FOR TREE PROTECTION SHALL BE CHAIN–LINK MESH WITH A MINIMUM HEIGHT OF 5 FEET AND SHALL BE INSTALLED AROUND OR BEYOND THE CRITICAL ROOT ZONE EXCEPT AS ALLOWED IN ECM 3.6.1.B.4.
- UNFENCED SECTIONS OF THE CRITICAL ROOT ZONE SHALL BE COVERED WITH MULCH AT A MINIMUM DEPTH OF 8 INCHES AND A MAXIMUM DEPTH OF 12 INCHES PER ECM 3.6.1.C.
- WHERE FENCING IS LOCATED 5 FEET OR LESS FROM THE TRUNK OF A PRESERVED TREE, TRUNK WRAPPING SHALL BE INSTALLED PER ECM 3.6.1.D.
- EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED SO AS NOT TO CAUSE IMPACTS THAT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5.3.D.

DURING CONSTRUCTION

- TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER THAT DOES NOT EXCEED PRESERVATION CRITERIA FOR THE TREES TO REMAIN. REFER TO ECM 3.5.2 A.
- FENCING MAY NOT BE TEMPORARILY MOVED OR REMOVED DURING DEVELOPMENT WITHOUT PRIOR AUTHORIZATION. THE FENCED CRITICAL ROOT ZONE SHALL NOT BE USED FOR TOOL OR MATERIAL STORAGE OF ANY KIND AND SHALL BE KEPT FREE OF LITTER. REFER TO ECM 3.6.1.B.3.
- PRUNING SHALL BE IN COMPLIANCE WITH THE CURRENT ANSI A300 STANDARD FOR TREE CARE.

AFTER CONSTRUCTION

- TREE PROTECTION SHALL BE REMOVED AT THE END OF THE PROJECT AFTER ALL CONSTRUCTION AND FINAL GRADING IS COMPLETE, BUT BEFORE FINAL INSPECTION. REFER TO ECM 3.6.1.A.
- LANDSCAPE INSTALLATION WITHIN THE CRZ OF PRESERVED TREES, INCLUDING IRRIGATION, SOIL AND PLANTINGS, SHALL NOT EXCEED PRESERVATION CRITERIA LISTED IN ECM 3.5.2.
- DOCUMENTATION OF TREE WORK PERFORMED MUST BE PROVIDED TO INSPECTOR PER ECM APPENDIX P6.

THIS LIST IS NOT EXHAUSTIVE.
- REFER TO APPROPRIATE ECM SECTIONS FOR FULL REQUIREMENTS.

APPENDIX P–4: – STANDARD SEQUENCE OF CONSTRUCTION

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, INITIATE TREE MITIGATION MEASURES AND CONDUCT "PRE – CONSTRUCTION" TREE FERTILIZATION (IF APPLICABLE).
2. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE DEVELOPMENT SERVICES DEPARTMENT, ENVIRONMENTAL INSPECTION, AT 512–974–2278, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON–SITE PRECONSTRUCTION MEETING.
3. THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
4. ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
5. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION SEDIMENTATION CONTROL PLAN (ESC) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
6. BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
7. THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID–CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.
8. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
9. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
10. UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
11. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
12. AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

SPECIAL CONSTRUCTION TECHNIQUES ECM 3.5.4(D)

- 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."

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS
CALVIN J. WEIMAN
141995
REGISTERED PROFESSIONAL ENGINEER
07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22–050 DATE: 7/14/23
CAD: DA/MM CHK'D BY:
ENGINEER: CW CHK'D BY:
SCALE: NTS

GENERAL NOTES

SITE CIVIL PLAN

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Western Hills

WATER RESTRICTION

No water for human consumption shall be used, stored or consumed on any lot in Western Hills unless the same be supplied or stored in accordance with the following restrictions:

1. Any underground or aboveground cistern or other water storage facility shall be located, constructed and disinfected in strict compliance with specifications, designs, and operating procedures promulgated, issued and recommended by the Austin-Travis County Health Unit, the State Health Dept. or the U.S. Health Service.

2. No water from any well shall be used for human consumption on any such lot or lots unless such well and the water to be used therefrom shall have been approved by the Austin-Travis County Health Unit, or other public agency having jurisdiction in the premises.

3. If and when the water system of the City of Austin or any other approved public water system shall be extended or extended so that water therefrom shall become available to the occupants of lots in Western Hills at a reasonable cost then upon demand made by Austin-Travis County Health Unit, the owners and occupants of the lots in Western Hills will promptly make connections with the City of Austin water System or other such approved public water System, and will thereafter only use water for human consumption.

Each and all of the above restrictions shall be construed as covenants running with the land and every owner of any lot in such Subdivision, or the Director of the Austin-Travis County Health Unit, and his successors in office shall have the right to sue for damages for the breach of the same or for injunction or other remedy to prevent the breach or violation of such restrictions.

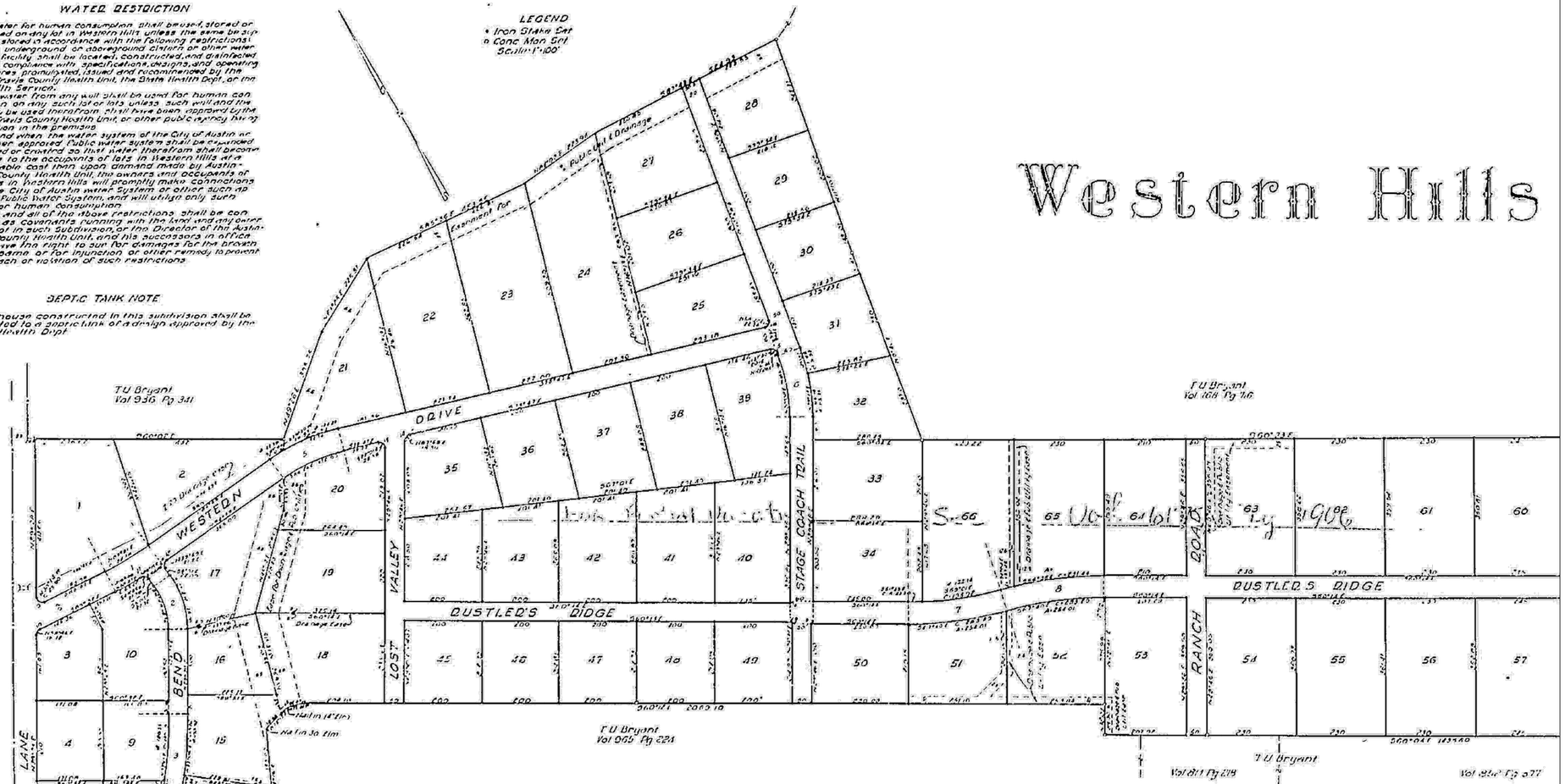
SEPTIC TANK NOTE

Each house constructed in this subdivision shall be connected to a septic tank of a design approved by the State Health Dept.

LEGEND

- Iron Stake Set
- Conc Mon Set

Scale: 1"=100'



In approving this plat by the Commissioners Court of Travis County, Texas, it is understood that the building of all streets roads or other public thoroughfares shown on this plat and any bridges or culverts necessary to be placed in such streets roads or other public thoroughfares or in connection therewith shall be the responsibility of the owner and/or developer of the tract of land covered by this plat in accordance with plans and specifications prescribed by the Commissioner's Court of Travis County, Texas, and the Commissioner's Court of Travis County Texas assumes no obligation to build the streets, roads, or other public thoroughfares shown on this plat or of constructing any bridges or culverts in connection therewith.

STATE OF TEXAS
COUNTY OF TRAVIS

I, Miss Emilie Limberg, County Clerk of Travis County Texas, do hereby certify that on the 5th day of Jan AD 1953 the Commissioner's Court of Travis County, Texas, passed an order authorizing the filing for record of this plat and that said order has been duly recorded in the Minutes of said Court in Book 10 at pg 172.

WITNESS MY HAND AND SEAL OF THE COUNTY COURT OF SAID COUNTY, this the 5th day of Jan AD 1953

Miss Emilie Limberg, Clerk Co Court, Travis Co Tex

By R. Bryant Deputy. (SEAL)

FILED FOR RECORD at 10 o'clock A M on the 5 day of Jan AD 1953

Miss Emilie Limberg Clerk County Ct. Travis Co Tex

By Elsie Pruitt (SEAL)

Surveyed by: Claude E. Bartlett Date:
Claude E. Bartlett Jr. Licensed Registered Land Surveyor

(SEAL)

STATE OF TEXAS
COUNTY OF TRAVIS

Know All Men By This Presents:

That Western Hills Inc., a corporation organized and existing under the laws of the State of Texas, having its principal place of business in Travis County, Texas, acting herein by and through its president, W.W. Patterson, hereunto duly authorized does hereby subdivide that certain 10.585 acre tract out of the Anadarko Bisset League in Travis County, Texas conveyed to it by deed of record in Vol 1302 Pg 320, Deed Records of Travis County, Texas, said subdivision to be in accordance with the attached plat, and to be known as WESTERN HILLS, and does hereby dedicate to the public use the streets shown hereon as far as its interest may appear. There is reserved to Western Hills Inc., its successors and assigns, the right to plant and/or maintain a fence across all streets which do not connect with another dedicated and constructed street on adjacent property, such fences to be on the last ten (10) feet of such streets. This right shall automatically terminate and cease to exist as to each street when a duly dedicated and constructed street on adjacent property connects with each street.

WITNESS MY HAND this the 29th day of December AD 1952

Attest: Nancy Chambers

W.W. Patterson
W.W. Patterson, Pres. Western Hills Inc.

STATE OF TEXAS.
COUNTY OF TRAVIS

Before me, the undersigned authority, a notary public in and for Travis County, Texas on this day personally appeared W.W. Patterson, President of Western Hills, Inc. known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed as the act and deed of said corporation, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 29th day of December AD 1952

Orrell C. Eubank

(SEAL)

Orrell C. Eubank, Notary Public in and for Travis Co Tex

STATE OF TEXAS.
COUNTY OF TRAVIS

I Miss Emilie Limberg, Clerk of the County Court within and for the County and State aforesaid, do hereby certify that the within and foregoing instrument of writing with its certificate of authentication was filed for record in my office on the 5 day of Jan AD 1953, at 10 o'clock A M and duly recorded on the 5 day of Jan AD 1953 at 11 o'clock A M in the Plat Records of said County in Book 6 Pg 73

WITNESS MY HAND AND SEAL OF THE COURT OF SAID COUNTY, the date last written above.

Miss Emilie Limberg, Clerk County Court Travis Co Tex

By Elsie Pruitt Deputy (SEAL)

APPROVED FOR ACCEPTANCE

Date 12-29-52 C.E. Saunders

C.E. Saunders Director of Public Works

APPROVED BY CITY PLANNING COMMISSION

Date: 12-29-52 Geo. H. Sandifer Chairman

Date 12-29-52 Andrew Whittaker Secretary

Easement Note

In addition to the easements shown on this plat an easement five (5) feet in width is reserved along the rear of each lot and along either side of the dividing line of all lots and along the east side of lots 58 and 55.

Vol. 1302, Pg. 320, Deed Records Vol 1429 Pg 1817 Deed Records

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ENGINEER: CW	CHK'D BY:
SCALE:	

CITY APPROVAL STAMP

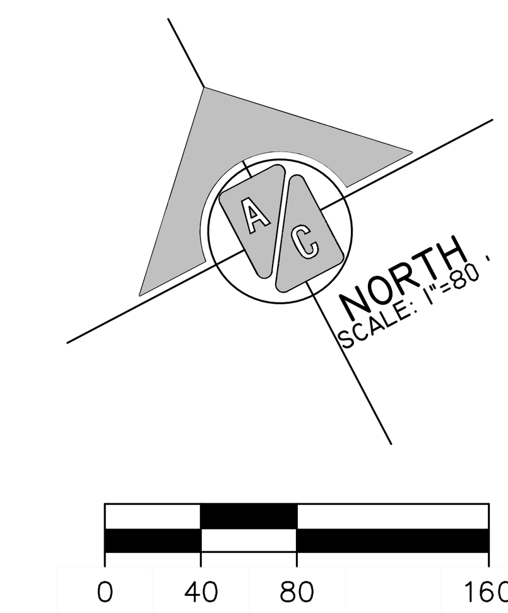
SP-____-____C

PLAT

SITE CIVIL PLAN

3

of 26



SURVEY LEGEND:

- PROPERTY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- ADJOINER PROPERTY
- DEED LINES
- EDGE OF PAVEMENT
- OE — OE OVERHEAD ELECTRIC
- BENCHMARK SET
- IRON PIPE FOUND [AS NOTED]
- 1/2" IRON ROD FOUND [UNLESS NOTED]
- 1/2" IRON ROD WITH "DOUCET" CAP SET
- CHISELED + SET
- CALCULATED POINT
- GV GAS VALVE
- S STORM SEWER MANHOLE
- T TELEPHONE PEDESTAL
- ELECTRIC TRANSFORMER
- MH MANHOLE
- WATER VALVE
- POWER POLE
- DOWN GUY
- ( ) RECORD CALLS

TREE LIST SEE SHEET 5

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	97.99'	2,940.83'	1°54'33"	S61°22'50"E	97.99'
C2	101.99'	3,060.83'	1°54'33"	S61°22'49"E	101.99'

LINE TABLE

LINE	BEARING	DISTANCE
L1	S27°41'53"W	321.22'
L2	N62°08'28"W	716.36'
L3	N28°07'34"E	83.48'
L4	N62°09'19"W	749.18'
L5	N27°55'26"E	160.00'
L6	N72°24'02"E	28.28'
L7	S62°28'14"E	20.14'
L8	S64°09'04"E	242.42'
L9	S68°54'46"E	203.51'
L10	S70°43'46"E	11.79'

LINE TABLE

LINE	BEARING	DISTANCE
L11	S68°05'46"E	254.35'
L12	S63°59'04"E	165.35'
L13	S62°18'46"E	20.00'
L14	S17°13'09"E	28.55'
L15	S62°40'04"E	49.70'
L16	N72°34'01"E	28.23'
L17	S61°54'25"E	28.96'
L18	S60°25'32"E	200.17'
L19	S62°18'08"E	11.05'

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CITY APPROVAL STAMP

SP-____-____C

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EXISTING TOPOGRAPHIC AND TREE SURVEY

SITE CIVIL PLAN

TREE INDEX

TAG NO. TYPE INDICATES MULTI TRUNK

514 LO 17 14 11

INDIVIDUAL TRUNK DIA. (IN INCHES)

CRITICAL ROOT ZONES (TREE CIRCLES) ARE SHOWN USING THE COA FORMULA FOR SINGLE AND MULTI TRUNK TREES.

ASH	=	ASH
CB	=	CHINABERRY
CE	=	CEDAR ELM
CDR	=	CEDAR
HB	=	HACKBERRY
LIG	=	LIGUSTRUM
LO	=	LIVE OAK
MSQ	=	MESQUITE
remove	=	REMOVED TREE

THE SPECIES OF TREES SHOWN WERE DETERMINED TO THE BEST OF OUR ABILITIES BY ON THE GROUND SURVEY CREW, NOT A CERTIFIED ARBORIST. CONSULT A CERTIFIED ARBORIST FOR FINAL DETERMINATION OF SPECIES.

NOTE ABOUT DEAD TREES: IF THE TREE APPEARED TO BE DEAD, THEN IT HAS BEEN NOTED AS DEAD; HOWEVER, SUCH DETERMINATION IS SUBJECT TO VERIFICATION BY A QUALIFIED ARBORIST.

	1371	CDR 9
	1372	CDR 9
	1373	CDR 12
	1374	CDR 9 7 7
	1375	CDR 8 6
	1376	CDR 9
	1377	CDR 9 7 6 6
	1378	CDR 9
	1379	CDR 9
	1380	CDR 12 6
	1381	CDR 9
	1382	CDR 8
	1383	CDR 9
	1384	CDR 8
	1385	CDR 14
	1386	CDR 9 6 5 5
	1387	CDR 10
	1388	CDR 11 5
	1389	CDR 9
	1390	CDR 8 7
	1391	CDR 8 7 6 6
	1392	CDR 9
	1393	CDR 9
	1394	CDR 10 7
	1395	CDR 9
	1396	CDR 8
	1397	CDR 8
	1398	CDR 8
	1399	CDR 10 8 8 6 5 4
	1400	CDR 8
	1401	CDR 13
	1402	CE 11
	1403	CDR 9
	1404	HB 7
	1405	CDR 10
	1406	CDR 8 5 5 5 4 4
	1407	CDR 8
	1408	CDR 9 7 7
	1409	CDR 9
	1410	CDR 8 8
	1411	CDR 9 6 4
	1412	CE 7
	1413	CDR 8
	1414	CDR 12 8 7 6 6
	1415	CDR 9 8
	1416	CDR 10
remove	1417	CDR 12 7 5 5 5
	1418	CDR 8 6 5 5
	1419	CDR 8 5 5
remove	1420	CDR 9 6 5 5 4
	1421	CDR 9 6 6 5 5 4 4
remove	1422	CDR 9 7
remove	1423	CDR 9 6
remove	1424	MSQ 9 8 7 4
remove	1425	CDR 10
remove	1426	MSQ 11 9 8 7 6
remove	1427	HB 8
remove	1428	MSQ 11 10 6 6 5 4
remove	1429	CE 7
remove	1430	MSQ 6
	1431	CE 10
	1432	CDR 13 10
	1433	CDR 12
	1434	CDR 14
	1435	CDR 13
	1436	CDR 8
	1437	CE 14
	1438	CE 14
	1439	CE 9
	1440	CE 9
	1441	CE 9
	1442	CE 8
	1443	MSQ 13 9 7
remove	1444	CDR 10 5
remove	1445	CDR 10
remove	1446	CDR 11
remove	1447	CDR 8
	1448	CDR 8
	1449	CDR 12
	1450	CE 13 12
	1451	CE 18 8
	1452	CE 14
	1453	CE 10 8 7
	1454	CE 14
	1455	CE 13
	1456	CDR 13
	1457	CDR 9
remove	1458	MSQ 6 5 5
remove	1459	CDR 11
remove	1460	CDR 9
remove	1461	CDR 8
remove	1462	CDR 9 8 7
remove	1463	CDR 10 7 4 4
remove	1464	MSQ 7
remove	1465	MSQ 7
	1466	MSQ 8 7 6
	1467	CE 6
	1468	LO 17 16 12 7
	1469	CE 6
	1470	CE 6
	1471	LO 10
	1472	CE 12
	1473	LO 17
	1474	CE 10
	1475	CE 9
	1476	CDR 10
	1477	CE 7 7
	1478	CDR 8 6
	1479	CDR 11
	1480	CDR 9
	1481	CDR 8 5
	1482	CDR 11
	1483	CDR 10
	1484	CDR 10
	1485	CDR 8
	1486	CDR 13 13 8 7 6
	1487	CDR 8
	1488	CDR 10
	1489	CDR 9
remove	1490	CE 7
remove	1491	CDR 11 9 8 7 4
	1492	LO 22
	1493	CE 9
	1494	CDR 10
	1495	CDR 8
	1496	CDR 8 6
	1497	CDR 9
	1498	LO 31 8
	1499	CDR 10 6
	1500	CDR 9
	1501	LO 7
	1502	MSQ 7
	1503	LO 12
	1504	CDR 8
	1505	CE 15
	1506	LO 14
	1507	LO 14
	1508	LO 17
	1509	LO 10
	1510	CDR 9
	1511	LO 13
	1512	LO 11
	1513	CE 12
	1514	CE 7
	1515	CB 12
	1516	LO 7
	1517	CE 10
	1518	LO 10
	1519	LO 7
	1520	LO 6
	1521	LO 7 4
	1522	LO 7 4
	1523	LO 7 5
	1524	CB 6
	1525	CDR 8
	1526	LO 12 9 8
	1527	LO 6
	1528	LO 7
	1529	LO 7
	1530	LO 8
	1531	LO 10 7
	1532	LO 11
	1533	LO 6
	1534	LO 11
	1535	LO 7
	1536	LO 7
	1537	LO 9
	1538	LO 7
	1539	LO 9
	1540	LO 8
	1541	LO 11
	1542	LO 6
	1543	LO 6
	1544	LO 10
	1545	LO 12
	1546	LO 16
	1547	CDR 13 8
	1548	CDR 13
	1549	LO 17
	1550	LO 9
	1551	CDR 10
	1552	LO 11 10
	1553	LO 13
	1554	LO 17
	1555	LO 16 13 13
	1556	CDR 14
	1557	CDR 9
	1558	CDR 8
	1559	CDR 11
	1560	CDR 12
	1561	HB 7 6
	1562	LO 7
	1563	HB 7
	1564	LO 12
	1565	LO 17
	1566	LO 12
	1567	CE 11
	1568	CDR 12
	1569	LO 9
	1570	LO 9
	1571	LO 9
	1572	CDR 15 7 7
	1573	CDR 10
	1574	LO 17 15 13
	1575	CDR 9
	1576	CDR 16 9 6 6
	1577	CDR 11
	1578	CDR 9 7
	1579	CDR 12 6
	1580	CDR 10 9
	1581	CDR 9
	1582	CDR 8 8 8 7 6 6 5
	1583	CDR 10
	1584	CDR 9 8 6
	1585	CDR 8 4
	1586	CDR 12 10 9 8
	1587	LIG 6 6 5 3
	1588	CDR 9 7 5 4
	1589	CDR 11 10 8 7
	1590	CDR 11
	1591	CDR 12
	1592	CDR 9
	1593	LIG 10
	1594	CDR 8 6 5
	1595	CDR 9 9 9 5
	1596	LO 10
	1597	LO 8
	1598	LO 6
	1599	LO 6
	1600	LO 12
	1601	LO 16
	1602	LO 16 6
	1603	LO 9
	1604	LO 9
	1605	LO 8
	1606	LO 9
	1607	CDR 10
	1608	CDR 12
	1609	LO 9 8
	1610	LO 9 2
	1611	CE 14
	1612	LO 7
	1613	LO 17
	1614	LO 10
	1615	LIG 6 5
	1616	CDR 12 6 5 5
	1617	CDR 8 7 5 5 4
	1618	CDR 10
	1619	CDR 12 10 9
	1620	CDR 10 8
	1621	LO 9
	1622	LO 6
	1623	LO 13
	1624	LO 19
	1625	LO 10
	1626	CDR 9
	1627	CDR 9
	1628	LO 7
	1629	LO 9
	1630	LO 27
	1631	CE 9
	1632	CDR 9
	1633	CDR 9
	1634	CDR 12
	1635	LO 21 14
	1636	LO 13 11 10
	1637	CDR 10
	1638	CDR 9
	1639	LO 32
	1640	LO 9
	1641	LO 11
	1642	LO 11
	1643	LO 11
	1644	LO 20
	1645	LO 16 15 7
	1646	CE 6
	1647	LO 6
	1648	LO 6
	1649	LO 7
	1650	LO 7
	1651	LO 7
	1652	CE 14
	1653	LO 9
	1654	LO 10
	1655	LO 8
	1656	LO 7
	1657	CDR 8
	1658	ASH 16 16 12
	1659	CDR 10
	1660	CDR 15
	1661	CDR 9 8 7 7 6
	1662	CDR 11 9 9 6 5
	1663	CDR 11
	1664	CDR 9 8
	1665	HB 7
	1666	HB 14
	1667	HB 7
	1668	HB 13
	1669	HB 7
	1670	HB 9 7
	1671	CE 7 6
	1672	CE 6
	1673	CE 7
	1674	CE 6
	1675	HB 11
	1676	HB 9 7 6
	1677	HB 18
	1678	HB 9 5
	1679	HB 10
	1680	CE 10
	1681	CE 9
	1682	CE 11
	1683	CE 7
	1684	CE 9 6
	1685	LO 29 19
	1686	CE 6
	1687	LO 6
	1688	HB 7
	1689	CE 7
	1690	CE 7
	1691	CE 8
	1692	CE 10
	1693	CE 14
	1694	CE 8
	1695	CE 8
	1696	CE 9
	1697	CE 9
	1698	CE 7
	1699	CE 18 7
	1700	CE 7
	1701	LO 7
	1702	LO 26
	1703	CE 17
	1704	CE 12
	1705	CE 25
	1706	CE 22
	1707	CE 11
	1708	CE 6
	1709	CE 6
	1710	CE 6
	1711	CDR 13
	1712	CB 12 9
	1713	CB 10
	1714	CE 10
	1715	CE 10
	1716	CE 15
	1717	CE 8
	1718	CDR 12
	1719	CE 6
	1720	CDR 9
	1721	CDR 15
	1722	CDR 9
	1723	CE 7
	1724	CDR 13 10 9 6
	1725	LIG 6 5 4 3 3
	1726	CE 9
	1727	CDR 10
	1728	CDR 12
	1729	LIG 7 3 3 3
	1730	CDR 8 7 5
	1731	CDR 10 6
	1732	CDR 10
	1733	CDR 10
	1734	CE 8 8 5
	1735	CDR 9 7 6
	1736	CE 8
	1737	CDR 10
	1738	CDR 9 4 4
	1739	LIG 8 6
	1740	CDR 8 7 6 5
	1741	CDR 12 7 7
	1742	CDR 11 7
	1743	CDR 8
	1744	CDR 10 10 8 8 5
	1745	CDR 8 5 4
	1746	CDR 11 6 6 6 5
	1747	CDR 10 10 10
	1748	CDR 11 7 6 5
	1749	CDR 8 5
	1750	CDR 12
	1751	CDR 10 9 5
	1752	MSQ 9 8
	1753	CDR 9 8 5 5
	1754	CDR 9 8 6
	1755	CDR 15
	1756	CDR 16
	1757	CDR 13
	1758	CDR 9 8 6 5
	1759	CE 8
	1760	CE 7
	1761	CE 10
	1762	CE 8
	1763	CE 10
	1764	CDR 9
	1765	CE 10
	1766	CDR 9
	1767	CDR 8
	1768	CE 8
	1769	CDR 9 6
	1770	CE 12
	1771	CE 7
	1772	CE 10
	1773	CDR 8
	1774	CDR 7
	1775	LO 9
	1776	LO 13
	1777	CE 8
	1778	CDR 13
	1779	LO 7
	1780	LO 8
	1781	CE 11
	1782	CE 6
	1783	CE 7
	1784	CDR 9
	1785	CE 7
	1786	CE 7
	1787	CE 8
	1788	CE 9
	1789	LO 12
	1790	CDR 11
	1791	CE 15
	1792	CE 9
	1793	CE 10
	1794	CE 8
	1795	CE 9
	1796	LO 15
	1797	LO 18
	1798	LO 15
	1799	CE 7
	1800	CE 7
	1801	CDR 9
	1802	CE 10
	1803	LO 16
	1804	CDR 9
	1805	CE 10
	1806	CE 14
	1807	CDR 9
	1808	CE 13
	1809	MSQ 15
	1810	CDR 13
	1811	CB 7 6
	1812	LO 7
	1813	CB 7 6
	1814	LO 9 8
	1815	LO 10 10 7
	1816	CDR 9
	1817	CB 8 6
	1818	LO 7 7 2
	1819	LIG 7
	1820	CDR 9 6
	1821	CE 12 7
	1822	CE 11
	1823	CE 8 5
	1824	CDR 9
	1825	LO 10
	1826	LO 16
	1827	LO 12
	1828	CE 10
	1829	CDR 11
	1830	LO 7
	1831	CDR 9 5
	1832	CDR 10
	1967	CE 12 11
	1968	CDR 10
	1969	CDR 9 8
	1970	LO 8
	1971	CDR 9
	1972	CDR 8
	1973	LO 11
	1974	CE 7
	1975	CE 8
	1976	CDR 11
	1977	CE 11
	1978	CE 6
	1979	LO 16
	1980	LO 7
	1981	LO 9
	1982	LO 9
	1983	LO 10
	1984	LO 8
	1985	CE 7
	1986	CE 8
	1987	CE 11
	1988	LO 13 7
	1989	LO 11
	1990	LO 10
	1991	LO 8
	1992	LO 13
	1993	CDR 8 8 6 5 5
	1994	CDR 8
	1995	LO 6
	1996	LO 8
	1997	LO 7
	1998	LO 7
	1999	LO 8
	2000	LO 8 8

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

07/14/23

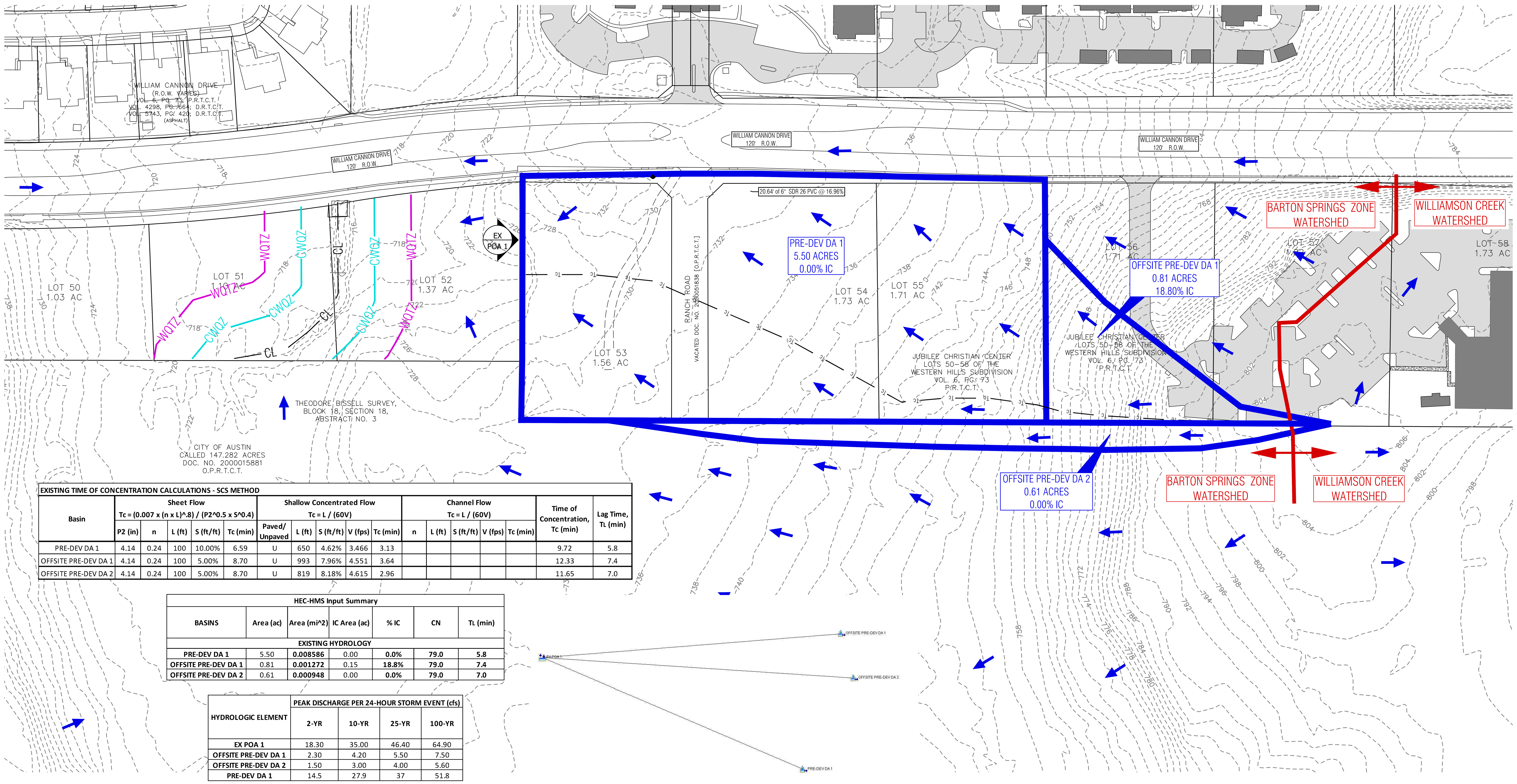
THE OFFICES AT WILLIAM CANNON

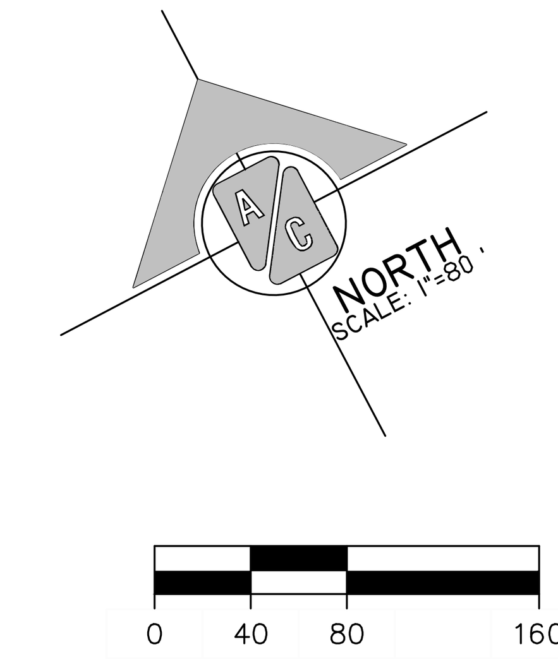
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

TREE LIST





SURVEY LEGEND:

——	PROPERTY LINE
——	EXISTING LOT LINE
- - -	EXISTING GRADES

LEGEND

PROPOSED	DESCRIPTION
——	ZONE DIVISION
——	EX. DRAINAGE AREAS
—CWQZ—	CRITICAL WATER QUALITY ZONE
—WQTZ—	WATER QUALITY TRANSITION ZONE
—CL—	CREEK CENTERLINE
→	FLOW ARROW
—Tc—	TIME OF CONCENTRATION

EXISTING TIME OF CONCENTRATION CALCULATIONS - SCS METHOD

Basin	Sheet Flow Tc = (0.007 x (n x L)^.8) / (P2^0.5 x S^0.4)					Shallow Concentrated Flow Tc = L / (60V)					Channel Flow Tc = L / (60V)					Time of Concentration, Tc (min)	Lag Time, TL (min)
	P2 (in)	n	L (ft)	S (ft/ft)	Tc (min)	Paved/ Unpaved	L (ft)	S (ft/ft)	V (fps)	Tc (min)	n	L (ft)	S (ft/ft)	V (fps)	Tc (min)		
PRE-DEV DA 1	4.14	0.24	100	10.00%	6.59	U	650	4.62%	3.466	3.13						9.72	5.8
OFFSITE PRE-DEV DA 1	4.14	0.24	100	5.00%	8.70	U	993	7.96%	4.551	3.64						12.33	7.4
OFFSITE PRE-DEV DA 2	4.14	0.24	100	5.00%	8.70	U	819	8.18%	4.615	2.96						11.65	7.0

HEC-HMS Input Summary

BASINS	Area (ac)	Area (mi^2)	IC Area (ac)	% IC	CN	TL (min)
EXISTING HYDROLOGY						
PRE-DEV DA 1	5.50	0.008586	0.00	0.0%	79.0	5.8
OFFSITE PRE-DEV DA 1	0.81	0.001272	0.15	18.8%	79.0	7.4
OFFSITE PRE-DEV DA 2	0.61	0.000948	0.00	0.0%	79.0	7.0

HYDROLOGIC ELEMENT	PEAK DISCHARGE PER 24-HOUR STORM EVENT (cfs)			
	2-YR	10-YR	25-YR	100-YR
EX POA 1	18.30	35.00	46.40	64.90
OFFSITE PRE-DEV DA 1	2.30	4.20	5.50	7.50
OFFSITE PRE-DEV DA 2	1.50	3.00	4.00	5.60
PRE-DEV DA 1	14.5	27.9	37	51.8

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CITY APPROVAL STAMP

SP-____-____C

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TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

CALVIN C. WIMAN 141995 REGISTERED PROFESSIONAL ENGINEER 07/14/23

THE OFFICES AT WILLIAM CANNON

3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	DESCRIPTION	APPROVED BY
		REVISIONS	

JOB: 22-050 DATE: 7/14/23
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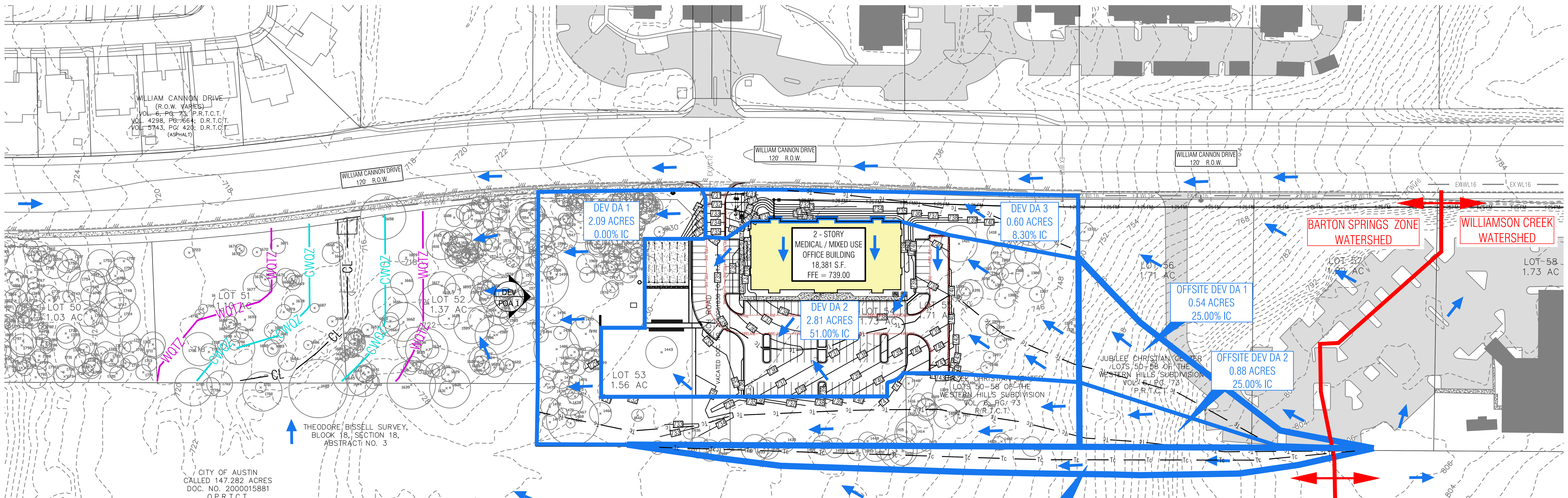
ENGINEER: CW CHK'D BY:
SCALE:

EXISTING DRAINAGE AREA MAP

SITE CIVIL PLAN



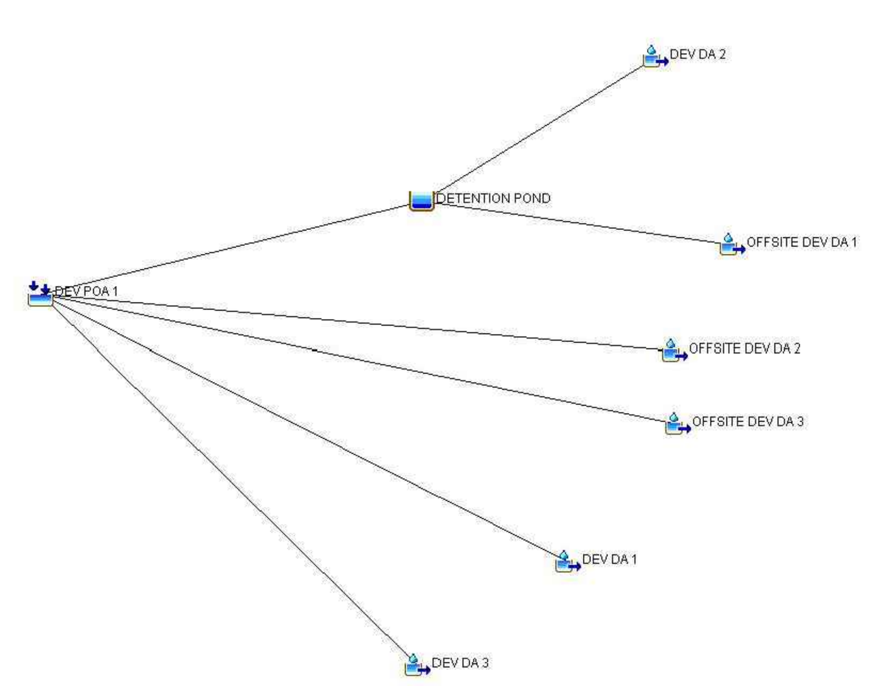
DEVELOPED TIME OF CONCENTRATION CALCULATIONS - SCS METHOD																	
Basin	Sheet Flow Tc = (0.007 x (n x L)^.8) / (P2^0.5 x S^0.4)					Shallow Concentrated Flow Tc = L / (60V)					Channel Flow Tc = L / (60V)					Time of Concentration, Tc (min)	Lag Time, TL (min)
	P2 (in)	n	L (ft)	S (ft/ft)	Tc (min)	Paved/ Unpaved	L (ft)	S (ft/ft)	V (fps)	Tc (min)	n	L (ft)	S (ft/ft)	V (fps)	Tc (min)		
DEV DA 1	4.14	0.240	100	11.00%	6.34	U	621	3.06%	2.822	3.67						10.01	6.0
DEV DA 2	4.14	0.240	100	11.00%	6.34	P	446	3.81%	3.969	1.87						8.22	4.9
DEV DA 3	4.14	0.240	100	10.00%	6.59	U	285	2.81%	2.703	1.76						8.35	5.0
OFFSITE DEV DA 1	4.14	0.240	100	5.00%	8.70	U	709	9.45%	4.960	2.38						11.08	6.6
OFFSITE DEV DA 2	4.14	0.240	100	5.00%	8.70	U	970	6.91%	4.240	3.81						12.51	7.5
OFFSITE DEV DA 3	4.14	0.240	100	5.00%	8.70	U	970	6.91%	4.240	3.81						12.51	7.5

24-HR STORM EVENT	POND PEAK Qin (cfs)	PEAK Qout (cfs)	PEAK STORAGE (ac-ft)	PEAK ELEVATION (ft)
2-YR	11.40	6.50	0.11	731.33
10-YR	19.10	8.00	0.27	732.27
25-YR	24.30	12.60	0.37	732.69
100-YR	32.70	24.00	0.47	733.10

Δ Peak Flows Q (cfs) at POA 1				
Storm Event	2-YR	10-YR	25-YR	100-YR
EX POA 1	18.3	35	46.4	64.9
DEV POA 1	15.8	25.7	32.1	50.7
Δ	-2.5	-9.3	-14.3	-14.2

HEC-HMS Input Summary						
BASINS	Area (ac)	Area (mi^2)	IC Area (ac)	% IC	CN	TL (min)
DEVELOPED HYDROLOGY						
DEV DA 1	2.09	0.003263	0.00	0.0%	79.0	6.0
DEV DA 2	2.81	0.004384	1.43	51.0%	79.0	4.9
DEV DA 3	0.60	0.000940	0.05	8.3%	79.0	5.0
OFFSITE DEV DA 1	0.54	0.000851	0.14	25.0%	79.0	6.6
OFFSITE DEV DA 2	0.27	0.000420	0.07	25.0%	79.0	7.5
OFFSITE DEV DA 3	0.61	0.000953	0.15	25.0%	79.0	7.5

HYDROLOGIC ELEMENT	PEAK DISCHARGE PER 24-HOUR STORM EVENT (cfs) 2-YR	10-YR	25-YR	100-YR
DETENTION POND	6.5	8	12.6	24
DEV DA 1	5.5	10.6	14	19.7
DEV DA 2	9.8	16.5	20.9	28.3
DEV DA 3	1.7	3.1	4.1	5.7
DEV POA 1	15.8	25.7	32.1	50.7
OFFSITE DEV DA 1	1.6	2.9	3.8	5.2
OFFSITE DEV DA 2	0.8	1.4	1.8	2.5
OFFSITE DEV DA 3	1.8	3.2	4.1	5.7



NORTH SCALE: 1"=80'

SURVEY LEGEND:

- PROPERTY LINE
- EXISTING LOT LINE
- EXISTING GRADES

LEGEND

PROPOSED	DESCRIPTION
	ZONE DIVISION
	DEV. DRAINAGE AREAS
CWQZ	CRITICAL WATER QUALITY ZONE
WQTZ	WATER QUALITY TRANSITION ZONE
CL	CREEK CENTERLINE
	FLOW ARROW
Tc	TIME OF CONCENTRATION

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SP-____-____C

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AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS CALVIN ... WALKER 141995 REGISTERED PROFESSIONAL ENGINEER 07/14/23

THE OFFICES AT WILLIAM CANNON

3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

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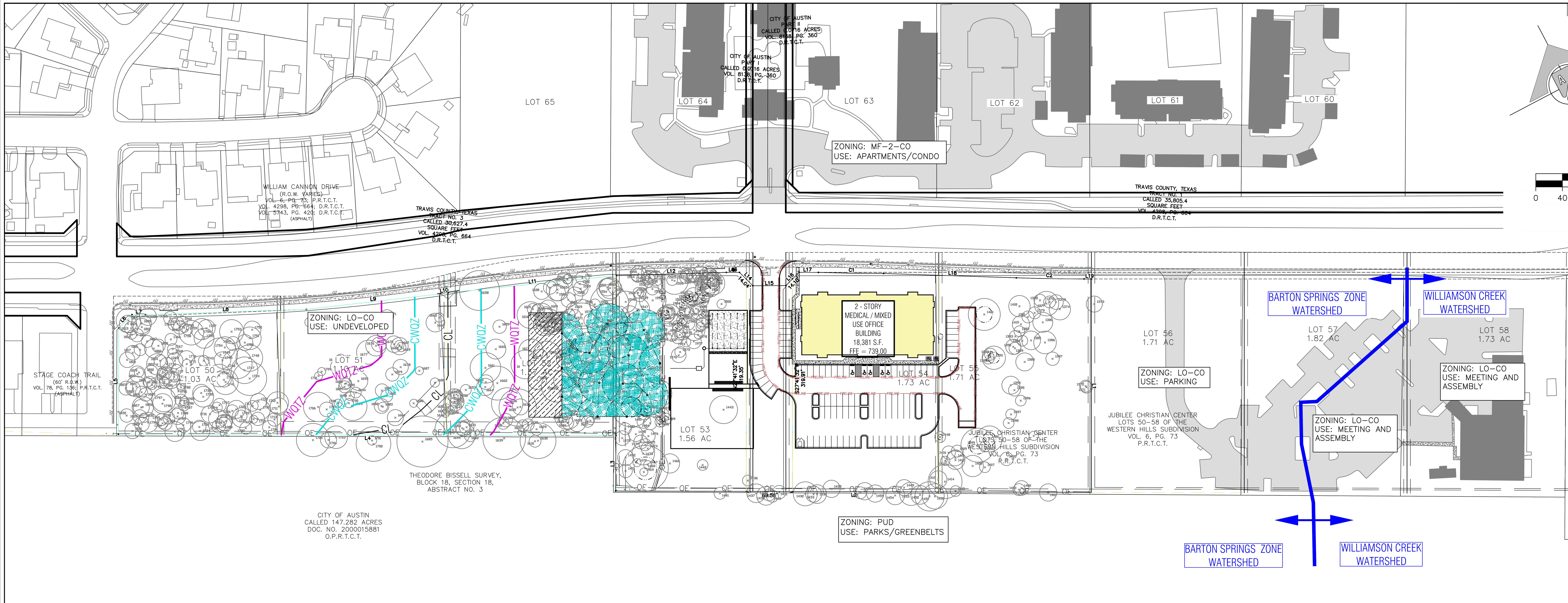
SCALE:	

DEVELOPED DRAINAGE AREA MAP



Lots 50-57, Property of Jubilee Christian Center
APPENDIX Q-2
IMPERVIOUS COVER

Water Quality Transition Zone (WQTZ)

1.	WQTZ outside of 100 - year floodplain (non-fp WQTZ) =			=		Acres

Allowable Impervious Cover:

2.	Impervious cover allowed at =		X		=		Acres
3.	Impervious cover allowed at =		X				Acres
3a.	Impervious cover allowed at =	15%	X	0.78464		0.118	Acres
3b.	Impervious cover allowed at =	25%	X	8.175	=	2.04	Acres
4.	**Total Allowed Impervious Cover**				**=**	**2.158**	**Acres**

Proposed Impervious Cover

5.	Impervious Cover in Non-FP WQTZ			
5a.	Existing Proposed to remain	=		Acres
5b.	Proposed new	=		Acres
5c.	**Subtotal**	**=**	**0**	**Acres**
6.	Impervious Cover in Uplands Zone			
6a.	Existing Proposed to remain	=	0.738	Acres
6b.	Proposed new	=	1.42	Acres
6c.	**Subtotal**	**=**	**2.158**	**Acres**
7.	**Total proposed impervious cover**	**=**	**1.42**	**Acres**

Allowable Impervious Cover Breakdown by Slope Category

8. Total Acreage with Slopes 15-25% = ________ Acres X 10% ________ 0 Acres

Proposed Impervious Cover on Slopes

Slopes		Impervious Cover: Buildings/and other impervious cover		Drives / Roadways
Slope Categories	Acres	Acres	% of Category	Acres
9. 0-15%	6.370	0.478	7.512	0.938
10. 15-25%	0.000	0.000	0.000	
11. 25-35%	0.000	0.000	0.000	
12. Over 35%	0.000	0.000	0.000	
13. Gross Site Area	6.370			

Lots 50-57, Property of Jubilee Christian Center
APPENDIX Q-1
NET SITE AREA

Note: Net site areas is only applicable to watersheds classified as water supply suburban / water supply rural / barton springs zone

1.	**Gross Barton Springs Zone Area =**			**11.66 Acres**
	Site Deductions:			
2.	Critical water quality zone (CWQZ) =			0.62 Acres
3.	Water quality transition zone (WQTZ) =			0.61 Acres
4.	Wastewater irrigation areas =			0.00 Acres
5.	**Deduction subtotal =**			**1.23 Acres**
6.	**Uplands area (Gross area minus total deductions) =**			**10.43 Acres**
	Net Site Area Caclulations:			
7.	Area of Uplands with Slopes 0-15%	8.26	x 100%	8.26 Acres
8.	Area of Uplands with Slopes 15-25%	1.66	x 40%	0.66 Acres
9.	Area of Uplands with Slopes 25-35%	0.23	x 20%	0.05 Acres
10.	Area of Uplands with Slopes +35%	0.29	x 0%	0.00 Acres
11.	**Net Site Area=**			**8.96 Acres**

Lots 57-58, Property of Jubilee Christian Center

SUBURBAN WATERSHEDS

NOTE: Q-1 TABLES ARE NOT REQUIRED FOR SUBURBAN WATERSHEDS

1. Impervious cover allowed at = ________ X ________ = ________ Acres

Proposed Impervious Cover

2.	Existing Impervious Cover Proposed to Remain	=	1.44	Acres
3.	Proposed New Impervious Cover	=	0	Acres
4.	**Total proposed impervious cover**	**=**	**0.00**	**Acres**

Allowable Impervious Cover Breakdown by Slope Category

5. Total Acreage with Slopes 15-25% = ________ Acres X 10% ________ 0 Acres

Proposed Impervious Cover on Slopes

Slopes		Impervious Cover: Buildings/and other impervious cover		Drives / Roadways
Slope Categories	Acres	Acres	% of Category	Acres
6. 0-15%	0.000	0.000	0.000	0.000
7. 15-25%	0.000	0.000	0.000	
8. 25-35%	0.000	0.000	0.000	
9. Over 35%	0.000	0.000	0.000	
10. Gross Site Area	0.000			

THE OFFICES AT WILLIAM CANNON

Site Information for Lots 52, 53, 54, and 55:				PROPOSED	
Gross Site Area = 6.37 acres; 277,477 square feet	LOC Area		ac / sq ft	TOTAL Sq. ft.	percent %
Buildings =				18,381	6.62%
Parking and Drives =				40,880	14.73%
Sidewalk/Others				2,462	0.89%
Total Proposed Impervious Cover =				61,723	**22.24%**
				1.42	**AC**

THE OFFICES AT WILLIAM CANNON LOTS 50 to 57

Existing and Proposed Impervious Cover Table	12.03 acres	
Gross Site Area = 12.03 acres; 524,027 square feet	**TOTAL EX and PROP**	
	SF	%
EX and Prop Buildings =	18,381	3.5%
EX and Prop Parking and Drives =	73,001	13.9%
EX and Prop Sidewalk/Others	2,489	0.5%
Total Existing and Proposed Impervious Cover =	**93,870**	**17.9%**
	2.15	**AC**

THE OFFICES AT WILLIAM CANNON

Existing Impervious Cover Table	1.03 acres		1.10 acres		1.37 acres		1.56 acres		1.73 acres		1.71 acres		1.71 acres		1.82 acres		12.03 acres	
Gross Site Area = 12.03 acres; 524,027 square feet	**LOT 50**		**LOT 51**		**LOT 52**		**LOT 53**		**LOT 54**		**LOT 55**		**LOT 56**		**LOT 57**		**TOTAL**	
	SF	%	SF	%	SF	%	SF	%	SF	%	SF	%	SF	%	SF	%	SF	%
Buildings =	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Parking and Drives =	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12,843	17.2%	19,277	24.3%	32,121	6.1%
Sidewalk/Others	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	27	0.0%	0	0.0%	27	0.0%
Total Existing Impervious Cover =	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12,871	17.3%	19,277	24.3%	**32,148**	**6.1%**

TREE LIST SEE SHEET 5

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SP-____-____C

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TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

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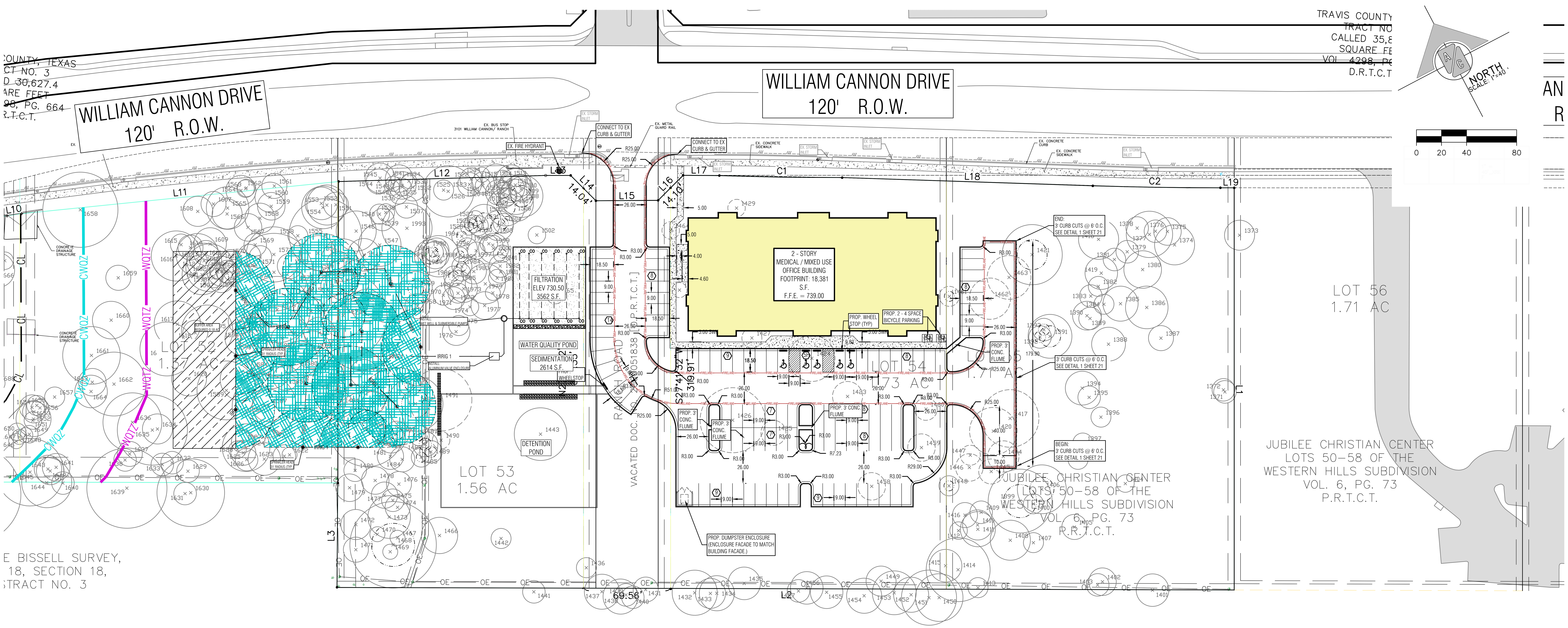
SCALE:	

OVERALL SITE PLAN



THE OFFICES AT WILLIAM CANNON Parking Table:			
Required Parking Ratio:	space per BLDG SF	SF of Building	Required Parking Spaces
Prop Medical / Mixed Use Office - 2 Story	1 to 275	36,762	134
		Total Parking Spaces Required =	134
Proposed and Existing Parking:			
	Proposed Regular Spaces	9.0' x 18.5'	95
	Proposed HC Spaces	9.0' x 18.5'	5
	Existing Jubilee Church Regular Spaces	9.0' x 18.5'	40
		Total Parking Spaces =	140
Bicycle Parking:			
The greater of: 5% of provided parking or 5 spaces		5% =	7
		Total Bicycle Spaces Proposed =	8

THE OFFICES AT WILLIAM CANNON

Site Information for Lots 52, 53, 54, and 55:				PROPOSED	
Gross Site Area =	6.37 acres	LOC Area	3.891 ac	TOTAL	percent
	277,477 square feet		169,491 sq ft	Sq. ft.	%
Buildings =				18,381	6.62%
Parking and Drives =				40,880	14.73%
Sidewalk/Others				2,462	0.89%
Total Proposed Impervious Cover =				61,723	22.24%
				1.42	AC

THE OFFICES AT WILLIAM CANNON

Site Information for Lots 52, 53, 54, and 55:		EXISTING	
Gross Site Area =	6.37 acres	TOTAL	percent
	277,477 square feet	Sq. ft.	%
Existing Buildings =		0	0.00%
Existing Parking and Drives =		0	0.00%
Exsiting Sidewalk/Others		0	0.00%
Total Existing Impervious Cover =		0	0.00%
		0.00	AC

TREE LIST SEE SHEET 5

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SP-2023-0271C

AUSTIN CIVIL ENGINEERING, INC.
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PH: (512) 306-0018

08/22/23

THE OFFICES AT WILLIAM CANNON

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AUSTIN, TEXAS 78745

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CAD: DA/MM	CHK'D BY:
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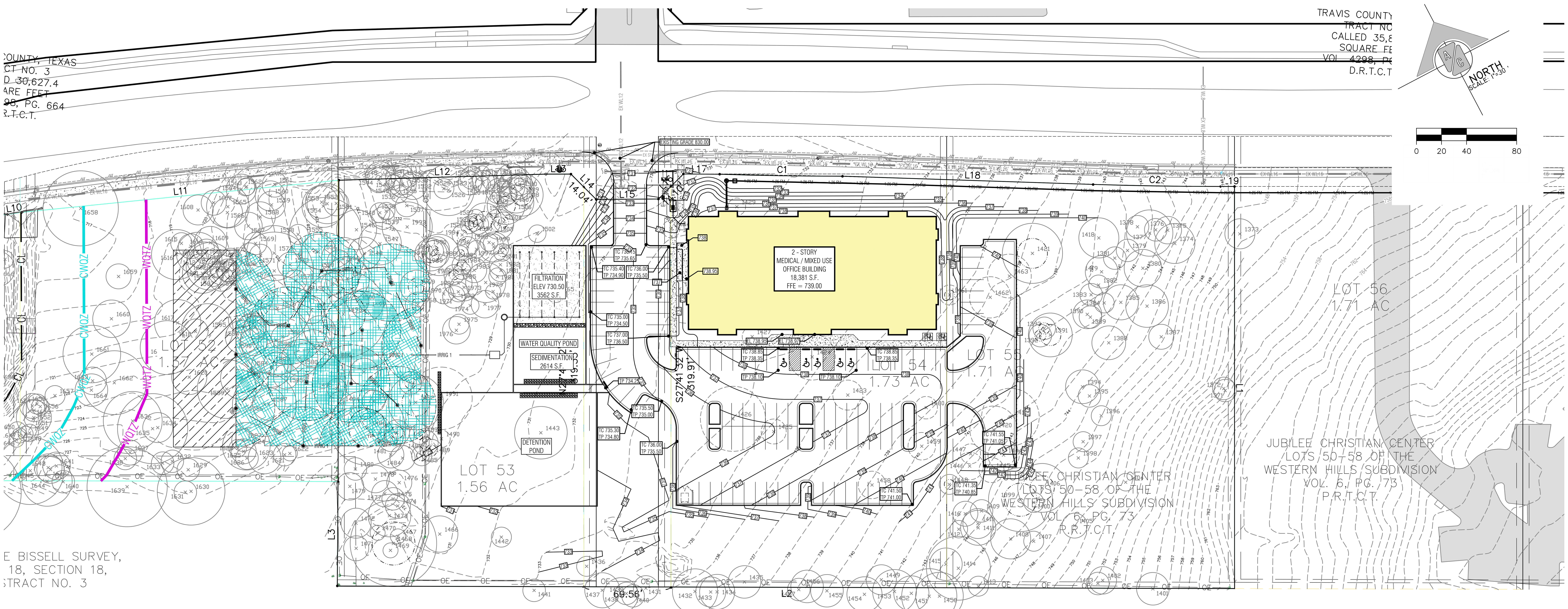
SCALE:	

SITE PLAN



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CALVIN WARREN 141995 07/14/23

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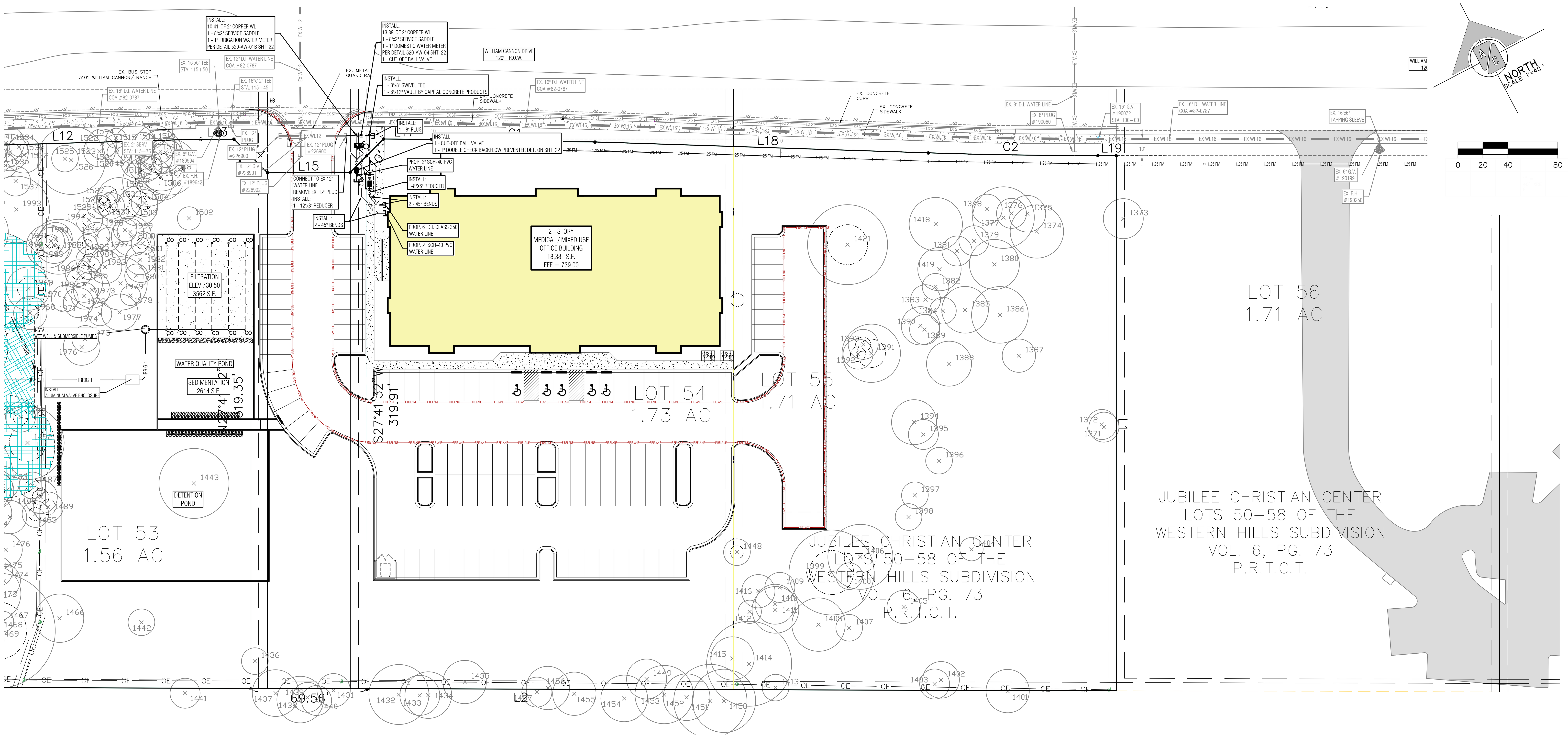
ENGINEER: CW	CHK'D BY:
SCALE:	

GRADING PLAN



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REVISIONS

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SCALE:	

CITY APPROVAL STAMP

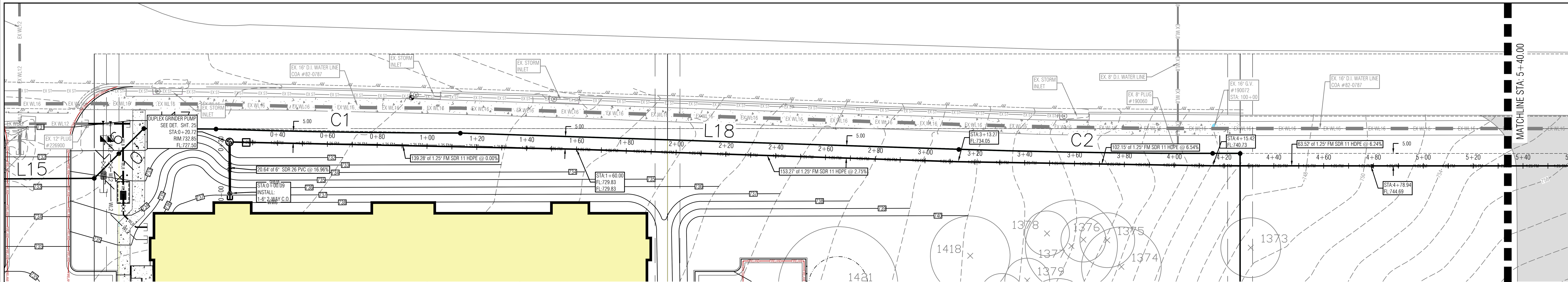
SP-____-____C

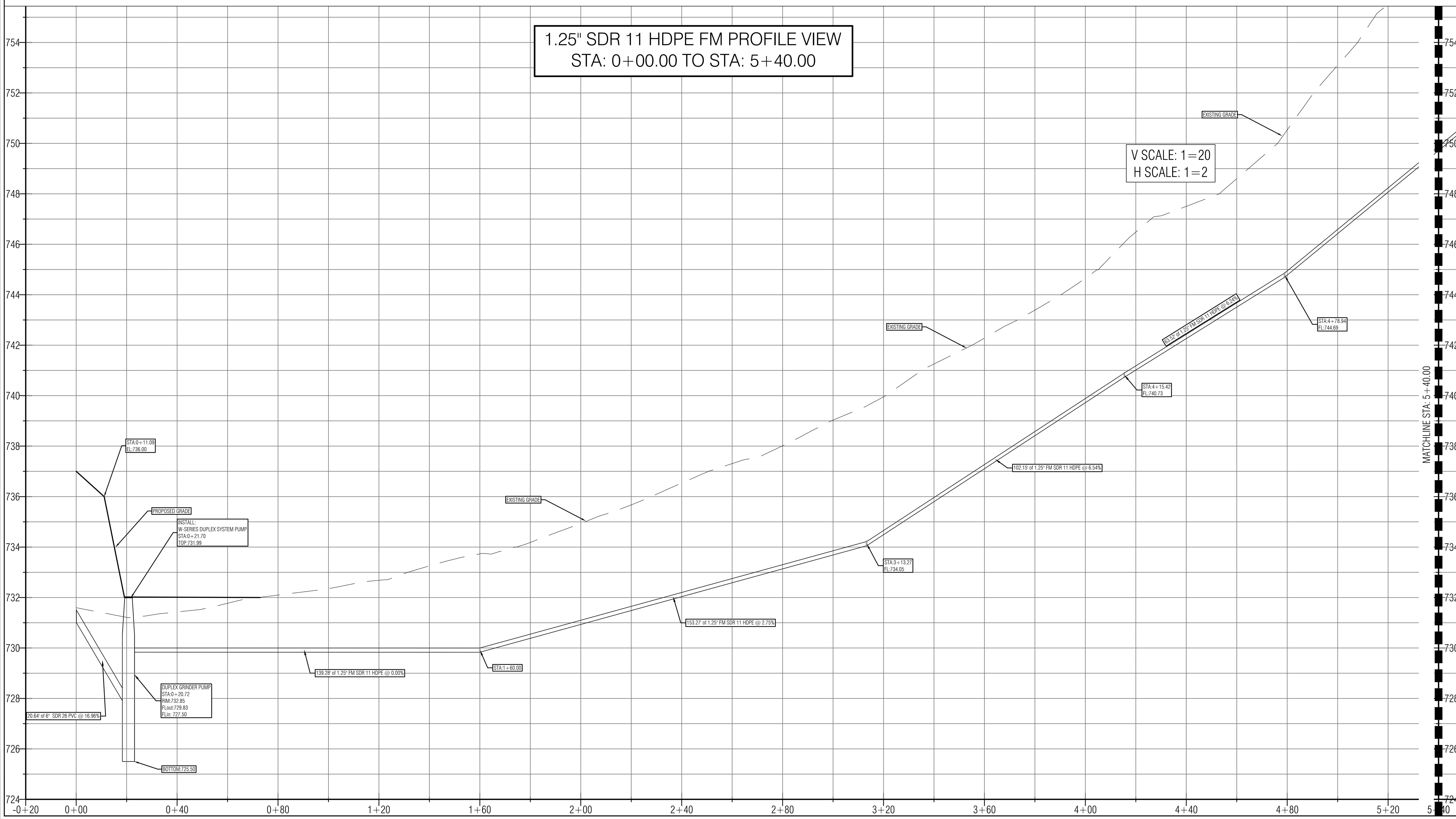
WATER DISTRIBUTION PLAN

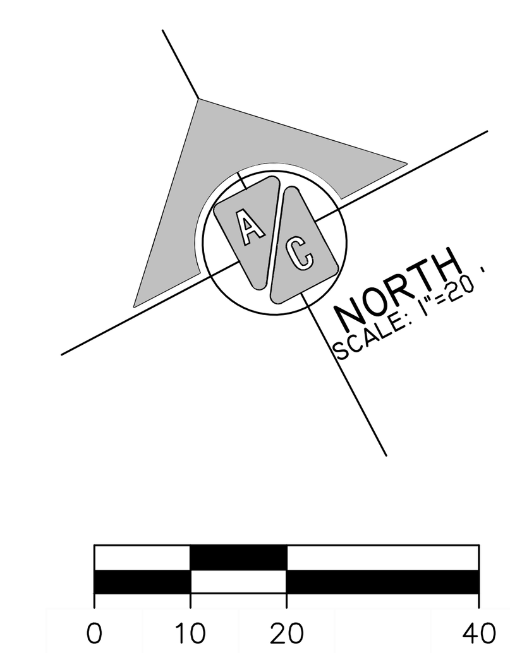
SITE CIVIL PLAN

11

of 26







AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

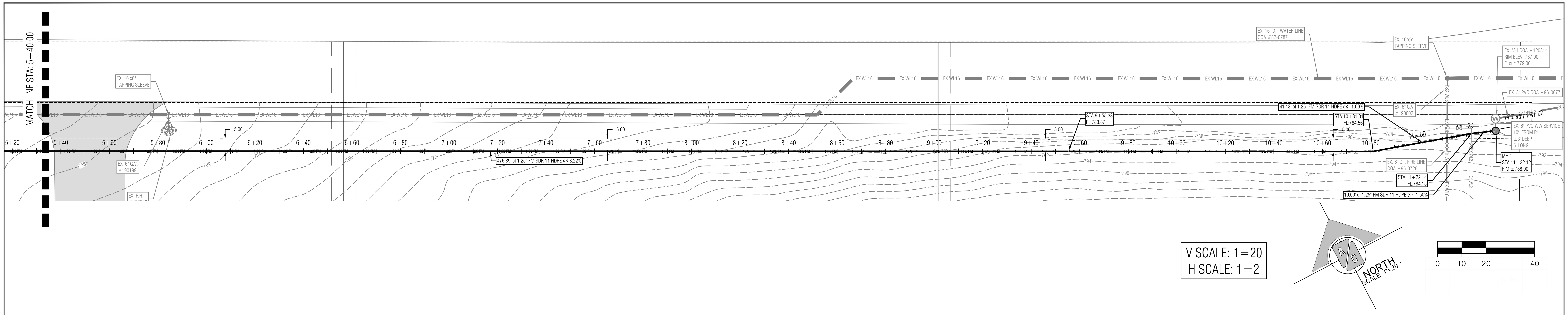
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

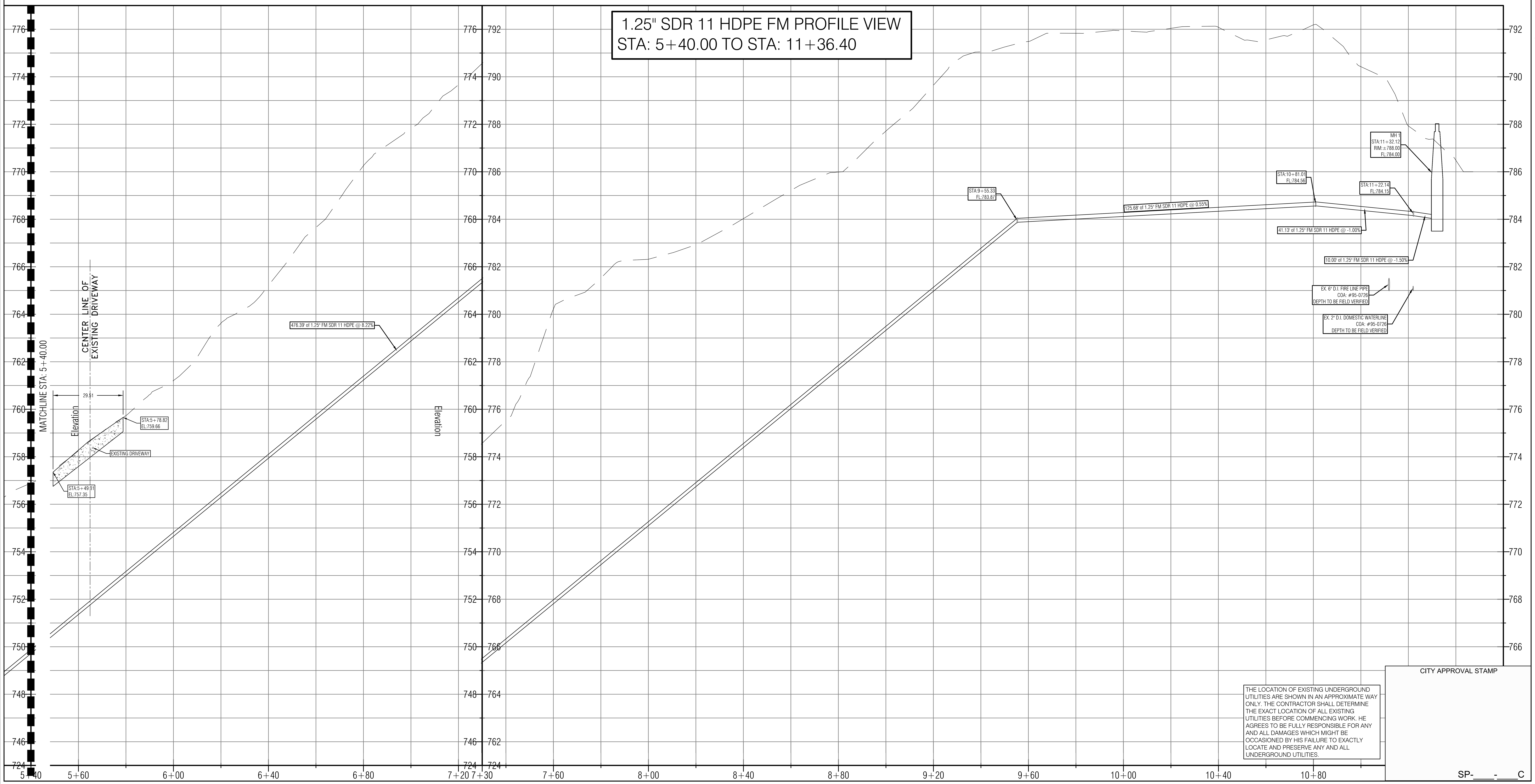
CITY APPROVAL STAMP

SP-____-____C

1.25" FORCE MAIN PLAN AND PROFILE
STA: 0+00 TO
STA: 5+40.00

SITE CIVIL PLAN





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CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

CALVIN J. WEIMAN 141995 LICENSED PROFESSIONAL ENGINEER
07/14/23

THE OFFICES AT WILLIAM CANNON

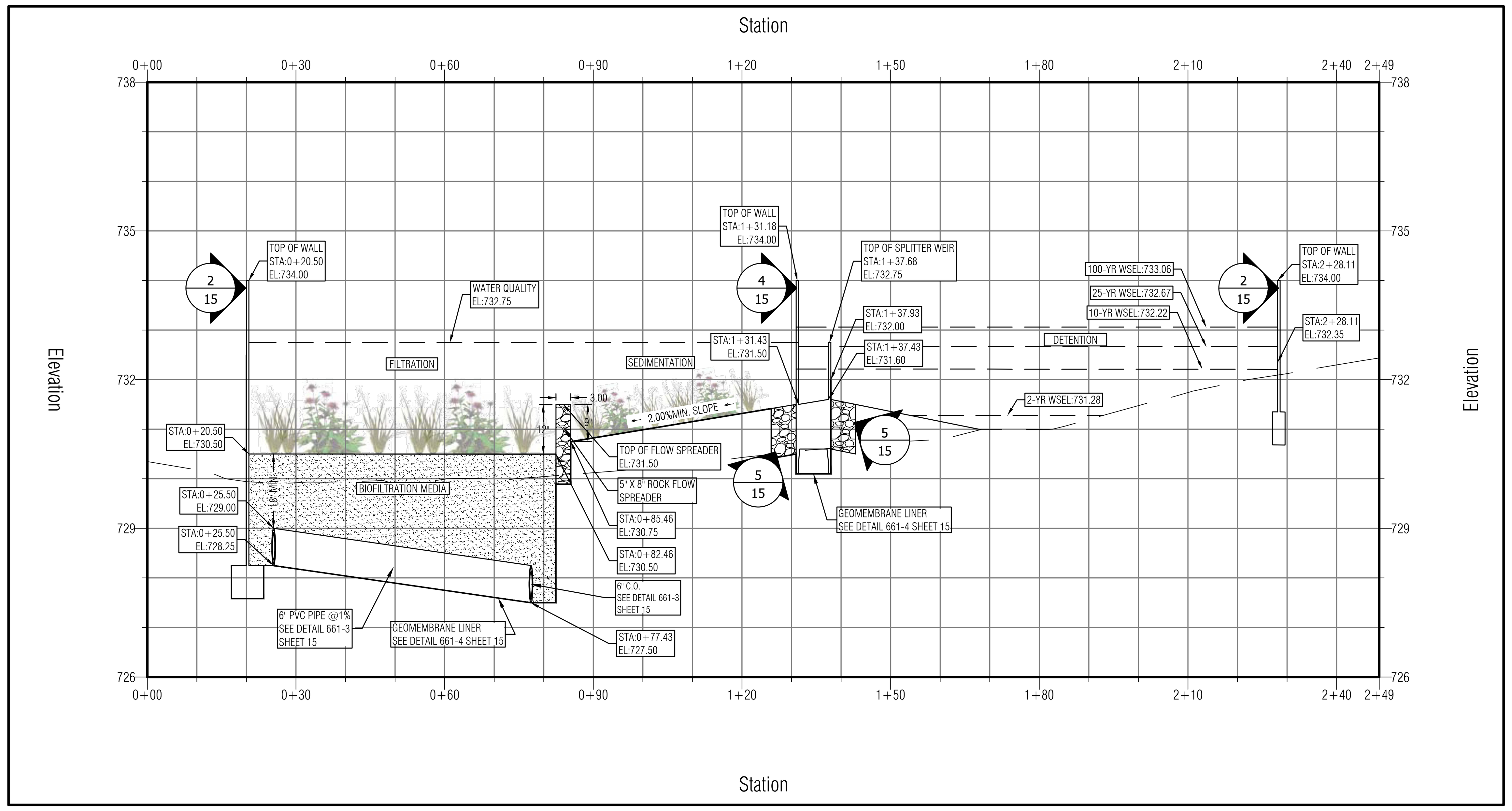
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

1.25" FORCE MAIN PLAN AND PROFILE
STA: 5+40 TO
STA: 11+36.40

SITE CIVIL PLAN



1 WQ POND CROSS SECTION

Scale: 1:20

APPENDIX R-6
"PARTIAL" BIOFILTRATION POND CALCULATIONS
FOR DEVELOPMENT PERMITS

DRAINAGE AREA DATA

Drainage Area to Control (DA) =	3.35 acres	
Drainage Area Impervious Cover (IC) =	2.16 acres	64.4 % I.C.
Capture Depth, CD = 0.5"+((IC-20)/100) =	0.94 inches	

WATER QUALITY CONTROL CALCULATIONS

The Water Quality Control is to be **PARTIAL BIOFILTRATION**

25-year Peak Flow Rate to control (Q_{25}) =	23.30 cfs	
100-year Peak Flow Rate to control (Q_{100}) =	31.4 cfs	

	Required	Provided
Water Quality Volume (WQV = CD*DA*3630)	**11,482** cf.	**11,898** cubic feet
Maximum Ponding Depth above Filter Medium (H)		**2.00** feet
For Partial Sedimentation Biofiltration Pond Volume (min.=20% WQV)	**2,296**	**3,884** feet
Filtration Basin Area	**1,724** sq feet	**3,562** sq feet
Filtration Pond Volume	**n/a** cf.	**8,015** cubic feet
Water Quality Elevation	732.75 ft msl	
Elev. of Splitter Weir (>= WQelev)	WQ elevation	732.75 ft msl
Length of Splitter Weir		40 feet
Required Head to Pass Q_{100}	maximum 1.0 ft	**0.41** feet
Water Quality Pond Freeboard Provided Above $Q_{100\ Head}$	minimum 0.25 ft	0.84 feet
Surface Area of Sedimentation Pond (SA)	2614 sf	2614 sf
Sedimentation Pond Plantings (min. 10% of SA)	261 plants	261 plants
Filtration Pond Plantings (Min. 20% of Filtration Area)	345 plants	712 plants

Sedimentation Pond Stage (msl)	Area (sq ft)	Storage (cf)	Cumulative Storage(cf)	Filtration Pond Stage (msl)	Area (sq ft)	Storage (cf)	Cumulative Storage(cf)
730.75	0	0	0	730.50	3562	0	0
731.00	643	53.6	54	731.00	3562	1,781	1,781
731.25	1307	238.9	292	731.25	3562	891	2,672
731.50	1967	406.4	699	731.50	3562	891	3,562
731.75	2614	570.7	1,270	731.75	3562	891	4,453
732.00	2614	653.5	1,923	732.00	3562	891	5,343
732.75	**2614**	**1,960.5**	**3,884**	**732.75**	**3562**	**2,672**	**8,015**
733.00	2614	653.5	4,537	733	3562	891	8,905
734.00	2615	2,614.5	7,152	734	3563	3,562	12,467
	Total Storage =	7,152			Total Storage =	12,467	
	Sedimentation Pond =	33% of WQV			Filtration Pond =	67% of WQV	

Detention Pond Stage (msl)	Area (sq ft)	Storage (cf)	Cumulative Storage(cf)
729.00	0	0.0	0.0
730.00	810	270.0	270.0
731.00	4,284	2318.8	2588.8
732.00	8,802	6408.7	8997.5
733.00	11,184	9969.2	18966.7
734.00	11,184	11184.0	30150.7
		Total Storage	**30150.7**

24-HR STORM EVENT	POND PEAK Qin (cfs)	PEAK Qout (cfs)	PEAK STORAGE (ac-ft)	PEAK ELEVATION (ft)
2-YR	10.90	6.40	0.08	731.28
10-YR	18.30	7.90	0.26	732.22
25-YR	23.30	12.00	0.36	732.67
100-YR	31.40	22.10	0.46	733.06

WILLIAM CANNON DRIVE
DETENTION POND OUTFLOW STRUCTURE

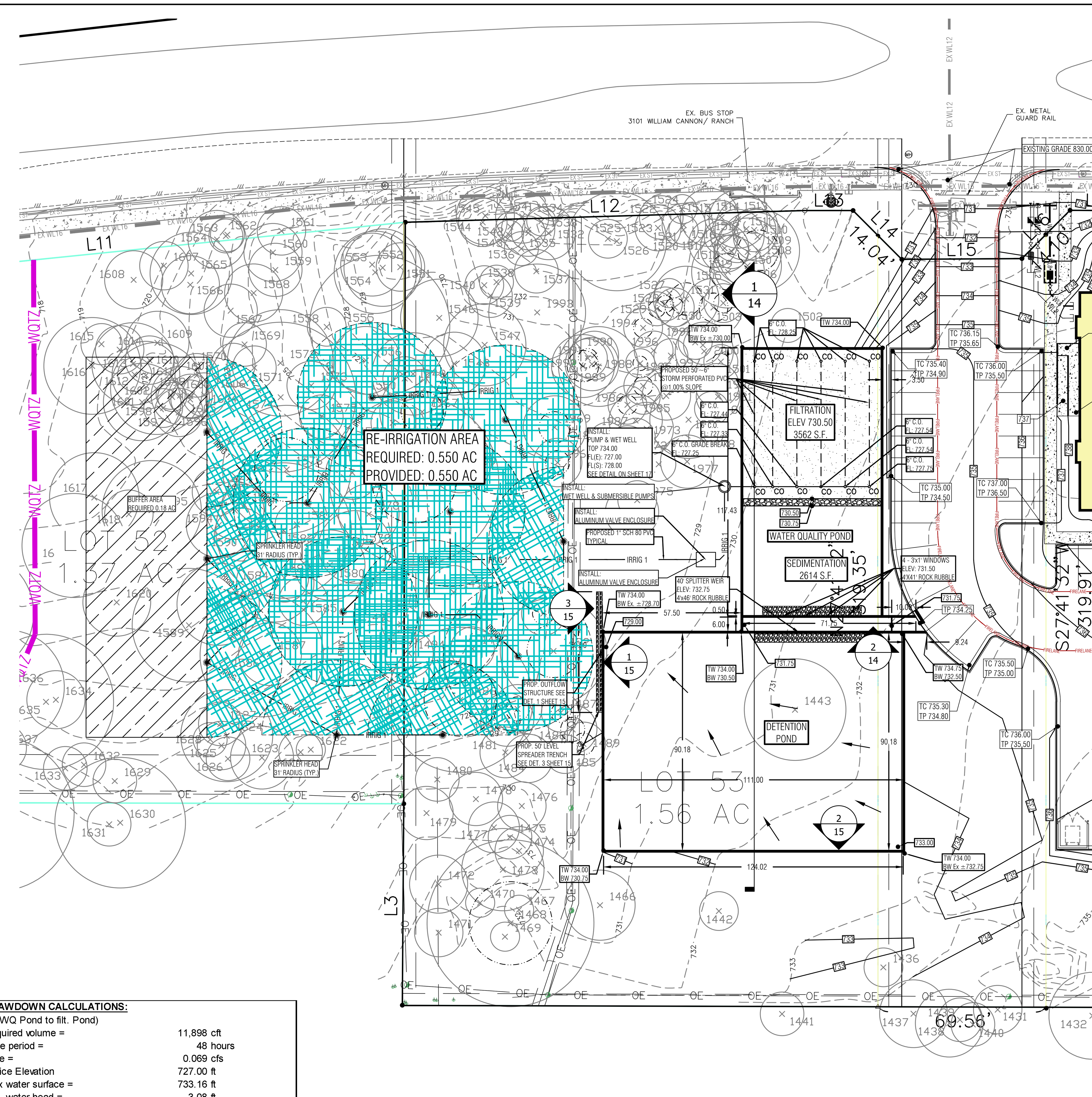
	L (ft) 1.000 / H (ft) 1.000		L (ft) 3.000 / H (ft) 1.000							
Total	**Orifice** A = 729.00 / 729.5 / Orifice H (to top)	0.6 / **1.00** flowline / Centerline	**Orifice** A = 732.00 / 732.5 / Orifice H (to top)	0.6 / **3.00** flowline / Centerline	Weir L (ft) = 733.00	C=3.0 / **8.00** flowline	Weir L (ft) = 733.10	C=3.0 / **14.00** flowline	**Total Flow**	
elevation	H	Q (cfs)	H	Q (cfs)	H	Q (cfs)	H	Q (cfs)	Q (cfs)	elevation
729.00	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**0.00**	729.00
729.50	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**0.00**	729.50
730.00	0.50	**3.40**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**3.40**	730.00
730.50	1.00	**4.81**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**4.81**	730.50
731.00	1.50	**5.90**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**5.90**	731.00
731.50	2.00	**6.81**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**6.81**	731.50
732.00	2.50	**7.61**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**7.61**	732.00
732.50	3.00	**8.34**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	**8.34**	732.50
733.00	3.50	**9.01**	0.50	**10.21**	0.00	**0.00**	0.00	**0.00**	**19.22**	733.00
733.50	4.00	**9.63**	1.00	**14.44**	0.50	**8.49**	0.40	**10.63**	**43.19**	733.50
734.00	4.50	**10.21**	1.50	**17.69**	1.00	**24.00**	0.90	**35.86**	**87.77**	734.00

WATER QUALITY SPLITTER BOX CALCULATIONS

$H = (Q_{100}/(C*L))^{2/3}$ $H = ((Q_{25}/CA)^2)/2g$

Design Peak Flow Rate = **Q_{DEV100} =**	31.4 cfs	**$Q_{DEV\ 25}$ =**	23.30 cfs
Water Quality Elevation =	732.75 MSL	Orifice FL in Spitter Box =	731.50 MSL
Elevation of Overflow Weir(>= WQelev) =	732.75 MSL	4 opening height =	1.00 foot
		width =	3.0 foot
		Orifice area (A) =	12.0 sq feet
Length of Overflow Weir (L) =	40.00 feet	Orifice centerline =	732.00 MSL
Weir Coefficient (C) =	3.0	Orifice Coefficient (C) =	0.60
Required Head to Pass Design Flow (H) =	0.41 feet	Head on orifice (H) =	0.16 feet
High Water (100-yr) Elevation =	**733.16 MSL**	Low water (25-yr) Elevation =	**732.16 MSL**
Top of Splitter Box Wall =	734.00 MSL		
Water Quality Pond **Freeboard** Provided =	**0.84** feet	MSL = Mean Sea Level	

Max. Velocity (fps)=	1.94 fps



DRAWDOWN CALCULATIONS:
(WQ Pond to filt. Pond)

Required volume =	11,898 cft
Time period =	48 hours
Rate =	0.069 cfs
Orifice Elevation	727.00 ft
Max water surface =	733.16 ft
Avg. water head =	3.08 ft
Orifice Coefficient, C=	0.6 in
Gravity=	32.2 ft/s/s
Min. orifice size =	**1.22 in**

DRAWDOWN CALCULATIONS:

$Q = CA(2gh)^{0.5}$

$A = Q / [C(2gh)^{0.5}] = (pi*d^2)/4$

A=	0.0081 SF
Dia. =	0.102 ft
Dia. =	**1.22 in.**

POND NOTES:

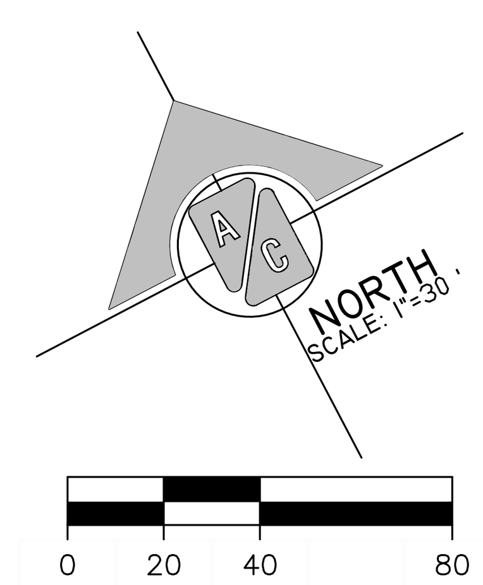
1. ALL CLEANOUTS WITHIN THE SAND BED SHALL BE FLUSH WITH THE TOP OF THE SAND BED.

2. SEDIMENT DEPTH MARKER TO BE ATTACHED TO GABION BASKET TO REPRESENT WHEN 20% OF WQ POND VOLUMES IS AFFECTED BY SEDIMENT ACCUMULATION.

3. ALL POND BOTTOMS, SIDE SLOPES AND EARTHEN EMBANKMENTS SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT MAXIMUM DENSITY, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS.

THE IRRIGATION FIELD MUST NOT RECEIVE ANY FERTILIZERS, PESTICIDES, OR HERBICIDES. (ECM 1.6.7.5.A.4.G).

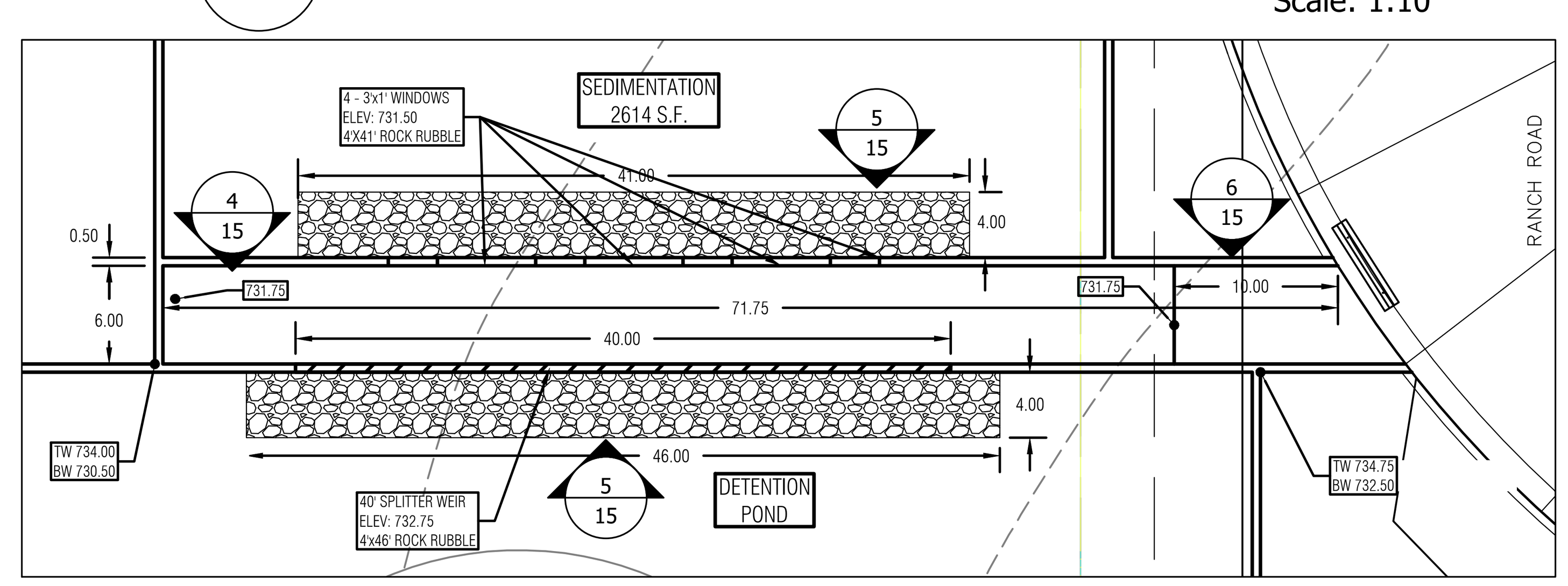
NOTE: A GEOTECHNICAL ENGINEER MUST BE INVOLVED IN ALL ASPECTS OF THE LINER DESIGN. ALL LINER STUDIES, PLANS, DETAILS, SPECIFICATIONS AND OTHER RELATED DOCUMENTS MUST BE SEALED BY A GEOTECHNICAL ENGINEER.



TREE LIST SEE SHEET 5

2 SPLITTER BOX FOR WATER QUALITY

Scale: 1:10



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CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS CALVIN J. WEIMAN 141995 REGISTERED PROFESSIONAL ENGINEER 07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	DESCRIPTION (REVISIONS)	APPROVED BY

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

WATER QUALITY AND DETENTION POND

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **The Offices at William Cannon**
Date Prepared: **August 28, 2023**

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 =	**Travis**	
Total project area included in plan * =	**3.89**	acres
Predevelopment impervious area within the limits of the plan * =	**0.14**	acres
Total post-development impervious area within the limits of the plan* =	**1.42**	acres
Total post-development impervious cover fraction * =	**0.365**	
P =	**32**	inches

$L_{M\ TOTAL\ PROJECT}$ = **1114** lbs.

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. = 1

Total drainage basin/outfall area =	**3.35**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.14**	acres
Post-development impervious area within drainage basin/outfall area =	**1.42**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.42**	
$L_{M\ THIS\ BASIN}$ =	**1114**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Bioretention Retention / Irrigation**
Removal efficiency = **100** 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 =	**3.35**	acres
A_I =	**1.57**	acres
A_P =	**1.7800**	acres
L_R =	**1769**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **1114** lbs.

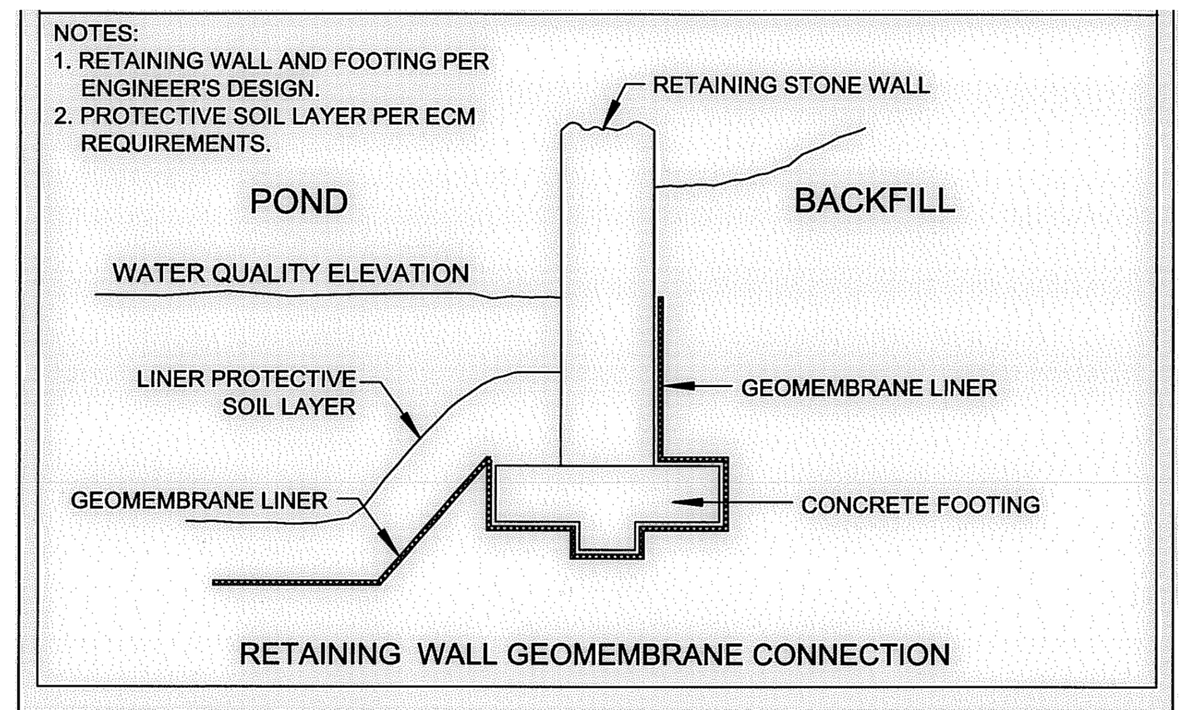
F = **0.63**

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 =	**0.64**	inches
Post Development Runoff Coefficient =	**0.34**	
On-site Water Quality Volume =	**2636**	cubic feet

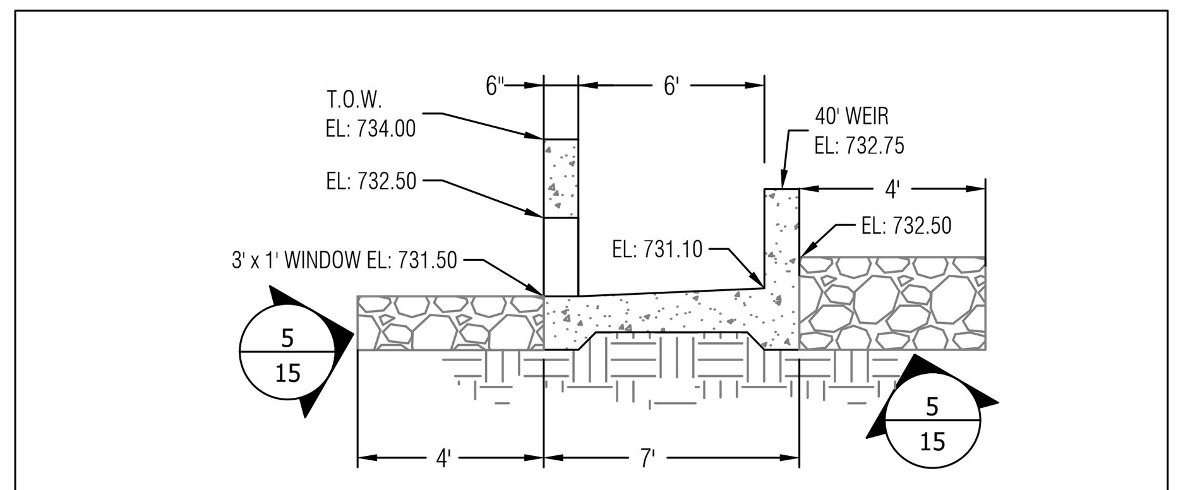
Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**527**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**3163**	cubic feet



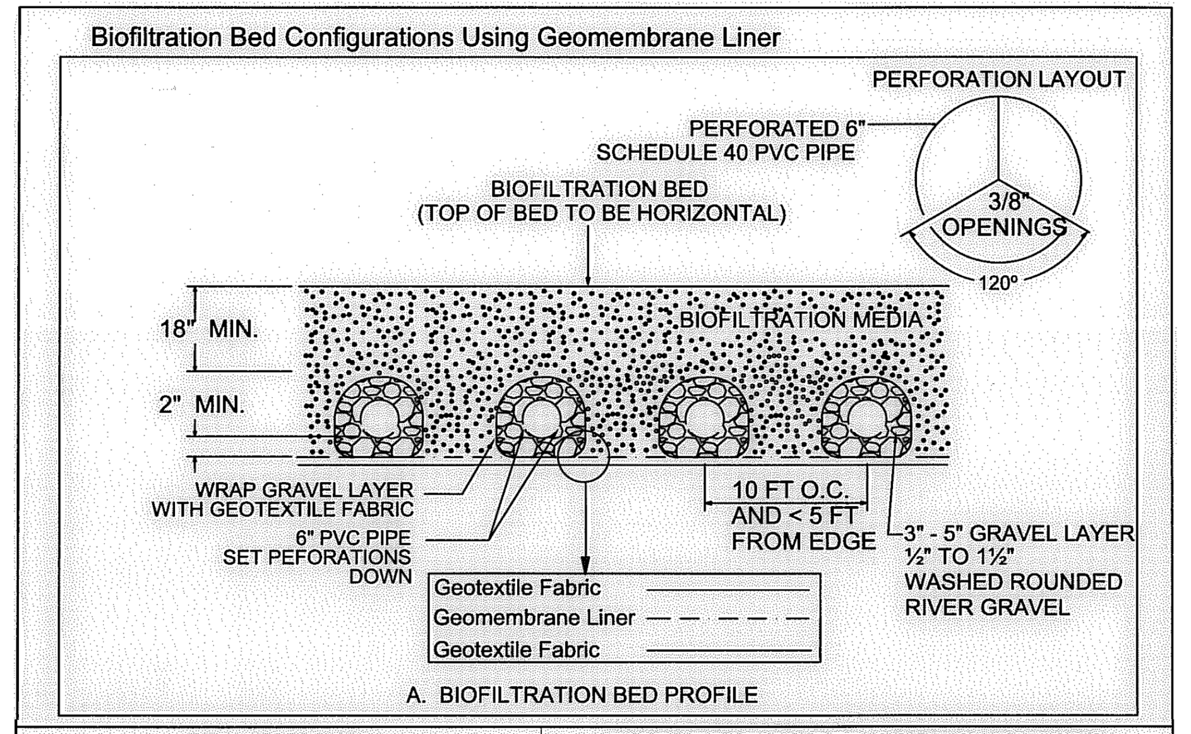
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT
GEOMEMBRANE LINER ATTACHMENT DETAILS
P.E. 12/30/14 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 661-4

NOTES:
GEOMEMBRANE MUST HAVE A MINIMUM THICKNESS OF THIRTY (30) MILS AND BE ULTRAVIOLET RESISTANT. USE OF A GEOMEMBRANE ALSO REQUIRES THAT A SUITABLE GEOTEXTILE FABRIC BE PLACED ON THE TOP AND BOTTOM OF THE MEMBRANE FOR PUNCTURE PROTECTION IF ANY PARTICLES GREATER THAN 0.375 INCH ARE PRESENT IN THE COVER SOIL OR SUBGRADE SURFACE, RESPECTIVELY. THE GEOTEXTILE MATERIAL MUST HAVE A MINIMUM UNIT WEIGHT OF 8 OZ./SQ. YD., A MINIMUM PUNCTURE STRENGTH OF 125 LBS., A MINIMUM MULLEN BURST STRENGTH OF 400 PSI, AND A MINIMUM TENSILE STRENGTH OF 200 LBS.

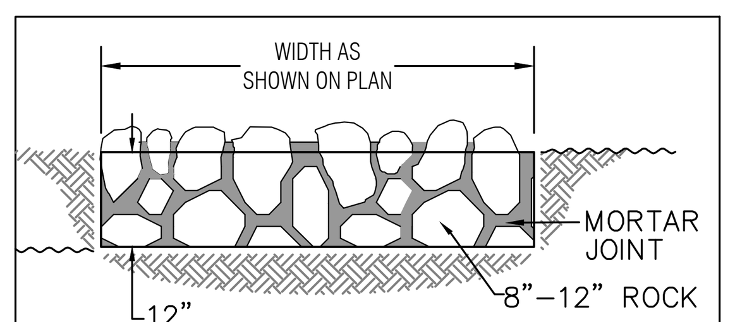


4 SPLITTER BOX SECTION
Scale: NTS

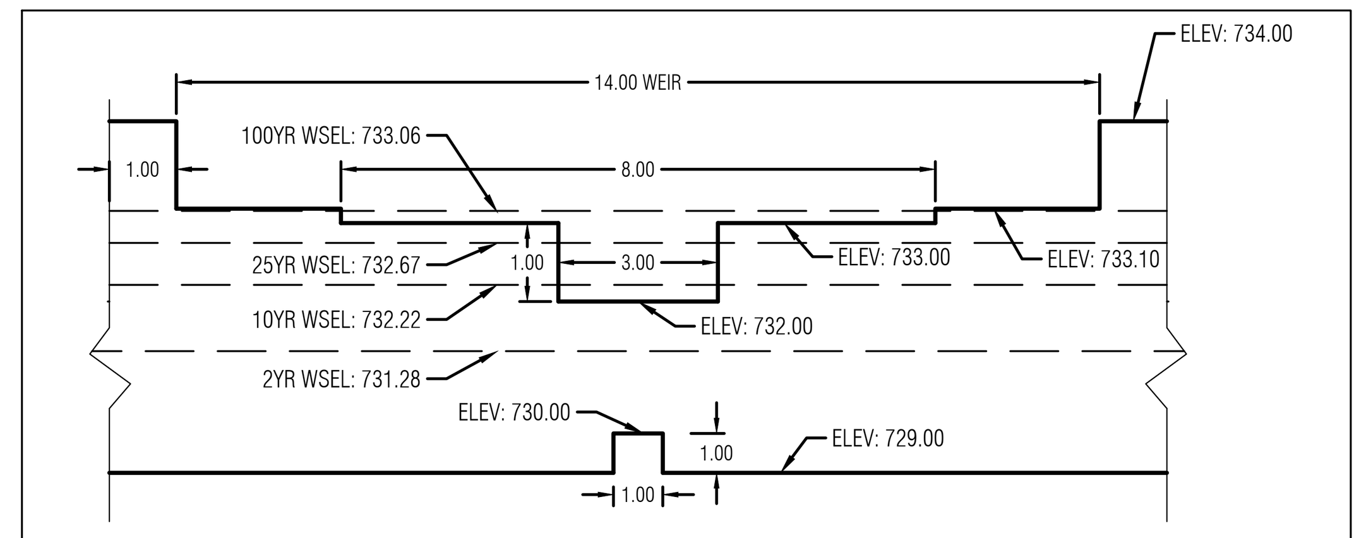
Biofiltration Bed Configurations Using Geomembrane Liner



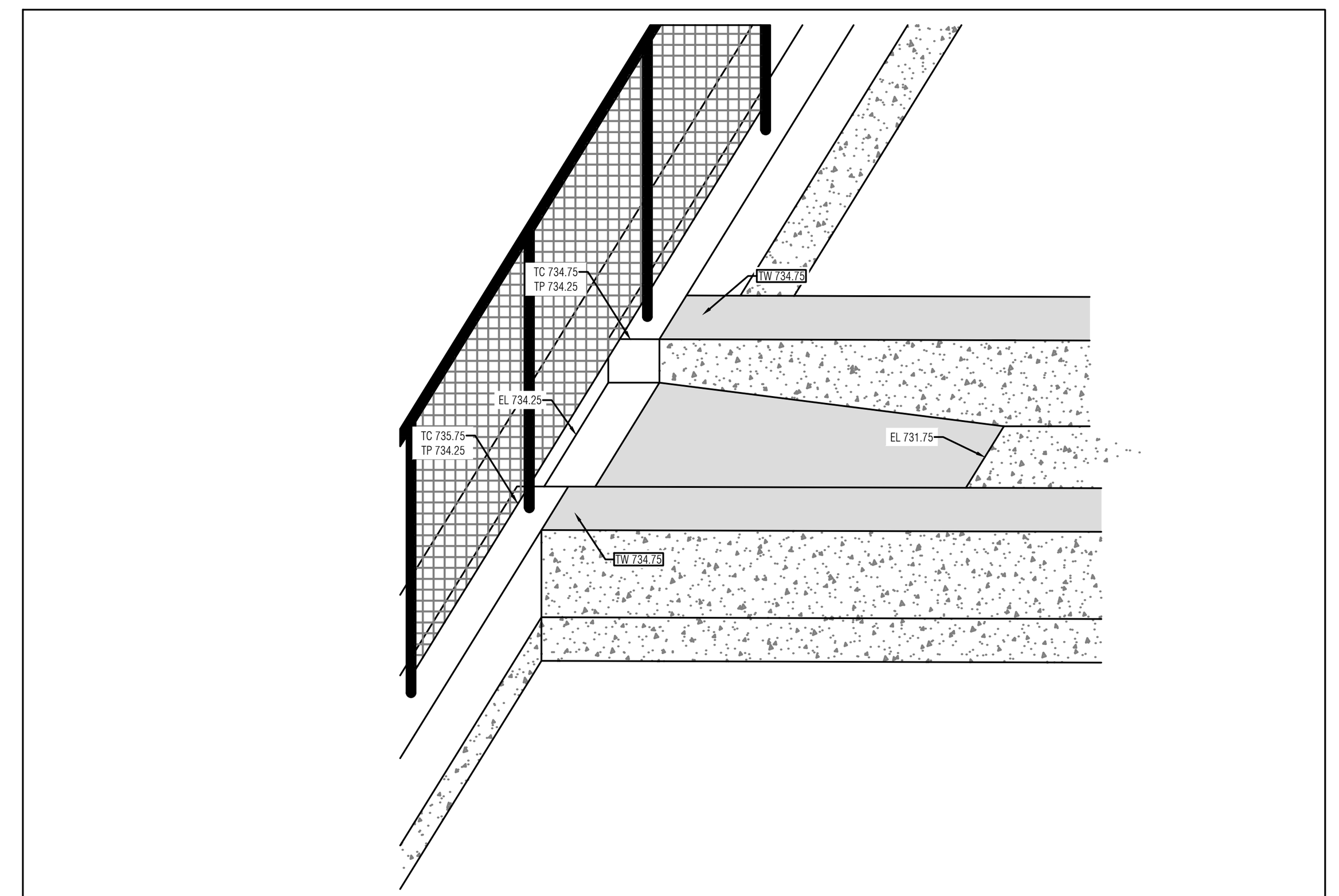
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT
BIOFILTRATION BED CONFIGURATIONS USING GEOMEMBRANE/CLAY LINER
P.E. 12/30/14 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 661-3



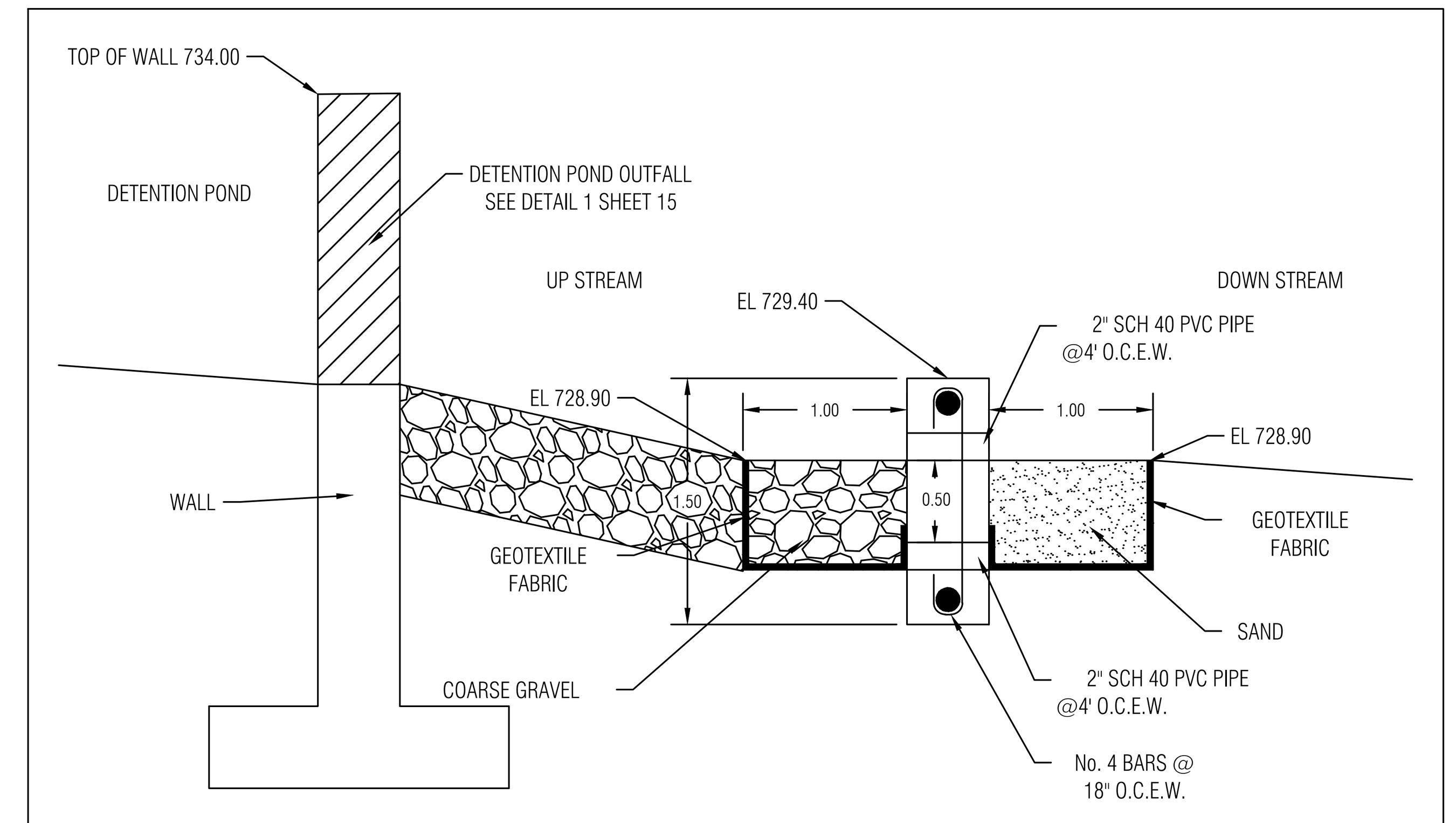
5 ROCK RUBBLE
Scale: NTS



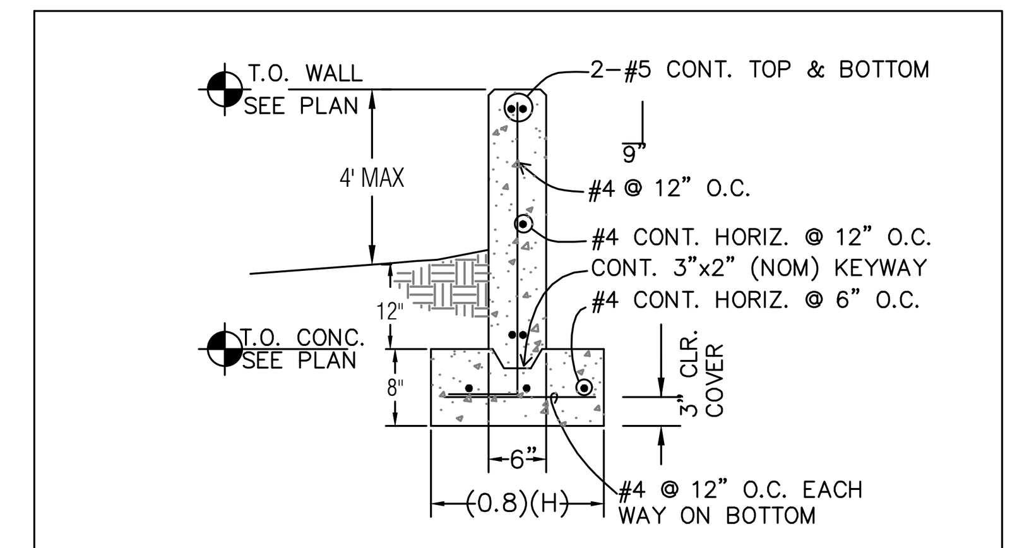
1 OUTLET STRUCTURE
Scale: NTS



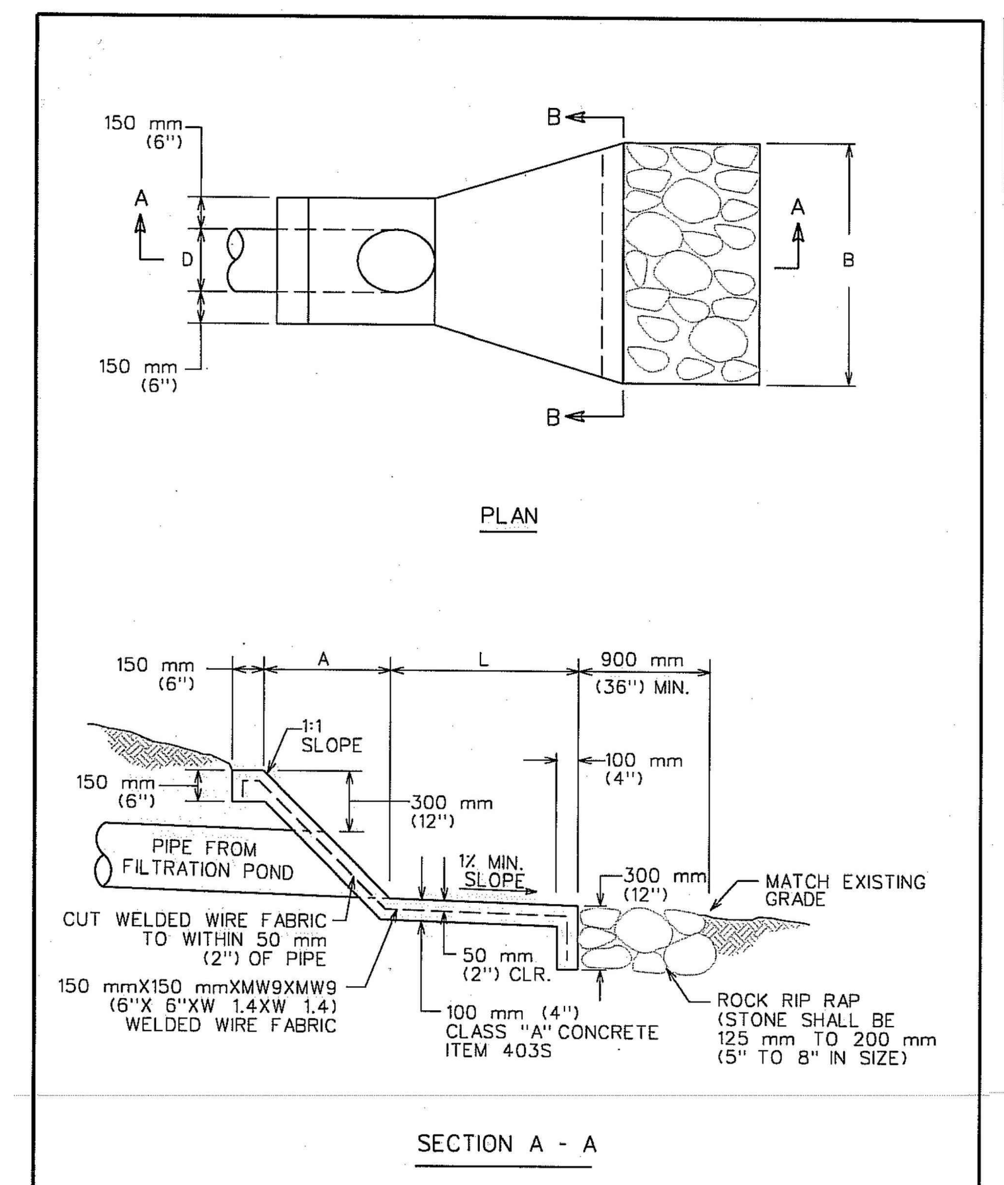
6 POND INFLOW AREA
Scale: N.T.S



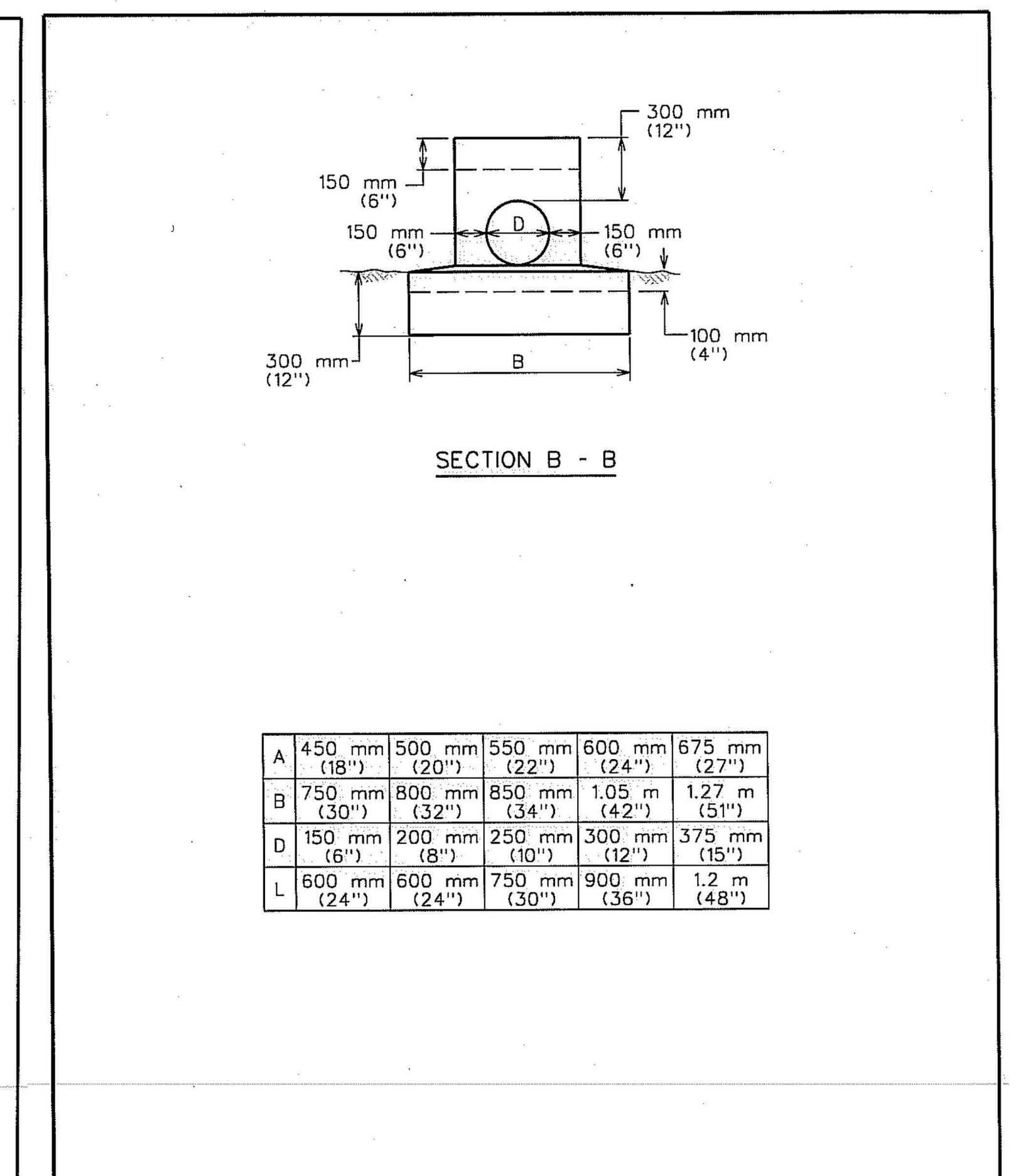
3 CONCRETE FLOW SPREADER
Scale: NTS



2 CONCRETE WALL SECTION
Scale: NTS



CITY OF AUSTIN
DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW
HEADWALL FOR FILTRATION PONDS W/OUTFALL PIPE 150 mm (6") TO 375 mm (15") DIA.
3/15/05 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 508S-15 1 OF 2



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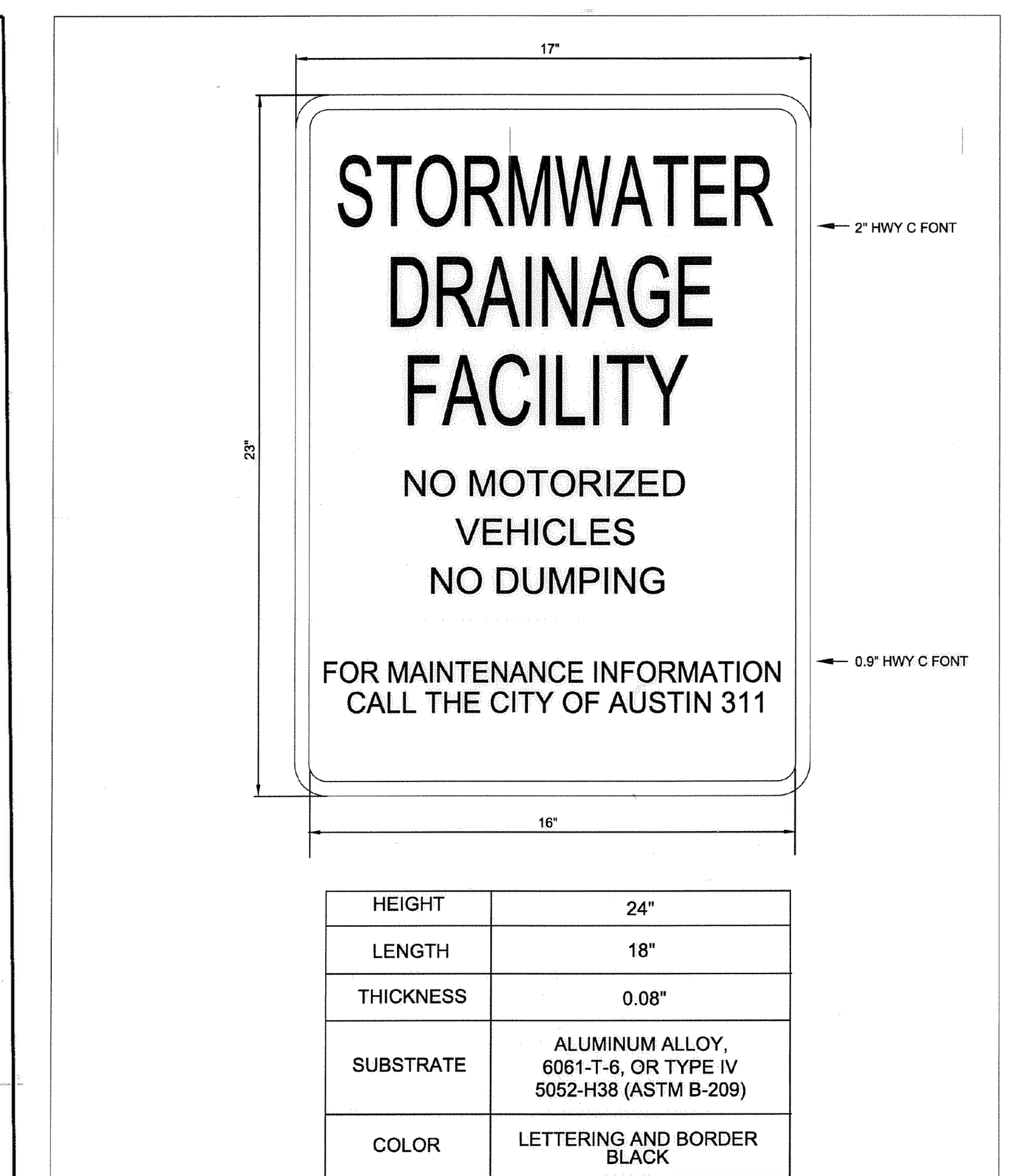
STANDARD NO. 508S-15 2 OF 2



CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
STORM WATER FACILITY SIGN
P.E. ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 662S-3

STORM CONTROL MEASURES CONSTRUCTION AND MAINTENANCE NOTES:
PROPER MAINTENANCE IS AS IMPORTANT AS ENGINEERING DESIGN AND CONSTRUCTION IN ORDER TO ENSURE THAT WATER QUALITY CONTROLS, REFERRED TO HEREIN AS STORMWATER CONTROL MEASURES (SCMS), WILL FUNCTION EFFECTIVELY. SECTION 25-8-231 OF THE LAND DEVELOPMENT CODE REQUIRES MAINTENANCE BE PERFORMED ON SCMS WHEN NECESSARY AS DEFINED BY THIS SECTION.
STORMWATER CONTROL MEASURES REQUIRED FOR COMMERCIAL AND MULTI-FAMILY DEVELOPMENT SHALL BE MAINTAINED BY THE PROPERTY OWNER. THE DESIGN OF DRAINAGE FACILITIES (INCLUDING BUT NOT LIMITED TO HEADWALLS, OPEN CHANNELS, STORM SEWERS, AREA INLETS, AND DETENTION, RETENTION AND STORMWATER CONTROL MEASURES AND THEIR APPURTENANCES) SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 1.2.4.E OF THE DRAINAGE CRITERIA MANUAL AND SECTION 1.6.3.B OF THE ENVIRONMENTAL CRITERIA MANUAL.

BIOFILTRATION SCM NOTES:
LANDSCAPES SHALL BE DESIGNED TO ALLOW FOR THE ACCESS AND AID THE MANEUVERABILITY OF MAINTENANCE EQUIPMENT (E.G., IF AREAS OF THE POND ARE DESIGNED TO BE MOWN, ACUTE ANGLES SHOULD BE AVOIDED IN TURF AREAS; WIDE ANGLES, GENTLE, SWEEPING CURVES, AND STRAIGHT LINES ARE EASIER TO MOW)
ROUTINE MAINTENANCE: UNLESS DAMAGED BY UNUSUAL SEDIMENT LOADS, HIGH FLOWS, OR VANDALISM, THE BIOFILTRATION MEDIA SHOULD BE LEFT UNDISTURBED AND ALLOWED TO AGE NATURALLY, AND BIOFILTRATION POND VEGETATION SHALL BE MANAGED SO THAT A DENSE, HEALTHY VEGETATIVE COVER IS PRESERVED. THE FOLLOWING MAINTENANCE ITEMS SHOULD BE PERFORMED DEPENDING ON FREQUENCY AND TIME OF YEAR:

-BIWEEKLY DURING FIRST GROWING SEASON: INSPECT VEGETATION UNTIL 95% VEGETATIVE COVER IS ESTABLISHED.

-MONTHLY: CHECK FOR ACCUMULATED SEDIMENTS, REMOVE AS NEEDED.
-QUARTERLY: REMOVE DEBRIS AND ACCUMULATED SEDIMENT; REPLACE SOIL MEDIA IN VOID AREAS CAUSED BY SETTLEMENT; REPAIR ERODED AREAS; REMULCH BY HAND ANY VOID AREAS.

-SEMI-ANNUALLY: REMOVE AND REPLACE DEAD OR DISEASED VEGETATION THAT IS CONSIDERED BEYOND TREATMENT (SEE PLANTING SPECIFICATIONS); TREAT ALL DISEASED TREES AND SHRUBS MECHANICALLY OR BY HAND DEPENDING ON THE INSECT OR DISEASE INFESTATION. IF DRAWDOWN EXCEEDS THE DRAWDOWN TIME ACCORDING TO SECTION 1.6.3.C.1, LIGHTLY SCARIFY SOIL WITH HAND CULTIVATOR; IF STANDING WATER REMAINS FOR GREATER THAN 96 HOURS, REMOVE TOP LAYER OF SEDIMENT, MULCH, AND POTENTIALLY VEGETATION; DE-COMPACT SOIL BY SCARIFICATION, AND REPLACE MULCH AND DISTURBED VEGETATION.

-LATE WINTER: TRIM BUNCH GRASSES; MOW TURF GRASSES; HARVEST OTHER TYPES OF VEGETATION ACCORDING TO RECOMMENDATIONS IN THE PLANTING SPECIFICATIONS. ADHERE TO SECTION 1.6.2.F.

-SPRING: REMOVE PREVIOUS MULCH LAYER AND APPLY NEW MULCH LAYER BY HAND (OPTION) ONCE EVERY TWO TO THREE YEARS.

SIGNAGE SHALL BE USED TO DELINEATE THE BOUNDARIES OF THE BIOFILTRATION AREA THAT ARE MAINTAINED WITH MINIMAL MOWING, NO FERTILIZERS, AND LIMITED USE OF ORGANIC HERBICIDES

BIOFILTRATION MEDIUM NOTES:
IN ORDER TO PROVIDE ACCEPTABLE DRAINAGE AND PLANT GROWTH CHARACTERISTICS, THE BIOFILTRATION MEDIUM SHALL MEET THE FOLLOWING PERFORMANCE CRITERIA:
PERCENT ORGANIC MATTER (BY WEIGHT) OF 0.5—5.0%
TEXTURE ANALYSIS (PARTICLE SIZE DISTRIBUTION):
- PERCENT SAND 70—90%
- PERCENT CLAY 3—10%
- PERCENT SILT PLUS CLAY ≤27%

SUPPLIERS OF BIOFILTRATION MEDIA MUST HAVE LABORATORY TESTING CONDUCTED AT A MINIMUM OF SIX MONTH INTERVALS TO VERIFY PERCENT ORGANIC MATTER AND TEXTURE ANALYSIS. THE MEDIUM MUST NOT CONTAIN ANY CONTAMINATED SOILS AND BE FREE OF ANY HOUSEHOLD OR HAZARDOUS WASTE. IT MUST BE FREE OF STONES, TRASH, AND OTHER UNDESIRABLE MATERIAL, AND SHOULD NOT CONTAIN WEEDS OR WEED SEEDS. A SATURATED HYDRAULIC CONDUCTIVITY OF K≥2.0 IN/HR CAN BE PRESUMED IF THE ORGANIC MATTER AND TEXTURE ANALYSIS CRITERIA ARE MET.
THE HYDRAULIC CONDUCTIVITY NEEDS TO BE HIGH ENOUGH TO PROVIDE ADEQUATE DRAINAGE, SUPPORT HEALTHY PLANT GROWTH, AND PREVENT NUISANCE CONDITIONS. THE CRITERIA IS INTENDED TO MEET THE NRCS DEFINITION OF SOILS WITH "MODERATE" TO "HIGH" AVAILABLE WATER CAPACITY. THE CRITERIA SHOULD ENSURE THAT THE MEDIUM HAS SUFFICIENT WATER HOLDING CAPACITY TO SUPPORT VIGOROUS PLANT GROWTH, ENHANCING THE ABILITY FOR PLANTS TO SURVIVE DURING DRY PERIODS. IT SHOULD ALSO SUSTAIN A HEALTHY MICROORGANISM POPULATION WHICH, IN CONCERT WITH THE PLANTS, SHOULD ENHANCE BIOLOGICAL REMOVAL OF POLLUTANTS IN STORMWATER.
THE PERCENT ORGANIC MATTER CRITERION IS NEEDED TO ENSURE HEALTHY VEGETATION. MOST NATIVE SOILS IN THE AUSTIN AREA HAVE LESS THAN 4% ORGANIC MATTER, AND NATIVE PLANTS IN THE AREA HAVE ADAPTED TO SURVIVING IN THESE TYPES OF SOILS. A HIGHER ORGANIC MATTER CONTENT IS NOT DESIRABLE AS NUTRIENTS MAY BE EXPORTED FROM THE MEDIUM, WHICH IS COUNTER TO THE REMOVAL THAT IS INTENDED IN THIS TYPE OF DEVICE. IMMATURE COMPOST, MANURE, COMPOST DERIVED FROM ANIMAL OR HUMAN SOURCES, AND UNSTABLE FORMS OF ORGANIC MATTER THAT MAY EXPORT NUTRIENTS SHOULD NOT BE INCLUDED IN THE BIOFILTRATION MEDIUM. RECOMMENDED SOURCES OF ORGANIC MATTER INCLUDE THAT FOUND NATURALLY IN NATIVE TOPSOIL, HUMUS, COCONUT COIR FIBER, AND MATURE PLANT-DERIVED COMPOSTS WITH AN ESTABLISHED FUNGAL COMPONENT. THE BIOFILTRATION MEDIUM MUST BE CERTIFIED BY THE PROJECT ENGINEER OR THEIR DESIGNEE (E.G. CONTRACTOR, SOIL SUPPLIER, OR APPROPRIATE QUALIFIED ALTERNATIVE INDIVIDUAL) AS MEETING THE ABOVE PERFORMANCE CRITERIA (BASED ON SUBMITTAL OF DELIVERY TICKETS, TEST RESULTS, ETC.) BEFORE ACCEPTANCE BY THE CITY (SEE BIOFILTRATION SEQUENCE OF CONSTRUCTION REQUIREMENTS IN SECTION 1.6.3.C.6).
CREATING BIOFILTRATION MIXTURE
THE BIOFILTRATION MEDIA SHOULD BE A MIXTURE OF SAND AND OTHER TYPES OF INGREDIENTS. RECOGNIZING THE DIFFICULTY IN DETERMINING THE CORRECT TYPES AND PROPORTIONS OF VARIOUS INGREDIENTS, THE CITY HAS TESTED VARIOUS MEDIA IN ORDER TO CHARACTERIZE PHYSICAL AND CHEMICAL PROPERTIES. THE RECOMMENDATIONS BELOW REFLECT THE TEST RESULTS AND RESEARCH CONDUCTED BY THE CITY AND OTHER STORMWATER PROFESSIONALS.
THE FOLLOWING MIXTURE (% BY VOLUME) SHOULD CREATE AN APPROPRIATE BIOFILTRATION MEDIA, SUBJECT TO SPECIFIC CHARACTERISTICS OF THE TOPSOIL, WHICH MAY EXHIBIT CONSIDERABLE VARIABILITY:
- 70-80% CONCRETE SAND PER ASTM C33 AND/OR SCREENED DECOMPOSED GRANITE SAND
- 20-30% SCREENED BULK TOPSOIL (CHOCOLATE LOAM IS ALSO ACCEPTABLE)
- THE SOURCE MATERIALS MUST BE FREE OF STONES, ROOTS, OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES. ADDITIONALLY, IT SHOULD BE FREE OF TRASH, OTHER UNDESIRABLE MATERIAL, AND SHOULD NOT CONTAIN WEEDS OR WEED SEEDS.
- THE INGREDIENTS SHALL BE WELL-MIXED TO CREATE A HOMOGENOUS MEDIA.

A COMMERCIALLY AVAILABLE FILL MATERIAL THAT SHOULD NOT BE USED IS TYPICALLY MARKETED AS "SANDY LOAM." THIS PRODUCT IS OFTEN REFERRED TO BY LANDSCAPERS AS "RED DEATH", WHICH REFERS TO THE COLOR OF THE MATERIAL, AND IS AN INFERTILE FILL MATERIAL THAT HAS POOR DRAINAGE CHARACTERISTICS.
SOME SHRINKAGE OF THE MEDIA IS TO BE EXPECTED AFTER INSTALLATION, IN THE RANGE OF 5-15%. AS A GENERAL RECOMMENDATION, ABOUT 20 INCHES OF MEDIA SHOULD BE INSTALLED TO ACHIEVE THE REQUIRED DEPTH OF 18 INCHES. WETTING OF THE MEDIA AT THE TIME OF INSTALLATION IS NEEDED IN ORDER TO DETERMINE ACTUAL SHRINKAGE AND AMOUNT OF "MAKE-UP" MATERIAL NEEDED.

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CITY APPROVAL STAMP

SP-2023-0271C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD. SUITE 220
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PH: (512) 306-0018

08/22/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050 DATE: 08/22/23
CAD: DA/MM CHK'D BY:
ENGINEER: CW CHK'D BY:
SCALE:

WATER QUALITY AND DETENTION POND AND DETAILS

SITE CIVIL PLAN

SLAT — STORMWATER LOAD ANALYSIS TOOL 2.0

Quick Guide

1. Enable Macros in the worksheet.
2. Click "Restore Defaults" button to the right.
3. Fill all **yellow cells** with project specifics, moving from top to bottom.
4. Click "View Full Results" button.
5. Project Passes if Green "COMPLIANT" button appears.

Find the **Full User Manual** at austintexas.gov/department/stormwater-management

Questions? Email SLAT@austintexas.gov

Click Here To **Restore Defaults** — For a New Analysis

Click Here To **View Results**

KEY: Required User Input | **Key User Input** | Internal Calculation | Error | Calculator Output | Does Not Apply

Step 1: Input site characteristics in yellow highlighted cells

Jubilee	Calvin Weiman	06/02/2023	SLAT 2.0 - 3/2018

	Drainage Area A
Is your site within the Barton Springs Zone (BSZ)?	Yes
How many drainage areas, n_{max}, does your site have?	1
Drainage area to the control, A_n (acres)	3.35
Base impervious cover of the drainage area, IC_B (%)	4.0
Developed impervious cover of the drainage area, IC_D (%)	46.7

Step 2: Input SCM characteristics in yellow highlighted cells

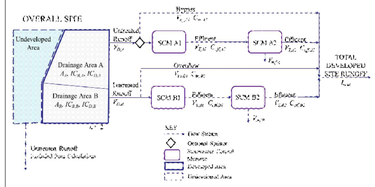
	Drainage Area A
SCM 1 (First in Series)	*SCM A1*
SCM Type	Biofiltration
Is SCM 1 **off-line**?	Yes (Off-Line)
What is the Water Quality Volume, *WQV* (inches) [aka Capture Depth]	0.94
Minimum water quality volume allowed (in)	0.77
SCM 1 Actual Volume (ft^3)	11431
Do you know the **drawdown time** or the **flow rate**?	Drawdown Time
Drawdown Time, *DDT* (hrs) [tot. time to empty full SCM	60
Flow Rate (gpm) [use only for "alternative" controls]	
Treatment Rate, Ω (in/hr)	0.016
Do you already know the **runoff capture efficiency**?	No
User Entered Runoff Capture Efficiency, RCE (%)	
Runoff Capture Efficiency, RCE (%)	93.5%
Conveyance	
How is effluent from SCM 1 discharged?	Pumped
Delay after end of rainfall before discharging SCM 1 (hrs)	12
SCM 2 (Second in Series)	*SCM A2*
SCM Type	Infiltration Field
Do you know the infiltrated or reused water quantity?	No; infiltrate all routed water
User-entered infilt. water quality volume, WQV_{inf} (in)	
-OR- Percent of yearly runoff infiltrated, RCE_{inf} (%)	
Soil infiltration rate (in/hr)	0.19
Ratio of drawdown time / irrigation time, for any zone	2
Approximate Minimum Field Area (Ac)	0.55

Step 3: Input Effluent Data for Alternative SCMs

Pollutant	Units				
COD	mg/L				
E. coli	CFU/100mL				
Pb	mg/L				
TN	mg/L				
TP	mg/L				
TSS	mg/L				
Zn	mg/L				

Pollutant	Units				
COD	mg/L				
E. coli	CFU/100mL				
Pb	mg/L				
TN	mg/L				
TP	mg/L				
TSS	mg/L				
Zn	mg/L				

Simplified Schematic



ERROR CHECK PASSED

COMPLIANT

Results subject to review and approval by COA Development Services Department.

Click Here To **View Results**

ERROR CHECK PASSED

COMPLIANT

Results subject to review and approval by COA Development Services Department.

ERROR CHECK PASSED

COMPLIANT

Results subject to review and approval by COA Development Services Department.

Click Here To **View Results**

SLAT — STORMWATER LOAD ANALYSIS TOOL 2.0 — 1/2

Site Name: Jubilee | By: Calvin Weiman | Date: 06/02/2023

RESULTS: COMPLIANCE TABLE — SLAT 2.0 - 3/2018

POLLUTANT		DEVELOPED LOAD, WITH CONTROLS					EXISTING LOAD	LOAD EQUIV. FACTOR, LEF	COMPLIES ?
		Drainage Area A	*Drainage Area B*	*Drainage Area C*	*Drainage Area D*	TOTAL LOAD,			
COD	lbs/yr	2.96E+01	0.00E+00	0.00E+00	0.00E+00	2.96E+01	6.17E+01	0.48	YES
E. coli	10^6 MPN/y	4.12E+04	0.00E+00	0.00E+00	0.00E+00	4.12E+04	1.68E+05	0.25	YES
Pb	lbs/yr	6.03E-03	0.00E+00	0.00E+00	0.00E+00	6.03E-03	7.00E-03	0.86	YES
TN	lbs/yr	1.08E+00	0.00E+00	0.00E+00	0.00E+00	1.08E+00	3.29E+00	0.33	YES
TP	lbs/yr	1.86E-01	0.00E+00	0.00E+00	0.00E+00	1.86E-01	5.88E-01	0.32	YES
TSS	lbs/yr	4.41E+01	0.00E+00	0.00E+00	0.00E+00	4.41E+01	2.46E+02	0.18	YES
Zn	lbs/yr	3.49E-02	0.00E+00	0.00E+00	0.00E+00	3.49E-02	3.82E-02	0.91	YES

Results subject to review and approval by COA Development Services Department.

ERROR CHECK PASSED

COMPLIANT

Change Inputs

Print Results

Jump to Loads Removed Table

SUMMARY OF INPUTS

Site Location — Within Barton Springs Zone - Compare to Existing Loads

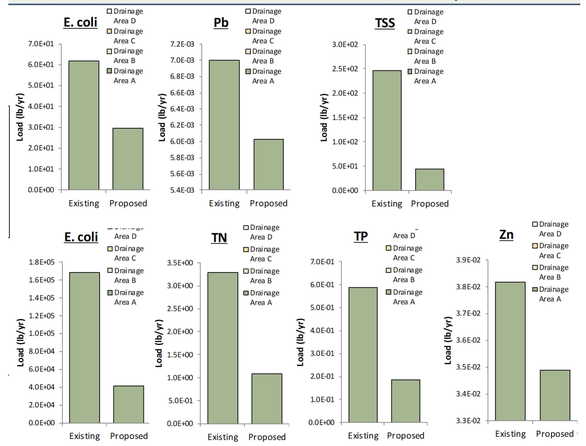
	Drainage Area A	*Drainage Area B*	*Drainage Area C*	*Drainage Area D*	TOTALS
Drainage Area, An (Ac)	3.35	N/A	N/A	N/A	**3.35**
Developed IC, IC_D (%)	46.7	N/A	N/A	N/A	**47%**
SCM 1	Biofiltration	N/A	N/A	N/A	-
Water Qual. Vol, WQV (in)	0.94	N/A	N/A	N/A	-
Actual Volume (ft3)	11431	N/A	N/A	N/A	**11431**
Drawdown Time, DDT (hrs)	60	N/A	N/A	N/A	-
Flowrate (gpm)	23.75	N/A	N/A	N/A	-
SCM 2	Infiltration Field	N/A	N/A	N/A	-
Infiltration Rate (in/hr)	0.19	N/A	N/A	N/A	-
Appx. Min. Infilt. Field Area (Ac	0.55	N/A	N/A	N/A	**0.55**
Average Irrigation Rate (gpm)	23.7	N/A	N/A	N/A	-
Error with Input Values?	NO	NO	NO	NO	

Results subject to review and approval by COA Development Services Department.

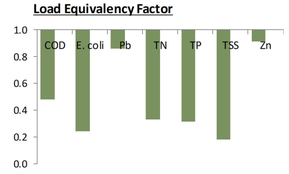
SLAT — STORMWATER LOAD ANALYSIS TOOL 2.0 — 2/2

Site Name: Jubilee | By: Calvin Weiman | Date: 06/02/2023

RESULTS: PLOTS — SLAT 2.0 - 3/2018



Load Equivalency Factor



CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
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PH: (512) 306-0018

STATE OF TEXAS — Calvin J. Weiman — 91995 — REGISTERED PROFESSIONAL ENGINEER — 06/28/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS

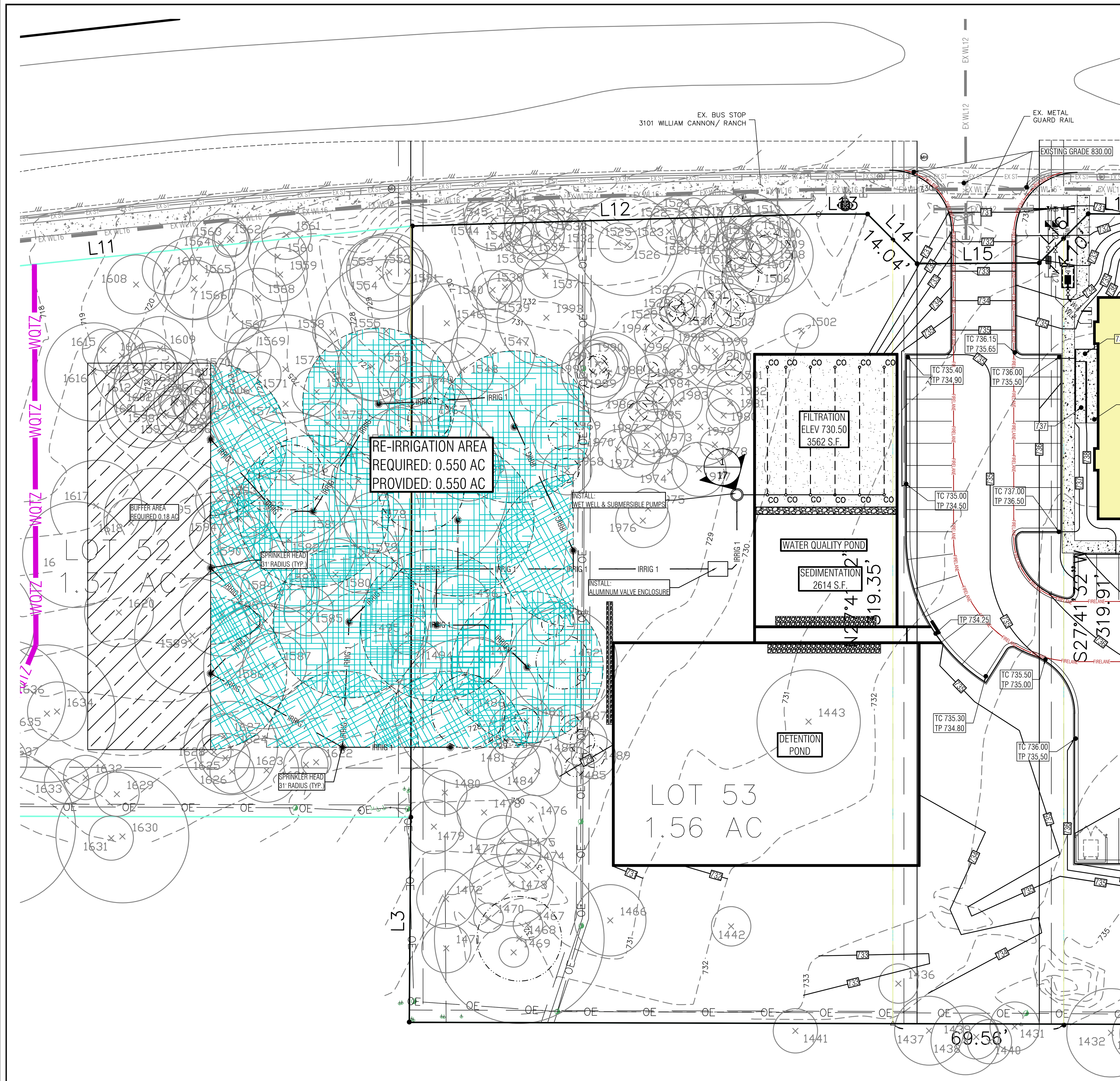
REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 6/28/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

WATER QUALITY POND CALCS

SITE CIVIL PLAN

16 of 26



MAINTENANCE NOTES:

BASINS. STRUCTURAL INTEGRITY OF BASINS SHALL BE MAINTAINED AT ALL TIMES. WOODY VEGETATION SHOULD BE CONTROLLED/REMOVED TO PREVENT BASIN LEAKAGE. THE ABILITY OF THE BASIN TO RETAIN THE WATER QUALITY VOLUME SHALL BE EVALUATED BY THE COA.

IRRIGATION AREAS. TO THE GREATEST EXTENT PRACTICABLE, IRRIGATION AREAS ARE TO REMAIN IN THEIR NATURAL STATE, HOWEVER, VEGETATION MUST BE MAINTAINED IN THE IRRIGATION AREA SUCH THAT IT DOES NOT IMPEDE THE SPRAY OF WATER FROM THE IRRIGATION HEADS. TREE AND SHRUB TRIMMINGS AND OTHER LARGE DEBRIS MUST BE REMOVED FROM THE IRRIGATION AREA. SEE REQUIREMENTS IN SECTION 1.6.7.A.3.(G) AND (H) REGARDING REQUIREMENTS FOR SOIL AND VEGETATION IN IRRIGATION AREAS.

PUMPS AND IRRIGATION SYSTEM. THE PUMPS AND IRRIGATION SYSTEM MUST BE INSPECTED OR TESTED A MINIMUM OF SIX (6) TIMES PER YEAR TO SHOW ALL COMPONENTS ARE OPERATING AS INTENDED. TWO (2) OF THESE SIX (6) INSPECTIONS SHOULD BE AFTER RAIN EVENTS TO ENSURE THAT THE IRRIGATION SYSTEM AND ALL OF ITS COMPONENTS PERFORM AS DESIGNED. THIS INCLUDES CONTROLS SUCH AS WEATHER STATIONS OR RAIN SENSORS, DELAYS, VALVES, ALARM SYSTEM, DISTRIBUTION LINES, OR OTHER COMPONENTS AS SPECIFIED IN THE SYSTEM DESIGN. SPRINKLER HEADS MUST BE CHECKED TO DETERMINE IF ANY ARE BROKEN, CLOGGED, OR NOT SPRAYING PROPERLY. ALL INSPECTION AND TESTING REPORTS MUST BE KEPT ON SITE AND ACCESSIBLE TO THE CITY OF AUSTIN.

THE OVERALL SYSTEM SHALL BE INSPECTED FOR THE ABILITY TO RETAIN THE WATER QUALITY VOLUME ON SITE PER ECM SECTION 1.6.7.A.

PUMP REQUIREMENTS:

1. PUMP CONTROL PANEL TO INCLUDE MOTOR STARTER AND RELAYS, AUTOMATIC AND MANUAL OVERRIDE CAPABILITIES, LIGHTING AND SURGE PROTECTION, SAFETY ALARM, LOW LEVEL FLOAT SWITCH, WITH TIME DELAY START AND 0-100 HR OPERATION WITH INDICATION LIGHT PLUS ALL OTHER APPURTENANCES AND EQUIPMENT AS SPECIFIED.
2. THE CONTROL STATION IS EQUIPPED WITH FLOAT BULBS TO START AND TURN OFF THE PUMP. A SENSOR START WILL ACTIVATE THE CONTROLLER TO BEGIN THE IRRIGATION CYCLE. A DELAY OF 12 HOURS WILL BE ACCOMPLISHED WITH THE USE OF A PUMP DELAY SWITCH.
3. THE CONTROLS LOCATED IN THE PUMP STATION ARE EQUIPPED WITH A MANUAL OVER-RIDE SWITCH WHICH ALLOWS THE PUMP TO BE CONTROLLED APART FROM THE BULBS.
4. THE PUMPING SYSTEM IN TO BE TESTED AFTER THE COMPLETION OF THE SYSTEM. THE POND SHOULD BE FILLED WITH WATER AND THE PUMP STATION WILL BE TESTED TO VERIFY ALL SYSTEM FUNCTION. THE ENGINEER AND OWNER'S REPRESENTATIVE NEED TO BE PRESENT AT THE TIME OF THIS TEST.
5. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND ORDINANCES. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE OBTAIN ALL PERMITS, INSPECTIONS AND APPROVAL BY PROPER AUTHORITIES.
6. THE ELECTRICAL SYSTEM MUST BE GROUNDED AT THE SERVICE ENTRANCE IN ACCORDANCE WITH THE N.E.C. AND/OR LOCAL CODES AND A SUITABLE GROUND CONDUCTOR CARRIED TO THE GROUND CONNECTION IN THE CONTROL PANEL.
7. PUMP CONTROL PANEL TO INCLUDE DRY CONTACT TO IRRIGATION CONTROLLER TO INDICATE PUMP RUN, 120VAC TO IRRIGATION ELECTRIC CONTROLS PRESSURE FAIL WITH ALARM AND INDICATOR LIGHT, HIGH PRESSURE FAIL WITH ALARM AND INDICATOR LIGHT, UNITED ELECTRIC CONTROLS PRESSURE SWITCH, PRESSURE RESET BUTTON, TRIPPED ON GROUND FAULT INDICATOR LIGHT, PUMP RUN LIGHT, T-O-A, OVERLOAD RESET BUTTON, EARLY START INDICATOR LIGHT AND RELAY, PRESSURE FAIL BYPASS TIMER (0-3 MINUTES), LOW LEVEL ALARM INDICATOR LIGHT, NEMA 3R ENCLOSURE, ALL CONTROLS AND INDICATOR LIGHTS TO BE MOUNTED ON INNER DOOR, RED FLASHING ALARM LIGHT TO BE MOUNTED OH THE TOP OF THE ENCLOSURE.
8. IRRIGATION CONTROLLER SHOULD BE PROGRAMMED AS TO LIMIT THE MOTOR STARTS TO ONE (1) START PER HOUR.
9. CONTRACTOR TO PROVIDE 20 AMP CIRCUIT BREAKER IN THE ELECTRICAL ROOM OF THE BUILDING AND RUN POWER TO THE CONTROL PANEL AND IRRIGATION CONTROLLER.

ADDITIONAL NOTES:

1. PLUG VALVES MUST BE LOCATED OUTSIDE THE WET WELL ON THE DISCHARGE SIDE OF EACH PUMP TO ISOLATE THE PUMPS FOR MAINTENANCE AND FOR THROTTLING IF NECESSARY (BUTTERFLY VALVES AND GATE VALVES ARE PROHIBITED).
2. A HIGH. LOW- PRESSURE PUMP SHUT OFF SYSTEM (IN CASE O LINE CLOGGING OR BREAKING) SHALL BE INSTALLED IN THE PUMP DISCHARGE PIPING.
3. ALARM SYSTEM SHOWN SHALL CONSIST OF A RED LIGHT LOCATED AT THE WET WELL, AT LEAST FIVE FEET ABOVE GROUND LEVEL, SHALL BE VANDAL PROOF AND WEATHER RESISTANT, IT SHOULD BE ACTIVATED WHEN: THE HIGH WATER LEVEL HAS BEEN MAINTAINED FOR AN EXCESS OF 72 HOURS, THE WATER LEVEL IS BELOW THE SHUTOFF FLOAT AND THE PUMP HAS NOT TURNED OFF, AND THE HIGH/LOW-PRESSURE PUMP SHUT OFF SWITCH HAS BEEN ACTIVATED.
4. PROVIDE AN APPROPRIATE SHUT OFF VALVE BETWEEN THE POND AND THE WET WELL FOR SERVICING OF THE PUMP UNDER POND FULL CONDITIONS.
5. A SIGN IS REQUIRED TO BE POSTED AT THE WET WELL WHICH CLEARLY DISPLAYS THE NAME AND CONTACT INFORMATION FOR A RESPONSIBLE PARTY THAT MAY BE CONTACTED IF THE ALARM IS ACTIVATED.
6. IRRIGATION PIPING:
   - ALL PIPING MUST BE AT LEAST SCHEDULE 40 PVC.
   - PIPING OR ELECTRICAL BUNDLES PASSING UNDER IMPERVIOUS COVER MUST BE SLEEVED WITH PVC CLASS 200 PIPE WITH SOLVENT WELDED JOINTS AND A DIAMETER TWICE THAT OF THE PIPING OR BUNDLE.
   - A PLUG VALVE SHOULD BE PROVIDED AT THE END OF EVERY LINE TO ALLOW FLUSHING.
   - ALL PIPING MUST BE BURIED TO PROTECT IF FROM WEATHER AND VANDALISM.
   - PIPING SHOULD BE BURIED AT A SUFFICIENT DEPTH TO PREVENT DAMAGE FROM VEHICULAR TRAFFIC (I.E. MAINTENANCE EQUIPMENT).
   - ALL PIPES MUST BE MARKED TO INDICATE THEY CONTAIN NON-POTABLE WATER.
7. VALVES:
   - ALL VALVES MUST BE DESIGNED SPECIFICALLY FOR SEDIMENT BEARING WATER, AND BE OF APPROPRIATE DESIGN FOR THE INTENDED PURPOSE.
   - ALL REMOTE CONTROL, GATE, AND QUICK COUPLING VALVES MUST BE LOCATED IN TEN-INCH OR LARGER PLASTIC VALVE BOXES.
   - ALL VALVES MUST BE MARKED TO INDICATE THEY CONTAIN NON-POTABLE WATER.
8. A MINIMUM OF 12 INCHES OF SOIL, WITH THE IDENTIFIED PERMEABILITY RATES, MUST BE PRESENT IN THE IRRIGATION AREA, SOIL ENHANCEMENT IS ALLOWED TO ACHIEVE THIS REQUIREMENT.
9. THE IRRIGATION AREA MUST BE HAVE NATIVE VEGETATION OR BE RESTORED OR RE-ESTABLISHED WITH NATIVE VEGETATION, UNLESS APPROVED BY THE DIRECTOR.
10. CITY STAFF MUST BE GIVEN AT LEAST 72 HOURS NOTICE OF WHEN BORINGS OR TRENCHES ARE TO BE BACKFILLED.
11. A FIFTY (50) FOOT, NON-IRRIGATED, VEGETATED BUFFER MUST BE PROVIDED DOWNSTREAM OF THE IRRIGATION AREAS TO PROVIDE TREATMENT FOR ANY RUNOFF THAT MAY BE GENERATED DURING HEAVY STORM EVENTS OR FROM EXCESSIVE IRRIGATION. THIS BUFFER IS NOT NECESSARY IF RUNOFF FROM THE IRRIGATION AREAS WILL RETURN TO THE RETENTION BASIN.
12. THIS IS A DUAL PUMP SYSTEM. EACH PUMP SHOULD BE CAPABLE OF DELIVERING 100% OF THE REQUIRED DESIGN CAPACITY. THE PUMPS SHOULD ALTERNATE ON START-UP. A MANUAL CONTROL MUST BE PROVIDED SO BOTH PUMPS CAN BE TURNED OFF, IF NECESSARY.

NOTES:
- ALL MJ FITTINGS TO HAVE RESTRAINTS.
- PIPE BELL JOINT RESTRAINTS TO BE INSTALLED FOR THE REQUIRED LENGTH AT EACH FITTING AND VALVE.
- ALL IRRIGATION SYSTEM DISTRIBUTION AND LATERAL PIPING (I.E. FROM THE PUMPS TO THE SPRAY HEADS) MUST BE SCHEDULE 40 PURPLE PVC. ALL PIPES AND ELECTRICAL BUNDLES PASSING BENEATH DRIVEWAYS OR PAVED AREAS MUST BE SLEEVED WITH PVC CLASS 200 PIPE WITH SOLVENT WELDED JOINTS. SLEEVE DIAMETER MUST EQUAL TWICE THAT OF THE PIPE OR ELECTRICAL BUNDLE. BURIED PIPING MUST BE MARKED WITH DETECTABLE MARKING TAPE LABELED "CAUTION: BURIED NON-POTABLE WATER LINE BELOW".
- ALL SPRINKLER HEADS TO HAVE PURPLE CAPS.
- PROVIDE VALVE BOXES WITH PURPLE CAPS.
- ALL PIPES AND VALVES MUST BE MARKED TO INDICATE THAT THEY CONTAIN NON-POTABLE WATER.

WET WELL ALARM REQUIREMENTS:
THE ALARM SHOULD ACTIVATE WHEN: (1) THE HIGH-WATER LEVEL HAS BEEN MAINTAINED IN EXCESS OF 72 HOURS, (2) THE WATER LEVEL IS BELOW THE SHUTOFF POINT AND THE PUMP HAS NOT TURNED OFF, OR (3) THE HIGH/LOW-PRESSURE PUMP SHUT OFF SWITCH HAS BEEN ACTIVATED. THE ALARM SHOULD BE VANDAL AND WEATHER RESISTANT. A SIGN SHOULD BE PLACED AT THE WET WELL CLEARLY DISPLAYING THE NAME AND PHONE NUMBER OF A RESPONSIBLE PARTY THAT MAY BE CONTACTED IF THE ALARM IS ACTIVATED.

THE IRRIGATION FIELD MUST NOT RECEIVE ANY FERTILIZERS, PESTICIDES, OR HERBICIDES. (ECM 1.6.7.5.A.4.G).

NOTE: A GEOTECHNICAL ENGINEER MUST BE INVOLVED IN ALL ASPECTS OF THE LINER DESIGN. ALL LINER STUDIES, PLANS, DETAILS, SPECIFICATIONS AND OTHER RELATED DOCUMENTS MUST BE SEALED BY A GEOTECHNICAL ENGINEER.

NOTE:
WET WELL SIGNAGE TO INCLUDE NAME AND PHONE NUMBER OF RESPONSIBLE PARTY

ENTITY:____________________________
PHONE:____________________________

An alarm system shall be provided consisting of a red light located at a height of at least five feet above the ground level at the wet well. The alarm shall be activate when:
(a) The water level is below the primary shutoff float and the pump has not turned off.
(b) The high/low-pressure pump shut off switch has been activated.
(c) Any other pump failures or system shut down indicated by control panel.
The alarm must be vandal proof and weather resistant. If the system is to be privately maintained, a sign must be placed at the wet well clearly displaying the name and phone number of a responsible party that may be contacted if the alarm is activated.

A green "pump run light" shall be provided which is activated any time a pump is running. The green light should be located directly adjacent to the red alarm light.

IRRIGATION NOTES:

1. ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVES. PRESSURE REGULATION COMPONENTS SHALL BE REQUIRED WHERE STATIC PRESSURE EXCEEDS MANUFACTURER'S RECOMMENDED OPERATION RANGE.
2. SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT.
3. SERVICEABLE CHECK VALVES SHALL BE REQUIRED WHERE ELEVATION DIFFERENTIAL MAY CAUSE LOW HEAD DRAINAGE ADJACENT TO PAVING.
4. SPRINKLER HEAD SPACING SHALL BE DESIGNED FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED PER MANUF. RECOMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED FOR MINIMUM RUN-OFF AND MINIMUM OVERSPRAY ONTO NON-IRRIGATED AREAS (I.E. PAVING AND STRUCTURES).
5. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMING. CONTROLLERS SHALL BE HAVE MULTIPLE CYCLE START CAPACITY OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN SENSOR SHUT-OFF DEVICE.
6. IRRIGATION CONSTRUCTION PLANS INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE CONTROLLER DOOR. WATER BUDGET SHALL INCLUDE:

A. ESTIMATED MONTHLY WATER USE (IN GALLONS PER APPLICATION) AND THE AREA (IN SQ.FT) IRRIGATED.
B. PRECIPITATION RATES FOR EACH VALVE CIRCUIT.
C. MONTHLY IRRIGATION SCHEDULE.
D. LOCATION OF EMERGENCY IRRIGATION SYSTEM SHUT-OFF VALVE.

CONTROLS FOR THE IRRIGATION SYSTEM

ON THE SAME CONTROL PANEL:

1. PUMP
2. HIGH PRESSURE CUT-OFF SENSOR AND LOW PRESSURE CUT-OFF SENSOR.
3. LOW FAILURE CUT-OFF
4. GROUND FAULT INDICATOR.
5. SECONDARY SWITCH TO TURN OFF PUMPS SHOULD THE PONDS BEGIIN TO REFILL
6. WARNING LIGHT DUE TO FAILURE
7. 12 HOUR DELAY SWITCH

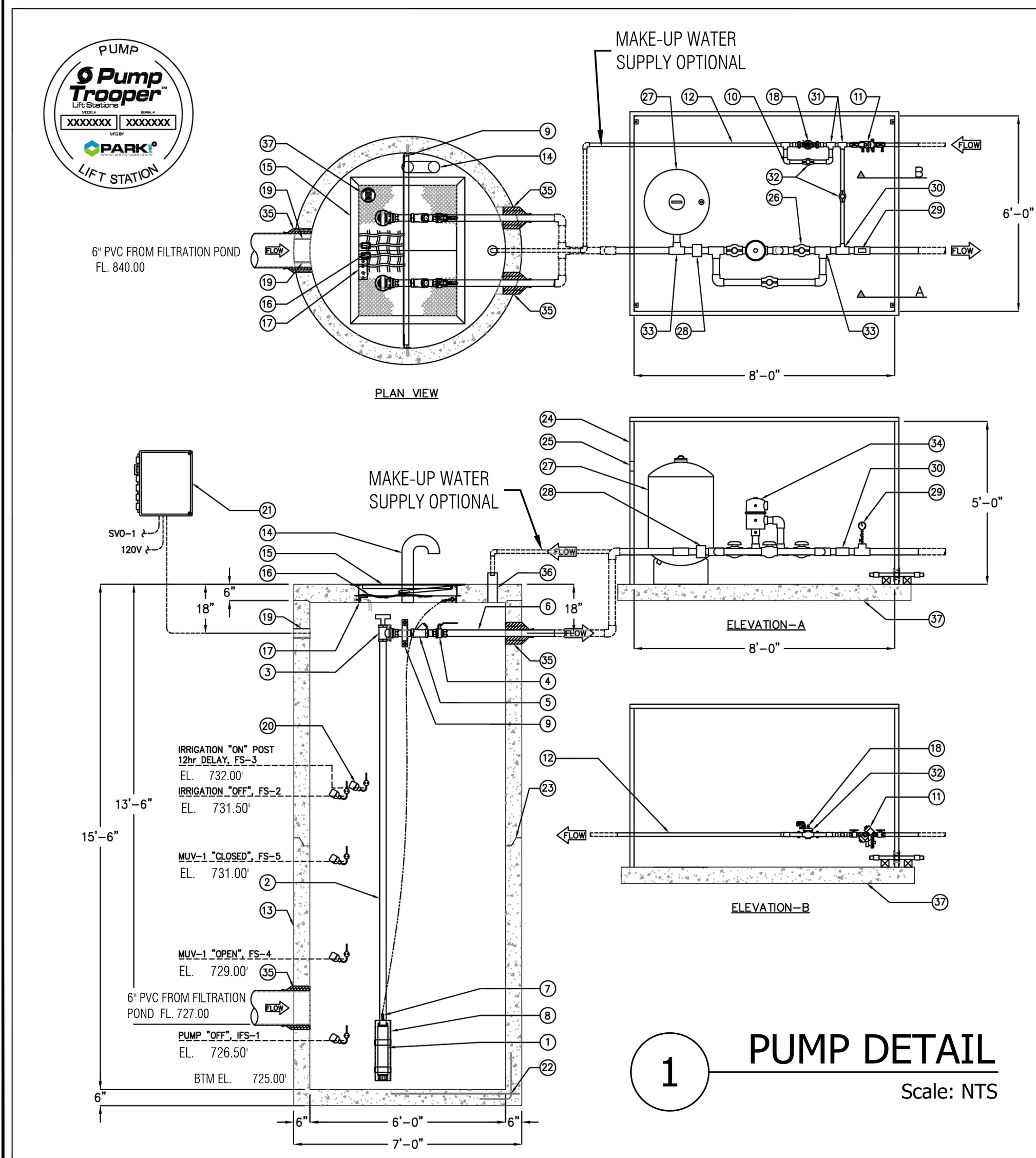
IRRIGATION LEGEND

RAINBIRD 25 ASFP–TNT SERIES GEAR DRIVEN ROTARY HEAD ON SCHEDULE 40 SWING JOINT FULL CIRCLE 3.9 G.P.M. @ 50 P.S.I. (62' SPRAY DIAMETER)

RAINBIRD 25 ASFP–TNT SERIES GEAR DRIVEN ROTARY HEAD ON SCHEDULE 40 SWING JOINT HALF CIRCLE #___ NOZZLE 3.9 G.P.M. @ 50 P.S.I. (62' SPRAY DIAMETER)

NORTH
SCALE: 1"=30'

0 20 40 80



1 PUMP DETAIL
Scale: NTS

WATER LEVEL ELEVATION	ACTION	CONDITION
STATION OPERATION LEVELS		
WATER LEVEL RISING		
EL 731.75'	REFILL "OFF" TRIGGER SOLENOID VALVE, FS-5	SOLENOID VALVE (MUV-1) "CLOSED"
EL 734.00'	12hr DELAY TIMER BEGINS, FS-3	IRRIGATION SYSTEM "ON" POST 12hr DELAY
WATER LEVEL FALLING		
EL 733.75'	IRRIGATION SYSTEM "OFF", IFS-2	WATER QUALITY VOLUME HAS BEEN DISCHARGED
EL 729.00'	IRRIGATION TANK REFIL "ON", IFS-4	SOLENOID VALVE MUV-1 "OPEN"
EL 726.50'	PUMPS "OFF" LEVEL, IFS-1	IRRIGATION PUMPS "OFF"

NOTE:
ALL DASHED PIPING TO BE FURNISHED BY CONTRACTOR

NOTE:
VERIFY ALL ELEVATIONS PRIOR TO FABRICATION

NOTE:
VERIFY ALL INLET/OUTLET ORIENTATIONS PRIOR TO FABRICATION

KEYED NOTES

MRK	QTY	DESCRIPTION
1	2	2" SUBMERSIBLE PUMP
2	2	2" FLEX HOSE
3	2	2" PITLESS ADAPTER w/ T-HANDLE
4	2	2" PLUG VALVE
5	2	2" BALL CHECK
6	3	2" SCH 80 PVC DISCHARGE PIPE
7	2	STAINLESS STEEL CHAIN
8	2	PUMP LIFT-OUT CRADLE
9	1	GALV PIPE SUPPORT
10	2	1" SCH 80 PVC 90° ELBOW
11	1	1" RPZ BACKFLOW PREVENTER
12	–	1" SCH 80 PVC PIPE
13	1	72" DIA x 15'-6" DEEP PRECAST CONCRETE LIFT STATION
14	1	4" GALV VENT
15	1	36"x60" DOUBLE LEAF ALUMINUM HATCHWAY
16	1	SAFETY NET
17	1	SS CABLE BRACKET
18	1	1" SOLENOID VALVE "MUV-1"
19	2	3" CONDUIT COUPLING
20	5	CONTROL FLOATS
21	1	SYSTEM CONTROL PANEL
22	–	REBAR AS REQUIRED
23	–	ALL JOINTS MADE WATER-TIGHT w/ PLASTIC FLEXIBLE GASKET (RAM-NEK)
24	1	8'-0"x6'-0"x5'-0" ALUMINUM VALVE ENCLOSURE
25	1	1" PVC CONDUIT
26	3	2" PVC SCH 80 BALL VALVE
27	1	BLADDER TANK
28	1	PRESSURE SWITCH
29	1	PRESSURE GAUGE
30	1	2"x2"x1" PVC SCH 80 REDUCING TEE
31	3	1" SCH 80 PVC TEE
32	2	1" PVC SCH 80 BALL VALVE
33	3	2" PVC SCH 80 TEE
34	1	SELF CLEANING IRRIGATION FILTER
35	2	RESILIENT RUBBER BOOT
36	1	3" GALV SLEEVE FOR MAKE-UP WATER SUPPLY
37	–	CONCRETE PAD (BY OTHERS)
37	–	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK WWW.PARKUSA.COM MODEL: IR-SYS DATE MANUFACTURED

MAKE-UP WATER SUPPLY OPTIONAL

Specifications

CONCRETE:
Class I/II concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor, first stage of wall and baffle with sectional riser to required depth.

REINFORCEMENT:
Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

DUCTILE IRON:
The access cover be minimum 24" diameter and be constructed of ductile iron.The cover shall be lockable and be hinged with a safety blocking system. The cover shall be H20 traffic duty.

ALUMINUM HATCH:
300 PSF rated, 1/4" aluminum skid-resistant floor plate, stainless steel tamperproof bolting & hinges & slamlock. (H-20 Rating Optional)

PUMPS:
Pumps shall be centrifugal type with integral non-clog unit and submersible type motor. Pumps shall have a capacity as follows:

PUMP No.	TYPE	GPM	PSI	TDH	RPM	ELECTRICAL HP	V	PH	Hz
IP-1	NON CLOG	60	60	X'	1750	X	X	X	60
IP-2	NON CLOG	60	60	X'	1750	X	X	X	60

CONTROLS:
Pump controls shall be mounted inside a UL Listed NEMA-4X enclosure and include circuit breakers, alarm circuit fuse, IEC rated motor starter, pump HOA, and alternator relay. Panel shall have a visual alarm beacon. Panel is designed for remote mounting.

Engineering Data
Field excavation and preparation shall be completed prior to delivery of assembly. Use dimensional data as shown. All pipe, valves and fittings of the assembly are approved by one of the following associations:

NPCA CERTIFIED PLANT

TREE LIST SEE SHEET 5

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

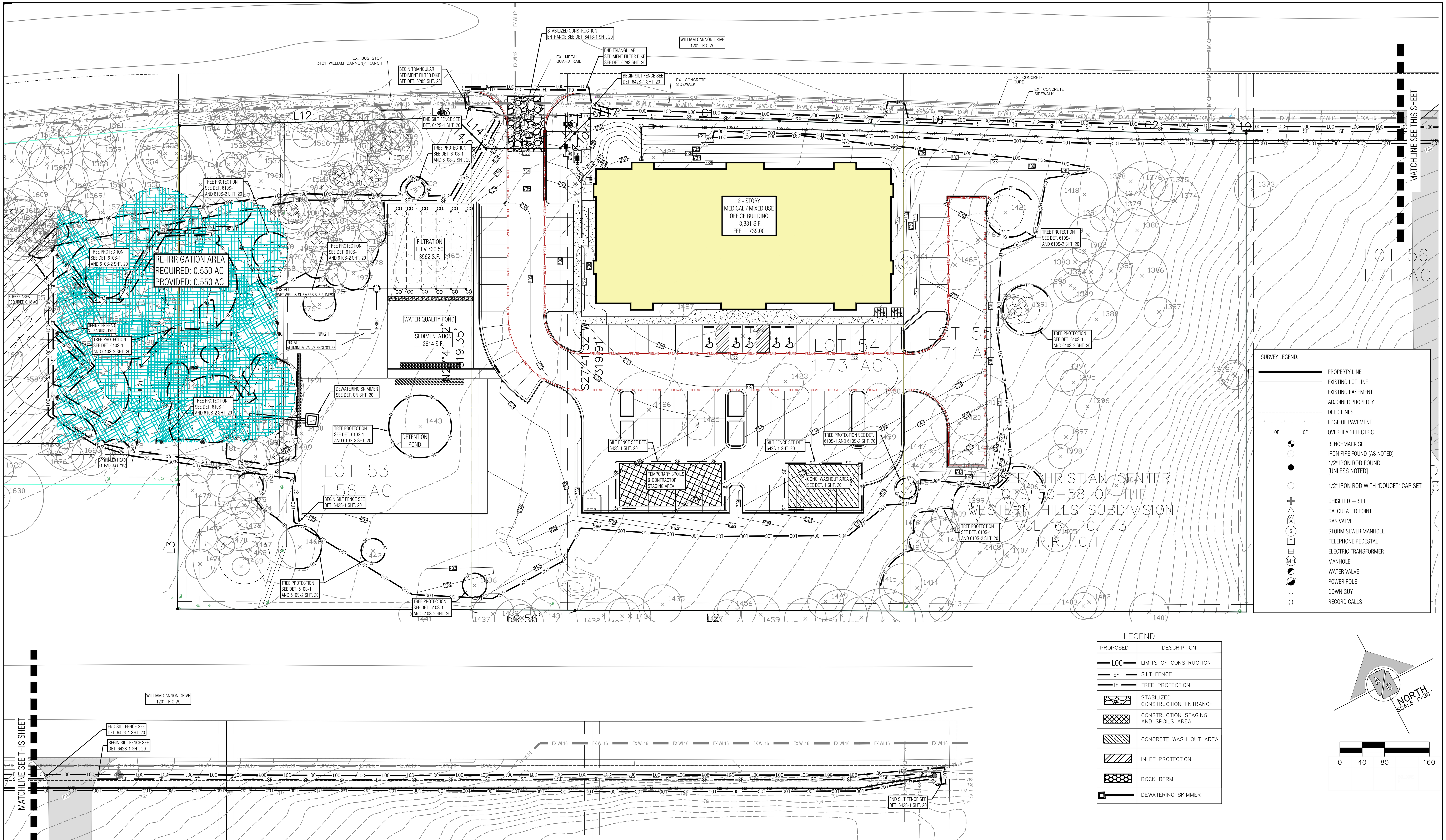
STATE OF TEXAS
CALVIN J. WEIMAN
141995
REGISTERED PROFESSIONAL ENGINEER
07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS			
REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

RETENTION IRRIGATION SYSTEM



SURVEY LEGEND:

Symbol	Description
	PROPERTY LINE
	EXISTING LOT LINE
	EXISTING EASEMENT
	ADJOINER PROPERTY
	DEED LINES
	EDGE OF PAVEMENT
— OE —	OVERHEAD ELECTRIC
	BENCHMARK SET
	IRON PIPE FOUND [AS NOTED]
	1/2" IRON ROD FOUND [UNLESS NOTED]
	1/2" IRON ROD WITH "DOUCET" CAP SET
	CHISELED + SET
	CALCULATED POINT
	GAS VALVE
S	STORM SEWER MANHOLE
T	TELEPHONE PEDESTAL
	ELECTRIC TRANSFORMER
MH	MANHOLE
	WATER VALVE
	POWER POLE
	DOWN GUY
( )	RECORD CALLS

LEGEND

PROPOSED	DESCRIPTION
LOC	LIMITS OF CONSTRUCTION
SF	SILT FENCE
TF	TREE PROTECTION
	STABILIZED CONSTRUCTION ENTRANCE
	CONSTRUCTION STAGING AND SPOILS AREA
	CONCRETE WASH OUT AREA
	INLET PROTECTION
	ROCK BERM
	DEWATERING SKIMMER

- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.[ECM 1.4.4.B.3, SECTION 5, I.]
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR, SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH ECM 1.4.2(G)
- ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
- THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
- A PRE-CONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.

OVERALL EROSION & SEDIMENTATION CONTROL QUANTITIES

SILT FENCE = 1,828 LF
LIMITS OF CONSTRUCTION = 140,505 SF (3.89 ac)
TREE PROTECTION = 835 LF
TRIANGULAR FILTER DIKE = 90 LF
CONSTRUCTION ENTRANCE = 1 EA

TREE LIST SEE SHEET 5

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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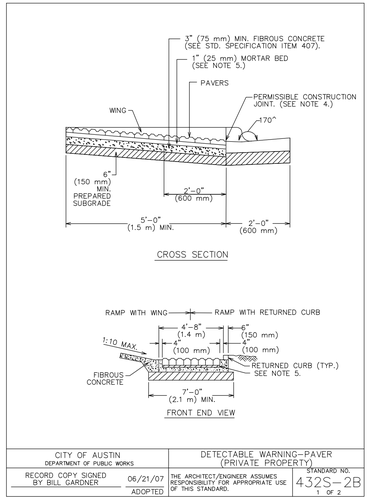
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	DESCRIPTION	APPROVED BY

JOB: 22-050 DATE: 7/14/23
CAD: DA/MM CHK'D BY:
ENGINEER: CW CHK'D BY:
SCALE:

EROSION AND SEDIMENTATION CONTROL PLAN

SITE CIVIL PLAN

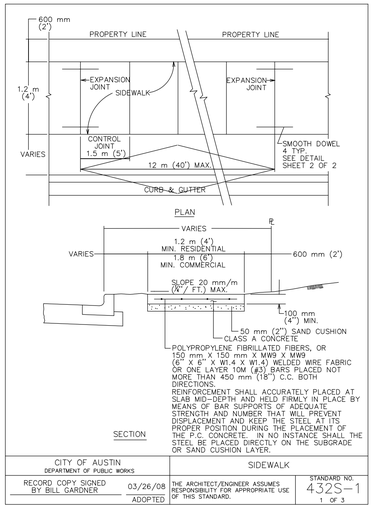


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING–PAVER (PRIVATE PROPERTY)	
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S–2B 2 OF 2

GENERAL NOTES:

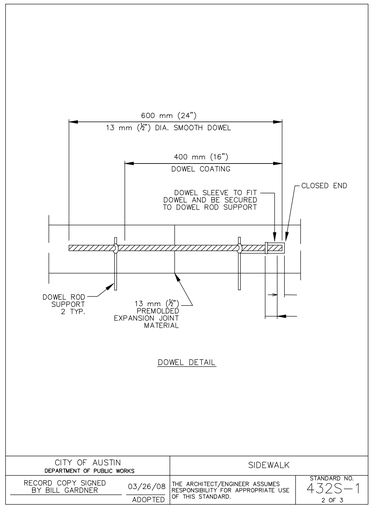
1. THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN PRIVATE PROPERTY ONLY.
2. PAVERS ARE REQUIRED FOR ALL CURB RAMP INSTALLATIONS.
3. PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 0.9" (23 mm), A NOMINAL HEIGHT OF 0.2" (5 mm) AND A NOMINAL CENTER TO CENTER SPACING OF 2.35" (60 mm) 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. PAVER PATTERN SHALL BE BASKET WEAVE, UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
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 BASIS.
5. THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO ¼" (6 mm) JOINT SIZE. GAPS LARGER THAN ¼" (6 mm) 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 RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE 1B SIDEWALK CURB RAMP	
RECORD COPY SIGNED BY BILL GARDNER	9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S–5B

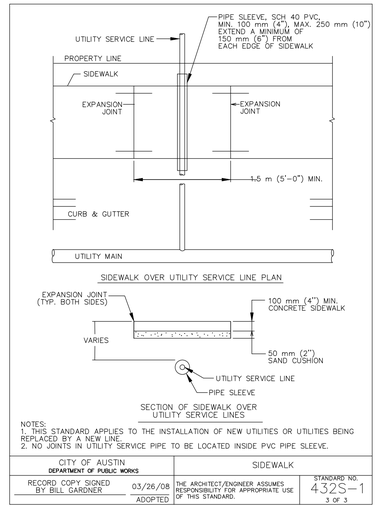


POLYPROPYLENE FIBRILLATED FIBERS, OR 150 mm X 150 mm X W#9 X W#9 (6" X 6" X W1.4 X W1.4) WELDED WIRE FABRIC OR ONE LAYER 10M (#3) BARS PLACED NOT MORE THAN 450 mm (18") C.C. BOTH DIRECTIONS. REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID–DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S–1 1 OF 3

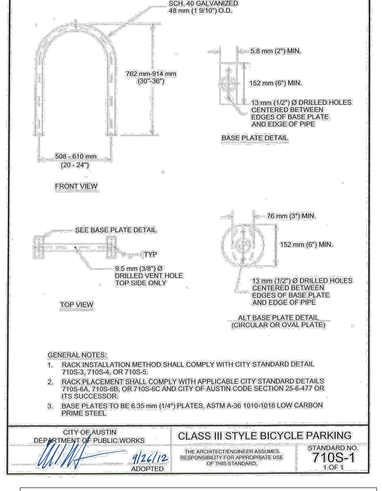


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S–1 2 OF 3



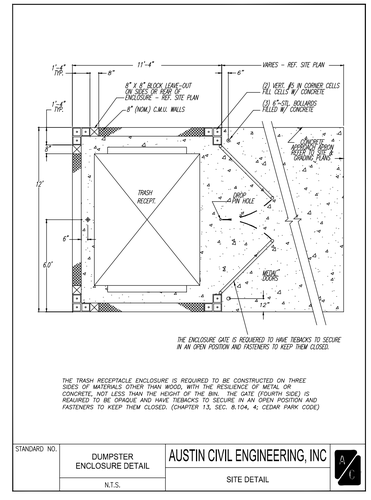
NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		SIDEWALK	
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S–1 3 OF 3



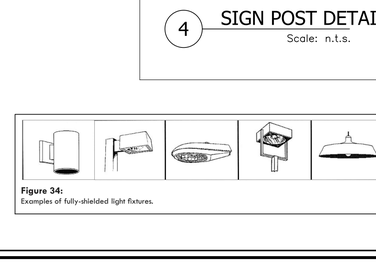
GENERAL NOTES:
1. RACK INSTALLATION METHOD SHALL COMPLY WITH CITY STANDARD DETAIL 710S-3, 710S-4, OR 710S-5.
2. RACK PLACEMENT SHALL COMPLY WITH APPLICABLE CITY STANDARD DETAILS 710S-4A, 710S-6B, OR 710S-6C AND CITY OF AUSTIN CODE SECTION 25-6-477 OR ITS SUCCESSOR.
3. BASE PLATES TO BE 6.35 mm (1/4") PLATES, ASTM A-36 1010-1018 LOW CARBON PRIME STEEL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		CLASS III STYLE BICYCLE PARKING	
	9/26/12 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 710S-1 1 OF 1



THE TRASH RECEPTACLE ENCLOSURE IS REQUIRED TO BE CONSTRUCTED ON THREE SIDES OF MATERIALS OTHER THAN WOOD, WITH THE RESILIENCE OF METAL OR CONCRETE, NOT LESS THAN THE HEIGHT OF THE BIN. THE GATE (FOURTH SIDE) IS REQUIRED TO BE OPAQUE AND HAVE TIEBACKS TO SECURE IN AN OPEN POSITION AND FASTENERS TO KEEP THEM CLOSED. (CHAPTER 1.5, SEC. 6.104, 4, CEDAR PARK CODE)

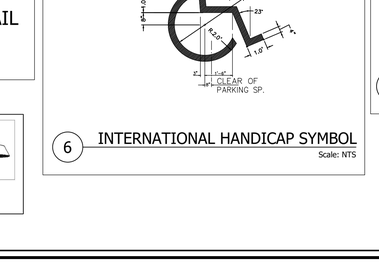
STANDARD NO.	DUMPSTER ENCLOSURE DETAIL	AUSTIN CIVIL ENGINEERING, INC	8 of 26
	N.T.S.	SITE DETAIL	



NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT Ⓐ ABOVE POINT Ⓑ, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).

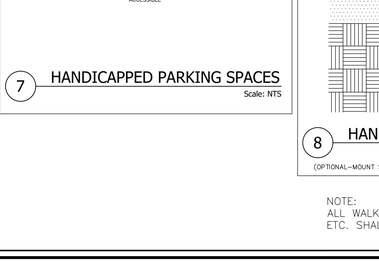
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG THAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

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

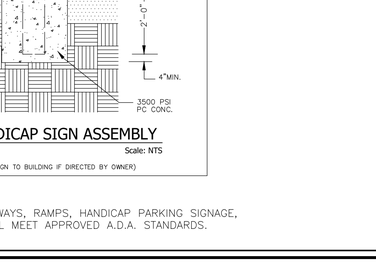


NOTES:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY 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 60% 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 5
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	
RECORD COPY SIGNED BY CUONG THAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		PARKING LOT BUMPER CURB	
RECORD COPY SIGNED BY BILL GARDNER	3/15/05 APPROVED ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 439S–1



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S–1

ACCESSIBILITY ROUTE:
- ACCESSIBILITY ROUTE IS PROVIDED ON–SITE FROM H.C. PARKING TO OFFICE.
- SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
- ACCESSIBLE ROUTES MUST HAVE A CROSS SLOPE NO GREATER THAN 1:50.
- GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
- MAXIMUM GRADE IN ANY PARKING SPACE IS 2% MAXIMUM GRADE ON ACCESSIBLE WITH MINIMUM 2 % CROSS SLOPE.
- ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS.

FIRE ZONE STRIPING NOTE:
- FIRE ZONES SHALL BE ESTABLISHED BY PAINTING CURBS RED, STENCIL THE WORDS "FIRE LANE/TOW AWAY ZONE" IN WHITE LETTERS 4" HIGH AND AT 30' INTERVALS ALONG THE CURB. IN ADDITION, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE AND AT INTERVALS OF 50 FEET OR LESS.

VERTICAL CLEARANCE NOTE:
- FOR FIRE DEPARTMENT ACCESS VERTICAL CLEARANCE SHALL BE A MINIMUM OF 13'–6" FOR ALL DRIVEWAYS AND INTERNAL CIRCULATION AREAS ON THIS SITE. TRIM TREE BRANCHES IF NECESSARY TO ACHIEVE THE REQUIRED CLEARANCE.
- THERE ARE NO SLOPES OVER 15%.

4 SIGN POST DETAIL
Scale: n.t.s.

5 HANDICAP SIGN
Scale: NTS

6 INTERNATIONAL HANDICAP SYMBOL
Scale: NTS

7 HANDICAPPED PARKING SPACES
Scale: NTS

8 HANDICAP SIGN ASSEMBLY
Scale: NTS
(OPTIONAL–MOUNT SIGN TO BUILDING IF DIRECTED BY OWNER)

9 FIRE LANE DETAIL
Scale: n.t.s.

Figure 34:
Examples of fully-shielded light fixtures.

NOTE:
ALL WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS.

CITY APPROVAL STAMP

SP-___-___C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS:

REV.	DATE:	DESCRIPTION	APPROVED BY

JOB: 22–050 DATE: 7/14/23
CAD: DA/MM CHK'D BY:
ENGINEER: CW CHK'D BY:
SCALE:

DETAILS: SITE

SITE CIVIL PLAN

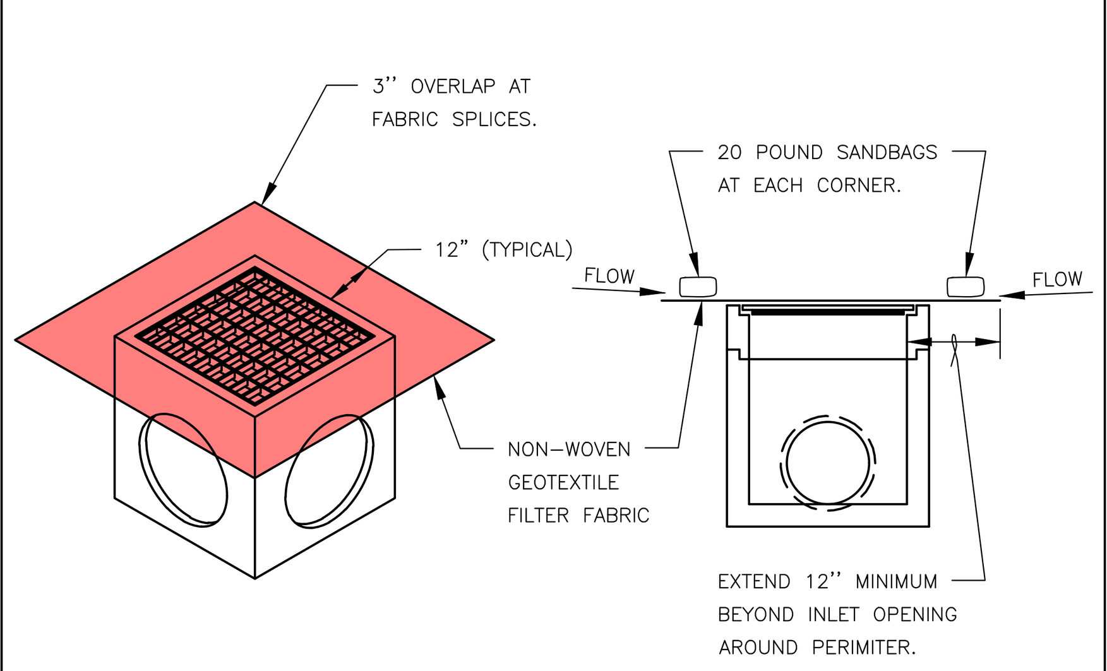
19 of 26

APPENDIX P-2: – TREE AND NATURAL AREA PROTECTION NOTES

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.

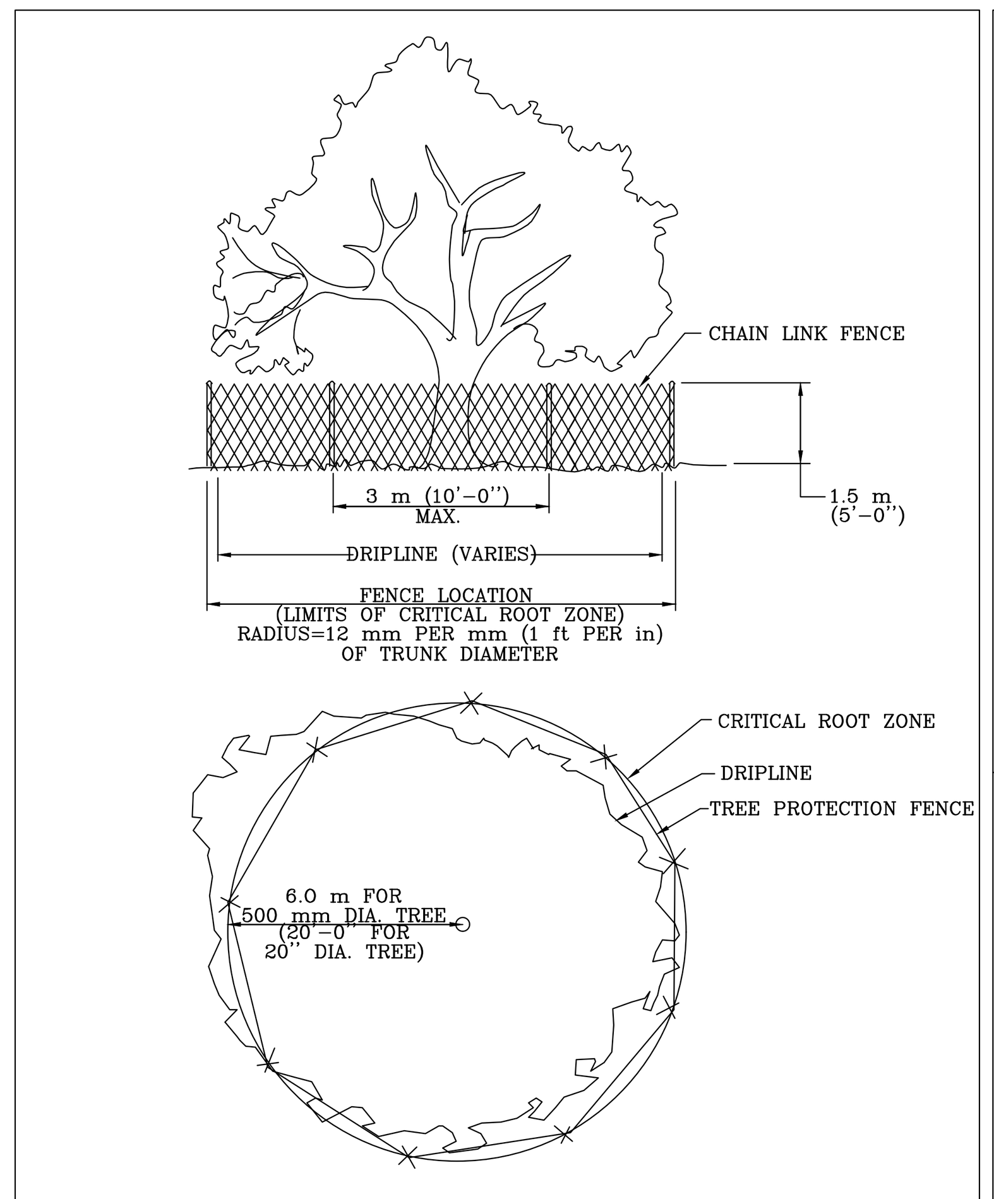


NOTES:

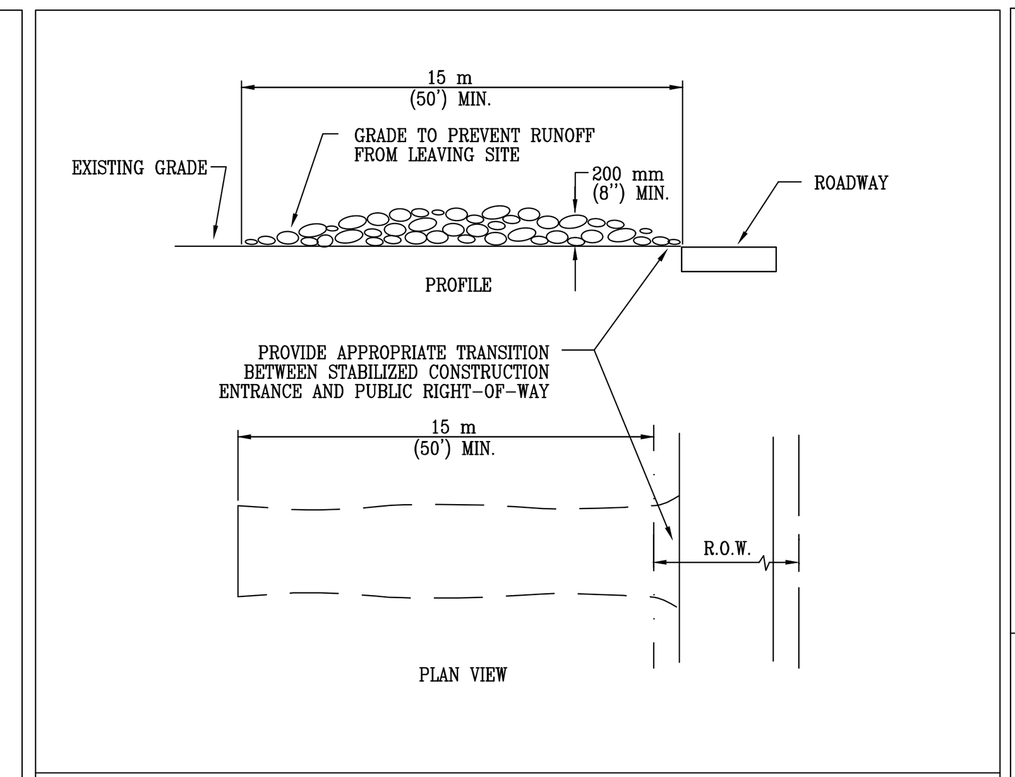
1. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
2. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY CLEAN THE INLET PROTECTION IF EXCESSIVE PONDING OCCURS.
3. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

2 GRATE INLET PROTECTION DETAIL

Scale: NTS



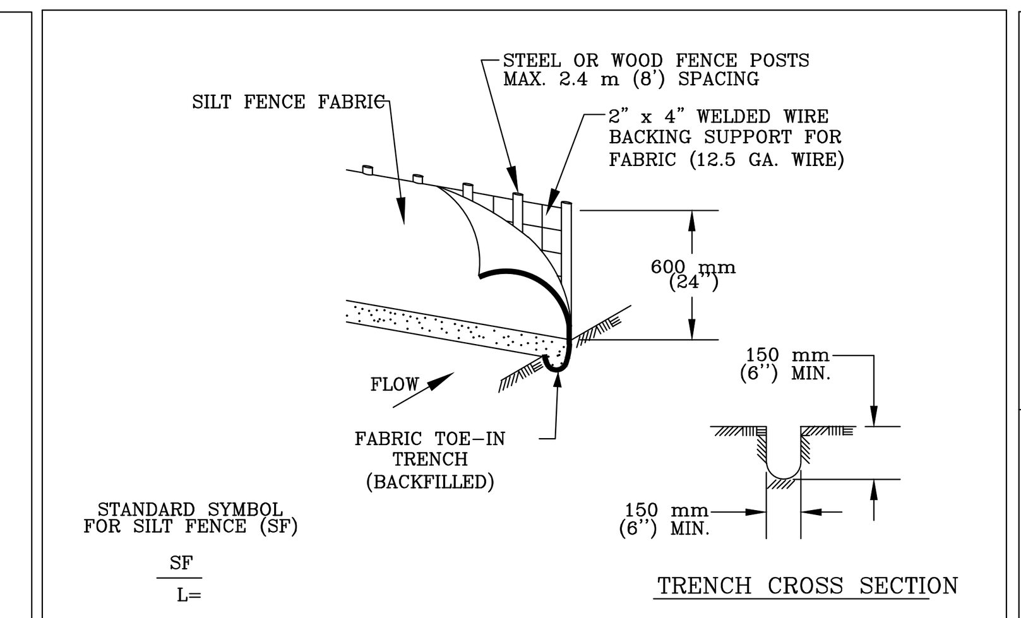
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



NOTES:

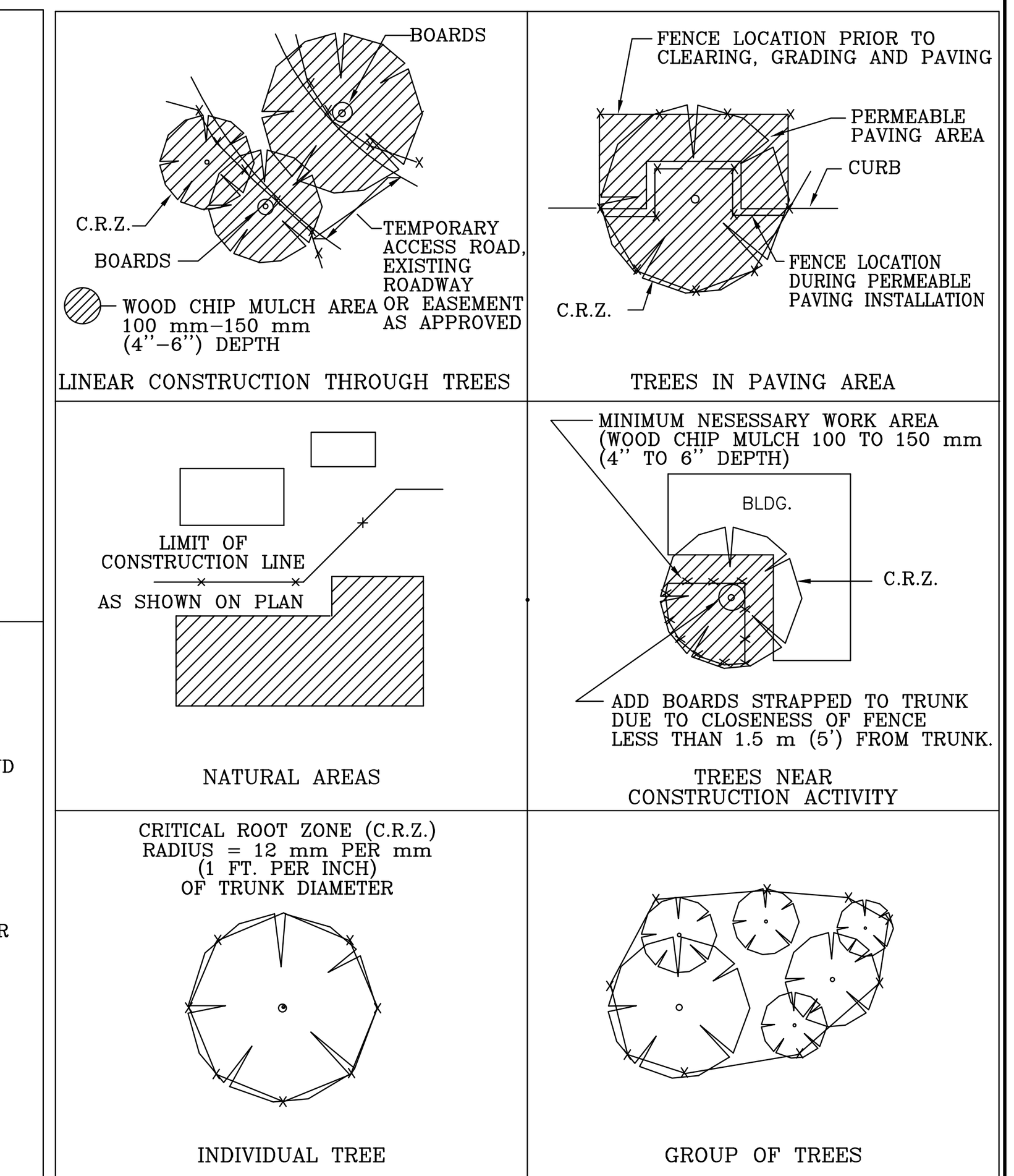
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APROVED TRAP OR SEDIMENT BASIN. 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 AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENTALL 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	
RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES 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 PROMPTY 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.

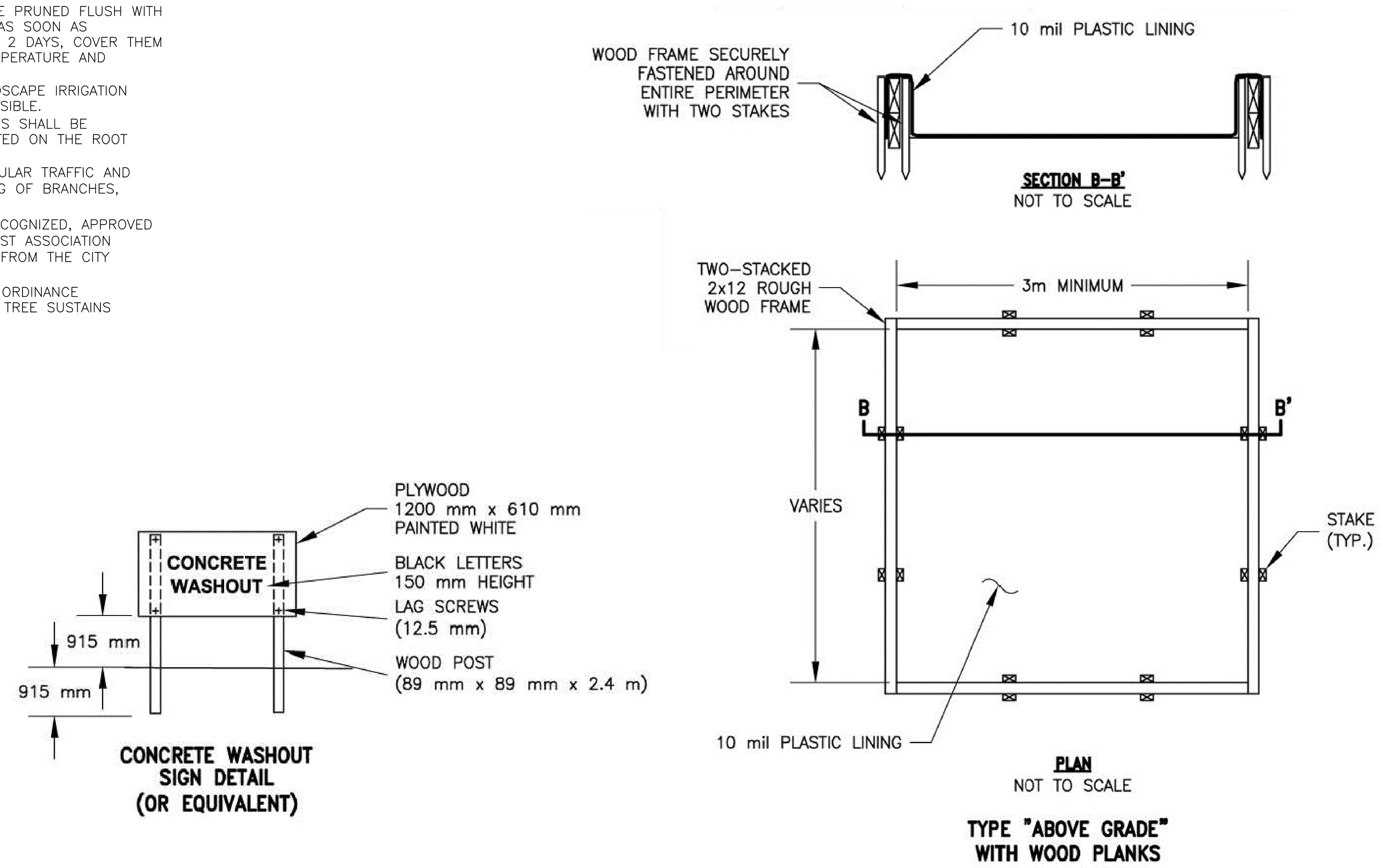
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
RECORD COPY SIGNED BY J. PATRICK MURPHY 11/15/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1

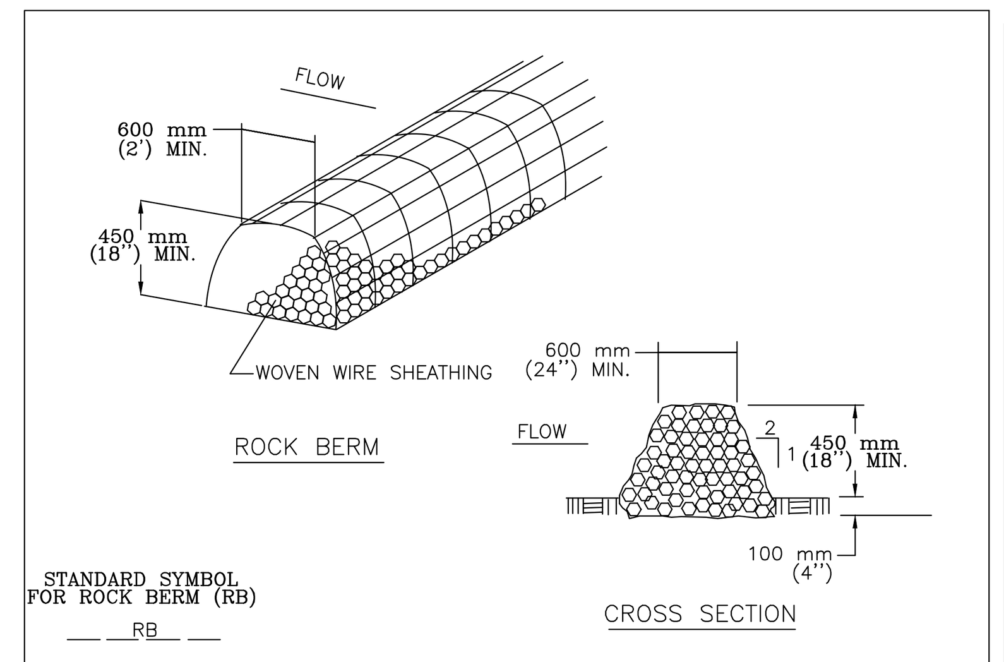
NOTES:

- MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.
- HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.
- ACTUAL LAYOUT DETERMINED IN THE FIELD.
- THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



1 CONCRETE WASH OUT AREA

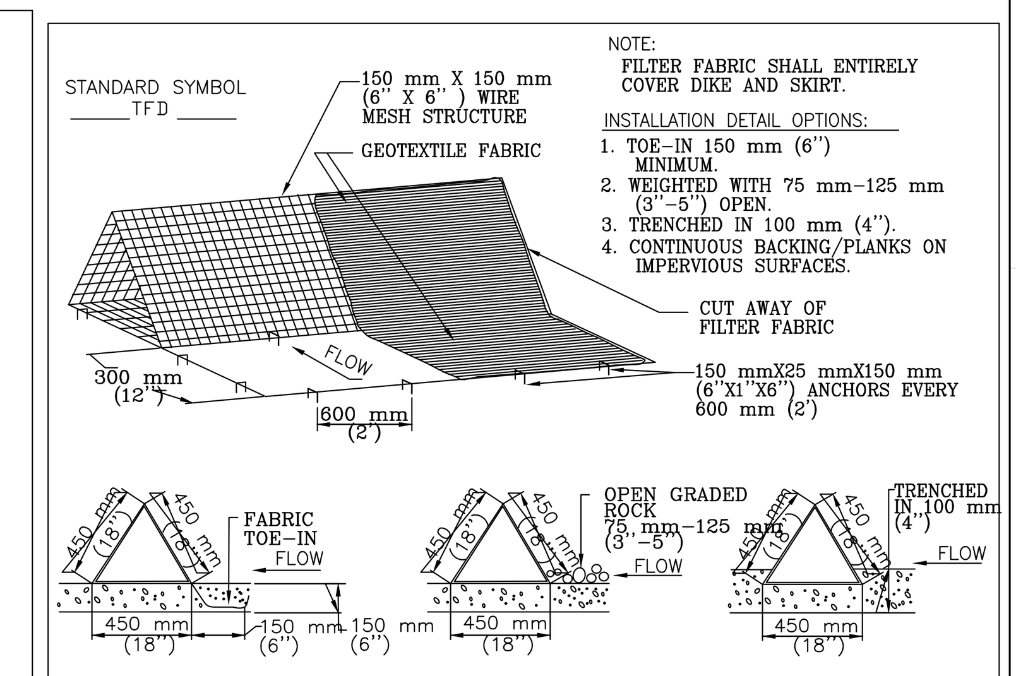
Scale: NTS



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, THE SEDIMENT 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	
RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



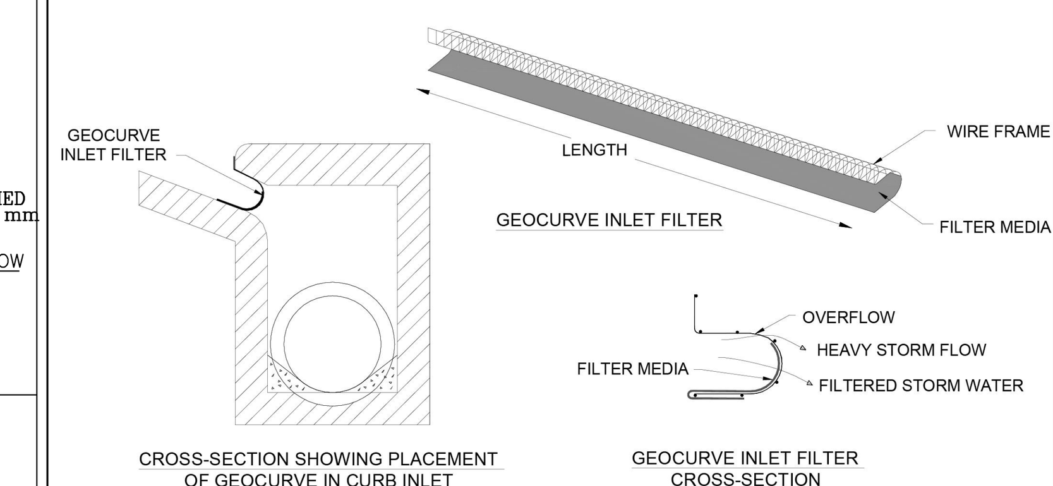
GENERAL NOTES

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOED-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (3/8 ") DIAMETER RE-BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"X6") WIRE MESH, 450 mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S

GeoSolutions, Inc. — Product Data Sheet — GeoCurve Inlet Filter

The GeoCurve Inlet Filter is a stormwater filter for placement into a stormwater curb inlet for the purpose of capturing debris and sediment that is transported by stormwater runoff. The device is comprised of a filter media (woven monofilament filter fabric) affixed to the lower portion of a "C" shaped 12 gauge welded wire frame (2" x 4" openings) with an upper retention flange. The device effectively filters stormwater, can easily be removed for maintenance and cleaning and incorporates an overflow window for heavy storm events.



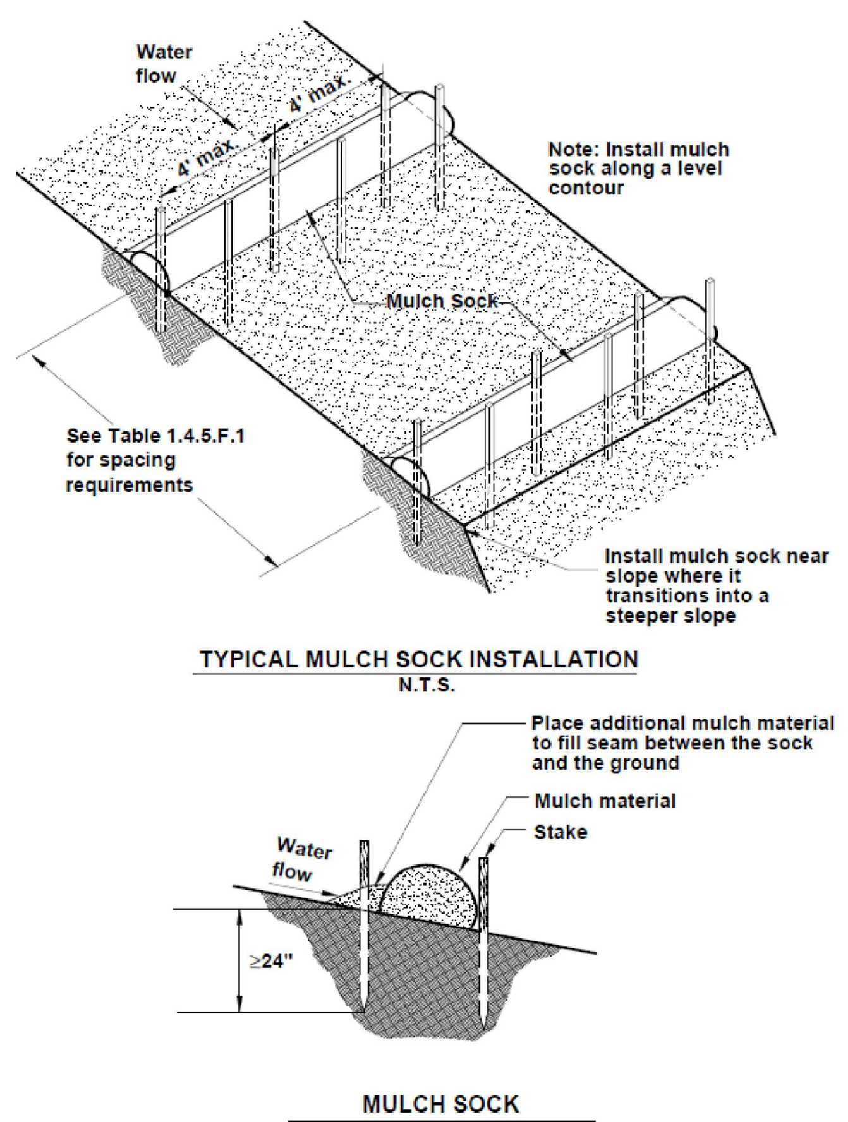
FILTER MEDIA PROPERTIES: Mono-filament Woven Filter Fabric

PROPERTY	ASTM TEST METHOD	VALUE	C.O.A. REQ'T
Fabric Weight	D 3776	4.5 oz/sy	3 oz/sy
Grab Tensile Strength	D 4632	170 lbs	----
Mullen Burst Strength	D 3786	410 lbs/sq in	120 lbs/sq in
UV Stability	D 4355	80 %	70 %
Water Flow Rate	D 4491	325 gal/min/sf	275 gal/min/sf

GeoSolutions, Inc. 4417 Burleson Road Austin, Texas 78744 512-330-0796

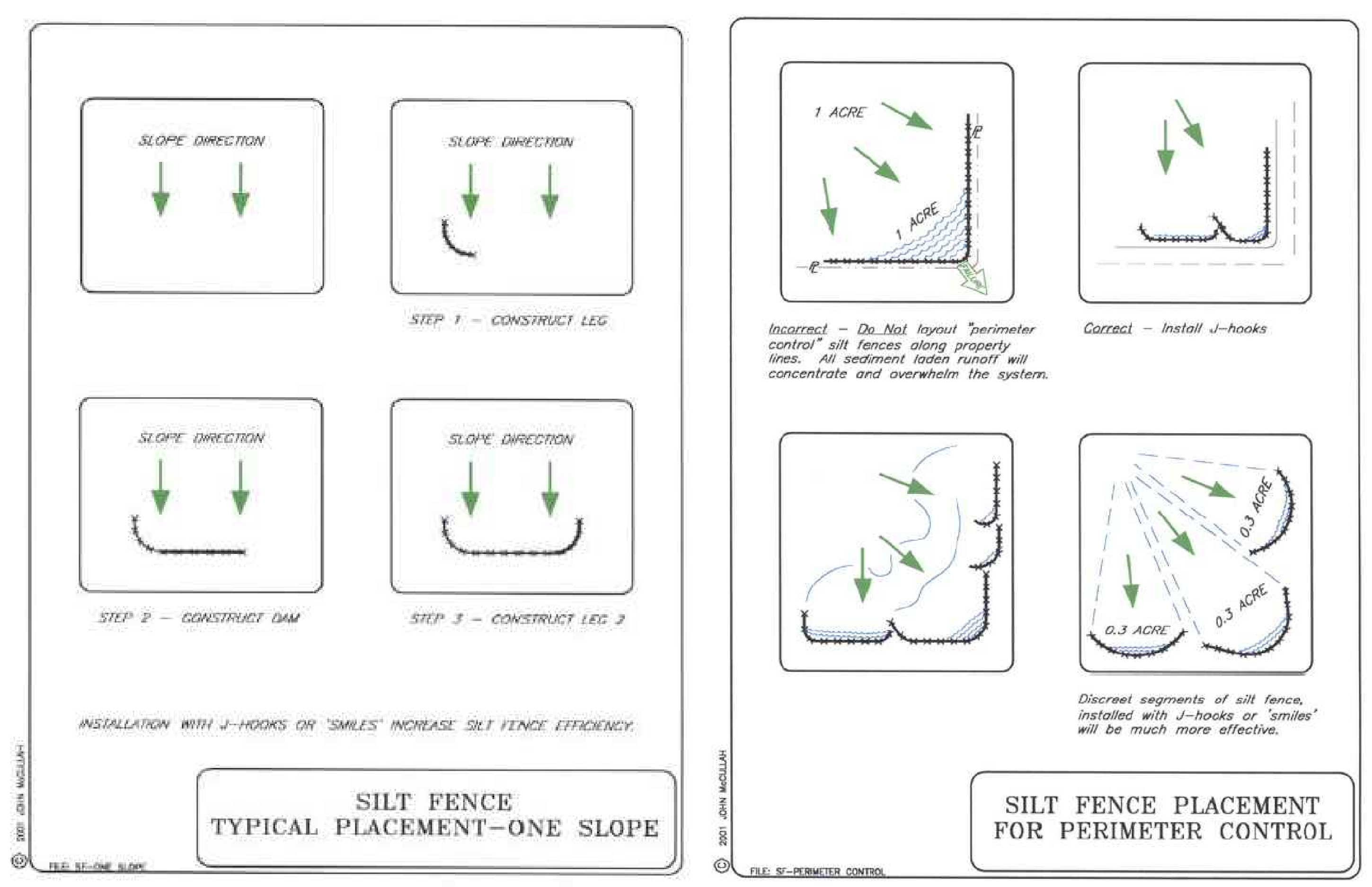
2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. ≤4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADJACENT AREAS.
3. COVERAGE - THE FABRIC/WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE (3) INCHES.
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.
5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE-THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVERTOP THE CURB.
7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	FILTER DIKE CURB INLET PROTECTION	
ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S-2



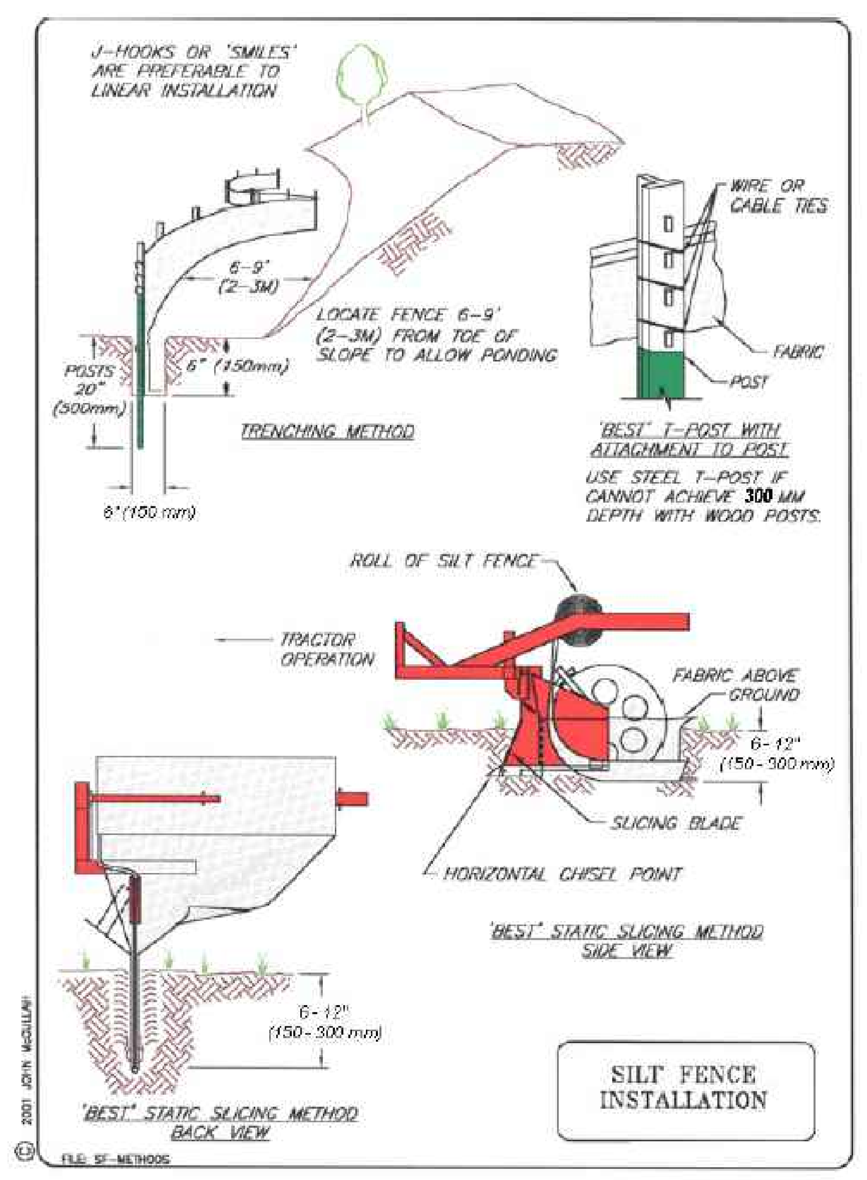
3 MULCH LOG

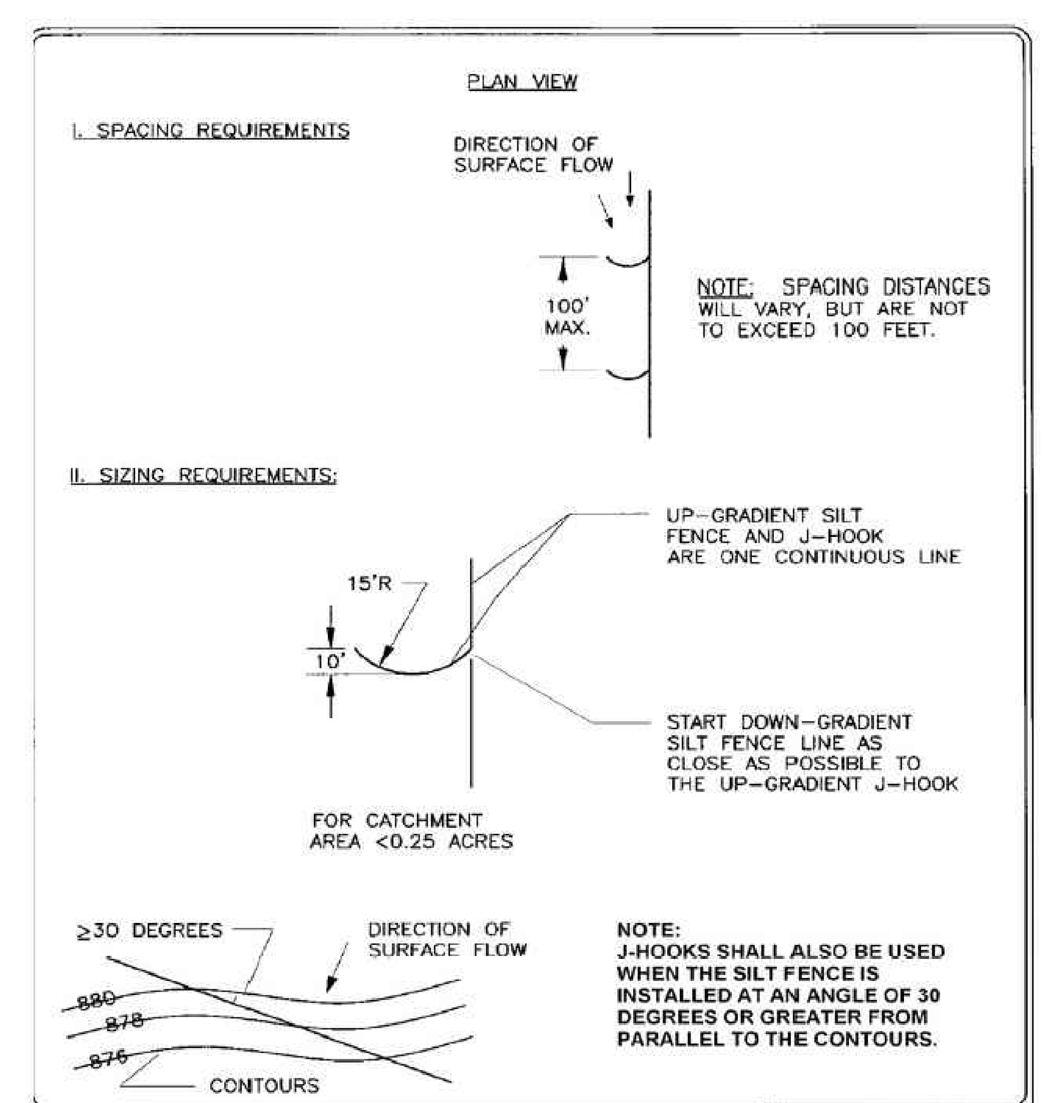
Scale: NTS



4 SILT FENCE PLACEMENT

Scale: NTS





5 J-HOOKS

Scale: NTS

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH (512) 306-0018

07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

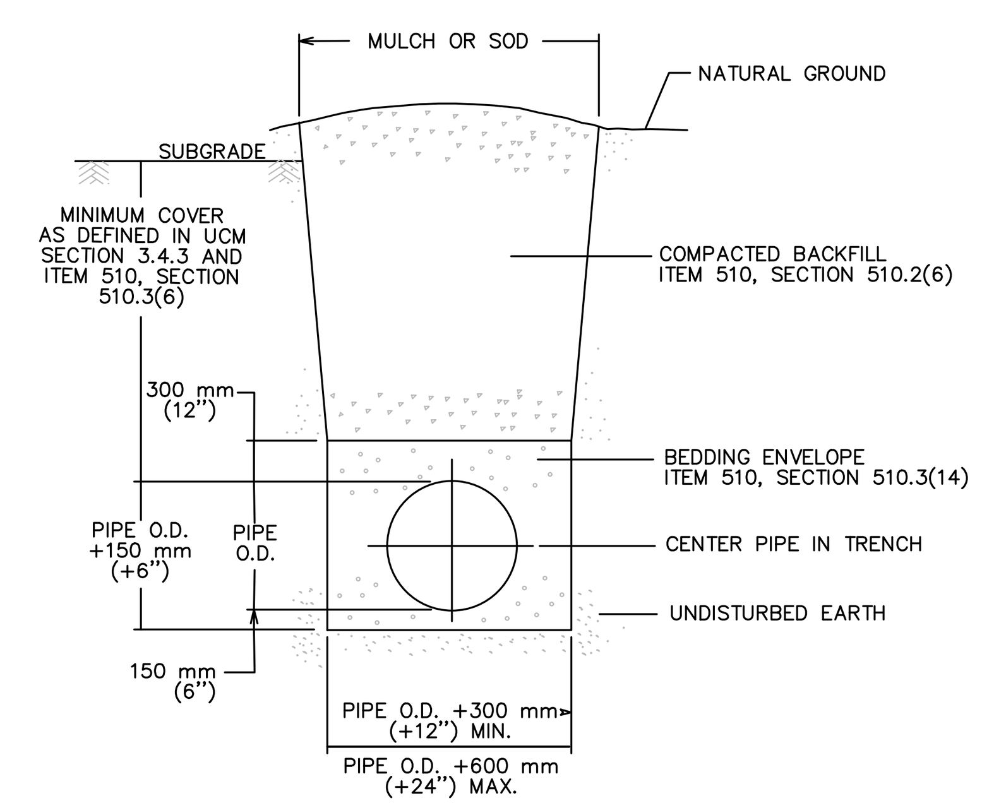
REV.	DATE	DESCRIPTION	APPROVED BY

REVISIONS

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

DETAILS: EROSION AND SEDIMENTATION CONTROL

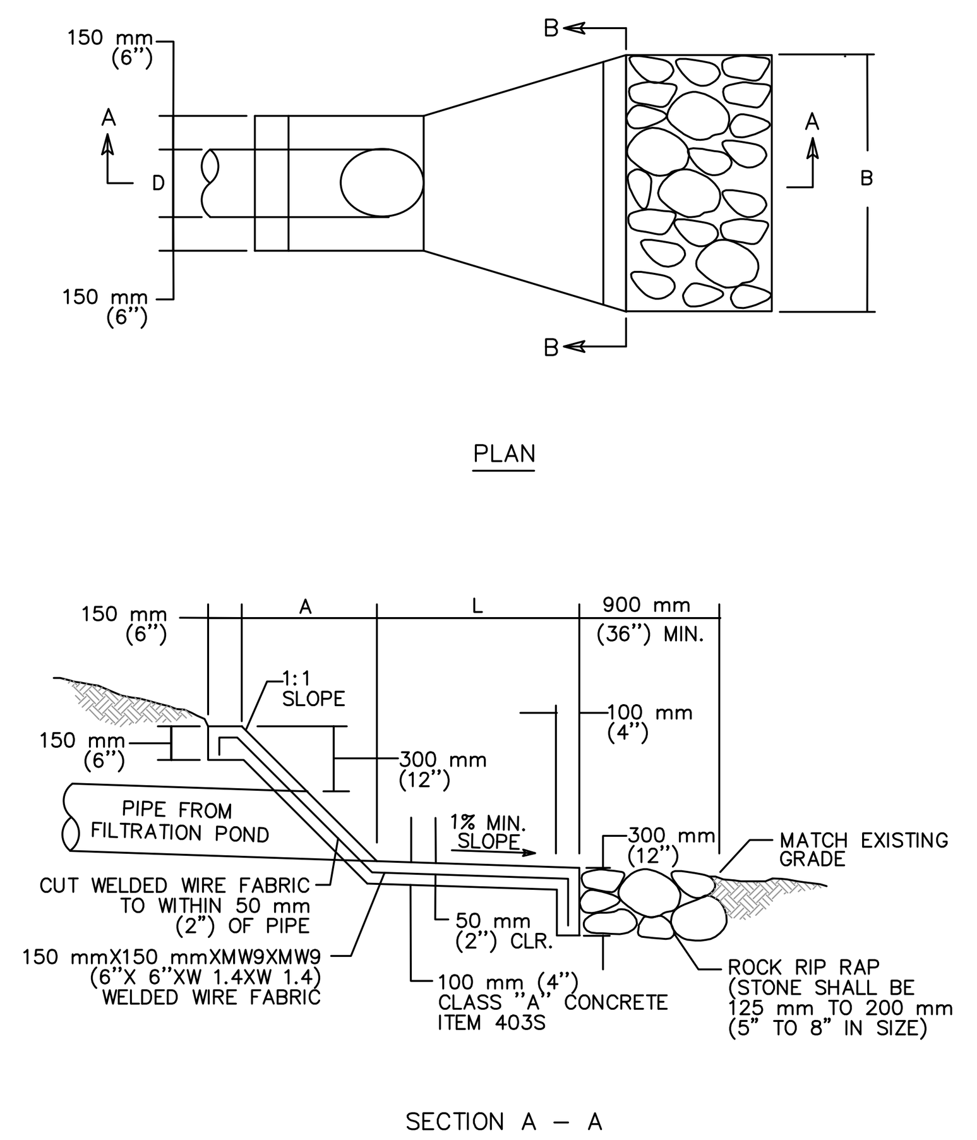
SITE CIVIL PLAN



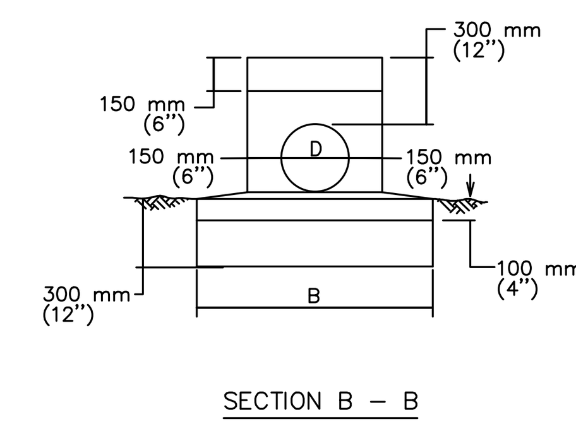
REFERENCES:

1. UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
2. STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	
RECORD COPY SIGNED BY BILL GARDNER — 03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-5

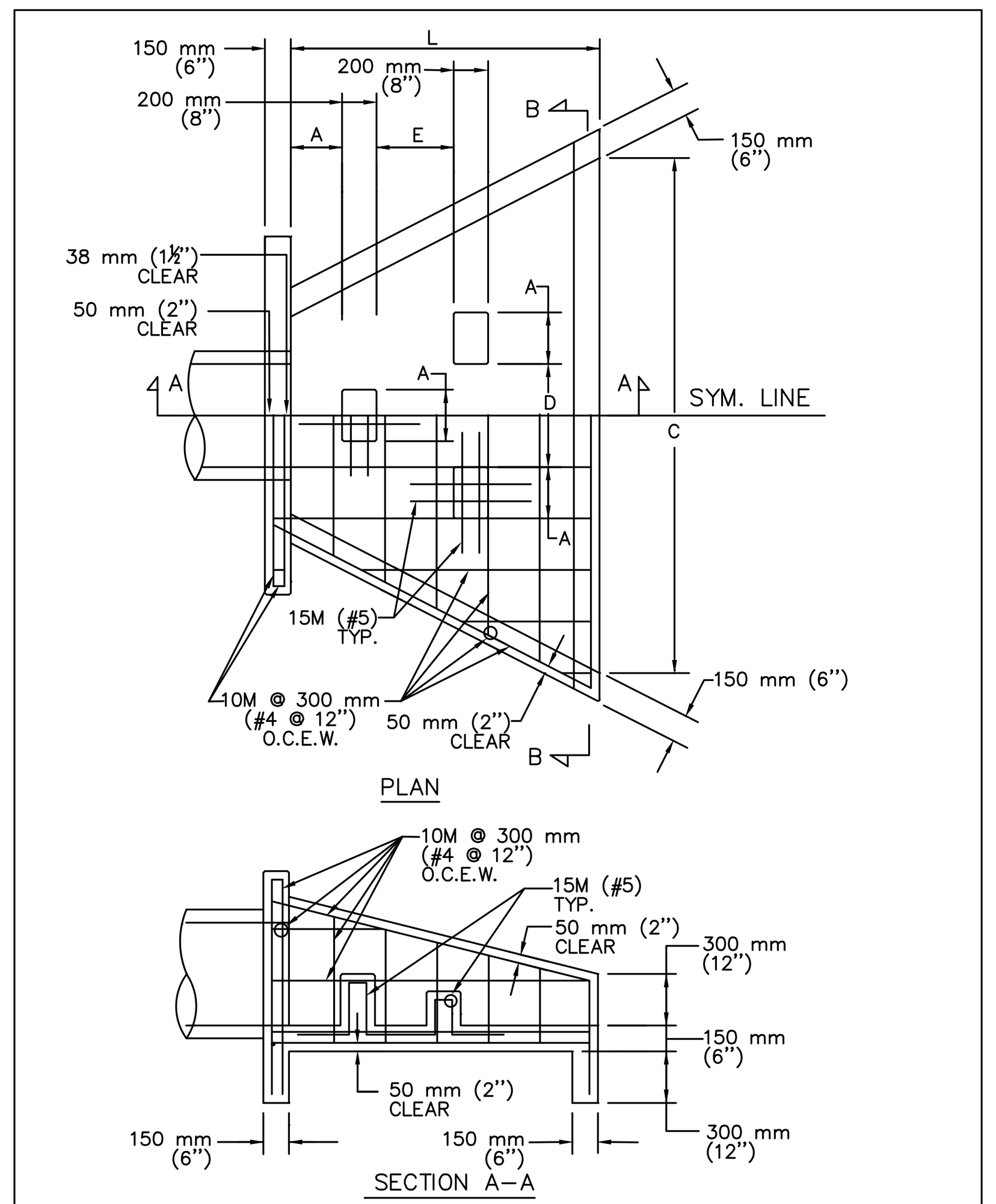


CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	HEADWALL FOR FILTRATION PONDS W/OUTFALL PIPE 150 mm (6") TO 375 mm (15") DIA.	
RECORD COPY SIGNED BY GEORGE E. OSWALD — 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-15 1 OF 2

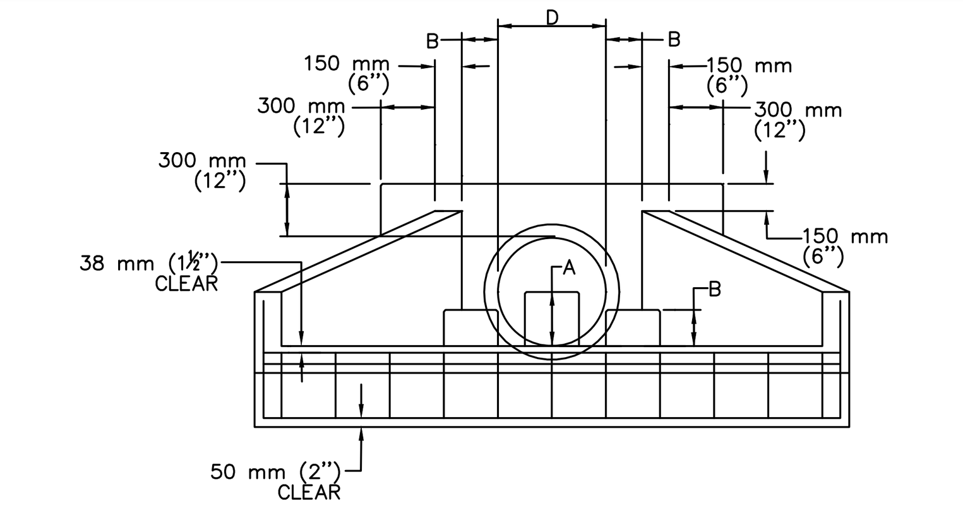


A	450 mm (18")	500 mm (20")	550 mm (22")	600 mm (24")	675 mm (27")
B	750 mm (30")	800 mm (32")	850 mm (34")	1.05 m (42")	1.27 m (51")
D	150 mm (6")	200 mm (8")	250 mm (10")	300 mm (12")	375 mm (15")
L	600 mm (24")	600 mm (24")	750 mm (30")	900 mm (36")	1.2 m (48")

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	HEADWALL FOR FILTRATION PONDS W/OUTFALL PIPE 150 mm (6") TO 375 mm (15") DIA.	
RECORD COPY SIGNED BY GEORGE E. OSWALD — 3/15/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-15 2 OF 2



CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
RECORD COPY SIGNED BY BILL GARDNER — 08/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 1 OF 2



NOTES:

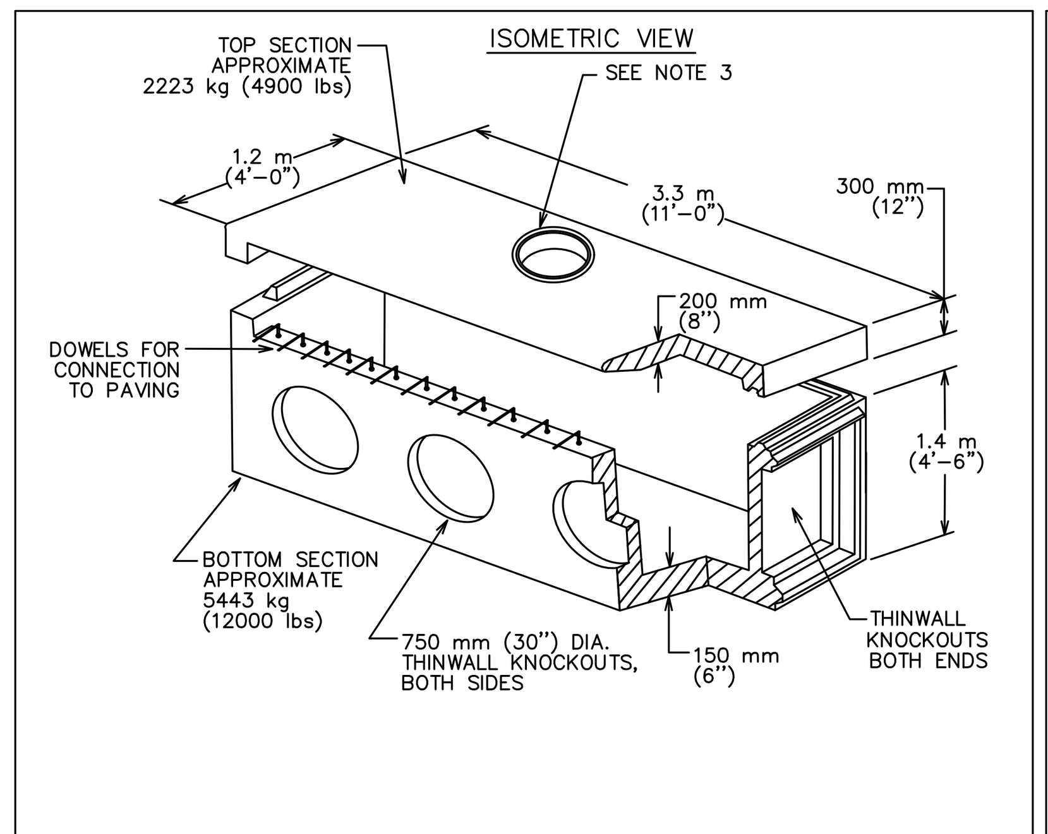
1. ALL CONCRETE SHALL BE TYPE "C" AS PER SPEC. 403S, CONCRETE FOR STURCTURES.
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.

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).

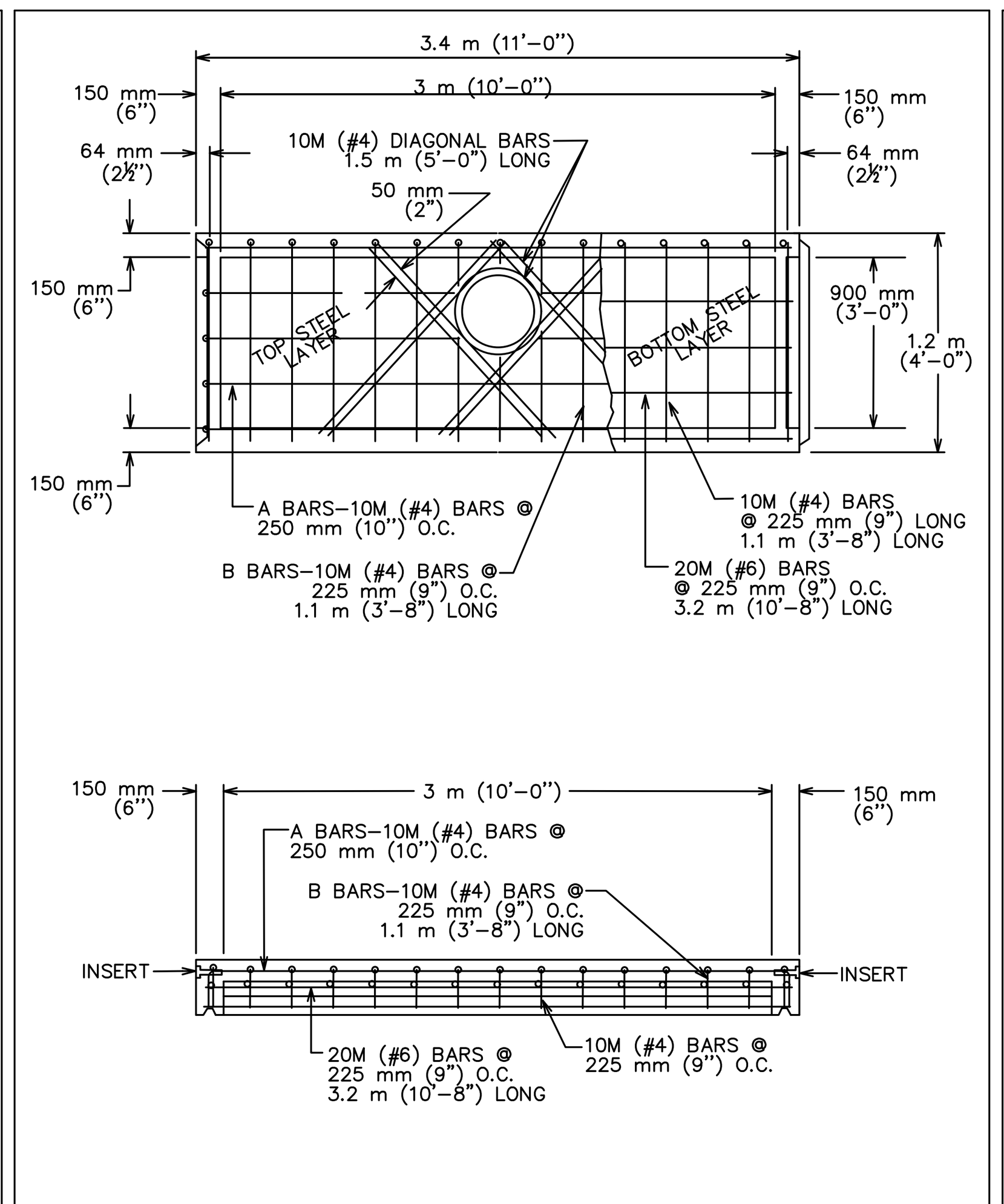
DISCHARGE VELOCITIES GREATER THAN 3 METERS/SECOND (10 fps) REQUIRE ROCK OUTLET PROTECTION.

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	STANDARD HEADWALL AND ENERGY DISSIPATORS	
RECORD COPY SIGNED BY BILL GARDNER — 08/20/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-13 2 OF 2

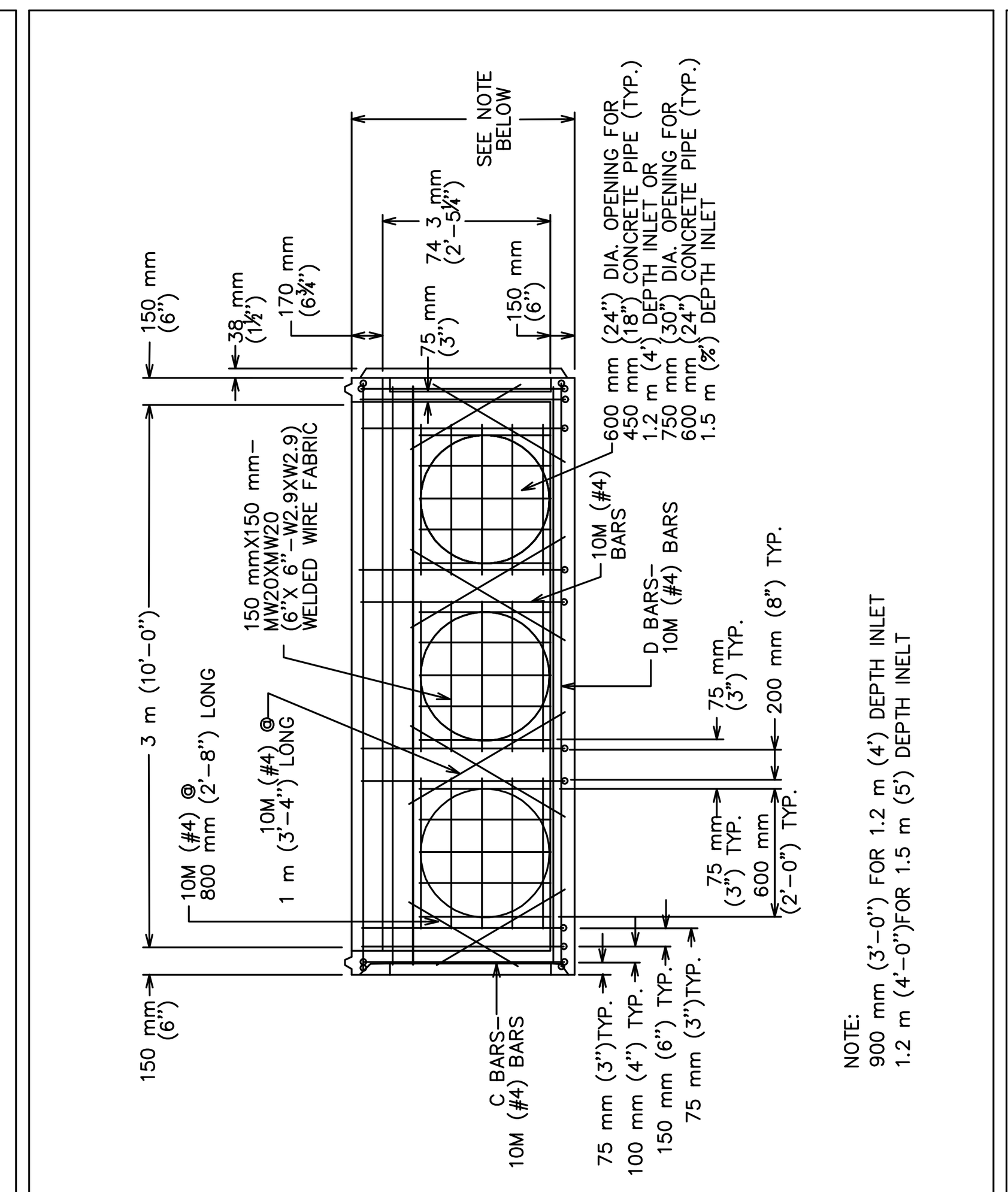


NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" AS PER ITEM 403S.
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD INLET DESIGN.
7. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE BY CONTRACTOR, SHAPED AS "V" SECTION
8. THE INLET AS DESIGNED EXCEEDS THE REQUIREMENTS OF ASTM C478.
9. THIS STANDARD COMPLIES WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 508S.
10. FOR INLET CONNECTION VARIATIONS FOR MAKING A 6 m (20'-0") CURB INLET FROM STANDARD 3 m (10'-0") INLETS, SEE DALWORTH CURB INLET CONNECTION DETAIL SHEET DQ-86-103.

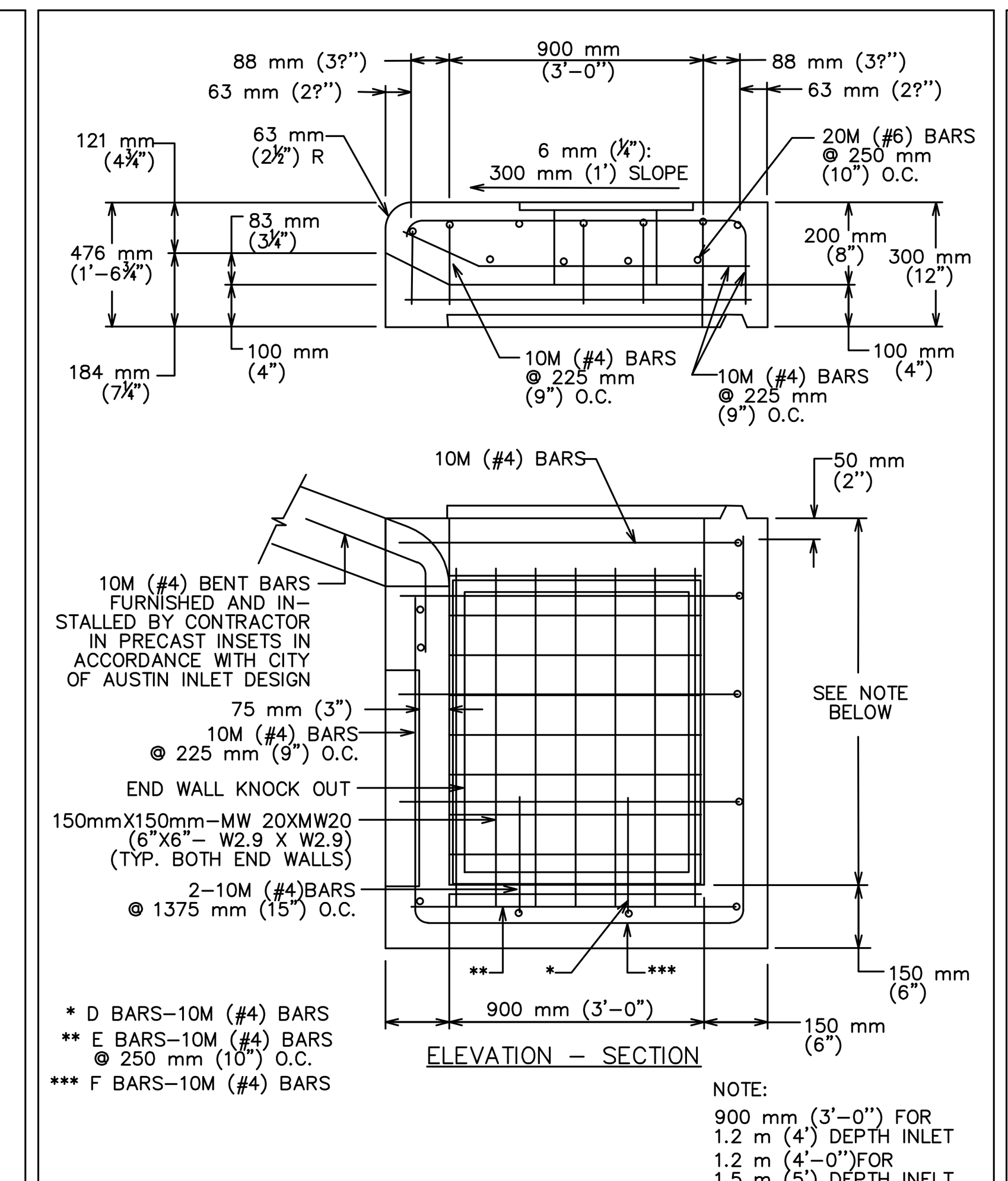
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER — 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 1 OF 5



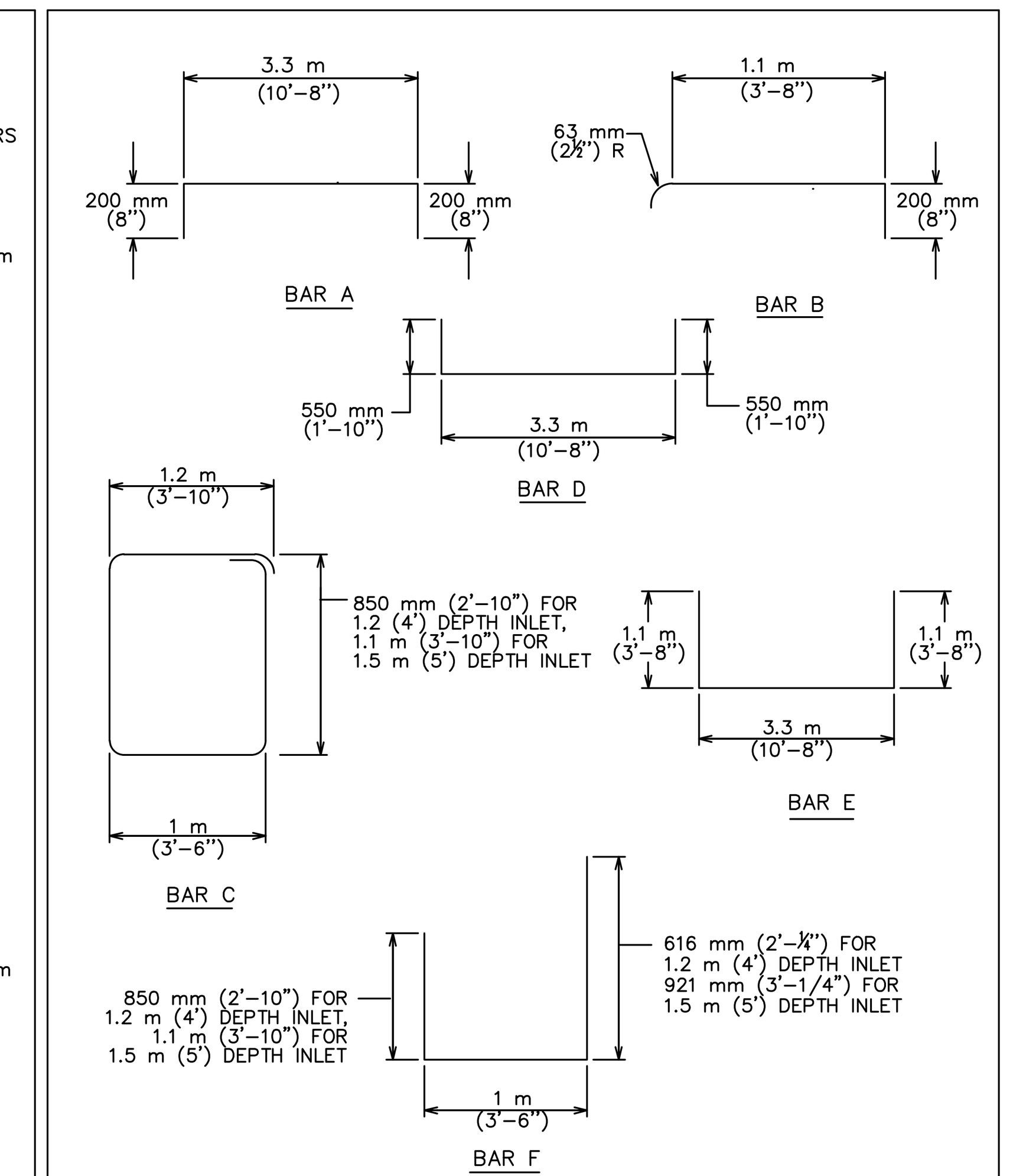
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER — 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 2 OF 5



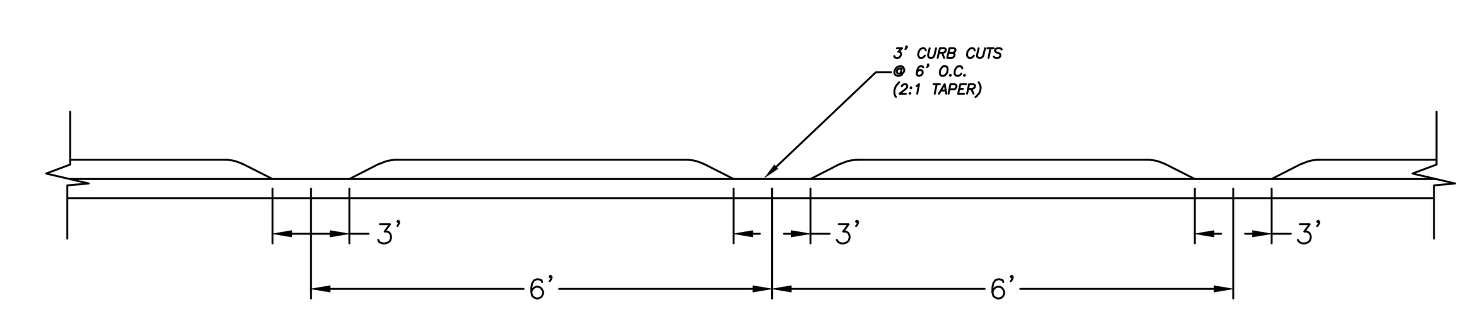
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER — 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 3 OF 5



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER — 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 4 OF 5

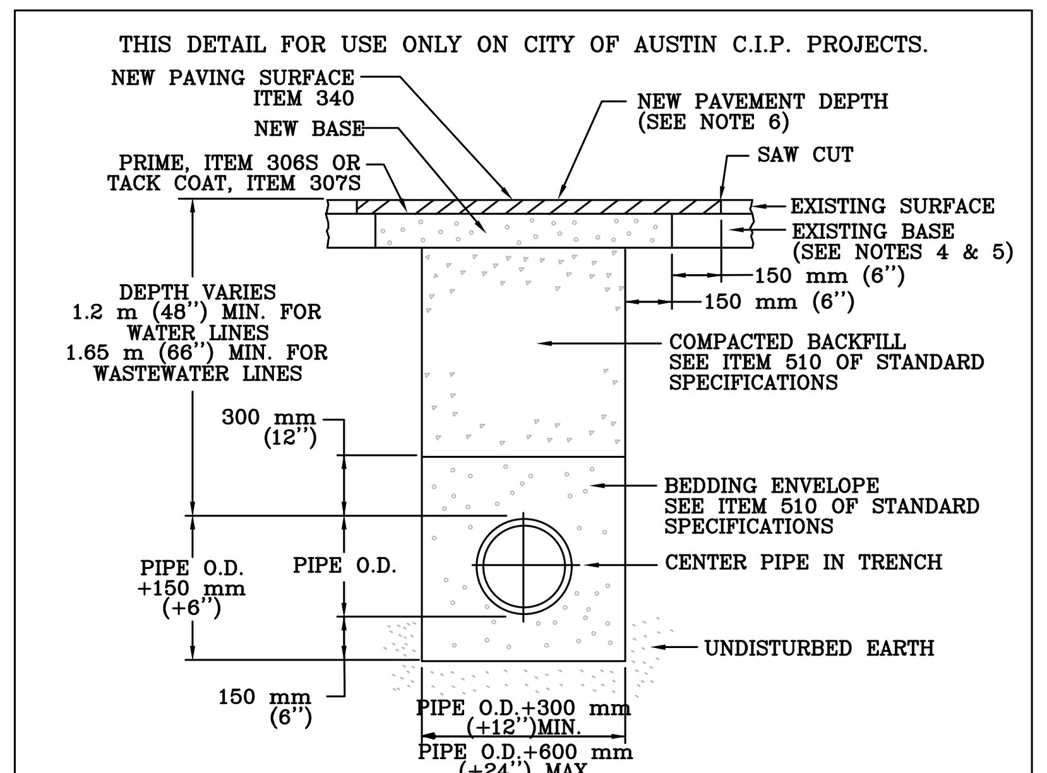


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	CURB INLET 3 m (10') PRECAST TYPE 1 OR TYPE 1-R	
RECORD COPY SIGNED BY BILL GARDNER — 12/09/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 508S-4 5 OF 5



1 CURB CUT DETAIL
Scale: NTS

THIS DETAIL FOR USE ONLY ON CITY OF AUSTIN C.I.P. PROJECTS.



NOTES:

1. THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMETRICAL ABOUT THE CENTER LINE OF THE EXCAVATION.
2. ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
3. IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
4. ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER.
5. ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
6. SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	TYPICAL TRENCH WITH PAVED SURFACE	
RECORD COPY SIGNED BY KATHI L. FLOWERS — *8/19/02* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 510S-3

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS
CALVIN J. WEIMAN
141995
REGISTERED PROFESSIONAL ENGINEER
06/28/23

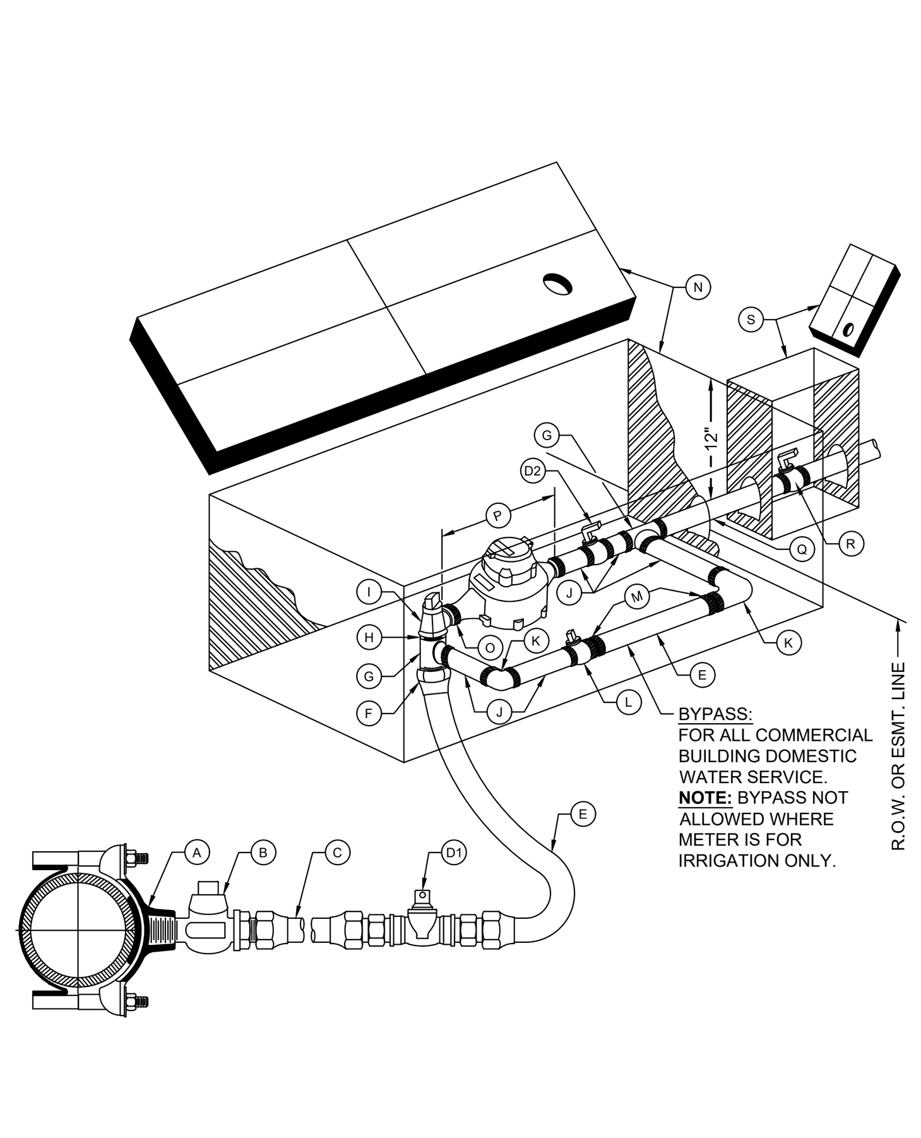
THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 6/28/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

DETAILS: GRADING & DRAINAGE

SITE CIVIL PLAN 21 of 26



CITY OF AUSTIN AUSTIN WATER	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-04 1 OF 2

MATERIALS LIST:

A. 2" SERVICE CLAMP
B. 2" CORPORATION STOP MALE THREAD INLET BY COMPRESSION OUTLET
C. 2" COPPER WATER SERVICE TUBING EXTENDED BEYOND PAVEMENT
D1. 2" BALL VALVE, SPL WW-275
D2. 2" BALL VALVE, SPL WW-275
E. 2" COPPER SERVICE TUBING
F. 2" BRASS COUPLING - COMPRESSION TO MALE IPT
G. 2" BRASS TEE
H. 2" BRASS CLOSE-NIPPLE
I. 2" ANGLE METER STOP; SERVICE TUBING INLET x FLANGED OUTLET
J. 2" BRASS NIPPLE
K. 2" BRASS ELBOW
L. 2" LOCKABLE CURB STOP - FEMALE IPT INLET BY COMPRESSION OUTLET
M. 2" BRASS COUPLING - SERVICE TUBING TO MALE IPT
N. RECTANGULAR METER BOX AND COVER, SPL WW-145A
O. BRASS ADAPTER (2" x 1 ½") FOR 1 ½" METER ONLY
P. WATER METER. LENGTH 13", (PURCHASED FROM AUSTIN WATER)
Q. 2" COPPER SERVICE TUBING (PRIVATE PLUMBING PER CODE)
R. CUSTOMER CUT-OFF VALVE
S. CUSTOMER VALVE BOX AND LID

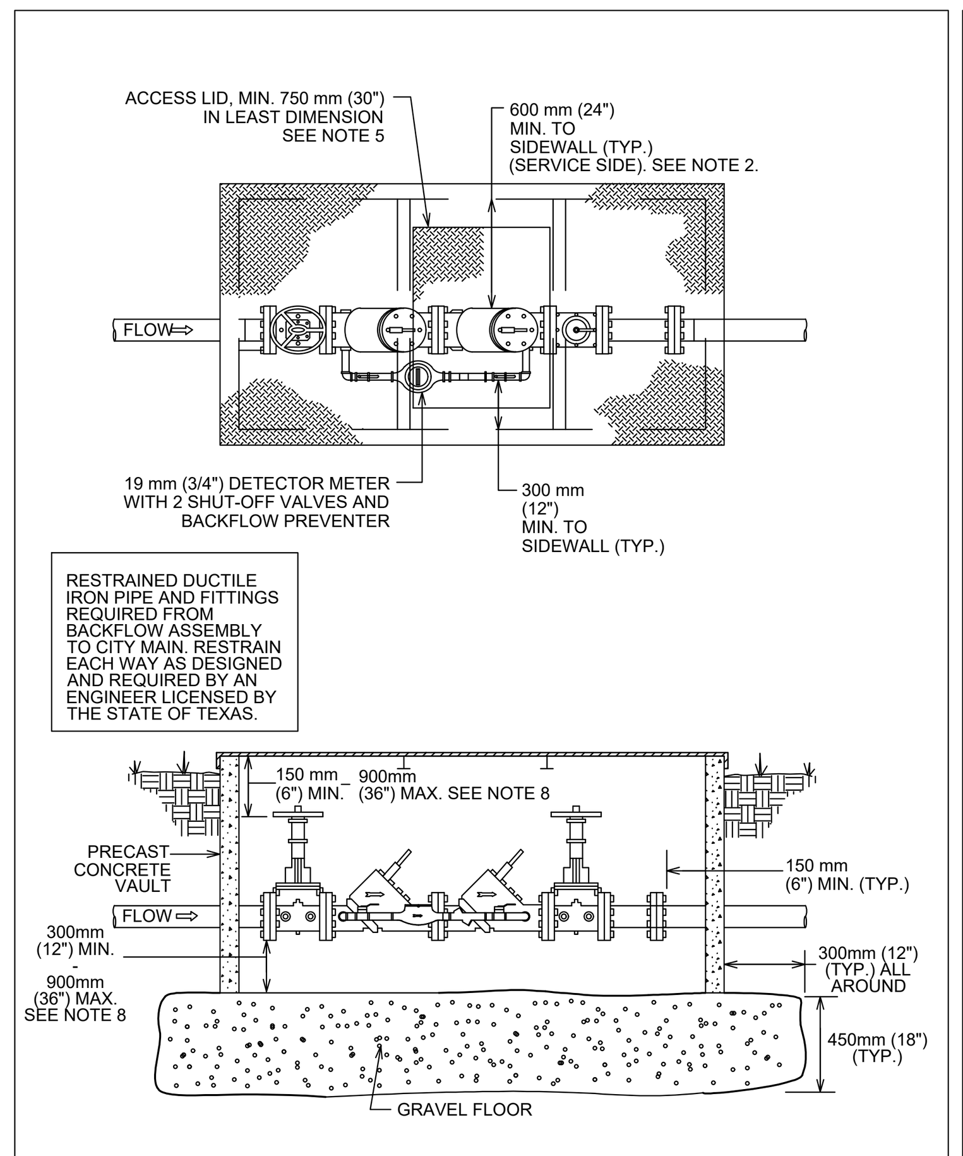
NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF BOXES SHOULD BE 1" ABOVE GROUND.
4. 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).
5. BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D1" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 24" HORIZONTALLY FROM METER BOX OR 36" BELOW FINAL GRADE.
7. COPPER SERVICE SHALL BE COPPER TUBING SIZE ANNEALED SEAMLESS TYPE "K" MEETING ASTM B88 WITH NO SWEAT OR SOLDERED JOINTS.

RECLAIMED WATER:

FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED PURPLE TUBING. ALL OTHER TUBING AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL TUBING 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	1 ½" - 2" METER INSTALLATION SHOWING OPTIONAL BYPASS	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-04 2 OF 2



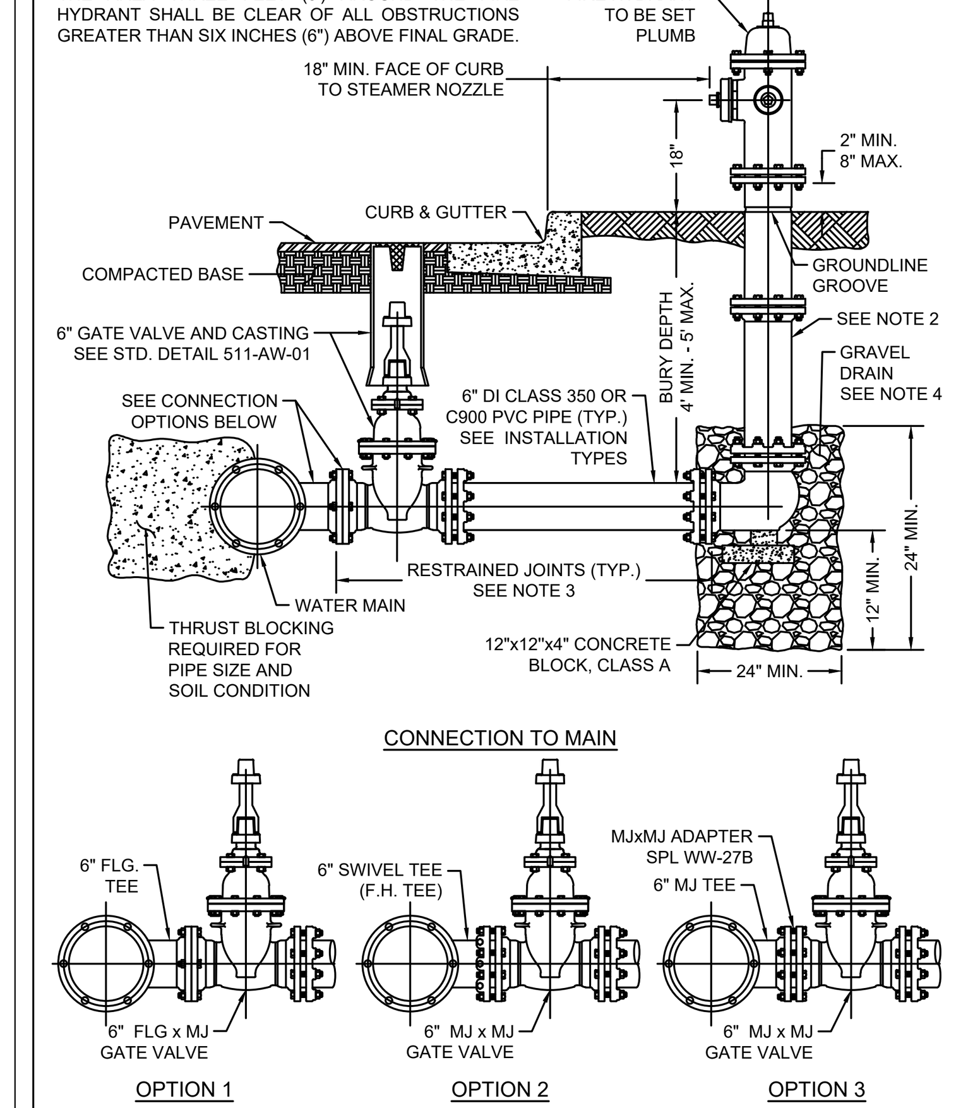
CITY OF AUSTIN WATER AND WASTEWATER UTILITY	STANDARD FIRE LINE INSTALLATION WITHOUT MASTER METER	
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011 ADOPTED 4/21/11	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19C 1 OF 2

NOTES:

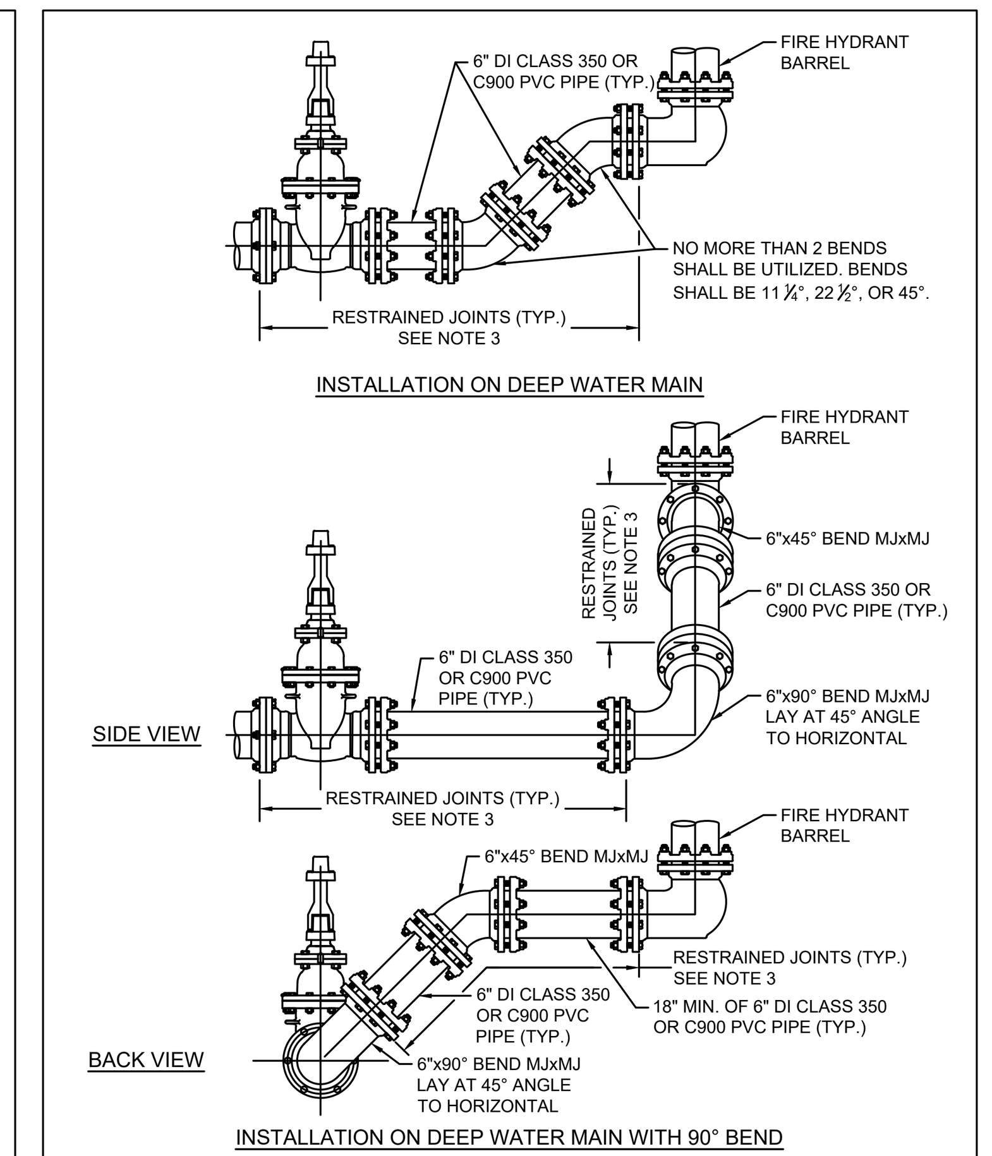
1. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL HAVE LAB AND FIELD APPROVAL FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA FOUNDATION FOR CROSS CONNECTION CONTROL AND HYDRAULIC RESEARCH.
2. ALL TEST PORTS SHALL BE DIRECTED UPWARD AND PLUGGED. TEST PORTS ARE LOCATED ON SERVICE SIDE. PLUGS SHALL BE NON-FERROUS.
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 WATER AND WASTEWATER UTILITY	STANDARD FIRE LINE INSTALLATION WITHOUT MASTER METER	
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011 ADOPTED 4/21/11	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19C 2 OF 2

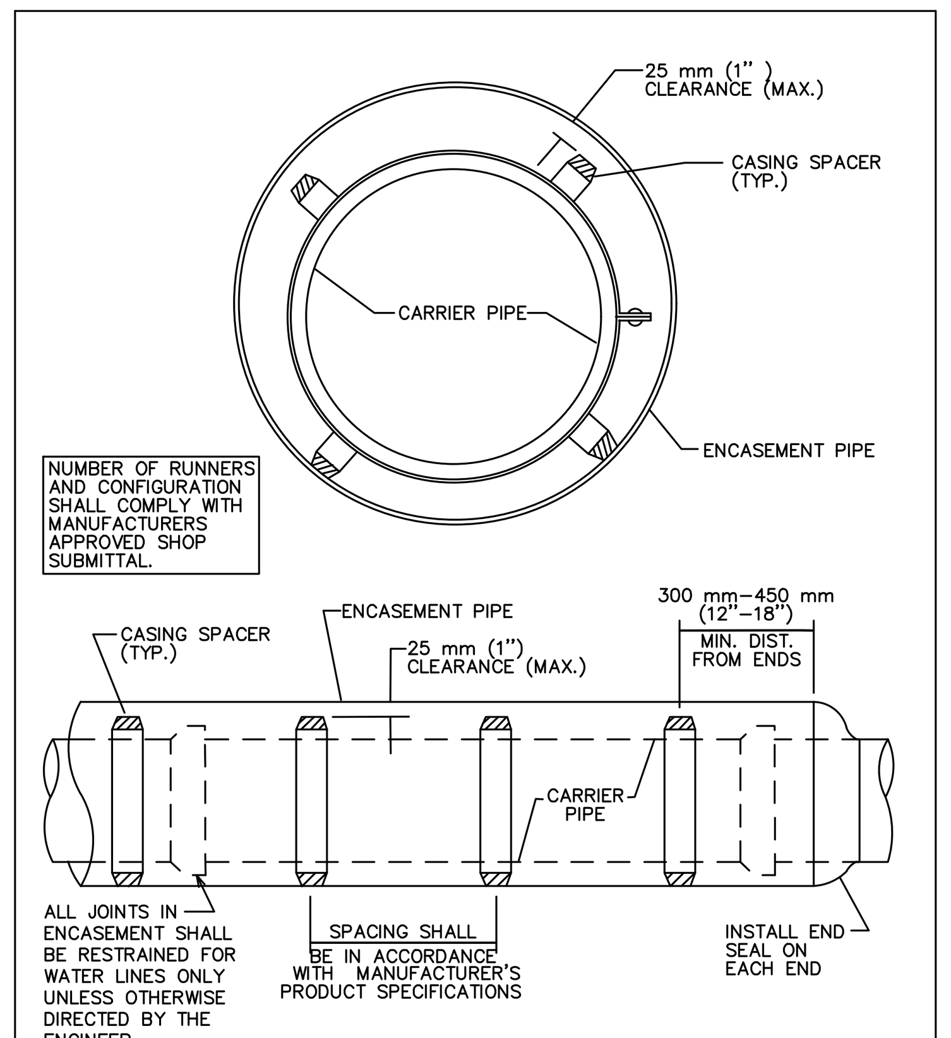
THE AREA THREE FEET (3') AROUND THE FIRE HYDRANT SHALL BE CLEAR OF ALL OBSTRUCTIONS GREATER THAN SIX INCHES (6") ABOVE FINAL GRADE.



CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
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-02 1 OF 3



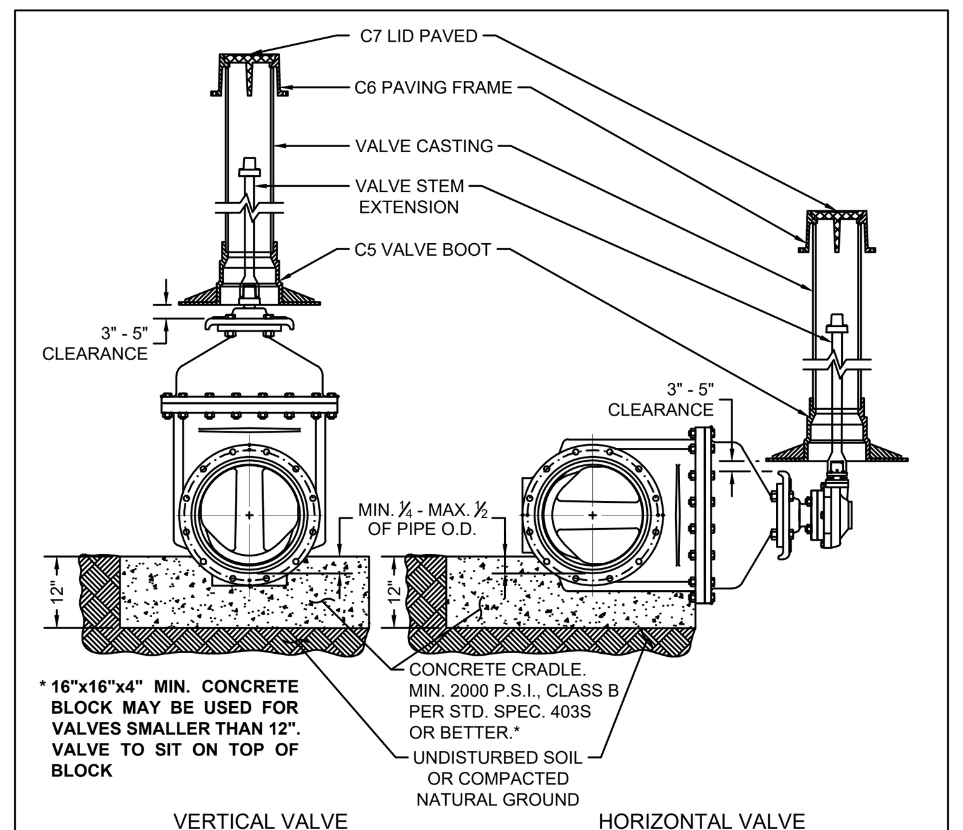
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-02 2 OF 3



APPLICABLE REFERENCES

STANDARD SPECIFICATION: ITEM 510S.3 (19) W/WW STANDARD PRODUCTS LIST: SPLWW–575 FOR CASING SPACER AND SPLWW–575A FOR END SEAL.

AUSTIN WATER UTILITY	ENCASEMENT DETAIL W/ CASING SPACERS	
RECORD COPY SIGNED BY KATHI L. FLOWERS 2/28/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 501S–1

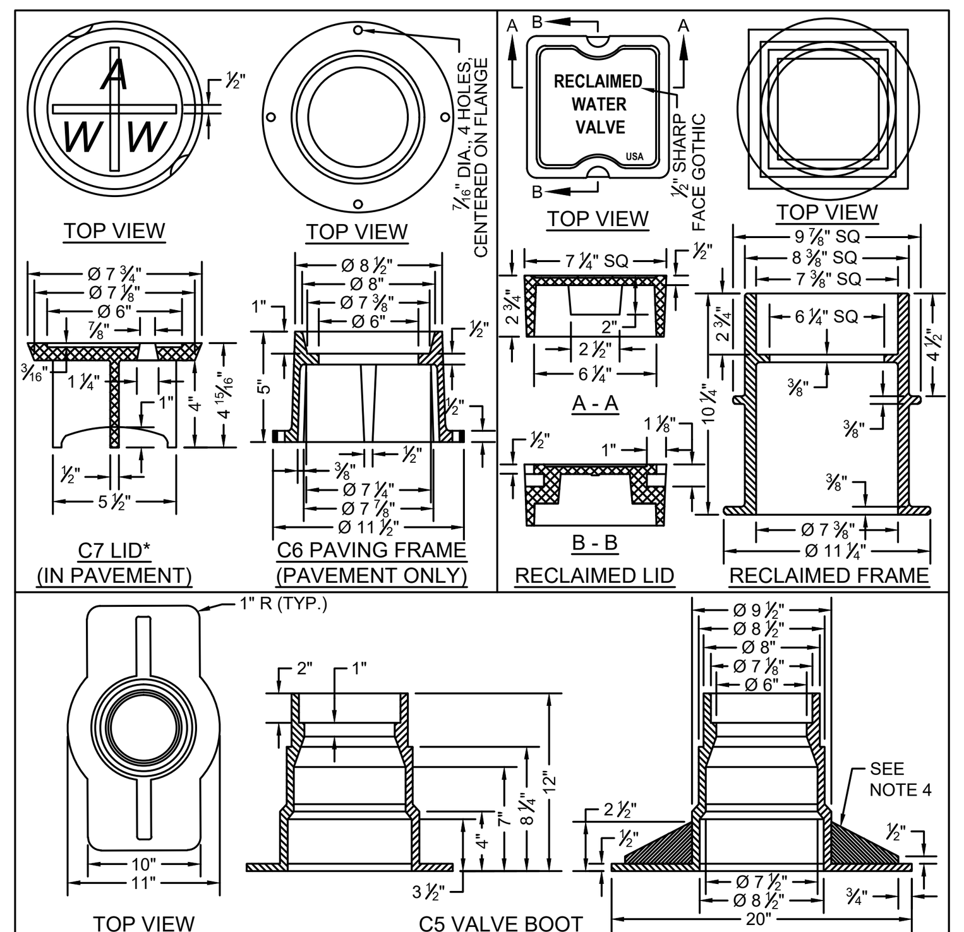


NOTES:

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 3' 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:

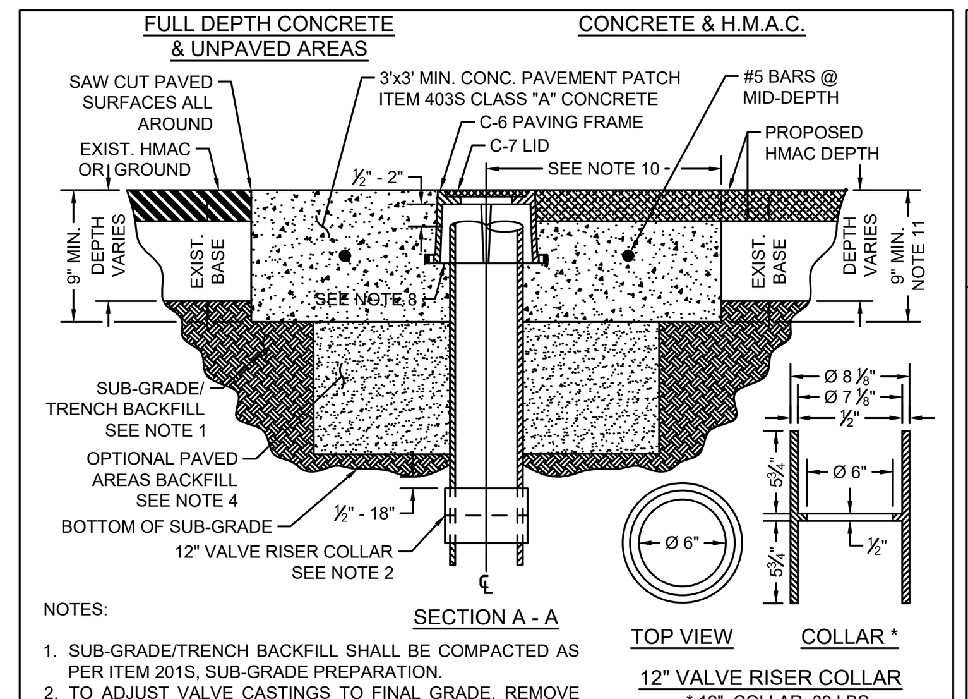
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING 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: 78 LBS

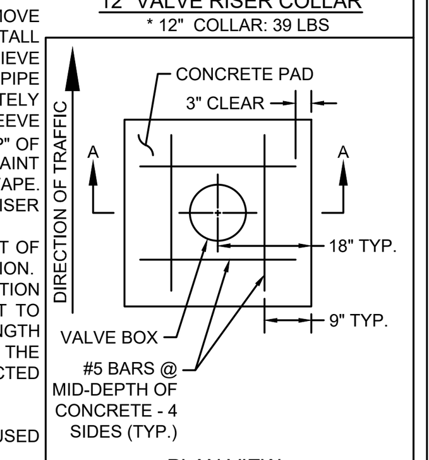
* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

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



NOTES:

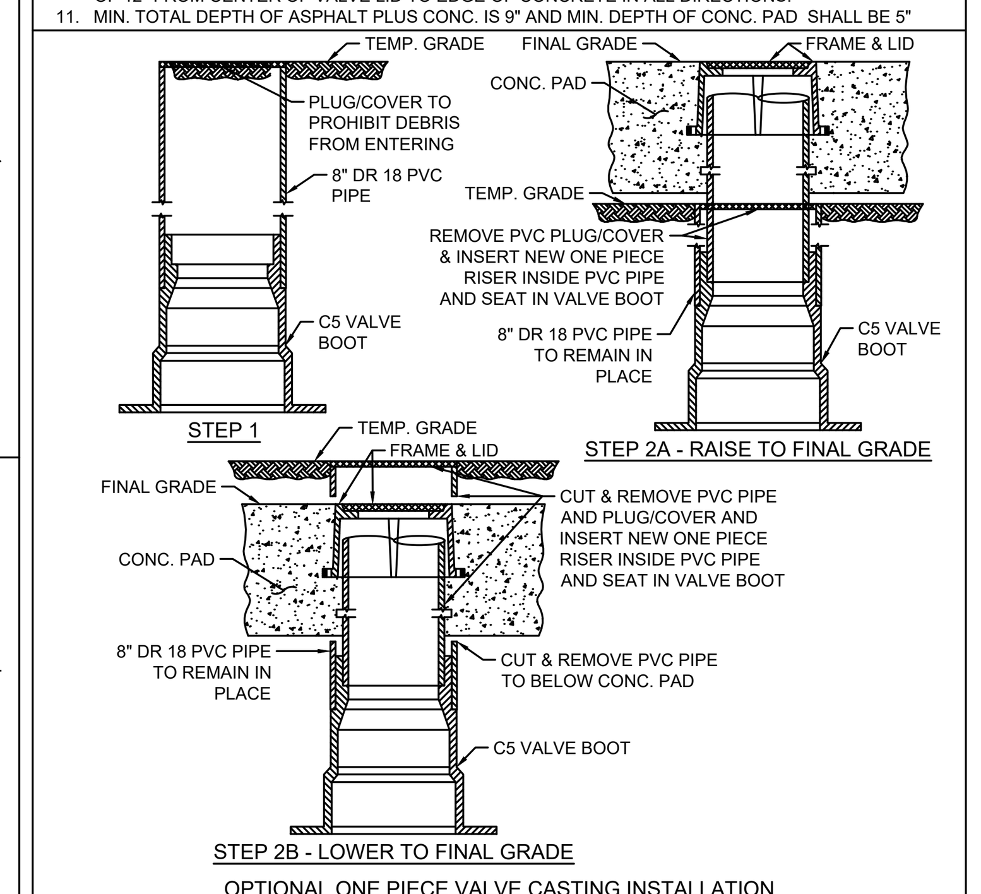
1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" 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'.



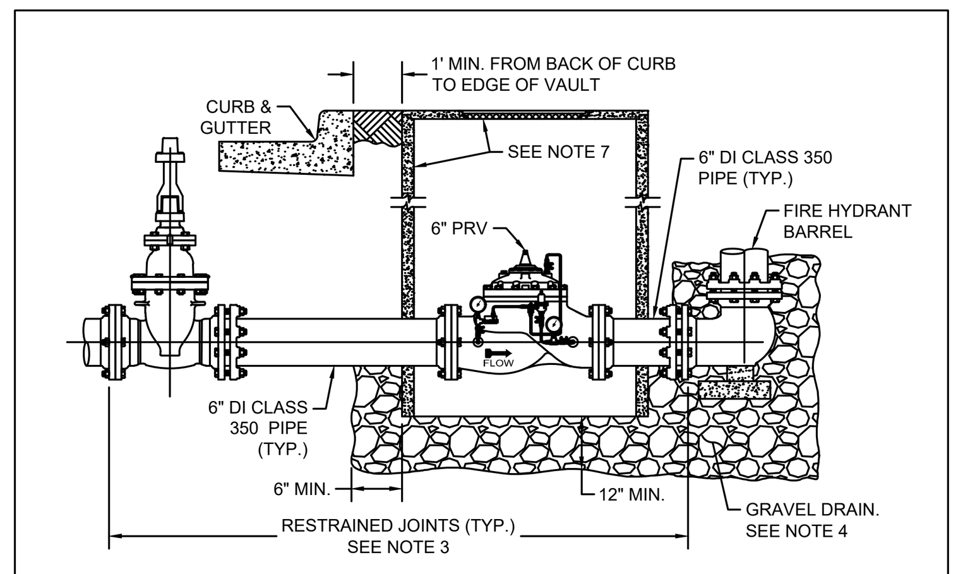
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 3 OF 4

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

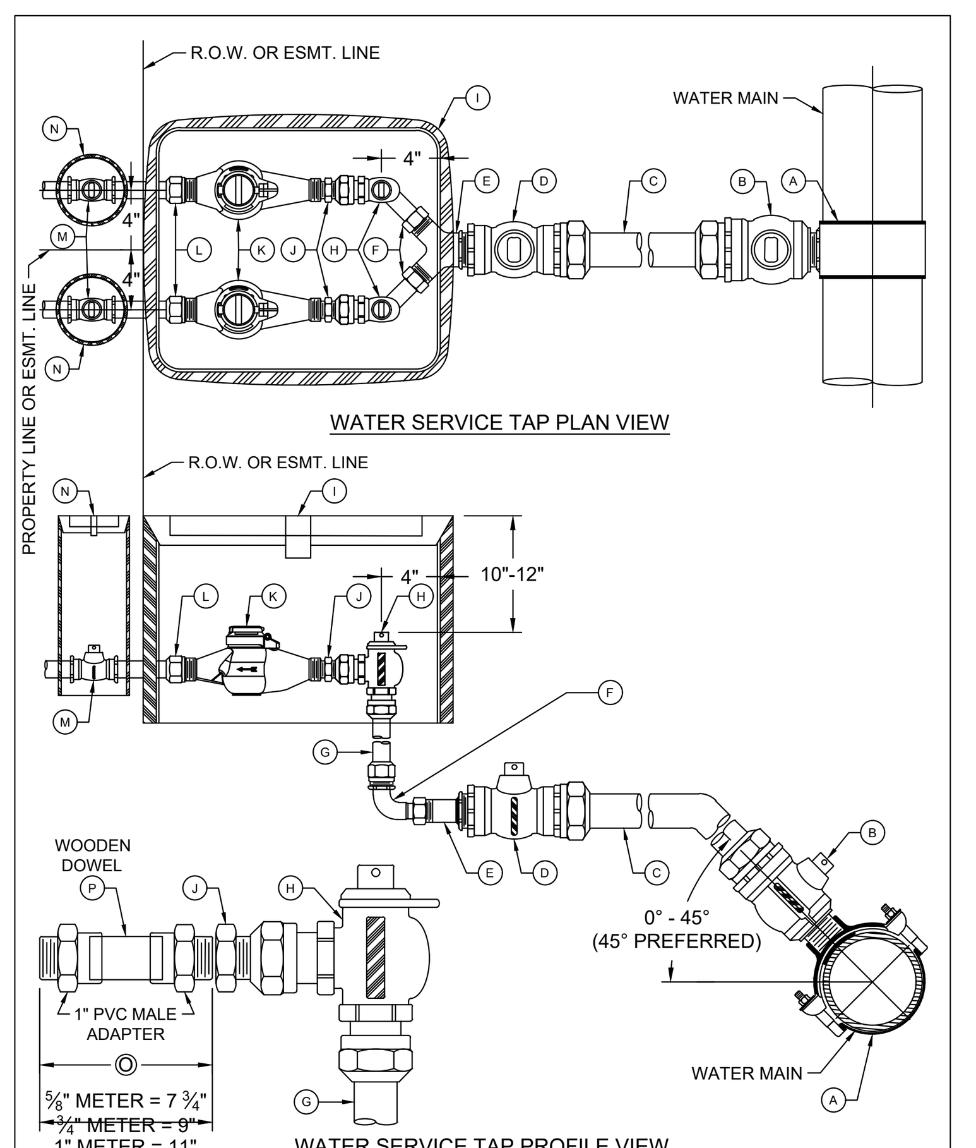


INSTALLATION ON WATER MAIN WITH PRESSURE REDUCING VALVE (PRV)

NOTES: APPLICABLE TO ALL INSTALLATION TYPES.

1. NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
2. ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
3. FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT. JOINTS SHOWN MAY VARY. SEE SPL WW-27, WW-27A, AND WW-27B FOR RESTRAINT OPTIONS.
4. BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 620S. FOR PRV, GRAVEL SHALL EXTEND UNDER THE PRV VAULT 12" MIN. DEPTH UNDER THE VAULT AND 6" MIN. BEYOND VAULT.
5. FOR FIRE HYDRANT LEADS AT A MAIN OUTLET LARGER THAN 6" DIAMETER, OUTLET SHALL BE FLANGED AND A FLG x FLG REDUCER SHALL BE INSTALLED DIRECTLY ON THE OUTLET.
6. WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS.
7. FOR HYDRANTS WITH PRV: CLASS III RCP VAULT 60" MIN. I.D. WITH REINFORCED PRECAST CONCRETE LID (AASHTO H-20 LOADING) WITH COA FRAME AND 32" COVER WITH LETTERING MODIFIED FOR WATER.

CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT	
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-02 3 OF 3



CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
DRAFT - NOTICE OF RULE ADOPTION ONLY JEFF A. KYLE 08/16/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 1 OF 2

MATERIALS LIST:

A. 2" SERVICE CLAMP, SPL WW-264
B. 2" CORPORATION STOP, SPL WW-68
C. 2" HDPE WATER SERVICE TUBING, SPL WW-65
D. 2" BALL VALVE, SPL WW-68
E. SINGLE SERVICE: 2" MIP X 1" COPPER FLARE FITTING, SPL WW-68 OR DOUBLE SERVICE: 2" MIP X 1" COPPER FLARE WYE, SPL WW-68
F. 1" SWIVEL NUT x 1" COMPRESSION 90° BEND, SPL WW-68
G. 1" HDPE WATER SERVICE TUBING, SPL WW-65
H. 1" ANGLE METER STOP, SPL WW-68
I. METER BOX AND LID, SPL WW-145A; FOR DUAL 1" METERS: USE TWO SINGLE METER BOXES

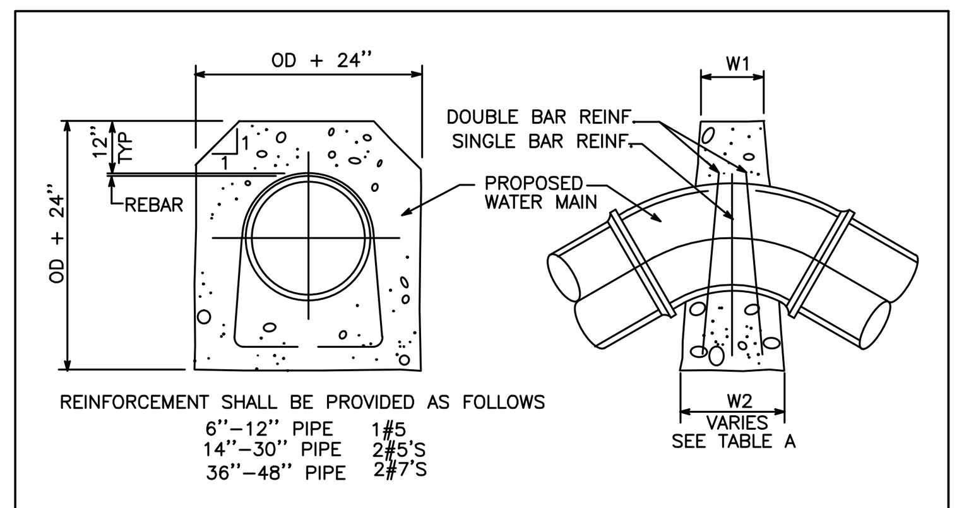
MATERIALS TO BE INSTALLED BY PLUMBER:

J. BRASS METER BUSHING - SIZE AS NEEDED TO CONNECT ANGLE METER STOP TO METER
K. WATER METER PURCHASED FROM AUSTIN WATER
L. BRASS WATER METER COUPLING MALE IPT x SWIVEL COUPLING NUT: ⅝" AND ¾" METERS: 8 ½" LONG x ¾" DIA. 1" METERS: 8 ½" LONG x 1" DIA.
M. PROPERTY OWNER'S CUT OFF VALVE, SPL WW-276
N. PROPERTY OWNER'S CUT OFF VALVE BOX AND LID
O. TEMPORARY METER SPACER (REQUIRED TO ASSURE METER WILL FIT APPROPRIATELY)
P. 1" WOODEN DOWEL (SHOW ADDRESS ON DOWEL USING WATERPROOF MARKER)

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM, SPL WW-27D.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF METER BOXES SHOULD BE 4" ABOVE GROUND.
4. 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).
5. METER BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 36" BELOW FINAL GRADE.
7. METER SIZES TO BE SHOWN ON PLANS.
8. METER BOX CUT OUTS SHALL NOT EXCEED TWO TIMES THE PIPE DIAMETER.
9. INSTALL METALLIC TRACER TAPE, SPL WW-597, MINIMUM 1' ABOVE TUBING FROM SERVICE CLAMP "A" TO BALL VALVE "D".
10. TUBING SHALL BE PLACED IN A STRAIGHT ALIGNMENT AND ALLOWED TO RELAX AND "SNAKE" LOOSELY IN THE TRENCH. TUBING BEHIND CURB AND GUTTER SHALL BE INSTALLED WITH A MINIMUM 2' DEPTH OF COVER.
11. 1" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 3'. 2" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 5'. BRASS FITTINGS SHALL NOT BE CONNECTED TO A BENT SECTION OF TUBING.
12. SOLID, TUBULAR STAINLESS STEEL INSERT STIFFENERS FOR HDPE TUBING SHALL BE USED AT ALL COMPRESSION FITTINGS. INSERT STIFFENERS SHALL BE FROM THE SAME MANUFACTURER AS THE COMPRESSION FITTING USED.
13. FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED SOLID PURPLE, SPL WW-65A. ALL APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL METER BOX LIDS SHALL BE PURPLE AND HAVE **"RECLAIMED WATER"** CAST INTO THEM, SPL WW-145A.

CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
DRAFT - NOTICE OF RULE ADOPTION ONLY JEFF A. KYLE 08/16/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 2 OF 2



REINFORCEMENT SHALL BE PROVIDED AS FOLLOWS
6"–12" PIPE 1#5
14"–30" PIPE 2#5'S
36"–48" PIPE 2#7'S

VERTICAL DOWN BEND

TABLE A
UPWARD THRUST GRAVITY BLOCKS

PIPE DIA.	MIN. TOP WIDTH W1	ANGLE (degrees)	BOTTOM WIDTH–W2 (in)
6"	6"	0–5	NOTE 2
		5–15	24
		15–25	48
		► 25	NOTE 1
8"	6"	0–5	NOTE 2
		5–9	30
		9–15	36
		►15	NOTE 1
12"	6"	0–5	NOTE 2
		5–15	48
		► 15	NOTE 1
16"	12"	0–5	NOTE 2
		5–10	60
		10–15	96
		► 15	NOTE 1
24" THRU 36" DIA.		►5.0	NOTE 1
42" THRU 48" DIA.		►3.0	NOTE 1

NOTES:

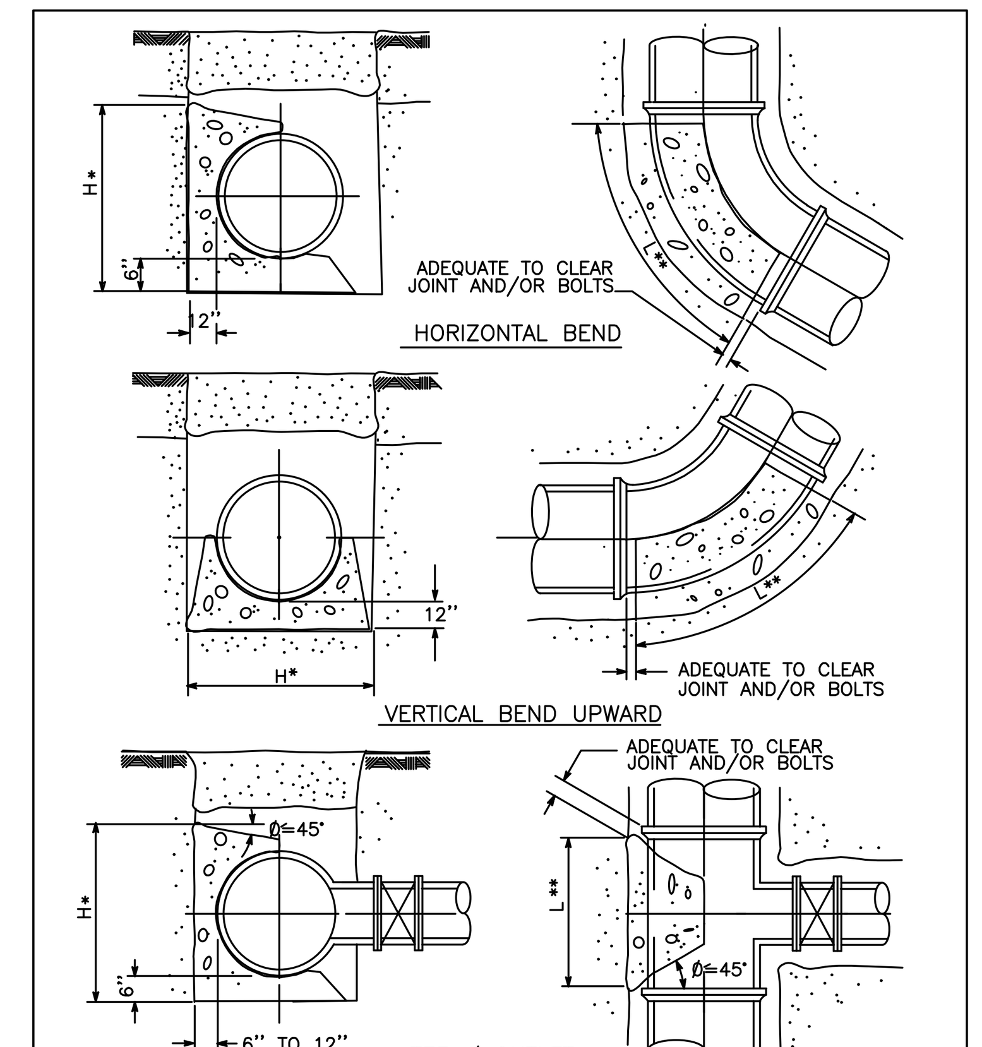
1– FOR ANGLES GREATER THAN THOSE INDICATED RESTRAINED JOINTS SHALL BE INSTALLED

2– FOR JOINT DEFLECTIONS LESS THAN THRUST RESTRAINT IS REQUIRED FOR PIPES LESS THAN 42" IN DIAMETER.

THRUST BLOCK DESIGN AS FOLLOWS
A. PRESSURE OF 150 P.S.I. (ACTUAL IF HIGHER) + 50 % SURGE ALLOWANCE
B. MAXIMIM SOIL BEARING SEE TABLE BELOW

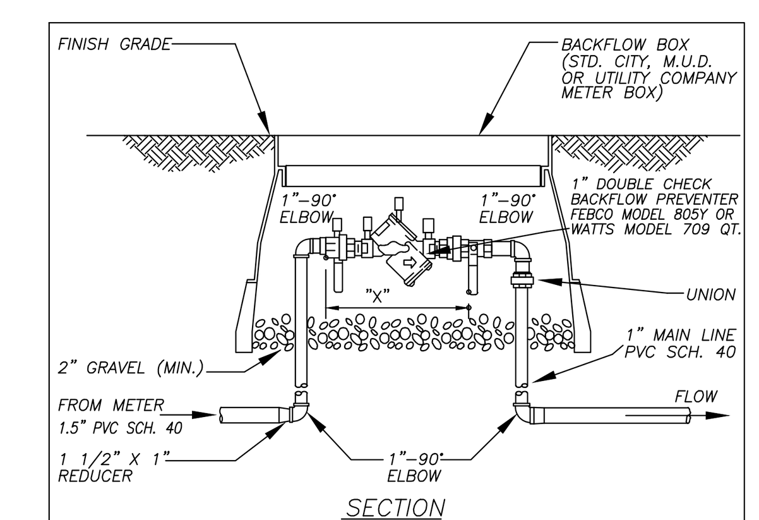
SOIL TYPES	PRESSURE
LOOSE OR SPONGY SOIL	1500 Lb/Sq.Ft.
UNDISTURBED SOIL, CALICHE	2000 Lb/Sq.Ft.
LIMESTONE ROCK	4000 Lb/Sq.Ft.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	CONCRETE THRUST BLOCKING	
RECORD COPY SIGNED BY JAMES E. THOMPSON 2/11/86 APPROVED DATE	ADOPTED: 2/11/86 SCALE: N.T.S. INITIAL:	STANDARD NO. 510–6 1 OF 2



* THE DIMENSION FOR "H" MUST BE GREATER THAN DIAMETER OF THE PIPE
** LENGTH "L" ALONG THE BEND MUST BE GREATER THAN "H" AND LESS THAN 2 TIMES "H"

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	CONCRETE THRUST BLOCKING	
RECORD COPY SIGNED BY JAMES E. THOMPSON 2/11/86 APPROVED DATE	ADOPTED: 2/11/86 SCALE: N.T.S. INITIAL:	STANDARD NO. 510–6 2 OF 2



SIZE	DIMENSION "X"	RATE	PRESSURE LOSS
3/4"	16"	30 gpm	8 psig
1"	17 3/4"	50 gpm	10 psig
1 1/2"	23"	110 gpm	6.5 psig
2"	24 3/4"	160 gpm	8.5 psig

1 DOUBLE CHECK BACKFLOW PREVENTER DETAIL FOR IRRIGATION LINE
N.T.S.

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE. 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS
CALVIN J. WEIMAN
141995
REGISTERED PROFESSIONAL ENGINEER
07/14/23

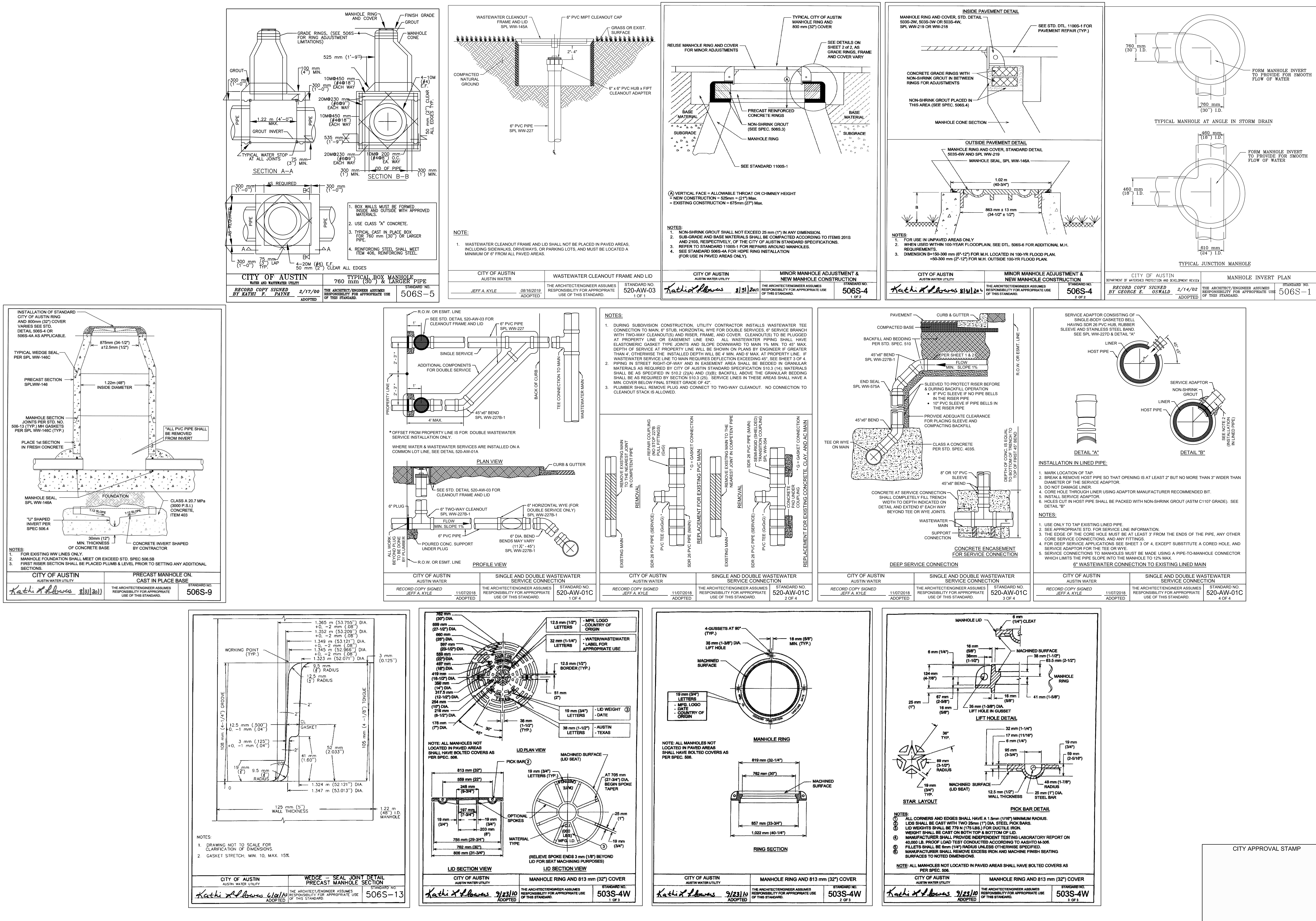
THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REVISIONS		
REV. DATE	DESCRIPTION	APPROVED BY

JOB: 22–050 DATE: 7/14/23
CAD: DA/MM CHK'D BY:
ENGINEER: CW CHK'D BY:
SCALE:

DETAILS: UTILITY 1 OF 2

SITE CIVIL PLAN
22
of 26



CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.

TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

07/14/23

THE OFFICES AT WILLIAM CANNON

3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	DESCRIPTION	APPROVED BY
		REVISIONS	

JOB: 22-050	DATE: 7/14/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

DETAILS:
UTILITY
2 OF 2

SITE CIVIL PLAN

23

of 26

GENERAL NOTES

ALL RESPONSIBILITY FOR THE ADEQUECY OF THESE PLANS REMAINS WITH THE ENGINEER. APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN DOES NOT REMOVE THESE RESPONSIBILITIES.

"REVIEWED BY AUSTIN WATER" APPLIES ONLY TO AW PUBLIC FACILITIES. ALL OTHER WATER AND WASTEWATER FACILITIES INSIDE PRIVATE PROPERTY ARE UNDER THE JURISDICATION OF BUILDING INSPECTIONS.

Use of Electronic Files General Disclaimer: Use of the attached files in any manner indicates your acceptance of terms and conditions as set forth below. If you do not agree to all of the terms and conditions, please contact Austin Water Pipeline Engineering, project coordinator prior to use of the referenced information. Please be advised that the attached files are in a format that can be altered by the user. Due to this fact, any reuse of the data will be at the user's sole risk without liability or legal exposure to the City of Austin and user shall indemnify and hold harmless The City of Austin from all claims, damages, losses and expenses including attorney's fees arising out of or resulting from using the digital file. In addition, it is the responsibility of the user to compare all data with the PDF version of this drawing. In the event there is a conflict between the PDF version drawing and the electronic file, the PDF version drawing shall prevail.

Automated Metering Infrastructure: Effective March 2022, new water meters installed shall be in conformance with AW's automated metering infrastructure technology, and with the applicable standard product list. Applicants filing a site plan or subdivision plan will be required to coordinate with the Austin Water Plan Reviewer for details on approval and installation.

Prior to the handling and disposal of Asbestos Pipe, the Contractor's work plans will be reviewed and coordinated through Austin Water's Asbestos Program Manager who can be reached at 512-972-0915. It is the Contractor's responsibility to utilize a trained, certified and licensed Asbestos Abatement Contractor in accordance with the Federal, State and Local regulations.

Modifications to Austin Water signed and stamped sheets are not permitted. All design modifications will need to be submitted via the ABC portal for a Plan Correction or Revision. All unethical engineering practices, including modifying City Stamped plan sheets, shall be reported to the Texas Board of Professional Engineers and Land Surveyors (PELS).

Reference: Texas Engineering Practice Act and Rules, Subchapter C: Professional Conduct and Ethics

FIRE FLOW TEST DATA

AUSTIN FIRE DEPARTMENT
FIRE PREVENTION DIVISION
6310 Wilhelmina Delco Dr., Austin, Texas 78752
afd.hydrants@austintexas.gov

Hydrant Flow Test Report

TEST DATE	06/18/2023	FIRE BOX	2002	COMPANY	PREVENTION
TIME	1400 HRS	MAP GRID ID	E17	AFD STAFF	NIXON, KIER

RESIDUAL HYDRANT

RESIDUAL HYDRANT #	190250	MAIN SIZE (in.)	16
BLK #	DIRECTION	STREET NAME	TYPE
2900	W	WILLIAM CANNON	DR
STATIC PRESSURE (PSI)	85	RESIDUAL PRESSURE (PSI)	73

FLOW HYDRANT

FLOW HYDRANT #	189642	MAIN SIZE (in.)	16
BLK #	DIRECTION	STREET NAME	TYPE
3000	W	WILLIAM CANNON	DR
STATIC PRESSURE (PSI)	102	RESIDUAL PRESSURE (PSI)	80

Comments: FLOW HYDRANT IS 32 FEET LOWER IN ELEVATION THAN RESIDUAL HYDRANT	dc = discharge coefficient; straight 2½" butt = 0.9; w/ 45° elbow = 0.75	0.9
	FLOW RATE (GPM) =	1500

NOTE: This information represents the water supply characteristics in the immediate area on the date and time tested. The City of Austin does not guarantee this data will be representative of the water supply characteristics at any time in the future. It is the requesting party's responsibility to ensure that this test information is appropriate to the location of the project in question and that any differences in elevation between the test location and project are accounted for and included in the hydraulic calculations.

HFTR #16961959

FIRE FLOW CALCULATIONS
THE OFFICES AT WILLIAM CANNON

CALCULATION OF AVAILABLE FIRE FLOW FROM A FIRE HYDRANT BASED ON THE FORMULA:

Qr / Qf = (Pf1-Pf2)^.54 / (Pr1-Pr2)^.54

Residual Hydrant		GRID #	E17	F.H. #	190250
Static	85	psi			
Residual	73	psi			
Flow Hydrant		GRID #	M29	F.H. #	189642
Static	102	psi			
Flow	80	psi	Rate	1500	gpm
Calculated Fire Flow Rate @ 20 psi				3735	gpm
			Velocity	11.34792	fps

Additional Review Acknowledgement

Onsite Water Reuse & AW Reclaimed Information

Does this development have a total gross floor building area of 250,000 square feet or more?
- [ ] YES
- [x] NO

Distance to nearest existing AW reclaimed main?
- [ ] 250' or less
- [ ] 251' to 500'
- [x] Greather than 500'

Automated Metering Information

Is this project within the current service area of AW's Data Collection Units (DCUs)?
- [ ] YES
- [x] NO

Does this project require a dedicated easement for DCU infrastructure?
- [ ] YES
- [x] NO

Does this project require an AULCC review?
- [ ] YES
- [x] NO

IF YES, PLEASE PROVIDE UCC# _______

OFFSITE UTILITY LETTER

SERVICE EXTENSION REQUESTS

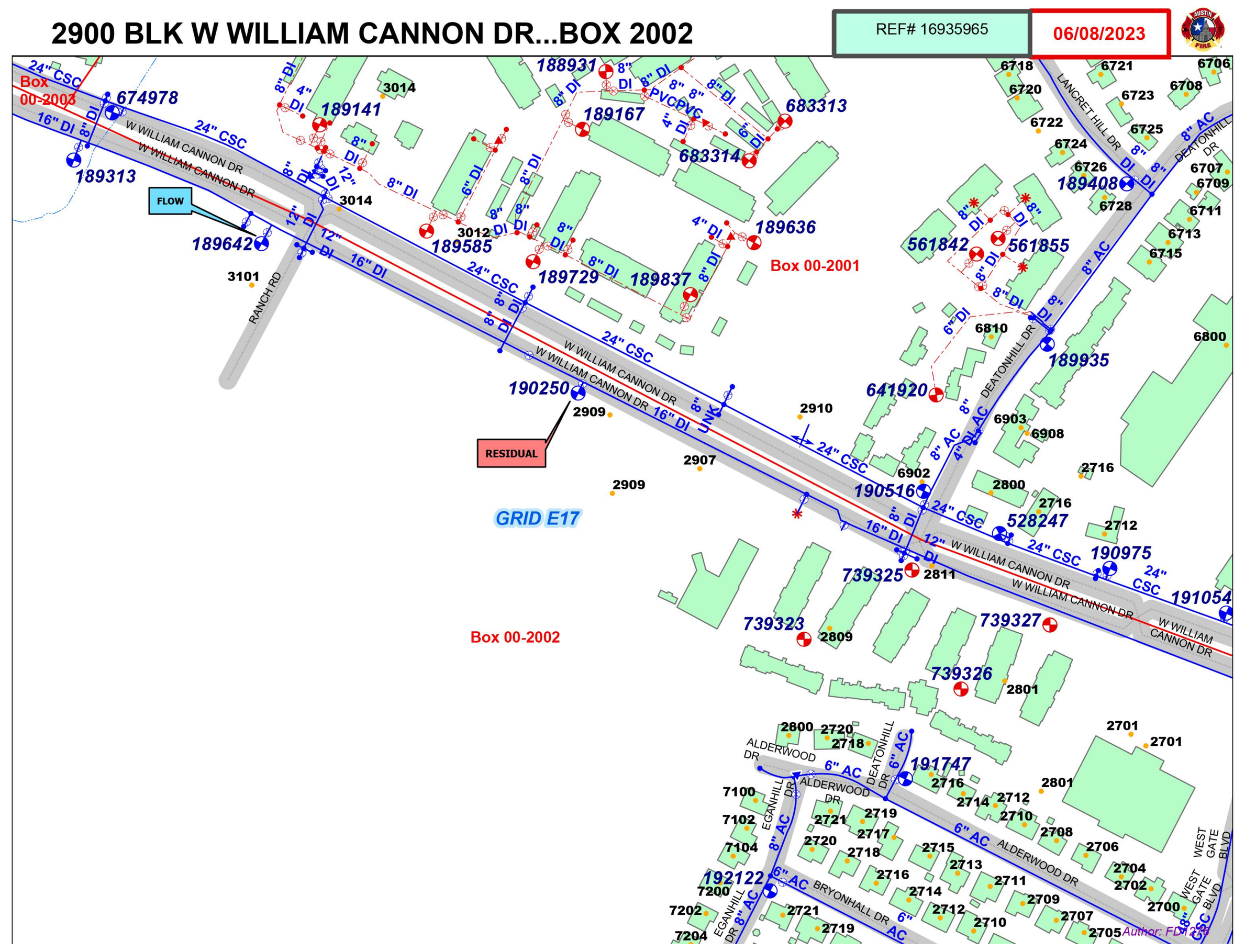
WATER SER NO. ----

WASTEWATER SERVICE NO. ----

FIRE FLOW MAP

2900 BLK W WILLIAM CANNON DR...BOX 2002

REF# 16935965 | 06/08/2023



PROJECT INFORMATION[1]

FIRE, DOMESTIC AND IRRIGATION DEMAND DATA	
GRID NUMBER:	E 17
MAPSCO NUMBER:	643 K , 643 P
AW INTERSECTION NUMBER:	23924
BUILDING SIZE IN SQUARE FEET:	18,381
BUILDING TYPE PER IFC:	IIB AND IIIB
BUILDING HEIGHT:	28
AVAILABLE FIRE FLOW CALCS AT 20 PSI:	3735 GPM
REQUIRED BUILDING FIRE FLOW PER IFC TABLE B105.1(2):	2750 GPM
REDUCED FIRE FLOW PER 75% FIRE SPRINKLER REDUCTION PER IFC TABLE B105.2:	687.60 GPM
MINIMUM FIRE FLOW (SEE NOTE #2 BELOW):	1000 GPM
DOMESTIC WATER DEMAND IN GPM:	28.2 GPM
WATER SUPPLY FIXTURE UNITS (WSFU) FLUSH TANKS OR FLUSHOMETERS (CIRCLE APPLICABLE ITEM):	60
AUSTIN WATER PRESSURE ZONE:	SOUTHWEST A PRESSURE ZONE (750'-900')
STATIC WATER PRESSURE IN PSI:	116.88 PSI
STATIC PRESSURE AT THE HIGHEST LOT SERVED IN PSI:	108.23
STATIC PRESSURE AT THE LOWEST LOT SERVED IN PSI:	127.71
MAXIMUM IRRIGATION DEMAND:	24 GPM
FIRE LINE VELOCITY: 6"SIZE OF FIRE LINE	11.35 FT/S
DOMESTIC LINE VELOCITY: 2" SIZE OF DOMESTIC LINE	2.70 FPS
LIVING UNIT EQUIVALENTS (LUEs)	13

NOTE: LOTS WITH 65 PSI OR GREATER REQUIRE A PRV TO BE INSTALLED ON THE PROPERTY OWNERS SIDE OF THE DOMESTIC WATER METER.

1. WITH THE EXCEPTION OF PROVIDING THE REQUIRED INFORMATION, DO NOT REVISE THESE TABLES IN ANYWAY.

2. MIN FIRE FLOW: DESIGN ENGINEER MUST INDICATE VALUES WHICH COMPLY WITH IFC TABLES B105.1(2) OR B105.2 (REQUIRED OR REDUCED FIRE FLOWS). MIN FIRE FLOW VALUE SHALL BE NO LESS THAN 1000 GPM FOR NFPA 13 SYSTEMS OR 1500 GPM FOR NFPA 13R SYSTEMS (FOOTNOTES a and b FOR TABLE B105.2).

3. IF DEMAND, OTHER THAN MINIMUM FIRE FLOW, IS UTILIZED IN FIRE LINE VELOCITY DETERMINATION, ENGINEERING JUSTIFICATION SHALL BE SHOWN ON THIS SHEET WITH APPLICABLE DATA AND CALCULATIONS.

Meter Notice:

Meter 1.5 inches and larger must be purchased and ordered 90 days in advance of installation.

Meter(s) Requirement for Project:
Address: 3101 W WILLIAM CANNON DR AUSTIN, TEXAS 78745
Proposed Use: DOMESTIC METER
Type: POSITIVE DISPLACEMENT
Size: 2" GPM Range: 28.2
Service Units: 1

Meter(s) Requirement for Project:
Address: 3101 W WILLIAM CANNON DR AUSTIN, TEXAS 78745
Proposed Use: IRRIGATION METER
Type: POSITIVE DISPLACEMENT
Size: N/A GPM Range: N/A
Service Units: N/A

Reclaimed Meter(s) Requirement for Project:
Address:
Proposed Use:
Type:
Size: GPM Range:

INSPECTION NOTES

Please contact Development Services Department, Site and Subdivision Inspection at sitesubintake@austintexas.gov for arrangements for payment of Inspection fees and job assignment for Inspection of the public utilities to this site. Inspection fees must be paid before any Pre-construction meeting can be held.

STANDARD CONSTRUCTION NOTES October 1, 2021

1. THE CITY STANDARD CONSTRUCTION SPECIFICATIONS CURRENT AT THE TIME OF BIDDING SHALL COVER MATERIALS AND METHODS USED TO DO THIS WORK.
2. CONTRACTOR MUST OBTAIN A ROW PERMIT FROM AUSTIN TRANSPORTATION DEPT, RIGHT OF WAY MANAGEMENT DIVISION BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY. ACTIVITY WITHIN RIGHT-OF-WAY SHALL COMPLY WITH APPROVED TCP.
3. AT LEAST 48 HOURS PRIOR TO BEGINNING ANY UTILITY CONSTRUCTION ACTIVITY IN PUBLIC ROW OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE APPLICABLE CITY OF AUSTIN INSPECTION GROUP (AUSTIN TRANSPORTATION, DEVELOPMENT SERVICES, OR PUBLIC WORKS). SEE CURRENT NOTIFICATION REQUIREMENTS AT WWW.AUSTINTEXAS.GOV.
4. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION IN ADVANCE OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS. THE CITY OF AUSTIN WATER AND WASTEWATER MAINTENANCE RESPONSIBILITY ENDS AT R.O.W./EASEMENT LINES.
5. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITH THE WATER AND WASTEWATER SERVICES.
6. MINIMUM TRENCH SAFETY MEASURES SHALL BE PROVIDED, AS REQUIRED BY OSHA, CITY SPECIFICATION 509S, AND CITY/COUNTY CONSTRUCTION INSPECTORS.
7. ALL MATERIALS TESTS ORDERED BY THE OWNER FOR QUALITY ASSURANCE PURPOSES, SHALL BE CONDUCTED BY AN INDEPENDENT LABORATORY AND FUNDED BY THE OWNER IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEM 1804S.04.
8. PRESSURE TAPS SHALL BE ALLOWED ON A CASE BY CASE BASIS, AS DETERMINED BY THE DIRECTOR'S DESIGNEE. NORMALLY PRESSURE TAPS 4 INCHES AND LARGER SHALL BE ALLOWED IN THE FOLLOWING CASES: A) A TEST SHUT OUT INDICATES AN ADEQUATE SHUT OUT TO PERFORM THE WORK IS NOT FEASIBLE B) MORE THAN 30 CUSTOMERS OR A SINGLE CRITICAL CUSTOMER (AS DEFINED BY AUSTIN WATER) WOULD BE IMPACTED BY THE SHUT OUT OR C) THE EXISTING WATER LINE WARRANTS IT.
9. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARD SPECIFICATION ITEMS 510.3 (27)-(29). FORCE MAIN PRESSURE TESTING SHALL BE CONDUCTED AND FALL UNDER THE SPECIFICATIONS AS WATER LINES (PRESSURE PIPE) OR AT THE PRESSURES SHOWN ON THE APPROVED PLANS.
10. ALL MATERIAL USED ON THIS PROJECT MUST BE LISTED ON THE STANDARD PRODUCTS LISTING. ANY MATERIAL NOT LISTED HAS TO GO THROUGH THE REVIEW OF THE STANDARDS COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO START OF PROJECT. TESTING AND EVALUATION OF PRODUCTS ARE REQUIRED BEFORE APPROVAL WILL BE GIVEN ANY CONSIDERATION.
11. WHEN WATER SERVICES ARE DAMAGED AND THE SERVICE MATERIAL IS POLYETHYLENE (PE), THE LINE SHALL BE REPAIRED ONLY BY HEAT FUSION WELD, AT BRASS FITTINGS, OR THE FULL LENGTH SHALL BE REPLACED PER CURRENT STANDARD DETAIL(S). WHEN POLYBUTYLENE (PB) TUBING IS DAMAGED OR TAMPERED WITH IN ANY WAY, THE FULL LENGTH OF SERVICE LINE SHALL BE REPLACED. (NOTE: FULL LENGTH IS FROM THE CORPORATION STOP TO THE METER.) REPAIR COUPLINGS ARE NOT ALLOWED FOR ANY WATER OR WASTEWATER SERVICE LINE REPAIR, RECONNECT, OR REPLACEMENT.
12. WHEN AN EXISTING WATERLINE SHUT OUT IS NECESSARY AND POSSIBLE, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR WHO WILL THEN NOTIFY AUSTIN WATER DISPATCH AND THE AFFECTED CUSTOMERS A MINIMUM OF FORTY-EIGHT (48) HOURS IN ADVANCE.
13. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION INSPECTOR SO THAT HE CAN NOTIFY THE AUSTIN WATER AT 972-0000 AT A MINIMUM OF 72 HOURS PRIOR TO RELOCATING ANY DOMESTIC OR FIRE DEMAND WATER METERS. THE CONTRACTOR SHALL CAREFULLY REMOVE ALL METERS AND METERS BOXES THAT ARE INDICATED TO BE RELOCATED OR SALVAGED. THE CONTRACTOR SHALL INSTALL THE REMOVED METER OR CITY PROVIDED METER AT THE NEW LOCATION INDICATED ON THE CONSTRUCTION PLANS.
14. THE CONTRACTOR SHALL VERIFY ALL VERTICAL AND HORIZONTAL LOCATIONS OF EXISTING UTILITIES, BELOW GROUND AND OVERHEAD, PRIOR TO STARTING ONSITE UTILITY WORK.
15. ALL WATER, WASTEWATER, AND RECLAIMED MAINS SHALL BE INSTALLED IN ACCORDANCE WITH THE SEPARATION DISTANCES INDICATED ON THE PLANS, PER UTILITY CRITERIA MANUAL AND TCEQ CHAPTERS 210, 217, AND 290.
16. PROJECT-SPECIFIC SHOP DRAWINGS SHALL BE SUBMITTED FOR AW APPROVAL FOR PRE-CAST CIRCULAR VERTICAL MANHOLE SECTIONS LARGER THAN 48" DIAMETER. THE SHOP DRAWINGS SHALL INCLUDE THE FLOWLINE ELEVATION OF ALL CONNECTING PIPES; ELEVATIONS OF TRANSITIONS FROM LARGE DIAMETER SECTIONS TO 48" DIAMETER SECTIONS; TOP OF MANHOLE AND SURROUNDING GROUND ELEVATIONS; AND DETAILS OF SPECIAL CONSTRUCTION CONSIDERATIONS SPECIFIED IN THE CONTRACT DOCUMENTS.
17. WHEN CONCRETE MANHOLES LARGER THAN 48 INCH DIAMETER ARE USED, DRAWINGS THAT ARE SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR BASE SLABS, FLAT TOP LIDS (IF USED), AND FLAT TYPE CONCRETE PIECES USED TO TRANSITION FROM LARGER TO SMALLER DIAMETER MANHOLE SECTIONS.
18. ALL FIRE HYDRANTS AND VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED, SALVAGED AND RETURNED TO AUSTIN WATER. NOTICE SHOULD BE GIVEN 48 HOURS PRIOR, TO PIPELINE OPERATIONS DISTRIBUTION SYSTEM -VALVES AND HYDRANT SERVICES SUPERVISOR AT 512-972-1280.
19. ALL EXISTING WATER METERS IDENTIFIED TO BE RELOCATED OR ABANDONED AT THE DEVELOPMENT SHALL BE REMOVED FROM THE METER BOX PRIOR TO CONSTRUCTION AND GIVEN IMMEDIATELY TO THE CITY OF AUSTIN INSPECTOR.
20. THE ENGINEER SHALL CALL OUT THE SIZE, TYPE AND USE (DOMESTIC OR IRRIGATION) OF ALL EXISTING WATER METERS TO BE RELOCATED OR REPURPOSED. WATER METER NUMBERS WILL NOT BE REQUIRED TO BE PLACED ON THE PLAN SHEET. A SEPARATE AUSTIN WATER TAPS OFFICE FORM WILL BE USED TO PROVIDE RELEVANT DATA FOR THE EXISTING INFORMATION ON EXISTING METERS TO RECEIVE APPROPRIATE CREDITS. THIS FORM SHALL BE DIRECTLY SUBMITTED TO AUSTIN WATER TAPS OFFICE FOR REVIEW AND PROCESSING.
21. NO CONNECTION MAY BE MADE BETWEEN THE PRIVATE PLUMBING AND AUSTIN WATER INFRASTRUCTURE UNTIL A CITY APPROVED WATER METER HAS BEEN INSTALLED.
22. METER BOXES AND CLEAN OUTS SHALL NOT BE LOCATED WITHIN PAVED AREAS SUCH AS DRIVEWAYS AND SIDEWALKS.

AW INFRASTRUCTURE INFORMATION

PROPOSED PRODUCT TYPE (TO BE INSTALLED)	LENGTH OF PIPE (L.F.)	SIZE OF PIPE (INCH)	NO. OF SERVICES
WATER MAIN			
WASTEWATER MAIN			
RECLAIMED WATER MAIN			
WATER SERVICE (FIRE)	25 lf	8"	1
WATER SERVICE (DOMESTIC)	25 lf	2"	1
WASTEWATER SERVICE (FM)	20 lf	1.25"	1
RECLAIMED WATER SERVICE			

AW EXPIRATION STAMP

CITY APPROVAL STAMP

SP-____-____C

CITY OF AUSTIN
AUSTIN WATER
October 2021

AUSTIN WATER GENERAL INFORMATION AND CONSTRUCTION NOTES FOR COMMERCIAL SITES AND SUBDIVISION PLANS

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

07/14/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 7/14/23
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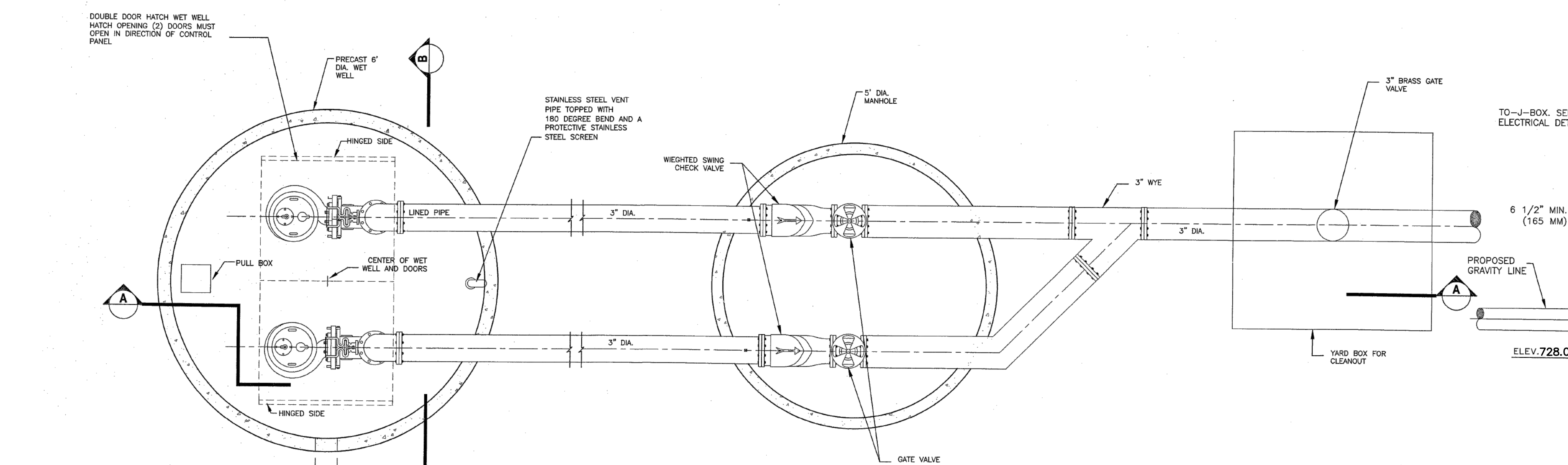
ENGINEER: CW	CHK'D BY:
SCALE:	

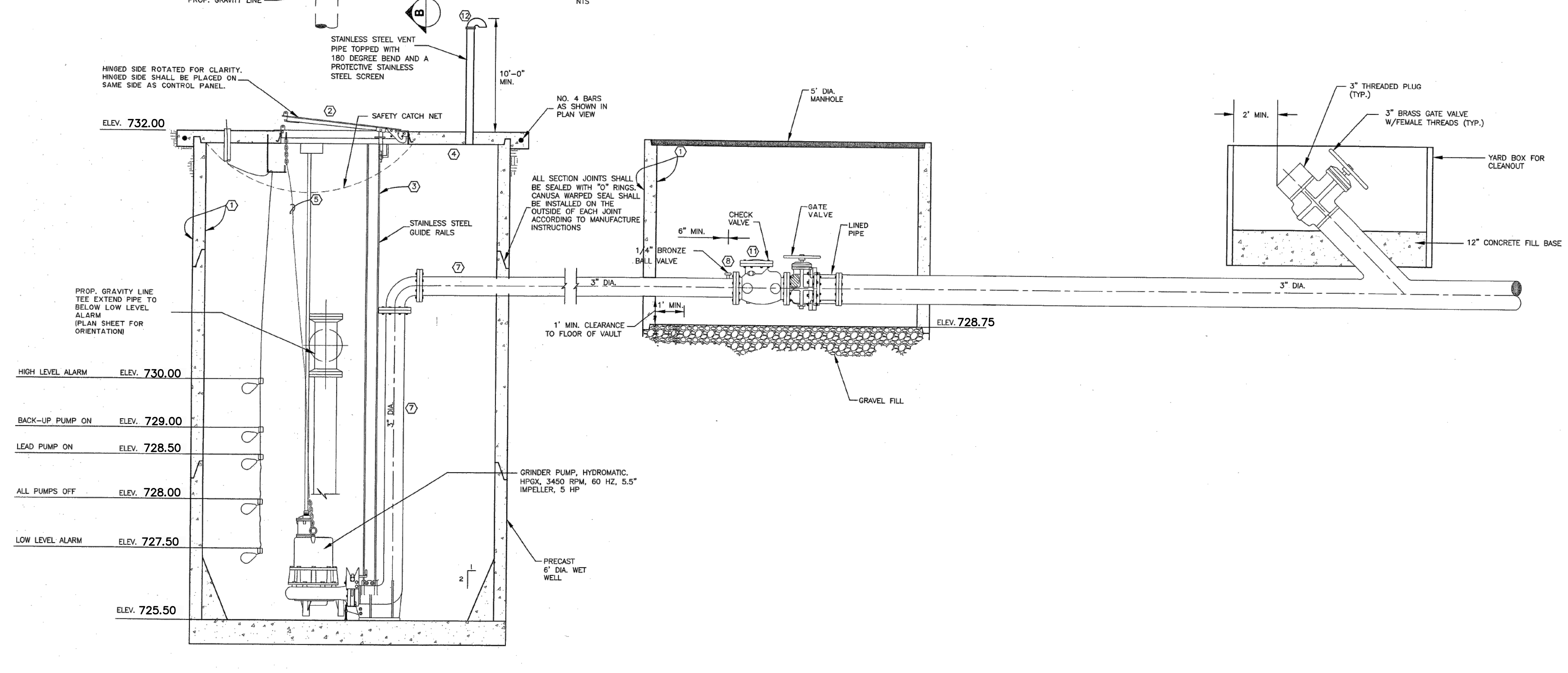
AUSTIN WATER GENERAL INFORMATION & CONSTRUCTION NOTES

SITE CIVIL PLAN



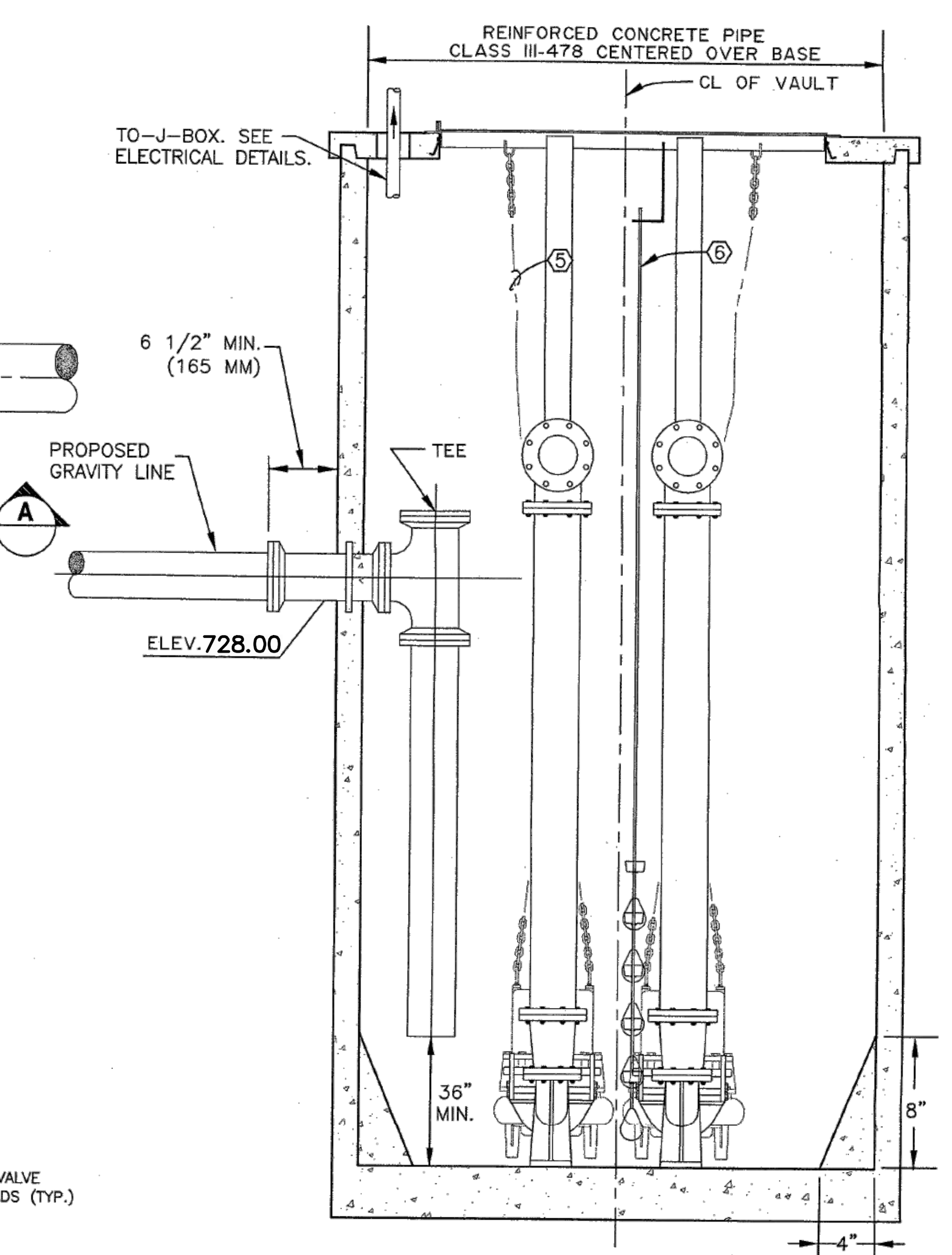
PLAN

NTS



SECTION A

NTS



SECTION B

NTS

KEY NOTES

1. WET WELL AND VALVE VAULT SHALL BE COATED OUTSIDE WITH COAL TAR EPOXY ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS FOR USE IN WET WELLS. WET WELL AND VALVE VAULT SHALL BE COATED INSIDE WITH A MINIMUM OF 1/2" OF LAFARGE COATING.
2. THE ACCESS COVERS SHALL BE A MINIMUM OF (2) 36 INCH BY 36 INCH. PUMP SUPPLIER SHALL PROVIDE DIMENSIONS OF ACCESS OVER THE WET WELL TO ENSURE COMPATIBILITY WITH SUPPLIED EQUIPMENT. THE ACCESS FRAME AND COVER TO THE VAULT SHALL BE CONSTRUCTED OF ALUMINUM THREAD PLATE AND SHALL BE WATERTIGHT (GASKET). THE DOORS SHALL OPEN TO 90° AND AUTOMATICALLY LOCK. THE LIFTING HANDLES, HANDLES, HINGES AND ALL FASTENING HARDWARE SHALL BE ALUMINUM OR STAINLESS STEEL, TYPE 316. ACCESS COVER ON VALVE VAULT SHALL BE CENTERED ON THE VALVES AND CLEANOUT FOR ACCESS.
3. PUMP SUPPLIER SHALL PROVIDE DIMENSIONS OF THE STAINLESS STEEL GUIDE RAILS TO ENSURE COMPATIBILITY WITH SUPPLIED EQUIPMENT. THE PUMP SHALL BE EASILY REMOVED FOR INSPECTION OR SERVICE. PERSONNEL SHALL HAVE NO REASON TO ENTER THE WET WELL. GUIDE RAILS SHALL BE SUPPORTED EVERY 10 FEET WITH STAINLESS STEEL SUPPORTS.
4. ALL HARDWARE AND FASTENERS USED SHALL BE CONSTRUCTED OF 300 SERIES STAINLESS STEEL. GUIDE BRACKETS FOR EACH PUMP MUST BE SUPPLIED BY THE PUMP MANUFACTURER TO ENSURE COMPATIBILITY WITH SUPPLIED EQUIPMENT.
5. EACH PUMPING UNIT SHALL BE PROVIDED WITH A STAINLESS STEEL LIFTING CHAIN. LIFTING CHAIN SHALL EXTEND AT LEAST 3-4 FEET ABOVE WET WELL.
6. A 316 STAINLESS STEEL FLOAT MOUNTING ASSEMBLY SHALL BE PROVIDED. THE FLOATS SHALL BE MOUNTED AWAY FROM THE WET WELL INLET, ANY CONTROL WIRING, AND THE PUMPS TO MINIMIZE DISTURBANCE . LEVEL SETTINGS SHOWN ON ELECTRICAL SHEET.
7. IN THE VAULT ALL STATIONARY PIPING USED IN THE LIFT STATION OR FORCE MAIN SHALL BE DUCTILE IRON OR 300 SERIES STAINLESS STEEL. DUCTILE IRON MUST BE LINED AND COATED ACCORDING TO CITY OF AUSTIN STANDARD PRODUCTS LIST NO. WW-534. ALL HARDWARE MUST BE 300 SERIES STAINLESS STEEL.
8. PUMP DISCHARGE LINES SHALL HAVE 1/4 INCH TAPS WITH STAINLESS STEEL OR BRONZE BALL VALVES. THE TAPS SHALL BE ACCESSIBLE AND LOCATED UPSTREAM OF THE VALVES (ON THE PUMP SIDE) IN THE EXTERNAL VAULT VALVE.
9. IN THE VAULT ALL DISCHARGE LINES SHALL HAVE ADEQUATE THRUST SUPPORT MEMBERS AT EACH FITTING. WHERE POSSIBLE, LONG RADIUS 90 DEGREE BENDS SHALL BE USED.
10. THE DISCHARGE LINE FROM EACH PUMP SHALL BE FITTED WITH A CHECK VALVE AND A RESILENT WEDGE GATE VALVE, WITH THE CHECK VALVE ON THE PUMP SIDE OF THE GATE VALVE. WHEN NECESSARY, AIR RELEASE VALVE(S) SHALL BE INSTALLED DOWNSTREAM OF THE GATE VALVES.
11. THE VALVE VAULT SHALL BE SIZED LARGE ENOUGH TO PROVIDE AT LEAST 1 FOOT OF CLEARANCE AROUND ALL VALVES AND 6 INCHES OF CLEARANCE TO ALL FLANGES. THE COVERS SHALL BE ABLE TO BE SECURED BY A PADLOCK USING A HEAVY DUTY HASP. THE VAULT SHALL BE COATED WITH THE SAME COATINGS AS THE WET WELL. ALL PIPING SHALL BE COATED WITH COAL TAR EPOXY.
12. VENT SHALL BE STAINLESS STEEL WITH 180 DEGREE BEND AND A PROTECTIVE STAINLESS STEEL SCREEN. HEIGHT OF SCREEN FROM TOP OF CONCRETE SHALL BE 10' MINIMUM.

CITY APPROVAL STAMP

SP-____-____C

AUSTIN CIVIL ENGINEERING, INC.
TBPE FIRM # F-001018
9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

STATE OF TEXAS
CALVIN J. WESTON
141995
REGISTERED PROFESSIONAL ENGINEER
06/28/23

THE OFFICES AT WILLIAM CANNON

3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

REV.	DATE	REVISIONS DESCRIPTION	APPROVED BY

JOB: 22-050	DATE: 6/28/23
CAD: DA/MM	CHK'D BY:
ENGINEER: CW	CHK'D BY:
SCALE:	

GRINDER PUMP DETAIL

SITE CIVIL PLAN

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated 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 must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.

4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.

5. 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 approved plans and 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.

6. 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.

7. Sediment must be removed from the sediment traps or sedimentation basins not later than

when it occupies 50% of the basin's design capacity.

8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14^{th} day of inactivity. If activity will resume prior to the 21^{st} day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14^{th} day, stabilization measures shall be initiated as soon as possible.

11. The following records shall 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.

12. The holder of any approved Edward Aquifer protection plan 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 water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

    B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

    C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

CITY APPROVAL STAMP

SP-____-____C

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PH: (512) 306-0018

STATE OF TEXAS
CALVIN J. WEIMAN
141995
REGISTERED PROFESSIONAL ENGINEER
06/28/23

THE OFFICES AT WILLIAM CANNON
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ENGINEER: CW CHK'D BY:
SCALE: NTS

TCEQ COSNTRUCTION NOTES

SITE CIVIL PLAN

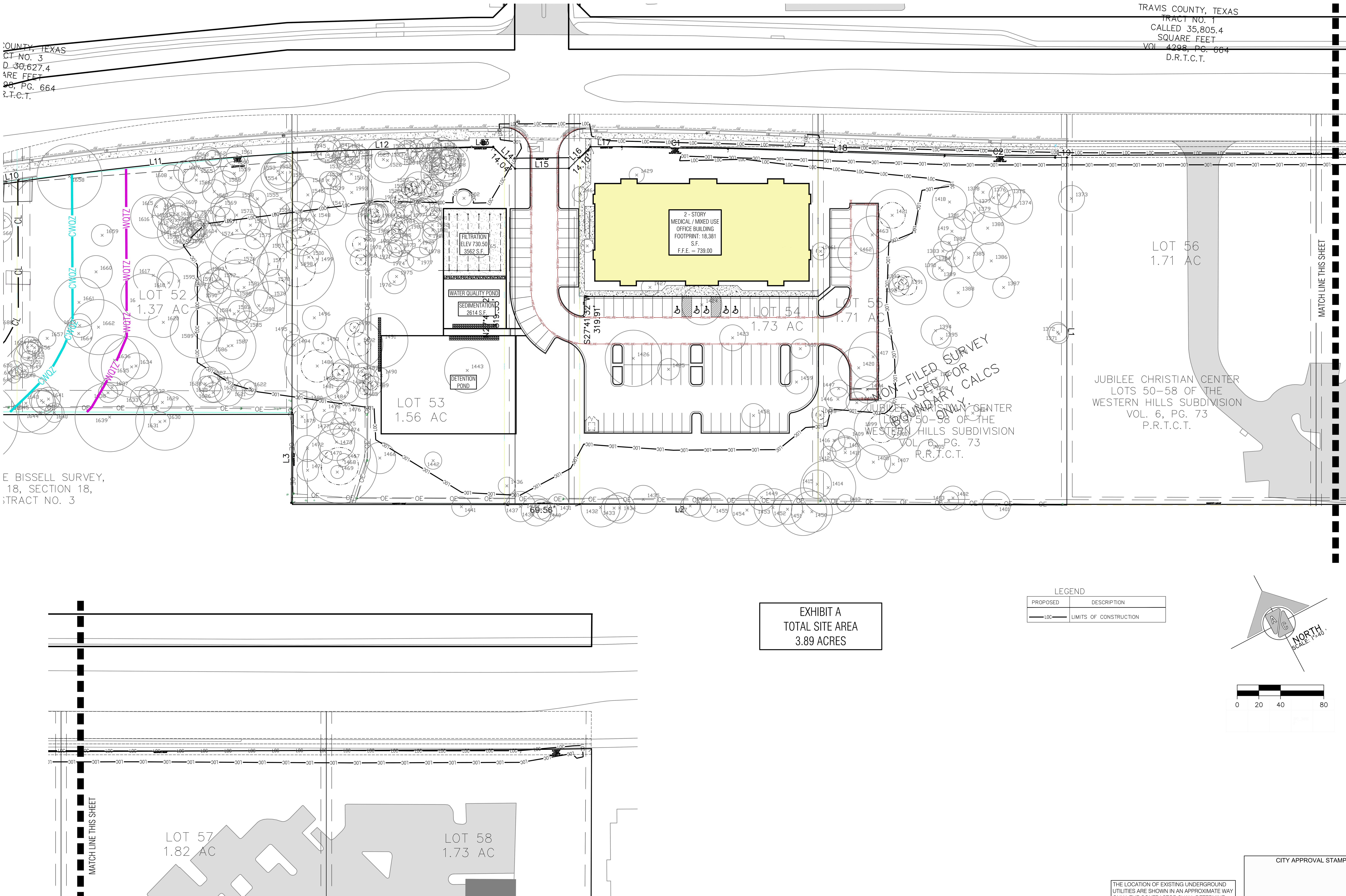

EXHIBIT A
TOTAL SITE AREA
3.89 ACRES

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CITY APPROVAL STAMP

SP-2023-0271C

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9501 B MENCHACA RD, SUITE 220
AUSTIN, TX 78748
PH: (512) 306-0018

08/22/23

THE OFFICES AT WILLIAM CANNON
3101 W WILLIAM CANNON DR
AUSTIN, TEXAS 78745

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JOB: 22-050	DATE: 08/22/23
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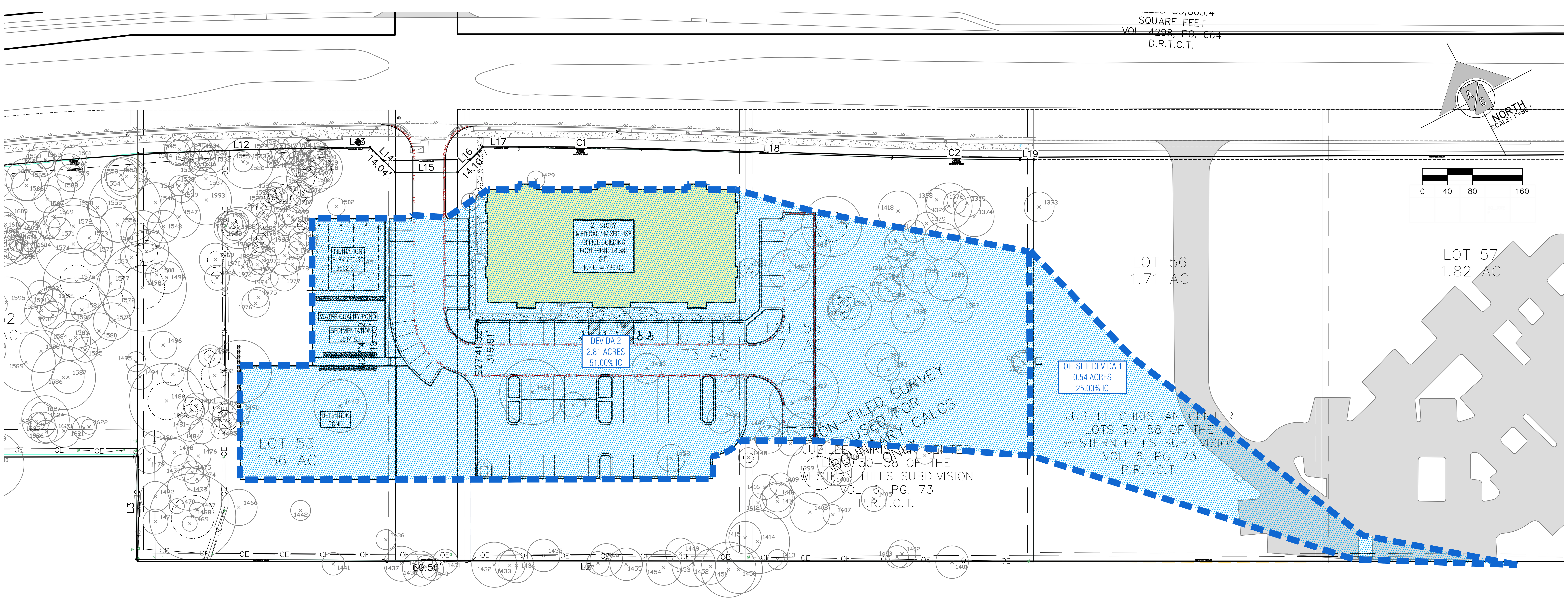
SCALE:	

TOTAL SITE AREA

EXHIBIT A of



BMP Treatment Requirements							
Project Area			Drainage Basin			BMP Treatment Provided	
			Total			Total Capture Volume (cf)	
Total (ac)	Impv Area (ac)	Required TSS Removal (lbs)	Total (ac)	Impv Area (ac)	Total Allowed Impervious cover	Required	Provided
POND A							
3.89	1.42	1,756	3.35	1.57	2.16	3,163	19,619

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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		REVISIONS	

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ENGINEER: CW CHK'D BY:
SCALE:

AREA TO BMP

EXHIBIT B
of

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **The Offices at William Cannon**
Date Prepared: **August 28, 2023**

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 =	Travis	
Total project area included in plan * =	3.89	acres
Predevelopment impervious area within the limits of the plan * =	0.14	acres
Total post-development impervious area within the limits of the plan* =	1.42	acres
Total post-development impervious cover fraction * =	0.365	
P =	32	inches

$L_{M\ TOTAL\ PROJECT}$ = **1114** lbs.

9/19/2023

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. = **1**

Total drainage basin/outfall area =	3.35	acres
Predevelopment impervious area within drainage basin/outfall area =	0.14	acres
Post-development impervious area within drainage basin/outfall area =	1.42	acres
Post-development impervious fraction within drainage basin/outfall area =	0.42	
$L_{M\ THIS\ BASIN}$ =	1114	lbs.

3. Indicate the proposed BMP Code for this basin.

Bioretention
Proposed BMP = **Retention / Irrigation**
Removal efficiency = **100** 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 =	3.35	acres
A_I =	1.57	acres
A_P =	1.7800	acres
L_R =	1769	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **1114** lbs.

F = **0.63**

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 =	0.64	inches
Post Development Runoff Coefficient =	0.34	
On-site Water Quality Volume =	2636	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	527	
Total Capture Volume (required water quality volume(s) x 1.20) =	3163	cubic feet

AUSTIN CIVIL ENGINEERING

Attachment G

Inspection, Maintenance, Repair & Retrofit Plan

Partial Sedimentation/Biofiltration Pond & Irrigation System

The Offices at William Cannon

3101 W William Cannon Dr, Austin, Texas 78745

Responsible Party:
Jubilee Christian Center
2909 W William Cannon Dr,
Austin, TX 78745

AUSTIN CIVIL ENGINEERING

1.0 System Description

Nonpoint source pollution control at 3101 W William Cannon Dr, Austin, TX is provided by a partial sedimentation/biofiltration pond & irrigation system. The lots are located within the Barton Springs Zone (BSZ); therefore, the design will require two SCMs in series, in this case a Partial Sedimentation/Biofiltration Pond and Irrigation System.

The biofiltration system (First control in series (SCM 1)) is an enhanced filtration device that typically utilizes more than one treatment mechanisms for removing pollutants from stormwater runoff. A sedimentation basin is required as a first step in the SCM, to provide pre-treatment of runoff in order to protect the biofiltration medium from becoming clogged prematurely by sediment loads. Then, flows are directed through a biofiltration medium which removes pollutants. A defining characteristic of the biofiltration SCM is a community of plants and microorganisms that is rooted in the filter medium and that can provide more treatment of runoff, directly and by uptake from the filter medium. As well as enhancing removal of pollutants, the plant community tends to sustain the permeability of the biofiltration medium for longer periods of time without maintenance. It is the existence of this biological community that differentiates a biofiltration SCM from a typical sand filter, which is otherwise comparable in design and performance.

The irrigation water quality treatment system (Second control in series (SCM 2)) consists of two (2) primary components: (1) a basin which captures and isolates the required volume of stormwater runoff; and (2) a distribution and land application system which generally utilizes pumps, piping and spray irrigation components. The main characteristic of retention/irrigation systems is the ability to retain the entire water quality volume on site. The design should consider factors such as basin impermeability and the irrigation area's ability to infiltrate the water quality volume.

This method of storm water capture and control typically has removal rates of nonpoint source pollutants of 100%.

2.0 Major Maintenance and Construction Requirements (ECM 1.6.3)

a. ***Inspections*** — BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root

systems should be removed to prevent growth in cracks and joints that can cause structural damage.

b. ***Sediment Removal*** — Remove sediment from the inlet structure and sedimentation chamber when sediment buildup reaches a depth of 6 inches or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the inlet structure at least every year and from the sedimentation basin at least every 5 years.
c. ***Media Replacement*** – Maintenance of the filter media is necessary when the drawdown time exceeds 48 hours. When this occurs, the upper layer of sand should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced. In filters that have been regularly maintained, this should be limited to the top 2 to 3 inches. Debris and litter shall be removed during regular mowing.
d. ***Debris and Litter Removal*** – Debris and litter will accumulate near the sedimentation basin outlet device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.
e. ***Filter Underdrain*** – Clean underdrain piping network to remove any sediment buildup as needed to maintain design drawdown time.
f. ***Mowing*** – Grass areas in and around sand filters must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.
g. ***Pumps and Irrigation System*** – The pumps and irrigation system must be inspected or tested a minimum of six (6) times per year to show all components are operating as intended. Two (2) of these six (6) inspections should be after rain events to ensure that the irrigation system and all of its components perform as designed. This includes controls such as weather stations or rain sensors, delays, valves, alarm system, distribution lines, or other components as specified in the system design. Sprinkler heads must be checked to determine if any are broken, clogged, or not spraying properly. All inspection and testing reports must be kept on site and accessible to the City of Austin.

3.0 Replacement Parts

The following is a list of partial sedimentation/biofiltration pond & irrigation system system parts that are expected to need periodic replacement:

Sand within filter basin.
Underdrain piping
Clean outs.

Information including vender names, part numbers, and vendor contact information shall be determined from the irrigation system contractor subsequent of the system, then documented below in this maintenance manual:

Sand Vendor, Specification:

Underdrain piping Vendor, Manufacturer and Model:

Clean out Vendor, Manufacturer and Model:

4.0 Inspections

Inspections of the system shall be performed twice annually, with an additional inspection performed immediately following a 25-year or 100-year frequency storm. Each inspection shall be documented in the table below with any deficiencies noted, whether a repair, maintenance, or retrofit action was required to resolve the issue, and finally with the date of the deficiency being resolved.

AUSTIN CIVIL ENGINEERING

Inspection Log					
Date of Inspection	**Inspector**	**Deficiency Discovered?**	**Repair (R), Maintenance (M), Retrofit (RF) Required?**	**Corrective Action Taken**	**Date of Resolution of Deficiency**

Signature of owner/responsible party:

Signature: _____ Date: 8/10/23

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

I Jimmy Seal,
Print Name

Owner,
Title - Owner/President/Other

of Jubilee Christian Center,
Corporation/Partnership/Entity Name

have authorized Hunter Shadburne, P.E
Print Name of Agent/Engineer

of Austin Civil Engineering
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

8/10/23
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Jimmy Seal 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 10 day of August, 2023.

NOTARY PUBLIC

ANGEL REYES
Notary Public
STATE OF TEXAS
ID# 132256618
My Comm. Exp. Nov. 12, 2023

Angel Reyes
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Nov 12 2023

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: The Offices at William Cannon
Regulated Entity Location: 3101 W WILLIAM CANNON DR, AUSTIN, TEXAS 78745
Name of Customer: Jubilee Christian Center
Contact Person: Jimmy Seal Phone: (512) 627-3050
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	6.37 Acres	$ 5,000
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: J. Seal Date: 8/10/23

TCEQ-0574 (Rev. 02-24-15)

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 Core Data Form

TCEQ Use Only

For detailed instructions regarding completion of 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)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN		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)* *If new Customer, enter previous Customer below:*

Jubilee Christian Center

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
	13-00106-7199-5	74-2485720	

11. Type of Customer: ☑ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other: LLC

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 ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

2909 W William Cannon Dr

City	State	ZIP	ZIP + 4
Austin	TX	78745	

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

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

jseal777@gmail.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 627-3050		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ 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 Agency 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.)*

The Offices at William Cannon

23. Street Address of the Regulated Entity: *(No PO Boxes)*	3101 W WILLIAM CANNON DR						
	City	Austin	**State**	TX	**ZIP**	78745	**ZIP + 4**
24. County							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

27. Latitude (N) In Decimal:	30.209646		**28. Longitude (W) In Decimal:**	97.822362	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	12	34.70	97	49	20.50

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)
8011	8049	541611	561110

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

MEDICAL / MIXED USE OFFICE

34. Mailing Address:	**2909 W WILLIAM CANNON DR**						
	City	**Austin**	**State**	**TX**	**ZIP**	**78745**	**ZIP + 4**	**5123**
35. E-Mail Address:	**jseal777@gmail.com**						

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 627-3050		**( ) -**

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	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Calvin Weiman	**41. Title:**	Project Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 306-0018		( ) -	TeamH@austincivil.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:	Austin Civil Engineering	**Job Title:**	Project Engineer
Name *(In Print):*	Calvin Weiman	**Phone:**	(512) 306- **18**
Signature:	Calvin J. Weiman	**Date:**	9/19/2023