Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Georgetown Intersection Improvements – Wildwood Drive at Williams Drive						**2. Regulated Entity No.:**			
3. Customer Name: City of Georgetown						**4. Customer No.:**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			
9. Application Fee:	$500		**10. Permanent BMP(s):**			Grassy Swale			
11. SCS (Linear Ft.):	n/a		**12. AST/UST (No. Tanks):**			none			

13. County:	Williamson	14. Watershed:	San Gabriel Watershed

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	___
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 ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

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

	__San Antonio (SAWS) __Shavano Park				

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. Md Kamrul Islam, P.E.
Print Name of Customer/Authorized Agent 5/9/25
Signature of Customer/Authorized Agent Date

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

General Information Form

Texas Commission on Environmental Quality

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

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

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

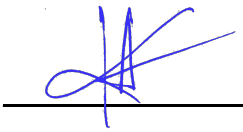
Signature

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

Print Name of Customer/Agent: Md Kamrul Islam, P.E.

Date: 05-15-2025

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Georgetown Intersection Improvements – Wildwood Drive at Williams Drive
2. County: Williamson
3. Stream Basin: Brazos River Basin
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☐ WPAP
   ☐ SCS
   ☐ Modification
   ☐ AST

☐ UST ☒ Exception Request

7. Customer (Applicant):

Contact Person: Dustin Clarkson
Entity: City of Georgetown
Mailing Address: 300-1 Industrial Ave.
City, State: Georgetown, TX Zip: 78626
Telephone: 512-930-8147 FAX: n/a
Email Address: dustin.clarkson@georgetown.org

8. Agent/Representative (If any):

Contact Person: Md Kamrul Islam, P.E
Entity: RPS Infrastructure, Inc.
Mailing Address: 4801 Southwest Pkwy, Pkwy 1, Suite 185
City, State: Austin, Texas Zip: 78735
Telephone: 210-299-7912 FAX: n/a
Email Address: kamrul.islam@tetratech.com

9. Project Location:

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

Intersection of Wildwood Drive at
Williams Drive

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

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

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

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

☒ Survey staking will be completed by this date: March 29, 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
☒ Impervious cover
☒ Permanent BMP(s)
☒ Proposed site use
☒ Site history
☒ Previous development
☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site
☐ Existing residential site
☒ Existing paved and/or unpaved roads
☐ Undeveloped (Cleared)
☒ Undeveloped (Undisturbed/Uncleared)
☐ Other: _____

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

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

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

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

WILDWOOD DRIVE @ WILLIAMS DRIVE
INTERSECTION IMPROVEMENTS

RPS

Texas PE Firm Reg. #F-929

4801 Southwest Pkwy, Pkwy 2, Suite 150, Austin, Texas 78735
T +1 512 328 5771 **E** usinfrastructure@rpsgroup.com

GEORGETOWN INTERSECTIONS
WILDWOOD DR @ WILLIAMS DR
SCENIC DR @ SH29

ATTACHMENT A
ROAD MAP

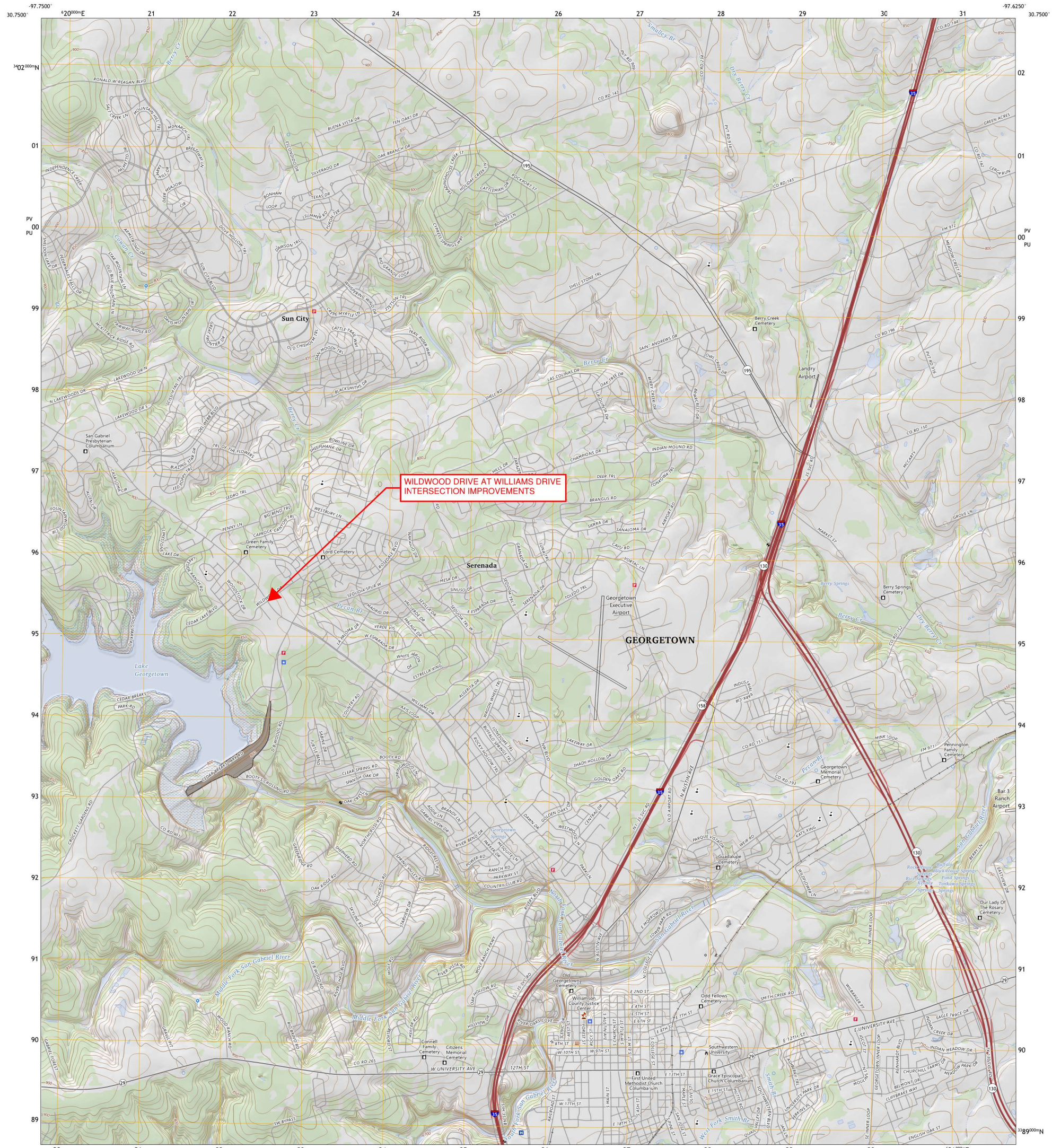
RPS Proj. No: 008289	Sheet 1 OF 1
Scale: 1"=1000'	
Date: 5/15/2025	

5/15/2025 7:22:06 PM
Projects\AUS-SP\008289 City of Georgetown Wildwood and Williams, Scenic and Hwy\07.00 CADD\Georgetown\01-Schematic-PER Exhibits\ROAD MAP_WPAP_WILDWOOD.dgn
RPS(tt) - Machera Maroa
ipiotdrvn.plt

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

The National Map
OnDemand Topo

GEORGETOWN QUADRANGLE
TEXAS - WILLIAMSON COUNTY
7.5-MINUTE TOPO

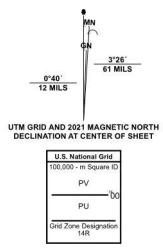


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov



UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
PV
00
PU
Grid Zone Designation
14R

SCALE 1:24 000

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

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

QUADRANGLE LOCATION

Florence	Cobbs Cavern	Jarrell
Leander NE	Georgetown	Weir
Leander	Round Rock	Hutto

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

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

GEORGETOWN, TX
2025

Attachment C – Project Description

Project Overview:

The proposed project involves intersection improvements at the intersection of Wildwood Dr and Williams Dr. The primary objective is to enhance traffic flow and safety by design and construction of a westbound right-turn lane on Wildwood Dr at Williams Dr. This project aims to facilitate smoother traffic movement and reduce congestion at this critical intersection.

Project Area:

The total project drainage area included in the plan is 0.64 acres. Of this area, 0.36 acres is attributed to off-site drainage, while 0.28 acres is on-site. The existing conditions indicate an overall predevelopment impervious area of 0.28 acres, which will increase to a total post-development impervious area of 0.32 acres, resulting in a 12.94% increase in impervious cover.

Existing Site Conditions:

The project site has been previously developed and currently includes two-lane roadway. The existing infrastructure is designed to accommodate traffic but requires enhancements to improve safety and efficiency. The project will involve minor modifications to the existing roadway layout to incorporate a new right-turn lane on Wildwood Dr at Williams Dr.

Proposed Improvements:

The proposed improvements will include:

- Construction of construction of a westbound right-turn lane on Wildwood Dr at Williams Dr.
- Grading of ditch into swale to collect and treat stormwater runoff before releasing it into existing SET.

Permanent Best Management Practices (BMPs):

To Runoff will be directed towards a grassy swale, which will serve as a natural filtration system. This swale will provide treatment through both filtration and infiltration processes before discharging into the existing storm sewer system via a safety end treatment (SET) located at the upstream side of the existing driveway.

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

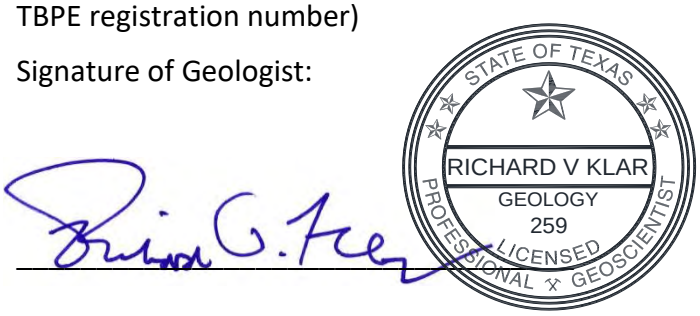
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Richard V. Klar, P.G. Telephone: 210-699-9090

Date: March 3, 2025 Fax: 210-699-6426

Representing: **Raba Kistner, Inc.**, TBPG Firm #50220 / TBPE Firm #3257 for RPS Infrastructure, Inc. on Behalf of the City of Georgetown (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



3/3/25

Regulated Entity Name: Georgetown Intersection Improvements – Wildwood Drive at Williams Drive

Project Information

1. Date(s) of Geologic Assessment was performed: May 18, 2023
2. Type of Project:

☒ WPAP ☐ AST

☐ SCS ☐ UST

3. Location of Project:

   ☒ Recharge Zone
   ☐ Transition Zone
   ☐ Contributing Zone within the Transition Zone

4. ☒ **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, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness (feet)
Eckrant extremely stony clay, 0 to 3 percent slopes (EeB)	D	~0 to 3
Georgetown stony clay loam, 1 to 3 percent slopes (GsB)	D	~0.5 to 3

**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 thickness 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. ☒ **Attachment C – Project 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 – Project Geologic Map(s).** The Project 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" = 100'
   Project Geologic Map Scale: 1" = 100'
   Site Soils Map Scale (if more than 1 soil type): 1" = 60'

9. Method of collecting positional data:

☒ Global Positioning System (GPS) technology.
☐ Other method(s). Please describe method of data collection: ___

10. ☒ The project site boundaries are clearly shown and labeled on the Project Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Project Geologic Map.

12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Project 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 2 (#) test holes present on the project site and the location is shown and and labeled. (Check all of the following that apply.)
- ☒ The test holes are not in use and have been properly abandoned.
- ☐ The well is not in use and will be properly abandoned.
- ☐ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

☒ 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.

ATTACHMENTS

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE
(TCEQ-0585-TABLE)

COMMENTS TO GEOLOGIC ASSESSMENT TABLE

SOIL PROFILE

PROJECT SOILS MAP

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: ***Georgetown Intersection Improvements, Wildwood Drive at Williams Drive Georgetown, Williamson County, Texas*** *(**RKI** Project No. ASF23-033-00)*

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-1	N30 41 07.64	W97 43 15.04	MB (W)	30	Ked	464.0	3.0-4.0	5.0-6.0					X	6	36	✓		✓		Hilltop
S-2	N30 41 08.99	W97 43 13.05	MB (COMM)	30	Ked	323.0	2.0	2.0-4.0					X	6	36	✓		✓		Hilltop
S-3	N30° 41' 09.93"	W97° 43' 11.18"	MB (PTH, P-1)	30	Ked	0.5	0.5	10					Z	5	35	✓		✓		Hilltop
S-4	N30° 41' 08.14"	W97° 43' 14.02"	MB (PTH. P-2)	30	Ked	0.5	0.5	10					Z	5	35	✓		✓		Hilltop

*** DATUM:** ***NAD83***

Formations: Ked = Edwards Limestone Formation

Features: W = Potable Water line; COMM = Communications line; PTH = Plugged Geotechnical Test Hole, test hole identifier

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

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials: ***Granular bedding materials for utility lines (Features S-1 and S-2)***
Z	***Soil cuttings and bentonite for geotechnical test holes (Features S-3 and S-4).***

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Natural Resource Conservation Commission's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC 213.

Date: ***March 3, 2025***

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

COMMENTS TO GEOLOGIC ASSESSMENT TABLE
Georgetown Intersection Improvements
Wildwood Drive at Williams Drive
Georgetown, Williamson County, Texas

The location of the following features are indicated on the ***Project Geologic Map*** provided as ***Attachment D*** of this report. The locations of the existing utilities were taken from the Intersection Layout of the 100% Design Submittal prepared by RPS Group, dated October 3, 2024, review of the City of Georgetown online Geographic Information System (GIS) interactive maps for utility information, in addition to field observations.

Manmade Features in Bedrock (MB)

Feature S-1

Feature S-1 consists of trenches for existing 30-inch and 8-inch potable water lines owned by the City of Georgetown. The locations of these utilities were identified based on review of the design plan (RPS, 2024) and and online interactive utility maps, https://georgetowntx.maps.arcgis.com/, in addition to field observations of paint markings and fire hydrants. On the basis of our observations and available utility information, it is inferred that the trenches hosting the utility lines are approximately 3-4 feet wide and installed to approximately 5-6 feet into the underlying Georgetown (Kgt) and Edwards Limestone (Ked) formations. The location of the 30-inch potable main water line trench is parallel to Williams Drive at its intersection with Wildwood Drive. The 8-inch potable line trench extends from the main line northeast along the right-of-way of Wildwood Drive. The combined length of the utility trenches within the Project area is estimated on the order of 464 linear feet.

Feature S-2

Feature S-2 consists of a trench for an existing communications line. The location of this utility was identified based on flaggings observed during reconnaissance activities. On the basis of our observations and available utility information, it is inferred that the trench hosting the utility line is approximately 2 feet wide and installed to approximately 2-4 feet into the underlying Kgt and Ked. The trench is located within the right-of–way for Wildwood Drive, parallel to the 7-Eleven parcel boundary. The length of the utility trench within the Project area is estimated on the order of 323 linear feet.

Features S-3 and S-4

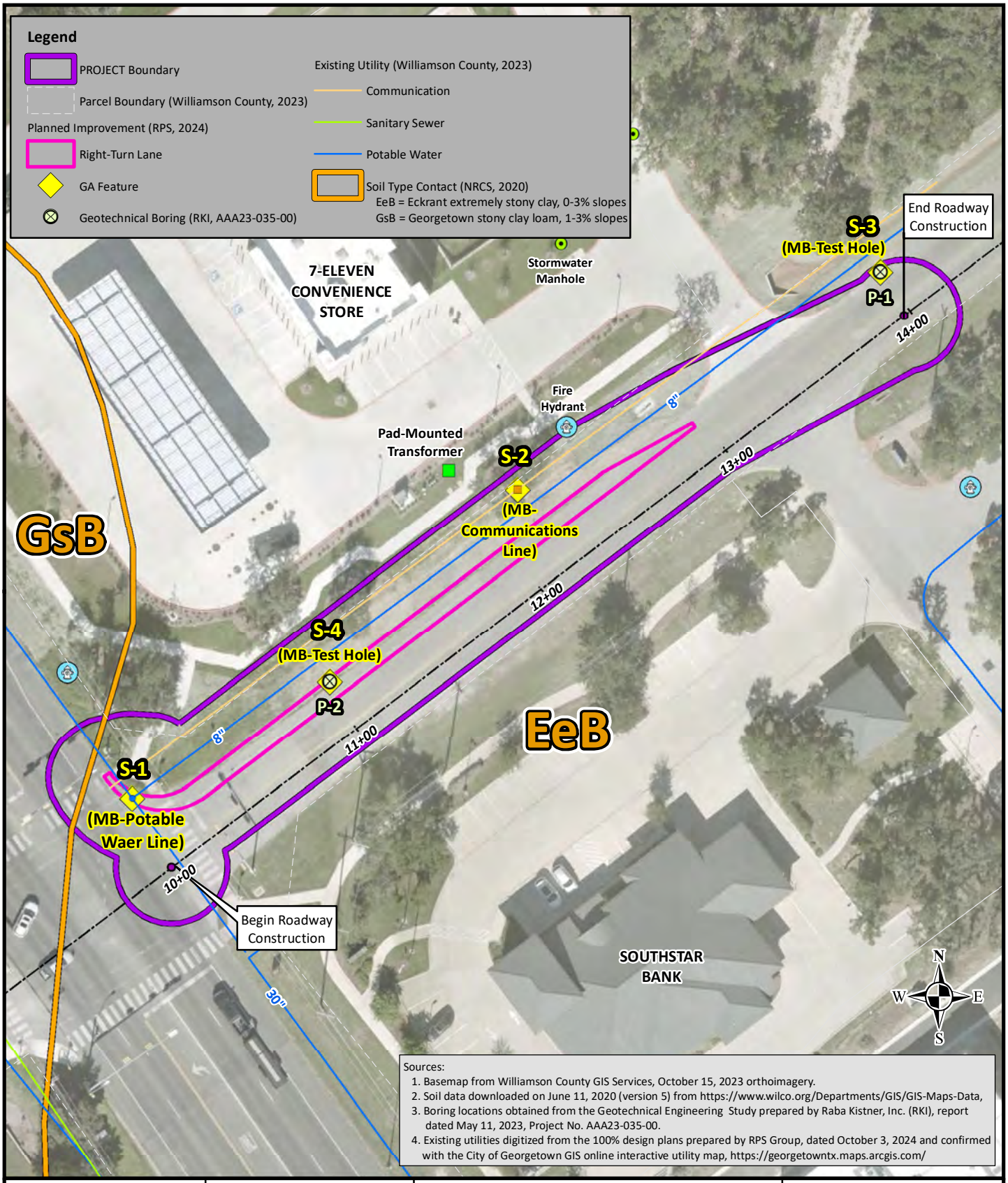
Features S-3 and S-4 consist of plugged geotechnical test holes installed by **Raba Kistner, Inc.** (**RKI**) on April 25, 2023 to evaluate soil conditions within the planned roadway improvements area. The borings were drilled to approximate depths of 10 feet below existing ground surface using a truck-mounted drilling rig. According to the geotechnical logging data, a dark brown clay with weathered limestone fragments was encountered from 1.25 feet to approximately 7 feet underlain by tan limestone comprising the Ked. Shallow groundwater was not observed during drilling operations. Based on the referenced geotechnical report and observations in conjunction with field reconnaissance activities, the test holes were backfilled with soil cuttings and bentonite, and capped with a cold-mix asphalt patch to match the adjacent pavement surface following completion of drilling activities.

SOIL PROFILE
Georgetown Intersection Improvements
Wildwood Drive at Williams Drive
Georgetown, Williamson County, Texas

SOIL SERIES	THICKNESS ON SITE	DESCRIPTION
Eckrant	**~0 to 3 feet**	***Eckrant stony clay, 0 to 3 percent slopes (EeB):*** Eckrant soils are nearly level to gently sloping found on broad ridges and in shallow valleys on uplands. The surface layer is a extremely stony, very day gray clay approximately 11 inches thick. The underlying material is indurated limestone. Approximately 25 percent of the surface is covered with limestone fragments. The soil is calcareous and moderately alkaline
Georgetown	**~0.5 to 3 feet**	***Georgetown stony clay loam, 1 to 3 percent slopes (GsB):*** Georgetown soils are gently sloping found on the higher parts of uplands. The surface layer is a slightly acidic brown stony clay loam approximately 7 inches thick with few to common stones on or near the surface. The subsoil layer extends to a depth of approximately 35 inches and consists of a neutral, reddish brown cobbly clay. The underlying material is indurated fractured limestone with clay loam in the crevices and fractures.

The preceding table was prepared based on *Soil Survey of Williamson County, Texas (January 1983)* in addition to field observations. As presented on the attached ***Project Geologic Map***, native soils mapped for the majority of the Project are classified as Eckrant stony clay, 1 to 3 percent slopes (EeB). A small area (0.015 acres) near the northwest portion of the Project is mapped as Georgetown stony clay loam, 1 to 3 percent slopes (GsB). EeB and GsB soils form in clay occurring over hard limestones units of the Edwards Limestone. These soils are well drained, with rapid surface runoff. Permeability is moderately slow, ranging on the order of 0.2 to 0.6 inches per hour, which has the ability to impede rather than transmit fluids to the subsurface. Native soils were not directly observable owing mainly to impervious cover and commercial development in the Project vicinity.

Test hole data reported in the *Geotechnical Engineering Study* prepared by **Raba Kistner, Inc**., dated May 12, 2023 indicates a minimum of 2 feet of dark brown clay soils overlying limestone within the Project area, which is generally consistent with the published soil information presented above.



Sources:

1. Basemap from Williamson County GIS Services, October 15, 2023 orthoimagery.
2. Soil data downloaded on June 11, 2020 (version 5) from https://www.wilco.org/Departments/GIS/GIS-Maps-Data,
3. Boring locations obtained from the Geotechnical Engineering Study prepared by Raba Kistner, Inc. (RKI), report dated May 11, 2023, Project No. AAA23-035-00.
4. Existing utilities digitized from the 100% design plans prepared by RPS Group, dated October 3, 2024 and confirmed with the City of Georgetown GIS online interactive utility map, https://georgetowntx.maps.arcgis.com/

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3/3/25

STATE OF TEXAS
RICHARD V. KLAR
GEOLOGY
259
LICENSED
PROFESSIONAL GEOSCIENTIST

PROJECT SOILS MAP

GEOLOGIC ASSESSMENT
GEORGETOWN INTERSECTION IMPROVEMENTS
WILDWOOD DRIVE AT WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS

PROJECT No.:	ASF23-033-00
ISSUE DATE:	3/3/2025
DRAWN BY:	LAW
CHECKED BY:	RAS
REVIEWED BY:	RVK

0 15 30 60 FEET

NOTE: This Drawing is Provided for Illustration Only, May Not be to Scale and is Not Suitable for Design or Construction Purposes

ATTACHMENT B

STRATIGRAPHIC COLUMN

ATTACHMENT C

NARRATIVE OF PROJECT SPECIFIC GEOLOGY

STRATIGRAPHIC COLUMN
Georgetown Intersection Improvements
Wildwood Drive at Williams Drive
Georgetown, Williamson County, Texas

STRATIGRAPHIC FORMATION	THICKNESS	DESCRIPTION
Georgetown Formation (Kgt)	60-110 feet	The Kgt is comprised of fossiliferous limestone, argillaceous limestone, and minor marl. The carbonate wackestones, packstones, and grainstones compose the upper unit of the Northern Edwards Aquifer. The Georgetown deposits thicken northwards from approximately 60 to 110 feet. The upper unit of the Northern Edwards aquifer consists of carbonate wacketstones, packstones, and grainstones. Fossil molds found in the Kgt are bivalves *Kingena wacoensis* and *Gryphaea washitaensis*. ***Not exposed at the Project owing to soil cover.***
Edwards Limestone (Ked)	90-~300 feet	The Ked is comprised of massive to thin-bedded limestone, dolomitic limestone, and minor argillaceous limestone that have wackestone, packstone, and grainstone textures. The lower part of the Edwards Formation interfingers with the Comanche Peak and Walnut strata. Vuggy textures, collapse breccias, cavern systems, chert, and local rudistids are characteristic of this unit. ***Not exposed at the Project owing to roadway improvements and soil cover.***

Note: Stratigraphic Column adapted from the Geologic Map of the West Half of the Taylor, Texas, 30 x 60 Minute Quadrangle: Central Texas Urban Corridor, Encompassing Round Rock, Georgetown, Salado, Briggs, Liberty Hill, and Leander Sheet (Collins, 2005).

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SITE GEOLOGY NARRATIVE
Georgetown Intersection Improvements
Wildwood Drive at Williams Drive
Georgetown, Williamson County, Texas

Introduction

The following is a project-specific discussion of existing geological conditions and potential recharge features for the Edwards Aquifer identified for the planned roadway intersection improvements area. The project site is located in Georgetown (Williamson County), Texas at the intersection of Williams Drive and Wildwood Drive. **Raba Kistner, Inc. (RKI)** understands that Project improvements will include the construction of a right turn lane (i.e., southwest bound) along the north side of Wildwood Drive, in addition to general roadway improvements.

This assessment was performed by **RKI** for RPS Infrastructure, Inc. (RPS) on behalf of the City of Georgetown, pursuant to applicable Edwards Aquifer Protection Program Rules as specified in *Title 30 of the Texas Administrative Code, Section 213 (30 TAC §213*, *effective April 24, 2008).* This assessment report is in the format required by the Texas Commission on Environmental Quality (TCEQ) for the Geologic Assessment portion of the referenced Water Pollution Abatement Plan (WPAP) submittal and was prepared in accordance with the revised *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (TCEQ-0585)*, which are applicable to submittals received by the TCEQ after October 1, 2004.

This geologic assessment (GA) report documents conditions observed by **RKI** on May 18, 2023 within the Project boundaries, which were defined to include a 25-foot buffer surrounding the planned improvements based on collaboration with RPS (hereinafter defined as Project).

Project Description

Project Location. The Project begins at the northeast corner at the intersection of Williams Drive and Wildwood Drive and extends approximately 400 feet to the northeast along Wildwood Drive. This area is primarily comprised of existing asphalt-paved roadway, in addition to drainage swale within the existing ROW north adjacent to Wildwood Drive. The Project is bounded to the north by a commercial property (i.e., 7-Eleven convenience store), southeastbound lanes of Williams Drive with commercial development (i.e., Chase Bank) to the west, Wildwood Drive and commercially-developed properties to the southwest (Bank of America), south Southstar Bank) and southeast (Life Storage), and vacant land to the northeast.

Based on review of official maps published by the Texas Commission on Environmental Quality (TCEQ), the SITE is fully located within the Edwards Aquifer Recharge Zone (EARZ). As such, the performance of a geologic assessment is required to facilitate planned WPAP construction activities in accordance with applicable provisions set forth in the EAPP rules as specified in *Title 30 of the Texas Administrative Code, Section 213 (30 TAC 213, effective April 24, 2008).*

Topography and Drainage. Topographic information for the Project was obtained from the *Georgetown, Texas Topographic Quadrangle Ma*p prepared by the United States Geological Survey (USGS, 2022) and 5-foot topographic contours obtained from the Texas Natural Resources Information System (TNRIS, 2015). The Project consists of gently-sloping hilltop topography with a maximum elevation of approximately 885 feet relative to mean sea level (MSL) at the southwest end and a minimum elevation of approximately 873 feet at the northwest end of the Project. As indicated by field observations and topographic contours presented on the ***Project Geologic Map***, the local surface drainage patterns are generally from the northwest following existing stormwater conveyances along Wildwood Drive to Pecan Branch Creek, with ultimate discharge to San Gabriel River. A review of the U.S. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), Map No. 48491C0290E indicates that no part of the Project is located within the designated 100-year floodplain.

Historical Property Use. Although research pertaining to past Project operations and historical land use activities was beyond the scope of this assessment, historical aerial imagery was reviewed to evaluate historical land use and the presence of lineations that could indicate the presence of normal faulting. The following aerial photographs from Google Earth™ were reviewed: 1995, 1997, 2002, 2003, 2005, 2006, 2008, 2009, 2011 through 2022.

The Project corridor has essentially been undeveloped, with the exception of the expansion of Williams Drive to two lanes and a sidewalk at the southwest end of the Project in 2011. Improvements to the surrounding properties were observed in the southwest corner of Williams Drive and Wildwood Drive (2003), to the south of Wildwood Drive (2006 and 2008), west of Williams Drive (2022), and north of the Project (2023). The current properties are depicted on the ***Project Geologic Map***.

Classification of Recharge Features: As further described herein, two manmade recharge features were identified within Project boundaries, which include a potable water line and a communications line. The significance of these features was assessed using definitions and guidance provided in *Instructions to Geologists (TCEQ-0585-Instructions, revised October 1, 2004)*. All features within the Project that met the criteria presented in this reference were mapped. The characteristics of all mapped features and the assessments of these features, as defined by the TCEQ, are presented in the attached ***Geologic Assessment Table (TCEQ-0585)***.

Stratigraphy

Based on our review of the *Geologic Atlas of Texas – Austin Sheet (Barnes, 1974, Revised 1981)*, the *Geologic Map of the West Half of the Taylor, Texas, 30 x 60 Minute Quadrangle: Central Texas Urban Corridor, Encompassing Round Rock, Georgetown, Salado, Briggs, Liberty Hill, and Leander* (Collins, 2005), and boring logs for adjacent plugged test holes (**RKI**, 2023), the majority of the Project is underlain by the

Edwards Limestone (Ked). The Georgetown Formation (Kgt), is mapped approximately 150 feet along the southwest end of the Project. These formations are further described as follows:

- The Kgt consists of fossiliferous and argillaceous limestones and minor marl. Vuggy porosity occurs within some beds but are not as common in the Georgetown rocks

- The Ked is comprised of limestone, dolomitic limestone, and argillaceous limestone. The Ked, which is the most porous and prolific part of the Edwards Aquifer thins northward from approximately 300 to 90 feet and is thinner than any other aquifer segment. The older Comanche Peak Formation and Walnut strata interfingers with the Ked rocks at depth.

RKI geotechnical boring logs describe a very stiff to hard dark brown clay at depths of approximately 2.5 to 3 feet, followed by a moderately hard, light tan decomposed limestone to 7 feet (i.e., at the southwest end of the Project), and then a hard, light tan fractured and weathered limestone with red inclusions to maximum boring termination depths of 10 feet. No exposures of limestone bedrock were observed within the Project or immediate vicinity.

Structure

This Project is located within the Balcones Fault Zone. This zone generally consists of a northeast-southwest trending, *en echelon* normal fault system, which juxtaposes Upper Cretaceous lithologies in the southeast with Lower Cretaceous lithologies in the northwest. As a result of this larger-scale regional faulting, minor internal fault sequences and fractures exist within this zone that follow the same structural trend and accommodate localized displacement.

Based on review of historical aerial photographs and published maps, no faults were mapped within the Project, and no evidence of faulting was observed during reconnaissance activities. The nearest mapped fault is located approximately 6 miles to the southeast from the project limit.

Manmade Features

As presented on the ***Project Geologic Map***, four manmade features were identified that may potentially serve to enhance the transmission of surface runoff to the subsurface. These features consist of a potable water and communications utility trenches and two plugged geotechnical test holes that meet the criteria for assessment as manmade features in bedrock. The location of the existing utility RPS and review of the City of Georgetown online Geographic Information System (GIS) interactive maps for utility information, https://georgetowntx.maps.arcgis.com/, in addition to field observations of water manways, fire hydrants, and paint markings.

Features S-1 and S-2 consist of utility trenches installed into the underlying bedrock of the Edwards Limestone. Although not directly observable, it is inferred that these subgrade trenches are backfilled in accordance with standard construction practices that include the use of structural fill soils (e.g., limestone gravel, compacted clay soils, etc.) overlain by native or fill soils. The trenches were not observed in conjunction with any naturally occurring recharge features. Although the backfilled trenches

may exhibit a somewhat greater relative infiltration rate than the surrounding soil/rock strata underlying the project boundaries, these manmade features are classified as not sensitive, having a low potential of preferentially transmitting fluids to the Edwards Aquifer. This classification is based upon the point assignment criteria presented in the ***Geologic Assessment Table (TCEQ-0585)*** and professional judgment.

Information regarding the locations of the geotechnical test holes was obtained from the referenced geotechnical engineering study **RKI** (2023). There were field indications of these plugged test holes. The following is a discussion of the features that were reported:

Features S-3 and S-4 consist of geotechnical borings reportedly installed to maximum total depths of approximately 10 feet. Borings reported encountering very stiff to hard dark brown clay soils that overlies a hard, tan weathered limestone consisting of the of the Edwards Limestone. These logging observations are consistent with mapped soil and rock types. No shallow groundwater was observed during drilling operations. These features are collectively classified as not sensitive as they have been plugged and no longer exist.

Potential for Fluid Migration to the Edwards Aquifer

Based on a review of SITE geology, topography and drainage conditions, and the results of our mapping efforts, the overall potential for direct fluid migration (i.e., surface-derived flow) to the Edwards Aquifer via infiltration is considered to be low. The following assessment findings support this conclusion:

- There were no naturally-occurring recharge features identified at the SITE that are attributed to karstification of the underlying limestone terrain. The majority of the SITE contains soil cover defined as Group D, which are described as having very low capacity to transmit infiltrating precipitation.
- No well-defined drainage channels or structural features exist on the Project that would serve to concentrate or focus recharge into the subsurface.
- Manmade features present at the Project (***Features S-1 through S-4***) are collectively classified as not sensitive based on consideration of typical construction details and application of point assignment criteria and professional judgment. Owing to soil cover and improvements, no exposures of the Kgt or Ked are present at the Project or surrounding properties.

References

Barnes, V. L., 1974 Reprinted 1981, Geologic Atlas of Texas Austin Sheet; Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas.

City of Georgetown GIS Utility Information, 2025, https://georgetowntx.maps.arcgis.com/, accessed February 24, 2025.

Collins, Edward W., 2005, Geologic Map of the West Half of the Taylor, Texas, 30 x 60 Minute Quadrangle: Central Texas Urban Corridor, Encompassing Round Rock, Georgetown, Salado, Briggs, Liberty Hill, and Leander: Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas.

Collins, E.W., Woodruff, C.M., and Tremblay, T.A., 2002, *Geologic Framework of the Northern Edwards Aquifer, Central Texas*, in *Gulf Coast Association of Geological Societies Transactions Vol 52 (2002), pp 135-137*.

Google Earth Pro, Version 7.3.6.9345. Aerial images: February 1995, December 1997, December 2002, November 2003, October 2005, April 2006, February 2008, November 2009, March 2011, August 2012, October 2013, October 2014, July 2015, February 2016, January 2017, January 2018, November 2019, March 2020, March 2021, January 2022, June and December 2023.

Jones, I., 2003, Groundwater Availability Modeling: Northern Segment of the Edwards Aquifer, Texas, Texas Water Development Board, Report 358, 83 pp.

National Flood Insurance Program, 2008, Flood Insurance Rate Map, Williamson County, Texas and Incorporated Areas; U.S. Federal Emergency Management Agency, Map 48491C0290E.

Raba Kistner, Inc. (**RKI**), 2023, Geotechnical Engineering Study, Project No. AAA23-035-00, May 12, 2023.

RPS Group (RPS), 2024, 008289 City of Georgetown Wildwood and Williams, Scenic and Hwy - 100%.pdf, October 3, 2024.

Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program, 1998, Edwards Aquifer Recharge Zone Map, Georgetown Quadrangle; TNRCC, September 1998.

Texas Natural Resources Information System (TNRIS), 2015, http://tnris.org/data-catalog/elevation-lidar/city-of-georgetown-2015-50-cm/r, downloaded May 1, 2017

Texas Water Development Board (TWDB), Water Data Interactive (WDI) Groundwater Data Viewer, https://www2.twdb.texas.gov/apps/WaterDataInteractive/GroundwaterDataViewer/?map=sdr, accessed February 24, 2025.

United States Geological Survey (USGS), 2013, Georgetown Quadrangle; USGS, Denver, Colorado.

United States Department of Agriculture (USDA), 1983, Soil Survey of Williamson County, Texas; USDA / Soil Conservation Service / Texas Agricultural Experiment Station.

United States Department of Agriculture (USDA), 1986, Urban Hydrology for Small Watersheds; USDA / Natural Resource Conservation Service, Technical Release (TR-55), June 1986.

ATTACHMENT D

FEATURE POSITION TABLE (GPS COORDINATES)

PROJECT GEOLOGIC MAP

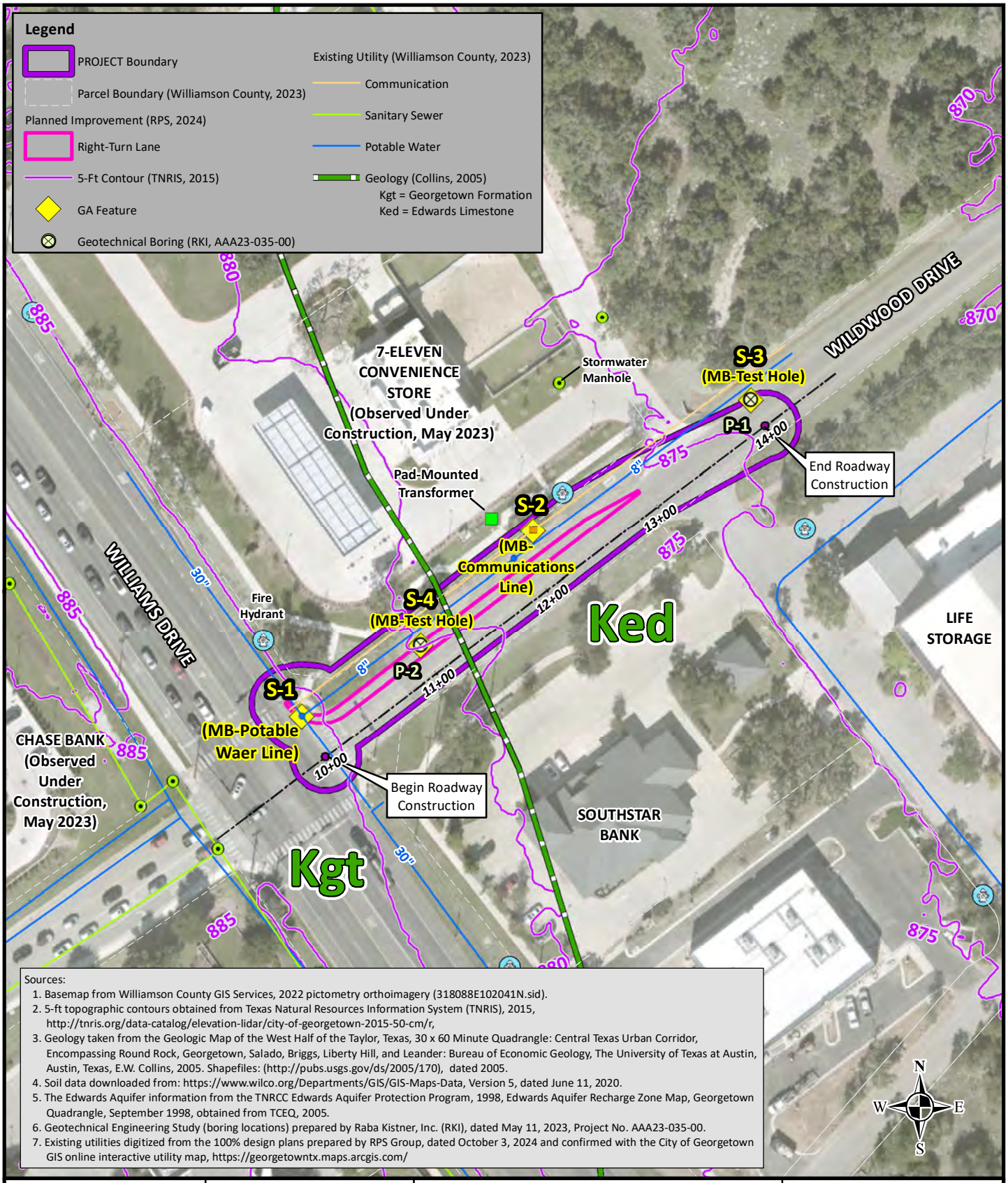
FEATURE POSITION TABLE

Georgetown Intersection Improvements
Wildwood Drive at Williams Drive
Georgetown, Williamson County, Texas
RKI Project No. ASF23-033-00

Feature Designation	Feature Type	Date Collected	North Latitude	West Longitude	UTM Northing (meters)	UTM Easting (meters)
S-1	Manmade feature in bedrock (Potable Water Line)	5/18/2023	N30 41 07.64	W97 43 15.04	3395441	622520
S-2	Manmade feature in bedrock (Communications Line)	5/18/2023	N30 41 08.99	W97 43 13.05	3395438	622572
S-3	Manmade feature in bedrock (Plugged Geotechnical Test Hole, P-1)	5/18/2023	N30° 41' 09.93"	W97° 43' 11.18"	3395513	622622
S-4	Manmade feature in bedrock (Plugged Geotechnical Test Hole, P-2)	5/18/2023	N30° 41' 08.14"	W97° 43' 14.02"	3395457	622547

NOTES:

1) Geographic coordinates are presented Degrees, Minutes, Decimal Seconds
2) Reference Datum is NAD 83
3) Data were collected utilizing a Garmin GPS 60cx Global Positioning System.
4) Horizontal Accuracy: RMS Value < 3 meter ground resolution
5) GPS data was collected by Rick Sample (**RKI** Project Professional).
6) GPS coordinates correlate to the points on the map for each feature.



Sources:

1. Basemap from Williamson County GIS Services, 2022 pictometry orthoimagery (318088E102041N.sid).
2. 5-ft topographic contours obtained from Texas Natural Resources Information System (TNRIS), 2015, http://tnris.org/data-catalog/elevation-lidar/city-of-georgetown-2015-50-cm/r,
3. Geology taken from the Geologic Map of the West Half of the Taylor, Texas, 30 x 60 Minute Quadrangle: Central Texas Urban Corridor, Encompassing Round Rock, Georgetown, Salado, Briggs, Liberty Hill, and Leander: Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas, E.W. Collins, 2005. Shapefiles: (http://pubs.usgs.gov/ds/2005/170), dated 2005.
4. Soil data downloaded from: https://www.wilco.org/Departments/GIS/GIS-Maps-Data, Version 5, dated June 11, 2020.
5. The Edwards Aquifer information from the TNRCC Edwards Aquifer Protection Program, 1998, Edwards Aquifer Recharge Zone Map, Georgetown Quadrangle, September 1998, obtained from TCEQ, 2005.
6. Geotechnical Engineering Study (boring locations) prepared by Raba Kistner, Inc. (RKI), dated May 11, 2023, Project No. AAA23-035-00.
7. Existing utilities digitized from the 100% design plans prepared by RPS Group, dated October 3, 2024 and confirmed with the City of Georgetown GIS online interactive utility map, https://georgetowntx.maps.arcgis.com/

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STATE OF TEXAS
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PROFESSIONAL GEOSCIENTIST
3/3/25

PROJECT GEOLOGIC MAP

GEOLOGIC ASSESSMENT
GEORGETOWN INTERSECTION IMPROVEMENTS
WILDWOOD DRIVE AT WILLIAMS DRIVE
GEORGETOWN, WILLIAMSON COUNTY, TEXAS

PROJECT No.:	ASF23-033-00
ISSUE DATE:	3/3/2025
DRAWN BY:	LAW
CHECKED BY:	RAS
REVIEWED BY:	RVK

0 25 50 100 FEET

NOTE: This Drawing is Provided for Illustration Only, May Not be to Scale and is Not Suitable for Design or Construction Purposes

Recharge and Transition Zone Exception Request Form

Texas Commission on Environmental Quality
30 TAC §213.9 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 **Recharge and Transition Zone Exception Request Form** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Md Kamrul Islam, P.E.
Date: 05-09-2025
Signature of Customer/Agent:

Regulated Entity Name: Intersection Improvements – Wildwood Drive at Williams Drive

Exception Request

1. ☒ **Attachment A - Nature of Exception**. A narrative description of the nature of each exception requested is attached. All provisions of 30 TAC §213 Subchapter A for which an exception is being requested have been identified in the description.
2. ☒ **Attachment B - Documentation of Equivalent Water Quality Protection**. Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is attached.

Administrative Information

3. ☒ 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.
4. ☒ The applicant understands that no exception will be granted for a prohibited activity in Chapter 213.
5. ☒ The applicant understands that prior approval under this section must be obtained from the executive director for the exception to be authorized.

Attachment A – Nature of Exception

Narrative for Exception Request: Wildwood Drive and Williams Drive Intersection

Project Overview:

The proposed project involves intersection improvements at the intersection of Wildwood Drive and Williams Drive, aimed at enhancing traffic flow and safety by constructing a westbound right-turn lane on Wildwood Drive. The project site has been previously developed as part of a larger corridor, and the enhancements will involve minor modifications only at the intersection.

Proposed Changes:

The total project drainage area included in the plan is 0.64 acres, with a predevelopment impervious area of 0.28 acres. The project will add a westbound right-turn lane on Wildwood Drive at Williams Drive, leading to a negligible increase in impervious cover. The transition from 0.28 acres to a total post-development impervious area of 0.32 acres represents a 12.94% increase, which is minor and will not adversely affect stormwater management or groundwater recharge.

Justification for Exception:

- **Negligible Impact**: The 12.94% increase in impervious cover at this drainage area is minimal relative to the Williams Dr corridor and will not lead to significant adverse effects on stormwater runoff or groundwater recharge.
- **Water Quality Protection**: To ensure that water quality is adequately protected, the project will implement Best Management Practices (BMPs). Runoff will be directed towards a grassy swale, which will serve as a natural filtration system. This swale will provide treatment through both filtration and infiltration processes before discharging into the existing storm sewer system via a safety end treatment (SET).
- **Appropriateness of Exception Request**: Given that the site has been previously developed and the proposed changes involve a negligible increase in impervious cover, this exception request aligns with the conditions outlined in the Edwards Aquifer rules.

Attachment B: Documentation of Equivalent Water Quality Protection

Project Overview

The project aims to enhance traffic flow and safety by adding northbound and southbound right-turn lanes at the intersection.

Existing Conditions

- Total project area included in the plan: 1.83 acres.
- Predevelopment impervious area: 1.42 acres
- Total post-development impervious area: 1.48 acres
- Net Increase in Impervious cover: 0.06
- This results in a 4.28% increase in impervious cover.

Proposed Changes

The project will introduce additional pavement, leading to a negligible increase in impervious cover. The transition from 1.42 acres to 1.48 acres of impervious area is minor and will not adversely affect stormwater management or groundwater recharge.

Best Management Practices (BMPs)

A Stormceptor unit will treat stormwater runoff collected from the project area and the offsite area, utilizing sedimentation and filtration to remove pollutants before discharging treated water into the existing storm sewer system.

Per the TCEQ Technical Guidance Manual, the required TSS removal for the total project is calculated as follows:

- $L_M = 27 \cdot (A_N \times P)$
  - $L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development
  - A_N = Net increase in impervious area for the project
  - P = Average annual precipitation = 32 inches
- $L_{M\ TOTAL\ PROJECT}$ = 53 Lbs

- Required TSS Removal in BMP Drainage Area: 26.88 lbs
- TSS Removal for Uncaptured Area (Impervious Cover Overtreatment): 28.70 lbs
- Total TSS Treatment by BMP = LM+TSS Uncaptured
    - Total TSS Treatment = 55.58 lbs

The proposed project aligns with the intent of the Edwards Aquifer rules by implementing effective BMPs that ensure water quality is protected, thereby justifying the exception request.

Monitoring and Maintenance Plan

The Stormceptor unit will undergo regular inspections and maintenance to ensure its effectiveness in treating stormwater runoff. Maintenance activities will include sediment removal and system checks to confirm operational efficiency.

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.

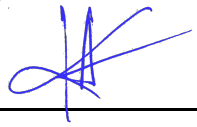
Signature

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: Md Kamrul Islam, P.E.

Date: 05/14/2025

Signature of Customer/Agent:



Regulated Entity Name: Intersection Improvements – Wildwood Drive at Williams Drive

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment A - Spill Response Actions

This project will prioritize spill prevention through comprehensive worker training on potential hazards, strict adherence to Material Safety Data Sheets (MSDS) for all on-site materials, and the provision of appropriate Personal Protective Equipment (PPE). While on-site storage of hazardous substances is prohibited, the operation of construction equipment necessitates careful handling of fuels, lubricants, and potential paving materials. In the event of a spill, immediate containment and cleanup procedures as outlined in the MSDS will be enacted, with prompt notification of the designated project Spill Coordinator and relevant authorities. Contaminated materials will be properly disposed of at an approved facility, ensuring compliance with all applicable local, state, and federal regulations. All appropriate authorities will be notified as soon as a spill is discovered. The emergency response phone number for the State of Texas Spill-Reporting Hotline is 1-800-832-8224.

Attachment B - Potential Sources of Contamination

This intersection improvement project involves various construction activities that present potential sources of contamination. These sources can be broadly categorized into sediment-related and non-sediment-related issues. Sediment-related contamination includes clearing and grading, where the initial phases of construction will disturb existing soil, leading to potential sediment runoff during rainfall events. Excavation for curb and gutter installation, sidewalk construction, and utility relocation will further expose soil, increasing the risk of erosion. Vehicle tracking is another concern, as construction equipment and delivery vehicles can track sediment onto paved surfaces, which can then be washed into storm drains. Non-sediment-related contamination involves fuel and lubricants, where the operation and maintenance of construction equipment pose a risk of spills or leaks of diesel fuel, gasoline, hydraulic fluids, and motor oil. Paving materials such as asphalt paving operations may release asphaltic materials and solvents. Concrete operations, including concrete mixing and pouring, can introduce concrete fines and additives. To minimize these potential sources of contamination, the contractor will implement erosion and sediment control measures, including silt fences, temporary sediment traps, and stabilized construction entrances. Regular equipment maintenance will be conducted to prevent leaks and spills. Proper handling and storage of materials will be enforced, and spill response equipment will be readily available on-site. As outlined in Attachment A, in the event of a spill, all steps will be taken to contain and clean the area.

Attachment C - Sequence of Construction

This attachment outlines the sequence of major construction activities for the intersection improvements.

- **Traffic Control and Site Preparation:**
  - Installation of temporary traffic control devices and signage.
  - Establishment of construction entrances and exits.
  - Installation of initial erosion and sediment control measures (e.g., silt fence, construction exits).
- **Clearing and Grubbing:**
  - Removal of existing vegetation, including trees, shrubs, and grass, within the construction limits.
  - Stripping and stockpiling of topsoil for later use in restoration.
- **Excavation and Grading:**
  - Excavation for the new right-turn lanes, curb and gutter, and sidewalk.
  - Rough grading to establish the proposed roadway alignment and drainage patterns.
  - Compaction of subgrade as required.
- **Storm Sewer System Installation**
  - Excavate and install the Stormceptor®, storm sewer pipe, curb inlet, and the outfall structure.
  - Ensure all components are properly connected and set to design elevations.
  - Stabilize disturbed areas around all drainage infrastructure.
- **Curb and Gutter and Sidewalk Construction:**
  - Forming and pouring of concrete curb and gutter.
  - Construction of new sidewalk sections.
- **Pavement Construction:**
  - Placement of base course materials.
  - Paving of the new right-turn lane with asphalt.
  - Placement of pavement markings.
- **Final Grading and Restoration:**
  - Final grading of the site to ensure proper drainage.
  - Placement of topsoil and seeding/sodding in disturbed areas.
  - Removal of temporary erosion and sediment control measures after site stabilization.
  - Final site cleanup and demobilization.

For each activity, appropriate temporary erosion and sediment control measures will be implemented and maintained throughout the construction process. The general timing of these measures will coincide with the commencement of each activity and will remain in place until final site stabilization is achieved.

Attachment D - Temporary Best Management Practices and Measures

The following Temporary Best Management Practices (BMPs) and measures will be implemented to prevent pollution of surface water, groundwater, and stormwater during construction of this project.

a. Prevention of Pollution from Upgradient Sources:
   - **Description:** The project site is located in a developed area. Upgradient sources of potential pollutants may include runoff from adjacent roadways and properties.
   - **BMPs and Measures:**
     - Sediment fences will be installed along the upgradient perimeter of the site to intercept and filter runoff from these areas.
     - Existing drainage patterns will be maintained to the extent practicable to minimize the concentration of runoff onto the site.

b. Prevention of Pollution from On-Site or Off-Site Flows:
   - **Description:** Construction activities will disturb soil, creating the potential for sediment-laden runoff. Potential pollutants include sediment, fuels, and lubricants.
   - **BMPs and Measures:**
     - Temporary sediment fences and construction exits will be installed to control sediment runoff.
     - Disturbed areas will be stabilized with temporary seeding and mulching.
     - Spill prevention and control measures will be implemented to prevent the release of fuels and lubricants.
     - Proper waste management practices will be followed.
     - The site will be graded to direct runoff to stabilized outlets.

c. Prevention of Pollutants from Entering Surface Streams, Sensitive Features, or the Aquifer:
   - **Description:** There are no surface streams or sensitive features located within the immediate project area.
   - **BMPs and Measures:**
     - Erosion and sediment control measures will be implemented to prevent pollutants from leaving the site and entering downstream waters.
     - The Edwards Aquifer is located within the region, and therefore all precautions will be taken to prevent any pollutants from entering the aquifer.

d. Maintenance of Flow to Naturally Occurring Sensitive Features:

- **Description:** There are no naturally occurring sensitive features within the project area that require the maintenance of flow.
- **BMPs and Measures:**
    - Existing drainage patterns will be maintained to the extent practicable.

e. Additional Information:
    - All BMPs will be inspected and maintained regularly.
    - The construction contractor will be responsible for implementing and maintaining all BMPs.
    - This plan is based on the attached plans and TxDOT standards.

Attachment F - Structural Practices

This attachment outlines the structural practices implemented to manage runoff and minimize erosion during the construction of this project.

a. Perimeter Sediment Control: - A system of sediment control fence will be installed along the perimeter of the disturbed areas to intercept and divert runoff. This will prevent sediment-laden water from leaving the site and impacting surrounding areas. The fence will also provide localized storage by temporarily ponding runoff, allowing sediment to settle out.
b. Localized Erosion Control & Site Stabilization: - Localized erosion control measures will be strategically placed to minimize soil disturbance and prevent erosion within the construction footprint. Site stabilization techniques, such as temporary seeding and mulching, will be employed to protect exposed soils from erosion and establish a protective cover.
c. Runoff Management & Limitation of Discharge: - Runoff will be managed through strategically placed controls to slow down and filter water before it leaves the site. These controls, including the sediment control fence, will act as barriers, promoting sedimentation and limiting the discharge of pollutants.
d. Floodplain Protection: - All structural practices will be implemented outside of designated floodplain areas to avoid any potential impacts.
e. Ongoing Monitoring and Maintenance: - Regular inspections and maintenance will be conducted to ensure the effectiveness of all structural practices throughout the construction period.
f. Contractor Responsibility: - The construction contractor will be responsible for the proper installation, maintenance, and removal of all structural practices.

Attachment I - Inspection and Maintenance for BMPs

This attachment outlines the maintenance procedures for the temporary Best Management Practices (BMPs) implemented for erosion and sediment control during the construction of this project.

a. Sediment Fence Maintenance
   - **Frequency:** Sediment fences will be inspected:
     - Weekly
     - After each rainfall event of 0.5 inches or greater
     - At a minimum of every 14 days
   - **Procedure:**
     - Inspect fence fabric for tears, sags, or deterioration. Repair or replace damaged sections immediately.
     - Check fence posts for stability. Reset or replace posts as needed.
     - Remove accumulated sediment when it reaches 1/3 to 1/2 of the fence height.
     - Ensure that the bottom of the fence remains properly trenched and anchored.
     - Dispose of removed sediment in a suitable location where it will not erode.

b. Construction Exit Maintenance
   - **Frequency:** Construction exits will be inspected:
     - Daily
     - After significant rainfall events
   - **Procedure:**
     - Maintain the aggregate pad to ensure it is clean and free of sediment buildup.
     - Add new aggregate as needed to maintain the required depth and prevent tracking of sediment off-site.
     - Remove any sediment that is tracked onto public roads.
     - Repair any damage to the exit, such as rutting or displacement of aggregate.

c. Temporary Seeding and Soil Stabilization Maintenance
   - **Frequency:** Seeded and mulched areas will be inspected:
     - Weekly
     - After rainfall events
   - **Procedure:**
     - Check for erosion and re-seed or re-mulch as necessary.
     - Repair any rills or gullies that develop.
     - Ensure that vegetation is established and healthy.

d. General BMP Maintenance
    - **Frequency:** All temporary BMPs will be inspected:
        - Weekly
        - After significant rainfall events
    - **Procedure:**
        - Ensure that all BMPs are functioning as intended.
        - Repair or replace any damaged or ineffective BMPs.
        - Remove any accumulated debris or sediment that may be impairing BMP performance.

e. Record Keeping
    - Detailed records of all inspections and maintenance activities will be maintained on-site.
    - These records will include the date of inspection, the condition of the BMPs, and any maintenance performed.

f. Contractor Responsibility
    - The construction contractor will be responsible for the proper maintenance of all temporary BMPs throughout the construction period.

Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

This attachment details the schedule for both interim and permanent soil stabilization. Interim stabilization, encompassing temporary measures like seeding, mulching, and erosion control blankets, will be implemented as soon as practicable following the temporary or permanent cessation of construction activities in any area, ensuring stabilization occurs within seven days. Permanent stabilization, including final grading, topsoil placement, and the establishment of permanent vegetation, will commence promptly after final grading is completed. Records documenting the dates of major grading, activity cessation, and stabilization initiation will be maintained on-site. The construction contractor is responsible for the implementation and upkeep of all soil stabilization practices throughout the project.

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.

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Signature

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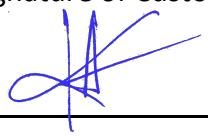
Print Name of Customer/Agent: Md Kamrul Islam, P.E

Date: 05/15/2025

Signature of Customer/Agent



Regulated Entity Name: Intersection Improvements – Wildwood Drive at Williams Drive

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

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

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

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

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

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

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

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

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

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

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

☒ N/A

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

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

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

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

☒ Design calculations (TSS removal calculations)

☐ TCEQ construction notes

☐ All geologic features

☐ All proposed structural BMP(s) plans and specifications

☐ N/A

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

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

    ☒ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☐ N/A

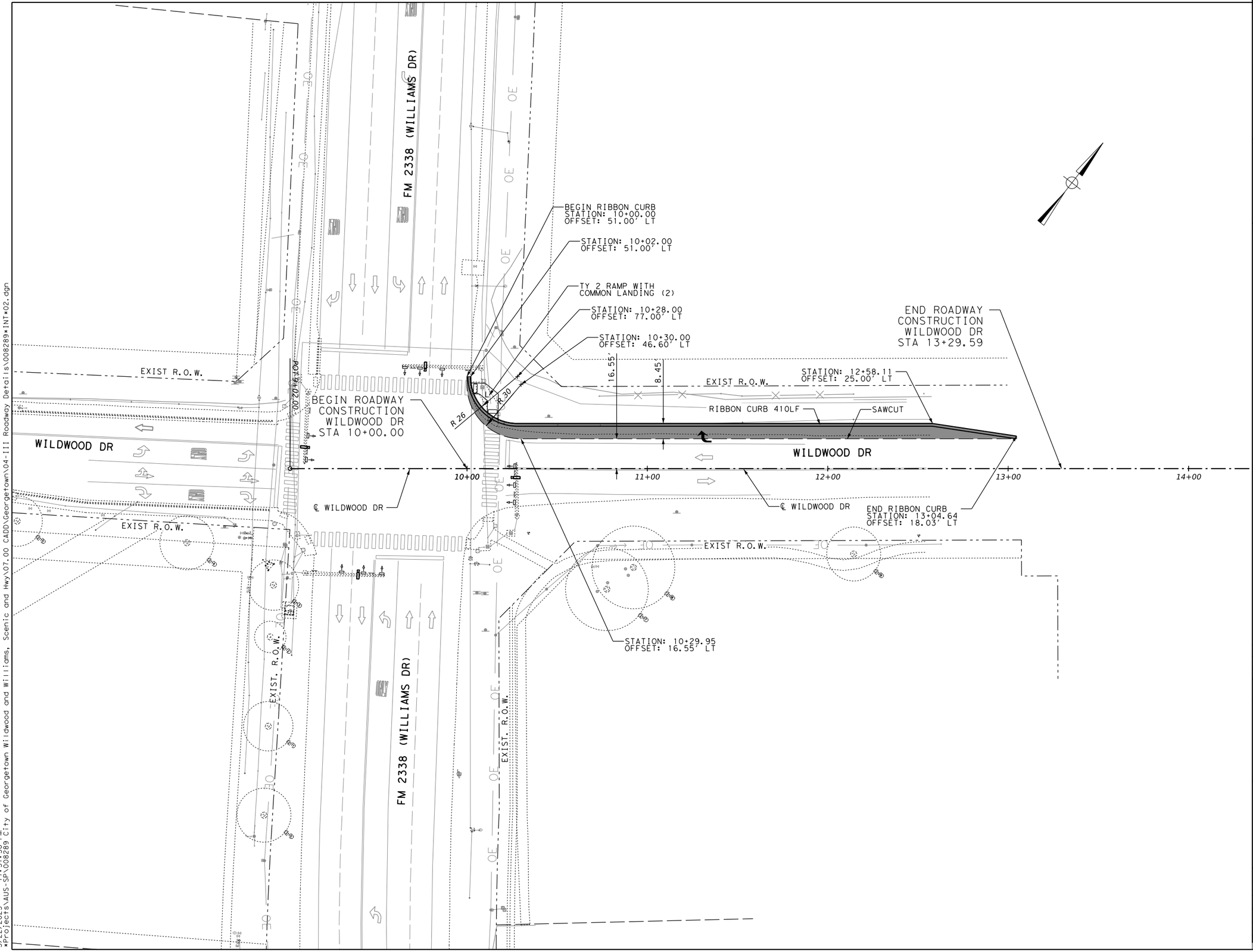
Attachment C – BMP for on-site Stormwater

To effectively manage stormwater runoff at the intersection of Wildwood Drive and Williams Drive, a Best Management Practice (BMP) has been implemented. Stormwater generated from the proposed westbound right-turn lane, along with runoff from the surrounding areas, will be directed towards a grassy swale. This swale will serve as a natural filtration system, allowing for both filtration and infiltration of stormwater.

The grassy swale will capture and treat the runoff before it is discharged into the existing storm sewer system via a safety end treatment (SET) located at the upstream side of the existing driveway. This approach will enhance water quality by removing pollutants and sediments from the stormwater, ensuring compliance with water quality standards. The grassy swale will serve as a permanent BMP for this intersection improvement project.

Attachment F – Construction Plans

The construction plans are attached on the following pages.



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GEORGETOWN
TEXAS

RPS Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 1, Suite 185, Austin, Texas 78735
T +1 512 328 5771 E usinfrastructure@rpsgroup.com

LEGEND

- EXIST. R.O.W.
- SIDEWALK EASEMENT
- PROPERTY LINE
- PROP. WIDENING
- EXIST. TRAFFIC FLOW
- PROP. TRAFFIC FLOW

NOTES:

1. VERIFY ALL EXISTING UTILITIES BEFORE BEGINNING ANY TYPE OF WORK.

SCALE: 1" = 50'
0 25 50

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
MD KAMRUL ISLAM
126996
LICENSED
PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS

INTERSECTION LAYOUT

WILDWOOD DR @ WILLIAMS DR

RPS Project No	008289		
CSJ#	CSJ 0337-01-054		
Client I.D.	CITY OF GEORGETOWN		
Drawn By	PM	Checked By	
Scale	1"= 50'	Sheet	Sheet No.
Date	5/22/2025	1 OF 1	31

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T +1 512 328 5771 E usinfrastructure@rpsgroup.com

LEGEND

- X-X / XX — DRAINAGE AREA I.D. / DRAINAGE AREA IN ACRES
- FLOW DIRECTION
- DRAINAGE AREA BOUNDARY
- EXISTING R.O.W.
- PROP. SIDEWALK EASEMENT
- EXIST. 1' CONTOUR
- EXIST. 5' CONTOUR

NOTES:

1. CONTOURS SHOWN ARE EXISTING.
2. REFER TO HYDRAULIC CALCULATION SHEET FOR MORE INFORMATION.

SCALE: 1" = 100'
0 50 100

REV	DESCRIPTION	BY	DATE

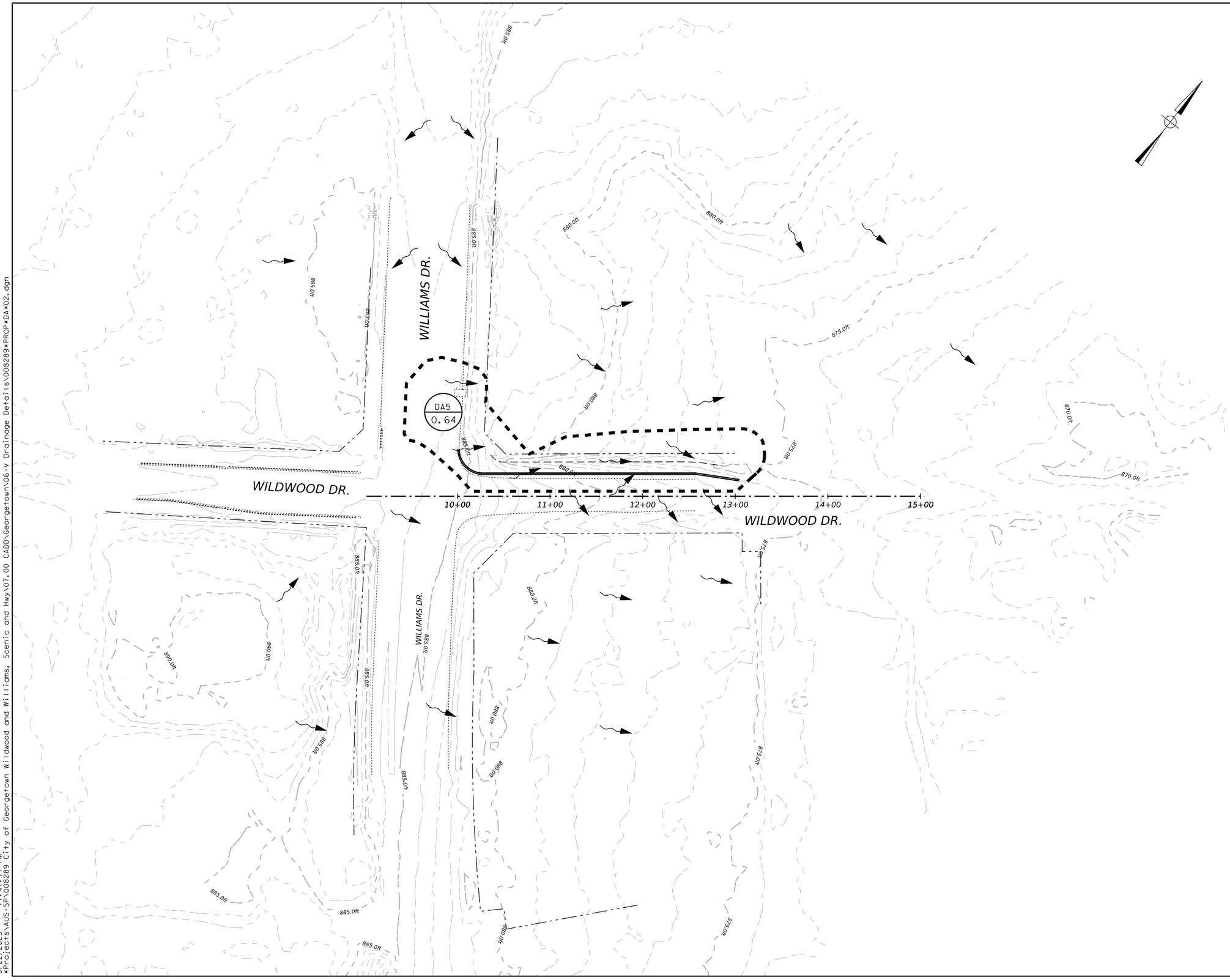
STATE OF TEXAS
MD KAMRUL ISLAM
126996
LICENSED
PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS

EXISTING OVERALL DRAINAGE AREA MAP

WILDWOOD DR @ WILLIAMS DR

RPS Project No	008289		
CSJ#	CSJ 0337-01-054		
Client I.D.	CITY OF GEORGETOWN		
Drawn By	PM	Checked By	
Scale	1"= 100'	Sheet	Sheet No.
Date	5/22/2025	1 OF 1	37



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*Projects\AUS_SP\008289 City of Georgetown Wildwood and Williams, Scenic and Hwy\07.00 CADD\Georgetown\06-V Drainage Details\008289*PROP*DA*02.dgn

EST. 1848
GEORGETOWN
TEXAS

rps
Texas PE Firm Reg. #F-929
4801 Southwest Pkwy, Pkwy 1, Suite 185, Austin, Texas 78735
T +1 512 328 5771 E usinfrastructure@rpsgroup.com

LEGEND

- X-X / XX — DRAINAGE AREA I.D. / DRAINAGE AREA IN ACRES
- FLOW DIRECTION
- DRAINAGE AREA BOUNDARY
- EXISTING R.O.W.
- PROP. SIDEWALK EASEMENT
- EXIST. 1' CONTOUR
- EXIST. 5' CONTOUR

NOTES:

1. CONTOURS SHOWN ARE EXISTING.
2. REFER TO HYDRAULIC CALCULATION SHEET FOR MORE INFORMATION.

SCALE: 1" = 100'
0 50 100

REV	DESCRIPTION	BY	DATE

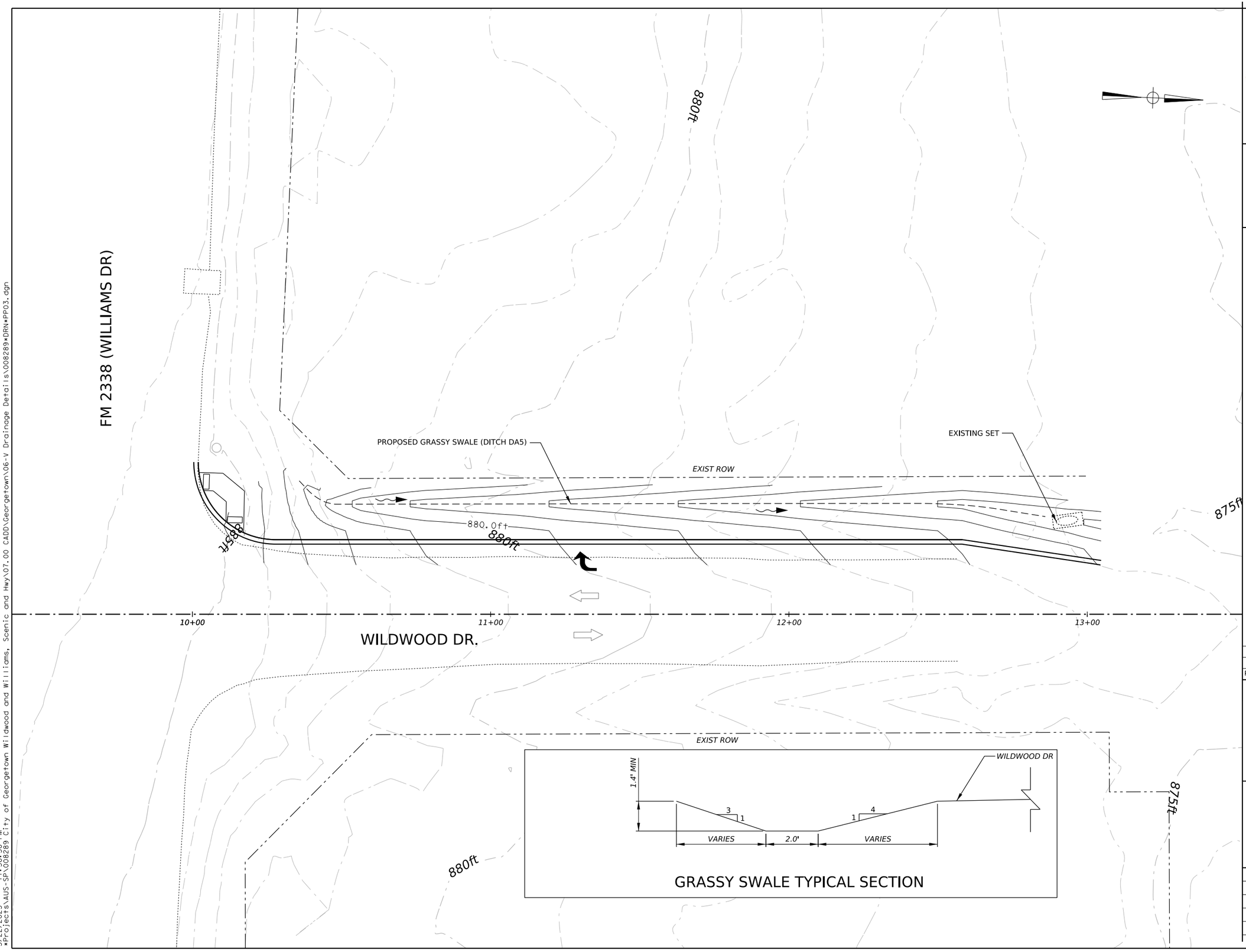
STATE OF TEXAS
MD KAMRUL ISLAM
126996
LICENSED
PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS

PROPOSED OVERALL DRAINAGE AREA MAP

WILDWOOD DR @ WILLIAMS DR

RPS Project No	008289		
CSJ#	CSJ 0337-01-054		
Client I.D.	CITY OF GEORGETOWN		
Drawn By	PM	Checked By	
Scale	1"= 100'	Sheet	Sheet No.
Date	5/22/2025	1 OF 1	39



GRASSY SWALE TYPICAL SECTION

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LEGEND

- EXIST ROW
- PROP. SIDEWALK EASEMENT
- FLOW DIRECTION
- DITCH ℄
- PROPERTY LINE
- EXIST. 1′ CONTOUR
- EXIST. 5′ CONTOUR

NOTES:

1. VERIFY ALL EXISTING UTILITIES BEFORE BEGINNING ANY TYPE OF WORK.
2. MANNING'S N VALUE OF 0.2 REQUIREMENT FOR GRASSY SWALE: INSTALL VEGETATION TO ACHIEVE 50-90% VEGETATED GROUND COVER, WITH THE REMAINING AREA CONSISTING OF BARE SOIL OR ROCK OUTCROPS AND MINIMUM TO MEDIUM BRUSH OR TREE COVER AS APPROPRIATE.
3. GRASSY SWALE SPECIES SELECTION: UTILIZE NATIVE PLANT SPECIES RECOMMENDED BY THE CITY OF GEORGETOWN DRAINAGE CRITERIA MANUAL TO ENSURE COMPLIANCE AND SUSTAINABILITY.

SCALE: 1" = 30′
15 0 15

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
MD KAMRUL ISLAM
126996
LICENSED
PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS

DRAINAGE LAYOUT

WILDWOOD DR @ WILLIAMS DR

RPS Project No	008289		
CSJ#	CSJ 0337-01-054		
Client I.D.	CITY OF GEORGETOWN		
Drawn By	PM	Checked By	
Scale		Sheet	Sheet No.
Date	5/22/2025	1 OF 1	42

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*Projects\AUS-SP\008289 City of Georgetown Wildwood and Williams, Scenic and Hwy\07.00 CADD\Georgetown\06-V Drainage Details\008289*DRN*PP03.dgn

SCENIC DR @SH29 25-YEAR INLET HYDRAULIC DATA

Node ID (Label)	Baseline Station (ft)	Baseline Offset (ft)	Type (Inlet)	Profile Type (Inlet Location)	Flow (Local from Inflow Collection) (cfs)	Total Rational Flow to Inlet (cfs)	Computed Ponded Width (Spread / Top Width) (ft)	Inlet Allowable Ponded Width (Spread / Top Width) (ft)	Longitudinal Slope (%)	Road Cross Slope (%)	Gutter Width (ft)	Curb Opening Length (ft)	Gutter Cross Slope (%)	Bypass to Node (Bypass Target)	Inlet Bypass Flow (Bypassed Rational Flow) (cfs)	Inlet Computed Ponded Depth (Depth Gutter) (ft)	Inlet Allowable Ponded Depth (Depth Gutter) (ft)
1043	DA1_CI	11+37	22.3	FTW I-CO(10'x3')6"curb	On Grade	2.54	2.54	5.10	2.03	2.00	1.30	10.00	25.00		0.00	4.91	6.00
1095	EXIST_DA1_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	9.45	7.99	11.40	2.50	2.00	1.30	10.00	25.00		1.45	6.41	6.00
1097	EXIST_DA2_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	5.62	5.46	7.40	3.96	2.00	1.30	10.00	25.00		0.16	5.46	6.00
1108	DA3_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	5.54	5.40	7.40	3.96	2.00	1.30	10.00	25.00		0.14	5.44	6.00

SCENIC DR @SH29 100-YEAR INLET HYDRAULIC DATA

Node ID (Label)	Baseline Station (ft)	Baseline Offset (ft)	Type (Inlet)	Profile Type (Inlet Location)	Flow (Local from Inflow Collection) (cfs)	Total Rational Flow to Inlet (cfs)	Computed Ponded Width (Spread / Top Width) (ft)	Inlet Allowable Ponded Width (Spread / Top Width) (ft)	Longitudinal Slope (%)	Road Cross Slope (%)	Gutter Width (ft)	Curb Opening Length (ft)	Gutter Cross Slope (%)	Bypass to Node (Bypass Target)	Inlet Bypass Flow (Bypassed Rational Flow) (cfs)	Inlet Computed Ponded Depth (Depth Gutter) (ft)	Inlet Allowable Ponded Depth (Depth Gutter) (ft)
1043	DA1_CI	11+37	22.3	FTW I-CO(10'x3')6"curb	On Grade	3.08	3.08	6.10	2.03	2.00	1.30	10.00	25.00		0.00	5.14	6.00
1095	EXIST_DA1_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	11.41	8.87	12.50	2.50	2.00	1.30	10.00	25.00		2.54	6.68	6.00
1097	EXIST_DA2_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	6.78	6.25	8.40	3.96	2.00	1.30	10.00	25.00		0.54	5.69	6.00
1108	DA3_CI	N/A	N/A	FTW I-CO(10'x3')6"curb	On Grade	6.89	6.31	8.40	3.96	2.00	1.30	10.00	25.00		0.58	5.71	6.00

SCENIC DR @SH29 25-YEAR LINK HYDRAULIC DATA

Pipe ID	Upstream Node	Downstream Node	Conduit Description	Number of Barrels	Size	Manning's n	Length (Construction)	Upstream Invert (Start)	Downstream Invert (Stop)	Slope (Construction)	Discharge (Flow)	Capacity (Design)	Velocity	HGL Upstream (In)	HGL Downstream (Out)	Actual Depth Downstream (Out)	Normal Depth	Critical Depth
							(ft)	(ft)	(ft)	(%)	(cfs)	(cfs)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)
DA3-P	DA1_CI	STC 2400	RCP	1	18"	0.013	43.80	740.83	740.51	0.72	2.54	8.40	2.16	741.43	741.46	0.95	0.57	0.60
STC 2400-P	STC 2400	OUT-1	RCP	1	18"	0.013	16.70	740.41	740.29	0.72	2.53	8.18	4.08	741.02	740.87	0.57	0.57	0.60

SCENIC DR @SH29 100-YEAR LINK HYDRAULIC DATA

Pipe ID	Upstream Node	Downstream Node	Conduit Description	Number of Barrels	Size	Manning's n	Length (Construction)	Upstream Invert (Start)	Downstream Invert (Stop)	Slope (Construction)	Discharge (Flow)	Capacity (Design)	Velocity	HGL Upstream (In)	HGL Downstream (Out)	Actual Depth Downstream (Out)	Normal Depth	Critical Depth
							(ft)	(ft)	(ft)	(%)	(cfs)	(cfs)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)
DA3-P	DA1_CI	STC 2400	RCP	1	18"	0.013	43.80	740.83	740.51	0.72	3.08	8.40	2.29	741.57	741.58	1.07	0.63	0.67
STC 2400-P	STC 2400	OUT-1	RCP	1	18"	0.013	16.70	740.41	740.29	0.72	3.06	8.18	4.30	741.08	740.93	0.64	0.64	0.67

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NOTES:

1. CITY OF GEORGETOWN DRAINAGE CRITERIA MANUAL USED FOR HYDRAULIC CALCULATIONS.
2. DESIGN STORM EVENT IS 25-YEAR.
3. OPENROADS DRAINAGE UTILITIES SOFTWARE USED FOR HYDRAULIC CALCULATIONS.
4. OUTFALL TAILWATER WAS ASSUMED TO BE THE CREEK WSEL.

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
MD KAMRUL ISLAM
126996
LICENSED
PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS
DRAINAGE CALCULATIONS

RPS Project No	008289
CSJ#	CSJ 0337-01-054
Client I.D.	CITY OF GEORGETOWN
Drawn By PM	Checked By
Scale	Sheet 2 OF 3 / Sheet No. 44
Date 5/22/2025	

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*Projects\AUS-SP\008289 City of Georgetown Wildwood and Williams, Scenic and Hwy\07.00 CADD\Georgetown\06-V Drainage Details\008289*DRAINAGE*CALCULATIONS*02.dgn

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: 008289 COG - Scenic and Hwy 29
Date Prepared: 5/13/2025

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	1.83	acres
Predevelopment impervious area within the limits of the plan * =	1.42	
Total post-development impervious area within the limits of the plan* =	1.48	
Total post-development impervious cover fraction * =	0.81	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	53	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 3

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

Drainage Basin/Outfall Area No. = DA1

Total drainage basin/outfall area =	0.29	acres
Predevelopment impervious area within drainage basin/outfall area =	0.26	acres
Post-development impervious area within drainage basin/outfall area =	0.29	acres
Post-development impervious fraction within drainage basin/outfall area =	0.99	
$L_{M\ THIS\ BASIN}$ =	27	lbs.

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

Desired $L_{M\ THIS\ BASIN}$ = 56 lbs.

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

20. Stormceptor

Required TSS Removal in BMP Drainage Area=	26.88	lbs
Impervious Cover Overtreatment=	0.0330	ac
TSS Removal for Uncaptured Area =	28.70	lbs
BMP Sizing		
Effective Area =	0.26	EA
Calculated Model Size(s) =	2400, 3600	
Actual Model Size (if multiple values provided in Calculated Model Size or if you are choosing a larger model size) =	2400	Model Size
Surface Area =	50.27	ft²
Overflow Rate =	0.005638	V_{or}
Rounded Overflow Rate =	0.005810	V_{or}
BMP Efficiency % =	80.00	%
L_R Value =	253.55	lbs
TSS Load Credit =	226.67	lbs
Is Sufficient Treatment Available? (TSS Credit ≥ TSS Uncapt.)	Yes	
TSS Treatment by BMP (LM + TSS Uncapt.) =	55.58	

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: 008289 COG - Wildwood DR @ Williams Dr
Date Prepared: 5/13/2025

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

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

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

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

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

County =	Williamson	
Total project area included in plan * =	0.64	acres
Predevelopment impervious area within the limits of the plan * =	0.28	
Total post-development impervious area within the limits of the plan* =	0.32	
Total post-development impervious cover fraction * =	0.49	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	32	lbs.

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

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

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

Drainage Basin/Outfall Area No. = DA5

Total drainage basin/outfall area =	0.64	acres
Predevelopment impervious area within drainage basin/outfall area =	0.28	acres
Post-development impervious area within drainage basin/outfall area =	0.32	acres
Post-development impervious fraction within drainage basin/outfall area =	0.50	
$L_{M\ THIS\ BASIN}$ =	32	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Grassy Swale
Removal efficiency = 70 percent

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

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

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

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

A_C =	0.64	acres
A_I =	0.32	acres
A_P =	0.32	acres
L_R =	250	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 32 lbs.

F = 0.13

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

Rainfall Depth =	0.07	inches
Post Development Runoff Coefficient =	0.35	
On-site Water Quality Volume =	58	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	12	
Total Capture Volume (required water quality volume(s) x 1.20) =	69	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.
THE SIZING REQUIREMENTS FOR THE FOLLOWING BMPs / LOAD REMOVALS ARE BASED UPON FLOW RATES - NOT CALCULATED WATER QUALITY VOLUMES

15. Grassy Swales Designed as Required in RG-348 — Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A =	0.64	acres
Impervious Cover in Drainage Area =	0.32	acres
Rainfall intensity = i =	1.1	in/hr
Swale Slope =	0.022	ft/ft
Side Slope (z) =	3	
Design Water Depth = y =	0.31	ft
Weighted Runoff Coefficient = C =	0.53	
A_{CS} = cross-sectional area of flow in Swale =	0.74	sf
P_W = Wetted Perimeter =	3.42	feet
R_H = hydraulic radius of flow cross-section = A_{CS}/P_W =	0.22	feet
n = Manning's roughness coefficient =	0.2	

15A. Using the Method Described in the RG-348

Manning's Equation: $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{1/2}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy$ = 1.48 feet

Q = CIA = 0.38 cfs

To calculate the flow velocity in the swale:

V Velocity of Flow in the swale) = Q/A_{CS} = 0.51 ft/sec

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = 152.46 feet

If any of the resulting values do not meet the design requirement set forth in RG-348, the design parameters must be modified and the solver rerun.

15B. Alternative Method using Excel Solver

Design Q = CIA = 0.38 cfs

Manning's Equation Q = 0.38 cfs — Error 1 = 0.00
Swale Width= 2.00 ft

Instructions are provided to the right (green comments).

Flow Velocity = 0.51 ft/s
Minimum Length = 152.46 ft

GEORGETOWN TEXAS EST. 1848

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T +1 512 328 5771 E usinfrastructure@rpsgroup.com

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS — MD KAMRUL ISLAM — 126996 — LICENSED PROFESSIONAL ENGINEER

GEORGETOWN INTERSECTIONS
DRAINAGE CALCULATIONS

RPS Project No	008289
CSJ#	CSJ 0337-01-054
Client I.D.	CITY OF GEORGETOWN
Drawn By	PM
Checked By	
Scale	
Date	5/22/2025
Sheet	3 OF 3
Sheet No.	45

5/22/2025 11:37:04 PM
*Projects\AUS-SP\008289 City of Georgetown Wildwood and Williams, Scenic and Hwy\07.00 CADD\Georgetown\06-V Drainage Details\008289*DRAINAGE*CALCULATIONS*03.dgn

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

I Dustin Clarkson,
Print Name

CIP Project Manager,
Title - Owner/President/Other

of City of Georgetown,
Corporation/Partnership/Entity Name

have authorized Md Kamrul Islam, P.E.
Print Name of Agent/Engineer

of Tetratech
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

3/25/2025
Date

THE STATE OF Texas §

County of Williamson §

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

GIVEN under my hand and seal of office on this 25th day of March, 2025.

NOTARY PUBLIC

CHRISTOPHER BRIAN MAYS
Notary Public, State of Texas
Comm. Expires 08-02-2028
Notary ID 135021722

Christopher Brian Mays
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 8-2-2028

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Intersection Improvements – Wildwood Drive at Williams Drive

Regulated Entity Location: Wildwood Drive at Williams Drive

Name of Customer: City of Georgetowm

Contact Person: Md Kamrul Islam, P.E. Phone: (210) 299-7912

Customer Reference Number (if issued):CN 600412043

Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

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

☒ Austin Regional Office

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

☐ San Antonio Regional Office

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

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	1 Each	$ 500
Extension of Time	Each	$

Signature: _____ Date: 05/14/2025

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

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

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600412043		**RN**

SECTION II: Customer Information

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

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

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

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

City of Georgetown

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

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

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

12. Number of Employees

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

13. Independently Owned and Operated?

☐ **Yes** ☐ **No**

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

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

15. Mailing Address:

City		**State**		**ZIP**		**ZIP + 4**	

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

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

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SECTION III: Regulated Entity Information

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

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

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

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

Intersection Improvements – Wildwood Drive at Williams Drive

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

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

25. Description to Physical Location:	Wildwood Drive at Williams Drive Intersection				
26. Nearest City			**State**	**Nearest ZIP Code**	
Georgetown			TX	78626	

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

27. Latitude (N) In Decimal:	30.685312		**28. Longitude (W) In Decimal:**	-97.684070	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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

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

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

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
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39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

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

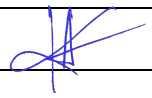
SECTION IV: Preparer Information

40. Name:	Md Kamrul Islam, P.E.	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512 **)** 299-7912		**( ) -**	KAMRUL.ISLAM@tetratech.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:	RPS Infrastructure, Inc.	**Job Title:**	Project Manager	
Name *(In Print):*	Md Kamrul Islam, P.E.		**Phone:**	**(** 512 **)** 299- **7912**
Signature:			**Date:**	05/23/2025