Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Leander High School					2. Regulated Entity No.: RN103171310				
3. Customer Name: Leander IDS					4. Customer No.: CN600781074				
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):		90 AC	
9. Application Fee:	$8,000		10. Permanent BMP(s):			Sedimentation/Filtration pond (existing)			
11. SCS (Linear Ft.):	0		12. AST/UST (No. Tanks):			0			
13. County:	Williamson		14. Watershed:			Brushy Creek			

Application Distribution

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

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

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

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	__	__	1
Region (1 req.)	__	__	1
County(ies)	__	__	1
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __Georgetown __Jerrell _1_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. Zhipeng Xing
Print Name of Customer/Authorized Agent  04/02/2024
Signature of Customer/Authorized Agent Date

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

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: Zhipeng Xing

Date: 3/11/2024

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: Leander High School
   Original Regulated Entity Name: Leander High School
   Assigned Regulated Entity Number(s) (RN): RN103171310
   Edwards Aquifer Protection Program ID Number(s): 11-08091001
   ☒ The applicant has not changed and the Customer Number (CN) is: CN600781074
   ☐ 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	_____	_____
Type of Development	_____	_____
Number of Residential Lots	_____	_____
Impervious Cover (acres)	38.63	38.22
Impervious Cover (%)	42.92	42.46
Permanent BMPs	_____	_____
Other	_____	_____

AST Modification Summary	*Approved Project*	*Proposed Modification*
Number of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	*Approved Project*	*Proposed Modification*
Number of USTs	_____	_____
Other	_____	_____

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 Project. 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 and Approved Modification Letter

Please see attached.

COPY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 7, 2008

Mr. Jimmy Disler
Leander Independent School District
P.O. Box 218
Leander, Texas 78646

Re: Edwards Aquifer, Williamson County
NAME OF PROJECT: Leander High School Additions; 3301 Bagdad Road; Leander, 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 File No. 11-08091001

Dear Mr. Disler:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the referenced project submitted to the Austin Regional Office by PBS&J on behalf of Leander ISD on September10, 2008. Final review of the CZP submittal was completed on October 21, 2008. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) 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 Contributing Zone 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% of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed Leander I.S.D. A.C. Bible Stadium renovation project will be located on an existing 90 acre high school site and will consist of the addition of approximately 6,158 square feet of structures and rooftops. The site will also be comprised of 142,974 square feet of parking and other paved surfaces. A water quality pond will be constructed to treat the on-site storm water. The total impervious cover for the entire project will be 4.20 acres (16.41 percent of the entire area).

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent pollution of stormwater runoff originating on-site or up-gradient of the site and potentially flowing across and off the site after construction, a partial sedimentation/filtration system shall be constructed for treatment of stormwater runoff. The individual treatment will consist of a sand filter that shall capture a total volume of 29,703 cubic feet of water. The filtration basin shall have a surface area of 7,500 square feet. The approved measures meet the required 80 percent removal of the increased load in total suspended solids caused by the project.

SPECIAL CONDITIONS

I. The holder of the approved Edwards Aquifer CZP must comply with all provisions of 30 TAC chapter 213 and all best management practices and measures contained in the application.

II. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering excavated areas and/or areas of accumulated stormwater becomes necessary, the discharge shall be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.

III. 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 4 below.

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.

Prior to Commencement of Construction:

2. 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 until all regulated activities are completed.

3. 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.

4. The applicant must provide written notification of intent to commence construction 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.

5. 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. 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:

6. 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.

7. 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).

8. 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.

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.

After Completion of Construction:

10. 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.

11. 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.

12. 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.

13. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50% 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.

14. 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.

If you have any questions or require additional information, please contact Mr. Jerrett Kramer of the Edwards Aquifer Protection Program of the Austin Regional Office at (512)339-2929.

Sincerely,

Mark R. Vickery, P.G.
Executive Director
Texas Commission on Environmental Quality

MRV/wjk

Enclosure(s): Deed Recordation Affidavit, TCEQ-0625
Change in Responsibility for Maintenance on Permanent BMPs, TCEQ-10263

cc: Mr. Robert Scholz, P.E., PBS&J
The Honorable Dan A. Gattis, County Judge, Williamson County
Mr. Paulo C. Pinto, B.S., R.S., Director of Environmental Services, Williamson County & Cities Health District
Mr. Joe M. England, P.E., County Engineer, Williamson County
Mr. Wayne Watts, P.E., Director of Public Works, City of Leander
TCEQ Central Records, Austin, Texas

ATTACHMENT B

Narrative of Proposed Modification

Leander High School is proposing to expand the existing building footprint in Phase 1B of its Modernization program. With the proposed building expansion and associated site improvements (sidewalk, fire lane reconfiguration, drive aisle reconstruction, removal of impervious liner at catfish pond, etc.), the total site impervious cover is reduced to 38.22 ac from the existing 38.63 ac.

With this reduction in impervious cover, the proposed building expansion and associated site improvements do not alter the previously approved plan (all proposed improvements from the previously approved plan were already constructed) and we are not proposing modifications to the previously approved and constructed sedimentation/filtration pond.

ATTACHMENT C

Current Site Plan of the Approved Project

Please see attached original approved site plan and an aerial image showing the current site condition.

Attachment C -
Current Site Plan of the Approved Project

LEGEND:

- PROPERTY/R.O.W. BOUNDARY
- LOC — LIMITS OF CONSTRUCTION
- 805 — EXISTING CONTOURS
- EXISTING STORM DRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING ELECTRIC MANHOLE
- EXISTING ELECTRIC BOX
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- EXISTING TELEPHONE PEDESTAL
- EXISTING BOLLARD
- EXISTING WASTEWATER MANHOLE
- PROPOSED WASTEWATER MANHOLE
- EXISTING CLEAN OUT
- PROPOSED CLEAN OUT
- POWER POLE
- LIGHT POLE
- PROPOSED LIGHT POLE
- PROPOSED SIGN
- x — PROPOSED FENCE
- PEDESTRIAN RAILING
- STS — STORM SEWER LINE
- PHASE BOUNDARY
- TBM 'A' — TEMPORARY BENCHMARK
- PROPOSED CURB INLET
- PROPOSED AREA OR 4-WAY INLET
- PROPOSED FIRE LANE -RED CONCRETE CURB W/4" WHITE LETTERS MARKED "FIRE LANE - NO PARKING" EVERY 35-FEET.

0 50 100 150 200
1"=100'

BENCHMARK LIST

TBM 'A'
CHISELED SQUARE ON SOUTHWEST CORNER OF CONCRETE INLET ON EAST SIDE OF CONCESSION STAND FOR BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=996.16

TBM 'B'
CHISELED SQUARE ON CONCRETE BASE OF LIGHT STANDARD, WEST OF CONCESSION STAND OF BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=999.66

TUMBLING RIVER DRIVE
LAKELINE SUBDIVISION BLOCK E
15' WW EASEMENT
25' WW EASEMENT
EXIST. 25' PUE & DRNG. EASEMENT
LAKELINE RANCH PH. 5 BLOCK A
LAKELINE RANCH PH. 4 (AMD)
EXIST. 10' WW & DRNG. EASEMENT
EXIST. 15' WL EASEMENT
N71°00'00"E 1857.55'
AG BUILDING
CATFISH POND
BUILDING
BUILDING
BUILDING
VINEYARD
30.00 ACRES
LEANDER ISD
VOL. 2548, PG. 817
60.00 ACRES
LEANDER ISD
VOL. 849, PG. 600
EXISTING ROPES COURSE
S19°00'00"E 1385.61'
EXISTING ACCESS DRIVE
DETENTION POND
LEANDER INDEPENDENT SCHOOL DISTRICT 2548/817
EXISTING ACCESS DRIVE
EXISTING BASEBALL FIELD
TBM 'B'
EXISTING ACCESS DRIVE
100' LAND USE RESTRICTION 2546/0821
25' BUILDING SETBACK
S89°38'58"E 692.88'
TENNIS COURTS
SOFTBALL FIELD
PHASE 2
PHASE 1
BAND PRACTICE AREA
EXISTING LEANDER HIGH SCHOOL
HIGH JUMP
LISD
STADIUM (PROP. TURF & STRIPES)
LISD
LONG/TRIPLE JUMP
POLE VAULT
EXISTING VISITORS BLEACHERS
VISITOR'S BUS PARKING
BAGDAD ROAD (C.R. 278)
BAGDAD ROAD (C.R. 278)
KETTERING LANE
KETTERING LANE
S71°14'15"W 23.01'
S72°17'29"W 344.49'
S72°06'54"W 368.37'
S74°25'29"W 66.80'
S73°06'48"W 73.24'
S71°49'28"W 39.81'
S71°35'41"W 356.99'
S20°53'15"E 691.12'
EXISTING DRAINAGE EASEMENT
HERITAGE PARK BLOCK B

NO.	REVISION	BY	DATE

DESIGNED BY: SB
DRAWN BY: SR
CHECKED BY: RWS
APPROVED BY: RWS
DATE: NOV 2008

PBS&J
8504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78730 - (512) 327-6840
TBPE REG. #F-474

STATE OF TEXAS
ROBERT W. SCHOLZ
91151
LICENSED
PROFESSIONAL ENGINEER
2/11/2009

LEANDER HIGH SCHOOL
A.C. BIBLE, JR. MEMORIAL STADIUM IMPROVEMENTS
OVERALL SITE PLAN

SHEET NO. 5
OF 33 SHEETS
FILE NO. LHS-BS-OSP
PROJECT NO. 100003094

3301 S. BAGDAD ROAD


Tumbling River Dr
Alpine Mountain Dr
Verde Ranch
Blueline Dr
Prosperity
Trustworthy
N Lakeline Blvd
Hawk Dr
Parker Pl
Apollo Ln
Heritage Park Dr
County Road 278
Amy Lynn Ln
John Tee Dr
Bakers Way
Drue Ln
LISD

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: Zhipeng Xing

Date: 3/11/2024

Signature of Customer/Agent:

Regulated Entity Name: Leander High School

Project Information

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

   Contact Person: Jimmy Disler
   Entity: Leander Independent School District
   Mailing Address: 204 W. South Street P.O. Box 218
   City, State: Leander, Texas Zip: 78646
   Telephone: 512-570-0000 Fax: 512-570-0054
   Email Address: jimmy.disler@leanderisd.org

5. Agent/Representative (If any):

Contact Person: Zhipeng Xing
Entity: Halff Associates
Mailing Address: 5113 Southwest Pkwy #140
City, State: Austin, TX Zip: 78735
Telephone: 512-777-4641 Fax: _____
Email Address: zxing@halff.com

6. Project Location:

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

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

Leander High Schoo is about 0.6 miles north of Bagdad Road and New Hope Dr intersection. The project site is along the southeast and southwest corners of the main chool building.

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: Public School

12. The type of project is:

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

13. Total project area (size of site): 90 Acres

    Total disturbed area: 4.85 Acres

14. Estimated projected population: NA

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	410,078.58	÷ 43,560 =	9.41
Parking	936,366.56	÷ 43,560 =	21.50
Other paved surfaces	318,210.96	÷ 43,560 =	7.31
Total Impervious Cover	1,664,656.10	÷ 43,560 =	38.22

Total Impervious Cover 38.22 ÷ Total Acreage 90 X 100 = 42.47% 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 _____ (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" = 80'.

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): City of Leander GIS.

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

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

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

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

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

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

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

42. ☐ Surface waters (including wetlands).

☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

☒ N/A

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

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

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

☒ N/A

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

☒ N/A

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

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

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

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

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

☐ Attachment I - 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

☒ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

☐ The site will not be used for multi-family residential developments, schools, or small business sites.

52. ☒ Attachment J - BMPs for Upgradient Stormwater.

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

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

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

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

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

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

☐ N/A

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

dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☒ N/A

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

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

    ☒ N/A

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

    ☒ N/A

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

    ☐ N/A

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

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

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a

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

Administrative Information

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

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

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

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

ATTACHMENT A

Road Map


Bagdad Road
New Hope Drive
Osage Dr
Silver Spur Ln
Verde Ranch
Blueline Dr
Byfield Dr
Glenfield Dr
Kettering Dr
N Lakeline Blvd
Highland Trl
Prosperity
Cross Draw
Tall Chief
Parker Pl
Apollo Ln
Drue Ln
Columbine
Briar Cv
Brookhollw
Clover Ln
County Road 278
Hawk Dr
Romeo Dr
Heritage Park Dr
Baker's Way
John Tee Dr
Mathias St
Cougar Country Dr
Cretchen Dr
County Road 276
Tremont Dr
Gedar Oaks Dr
Timberview
Hollow R
Woodland
Timberwo
Ascot Ln
Avante Dr

ATTACHMENT B

USGS Quadrangle Map

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map US Topo

LEANDER QUADRANGLE
TEXAS
7.5-MINUTE SERIES

-97.8750° 608000mE 09 10 11 12 13 14 15 16 17 18 19 -97.7500°
30.6250° 3388000mN 30.6250°
30.5000° 08 09 10 11 12 13 14 15 16 17 18 619000mE 30.5000°
-97.8750° -97.7500°

LEANDER
GEORGETOWN
ROUND ROCK
CEDAR PARK
AUSTIN
White Stone
Leander High School
Hank Sasser Airport at Breakaway

Wells Cem
Whitley Cem
Upchurch Cem
Bagdad Cem
Davis Cem
New Hope Cem
Cedar Park Cem
Bonnet Cem
Champion Cem
Gilreath Cem

South Fork San Gabriel River
S Fork Brushy Cr
N Fork Brushy Cr
Mason Cr
Brushy Cr
Dry Fork Cr
Chandler Br
Block House Cr
Post Oak Cr
Cottonwood Cr
Spanish Oak Cr
Lime Cr
Cluck Cr
Bee Cove Hollow
Walsh Lake
South Brushy Creek

Soil Conservation Service Site 2 Reservoir
Soil Conservation Service Site 5 Reservoir
Soil Conservation Service Site 4 Reservoir
Soil Conservation Service Site 13a Reservoir

Austin Community College - San Gabriel Campus

TALON GRASP TRL, SIERRA MAR, RIVER RUN, S GABRIEL DR, N HILL CIR, HIGH GABRIEL DR, SIGNAL HILL DR, RIVA RIDGE DR, ORCHARD DR, CO RD 266, CO RD 267, CO RD 268, RONALD W REAGAN BLVD, VIA DE SIENNA, PIENZA DR, RANCHO SIENNA LOOP, SATURNIA DR, PANZANO DR, RIDGE VIEW DR, LAKE SIDE DR, WATERFORD LN, JUDGE FISK DR, PLEASANT HILL RD, BRYSON RIDGE TRL, AMANDAS WAY, CO RD 276, HWY 183, CHRISTOPHER LN, CO RD 270, BAKER LN, ELM RIDGE DR, AZUL LAGOON DR, VISTA HIGHTS DR, PALMERA RIDGE BLVD, CO RD 264, UNITY DR, JUNIPER COVE, GABEY RANCH CONVRTCN, VP RANCH DR, ESCALERA PKWY, CHADWICK DR, RANCH RD 2243, OAK GROVE RD, HERITAGE GROVE RD, W BROADE ST, E SAN GABRIEL PKWY, 183A, MIDDLE BROOK DR, REMINGTON DR, WHITLEY DR, S BROOK DR, RANCHERO RD, N CREEK BLVD, BAGDAD RD, OLD 2243 W, N MEL MATHIS BLVD, HWY 183A SYC RD, CO RD 269, HERO WAY, CO RD 175, WHISPER LN, DEER DRAW ST, PATRICIA RD, WIN BATTLEGROUND LN, CROSS TIMBERS DR, PARKSIDE PKWY, BUCK BEND, WHITETAIL DR, FAWNRIDGE ST, DOE RUN, FAIRBOW DR, MONAHANS DR, PURTIS CREEK LN, GARNER PARK DR, FORT COBB WAY, CADDO LAKE DR, ATLANTA PARK RD, GREEK MEADOW COVE, CO RD 177, VALLEY VIEW DR E, CO RD 179, PECAN CREEK DR, HUDSON LN, PERRY MAYFIELD BLVD, BORHO DR, ACACIA DR, CREST LN, SNOW BIRD LOOP, VISTA ISLE DR, GALENA HILLS LOOP, MERCREST LOOP, CO RD 176, RANCH RD 1431, WINDMILL CIR, W SOUTH ST, MUNICIPAL DR, LION DR, HORSESHOE DR, CO RD 274, NORTHERN TRL, VISTA RIDGE DR, OLMOS DR, PEREGRINE WAY, EAGLES WAY, TOPAZ LN, MOON GLOW DR, FALCON OAKS DR, RED HAWK DR, STINNETT LN, HONEYSUCKLE DR, AMERICAN TRL, S BAGDAD RD, SONNY DR, PLANO LN, VOLENTE LN, LOS VISTA DR, BONITA VERDE DR, TAMARAC TRL, HIGH CHAPARRAL DR, GLASS DR, LACY DR, LEANDER DR, OVERLOOK BEND, CO RD 273, LAUREL GLEN BLVD, RIDGEWOOD DR, SPRING HOLLOW DR, CALLA LILY BLVD, E CRYSTAL FALLS PKWY, RUTHERFORD DR, HWY 183A SYC RD, ARTESIAN SPRINGS XING, CACTUS MOUND DR, ELAIN LOOP, MAXWELL DR, GRAND LAKE PKWY, CO RD 179, PUBLIC TRAILS BLVD, BOWER ST, HORNTON PARK BLVD, BRENTWOOD DR, UNION ST, MCCARTHUR DR, GOLDEN GATE DR, FALL CREEK DR, N BLOCKHOUSE DR, JUNTAGE DR, CHARDONNAY XING, RIO VERDE DR, FOREST TRL, LAKEWOOD TRL, WOODLAND TRL, DOWNING LN, PSO DE CHARROS, CABALLO RANCH BLVD, CAM ALEMDA, MANADA TRL, CO RD 271, MOORE LN, TORO GRANDE DR, CO RD 178, RALEY RD, SPANISH OAK TRL, MAYFIELD DR, LISI ANNE DR, INDIAN HILLS DR, AVERY RANCH BLVD, WHITLEY BAY DR, DOUBLE EAGLE DR, WINNIE HEATH GREENS DR, AVERY CLUB DR, DODGE CATTLE DR, S BRUSHY CR, BRUSHY CREEK RD, WILDLIFE RUN, WILSON RANCH PL, S VISTA RIDGE BLVD, BREAKAWAY RD, KODIAK TRL, DENALI PASS, N VISTA RIDGE BLVD, GOLDEN ARROW AVE, CONN CREEK RD, SUNSET TER, SUNRISE TER, RAWHIDE TRL, WILLOWBROOK DR, TRAILRIDGE DR, WATER OAK DR, MANDARIN FERRY, S CADWALL LN, GUPTON WAY, TALLOW TRL, CASHEW LN, SAVANNA LN, ANTELOPE RIDGE, DARKWOODS DR, S LYNNWOOD TRL, N LYNNWOOD, S MUSTANG AVE, S COUGAR AVE, S BUFFALO AVE, S KINGS CYN DR, OLD HWY 183, S BELL BLVD, CO RD 174, BRUSHY CREEK RD, E PARK ST, N MUSTANG AVE, PASO FINO TRL, LONE STAR DR, RANCH RD 1431, SETTLEMENT ST, E WHITESTONE BLVD, CENTRAL DR, CEDAR CREST DR, CEDAR HILLS BLVD, WOOD CREEK DR, HIGHLAND DR, KNOLL RIDGE DR, MEGHAN DR, BRASHEAR LN, SILVERSTONE DR, CO RD 278, DORIS LN, CENTURY LN, W NEW HOPE DR, CARRIAGE HILLS TRL, COUNTRY SQUIRE DR, PARKSVILLE WAY, CARRIAGE CLUB DR, CONTINENTAL PASS, TREELINE DR, AMBLING TRL, RIMSTONE DR, WOODALL DR, FM 1431, ANDERSON MILL RD, LIME CREEK RD, VISTA OAKS DR, WIRE RD, TRAVIS CO, WILLIAMSON CO, CORAL VALLEY DR, GRANITE HILL DR, ZOA DR, WHEATON TRL, BARNETT DR, COUGAR COUNTRY DR, TALL CHIEF, OUTLOOK RIDGE LOOP, CHAMPIONS CORNER DR, POW WOW, HIGHLAND TRL, FIRST VW, AMBUSH CANYON, HOLLOWBACK DR, BURR PKWY, UHLAND DR, GREENING WAY, PARKWOOD DR, DEEPWOODS TRL, BOVINA DR, MULEDEER RUN, CRYSTAL FALLS PKWY, WIGWAM, OAKWOOD DR, APACHE TRL, SIOUX TRL, SEMINOLE RD, OSAGE DR, TUMBLING RIVER DR, GRANITE CREEK DR, SILVER SPUR LN, N LAKELINE BLVD, S LAKELINE BLVD, OLD BAGDAD RD, DURBIN DR, WEST DR, LOVE OAK DR, HERNANDOS LOOP, EMERALD ISLE DR, MUSTANG RIDGE BLVD, HERITAGE PARK LN, S BAGDAD RD, COLUMBINE AVE, CLOVER LN, PEACH TREE LN, GLEN FIELD DR, BYFIELD DR, SUMAC LN, CYPRESS LN, BOIS D ARC LN, N BELL BLVD, CO RD 181, ALAMO PLAZA DR, LOST PINES LN, S BLOCK HOUSE DR, CLAUDIA DR, CREEK RUN DR, SPOTTED EAGLE DR, BLACK KETTLE DR, BLOCKHOUSE DR, TURTLE RIVER DR, AVE OF THE STARS, SUSAN LN, TUMWATER FORT DR, S WALKER DR, RIO VERDE DR, BULL CREEK PKWY, COLORADO BEND DR, LEGEND OAKS LN, DISCOVERY BLVD, BIG BEND DR, MAIN ST, HWY 183A SYC RD, MEDICAL PKWY, COTTONWOOD CREEK TRL, ARROW POINT DR, E WHITESTONE BLVD, MARKET ST, COLONIAL PKWY, C BAR RANCH TRL, STARWOOD DR, GLACIAL STREAM LN, TAKU RD, YUKON CIR, POST RIVER RD, KENAI DR, W PARMER LN, LOGAN RIDGE DR, ARROW WOOD RD, ZACHARYS RUN, AVERY WOODS LN, N FRONTIER LN, SPANISH MUSTANG DR, WALSH HILL TRL, WILLIAMS WAY, SADDLE RIDGE DR, CHUGG DR, ARROWHEAD TRL, S FRONTIER LN, REMINGTON RD, STILES LN, BISON BND, BLACK GOLD BND, PALAMBOR DR, RIDGMAR RD, W WINDEMERE ST, WEDGESCALE PASS, RAIDER WAY, MYRNA BND, FM RD 971, CO RD 271, FAIR OAKS ST, RANCH RD 2243, RONALD W REAGAN BLVD, CO RD 175, WHISPER LN, DEER DRAW ST, PATRICIA RD, BUCK BEND, WHITETAIL DR, FAWNRIDGE ST, DOE RUN, FAIRBOW DR, MONAHANS DR, PURTIS CREEK LN, GARNER PARK DR, FORT COBB WAY, CADDO LAKE DR, ATLANTA PARK RD, GREEK MEADOW COVE, CO RD 177, VALLEY VIEW DR E, CO RD 179, PECAN CREEK DR, HUDSON LN, PERRY MAYFIELD BLVD, BORHO DR, ACACIA DR, CREST LN, SNOW BIRD LOOP, VISTA ISLE DR, GALENA HILLS LOOP, MERCREST LOOP, CO RD 176, RANCH RD 1431, CO RD 271, MOORE LN, TORO GRANDE DR, CO RD 178, RALEY RD, SPANISH OAK TRL, MAYFIELD DR, LISI ANNE DR, INDIAN HILLS DR, AVERY RANCH BLVD, WHITLEY BAY DR, DOUBLE EAGLE DR, WINNIE HEATH GREENS DR, AVERY CLUB DR, DODGE CATTLE DR, S BRUSHY CR, BRUSHY CREEK RD, WILDLIFE RUN, WILSON RANCH PL, S VISTA RIDGE BLVD, BREAKAWAY RD, KODIAK TRL, DENALI PASS, N VISTA RIDGE BLVD, GOLDEN ARROW AVE, CONN CREEK RD, SUNSET TER, SUNRISE TER, RAWHIDE TRL, WILLOWBROOK DR, TRAILRIDGE DR, WATER OAK DR, MANDARIN FERRY, S CADWALL LN, GUPTON WAY, TALLOW TRL, CASHEW LN, SAVANNA LN, ANTELOPE RIDGE, DARKWOODS DR, S LYNNWOOD TRL, N LYNNWOOD, S MUSTANG AVE, S COUGAR AVE, S BUFFALO AVE, S KINGS CYN DR, OLD HWY 183, S BELL BLVD, CO RD 174, BRUSHY CREEK RD, E PARK ST, N MUSTANG AVE, PASO FINO TRL, LONE STAR DR, RANCH RD 1431, SETTLEMENT ST, E WHITESTONE BLVD, CENTRAL DR, CEDAR CREST DR, CEDAR HILLS BLVD, WOOD CREEK DR, HIGHLAND DR, KNOLL RIDGE DR, MEGHAN DR, BRASHEAR LN, SILVERSTONE DR, CO RD 278, DORIS LN, CENTURY LN, W NEW HOPE DR, CARRIAGE HILLS TRL, COUNTRY SQUIRE DR, PARKSVILLE WAY, CARRIAGE CLUB DR, CONTINENTAL PASS, TREELINE DR, AMBLING TRL, RIMSTONE DR, WOODALL DR, FM 1431, ANDERSON MILL RD, LIME CREEK RD, VISTA OAKS DR, WIRE RD, TRAVIS CO, WILLIAMSON CO, CORAL VALLEY DR, GRANITE HILL DR, ZOA DR, WHEATON TRL, BARNETT DR, COUGAR COUNTRY DR, TALL CHIEF, OUTLOOK RIDGE LOOP, CHAMPIONS CORNER DR, POW WOW, HIGHLAND TRL, FIRST VW, AMBUSH CANYON, HOLLOWBACK DR, BURR PKWY, UHLAND DR, GREENING WAY, PARKWOOD DR, DEEPWOODS TRL, BOVINA DR, MULEDEER RUN, CRYSTAL FALLS PKWY, WIGWAM, OAKWOOD DR, APACHE TRL, SIOUX TRL, SEMINOLE RD, OSAGE DR, TUMBLING RIVER DR, GRANITE CREEK DR, SILVER SPUR LN, N LAKELINE BLVD, S LAKELINE BLVD, OLD BAGDAD RD, DURBIN DR, WEST DR, LOVE OAK DR, HERNANDOS LOOP, EMERALD ISLE DR, MUSTANG RIDGE BLVD, HERITAGE PARK LN, S BAGDAD RD, COLUMBINE AVE, CLOVER LN, PEACH TREE LN, GLEN FIELD DR, BYFIELD DR, SUMAC LN, CYPRESS LN, BOIS D ARC LN, N BELL BLVD, CO RD 181, ALAMO PLAZA DR, LOST PINES LN, S BLOCK HOUSE DR, CLAUDIA DR, CREEK RUN DR, SPOTTED EAGLE DR, BLACK KETTLE DR, BLOCKHOUSE DR, TURTLE RIVER DR, AVE OF THE STARS, SUSAN LN, TUMWATER FORT DR, S WALKER DR, RIO VERDE DR, BULL CREEK PKWY, COLORADO BEND DR, LEGEND OAKS LN, DISCOVERY BLVD, BIG BEND DR, MAIN ST, HWY 183A SYC RD, MEDICAL PKWY, COTTONWOOD CREEK TRL, ARROW POINT DR, E WHITESTONE BLVD, MARKET ST, COLONIAL PKWY, C BAR RANCH TRL, STARWOOD DR, GLACIAL STREAM LN, TAKU RD, YUKON CIR, POST RIVER RD, KENAI DR, W PARMER LN, LOGAN RIDGE DR, ARROW WOOD RD, ZACHARYS RUN, AVERY WOODS LN, N FRONTIER LN, SPANISH MUSTANG DR, WALSH HILL TRL, WILLIAMS WAY, SADDLE RIDGE DR, CHUGG DR, ARROWHEAD TRL, S FRONTIER LN, REMINGTON RD, STILES LN, BISON BND, BLACK GOLD BND, PALAMBOR DR, RIDGMAR RD, W WINDEMERE ST, WEDGESCALE PASS, RAIDER WAY, MYRNA BND, FM RD 971, CO RD 271, FAIR OAKS ST

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2019
Names.....GNIS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2002 - 2020
Contours.....National Elevation Dataset, 2019
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available

MN
GN
3°46′ 67 MILS
0°36′ 11 MILS
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PU
Grid Zone Designation 14R

SCALE 1:24 000
1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the National Geospatial Program US Topo Product Standard.

TEXAS
QUADRANGLE LOCATION

1 2 3
4 5
6 7 8
ADJOINING QUADRANGLES
1 Liberty Hill
2 Leander NE
3 Georgetown
4 Nameless
5 Round Rock
6 Mansfield Dam
7 Jollyville
8 Pflugerville West

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

LEANDER, TX
2022

NSN 7643016396981
NGA REF NO. USGSX24K25238

ATTACHMENT C

Project Narrative

The project site (Leander High School) is located on the west side of South Bagdad Road approximately 1.5 miles north of its intersection with F.M. 1431/Whitestone Drive, within the City Limits of the City of Leander, Williamson County, Texas. Refer to Attachment A for a more precise location of the site.

Leander ISD is planning improvements at Leander High School that will require an overall master plan to better suit their current needs. The first phase of the project is to expand the existing building footprint, with associated site improvements (sidewalk construction, some sports field relocation, fire lane reconfiguration, etc.).

Currently there are 38.63 AC of impervious cover over the 90 AC school site, the proposed building expansion with the proposed site improvements will reduce the total site impervious cover to 38.22 AC, with a reduction of 0.41 AC, with the removal of existing impervious cover site wise. The previously constructed sedimentation/filtration pond as part of the Bible Stadium improvements (previously approved CZP) will remain the same.

ATTACHMENT D

Factors Affecting Surface Water Quality

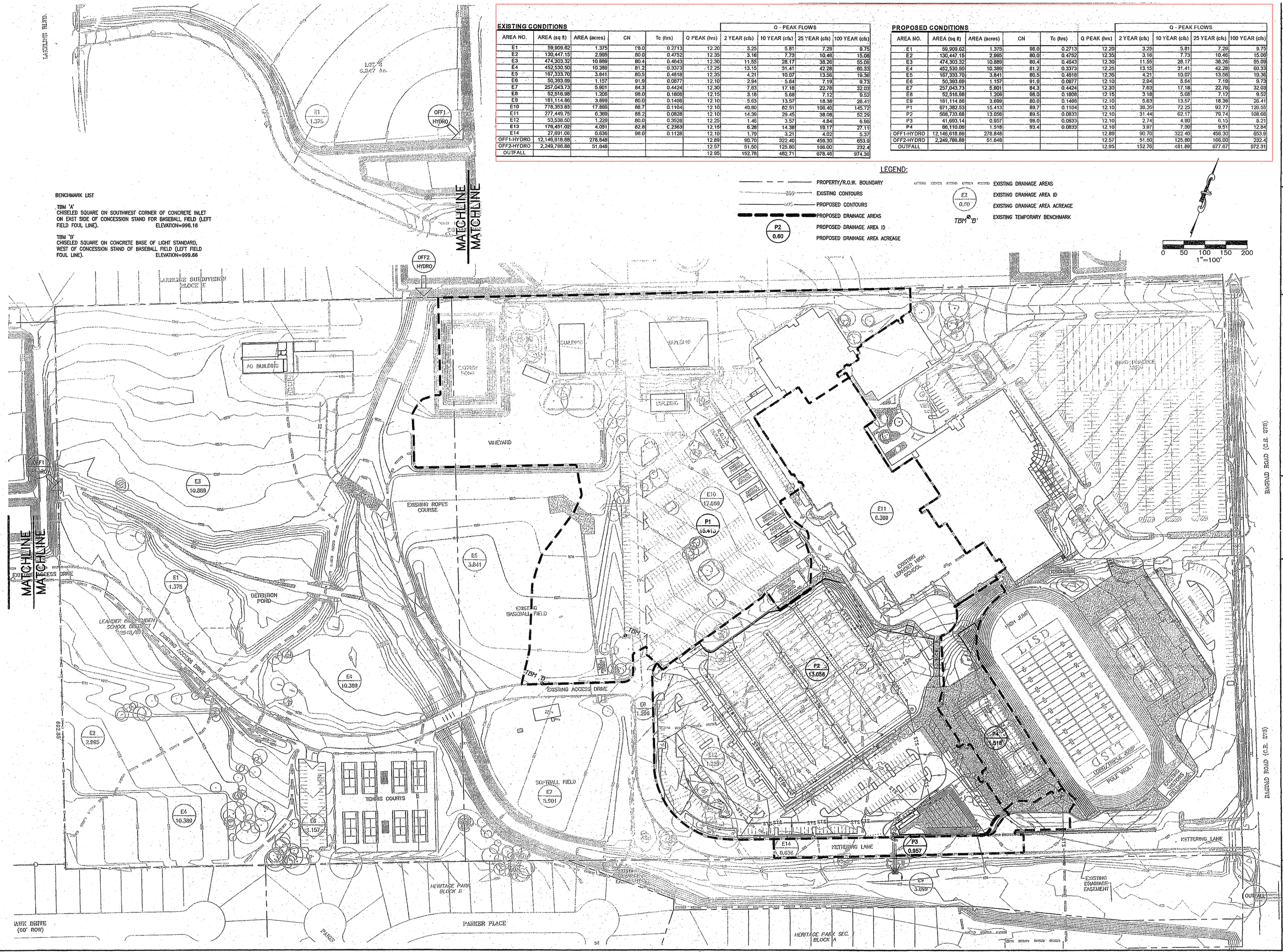
The pollutants are the typical pollutants one might expect from a school site containing parking lots. Types of pollutants anticipated primarily include storm water runoff from the building's roof, dirt and silt from planted areas, vehicle oils, greases, detergents, waxes and brake linings and possibly trash. One might also anticipate fertilizers, herbicides, and pesticides as potential pollutants from the grassed fields and landscaped areas. Most runoff entering the existing water quality pond will originate from the impervious surfaces.

There is no discharge from an industrial activity associated with this project.

ATTACHMENT E

Volume and Character of Stormwater

The building expansion project will have a net reduction of 0.42 AC impervious cover, over 90 AC of the site area. Due to the existing detention pond and water quality pond onsite, the pre-construction and post-construction stormwater volume and quality will not be affected negatively. Please see the attached previously approved drainage area map and water quality calculation sheets for detail. No additional stormwater volume and quality calculation is performed due to the reduction of impervious cover.



LEGEND:

- PROPERTY/R.O.W. BOUNDARY
- 595 EXISTING CONTOURS
- 595 PROPOSED CONTOURS
- PROPOSED DRAINAGE AREAS
- P2 / 0.60 PROPOSED DRAINAGE AREA ID / PROPOSED DRAINAGE AREA ACREAGE
- EXISTING DRAINAGE AREAS
- E2 / 0.60 EXISTING DRAINAGE AREA ID / EXISTING DRAINAGE AREA ACREAGE
- TBM 'B' EXISTING TEMPORARY BENCHMARK

0 50 100 150 200
1"=100'

BENCHMARK LIST

TBM 'A'
CHISELED SQUARE ON SOUTHWEST CORNER OF CONCRETE INLET ON EAST SIDE OF CONCESSION STAND FOR BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=996.16

TBM 'B'
CHISELED SQUARE ON CONCRETE BASE OF LIGHT STANDARD, WEST OF CONCESSION STAND OF BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=999.66

EXISTING CONDITIONS

AREA NO.	AREA (sq ft)	AREA (acres)	CN	Tc (hrs)	Q PEAK (hrs)	Q - PEAK FLOWS 2 YEAR (cfs)	10 YEAR (cfs)	25 YEAR (cfs)	100 YEAR (cfs)
E1	59,909.62	1.375	98.0	0.2713	12.20	3.25	5.81	7.29	9.75
E2	130,447.15	2.995	80.0	0.4752	12.35	3.16	7.73	10.46	15.06
E3	474,303.32	10.889	80.4	0.4643	12.30	11.55	28.17	38.26	55.09
E4	452,530.50	10.389	81.2	0.3373	12.25	13.15	31.41	42.28	60.33
E5	167,333.70	3.841	80.5	0.4818	12.35	4.21	10.07	13.56	19.36
E6	50,393.69	1.157	91.9	0.0877	12.10	2.94	5.64	7.19	9.73
E7	257,043.73	5.901	84.3	0.4424	12.30	7.63	17.18	22.78	32.03
E8	52,516.98	1.206	98.0	0.1808	12.15	3.18	5.68	7.12	9.52
E9	161,114.86	3.699	80.0	0.1466	12.10	5.63	13.57	18.38	26.41
E10	778,353.83	17.869	88.7	0.1104	12.10	40.80	82.51	106.40	145.72
E11	277,449.75	6.369	88.2	0.0828	12.10	14.39	29.45	38.08	52.29
E12	53,538.50	1.229	80.0	0.3528	12.25	1.46	3.57	4.64	6.86
E13	176,451.02	4.051	62.6	0.2363	12.15	6.28	14.38	18.17	27.11
E14	27,691.06	0.636	98.0	0.1128	12.10	1.79	3.21	4.02	5.37
OFF1-HYDRO	12,146,618.88	278.848			12.89	90.70	322.40	456.30	653.9
OFF2-HYDRO	2,249,786.88	51.648			12.57	51.50	125.80	166.00	232.4
OUTFALL					12.95	152.78	482.71	678.46	974.36

PROPOSED CONDITIONS

AREA NO.	AREA (sq ft)	AREA (acres)	CN	Tc (hrs)	Q PEAK (hrs)	Q - PEAK FLOWS 2 YEAR (cfs)	10 YEAR (cfs)	25 YEAR (cfs)	100 YEAR (cfs)
E1	59,909.62	1.375	98.0	0.2713	12.20	3.25	5.81	7.29	9.75
E2	130,447.15	2.995	80.0	0.4752	12.35	3.16	7.73	10.46	15.06
E3	474,303.32	10.889	80.4	0.4643	12.30	11.55	28.17	38.26	55.09
E4	452,530.50	10.389	81.2	0.3373	12.25	13.15	31.41	42.28	60.33
E5	167,333.70	3.841	80.5	0.4818	12.35	4.21	10.07	13.56	19.36
E6	50,393.69	1.157	91.9	0.0877	12.10	2.94	5.64	7.19	9.73
E7	257,043.73	5.901	84.3	0.4424	12.30	7.63	17.18	22.78	32.03
E8	52,516.98	1.206	98.0	0.1808	12.15	3.18	5.68	7.12	9.52
E9	161,114.86	3.699	80.0	0.1466	12.10	5.63	13.57	18.38	26.41
P1	671,382.53	15.413	89.7	0.1104	12.10	36.35	72.25	92.77	126.55
P2	568,733.68	13.056	89.5	0.0833	12.10	31.44	62.17	79.74	108.66
P3	41,693.14	0.957	98.0	0.0833	12.10	2.74	4.90	6.15	8.21
P4	66,110.06	1.518	93.4	0.0833	12.10	3.97	7.50	9.51	12.84
OFF1-HYDRO	12,146,618.88	278.848			12.89	90.70	322.40	456.30	653.9
OFF2-HYDRO	2,249,786.88	51.648			12.57	51.50	125.80	166.00	232.4
OUTFALL					12.95	152.76	481.89	677.67	972.31

NO.	REVISION	BY	DATE

DESIGNED BY: SB
DRAWN BY: SR
CHECKED BY: RWS
APPROVED BY: RWS
DATE: NOV 2008

PBS&J
6504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78730 - (512) 327-6840
TBPE REG. # F-474

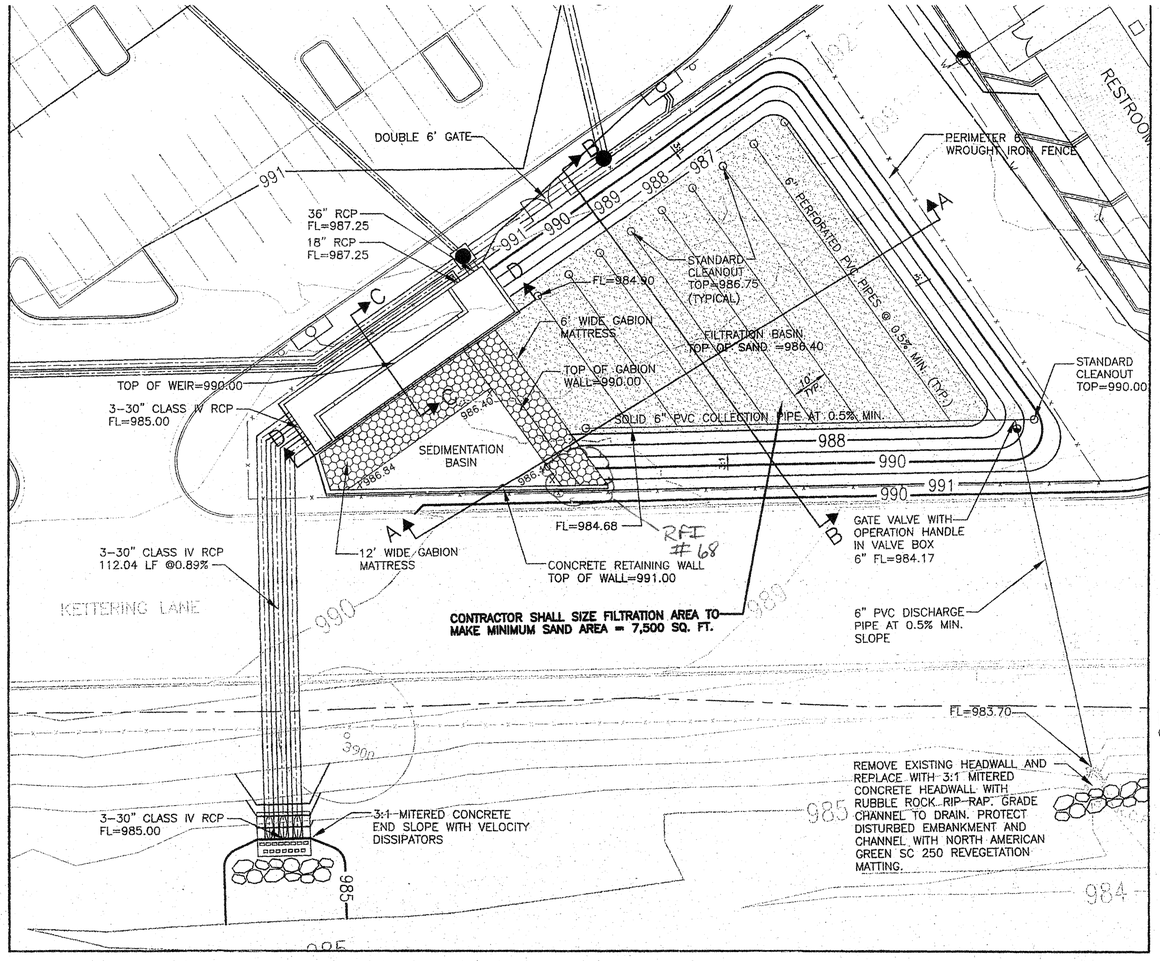
STATE OF TEXAS
ROBERT W. SCHOLZ
91151
LICENSED PROFESSIONAL ENGINEER
2/11/2009

LEANDER HIGH SCHOOL
A.C. BIBLE, JR. MEMORIAL STADIUM IMPROVEMENTS
DRAINAGE AREA MAP - DETENTION

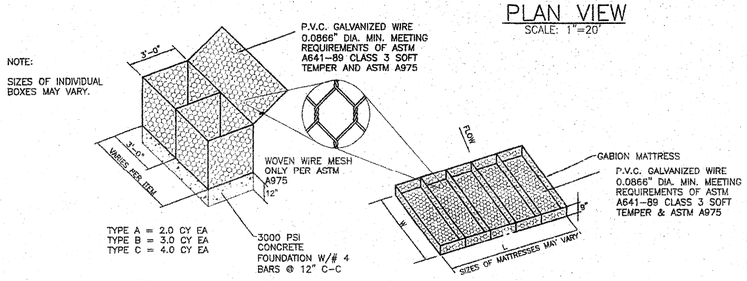
SHEET NO. 11
OF 33 SHEETS

FILE NO. LHS-BS-DA
PROJECT NO. 100003094

3301 S. BAGDAD ROAD



PLAN VIEW
SCALE: 1"=20'

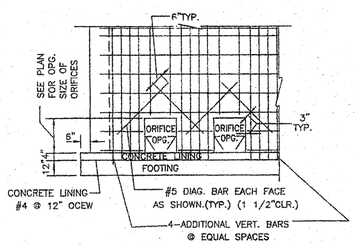


NOTE:
1. 5"-6" STANDARD ROCK SIZE PER C.O.A. STANDARD SPECIFICATION 594S.

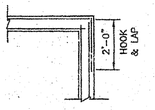
GABION WALL DETAIL
N.T.S.

NOTE:
1. 3"-5" STANDARD ROCK SIZE PER C.O.A. STANDARD SPECIFICATION 594S.

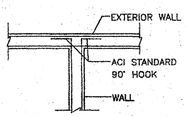
GABION MATTRESS DETAIL
N.T.S.



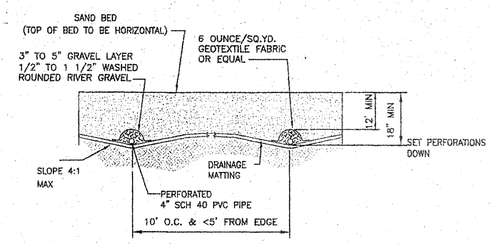
ORIFICE OPENING DETAIL
N.T.S.



WALL CORNER DETAIL
N.T.S.



WALL INTERSECTION DETAIL
N.T.S.



DRAINAGE MATTING

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WEIGHT		Oz/Sq.Yd.	20 (min.)
FLOW RATE (FABRIC)		GPM/FT²	180 (min.)
PERMEABILITY	ASTM D-2434	Cm/Sec	12.4 x 10⁻²
GRAB STRENGTH (FABRIC)	ASTM D-1682	Lb.	DRY Lg.90 DRY Wd:70; WET Lg.95 WET Wd:70
PUNCTURE STRENGTH (FABRIC)	COE CW-02215	Lb.	45 (MIN.)
MULLEN BURST STRENGTH	ASTM D-1117	Psi	140 (min.)
EQUIV. OPENING SIZE	US STANDARD SIEVE	No.	100 (70-120)
FLOW RATE (DRAINAGE CORE)	DREXEL UNIV. TEST METHOD	GPM/FL.WIDTH	14

NOTE: DRAINAGE MATTING TO BE USED ONLY WITH SAND BED TRENCH DESIGN

FILTRATION BED SPECIFICATIONS

SAND – AT LEAST 12 TO 18 INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS TO ASTM C-33 CONCRETE SAND (SMALLER SIZE SAND IS NOT ACCEPTABLE)

GRAVEL – 0.5 INCH MIN. TO 1.5 INCH DIAMETER WASHED ROUNDED RIVER GRAVEL WITH A MIN. 3 INCH COVER OVER TOP OF UNDERDRAIN LATERAL PIPING

GEOTEXTILE FABRIC – SAND & GRAVEL TO BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC GEOTEXTILE FABRIC MEETING THE FOLLOWING SPECIFICATIONS:

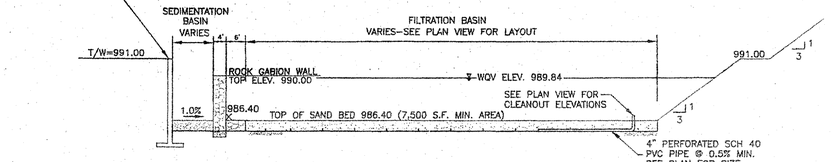
GEOTEXTILE FABRIC SPECIFICATIONS

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WEIGHT		Oz/Sq.Yd.	8 (MIN.)
FILTRATION RATE		IN/SEC	0.08 (MIN.)
PUNCTURE STRENGTH	ASTM D-751 (MODIFIED)	LB.	125 (MIN.)
MULLEN BURST STRENGTH	ASTM D-751	PSI	400 (MIN.)
TENSILE STRENGTH	ASTM D-1682	LB.	200 (MIN.)
EQUIVALENT OPENING SIZE	US STANDARD SIEVE	NO.	80 (MIN)

TYPICAL FILTRATION SYSTEM DETAIL
N.T.S.

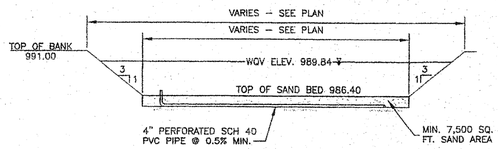
CONCRETE RETAINING WALL. SEE DETAIL THIS SHEET
CONTRACTOR TO VERIFY TOP OF WALL TO MATCH EXISTING GROUND AS REQUIRED

NOTE: POND SHALL BE 100% REVEGETATED PRIOR TO ENGINEER'S CONCURRENCE

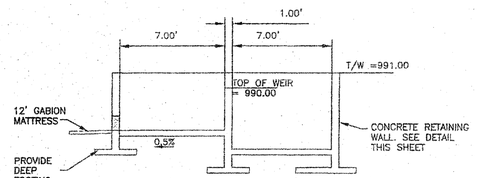


NOTE: SEE DETAIL "FILTRATION POND SAND BED WITH GEOTEXTILE FABRIC" ON THIS SHEET

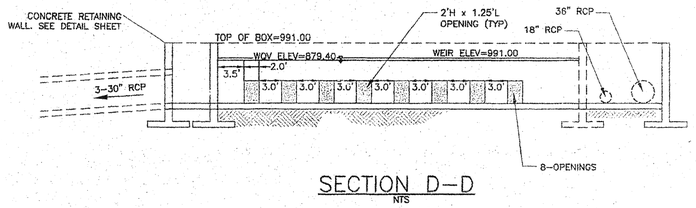
SECTION A-A
NTS



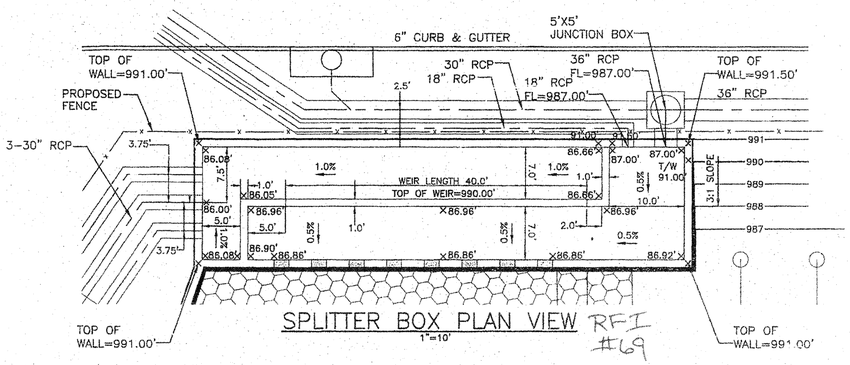
SECTION B-B
NTS



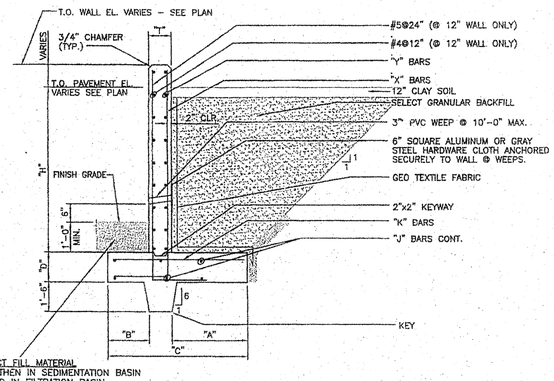
SECTION C-C
NTS



SECTION D-D
NTS



SPLITTER BOX PLAN VIEW
1"=10'
RFI #69



RETAINING WALL DETAIL
N.T.S.

RETAINING WALL SCHEDULE

"H" (MAX)	"T"	"A"	"B"	"C"	"D"	"X" BARS	"Y" BARS	"J" BARS	"K" BARS
2 FT.	8"	1'-0"	10"	2'-6"	12"	#3@12"	#3@12"	5-#4	#3@12"
4 FT.	8"	1'-6"	10"	3'-0"	12"	#4@12"	#3@12"	6-#4	#4@12"
6 FT.	8"	3'-6"	10"	5'-0"	12"	#4@12"	#4@12"	7-#5	#4@12"
* 8 FT.	12"	3'-0"	3'-0"	7'-0"	12"	#5@12"	#4@12"	8-#5	#5@12"
* 10 FT.	12"	4'-0"	3'-0"	8'-0"	12"	#6@12"	#5@12"	10-#5	#6@12"
* 12 FT.	12"	6'-0"	3'-0"	10'-0"	12"	#8@12"	#5@12"	12-#5	#8@12"

* PROVIDE FOOTING KEY

NOTES:
1. WHERE A CHANGE IN THE THICKNESS OF THE RETAINING WALL OCCURS, THE STEP SHALL OCCUR ON THE SOIL SIDE OF THE WALL.
2. PROVIDE A SMOOTH FORMED AND RUBBED FINISH AT EXPOSED FACE OF RETAINING WALLS.
3. FOOTINGS SHALL BE FOUNDED A MINIMUM OF 1'-0" INTO EXISTING UNDISTURBED GRADE.
4. EVERY OTHER VERTICAL "X" BAR CAN BE TERMINATED AT MID-HEIGHT OF WALL.

NO.	REVISION	BY	DATE

DESIGNED BY: SB
DRAWN BY: SR
CHECKED BY: RWS
APPROVED BY: RWS
DATE: NOV 2008

PBS&J
8504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78753 (512) 327-6840
TBPE REG. #F-474

STATE OF TEXAS
ROBERT W. SCHOLZ
91151
LICENSED PROFESSIONAL ENGINEER
2/11/2009

LEANDER HIGH SCHOOL
A.C. BIBLE, JR. MEMORIAL STADIUM IMPROVEMENTS
WATER QUALITY POND PLAN AND SECTIONS

SHEET NO. 19
OF 33 SHEETS

FILE NO. LHS-BS-WQP
PROJECT NO. 100003094

3301 S. BAGDAD ROAD

Texas Commission on Environmental Quality

TSS Removal Calculations 09/29/2008

Project Name: LISD-Leander High School
Date Prepared: 10/17/08

Text shown in magenta provide instructions for the use of this spreadsheet.
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 are calculated fields. Changes to these fields will remove equations used in the spreadsheet.

1. The Required Load Reduction from 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 = Required TSS removal
A_N = Net increase in impervious area for site
P = Average annual precipitation, inches

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

County =	Williamson		
Total project area included in plan =	50.000	acres	
Predevelopment impervious area within the limits of the plan =	33.480	acres	
Total post-development impervious area within the limits of the plan =	37.670	acres	
Total post-development impervious cover fraction =	0.42		
P =	32	inches	
Total L_M required for this plan =	3647	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

Separate calculations should be prepared for each drainage basin / outfall area.
The calculations must include Sections 2 through 6 and the Section for the appropriate BMP proposed, e.g Section 8 for Sand Filters.
A summation of the load removal calculations must be provided.
It should include justifications indicating that the project meets the requirements of the Edwards Aquifer Rules.
The permanent BMP calculations and summary must be signed, sealed, and dated by the P.E. making the submittal.

2. Calculations for the Required Load Reduction:

Drainage Basin / Outfall Area No. = 1

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

where:
L_M = Required TSS removal
A_N = Net increase in impervious area for site
P = Average annual precipitation, inches

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

Total drainage basin / outfall area =	13.056	acres	
Predevelopment impervious area within drainage basin / outfall area =	0.000	acres	
Post-development impervious area within drainage basin / outfall area =	6.136	acres	
Post-development impervious fraction within drainage basin / outfall area =	0.47		
P =	32	inches	
L_M =	5341	lbs.	

The values entered in these fields should be for the drainage basin / outfall area.

3. Indicate the Drainage Basin and Select the desired BMP Code for this Section.

			BMP Code:	BMP Type:
Proposed BMP =	sf	abbreviation	AC	Aqualogic Cartridge Filter
Removal efficiency =	89	percent	BR	Bioretention
			CW	Constructed Wetland
			ED	Extended Detention
			GS	Grassy Swale
			RI	Retention / Irrigation
			SF	Sand Filter
			WB	Wet Basin
			WV	Wet Vault

4. Calculate TSS Load Removed (L_R) from this Drainage Basin by the Proposed BMP Type.

RG 348 Page Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

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

A_C =	13.056	acres
A_I =	6.136	acres
A_P =	6.920	acres
L_R =	6163	lbs

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

F = 0.87 If F>1, then a more efficient BMP or a larger treatment area is required.

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 =	0.34	IC = Drainage Area to BMP / drainage Area to BMP
On-site Water Quality Volume =	23305	cubic feet

Offsite drainage should be conveyed around or through the drainage basin / outfall area without entering the BMP.
If no offsite drainage flows across the drainage basin / outfall area or is bypassed through the site, enter 0 in cells C109 & C110.
If the offsite drainage is directed to the drainage basin, enter offsite area draining to BMP & offsite impervious cover draining to BMP in cells C109 & C110.

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 =	0.02	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	4661	
Total Capture Volume =	27967	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for the water quality volume of a BMP Type not selected in cell C64 will show NA.

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-67

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	27967	cubic feet	
Minimum filter basin area =	1554	square feet	
Maximum sedimentation basin area =	13983	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	3496	square feet	For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	27967	cubic feet	
Minimum filter basin area =	2797	square feet	
Maximum sedimentation basin area =	11187	square feet	For minimum water depth of 2 feet
Minimum sedimentation basin area =	699	square feet	For maximum water depth of 8 feet

LEANDER HIGH SCHOOL-AC BIBLE, JR. STADIUM IMPROVEMENTS
Partial Sedimentation / Filtration Pond Calculation Summary

Drainage Area Data

Drainage Area to Control	13.056	ac.
Drainage Area Impervious Cover (IC)	47%	

Water Quality Control Calculations

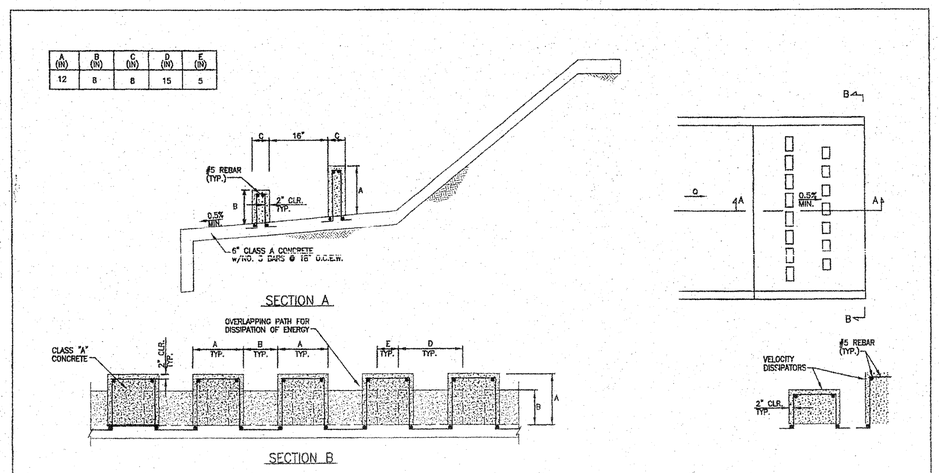
The Water Quality Control is to be **PARTIAL Sedimentation/Filtration**

Site Area Draining to Pond (Total Site Area for Conservative Design)	13.056	ac.
Total Impervious Area Draining to the Pond	6.136	ac.
Design Peak Flow Rate *(Q100)* Approximately	108.66	cfs.

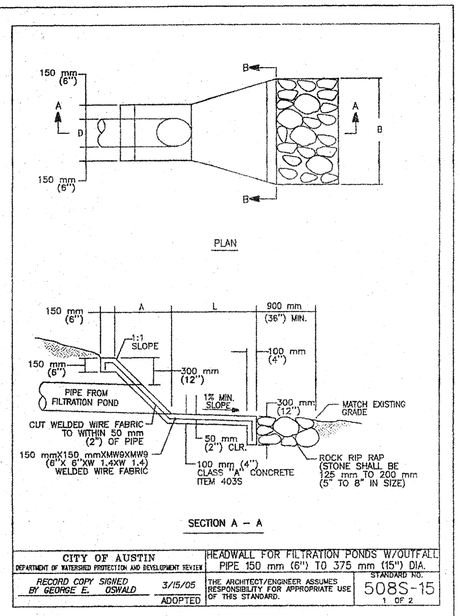
	Required	Provided
Water Quality Volume (At WQ Elevation)	27,967	29,703 cf.
Filtration Pond Area (WQV/10)	2,797	7,500 sf.
Water Quality Elevation		989.84 ft. msl
Elevation of Splitter/Overflow Weir *(> WQ elev)*		990.00 ft. msl
Elevation of Top of Gabion Wall		990.00 ft. msl
Length of Splitter Weir Required (h = 1.0 ft)	31.75 ft.	
Length of Splitter Weir provided		40.00 ft.
Required Head to Pass the Design Flow		0.92 ft.
Sedimentation Pond Freeboard Provided to Pass Design Flow		1.00 ft.

Sedimentation/Filtration Pond:

Elevation (ft msl)	Area (sf)	Area (acres)	Storage (cf)
987.00	8,449.09	0.194	0
988.00	9,395.52	0.216	8918
989.00	10,385.58	0.238	18805
990.00	11,419.27	0.262	29703
991.00	12,496.58	0.287	



RFI # 34



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

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

CITY OF AUSTIN — DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW
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STANDARD NO. 508S-15 2 OF 2

BY/DATE	REVISION	NO.

DESIGNED BY: SB
DRAWN BY: SR
CHECKED BY: RWS
APPROVED BY: RWS
DATE: NOV 2008

PBS&J
6504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78730 - (512) 327-6940
TBPE REG. #F-474

STATE OF TEXAS — ROBERT W. SCHOTZ — 91151 — LICENSED PROFESSIONAL ENGINEER — 2/4/2009

LEANDER HIGH SCHOOL
A.C. BIBLE, JR. MEMORIAL STADIUM IMPROVEMENTS

WATER QUALITY POND CALCULATIONS & DETAILS

SHEET NO. 20
OF 33 SHEETS

FILE NO. LHS-BS-WQP
PROJECT NO. 100003094

3301 S. BAGDAD ROAD

ATTACHMENT J

BMPs for Upgradient Stormwater

An undefined tributary to Blockhouse Creek lies within this 90-acre Leander High School Site. Therefore, upgradient stormwater runs through the site within an existing channel. The stormwater originates in residential areas upstream. This stormwater is treated by an existing wet pond. The stormwater then travels within culverts under Lakeline Boulevard into an earthen drainage channel and is detained immediately upgradient within an existing earthen detention pond. The stormwater then runs into yet another earthen detention pond on the Leander High School site. Therefore, all stormwater from upstream areas is receiving treatment through either the existing wet pond or the two detention facilities.

The improvements associated with this Contributing Zone Plan are essentially “off-line”, so the upgradient waters will travel around the proposed improvements. Temporary BMPs will be installed for all improvements, to reduce the potential amount of sedimentation and erosion entering into the surface waters downstream.

ATTACHMENT K

BMPs for On-site Stormwater

The previously approved and constructed sedimentation/filtration water quality pond will continue to treat pollutants from stormwater runoff. Since the proposed building expansion project will have net reduction in impervious cover, no additional BMPs are proposed.

Temporary BMPs will be installed for all improvements, to reduce the potential amount of sedimentation and erosion entering into the surface waters downstream.

ATTACHMENT L

BMPs for Surface Streams

Temporary and permanent BMPs are used to prevent pollutants from ultimately entering surface streams.
Temporary BMPs include silt fence, rock berms, and stabilized construction entrances.
The previously approved and constructed sedimentation/ filtration pond, a permanent BMP, is designed to treat storm water runoff prior to it being routed to the existing channel.
No modification to the existing water quality pond is proposed due to the reduction in impervious cover on site.

ATTACHMENT M

Construction Plans for BMPs

Not applicable. No new permanent BMPs are proposed due to reduction of impervious cover on site.

ATTACHMENT N

Inspection, Maintenance, Repair and Retrofit

Project Name:	Leander High School
Project Address:	West side of South Bagdad Road approximately 1.5 miles north of its intersection with FM 1431/Whitestone Boulevard
City, State, and Zip:	Leander, Texas 78641
BMP System installed:	***Partial Sedimentation/Filtration Pond***
Inspection:	*Inspection:* BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately. Cracks, voids and undermining should be patched/filled immediately to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage.

Other maintenance guidelines:

Sediment Removal

Remove sediment from the inlet structure and sedimentation chamber when sediment build-up fills the 20% volume allocated for sediment accumulation, or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the structure at least every year, and from the sedimentation basin at least every five years. Silt accumulated on the surface of the filter media should be removed when it has reached a depth of 0.5 inches or the drawdown time has increased to more than 48-hours.

Media Replacement

More extensive maintenance of the filter media is required when the drawdown time begins to exceed the target time of 48-hours. Non-routine or corrective maintenance should be performed when the drawdown time exceeds 72-hours. When this occurs, the upper layer of the geo-technical material and the gravel ballast should be removed and replaced, with new materials meeting the original specifications. Any discolored sand should be removed and replaced. In filters that have been regularly maintained, the removal and replacement of discolored sand should be limited to the top 2 to 3 inches.

Debris and Litter Removal

Debris and litter will accumulate near the sedimentation basin outlet device and should be removed during regular mowing operations and inspections. Particular attention should be placed to floating debris that can eventually clog the control device or riser.

Filter Underdrain

Clean underdrain piping network to remove any sediment buildup every 2 years, or as needed to maintain design drawdown time.

Mowing

Grass areas in and around basins should be mowed at least twice annually to limit vegetation height to 18-inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.

ATTACHMENT O

Pilot-Scale Field Testing Plan

Not applicable. No new permanent BMPs are proposed due to reduction of impervious cover on site.

ATTACHMENT P

Measures for Minimizing Surface Stream Contamination

Measures used to minimize surface stream contamination during the construction of Leander High School building expansion Improvements include silt fence, inlet protection, and stabilized construction entrances. These temporary BMPs will be used judiciously to maintain high water quality standards of the surface runoff during construction and endeavor to prevent erosion of soils. They will remain in place until contributing disturbed areas are restored.

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Zhipeng Xing

Date: 03/11/2024

Signature of Customer/Agent:

Regulated Entity Name: Leander HS Master Plan

Project Information

Potential Sources of Contamination

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

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

   ☒ The following fuels and/or hazardous substances will be stored on the site: diesel, asphaltic products

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

ATTACHMENT A – Spill Response Plan

No spills of hydrocarbons or hazardous substances are expected. However, in the event such an incidence does occur, the contractor should carefully follow the following TCEQ guidelines:

Cleanup

(1) Clean up leaks and spills immediately.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

• Contain the spread of the spill.

• Recover spilled materials.

• Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

From any event, the Reportable quantity (RQ) = for highly toxic materials the RQ>25 gals. For petroleum/hydrocarbon liquids, spills the RQ>250 gallons (on land) or that which creates "a sheen" on water. TxDOT may provide assistance in traffic control, containment and later repairs, but only certified Hazmat teams will be responsible for handling the material at the site.

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512- 339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site. Additionally in the event of a hazardous material spill, local Williamson and Travis counties, and/or city of Leander police, fire and potentially EMS should be contacted in order to initiate the hazardous material response team.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tceq.state.tx.us/response/spills.html

ATTACHMENT B – Potential Sources of Contamination

Potential sources of sediment to stormwater runoff:

- Clearing and grubbing
- Grading and excavation
- Vehicle Tracking
- Topsoil stripping and stockpiling
- Landscaping

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Area – small fueling, minor equipment maintenance, sanitary facility.
- Materials Storage Area – solvents, adhesives, paving materials, aggregates, trash, etc.
- Construction Activities – paving, concrete pouring
- Concrete washout area

Potential onsite pollutants:

- Fertilizer
- Concrete
- Glue, adhesives
- Gasoline, diesel fuel, hydraulic fluids, antifreeze
- Sanitary toilets
- Asphalt

ATTACHMENT C – Sequence of Major Activities

The sequence of major activities will be as follows:

1. Install erosion controls as indicated on the approved plans. (4.85AC)
2. Contact the City of Leander to schedule pre-construction coordination meeting.
3. Evaluate temporary erosion control installation. Review construction schedule with the erosion control plans.
4. Install all wet and dry utility lines. (2 AC)
5. Begin site clearing, grading and building pad prep. (4.85AC)
6. Construct site retaining walls. (1 AC)
7. Construct sidewalks and pavements, including drive aisles, parking stalls, and fire lanes. Stripe parking and fire lanes. (4.85AC)
8. Construct shot-puts. (0.1 AC)
9. Begin building foundation construction. (0.2 AC)
10. Begin building construction. (0.2 AC)
11. Revegetate and stabilize disturbed areas. (4.85 AC)
12. Remove temporary sedimentation controls. (4.85 AC)
13. Schedule final inspection walk-through with the City of Leander

The total disturbed area is about 4.85 ac. The construction sequencing is an approximation and is subject to change. However, steps 1, 2, 12, and 13 will remain as the begin and end activities in the construction sequencing.

ATTACHMENT D – Temporary Best Management Practices and Measures

Please see erosion control sheet in the plan set for the temporary BMPs. The BMP's will be placed prior to construction activities.

For Upgradient stormwater:
An undefined tributary to Blockhouse Creek lies within this 90-acre Leander High School Site. Therefore, upgradient stormwater runs through the site within an existing channel. The stormwater originates in residential areas upstream. This stormwater is treated by an existing wet pond. The stormwater then travels within culverts under Lakeline Boulevard into an earthen drainage channel and is detained immediately upgradient within an existing earthen detention pond. The stormwater then runs into yet another earthen detention pond on the Leander High School site. Therefore, all stormwater from upstream areas is receiving treatment through either the existing wet pond or the two detention facilities.

The improvements associated with this Contributing Zone Plan are essentially "off-line", so the upgradient waters will travel around the proposed improvements. Temporary BMPs will be installed for all improvements, to reduce the potential amount of sedimentation and erosion entering into the surface waters downstream.

For on-site stormwater:
The previously approved and constructed sedimentation/filtration water quality pond will continue to treat pollutants from stormwater runoff. Since the proposed building expansion project will have net reduction in impervious cover, no additional BMPs are proposed.

Temporary BMPs will be installed for all improvements, to reduce the potential amount of sedimentation and erosion entering into the surface waters downstream.

For Surface Streams:
Temporary and permanent BMPs are used to prevent pollutants from ultimately entering surface streams.
Temporary BMPs include silt fence, rock berms, and stabilized construction entrances.
The previously approved and constructed sedimentation/ filtration pond, a permanent BMP, is designed to treat storm water runoff prior to it being routed to the existing channel.
No modification to the existing water quality pond is proposed due to the reduction in impervious cover on site.

ATTACHMENT E – Request to Temporarily Seal a Feature

Not applicable.

ATTACHMENT F – Structural Practices

The following temporary BMP structural practices will be employed on the site:

A. Silt Fence – used as barrier protection around the perimeter of the project. The fence retains sediment primarily by retarding flow and promoting deposition on the uphill side of the slope. Runoff is filtered as is passes through the geotextile.

B. Rock Berms – placed at various locations along swales to aide in mitigating erosion and sediment trapping.

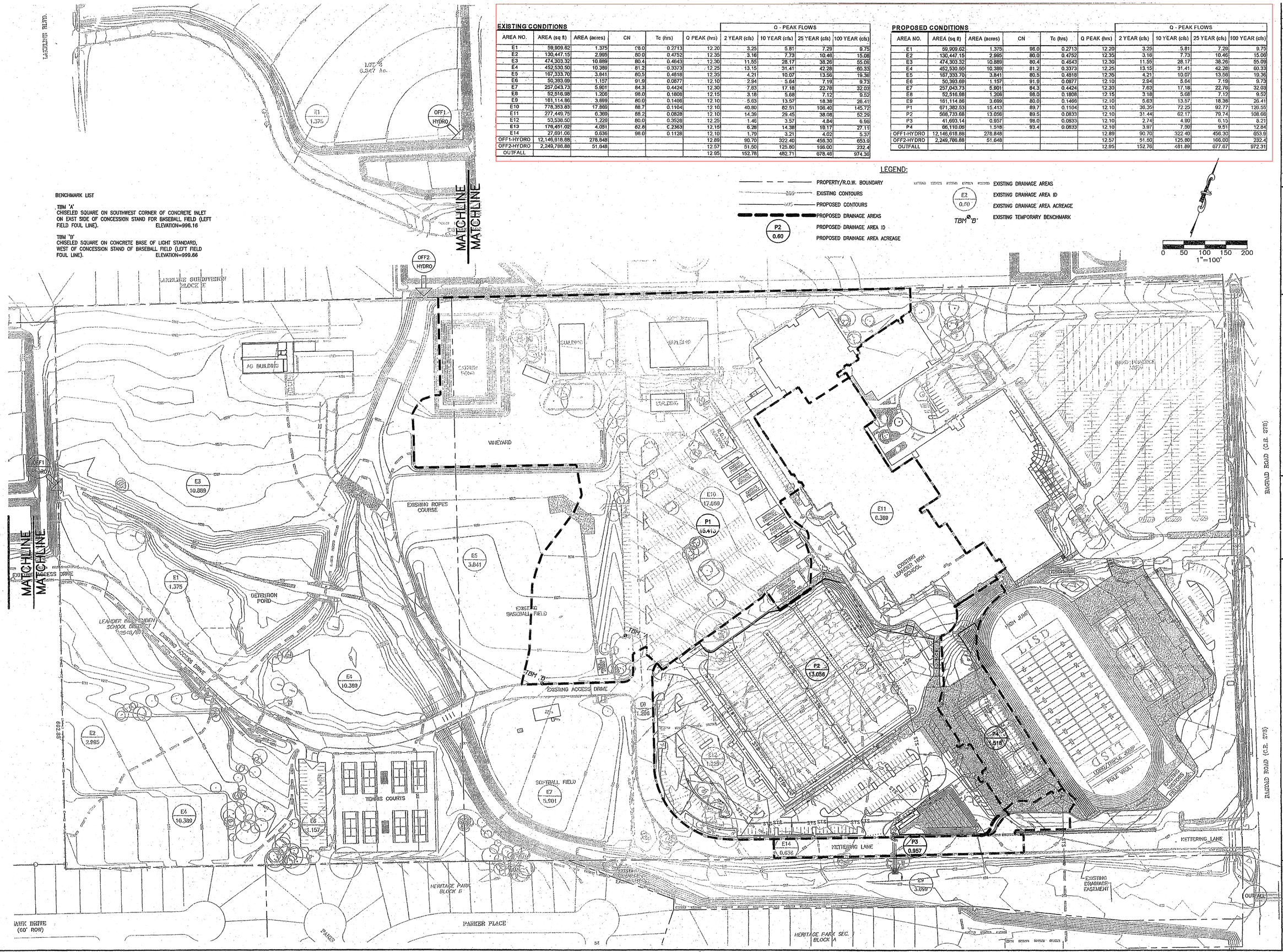
C. Inlet Protection – will be provided around all existing and proposed storm sewer inlets during construction. Locations are indicated on the erosion and sedimentation control plan sheets. These measures will trap and settle out pollutants from the onsite runoff before the runoff enters the storm drain system and exits the site.

D. Stabilized Construction Exits - Anti-tracking pads consisting of stone will be installed at the exit to each phase of construction to prevent the off-site transport of sediment by construction vehicles. The anti-tracking pads will be at least 50 feet long, a minimum of 10 feet wide, flared at the end closest to the paved road, and will consist of an 8-inch-thick layer of crushed stone. The crushed stone will be placed over a layer of geotextile filter fabric to reduce the mitigation of sediment from the underlying soil.

The placement of structural practices in the floodplain has been avoided.

ATTACHMENT G – Drainage Area Maps

The building expansion project will have a net reduction of 0.42 AC impervious cover, over 90 AC of the site area. Due to the existing detention pond, the pre-construction and post-construction stormwater volume will not be affected negatively. Please see the attached previously approved drainage area map for detail. No additional stormwater volume calculation is performed due to the reduction of impervious cover.



LEGEND:

- PROPERTY/R.O.W. BOUNDARY
- 595 EXISTING CONTOURS
- 595 PROPOSED CONTOURS
- PROPOSED DRAINAGE AREAS
- P2 / 0.60 PROPOSED DRAINAGE AREA ID / PROPOSED DRAINAGE AREA ACREAGE
- EXISTING DRAINAGE AREAS
- E2 / 0.60 EXISTING DRAINAGE AREA ID / EXISTING DRAINAGE AREA ACREAGE
- TBM 'B' EXISTING TEMPORARY BENCHMARK

0 50 100 150 200
1"=100'

BENCHMARK LIST

TBM 'A'
CHISELED SQUARE ON SOUTHWEST CORNER OF CONCRETE INLET ON EAST SIDE OF CONCESSION STAND FOR BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=996.16

TBM 'B'
CHISELED SQUARE ON CONCRETE BASE OF LIGHT STANDARD, WEST OF CONCESSION STAND OF BASEBALL FIELD (LEFT FIELD FOUL LINE). ELEVATION=999.66

EXISTING CONDITIONS

AREA NO.	AREA (sq ft)	AREA (acres)	CN	Tc (hrs)	Q PEAK (hrs)	Q - PEAK FLOWS 2 YEAR (cfs)	10 YEAR (cfs)	25 YEAR (cfs)	100 YEAR (cfs)
E1	59,909.62	1.375	98.0	0.2713	12.20	3.25	5.81	7.29	9.75
E2	130,447.15	2.995	80.0	0.4752	12.35	3.16	7.73	10.46	15.06
E3	474,303.32	10.889	80.4	0.4643	12.30	11.55	28.17	38.26	55.09
E4	452,530.50	10.389	81.2	0.3373	12.25	13.15	31.41	42.28	60.33
E5	167,333.70	3.841	80.5	0.4818	12.35	4.21	10.07	13.56	19.36
E6	50,393.69	1.157	91.9	0.0877	12.10	2.94	5.64	7.19	9.73
E7	257,043.73	5.901	84.3	0.4424	12.30	7.63	17.18	22.78	32.03
E8	52,516.98	1.206	98.0	0.1808	12.15	3.18	5.68	7.12	9.52
E9	161,114.86	3.699	80.0	0.1466	12.10	5.63	13.57	18.38	26.41
E10	778,353.83	17.869	88.7	0.1104	12.10	40.80	82.51	106.40	145.72
E11	277,449.75	6.369	88.2	0.0828	12.10	14.39	29.45	38.08	52.29
E12	53,538.50	1.229	80.0	0.3528	12.25	1.46	3.57	4.64	6.86
E13	176,451.02	4.051	62.6	0.2363	12.15	6.28	14.38	18.17	27.11
E14	27,691.06	0.636	98.0	0.1128	12.10	1.79	3.21	4.02	5.37
OFF1-HYDRO	12,146,618.88	278.848			12.89	90.70	322.40	456.30	653.9
OFF2-HYDRO	2,249,786.88	51.648			12.57	51.50	125.80	166.00	232.4
OUTFALL					12.95	152.78	482.71	678.46	974.36

PROPOSED CONDITIONS

AREA NO.	AREA (sq ft)	AREA (acres)	CN	Tc (hrs)	Q PEAK (hrs)	Q - PEAK FLOWS 2 YEAR (cfs)	10 YEAR (cfs)	25 YEAR (cfs)	100 YEAR (cfs)
E1	59,909.62	1.375	98.0	0.2713	12.20	3.25	5.81	7.29	9.75
E2	130,447.15	2.995	80.0	0.4752	12.35	3.16	7.73	10.46	15.06
E3	474,303.32	10.889	80.4	0.4643	12.30	11.55	28.17	38.26	55.09
E4	452,530.50	10.389	81.2	0.3373	12.25	13.15	31.41	42.28	60.33
E5	167,333.70	3.841	80.5	0.4818	12.35	4.21	10.07	13.56	19.36
E6	50,393.69	1.157	91.9	0.0877	12.10	2.94	5.64	7.19	9.73
E7	257,043.73	5.901	84.3	0.4424	12.30	7.63	17.18	22.78	32.03
E8	52,516.98	1.206	98.0	0.1808	12.15	3.18	5.68	7.12	9.52
E9	161,114.86	3.699	80.0	0.1466	12.10	5.63	13.57	18.38	26.41
P1	671,382.53	15.413	89.7	0.1104	12.10	36.35	72.25	92.77	126.55
P2	568,733.68	13.056	89.5	0.0833	12.10	31.44	62.17	79.74	108.66
P3	41,693.14	0.957	98.0	0.0833	12.10	2.74	4.90	6.15	8.21
P4	66,110.06	1.518	93.4	0.0833	12.10	3.97	7.50	9.51	12.84
OFF1-HYDRO	12,146,618.88	278.848			12.89	90.70	322.40	456.30	653.9
OFF2-HYDRO	2,249,786.88	51.648			12.57	51.50	125.80	166.00	232.4
OUTFALL					12.95	152.76	481.89	677.67	972.31

NO.	REVISION	BY	DATE

DESIGNED BY: SB
DRAWN BY: SR
CHECKED BY: RWS
APPROVED BY: RWS
DATE: NOV 2008

PBS&J
6504 BRIDGE POINT PKWY., SUITE 200
AUSTIN, TEXAS 78730 - (512) 327-6840
TBPE REG. # F-474

STATE OF TEXAS
ROBERT W. SCHOLZ
91151
LICENSED PROFESSIONAL ENGINEER
2/11/2009

LEANDER HIGH SCHOOL
A.C. BIBLE, JR. MEMORIAL STADIUM IMPROVEMENTS
DRAINAGE AREA MAP - DETENTION

SHEET NO. 11
OF 33 SHEETS

FILE NO. LHS-BS-DA
PROJECT NO. 100003094

3301 S. BAGDAD ROAD

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

Not applicable.

ATTACHMENT I – Inspection and Maintenance for BMP's

The inspection and maintenance of temporary BMP's will be in accordance with the following City of Austin standard specifications:

- Native Seeding and Planting for Restoration
- Filter Fabric
- Rock Berm
- Stabilized Construction Entrance
- Silt Fence

Please see attached.

ITEM NO. 620S FILTER FABRIC 1-4-16

620S.1 Description

This item shall govern the furnishing of materials and for placement of filter fabric as indicated on the Drawings or directed by the Engineer or designated representative. Filter Fabric shall have the capability for allowing the passage of ground water or stormwater through it without transporting the soil or medium placed around the filter fabric.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

620S.2 Submittals

The submittal requirements of this specification item include:

A. catalog cuts,

B. samples of material selected,

C. testing results,

D. manufacturer's recommended installation procedures, and

E. manufacturer certification of compliance with this specification.

620S.3 Materials

A. General

The fabric shall be constructed exclusively of synthetic thermoplastic fibers and may be either woven or non-woven to form a mat of uniform quality. Fabric fibers may be either continuos or discontinuous and oriented in either a random or an aligned pattern throughout the fabric. The fabric shall be mildew resistant, rot proof and shall be satisfactory for use in a wet soil and aggregate environment. The fabric shall contain ultraviolet stabilizers and shall have non-raveling edges.

B. Physical Requirements

The fabric shall meet the requirements of Table 1, when sampled and tested in accordance with the methods indicated in the table below.

For applications such as water quality facility underdrain wrappings that require a high flow-through rate, or when specified by the engineer, the fabric shall be woven mono-filament and meet the requirements of Table 2.

All material shall be shipped with suitable wrapping to protect the fabric during shipping and storage at the job site.

Source: Rule No. R161-15.14, 1-4-2016 .

620S.4 Construction Methods

The submittal requirements shall be completed before any materials are ordered.

The "Filter Fabric" shall be installed in accordance with the manufacturer's recommendations, as indicated on the Drawings or as directed by the Engineer or designated representative. When lapping is required, it shall be in accordance with the manufacturer's recommendations. Backfilling around the Filter Fabric shall be done in such a manner that the Filter Fabric material will not be damaged during the placement.

TABLE 1: FILTER FABRIC REQUIREMENTS		
Original Physical Properties	Test Method	Requirements
Fabric weight (mass), on an ambient temperature air-dried tension free sample, expressed in oz/ sq. yd (grams/square meter)	TxDoT Tex-616-J*	Slope Stabilization 4.0 (135) minimum
		Gabions and Revet Mattresses 6.0 (200) minimum
Water flow rate by falling head method, 7.9 inches (20 cm) to 3.9 inches (10 cm) on 2 inch (50 mm) ID cylinder with 1 inch (25 mm) diameter orifice, with flow rate expressed in gal/sq.ft/minute (liters/square meter/minute).	TxDoT Tex-616-J*	80 (3,260) minimum
Breaking load in either machine or cross-machine direction, expressed in pounds (newtons)	ASTM D-1682 grab method G**	100 (445) minimum
Equivalent opening size for US Standard (SI) sieves.	CW-02215	70 to 100 (212 to 150mm)
"Apparent elongation" at breaking load in either machine or cross-machine direction, expressed as percent	ASTM D-1682 grab method G**	100 maximum

* TxDoT Tex-616-J, "Testing of Construction Fibers

** ASTM D 1682 grab method G, "Test Methods for Breaking Load and Elongation of Textile Fabrics"* as modified by TxDoT Test Method Tex-616-J

*** CW-02215, US Army Corps of Engineers, Civil Works Construction Guide Specification "Plastic Filter Fabric".

TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS		
Property	Test Method	Requirements
Fabric Weight	>D 3776	3.0 ounces/square yard minimum
Ultraviolet (UV) Radiation Stability	D 4355	70% strength retained minimum, After 500 hours in xenon arc device
Mullen Burst Strength	D 3786	120 pound per square inch minimum
Water Flow Rate	D 4491	275 gallons/minute/square feet minimum

Source: Rule No. R161-15.14, 1-4-2016)

620S.5 Measurement

Work and acceptable material for "Filter Fabric" and "High Flow Filter Fabric" will be measured by the square yard (square meter: 1 square meter equals 1.196 square yards), complete in place.

Source: Rule No. R161-15.14, 1-4-2016)

620S.6 Payment

The work performed and the materials furnished and measured as provided under "Measurement" will be paid at the unit bid price for "Filter Fabric". The unit bid price, when included in the contract as a pay item, shall include full compensation for all materials, excavation and backfilling and all manipulations, labor, tools, equipment and incidentals necessary to complete the work.

Payment will be made under:

Pay Item No. 620S-A:	Filter Fabric	Per Square Yard.
Pay Item No. 620S-B:	High Flow Filter Fabric	Per Square Yard.

End

SPECIFIC CROSS REFERENCE MATERIALS	
Specification 620S, "Filter Fabric"	
American Society for Testing and Materials (ASTM)	
Designation	Description
D 1682	Test Methods for Breaking Load and Elongation of Textile Fabrics
D 3776	Standard Test Method for Mass Per Unit Area (Weight) of Fabric
D 4355	Test Method for Deterioration of Geotextiles by Exposure to Ultraviolet Light, Moisture, and Heat in a Xenon Arc Type Apparatus
D 3786	Standard Test Method for Bursting Strength of Textile Fabrics - Diaphragm Bursting Strength Tester Method
D 4491	Standard Test Method for Water Permeability of Geotextiles by Permittivity
Texas Department of Transportation Manual of Testing Procedures	
Designation	Description
Tex-616-J	Testing of Construction Fabrics

RELATED CROSS REFERENCE MATERIALS	
Specification 620S, "Filter Fabric"	
City of Austin Environmental Criteria Manual	
Designation	Description
Section 1.4.2.E	Rock Berm
Section 1.6.5.A.4	Sand Filtration Bed Details
Section 1.6.7.C	Biofiltration
City of Austin Standard Details	
Designation	Description
Number 639S-1	Rock Berm
Number 661-1	Sand Bed Filtration Configurations Using Geomembrane Liner
Number 661-2	Sand Bed Filtration Configurations Using Clay Liner/No Liner Required
Number 661-3	Biofiltration Bed Configurations Using Geomembrane/Clay Liner

City of Austin Standard Specifications	
Designation	Description
Item No. 101S	Preparing Right-of-way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 120S	Channel Excavation
Item No. 401	Structural Excavation and Backfill
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 606S	Fertilizer
Item No. 608S	Planting
Item No. 610S	Preservation of Trees and Other Vegetation
Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges	
Designation	Description
Item No. 100	Preparing Right-of-way
Item No. 110	Excavation
Item No. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 204	Sprinkling

ITEM NO. 609S NATIVE SEEDING AND PLANTING FOR RESTORATION 1-4-16

609S.1 Description

This item shall govern the preparation of a seeding and planting area to the lines and grades indicated on the Drawings. This may include seedbed preparation, sowing of seeds, planting of rooted plants, watering, hydromulch, compost and other management practices, as indicated in the Drawings or as directed by the Landscape Architect, Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, inch-pound units are given preference with SI units shown within parentheses.

Source: Rule No. R161-14.29, 12-30-2014 .

609S.2 Submittals

The following submittal items are required in writing during construction:

A. For seed, provide identification of the species, source, mixture, and pure live seed (PLS) of the seed as listed on each seed bag to be used. Copies of the analysis tags and certification tags from all seed bags shall be submitted.

B. Type of mulch or compost.

C. Watering frequency and amount as shown on an irrigation watering schedule.

D. Type of management practices (e.g., hand-weeding, pesticide application, etc.) proposed, with a proposed schedule for observation and treatment.

E. For hydromulch applications, the proposed application rate of seed, type of mulch and tacking agent, and other relevant information. An example of the required documentation is in Table 1.

F. Type of hydraulic seeding equipment and nozzles proposed for use.

G. If pesticide use is proposed, an IPM plan for pest control including pesticide label, proposed application rate and timing, and MSDS sheets.

H. One gallon sample of proposed mulch or compost.

I. The following submittal items are required before Substantial Completion:

   A. For hydromulch applications, submit the complete hydromulch application log, including date, time and quantity of product units placed in the slurry tank. An example of an application log is in Table 2.

   B. Pesticide and fertilizer application tracking log. As of January 1, 2012, documentation of all outdoor pesticide and fertilizer use on city-owned properties is required to demonstrate compliance with the EPA/TCEQ mandated Municipal Stormwater Permit, the TPDES General Pesticide Permit, City Code, and the IPM program.

Table 1: Example of proposed hydromulch application rates

Hydro Mix	Sheet No.	Seed Mix	Acres	Hydro Slurry Unit (per acre rates)				
				Seed (Bags/ac)	Tackifier (Buckets/ac)	Mulch (Bales/ac)	Fertilizer (Bags/ac)	Addl. Amendments (Bags/ac)

1	L2	A	1.0	1	100	1000	50	5
2	L3	A	0.5	2	200	1500	50	5
3	L5	B	3.0	3	300	3000	50	5

Table 2: Example of hydromulch application log

Date	Start Time	Finish Time	ac/Tank	Water (gal)	Seed Mix	Hydro Slurry Unit (per acre rates)				
						Seed (Bags/ac)	Tackifier (Buckets/ac)	Mulch (Bales/ac)	Fertilizer (Bags/ac)	Addl. Amendments (Bags/ac)
4/13	10:30	11:15	1.0	3300	A	1	100	1000	50	5
4/17	2:00	2:30	0.5	3300	A	2	200	1500	50	5
5/20	8:30	10:00	1.2	3300	B	3	300	3000	50	5
					Totals	6	600	5500	127	15

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.3. Materials

A. Seed.

All seed must meet the requirements of the Texas Seed Law including the labeling requirements for showing PLS, name and type of seed, and all other required elements of the Analysis and Certification Tags. The seed furnished shall be of the previous season's crop and the date of analysis shown on each bag shall be within 12 months of the time of delivery to the project. Each variety of seed shall be furnished and delivered in separate bags or containers, unless a specific mix is proposed for use. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Landscape Architect, Engineer or designated representative.

The amount of seed planted per square yard (.84 square meters) or acre (hectare) shall be of the type specified in Section 609S.5.

B. Water. Water shall be clean and free of industrial wastes and other substances harmful to the growth of plant materials in the area irrigated.

C. Topsoil. Topsoil shall conform to Standard Specification Item No. 601S.3(A).

D. Pesticide. A least toxic, integrated pest management (IPM) approach shall be used to control weeds. A written request for approval of weed control product(s) and/or materials shall be submitted to the City of Austin Watershed Protection Department (ERM) IPM program coordinator for approval. Additional information can be found at http://www.austintexas.gov/ipm.

E. Fertilizer. If fertilizer used is deemed necessary, the fertilizer shall conform to Standard Specification Item No. 606S, Fertilizer. The type and rate of fertilizer should be based on chemical tests of recent (no older than 6 months before application) representative site soil samples. Fertilizer should be applied only when plants can take them up for growth, during: 1) seed germination and plant establishment and 2) after plant establishment. Fertilizer shall not be applied within 48 hours of a potential rain event.

F. Tackifier. The tacking agent shall be a biodegradable material approved by the Landscape Architect, Engineer, or designated representative.

G. Mulch. Mulch may be used to help prevent soil erosion until preferred plant establishment, whether the mulch be hydraulically applied or shredded vegetative matter. Hydromulching for temporary and permanent vegetation stabilization shall conform to Environmental Criteria Section 1.4.7.

H. Hydroseeding Equipment. Hydroseeding equipment shall be clean and free of all previous seeds, fertilizer, mulch, or any hydroseeding products used on prior jobs.

I. Rooted Plants. Where proposed, rooted plants shall conform to the requirements of Standard Specification 608S, Planting.

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.4 Construction Methods

A. General.

The Contractor shall limit preparation to areas that will be seeded/planted immediately. All weedy species (Table 3) shall be controlled by application of an herbicide and/or by physical removal (by the roots) prior to, during the planting operation, and through establishment. The specified weedy species shall be maintained at ten (10) percent or less of total cover after seeding. Additionally, the Landscape Architect, Engineer, or qualified landscape professional may require removal of any plant species that appears to be out-competing seeded or planted species during construction or the establishment period.

Seeds and fruits of non-native woody invasive species should be separated from the rest of the removed plants before mulching or hauling off the material. It must be bagged and disposed of in a landfill to prevent unintentional reintroduction to the site or elsewhere.

Table 3: Weed List

Weed Type	Botanical Name	Common Name
Summer Annual Herb	*Ambrosia spp.*	Ragweed
Perennial Grass	*Bothriochloa ischaemum*	K.R. Bluestem
Annual Grass	*Cenchrus spp.*	Sandbur
Herb	*Cnidoscolus texanus*	Bull Nettle
Perennial Grass	*Sorghum halapense*	Johnson Grass
Perennial Grass	*Arundo donax*	Giant Cane
Perennial Grass	*Phllostachys aurea*	Golden Bamboo
Vine	*Toxicodendron radicans*	Poison Ivy
Herb	*Urtica spp.*	Stinging Nettle
Winter Annual Herb	*Rapistrum rugosum*	Bastard Cabbage
Winter Annual Grass	*Bromus arvensis*	Japanese Brome
Winter Annual Grass	*Lolium multiflorum*	Annual Ryegrass
Tree	*Triadica sebifera*	Chinese Tallow
Tree	*Ligustrum sp.*	Privet
Tree	*Melia azedarach*	Chinaberry
Tree	*Lonicera japonica*	Japanese Honeysuckle
Shrub	*Nandina domestica*	Heavenly Bamboo
Shrub	*Photinia sp.*	Photinia

B. Plant Bed Preparation.

After the designated seeding/planting areas have been rough graded, a suitable planting area shall be prepared. In areas where cut or fill is required, a minimum of 6 inches (150 mm) of topsoil (see Section 609S.3.C) shall be placed or use approved existing soil (that is not infested with invasive or noxious plant rootstock [e.g., *Arundo donax* rhizomes]) stockpiled over the entire planting area.

The topsoil or growing medium must be prepared so that compaction is appropriate for plant growth, and to achieve acceptable bulk density or hydrologic function. Ripper and subsoilers may be used to loosen compacted soil and roughen the surface. Disks, plows and excavator attachments are good for compaction reduction, roughening, and for incorporating amendments. If tracked machinery is used in seedbed preparation, cleat marks should run with the contour to prevent rills.

In areas with no soil disturbance, the weeds shall be eliminated and a minimum of 6 inches (150 mm) of topsoil, if none currently exists, shall be placed. The seedbed shall be prepared with limited irregularities, lumps or soil clods and the surface shall be raked or rolled to facilitate seed to soil contact.

Water shall be gently applied as required to prepare the seedbed before the planting operation either by broadcast seeding or hydraulic planting. Seeding shall be performed in accordance with the requirements hereinafter described.

C. Watering.

All watering shall comply with City Code Chapter 6-4 (Water Conservation). Water the seeded/planted areas immediately after installation to achieve germination and a healthy stand of native plants that can ultimately survive without supplemental water.

Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil.

Watering applications shall insure that the plantbed is maintained in a moist condition favorable for the growth of plant materials. Watering shall continue until minimum coverage is achieved and accepted by the Landscape Architect, Engineer or designated representative. Watering may be postponed immediately after a half-inch inch (12.5 mm) or greater rainfall on the site but shall be resumed before the soil dries out.

D. Cool Season Cover Crop.

From September 15 to March 1, non-native and native seeding shall include a cool season cover crop at the rate specified in Tables 4, 5, or 6. Cool season cover crops are not permanent erosion control. If installed separately from the proposed seed mix, the cool season cover crops shall be mowed to a height of less than one (1) inch after March 1, and the area shall be re-seeded at the specified seeding rate for native warm-season species (March 1 to September 15).

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.5 Native Seeding and Planting

Seeding and planting shall be performed in accordance with the requirements described below. The optimum depth for seeding shall be 1/4 inch (6 millimeters). Seed shall be applied by a method that achieves consistent distribution across a site and proper seed to soil contact (i.e. hand broadcasting, hydromulch, or drill method).

Rooted plants should be strategically and thoughtfully placed on a site. They need not be installed at a consistent, regular pattern across the plantable area(s) of a site but can be clustered or placed irregularly. The goal is to place the rooted plants where they will have the greatest or best effect or impact, and where there is sufficient space (e.g., root space, space off of utilities) and proper conditions (e.g., soil depth, moisture, light) for their long-term success. Installation of rooted plants shall comply with Standard Specification 608S, but rooted plants must not be spaced closer than three-feet (3') on center. Mulching around seed and rooted plants is not required, but it is a

good technique for protecting plants during germination and establishment. Figure 609S.5-1 is an example of rooted plant layout on a hypothetical site.

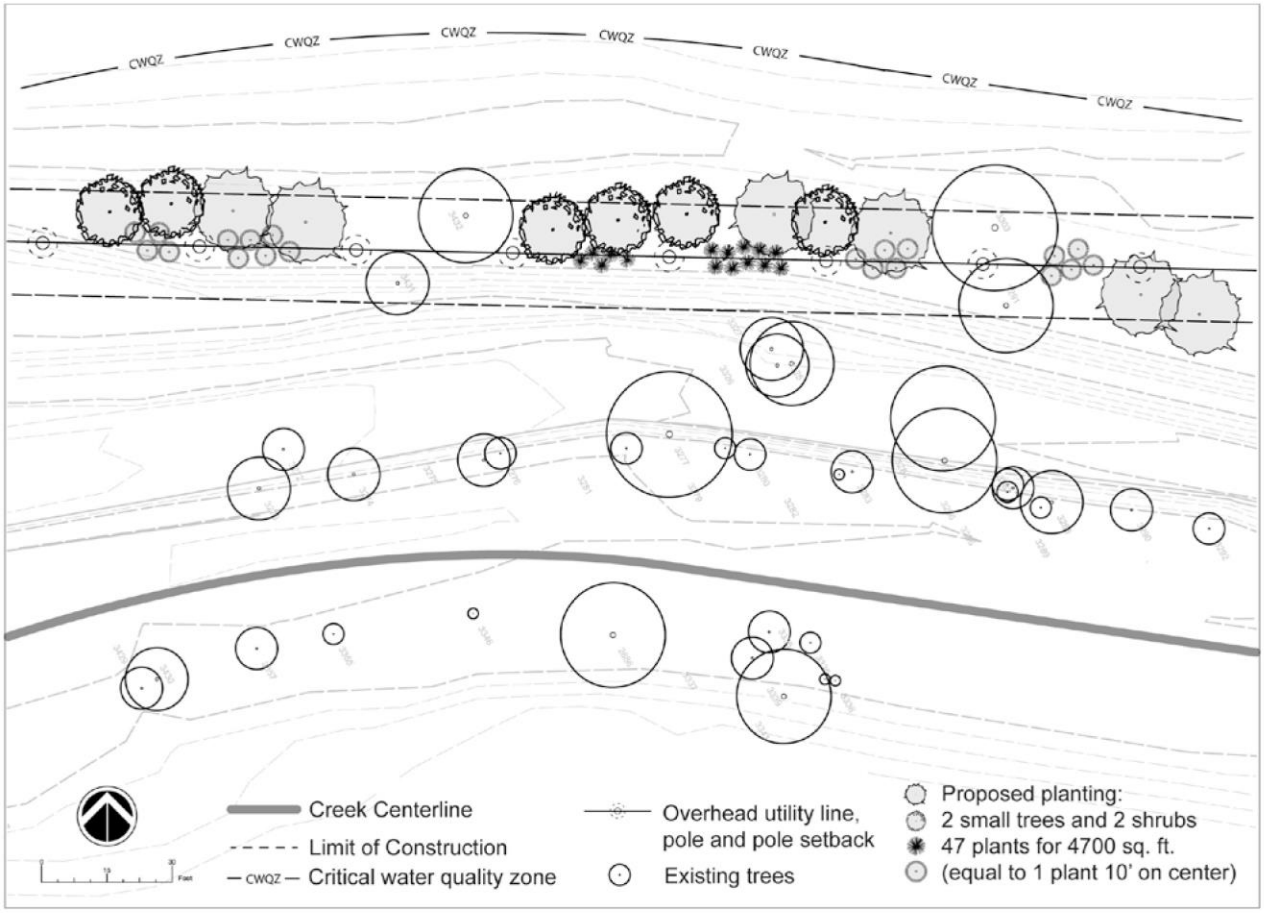


Figure 609S.5-1: Example of Rooted Plant Layout and Calculation

Rooted Plants such as trees, ornamentals, and shrubs are prohibited from being installed within fifteen (15) feet of any Austin Water Utility (AWU) infrastructure and/or within any easement dedicated for AWU infrastructure. Rooted plants such as grasses, succulents and/or ground cover are permitted within fifteen (15) of any AWU infrastructure and/or within any easement dedicated for AWU infrastructure.

Species substitution, when necessary due to availability, shall be approved by City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. Only native or adapted species suitable for the designated environmental conditions shall be allowed as substitutes. Shorter growing natives such as Buffalograss should be sodded around manholes or other structures requiring higher visibility for access.

If the plant materials are being installed during the cool season (September 15 to March 1), a cool season cover crop species (as listed below) shall be included in the seed mix or installed separately.

The seed and rooted plant mixtures shall be applied in accordance with appropriate growing environments (Upland Full Sun-Table 4, Upland Shade-Dappled-Table 5 and Facultative Moderate to High Moisture-Table 6). Grasses shall constitute 67 percent of the seed mix, with forbs comprising 33 percent. No species shall constitute more than 20% of a seed mix.

Table 4. Upland Species, Full Sun Areas

Type	Common Name	Botanical Name	Recommended Application rate lbs/ac (kg/ha)	Rooted Plants Species, Diversity, Quantity & Size
Grass Seed Mix**	Buffalograss	*Buchloe dactyloides*	24.0 (27.0)	A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with Very Low or Low (VL or L) water needs and Sun or Sun/Part Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document***. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.
	Blue Grama	*Bouteloua gracilis*	10.0 (11.2)	
	Green Sprangletop	*Leptochloa dubia*	2.0 (2.2)	
	Sand Dropseed	*Sporobolus cryptandrus*	1.0 (1.1)	
	Galleta	*Pleuraphis jamesii*	10.0 (11.2)	
	Canada Wild Rye	*Elymus canadensis*	10.0 (11.2)	
	Purple Threeawn	*Aristida purpurea*	4.0 (4.5)	
	Sideoats Grama	*Bouteloua curtipendula*	7.0 (7.8)	
Forb Seed Mix**	Bluebonnet	*Lupinus texensis*	20.0 (22.4)	
	Purple Prairie Clover	*Dalea purpurea*	4.0 (4.5)	
	Plains Coreopsis	*Coreopsis tinctoria*	2.0 (2.2)	
	Partridge Pea	*Chamaecrista fasciculata*	20.0 (22.4)	
	Greenthread	*Thelesperma filifolium*	6.0 (6.7)	
	Indian Blanket	*Gaillardia pulchella*	10.0 (11.2)	
	Lemon Mint	*Monarda citriodora*	3.0 (3.4)	
	Mexican Hat	*Ratibida columnaris*	2.0 (2.2)	
	Pink Evening Primrose	*Oenethera speciosa*	1.0 (1.1)	
	Sunflower (Common)	*Helianthus annuus*	5.0 (5.6)	
	Milkweed (Antelope	*Asclepias asperula or*	0.1 (0.04)	

	Horn or Green milkweed)	*Asclepias viridis*		
Total Total recommended seed mix application rate is 35 lbs/ac (23.5 lbs/ac grass, 11.5 lbs/ac forbs).				
Cool Season Cover Grasses	Cereal rye grain*	*Secale cereale*	34.0 (38.1)	Add at least one of the cool season grasses to the warm-season mix between September 15 and March 1.
	Oats*	*Avena sativa*	4.0 (4.5)	
	Western Wheatgrass*	*Pascopyrum smithii*	5.6 (6.3)	

* Plant only between. September 15 to March 1. Non-persistent winter cover crop for erosion control. Only one cool season species is required per installation.

** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix can be calculated based on the desired percentage of each seed in a mix.

*** www.austintexas.gov/department/grow-green/plant-guide

Table 5. Upland Species, Shade-Dappled Light Areas

Type	Common Name	Botanical Name	Recommended Application rate lbs/ac (kg/ha)	Rooted Plants Species, Diversity, Quantity & Size
Grass Seed Mix***	Inland Seaoats**	*Chasmanthium latifolium*	12.0 (13.5)	A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with very low (VL), low (L), or low- medium (L-M) water needs and Sun /Part Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document****. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.
	Canada Wildrye	*Elymus canadensis*	10.0 (11.2)	
	Sideoats Grama	*Bouteloua curtipendula*	7.0 (7.8)	
Forb Seed Mix***	Purple Coneflower	*Echinacea purpurea*	10.0 (11.2)	
	Lanceleaf Coreopsis	*Coreopsis lanceolata*	10.0 (11.2)	
	Scarlet Sage	*Salvia coccinea*	8.0 (9.0)	
	Drummond Phlox	*Phlox drummondii*	8.0 (9.0)	
	Black-Eyed Susan	*Rudbeckia hirta*	2.0 (2.2)	
	Cutleaf Daisy	*Engelmannia pinnatifida*	18.0 (20.2)	
	Tall Aster	*Aster praealtus*	1.0 (1.1)	
	Illinois bundleflower	*Desmanthus illinoensis*	15.0 (16.8)	

	Standing cypress	*Ipomopsis rubra*	6.0 (6.7)	
	Winecup	*Callirhoe involucrata*	5 (5.6)	
	Milkweed (Butterfly Weed or Showy Milkweed)	*Asclepias tuberosa or Asclepias speciosa*	0.1 (0.04)	
Total Total recommended seed mix application rate is 35 lbs/ac (23.5 lbs/ac grass, 11.5 lbs/ac forbs).				
Cool Season Cover Grasses	Cereal rye grain***	*Secale cereale*	34.0 (38.1)	Add at least one of the cool season grasses to the warm-season mix between September 15 and March 1.
	Oats***	*Avena sativa*	4.0 (4.5)	
	Western Wheatgrass***	*Pascopyrum smithii*	5.6 (6.3)	

** If unavailable replace with Prairie Wild Rye.

*** Plant only between September 15 to March 1. Non-persistent winter cover crop for erosion control. Only one cool-season species is required per installation.

**** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix shall be calculated based on the desired percentage of each seed in a mix.

**** www.austintexas.gov/department/grow-green/plant-guide

Table 6. Facultative Species, Moderate - High Moisture Areas

Type	Common Name	Botanical Name	Recommended Application rate lbs/ac (kg/ha)	Rooted Plants Species, Diversity, Quantity & Size
Grass Seed Mix**	Big Bluestem	*Andropogon gerardii*	8.0 (9.0)	A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with low (L), low-medium (L-M), or medium (M) water needs and Sun/Part Shade or Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document***. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.
	Big Muhuly (Lindhiemers)	*Muhlenbergia lindheimeri*	6.0 (6.7)	
	Bushy Bluestem	*Andropogon glomeratus*	6.0 (6.7)	
	Eastern Gamagrass	*Tripsacum dactyloides*	12.0 (13.5)	
	Indiangrass	*Sorghastrum nutans*	6.0 (6.7)	
	Inland Seaoats	*Chasmanthium latifolium*	12.0 (13.5)	

	Canada Wildrye	*Elymus canadensis*	10.0 (11.2)	
	Sand Lovegrass	*Eragrostis trichodes*	2.0 (2.2)	
	Switchgrass	*Panicum virgatum*	4.0 (4.5)	
Forb Seed Mix**	Black-Eyed Susan	*Rudbeckia hirta*	2.0 (2.2)	
	Illinois Bundleflower	*Desmanthus illinoensis*	15.0 (16.8)	
	Purple Prairie Clover	*Dalea purpurea*	4.0 (4.5)	
	Clasping Coneflower	*Dracopis amplexicaulis*	3.0 (3.4)	
	Plains Coreopsis	*Coreopsis tinctoira*	2.0 (2.2)	
	Goldenrod	*Solidago altissima*	1.0 (1.1)	
	Lazy Daisy	*Aphanostephus sp.*	1.0 (1.1)	
	Lemon Mint	*Monarda citriodora*	3.0 (3.4)	
	Sunflower (Common)	*Helianthus annuus*	5.0 (5.6)	
	Sunflower (Maximilian)	*Helianthus maximiliana*	4.0 (4.5)	
	Milkweed (common or Butterfly Milkweed)	*Asclepias syriaca or Asclepia tuberosa*	0.1 (0.04)	
Total Total recommended seed mix application rate is 26.0 lbs/ac (17.0 lbs/ac grass, 9.0 lbs/ac forbs).				
Cool Season Cover Grasses	Cereal rye grain*	*Secale cereale*	34.0 (38.1)	Add at least one of the cool season grasses to the warm-season mix between September 15 and March 1.
	Oats*	*Avena sativa*	4.0 (4.5)	
	Western Wheatgrass*	*Pascopyrum smithii*	5.6 (6.3)	

* Plant only between September 15 to March 1. Non-persistent winter cover crop for erosion control.

** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix can be calculated based on the desired percentage of each seed in a mix.

*** www.austintexas.gov/department/grow-green/plant-guide

Table 7. Rooted Plant Size Equivalents

Potential Substitute		Equivalent To	
Quantity	Plant Size	Quantity	Plant Size
1	5-gallon	4	One-gallon
1	Two- or Three-gallon	2	One-gallon
4	4" pots or quarts	1	One-gallon
8	Plugs, live roots, saplings	1	One-gallon

Table 8. Seed Rate Calculation

Multiple species native seed mixes require careful calculations to ensure proper planting rates. The example below is for illustrative purposes only.

Species	Seeding Rate (lbs/ac)	Desired proportion of a species in the total mix (%)	Total quantity of seed in mix (lbs/ac)
Grass 1	7	.20	1.40
Grass 2	2	.20	0.40
Grass 3	24	.20	4.80
Forb 1	10	.20	2.00
Forb 2	8	.20	1.60
TOTALS	- -	1.0 (100%)	10.2

Table 9. Seed Calculation Worksheet

The amount of seed needed to be planted on a project shall be calculated before installation to ensure adequate seed is placed, and provided as a submittal. Table 9 is an example worksheet, followed by an example calculation. Information for calculation can be obtained from seed tags or the supplier.

Plant Group	Desired Seeding Rate (lbs/ac)	PLS (pure live seed)	Bulk Rate (lbs/ac)	Seeding Area (ac)	Amt. of Seed to be Installed (lbs)
Grasses					
Forbs					
TOTAL					

FORMULAS:

PLS (pure live seed) = (Purity × Germination) × 100. Can also use average PLS from seed tags.

Bulk Rate (lbs/ac) =Desired Seed Rate (lbs/ac)/PLS

Amt. of Seed to be Installed (lbs) = Bulk Rate (lbs/ac) × Seeding Area (ac)

Example:

Plant Group	Desired Seeding Rate (lbs/ac)	PLS [pure live seed] (% decimal)	Bulk Rate (lbs/ac)	Seeding Area (ac)	Amt. of Seed to be Installed (lbs)
Grasses	131.00	0.81	161.73	1.50*	242.60

Forbs	65.34	0.87	75.10	1.50*	112.70
TOTAL	196.34	0.84 (ave.)	236.83	1.50	355.30

*Applied over the same 1.5 ac area.

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.6 Management Practices

Management Practices include (1) weed management (pesticide application or mechanical removal) to so than 90 percent of the revegetation area is free of weeds listed in Table 3, (2) reseeding areas of poor germination to achieve coverage and height per 609S.8, with no bare areas greater than 10 s.f., and (3) replacement and replanting of rooted plants per 608S.5(O) [Plant Material Removal and Replacement] and 608S.7 (Acceptability of Plants).

Weeds, as defined in the Weed List (Table 3), shall be controlled in the most efficient manner possible. The timing of weed control may occur prior to soil disturbance, just before the installation of seed, and/or during the period of plant establishment. Weed control shall be introduced at one or all of these times, so that the greatest control is achieved. The preferred method of control is to remove weeds, either by physical or mechanical means, when the site is conducive (e.g. when the ground is moist) to this approach.

The entire root system of perennial weeds shall be removed to prevent re-sprouting. Table 9 provides management practices for woody invasive vegetation. Weeds may be controlled with an approved contact, systemic herbicide, provided the product is used with appropriate care and is applied in accordance with label instructions and the following guidelines:

1. Herbicide shall not be applied when the wind is greater than 8 mph (12.9 kph),
2. Herbicide shall not be applied when rainfall is expected within 24 hours,
3. Herbicide shall not contact surface water, i.e. creeks, rivers, and lakes,
4. Herbicide shall not contact desirable vegetation (a wicking method shall be used, if necessary, to accurately contact target weed only during application).

Table 10. Management Practices for Woody Invasive Vegetation

Before Seeding	
Stems ≤1 inch	Pull with weed wrench
Stems >1 inch	Cut at base and spray stump with appropriate herbicide within five minutes. Bag and dispose of seeds and fruit in landfill.
After Seeding	
Seedlings	Hand pull
Sprouts	Foliar application of appropriate herbicide

The Landscape Architect, Engineer or designated representative shall be consulted to determine appropriate weed control management when weeds are located in an environmentally sensitive location (e.g. near water or adjacent to a critical environmental feature).

Source: Rule No. R161-14.29, 12-30-2014 ; Rule R161-15.14, 1-4-2016.

609S.7 Reseeding/Replanting

At locations that fail to show an acceptable stand of planting for any reason during the initial seeding, repair and/or reseed, replant locations as determined by the Landscape Architect, Engineer or designated representative. A successful stand of grasses and forbs should exhibit the following:

- Seedlings with vigorous green foliage;
- Green leaves remaining throughout the summer, at least at the plant bases;
- Uniform density, with grasses and/or forbs well intermixed;
- Minimum of 95% cover; and
- No patches of exposed soil greater than 10 s.f. in aerial extent.

The Owner or designated representative will inspect the seeding/planting during April of the calendar year following the year of initial seeding/planting and determine the necessity and extent of over seeding reseeding, or replanting required. Contractor shall ideally complete any required reseeding/replanting before May 15 of that year. This date may be extended if, in the opinion of the Owner and qualified landscape professional, the weather conditions before May 15 are not suitable for reseeding work. If the timing is bad, an annual cover crop can be over-seeded in a deficient area to temporarily provide coverage until a suitable time for seeding or planting perennial seed or rooted plants. If vegetation fails to grow and thrive, the soil must be tested to determine whether nutrient imbalances are responsible and, if so, an appropriate course of nutrient remediation (e.g., fertilizers, composts, topsoils, or other organic amendments) as recommended by a landscape professional must be implemented by the Contractor.

The Contractor shall meet the requirements for initial seeding and planting, including seeding method, seed mix, application rates, and slope texturing as applicable, unless otherwise agreed to in writing by the Owner and/or City staff. Corrected deficiencies will be re-inspected and approved by the Owner and designated representative, and final acceptance will be granted only upon satisfactory completion.

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.8 Measurement

Work and acceptable material for Native Seed and Planting for Restoration will be measured by the square yard (square meter: 1 square meter equals 1.196 square yards) or by the acre (hectare: 1 hectare equals 2.471 acres), complete in place, so that all areas of a site that rely on vegetation for stability must be uniformly vegetated with a minimum of 95 percent total coverage with no bare areas exceeding 10 square feet (1.5 square meters) and a 1½ inch tall (40 millimeters) successful stand of plant materials. Ninety (90) percent of the overall planted area must be free of weeds listed in Table 3. Bare areas shall be re-prepared and reseeded as required by the Landscape Architect, Engineer or designated representative to develop an acceptable stand of vegetation.

Source: Rule No. R161-14.29, 12-30-2014 ; Rule No. R161-15.14, 1-4-2016 .

609S.9 Payment

The work performed and materials furnished and measured will be paid for at the unit bid price for Native Seeding and Planting for Restoration of the method specified on the Drawings.

The unit bid price shall include full compensation for furnishing all materials, including all topsoil, water, seed, or fertilizer or mulch and for performing all operations necessary to complete the work.

Payment will be made under one or more of the following pay items:

Pay Item No. 609S-A:	Topsoil and Seedbed Preparation	Per Square Yard.
Pay Item No. 609S-B:	Topsoil and Seedbed Preparation	Per Acre.
Pay Item No. 609S-C:	Native Seeding	Per Square Yard.
Pay Item No. 609S-D:	Native Seeding	Per Acre.
Pay Item No. 609S-E:	Rooted Plants	Per each.
Pay Item No. 609S-F:	Watering	Per 1,000 Gallons (Kgal).
Pay Item No. 609S-G:	Management Practices	Per Square Yard.
Pay Item No. 609S-H:	Management Practices	Per Acre.

End

SPECIFIC CROSS REFERENCE MATERIALS	
Specification Item 609S Native Grassland Seeding and Planting for Erosion Control	
City of Austin Standard Specifications	
Designation	Description
Item No. 130S	Borrow
Item No. 601S	Salvaging and Placing Topsoil
Item No. 606S	Fertilizer
City of Austin Land Development Code	
Designation	Description
Section 6-4	Water Conservation

RELATED CROSS REFERENCE MATERIALS	
Specification Item 609S Native Grassland Seeding and Planting for Erosion Control	
City of Austin Standard Specifications	
Designation	Description
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 607S	Slope Stabilization
Item No. 608S	Planting
City of Austin Standards (Details)	
Standard No.	Description
627S-1	Grass Lined Swale
627S-2	Grass Lined Swale W/Stone Center
633S-1	Landgrading
Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges	
Designation	Description
Item No. 160	Topsoil

Item No. 162	Sodding for Erosion Control
Item No. 164	Seeding for Erosion Control
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blankets
Item No. 180	Wildflower Seeding
Item No. 192	Landscape Planting

ITEM NO. 639S ROCK BERM 8-18-10

639S.1 Description

This item shall govern the construction of a temporary berm of open graded rock that is installed at the toe of a slope on the perimeter of a developing area. Rock berms are appropriate for use as flow diverters, energy dissipators, grade control, and level spreaders to release the water in sheet flow (Environmental Criteria Manual Section 1.4.5.E). This item shall also govern the removal of the "Rock Berm" and re-vegetation of the area.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

639S.2 Submittals

The submittal requirements for this specification item shall include:

A. Function (flow diversion, grade control, energy dissipator, level spreader, or other) and dimensions of the rock berm

B. Source, type and gradation of rock

C. Re-vegetation program, including:

1. Identification of the type, source, mixture, Pure Live Seed (PLS) and rate of application of the seeding.
2. Type of mulch.
3. Type of tacking agent.
4. Type and rate of application of fertilizer.

639S.3 Design Criteria

A detailed design is not required for the installation of a rock berm; however, the following criteria shall be observed:

Drainage area	-	less than 5 acres (2 hectares).
Height	-	18 inches (450 mm) minimum height, measured vertically from the top of the existing ground at the upslope toe to the top of the berm.
Top width	-	2 feet (0.6 meter) minimum.
Side slopes	-	2:1 or flatter.
Grade	-	Berms will be built along a contour as near possible to a 0 percent grade.

639S.4 Materials

Surplus rock excavated from utility trenches or from other excavations may be used in construction of these berms. In general, the rocks shall be sound with a minimum of 3 inches (75 mm) in smallest dimension and shall weigh between 10 and 30 pounds (4.5 to 13.6 kilograms) each. Seeding for re-vegetation shall conform to Item No. 604S, "Seeding for Erosion Control".

Use only open-graded rock of the size indicated on Standard Detail No. 639S-1, with most of the fines removed.

639S.5 Construction Methods

All trees, brush, stumps and objectionable material shall be removed and disposed in a manner that will not interfere with the construction of the berm.

A trench shall be excavated to a minimum depth of 4 inches (100 mm) below existing grade for placement of the rock as indicated on Standard Detail No. 639S-1 and the Drawings. The rocks shall be placed in interlocking layers with close joints starting at the base. Open joints shall be filled with rock-spalled materials as required to stabilize the berm.

The area upstream from the rock berm shall be maintained in a condition, which will allow sediment to be removed following the runoff from a rainfall event. After each rainfall event with an accumulation of 1 inch (25 mm) or more, an inspection of the rock berm will be made by the Contractor and the stone shall be replaced, when the structure ceases to function as intended because of sediment accumulation among the rocks, washout, construction traffic damage, etc.

If the sediment reaches a depth equal to ⅓ the height of the berm or 6 inches (150 mm), whichever is less, the Contractor will remove the accumulated sediment and dispose of it at an approved disposal site in a manner that will not contribute to additional sedimentation. The berm will be reshaped as needed during construction.

When the site is completely stabilized, the berm will be removed and disposed of in a manner approved by the Engineer or designated representative.

The area will be re-vegetated as required by Item No. 604S, "Seeding for Erosion Control".

639S.6 Measurement

Acceptable work performed and prescribed in this item will be measured by the linear foot (lineal meter: 1 lineal meter equals 3.281 lineal feet) along the centerline of top of berm.

639S.7 Payment

The work performed and material furnished and measured as provided under "Measurement" to construct this item will be paid for at the unit bid price per linear foot of rock berm barrier as indicated on the Drawings. The Unit Bid Price shall include full compensation for: (a) furnishing, hauling and placing all materials including all labor, tools, equipment and incidentals needed to complete the work, (b) maintaining the berm, (c) removing sediment accumulations, (d) rock replacement, (e) removing and disposing of all materials when the berm is no longer required and (f) re-vegetating the site upon removal of the berm.

Payment will be made under:

Pay Item No. 639S:	Rock Berm	Per Lineal Foot.

End

SPECIFIC CROSS REFERENCE MATERIALS	
Specification 639S, "Rock Berm"	
City of Austin Environmental Criteria Manual	
Designation	Description
Section 1.4.2.E	Rock Berm

City of Austin Standard Details	
Designation	Description
Number 639S-1	Rock Berm
City of Austin Standard Specifications	
Designation	Description
Item No. 604S	Seeding for Erosion Control

RELATED CROSS REFERENCE MATERIALS	
Specification 639S, "Rock Berm"	
City of Austin Environmental Criteria Manual	
Designation	Description
Table 1-1.3	Recommended Design Values For Functional Controls
Table 1-2	Maximum Water Depth At The Barrier
City of Austin Standard Specifications	
Designation	Description
Item No. 101S	Preparing Right-of-way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 120S	Channel Excavation
Item No. 401S	Structural Excavation and Backfill
Item No. 602S	Sodding for Erosion Control
Item No. 605S	Soil Retention Blanket
Item No. 606S	Fertilizer
Item No. 608S	Planting
Item No. 610S	Preservation of Trees and Other Vegetation
Item No. 620S	Filter Fabric
Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges	
Designation	Description
Item No. 100	Preparing Right-of-way
Item No. 110	Excavation
Item No. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 204	Sprinkling

ITEM NO. 642S SILT FENCE 9-1-11

642S.1 Description

This item shall govern the provision and placement of a silt fence fabric fence (Environmental Criteria Manual Section 1.4.5.G) including maintenance of the fence, removal of accumulated silt, removal of the silt fence and re-vegetation of disturbed areas upon completion of the project.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

642S.2 Submittals

The submittal requirements for this specification item shall include:

A. Source, manufacturer, characteristics and test data for the silt fence fabric,

B. Manufacturer, characteristics and test data for the posts and wire fence.

C. Re-vegetation program, including:

1. Identification of the type, source, mixture, Pure Live Seed (PLS) and rate of application of the seeding.
2. Type of mulch.
3. Type of tacking agent.
4. Type and rate of application of fertilizer.

642S.3 Materials

A. Fabric

1. General:

   The silt fence fabric shall be of nonwoven polypropylene, polyethylene or polyamide thermoplastic fibers with non-raveling edges. The silt fence fabric shall be non-biodegradable, inert to most soil chemicals, ultraviolet resistant, unaffected by moisture or other weather conditions, and permeable to water while retaining sediment. The silt fence fabric shall be supplied in rolls a minimum of 36 inches (0.9 meter) wide.

2. Physical Requirements:

   The fabric shall meet the requirements presented in Table 1, when sampled and tested in accordance with the methods indicated herein, on Standard Detail No. 642S-1 and/or on the Drawings.

B. Posts:

Posts shall be steel Tee or Y-posts, not less than 4 feet (1.22 meters) in length with a minimum weight of 1.25 pounds per foot (1.86 kilograms per meter) with a minimum Brinell Hardness of 143. Hangers shall be adequate to secure fence and fabric to posts. Posts and anchor plates shall conform to ASTM A-702. Caps are required (*not specifying discretionary criteria).

C. Wire Fence:

Wire fence shall be welded wire fabric 2 in. x 4 in. 12.5 SWG, wire diameter 0.099 in (±0.005 in.), and shall conform to Standard Specification Item No. 406, "Reinforcing Steel".

TABLE 1. Silt Fence Fabric Requirements		
Physical Properties	Method	Requirements
Fabric Weight in ounces per square yard (grams/square meter)	TEX-616-J[1]	5.0 minimum (150 minimum)
Equivalent Sieve Opening Size: US Standard (SI Standard sieve size)	CW-02215[2]	40 to 100 (425 to 150 µm)
Mullen Burst Strength: lbs. per sq. inch (psi) megaPascal (mPa)	ASTM D-3786[3]	280 minimum (1.9 minimum)
Ultraviolet Resistance; % Strength Retention	ASTM D-1682[4]	70 minimum

[1] TxDoT Test Method Tex-616-J, "Testing of Construction Fabrics".

[2] US Army Corps of Engineers Civil Works Construction Guide Specification CW-02215, "Plastic Filter Fabric".

[3] ASTM D-3786, " Test Method for Hydraulic Bursting Strength of Knitting Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method".

[4] ASTM D-1682, " Test Methods for Breaking Load and Elongation of Textile Fabrics ".

642S.4 Construction Methods

The silt fence fabric shall be securely attached to the posts and the wire support fence with the bottom 12 inches (300 mm) of the material buried in a trench a minimum of 6 inches (150 mm) deep and 6 inches (150 mm) wide to prevent sediment from passing under the fence. When the silt fence is constructed on impervious material, a 12-inch (300-mm) flap of fabric shall be extended upstream from the bottom of the silt fence and weighted to limit particulate loss. No horizontal joints will be allowed in the silt fence fabric. Vertical joints shall be overlapped a minimum of 12 inches (300 mm) with the ends sewn or otherwise securely tied.

The silt fence shall be a minimum of 24 inches (0.6 meter) high. Posts shall be embedded a minimum of 12 inches (300 mm) in the ground, placed a maximum of 8 feet (2.4 meters) apart and set on a slight angle toward the anticipated runoff source. When directed by the Engineer or designated representative, posts shall be set at specified intervals to support concentrated loads.

* Per OSHA §1926.701, "all protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement". Caps must be large enough to dissipate the forces of impact to prevent impalement from a reasonably foreseeable fall distance. It should be noted that the use of impalement protection caps is but one method of protection; covers or wooden troughs can be another means of meeting the guarding requirement. For City of Austin purposes, this also applies to t-posts and wooden stakes.

The silt fence shall be repaired, replaced, and/or relocated when necessary or as directed by the Engineer or designated representative. Accumulated silt shall be removed when it reaches a depth of 6 inches (150 mm).

642S.5 Measurement

The work performed and the materials furnished under this item will be measured by the lineal foot of "Silt Fence", complete in place.

642S.6 Payment

The work performed and materials furnished and measured as provided under "Measurement" will be paid for at the unit bid price per lineal foot of "Silt Fence". The price shall include full compensation for furnishing, hauling and placing all materials, labor, tools, equipment and incidentals necessary to complete the work including inspecting, repairing, replacing and relocating the fence, removal of silt and removal and disposal of all materials at the completion of construction in and re-vegetation of disturbed areas.

Payment will be made under:

Pay Item No. 642S:	Silt Fence for Erosion Control	Per Lineal Foot.

END

SPECIFIC CROSS REFERENCE MATERIALS	
Specification 642S, "Silt Fence"	
City of Austin Environmental Criteria Manual	
Designation	Description
Section 1.4.5.G	Silt Fence
City of Austin Standard Details	
Designation	Description
Number 642S-1	Silt Fence
City of Austin Technical Specifications	
Designation	Description
Item No. 406	Reinforcing Steel
American Society For Testing and Materials (ASTM)	
Designation	Description
A-702	Specification for Steel Fence Posts and Assemblies, Hot Wrought
D-1682	Test Methods for Breaking Load and Elongation of Textile Fabrics
D-3786	Test Method for Hydraulic Bursting Strength of Knitting Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method
Texas Department of Transportation Manual of Testing Procedures	
Designation	Description
Tex-616-J	Testing of Construction Fabrics
U.S. Army Corps of Engineers	
Designation	Description
CW-02215	Civil Works Construction Guide Specification "Plastic Filter Fabric"

RELATED CROSS REFERENCE MATERIALS	
Specification 642S, "Silt Fence"	

City of Austin Environmental Criteria Manual	
Designation	Description
Table 1-1.3	Recommended Design Values For Functional Controls
Table 1-2	Maximum Water Depth At The Barrier
City of Austin Standard Specifications	
Designation	Description
Item No. 101S	Preparing Right-of-way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 120S	Channel Excavation
Item No. 401S	Structural Excavation and Backfill
Item No. 610S	Preservation of Trees and Other Vegetation

ITEM NO. 641S STABILIZED CONSTRUCTION ENTRANCE 3-25-21

641S.1 Description

This item governs the construction of a stabilized pad of crushed stone located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. The removal of the stabilized pad of crushed stone shall also be included in the item. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or deposition of sediment onto public right-of-way (Environmental Criteria Manual Section 1.4.2.N.4).

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

641S.2 Submittals

The submittal requirements for this specification item shall include:

A. Source, type and gradation of rock.

B. Drainage technique (i.e. drainage swale or entrance grading) proposed to prevent runoff from exiting the construction site.

641S.3 Materials

Aggregate for construction shall conform to the following gradation:

Table 1: Aggregate Gradation Chart (TEX 401-A, % Retained per sieve)		
US 8 inch (SI 200 mm)	US 5 inch (SI 125 mm)	US 2 inch (SI 50 mm)
0	90-100	100

641S.4 Construction Methods

All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of in a manner that will not interfere with the excavation and construction of the entrance as indicated on the Drawings or as presented in Standard Details No. 641S-1. The entrance shall not drain onto the public right-of-way or shall not allow surface water runoff to exit the construction site.

When necessary, vehicle wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When vehicle washing is required, it shall be done on an area stabilized with crushed stone, which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch or watercourse through use of sand bags, gravel, boards, silt fence (Standard Specification Item No 642S) or other methods approved by the Engineer or designated representative.

The entrance shall be maintained in a condition that will prevent tracking or disposition of sediment onto public right-of-way. This restriction may require periodic top dressing with additional stone as conditions demand, as well as the repair and/or cleanout of any measures used to trap sediment. All sediment that is spilled, dropped, washed or tracked onto public right-of-way must be removed immediately.

641S.5 Measurement

Acceptable work performed as prescribed in this item will be measured by unit of each stabilized construction entrance installed.

641S.6 Payment

The work performed and materials furnished and measured as provided under "Measurement" will be paid for at the unit bid price per each "Stabilized Construction Entrance." The price shall include full compensation for furnishing, hauling and placing all materials, labor, tools, equipment and incidentals necessary to complete the work including inspecting, repairing, replacing and relocating existing fencing, removal of silt and removal and disposal of all materials at the completion of construction. The price shall include full compensation for furnishing, installing, maintaining, moving, and removing any traffic control devices required by the installation of a stabilized construction entrance.

Payment, when included as a contract pay item, will be made under:

Pay Item No. 641S:	Stabilized Construction Entrance	Per Each.

Source: Rule No. R161-21.01 , 3-25-2021.

End

SPECIFIC CROSS REFERENCE MATERIALS	
Specification 641S, "Stabilized Construction Entrance (SCE)"	
City of Austin Environmental Criteria Manual	
Designation	Description
Section 1.4.2.N.4	Stabilized Construction Entrance "Design Criteria"
City of Austin Standard Details	
Designation	Description
Number 641S-1	Stabilized Construction Entrance
City of Austin Standard Specifications	
Designation	Description
Item No. 642S	Silt Fence (SF)

RELATED CROSS REFERENCE MATERIALS	
Specification 641S, "Stabilized Construction Entrance (SCE)"	
City of Austin Environmental Criteria Manual	
Designation	Description
Section 1.4.2.J	Sandbag Berm
Figure 1-11	Sand Bag Berm
Section 1.4.2.G	Silt Fence
City of Austin Standard Specifications	

Designation	Description
Item No. 101S	Preparing Right-of-way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation
Item No. 120S	Channel Excavation
Item No. 401S	Structural Excavation and Backfill
Item No. 610S	Preservation of Trees and Other Vegetation
Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges	
Designation	Description
Item No. 100	Preparing Right-of-way
Item No. 110	Excavation
Item No. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 168	Vegetative Watering

ATTACHMENT J – Schedule of Interim and Permanent Soil Stabilization Practices

The schedule of interim and permanent soil stabilization practices will be according to plans, applicable specifications and the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000.

Prior to Disturbance – Install all temporary erosion and sedimentation control features.

During Construction – Maintain all temporary erosion and sedimentation control structures. Inspect all temporary erosion and sedimentation control structures on a weekly basis and after rain events. Maintain a record at the site of 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.

After Completion of Permanent Erosion and Sediment Controls – Stabilize and restore all areas disturbed during construction. Permanent seeding will be applied immediately after the final design grades are achieved on portions of the site but no later than 14 days after construction activities have permanently ceased. After the entire site is stabilized, any sediment that has accumulated will be removed and hauled off-site for disposal. Construction debris, trash and temporary BMPs including silt fences, material storage areas, sanitary toilets, etc.) will also be removed and any areas disturbed during removal will be seeded immediately.

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

I Jimmy Disler,
Print Name

Chief Operations Officer,
Title - Owner/President/Other

of Leander ISD,
Corporation/Partnership/Entity Name

have authorized Zhipeng Xing
Print Name of Agent/Engineer

of Halff Associates
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

3-8-2024
Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Jimmy Disler 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 8th day of March, 2024

MICHELLE PAIGE BREEDEN
Notary Public, State of Texas
Comm. Expires 05-03-2027
Notary ID 134340248

NOTARY PUBLIC

Michelle Breeden
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 5-3-2027

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Leander High School
Regulated Entity Location: 3301 S Bagdad Rd, Leander, TX 78641
Name of Customer: Leander IDS
Contact Person: Jimmy Disler Phone: 512-570-0000
Customer Reference Number (if issued):CN 600781074
Regulated Entity Reference Number (if issued):RN 103171310
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	90 Acres	$ 8,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 04/02/2024

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 Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

☒ Other **CZP Modification application**

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 600781074		**RN 103171310**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

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

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

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

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☐ Yes ☐ No

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

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

15. Mailing Address:							
	City		**State**		**ZIP**	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*

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

( ) -		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

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

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

25. Description to Physical Location:					
26. Nearest City			State		Nearest ZIP Code

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

27. Latitude (N) In Decimal:	30.537692		28. Longitude (W) In Decimal:	-97.849919	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	32	15.7	97	50	59.7

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)
8211		611110	

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

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

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

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

		11-08091001		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Zhipeng Xing	41. Title:	Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 777-4641		( ) -	zxing@halff.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:	Leander ISD	Job Title:	Chief Operations Officer
Name *(In Print)*:	Jimmy Disler	Phone:	(512) 570- 0
Signature:	Jimmy Disler	Date:	3-8-2024

PROPERTY OWNER

LEANDER INDEPENDENT SCHOOL DISTRICT
P.O. BOX 218
LEANDER, TEXAS 78646-0218
TEL: (512) 570-0000
FAX: (512) 570-0407

ENGINEER

HALFF ASSOCIATES, INC.
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
CONTACT: ZHIPENG XING, P.E.
EMAIL: ZXING@HALFF.COM
TEL: (512) 777-4600
FIRM/ BUSINESS NO.: #F-312 STATE: TX

SURVEYOR

LSI LANDESIGN SERVICES, INC.
10090 W STATE HWY 29
LIBERTY HILL, TEXAS 78642
CONTACT: FRANK FUNK, RPLS
EMAIL: INFO@LSISURVEY.COM
TEL: (512) 238-7901

LANDSCAPE ARCHITECT

STUDIA 1619, LLC
305 W LIBERTY, SUITE 100
ROUND ROCK, TEXAS 78664
CONTACT: BRENT BAKER RLA
EMAIL: BRENT@STUDIO1619.COM
TEL: (512) 534-8680

ARCHITECT

PFLUGER
209 E. RIVERSIDE DRIVE
AUSTIN, TX. 78704
CONTACT: FRANCES BROOKS
EMAIL: FRANCES.BROOKS@PFLUGERARCHITECTS.COM
TEL: (512) 476-4040

MEP

MEP ENGINEERING
1120 S CAPITAL OF TEXAS HWY
BUILDING 1, SUITE 150
AUSTIN, TEXAS 78746
CONTACT:
EMAIL: @MEPENGINEERING.COM
TEL: (512) 306-9650

FILING DATE FOR SD PLANS

03/14/2024

ASSOCIATED PROJECT NUMBERS

SD-23-0175
18-SD-035

FUTURE LAND USE CATEGORY

MULTI-USE CORRIDOR & NEIGHBORHOOD RESIDENTIAL

IMPERVIOUS COVER					
	EXISTING (SF)	PH 1A CHANGE SD-23-0175 (SF)	PH 1B CHANGE SD-__-____ (SF)		PROPOSED (SF)
			REMOVE	ADD	
BUILDING	389,717.44	323.86	0.00	20,054.94	410,096.27
SIDEWALK	348,040.64	-11,192.39	-29,700.95	11,715.63	318,862.93
PAVEMENT	945,155.32	-11,002.93	-15,552.36	17,402.62	936,002.65
TOTAL (SF)	1,682,913.40	-21,871.43	-45,253.31	49,173.19	1,664,961.85
TOTAL (AC)	38.63	-0.50	-1.04	1.13	38.22

EXISTING IC IS BASED ON SITE CONDITION ON 1/1/2024
EXISTING FISH POND LINER REMOVAL ADDED TO SIDEWALK REMOVAL NUMBERS

SURVEYED DATE:

JANUARY 11, 2024

BENCHMARK(S):

TBM.100 - SET "X" IN CORNER OF STORM INLET.
ELEVATION: 996.57

TBM 101 - SET "X" IN CORNER OF STORM INLET.
ELEVATION: 992.71

LEGAL DESCRIPTION:

90 ACRES IN THE S. J. DOVER SURVEY IN THE CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS. UN-PLATTED CONSISTING OF:
60 ACRES CONVEYED TO LEANDER ISD ACCORDING TO A 1981 DEED PER VOLUME 849, PAGE 600 OPRWCT, AND
30 ACRES CONVEYED TO LEANDER ISD ACCORDING TO A 1994 DEED PER VOLUME 2548, PAGE 817 OPRWCT.

PROPERTY LOCATION:

LEANDER HIGH SCHOOL:
3301 S. BAGDAD ROAD
LEANDER, TEXAS 78641

ZONING:

SFU-2-B

LAND USE SUMMARY:

PROPOSED USE: HIGH SCHOOL/ SECONDARY EDUCATIONAL FACILITY
ACREAGE : 90 - ACRES
TOTAL IMPERVIOUS COVER: 1,682,913 SF, 38.634 AC
BUILDING IMPERVIOUS COVER: 389,717 SF, 8.947 AC

TYPE OF CONSTRUCTION:

BUILDING EXPANSION AND PAVEMENT RECONFIGURATION.

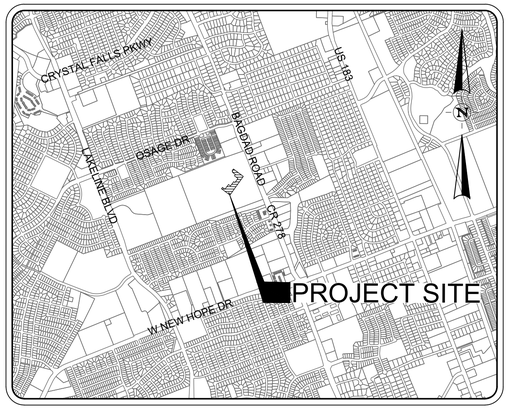
REVISION #	DESCRIPTION	APPROVAL

LEANDER HS MASTER PLAN

ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B

MINOR SITE DEVELOPMENT PLANS

3301 S. BAGDAD ROAD
LEANDER TEXAS
SD-24-0197



LOCATION MAP

SCALE 1" = 2000'

Sheet List Table		
	Sheet Number	Sheet Title
1B CC.00	1	COVER
1B CN.01	2	GENERAL NOTES
1B CN.02	3	TCEQ GENERAL NOTES
1B CB.00	4	BOUNDARY SURVEY
1B CD.01	5	EXISTING CONDITIONS & DEMOLITION PLAN
1B CE.01	6	EROSION & SEDIMENTATION CONTROL PLAN
1B CS.00	7	OVERALL SITE PLAN
1B CS-01	8	SITE PLAN (1 OF 2)
1B CS.02	9	SITE PLAN (2 OF 2)
1B CG.01	10	GRADING PLAN (1 OF 3)
1B CG.02	11	GRADING PLAN (2 OF 3)
1B CG.03	12	GRADING PLAN (3 OF 3)
1B CDA.01	13	DRAINAGE PLAN (1 OF 2)
1B CDA.02	14	DRAINAGE PLAN (2 OF 2)
1B CDE.01	15	EROSION SEDIMENTATION CONTROL DETAILS
1B CDE.02	16	PAVING DETAILS (1 OF 2)
1B CDE.03	17	PAVING DETAILS (2 OF 2)
1B CDE.04	18	STORM DRAIN DETAILS (1 OF 2)
1B CDE.05	19	STORM DRAIN DETAILS (2 OF 2)
1B CDE.06	20	MISCELLANEOUS SITE DETAILS

DISCLAIMER:

THE SEAL(S) APPEARING ON THIS CONSTRUCTION SET WERE AUTHORIZED BY: ZHIPENG XING, P.E. (127763), ON 3/29/2024.

ALTERATION OF SEALED DOCUMENTS WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT. THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF:

HALFF ASSOCIATES, INC
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
FIRM / BUSINESS NO.: #F-312 STATE: TX

SUBMITTED FOR APPROVAL BY:

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024

ZHIPENG XING, P.E.
ENGINEER OF RECORD

I, ZHIPENG XING, P.E., P.E., DO HEREBY CONFIRM THAT ANY NEW PUBLIC WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN, HAVE BEEN DESIGNED IN COMPLIANCE WITH THE STORMWATER DRAINAGE POLICY ADOPTED BY THE CITY OF LEANDER.

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

PREPARED BY:

halff

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APPROVED BY:

Robin M. Griffin, AICP, Executive Director of Development Services — Date

Emily Truman, P.E. CFM, City Engineer — Date

Mark Tummons, CPRP, Director of Parks and Recreation — Date

Chief Joshua Davis, Fire Marshal — Date

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

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE CITY OF LEANDER AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

AVO: 53112.002 DATE: March, 2024

COVER
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1 OF 20

SD-24-0197

LEANDER HS MASTER PLAN ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B

LEANDER INDEPENDENT SCHOOL DISTRICT
GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR TO FIELD VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL CONSTRUCTION SHALL COMPLY WITH GOVERNING ORDINANCES, CODES AND LAWS.
3. THE CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AS THEY APPLY TO THE SITE WORK.
4. ALL GRADES ARE SHOWN TO FINISHED GRADE. TO DETERMINE SUBGRADE, SUBTRACT APPROPRIATE AMOUNT OF TOPSOIL, BASE, PAVEMENT, ETC. (SEE DETAILS AND SPECIFICATIONS)
5. ALL TESTING OF UTILITIES SHALL BE CONDUCTED IN THE SAME MANNER AS PUBLIC IMPROVEMENTS REQUIREMENTS AND RESULTS SUBMITTED TO ENGINEER AND OWNER. NO UTILITY SHALL BE USED UNTIL SUCH TESTS ARE PASSED. THESE TESTS INCLUDE, BUT ARE NOT LIMITED TO, WASTEWATER LINE MANDREL TESTING, WASTEWATER AIR TESTING, MANHOLE VACUUM TESTING, WATER LINE PRESSURE TESTING, FIRE HYDRANT TESTING, ANTI-BACTERIAL TESTING, TRENCH DENSITY TESTING.
6. ALL DENSITY TESTING 0F COMPACTED SOILS SHALL BE CONDUCTED AS PER THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND AS RECOMMENDED BY GEOTECHNICAL ENGINEER. TESTING RESULTS SHALL BE SUBMITTED TO ENGINEER AND OWNER.
7. ALL CONCRETE COMPRESSION, TENSILE, AND SLUMP TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND AS RECOMMENDED BY GEOTECHNICAL ENGINEER. TESTING RESULTS SHALL BE SUBMITTED TO ENGINEER AND OWNER.
8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SEDIMENTATION & EROSION CONTROL DEVICES WHEN AHTHORIZED BY THE ENGINEER. SOME OF THESE DEVICES MAY NEED TO REMAIN IN PLACE AFTER THE CONTRACTOR HAS LEFT THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THESE DEVICES AT NO ADDITIONAL COST WHEN AUTHORIZED BY THE ENGINEER.
9. AN AUTOCAD FILE WILL BE PROVIDED BY HALFF ASSOCIATES TO THE CONTRACTOR FOR LAYOUT PURPOSES.

CITY OF LEANDER GENERAL NOTES (REVISED MARCH 27, 2023)

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

GENERAL:

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

CONSTRUCTION SEQUENCE NOTES

- REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
- INSTALL SEDIMENTATION & EROSION CONTROL PROTECTION DEVICES AND TREE PROTECTION AS SHOW ON PLANS. THIS INCLUDES ROUTINE MAINTENANCE OF CONTROLS PER GOVERNING REGULATIONS AND THE STORM WATER POLLUTION PREVENTION PLAN. REACH OUT TO THE CITY FOR INSPECTION.
- INSTALL ALL WET AND DRY UTILITY LINES. TEST ALL UTILITY LINES IN ACCORDANCE WITH THE ADOPTED SPECIFICATIONS, AND COORDINATE WITH CITY OR THIRD PARTY ON INSPECTION.
- BEGIN SITE CLEARING, GRADING, AND BUILDING PAD PREPARATION.
- CONSTRUCT SITE RETAINING WALLS.
- CONSTRUCT SIDEWALKS AND PAVEMENTS, INCLUDING DRIVE AISLES, PARKING STALLS, AND FIRE LANES. STRIPE PARKING AND FIRE LANES.
- CONSTRUCT SHOT-PUTS.
- BEGIN BUILDING FOUNDATION CONSTRUCTION.
- BEGIN BUILDING CONSTRUCTION.
- COORDINATE CONSTRUCTION WITH OTHER CONTRACTORS ONSITE TO PREVENT ACCIDENTS, RESOLVE CONFLICTS WITH OTHER UTILITIES, AND FACILITATE THE SMOOTH PROGRESS OF THE PROJECT. COORDINATE WITH ARCHITECT AND ENGINEER AS NEEDED FOR ROUTINE PROGRESS MEETINGS ON SITE AND COMMUNICATE REQUESTS FOR INFORMATION (RFI) AS NEEDED TO RESOLVE QUESTIONS, PROBLEMS, OR POTENTIAL PROBLEMS AS THEY MAY ARISE.
- MAINTAIN ACCURATE AS-BUILTS AND PROVIDE FOR THE TESTING OF MATERIALS AND INSTALLATION PER SPECIFICATIONS.
- RESTORE ALL DISTURBED AREAS AND CLEAN UP SITE PER FINAL ACCEPTANCE NOTE BELOW. SEE PERMANENT EROSION CONTROL NOTES.
- WHEN DIRECTED BY ENGINEER, REMOVE SILT FENCES, TREE PROTECTION FENCING, INLET PROTECTION, ROCK BERMS, AND TEMPORARY IRRIGATION FROM SITE. THIS MAY REQUIRE THE CONTRACTOR TO RETURN TO THIS PROJECT AFTER HE HAS BEEN RELEASED BY LISD.
- PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE FROM THE ENTIRE SITE ANY DEBRIS WHICH MAY BECOME A HAZARD FOR L.I.S.D. LAWN-MOWING EQUIPMENT. CONTRACTOR SHALL CONTACT JERAMI HARRIS AT L.I.S.D. AT 512-570-0644 OR JERAMI.HARRIS@LEANDERISD.ORG, TO SECURE INSPECTION AND APPROVAL. THIS INCLUDES SCRUB CEDAR TREES, ROCKS, AND SMALL BRUSH.
- REQUEST FINAL WALK THROUGH AND CONDUCT WALK THROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.

EROSION CONTROL NOTES

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

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:
   WATER SERVICE "W" ON TOP OF CURB
   WASTEWATER SERVICE "S" ON TOP OF CURB
   VALVE "V" ON TOP OF CURB
3. ~~OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.~~
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

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

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

WATER

1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
2. CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
6. ~~THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.~~ ALL NEWLY INSTALLED WATER PIPES AND FITTINGS SHALL BE FULLY RESTRAINED WITH MEGA LUG OR APPROVED EQUAL.
7. ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONALL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.
8. PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).
9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
12. ALL WATER METER BOXES SHALL BE:
   a. SINGLE, 1" METER AND BELOW — DFW37F-12-1CA, OR EQUAL
   b. DUAL, 1" METERS AND BELOW — DFW39F-12-1CA, OR EQUAL
   c. 1.5" SINGLE METER — DFW65C-14-1CA, OR EQUAL
   d. 2" SINGLE METER — DFW1730F-12-1CA, OR EQUAL
13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

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

STREET AND DRAINAGE NOTES

1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISTATION RELATED TO ACCESSIBLITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARS (TAS).
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OF WAY OR EASEMENTS.
7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING. 8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY RABA KISTNER. PAVEMENT RECOMMENDATIONS ARE AS FOLLOWS:
   a. PARKING STALLS — 2" TYPE "D" HMAC + 9" FLEXIBLE BASE
   b. DRIVE AISLES — 3" TYPE "C" HMAC +11" FLEXIBLE BASE
   c. FIRE LANE — 6" PORTLAND CEMENT CONCRETE + 4" FLEXIBLE BASE
   1. CONCRETE PAVEMENTS SHALL BE REINFORCED WITH BAR MATS. THE BAR MATS SHALL BE NO.3 REINFORCING BARS SPACES 18 IN. ON CENTER IN BOTH DIRECTIONS. THE CONCRETE REINFORCING SHALL BE PLACED APPROXIMATELY 1/3 THE SLAB THICKNESS BELOW THE SURFACE OF THE SLAB, BUT NO LESS THAN 2". THE REINFORCING SHALL NOT EXTEND ACROSS EXPANSION JOINTS.
   2. WHERE PRACTICAL, CONSTRUCTION, EXPANSION, CONTROL AND SAWED JOINTS SHALL BE LAID OUT TO FORM SQUARE PANELS ON CONCRETE PAVEMENTS. THE RATION OF SLAB LENGTH-TO-WIDTH SHOULD NOT EXCEED 1.25. MAXIMUM JOINT SPACING ARE 12 FT LONGITUDINAL AND 12 FT TRANSVERSE.
13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRVIEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

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

GRADING NOTES

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

BENCHMARK NOTES

TBM.100 - SET "X" IN CORNER OF STORM INLET.
SURFACE COORDINATES
N: 10,169,227.1684
E: 3,078,903.9441
ELEVATION: 996.57

TBM 101 - SET "X" IN CORNER OF STORM INLET.
SURFACE COORDINATES
N: 10,168,358.0568
E: 3,078,080.9928
ELEVATION: 992.71

TBM 102 - SET 1/2" IRON ROD WITH CAP.
SURFACE COORDINATES
N: 10,169,359.0071
E: 3,077,538.6540
ELEVATION: 1010.84

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL. (512) 777-4600

REVISION

NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED
PROFESSIONAL ENGINEER
3/29/2024

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	NA

SHEET TITLE
GENERAL NOTES

1B CN.01

FILE NAME: A:\53000s\53112\002\PW\CADD\Sheets\Phase 1B\C-PLAN-COVR-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:12 AM, USER: ah3305 AVO: 53112.002

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE;
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 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.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
   - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
   - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE;
   - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

   A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

   B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

   C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

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

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4600

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024

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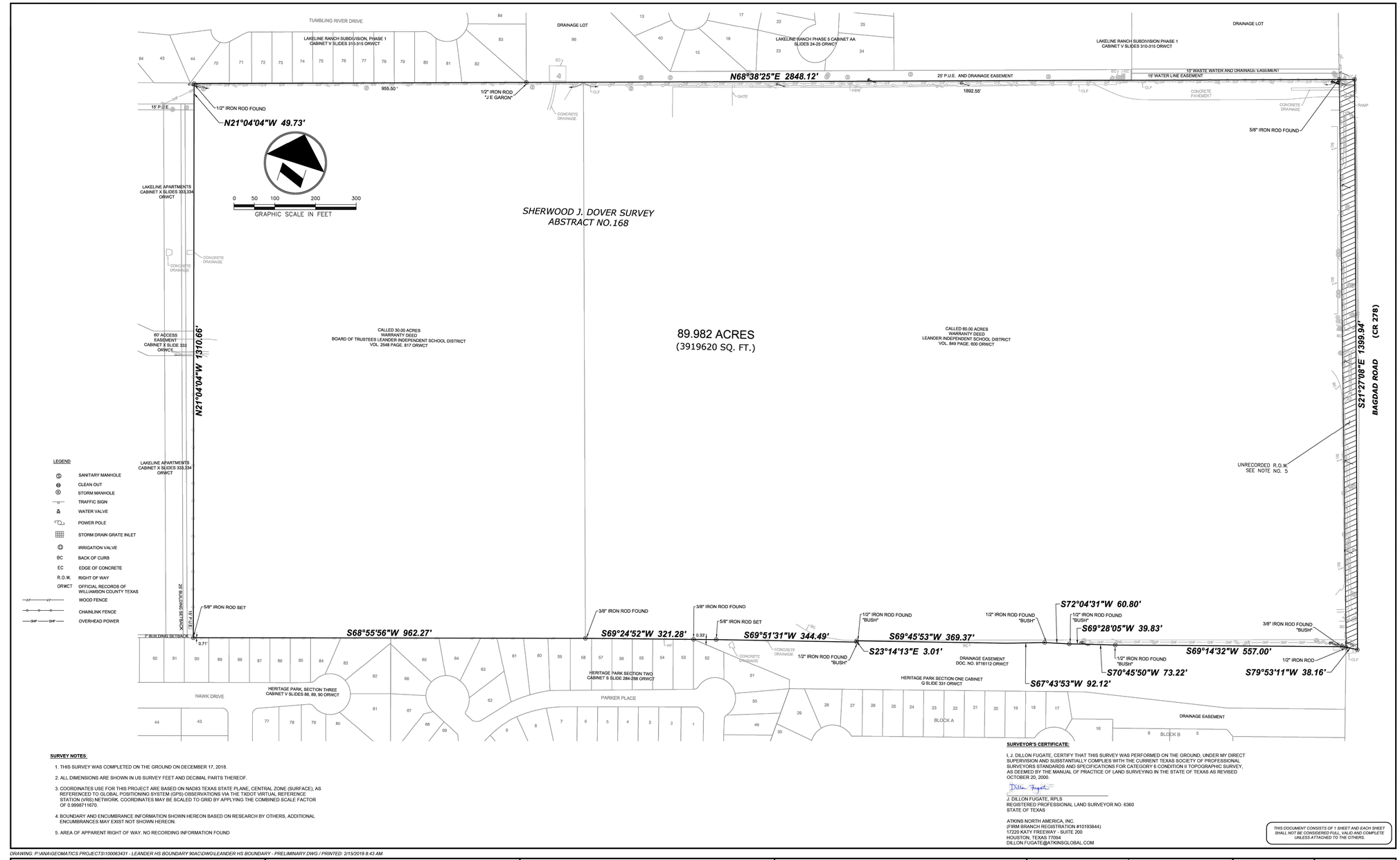
PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	NA

SHEET TITLE

TCEQ GENERAL NOTES

1B CN.02

FILE NAME: A:\53000s\53112002\PW\CADD\Sheets\Phase 1B\C-PLAN-COVR-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:12 AM, USER: ah3305 AVO: 53112.002



SURVEY NOTES:

1. THIS SURVEY WAS COMPLETED ON THE GROUND ON DECEMBER 17, 2018.
2. ALL DIMENSIONS ARE SHOWN IN US SURVEY FEET AND DECIMAL PARTS THEREOF.
3. COORDINATES USE FOR THIS PROJECT ARE BASED ON NAD83 TEXAS STATE PLANE, CENTRAL ZONE (SURFACE), AS REFERENCED TO GLOBAL POSITIONING SYSTEM (GPS) OBSERVATIONS VIA THE TXDOT VIRTUAL REFERENCE STATION (VRS) NETWORK. COORDINATES MAY BE SCALED TO GRID BY APPLYING THE COMBINED SCALE FACTOR OF 0.99987711670.
4. BOUNDARY AND ENCUMBRANCE INFORMATION SHOWN HEREON BASED ON RESEARCH BY OTHERS, ADDITIONAL ENCUMBRANCES MAY EXIST NOT SHOWN HEREON.
5. AREA OF APPARENT RIGHT OF WAY. NO RECORDING INFORMATION FOUND

SURVEYOR'S CERTIFICATE:

I, J. DILLON FUGATE, CERTIFY THAT THIS SURVEY WAS PERFORMED ON THE GROUND, UNDER MY DIRECT SUPERVISION AND SUBSTANTIALLY COMPLIES WITH THE CURRENT TEXAS SOCIETY OF PROFESSIONAL SURVEYORS STANDARDS AND SPECIFICATIONS FOR CATEGORY 6 CONDITION II TOPOGRAPHIC SURVEY, AS DEEMED BY THE MANUAL OF PRACTICE OF LAND SURVEYING IN THE STATE OF TEXAS AS REVISED OCTOBER 20, 2000.

J. DILLON FUGATE, RPLS
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 6360
STATE OF TEXAS

ATKINS NORTH AMERICA, INC.
(FIRM BRANCH REGISTRATION #10193844)
17220 KATY FREEWAY - SUITE 200
HOUSTON, TEXAS 77094
DILLON.FUGATE@ATKINSGLOBAL.COM

THIS DOCUMENT CONSISTS OF 1 SHEET AND EACH SHEET SHALL NOT BE CONSIDERED FULL, VALID AND COMPLETE UNLESS ATTACHED TO THE OTHERS.

DRAWING: P:\ANA\GEOMATICS PROJECTS\100063431 - LEANDER HS BOUNDARY 90AC\DWG\LEANDER HS BOUNDARY - PRELIMINARY.DWG / PRINTED: 2/15/2019 8:43 AM

ATKINS
ATKINS NORTH AMERICA, INC.
17220 KATY FREEWAY
SUITE 200
HOUSTON, TX 77094
(713) 576-8500
TEXAS BOARD OF PROFESSIONAL LAND SURVEYORS - BRANCH REGISTRATION # 10193844

CLIENT	PROJECT	TASK
LEANDER INDEPENDENT SCHOOL DISTRICT	LEANDER HIGH SCHOOL	BOUNDARY SURVEY

ORIGINAL: 02/14/19
REVISIONS:
1 # 2 # 3 # 4 # 5 # 6 # 7 # 8 # 9 # 10 # 11 # 12 #

SURVEYOR'S OFFICIAL SEAL

JOB NO. 100063431
DRAWN EMV
DESIGNED #
CHECKED JDF
QC
#
SHEET: 1 OF 1
#

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4600

REVISION

NO.	DATE	DESCRIPTION

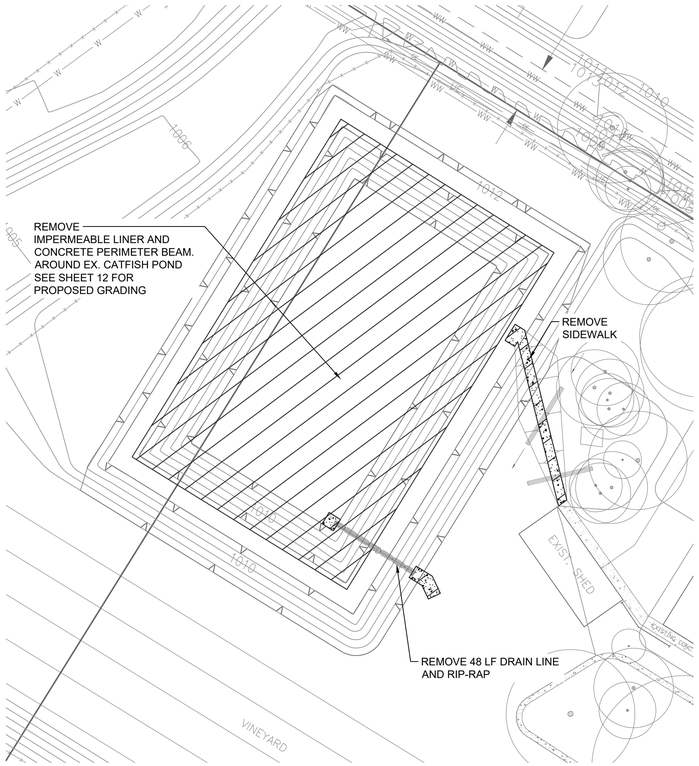
PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

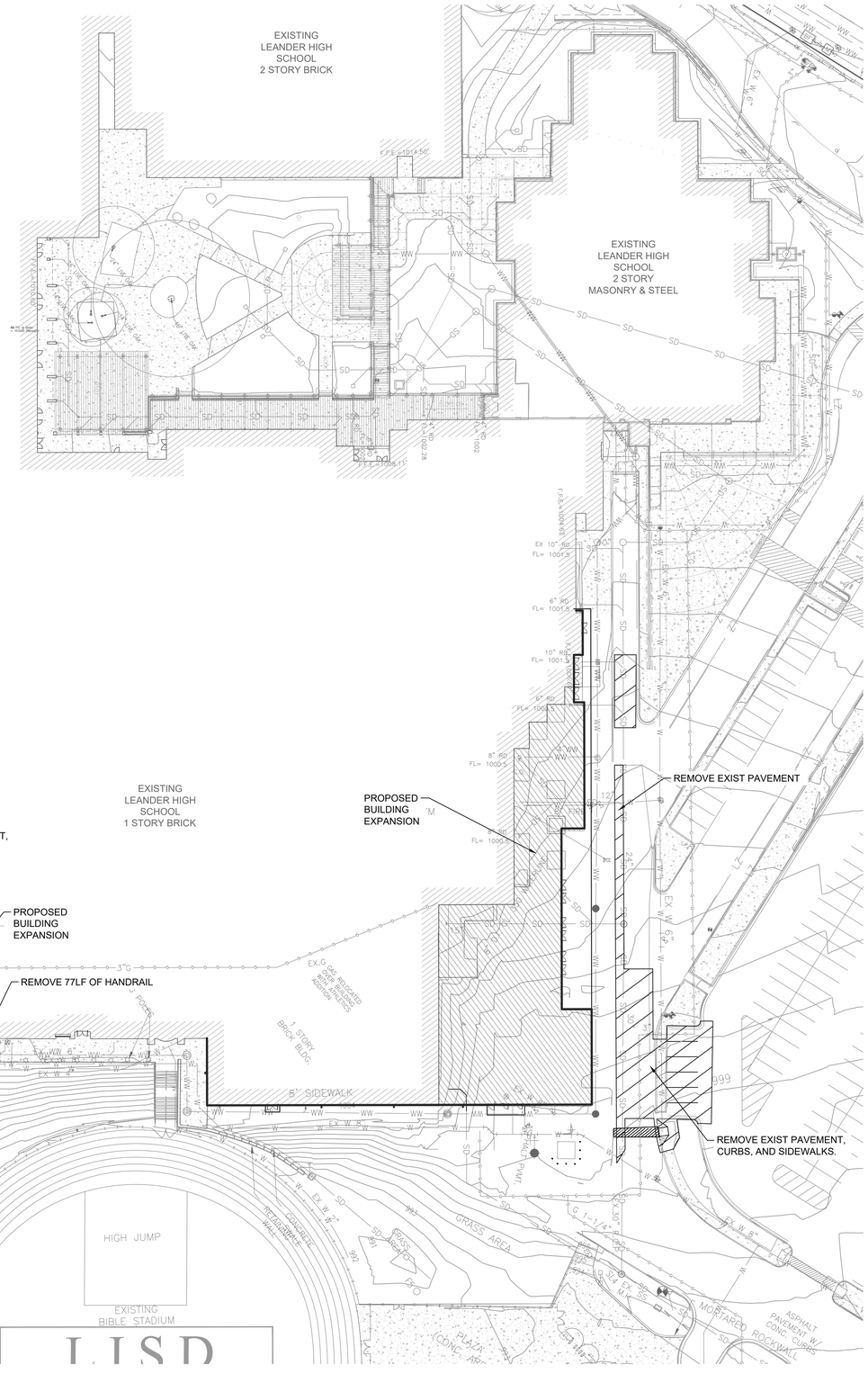
SHEET TITLE

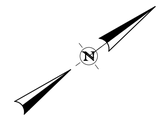
BOUNDARY SURVEY

1B CB.00
4 OF 20

FILE NAME: A:\53000s\53112\002\PW\CADD\Sheets\Phase 1B\C-PLAN-COVR-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:12 AM, USER: ah3305 AVO: 53112.002







0 20 40 80

SCALE IN FEET

LEGEND

- EXISTING WASTEWATER
- EXISTING WATER
- EXISTING STORM
- DEMO EXISTING STORM
- ABANDONED / REMOVED WASTEWATER
- ABANDONED / REMOVED WATER
- EXISTING TREE TO BE REMOVED

NOTES:

1. EXISTING UTILITIES LOCATIONS ARE BASED ON RECORD INFORMATION AND SURVEYS OF SURFACE FEATURES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES.
2. SEE M.E.P. PLANS FOR SITE LIGHTING AND ELECTRICAL SUPPLY.
3. CONTRACTOR IS NOT PERMITTED TO CROSS OR DRIVE ON THE EXISTING TRACK WITH MACHINERY.
4. CONTRACTOR SHALL COORDINATE WITH STRUCTURAL ENGINEER AND GEOTECH FOR REMOVAL OR ABANDONED IN PLACE OF EXISTING UTILITIES UNDER FUTURE BUILDING PAD.
5. CONTRACTOR SHALL COORDINATE WITH M.E.P. FOR BUILDING UTILITIES CONNECTIONS.

TREE LIST

TAG #	SIZE (IN)	TYPE	
2895	9.5	LIVE OAK	REMOVE
2896	10	LIVE OAK	REMOVE
2897	9	LIVE OAK	REMOVE
2898	12	LIVE OAK	REMOVE

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

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE CITY OF LEANDER AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

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LEANDER TEXAS

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TEL: (512)777-4800

REVISION		
NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024

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PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	1" = 40'

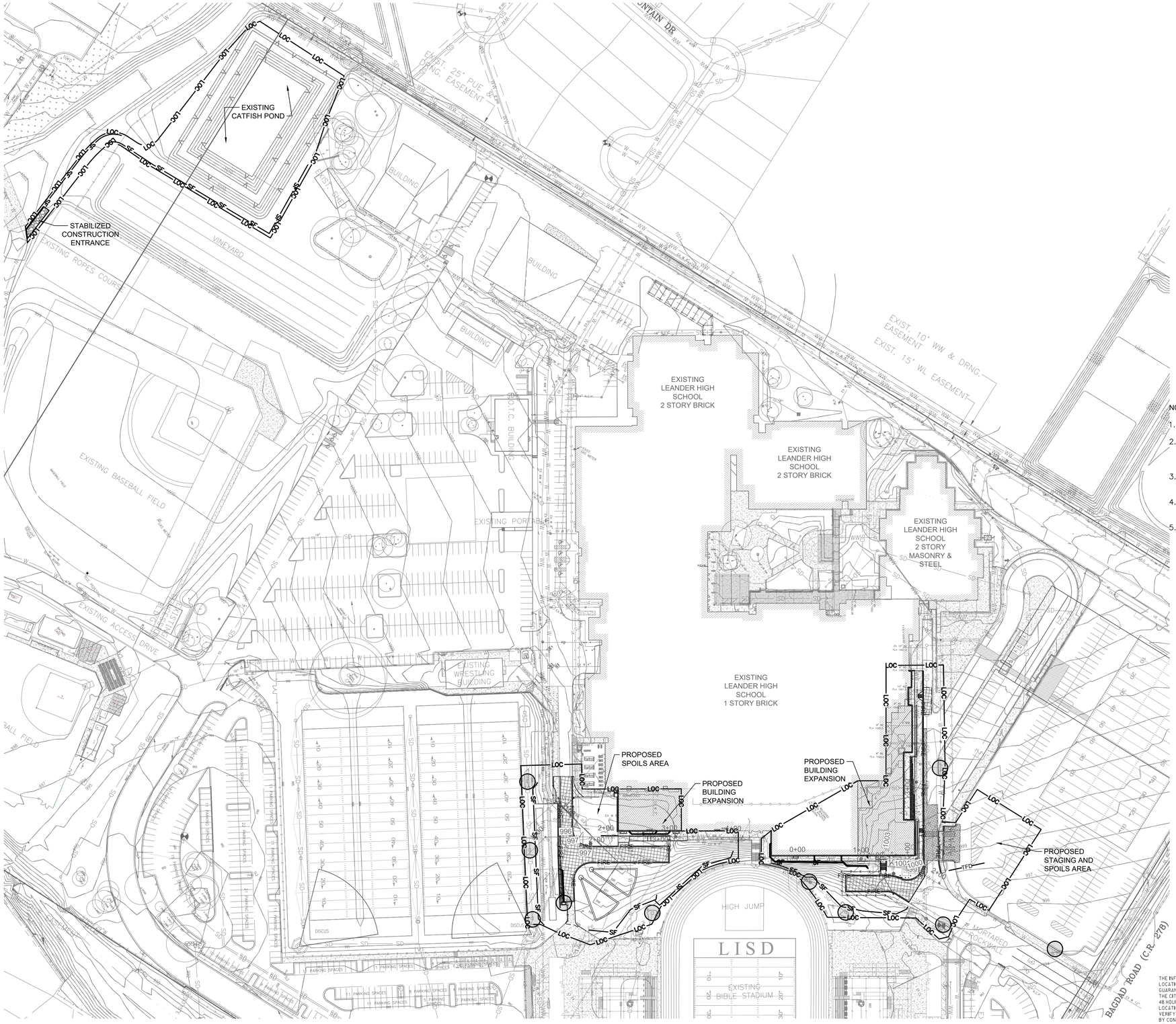
SHEET TITLE

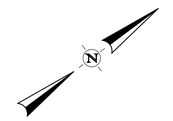
EXISTING CONDITIONS & DEMOLITION PLAN

1B CD.01

5 OF 20

FILE NAME: A:\53000s\53112002\PW\CADD\Sheets\Phase 1B\C-PLAN-EDEMO-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:13 AM, USER: ah3305 AVO: 53112.002





LEGEND

WW — WW	EXISTING WASTEWATER
W — W	EXISTING WATER
SD — SD	EXISTING STORM
WW	PROPOSED WASTEWATER
WM	PROPOSED WATER
SD — SD	PROPOSED STORM
WW — WW	ABANDONED / REMOVED WASTEWATER
W — W	ABANDONED / REMOVED WATER
SD — SD	DEMO EXISTING STORM
LOC — LOC	LIMITS OF CONSTRUCTION
TFD — TFD	TRIANGLE FILTER DIKE
SF — SF	SILT FENCING
	INLET PROTECTION

NOTES:

1. SEE EROSION CONTROL NOTES ON SHEET 2.
2. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENT CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
3. INLET WITHIN LIMITS OF CONSTRUCTION SHALL HAVE INLET PROTECTION WHETHER SHOWN HEREON OR NOT.
4. LIMITS OF CONSTRUCTION SHALL BE CLOCKED OFF WITH TEMPORARY CHAIN LINK FENCING.
5. SEE SHEET 15 FOR EROSION SEDIMENTATION CONTROL DETAILS.

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

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PROJECT NO.:	53112.002
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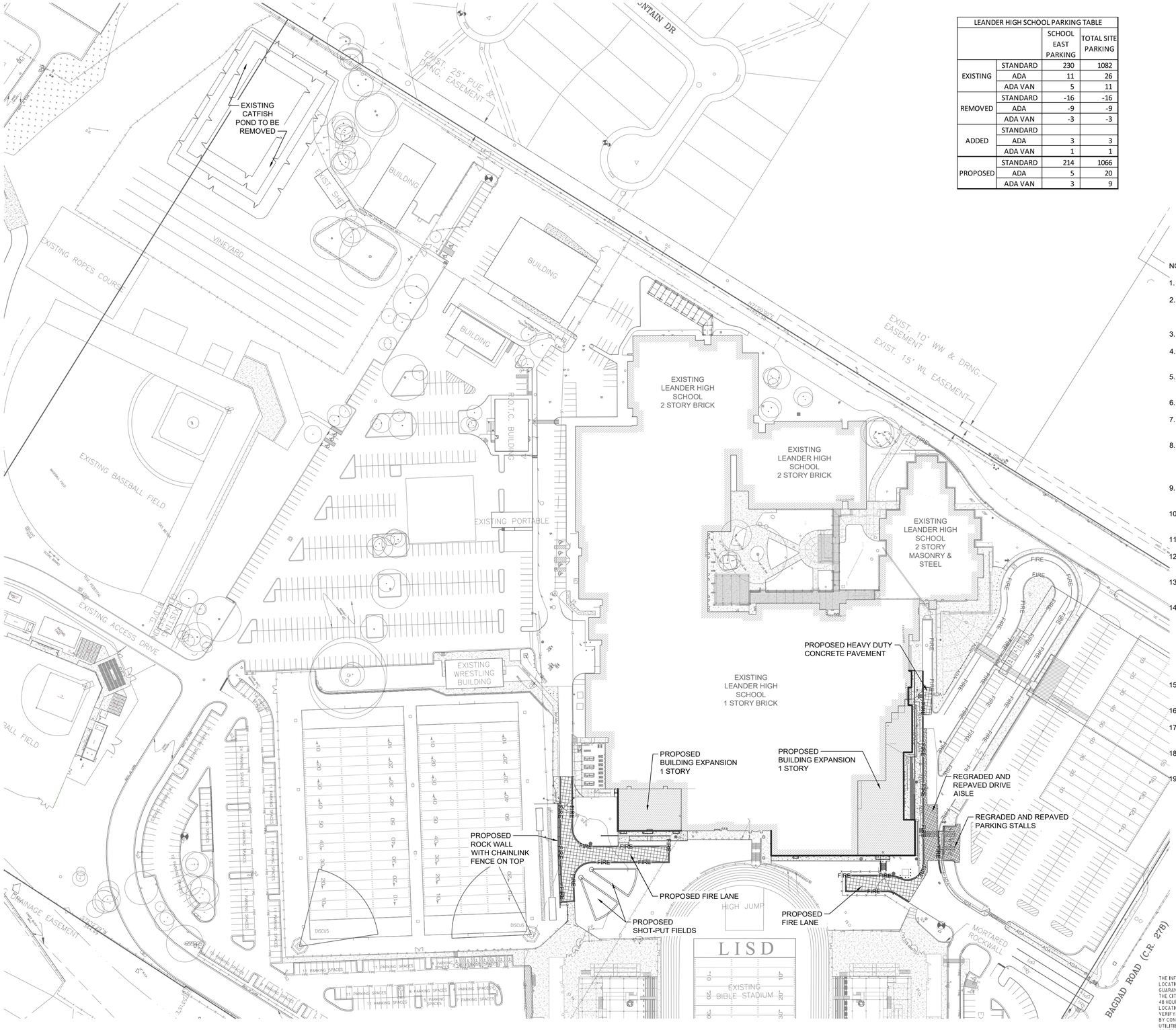
DRAWN BY:	--
CHECKED BY:	--
SCALE:	1" = 80'

SHEET TITLE
EROSION & SEDIMENTATION CONTROL PLAN

1B CE.01
6 OF 20

FILE NAME: A:\53000s\53112\2022\PW\CADD\Sheets\Phase 1B\C-PLAN-ERCN-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:13 AM, USER: ah3305 AVO: 53112.002



LEANDER HIGH SCHOOL PARKING TABLE			
		SCHOOL EAST PARKING	TOTAL SITE PARKING
EXISTING	STANDARD	230	1082
	ADA	11	26
	ADA VAN	5	11
REMOVED	STANDARD	-16	-16
	ADA	-9	-9
	ADA VAN	-3	-3
ADDED	STANDARD		
	ADA	3	3
	ADA VAN	1	1
PROPOSED	STANDARD	214	1066
	ADA	5	20
	ADA VAN	3	9

0 40 80 160
SCALE IN FEET

LEGEND
ADA ADA ADA — ADA PATH
FIRE FIRE — FIRE LANE

NOTES:

1. ALL PROPOSED SITE UTILITY LINES ARE TO BE LOCATED UNDERGROUND.
2. CURBS SHALL BE CATCH CURB WHERE SITE IS GRADED DOWN TOWARD CURB AND SHALL BE SPILL CURB WHERE GRADING IS AWAY FROM CURB CONTRACTOR SHALL TRANSITION BETWEEN CATCH/SPILL CURB AS NECESSARY.
3. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
4. LONGITUDINAL SLOPES ON ACCESSIBLE ROUTS MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
5. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES.
6. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
7. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
8. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC R.O.W. OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PERMITTED.
9. FIRE LANE STRIPING: CURB OR 6" PAVEMENT STRIPE, PAINTED RED W/ 4" WHITE LETTERS MARKED "FIRE LANE TOW-AWAY ZONE" EVERY 25 FEET.
10. ALL CHAIN-LINK FENCING (INCLUDING ALL METAL PARTS) WILL BE BLACK OR GREEN VINYL COATED. - OWNER TO SELECT COLOR.
11. ALL DISTURBED AREAS WILL BE RE-VEGETATED.
12. WHERE SIDEWALKS ARE ADJACENT TO CURB THE INDICATED WIDTH OF SIDEWALK IS MEASURED FROM BACK OF CURB.
13. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER FOR WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION.
14. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING. GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
15. 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
16. REFERENCE GENERAL NOTE SHEET 2 FOR ADDITIONAL NOTES.
17. SEE ARCHITECTURAL PLANS FOR DETAILS OF PEDESTRIAN HANDRAILS AND GUARDRAILS.
18. SEE GENERAL NOTE SHEET 2, STREET AND DRAINAGE NOTE 12, AND PAVEMENT SECTION DETAILS SHEET 17. FOR PAVEMENT THICKNESS.
19. SEE STRUCTURAL PLANS FOR DETAILS OF ROCK WALL AND RETAINING WALL.

Know what's below.
Call before you dig.
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LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR. SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4600

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED
PROFESSIONAL ENGINEER
3/29/2024
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

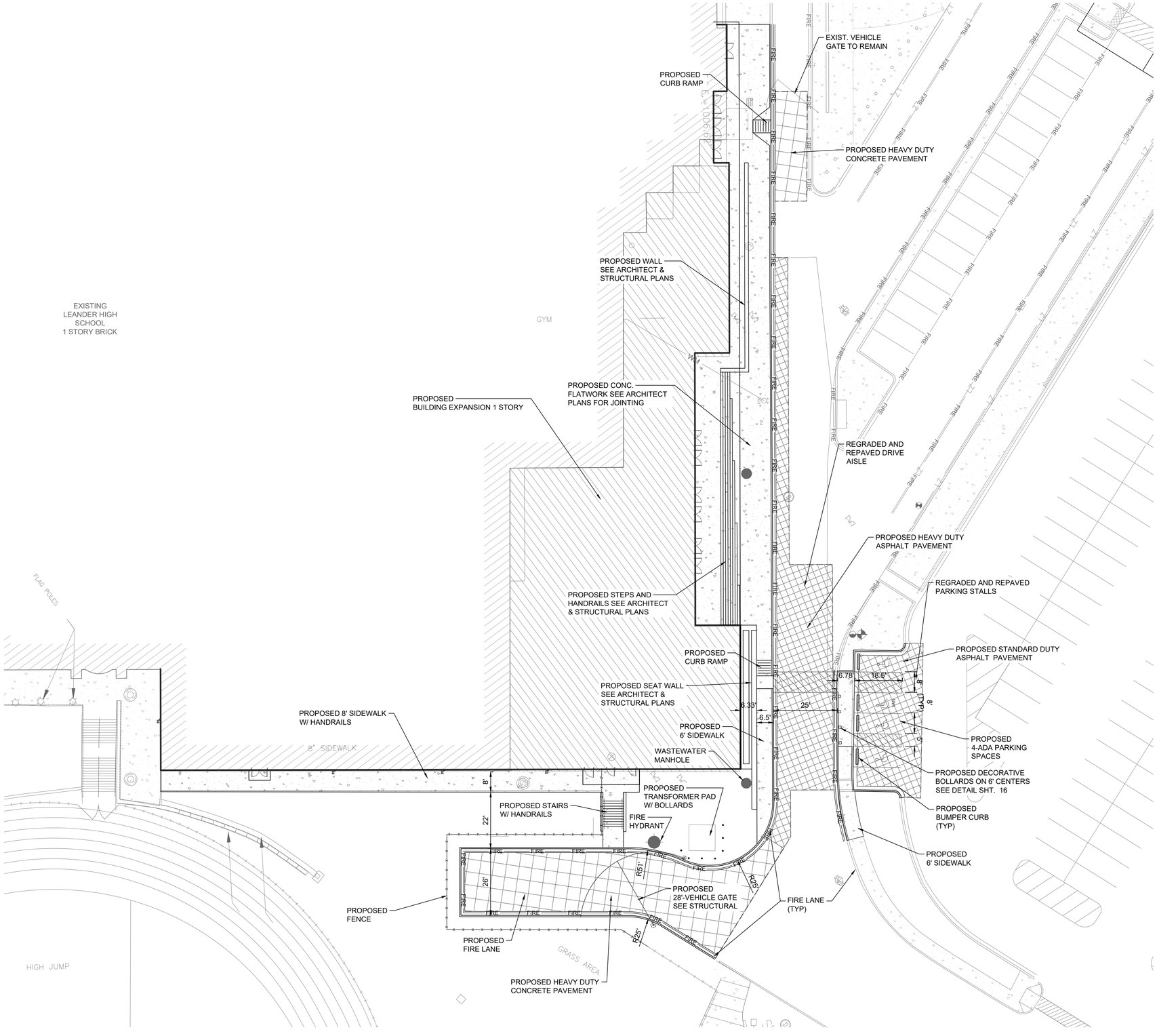
I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	1" = 80'

SHEET TITLE
OVERALL SITE PLAN

1B CS.00
7 OF 20

FILE NAME: A:\53000s\53112\002\PWCADD\Sheets\Phase 1B\C-PLAN-SITE-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:14 AM, USER: ah3305 AVO: 53112.002



NOTES:

1. SEE SHEET 7 FOR SITE PLAN NOTES.

LEANDER HS MASTER PLAN
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SCALE:	1" = 20'

SHEET TITLE

SITE PLAN
(1 OF 2)

1B CS-01
8 OF 20

811
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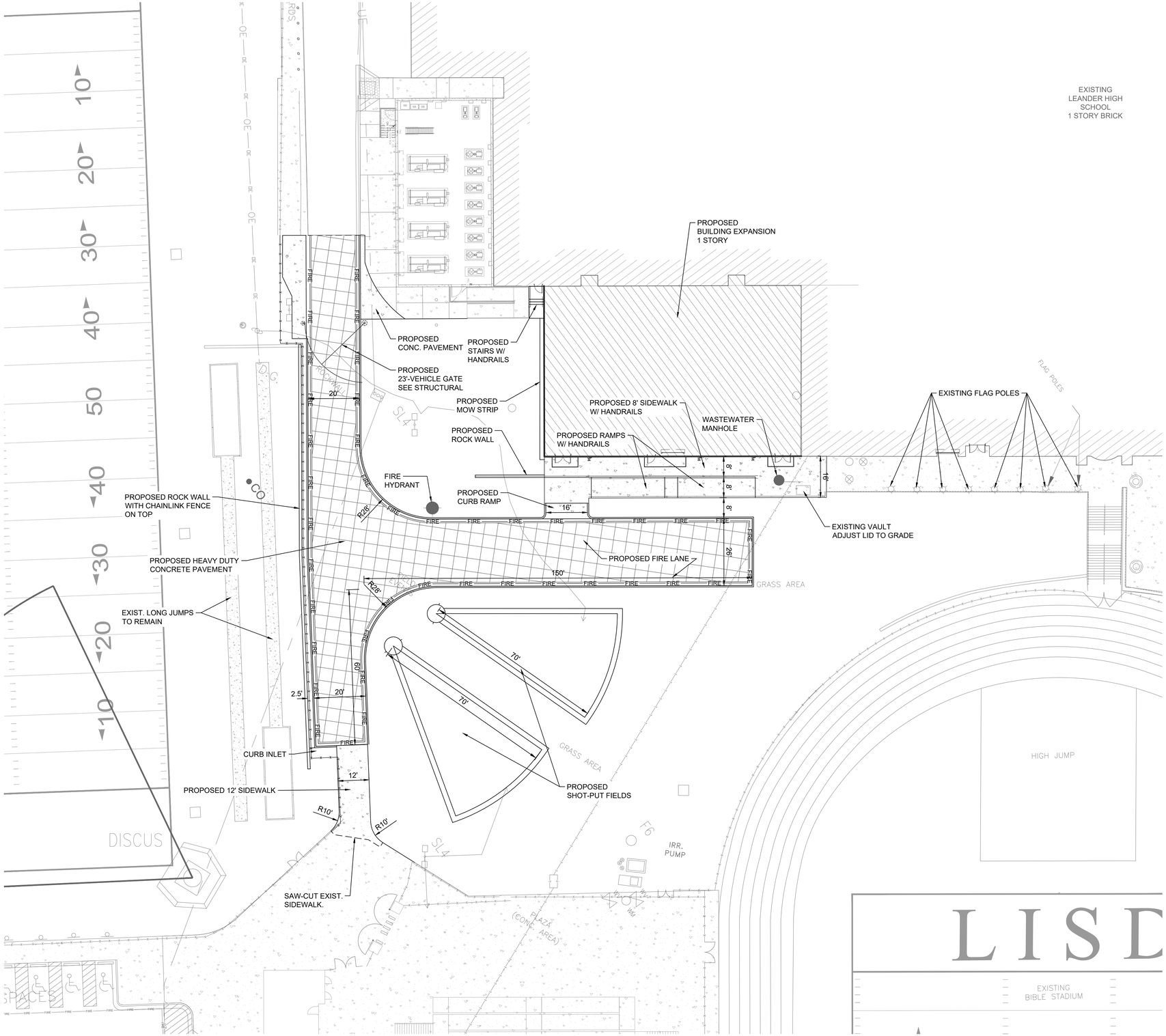

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ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
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811 Know what's **below.** **Call** before you dig.

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PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	1" = 20'

SHEET TITLE

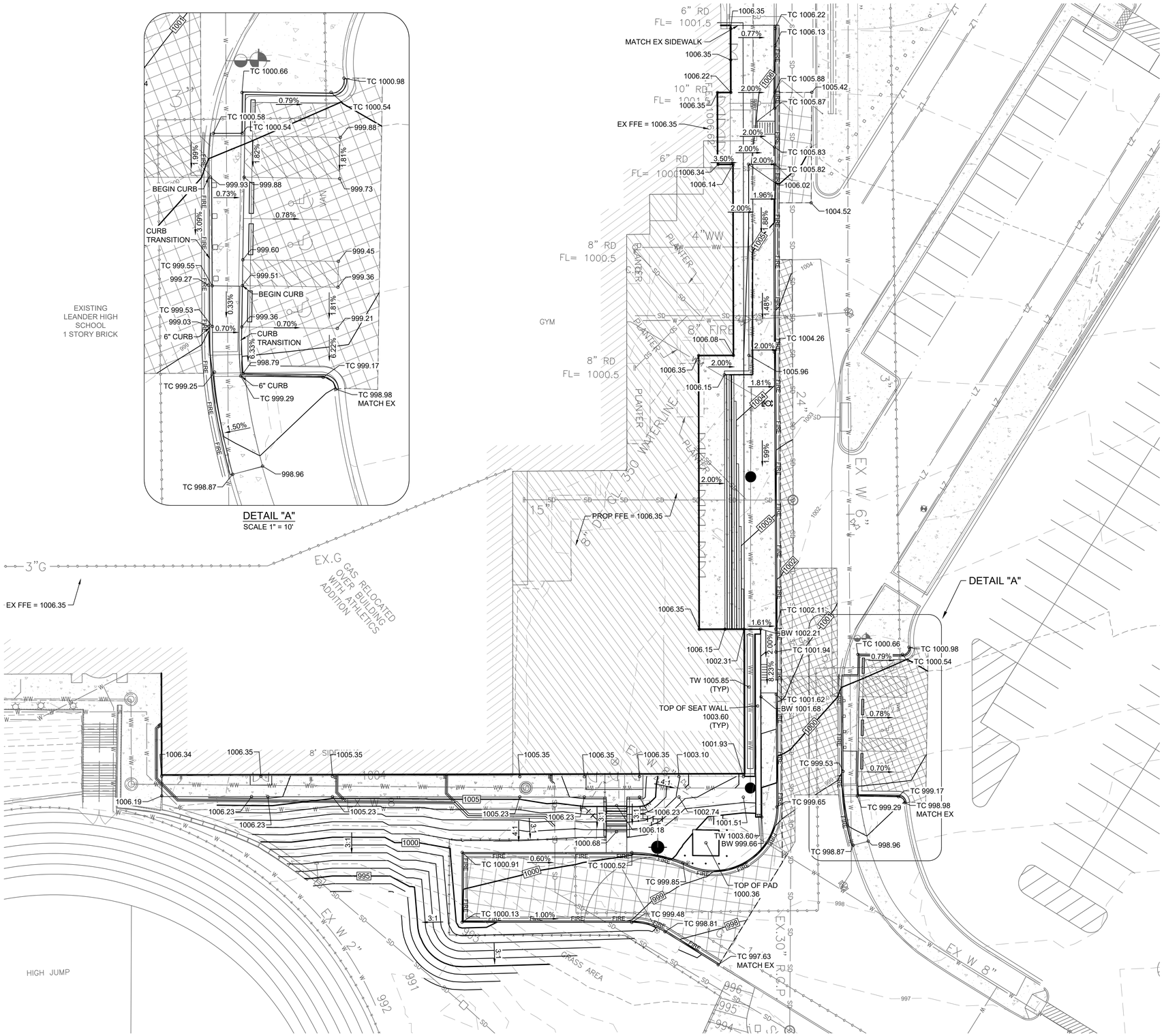
SITE PLAN
(2 OF 2)

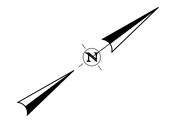
1B CS.02
9 OF 20

FILE NAME: A:\53000s\53112002\PW\CADD\Sheets\Phase 1B\C-PLAN-SITE-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:14 AM, USER: ah3305 AVO: 53112.002

DETAIL "A"
SCALE 1" = 10'

EXISTING LEANDER HIGH SCHOOL 1 STORY BRICK





LEGEND

WW WW	EXISTING WASTEWATER
W W	EXISTING WATER
SD SD	EXISTING STORM
1000	EXISTING CONTOUR
WW	PROPOSED WASTEWATER
WM	PROPOSED WATER
SD SD	PROPOSED STORM
1000	PROPOSED CONTOUR

NOTES:

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LEANDER TEXAS
SD-24-0197

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3/29/2024

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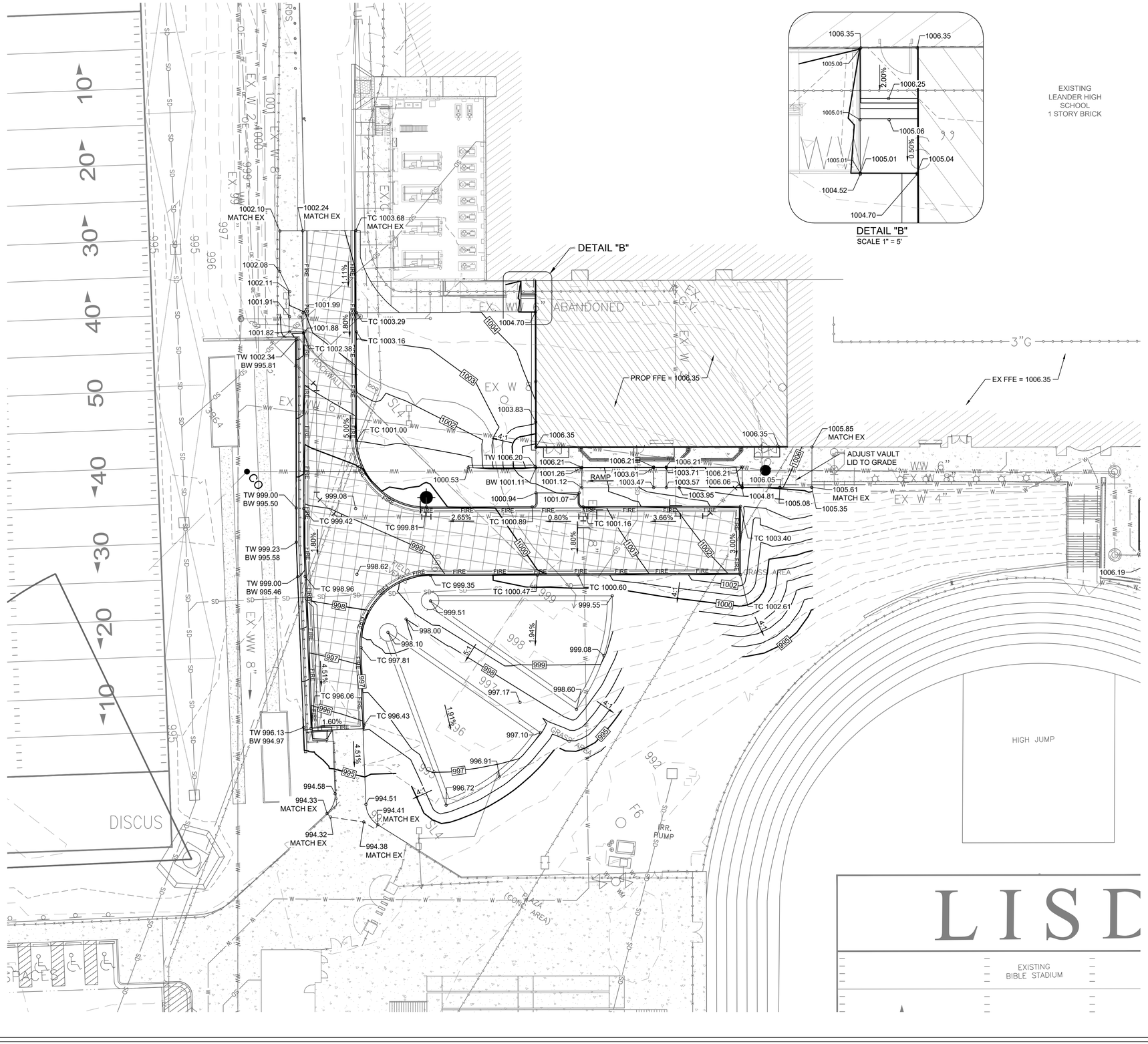
SCALE:	1" = 20'

SHEET TITLE

GRADING PLAN
(1 OF 3)

1B CG.01
10 OF 20

FILE NAME: A:\53000s\53112\002\PW\CADD\Sheets\Phase 1B\C-PLAN-GRAD-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:15 AM, USER: ah3305 AVO: 53112.002



DETAIL "B"
SCALE 1" = 5'

N

0 10 20 40
SCALE IN FEET

LEGEND

WW WW	EXISTING WASTEWATER
W W	EXISTING WATER
SD SD	EXISTING STORM
1000	EXISTING CONTOUR
WW	PROPOSED WASTEWATER
WM	PROPOSED WATER
SD SD	PROPOSED STORM
1000	PROPOSED CONTOUR

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ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
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TEL: (512) 777-4600

REVISION		
NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024

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ISSUED:	3/29/2024
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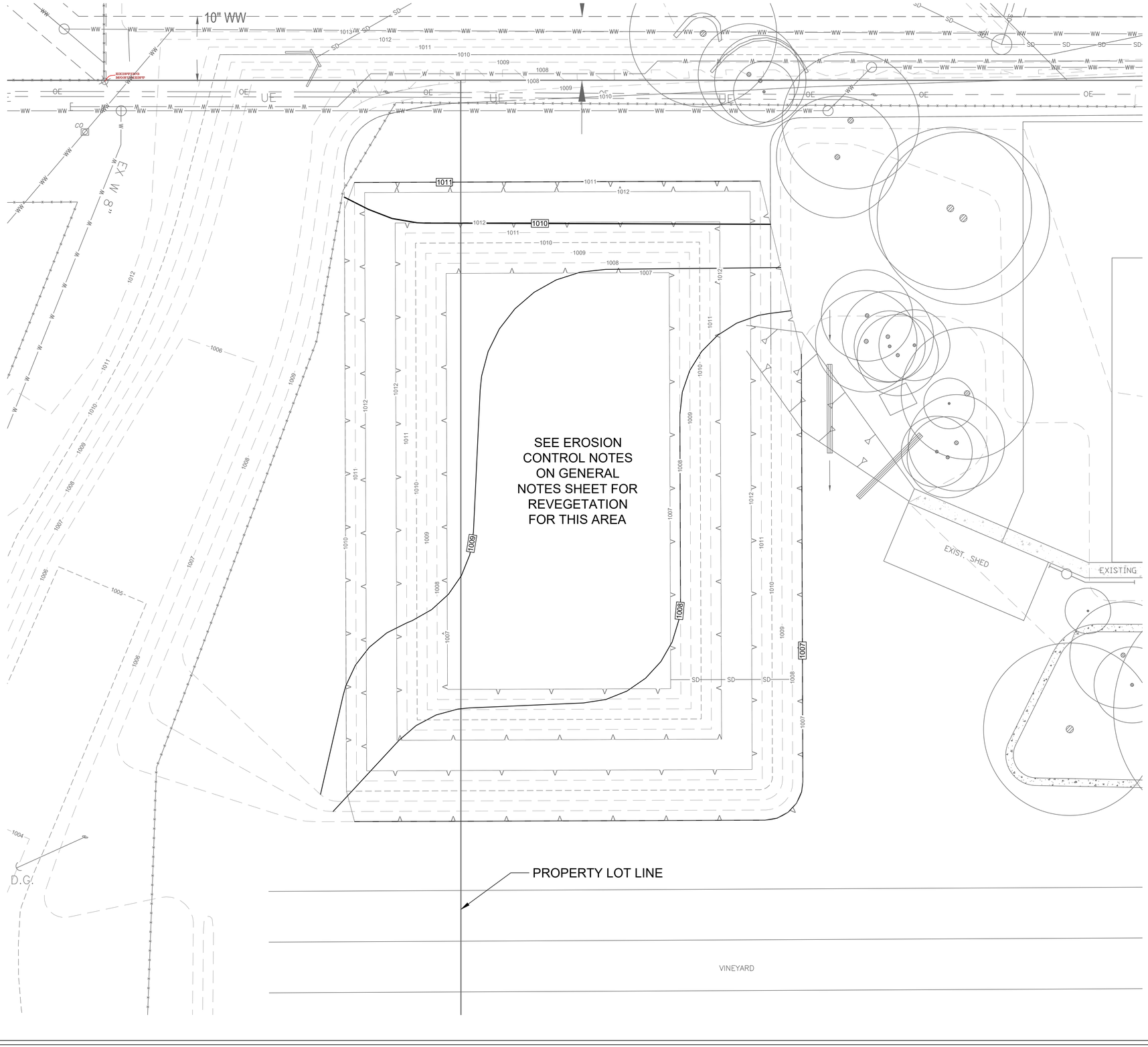
CHECKED BY:	--
SCALE:	1" = 20'

SHEET TITLE

GRADING PLAN
(2 OF 3)

1B CG.02
11 OF 20

FILE NAME: A:\53000s\53112\002\PW\CADD\Sheets\Phase 1B\C-PLAN-GRAD-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:15 AM, USER: ah3305 AVO: 53112.002



0 10 20 40
SCALE IN FEET

LEGEND

- EXISTING WASTEWATER
- EXISTING WATER
- EXISTING STORM
- EXISTING CONTOUR
- PROPOSED WASTEWATER
- PROPOSED WATER
- PROPOSED STORM
- PROPOSED CONTOUR

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LEANDER TEXAS
SD-24-0197

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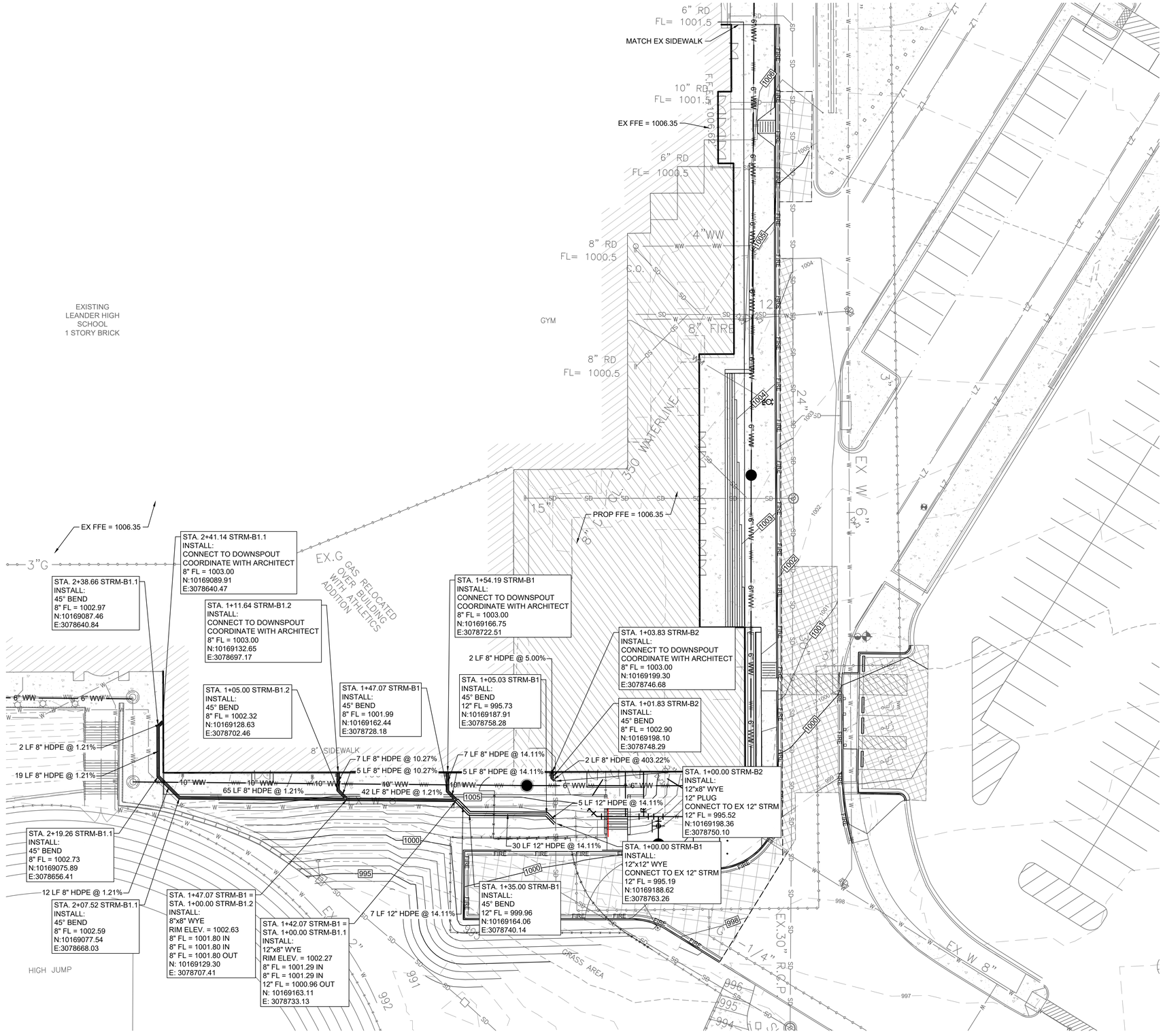
SHEET TITLE

GRADING PLAN
(3 OF 3)

1B CG.03
12 OF 20

FILE NAME: A:\53000s\53112002\PW\CADD\Sheets\Phase 1B\C-PLAN-GRAD-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:15 AM, USER: ak3305 AVO: 53112.002



0 10 20 40
SCALE IN FEET

LEGEND

- EXISTING WASTEWATER
- EXISTING WATER
- EXISTING STORM
- EXISTING CONTOUR
- PROPOSED WASTEWATER
- PROPOSED WATER
- PROPOSED STORM
- PROPOSED CONTOUR

NOTES:

1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY DRAINAGE DURING CONSTRUCTION. ANY TEMPORARY DRAINAGE OPERATIONS WILL BE REMOVED BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER AT THE CONTRACTOR'S ENTIRE EXPENSE.
2. REMOVE PORTION OF EXISTING STORM DRAIN PIPE AS NECESSARY FOR INSTALLATION OF NEW PIPE/STRUCTURE. IF PIPE IS TO BE ABANDONED IN PLACE, GROUT WITH FLOWABLE FILL AND PLUG ALL ENDS.
3. CONTRACTOR SHALL VERIFY THE EXISTING STORM DRAIN PIPE AND STRUCTURE SIZE, LOCATION, AND ELEVATION.

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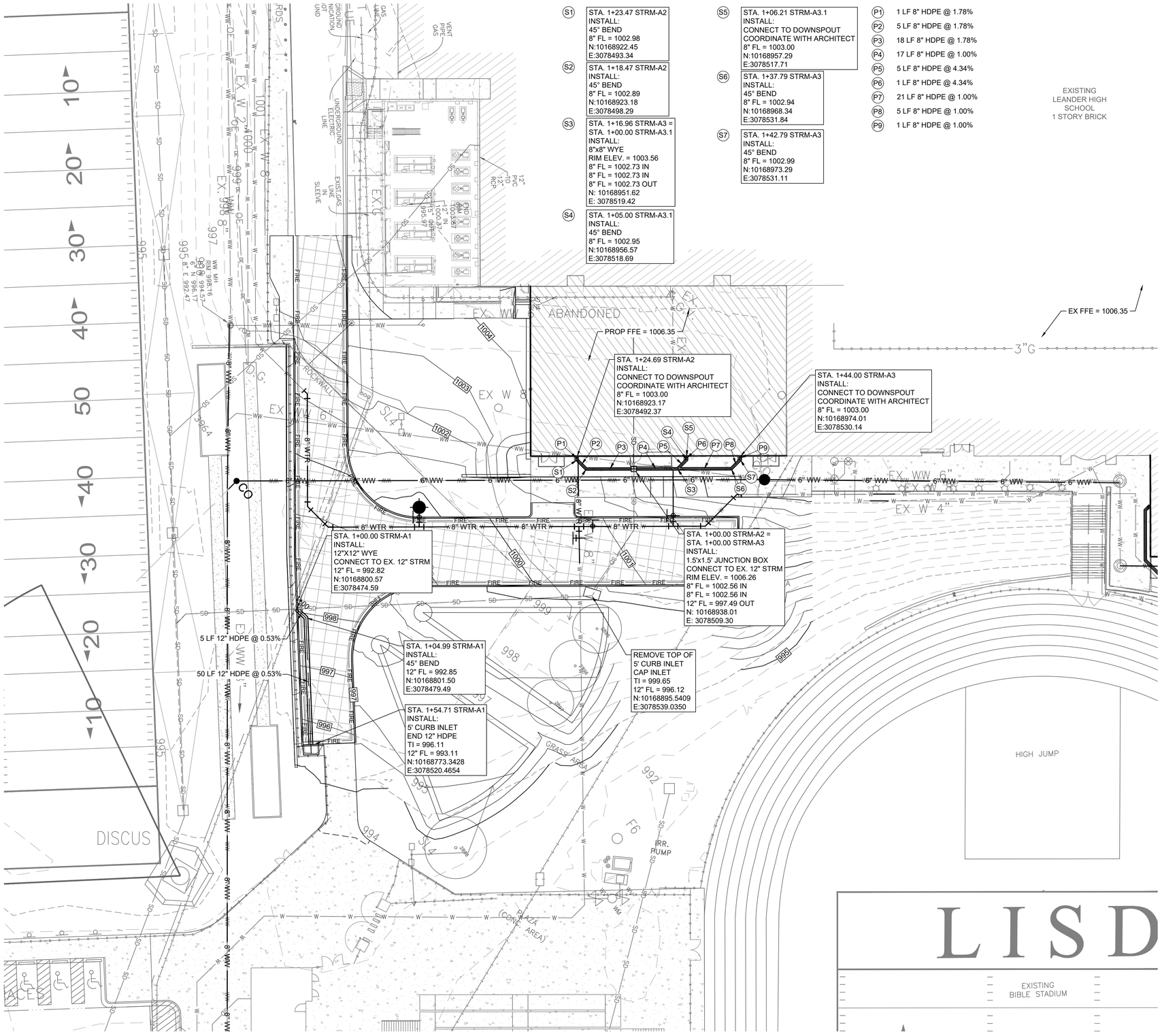
CHECKED BY:	--
SCALE:	1" = 20'

SHEET TITLE

DRAINAGE PLAN
(1 OF 2)

1B CDA.01
13 OF 20

FILE NAME: A:\53000s\53112\2002\PWCADD\Sheets\Phase 1B\C-PLAN-STRM-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:16 AM, USER: ah3305 AVO: 53112.002



0 10 20 40
SCALE IN FEET

LEGEND

- EXISTING WASTEWATER
- EXISTING WATER
- EXISTING STORM
- EXISTING CONTOUR
- PROPOSED WASTEWATER
- PROPOSED WATER
- PROPOSED STORM
- PROPOSED CONTOUR

NOTES:

1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY DRAINAGE DURING CONSTRUCTION. ANY TEMPORARY DRAINAGE OPERATIONS WILL BE REMOVED BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER AT THE CONTRACTOR'S ENTIRE EXPENSE.
2. REMOVE PORTION OF EXISTING STORM DRAIN PIPE AS NECESSARY FOR INSTALLATION OF NEW PIPE/STRUCTURE. IF PIPE IS TO BE ABANDONED IN PLACE, GROUT WITH FLOWABLE FILL AND PLUG ALL ENDS.
3. CONTRACTOR SHALL VERIFY THE EXISTING STORM DRAIN PIPE AND STRUCTURE SIZE, LOCATION, AND ELEVATION.

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

THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING SIZE, TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT THE CITY OF LEANDER AREA "ONE CALL" SYSTEM AT 1-800-344-8377 (DIG TESS) 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION FOR EXISTING UTILITY LOCATIONS. THE CONTRACTOR SHALL ALSO BE FULLY RESPONSIBLE FOR FIELD VERIFYING LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES, AND SHALL IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES TO THE UTILITY COMPANY'S APPROVAL AT THE EXPENSE OF THE CONTRACTOR.

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4800

REVISION NO.	DATE	DESCRIPTION

ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

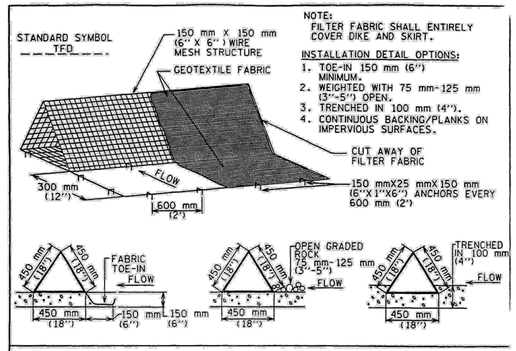
PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	1" = 20'

SHEET TITLE

DRAINAGE PLAN
(2 OF 2)

1B CDA.02
14 OF 20

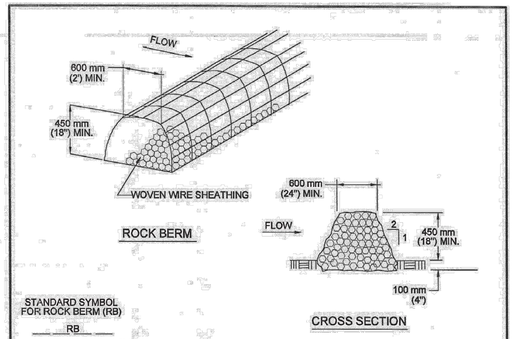
FILE NAME: A:\53000s\53112002\PWCADD\Sheets\Phase 1B\C-PLAN-STRM-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:16 AM, USER: ai3305 AVO: 53112.002



GENERAL NOTES

1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOED-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (⅜") DIAMETER RE-BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE MW40-150 mmX150 mm (6 GA. 6"X6") WIRE MESH, 450 mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

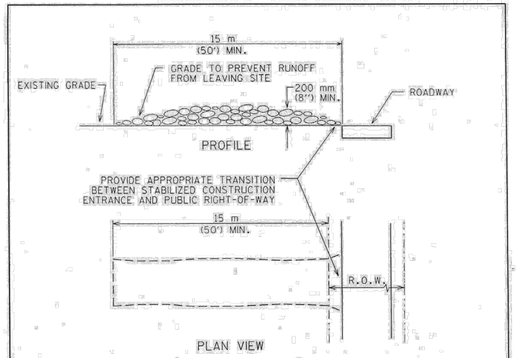
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	
ADOPTED 3-27-00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S



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.

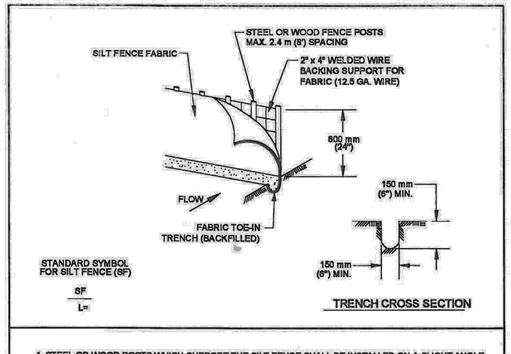
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	
ADOPTED 8/24/2010	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:

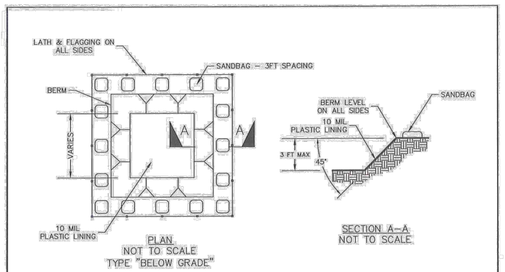
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO 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	
ADOPTED 5/23/00	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 Inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 Inches) DEEP AND 150 mm (6 Inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 Inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

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

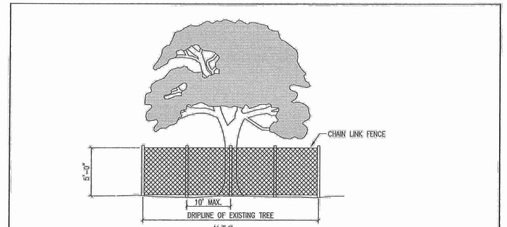


NOTES

1. ACTUAL LAYOUT DETERMINED IN FIELD

WAYNE S. WATTS 85124 LICENSED PROFESSIONAL ENGINEER
Wayne S. Watts 01/30/15

City Of Leander, Texas
303-1
CONCRETE WASHOUT



1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6")) CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.
4. CRITICAL ROOT ZONE REQUIREMENTS
   A. NO CONSTRUCTION OR DISTURBANCE SHALL OCCUR WITHIN AN AREA THAT CONSTITUTES MORE THAN FIFTY (50%) OF THE TOTAL CRITICAL ROOT ZONE AND ONE HALF THE RADIAL DISTANCE OF THE CRITICAL ROOT ZONE FOR EACH TREE BEING PRESERVED INCLUDING SIGNIFICANT TREES, HERITAGE TREES, AND ANY OTHER TREES FOR WHICH PRESERVATION IS TO BE CREDITED. THE REMAINING CRITICAL ROOT ZONE SHALL CONSIST OF AT LEAST ONE HUNDRED (100) SQUARE FEET.
   B. THIS DEFINED AREA SHALL BE FLAGGED AND ENCIRCLED WITH PROTECTIVE FENCING DURING CONSTRUCTION. THE PLANNING DIRECTOR MAY APPROVE CONSTRUCTION CLOSER TO THE TRUNK THAN ONE HALF (½) THE RADIAL DISTANCE, DEPENDING ON THE SIZE, SPACING, OR SPECIES OF THE TREE, THE TYPE OF DISTURBANCE PROPOSED, AND UNIQUENESS OF THE SITUATION.
   C. CUT OR FILL THAT IS GREATER THAN FOUR (4) INCHES IN DEPTH AND THE SEVERING OF MAJOR ROOTS SHALL BE CONSIDERED DISTURBANCE FOR THE PURPOSES OF THIS ORDINANCE.
   D. WITHIN THE PROTECTED CRITICAL ROOT ZONE, ONLY FLATWORK, DECKING, OR SIMILAR CONSTRUCTION, MAY BE APPROVED AND SHALL NOT AFFECT THE BRANCHING OF THE TREE.
   E. IF PROPOSED OR ACTUAL PROTECTION OF THE CRITICAL ROOT ZONE OF A TREE DOES NOT MEET THE REQUIREMENTS OF THIS SECTION, THEN THE TREE SHALL BE CONSIDERED REMOVED AND SHALL REQUIRE MITIGATION IN ACCORDANCE WITH THIS ORDINANCE.

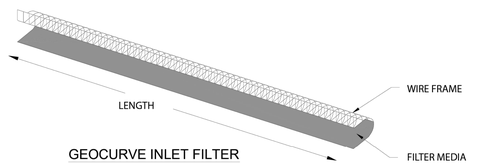
WAYNE S. WATTS 85124 LICENSED PROFESSIONAL ENGINEER
Wayne S. Watts 08/21/15

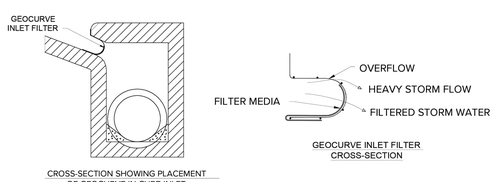
City Of Leander, Texas
303-2
TREE PROTECTION

GeoCurve Product Data Sheet

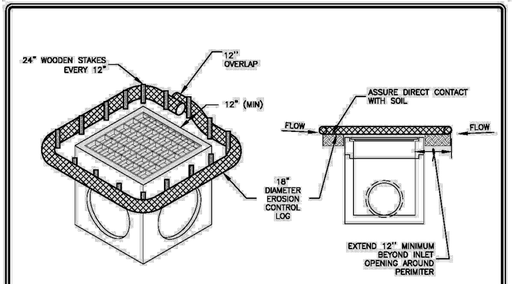
GEOCURVE
STORMWATER CURB INLET FILTER

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





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



NOTES:

1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 6".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY CLEAN THE INLET PROTECTION IF EXCESSIVE PONDING OCCURS.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CITY OF ROUND ROCK AREA INLET PROTECTION WITH EROSION CONTROL LOG DETAIL	DRAWING NO: EC-16

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRAIRWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512)777-4800

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

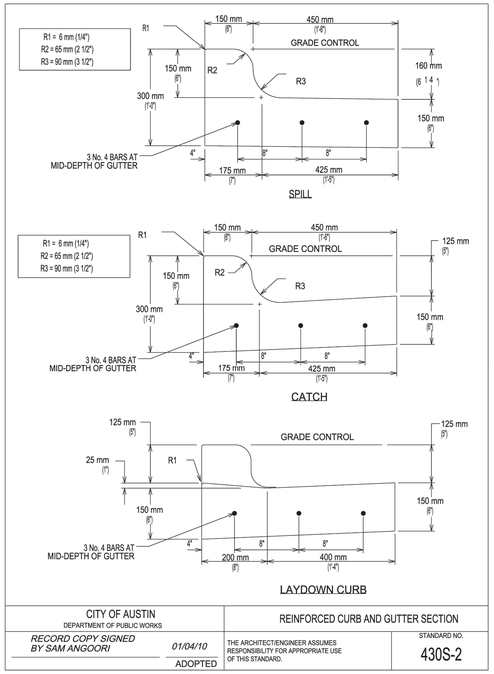
I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

SHEET TITLE
EROSION SEDIMENTATION CONTROL DETAILS

1B CDE.01
15 OF 20

FILE NAME: A:\53000s\53112002\PW\CADD\Sheets\Phase 1B\C-DTLS-DTLS-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:16 AM, USER: ah3305 AVO: 53112.002



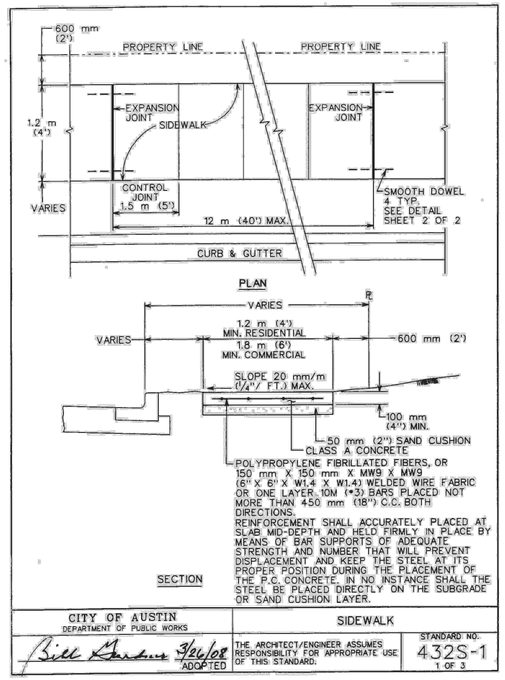
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

REINFORCED CURB AND GUTTER SECTION

RECORD COPY SIGNED BY SAM ANGOORI — 01/04/10 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 430S-2



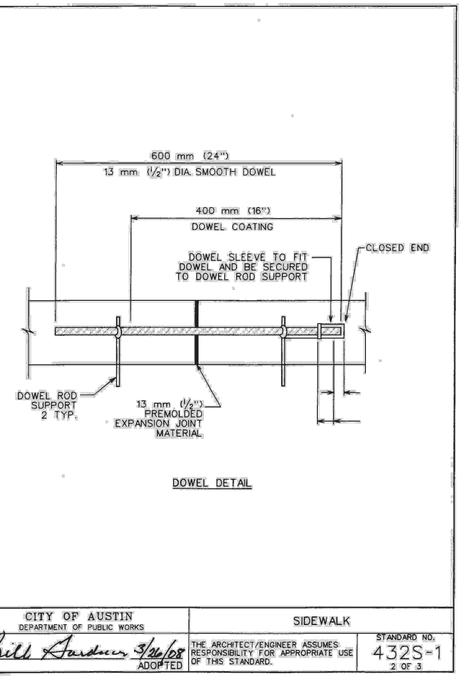
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

SIDEWALK

Bill Gardner 3/26/08 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 432S-1 1 OF 3



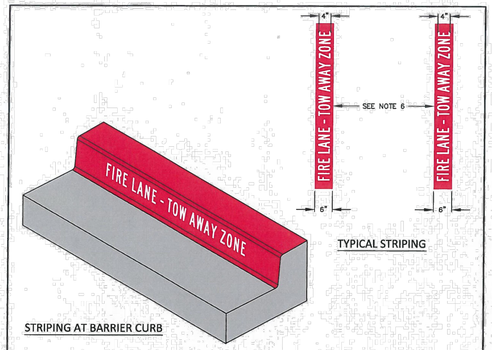
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

SIDEWALK

Bill Gardner 3/26/08 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 432S-1 2 OF 3



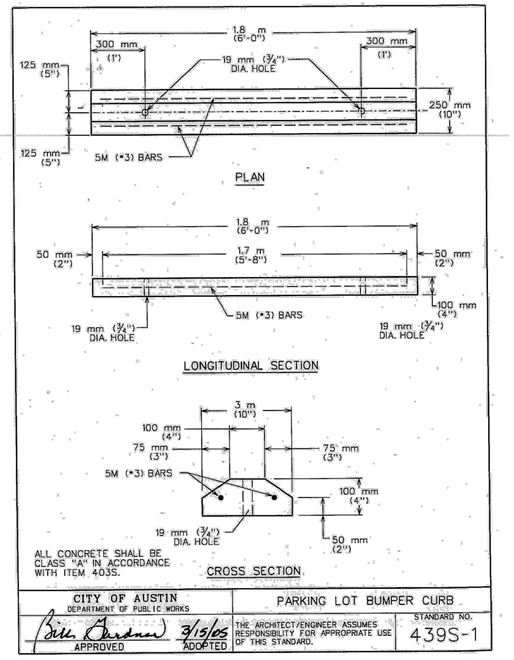
NOTES:

1. ALL FIRE LANE STRIPING SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. FIRE LANES SHALL BE CONTINUOUSLY MARKED BY RED TRAFFIC PAINT THAT IS MINIMUM SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.
3. "FIRE LANE - TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") TYPE D WHITE BLOCK LETTERS AT TWENTY-FIVE FOOT (25') INTERVALS, OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANE.
4. WHERE A 6" BARRIER CURB EXISTS, THE FIRE LANE STRIPING SHALL BE ON BOTH THE VERTICAL FACE OF THE CURB AND TOP OF CURB. "FIRE LANE - TOW AWAY ZONE" SHALL BE MARKED IN 4" WHITE BLOCK LETTERS ON FACE OF CURB ONLY.
5. WHERE A FIRE LANE IS ADJACENT TO PARKING SPACES THE FIRE LANE STRIPING SHALL BE AN 8" RED STRIPE PAINTED ON THE DRIVE SURFACE WITH 4" WHITE LETTERS STATING "FIRE LANE NO PARKING TOW-AWAY ZONE." FIRE LANE STRIPING SHALL EXTEND BEHIND ALL PARKING SPACES.
6. WHERE A FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, OR OTHER FIRE PROTECTION EQUIPMENT IS LOCATED ON A FIRE LANE, THE FIRE LANE SHALL BE A MINIMUM OF TWENTY-SIX FEET (26') IN WIDTH, EXCLUSIVE OF SHOULDERS.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

MICHAEL LAFFERTY 118708 LICENSED FIRE MARSHAL — 2017-04-28 — FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-2
FIRE LANE STRIPING



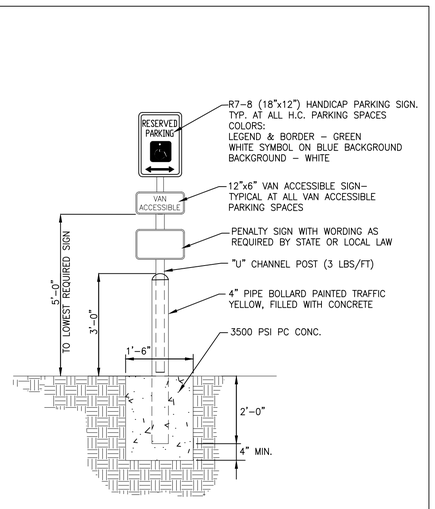
CITY OF AUSTIN
DEPARTMENT OF PUBLIC WORKS

PARKING LOT BUMPER CURB

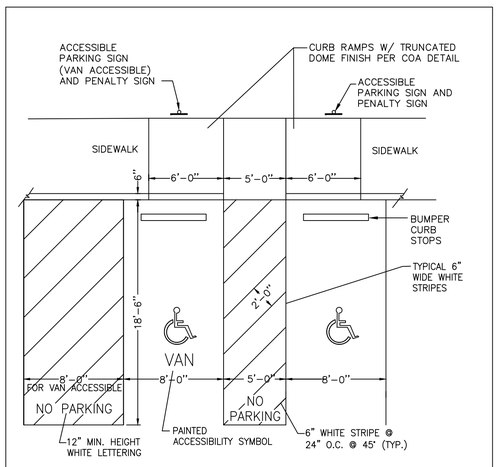
Bill Gardner 3/15/05 APPROVED ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 439S-1



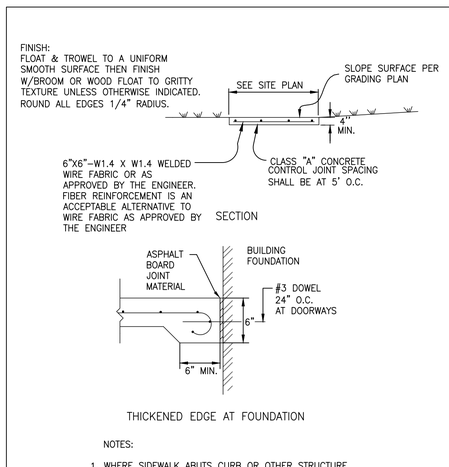
TYPICAL HANDICAP PARKING SIGN
N.T.S.



NOTES:

1. WALKWAYS, RAMPS, HANDICAP PARKING SIGNAGE, ETC. SHALL MEET APPROVED A.D.A. STANDARDS.
2. 2% MAX. SLOPE IN ALL DIRECTIONS IN AREAS OF HANDICAP PARKING SPACES.

HANDICAP PARKING/RAMP DETAIL
N.T.S.



THICKENED EDGE AT FOUNDATION

NOTES:

1. WHERE SIDEWALK ABUTS CURB OR OTHER STRUCTURE USE 3/4" CONTINUOUS PREFORMED ASPHALT BOARD EXPANSION JOINTS. ALL TRANSVERSE JOINTS SHALL ALIGN WITH THOSE OF THE CURBING AS APPLICABLE.
2. SEE ARCHITECTURAL PLANS FOR ENLARGED VIEWS OF CERTAIN SIDEWALK AREAS. ARCHITECTURAL PLANS MAY PROVIDE SPECIFIC JOINT PATTERNS AND FINISHES.

ON–SITE USE ONLY

STANDARD SIDEWALK DETAILS
N.T.S.

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4600

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS — ZHIPENG XING, P.E. — 127763 — LICENSED PROFESSIONAL ENGINEER — 3/29/2024

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

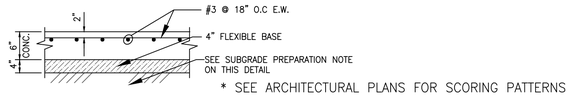
PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

SHEET TITLE

PAVING DETAILS (1 OF 2)

1B CDE.02

16 OF 20



* SEE ARCHITECTURAL PLANS FOR SCORING PATTERNS

HEAVY DUTY CONCRETE FOR FIRE LANES
N.T.S

NOTES:

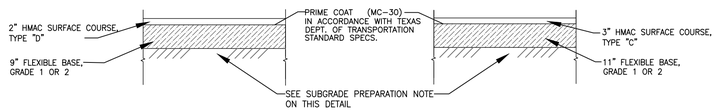
1. SUBGRADE PREPARATION AREAS TO SUPPORT PAVEMENTS SHOULD BE STRIPPED OF ALL VEGETATION AND ORGANIC TOPSOIL AND THE EXPOSED SUBGRADE SHOULD BE PROOFROLLED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SITE PREPARATION SECTION UNDER FOUNDATION CONSTRUCTION CONSIDERATIONS.

   AFTER COMPLETION OF THE PROOFROLLING OPERATIONS AND JUST PRIOR TO FLEXIBLE BASE PLACEMENT, THE EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED BY SCARIFYING TO A MINIMUM DEPTH OF 6 IN. AND RECOMPACTING TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DENSITY DETERMINED FROM THE TEXAS DEPARTMENT OF TRANSPORTATION COMPACTION TEXT (TxDOT, Tex-114E). THE MOISTURE CONTENT OF TEH SUBGRADE SHOULD BE MAINTAINED WITHIN THE RANGE OF OPTIMUM MOISTURE CONTENT TO 3 PERCENTAGE POINTS ABOVE OPTIMUM UNTIL PERMANENTLY COVERED.

2. PORTLAND CEMENT CONCRETE THE PORTLAND CONCRETE SHOULD BE AIR-ENTRAINED TO RESULT IN A 4 PERCENT ± 1 PERCENT AIR, SHOULD HAVE A MAXIMUM SLUMP OF 5 INCHES, AND SHOULD HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI. A LIQUID MEMBRANE-FORMING CURING COMPOUND SHOULD BE APPLIED AS SOON AS PRACTICAL AFTER BROOM FINISHING THE CONCRETE SURFACE. THE CURING COMPOUND WILL HELP REDUCE THE LOSS OF WATER FROM THE CONCRETE. THE REDUCTION IN THE RAPID LOSS IN WATER WILL HELP REDUCE SHRINKAGE CRACKING OF THE CONCRETE.

3. CONCRETE JOINTING THE RATIO OF SLAB LENGTH-TO-WIDTH SHOULD NOT EXCEED 1.25. JOINT SPACINGS SHALL BE 12 FT. LONGITUDINAL AND 12 FT. TRAVERSE. EXPANSION JOINTS ARE NEEDED TO SEPARATE THE CONCRETE SLAB FROM FIXED OBJECTS SUCH AS DROP INLETS, LIGHT STANDARDS AND BUILDINGS. EXPANSION JOINT SPACINGS ARE NOT TO EXCEED A MAXIMUM OF 75 FT AND NO EXPANSION OR CONSTRUCTION JOINTS SHOULD BE LOCATED IN A SWALE OR DRAINAGE COLLECTION LOCATIONS.

4. ON-SITE FILL IF ON-SITE FILL MATERIAL IS USED, ON-SITE SOILS SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 IN. IN THICKNESS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY TxDOT, TEX-114-E. THE MOISTURE CONTENT OF THE FILL SHOULD BE MAINTAINED WITHIN THE RANGE OF OPTIMUM WATER CONTENT TO 3 PERCENTAGE POINTS ABOVE THE OPTIMUM WATER CONTENT UNTIL PERMANENTLY COVERED. WE RECOMMEND THAT FILL MATERIALS BE FREE OF ROOTS AND OTHER ORGANIC OR DEGRADABLE MATERIAL. WE ALSO RECOMMEND THAT THE MAXIMUM PARTICLE SIZE NOT EXCEED 4 IN. OR ONE HALF THE LIFT THICKNESS, WHICHEVER IS SMALLER.



LIGHT DUTY FOR PARKING AREAS ONLY
N.T.S

HEAVY DUTY FOR DRIVE AISLES
N.T.S

NOTES:

1. SELECT FILL MATERIALS SHOULD BE CRUSHED STONR AND MEET THE 2014 TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, FLEXIBLE BASE, TYPE A, GRADE 1-2 OR 3, AND HAVE A MAXIMUM PLASTICITY INDEX (PI) OF 12 AND A MINIMUM PI OF 3.

2. SUBGRADE PREPARATION AREAS TO SUPPORT PAVEMENTS SHOULD BE STRIPPED OF ALL VEGETATION AND ORGANIC TOPSOIL AND THE EXPOSED SUBGRADE SHOULD BE PROOFROLLED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE SITE PREPARATION SECTION UNDER FOUNDATION CONSTRUCTION CONSIDERATIONS.

   AFTER COMPLETION OF THE PROOFROLLING OPERATIONS AND JUST PRIOR TO FLEXIBLE BASE PLACEMENT, THE EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED BY SCARIFYING TO A MINIMUM DEPTH OF 6 IN. AND RECOMPACTING TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DENSITY DETERMINED FROM THE TEXAS DEPARTMENT OF TRANSPORTATION COMPACTION TEXT (TxDOT, Tex-114E). THE MOISTURE CONTENT OF TEH SUBGRADE SHOULD BE MAINTAINED WITHIN THE RANGE OF OPTIMUM MOISTURE CONTENT TO 3 PERCENTAGE POINTS ABOVE OPTIMUM UNTIL PERMANENTLY COVERED.

3. FLEXIBLE BASE COURSE THE FLEXIBLE BASE COURSE SHOULD BE CRUSHED LIMESTONE CONFORMING TO TxDOT STANDARD SPECIFICATIONS. ITEM 247, TYPE A, GRADE 1-2. BASE COURSE SHOULD BE PLACED IN LIFTS WITH A MAXIMUM THICKNESS OF 8 IN. AND COMPACTED TO A MINIMUM OF 100 PERCENT OF TEH MAXIMUM DENSITY AT A MOISTURE CONTENT WITHIN THE RANGE OF 2 PERCENTAGE POINTS BELOW TO 2 PERCENTAGE PONTS ABOVE THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY TEX-113-E.

4. ASPHALTIC CONCRETE SURFACE COURSE THE ASPHALTIC CONCRETE SURFACE COURSE SHOULD CONFORM TO TxDOT STANDARD SPECIFICATIONS, ITEM 340, TYPE C OR D (SEE INDIVIDUAL PAVEMENT SECTIONS). THE ASPHALTIC CONCRETE SHOULD BE COMPACTED TO A MINIMUM OF 92 PERCENT OF THE MAXIMUM THEORETICAL SPECITIC GRAVITY (RICE) OF THE MIXTURE DETERMINED ACCORDING TO TEST METHOD TEX-227-F3 PAVEMENT SPECIMENS, WHICH SHALL BE EITHER CORES OR SECTIONS OF ASPHALTIC PAVEMENT, WILL BE TESTED ACCORDING TO TEST METHOD TEX-207-F.

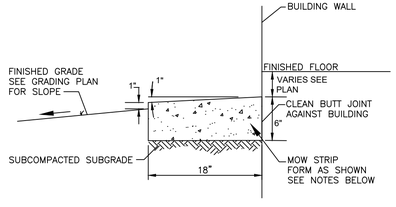
   THE NUCLEAR-DENSITY GAUGE OR OTHER METHODS WHICH CORRELATE SATISFACTORILY WITH RESULTS OBTAINED FROM PROJECT ROADWAY SPECIMENS MAY BE USED WHEN APPROVED BY THE ENGINEER. UNLESS OTHERWISE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED ROADWAY SPECIMENS AT THEIR EXPENSE AND IN A MANNER AND AT LOCATIONS SELECTED BY THE ENGINEER.

PAVEMENT SECTION DETAILS
N.T.S.

NOTE:

1. PRIOR TO COMMENCING PAVEMENT CONSTRUCTION (ASPHALT) A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE JOB SITE. ATTENDEES WILL INCLUDE LISD REPRESENTATIVE, GENERAL CONTRACTOR, PAVING CONTRACTOR, CIVIL ENGINEER, AND GEOTECHNICAL ENGINEER.

2. PAVING SECTIONS BASED UPON STUDY RECOMMENDATIONS PROVIDED IN GEOTECHNICAL ENGINEERING STUDY FOR LEANDER HIGH SCHOOL MODERNIZATION 3301 SOUTH BAGDAD ROAD, LEANDER, TEXAS, DATED MARCH 6, 2024, BY RABA-KISTNER CONSULTANTS, INC., PROJECT No. AAA23-156-00. ANY QUESTIONS REGARDING PAVING DESIGN SHOULD BE DIRECTED TO RABA-KISTNER, INC. @ 512-339-1745.



NOTES:

REFER TO FIBER-REINFORCED SIDEWALK DETAIL FOR STRENGTH, REINFORCING, FINISH, AND JOINTING.

SEE SITE PLAN FOR MOW STRIP LOCATIONS.

MOW STRIP TYPICAL DETAIL
N.T.S.

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13201 BRIARWICK DR. SUITE 100
AUSTIN, TEXAS 78729
TEL: (512) 777-4600

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS
ZHIPENG XING, P.E.
127763
LICENSED PROFESSIONAL ENGINEER
3/29/2024

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY ZHIPENG XING, P.E. LIC. # 127763

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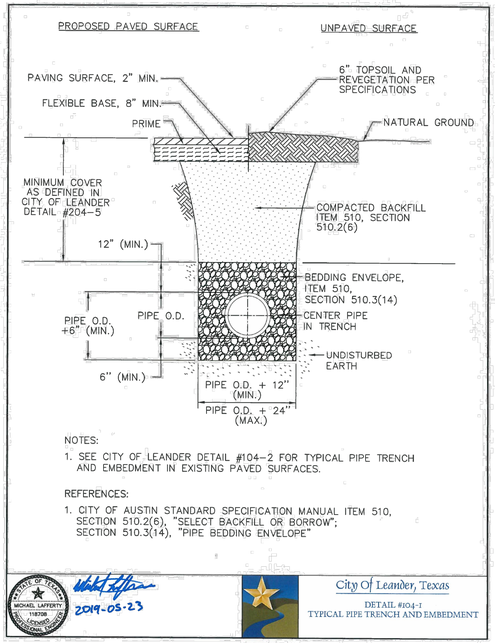
PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

SHEET TITLE

PAVING DETAILS (2 OF 2)

1B CDE.03

17 OF 20



NOTES:

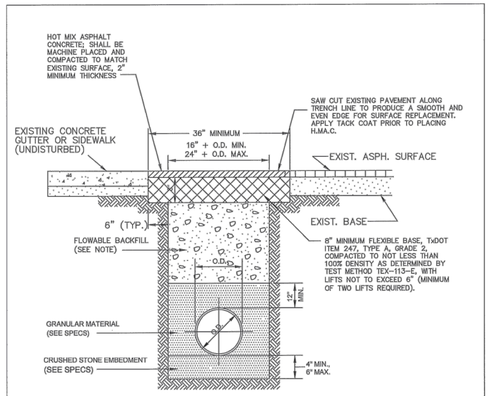
1. SEE CITY OF LEANDER DETAIL #104-2 FOR TYPICAL PIPE TRENCH AND EMBEDMENT IN EXISTING PAVED SURFACES.

REFERENCES:

1. CITY OF AUSTIN STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER
2019-05-23

City Of Leander, Texas
DETAIL #104-1
TYPICAL PIPE TRENCH AND EMBEDMENT



N.T.S.

NOTES:

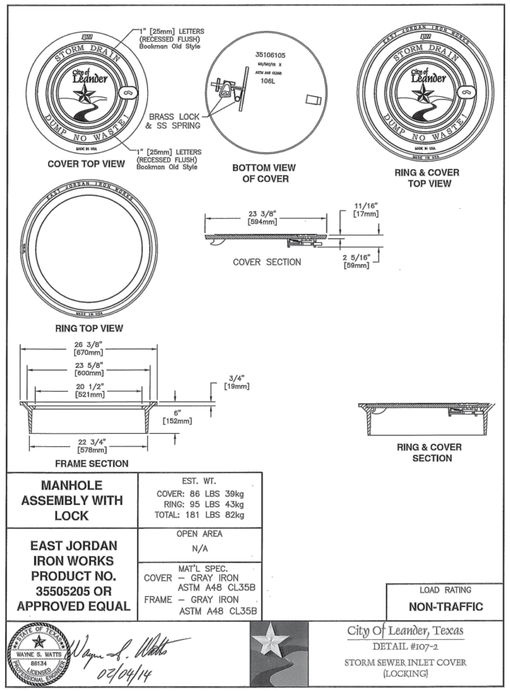
FLOWABLE BACKFILL SHALL CONSIST OF A MIXTURE OF NATIVE SOILS OR MANUFACTURED MATERIALS, CEMENT AND/OR FLY ASH, AND WATER WHICH PRODUCES A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 250 AND 450 PSI AFTER 28 DAYS. ANY MATERIALS USED SHALL BE PRIMARILY GRANULAR, WITH A PLASTICITY INDEX <12 AND WITH 100% PASSING A 3/4 INCH SIEVE. THE FLOWABLE MIXTURE SHALL BE MIXED IN A PUG MILL, CONCRETE MIXER, OR TRANSIT MIXER AND SHALL HAVE A MINIMUM SLUMP OF 5 INCHES. THE FLOWABLE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PACEMENT OF ANY OVERLAYING MATERIAL.

ONE CONCRETE CYLINDER WILL BE REQUIRED FOR TESTING AND WILL BE FABRICATED BY THE CITY INSPECTOR.

THE PUBLIC WORKS DEPARTMENT IS TO BE CONTACTED AT 259-2640 PRIOR TO COMMENCEMENT OF BACKFILL OPERATIONS.

WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
4/20/12

City Of Leander, Texas
DETAIL #104-2
TYPICAL TRENCH AND H.M.A.C. SURFACE REMOVAL AND REPLACEMENT DETAIL

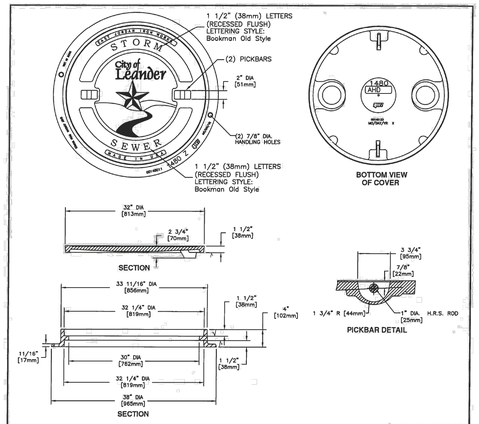


MANHOLE ASSEMBLY WITH LOCK	EST. WT. COVER: 86 LBS 39kg RING: 95 LBS 43kg TOTAL: 181 LBS 82kg
EAST JORDAN IRON WORKS PRODUCT NO. 35505205 OR APPROVED EQUAL	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

LOAD RATING: NON-TRAFFIC

WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
02/04/14

City Of Leander, Texas
DETAIL #107-2
STORM SEWER INLET COVER (LOCKING)

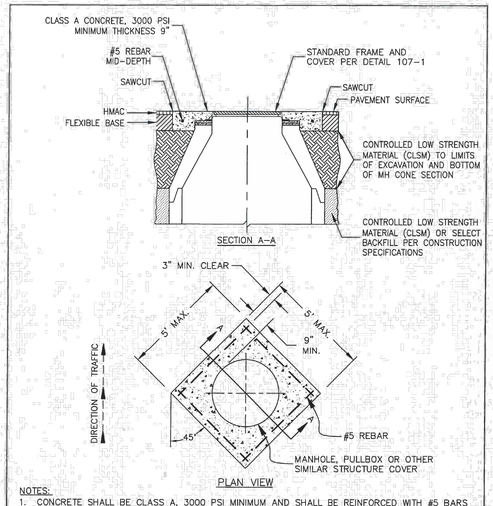


MANHOLE ASSEMBLY	EST. WT. COVER: 200 LBS 91kg FRAME: 155 LBS 70kg UNIT: 355 LBS 161kg
EAST JORDAN IRON WORKS PRODUCT NO. 00148105 OR NEENAH FOUNDRY DF-1274 LEANDER STORM	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

LOAD RATING: HEAVY DUTY (H20)

WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
02/22/16

City Of Leander, Texas
DETAIL #107-3
STORM SEWER MANHOLE COVER (HEAVY DUTY)

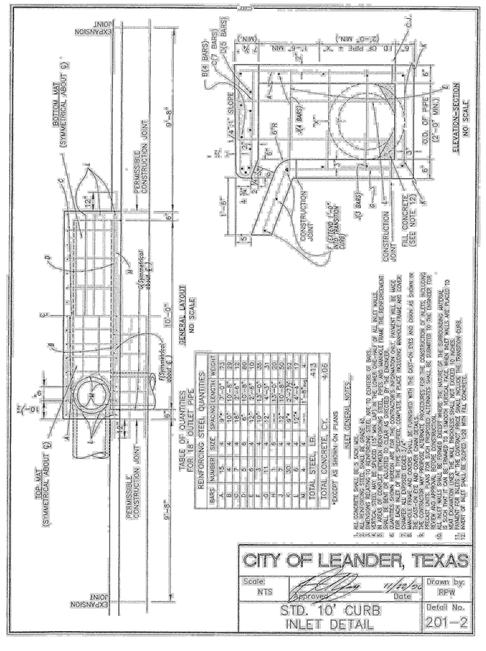


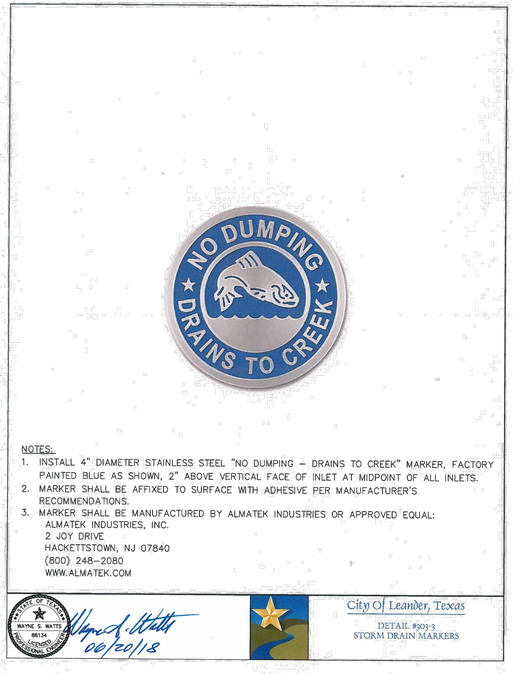
NOTES:

1. CONCRETE SHALL BE CLASS A, 3000 PSI MINIMUM AND SHALL BE REINFORCED WITH #5 BARS AS SHOWN. THE CONCRETE SHALL EXTEND TO SAW CUT PAVEMENT EDGE.
2. PLACEMENT OF CLSM SHALL BE BELOW FLEXIBLE BASE LAYER TO LIMITS OF EXCAVATION.
3. INSTALLATION OF HMAC OVER CONCRETE ADJUSTMENT SHALL NOT BE ALLOWED.
4. INSTALLATION OF CONCRETE CASTING ADJUSTMENT IS REQUIRED FOR ALL TYPES OF MANHOLES TO BE LOCATED IN THE ROADWAY.

WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
02/22/17

City Of Leander, Texas
DETAIL #107-4
MANHOLE CASTING ADJUSTMENT





NOTES:

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

WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
06/20/18

City Of Leander, Texas
DETAIL #303-3
STORM DRAIN MARKERS

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
204 W. SOUTH ST.
LEANDER TEXAS

halff
13620 BRIARWICK DR., SUITE 100
AUSTIN, TEXAS 78729
TEL: (512)777-4600

REVISION NO.	DATE	DESCRIPTION

STATE OF TEXAS ZHIPENG XING, P.E. 127763 LICENSED PROFESSIONAL ENGINEER
3/29/2024

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I CERTIFY THAT THESE DRAWINGS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THEIR INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION UNTIL FORMAL CITY APPROVAL.

PROJECT NO.:	53112.002
ISSUED:	3/29/2024
DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

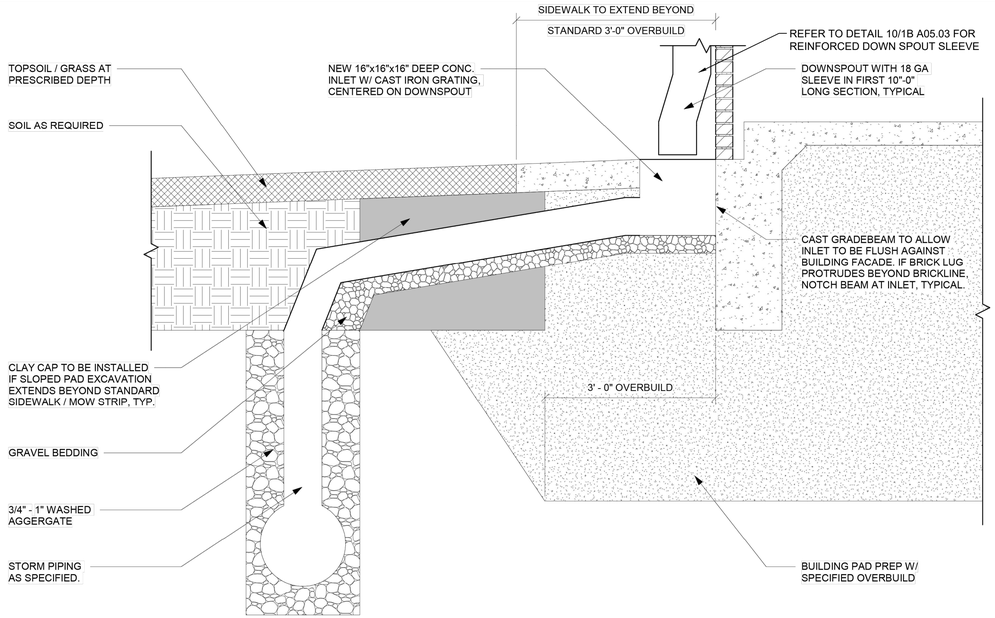
SHEET TITLE

STORM DRAIN DETAILS (1 OF 2)

1B CDE.04

18 OF 20

FILE NAME: A:\53000s\53112\2002\PW\CADD\Sheets\Phase 1B\C-DTLS-DTLS-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:17 AM, USER: ah3305 AVO: 53112.002



1 Subsurface Water Migration Detail
Option A - Sidewalk Beyond Overbuild
3/4" = 1'-0"

AMERICAN CONSTRUCTORS
www.americanconstructors.com

Standard BIM Details & Sections Central Library

No.	Description	Date

Subsurface Water Migration

Project number	Detail Library	GC125A	
Date	01/15/2021		
Drawn by	CML		
Checked by	JM	Scale	3/4" = 1'-0"

1/14/2021 5:30:36 PM

FILE NAME: A:\53000s\53112\002\PWCADD\Sheets\Phase 1B\C-DTLS-DTLS-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:17 AM, USER: ah3305 AVO: 53112.002

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
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LEANDER TEXAS

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13620 BRAKWICK DR., SUITE 100
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CHECKED BY:	--
SCALE:	N.T.S.

SHEET TITLE

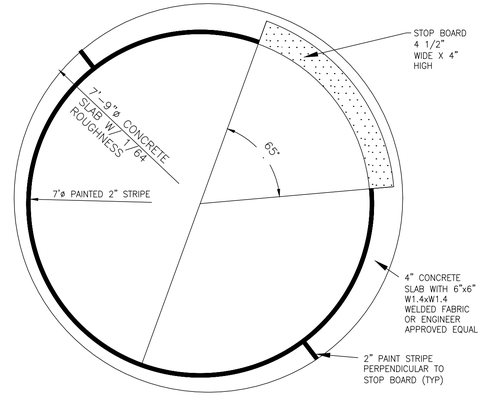
STORM DRAIN DETAILS (2 OF 2)

1B CDE.05

19 OF 20

NOTES:

1. ALL LAYOUT AND DIMENSIONS MUST CORRESPOND WITH THE CURRENT NATIONAL FEDERATION COURT AND FIELD DIAGRAM GUIDE.
2. ALL SAND–FILLED PITS MUST DRAIN FREELY. IF ROCK OR HEAVY SOILS ARE ENCOUNTERED AND ALTERNATE DRAIN AND GRAVEL–FILLED CISTERN SHALL BE INSTALLED TO PROVIDE SUITABLE DRAINAGE.



1 SHOT PUT
NTS
NOTE: CONTRACTOR MUST ENSURE PROPER DRAINAGE.

LEANDER HS MASTER PLAN
ATHLETIC ADDITIONS/RENOVATIONS-PHASE 1B
LEANDER TEXAS
SD-24-0197

LEANDER I.S.D.
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DRAWN BY:	--
CHECKED BY:	--
SCALE:	N.T.S.

SHEET TITLE

MISCELLANEOUS SITE DETAILS

1B CDE.06

FILE NAME: A:\53000s\53112\002\PWCADDSheets\Phase 1B\C-DTLS-DTLS-53112.02_1B.dwg DATE: March 29, 2024, TIME: 11:17 AM, USER: ah3305 AVO: 53112.002