

Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation Recharge Zone Exception Request

City of Austin

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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: Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation					2. Regulated Entity No.: N/A				
3. Customer Name: City of Austin					4. Customer No.: CN 600135198				
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):		69.49 Gross site area 1.1 Net Site Area	
9. Application Fee:	\$500		10. Permanent BMP(s):			Vegetative Filter Strip, Bio Filtration			
11. SCS (Linear Ft.):	100 LF		12. AST/UST (No. Tanks):			NA			
13. County:	Travis		14. Watershed:			Barton Creek			

Application Distribution


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

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

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

Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	—	_1_	—
Region (1 req.)	—	_1_	—
County(ies)	—	_1_	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Barton Springs/ Edwards Aquifer <input type="checkbox"/> Hays Trinity <input type="checkbox"/> Plum Creek	_1_ Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> Austin <input type="checkbox"/> Buda <input type="checkbox"/> Dripping Springs <input type="checkbox"/> Kyle <input type="checkbox"/> Mountain City <input type="checkbox"/> San Marcos <input type="checkbox"/> Wimberley <input type="checkbox"/> Woodcreek	<input type="checkbox"/> _1_ Austin <input type="checkbox"/> Bee Cave <input type="checkbox"/> Pflugerville <input type="checkbox"/> Rollingwood <input type="checkbox"/> Round Rock <input type="checkbox"/> Sunset Valley <input type="checkbox"/> West Lake Hills	<input type="checkbox"/> Austin <input type="checkbox"/> Cedar Park <input type="checkbox"/> Florence <input type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input type="checkbox"/> Leander <input type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Trinity-Glen Rose	<input type="checkbox"/> Edwards Aquifer Authority	<input type="checkbox"/> Kinney	<input type="checkbox"/> EAA <input type="checkbox"/> Medina	<input type="checkbox"/> EAA <input type="checkbox"/> Uvalde
City(ies) Jurisdiction	<input type="checkbox"/> Castle Hills <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Helotes <input type="checkbox"/> Hill Country Village <input type="checkbox"/> Hollywood Park <input type="checkbox"/> San Antonio (SAWS) <input type="checkbox"/> Shavano Park	<input type="checkbox"/> Bulverde <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Garden Ridge <input type="checkbox"/> New Braunfels <input type="checkbox"/> Schertz	NA	<input type="checkbox"/> San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.	
Tom Curran	
Print Name of Customer/Authorized Agent	
	12/7/2023
Signature of Customer/Authorized Agent	Date

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

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Tom Curran

Date: 12/7/2023

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation

2. County: Travis

3. Stream Basin: Barton Creek

4. Groundwater Conservation District (If applicable): Barton Springs / Edwards Aquifer

5. Edwards Aquifer Zone:

Recharge Zone

Transition Zone

6. Plan Type:

WPAP

SCS

Modification

AST

UST

Exception Request

7. Customer (Applicant):

Contact Person: Riley Triggs, AIA

Entity: City of Austin

Mailing Address: PO Box 1088

City, State: Austin, TX

Zip: 78767

Telephone: 512/636-3521

FAX: _____

Email Address: Riley.Triggs@austintexas.gov

8. Agent/Representative (If any):

Contact Person: Tom Curran

Entity: Doucet & Associates, Inc.

Mailing Address: 7401B Hwy 71 West. Suite 160

City, State: Austin, TX

Zip: 78735

Telephone: 512/583-2623

FAX: _____

Email Address: TCurran@kleinfelder.com

9. Project Location:

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

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

Barton Springs Pool Bathhouse at 2201 Barton Springs Road Austin, TX 78746

11. **Attachment A – Road Map.** A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.
12. **Attachment B - USGS / Edwards Recharge Zone Map.** A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:
- Project site boundaries.
 - USGS Quadrangle Name(s).
 - Boundaries of the Recharge Zone (and Transition Zone, if applicable).
 - Drainage path from the project site to the boundary of the Recharge Zone.
13. **The TCEQ must be able to inspect the project site or the application will be returned.** Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.
- Survey staking will be completed by this date: _____

14. **Attachment C – Project Description.** Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

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

15. Existing project site conditions are noted below:

- Existing commercial site
- Existing industrial site
- Existing residential site
- Existing paved and/or unpaved roads
- Undeveloped (Cleared)
- Undeveloped (Undisturbed/Uncleared)
- Other: Public Park

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

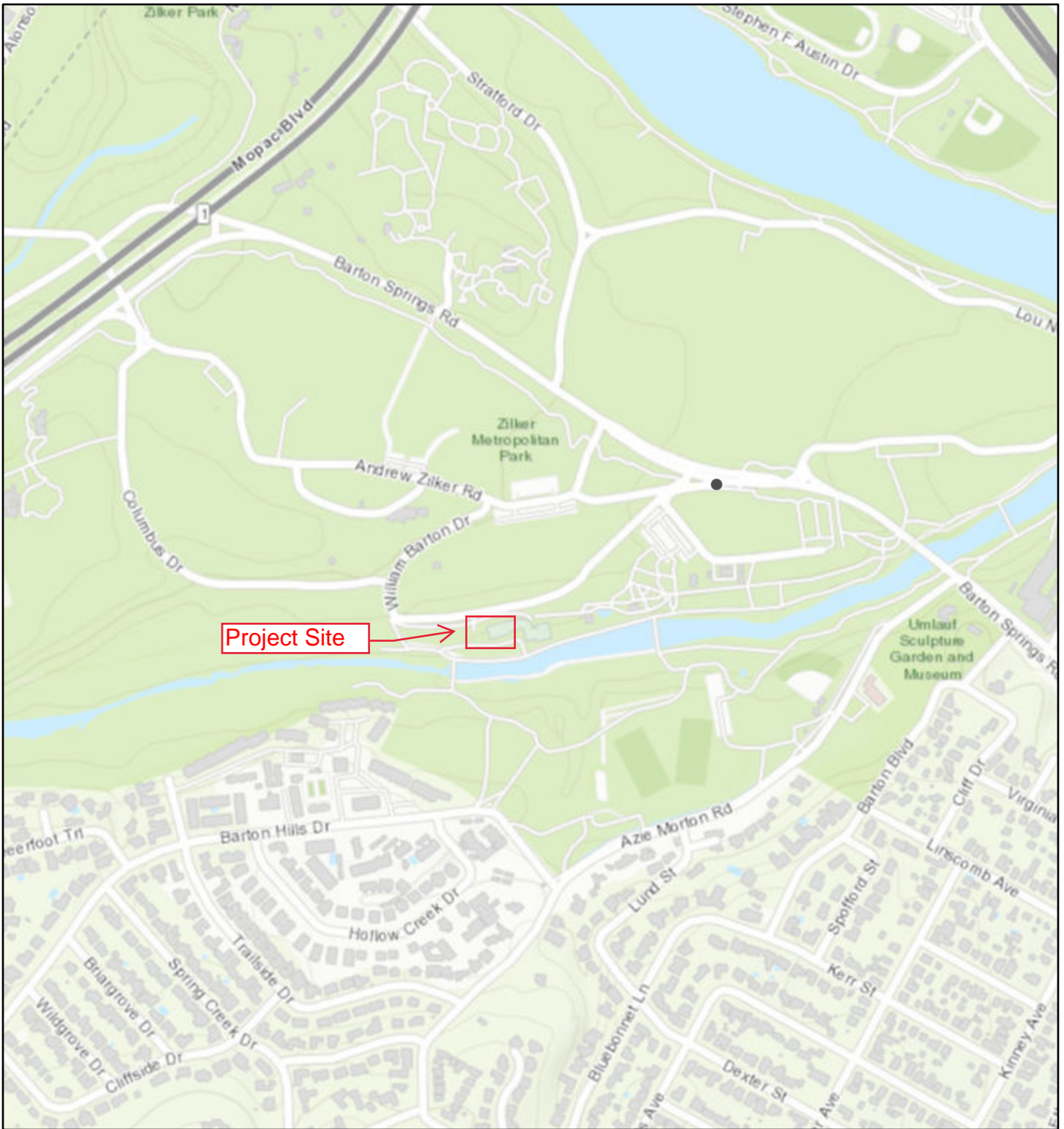
- (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

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

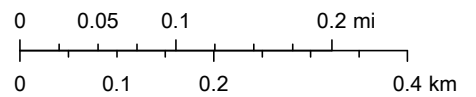
- For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
 - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
 - For a UST Facility Plan or Modification or an AST 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.

Road Map

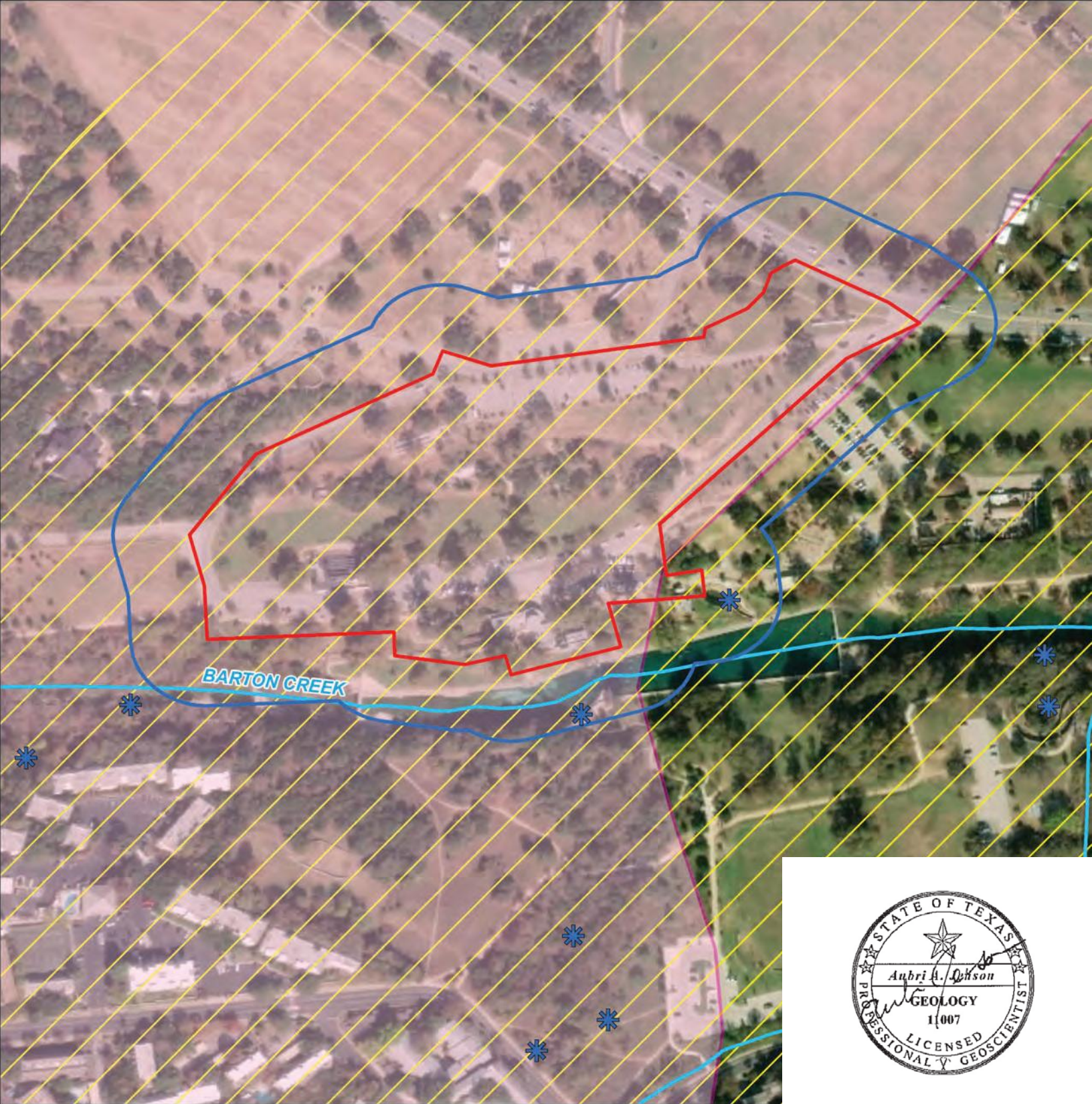


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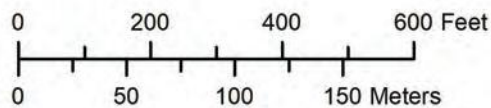


Austin Community College, City of Austin, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

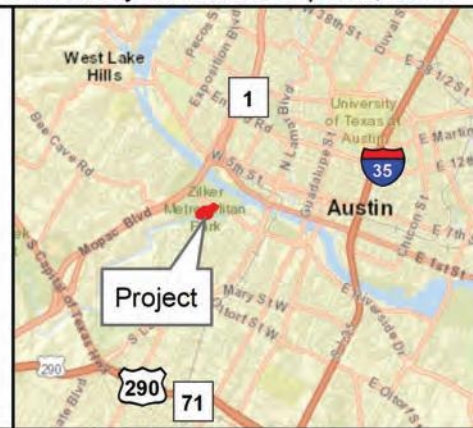


Basemap: ESRI 2019; Springs, Creeks, Edwards Aquifer Recharge Zone and 1500-ft Verification Zone: City of Austin GIS portal, 2019.

- COA Springs and Seeps
- Creeks
- Edwards Aquifer Recharge Zone
- Edwards Aquifer 1500-ft Verification Zone
- Project Area
- 150ft Project Buffer



ZARA
ENVIRONMENTAL LLC



Form 0587 - ATTACHMENT C Project Description

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

Ref: City of Austin Barton Springs Bathhouse Rehabilitation
Request for Exception from the Requirements of the Edwards Aquifer Protection Program Rules
30 Texas Administrative Code (TAC) Chapter 213

On behalf of the City of Austin, Doucet is submitting this Exception Request from the TCEQ Water Pollution Abatement Plan 30 TAC 213.3 which exempts maintenance of existing structures from the definition of a regulated activity if the maintenance does not involve addition site disturbance and there is little or no potential for contaminating ground water.

The scope of site work proposed through this Exception Request is to rehabilitate the historic Barton Springs Bathhouse and provide accessibility, emergency response, and water quality enhancement from existing conditions. This project is also going through review by the City of Austin.

Introduction

The City of Austin's Parks and Recreation Department desires to rehabilitate aged internal and external facilities at the historic bathhouse. These improvements include:

- Life Safety Egress and ADA accessibility improvements to the Bathhouse and Barton Springs Pool perimeter area.
- Improved fire department access on west side of existing building
- Internal plumbing and roof drainage enhancement.
- Building flood flow resistant improvements for the existing structure that is within the floodplain.
- Rehabilitation of rotunda and dressing areas
- Improvements to aquatic facility storage for Watershed Protection Department salamander biologists
- Revamping existing internal exhibits.
- Reconfiguring parking lot area to reduce impervious cover
- Enhancing water quality from an existing upstream parking lot area



Impervious Cover

The proposed maintenance activities will result in a reduction of impervious cover by 302 square feet and there is no expansion of existing facilities.

Watershed and Floodplain

The property is located in the Barton Creek watershed, which is located within the Edwards Aquifer Recharge Zone. A portion of the site is also located within the FEMA and City of Austin 100-year floodplains.

Critical Environmental Features

An Environmental Resource Inventory and Geologic Assessment have been performed for the area of interest and is being provided with this Exception Request. Barton and Eliza Springs are Critical Environmental Features (CEFs) and maintenance and building rehabilitation is within 150-feet of these features.

Storm Water Quality

There will be a net decrease in impervious cover and the proposed work is not defined as a regulated activity under 30 TAC 213. The project proposes to provide stormwater quality improvements to treat existing impervious cover for portions of an existing parking lot. The water quality measure will be a passive vegetative filter strip followed by a bio-filtration area and natural infiltration component. This water quality enhancement measure provides stormwater runoff treatment to the existing parking area in lieu of the existing conditions in which discharge is directly into the creek through the stormwater bypass structure along the north side of the Barton Springs Pool.

Erosion and Sedimentation Control

Temporary erosion and sedimentation control measures will be installed in accordance with the City of Austin and TCEQ requirements. Given that the area of work is slightly over one-acre, the city proposes to require a Stormwater Pollution Prevention Plan meeting the TCEQ SW3P guidance standards. Any disturbed areas outside of existing pavement areas will be stabilized and re-vegetated prior to removal of temporary erosion controls.

Water & Wastewater Service

The existing bathhouse is served by an existing metered 6-inch dead end water line. In order to provide adequate fire-fighting flow capability, an 8-inch water line within the existing parking lot will be extended to the bathhouse.

There is an existing 6-inch wastewater service line that connects to an existing 8-inch line north of the bathhouse that connects to an existing 42-inch concrete gravity line. Records indicate that the 6-inch service lines for the building are vitrified clay pipe so these service laterals will be replaced with pressure rated PVC pipe. or abandoned.

If you have any questions or comments or need additional information, please contact us at any time.

A blue ink signature of Tom Curran, written in a cursive style.

Tom Curran, PE
Sr. Project Manager
Doucet & Associates, Inc.

TBPE Firm# 3937
TBPLS Firm# 10194551

ZARA
ENVIRONMENTAL LLC
Integrity | Science | Expertise

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San Marcos, Texas 78666
512-291-4555
www.zaraenvironmental.com

**GEOLOGIC ASSESSMENT FOR
THE BARTON SPRINGS BATHHOUSE REHABILITATION,
AUSTIN, TRAVIS COUNTY, TEXAS**



Zilker Ponds historic rock gardens now abandoned near Barton Springs Pool

Prepared for
Doucet & Associates, Inc.
7401B Hwy 71 West, Ste. 160
Austin, Texas 78735

11 March 2024

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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:

Date: 3/11/2024

Michael Jones, P.G. (#15517)

Telephone: 512-291-4555 (Zara Office)

Aubri A. Jenson, P.G. (#11007)

Fax: 866-908-9137

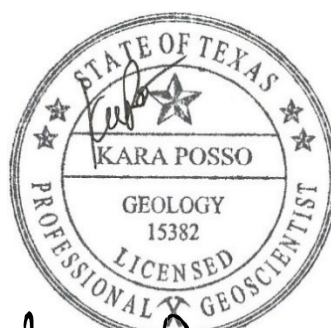
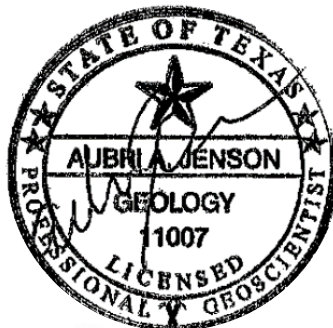
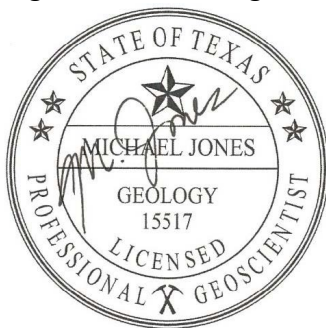
Kara Posso, P.G. (#15382)

Representing (Name of Company and TBPG or TBPE registration number):

Zara Environmental LLC/ TBPG No. 50365

(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Michael Jones Aubri Jenson Kara Posso

Regulated Entity Name: Barton Springs Bathhouse Rehab

Project Information

1. Date(s) Geologic Assessment was performed: 2/12/2024
2. Type of Project

<input checked="" type="checkbox"/> WPAP (Exception Plan)	<input type="checkbox"/> AST
<input type="checkbox"/> SCS	<input type="checkbox"/> 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.

Soil Name	Group*	Thickness (feet)
Hardeman soils (HdE)	A	3.3
Mixed Alluvial land (Md)	A	4
Altoga Soils (AID)	B	5
Terrant Soils (TeA, TaD)	D	1
Eckrant Soils (TdF)	D	2.5

Table 1 - Soil Units, Infiltration Characteristics and Thickness

** Soil Group Definitions (Abbreviated)*

- A. Soils having a high infiltration rate when thoroughly wetted.*
- B. Soils having a moderate infiltration rate when thoroughly wetted.*
- C. Soils having a slow infiltration rate when thoroughly wetted.*
- D. Soils having a very slow infiltration rate when thoroughly wetted.*

6. **Attachment B – Stratigraphic Column.** A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column. NOTE: Attachment B in the 2019 GA remains valid.

7. **Attachment C – Site Geology.** A narrative description of the site-specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
8. **Attachment D – Site Geologic Map(s).** The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'
Applicant's Site Plan Scale: 1" = 40'
Site Geologic Map Scale: 1" = 40'
Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

- Global Positioning System (GPS) technology.
- Other method(s). Please describe method of data collection: Faults & Geology derived from the Geologic Atlas of Texas (GAT 2010) and the Geologic Map of the Edwards Aquifer Recharge Zone, South-central Texas (Blome, et al. 2005); Water and wastewater infrastructure locations from the City of Austin (Austin Water 2024); stormwater drainage infrastructure locations were derived by extracting linework from a land survey shapefile provided from Doucet & Associates (year of data collection is unknown).
10. The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. Surface geologic units are shown and labeled on the Site Geologic Map.
12. Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.
- Geologic or manmade features were not discovered on the project site during the field investigation.
13. The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.
- No wells present on the project site and the locations are shown and labeled.
(Check all of the following that apply.)
- The wells are not in use and have been properly abandoned.
- The wells are not in use and will be properly abandoned.
- The wells are in use and comply with 16 TAC Chapter 76.
- There are no wells or test holes of any kind known to exist on the project site.

ATTACHMENT A: Geologic Assessment Table

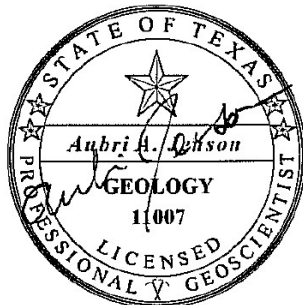
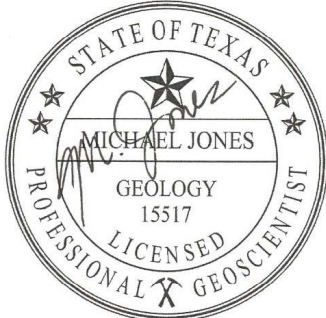
GEOLOGIC ASSESSMENT TABLE										PROJECT NAME: Barton Springs Bathhouse Rehabilitation										
LOCATION			FEATURE CHARACTERISTICS										EVALUATION		PHYSICAL SETTING					
1A	1B ⁺	1C ⁺	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FT)			TREND (DEGS)	DENSITY (NO/FT)	APERTURE (FT)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY	
						X	Y	Z							<40	≥40	<1.6	≥1.6		
MB-01a	30.26501	-97.77184	MB	30	Ked4	180	30	3	-	-	-	0	N,V,F,C,O	8	38	X		X		Hillside
MB-01b	30.26493	-97.77146	MB	30	Qt	15	7	2	-	-	-	0	V,F,C,O	5	35	X		X		Hillside
MB-01c	30.26495	-97.77118	MB	30	Qt	50	20	2	-	-	-	0	V,F,C,O	5	35	X		X		Hillside
MB-02*	30.26486	-97.77281	MB	30	Ked4	0.5	0.5	variable	-	-	-	-	X	5	35	X		X		Trench
MB-03*	30.26434	-97.77049	MB	30	Qt	1.0	1.0	variable	-	-	-	-	X	5	35	X		X		Trench
MB-04*	30.26450	-97.77143	MB	30	Qt	variable	variable	variable	-	-	-	-	X	5	35	X		X		Trench
BS-01	30.26500	-97.77048	SH	20	Qt	2.25	1.0	1.0	110	-	-	0.8 x 0.6	C,O,F	19	39	X		X		Hillside

*Features MB-02 (water main), MB-03 (wastewater main), and MB-04 (storm drain) are linear alignments; the GPS coordinates above represent a single location for that feature class within the Survey Area. The location and orientation of these features may be seen in Figure 3 and Attachment D. **The geologic unit listed is based on mapping presented in the Geologic Atlas of Texas (GAT 2010). * DATUM: NAD 1983.

2A	TYPE	2B POINTS	8A INFILLING
C	Cave	30	N None, exposed bedrock
SC	Solution cavity	20	C Coarse - cobbles, breakdown, sand, gravel
SF	Solution-enlarged fracture(s)	20	O Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fault	20	F Fines, compacted clay-rich sediment, soil profile, gray or red colors
O	Other natural bedrock features	5	V Vegetation. Give details in narrative description
MB	Manmade feature in bedrock	30	FS Flowstone, cements, cave deposits
SW	Swallow hole	30	X Other materials
SH	Sinkhole	20	
CD	Non-karst closed depression	5	
Z	Zone, clustered or aligned features	30	

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

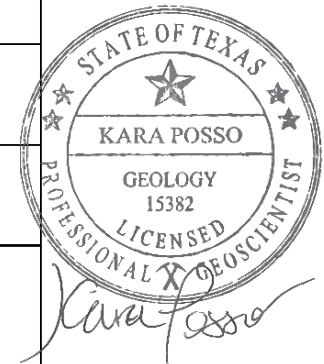
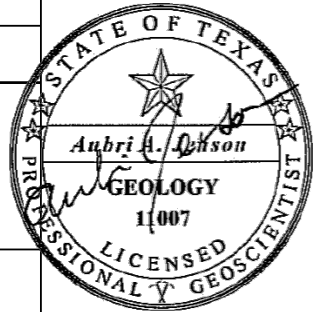
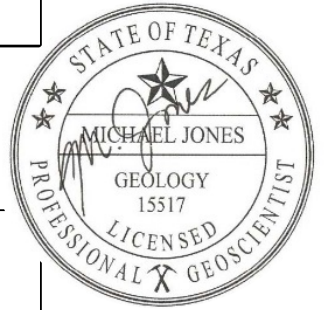
I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist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



Date 2/12/2024
 Sheet 1 of 2
 TCEQ-0585-Table (Rev. 10-01-04)

ATTACHMENT B

Hydrogeologic Subdivision		Group, Formation, or Member		Thickness (feet)		
Quaternary		Quaternary Alluvium (Qal)		20		
		Colorado River Deposits (undivided)	Terrace Deposits (undivided)	20		
Upper Cretaceous	Upper Confining units	Taylor Group		600		
		Austin Group		130 – 150		
		Eagle Ford Group		30 – 50		
		Buda Limestone		40 – 50		
		Del Rio Clay		50 – 60		
Lower Cretaceous	Edwards Aquifer	Georgetown Formation		40 – 60		
		Edwards Group	Person Formation	Cyclic and marine members, undivided (Kpcm) (equivalent to Ked ₄)	0 – 70	
				Leached and collapsed members, undivided (Kplc) (equivalent to Ked ₄)	30 – 80	
				Regional dense member (Kprd) (equivalent to Ked ₃)	20 – 30	
		Edwards Group	Kainer Formation	Grainstone member (Kkg) (equivalent to Ked ₂)		45 – 60
				Kirschberg evaporite member (Kke) (equivalent to Ked ₁)		65 – 75
				Dolomitic member (Kkd) (equivalent to Ked ₁)		110 – 150
				Basal nodular member (Kkb)		45 – 60
		Lower Confining Units	Upper member of the Glen Rose Limestone		350 – 500	



Stratigraphic column of the Zilker Metropolitan Park area, modified from Small et al. (1996) and Rhoda (1969). Outcropping unit(s) are specified in gray.

ATTACHMENT C

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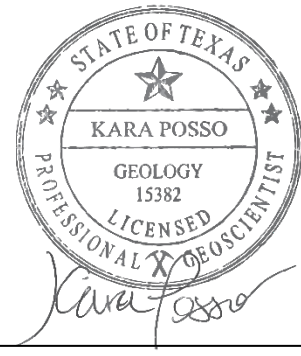
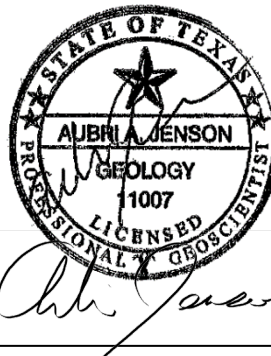
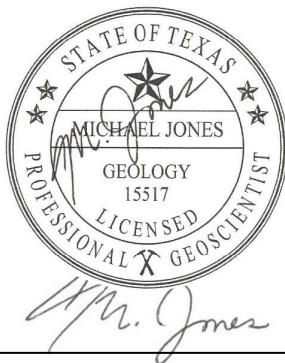
GEOLOGIC ASSESSMENT FOR THE BARTON SPRINGS BATHHOUSE REHABILITATION, AUSTIN, TRAVIS COUNTY, TEXAS

Prepared for
Doucet & Associates, Inc.
7401B Hwy 71 West, Ste. 160
Austin, Texas 78735

11 March 2024

In accordance with the Texas Board of Professional Geologists rules at 22 Texas Administrative Code, Part 39, Chapter 851, Subchapter C, §851.156, this report is signed and sealed on the title page to assure the user that the work has been performed by or directly supervised by the following professional geologist who takes full responsibility for this work.

The computer-generated seal appearing on this document was authorized by Michael Jones, PG #15517, Aubri A. Jenson, PG #11007, and Kara Posso, PG #15382 on 11 March 2024.



Michael Jones, Texas Professional Geoscientist No. 15517
Aubri A. Jenson, Texas Professional Geoscientist No. 11007
Kara Posso, Texas Professional Geoscientist No. 15382
Zara Environmental LLC Geoscience Firm Registration No. 50365

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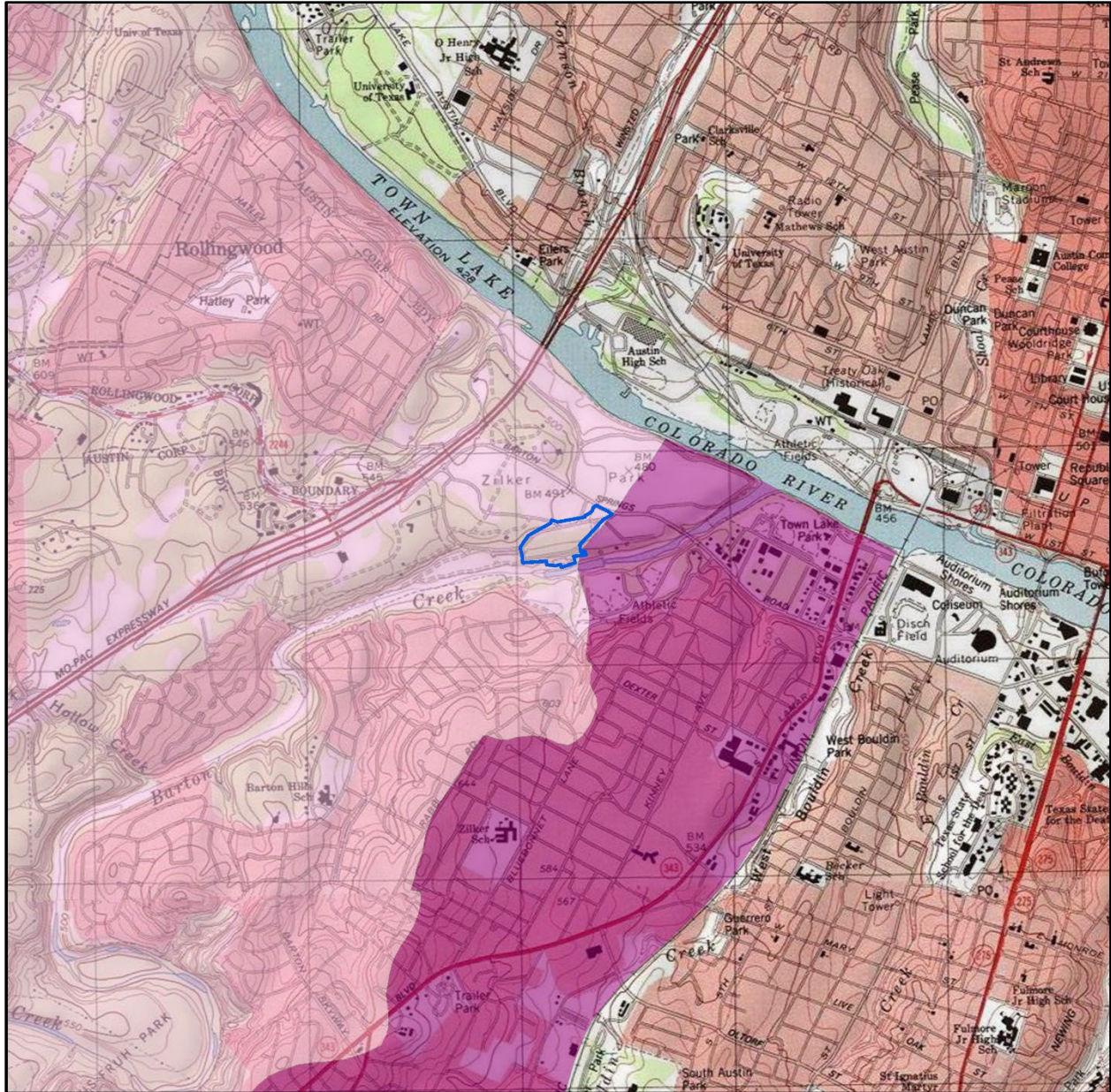
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Introduction

Zara Environmental LLC conducted a Geologic Assessment on approximately 14.8 acres of the Zilker Metropolitan Park (Survey Area) in support of the Barton Springs Bathhouse Rehabilitation Project (Project) in the City of Austin, Travis County, Texas (Figure 1). The proposed Project will consist of improvements to access, replacement of the plumbing systems, structural repairs, and restoration to critical parts of the entry rotunda and changing rooms, as well as some enhancements to the aquatic facilities within the Sheffield Education Center. While most of the Project is associated with work inside the existing facilities, there are some external improvements associated with emergency response needs, ADA compliance, utility (water and wastewater) services, and implementation of a voluntary stormwater treatment Best Management Practice (BMP) to treat runoff from an existing upslope parking lot that currently has no water quality controls. As the Project is partially located over the Edwards Aquifer Recharge Zone, ground disturbing activities are subject to regulation under the Edwards Rules at Title 30 Texas Administrative Code (TAC) Chapter 213.5. However, the Project will occur within the footprint of existing developments without any additional increase to impervious cover and will ultimately result in a reduction of impervious cover. As such, the Project may be eligible for a Water Pollution Abatement Plan (WPAP) Exception Plan.

As standard practice, TCEQ requires that the entire legal boundary of a property be surveyed for a Geologic Assessment. However, the Barton Springs Bathhouse Renovation Project overlaps four parcels that total 133.42 acres, while the Project will only occur over approximately 14.8 acres of Zilker Metropolitan Park. The Survey Area for this Geologic Assessment has been defined with a metes and bound description in order to reduce the area required for survey (Supplemental Attachment). Land within the Survey Area has a long history of development and is primarily used for recreational activities associated with Zilker Metropolitan Park and Barton Springs Pool. Much of the Survey Area was fully developed and coincided with maintained open spaces, picnic areas, or parking facilities servicing Barton Springs Pool and the Zilker Hillside Theater. A detailed walking survey of the Survey Area was conducted on 12 February 2024, documenting four classes of manmade features in bedrock and one potential karst feature.

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Basemap: ESRI 2024, USA Topo Map Service and World Street map; Edwards Aquifer Zones; TCEQ 2005.

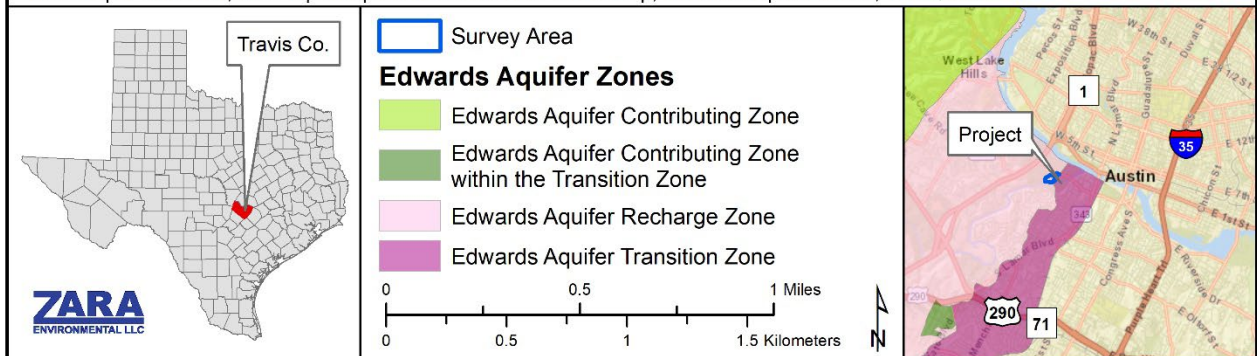


Figure 1. Location map for the Barton Springs Bathhouse Rehabilitation Project Survey Area.

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Methods

Background Data Collection

Various publicly available sources were reviewed for data pertaining to the Survey Area. The United States Geological Survey (USGS) 7.5-Minute Topographic Map of the Austin West Quadrangle was reviewed for general site information and elevation contours (USGS 2024). Surface geology and faults were obtained from the Geologic Atlas of Texas (GAT 2010) and were compared with the Geologic Map of the Edwards Aquifer Recharge Zone, South-central Texas (Blome et al. 2005). Well records were reviewed from the Texas Water Development Board (TWDB 2024). Soil descriptions were obtained from the Web Soil Survey of the Natural Resources Conservation Service ([NRCS] 2024). Floodplain maps from the Federal Emergency Management Agency ([FEMA] 2024) were also obtained and reviewed. The location and orientation of water and wastewater utility infrastructure were obtained from GIS files maintained by the City of Austin (Austin Water 2024). The location and orientation of stormwater drainage infrastructure locations were derived by extracting linework from a land survey shapefile provided from Doucet & Associates (year of data collection is unknown).

Field Survey

Karst survey methods followed protocols outlined in TCEQ Instructions to Geologists for Geologic Assessments (TCEQ 2004). Walking ground surveys, as defined by Veni and Reddell (2002), TCEQ (2004), and Barrett (2005), were conducted throughout the Survey Area. The positions of all features identified through fieldwork were documented using handheld Garmin S64 GPS units (+/- 10 feet) and were cross-verified against digital orthoimagery. All features identified were evaluated by a licensed professional geoscientist for potential impact to Edwards Aquifer recharge. This is completed by ranking the recharge sensitivity of each feature using the point scheme defined by TCEQ (2004). Fieldwork was conducted by two Zara Environmental LLC personnel, Michael Jones (P.G. #15517) and Kara Posso (P.G. #15382), on 12 February 2024. Reporting was completed by Michael Jones and Kara Posso and was reviewed by Aubri Jenson (P.G. #11007).

Results

Background Data

Site Soils

The National Resource Conservation Service Web Soil Survey (NRCS 2024) identified six soil map units within the Survey Area (Figure 2). Each of these units is described below:

Altoga soils and Urban land, 2 to 8 percent slopes (AID) is a moderately permeable clayey alluvium derived from mixed sources. It forms a profile up to 3.3 feet deep consisting of fine sandy loam to silt loam. The soil forms blocky, subangular peds and contains fine calcium carbonate concretions. Runoff is low on slopes of 1 to 5%. It has the capacity to transmit water at high rates (1.98 to 5.95 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group A. This soil covers 2.8% of the Survey Area.

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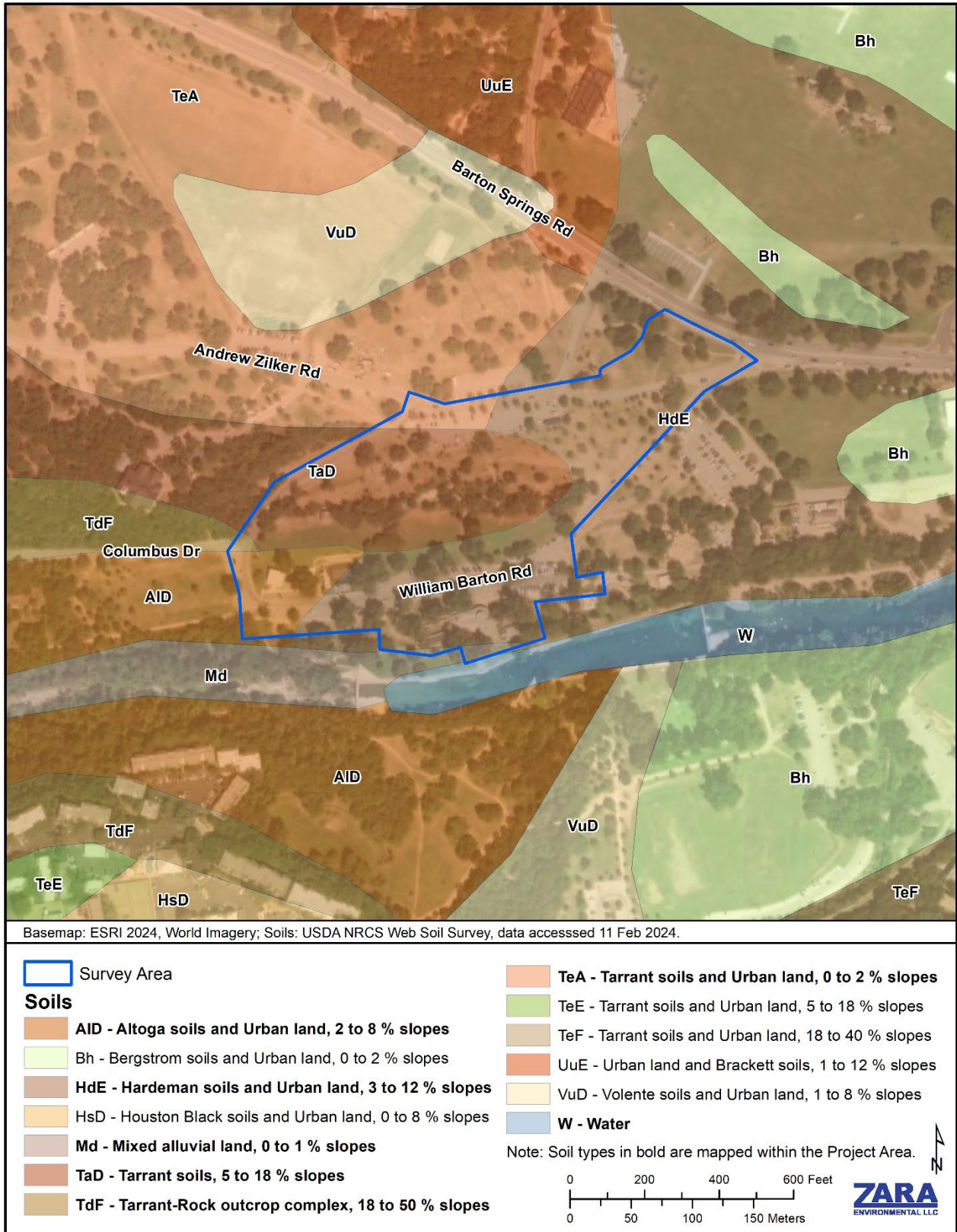


Figure 2. Soils map of the Barton Springs Bathhouse Rehabilitation Project Survey Area.

ATTACHMENT C

Hardeman soils and Urban land, 3 to 12 percent slopes (HdE) is a highly permeable mixed loamy alluvium of quaternary age and/or loamy eolian deposits of quaternary age. Typical soil profiles are up to 60 inches deep consisting of fine sandy loam to silt loam. The soil forms blocky, subangular peds and contains faint films and threads of calcium carbonate. Runoff is low on slopes of 1 to 5%. The soil has the capacity to transmit water at high rates (1.98 to 5.95 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group A. This soil class covers 0.4% of the Survey Area.

Mixed alluvial land, 0 to 1 percent slopes, frequently flooded (Md) is a highly permeable calcareous gravelly alluvium of quaternary age derived from mixed sources. Typical soil profiles are up to 48 inches deep consisting of stratified very gravelly coarse sand to very gravelly sand. The soil typically includes very gravelly coarse sand, and exposed limestone beds and boulders randomly interspersed with moderately deep to deep calcareous alluvial materials. Runoff is negligible on slopes of 1 to 5%. The soil has the capacity to transmit water at high to very high rates (5.95 to 19.98 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group A. This soil class covers 6.5% of the Survey Area.

Eckrant very stony clay, 5 to 18 percent slopes (TaD) is a slowly permeable residual soil derived from fractured indurated Cretaceous limestone. Typical soil profiles are up to 30 inches deep consisting of very stony clay to extremely flaggy clay overlying bedrock. The soil forms blocky, subangular peds with fine granular structure. Runoff is high on slopes of 1 to 5%. The soil has the capacity to transmit water at moderately low to moderately high rates (0.06 to 0.57 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil class covers 61.0% of the Survey Area.

Eckrant-Rock outcrop complex, 18 to 50 percent slopes (TdF) is a slowly permeable residual soil derived from indurated Cretaceous limestone. Typical soil profiles are up to 30 inches deep consisting of very stony clay to extremely flaggy clay overlying bedrock. The soil forms blocky, subangular peds with fine granular structure. Runoff is very high on slopes of 1 to 5%. The soil has the capacity to transmit water at moderately low to high rates (0.06 to 1.98 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil covers 23.9% of the Survey Area.

Eckrant soils and Urban land, 0 to 2 percent slopes (TeA) is a slowly permeable residual soil derived from indurated Cretaceous limestone. Typical soil profiles are up to 30 inches deep consisting of very stony clay to extremely flaggy clay overlying bedrock. The soil forms blocky, subangular peds with fine granular structure. Eckrant soil runoff is moderate on slopes of 1 to 5%. It has the capacity to transmit water at moderately low to moderately high rates (0.06 to 0.57 inches per hour) through its most limiting layer, placing it in Hydrologic Soil Group D. This soil covers 5.4% of the Survey Area.

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Site Geology

The mapped surface geology from the Geologic Atlas of Texas (GAT 2010) is presented in Figure 3 and Attachment D. According to GAT (2010), three units are mapped within the Survey Area. These are Quaternary Terrace Deposits (Qt) and Member 3 (Ked₃) and Member 4 (Ked₄) of the Person Formation in the Edwards Group. According to Blome et al. (2005), which does not have complete coverage over the Survey Area, there are three units mapped within the Survey Area. These include the Georgetown Formation (Kg), the Regional Dense Member of the Person Formation (Kprd; equivalent to Ked₃), and the Grainstone Member of the Kainer Formation (Kkg; equivalent to Ked₂). Blome et al. maps the Georgetown Formation and the Barton Springs Fault in the very southwest corners of the Survey Area, however based on aerial imagery, they would occur just outside the Survey Area, approximately 150 feet west of where they are mapped.

Given that much of the Survey Area was previously developed and is covered by public infrastructure (parking lots, roads, buildings, etc.) or fill material and open park space (park lawns), bedrock outcrop exposures within the Survey Area were fairly limited to the open park space just north of Barton Springs Pool. The geology observed within that outcrop appeared consistent with the Regional Dense Member (Kprd; equivalent to Ked₃) overlain by Quaternary Terrace Deposits (Qt). A second outcrop, on the western edge of the Survey Area, appeared to be more consistent with the Leached and Collapsed Member of the Person formation (Kplc; equivalent to Ked₄) overlain by Quaternary Terrace Deposits (Qt). This is consistent with both geologic maps, however Blome et al. have the Leached and Collapsed Member mapped slightly further west, outside of the Survey Area. A description of each geologic unit that comprises the Edwards Aquifer by Blome et al. are presented in the Regional Stratigraphy section below.

A portion of the Survey Area overlaps open park space adjacent to Barton Springs Pool, which hosts the Barton Springs Fault and Parthenia Springs, the most prominent discharge point in the Barton Springs Segment of the Edwards Aquifer. Parthenia Spring and other springs with the Barton Springs Complex (Eliza Spring, Old Mill Spring, and Upper Barton Spring) have been extensively studied through scientific research and a number of publications are publicly available; results of each study are not summarized herein.

Regional Geology

The Survey Area is in the eastern portion of the Edwards Plateau Physiographic Province of central Texas along the Balcones Escarpment, which is a highly eroded landscape bordering the Edwards Plateau to the south and east. The plateau is typified by higher elevations to the north and west and generally slopes to the southeast. Canyons and drainage basins were formed by the surface flow of the Colorado River and its tributaries, including Barton Creek, which passes through the southern portion of the Survey Area.

The geologic formations in the Edwards Plateau are mostly Cretaceous age limestones with Quaternary alluvium along surface drainages. The limestone is developed from accumulation of thick marine sequences deposited in a lagoon environment on the San Marcos Platform protected by a barrier reef during the Cretaceous about 100 million years ago (Rose 1972). These strata dip slightly to the southeast at about 10 to 15 feet/mile toward the Gulf of Mexico.

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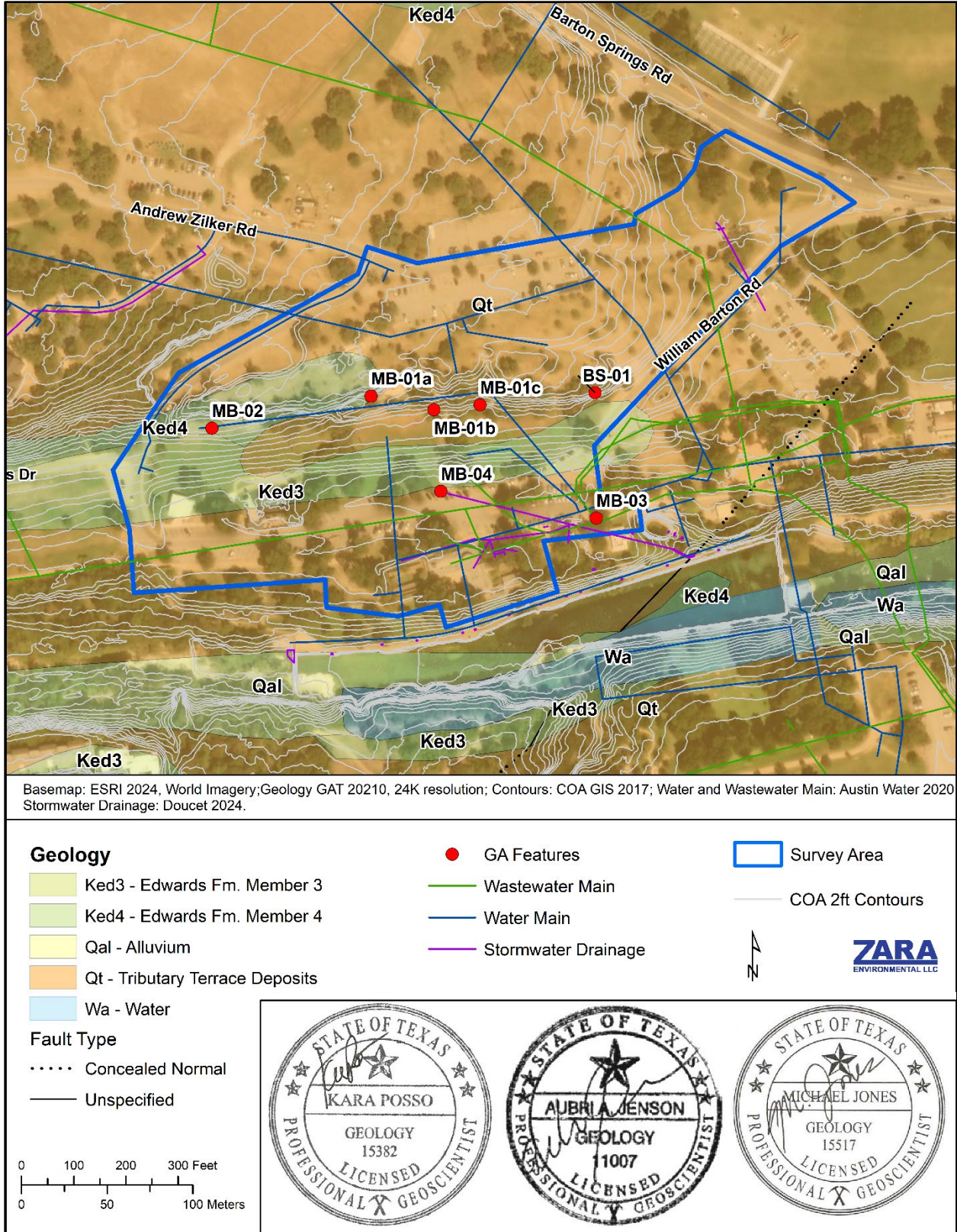


Figure 3. Geology of Barton Springs Bathhouse Rehabilitation Project Survey Area with the locations of all features identified during the field survey.

ATTACHMENT C

Regional Stratigraphy

The geologic formations that comprise the Edwards Aquifer are the Georgetown Formation, the Person Formation, and Kainer Formation (TCEQ 2004). A stratigraphic column showing regional geology modified from Small et al (1996) and Rhoda (1969) is included as Attachment B. A description of each geologic unit composing the Edwards Aquifer is presented below; these unit descriptions are from the Geologic Map of the Edwards Aquifer Recharge Zone, South-central Texas (Blome et al. 2005).

The Georgetown Formation is the uppermost unit of the Edwards Aquifer. Bedrock is reddish-brown and gray to light-tan, marly limestone with biomicritic texture and commonly contains the brachiopod *Waconella wacoensis*, pectins, the mollusks *Kingena wacoensis* and *Gryphaea washitaensis* (Young 1967), as well as other pelecypods. The Georgetown Formation is considered an upper confining unit with very low porosity and permeability and has little or no karstification or cavern development (Stein and Ozuna 1995). Thickness ranges from 2 to 20 feet and generally thins from northeast to southwest.

The Person and Kainer Formations comprise the Edwards Group (Rose 1972). The Person Formation is about 130 feet thick in southern Travis County. The composition of the Person Formation ranges from crystalline limestone to grainstone to mudstone and is comprised of three informal hydrogeologic units: the Cyclic and Marine Members, undivided; the Leached and Collapsed Members, undivided; and the Regional Dense Member.

The Cyclic and Marine Members are composed of chert-bearing wackestones and can be somewhat variable in thickness because of the erosional unconformity between the Person and Georgetown Formations. In southern Travis County these layers are less than 5 feet or not present (Hauwert 2009).

The Leached and Collapsed Members are a light-colored wackestone with interbedded mudstone and grainstone intervals that form one of the more porous and permeable subdivisions of the Edwards Aquifer. The leached member is a dense, bioturbated micrite, and the collapsed member is composed of several one- to five-foot thick zones of collapsed stromatolitic limestone (Rose 1972). The combined thickness of the two members ranges from 70 feet in northern Hays County to less than 25 feet near the Colorado River in Travis County (Hauwert 2009).

The lowermost member of the Person Formation is the Regional Dense Member (RDM), which has a thickness of 15 to 32 feet in southern Travis County and thins towards the Colorado River (Hauwert 2009). The RDM is composed of a dense argillaceous mudstone and is easily identified in the outcrop and on a variety of geophysical logs. Most of the fractures that penetrate the RDM do not appear to be solution enlarged. Caves that breach the RDM are not enlarged but are usually vertical shafts with horizontal caverns developed above or below the RDM. The RDM can function as a confining unit between the upper and lower portions of the Edwards Aquifer (i.e., between the Kainer and the Person Formation); however, caves, faults, and fractures may greatly reduce the vertical confining ability of the RDM. The RDM is probably not an effective barrier to

ATTACHMENT C

lateral flow at faults because of the relatively thin section. The flow of water tends to circumvent the RDM because of the impermeable nature of this unit.

The Kainer Formation has an approximate total thickness of 300 feet in southern Travis County. The lithology of the Kainer Formation ranges from mudstone to miliolid grainstone to crystalline limestone. The Kainer is subdivided into four informal members that include the Grainstone, Kirschberg Evaporite, Dolomitic, and Basal Nodular Members.

The Grainstone Member is the uppermost unit of the Kainer Formation and is 45 to 60 feet thick in southern Travis County (Hauwert 2009). It is composed of thick sequences of dense, tightly cemented, miliolid grainstone. Primary matrix porosity, as measured on geophysical logs, is some of the lowest in the Edwards Aquifer. Secondary fracture porosity accounts for the bulk of effective porosity in this aquifer unit.

The Kirschberg Evaporite Member underlies the Grainstone Member and is 40 to 75 feet in thickness in this area. This hydrogeologic unit consists of crystalline limestone and chalky pulverulite with chert nodules and lenses (Hauwert 2009). Collapse features are common. The member's porosity has been described as boxwork (Maclay and Small 1976) because of the configuration of the voids and the secondary neospar and travertine deposits. The boxwork porosity does not seem to be prevalent throughout the entire thickness or extent of the member but occurs sporadically within more massive limestone. Dissolution of evaporite minerals, such as gypsum and anhydrite, and the existence of contorted beds in the Kirschberg Evaporite result in extensive secondary porosity, which creates one of the most permeable subdivisions in the Edwards Aquifer.

The Dolomitic Member is a resistant, highly bedded wackestone with interbedded grainstone, burrowed mudstone, and some chert nodules. The Dolomitic member has a total thickness of about 140 feet in this area (Hauwert 2009). Effective porosity and probable pathways of water in this unit are restricted to solution enlarged bedding planes, joints, fractures, and faults.

The Basal Nodular Member is the lowermost unit of the Edwards Group and is 45 to 65 feet of fossiliferous, nodular limestone (Hauwert 2009). In the subsurface, the Basal Nodular Member has negligible porosity and permeability (Maclay and Small 1984) and can function as part of the lower confining unit; however, in outcrop the Basal Nodular Member often displays extensive karstification, which has generated secondary porosity in the form of large lateral caves.

Regional Groundwater

The Project is underlain by the Barton Spring Segment of the Edwards Aquifer and is directly adjacent to the Barton Spring Complex in downtown Austin. The Edwards Aquifer is one of the most permeable and productive karst aquifers in the United States and is the primary groundwater source for much of central Texas. The Recharge Zone of the Edwards Aquifer is defined as the land surface area where caves, sinkholes, faults, fractures, or other permeable features provide pathways for the recharge of surface waters into the Edwards Aquifer. This zone is regulated due to the vulnerability of the aquifer to pollution. Recharge into the Edwards Aquifer occurs primarily in losing streams, where surface water from the contributing zone flows

ATTACHMENT C

over faults, fractures, and karst features that have been solutionally enlarged in the Recharge Zone (Sharp and Banner 1997). The Barton Springs Segment of the Edwards Aquifer covers about 155 square miles in Travis and Hays counties. It is composed of highly faulted, fractured, and dissolved limestone, forming a very prolific karst aquifer from 0 to 450 feet thick (BSEACD 2021).

Dye tracing studies and potentiometric data show that groundwater in the Barton Springs Segment generally flows from the southwest to northeast toward a few focused discharge points that make up the Barton Springs Complex. The Barton Springs Complex consists namely of four springs: Parthenia Spring, Eliza Spring, Old Mill Spring, and Upper Barton Spring. Hydrogeological studies have also indicated that groundwater flow paths are complex, can differ with hydrologic conditions (i.e., drought stage vs. flood stage), and flow paths are greatly influenced by local geology, particularly faulting (Hauwert 2009; Hunt 2005).

Water Wells

According to online records from the Texas Water Development Board (TWDB 2024), no wells are present within the Survey Area, and none were noted during field reconnaissance. However, several well records and monitoring stations were identified off-site in the vicinity of the Project. Two well records listed on the TWDB database corresponded to springs (Parthenia Spring [State Well # 5842914] and Eliza Spring [State Well # 5842921]) associated with the Barton Springs Complex, and the third record was located the Zilker Park children's playscape approximately 60 feet northeast from Eliza Spring area (State Well # 19150). The depth of State Well # 19150 was 35 feet and the driller's report described the lithology as limestone voids filled with clay and gravel (TWDB 2024). In addition to the wells identified in the TWDB database, one monitoring station operated by the USGS was observed to the northwest of the Barton Springs Pool facilities, just outside of the Survey Area and Project boundaries. The station was likely related to flow monitoring at Barton Creek as no well was explicitly noted near the station infrastructure. Additional monitoring stations may be present in the Project vicinity for hydrological monitoring.

Floodplains

According to FEMA National Flood Hazard maps the 100-year and 500-year floodplains are mapped in the Survey Area along Barton Creek (FEMA 2024). The 100-year floodplain is shown on Attachment D.

Previously Identified Features

Only one potential point recharge feature was identified within the Survey Area (City of Austin, personal communications, 2024). This feature is described below as BS-01 and is documented on the GA table. Adjacent to the Survey Area, there are several significant karst features associated with discharge of the Edwards Aquifer. The Barton Springs Fault and Barton Springs Complex has been extensively studied through scientific research and number publications are publicly available; results of each study are not summarized herein.

Description of Features

The results of the surface karst feature survey are presented in the TCEQ Geologic Assessment Table (Attachment A) and are discussed below. Five features were identified within or adjacent

ATTACHMENT C

to the Survey Area, including four classes of manmade features in bedrock and one known feature that may be karstic in origin. All features were ranked for recharge sensitivity according to TCEQ criteria. Feature locations are displayed on maps in and Attachment D. Each feature is discussed in detail below.

MB-01; Manmade Features in bedrock (“Zilker Ponds” rock garden)

MB-01 consists of three manmade ponds lined with stonework on a hillside towards the center of the Survey Area (Figure 4 - Figure 6). According to public records, the Zilker Ponds were built in 1933 as Charlie Page’s rock garden (COA 2008). In their current condition, the ponds are overgrown and contain grasses and woody vegetation that obscure the precise boundaries of each feature. Pond MB-01a was approximately 180 feet long and 30 feet wide by 3 feet deep. Pond MB-01b was approximately 15 feet long by 7 feet wide by 2 feet in depth. Pond MB-01c was approximately 50 feet long by 20 feet wide by two feet deep. All ponds had catchment areas of less than 1.6 acres. They were not designed to capture surface water runoff but undoubtedly do retain water, based on field observations. The base of each pond was inspected for potential karst features but there were no apparent apertures or conduits that connect to the aquifer. The COA does not plan on returning the Zilker Ponds to their former use as part of the Barton Springs Pool (BSP) Master Plan and Bathhouse Rehabilitation Project, however the BSP Master Plan recommends draining the ponds permanently by drilling holes into the concrete bottoms of the ponds to allow water to seep out and installing black gravel and granite (COA 2008). These features have a low potential to transmit water to the subsurface rapidly in their current condition. These features are not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).



Figure 4. Overview of MB-01a (Zilker Ponds).

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Figure 5. Overview of MB-01b (Zilker Ponds).



Figure 6. Overview of MB-01c (Zilker Ponds).

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MB-02; Manmade feature in bedrock (Water main and associated infrastructure)

MB-02 corresponds to water mains and associated infrastructure within the Survey Area (Figure 7). This infrastructure was located throughout the site in various locations and was evident through manholes, water meters, fire hydrants, cleanouts, and various other connections to water mains. The City of Austin-owned water main was identified through a background data review of Austin Water GIS files (2024). The depth of the water main is unknown; however, GIS files indicate the water mains are generally 6 inches in diameter (Austin Water 2024). This feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class has not been rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).



Figure 7. Example of water main infrastructure associated with MB-02.

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MB-03; Manmade feature in bedrock (Wastewater main and associated infrastructure)

MB-03 MB-02 corresponds to wastewater mains and associated infrastructure within the Survey Area (Figure 8). Wastewater infrastructure was evident through manhole covers and clean outs near bathroom facilities and other developed portions of the Survey Area. The City of Austin-owned wastewater main was identified through a background data review of Austin Water GIS files (2024). The depth of the water main is unknown; however, GIS files indicate that wastewater mains are generally 12 inches in diameter (Austin Water 2024). This feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class was not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).



Figure 8. Example of wastewater infrastructure associated with MB-03.

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MB-04; Manmade feature in bedrock (Storm Drainage Infrastructure)

MB-04 corresponds to stormwater drainage infrastructure servicing Zilker Metropolitan Park (Figure 9). There were various manholes and drain inlets throughout the Survey Area, several of which were likely to drain towards the Barton Springs Pool or to Barton Creek below the pool. The location and orientation of stormwater infrastructure were derived by extracting linework from a land survey shapefile provided from Doucet & Associates (year of data collection is unknown). Based on observations in the field and comparison to data available on the City of Austin Property Profile Development Tool, additional stormwater drainage may be present in the area. However, this feature class has a low potential to transmit water to the subsurface rapidly, assuming proper construction and maintenance. This feature class was not rated as sensitive according to the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).



Figure 9. Example of stormwater infrastructure associated with MB-04.

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BS-01; Potential Sinkhole

Feature BS-01 is a previously documented potential sinkhole located behind a steel bump guard on a hillside just north of Williams Barton Road (Figure 10). The feature had an aperture that was approximately 0.8 feet long and 0.6 feet wide, dropping 1 foot below the surface (Figure 11Figure 12). The horizontal interior of the feature was approximately 1 foot wide and at least 2.25 feet long, loosely following a bearing of 110° (Figure 12). The ceiling of the feature was composed of soil, while rock cobbles and boulders lined the walls and floor. Loose soil substrates were present below the rock cobbles to a depth of at least 6 inches and some debris (plastic trash) was found within the aperture. The feature would appear to receive sheetwash from the hillside above totaling less than 1.6 acres in area, however it may also receive additional runoff from a slightly channelized drainage corridor adjacent to the feature during heavy runoff events.

During evaluation of the feature, it was noted that some characteristics were not necessarily consistent with karst development. Further, the presence of a steel bump guard surrounding the feature indicated that the feature could have been created or influenced by anthropogenic activities such as installation and removal of public infrastructure. Additional information regarding the feature was requested from the City of Austin Watershed Protection Department. The feature did appear in the COA database as karst feature and was recorded as a “small washed-out void space likely related to utility access” (COA personal communications, 2024). As the origin of the feature could not conclusively be determined, it has been evaluated as a potential karst feature for the purposes of this report. This feature has moderate potential to transmit water into the subsurface rapidly; however, it has not been rated as sensitive per the Edwards Aquifer Rules (30 TAC §213.5(b)(3)).



Figure 10. Overview of BS-01.

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Figure 11. Aperture of BS-01.



Figure 12. Interior of BS-01.

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Discussion and Recommendations

A Geologic Assessment was conducted on approximately 14.8 acres of Zilker Metropolitan Park in support of a WPAP Exception Plan application for the Barton Springs Bathhouse Rehabilitation Project. Five features were documented, including four classes of manmade features in bedrock and one known feature that may have been karstic in origin. None of the five features qualified as hydrologically sensitive point recharge features per the Edwards Aquifer Rules (30 TAC §213.5(b)(3)), thus no protective feature buffers have been recommended. However, these results do not rule out the potential to encounter sensitive features during ground-disturbing activities. In the event that a karst feature is encountered during ground disturbance, all work should stop within 50 feet, a Professional Geoscientist should evaluate the feature for hydrologic sensitivity, and the geologist should coordinate with the City of Austin Watershed Protection Department and the TECQ Edwards Aquifer Protection Program, as appropriate. General project recommendations include using proper stormwater BMPs before and during construction activities to protect water quality in Barton Springs Pool and Barton Creek. BMPs should be installed, monitored, and maintained throughout the Project to ensure compliance with local, state, and federal requirements.

ATTACHMENT C

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ATTACHMENT D

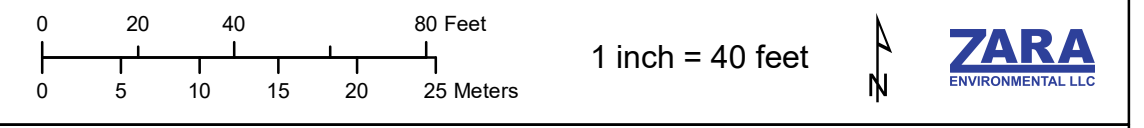
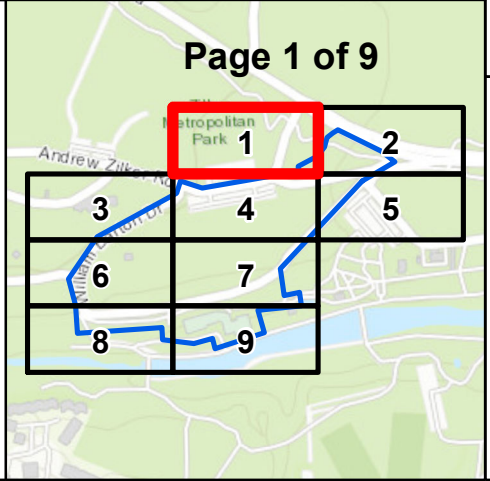
Attachment D. Site Geologic Maps



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Basemap: ESRI 2024, World Imagery; Geology GAT 20210, 24K resolution; Contours: COA GIS 2017. Flood Zones: FEMA FIRM Panel 48453C0445K, effective 1/22/2020; Wells: TWDB groundwater database, accessed March 2024; Water and Wastewater Mains: Austin Water 2020; Stormwater Drainage: Doucet 2024.

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■ Ked4 - Edwards Fm. Member 4	— Water Main		
■ Qal - Alluvium	— Stormwater Drainage	Wells (TWDB)	
■ Qt - Tributary Terrace Deposits		● Groundwater Wells	
■ Wa - Water		● SDRDB Wells	
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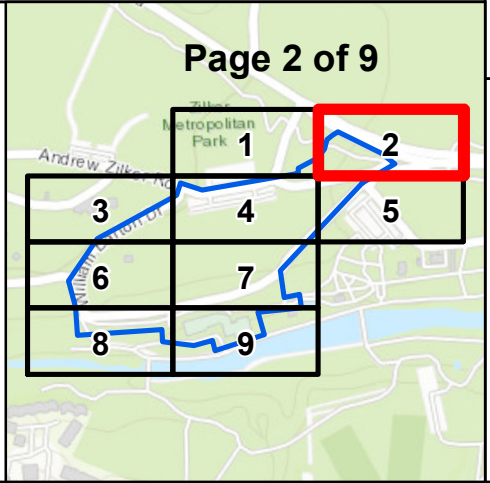


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■ Ked4 - Edwards Fm. Member 4	— Water Main		
■ Qal - Alluvium	— Stormwater Drainage	Wells (TWDB)	
■ Qt - Tributary Terrace Deposits		● Groundwater Wells	
■ Wa - Water		● SDRDB Wells	
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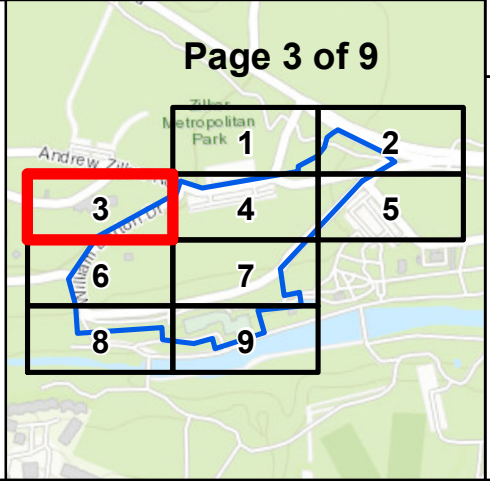
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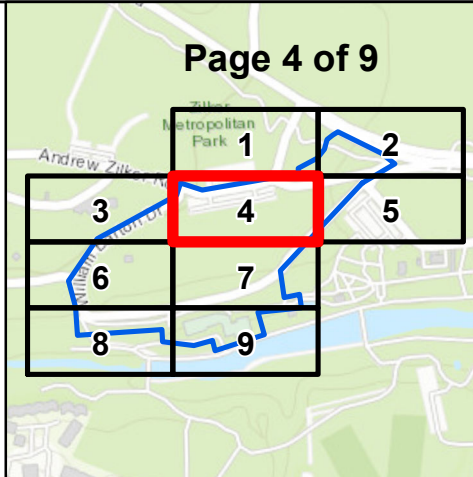
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 Qt - Tributary Terrace Deposits		FEMA Flood Zones	
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Fault Type	 Streams		
 Concealed Normal			
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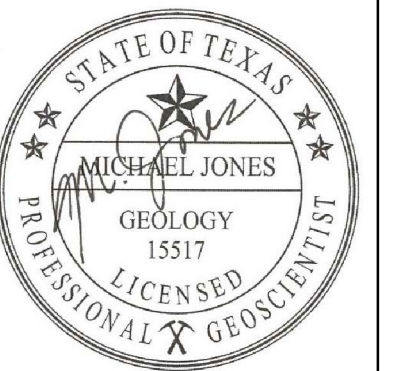
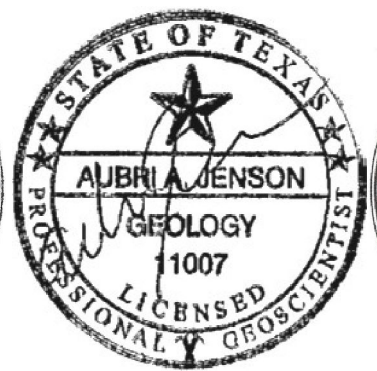
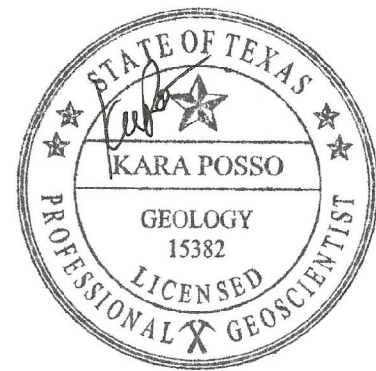
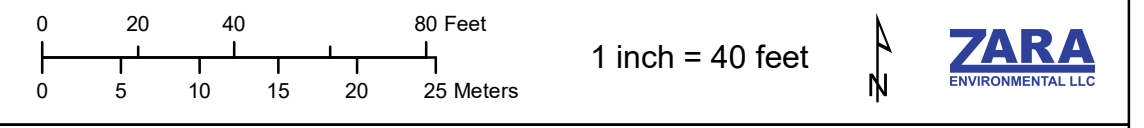
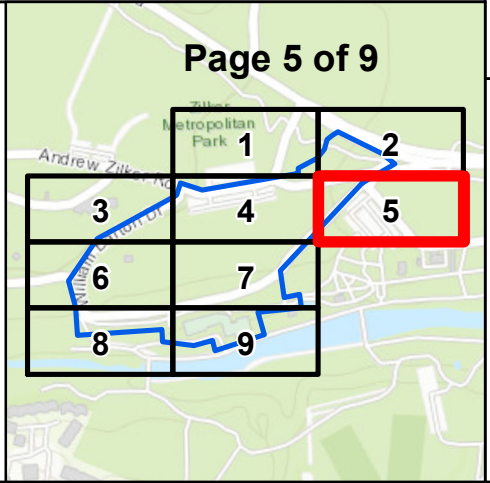
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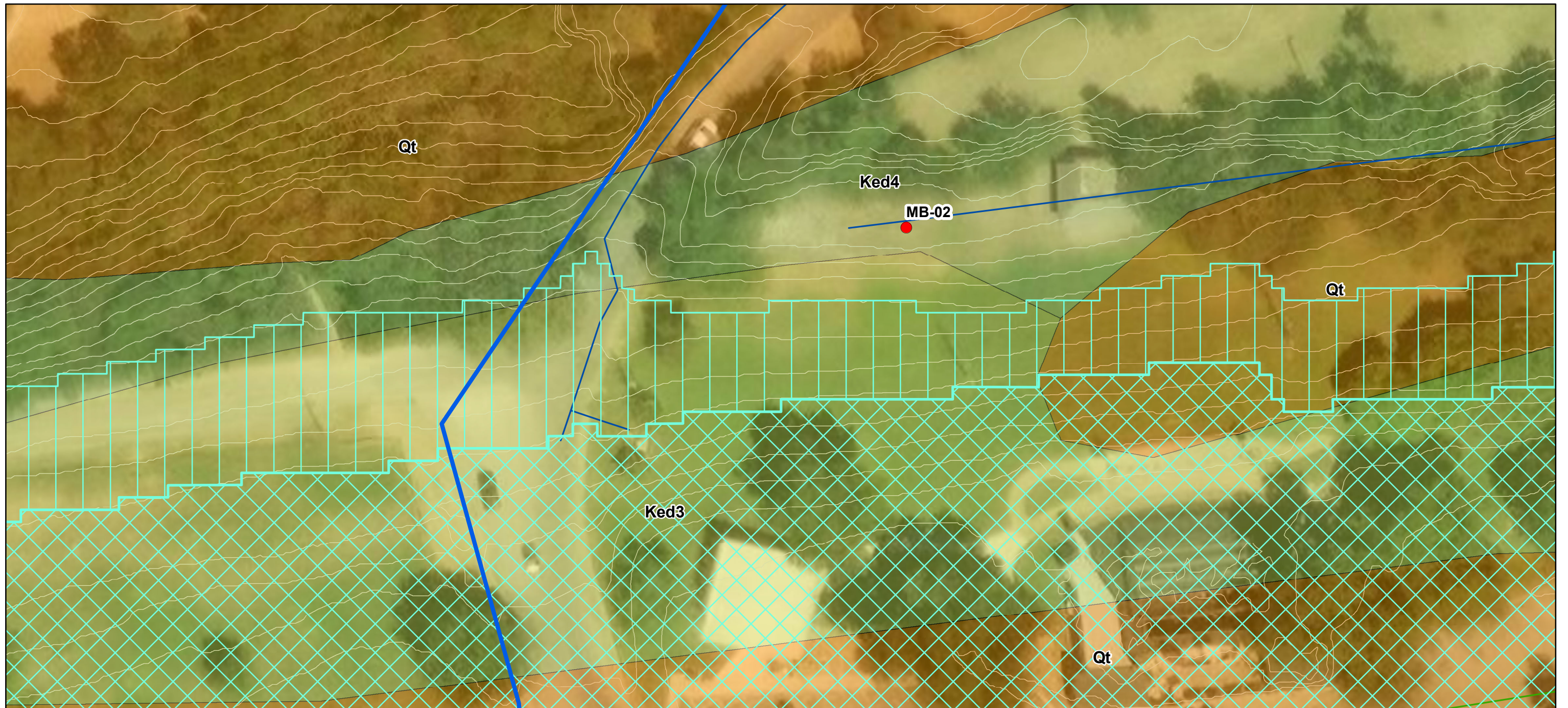
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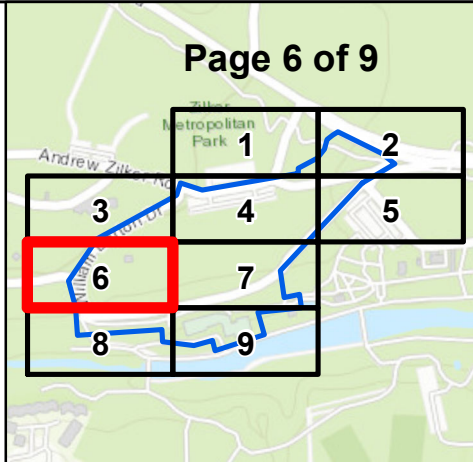
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| ■ Qal - Alluvium | — Stormwater Drainage | Wells (TWDB) | |
| ■ Qt - Tributary Terrace Deposits | | ● Groundwater Wells | |
| ■ Wa - Water | | ● SDRDB Wells | |
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| | — Streams | | |





Basemap: ESRI 2024, World Imagery; Geology GAT 20210, 24K resolution; Contours: COA GIS 2017. Flood Zones: FEMA FIRM Panel 48453C0445K, effective 1/22/2020; Wells: TWDB groundwater database, accessed March 2024; Water and Wastewater Mains: Austin Water 2020; Stormwater Drainage: Doucet 2024.

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 Qt - Tributary Terrace Deposits		FEMA Flood Zones	
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Fault Type	 Streams		
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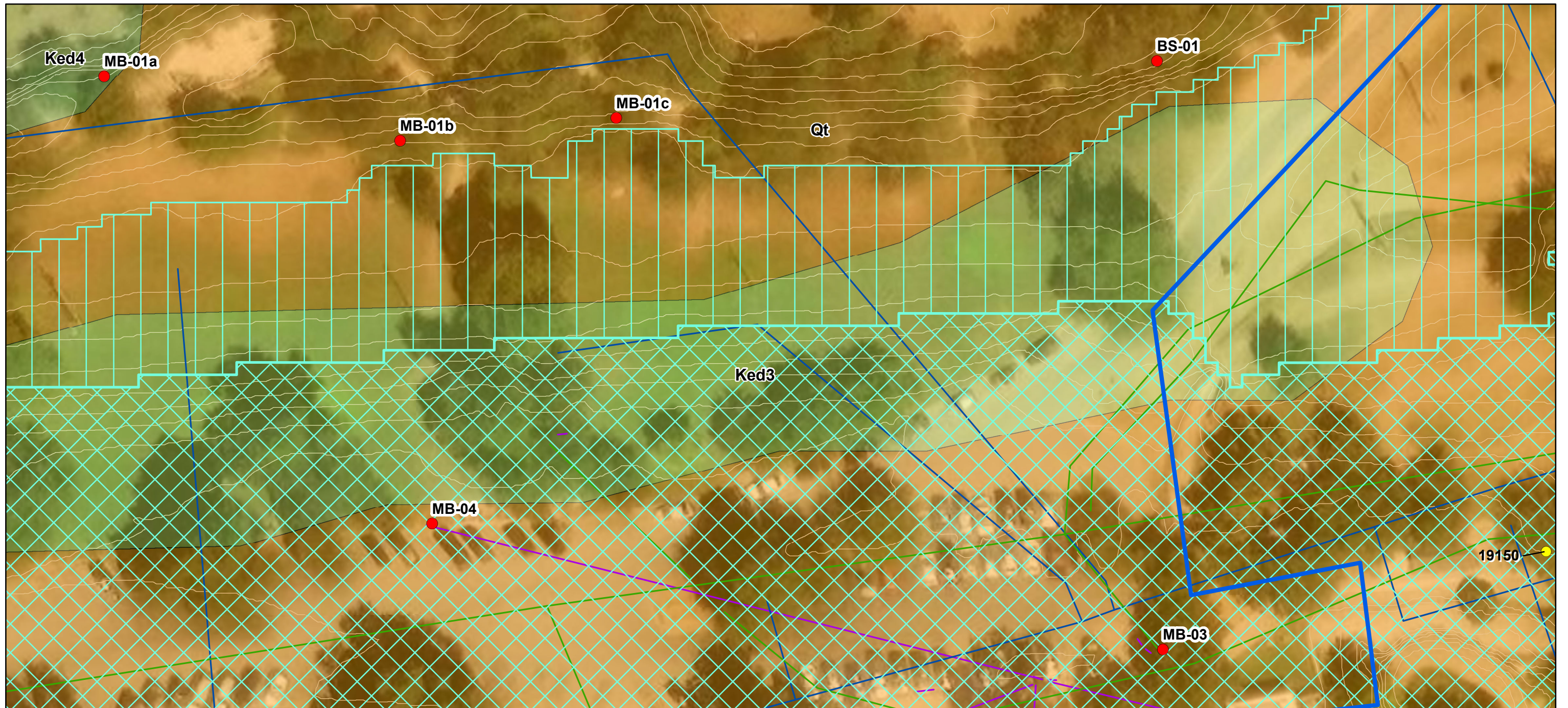
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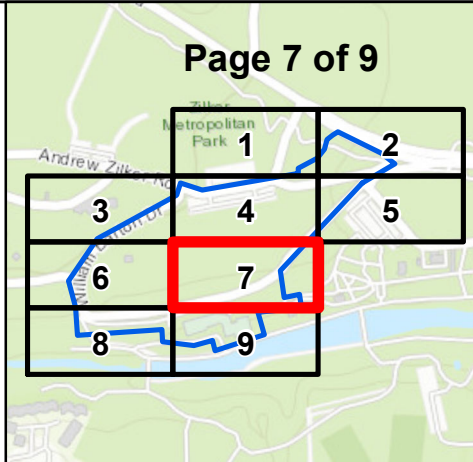
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Basemap: ESRI 2024, World Imagery; Geology GAT 20210, 24K resolution; Contours: COA GIS 2017. Flood Zones: FEMA FIRM Panel 48453C0445K, effective 1/22/2020; Wells: TWDB groundwater database, accessed March 2024; Water and Wastewater Mains: Austin Water 2020; Stormwater Drainage: Doucet 2024.

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 Wa - Water		● Groundwater Wells	
Fault Type		● SDRDB Wells	
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	 Streams		



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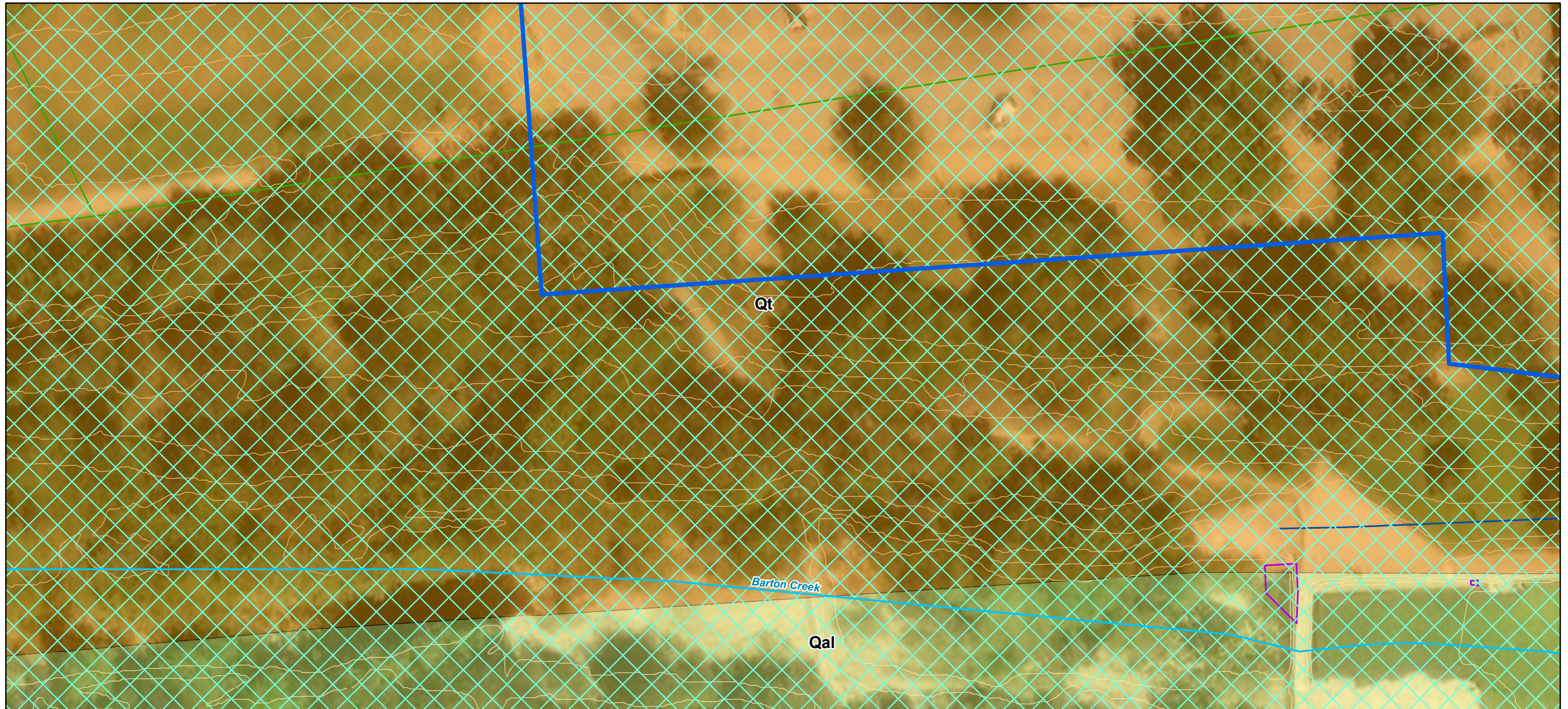
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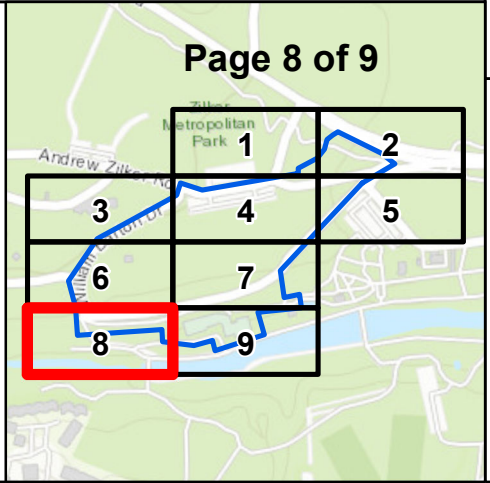
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 Concealed Normal	 100-year Flood Zone		
 Unspecified	 500-yr Flood Zone		
	 Streams		



0 20 40 80 Feet

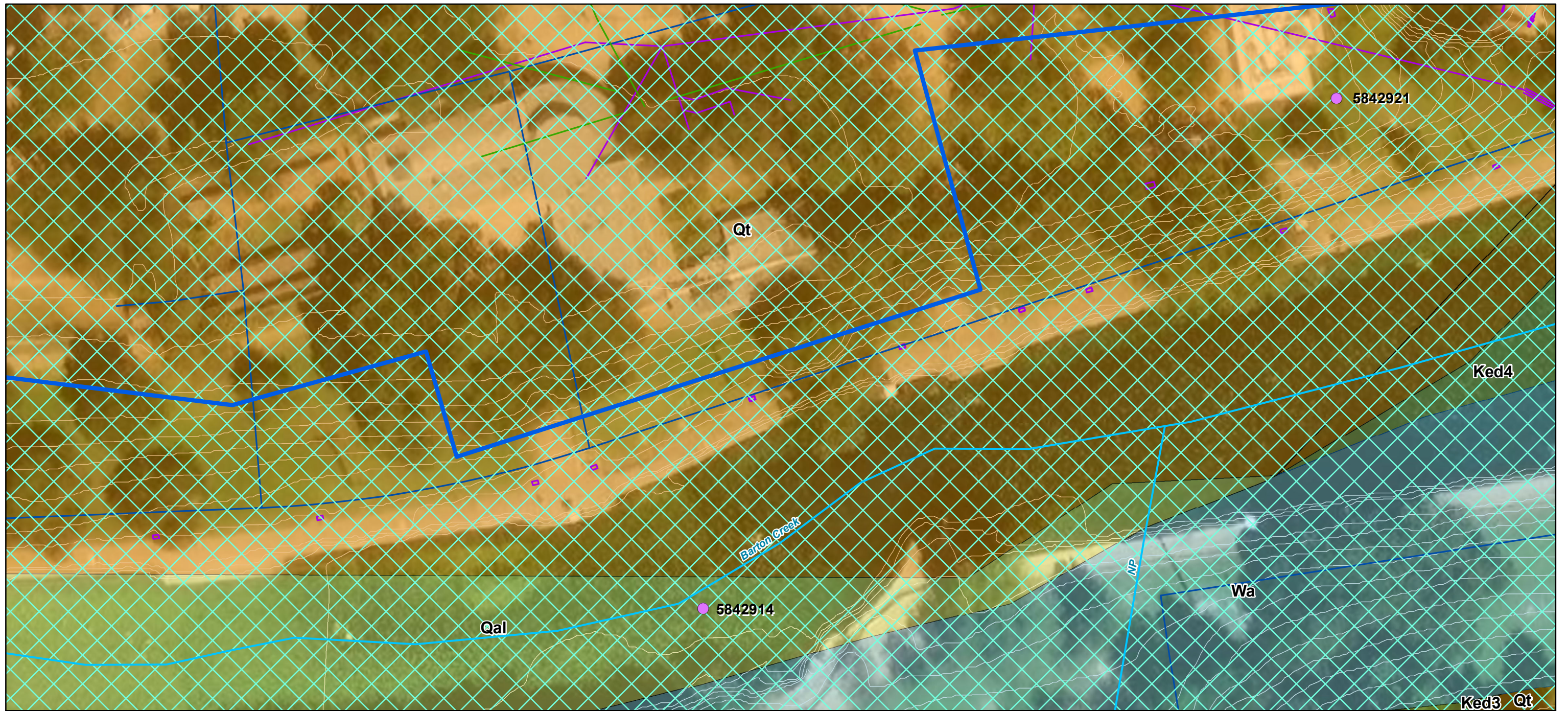
0 5 10 15 20 25 Meters

1 inch = 40 feet

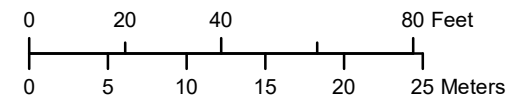
KARA POSSO
GEOLOGY
15382
LICENSED PROFESSIONAL GEOSCIENTIST

AUBRIA JENSON
GEOLOGY
11007
LICENSED PROFESSIONAL GEOSCIENTIST

MICHAEL JONES
GEOLOGY
15517
LICENSED PROFESSIONAL GEOSCIENTIST



Basemap: ESRI 2024, World Imagery; Geology GAT 20210, 24K resolution; Contours: COA GIS 2017. Flood Zones: FEMA FIRM Panel 48453C0445K, effective 1/22/2020; Wells: TWDB groundwater database, accessed March 2024; Water and Wastewater Mains: Austin Water 2020; Stormwater Drainage: Doucet 2024.



1 inch = 40 feet



Geology

- Ked3 - Edwards Fm. Member 3
- Ked4 - Edwards Fm. Member 4
- Qal - Alluvium
- Qt - Tributary Terrace Deposits
- Wa - Water

Fault Type

- Concealed Normal
- Unspecified

GA Features

- GA Features
- Wastewater Main
- Water Main
- Stormwater Drainage

FEMA Flood Zones

- 100-year Flood Zone
- 500-yr Flood Zone
- Streams

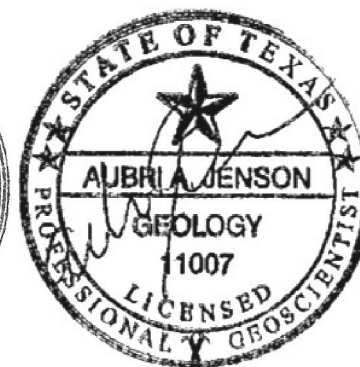
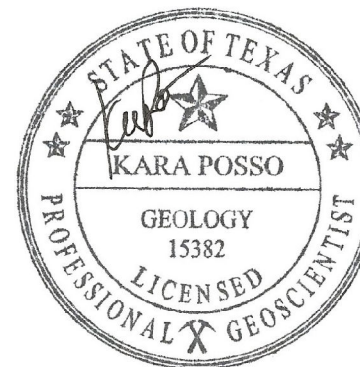
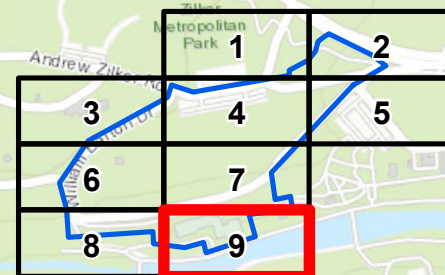
Survey Area

- Survey Area
- COA 2ft Contours

Wells (TWDB)

- Groundwater Wells
- SDRDB Wells

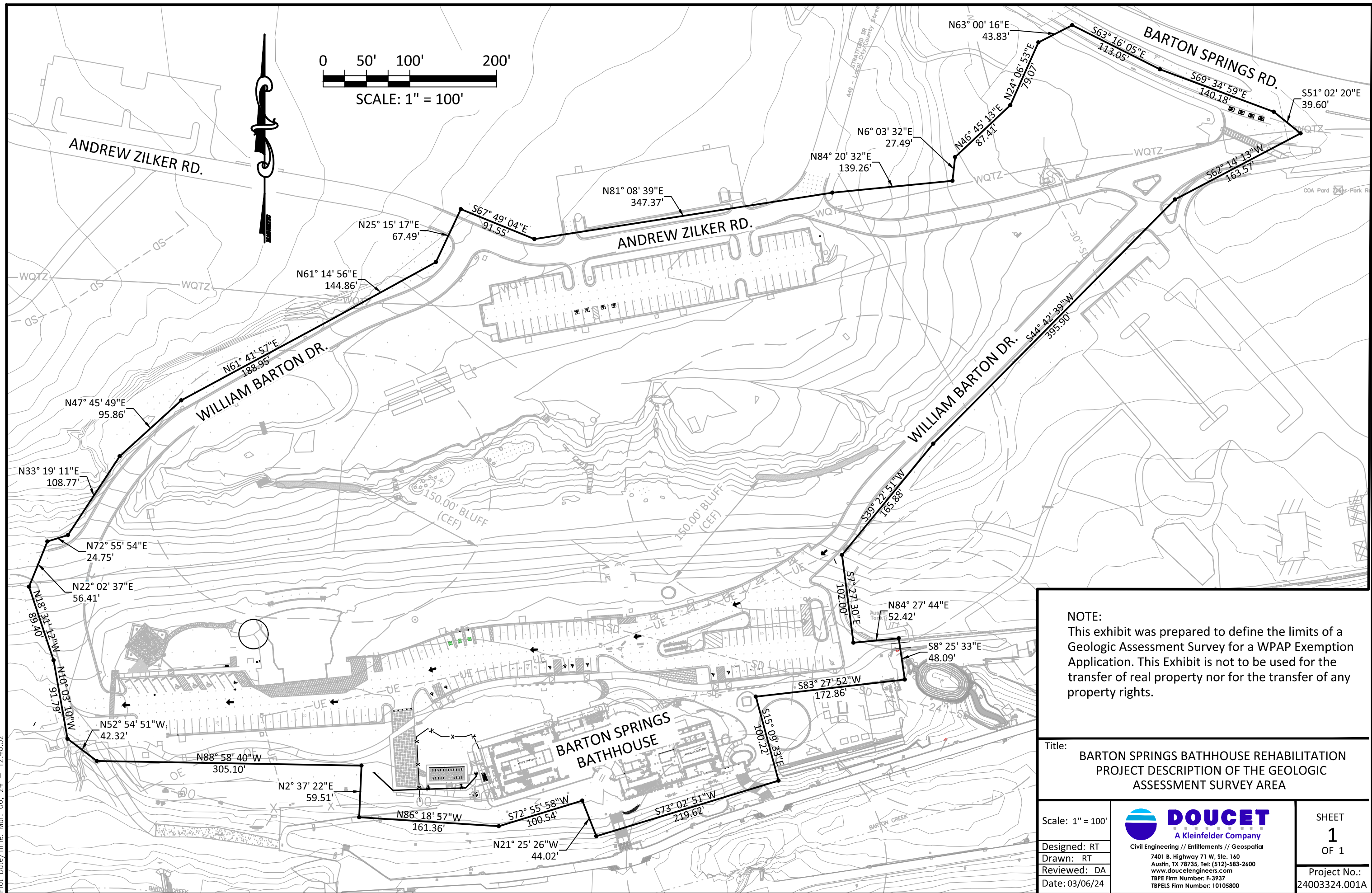
Page 9 of 9



SUPPLEMENTAL ATTACHMENT

Supplemental Attachment. Survey Area Metes and Bounds Description

Drawing: P:\1563-004\CADD\dwg_working_drawings_submitted\1563-004_EXHIBIT.dwg
 User: RTAMAYO
 Last Modified: Mar. 06, 24 - 12:39
 Plot Date/Time: Mar. 06, 24 - 12:40:32



NOTE:
 This exhibit was prepared to define the limits of a Geologic Assessment Survey for a WPAP Exemption Application. This Exhibit is not to be used for the transfer of real property nor for the transfer of any property rights.

Title: **BARTON SPRINGS BATHHOUSE REHABILITATION PROJECT DESCRIPTION OF THE GEOLOGIC ASSESSMENT SURVEY AREA**

Scale: 1" = 100'	 DOUCET A Kleinfelder Company Civil Engineering // Entitlements // Geospatial 7401 B. Highway 71 W. Ste. 160 Austin, TX 78735. Tel: (512)-583-2600 www.doucetengineers.com TBPE Firm Number: F-3937 TBPELS Firm Number: 10105800	SHEET 1 OF 1 Project No.: 24003324.001A
Designed: RT		
Drawn: RT		
Reviewed: DA		
Date: 03/06/24		

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: Tom Curran

Date: 12/7/2023

Signature of Customer/Agent:



Regulated Entity Name: Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation

Exception Request

- 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.
- Attachment B - Documentation of Equivalent Water Quality Protection.** Documentation demonstrating equivalent water quality protection for the Edwards Aquifer is attached.

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



Attachment A

Ref: City of Austin Barton Springs Bathhouse Rehabilitation
Request for Exception from the Requirements of the Edwards Aquifer Protection Program Rules
30 Texas Administrative Code (TAC) Chapter 213

On behalf of the City of Austin, Doucet is submitting this Exception Request from the TCEQ Water Pollution Abatement Plan 30 TAC 213.3 which exempts maintenance of existing structures from the definition of a regulated activity if the maintenance does not involve addition site disturbance and there is little or no potential for contaminating ground water.

The scope of site work proposed through this Exception Request is to rehabilitate the historic Barton Springs Bathhouse and provide accessibility, emergency response, and water quality enhancement from existing conditions. This project is also going through review by the City of Austin.

Introduction

The City of Austin's Parks and Recreation Department desires to rehabilitate aged internal and external facilities at the historic bathhouse. These improvements include:

- Life Safety Egress and ADA accessibility improvements to the Bathhouse and Barton Springs Pool perimeter area.
- Improved fire department access on west side of existing building
- Internal plumbing and roof drainage enhancement.
- Building flood flow resistant improvements for the existing structure that is within the floodplain.
- Rehabilitation of rotunda and dressing areas
- Improvements to aquatic facility storage for Watershed Protection Department salamander biologists
- Revamping existing internal exhibits.
- Reconfiguring parking lot area to reduce impervious cover
- Enhancing water quality from an existing upstream parking lot area

Impervious Cover

The proposed maintenance activities will result in a reduction of impervious cover by 302 square feet and there is no expansion of existing facilities.

Watershed and Floodplain

The property is located in the Barton Creek watershed, which is located within the Edwards Aquifer Recharge Zone. A portion of the site is also located within the FEMA and City of Austin 100-year floodplains.

Critical Environmental Features

An Environmental Resource Inventory and Geologic Assessment have been performed for the area of interest and is being provided with this Exception Request. Barton and Eliza Springs are Critical Environmental Features (CEFs) and maintenance and building rehabilitation is within 150-feet of these features.

Storm Water Quality

There will be a net decrease in impervious cover and the proposed work is not defined as a regulated activity under 30 TAC 213. The project proposes to provide stormwater quality improvements to treat existing impervious cover



for portions of an existing parking lot. The water quality measure will be a passive vegetative filter strip followed by a bio-filtration area and natural infiltration component. This water quality enhancement measure provides stormwater runoff treatment to the existing parking area in lieu of the existing conditions in which discharge is directly into the creek through the stormwater bypass structure along the north side of the Barton Springs Pool.

Erosion and Sedimentation Control

Temporary erosion and sedimentation control measures will be installed in accordance with the City of Austin and TCEQ requirements. Given that the area of work is slightly over one-acre, the city proposes to require a Stormwater Pollution Prevention Plan meeting the TCEQ SW3P guidance standards. Any disturbed areas outside of existing pavement areas will be stabilized and re-vegetated prior to removal of temporary erosion controls.

Water & Wastewater Service

The existing bathhouse is served by an existing metered 6-inch dead end water line. In order to provide adequate fire-fighting flow capability, an 8-inch water line within the existing parking lot will be extended to the bathhouse.

There is an existing 6-inch wastewater service line that connects to an existing 8-inch line north of the bathhouse that connects to an existing 42-inch concrete gravity line. Records indicate that the 6-inch service lines for the building are vitrified clay pipe so these service laterals will be replaced with pressure rated PVC pipe. or abandoned.

If you have any questions or comments or need additional information, please contact us at any time.

A handwritten signature in blue ink, appearing to read "Tom Curran", is written over a horizontal line.

Tom Curran, PE
Sr. Project Manager
Doucet & Associates, Inc.

TBPE Firm# 3937
TBPLS Firm# 10194551



Attachment B

October 20, 2023

Re: TCEQ Edwards Aquifer Protection Plan
City of Austin Barton Springs Bathhouse Rehabilitation
Recharge Zone Exception Request
Documentation of Equivalent Water Quality Protection

Demonstrating equivalent Waster Quality Protection is no applicable in this case. This project is not a development project and will not result in any increase of impervious cover. The proposed storm water quality enhancement pond is to improve water quality from an existing parking lot that has no water quality measures and discharges into Barton Creek. Temporary construction phase erosion protection measures will be designed by a licensed Professional Engineer and the Contractor will have a Stormwater Pollution Prevention Plan to implement and monitor during the construction phase.

Sincerely,

Doucet & Associates

A handwritten signature in blue ink, appearing to read "Tom Curran", is written over a horizontal line.

Tom Curran, PE
Senior Project Manager

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.

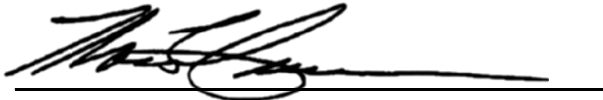
Signature

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: Tom Curran, PE

Date: April 15, 2024

Signature of Customer/Agent:



Regulated Entity Name: City of Austin

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: NA

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: Barton Creek

Temporary Best Management Practices (TBMPs)

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

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

- A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
 - A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
 - A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
 - A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8. The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
 - There will be no temporary sealing of naturally-occurring sensitive features on the site.
9. **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
 - For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
 - There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

- There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- N/A
12. **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Attachment A – Spill Response Actions

(Note: the attachments to the Temporary Pollution Prevention Control Measures and discussion below were taken from a previously approved TCEQ WPAP application for a construction project in Comal County (Johnson Ranch Section 3) and modified as needed to address the particulars of the Barton Springs Bathhouse rehabilitation project and the TCEQ WPAP Exception application)

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses. Measures include reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

- (1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a “significant spill” is for each material they use, and what is the appropriate response for “significant” and “insignificant” spills. Employees should also be aware of when spill must be reported to the TCEQ. Information is available in 30 TAC 327.4 and 40 CFR 302.4. For this project, any spill should be reported immediately to the site superintendent/foreman, regardless of amount.
- (2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- (3) Hold regular meetings to discuss and reinforce appropriate prevention and disposal procedures (incorporate into regular safety meetings).
- (4) Ensure that all employees and subcontractors understand the environmental and cultural significance of Barton Springs, Eliza Springs, Barton Creek, and surrounding area, which will be their temporary work environment.
- (5) Establish a continuing education program to indoctrinate new employees.
- (6) Have a contractor’s superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- (1) To the extent that the work can be accomplished safely, spills of oil, petroleum, products, substances listed under 40 CFR parts 110, 117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- (2) Store hazardous materials and wastes in covered containers and protect from vandalism. Any waste storage area will be designated appropriately and located outside of drainage pathways and at least 150-feet from the creek or springs.
- (3) Place stockpiles of spill cleanup materials where it will be readily accessible.
- (4) Train employees in spill prevention and cleanup.
- (5) Designate responsible individuals to oversee and enforce control measures.
- (6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn’t compromise cleanup activities.
- (7) Do not bury or wash spills with water.
- (8) Store and dispose of used clean up materials, contaminated materials, and

recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMP's.

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

Cleanup

- (1) Clean up leaks and spills immediately
- (2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- (3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- (1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- (2) Use absorbent materials on small spills rather than hosing down or burying the spill.
- (3) Absorbent materials should be promptly removed and disposed of properly.
- (4) Follow the practice below for a minor spill:
- (5) Contain the spread of the spill
- (6) Recover spilled materials
- (7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

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

Spills should be cleaned up immediately using the following steps:

- (1) Contain spread of the spill
- (2) Notify the project foreman immediately
- (3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- (4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

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

Significant/Hazardous Spills

- (1) Notify the TCEQ by telephone as soon as possible and certainly within 24 hours at 512- 339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- (2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- (3) Notification should first be made by telephone and followed up with a written report.
- (4) The services of a spill contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- (5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at : <http://www.tceq.texas.gov/response/>

Vehicle and Equipment Maintenance

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

Vehicle and Equipment Fueling

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

To report an environmental emergency, discharge, spill, or air release, contact:

State

- **State of Texas Spill-Reporting Hotline and the [SERC](#):**
- **1-800-832-8224—24 hours a day**
- **[TCEQ Austin Regional Office](#)**, Monday-Friday, 8:00 a.m.–5:00 p.m. 512- 339-2929 (Austin)

Go to:

<https://www.tceq.texas.gov/response/spills/spills.html>

for additional information on Spill Protocol

Attachment B – Potential Sources of Contamination

Potential Source:	Oil, grease, fuel, and hydraulic fluid contamination from
	construction equipment and vehicle drippings
Preventative Measure:	Vehicle maintenance, when possible, will be performed within the
	construction staging areas.

Potential Source:	Miscellaneous trash and litter from construction
Preventative Measure:	Trash containers will be placed throughout the site to encourage proper trash disposal.

Potential Source:	Construction debris
Preventative Measure:	Construction debris will be monitored daily by contractor.
	Debris will be collected on at least a weekly if not daily basis and placed in disposal bins.

Attachment C – Sequence of Major Activities

For all activities listed below, Erosion and Sediment control measures have been included in the construction plans to lessen the impact of disturbed soils during the major activities in construction. Please refer to these sheets in the Construction Drawings for more detailed information.

Install temporary erosion and sedimentation controls.

- Mulch socks
- Tree Protection and protection of existing vegetative areas not to be disturbed.

Construction of Utilities:

- Install new wastewater lines
- Install new water lines
- Install new electric & communication lines

Internal Building/bathhouse rehabilitation

Construction of Water Quality improvements

- for runoff from pre-existing parking area.

Revegetation of all disturbed areas not under existing pavement.

**Total Disturbed
Area: 1.2 acres**

**New Impervious
Cover:
0.000 acres**

(there will be a slight reduction of impervious cover from existing conditions)

Attachment D – Temporary Best Management Practices and Measures

Temporary BMP's included in this plan include:

- Mulch Socks
- Storm Inlet Filter Dikes
- Tree Protection Fencing
- Fencing to protect existing vegetation areas to minimize disturbance
- Contained Concrete wash out area

Temporary measures are intended to provide a method of slowing the flow or runoff from the construction site in order to allow sediment and suspended solids to settle out of the water. By containing the sediment and solids within the site, they will not enter surface streams and/or sensitive features.

Site Preparation:

While there is little clearing and grading of the land proposed given existing developed conditions of the site, excavation for utility trenches and areas around the bathhouse will disturb soil, so erosion control measures will be installed as the first step in construction. The methodology for pollution prevention of all on-site stormwater will include a) the erection of mulch socks along the downgradient boundary of the construction activities, b) installation of mulch socks downgradient from areas of concentrated stormwater flow, c) installation of contained concrete washout area, and d) installation of a construction staging area.

Construction:

All installed erosion control measures will be inspected, and as necessary, repaired before any additional construction begins, as well as inspected periodically throughout the construction process in accordance with the Contractor's Stormwater Pollution Prevention Plan (SW3P). The contractor will be responsible for all maintenance of erosion control measures, as well as the installation of all remaining on-site control measures.

The following measures are proposed pollution preventative measures for these areas:

Onsite storm water / surface water / groundwater – Mulch socks are predominantly being utilized given the park nature of the site. Tree protection and fencing off existing vegetative areas will also be incorporated to limit construction footprint and minimize erosion.

Attachment E – Request to Temporarily Seal a Feature (if sealing a feature)

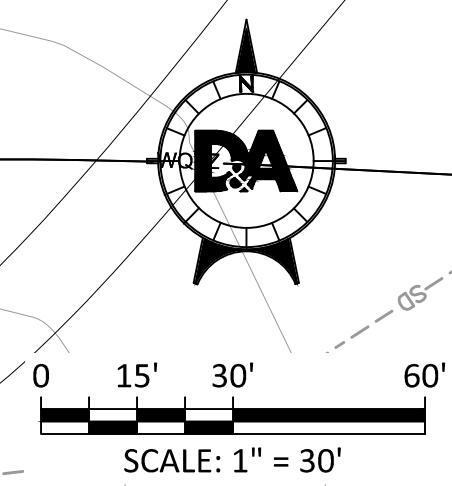
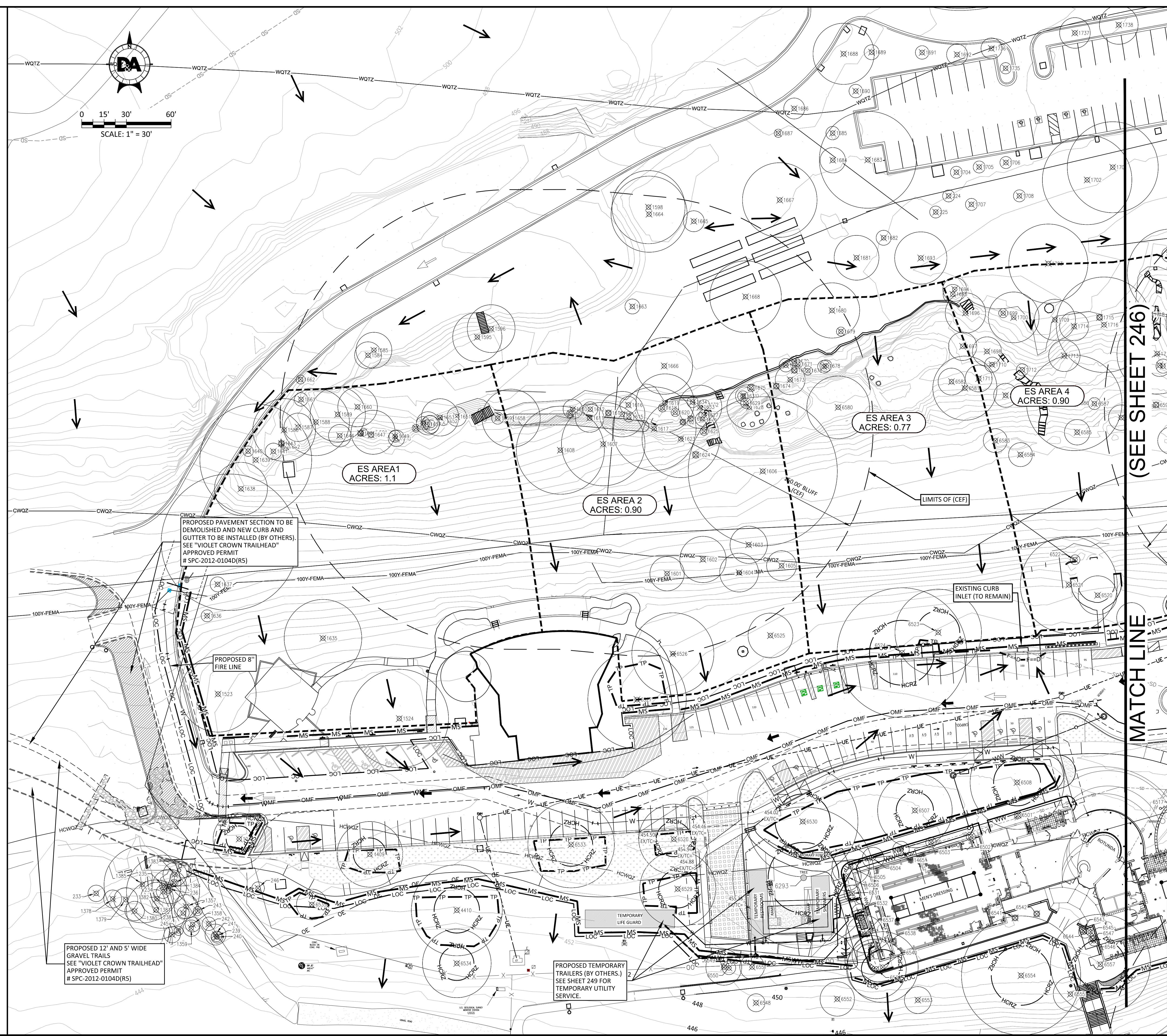
There is no feature we know of that will need to be sealed. We will notify TCEQ if we come across one.

Attachment F – Structural Practices

We have no structural practices.

Attachment G – Drainage Area Map

IF THIS SHEET IS NOT 24" X 36", THEN IT IS A REDUCED PRINT.



CONTRACTOR NOTES:
EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION.
CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.
CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

EROSION / SEDIMENTATION AND TREE PROTECTION LEGEND

LOC	LIMITS OF CONSTRUCTION	STABILIZED CONSTRUCTION ENTRANCE (SCE)	(C.O.A. DETAIL 6415-1)
DF	DRAINAGE FLOW DIRECTION	TEMPORARY SPOILS SITE	
TP	TREE PROTECTION FENCE (C.O.A. DETAIL 6105-1 & 6105-4)	CONSTRUCTION STAGING AREA	
MS	MULCH SOCK (C.O.A. DETAIL 6395-1)	EROSION CONTROL BLANKET	
OMF	ORANGE MESH SAFETY FENCE	CONCRETE WASHOUT AREA	
SF	SILT FENCE		
F=D	FILTER DIKE CURB INLET PROTECTION (C.O.A. DETAIL 6285-2)		
TFD	TRIANGULAR FILTER DIKE		
HCRZ	HALF CRITICAL ROOT ZONE		
1000	EXISTING TREES (TO REMAIN)	1000	EXISTING TREES (TO BE REMOVED)
DETAIL NUMBER	DETAIL NAME	DETAIL CALLOUT REFERENCE	
SHEET NUMBER	X / XX	DETAIL CALLOUT REFERENCE	
DETAIL NUMBER	X / XX	DETAIL CALLOUT REFERENCE	
SHEET NUMBER	X / XX	DETAIL CALLOUT REFERENCE	

- EROSION / SEDIMENTATION CONTROL NOTES:**
- THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/ SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
 - CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
 - SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH ECM 1.4.2(G).
 - ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES (REFER TO NOTE SHEET FOR SPEC). ALL DISTURBED AREAS WITH SLOPES 5:1 OR STEEPER, WHICH ARE NOT ARMORED OTHERWISE, SHALL HAVE A SOIL RETENTION BLANKET (EXCELSIOR II OR APPROVED EQUAL) INSTALLED TO ASSIST WITH REVEGETATION.
 - IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. (ECM 1.4.4.B.3. SECTION 5.1)
 - THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY. (ECM 1.4.4.D.4)
 - ALL SPOILS ARE TO BE PLACED BACK IN TRENCHES EVERY NIGHT; OR IF SPOILS PILES ARE TO REMAIN OVERNIGHT, SPOILS MUST BE PLACED ON THE UPHILL SIDE OF TRENCH WITHIN LOC.
 - WHEN INSTALLING MULCH LOGS, IF DAYLIGHT CAN BE SEEN UNDER MULCH LOG DUE TO TOPOGRAPHY CHANGES, ADD ADDITIONAL ROWS OF MULCH LOG TO CLOSE GAPS.
 - ONLY RUBBER-TIRED EQUIPMENT IS ALLOWED WITHIN THE CWQZ AND FLOODPLAIN. NO TRACK EQUIPMENT IS ALLOWED.
 - ALL EQUIPMENT AND SPOILS ARE TO BE REMOVED FROM CREEK, THE CWQZ, AND 100-YEAR FLOODPLAIN NIGHTLY.

NOTE:
SEE SHEET 247 FOR TREE LIST

R6 NEW SHEET

SITE PLAN RELEASE

SITE PLAN APPROVAL SHEET 245 OF 271
 FILE NUMBER: SPC-2012-0104D(R6) APPLICATION DATE: _____
 APPROVED BY COMMISSION ON: _____ UNDER SECTION: _____ OF
 CHAPTER _____ OF THE CITY OF AUSTIN CODE.
 EXPIRATION DATE (25-5-81, LDC): _____ CASE MANAGER CLARISSA E. DAVIS
 PROJECT EXPIRATION DATE (ORD#970905): _____ DWPZ: _____ DDZ: _____

Development Services Department
 RELEASED FOR GENERAL COMPLIANCE: _____ ZONING: _____
 Rev. 1 _____ Correction 1
 Rev. 2 _____ Correction 2
 Rev. 3 _____ Correction 3

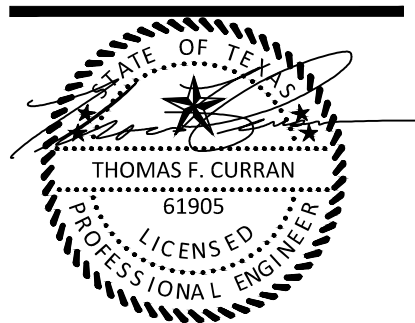
Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the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

SPC-2012-0104D (R6)

DOUCET & ASSOCIATES
 Civil Engineering - Earth Retention - Surveying/Mapping
 7401 B. Highway 71 W, Suite 160
 Austin, Texas 78735. Phone: (512)-583-2600
 www.doucetengineers.com
 Firm Registration Number: 3937

ZILKER METRO - BARTON SPRINGS
BATHHOUSE REHABILITATION IMPROVEMENTS

EROSION AND SEDIMENTATION CONTROL PLAN SHEET 1



1/4/2024

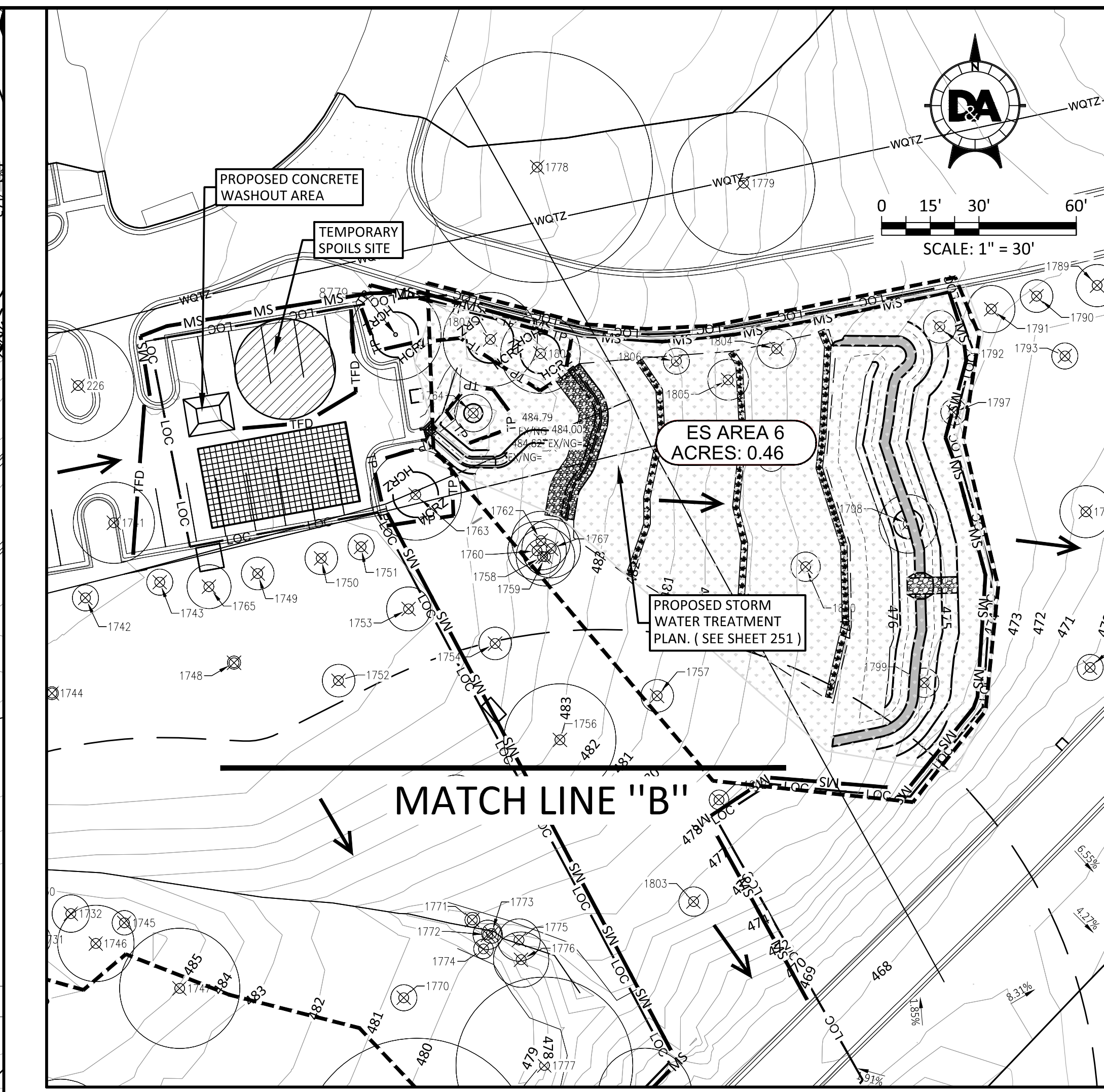
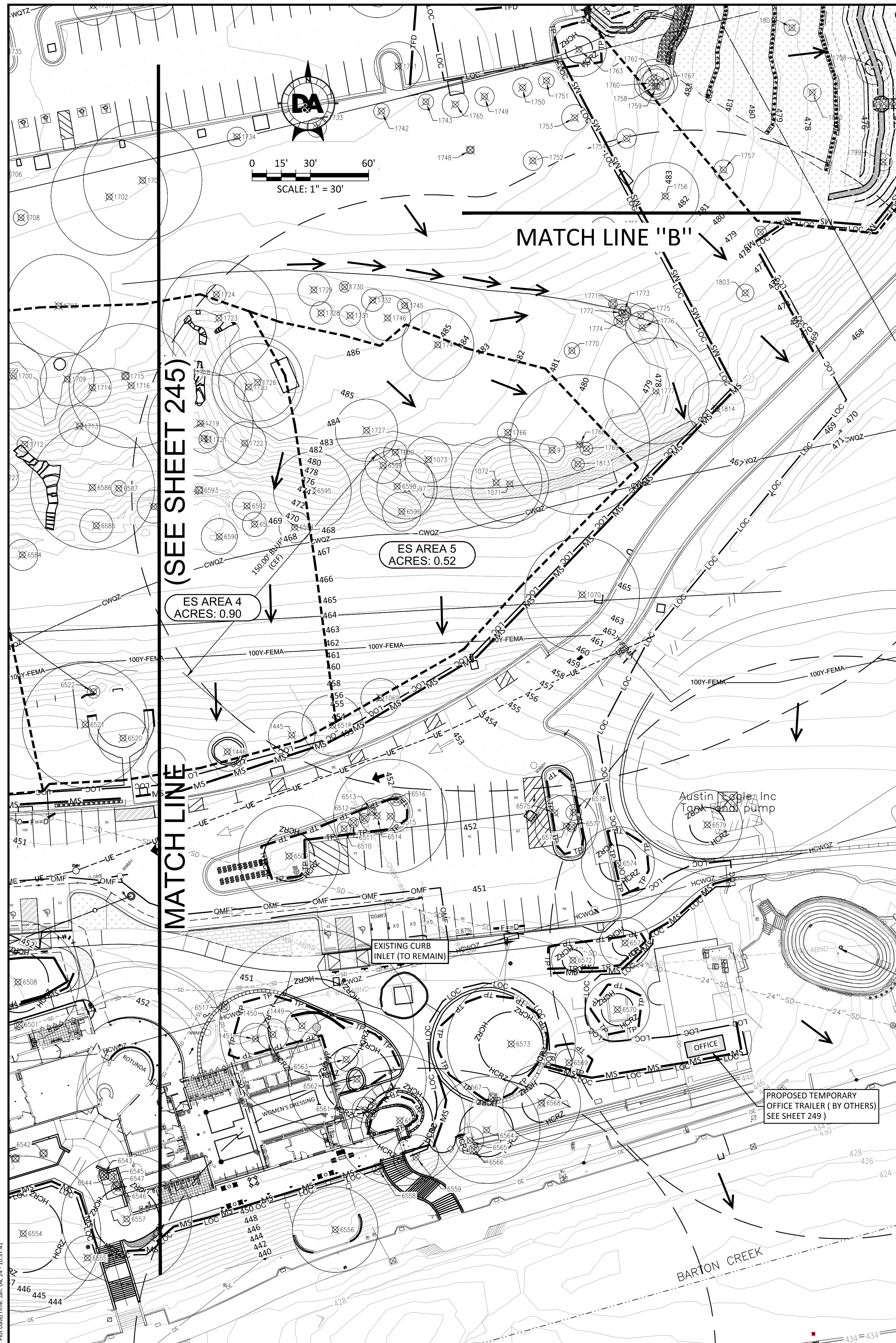
Designed: TFC
 Drawn: ZD RT
 Reviewed: TFC
 Date: 1/4/2024

SHEET 245
 OF 271

Project No.:
 (P) 1563-004

Drawing: PA1563-004(LOC)dwg Working Drawings/submitting/245 EROSION AND SEDIMENTATION CONTROL DETAIL SHEET.dwg
 User: RTAMAYO
 Last Modified: Jan 24, 09:46
 Plot Date/Time: Jan 24, 10:37:24

IF THIS SHEET IS NOT 24" X 36", THEN IT IS A REDUCED PRINT.



CONTRACTOR NOTES:
 EXISTING UNDERGROUND & OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION.
 CONTRACTOR TO CALL 811 FOR UTILITY LOCATES PRIOR TO EXCAVATION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTH PRIOR TO BEGINNING CONSTRUCTION.
 CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

EROSION / SEDIMENTATION AND TREE PROTECTION LEGEND

LOC	LIMITS OF CONSTRUCTION	STABILIZED CONSTRUCTION ENTRANCE (SCE) (C.O.A. DETAIL 6415-1)	
DR	DRAINAGE FLOW DIRECTION	TEMPORARY SPOILS SITE	
TP	TREE PROTECTION FENCE (C.O.A. DETAIL 6105-1 & 6105-4)	CONSTRUCTION STAGING AREA	
MS	12" MULCH LOG (C.O.A. DETAIL 6395-1)	EROSION CONTROL BLANKET	
OMF	ORANGE MESH SAFETY FENCE	CONCRETE WASHOUT AREA	
SF	SILT FENCE		
F=D	FILTER DIKE CURB INLET PROTECTION (C.O.A. DETAIL 6285-2)		
TFD	TRIANGULAR FILTER DIKE		
HCRZ	HALF CRITICAL ROOT ZONE		
1000	EXISTING TREES (TO REMAIN)	1000	EXISTING TREES (TO BE REMOVED)
DETAIL NUMBER	DETAIL NAME	DETAIL CALLOUT REFERENCE	
SHEET NUMBER	X	X / XX	
DETAIL NUMBER	X / XX	DETAIL CALLOUT REFERENCE	

- EROSION / SEDIMENTATION CONTROL NOTES:**
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NOTE:
SEE SHEET 247 FOR TREE LIST

R6 NEW SHEET

SITE PLAN RELEASE

SITE PLAN APPROVAL	SHEET 246 OF 271
FILE NUMBER: SPC-2012-0104D(R6)	APPLICATION DATE: _____
APPROVED BY COMMISSION ON _____	UNDER SECTION _____ OF
CHAPTER _____	OF THE CITY OF AUSTIN CODE.
EXPIRATION DATE (25-5-81, LDC) _____	CASE MANAGER CLARISSA E. DAVIS
PROJECT EXPIRATION DATE (ORD-979095) _____	DWPZ _____ DDZ _____

Development Services Department
 RELEASED FOR GENERAL COMPLIANCE: _____ ZONING _____

Rev. 1 _____ Correction 1
 Rev. 2 _____ Correction 2
 Rev. 3 _____ Correction 3

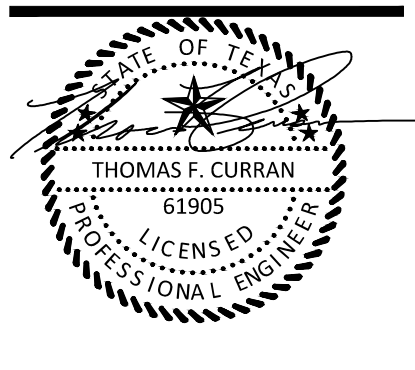
Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a building permit is not required), must also be approved prior to the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

SPC-2012-0104D (R6)

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 Austin, Texas 78735, Phone: (512)-583-2600
 www.doucetengineers.com
 Firm Registration Number: 3187

ZILKER METRO - BARTON SPRINGS
 BATHHOUSE REHABILITATION IMPROVEMENTS

EROSION AND SEDIMENTATION CONTROL PLAN SHEET 2



1/4/2024

Designed: TFC
 Drawn: ZD RT
 Reviewed: TFC
 Date: 1/4/2024

SHEET 246 OF 271

Project No.: (P) 1563-004

Drawing: PA1563-004(ADD)dwg/working_drawing/submit/0421 EROSION AND SEDIMENTATION CONTROL DETAIL SHEET.dwg
 User: RTAMAYO
 Last Modified: Jan 24, 09:46
 Plot Date/Time: Jan 24, 10:37:41

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

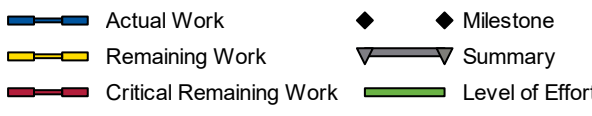

There is no increase in impervious cover. We are providing a pond, but that was just for providing environmental enhancement for the City process.

Attachment I – Inspection and Maintenance for BMPs

There is no increase in impervious cover. We are providing a pond, but that was just for providing environmental enhancement for the City process.







Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
Zilker Metro Park - Barton Springs Bath		281	251	04-Mar-24	03-Apr-25	13-May-25	28																
Milestones		215	215	29-May-24	03-Apr-25	13-May-25	28																
A1510	Bathroom Facilities/Amenities Closed To Public	0	0	29-May-24			31	◆ Bathroom Facilities/Amenities Closed To Public															
A1820	Temporary Trailers Open	0	0	29-May-24			28	◆ Temporary Trailers Open															
A1480	Building Dry In	0	0		27-Nov-24	18-Mar-25	75	◆ Building Dry In															
A1500	Conditioned Air	0	0		27-Nov-24	18-Mar-25	75	◆ Conditioned Air															
A1010	Substantial Completion	0	0		06-Mar-25	15-Apr-25	28	◆ Substantial C															
A1020	Final Completion	0	0		03-Apr-25	13-May-25	28	◆ Final Co															
Issues		5	5	08-Apr-24	12-Apr-24	22-May-24	28	▽ Issues															
A3130	RFI #009	5	5	08-Apr-24	12-Apr-24	22-May-24	28	■ RFI #009															
Pre-Construction		170	155	11-Mar-24	14-Nov-24	13-May-25	124	▽ Pre-Construction															
Submittal Review		40	25	18-Mar-24	10-May-24	11-Sep-24	84	▽ Submittal Review															
A2210	Structural Glaze Tile	20	15	18-Mar-24	26-Apr-24	27-Aug-24	84	■ Structural Glaze Tile															
A1780	FCU's	10	10	29-Apr-24	10-May-24	11-Sep-24	84	■ FCU's															
Procurement		170	155	11-Mar-24	14-Nov-24	13-May-25	124	▽ Procurement															
A1180	Electrical Panels	150	150	11-Mar-24	07-Nov-24	13-May-25	129	■ Electrical Panels															
A2220	Structural Glaze Tile	80	80	29-Apr-24	21-Aug-24	13-May-25	184	■ Structural Glaze Tile															
A1170	FCU's	130	130	13-May-24	14-Nov-24	18-Mar-25	84	■ FCU's															
Construction		266	231	04-Mar-24	13-Mar-25	13-May-25	43	▽ Construction															
Phase 1		66	31	04-Mar-24	28-May-24	09-Jul-24	28	▽ Phase 1															
A1030	Excavate New Water Line	10	5	04-Mar-24	19-Apr-24	30-May-24	28	■ Excavate New Water Line															
A1380	Install New Water Line	10	5	11-Mar-24	19-Apr-24	30-May-24	28	■ Install New Water Line															
A1210	Excavate Electrical Duct Bank	5	5	15-Apr-24	19-Apr-24	05-Jun-24	32	■ Excavate Electrical Duct Bank															
A1590	Install Duct Bank Conduits	5	5	17-Apr-24	23-Apr-24	07-Jun-24	32	■ Install Duct Bank Conduits															
A1520	Test/Inspection Water Line	2	2	22-Apr-24	23-Apr-24	03-Jun-24	28	■ Test/Inspection Water Line															
A1600	Electrical Duct Bank Inspection	2	2	23-Apr-24	24-Apr-24	10-Jun-24	32	■ Electrical Duct Bank Inspection															
A1610	Pour Electrical Duct Bank	2	2	23-Apr-24	24-Apr-24	10-Jun-24	32	■ Pour Electrical Duct Bank															
A1620	Backfill Electrical Duct Bank	2	2	23-Apr-24	24-Apr-24	10-Jun-24	32	■ Backfill Electrical Duct Bank															
A1530	Backfill Water Line	4	4	24-Apr-24	29-Apr-24	07-Jun-24	28	■ Backfill Water Line															
A1050	Grade New Flatwork	5	5	30-Apr-24	06-May-24	14-Jun-24	28	■ Grade New Flatwork															
A1550	Excavate Sewer Line	5	5	30-Apr-24	06-May-24	24-Jun-24	34	■ Excavate Sewer Line															
A1200	Form Up New Flatwork	10	10	02-May-24	15-May-24	25-Jun-24	28	■ Form Up New Flatwork															

Start Date: 19-Feb-24 Finish Date: 03-Apr-25 Data Date: 08-Apr-24 Run Date: 10-Apr-24		<h3>Zilker Metro Park - Barton Springs Bathhouse Rehabilitation</h3> <p>Zilker Metro Park</p>	
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Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
A1040	Scarfy/Compact Subgrade For Pervious Pav	4	4	03-May-24	08-May-24	18-Jun-24	28																	
A1560	Install Sewer Line	4	4	07-May-24	10-May-24	28-Jun-24	34																	
A1660	Install Geotextile Fabric	2	2	09-May-24	10-May-24	20-Jun-24	28																	
A2060	Place & Pour Removeable Bollards	3	3	09-May-24	13-May-24	25-Jun-24	30																	
A1570	Test/Inspection Sewer Line	2	2	13-May-24	14-May-24	02-Jul-24	34																	
A1670	Install ASTM NO. 57 Stone	3	3	13-May-24	15-May-24	25-Jun-24	28																	
A1580	Backfill Sewer Line	3	3	15-May-24	17-May-24	09-Jul-24	34																	
A1630	Install Reinforceing At New Flatwork	4	4	16-May-24	21-May-24	01-Jul-24	28																	
A1680	Install Bedding Sand	3	3	16-May-24	20-May-24	28-Jun-24	28																	
A1690	Lay Porous Pavers Geoblock	5	5	21-May-24	28-May-24	09-Jul-24	28																	
A1640	Reinforceing Inspection New Flatwork	2	2	22-May-24	23-May-24	03-Jul-24	28																	
A1650	Pour New Flatwork	2	2	24-May-24	28-May-24	09-Jul-24	28																	
Phase 1A		21	21	23-Apr-24	21-May-24	09-Jul-24	32	▼ Phase 1A																
A1790	Mobilize Temporary Shower Trailer	1	1	23-Apr-24	23-Apr-24	07-Jun-24	32																	
A1190	Mobilize Temporary Restroom Trailer	1	1	24-Apr-24	24-Apr-24	10-Jun-24	32																	
A1060	Mobilize Temporary Life Guard Trailer	1	1	25-Apr-24	25-Apr-24	11-Jun-24	32																	
A2050	Rehab Temp Trailers	5	5	26-Apr-24	02-May-24	18-Jun-24	32																	
A1240	Hook Up Power To Temp Trailers	5	5	03-May-24	09-May-24	25-Jun-24	32																	
A1360	Hook Up Sewer To Temp Trailers	4	4	10-May-24	15-May-24	01-Jul-24	32																	
A1260	Hook Up Water To Temp Trailers	4	4	16-May-24	21-May-24	09-Jul-24	32																	
Phase 1B		40	40	09-Aug-24	04-Oct-24	15-Apr-25	133	▼ Phase 1B																
A1420	Establish Perimeter Fence	2	2	09-Aug-24	12-Aug-24	20-Feb-25	133																	
A1070	Install Erosion Control Measures	3	3	13-Aug-24	15-Aug-24	25-Feb-25	133																	
A1080	Regrade Water Quality Pond	10	10	16-Aug-24	29-Aug-24	11-Mar-25	133																	
A1090	Form/Pour Pilot Channel	5	5	30-Aug-24	06-Sep-24	18-Mar-25	133																	
A1100	Install Rock Spreader Structures	5	5	09-Sep-24	13-Sep-24	25-Mar-25	133																	
A1110	Install Flow Splitter Box	5	5	16-Sep-24	20-Sep-24	01-Apr-25	133																	
A1120	Install Vegetative Filter Strips	5	5	23-Sep-24	27-Sep-24	08-Apr-25	133																	
A1130	Lay Bermuda SOD	5	5	30-Sep-24	04-Oct-24	15-Apr-25	133																	
Phase 2		130	130	29-May-24	03-Dec-24	13-May-25	113	▼ Phase 2																
Building		130	130	29-May-24	03-Dec-24	13-May-25	113	▼ Building																
Foundation		26	26	17-Jul-24	21-Aug-24	11-Mar-25	139	▼ Foundation																
West		17	17	17-Jul-24	08-Aug-24	18-Feb-25	133	▼ West																

Start Date: 19-Feb-24
 Finish Date: 03-Apr-25
 Data Date: 08-Apr-24
 Run Date: 10-Apr-24







 Actual Work
  Remaining Work
  Critical Remaining Work
 Milestone
  Summary
 Level of Effort

Zilker Metro Park - Barton Springs
Bathhouse Rehabilitation
 Zilker Metro Park



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
A2330	Subgrade Prep	3	3	17-Jul-24	19-Jul-24	04-Sep-24	32																	
A2340	Excavate Grade Beams	4	4	22-Jul-24	25-Jul-24	04-Feb-25	133																	
A2350	Reinforce Grade Beams/Slab	4	4	26-Jul-24	31-Jul-24	10-Feb-25	133																	
A2360	Form Up Slab On Grade	3	3	01-Aug-24	05-Aug-24	13-Feb-25	133																	
A2370	Reinforcing Inspection	1	1	06-Aug-24	06-Aug-24	14-Feb-25	133																	
A2380	Pour Slab On Grade	1	1	08-Aug-24	08-Aug-24	18-Feb-25	133																	
Center		16	16	24-Jul-24	14-Aug-24	11-Mar-25	144																	
A2390	Subgrade Prep	3	3	24-Jul-24	26-Jul-24	09-Sep-24	30																	
A2400	Excavate Grade Beams	4	4	29-Jul-24	01-Aug-24	26-Feb-25	144																	
A2410	Reinforce Grade Beams/Slab	4	4	02-Aug-24	07-Aug-24	04-Mar-25	144																	
A2420	Form Up Slab On Grade	3	3	08-Aug-24	12-Aug-24	07-Mar-25	144																	
A2430	Reinforcing Inspection	1	1	13-Aug-24	13-Aug-24	10-Mar-25	144																	
A2440	Pour Slab On Grade	1	1	14-Aug-24	14-Aug-24	11-Mar-25	144																	
East		16	16	31-Jul-24	21-Aug-24	01-Oct-24	28																	
A2450	Subgrade Prep	3	3	31-Jul-24	02-Aug-24	12-Sep-24	28																	
A2460	Excavate Grade Beams	4	4	05-Aug-24	08-Aug-24	18-Sep-24	28																	
A2470	Reinforce Grade Beams/Slab	4	4	09-Aug-24	14-Aug-24	24-Sep-24	28																	
A2480	Form Up Slab On Grade	3	3	15-Aug-24	19-Aug-24	27-Sep-24	28																	
A2490	Reinforcing Inspection	1	1	20-Aug-24	20-Aug-24	30-Sep-24	28																	
A2500	Pour Slab On Grade	1	1	21-Aug-24	21-Aug-24	01-Oct-24	28																	
Interior		120	120	29-May-24	15-Nov-24	13-May-25	123																	
West		92	92	29-May-24	08-Oct-24	29-Apr-25	141																	
A1700	Install Temporary Protection	3	3	29-May-24	31-May-24	12-Jul-24	28																	
A1710	Selective Demo Building	5	5	03-Jun-24	07-Jun-24	19-Jul-24	28																	
A1720	Abatement Building	5	5	03-Jun-24	07-Jun-24	19-Jul-24	28																	
A1140	Demo Walls	5	5	10-Jun-24	14-Jun-24	26-Jul-24	28																	
A1730	Demo Slab	5	5	17-Jun-24	21-Jun-24	02-Aug-24	28																	
A1760	Demo Underfloor Plumbing	5	5	24-Jun-24	28-Jun-24	09-Aug-24	28																	
A1870	Excavate/Install Underfloor Plumbing	5	5	01-Jul-24	09-Jul-24	16-Aug-24	28																	
A1880	Backfill Underfloor Plumbing	5	5	10-Jul-24	16-Jul-24	29-Aug-24	32																	
A1900	Install Structural Glaze Tile	7	7	22-Aug-24	30-Aug-24	10-Oct-24	28																	
A1940	Rehabilitate Shelter Structures	10	10	22-Aug-24	05-Sep-24	29-Apr-25	164																	
A1850	Electrical Rough In	9	9	13-Sep-24	25-Sep-24	04-Nov-24	28																	

Start Date: 19-Feb-24
 Finish Date: 03-Apr-25
 Data Date: 08-Apr-24
 Run Date: 10-Apr-24

 Actual Work
  Milestone
 Remaining Work
  Summary
 Critical Remaining Work
  Level of Effort

**Zilker Metro Park - Barton Springs
 Bathhouse Rehabilitation**
 Zilker Metro Park









Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
A1860	Plumbing Rough In	18	18	13-Sep-24	08-Oct-24	03-Apr-25	123																	
Center		112	112	10-Jun-24	15-Nov-24	13-May-25	123																	
A2610	Selective Demo Building	5	5	10-Jun-24	14-Jun-24	06-May-25	225																	
A2620	Abatement Building	5	5	10-Jun-24	14-Jun-24	06-May-25	225																	
A2630	Demo Walls	5	5	17-Jun-24	21-Jun-24	06-May-25	220																	
A2640	Demo Slab	5	5	24-Jun-24	28-Jun-24	06-May-25	215																	
A2650	Demo Underfloor Plumbing	5	5	01-Jul-24	09-Jul-24	06-May-25	210																	
A2660	Excavate/Install Underfloor Plumbing	5	5	10-Jul-24	16-Jul-24	23-Aug-24	28																	
A2670	Backfill Underfloor Plumbing	5	5	17-Jul-24	23-Jul-24	04-Sep-24	30																	
A2720	Erect Metal Stud Walls	10	10	15-Aug-24	28-Aug-24	25-Mar-25	144																	
A2680	Erect Cold Formed Metal Framing	15	15	15-Aug-24	05-Sep-24	15-Apr-25	154																	
A2770	Data Rough In	15	15	29-Aug-24	19-Sep-24	15-Apr-25	144																	
A2780	Security Rough In	10	10	29-Aug-24	12-Sep-24	15-Apr-25	149																	
A2710	Install Structural Glaze Tile	10	10	03-Sep-24	16-Sep-24	13-May-25	167																	
A2740	Reinforce/Pour Elevated Deck	5	5	06-Sep-24	12-Sep-24	22-Apr-25	154																	
A2690	Mechanical Duct Rough In	15	15	13-Sep-24	03-Oct-24	13-May-25	154																	
A2700	Mechanical Piping Rough In	15	15	13-Sep-24	03-Oct-24	13-May-25	154																	
A2750	Electrical Rough In	16	16	26-Sep-24	17-Oct-24	26-Nov-24	28																	
A2760	Plumbing Rough In	8	8	09-Oct-24	18-Oct-24	15-Apr-25	123																	
A3100	In Wall Inspection	5	5	21-Oct-24	25-Oct-24	22-Apr-25	123																	
A2810	Apply Spray Foam Insulation	10	10	28-Oct-24	08-Nov-24	06-May-25	123																	
A2800	Close Up Walls	5	5	11-Nov-24	15-Nov-24	13-May-25	123																	
East		105	105	17-Jun-24	13-Nov-24	13-May-25	125																	
A2860	Selective Demo Building	5	5	17-Jun-24	21-Jun-24	13-May-25	225																	
A2870	Abatement Building	5	5	17-Jun-24	21-Jun-24	13-May-25	225																	
A2880	Demo Walls	5	5	24-Jun-24	28-Jun-24	13-May-25	220																	
A2890	Demo Slab	5	5	01-Jul-24	09-Jul-24	13-May-25	215																	
A2900	Demo Underfloor Plumbing	5	5	10-Jul-24	16-Jul-24	13-May-25	210																	
A2910	Excavate/Install Underfloor Plumbing	5	5	17-Jul-24	23-Jul-24	30-Aug-24	28																	
A2920	Backfill Underfloor Plumbing	5	5	24-Jul-24	30-Jul-24	09-Sep-24	28																	
A3090	Install Structural Glaze Tile	15	15	03-Sep-24	23-Sep-24	13-May-25	162																	
A2980	Rehabilitate Shelter Structures	10	10	06-Sep-24	19-Sep-24	13-May-25	164																	
A3000	Electrical Rough In	8	8	18-Oct-24	29-Oct-24	10-Dec-24	28																	
A3010	Plumbing Rough In	18	18	21-Oct-24	13-Nov-24	13-May-25	125																	

Start Date: 19-Feb-24 Finish Date: 03-Apr-25 Data Date: 08-Apr-24 Run Date: 10-Apr-24		<h3>Zilker Metro Park - Barton Springs</h3> <h4>Bathhouse Rehabilitation</h4> <p>Zilker Metro Park</p>	
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Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J
Roof		62	62	03-Sep-24	27-Nov-24	18-Mar-25	75																
A2080	Demo Existing Roof	15	15	03-Sep-24	23-Sep-24	10-Jan-25	75																
A2090	Install New Concrete Roof Deck	10	10	24-Sep-24	07-Oct-24	24-Jan-25	75																
A2110	Install Wood Blocking	4	4	08-Oct-24	11-Oct-24	30-Jan-25	75																
A2100	Install New Rigid Insulation	6	6	14-Oct-24	21-Oct-24	07-Feb-25	75																
A2120	Install New Cover Board	7	7	22-Oct-24	30-Oct-24	18-Feb-25	75																
A2130	Install New Roof Membrane	15	15	31-Oct-24	20-Nov-24	11-Mar-25	75																
A2140	Install New Flashing	5	5	21-Nov-24	27-Nov-24	18-Mar-25	75																
Exterior		71	71	22-Aug-24	03-Dec-24	13-May-25	113																
A1990	Install Exterior Sheathing	7	7	22-Aug-24	30-Aug-24	31-Dec-24	83																
A2000	Install Wind & Water Barrier	9	9	27-Aug-24	09-Sep-24	08-Jan-25	83																
A2010	Install Grid Insulation	8	8	03-Sep-24	12-Sep-24	13-Jan-25	83																
A1920	Lay New Stone Veneer	20	20	09-Sep-24	04-Oct-24	04-Feb-25	83																
A2250	Install New Bond Beams West Elevation	5	5	23-Sep-24	27-Sep-24	28-Jan-25	83																
A2230	Reinstall Stone Caps West Elevation	5	5	30-Sep-24	04-Oct-24	04-Feb-25	83																
A2540	Install New Bond Beams North Elevation	10	10	30-Sep-24	11-Oct-24	22-Apr-25	133																
A2550	Reinstall Stone Caps North Elevation	10	10	07-Oct-24	18-Oct-24	18-Feb-25	83																
A2560	Install New Bond Beams East Elevation	5	5	14-Oct-24	18-Oct-24	29-Apr-25	133																
A2570	Reinstall Stone Caps East Elevation	5	5	21-Oct-24	25-Oct-24	25-Feb-25	83																
A2580	Install New Bond Beams South Elevation	10	10	21-Oct-24	01-Nov-24	13-May-25	133																
A2590	Reinstall Stone Caps South Elevation	10	10	28-Oct-24	08-Nov-24	11-Mar-25	83																
A2040	Exterior Caulking	5	5	11-Nov-24	15-Nov-24	01-Apr-25	93																
A2510	Install Louvers	5	5	11-Nov-24	15-Nov-24	18-Mar-25	83																
A2260	Masonry Cleaning	10	10	18-Nov-24	03-Dec-24	15-Apr-25	93																
Phase 3 Finishes		101	101	07-Oct-24	28-Feb-25	15-Apr-25	32																
A2530	Install Smart Vents	8	8	07-Oct-24	16-Oct-24	21-Feb-25	88																
A1300	Hang/Install Lighting	20	20	30-Oct-24	26-Nov-24	09-Jan-25	28																
A1290	Tape/Float/Paint	20	20	18-Nov-24	17-Dec-24	28-Jan-25	28																
A2520	Repair Historical Plaster	11	11	18-Nov-24	04-Dec-24	15-Jan-25	28																
A1810	Install Brick Tile	5	5	05-Dec-24	11-Dec-24	22-Jan-25	28																
A1830	Install Ceramic Tile	5	5	11-Dec-24	17-Dec-24	28-Jan-25	28																
A2290	Epoxy Paint Concrete Floor Design	6	6	18-Dec-24	26-Dec-24	15-Apr-25	77																
A1840	Install Rubber Base	5	5	18-Dec-24	24-Dec-24	04-Feb-25	28																

Start Date: 19-Feb-24
 Finish Date: 03-Apr-25
 Data Date: 08-Apr-24
 Run Date: 10-Apr-24








 Actual Work
  Milestone
 Remaining Work
  Summary
 Critical Remaining Work
  Level of Effort

**Zilker Metro Park - Barton Springs
 Bathhouse Rehabilitation**
 Zilker Metro Park



Activity ID	Activity Name	Orig Dur	Rem Dur	Start	Finish	Late Finish	Total Float	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	
A2160	Install Plumbing Fixtures	5	5	26-Dec-24	02-Jan-25	11-Feb-25	28																	
A2170	Install Toilet Accessories	3	3	03-Jan-25	07-Jan-25	14-Feb-25	28																	
A1280	Trim Out Devices	5	5	08-Jan-25	14-Jan-25	21-Feb-25	28																	
A1270	Install Exhibits @Multi-Purpose Room	15	15	15-Jan-25	04-Feb-25	14-Mar-25	28																	
A1430	Fire/Life Safety	10	10	15-Jan-25	28-Jan-25	11-Apr-25	53																	
A2270	Lithocrete Artwork	20	20	15-Jan-25	11-Feb-25	15-Apr-25	45																	
A2280	Concrete Floor Polishing	4	4	15-Jan-25	20-Jan-25	15-Apr-25	61																	
A1490	Install Plywood Paneling	20	20	22-Jan-25	18-Feb-25	15-Apr-25	40																	
A1800	Install Exhibits @Education Room	8	8	05-Feb-25	14-Feb-25	26-Mar-25	28																	
A1750	Install Exhibits @Rotunda	10	10	17-Feb-25	28-Feb-25	09-Apr-25	28																	
Phase 4		48	48	27-Nov-24	06-Feb-25	15-Apr-25	48																	
A1330	Demo Pavement/Pour Curb & Gutter and DG	5	5	27-Nov-24	05-Dec-24	13-Feb-25	48																	
A1310	Form/Pour Sidewalks	10	10	06-Dec-24	19-Dec-24	27-Feb-25	48																	
A1320	Erect New Fences and Decks	15	15	20-Dec-24	13-Jan-25	20-Mar-25	48																	
A2300	Form & Pour West Turnstile Structure	14	14	20-Dec-24	10-Jan-25	25-Mar-25	52																	
A2310	Lay Stone Veneer @ West Turnstile	12	12	13-Jan-25	28-Jan-25	10-Apr-25	52																	
A1340	Install Striping & Signage	4	4	14-Jan-25	17-Jan-25	26-Mar-25	48																	
A1350	Install Irrigation/Landscaping	14	14	20-Jan-25	06-Feb-25	15-Apr-25	48																	
A2320	Install Turnstile & Fence	3	3	29-Jan-25	31-Jan-25	15-Apr-25	52																	
Phase 5		9	9	03-Mar-25	13-Mar-25	13-May-25	43																	
A1400	Building Final	2	2	03-Mar-25	04-Mar-25	11-Apr-25	28																	
A1390	Fire/Life Safety Final	2	2	05-Mar-25	06-Mar-25	15-Apr-25	28																	
A1370	Remove Temp Trailers	5	5	07-Mar-25	13-Mar-25	13-May-25	43																	
Close-Out		20	20	07-Mar-25	03-Apr-25	13-May-25	28																	
A1440	Owner/AE Punch List	20	20	07-Mar-25	03-Apr-25	13-May-25	28																	
A1450	Warranties/OAM's	5	5	07-Mar-25	13-Mar-25	13-May-25	43																	
A1470	Furniture Move In	5	5	07-Mar-25	13-Mar-25	06-May-25	38																	
A1460	Final Clean	5	5	14-Mar-25	20-Mar-25	13-May-25	38																	

- Install Plumbing Fixtur
- Install Toilet Accesso
- Trim Out Devices
- Install Exhibits @
- Fire/Life Safety
- Lithocrete Artwo
- Concrete Floor Pol
- Install Plywood
- Install Exhibits (
- Install Exhibits
- ▼ Phase 4
- Demo Pavement/Pour Cu
- Form/Pour Sidewalks
- Erect New Fences &
- Form & Pour West T
- Lay Stone Veneer
- Install Striping & Sig
- Install Irrigation/L
- Install Turnstile &
- ▼ Phase 5
- Building Final
- Fire/Life Safe
- Remove Te
- ▼ Close-O
- Owner/A
- Warranties/
- Furniture M
- Final Clear

Start Date: 19-Feb-24 Finish Date: 03-Apr-25 Data Date: 08-Apr-24 Run Date: 10-Apr-24	 Actual Work  Remaining Work  Critical Remaining Work	 Milestone  Summary  Level of Effort	<h3 style="text-align: center;">Zilker Metro Park - Barton Springs Bathhouse Rehabilitation</h3> <p style="text-align: center;">Zilker Metro Park</p>	
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Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I _____ Riley Triggs, AIA _____
Print Name

_____ Project Manager _____
Title - Owner/President/Other

of _____ City of Austin _____
Corporation/Partnership/Entity Name

have authorized _____ Tom Curran _____
Print Name of Agent/Engineer

of _____ Doucet & Associates, Inc. _____
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:

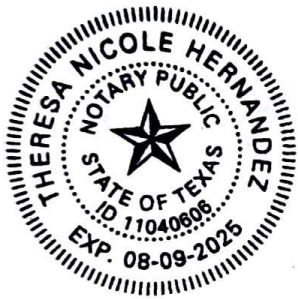
Riley Triggs
Applicant's Signature

11/21/2023
Date

THE STATE OF Texas §
County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Riley Triggs 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 21st day of November, 2023.



Theresa Nicole Hernandez
NOTARY PUBLIC

Theresa Nicole Hernandez
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 08-09-2025

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation

Regulated Entity Location: 2201 Barton Springs Road

Name of Customer: City of Austin

Contact Person: Riley Triggs, AIA

Phone: 512/636-3521

Customer Reference Number (if issued): CN 600135198

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

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

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

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
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	Each	\$ 500.00
Extension of Time	Each	\$

Signature: _____

Date: 3/26/24

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

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

<i>Project</i>	<i>Fee</i>
Exception Request	\$500

Extension of Time Requests

<i>Project</i>	<i>Fee</i>
Extension of Time Request	\$150



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> 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 600135198		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)	
<input checked="" type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
<i>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).</i>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		<i>If new Customer, enter previous Customer below:</i>	
City of Austin			
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:		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
<input type="checkbox"/> Corporation Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Individual <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input checked="" type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input checked="" type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other: <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant			
15. Mailing Address:			
PO Box 1088			
City	Austin	State	TX
ZIP	78767	ZIP + 4	
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information**21. General Regulated Entity Information** (If 'New Regulated Entity' is selected, a new permit application is also required.)
 New Regulated Entity Update to Regulated Entity Name Update to Regulated Entity Information

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

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

Zilker Metro Park – Barton Springs Pool Bathhouse Rehabilitation

23. Street Address of the Regulated Entity:

2201 Barton Springs Road

(No PO Boxes)

City	Austin	State	TX	ZIP	78746	ZIP + 4	
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24. County

Travis

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

25. Description to**Physical Location:**

Rehabilitate the historic Springs Bathhouse at 2201 Barton Springs Road.

26. Nearest City**State****Nearest ZIP Code**

Austin

TX

78746

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:

30.26409

28. Longitude (W) In Decimal:

-97.77168

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

30

-97

29. Primary SIC Code**30. Secondary SIC Code****31. Primary NAICS Code****32. Secondary NAICS Code**

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

7999

999000

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

Public Municipality

34. Mailing

PO Box 1088

Address:

City	Austin	State	TX	ZIP	78746	ZIP + 4	
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35. E-Mail Address:**36. Telephone Number****37. Extension or Code****38. Fax Number** (if applicable)

() -

() -

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

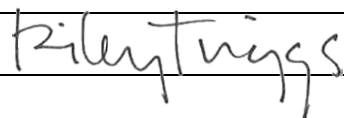
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Tom Curran, PE	41. Title:	Senior Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 583-2623		() -	TCurran@kleinfelder.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:	City of Austin	Job Title:	Project Management Supervisor
Name (In Print):	Riley Triggs	Phone:	(512) 636- 3521
Signature:		Date:	11/17/2023