RONALD REAGAN SQUARE
CONTRIBUTING ZONE PLAN MODIFICATION

Submitted to:

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
12100 Park 35 Circle, Bldg. A, Rm 179
Austin TX 78753

Submitted by / Agent:

Eli Engineering, PLLC
700 Theresa Cove
Cedar Park, TX 78613
Office: (512) 658-8095
Attn: Gary Eli Jones, P.E.

Owner / Applicant:

TPD TEXAS, LLC
3220 PRENTICE LANE
LEANDER, TX 78641
Voice: 832-304-0308
Attn: Mr. MALLIK GILAKATTULA

8/4/2023

Registration No. F-17877

Modification of a Previously Approved Contributing Zone Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **Modification of a Previously Approved Contributing Zone Plan Form (TCEQ-10259)**

  Attachment A - Original Approval Letter and Approved Modification Letters
  Attachment B - Narrative of Proposed Modification
  Attachment C - Current site plan of the approved project

- **Contributing Zone Plan Application (TCEQ-10257)**
- **Storm Water Pollution Prevention Plan (SWPPP)**

  -OR-

- **Temporary Stormwater Section (TCEQ-0602)**
- **Copy of Notice of Intent (NOI)**
- **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. RONALD REAGAN SQUARE						**2. Regulated Entity No.: RN111392940**			
3. Customer Name: TPD TEXAS, LLC						**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):**			15.20
9. Application Fee:	6,500		**10. Permanent BMP(s):**			BATCH DETENTION			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Turkey Creek – Brushy Creek Watershed			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin _X_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. Gary Eli Jones, P.E. **Gary Eli Jones, P.E.**
Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent Date 8/3/2023

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):	

Franchise Tax Account Status

As of : 08/03/2023 07:11:58

This page is valid for most business transactions but is not sufficient for filings with the Secretary of State

TPD TEXAS LLC	
Texas Taxpayer Number	32080451183
Mailing Address	3220 PRENTISS LN LEANDER, TX 78641-3372
Right to Transact Business in Texas	ACTIVE
State of Formation	TX
Effective SOS Registration Date	08/05/2021
Texas SOS File Number	0804177894
Registered Agent Name	MALLIKARJUNA GILAKATTULA
Registered Office Street Address	3220 PRENTISS LN LEANDER, TX 78641

Modification of a Previously Approved Contributing Zone Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), 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 **Modification of a Previously Approved Contributing Zone Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Gary Eli Jones, P.E.

Date: 8/23/2023

Signature of Customer/Agent:

Gary Jones

Project Information

1. Current Regulated Entity Name: Ronald Reagan Square
   Original Regulated Entity Name: Same
   Assigned Regulated Entity Number(s) (RN): 111392940
   Edwards Aquifer Protection Program ID Number(s): 11002847
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☒ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):

☒ Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
☐ Any change in the nature or character of the regulated activity from that which was originally approved;
☐ A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
☐ Any development of land previously identified in a contributing zone plan as undeveloped.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	15.2	15.2
Type of Development	Commercial Mixed Use	No Change
Number of Residential Lots	0	0
Impervious Cover (acres)	9.37	10.48
Impervious Cover (%)	61.6	69
Permanent BMPs	Sand Filtration	Batch Detention
Other	_____	_____
AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	NA	NA
Other	NA	NA
UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	NA	NA
Other	NA	NA

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved,

including previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Projec**t. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☒ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☒ Acreage has not been added to or removed from the approved plan.
   ☐ Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.

8. ☒ 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.

ATTACHMENT A - ORIGINAL APPROVAL LETTER

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 4, 2022

Mr. Rajesh Borad
Transcend Easley, LLC
3 Sugar Creek Center Blvd., Ste. 100
Cedar Park, Texas 77478

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: Ronald Reagan Square; Located at 14300 Ronald W. Reagan Blvd..; Cedar Park, Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11002847; Regulated Entity No. RN111392940

Dear Mr. Borad:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the Austin Regional Office by Kimley-Horn and Associates, Inc. on behalf of Transcend Easley, LLC on December 16, 2021. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected, and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed non-residential project will have an area of approximately 17.08 acres. It will include four retail/restaurant buildings and seven office buildings with associated grading, utility, and drainage improvements. The project will also include two off-site transportation improvements, a left-turn and right turn deceleration lane. The new impervious cover for this site will be 9.23 acres, for a total of 10.49 acres (61.42-percent). Project wastewater will be disposed of by conveyance to the existing City of Cedar Park Wastewater Treatment Plant.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a sedimentation filtration system, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 8,034 pounds of TSS generated from the additional 9.23 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

SPECIAL CONDITIONS

I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.

II. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved Contributing Zone Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
6. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges

from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

8. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If sediment escapes the construction site, the 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). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. 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).
10. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
11. The following records shall be maintained and made available to the executive director 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. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.
13. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 5, above.

After Completion of Construction:

14. Owners of permanent BMPs and measures must insure that the 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 Austin Regional Office within 30 days of site completion.
15. The applicant shall be 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. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
17. A Contributing Zone Plan approval or extension will expire, and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Colin Gearing of the Edwards Aquifer Protection Program of the Austin Regional Office at (512) 339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/cmg

Enclosure: Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Bradley Wilkins, P.E., Kimley-Horn and Associates, Inc.

ELI ENGINEERING
Firm # 17877

August 2, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment B - Narrative of Proposed Modification

To Whom It May Concern:

Ronald Reagan Square is located at the intersection of Ronald Reagan Blvd and Caballo Ranch Blvd in the City of Cedar Park, Williamson County, Texas on approximately 15.20 acres. The project address is 14300 Ronald Reagan Blvd. In the existing condition, there are several small areas of concrete, an asphalt drives, and a few existing structures totaling 0.45 acres impervious cover. All existing concrete and asphalt areas will be demolished as well as the existing structures.

The original Contributing Zone Plan was prepared, submitted and processed by Kimley Horn on behalf of Transcend Easley, LLC. The existing CZP (Program ID 11002847) was approved February 4, 2022. The property was purchased by TPD Texas, LLC in March, 2022. The new owners have been working on a site plan revision to the entire site other than the front four (4) buildings. The overall limits of construction have remained the same, however, the buildings, parking, utilities, storm drain and proposed permanent BMP have been modified.

The proposed modification will include the 15.20 acre platted property as well as 1.88 acres of offsite drainage area. Out of the 15.20 acres, 11.84 acres will drain to the proposed water quality pond. The remaining property is downstream of any impervious cover and the BMP in a drainage easement. The onsite impervious cover is 10.48 acres or 69%. The 1.88 acres of offsite area that drains onto the property from Ronald Reagan Blvd includes 0.81 acres of impervious cover which is accounted for in the “Off-site area draining to BMP” in the calculation spreadsheet. The proposed BMP for the project has been changed from a sedimentation / sand concept to Batch Detention which increases the efficiency from 89% to 91% to account for the additional impervious cover proposed with the modification. The total capture volume required is 47,894 CF and the proposed pond provides 48,494 CF. Note, the previous application proposed routing the 1.88 ac offsite drainage area around and bypassing the BMP. The modification routes the offsite flows through the BMP to provide additional water quality benefits.

The first phase of the project including the first four buildings that have not been modified have are in process of being constructed. Due to the slope of the site, the site required a lot of fill material which has generally been placed and processed. Wastewater, water and storm drain lines for the project have been installed. The proposed BMP will be constructed and completed with the first phase of the project. All temporary erosion controls have been installed and there is an active Storm Water Pollution Prevention Plan for the site that is being monitored and documented. The remaining phases of the project will follow completion of the first four buildings.

The site is located in the Turkey Creek – Brushy Creek Watershed. The site is located in the Edwards

Aquifer Contributing Zone. A portion of the eastern boundary outside the limits of construction is located within the 100-year floodplain as shown on FIRM PANEL NO. 48491C0470F, Williamson County, Texas, dated September 20, 2019.

If you have any questions or need further assistance, please contact me at 512-658-8095.

Gary Eli Jones, P.E.
Authorized Agent

ATTACHMENT C

CURRENT SITE PLAN OF APPROVED PROJECT

CIVIL SITE DEVELOPMENT PLANS
FOR
RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS
SD-21-00027

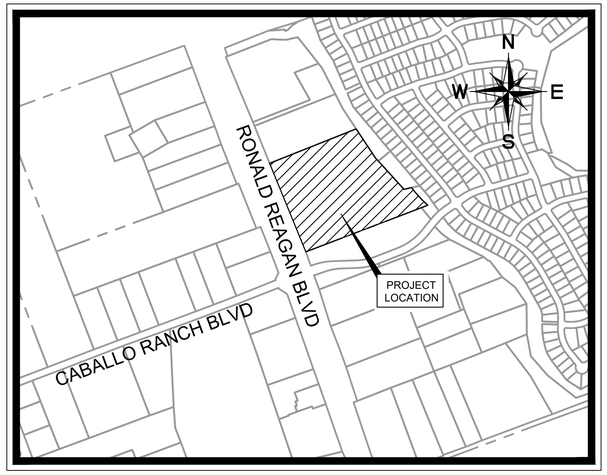
GENERAL PLAN NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF CEDAR PARK MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN. FIRM PANEL NO. 48491C0470F, WILLIAMSON COUNTY, TEXAS AND INCORPORATED AREAS (EFFECTIVE DATE DECEMBER 20, 2019).
3. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF CEDAR PARK, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
4. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES ON THIS SITE.
5. NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
6. 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.
7. AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
8. THIS SITE IS LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
9. APPROVAL OF THESE PLANS BY THE CITY OF CEDAR PARK INDICATES COMPLIANCE WITH 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.
10. FOR OUTDOOR CONDENSERS, UTILITY HUTS, AND OTHER BUILDING SERVICE EQUIPMENT, SUCH EQUIPMENT SHALL BE COMPLETELY SCREENED FROM VIEW ON ALL SIDES USING A VEGETATIVE SCREEN WITH AT LEAST TWO (2) VARIETIES OF PLANT MATERIAL FROM THE PREFERRED PLANT LIST THAT, AT MATURITY, IS AT LEAST THE HEIGHT OF THE EQUIPMENT TO BE SCREENED. (SEC. 14.07.009 (A) (2)).
11. EDWARD'S AQUIFER PROTECTION PROGRAM ID NO. 11002847.
REGULATED ENTITY NO. RN111392940.
12. TDLR REGISTRATION NUMBER: TABS2022005402.
13. FLOODPLAIN DEVELOPMENT PERMIT NO: FLD-21-002
14. ALL EXISTING EASEMENTS ARE SHOWN.
15. SUBJECT SITE FALLS WITHIN TURKEY CREEK - BRUSHY CREEK WATERSHED
16. I CERTIFY THAT I HAVE PERSONALLY CONDUCTED A TOPOGRAPHIC REVIEW AND FIELD INVESTIGATION OF THE EXISTING AND PROPOSED FLOW PATTERNS FOR STORMWATER RUNOFF FROM THE SUBJECT DEVELOPMENT TO THE MAIN STEM OF TURKEY CREEK AND BRUSHY CREEK. AT BUILD-OUT CONDITIONS ALLOWABLE BY ZONING, RESTRICTIVE COVENANT OR PLAT NOTE, THE STORMWATER FLOWS FROM THE SUBJECT DEVELOPMENT WILL NOT CAUSE ANY ADDITIONAL ADVERSE FLOODING IMPACTS FOR STORMS OF MAGNITUDE UP THROUGH THE 100-YEAR EVENT.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF FOUR (4) RETAIL/RESTAURANT BUILDINGS AND SEVEN (7) OFFICE BUILDINGS WITH ASSOCIATED PARKING, GRADING, DRAINAGE AND UTILITY IMPROVEMENTS.

THE ACCESS EASEMENT RECORDED UNDER DOCUMENT NUMBER 2022053562 SHALL BE REVISED AND RE-RECORDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.



VICINITY MAP
SCALE: 1" = 600'

AUGUST 2022

LIST OF CONTACTS:

SANITARY SEWER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

BUILDING INSPECTIONS DEPARTMENT
CITY OF CEDAR PARK
450 CYPRESS CREEK ROAD
CEDAR PARK, TEXAS 78613
PH. (512) 401-5100
PERMITS@CEDARPARKTEXAS.GOV

WATER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

ELECTRIC
PEDERNALES ELECTRIC COOP.
1949 W. WHITESTONE BLVD.
CEDAR PARK, TEXAS 78630
PH. (512) 813-4589
CONTACT: CYNTHIA LEHOSKI

LANDSCAPE ARCHITECT
MELONCON DESIGN GROUP
1004 GREAT OAKS COVE
ROUND ROCK, TEXAS 78681
PH. (512) 560-1185

STORM SEWER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

FIRE DEPARTMENT
CITY OF CEDAR PARK
LIEUTENANT PAT FLYNN
450 CYPRESS CREEK ROAD
CEDAR PARK, TEXAS 78613
PH. (512) 401-5200

SURVEY
DONALD BOERNER SURVEYING COMPANY L.P.
228 HOLIDAY RD.
COMFORT, TEXAS 78013
PH: 830-377-2492

DEVELOPER
TRANSCEND GROUP HOLDINGS, LLC
3 SUGAR CREEK CENTER BLVD, STE 100
SUGAR LAND, TX 77478
PH: 832-304-0308

SITE PERMIT NOTES

1. A SITE DEVELOPMENT PERMIT SHALL EXPIRE TWO (2) YEARS FROM THE DATE SUCH PERMIT WAS APPROVED IF NO PROGRESS HAS BEEN MADE TOWARDS COMPLETION OF THE PROJECT, PURSUANT TO SECTION 245.005 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED. (SEC. 14.03.009 (A)).
2. ANY PROJECT, AS DEFINED UNDER CHAPTER 245 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED, SHALL EXPIRE ON THE FIFTH ANNIVERSARY OF THE DATE THE FIRST PERMIT APPLICATION WAS FILED FOR THE PROJECT, PURSUANT TO SECTION 245.005 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED. (SEC. 14.03.009 (B)).

CEDAR PARK

Reviewed for Code Compliance
Signature required from all Departments

Planning Ellen Nelson Date_____
Engineering Services_____ Date_____
Industrial Pretreatment_____ Date_____
Fire Prevention_____ Date_____
Landscape Planner_____ Date_____
Addressing_____ Date_____
Site Development Permit Number SD-21-00027

PREPARED BY:

Kimley»Horn
10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 300
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928
Tel. No. (512) 418-1771
Fax No. (972) 239-3820
CONTACTS: BRADLEY M. WILKINS, PE

SHEET INDEX

OWNERS: TPD TEXAS LLC
ADDRESS: 3220 PRENTISS LANE
LEANDER, TEXAS 78641
PHONE: (832) 304-0308 CELL:
ACREAGE: 15.195 TOTAL IMPERVIOUS COVER: 9.37
LEGAL DESCRIPTION: 15.195 ACRES JOHN D ANDERSON SURVEY ABSTRACT NO 16
ADDRESS: 14300 RONALD REAGAN BLVD
LAND USE SUMMARY: REGIONAL OFFICE/ RETAIL/ COMMERCIAL
ZONING: LB DATE:
PERSON PREPARING PLAN: BRADLEY M. WILKINS, P.E.
COMPANY: KIMLEY-HORN
ADDRESS: 10814 JOLLYVILLE ROAD, AVALLON IV SUITE 200, AUSTIN, TEXAS 78759
PHONE: (512) 418-1771 CELL:
ENGINEER: BRADLEY M. WILKINS, P.E.
COMPANY: KIMLEY-HORN
ADDRESS: 10814 JOLLYVILLE ROAD, AVALLON IV SUITE 200, AUSTIN, TEXAS 78759
PHONE: (512) 418-1771 CELL:

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

RONALD REAGAN SQUARE

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

BRADLEY M. WILKINS 141652 LICENSED PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

COVER SHEET

RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
1 OF 75

Plotted By: Landry, Justin Date: August 03, 2022 02:17:27pm File Path: K:\AUS_Civil\069290000-Ronald Reagan Office Park\Cad\PlanSheets\C - Cover Sheet.dwg

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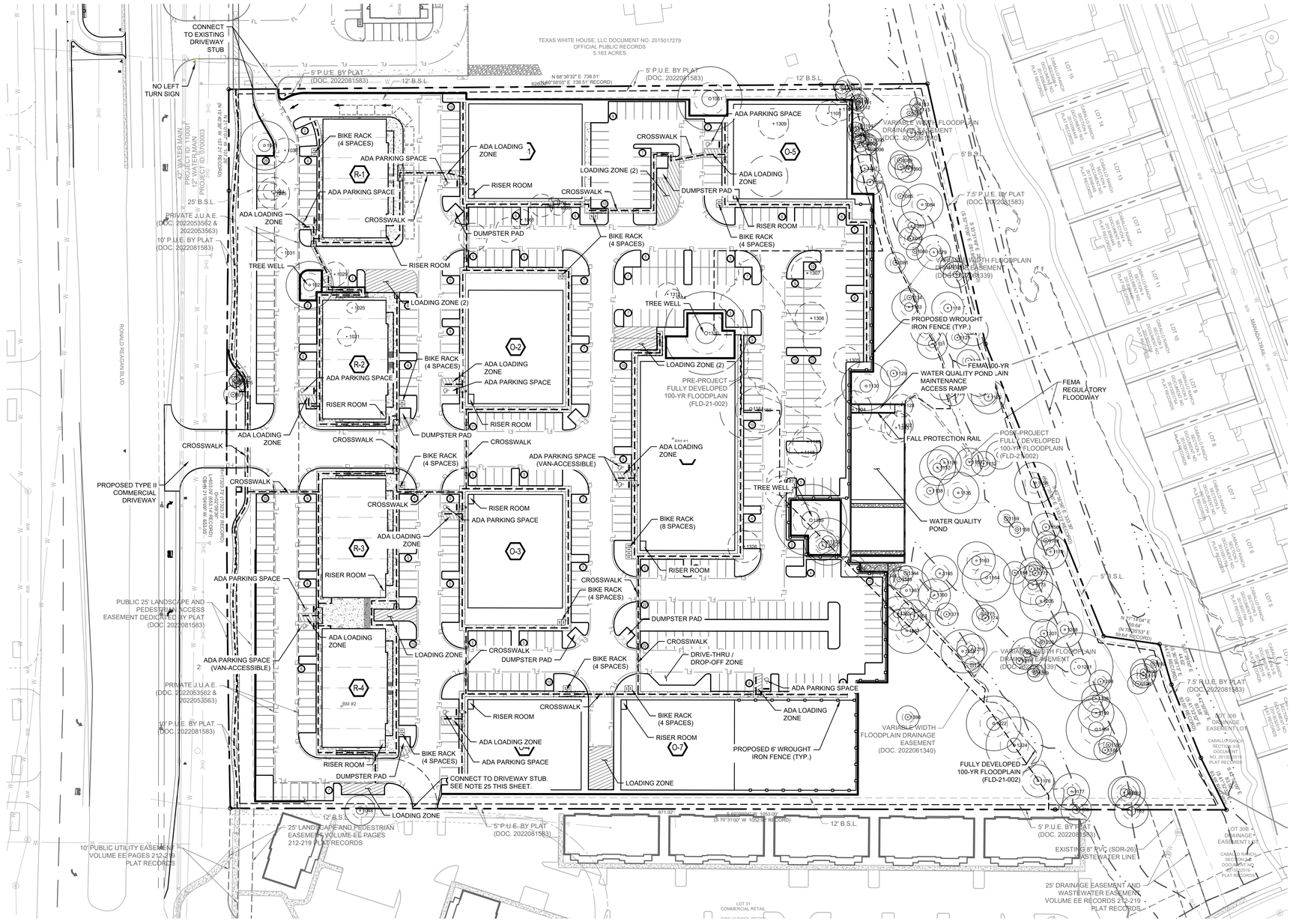

LEGEND

- PROPERTY LINE
- WW — PROPOSED WASTEWATER LINE
- W — PROPOSED WATER LINE
- WW — PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- OHP — EXISTING OVERHEAD POWER LINE
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE
- ADA ROUTE

N W E S

0 60' 120'

GRAPHIC SCALE 60'

SITE PLAN NOTES:

1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY DONNIE BOERNER SURVEYING COMPANY L.P. ON JULY 14, 2020. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
2. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
3. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE/TOW-AWAY ZONE", IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
4. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
5. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
6. EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A1171-1986-4.6.2.
7. CONTRACTOR TO COORDINATE WITH PROJECT ARBORIST TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING AREAS.
8. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
9. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
10. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
11. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
12. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
13. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
14. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
15. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT..
16. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
17. EACH COMPACT PARKING SPACE/AISLE WILL BE SIGNED "SMALL CAR ONLY."
18. LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE.
19. CONTRACTOR TO NOTE THAT COMPACT SPACES SHALL BE IDENTIFIED BY BLACK PAINTED CURBS WITH WHITE LETTERING LABELING EACH SPACE AS "COMPACT"
20. LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE. (SEC. 12.12.021 (A)(6)(B)).
21. IF THE ADJACENT LOT'S DRIVE AISLE STUB IS COMPLETED, CONNECT TO THE EXISTING STUB. IF THE ADJACENT LOT'S DRIVE AISLE IS NOT COMPLETED, CONTRACTOR SHALL CONFIRM WITH THE PROJECT ENGINEER THAT THE DRIVEWAY STUB ALIGNS PRECISELY WITH THE PLANNED AND APPROVED DRIVE AISLE STUB AS SHOWN IN SD-18-00034, THE APPROVED SITE DEVELOPMENT PLANS FOR THE ADJACENT TRACT TO THE SOUTH.
22. NO BUILDING EXCEEDS 35 FEET IN HEIGHT FROM EXISTING GRADE WITHIN 100 FEET OF A SINGLE FAMILY RESIDENTIAL PROPERTY LINE.
23. ALL DRY UTILITIES SHALL BE INSTALLED UNDERGROUND.

BUILDINGS R-1, R-2, R-3 AND R-4 SHALL CONTAIN AWNINGS THAT ARE AT LEAST 4' DEEP OVERHANGING SIDEWALKS.

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

PARKING REQUIRED			
USE	SQ. FT.	PARKING REQUIRMENT	NUMBER OF SPACES
Restaurant	12000	1 / 100 SQ FT	120
Retail	20560	1 / 250 SQ FT	83
Office	102000	1 / 300 SQ FT	340
TOTAL PARKING REQUIRED			543
ADA PARKING REQUIRED			12

PARKING PROVIDED	
STANDARD PARKING PROVIDED:	537
ADA PARKING PROVIDED:	12
TOTAL PARKING PROVIDED:	550
BICYCLE PARKING PROVIDED:	48

BUILDING	USE	SQ. FT.
R1	Restaurant	3000
	Retail	5140
R2	Restaurant	3000
	Retail	5140
R3	Restaurant	3000
	Retail	5140
R4	Restaurant	3000
	Retail	5140
O1	General Office	12000
O2	General Office	12000
O3	General Office	12000
O4	General Office	12000
O5	General Office	12000
O6	General Office	30000
O7	General Office	12000

TOTAL SITE AREA	661,899.24 SQ. FT.
TOTAL EXISTING IMPERVIOUS COVER	19,541.00 SQ. FT. -OR- 2.95%
TOTAL IMPERVIOUS COVER	408309.73 SQ. FT. -OR- 61.69%
TOTAL BUILDING COVERAGE	127,266.87 SQ. FT. -OR- 19.23%
ZONING	LB - LOCAL BUSINESS

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

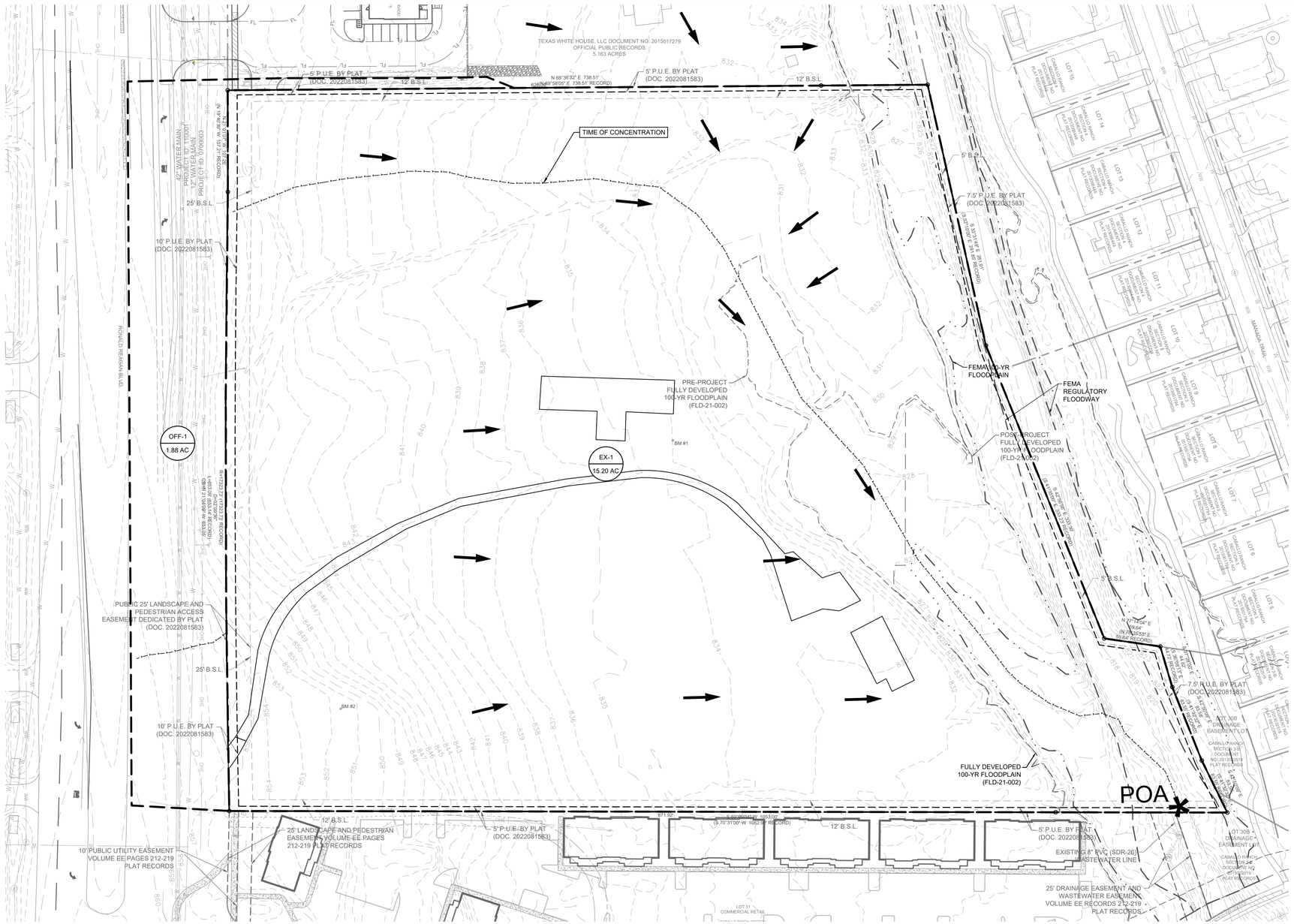
OVERALL SITE PLAN

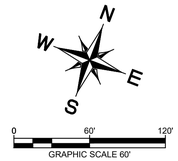
RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
14 OF 75

SD-21-00027





LEGEND

- X-1 / 9.9 ac / 5.5 cfs — AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
- PROPERTY LINE
- EXISTING STORM DRAIN LINE
- EXISTING DRAINAGE DIVIDE
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN HEADWALL
- EXISTING FLOW DIRECTION
- 555 — EXISTING CONTOUR

I CERTIFY THAT I HAVE PERSONALLY CONDUCTED A TOPOGRAPHIC REVIEW AND FIELD INVESTIGATION OF THE EXISTING AND PROPOSED FLOW PATTERNS FOR STORMWATER RUNOFF FROM THE SUBJECT DEVELOPMENT TO THE MAIN STEM OF BLOCK HOUSE CREEK. AT BUILD-OUT CONDITIONS ALLOWABLE BY ZONING, RESTRICTIVE COVENANT OR PLAT NOTE, THE STORMWATER FLOWS FROM THE SUBJECT DEVELOPMENT WILL NOT CAUSE ANY ADDITIONAL ADVERSE FLOODING IMPACTS FOR STORMS OF MAGNITUDE UP THROUGH THE 100-YEAR EVENT.

BENCHMARKS

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NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

Ronald Reagan Square

DRAINAGE CALCULATIONS - SCS METHOD - EXISTING

DRAINAGE AREA	AREA (SF)	AREA (AC)	IMPERVIOUS COVER (SF)	IMPERVIOUS COVER (%)	WEIGHTED CURVE NUMBER (CN)	SHEET FLOW				SHALLOW CONCENTRATED FLOW				CHANNEL FLOW								TOTAL Tc* (min)	Q_2 (cfs)	Q_{10} (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
						P-2yr24hr 3.96 IN				Grass Surface				Channel Flow												
						N	L (ft)	S (ft/ft)	Tt(min)	L (ft)	V (fps)	S (ft/ft)	Tt (min)	L (ft)	V (fps)	a (ft^2)	Pw (ft)	r	n	S (ft/ft)	Tt(min)					
EX-1	661889.24	15.19	19541.00	3.0%	74.22	0.15	100.00	0.046	6.31	1241.32	2.71	0.028	7.64	0.00	-	0.00	0.00	-	0.000	-	0.00	13.96	29.50	63.20	87.70	130.70
OFF-1	82068.06	1.88	35387.10	43.1%	87.48	0.15	100.00	0.053	5.96	0.00	-	-	0.00	0.00	-	0.00	0.00	-	0.000	-	0.00	5.97	8.10	13.80	17.60	24.20

*Per City of Austin Drainage Criteria Manual, minimum T_c = 5 min

	Q_2	Q_{10}	Q_{25}	Q_{100}
POA	34.70	72.10	99.20	146.90

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

Bradley W. Wilkins
STATE OF TEXAS
BRADLEY W. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

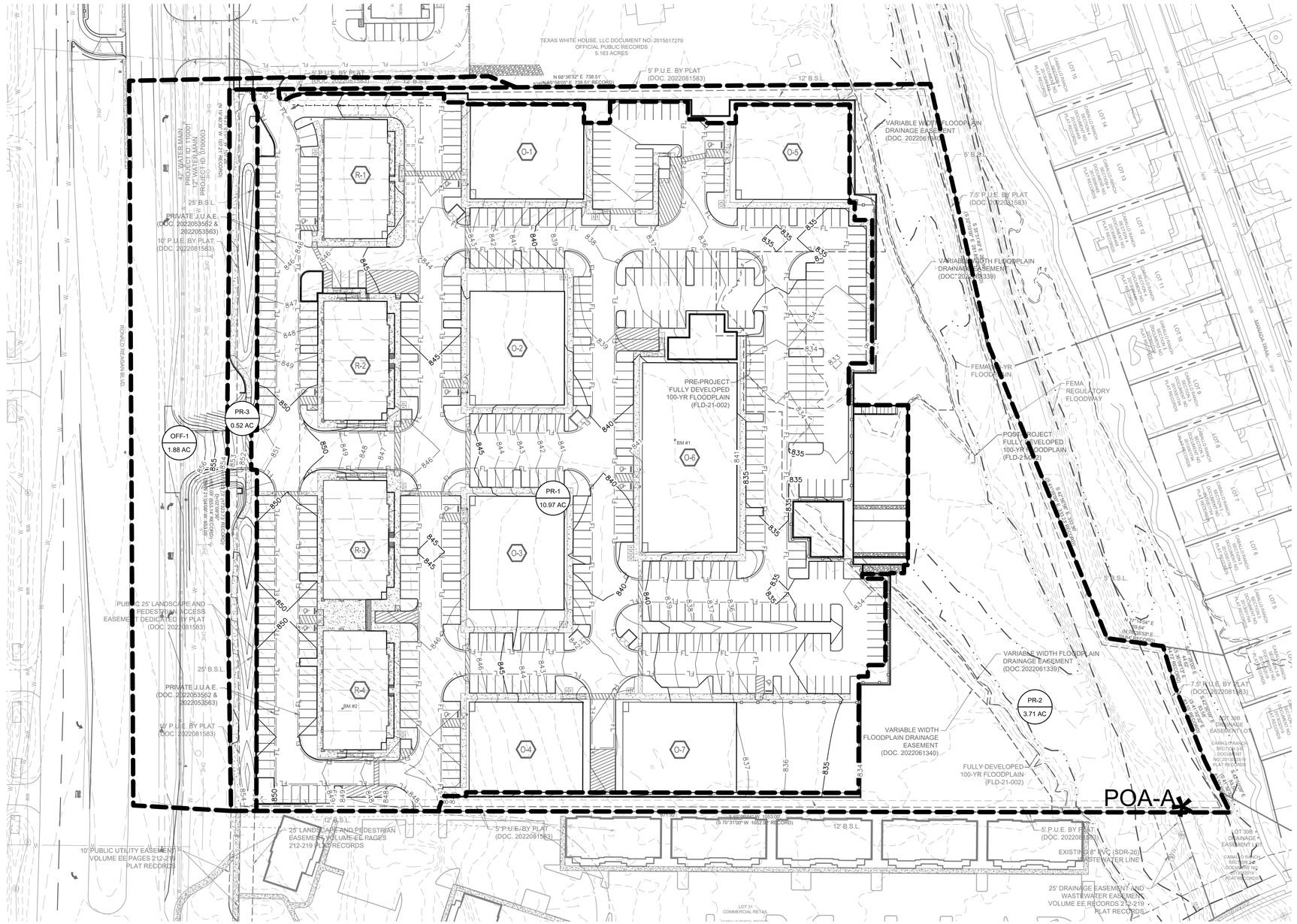
EXISTING DRAINAGE AREA MAP

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
32 OF 75

SD-21-00027



LEGEND

X-1 / 9.9 ac	AREA DESIGNATOR
	AREA IN ACRES
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

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ELEVATION: 851.75

Ronald Reagan Square

DRAINAGE CALCULATIONS - SCS METHOD - PROPOSED

DRAINAGE AREA	AREA (SF)	AREA (AC)	IMPERVIOUS COVER (SF)	IMPERVIOUS COVER (%)	WEIGHTED CURVE NUMBER (CN)	SHEET FLOW P-2yr24hr 3.96 IN				SHALLOW CONCENTRATED FLOW Grass Surface				CHANNEL FLOW Channel Flow								TOTAL T_c* (min)	Q_2 (cfs)	Q_{10} (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
						N	L (ft)	S (ft/ft)	Tt(min)	L (ft)	V (fps)	S (ft/ft)	Tt (min)	L (ft)	V (fps)	a ($ft^{\wedge}2$)	Pw (ft)	r	n	S (ft/ft)	Tt(min)					
PR-1	477735.58	10.97	406850.40	85.2%	94.14	0.02	0.00	-	**0.00**	0.00	-	-	**0.00**	0.00	-	0.40	3.20	-	0.010	-	**0.00**	**5.00**	58.00	90.60	112.90	151.10
PR-2	161710.62	3.71	0.00	0.0%	65.00	0.02	0.00	-	**0.00**	0.00	-	-	**0.00**	0.00	-	0.00	0.00	-	0.000	-	**0.00**	**5.00**	5.80	15.40	23.10	37.20
PR-3	22452.94	0.52	5406.85	24.1%	72.95	0.02	0.00	0.053	**0.00**	0.00	-	-	**0.00**	0.00	-	0.00	0.00	-	1.000	-	**0.00**	**5.00**	1.30	2.80	3.90	5.90
OFF-1	82068.06	1.88	35387.10	43.1%	87.48	0.02	100.00	0.053	**0.95**	0.00	-	-	**0.00**	0.00	-	0.00	0.00	-	0.000	-	**0.00**	**5.00**	8.40	14.30	18.30	25.10

*Per City of Austin Drainage Criteria Manual, minimum T_c = 5 min

**Length of sheet flow reduced so that T_c is more representative of entire drainage area

	Q_2	Q_{10}	Q_{25}	Q_{100}
POA	73.20	123.10	158.20	219.20

		Q_2	Q_{10}	Q_{25}	Q_{100}
EXISTING	POA	34.70	72.10	99.20	146.90
PROPOSED	POA	73.20	123.10	158.20	219.20

THIS PROJECT PROPOSES NO DETENTION FOR THE PROPOSED RUNOFF. PLEASE REFER TO FLD-21-002.

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

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PROPOSED DRAINAGE AREA MAP

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
33 OF 75

SD-21-00027

LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 — PROPOSED CONTOUR
- 555 — EXISTING CONTOUR

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT	069290000
DATE	AUGUST 2022
SCALE:	AS SHOWN
DESIGNED BY:	JML
DRAWN BY:	JML
CHECKED BY:	BMW

INLET DRAINAGE AREA MAP

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
34 OF 75

SD-21-00027

RONALD REAGAN SQUARE
SUBBASIN DRAINAGE CONDITIONS

DRAINAGE AREA	AREA (SF)	AREA (AC)	IMPERVIOUS COVER (AC)	IMPERVIOUS COVER (%)	2-YR RUNOFF COEFFICIENT			10-YR RUNOFF COEFFICIENT			25-YR RUNOFF COEFFICIENT			100-YR RUNOFF COEFFICIENT			TOTAL Tc** (min)	RAINFALL INTENSITIES				RM RUNOFF CALCULATIONS			
					IMPERVIOUS RUNOFF C (C1)	PERVIOUS RUNOFF C (C2)	WEIGHTED RUNOFF COEFFICIENT (C)	IMPERVIOUS RUNOFF C (C1)	PERVIOUS RUNOFF C (C2)	WEIGHTED RUNOFF COEFFICIENT (C)	IMPERVIOUS RUNOFF C (C1)	PERVIOUS RUNOFF C (C2)	WEIGHTED RUNOFF COEFFICIENT (C)	IMPERVIOUS RUNOFF C (C1)	PERVIOUS RUNOFF C (C2)	WEIGHTED RUNOFF COEFFICIENT (C)		2-YR	10-YR	25-YR	100-YR	Q_2 (cfs)	Q_{10} (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
A-1.1	6469.81	*0.15*	0.128	86.44%	0.75	0.21	0.68	0.83	0.25	0.75	0.88	0.32	0.80	0.97	0.36	*0.89*	*5.00*	6.18	9.29	11.45	15.24	**0.62**	**1.04**	**1.37**	**2.01**
A-1.2	21045.12	*0.48*	0.401	83.00%	0.75	0.21	0.66	0.83	0.25	0.73	0.88	0.32	0.78	0.97	0.36	*0.87*	*5.00*	6.18	9.29	11.45	15.24	**1.97**	**3.28**	**4.34**	**6.38**
A-2	12718.19	*0.29*	0.238	81.59%	0.75	0.21	0.65	0.83	0.25	0.72	0.88	0.32	0.78	0.97	0.36	*0.86*	*5.00*	6.18	9.29	11.45	15.24	**1.17**	**1.96**	**2.60**	**3.82**
A-3	32952.35	*0.76*	0.643	85.03%	0.75	0.21	0.67	0.83	0.25	0.74	0.88	0.32	0.80	0.97	0.36	*0.88*	*5.00*	6.18	9.29	11.45	15.24	**3.13**	**5.22**	**6.90**	**10.13**
A-4	6213.37	*0.14*	0.094	65.93%	0.75	0.21	0.57	0.83	0.25	0.63	0.88	0.32	0.69	0.97	0.36	*0.76*	*5.00*	6.18	9.29	11.45	15.24	**0.50**	**0.84**	**1.13**	**1.66**
A-5	29041.61	*0.67*	0.616	92.45%	0.75	0.21	0.71	0.83	0.25	0.79	0.88	0.32	0.84	0.97	0.36	*0.92*	*5.00*	6.18	9.29	11.45	15.24	**2.92**	**4.87**	**6.40**	**9.39**
A-6	16069.29	*0.37*	0.278	75.31%	0.75	0.21	0.62	0.83	0.25	0.69	0.88	0.32	0.74	0.97	0.36	*0.82*	*5.00*	6.18	9.29	11.45	15.24	**1.41**	**2.35**	**3.13**	**4.61**
A-7	9007.69	*0.21*	0.203	97.99%	0.75	0.21	0.74	0.83	0.25	0.82	0.88	0.32	0.87	0.97	0.36	*0.96*	*5.00*	6.18	9.29	11.45	15.24	**0.94**	**1.57**	**2.06**	**3.02**
A-8	11216.23	*0.26*	0.245	95.04%	0.75	0.21	0.72	0.83	0.25	0.80	0.88	0.32	0.85	0.97	0.36	*0.94*	*5.00*	6.18	9.29	11.45	15.24	**1.15**	**1.92**	**2.51**	**3.69**
B-1	6590.60	*0.15*	0.142	93.80%	0.75	0.21	0.72	0.83	0.25	0.79	0.88	0.32	0.85	0.97	0.36	*0.93*	*5.00*	6.18	9.29	11.45	15.24	**0.67**	**1.12**	**1.46**	**2.15**
B-2	17057.29	*0.39*	0.352	89.87%	0.75	0.21	0.70	0.83	0.25	0.77	0.88	0.32	0.82	0.97	0.36	*0.91*	*5.00*	6.18	9.29	11.45	15.24	**1.68**	**2.81**	**3.69**	**5.42**
B-3	23005.98	*0.53*	0.487	92.25%	0.75	0.21	0.71	0.83	0.25	0.79	0.88	0.32	0.84	0.97	0.36	*0.92*	*5.00*	6.18	9.29	11.45	15.24	**2.31**	**3.85**	**5.06**	**7.43**
B-4	12692.32	*0.29*	0.246	84.42%	0.75	0.21	0.67	0.83	0.25	0.74	0.88	0.32	0.79	0.97	0.36	*0.87*	*5.00*	6.18	9.29	11.45	15.24	**1.20**	**2.00**	**2.65**	**3.89**
B-5	18821.98	*0.43*	0.377	87.29%	0.75	0.21	0.68	0.83	0.25	0.76	0.88	0.32	0.81	0.97	0.36	*0.89*	*5.00*	6.18	9.29	11.45	15.24	**1.82**	**3.04**	**4.00**	**5.88**
B-6	32735.17	*0.75*	0.640	85.10%	0.75	0.21	0.67	0.83	0.25	0.74	0.88	0.32	0.80	0.97	0.36	*0.88*	*5.00*	6.18	9.29	11.45	15.24	**3.11**	**5.19**	**6.86**	**10.07**
B-7	29458.78	*0.68*	0.599	88.61%	0.75	0.21	0.69	0.83	0.25	0.76	0.88	0.32	0.82	0.97	0.36	*0.90*	*5.00*	6.18	9.29	11.45	15.24	**2.88**	**4.80**	**6.32**	**9.28**
B-8	12477.25	*0.29*	0.270	94.21%	0.75	0.21	0.72	0.83	0.25	0.80	0.88	0.32	0.85	0.97	0.36	*0.93*	*5.00*	6.18	9.29	11.45	15.24	**1.27**	**2.12**	**2.78**	**4.08**
B-9	23872.46	*0.55*	0.492	89.84%	0.75	0.21	0.70	0.83	0.25	0.77	0.88	0.32	0.82	0.97	0.36	*0.91*	*5.00*	6.18	9.29	11.45	15.24	**2.35**	**3.93**	**5.17**	**7.59**
C-1	2140.89	*0.05*	0.011	21.79%	0.75	0.21	0.33	0.83	0.25	0.38	0.88	0.32	0.44	0.97	0.36	*0.49*	*5.00*	6.18	9.29	11.45	15.24	**0.10**	**0.17**	**0.25**	**0.37**
C-2	7103.87	*0.16*	0.040	24.43%	0.75	0.21	0.34	0.83	0.25	0.39	0.88	0.32	0.46	0.97	0.36	*0.51*	*5.00*	6.18	9.29	11.45	15.24	**0.34**	**0.59**	**0.85**	**1.27**
C-3	1032.83	*0.02*	0.024	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.11**	**0.18**	**0.24**	**0.35**
C-4	1032.83	*0.02*	0.024	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.11**	**0.18**	**0.24**	**0.35**
C-5	1237.71	*0.03*	0.000	0.00%	0.75	0.21	0.21	0.83	0.25	0.25	0.88	0.32	0.32	0.97	0.36	*0.36*	*5.00*	6.18	9.29	11.45	15.24	**0.04**	**0.07**	**0.10**	**0.16**
C-6	7543.79	*0.17*	0.041	23.40%	0.75	0.21	0.34	0.83	0.25	0.39	0.88	0.32	0.45	0.97	0.36	*0.50*	*5.00*	6.18	9.29	11.45	15.24	**0.36**	**0.62**	**0.89**	**1.33**
C-7	2385.51	*0.05*	0.010	17.70%	0.75	0.21	0.31	0.83	0.25	0.35	0.88	0.32	0.42	0.97	0.36	*0.47*	*5.00*	6.18	9.29	11.45	15.24	**0.10**	**0.18**	**0.26**	**0.39**
O-1	12000.00	*0.28*	0.275	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.28**	**2.12**	**2.78**	**4.07**
O-2	12000.00	*0.28*	0.275	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.28**	**2.12**	**2.78**	**4.07**
O-3	12000.00	*0.28*	0.275	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.28**	**2.12**	**2.78**	**4.07**
O-4	11432.47	*0.26*	0.262	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.22**	**2.02**	**2.65**	**3.88**
O-5	12000.00	*0.28*	0.275	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.28**	**2.12**	**2.78**	**4.07**
O-6	20000.00	*0.46*	0.459	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**2.13**	**3.54**	**4.63**	**6.79**
O-7	11432.47	*0.26*	0.262	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**1.22**	**2.02**	**2.65**	**3.88**
PLAY O-7	12242.27	*0.28*	0.000	0.00%	0.75	0.21	0.21	0.83	0.25	0.25	0.88	0.32	0.32	0.97	0.36	*0.36*	*5.00*	6.18	9.29	11.45	15.24	**0.36**	**0.65**	**1.03**	**1.54**
R-1	8578.84	*0.20*	0.197	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.91**	**1.52**	**1.99**	**2.91**
R-2	8578.84	*0.20*	0.197	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.91**	**1.52**	**1.99**	**2.91**
R-3	8578.84	*0.20*	0.197	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.91**	**1.52**	**1.99**	**2.91**
R-4	8578.84	*0.20*	0.197	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.91**	**1.52**	**1.99**	**2.91**
TW-1	3516.33	*0.08*	0.005	6.33%	0.75	0.21	0.24	0.83	0.25	0.29	0.88	0.32	0.36	0.97	0.36	*0.40*	*5.00*	6.18	9.29	11.45	15.24	**0.12**	**0.22**	**0.33**	**0.49**
TW-2	2993.50	*0.07*	0.006	8.02%	0.75	0.21	0.25	0.83	0.25	0.30	0.88	0.32	0.36	0.97	0.36	*0.41*	*5.00*	6.18	9.29	11.45	15.24	**0.11**	**0.19**	**0.29**	**0.43**
POND	11636.53	*0.27*	0.000	0.00%	0.75	0.21	0.21	0.83	0.25	0.25	0.88	0.32	0.32	0.97	0.36	*0.36*	*5.00*	6.18	9.29	11.45	15.24	**0.35**	**0.62**	**0.98**	**1.47**
OFF C-1	5837.61	*0.13*	0.051	38.12%	0.75	0.21	0.42	0.83	0.25	0.47	0.88	0.32	0.53	0.97	0.36	*0.59*	*5.00*	6.18	9.29	11.45	15.24	**0.34**	**0.59**	**0.82**	**1.21**
OFF C-2	16367.66	*0.38*	0.185	49.32%	0.75	0.21	0.48	0.83	0.25	0.54	0.88	0.32	0.60	0.97	0.36	*0.66*	*5.00*	6.18	9.29	11.45	15.24	**1.11**	**1.87**	**2.57**	**3.79**
OFF C-3	12545.71	*0.29*	0.137	47.67%	0.75	0.21	0.47	0.83	0.25	0.53	0.88	0.32	0.59	0.97	0.36	*0.65*	*5.00*	6.18	9.29	11.45	15.24	**0.83**	**1.41**	**1.94**	**2.86**
OFF C-4	6794.02	*0.16*	0.156	100.00%	0.75	0.21	0.75	0.83	0.25	0.83	0.88	0.32	0.88	0.97	0.36	*0.97*	*5.00*	6.18	9.29	11.45	15.24	**0.72**	**1.20**	**1.57**	**2.31**
OFF C-5	7179.40	*0.16*	0.064	38.66%	0.75	0.21	0.42	0.83	0.25	0.47	0.88	0.32	0.54	0.97	0.36	*0.60*	*5.00*	6.18	9.29	11.45	15.24	**0.43**	**0.73**	**1.01**	**1.50**
OFF C-6	21499.04	*0.49*	0.239	48.48%	0.75	0.21	0.47	0.83	0.25	0.53	0.88	0.32	0.59	0.97	0.36	*0.66*	*5.00*	6.18	9.29	11.45	15.24	**1.44**	**2.44**	**3.34**	**4.93**
OFF C-7	7669.67	*0.18*	0.081	45.99%	0.75	0.21	0.46	0.83	0.25	0.52	0.88	0.32	0.58	0.97	0.36	*0.64*	*5.00*	6.18	9.29	11.45	15.24	**0.50**	**0.85**	**1.16**	**1.72**

**The minimum Tc is 5 minutes for the Rational Method. As shown on the Proposed Drainage Areea Map, the Tc for the entire site is less than 5 minutes. Therefore each subbasin has a Tc less than 5 minutes.

**THE CHARACTER OF SURFACE FOR ALL PERVIOUS AREAS ON SITE IS GRASS AREA, GOOD CONDITION, FLAT

**THE CHARACTER OF SURFACE FOR ALL IMPVERVIOUS AREAS ON SITE IS CONCRETE

Ronald Reagan Square
GRATE INLET FLOW CALCULATIONS (100 YR STORM)

GRATE INLET SIZING CALCULATIONS											
			BASED ON FLOW CONVEYANCE							BASED ON PIPE SIZE	
DRAINAGE AREA / INLET	INLET	INLET TYPE	Q_{100} (CFS)	CLOGGING FACTOR	HEAD (FT)	REQUIRED INLET AREA (FT^2)	Q MAX (CFS)	PROPOSED INLET AREA (FT^2)	INLET TYPE BASED ON FLOW	CONNECTED PIPE SIZE (IN OR FT X FT)	INLET SIZE BASED ON CONNECTED PIPE SIZE
A-1.1	A-1.1	5' X 5' JUNCTION BOX WITH 4' X 4' GRATE	2.01	0.50	0.00	83.36	0.31	12.8	4' x 4' JUNCTION BOX	4' x 4'	5' X 5' JUNCTION BOX
A-1.2	A-1.2	5' X 5' JUNCTION BOX WITH 4' X 4' GRATE	6.38	0.50	0.00	264.75	0.31	12.8	4' x 4' JUNCTION BOX	42	5' X 5' JUNCTION BOX
A-2, TW-1	A-2	5' X 5' JUNCTION BOX WITH 4' X 4' GRATE	4.31	0.50	0.00	178.77	0.31	12.8	4' x 4' JUNCTION BOX	4' x 4'	5' X 5' JUNCTION BOX
A-3	A-3	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	10.13	0.50	0.00	420.48	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
A-5, O-3	A-4	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	13.46	0.50	0.00	558.69	0.31	12.8	4' x 4' JUNCTION BOX	36	4' X 4' JUNCTION BOX
A-6, O-4	A-5	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	3.88	0.50	0.00	161.04	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
A-7, R-4	A-6	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	5.93	0.50	0.00	246.12	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
A-8, R-3	A-7	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	3.69	0.50	0.00	153.06	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
B-1	A-8	5' X 5' JUNCTION BOX WITH 4' X 4' GRATE	2.15	0.50	0.00	89.22	0.31	12.8	4' x 4' JUNCTION BOX	4' x 4'	5' X 5' JUNCTION BOX
B-2	B-1	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	5.42	0.50	0.00	224.97	0.31	12.8	4' x 4' JUNCTION BOX	36	4' X 4' JUNCTION BOX
B-3	B-2	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	7.43	0.50	0.00	308.27	0.31	12.8	4' x 4' JUNCTION BOX	36	4' X 4' JUNCTION BOX
B-4, TW-2	B-3	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	4.32	0.50	0.00	179.05	0.31	12.8	4' x 4' JUNCTION BOX	36	4' X 4' JUNCTION BOX
B-5, O-5	B-4	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	9.95	0.50	0.00	412.97	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
B-6, O-6	B-5	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	16.86	0.50	0.00	699.64	0.31	12.8	4' x 4' JUNCTION BOX	36	4' X 4' JUNCTION BOX
B-7, O-2	B-6	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	13.36	0.50	0.00	554.27	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
B-8, O-1	B-7	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	8.16	0.50	0.00	338.38	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
B-9, R-1, R-2	B-8	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	13.41	0.50	0.00	556.46	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
C-1, OFF C-1	B-9	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	0.37	0.50	0.00	15.32	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
C-2, OFF C-2	C-1	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	1.27	0.50	0.00	52.51	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
C-3, OFF C-3	C-2	24" TRENCH DRAIN	0.35	0.50	0.00	14.55	0.77	32.00	4' x 4' JUNCTION BOX	18	2' x 2'
C-4, OFF C-4	C-3	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	0.35	0.50	0.00	14.55	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
C-5, OFF C-5	C-4	3' x 3' SURFACE GRATE INLET (TYPE S-2)	0.16	0.50	0.00	6.47	0.17	7.20	3' x 3'	24	2.5' x 2.5'
C-6, OFF C-6	C-5	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	1.33	0.50	0.00	55.08	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'
C-7, OFF C-7	C-6	4' x 4' JUNCTION BOX WITH 4' X 4' GRATE	0.39	0.50	0.00	16.21	0.31	12.8	4' x 4' JUNCTION BOX	24	2.5' x 2.5'

Cedar Park IDF Curve Constants			
Frequency	a	b	c
2	46.14	9.47	0.7523
10	61.08	8.41	0.7253
25	70.71	8.12	0.7071
100	84.57	7.47	0.679

RONALD REAGAN SQUARE
CURB INLET FLOW CALCULATION TABLE (100Yr Flows)

INLET	CONTRIBUTING DRAINAGE AREAS	Inlet Type	Drainage Area No.	Street Width (FOC - FOC)	K0	K1	K2	Q (cfs)	Q Pass (cfs)	Q Total (Qa) (cfs)	Slope (%)	a (in.)	yo (ft.)	Ponded Width (ft)	R.F. (%)	Qa/La	La (ft)	Length (ft)	L/La	a/yo	Q/Qa	Q (cfs)	Q Pass (cfs)
A-4	A-4, O-7, PLAY O-7	Sag	A-1	26'	2.85	0.50	3.03	7.1	0.00	7.1	1.50%	6.0	0.278	4.74	10	0.90	7.87	10	1.27	1.80	1.27	9.0	0.0

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

Bradley M. Wilkins
STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

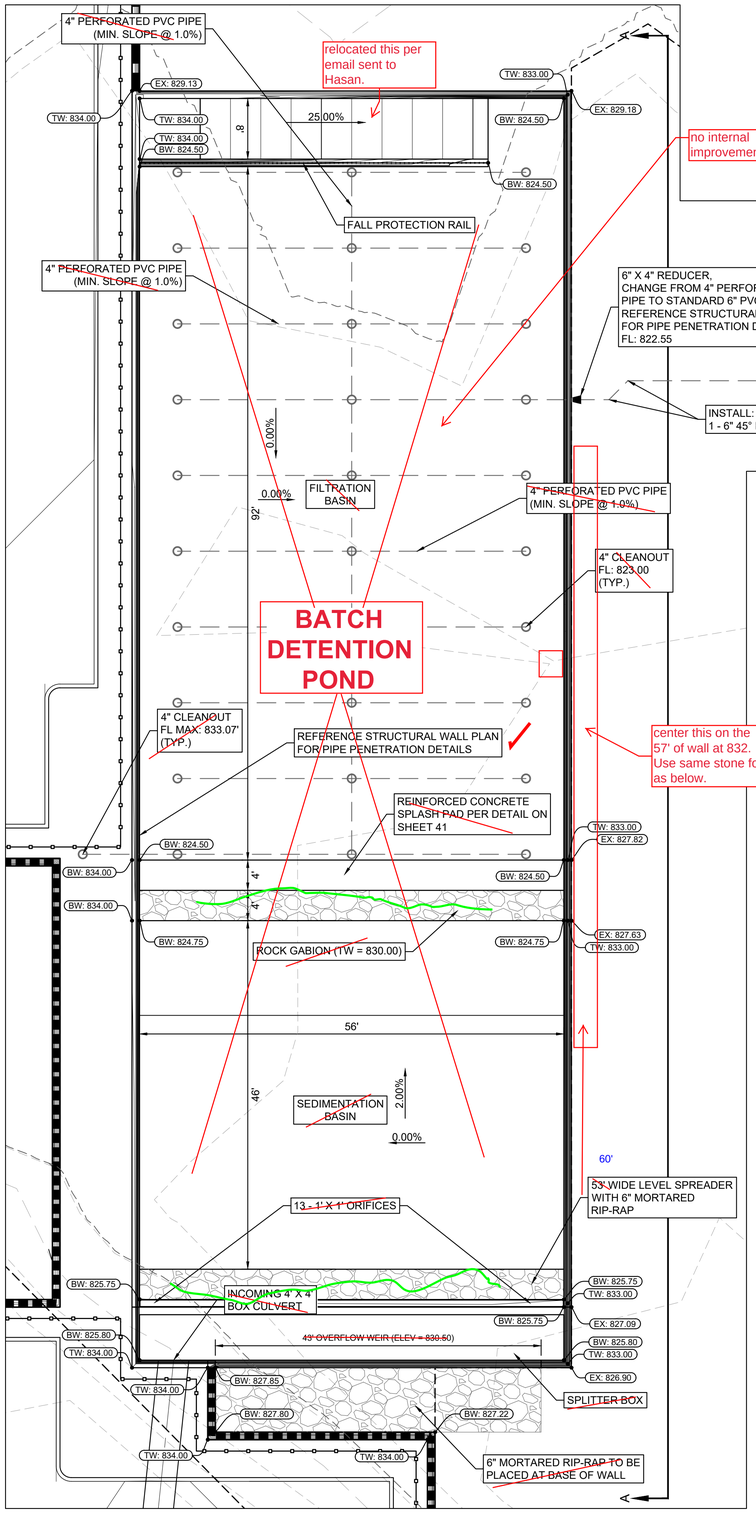
INLET DRAINAGE AREA CALCULATIONS

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

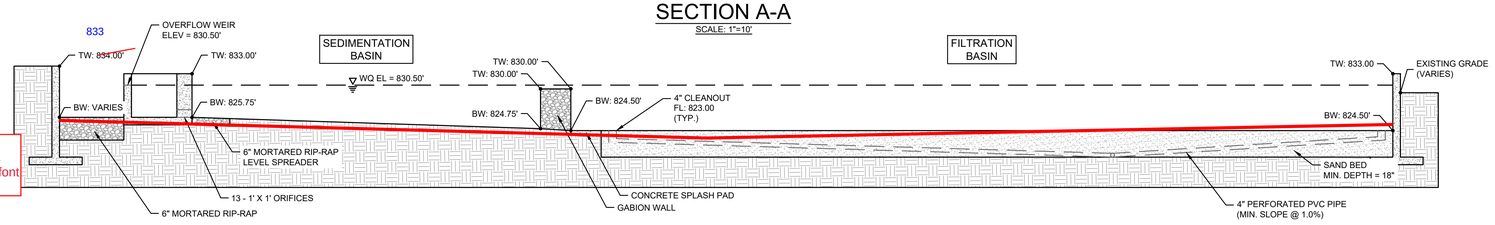
SHEET NUMBER
35 OF 75

SD-21-00027



SECTION A-A

SCALE: 1"=10'



25 YEAR VELOCITY AFTER LEVEL SPREADER

MANNING'S EQUATION: $Q = \left(\frac{1.49}{n}\right) A R^{2/3}\sqrt{S}$

WHERE:
- Q = ORIFICE FLOW (CFS)
- n = MANNING'S ROUGHNESS COEFFICIENT
- A= AREA OF CHANNEL (FT^2)
- R= HYDRAULIC RADIUS (FT)
- S = SLOPE (FT/FT)
- d = NORMAL DETPH (FT)

Q = 112.90 CFS
n = 0.069 (6" RIP-RAP)
w = 53 FT
A = $w \times d$ FT^2
R = $\frac{w \times d}{w + 2d}$ FT
S = 0.02

CALCULATING FOR d = 0.85 FT

$V = \left(\frac{Q}{A}\right)$

V = 2.716 FT/S²

WATER QUALITY POND
OVERFLOW WEIR DESIGN

Provided Overflow Elevation	=	830.50	832.00
Top of Box Elevation	=	833.00	
Using the weir flow equation: Q = C*L*H^(3/2)			
POND			
Q = 100 year developed flow into ~~splitter box~~ (cfs)		151.1	192.0
C = Weir coefficient		3.00	3.367
L = Width of weir (feet)		43.0	57.0
H = Depth of flow (feet)		1.11	1.0
Max. WSE_{100} in Box	=	831.61	833.0
~~Splitter Box~~ Freeboard (feet)	=	1.39	0.0

POND DRAW DOWN CALCULATIONS

Minimum Drawdown Time = 48 hours =	172,800 seconds	
Pond volume to be removed =	48,852 cf	
Volume removed per second =	0.28 cfs	
Oriface equation is "Q = 0.6*A*(2*g*h)^.5		
A = area of orifice g= 32.2		
Water Quality Elevation =	830.50	
Underdrain Outfall Elevation =	822.00	
h = orifice head =	8.5	
A = Q/ (0.6* (2*g*h)^.5) = p*r^2 =	0.020 sf	
r =	0.080 ft	
r =	0.96 in	
d =	1.9 in	Calculated
d=	1.8 in	Provided

REPLACE WITH BATCH DETENTION DRAWDOWN TABLE

WATER QUALITY POND STAGE STORAGE TABLE

CONTOUR ELEVATION (FT)	CONTOUR AREA (FT^2)	DEPTH (FT)	INCREMENTAL VOLUME (FT^3)	CUMULATIVE VOLUME (FT^3)	
824.50	5852.23	0.00	0.00	0.00	
825.00	6785.16	0.50	3,159.35	3,159.35	
826.00	9400.00	1.50	8,092.58	11,251.93	
827.00	9400.00	2.50	9,400.00	20,651.93	
828.00	9400.00	3.50	9,400.00	30,051.93	
829.00	9400.00	4.50	9,400.00	39,451.93	
830.00	9400.00	5.50	9,400.00	48,851.93	
830.50	9400.00	6.00	4,700.00	53,551.93	WQV
831.00	9400.00	6.50	4,700.00	58,251.93	
832.00	9400.00	7.50	9,400.00	67,651.93	

REPLACE

SPLITTER BOX ORIFICE CALCULATIONS TO SEDIMENTATION BASIN

25-YR PEAK FLOW RATE = 112.90 CFS
ORIFICE FLOWLINE ELEVATION = 826.25 FT (MSL)
WATER QUALITY ELEVATION = 830.50 FT (MSL)

ORIFICE EQUATION: $Q = N\ C\ A\sqrt{2GH}$

WHERE:
- Q = ORIFICE FLOW (CFS)
- C = ORIFICE COEFFICIENT (0.60)
- A = AREA OF ORIFICE (FT)
- G = GRAVITATIONAL CONSTANT (32.2 FT/S²)
- H = HEAD ON ORIFICE FROM CENTERLINE (FT)
- N = NUMBER OF ORIFICES

H = 3.75 FT

N = 13.00
A = 1.00 FT
C = 0.60
G = 32.20 FT/SEC2
Q (PROVIDED) = 121.21

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

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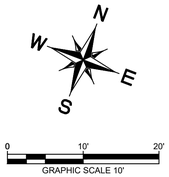

0 10' 20'
GRAPHIC SCALE 10'

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
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08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

WATER QUALITY POND PLAN

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
40 OF 75

SD-21-00027

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Ronald Reagan Square
Date Prepared: 11/28/2021

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

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

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

where:

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

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

County =	Williamson	
Total project area included in plan * =	17.08	acres
Predevelopment impervious area within the limits of the plan * =	1.26	acres
Total post-development impervious area within the limits of the plan* =	10.49	acres
Total post-development impervious cover fraction * =	0.61	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8034	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	10.97	acres
Predevelopment impervious area within drainage basin/outfall area =	0.45	acres
Post-development impervious area within drainage basin/outfall area =	9.34	acres
Post-development impervious fraction within drainage basin/outfall area =	0.85	
$L_{M\ THIS\ BASIN}$ =	7738	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Sand Filter
Removal efficiency = 89 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 =	10.97	acres
A_I =	9.34	acres
A_P =	1.63	acres
L_R =	9229	lbs.

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

Desired $L_{M\ THIS\ BASIN}$ = 8034 lbs.

F = 0.87

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 =	1.44	inches
Post Development Runoff Coefficient =	0.70	
On-site Water Quality Volume =	39871	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 =	7974	
Total Capture Volume (required water quality volume(s) x 1.20) =	47845	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

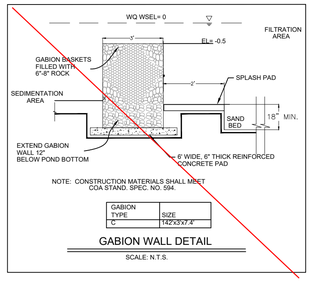
9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

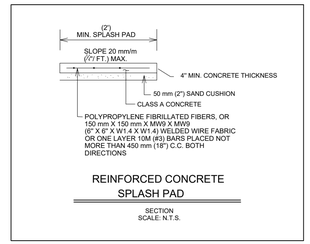
Water Quality Volume for sedimentation basin =	47845	cubic feet	
Minimum filter basin area =	2215	square feet	
Maximum sedimentation basin area =	19935	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	4984	square feet	For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

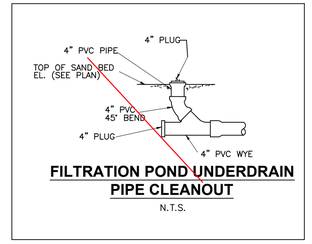
Water Quality Volume for combined basins =	47845	cubic feet	
Minimum filter basin area =	3987	square feet	
Maximum sedimentation basin area =	15948	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	997	square feet	For maximum water depth of 8 feet



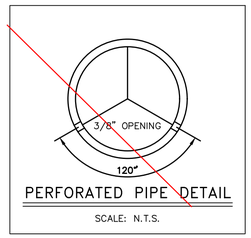
GABION WALL DETAIL
SCALE: N.T.S.



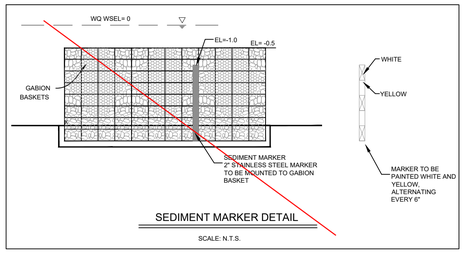
REINFORCED CONCRETE SPLASH PAD
SECTION
SCALE: N.T.S.



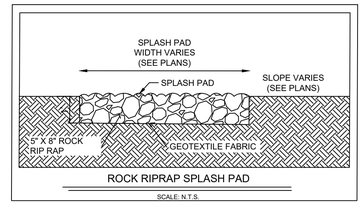
FILTRATION POND UNDERDRAIN PIPE CLEANOUT
N.T.S.



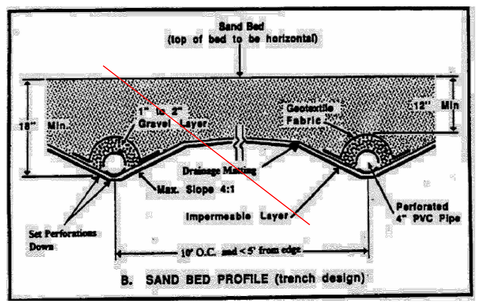
PERFORATED PIPE DETAIL
SCALE: N.T.S.



SEDIMENT MARKER DETAIL
SCALE: N.T.S.

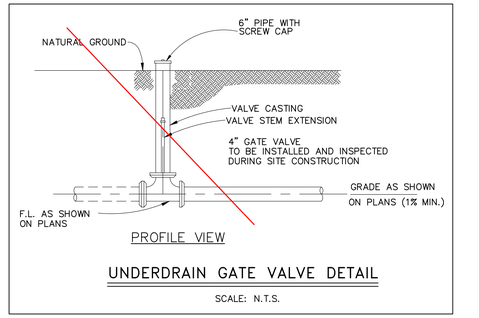


ROCK RIPRAP SPLASH PAD
SCALE: N.T.S.



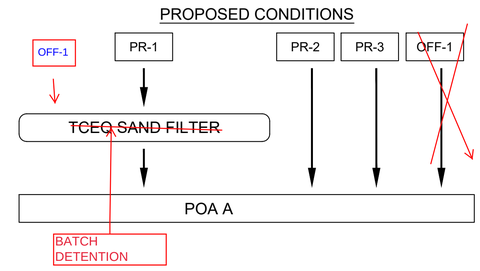
B. SAND BED PROFILE (trench design)

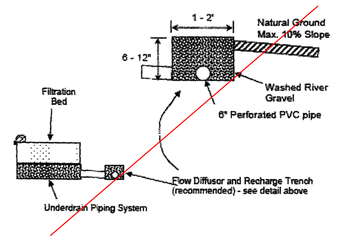
Figure 3-23 Schematic of Sand Bed Profile



PROFILE VIEW

UNDERDRAIN GATE VALVE DETAIL
SCALE: N.T.S.





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WATER QUALITY CALCULATIONS & DETAILS

RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
41 OF 75

SD-21-00027

Contributing Zone Plan Application

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Gary Eli Jones, P.E.

Date: 8/23/2023

Signature of Customer/Agent:

Gary Jones

Regulated Entity Name: RONALD REAGAN CROSSING

Project Information

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

   Contact Person: Mallik Gilakattula
   Entity: TPD Texas, LLC
   Mailing Address: 3320 Prentiss Ln
   City, State: Leander, TX Zip: 78641
   Telephone: 512-761-8025 Fax: _____
   Email Address: mallik@theprimedeveloper.com

5. Agent/Representative (If any):

   Contact Person: Gary Eli Jones, P.E.
   Entity: Eli Engineering, PLLC
   Mailing Address: 700 Theresa Cove
   City, State: Cedar Park, TX Zip: 78613
   Telephone: 512-658-8095 Fax: _____
   Email Address: gejtexas@gmail.com

6. Project Location:

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

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

   14300 Ronald Reagan Blvd, Cedar Park, TX 78613

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

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

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

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

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

11. Existing project site conditions are noted below:

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

☐ Existing paved and/or unpaved roads
☐ Undeveloped (Cleared)
☐ Undeveloped (Undisturbed/Not cleared)
☒ Other: Commercial Project in Process

12. The type of project is:

☐ Residential: # of Lots: 0
☐ Residential: # of Living Unit Equivalents: _____
☒ Commercial
☐ Industrial
☐ Other: _____

13. Total project area (size of site): 15.2 Acres

Total disturbed area: 11 Acres

14. Estimated projected population: Varies - Commercial

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

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	***Sq. Ft.***	***Sq. Ft./Acre***	***Acres***
Structures/Rooftops	151,188	÷ 43,560 =	3.47
Parking	304,655	÷ 43,560 =	7.01
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover	455,843	÷ 43,560 =	10.48

Total Impervious Cover 10.48 **÷ Total Acreage** 15.2 **X 100 =** 69**% Impervious Cover**

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

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

For Road Projects Only

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

☒ N/A

18. Type of project:

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

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

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

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

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

21. Pavement Area:

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☒ N/A

26. Wastewater will be disposed of by:

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

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

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

☒ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the City of Cedar Park (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

Total x 1.5 = _____ Gallons

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

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

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

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

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

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

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

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

Site Plan Requirements

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

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

    Site Plan Scale: 1" = 60'.

35. 100-year floodplain boundaries:

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

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

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): _____.

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

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

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

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

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

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

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

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

☐ N/A

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

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

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

☐ N/A

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

☐ N/A

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

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

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

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

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

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

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

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

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

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

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

    ☐ N/A

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

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

☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☐ N/A

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

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

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

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

Administrative Information

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

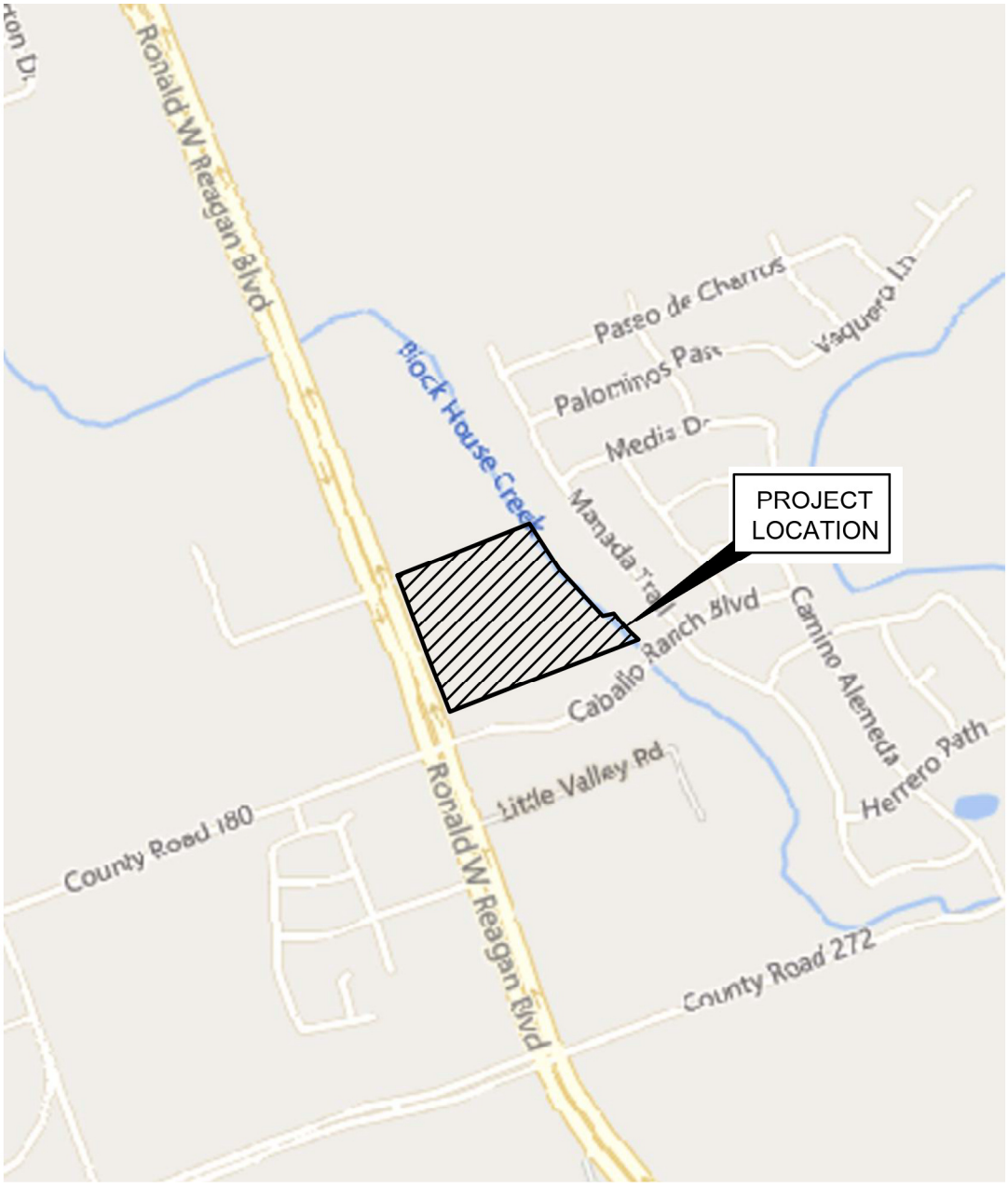
62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

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

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

ROAD MAP

NOT TO SCALE



ROAD MAP EXHIBIT

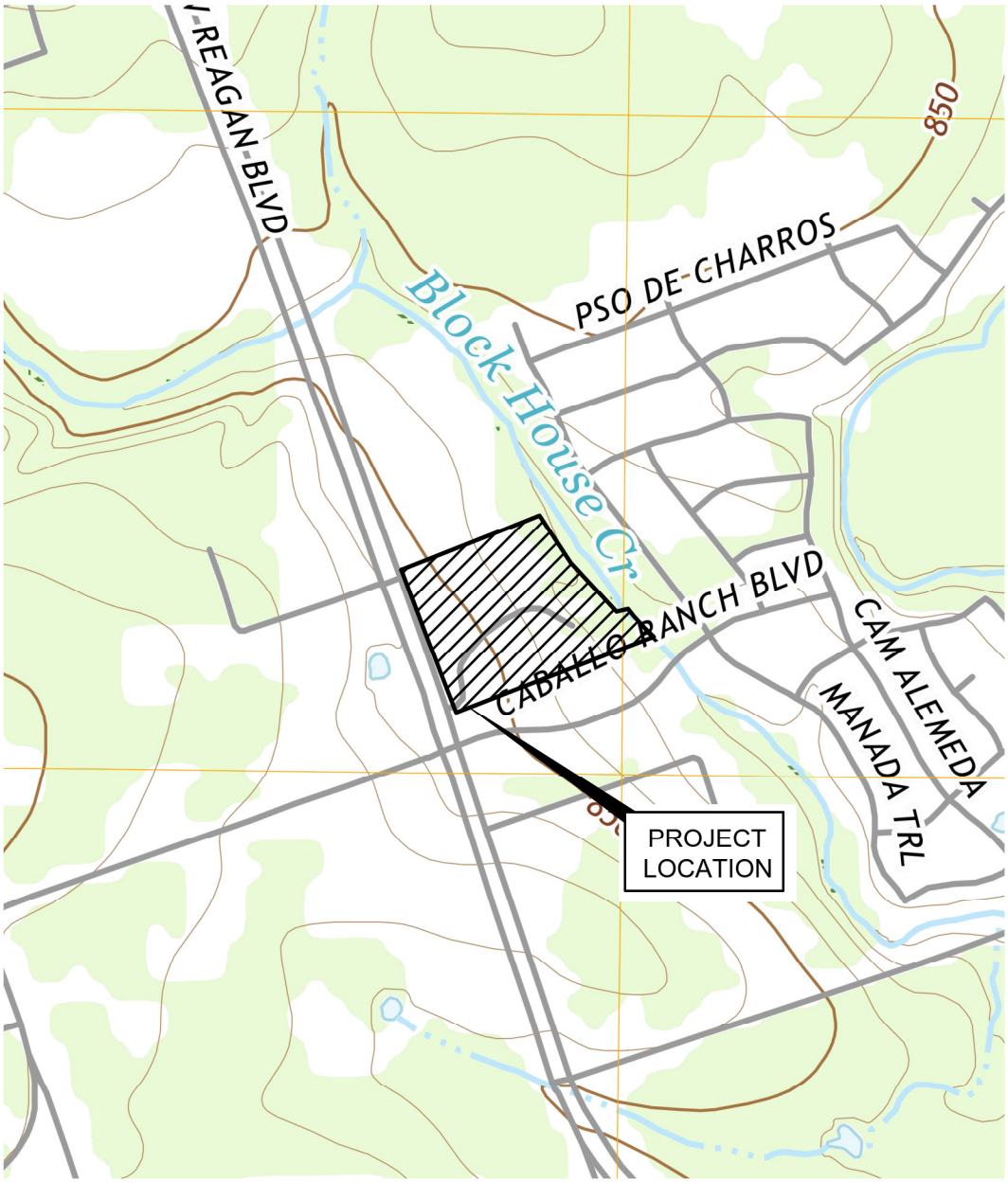
RONALD REAGAN OFFICE PARK

CEDAR PARK, TEXAS
DECEMBER 2021

gejtexas@gmail.com
TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

USGS QUADRANGLE MAP

NOT TO SCALE



USGS EXHIBIT

RONALD REAGAN OFFICE PARK

CEDAR PARK, TEXAS
DECEMBER 2021

gejtexas@gmail.com
TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

ELI ENGINEERING

Firm # 17877

August 2, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment C – Project Description

To Whom It May Concern:

Ronald Reagan Square is located at the intersection of Ronald Reagan Blvd and Caballo Ranch Blvd in the City of Cedar Park, Williamson County, Texas on approximately 15.20 acres. The project address is 14300 Ronald Reagan Blvd. In the existing condition, there are several small areas of concrete, an asphalt drives, and a few existing structures totaling 0.45 acres impervious cover. All existing concrete and asphalt areas will be demolished as well as the existing structures.

The original Contributing Zone Plan was prepared, submitted and processed by Kimley Horn on behalf of Transcend Easley, LLC. The existing CZP (Program ID 11002847) was approved February 4, 2022. The property was purchased by TPD Texas, LLC in March, 2022. The new owners have been working on a site plan revision to the entire site other than the front four (4) buildings. The overall limits of construction have remained the same, however, the buildings, parking, utilities, storm drain and proposed permanent BMP have been modified.

The proposed modification will include the 15.20 acre platted property as well as 1.88 acres of offsite drainage area. Out of the 15.20 acres, 11.84 acres will drain to the proposed water quality pond. The remaining property is downstream of any impervious cover and the BMP in a drainage easement. The onsite impervious cover is 10.48 acres or 69%. The 1.88 acres of offsite area that drains onto the property from Ronald Reagan Blvd includes 0.81 acres of impervious cover which is accounted for in the “Off-site area draining to BMP” in the calculation spreadsheet. The proposed BMP for the project has been changed from a sedimentation / sand concept to Batch Detention which increases the efficiency from 89% to 91% to account for the additional impervious cover proposed with the modification. The total capture volume required is 47,894 CF and the proposed pond provides 48,494 CF. Note, the previous application proposed routing the 1.88 ac offsite drainage area around and bypassing the BMP. The modification routes the offsite flows through the BMP to provide additional water quality benefits.

The first phase of the project including the first four buildings that have not been modified have are in process of being constructed. Due to the slope of the site, the site required a lot of fill material which has generally been placed and processed. Wastewater, water and storm drain lines for the project have been installed. The proposed BMP will be constructed and completed with the first phase of the project. All temporary erosion controls have been installed and there is an active Storm Water Pollution Prevention Plan for the site that is being monitored and documented. The remaining phases of the project will follow completion of the first four buildings.

The site is located in the Turkey Creek – Brushy Creek Watershed. The site is located in the Edwards

Aquifer Contributing Zone. A portion of the eastern boundary outside the limits of construction is located within the 100-year floodplain as shown on FIRM PANEL NO. 48491C0470F, Williamson County, Texas, dated September 20, 2019.

If you have any questions or need further assistance, please contact me at 512-658-8095.

Gary Eli Jones, P.E.
Authorized Agent

ELI ENGINEERING

Firm # 17877

August 24, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Granite Heights
Contributing Zone Permit
Attachment D-Factors Affecting Surface Water Quality

To Whom It May Concern:

The proposed development utilizes 13.26 acres (87%) of the property and the proposed impervious cover is 69% when fully developed. There is an existing drainage channel on the back of the property that conveys drainage from Turkey Creek to the Brushy Creek watershed. Proposed impervious cover drains to the batch detention pond to be treated and released in a maximum of 48 hours.

If you have any questions or need further assistance, please call me at 512-658-8095.

Sincerely,

8/24/2023

Gary Eli Jones, P.E.
Authorized Agent

ELI ENGINEERING

Firm # 17877

August 24, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Permit
Attachment E-Volume and Character of Stormwater

To Whom It May Concern:

The development of the site will Change the volume and character of the stormwater from the site. There is an existing residential home on the site with gravel/asphalt driveways and decking but that is only 0.45 acres of gravel and roof which is right at 3% of the property. The remaining existing condition consists of sheet flowing to creek in the back of the property. The proposed development will convey develop stormwater to the proposed batch detention pond via proposed storm drain pipe to provide water quality treatment for the proposed impervious cover. Per the approved Floodplain Study for the project, there is no detention required for the project. The proposed pond will provide water quality only with an over flow weir for up to the 100 year storm event.

If you have any questions or need further assistance, please contact me at 512-658-8095.

8/24/2023

Gary Eli Jones, P.E.
Authorized Agent

ELI ENGINEERING

Firm # 17877

August 3, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment J - BMP's for Upgradient Stormwater

To Whom It May Concern:

The project includes 1.88 acres of offsite drainage area with 0.81 acres of impervious cover that falls to the Ronald Reagan Square property. The previous concept collected this offsite and routed it around the boundary to bypass the BMP. The modification deletes the bypass and collects and conveys the offsite drainage area through the site to the proposed BMP. The cost/benefit of the infrastructure required to divert around the site did not make any sense to me. The inclusion of the offsite area didn't significantly affect the size of the onsite storm drain pipe and only increased the pond volume by 2,635 CF. In addition, routing the offsite area to the BMP provides additional water quality for impervious cover that was previously just conveyed to the creek untreated.

If you have any questions or need further assistance, please contact me at 512-658-8095.

Gary Eli Jones, P.E.
Authorized Agent

ELI ENGINEERING

Firm # 17877

August 3, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment K BMP's for On-site Stormwater

To Whom It May Concern:

The proposed modified BMP for new on and off-site impervious cover is a batch detention pond. This BMP has a TSS removal efficiency of 91%. The outlet structure for the pond is designed so that the drawdown time of the basin does not exceed 48 hours. Based on the TCEQ Spreadsheet, 80% of the total annual mass loading of total suspended solids generated by regulated activity on the site is 8,730 lbs. The BMP catchment area is 11.84 acres with 10.48 ac of impervious cover. The offsite area conveyed to the BMP is 1.88 acres with 0.81 acres of impervious cover. The TSS load removal from this catchment by the batch detention system is 8,730 lbs which results in a total volume required of 37,277 CF. The offsite area requires another 2,635 CF and the storage for sediment is another 7,982 CF which totals 47,894 CF required storage. The proposed water quality volume in the pond slightly exceeds the required at 48,494 CF. The proposed pond is constructed of vertical walls with an overflow weir at the water quality elevation. The pond is only for water quality since the project is adjacent to a large tributary of Brushy Creek and the floodplain model has been approved with no detention required.

The TCEQ spreadsheet showing the calculations is attached here for reference as well as included on the Construction Plan set.

If you have any questions or need further assistance, please contact me at 512-658-8095.

8/3/2023

Gary Eli Jones, P.E.
Authorized Agent

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Ronald Reagan Square
Date Prepared: 6/19/2022

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

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

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

where:

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

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

County =	Williamson	
Total project area included in plan * =	15.20	acres
Predevelopment impervious area within the limits of the plan * =	0.45	acres
Total post-development impervious area within the limits of the plan* =	10.48	acres
Total post-development impervious cover fraction * =	0.69	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8730	lbs.

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

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

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

Drainage Basin/Outfall Area No. =	1	"PR DA-1"
Total drainage basin/outfall area =	15.20	acres
Predevelopment impervious area within drainage basin/outfall area =	0.45	acres
Post-development impervious area within drainage basin/outfall area =	10.48	acres
Post-development impervious fraction within drainage basin/outfall area =	0.69	
$L_{M\ THIS\ BASIN}$ =	8730	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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 =	11.84	acres
A_I =	10.48	acres
A_P =	1.36	acres
L_R =	10581	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	8730	lbs.
F =	0.83	

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 =	1.20	inches
Post Development Runoff Coefficient =	0.72	
On-site Water Quality Volume =	37277	cubic feet

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

Off-site area draining to BMP =	1.88	acres
Off-site Impervious cover draining to BMP =	0.81	acres
Impervious fraction of off-site area =	0.43	
Off-site Runoff Coefficient =	0.32	
Off-site Water Quality Volume =	2635	cubic feet
Storage for Sediment =	7982	
Total Capture Volume (required water quality volume(s) x 1.20) =	47894	cubic feet

ELI ENGINEERING
Firm # 17877

August 24, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment M – Construction Plans

To Whom It May Concern:

Construction plans, calculations, and specifications are provided to show the modifications and proposed construction for the project.

If you have any questions or need further assistance, please contact me at 512-658-8095.

Gary Eli Jones, P.E.
Authorized Agent

CIVIL SITE DEVELOPMENT PLANS
FOR
RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS
SD-21-00027

NO	DATE	REVISIONS/CORRECTIONS DESCRIPTION	ADD (D) VOID (V) SHEET #s	TOTAL # SHEETS IN PLAN SET	APPROVAL DATE	APPROVED BY
1	6-5-2023	REVISED SITE GRADING, UTILITIES,	SEE	87		
		DRAINAGE, WATER QUALITY POND, AND	INDEX			
		BUILDINGS 5-10.				

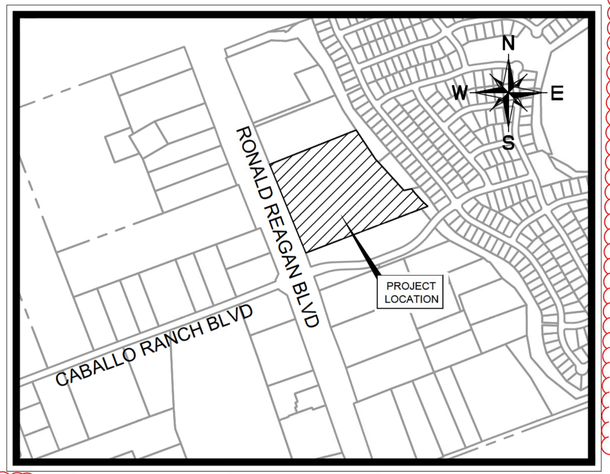
GENERAL PLAN NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF CEDAR PARK MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN. FIRM PANEL NO. 48491C0470F, WILLIAMSON COUNTY, TEXAS AND INCORPORATED AREAS (EFFECTIVE DATE DECEMBER 20, 2019).
3. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF CEDAR PARK, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
4. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES ON THIS SITE.
5. NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
6. 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.
7. AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
8. THIS SITE IS LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
9. APPROVAL OF THESE PLANS BY THE CITY OF CEDAR PARK INDICATES COMPLIANCE WITH 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.
10. FOR OUTDOOR CONDENSERS, UTILITY HUTS, AND OTHER BUILDING SERVICE EQUIPMENT, SUCH EQUIPMENT SHALL BE COMPLETELY SCREENED FROM VIEW ON ALL SIDES USING A VEGETATIVE SCREEN WITH AT LEAST TWO (2) VARIETIES OF PLANT MATERIAL FROM THE PREFERRED PLANT LIST THAT, AT MATURITY, IS AT LEAST THE HEIGHT OF THE EQUIPMENT TO BE SCREENED. (SEC. 14.07.009 (A) (2)).
11. EDWARD'S AQUIFER PROTECTION PROGRAM ID NO. 11002847. REGULATED ENTITY NO. RN111392940.
12. TDLR REGISTRATION NUMBER: TABS2022005402.
13. FLOODPLAIN DEVELOPMENT PERMIT NO: FLD-21-002
14. ALL EXISTING EASEMENTS ARE SHOWN.
15. SUBJECT SITE FALLS WITHIN TURKEY CREEK - BRUSHY CREEK WATERSHED
16. I CERTIFY THAT I HAVE PERSONALLY CONDUCTED A TOPOGRAPHIC REVIEW AND FIELD INVESTIGATION OF THE EXISTING AND PROPOSED FLOW PATTERNS FOR STORMWATER RUNOFF FROM THE SUBJECT DEVELOPMENT TO THE MAIN STEM OF TURKEY CREEK AND BRUSHY CREEK. AT BUILD-OUT CONDITIONS ALLOWABLE BY ZONING, RESTRICTIVE COVENANT OR PLAT NOTE, THE STORMWATER FLOWS FROM THE SUBJECT DEVELOPMENT WILL NOT CAUSE ANY ADDITIONAL ADVERSE FLOODING IMPACTS FOR STORMS OF MAGNITUDE UP THROUGH THE 100-YEAR EVENT.

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF TEN (10) ONE STORY COMMERCIAL BUILDINGS, TOTALING 150,188 SQUARE FEET OF A 15.20 ACRE SITE WITH ASSOCIATED PARKING, UTILITIES, AND WATER QUALITY IMPROVEMENTS CONSTRUCTED IN UP TO FOUR (4) PHASES.

THE ACCESS EASEMENT RECORDED UNDER DOCUMENT NUMBER 2022053562 SHALL BE REVISED AND RE-RECORDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.



VICINITY MAP
SCALE: 1" = 600'

REVISION 1 SHEETS ARE DONE UNDER THE DIRECTION OF GARY ELI JONES, P.E.

GARY ELI JONES, P.E.
ELI ENGINEERING, PLLC
700 THERESA CV
CEDAR PARK, TX 78613
512-658-8095

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 04, 2023

LANDSCAPE ARCHITECT
MELONCON DESIGN GROUP
1004 GREAT OAKS COVE
ROUND ROCK, TEXAS 78681
PH. (512) 560-1185

BLAIR LANDSCAPE ARCHITECTURE, LLC
2028 E BEN WHITE BLVD #240-7873
AUSTIN, TX 78741
512-961-5954

AUGUST 2022

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7	7	R	TREE PRESERVATION PLAN
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		R =	REPLACEMENT SHEET
		V =	VOID SHEET

LIST OF CONTACTS:

SANITARY SEWER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

BUILDING INSPECTIONS DEPARTMENT
CITY OF CEDAR PARK
450 CYPRESS CREEK ROAD
CEDAR PARK, TEXAS 78613
PH. (512) 401-5100
PERMITS@CEDARPARKTEXAS.GOV

WATER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

ELECTRIC
PEDERNALES ELECTRIC COOP.
1949 W. WHITESTONE BLVD.
CEDAR PARK, TEXAS 78630
PH. (512) 813-4589
CONTACT: CYNTHIA LEHOSKI

STORM SEWER
CITY OF CEDAR PARK
ENGINEERING DEPT.
450 CYPRESS CREEK ROAD, BLDG. I
CEDAR PARK, TEXAS 78613
PH. (512) 401-5000

FIRE DEPARTMENT
CITY OF CEDAR PARK
LIEUTENANT PAT FLYNN
450 CYPRESS CREEK ROAD
CEDAR PARK, TEXAS 78613
PH. (512) 401-5200

SURVEY
DONALD BOERNER SURVEYING COMPANY L.P.
228 HOLIDAY RD.
COMFORT, TEXAS 78013
PH: 830-377-2492

DEVELOPER
TRANSCEND GROUP HOLDINGS, LLC
3 SUGAR CREEK CENTER BLVD, STE 100
SUGAR LAND, TX 77478
PH: 832-304-0308

SITE PERMIT NOTES

1. A SITE DEVELOPMENT PERMIT SHALL EXPIRE TWO (2) YEARS FROM THE DATE SUCH PERMIT WAS APPROVED IF NO PROGRESS HAS BEEN MADE TOWARDS COMPLETION OF THE PROJECT, PURSUANT TO SECTION 245.005 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED. (SEC. 14.03.009 (A)).
2. ANY PROJECT, AS DEFINED UNDER CHAPTER 245 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED, SHALL EXPIRE ON THE FIFTH ANNIVERSARY OF THE DATE THE FIRST PERMIT APPLICATION WAS FILED FOR THE PROJECT, PURSUANT TO SECTION 245.005 OF THE TEXAS LOCAL GOVERNMENT CODE, AS AMENDED. (SEC. 14.03.009 (B)).

CEDAR PARK

Reviewed for Code Compliance
Signature required from all Departments

Planning Ellen Nelson Date
Engineering Services Date
Industrial Pretreatment Date
Fire Prevention Date
Landscape Planner Date
Addressing Date
Site Development Permit Number SD-21-00027

OWNERS: TPD TEXAS LLC
ADDRESS: 3220 PRENTISS LANE
LEANDER, TEXAS 78641
PHONE: (832) 304-0308 CELL:
ACREAGE: 15.195 TOTAL IMPERVIOUS COVER: ~~9.37~~ 10.48
LEGAL DESCRIPTION: 15.195 ACRES JOHN D ANDERSON SURVEY ABSTRACT NO 16
ADDRESS: 14300 RONALD REAGAN BLVD
LAND USE SUMMARY: REGIONAL OFFICE/ RETAIL/ COMMERCIAL
ZONING: LB DATE:
PERSON PREPARING PLAN: BRADLEY M. WILKINS, P.E.
COMPANY: KIMLEY-HORN
ADDRESS: 10814 JOLLYVILLE ROAD, AVALLON IV SUITE 200, AUSTIN, TEXAS 78759
PHONE: (512) 418-1771 CELL:
ENGINEER: BRADLEY M. WILKINS, P.E.
COMPANY: KIMLEY-HORN
ADDRESS: 10814 JOLLYVILLE ROAD, AVALLON IV SUITE 200, AUSTIN, TEXAS 78759
PHONE: (512) 418-1771 CELL:

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

PREPARED BY:

Kimley»Horn

10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 300
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928
Tel. No. (512) 418-1771
Fax No. (972) 239-3820

CONTACTS: BRADLEY M. WILKINS, PE

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

BRADLEY M. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

No.	REVISIONS	DATE	BY

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

RONALD REAGAN SQUARE

COVER SHEET

RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
1 OF 75

064518503

SD-21-00027

CONSTRUCTION NOTES FOR SUBDIVISIONS & SITE PLANS
CITY OF CEDAR PARK
REVISED MARCH 22, 2021

GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL CALL FOR ALL UTILITY LOCATES PRIOR TO ANY CONSTRUCTION. WATER & WASTEWATER OWNED BY THE CITY OF CEDAR PARK CAN BE LOCATED BY CALLING TEXAS 811 AT 1-800-344-8377. ALLOW THREE BUSINESS DAYS FOR UTILITY LOCATES BY THE CITY OF CEDAR PARK.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST CITY OF AUSTIN STANDARD SPECIFICATIONS. CITY OF AUSTIN STANDARDS SHALL BE USED UNLESS OTHERWISE NOTED.
3. DESIGN PROCEDURES SHALL BE IN GENERAL COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL. ALL VARIANCES TO THE MANUAL ARE LISTED BELOW: NONE.
4. BENCHMARKS SHOULD BE TIED TO THE CITY OF CEDAR PARK BENCHMARKS AND BE CORRECTLY "GEO-REFERENCED" TO STATE PLANE COORDINATES. A LIST OF THE CITY'S BENCHMARKS CAN BE FOUND AT: HTTP://WWW.CEDARPARKTEXAS.GOV/INDEX.ASPX?PAGE=793.
5. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR A SITE DEVELOPMENT PERMIT, THE RIGHT OF WAY BETWEEN THE PROPERTY LINE AND EDGE OF PAVEMENT / BACK OF CURB SHALL BE REVEGETATED ACCORDING TO COA SPECIFICATION 602S AND 606S. PRIOR TO CITY ACCEPTANCE OF SUBDIVISION IMPROVEMENTS ALL GRADED AND DISTURBED AREAS SHALL BE RE-VEGETATED IN ACCORDANCE WITH THE CITY OF AUSTIN SPECIFICATION ITEM #604 NATIVE SEEDING UNLESS NON- NATIVE IS SPECIFICALLY APPROVED.
6. THE CONTRACTOR SHALL PROVIDE THE CITY OF CEDAR PARK COPIES OF ALL TEST RESULTS PRIOR TO ACCEPTANCE OF SUBDIVISION IMPROVEMENTS.
7. CITY, OWNER, ENGINEER, CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, AND A REPRESENTATIVE FROM THE TESTING LAB SHALL ATTEND PRE-CONSTRUCTION CONFERENCE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL SCHEDULE THE MEETING WITH THE CITY OF CEDAR PARK ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS PRIOR TO THIS PRE-CONSTRUCTION MEETING (512-401-5000). FINAL CONSTRUCTION PLANS SHALL BE DELIVERED TO ENGINEERING A MINIMUM OF SEVEN BUSINESS DAYS PRIOR TO REQUESTING A PRE-CONSTRUCTION MEETING.
8. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF CEDAR PARK IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.
9. BURNING IS PROHIBITED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS MADE TO THE DESIGN OF UTILITIES OR IMPACTS UTILITIES SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS OR CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLES SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MAY BE REMOVED. REVISION INFORMATION SHALL BE UPDATED IN THE APPROPRIATE AREAS OF THE TITLE BLOCK.
11. MINIMUM SETBACK REQUIREMENTS FOR EXISTING AND NEWLY PLANTED TREES FROM THE EDGE OF PAVEMENT TO CONFORM TO THE REQUIREMENTS AS SHOWN IN TABLE 6-1 OF THE CITY OF AUSTIN'S TRANSPORTATION CRITERIA MANUAL.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY CITY UTILITY OR ANY INFRASTRUCTURE WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR, REGARDLESS OF THESE PLANS.
13. AN ENGINEER'S CONCURRENCE LETTER AND ELECTRONIC 22"X34" RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT PRIOR TO THE ISSUANCE OF CERTIFICATE OF OCCUPANCY OR SUBDIVISION ACCEPTANCE. THE ENGINEER AND CONTRACTOR SHALL VERIFY THAT ALL FINAL REVISIONS AND CHANGES HAVE BEEN MADE TO RECORD DRAWINGS PRIOR TO CITY SUBMITTAL. RECORD CONSTRUCTION DRAWINGS, INCLUDING ROADWAY AND ALL UTILITIES, SHALL BE PROVIDED TO THE CITY IN AUTOCAD ". DWG" FILES AND ".PDF" FORMAT ON A CD OR DVD. LINE WEIGHTS, LINE TYPES AND TEXT SIZE SHALL BE SUCH THAT IF HALF-SIZE PRINTS (11"X 17") WERE PRODUCED, THE PLANS WOULD STILL BE LEGIBLE. ALL REQUIRED DIGITAL FILES SHALL CONTAIN A MINIMUM OF TWO (2) CONTROL POINTS REFERENCED TO THE STATE PLANE GRID COORDINATE SYSTEM – TEXAS CENTRAL ZONE (4203), IN US FEET AND SHALL INCLUDE ROTATION INFORMATION AND SCALE FACTOR REQUIRED TO REDUCE SURFACE COORDINATES TO GRID COORDINATES IN US FEET.
14. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS.
15. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF CEDAR PARK MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
16. NO BLASTING IS ALLOWED ON THIS PROJECT.
17. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS SHALL BE SITE SPECIFIC AND SEAL BY A REGISTERED PROFESSIONAL ENGINEER.
18. THE CONTRACTOR SHALL KEEP THE SITE CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
19. SIGNS ARE NOT PERMITTED IN PUBLIC UTILITY EASEMENTS, SET BACKS OR DRAINAGE EASEMENTS.
20. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT TEMPORARY EROSION CONTROLS ON A DAILY BASIS. ADJUST THE CONTROLS AND/OR REMOVE ANY SEDIMENT BUILDUP AS NECESSARY. A STOP WORK ORDER AND/OR FINE MAY BE IMPOSED IF THE EROSION CONTROLS ARE NOT MAINTAINED.
21. A FINAL CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED ON COMMERCIAL SITES UNTIL ALL DISTURBED AREAS HAVE BEEN RE-VEGETATED. SUBSTANTIAL GRASS COVER, AS DETERMINED BY ENGINEERING DEPARTMENT, MUST BE ACHIEVED PRIOR TO THE ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY. ALL EROSION CONTROLS MUST REMAIN IN PLACE AND MAINTAINED UNTIL ALL DISTURBED AREAS HAVE BEEN RE-VEGETATED TO THE ACCEPTANCE OF THE CITY OF CEDAR PARK ENGINEERING DEPARTMENT. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR A SITE DEVELOPMENT PERMIT, THE RIGHT OF WAY BETWEEN THE PROPERTY LINE AND EDGE OF PAVEMENT / BACK OF CURB SHALL BE REVEGETATED ACCORDING TO COA SPECIFICATION 602S AND 606S.
22. CONTRACTOR WILL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER, ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY RESULT IN A STOP WORK ORDER OR A FINE.
23. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
24. A MINIMUM OF SEVEN DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ANY STREETS.
25. PRIOR TO PLAN APPROVAL, THE ENGINEER SHALL SUBMIT TO THE ENGINEERING DEPARTMENT DOCUMENTATION OF SUBDIVISION/SITE REGISTRATION WITH THE TEXAS DEPARTMENT OF LICENSING AND REGULATIONS (TDLR) AND PROVIDE DOCUMENTATION OF REVIEW AND COMPLIANCE OF THE SUBDIVISION/SITE CONSTRUCTION PLANS WITH TEXAS ARCHITECTURAL BARRIERS ACT (TABA).
26. PRIOR TO SUBDIVISION/SITE ACCEPTANCE, THE ENGINEER/DEVELOPER-OWNER SHALL SUBMIT TO THE ENGINEERING DEPARTMENT DOCUMENTATION THAT THE SUBDIVISION/SITE WAS INSPECTED BY TDLR OR A REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND THE SUBDIVISION/SITE IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE TABA.
27. ALL CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES SHALL BE PERFORMED MONDAY THRU FRIDAY FROM 7:00 A.M. TO 6:00 P.M. HOWEVER, CONSTRUCTION ACTIVITIES WITHIN ONE HUNDRED FEET (100') OF A DWELLING OR DWELLING UNIT SHALL BE PERFORMED BETWEEN THE HOURS OF 8:00 A.M. AND 6:00 P.M. OTHERWISE ALL CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES SHALL CONFORM TO CITY OF CEDAR PARK CODE OF ORDINANCES, SPECIFICALLY ARTICLE 8.08.
28. APPROVAL FOR CONSTRUCTION ACTIVITIES PERFORMED ON OWNER'S HOLIDAYS, AND/OR SATURDAYS, OUTSIDE OF MONDAY THROUGH FRIDAY 8 AM TO 5 PM, OR IN EXCESS OF 8 HOURS PER DAY SHALL BE OBTAINED IN WRITING 48 HOURS IN ADVANCE, AND INSPECTION FEES AT 1.5 TIMES THE HOURLY INSPECTION RATE SHALL BE BILLED DIRECTLY TO THE CONTRACTOR. THERE SHALL BE NO CONSTRUCTION OR CONSTRUCTION RELATED ACTIVITIES PERFORMED ON SUNDAY. THE CITY RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT CITY INSPECTION.
29. ALL POLES TO BE APPROVED BY CITY AND PEC, NO CONDUIT SHALL BE INSTALLED DOWN LOT LINES / BETWEEN HOMES. ALL CONDUIT SHALL BE LOCATED IN THE PUBLIC ROW OR IN AN EASEMENT ADJACENT TO AND PARALLEL TO THE PUBLIC ROW.
30. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE FIRST COURSE BASE. NO TRENCHING OF COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE ROW.
31. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAY(S) AND A PUBLIC STREET. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
32. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE ROW UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
33. CONTRACTORS ON SITE SHALL HAVE AN APPROVED SET OF PLANS AT ALL TIMES. FAILURE TO HAVE AN APPROVED SET MAY RESULT IN A STOP WORK ORDER.
34. CONTRACTOR TO CLEAR FIVE FEET BEYOND ALL RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
35. THERE SHALL BE NO WATER OR WASTEWATER APPURTENANCES, INCLUDING BUT NOT LIMITED TO, VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
36. SIDEWALKS SHALL NOT USE CURB INLETS AS A PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METER OR CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.

STREET NOTES:

1. NO TRENCHING OF COMPACTED BASE WILL BE ALLOWED. A PENALTY AND/OR FINE MAY BE IMPOSED TO THE GENERAL CONTRACTOR IF TRENCHING OF COMPACTED BASE OCCURS WITHOUT CITY APPROVAL, REGARDLESS OF WHO PERFORMED THE TRENCHING.
2. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF CEDAR PARK HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANTY OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
3. STREET BARRICADES SHALL BE INSTALLED ON ALL DEAD END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY.
4. ANY DAMAGE CAUSED TO EXISTING PAVEMENT, CURBS, SIDEWALKS, RAMPS, ETC., SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY PRIOR TO ACCEPTANCE OF THE SUBDIVISION.
5. AT INTERSECTIONS, WHICH HAVE VALLEY DRAINAGE, THE CROWN TO THE INTERSECTING STREET WILL BE CULMINATED AT A DISTANCE OF 40 FT. FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
6. THE SUBGRADE MATERIAL WAS TESTED BY ***(PSI, 2600 MCHALE COURT, SUITE 125, AUSTIN, TEXAS 78758, (512)-491-0200)*** ON ***(3/16/21)*** THE PAVEMENT SECTIONS WERE DESIGNED ACCORDINGLY. THE PAVEMENT SECTIONS ARE TO BE CONSTRUCTED AS FOLLOWS:

Table 2: Recommended Pavement Section Thickness, Inches

Expected Traffic	Average Daily Truck Traffic	Flexible Pavement		Rigid Pavement	
		HMAC	CLB	JRPCC	CLB
Passenger Vehicles	1	2.0	10	6	-
Heavy Duty Trucks*	Up to 10	2.0	12	6	-

7. DENSITY TESTING OF COMPACTED SUBGRADE MATERIAL, FIRST COURSE AND SECOND COURSE COMPACTED BASE, SHALL BE MADE AT 500 FOOT INTERVALS.
8. ALL DENSITY TESTING IS THE RESPONSIBILITY OF THE OWNER OR CONTRACTOR AND SHALL BE WITNESSED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE. THE CONTRACTOR IS TO NOTIFY THE CITY 48 HOURS PRIOR TO SCHEDULED DENSITY TESTING.
9. TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND INSTALLED AS DIRECTED BY THE CITY OF CEDAR PARK PRIOR TO CITY ACCEPTANCE OF THE SUBDIVISION.
10. SLOPE OF NATURAL GROUND ADJACENT TO THE RIGHT-OF-WAY SHALL NOT EXCEED 3:1. IF A 3:1 SLOPE IS NOT POSSIBLE, A RETAINING WALL OR SOME OTHER FORM OF SLOPE PROTECTION APPROVED BY THE CITY SHALL BE PLACED IN A LOCATION ACCEPTABLE TO THE CITY.
11. THE CITY, ENGINEER, CONTRACTOR, AND A REPRESENTATIVE FROM THE ASPHALT TESTING LAB SHALL ATTEND A PRE-PAVING CONFERENCE PRIOR TO THE START OF HMAC PAVING. THE CONTRACTOR SHALL GIVE THE CITY A MINIMUM OF 48 HOURS NOTICE PRIOR TO THIS MEETING (512-401-5000).
12. THE CONTRACTOR OR OWNER IS RESPONSIBLE FOR CONDUCTING TESTS ON ASPHALT PAVEMENT IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE CITY OF AUSTIN STANDARD SPECIFICATION NO. 340. ANY RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE CONDUCTED UNDER THE SUPERVISION OF THE ENGINEER AND THE CITY OF CEDAR PARK. RE-TESTING OF THE ASPHALT PAVEMENT SHALL BE LIMITED TO ONE RETEST PER PROJECT.
13. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL COMPLY WITH MUTCD STANDARDS. STREET NAME LETTER SIZING SHALL BE IN ACCORDANCE WITH MUTCDTABLE2D-2.PAVEMENT MARKINGS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
14. ALL STREET NAME SIGNS SHALL BE HIGH INTENSITY RETRO GRADE.
15. NO FENCING OR WALL IS ALLOWED TO BE CONSTRUCTED SO THAT IT OBSTRUCTS THE SIGHT LINES OF DRIVERS FROM AN INTERSECTING PUBLIC ROADWAY OR FROM AN INTERSECTING PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED AS DESCRIBED IN CITY CODE SECTION 14.05.007. INSTALLING A FENCE OR WALL WHICH DOES NOT COMPLY WITH THE CITY'S SIGHT DISTANCE REQUIREMENTS OR FENCING REGULATIONS IS A VIOLATION OF THE CITY'S ORDINANCE AND MAY BE PUNISHABLE PURSUANT TO SECTION 1.01.009 OF CITY CODE.
16. TEMPORARY ROCK CRUSHING OPERATIONS ARE NOT ALLOWED. ALL SOURCES FOR FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR THE PROPOSED STOCKPILES ARE TO BE SUBMITTED TO THE CITY'S PROJECT REPRESENTATIVE FOR REVIEW AND APPROVAL.
17. UTILITY SERVICE BOXES OR OTHER UTILITY FACILITIES SHALL NOT BE INSTALLED WITHIN AREAS DETERMINED TO BE REQUIRED SIGHT LINES OF TWO INTERSECTING PUBLIC STREETS OR WITHIN SIGHT LINES OF A PRIVATE DRIVEWAY. SIGHT LINES ARE TO BE MAINTAINED COMPLIANT WITH TABLE 1-1 OF THE AUSTIN TRANSPORTATION CRITERIA MANUAL. UTILITIES DETERMINED BY THE DIRECTOR OF ENGINEERING TO BE PLACED WITHIN REQUIRED SIGHT LINES MAY BE REQUIRED TO BE RELOCATED AT THE EXPENSE OF THE CONTRACTOR PRIOR TO THE CITY ISSUING A CERTIFICATE OF OCCUPANCY OR PRIOR TO THE CITY'S ACCEPTANCE OF THE PROJECT IMPROVEMENTS.
18. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL BY THE DIRECTOR OF ENGINEERING AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY CITY DURING THE PEAK HOURS OF 6 AM TO 9 AM, OR 4 PM TO 8 PM WILL BE SUBJECT TO FINE PER CHAPTER 1 OF CITY ORDINANCE, AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION RETAINED BY THE CONTRACTOR FROM THE PROPERTY OWNER(S) OR ACCESS EASEMENT RIGHT HOLDER(S) OF THE DRIVEWAY ALLOWING FULL CLOSURE OF THE DRIVEWAY.
20. TREES MUST NOT OVERHANG WITHIN 10' VERTICALLY OF A SIDEWALK, OR 18' VERTICALLY OF A ROADWAY OR DRIVEWAY.

WASTEWATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH THE CITY APPROVAL. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
3. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BIDDING THE PROJECT.
4. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
5. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN MINIMUM COVER SPECIFICATIONS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
6. WHERE 48-INCHES OF COVER BELOW SUBGRADE CANNOT BE ACHIEVED FOR WASTEWATER SERVICE LINES ALTERNATE MATERIALS MAY BE USED. A MINIMUM OF 36-INCHES OF COVER BELOW SUBGRADE SHALL BE ACHIEVED. ANY WASTEWATER SERVICE LINE WITH COVER BETWEEN 36-INCH AND 48INCHES SHALL BE SDR-26 PVC PRESSURE PIPE.
7. GASKETED PVC SEWER MAIN FITTINGS SHALL BE USED TO CONNECT SDR-35 PVC TO SDR-26 PVC PRESSURE PIPE OR C-900.
8. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
   WASTEWATER- ***PVC - SDR-26***
   FORCE MAIN- ***N/A***
   (NOTE: IF USING PVC, SDR-26 IS REQUIRED, SDR-35 WW IS NOT ALLOWED. FORCEMAINS SHALL BE EPOXY LINED DUCTILE IRON)
9. ALL SANITARY SEWERS, EXCLUDING SERVICE LINES, SHALL BE MANDREL TESTED PER TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) CRITERIA. A MANDREL TEST WILL NOT BE PERFORMED UNTIL BACKFILL HAS BEEN IN PLACE FOR A MINIMUM OF 30 DAYS.
10. ALL WASTEWATER LINES 10" AND LARGER SHALL BE VIDEO RECORDED ACCORDING TO COA 510 AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL SUPPLY TWO COPIES TO THE CITY'S FIELD REPRESENTATIVE. NO SEPARATE PAY UNLESS NOTED ON THE BID FORM.
11. ALL SANITARY SEWERS, INCLUDING SERVICE LINES, SHALL BE AIR TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS.
12. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
13. CITY SHALL BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
14. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR18) 150 PSI RATED PVC IN SIZES TO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZES LARGER THAN 12 INCHES. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
15. THE ALLOWABLE (MAXIMUM) ADJUSTMENT FOR A MANHOLE SHALL BE 12" (INCHES) OR LESS.
16. WHERE A SEWER LINE CROSSES A WATER LINE, THE SEWER LINE SHALL BE ONE 20 FT. JOINT OF 150 PSI RATED PVC CENTERED ON CROSSING.
17. ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
18. CONTRACTOR TO NOTIFY, AND OBTAIN APPROVAL FROM, THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING CITY UTILITIES.
19. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
20. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
21. ALL WASTEWATER MANHOLES TO BE COATED WITH ORGANIC MATERIALS AND PROCEDURES LISTED IN CITY OF AUSTIN QUALIFIED PRODUCTS LIST NO. WW-511 (WW-511A AND WW-511B ARE NOT ALLOWED UNLESS MANHOLE IS BEING STRUCTURALLY REHABILITATED WITH APPROVAL BY PUBLIC WORKS). ALL MANHOLES WILL BE PRE-COATED OR COATED AFTER TESTING.
22. POLYBRID COATINGS ON WASTEWATER MANHOLES WILL NOT BE ALLOWED. ANY OTHER PRODUCT APPEARING ON THE COA SPL WW-511 IS ACCEPTABLE.
23. ALL PENETRATIONS OF EXISTING WASTEWATER MANHOLES ARE REQUIRED TO BE RE-COATED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED IN NOTE 20.
24. ALL MANHOLES WILL BE VACUUM TESTED ONLY.
25. TRACER TAPE AND MARKING TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS, REGARDLESS OF THE TYPE OF PIPE.
26. ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS.

WATER NOTES:

1. REFER TO THE CITY OF CEDAR PARK PUBLIC WORKS UTILITY POLICY AND SPECIFICATIONS MANUAL.
2. THE TOP OF VALVE STEMS SHALL BE AT LEAST 18", AND NO MORE THAN 36", BELOW FINISHED GRADE. VALVE STEM RISERS SHALL BE WELDED ON EACH END TO THE CITY'S SATISFACTION.
3. FIRE HYDRANT LEADS TO BE DUCTILE IRON, CLASS 350, AND INSTALLED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND DETAIL.
4. PRIOR TO INSTALLATION OF FIRE HYDRANTS, THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) CUT FROM A HUB PIN, ESTABLISHING THE ELEVATION OF THE BURY LINE.
5. THE ENGINEER SHALL PROVIDE CUTS FOR ALL WATER LINES AT ALL STORM SEWER CROSSINGS TO THE CITY OF CEDAR PARK.
6. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES:
   - WATER - POLYVINYL CHLORIDE (PVC), AWWA STANDARD C900 CLASS 200 (DR-14). COPPER PIPE AND FITTINGS ARE NOT PERMITTED WITHIN THE RIGHT-OF-WAY. MINIMUM DR-14 12" DIA AND SMALLER. MINIMUM CLASS 250 DI LARGER THAN 12" DIA.
7. APPROVED 5 ¼" FIRE HYDRANTS:
   - AMERICAN FLOW CONTROL, B84B
   - MUELLER COMPANY, SUPER CENTURION 250
   - CLOW MEDALLION HYDRANT
   - AMERICAN AVK COMPANY, SERIES 27 (MODEL 2780)
   - ALL FIRE HYDRANTS MUST MEET CITY OF CEDAR PARK THREAD SPECIFICATIONS (NATIONAL THREAD)
   - BLUE REFLECTOR MARKERS SHALL BE LOCATED ON THE CENTERLINE OF THE PAVEMENT ACROSS
   - FROM ALL FIRE HYDRANTS. PAVEMENT MARKERS AT INTERSECTIONS SHALL BE FOUR-SIDED.
8. SHOULD A TAPPING SADDLE BE APPROVED BY PUBLIC WORKS, THE SADDLE SHALL BE SMITH-BLAIR 662 STAINLESS STEEL TAPPING SLEEVES WITH ALL STAINLESS HARDWARE, OR APPROVED EQUAL. REQUESTS FOR ALTERNATE PROVIDERS SHALL BE MADE TO THE CITY OF CEDAR PARK PUBLIC WORKS. NO TAP EXCEEDING 2" IN DIAMETER WILL BE APPROVED.
9. ALL WATER LINES, INCLUDING SERVICE LINES, SHALL BE PRESSURE AND LEAK TESTED PER CITY OF AUSTIN STANDARD SPECIFICATIONS AND WITNESSED BY THE CITY OF CEDAR PAR REPRESENTATIVE.ALL TESTING IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE CONTRACTOR MAY BE REQUIRED TO RE-TEST LINES IF THE TESTING IS NOT WITNESSED BY THE CITY. CONTRACTOR MUST NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO ANY TESTING.
10. ALL WATER LINES SHALL BE STERILIZED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH CITY OF AUSTIN STANDARDS. THE CONTRACTOR IS RESPONSIBLE FOR STERILIZATION AND THE CITY OF CEDAR PARK IS RESPONSIBLE FOR SUBMITTING BACTERIOLOGICAL SAMPLES TO THE STATE. PUBLIC WORKS WILL REQUIRE A CONTRACTOR SPECIALIZED IN DISINFECTION FOR LARGE DIAMETER LINES OR CRITICAL INFRASTRUCTURE, SUBSIDIARY TO PIPE INSTALLATION.
11. DENSITY TESTING OF COMPACTED BACKFILL SHALL BE MADE AT A RATE OF ONE TEST PER TWO FOOT LIFTS PER 500 FEET OF INSTALLED PIPE.
12. CONTRACTOR TO OBTAIN A WATER METER FROM THE CITY OF CEDAR PARK FOR ANY WATER THAT MAY BE REQUIRED DURING CONSTRUCTION. (512-401-5000)
13. ALL WATER METER BOXES SHALL BE FORD GULF METER BOX WITH LOCKING LID.
   - SINGLE G-148-233
   - DUAL DG-148-243
   - 1" METER YL111 - 444
   - 1 ½" – 2" METER 1730-R (LID) & 1730-12 (BOX)/ACCEPTABLE BOXES FOR THIS SIZE OF METER
14. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE, WHEN IN PUBLIC STREETS, AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION.
15. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
16. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH AT LEAST 8 MIL. POLYETHYLENE WRAP.
17. ALL WATER MAINS, WASTEWATER MAINS AND SERVICE LINES SHALL MEET CITY OF AUSTIN SPECIFICATIONS FOR MINIMUM COVER REQUIREMENTS. ALL STREETS ARE TO BE CUT TO SUBGRADE PRIOR TO INSTALLATION OF WATER MAINS OR CUTS WILL BE ISSUED BY THE ENGINEER.
18. CITY TO BE GIVEN 48 HOURS NOTICE PRIOR TO ALL TESTING OF WATER AND WASTEWATER LINES. CITY INSPECTION IS REQUIRED FOR ALL TESTING OF WATER AND WASTEWATER LINES.
19. WHERE A WATER OR WASTEWATER LINE CROSSES ABOVE (OR BELOW) A STORM SEWER STRUCTURE AND THE BOTTOM (OR TOP) OF THE PIPE IS WITHIN 18 INCHES OF THE TOP (OR BOTTOM) OF THE UTILITY STRUCTURE, THE PIPE SHALL BE ENCASED WITH CONCRETE FOR A DISTANCE OF AT LEAST 1 FT. ON EITHER SIDE OF THE DITCH LINE OF THE UTILITY STRUCTURE OR THE STORM SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED FOR DUCTILE IRON (THICKNESS CLASS 50), AWWA C-900 (SDR18) 150 PSI RATED PVC IN SIZES TO 12 INCHES OR AWWA C-905 (SDR-25) 165 PSI RATED PVC IN SIZES LARGER THAN 12 INCHES. CONCRETE ENCASEMENT SHALL CONFORM TO C.O.A. STANDARD DETAIL 505-1.
20. CONTRACTOR TO NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING UTILITIES.
21. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
22. TRACER TAPE SHALL BE INSTALLED ON ALL WATER AND WASTEWATER MAINS REGARDLESS OF THE TYPE OF PIPE OR DEPTH OF PIPE INSTALLED.
23. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
24. THE CITY CONSIDERS PROTECTION OF ITS WATER SYSTEM PARAMOUNT TO CONSTRUCTION ACTIVITIES.CITY PERSONNEL WILL OPERATE, OR AUTHORIZE THE CONTRACTOR TO OPERATE, ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY NOT OPERATE ANY WATER VALVE, EXISTING OR PROPOSED, THAT WILL ALLOW WATER FROM THE CITY'S WATER SYSTEM TO FLOW TO A PROPOSED OR EXISTING WATER SYSTEM WITHOUT THE EXPRESS CONSENT OF THE CITY. NOTIFY THE CITY TWO BUSINESS DAYS IN ADVANCE OF ANY REQUEST TO OPERATE A WATER VALVE. THE GENERAL CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
25. ALL WATER VALVES OVER 24" IN SIZE SHALL HAVE A BY-PASS LINE AND VALVE INSTALLED. BY-PASS VALVES AND LINES ARE SUBSIDIARY TO THE COST OF THE VALVE UNLESS SPECIFICALLY IDENTIFIED ON THE BID FORM.
26. ALL WATER VALVES, INCLUDING THOSE OVER 12" IN SIZE, SHALL BE GATE VALVES.
27. A DOUBLE CHECK BACKFLOW DEVICE IN A VAULT SHALL BE INSTALLED AT THE PROPERTY LINE ON ALL PRIVATE FIRE LINES. A DETECTOR WATER METER WILL BE INSTALLED ON THIS BACKFLOW DEVICE, AND IT MUST BE A SENSUS SRII 3/4" METER WITH AMI RADIO READ CAPABILITY. THE CITY WILL PROVIDE THIS METER. PLEASE REFERENCE THE CITY OF CEDAR PARK DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY DETAIL.
28. ALL POTABLE WATER SYSTEM COMPONENTS INSTALLED AFTER JANUARY 4, 2014, SHALL BE "LEAD FREE" ACCORDING TO THE UNITED STATES SAFE DRINKING WATER ACT. THE ONLY COMPONENTS EXEMPT FROM THIS REQUIREMENT ARE FIRE HYDRANTS. COMPONENTS THAT ARE NOT CLEARLY IDENTIFIED BY THE MANUFACTURER AS MEETING THIS REQUIREMENT BY MARKING, OR ON THE PRODUCT PACKAGING, OR BY PRE-APPROVED SUBMITTAL, WILL BE REJECTED FOR USE. A NSF CERTIFICATION WILL BE ADEQUATE IF THE CERTIFICATION HAS NOT EXPIRED AS OF JANUARY 4, 2014 AND REMAINS UNEXPIRED AT THE TIME OF CONSTRUCTION.
29. ALL PRESSURE PIPE SHALL HAVE MECHANICAL RESTRAINT AND CONCRETE THRUST BLOCKING AT ALL VALVES, BENDS, TEES, PLUGS, AND OTHER FITTINGS.

STORM SEWER NOTES:

1. MANHOLE FRAMES AND COVERS AND WATER VALVE BOXES SHALL BE RAISED TO FINISHED PAVEMENT GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR WITH CITY INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING CONSTRUCTION. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND JUNCTION BOXES WITH CLASS A CONCRETE.
2. ALL MANHOLE LIDS SHALL BE 32" OR LARGER, UNLESS EXPRESSLY APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
3. THE LOCATION OF ANY EXISTING UTILITY LINES SHOWN ON THESE PLANS IS THE BEST AVAILABLE AND MAY NOT BE ACCURATE. ANY DAMAGE TO EXISTING UTILITY LINES, BOTH KNOWN AND UNKNOWN, SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
4. PIPE MATERIALS TO BE USED FOR CONSTRUCTION OF UTILITY LINES: UNLESS OTHERWISE SPECIFIED BY THE ENGINEER, ALL STORM SEWER RCP SHALL BE CLASS III. CORRUGATED METAL PIPE IS NOT PERMITTED.
5. ALL MANHOLE AND INLET COVERS SHALL READ "CITY OF CEDAR PARK".
6. CONTRACTOR TO NOTIFY THE CITY OF CEDAR PARK 48 HOURS PRIOR TO CONNECTING TO EXISTING UTILITIES.
7. ALL PIPE BEDDING MATERIAL SHALL CONFORM TO CITY OF AUSTIN STANDARD SPECIFICATIONS.
8. UNLESS OTHERWISE SPECIFIED BY THE ENGINEER ALL CONCRETE IS TO BE CLASS "A" (5 SACK, 3000 PSI ~ 28-DAYS), AND ALL REINFORCING STEEL TO BE ASTM A615 60.
9. CONTRACTOR TO INSTALL AND MAINTAIN GEO-TEXTILE FABRIC BARRIER (INLET PROTECTION) AROUND STORM SEWER LEADS AND INLETS TO PREVENT SILT AND OTHER MATERIAL FROM ENTERING THE STORM SEWER COLLECTION SYSTEM.
10. INSTALL CONCRETE SAFETY END TREATMENTS TO ALL CULVERTS AND ENDS OF DRAINAGE PIPE.
11. ALL CURB INLETS SHALL HAVE AN ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER.

SEQUENCE OF CONSTRUCTION NOTES:

THE FOLLOWING SEQUENCE OF CONSTRUCTION SHALL BE USED FOR ALL DEVELOPMENT. THE APPLICANT IS ENCOURAGED TO PROVIDE ANY ADDITIONAL DETAILS APPROPRIATE FOR THE PARTICULAR DEVELOPMENT.

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 AND INITIATE TREE MITIGATION MEASURES.
2. THE GENERAL CONTRACTOR MUST CONTACT THE CITY INSPECTOR AT 512-401-5000, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
3. 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 CITY OF AUSTIN DRAINAGE 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. UNDERGROUND UTILITIES WILL BE INSTALLED, INCLUDING FIRE HYDRANTS.
8. FIRE DEPARTMENT ACCESS WILL BE INSTALLED WHERE REQUIRED BY APPROVED SITE PLAN.
9. VERTICAL CONSTRUCTION MAY OCCUR AFTER THE PRE-VERTICAL INSPECTION HAS BEEN CLEARED BY THE FIRE MARSHAL.
10. PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
11. COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
12. 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 CITY 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 CITY INSPECTOR.
13. UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE CITY 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 CITY INSPECTOR.
14. 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.

CEDAR PARK FIRE DEPARTMENT SITE DEVELOPMENT STANDARDS

FIRE APPARATUS ACCESS ROADS (FIRE LANES)

1. FIRE APPARATUS ACCESS ROADS SHALL:

A. HAVE AN INSIDE RADIUS OF 25 FEET THROUGHOUT THE TURNING MOVEMENT, AND AN OUTSIDE RADIUS OF 50 FEET; ALL RADII LABELED ON PLANS

B. BE INSTALLED SUCH THAT NO DEAD-END STRETCH IS GREATER THAN 150 FEET IN LENGTH WITHOUT AN APPROVED AREA FOR TURNING AROUND FIRE APPARATUS

C. HAVE A MINIMUM INSIDE RADIUS OF 28 FEET

D. HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET; 26 FEET REQUIRED WHEN HYDRANTS ARE PRESENT ALONG THE FIRE APPARATUS ACCESS ROAD OR FOR AERIAL APPARATUS ACCESS ROADS

E. IF LONGER THAN 500 FEET, HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 26 FEET

F. HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES; AERIAL APPARATUS ACCESS ROADS SHALL HAVE NO VERTICAL OVERHANGS

G. SHALL HAVE A GRADE WITHIN THE LIMITS ESTABLISHED BY THE FIRE CODE OFFICIAL BASED ON THE CEDAR PARK FIRE DEPARTMENT'S APPARATUS

I. CURRENTLY, CEDAR PARK REQUIRES THAT NO GRADE SHALL BE STEEPER THAN 12%; NO ANGLES OF APPROACH OR DEPARTURE SHALL HAVE AN ALGEBRAIC DIFFERENCE OF GREATER THAN 8% WITHIN ANY 50-FOOT LENGTH

H. BE MARKED BY LINES OF RED TRAFFIC PAINT OR DYE A MINIMUM OF 6 INCHES IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE

I. THE WORDS "FIRE LANE TOW AWAY ZONE" SHALL APPEAR IN 4 INCH WHITE LETTERS NO GREATER THAN 35 FEET APART

A. THESE WORDS SHALL BE MARKED WITHIN THE RED STRIPE

II. FIRE LANE STRIPING SHALL BE CONTINUOUS THROUGHOUT

III. CURB FACING SHALL BE USED WHERE AVAILABLE

A. WHERE THERE IS NO CURB, LAY DOWN STRIPING SHALL BE USED

2. BE MAINTAINED IN AN EASILY DISTINGUISHABLE CONDITION THROUGHOUT CONSTRUCTION*

A. WHERE THIS IS IMPOSSIBLE OR IMPRACTICAL, SIGNS APPROVED BY THE FIRE CODE OFFICIAL MAY BE USED

I. ALL CONSTRUCTION VEHICLES AND CONSTRUCTION WORKER VEHICLES MUST BE PARKED ON SITE

II. NO VEHICLE SHALL BE ALLOWED TO PARK OR STOP IN THE FIRE APPARATUS ACCESS ROADS, WHETHER OCCUPIED OR UNOCCUPIED

**THESE REQUIREMENTS ARE REPEATED IN THE FOLLOWING SECTION, FIRE PROTECTION DURING CONSTRUCTION*

3. FIRE LANE SHALL EXTEND TO WITHIN

A. 150 FEET OF ALL PORTIONS OF THE FACILITY

B. ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING

C. INTO INTERIOR COURTYARDS AS APPROVED BY THE FIRE CODE OFFICIAL

4. PLEASE NOTE THAT FIRE APPARATUS ACCESS ROADS SHALL BE INSTALLED

A. PRIOR TO COMBUSTIBLE MATERIALS ARRIVING ON SITE AND

B. PRIOR TO THE ONSET OF VERTICAL CONSTRUCTION

5. COMPACTED ROAD BASE

A. CONTRACTOR SHOULD PLAN TO INSTALL FIRST LIFT OF ASPHALT

B. ROAD BASE IS NOT CONSIDERED A SUBSTITUTE FOR AN APPROVED FIRE APPARATUS ACCESS ROAD, WITH THE FOLLOWING EXCEPTION:

I. COMPACTED BASE MAY BE USED AS FIRE APPARATUS ACCESS ROAD DURING CONSTRUCTION IF APPROVED BY THE FIRE MARSHAL'S OFFICE

A. PERMISSION MUST BE GRANTED IN PERSON

B. A COMPACTION REPORT SHALL BE SUBMITTED BY A THIRD-PARTYGROUP PRIOR TO VERTICAL CONSTRUCTION AND AT ANY TIME THROUGHOUT THE CONSTRUCTION PROCESS WHEN DEEMED NECESSARY BY THE FIRE MARSHAL'S OFFICE

C. REQUIRED COMPACTION IS 100% OF OPTIMAL DENSITY THROUGHOUT

D. FAILURE TO MAINTAIN COMPACTED BASE MAY RESULT IN A HALT IN CONSTRUCTION UNTIL ACCESS IS RESTORED ACCORDING TO THESE STANDARDS

E. EVEN WITH COMPACTED BASE, ALL CONCRETE DRIVEWAY APPROACHES MUST BE INSTALLED

FIRE PROTECTION DURING CONSTRUCTION

1. DURING CONSTRUCTION, FIRE APPARATUS ACCESS ROADS SHALL: *

A. BE MAINTAINED IN AN EASILY DISTINGUISHABLE CONDITION THROUGHOUT CONSTRUCTION*

B. WHERE THIS IS IMPOSSIBLE OR IMPRACTICAL, SIGNS APPROVED BY THE FIRE CODE OFFICIAL MAY BE USED

I. ALL CONSTRUCTION VEHICLES AND CONSTRUCTION WORKER VEHICLES MUST BE PARKED ON SITE

II. NO VEHICLE SHALL BE ALLOWED TO PARK OR STOP IN THE FIRE APPARATUS ACCESS ROADS, WHETHER OCCUPIED OR UNOCCUPIED

**THESE REQUIREMENTS ARE ALSO LISTED IN ABOVE SECTION REGARDING FIRE APPARATUS ACCESS ROADS.*

2. AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE PRIOR TO COMBUSTIBLE MATERIALS ARRIVING ON SITE AND PRIOR TO THE ONSET OF VERTICAL CONSTRUCTION

3. STRUCTURES UNDER CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE PROVIED WITH NOT LESS THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER IN ACCORDANCE WITH IFC SECTION 906 (MINIMUM SIZE OF 3A:40B:C) AND SIZED FOR NOT LESS THAN ORDINARY HAZARDS AS FOLLOWS

A. AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED

B. IN EVERY STORAGE AND CONSTRUCTION HEAD

C. ANYWHERE SPECIAL HAZARDS EXIST, INCLUDING BUT NOT LIMITED TO, THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

FIRE HYDRANTS

1. WHERE FIRE HYDRANTS ARE SUBJECT TO IMPACT BY A MOTOR VEHICLE, GUARD POSTS SHALL BE CONSTRUCTED AS SET FORTH IN IFC SECTION 312 AND COMPLY WITH THE FOLLOWING REQUIREMENTS:

A. CONSTRUCTED OF STEEL NOT LESS THAN 4 INCHES IN DIAMETER, FILLED COMPLETELY WITH CONCRETE

B. SPACED NOT MORE THAN 4 FEET ON CENTER BETWEEN POSTS

C. SET NOT LESS THAN 3 FEET DEEP IN A CONCRETE FOOTING OF NOT LESS THAN 15 INCHES IN DIAMETER

D. SET WITH THE TOP OF THE POSTS NOT LESS THAN 3 FEET ABOVE GRADE

E. LOCATED NOT LESS THAN 3 FEET FROM THE PROTECTED OBJECT

FIRE DEPARTMENT CONNECTIONS (FDC)

1. FIRE DEPARTMENT CONNECTIONS MUST

A. BE INSTALLED ON THE FRONT OF THE BUILDING,

I. IN A LOCATION THAT IS READILY VISIBLE FROM THE APPROVED FIRE APPARATUS ACCESS ROAD

B. HAVE A MINIMUM OF 36 INCHES OF CLEAR SPACE MAINTAINED AROUND THE CIRCUMFERENCE OF THE FDC

C. HAVE A FIRE HYDRANT WITHIN 100 FEET OF THE FDC AND BE LOCATED IN SUCH A WAY THAT THE CONNECTION DOES NOT OBSTRUCT THE FIRE APPARATUS ACCESS ROAD FOR OTHER ARRIVING FIRE APPARATUS

D. NOT BE BLOCKED FROM VIEW OR USE BY

I. STRUCTURAL MEMBERS

II. PARKING SPACES

III. TREES

IV. LANDSCAPING, ETC.

2. WHERE AN FDC IS SUBJECT TO IMPACT BY A MOTOR VEHICLE

A. GUARD POSTS SHALL BE CONSTRUCTED AS SET FORTH IN IFC SECTION 312 AND COMPLY WITH THE FOLLOWING REQUIREMENTS:

I. CONSTRUCTED OF STEEL NOT LESS THAN 4 INCHES IN DIAMETER, FILLED COMPLETELY WITH CONCRETE

II. SPACED NOT MORE THAN 4 FEET ON CENTER BETWEEN POSTS

III. SET NOT LESS THAN 3 FEET DEEP IN A CONCRETE FOOTING OF NOT LESS THAN 15 INCHES IN DIAMETER

IV. SET WITH THE TOP OF THE POSTS NOT LESS THAN 3 FEET ABOVE GRADE

V. LOCATED NOT LESS THAN 3 FEET FROM THE PROTECTED OBJECT

3. A REMOTE FDC MAY BE USED WHERE APPROVED BY THE FIRE CODE OFFICIAL; THIS IS RARE

A. DETAILED PLANS SHALL BE REQUIRED IN THIS CASE

FLAMMABLE/COMBUSTIBLE WASTE AND STORAGE

1. FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE AREAS SHALL

A. BE MAINTAINED CLEAR OF COMBUSTIBLE VEGETATION AND WASTE MATERIALS

B. NOT BE USED FOR THE STORAGE OF OTHER COMBUSTIBLE MATERIALS

2. COMBUSTIBLE DEBRIS, RUBBISH, AND WASTE MATERIAL SHALL

A. NOT BE ALLOWED TO ACCUMULATE WITHIN BUILDINGS

B. BE REMOVED FROM BUILDINGS AT THE END OF EACH SHIFT OR WORK DAY

C. NOT BE DISPOSED OF BY BURNING ON SITE*

**NOTE THAT OPEN BURNING OF ANY TYPE IS PROHIBITED ON CONSTRUCTION SITES WITHIN THE JURISDICTION OF THE CEDAR PARK FIRE DEPARTMENT*

3. MATERIALS SUSCEPTIBLE TO SPONTANEOUS IGNITION, SUCH AS OILY RAGS, SHALL BE STORED IN A UL LISTED DISPOSAL CONTAINER

A. CONTENTS OF SUCH CONTAINERS SHALL BE REMOVED AND DISPOSED OF DAILY

B. STORAGE OF COMBUSTIBLE RUBBISH SHALL NOT PRODUCE CONDITIONS THAT WILL CREATE A NUISANCE OR BE A HAZARD TO PUBLIC HEALTH, SAFETY, OR WELFARE

4. COMBUSTIBLE WASTE MATERIAL CREATING A FIRE HAZARD SHALL NOT BE ALLOWED TO ACCUMULATE IN BUILDINGS OR STRUCTURES, OR ON PREMISES

5. OUTSIDE STORAGE OF COMBUSTIBLE MATERIALS SHALL NOT BE LOCATED WITHIN 10 FEET OF A PROPERTY LINE

SECURITY GATES

1. THE INSTALLATION OF SECURITY GATES ACROSS FIRE APPARATUS ROADS SHALL

A. BE LOCATED IN A MANNER THAT ALLOWS THE ENTIRE FIRE APPARATUS TO BE CLEAR OF THE STREET BEFORE NEEDING TO STOP TO OPERATE THE GATE

B. BE APPROVED BY THE FIRE CODE OFFICIAL

C. HAVE AN APPROVED MEANS OF EMERGENCY OPERATION

2. MECHANICAL GATES REQUIRE A KNOX KEY SWITCH

3. MANUAL GATES REQUIRE AN EXTERIOR GRADE KNOX PAD LOCK

4. THE SECURITY GATES AND EMERGENCY OPERATION COMPONENTS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES

5. SHALL HAVE AN UNOBSTRUCTED WIDTH OF 20'; GREATER WIDTH REQUIRED BY THE FIRE CODE OFFICIAL

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION SHOULD BE PROVIDED TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION SHOULD INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR WITH THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM MAY BE INSTALLED WITHIN 150 FEET IF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL.
4. PRIOR TO COMMENCING CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE SWPPP SECTION OF THE APPROVED EDWARDS AQUIFER CONTRIBUTING ZONE PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
5. 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).
6. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
7. 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).
8. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE AND STORED ON-SITE MUST HAVE PROPER E&S CONTROLS INSTALLED.
9. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND CONSTRUCTION ACTIVITIES WILL NOT RESUME WITHIN 21 DAYS. WHEN THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
11. THE HOLDER OF ANY APPROVED CONTRIBUTING ZONE 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 BEST MANAGEMENT PRACTICES OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
   B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
   C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARD
   D. AQUIFER AND HYDROLOGICALLY CONNECTED SURFACE WATER; OR
   E. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED IN A CONTRIBUTING ZONE PLAN AS UNDEVELOPED.

AUSTIN REGIONAL OFFICE
2800 S. IH 35, SUITE 100
AUSTIN, TEXAS 78704-5712
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.

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED PROFESSIONAL ENGINEER
08/08/2022

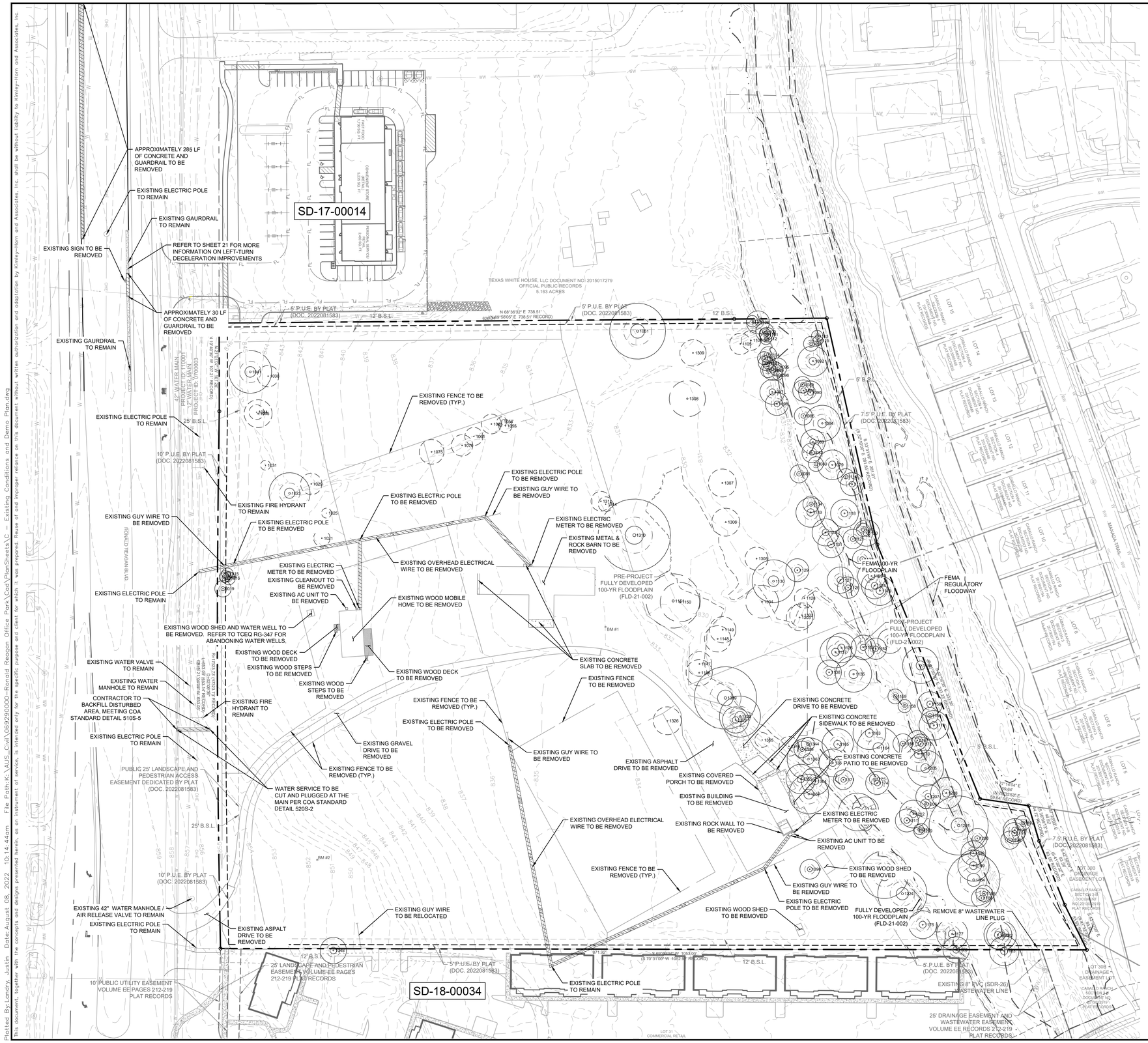
KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

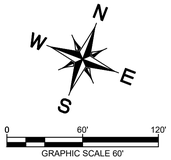
GENERAL NOTES

RONALD REAGAN SQUARE
14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
4 OF 75

SD-21-00027





LEGEND

- PROPERTY LINE
- WASTEWATER LINE
- EXISTING CONTOUR LINE
- EXISTING WATER LINE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE
- EXISTING CABLE TV BOX
- EXISTING WATER METER
- EXISTING PROPERTY MARKER
- EXISTING GAS MARKER SIGN
- EXISTING ELECTRIC MANHOLE
- BENCHMARK
- DEMOLISH EXISTING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED

NOTES:

1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY DONNIE BOERNER SURVEYING COMPANY L.P. ON JULY 14, 2020. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
2. CONTRACTOR SHALL REMOVE ALL EXISTING FENCES INTERNAL TO THE PROPERTY
3. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION
4. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS DIRECTLY FOR OVERHEAD ELECTRIC REMOVAL AND RELOCATION
5. PRIOR TO CONNECTING TO CITY OF CEDAR PARK WATER AND WASTEWATER, ANY EXISTING ON-SITE SEPTIC SYSTEM FACILITY (OSSF) LOCATED ON THIS PROPERTY MUST BE PROPERLY ABANDONED IN ACCORDANCE WITH TCEQ REQUIREMENTS OUTLINED IN 0 TAC 285.36
6. REFER TO DEMOLITION NOTES ON SHEET 5

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

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STATE OF TEXAS
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141652
LICENSED PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000	DESIGNED BY: JML
DATE AUGUST 2022	DRAWN BY: JML
SCALE: AS SHOWN	CHECKED BY: BMW

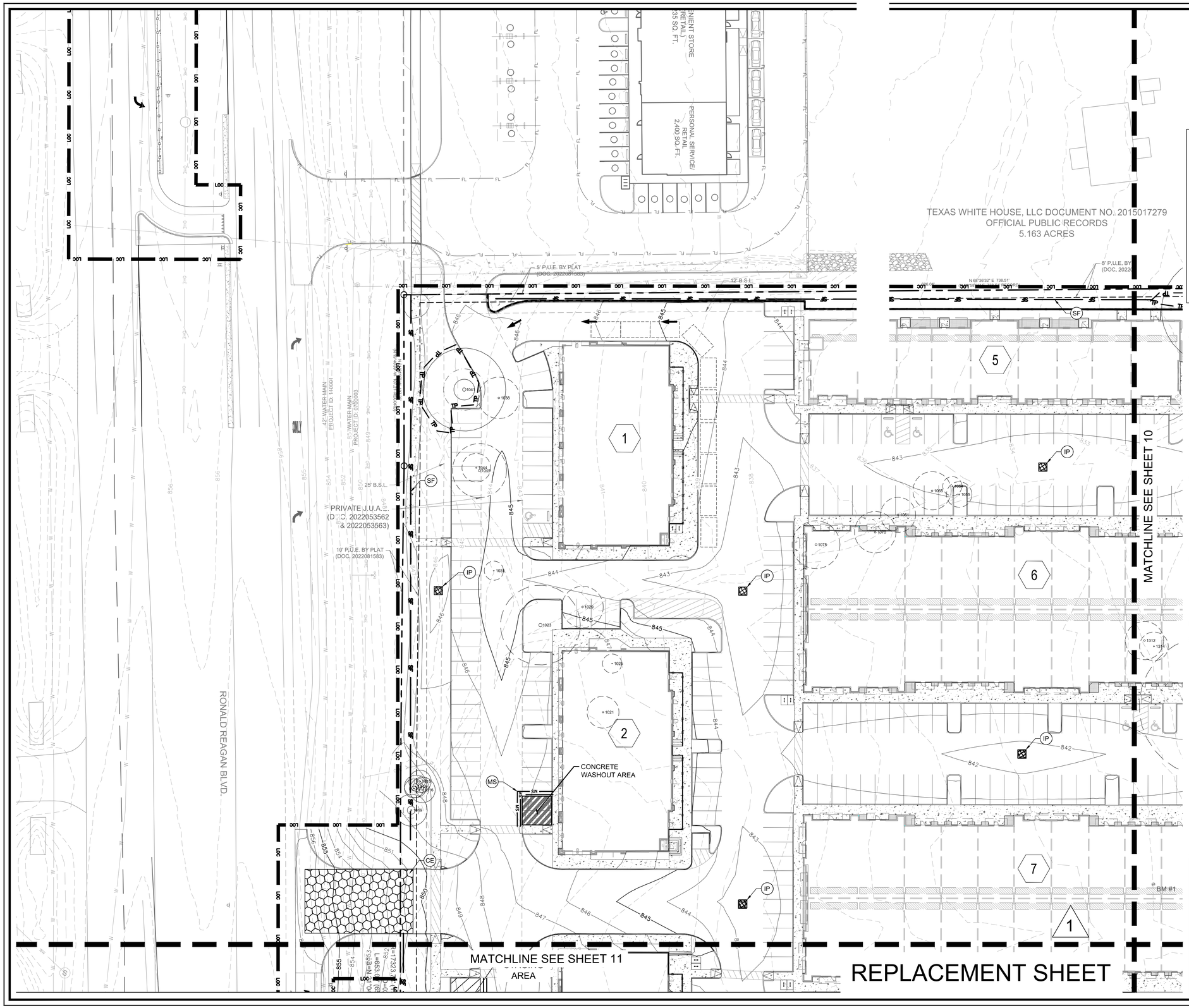
EXISTING CONDITIONS AND DEMO PLAN

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
6 OF 75

SD-21-00027



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0 30' 60'

GRAPHIC SCALE 30'

LEGEND

SF	SF	SILT FENCE
TP	TP	TREE PROTECTION
	IP	PROPOSED GRATE INLET PROTECTION
	CE	CONSTRUCTION ENTRANCE
MS MS	MS	MULCH SOCK
450		EXISTING CONTOURS
450		PROPOSED CONTOURS
LOC		LIMITS OF CONSTRUCTION AREA
	RB	ROCK BERM

NOTES:

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF CEDAR PARK RULES AND REGULATIONS
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 13.
9. 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.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF CEDAR PARK STANDARDS.

Know what's below.
Call before you dig.

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 04, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gelitexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

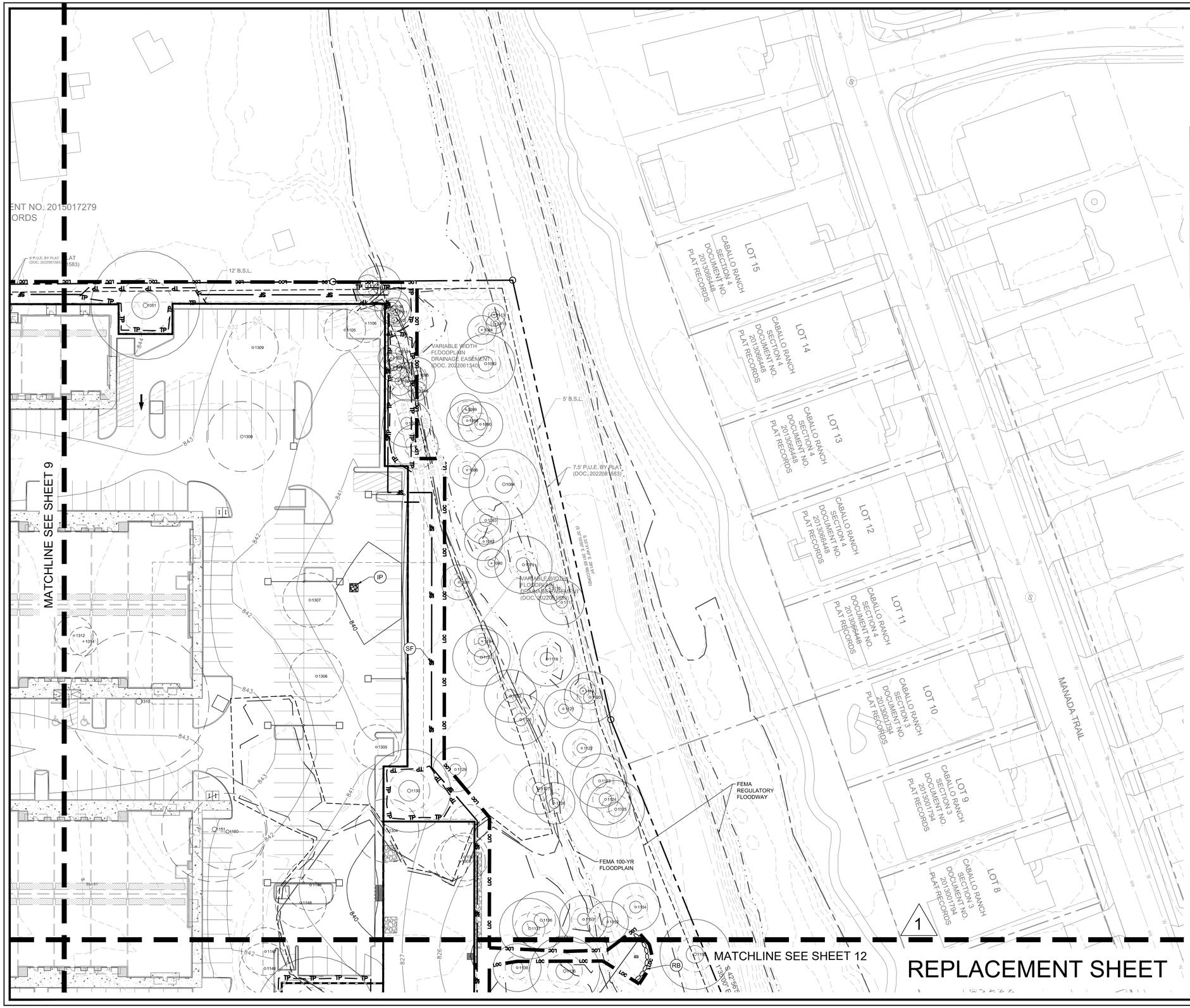
EROSION CONTROL PLAN (SHEET 1 OF 4)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET 9 OF 75

PROJECT No. / PERMIT# : SD-21-00027

C:\Users\Home\Desktop\Projects\GEJ-ELI\Centro Plaza\Plan Sheets\EC - Erosion Control Plan.dwg Aug 04, 23 11:06 am



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0 30' 60'
GRAPHIC SCALE 30'

LEGEND

SF	SILT FENCE
TP	TREE PROTECTION
IP	PROPOSED GRATE INLET PROTECTION
CE	CONSTRUCTION ENTRANCE
MS	MULCH SOCK
450	EXISTING CONTOURS
450	PROPOSED CONTOURS
LOC	LIMITS OF CONSTRUCTION AREA
RB	ROCK BERM

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3. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF CEDAR PARK RULES AND REGULATIONS
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7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 13.
9. 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.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF CEDAR PARK STANDARDS.

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

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
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700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gelitexas@gmail.com

PROJECT / PERMIT # : _-_-_

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS
EROSION CONTROL PLAN
(SHEET 2 OF 4)

DRAWING SCALE: HORIZ.=
VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET
10
OF
75

PROJECT No. / PERMIT# : SD-21-00027

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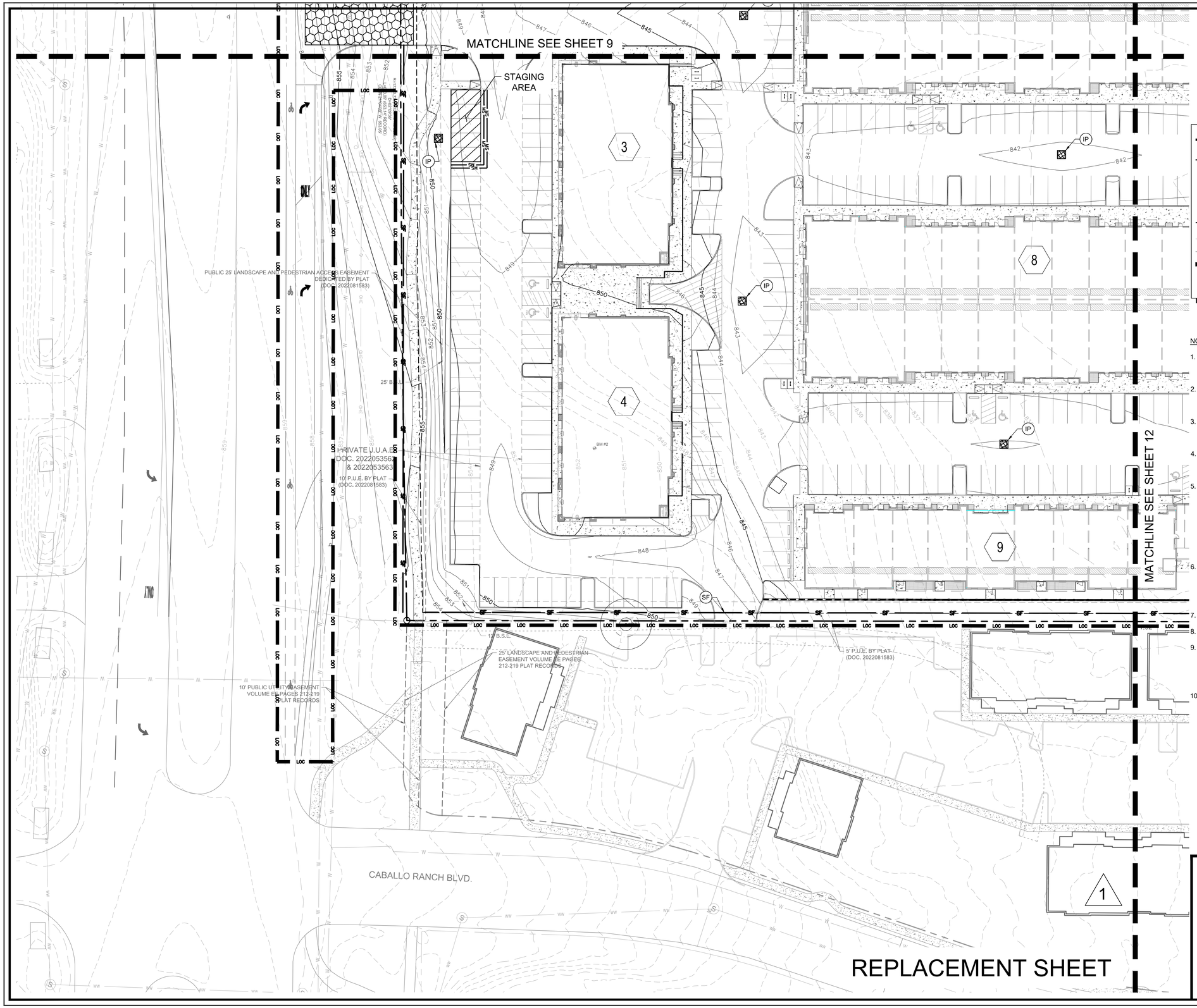

LEGEND

SF	SF	SILT FENCE
TP	TP	TREE PROTECTION
	IP	PROPOSED GRATE INLET PROTECTION
	CE	CONSTRUCTION ENTRANCE
MS MS	MS	MULCH SOCK
450		EXISTING CONTOURS
450		PROPOSED CONTOURS
LOC		LIMITS OF CONSTRUCTION AREA
	RB	ROCK BERM

NOTES:

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF CEDAR PARK RULES AND REGULATIONS
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 13.
9. 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.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF CEDAR PARK STANDARDS.

Know what's below. Call before you dig.

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gejtexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS
EROSION CONTROL PLAN (SHEET 3 OF 4)

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 11 OF 75

PROJECT No. / PERMIT# : SD-21-00027

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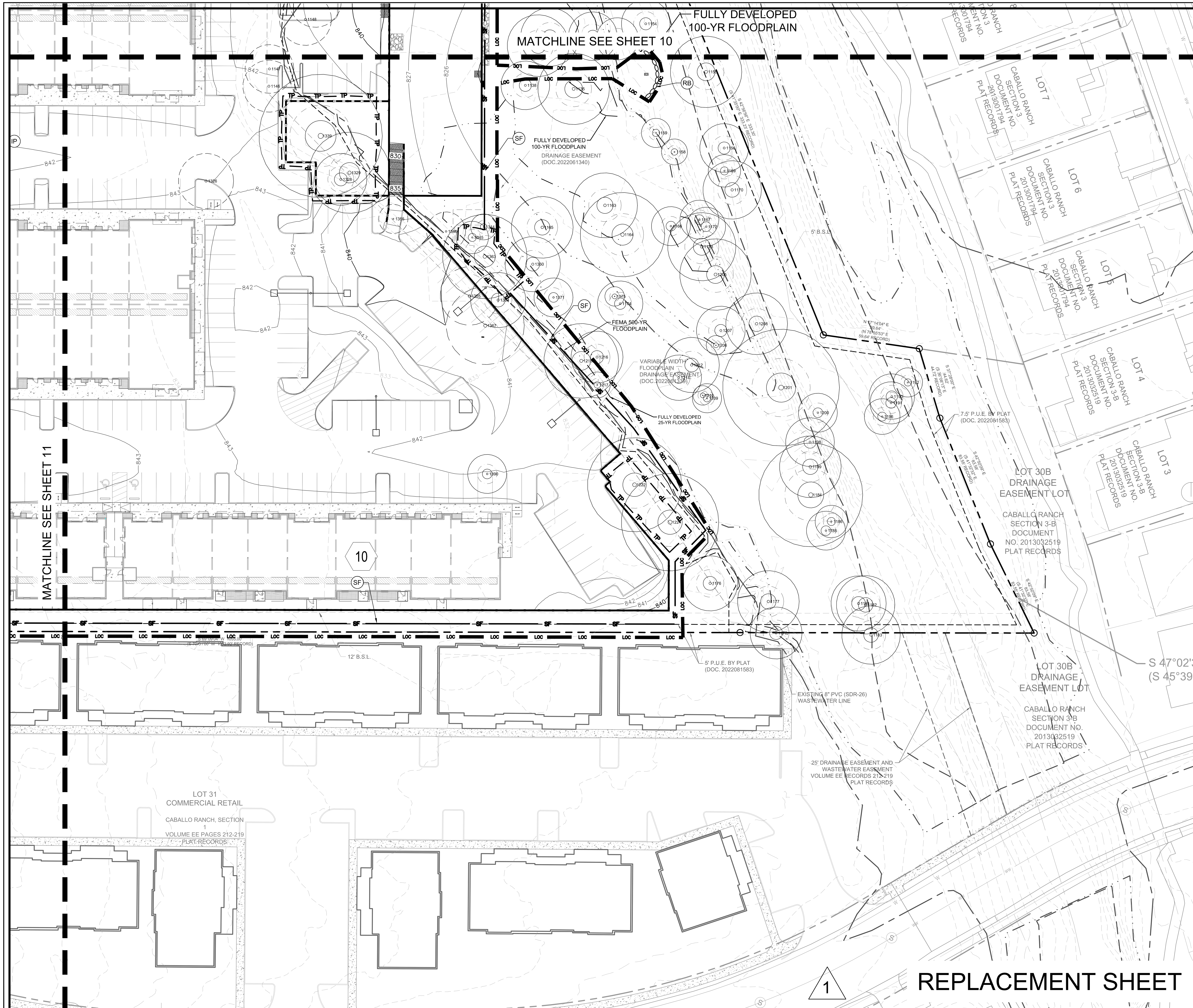

REPLACEMENT SHEET

GRAPHIC SCALE 30'

LEGEND

Symbol		Description
SF	(SF)	SILT FENCE
TP	(TP)	TREE PROTECTION
	(IP)	PROPOSED GRATE INLET PROTECTION
	(CE)	CONSTRUCTION ENTRANCE
MS	(MS)	MULCH SOCK
450		EXISTING CONTOURS
450		PROPOSED CONTOURS
LOC		LIMITS OF CONSTRUCTION AREA
	(RB)	ROCK BERM

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10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF CEDAR PARK STANDARDS.

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

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER — Aug 02, 2023

ELI ENGINEERING
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700 THERESA COVE, CEDAR PARK, TX 78613
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CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

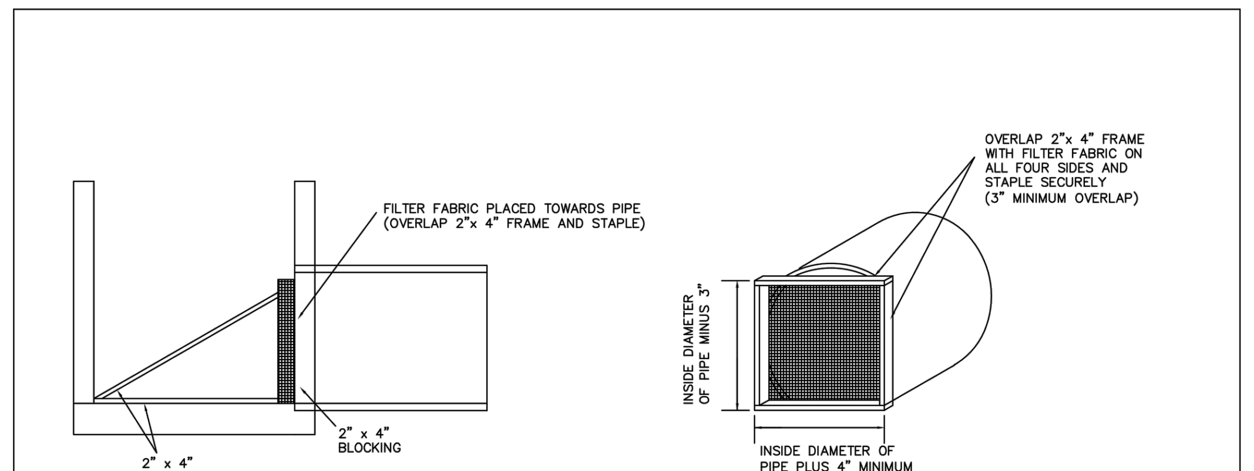
EROSION CONTROL PLAN (SHEET 4 OF 4)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

NO.	DATE	REVISION	BY

PROJECT / PERMIT # :

PROJECT No. / PERMIT# : SD-21-00027



NOTES:
STORM INLET SEDIMENT TRAPS SHALL BE PLACED IN ALL PROPOSED CURB INLETS AND AREA INLETS AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

THE LATERAL BRACING SHALL BE PLACED IN A MANNER AS TO ADEQUATELY SECURE THE FILTER FRAME TO THE SIDE OF THE INLET, INSURING THE PROPER FUNCTION OF THE SEDIMENT TRAP.

FILTER FABRIC MAY BE IDENTICAL TO THAT SPECIFIED AS "TEMPORARY SEDIMENT CONTROL FENCE". OTHER MATERIAL MAY BE USED UPON APPROVAL OF THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

THE "STORM INLET SEDIMENT TRAPS" SHALL BE INSTALLED UPON COMPLETION OF THE PROPOSED INLET WALLS OR AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

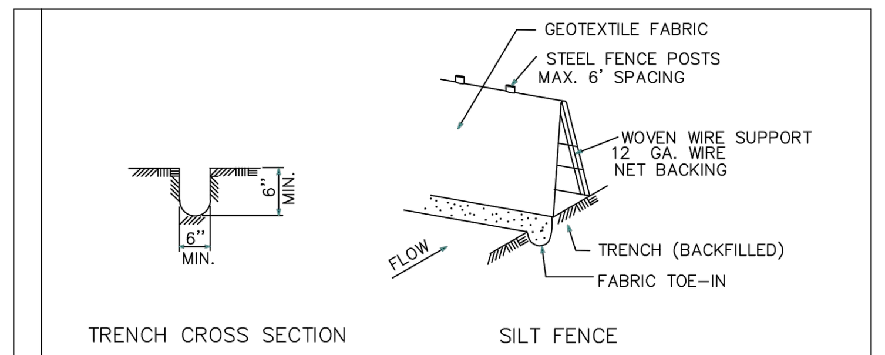
THE CONTRACTOR WILL BE REQUIRED TO PERFORM PERIODIC MAINTENANCE OF THE SEDIMENT TRAP AND REMOVE ACCUMULATED SILT AS DIRECTED BY THE CITY OF CEDAR PARK'S PROJECT REPRESENTATIVE.

"STORM INLET SEDIMENT TRAPS" SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OF THE PROPOSED INLET DECK BEGINS.

ALL WOOD SHALL BE PRESSURE TREATED.

STORM INLET SEDIMENT TRAP

CITY OF CEDAR PARK PUBLIC WORKS ENGINEERING	STANDARD DETAIL STORM INLET SEDIMENT TRAP
DARWIN MARCHELL, P.E.	ADOPTED: 01/02/01 SCALE: NTS INITIAL:



GENERAL NOTES:

1. SILT FENCE LOCATED ADJACENT TO PLAYGROUNDS, PARKS, SIDEWALKS, AND OTHER LOCATIONS AS DETERMINED BY CITY OF CEDAR PARK REPRESENTATIVES SHALL HAVE CITY APPROVED SAFETY CAPS ON ALL STEEL POSTS.

2. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.

3. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT. 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.

4. WHERE FENCE CAN NOT BE TRENCHED IN (E.G. PAVEMENT) WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE. 6 INCHES DEEP AND 6 INCHES WIDE TO THE TRENCH MUST BE A MINIMUM OF ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

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

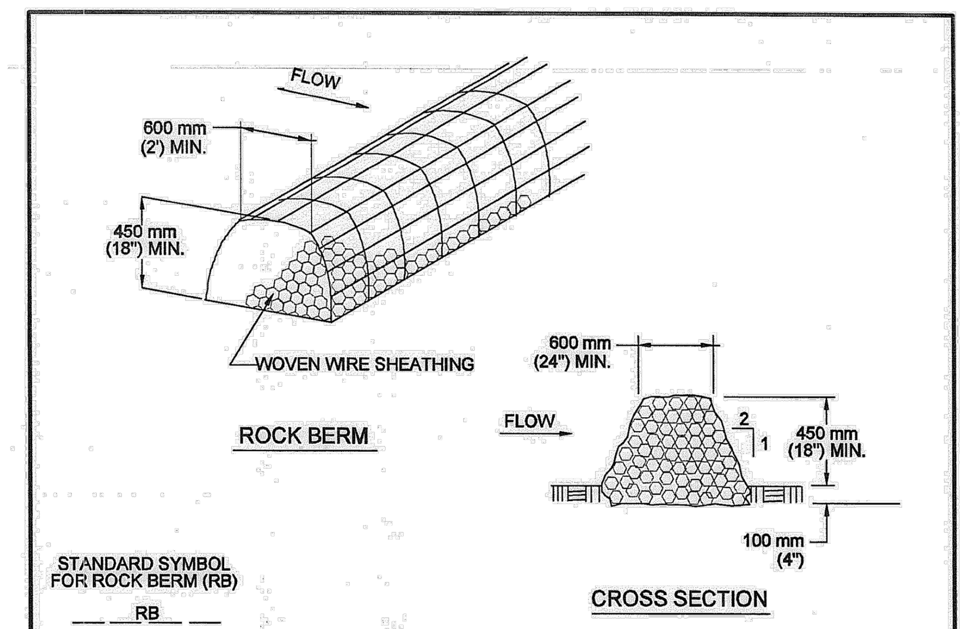
6. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

7. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.

8. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION. STANDARD SYMBOL SF / L=

REV. DATE: 09/13/01

CITY OF CEDAR PARK ENGINEERING DEPARTMENT	SILT FENCE
DARWIN MARCHELL 09/13/2001 APPROVED DATE	ADOPTED: 09/13/2001 SCALE: N.T.S. INITIAL:



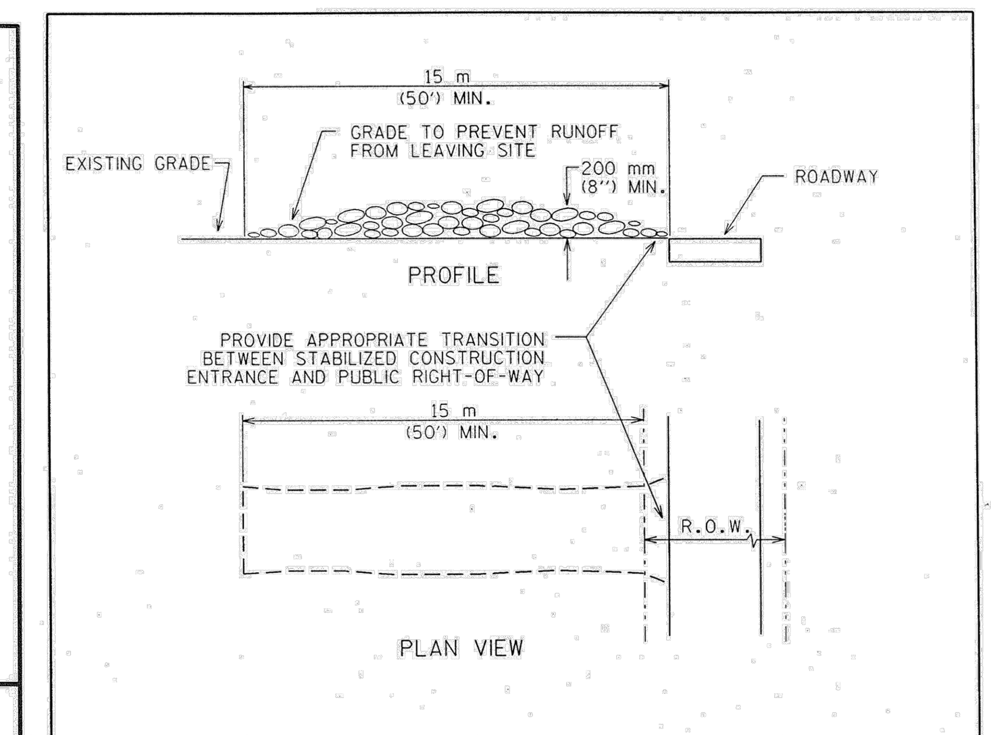
STANDARD SYMBOL FOR ROCK BERM (RB)

RB

NOTES:

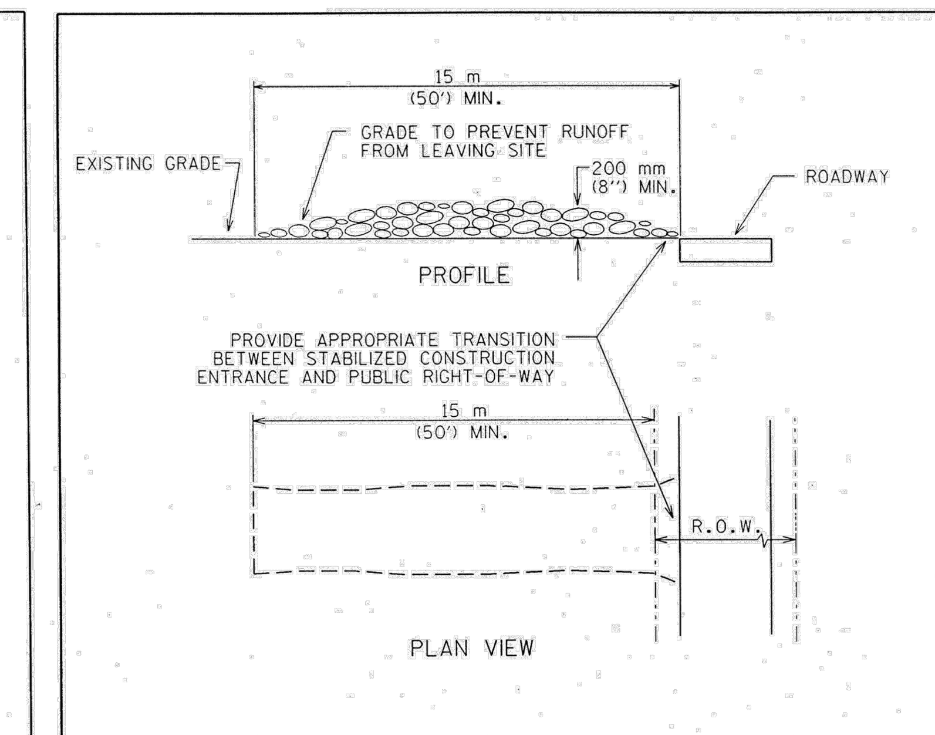
1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE 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	
P.E. 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED 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 DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



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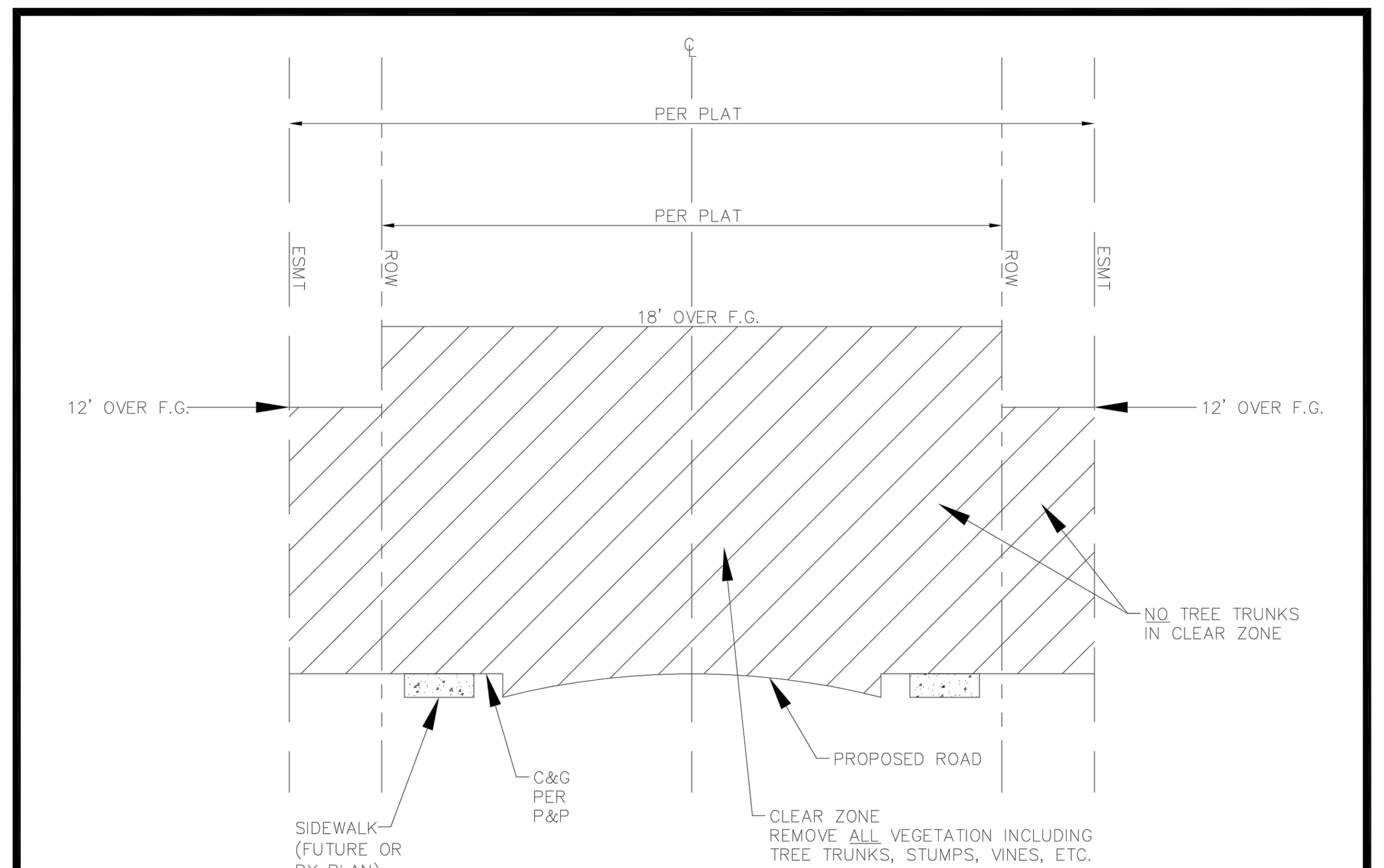
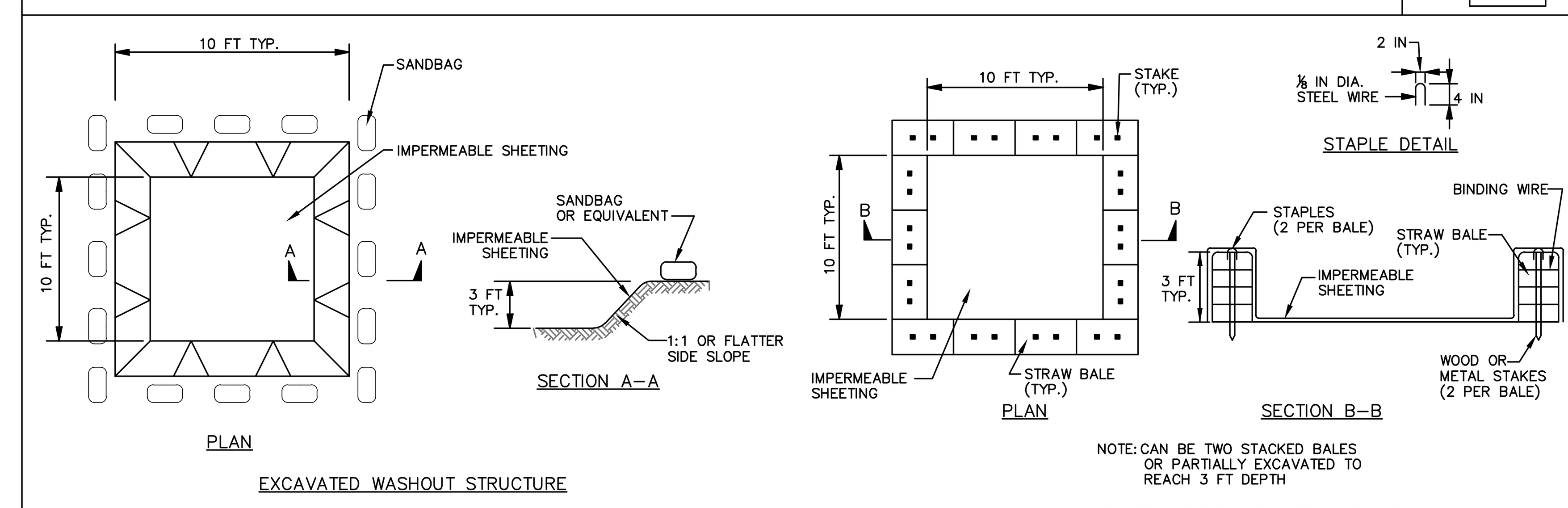
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT — STABILIZED CONSTRUCTION ENTRANCE — 5/23/00 ADOPTED — THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. — STANDARD NO. 641S-1



CITY OF CEDAR PARK DEPARTMENT OF PUBLIC WORKS VER: 200918	RIGHT-OF-WAY CLEARING & GRUBBING

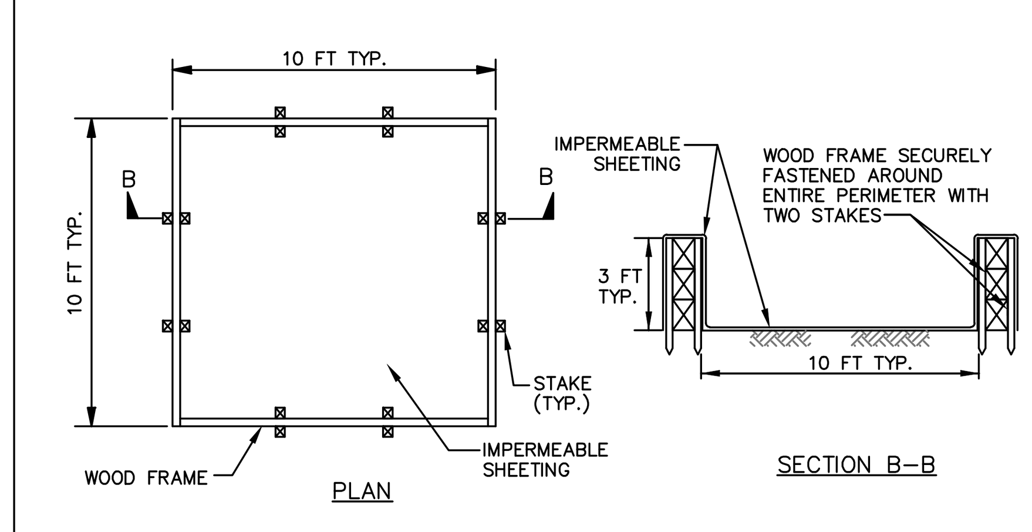
ONSITE CONCRETE WASHOUT STRUCTURE

STANDARD SYMBOL CW



NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES



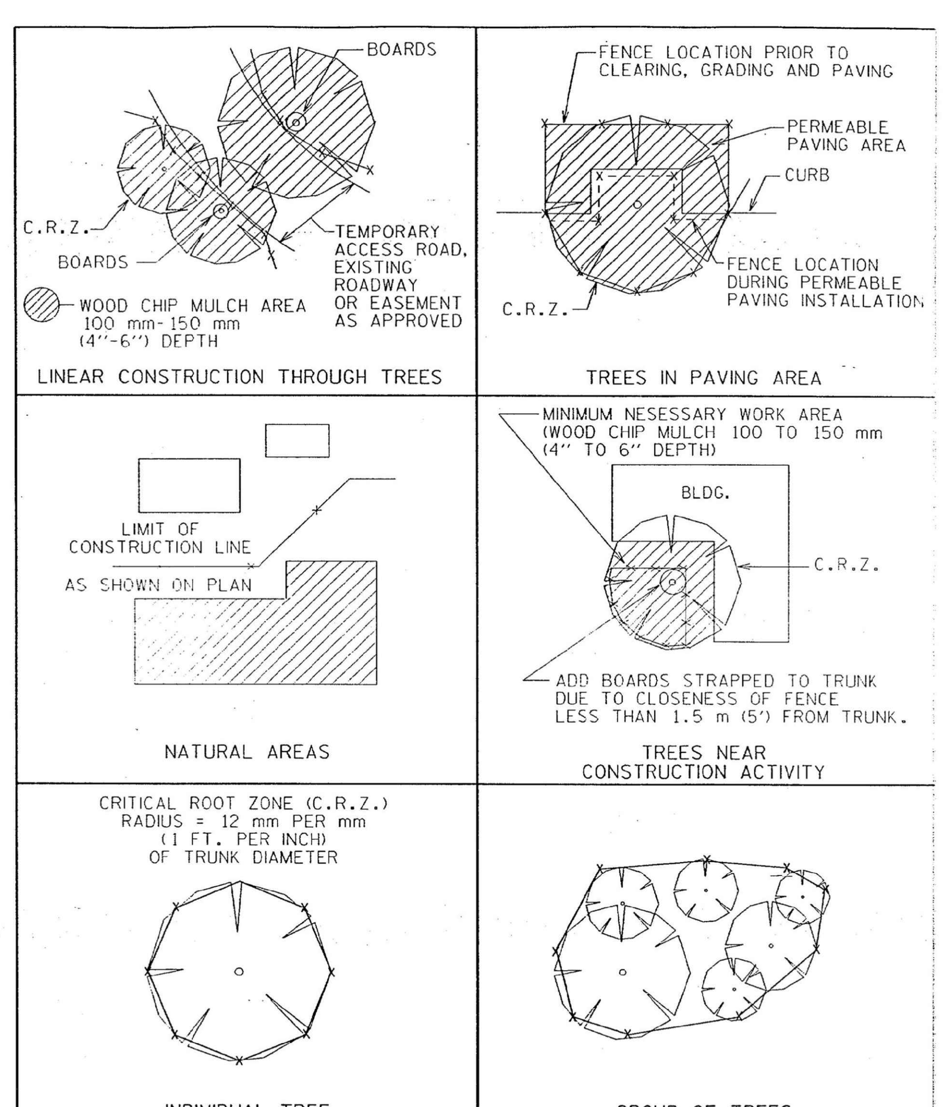
WASHOUT STRUCTURE WITH WOOD PLANKS

CONSTRUCTION SPECIFICATIONS

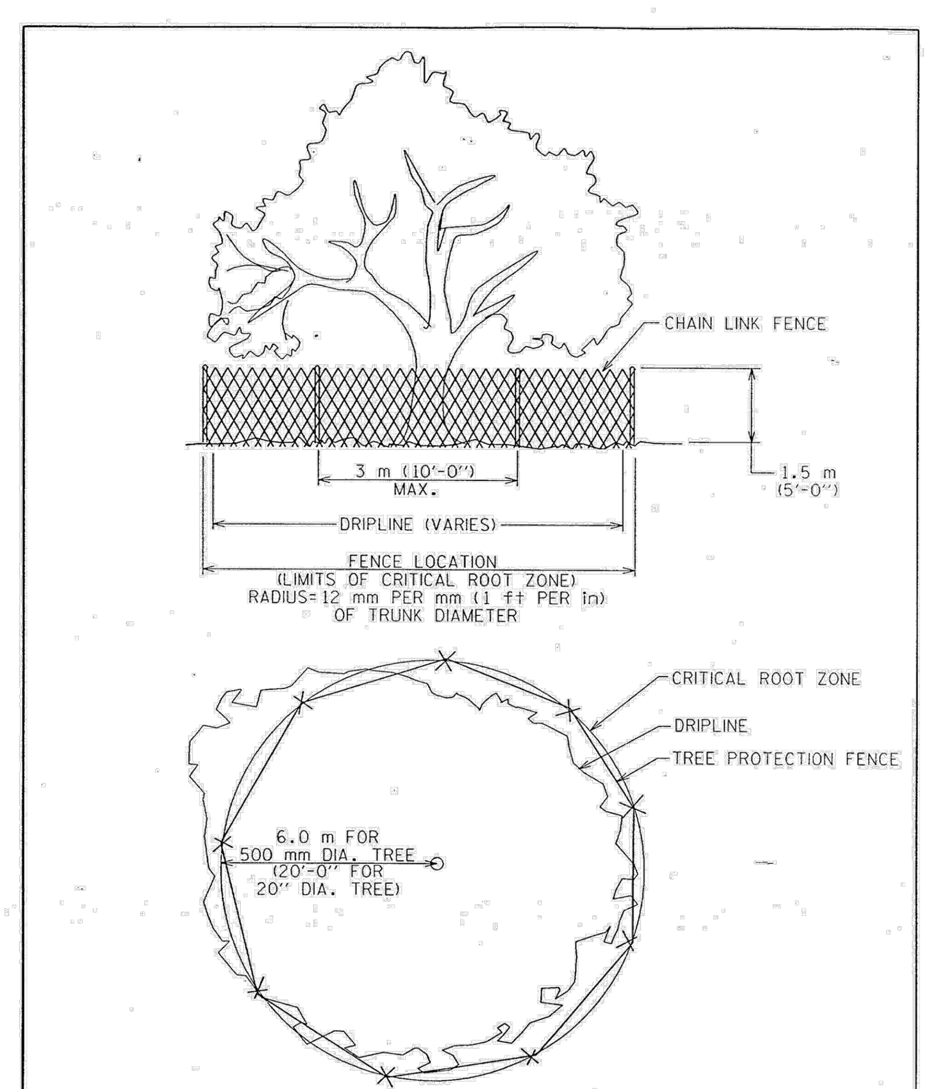
1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

CONCRETE WASHOUT DETAILS

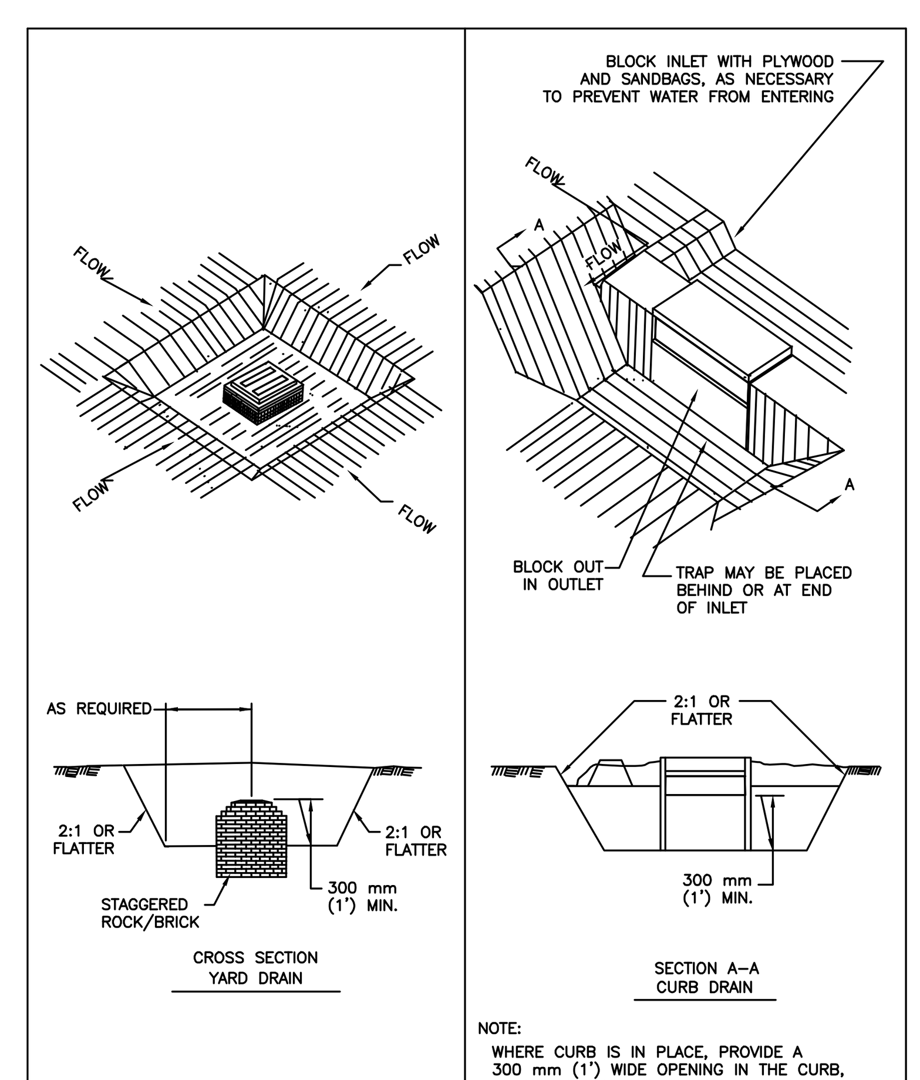
N.T.S.



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
11/19/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1



CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
11/19/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



NOTE:
WHERE CURB IS IN PLACE, PROVIDE A 300 mm (1') WIDE OPENING IN THE CURB, OR USE A SANDBAG TO DAM TO FORCE WATER OVER THE CURB TO THE TRAP.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STORM INLET SEDIMENT TRAP	
RECORD COPY SIGNED BY J. PATRICK MURPHY 3/27/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 632S-1

1

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT #: _

NO.	DATE	REVISION	BY

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS

Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
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CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

EROSION CONTROL DETAILS

DRAWING SCALE:	HORIZ.= VERT.=
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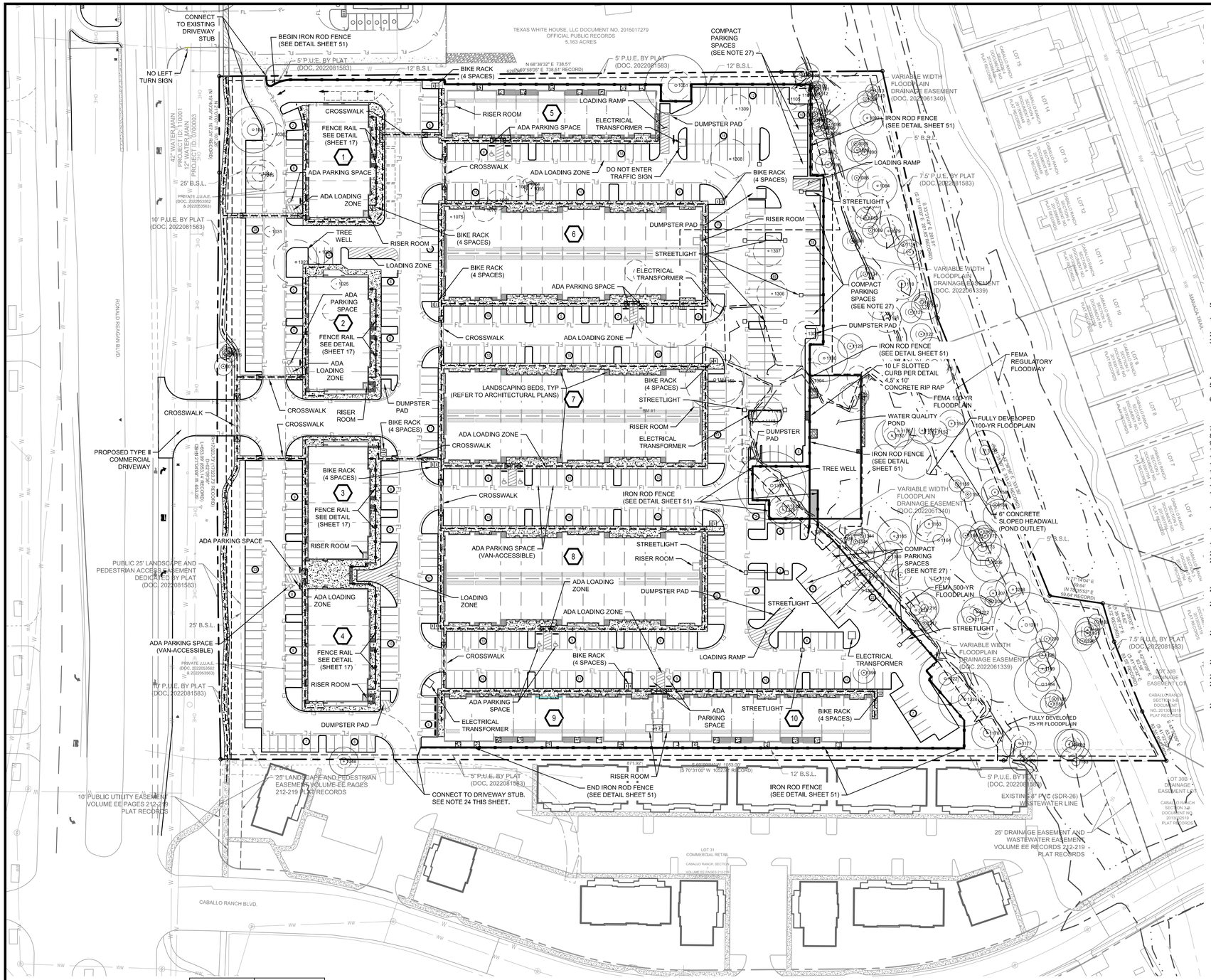
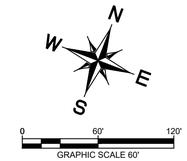
DESIGNED:	EEI

SHEET 13 OF 75

PROJECT No. / PERMIT# : SD-21-00027





LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STREET LIGHT
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE
- ADA ROUTE

SITE PLAN NOTES:

1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY 4WARD LAND SURVEYING ON DECEMBER 2, 2020. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
2. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
3. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS, "FIRE ZONE/TOW-AWAY ZONE", IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
4. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
5. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
6. EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A117.1-1986-4.6.2.
7. CONTRACTOR TO COORDINATE WITH PROJECT ARBORIST TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING AREAS.
8. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
9. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
10. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
11. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
12. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
13. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
14. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
15. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
16. ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
17. ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
18. RETAINING WALLS OVER FOUR FEET IN HEIGHT MEASURED FROM THE BOTTOM OF THE FOOTING TO THE TOP OF THE WALL SHALL BE ENGINEERED AND REQUIRE A SEPARATE BUILDING PERMIT. [IBC CODE 105.2]
19. EACH COMPACT PARKING SPACE/AISLE WILL BE SIGNED "SMALL CAR ONLY."
20. ALL FDC's TO BE TWO 2 ½" SIAMESE CONNECTIONS.
21. LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE.
22. CONTRACTOR TO NOTE THAT COMPACT SPACES SHALL BE IDENTIFIED BY BLACK PAINTED CURBS WITH WHITE LETTERING LABELING EACH SPACE AS "COMPACT"
23. LIGHT SOURCES SHALL BE COMPLETELY CONCEALED WITHIN OPAQUE HOUSINGS AND SHALL NOT BE VISIBLE FROM ADJACENT STREETS OR PROPERTIES. ALL EXTERIOR LIGHTING FIXTURES SHALL BE FULL CUT-OFF TYPE FIXTURES. LIGHTING FIXTURES SHALL BE NO MORE THAN TWENTY-FIVE (25) FEET IN HEIGHT AS MEASURED FROM ADJACENT, FINISHED GRADE. (SEC. 12.12.021 (A)(6)(B)).
24. IF THE ADJACENT LOT'S DRIVE AISLE STUB IS COMPLETED, CONNECT TO THE EXISTING STUB. IF THE ADJACENT LOT'S DRIVE AISLE IS NOT COMPLETED, CONTRACTOR SHALL CONFIRM WITH THE PROJECT ENGINEER THAT THE DRIVEWAY STUB ALIGNS PRECISELY WITH THE PLANNED AND APPROVED DRIVE AISLE STUB AS SHOWN IN SD-18-00034, THE APPROVED SITE DEVELOPMENT PLANS FOR THE ADJACENT TRACT TO THE SOUTH.
25. NO BUILDING EXCEEDS 35 FEET IN HEIGHT FROM EXISTING GRADE WITHIN 100 FEET OF A SINGLE FAMILY RESIDENTIAL PROPERTY LINE.
26. ALL DRY UTILITIES SHALL BE INSTALLED UNDERGROUND.
27. COMPACT PARKING SPACES, 8.0' X 16.0' TYPICAL BY ORDINANCE, COMPACT PARKING IS TO PROVIDE BLACK CURBS WITH THE WORD 'COMPACT' IN WHITE LETTERING FOR EACH COMPACT PARKING SPACE. CALL OUT THE BLACK CURB AND WHITE LETTERING TO BE CONSISTENT WITH CITY ORDINANCE FOR ALL COMPACT PARKING SPACES.
28. PARKING REQUIRED FOR PROPOSED USES ARE SPECULATIVE. USES THAT REQUIRE ADDITIONAL LOADING ZONES MAY REQUIRE A SITE PLAN REVISION TO ADD ADDITIONAL PARKING AND DESIGNATED LOADING ZONES.

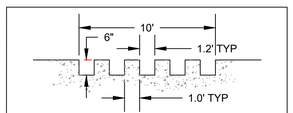
BUILDINGS 1, 2, 3 AND 4 SHALL CONTAIN AWNINGS THAT ARE AT LEAST 4' DEEP OVERHANGING SIDEWALKS.

PARKING REQUIRED			
USE	SQ. FT.	PARKING REQUIRMENT	NUMBER OF SPACES
Restaurant	9000	1 / 100 SQ FT	90
Retail	46000	1 / 250 SQ FT	184
Medical	35200	1 / 200 SQ FT	176
Office	59988	1 / 300 SQ FT	200
TOTAL	150188		650
		ADA PARKING REQUIRED	14

PARKING PROVIDED	
STANDARD PARKING PROVIDED:	578
COMPACT PARKING PROVIDED:	59
ADA PARKING PROVIDED:	14
BICYCLE PARKING PROVIDED:	44
TOTAL PARKING PROVIDED:	651

BUILDING NAME	BUILDING SQ. FT.
BUILDING 1	8500
BUILDING 2	8500
BULDING 3	8500
BUILDING 4	8500
BUILDING 5	11130
BUILDING 6	27602
BUILDING 7	27602
BUILDING 8	27602
BUILDING 9	11126
BUILDING 10	11126

TOTAL SITE AREA	661,899.24 SQ. FT.
TOTAL EXISTING IMPERVIOUS COVER	19,541.00 SQ. FT. -OR- 2.95%
TOTAL IMPERVIOUS COVER	456,509.00 SQ. FT. -OR- 69.00%
TOTAL BUILDING COVERAGE	150,188.00 SQ. FT. -OR- 23.00%
ZONING	LB - LOCAL BUSINESS



SLOTTED CURB DETAIL
N.T.S.

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

1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 03, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

OVERALL SITE PLAN

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 14 OF 75

PROJECT No. / PERMIT# : SD-21-00027

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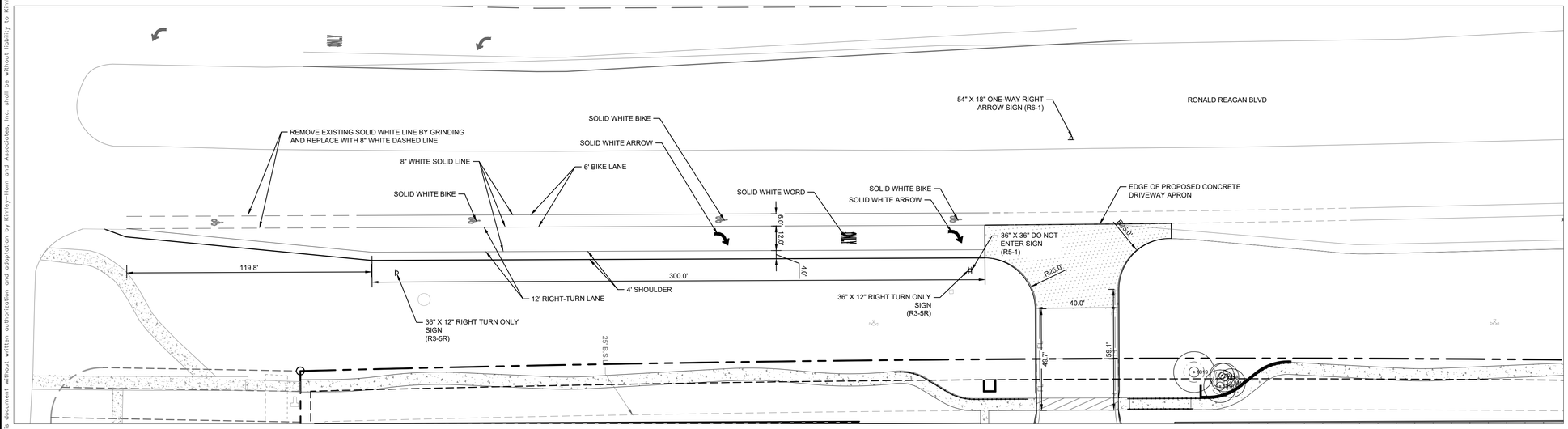
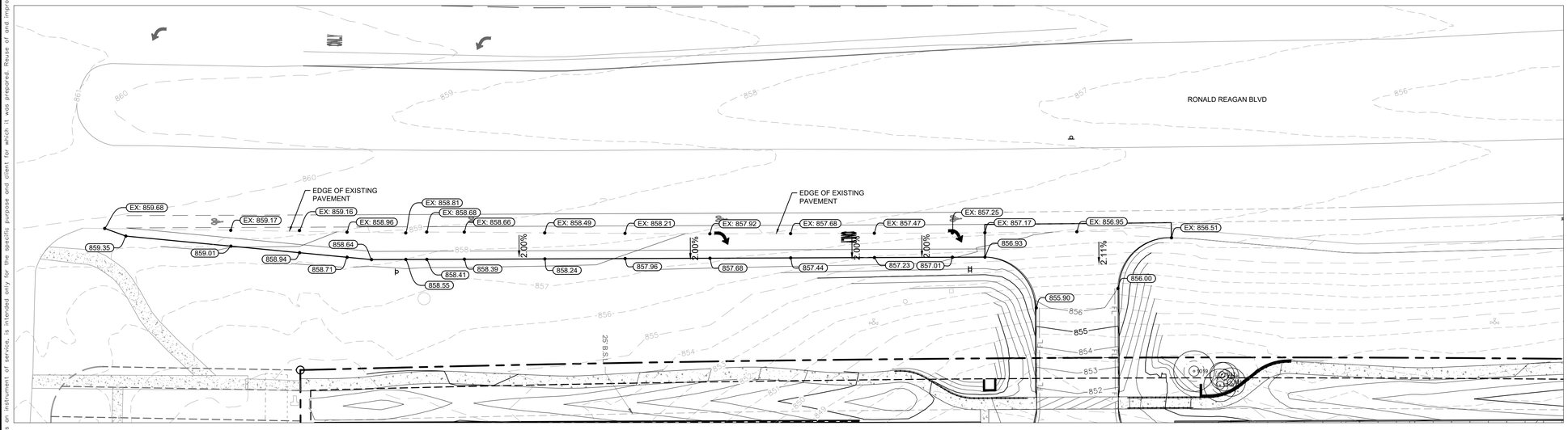
DIMENSION CONTROL, STRIPING, AND SIGNAGE PLAN



GRADING PLAN



BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

N
W
E
S
0 30' 60'
GRAPHIC SCALE 30'

LEGEND

PROPERTY LINE

NOTES:
1. ALL SIGNS WITHIN THE RONALD REAGAN BLVD ROW ARE TO HAVE A TRIANGULAR TxDOT BASE AND ROUND POLE.
2. REFER TO SHEETS 55 & 56 FOR SIGN DETAILS AND POLE/BASE DETAILS.

PAVEMENT NOTE
CONTRACTOR TO MAINTAIN EXISTING ROADWAY PAVEMENT RECOMMENDATIONS AND CROSS SECTIONS

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT	069290000
DATE	AUGUST 2022
SCALE:	AS SHOWN
DESIGNED BY:	JML
DRAWN BY:	JML
CHECKED BY:	BMW

RIGHT TURN DECELERATION LANE

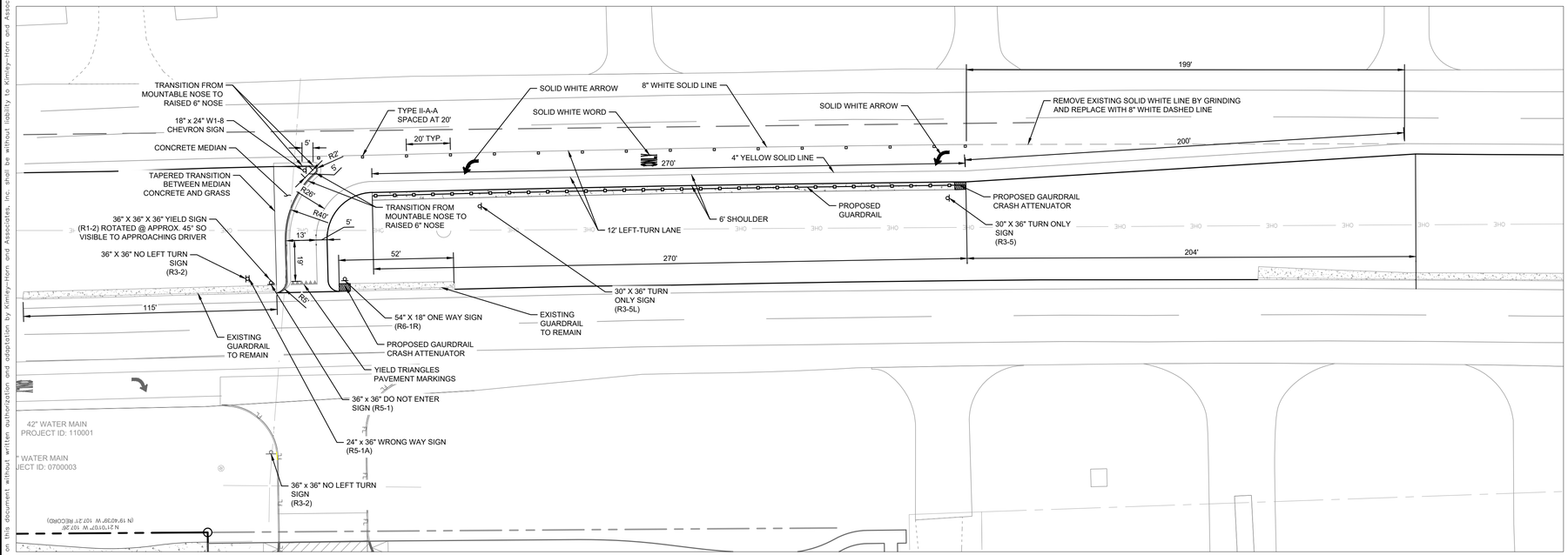
RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

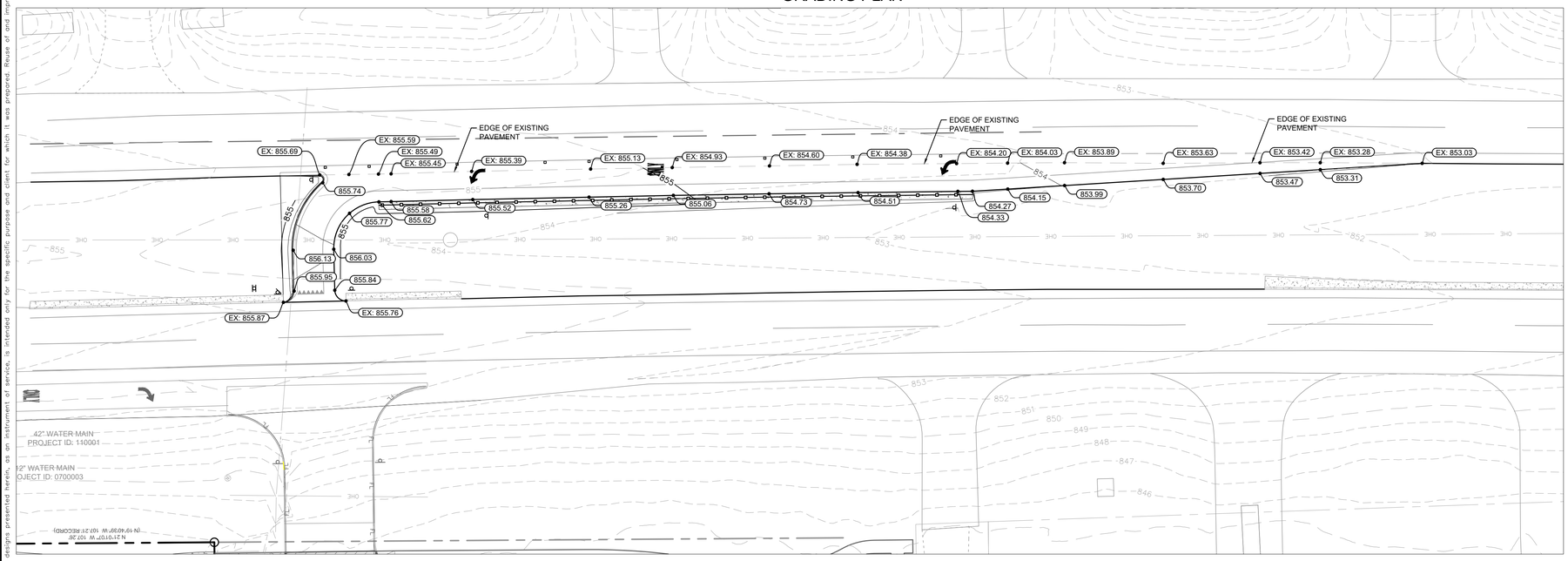
SHEET NUMBER
20 OF 75

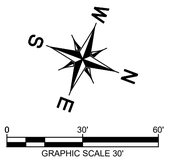
SD-21-00027

DIMENSION CONTROL, STRIPING, AND SIGNAGE PLAN



GRADING PLAN





LEGEND

PROPERTY LINE

NOTES:
1. ALL SIGNS WITHIN THE RONALD REAGAN BLVD ROW ARE TO HAVE A TRIANGULAR TxDOT BASE AND ROUND POLE.
2. REFER TO SHEETS 55 & 56 FOR SIGN DETAILS AND POLE/BASE DETAILS.
3. ALL POLES WITHIN THE HOODED LEFT MEDIAN SHALL HAVE REFLECTIVE TAPE OR MARKERS.

PAVEMENT NOTE
CONTRACTOR TO MAINTAIN EXISTING ROADWAY PAVEMENT RECOMMENDATIONS AND CROSS SECTIONS

BENCHMARKS

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APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT	069290000
DATE	AUGUST 2022
SCALE:	AS SHOWN
DESIGNED BY:	JML
DRAWN BY:	JML
CHECKED BY:	BMW

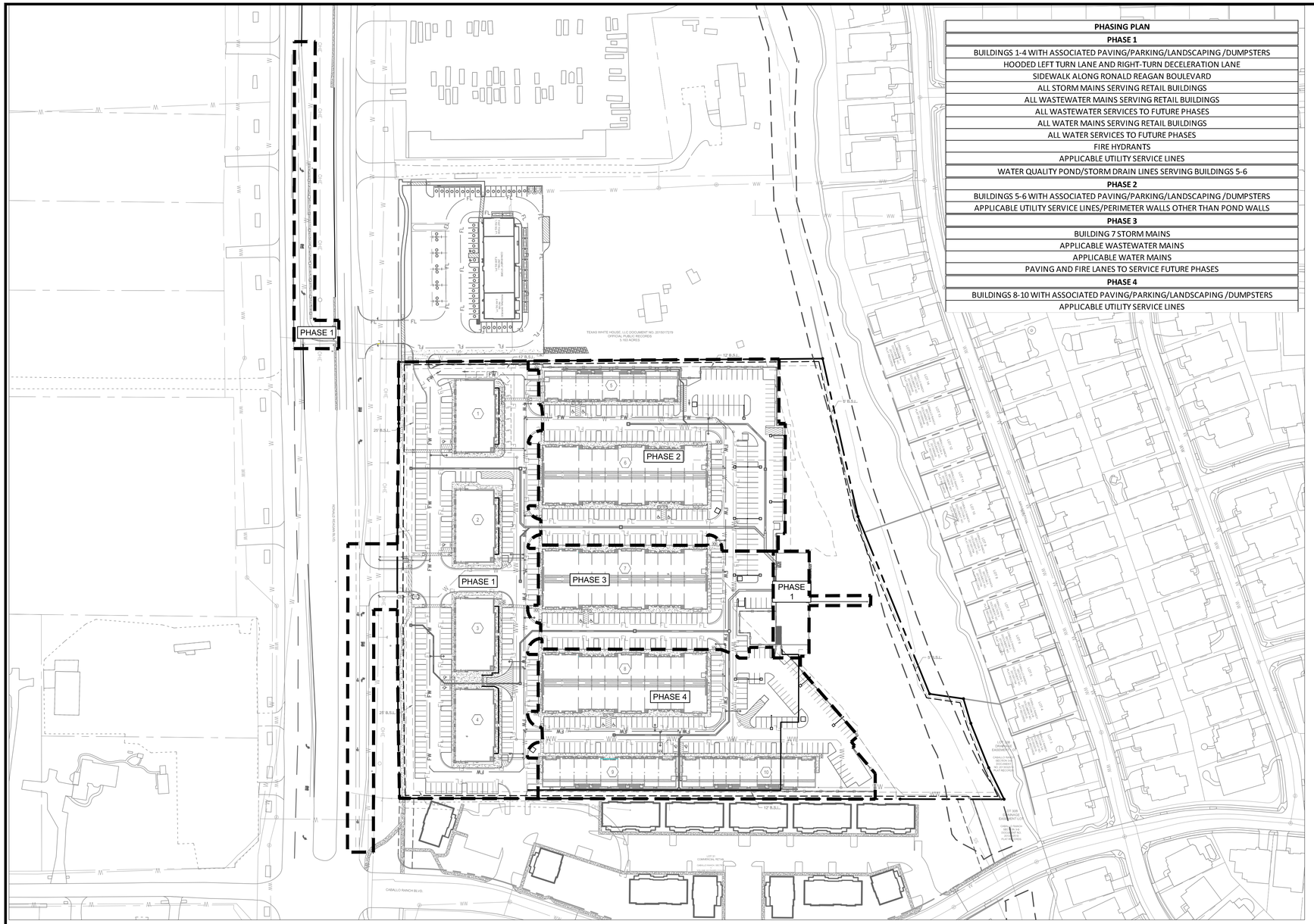
LEFT TURN DECELERATION LANE

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
21 OF 75

SD-21-00027



PHASING PLAN
PHASE 1
BUILDINGS 1-4 WITH ASSOCIATED PAVING/PARKING/LANDSCAPING /DUMPSTERS
HOODED LEFT TURN LANE AND RIGHT-TURN DECELERATION LANE
SIDEWALK ALONG RONALD REAGAN BOULEVARD
ALL STORM MAINS SERVING RETAIL BUILDINGS
ALL WASTEWATER MAINS SERVING RETAIL BUILDINGS
ALL WASTEWATER SERVICES TO FUTURE PHASES
ALL WATER MAINS SERVING RETAIL BUILDINGS
ALL WATER SERVICES TO FUTURE PHASES
FIRE HYDRANTS
APPLICABLE UTILITY SERVICE LINES
WATER QUALITY POND/STORM DRAIN LINES SERVING BUILDINGS 5-6
PHASE 2
BUILDINGS 5-6 WITH ASSOCIATED PAVING/PARKING/LANDSCAPING /DUMPSTERS
APPLICABLE UTILITY SERVICE LINES/PERIMETER WALLS OTHER THAN POND WALLS
PHASE 3
BUILDING 7 STORM MAINS
APPLICABLE WASTEWATER MAINS
APPLICABLE WATER MAINS
PAVING AND FIRE LANES TO SERVICE FUTURE PHASES
PHASE 4
BUILDINGS 8-10 WITH ASSOCIATED PAVING/PARKING/LANDSCAPING /DUMPSTERS
APPLICABLE UTILITY SERVICE LINES

N W E S

0 100' 200'

GRAPHIC SCALE 100'

LEGEND

PROPERTY LINE

PHASE LINE

NOTE:

1. PHASE LINES SHOWN ARE FOR PHASING OF BUILDINGS AND PAVING. FURTHER PHASING INFORMATION PROVIDED BELOW.
2. FIRE ACCESS ROADS WILL BE INSTALLED AS APPLICABLE TO EACH PHASE OF BUILDING CONSTRUCTION AND SHALL PROVIDE APPROPRIATE ACCESS FOR FIRE SERVICE VEHICLES.
3. ALL FIRE LINES AND HYDRANTS WILL BE INSTALLED WITH PHASE 1.
4. PAVING SHALL BE PROVIDED AS REQUIRED BY AUSTIN FIRE DEPARTMENT FOR EACH PHASE.
5. ALL WATER QUALITY CONTROL FACILITIES AS SHOWN ON THE APPROVED WATER QUALITY CONTROL PLAN MUST BE COMPLETED AND FULLY OPERATIONAL PRIOR TO RELEASE OF THE FIRST PHASE.
6. ALL DISTURBED AREAS WITHIN THIS PROJECT MUST BE REVEGETATED AND ALL PERMANENT EROSION & SEDIMENTATION COPNTROLS COMPLETED PRIOR TO ISSUANCE OF A TEMPORARY CERTIFICATE OF OCCUPANCY FOR EACH PHASE.
7. ANY AREA WITHIN THE LIMIT OF CONSTRUCTION OF THE PROJECT WHICH IS NOT ADEQUATELY REVEGETATED SHALL BE BROUGHT INTO COMPLIANCE PRIOR TO THE RELEASE OF THE FINAL PHASE.

1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

PHASING PLAN

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET
25
OF
75

PROJECT No. / PERMIT# : SD-21-00027

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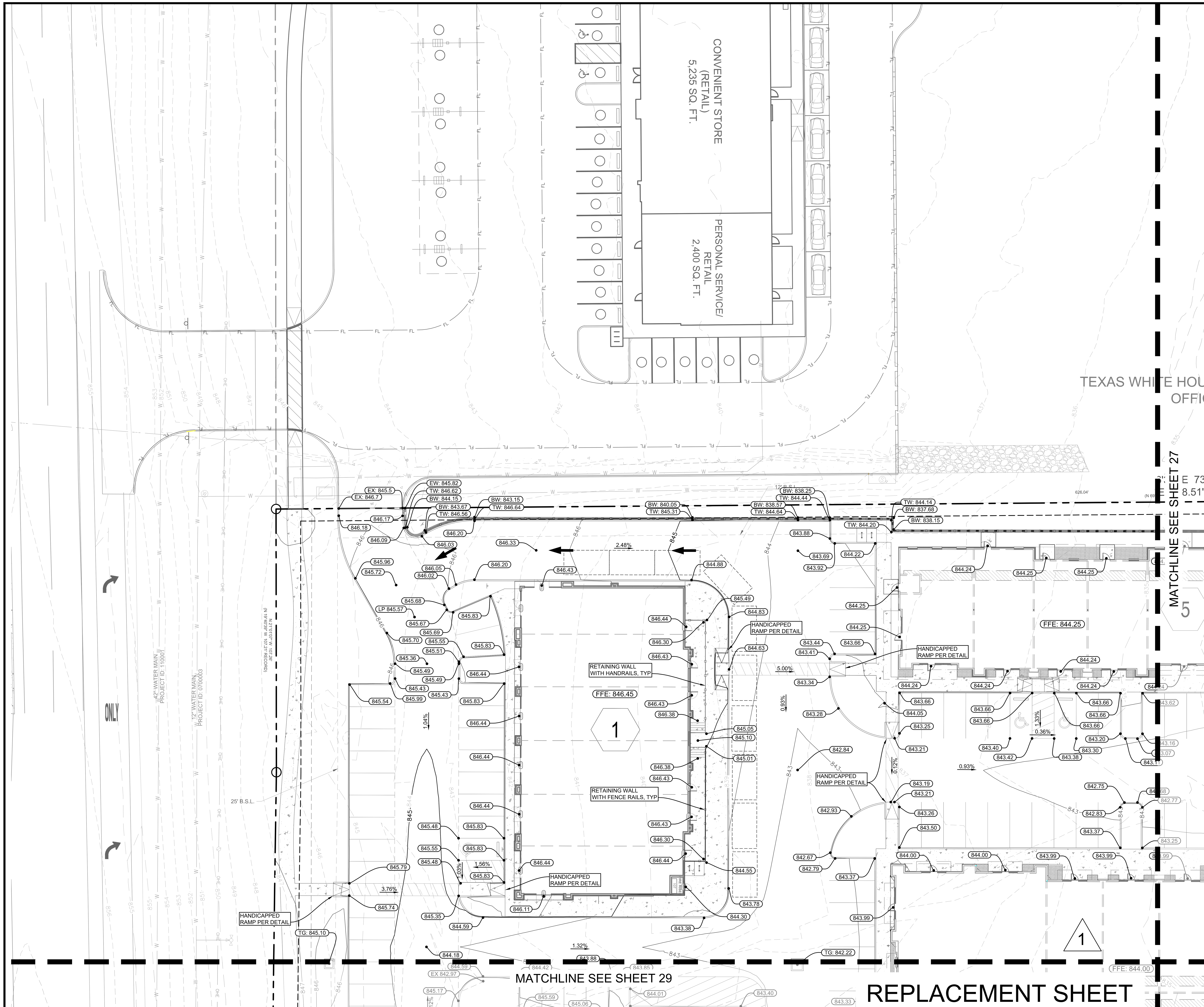


GRAPHIC SCALE 20'

LEGEND

— —	PROPERTY LINE
FFE=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X●	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X ●	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X●	PROPOSED TOP OF GRATE
TW XXX.X●	PROPOSED GRADE AT TOP OF WALL
BW XXX.X●	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X●	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
HP	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
4. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP N: 10172201.488, E:3096188.931 ELEV=851.75'

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : ___

NO.	DATE	REVISION	BY

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gejtexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

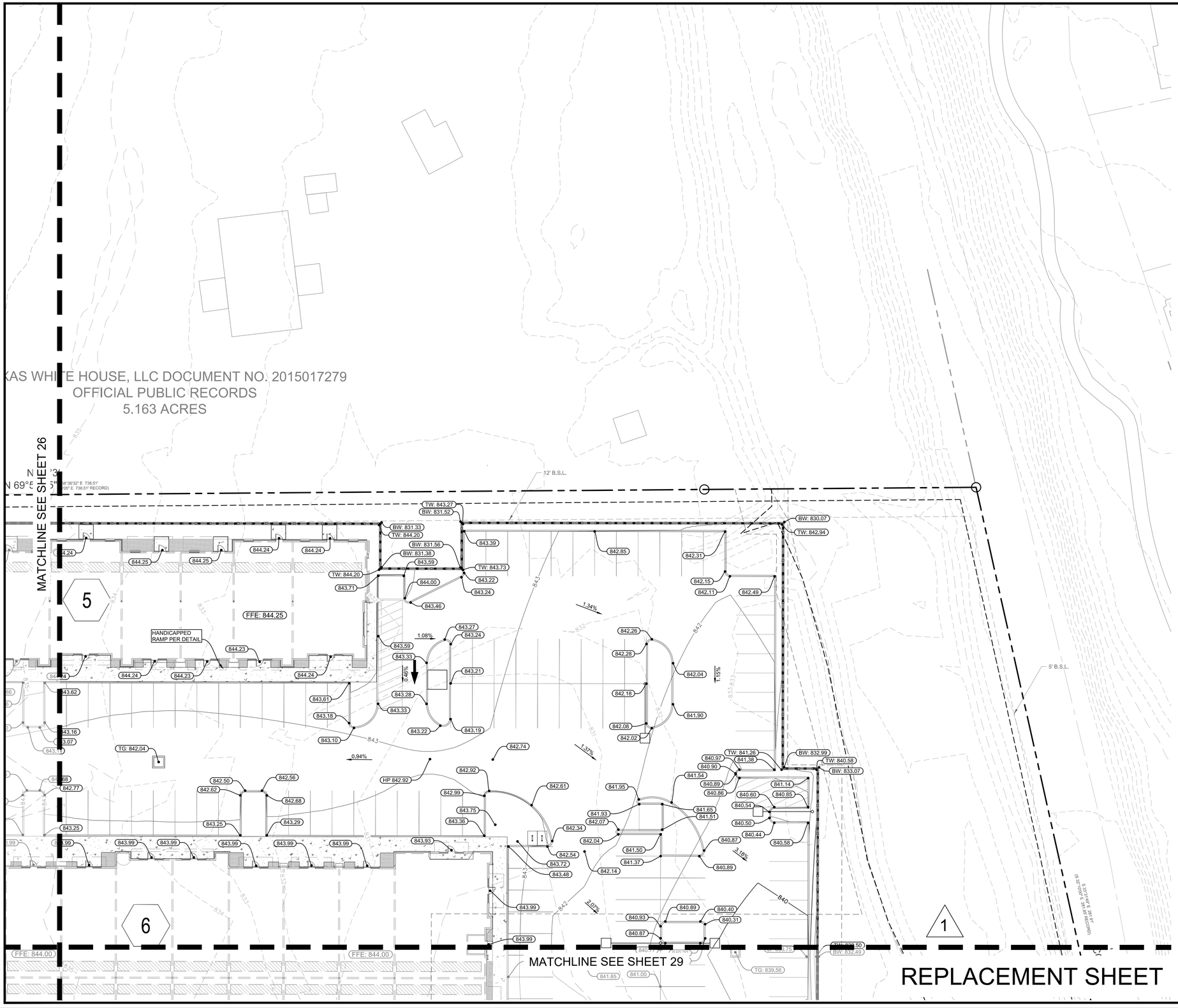
RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 1 OF 6)

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

PROJECT No. / PERMIT# : SD-21-00027



N

W E

S

0 20' 40'

GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X	PROPOSED TOP OF GRATE
TW XXX.X	PROPOSED GRADE AT TOP OF WALL
BW XXX.X	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
HP	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
4. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
N: 10172201.488, E:3096188.931
ELEV=851.75'

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : _____

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877

ELI ENGINEERING

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700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gelitexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 2 OF 6)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET 27 OF 75

PROJECT No. / PERMIT# : SD-21-00027

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MATCHLINE SEE SHEET 26

MATCHLINE SEE SHEET 29

MATCHLINE SEE SHEET 30

FFE: 844.00

FFE: 847.70

FFE: 850.00

FFE: 843.90

FFE: 843.75

RETAINING WALL WITH FENCE RAILS, TYP

RETAINING WALL WITH HANDRAILS, TYP

RETAINING WALL WITH HANDRAILS, TYP

RETAINING WALL WITH FENCE RAILS, TYP

5'X5' LANDING 847.60

HANDICAPPED RAMP PER DETAIL

HANDICAPPED RAMP PER DETAIL

HANDICAPPED RAMP PER DETAIL

HANDICAPPED RAMP PER DETAIL

HANDICAPPED RAMP PER DETAIL

TG: 842.22

TG: 842.52

TG: 842.53

TG: 849.00

HP 843.38

EX: 856.5

EX: 855.0

ONLY

GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X•	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X •	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X •	PROPOSED TOP OF GRATE
TW XXX.X•	PROPOSED GRADE AT TOP OF WALL
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	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
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	EXISTING TREE TO REMAIN

NOTES:

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3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
4. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
N: 10172201.488, E:3096188.931
ELEV=851.75'

REPLACEMENT SHEET

1

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gje@eliaxis@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 3 OF 6)

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 28 OF 75

PROJECT No. / PERMIT# : SD-21-00027

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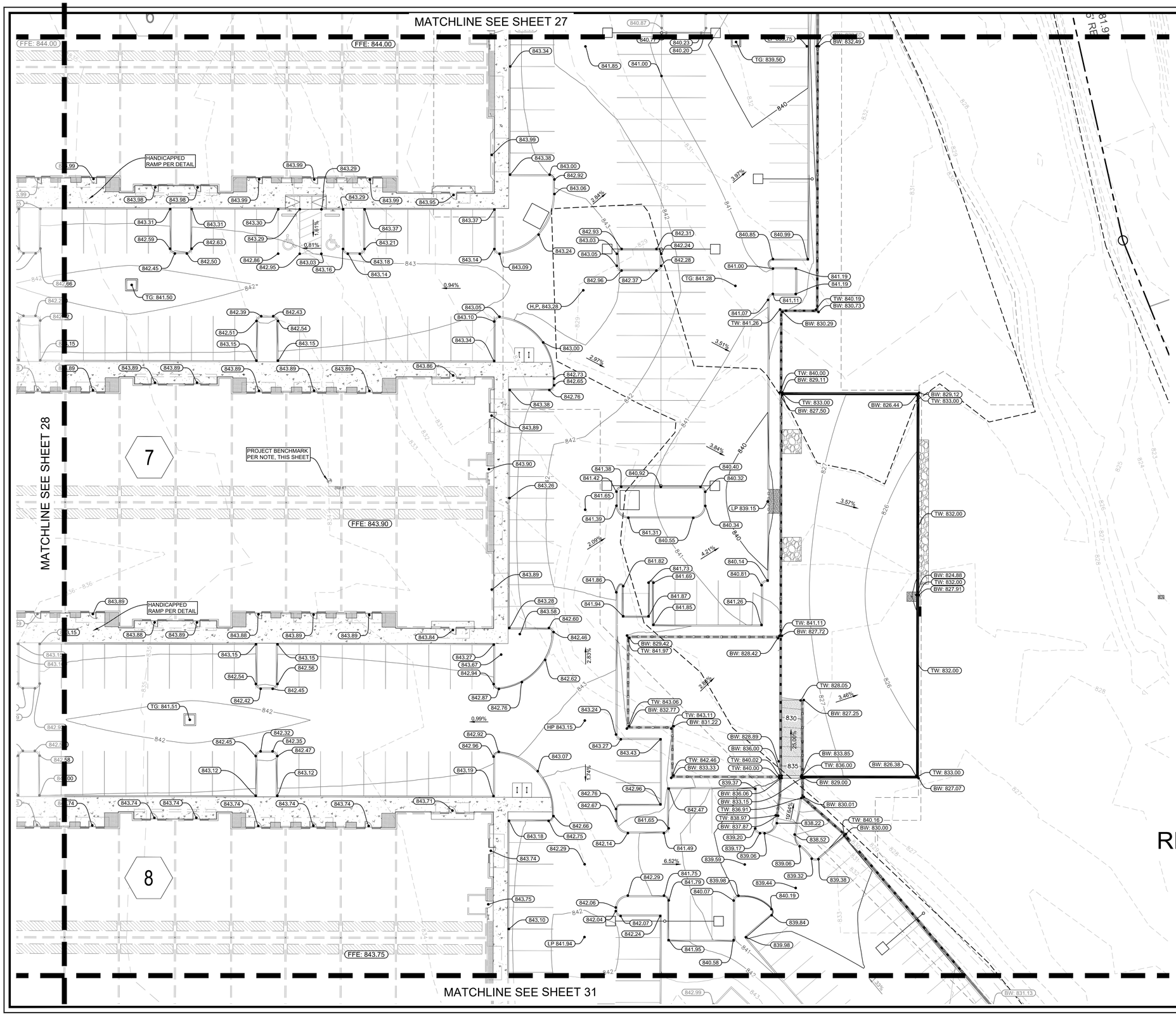

N

W E

S

0 20' 40'

GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X•	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X •	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X •	PROPOSED TOP OF GRATE
TW XXX.X•	PROPOSED GRADE AT TOP OF WALL
BW XXX.X•	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X•	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
HP	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
2. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
3. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
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5. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.

BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP N: 10172201.488, E:3096188.931 ELEV=851.75'

1

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877

ELI ENGINEERING

ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 4 OF 6)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET 29 OF *75*

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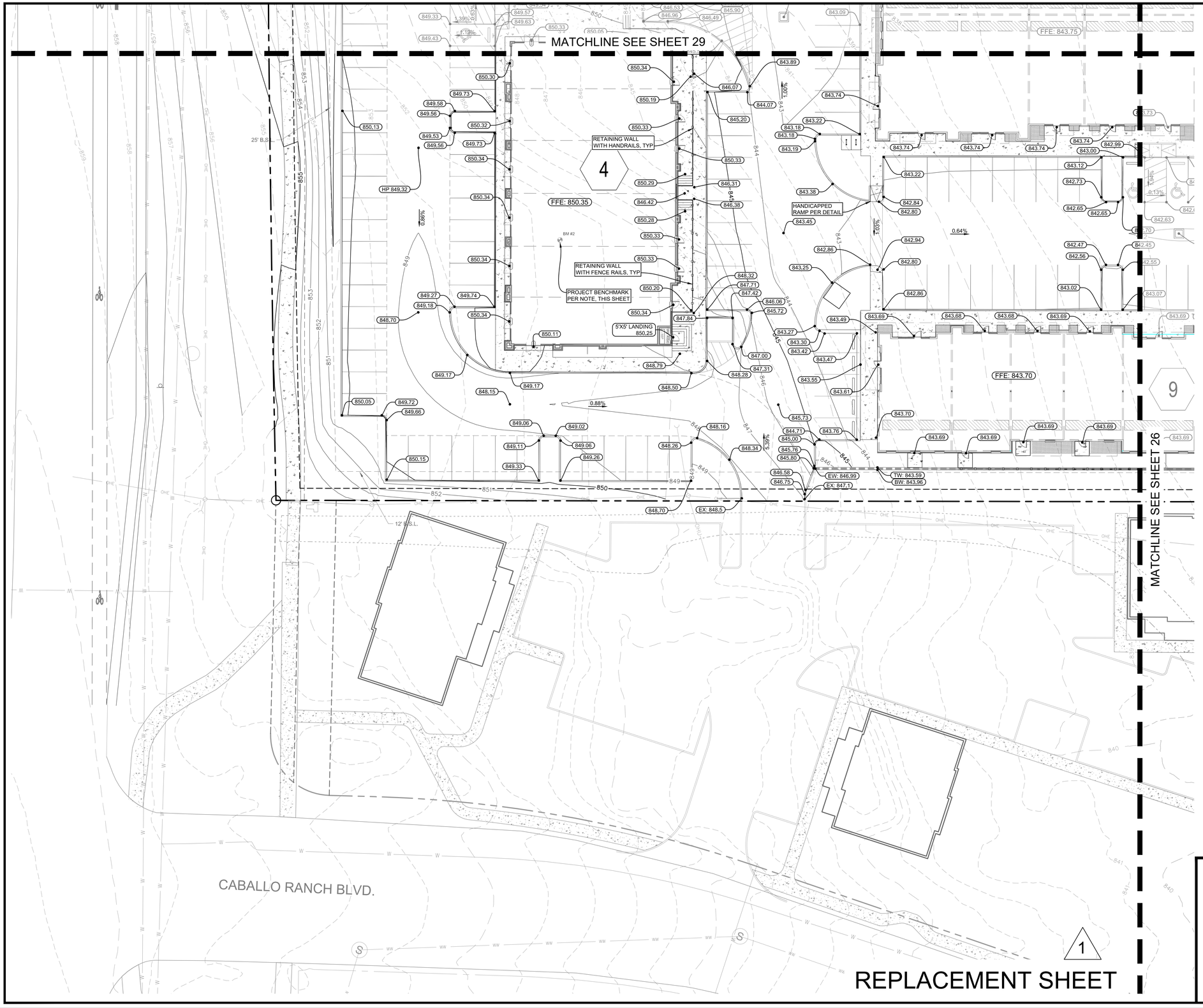
PROJECT No. / PERMIT# : SD-21-00027



N
W
E
S

0 20' 40'
GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X+	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X+	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X+	PROPOSED TOP OF GRATE
TW XXX.X+	PROPOSED GRADE AT TOP OF WALL
BW XXX.X+	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X+	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
HP	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

1. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
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BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
N: 10172201.488, E:3096188.931
ELEV=851.75'

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
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700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gje@eiaxis@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 5 OF 6)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET
30
OF
75

PROJECT No. / PERMIT# : SD-21-00027

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MATCHLINE SEE SHEET 29

MATCHLINE SEE SHEET 30

FFE: 843.75

FFE: 843.90

9

10

HANDICAPPED RAMP PER DETAIL

HANDICAPPED RAMP PER DETAIL

TG: 841.88

H.P. 843.20

LOT 31
COMMERCIAL RETAIL

CABALLO RANCH, SECTION 1
VOLUME EE PAGES 212-219
PLAT RECORDS

871.92'

S 69°09'04" W 1053.00'
(S 70°15'00" W 1054.50' RECORD)

12' B.S.L.

GRAPHIC SCALE 20'

LEGEND

	PROPERTY LINE
FF=XXX.XX	PROPOSED FINISHED FLOOR ELEVATION
XXX.X	PROPOSED TOP OF PAVEMENT ELEVATION
EX XXX.X	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X	PROPOSED TOP OF GRATE
TW XXX.X	PROPOSED GRADE AT TOP OF WALL
BW XXX.X	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
HP	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

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BENCHMARKS:

BM #1 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
ELEV=833.72'

BM #2 - SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP
N: 10172201.488, E:3096188.931
ELEV=851.75'

1

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED
PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877

ELI ENGINEERING

ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

GRADING PLAN (SHEET 6 OF 6)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET
31
OF
75

PROJECT No. / PERMIT# : SD-21-00027

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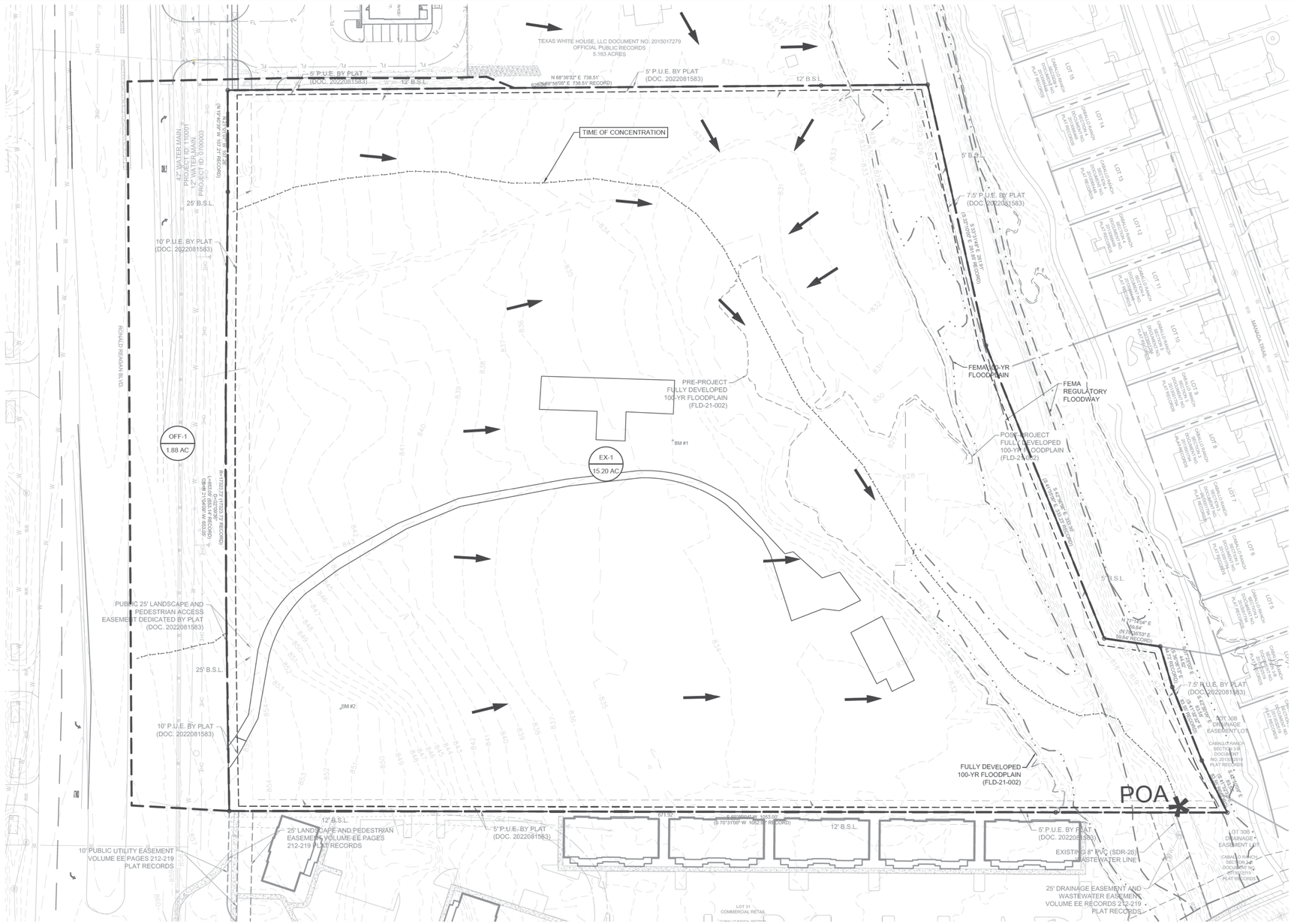


N

W E

S

0 60' 120'

GRAPHIC SCALE 60'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR AREA IN ACRES Q100 FLOW IN CFS
	PROPERTY LINE
	EXISTING STORM DRAIN LINE
	EXISTING DRAINAGE DIVIDE
	EXISTING STORM DRAIN INLET
	EXISTING STORM DRAIN MANHOLE
	EXISTING STORM DRAIN HEADWALL
	EXISTING FLOW DIRECTION
555	EXISTING CONTOUR

I CERTIFY THAT I HAVE PERSONALLY CONDUCTED A TOPOGRAPHIC REVIEW AND FIELD INVESTIGATION OF THE EXISTING AND PROPOSED FLOW PATTERNS FOR STORMWATER RUNOFF FROM THE SUBJECT DEVELOPMENT TO THE MAIN STEM OF BLOCK HOUSE CREEK. AT BUILD-OUT CONDITIONS ALLOWABLE BY ZONING, RESTRICTIVE COVENANT OR PLAT NOTE, THE STORMWATER FLOWS FROM THE SUBJECT DEVELOPMENT WILL NOT CAUSE ANY ADDITIONAL ADVERSE FLOODING IMPACTS FOR STORMS OF MAGNITUDE UP THROUGH THE 100-YEAR EVENT.

BENCHMARKS

BENCHNARK NOTES:

BENCHMARK 1: SET 1/2 " STEEL ROD WITH AN ORANGE "RPLS 5207" PLASTIC CAP.
NORTHING: 10172591.160
EASTING: 3096415.001
ELEVATION: 833.72'

BENCHMARK 2: SET 1/2" STEEL ROD WITH AN ORANGE "RPLS 5207 CAP
NORTHING: 10172201.448
EASTING: 3096188.931
ELEVATION: 851.75

Ronald Reagan Square

DRAINAGE CALCULATIONS - SCS METHOD - EXISTING

DRAINAGE AREA	AREA (SF)	AREA (AC)	IMPERVIOUS COVER (SF)	IMPERVIOUS COVER (%)	WEIGHTED CURVE NUMBER (CN)	SHEET FLOW				SHALLOW CONCENTRATED FLOW				CHANNEL FLOW								TOTAL Tc* (min)	Q_2 (cfs)	Q_{10} (cfs)	Q_{25} (cfs)	Q_{100} (cfs)
						P-2yr24hr 3.96 IN				Grass Surface				Channel Flow												
						N	L (ft)	S (ft/ft)	Tt(min)	L (ft)	V (fps)	S (ft/ft)	Tt (min)	L (ft)	V (fps)	a (ft^2)	Pw (ft)	r	n	S (ft/ft)	Tt(min)					
EX-1	661889.24	15.19	19541.00	3.0%	74.22	0.15	100.00	0.046	6.31	1241.32	2.71	0.028	7.64	0.00	-	0.00	0.00	-	0.000	-	0.00	13.96	29.50	63.20	87.70	130.70
OFF-1	82068.06	1.88	35387.10	43.1%	87.48	0.15	100.00	0.053	5.96	0.00	-	-	0.00	0.00	-	0.00	0.00	-	0.000	-	0.00	5.97	8.10	13.80	17.60	24.20

*Per City of Austin Drainage Criteria Manual, minimum T_c = 5 min

	Q_2	Q_{10}	Q_{25}	Q_{100}
POA	34.70	72.10	99.20	146.90

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM

TBPE Firm No. 928

Bradley Wilkins
STATE OF TEXAS
BRADLEY M. WILKINS
141652
LICENSED
PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000	DESIGNED BY: JML
DATE AUGUST 2022	DRAWN BY: JML
SCALE: AS SHOWN	CHECKED BY: BMW

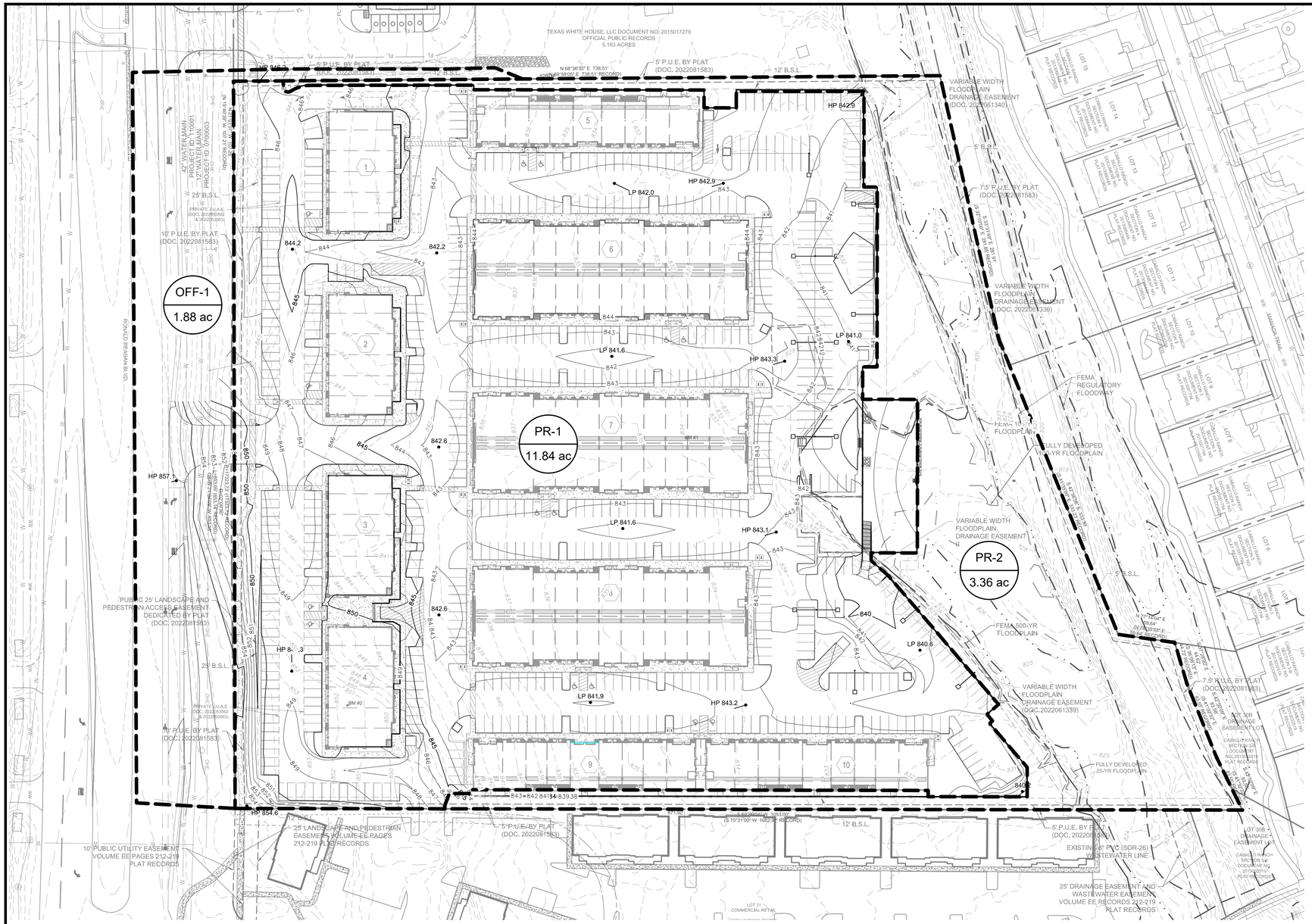
EXISTING DRAINAGE AREA MAP

RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
32 OF 75

SD-21-00027



LEGEND

XX-1 / 0.0 ac	AREA DESIGNATOR / AREA IN ACRES
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

I CERTIFY THAT I HAVE PERSONALLY CONDUCTED A TOPOGRAPHIC REVIEW AND FIELD INVESTIGATION OF THE EXISTING AND PROPOSED FLOW PATTERNS FOR STORMWATER RUNOFF FROM THE SUBJECT DEVELOPMENT TO THE MAIN STEM OF BLOCK HOUSE CREEK. AT BUILD-OUT CONDITIONS ALLOWABLE BY ZONING, RESTRICTIVE COVENANT OR PLAT NOTE, THE STORMWATER FLOWS FROM THE SUBJECT DEVELOPMENT WILL NOT CAUSE ANY ADDITIONAL ADVERSE FLOODING IMPACTS FOR STORMS OF MAGNITUDE UP THROUGH THE 100-YEAR EVENT.

THIS PROJECT PROPOSES NO DETENTION FOR THE PROPOSED RUNOFF. PLEASE REFER TO FLD-21-002.

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
Aug 02, 2023

RONALD REAGAN SQUARE -OVERALL SITE
DRAINAGE CALCULATIONS - RATIONAL METHOD - PROPOSED

AREA ID	AREA (AC)	LAND USE		DEVELOPED C-VALUE (CONCRETE)						ELOPED C-VALUE (Grass Areas (Lawns, Parks, etc.; Fla						WT C-VALUE						TC-MIN	I(IN/HR)						Q(CFS)					
		DEVELOPED AREA (AC)	UNDEVELOPED AREA (AC)	C2	C5	C10	C25	C50	C100	C2	C5	C10	C25	C50	C100	C2	C5	C10	C25	C50	C100		I2	I5	I10	I25	I50	I100	Q2	Q5	Q10	Q25	Q50	Q100
PR-1	11.84	11.84	1.36	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.77	0.83	0.86	0.91	0.96	1.01	5.00	6.18	7.80	9.29	11.45	13.30	15.24	56.34	76.65	94.59	123.37	151.17	182.25
PR2	3.36	3.36	3.36	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.96	1.03	1.08	1.17	1.24	1.33	5.00	6.18	7.80	9.29	11.45	13.30	15.24	19.93	26.99	33.71	45.01	55.41	68.10
OFF-1	1.88	1.88	0.81	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.84	0.90	0.94	1.01	1.06	1.13	5.00	6.18	7.80	9.29	11.45	13.30	15.24	9.76	13.20	16.42	21.74	26.50	32.38
																						POA	6.18	7.80	9.29	11.45	13.30	15.24	86.03	116.84	144.72	190.12	233.08	282.73

IDF Curve Parameters – Fit to Atlas 14 Data						
PARAM	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
a	46.14	53.62	61.08	70.71	78.96	84.57
b	9.47	8.83	8.41	8.12	7.9	7.47
c	0.7523	0.7341	0.7253	0.7071	0.6964	0.679

1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : _-_-_

ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8085
TBPELS FIRM No. 17877
gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

PROPOSED DRAINAGE AREA MAP

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 33 OF 75

PROJECT No. / PERMIT# : SD-21-00027

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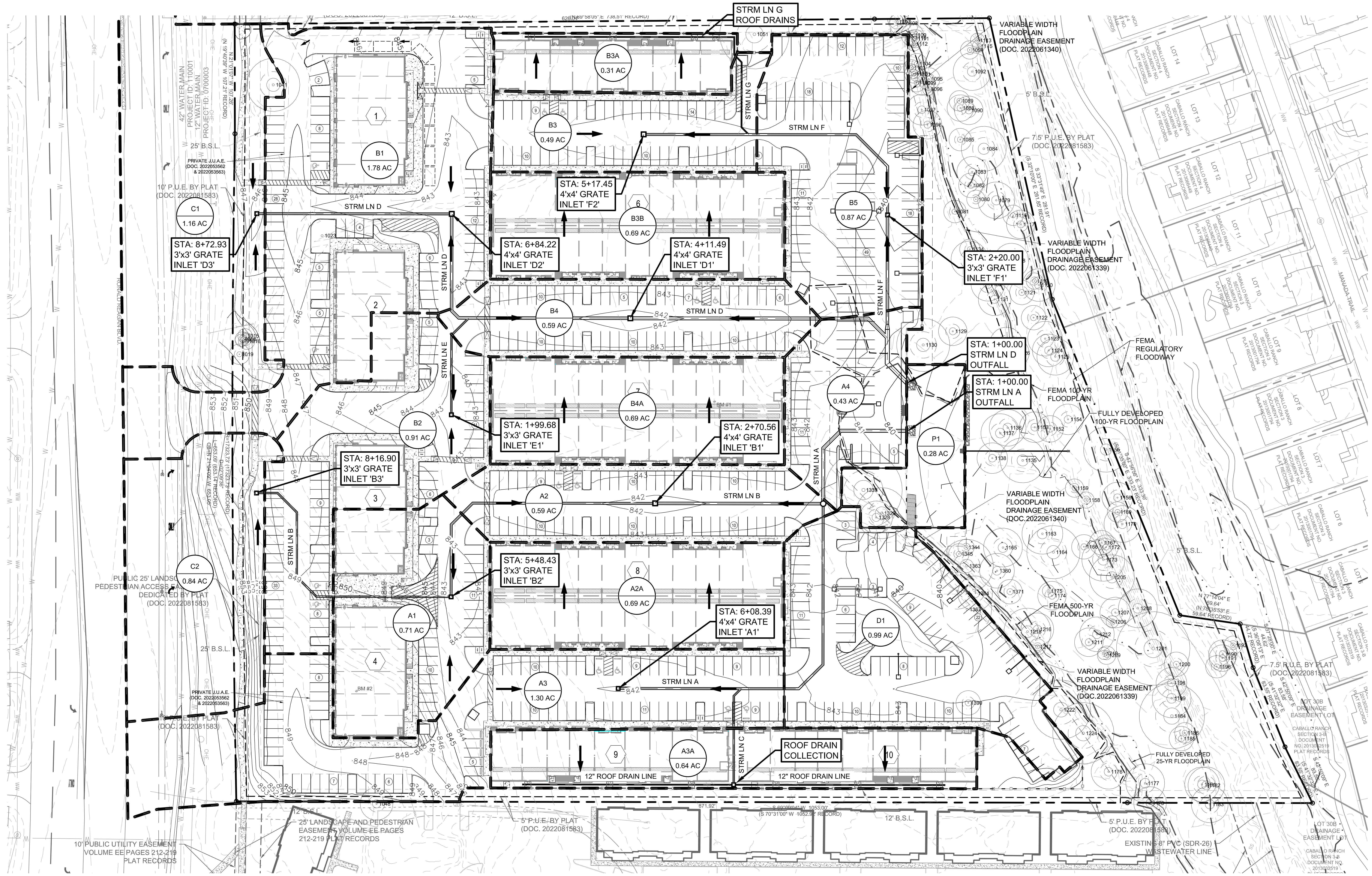
RONALD REAGAN SQUARE - STORM DRAIN CALCULATIONS

AREA ID	AREA (AC)	LAND USE: DEVELOPED AREA (AC)	LAND USE: UNDEVELOPED AREA (AC)	DEVELOPED C-VALUE (CONCRETE): C2	C5	C10	C25	C50	C100	UNDEVELOPED C-VALUE (Grass Areas (Lawns, Parks, etc.; Flat, 0-2%): C2	C5	C10	C25	C50	C100	WT C-VALUE: C2	C5	C10	C25	C50	C100	TC-MIN	I(IN/HR): I2	I5	I10	I25	I50	I100	Q(CFS): Q2	Q5	Q10	Q25	Q50	Q100
A1	0.71	0.71	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.29	4.43	5.47	7.15	8.69	10.50
A2	0.59	0.59	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	2.73	3.68	4.55	5.94	7.22	8.72
A2A	0.68	0.68	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.15	4.24	5.24	6.85	8.32	10.05
A3	1.29	1.29	0.10	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.77	0.82	0.85	0.90	0.94	1.00	5.00	6.18	7.80	9.29	11.45	13.30	15.24	6.14	8.25	10.19	13.29	16.13	19.66
A3A	0.64	0.64	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	2.97	3.99	4.93	6.45	7.83	9.46
A4	0.43	0.43	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	1.99	2.68	3.32	4.33	5.26	6.36
B1	1.77	1.77	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	8.20	11.04	13.65	17.83	21.66	26.17
B2	0.91	0.91	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	4.22	5.68	7.02	9.17	11.13	13.45
B3	0.49	0.49	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	2.27	3.06	3.78	4.94	6.00	7.24
B3A	0.31	0.31	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	1.44	1.93	2.39	3.12	3.79	4.58
B3B	0.69	0.69	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.20	4.31	5.32	6.95	8.44	10.20
B4	0.69	0.69	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.20	4.31	5.32	6.95	8.44	10.20
B4A	0.69	0.69	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.20	4.31	5.32	6.95	8.44	10.20
B5	0.87	0.87	0.00	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	4.03	5.43	6.71	8.77	10.65	12.86
C1	1.16	0.50	0.67	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.44	0.47	0.50	0.54	0.58	0.62	5.00	6.18	7.80	9.29	11.45	13.30	15.24	3.15	4.25	5.39	7.17	8.95	10.96
C2	0.84	0.31	0.53	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.41	0.44	0.46	0.51	0.54	0.59	5.00	6.18	7.80	9.29	11.45	13.30	15.24	2.13	2.88	3.59	4.91	6.03	7.55
D1	0.99	0.99	0	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.75	0.80	0.83	0.88	0.92	0.97	5.00	6.18	7.80	9.29	11.45	13.30	15.24	4.59	6.18	7.63	9.98	12.11	14.63
P1	0.28	0.27	0.01	0.75	0.80	0.83	0.88	0.92	0.97	0.21	0.23	0.25	0.29	0.32	0.36	0.73	0.78	0.81	0.86	0.90	0.95	5.00	6.18	7.80	9.29	11.45	13.30	15.24	1.26	1.70	2.11	2.76	3.35	4.05
																											TOTAL		61.16	82.35	101.93	133.51	162.44	196.84



Cedar Park IDF Curve Constants			
Frequency	a	b	c
2	46.14	9.47	0.7523
10	61.08	8.41	0.7253
25	70.71	8.12	0.7071
100	84.57	7.47	0.679

N E S W

0 60' 120'
GRAPHIC SCALE 60'

LEGEND

- X-1 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 PROPOSED CONTOUR
- 555 EXISTING CONTOUR

1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # :

BY | REVISION | DATE | NO.

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
gejtexas@gmail.com
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

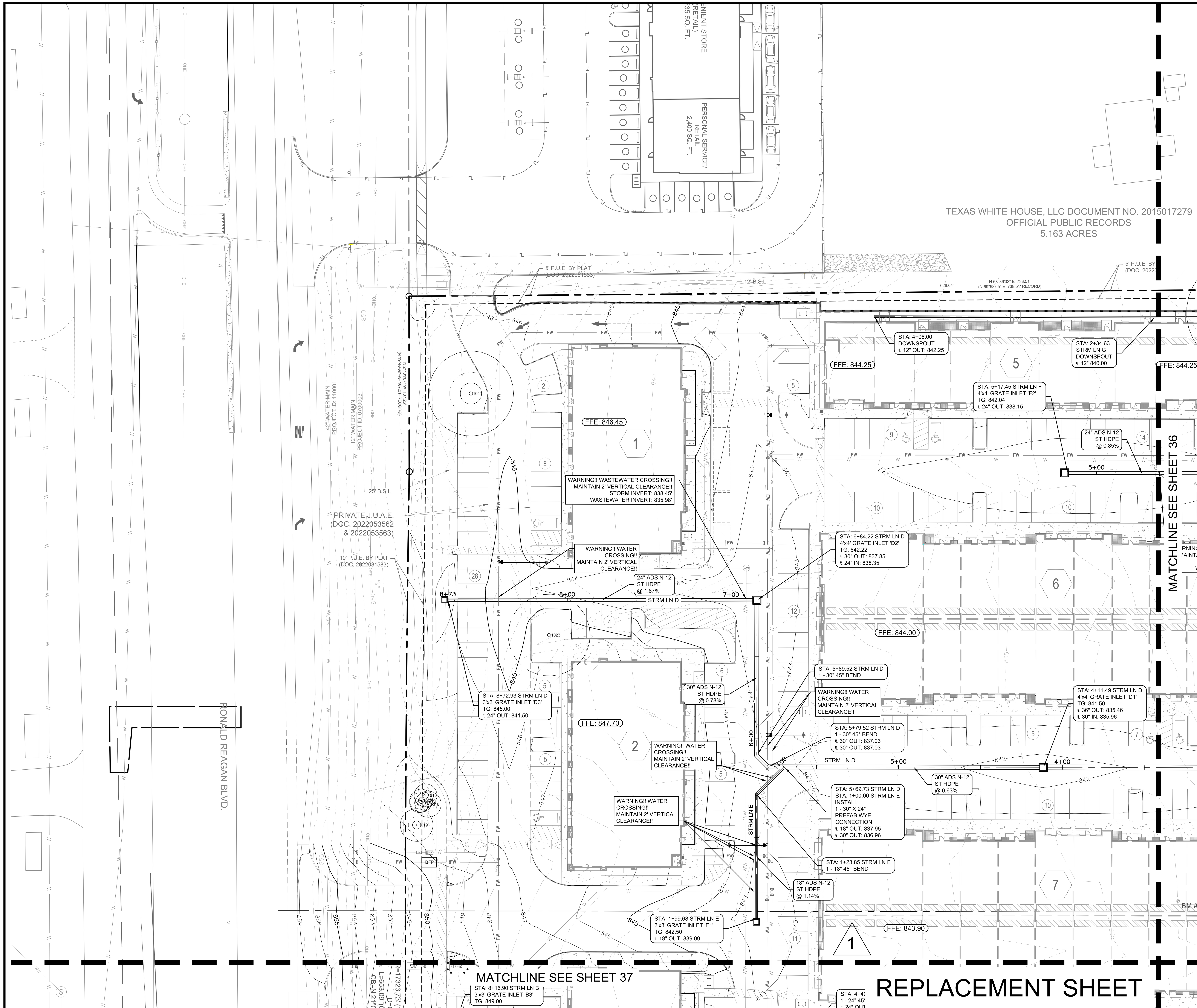
CIVIL SITE DEVELOPMENT PLANS

INLET DRAINAGE AREA MAP

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 34 OF 75

PROJECT No. / PERMIT# : SD-21-00027



REPLACEMENT SHEET

GRAPHIC SCALE 30'

LEGEND

	PROPERTY LINE
	PROPOSED WASTEWATER LINE
	PROPOSED WATER LINE
	PROPOSED WASTEWATER MANHOLE
	PROPOSED WASTEWATER CLEANOUT
	WASTEWATER FLOW DIRECTION
	PROPOSED FIRE HYDRANT
	PROPOSED TAPPING SLEEVE & VALVE
	PROPOSED STORM DRAIN LINE
	PROPOSED STORM DRAIN INLET
	EXISTING OVERHEAD POWER LINE
	EXISTING WATER LINE
	EXISTING WASTEWATER LINE
	EXISTING STORM SEWER LINE
	EXISTING POWER POLE
	EXISTING FIRE HYDRANT
	EXISTING WATER METER
	EXISTING WASTEWATER MANHOLE

STORM SEWER PLAN NOTES

1. SEE MEP AND ARCHITECTURAL PLAN FOR ROOF DRAIN AND DOWNSPOUT CONNECTIONS TO BUILDING.
2. CONTRACTOR TO ADJUST MANHOLE RIM ELEVATIONS TO MATCH FINISHED GRADE.
3. CONTRACTOR TO REMOVE SILT AND DEBRIS FROM END OF EXISTING STORM SEWER PRIOR TO MAKING CONNECTION.
4. ALL MANHOLES SHALL BE CONSTRUCTED PER DETAIL ON SHEET 52.
5. ALL INLETS SHALL BE CONSTRUCTED PER DETAIL ON SHEET 52.
6. REFER TO CITY OF CEDAR PARK CONSTRUCTION DETAILS AND SPECS.
7. ALL STORM SEWER PIPES TO BE ADS N-12(ST) OR EQUAL WITH THE EXCEPTION OF PIPE LOCATED UNDER THE BUILDING. STORM SEWER PIPE UNDERNEATH THE BUILDING SHALL BE SCHEDULE 40 PVC PIPE AND EXTEND 5' BEYOND THE BUILDING FOUNDATION.
8. ALL BENDS WILL BE MANUFACTURED BENDS.
9. SEE SHEET 36 FOR STORM SEWER CALCULATIONS.

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
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Aug 02, 2023

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CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

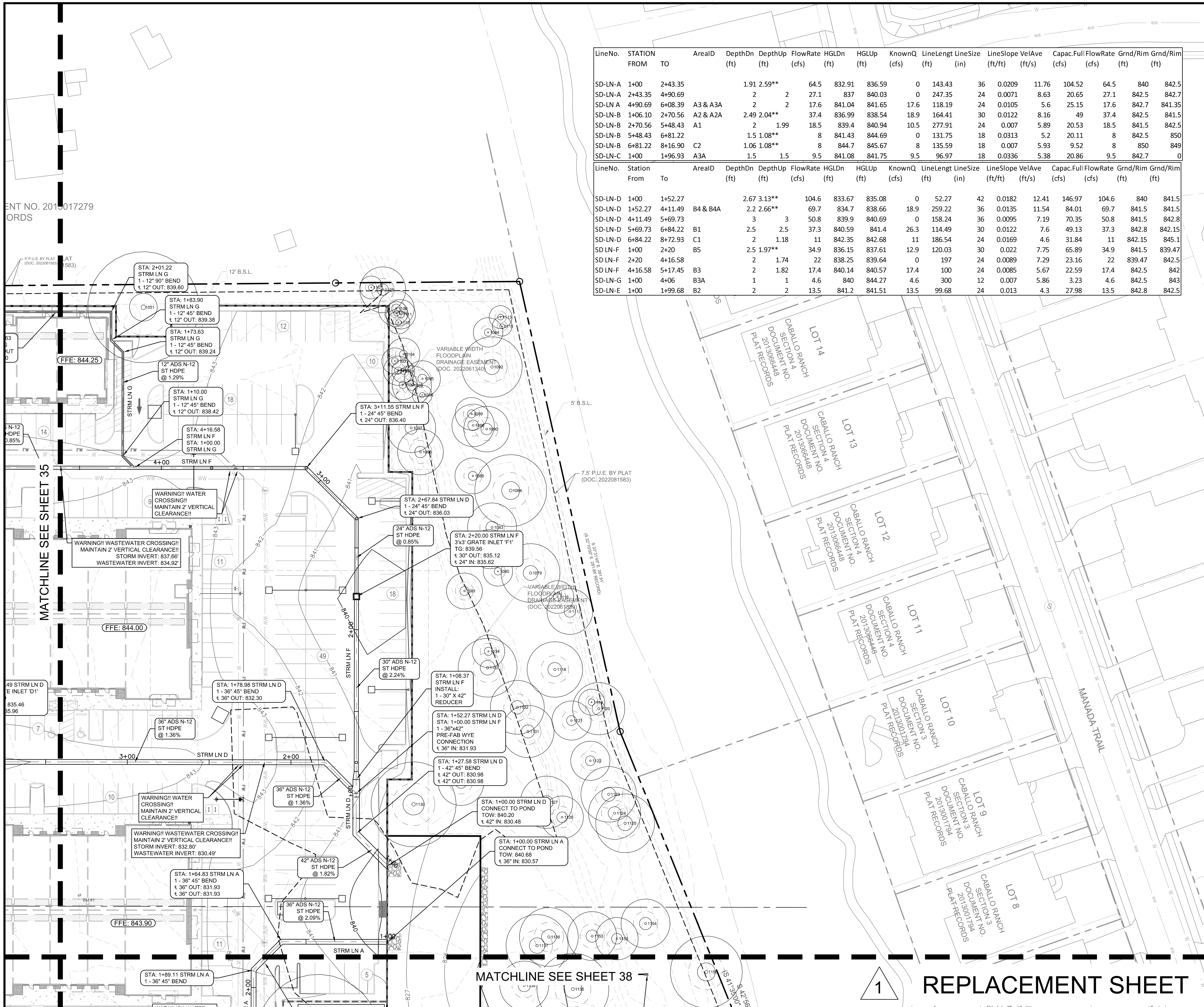
CIVIL SITE DEVELOPMENT PLANS

STORM PLAN (SHEET 1 OF 4)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

PROJECT / PERMIT #: _ _

PROJECT No. / PERMIT#: SD-21-00027



LineNo.	STATION FROM	TO	AreaID	DepthDn (ft)	DepthUp (ft)	FlowRate (cfs)	HGLDn (ft)	HGLUp (ft)	KnownQ (cfs)	LineLengt (ft)	LineSize (in)	LineSlope (ft/ft)	VelAve (ft/s)	Capac.Full (cfs)	FlowRate (cfs)	Grnd/Rim (ft)	Grnd/Rim (ft)
SD-LN-A	1+00	2+43.35		1.91	2.59**	64.5	832.91	836.59	0	143.43	36	0.0209	11.76	104.52	64.5	840	842.5
SD-LN-A	2+43.35	4+90.69		2	2	27.1	837	840.03	0	247.35	24	0.0071	8.63	20.65	27.1	842.5	842.7
SD-LN A	4+90.69	6+08.39	A3 & A3A	2	2	17.6	841.04	841.65	17.6	118.19	24	0.0105	5.6	25.15	17.6	842.7	841.35
SD-LN-B	1+06.10	2+70.56	A2 & A2A	2.49	2.04**	37.4	836.99	838.54	18.9	164.41	30	0.0122	8.16	49	37.4	842.5	841.5
SD-LN-B	2+70.56	5+48.43	A1	2	1.99	18.5	839.4	840.94	10.5	277.91	24	0.007	5.89	20.53	18.5	841.5	842.5
SD-LN-B	5+48.43	6+81.22		1.5	1.08**	8	841.43	844.69	0	131.75	18	0.0313	5.2	20.11	8	842.5	850
SD-LN-B	6+81.22	8+16.90	C2	1.06	1.08**	8	844.7	845.67	8	135.59	18	0.007	5.93	9.52	8	850	849
SD-LN-C	1+00	1+96.93	A3A	1.5	1.5	9.5	841.08	841.75	9.5	96.97	18	0.0336	5.38	20.86	9.5	842.7	0

LineNo.	Station From	To	AreaID	DepthDn (ft)	DepthUp (ft)	FlowRate (cfs)	HGLDn (ft)	HGLUp (ft)	KnownQ (cfs)	LineLengt (ft)	LineSize (in)	LineSlope (ft/ft)	VelAve (ft/s)	Capac.Full (cfs)	FlowRate (cfs)	Grnd/Rim (ft)	Grnd/Rim (ft)
SD-LN-D	1+00	1+52.27		2.67	3.13**	104.6	833.67	835.08	0	52.27	42	0.0182	12.41	146.97	104.6	840	841.5
SD-LN-D	1+52.27	4+11.49	B4 & B4A	2.2	2.66**	69.7	834.7	838.66	18.9	259.22	36	0.0135	11.54	84.01	69.7	841.5	841.5
SD-LN-D	4+11.49	5+69.73		3	3	50.8	839.9	840.69	0	158.24	36	0.0095	7.19	70.35	50.8	841.5	842.8
SD-LN-D	5+69.73	6+84.22	B1	2.5	2.5	37.3	840.59	841.4	26.3	114.49	30	0.0122	7.6	49.13	37.3	842.8	842.15
SD-LN-D	6+84.22	8+72.93	C1	2	1.18	11	842.35	842.68	11	186.54	24	0.0169	4.6	31.84	11	842.15	845.1
SD LN-F	1+00	2+20	B5	2.5	1.97**	34.9	836.15	837.61	12.9	120.03	30	0.022	7.75	65.89	34.9	841.5	839.47
SD LN-F	2+20	4+16.58		2	1.74	22	838.25	839.64	0	197	24	0.0089	7.29	23.16	22	839.47	842.5
SD LN-F	4+16.58	5+17.45	B3	2	1.82	17.4	840.14	840.57	17.4	100	24	0.0085	5.67	22.59	17.4	842.5	842
SD-LN-G	1+00	4+06	B3A	1	1	4.6	840	844.27	4.6	300	12	0.007	5.86	3.23	4.6	842.5	843
SD-LN-E	1+00	1+99.68	B2	2	2	13.5	841.2	841.51	13.5	99.68	24	0.013	4.3	27.98	13.5	842.8	842.5

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

STORM SEWER PLAN NOTES

1. SEE MEP AND ARCHITECTURAL PLAN FOR ROOF DRAIN AND DOWNSPOUT CONNECTIONS TO BUILDING.
2. CONTRACTOR TO ADJUST MANHOLE RIM ELEVATIONS TO MATCH FINISHED GRADE.
3. CONTRACTOR TO REMOVE SILT AND DEBRIS FROM END OF EXISTING STORM SEWER PRIOR TO MAKING CONNECTION.
4. ALL MANHOLES SHALL BE CONSTRUCTED PER DETAIL ON SHEET 52.
5. ALL INLETS SHALL BE CONSTRUCTED PER DETAIL ON SHEET 52.
6. REFER TO CITY OF CEDAR PARK CONSTRUCTION DETAILS AND SPECS.
7. ALL STORM SEWER PIPES TO BE ADS N-12(ST) OR EQUAL WITH THE EXCEPTION OF PIPE LOCATED UNDER THE BUILDING. STORM SEWER PIPE UNDERNEATH THE BUILDING SHALL BE SCHEDULE 40 PVC PIPE AND EXTEND 5' BEYOND THE BUILDING FOUNDATION.
8. ALL BENDS WILL BE MANUFACTURED BENDS.
9. SEE SHEET 36 FOR STORM SEWER CALCULATIONS.

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # :

NO.	DATE	REVISION	BY

STATE OF TEXAS — GARY ELI JONES — 79198 — REGISTERED PROFESSIONAL ENGINEER

Aug 02, 2023

TBPELS FIRM No. 17877
gejtexas@gmail.com
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

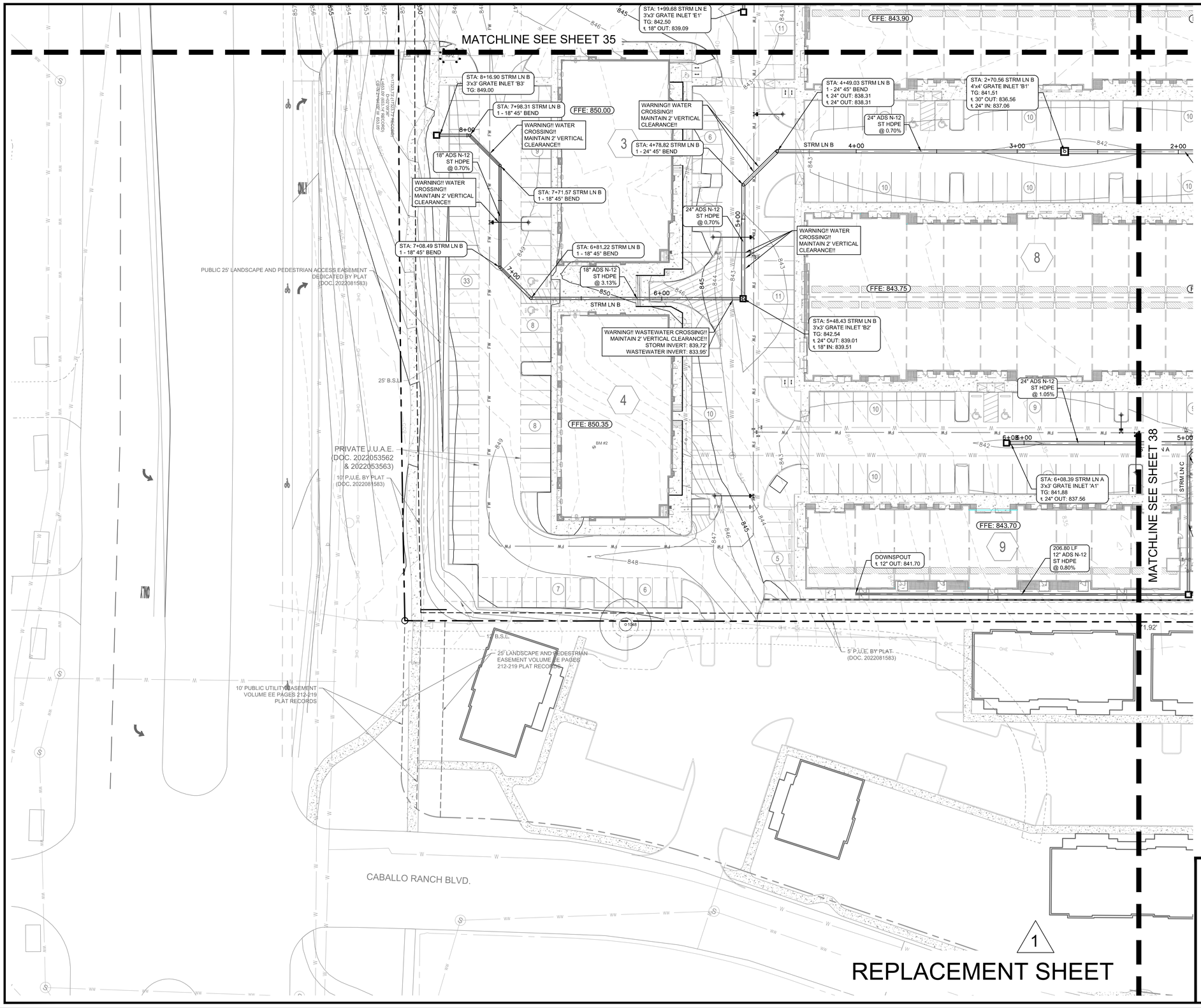
RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

STORM PLAN (SHEET 2 OF 4)

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

PROJECT No. / PERMIT# : SD-21-00027



N
W
E
S

0 30' 60'
GRAPHIC SCALE 30'

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

STORM SEWER PLAN NOTES

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8. ALL BENDS WILL BE MANUFACTURED BENDS.
9. SEE SHEET 36 FOR STORM SEWER CALCULATIONS.

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
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700 THERESA COVE, CEDAR PARK, TX 78613
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gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

STORM PLAN (SHEET 3 OF 4)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET
37
OF
75

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT No. / PERMIT# : SD-21-00027

PROJECT / PERMIT # : _-_-_

C:\Users\Home\Desktop\Projects\GEJ-ELI\Centro Plaza\PlanSheets\C - Overall Storm Plan.dwg Aug 02, 23 10:57 am

MATCHLINE SEE SHEET 36

MATCHLINE SEE SHEET 37

FFE: 843.90

FFE: 843.75

FFE: 843.90

STA: 1+89.11 STRM LN A
1 - 36° 45° BEND

WARNING!! WATER CROSSING!! MAINTAIN 2' VERTICAL CLEARANCE!!

30" ADS N-12 ST HDPE @ 1.22%

24" ADS N-12 ST HDPE @ 0.71%

WARNING!! WASTEWATER CROSSING!! MAINTAIN 2' VERTICAL CLEARANCE!! STORM INVERT: 832.25' WASTEWATER INVERT: 829,79'

STA: 2+43.35 STRM LN A
STA: 1+06.10 STRM LN B
5' DIA. MANHOLE PER CITY OF AUSTIN DETAIL 506S-5
TG: 843.15
℄ 36" OUT: 833.57
℄ 24" IN: 834.57
℄ 30" IN: 834.56

24" ADS N-12 ST HDPE @ 0.71%

WARNING!! WASTEWATER CROSSING!! MAINTAIN 2' VERTICAL CLEARANCE!! STORM INVERT: 835.30' WASTEWATER INVERT: 830,23'

STA: 4+90.69 STRM LN A
STA: 1+00.00 STRM LN C

STA: 4+00.82 STRM LN A
1 - 24" 45° BEND
℄ 24" OUT: 835.69
℄ 24" OUT: 835.69

STA: 4+34.22 STRM LN A
1 - 24" 45° BEND
℄ 24" OUT: 835.92

WARNING!! WATER CROSSING!! MAINTAIN 2' VERTICAL CLEARANCE!!

STA: 1+10.00
STRM LN C
1 - 18" 45° BEND
℄ 18" OUT: 837.16

18" ADS N-12 ST HDPE @ 3.38%

STA: 1+96.93
STRM LN C
INSTALL:
3' X 3' CONCRETE JUNCTION BOX
℄ 18" OUT 840.10

206.88 LF
12" ADS N-12 ST HDPE @ 0.80%

DOWNSPOUT
℄ 12" OUT: 841.70

STA: 2+04.62
POND OUTLET
WATER QUALITY RISER AND LEVEL INDICATOR
℄ 6" IN: 825.00
℄ 12" OUT: 825.00

12" RCP @ 0.96%

STA: 1+00.00
POND OUTLET
INSTALL CONCRETE HEADWALL CONFORMED TO EXISTING SLOPE
℄ 6" OUT: 824.00

VARIABLE WIDTH FLOODPLAIN DRAINAGE EASEMENT (DOC. 2022081583)

5' B.S.L.

12' B.S.L.

7.5' P.U.E. BY PLAT (DOC. 2022081583)

5' P.U.E. BY PLAT (DOC. 2022081583)

EXISTING 8" PVC (SDR-26) WASTEWATER LINE

25' DRAINAGE EASEMENT AND WASTEWATER EASEMENT VOLUME EE RECORDS 212-219 PLAT RECORDS

LOT 30B
DRAINAGE
EASEMENT LOT

CABALLO RANCH
SECTION 3-B
DOCUMENT
NO. 2013032519
PLAT RECORDS

LOT 7
LOT 6
LOT 5
LOT 4
LOT 3

CABALLO RANCH SECTION 3 DOCUMENT NO. 201300794 PLAT RECORDS

CABALLO RANCH SECTION 3-B DOCUMENT NO. 2013032519 PLAT RECORDS

LOT 31
COMMERCIAL RETAIL

CABALLO RANCH, SECTION 1
VOLUME EE PAGES 212-219
PLAT RECORDS

GRAPHIC SCALE 30'

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
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STORM SEWER PLAN NOTES

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7. ALL STORM SEWER PIPES TO BE ADS N-12(ST) OR EQUAL WITH THE EXCEPTION OF PIPE LOCATED UNDER THE BUILDING. STORM SEWER PIPE UNDERNEATH THE BUILDING SHALL BE SCHEDULE 40 PVC PIPE AND EXTEND 5' BEYOND THE BUILDING FOUNDATION.
8. ALL BENDS WILL BE MANUFACTURED BENDS.
9. SEE SHEET 36 FOR STORM SEWER CALCULATIONS.

1

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : _-_-_

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

ELI ENGINEERING
TBPELS FIRM No. 17877
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gje@texas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

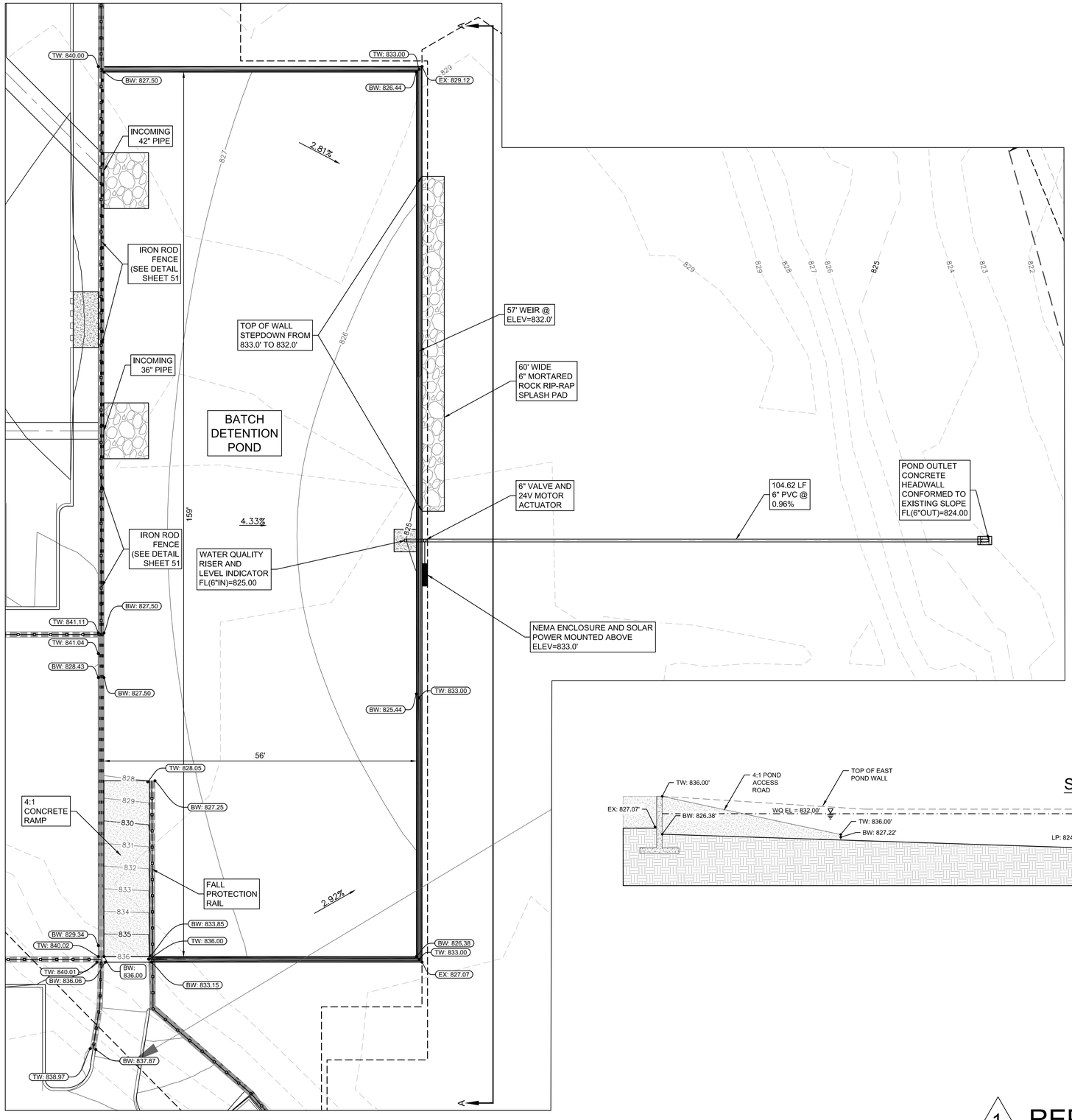
STORM PLAN (SHEET 4 OF 4)

DRAWING SCALE:	HORIZ.= VERT.=
SURVEYED:	
FILE NAME:	
DATE:	
DRAWN:	GEJ/JTC
DESIGNED:	EEI

SHEET
38
OF
75

PROJECT No. / PERMIT# : SD-21-00027

C:\Users\Home\Desktop\Projects\GEJ-ELI\Centro Plaza\PlanSheets\C - Overall Storm Plan.dwg Aug 02, 23 10:58 am

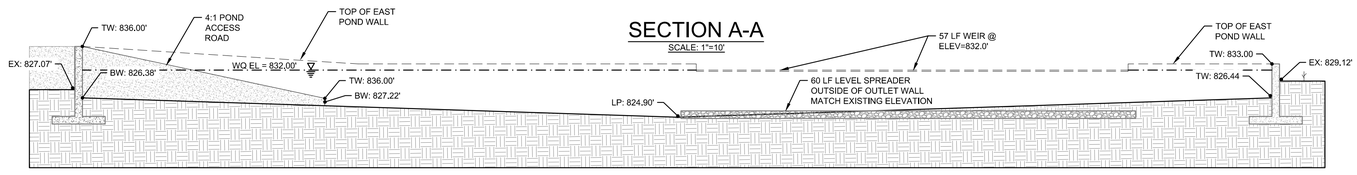


POND STAGE/STORAGE			
	ELEV	AREA (SF)	STORAGE (CF)
	825	0	0
	826	1616	808
	827	6289	4,761
	827.5	8876	8,552
	828	8876	12,990
	829	8876	21,866
	830	8876	30,742
	831	8876	39,618
WQE	832	8876	48,494
	833	8876	57,370

BATCH DETENTION POND - DRAWDOWN CALCULATIONS

Stage (ft amsl)	Storage (cf)	Head (ft)	Relative Volume (cf)	Time To Drain (hr)	Outflow Velocity (fps)
825	0	1.00	0	0.00	0.00
826	808	2.00	808	0.16	7.04
827	4,761	3.00	3953	0.65	8.62
827.5	8,552	3.50	3791	0.58	9.31
828	12,990	4.00	4438	0.63	9.95
829	21,866	5.00	8876	1.13	11.13
830	30,742	6.00	8876	1.03	12.19
831	39,618	7.00	8876	0.95	13.16
832	48,494	8.00	8876	0.89	14.07
		Complete Drawdown Time		**4.64**	

*Elevation of Downstream WSE =	824	ft asml
*Orifice Diameter (inches) =	6	in
*24-Hour Drawdown Volume =	188,216	cf



1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

GRAPHIC SCALE 10'

NO.	DATE	REVISION	BY

PROJECT / PERMIT # : ___-___-___

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

ELI ENGINEERING
TBPELS FIRM No. 17877
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gejtexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

WATER QUALITY POND PLAN

DRAWING SCALE: HORIZ.=
VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET 39 OF 75

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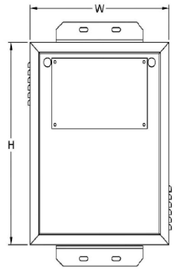
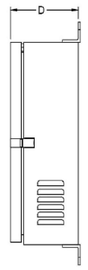
PROJECT No. / PERMIT# : SD-21-00027

Ground Mount Controller and Battery Enclosure



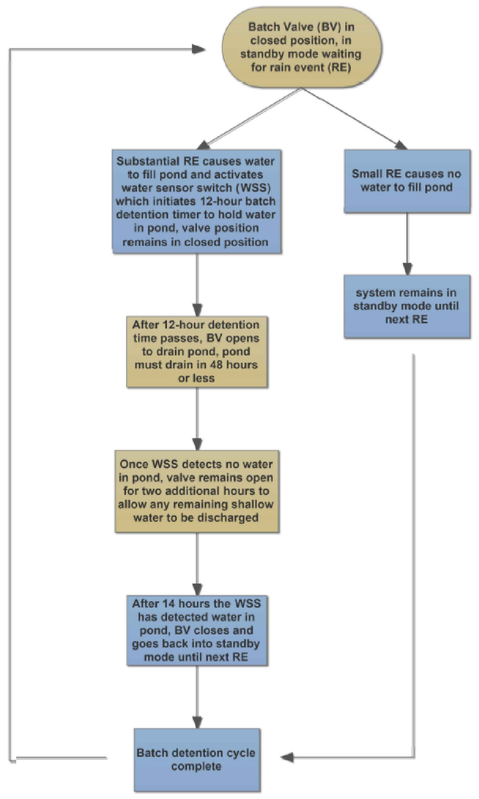
FRONT VIEW
DOOR REMOVED



RIGHT SIDE VIEW

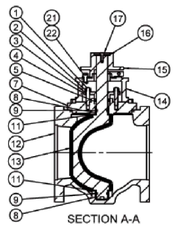
- Standard boxes are fabricated from .125" thick 5052--H32 aluminum
- Heavy--duty stainless steel continuous
- Heavy--duty stainless steel continuous hinge
- Seams are continuously welded and then sanded smooth
- Adjustable tension stainless steel padlock hasp
- Removable component mounting plate
- Standard finish is a bright white polyester powder--coat inside and out
- Two 7/8" diameter wire holes
- Built to NEMA 3R specifications
- Filtered or screened ventilation louvers
- Hinged front door with PORON door gasket
- Supplied with u--bolts (when pole specified)

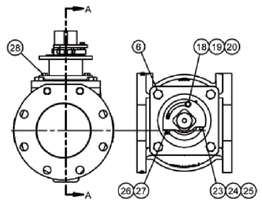
Batch Valve Programmable Logic Flow Chart



800 SERIES MATERIAL LIST

2.5" to 12", 212F Max Temp., 175 psi Max Press, Bi-Directional





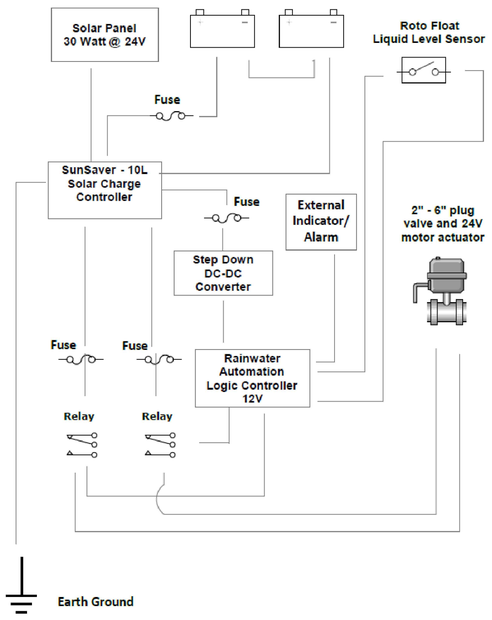
Item	Description	Material	Item	Description	Material
1	Gland Stud	Stainless Steel	15	Torque Collar	A536 GR 65-45-12
2	Hex Nut	Stainless Steel	16	Flat Washer	Q235-A Zinc Plated
3	Flat Washer	Stainless Steel	17	Socket Head Capscrew	Stainless Steel
4	Gland	ASTM A126 CL B	18	Hex Head Capscrew	Stainless Steel
5	V-Ring Set	NBR	19	Hex Nut	Stainless Steel
6	Hex Head Capscrew	Stainless Steel	20	Flat Washer	Stainless Steel
7	Cover	ASTM A126 CL B	21	Socket Head Capscrew	Stainless Steel
8	Bearing	SST, Sintered	22	Lock Washer	Stainless Steel
9	O-Ring	NBR	23	Socket Head Capscrew	Stainless Steel
10	O-Ring	NBR	24	Hex Nut	Stainless Steel
11	Thrust Washer	PTFE	25	Flat Washer	Stainless Steel
12	Body	ASTM A126 CL B	26	Hex Head Capscrew	Stainless Steel
13	Plug Molded	A536 GR 65-45-12 +NBR	27	Hex Nut	Stainless Steel
14	Torque Collar Adapter (Buried)	ASTM A126 CL B	28	Hex Head Capscrew	Stainless Steel

800 SERIES Cv Data (GPM@1PSI)

Size	2.5	3	4	5	6	8	10	12
Cv	425	680	1190	2000	2400	4600	5800	9100

Crispin/K-Flo Valves, 600 Fowler Ave., Berwick PA 18603 T: 800-247-VALV W: www.kflovalves.com

Circuit Block Diagram



PROMATION ENGINEERING
Precision Actuation for Industry

Actuator Specifications	P4		P5		P6	
Torque "lb/Nm	3500"lbs/400Nm		4400"lbs/500Nm		5750"lbs/650Nm	
Supply Voltage	12vac/vdc	24vac/vdc	12vac/vdc	24vac/vdc	12vac/vdc	24vac/vdc
Max Inrush Current	16.1A	9.2A	13.5A	9.0A	12.5A	8.5A
Running Current	16.1A	8.5A	14.1A	7.5A	12.3A	7.0A
Motor	DC Brush Type					
Runtime (90°@60Hz/vdc)	16 sec		22 sec		28 sec	
Runtime (90°@50Hz)	16 sec		22 sec		28 sec	
Duty Cycle	75%					
Motor Starts	1200 per hour					
Weight	47lbs/22kg					
Mechanical Connections	ISO5211 F10 8pt 35mm					
Electrical Entry	(2) 3/4" NPT					
Electrical Terminations	12-16ga					
Environmental Rating	NEMA 4/4X					
Manual Override	7.6" Handwheel					
Control	On/Off-Jog, Proportional					
Actuator Case material	Aluminum Alloy, Powder coated					
Motor Protection	230°F/110°C Thermal F* Class *Totally Enclosed Non-Ventilated Motors					
Ambient Temperature Operating Range	-22°F to +125°F -30°C to +52°C					

TCEQ CONSTRUCTION NOTES:

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

1 REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : __-__-____

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gelitexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE
CIVIL SITE DEVELOPMENT PLANS
WATER QUALITY
CALCULATIONS & DETAILS

DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

SHEET
40
OF
75

PROJECT No. / PERMIT# : SD-21-00027

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Centro Plaza
Date Prepared: 6/19/2022

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	15.20	acres
Predevelopment impervious area within the limits of the plan * =	0.45	acres
Total post-development impervious area within the limits of the plan * =	10.48	acres
Total post-development impervious cover fraction * =	0.69	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	8730	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1 "PR DA-1"

Total drainage basin/outfall area =	15.20	acres
Predevelopment impervious area within drainage basin/outfall area =	0.45	acres
Post-development impervious area within drainage basin/outfall area =	10.48	acres
Post-development impervious fraction within drainage basin/outfall area =	0.69	
$L_{M\ THIS\ BASIN}$ =	8730	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

Aqualogic Cartridge Filter
Bioretention
Contech StormFilter
Constructed Wetland
Extended Detention
Grassy Swale
Retention / Irrigation
Sand Filter
Stormceptor
Vegetated Filter Strips
Vortechs
Wet Basin
Wet Vault

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 =	11.84	acres
A_I =	10.48	acres
A_P =	1.36	acres
L_R =	10581	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 8730 lbs.

F = 0.83

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

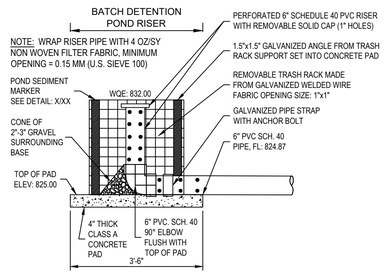
Rainfall Depth =	1.20	inches
Post Development Runoff Coefficient =	0.72	
On-site Water Quality Volume =	37277	cubic feet

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

Off-site area draining to BMP =	1.88	acres
Off-site Impervious cover draining to BMP =	0.81	acres
Impervious fraction of off-site area =	0.43	
Off-site Runoff Coefficient =	0.32	
Off-site Water Quality Volume =	2635	cubic feet
Storage for Sediment =	7982	
Total Capture Volume (required water quality volume(s) x 1.20) =	47894	cubic feet

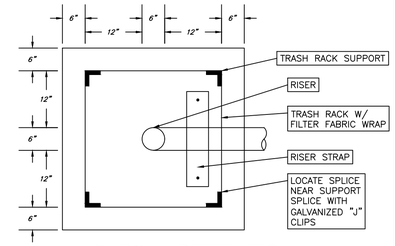
*** Table to Put in WQ Sheet

BATCH DETENTION POND		
Contributing Drainage Area =	PR DA-1	
Total Drainage Area =	15.20	acre
Pre-Development I.C. =	0.45	acre
Post-Development I.C. =	10.48	acre
Post-Development I.C. Fraction =	0.69	
$L_{M\ TOTAL\ PROJECT}$ =	8730	lbs
A_C =	**11.84**	acre
A_I =	**10.48**	acre
A_P =	**1.36**	acre
L_R =	**10581**	lbs
Desired L_M this basin =	8730	lbs
Fraction of Annual Runoff (F) =	0.83	
Rainfall Depth =	1.20	inch
Post Development Runoff Coefficient =	0.72	
On-site Water Quality Volume =	37277	cubic ft
Off-site area draining to BMP =	1.88	acre
Off-site Impervious cover draining to BMP =	0.81	acre
Impervious fraction of off-site area =	-	
Off-site Runoff Coefficient =	-	
Off-site Water Quality Volume =	2635	cubic ft
Storage for Sediment =	7982	cubic ft
Total Capture Volume Required =	47894	cubic ft
Total Capture Volume Provided =	48494	cubic ft



WATER QUALITY RISER PIPE SECTION

A NTS



BATCH DETENTION POND RISER PIPE

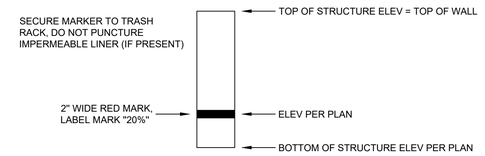
B NTS

NOTES:

1. POST THE FOLLOWING SIGN UNDER THE VISIBLE ALARM FOR EMERGENCY CONTACT:

EMERGENCY CONTACT:
OWNER: XXX–XXX–XXXX
TCEQ: 512–339–2929

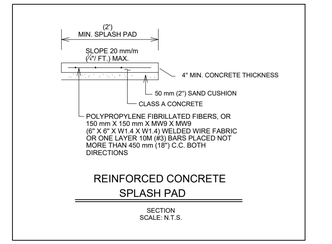
2. POND BOTTOM SHALL BE VEGETATED PER THE SEEDING SPECIFICATION ON THE EROSION CONTROL PLAN SHEET.



WATER QUALITY POND SEDIMENT MARKER

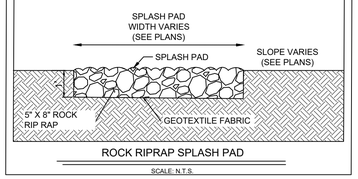
N.T.S.

C NTS



REINFORCED CONCRETE SPLASH PAD

SECTION
SCALE: N.T.S.



ROCK RIPRAP SPLASH PAD

SCALE: N.T.S.

1

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : __-__-____

NO.	DATE	REVISION	BY

STATE OF TEXAS
GARY ELI JONES
79198
REGISTERED PROFESSIONAL ENGINEER
Aug 04, 2023

TBPELS FIRM No. 17877

ELI ENGINEERING

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700 THERESA COVE, CEDAR PARK, TX 78613
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CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

CIVIL SITE DEVELOPMENT PLANS

WATER QUALITY CALCULATIONS & DETAILS

DRAWING SCALE: HORIZ.=
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SURVEYED:
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SHEET
41
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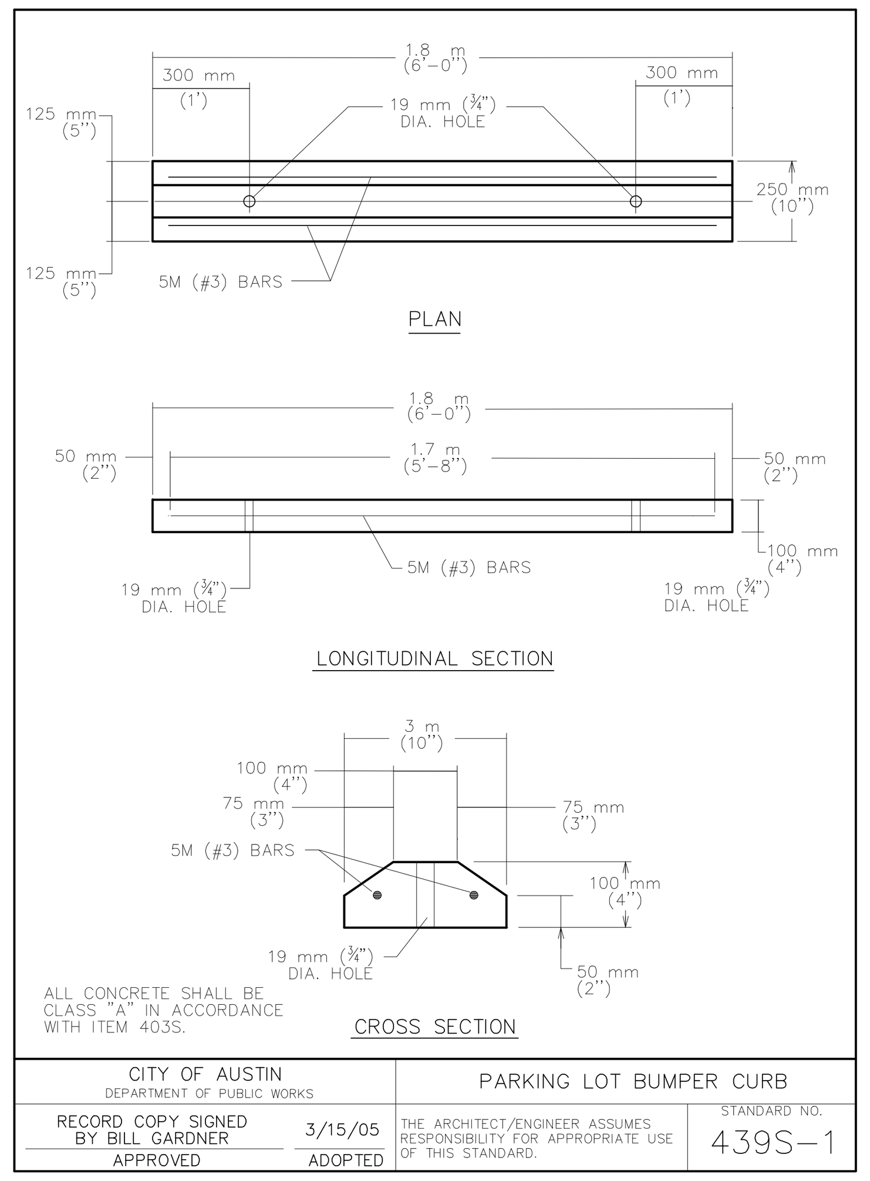
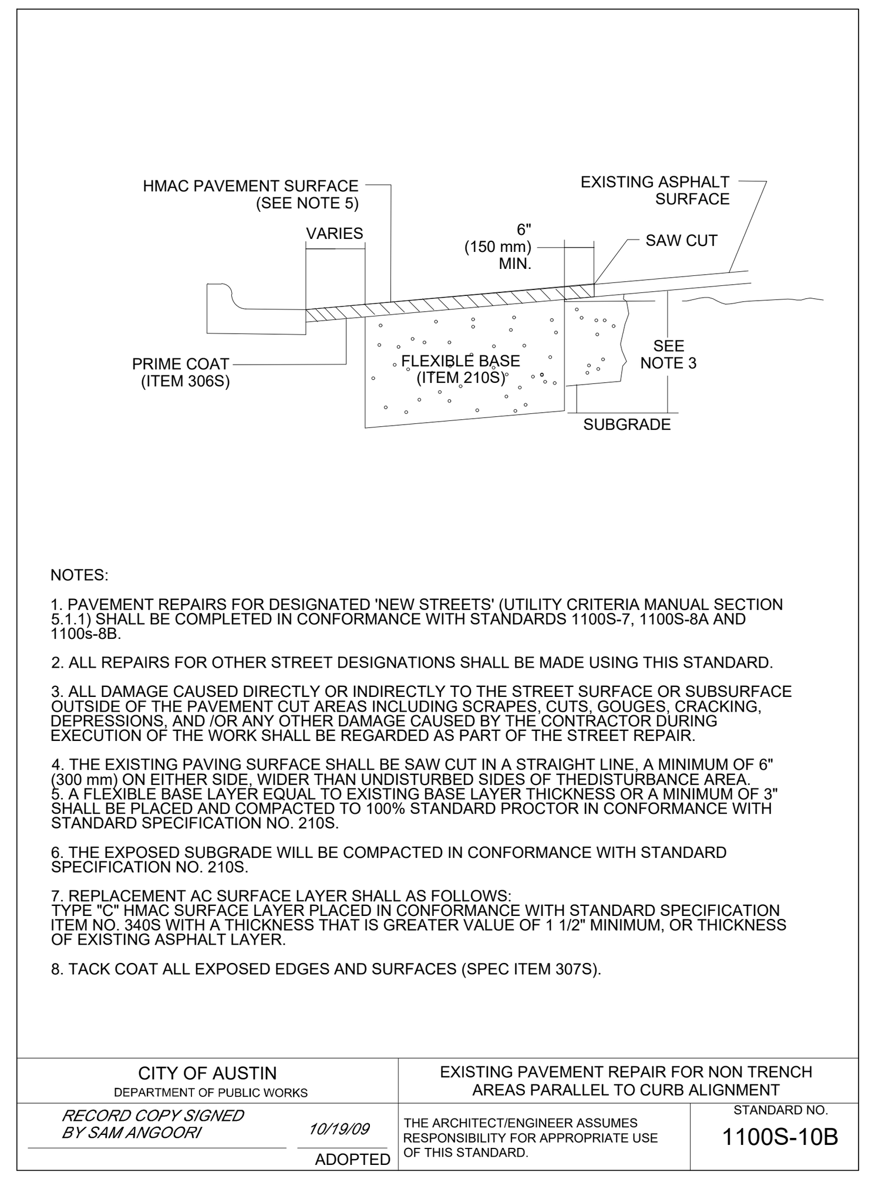
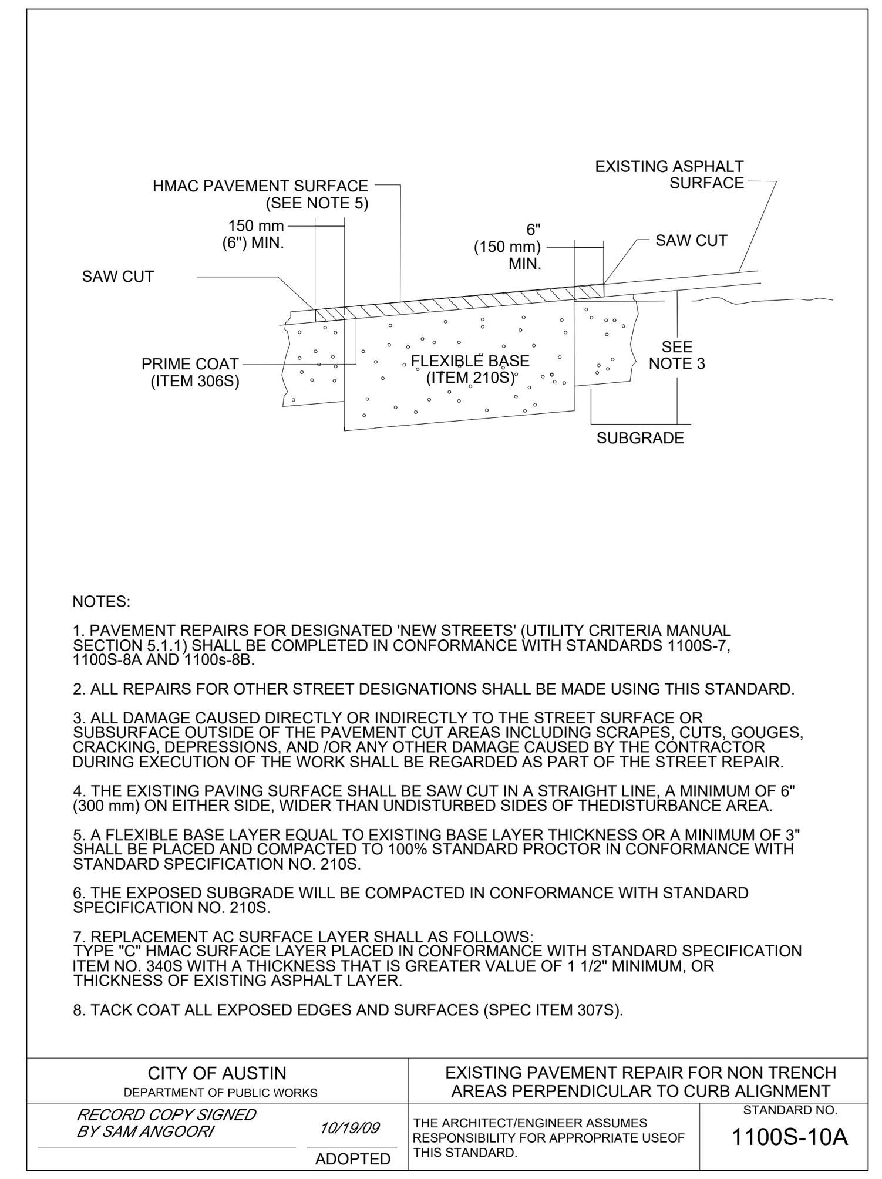
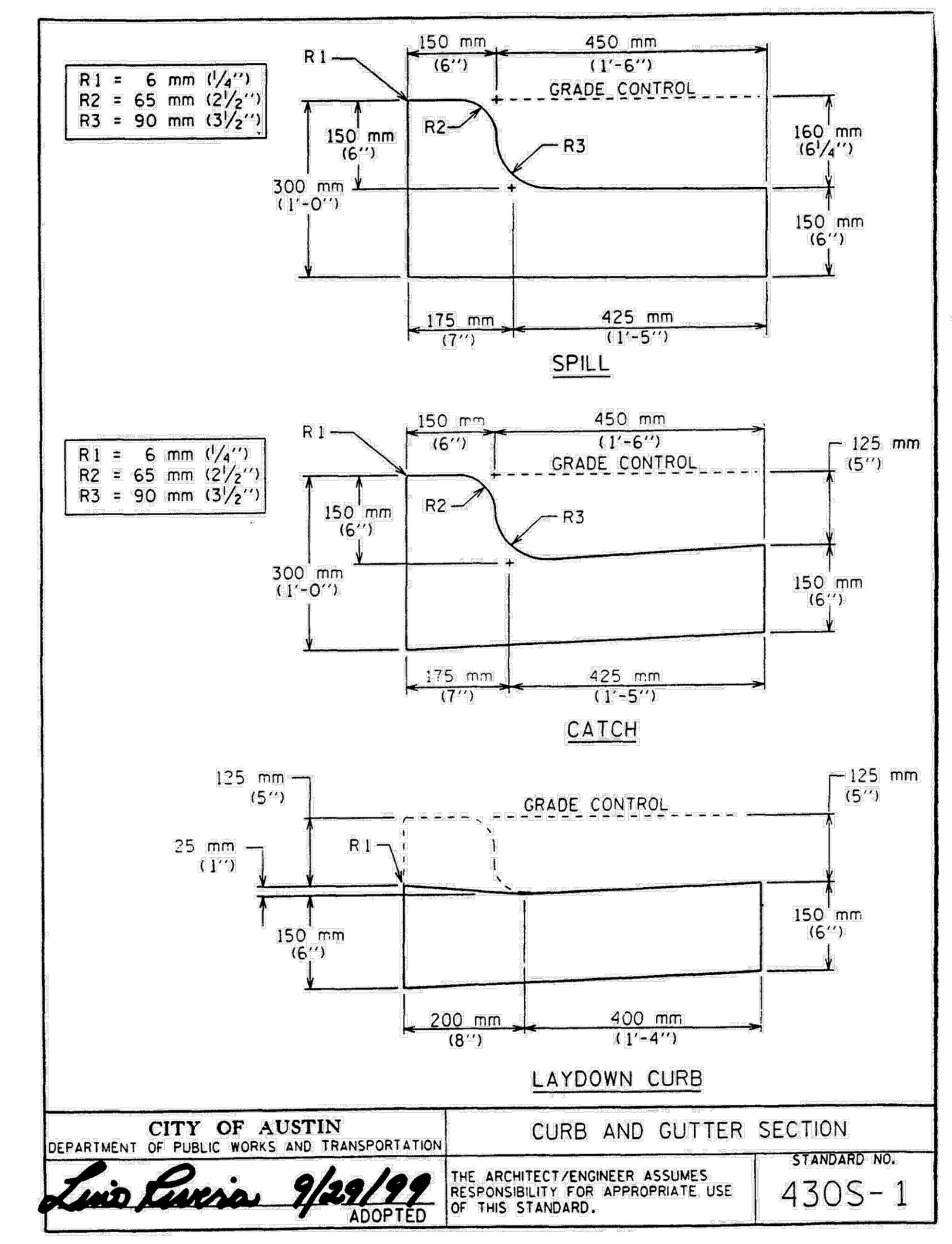
75

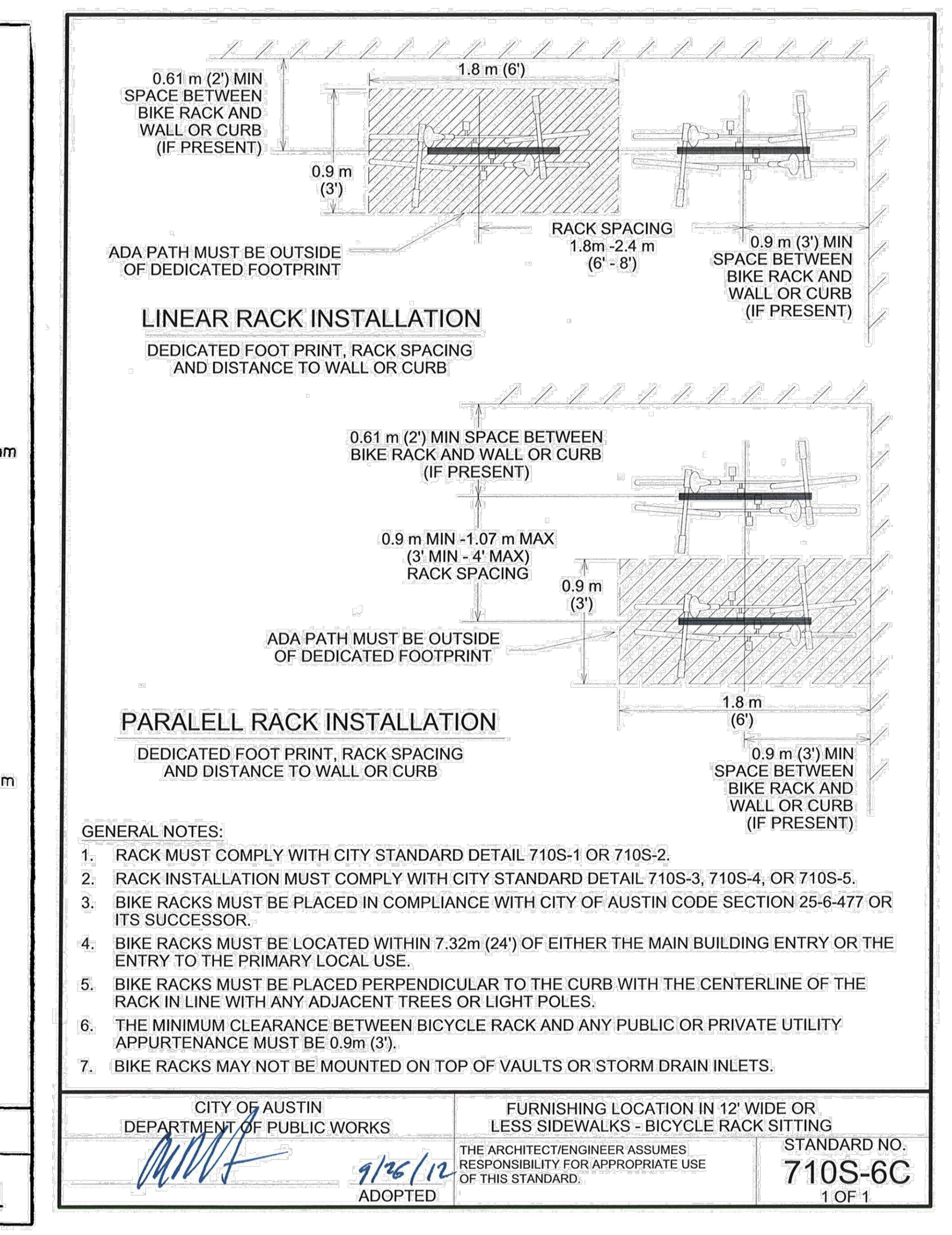
PROJECT No. / PERMIT# : SD-21-00027

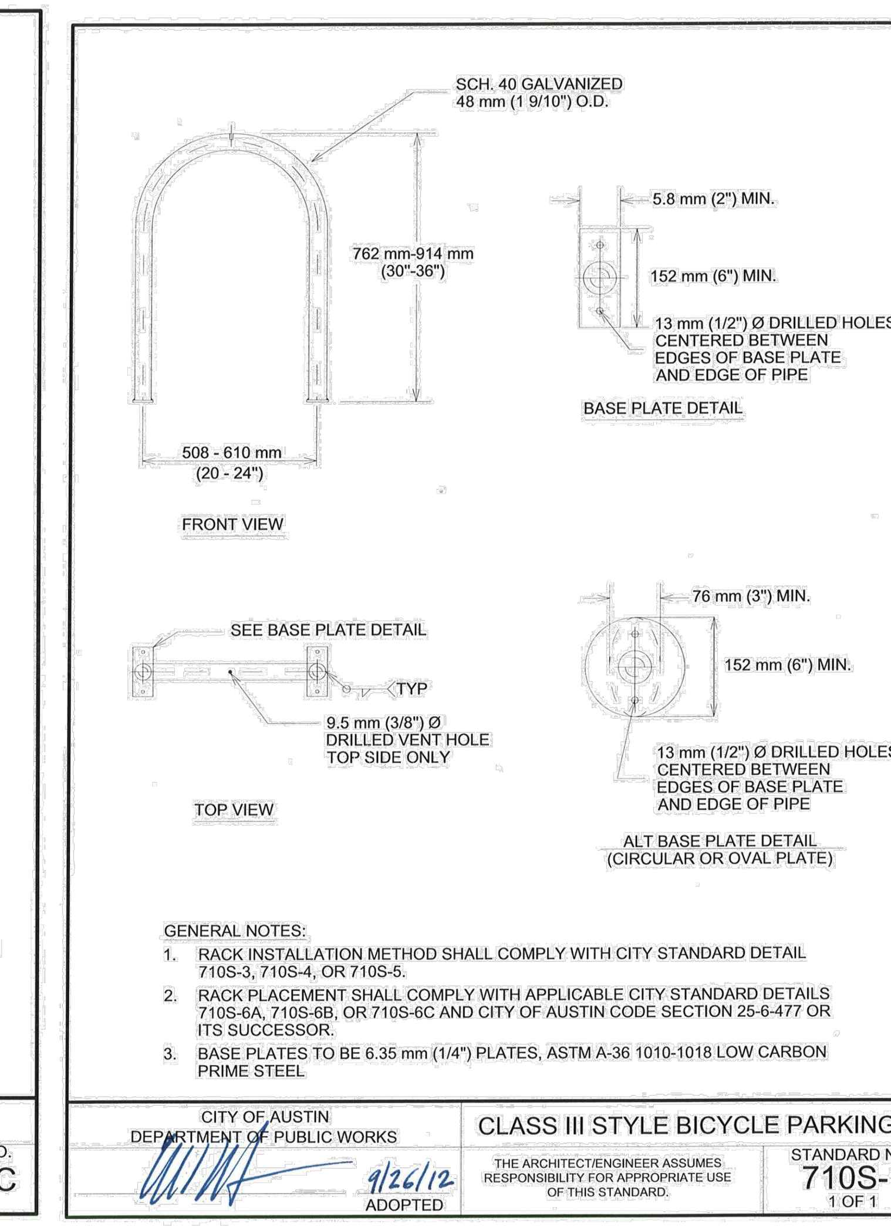

PLAN
LONGITUDINAL SECTION
CROSS SECTION
ALL CONCRETE SHALL BE CLASS "A" IN ACCORDANCE WITH ITEM 403S.
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
PARKING LOT BUMPER CURB
RECORD COPY SIGNED BY BILL GARDNER
3/15/05
APPROVED
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
439S-1

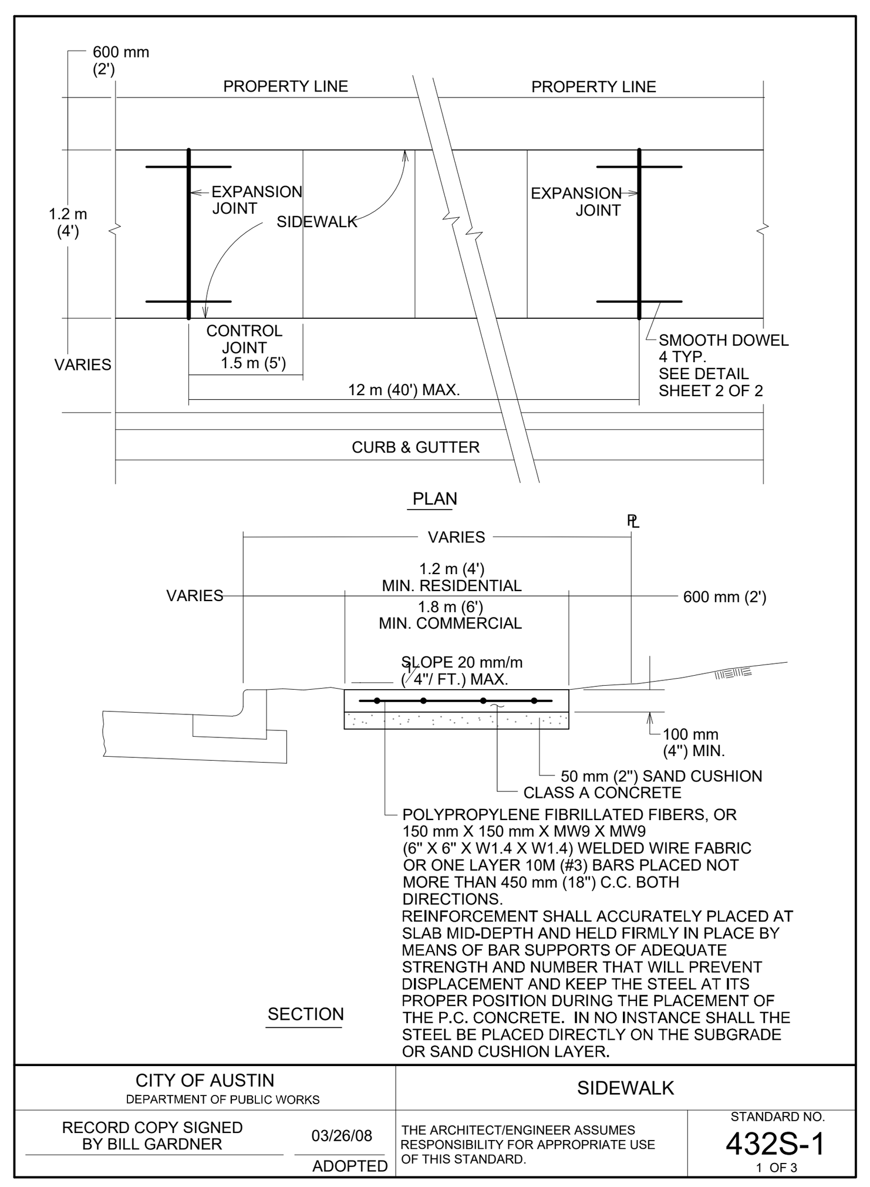

HMAC PAVEMENT SURFACE (SEE NOTE 5)
EXISTING ASPHALT SURFACE
SAW CUT
FLEXIBLE BASE (ITEM 210S)
PRIME COAT (ITEM 306S)
SUBGRADE
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
EXISTING PAVEMENT REPAIR FOR NON TRENCH AREAS PARALLEL TO CURB ALIGNMENT
RECORD COPY SIGNED BY SAM ANGOORI
10/19/09
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
1100S-10B

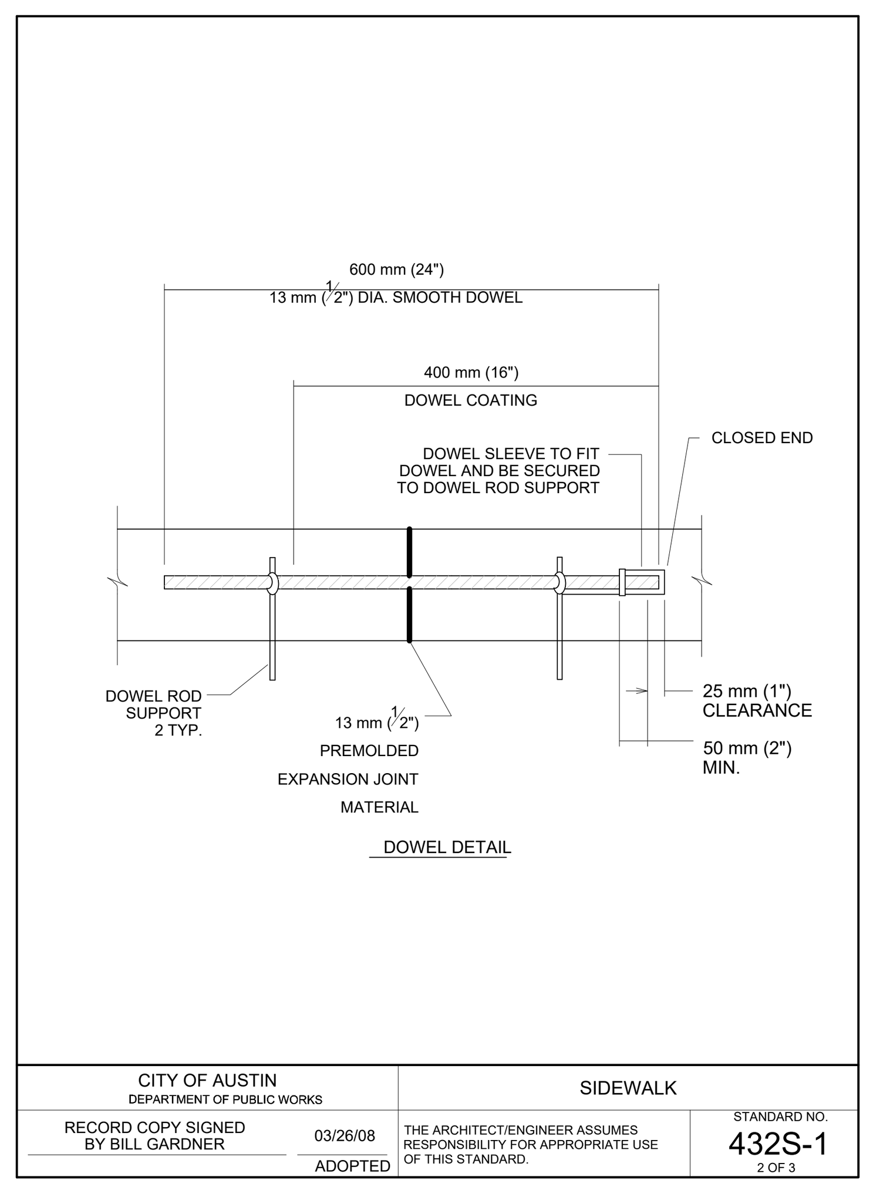

HMAC PAVEMENT SURFACE (SEE NOTE 5)
EXISTING ASPHALT SURFACE
SAW CUT
FLEXIBLE BASE (ITEM 210S)
PRIME COAT (ITEM 306S)
SUBGRADE
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
EXISTING PAVEMENT REPAIR FOR NON TRENCH AREAS PERPENDICULAR TO CURB ALIGNMENT
RECORD COPY SIGNED BY SAM ANGOORI
10/19/09
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
1100S-10A

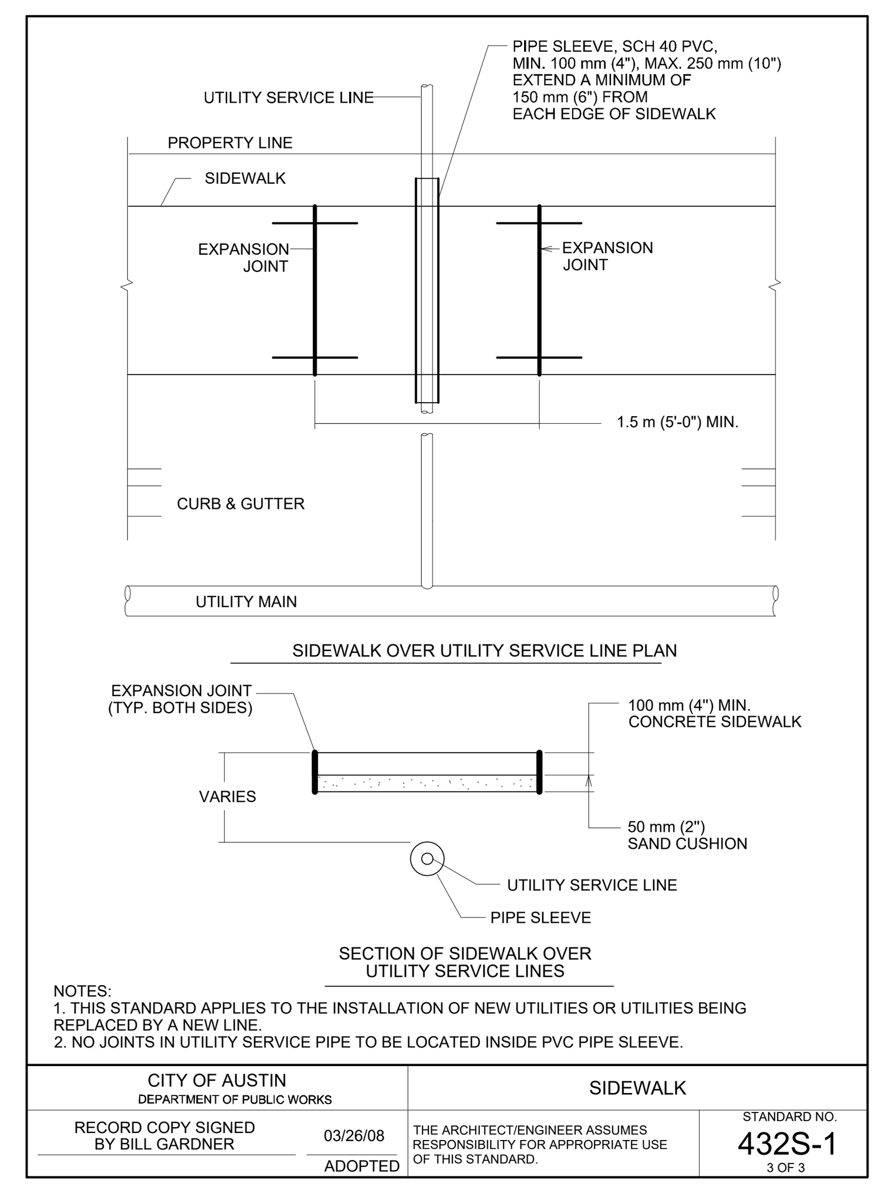

R1 = 6 mm (1/4")
R2 = 65 mm (2 1/2")
R3 = 90 mm (3 1/2")
GRADE CONTROL
SPILL
CATCH
LAYDOWN CURB
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
CURB AND GUTTER SECTION
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
430S-1

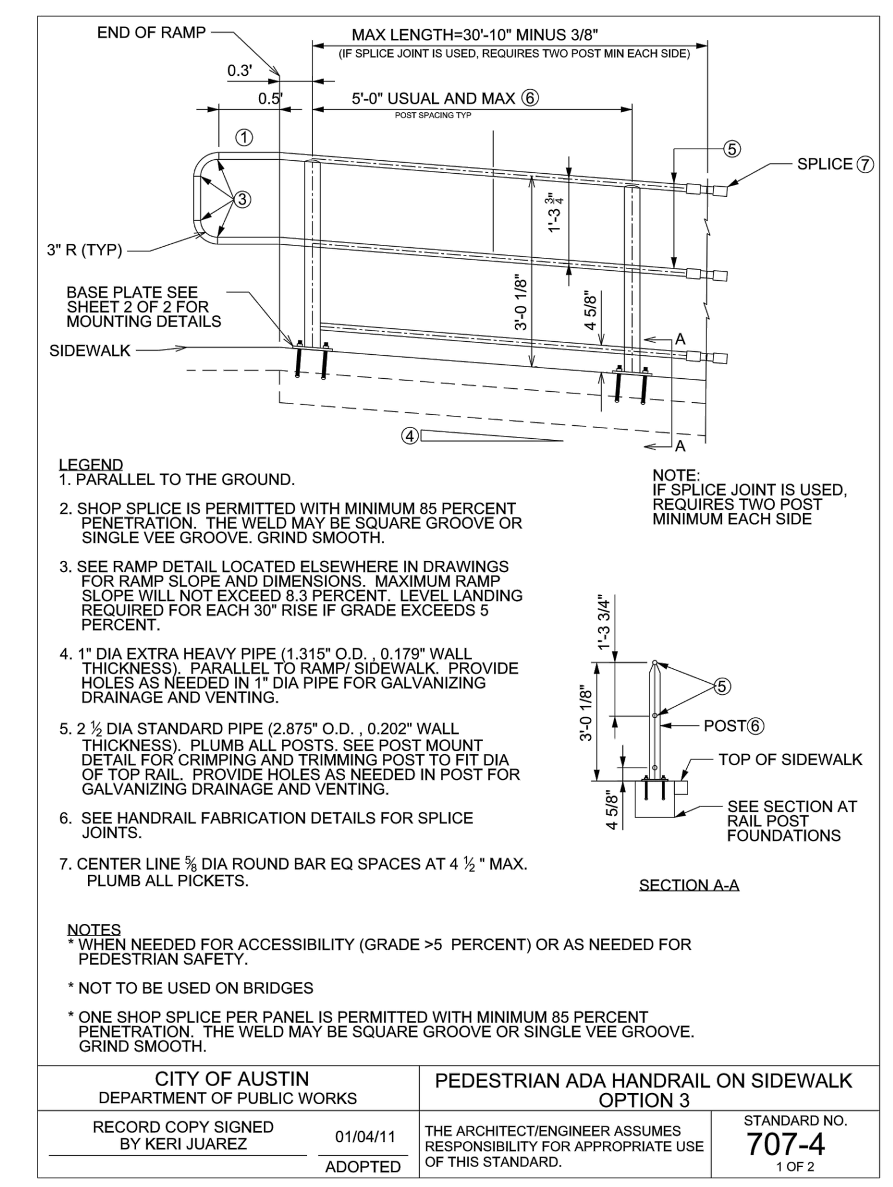

LINEAR RACK INSTALLATION
DEDICATED FOOT PRINT, RACK SPACING AND DISTANCE TO WALL OR CURB
PARALELL RACK INSTALLATION
DEDICATED FOOT PRINT, RACK SPACING AND DISTANCE TO WALL OR CURB
GENERAL NOTES:
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
FURNISHING LOCATION IN 12' WIDE OR LESS SIDEWALKS - BICYCLE RACK SITTING
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
710S-6C
1 OF 1

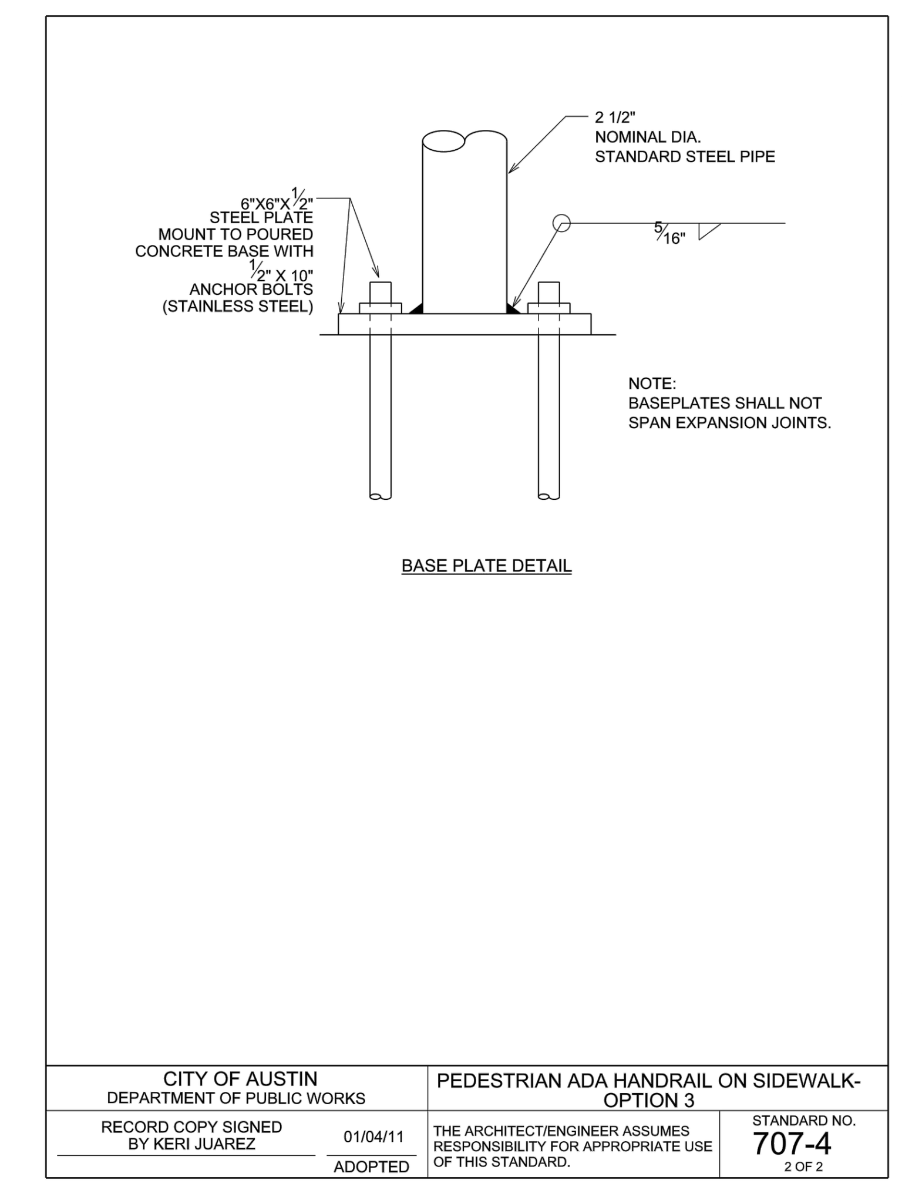

FRONT VIEW
TOP VIEW
BASE PLATE DETAIL
GENERAL NOTES:
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
CLASS III STYLE BICYCLE PARKING
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
710S-1
1 OF 1

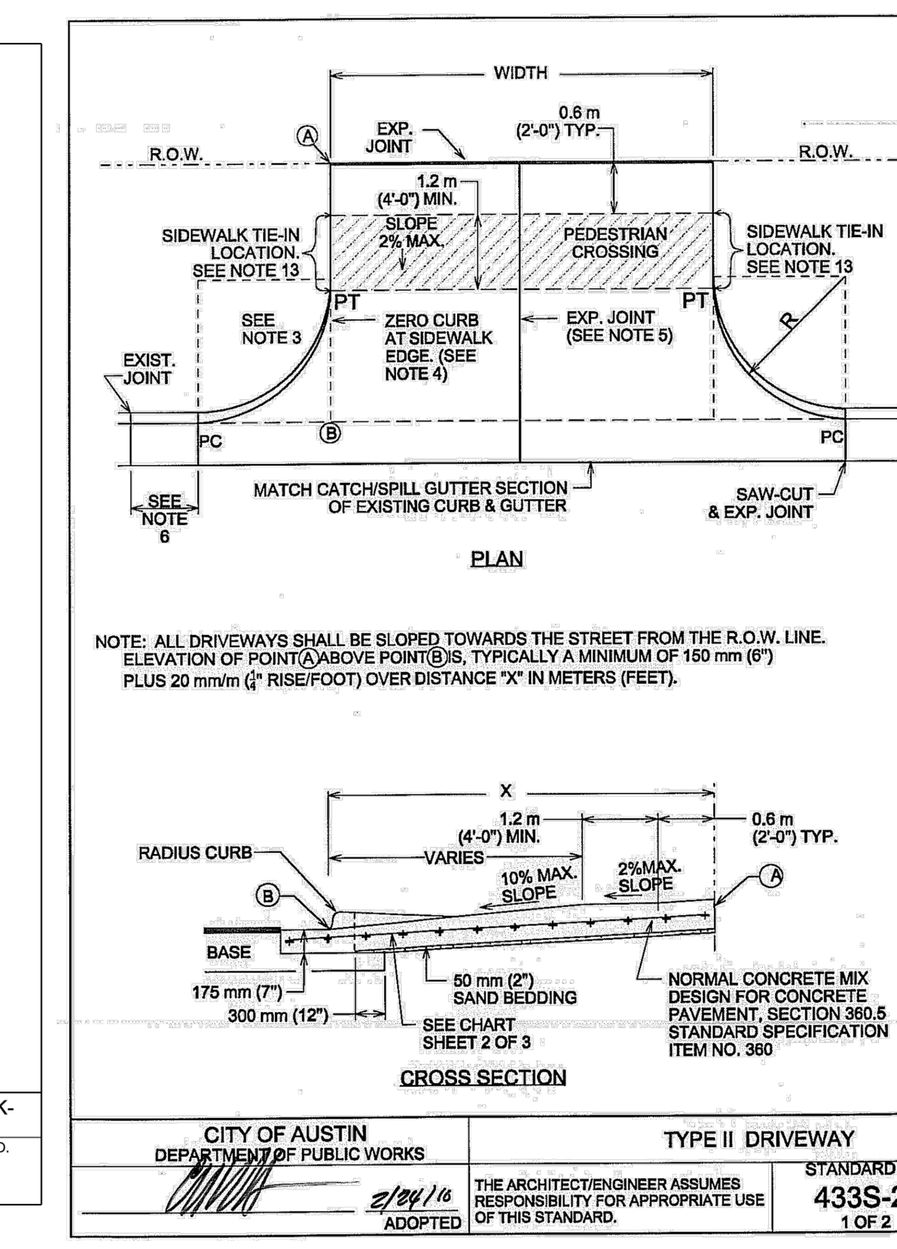

PLAN
SECTION
DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
SIDEWALK
RECORD COPY SIGNED BY BILL GARDNER
03/26/08
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
432S-1
1 OF 3



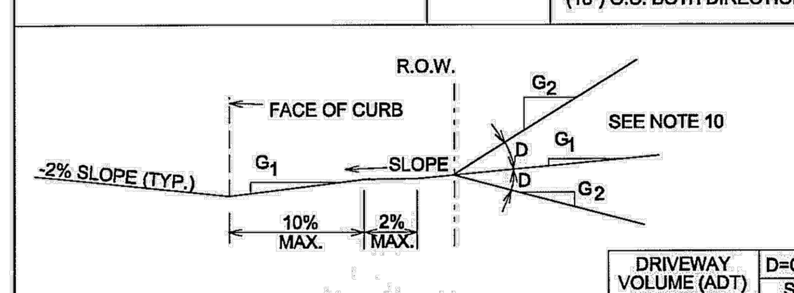

SIDEWALK OVER UTILITY SERVICE LINE PLAN
SECTION OF SIDEWALK OVER UTILITY SERVICE LINES
NOTES:
1. THIS STANDARD APPLIES TO THE INSTALLATION OF NEW UTILITIES OR UTILITIES BEING REPLACED BY A NEW LINE.
2. NO JOINTS IN UTILITY SERVICE PIPE TO BE LOCATED INSIDE PVC PIPE SLEEVE.
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
SIDEWALK
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


SECTION A-A
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
PEDESTRIAN ADA HANDRAIL ON SIDEWALK OPTION 3
RECORD COPY SIGNED BY KERI JUAREZ
01/04/11
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
707-4
1 OF 2


BASE PLATE DETAIL
NOTE: BASEPLATES SHALL NOT SPAN EXPANSION JOINTS.
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
PEDESTRIAN ADA HANDRAIL ON SIDEWALK- OPTION 3
RECORD COPY SIGNED BY KERI JUAREZ
01/04/11
ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO.
707-4
2 OF 2


PLAN
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE.
CROSS SECTION
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS
TYPE II DRIVEWAY
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 OF13M (#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 OF13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



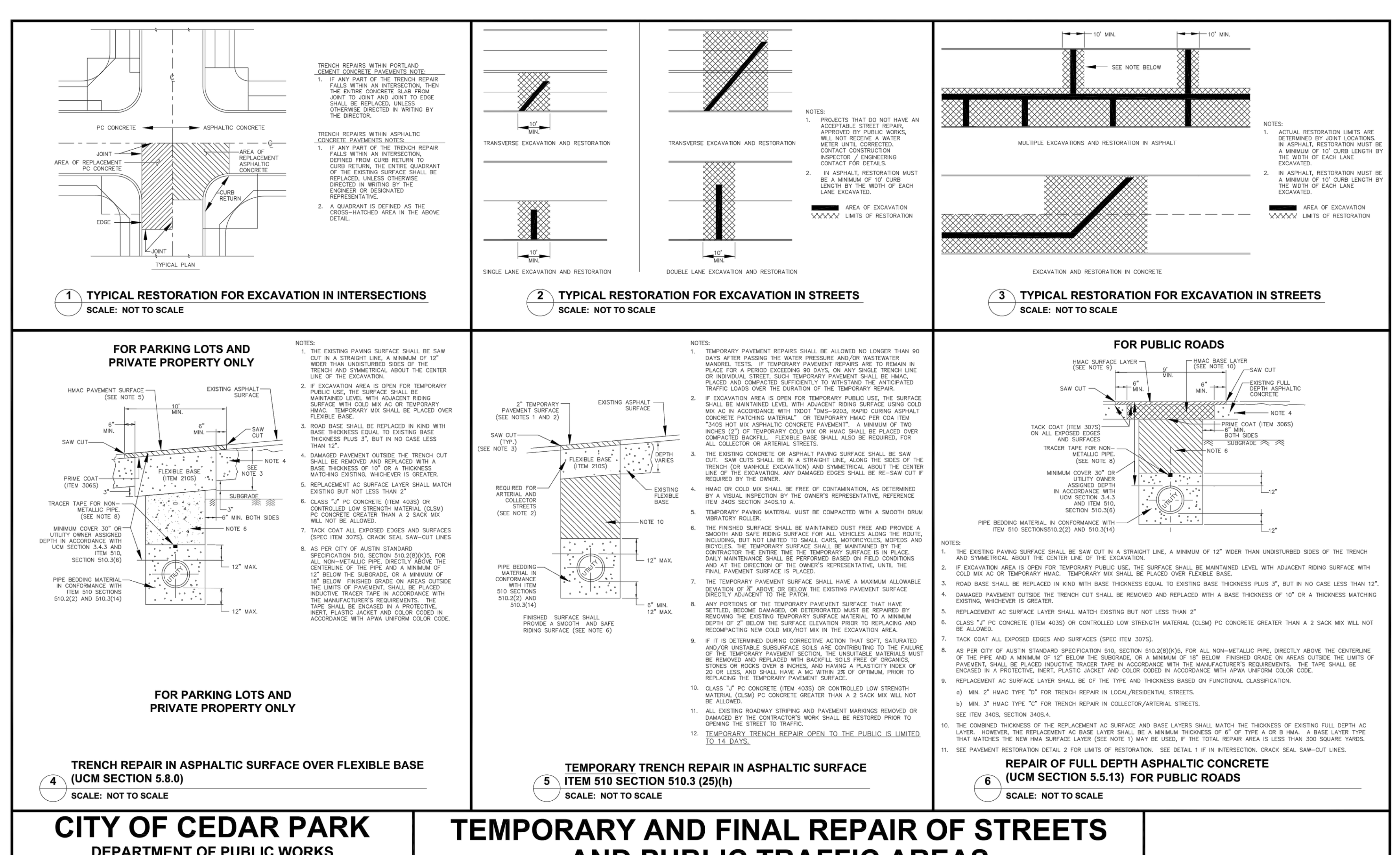
DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
<500	6%	15%

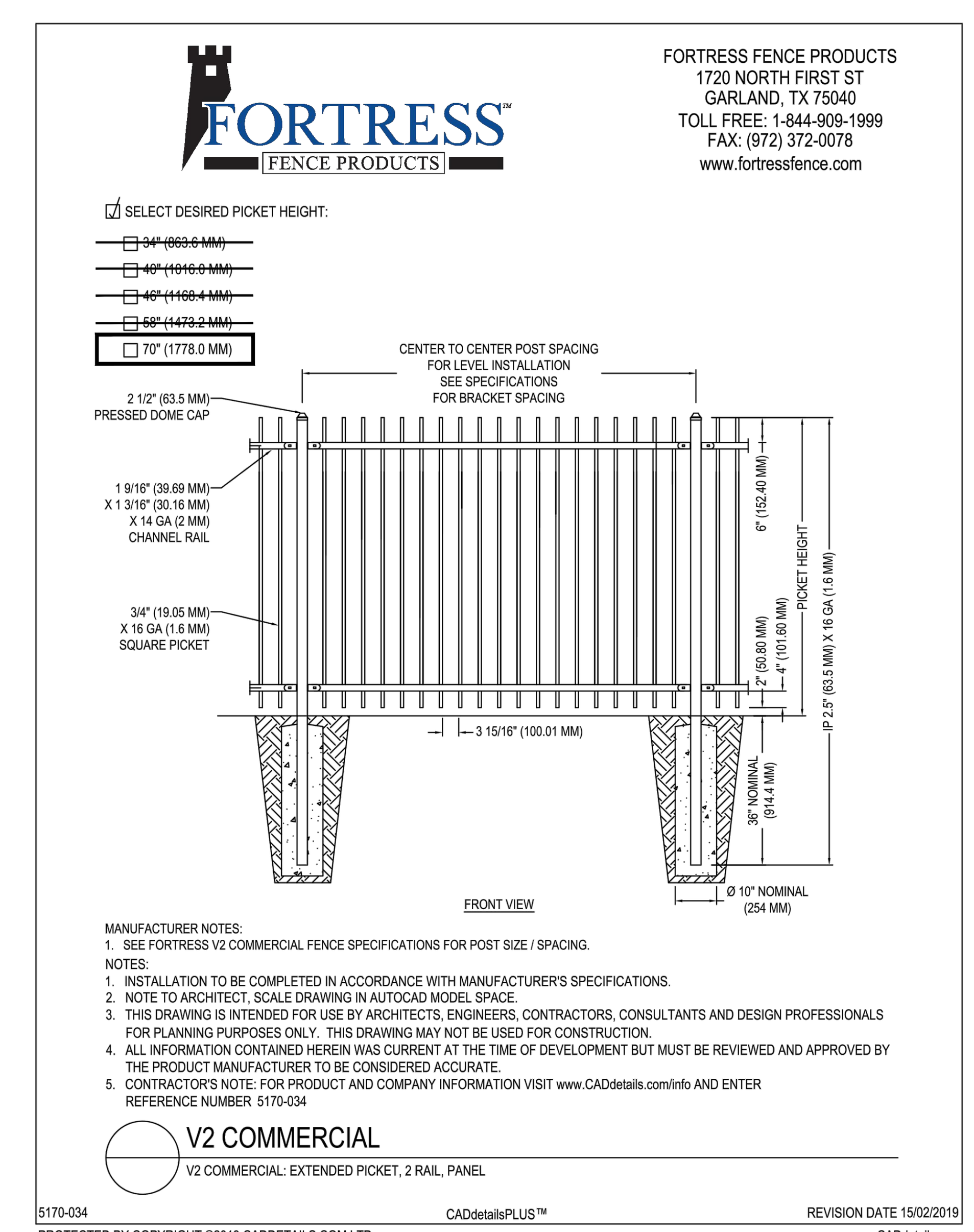
ALLOWABLE GRADES

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 TRANSITITIONED 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	
2/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2


TYPICAL RESTORATION FOR EXCAVATION IN INTERSECTIONS
TYPICAL RESTORATION FOR EXCAVATION IN STREETS
TYPICAL RESTORATION FOR EXCAVATION IN STREETS
FOR PARKING LOTS AND PRIVATE PROPERTY ONLY
FOR PUBLIC ROADS
TRENCH REPAIR IN ASPHALTIC SURFACE OVER FLEXIBLE BASE (UCM SECTION 5.8.0)
TEMPORARY TRENCH REPAIR IN ASPHALTIC SURFACE (ITEM 510 SECTION 510.3 (25)(h)
REPAIR OF FULL DEPTH ASPHALTIC CONCRETE (UCM SECTION 5.5.13) FOR PUBLIC ROADS
CITY OF CEDAR PARK
DEPARTMENT OF PUBLIC WORKS
VER: 200918
TEMPORARY AND FINAL REPAIR OF STREETS AND PUBLIC TRAFFIC AREAS
SHEET 1 OF 1


FORTRESS
FENCE PRODUCTS
FORTRESS FENCE PRODUCTS
1720 NORTH FIRST ST
GARLAND, TX 75040
TOLL FREE: 1-844-909-1999
FAX: (972) 372-0078
www.fortressfence.com
SELECT DESIRED PICKET HEIGHT:
FRONT VIEW
MANUFACTURER NOTES:
1. SEE FORTRESS V2 COMMERCIAL FENCE SPECIFICATIONS FOR POST SIZE / SPACING.
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. NOTE TO ARCHITECT, SCALE DRAWING IN AUTOCAD MODEL SPACE.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 5170-034
V2 COMMERCIAL
V2 COMMERCIAL: EXTENDED PICKET, 2 RAIL, PANEL
PROTECTED BY COPYRIGHT ©2019 CADDETAILS.COM LTD.
REVISION DATE 15/02/2019

1

REPLACEMENT SHEET

THIS AREA IS RESERVED FOR FUTURE CITY APPROVAL STAMP

PROJECT / PERMIT # : _ - _ - _

NO.	DATE	REVISION	BY
1			

GARY ELI JONES 79198 REGISTERED PROFESSIONAL ENGINEER — STATE OF TEXAS
Aug 02, 2023

TBPELS FIRM No. 17877
ELI ENGINEERING
ELI ENGINEERING, PLLC.
700 THERESA COVE, CEDAR PARK, TX 78613
512-658-8095
gejtexas@gmail.com

CITY OF CEDAR PARK, WILLIAMSON COUNTY, TEXAS

RONALD REAGAN SQUARE

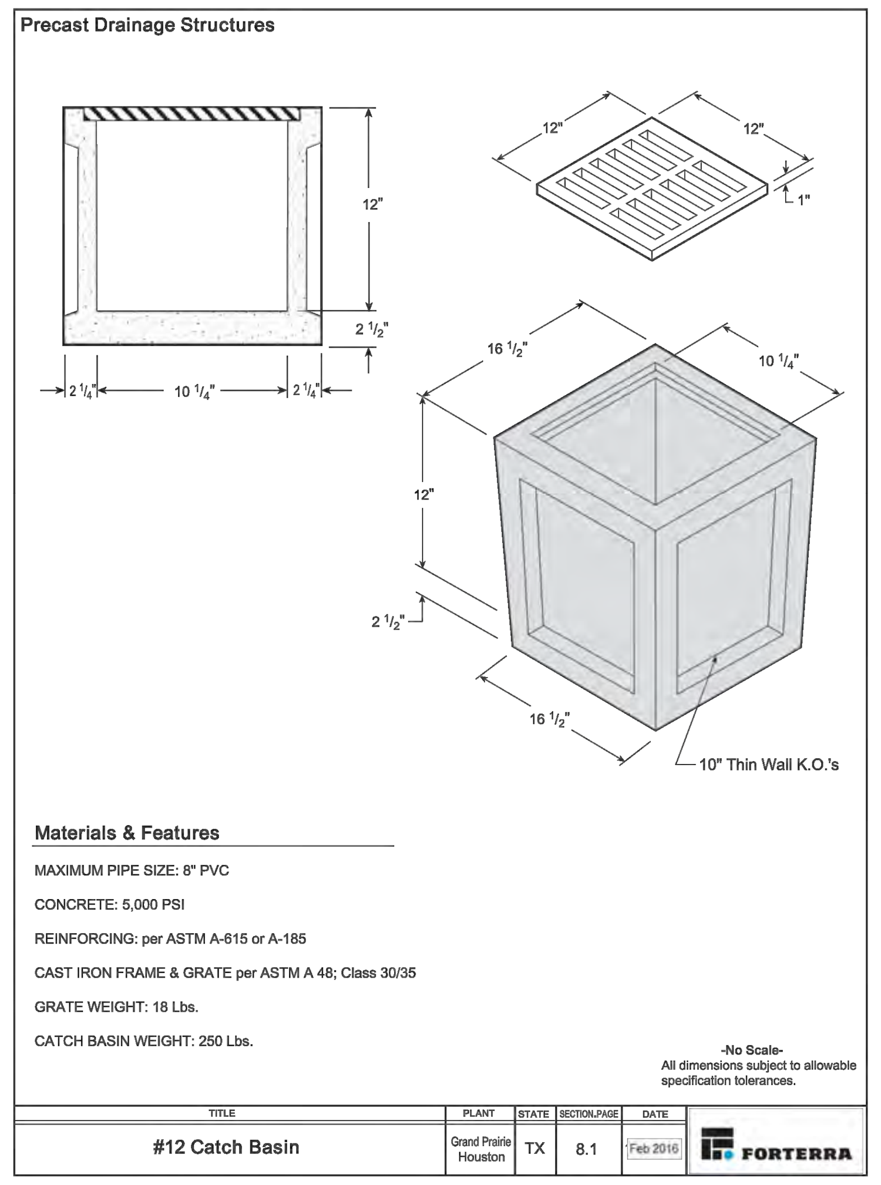
CIVIL SITE DEVELOPMENT PLANS

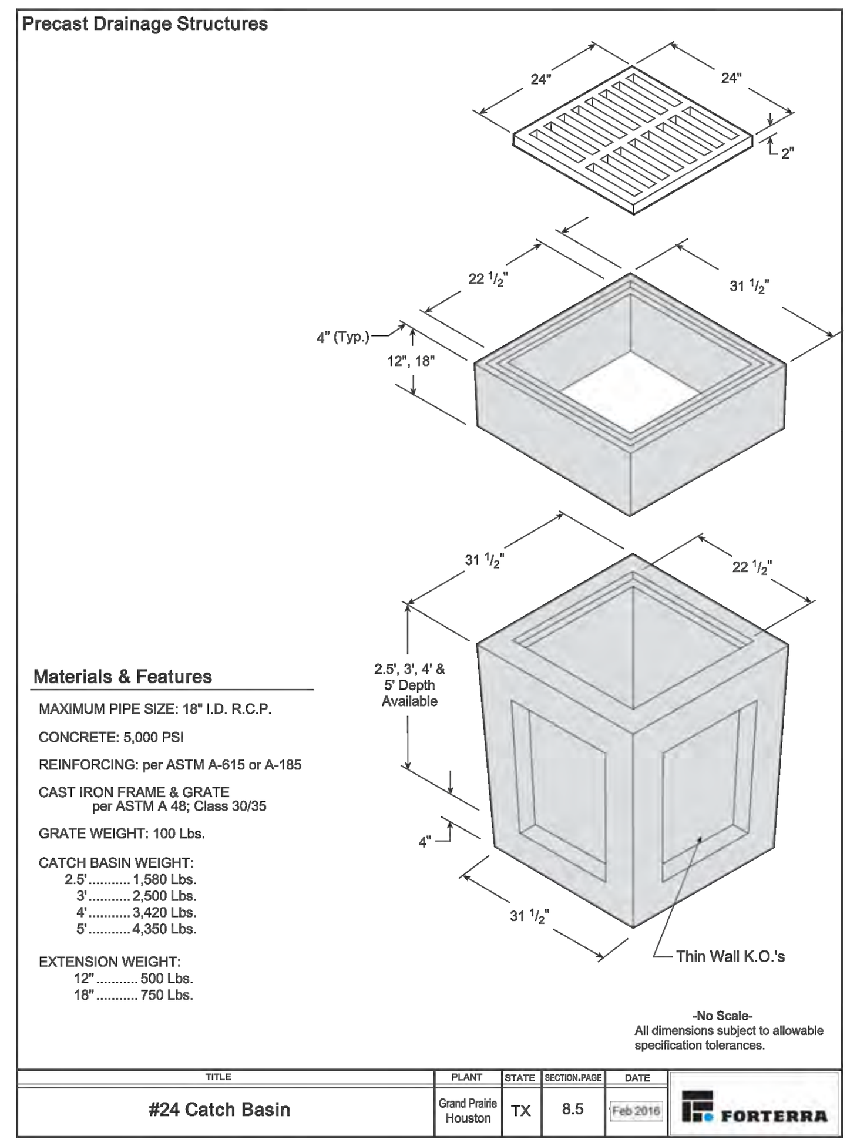
PAVING, STRIPING & SIGNAGE DETAILS

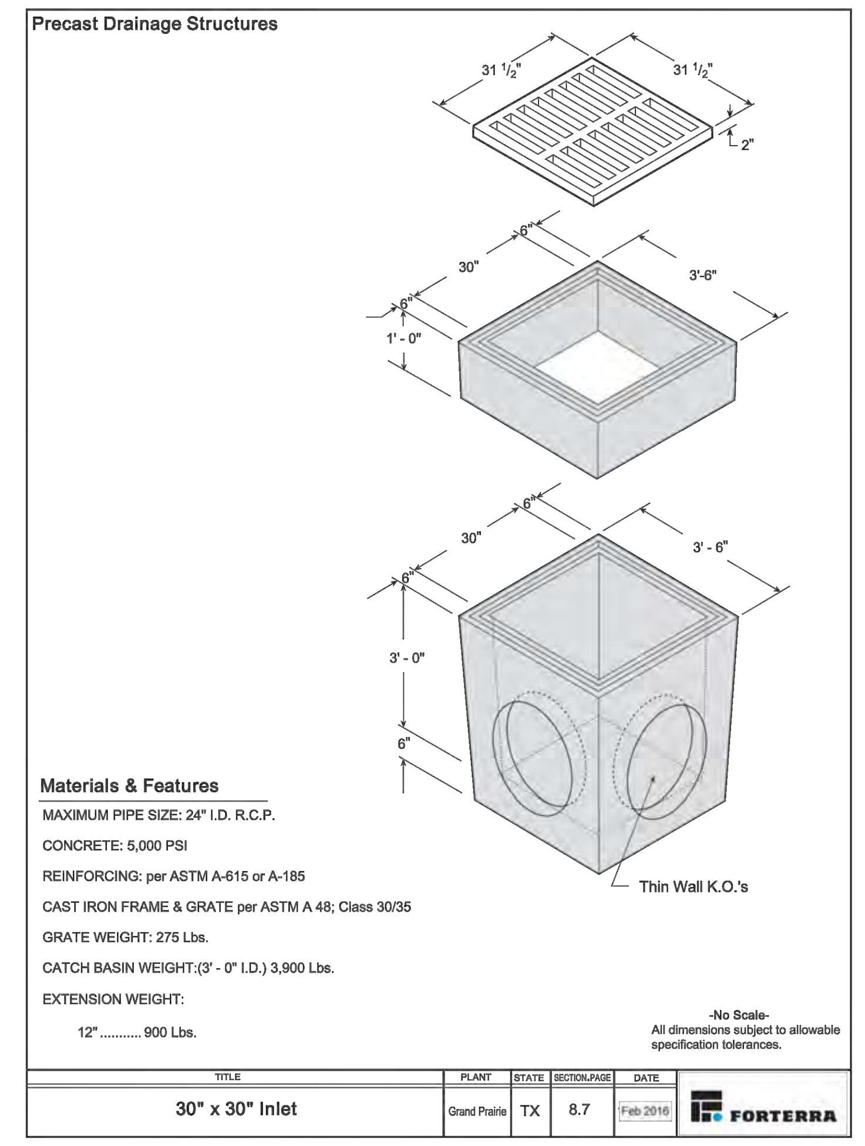
DRAWING SCALE: HORIZ.= VERT.=
SURVEYED:
FILE NAME:
DATE:
DRAWN: GEJ/JTC
DESIGNED: EEI

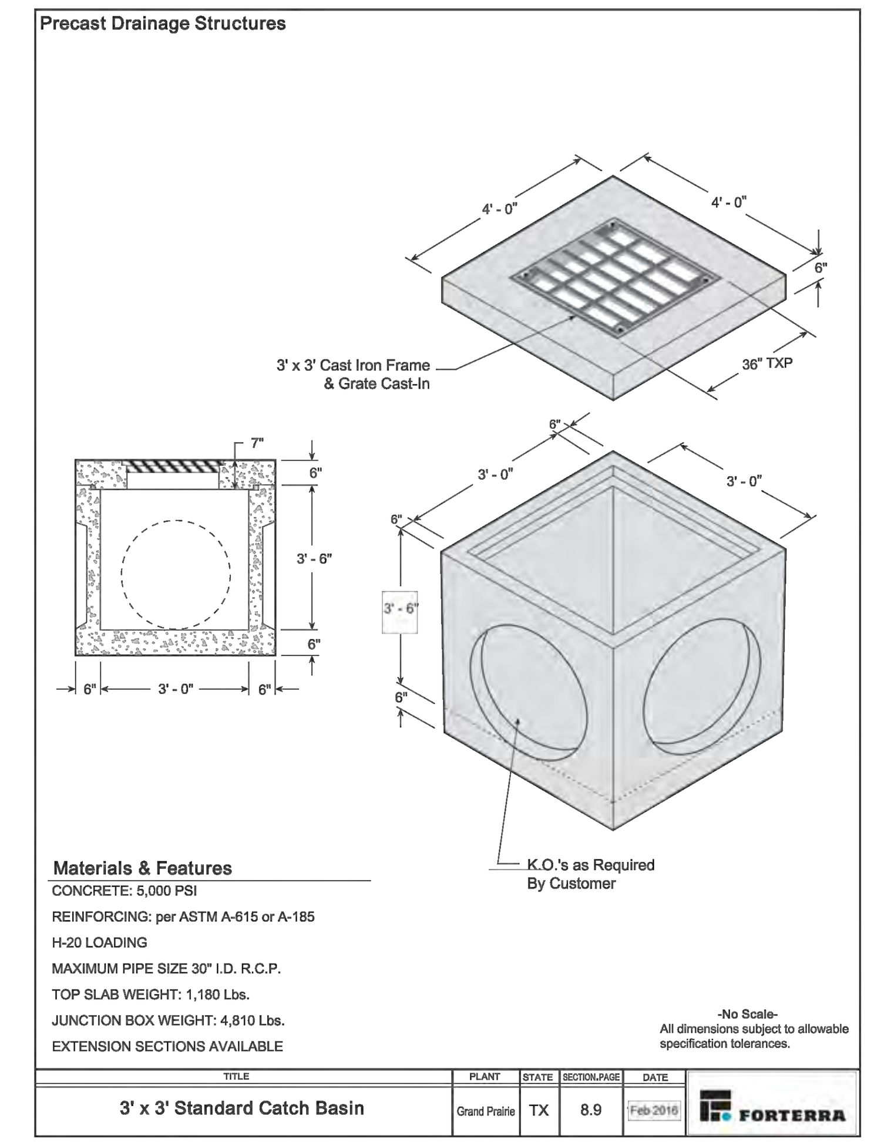
SHEET 51 OF 75

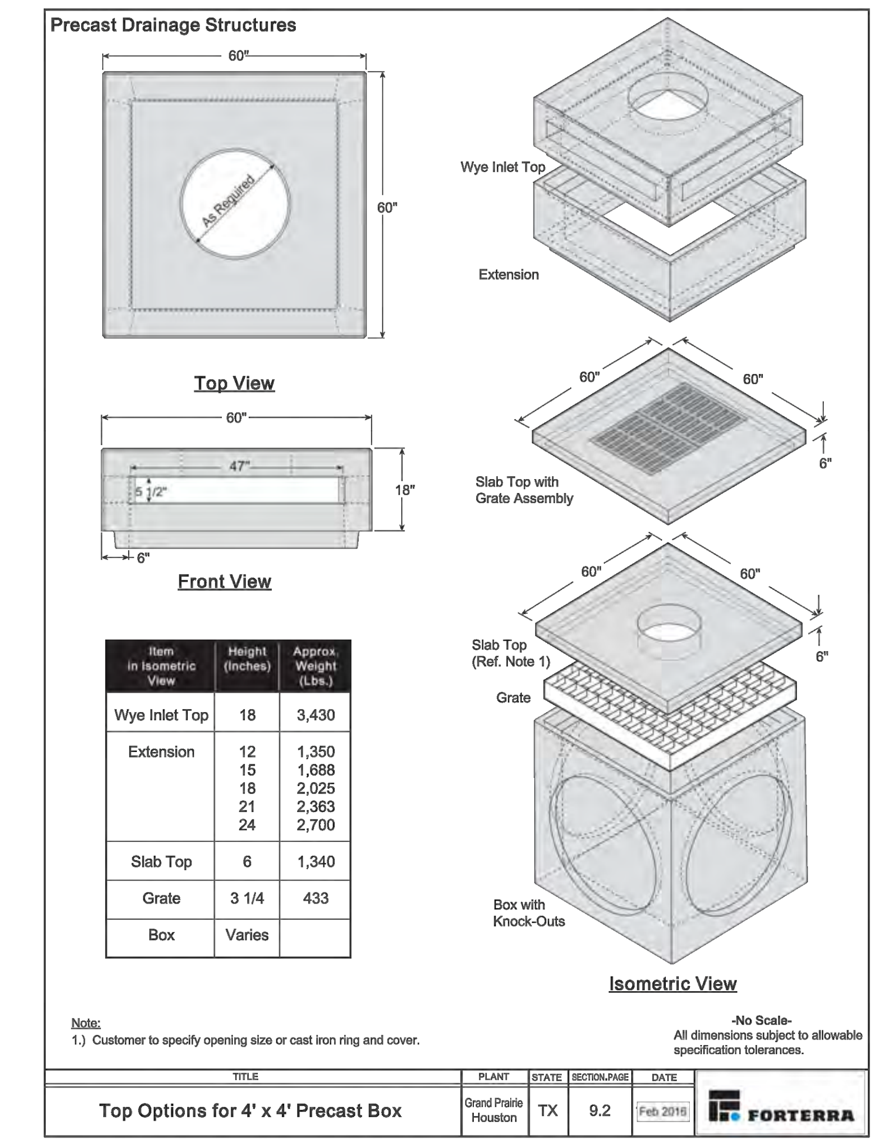
PROJECT No. / PERMIT# : SD-21-00027

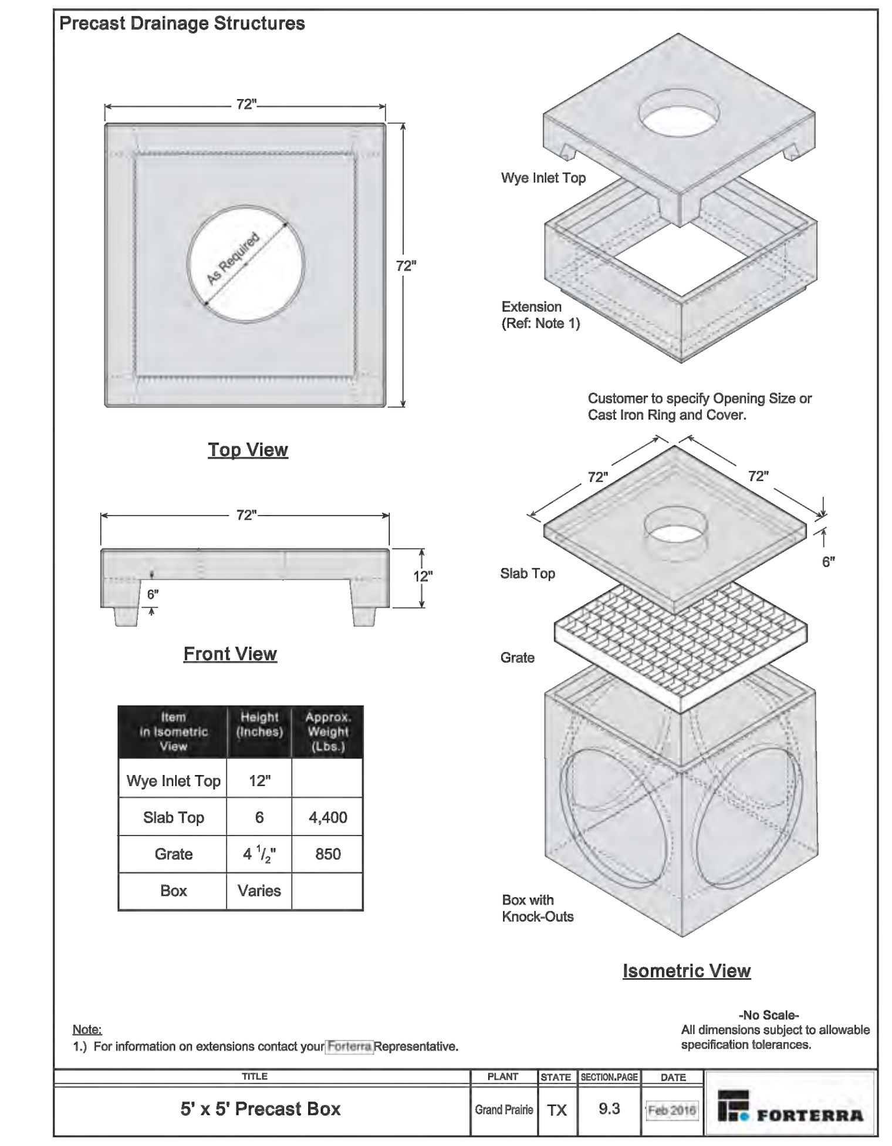


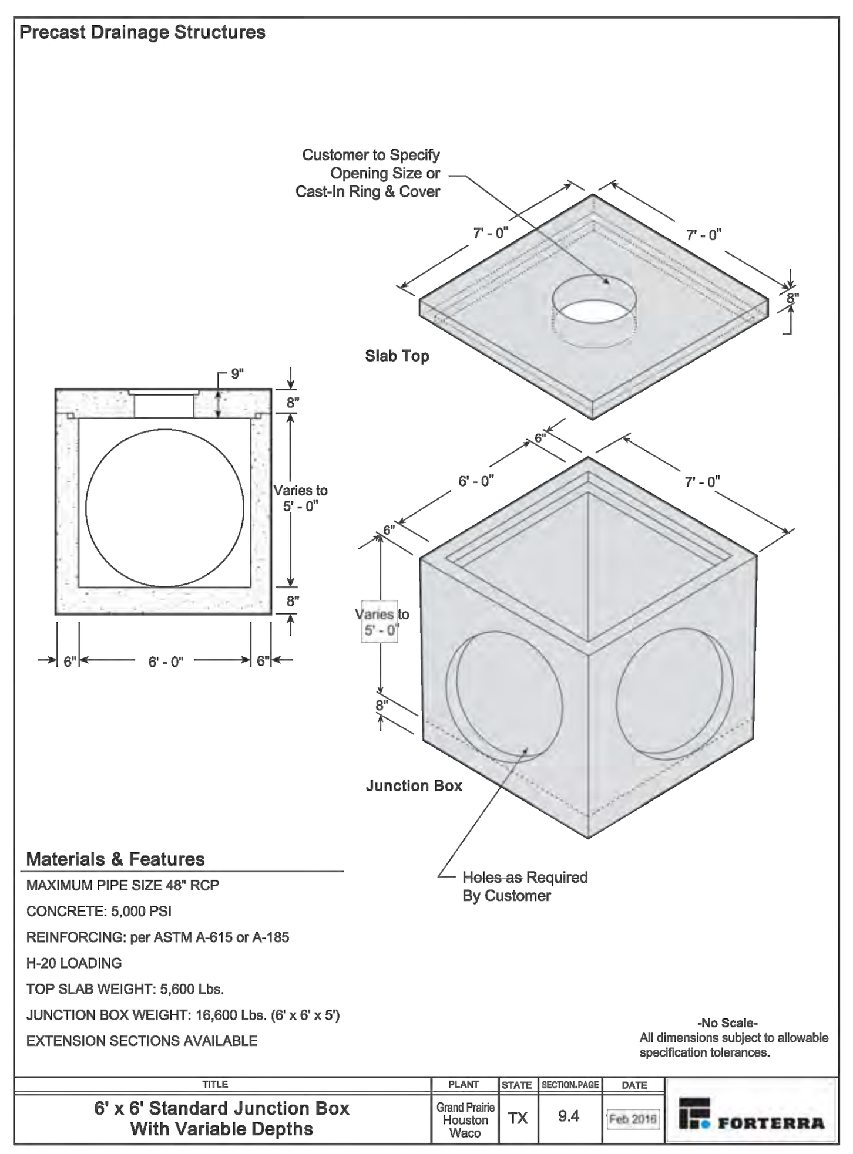


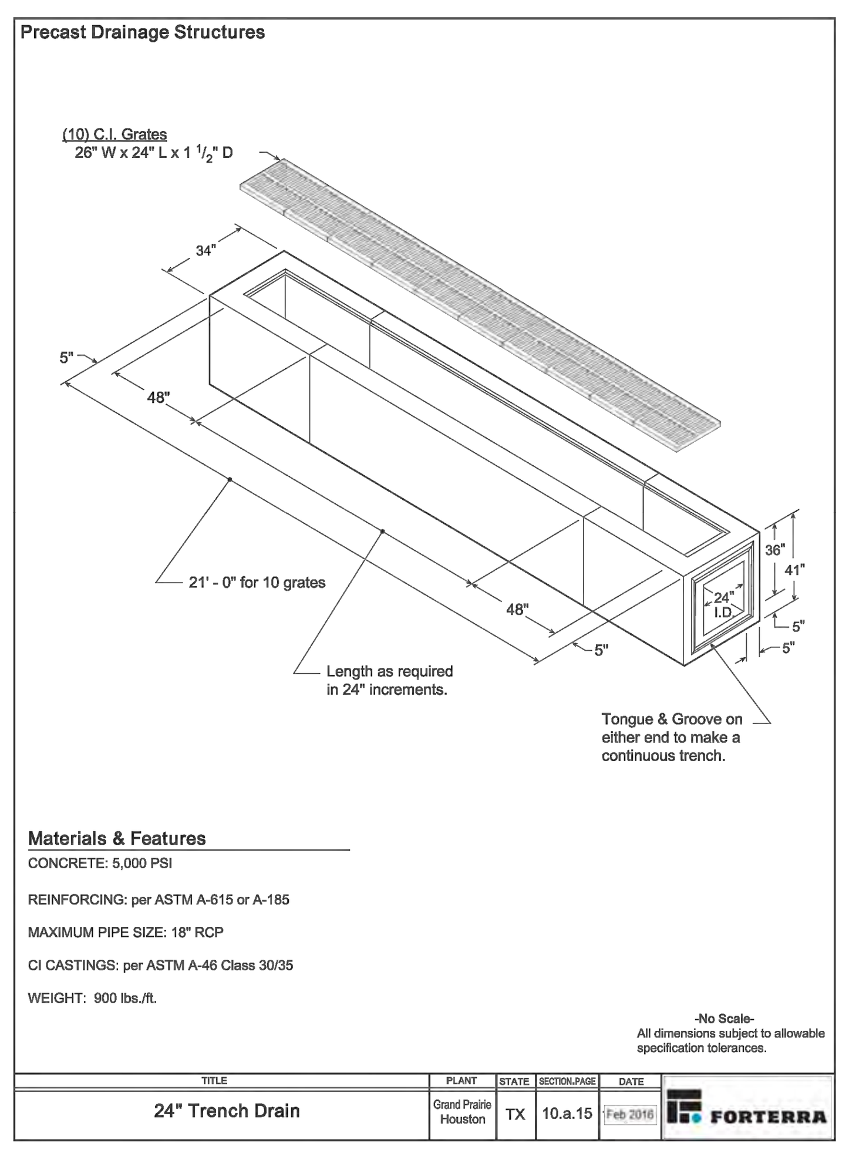


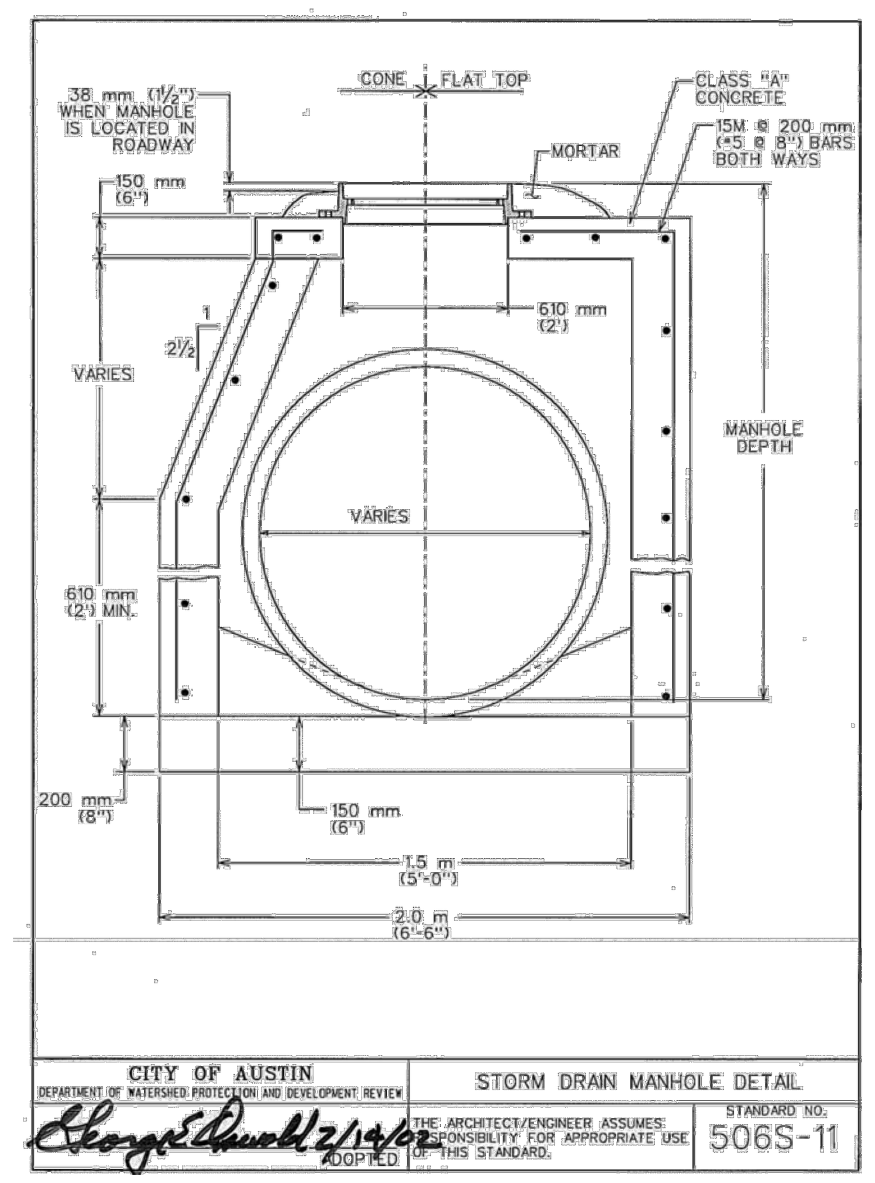


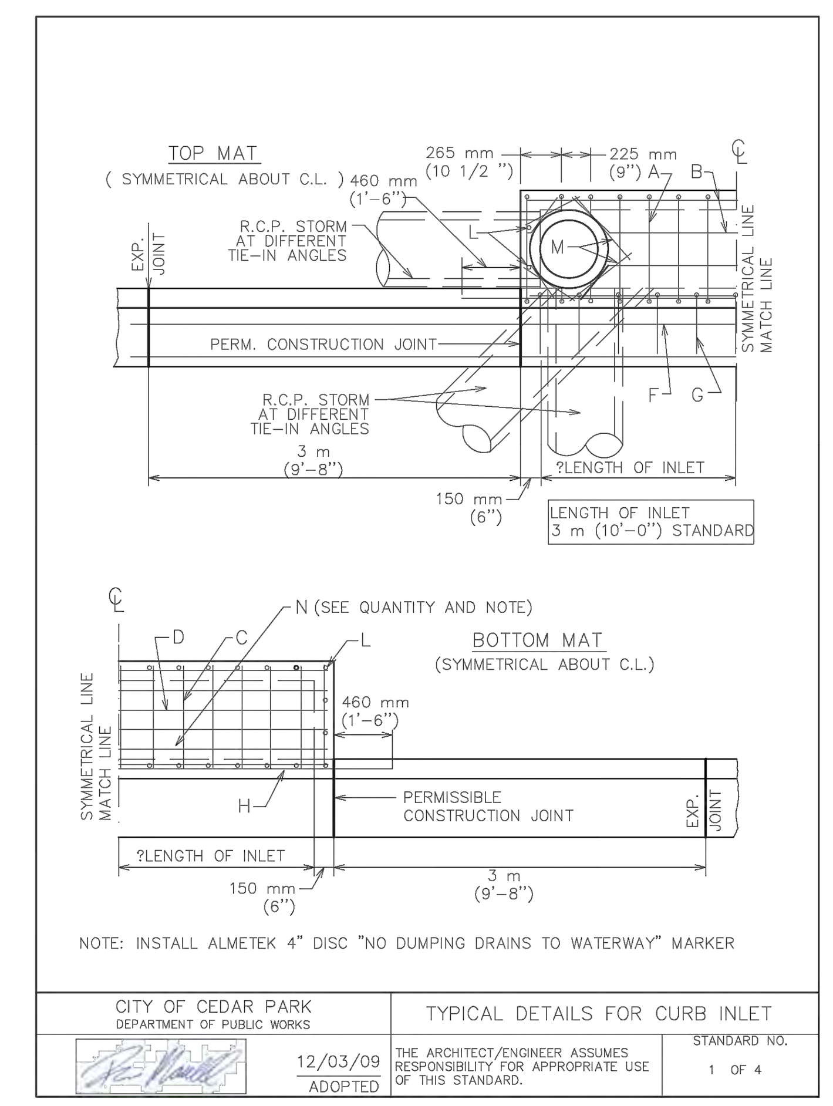












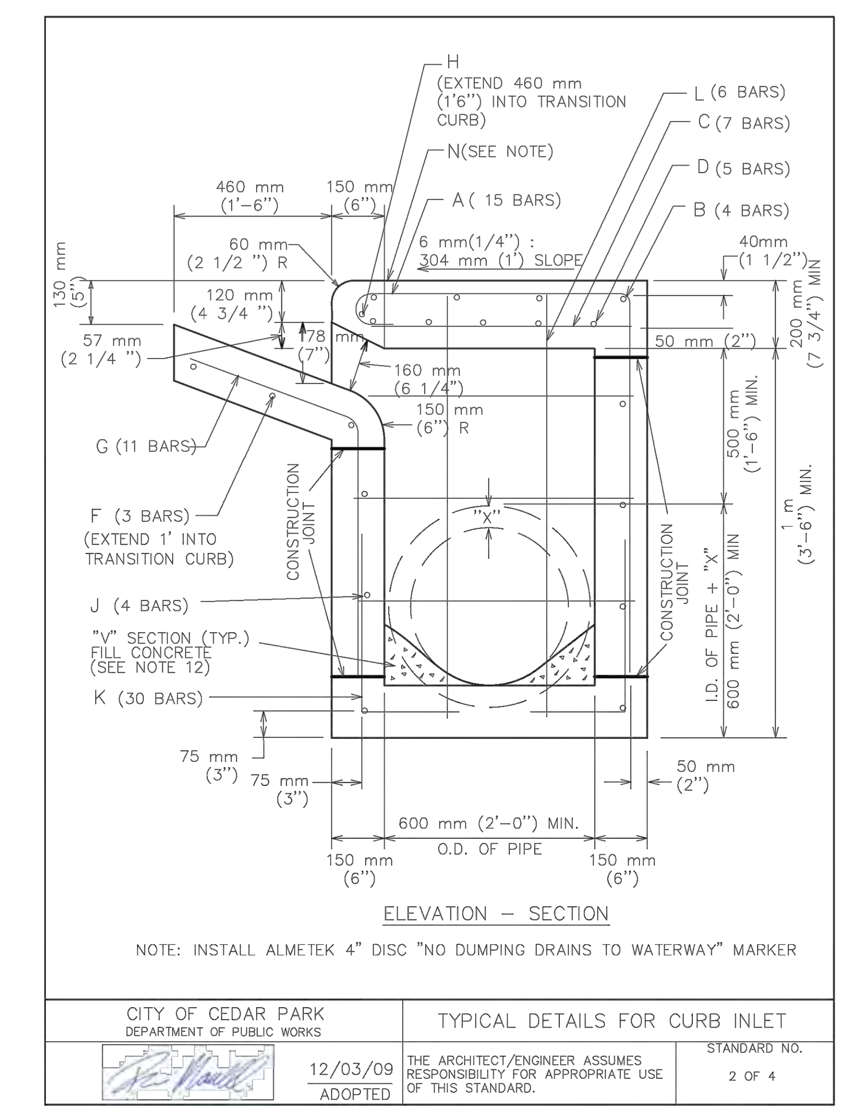
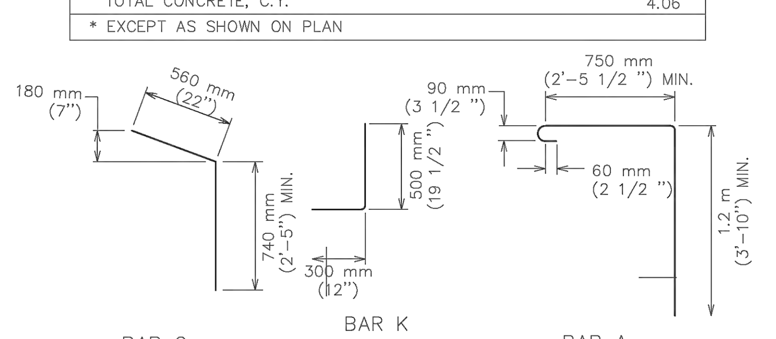


TABLE OF QUANTITIES
FOR 18" OUTLET PIPE
REINFORCING STEEL QUANTITIES

BARS	SIZE	SPACING	NUMBER	LENGTH	WEIGHT
A	4	230mm (9")*	15	2 m (7'-0")	73
B	4	250 mm (10")	4	3.25 m (10'-8")	29
C	4	460 mm (18")	7	760 mm (2'-6")	12
D	6	150 mm (6")	5	3.25 m (10'-8")	80
E	4	300 mm (12")	6	760 mm (2'-6")	10
F	4	250 mm (10")	3	4 m (13'-0")	35
G	4	300 mm (12")	11	1.25 m (4'-3")	31
H	6	–	1	4.25 m (14'-0")	20
J	4	300 mm (12")	7	3.25 m (10'-8")	50
K	4	230 mm (9")*	30	800 mm (2'-7 1/2")	52
L	4	300 mm (12")*	6	1.3 m (4'-4")	17
M	4	–	4	500 mm (1'-8") AVG	4
N	ALMETEK 4" DISC "NO DUMPING DRAINS TO WATERWAY" MARKER MODEL SD-SP, SQUARE HOLE OPTION, SYMBOL: FISH, COLOR: BLUE. USE ALMETEK SPECS FOR THEFT RESISTANT RIVET SURFACE MOUNT W/ ADHESIVE FOR DRY CONCRETE INSTALLATION.				
TOTAL STEEL, LB.					413
TOTAL CONCRETE, C.Y.					4.06
* EXCEPT AS SHOWN ON PLAN					



CITY OF CEDAR PARK
DEPARTMENT OF PUBLIC WORKS
TYPICAL DETAILS FOR CURB INLET
12/03/09 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 3 OF 4

NOTES:
1. ALL CONCRETE SHALL BE CLASS "A"
2. ALL REINFORCING STEEL SHALL BE GRADE 60
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
4. VERTICAL STEEL MAY BE SPLICED (380 mm or 15" MIN. LAP) IN THE LOWER ONE-HALF OF ALL INLET WALLS.5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.
6. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND OVER.
7. CHAMFER ALL EXPOSED EDGES 20 mm (3/4 ").
8. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 503S-1.
9. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS. PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.
10. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.
11. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.
12. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FILL CONCRETE, SHAPED AS "V" SECTION
13. NO SPLICING OF REINFORCING STEEL SHALL BE PERMITTED UNLESS OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.
14. INSTALL ALMETEK 4" DISC "NO DUMPING DRAINS TO WATER" MARKER, MODEL SD-SP, SQUARE OPTION, SYMBOL: FISH, COLOR: BLUE. USE ALMETEK INSTALL SPECIFICATIONS FOR THEFT RESISTANT RIVET SURFACE MOUNT W/ADHESIVE FOR DRY CONCRETE INSTALL.

REFERENCES:

FOR EXPANSION JOINT DOWEL AND DOWEL LOCATION DETAILS SEE STD. 430S-3, "CURB EXPANSION JOINT DOWEL DETAIL".

FOR 18" MANHOLE FRAME AND COVER DETAILS SEE STD. 503S-1, "18" COVER AND FRAME".

ALMETEK "NO DUMPING DRAINS TO WATERWAY" MARKERS WWW.ALMETEK.COM

CITY OF CEDAR PARK
DEPARTMENT OF PUBLIC WORKS
TYPICAL DETAILS FOR CURB INLET
12/03/09 ADOPTED
THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
STANDARD NO. 4 OF 4

APPROVED
8/15/2022
PLANNING DEPT.
CITY OF CEDAR PARK

No.	REVISIONS	DATE	BY

Kimley»Horn
10814 JOLLYVILLE ROAD AVALLON IV SUITE 200 AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 972-239-3820
WWW.KIMLEY-HORN.COM
TBPE FIRM NO. 928

BRADLEY M. WILKINS
141652
LICENSED PROFESSIONAL ENGINEER
08/08/2022

KHA PROJECT 069290000
DATE AUGUST 2022
SCALE: AS SHOWN
DESIGNED BY: JML
DRAWN BY: JML
CHECKED BY: BMW

STORM DRAIN DETAILS

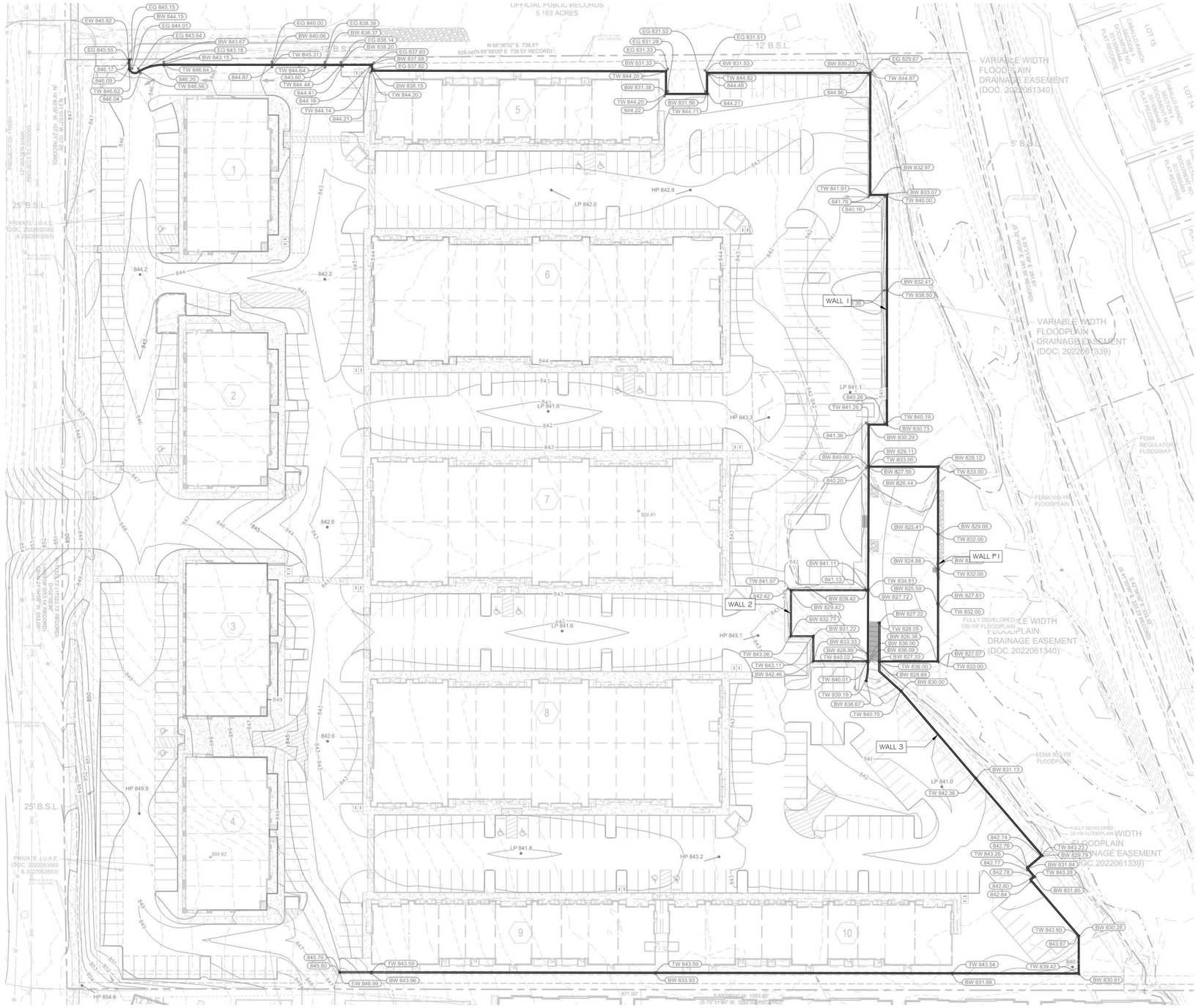
RONALD REAGAN SQUARE

14300 RONALD REAGAN BLVD
CITY OF CEDAR PARK
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
52 OF 75

SD-21-00027

RONALD REAGAN SQUARE RETAINING WALLS



STRUCTURAL DESIGN HEREIN REPRESENTS A FINISHED STRUCTURE. THE GENERAL CONTRACTOR/OWNER SHALL PROVIDE ALL INTERIM BRACING, SHORING, INTERIM DRAINAGE PROVISIONS, DRAINAGE DIVERSION AND EROSION PROTECTION REQUIRED UNTIL FINAL CAPPING, PAVING, CURBING AND COMPLETION OF FINAL STORM DRAIN SYSTEM IS COMPLETE.

REV	DATE	DESCRIPTION

ROSCH ENGINEERING
3000 JOE DIMAGGIO BLVD., SUITE 28
ROUND ROCK, TX 78664
PHONE: 512-828-4167
FAX: 512-233-0540
TBPE #:14762

RONALD REAGAN SQUARE
CEDAR PARK, TX

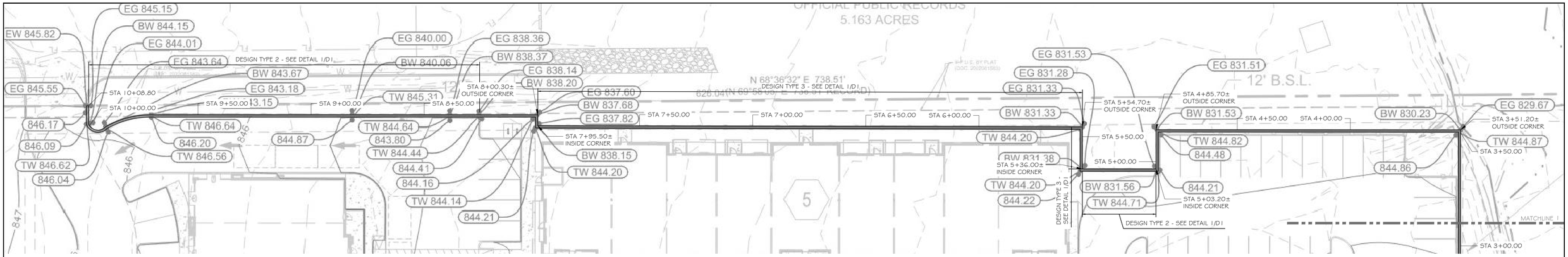
RETAINING WALL
COVER SHEET

DESIGNED:	BCS
DRAWN:	JTM
DESIGN ENGINEER:	ECS
REVIEWED:	RMJ
DATE:	1-18-23
JOB NO.:	21-1165
SHEET:	COVER

STATE OF TEXAS — BRIAN C. SCHAUER — 119480 — LICENSED PROFESSIONAL ENGINEER

1

REPLACEMENT SHEET
SHEET 59 OF 75

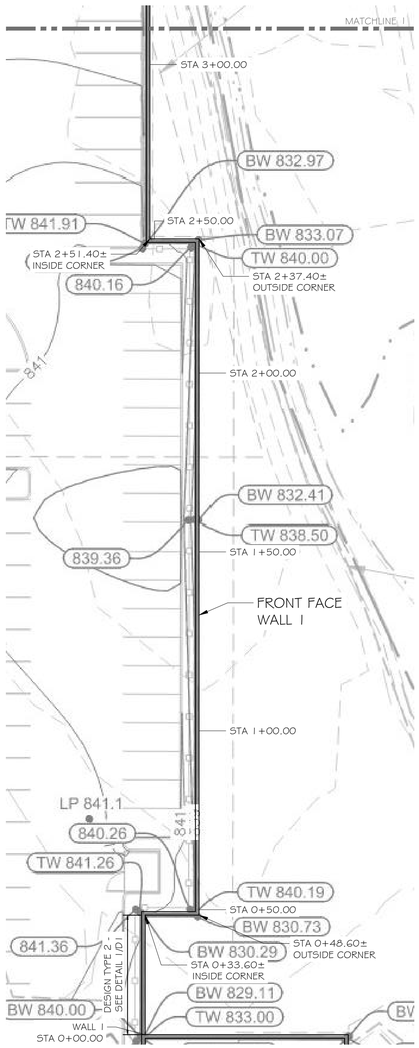


1 P1 PLAN VIEW OF WALL 1 - 1 OF 2

SCALE: 1"=20'-0"

THIS WALL PLAN IS INTENDED FOR GENERAL LOCATION PURPOSES ONLY. REFER TO PROJECT SITE PLANS FOR SPECIFIC DIMENSIONS.

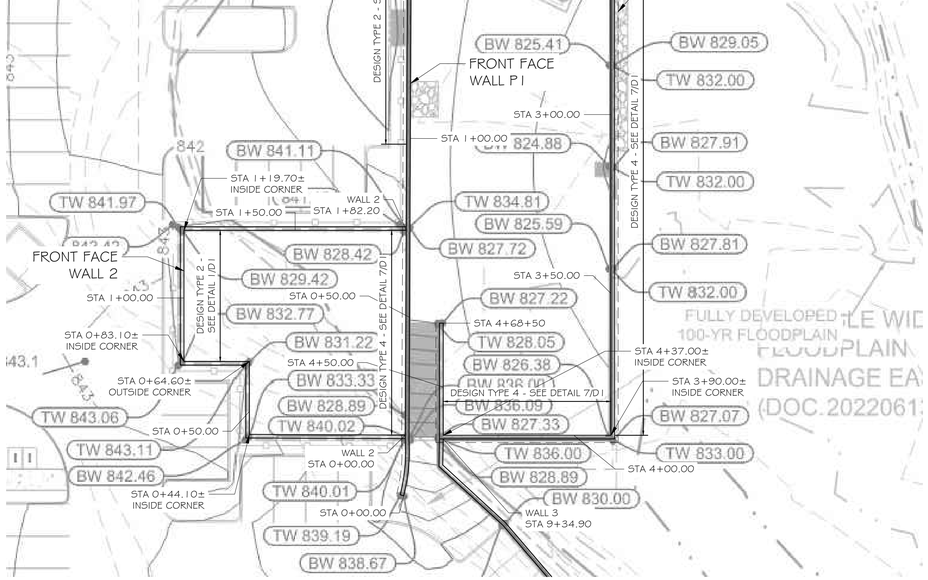
NOTE:
1. SEE CIVIL PLANS FOR TW & BW INFORMATION.
2. SEE DETAILS 1/D1 & 7/D1 FOR DESIGN TYPES
3. DESIGNS ARE DESIGN TYPE 1 UNO.



2 P1 PLAN VIEW OF WALL 1 - 2 OF 2

SCALE: 1"=20'-0"

THIS WALL PLAN IS INTENDED FOR GENERAL LOCATION PURPOSES ONLY. REFER TO PROJECT SITE PLANS FOR SPECIFIC DIMENSIONS.



3 P1 PLAN VIEW OF WALLS P1 & 2

SCALE: 1"=20'-0"

THIS WALL PLAN IS INTENDED FOR GENERAL LOCATION PURPOSES ONLY. REFER TO PROJECT SITE PLANS FOR SPECIFIC DIMENSIONS.

STRUCTURAL DESIGN HEREIN REPRESENTS A FINISHED STRUCTURE. THE GENERAL CONTRACTOR/OWNER SHALL PROVIDE ALL INTERIM BRACING, SHORING, INTERIM DRAINAGE PROVISIONS, DRAINAGE DIVERSION AND EROSION PROTECTION REQUIRED UNTIL FINAL CAPPING, PAVING, CURBING AND COMPLETION OF FINAL STORM DRAIN SYSTEM IS COMPLETE.

REV	DATE	DESCRIPTION

ROSCH ENGINEERING
3000 JOE DIMAGGIO BLVD., SUITE 28
ROUND ROCK, TX 78664
PHONE: 512-828-4167
FAX: 512-233-0540
TBPE #14762

RONALD REAGAN SQUARE
CEDAR PARK, TX

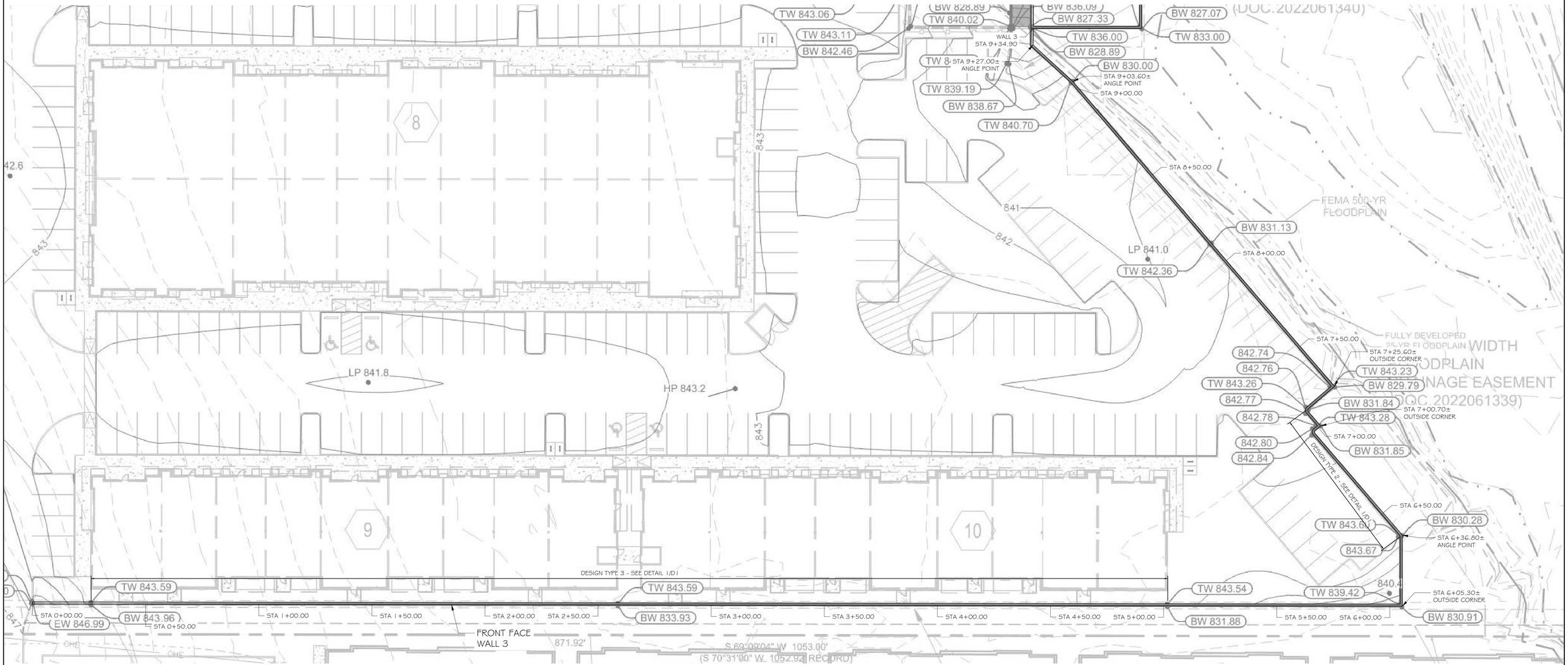
RETAINING WALL PLANS

STATE OF TEXAS
BRIAN C. SCHALLER
LICENSED PROFESSIONAL ENGINEER
1-18-23

DESIGNED:	BCS
DRAWN:	JTM
DESIGN ENGINEER:	ECS
REVIEWED:	RMJ
DATE:	1-18-23
JOB NO.:	21-1165
SHEET:	P1

1

REPLACEMENT SHEET
SHEET 60 OF 75



PLAN VIEW OF WALL 3

P2 SCALE: 1"=20'-0"

THIS WALL PLAN IS INTENDED FOR GENERAL LOCATION PURPOSES ONLY. REFER TO PROJECT SITE PLANS FOR SPECIFIC DIMENSIONS.

NOTE:
1. SEE CIVIL PLANS FOR TW & BW INFORMATION.
2. SEE DETAILS 1/D1 & 7/D1 FOR DESIGN TYPES
3. DESIGNS ARE DESIGN TYPE 1 UNO.

STRUCTURAL DESIGN HEREIN REPRESENTS A FINISHED STRUCTURE. THE GENERAL CONTRACTOR/OWNER SHALL PROVIDE ALL INTERIM BRACING, SHORING, INTERIM DRAINAGE PROVISIONS, DRAINAGE DIVERSION AND EROSION PROTECTION REQUIRED UNTIL FINAL CAPPING, PAVING, CURBING AND COMPLETION OF FINAL STORM DRAIN SYSTEM IS COMPLETE.

1

REPLACEMENT SHEET
SHEET 61 OF 75

REV	DATE	DESCRIPTION

ROSCH ENGINEERING
3000 JOE DIMAGGIO BLVD., SUITE 28
ROUND ROCK, TX 78664
PHONE: 512-828-4167
FAX: 512-233-0540
TBPE #14762

RONALD REAGAN SQUARE
CEDAR PARK, TX

RETAINING WALL PLAN

STATE OF TEXAS
BRIAN C. SCHAECHER
LICENSED PROFESSIONAL ENGINEER
1-18-23

DESIGNED:	BCS
DRAWN:	JTM
DESIGN ENGINEER:	ECS
REVIEWED:	RMJ
DATE:	1-18-23
JOB NO.:	21-1165
SHEET:	P2

GENERAL NOTES:

1. RETAINING WALL DESIGN:
 1.1. STRUCTURAL DESIGN HEREIN REPRESENTS A FINISHED STRUCTURE. THE GENERAL CONTRACTOR/OWNER SHALL PROVIDE ALL INTERIM BRACING, SHORING, INTERIM DRAINAGE PROVISIONS, DRAINAGE DIVERSION AND EROSION PROTECTION REQUIRED UNTIL FINAL CAPPING, PAVING, CURBING AND COMPLETION OF FINAL STORM DRAIN SYSTEM IS COMPLETE.
  1.1.1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/OWNER TO ENSURE THAT THE FINISHED SITE DRAINAGE IS DIRECTED AWAY FROM THE RETAINING WALL SYSTEM.
  1.1.2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR/OWNER TO ENSURE THAT THE SURFACE WATER RUNOFF FROM ADJACENT CONSTRUCTION AREAS IS NOT ALLOWED TO ENTER THE RETAINING WALL AREA OF THE CONSTRUCTION SITE.

 1.2. THE DESIGN OF THE RETAINING WALLS IS IN ACCORDANCE WITH ACCEPTED SOIL MECHANICS PRINCIPLES AND PROCEDURES AS WELL AS ACI 530.1-02 SPECIFICATION FOR MASONRY STRUCTURES AND INCLUDES EXTERNAL STABILITY; SLIDING AND OVERTURNING. THE APPLIED BEARING PRESSURES ARE LISTED IN THE DETAILS.

 1.3. THE DESIGN OF THE RETAINING WALLS IS BASED ON THE FOLLOWING DOCUMENTS:

  DRAWING SHEET 33 OF 76 DATED 12/19/2022 PREPARED BY ELI ENGINEERING, PLLC.

  GEOTECHNICAL REPORT DATED 9/10/2020 PREPARED BY MLA GEOTECHNICAL.
  ENGINEER'S JOB # 20106100.066

 1.4. THE DESIGN OF THE RETAINING WALL IS BASED ON THE INDIVIDUAL SOIL PROPERTIES AS LISTED ON THE DETAILS AS WELL AS THE FOLLOWING CRITERIA:

  SEISMIC ACCELERATION = N/A

  HYDROSTATIC LOADING = NONE

  SURCHARGE LOADING = 100 PSF LOCATED 2'-0" FROM FACE OF WALL UNO IN DETAIL 1/D1.

2. MATERIAL PROPERTIES:
 2.1. PORTLAND CEMENT MORTAR.
  2.1.1. PORTLAND CEMENT MORTAR SHALL HAVE THE FOLLOWING PROPORTIONS PER CUBIC YARD OF MORTAR. THE PORTLAND CEMENT MORTAR SUPPLIER SHALL PROVIDE BATCH TICKETS CLEARLY INDICATING THE APPROPRIATE AMOUNT OF MATERIAL ARE PROVIDED IN EACH LOAD. THE BATCH TICKETS SHALL CLEARLY INDICATE THE AMOUNT BATCHED, THE DATE, THE PROJECT NAME AND SHALL BE PROVIDED TO ROSCH ENGINEERING FOR REVIEW.

MATERIAL	AMOUNT PER CUBIC YARD	
TYPE I PORTLAND CEMENT	376	LBS
TYPE F FLY ASH	94	LBS
FINE AGGREGATE	3,250	LBS
POTABLE WATER	235	LBS
RETARDER (BASED ON EUCON 100)	48	OZ AVERAGE

  2.1.2. CONCRETE RETARDERS SUCH AS EUCON 100 MAY BE USED AT THE DISCRETION OF THE WALL CONTRACTOR. DURING HOT WEATHER A GREATER AMOUNT OF RETARDER IS TYPICALLY NECESSARY AND DURING COLD WEATHER A LESSOR AMOUNT IF TYPICALLY NECESSARY. FOLLOW MANUFACTURERS RECOMMENDATIONS.
  2.1.3. THE ABOVE PROPORTIONS WILL PROVIDE A PORTLAND CEMENT MORTAR WITH A COMPRESSIVE STRENGTH OF APPROXIMATELY 1,500 PSI. ROSCH ENGINEERING DOES NOT REQUIRE ANY TESTING OF THE MORTAR PROVIDED THE ABOVE PROPORTIONS ARE VERIFIED BY WAY OF THE BATCH TICKETS.

 2.2. DRAINAGE ROCK SHALL BE A CLEAN CRUSHED STONE OR GRANULAR FILL SUCH AS 1" CLEAN MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D 422:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
¾ INCH	75-100
NO. 4	0-60
NO. 40	0-50
NO. 200	0-5

 2.3. LOW PERMEABLE SOIL SHALL CONSIST OF MATERIAL HAVING A MINIMUM PLASTICITY INDEX OF 10. NO MORE THAN 10% SHALL BE RETAINED ON A NO. 4 SIEVE AND NO LESS THAN 35% SHALL PASS A NO. 200 SIEVE. MATERIAL WITH A USC DESIGNATION OF ML, CL, OR OL ARE ACCEPTABLE FOR USE AS LOW PERMEABLE SOIL.

 2.4. GEOTEXTILE FILTER FABRIC SHALL BE A NONWOVEN GEOTEXTILE COMPOSED OF POLYPROPYLENE FIBERS WITH A MINIMUM FLOW RATE OF 140 GPM/FT² WHEN TESTED ACCORDING TO ASTM D 4491.

 2.5. DRAINAGE PIPE SHALL BE A 4"Ø PERFORATED, SLOTTED PVC OR CORRUGATED HDPE PIPE. DRAINAGE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F 405 OR ASTM F 758.

3. EXCAVATION:
 3.1. THE CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE PLANS. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE OVER-EXCAVATION.

 3.2. EXCAVATION SUPPORT, INCLUDING THE STABILITY OF THE EXCAVATION AND ITS INFLUENCE ON ADJACENT PROPERTY IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

4. FOUNDATION SOIL PREPARATION:
 4.1. FOLLOWING EXCAVATION FOR THE FOOTING, FOUNDATION SOIL SHALL BE EXAMINED BY THE OWNER'S GEOTECHNICAL ENGINEER TO ASSURE THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THE ASSUMED DESIGN BEARING STRENGTH. SOIL NOT MEETING THE REQUIRED STRENGTH SHALL BE REMOVED AND REPLACED WITH SOIL MEETING THE DESIGN CRITERIA, AS DIRECTED BY THE OWNER'S GEOTECHNICAL ENGINEER.

 4.2. FOUNDATION SOIL IS DEFINED AS THE SOIL UNDER THE FOOTING.

 4.3. FOUNDATION SOIL IS ASSUMED TO BE INTACT NATIVE LIMESTONE, NATIVE SOIL OR COMPACTED SELECT FILL.

5. BACKFILL PLACEMENT:
 5.1. DRAINAGE ROCK SHALL BE CONSOLIDATED WITH A MINIMUM OF 2 PASSES OF A VIBRATORY COMPACTOR. FIELD DENSITY TESTING WILL NOT BE REQUIRED FOR DRAINAGE ROCK.

 5.2. AT THE END OF EACH DAYS OPERATION, SLOPE THE LAST LEVEL OF BACKFILL AWAY FROM THE INTERIOR (CONCEALED) FACE OF THE WALL TO DIRECT SURFACE WATER AWAY FROM THE WALL.
  5.2.1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT THE FINISHED SITE DRAINAGE IS DIRECTED AWAY FROM ALL RETAINING WALLS.
  5.2.2. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT THE SURFACE WATER RUNOFF FROM ADJACENT CONSTRUCTION AREAS IS NOT ALLOWED TO ENTER THE RETAINING WALL AREA OF THE CONSTRUCTION SITE.

6. DRAIN PIPE INSTALLATION:
 6.1. DRAINAGE COLLECTION PIPES SHALL BE INSTALLED TO MAINTAIN GRAVITY FLOW OF WATER OUTSIDE OF THE DRAINAGE ROCK ZONE. THE DRAINAGE COLLECTION PIPE SHOULD CONNECT INTO A STORM SEWER MANHOLE OR DAYLIGHT THROUGH THE FACE OF THE WALL AS SHOWN IN THE DETAILS.

7. FIELD QUALITY CONTROL:
 7.1. THE OWNER OR OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ENGAGING THE SERVICES OF AN INDEPENDENT THIRD PARTY INSPECTOR TO OBSERVE AND VERIFY ALL SOIL PROPERTIES AS WELL AS VERIFY CORRECT INSTALLATION OF ALL SYSTEM COMPONENTS TO MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND DRAWINGS.

 7.2. TESTING METHODS, FREQUENCY AND VERIFICATION OF MATERIAL SPECIFICATIONS SHALL BE THE RESPONSIBILITY OF THE INDEPENDENT THIRD PARTY INSPECTOR.

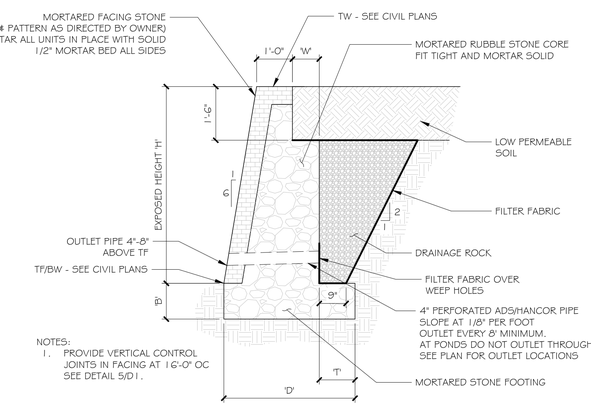
8. ABBREVIATIONS:

FGE	FINISHED GRADE EXTERIOR
FGI	FINISHED GRADE INTERIOR
FL	FLOW LINE
FS	FACTOR OF SAFETY
MIN	MINIMUM
OC	ON CENTER
PL	PROPERTY LINE
STA	STATION
TF	TOP OF FOOTING ELEVATION
TW	TOP OF WALL ELEVATION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

ANALYSIS RESULTS:

CONDITION	REQUIRED FS	MIN CALCULATED FS
OVERTURNING	1.5	2.28
SLIDING	1.5	1.52
GLOBAL STABILITY	1.3	1.40
BLDG GLOBAL STABILITY	1.5	1.50

ROSCH ENGINEERING HAS PERFORMED DESIGN CALCULATIONS BASED ON THE DESIGN CRITERIA, ASSUMED SOIL PARAMETERS, AND KNOWN LOADING CONDITIONS AS LISTED IN THESE DRAWINGS. THE OWNERS REPRESENTATIVE, INDEPENDENT THIRD PARTY SPECIAL INSPECTOR AND INSTALLER SHALL NOTIFY ROSCH ENGINEERING OF ANY CHANGES OR DIFFERENCES IN ACTUAL SITE CONDITIONS WHICH VARY FROM THOSE LISTED, PRIOR TO CONSTRUCTING THE WALL.



NOTES:
1. PROVIDE VERTICAL CONTROL JOINTS IN FACING AT 16'-0" OC SEE DETAIL 5/D1.

1/D1 GRAVITY WALL SECTION
NTS

ALL DESIGNS USE THE FOLLOWING SOIL PROPERTIES UNLESS NOTED OTHERWISE:
FOUNDATION SOIL CLAYS (26° FRICTION ANGLE 120 PCF UNIT WEIGHT c=45 PSF)
RETAINED SOIL DRAINAGE ROCK (34° FRICTION ANGLE 105 PCF UNIT WEIGHT)

DESIGN TYPE 1:
SURCHARGE 100 PSF LIVE LOAD @ 2' FROM FACE OF WALL

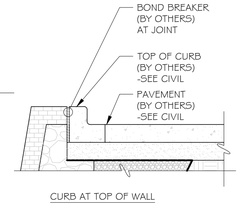
'H'	'B'	'W'	'T'	'D'	REQUIRED BEARING
0 TO 4'	0.5'	0'	0.5'	2.17'	1,000 PSF
>4' TO 6'	0.75'	0.5'	0.75'	3.25'	1,100 PSF
>6' TO 8'	1.0'	1.0'	1.25'	4.58'	1,300 PSF
>8' TO 10'	1.5'	1.25'	2.0'	5.92'	1,700 PSF
>10' TO 12'	2.0'	1.75'	2.25'	7.00'	2,100 PSF
>12' TO 14'	3.0'	1.75'	3.0'	8.08'	2,600 PSF
>14' TO 16'	3.5'	2.0'	3.25'	8.92'	3,100 PSF

DESIGN TYPE 2:
SURCHARGE 250 PSF LIVE LOAD @ 3' FROM FACE OF WALL

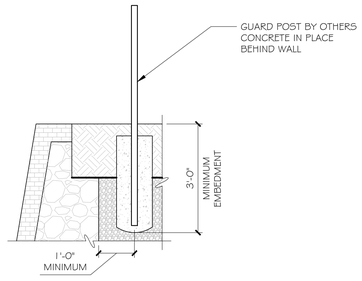
'H'	'B'	'W'	'T'	'D'	REQUIRED BEARING
0 TO 4'	0.5'	0'	0.75'	2.42'	1,000 PSF
>4' TO 6'	0.75'	0.5'	0.75'	3.25'	1,200 PSF
>6' TO 8'	1.0'	1.0'	1.25'	4.58'	1,500 PSF
>8' TO 10'	1.5'	1.25'	2.0'	5.92'	1,800 PSF
>10' TO 12'	2.0'	1.75'	2.25'	7.00'	2,300 PSF
>12' TO 14'	3.0'	1.75'	3.0'	8.08'	2,900 PSF
>14' TO 16'	3.5'	2.0'	3.25'	8.92'	3,300 PSF

DESIGN TYPE 3:
SURCHARGE 400 PSF LIVE LOAD @ 6' FROM FACE OF WALL

'H'	'B'	'W'	'T'	'D'	REQUIRED BEARING
0 TO 4'	0.5'	0'	0.5'	2.17'	1,000 PSF
>4' TO 6'	1.5'	0.5'	1.25'	3.75'	1,200 PSF
>6' TO 8'	2.0'	1.0'	1.5'	4.63'	1,700 PSF
>8' TO 10'	2.5'	1.25'	2.25'	6.17'	2,100 PSF
>10' TO 12'	3.0'	1.75'	2.75'	7.50'	2,500 PSF
>12' TO 14'	3.5'	1.75'	3.5'	8.58'	2,900 PSF
>14' TO 16'	4.0'	2.0'	4.0'	9.67'	3,300 PSF

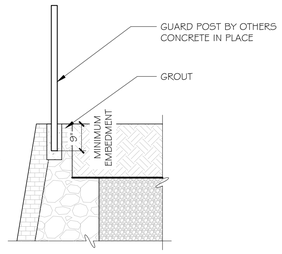


CURB AT TOP OF WALL



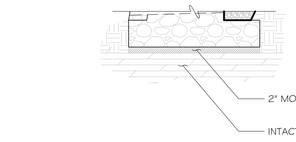
NOTES:
1. RAIL/FENCE DESIGN AND SUITABILITY IS THE RESPONSIBILITY OF OTHERS.
2. UNLESS NOTED OTHERWISE WITHIN THESE PLANS THIS DETAIL IS SUITABLE FOR OPEN TYPE FENCE ONLY. NOT SUITABLE FOR CLOSED, PRIVACY TYPE FENCES.

2 TYPICAL POST AT WALL
D1 NTS



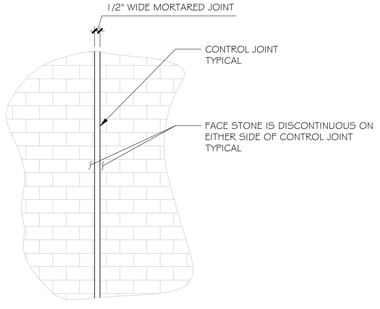
NOTES:
1. RAIL/FENCE DESIGN AND SUITABILITY IS THE RESPONSIBILITY OF OTHERS.
2. UNLESS NOTED OTHERWISE WITHIN THESE PLANS THIS DETAIL IS SUITABLE FOR OPEN TYPE FENCE ONLY. NOT SUITABLE FOR CLOSED, PRIVACY TYPE FENCES.

3 TYPICAL OPEN POST AT WALL
D1 NTS



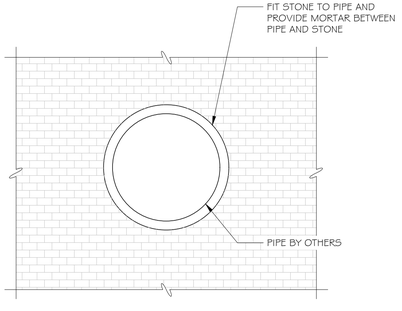
NOTE:
1. THIS CONDITION APPLIES WHERE INTACT LIMESTONE IS ENCOUNTERED AT THE BOTTOM OF FOOTING.
2. REMOVE ALL LOOSE MATERIAL, THOROUGHLY CLEAN THE SURFACE, THEN PLACE A 2" MORTAR BED ON INTACT LIMESTONE.

4 LIMESTONE FOUNDATION DETAIL
D1 NTS

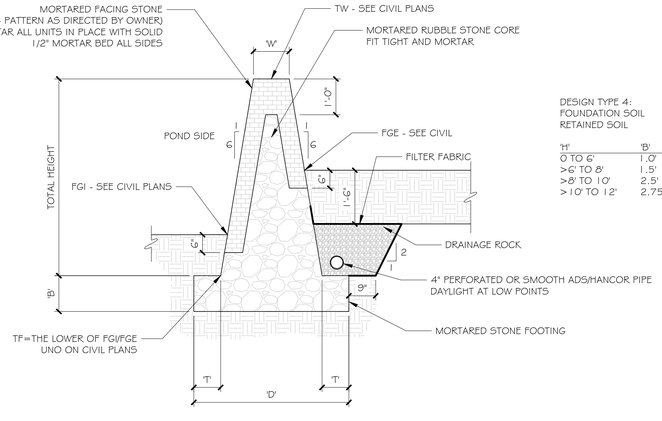


PROVIDE VERTICAL CONTROL JOINTS IN FACING AT 16'-0" OC

5 CONTROL JOINT DETAIL
D1 NTS



6 PIPE PENETRATION DETAIL
D1 NTS



DESIGN TYPE 4:
FOUNDATION SOIL CLAYS (26° FRICTION ANGLE 120 PCF UNIT WEIGHT c=45 PSF)
RETAINED SOIL WATER (0° FRICTION ANGLE 62.4 PCF UNIT WEIGHT)

'H'	'B'	'W'	'T'	'D'	REQUIRED BEARING
0 TO 6'	1.0'	1.75'	0.25'	4.25'	1,100 PSF
>6' TO 8'	1.5'	1.75'	1.25'	6.92'	1,000 PSF
>8' TO 10'	2.5'	1.75'	2.0'	9.08'	1,300 PSF
>10' TO 12'	2.75'	1.75'	3.0'	11.75'	1,300 PSF

7 POND WALL SECTION
D1 NTS

STRUCTURAL DESIGN HEREIN REPRESENTS A FINISHED STRUCTURE. THE GENERAL CONTRACTOR/OWNER SHALL PROVIDE ALL INTERIM BRACING, SHORING, INTERIM DRAINAGE PROVISIONS, DRAINAGE DIVERSION AND EROSION PROTECTION REQUIRED UNTIL FINAL CAPPING, PAVING, CURBING AND COMPLETION OF FINAL STORM DRAIN SYSTEM IS COMPLETE.

REV	DATE	DESCRIPTION

ROSCH ENGINEERING
3000 JOE DIMAGGIO BLVD., SUITE 28
ROUND ROCK, TX 78664
PHONE: 512-828-4167
FAX: 512-233-0540
TBPE #:14762

RONALD REAGAN SQUARE
CEDAR PARK, TX

RETAINING WALL
NOTES & DETAILS

STATE OF TEXAS
BRIAN C. SCHUCKER
LICENSED
PROFESSIONAL ENGINEER
1-18-23

DESIGNED:	BCS
DRAWN:	JTM
DESIGN ENGINEER:	ECS
REVIEWED:	RMJ
DATE:	1-18-23
JOB NO.:	21-1165
SHEET:	D1

1 REPLACEMENT SHEET
SHEET 62 OF 75

ELI ENGINEERING

Firm # 17877

August 3, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment N - Inspection, Maintenance, Repair and Retrofit Plan

To Whom It May Concern:

A plan for the inspection, maintenance, repair, and if necessary, retrofit of the permanent BMPs and measures is attached. It includes procedures for documenting inspections, maintenance, repairs, and if necessary, retrofits as well as record keeping procedures. The plan has been prepared and certified by the engineer that designed the permanent BMP and measures. The owner or responsible party has signed the plan.

If you have any questions or need further assistance, please contact me at 512-658-8095.

8/3/2023

Gary Eli Jones, P.E.
Authorized Agent

ELI ENGINEERING

Firm # 17877

August 4, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
12100 Park 35 Circle, Bldg. A, Room 179
Austin, Texas 78753

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment N - Inspection, Maintenance, Repair and Retrofit Plan

To Mr. Gilakattula:

TCEQ requires the property owner to keep operation, maintenance, and inspections records of the BMP features including the grassy swale and batch detention pond.

General Guidelines:

- Accessibility: You should maintain accessibility to the BMP at all times. Equipment and personnel required to maintain and inspect the BMP should not be obstructed under reasonable conditions. Due to the vertical walls on the entire perimeter of the pond, maintenance access will be provided via 6-ft access gates located at the curb openings to each side of the ponds. The vertical drop is less than four (4) feet therefore, access with small ladders with trimmers can be used to mow and maintain the pond. Larger equipment will have to be lifted down into the pond from the asphalt paved drive adjacent to the pond.

- Material Disposal: Stormwater pollutants include a variety of substances that are deposited in the BMP. Federal and state laws and regulations may apply to the disposal of substances removed from the BMP. In order to dispose of substances removed from the BMP you must 1) characterize the waste 2) classify the waste based on character 3) properly dispose the waste according to current state (30TAC 330 or 335) and federal rules (40 CFR Subchapter C or D). The sediment must be determined inert for on-site disposal.

At a minimum, you should keep written records indicating the following:

Subject	Frequency
Pest management	Develop an integrated pest management plan for vegetated areas. Specify how problem weeds and insects will be controlled with minimal or no use of insecticides and herbicides.
Inspect swales & filters	Twice per year, once after a major rainfall event.
Inspect outlet structure	Twice per year, once after a major rainfall event.
Mow and maintain area	As needed such that grass is less than 18" tall or twice per year.
Remove sediment	Remove sediment that reaches 3 inches in depth over any spot or covers vegetation. Replace eroded areas with compacted fill and re-seed as necessary to maintain

Maintenance Guidelines for Batch Detention Basins
Batch detention basins may have somewhat higher maintenance requirements than an extended detention basin since they are active stormwater controls. The maintenance activities are identical to those of extended detention basins with the addition of maintenance and inspections of the automatic controller and the valve at the outlet.

Inspections. Inspections should take place a minimum of twice a year. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.

Mowing. The basin, basin side-slopes, and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.

Litter and Debris Removal. Litter and debris removal should take place at least twice a year, as part of the periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the outlet structure. The outlet should be checked for possible clogging or obstructions and any debris removed.

Erosion control. The basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regrading and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.

Nuisance Control. Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms

due to spring flow and residential water use that enters the storm sewer system. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).

Structural Repairs and Replacement. With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced.

Sediment Removal. A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with the level sensor operation. Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.

Logic Controller. The Logic Controller should be inspected as part of the twice yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

All maintenance and repairs made to the BMP should be documented along with the inspection report.

Sincerely,

Gary Eli Jones, P.E.

Concurrence & Acceptance:

Mallik Gilakattula

ELI ENGINEERING
Firm # 17877

August 3, 2023

Texas Commission on Environmental Quality
Region 11 Field Office (Austin)
2800 S. IH 35, Suite 100
Austin, Texas 78704

Re: Ronald Reagan Square
Contributing Zone Plan Modification
Attachment P– Measures for Minimizing Surface Stream Contamination

To Whom It May Concern:

Silt fence will be placed around the perimeter of the limits of construction to treat stormwater runoff during construction. All disturbed areas will be revegetated. Stormwater from the site will be treated by Batch Detention Water Quality Pond per TCEQ standards.

Construction plans showing an Erosion Control Plan, Drainage Plans, and Pond Plans for the project can be found in Attachment F.

If you have any questions or need further assistance, please contact me at 512-658-8095.

Gary Eli Jones, P.E.
Authorized Agent

STORM WATER POLLUTION PREVENTION PLAN (SWP3)

Ronald Reagan Square

Cedar Park, Texas

DECEMBER 2021

Project Owner:

Transcend Easley, LLC
3 Sugar Creek Center Boulevard, Suite #100
Sugar Land, TX 77478

Project Contractor:

Prepared By:

Kimley-Horn and Associates, Inc.
10814 Jollyville Rd. Bldg. 4 Ste. 200
Austin, TX 78759
(512) 418- 1771

KHA No. 069290000

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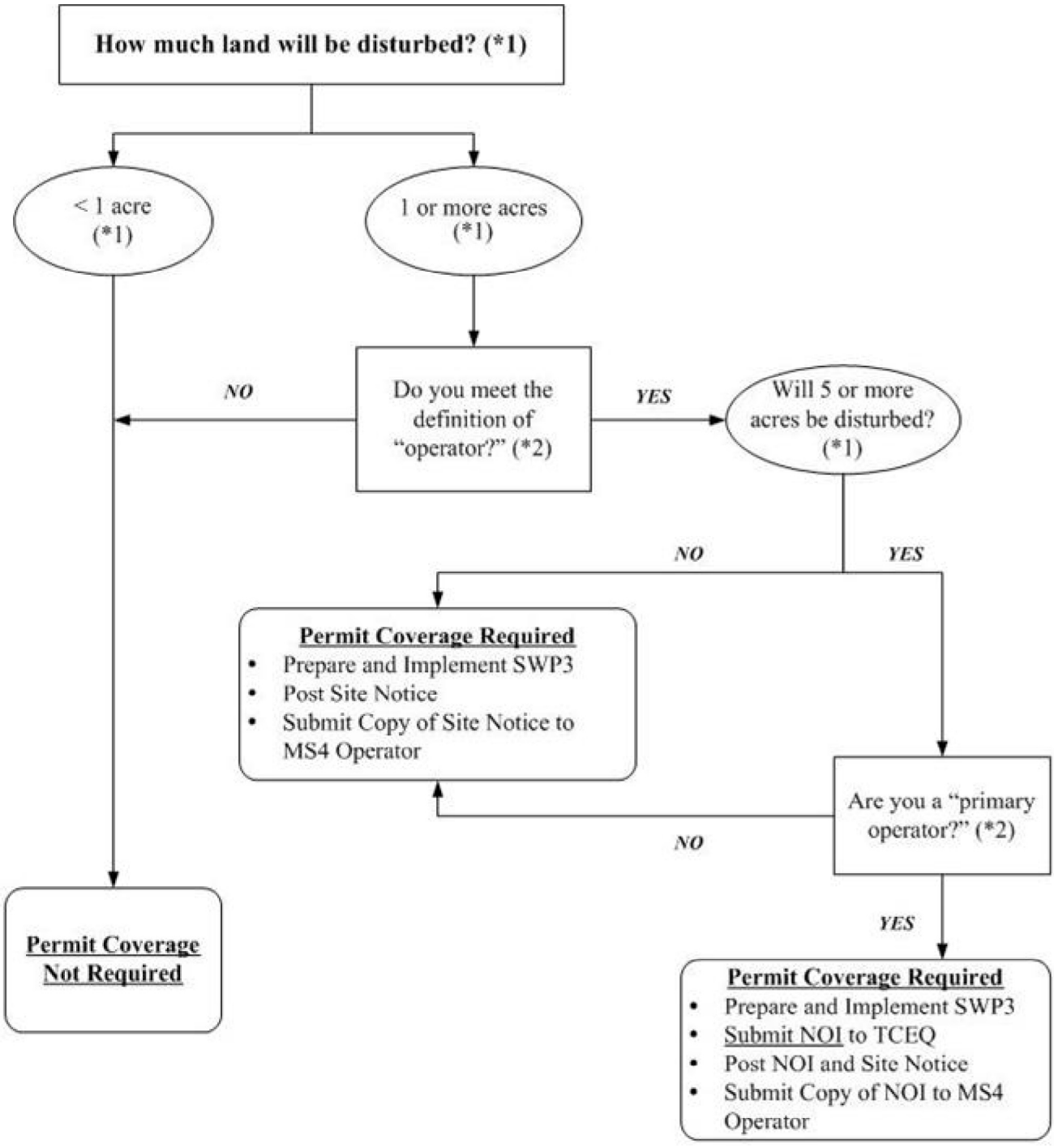
APPENDICES



(*1) To determine the size of the construction project, use the size of the entire area to be disturbed, and include the size of the larger common plan of development or sale, if the project is part of a larger project (refer to Part I.B., "Definitions," for an explanation of "larger common plan of development or sale").

(*2) Refer to the definitions for "operator," "primary operator," and "secondary operator" in Part I., Section B. of this permit.

STORM WATER POLLUTION PREVENTION PLAN REVISIONS

Provide a general description and document the date of any revisions to the storm water pollution prevention plan during the course of this construction project. Revisions may be necessary as a result of site inspections or because of a change in the circumstances of the construction project (such as schedule change or a modification in design).

The Storm Water Pollution Prevention Plan (SWP3) must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing best management practices (BMPs) are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.

REVISION (Refer to attachments if necessary)	DATE	SIGNATURE

1.0 INTRODUCTION

On March 10, 2003, responsibility for the administration of storm water protection associated with construction activities in Texas was delegated by the U.S. Environmental Protection Agency (EPA) to the Texas Commission on Environmental Quality (TCEQ). The Texas Pollutant Discharge Elimination System (TPDES) program in Texas meets or exceeds the National Pollutant Discharge Elimination System (NPDES) standards established on a federal level. This SWP3 has been developed in accordance with the TPDES requirements. Additional local requirements may apply and this SWP3 should be updated accordingly (Appendix O).

The purpose of the SWP3 is to provide guidelines for preventing or minimizing sediment and other pollutants that may originate on the site from flowing into municipal storm systems or jurisdictional waters during the construction period. This plan also addresses the principal activities known to disturb significant amounts of ground surface during construction. Stabilization measures must begin within fourteen (14) days of stoppage of construction activities (Appendix I). The permit coverage requirements terminate when areas disturbed for this project reach full stabilization (i.e., when disturbed areas are paved or achieve 70 percent native background vegetative coverage). Revisions to this plan will be made as necessary to accurately reflect project activities and storm water pollution prevention measures.

The storm water management controls included in this SWP3 focus on providing control of pollutant discharges with practical approaches that use readily available techniques, expertise, materials, and equipment. The necessary forms for implementing the SWP3 are found in the appendices of this document, including the Inspector's Qualifications, Inspection Form, Notice of Intent (NOI), Notice of Termination (NOT), and construction site notice. The SWP3 must be implemented prior to the start of construction activities.

The Project Owner's and the Contractor's roles and responsibilities for implementation and maintenance of the elements of the SWP3 are shown in a checklist in Appendix F of this document. Appendix F also includes a description of primary and secondary operators, along with associated responsibilities. The Project Owner and each Contractor must complete the checklist in Appendix F and sign the included certification statement. The certification statement indicates that each operator understands and accepts their roles and responsibilities with respect to storm water pollution prevention for this project.

A. Project Name and Location

Northline Apartments – Blocks T & U - Leander, Williamson County, Texas (See Appendix A for a project location map).

B. Owner Information

Name: Transcend Easley, LLC
Address: 3 Sugar Creek Center Boulevard, Suite #100
Sugar Land, TX 77478
Representative: Rajesh Borad
Title: Owner
Telephone: 832-304-0308
Fax: N/A

C. Contractor Information

Name:
Address:

Representative:
Title:
Telephone:
Fax: _____

D. Subcontractor Information

Name: _____
Address: _____
_____
Representative: _____
Title: _____
Telephone: _____
Fax: _____

Name: _____
Address: _____
_____
Representative: _____
Title: _____
Telephone: _____
Fax: _____

E. Discharges Eligible for Authorization

The general permit for construction activities allows for storm water discharges from construction activities, construction support activities, and authorized non-storm water discharges. Under the general permit, construction support activities include, but are not limited to:

- concrete and asphalt batch plants,
- rock crushers,
- equipment staging areas,
- material storage yards,
- material borrow areas, and
- excavated material disposal areas.

Storm water discharges from these construction support activities are authorized under the general permit for construction activities provided:

- the activity is located within one mile of the permitted construction site and is directly supporting the construction activities,
- the SWP3 for the permitted construction activities is developed to include the controls and measures to reduce erosion and discharge of pollutants in storm water runoff from the construction support activities, and

- the construction support activities either do not operate beyond the completion date of the construction activity or, at the time that they do, are authorized under separate Texas Pollutant Discharge Elimination System (TPDES) authorization.

The following non-storm water discharges are also authorized under the general permit for construction activities:

- Discharges from firefighting activities,
- Uncontaminated fire hydrant flushings,
- Water from routine external washing of vehicles, the external portion of buildings or structures, and pavement (where detergents and soaps are not used),
- Uncontaminated water used to control dust,
- Potable water sources, including waterline flushings,
- Uncontaminated air conditioning condensate,
- Uncontaminated groundwater or spring water, and
- Lawn watering and similar Irrigation drainage.

Part II.A.3 of the general permit contains additional information and requirements for non-storm water discharges. Discharges of storm water runoff from concrete batch plants may be authorized provided that the benchmark sampling and associated requirements located in Part V of the general permit are met. The wash out of concrete trucks associated with off-site facilities may be conducted in accordance with the requirements of Part V of the general permit. The Operator will be responsible for updating the SWP3 to meet Part V requirements, if applicable. A non-storm water discharge inventory is located in Appendix L.

F. Obtaining Coverage under the General Permit

Construction activities, including the activities associated with this project, disturbing five (5) acres or more (definition of a large construction activity) are required to comply with the following requirements of the general permit to obtain permit coverage:

a) Develop a SWP3 according to the provisions of the general permit that covers either the entire site or all portions of the site for which the applicant is the operator and implement that plan prior to commencing construction activities.

b) Primary operators must submit a NOI:

   1) at least seven days prior to commencing construction activities if mailing a paper NOI, or

   2) prior to commencing construction activities if utilizing electronic submittal.

   A copy of the NOI form is located in Appendix H. Instructions for NOI submittal relating to primary operator additions or changes are also located in Appendix H.

c) Post a site notice where it is safely and readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction. The site notice must be maintained until completion of the construction activity.

   1) For linear construction activities, the site notice must be placed in a publicly accessible location near where construction is actively underway. A copy of the construction site notice is located in Appendix H.

d) All primary operators must also post a copy of the signed NOI at the construction site in a location where it is readily available for viewing by the general public, local, state, and federal authorities prior to starting construction activities until completion of the construction activity. If multiple crews will be conducting construction activities under the general permit simultaneously, copies of the signed NOI should be posted at each separate construction site.

e) All primary operators must provide a copy of the signed NOI at least seven days prior to commencement of construction activities to any secondary operator and to the operator of any municipal separate storm sewer system (MS4) receiving construction site discharge. The names and addresses of all MS4 operators receiving a copy of the NOI are to be recorded in this SWP3 (Appendix H).

f) Secondary operators are regulated under the general construction permit but are not required to submit a NOI provided that:

   1) a primary operator(s) at the site has submitted a NOI, or

   2) another operator(s) is required to submit a NOI and the secondary operator has provided notification to the operator(s) of the need to obtain coverage.

   Additional information for secondary operators seeking alternative coverage is located in the general permit.

Questions about the TPDES construction permit program can be directed to the TCEQ Storm Water and General Permits Team at (512) 239-4515. A copy of the TPDES General Permit (TXR150000) for Storm Water Discharges from Construction Activities has been included in Appendix G for reference.

G. Notice of Change Letter

If the Operator becomes aware that he/she failed to submit any relevant facts, or submitted incorrect information in a NOI, the correct information must be provided to the TCEQ in a Notice of Change (NOC) letter within fourteen (14) days after discovery. In addition, if relevant information provided in the NOI changes, a NOC letter must be submitted to the TCEQ within fourteen (14) days of the change. A copy of the NOC must be provided to the operator of any MS4 receiving discharge from the construction activity. The names and addresses of all MS4 operators receiving a copy of the NOC must be included in this SWP3 (Appendix H).

H. Notice of Termination

Authorization under the general permit must be terminated by submitting a completed and signed NOT form provided in Appendix H. The NOT must be submitted to the TCEQ, and a copy of the NOT must be provided to the operator of any municipal separate storm sewer system (MS4) receiving the discharge within thirty (30) days after final stabilization has been achieved on all portions of the site that are the responsibility of the permittee, or another permitted contractor has assumed control over all areas of the site that have not been finally stabilized. The names and addresses of all MS4 operators receiving a copy of the NOT must be recorded in this SWP3 (Appendix H).

I. Termination of Coverage for Secondary Operators

Each operator that obtained authorization of the general permit without submitting a NOI must remove the site notice and complete the applicable portion of the notice related to removal of the notice. A copy of

the completed notice must be submitted to the operator of any MS4 receiving site discharge within 30 days of any the following conditions:

a) final stabilization has been achieved on all portions of the site that are the responsibility of the permittee,

b) a transfer of operational control has occurred, or

c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.

J. SWP3 Availability

This SWP3 must be retained on-site at the construction site, or if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3. This SWP3 must be made readily available at the time of an on-site inspection.

K. Hazardous Materials

The following potential pollutant sources may be present at the site due to the nature of the construction activities. An inventory of materials is located in Appendix L. Controls for potential pollutants are listed and described in Appendices C and D.

- Solvents
- Stains/paints
- Fuels
- Oils
- Grease
- Pesticides
- Fertilizer
- Sediment/total suspended solids
- Trash
- Paving
- Concrete curing compound
- Glue adhesives
- Joint compound
- Concrete, painting, and brick wash
- Excavation pump-out water
- Concrete

2.0 SITE DESCRIPTION

A. General Site Description

Ronald Reagan Square is located at 14300 Ronald Reagan Blvd, Cedar Park, Texas. Ronald Reagan Square has a total site area of 15.20 acres. The site is within the Contributing Zone of the Edwards Aquifer. The on-site impervious cover associated with the Ronald Reagan Square project will be 9.46 acres (62.37%). Coordinates for the site are approximately 30.5486 latitude and -97.7917 longitude (1983 North American Datum (NAD83) Coordinates).

This site is not located over the Edwards Aquifer Contributing Zone and is not located on Indian Country Lands. If information about the Edwards Aquifer Zone or Indian Country Lands changes, the Operator should update this SWP3 accordingly. No portion of the property is within the limits of the 100-year floodplain as shown on FIRM Panel No. 48491C0455F, dated December 20th, 2019.

The project will include two off-site transportation improvements, a left-turn and right-turn deceleration lane. The total project area when including the two off-site improvement areas is 17.08 acres, and the total impervious cover in the project area will be 10.49 acres (61.42%).

B. Nature of Construction Activity

This site is located in the Turkey Creek – Brushy Creek Watershed. The project is a mixed-use development consisting of four retail/restaurant buildings and seven office buildings, with associated grading, drainage, and utility improvements.

C. Estimate of Total Site Area and Disturbed Area

The amount of area involved in the project is 15.20 acres. Disturbed areas are projected to total approximately 14.04 acres.

D. Storm Water Discharge Locations and Quality Data

Impervious cover will increase post-construction and the increased runoff will be collected through grate and curb inlets then routed through the project's storm system then discharged into the existing channel on the North East side of the site. The collected water will flow through a water quality pond before being discharged.

Temporary erosion and sedimentation controls will be used during construction and will be located as shown on the plans. These erosion and sedimentation controls include silt fences, inlet protection, mulch socks, rock berms, temporary staging area, concrete washout area, and stabilized construction entrances designed to the City of Austin criteria. Permanent erosion controls will include revegetation using perennial grasses as indicated on the Erosion Control Plan and Erosion Control Detail Sheets.

E. Information on Soil Types

A soils map showing the project site and surrounding area is included in Appendix A. There are multiple soil types found on site. These include Doss silty clay, moist, 1 to 5 percent slopes, Eckrant cobbly clay, 1 to 8 percent slopes, Oakalla silty clay loam, 0 to 2 percent slopes, frequently flooded, and Sunev silty clay loam, 1 to 3 percent slopes.

F. Receiving Waters and Wetlands

According to available GIS topography and available survey, there is offsite drainage passing onto the property.

Under the existing conditions, the 15.20-acre site (EX-1) sheet flows across the site to the northeast side of the property into the creek. The existing impervious cover of EX-1 is 0.45 acres or 2.95%. There is one offsite drainage area that passes stormwater through the site as well (OFF-1). OFF-1 is 1.88 acres with 0.81 acres of impervious cover (43.08%). EX-1 and OFF-1 produce 100-year storm event peak flows of 130.70 cfs and 24.20 cfs, respectively. At the point of analysis, the total existing 100-year storm event peak flow is 146.90 cfs.

Under the proposed conditions, the 15.20-acre site is split into three onsite drainage areas, PR-1, PR-2, and PR-3. PR-1 is a 10.97-acre drainage area with an impervious cover of 9.34 acres (85.16%). Stormwater from PR-1 drains to storm inlets and is then conveyed through underground storm lines to the proposed Sand Filter Water Quality Pond. PR-2 is 3.71-acre drainage area with an impervious cover of 0.00 acres (0.00%). PR-2 will maintain its natural drainage patterns, bypass the Sand Filter Water Quality Pond, and flow northeast and into the creek. PR-3 is a 0.52-acre drainage area with an impervious cover of 0.12 acres (24.08%). Offsite drainage area OFF-1 is 1.88 acres with an impervious cover of 0.81 acres (43.12%). OFF-1 runoff will flow into the proposed inlets along Ronald Reagan Blvd on the Southwest side of the site. The runoff will be routed through a storm sewer that bypasses the water quality pond and discharges into the creek. PR-1, PR-2, PR-3, and OFF-1 produce 100-year storm event peak flows of 151.10 cfs, 37.20 cfs, 5.90 cfs, and 25.10 cfs, respectively. This total proposed 100-year storm event peak flow is 219.20 cfs at the point of analysis, which is greater than the existing 100-year storm event peak flow of 146.90 cfs. The increase in flow in expected but causes no adverse impacts to the surrounding properties per the floodplain and drainage study under review by the City of Cedar Park. No on-site detention will be required per the Floodplain Development Permit (FLD-21-002) currently under review with the City of Cedar Park.

New sources or new discharges of the constituents of concern to impaired waters are not authorized by the general construction permit (unless otherwise allowable under 30 TAC Chapter 305 and applicable state law). Impaired waters are those that do not meet applicable water quality standards and are listed on the EPA approved CWA 303(d) list. Pollutants of concern are those for which the water body is listed as impaired.

If discharges are expected to enter into a receiving water body located on the 303(d) list, constituents of concern are those for which the water body is listed as impaired. Discharges of the constituents of concern to impaired water bodies for which there is a total maximum daily load (TMDL) are not eligible for the general permit unless they are consistent with the approved TMDL. The receiving water does not have a known published TMDL. Permittees must incorporate the conditions and requirements applicable to their discharges, including monitoring frequency and reporting required by TCEQ rules, into this SWP3 in order to be eligible for coverage under the general permit.

There are no known wetlands on the site. If any wetlands are identified on the site, the Operator should update this SWP3 accordingly.

G. Threatened and Endangered Species

Discharges that would adversely affect a listed endangered or threatened aquatic or aquatic-dependent species or its critical habitat are not authorized by the general construction permit, unless the requirements of the Endangered Species Act are satisfied. This project does not appear to contain suitable habitat for listed species in Williamson County, Texas. It is unlikely that the project has the potential to adversely affect a listed endangered or threatened species in Williamson County, Texas. If information regarding the presence of protected species changes the Operator should consult with the appropriate state or federal agency.

H. Discharges to the Edwards Aquifer Recharge Zone

Discharges cannot be authorized by the general permit where prohibited by 30 Texas Administrative Code (TAC) Chapter 213.

1. New Discharges

   For new discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone, operators must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of the general construction permit. A copy of 30 TAC Chapter 213 is located in Appendix Q.

2. Existing Discharges

   For existing discharges, the requirements of the agency-approved Water Pollution Abatement Plan under the Edwards Aquifer Rules are in addition to the requirements of the general construction permit. Best management practices and maintenance schedules for structural storm water controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in storm water runoff are in addition to the requirements in the general construction permit. A copy of the 30 TAC Chapter 213 is located in Appendix Q.

For discharges from large construction activities located on the Edwards Aquifer recharge zone or the Edwards Aquifer contributing zone, applicants must also submit a copy of the NOI to the appropriate TCEQ regional office. For discharges from large construction activities by operators not required to submit a NOI, a copy of the construction site notice must be submitted to the appropriate TCEQ regional office.

For discharges from small construction activities located on the Edwards Aquifer recharge zone or the Edwards Aquifer contributing zone, a copy of the construction site notice must be submitted to the appropriate TCEQ regional office.

Counties:	Contact:
Comal, Bexar, Medina, Uvalde, and Kinney	TCEQ Water Program Manager San Antonio Regional Office 14250 Judson Road San Antonio, Texas (210) 490-3096
Williamson, Travis, and Hays	TCEQ Water Program Manager Austin Regional Office 2800 South IH 35, Suite 100 Austin, Texas 78704-5712 (512) 339-2929

3.0 BEST MANAGEMENT PRACTICE MEASURES AND CONTROLS

In order to manage and reduce soil erosion, sediment loss, construction-generated waste, and construction-related toxic materials, BMPs must be utilized at the construction site. A variety of structural controls, soil stabilization techniques, storm water management controls, dust controls, waste disposal techniques, and "good housekeeping" practices that will be utilized in this construction project are documented in a checklist in Appendix C.

A detailed set of fact sheets for BMPs excerpted from the *Integrated Storm Water Design Manual for Construction* (North Central Texas Council of Governments, 2010) is located in Appendix D. These fact sheets show many examples of BMPs that may be appropriate for the site. If another BMP is being used, include the BMP information in Appendix D. The Contractor is responsible for selecting, implementing, and maintaining BMPs.

A. General Requirements

1. Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.

2. Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.

3. Controls must be developed to minimize the offsite transport of litter, construction debris, and construction materials.

B. Erosion Control and Stabilization Practices

1. Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.

2. Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.

    a) the dates when major grading activities occur,

    b) the dates when the construction activities temporarily or permanently cease on a portion of the site, and

    c) the dates when stabilization measures are initiated.

    A schedule of construction activities is located in Appendix B. Appendix I contains a record of temporary/permanent ceasing of construction activities.

3. Erosion control and stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily ceased. Stabilization measures that provide a protective cover must be initiated as soon as practicable in portions of the site where construction activities have permanently ceased. These measures must be initiated no more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased unless provided for in Part III.F.2.b.iii of the general permit

C. Sediment Control Practices

1. Sites with Drainage Areas of Ten or More Acres

    a) A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. Sedimentation basin information is located in Appendix N.

    b) At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

2. Sites with Drainage Areas Less than Ten Acres

    a) Sediment traps and sediment basins may be used to control solids in storm water runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

    b) Alternatively, a sediment basin may be utilized. Sedimentation basin information is located in Appendix N.

3. A description of any measures that will be installed during the construction process to control pollutants in storm water discharges that may occur after construction operations have been completed must be included in the SWP3. Permittees are only responsible for the installation and maintenance of storm water management measures prior to final stabilization of the site or prior to submission of an NOT.

4. Other required controls and BMPs are listed below. Best management practice checklists and fact sheets are included in Appendices C and D. A non storm water discharge inventory is located in Appendix L.

a) Permittees shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and the generation of dust. Permittees must include a description of controls utilized to accomplish this requirement.

b) Permittees must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.

c) Permittees must include a description of potential pollutant sources from areas other than construction (such as storm water discharges from dedicated asphalt plants and dedicated concrete batch plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

d) Permittees shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (i.e., runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.

e) Permittees shall design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site.

f) Permittees shall ensure that all other required controls and BMPs comply with all the requirements of Part III.G of the TXR150000 general permit.

D. Erosion and Sediment Control Requirements

Any discharge regulated under the TXR150000 general permit must achieve, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology current available (BPT).

a) Erosion and sediment control: The permittee must design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. Such controls must be designed, installed and maintained to meet minimum requirements outlined in section III.G.1. of the general permit, provided in Appendix G.

b) Soil stabilization: Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently creased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Temporary stabilization must be completed within 14 days after initiation of soil stabilization measures, and final stabilization must be achieved prior to termination of permit coverage.

c) Dewatering: Discharge from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls. Examples of appropriate controls are outlined below in Section 4.0 of this SWP3 document.

d) Pollution prevention measures: The permittee must design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. Such controls must be designed, installed, implemented, and maintained to meet requirements outlined in section III.G.4. of the general permit, provided in Appendix G.

e) Prohibited discharges: Certain discharges are not prohibited under the TXR150000 general permit. These prohibited discharges are outlined in section III.G.5. of the general permit, provided in Appendix G.

f) Surface outlets: When discharging from basins and impoundments, the permittee must utilize outlet structures that withdraw water from the surface, unless infeasible.

4.0 EXAMPLE PRACTICES

A. Example Stabilization Practices

1. Temporary Stabilization

   Top soil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 21 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area. Areas of the site which are to be paved will be temporarily stabilized until pavement can be applied.

2. Permanent Stabilization

   Disturbed portions of the site where construction activities permanently cease shall be stabilized with permanent seed no later than 14 days after the last construction activity.

B. Example Structural Practices

1. Interceptor Swale

   An interceptor swale is a small v-shaped or parabolic channel which collects runoff and directs it to a desired location. It can either have a natural grass lining or, depending upon slope and design velocity, a protective lining of erosion matting, stone or concrete. The interceptor swale can either be used to direct sediment-laden flow from disturbed areas into a controlled outlet or to direct “clean” runoff around disturbed areas. Since the swale is easy to install during early grading operations, it can serve as the first line of defense in reducing runoff across disturbed areas. As a method of reducing runoff across the disturbed construction area, it reduces the requirements of structural measures to capture sediment from runoff since the flow is reduced. By intercepting sediment-laden flow downstream of the disturbed area, runoff can be directed into a sediment basin or other BMP for sedimentation as opposed to long runs of silt fence, straw bales or other filtration method.

2. Silt Fence

   A silt fence consists of geotextile fabric supported by poultry netting or other backing stretched between either wooden or metal posts with the lower edge of the fabric securely embedded in the soil. The fence is typically located downstream of disturbed areas to intercept runoff in the form of sheet flow. Silt fence provides both filtration and time for sedimentation to reduce sediment and the velocity of the runoff. Properly designed silt fence is economical since it can be relocated during construction and reused on other projects. Silt fence is normally used as perimeter control located downstream of disturbed areas. It is only feasible for non-concentrated, sheet flow conditions.

3. Fiber Roll/Sediment Log

   Fiber rolls/sediment logs are tightly compacted tubular cylinders composed of straw, flax, coconut fiber, or other similar types of material wrapped with a fiber mesh. They must be secured with stakes. When installed at the base of an embankment or on a slope, fiber rolls are effective at controlling sediment and reducing erosion rates. They achieve this by intercepting storm water runoff, thereby reducing the velocity of the flow and dispersing concentrated runoff as sheet flows. Fiber rolls are also water-permeable and are effective at trapping eroded sediment. It is important not to crush fiber

rolls when they are installed. If more than one sock is placed in a row, the socks should be overlapped; not abutted.

4. Inlet Control

   Inlet protection consists of a variety of methods of intercepting sediment at low point inlets through the use of stone, filter fabric and other materials. This is normally located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in storm water. Inlet protection is normally used as a secondary defense in site erosion control due to the limited effectiveness and applicability of the technique. It is normally used in new developments that include new inlets or roads with new curb inlets or during major repairs to existing roadways. Inlet protection has limited use in developed areas due to the potential for loading, traffic safety and pedestrian safety and maintenance problems. Inlet protection can reduce sediment in a storm sewer system by serving as a back system to onsite controls or by reducing sediment loads from controls with limited effectiveness such as straw bale dikes.

5. Check Dams

   Check dams are small barriers consisting of straw bales, rock, or earth berms placed across a drainage swale or ditch. They reduce the velocity of small concentrated flows, provide a limited barrier for sediment and help disperse concentrated flows, reducing potential erosion. Check dams are used for long drainage swales or ditches in which permanent vegetation may not be established and erosive velocities are present. They are typically used in conjunction with other techniques such as inlet protection, rip rap or other sediment reduction techniques. Check dams provide limited treatment. They are more useful in reducing flow to acceptable levels.

6. Erosion Control Mats

   An erosion control mat (ECM) is a geomembrane or biodegradable fabric placed over disturbed areas to limit the effects of erosion due to rainfall and runoff across barren soil. Erosion control mats are manufactured by a wide variety of vendors addressing a wide variety of conditions such as vegetation establishment and high velocity flow. Types of matting include organic (jute, straw) and synthetic (plastic and glass fiber) materials. Mats can provide both temporary and/or permanent stabilization for disturbed soil or barren areas. It is used for difficult areas to stabilize such as steep slopes, temporary or permanent drainage swales, embankments or high traffic (pedestrian) areas. Some mats are reusable, reducing the initial cost of the installation.

7. Stabilized Construction Entrance

   A stabilized construction entrance consists of a pad consisting of gravel, crushed stone, recycled concrete or other rock like material on top of geotextile filter cloth to facilitate the wash down and removal of sediment and other debris from construction equipment prior to exiting the construction site. For added effectiveness, a wash rack area can be incorporated into the design to further reduce sediment tracking. For long term projects, cattle guards or other type of permanent rack system can be used in conjunction with a wash rack. This directly addresses the problem of silt and mud deposition in roadways used for construction site access. Stabilized construction entrances are used primarily for sites in which significant truck traffic occurs on a daily basis. It reduces the need to remove sediment from streets. If used properly, it also directs the majority of traffic to a single

location, reducing the number and quantity of disturbed areas on the site and providing protection for other structural controls through traffic control.

8. Earth Dike

   An earth dike is constructed along the uphill perimeter of a site. A portion of the dike will divert run-on around the construction site. The remaining portion of the dike will collect runoff from the disturbed area and direct the runoff to the sediment basin.

9. Triangular Sediment Filter Dike

   A triangular sediment filter dike is a self-contained silt fence consisting of filter fabric wrapped around welded wire fabric shaped into a triangular cross section. While similar in use to a silt fence, the dike is reusable, sturdier, transportable, and can be used on paved areas in situations where it is impractical to install embedded posts for support. Triangular filter dikes are used in place of silt fence, treating sediment flow at the perimeter of construction areas and at the perimeter of the site. Also, the dikes can serve as stream protection devices by preventing sediment from entering the streams or as check dams in small swales. Triangular sediment filter dikes are especially useful for construction areas surrounded by pavement, where silt fence or hay bale installation is impracticable. Since they can be anchored without penetration (through the use of rock), pavement damage can be minimized. Triangular dikes are used to provide perimeter control by detaining sediment on a disturbed site with drainage that would otherwise flow onto adjacent properties. Triangular dikes also serve as sediment trapping devices when used in areas of sheet flow across disturbed areas or are placed along stream banks to prevent sediment-laden sheet flow from entering the stream. The dikes can be subjected to more concentrated flows and a higher flow rate than silt fence.

10. Sediment Basin

    Sediment basins are required, where feasible, for sites with drainage areas of ten (10) or more acres. Additional information for sedimentation basins is located in Appendix N.

11. Tree Protection

    Tree protection prevents the disturbance of existing trees and their roots on a construction site. Trees are not the same shape below ground as they are above, so it is difficult to predict the length or location of their roots. One common method used to identify the critical root zone is to define the tree's "drip line" – the area directly below the branches of the tree. Many roots extend beyond the longest branches a distance equal to two or more times the height of the tree. For this reason, it is recommended to protect as much of the area beyond the drip line as feasible. An example of tree protection is to tie continuous nylon string with two-foot tundra weight orange streamers to eight-foot minimum metal t-posts driven two feet into the ground. Four-foot minimum orange plastic fencing per manufacturer's recommendations will surround the critical root zone to keep equipment off the rooting area. If a fence cannot be erected, cushion the rooting area with six inches of wood chips, wood, or brick paths. Where root areas must be graded, cut large roots instead of tearing them with equipment.

C. Waste Control and Disposal

1. Waste Materials

   All waste materials will be collected and stored in a securely lidded metal dumpster rented from a local waste management company, which is a licensed solid waste management company. The dumpster will meet all local and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied periodically or more often if necessary, and the trash will be hauled to an appropriate waste management facility. No construction waste materials will be buried onsite. Staging areas for construction materials should have secondary containment. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer. The individual who manages the day-to-day site operations will be responsible for seeing that these procedures are followed.

2. Hazardous Waste

   All hazardous waste materials will be disposed of in the manner specified by local or State regulations or by the manufacturer. Site personnel will be instructed in these practices and the individual who manages day-to-day site operations will be responsible for seeing that these practices are followed.

3. Sanitary Waste

   All sanitary waste will be collected from the portable units periodically by a licensed sanitary waste management contractor, as required by local regulation.

4. Offsite Vehicle Tracking and Dust Control

   A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. If dust is visible when dump trucks are leaving the site due to construction activities, dust suppression techniques such as wetting the soil will be employed.

D. Timing of Controls/Measures

The contractor and the operator shall review the SWP3 requirements prior to beginning construction activities. The following is a sample erosion control sequence:

- Site Mobilization: Prior to any construction on the site a stabilized construction entrance shall be installed.
- Clearing and Rough Grading: Prior to any grading of the site, erosion control measures shall be installed. These controls may include but are not limited to silt fences, sedimentation ponds and vegetated swales. The installation is required to prevent sediment from leaving disturbed areas.
- Storm Drain Installation: In addition to maintaining the devices installed during initial grading, supplemental control measures will need to be installed. These devices will include devices shown on the plan such as storm drain inlet protection and sediment traps. Inlet protection devices prevent sedimentation from entering the inlet and subsequently, the storm sewer system

as well as the receiving water body. Other devices may be required as shown on the erosion control plan or requested by the inspector or operator.

- Installation of Public Utilities: Additional control measures are likewise not required during installation of public utilities. However, maintenance of existing control measures installed during previous phases must continue.
- Pavement Installation: In addition to maintaining the control measures installed during initial grading and storm drain installation phases, supplemental measures should be installed. Upon completion of paving and curb backfill operations, control measures should be installed behind curbs at handicap ramps and along parkways where sediment could enter streets and/or paved areas.
- Final Grading: Additional control measures are not required during final grading. However, maintenance of existing control measures installed during previous phases will continue.
- Building Construction: In addition to maintaining previously installed control measures, a strict policy will be enacted which minimizes vehicle traffic from entering non-paved areas. Construction materials will be unloaded from existing paved surfaces where possible, thereby preventing disturbing control measures already in place and reducing sediment tracking into paved areas. Areas where construction activity temporarily ceases for more than 21 days will be stabilized with a temporary seed and mulch within 14 days of the last disturbance. Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch. After the entire site is stabilized, the accumulated sediment will be removed and the erosion control measures will be removed.

5.0 RELEASES OF REPORTABLE QUANTITIES

Because construction activities may handle certain hazardous substances over the course of the project, spills of these substances in amounts that equal or exceed Reportable Quantity (RQ) levels are a possibility. Material management practice guidelines are located in Appendix K.

EPA has issued regulations that define what reportable quantity levels are for oil and hazardous substances. These regulations are found at 40 CFR Part 110 Part 117, or 40 CFR Part 302. A list of RQs are included in Appendix M. If there is a RQ release during the construction period, then you must take the following steps:

- Notify TCEQ immediately at (800) 832-8224.
- Notify the National Response Center immediately at (800) 424-8802.
- Within fourteen (14) days, submit a written description of the release to TCEQ providing the date and circumstances of the release and the steps to be taken to prevent another release.
- Modify the pollution prevention plan to include the date of release, the circumstances leading to the release, and steps taken to prevent reoccurrence of the release.

6.0 STATE AND LOCAL PROGRAMS

The TPDES program meets or exceeds the NPDES standards established on a federal level. This SWP3 has been developed in accordance with the requirements of the TPDES requirements. Information for the City of Leander has been included in Appendix O. Additional local requirements may apply and this SWP3 should be updated accordingly.

Storm water from the project construction area discharges into the storm sewer system of the City of Austin, Travis County, Texas. (MS4).

Construction projects that discharge storm water to an MS4 are required to:

- submit a copy of the signed NOI to the operator of the MS4 at least seven days prior to the commencement of construction activities,
- post a copy of the signed NOI and construction site notice at the project site at all times,
- submit a copy of any NOCs to the operator of the MS4,
- submit a copy of the NOT to the operator of the MS4, and
- keep and maintain a list of the names and address of MS4s that receive NOI, NOT, and/or NOC forms (Appendix H).

7.0 INSPECTION AND MAINTENANCE

A. Inspection Schedule

1. All disturbed areas, as well as all erosion and sediment control devices, will be inspected according to one of the following schedules:

   a) at least every fourteen (14) calendar days and within 24 hours after a rainfall of 0.5 inch or greater, or

   b) every seven (7) days on the same day of the week each week, regardless of whether or not there has been a rainfall event since the previous inspection.

2. Inspections may occur on either schedule provided that this SWP3 reflects the current schedule and that any changes are in accordance with the following:

   a) the schedule is changed a maximum of one time each month,

   b) the schedule change must be implemented at the beginning of a calendar month, and

   c) the reason for the schedule change must be documented in this SWP3 (an inspection schedule form is located in Appendix E).

B. Inspection Reports

1. Completed inspection reports (Appendix E) will include the following information:

   a) scope of the inspection,
   b) date of the inspection,
   c) name(s) of personnel making the inspection,
   d) reference to qualifications of inspection personnel,
   e) observed major construction activities, and
   f) actions taken as a result of the inspection.

2. All disturbed areas (on and off-site), areas for material storage locations where vehicles enter or exit the site, and all of the erosion and sediment controls that were identified as part of the SWP3 must be inspected. The inspection report must state whether the site was in compliance or identify any incidents of non-compliance. The report will be signed by the qualified inspector in accordance with the TPDES general permit and filed in the SWP3. A sample Inspection Report is included in Appendix E, along with an Inspector Qualification Form. All reports and inspections required by the general construction permit will be completed by a duly authorized representative. A copy of a Delegation of Signatories to Reports letter is included in Appendix J.

3. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3, and wherever possible, those changes implemented before the next storm event or as soon as practicable. A list of maintenance guidelines is included in Appendix E.

4. Inspection reports will be kept in the Operator's file, along with the SWP3, for at least three years from the date that the NOT is submitted to the TCEQ for the construction site.

C. Final Stabilization

Final stabilization of the construction site has been achieved when all soil disturbing activities at the site have been completed, and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. If a vegetative cover cannot be established, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) can be employed. When these conditions have been met, BMPs can be removed from the construction area.

8.0 RECORD RETENTION

The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted. Records include:

- A copy of the SWP3,
- All data used to complete the NOI, if an NOI is required for coverage under this general permit,
- All reports and actions required by this permit, including a copy of the construction site notice, and
- All records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.

9.0 CONCRETE BATCH PLANTS (IF APPLICABLE)

A. Storm Water Runoff from Concrete Batch Plants

Discharges of storm water runoff from concrete batch plants may be authorized under the general permit provided that the requirements in Part IV of the permit are met (Appendix G). If discharges are not covered under the general permit, then discharges must be authorized under an alternative permit. Authorization for discharge or land disposal of concrete batch plant wastewater must be obtained under an alternative permit.

B. Benchmark Sampling Requirements

Operators of concrete batch plants must sample the storm water runoff from the concrete batch plant according to the requirements of the general permit. A table of benchmark monitoring values is located in Part IV.A. of the general permit. Analytical results that exceed a benchmark value are not a violation of the general construction permit. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. Benchmark sampling records should be included in Appendix P.

C. Additional BMP and SWP3 Requirements

The following items are additional requirements for concrete batch plants. The Operator is responsible for updating the SWP3 as appropriate. Additional information for concrete batch plant requirements is located in Part IV of the general construction permit. Records and information for the concrete batch plant should be included in Appendix P.

1. A description of potential pollutant sources associated with the concrete batch plant must be kept in the SWP3.

2. The site map in Appendix A must include the following information:

    a) the location of all outfalls for storm water discharges associated with concrete batch plants;

    b) a depiction of the drainage area and the direction of flow to the outfall(s);

    c) structural controls used within the drainage area(s);

    d) the locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activity areas; areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material process and storage areas; and loading and unloading areas; and

    e) the locations of the following: any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater; areas with significant materials; and areas where major spills or leaks have occurred.

3. A list of materials handled at the concrete batch plant that may be exposed to storm water and that have a potential to affect the quality of storm water discharges associated with concrete batch plants must be kept in this SWP3.

4. A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to storm water and that drain to storm water outfalls associated with concrete batch plants must be developed, maintained, and updated.

5. A summary of existing storm water discharge sampling data must be maintained if available.

6. Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.

7. Areas where potential spills that can contribute pollutants to storm water runoff, and the drainage areas from these locations must be identified. Include material handling procedures, storage requirements, and use of equipment information. Procedures for cleaning up spills must be identified and made available to the appropriate personnel.

8. Qualified facility personnel must be identified to inspect designated equipment and areas of the facility specified in this SWP3. Inspection frequency must be specified based upon a consideration of the level of concrete production, but must be a minimum of once per month while the facility is in operation. The inspection must take place while the facility is in operation and include all areas that are exposed to storm water at the site. Records of inspections must be maintained in Appendix P.

9. An employee training program must be developed to educate personnel. At a minimum, training must occur prior to the initiation of operation of the concrete batch plant.

10. A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of storm water discharges must be included with this SWP3.

11. Include a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.

12. At least once per year, one or more qualified personnel shall conduct a compliance evaluation of the plant. Evaluation requirements are listed in Part IV.B.3 of the general permit.

10.0 CONCRETE TRUCK WASH OUT (IF APPLICABLE)

The wash out of concrete trucks at the construction site is authorized, provided that the requirements in Part V of the general permit are met. Authorization is limited to the land disposal of wash out water from concrete trucks. Any other direct discharge of concrete production waste eater must be authorized under a separate general permit or individual permit.

A. Wash Out Requirements

1. Direct discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by the general permit.

2. Concrete truck wash out water should be discharged to areas at the construction site where structural controls have been established to prevent direct discharge to surface waters, or to areas that have minimal slope that allow infiltration and filtering of wash out water to prevent direct discharge to surface waters. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the site.

3. Wash out of concrete trucks during rainfall events shall be minimized. The direct discharge of concrete wash out water is prohibited at all times, and the operator should have BMPs sufficient to prevent the discharge of concrete truck wash out as the result of rain.

4. The discharge of wash out water should not cause or contribute to groundwater contamination.

5. The Operator is responsible for showing concrete wash out areas on a map (Appendix A).

11.0 REFERENCES

North Central Texas Council of Governments (NCTCOG). 2010. Integrated Storm Water Management Technical Manual. http://iswm.nctcog.org/technical_manual.asp.

Texas Commission on Environmental Quality (TCEQ). 2014. "2014 Texas Water Quality Inventory and 303(d) List." [Online] (accessed on June 27, 2016). Available URL: http://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/14txir/2014_basin12.pdf.

United States Department of Agriculture (USDA). 2016. Soil Survey of Williamson County, Texas. "Web Soil Survey." [Online] (accessed on June 27, 2016). Available URL: http://websoilsurvey.nrcs.usda.gov/app/

Texas Commission on Environmental Quality

Site Information (Regulated Entity)

What is the name of the site to be authorized?	Ronald Reagan Crossing
Does the site have a physical address?	Yes
Physical Address	
Number and Street	14300 Ronald Reagan Blvd
City	Cedar Park
State	TX
ZIP	78613
County	WILLIAMSON
Latitude (N) (##.######)	30.5486
Longitude (W) (-###.######)	-97.7917
Primary SIC Code	1521
Secondary SIC Code	
Primary NAICS Code	
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN111392940
What is the name of the Regulated Entity (RE)?	RONALD REAGAN SQUARE
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	14300 RONALD W REAGAN BLVD
City	CEDAR PARK
State	TX
ZIP	78641
County	WILLIAMSON
Latitude (N) (##.######)	30.5486
Longitude (W) (-###.######)	-97.7917
Facility NAICS Code	236115
What is the primary business of this entity?	

Customer (Applicant) Information

How is this applicant associated with this site?	Operator
What is the applicant's Customer Number (CN)?	CN606020485
Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Tpd Texas LLC
Texas SOS Filing Number	804177894
Federal Tax ID	
State Franchise Tax ID	32080451183
State Sales Tax ID	
Local Tax ID	

DUNS Number	
Number of Employees	
Independently Owned and Operated?	Yes
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes

Responsible Authority Contact

Organization Name	Tpd Texas LLC
Prefix	MR
First	Mallik
Middle	
Last	Gilakattula
Suffix	
Credentials	
Title	Manager

Responsible Authority Mailing Address

Enter new address or copy one from list:	Site Physical Address
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	14300 RONALD W REAGAN BLVD
Routing (such as Mail Code, Dept., or Attn:)	
City	CEDAR PARK
State	TX
ZIP	78641
Phone (###-###-####)	5127618025
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	malik@theprimedeveloper.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	CN606020485, Tpd Texas LLC
Organization Name	Tpd Texas LLC
Prefix	MR
First	Mallik
Middle	
Last	Gilakattula
Suffix	
Credentials	
Title	Manager
Enter new address or copy one from list:	CN606020485, Tpd Texas LLC

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	14300 RONALD W REAGAN BLVD
Routing (such as Mail Code, Dept., or Attn:)	
City	CEDAR PARK

State	TX
ZIP	78641
Phone (###-###-####)	5127618025
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	malik@theprimedeveloper.com

CNOI General Characteristics

1) Is the project or site located on Indian Country Lands?	No
2) Is the project or site associated to a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72?	No
3) Is your construction activity associated with an oil and gas exploration, production, processing, or treatment, or transmission facility?	No
4) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?	1521
5) If applicable, what is the Secondary SIC Code(s)?	
6) What is the total number of acres that the construction project or site will disturb under the control of the primary operator?	13.2
7) What is the construction project or site type?	Commercial
8) Is the project part of a larger common plan of development or sale?	Yes
9) What is the estimated start date of the project?	08/24/2023
10) What is the estimated end date of the project?	08/23/2024
11) Will concrete truck washout be performed at the site?	Yes
12) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?	Turkey Creek - Brushy Creek Watershed
13) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?	1244
14) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?	Yes
14.1) What is the name of the MS4 Operator?	City of Cedar Park
15) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?	Yes
15.1) I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented.	Yes
16) I certify that a stormwater pollution prevention plan (SWP3) has been developed, will be implemented prior to construction, and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator.	Yes
17) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000).	Yes

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

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

I Mallik Gilakattula,
Print Name

Member,
Title - Owner/President/Other

of TPD Texas, LLC,
Corporation/Partnership/Entity Name

have authorized Gary Eli Jones, P.E.
Print Name of Agent/Engineer

of Eli Engineering, PLLC
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

08/03/2023
Date

THE STATE OF TEXAS §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Mallik Gilakattula, 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 3rd day of August, 2023.

NOTARY PUBLIC

SILVIA L. HERNANDEZ
My Notary ID # 124822987
Expires February 12, 2024

Silvia L. Hernandez
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Feb 12, 2024

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Ronald Reagan Square
Regulated Entity Location: 14300 Ronald Reagan Blvd, Cedar Park, TX 78613
Name of Customer: TPD Texas, LLC
Contact Person: Mallik Gilakattula Phone: 512-761-1239
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN 111392940

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:

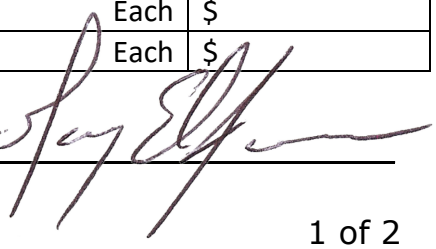
☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ 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	15.2 Acres	$ 6500
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: 

Date: 6/6/2022

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 **Modification**

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 111392940

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	08/03/2023

☐ 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:*
TPD Texas, LLC	Transcend Easley, LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0804177894	32080451183		

11. Type of Customer:	☒ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	13. Independently Owned and Operated?
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ 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:	3220 Prentiss Lane						
	City	Leander	State	TX	ZIP	78641	ZIP + 4	3372

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	mallik@theprimedeveloper.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 761-8025		( ) -

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.)*

Ronald Reagan Square

23. Street Address of the Regulated Entity: *(No PO Boxes)*	14300 Ronald Reagan Blvd							
	City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**	
24. County	Williamson							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	Located at the Intersection of Ronald Reagan Blvd and Caballo Ranch Blvd

26. Nearest City	**State**	**Nearest ZIP Code**
Cedar Park	TX	78613

27. Latitude (N) In Decimal:	30.5486		**28. Longitude (W) In Decimal:**	-97.7917	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	32	54.96	97	47	30.12

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)
1521		154201	

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

Mixed use commercial development

34. Mailing Address:	**3220 Prentiss Lane**							
	City	**Leander**	**State**	**TX**	**ZIP**	**78641**	**ZIP + 4**	**3372**

35. E-Mail Address:	**mallik@theprimedeveloper.com**

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 761-8025		**( ) -**

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:

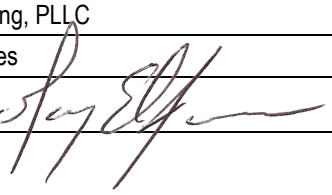
SECTION IV: Preparer Information

40. Name:	Gary Eli Jones	**41. Title:**	Design Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 658-8095		( ) -	gejtexas@gmail.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:	Eli Engineering, PLLC	**Job Title:**	Design Engineer
Name*(In Print)* **:**	Gary Eli Jones	**Phone:**	(512) 658-8095
Signature:		**Date:**	8/3/2023

Change in Responsibility for Maintenance on Permanent Best Management Practices and Measures

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: Transcend Easley, LLC

Regulated Entity Name: RONALD REAGAN SQUARE

Site Address: 14300 RONALD REAGAN BLVD

City, Texas, Zip: CEDAR PARK, TX 78613

County: WILLIAMSON

Approval Letter Date: FEBRUARY 4, 2022

BMPs for the project: SAND FILTRATION

New Responsible Party: TPD TEXAS, LLC

Name of contact: MALIK GILLAKATTULA

Mailing Address: 3220 PRENTISS LANE

City, State: LEANDER, TEXAS Zip: 78641

Telephone: 512-761-8025 FAX:

Signature of New Responsible Party Date 08/03/2023

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.