A D D R E S S			PHONE
1978 S. AUSTIN AVENUE	STECER BIZZE	7FII	512.930.9412
GEORGEIOWN, IX /8626	イコフコ		
WEB STEGERBIZZELL.COM			FA X 512.930.9416
	SERVIC		
TEXAS REGISTERED ENGINEERING FIRM F-181	RM F-181 >> ENGINEERS	>>PLANNERS	> > SURVEYORS

# WATER POLLUTION ABATEMENT PLAN

For

# SOUTHWESTERN UNIVERSITY SH29 & MAPLE PARKING LOT

In

City of Georgetown Williamson County, Texas

Job Number: 22968

Water Pollution Abatement Plan

For

### SOUTHWESTERN UNIVERSITY SH29 & MAPLE PARKING LOT



City of Georgetown Williamson County, Texas

In

Steger Bizzell Job Number: 22968

Prepared by:



Texas Register Professional Engineering Firm-181 1978 S. Austin Avenue Georgetown, Texas 78626

## Water Pollution Abatement Plan Checklist

- (1) Edwards Aquifer Application Cover Page (TCEQ-20705) (2) General Information Form (TCEQ-0587) Attachment A - Road Map Attachment B - USGS / Edwards Recharge Zone Map Attachment C - Project Description (3) Geologic Assessment Form (TCEQ-0585) Attachment A - Geologic Assessment Table (TCEQ-0585-Table) Comments to the Geologic Assessment Table Attachment B - Soil Profile and Narrative of Soil Units Attachment C - Stratigraphic Column Attachment D - Narrative of Site Specific Geology Site Geologic Map(s) Table or list for the position of features' latitude/longitude (if mapped using GPS) (4) Water Pollution Abatement Plan Application Form (TCEQ-0584) Attachment A - Factors Affecting Water Quality Attachment B - Volume and Character of Stormwater Attachment C - Suitability Letter from Authorized Agent (if OSSF is proposed) Attachment D - Exception to the Required Geologic Assessment (if requesting an exception) Site Plan (5) Temporary Stormwater Section (TCEQ-0602) Attachment A - Spill Response Actions Attachment B - Potential Sources of Contamination Attachment C - Sequence of Major Activities Attachment D - Temporary Best Management Practices and Measures Attachment E - Request to Temporarily Seal a Feature, if sealing a feature **Attachment F - Structural Practices** Attachment G - Drainage Area Map Attachment H - Temporary Sediment Pond(s) Plans and Calculations Attachment I - Inspection and Maintenance for BMPs Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices (6) Permanent Stormwater Section (TCEQ-0600) Attachment A - 20% or Less Impervious Cover Waiver, if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site Attachment B - BMPs for Upgradient Stormwater Attachment C - BMPs for On-site Stormwater Attachment D - BMPs for Surface Streams Attachment E - Request to Seal Features (if sealing a feature) **Attachment F - Construction Plans** Attachment G - Inspection, Maintenance, Repair and Retrofit Plan Attachment H - Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs Attachment I - Measures for Minimizing Surface Stream Contamination
  - (7) Agent Authorization Form (TCEQ-0599), if application submitted by agent
  - (8) Application Fee Form (TCEQ-0574)
  - (9) Check Payable to the "Texas Commission on Environmental Quality"
  - (10) Core Data Form (TCEQ-10400)

## Texas Commission on Environmental Quality Edwards Aquifer Application Cover Page

#### **Our Review of Your Application**

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

#### **Administrative Review**

1. <u>Edwards Aquifer applications</u> 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: <u>http://www.tceq.texas.gov/field/eapp</u>.

- 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.

<b>1. Regulated Entity N</b> SH29 & Maple Parking 1		estern <sup>1</sup>	Univer	sity	2. Re	egulat	ed Entity No.:	N/A
3. Customer Name: S	OUTHWESTE	ERN UN	JIVER	SITY	4. Cı	istom	<b>er No.:</b> 600787	329
5. Project Type: (Please circle/check one)	New	Modif	icatior	1	Exter	nsion	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-r	esiden	tial		8. Sit	e (acres):	2.91
9. Application Fee:	\$4,000.00	10. P	ermai	nent I	BMP(	s):	20% Max. Imp	ervious Cover
11. SCS (Linear Ft.):	N/A	12. A	ST/US	ST (N	o. Tar	nks):	N/A	
13. County:	Williamson	14. W	aters	hed:			San Gabriel Riv	ver – Smith Branch

## **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.)			
Region (1 req.)			*
County(ies)	_		*
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 Ceorgetown Jerrell Leander Liberty Hill Pflugerville Round Rock

	Sa	an 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.

David Platt Print Name of Customer/Authorized Agent Signature of Customer/Authorized Agent

2024-06-28 Date

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

## **General Information Form**

**Texas Commission on Environmental Quality** 

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

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

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

## Signature

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

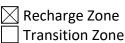
Print Name of Customer/Agent: David Platt

Date: <u>2024-</u>06-28

Signature of Customer/Agent:

## **Project Information**

- 1. Regulated Entity Name: Southwestern University SH29 & Maple Parking Lot
- 2. County: Williamson
- 3. Stream Basin: San Gabriel River Smith Branch
- 4. Groundwater Conservation District (If applicable): \_\_\_\_\_
- 5. Edwards Aquifer Zone:



6. Plan Type:

$\times$	WPAP
	SCS

Modification
AST

TCEQ-0587 (Rev. 02-11-15)

UST

Exception Request

7. Customer (Applicant):

Contact Person: <u>Lenora Chapman</u> Entity: <u>Southwestern University</u> Mailing Address: <u>1001 E. Universite Ave</u> City, State: <u>Georgetown, TX</u> Telephone: <u>512-863-1475</u> Email Address: <u>chapmanl@southwestern.edu</u>

Zip: <u>78626</u> FAX: <u>N/A</u>

8. Agent/Representative (If any):

Contact Person: <u>David Platt</u> Entity: <u>Steger Bizzell</u> Mailing Address: <u>1978 S. Austin Ave</u> City, State: <u>Georgetown, TX</u> Zip Telephone: <u>512-930-9412</u> FA Email Address: <u>dplatt@stegerbizzell.com</u>

Zip: <u>78626</u> FAX: N/A

9. Project Location:

The project site is located inside the city limits of <u>Georgetown</u>.

- The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of \_\_\_\_\_.
- The project site is not located within any city's limits or ETJ.
- 10. The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

FROM AUSTIN: TRAVELLING NORTH ON I-35, TAKE EXIT 261 ONTO N I-35 FRONTAGE ROAD. STAY ON I-35 FRONTAGE ROAD AND THEN TURN RIGHT ONTO SH-29. CONTINUE ON SH-29 FOR 1.4 MILES THEN TURN LEFT ONTO MAPLE STREET. THE PROJECT SITE IS LOCATED TO THE LEFT IMMEDIATELY AFTER TURNING ONTO MAPLE STREET.

- 11. Attachment A Road Map. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
- 12. Attachment B USGS / Edwards Recharge Zone Map. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

Project site boundaries.

USGS Quadrangle Name(s).

 $\boxtimes$  Boundaries of the Recharge Zone (and Transition Zone, if applicable).

Drainage path from the project site to the boundary of the Recharge Zone.

- 13. The TCEQ must be able to inspect the project site or the application will be returned. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.
  - Survey staking will be completed by this date: 05/08/2024
- 14. Attachment C Project Description. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:
  - Area of the site Offsite areas

  - Permanent BMP(s)
  - Proposed site use
  - Site history
  - Previous development
  - 🔀 Area(s) to be demolished
- 15. Existing project site conditions are noted below:
  - Existing commercial site
  - Existing industrial site
  - Existing residential site
  - Existing paved and/or unpaved roads
  - Undeveloped (Cleared)
  - Undeveloped (Undisturbed/Uncleared)
  - Other: Existing paved driveway

## **Prohibited Activities**

- 16. I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:
  - (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
  - (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
  - (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
  - (4) The use of sewage holding tanks as parts of organized collection systems; and
  - (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
  - (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

- 17. I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:
  - (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
  - (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and
  - (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

## Administrative Information

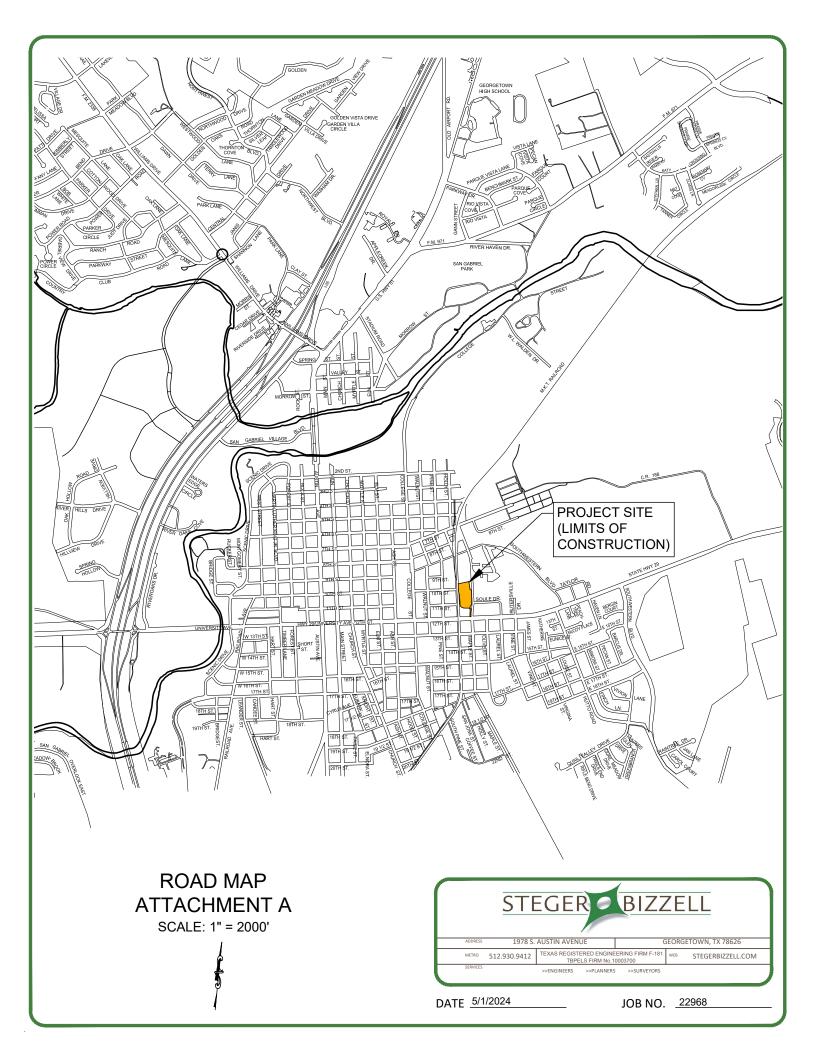
18. The fee for the plan(s) is based on:

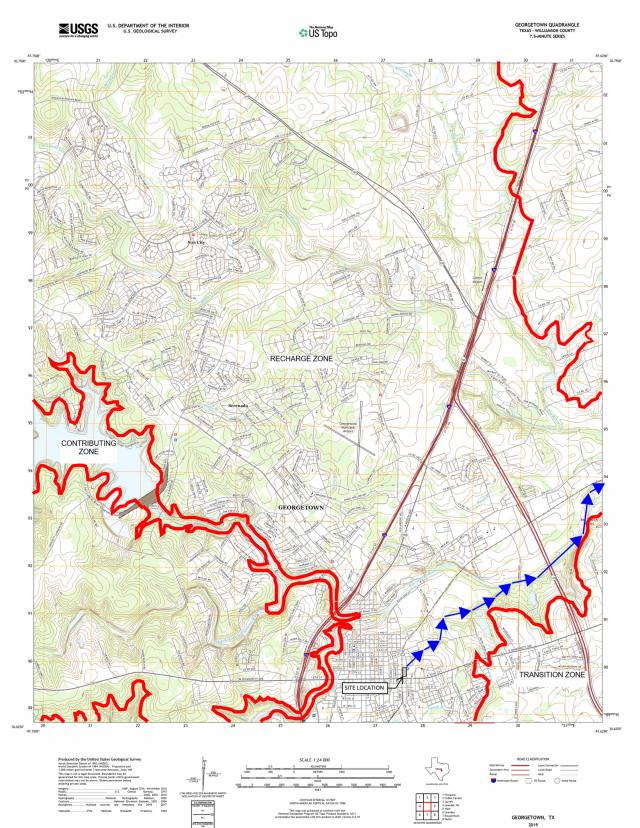
- For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- A request for an extension to a previously approved plan.
- 19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

#### 

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

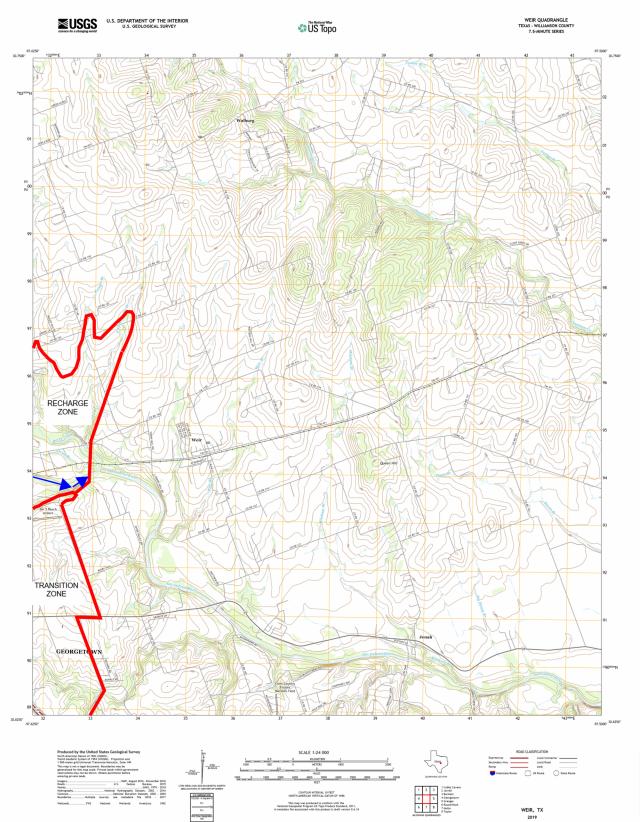
- 20. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 21. No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.





## Attachment B – USGS/Edwards Recharge Zone Map

NSN. 7643016396286 NSN. 7643016396286 NGAREFNO. USGSX24K17084



### Attachment C – Project Description

Southwestern University is proposing to convert a 2.91 Ac. undeveloped site into a parking lot on a portion of their 704.25 Ac. property. This development will include the construction of one parking lot with associated sidewalks.

Although the land is undeveloped, there is an existing concrete driveway on the site totaling approximately 0.02 Ac. This impervious cover will be demolished prior to construction. The proposed development will include 1.44 Ac. of impervious cover (increase of 1.42 Ac.). The total impervious cover located on the Southwestern property after construction will be 71.62 Ac., or 10.17% of the property. A 20% or Less impervious Cover Waiver is requested with this WPAP as allowed for schools and currently approved for other areas of Southwestern's property. In addition, we are providing 15' vegetative filter strips along the perimeter of the proposed parking lot to assist with TSS removal.

There are no sensitive geologic features within the proposed development's limits of construction. No naturally occurring geologic features were identified during the field investigations. All of the man-made features in bedrock are known to the project engineer and do not require any setbacks. The types of these man-made features include, but are not limited to, manholes, power poles, pad mounted transformers, electrical junction boxes, metal covers, fire hydrants, telecommunication lines and boxes, irrigation lines, wastewater lines, water lines, buried electrical conduits, storm sewer lines and drains, and light poles.

Please refer to the exhibit of the approved Planned Unit Development (PUD) for Southwestern University for information regarding the property boundary.

## ORDINANCE NO. 2010-46

An Ordinance of the City Council of the City of Georgetown, Texas, amending part of the Zoning District Map adopted on the 4<sup>th</sup> Day of April 2002 in accordance with the Unified Development Code passed and adopted on the 11<sup>th</sup> Day of March 2003, to rezone 704.25 acres in the Addison and Flores Surveys, from AG, Agriculture District and PUD, Planned Unit Development with a base district of RS, Residential Single Family District to PUD, Planned Unit Development with a base district of RS, Residential Single Family District; repealing conflicting ordinances and resolutions; including a severability clause; and establishing an effective date.

Whereas, an application has been made to the City Council for the Purpose of changing the Zoning District Classification of the following described real property ("The Property"):

704.25 acres in the Addison and Flores Surveys, to be known as Southwestern University, as described in Exhibit B, hereinafter referred to as "The Property";

Whereas, the City Council has submitted the proposed change in the Base Ordinance to the Planning and Zoning Commission for its consideration at a public hearing and for its recommendation or report; and

Whereas, notice of such hearing was published in a newspaper of general circulation in the City; which stated the time and place of hearing, which time was not earlier than fifteen (15) days for the first day of such publication; and

Whereas, written notice was given not less than fifteen (15) days before the date set for the meeting before the Planning and Zoning Commission to all the owners of the lots within two hundred feet of the property, as required by law; and

Whereas, the applicant for such zoning change placed on the property such sign(s) as required by law for advertising the Planning and Zoning Commission hearing, not less than fifteen (15) days before the date set for such hearing; and

Whereas, the City Planning and Zoning Commission in a meeting held on November 2, 2010, recommended approval of the requested zoning change for the above described property from AG, Agriculture District and PUD, Planned Unit Development District to PUD, Planned Unit Development with a base district of RS, Residential Single Family District.

Now, therefore, be it ordained by the City Council of the City of Georgetown, Texas, that:

<u>Section 1</u>. The facts and recitations contained in the preamble of this Ordinance are hereby found and declared to be true and correct, and are incorporated by reference herein and expressly made a part hereof, as if copied verbatim. The City Council hereby finds that this Ordinance implements the vision and policies of the Georgetown 2030 Comprehensive Plan and

Southwestern University PUD rezone AG & PUD to PUD Zoning Page 1 of 2 Ord # 2010- 46 further finds that the enactment of this Ordinance is not inconsistent or in conflict with any other policies of the Georgetown 2030 Comprehensive Plan.

Section 2. The Zoning District Map of the City, as well as the Zoning District for the Property shall be and the same is hereby changed from AG, Agriculture District and PUD, Planned Unit Development to PUD, Planned Unit Development with a base district of RS, Residential Single Family in accordance with Exhibit A (Location Map), Exhibit B (Field Notes), and Exhibit C (Southwestern University Campus PUD document) and incorporated herein by reference, is hereby adopted by the City Council of the City of Georgetown, Texas.

<u>Section 3</u>. All ordinances and resolutions, or parts of ordinances and resolutions, in conflict with this Ordinance are hereby repealed, and are no longer of any force and effect.

<u>Section 4</u>. If any provision of this Ordinance or application thereof to any person or circumstance shall be held invalid, such invalidity shall not affect the other provisions, or application thereof, of this Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are hereby declared to be severable.

<u>Section 5</u>. The Mayor is hereby authorized to sign this Ordinance and the City Secretary to attest. This Ordinance shall become effective and be in full force and effect on the date of final adoption by City Council.

PASSED AND APPROVED on First Reading on the 23rd day of November 2010.

PASSED AND APPROVED on Second Reading on the 14th day of December 2010.

ATTEST:

Jessica Brettle City Secretary

APPROVED AS TO FORM:

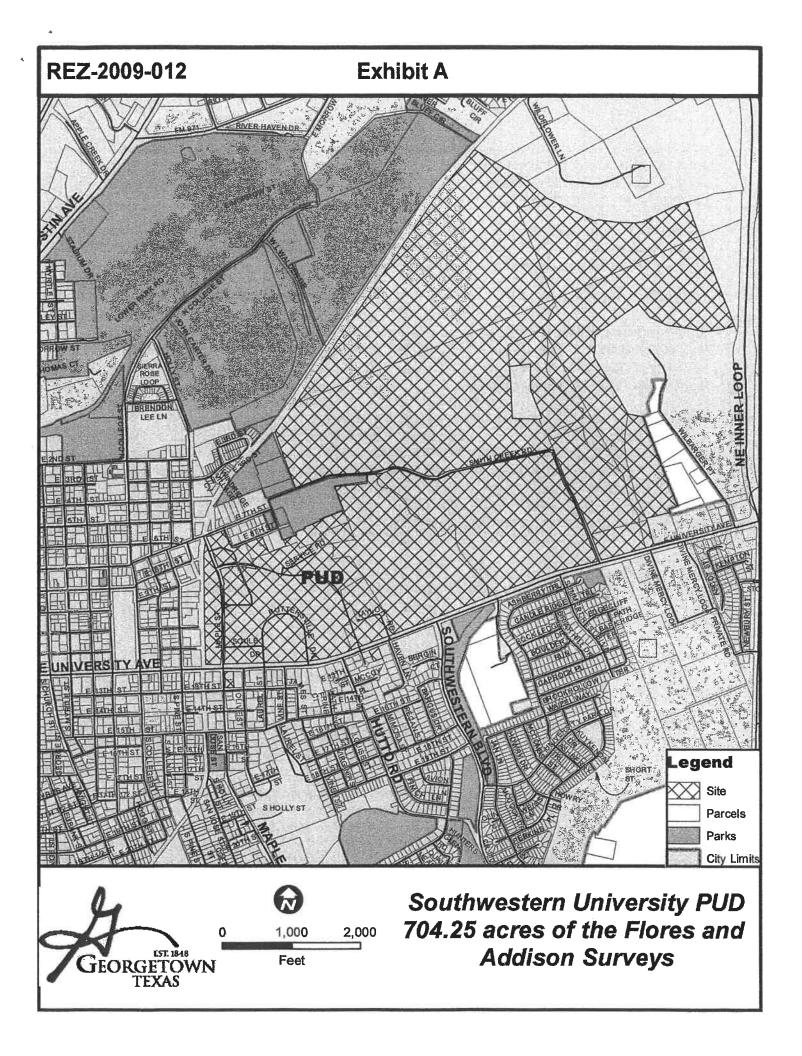
Mm Schole

Mark Sokolow City Attorney

THE CITY OF GEORGETOWN:

By: George Garver Mayor

Southwestern University PUD rezone AG & PUD to PUD Zoning Page 2 of 2 Ord 2000-46



#### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT Exhibit B

10.07.10

"THIS PERIMETER DESCRIPTION WAS PREPARED FROM INFORMATION DERIVED FROM MULTIPLE SOURCES AND WAS NOT PREPARED IN CONJUNCTION WITH AN ON-THE-GROUND SURVEY. IT IS TO BE USED FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE USED AS A LEGAL DESCRIPTION FOR THE TRANSFER OF TITLE."

BEING 704.25 acres of land, situated in the Antonio Flores Survey, Abstract No. 235 and the William Addison Survey, Abstract No. 21, in Williamson County, Texas. Said land being property occupied by Southwestern University and being more particularly described in Three Tracts as follows:

Tract One (703.18 acres)

BEGINNING at the intersection of the north line of University Avenue, State Highway No. 29, and the east line of Holly Street (old MK & T Railroad Right-of-Way) being the Southwest corner of Block 6 of the Snyder's Addition to the City of Georgetown, an addition of record in Volume 57, Page 502, of the Deed Records of Williamson County, Texas, for the Southwest corner hereof;

THENCE, along the said east line of Holly Street, being the old MK & T Railroad Right-of-Way, N 02°10'31" W, at 599.34 feet, pass the Southwest corner of Southwestern University Northwest Entrance Subdivision, a subdivision of record in Cabinet P, Slide 22, of the Plat Records of Williamson County, Texas, continuing along the west line of the said Southwestern University Northwest Entrance Subdivision, leaving the said east line of Holly Street and continuing along the east line of the said old MK & T Railroad Right-of-Way, for a total distance of 1,459.91 feet to the beginning of a curve to the right, (Radius=1,879.86 feet, Long Chord bears N 03°24'06" E, 336.81 feet), an arc distance of 337.26 feet to the most northerly corner of the said Southwestern University Northwest Entrance Subdivision on the west line of Maple Street for a northwesterly corner hereof;

THENCE, crossing Maple Street, N 36°32'18" E, 96.76 feet to the intersection of the east line of Maple Street and the south line of 7<sup>th</sup> Street for the Northwest corner of Lot 1, Block A, of Southwestern University Student Housing Subdivision, a subdivision of record in Cabinet L, Slide 342, of the Plat Records of Williamson County, Texas, for a Northwesterly corner hereof:

THENCE, along the said south line of 7<sup>th</sup> Street, N 68°30'11" E, 276.60 feet to the intersection of the said south line of 7<sup>th</sup> Street and the west line of Olive Street for the most northerly Northeast corner of the said Lot 1, Block A, for the most westerly Northeast corner hereof;

THENCE, along the east line and a northerly line of the said Lot 1, Block A, along Olive Street,

S 21°21'39" E, 243.39 feet, along a curve to the left (Radius=39.91 feet, Long Chord bears

S 66°25'44" E, 56.50 feet), an arc distance of 62.78 feet to the north line of 8<sup>th</sup> Street, and along the said north line of 8<sup>th</sup> Street, N 68°30'11" E, 174.70 feet to the most easterly Northeast corner of the said Lot 1, Block A, being the Northwest corner of that certain tract of land, called 1.29 acres, as conveyed to Southwestern University by deed recorded as Document No. 2003095081 of the Official Public Records of Williamson County, Texas, and N 68°56'50" E, at 184.29 feet pass the most northerly Northeast corner of the said 1.29 acre Southwestern University tract, being the Northwest corner of that certain tract of land, called 0.21 of an acre, as conveyed to Southwestern University tract, being the Northwest corner of 2004007708 of the Official Public Records of Williamson County, Texas, for a total distance of 260.87 feet, in all, to the Northeast corner of the said 0.21 of an acre Southwestern University tract, for a northeasterly corner hereof;

#### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT Exhibit B

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THENCE, S 22°06'10" E, at 118.78 feet pass the Southeast corner of the said 0.21 of an acre Southwestern University tract, being the most easterly Northeast corner of the said 1.29 acre Southwestern University tract, for a total distance of 249.90 feet to the Southeast corner of the said 1.29 acre Southwestern University tract, for an interior corner hereof;

THENCE, N 68°58'36" E, 260.86 feet to the most westerly Southwest corner of the East Anderson Addition, an addition of record in Cabinet J, Slide 147, of the Plat Records of Williamson County, Texas, for an interior corner hereof;

THENCE, N 21°44'03" W, 105.02 feet to the most westerly Northwest corner of the said East Anderson Addition, being the Southwest corner of the southern portion of the I.O.O.F. Cemetery, for a northwesterly corner hereof;

THENCE, along the north line of the said East Anderson Addition, being the south line of the southern portion of the I.O.O.F. Cemetery, N 68°48'53" E, 209.95 feet; N 21°11'07" W, 35.00 feet; N 68°48'53" E, 161.47 feet; N 21°11'07" W, 22.00 feet; N 68°48'53" E, 252.00 feet; N 21°11'07" W, 26.00 feet and N 68°48'53" E, 367.75 feet to the west line of that certain tract of land, called 4.27 acres, as conveyed to Southwestern University by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas, marking the Northeast corner of the said East Anderson Addition and a southeasterly corner of the said southern portion of the I.O.O.F. Cemetery, for an interior corner hereof;

THENCE, N 20°35'13" W, 371.19 feet to the Northwest corner of the said 4.27 acre Southwestern University tract, being an interior corner of the said southern portion of the I.O.O.F. Cemetery, for a northwesterly corner hereof;

THENCE, N 83°51'49" E, 500.78 feet to an interior corner of the said 4.75 acre Southwestern University tract, being the most easterly Southeast corner of the said southern portion of the I.O.O.F. Cemetery, for an interior corner hereof;

THENCE, N 02°07'55" W, passing the south line of a roadway, being the Northwest corner of the said 4.75 acre Southwestern University tract and the Northeast corner of the said southern portion of the I.O.O.F. Cemetery, for a total distance of 135.97 feet to the north line of the said roadway, being the south line of that certain tract of land, called 200 acres, as conveyed to Southwestern University by deed as recorded in Volume 318, Page 214, of the Deed Records of Williamson County, Texas, for an interior corner hereof;

THENCE, along the north line of the said roadway being the south line of the said 200 acre Southwestern University tract, S 88°01'20" W, 562.52 feet and S 68°31'40" W, 538.35 feet to the Southwest corner of the said 200 acre Southwestern University tract, being the Southeast corner of the northern portion of the I.O.O.F. Cemetery, for a southwesterly corner hereof;

THENCE, N 21°11'07" W, 878.18 feet to the south line of the old MK & T Railroad Right-of-Way, for the Northwest corner of the said 200 Southwestern University tract and the Northeast corner of the said northern portion of I.O.O.F. Cemetery, for the Northwest corner hereof;

THENCE, along the said south line of the old MK & T Railroad Right-of-Way being the north line of the said 200 acre Southwestern University tract, as follows;

Along a curve to the left (Radius=5,779.58 feet, Long Chord bears N 36°56'22" E, 504.03 feet), an arc distance of 504.19 feet,

N 34°26'25" E, 3,216.70 feet to the beginning of a curve to the right (Radius = 5,679.58 feet, Long Chord bears N 37°43'25" E, 650.58 feet), along the said curve for an arc distance of 650.94 feet and N 41°00'25"

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E, 726.37 feet to the center of the San Gabriel River, for the most northerly corner of the said 200 acre Southwestern University tract for the most northerly corner hereof;

THENCE, downstream along the center of the San Gabriel River, with its meanders,

S 59°46'14" E, 1,366.94 feet to the most easterly corner of the said 200 acre Southwestern University tract, being the Northeast corner of the remainder of that certain Third Tract, called 30 acres, as conveyed to J.A. Barnett by deed as recorded in Volume 325, Page 300, of the Deed Records of Williamson County, Texas, being on the west line of that certain tract of land, called 77.29 acres, as described in a deed to the D. Robbins Trust of record in Volume 2307, Page 495, of the Official Records of Williamson County, Texas, for an easterly corner hereof;

THENCE, along the south line of the said 200 acre Southwestern University tract,

S 68°13'46" W, 156.76 feet to the Northwest corner of the said remainder of the Barnett tract, being a northerly corner of that certain tract of land, called 117.48 acres, as described in a deed to Southwestern University in Document No. 2001018260 of the Official Records of Williamson County, Texas, for an interior corner hereof;

THENCE, along a northerly line of the said 117.48 acre tract, being the south line of the remainder of the said Barnett tract, S 64°48'15" E, 744.31 feet to an iron pin set and

N 68°41'45" E, 56.70 feet to a point in the center of the San Gabriel River, being the south line of the said Robbins tract, for a northerly corner of the said 117.48 tract, for a northerly corner hereof;

THENCE, downstream, along the center of the San Gabriel River, with its meanders, as follows: S 79°38'15" E, 259.47 feet; S 86°55'45" E, 291.91 feet; N 80°37'15" E, 111.69 feet;

N 64°48'45" E, 531.78 feet and N 72°48'45" E, 160.71 feet to the Northeast corner of the said 117.48 acre tract, being on the south line of the said Robbins Tract, being the Northwest corner of that certain Tract One, called 110.09 acres, as conveyed to Carolyn B. Sharkey and Sara Elizabeth Sharkey by deed as recorded in Volume 2239, Page 95, of the Official Records of Williamson County, Texas, for the most northerly Northeast corner hereof;

THENCE, along the east line of the said 117.48 acre tract, being the west line of the said Sharkey Tract One, as follows; S 19° 10' 45" E, 474.48 feet and S 21° 27' 15" E, 1,399.47 feet to the Northeast corner of the remainder of a 258.657 acre Tract 1 described in a deed to New America, Ltd. in Document No. 9839081 of the Official Records of Williamson County, Texas, for the most easterly Southeast corner of the said 117.48 acre tract, for the most easterly Southeast corner hereof;

THENCE, along a southerly and easterly line of the said 117.48 acre tract, being a northerly and westerly line of the said New America, Ltd., tract, S 75° 01' 15" W, 210.12 feet; S 83° 31' 45" W, 251.00 feet; N 78° 10' 45" W, 223.23 feet; N 81° 52' 45" W, 325.37 feet; N 66° 20' 45" W, 269.51 feet; N 39° 40' 15" W, 250.80 feet; S 55° 20' 45" W, 386.67 feet; S 51° 53' 45" W, 259.15 feet; S 53° 20' 15" W, 134.29 feet; S 0° 00' 45" E, 164.09 feet; S 5° 52' 15" W, 145.13 feet; S 30° 16' 45" E, 973.75 feet the Northwest corner of that certain Tract No. 3 (14.73 acres) as described in a deed to Southwestern University in Document No. 2000068095 of the Official Public Records of Williamson County, Texas, being an interior corner of the said 117.48 acre tract, for a corner hereof;

THENCE, along the north line of said Tract 3, S 80° 43' 15" E, 222.32 feet an interior corner of the said New America, Ltd. tract, being the Northeast corner of the said Tract No. 3 and the Northwest corner of that certain tract of land, called 0.95 of an acre, as conveyed to Bert Holmstrom and wife, Lisa Holmstrom, by deed recorded as Document No. 2000034546 of the Official Records of Williamson County, Texas, for a corner hereof;

THENCE, along an easterly line of the said Tract No. 3, as follows; S 20° 50' 15" E, 159.93 feet to the Southwest corner of the said 0.95 of an acre Holmstrom tract, being the Northwest corner of that certain tract of land, called

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0.937 acres, as conveyed to Tommie Edward Norrell, by deed recorded as Document No. 9742821 of the Official Records of Williamson County, Texas;

S 20° 52' 15" E, 150.22 feet to the Southwest corner of the said 0.937 of an acre Norrell tract, being the Northwest corner of that certain tract of land, called 0.793 of an acre, as conveyed to Tommie Edward Norrell, by deed recorded as Document No. 9742821 of the Official Records of Williamson County, Texas; S 20° 52' 45" E, 94.65 feet to the Southwest corner of the said 0.793 of an acre Norrell tract, being the Northwest corner of that certain tract of land, called 2.77 acres, as conveyed to Jimmy Lynn Snow and Susan Snow by deed recorded as Document No. 9656734 of the Official Records of Williamson County, Texas, continuing along the west line of the said 2.77 acres Snow tract; S 21° 05' 45" E, 55.26 feet; S 21° 15° 45" E, 88.10 feet and

S 22° 05' 45" E, at 204.07 feet pass the Southwest corner of the said 2.77 acre Snow tract, being the Northwest corner of that certain tract of land, called 4.87 acres, as conveyed to Gene Lawhon by deed as recorded in Volume 964, Page 577, of the Deed Records of Williamson County, Texas, for a total distance of 254.75 feet, in all, to the most northerly Southwest corner of the said 4.87 acre Lawhon tract, being the Northwest corner of that certain tract of land, called 4.217 acres, as conveyed to Gene L. Lawhon by deed as recorded in Volume 2252, Page 791, of the Official Records of Williamson County, Texas, and S 22° 55' 45" E, 581.93 feet to the north line of that certain tract of land, called 6.06 acres, as conveyed to William James Reinhardt by deed as recorded in Volume 573, Page 469, of the Deed Records of Williamson County, Texas, being a southerly line of the said Tract No. 3, being the Southwest corner of the said 4.217 acre Lawhon tract, for the most easterly Southeast corner of the said Tract No. 3, for a southeasterly corner hereof;

THENCE, S 70° 42' 45" W, 148.12 feet to an interior corner of the said Tract No. 3, being the Northwest corner of the said 6.06 acre Reinhardt tract, for an interior corner hereof;

THENCE, along the west line of the said 6.06 acre Reinhardt tract, being an easterly line of the said Tract No. 3, S 18° 40' 45" E, 56.26 feet to the Northeast corner of that certain tract of land, called 3.420 acres, as conveyed to American Capitol Group, Inc., of record as Document No. 9725466 of the Official Records of Williamson County, Texas, for an southeasterly corner hereof;

THENCE, S 75° 28' 15" W, 356.37 feet to the East line of the said 117.48 acre tract, marking the Northwest corner of the said 3.420 acre American Capitol Group, Inc. tract, being the Southeast corner of the said Tract No. 3, for an interior corner hereof;

THENCE, along the East line of the said 117.48 acre tract being the west line of the said American Capital Group, Inc. tract; S 15° 04' 45" E, 379.97 feet to the beginning of a curve to the left, (Radius = 25.00 feet, Long Chord bears S 60° 04' 45" E, 35.36 feet); Thence, along the said curve for an arc distance of 39.28 feet; Thence, N 74° 54' 45" E, 357.95 feet to the west line of the said 6.06 acres, Reinhardt tract being the Southeast corner of the said American Capital Group, Inc. tract, for a corner hereof;

THENCE, S 18° 31' 15" E, 20.15 feet to the north line of State Highway No. 29, marking the most westerly Southeast corner of the said 117.48 acre tract, being the Southwest corner of the said Reinhardt tract, for the most southerly Southeast corner hereof;

THENCE, along the said north line of State Highway No. 29, S 74° 57' 45" W, at 503.83 feet pass the most southerly Southwest corner of the said 117.48 acre tract, being the Southeast corner of that certain Tract No. 1 (29.39 acres) as described in a deed to Southwestern University in Document No. 2000068095 of the Official Public Records of Williamson County, Texas, for a total distance of 1,703.30 feet, in all, to the beginning of a curve to the left (Radius=1,950.10 feet, Long Chord bears S 71°49'57" W, 204.80 feet);

Along the said curve for an arc distance of 204.90 feet;

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#### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT Exhibit B

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S 68°53'56" W, 3,173.37 feet to the beginning of a curve to the right, (Radius=2,250.00 feet, Long Chord bears S 78°20'53" W, 738.76 feet);

Along the said curve for an arc distance of 742.12 feet and

S 87°47'49" W, 1,395.66 feet to the Place of BEGINNING and containing 709.35 acres of land.

Save & Except from the above-described 709.35 acre tract 6.17 acres as conveyed to Milton R. Vrabel and wife, Mary Elizabeth Vrabel, by deed as recorded in Volume 529, Page 550, of the Deed Records of Williamson County, Texas, being more particularly described as follows;

BEGINNING for Reference at the most southerly Southeast corner of the above-referenced 709.35 acre tract of the said north line of State Highway No. 29;

THENCE, along the said north line of State Highway No. 29, S 74°57'45" W, 1,173.28 feet to the east line of the County Road No. 188, for the Southwest corner of the said Tract No. 1;

THENCE, along the said east line of County Road No. 188, being the west line of the said Tract No. 1, as follows; N 22° 27' 45" W, 451.59 feet; N 22° 26' 45" W, 360.48 feet;

N 22° 15' 45" W, 189.60 feet; N 31° 28' 45" W, 33.26 feet; N 31° 30' 45" W, 55.52 feet;

N 31° 48' 15" W, 92.64 feet and N 21° 30' 45" W, at 571.0 feet pass 1.7 feet east of a corner post at a bend in County Road No. 188 and continuing along the east line of a gravel roadway, at 809.75 feet pass, the Southwest corner of that certain Tract No. 2 (15.21 acres as described in a deed to Southwestern University as described in Document No. 2000068095 of the Official Records of Williamson County, Texas,); for a total distance of 869.73 feet, in all, to an interior corner of the said Tract No. 2;

THENCE, crossing the said gravel roadway, S 67° 20' 45" W, 32.31 feet to an iron pin set on the west line of the said gravel roadway, for a southwesterly corner of the said Tract No. 2, being on the east line of that certain First Tract, called 105 acres, as conveyed to Southwestern University by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas;

THENCE, N 21° 58' 15" W, 185.90 feet to an iron pin found on the south line of the said 6.17 acre Vrabel tract, being the most southerly Northeast corner of the certain First Tract, called 105 acres, as conveyed to Southwestern University, by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas, and a point on the West line of said Tract No. 2, for the Point of BEGINNING and the most southerly Southeast corner hereof;

THENCE, N 71° 06' 45" E, 41.97 feet to an iron pin found marking an interior corner of the said Tract No. 2, being the Southeast corner of the said 6.17 acre Vrabel tract, for the most easterly Southeast corner hereof;

THENCE, along the west line of the said Tract No. 2, being the east line of the said 6.17 acre Vrabel tract, N 21° 22' 45" W, 449.00 feet and N 0° 38' 45" E, 378.49 feet to an interior corner of the said Tract No. 2, being the Northeast corner of the said 6.17 acre Vrabel tract, for the Northeast corner hereof;

THENCE, S 82°31'15" W, 307.31 feet to an easterly line of the said 105 acre Southwestern University tract, for the most northerly Southwest corner of the said Tract No. 2, for the Northwest corner of the said 6.17 acre Vrabel tract, the Northwest corner hereof;

THENCE, S 02°21'58" E, 752.38 feet to an interior corner of the said 105 acre Southwestern University tract, for the Southwest corner of the said 6.17 acre Vrabel tract, for the Southwest corner hereof;

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#### THENCE, S 87°19'10" E, 393.77 feet to the Place of BEGINNING and containing 6.17 acres of land.

Leaving a Net Average for Tract One to be 703.18 acres.

Tract Two (0.50 ac)

BEING 0.50 of an acre of land, being a portion of Block 7, of the Snyder's Addition to the City of Georgetown, an addition of record in Volume 57, Page 502, of the Deed Records of Williamson County, Texas, being that certain tract of land as conveyed Southwestern University by deed as recorded in Volume 523, Page 512, of the Deed Records of Williamson County, Texas, and being more particularly described as follows;

BEGINNING at the intersection of the south line of University Avenue, State Highway No. 29, and the east line of Maple Street, for the Northwest corner of the above-referenced Southwestern University tract, for the Northwest corner hereof;

THENCE, along the said south line of University Avenue, being the north line of the said Block 7, N 87°50' E, 121.04 feet to the Northeast corner of the said Southwestern University tract, being the Northwest corner of that certain tract of land, called 0.66 of an acre, as conveyed to Dee Rapp and spouse, Neil D. Rapp, by deed recorded as Document No. 2005090697 of the Official Public Records of Williamson County, Texas, for the Northeast corner hereof;

THENCE, along the West line of the said 0.66 of an acre Rapp tract, S 02°10' E, 179.92 feet to the Southeast corner of the said Southwestern University tract, being the Northeast corner of that certain tract of land as conveyed to Yvonne Stone McGlaun by deed as recorded in Volume 1800, Page 565, of the Official Records of Williamson County, Texas, for the Southeast corner hereof;

THENCE, S 88°10' W, 121.04 feet to the said east line of Maple Street, being the west line of the said Block 7, for the Southwest corner of the said Southwestern University tract, being the Northwest corner of the said McGlaun tract, for the Southwest corner hereof;

THENCE, along the said east line of Maple Street, N 02°10' W, 179.22 feet to the Place of BEGINNING and containing 0.50 of an acre of land.

Tract Three (0.57 acre)

BEING a 0.57 of an acre of land, situated in the William Addison Survey, Abstract No. 21, being a portion of Outlot 14, Division B, City of Georgetown, Williamson County, Texas. Said land being that certain tract of land, called 0.57 of an acre, as conveyed by deed to Southwestern University, recorded as Document No. 2000023484, of the Official Records of Williamson County, Texas, and being more particularly described as follows;

BEGINNING on the south line of State Highway No. 29 (University Avenue), being the Northeast corner of that certain Lot 5, of University Terrace, a subdivision of records in Cabinet A, Slide 378, of the Plat Records of Williamson County, Texas, marking the Northwest corner of the above-referenced 0.57 of an acre Southwestern University tract, for the Northwest corner hereof;

THENCE, with the said south line of Highway No. 29, N 70°56' E, 141.01 feet to the Northeast corner of the said Southwestern University tract, being the Northwest corner of that certain, Tract One, called 0.6039 of an acre as

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conveyed to Southwestern University by deed recorded in Volume 832, Page 513, of the Deed Records of Williamson County, Texas, for the Northeast corner hereof;

THENCE, S 18°51'30" E, passing the Southwest corner of the said 0.6039 of an acre Southwestern University Tract One, and passing the Northwest corner of that certain Lot 1, of Haven Heights, a subdivision of record in Cabinet B, Slide 135, of the Plat Records of Williamson County, Texas, for a total distance of 178.30 feet to the Southeast corner of the said 0.57 of an acre Southwestern University tract, being on the west line of the said Lot 1, Haven Heights, and being the Northeast corner of that certain Lot 7, of the said University Terrace, for the Southeast corner hereof;

THENCE, with the north line of the said Lot 7, of University Terrace, S 70°59'30" W, 139.23 feet to the southwest corner of the said 0.57 of an acre Southwestern University tract, being the Southeast corner of that certain Lot 6, of the said University Terrace, for the Southwest corner hereof;

THENCE, N 19°26' W, passing the Northeast corner of the said Lot 6, and the Southeast corner of the said Lot 5, a total distance of 178.17 feet to the Place of BEGINNING and containing 0.57 of an acre of land.



## **SOUTHWESTERN UNIVERSITY**

#### **Campus Planned Unit Development**

Georgetown, Texas October 7, 2010

**Group Two Architecture, Inc.** 101 West Sixth Street, Suite 615 Austin, Texas 78701 512.478.6817

#### **Development Plan**

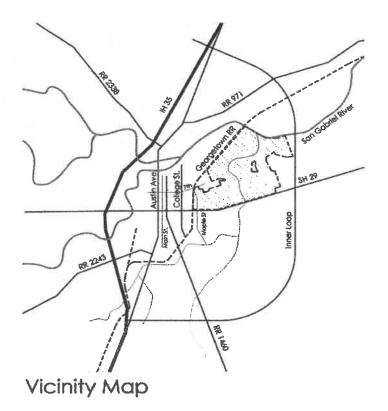
#### **List of Attachments**

Tables/Surveys/Letters
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Exhibit 1.	Proposed (and Prohibited) Use Categories
Exhibit 2.	Proposed Facilities
Exhibit 3A.	Parking Summary
Exhibit 3B.	Campus Parking Detail
Exhibit 4.	Survey
Exhibit 5.	TIA Determination Letter (Klotz Associates)
Exhibit 6.	Drainage Summary Letter (Steger Bizzell)

#### Plans

Exhibit A.	Existing and Proposed PUD Properties
Exhibit B.	Campus Master Plan
Exhibit C.	Parking Plan
Exhibit D.	Maple Street / West Campus Master Plan
Exhibit D1, 2, 3	Street Sections
Exhibit E.	Existing Campus
Exhibit F.	1999 Master Plan



#### **DEVELOPMENT PLAN**

#### 1. GENERAL

- a. **Purpose:** A University Campus is a unique type of development, not specifically identified by the UDC. Therefore modifications to the Code are necessary to implement development. This Campus PUD will allow Southwestern University to plan, fund and develop university districts, facilities, infrastructure in an orderly manner and consistent with goals of the UDC and Comprehensive Plan.
- b. Development History: In 1994, the City and University adopted a Development Agreement which identified facilities, standards, and requirements. The last major master plan revision (Exhibit F) occurred in 1999 (not including minor amendments or previous master plan updates). With the adoption of the UDC, Southwestern University was automatically rezoned from RP to PUD with an RS Base District.
- c. Property: Southwestern University's current landholdings along University Avenue (SH 29) include 517.6 acre PUD, 179.5 acres (Agriculture) and 6.0 acres (Single Family) north of SH 29. There are several tracts south of SH 29 with various zoning designations (including .5 ac. and .57 ac. PUD lots). Refer to Exhibit A and Exhibit 4.
- **d. Rezoning:** Southwestern desires to rezone the Agriculture (A) and Single Family (RS) properties to PUD, including them in the overall University PUD. This proposed rezoning to PUD is not inconsistent with the 2030 Plan and proposed intensity of uses near the Inner Loop.
- e. The Concept Plan: The attached plans illustrate the intent of the PUD. They will serve as general vision and guideline, but not final plan. The Master Plan may be further updated from time to time via the public process.
- f. Development/Implementation: Prior to development of each project, Southwestern University shall submit Site Plans and Construction Plans for City's administrative review for compliance to approved PUD criteria. Note that the Concept Plan is just that, conceptual, and that further refinement of a facility or area will be defined with its Site Plan development.

#### 2. BACKGROUND

- a. **History:** Southwestern is a private (Methodist Church affiliated), four year, liberal arts university. Historically, it is Texas' first university, one of its four root institutions was founded in 1840. The University is a well established, cultural institution of Georgetown. The Cullen Building and Mood Bridwell Hall on are the National Register.
- **b.** Enrollment: Per the University's 2010 Strategic Master Plan, the full time enrollment (FTE) is 1,250 students.
- c. Campus Community: Southwestern is a "traditional" university in that students live on campus and many of their basic needs are addressed by campus services (food, lodging, education, recreation, etc.). Currently, 85% of the students can be housed on campus; the University's goal is 95%. There are 500 faculty and staff members.
- d. Compact Development/Efficient Layout: Within the 703 contiguous acres of university property, the "built" portion of campus is concentrated in the southwest quadrant within 180 acres. This "compactness" provides efficient infrastructure (utilities and pavement) and preserves campus open space. It facilitates the pedestrian oriented campus nearly all facilities are within a 5 minute walk (1/4 mile radius) from the central mall.
- e. Campus Organization: There is a formal, symmetrical layout of larger campus buildings radiating around the Academic Mall with a north-south axis centered on the chapel. There is a generous front yard along University Avenue. With some overlap of districts and dual use facilities, the campus is generally laid out in tiers with academics central, residential in the second tier and athletics in the perimeter. Refer to Exhibit B.

#### 3. BASE DISTRICT

- a. **RS** Residential Single Family (existing base district)
- **b.** The UDC does NOT contain a zoning designation representative of a University Campus. Therefore, this PUD will continue with the existing, **RS** Base District with the addition of the following uses and modifications to UDC requirements.
- c. The exceptions noted herein are from the Georgetown Unified Development Code (UDC) adopted on July 14, 2009, in effect at the time of the application.
- d. Downtown Gateway Overlay District: Southwestern's border along University Avenue (SH 29) is part of the Downtown Gateway. Further discussion below in Circulation and Landscape.
- e. Old Town Overlay District: One small lot at the southeast corner of University Avenue and Maple Street lies within the Old Town Overlay District. No changes are planned on this lot at this time, but should a modification be proposed, it will require code compliance or PUD amendment. Regulations apply to site, buildings and modifications and require Historic & Architectural Review Commission approval and Certificate of Design Compliance.

#### 4. PROPOSED USES

- a. Primary Use: Educational Facility, Higher Learning, Private, Religious Affiliation
- b. Educational Facilities: including classrooms and labs, administrative and faculty offices, meeting spaces, libraries, university housing, campus services (food, health, maintenance), chapel (w/columbarium), support commercial (bookstore), theater, parking/structures, recreation, athletics, golf course, open space.
- c. Secondary or Support Uses: Uses that are customary to university operation/student services where the campus community is the primary user/beneficiary: campus police, campus post office, university museum, student health and counseling clinic.
- d. Proposed Permitted Uses: Refer to Exhibit 1 for Proposed Permitted and Prohibited Uses. NOTE that ALL of the Proposed Permitted Uses already exist on campus.

#### 5. CONCEPT

- a. Community: Although the campus is nearly a community within the community (where many of the student/staff daily needs are fulfilled by services provided on campus), the City and surrounding neighborhoods are integral to Southwestern and vise versa. Citizens visit campus for cultural or athletic events and Southwestern students frequent stores and restaurants and volunteer in the community. In Richard Ekman's article "Creating Campus Appeal," <u>University Business</u>, (Mar. 2007), he notes "...the openness of Southwestern's campus and its connection to the surrounding areas, reminiscent of the early 20th-century Garden City movement in Great Britain."
- **b.** Enduring Sense of Place: Integral to the campus experience, is the sense of place created by design sensitive to the natural and built environment, historic and cultural elements and reflective of the mission of higher education. Southwestern strives to preserve trees and buildings and all of the new facilities are built with quality and diligence for longevity.
- c. Undeveloped Reserve: The University is fortunate to have accrued acreage which serves as natural buffer, environmental study, potential recreation, and, importantly, a reserve for the future (expansion or valuable asset). Therefore, its handling/management is critical to preserve intact for future generations of students.
- d. Established Standards / Context: In general, Southwestern proposes development standards that are consistent with existing contextual standards that have long been established on campus - architectural styles, patterns, elements, building setbacks, heights, materials, etc. for consistency and quality. (Note that campus construction started before 1900.) Similarly, Southwestern intends to continue its stewardship of its land by preserving trees and open space with efficient site layout.

#### 6. **BUILDINGS / FACILITIES**

- a. Layout & Building Envelopes: Generally, the proposed buildings are as shown on plans; actual buildings may vary slightly in location, area, and configuration. Refer to Exhibit B and Exhibit 2 for proposed facilities, square footage, height, and approximate phasing.
- b. Prior City Approval: Half of the proposed facilities were approved by public process in 1999. Exhibits B and 2 indicate those previously approved facilities and those newly proposed.
- c. Dwelling Units/Density: There exists a variety of housing types on campus (fraternity houses, dormitories, student apartments) for which the definition of "dwelling unit" does not easily/uniformly apply.
- d. Units Per Structure: For student apartments, the maximum number of apartments per structure is thirty-two (32) as established by the McCombs Residential Center (in lieu of the UDC maximum of 24 units/structure). For dormitories, the maximum number of beds per residence hall is (170) as established by Mabee Hall. (Up to an additional 170 beds may be added in an expansion.)
- e. Building Height: The existing Cullen Building (excluding the 5-story tower) and Fondren Jones Science Hall are four-story buildings. The main portion of the Cullen Building (measured from midpoint of ridge and eave to the finished floor) is more than 60'. Due to the scale of the existing campus buildings (necessary to their uses), this PUD maintains the maximum building height already established at sixty-five feet (65') above finished floor elevation. Therefore, this building height standard is an exemption from the UDC 35' height limit in residential district and the 1' additional setback per 1' additional height requirement.
- f. Building Setbacks:
  - i. Front Yard Setback: The Front Yard Setback along University Avenue shall be no less than 50' per UDC section 5.02.050, for educational facilities in a residential district.
  - ii. Setback from Maple Street: The right of way along Maple Street is inconsistent and varies. The northern portion indicates a 60' ROW with a 25' setback (which equals 55' from centerline of street). For simplicity, Southwestern proposes to continue the setback of 55' measured from centerline of the existing street (UDC section 6.02.040 allows for a reduction in setback for public purpose). This provides a consistent standard for proposed structures. Existing structures are exempt from this setback.
  - iii. Side and Rear Setback: 25' side and rear setbacks where non-residential use abuts residential district per code (6.03.040). Residential uses may have 20' setbacks.
  - iv. Front, Side and Rear Setbacks shall not increase for building height per item 6.e above.
  - v. Setback requirements do not apply to internal campus roads or areas.
- g. Limits of Construction: Due to the many existing improvements (buildings, trees, utilities, etc.) limits of construction will be as minimal as possible and only as required per project.
- h. Building Elevations/Articulation: New facilities to fit within established campus context by matching/complimenting the existing Southwestern University architectural style, massing, articulation, materials, etc. As Southwestern is a residential campus, building entries and site amenities are scaled for pedestrians. Alternative plans for Building Articulation may be submitted with Site Plan per UDC for facilities fronting public streets.

#### 7. PARKING

- a. Parking Requirements: The proposed quantity of campus parking is based on the fixed campus population instead of building square footage and use (since students/staff visit multiple facilities within walking distance on campus).
- b. The Parking Ratios are the same as those used since the initial Development Agreement (based on Sasaki Associates and ENO data). This Parking Summary, Exhibit 3, updates overall requirements by adjusting the quantity of students living on campus (proposed to increase) and off-campus (proposed to decrease), faculty/staff and overflow.

- c. Handicap parking is distributed throughout campus and quantity is based on overall parking count (not per building). The University has an approved handicap parking master plan on file with TDLR.
- d. Layout: Existing and proposed parking lot locations are as shown on plans. Refer to Exhibit
   C. As the campus is pedestrian based and inward oriented, parking lots are generally located around the perimeter. Parking total includes the on-street parking along Maple Street.
- e. Alternative Transportation: In its commitment to the environment, Southwestern encourages alternatives to cars within the campus and the community. In addition to walking across campus, options include personal bikes, Yellow Bikes, electric carts (staff). For campus commuters, the University provides incentives and/or preferred parking for ride share and fuel efficient vehicles, shower/changing rooms for cyclists. The future may include City bus stops and campus shuttle for remote parking or special events.

#### 8. VEHICULAR & PEDESTRIAN CIRCULATION / ACCESS

- a. Traffic Impact Analysis: Per letter from Klotz Associates (traffic engineer) to David Munk, dated June 11, 2009, a TIA is not required at this time as there is no proposed development which would generate any additional traffic. Refer to Exhibit 5.
- b. University-Owned Streets
  - i. **Campus Streets:** As previously noted the campus is pedestrian oriented. For the safety of the campus community and to minimize off-campus traffic, all streets, except (possibly) Maple Street, within the built portion of campus are University owned (private): Southwestern Boulevard, Wesleyan, McKenzie, Soule, Ruterville, Service Drive, Taylor, etc. All existing and proposed streets shall meet City design and construction standards.
  - **ii. Soule Drive:** To further the pedestrian experience and link the Cullen Building with the Academic Mall, Southwestern proposes that a portion of Soule is turned into a pedestrian promenade similar to the main Pedestrian Mall. This new pedestrian way would be EMS/Fire Truck accessible with mountable curb, removable bollard (Knox Box) or chain, and 24' solid surface for fire truck outriggers similar to the existing mall pavement.
- c. City Collector Streets (Alt CR 188 / Smith Creek Road Extension / former CR 188)
  - i. Undeveloped Reserve: Southwestern does not plan any development in the area east of the Smith Branch or facilities that would be primarily served by the City's proposed Alt CR 188 or Smith Creek Road Extension. The University wishes to preserve this undeveloped land as natural wooded, agricultural, environmental research, and buffer area. In the future the University may decide to develop (and amend the PUD.)
  - ii. Rights of Way: Should the City desire to build the collectors per the 2030 Plan, Southwestern University to negotiate appropriate size and layout of rights of way.
  - iii. Layout: Roads are shown at "seams" in property to preserve contiguous natural areas, minimize encumbrance on University land and allow flexibility of future use. The University and City Staff met several times (beginning June 2008) to discuss this alternative layout of Alt CR 188 with the tie into the City park. The proposed alignment of Smith Branch Road Extension was shifted away from the steep slopes and ponds toward the south.
  - iv. Street Sections: Per the Overall Transportation Plan (OTP), these designated Collectors to have 73' ROW and 2 lanes. Paved section shall be 37' wide per UDC. Refer to Street Section Options, Exhibits D2 and D3.
- d. University Avenue (State Highway 29): TXDoT planned to widen SH 29 to 5 lanes east of Haven Lane, however the local TXDoT staff and City planners did not know if or when this work would occur. The proposed right of way will need to be determined prior to any Downtown Gateway improvements along University Avenue.
- e. Maple Street
  - **i. Existing Maple Street:** The street is two lanes with parallel parking on both sides. The speed limit to remain 20 miles per hour given that the street bisects campus uses.

- ii. Safety: Additional measures to enhance safety and calm traffic include: all-way stops (if warranted) at Southwestern Boulevard and McKenzie Drive; decorative pavement at intersections and crosswalks; sidewalk/bikeway at west side of Maple, fence (possibly chainlink) at playing fields, etc. Landscaped peninsulas may be built to better define and contain on-street parking. Refer to Exhibits D and D1.
- iii. Maple Street Relocation: In the future, Maple Street may be relocated adjacent to the railroad tracks (dashed line on plan).
- f. Bicycle Access
  - i. Within Campus: Bicycling is encouraged with racks at building entries and University provided Yellow Bikes. There is no separation of pedestrian and bike circulation as main walkways are generous widths.

#### g. Pedestrian Access/Circulation

- i. Within Campus: Sidewalks are as shown on master plan (location and size may vary slightly). There is a hierarchy of widths per usage and context. Walkways are appointed with benches, kiosks, detailed plantings, pedestrian scaled light fixtures. Where sidewalks are adjacent to streets, walks will abut curbs to minimize maintenance.
- ii. Adjacent to Proposed City Streets: Similarly, sidewalks may abut curb to minimize maintenance. Sidewalk(s) may be built at time of adjacent land development (one side or both per development location).
- iii. Downtown Gateway: Southwestern's border along University Avenue is within the Downtown Gateway District which requires sidewalks, trees and shrubs. Existing sidewalks (and trees, shrubs) shall count toward this requirement. Where none exist, sidewalks (and/or plantings) will be installed at time of adjacent facility or land development. See Landscape below.)
- iv. Cost Share: The University's frontage within the Downtown Gateway (on the north side alone) is roughly 7,000 lf. (This equates to over 35,000 square feet of sidewalk, 200 trees, 500 shrubs, lawn, and irrigation.) Southwestern may request city participation in Gateway development, including sidewalks as noted in the UDC.

#### 9. LIGHTING

- a. General: Street, Parking Lot, Pedestrian, and Building Lighting is provided for security and safety. Cones of light to be shielded from adjacent property and public streets.
- **b.** Street Lights: Light standards to match campus which meet or exceed City standards. Street light spacing is approximately 300' on center.
- c. Athletic Field Lighting: Stadium and softball fields will be lit similar to the baseball field. The athletic lighting to meet NCAA standards. The fixtures to be shielded to avoid light spill onto adjacent properties and public streets.

#### 10. SIGNAGE

a. A Master Sign Plan shall be submitted to the City Building Official for administrative review (along with individual sign permit applications) prior to construction of any signs along University Avenue (SH 29) and Maple Street.

#### 11. OPEN SPACE

- a. Natural Features: The plans show the 100 Year Floodplain at the San Gabriel River and Smith Branch which edge and bisect the University's property.
- b. Parkland
  - Applicability: As confirmed with the Planning Department, parkland dedication does not apply to the university campus use. However, Southwestern University does provide a large variety and vast area of park-like opportunities for students (including some public venues).
  - ii. Golf Course: Southwestern University's Kurth Landrum Golf Course is open to the public.

iii. City Trails: Southwestern University is amenable to park trail(s) providing connectivity across it's property. Trail alignment to be determined at time of adjacent land development and as agreed by Southwestern University and City.

#### c. Campus Open Space

- i. **Residential Campus:** Open space is inherent in the residential campus both structured (courtyards to sports fields) and passive (greens and pedestrian connections). The efficient campus layout emphasizes "walkability" and minimizes roads and parking.
- ii. Open Space Ratios: Within the 180 acre "inner campus", approximately 80% is open space (see Variety below). There is more than an acre of open space per every 9 students within the inner campus. Within the University's 703 contiguous acres, the open space ratio jumps to more than 1 acre per every 2 students.

#### d. Variety of Open Space

- i. **Pedestrian "Greenways":** Series of courtyards, malls, and tree-lined pedestrian corridors link all facilities on campus. The main hub is the Academic Mall and central green on axis with the chapel. Fountains, seating areas, kiosks, (picnic tables and grilles at residential sites), trees, and detailed planting provide interest, comfort and pedestrian scale.
- ii. Athletics: Southwestern provides (and proposes) fields and courts for the following NCAA level, intramurals and "pick up" sports: baseball, softball, tennis, soccer, lacrosse, track & field, volleyball, Frisbee golf, and golf. The Kurth Landrum 9-hole golf course is open to the public. (The course is currently 6-holes, but may be modified or expanded back to nine holes.)
- III. Gardens: Most of the University buildings have associated courtyards or gardens for instruction (horticulture garden, outdoor classroom, sculpture garden, etc.) or informal gatherings. The Community Garden, Green Hall Garden and assorted smaller plots around campus involve students and Georgetown community in sustainable gardening.
- iv. Agricultural and Undeveloped: The large majority of the University's contiguous land is undeveloped, agricultural or floodplain. Some of this property is used for cattle grazing, environmental or biology research, or land reserve.

#### 12. LANDSCAPE

- a. Alternative Landscape Plans may be submitted by a Landscape Architect for administrative review with Site Plans illustrating that the aesthetic, buffering and environmental intent of the code is met.
- b. Primary Landscape and Tree Canopy Calculations
  - i. Existing Trees and Open Space: Due to the high percentage of campus open space and the large quantity of existing trees and planting, Southwestern requests consideration in calculating primary landscape and tree canopy area.
  - ii. Limits of Construction: Construction areas for each project are kept to a minimum to avoid disturbance of adjacent improvements and landscape. However, this skews the landscape requirements a high ratio of impervious cover within a relatively small limit of construction. In the past this results in excess trees with little room to plant (and credit cannot be taken for adjacent trees outside the limits). Therefore:
  - iii. Primary Landscape requirements may be based on 20% impervious cover within limits of construction. City provides credit for existing 4" to 12" caliper trees per UDC 8.10.
  - iv. Tree Canopy requirements may be based on 15% of the limits of construction.

#### c. Street Trees:

- Street Trees will be installed per UDC at Maple Street and Hwy 29 (Refer to Downtown Gateway, below.); other campus streets are private and alternate landscape plans will be submitted.
- ii. Credit shall be given for all existing, comparable trees between curb and building façade.

- iii. Planting shall occur when adjacent facility or land is developed, therefore installation may be phased.
- d. Parking Lot Landscaping: All new parking lots to comply with the UDC requirements for parking lot planting.
- e. Bufferyard Landscaping: All new development to meet buffering requirements of the UDC.
- f. Screening: All new parking lots, mechanical equipment, dumpsters, loading docks, etc. to meet screening requirements of the UDC when visible from off-site.
- g. Tree Replacement: Refer to Environmental Protection below.
- h. Downtown Gateway
  - i. Existing and New Improvements: Southwestern University's border along University Avenue is within the Downtown Gateway District. Existing sidewalks, trees, and shrubs between the curb and building facade shall count toward the requirements of this district. Where none exist, sidewalks and/or plantings will be installed at time of adjacent facility or land development (Site Plan submittal). Therefore installation may be incremental or phased.
  - **ii. Right of Way:** As previously noted, the right of way location where TXDOT may widen University Avenue (SH 29) to five lanes needs to be determined prior to Gateway development.
  - iii. Alternate Tree Species: Due to the large number of required trees, the University may submit alternative, but comparable, species for street tree planting during Site Plan development for consideration.

#### 13. ENVIRONMENTAL PROTECTION

#### a. Protected and Heritage Trees

i. Deferred Tree Survey: As projects are phased over 20 or more years, Southwestern proposes to survey trees at the time of project development in order to provide current information. The following is a condition of this PUD per the Director of Planning:

"A tree survey of all Protected and Heritage trees will be required prior to site plan. Building and recreation locations shown on this Development Plan are not final and are subject to change if it is found that significant stands of trees or Heritage Trees exist in those locations. Minor adjustments in building location due to trees may be approved by the Director of Planning. However, if the Director determines the adjustments to be major, an amendment to the PUD Development Plan will be required to be approved by City Council."

#### b. Impervious Cover and Stormwater Management

- i. Impervious Cover will not exceed the (45%) impervious cover limit of the base district per the UDC as measured over the University's total property area.
- ii. Drainage Study: Southwestern University commissioned a drainage study with Steger Bizzell Civil Engineers in 2004 and updates this regularly. The University tracks the affects of development on drainage with each Site Plan. Refer to the civil engineer update, Exhibit 6.
- ili. TCEQ Master Water Pollution Abatement Plan: Southwestern has a Master WPAP approved by TCEQ which tracks projects as they are developed. As the proposed impervious cover is below 20%, permanent pollution abatement is not required by TCEQ for this land use.
- iv. Development within the 100 Year Floodplain: Southwestern University reserves the right to develop within the floodplain and in compliance with local, state and federal regulations. Development may include, but is not limited to, athletic fields, golf course, trails, etc. Southwestern to coordinate with Georgetown Floodplain Administrator.
- v. Low Impact Site Design: The University may implement the following or similar features to minimize the affects of stormwater as illustration of environmental commitment: rainwater harvesting, preserving stream buffers, wet ponds, vegetated swales, etc.

#### **PROPOSED (AND PROHIBITED) USE CATEGORIES**

Note: Primary and Permitted Uses already exist on campus.

Primary Use:

Educational Facility	including classrooms and labs, administrative and faculty offices, meeting space libraries, university housing, campus services (food, health, maintenance), chap (w/columbarium), support commercial (bookstore), theater, parking/structure recreation, athletics, golf, open space, plazas,
Permitted Uses:	existing and/or proposed examples
Residential Uses	
	r university students and employees only
household living	unicessity provident about
single family, detached multifamily dwelling	university president, chaplain student apartments
group living	
group living (6 or less)	dormitories, fraternity, sorority
group living (7 or more)	dormitories, fraternity, sorority
Public and Civic Uses	
community services	community service and non-profit organizations (Upward Bound, Operation
cover ment facilities	Achievement, Community Outreach)
government facilities educational facilities	campus police, post office, (main land use)
medical facilities	university health and counseling
parks and open areas	onversity neditil dru cooliseling
golf course	golf course
athletic facilities	NCAA & intramural fields, courts, stadium, track, pool, frisbee golf
accessory uses	field house, press box, concessions, restrooms, maintenance & equipment storage,
open space	plazas, gardens, biology research
place of worship	chapel, support buildings, columbarium
parking	surface lots, on street, future structure
utilities	campus boiler plant, detention ponds, water wells, rain water collection, irrigati
	ponds, gray water pond or tank; City waste water lift stations, City electric, water, gr
	water lines
Commercial Uses	
Note: The main user is camp	us community, however many facilities/events are open to the public
Note: The main user is camp eating establishments	university food service, catering, concessions
Note: The main user is camp	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit
Note: The main user is camp eating establishments indoor entertainment	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies
Note: The main user is camp eating establishments	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college sport
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college sport events university administrative and some community based
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales Industrial Uses	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events university administrative and some community based university bookstore, ATM, sundries shop
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events university administrative and some community based university bookstore, ATM, sundries shop campus (on-site) associated janitorial/building/grounds maintenance (service an
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales Industrial Uses Light Industrial Services	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college sport events university administrative and some community based university bookstore, ATM, sundries shop campus (on-site) associated janitorial/building/grounds maintenance (service at facilities); vehicle and equipment maintenance; welding, machine and other shops
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales Industrial Uses Light Industrial Services Warehouse and Freight	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college sport events university administrative and some community based university bookstore, ATM, sundries shop campus (on-site) associated janitorial/building/grounds maintenance (service at facilities); vehicle and equipment maintenance; welding, machine and other shops vehicle storage (university vehicles - trucks, construction equipment, mini-vans); sto
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales Industrial Uses Light Industrial Services	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events university administrative and some community based university bookstore, ATM, sundries shop campus (on-site) associated janitorial/building/grounds maintenance (service at facilities); vehicle and equipment maintenance; welding, machine and other shops
Note: The main user is camp eating establishments indoor entertainment outdoor entertainment office retail sales Industrial Uses Light Industrial Services Warehouse and Freight Movement	university food service, catering, concessions theater, music performance, guest, faculty, student lecture/performance, exhibit college sports, games, movies music performance, guest, faculty, student lecture/performance, exhibits, college spor events university administrative and some community based university bookstore, ATM, sundries shop campus (on-site) associated janitorial/building/grounds maintenance (service an facilities); vehicle and equipment maintenance; welding, machine and other shops vehicle storage (university vehicles - trucks, construction equipment, mini-vans); sto

#### Prohibited Uses

Heavy Industry; detention centers; institutions for treatment; adult entertainment

ACILITIES	
PROPOSED FJ	

.

0-5 vr	Phase 1999 PUD	New	RES.	BUIDING	Construction	Construction S	Stories	Ht (ft) Notes
	Q	z	ď	-		0	2	30-35 12,500 sf ea building; 48 beds (24 beds/building)
0-5 vr	2	z	æ	West Residences - Phase 2	1	25,000	2	30-35 12.500 sf ea building; 48 beds (24 beds/building)
10-20 yr	2	z		Future Building (Administration or Academic)	28,000	28,000	2	30-35
0-5 vr	Ves	w		Fondren-Jones Science Hall	26,000	26,000	4	< 60 26,000 sf expansion + renovation of old building
5-10 vr	ves	ш	ð.	-	000'6	000'6	9	45-50 3 RA units; service areas (lobbies, laundry, elevator,
20 vr	6	ш		A. Frank Smith, Jr. Library Center	51,000	51,000	3	45-50
10-20 vr	ves	w		Alma Thomas Fine Arts Center	40,000	40,000	m	45-50
5-10 yr	yes	ш		Chaptain Expansion, Auxiliary Bullding, & Columbarium	5,000	5,000	1-2	30-35
10-20 vr	Ves	z		Academic or Technology Center	29,000	59,000	3	45-50
5-10 vr	ves	ш		Warehouse	r		2	30-35 replaces existing 20,000 sf
0-5 vr	Ves	z		Heldhouse	24,000	24,000	2	45-50
5-10 vr	Q	z		Parking Structure (& Observatory - Alt. Location)		E	4	400-500 parking spaces (100/jevel+roof)/32,000 footprint
5-10 VT	9	ш			16,500	16,500	2	30-35
0-5 Vr	yes	ш	æ	J.E. and L.E. Mabee Residence Hall Expansion		40,000	e	45-50 75 -100 beds
				not used				
5-10 vr	2	ш		Alumni Center	5,000	5,000	-	25
10-20 vr	Ves	z		Baseball Center	5,000	5,000	-	25 locker rooms/concessions/restrooms
5-10 vr	2	z		Environmental Center	8,000	8.000	-	25
10-20 Vr	2	z		Natatorium	45,000	45,000	-	30-35
				PROPOSED SITE WORK				
0-5 yr	2	S		Maple Street Modification (intersections)				
0-5 vr	2	s		NW Parking Lot Expansion				additional 44 spaces
10-20 vr	ou	S		SW Parking Lot				approx 50 spaces
0-5 yr	Q	s		Soule Promenade				
5-10 yr	2	s		Pool (w/fence) and Pavilion	909	909	-	25 minor RR and vending
5-10 yr	yes	s		Tennis Center/Courts				4 courts = 28,000 sf
0-5 yr	Yes	s		Special Events Parking/East Parking				approx 180 spaces
0-5 VI	yes	s.		Intramura) Fields			-	
20 yr	Yes	S		Stadium/Implement Field	7,500	7,500	2	30-35 press box, concessions, public restrooms, storage
0-5 Vr	yes	s		Modifications/expansion to existing Golf Course (9 holes)				
5-10 yr	yes	s		Relocate Detention/Filtration Pond				
20 yr	2	s		Maple Street Relocation/street connections/replacement parking				
							+	
1				Totol New Construction - Bulldings (sf)	329.600	419.600	-	

Buildings are shown schematically. Allow for minor variations in building size, locations and configurations.
 Building Phasing is speculation only. Actual Implementation is based on University needs and funding which varies widely.

### **PARKING SUMMARY**

Previously Approved Required Parking 1999 PUD

1,283 spaces

Proposed Parking for Campus PUD:

				Parl	king Spaces	
					1	otal incl. future/
	population	ratio (2)	required (3)	existing (4)	proposed (5)	alternate (6)
	1,250		1			
) commuter students (5%)	63	0.37	23			
) living on campus (95%)	1,188	0.67	796			
faculty/staff	500	0.90	450			
visitor	435	0.33	144			
total:	2,185	0.65	1,412	1,399	1,429	1,662

### Notes:

1 proposed percentages of students living on campus and commuters (existing are 85% on campus, 15% commuter) 2 existing SU parking ratios

3 Parking Required adjusted for proposed increase in proportion of students living on-campus to off-campus

4 Existing Parking per SU field count in July 2009

5 Proposed Parking generally reflects parking gains (losses) for projects proposed over next 5 years

6 Future/Alternate Parking includes additional, alternate and/or event parking

see Campus Parking Detail, Exhibit 3B and Parking Plan, Exhibit C1 for more detail

\* Parking Summary to be updated and submitted to the City with each project's Site Plan

### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT

TOTAL EXISTING & PROPOSED (INCLUDING

### **CAMPUS PARKING DETAIL**

			<b>EXISTING PARKING</b>			POSSIBLE ALTERNATE & ADDITIONAL) PARKING						
notes	Kev	Lot	Faculty/ Staff	Special Permit	Student	Unre- stricted	Total		Special Permit	Student	Unre- stricted	Toto
	W1	Maple Street	43			68	111	45			70	115
_	W2	Northwest Lot			92		92		1	92		92
*	W3	Northwest Lot Expansion								35		35
1	W4	Cullen Lot/Bidg/Soule	94				94	86				86
*	W5	SW Parking Lot								50		50
	NW1	Lord Center			84		84			84		84
2	NW2	DML Res. Center			5		5			5		5
1	C1	W. Rutersville/Library				21	21				19	19
3	C2	North Fraternity Lots				58	58				48	48
	C3	Wesleyan/McKenzie	42			109	151	42			109	151
	C4	Southwestern Blvd.			1	188	188				188	188
	C5	Chapel Lot	20		1		20	20				20
4	C6	Chapel Overflow	29				29					
5	N1	North Lot			65	76	141			54	71	125
6	N2	Physical Plant Lot A		56	5		56		(	0	43	43
	N3	Physical Plant Lot Expansion									36	36
7		Possible Parking Structure									Ş	
	SE1	Fine Arts Lot	78				78	78				78
8	SE2	Brown-Cody/Kurth Lot			200		200			187		187
	SE3	East Lot	22			23	45	22	2		23	45
*	SE4	East Lot Expansion									49	49
* 9	SE5	Stadium Lot									180	180
	S	Outreach/Maple House/Apt	26				26	26	5			26
		Totals	354	56	446	543	1,399	319		507	836	- 1,662

Master Plan Requirement Based on 1250 FTE, 95% on campus living1,412amount over required parking250

#### **GENERAL:**

- Numbers per lot are subject to slight modification, but will be reviewed by City with Site Plan submittals.
- Refer to Exhibits C (Parking Plan) and D (Maple Street/West Campus Master Plan)
- Included in notes below are explanations for removing some existing parking spaces. Parking will only be removed when replacement parking has been provided and parking counts reflect the campus population.

### **KEYED NOTES:**

- \* New parking lots are triggered with construction of residential expansion (and/or stadium) new west lots w/west residences, east lots with east residences (or stadium)
- 1 Some existing parking lost in this location when Soule Drive becomes pedestrian promenade.
- 2 The existing parking spaces are for handicap only and (1) RA.
- 3 Access to lots and pump house from Maple to be removed. Lots to be restriped. Several spaces lost. Refer to Exhibit D.
- 4 Return chapel plaza to pedestrian-only use when replacement parking is built.
- 5 Return drive to 2 way traffic when replacement parking is built.
- 6 Existing lot is restricted for daytime staff only. When observatory is moved, lot is expanded and lighted it will become unrestricted lot.
- 7 Potential site for parking structure (parking spaces NOT included in summary)
- 8 Some existing parking will become landscape area when replacement parking is built.
- 9 Stadium lot to be built with stadium or east residence hall expansion, whichever comes first.

### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT EXHIBIT 4

10.07.10

"THIS PERIMETER DESCRIPTION WAS PREPARED FROM INFORMATION DERIVED FROM MULTIPLE SOURCES AND WAS NOT PREPARED IN CONJUNCTION WITH AN ON-THE-GROUND SURVEY. IT IS TO BE USED FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TO BE USED AS A LEGAL DESCRIPTION FOR THE TRANSFER OF TITLE."

BEING 704.25 acres of land, situated in the Antonio Flores Survey, Abstract No. 235 and the William Addison Survey, Abstract No. 21, in Williamson County, Texas. Said land being property occupied by Southwestern University and being more particularly described in Three Tracts as follows:

Tract One (703.18 acres)

BEGINNING at the intersection of the north line of University Avenue, State Highway No. 29, and the east line of Holly Street (old MK & T Railroad Right-of-Way) being the Southwest corner of Block 6 of the Snyder's Addition to the City of Georgetown, an addition of record in Volume 57, Page 502, of the Deed Records of Williamson County, Texas, for the Southwest corner hereof;

THENCE, along the said east line of Holly Street, being the old MK & T Railroad Right-of-Way, N 02°10'31" W, at 599.34 feet, pass the Southwest corner of Southwestern University Northwest Entrance Subdivision, a subdivision of record in Cabinet P, Slide 22, of the Plat Records of Williamson County, Texas, continuing along the west line of the said Southwestern University Northwest Entrance Subdivision, leaving the said east line of Holly Street and continuing along the east line of the said old MK & T Railroad Right-of-Way, for a total distance of 1,459.91 feet to the beginning of a curve to the right, (Radius=1,879.86 feet, Long Chord bears N 03°24'06" E, 336.81 feet), an arc distance of 337.26 feet to the most northerly corner of the said Southwestern University Northwest Entrance Subdivision on the west line of Maple Street for a northwesterly corner hereof;

THENCE, crossing Maple Street, N 36°32'18" E, 96.76 feet to the intersection of the east line of Maple Street and the south line of 7<sup>th</sup> Street for the Northwest corner of Lot 1, Block A, of Southwestern University Student Housing Subdivision, a subdivision of record in Cabinet L, Slide 342, of the Plat Records of Williamson County, Texas, for a Northwesterly corner hereof:

THENCE, along the said south line of 7<sup>th</sup> Street, N 68°30'11" E, 276.60 feet to the intersection of the said south line of 7<sup>th</sup> Street and the west line of Olive Street for the most northerly Northeast corner of the said Lot 1, Block A, for the most westerly Northeast corner hereof;

THENCE, along the east line and a northerly line of the said Lot 1, Block A, along Olive Street,

S 21°21'39" E, 243.39 feet, along a curve to the left (Radius=39.91 feet, Long Chord bears

S 66°25'44" E, 56.50 feet), an arc distance of 62.78 feet to the north line of 8<sup>th</sup> Street, and along the said north line of 8<sup>th</sup> Street, N 68°30'11" E, 174.70 feet to the most easterly Northeast corner of the said Lot 1, Block A, being the Northwest corner of that certain tract of land, called 1.29 acres, as conveyed to Southwestern University by deed recorded as Document No. 2003095081 of the Official Public Records of Williamson County, Texas, and N 68°56'50" E, at 184.29 feet pass the most northerly Northeast corner of the said 1.29 acres Southwestern University tract, being the Northwest corner of that certain tract of land, called 0.21 of an acre, as conveyed to Southwestern University by deed recorded as Document No. 2004007708 of the Official Public Records of Williamson County, Texas, for a total distance of 260.87 feet, in all, to the Northeast corner of the said 0.21 of an acre Southwestern University tract, for a northeasterly corner hereof;

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THENCE, S 22°06'10" E, at 118.78 feet pass the Southeast corner of the said 0.21 of an acre Southwestern University tract, being the most easterly Northeast corner of the said 1.29 acre Southwestern University tract, for a total distance of 249.90 feet to the Southeast corner of the said 1.29 acre Southwestern University tract, for an interior corner hereof;

THENCE, N 68°58'36" E, 260.86 feet to the most westerly Southwest corner of the East Anderson Addition, an addition of record in Cabinet J, Slide 147, of the Plat Records of Williamson County, Texas, for an interior corner hereof;

THENCE, N 21°44'03" W, 105.02 feet to the most westerly Northwest corner of the said East Anderson Addition, being the Southwest corner of the southern portion of the I.O.O.F. Cemetery, for a northwesterly corner hereof;

THENCE, along the north line of the said East Anderson Addition, being the south line of the southern portion of the I.O.O.F. Cemetery, N 68°48'53" E, 209.95 feet; N 21°11'07" W, 35.00 feet; N 68°48'53" E, 161.47 feet; N 21°11'07" W, 22.00 feet; N 68°48'53" E, 252.00 feet; N 21°11'07" W, 26.00 feet and N 68°48'53" E, 367.75 feet to the west line of that certain tract of land, called 4.27 acres, as conveyed to Southwestern University by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas, marking the Northeast corner of the said East Anderson Addition and a southeasterly corner of the said southern portion of the I.O.O.F. Cemetery, for an interior corner hereof;

THENCE, N 20°35'13" W, 371.19 feet to the Northwest corner of the said 4.27 acre Southwestern University tract, being an interior corner of the said southern portion of the I.O.O.F. Cemetery, for a northwesterly corner hereof;

THENCE, N 83°51'49" E, 500.78 feet to an interior corner of the said 4.75 acre Southwestern University tract, being the most easterly Southeast corner of the said southern portion of the I.O.O.F. Cemetery, for an interior corner hereof;

THENCE, N 02°07'55" W, passing the south line of a roadway, being the Northwest corner of the said 4.75 acre Southwestern University tract and the Northeast corner of the said southern portion of the I.O.O.F. Cemetery, for a total distance of 135.97 feet to the north line of the said roadway, being the south line of that certain tract of land, called 200 acres, as conveyed to Southwestern University by deed as recorded in Volume 318, Page 214, of the Deed Records of Williamson County, Texas, for an interior corner hereof;

THENCE, along the north line of the said roadway being the south line of the said 200 acre Southwestern University tract, S 88°01'20" W, 562.52 feet and S 68°31'40" W, 538.35 feet to the Southwest corner of the said 200 acre Southwestern University tract, being the Southeast corner of the northern portion of the I.O.O.F. Cemetery, for a southwesterly corner hereof;

THENCE, N 21°11'07" W, 878.18 feet to the south line of the old MK & T Railroad Right-of-Way, for the Northwest corner of the said 200 Southwestern University tract and the Northeast corner of the said northern portion of I.O.O.F. Cemetery, for the Northwest corner hereof;

THENCE, along the said south line of the old MK & T Railroad Right-of-Way being the north line of the said 200 acre Southwestern University tract, as follows;

Along a curve to the left (Radius=5,779.58 feet, Long Chord bears N 36°56'22" E, 504.03 feet), an arc distance of 504.19 feet,

N 34°26'25" E, 3,216.70 feet to the beginning of a curve to the right (Radius = 5,679.58 feet, Long Chord bears N 37°43'25" E, 650.58 feet), along the said curve for an arc distance of 650.94 feet and N 41°00'25"

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E, 726.37 feet to the center of the San Gabriel River, for the most northerly corner of the said 200 acre Southwestern University tract for the most northerly corner hereof;

THENCE, downstream along the center of the San Gabriel River, with its meanders,

S 59°46'14" E, 1,366.94 feet to the most easterly corner of the said 200 acre Southwestern University tract, being the Northeast corner of the remainder of that certain Third Tract, called 30 acres, as conveyed to J.A. Barnett by deed as recorded in Volume 325, Page 300, of the Deed Records of Williamson County, Texas, being on the west line of that certain tract of land, called 77.29 acres, as described in a deed to the D. Robbins Trust of record in Volume 2307, Page 495, of the Official Records of Williamson County, Texas, for an easterly corner hereof;

THENCE, along the south line of the said 200 acre Southwestern University tract,

S 68°13'46" W, 156.76 feet to the Northwest corner of the said remainder of the Barnett tract, being a northerly corner of that certain tract of land, called 117.48 acres, as described in a deed to Southwestern University in Document No. 2001018260 of the Official Records of Williamson County, Texas, for an interior corner hereof;

THENCE, along a northerly line of the said 117.48 acre tract, being the south line of the remainder of the said Barnett tract, S 64°48'15" E, 744.31 feet to an iron pin set and

N 68°41'45" E, 56.70 feet to a point in the center of the San Gabriel River, being the south line of the said Robbins tract, for a northerly corner of the said 117.48 tract, for a northerly corner hereof;

THENCE, downstream, along the center of the San Gabriel River, with its meanders, as follows: S 79°38'15" E, 259.47 feet; S 86°55'45" E, 291.91 feet; N 80°37'15" E, 111.69 feet;

N 64°48'45" E, 531.78 feet and N 72°48'45" E, 160.71 feet to the Northeast corner of the said 117.48 acre tract, being on the south line of the said Robbins Tract, being the Northwest corner of that certain Tract One, called 110.09 acres, as conveyed to Carolyn B. Sharkey and Sara Elizabeth Sharkey by deed as recorded in Volume 2239, Page 95, of the Official Records of Williamson County, Texas, for the most northerly Northeast corner hereof;

THENCE, along the east line of the said 117.48 acre tract, being the west line of the said Sharkey Tract One, as follows; S 19° 10' 45" E, 474.48 feet and S 21° 27' 15" E, 1,399.47 feet to the Northeast corner of the remainder of a 258.657 acre Tract 1 described in a deed to New America, Ltd. in Document No. 9839081 of the Official Records of Williamson County, Texas, for the most easterly Southeast corner of the said 117.48 acre tract, for the most easterly Southeast corner hereof;

THENCE, along a southerly and easterly line of the said 117.48 acre tract, being a northerly and westerly line of the said New America, Ltd., tract, S 75° 01' 15" W, 210.12 feet; S 83° 31' 45" W, 251.00 feet; N 78° 10' 45" W, 223.23 feet; N 81° 52' 45" W, 325.37 feet; N 66° 20' 45" W, 269.51 feet; N 39° 40' 15" W, 250.80 feet; S 55° 20' 45" W, 386.67 feet; S 51° 53' 45" W, 259.15 feet; S 53° 20' 15" W, 134.29 feet; S 0° 00' 45" E, 164.09 feet; S 5° 52' 15" W, 145.13 feet; S 30° 16' 45" E, 973.75 feet the Northwest corner of that certain Tract No. 3 (14.73 acres) as described in a deed to Southwestern University in Document No. 2000068095 of the Official Public Records of Williamson County, Texas, being an interior corner of the said 117.48 acre tract, for a corner hereof;

THENCE, along the north line of said Tract 3, S 80° 43' 15" E, 222.32 feet an interior corner of the said New America, Ltd. tract, being the Northeast corner of the said Tract No. 3 and the Northwest corner of that certain tract of land, called 0.95 of an acre, as conveyed to Bert Holmstrom and wife, Lisa Holmstrom, by deed recorded as Document No. 2000034546 of the Official Records of Williamson County, Texas, for a corner hereof;

THENCE, along an easterly line of the said Tract No. 3, as follows; S 20° 50' 15" E, 159.93 feet to the Southwest corner of the said 0.95 of an acre Holmstrom tract, being the Northwest corner of that certain tract of land, called

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0.937 acres, as conveyed to Tommie Edward Norrell, by deed recorded as Document No. 9742821 of the Official Records of Williamson County, Texas;

S 20° 52' 15" E, 150.22 feet to the Southwest corner of the said 0.937 of an acre Norrell tract, being the Northwest corner of that certain tract of land, called 0.793 of an acre, as conveyed to Tommie Edward Norrell, by deed recorded as Document No. 9742821 of the Official Records of Williamson County, Texas; S 20° 52' 45" E, 94.65 feet to the Southwest corner of the said 0.793 of an acre Norrell tract, being the Northwest corner of that certain tract of land, called 2.77 acres, as conveyed to Jimmy Lynn Snow and Susan Snow by deed recorded as Document No. 9656734 of the Official Records of Williamson County, Texas, continuing along the west line of the said 2.77 acres Snow tract, S 21° 05' 45" E, 55.26 feet; S 21° 15° 45" E, 88.10 feet and

S 22° 05' 45" E, at 204.07 feet pass the Southwest corner of the said 2.77 acre Snow tract, being the Northwest corner of that certain tract of land, called 4.87 acres, as conveyed to Gene Lawhon by deed as recorded in Volume 964, Page 577, of the Deed Records of Williamson County, Texas, for a total distance of 254.75 feet, in all, to the most northerly Southwest corner of the said 4.87 acre Lawhon tract, being the Northwest corner of that certain tract of land, called 4.217 acres, as conveyed to Gene L. Lawhon by deed as recorded in Volume 2252, Page 791, of the Official Records of Williamson County, Texas, and S 22° 55' 45" E, 581.93 feet to the north line of that certain tract of land, called 6.06 acres, as conveyed to William James Reinhardt by deed as recorded in Volume 573, Page 469, of the Deed Records of Williamson County, Texas, being a southerly line of the said Tract No. 3, being the Southwest corner of the said 4.217 acre Lawhon tract, for the most easterly Southeast corner of the said Tract No. 3, for a southeasterly corner hereof;

THENCE, S 70° 42' 45" W, 148.12 feet to an interior corner of the said Tract No. 3, being the Northwest corner of the said 6.06 acre Reinhardt tract, for an interior corner hereof;

THENCE, along the west line of the said 6.06 acre Reinhardt tract, being an easterly line of the said Tract No. 3, S 18° 40' 45" E, 56.26 feet to the Northeast corner of that certain tract of land, called 3.420 acres, as conveyed to American Capitol Group, Inc., of record as Document No. 9725466 of the Official Records of Williamson County, Texas, for an southeasterly corner hereof;

THENCE, S 75° 28' 15" W, 356.37 feet to the East line of the said 117.48 acre tract, marking the Northwest corner of the said 3.420 acre American Capitol Group, Inc. tract, being the Southeast corner of the said Tract No. 3, for an interior corner hereof;

THENCE, along the East line of the said 117.48 acre tract being the west line of the said American Capital Group, Inc. tract; S 15° 04' 45" E, 379.97 feet to the beginning of a curve to the left, (Radius = 25.00 feet, Long Chord bears S 60° 04' 45" E, 35.36 feet); Thence, along the said curve for an arc distance of 39.28 feet; Thence, N 74° 54' 45" E, 357.95 feet to the west line of the said 6.06 acres, Reinhardt tract being the Southeast corner of the said American Capital Group, Inc. tract, for a corner hereof;

THENCE, S 18° 31' 15" E, 20.15 feet to the north line of State Highway No. 29, marking the most westerly Southeast corner of the said 117.48 acre tract, being the Southwest corner of the said Reinhardt tract, for the most southerly Southeast corner hereof;

THENCE, along the said north line of State Highway No. 29, S 74° 57' 45" W, at 503.83 feet pass the most southerly Southwest corner of the said 117.48 acre tract, being the Southeast corner of that certain Tract No. 1 (29.39 acres) as described in a deed to Southwestern University in Document No. 2000068095 of the Official Public Records of Williamson County, Texas, for a total distance of 1,703.30 feet, in all, to the beginning of a curve to the left (Radius=1,950.10 feet, Long Chord bears S 71°49'57" W, 204.80 feet);

Along the said curve for an arc distance of 204.90 feet;

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S 68°53'56" W, 3,173.37 feet to the beginning of a curve to the right, (Radius=2,250.00 feet, Long Chord bears S 78°20'53" W, 738.76 feet); Along the said curve for an arc distance of 742.12 feet and

S 87°47'49" W, 1,395.66 feet to the Place of BEGINNING and containing 709.35 acres of land.

Save & Except from the above-described 709.35 acre tract 6.17 acres as conveyed to Milton R. Vrabel and wife, Mary Elizabeth Vrabel, by deed as recorded in Volume 529, Page 550, of the Deed Records of Williamson County, Texas, being more particularly described as follows;

BEGINNING for Reference at the most southerly Southeast corner of the above-referenced 709.35 acre tract of the said north line of State Highway No. 29;

THENCE, along the said north line of State Highway No. 29, S 74°57'45" W, 1,173.28 feet to the east line of the County Road No. 188, for the Southwest corner of the said Tract No. 1;

THENCE, along the said east line of County Road No. 188, being the west line of the said Tract No. 1, as follows; N 22° 27' 45" W, 451.59 feet; N 22° 26' 45" W, 360.48 feet;

N 22° 15' 45" W, 189.60 feet; N 31° 28' 45" W, 33.26 feet; N 31° 30' 45" W, 55.52 feet;

N 31° 48' 15" W, 92.64 feet and N 21° 30' 45" W, at 571.0 feet pass 1.7 feet east of a corner post at a bend in County Road No. 188 and continuing along the east line of a gravel roadway, at 809.75 feet pass, the Southwest corner of that certain Tract No. 2 (15.21 acres as described in a deed to Southwestern University as described in Document No. 2000068095 of the Official Records of Williamson County, Texas,); for a total distance of 869.73 feet, in all, to an interior corner of the said Tract No. 2;

THENCE, crossing the said gravel roadway, S 67° 20' 45" W, 32.31 feet to an iron pin set on the west line of the said gravel roadway, for a southwesterly corner of the said Tract No. 2, being on the east line of that certain First Tract, called 105 acres, as conveyed to Southwestern University by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas;

THENCE, N 21° 58' 15" W, 185.90 feet to an iron pin found on the south line of the said 6.17 acre Vrabel tract, being the most southerly Northeast corner of the certain First Tract, called 105 acres, as conveyed to Southwestern University, by deed as recorded in Volume 333, Page 145, of the Deed Records of Williamson County, Texas, and a point on the West line of said Tract No. 2, for the Point of BEGINNING and the most southerly Southeast corner hereof;

THENCE, N 71° 06' 45" E, 41.97 feet to an iron pin found marking an interior corner of the said Tract No. 2, being the Southeast corner of the said 6.17 acre Vrabel tract, for the most easterly Southeast corner hereof;

THENCE, along the west line of the said Tract No. 2, being the east line of the said 6.17 acre Vrabel tract, N 21° 22' 45" W, 449.00 feet and N 0° 38' 45" E, 378.49 feet to an interior corner of the said Tract No. 2, being the Northeast corner of the said 6.17 acre Vrabel tract, for the Northeast corner hereof;

THENCE, S 82°31'15" W, 307.31 feet to an easterly line of the said 105 acre Southwestern University tract, for the most northerly Southwest corner of the said Tract No. 2, for the Northwest corner of the said 6.17 acre Vrabel tract, the Northwest corner hereof;

THENCE, S 02°21'58" E, 752.38 feet to an interior corner of the said 105 acre Southwestern University tract, for the Southwest corner of the said 6.17 acre Vrabel tract, for the Southwest corner hereof;

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### THENCE, S 87°19'10" E, 393.77 feet to the Place of BEGINNING and containing 6.17 acres of land.

Leaving a Net Average for Tract One to be 703.18 acres.

Tract Two (0.50 ac)

BEING 0.50 of an acre of land, being a portion of Block 7, of the Snyder's Addition to the City of Georgetown, an addition of record in Volume 57, Page 502, of the Deed Records of Williamson County, Texas, being that certain tract of land as conveyed Southwestern University by deed as recorded in Volume 523, Page 512, of the Deed Records of Williamson County, Texas, and being more particularly described as follows;

BEGINNING at the intersection of the south line of University Avenue, State Highway No. 29, and the east line of Maple Street, for the Northwest corner of the above-referenced Southwestern University tract, for the Northwest corner hereof;

THENCE, along the said south line of University Avenue, being the north line of the said Block 7, N 87°50' E, 121.04 feet to the Northeast corner of the said Southwestern University tract, being the Northwest corner of that certain tract of land, called 0.66 of an acre, as conveyed to Dee Rapp and spouse, Neil D. Rapp, by deed recorded as Document No. 2005090697 of the Official Public Records of Williamson County, Texas, for the Northeast corner hereof;

THENCE, along the West line of the said 0.66 of an acre Rapp tract, S 02°10' E, 179.92 feet to the Southeast corner of the said Southwestern University tract, being the Northeast corner of that certain tract of land as conveyed to Yvonne Stone McGlaun by deed as recorded in Volume 1800, Page 565, of the Official Records of Williamson County, Texas, for the Southeast corner hereof;

THENCE, S 88°10' W, 121.04 feet to the said east line of Maple Street, being the west line of the said Block 7, for the Southwest corner of the said Southwestern University tract, being the Northwest corner of the said McGlaun tract, for the Southwest corner hereof;

THENCE, along the said east line of Maple Street, N 02°10' W, 179.22 feet to the Place of BEGINNING and containing 0.50 of an acre of land.

Tract Three (0.57 acre)

BEING a 0.57 of an acre of land, situated in the William Addison Survey, Abstract No. 21, being a portion of Outlot 14, Division B, City of Georgetown, Williamson County, Texas. Said land being that certain tract of land, called 0.57 of an acre, as conveyed by deed to Southwestern University, recorded as Document No. 2000023484, of the Official Records of Williamson County, Texas, and being more particularly described as follows;

BEGINNING on the south line of State Highway No. 29 (University Avenue), being the Northeast corner of that certain Lot 5, of University Terrace, a subdivision of records in Cabinet A, Slide 378, of the Plat Records of Williamson County, Texas, marking the Northwest corner of the above-referenced 0.57 of an acre Southwestern University tract, for the Northwest corner hereof;

THENCE, with the said south line of Highway No. 29, N 70°56' E, 141.01 feet to the Northeast corner of the said Southwestern University tract, being the Northwest corner of that certain, Tract One, called 0.6039 of an acre as

### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT EXHIBIT 4

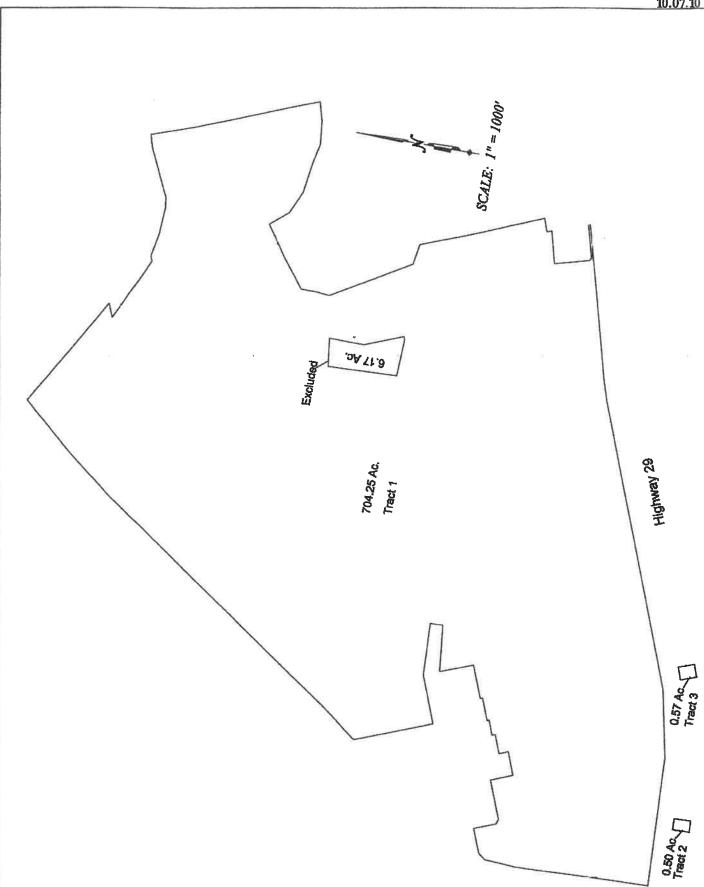
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conveyed to Southwestern University by deed recorded in Volume 832, Page 513, of the Deed Records of Williamson County, Texas, for the Northeast corner hereof;

THENCE, S 18°51'30" E, passing the Southwest corner of the said 0.6039 of an acre Southwestern University Tract One, and passing the Northwest corner of that certain Lot 1, of Haven Heights, a subdivision of record in Cabinet B, Slide 135, of the Plat Records of Williamson County, Texas, for a total distance of 178.30 feet to the Southeast corner of the said 0.57 of an acre Southwestern University tract, being on the west line of the said Lot 1, Haven Heights, and being the Northeast corner of that certain Lot 7, of the said University Terrace, for the Southeast corner hereof;

THENCE, with the north line of the said Lot 7, of University Terrace, S 70°59'30" W, 139.23 feet to the southwest corner of the said 0.57 of an acre Southwestern University tract, being the Southeast corner of that certain Lot 6, of the said University Terrace, for the Southwest corner hereof;

THENCE, N 19°26' W, passing the Northeast corner of the said Lot 6, and the Southeast corner of the said Lot 5, a total distance of 178.17 feet to the Place of BEGINNING and containing 0.57 of an acre of land.



901 South MoPac Expressway Building V, Suite 220 Austin, Texas 78746 T 512.328.5771 F 512.328.5774 austin.office@klotz.com

June 11, 2009

Mr. David Munk, P.E. City of Georgetown 300 Industrial Avenue, Bldg. 1 Georgetown, Texas 78626

Subject: Southwestern University PUD Klotz Associates No. 0573.006.000

Dear Mr. Munk:

Klotz Associates, Inc. has met with Southwestern University representatives and reviewed the proposed Southwestern University PUD changes. The existing PUD consists of approximately 500 acres that is primarily comprised of student housing, teaching and athletic facilities, and other associated University facilities. As proposed, the University has acquired an additional 185 acres (approximately) that are along the eastern/northeastern edges of the existing property. The attached figure depicts the Southwestern University property in its entirety. For the time being this land will remain undeveloped and there are currently no plans to develop this property in any manner.

In reviewing the existing PUD and the additional property, we have determined that as currently plan, the additional property will not generate additional traffic above that which is currently generated by Southwestern University. As envisioned, the additional property will continue to serve the existing student and faculty population.

Further more, once plans have been developed for this additional piece of property the University shall begin discussions with the City of Georgetown to determine if a Traffic Impact Analysis (TIA) is required. As noted, if a TIA is triggered by future non-university land uses, it should only be required for projects being constructed within the additional 185 acres or if development on the original acreage necessitates the relocation of University associated facilities onto the additional acreage. Please do not hesitate to call if there are any further questions.

Yours sincerely,

ebocca A.

Rebecca A. Bray, P.E., PTOE, AICP Senior Project Manager

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SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT



EXHIBIT 6 10.07.10

This summary has been prepared to supplement a Planned Unit Development (PUD) application for the development of the Southwestern University campus.

Existing natural features, drainage ways, one-hundred year flood plain, if applicable, existing topography at a maximum of 5-foot contour intervals.

Southwestern University's current properties total approximately 703 acres and include the developed campus and other undeveloped acreage. The undeveloped portion of the property is tree covered along the Smith Branch with steep slopes that follow the creek. Other portions of the undeveloped area are open pastures with gradual slopes and stabilized vegetation.

There is 100 year Flood Plain along the Smith Branch as determined by FEMA Flood Hazard Boundary Map, Community Panel – Number 48491C0295E, effective September 26, 2008. This area has also been studied by Raymond Chan, P.E. and detailed in a report prepared for the City of Georgetown.

A Master Drainage Report was prepared by Steger Bizzell in 2004 to analyze the impact of campus development on storm water runoff. The Southwestern University property was divided into four drainage areas. Area A included the inner campus. Area B included the portion of the property west of the Smith Branch and Area C included the area east of the Smith Branch. Area D drains to the San Gabriel River and is located in the northern portion of the University's property. This report only analyzed the area within the boundary of University's property and did not include analysis of contributing off-site drainage areas.

The amount of impervious cover in each drainage area was determined based on an extensive ground and aerial survey. In addition to the proposed impervious cover outlined in the 2004 Master Plan, 3% of additional impervious cover (approx. 79,276 sf) was added to the proposed impervious tabulation for Area A (Inner Campus) to accommodate any minor additions of sidewalk or pavement.

With the expansion of Southwestern University's property along the San Gabriel River, the University has basically purchased the Smith Branch, a major conveyor of stormwater runoff directly to the San Gabriel. Previously, the University was limited to an agreed amount of runoff that could be transported to the Smith Branch.

Under developed conditions, only Areas A and C showed an increase in the Runoff Curve Number. The projected increase in runoff due to future development was minimal. The use of detention to offset the projected increase in runoff was not recommended.

A D D R E S S 1978 S. AUSTIN AVENUE   GEORGETOWN, TX 78626	PHONE 512.930.9412	FA X 512.930.9416	WEB STEGERBIZZELL.COM
MEMBER	SERVICES		
AASHTO, AWWA, NSPE, TRWA, TSPS	>> ENGINEERS	>>PLANNERS	> > SURVEYORS

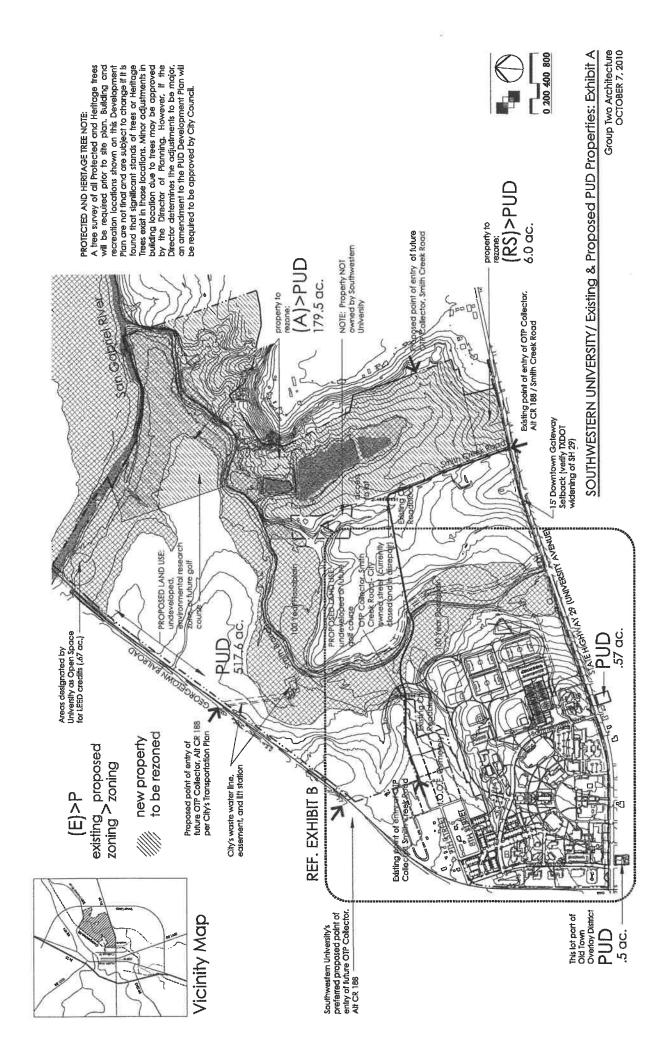
Demonstrate compliance with Chapters 11 and 12 of the UDC, including impervious cover.

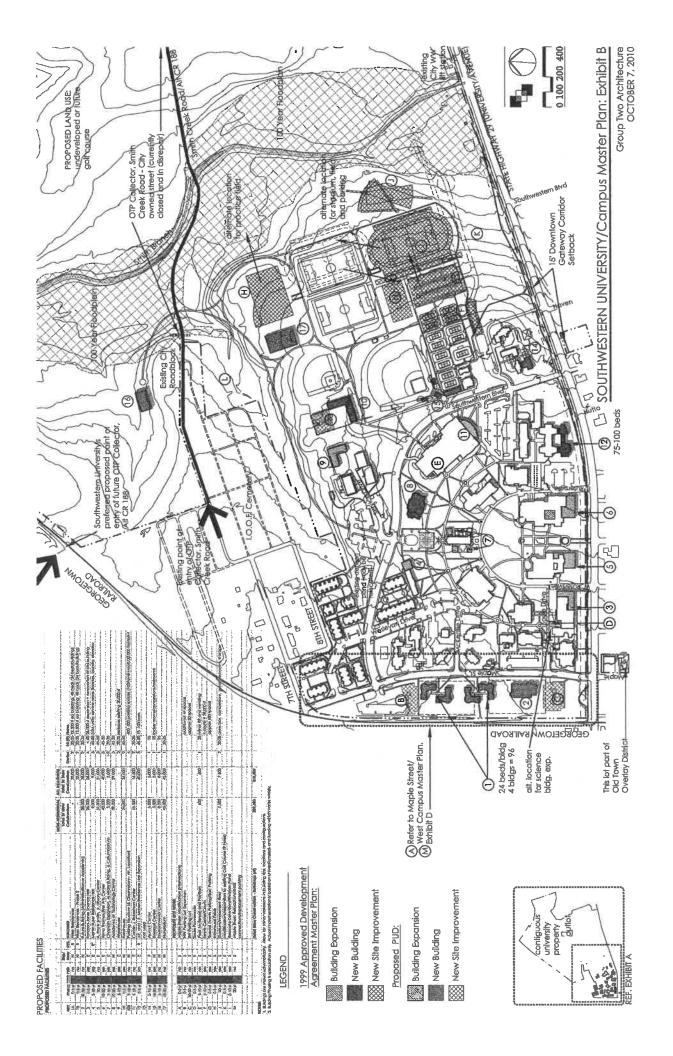
The development will comply with Chapters 11 and 12 of the UDC and will not exceed 45% impervious cover as allowed under the base RS zoning.

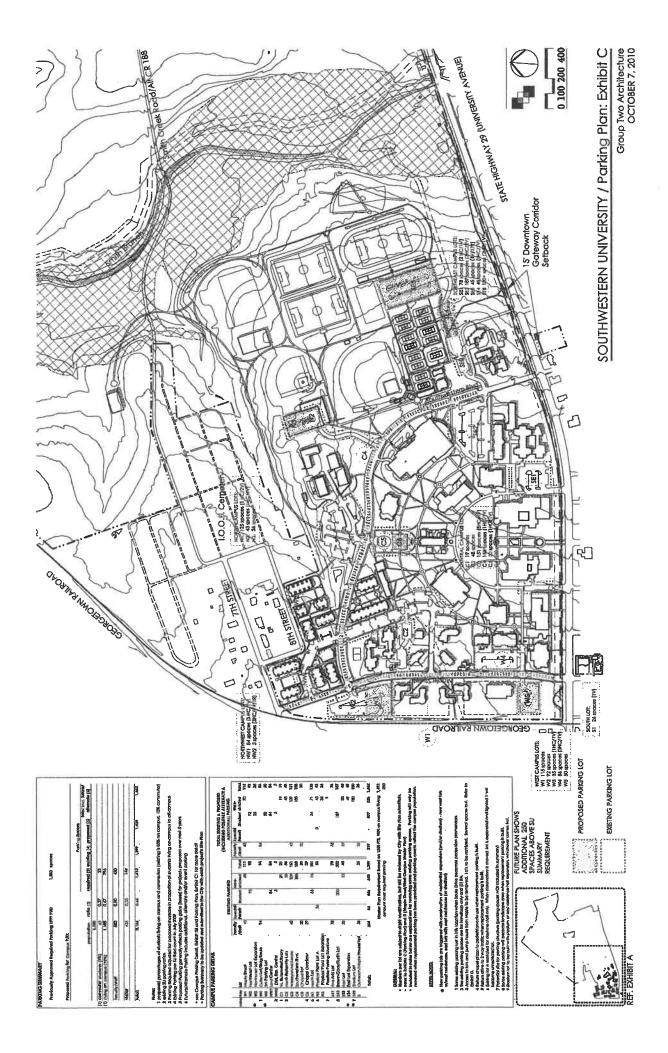
In 2004, a Master Water Pollution Abatement Plan (WPAP) for the 703 acres of University property was prepared by Steger Bizzell and was subsequently reviewed and approved by the Texas Commission on Environmental Quality. The WPAP analyzed the impact of campus development on storm water quality. Several projects described in the WPAP have been constructed or are under construction. These projects include the Fine Arts Renovation and expansion, Admissions Building and the Center for Lifelong Learning.

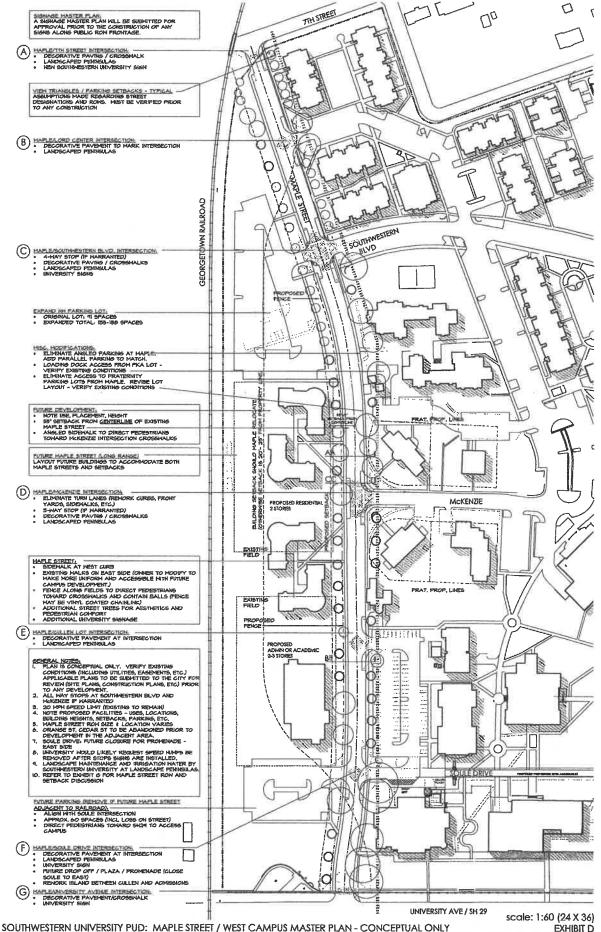
The amount of projected impervious cover is below 20% and permanent pollution abatement is not required by the TCEQ.





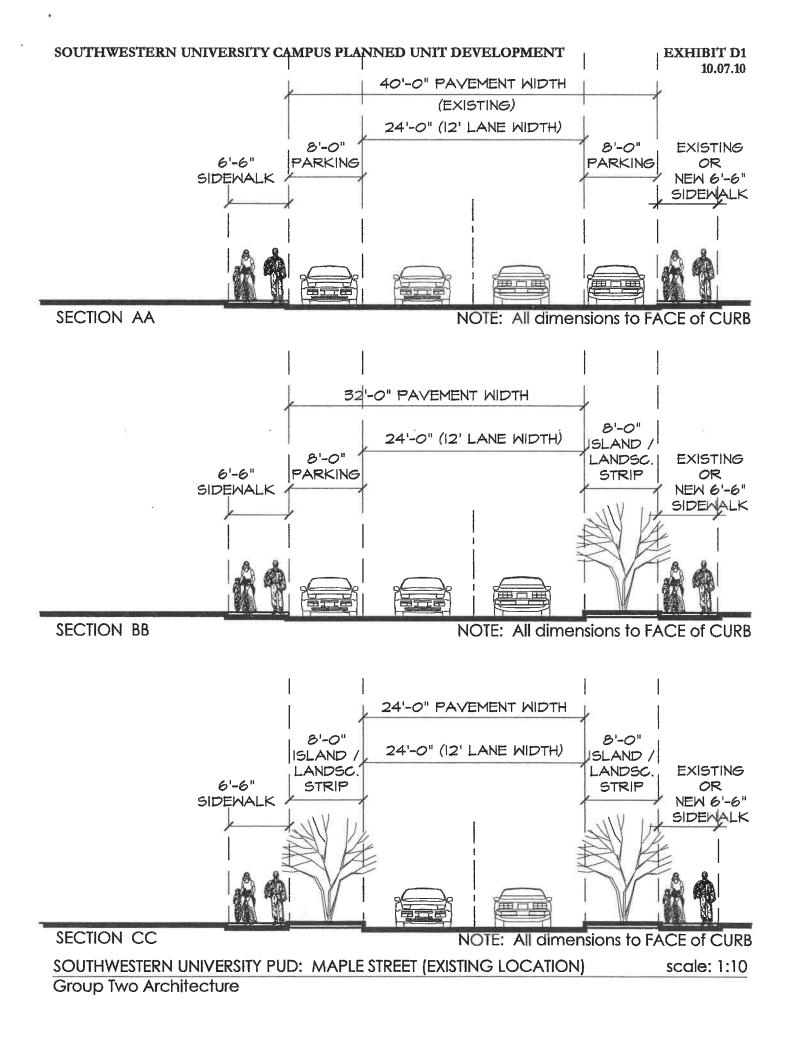


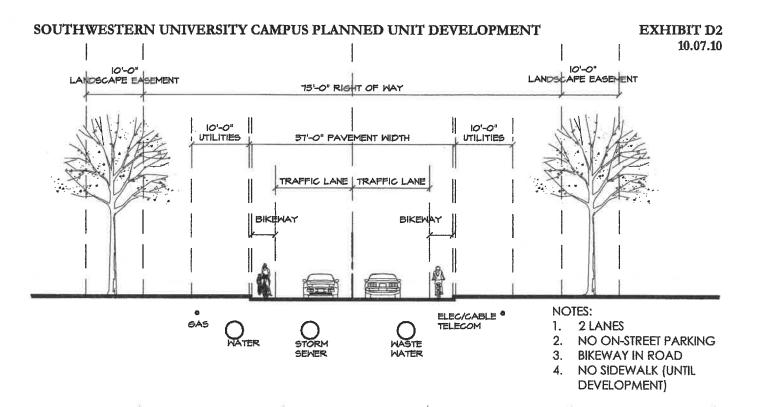




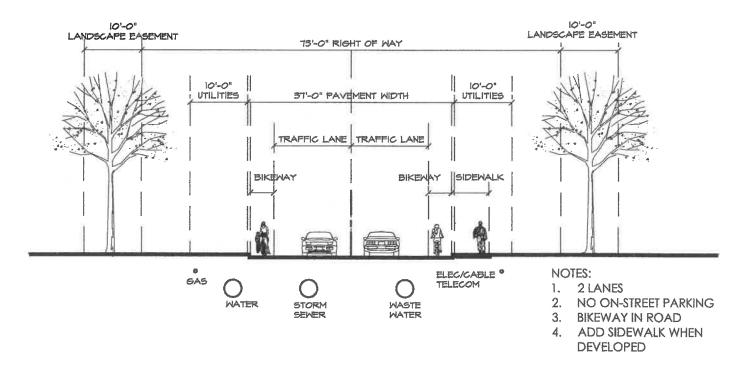
Group Two Architecture

OCTOBER 7, 2010





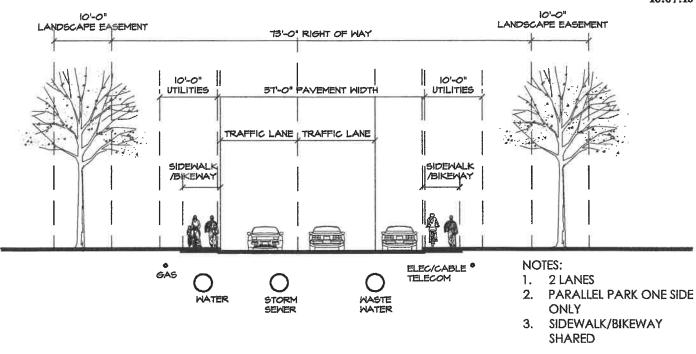
## OPTION A: 37' COLLECTOR W/NO ADJACENT DEVELOPMENT



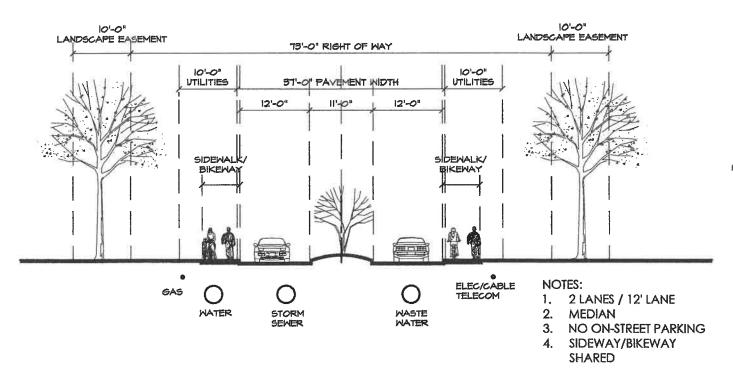
OPTION B: 37' COLLECTOR W/DEVELOPMENT ON ONE SIDE OF ROAD

## SOUTHWESTERN UNIVERSITY PUD: 37' WIDE PAVED COLLECTOR OPTIONS scale: 1:16 Group Two Architecture

### SOUTHWESTERN UNIVERSITY CAMPUS PLANNED UNIT DEVELOPMENT

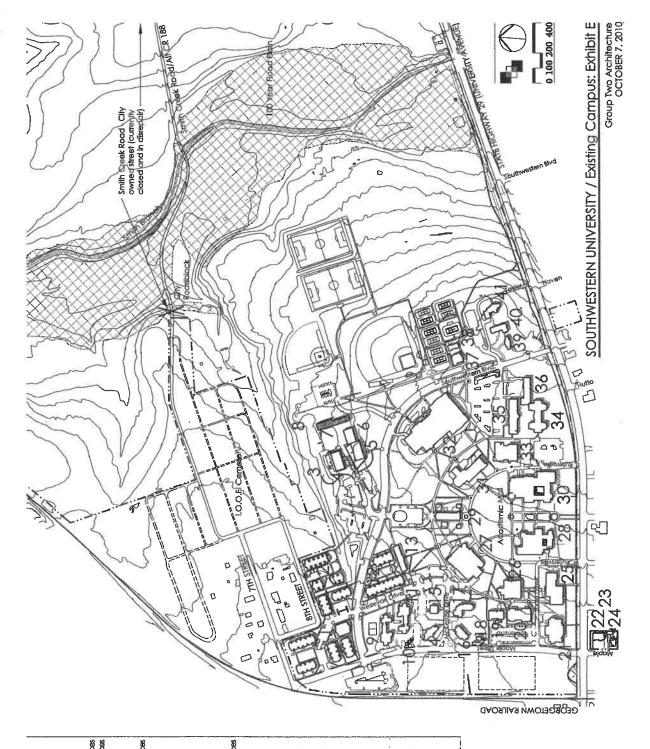


## OPTION C: 37' COLLECTOR W/ON-STREET PARKING ONE SIDE ONLY

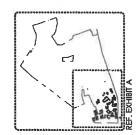


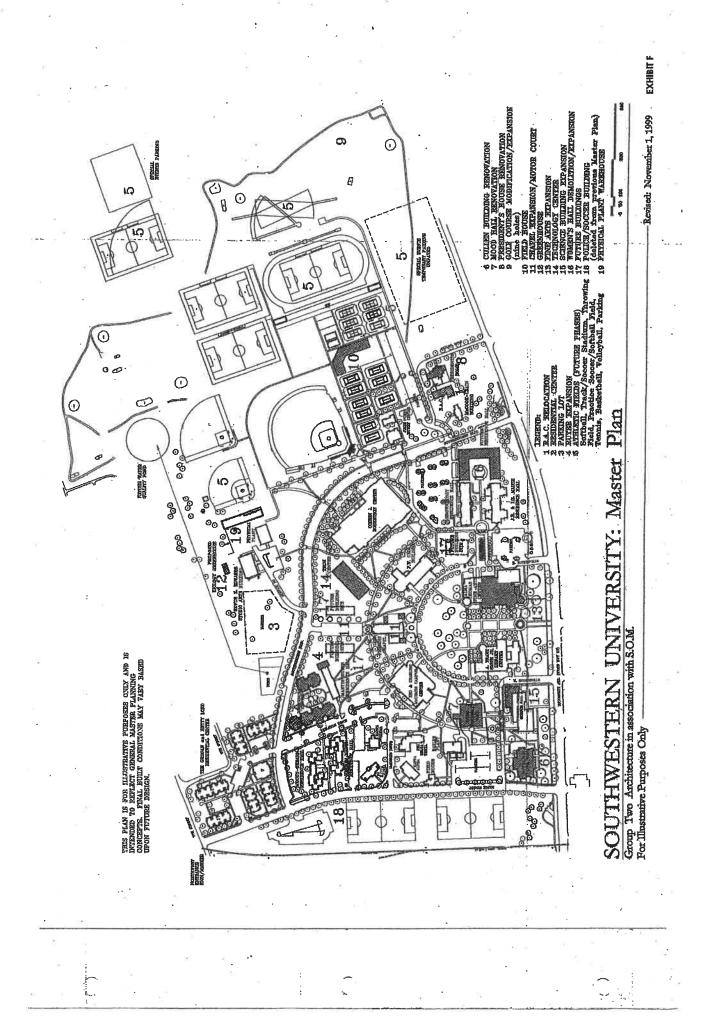
### OPTION D: 37' COLLECTOR W/ LANDSCAPE MEDIAN; NO ON-STREET PARKING

SOUTHWESTERN UNIVERSITY PUD: 37' WIDE PAVED COLLECTOR OPTIONS scale: 1:20 Group Two Architecture



 
 Building
 Entitie
 Phimery use (2 Concity) verning Lord Residential Center 3 Generito Acodemic 5 Joes X Murch Hain Edwards Studio Ats Building 5 Joes X Murch Hain Edwards Studio Ats Building 5 Joes X Murch Hain 5 Joes X Murch Hain Edwards Studio Ats Building 5 Joes X Murch Hain 7 Physical Frank Mathemance/Warehouse 8 Physical Frank Residence Hall 1 Herman Brown Residence Hall 1 Kestdential 1 Herman Brown Residence 1 Herman Brown Residence Hall 1 Residential 1 Herman Brown Residence Hall 1 Residential 1 Herman Brown Residence Hall 1 Residential 1 Herman Brown Residence Hall 1 Kestdential 2 Outeon 2 Matheman Brown Center 2 Matheman 2 Outeon 2 Out





# **Geologic Assessment**

### **Texas Commission on Environmental Quality**

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

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

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

## Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Mark T. Adams	Telephone: <u>(512) 347-9000</u>
Date: <u>5/3/2024</u>	TEOFTCAX: (512) 306-0974
and TBPG or TBPE registration number	Ig LESTBPG License No. 50260 (Name of Company
	GEOLOGY
	NO. 1835
Regulated Entity Name: Southwestern Ur	niversity SH29 & Maple Parking Lot

## **Project Information**

- 1. Date(s) Geologic Assessment was performed: 4/03/2024
- 2. Type of Project:

$\times$	WPAP
	SCS

AST
UST

3. Location of Project:

$\ge$	Recharge	Zone

\_\_\_\_\_ Transition Zone

Contributing Zone within the Transition Zone

- 4. X Attachment A Geologic Assessment Table. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
- 5. Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups\* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

# Table 1 - Soil Units, InfiltrationCharacteristics and Thickness

Soil Name	Group*	Thickness(feet)
See Section 4.0 of report		

- \* Soil Group Definitions (Abbreviated)
  - A. Soils having a high infiltration rate when thoroughly wetted.
  - B. Soils having a moderate infiltration rate when thoroughly wetted.
  - C. Soils having a slow infiltration rate when thoroughly wetted.
  - D. Soils having a very slow infiltration rate when thoroughly wetted.
- 6. Attachment B Stratigraphic Column. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
- 7. X Attachment C Site Geology. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
- 8. Attachment D Site Geologic Map(s). The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

Applicant's Site Plan Scale: 1" = <u>30</u>' Site Geologic Map Scale: 1" = <u>30</u>' Site Soils Map Scale (if more than 1 soil type): 1" = <u>100</u>'

9. Method of collecting positional data:

Global Positioning System (GPS) technology.

Other method(s). Please describe method of data collection: \_\_\_\_\_

- 10. The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
- 11. Surface geologic units are shown and labeled on the Site Geologic Map.

TCEQ-0585 (Rev.02-11-15)

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

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

- 13. The Recharge Zone boundary is shown and labeled, if appropriate.
- 14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

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

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

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

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

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

## Administrative Information

15. 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.



May 2024

# Geologic Assessment for the Southwestern University SH29 & Maple Parking Lot project located in Williamson County, Texas

## **1.0 INTRODUCTION**

The Texas Commission on the Environmental Quality (TCEQ) regulates activities that have the potential to pollute the Edwards Aquifer through the Edwards Aquifer Protection Program. Projects meeting a certain criterion over the Edwards Aquifer Recharge Zone must submit an Edwards Aquifer Protection Plan (EAPP).

The purpose of this report is to identify all potential pathways for contaminant movement to the Edwards Aquifer and provide sufficient geologic information so that the appropriate Best Management Practices (BMPs) can be proposed in the Edwards Aquifer Protection Plan (EAPP). This report complies with the requirements of Title 30, Texas Administrative Code (TAC) Chapter 213 relating to the protection of the Edwards Aquifer Recharge Zone. Per the Rules, the Geologic Assessment must be completed by a Geologist licensed according to the Texas Geoscience Practice Act.

## 2.0 PROJECT INFORMATION

The Southwestern University SH29 & Maple Parking Lot, hereafter referred to as the subject area or site, is located at the northwest corner of the intersection of East University Avenue and Maple Street in the City of Georgetown, Williamson County, Texas (**Attachment A, Figure 1**). Pedestrian investigations of the 4.45-acre tract were performed on April 3, 2024, by Marcos Cárdenas and Andrew McGlothlin, under the supervision of Mark Adams, P.G. with **aci environmental consulting, LLC**.

This report is intended to satisfy the requirements for a Geologic Assessment, which shall be included as a component of a Water Pollution Abatement Plan (WPAP). The site is approximately 4.45 acres in total. The project area consists of an existing gravel parking lot and soccer field, as well as underground and aboveground utilities. The proposed project would construct a paved parking lot within the project area. The scope of the report consists of a site reconnaissance, field survey, and review of existing data and reports. Features identified during the field survey were ranked utilizing the Texas



Commission on Environmental Quality (TCEQ) matrix for Edwards Aquifer Recharge Zone features. The ranking of the features will determine their viability as "sensitive" features.

## 3.0 INVESTIGATION METHODS

The following investigation methods and activities were used to develop this report:

- Review of existing files and literature to determine the regional geology and any known caves associated with the project area;
- Review of past geological field reports, cave studies, and correspondence regarding the existing geologic features on the project area, if available;
- Site reconnaissance by a registered professional geologist to identify and examine caves, recharge features, and other significant geological structures;
- Evaluation of collected field data and a ranking of features using the TCEQ Ranking Table 0585 for the Edwards Aquifer Recharge Zone; and
- Review of historic aerial photographs to determine if there are any structural features present, and to determine any past disturbances on the subject property.

## 4.0 SOILS AND GEOLOGY

The following includes a site-specific description of the soils, geologic stratigraphy, geologic structure, and karstic characteristics as they relate to the Edwards aquifer. Also included in this section is a review of historic aerials for presence of geologic changes or changes to manmade features in bedrock.

<u>Soils</u>

According to the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (2024), two soil unit occurs within the subject area (**Attachment A, Figure 2**):

• DoC – Doss silty clay, moist, 1 to 5 percent slopes

The Doss component makes up 85 percent of the map unit. Slopes are 1 to 5 percent. This component is on hillslopes on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, paralithic, is 11 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted



depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: D.

Brackett (7%), Bolar (5%), and Denton (1%) are minor soil components that make up the remaining 15% of the map unit. These do not mee the criteria for hydric soils.

## • HeB – Heiden clay, 1 to 3 percent slopes

The Heiden component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on ridges on dissected plains. The parent material consists of clayey residuum weathered from mudstone. Depth to a root restrictive layer, densic material, is 40 to 65 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet the criteria for hydric soils. Hydrologic Soil Group: D.

Houston Black (10%) and Ferris (5%) are minor soil components that make up the remaining 15% of the map unit. These do not mee the criteria for hydric soils.

## Geologic Stratigraphy

According to the Geologic Map of the Georgetown Quadrangle, Texas, two geologic units occurs within the subject area (**Attachment A, Figure 3**). These units and a description by Collins (1997) are as follows:

## • Del Rio Formation (Kdr)

"Clay. Calcareous, fossiliferous, poorly indurated, plastic, dark gray to olive brown; contains *Ilymatogyra arientina* (formerly *Exogyra arietina*). Slope forming or underhanging where slumped below overlying Buda. Weathers light gray to yellowish gray. Forms highly expensive soil. Water tanks for livestock commonly excavated on outcrops. Thickness ~65 ft."

## • Georgetown Formation (Kgt)

"Limestone and marl. Nodular, very fossiliferous, diagnostic marine megafossils include *Waconella wacoensis* (formerly *Kingena wacoensis*) and *Gryphaea washitaensis*. Rare small



vugs. Uppermost Edwards aquifer strata. Thickness inscreases northward from ~65ft to 110 ft."

Formation	Members	Thickness (Collins, 1997)
Del Rio Formation	N/A	65 feet
Georgetown Formation	N/A	65-110 feet

## Site-Specific Stratigraphic Column

## Geologic Structure

The geologic strata associated with the Edwards Aquifer include the Georgetown Limestone Formation of the Washita Group, the Edwards Limestone Group which is interfingered with the Comanche Peak Formation, followed by the Walnut formation, and finally the Glen Rose Formation of the Trinity Group. These Groups dip gently to the southeast and are a characterized by the Balcones Fault Escarpment, a zone of en echelon normal faults downthrown to the southeast. Locally, the dominant structural trend of faults within the area is 15°, as evidenced by the mapped fault patterns (**Attachment A**, **Figure 4**). Thus, all features that have a trend ranging from 0° to 30° are considered "on trend" and were awarded the additional 10 points in the Geologic Assessment Table.

The natural landscape has been notably impacted by the construction of the existing soccer field and parking lot. In addition to these structures, the subject area contains subsurface infrastructure, concrete slabs, and utilities. Distinctions in local geology were not observed due to the disturbance of the natural landscape.

## Karstic Characteristics

In limestone landscapes, karst is expressed by erratically developed cavernous porosity from dissolution of bedrock as water combined with weak acids moves through the subsurface. Karst terrains are typical of the Edwards Limestone, occurring across a vast region of Central Texas, including the Balcones Fault Escarpment. The features produced



by karst processes include, but are not limited to, sinkholes, solution cavities, solution enlarged fractures, and caves. These features can eventually provide conduits for fluid movement such as surface water runoff, as "point recharge" to the Edwards Aquifer. Faults and manmade features within bedrock can also provide conduits for point recharge in many cases.

According to Edwards aquifer zone map produced by the TCEQ (2005), the entire subject area is within the northern segment of the Edwards aquifer Recharge Zone. Thus, all karst features identified as sensitive within the project limits have the potential to be point recharge features into the Edwards aquifer.

### Review of Historic Aerials

Aerial photographs from the years 1941, 1954, 1964, 1976, 1981, 1988, 1995, 2004, 2010, 2016, and 2020 were reviewed for the site and it was determined the subject area has been used as a sports field since 1941 (**Attachment C**). A gravel parking lot was installed in the central portion of the subject area sometime after 2020, when the most recent aerial was taken.

## 5.0 GEORGETOWN WATER QUALITY ORDINANCE

On February 24, 2015, the City of Georgetown (CoGt) passed a finalized ordinance regarding water quality regulations over the Edwards Aquifer Recharge Zone (EARZ), which established setbacks or buffers around springs and streams in the EARZ as well as for occupied salamander sites. **aci environmental consulting, LLC** scientists surveyed the subject area as part of the Geologic Assessment (GA) and included obtained pertinent information on springs, streams, and Georgetown Salamander Critical Habitat Units (CHUs) as part of the assessment.

aci environmental consulting, LLC verified that the entire site is contained within the Edwards Aquifer Recharge Zone (EARZ), based on the mapped boundaries. There were no springs or mapped salamander sites or known surface or subsurface CHUs within the subject area. Additionally, there are no mapped flowlines or waterbodies within the site, according to the National Hydrography Dataset (NHD), nor are there any mapped wetlands within the site according to the National Wetland Inventory (NWI). The nearest CHU for the Georgetown Salamander occurs approximately 2.9 miles northwest of the project area, along the North Fork San Gabriel River.



As there are no springs or waterways located within the project area, there are no buffers or setback required as part of the Georgetown Water Quality Ordinance.

## 6.0 SUMMARY OF FINDINGS

This report documents the findings of a geologic assessment conducted by **aci environmental consulting, LLC** personnel on April 3, 2024. A map of the observed surface and known subsurface man-made (infrastructure) features in bedrock can be found on **Figure 5**. Due to the extensive number of man-made features in bedrock present within the project area, comprehensive descriptions for each feature have been omitted; however, the utility locations were field verified during the pedestrian investigation conducted on April 3rd. Some general examples of several of the man-made features in bedrock can be found in **Attachment B**.

No naturally occurring geologic features were identified during the field investigation. All of the man-made features in bedrock located within the property parcel boundary are known to the project engineer and do not require any setbacks. The types of these manmade features include, but are not limited to, manholes, power poles, pad mounted transformers, electrical junction boxes, metal covers, fire hydrants, telecommunication lines and boxes, irrigation lines, wastewater lines, water lines, buried electrical conduits, storm sewer lines and drains, and light poles.



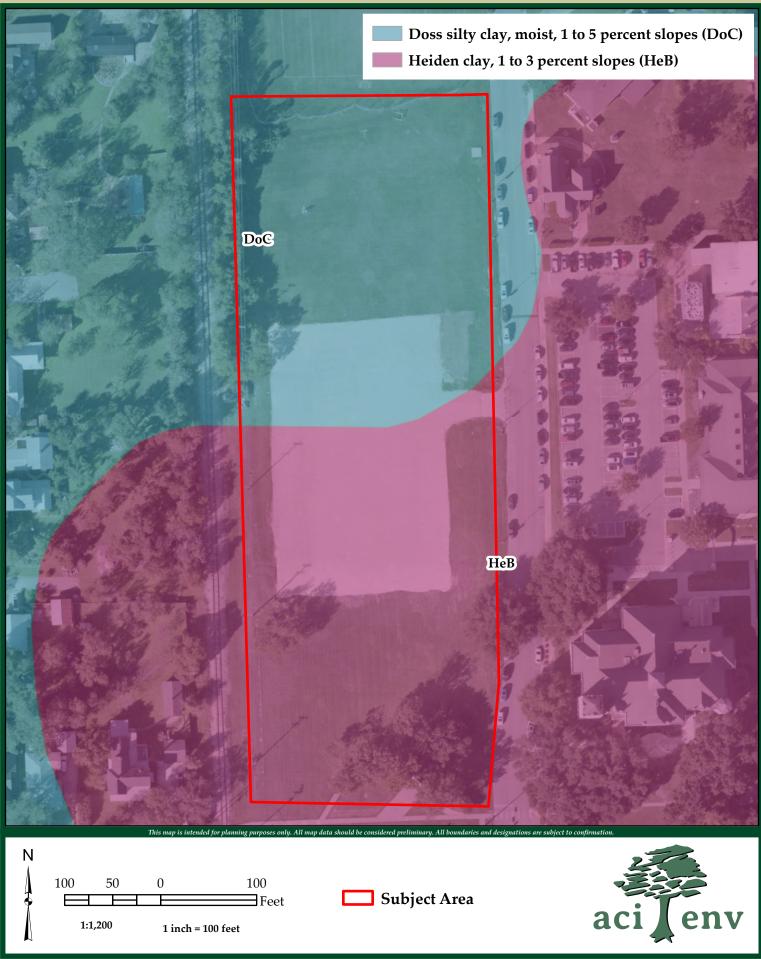
## ATTACHMENT A

Site Maps

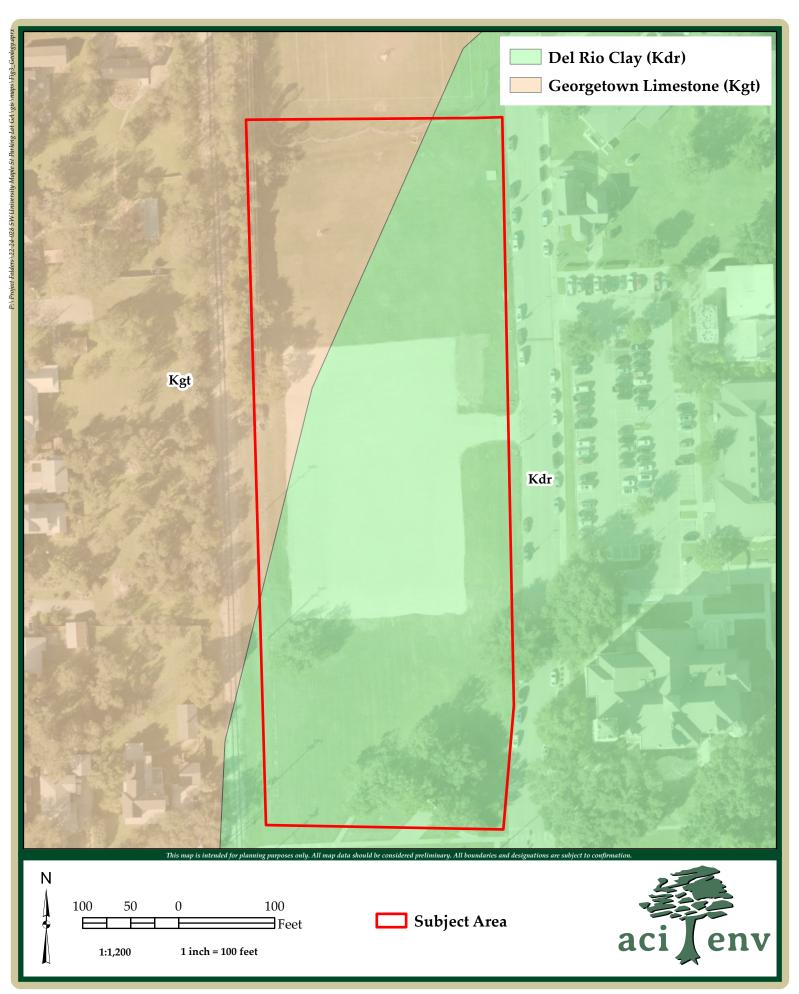
8



Southwestern University SH29 & Maple Parking Lot Figure 1: Site Location aci Project No.: 22-24-028 May 2024



Southwestern University SH29 & Maple Parking Lot Figure 2: Soil Map Units aci Project No.: 22-24-028 May 2024



Southwestern University SH29 & Maple Parking Lot Figure 3: Geologic Units aci Project No.: 22-24-028 May 2024



## ATTACHMENT B

Geologic Table Geologic and Manmade Feature Map (Figure 5) Feature Descriptions and Recommendations

GEOL	OGIC ASS	ESSMENT 1	<b>FABLE</b>	1			PR	OJE	CT NA	M	:	South	western	Universi	ty SH	29 &	Мар	ole Pa	rking	Lot
	LOCATIO	ON				FE/	ATUF	RE C	HARAC	TEF	RISTIC	S			EVAL	JUAT	ION	PHY	SICAL	SETTING
1A	1B *	1C*	2A	2B	3		4		5	5A	6	7	8A	8B	9	1	0	1	1	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIME	NSIONS (	FEET)	TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENS	ITIVITY		ENT AREA RES)	TOPOGRAPHY
						Х	Y	Z		10						<40	<u>&gt;40</u>	<1.6	<u>&gt;1.6</u>	
MB						500	Figu	ro 5	for the L	Itility										
IVID						366	rigu	<i>ie</i> 5		l	Layo	uı.								
							-			-										
*	DATUM: NAD 198	83 State Plane 420	03																	
2A TYPE		TYPE		2	B POINTS						8	A INFILL	ING							
С	Cave				30		N	None	, exposed	bedr	ock									
SC	Solution cavity				20		С	Coars	se - cobble	es, br	eakdow	n, sand, g	gravel							
SF	Solution-enlarge	d fracture(s)			20		0	Loose	e or soft m	nud o	r soil, or	ganics, le	eaves, stic	ks, dark colo	rs					
	Fault				20		F Fines, compacted clay-rich sediment, soil profile, gray or red colors													
-	Other natural be				5		V						descriptior	ו						
MB SW	Manmade feature Swallow hole	e in bedrock			30 30		FS X		tone, cem materials		, cave d	eposits								
SW	Swallow hole Sinkhole				30 20		^	Uner	materials	•										
	Non-karst closed	depression			5							12 TO	POGRAP	HY					1	
z		or aligned features	6		30		Cli	ff, H	illtop, F	Hills	ide, [	Draina	ge, Flo	odplain,	Strea	ambe	əd			

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The

information presented here complies with that document and is a true representation of the conditions observed in the field. by 20 14 Chapter 213. My signature certifies that I am qualified as a geologist as ined by 2 5/3/2024 Date Sheet \_\_1\_\_\_ of \_\_1\_\_\_\_ TUNNO'S SUUL MARK T. ADAMS 白 TCEQ-0585-Table (Rev. 10-01-04) T GE in 0

There are no mapped flowlines There are no mapped waterbodies There are no mapped wetlands There are no mapped FEMA Flood



**Figure 5: Geologic Feature Map** 

May 2024



# ATTACHMENT C

Historic Aerial Photographs



Date: 2020 Source: USDA 0 250

 Feet

 0
 250
 500
 1,000



# Water Pollution Abatement Plan Application

# **Texas Commission on Environmental Quality**

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

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

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

# Signature

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

Print Name of Customer/Agent: David Platt

Date: 2024-06-28

Signature of Customer/Agent:

Regulated Entity Name: Southwestern University SH29 & Maple Parking Lot

# **Regulated Entity Information**

- 1. The type of project is:
  - Residential: Number of Lots:
  - Residential: Number of Living Unit Equivalents:\_\_\_\_\_
  - Commercial
  - Industrial
  - Other:<u>Institutional</u>
- 2. Total site acreage (size of property): 704.25 (2.91 Limits of Construction)
- 3. Estimated projected population:0
- 4. The amount and type of impervious cover expected after construction are shown below:

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	728,361	÷ 43,560 =	16.72
Parking	774,463	÷ 43,560 =	17.78
Other paved surfaces	1,617,119	÷ 43,560 =	37.12
Total Impervious Cover	3,119,943	÷ 43,560 =	71.62

**Table 1 - Impervious Cover Table** 

Total Impervious Cover <u>71.62</u> ÷ Total Acreage <u>704.25</u> X 100 = <u>10.17</u>% Impervious Cover

- 5. Attachment A Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.
- 6. Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

# For Road Projects Only

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

7. Type of project:

TXDOT road project.

County road or roads built to county specifications.

City thoroughfare or roads to be dedicated to a municipality.

Street or road providing access to private driveways.

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

Concrete
Asphaltic concrete pavement
Other:

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

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

10. Length of pavement area: \_\_\_\_\_ feet.

Width of pavement area: \_\_\_\_\_ feet. L x W = \_\_\_\_  $Ft^2 \div 43,560 Ft^2/Acre = ____ acres.$ Pavement area \_\_\_\_\_ acres  $\div$  R.O.W. area \_\_\_\_\_ acres x 100 = \_\_\_\_% impervious cover.

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

A rest stop will not be included in this project.

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

# Stormwater to be generated by the Proposed Project

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

# Wastewater to be generated by the Proposed Project

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

<u>N/A</u> % Domestic	<u>N/A</u> Gallons/day
<u>N/A</u> % Industrial	<u>N/A</u> Gallons/day
<u>N/A</u> % Commingled	
<u>N/A</u> Gallons/day	
TOTAL gallons/day <u>0</u>	

15. Wastewater will be disposed of by:

On-Site Sewage Facility (OSSF/Septic T	с тапк):
--	----------

Attachment C - Suitability Letter from Authorized Agent. An on-site sewage facility
will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that
the land is suitable for the use of private sewage facilities and will meet or exceed
the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.
Sewage Collection System (Sewer Lines):
Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
The SCS was previously submitted on
The SCS was submitted with this application.
The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

The sewage collection system will convey the wastewater to the \_\_\_\_\_ (name) Treatment Plant. The treatment facility is:

Existing.
Proposed

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

# Site Plan Requirements

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

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

Site Plan Scale: 1" = <u>30</u>'.

18. 100-year floodplain boundaries:

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

 $\boxtimes$  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): <u>FEMA FIRM Map Panel Number 48491C0293F effective 12/20/2019</u>

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

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

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

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

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

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

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

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

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

All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.

No sensitive geologic or manmade features were identified in the Geologic Assessment.

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

TCEQ-0584 (Rev. 02-11-15)

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

🖂 N/A

- 27. Locations where stormwater discharges to surface water or sensitive features are to occur.
  - There will be no discharges to surface water or sensitive features.
- 28. 🔀 Legal boundaries of the site are shown.

# Administrative Information

- 29. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
- 30. Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

# Attachment A – Factors Affecting Surface Water Quality

The following factors are anticipated to adversely affect surface water and groundwater quality:

- Disturbance of vegetated areas.
- Leaking oil from parked vehicles.
- Malfunctioning wastewater collection system and spill on site.
- Loss of vegetative ground cover due to inadequate watering or mismanagement.
- Over fertilizing vegetative areas.
- The use of roads by automotive traffic and subsequent oil/grease pollutants from normal use.
- The accidental or improper discharge of the following:
  - a) Concrete
  - b) Cleaning solvents
  - c) Detergents
  - d) Petroleum based products
  - e) Paints
  - f) Paint solvents
  - g) Acids
  - h) Concrete additives

# Attachment B – Volume and Character of Storm Water

The drainage from the proposed Southwestern University SH29 & Maple Parking Lot project is divided into 3 separate basins. The first basin, "Basin A," contains the proposed parking lot and associated sidewalks. It also contains off-site area that flows into the proposed development site from the south. The second basin, "Basin C," contains all the off-site area that flows into the same channel that the proposed development flows into from the east. The third basin, "Basin D," contains all the off-site area that flows into the same channel that the proposed development flows into from the north. The purpose of including Basin C and Basin D in the drainage calculations is to evaluate the total flow going into the existing channel and making sure it can comfortably handle the cumulative flow after construction. All 3 drainage basins are located within the 704.25 Ac. Southwestern University property boundary. Please see sheets 08-09 in the attached plan set for further clarification on the location and qualities of the drainage basins. The characteristics of the storm water generated by the project's basins are typical of an institutional site. Drainage from Basin A flows to the north, drainage from Basin C flows to the west, and drainage from Basin D flows to the south. After the storm water flows into the existing grass channel, it discharges into Smith Branch and then into the San Gabriel River further downstream. A summary of the drainage calculations is below.

		Storm Frequency Peak Flow [cfs]					
Basin	2 Year	10 Year	25 Year	100 Year			
Existing Basin A	5.7	13.8	18.7	26.8			
Existing Basin C	32.6	64.3	82.5	112.5			
Existing Basin D	0.2	0.5	0.7	1.0			
POI	37.2	76.0	98.4	135.5			
Proposed Basin A	7.4	16.2	21.3	29.7			
Proposed Basin C	32.6	64.3	82.5	112.5			
Proposed Basin D	0.2	0.5	0.7	1.0			
POI	39.2	79.0	101.9	139.5			
Delta	2.0	3.0	3.5	4.0			

SITE ADDRESS:	1100 Maple Street Georgetown, TX 78626
OWNER:	Georgetown, TX 78626 Southwestern University 1001 E. University Avenue Georgetown, TX 78626 512-863-6511 southwestern.edu
CIVIL ENGINEER/SURVEYOR:	Steger Bizzell 1978 S. Austin Avenue Georgetown, TX 78626 512-930-9412 stegerbizzell.com info@stegerbizzell.com
LANDSCAPE ARCHITECT:	Urban Landforms 1906 S. Main St. Georgetown, TX 78626 512-820-1186 urbanlandforms.com inquiry@urbanlandforms.com
MEP ARCHITECT:	EEA Consulting Engineers 6615 Vaught Ranch Rd. Suite 200 Austin, TX 78730 512-744-4400 info@eeace.com
ZONING DISTRICT:	Southwest University Campus PUD (ORD 2010-46) Base Zoning District RS
ACREAGE:	704.25 AC OVERALL
EXISTING IMPERVIOUS COVER:	70.20 AC (10.0%)
PROPOSED IMPERVIOUS COVER:	1.42 AC ADDED (~0.2%) & 71.62 AC TOTAL (10.2%)
LIMITS OF CONSTRUCTION:	~2.91 AC PARKING LOT
LEGAL DESCRIPTION:	704.25 acres of land, situated in the Antonio Flores Survey, Abstract No. 235 and the William Addison Survey, Abstract No. 21, in Williamson County, Texas.
PROPOSED USE:	Parking Lot
UTILITY PROVIDERS:	Water, Wastewater, and Electric: City of Georgetown Utility Systems 300-1 Industrial Ave., Georgetown, Texas 78626 512-930-3640 https://gus.georgetown.org/
ORIGINAL DATE:	May 3, 2024
<ol> <li>It is the responsibility of the principal improvements are maintained</li> <li>This development shall comply</li> </ol>	roperty owner, and successors to the current property owner, to ensure the subject property and any in conformance with this Site Development Plan. y with all standards of the Unified Development Code (UDC), the City of Georgetown Construction Standards e Development Manual, the Southwestern University Campus PUD (ORD 2010-46) and all other applicable City
<ol> <li>It is the responsibility of the primprovements are maintained</li> <li>This development shall comply and Specifications Manual, the standards.</li> <li>This Site Development Plan sha</li> <li>All signage requires a separate Development Plan.</li> <li>Sidewalks shall be provided in the standards.</li> </ol>	in conformance with this Site Development Plan. y with all standards of the Unified Development Code (UDC), the City of Georgetown Construction Standards e Development Manual, the Southwestern University Campus PUD (ORD 2010-46) and all other applicable City all meet the UDC Stormwater requirements. e application and approval from the Inspection Services Department. No signage is approved with the Site accordance with the UDC.
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<ol> <li>It is the responsibility of the primprovements are maintained</li> <li>This development shall comply and Specifications Manual, the standards.</li> <li>This Site Development Plan shates and the standards.</li> <li>This Site Development Plan shates and the standards.</li> <li>This Site Development Plan shates a separate Development Plan.</li> <li>Sidewalks shall be provided in the Standards shall comply will require approvation of the Driveways will require approvation of the Companion Landscape Plan Southwestern University Camp 10. All maintenance of required lates Southwestern University Camp 11. A separate Irrigation Plan shall 12. Fire flow requirements of</li></ol>	in conformance with this Site Development Plan. with all standards of the Unified Development Code (UDC), the City of Georgetown Construction Standards Development Manual, the Southwestern University Campus PUD (ORD 2010-46) and all other applicable City all meet the UDC Stormwater requirements. e application and approval from the Inspection Services Department. No signage is approved with the Site accordance with the UDC. al by the Development Engineer of the City of Georgetown. with Section 7.04 of the UDC. oment, dumpsters and parking shall comply with Chapter 8 of the UDC. The screening is shown on the lans, as applicable. n has been designed and plant materials shall be installed to meet all requirements of the UDC and the bus PUD (ORD 2010-46). Indscape shall comply with the maintenance standards of Chapter 8 of the UDC. I be required at the time of building permit application. gallons per minute are being met by this plan. Is Site Development Plan is subject, in perpetuity, to the maintenance, care, pruning and removal requirements ode and the Southwestern University Campus PUD (ORD 2010-46). ese plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based of compliance, the construction plans for construction of the proposed project are hereby approved subject to cifications and Details Manual and all other applicable City, State and Federal Requirements and Codes. ry Standard Construction specifications and Details in effect at the time of submittal of the project to the City. firastructure exists, underground electric utility lines shall be located along the street and within the site. structure is to be relocated, it shall be re-installed underground and the existing facilities shall be removed at nent Engineer.

21. All detention and water quality plans for this project are regulated by the Southwestern University Campus PUD (ORD 2010-46).



NOTE: CONTRACTOR SHALL UNCOVER AND VERIFY LOCATIONS, BOTH HORIZONTALLY AND VERTICALLY, OF ALL EXISTING UTILITIES ALONG THE PROPOSED ROUTE. IF A CONFLICT EXISTS BETWEEN THE PROPOSED PROJECT AND ANY EXISTING UTILITY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED.

# E DEVELOPMENT PLAN (2024-##-SDP) SOUTHWESTERN UNIVERSITY SH29 & MAPLE PARKING LOT EORGETOWN, WILLIAMSON COUNTY, TEXAS







CONTRACTOR IS TO FURNISH A SET OF CONSTRUCTION PLANS BACK TO THE ENGINEER AT THE END OF

STEGER BIZZELL

RECEIVE FINAL PAYMENT UNTIL COMPLETE "AS-BUILT" SET IS RETURNED TO ENGINEER.

THE PROJECT WITH ALL DEVIATIONS NOTED IN RED INK ON THE PLAN SHEETS. CONTRACTOR SHALL NOT

	BENCHMA	NRKS:
	BM #1:	APPROX. 10' NORTH OF HIGHWAY 29. GRID NORTHING: 10204503.60 GRID EASTING: 3136969.47 ELEV: 745.62
	BM #2:	APPROX. 103' EAST OF SOUTHWESTER BOULEVARD GRID NORTHING: 10204849.17 GRID EASTING: 3136715.52 ELEV: 761.91
OF NOT	BM #3:	APPROX. 183' SOUTH OF SOUTHWEST BOULEVARD GRID NORTHING: 10205309.97 GRID EASTING: 3135508.15 ELEV: 748.37
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	Varning!	
	0	water pipelines, underground telephone

NOTE:

1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626 
 TEXAS REGISTERED ENGINEERING FIRM F-181
 Web

 TBPLS FIRM No.10003700
 STEGERBIZZELL.COM
 512.930.9412 >>ENGINEERS >>PLANNERS >>SURVEYORS

War There cables and other above and below ground utilities in the

vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary.

# Sheet Index

Sheet #	Sheet Title
01	COVER
02	DIMENSIONAL SITE PLAN
E201	ELECTRICAL SITE PHOTOMETRIC PLAN
L2.01	LANDSCAPE COMPLIANCE PLAN
L4.01	LANDSCAPE DETAILS
06	TREE PRESERVATION PLAN
07	DETAILED GRADING PLAN
08	EXISTING DRAINAGE MAP
09	DEVELOPED DRAINAGE MAP
10	GENERAL NOTES
11	EROSION & SEDIMENTATION CONTROL PLAN
12	EROSION & SEDIMENTATION CONTROL DETAILS
13	DETENTION POND PLAN
14	PAVING, STRIPING, & SIGNAGE PLAN
15	PAVING, STRIPING, & SIGNAGE DETAILS
16	PAVING, STRIPING, & SIGNAGE DETAILS (CONT.)
17	TRAFFIC CONTROL PLAN
E000	ELECTRICAL SYMBOLS & LEGENDS
E001	ELECTRICAL SPECIFICATIONS
E002	ELECTRICAL SPECIFICATIONS
E101	ELECTRICAL SITE PLAN
E401	ELECTRICAL SCHEDULES

9.47 SOUTHWESTERN 4849.17 5.52 **OF SOUTHWESTERN** 5309.97 8.15

telephone

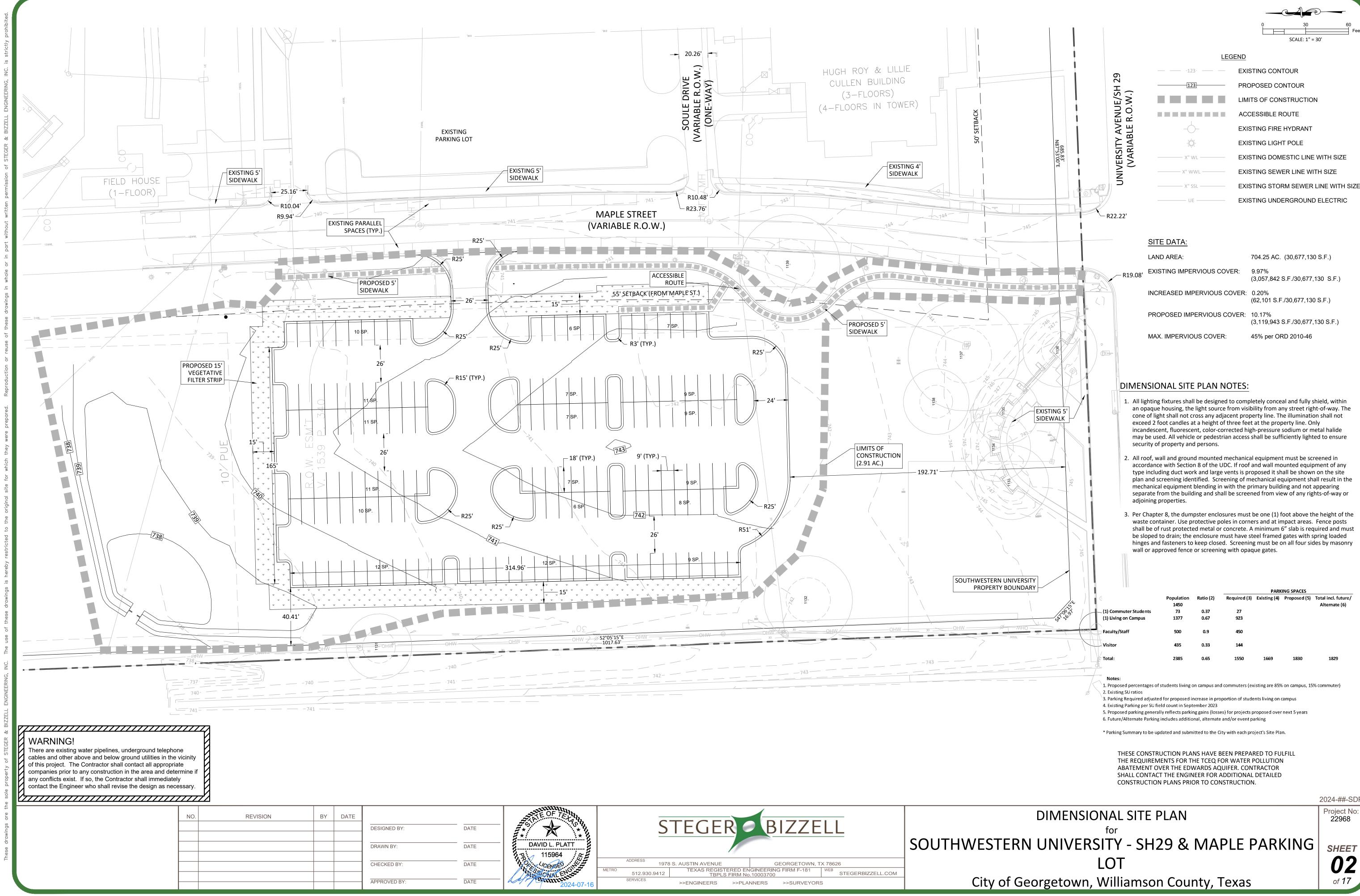
THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

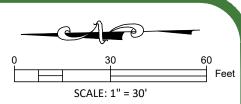
> 2"x3" SPACE RESERVED FOR CITY APPROVAL STAMP

COG Project Number: 2024-##-SDP Project Number:

Sheet 01 OF 17

22968

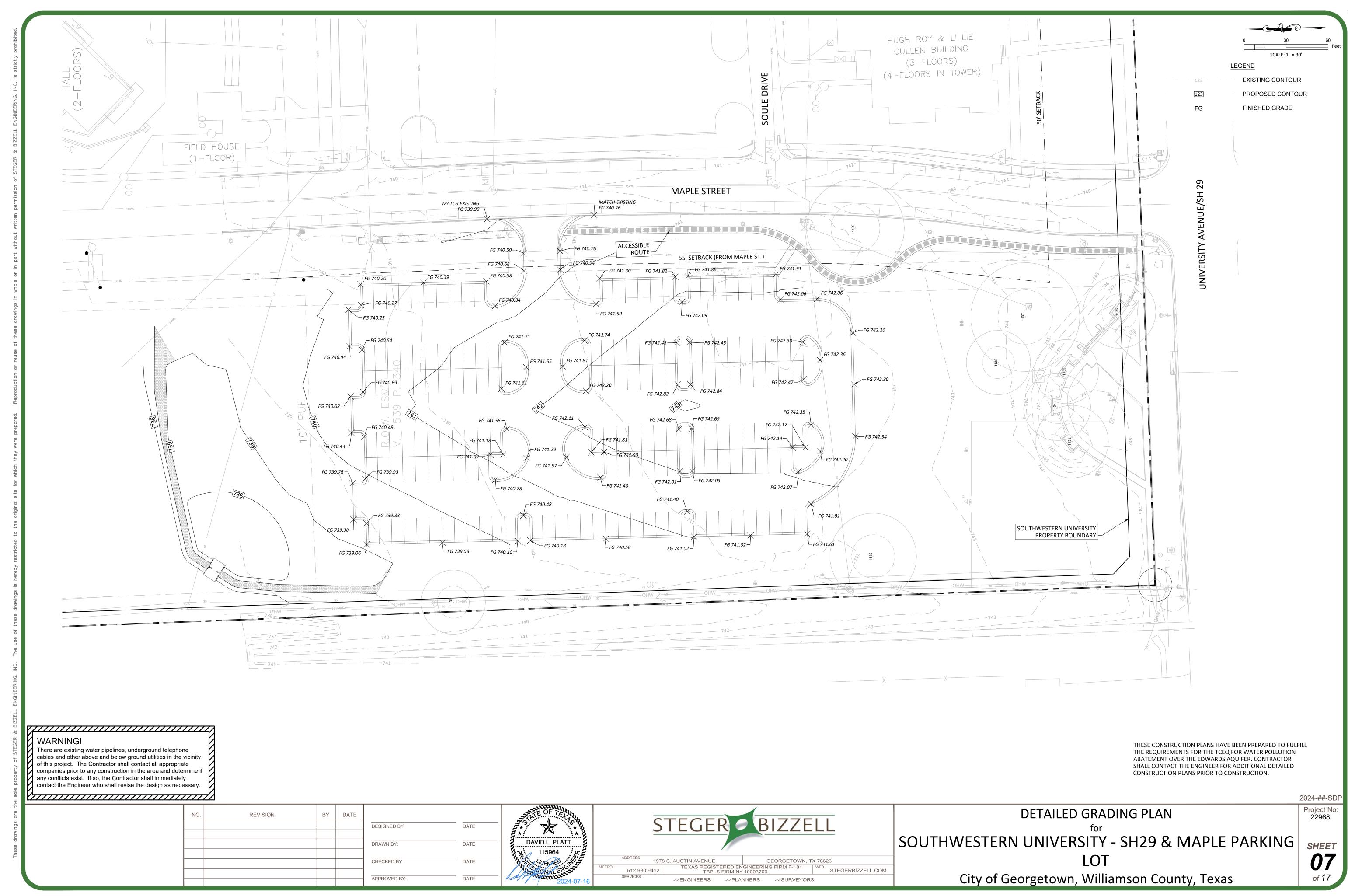


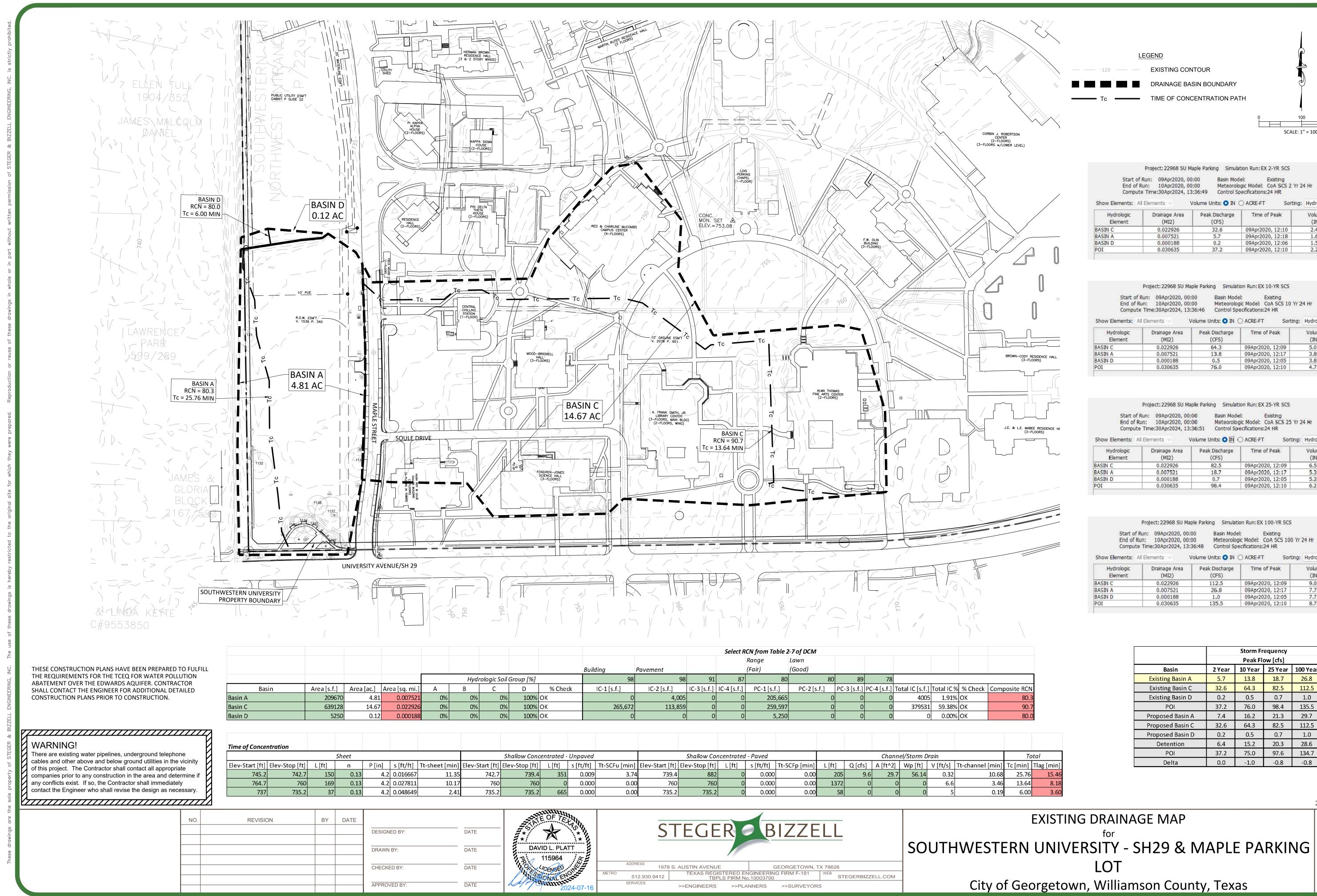


waste container. Use protective poles in corners and at impact areas. Fence posts shall be of rust protected metal or concrete. A minimum 6" slab is required and must be sloped to drain; the enclosure must have steel framed gates with spring loaded hinges and fasteners to keep closed. Screening must be on all four sides by masonry

ncl. future/
nen ratare;
ernate (6)
1829

SHEET 02 of **17** 





							Select R	CN from Table 2	2-7 of DCM						
								Range	Lawn						
				Building	Pavement			(Fair)	(Good)						
lydro	ologic Soil (	Group [%]		98	98	91	87	80	80	) 89	78				
	С	D	% Check	IC-1[s.f.]	IC-2 [s.f.]	IC-3 [s.f.]	IC-4 [s.f.]	PC-1[s.f.]	PC-2 [s.f.]	PC-3 [s.f.]	PC-4 [s.f.]	Total IC [s.f.]	Total IC %	% Check	Compos
0%	0%	100%	ОК	0	4,005	0	0	205,665	(	0 0	0	4005	1.91%	ОК	
0%	0%	100%	ОК	265,672	113,859	0	0	259,597	(	0 0	0	379531	59.38%	ок	
0%	0%	100%	ОК	C	0	0	0	5,250	(	0 0	0	0	0.00%	ОК	

	Shallow Conc	entrated -	Unpaved			Shallow Cor	ncentratea	l - Paved				Chann	el/Storm D	Drain		
ev-Start [ft]	Elev-Stop [ft]	L[ft]	s [ft/ft]	Tt-SCFu [min]	Elev-Start [ft]	Elev-Stop [ft]	L[ft]	s [ft/ft]	Tt-SCFp [min]	L [ft]	Q [cfs]	A [ft^2]	Wp [ft]	V [ft/s]	Tt-channel [min]	Т
742.7	739.4	351	0.009	3.74	739.4	882	0	0.000	0.00	205	9.6	29.7	56.14	0.32	10.68	
760	760	0	0.000	0.00	760	760	0	0.000	0.00	1372	0	0	0	6.6	3.46	
735.2	735.2	665	0.000	0.00	735.2	735.2	0	0.000	0.00	58	0	0	0	5	0.19	

# LOT City of Georgetown, Williamson County, Texas

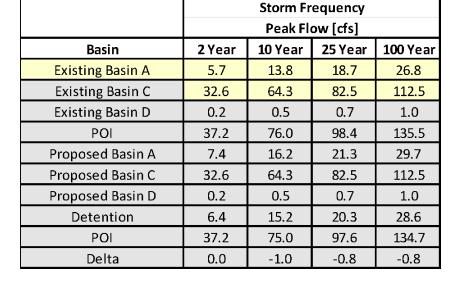
EXISTING DRAINAGE MAP for

2024-##-SD

Project No: 22968



of **17** 



Show Elements: A	l Elements 🗸 💦	Volume Units: 🔾 IN (	⊖ ACRE-FT Sorti	ng: Hydrologic ~
Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	112.5	09Apr2020, 12:09	9.05
BASIN A	0.007521	26.8	09Apr2020, 12:17	7.72
BASIN D	0.000188	1.0	09Apr2020, 12:05	7.71
POI	0.030635	135.5	09Apr2020, 12:10	8.72

Project: 22968 SU Maple Parking Simulation Run: EX 100-YR SCS

Basin Model:

Existing

Meteorologic Model: CoA SCS 100 Yr 24 Hr

Start of Run: 09Apr2020, 00:00

End of Run: 10Apr2020, 00:00

Show Elements: A	ll Elements 🗸 🛛 🕔	/olume Units <mark>: 🔾</mark> IN (	○ ACRE-FT Sortir	ng: Hydrologic ~
Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	82.5	09Apr2020, 12:09	6.52
BASIN A	0.007521	18.7	09Apr2020, 12:17	5.30
BASIN D	0.000188	0.7	09Apr2020, 12:05	5.28
POI	0.030635	98.4	09Apr2020, 12:10	6.21

BASIN A		0.007521	13.8 09Apr	2020, 12:17	3.89
BASIN D		0.000188	0.5 09Apr	2020, 12:05	3.87
POI		0.030635	76.0 09Apr	2020, 12:10	4.73
	Proje	ect: 22968 SU Maple P	arking Simulation Run:	EX 25-YR SCS	
	Proje Start of Run:	ect: 22968 SU Maple P 09Apr2020, 00:00	arking Simulation Run: Basin Model:	EX 25-YR SCS Existing	

BASIN A		0.007521	5.7 (	09Apr2020, 12:18	1.60
BASIN D		0.000188	0.2 0	09Apr2020, 12:06	1.59
POI		0.030635	37.2 (	09Apr2020, 12:10	2.24
	Proj	ect: 22968 SU Maple P	arking Simulation	Run: EX 10-YR SCS	
		004	Davis Madah	<b>5</b> .0.00	
	Start of Run:		Basin Model:	Existing	
	End of Run:	10Apr2020, 00:00	Meteorologic	Model: CoA SCS 10 Yr	24 HF

32.6

Project: 22968 SU Maple Parking Simulation Run: EX 2-YR SCS

 Start of Run:
 09Apr2020, 00:00
 Basin Model:
 Existing

 End of Run:
 10Apr2020, 00:00
 Meteorologic Model:
 CoA SCS 2 Yr 24 Hr

Show Elements: All Elements Volume Units: O IN O ACRE-FT Sorting: Hydrologic

Drainage Area Peak Discharge Time of Peak

(CFS)

Compute Time:30Apr2024, 13:36:49 Control Specifications:24 HR

(MI2)

0.022926

09Apr2020, 12:10

Volume

(IN)

2.45

	un: 10Apr2020, 00 Time:30Apr2024, 13		gic Model: CoA SCS 10 <sup>×</sup> ecifications:24 <mark>H</mark> R	Yr 24 Hr
Show Elements: A	ll Elements 🗸 💦	Volume Units: 🗿 IN 🤇	🔿 ACRE-FT Sorti	ng: Hydrologic 🗸
Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	64.3	09Apr2020, 12:09	5.01
DACINIA	0.007531	12.0	0040:2020 12:17	2.00

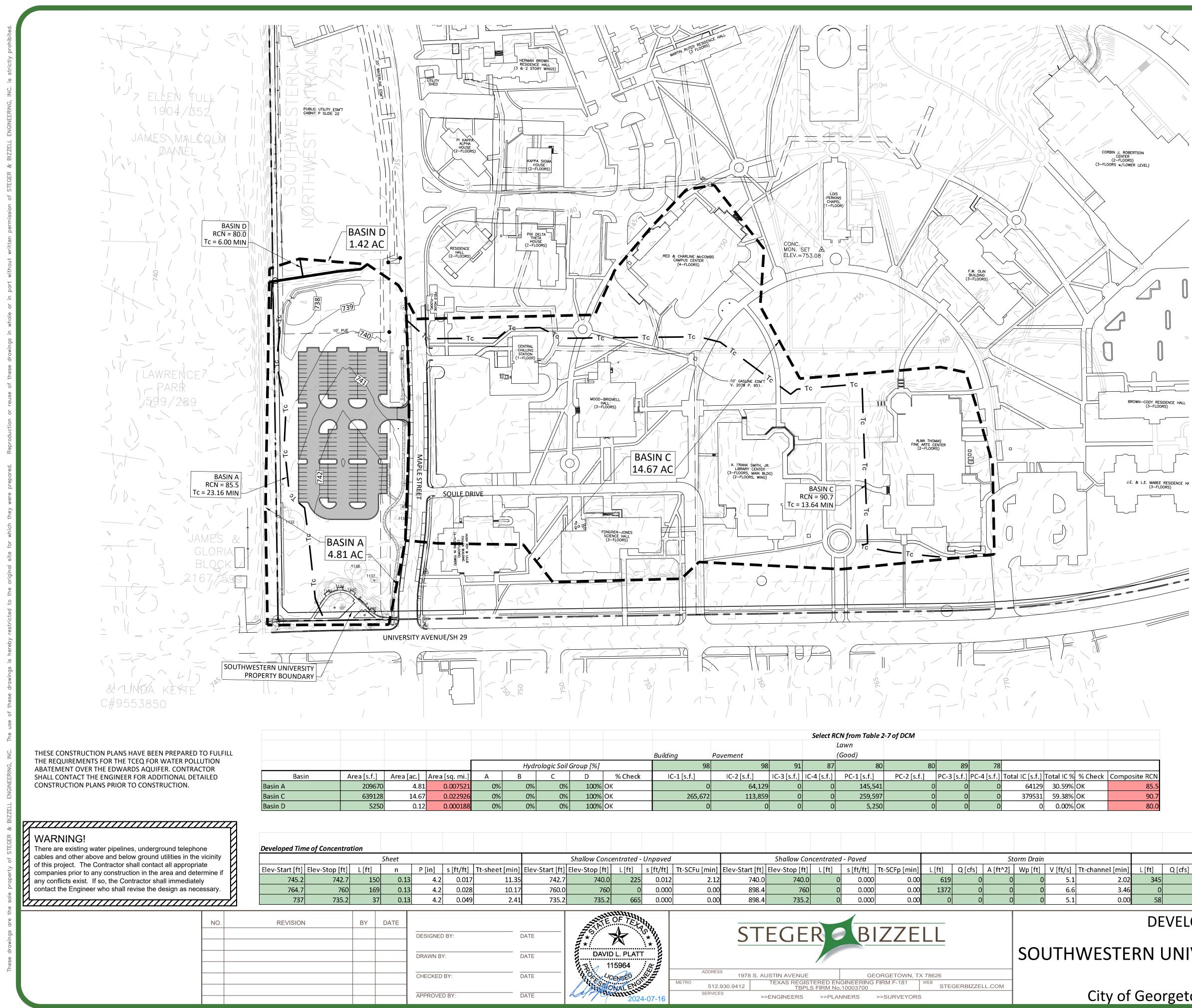
Tc	DRAINAGE BASIN BOUNDARY TIME OF CONCENTRATION PATH		
		0	100 SCALE: 1" = 10

LEGEND

Hydrologic

Element

BASIN C

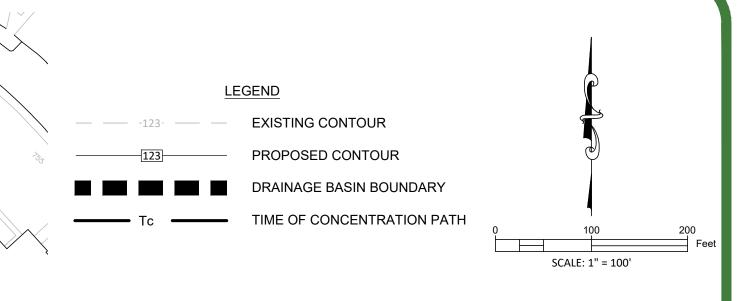


					Select RCN from Table 2-7 of DCM										
								Lawn							
				Building	Pavement			(Good)							
Hydi	rologic Soil	Group [%]		98	98	91	87	80	80	89	78				
	С	D	% Check	IC-1 [s.f.]	IC-2 [s.f.]	IC-3 [s.f.]	IC-4 [s.f.]	PC-1[s.f.]	PC-2 [s.f.]	PC-3 [s.f.]	PC-4 [s.f.]	Total IC [s.f.]	Total IC %	% Check	Compo
0%	0%	100%	ОК	0	64,129	0	0	145,541	0	0	0	64129	30.59%	ОК	
0%	0%	100%	ОК	265,672	113,859	0	0	259,597	0	0	0	379531	59.38%	ОК	
0%	0%	100%	ОК	0	0	0	0	5,250	0	0	0	0	0.00%	ОК	

	Shallow Conc	entrated -	Unpaved			Shallow Con	centrated	l - Paved				St	orm Drain					CI	hannel				otal
Elev-Start [ft]	Elev-Stop [ft]	L[ft]	s [ft/ft]	Tt-SCFu [min]	Elev-Start [ft]	Elev-Stop [ft]	L[ft]	s [ft/ft]	Tt-SCFp [min]	L[ft]	Q [cfs]	A [ft^2]	Wp [ft]	V [ft/s]	Tt-channel [min]	L[ft]	Q [cfs]	A [ft^2]	Wp [ft]	V [ft/s]	Tt-channel [min]	Tc [min]	Tlag [mir
742.7	740.0	225	0.012	2.12	740.0	740.0	0	0.000	0.00	619	0	0	0	5.1	2.02	345	0	0	0	0.75	7.67	23.16	13.9
760.0	760	0	0.000	0.00	898.4	760	0	0.000	0.00	1372	0	0	0	6.6	3.46	0	0	0	0	3.7	0.00	13.64	8.
735.2	735.2	665	0.000	0.00	898.4	735.2	0	0.000	0.00	0	0	0	0	5.1	0.00	58	0	0	0	5	0.19	6.00	3.
	- 01	11111																					

# DEVELOPED DRAINAGE MAP for SOUTHWESTERN UNIVERSITY - SH29 & MAPLE PARKING SHEET 09 LOT City of Georgetown, Williamson County, Texas

	ADDRESS 1978	S. AUSTIN AVENUE		GEORGETOWN, T	X 786	26
METRO	512.930.9412		ERED ENGINEERI FIRM No.1000370		WEB	STEGERBIZZELL.COM
	SERVICES	>>ENGINEERS	>>PLANNERS	>>SURVEYORS	6	



Project: 22968 SU Maple Parking Simulation Run: PR 2-YR SCS Start of Run: 09Apr2020, 00:00 Basin Model: Proposed End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 2 Yr 24 Hr Compute Time:01May2024, 11:28:14 Control Specifications:24 HR

Show Elements: A	Il Elements 🗸 🛛 🕅	Volume Units: 🔾 IN (	ACRE-FT Sortin	ig: Hydrologic $\sim$
Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	32.6	09Apr2020, 12:10	2.45
BASIN A	0.007521	7.4	09Apr2020, 12:16	2,00
Pond Berm	0.007521	6.4	09Apr2020, 12:23	2.00
BASIN D	0.000188	0.2	09Apr2020, 12:06	1.59
POI	0.030635	37.2	09Apr2020, 12:10	2.33

Project: 22968 SU Maple Parking Simulation Run: PR 10-YR SCS Start of Run: 09Apr2020, 00:00 Basin Model: Proposed End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 10 Yr 24 Hr Compute Time:01May2024, 11:28:11 Control Specifications:24 HR

Show Elements: All Elements 🕤 Volume Units: 🔾 IN 🔘 ACRE-FT Sorting: Hydrologic 🗸

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	64.3	09Apr2020, 12:09	5.01
BASIN A	0.007521	16.2	09Apr2020, 12:15	4.44
Pond Berm	0.007521	15.2	09Apr2020, 12:20	4.43
BASIN D	0.000188	0.5	09Apr2020, 12:05	3.87
POI	0.030635	75.0	09Apr2020, 12:10	4.86

Project: 22968 SU Maple Parking Simulation Run: PR 25-YR SCS

Start of Run: 09Apr2020, 00:00 Basin Model: Proposed Compute Time:01May2024, 11:28:16 Control Specifications:24 HR

(3-FLOORS

85.5

90.7

80.

End of Run: 10Apr2020, 00:00 Meteorologic Model: CoA SCS 25 Yr 24 Hr

Show Elements: A	l Elements $\sim$ N	/olume Units <mark>: 🔾</mark> IN (	ACRE-FT Sortir	ng: Hydrologic 🗸
Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	82.5	09Apr2020, 12:09	6.52
BASIN A	0.007521	21.3	09Apr2020, 12:15	5.91
Pond Berm	0.007521	20.3	09Apr2020, 12:19	5.90
BASIN D	0.000188	0.7	09Apr2020, 12:05	5.28
POI	0.030635	97.6	09Apr2020, 12:10	6.36

Project: 22968 SU Maple Parking Simulation Run: PR 100-YR SCS Start of Run: 09Apr2020, 00:00 Basin Model: Proposed End of Run: 10Apr2020, 00:00

Meteorologic Model: CoA SCS 100 Yr 24 Hr Compute Time:01May2024, 11:28:13 Control Specifications:24 HR

Volume Units: **O** IN O ACRE-FT Sorting: Hydrologic Show Elements: All Elements

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (IN)
BASIN C	0.022926	112.5	09Apr2020, 12:09	9.05
BASIN A	0.007521	29.7	09Apr2020, 12:15	8.39
Pond Berm	0.007521	28.6	09Apr2020, 12:19	8.38
BASIN D	0.000188	1.0	09Apr2020, 12:05	7.71
POI	0.030635	134.7	09Apr2020, 12:10	8.88

	Storm Frequency Peak Flow [cfs]					
Basin	2 Year	100 Year				
Existing Basin A	5.7	13.8	18.7	26.8		
Existing Basin C	32.6	64.3	82.5	112.5		
Existing Basin D	0.2	0.5	0.7	1.0		
POI	37.2	76.0	98.4	135.5		
Proposed Basin A	7.4	16.2	21.3	29.7		
Proposed Basin C	32.6	64.3	82.5	112.5		
Proposed Basin D	0.2	0.5	0.7	1.0		
Detention	6.4	15.2	20.3	28.6		
POI	37.2	75.0	97.6	134.7		
Delta	0.0	-1.0	-0.8	-0.8		

2024-##-SD



of **17** 

# **TEXAS COMMISSION ON ENVIRONMENTAL QUALITY** WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

- Project shall be constructed in full compliance with the Texas Accessibility
- Standards (TAS) 2012. Slopes in the direction of pedestrian travel shall not exceed 5% (1:20) or have a cross slope greater than 2% (1:48). This shall include routes that cross-vehicular ways including but not limited pedestrian/ vehicular ways such as street intersections
- Exception: Per TAS 405.8 and 68.102 (1) grades at the new sidewalks parallel to the streets shall be equal to, or less than, the street grade. Should the new sidewalks exceed the street grade, and the new sidewalk grades exceed 5% in the direction of travel, ramps complying with TAS 405 are required at these conditions.

Curb Ramps:

CCESSIBILITY NOTES

- A. Curb ramps shall not exceed 8.3% (1:12) in the direction of pedestrian ravel. B. Curb ramps flares (wings) shall not exceed 1:10.
- C. Minimum width of a curb ramp is 36".
- D. Top of the curb ramp must be 2% in all directions for an area 36" wide and 48" deep
- When truncated domes are used, the truncated dome system shall extend the full width of the curb ramp and for a minimum depth of 24" at the bottom of the curb ramp.
- Returned curb ramps shall only be used where the adjacent surface on one or both sides of the curb ramp do not allow pedestrian travel such as but not limited to stop lights, stop signs and permanently mounted waste receptacles. There shall be no changes in level greater than 1/4" on any accessible route or 1/2"
- with a 1:2 bevel. Decomposed granite surfaces, or similar Engineer-approved surfaces shall be
- compacted tight and maintained by the Owner at all times. Provide directional signage using the international symbol of accessibility when not all routes are accessible. Signage shall be placed at the beginning of the route
- to avoid a patron from proceeding on a non-accessible route. Verify that no plantings or other site elements on circulation paths would be
- protruding objects based on TAS 307 (protrudes more 4" and is higher than 27" from the surface and less than 80" from the surface).
- Textures shall consist of exposed crushed stone aggregate, roughened concrete, rubber, raised abrasive strips, or grooves extending the full width and depth of the curb ramp. Surfaces that are raised, etched, or grooved in a way that would allow water to accumulate are prohibited.
- For purposes of warning, the full width and depth of curb ramps shall have a light reflective value and texture that significantly contrasts with that of adjoining pedestrian routes.
- 10. Accessible parking spaces shall be at least 8 feet wide.
- 11. Parking spaces and aisles shall be level with surface slopes not exceeding 1:50 (2%) in all directions. 12. Accessible aisles shall be a minimum of 5 feet wide. Van accessible aisles shall
- be a minimum of 8 feet wide. 13. Additional information on curb ramps, parking spaces and aisles may be found in
- the current addition of Texas Accessibility Standards (TAS) prepared and administered by the T.D.L.R.
- Any part of the accessible route with a slope grater than 1:20 (5%) shall be considered a ramp. If a ramp has a rise greater than 6 inches or a horizontal projection greater than 72 inches, then it shall have handrails on both sides. The only exception is at curb ramps. Handrails are not required on curb ramps. Curb ramps shall be provided where ever an accessible route crosses (penetrates) a curb. Curb ramps are generally interpreted as only the portion tying directly into the roadwav
- 15. All sidewalk cross-slopes shall not exceed 1:50, unless a variance is provided by TDLR.
- 16. Under no circumstance, regardless of what is shown in these plans, is the contractor relieved of his sole responsibility for compliance with all accessibility laws and/or rules by the ADA, TDLR or other regulatory agency. See general notes sheet for additional info.

Contractor shall notify the Engineer before proceeding with any Work, which is in conflict with the Texas Accessibility Standards. Contractor is financially responsible for proceeding with any Work without written direction on any clarification from the Engineer.

# FIRE PROTECTION NOTES

- Approval of this site plan does not imply approval to install underground fire lines. Prior to installation of underground fire lines, a separate permit shall be submitted, Under Ground Fire Line Supply.
- Backflow protection will be provided in accordance with The City of Georgetown requirements when required. Backflow protection will be installed in accordance with the detail provided in the utility drawings.
- All private fire lines and what they provide service to will be installed in accordance with NFPA 24 Instillation of Private Service Mains and Their Appurtenances.
- All tees, plugs, caps, bends, reducers, valves shall be restrained against movement. Thrust blocking and joint restrained will be installed in accordance with NFPA 24.
- All underground shall remain uncovered until a visual inspection is conducted by The Georgetown Fire Marshal's Office (FMO). All joint restraints and thrust blocking shall be uncovered for visual inspection.
- All underground shall be flushed per the requirements of NFPA Standard 24 and witnessed by Georgetown FMO.
- All underground shall pass a hydrostatic test witnessed by Georgetown FMO. All joints shall be uncovered for hydrostatic testing. All piping and attachments subjected to system working pressure shall be tested at 200 psi. or 50 psi in excess of the system working pressure, whichever is greater, and shall maintain that pressure + or - 5 psi for 2 hours.
- Fences, landscaping, and other items will not be installed within 3 Ft, and where they will obstruct the visibility or access to hydrants, or remote FDCs.
- License requirements of either RME-U or G. When connecting by underground to the water purveyor's main from the point of connection or valve where the primary purpose of water is for fire protection sprinkler system.

# WARNING!

There are existing water pipelines, underground telephone cables and other above and below ground utilities in the vicinity of this project. The Contractor shall contact all appropriate companies prior to any construction in the area and determine if any conflicts exist. If so, the Contractor shall immediately contact the Engineer who shall revise the design as necessary. 

- 1. This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. Construction for public water systems must always, at a minimum, meet TCEQ's "Rules and Regulations for Public Water
- 2. An appointed engineer shall notify in writing the local TCEQ's Regional Office when construction will start. Please keep in mind that upon completion of the water works project, the engineer or owner shall notify the commission's Water Supply Division, in writing, as to its completion and attest to the fact that the work has been completed essentially according to the plans and change orders on file with the commission as required in 30 TAC §290.39(h)(3).
- 3. All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61-G and must be certified by an organization accredited by ANSI, as required by 30 TAC \$290.44(a)(1).
- 4. Plastic pipe for use in public water systems must bear the National Sanitation Foundation Seal of Approval (NSF pw-G) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less, as required by 30 TAC §290.44(a)(2).
- No pipe which has been used for any purpose other than the conveyance of drinking water shall be accepted or relocated for use in any public drinking water supply, as required by 30 TAC §290.44(a)(3).
- 6. Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface, as required by 30 TAC §290.44(a)(4).
- 7. Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
- The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

 $LD\sqrt{P}$  $Q = \frac{1}{148,000}$ 

- Where:
- Q = the quantity of makeup water in gallons per hour, • L = the length of the pipe section being tested, in feet,
- D = the nominal diameter of the pipe in inches, and • P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use:

 $SD\sqrt{P}$  $L = \frac{1}{148.000}$ 

Where:

- L = the quantity of makeup water in gallons per hour,
- S = the length of the pipe section being tested, in feet, • D = the nominal diameter of the pipe in inches, and
- P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- 8. Projects constructed on or after January 4, 2014 must comply with changes to the Safe Drinking Water Act that reduce the maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures to 0.25 percent.
- 9. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide firefighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions as required by 30 TAC §290.44(d).
- 10. The contractor shall install appropriate air release devices in the distribution system at all points where topography or other factors may create air locks in the lines. All vent openings to the atmosphere shall be covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent as required by 30 TAC  $\S$ 290.44(d)(1).
- 11. Pursuant to 30 TAC §290.44(d)(4), accurate water meters shall be provided. Service connections and meter locations should be shown on the plans.
- 2. Pursuant to 30 TAC §290.44(d)(5), sufficient valves and blowoffs to make repairs. The engineering report shall establish criteria for this design.
- 13. Pursuant to 30 TAC §290.44(d)(6), the system shall be designed to afford effective circulation of water with a minimum of dead ends. All dead-end mains shall be provided with acceptable flush valves and discharge piping. All dead-end lines less than two inches in diameter will not require flush valves if they end at a customer service. Where dead ends are necessary as a stage in the growth of the system, they shall be located and arranged to ultimately connect the ends to provide circulation.
- 14. The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes and septic tank drainfields. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet 30 TAC §290.44(e)(1-4) of the current rules.
- 15. Pursuant to 30 TAC §290.44(e)(5), the separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant.
- 16. Pursuant to 30 TAC §290.44(e)(6), fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction.
- 17. Pursuant to 30 TAC §290.44(e)(7), suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line.
- 18. Pursuant to 30 TAC §290.44(e)(8), waterlines shall not be installed closer than ten feet to septic tank drainfields
- 19. Pursuant to 30 TAC  $\frac{9290.44(f)(1)}{1000}$ , the contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation.
- 20. Pursuant to 30 TAC §290.44(f)(2), when waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the water main shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested.
- 21. The contractor shall disinfect the new water mains in accordance with AWWA Standard C-651 and then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed water line will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer, in accordance with 30 TAC \$290.44(f)(3).

NO.	REVISION	BY	DATE		
				DESIGNED BY:	DATE
				DRAWN BY:	DATE
				CHECKED BY:	DATE
				APPROVED BY:	DATE

# **CITY OF GEORGETOWN HERITAGE TREE PROTECTION DURING CONSTRUCTION**

GENERAL CONSTRUCTION NOTES 1. All construction shall be in accordance with the latest City of Georgetown Technical Specifications and Details. 2. Prior to beginning construction, the Owner or his authorized representative shall convene a Pre-Construction Conference between the City of Georgetown, Engineer, Contractor, County Engineer (if applicable), Texas Commission on Environmental Quality Field Office, and any other affected parties. Notify all such parties at least 48 hours prior to the time of the conference and 48 hours prior to beginning construction. Written construction notification must be given to the appropriate TCEQ regional office no later than 48 hours prior to commencement of the regulated activity. Information must include the date on which the regulated activity will commence, the name of the approved plan for the regulated activity, the name of the prime contractor and the name and telephone number of the contact person. 3. The Contractor shall give the City a minimum of 48 hours notice before beginning each phase of construction, call 512-930-3555. 4. No blasting will be permitted on this project. 5. Any existing utilities, pavement, curbs, and/or sidewalks damaged or removed will be repaired by the Contractor at his expense before acceptance of the project. 6. The location of any existing water and/or wastewater lines shown on the plans must be verified by the Georgetown Utility Systems Department. 7. Manhole frames, covers, water valve covers, etc., shall be raised to finished pavement grade at the Contractor's expense by a qualified contractor with City inspection. All utility adjustments shall be completed prior to final paving construction. 8. The Contractor is responsible for any damages to any public improvements. 9. Replace all destructed CMP culverts with CMP of equal size. SEQUENCE OF CONSTRUCTION Note: Other contractors could be working on this site. Coordinate all activities with the activities of others. 1. Call all affected parties at least 48 hours prior to beginning any construction to schedule a pre-construction conference and secure all required permits. Install TCP and BC in accordance to TxDOT Standard sheets. Install temporary erosion controls prior to any clearing and grubbing. Notify the City of Georgetown when installed. 3. Clear and grub site. 4. Install all utility mains & services. 5. Ensure that all underground utility installations are complete. 6. Complete construction of driveways, parking, and buildings. Complete final site grading and revegetation. 8. Remove and dispose of temporary erosion controls. 9. Complete any necessary final dress-up. PERMANENT EROSION CONTROL NOTES 1. All disturbed areas shall be restored as noted below: 1.a. A minimum of six inches of imported sandy loam topsoil or approved equal shall be placed in all drainage channels (except rock) and on all cleared areas. The seeding for permanent erosion control shall be applied over areas 1.b. disturbed by construction as follows, unless specified elsewhere: From September 15 to March 1, seeding shall be with a combination of 1 1.b.a. pound per 1,000 square feet of unhulled Bermuda and 7 pounds per 1,000 square feet of Winter Rye with a purity of 95% with 90% germination. From March 2 to September 14, seeding shall be with hulled Bermuda at 1.b.b. a rate of 3 pounds per 1,000 square feet with a purity of 95% with 85% germination. 1.c. Fertilizer shall be slow release granular or pelleted type and shall have an analysis of 15-15-15 and shall be applied at the rate of 23 pounds per acre once at the time of planting and again once during the time of establishment. The planted area shall be irrigated or sprinkled in a manner that will not erode 1.d. the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at ten-day intervals during the first two months. Rainfall occurrences of 1/2 inch or more shall postpone the watering schedule for one Mulch type used shall be Mulch, applied at a rate of 1,500 pounds per acre. 1.e. **TEMPORARY EROSION CONTROL NOTES** 1. The Contractor shall install erosion/sedimentation controls and tree protective fencing prior to any site preparation work (clearing, grubbing or excavation). 2. The placement of erosion/sedimentation controls shall be in accordance with the PLANS. 3. Any significant variation in materials or locations of controls or fences from those shown on the approved plans must be approved by the City Engineer. 4. The Contractor is required to inspect all controls and fences at weekly intervals and after significant rainfall events to ensure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches. Prior to final acceptance, haul roads and waterway crossings constructed for temporary Contractor access must be removed, accumulated sediment removed from the waterway, and

disposed of in approved spoil disposal sites. 6. Field revisions to the EROSION & SEDIMENTATION CONTROL PLANS may be required by the Engineer or field inspector with the Texas Commission on Environmental Quality (TCEQ) during the course of construction to correct control inadequacies. Major revisions must be

approved by the TCEQ.

the area restored to the original grade and revegetated. All land clearing debris shall be

- Prior to the commencement of any development, a tree protection fence constructed of approved materials shall encompass the Critical Root Zone (CRZ) of any Heritage Tree. Said tree protection fence must be maintained throughout the construction process, and must also comply with Chapter 11 of this Code.
- During construction, no materials including but not limited to excess soil, vehicles, equipment, liquids, trash, or construction debris may be placed inside of the tree protection fence, nor shall the tree protection fence be altered in any way so as to increase the encroachment of the construction.
- Excavation, grading, soil deposit, impervious covering, drainage and leveling within the CRZ of Heritage Trees is prohibited unless approved by the Urban Forester. Any impervious cover proposed within the CRZ of a Heritage Tree will be reviewed on a case by case basis by the Urban Forester upon field inspections and or plan reviews. In any case, generally no more than 50% of the CRZ of any Heritage Tree can be covered with impervious cover. Any protective fencing being used around Heritage Trees may only be reduced while impervious cover activity is being done. The remainder of the protective fencing must stay intact for the duration of the project.
- 4. Disposal or depositing of oil, gasoline, chemicals, paints, solvents or other materials is prohibited within the CRZ of Heritage Trees.
- 5. The attachment of wires, signs and ropes to any Heritage Tree is prohibited. 6. The location of utility service and irrigation lines inside the CRZ of Heritage Trees is only allowed when approved by the Urban Forester. If boring is used to provide underground utility access, the minimum length of the bore shall be the width of the tree's mature canopy. The minimum depth of the bore shall be specified by the Urban Forester, but in no event be less than 24" below the natural grade existing prior to any development activity within the CRZ.
- 7. Soil disturbance or other injurious and detrimental activity within the CRZ of Heritage Trees is prohibited. 8. At applicant's expense, an ISA Certified Arborist or their employee(s) shall be present whenever activities occur which will pose a potential threat to the health of the Heritage Tree such as pruning, or whenever any work needs to be done within the CRZ of such tree.
- 9. Should the area within the CRZ become compacted during excavation or grading, the affected area shall be aerated. The Urban Forester shall be notified whenever any Damage or injury occurs to a Heritage Tree during construction so that proper treatment may be administered. 10. The Urban Forester shall be notified whenever any Damage or injury occurs to a Heritage Tree during
- construction so that proper treatment may be administered.
- 11. Contact the City of Georgetown's Urban Forester (512-930-6113) when tree protection is installed and prior to any fencing being removed.

# CITY OF GEORGETOWN GENERAL NOTES

- 1. These Construction plans were prepared, sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore based on the engineer's concurrence of compliance, the construction plans for construction of the proposed project are hereby approved subject to the standard Construction Specifications and Details Manual and all other applicable City, State, and Federal Requirements and Codes.
- 2. This project is subject to all City Standard Specifications and Details in effect at the time of submittal of the project to the City.
- 3. The site construction plans shall meet all requirements of the approved site plan.
- 4. Wastewater mains and service lines shall be SDR-26 PVC.
- 5. Wastewater mains shall be installed without horizontal or vertical bends.
- 6. Maximum distance between wastewater manholes is 500 feet.
- 7. Wastewater mains shall be low pressure air tested and mandrel tested by the contractor according to City of Georgetown and TCEQ requirements.
- 8. Wastewater manholes shall be vacuum tested and coated by the contractor according to City of Georgetown and TCEQ requirements.
- 9. Wastewater mains shall be camera tested by the contractor and submitted to the City on DVD format prior to paving the streets.
- 10. Private water system fire lines shall be tested by the contractor to 200 psi for 2 hours.
- 11. Private water system fire lines shall be ductile iron piping from the water main to the building sprinkler system, and 200 psi C900 DR-18 PVC for all others.
- 12. Public water system mains shall be 150 psi C900 DR-18 PVC and tested by the contractor at 150 psi for 4 hours.
- 13. All bends and changes in direction on water mains shall be restrained and thrust blocked.
- 14. Fire hydrant leads shall be restrained.
- 15. All water lines are to be bacteria tested by the contractor according to the City standards and specifications.
- 16. Water and Sewer main crossings shall meet all requirements of the TCEQ and the City.
- 17. Flexible base material for public streets shall be TXDOT Type A Grade 1
- 18. Hot mix asphaltic concrete pavement shall be Type D unless otherwise specified and shall be a minimum of 2 inches thick on public streets and roadways.
- 19. All sidewalk ramps are to be installed with the public infrastructure.
- 20. A maintenance bond is required to be submitted to the City prior to acceptance of the public improvements. This bond shall be established for 2 years in the amount of 10% of the cost of the public improvements and shall follow the City format.
- 21. Record drawings of the public improvements shall be submitted to the City by the design engineer prior to acceptance of the project. These drawings shall be submitted on a flash drive or emailed through a cloud source.
- 22. Prior to the start of construction, the City shall be provided with a WPAP approval letter, WPAP recordation receipt, NOI, approved SWPPP, and contact information of the compliance inspector.
- 23. During construction, all compliance inspections and resolutions shall be copied to the City inspector upon receipt.
- 24. At the completion of construction, Engineer's letter of concurrence and Notice of Termination shall be provided
- 25. Prior to construction above the slab, Contractor to provide an all-weather drive surface of asphalt. concrete, or chip seal placed onto base material engineered to withstand 75,000 lbs. An acceptance inspection by Fire Inspections is required. 2012 IFC 503 and D102.1.



2.

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#### **Texas Commission on Environmental Quality** Water Pollution Abatement Plan **General Construction Notes**

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water guality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include: the name of the approved project;

- the activity start date; and - the contact information of the prime contractor.

- 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.
- 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.
- No temporary or permanent hazardous substance storage tank shall be installed within 150 4 feet of a water supply source, distribution system, well, or sensitive feature.
- 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.
- 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,
- Sediment must be removed from the sediment traps or sedimentation basins not later than when it occupies 50% of the basin's design capacity.
- Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
- 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.
- If portions of the site will have a temporary or permanent cease in construction activity lasting 10. longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14<sup>th</sup> day of inactivity. If activity will resume prior to the 21<sup>st</sup> day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14<sup>th</sup> day, stabilization measures shall be initiated as soon as possible.
  - The following records shall be maintained and made available to the TCEQ upon request: - the dates when major grading activities occur;
  - the dates when construction activities temporarily or permanently cease on a portion of the site: and
  - the dates when stabilization measures are initiated.
- 12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
  - A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
  - 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:
  - any development of land previously identified as undeveloped in the original water ollution 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

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TCEQ-0592 (Rev. July 15, 2015)

**GENERAL NOTES** 

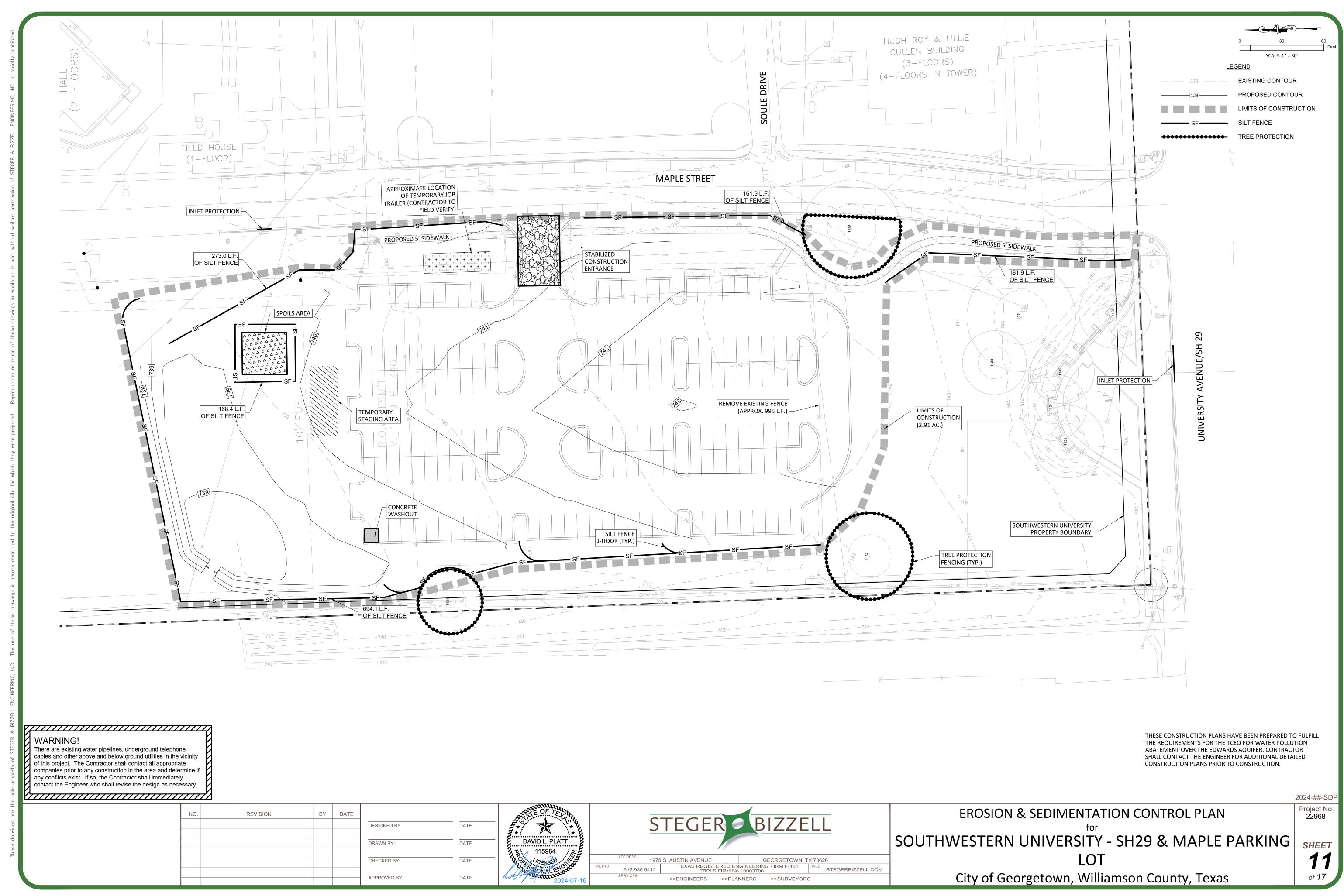
Page 2 of 2

THESE CONSTRUCTION PLANS HAVE BEEN PREPARED TO FULFILL THE REQUIREMENTS FOR THE TCEQ FOR WATER POLLUTION ABATEMENT OVER THE EDWARDS AQUIFER. CONTRACTOR SHALL CONTACT THE ENGINEER FOR ADDITIONAL DETAILED CONSTRUCTION PLANS PRIOR TO CONSTRUCTION.

2024-##-SD

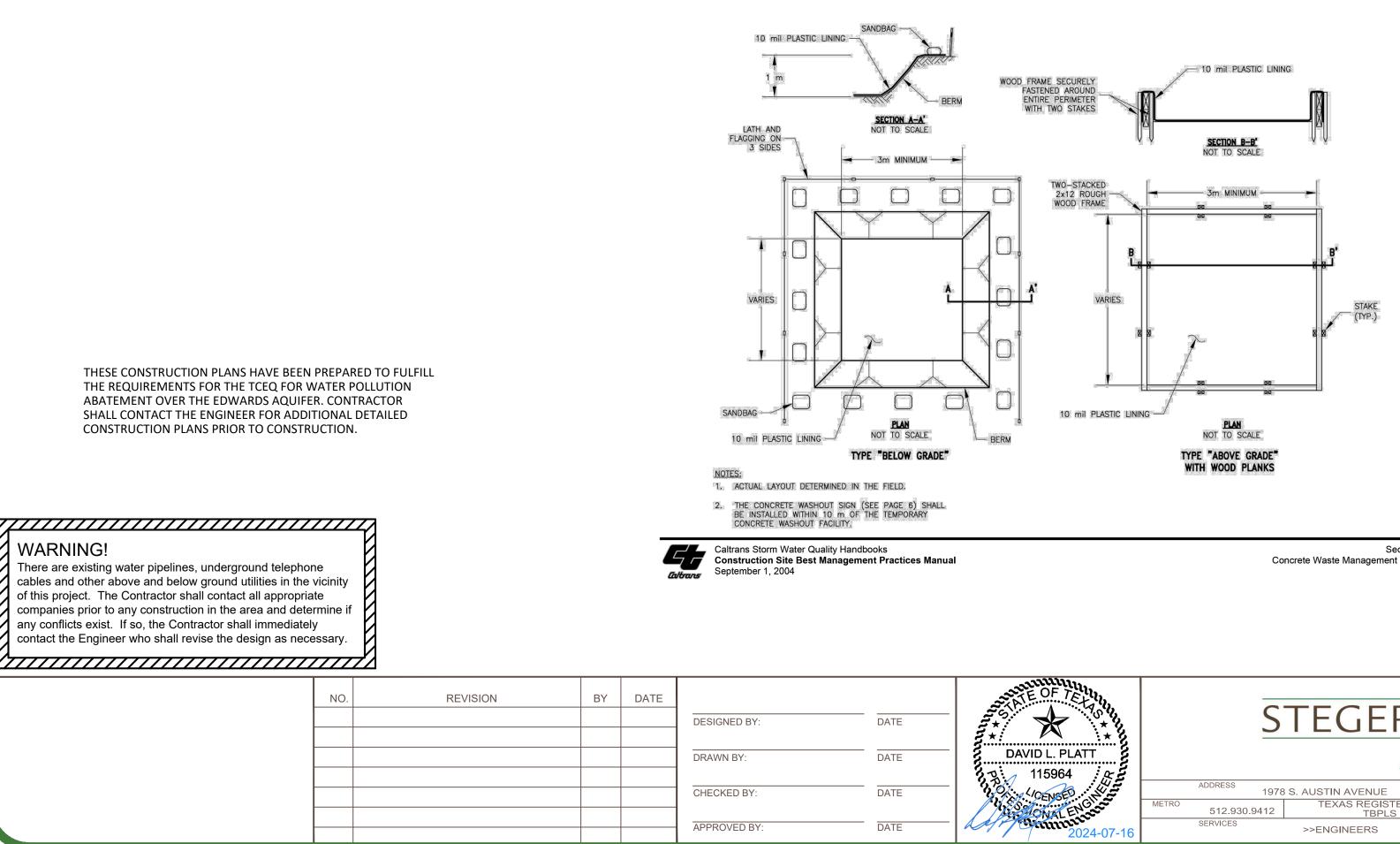
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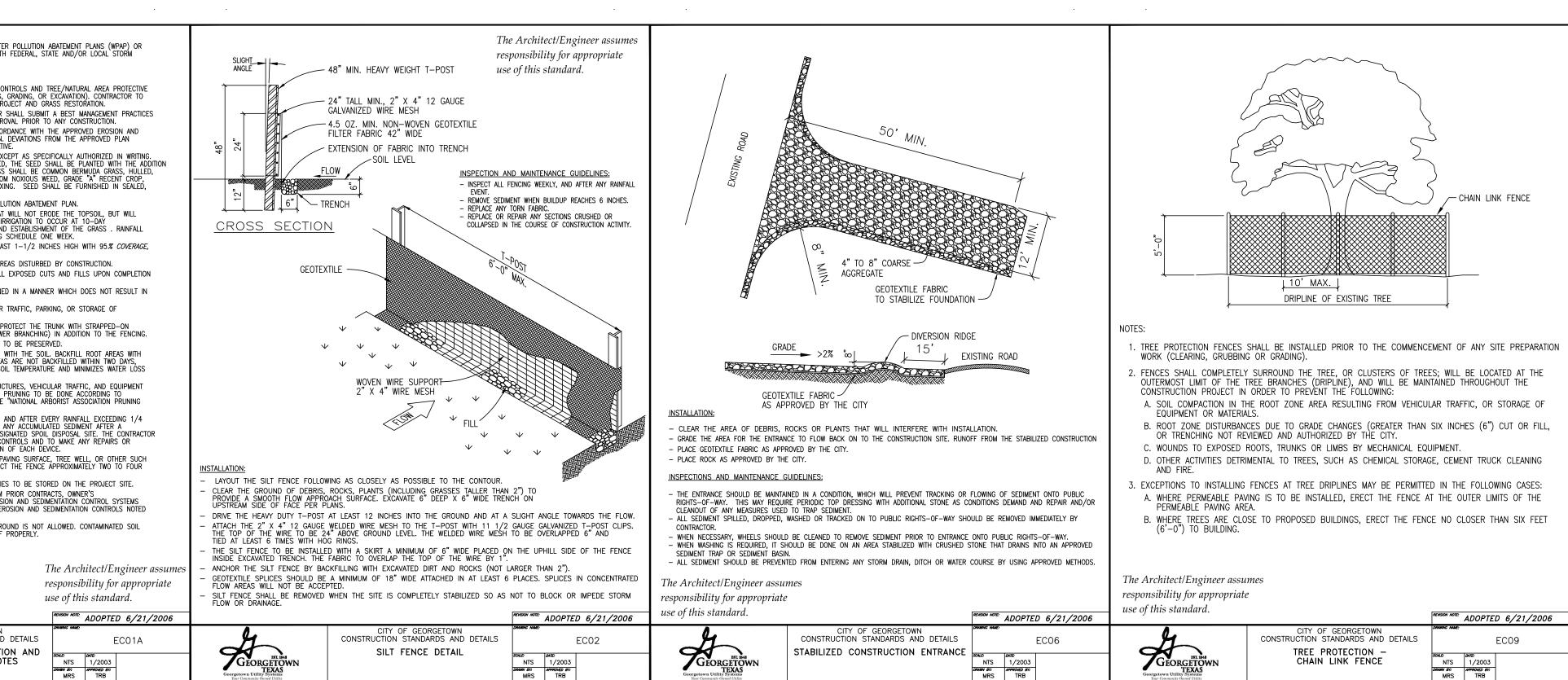




				1. THE CONTRACTOR TO INSTALL AND MAINTA	AIN FROSION
				<ol> <li>THE CONTRACTOR TO INSTALL AND MAINTA FENCING PRIOR TO ANY SITE PREPARATIO REMOVE EROSION/SEDIMENTATION CONTRO</li> <li>ALL PROJECTS WITHIN THE RECHARGE ZOI</li> </ol>	IS AT THE
	<u>ES FOR DESIGN AN</u> EROSION AND SED			AND WATER POLLUTION AND ABATEMENT F 3. THE PLACEMENT OF EROSION/SEDIMENTATI SEDIMENTATION CONTROL PLAN AND WATE	PLAN TO TH
	LICOSION AND SED			MUST BE SUBMITTED TO AND APPROVED I	BY THE OW
TYPE OF STRUCTURE		MAXIMUM	SLOPE	4. ALL PLANTING SHALL BE DONE BETWEEN IF PLANTING IS AUTHORIZED TO BE DONE OF WINTER FESCUE (KENTUCKY 31) AT A MINIMUM 82% PURE LIVE SEED. ALL GRA RECLEANED AND TREATED WITH APPROPRIN TO ADD TREATED WITH APPROPRING TO ADD TREATED WITH APPROPRING TO ADD TREATED WITH APPROPRING TO ADD TREATED WITH APPROPRING TO ADD TREATED WITH APPROPRING	ASS SEED
	REACH LENGTH	DRAINAGE AREA		5. ALL DISTURBED AREAS TO BE RESTORED	AS NOTED
SILT FENCE	N/A 200 FEET	2 ACRES 2 ACRES	0 - 10% 10 - 20%	<ol> <li>THE PLANTED AREA TO BE IRRIGATED OR SUFFICIENTLY SOAK THE SOIL TO A DEPTH INTERVALS DURING THE FIRST TWO MONTH</li> </ol>	SPRINKLE
	100 FEET	2 ACRES 1 ACRE	10 - 20% 20 - 30%	OCCURRENCES OF 1/2 INCH OR GREATER	r to post
	50 FEET	1/2 ACRE	> 30%	<ol> <li>RESTORATION TO BE ACCEPTABLE WHEN T PROVIDED NO BARE SPOTS LARGER THAN</li> <li>A MINIMUM OF FOUR (4) INCHES OF TOP</li> </ol>	25 SQUA
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE	9. THE CONTRACTOR TO HYDROMULCH OR SO OF CONSTRUCTION.	
	50 FEET	1/4 ACRE	> 30% SLOPE	10. EROSION AND SEDIMENTATION CONTROLS SOIL BUILDUP WITHIN TREE DRIPLINE.	to be ins
ROCK BERM *, **	500 FEET	< 5 ACRES	0 - 10%	11. TO AVOID SOIL COMPACTION, CONTRACTOR EQUIPMENT OR MATERIALS IN THE TREE D	
* FOR ROCK BERM DESIGN AREA CALCULATIONS AND F	WHERE PARAMETERS A ROCK BERM DESIGN MUS	RE OTHER THAN STA ST BE SUBMITTED FC	TED, DRAINAGE )R REVIEW.	PLANKING TO A HEIGHT OF EIGHT (8) FEE 13. TREES TO BE REMOVED IN A MANNER WH 14. ANY ROOT EXPOSED BY CONSTRUCTION A GOOD QUALITY TOPSOIL AS SOON AS POS COVER THEM WITH ORGANIC MATERIAL IN DUE TO EVERDATION	IICH DOES CTIVITY TO SSIBLE. IF
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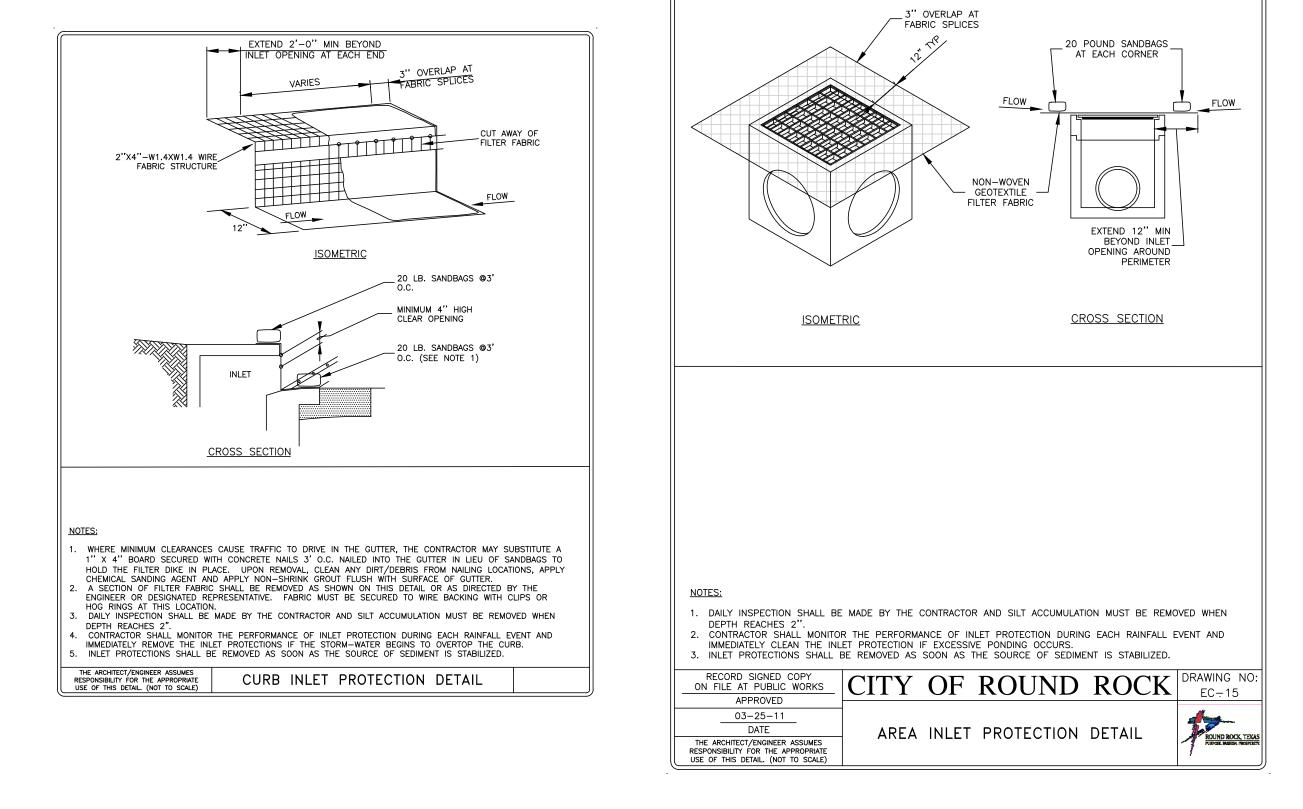
# **Concrete Waste Management**



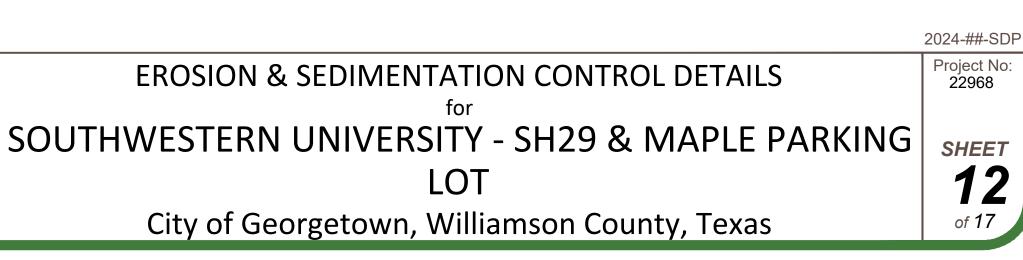


Section 8 Concrete Waste Management WM-8 6 of 7

**WM-8** 



STEGER BIZZELL GEORGETOWN, TX 78626 TEXAS REGISTERED ENGINEERING FIRM F-181 TBPLS FIRM No.10003700 STEGERBIZZELL.COM >>ENGINEERS >>PLANNERS >>SURVEYORS



	<ol> <li>FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; WILL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:</li> </ol>	
	A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.	
ALLATION. DFF FROM THE STABILIZED CONSTRUCTION	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.	
	<ul> <li>C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.</li> <li>D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.</li> </ul>	
	3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:	
FLOWING OF SEDIMENT ONTO PUBLIC ONDITIONS DEMAND AND REPAIR AND/OR	A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.	
OULD BE REMOVED IMMEDIATELY BY	B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.	
: ONTO PUBLIC RIGHTS-OF-WAY. STONE THAT DRAINS INTO AN APPROVED		
COURSE BY USING APPROVED METHODS.		
	The Architect/Engineer assumes	
	responsibility for appropriate	
REVISION NOTE:	use of this standard.	-
REVISION NOTE: ADOPTED 6/21/2006	PERSON NOIE: ADOPTED 6/21/2006	
EC06	CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS EC09	
SCALE: DATE:	TREE PROTECTION -	-

# **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: David Platt

Date: <u>2024-</u>06-28

Signature of Customer/Agent:

Regulated Entity Name: Southwestern University SH29 & Maple Parking Lot

# **Project Information**

# Potential Sources of Contamination

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

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

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

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

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

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

- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. Attachment A Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. Attachment B Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

# Sequence of Construction

5. X 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: <u>Smith Branch</u>

# 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.
		<ul> <li>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.</li> <li>There will be no temporary sealing of naturally-occurring sensitive features on the</li> </ul>
		site.
9.		<b>Attachment F - Structural Practices</b> . 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.	$\square$	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.  $\square$  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 Actions

Because fuels and hazardous substances will be provided by an off-site facility, no on-site containment procedures are provided for in this WPAP.

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees. The following steps will help reduce the stormwater impacts of leaks and spills:

# Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.
- 2. Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- 3. Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- 4. Establish a continuing education program to indoctrinate new employees.
- 5. Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

# **General Measures**

- 1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- 2. Store hazardous materials and wastes in covered containers and protect from vandalism.
- 3. Place a stockpile of spill cleanup materials where it will be readily accessible.
- 4. Train employees in spill prevention and cleanup.
- 5. Designate responsible individuals to oversee and enforce control measures.
- 6. Spills should be covered and protected from stormwater run-on during rainfall to the extent that it doesn't compromise clean-up activities.
- 7. Do not bury or wash spills with water.
- 8. Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- 9. Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

- 10. Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- 11. Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- 12. Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

# 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. See the waste management BMPs in this section for specific information.

# **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:
- 5. Contain the spread of the spill.
- 6. Recover spilled materials.
- 7. 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

For significant or hazardous spills that are in reportable quantities:

- 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.
- 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: <u>http://www.tceq.texas.gov/response/</u>

#### Vehicle and Equipment Maintenance

- 1. If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.
- 2. Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
- 3. Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
- 4. Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
- 5. Place drip pans or absorbent materials under paving equipment when not in use.
- 6. Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
- 7. Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- 8. Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
- 9. Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

# Vehicle and Equipment Fueling

- 1. If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.
- 2. Discourage "topping off" of fuel tanks.
- 3. Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

If a spill should occur, the person responsible for the spill should contact the TCEQ at (512) 339-2929 or call 911. Soil contaminated by spills that occur on-site will be removed and disposed at an approved disposal site.

# **Attachment B – Potential Sources of Contamination**

- Hydraulic and diesel
- Portable toilet systems (Sanitary Waste)
- Trash from construction workers
- Paints, Paint Solvents, glues, concrete and other building materials
- Plant fertilizers and Pesticides
- Inadequate maintenance of temporary water pollution abatement measures
- Stock piles or spoils of materials

# Attachment C – Sequence of Major Activities

The following sequence of activities is suggested. The sequence of construction will take place during one phase. The actual sequence may vary slightly depending on the contractor or weather conditions.

- Construction activities will commence with the installation of the required silt fences, inlet protection, and stabilized construction entrances. The total area disturbed by establishing temporary erosion controls is approximately 0.20 acres (7.0% of project area). Silt fence, stabilized construction entrance (S.C.E), and inlet protection are the proposed control measures.
- 2. Excavation will take place where the proposed parking lot and sidewalk is to be located. Fill and excavation spoils will be placed at a location on the project site as directed by the contractor or at an off-site location. A silt fence will enclose these spoils and any other loose granular material. This activity is expected to disturb approximately 2.91 acres (100.0% of project area). Silt fence, S.C.E., and inlet protection are the proposed control measures.
- Grading on the site will consist of the placement and compaction of base or select fill material under and/or around the sidewalks and parking lot. The portion of the site that is subject to grading is approximately 2.91 acres (100.0% of project area). Silt fence, S.C.E., and inlet protection are the proposed control measures.
- Subsequent to the construction of the parking lot and sidewalks, disturbed areas will be hydro-mulched or seeded. This activity is expected to disturb approximately 1.57 acres (52.1% of project area). Silt fence and inlet protection are the proposed control measures.
- 5. Temporary sediment and erosion controls will be removed after the project is completed.

# Attachment D – Temporary Best Management Practices and Measures

The following sequence of activities is suggested. The actual sequence may vary slightly depending on the contractor or weather conditions.

- Construction activities will commence with the installation of the required silt fences, inlet protection, and stabilized construction entrances. Silt fence, stabilized construction entrance (S.C.E), and inlet protection are the proposed control measures.
- 2. Excavation will take place where the proposed parking lot and sidewalk is to be located. Fill and excavation spoils will be placed at a location on the project site as directed by the contractor or at an off-site location. A silt fence will enclose these spoils and any other loose granular material. This activity is expected to disturb approximately 2.91 acres. **Silt fence, S.C.E., and inlet protection are the proposed control measures.**
- 3. Grading on the site will consist of the placement and compaction of base or select fill material under and/or around the sidewalks and parking lot. The portion of the site that is subject to grading is approximately 2.91 acres. Silt fence, S.C.E., and inlet protection are the proposed control measures.
- 4. The pavement concrete will be poured at finished grade. Silt fence, S.C.E., and inlet protection are the proposed control measures.
- 5. A concrete washout area will be provided as defined on the site plan.
- 6. Fine grading around the site will then be completed. Silt fence, S.C.E., and inlet protection are the proposed control measures.
- 7. A security chain link fence will then be installed. Silt fence, S.C.E., and inlet protection are the proposed control measures.
- 8. Disturbed areas will be hydro-mulched or seeded. Silt fence and inlet protection are the proposed control measures.

Most surface runoff originating upgradient or on site will be contained within the proposed silt fence. The silt fence will trap most pollutants and prevent them from entering off-site surface streams, sensitive features, or the aquifer. The stabilized construction entrance will reduce the amount of sediment leaving the site. The inlet protection will prevent the storm drainage system from getting clogged and reduce the amount of sediment leaving the site. These temporary BMPs will trap most pollutants and prevent them from entering off-site surface streams, sensitive features, or the aquifer.

# **Attachment F – Structural Practices**

No structural practices will be utilized to divert flows away from exposed soils or to store flows. Silt fences, inlet protection, and a stabilized construction entrance will be used to limit the runoff discharge of sediments from exposed areas on the site during construction.

# <u>Attachment G – Drainage Area Map</u>

Please see the existing and developed drainage maps on sheets 08-09 from the "Site Plan" attachment in the "Water Pollution Abatement Plan Application" section.

The maximum common drainage area is 19.6 acres. Out of this area, 14.67 acres has been previously developed and only 2.91 acres will be disturbed within the remaining undeveloped area. Approximately 2.91 acres of this area will be disturbed. The remaining portion of the drainage area is located entirely within the 704.25-acre Southwestern property boundary. No parts of the drainage area that are not within the proposed development's limits of construction will be disturbed.

# Attachment I – Inspection and Maintenance for BMPs

### Silt Fence

- 1. Inspect all fences weekly and after any rainfall.
- 2. Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.
- 3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
- 4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
- 5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

# Concrete Washout

- 1. Inspection should be made weekly and after each rainfall by the responsible party.
- 2. Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
- 3. The berm/temporary pit should be reshaped as needed during inspection.
- 4. The berm/temporary pit should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- 5. The washout should be left in place until construction has been completed.
- 6. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the Concrete Washout should be revegetated.
- 7. The concrete from the washout should be removed from the site in an appropriate manner.

# Temporary Construction Entrance/Exit

- 1. The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
- 2. All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
- 3. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
- 4. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

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

# Inlet Protection

- 1. Inspection should be made weekly and after each rainfall. Check inlet protection for damage. Repair should be made promptly as needed by the contractor
- 2. Trash and other debris should be removed after each rainfall.
- 3. Accumulated silt should be removed.
- 4. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.
- 5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation.

# Construction Staging Area

- 1. Inspection should be made weekly of the staging area to ensure all temporary BMPs are installed and functioning. Verify that any materials stored in the staging area are not exposed to stormwater runoff.
- 2. If the staging area is paved, the area is to be swept on a regular basis to keep dust down.

The following steps will help reduce stormwater pollution from concrete wastes:

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

For on-site washout:

- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

The following sample forms should be utilized to document the inspection and maintenance of the proposed temporary BMPs as described above. This form shall be kept on site with the WPAP until the project is completed. A report documenting the Temporary BMPs maintenance activities, sediment removal and modifications to the sedimentation and erosion controls is required. Steger Bizzell is responsible for maintaining this log.

# Temporary BMP Log

Date	Date of Last Inspection	Inspection Performed By	Title	Company	Status of BMP(s)	Corrective Action Required (if any)	Date Corrective Action Completed

### Attachment J – Schedule of Interim Permanent Soil Stabilization Practices

Vehicular traffic should be limited to areas of the project site where construction will take place. The contractor should endeavor to preserve existing vegetation as much as practicable to reduce erosion and lower the cost associated with stabilization. **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.** 

All disturbed areas shall be stabilized as described below.

Except as provided for below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

- A. Where the initiation of stabilization measures by the 14<sup>th</sup> day after construction activity temporarily or permanently ceases is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable.
- B. Where construction activity on a portion of the site has temporarily ceased, and earthdisturbing activities will be resumed with 21 days, temporary stabilization measures do not have to be initiated on that portion of the site.
- C. In areas experiencing drought, where the initiation of stabilization measures by the 14<sup>th</sup> day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

Stabilization measures as described as follows:

All disturbed grass areas should be planted in drought resistant species normally grown as permanent lawns, such as Zoysia, Bermuda and Buffalo. Grass areas may be sodded, plugged, sprigged or seeded except that solid sod shall be used in swales or other areas subject to erosion. All planted areas shall be provided with a readily available water supply and watered as necessary to ensure continuous healthy growth and development. Maintenance shall include the replacement of all dead plant material if that material was used to meet the requirements of this section.

# **Permanent Stormwater Section**

**Texas Commission on Environmental Quality** 

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

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

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

### Signature

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

Print Name of Customer/Agent: David Platt

Date: 2024-06-28

Signature of Customer/Agent

Regulated Entity Name: Southwestern University SH29 & Maple Parking Lot

## Permanent Best Management Practices (BMPs)

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

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



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

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

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

🖂 N/A

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

🖂 N/A

- 4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
  - The site will be used for low density single-family residential development and has 20% or less impervious cover.
  - The site will be used for low density single-family residential development but has more than 20% impervious cover.
  - The site will not be used for low density single-family residential development.
- 5. The executive director may waive the requirement for other permanent BMPs for multifamily residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.
  - Attachment A 20% or Less Impervious Cover Waiver. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
  - The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
  - The site will not be used for multi-family residential developments, schools, or small business sites.
- 6. Attachment B BMPs for Upgradient Stormwater.

	<ul> <li>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.</li> <li>No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.</li> <li>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.</li> </ul>
7.	🔀 Attachment C - BMPs for On-site Stormwater.
	<ul> <li>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.</li> <li>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.</li> </ul>
8.	Attachment D - BMPs for Surface Streams. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.
	⊠ N/A
9.	The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.
	<ul> <li>The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.</li> <li>Attachment E - Request to Seal Features. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.</li> </ul>
10.	Attachment F - Construction Plans. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:
	<ul> <li>Design calculations (TSS removal calculations)</li> <li>TCEQ construction notes</li> <li>All geologic features</li> <li>All proposed structural BMP(s) plans and specifications</li> </ul>

N/A

11.	Attachment G - Inspection, Maintenance, Repair and Retrofit Plan. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:
	<ul> <li>Prepared and certified by the engineer designing the permanent BMPs and measures</li> <li>Signed by the owner or responsible party</li> <li>Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit</li> <li>A discussion of record keeping procedures</li> </ul>
L2.	N/A Attachment H - Pilot-Scale Field Testing Plan. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for
$\boxtimes$	pilot-scale field testing is attached. N/A
13.	Attachment I -Measures for Minimizing Surface Stream Contamination. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

N/A

## Responsibility for Maintenance of Permanent BMP(s)

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

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

🗌 N/A

15. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

N/A

### Attachment A – 20% or Less Impervious Cover Waiver

The proposed project site is composed of a single site that totals 2.91 Ac. The project site is located entirely within a 704.25 Ac. property owned by Southwestern University who are proposing the development of a new parking lot. The project site is going to include a parking lot with a total of 161 parking spaces along with associated sidewalk and will have a construction area of 2.91 Ac. total. The site is undeveloped except for an existing 0.02-acre concrete driveway that will be demolished prior to construction. A legal description of the property is 704.25 acres of land, situated in the Antonio Flores Survey, Abstract No. 235 and the William Addison Survey, Abstract No. 21, in Williamson County, Texas.

The existing Southwestern University property contains 70.20 Ac., or 9.97%, of impervious cover. Prior to construction, approximately 0.02 Ac. of the existing impervious cover will be demolished. The proposed development includes 1.44 Ac. of impervious cover, meaning that the total impervious cover on Southwestern Universities property after construction will equal 71.62 Ac., or 10.17%. In addition, we are providing 15' vegetative filter strips along the perimeter of the proposed parking lot to assist with TSS removal.

This project will not increase the impervious cover beyond 20% of the site. This application is a request for a 20% or Less Impervious Cover Waiver due to the 10.17% maximum impervious cover. A geologic assessment is included with this submittal and was performed on 4/3/2024.

### Attachment B – BMPs for Upgradient Stormwater

Although most of the overall drainage area is not located within this project's limits of construction, only one portion of this area flows across the project site. This area is from the southernmost portion of the limits of construction to the back of curb of SH-29 and is approximately 1.90 Ac. The entirety of this area is either developed or undeveloped and maintained and does not contain significant amounts of sediment. In addition, the site will provide less than 20% impervious cover as the permanent BMP.

### <u>Attachment C – BMPs for On-site Stormwater</u>

The site is 704.25 acres and will have a total of 71.62 acres of impervious cover (10.17%) after the additional development proposed with this plan. Thus, the site will provide less than 20% impervious cover as the permanent BMP (as previously approved with other Southwestern University projects).

### Agent Authorization Form For Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999 Lenora C. Chapman Print Name Vice President for Finance and Administration Title - Owner/President/Other of <u>Southwestern Onversity</u> Corporation/Partnership/Entity Name have authorized \_\_\_\_\_ David Platt et al. Print Name of Agent/Engineer of Steger Bizzell 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

10/4/2023 Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Lentra C. Chapmarknown 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 4th day of October ,2023.

Latoya E. Junking Latoya E. Jenkins Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11-26-2026



# **Application Fee Form**

Texas Commission on Environmental Quality								
Name of Proposed Regulated Entit	y: <u>Southwestern Univ</u>	ersity SH29 & Maple Pa	arking Lot					
Regulated Entity Location: 1001 E.	University Ave, Georg	<u>setown, TX 78626</u>						
Name of Customer: Southwestern	<u>University</u>							
Contact Person: Lenora Chapman	Pho	ne: <u>512-863-1475</u>						
Customer Reference Number (if iss	sued):CN <u>600787329</u>							
Regulated Entity Reference Number	er (if issued):RN <u>N/A</u>							
Austin Regional Office (3373)								
Hays	🔀 Williamson							
Travis								
San Antonio Regional Office (3362	)							
Bexar	Medina	Uv	valde					
 Comal	 Kinney							
Application fees must be paid by cl	neck, certified check,	or money order, payab	le to the <b>Texas</b>					
<b>Commission on Environmental Quality</b> . Your canceled check will serve as your receipt. <b>This</b>								
form must be submitted with your fee payment. This payment is being submitted to:								
Austin Regional Office San Antonio Regional Office								
Mailed to: TCEQ - Cashier	Overnight Delivery to: TCEQ - Cashier							
Revenues Section	L2100 Park 35 Circle							
Mail Code 214	Building A, 3rd Floor							
P.O. Box 13088	/	Austin, TX 78753						
Austin, TX 78711-3088	(	512)239-0357						
Site Location (Check All That Apply	y):							
Recharge Zone	Contributing Zone	Transi	tion Zone					
Type of Plan		Size	Fee Due					
Water Pollution Abatement Plan, C	Contributing Zone							
Plan: One Single Family Residential	Acres	\$						
Water Pollution Abatement Plan, C								
Plan: Multiple Single Family Reside	Acres	\$						
Water Pollution Abatement Plan, C								
Plan: Non-residential	2.91 Acres	\$ 4,000.00						
Sewage Collection System	L.F.	\$						
Lift Stations without sewer lines	Acres	\$						
Underground or Aboveground Stor	Tanks	\$						
Piping System(s)(only)	Each	\$						
Exception	Each	\$						

Type of Plan	Size	Fee Due
Extension of Time	Each	\$

Signature:

Date: <u>2024-</u>06-28

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

#### **Organized Sewage Collection Systems and Modifications**

Project	Cost per Linear Foot	Minimum Fee- Maximum Fee	
Sewage Collection Systems	\$0.50	\$650 - \$6 <i>,</i> 500	

# Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

#### **Exception Requests**

Project	Fee
Exception Request	\$500

### Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



# **TCEQ Core Data Form**

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

### **SECTION I: General Information**

<b>1. Reason for Submission</b> ( <i>If other is checked please describe in space provided.</i> )								
New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)								
Renewal (Core Data Form should be submitted with the renewal form)       Other								
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in	3. Regulated Entity Reference Number (if issued)						
CN 600787329	Central Registry**	RN N/A						

### **SECTION II: Customer Information**

4. General Cu	4. General Customer Information 5. Effective Date for Customer Information Updates (mm/dd/yyyy)											
New Custor		_	pdate to Custom					nge in Regulated Ent	tity Own	ership		
Change in L	egal Name	(Verifiable with the ⊤e	xas Secretary of S	state or lex	xas Com	ptroll	er of Publi	c Accounts)				
The Custome	r Name sı	Ibmitted here may	be updated aut	omatical	ly base	d on	what is c	urrent and active	with th	ne Texas Sec	retary of State	
(SOS) or Texa	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 Nam	<b>ie</b> (If an individual, pri	nt last name first	: eg: Doe, J	ohn)			<u>If new Customer, </u>	enter pr	evious Custom	<u>er below:</u>	
Southwestern	University											
7. TX SOS/CP	A Filing N	umber	8. TX State Ta	<b>ix ID</b> (11 d	igits)			9. Federal Tax I	D	10. DUNS	Number (if	
0033266101			17412337960					(9 digits)		applicable)		
0033200101			17412337900					(5 digits)		N/A		
								741233796				
11. Type of C	11. Type of Customer:     Corporation     Individual     Partnership: General Limited								Individual Partne		ership: 🔲 General 🔲 Limited	
Government:	City 🗌 🤇	County 🗌 Federal 🗌	Local 🗌 State 🛛	Other			Sole Pi	roprietorship	🛛 Ot	her: Institutio	n	
12. Number of Employees       13. Independently Owned and Operated?												
0-20	□ 0-20 □ 21-100 🛛 101-250 □ 251-500 □ 501 and higher □ No											
14. Custome	r <b>Role</b> (Pro	posed or Actual) – <i>as i</i>	t relates to the R	egulated Er	ntity list	ed on	this form.	Please check one of	the follo	owing		
Owner		Operator	🗌 Own	er & Opera	tor			Other:				
Occupational Licensee Responsible Party VCP/BSA Applicant												
1001 E. University Ave												
Address:	City	Coorgotown		State	тх		ZIP	78626		ZIP + 4	N/A	
		Georgetown		State			211	78020		21F + 4		
16. Country I	Vailing Inf	<b>formation</b> (if outside	USA)			17.	E-Mail Ad	ddress (if applicable	e)			
N/A chapmanl@southwestern.edu												

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
( 512 ) 863-1475		( ) -

## **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 Nar	ne submitted	l may be updated, i	in order to mee	et TCEQ Cor	e Data Stan	dards (removal of o	rganization	al endings such
as Inc, LP, or LLC).								
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)								
Southwestern University SH29 & Maple Parking Lot								
23. Street Address of	1001 E. University Ave							
the Regulated Entity:								
(No PO Boxes)	City	Georgetown	State	ТХ	ZIP	78626	ZIP + 4	N/A
		Georgetown	Sidle		217	/0020	21F T 4	
24. County	Williamson							

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

25. Description to Northwest of the intersection at University Ave (SH-29) and Maple St.										
Physical Location:										
26. Nearest City						State	Nea	rest ZIP Code		
Georgetown TX 78626										
Latitude/Longitude are i used to supply coordinat	•	•	•		Standa	rds. (Geocoding of t	he Physical	Address may be		
27. Latitude (N) In Decim	nal:	30.634684		28. Longitude (W) In Decimal:			-97.668457			
Degrees	Minutes		Seconds	Degrees		Minutes	Minutes			
30		38	4.8624	-97 40				6.4452		
29. Primary SIC Code	30. Secondary SIC Code     31. Primary NAICS Code     32. Secondary NAICS Code						CS Code			
(4 digits)	(4 d	(4 digits)			(5 or 6 digits) (5 or 6			6 digits)		
7521	N/A			812930			N/A			
<b>33. What is the Primary Business of this entity?</b> (Do not repeat the SIC or NAICS description.)										
Institution										
1001 E. University Ave										
34. Mailing										
Address:	City	Georgetown	State	тх	ZIP	78626	ZIP + 4	0		
		Georgetown	State		211	70020	211 1 4			
35. E-Mail Address: chapmanl@southwestern.edu										
<b>36. Telephone Number37. Extension or Code38. Fax Number</b> (if applicable)										
( 512 ) 863-1475					(	) -				

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

Dam Safety	Districts	Edwards Aquifer	Emissions Inventory Air	Industrial Hazardous Waste
		11-00020402		
Municipal Solid Waste	New Source Review Air	OSSF	Petroleum Storage Tank	D PWS
Sludge	Storm Water	Title V Air	Tires	Used Oil
Voluntary Cleanup	U Wastewater	Wastewater Agriculture	Water Rights	Other:

### **SECTION IV: Preparer Information**

40. Name:	David Platt			41. Title:	Project Manager
42. Telephone Number 43. Ext./Code 44. Fax Number		45. E-Mail Address			
( 512 ) 930-9412		(N/A) -	dplatt@stege	erbizzell.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:	Steger Bizzell	Job Title:	lanager		
Name (In Print):	David Platt	-		Phone:	( 512 ) 930- <b>9412</b>
Signature:	LAND			Date:	2024-06-28