

WHISPERING HOLLOW SUBDIVISION
WATER QUALITY POND

City of Buda, Texas

405 E. Loop Street, Building 100
Buda, Texas 78610

**Water Pollution Abatement Plan
Modification Application**

12 April 2023

Prepared by:

AquaStrategies
Water Planning, Science & Engineering

11929 Fitzhugh Corners
Dripping Springs, Texas 78620

F. 15911



05/02/23

A handwritten signature in blue ink, appearing to be "T. Osting", written over the seal and extending to the right.

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: City of Buda				2. Regulated Entity No.: RN 1039437					
3. Customer Name: City of Buda				4. Customer No.: CN 6007398					
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):		6.90	
9. Application Fee:	\$3,000		10. Permanent BMP(s):			Batch water quality pond			
11. SCS (Linear Ft.):	N/A		12. AST/UST (No. Tanks):			N/A			
13. County:	Hays		14. Watershed:			Garlic 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.

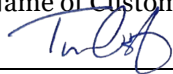
Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	<input type="checkbox"/> _x_	<input type="checkbox"/> _	<input type="checkbox"/> _
Region (1 req.)	<input type="checkbox"/> _x_	<input type="checkbox"/> _	<input type="checkbox"/> _
County(ies)	<input type="checkbox"/> _x_	<input type="checkbox"/> _	<input type="checkbox"/> _
Groundwater Conservation District(s)	<input type="checkbox"/> _ Edwards Aquifer Authority <input checked="" type="checkbox"/> _x_ Barton Springs/ Edwards Aquifer <input type="checkbox"/> _ Hays Trinity <input type="checkbox"/> _ Plum Creek	<input type="checkbox"/> _ Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> _ Austin <input checked="" type="checkbox"/> _x_ 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"/> _ 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.)	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _
Region (1 req.)	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _
County(ies)	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _	<input type="checkbox"/> _
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.

Tim Osting, PE

Print Name of Customer/Authorized Agent



05/02/2023

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: Tim Osting, PE

Date: 03/03/2023

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Whispering Hollow Subdivision
2. County: Hays
3. Stream Basin: Onion Creek
4. Groundwater Conservation District (If applicable): Barton Springs/Edwards Aquifer GCD
5. Edwards Aquifer Zone:
 - Recharge Zone
 - Transition Zone
6. Plan Type:
 - WPAP
 - SCS
 - Modification
 - AST
 - UST
 - Exception Request

7. Customer (Applicant):

Contact Person: Angela Kennedy

Entity: City of Buda

Mailing Address: 405 E. Loop St., Bldg. 100

City, State: Buda, TX

Zip: 78610

Telephone: 512-312-0084

FAX: N/A

Email Address: akennedy@ci.buda.tx.us

8. Agent/Representative (If any):

Contact Person: Tim Osting

Entity: Aqua Strategies, Inc.

Mailing Address: 11929 Fitzhugh Corners

City, State: Dripping Springs, TX

Zip: 78620

Telephone: 512-627-1563

FAX: N/A

Email Address: tosting@aquastrategies.com

9. Project Location:

- The project site is located inside the city limits of Buda.
- 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.

The project site is within Whispering Hollow Subdivision, between Old Black Colony Road and FM 1626. The coordinates of the site are: 30.0898273, -97.8688132.

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: Geologic Assessment already completed, and included in application package, with exception request for this application (F-0584 Attachment D).

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);
- (2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;
- (3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;
- (4) The use of sewage holding tanks as parts of organized collection systems; and
- (5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).
- (6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

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

- (1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);
- (2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and
- (3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

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

- For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
 - For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
 - For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
 - A request for an exception to any substantive portion of the regulations related to the protection of water quality.
 - A request for an extension to a previously approved plan.
19. Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:
- TCEQ cashier
 - Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
 - San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)
20. Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
21. No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A – Road Map

ATTACHMENT A Road Map

05/01/2023

Directions from TCEQ (Austin Headquarters)

1. Head west toward Park 35 Cir
 2. Turn left toward Park 35 Cir
 3. Sharp left onto Park 35 Cir
 4. Turn right onto S I-35 Frontage Rd
 5. Take the ramp on the left onto I-35 S
 6. Merge onto I-35 S
 7. Keep left at the fork to continue on I-35 S/
US-290
- W/N Interstate 35, follow signs for 32nd St
8. Take exit 221 toward Main St
 9. Merge onto S I-35 Frontage Rd
 10. Turn right
 11. Continue onto Main St/Old North Loop 4
 12. Turn right onto FM 967/Live Oak St
 13. Turn left onto Cole Springs Rd
 14. Turn right onto Old Black Colony Rd
 15. Turn right onto Middle Creek Dr
 16. Turn right onto Wildcat Draw

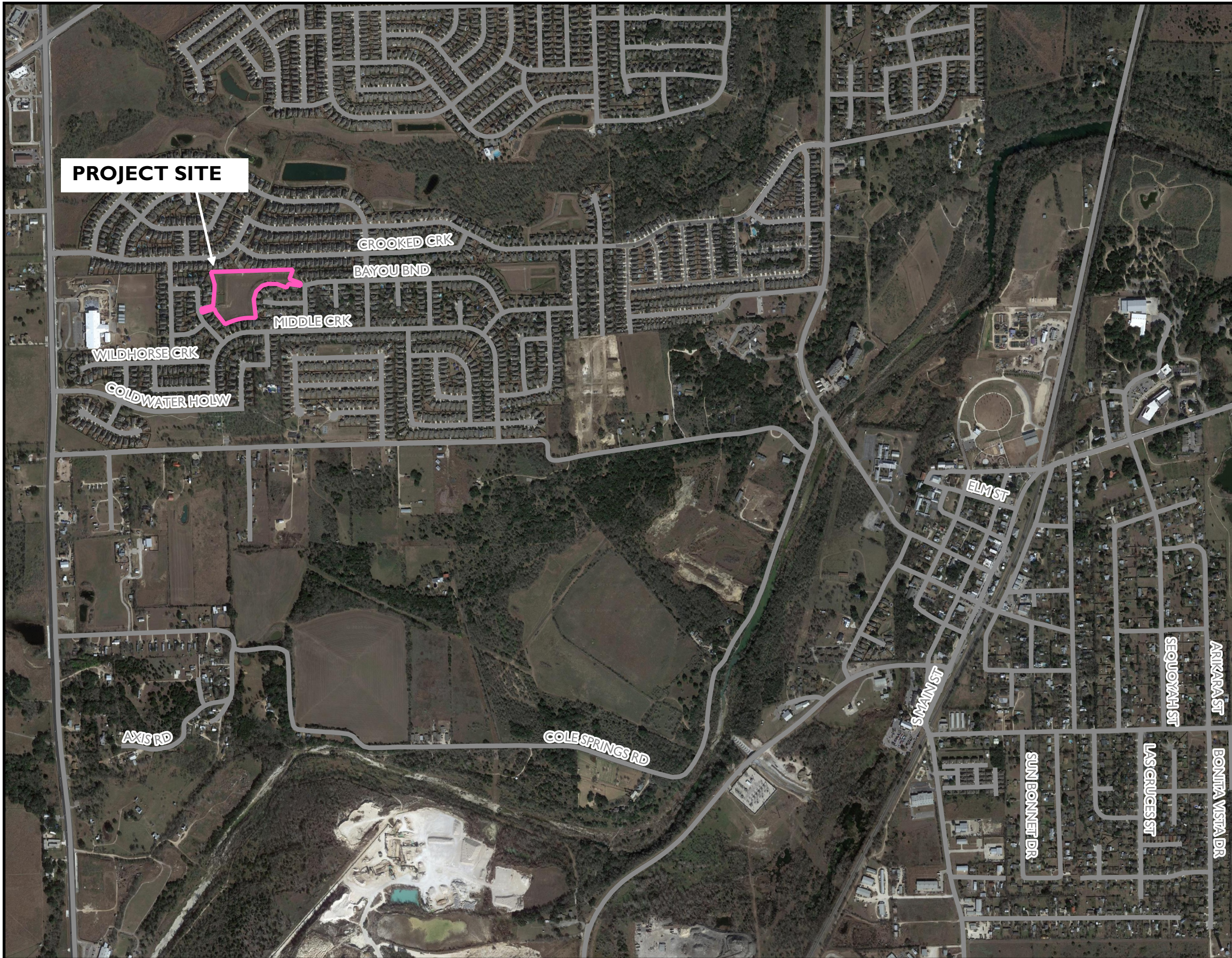
*Destination will be on the right

*For Planning and Permitting Purposes Only
Not for Construction*



0 0.1 0.2 0.3 0.4 mi

AquaStrategies
Water Planning, Science & Engineering



PROJECT SITE

CROOKED CRK

BAYOU BND

MIDDLE CRK

WILDHORSE CRK

COLDWATER HOLW

AXIS RD

COLE SPRINGS RD

ELM ST

MAIN ST

SUN BONNET DR

SEQUOYAH ST

ARIKARA ST

LAS CRUCES ST

BONITA VISTA DR






Attachment B – USGS / Edwards Aquifer Map

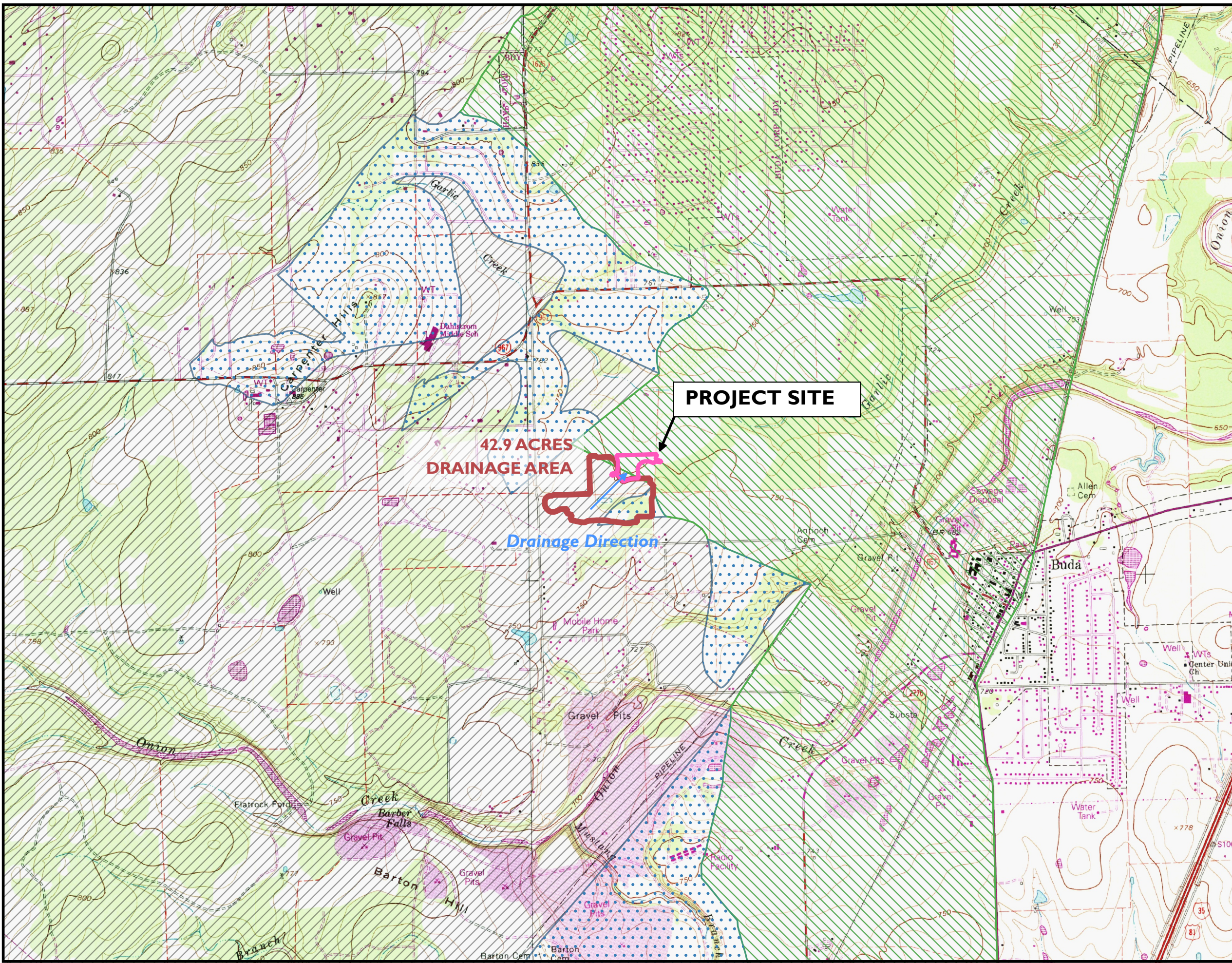
ATTACHMENT B USGS / Edwards Recharge Zone Map

05/02/2023

USGS Quads: Buda, TX and Mountain City, TX

Legend

-  Project Site (6.90 acres)
-  Drainage Area to Existing Water Quality Pond (WQA1) (42.9 acres)
-  Edwards Aquifer Contributing Zone within the Transition Zone
-  Edwards Aquifer Recharge Zone
-  Edwards Aquifer Transition Zone



PROJECT SITE

**42.9 ACRES
DRAINAGE AREA**

Drainage Direction

*For Planning and Permitting Purposes Only
Not for Construction*



1 inch to 2000 ft



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Water Planning, Science & Engineering

Attachment C - Project Description

The proposed project involves converting an existing sedimentation/filtration pond (approx. 0.9 acres in total surface area) to a batch water quality pond. The proposed project area, based on the parcel boundaries bounding the proposed limits of construction, is 6.90 acres. The existing pond, with drainage area of approximately 42.9 acres, is in disrepair, and therefore a batch pond has been proposed by the City of Buda as a replacement. The Existing Site Plan (included with F-0590 as Attachment C within this application package) shows the existing pond and surrounding area. The impervious cover of the upstream drainage area (42.9 acres) is estimated to be 50 percent. This upstream drainage area is fully developed and forms part of the Whispering Hollow single family residential neighborhood. This residential area was originally developed under Edwards Aquifer Protection Program No. 03052301 (with a project area of 22.3 acres). At the time that the original permit was granted (September 2003), only a very small portion of the current drainage area (approximately 0.4 acres) fell within the recharge zone; however, the Edwards Aquifer zone boundaries were updated in 2005¹ and the drainage area now falls within the recharge (32 acres), contributing (9.7 acres), and transition (1.2 acres) zones.

Based on the existing, fully-developed upstream area, the water quality treatment volume of the batch pond is required to be at least 88,206-cf, which is greater than the water quality volume of the existing sedimentation/filtration pond. Therefore, the existing pond volume will be enlarged by extending the eastern north-south berm wall of the pond to meet the wall of the existing detention pond, and modifying the existing splitter box and adjacent berm. The proposed batch pond will be drained by a standard perforated riser, as shown in F-0600 Attachment F (Construction Plans), and will also include a 100-ft auxiliary spillway, set at an elevation of 749.75-ft, which will drain to the existing Detention Pond A. This spillway, protected with appropriately-sized riprap, will allow both the proposed 1% and 4% AEP storm events to safely pass (i.e. with a freeboard of greater than one foot). The batch pond will be operated by a valve and actuator and powered by a solar panel.

The approximate area to be demolished is 5,800 square feet. Appropriate temporary BMPs will be installed before construction begins, and these will be maintained throughout the period of construction.

¹ For more information, see: 30 TexReg 5024; August 26, 2005

Attachment D – Exception to the Required Geologic Assessment

Based on the previous WPAPs obtained by the developers of the Whispering Hollow Subdivision, an exception to the required Geologic Assessment is requested. The original Geologic Assessment, as well as communication regarding this exception request are provided below.

Justin Baker

From: James Slone <james.slone@tceq.texas.gov>
Sent: Friday, May 6, 2022 2:24 PM
To: Justin Baker
Cc: Jade Mendiola
Subject: RE: GA requirements for WPAP-MOD application -- City of Buda

Follow Up Flag: Follow up
Flag Status: Completed

Justin,

You are right, a Modification is required. With respect to the Geologic Assessment (GA), you can submit the plan with a request for a Exception to the GA since the site is fully developed. You might submit the old/expired one with the application as an exhibit just for reference if the reviewer needs it, but a new GA is not required. Please keep this email for your records and put a copy in your application just to prove we had the discussion.

Bo

James "Bo" Slone, P.G.
Geoscientist
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
(512) 239-5711

From: Justin Baker <jbaker@aquastrategies.com>
Sent: Thursday, May 5, 2022 4:21 PM
To: James Slone <james.slone@tceq.texas.gov>
Subject: GA requirements for WPAP-MOD application -- City of Buda

Hi Bo,

I've been working with Jade Mendiola to figure out how to proceed with Edwards Aquifer permitting for some proposed modifications to an existing water quality pond in the City of Buda (Whispering Hollow subdivision). I'm working with the City, who would like to convert the existing sedimentation/filtration pond into a batch pond. There is an existing WPAP covering the site and drainage area, submitted by the developer and approved in 2003. I've attached the approval letter here, obtained from TCEQ.

Because we're proposing modifications to an existing BMP, it sounds like we'll need to prepare a WPAP-MOD application. My question for you is whether we would be able to use the existing Geologic Assessment for the site, because the site is now fully developed. Jade mentioned that TCEQ has a 10-year rule for existing GAs, but suggested I confirm with you because the site is fully developed. I've attached a site/drainage area map here, showing the existing pond (WQA1), drainage area portion covering the recharge zone, and recent aerial imagery. The pond to be modified is located at 30° 5'25.49"N, 97°52'8.78"W, for reference.

Please let me know if you need any further clarification or details.

Thanks for your help in advance.

Regards,

Justin

Justin Baker, EIT, CFM
Hydrologist

AquaStrategies

11929 Fitzhugh Corners
Dripping Springs, TX 78620
Cell: (512) 216-9804
aquastrategies.com

Geologic Assessment

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

REGULATED ENTITY NAME: Garlic Creek West project (Hays County, TX)

TYPE OF PROJECT: WPAP AST SCS UST

LOCATION OF PROJECT: Recharge Zone Transition Zone Contributing Zone within the Transition Zone

PROJECT INFORMATION

1. Geologic or manmade features are described and evaluated using the attached **GEOLOGIC ASSESSMENT TABLE**.
2. 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 Units, Infiltration Characteristics & Thickness		
Soil Name	Group*	Thickness (ft)
AnB: Anhalt Clay, 1-3% slopes	D	1.6-3.3
DeB: Denton Silty Clay, 1-3% slopes	D	2-3.3
PuC: Purves Clay, 1-5% slopes	D	0.7-1.7
TaB: Tarpley Clay, 1-3% slopes	D	1.1-1.7

***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.

3. A STRATIGRAPHIC COLUMN is attached at the end of this form that shows formations, members, & thicknesses. The outcropping unit should be at the top of the column.
4. A NARRATIVE DESCRIPTION OF SITE SPECIFIC GEOLOGY is attached at the end of this form. The description must include a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure, and karst characteristics of the site.
5. Appropriate SITE GEOLOGIC MAP(S) are attached. NOTE - The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1" = 400'

Applicant's Site Plan Scale	1" = <u>200'</u>
Site Geologic Map Scale	1" = <u>200'</u>
Site Soils Map Scale (if more than 1 soil type)	1" = <u>NA'</u>

6. Method of collecting positional data:
 - Global Positioning System (GPS) technology.
 - Other method(s). Specifically: Detailed site topo map (2' CI) & aerial photo

Regulated Entity Name: Garlic Creek West (Hays County, TX)

7. The project site is shown and labeled on the Site Geologic Map.
8. Surface geologic units are shown and labeled on the Site Geologic Map.
9. 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.
10. The Recharge Zone boundary is shown and labeled, if appropriate.
11. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.):
- There are ___ wells present on the project site and their locations are shown and labeled on the Geologic Map. (Check all of the following that apply.)
- The wells are not in use and have been properly abandoned.
- The wells are not in use and will be properly abandoned.
- The wells are in use and comply with 16 TAC §76.
- There are no wells or test holes of any kind known to exist on the project site.

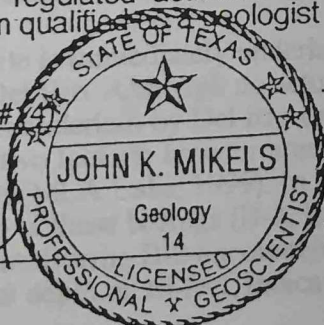
ADMINISTRATIVE INFORMATION

12. One (1) original and three (3) copies of the completed assessment have been provided.

Date(s) Geologic Assessment was performed: Jan. 29 & 31, 2003

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 213.

John K. Mikels, PG (TX # 74)
Printed Name of Geologist



Telephone: (512)445-3433

Fax: (512)445-5005

[Handwritten Signature]
Signature of Geologist

Date: 3/27/03

Representing: Cuatro Consultants, Ltd. and Four Seasons Land & Development, LLC
(Name of Company)

If you have questions on how to fill out this form or about the Edwards Aquifer Protection Program, please contact us at 512/939-2929 (Austin) or 210/403-4024 (San Antonio). Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/209-0282.

SIGN

ATTACHMENT TO GEOLOGIC ASSESSMENT FORM

Project Name: Garlic Creek West, Hays County (SE of quadrant of FM-1626 & FM-967 intersection)

Date of Assessment: Jan. 29 & 31, 2003

Assessment Conducted By: John K. Mikels, PG; GEOS Consulting

NOTE: The entire Garlic Creek West site is approximately 683-acres in size. This Geologic Assessment addresses only the approximately southwesternmost 22-acres of the tract that falls within the Recharge Zone (as defined at the time of Assessment submittal). This 22-acre site is bounded as follows: on the north by the Recharge Zone-Transition Zone boundary, on the east by the western boundary of the Robertson tract (inset into south side of overall tract), on the south by Old Black Colony Road, and on the west by FM-1626. All drainage from this 24-acres, and from the remainder of the overall tract, is towards and onto the Transition Zone. Accordingly, no Geologic Assessment is required for the remainder of the tract (TNRCC RG-349, June 1999, p. 1-5).

Attachment Item Numbers below correspond to Item Numbers on the Geologic Assessment Form.

3. STRATIGRAPHIC COLUMN

Kbu: Buda Formation, 32-47 ft.* (Crops out on site)

Kdr: Del Rio Formation, 52-58 ft.* (Crops out on site)

Kgt: Georgetown Formation, 33-51 ft.* (Not exposed on site)

Ked: Edwards Formation, >242 ft.* (Not exposed on site)

(*Formation thicknesses are taken from geophysical logs of nearby water wells, specifically: 58-57-3E3 (Elliot Ranch #1), 2.5 mi. to the NW; 58-58-412 (Tecon WSC #2), 2.1 mi. to the ESE; and 58-58-413 (Buda #3), 2.3 mi. to the SE.)

4. Description of Site Geology

The eastern 1/3 of the Recharge Zone portion of the site is immediately underlain by the Buda Formation. Boulder to gravel size fragments of Buda limestone are widely exposed in this area and the thin stoney clay soils (DeB; Denton Series) are typical of the Buda. Geotechnical boring B-3 (MLA Labs, 1999) encountered dark brown stiff clay with limestone fragments down to about 1.3-feet, then clayey limestone and reddish-brown clay with limestone fragments down to total depth of 10-feet. The strata penetrated in B-3 is probably the Buda Formation and associated soils.

The western 2/3 of the site is immediately underlain by the Del Rio Formation, or more specifically, soils developed on the Del Rio. Although no actual outcrops of the Del Rio were found on the site, the majority of the site is underlain by Del Rio-derived soils. The presence of the Del Rio is inferred primarily from two factors: broader area geologic mapping (BSEACD, 2001) and geotechnical soil borings (MLA Labs, 1999). In 1999, fourteen geotechnical borings were made on the project site, with two of these borings (B-2, B-3; see Geologic Map) being within the area of this Geologic Assessment. Boring B-2 encountered predominantly brown and yellowish brown stiff clay down to its total depth of 15-feet, indicative of the Del Rio.

Immediately north of the western half of the site, and in the Transition Zone, is an outcrop of Georgetown Formation (see Geologic Map). This outcrop forms a very gentle topographic high (relief <5-ft; not readily apparent on the topo base of the Geologic Map, but evident on the revised tract topo map in the WPAP and on aerial photos). This "island" of Georgetown, largely surrounded by Del Rio, is probably a paleotopographic high on the upper Georgetown surface. The eastern side of this Georgetown outcrop is probably bounded by a normal fault, which extends through the GA site (see Geologic Map). The trace of this fault is not exposed on the site and is covered by Del Rio-derived soils, so evidence for it is inferred from two factors. First, the eastern side of the Georgetown outcrop is markedly linear, trending NNE-SSW (very apparent on aerial photos). This trend is similar to that of most of the faulting in the region. This fault may be the

same as a similar trending fault which regional mapping indicates passes through the site, but at about 700-800 feet to the east. Second, the thickness of Del Rio immediately to the west of the Georgetown high appears to be only a few feet at most (3-ft in B-1). To the east of the high, and across the fault, the Del Rio appears to be markedly thicker (>15-ft in B-2). Borings B-1 and B-2 are at about the same elevation, so the difference in Del Rio thickness between these two borings is not due to elevation differences. The throw on this fault is unknown, but is probably less than the total Del Rio thickness (approx. 55-ft).

The entire site is surfaced with the clayey soils (Hydrologic Soil Group D). A large stock tank, located about 600-feet north of the site, excavated into the Del Rio or Del Rio derived soils perennially holds water (see Geologic Map). Neither the Georgetown nor Edwards limestones crop out within the site. No recharge features are present on the site. All drainage from the site flows onto the Transition Zone. The potential for any water entering onto or exiting from the site to infiltrate down to and recharge the Edwards Aquifer is negligible.

References Cited

BSEACD (2001) Geologic Map of the Barton Springs Segment of the Edwards Aquifer (Feb. 2001 draft edition).

MLA Labs, Inc. (1999) Geotechnical Feasibility Evaluation, Rea tract, Hays County, Texas: Prepared for Continental Homes of Austin, LP. MLA Project No. 94402.047.

Texas Natural Resource Conservation Commission (1999) Complying with the Edwards Aquifer Rules: Administrative Guidance, TNRCC Publication RG-349.

GEOLOGIC ASSESSMENT TABLE PROJECT NAME: Garlic Creek West (Hays County, TX)

LOCATION		FEATURE CHARACTERISTICS										EVALUATION		PHYSICAL SETTING			
1A	1B*	1C*	2A	2B	3	4	5	5A	6	7	8A	8B	9	10	11	12	
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)	TREND (DEGREES)	DOM	DENSITY (H/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY	CATCHMENT AREA (ACRES)	TOPOGRAPHY	
						X Y Z		10						<40	>40	<1.6	>1.6
No significant features, natural or manmade, were found on this site																	

* DATUM:

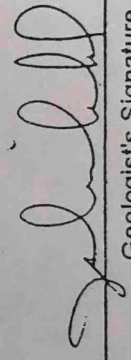
2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING
N None, exposed bedrock
C Coarse - cobbles, breakdown, sand, gravel
O Loose or soft mud or soil, organics, leaves, sticks, dark colors
F Fines, compacted clay-rich sediment, soil profile, gray or red colors
V Vegetation. Give details in narrative description
FS Flowstone, cements, cave deposits
X Other materials

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

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

John K. Mikels, PG (TX#14)

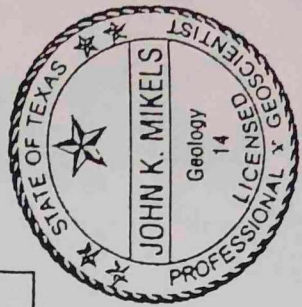


Geologist's Printed Name

Geologist's Signature

3/28/03

Date



Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Tim Osting, PE

Date: 05/02/2023

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: Whispering Hollow Subdivision
Original Regulated Entity Name: Whispering Hollow Subdivision
Regulated Entity Number(s) (RN): 103943700
Edwards Aquifer Protection Program ID Number(s): 03052301, 06121403, 09120201
 The applicant has not changed and the Customer Number (CN) is: 600739866
 The applicant or Regulated Entity has changed. A new Core Data Form has been provided.
2. **Attachment A: Original Approval Letter and Approved Modification Letters.** A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
- Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
 - Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
 - Development of land previously identified as undeveloped in the original water pollution abatement plan;
 - Physical modification of the approved organized sewage collection system;
 - Physical modification of the approved underground storage tank system;
 - Physical modification of the approved aboveground storage tank system.
4. Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification

Approved Project

Proposed Modification

Summary

Acres	<u>42.9</u> (existing, fully-developed upstream drainage area)	<u>42.9</u> (existing, fully-developed upstream drainage area)
Type of Development	<u>Residential</u>	<u>Residential</u>
Number of Residential Lots		
Impervious Cover (acres)	<u>21.45</u> (for existing, fully-developed upstream drainage area)	<u>21.45</u> (for existing, fully-developed upstream drainage area)
Impervious Cover (%)	<u>50</u> (for existing, fully-developed upstream drainage area)	<u>50</u> (for existing, fully-developed upstream drainage area)
Permanent BMPs	<u>Sediment./Filt. Pond</u>	<u>Batch Pond</u>
Other	<u>N/A</u>	<u>N/A</u>

SCS Modification

Approved Project

Proposed Modification

Summary

Linear Feet	<u>N/A</u>	<u>N/A</u>
Pipe Diameter	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

AST Modification	Approved Project	Proposed Modification
Summary		
Number of ASTs	<u>N/A</u>	<u>N/A</u>
Volume of ASTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

UST Modification	Approved Project	Proposed Modification
Summary		
Number of USTs	<u>N/A</u>	<u>N/A</u>
Volume of USTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

5. **Attachment B: Narrative of Proposed Modification.** A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

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

7. The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
 - Acreage has not been added to or removed from the approved plan.

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

Attachment A – Original WPAP Approval Letters

Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Kathleen Hartnett White, *Commissioner*
Margaret Hoffman, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 30, 2003

Mr. Shawn Breedlove
Four Seasons Land and Development, LLC
1709 Manana
Austin, Texas 78730

Re: Edwards Aquifer, Hays County
NAME OF PROJECT: Garlic Creek West Subdivision: 22.3-Acre Portion Off FM 1626 and Old Black Colony Road, Buda E.T.J., Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program ID No. 03052301

Dear Mr. Breedlove:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the referenced project submitted to the Austin Regional Office by Cuatro Consultants, Ltd. on behalf of Four Seasons Land and Development, LLC on May 23, 2001. Final review of the submittal was completed after additional material was received on August 19, and September 15, 2003. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 20 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The Garlic Creek West Subdivision will have a total area of 682.26 acres. The project area included in the WPAP covers approximately 22.3 acres. The drainage area that encompasses the project area

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Mr. Shawn Breedlove
Page 2
September 30, 2003

that was used for water quality purposes is 25.61 acres. The project will include the construction of homes, streets, and associated utilities for single family dwellings. The impervious cover will be approximately 8.2 acres (32.0 percent of 25.61 acres). Project wastewater will be disposed of by conveyance to the existing Wastewater Treatment Plant owned by the City of Buda and the Guadalupe Blanco River Authority.

The Garlic Creek West Subdivision includes area that is not currently designated as being in the recharge zone. For purposes of Edwards Aquifer rule changes relating to the official maps, the Garlic Creek West Subdivision will be considered to be "a project in progress" after all federal, state, and local permits have been obtained, and either on-site construction has commenced or construction begins within six months of the effective date of a new rule.

PERMANENT POLLUTION ABATEMENT MEASURES

One partial sedimentation filtration (water quality) pond will be constructed to treat stormwater runoff that originates on site. The individual treatment measures will consist of a sedimentation chamber and a sand filtration chamber. The total volume provided will be 59,145 cubic feet. The approved measures meet the required 80 percent removal of the increased load in total suspended solids caused by the project.

GEOLOGY

The geologic assessment included with the application covered the southwestern portion of the subdivision (approximately 22 acres) which is the area mapped as the recharge zone. According to the assessment, the area is covered with soils developed on the Buda Formation and Del Rio Clay. One inferred fault was shown on the site trending northeast-southwest, parallel to a regional fault that passes through the site. The Austin Regional Office site investigation of August 21, 2003, revealed that the site was as described in the geologic assessment, and no additional geologic or manmade features were observed.

SPECIAL CONDITIONS

- I. Approval of the design of the sewage collection system for this proposed project shall be obtained from the TCEQ prior to commencement of construction of any sewage collection system.
- II. This approval does not authorize the installation of temporary aboveground fuel storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and

approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 4 below.

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

STANDARD CONDITIONS

1. Pursuant to §26.136 of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TNRCC-0625) that you may use to deed record the approved WPAP is enclosed.
3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.

The executive director will use the notification to determine if the approved plan is eligible for an extension.

6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
10. One well exists on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being

washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

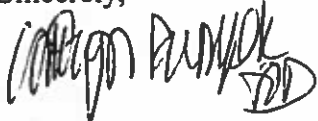
14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the Austin Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TNRCC-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

Mr. Shawn Breedlove
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September 30, 2003

17. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

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

Sincerely,



Margaret Hoffman
Executive Director
Texas Commission on Environmental Quality

MH/hlb

Enclosures: Deed Recordation Affidavit, TNRCC-0625
Change in Responsibility for Maintenance on Permanent BMPs, TNRCC-10263

cc: Mr. Hugo Elizondo, Jr., P.E., Cuatro Consultants, Ltd., Buda
Ms. Veva McCaig, Barton Springs/Edwards Aquifer Conservation District
The Honorable Jim Powers, County Judge, Hays County
The Honorable John Trube, Mayor of the City of Buda
TCEQ Central Records

Kathleen Hartnett White, *Chairman*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 7, 2007

Mr. John Damrich
Ryland Homes
10415 Morado Circle, Bldg. 1, Suite 100
Austin, Texas 78759

Re: Edwards Aquifer, Hays County
NAME OF PROJECT: Whispering Hollow Subdivision Section 6 & Parkland; Northeast of the intersection of FM 1626 and Old Black Colony Road; Buda, Texas
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program ID No. 06121403

Dear Mr. Damrich:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the referenced project submitted to the Austin Regional Office by Cuatro Consultants, Ltd. on behalf of Ryland Homes on December 14, 2006. Final review of the WPAP submittal was completed after additional material was received on January 22 and 29, 2007. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

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PROJECT DESCRIPTION

This project is part of a 683 acre mixed use development that consists of 1,800 single-family and multi-family units and 100 acres of commercial and retail development. The project area included in the WPAP includes approximately 24.33 acres. The project will include the construction of 28 single-family lots, streets, associated utilities, a park with an associated parking lot, and a water quality pond. The impervious cover will be 2.56 acres (10.52 percent). Project wastewater will be disposed of by conveyance to the existing Buda Wastewater Treatment Plant owned by the Guadalupe Blanco River Authority.

PERMANENT POLLUTION ABATEMENT MEASURES

A wet basin will be constructed to treat stormwater runoff from the site. The basin will have a water quality volume of 12,723 cubic feet and has been designed to capture stormwater runoff from an area of 7.46 acres. The approved measures meet the required 80 percent removal of the increased load in total suspended solids caused by the project.

GEOLOGY

The geologic assessment included with the application covered the southwestern portion of the subdivision which includes the recharge zone and the contributing zone within the transition zone. According to the assessment the area that this project is within is developed on the Buda and Del Rio Formations. One inferred fault was shown on the site trending northeast-southwest, parallel to a regional fault that passes the site. The Austin Regional Office site investigation of January 11, 2007, revealed that the site is generally as described by the geologic assessment.

SPECIAL CONDITIONS

- I. Prior to commencing construction activities on any future phase on Whispering Hollow, a Water Pollution Abatement Plan must be submitted to Austin Regional Office for the review and approval of the Executive Director.
- II. Intentional discharges of sediment laden stormwater during construction are not allowed. If dewatering excavated areas and/or areas of accumulated stormwater becomes necessary, the discharge shall be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, silt fence rings, etc.
- III. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved

Mr. John Damrich
Page 3
February 7, 2007

prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 4 below.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The proposed

water quality pond shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
10. No wells exist on the site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

13. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

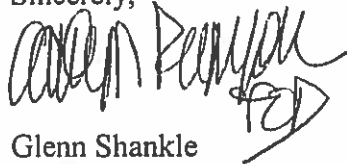
After Completion of Construction:

14. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the Austin Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
17. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

Mr. John Damrich
Page 6
February 7, 2007

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

Sincerely,



Glenn Shankle
Executive Director
Texas Commission on Environmental Quality

GS/kab

Enclosures: Deed Recordation Affidavit, TCEQ-0625
Change in Responsibility for Maintenance on Permanent BMPs, TCEQ-10263

cc: Mr. Hugo Elizondo, Jr., P.E., Cuatro Consultants, Inc., Kyle
The Honorable Liz Sumter, County Judge, Hays County
Mr. Allen G. Walther, Director of Environmental Health, Hays County Environmental
Health Dept.
Mr. John Trube, Mayor, City of Buda
Mr. Kirk Holland, P.G., General Manager, Barton Springs/Edwards Aquifer
Conservation District
Central Records, TCEQ Information Resources Division, Austin

TCEQ PHOTOGRAPHIC DOCUMENTATION

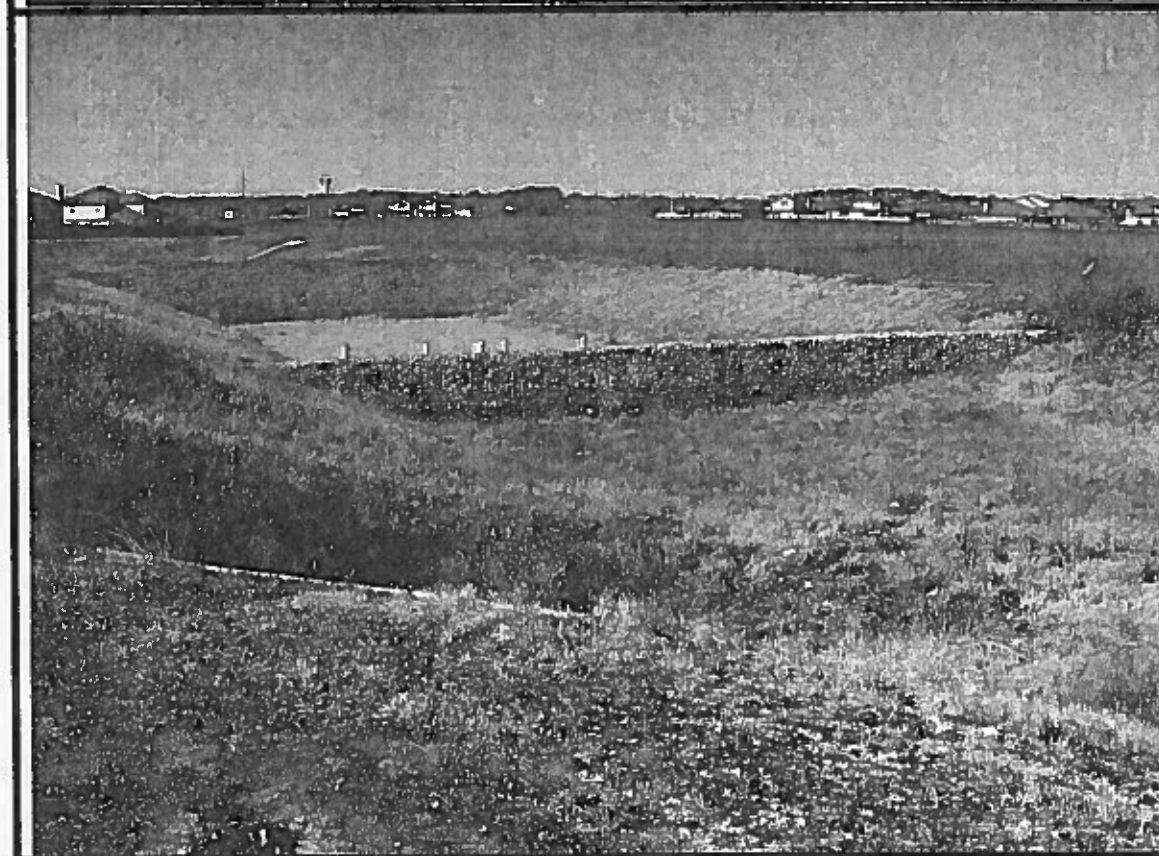
Investigation No.:	786582	Regulated Entity:	Whispering Hollow Subdivision Section 5C		
Investigation Date:	01/12/2010	Photographer:	Russ Alexander	County:	Hays



SUBJECT: Site of Whispering Hollow Subdivision Section 5C

COMMENTS: Area to be developed is currently covered by native grasses

PHOTO # 1



SUBJECT: Pond 1A

COMMENTS: Previously constructed pond designed to treat water from Section 5C

PHOTO # 2

Bryan W. Shaw, Ph.D., *Chairman*
Bud V. Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



COPY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 15, 2010

Mr. Scott Teeter
Ryland Homes
10415 Morado Circle, Suite 100
Austin, Texas 78759

Re: Edwards Aquifer, Hays County
NAME OF PROJECT: Whispering Hollow Subdivision, Section 5C; FM 1626, West of FM 967 at Coldwater Drive, Buda
TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP) and Organized Sewage Collection System Plan (SCS); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer and 30 TAC Chapter 317
Edwards Aquifer Protection Program ID No. 11-09120201 (WPAP) and 11-09120202 (SCS); Investigation No. 786582 WPAP and SCS: Regulated Entity No. RN 105844278

Dear Mr. Teeter:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP and SCS Application for the above-referenced project submitted to the Austin Regional Office by Cuatro Consultants, Ltd., on behalf of Ryland Homes on December 2, 2009. Final review was completed after additional material was received on January 7, 2010. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The Whispering Hollow Subdivision will have a total of 682.26 acres. This proposed project will have an area of approximately 13.43 acres. The drainage area that was used for water quality purposes is 46.89 acres. The project will include 49 single family residential lots, streets, drainage, water, wastewater and associated appurtenances. The impervious cover will be 5.62 acres (41.85%). Project waste water will be disposed of by conveyance to the existing City of Buda Wastewater Treatment Plant.

The proposed SCS will include 984 linear feet of 8 inch SDR 26 PVC, four manholes and pipe for private service lateral stub outs, manholes, and appropriate appurtenances. The proposed sewage

REPLY TO: REGION 11 • 2800 S. INTERSTATE HWY. 35, STE. 100 • AUSTIN, TEXAS 78704-5700 • 512-339-2929 • FAX 512-339-3795

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

printed on recycled paper using soy-based ink.

STANDARD CONDITIONS

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

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and SCS and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP and SCS application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the Austin Regional Office within 30 days of site completion.
19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. If ownership of this organized sewage collection system is legally transferred (e.g., developer to city or Municipal Utility District), the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director.

Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
23. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

**Change in Responsibility for Maintenance
on Permanent Best Management Practices and Measures**

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: _____

Regulated Entity Name: _____

Site Address: _____

City, Texas, Zip: _____

County: _____

Approval Letter Date: _____

BMPs for the project: _____

New Responsible Party: _____

Name of contact: _____

Mailing Address: _____

City, State: _____ Zip: _____

Telephone: _____ FAX: _____

Signature of New Responsible Party

Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ who, being duly sworn by me, deposes and says:

- (1) That my name is _____ and that I own the real property described below.
- (2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.
- (3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on _____.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

- (4) The said real property is located in _____ County, Texas, and the legal description of the property is as follows:

LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this __ day of _____, _____.

NOTARY PUBLIC

THE STATE OF _____ §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ 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 __ day of _____, _____.

NOTARY PUBLIC

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Attachment B – Narrative of Proposed Modification

The proposed project involves converting an existing sedimentation/filtration pond (approx. 0.9 acres in total surface area) to a batch water quality pond. The proposed project area, based on the parcel boundaries bounding the proposed limits of construction, is 6.90 acres. The existing pond, with drainage area of approximately 42.9 acres, is in disrepair, and therefore a batch pond has been proposed by the City of Buda as a replacement. The Existing Site Plan (included with F-0590 as Attachment C within this application package) shows the existing pond and surrounding area. The impervious cover of the upstream drainage area (42.9 acres) is estimated to be 50 percent. This upstream drainage area is fully developed and forms part of the Whispering Hollow single family residential neighborhood. This residential area was originally developed under Edwards Aquifer Protection Program No. 03052301 (with a project area of 22.3 acres). At the time that the original permit was granted (September 2003), only a very small portion of the current drainage area (approximately 0.4 acres) fell within the recharge zone; however, the Edwards Aquifer zone boundaries were updated in 2005¹ and the drainage area now falls within the recharge (32 acres), contributing (9.7 acres), and transition (1.2 acres) zones.

Based on the existing, fully-developed upstream area, the water quality treatment volume of the batch pond is required to be at least 88,206-cf, which is greater than the water quality volume of the existing sedimentation/filtration pond. Therefore, the existing pond volume will be enlarged by extending the eastern north-south berm wall of the pond to meet the wall of the existing detention pond, and modifying the existing splitter box and adjacent berm. The proposed batch pond will be drained by a standard perforated riser, as shown in F-0600 Attachment F (Construction Plans), and will also include a 100-ft auxiliary spillway, set at an elevation of 749.75-ft, which will drain to the existing Detention Pond A. This spillway, protected with appropriately-sized riprap, will allow both the proposed 1% and 4% AEP storm events to safely pass (i.e. with a freeboard of greater than one foot). The batch pond will be operated by a valve and actuator and powered by a solar panel.

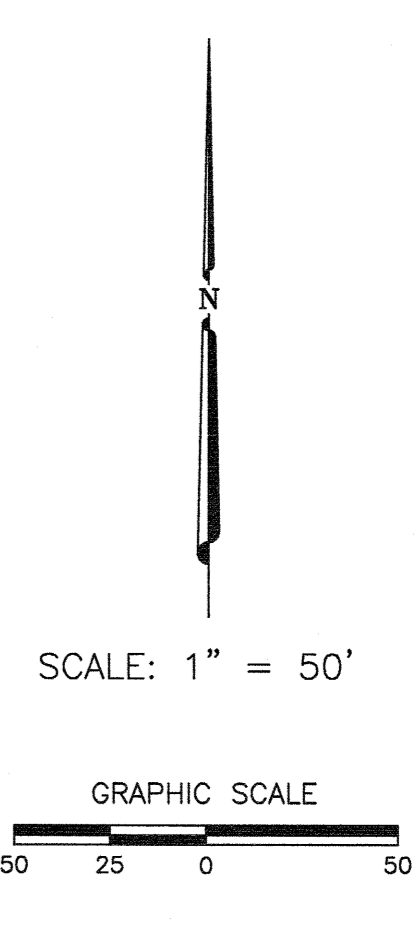
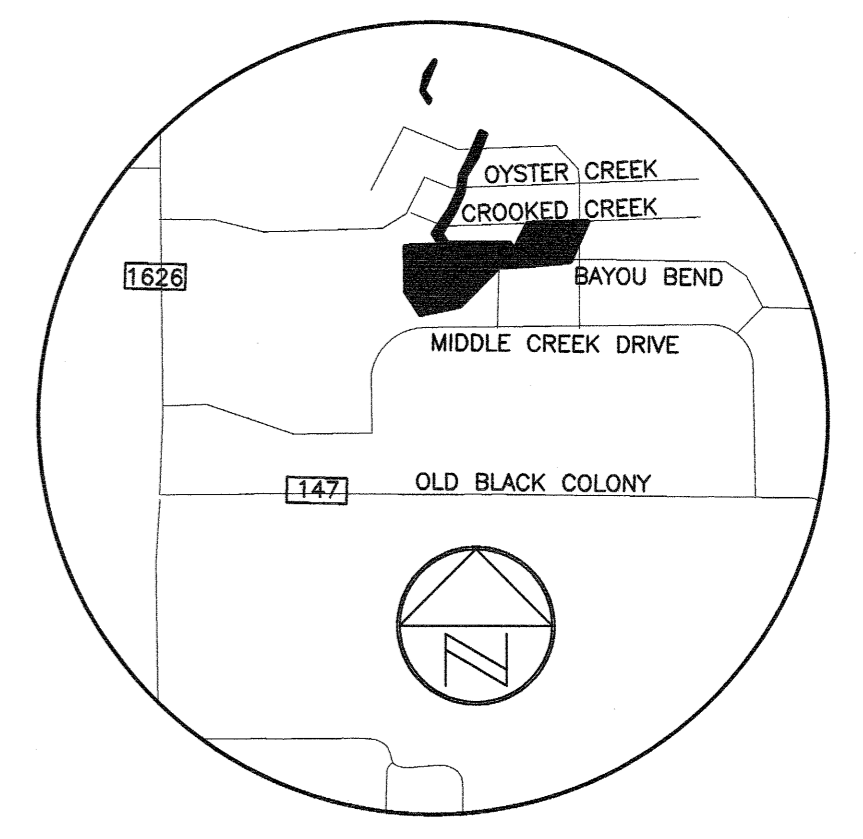
The approximate area to be demolished is 5,800 square feet. Appropriate temporary BMPs will be installed before construction begins, and these will be maintained throughout the period of construction.

¹ For more information, see: 30 TexReg 5024; August 26, 2005

Attachment C – Current Site Plan of the Approved Project

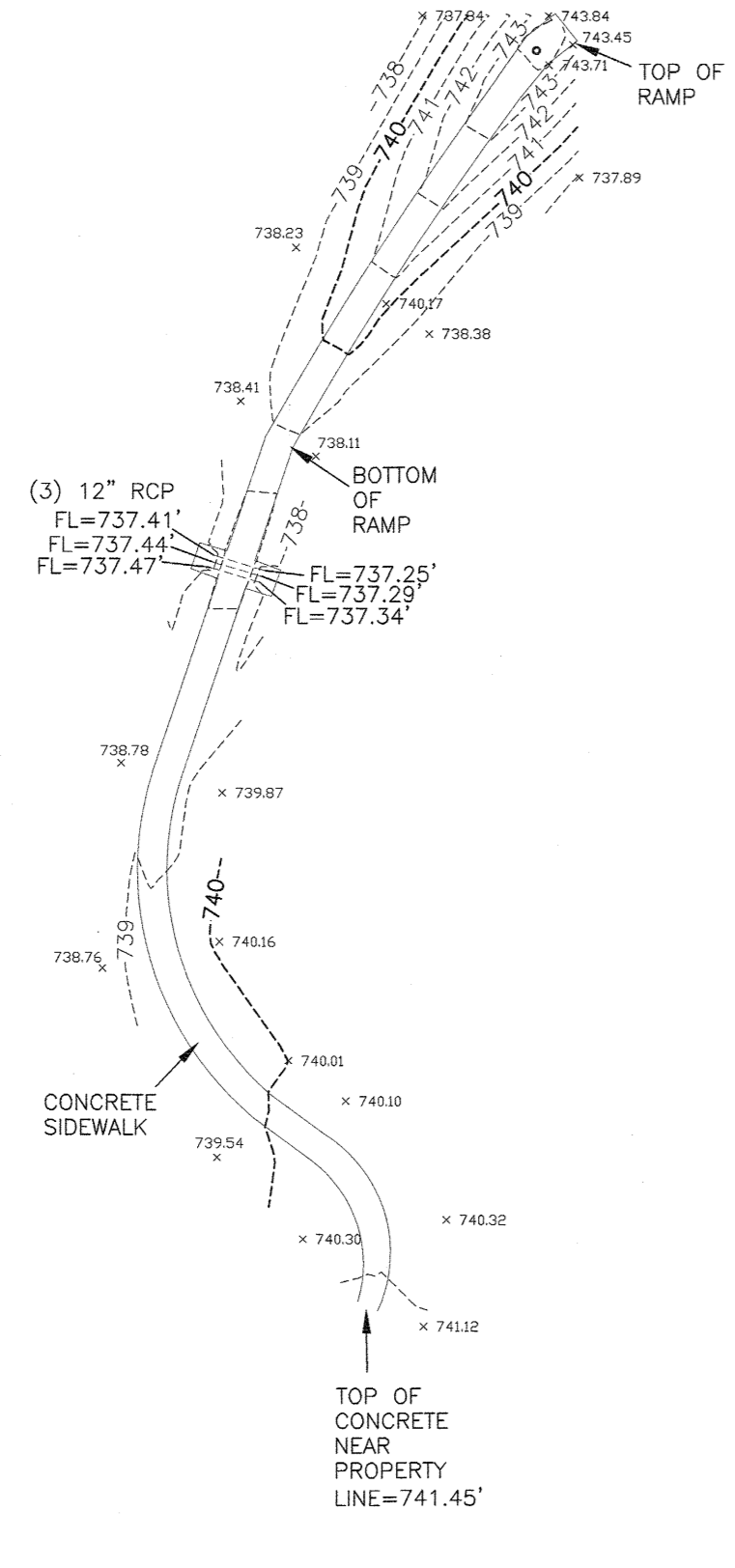
The survey attached below shows existing conditions at the site. This survey was obtained in March 2020, but no changes have taken place at the proposed site (i.e. Sedimentation/Filtration Pond WQA1) since that time. The area in which modifications are proposed is shown within a red rectangle.

A TOPOGRAPHIC AND TREE SURVEY OF A PORTION OF ELM GROVE SECTION THREE-B, A SUBDIVISION OF RECORD IN VOLUME 17, PAGE 189; AND ELM GROVE SECTION TWO, A SUBDIVISION OF RECORD IN VOLUME 16, PAGE 97; AND THE AMENDED PLAT OF WHISPERING HOLLOW PHASE 1 SECTION 2A, A SUBDIVISION OF RECORD IN VOLUME 13, PAGE 355 ALL OF THE PLAT RECORDS OF HAYS COUNTY, TEXAS.

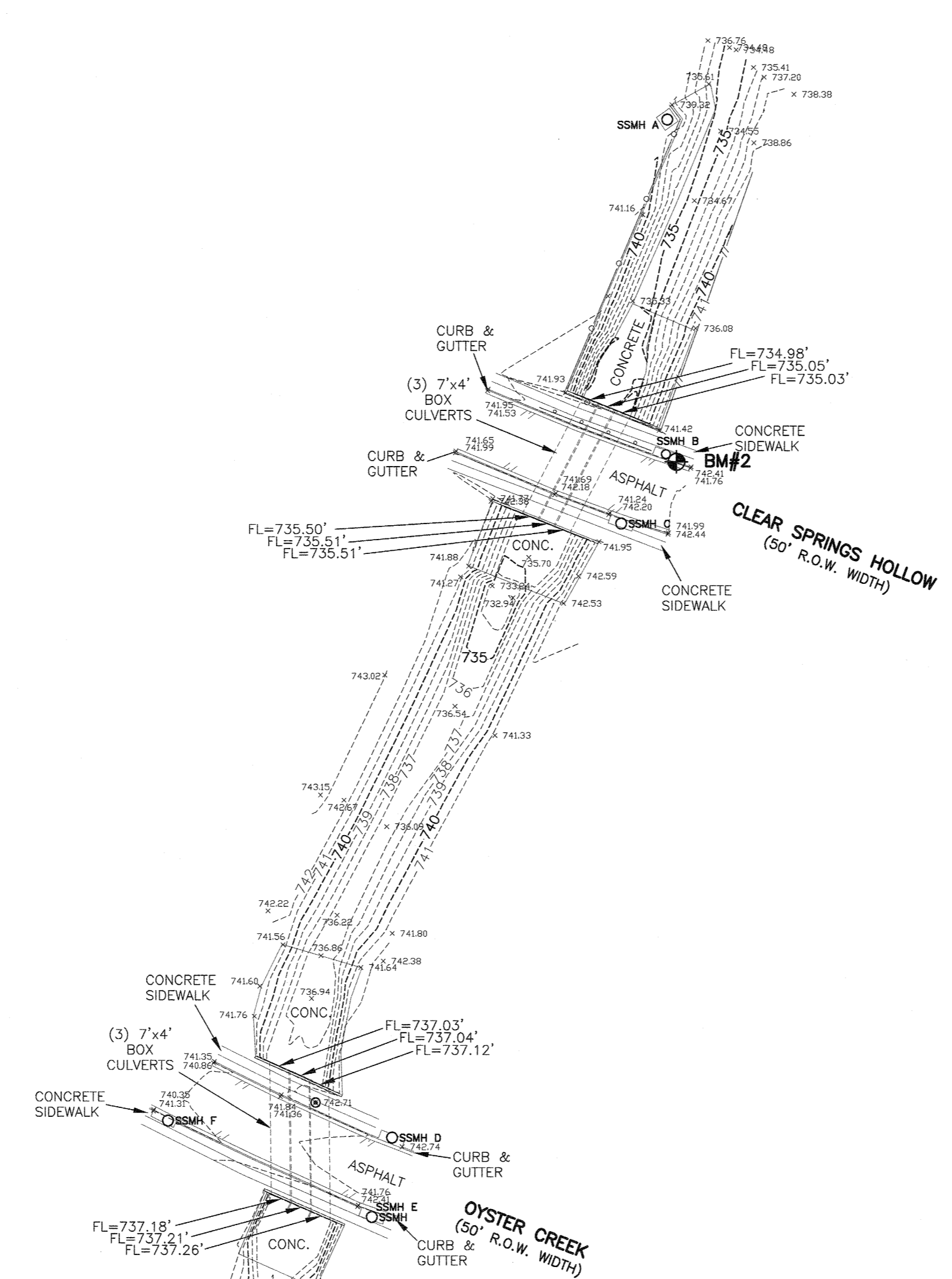


LEGEND

- CONTROL POINT/BENCHMARK LOCATION
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WASTEWATER MANHOLE
- STORMSEWER MANHOLE
- CLEANOUT
- BOLLARD
- PVC PIPE
- CHAIN LINK FENCE
- WOOD FENCE
- EDGE OF ASPHALT PAVEMENT

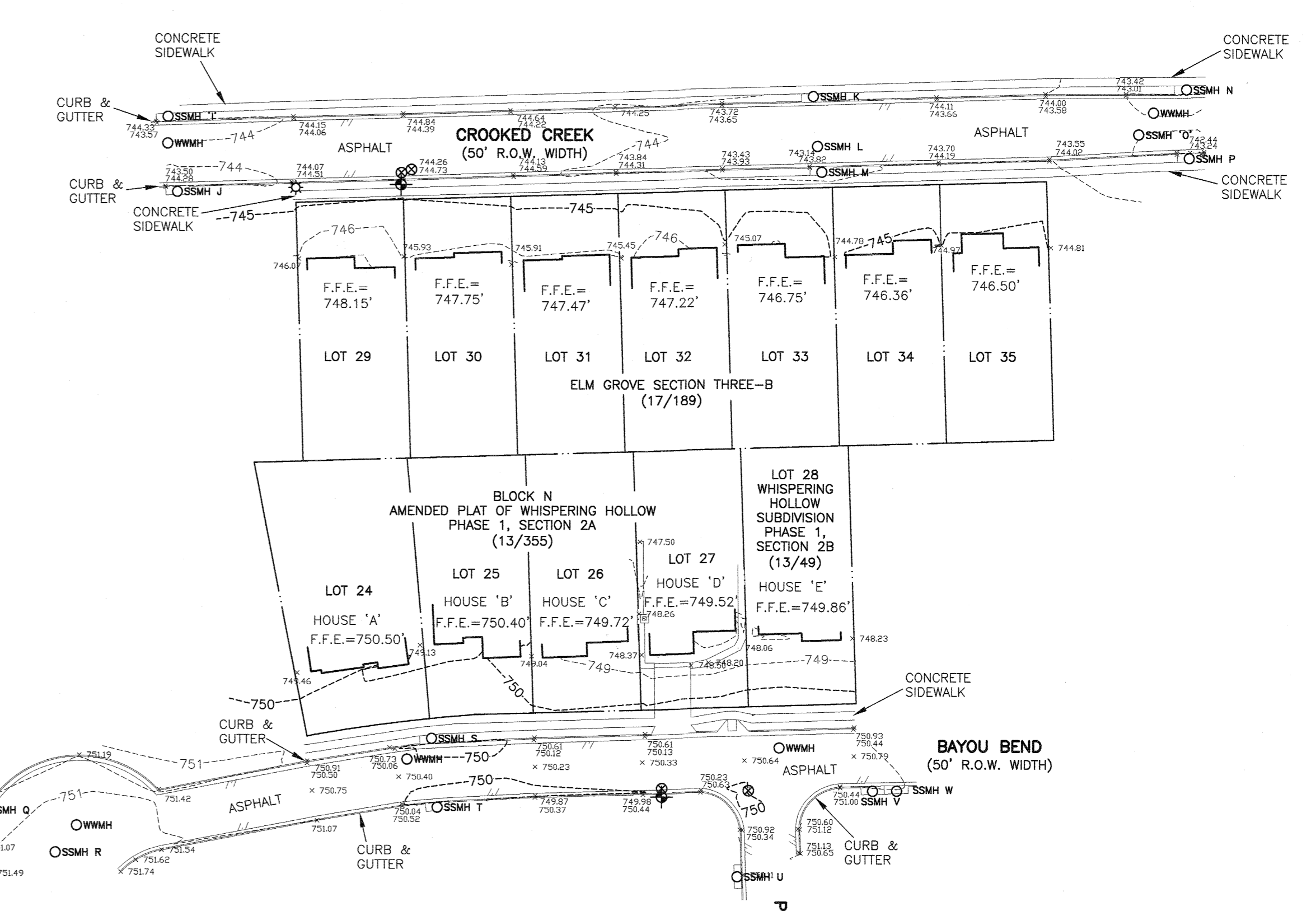
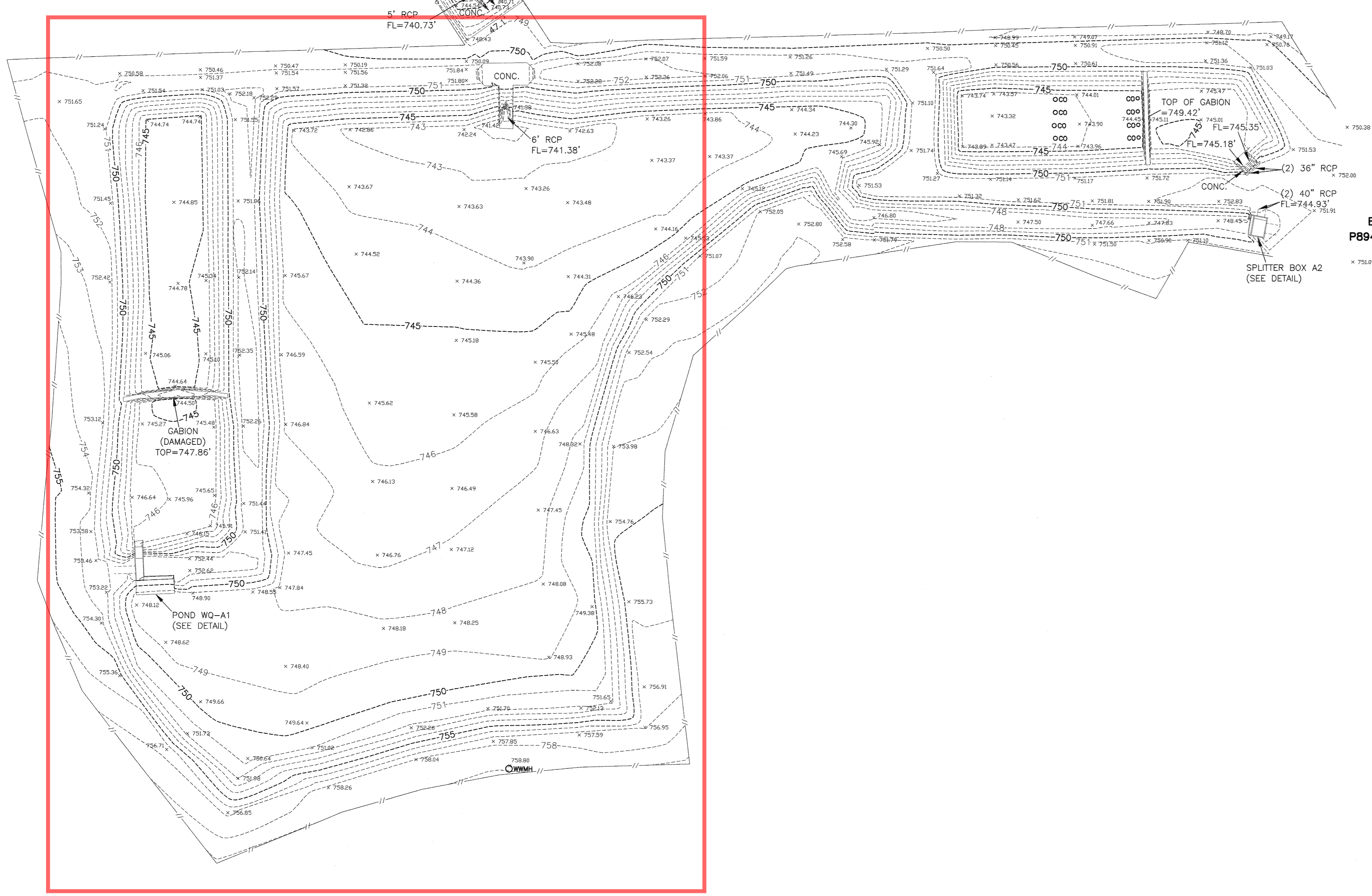
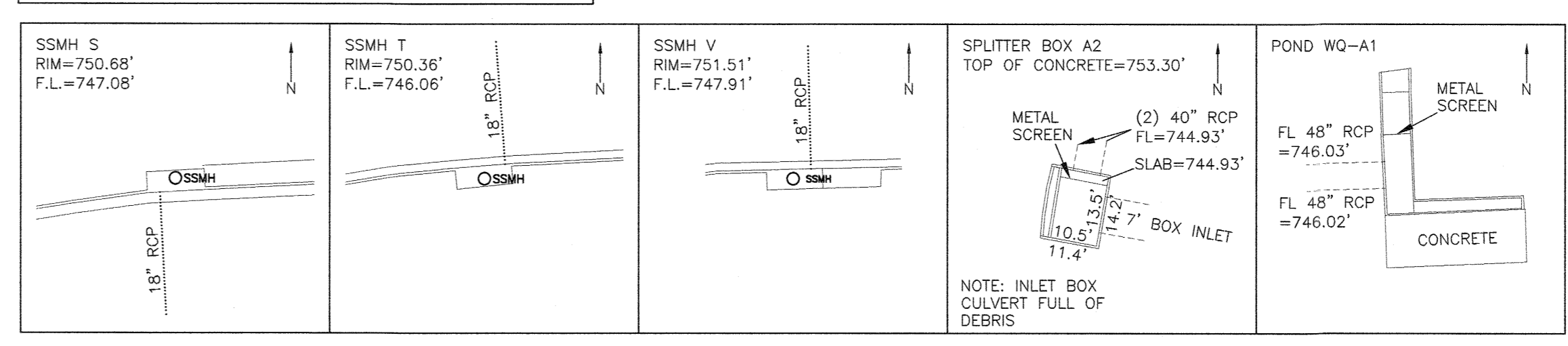


THIS IS A SURFACE DRAWING.
 BEARING BASIS: THE TEXAS COORDINATE SYSTEM OF 1983 (NAD83), SOUTH ZONAL ZONE, BASED ON GPS SOLUTIONS FROM THE NATIONAL GEODETIC SURVEY (NGS) ON-LINE POSITIONING USER SERVICE (OPUS) FOR CHAPARRAL CONTROL POINT "P894".
 4" ALUMINUM DISK SET IN CONCRETE
 SURFACE COORDINATES:
 N 1394728.979
 E 2327349.565
 TEXAS STATE PLANE COORDINATES:
 N 1394733.627
 E 2327047.049
 ELEVATION = 751.31'
 VERTICAL DATUM: NAVD 88 (GEOID 18)
 COMBINED SCALE FACTOR = 0.999870017
 (FOR SURFACE TO GRID CONVERSION)
 INVERSE SCALE FACTOR = 1.000130
 (FOR GRID TO SURFACE CONVERSION)
 SCALED ABOUT 0.0
 THETA ANGLE: 0°33'20"



BENCHMARK INFORMATION:
 BM#1: MAG SET WITH "CHAPARRAL" WASHER IN THE NORTHWEST CORNER OF A CURB DRAINAGE INLET AT THE CURB-DE-SAC OF BAYOU BEND
 ELEVATION = 751.31'
 VERTICAL DATUM: NAVD 88 (GEOID 18)
 BM#2: SQUARE CUT IN CONCRETE IN THE SOUTHEAST CORNER OF A CURB INLET ON THE NORTHEAST CORNER OF THE BRIDGE AT CLEAR SPRINGS FOLLOW
 ELEVATION = 742.46'
 VERTICAL DATUM: NAVD 88 (GEOID 18)

MANHOLE AND INLET NOTE:
 THIS SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS. EXACT MEASUREMENTS AND DEPTHS, PARTICULARLY IN CRITICAL AREAS, SHOULD BE VERIFIED WITH UTILITY RECORD MAPS AND/OR FIELD VERIFICATION PRIOR TO FINAL PLANNING OR CONSTRUCTION. MANHOLE AND INLET DIAGRAMS ARE NOT TO SCALE.



SURVEYOR'S CERTIFICATE:
 DATE OF SURVEY: MARCH 12, 2020
 I hereby certify that a survey of the property shown hereon was actually made upon the ground under my direction and supervision on the date shown. This survey was made substantially in accordance with the standards and conditions set forth for a Category 6, Condition 1 Topographic Survey, based on the Manual of Practice for Land Surveying in Texas, 2008 Revised Eleventh Edition, prepared by the Texas Society of Professional Surveyors.
 Steven P. Timberlake Date 3/20/2020
 Registered Professional Land Surveyor
 State of Texas No. 6240

Steven P. Timberlake
 Registered Professional Land Surveyor
 State of Texas No. 6240

Chaparral
 Professional Land Surveying, Inc.
 Surveying and Mapping
 3500 McCall Lane
 Austin, Texas 78744
 512-443-1724
 Firm No. 10124500

PROJECT NO.: 521-028
 DRAWING NO.: 521-028-BASE
 PLOT DATE: 03/20/2020
 PLOT SCALE: 1"=50'
 DRAWN BY: DJ
 SHEET 01 OF 01

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Tim Osting, PE

Date: 05/02/2023

Signature of Customer/Agent:



Regulated Entity Name: Whispering Hollow Subdivision

Regulated Entity Information

1. The type of project is:

- Residential: Number of Lots:201
- Residential: Number of Living Unit Equivalents:
- Commercial
- Industrial
- Other:

2. Total site acreage (size of property):6.90

3. Estimated projected population:800 (within existing, fully-developed upstream drainage area)

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table (for fully-developed upstream drainage area)

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops		÷ 43,560 =	
Parking		÷ 43,560 =	
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover	934,362	÷ 43,560 =	21.45

Total Impervious Cover 21.45 ÷ **Total Acreage** 42.9 X 100 = **50% Impervious Cover** (for fully-developed upstream drainage area)

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

For Road Projects Only

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

7. Type of project:

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

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

- Concrete
- Asphaltic concrete pavement
- Other: _____

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

Width of R.O.W.: _____ feet.

L x W = _____ Ft² ÷ 43,560 Ft²/Acre = _____ acres.

10. Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

L x W = _____ Ft² ÷ 43,560 Ft²/Acre = _____ acres.

Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

11. A rest stop will be included in this project.
- A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

<u>100%</u> Domestic	_____ Gallons/day
_____ % Industrial	_____ Gallons/day
_____ % Commingled	_____ Gallons/day
TOTAL gallons/day _____	

15. Wastewater will be disposed of by:

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

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

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

Sewage Collection System (Sewer Lines):

Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

The SCS was previously submitted on _____.

The SCS was submitted with this application.

The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

- Existing.
 Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 30'.

18. 100-year floodplain boundaries:

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

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

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRM 48209C0280G (Preliminary, 12/14/2022)

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

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

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

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

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

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

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

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

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

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

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

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

- 22. The drainage patterns and approximate slopes anticipated after major grading activities.
- 23. Areas of soil disturbance and areas which will not be disturbed.
- 24. Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
- 25. Locations where soil stabilization practices are expected to occur.
- 26. Surface waters (including wetlands).
 - N/A
- 27. Locations where stormwater discharges to surface water or sensitive features are to occur.
 - There will be no discharges to surface water or sensitive features.
- 28. Legal boundaries of the site are shown.

Administrative Information

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

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: Tim Osting, PE

Date: 03/03/2023

Signature of Customer/Agent:



Regulated Entity Name: Whispering Hollow Subdivision

Project Information

Potential Sources of Contamination

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

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

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

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

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

- Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.
- Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
- Fuels and hazardous substances will not be stored on the site.
- 2. **Attachment A - Spill Response Actions.** A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
- 3. Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
- 4. **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

- 5. **Attachment C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
 - For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.
 - For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
- 6. Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Garlic 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

Regulations in 30 TAC Chapter 327 will be followed by the project contractor. Particular actions to be followed are provided in the following sections.

Spill/Leak Prevention Measures

- If possible, move material handling indoors, under cover, or away from storm drains or sensitive water bodies.
- Properly label all containers so that the contents are easily identifiable.
- Berm storage areas so that if a spill or leak occurs, the material is contained.
- Cover outside storage areas either with a permanent structure or with a seasonal one such as a tarp so that rain cannot come into contact with the materials.
- Check containers (and any containment sumps) often for leaks and spills. Replace containers that are leaking, corroded, or otherwise deteriorating with containers in good condition. Collect all spilled liquids and properly dispose of them.
- Store, contain and transfer liquid materials in such a manner that if the container is ruptured or the contents spilled, they will not discharge, flow or be washed into the storm drainage system, surface waters, or groundwater.
- Place drip pans or absorbent materials beneath all mounted taps and at all potential drip and spill locations during the filling and unloading of containers. Any collected liquids or soiled absorbent materials should be reused/recycled or properly disposed of.
- For field programs, only transport the minimum amount of material needed for the daily activities and transfer materials between containers at a municipal yard where leaks and spill are easier to control.
- If paved, sweep and clean storage areas monthly, do not use water to hose down the area unless all of the water will be collected and disposed of properly.
- Install a spill control device (such as a tee section) in any catch basins that collect runoff from any storage areas if the materials stored are oil, gas, or other materials that separate from and float on water. This will allow for easier cleanup if a spill occurs.
- If necessary, protect catch basins while conducting field activities so that if a spill occurs, the material will be contained.

Training

- Educate employees about spill prevention, spill response and cleanup on a routine basis.
- Well-trained employees can reduce human errors that lead to accidental releases or spills:
 - The employees should have the tools and knowledge to immediately begin cleaning up a spill if one should occur.
 - Employees should be familiar with the Spill Prevention Control and Countermeasure Plan if one is available.
- Training of staff from all municipal departments should focus on recognizing and reporting potential or current spills/leaks and who they should contact.
- Employees responsible for aboveground storage tanks and liquid transfers for large bulk containers should be thoroughly familiar with the Spill Prevention Control and Countermeasure Plan and the plan should be readily available

Spill Response and Prevention

- Identify key spill response personnel and train employees on who they are.
- Store and maintain appropriate spill cleanup materials in a clearly marked location near storage areas; and train employees to ensure familiarity with the site's spill control plan and/or proper spill cleanup procedures.
- Locate spill cleanup materials, such as absorbents, where they will be readily accessible (e.g. near storage and maintenance areas, on field trucks).
- Follow the Spill Prevention Control and Countermeasure Plan if one is available.
- If a spill occurs, notify the key spill response personnel immediately. If the material is unknown or hazardous, the local fire department may also need to be contacted.
- If safe to do so, attempt to contain the material and block the nearby storm drains so that the area impacted is minimized. If the material is unknown or hazardous wait for properly trained personnel to contain the materials.
- Perform an assessment of the area where the spill occurred and the downstream area that it could impact. Relay this information to the key spill response and clean up personnel.

Spill Cleanup Procedures

- Small non-hazardous spills
 - Use a rag, damp cloth or absorbent materials for general clean up of liquids.
 - Use brooms or shovels for the general clean up of dry materials.
 - If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain.
 - Dispose of any waste materials properly.
 - Clean or dispose of any equipment used to clean up the spill properly .
- Large non-hazardous spills
 - Use absorbent materials for general clean up of liquids.
 - Use brooms, shovels or street sweepers for the general clean up of dry materials.
 - If water is used, it must be collected and properly disposed of. The wash water cannot be allowed to enter the storm drain.
 - Dispose of any waste materials properly.
 - Clean or dispose of any equipment used to clean up the spill properly.
- For hazardous or very large spills, a private cleanup company or Hazmat team may need to be contacted to assess the situation and conduct the cleanup and disposal of the materials.
- Chemical cleanups of material can be achieved with the use of absorbents, gels, and foams. Remove the adsorbent materials promptly and dispose of according to regulations.
- If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to a certified laundry (rags) or disposed of as hazardous waste.

Reporting

- Report any spills immediately to the identified key municipal spill response personnel.
- Report spills to the State of Texas Spill-Reporting Hotline and the SERC: 1-800-832-8224.
- Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hour).
- After the spill has been contained and cleaned up, a detailed report about the incident should be generated and kept on file (see the section on Reporting below). The incident may also be used in briefing staff about proper procedures.

Attachment B – Potential Sources of Contamination

1. Oil and Grease. Pollutants associated with earthwork operations.
2. Human waste. Associated with portable waste facilities.
3. Trash and litter. Associated with general construction activities.
4. Sediment. Associated with soil erosion from earthwork operations.

Attachment C – Sequence of Major Activities

The following activities will be undertaken for water quality pond WQA1:

1. Install erosion/sedimentation controls as shown on construction plans, including silt fences, rock berms, and stabilized construction entrances and exits.
2. Pre-construction meeting between contractor, city, and engineer.
3. Demolish existing south (east-west) berm of water quality pond (approx. 5,800 square feet).
4. Regrade existing detention pond (approx. 1.3 acres).
5. Construct new portion of north-south berm on east side of existing water quality pond (approx. 8,600 square feet).
6. Install permanent erosion control/soil stabilization measures (approx. 3.19 acres).
7. Remove temporary erosion controls.

Attachment D – Temporary Best Management Practices and Measures

Soil on site will be disturbed by proposed grading within the existing water quality pond and downstream detention pond. Therefore, the contractor will be responsible for the installation of on-site erosion control measures, including rock berms, silt fences, and stabilized construction entrances/exits. These protection measures must be installed before any construction work or site preparation begins. Further details on each of these proposed measures are provided below:

1. Silt Fences: installed along downgradient boundary of limits of construction.
2. Rock Berms: installed downgradient of areas of expected concentrated stormwater flow.
3. Stabilized Construction Entrances/Exits: installed at all entrances and exits to be used during construction activities.

These proposed temporary BMPs will be maintained and repaired according to the plan and schedule provided in F-0602, Attachment I.

Attachment F – Structural Practices

The project contractor will be responsible for all temporary best management practices. The following structural practices are proposed for this project:




1. Silt fences for erosion control.
2. Rock berms for inlet and outlet protection.
3. Stabilized construction entrances/exits.

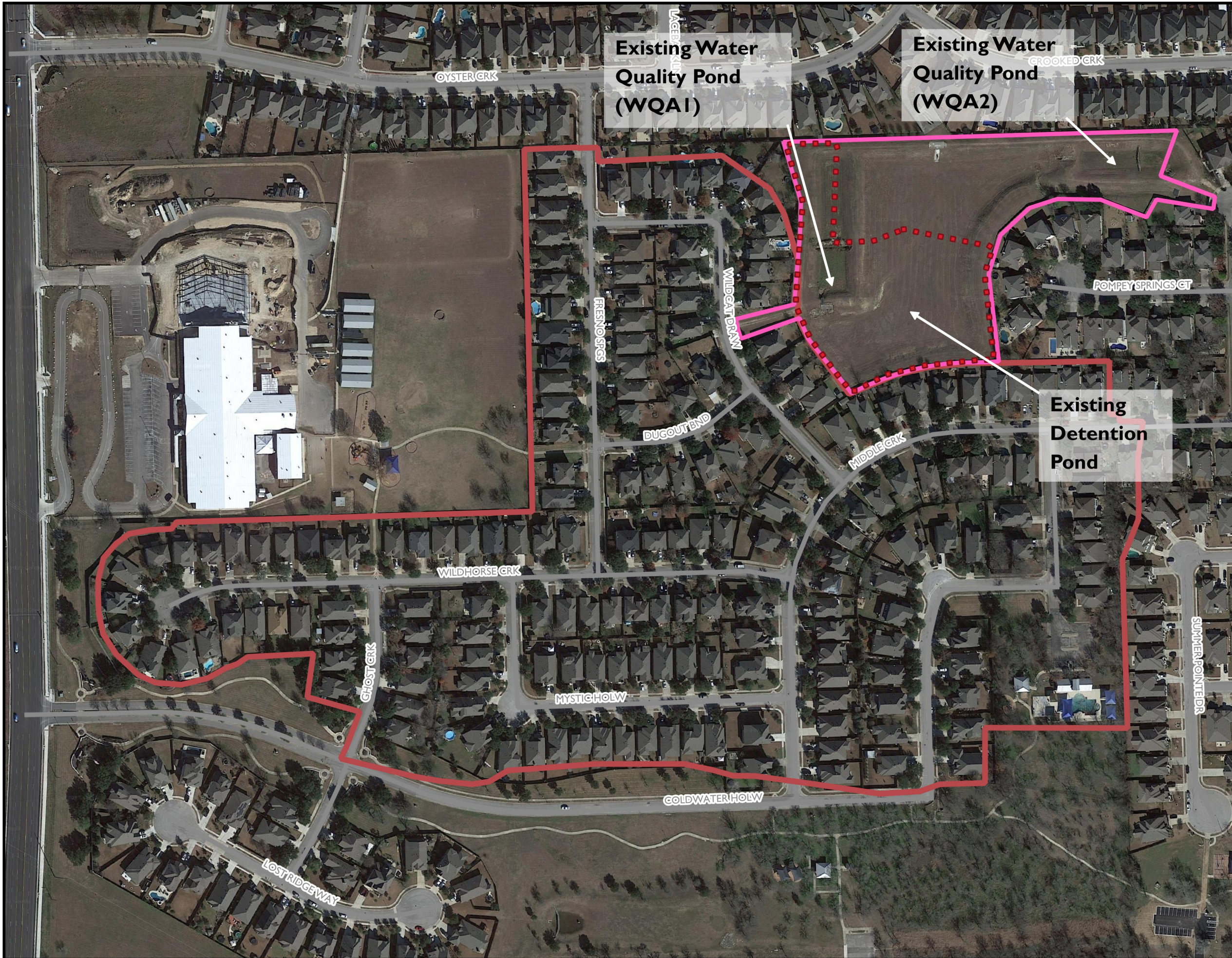
Attachment G – Drainage Area Map

ATTACHMENT G Drainage Area Map

05/03/2023

Legend

-  Limits of Construction (3.19 acres)
-  Project Site (6.90 acres)
-  Drainage Area to Existing Water Quality Pond (WQA1) (42.9 acres)



*For Planning and Permitting Purposes Only
Not for Construction*



0 250 500 ft

AquaStrategies
Water Planning, Science & Engineering

Attachment I – Inspection and Maintenance for BMPs

The following requirements are reproduced from TCEQ Technical Guidance RG 348.

Silt Fences

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

Rock Berms

- Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
- Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
- Repair any loose wire sheathing.
- The berm should be reshaped as needed during inspection.
- The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Stabilized Construction Entrances/Exits

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

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Interim Stabilization Measures

Interim stabilization measures will be required when soil is disturbed during construction. These measures should follow the guidelines provided in TCEQ Technical Guidance Manual RG-348. Stabilization measures should be implemented as soon as possible after soil disturbance in each area, and not more than 14 days after construction activity ends in that area. Interim stabilization methods used by the contractor will include at least one of the following:

- Temporary Vegetation
- Installation of blankets or matting material
- Hydraulic Mulch

Permanent Stabilization Measures

Permanent stabilization measures will include installation of permanent vegetation, including grass sod or seeding for ground cover. The contractor will be responsible for sodding all cut and fill areas upon completion of construction. Seeding and/or sodding should follow the guidelines provided in TCEQ Technical Guidance Manual RG-348.

Permanent Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Tim Osting, PE

Date: 03/03/2023

Signature of Customer/Agent



Regulated Entity Name: Whispering Hollow Subdivision, City of Buda, Hays County, Texas

Permanent Best Management Practices (BMPs)

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

- Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
 N/A
- These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
 The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

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

N/A

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

N/A

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

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

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

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

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

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

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

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

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

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

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

Responsibility for Maintenance of Permanent BMP(s)

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

14. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
- N/A
15. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.
- N/A

Attachment B – BMPs for Upgradient Stormwater

The BMP proposed to treat upgradient stormwater is a batch water quality pond, which will be constructed by modifying an existing sedimentation/filtration pond (WQA1). This reconfigured pond will receive the runoff from a total of approximately 42.9 acres, currently fully developed and under residential land use, shown in Figure 1 below. This residential area was originally developed under Edwards Aquifer Protection Program No. 03052301 (with a project area of 22.3 acres). At the time that the original permit was granted (September 2003), only a very small portion of the current drainage area (approximately 0.4 acres) fell within the recharge zone; however, the Edwards Aquifer zone boundaries were updated in 2005¹ and the drainage area now falls within the recharge (32 acres), contributing (9.7 acres), and transition (1.2 acres) zones.

The runoff from this upgradient drainage area flows through curb inlets and subsequently a network of storm sewers until it reaches the existing sedimentation/filtration pond, which will be converted to a batch water quality pond. Flow subsequently leaves a downstream detention pond and then flows through a grass-lined channel to Garlic Creek.

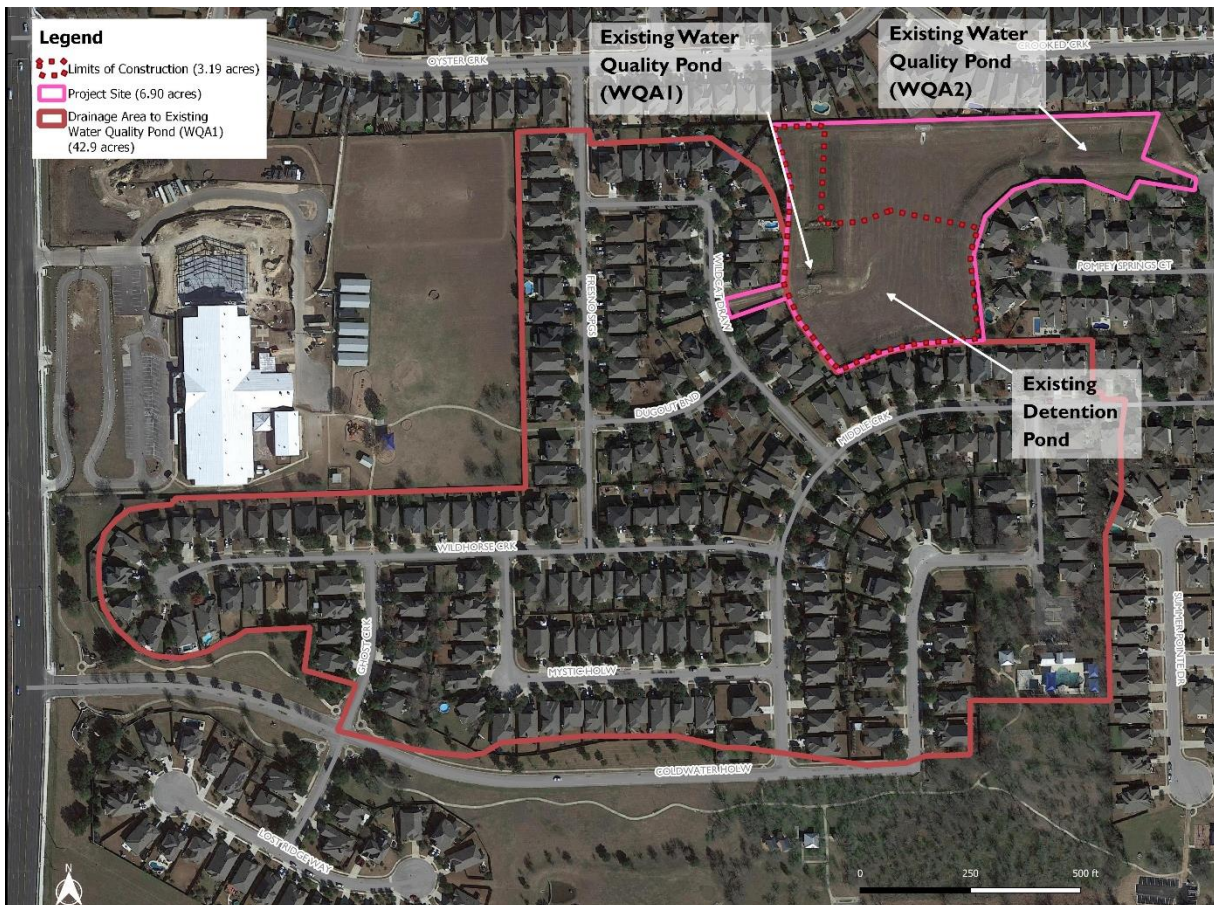


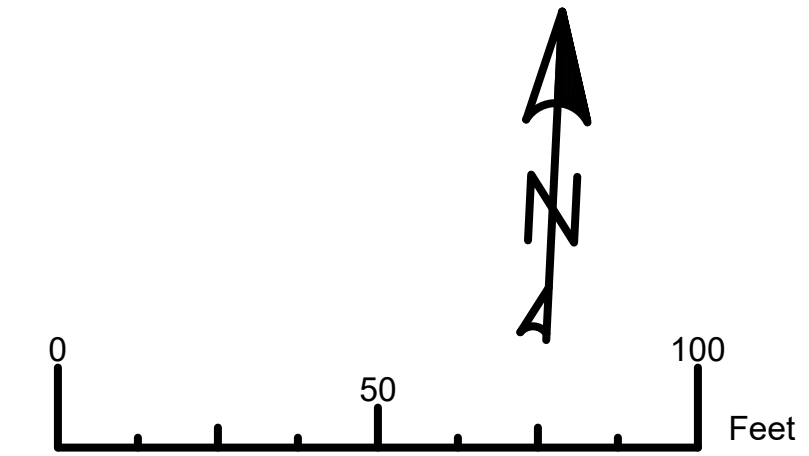
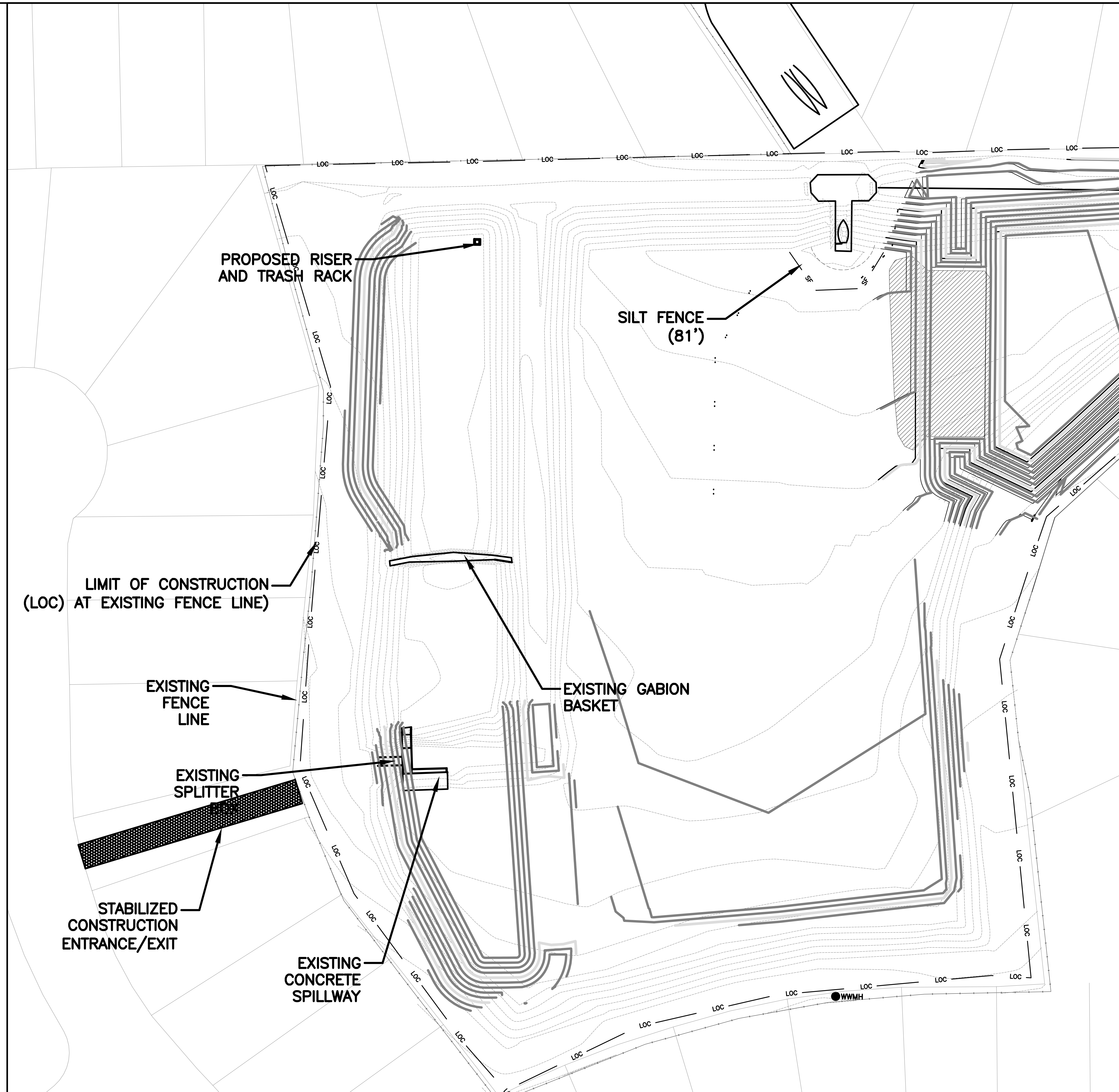
Figure 1: Upgradient Stormwater Drainage Area

¹ For more information, see: 30 TexReg 5024; August 26, 2005

Attachment C – BMPs for On-site Stormwater

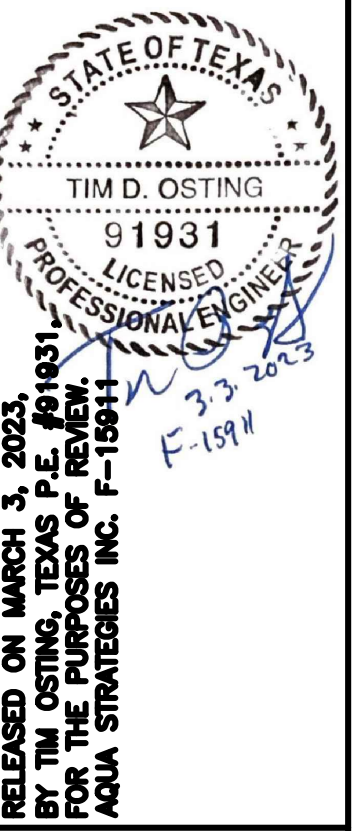
On-site stormwater will be treated by the proposed batch water quality pond, to be constructed by modifying an existing sedimentation/filtration pond (WQA1). All stormwater originating downstream of the proposed batch water quality pond will not come into contact with any areas of impervious cover and will flow through an existing detention pond to a grass-lined channel to Garlic Creek. The proposed stormwater infrastructure configuration is shown in Attachment F (Construction Plans).

Attachment F – Construction Plans



LEGEND

- 452 --- EXISTING CONTOUR
- 502 --- PROPOSED CONTOUR
- SF --- SILT FENCE
- LOC --- LIMITS OF CONSTRUCTION
- --- ROCK BERM



Whispering Hollow Drainage Improvements
Whispering Hollow Subdivision
 City of Buda, Texas
 SWPPP & EROSION CONTROL PLAN - WQA1

11029 Fitchburg Center
 Austin, TX 78748
 512-627-1563
 Registration Number: F-15911
AquaStrategies
 Water Planning, Science & Engineering

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF BUDA MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.	
SITE PLAN APPROVAL	SHEET <u>4</u> OF <u>14</u>
FILE NUMBER: _____	APPLICATION DATE: _____
APPROVED BY COMMISSION ON _____	UNDER THE CITY OF BUDA
UNIFIED DEVELOPMENT CODE _____	CASE MANAGER _____
EXPIRATION DATE: _____	
CITY ENGINEER, CITY OF BUDA	
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING: _____	
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REV. 2: _____ CORRECTION: _____	
REV. 3: _____ CORRECTION: _____	
REV. 3: _____ CORRECTION: _____	
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DATE	
BY	
REVISION	
NO.	
DATE: 03-03-2023	
FILE:	
DRAWN: JCB	
SHEET	
4	14

STATE OF TEXAS
TIM D. OSTING
91931
LICENSED PROFESSIONAL ENGINEER
EXPIRES 12/31/2023
F-1594

RELEASED ON MARCH 3, 2023
BY TIM OSTING, TEXAS P.E. #91931
FOR THE INTERESTS OF AQA STRATEGIES INC. F-1594



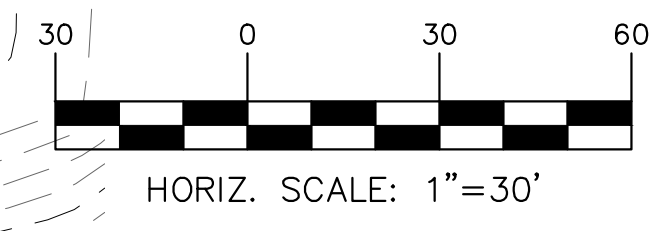
Whispering Hollow Drainage Improvements
Whispering Hollow Subdivision
City of Buda, Texas
WQ1 MODIFICATIONS

1929 Fitzhugh Center
Dripping Springs, TX 78620 | Ph: 612-627-1563
TX Registration Number: F-15911

AquaStrategies
Water Planning, Science & Engineering

LEGEND

- 452 — EXISTING CONTOUR
- - - - - PROPOSED CONTOUR
- FLOW ARROW
- LOT LINE
- EXISTING STRUCTURE
- PROPOSED TOP OF BERM
- PROPOSED RIPRAP
- PROPOSED CONCRETE



	100-yr		25-yr	
	Peak Outflow	Peak WSE (ft)	Peak Outflow (cfs)	Peak WSE (ft)
WQA1	279.68	750.73	240.12	750.63
WQA2	193.55	749.53	171.39	748.30
Det Pond A	325.28	749.52	283.77	748.24

City of Buda Water Quality Calculations for Pond WQA2	
Total Drainage Area Flowing To Pond WQA2	46,285 AC
Project Area Impervious Cover Fraction	0.50
Required Capture Depth	0.8 IN
Required Water Quality Volume	134,412 CF
Volume Currently Captured and Treated in Summer Pointe Partial Sedimentation Pond	12,276 CF
Provided WQA2 Water Quality Volume	124,364 CF

	SUMMARY OF DETENTION POND DISCHARGES			
	Existing (as calculated)	Existing (as shown on downstream construction plans)	Pre-Development	Proposed
25-yr	(cfs) 258.53	(cfs) --	(cfs) 384.9	(cfs) 283.77
100-yr	(cfs) 301.15	(cfs) 522.0	(cfs) 545.0	(cfs) 325.28

Det Pond Stage/Storage				
Depth (ft)	Elevation	Storage (ft ³)	Storage (yd ³)	Area (ft ²)
10	752.00	590715.45	21878.35	108542
9	751.00	471697.83	17470.29	107728
8	750.00	361277.01	13380.63	100050
7	749.00	261570.33	9687.79	97025
6	748.00	178185.15	6599.45	90791
5	747.00	110533.14	4093.82	66457
4	746.00	63683.28	2358.64	38801
3	745.00	31170.69	1154.47	26970
2	744.00	10773.27	399.01	14618
1	743.00	1492.56	55.28	4401
0	742.00	0	0	347

WQA1 Stage/Storage				
Depth (ft)	Elevation	Storage (ft ³)	Storage (yd ³)	Area (ft ²)
7.2	752.00	218781	8103	50164
6.2	751.00	173610	6430	41151
5.2	750.00	134109	4967	37719
4.2	749.00	98064	3632	34268
3.2	748.00	65448	2424	30900
2.2	747.00	36207	1341	27629
1.2	746.00	10881	403	20582
0.2	745.00	497.07	18.41	7045
0	744.80	0	0	11

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF BUDA MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

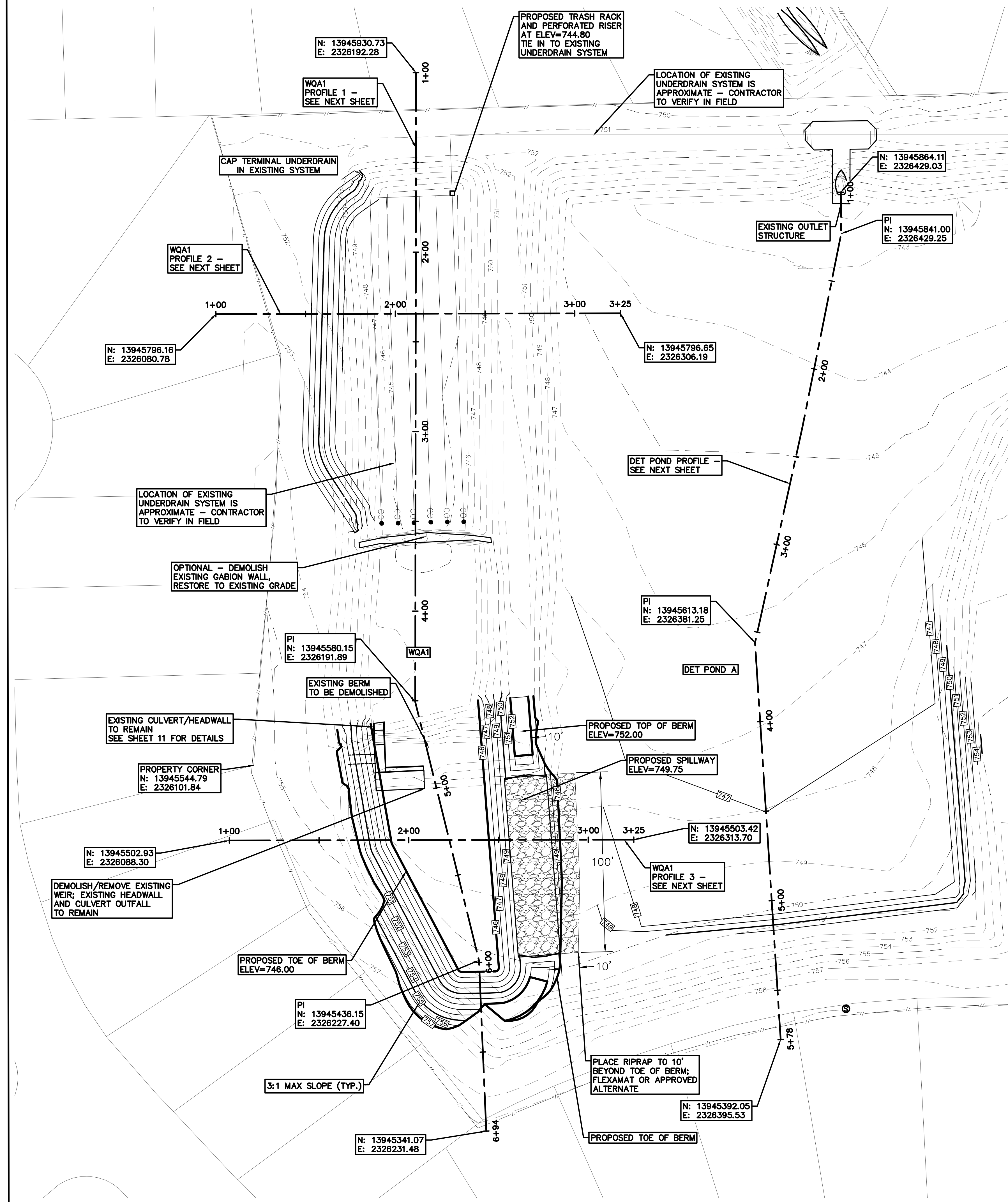
SITE PLAN APPROVAL SHEET 7 OF 14
FILE NUMBER: _____ APPLICATION DATE: _____
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UNIFIED DEVELOPMENT CODE _____
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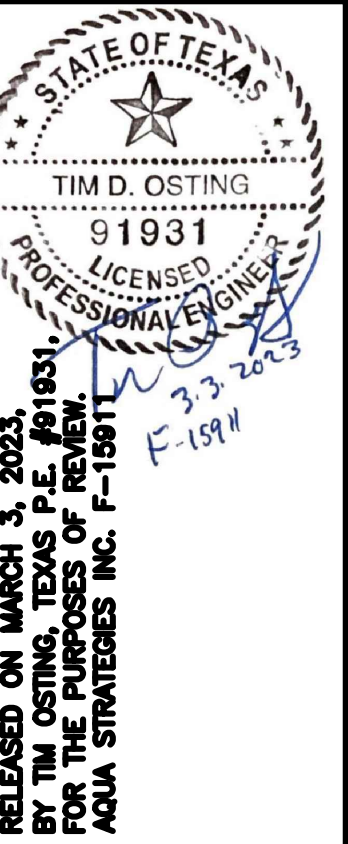
CITY ENGINEER, CITY OF BUDA
RELEASED FOR GENERAL COMPLIANCE: _____ ZONING: _____
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NO.	REVISION	DATE

Calculations from RG-348	Pages 3-36 to 3-37
Off-site area draining to BMP =	0 acres
Off-site impervious cover draining to BMP =	0 acres
Impervious fraction of off-site area =	0
Off-site Runoff Coefficient =	0.00
Off-site Water Quality Volume =	0 cubic feet
Storage for Sediment =	14,701
Total Capture Volume (required water quality volume(s) x 1.20) =	88,206 cubic feet
The following sections are used to calculate the required water quality volume(s) for the selected BMP.	
The values for BMP Types not selected in cell C45 will show NA.	
7. Batch Pond System	
Required Water Quality Volume for batch pond =	88,206 cubic feet





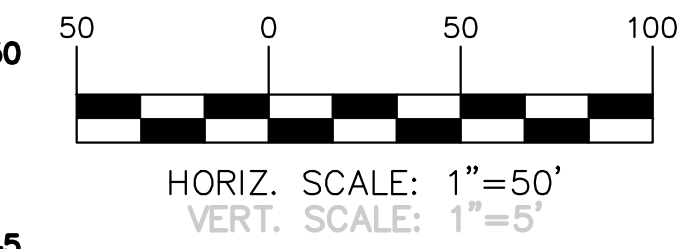
Whispering Hollow Drainage Improvements
Whispering Hollow Subdivision
 City of Buda, Texas
WQA1 PROFILES

11929 Fitzhugh Corners
 Dripping Springs, TX 78620 | Ph: 512-827-1563
 TX Registration Number: F-16911
AquaStrategies
Water Planning, Science & Engineering

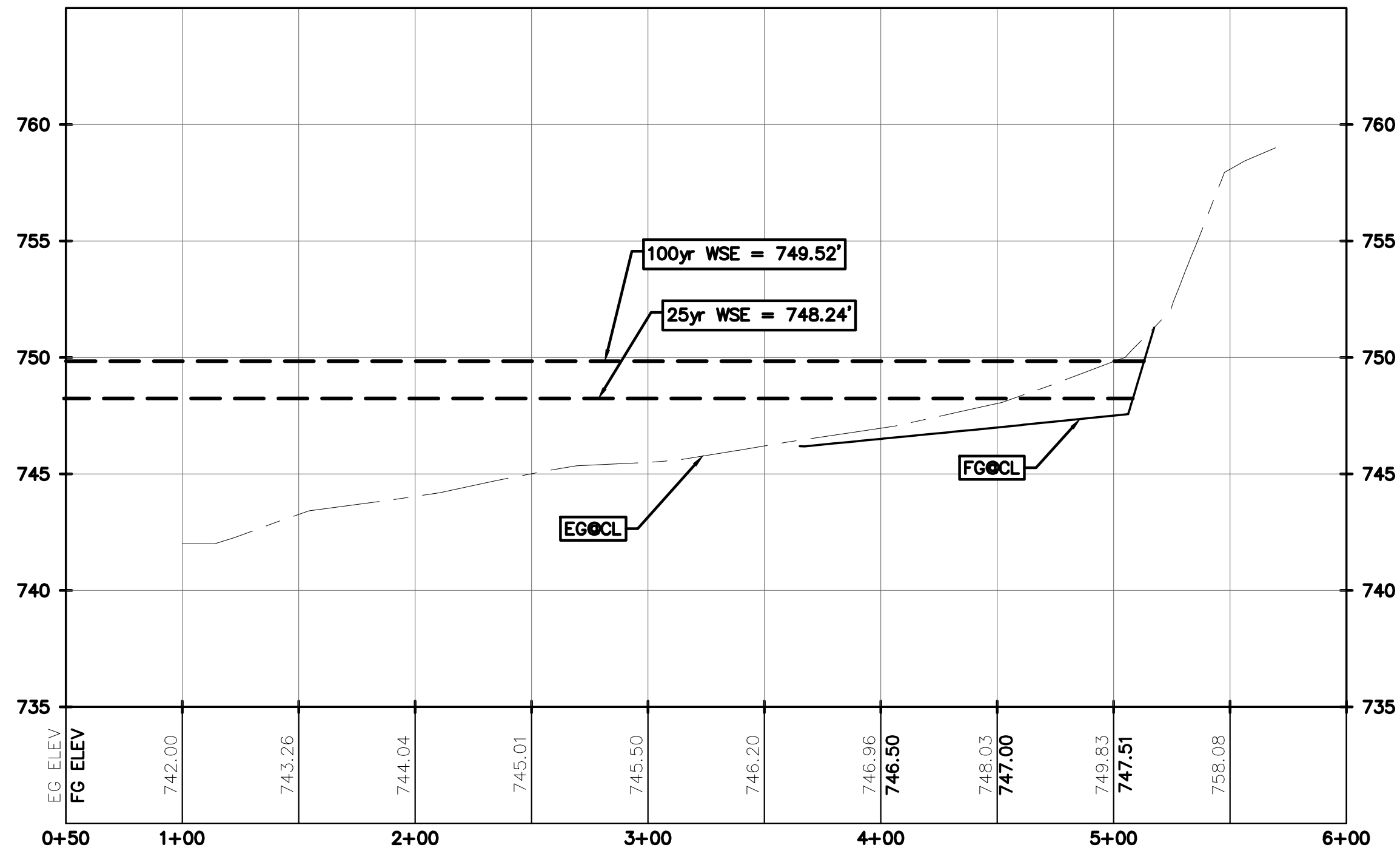
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BY	
REVISION	
NO.	
DATE: 03-03-2023	
FILE:	
DRAWN: JCB	
SHEET	

LEGEND

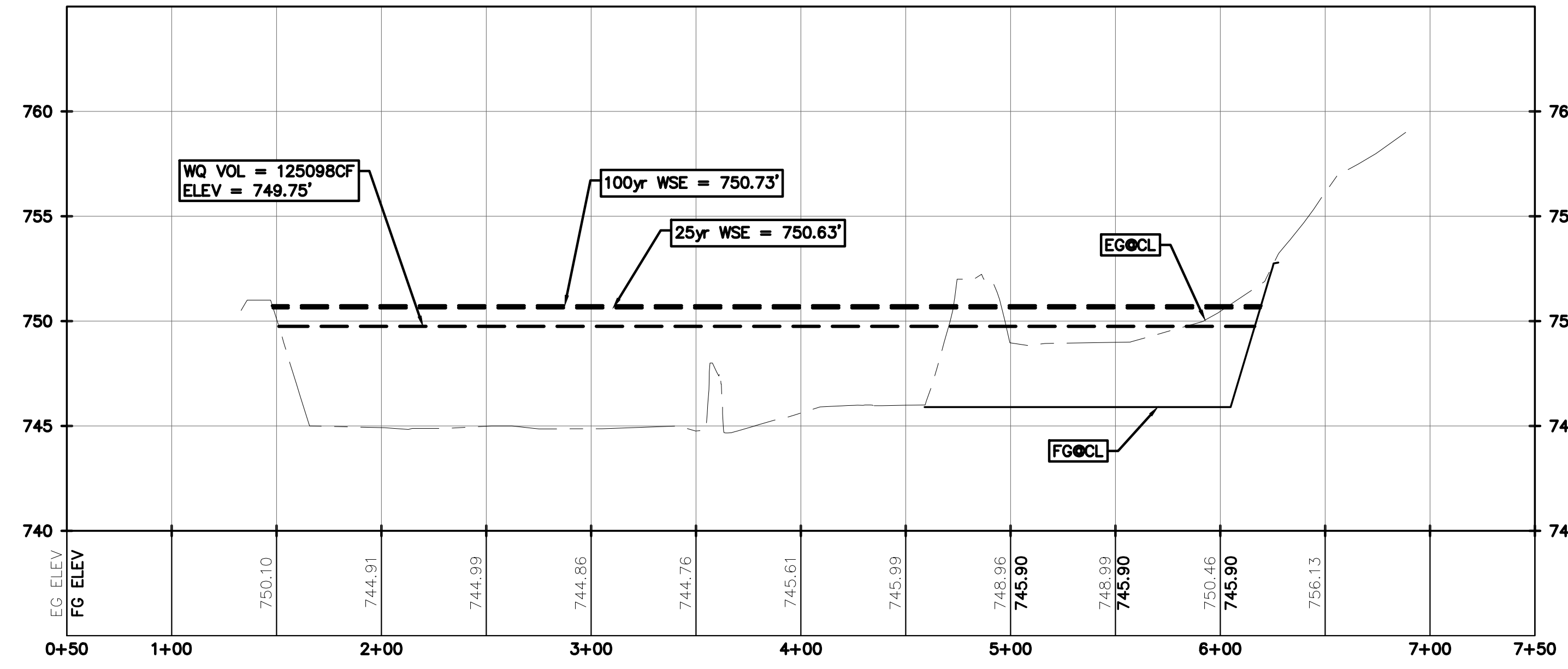
- 452 — EXISTING CONTOUR
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- PROPOSED TOP OF BERM
- ▨ PROPOSED RIPRAP
- ▨ PROPOSED CONCRETE



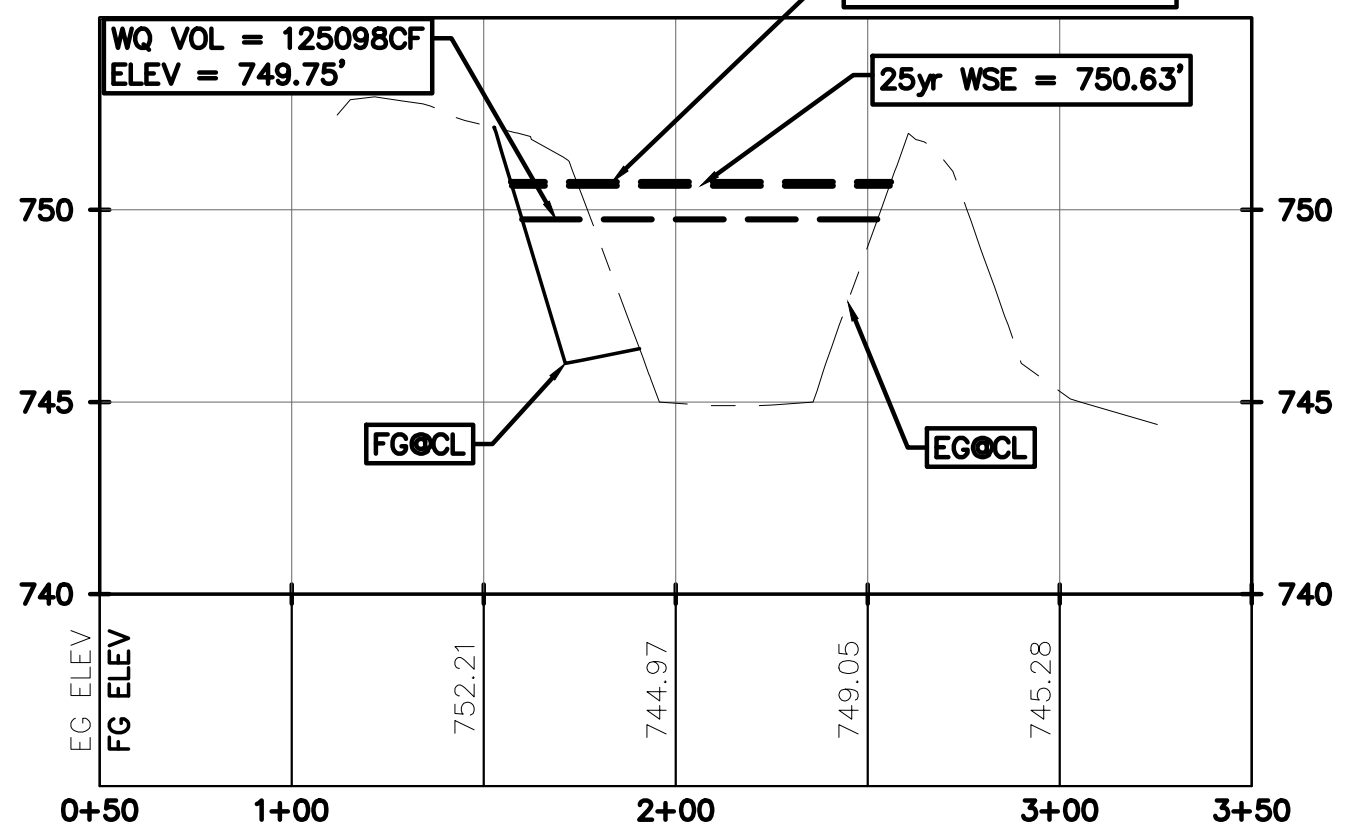
DET POND
0+50 - 6+00



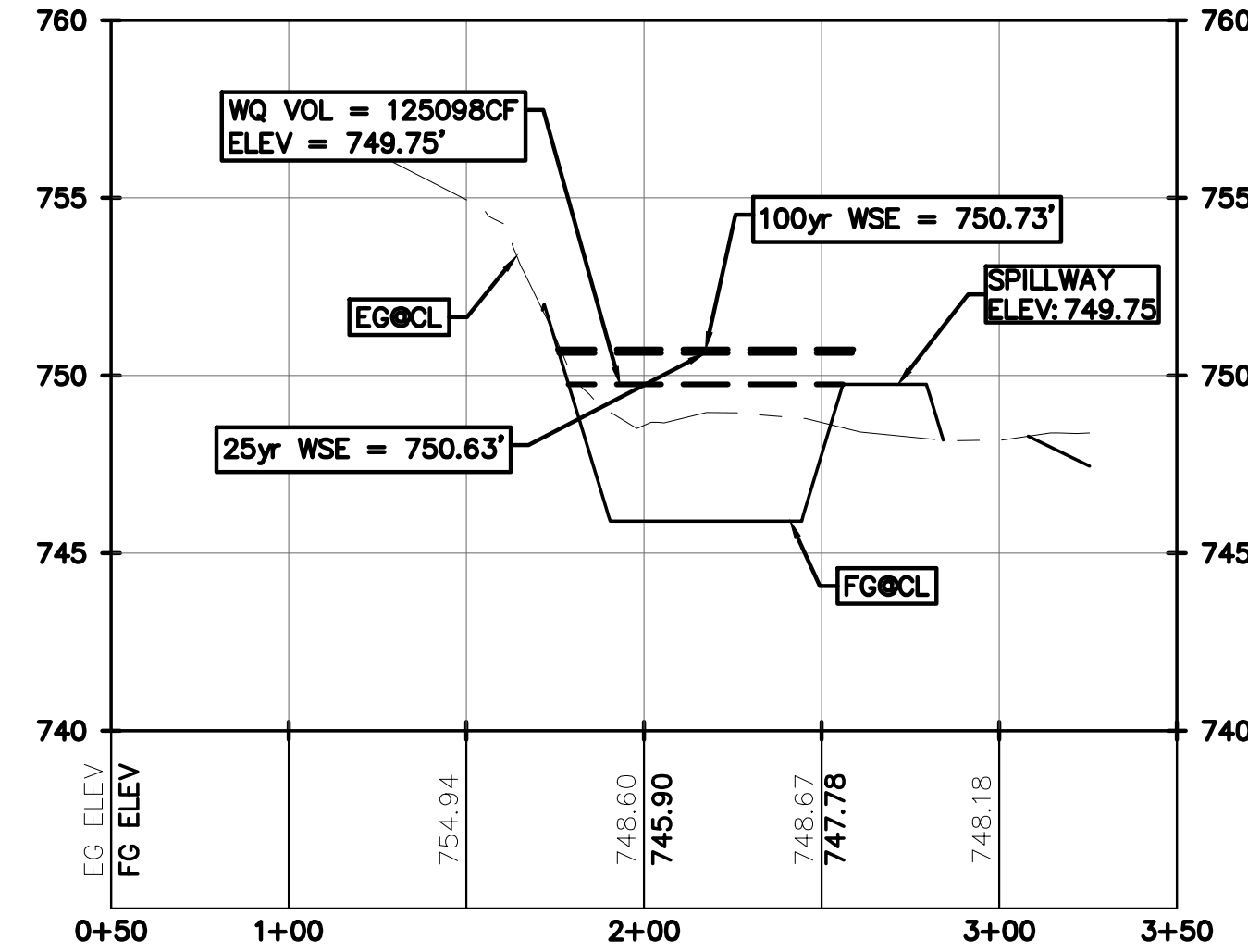
WQA1-1
0+50 - 7+50



WQA1-2
0+50 - 3+50



WQA1-3
0+50 - 3+50



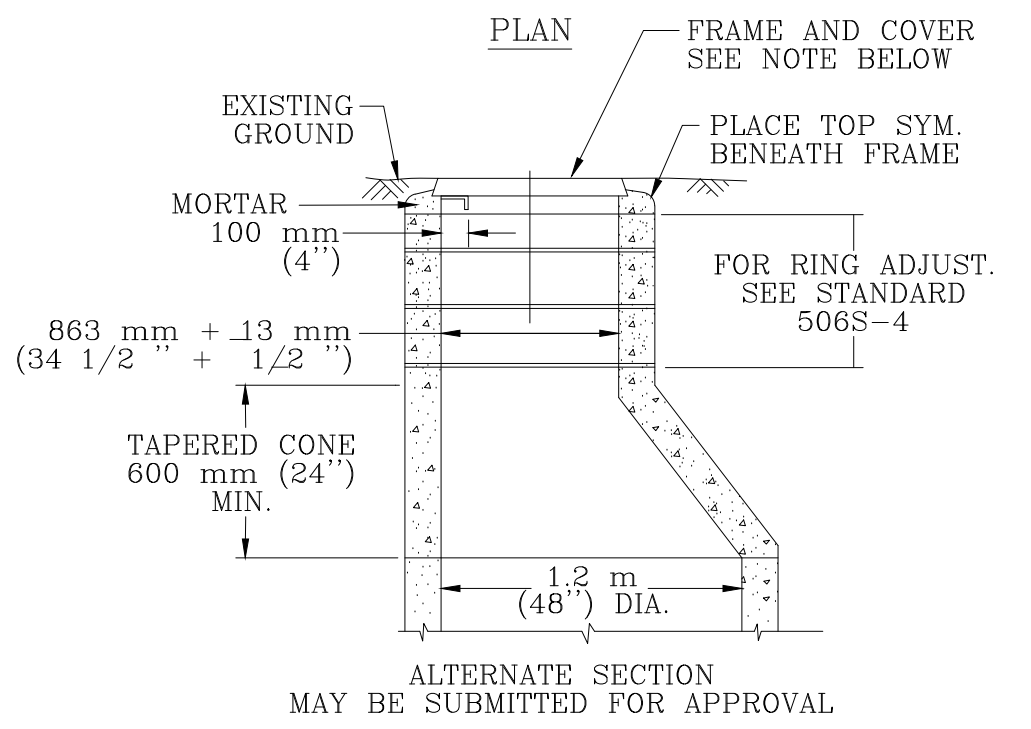
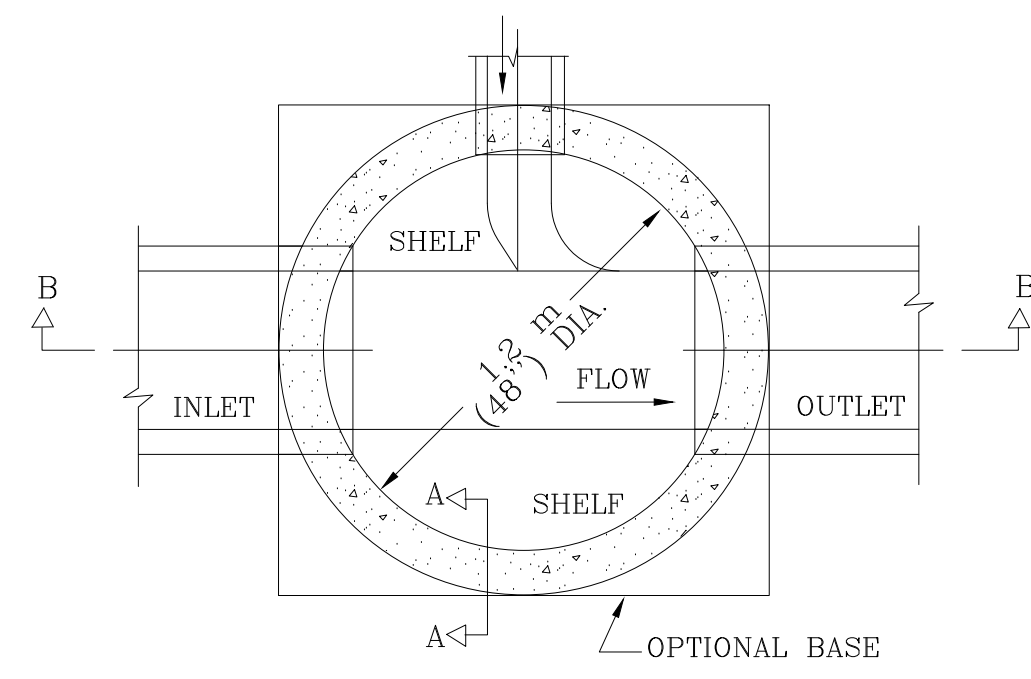
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SITE PLAN APPROVAL SHEET 8 OF 14
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 UNIFIED DEVELOPMENT CODE _____
 EXPIRATION DATE: _____ CASE MANAGER _____

CITY ENGINEER, CITY OF BUDA
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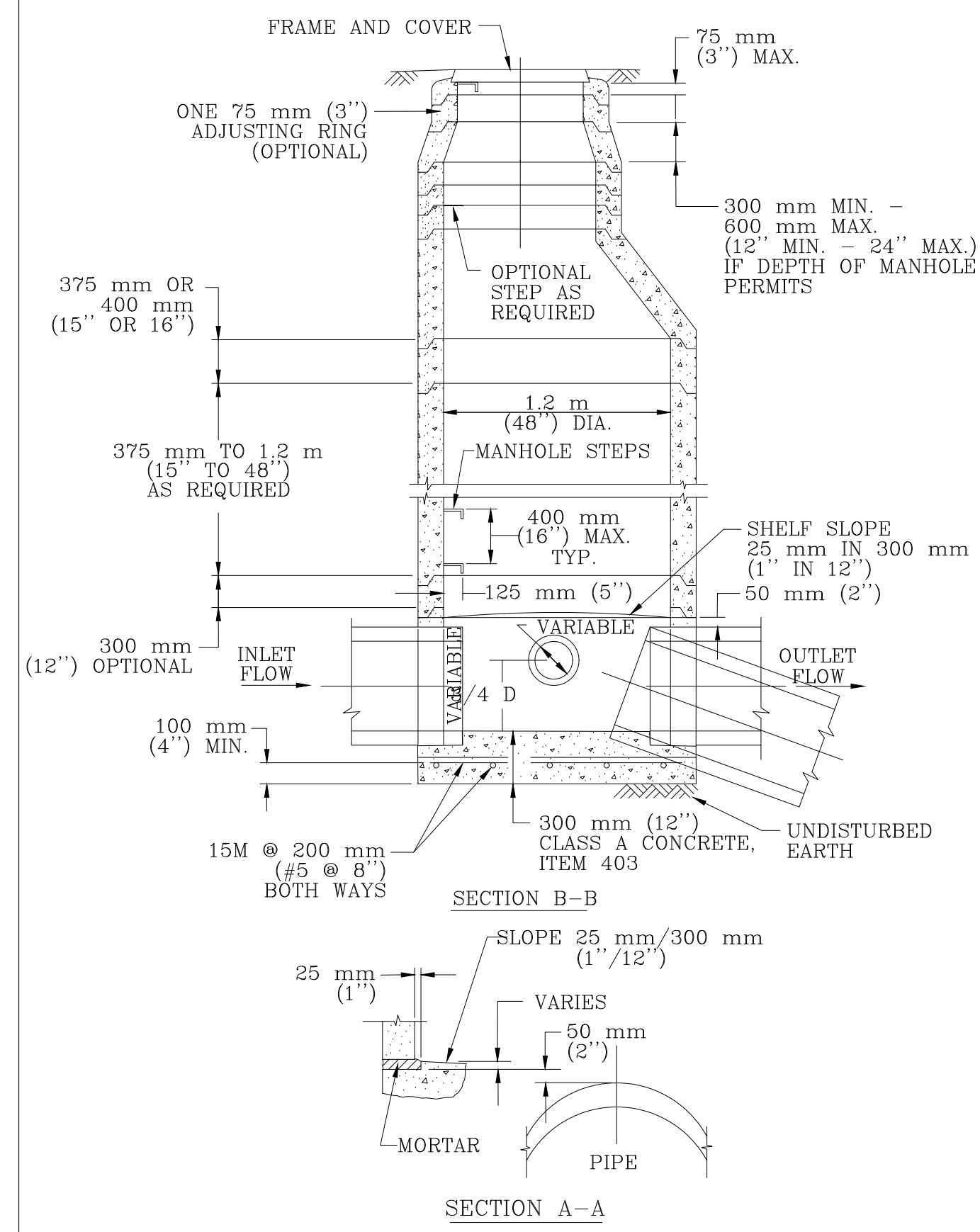
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NOTE:
USE 800 mm (32") FRAME AND COVER.

MINIMUM MANHOLE DIA.	MINIMUM PIPE SIZE
1.2 m (4')	450 TO 600 mm (18 TO 24")
1.5 m (5')	750 mm TO 1.1 m (30 TO 42")
1.8 m (6')	1.2 TO 1.4 m (48 TO 54")
2.1 m (7')	1.5 TO 1.7 m (60 TO 66")

SIZE TO BE USED IS DEPENDENT ON DRAIN ANGLES.



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SITE PLAN APPROVAL SHEET 13 OF 14
 FILE NUMBER: _____ APPLICATION DATE: _____
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 UNIFIED DEVELOPMENT CODE _____
 EXPIRATION DATE: _____ CASE MANAGER: _____

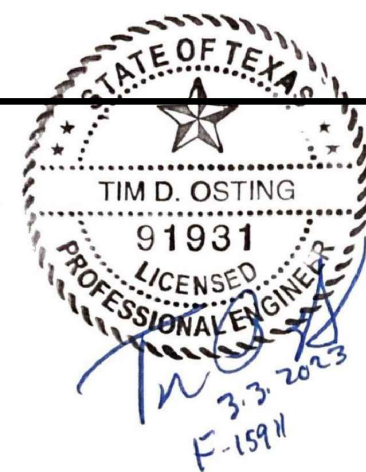
CITY ENGINEER, CITY OF BUDA
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CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE	CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	PRE-CAST CONCRETE STORM DRAIN MANHOLE
RECORD COPY SIGNED BY GEORGE E. OSWALD 2/14/02	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	RECORD COPY SIGNED BY GEORGE E. OSWALD 2/14/02	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.
ADOPTED	STANDARD NO. 506S-3 1 OF 2	ADOPTED	STANDARD NO. 506S-3 2 OF 2

RELEASED ON MARCH 3, 2023,
 BY TIM OSTING, TEXAS P.E. #01931,
 FOR THE PURPOSES OF REVIEW.
 AQUA STRATEGIES INC. F-15911

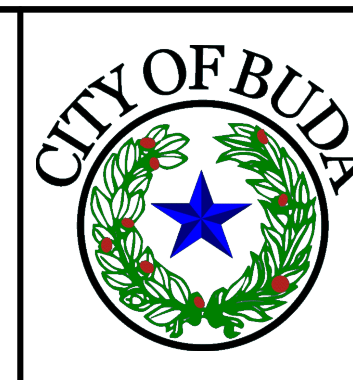


NO.	REVISION	BY	DATE

11929 Fitzhugh Corners
 Dripping Springs, TX 78620 | Ph: 512-627-1563
 TX Registration Number: F-15911

AquaStrategies
 Water Planning, Science & Engineering

Whispering Hollow Drainage Improvements
Whispering Hollow Subdivision
 City of Buda, Texas
 MISCELLANEOUS DETAILS



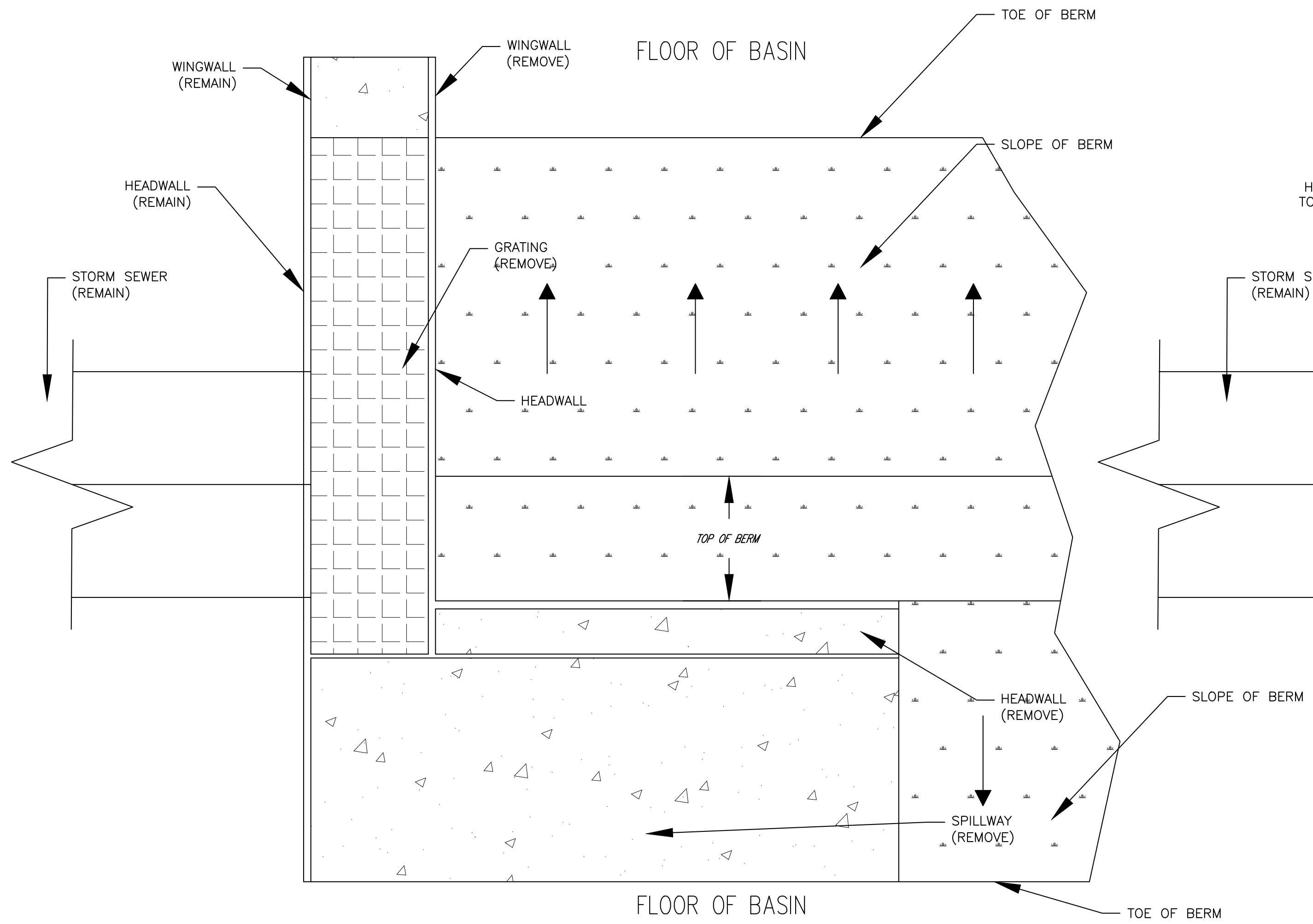
DATE: 03-03-2023

FILE:

DRAWN: JCB

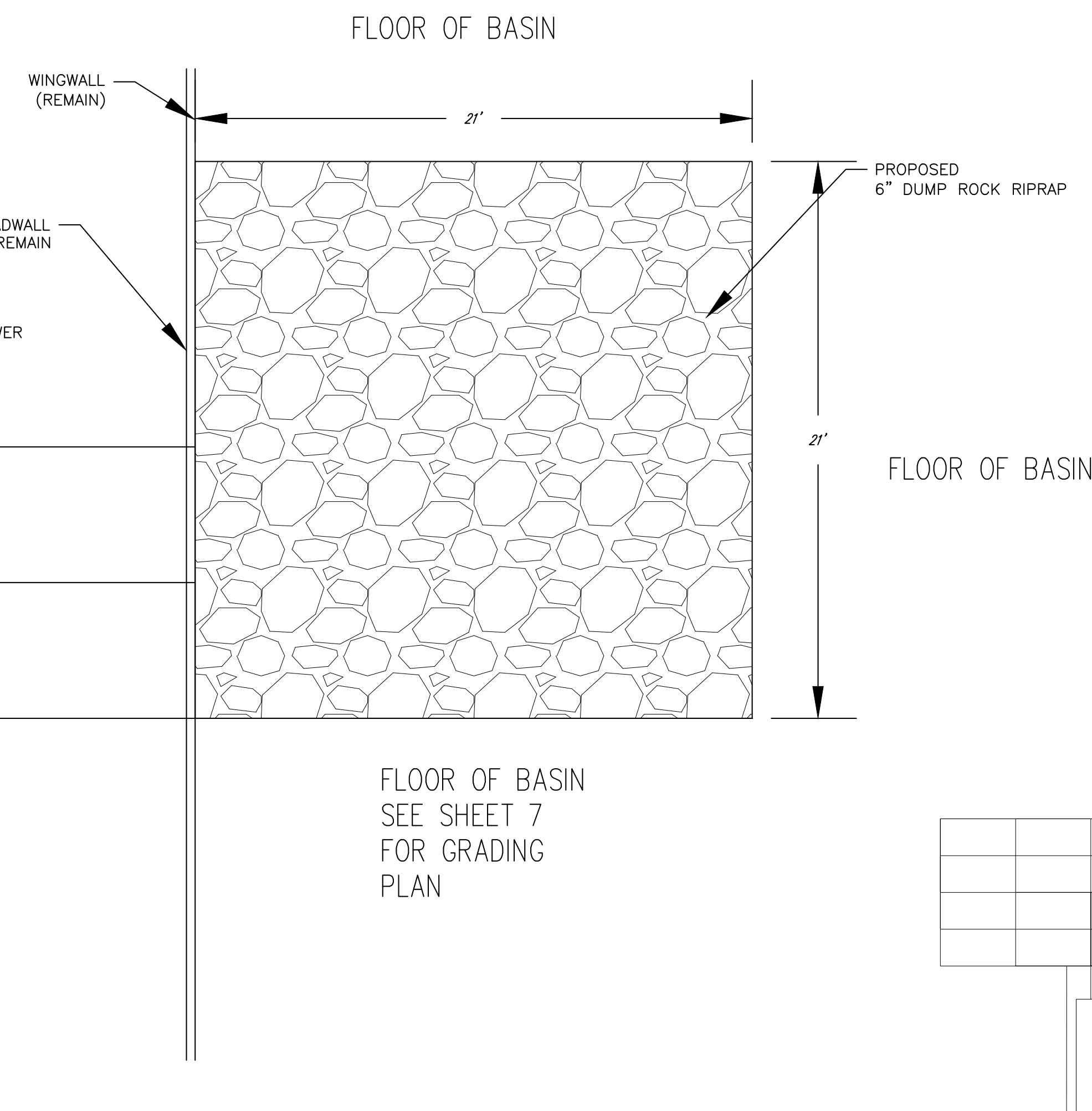
SHEET

13 OF 14



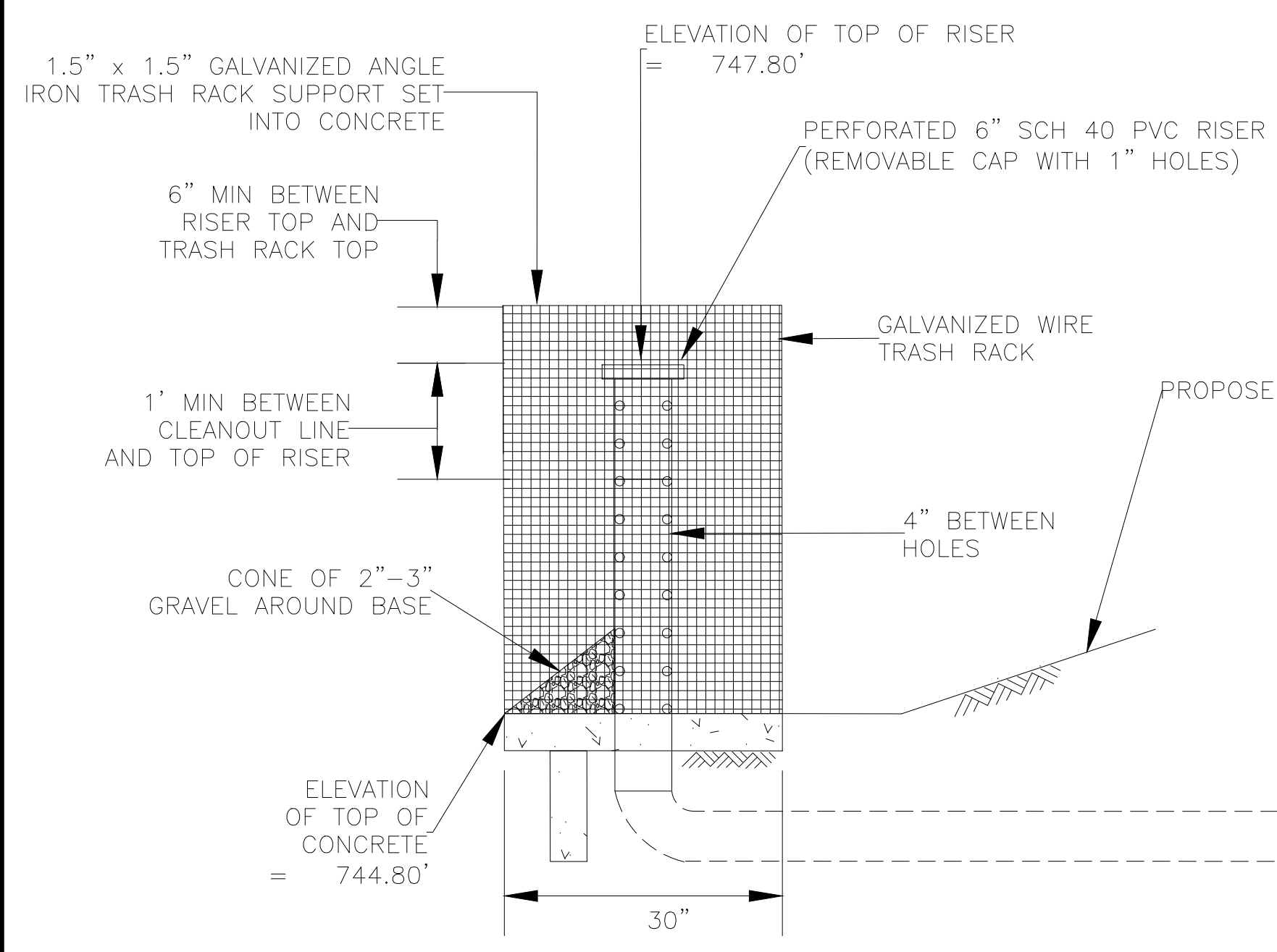
WQA1 EXISTING OUTFALL
EXISTING CONDITIONS

N.T.S



WQA1 EXISTING OUTFALL
PROPOSED CONDITIONS

N.T.S



RISER PIPE ELEVATION

N.T.S

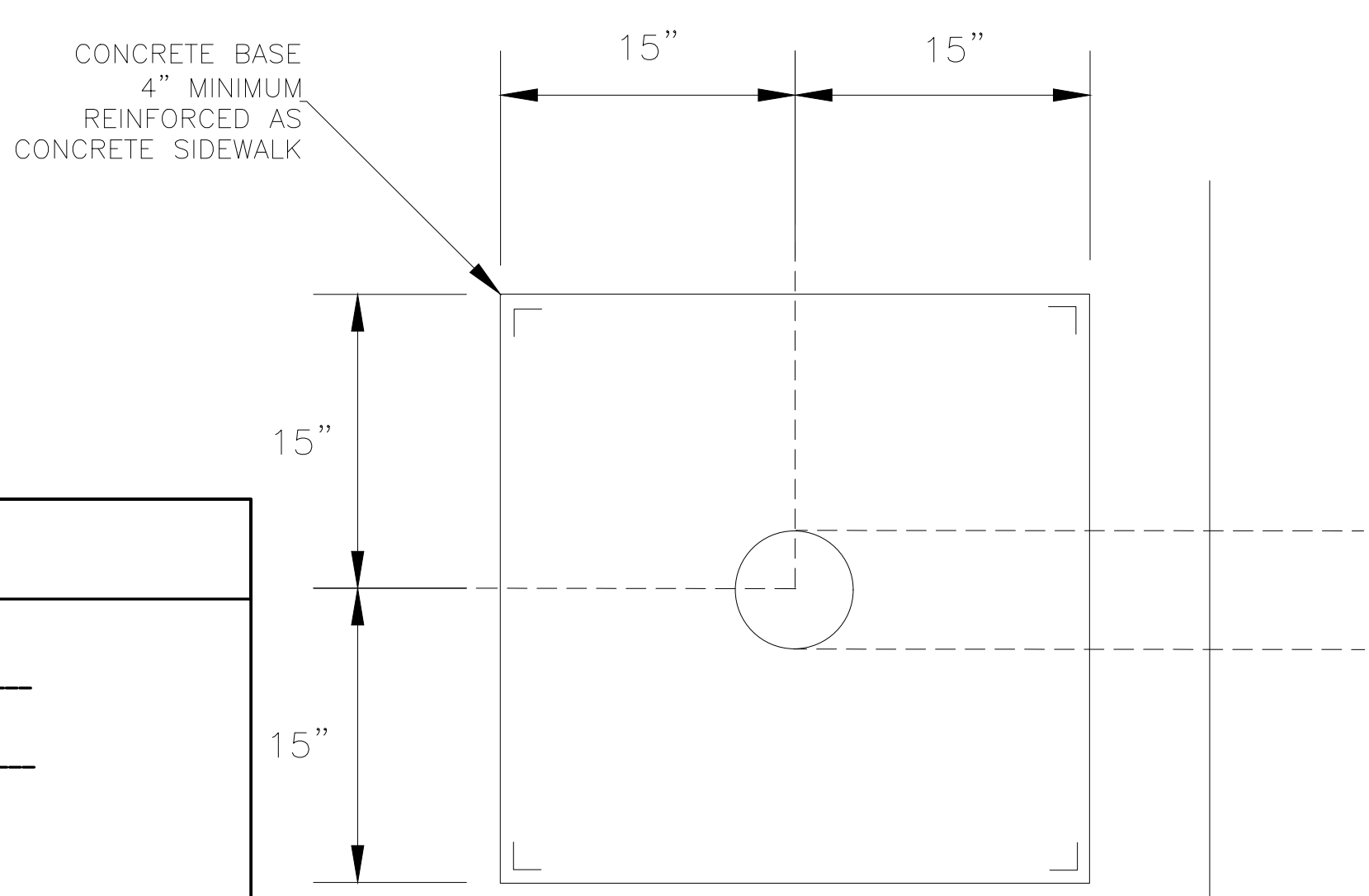
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SITE PLAN APPROVAL SHEET 14 OF 14
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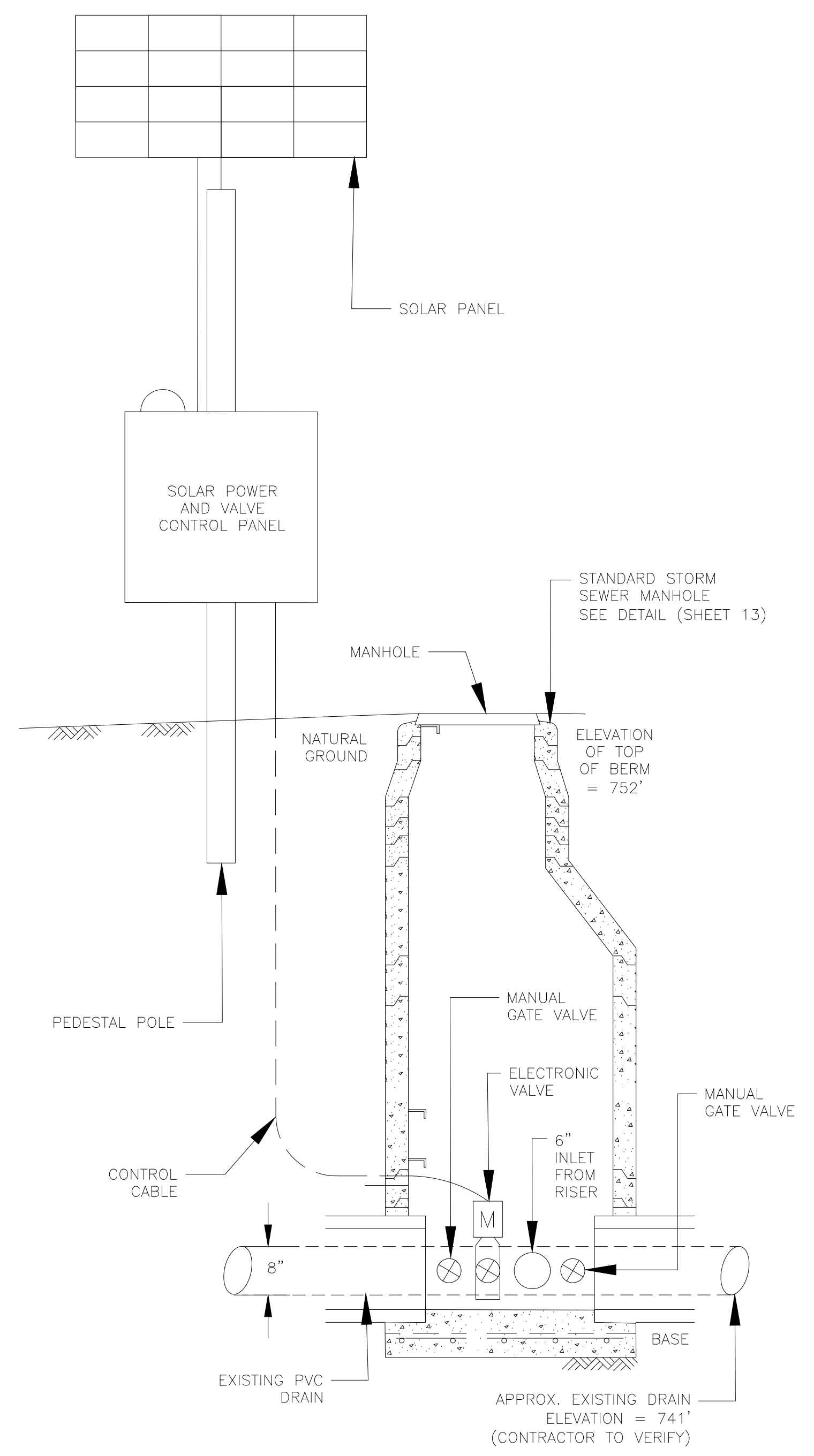
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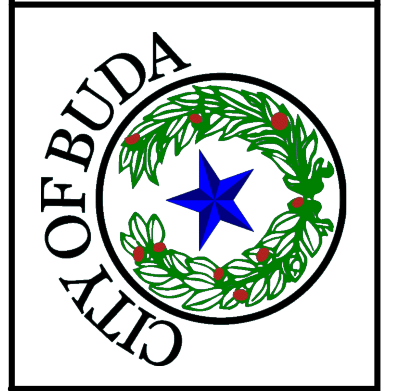
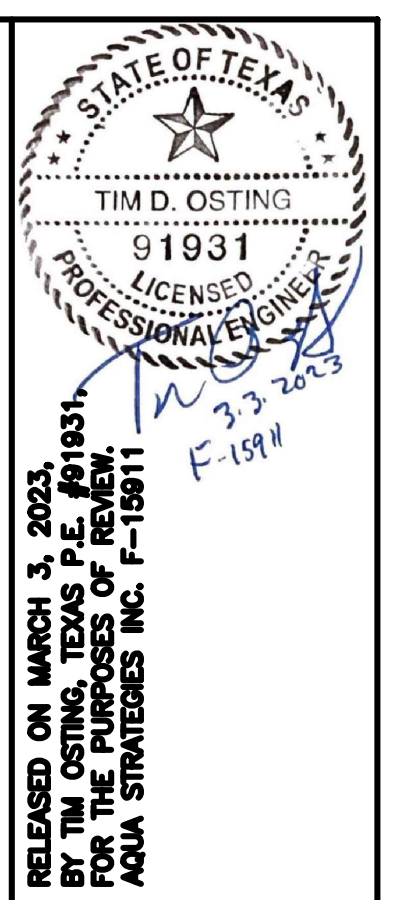
RISER PIPE PLAN VIEW

N.T.S



WIRING RISER DIAGRAM, ELECTRONIC VALVE AND BYPASS VALVE UNIT

N.T.S



Whispering Hollow Drainage Improvements
 Whispering Hollow Subdivision
 City of Buda, Texas
 WQA1 MODIFICATION DETAILS

11928 Fitzhugh Corners
 Buda, TX 78603 | Ph: 512-827-1583
 TX Registration Number: F-15911
AquaStrategies
 Water Planning, Science & Engineering

NO.	REVISION	BY	DATE

DATE: 03-03-2023
 FILE:
 DRAWN: JCB
 SHEET
 14 OF 14

TSS Removal Calculations 04-20-2009

Project Name: Whispering Hollow: Sedimentation/Filtration Pond conversion to Batch Pond
Date Prepared: 12/21/2022

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

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

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

County =	Hays	
Total project area included in plan *	42.90	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	21.45	acres
Total post-development impervious cover fraction *	0.50	
P =	33	Inches

$L_{M \text{ TOTAL PROJECT}} = 19,254$ lbs.

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

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

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

Drainage Basin/Outfall Area No. =	1	
Total drainage basin/outfall area =	42.91	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	21.45	acres
Post-development impervious fraction within drainage basin/outfall area =	0.50	
$L_M \text{ THIS BASIN} =$	19,254	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Pond
 Removal efficiency = 91 percent

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

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:

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

$A_C = 42.91$ acres
 $A_I = 21.46$ acres
 $A_P = 21.46$ acres
 $L_R = 22,640$ lbs

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

Desired $L_M \text{ THIS BASIN} = 19,254$ lbs.

F = 0.85

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Calculations from RG-348

Pages 3-34 to 3-36

Rainfall Depth = 1.32 inches
 Post Development Runoff Coefficient = 0.36
 On-site Water Quality Volume = 73,505 cubic feet

Calculations from RG-348

Pages 3-36 to 3-37

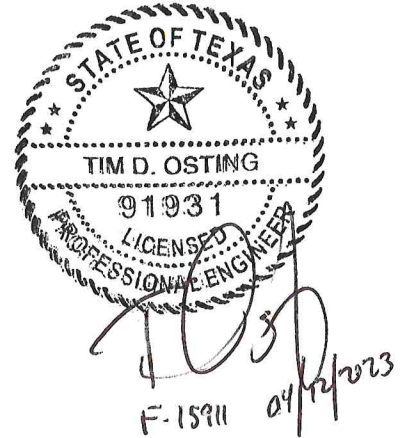
Off-site area draining to BMP = 0.00 acres
 Off-site impervious cover draining to BMP = 0.00 acres
 Impervious fraction of off-site area = 0
 Off-site Runoff Coefficient = 0.00
 Off-site Water Quality Volume = 0 cubic feet

Storage for Sediment = 14,701
 Total Capture Volume (required water quality volume(s) x 1.20) = 88,206 cubic feet
 The following sections are used to calculate the required water quality volume(s) for the selected BMP.
 The values for BMP Types not selected in cell C45 will show NA.

7. Batch Pond System

Designed as Required in RG-348

Required Water Quality Volume for batch pond = 88,206 cubic feet



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

I _____ **Angela Kennedy, PE** _____,
Print Name

_____ **City Engineer** _____,
Title - Owner/President/Other

of _____ **City of Buda** _____,
Corporation/Partnership/Entity Name

have authorized _____ **Tim Osting, PE** _____
Print Name of Agent/Engineer

of _____ **Aqua Strategies, 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:

[Signature]
Applicant's Signature

4/10/2023
Date

THE STATE OF Texas §

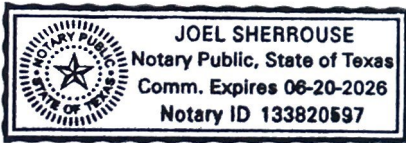
County of Hays §

BEFORE ME, the undersigned authority, on this day personally appeared Angela Kerns 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 10th day of April, 2023.

[Signature]
NOTARY PUBLIC

Joel Sherrouse
Typed or Printed Name of Notary



MY COMMISSION EXPIRES: 06/20/2026

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Whispering Hollow Subdivision

Regulated Entity Location: Buda, TX

Name of Customer: City of Buda

Contact Person: Tim Osting, PE

Phone: (512) 312-0084

Customer Reference Number (if issued): CN 600739866

Regulated Entity Reference Number (if issued): RN 103943700

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	6.90 Acres	\$ 3,000
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	\$
Extension of Time	Each	\$

Signature: 

Date: 05/02/2023

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 Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<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 600739866		RN 103943700

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	12/21/2022	
<input type="checkbox"/> New Customer <input checked="" 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)			
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
CITY OF BUDA			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
	32003882522		189957475
11. Type of Customer:	<input type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input checked="" type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<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 checked="" type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher	<input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:			
15. Mailing Address:	405 E. Loop St., Bldg. 100		
	City	Buda	State TX ZIP 78610 ZIP + 4
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		akennedy@ci.buda.tx.us	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	
(512) 312-0084		() -	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information
The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)
WHISPERING HOLLOW SUBDIVISION, CITY OF BUDA, HAYS COUNTY, TEXAS

23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>	N/A						
	City	Buda	State	TX	ZIP	78610	ZIP + 4
24. County	Hays						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	BETWEEN FM 967 AND OLD BLACK COLONY RD OFF OF FM 1626 BUDA TX							
26. Nearest City	Buda				State	TX	Nearest ZIP Code	78610
27. Latitude (N) In Decimal:	30.0898273			28. Longitude (W) In Decimal:	-97.8688132			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
30	5	23.38	-97	52	7.73			
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)					
N/A	N/A	N/A	N/A					
33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i>								
N/A								
34. Mailing Address:	N/A							
	City		State		ZIP		ZIP + 4	
35. E-Mail Address:	N/A							
36. Telephone Number	37. Extension or Code	38. Fax Number <i>(if applicable)</i>						
() -		() -						

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"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Tim Osting, PE	41. Title:	Principal Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 627-1563		() -	tosting@aquastrategies.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:	Aqua Strategies	Job Title:	Principal Engineer
Name <i>(In Print)</i> :	Tim Osting	Phone:	(512) 627- 1563
Signature:		Date:	03/03/2023