TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 10, 2014

Mr. Clint Haney
Haney Sitework & Paving, LLP
30230 Twin Ridge
Bulverde, Texas 78163

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: Excavation Site on Ammann Road; Located approximately 0.9 miles west of the intersection between Ammann Road and Blanco Road; ETJ of Bulverde, Texas

TYPE OF PLAN: Request for approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Regulated Entity No. RN107069528; Investigation No. 1179131; Additional ID No. 13-14062301

Dear Mr. Haney:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the above-referenced project submitted to the San Antonio Regional Office by Matkin Hoover on behalf of Haney Sitework & Paving, LLP on June 23, 2014. Final review of the WPAP was completed after additional material was received on August 26, 2014 and September 10, 2014. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected 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 proposed commercial project will have an area of approximately 28.711 acres. This project proposes to excavate soil as an aggregate production facility, construct a 4,000 square foot office building, parking area, and associated driveway. The impervious cover will be 2.092 acres (7.29

percent). According to a letter dated, June 17, 2014, signed by Mr. Robert Boyd, with Comal County, the site in the development is acceptable for the use of on-site sewage facilities.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, 50 foot natural vegetative filter strips (VFS), designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 1,878 pounds of TSS generated from the 2.092 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The individual treatment measures will consist of a natural vegetative strip. The VFS will be at least 50 feet wide (in the direction of flow), and will extend along the entire length of the contributing area with no gullies, rills or obstructions that will concentrate flow. The VFS will have a uniform slope of less than 10 percent. The VFS is designed to treat the required 1,878 pounds of TSS.

GEOLOGY

According to the geologic assessment included with the application, the site is located over the Cretaceous Lower Glen Rose Limestone. Two non-sensitive, man-made features in bedrock (previous excavation area) were identified in the original report. The San Antonio Regional Office site assessment conducted on April 24, 2014 revealed the site was generally as described in the geologic assessment.

SPECIAL CONDITIONS

I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.

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 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 San Antonio 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 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 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 San Antonio 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.
9. 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.

<u>During Construction:</u>

10. 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.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. 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 San Antonio 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.

13. No wells exist on 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.
14. 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.
15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. 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.
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.

<u>After Completion of Construction:</u>

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/San Antonio> 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 San Antonio 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 San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. 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.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Alex Grant of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210-403-4035

Sincerely,

Lynn Bumguardner, Water Section Manager
San Antonio Region Office
Texas Commission on Environmental Quality

LB/AG/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Garrett Keller, P.E., Matkin Hoover Engineering & Surveying
The Honorable Bill Krawietz, City of Bulverde
Mr. Tom Hornseth, P.E., Comal County
Mr. Roland Ruiz, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

Frost GeoSciences
Geotechnical • Construction Materials
Forensics • Environmental

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TBPE Firm Registration # F-9227
TBPG Firm Registration # 50040

September 5, 2014

Haney Sitework & Paving, LLP
30230 Twin Ridge Drive
Bulverde, Texas 78163

Attn: Mr. Clint Haney

Re: TCEQ Reponse Letter for a
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
28.771 Acres
Bulverde, Texas

Frost GeoSciences, Inc. Control # FGS-E14183

Dear Sir:

I have recieved a notice from the TCEQ requesting additional information so that the technical review by the TCEQ may proceed. The following are their concerns.

1) On page 7 of the geologic assessment it was mentioned that the underlying material below the Anhalt Clay is hard limestone bedrock at a depth of about 28 inches and the Denton Silty Clay is underlain with bedrock at a depth of about 38 inches. Since feature S-1 (existing excavation pit) was excavated to a depth of 8 feet, bedrock should have been excavated and it is unclear why this feature was classified as a non-karst closed depression instead of a manmade feature in bedrock. Additionally, in the Narrative Description of the Site Geology (page 8) it is mentioned that feature S-1 appears to be the result of excavating activities to remove topsoil and some rock material. It appears that the bedrock layer may have been excavated. Please evaluate and update the report to provide further clarification as to why feature S-1 would not be considered a man-made feature in bedrock.

FGS Response: The term "man-made feature in bedrock" was considered for both features identified on the site. Both features were identified as "non-karst closed depressions" for the same reasons. No bedrock was encountered. Feature S-1 encountered topsoil and the underlying gravel alluvium. No trenching equipment or

hoe rams were required to excavate the material. It consists of limestone gravel alluvium with caliche matrix. FGS is of the opinion that this is not native Glenn Rose Limestone bedrock. The comments on Page 7 of the report are U.S.D.A soil descriptions for typical sections of soil types. Typically these descriptions are based on field observations with limited test hole confirmations. A hand dug test hole might appear as "hard limestone bedrock" when encountering gravel alluvium. In most cases of these soil types, it is likely that hard limestone bedrock may have been encountered. It is not FGS policy to alter soil or geologic descriptions that don't fit a textbook description of what is noted in the field.

On page 8 FGS noted that the feature "appeared to be the result of excavating activities to remove topsoil and some rock material". "Rock material" does not constitute "bedrock". While the material excavated did consist of sand, gravel, and cobble sized fragments of Glenn Rose Limestone with a matrix of caliche, in our opinion, it did not constitute bedrock material. Had it been given a few hundred thousand years to become cemented and compressed into a breccia or a conglomerate type of sedimentary rock, it would at that point become bedrock. However, given the young age of the uncemented material, we are of the opinion that referring to this material as bedrock would be incorrect so the only other available category was CD, non-karst closed depression. I have often wished we had a category for just a manmade feature.

In the past, FGS has labeled stock ponds as MB, man-made features in bedrock, but there was always evidence of native material for example, unweathered Del Rio Clay, or Buda Limestone, or Edwards Limestone, or Glenn Rose Limestone. We have Glenn Rose Limestone as the primary parent material but it is not in a native unweathered state.

If you have any questions regarding this letter, or if Frost GeoSciences, Inc. may be of additional assistance to you on this project, please feel free to call our office. It has been a pleasure to work with you and we wish to thank you for the opportunity to be of service to you on this project. We look forward to being of continued service.

Sincerely,
Frost GeoSciences, Inc.

Steve Frost, C.P.G., P.G.
President, Senior Geologist

Distribution: (1) Haney Sitework & Paving, LLP
(5) Malkin Hoover Engineering & Surveying

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 25, 2014

RECEIVED

JUL 02 2014

COUNTY ENGINEER

Mr. Thomas H. Hornseth, P.E.
Comal County Engineer
195 David Jonas Drive
New Braunfels TX 78132-3710

Re: Edwards Aquifer, Comal County
PROJECT NAME: Excavation Site on Ammann Road, located on Ammann Road 0.9 miles west of Blanco Road, Bulverde, Texas

PLAN TYPE: Application for Approval of Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program
EAPP File No. and Regulated Entity No.: RN107069528
EAPP Additional ID: 13-1462301

Dear Mr. Hornseth:

The referenced application is being forwarded to you pursuant to the Edwards Aquifer Rules. The Texas Commission on Environmental Quality (TCEQ) is required by 30 TAC Chapter 213 to provide copies of all applications to affected incorporated cities and underground water conservation districts for their comments prior to TCEQ approval.

Please forward your comments to this office by July 25, 2014.

The Texas Commission on Environmental Quality appreciates your assistance in this matter and your compliance efforts to ensure protection of the State's environment. If you or members of your staff have any questions regarding these matters, please feel free to contact the San Antonio Region Office at (210) 490-3096.

Sincerely

Todd Jones
Water Section Work Leader
San Antonio Regional Office

TJ/eg

MATKIN-HOOVER ENGINEERING & SURVEYING

Excavation Site on Ammann Road
Comal County, Texas

Water Pollution Abatement Plan

RECEIVED
JUL 02 2014
COUNTY ENGINEER

8 Spencer Road Suite 100 Post Office Box 54 Boerne, Texas 78006 Phone 830.249.0600 Fax 830.249.0099

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JUL 02 2014

COUNTY ENGINEER

General Information Form
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

REGULATED ENTITY NAME: Excavation Site on Ammann Road
COUNTY: Comal STREAM BASIN: Pleasant Valley Creek

EDWARDS AQUIFER: X RECHARGE ZONE
__ TRANSITION ZONE

PLAN TYPE: X WPAP __ AST __ EXCEPTION
__ SCS __ UST __ MODIFICATION

CUSTOMER INFORMATION

1. Customer (Applicant):

Contact Person: Clint Haney
Entity: Haney Sitework & Paving, LLP
Mailing Address: 30230 Twin Ridge
City, State: Bulverde, TX Zip: 78163
Telephone: (830)980-7183 FAX: (830)980-4292

Agent/Representative (If any):

Contact Person: Garrett Keller
Entity: Matkin Hover Engineering & Surveying
Mailing Address: 8 Spencer Road
City, State: Boerne, TX Zip: 78006
Telephone: (830)249-0600 FAX: (830)249-0099

2. __ This project is inside the city limits of _____.
X This project is outside the city limits but inside the ETJ (extra-territorial jurisdiction) of The City of Bulverde.
__ This project is not located within any city's limits or ETJ.

3. 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 is located in west Comal County on W Ammann Road approximately 0.9 miles west of the intersection of W Ammann Road and Blanco Road. The property address is 3152 W Ammann Road, Bulverde TX.

4. X **ATTACHMENT A - ROAD MAP**. A road map showing directions to and the location of the project site is attached at the end of this form.

5. X **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 behind this sheet. The map(s) should clearly show:

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

6. X 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. **The TCEQ must be able to inspect the project site or the application will be returned.**

7. X **ATTACHMENT C - PROJECT DESCRIPTION.** Attached at the end of this form is a detailed narrative description of the proposed project.

8. 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)
X Other: Agricultural Field/Pond

PROHIBITED ACTIVITIES

9. X 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).

10. X 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

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

X For a Water Pollution Abatement Plan and Modifications, the total acreage of the site where regulated activities will occur.
__ For an Organized Sewage Collection System Plans and Modifications, the total linear

footage of all collection system lines.

__ For a UST Facility Plan or an AST Facility Plan, 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.

12. 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)

_X_ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

13. _X_ 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.

14. _X_ 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.

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:

RECEIVED

JUL 0 2 2014

COUNTY ENGINEER

Clint Haney

Print Name of Customer/Agent

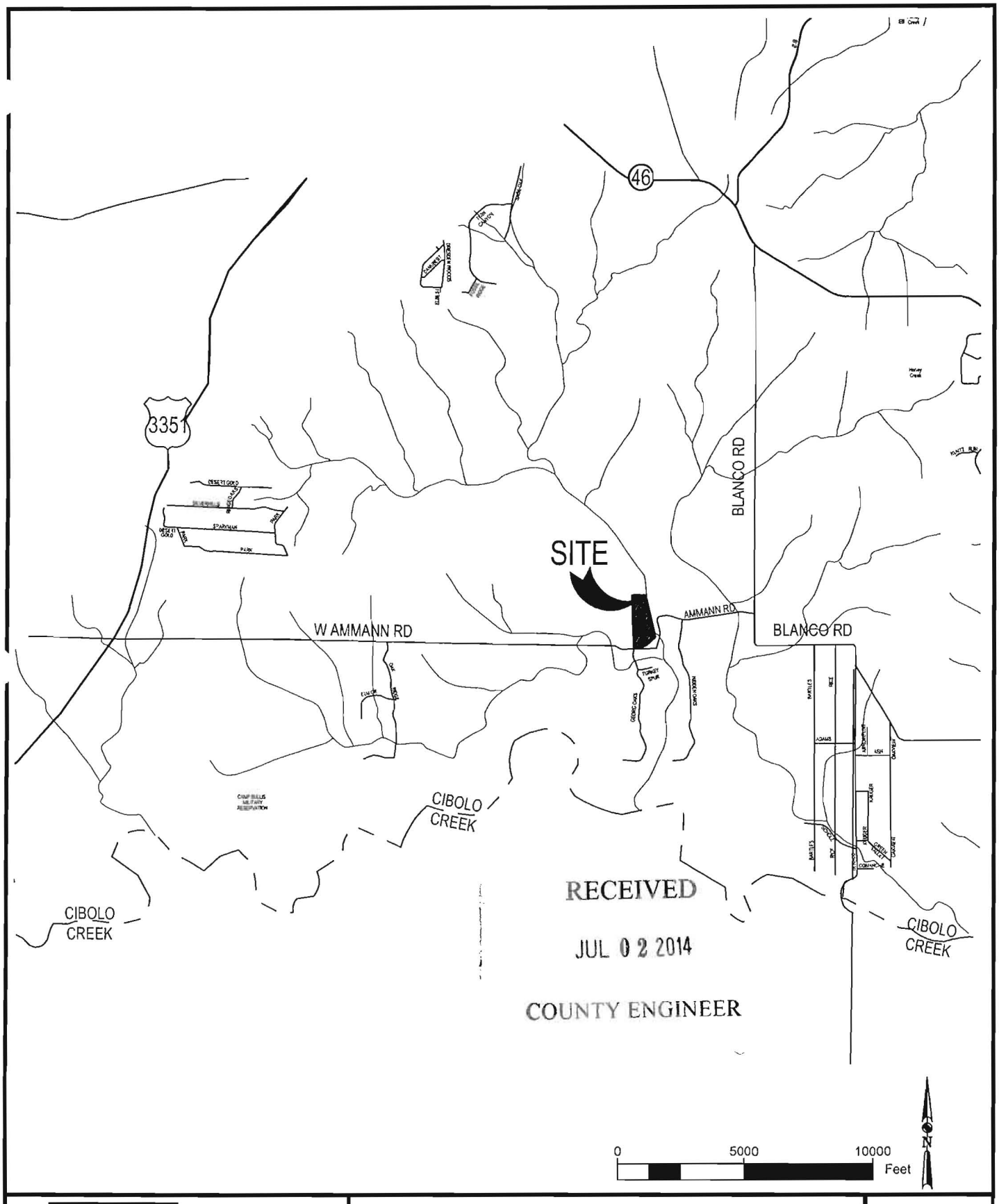
Signature of Customer/Agent

6/19/2014

Date

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.



RECEIVED

JUL 0 2 2014

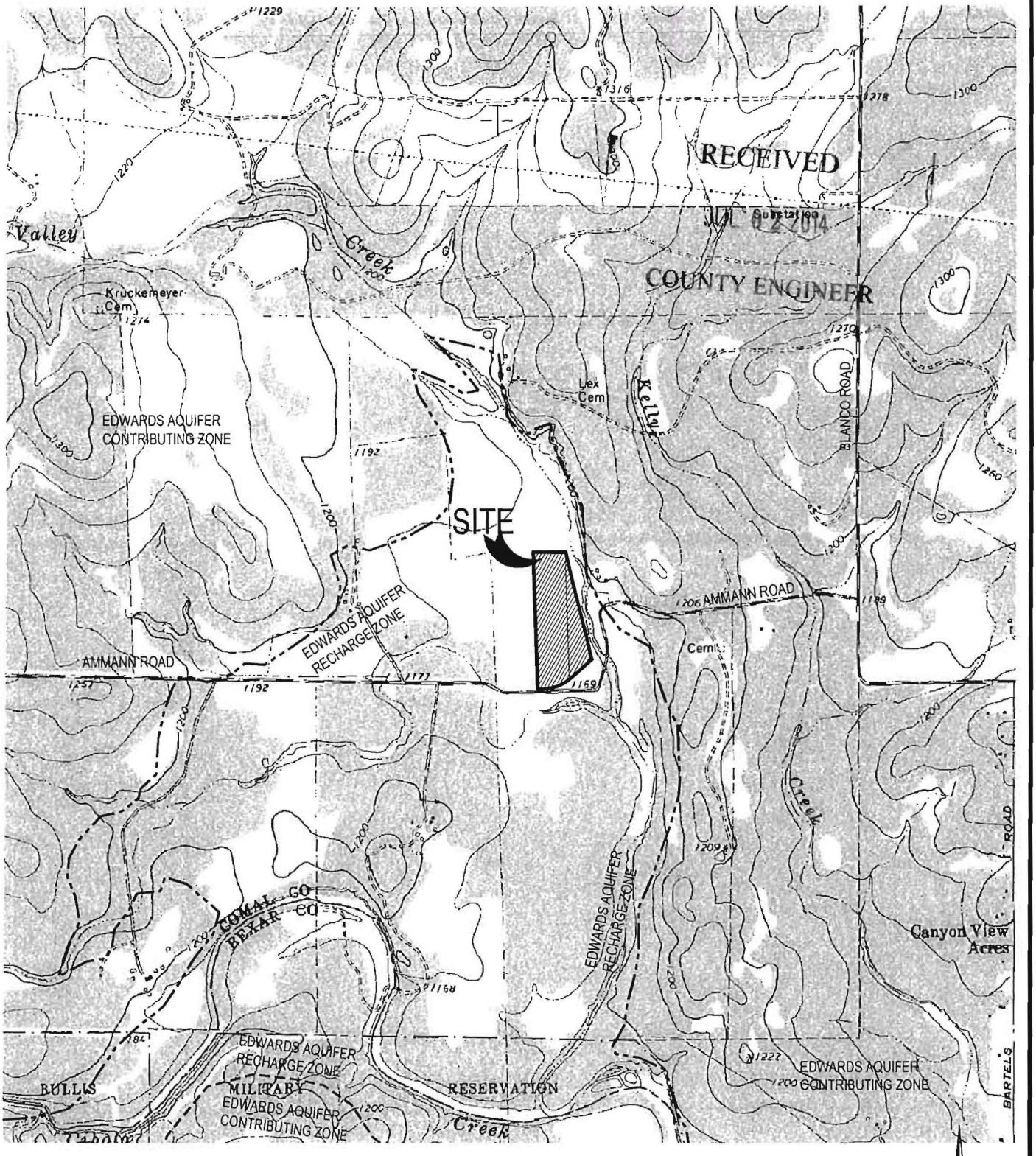
COUNTY ENGINEER

MATKINHOOVER
ENGINEERING & SURVEYING
P.O. BOX 34
8 SPENCER ROAD SUITE 100
BOERNE, TEXAS 78006
OFFICE: 830.249.0600 FAX: 830.249.0099
TEXAS REGISTERED ENGINEERING FIRM F-004512
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

ROAD MAP
FOR
EXCAVATION SITE ON AMMANN ROAD
COMAL COUNTY, TEXAS

SCALE: 1" = 5000'

ATTACHMENT "A"



NOTES

USGS QUADRANGLE NAME: BERGHEIM (SE)

0 2000 4000 Feet

N

MATKINHOOVER
ENGINEERING & SURVEYING
P.O. BOX 34
8 SPENCER ROAD SUITE 100
BOERNE, TEXAS 78006
OFFICE: 830.249.0600 FAX: 830.249.0099
TEXAS REGISTERED ENGINEERING FIRM F-004512
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

USGS / EDWARDS RECHARGE ZONE MAP

FOR

EXCAVATION SITE ON AMMANN ROAD

COMAL COUNTY, TEXAS

SCALE: 1" = 2000'

ATTACHMENT "B"

EXCAVATION SITE ON AMMANN ROAD
PROJECT DESCRIPTION

The project is located in west Comal County on W Ammann Road approximately 0.9 miles west of the intersection of W Ammann Road and Blanco Road. The property address is 3152 W Ammann Road, Bulverde TX. The subject tract is called a 21.284 Acre Parcel and a 7.427 Acre Parcel, both out of the Edward Velasco Survey No. 233, Abstract No. 647, Comal County, Texas.

In January of 2014, construction of an agricultural pond commenced on thus site. In April of 2014 the Owner received a notice of enforcement from TCEQ claiming the ongoing construction was a regulated activity warranting a WPAP. With this information, the construction was immediately suspended. After some consideration based on this notice and potential fines, the owner made the decision to change the use of the subject tract as described below.

The new scope of this project is to construct an aggregate production facility for the purpose of selling onsite material. The subject tract will also include a 4,000 sqft. office building with associated pavement. The remaining portions of the property not containing the aggregate production facility or office building will remain as a vegetated field. The area utilized for aggregates is identified as the excavation area. The removal of material from this area will be ongoing for an unknown duration of time. While this area is being excavated, a temporary access road will be installed as needed adjacent to earthmoving activities. If earth moving operations are permanently stopped in portions of the excavated area, the access road in this area may be removed.

The entirety of this property is located within Zone 'A' of the FEMA Floodplain as denoted on FEMA FIRM Panel No. 48091C0195F. A temporary construction entrance is proposed to gain access to this project. Approximately 2.12 acres of temporary and permanent impervious cover is proposed within the scope of this project.

Geologic Site Assessment (WPAP)

for Regulated Activities / Development
on the Edwards Aquifer Recharge / Transition Zone

Excavation Site on Ammann Road
28.771 Acres
Bulverde, Texas

FROST GEOSCIENCES CONTROL # FGS-E14183

May 31, 2014

Prepared exclusively for

Haney Sitework & Paving, LLP
30230 Twin Ridge Drive
Bulverde, Texas 78163

Frost GeoSciences

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Forensics ▪ Environmental

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TBPG Firm Registration # 50040

May 31, 2014

Haney Sitework & Paving, LLP
30230 Twin Ridge Drive
Bulverde, Texas 78163

Attn: Mr. Clint Haney

Re: Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
28.771 Acres
Bulverde, Texas

Frost GeoSciences, Inc. Control # FGS-E14183

Dear Sir:

Attached is a copy of the Geologic Assessment Report completed for the above referenced project site as it relates to 30 TAC §213.5(b)(3), effective June 1, 1999. Our investigation was conducted and this report was prepared in general accordance with the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). The results of our investigation, along with any recommendations for Best Management Practices (BMP's), are provided in the following report.

If you have any questions regarding this report, or if Frost GeoSciences, Inc. may be of additional assistance to you on this project, please feel free to call our office. It has been a pleasure to work with you and we wish to thank you for the opportunity to be of service to you on this project. We look forward to being of continued service.

Sincerely,
Frost GeoSciences, Inc.

Steve Frost, C.P.G., P.G.
President, Senior Geologist

Distribution: (1) Haney Sitework & Paving, LLP
(5) Malkin Hoover Engineering & Surveying

Table of Contents

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: Excavation Site on Ammann Road

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 (feet)
Anhalt Clay, 1 to 3 %	D	2 to 4
Denton Silty Clay, 1 to 3 %	D	2 to 3

* Soil Group Definitions (Abbreviated)

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

3. ✓ A **STRATIGRAPHIC COLUMN** is attached at the end of this form that shows formations, members, and thicknesses. The outcropping unit should be at the top of the stratigraphic 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:

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" = 100 '
Site Geologic Map Scale	1" = 100 '
Site Soils Map Scale (if more than 1 soil type)	1" = 500 '

6. Method of collecting positional data:

✓ Global Positioning System (GPS) technology.
✓ Other method(s). 2012 & 2014 Aerial Photographs

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 the locations are shown and labeled. (Check all of the following that apply.)
__ The wells are not in use and have been properly abandoned.
__ The wells are not in use and will be properly abandoned.
__ The wells are in use and comply with 16 TAC Chapter 76.
✓ There are no wells or test holes of any kind known to exist on the project site.

ADMINISTRATIVE INFORMATION

12. ✓ 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.

Date(s) Geologic Assessment was performed: May 29, 2014
Date(s)

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

Steve Frost, C.P.G., P.G.
Print Name of Geologist

(210) 372-1315
Telephone

(210) 372-1318
Fax

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
PROFESSIONAL GEOSCIENTIST
LICENSED

Signature of Geologist

May 31, 2014
Date

Representing: Frost GeoSciences, Inc.
(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 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.

TCEQ-0585 (Rev. 10-01-10) Page 2 of 2

Stratigraphic Column

[Hydrogeologic subdivisions modified from Maclay and Small (1976); groups, formations, and members modified from Rose (1972); lithology modified from Dunham (1962); and porosity type modified from Choquette and Pray (1970). CU, confining unit; AQ, aquifer]

Hydrogeologic subdivision			Group, formation, or member			Hydrologic function	Thickness (feet)	Lithology	Field identification	Cavern development	Porosity/ permeability type
Upper Cretaceous	Upper confining units		Eagle Ford Group			CU	30 – 50	Brown, flaggy shale and argillaceous limestone	Thin flagstones; petroliferous	None	Primary porosity lost/ low permeability
			Buda Limestone			CU	40 – 50	Buff, light gray, dense mudstone	Porcelaneous limestone with calcite-filled veins	Minor surface karst	Low porosity/low permeability
			Del Rio Clay			CU	40 – 50	Blue-green to yellow-brown clay	Fossiliferous; *Ilymatogyra arietina*	None	None/primary upper confining unit
Lower Cretaceous	I	Edwards aquifer	Georgetown Formation			Karst AQ; not karst CU	2 – 20	Reddish-brown, gray to light tan marly limestone	Marker fossil; *Waconella wacoensis*	None	Low porosity/low permeability
	II		Edwards Group	Person Formation	Cyclic and marine members, undivided	AQ	80 – 90	Mudstone to packstone; *miliolid* grainstone; chert	Thin graded cycles; massive beds to relatively thin beds; crossbeds	Many subsurface; might be associated with earlier karst development	Laterally extensive; both fabric and not fabric/water-yielding
	III				Leached and collapsed members, undivided	AQ	70 – 90	Crystalline limestone; mudstone to grainstone; chert; collapsed breccia	Bioturbated iron-stained beds separated by massive limestone beds; stromatolitic limestone	Extensive lateral development; large rooms	Majority not fabric/one of the most permeable
	IV				Regional dense member	CU	20 – 24	Dense, argillaceous mudstone	Wispy iron-oxide stains	Very few; only vertical fracture enlargement	Not fabric/low permeability; vertical barrier
	V			Kainer Formation	Grainstone member	AQ	50 – 60	*Miliolid* grainstone; mudstone to wackestone; chert	White crossbedded grainstone	Few	Not fabric/ recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50 – 60	Highly altered crystalline limestone; chalky mudstone; chert	Boxwork voids, with neospar and travertine frame	Probably extensive cave development	Majority fabric/one of the most permeable
	VII				Dolomitic member	AQ	110 – 130	Mudstone to grainstone; crystalline limestone; chert	Massively bedded light gray, *Toucasia* abundant	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane-fabric/water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50 – 60	Shaly, nodular limestone; mudstone and *miliolid* grainstone	Massive, nodular and mottled, *Exogyra texana*	Large lateral caves at surface; a few caves near Cibolo Creek	Fabric; stratigraphically controlled/large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350 – 500	Yellowish tan, thinly bedded limestone and marl	Stair-step topography; alternating limestone and marl	Some surface cave development	Some water production at evaporite beds/relatively impermeable

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Excavation Site on Ammann Road — FGS-E14183

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1	2*	3*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT²)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						< 40	> 40	<1.6	>1.6	
S-1	N 29° 46.406'	W98° 32.366'	CD	5	Kgrl	400	600	8	-	-	-	-	F/C	7	12	12			Yes	Hillside
S-2	N 29° 46.326'	W98° 32.356'	CD	5	Kgrl	400	350	2	-	-	-	-	F/C	5	12	12			Yes	Hillside

* DATUM 1983 North American Datum (NAD83)

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

Signature _____ Date May 31, 2014 Sheet 1 of 1

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
PROFESSIONAL GEOSCIENTIST

LOCATION

The project site consists of 28.711 acres of land located along and north of Ammann Road near the intersection of Ammann Road and Georg Oaks in Bulverde, Texas. An overall view of the area is shown on copies of the site plan, a street map, the USGS Topographic Map, the Official Edwards Aquifer Recharge Zone Map, the Flood Insurance Rate Map (FIRM), a 1973 aerial photograph at a scale of 1"=500', a geologic map, a 2012 aerial photograph at a scale of 1"=500', and a 2014 aerial photograph at a scale of 1"=100M, Plates 1 through 9 in Appendix A.

METHODOLOGY

The Geologic Assessment was performed by Mr. Steve Frost, C.P.G., President and Senior Geologist with Frost GeoSciences, Inc. Mr. Frost is a Licensed Professional Geoscientist in the State of Texas (License # 315) and is a Certified Professional Geologist with the American Institute of Professional Geologist (Certification # 10176).

Frost GeoSciences, Inc. researched the geology of the area in the immediate vicinity of the project site. The research included, but was not limited to the Geologic Atlas of Texas, San Antonio Sheet, FIRM maps, Edwards Aquifer Recharge Zone Maps, USGS 7.5 Minute Quadrangle Maps, the Geologic Map of the Bulverde, Texas 30 X 60 Minute Quadrangle, the USGS Water-Resources Investigations Report 94-4117, and the USDA Soil Survey of Comal & Hays County, Texas.

After reviewing the available information, a field investigation was performed to identify any geologic or man-made potential recharge features. A transect spacing of approximately 50 feet or less, depending on vegetation thickness, was used to inspect the project site. A 2014 aerial photograph, in conjunction with a hand held Garmin 72H Global Positioning System with an Estimated Potential Error ranging from 7 to 10 feet, was used to navigate around the property and identify the locations of

potential recharge features, as recommended in the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04). The locations of any potential recharge features noted in the field were identified with blue and white flagging. The flagging is numbered with the same potential recharge feature I.D. # that is used on the Site Geologic Map in Appendix C of this report. The Site Geologic Map indicating the limits of the project site is included in Appendix C. A copy of a 2014 aerial photograph at an approximate scale of 1"=100M, indicating the locations of the potential recharge features, is included on Plate 9 in Appendix A. The Geologic Assessment Form (Rev. 10-01-10), Stratigraphic Column and the Geologic Assessment Table (Rev. 10-01-04) have been filled with the appropriate information for this project site and are included on pages 1-4 of this report.

RESEARCH & OBSERVATIONS

7.5 Minute Quadrangle Map Review

According to the USGS 7.5 Minute Quadrangle Map, Bergheim, Texas Sheet (1973), the elevation of the project site is approximately 1160 feet. This elevation is calculated above mean sea level (AMSL). Overall, the surface runoff from the project site flows to the east into Pleasant Valley Creek. Ammann Road is located south of the project site. Blanco Road is located east of the project site. A copy of the above referenced USGS 7.5 Minute Quadrangle Map indicating the location of the project site, is included in this report on Plate 3 in Appendix A.

Recharge / Transition Zone

According to the Official Edwards Aquifer Recharge Zone Map, Bergheim, Texas Sheet (2008), the project site is located within the Recharge Zone of the Edwards Aquifer. A copy of the Official Edwards Aquifer Recharge Zone Map, Bergheim, Texas Sheet (2008), indicating the location of the project site, is included on Plate 4 in Appendix A.

100-Year Floodplain

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for Comal County, Texas, Community Panel Number 48091C0195F (Revised 9/02/09) was reviewed to determine if the project site is located in areas prone to flooding. A review of the above-mentioned panel indicates that all of the project site is located within the 100 year floodplain. The project site is located within Zone A. According to the panel legend, Zone A represents areas determined to be within the 100 year floodplain where base flood elevations have not been determined. A copy of the Comal County, Texas, FIRM map, indicating the location of the project site, is included in this report on Plate 5 in Appendix A.

Soils

According to the United States Department of Agriculture, Soil Conservation Service, Soil Survey of Comal & Hays County, Texas (1982), the project site is located on the Anhalt Clay, 1 to 3% Slopes (AnB), and the Denton Silty Clay, 1 to 3% Slopes (DeB). A copy of the 1973 aerial photograph (approximate scale: 1"=500') from the USDA Soil Survey of Comal & Hays County, Texas indicating the location of the project site and the soil types is included on Plate 6 in Appendix A.

The Anhalt Clay consists of moderately deep, non-calcareous, clayey soils that contain cracks when dry and are underlain by limestone bedrock. These soils are nearly level to gently sloping and occupy uplands. The soil surface is slightly wavy. Typically, the surface layer is dark reddish-brown clay about 12 inches thick. The next layer is dark reddish-brown clay about 16 inches thick. The underlying material is hard limestone bedrock at a depth of about 28 inches.

The Denton Silty Clay consists of moderately deep, calcareous, clayey soils that are underlain by limestone on uplands. Mapped areas are rectangular to oval in shape and range from 20 to 150 acres in size. Typically, the surface layer is dark grayish-brown, calcareous silty clay and very dark grayish-brown clay about 19 inches thick. The next layer is silty clay about 19 inches thick. The upper 4 inches of this layer is brown, and the lower 15 inches is light yellowish brown. Depth to

fractured limestone is 38 inches. This soil is well drained. Runoff is medium to rapid, and permeability is slow.

Narrative Description of the Site Geology

The project site consists of 28.711 acres of land located along and north of Ammann Road near the intersection of Ammann Road and Georg Oaks in Bulverde, Texas. An overall view of the area is shown on Plates 1 through 9 in Appendix A. The property appears to support a consistent soil layer as no surface rock outcrops were noted. The site appears to be under excavating activities at this time. In speaking with the owner of the property, Frost GeoSciences, Inc. was informed that he intends to build a large stock pond on the property. No natural PRF's were identified during our site inspection. Two non karst closed depression were noted on the project site. Based on a visual inspection of the ground surface the overall potential for fluid flow from the project site into the Edwards Aquifer appears to be low.

Potential Recharge Feature # S-1 consists of a non karst closed depression located in the northern portion of the project site. This feature appears to be the result of excavating activities to remove topsoil and some rock material to a depth of approximately 8 feet. The owner of the property appears to be using the topsoil to place back onto the excavated areas to help seal the bottom of the proposed stock pond. Frost GeoSciences, Inc., rates the relative infiltration of this feature as low on figure 1 of the TCEQ-0585-Instructions (Rev. 10-01-04). This feature scores a 12 on the sensitivity scale, column 10 in the Geologic Assessment Table on page 4 of this report. FGS is of the opinion that this is not a sensitive feature.

Potential Recharge Feature # S-2 consists of a non karst closed depression located in the central portion of the project site. This feature appears to be the result of excavating activities to remove topsoil to a depth of approximately 2 feet. Frost GeoSciences, Inc., rates the relative infiltration of this feature as low on figure 1 of the TCEQ-0585-Instructions (Rev. 10-01-04). This feature scores a 12 on the sensitivity scale, column 10 in the Geologic Assessment Table on page 4 of this report. FGS is of the opinion that this is not a sensitive feature.

The project site is covered by a moderate stand of native grasses where excavating activities have not taken place. Small areas of vegetative cover are noted along the northern and eastern property lines. The variations in the vegetative cover across the project site are visible in the 2012 & 2014 aerial photographs on Plates 8 and 9 in Appendix A and in the site visit photographs included in Appendix B.

According to the USGS 7.5 Minute Quadrangle Map, Bergheim, Texas Sheet (1973), the elevation of the project site is approximately 1160 feet. This elevation is calculated above mean sea level (AMSL). According to topographic data obtained from Matkin Hoover Engineering & Surveying, the elevations on the project site ranges from 1161 feet along the eastern property line to 1170 feet near the northwestern property corner. A copy of the site plan, indicating the boundary of the project site and the elevations, is included on Plate 1 in Appendix A and on the Site Geologic Map in Appendix C of this report.

According to the Bureau of Economic Geology, Geologic Map of the Bulverde, Texas 30 X 60 Minute Quadrangle (2000), the project site is covered by the Cretaceous Lower Glen Rose Limestone (Kgrl).

The Glen Rose Formation consists of limestone, dolostone, and marl as alternating resistant and recessive beds forming stairstep topography. The limestones are aphanitic to fine grained, hard to soft and marly, and light gray to yellowish gray. The dolostones are fined grained, porous, and yellowish brown. Marine megafossils include molluscan steinkerns, rudistids, oysters, and echinoids. The upper unit is relatively thinner bedded, more dolomitic, and less fossiliferous than the lower unit. A Corbula fossil bed separates the units. Overall thickness of the upper unit is approximately 400 feet. The lower unit is more massive, contains some rudistid reefs and has abundant steinkerns of Corbula harveyi. Overall thickness of the lower unit is approximately 500 feet.

A copy of the Bureau of Economic Geology, Geologic Map of the Bulverde, Texas 30 X 60 Minute Quadrangle (2000), indicating the location of the project site, is included on Plate 7 in Appendix A.

BEST MANAGEMENT PRACTICE (BMP)

Based on a visual inspection of the ground surface the overall potential for fluid flow from the project site into the Edwards Aquifer appears to be low. The potential always exists to encounter subsurface features that lack a surface expression. Frost GeoSciences, Inc. recommends that construction personnel be informed of the potential to encounter subsurface karst features during excavating activities. Construction personnel should also be informed of the proper protocol to follow in the event that a solution cavity and/or cave is encountered during the excavation and development of the property.

DISCLAIMER

This report has been prepared in general accordance with the "Instructions to Geologists", TCEQ-0585-Instructions (Rev. 10-1-04) by a Licensed Texas Professional Geoscientist. All areas of the project site were carefully inspected for features that could contribute to the recharge of the Edwards Aquifer, however, this survey cannot preclude the presence of subsurface karst features that lack surface expression. This report is not intended to be a definitive investigation of all possible geologic or karst features at this site. All conclusions, opinions and recommendations for Best Management Practices (BMP's) in this report are based on information obtained while researching the project and on the site conditions at the time of our field investigation.

This report has been prepared for and may be relied upon by Haney Sitework & Paving, LLP. This report is based on available known records, a visual inspection of the project site and the work generally accepted for a Geologic Assessment TAC §213.5(b)(3), effective June 1, 1999.

REFERENCES

1) USGS 7.5 Minute Quadrangle Map, Bergheim, Texas Sheet (1973).

2) Official Edwards Aquifer Recharge Zone Map, Bergheim, Texas Sheet (2008).

3) Stein, W.G. and Ozuna, G.B., 1995, Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Comal County, Texas. U.S. Geological Survey Water Resources Investigations 94-4117.

4) Collins, Edward, W., 2000, Geologic Map of the Bulverde, Texas 30 X 60 Minute Quadrangle.

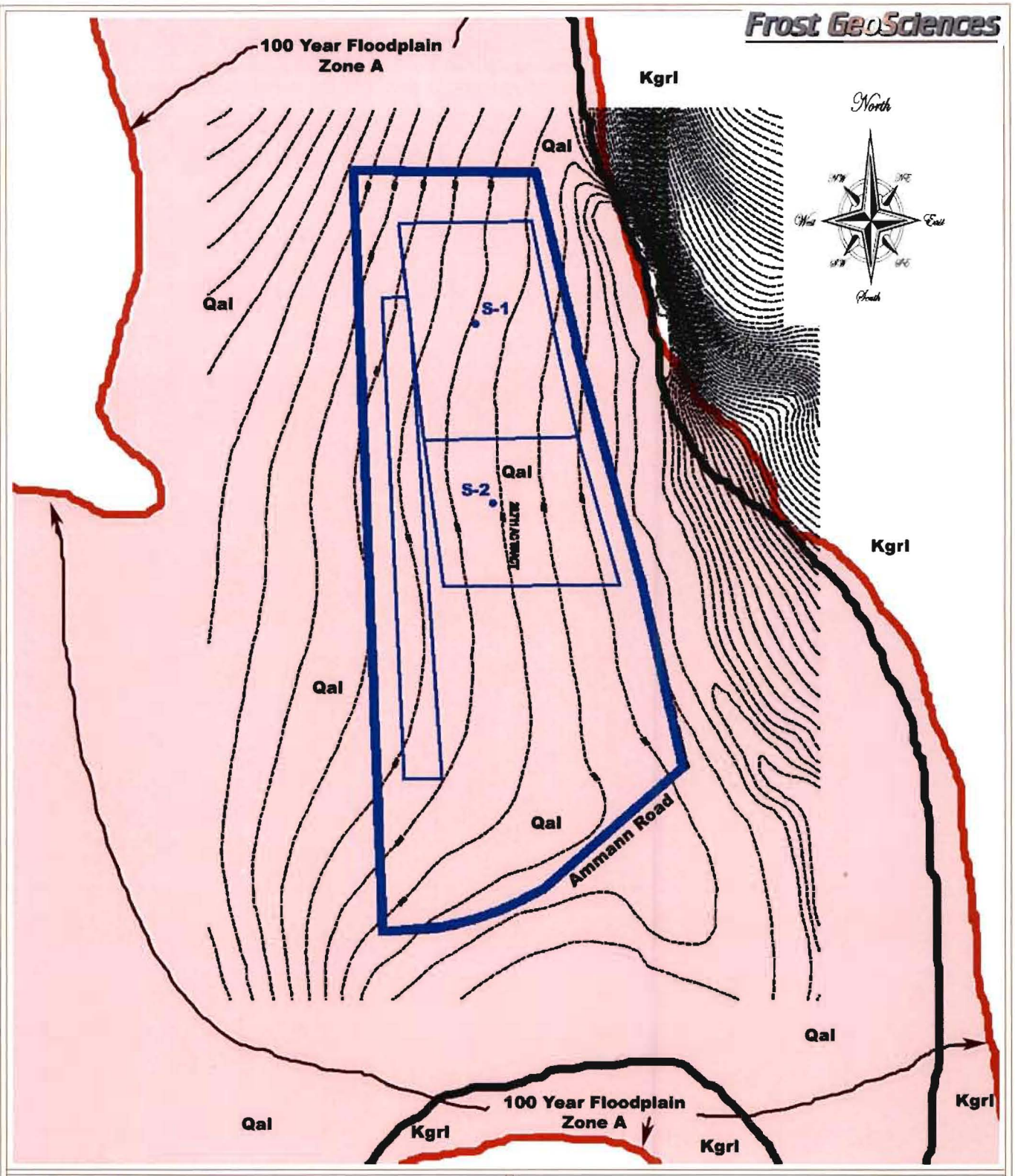
5) Federal Emergency Management Agency (FEMA), Bexar County, Texas and Incorporated Areas, Flood Insurance Rate Map (FIRM), Panel 48091C0195F (9/02/09) FEMA, Washington D.C.

7) USDA Soil Conservation Service, Soil Survey of Comal & Hays Counties, Texas (1982).

8) TCEQ-0585-Instructions (Rev. 10-1-04). "Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zone".

Appendix A

Site Location Plates



PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

Site Plan

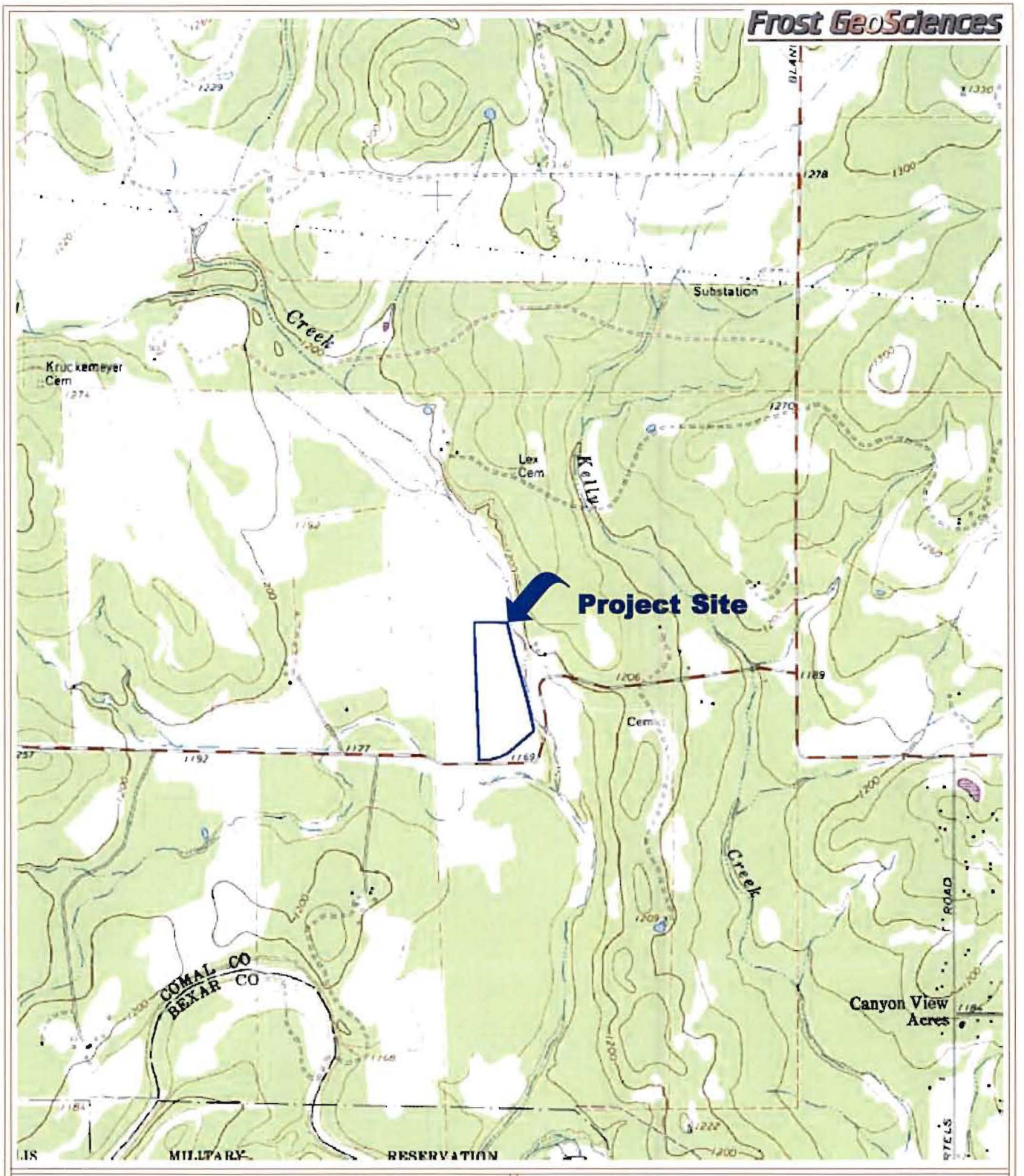
PROJECT NO.: FGS-E14183

DATE: May 31, 2014

PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

Street Map

PROJECT NO.:	DATE:
FGS-E14183	May 31, 2014



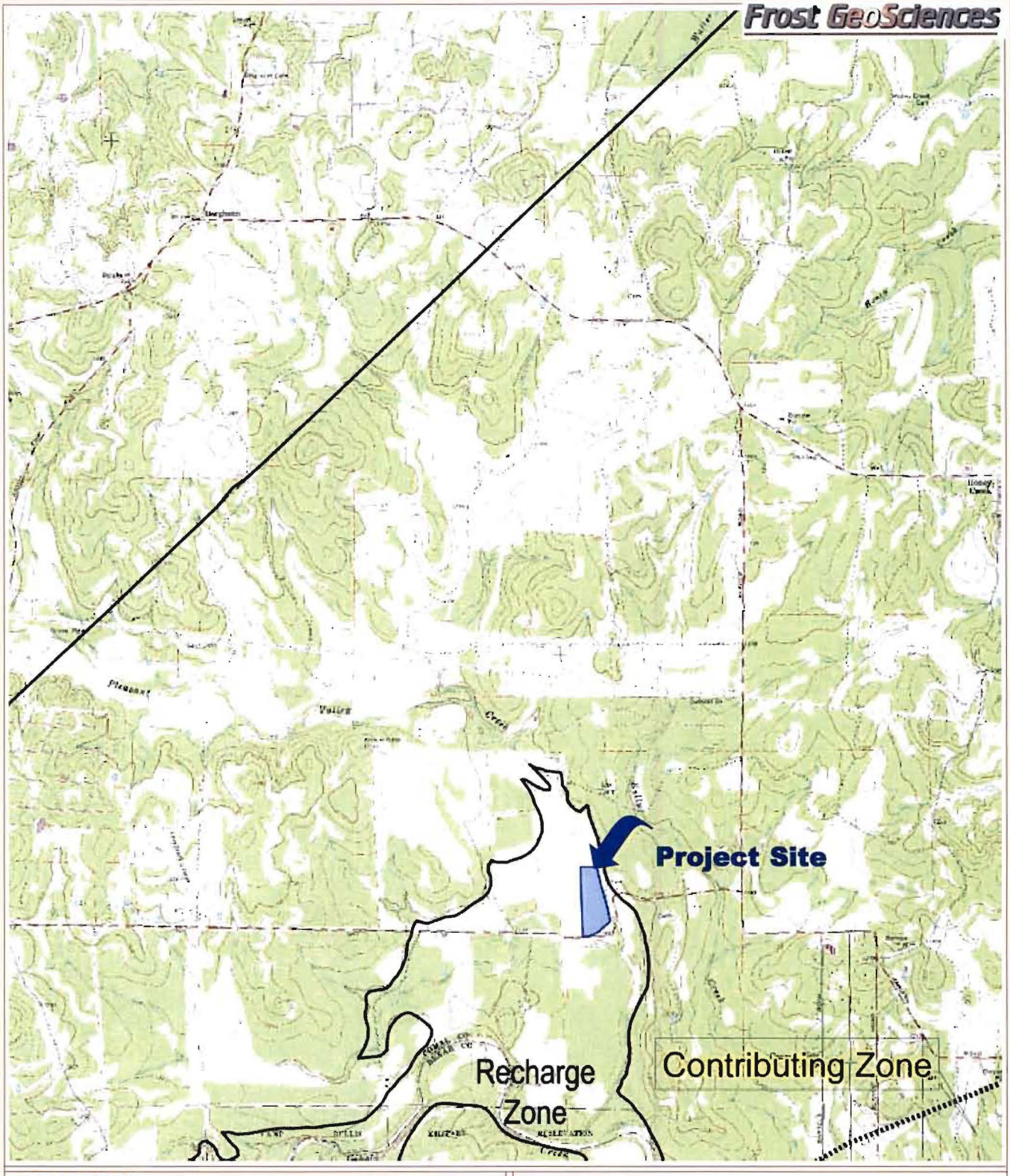
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

U.S.G.S. 7.5 Minute Quadrangle Map
Bergheim, Texas Sheet (1973)

PROJECT NO.: FGS-E14183

DATE: May 31, 2014

Frost GeoSciences

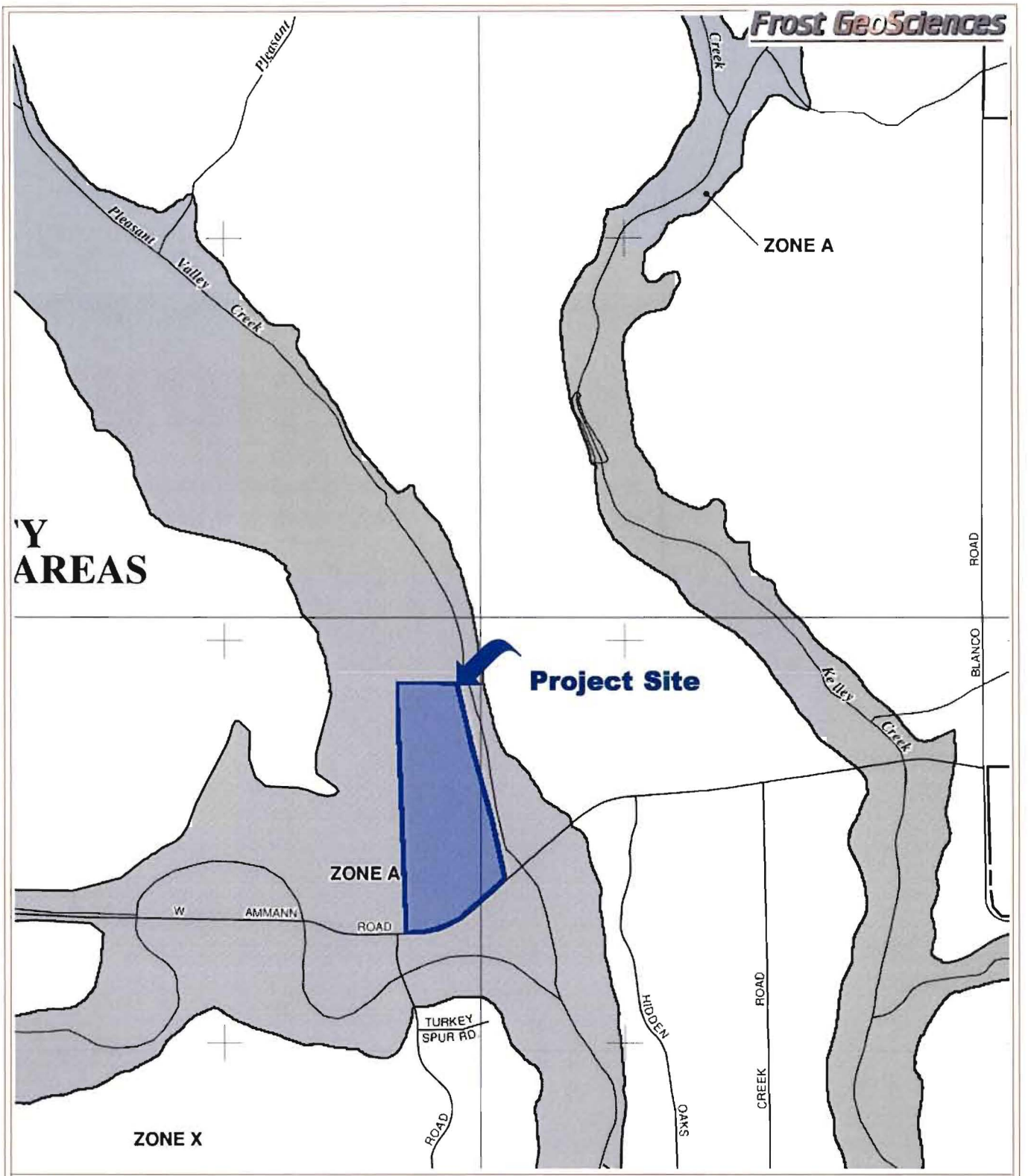


PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

Official Edwards Aquifer Recharge Zone Map
Bergheim, Texas Sheet (2008)

PROJECT NO.: FGS-E14183

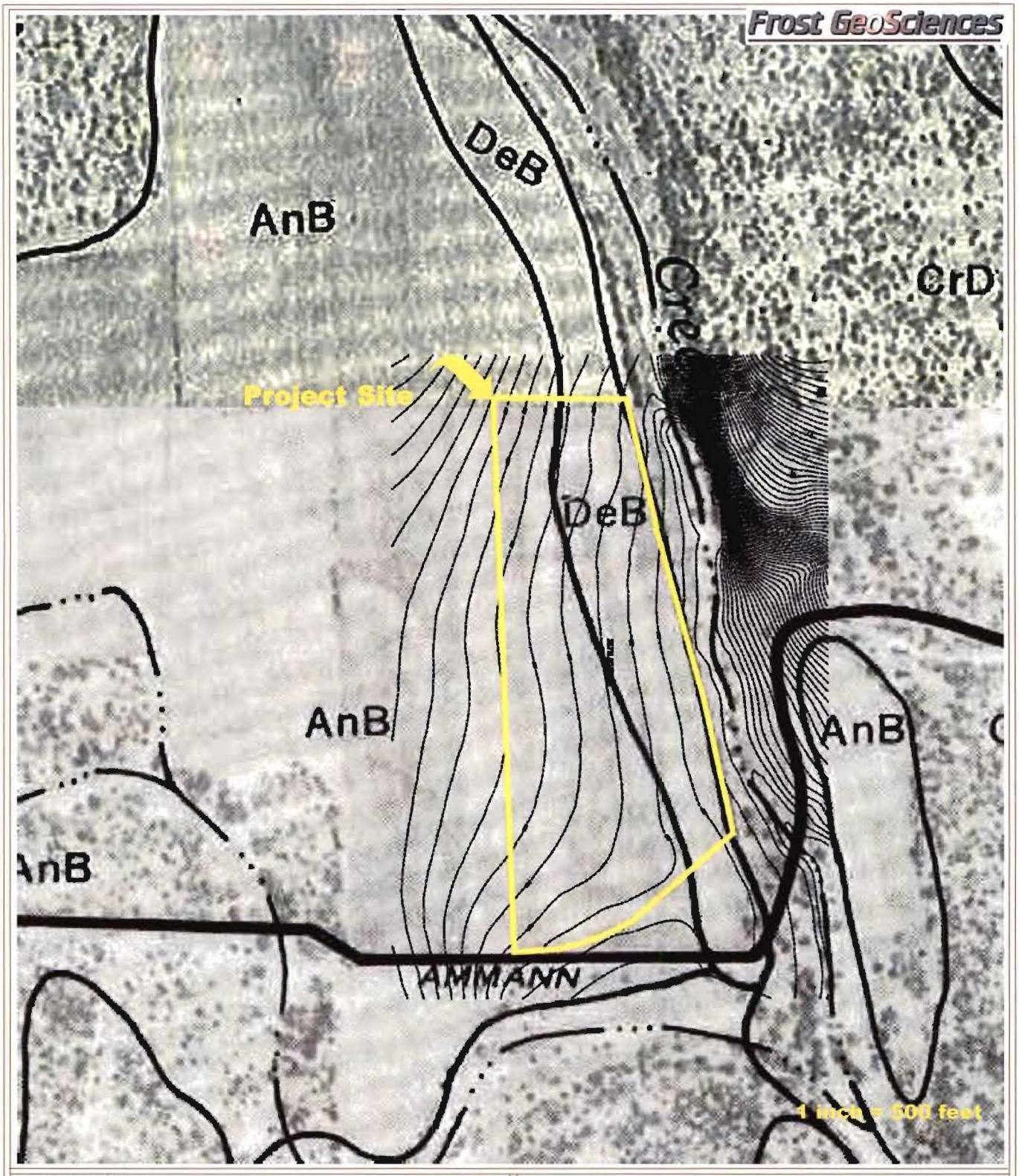
DATE: May 31, 2014



PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

Flood Insurance Rate Map (FIRM)
Community Panel # 48091C0195F
(Revised 9/02/09)

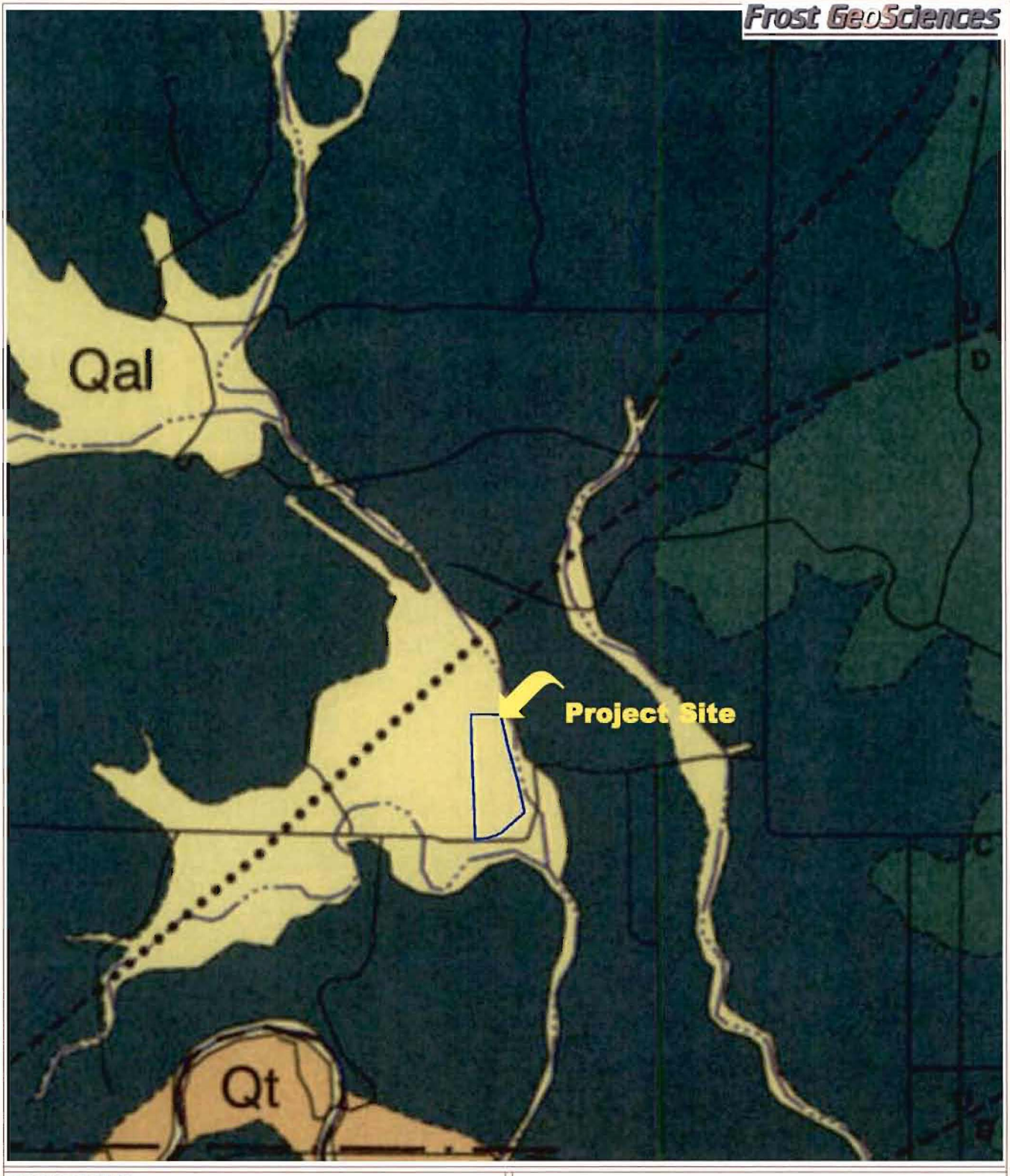
PROJECT NO.:	DATE:
FGS-E14183	May 31, 2014



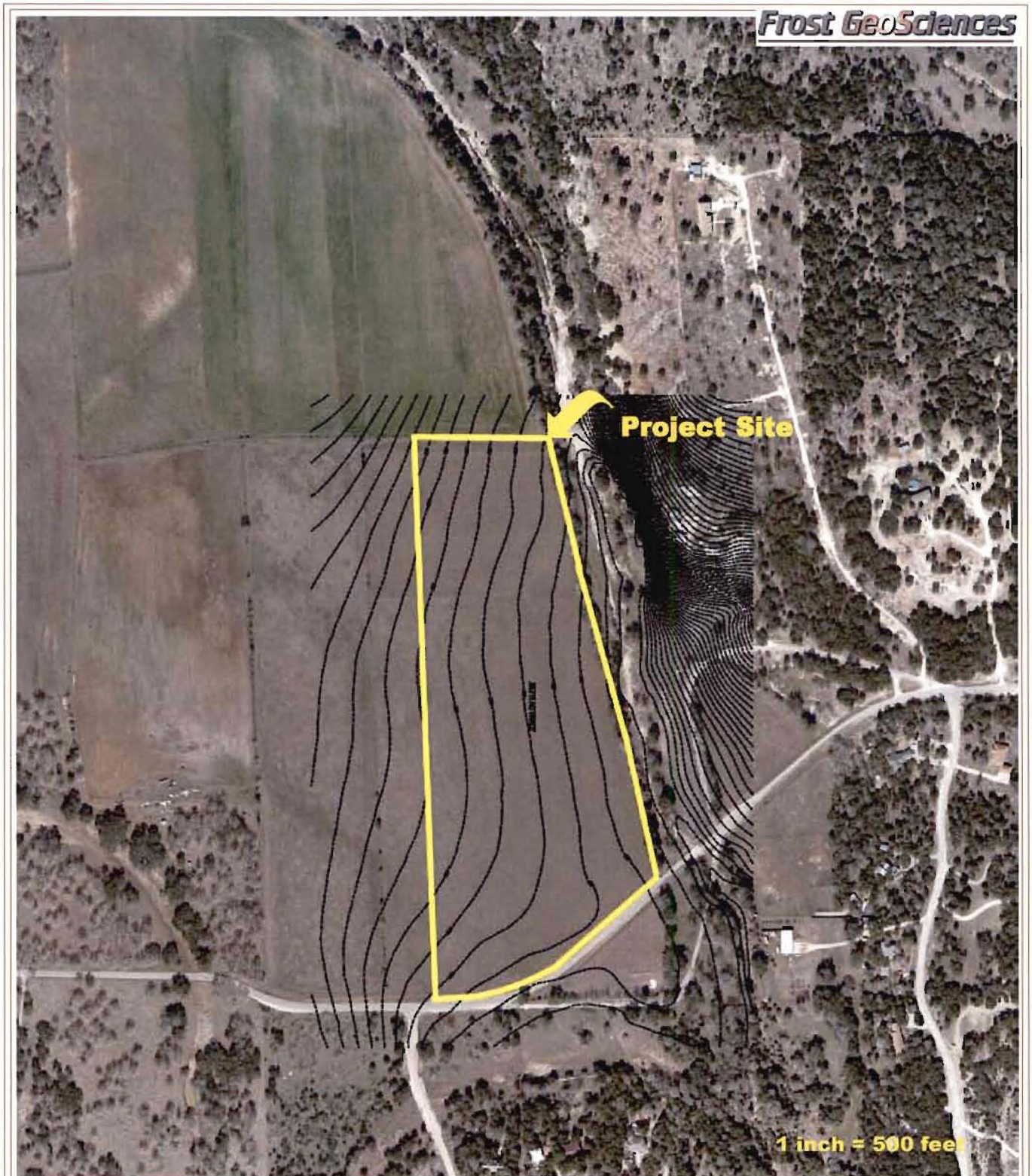
PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

1973 Aerial Photograph
United States Department of Agriculture

PROJECT NO.:	DATE:
FGS-E14183	May 31, 2014



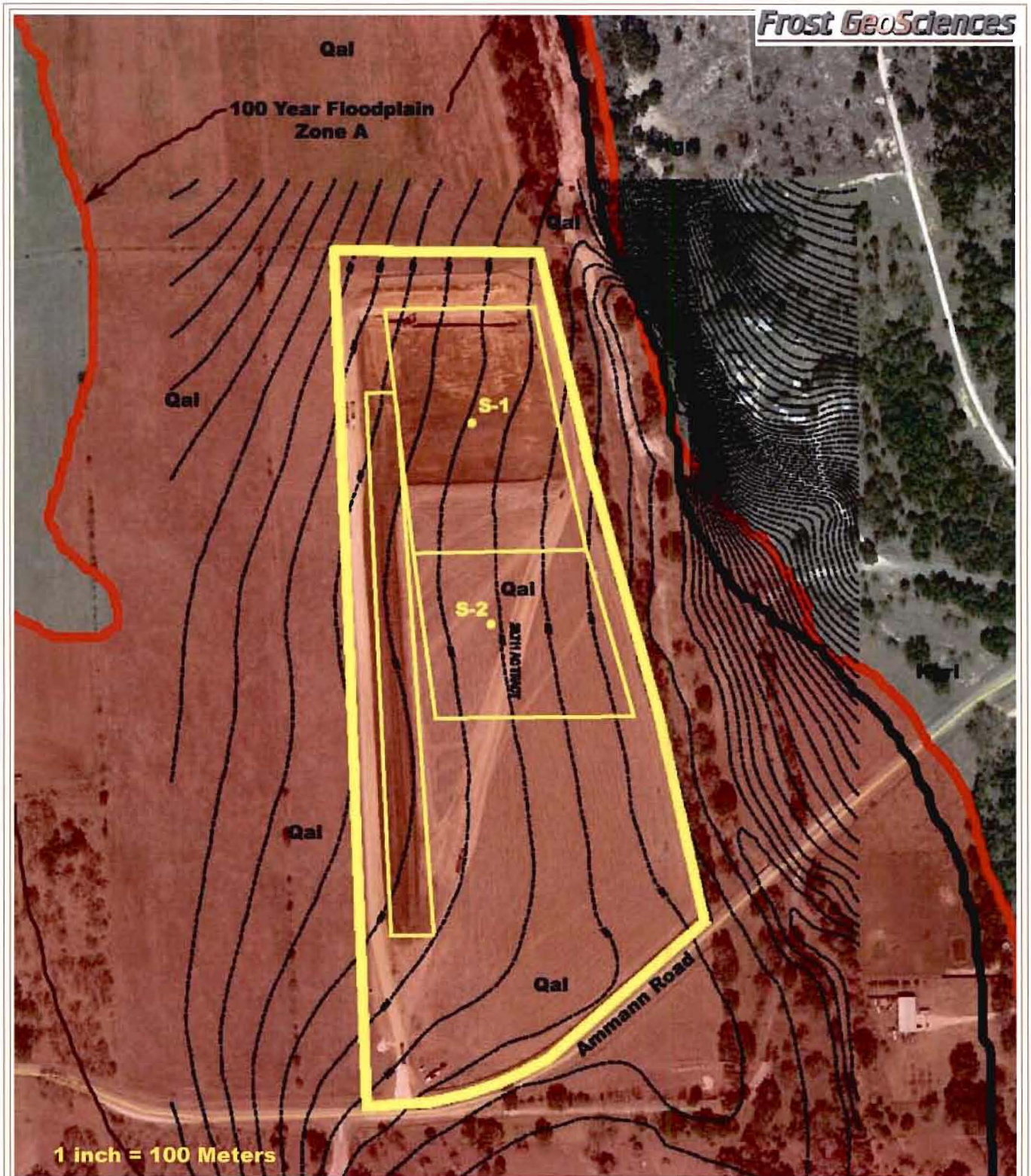
PROJECT NAME: Geologic Site Assessment (WPAP) for Regulated Activities / Development on the Edwards Aquifer Recharge / Transition Zone Excavation Site on Ammann Road Bulverde, Texas	Bureau of Economic Geology Geologic Map of the Bulverde, Texas 30 X 60 Minute Quadrangle (2000)
PROJECT NO.: FGS-E14183	**DATE:** May 31, 2014



PROJECT NAME:
Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
Excavation Site on Ammann Road
Bulverde, Texas

2012 Aerial Photograph
City of San Antonio

PROJECT NO.:	DATE:
FGS-E14183	May 31, 2014



PROJECT NAME:	2014 Aerial Photograph with PRF's Google Aerial Imagery
Geologic Site Assessment (WPAP) for Regulated Activities / Development on the Edwards Aquifer Recharge / Transition Zone Excavation Site on Ammann Road Bulverde, Texas	PROJECT NO.: FGS-E14183 DATE: May 31, 2014

Appendix B

Site Inspection Photographs

View to the north, from the southwest corner of the project site along the western property line.

View to the east, from the southwest corner of the project site along the southern property line.

View to the northeast, across the southern portion of the project site.

View to the north, of the central portion of the project site along the western property line.

View to the south, of the central portion of the project site along the western property line.

View to the south, from the northwest corner of the project site along the western property line.

View to the east, from the northwest corner of the project site along the northern property line.

View to the southeast, across the northern portion of the project site.

View to the west, from the northeast corner of the project site along the northern property line.

View to the south, from the northeast corner of the project site along the eastern property line.

View to the southwest, across the northern portion of the project site.

View to the north, of the central portion of the project site along the eastern property line.

View to the south, of the central portion of the project site along the eastern property line.

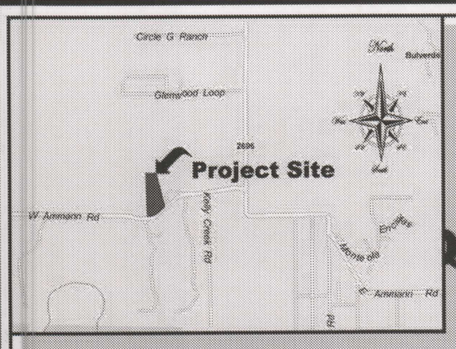
View to the west, along the southern limits of Potential Recharge Feature # S-2.

View to the west, along the southern limits of Potential Recharge Feature # S-1.

View to the north of standing water within Potential Recharge Feature # S-1

Appendix C

Site Geologic Map



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Phone: 210-372-1315 • Fax 210-372-1318

Site Geologic Map

Geologic Site Assessment (WPAP)
for Regulated Activities / Development on the
Edwards Aquifer Recharge / Transition Zone
for the

Excavation Site on Ammann Road
28.711 Acres
Bulverde, Texas

Frost GeoSciences, Inc. Control # FGS-E14183

Legend

- Fill - Fill Material
- Qal - Alluvium
- Kau - Austin Chalk
- Kef - Eagle Ford Shale
- Kbu - Buda Limestone
- Kdr - Del Rio Clay
- Kgt - Georgetown Limestone
- Kep - Edwards Person Limestone
- Kek - Edwards Kainer Limestone
- Kgr - Glen Rose Formation

- S-# - Potential Recharge Feature (PRF)
- Formation Contact
- 100-Year Floodplain - Zone A
- 100-Year Floodplain - Zone AE
- Other Flood Hazard Area - Zone X (shaded)

STATE OF TEXAS
Steve M. Frost
Geology
License No. 315
LICENSED PROFESSIONAL GEOSCIENTIST

5/31/14

Signature of Texas Licensed Geoscientist
Steve Frost, TPG# 315, AIPG # 10176

Floodplain Information Obtained From
FIRM: Flood Insurance Rate Map
Comal County, Texas: Panel # 48091C0195F, Revised 9/02/09

Fault Information Obtained From:
Bureau of Economic Geology, Geologic Atlas of Texas, San Antonio Sheet (1983)
Geologic Map of the New Braunfels, Texas 30 X 60 Minute Quadrangle (2000)

North
NW NE
West East
SW SE
South

Graphic Scale

100 0 50 100 200

(In Feet)

1 inch = 100 feet
Representative Fraction 1:1200

Contour Interval - 1 foot

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

REGULATED ENTITY NAME: Excavation Site on Ammann Road

REGULATED ENTITY INFORMATION

1. The type of project is:
   ___ Residential: # of Lots: _____
   ___ Residential: # of Living Unit Equivalents: _____
   ___ Commercial
   X___ Industrial
   X___ Other: Excavation Site

2. Total site acreage (size of property): 28.711

3. Projected population: 4 persons

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

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	4,000	÷ 43,560 =	0.092
Parking	0	÷ 43,560 =	0
Other paved surfaces	86,396	÷ 43,560 =	1.983
Total Impervious Cover	90,396	÷ 43,560 =	2.075
Total Impervious Cover ÷ Total Acreage x 100 =			7.23%

5. X **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. X Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

7. Type of project:
   ___ TXDOT road project.
   ___ County road or roads built to county specifications.
   ___ City thoroughfare or roads to be dedicated to a municipality.
   ___ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:
   ___ Concrete
   ___ Asphaltic concrete pavement
   ___ Other: _____

9. Length of Right of Way (R.O.W.): ____ feet.
Width of R.O.W.: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.

10. Length of pavement area: ____ feet.
Width of pavement area: ____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = ____ acres.
Pavement area ____ acres ÷ R.O.W. area ____ acres x 100 = ___% impervious cover.

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. _X_ **ATTACHMENT B - Volume and Character of Stormwater.** A description of the volume and character (quality) of the stormwater runoff which is expected to occur from the proposed project is provided at the end of this form. The estimates of stormwater runoff quality and quantity should be based on area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

WASTEWATER TO BE GENERATED BY THE PROPOSED PROJECT

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

__% Domestic	0	gallons/day
X % Industrial	140	gallons/day
__% Commingled	0	gallons/day

TOTAL 140 gallons/day (4,000SF x .035 = 140 gpd)

15. Wastewater will be disposed of by:

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

X **ATTACHMENT C - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater. The appropriate licensing authority's (authorized agent) written approval is provided at the end of this form. It states that the land is suitable for the use of an on-site sewage facility or identifies areas that are not suitable.

__ 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.

n/a Sewage Collection System (Sewer Lines):

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

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

__ The SCS was previously submitted on _____.

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

The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:
__ existing.
__ proposed.

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

SITE PLAN REQUIREMENTS

Items 17 through 27 must be included on the Site Plan.

17. The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = 100 '.

18. 100-year floodplain boundaries
X 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):
The entirety of this property is located within Zone 'A' of the FEMA Floodplain as denoted on FEMA FIRM Panel No. 48091C0195F.

19. X The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.
__ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):
X There are 0 (#) 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.
X 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.
X No **sensitive** geologic or manmade features were identified in the Geologic Assessment.
__ **ATTACHMENT D - Exception to the Required Geologic Assessment.** An exception to the Geologic Assessment requirement is requested and explained at the end of this form.

22. X The drainage patterns and approximate slopes anticipated after major grading activities.

23. X Areas of soil disturbance and areas which will not be disturbed.

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

25. X Locations where soil stabilization practices are expected to occur.

26. X Surface waters (including wetlands).

27. ___ Locations where stormwater discharges to surface water or sensitive features.
X There will be no discharges to surface water or sensitive features.

ADMINISTRATIVE INFORMATION

28. X 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.

29. X Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

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:

Clint Haney
Print Name of Customer/Agent

Signature of Customer/Agent

6/19/2014
Date

EXCAVATION SITE ON AMMANN ROAD
FACTORS AFFECTING WATER QUALITY

Potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site during construction include:

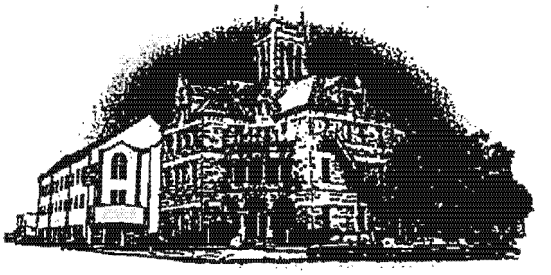
- Soil erosion due to the clearing of the site
- Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle drippings
- Hydrocarbons from asphalt paving operations
- Miscellaneous trash and litter from construction operations and material wrappings

Potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site after construction include:

- Fertilizers, herbicides, and pesticides from agricultural operations
- Oil, grease, fuel and hydraulic fluid contamination from vehicle drippings
- Dirt and dust that may fall off vehicles
- Miscellaneous trash and litter

EXCAVATION SITE ON AMMANN ROAD
VOLUME AND CHARACTER OF STORMWATER

The total project acreage of this site is 28.711 acres. The general land slope of the site ranges from 0.5% to 1.5% and has primarily been used as an agricultural field. Construction of an excavation site and office building with associated paving will modify the drainage patterns of the site and create approximately 7.23% impervious cover within the limits of the project. The construction of the excavation site and 4,000SF office building will result in additional flood storage for the site. Utilizing the Rational Method for estimating storm water runoff (Q=CiA), the estimated 2-year runoff for the 28.711 acres for pre-construction is Q_{pre} = (CiA) = (0.47 x 3.998 in/hr x 28.711 Ac) = 53.95 CFS. The estimated 2-year runoff for post-construction is Q_{post} = (CiA) = (0.60 x 3.998 in/hr x 28.711 Ac) = 68.87 CFS, however with the excavation site, the peak stormwater flow rate for post developed construction is anticipated to be at or below pre-construction conditions. The entirety of the site surface drains into Pleasant Valley Creek.



Comal County

OFFICE OF COMAL COUNTY ENGINEER

June 17, 2014

Ms. Miranda Tripp, E.I.T.
Matkin Hoover
8 Spencer Road, Suite 100
Boerne, TX 78006

Re: Excavation Site on Ammann Road On-Site Sewage Facility Suitability Letter, within Comal County, Texas

Dear Ms. Trippt:

In accordance with TAC §213.5(b)(4)(F)(ii), Comal County has found that the entire referenced site is suitable for the use of private sewage facilities and will meet the special requirements for on-site sewage facilities located on the Edwards Aquifer recharge zone as specified in TAC §285.40-42 based on the following information submitted to our office on June 17, 2014:

- The Geologic Assessment, prepared by Frost Geosciences

Moreover, according to TAC §285.41(b),Clint Haney, the owner of the referenced site, must inform, in writing, each prospective purchaser, lessee, or renter of the following:

- All lots within the Excavation Site on Ammann Road are subject to the terms and conditions of TAC §285.40-42;
- A Permit to Construct is required from Comal County before an OSSF can be constructed on the Excavation Site on Ammann Road;
- A License to Operate is required from Comal County before an OSSF can be operated on the Excavation Site on Ammann Road;
- That an application for a water pollution abatement plan, as defined in TAC §213, has been made, whether it has been approved, and if any restrictions or conditions have been placed on that approval; and

Furthermore, according to TAC §285.42(a), if any recharge feature, is discovered during construction of an OSSF, all regulated activities near the feature shall be suspended immediately. The owner shall immediately notify the TCEQ San Antonio office of the discovery of the feature. All activities regulated under TAC §213 shall not proceed near the feature until Comal County, in conjunction with

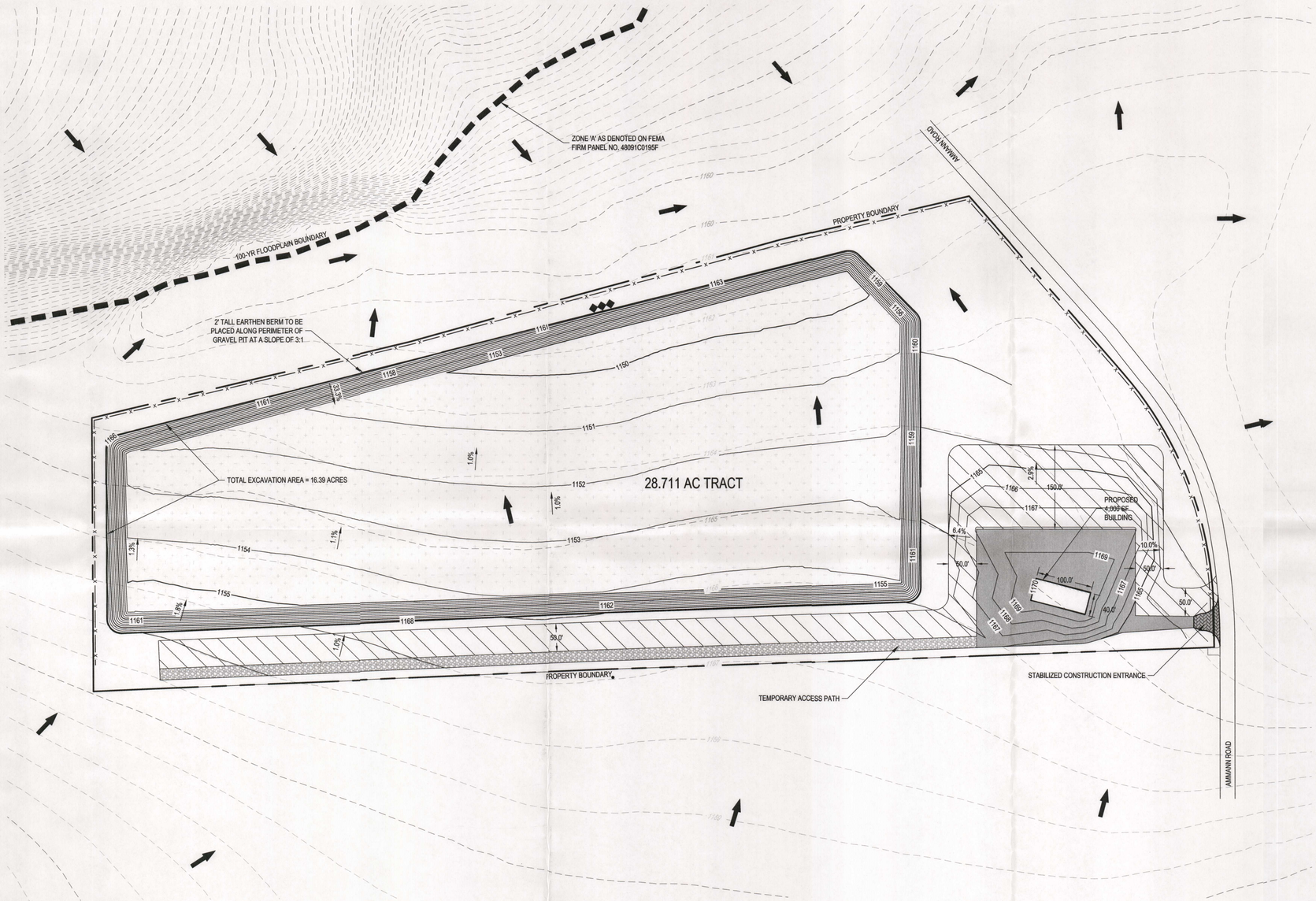
the TCEQ San Antonio office, has reviewed and approved a plan proposed to protect the feature, the structural integrity of the OSSF, and the water quality of the aquifer. The plan shall be sealed, signed, and dated by a professional engineer.

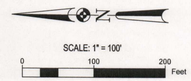
If you have any questions or need additional information, please do not hesitate to contact our office.

Sincerely,

Robert Boyd, P.E.
Comal County Assistant Engineer

cc: Scott Haag, Comal County Commissioner Precinct No. 2





LEGEND

- PROJECT BOUNDARY
- 33.3% FLOW ARROWS (PROPOSED WITH SLOPE)
- 100-YEAR FLOODPLAIN BOUNDARY
- EXISTING 1' CONTOURS
- EXISTING 5' CONTOURS
- PROPOSED 1' CONTOURS
- PROPOSED 5' CONTOURS
- SILT FENCE
- ROCK BERM

AREAS OF SOIL DISTURBANCE

- STABILIZED CONSTRUCTION ENTRANCE
- LIMITS OF PAVEMENT
- NATURAL VEGETATIVE FILTER STRIPS
- LIMITS OF EXCAVATION SITE

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

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MANTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
6. 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).
7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
8. LITTER, CONSTRUCTION DEBRIS, AND CONTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES (E.G., SCREENING OUTFALLS, PICKED UP DAILY).
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
11. THE FOLLOWING RECORDS SHALL BE MAINAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEAURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TEATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
    - B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
    - C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE
2800 S. IH 35, SUITE 100
AUSTIN, TEXAS 78704-5712
PHONE (512) 339-2929
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON ROAD
SAN ANTONIO, TEXAS 78233-4480
PHONE (210) 490-3096
FAX (210) 545-4329

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

NOTES:
1. WHERE VEHICLES CROSS EXCAVATION PERIMETER BERM, ENSURE BERM IS GRAVEL LINED.

PERMANENT VEGETATIVE SOIL STABILIZATION
1. INTERIM OR FINAL GRADING MUST BE COMPLETED PRIOR TO SEEDING, MINIMIZING ALL STEEP SLOPES.
2. SEEDBED SHOULD BE WELL PULVERIZED, LOOSE, AND UNIFORM.
3. FERTILIZER SHOULD BE APPLIED AT THE RATE OF 40 POUNDS OF NITROGEN AND 40 POUNDS OF PHOSPHORUS PER ACRE. COMPOST CAN BE USED INSTEAD OF FERTILIZER AND APPLIED AT THE SAME TIME AS THE SEED.

VEHICLE AND EQUIPMENT MAINTENANCE
1. AREAS FOR VEHICLE REPAIR SHOULD BE COVERED AND PAVED. CURBS OR BERMS SHOULD BE USED TO PREVENT RUNOFF FROM ENTERING OR LEAVING THE REPAIR AREA. ENSURE PAVEMENT IS SLOPED TO A CONTAINED DRAINAGE POINT. OTHER MEASURES TO BE TAKEN AS FOLLOWS:
    - 1.1. INSPECT FOR LEAKS ALL INCOMING VEHICLES, PARTS, AND EQUIPMENT STORE TEMPORARILY OUTSIDE TO THE EXTENT FEASIBLE.
    - 1.2. USE DRIP PANS OR CONTAINERS UNDER PARTS OR VEHICLES THAT DRIP OR THAT ARE LIKELY TO DRIP LIQUIDS, SUCH AS DURING DISMANTLING OF LIQUID-CONTAINING PARTS OR REMOVAL OR TRANSFER OF LIQUIDS.
    - 1.3. REMOVE BATTERIES AND LIQUIDS FROM VEHICLES AND EQUIPMENT IN DESIGNATED AREAS DESIGNED TO PREVENT STORMWATER CONTAMINATION. STORE CRACKED BATTERIES IN A COVERED NON-LEAKING SECONDARY CONTAINMENT SYSTEM.
    - 1.4. EMPTY OIL AND FUEL FILTERS BEFORE DISPOSAL. PROVIDE FOR PROPER DISPOSAL OF WASTE OIL AND FUEL.
    - 1.5. DO NOT POUR OR OTHERWISE CONVEY WASHWATER, LIQUID WASTE, OR ANY OTHER POLLUTANT INTO STORM DRAINS OR INTO SURFACE WATER.
    - 1.6. DO NOT CONNECT MAINTENANCE OR REPAIR SHOP FLOOR DRAINS TO STORM DRAINS OR TO SURFACE WATER.
    - 1.7. TO THE EXTENT FEASIBLE, CONDUCT ALL MAINTENANCE AND REPAIR OF VEHICLES AND EQUIPMENT IN A
    - 1.8. BUILDING OR OTHER COVERED IMPERVIOUS CONTAINMENT AREA THAT IS SLOPED OR BERMED TO
    - 1.9. PREVENT RUN-ON OF UNCONTAMINATED STORMWATER AND RUNOFF OF CONTAMINATED STORMWATER. EMERGENCY REPAIRS CONDUCTED IN THE PIT SHOULD USE BMPS SUCH AS DRIP PANS, ABSORBENT MATS, AND BERMS AS NECESSARY TO CONTROL SPILLS AND LEAKS.
    - 1.10. PARK LARGE MOBILE EQUIPMENT, SUCH AS FRONT-END LOADERS, IN AN AREA PROTECTED FROM RUN-ON
    - 1.11. OF STORMWATER AND SEALED WITH A CLAY LINER OR IMPERMEABLE PAVEMENT TO PREVENT INFILTRATION
    - 1.12. POST SIGNS REMINDING OPERATORS TO CHOCK WHEELS, SECURE CONNECTIONS, CHECK DRAIN OUTLETS, AND REPORT SPILLS TO THE OFFICE.

IMPERVIOUS COVER SUMMARY:

TOTAL PROJECT AREA:	28.711 ACRES
TOTAL PERMANENT IMPERVIOUS AREA:	1.407 ACRES (4.90%)
TOTAL TEMPORARY & PERMANENT IMPERVIOUS AREA:	2.075 ACRES (7.23%)

GENERAL NOTES:

1. CONTRACTOR TO INSTALL A CONCRETE WASHOUT PIT AND CONSTRUCTION LAYDOWN AREA WHERE ACCESSIBLE OUTSIDE LIMITS OF THE VEGETATIVE FILTER STRIPS. CONTRACTOR MUST ENSURE THAT NEITHER THE STOCKPILED MATERIALS OR WASHOUT PIT INTERFERE OR IN ANY WAY DIMINISH THE ABILITY OF THE SITE SPECIFIC BMPS TO OPERATE EFFICIENTLY.
2. ALL TEMPORARY BMPs SHALL BE CONSTRUCTED AND INSTALLED PER RG-348. SEE SHEET 2 OF 2 OF THIS SITE PLAN TEMPORARY BMP DETAILS.
3. THE ENTIRETY OF THE PROPERTY IS LOCATED ZONE 'A' OF THE 100 YEAR FLOOD ZONE ACCORDING TO FEMA PANEL #48091C0195F, AS OF SEPTEMBER 2, 2009.
4. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED OR OTHERWISE STABILIZED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE TEMPORARY CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 21 DAYS
5. POND SIDE SLOPES. CUT/FILL POND SIDE SLOPES SHALL NOT EXCEED 3:1 (H:V) FOR GRASS STABILIZATION PURPOSES.

Z:\PROJECTS\2581 - Haney Ag Pond Site on Ammann\WPAP_Complete Submittal\3 - WPAP Application\Forms - Attachments\CADD\WPAP SITE PLAN.dwg
Date: Jun 21, 2014, 5:10pm User ID: GKeller

Rev.

STATE OF TEXAS
GARRETT D. KELLER
111511
LICENSED PROFESSIONAL ENGINEER
6-25-14

MATKIN HOOVER ENGINEERING & SURVEYING
P.O. BOX 54
8 SPENCER ROAD SUITE 100
BOERNE, TEXAS 78006
OFFICE: 830.249.0600 FAX:830.249.0099
TEXAS REGISTERED ENGINEERING FIRM F-04512
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

TCEQ-R13
JUN 23 2014
SAN ANTONIO

WATER POLLUTION ABATEMENT PLAN SITE PLAN
FOR
AMMANN ROAD
NEW BRAUNFELS, TEXAS

RECEIVED
JUL 02 2014
COUNTY ENGINEER

JOB NO.	2581.00
DATE	JUN 2014
DESIGNED	AJN
CHECKED	GDK
SHEET	1 OF 2

1.4.3 Silt Fence

A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. When properly used, silt fences can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond, allowing heavier solids to settle out. If not properly installed, silt fences are not likely to be effective. A schematic illustration of a silt fence is shown in Figure 1-26.

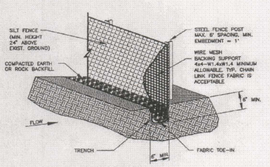


Figure 1-26 Schematic of a Silt Fence Installation (NCTCOG, 1993b)

The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Materials:

(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width should be 36 inches, with a minimum unit weight of 4.5 oz/yd, mullen burst strength exceeding 190 lb/in², ultraviolet stability exceeding 70%, and minimum apparent opening size of U.S. Sieve No. 30.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Y-bar cross sections, surface painted or galvanized, minimum nominal weight 1.25 lb/ft, and Brindell hardness exceeding 140.

(3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1-foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(2) Lay out fencing down-slope of disturbed area, following the contour as closely as possible. The fence should be sited so that the maximum drainage area is ½ acre/100 feet of fence.

(3) The toe of the silt fence should be trenched in with a spade or mechanical trencher, so that the down-slope face of the trench is flat and perpendicular to the line of flow. Where fence cannot be trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.

(4) The trench must be a minimum of 6 inches deep and 6 inches wide to allow for the silt fence fabric to be laid in the ground and backfilled with compacted material.

(5) Silt fence should be securely fastened to each steel support post or to woven wire, which is in turn attached to the steel fence post. There should be a 3-foot overlap, securely fastened where ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Common Trouble Points:

(1) Fence not installed along the contour causing water to concentrate and flow over the fence.

(2) Fabric not seated securely to ground (runoff passing under fence)

(3) Fence not installed perpendicular to flow line (runoff escaping around sides)

(4) Fence treating too large an area, or excessive channel flow (runoff overtops or collapses fence)

Inspection and Maintenance Guidelines:

(1) Inspect all fencing weekly, and after any rainfall.

(2) Remove sediment when buildup reaches 6 inches.

(3) Replace any torn fabric or install a second line of fencing parallel to the torn section.

(4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.

(5) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

SILT FENCE DETAIL
N.T.S.

1.4.2 Temporary Construction Entrance/Exit

The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice should be used at all points of construction ingress and egress. Schematic diagrams of a construction entrance/exit are shown in Figure 1-24 and Figure 1-25.

Excessive amounts of mud can also present a safety hazard to roadway users. To minimize the amount of sediment loss to nearby roads, access to the construction site should be limited to as few points as possible and vegetation around the perimeter should be protected were access is not necessary. A rock stabilized construction entrance should be used at all designated access points.

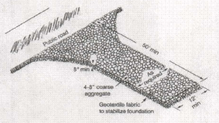


Figure 1-24 Schematic of Temporary Construction Entrance/Exit (after NC, 1993)

Figure 1-25 Cross-section of a Construction Entrance/Exit (NC, 1993)

Materials:

(1) The aggregate should consist of 4 to 8 inch washed stone over a stable foundation as specified in the plan.

(2) The aggregate should be placed with a minimum thickness of 8 inches.

(3) The geotextile fabric should be designed specifically for use as a soil filtration media with an approximate weight of 6 oz/yd², a mullen burst rating of 140 lb/in², and an equivalent opening size greater than a number 50 sieve.

(4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rock should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation: (North Carolina, 1993)

(1) Avoid curves on public roads and steep slopes. Remove vegetation and other objectionable material from the foundation area. Grade crown foundation for positive drainage.

(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater.

(3) The construction entrance should be at least 50 feet long.

(4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the foundation approximately 15 feet from the entrance to divert runoff away from the public road.

(5) Place geotextile fabric and grade foundation to improve stability, especially where wet conditions are anticipated.

(6) Place stone to dimensions and grade shown on plans. Leave surface smooth and slope for drainage.

(7) Divert all surface runoff and drainage from the stone pad to a sediment trap or basin.

(8) Install pipe under pad as needed to maintain proper public road drainage.

Common trouble points

(1) Inadequate runoff control – sediment washes onto public road.

(2) Stone too small or geotextile fabric absent, results in muddy condition as stone is pressed into soil.

(3) Pad too short for heavy construction traffic – extend pad beyond the minimum 50 foot length as necessary.

(4) Pad not flared sufficiently at road surface, results in mud being tracked on to road and possible damage to road edge.

(5) Unstable foundation – use geotextile fabric under pad and/or improve foundation drainage.

Inspection and Maintenance Guidelines:

(1) The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.

(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.

(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.

(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.

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

TEMPORARY CONSTRUCTION ENTRANCE
N.T.S.

1.4.5 Rock Berms

The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 2 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than silt fences, particularly for fine particles, but are able to withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Materials:

(1) The berm structure should be secured with a woven wire sheathing having maximum opening of 1 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings.

(2) Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

Installation:

(1) Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings.

(2) Berm should have a top width of 2 feet minimum with side slopes being 2:1 (H/V) or flatter.

(3) Place the rock along the sheathing as shown in the diagram (Figure 1-28), to a height not less than 18".

(4) Wrap the wire sheathing around the rock and secure with tie wire so that the ends of the sheathing overlap at least 2 inches, and the berm retains its shape when walked upon.

(5) Berm should be built along the contour at zero percent grade or as near as possible.

(6) The ends of the berm should be tied into existing upslope grade and the berm should be buried in a trench approximately 3 to 4 inches deep to prevent failure of the control.

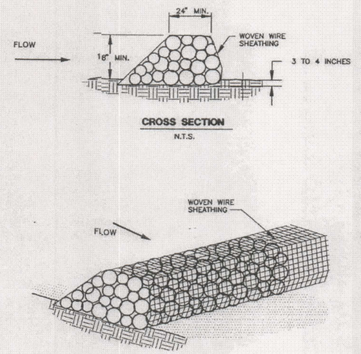


Figure 1-28 Schematic Diagram of a Rock Berm (NCTCOG, 1993)

Common Trouble Points:

(1) Insufficient berm height or length (runoff quickly escapes over the top or around the sides of berm)

(2) Berm not installed perpendicular to flow line (runoff escaping around one side)

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.

(2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing.

(4) The berm should be reshaped as needed during inspection.

(5) 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.

(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

ROCK BERM DETAIL
N.T.S.

3.4.6 Vegetative Filter Strips

Filter strips may be natural or engineered. The use of natural filter strips is limited to perimeter lots and other areas that will not drain by gravity to other BMPs on the site.

Natural Filter Strips:

(1) The filter strip should extend along the entire length of the contributing area.

(2) The slope should not exceed 10%.

(3) The minimum dimension (in the direction of flow) should be 50 feet.

(4) All of the filter strip should lie above the elevation of the 2-yr, 3-hr storm of any adjacent drainage.

(5) There is no requirement for vegetation density or type.

Engineered Filter Strips

Many of the general criteria applied to swale design apply equally well to engineered vegetated filter strips. Vegetated roadside shoulders provide one of the best opportunities for incorporating filter strips into roadway and highway design as shown in Figure 3-21. The general design goal is to produce uniform, shallow overland flow across the entire filter strip. Landscaping or residential lots is not considered to function as a vegetated filter strip because fertilizers and pesticides are commonly applied in these areas. In addition, all areas designated as engineered filter strips should be described in a legally binding document that restricts modification of these areas through an easement, setback, or other enforceable mechanism.

(1) The filter strip should extend along the entire length of the contributing area and the slope should not exceed 20%. The minimum dimension of the filter strip (in the direction of flow) should be no less than 15 feet. The maximum width (in the direction of flow) of the contributing impervious area should not exceed 72 feet. For roadways with a vegetated strip along both sides the total width of the roadway should not exceed 144 feet (i.e., 72 feet draining to each side).

(2) The minimum vegetated cover for engineered strips is 80%.

(3) The area contributing runoff to a filter strip should be relatively flat so that the runoff is distributed evenly to the vegetated area without the use of a level spreader.

(4) The area to be used for the strip should be free of gullies or rills that can concentrate overland flow (Schueler, 1987).

(5) The top edge of the filter strip along the pavement will be designed to avoid the situation where runoff would travel along the top of the filter strip, rather than through it.

(6) Top edge of the filter strip should be level; otherwise runoff will tend to form a channel in the low spot. A level spreader should not be used to distribute runoff to an engineered filter strip.

(7) Filter strips should be landscaped after other portions of the project are completed.

Interim Filter Strips

Filter strips can be implemented as an interim BMP in a phased development when the initial level of development results in an impervious cover of less than 20% in a sub-watershed of the project.

(1) The filter strip area must be 50% of the size of the contributing impervious cover.

(2) Top edge of the filter strip should be level; otherwise, runoff will tend to form a channel in the low spot. If a level spreader is used this is only allowed for interim use to distribute runoff to the filter strip, it must be lined or be constructed of impermeable materials (concrete).

(3) The area to be used for the strip should be free of gullies or rills that can concentrate overland flow.

(4) Filter strips should be landscaped either other portions of the project are completed and vegetation coverage should be at least 80%.

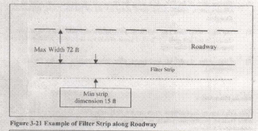


Figure 3-21 Example of Filter Strip along Roadway

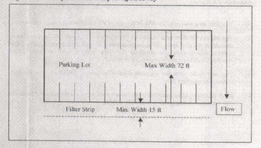


Figure 3-22 Example Configuration of Filter Strip adjacent to Parking Lot

VEGETATIVE FILTER STRIPS
N.T.S.

1.4.18 Concrete Washout Areas

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

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

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

For onsite washout:

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

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (lined, above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

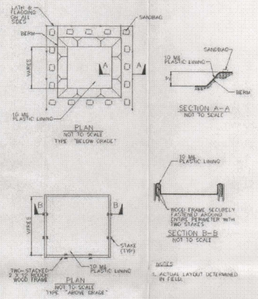


Figure 1-43 Schematics of Concrete Washout Areas

CONCRETE WASHOUT AREAS
N.T.S.

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Date: Jun 21, 2014, 5:11pm User ID: GKeller

Rev.

STATE OF TEXAS
GARRETT D. KELLER
111511
LICENSED
PROFESSIONAL ENGINEER
6-25-14

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CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

TCEQ-R13
JUN 23 2014
SAN ANTONIO

WATER POLLUTION ABATEMENT PLAN SITE PLAN
FOR
AMMANN ROAD
NEW BRAUNFELS, TEXAS

RECEIVED
JUL 02 2014
COUNTY ENGINEER

JOB NO.	2581.00
DATE	JUN 2014
DESIGNED	AJN
CHECKED	GDK
SHEET	2 OF 2

JUL 0 2 2014

COUNTY ENGINEER

Temporary Stormwater Section
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

REGULATED ENTITY NAME: Excavation Site on Ammann Road

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:

   ___ Aboveground storage tanks with a cumulative storage capacity of less that 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.
   X Fuels and hazardous substances will not be stored on-site.

2. X **ATTACHMENT A - Spill Response Actions**. A description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is provided at the end of this form.

3. n/a 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. X **ATTACHMENT B - Potential Sources of Contamination.** Describe in an attachment at the end of this form any other activities or processes which may be a potential source of contamination.
   ___ There are no other potential sources of contamination.

SEQUENCE OF CONSTRUCTION

5. X **ATTACHMENT C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is provided at the end of this form. For each activity described, an estimate of the total area of the site to be disturbed by each activity is given.

6. X 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: Pleasant Valley 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. _X_ **ATTACHMENT D - Temporary Best Management Practices and Measures.** A description of the TBMPs and measures that will be used during and after construction are provided at the end of this form. For each activity listed in the sequence of construction, include appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

_X_ 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 has been provided in the attachment at the end of this form

a. 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.

b. 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.

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

d. 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 provided at the end of this form. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

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

9. _X_ **ATTACHMENT F - Structural Practices.** Describe 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. Placement of structural practices in floodplains has been avoided.

10. _X_ **ATTACHMENT G - Drainage Area Map**. A drainage area map is provided at the end of this form to support the following requirements.

__ 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.

X 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.

11. X **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 has 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 provided as at the end of this form.

12. X **ATTACHMENT I - Inspection and Maintenance for BMPs.** A plan for the inspection of temporary BMPs and measures and for their timely maintenance, repairs, and, if necessary, retrofit is provided at the end of this form. A description of documentation procedures and recordkeeping practices is included in the plan.

13. X 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. X 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. X 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. X 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. X **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 at the end of this form.

18. X 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. _X_ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

ADMINISTRATIVE INFORMATION

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

21. _X_ 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. _X_ 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.

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:

Clint Haney
Print Name of Customer/Agent

Signature of Customer/Agent

6/19/2014
Date

1.4.16 Spill Prevention and Control

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

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

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill cleanup materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater runon during rainfall to the extent that it doesn't compromise clean up activities.

(7) Do not bury or wash spills with water.

ATTACHMENT A

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills immediately.

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

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

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

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

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

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

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

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

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

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

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

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

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

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

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

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

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

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html

ATTACHMENT A

EXCAVATION SITE ON AMMANN ROAD
POTENTIAL SOURCES OF CONTAMINATION

Potential sources of contamination that may occur are:

- Oil, grease, fuel, and hydraulic fluid from construction equipment and vehicle drippings
- Miscellaneous trash and litter from construction workers and material wrappings
- Construction debris
- Excess application of fertilizers, herbicides, and pesticides

Preventative measures that will be taken to reduce contamination are:

- Vehicle maintenance will be performed within the construction staging area
- Trash containers will be placed throughout the site to encourage proper trash disposal if necessary
- Construction debris will be monitored daily be the contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis
- Fertilizers, herbicides, and pesticides will be applied only when necessary and in accordance with manufacturer's directions

EXCAVATION SITE ON AMMANN ROAD
SEQUENCE OF MAJOR ACTIVITIES

1. Mobilization of the contractor's equipment. (0.2 acres disturbed)
2. Installation of temporary best management practices as described in attachment "D" of this section (Silt Fence, Construction Entrance, and Rock Berms).
3. Excavation operations ongoing. (Varies from 0 – 16.39 acres disturbed)
4. Construction of temporary access path (0.9 acres disturbed)
5. Construction of office building, pavements and vegetated filter strips (2.86 acres disturbed)
6. Establishment of permanent soil stabilization on disturbed areas.

EXCAVATION SITE ON AMMANN ROAD
TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

---

a. All upgradient stormwater entering the site will be treated by the BMPs that will prevent pollution of surface water or groundwater that originates on-site or flows off site. See a list of these BMPs in section "b."

b. The BMPs that will prevent pollution of surface water or groundwater that originates on-site or flows off site are:

i. **Temporary Construction Entrance/Exit** – The installation of a stabilized construction entrance/exit will reduce the dispersion of sediment from the site. See Sheet 2 of the WPAP Site Plan which contains a copy of Section 1.4.2 from the Edwards Aquifer Rules: Technical Guidance on Best Management Practices for materials, installation, common trouble points, inspection and maintenance.

ii. **Silt Fence** – The erection of silt fence along the boundary of construction activities will provide temporary erosion and sedimentation control. See Sheet 2 of the WPAP Site Plan which contains a copy of Section 1.4.3 from the Edwards Aquifer Rules: Technical Guidance on Best Management Practices for materials, installation, common trouble points, inspection and maintenance.

iii. **Rock Berm** – The use of rock berms throughout the site will provide temporary erosion and sedimentation control. See Sheet 2 of the WPAP Site Plan which contains a copy of Section 1.4.5 from the Edwards Aquifer Rules: Technical Guidance on Best Management Practices for materials, installation, common trouble points, inspection and maintenance.

iv. **Construction Staging Area** – The construction staging area will provide on-site pollution prevention.

v. **Concrete Truck Washout Pit** – A concrete truck washout pit aids in the final cleanup and prevents unnecessary discharge of concrete residue from contaminating the storm water runoff. See Sheet 2 of the WPAP Site Plan which contains a copy of Section 1.4.18 from the Edwards Aquifer Rules: Technical Guidance on Best Management Practices for materials, installation, common trouble points, inspection and maintenance.

Additionally, a portion of the stormwater runoff will be captured in the pond and will prevent sediment laden runoff from exiting the site.

c. Silt fence and rock berms (see section "b") will be used to prevent sediment-laden runoff from entering surface streams off the site.

d. No sensitive features exist on-site, but if a naturally-occurring sensitive feature is identified during construction all activity will be stopped and the contractor should notify TCEQ.

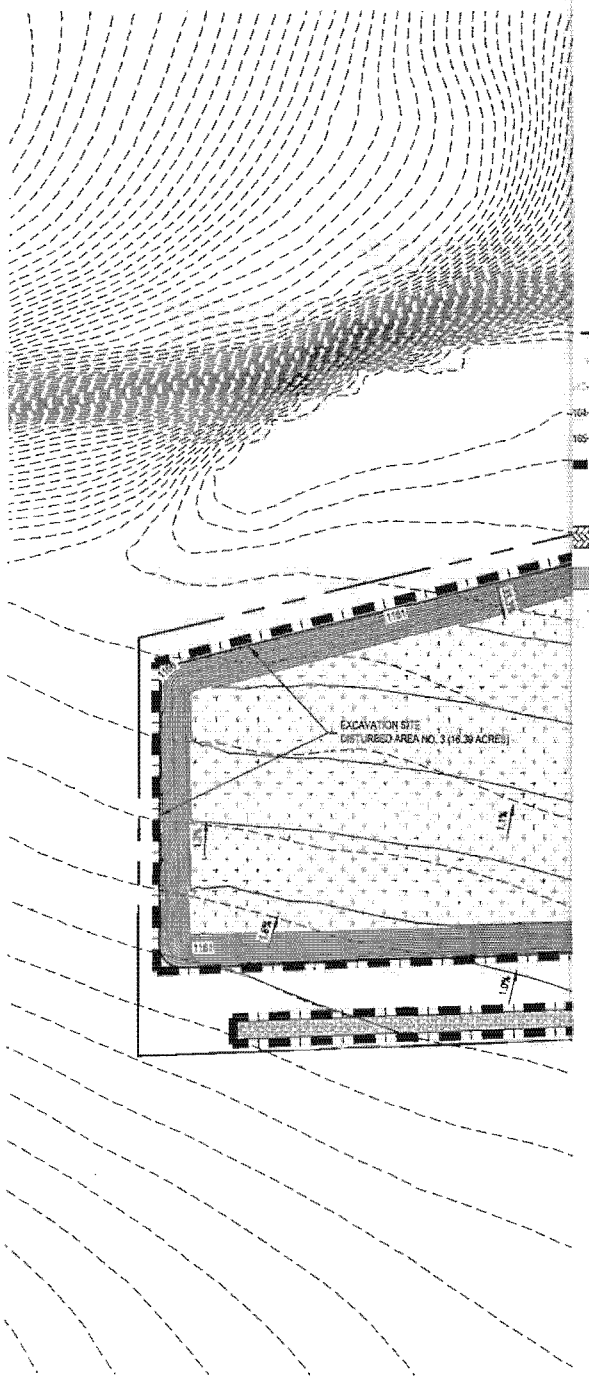
EXCAVATION SITE ON AMMANN ROAD
STRUCTURAL PRACTICES

Structural practices installed to prevent the runoff of pollutants from exposed areas of the site are:

- Silt fence
- Stabilized Construction Entrance/Exit
- Sediment Pond (Excavation Site)
- Construction Staging Area
- Concrete Truck Washout Pit

For the majority of the disturbed soil within the limits of this project, the ongoing excavation will capture and hold sediment laden runoff acting as a sediment pond.

Since the entirety of this site is located within the floodplain, placement of these structure practices within the floodplain cannot be avoided.



NOT TO SCALE

0 100 200 Feet

LEGEND

PROJECT BOUNDARY

EXISTING 1' CONTOURS

EXISTING 5' CONTOURS

104 PROPOSED 1' CONTOURS

105 PROPOSED 5' CONTOURS

LIMITS OF DISTURBED AREA

AREAS OF SOIL DISTURBANCE

STABILIZED CONSTRUCTION ENTRANCE

LIMITS OF PAVEMENT

LIMITS OF EXCAVATION SITE

RECEIVED

JUL 0 2 2014

COUNTY ENGINEER

ATTACHMENT G

Rev.

This document is released for REVIEW PURPOSES ONLY, and was prepared under the authorization of Garrett D. Keller, Registered Professional Engineer, State of Texas, Registration No. 111511. Not For Construction. Date: JUNE 23, 2014

MATKIN HOOVER ENGINEERING & SURVEYING
CIVIL ENGINEERING SURVEYING LAND PLANNING CONSTRUCTION MANAGERS CONSULTANTS

DRAINAGE AREA MAP FOR AMMANN ROAD NEW BRAUNFELS, TEXAS

JOB NO.	2581.00
DATE	JUN 2014
DESIGNED	AJN
CHECKED	GDK
SHEET	1 OF 1

EXCAVATION SITE ON AMMANN ROAD
TEMPORARY SEDIMENT POND CALCULATIONS

As can be seen on "Attachment G" the Drainage Area Map, the area on site identified as the Excavation Site (area no. 3) could exceed 10 acres of disturbance at one time. However, since this area will be excavated only, the resulting feature will function as a sediment trap or pond. All disturbed areas within the limits of this disturbance will be captured within the excavation. Since this site is excavated below grade and the site is relatively flat, the installation of an outflow structure is not feasible because there is no location to install an outflow structure on this site. It is for this reason that construction document for the construction of the sediment basin outflow structure are not provided.

Additionally, the excavation site at full build-out will have the capacity to hold approximately 260,000 CY of stormwater. The required sediment pond storage area for this site which include the area of the excavation site and temporary access road is calculated as:

17.29 (AC) * 43560 (SF/AC) * 3.7 (IN) / 12 (FT/IN) / 27 (SF/CY) = 8,600CY

From the information above, it can be seen that the excavation area stormwater volume will exceed the required sediment pond storage volume.

EXCAVATION SITE ON AMMANN ROAD
INSPECTION AND MAINTENANCE FOR BMPs

Designated and qualified person(s) shall inspect Pollution Control Measures every seven days and within 24 hours after a storm event. An inspection report that summarized the scope of the inspection, names and qualifications of personnel conducting the inspection, date of inspection, major observations, and actions taken as a result of the inspection shall be recorded and maintained as part of the Storm Water T.P.D.E.S. Plan. A copy of the inspection report form is provided as page 2 of this attachment. Inspection and Maintenance Guidelines are as follows:

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

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

Temporary/Permanent Vegetation:
(1) Permanent vegetation should be inspected weekly and after each rain event to locate and repair any erosion.
(2) Erosion from storms or other damage should be repaired as soon as practical by regrading the area and applying new seed.
(3) If the vegetated cover is less than 80%, the area should be reseeded.

EXCAVATION SITE ON AMMANN ROAD
INSPECTION AND MAINTENANCE FOR BMPs

Rock Berm:

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
(2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
(3) Repair any loose wire sheathing.
(4) The berm should be reshaped as needed during inspection.
(5) 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.
(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

EXCAVATION SITE ON AMMANN ROAD
INSPECTION AND MAINTENANCE FOR BMPs

INSPECTION REPORT

Approved Inspection intervals:

i. Conducted once every 7 days AND within 24 hours after rainfall event greater than 0.5 inch

PROJECT NAME _____
REPORT # _____ DATE _____
INSPECTOR _____ TITLE _____
REASON FOR INSPECTION (CHECK ONE) Weekly ____ Or ½" Rain ____
DATE OF LAST RAINFALL _____ AMOUNT _____

SITE CONDITIONS:

EROSION AND SEDIMENTATION CONTROLS	IN CONFORMANCE		EFFECTIVE	
Concrete Washout Area		Yes/No/Na		Yes/No
Construction Entrance		Yes/No/Na		Yes/No
Permanent Vegetation		Yes/No/Na		Yes/No
Silt Fence		Yes/No/Na		Yes/No
Rock Berm		Yes/No/Na		Yes/No

RECOMMENDED REMEDIAL ACTIONS:

COMMENTS:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

INSPECTOR: _____ DATE: _____

EXCAVATION SITE ON AMMANN ROAD
SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

Soil stabilization practices will be used to reduce the amount of erosion from the site. Only the areas essential for immediate construction should be cleared. This will keep a buffer zone around the area of construction as these areas will remain undisturbed until construction begins there.

Interim soil stabilization areas are determined in the field. Temporary vegetation will be used as an aid to control erosion on critical sites during establishment period of protective vegetation when construction is temporarily ceased.

Permanent soil stabilization areas are indicated on the included Site Plan. Permanent seeding will take place in these areas when construction is permanently ceased.

Stabilization practices should be installed according to the following rules:

- Stabilization measures shall be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

- Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by weather conditions, stabilization measures shall be initiated as soon as practical.

- In areas experiencing droughts where the initiation of stabilization measure by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practical.

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

REGULATED ENTITY NAME: Excavation Site on Ammann Road

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

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

2. _X_ 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.

   _X_ 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 provided below:

   _____

   _____

3. _X_ 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.

4. _X_ 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.

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

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

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

5. _X_ 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.** This 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 found at the end of this form.

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

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

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

_X_ 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 identified as **ATTACHMENT B** at the end of this form.

__ If no surface water, groundwater or stormwater originates upgradient from the site and flows across the site, an explanation is provided as **ATTACHMENT B** at the end of this form.

__ If 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, an explanation is provided as **ATTACHMENT B** at the end of this form.

7. **ATTACHMENT C - BMPs for On-site Stormwater.**

_X_ 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 identified as **ATTACHMENT C** at the end of this form.

__ If 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, an explanation is provided as **ATTACHMENT C** at the end of this form.

8. _X_ **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 provided at the end of this form. Each feature identified in the Geologic Assessment as "sensitive" has been addressed.

9. _X_ 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.

_X_ The permanent sealing of or diversion of flow from a naturally-occurring "sensitive" or "possibly sensitive" feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring "sensitive" or "possibly sensitive" features on this site.

__ **ATTACHMENT E - Request to Seal Features.** A request to seal a naturally-occurring "sensitive" or "possibly sensitive" feature, that includes a justification as to why no reasonable and practicable alternative exists, is found at the end of this form. A request and justification has been provided for each feature.

10. _X_ **ATTACHMENT F - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information have been signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed permanent BMPs and measures are provided at the end of this form. Design Calculations, TCEQ

Construction Notes, all man-made or naturally occurring geologic features, all proposed structural measures, and appropriate details must be shown on the construction plans.

11. X **ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan.** A plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is provided at the end of this form. The plan has been prepared and certified by the engineer designing the permanent BMPs and measures. The plan has been signed by the owner or responsible party. The plan includes procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofits as well as a discussion of record keeping procedures.

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

__ Pilot-scale field testing (including water quality monitoring) may be required for BMPs that are not contained in technical guidance recognized by or prepared by the executive director.

__ **ATTACHMENT H - Pilot-Scale Field Testing Plan.** A plan for pilot-scale field testing is provided at the end of this form.

13. X **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 provided at the end of this form. 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.

Responsibility for maintenance of permanent BMPs and measures after construction is complete.

14. X 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.

15. X 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.

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:

RECEIVED
JUL 02 2014
COUNTY ENGINEER

Clint Haney
Print Name of Customer/Agent

Signature of Customer/Agent

6/20/14
Date

EXCAVATION SITE ON AMMANN ROAD
BMPs FOR UPGRAIDENT STORMWATER

There are approximately 240 acres upgradient from the site. The upgradient area is composed of approximately 80% undeveloped area and 40% cultivated land. There is no offsite impervious cover to account for. The proposed natural vegetative strips will be used to prevent pollution of stormwater that originates upgradient from the site. Additionally, the excavation site functions as a retention pond and will capture the majority of the upgradient runoff.

EXCAVATION POND ON AMMANN ROAD
BMPs FOR ON-SITE STORMWATER

All areas with impervious cover within the project limits will be treated with natural vegetative filter strips. The proposed natural vegetative filter strips provide water-quality protection by reducing the amount of sediment, organic matter, and pesticides, in the runoff and before the runoff enters the offsite surface water. Additionally, the excavation site functions as a retention pond and will capture a portion of the runoff from the temporary access road, but after treatment from the proposed natural vegetative filter strips. According to RG-348, Table 3-4, 85% TSS Reduction can be accomplished with vegetative filter strips.

EXCAVATION SITE ON AMMANN ROAD
BMPs FOR SURFACE STREAMS

No surface streams exist on this site. The proposed natural vegetative filter strips provide water-quality protection by reducing the amount of sediment, organic matter, and pesticides, in the runoff and before the runoff enters the offsite surface water. The vegetative filters strips also provide localized erosion protection since the vegetation covers an area of soil that otherwise might have a high erosion potential. Additionally the excavation site functions as a sediment pond that will capture eroded or disturbed soil and protect the offsite surface stream. There are no sensitive features onsite as reported in the geological assessment provided in this report.

EXCAVATION SITE ON AMMANN ROAD
CONSTRUCTION DOCUMENTS

All permanent BMP proposed within the scope of this project consist of natural vegetative filter strips and are described in detail on the WPAP site plan for construction. Therefore, no construction documents for construction of other permanent BMP is necessary for this attachment. Attached to this correspondence is the TSS Removal Calculation Spreadsheet showing the calculation of the required load reduction for information purposes.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: EXCAVATION SITE ON AMMANN ROAD
Date Prepared: 6/19/2014

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

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

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

where:

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

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

County =	Comal	
Total project area included in plan * =	28.71	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	2.08	acres
Total post-development impervious cover fraction * =	0.07	
P =	33	inches
$L_{M\ TOTAL\ PROJECT}$ =	1863	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 =	28.71	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.08	acres
Post-development impervious fraction within drainage basin/outfall area =	0.07	
$L_{M\ THIS\ BASIN}$ =	1863	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

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

ATTACHMENT G – INSPECTION AND MAINTENANCE PLAN

NAME OF PROPOSED PROJECT: **Excavation Site on Ammann Road**
PROJECT LOCATION: **Comal County, Texas**
NAME OF APPLICANT: **Haney Sitework and Paving LLP**
APPLICANT'S ADDRESS: **30230 Twin Ridge Bulverde, TX 78163**
CONTACT PERSON: **Clint Haney** PHONE: **(830) 980-7183**

VEGETATIVE FILTER STRIPS

INSPECTIONS

Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is most desirable. The strip should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. More frequent inspections of the grass cover during the first few years after establishment will help to determine if any problems are developing, and to plan for long-term restorative maintenance needs. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.

MAINTENANCE

Debris and Litter Removal. Trash tends to accumulate in vegetated areas, particularly along highways. Any filter strip structures (i.e. level spreaders) should be kept free of obstructions to reduce floatables being flushed downstream, and for aesthetic reasons. The need for this practice is determined through periodic inspection, but should be performed no less than 4 times per year.

Sediment Removal. Sediment removal is not normally required in filter strips, since the vegetation normally grows through it and binds it to the soil. However, sediment may accumulate along the upstream boundary of the strip preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.

Grass Reseeding and Mulching. A healthy dense grass should be maintained on the filter strip. If areas are eroded, they should be filled, compacted, and reseeded so that the final grade is level. Grass damaged during the sediment removal process should be promptly replaced using the same seed mix used during filter strip establishment. If possible, flow should be diverted from the damaged areas until the grass is firmly established. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Corrective maintenance, such as weeding or replanting should be done more frequently in the first two to three years after installation to ensure stabilization. Dense vegetation may require irrigation immediately after planting, and during particularly dry periods, particularly as the vegetation is initially established.

A written record should be kept of inspection results and maintenance performed.

I, the owner, have read and understand the requirements of the attached Maintenance Plan and Schedule

Owner

6-23-14
Date

EXCAVATION SITE ON AMMANN ROAD
INSPECTION AND MAINTENANCE FOR BMPs

INSPECTION REPORT

Approved Inspection intervals:

i. Conducted at least twice annually

PROJECT NAME _____

REPORT # _____ DATE _____

INSPECTOR _____ TITLE _____

DATE OF LAST RAINFALL AMOUNT

SITE CONDITIONS:

ACTION	IN CONFORMANCE	EFFECTIVE
ENGINEERED VEGETATIVE FILTER STRIPS		
Pest Management	Yes/No/Na	Yes/No
Seasonal Mowing and Lawn Care	Yes/No/Na	Yes/No
Debris and Litter Removal	Yes/No/Na	Yes/No
Sediment Removal	Yes/No/Na	Yes/No

*Refer to I&M plan for detail descriptions of each Action.

RECOMMENDED REMEDIAL ACTIONS:

_____

_____

COMMENTS:

_____

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

INSPECTOR: _____ DATE: _____

EXCAVATION SITE ON AMMANN ROAD
MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

Contamination of surface streams will be kept at a minimum during construction by implementing temporary BMPs such as silt fencing and rock berms. Further BMPs are discussed in the temporary section. After construction, the excavation site and vegetative filter strips will be used to treat stormwater runoff and minimize surface stream contamination. The excavation area will capture stormwater runoff and mitigate any increase in stormwater velocities as a result of the construction of the temporary access road and portions of the building and pavement areas. Additionally, the proposed building and pavement are proposed on the high side of the project area allowing stormwater runoff to sheet flow across the site prior to existing the property. Lastly, the permanent post-developed conditions of this project will result in only 4.9% impervious cover. Resultant impervious cover less than 15% has been determine to be the limit at which degradation of the land will not occur.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Form

NAME OF PROPOSED REGULATED ENTITY: Excavation Site on Ammann Road
REGULATED ENTITY LOCATION: 3153 W Ammann Road, Bulverde TX 78163
NAME OF CUSTOMER: Haney Sitework and Paving, LLP
CONTACT PERSON: Clint Haney PHONE: (830)980-7283
(Please Print)

Customer Reference Number (if issued): CN 604282111 (nine digits)

Regulated Entity Reference Number (if issued): RN 107069528 (nine digits)

Austin Regional Office (3373) ☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362) ☐ Bexar ☒ Comal ☐ Medina ☐ Kinney ☐ Uvalde

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 (Check One):

☐ **Austin Regional Office**

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

☒ **San Antonio Regional Office**

☐ **Overnight Delivery to TCEQ**:
TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
512/239-1278

Site Location (Check All That Apply): ☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	28.711 Acres	$ 6,500.00
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

6/19/2014
Date

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.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Application Fee Schedule
30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications
Contributing Zone Plans and Modifications

PROJECT	PROJECT AREA IN ACRES	FEE
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

PROJECT	COST PER LINEAR FOOT	MINIMUM FEE MAXIMUM FEE
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

PROJECT	COST PER TANK OR PIPING SYSTEM	MINIMUM FEE MAXIMUM FEE
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

PROJECT	FEE
Exception Request	$500

Extension of Time Requests

PROJECT	FEE
Extension of Time Request	$150

TCEQ

TCEQ Core Data Form

TCEQ Use Only

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)*

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

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

2. Attachments **Describe Any Attachments:** *(ex. Title V Application, Waste Transporter Application, etc.)*

☒ Yes ☐ No — Water Pollution Abatement Plan

3. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	4. Regulated Entity Reference Number *(if issued)*
CN 604282111		RN 107069528

SECTION II: Customer Information

5. Effective Date for Customer Information Updates (mm/dd/yyyy)

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

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other: _____

7. General Customer Information

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State) ☒ No Change**

If "No Change" and Section I is complete, skip to Section III – Regulated Entity Information.

8. Type of Customer:	☐ Corporation	☐ Individual	☐ Sole Proprietorship- D.B.A
☐ City Government	☐ County Government	☐ Federal Government	☐ State Government
☐ Other Government	☐ General Partnership	☐ Limited Partnership	☐ Other:

9. Customer Legal Name *(If an individual, print last name first: ex: Doe, John)*	*If new Customer, enter previous Customer below*	*End Date:*

10. Mailing Address:

City		State		ZIP		ZIP + 4	

11. Country Mailing Information *(if outside USA)*	12. E-Mail Address *(if applicable)*

13. Telephone Number	14. Extension or Code	15. Fax Number *(if applicable)*
( ) -		( ) -

16. Federal Tax ID *(9 digits)*	17. TX State Franchise Tax ID *(11 digits)*	18. DUNS Number *(if applicable)*	19. TX SOS Filing Number *(if applicable)*

20. Number of Employees

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

21. Independently Owned and Operated?

☐ Yes ☐ No

SECTION III: Regulated Entity Information

22. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information ☒ No Change** *(See below)*

**If "NO CHANGE" is checked and Section I is complete, skip to Section IV, Preparer Information.

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

24. Street Address of the Regulated Entity: *(No P.O. Boxes)*							
	City		State		ZIP		ZIP + 4	
25. Mailing Address:							
	City		State		ZIP		ZIP + 4	

26. E-Mail Address:		
27. Telephone Number	28. Extension or Code	29. Fax Number *(if applicable)*
( ) -		( ) -

30. Primary SIC Code (4 digits)	31. Secondary SIC Code (4 digits)	32. Primary NAICS Code (5 or 6 digits)	33. Secondary NAICS Code (5 or 6 digits)

34. What is the Primary Business of this entity? *(Please do not repeat the SIC or NAICS description.)*

Questions 34 – 37 address geographic location. Please refer to the instructions for applicability.

35. Description to Physical Location:

36. Nearest City	County	State	Nearest ZIP Code

37. Latitude (N) In Decimal:			38. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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 or the updates may not be made. If your Program is not listed, check other and write it in. See the Core Data Form instructions for additional guidance.

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

SECTION IV: Preparer Information

40. Name:	Matkin Hoover Engineering & Surveying	41. Title:	Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 249-0600	n/a	(830) 249-0099	gkeller@matkinhoover.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 9 and/or as required for the updates to the ID numbers identified in field 39.

(See the Core Data Form instructions for more information on who should sign this form.)

Company:	Haney Site Work Partners LLP	Job Title:	Owner
Name *(In Print)*:	Clint Haney	Phone:	(830) 980-7183
Signature:		Date:	6/19/2014

EXCAVATION SITE ON AMMANN ROAD
PROJECT DESCRIPTION

The project is located in west Comal County on W Ammann Road approximately 0.9 miles west of the intersection of W Ammann Road and Blanco Road. The property address is 3152 W Ammann Road, Bulverde TX. The subject tract is called a 21.284 Acre Parcel and a 7.427 Acre Parcel, both out of the Edward Velasco Survey No. 233, Abstract No. 647, Comal County, Texas.

In January of 2014, construction of an agricultural pond commenced on this site. In April of 2014 the Owner received a notice of enforcement from TCEQ claiming the ongoing construction was a regulated activity warranting a WPAP. With this information, the construction was immediately suspended. After some consideration based on this notice and potential fines, the owner made the decision to change the use of the subject tract as described below.

The new scope of this project is to construct an aggregate production facility for the purpose of selling onsite material. The subject tract will also include a 4,000 sqft. office building with associated pavement. The remaining portions of the property not containing the aggregate production facility or office building will remain as a vegetated field. The area utilized for aggregates is identified as the excavation area. The removal of material from this area will be ongoing for an unknown duration of time. While this area is being excavated, a temporary access road will be installed as needed adjacent to earthmoving activities. If earth moving operations are permanently stopped in portions of the excavated area, the access road in this area may be removed.

The entirety of this property is located within Zone 'A' of the FEMA Floodplain as denoted on FEMA FIRM Panel No. 48091C0195F. A temporary construction entrance is proposed to gain access to this project. Approximately 2.09 acres of temporary and permanent impervious cover is proposed within the scope of this project.

ATTACHMENT "C"

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

REGULATED ENTITY NAME: Excavation Site on Ammann Road

REGULATED ENTITY INFORMATION

1. The type of project is:
   - ___ Residential: # of Lots: _____
   - ___ Residential: # of Living Unit Equivalents: _____
   - ___ Commercial
   - X___ Industrial
   - X___ Other: Excavation Site

2. Total site acreage (size of property): 28.711

3. Projected population: 4 persons

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

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	4,000	÷ 43,560 =	0.092
Parking	0	÷ 43,560 =	0
Other paved surfaces	57,870	÷ 43,560 =	1.329
Total Impervious Cover	91,143	÷ 43,560 =	2.092
Total Impervious Cover ÷ Total Acreage x 100 =			7.29%

5. X **ATTACHMENT A - Factors Affecting Water Quality.** A description of any factors that could affect surface water and groundwater quality is provided at the end of this form.

6. X Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

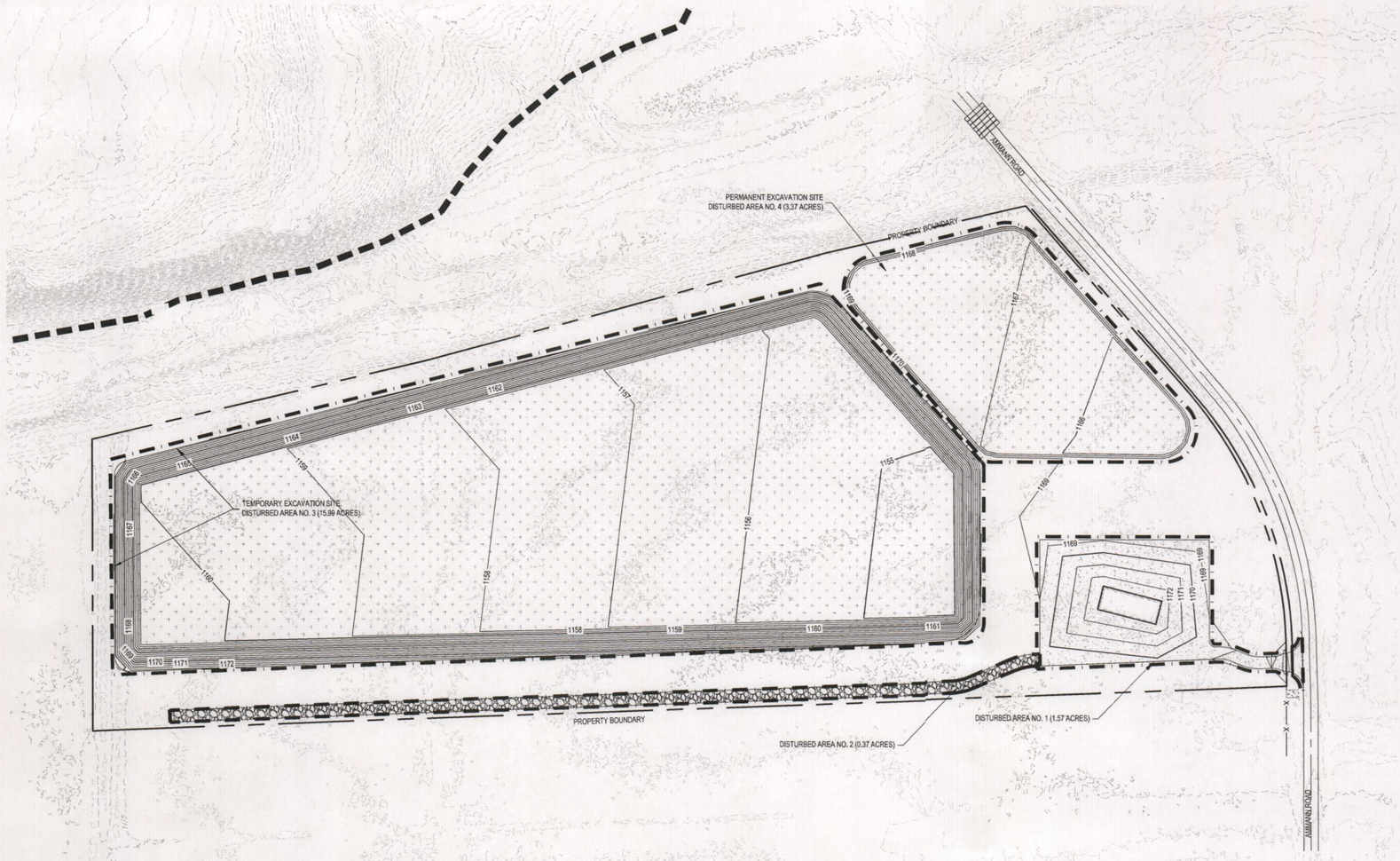
FOR ROAD PROJECTS ONLY
Complete questions 7-12 if this application is exclusively for a road project.

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: _____

EXCAVATION SITE ON AMMANN ROAD
VOLUME AND CHARACTER OF STORMWATER

The total project acreage of this site is 28.711 acres. The general land slope of the site ranges from 0.5% to 1.5% and has primarily been used as an agricultural field. Construction of an excavation site and office building with associated paving will modify the drainage patterns of the site and create approximately 7.29% impervious cover within the limits of the project. The construction of the excavation site and 4,000SF office building will result in additional flood storage for the site. Utilizing the Rational Method for estimating storm water runoff (Q=CiA), the estimated 2-year runoff for the 28.711 acres for pre-construction is Q_{pre} = (CiA) = (0.47 x 3.998 in/hr x 28.711 Ac) = 53.95 CFS. The estimated 2-year runoff for post-construction is Q_{post} = (CiA) = (0.60 x 3.998 in/hr x 28.711 Ac) = 68.87 CFS, however with the excavation site, the peak stormwater flow rate for post developed construction is anticipated to be at or below pre-construction conditions. The entirety of the site surface drains into Pleasant Valley Creek.



NOT TO SCALE
0 100 200 Feet

LEGEND

- PROJECT BOUNDARY
- EXISTING 1' CONTOURS
- EXISTING 5' CONTOURS
- 1164 PROPOSED 1' CONTOURS
- 1165 PROPOSED 5' CONTOURS
- LIMITS OF DISTURBED AREA

AREAS OF SOIL DISTURBANCE

- LIMITS OF PAVEMENT
- LIMITS OF EXCAVATION SITE
- TEMPORARY ACCESS

Rev.

This document is released for REVIEW PURPOSES ONLY, and was prepared under the authorization of Garrett D. Keller, Registered Professional Engineer, State of Texas, Registration No. 111511. Not For Construction. Date: JUNE 23, 2014

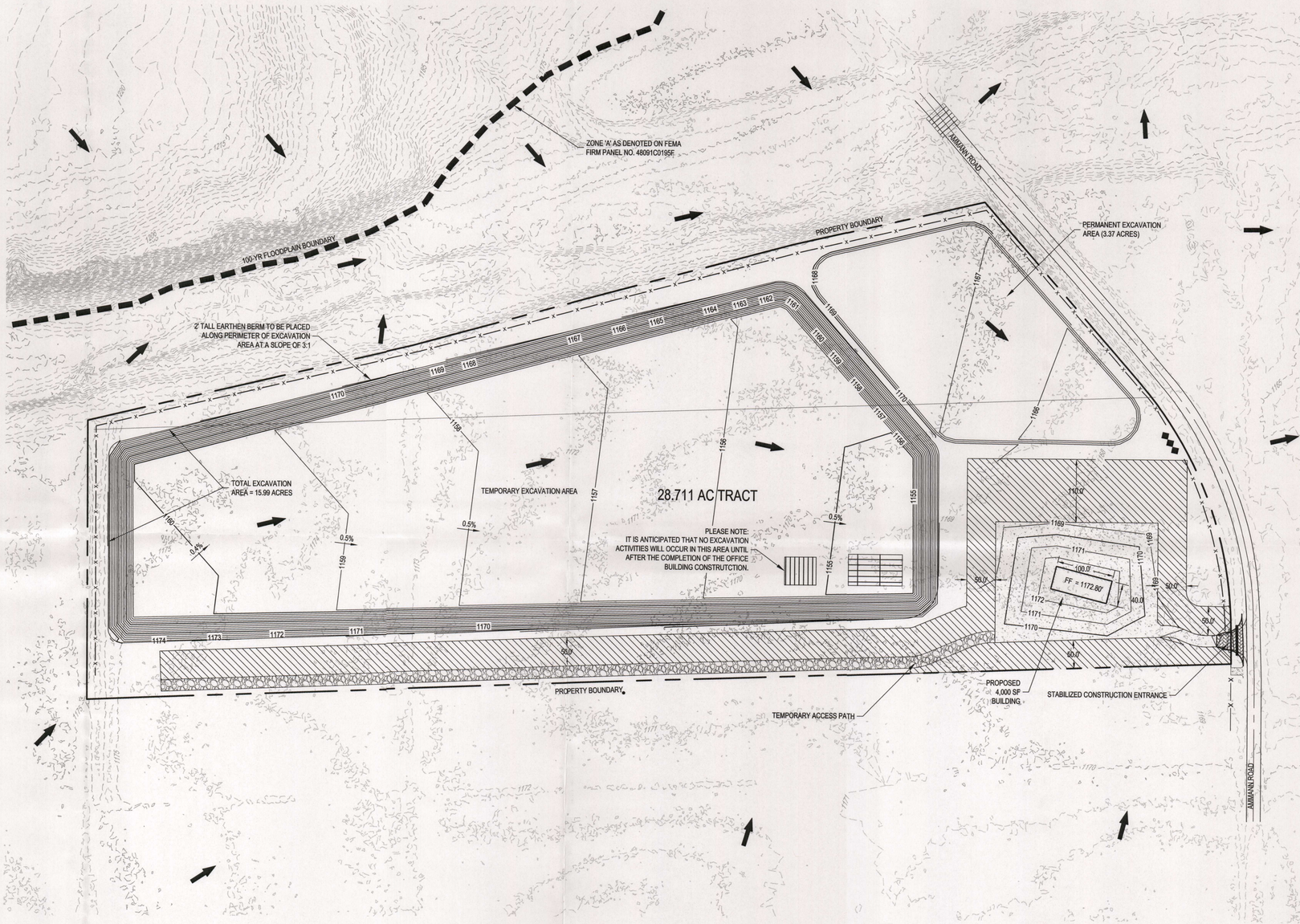
MATKIN HOOVER ENGINEERING & SURVEYING
P.O. BOX 51
8 SPENCER ROAD SUITE 100
BOERNE, TEXAS 78006
OFFICE 830.249.0600 FAX 830.249.0099
TBPE FIRM F-2214 TBPLS FIRM F-10022500
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

DRAINAGE AREA MAP
FOR
AMMANN ROAD
NEW BRAUNFELS, TEXAS

JOB NO.	2581.00
DATE	JUN 2014
DESIGNED	AJN
CHECKED	GDK
SHEET	1 OF 1

ATTACHMENT G

Z:\PROJECTS\2581 - Haney Ag Pond Site on Ammann\WPAP_Complete Submittal\4 - Temporary Stormwater\Forms - Attachments\CADD\WPAP - Attachment G.dwg
Date: Aug 25, 2014, 5:34pm User ID: mcampos



N

SCALE: 1" = 100'

0 100 200 Feet

LEGEND

- PROJECT BOUNDARY
- 33.3% FLOW ARROWS (PROPOSED WITH SLOPE)
- 100-YEAR FLOODPLAIN BOUNDARY
- 1164 EXISTING 1' CONTOURS
- 1165 EXISTING 5' CONTOURS
- 1164 PROPOSED 1' CONTOURS
- 1165 PROPOSED 5' CONTOURS
- SILT FENCE
- ROCK BERM

AREAS OF SOIL DISTURBANCE

- STABILIZED CONSTRUCTION ENTRANCE
- LIMITS OF PAVEMENT
- NATURAL VEGETATIVE FILTER STRIPS
- LIMITS OF EXCAVATION SITE
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT AREA
- TEMPORARY ACCESS

NOTES:
1. WHERE VEHICLES CROSS EXCAVATION PERIMETER BERM, ENSURE BERM IS GRAVEL LINED.

PERMANENT VEGETATIVE SOIL STABILIZATION

1. INTERIM OR FINAL GRADING MUST BE COMPLETED PRIOR TO SEEDING, MINIMIZING ALL STEEP SLOPES.
2. SEEDBED SHOULD BE WELL PULVERIZED, LOOSE, AND UNIFORM.
3. FERTILIZER SHOULD BE APPLIED AT THE RATE OF 40 POUNDS OF NITROGEN AND 40 POUNDS OF PHOSPHORUS PER ACRE. COMPOST CAN BE USED INSTEAD OF FERTILIZER AND APPLIED AT THE SAME TIME AS THE SEED.

VEHICLE AND EQUIPMENT MAINTENANCE

1. AREAS FOR VEHICLE REPAIR SHOULD BE COVERED AND PAVED. CURBS OR BERMS SHOULD BE USED TO PREVENT RUNOFF FROM ENTERING OR LEAVING THE REPAIR AREA. ENSURE PAVEMENT IS SLOPED TO A CONTAINED DRAINAGE POINT. OTHER MEASURES TO BE TAKEN AS FOLLOWS:
   - 1.1. INSPECT FOR LEAKS ALL INCOMING VEHICLES, PARTS, AND EQUIPMENT STORE TEMPORARILY OUTSIDE TO THE EXTENT FEASIBLE.
   - 1.2. USE DRIP PANS OR CONTAINERS UNDER PARTS OR VEHICLES THAT DRIP OR THAT ARE LIKELY TO DRIP LIQUIDS, SUCH AS DURING DISMANTLING OF LIQUID-CONTAINING PARTS OR REMOVAL OR TRANSFER OF LIQUIDS.
   - 1.3. REMOVE BATTERIES AND LIQUIDS FROM VEHICLES AND EQUIPMENT IN DESIGNATED AREAS DESIGNED TO PREVENT STORMWATER CONTAMINATION. STORE CRACKED BATTERIES IN A COVERED NON-LEAKING SECONDARY CONTAINMENT SYSTEM.
   - 1.4. EMPTY OIL AND FUEL FILTERS BEFORE DISPOSAL. PROVIDE FOR PROPER DISPOSAL OF WASTE OIL AND FUEL.
   - 1.5. DO NOT POUR OR OTHERWISE CONVEY WASHWATER, LIQUID WASTE, OR ANY OTHER POLLUTANT INTO STORM DRAINS OR INTO SURFACE WATER.
   - 1.6. DO NOT CONNECT MAINTENANCE OR REPAIR SHOP FLOOR DRAINS TO STORM DRAINS OR TO SURFACE WATER.
   - 1.7. TO THE EXTENT FEASIBLE, CONDUCT ALL MAINTENANCE AND REPAIR OF VEHICLES AND EQUIPMENT IN A
   - 1.8. BUILDING OR OTHER COVERED IMPERVIOUS CONTAINMENT AREA THAT IS SLOPED OR BERMED TO
   - 1.9. PREVENT RUN-ON OF UNCONTAMINATED STORMWATER AND RUNOFF OF CONTAMINATED STORMWATER. EMERGENCY REPAIRS CONDUCTED IN THE PIT SHOULD USE BMPS SUCH AS DRIP PANS, ABSORBENT MATS, AND BERMS AS NECESSARY TO CONTROL SPILLS AND LEAKS.
   - 1.10. PARK LARGE MOBILE EQUIPMENT, SUCH AS FRONT-END LOADERS, IN AN AREA PROTECTED FROM RUN-ON
   - 1.11. OF STORMWATER AND SEALED WITH A CLAY LINER OR IMPERMEABLE PAVEMENT TO PREVENT INFILTRATION
   - 1.12. POST SIGNS REMINDING OPERATORS TO CHOCK WHEELS, SECURE CONNECTIONS, CHECK DRAIN OUTLETS, AND REPORT SPILLS TO THE OFFICE.

IMPERVIOUS COVER SUMMARY:

TOTAL PROJECT AREA:	28.711 ACRES
TOTAL PERMANENT IMPERVIOUS AREA:	1.420 ACRES (4.95%)
TOTAL TEMPORARY & PERMANENT IMPERVIOUS AREA:	2.092 ACRES (7.29%)

GENERAL NOTES:

1. CONTRACTOR TO INSTALL A CONCRETE WASHOUT PIT AND CONSTRUCTION LAYDOWN AREA WHERE ACCESSIBLE OUTSIDE LIMITS OF THE VEGETATIVE FILTER STRIPS. CONTRACTOR MUST ENSURE THAT NEITHER THE STOCKPILED MATERIALS OR WASHOUT PIT INTERFERE OR IN ANY WAY DIMINISH THE ABILITY OF THE SITE SPECIFIC BMPS TO OPERATE EFFICIENTLY.
2. ALL TEMPORARY BMPs SHALL BE CONSTRUCTED AND INSTALLED PER RG-348. SEE SHEET 2 OF 2 OF THIS SITE PLAN TEMPORARY BMP DETAILS.
3. THE ENTIRETY OF THE PROPERTY IS LOCATED ZONE 'A' OF THE 100 YEAR FLOOD ZONE ACCORDING TO FEMA PANEL #48091C0195F, AS OF SEPTEMBER 2, 2009.
4. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED OR OTHERWISE STABILIZED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE TEMPORARY CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 21 DAYS
5. POND SIDE SLOPES. CUT/FILL POND SIDE SLOPES SHALL NOT EXCEED 3:1 (H:V) FOR GRASS STABILIZATION PURPOSES.

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

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
6. 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).
7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
8. 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).
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
    - B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
    - C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE
2800 S. IH 35, SUITE 100
AUSTIN, TEXAS 78704-5712
PHONE (512) 339-2929
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON ROAD
SAN ANTONIO, TEXAS 78233-4480
PHONE (210) 490-3096
FAX (210) 545-4329

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

Rev.

STATE OF TEXAS
GARRETT D. KELLER
111511
LICENSED
PROFESSIONAL ENGINEER
8-25-14

MATKIN HOOVER ENGINEERING & SURVEYING
P.O. BOX 54
8908 BOERNE ROAD SUITE 100
BOERNE, TEXAS 78006
PHONE (830) 249-0600 FAX (830) 249-0599
TEXAS REGISTERED ENGINEERING FIRM F-6043-2
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

RECEIVED
SEP 03 2014
COUNTY ENGINEER

WATER POLLUTION ABATEMENT PLAN SITE PLAN
FOR
AMMANN ROAD
NEW BRAUNFELS, TEXAS

JOB NO.	2581.00
DATE	JUN 2014
DESIGNED	AJN
CHECKED	GDK
SHEET	1 OF 2

Z:\PROJECTS\2581 - Haney Ag Pond Site on Ammann\WPAP_Complete Submittal\3 - WPAP Application\Forms - Attachments\CADD\WPAP SITE PLAN2.dwg
Date: Aug 25, 2014, 6:31pm User ID: mcampos

EXCAVATION SITE ON AMMANN ROAD
SEQUENCE OF MAJOR ACTIVITIES

1. Mobilization of the contractor's equipment. (0.2 acres disturbed)
2. Installation of temporary best management practices as described in attachment "D" of this section (Construction Entrance, Silt Fence, Rock Berms, Construction Staging area and Concrete Washout Pit).
3. Excavation operations ongoing. (Varies from 0 – 19.36 acres disturbed)
4. Construction of temporary access path (0.37 acres disturbed)
5. Construction of office building, pavements and vegetated filter strips (1.57 acres disturbed)
6. Establishment of permanent soil stabilization on disturbed areas.

EXCAVATION SITE ON AMMANN ROAD
TEMPORARY SEDIMENT POND CALCULATIONS

As can be seen on "Attachment G" the Drainage Area Map, the area on site identified as the Excavation Site (area no. 3) could exceed 10 acres of disturbance at one time. However, since this area will be excavated only, the resulting feature will function as a sediment trap or pond. All disturbed areas within the limits of this disturbance will be captured within the excavation. Since this site is excavated below grade and the site is relatively flat, the installation of an outflow structure is not feasible because there is no location to install an outflow structure on this site. It is for this reason that construction document for the construction of the sediment basin outflow structure are not provided.

Additionally, the excavation site at full build-out will have the capacity to hold approximately 260,000 CY of stormwater. The required sediment pond storage area for this site which include the area of the excavation site and temporary access road is calculated as:

19.73 (AC) * 43560 (SF/AC) * 3.7 (IN) / 12 (FT/IN) / 27 (SF/CY) = 8,600CY

From the information above, it can be seen that the excavation area stormwater volume will exceed the required sediment pond storage volume.

EXCAVATION SITE ON AMMANN ROAD
BMPs FOR UPGRADIENT STORMWATER

There are approximately 115 acres upgradient from the site. The upgradient area is composed of approximately 40% undeveloped area and 60% cultivated land. There is no offsite impervious cover to account for. The proposed natural vegetative strips will be used to prevent pollution of stormwater that originates upgradient from the site. Additionally, the excavation site functions as a retention pond and will capture the majority of the upgradient runoff.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: EXCAVATION SITE ON AMMANN ROAD
Date Prepared: 6/19/2014

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

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

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

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

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

County =	Comal	
Total project area included in plan * =	28.71	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	2.09	acres
Total post-development impervious cover fraction * =	0.07	
P =	33	inches
$L_{M\ TOTAL\ PROJECT}$ =	1878	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 =	28.71	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.08	acres
Post-development impervious fraction within drainage basin/outfall area =	0.07	
$L_{M\ THIS\ BASIN}$ =	1863	lbs

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

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

EXCAVATION SITE ON AMMANN ROAD
MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

Contamination of surface streams will be kept at a minimum during construction by implementing temporary BMPs such as silt fencing and rock berms. Further BMPs are discussed in the temporary section. After construction, the excavation site and vegetative filter strips will be used to treat stormwater runoff and minimize surface stream contamination. The excavation area will capture stormwater runoff and mitigate any increase in stormwater velocities as a result of the construction of the temporary access road and portions of the building and pavement areas. Additionally, the proposed building and pavement are proposed on the high side of the project area allowing stormwater runoff to sheet flow across the site prior to existing the property. Lastly, the permanent post-developed conditions of this project will result in only 7.29% impervious cover. Resultant impervious cover less than 15% has been determine to be the limit at which degradation of the land will not occur.

MATKINHOOVER
ENGINEERING
& SURVEYING

April 3, 2018

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Attn: Alex Grant
14250 Judson Road
San Antonio, Texas 78233

RECEIVED
MAY 07 2018
COUNTY ENGINEER

Hand Delivered
APR 11 2018
TCEQ Reg 13

Re: Ammann Road Excavation Site
Matkin Hoover Job No. 2581.00
San Antonio File No. RN107069528; Additional ID No. 13-14062301

Dear Mr. Grant:

This letter and its attachments serve as a response to comments received on March 28, 2018 concerning the above referenced subdivision.

Comment 1:
The submission mentions the removal of the temporary access path and increasing the limits of the paving pad. The location of this paving pad is not specified. Is this referring to the building pad located on the southern portion of the site? Please provide additional detail on the paving pad and update the site plan as necessary.
Response: The pavement pad extension has been called out on the WPAP Site Plan.
Comment 2:
The 50-foot natural VFS that was approved to be installed with the original WPAP approval dated September 14, 2014 was not included in the submitted site plan. Please update the site plan to include the required approved permanent BMP.
Response: The approved permanent BMP has been added back to the WPAP Site Plan.
Comment 3:
A review of satellite imagery shows the approved permanent BMPs (50-foot natural VFS) have been disturbed through continued construction activity. Please verify when the permanent BMPs were first disturbed, and provide a plan of action to restore the permanent BMPs.
Response: The land owner is aware of the issue and is currently seeding all areas that were disturbed during construction.
Comment 4:
The impervious cover (IC) summary note listed on the submitted site plan shows the total IC for the site is 1.95 acres (6.79 %) but the technical clarification narrative states the IC will be reduced to 7.10 percent (2.03 acres). Please verify the total IC that will be constructed on-site and update the summary narrative and/or site plan as appropriate.
Response: The Technical Clarification Letter has been revised to state the proposed 1.95 acre (6.79%) building pad.

Comment 5: The updated site plan shows the removal of the access path but it is not clear where vehicles will enter and exit the excavation pit. Please update the site plan with the location of the ingress and egress locations for heavy vehicle equipment to access the excavation pit.
Response: The location of the ingress and egress has been added to the WPAP Site plan, please see attached.

Should you or your staff have questions, comments, or require additional information, please feel free to contact our office.

Sincerely,
Matkin Hoover Engineering & Surveying
TBPE Firm Registration No. F-4512

Garrett Keller, P.E.
Vice President

Attachments:

MATKINHOOVER
ENGINEERING
& SURVEYING

April 3, 2018

Mr. Todd Jones
TCEQ Water Section Work Leader
14250 Judson Road
San Antonio, TX 78233

Re: Technical Clarification on Water Pollution Abatement Plan
Haney Sitework & Paving, LLP
30230 Twin Ridge
Bulverde, Texas 78163

Dear Mr. Jones:

This letter and its attachments serve as a Technical Clarification request to the current Texas Administrative Code, in the determination of the requirement to obtain a field change to the current Water Pollution Abatement Plan (WPAP) Regulated Entity No. RN107069528; Additional ID No. 13-14062301 for the Haney Sitework.

Property Information
The project is located in west Comal County on West Ammann Road approximately 0.9 miles west of the intersection of West Ammann Road and Blanco Road. The property address is 3152 West Ammann Road, Bulverde TX. The subject tract is called a 21.284 Acre Parcel and a 7.427 Acre Parcel, both out of the Edward Velasco Survey No. 233, Abstract No. 647, Comal County, Texas. A WPAP was submitted and approved on September 10, 2014.

Proposed Activities
The property owner of this subdivision has proposed to modify the currently approved WPAP Site Plan to remove the temporary access path and increase the limits of the paving pad. The attached "Erosion & Sedimentation Control Plan" shows the limits of the new paving pad and removal of the temporary access path. With the removal of the temporary street and increase paving pad the amount of impervious cover will be reduced to 6.79% from 7.23%.

Purpose
This clarification letter is being submitted on behalf of the property owner to make changes to the WPAP Site Plan, if acceptable provide a written approval of the new site plan in order that construction may begin at the earliest opportunity.

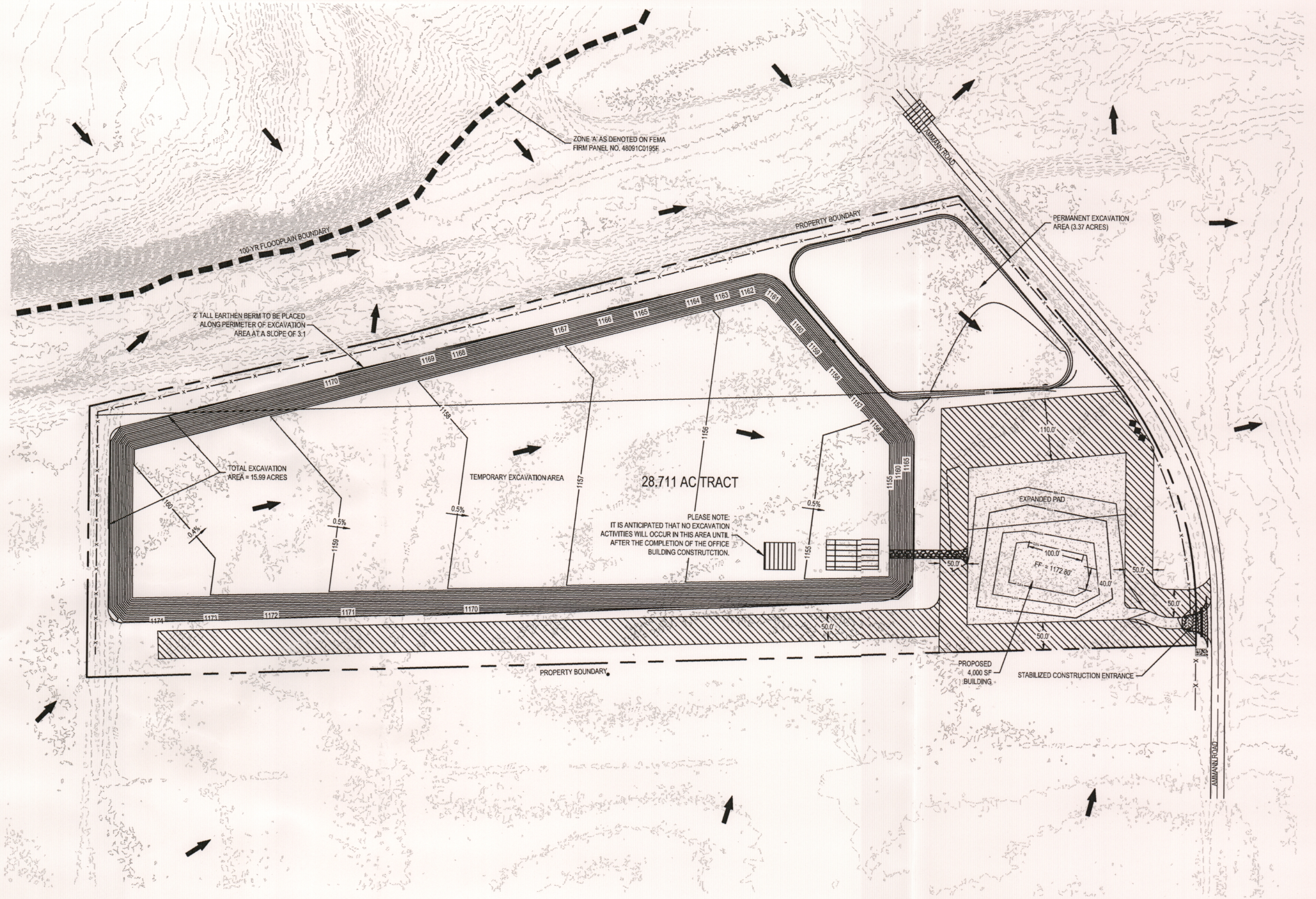
If you have any questions or need additional information, please feel free to contact me. Thank you for your time.

Sincerely,
Matkin Hoover Engineering & Surveying
TBPE Firm Registration No. F-4512

Garrett Keller, P.E.
Vice President

RECEIVED
MAY 07 2018
COUNTY ENGINEER

Attachments:
- Revised WPAP Site Plan



NOTES:

1. WHERE VEHICLES CROSS EXCAVATION PERIMETER BERM, ENSURE BERM IS GRAVEL LINED.

PERMANENT VEGETATIVE SOIL STABILIZATION

1. INTERIM OR FINAL GRADING MUST BE COMPLETED PRIOR TO SEEDING, MINIMIZING ALL STEEP SLOPES.
2. SEEDBED SHOULD BE WELL PULVERIZED, LOOSE, AND UNIFORM.
3. FERTILIZER SHOULD BE APPLIED AT THE RATE OF 40 POUNDS OF NITROGEN AND 40 POUNDS OF PHOSPHORUS PER ACRE. COMPOST CAN BE USED INSTEAD OF FERTILIZER AND APPLIED AT THE SAME TIME AS THE SEED.

VEHICLE AND EQUIPMENT MAINTENANCE

1. AREAS FOR VEHICLE REPAIR SHOULD BE COVERED AND PAVED. CURBS OR BERMS SHOULD BE USED TO PREVENT RUNOFF FROM ENTERING OR LEAVING THE REPAIR AREA. ENSURE PAVEMENT IS SLOPED TO A CONTAINED DRAINAGE POINT. OTHER MEASURES TO BE TAKEN AS FOLLOWS:
   - 1.1. INSPECT FOR LEAKS ALL INCOMING VEHICLES, PARTS, AND EQUIPMENT STORE TEMPORARILY OUTSIDE TO THE EXTENT FEASIBLE.
   - 1.2. USE DRIP PANS OR CONTAINERS UNDER PARTS OR VEHICLES THAT DRIP OR THAT ARE LIKELY TO DRIP LIQUIDS, SUCH AS DURING DISMANTLING OF LIQUID-CONTAINING PARTS OR REMOVAL OR TRANSFER OF LIQUIDS.
   - 1.3. REMOVE BATTERIES AND LIQUIDS FROM VEHICLES AND EQUIPMENT IN DESIGNATED AREAS DESIGNED TO PREVENT STORMWATER CONTAMINATION. STORE CRACKED BATTERIES IN A COVERED NON-LEAKING SECONDARY CONTAINMENT SYSTEM.
   - 1.4. EMPTY OIL AND FUEL FILTERS BEFORE DISPOSAL. PROVIDE FOR PROPER DISPOSAL OF WASTE OIL AND FUEL.
   - 1.5. DO NOT POUR OR OTHERWISE CONVEY WASHWATER, LIQUID WASTE, OR ANY OTHER POLLUTANT INTO STORM DRAINS OR INTO SURFACE WATER.
   - 1.6. DO NOT CONNECT MAINTENANCE OR REPAIR SHOP FLOOR DRAINS TO STORM DRAINS OR TO SURFACE WATER.
   - 1.7. TO THE EXTENT FEASIBLE, CONDUCT ALL MAINTENANCE AND REPAIR OF VEHICLES AND EQUIPMENT IN A
   - 1.8. BUILDING OR OTHER COVERED IMPERVIOUS CONTAINMENT AREA THAT IS SLOPED OR BERMED TO
   - 1.9. PREVENT RUN-ON OF UNCONTAMINATED STORMWATER AND RUNOFF OF CONTAMINATED STORMWATER. EMERGENCY REPAIRS CONDUCTED IN THE PIT SHOULD USE BMPS SUCH AS DRIP PANS, ABSORBENT MATS, AND BERMS AS NECESSARY TO CONTROL SPILLS AND LEAKS.
   - 1.10. PARK LARGE MOBILE EQUIPMENT, SUCH AS FRONT-END LOADERS, IN AN AREA PROTECTED FROM RUN-ON
   - 1.11. OF STORMWATER AND SEALED WITH A CLAY LINER OR IMPERMEABLE PAVEMENT TO PREVENT INFILTRATION
   - 1.12. POST SIGNS REMINDING OPERATORS TO CHOCK WHEELS, SECURE CONNECTIONS, CHECK DRAIN OUTLETS, AND REPORT SPILLS TO THE OFFICE.

IMPERVIOUS COVER SUMMARY:

TOTAL PROJECT AREA:	28.711 ACRES
TOTAL PERMANENT IMPERVIOUS AREA:	1.950 ACRES (6.79%)

GENERAL NOTES:

1. CONTRACTOR TO INSTALL A CONCRETE WASHOUT PIT AND CONSTRUCTION LAYDOWN AREA WHERE ACCESSIBLE OUTSIDE LIMITS OF THE VEGETATIVE FILTER STRIPS. CONTRACTOR MUST ENSURE THAT NEITHER THE STOCKPILED MATERIALS OR WASHOUT PIT INTERFERE OR IN ANY WAY DIMINISH THE ABILITY OF THE SITE SPECIFIC BMPS TO OPERATE EFFICIENTLY.
2. ALL TEMPORARY BMPs SHALL BE CONSTRUCTED AND INSTALLED PER RG-348. SEE SHEET 2 OF 2 OF THIS SITE PLAN TEMPORARY BMP DETAILS.
3. THE ENTIRETY OF THE PROPERTY IS LOCATED ZONE 'A' OF THE 100 YEAR FLOOD ZONE ACCORDING TO FEMA PANEL #48091C0195F, AS OF SEPTEMBER 2, 2009.
4. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED OR OTHERWISE STABILIZED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHERE TEMPORARY CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 21 DAYS
5. POND SIDE SLOPES. CUT/FILL POND SIDE SLOPES SHALL NOT EXCEED 3:1 (H:V) FOR GRASS STABILIZATION PURPOSES.

Z:\PROJECTS\2581 - Haney Ag Pond Site on Ammann\WPAP_Complete Submittal\3 - WPAP Application\Forms - Attachments\CADD\WPAP SITE PLAN2.dwg
Date: Apr 10, 2018, 10:56am User ID: rwagliardo

SCALE: 1" = 100'

0 100 200 Feet

LEGEND

- PROJECT BOUNDARY
- 33.3% FLOW ARROWS (PROPOSED WITH SLOPE)
- 100-YEAR FLOODPLAIN BOUNDARY
- 1164 EXISTING 1' CONTOURS
- 1165 EXISTING 5' CONTOURS
- 1164 PROPOSED 1' CONTOURS
- 1165 PROPOSED 5' CONTOURS
- SILT FENCE
- ROCK BERM

AREAS OF SOIL DISTURBANCE

- STABILIZED CONSTRUCTION ENTRANCE
- LIMITS OF PAVEMENT
- NATURAL VEGETATIVE FILTER STRIPS
- LIMITS OF EXCAVATION SITE
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT AREA
- TEMPORARY ACCESS DRIVEWAY

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

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE GIVEN TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION MUST INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR AND THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTIONABATEMENT PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM IS INSTALLED WITHIN 150 FEET OF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL, OR OTHER SENSITIVE FEATURE.
5. PRIOR TO COMMENCEMENT OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE TEMPORARY STORM WATER SECTION OF THE APPROVED EDWARDS AQUIFER PROTECTION PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
6. 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).
7. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
8. 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).
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARY OR PERMANENTLY CEASE IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE. IN AREAS EXPERIENCING DROUGHTS WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SEASONAL ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
   - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
   - B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
   - C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE	SAN ANTONIO REGIONAL OFFICE
2800 S. IH 35, SUITE 100	14250 JUDSON ROAD
AUSTIN, TEXAS 78704-5712	SAN ANTONIO, TEXAS 78233-4480
PHONE (512) 339-2929	PHONE (210) 490-3096
FAX (512) 339-3795	FAX (210) 545-4329

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

Rev.

STATE OF TEXAS
GARRETT D. KELLER
111511
LICENSED PROFESSIONAL ENGINEER
4/9/18

MATKINHOOVER ENGINEERING & SURVEYING
P.O. BOX 54
8 SPENCER ROAD SUITE 100
BOERNE, TEXAS 78006
OFFICE: 830.249.0600 FAX: 830.249.0099
TEXAS REGISTERED ENGINEERING FIRM F-004512
CIVIL ENGINEERS SURVEYORS LAND PLANNERS CONSTRUCTION MANAGERS CONSULTANTS

RECEIVED
MAY 07 2018
COUNTY ENGINEER

WATER POLLUTION ABATEMENT PLAN SITE PLAN
FOR
AMMANN ROAD
COMAL COUNTY, TEXAS

JOB NO.	2581.00
DATE	SEP 2017
DESIGNED	RAW
CHECKED	GDK
SHEET	1 OF 2

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 24, 2003

Mr. Tom Hornseth, P.E., County Engineer
Comal County
195 David Jonas Drive
New Braunfels, Texas 78132

Re: Edwards Aquifer, Comal County
NAME OF PROJECT: Ammann Road Construction; Located on Ammann Road approximately one mile west of Blanco Road; Comal County, 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 File No. 2054.00, Regulated Entity No. RN 102 835 006

Dear Mr. Hornseth:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP application for the referenced project submitted to the San Antonio Regional Office by Robert Boyd, P.E. of the Comal County Engineer's Office on behalf of Comal County on August 22, 2003. Final review of the WPAP submittal was completed after additional material was received on October 21, 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.*

BACKGROUND

The subject road was constructed on the Edwards Aquifer Recharge Zone without prior approval from the TCEQ. This WPAP application was submitted to satisfy the technical requirements of the associated enforcement case.

PROJECT DESCRIPTION

The constructed road project has an area of approximately 3.31 acres (1803' long by 80' wide, with 22' wide pavement). The impervious cover will be 0.91 acres (27.5 percent). No wastewater is generated by this project.

PERMANENT POLLUTION ABATEMENT MEASURES

The road has a center crown which directs stormwater runoff to a 1.28 acre vegetated filter strip on the north side of the road, and to a 1.15 acre vegetated filter strip on the south side of the road.

The vegetative filter strips are designed in accordance with the 1999 edition of the TNRCC's "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices." The filter strip will:

1. be contiguous with developed area,
2. be at the same elevation as the developed area,
3. have a level spreading device, and
4. be sized to filter stormwater run-off from 0.91 acres of impervious cover.

GEOLOGY

An exception was requested for the TCEQ to accept a geologic assessment prepared in 1992/1993 and submitted with the WPAP application for Hidden Oaks Unit 3 Roadway on March 30, 1993. Approximately one half of the Ammann Road project site is included in the Hidden Oaks Unit 3 Roadway geologic assessment. On October 21, 2003, additional information was received supporting the requested exception. The additional justification provided was that since the road was constructed over two years ago, this small site (two 30' wide grassed areas, and 20' of pavement, 1803' long) has been inspected by the county engineer and assistant county engineer, road construction crews, road maintenance crews, is checked weekly for accumulation of debris and trash, monthly for vegetation growth in excess of 18 inches, quarterly for accumulated silts, annually for vegetation coverage, and after each rainfall to observe drainage under the road. During these visits, no geologic features have been observed, and no geologic changes have occurred in the area.

The San Antonio Regional Office conducted a site investigation on July 31, 2002, which resulted in a recommendation for enforcement. A separate site investigation was not conducted for the review of this application.

SPECIAL CONDITIONS

1. The request for exception to providing a geologic assessment is granted.

2. Standard Condition #2 listed below (deed recordation) is not required for roads.

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 San Antonio 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 San Antonio 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 file 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. 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.

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.

<u>During Construction:</u>

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 San Antonio 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.

<u>After Completion of Construction:</u>

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 San Antonio 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 San Antonio 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 San Antonio 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 John Mauser of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210/403-4024.

Sincerely,

Bobby D. Caldwell

for Margaret Hoffman
Executive Director
Texas Commission on Environmental Quality

MH/JKM/eg

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

cc: Mr. Greg Ellis, Edwards Aquifer Authority
TCEQ Central Records, MC 212

Texas Water Commission

INTEROFFICE MEMORANDUM

To: John Mauser, Program Coordinator (Edwards Aquifer), District 8

Date: October 8, 1992

Thru: David Mears, Senior Attorney, DM
Mark Jordan, Assistant Director MJ

From: Laura Ray, Staff Attorney, LR.
Legal Division

Subject: Exemption for Edwards Aquifer Rules For:_____
{name of development}

A request has been made by the Texas Veterans Land Board (the "Board") for an exemption from the Edwards Aquifer Rules, 31 TAC §313.1 et. seq. The Texas Water Commission ("Commission") rules, 31 TAC §313.2 and §313.3, require that a water pollution abatement plan ("W.P.A.P.") be submitted for developments in the Edwards Aquifer recharge zone. Section 313.3 excludes from regulation residential developments where every lot is five acres or more, with only one single family residence on each lot. This exemption demonstrates that the rules are designed to protect the Edwards Aquifer from the effects of increased housing density.

The Board has purchased_____ {name of the property} consisting of_____ {number of} acres, located in_____ {name of} county to be developed by_____ {developer if different from TVLB}, for sale in five-plus-acre tracts to Texas Veterans. When the Board sells these lots it includes in its sales agreement a clause stating that, should the veteran wish to sever out a one-acre tract for the purpose of building a homestead before the property is paid for, he could do this free of liens. The Board's intent is for the veteran to eventually own the entire five-plus-acre tract, containing only the veteran's single-family residence. The conveyance of the one-acre tract under the Board's plan is not intended to increase housing density. Rather, it is to afford a veteran the opportunity to build and own a home, and to enjoy the five-plus-acre lot prior to the time the loan is paid off.

Yet, severance of these one-acre parcels, without an exemption, will constitute a resubdivision. This would result in the Board's having to file a W.P.A.P. when the veteran severs out a one-acre homestead, even though no additional building is planned for the remaining four acres. To require the submission of a water pollution abatement plan at the time of severance, when the intent of the Board's plan is not to increase the housing density to that greater than one single-family residence per five-plus-acre-lot,

would work an unnecessary hardship and waste regulatory resources, without adding appreciable protection of the Edwards Aquifer. An exemption from the rules would allow the board to sever these one-acre tracts of land out of five-plus-acre original lots to create homesteads, without needlessly subjecting the resubdivided acreage to the W.P.A.P. requirement.

Subsequent transactions, such as foreclosure or resale of the tract, would most likely cause the density of single-family residences to become greater than one for every five-acres. This should cause the development to come under the requirement for a W.P.A.P..

Under §313.12, the Executive Director of the Commission can allow an exemption from the W.P.A.P requirement if he finds that equivalent protection to the Edwards Aquifer can be provided. Therefore, an exemption is hereby granted to the Board for _____ {name of property}, consisting of _____ {# of} acres, located in _____ {name of} county to be developed by _____ {name of developer if different than the TVLB} subject to the following conditions:

1. The exemption to the requirement of filing a water pollution abatement plan does not run with the land:

   a. Upon subsequent sale of the four acres by foreclosure or otherwise, and prior to the actual start of any proposed regulated development on any portion of the four-plus-acres; a water pollution abatement plan must be submitted to and approved by the Commission's Executive Director.

   b. If at any time development occurs on the one-acre tract in addition to a single-family residence constructed by the veteran, a water pollution abatement plan must be submitted. (The foreclosure of the four-plus-acres would not subject the remaining one-acre tract to the rules unless, at the time of foreclosure or resale, regulated development of the one-acre tract had occurred); None of these events, however, would require a water pollution abatement plan to be filed for the entire _____ {name of development} development.

2. Notice of this conditional exemption must be provided by the Board to the purchasers of each lot severed to create a homestead pursuant to the Board's conveyance and financing contract. Additionally, such notice shall be provided in the sales contract for the remaining four-plus acres if such acreage is reconveyed. The notice shall be in the form attached.

3. An affidavit in the form attached, stating that the notice requirements have been fulfilled, must be submitted to the Executive Director by a representative of the Land Board prior to conveyance of the one-acre tract, and recorded in the county deed records. Copies of proof of recordation and applicable maps and plats identifying the affected lots shall be submitted to the Commission's District 8 office in San Antonio within twenty (20) days of severance of the one-acre tract.

4. This exemption is revocable for failure to comply with its terms or conditions, or upon the development of a situation which poses a substantial risk of pollution to the Edwards Aquifer.

If you have any questions please contact {attorney's name} of the Commissions Legal Staff at 463-8069 or Rob Conti of the Commission's Edwards Aquifer Protection Unit, at 463-8947.

Attachment II

Page 3 Of 5

NOTICE OF TEXAS WATER COMMISSION
EXEMPTION FROM EDWARDS AQUIFER RULES

Rules of the Texas Water Commission ("Commission") contained under 31 TEX. ADMIN. CODE §§313.1 et seq. (WEST 1988), commonly known as the Edwards Aquifer Rules, require a water pollution abatement plan ("W.P.A.P") to be submitted to and approved by the Commission prior to the construction of any regulated development in a residential subdivision located in the Edwards Aquifer Recharge Zone (as officially delineated by the Commission) unless every lot in such subdivision is larger than five (5) acres, with no more than one single-family residence allowed on each lot.

The Texas Veterans Land Board ("Land Board") has purchased lots in the _____ {name of development}, _____ {name of} county of _____ {number of acres per lot} for sale to Texas Veterans. In its sales agreement, the Land Board has provided that if the veteran wishes to build a single-family residence on the lot before the loan is paid off, the Land Board will deed a one-acre tract out of the lot, for that purpose, free and clear of any lien. The county commissioners court of _____ county {the county the property is located in} may determine that this severance of the one-acre tract constitutes a resubdivision of the lot, requiring the Commissioners Court's approval and recordation of the subdivision with the county deed records.

In such event, such resubdivision of the lot would ordinarily require the filing of a W.P.A.P., according to the Commission's rules.

However, since the Land Board's plan is not intended to increase the density of single-family residences to more than one per five acres, the Executive Director of the Texas Water Commission has granted a conditional exemption from such requirement for construction of a single family residence by the original owner of the five-plus-acre tract on the severed one-acre lot, effective _____,_____{give date}, pursuant to 31 TEX. ADMIN. CODE § 313.12 (WEST 1990). Such conditional exemption provides that when the Land Board deeds a one-acre tract from a lot of five acres or greater and contained within the _____ {name of subdivision}, _____ county {county its located in}, to a veteran purchaser for the purpose of building a single-family residence on that one-acre tract, and where the veteran continues to purchase the remainder of the lot pursuant to a contract of purchase and sale with the Land Board, the veteran may build such residence without first having to submit and obtain approval of a W.P.A.P. in accordance with the Edwards Aquifer Rules.

Attachment II
Page 4 Of 5

However, upon reconveyance of any or all the remainder of the lot to a person(s) different from the person owning the one-acre tract, the purchasers of any of the remaining acreage shall comply with 31 T.A.C. §313.12 before taking any action to develop it. Additionally, any development on the one-acre tract after reconveyance of the four-plus-acres, <u>including</u> construction of a single-family residence, shall require the filing of a W.P.A.P., in accordance with the Edwards Aquifer Rules. Finally, any construction or development on the one-acre tract beyond the single family residence shall require the filing of a W.P.A.P., subject to the Rules.

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Attachment II
Page 5 Of 5

Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: Lemarcus Johnson Date: 5/23/95
Water Programs Manager
Field Operations Division

Thru: J. Richard Garcia, Region 13 Manager
Bobby Caldwell, Region 13 Water Programs Manager

From: John Mauser, Region 13 Edwards Aquifer Protection Program

Subject: EDWARDS AQUIFER
PROJECT: Texas Veteran's Land Board Developments
TYPE: Water Pollution Abatement Plan (WPAP), 30 TAC §313.4

A WPAP is required for all single-family residential subdivisions in which every lot is less than or equal to five (5) acres and no more than one single-family residence is located on each lot. The Texas Veteran's Land Board (TVLB) received an exception to the requirements of a Water Pollution Abatement Plan (WPAP) for the Eden Ranch Subdivision, Comal County, by letter dated July 6, 1989 (Attachment I). The TNRCC's July 6, 1989 exception to the TVLB allowed for subdividing 5-acre tracts into a one (1) acre tract owned by the veteran and the remaining 4 acres held by the TVLB until the veteran's loan was paid.

Since then the TVLB has used the July 6, 1989 Eden Ranch approval letter for other TVLB subdivisions. The subdivisions known to the San Antonio Regional Office are listed in the table below.

Subdivisions Developed Under Texas Veteran's Land Board Guidelines on Edwards Aquifer Recharge Zone	
Subdivision	County
Amman Oaks Hidden Oaks Monier Ranch Naked Indian Reservation Oak Valley Weissner Ranch	Comal
Summer Mountain Valley View Ranch	Hays

In 1992 the TNRCC's Legal Division determined that each subdivision developed under TVLB guidelines would be required to submit a request for exception to the TNRCC (Attachment II). By Interoffice Memorandum dated May 24, 1993 (Attachment III) Region 13 requested the acting Edwards Aquifer Program Coordinator to determine and execute the appropriate protocol for informing the TVLB program administrator of this TNRCC requirement. To date no verification has been received.

Effective March 21, 1990, and pursuant to 30 TAC §313.3, the definition of "Regulated Activity" includes roads and highways:

> Regulated activity - Any construction-related activity on the recharge zone of the Edwards Aquifer, such as, but not limited to: construction of buildings, utility stations, roads, highways, or railroads; clearing, excavation or any other activities which alter or disturb the topographic, geologic, or existing recharge characteristics of a site; or any other activities which may pose a potential for contaminating the Edwards Aquifer...."Regulated activity" does not include:...
>
> (E) routine maintenance of existing structures that does not involve additional site disturbance, such as; resurfacing of roads, parking lots, sidewalks, or other development-related impervious surfaces; fence building, or other similar activities in which there is little or no potential for contaminating groundwater, and/or there is little or no change to the topographic, geologic, or existing recharge features.

Based on the October 8, 1992 clarification (Attachment II) and current rules, an exception to the WPAP may be granted on a case by case basis. However, construction of roads, excluding driveways, is a regulated activity requiring an application (Attachment IV) for approval consideration from the TNRCC.

Please determine and execute the appropriate protocol for informing the TVLB program administrator of this TNRCC requirement.

Attachments

cc: Patty Reeh - TNRCC, Austin Regional Office
Mary Gordon Spence - TNRCC, Office of Ombudsman

In 1992 the TNRCC's Legal Division determined that each subdivision developed under TVLB guidelines would be required to submit a request for exception to the TNRCC (Attachment II). By Interoffice Memorandum dated May 24, 1993 (Attachment III) Region 13 requested the acting Edwards Aquifer Program Coordinator to determine and execute the appropriate protocol for informing the TVLB program administrator of this TNRCC requirement. To date no verification has been received.

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>
> (E) routine maintenance of existing structures that does not involve additional site disturbance, such as; resurfacing of roads, parking lots, sidewalks, or other development-related impervious surfaces; fence building, or other similar activities in which there is little or no potential for contaminating groundwater, and/or there is little or no change to the topographic, geologic, or existing recharge features.

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Please determine and execute the appropriate protocol for informing the TVLB program administrator of this TNRCC requirement.

Attachments

cc: Patty Reeh - TNRCC, Austin Regional Office
Mary Gordon Spence - TNRCC, Office of Ombudsman

Texas Water Commission

INTEROFFICE MEMORANDUM

TO : Hank Smith, Edwards Aquifer Program Coor. DATE: 5/24/93
Watershed Management Division

THRU :

FROM : John K. Mauser, EQS IV
District 8, San Antonio

SUBJECT: **EDWARDS AQUIFER**
PROJECT: Subdivisions Developed Under Texas Veterans Land Board (TVLB) Guidelines On Edwards Aquifer Recharge Zone
TYPE: Exemptions, 31 TAC 313.9

On July 6, 1989 the Texas Water Commission (TWC) issued the attached letter granting conditional exemption to the Eden Ranch Subdivision from the requirements of water pollution abatement plans (WPAP) for construction of regulated activities/developments on the Recharge Zone of the Edwards Aquifer. The document was written for TVLB development of the Eden Ranch Subdivision. District 8 has received TVLB severance deeds from individuals owning individual lots within the subdivisions listed below with the conditional exemption for Eden Ranch attached.

Subdivision	County
Ammann Oaks - Unit 3	Comal
Hidden Oaks	Comal
Monier Ranch	Comal
Naked Indian Reservation	Comal
Oak Valley Estates	Comal
Weisner Ranch	Comal
Summer Mountain Ranch	Hays
Valley View Ranch	Hays

On June 1, 1992 I requested Kevin McCalla of the TWC's Legal Division to evaluate the TVLB's use of the TWC's June 6, 1989 exemption of Eden Ranch at other TVLB subdivisions. By memorandum dated October 8, 1992 Laura Ray of the Legal Division sent the attached response which indicates that each subdivision developed under TVLB guidelines will be required to submit a request for exception to the TWC. The exception should at least include an outline of the proposed subdivision on a copy of an official Edwards Aquifer Recharge Zone map.

Attachment III
Page 1 Of 2

Please determine and execute the appropriate protocol for informing the program administrator, Mr. David A. Glorier, Deputy Commissioner, Veteran's Land Board, of this TWC requirement. His address is listed below.

Mr. David A. Glorier
Deputy Commissioner
Veteran's Land Board
General Land Office
Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701

Attachment

B:\VETS\HANK1

Attachment III
Page 2 Of 2

WATER POLLUTION ABATEMENT PLAN APPLICATION
FOR CONSTRUCTION OF
HIGHWAYS, ROADS & STREETS NOT ASSOCIATED
WITH OTHER REGULATED ACTIVITIES/DEVELOPMENTS
ON THE EDWARDS AQUIFER RECHARGE ZONE
AND RELATING TO 31 TAC §313.4 EFFECTIVE MARCH 21, 1990

EDWARDS AQUIFER, _____ County

PROJECT NAME: _____

TYPE: ROAD CONSTRUCTION Water Pollution Abatement Plan (WPAP), 30 Texas Administrative Code (TAC) 313.4

Do not write in this box. TNRCC use only.	
Received by Region (Day 1)	
Fee Due:	$
Payment Verified	
Inspection Date:	
Judged administratively ____ Complete ____ Incomplete (Day 60)	
Written Comments Received From City/County: UWCD within 30 Days:	 __ Yes __ No __ Yes __ No
____ Approved (Day 150) ____ Incomplete & Returned	

REVISED

TO

Attach any narrative answers directly behind this page.

Attachment III
Page 1 Of 11

By definition, "Regulated Activity" does not include, in part, "....resurfacing of roads, parking lots, sidewalks, or other development-related impervious surfaces....and/or there is little or no change to the topographic, geologic, or existing recharge features."

I. A ROAD CONSTRUCTION WPAP is required if your proposed road is a:

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

Roads constructed as part of an associated development which requires its own WPAP should be included in the WPAP for that development, for example: roads within residential subdivisions.

II. Modifications to existing roadways requiring prior approval from the TNRCC include:

1. Widening roads/adding shoulders totaling ≥¼ the width of one (1) existing lane.
2. Reconstruction of existing regulated roadways.

III. Modifications to existing roadways that do not require approval from the TNRCC are limited to:

1. Resurfacing of roads.
2. Resurfacing of parking lots.

TO BE REVISED

Attach any narrative answers directly behind this page.

Attachment III
Page 2 Of 11

Do not write in shaded areas - For TNRCC use only

SB NA **SB = Submitted NA = Not Applicable**

☐ ☐ After 1/1/95 contact the appropriate regional office of the Texas Natural Resource Conservation Commission to obtain the latest version of this **ROAD WPAP APPLICATION**.

☐ ☐ 1. Enter Site Address (if assigned), County, City:

City: _____
County: _____

____ This project is **inside** the city **limits** of the City of _____

____ This project is **outside** the city **limits** but **inside** the City of _____ **ETJ** (extra-territorial jurisdiction).

____ This project is outside the city limits, outside the city's ETJ but in _____ County.

☐ ☐ 2. The location of the project site is described below (Example: "NE corner of Bitters & Heimer Roads", "On east side of Heimer Road, ½ mile north of Bitters Road").

_____

_____

_____

TO BE REVISED

☐ ☐ 3. Applicant:

Contact Person: _____
Entity: _____
Mailing Address _____
City, State: _____
Zip: _____
Telephone: _____

Attach any narrative answers directly behind this page.

Attachment IV

Page 3 Of 11

4. **Agent (If any):**

Contact Person: _____
Entity: _____
Mailing Address: _____
City, State: _____
Zip: _____
Telephone: _____

5. **The name of person or entity who will maintain any permanent sedimentation/filtration structures is listed below.**

Contact Person: _____
Entity: _____
Mailing Address: _____
City, State: _____
Zip: _____
Telephone: _____

6. Check the name of the Underground Water Conservation District in the area (if one exists).

_____ Barton Springs/Edwards Aquifer
_____ Edwards Underground
_____ Medina County
_____ Uvalde County
_____ Site is not within an UWCD

7. _____ A **Road Map** is attached behind this sheet showing location of project site and route/mileage from an existing known site or intersection.

8. _____ A copy of the official 7½ minute USGS quadrangle map(s) of the Edwards Recharge Zone is attached behind this sheet. **The map(s) should clearly show:**

1. **Project site.**
2. **USGS Quadrangle Name(s),**
3. **Boundaries of the Recharge Zone (and Transition Zone, if applicable),**
4. **Drainage path from the project to the boundary of the Recharge Zone.**

TO BE REVISED

Attach any narrative answers directly behind this page.

9. The type of project is:

____ 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.

Type of pavement or road surface to be used in this project is:

____ Concrete
____ Asphalt cement
____ Other: _____

Length of R.O.W.:...._____ feet.
Width of R.O.W.:....._____ feet.
L x W = _____ Ft² ÷ 43,560 Ft²/Acre = _____ acres.

Fee Due: $_____ (Max: $2000)

Length of Pavement:..._____ feet.
Width of Pavement:...._____ feet.
L x W = _____ Ft² ÷ 43,560 Ft²/Acre = _____ acres.

(Pavement ÷ R.O.W.) x 100 = _____% impervious cover.

A narrative description of the proposed project is given on the following page under "ITEM #9". It includes the maximum number of vehicles the road is designed to carry per day.

10. The existing conditions on project site are noted below.

The proposed road(s) will cross:

____ Existing commercial sites
____ Existing industrial sites
____ Existing residential sites
____ Existing paved roads
____ Existing unpaved roads
____ Undeveloped (Cleared)
____ Undeveloped (With woods & meadows)
____ Other: _____

Attach any narrative answers directly behind this page.

Attachment III
Page 5 Of 11

11. Municipal solid waste, and/or hazardous waste:

____ There are areas of trash, debris or other municipal solid waste or hazardous waste on this property which will be disposed of properly at an authorized landfill prior to commencing construction.

____ There are no areas of trash, debris or other municipal solid waste or hazardous waste existing on this property.

____ Other Comments. (Described on following page under "ITEM #11"):

12. Wastewater to be generated by proposed project [30 TAC §313.4(b)(A)(ii)].

____ Once complete there will be no wastewater generated by this project (from rest stops, etc.).

____ On-site **septic tanks** will be used to treat and dispose of wastewater. The **appropriate licensing authority's letter is attached directly behind this page.** It states that the land is suitable for the use of a septic tank or identifies areas that are not suitable.

Furthermore, I am aware that the minimum lot size for a septic tank on the Recharge Zone is one (1) acre. Each lot in this project/development is at least one (1) acre in size and the on-site treatment facility will be designed and installed by a licensed sanitarian or engineer.

____ An **organized** sewage collection system (SCS) will convey wastewater from this project off of the Recharge Zone for treatment and disposal at the EXISTING/ PROPOSED (circle one) _____ Sewage Treatment Plant (S.T.P.).

Furthermore, I am aware that an on-site sewage collection system application is required by 30 TAC 313.5 and must be submitted to the TNRCC for review and approval consideration.

TO BE REVISED

Attach any narrative answers directly behind this page.

Wastewater to be generated by each reststop	
Character	Volume
___ % Domestic	_____ gallons/day
___ % Industrial	_____ gallons/day
___ % Commingled	_____ gallons/day
TOTAL	_____ gallons/day

13. A Geologic Assessment is required for all:

1. New TXDOT road project.
2. New county road or roads built to county specifications.
3. New city thoroughfare or road to be dedicated to a municipality.
4. New streets or roads which provides access to private driveways and are not part of another regulated activity or development **AND** will carry more than 1,500 vehicles per day. A geologic assessment for streets or roads designed to carry **less than 1,500** vehicles per day is **not required.**

TO BE REVISED

_____ The Geologic Assessment for the proposed project includes the R.O.W. and all drainage draws for a distance of one mile downgradient of the proposed roadway. The Geologic Assessment is **attached** and it answers all questions on the most current form provided by the TNRCC.

_____ This project is a street or road which provides access to private driveways and is designed to carry less than 1,500 vehicles per day, and a Geologic Assessment is **not required.**

_____ Other comments: (Include on following page under "ITEM #13"):

14. A Site Plan is required. It shall have a minimum scale of 1" = 400'. For road projects exceeding 5 miles the scale of 1" = 2000' may be used for the site plan, and the geologic map scale is not to exceed 1" = 400'.

Site Plan Scale: 1" = _____ feet.

15. The Site Plan shall include the following:

15A. **100-year floodplain's boundaries** which are within the site and 200 feet downgradient.

Attach any narrative answers directly behind this page.

____ Based on FIRM maps (Flood Insurance Rate Maps) less than 10 years old **some part**(s) of this project is located within the 100-year floodplain and is **labeled** on the site plan.

____ Based on a site specific engineering study performed by _____ Engineering Company in _____ (Year) **some part** of this project is located within the 100-year floodplain and is labeled on the site plan.

____ Based on FIRM maps less than 10 years old **no part** of this project is located within the 100-year floodplain.

____ Based on a site specific engineering study performed by _____ Engineering Company in _____ (Year) **no part** of this project is located within the 100-year floodplain.

☐ ☐ 15B.____ **Layout of the roadway(s)** is shown on the site plan.

☐ ☐ 15C.____ **Existing topographic contours** are shown on the site plan. The contour interval is _____ feet (are not greater than 5 feet). The contour lines are clearly **labeled** on the site plan.

☐ ☐ 15D.____ **Finished topographic contours** are shown on the site plan. The contour interval is _____ feet (are not greater than 5 feet). The contour lines are clearly **labeled** on the site plan.

____ Finished topographic contours will **not** be **changed** from the existing topographic configuration and are not shown on the site plan.

☐ ☐ 15E. The locations of **all known wells** (oil, water, unplugged, capped and/or abandoned, test holes, etc.).

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

____ ____ (#) wells are present on the project site and their locations are **labeled** on the Site Plan.

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

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

Attach any narrative answers directly behind this page.

____ The wells are in use and comply with 30 TAC §287.50(a).

15F. **Significant Recharge features** (SRF) which are located within the development or within 200 feet downgradient of the site and in the 5 year floodplain.

____ 1. All recharge features identified in the Geologic Assessment on the project site as being of "low", "moderate", or "high" significance are **labeled** on the **site plan**, and

____ 2. All potential recharge features identified in the Geologic Assessment within one (1) mile downgradient of the project site are **labeled** on the **Downgradient Geologic Map**.

____ According to the Geologic Assessment prepared for this project there are **no potential** recharge features on this project site or within one (1) mile downgradient of the project site.

____ This project is a road or street designed to carry less than 1,500 vehicles per day and a geologic assessment is **not required**.

16. Other Information:

16A. Will there be any temporary hydrocarbons or hazardous substance storage associated with this project?

____ Yes and I am aware that a separate application for Aboveground or Underground hydrocarbon or hazardous substance storage must be submitted pursuant to 30 TAC §313.10/313.11.

____ No

16B. Will there be any permanent hydrocarbons or hazardous substance storage associated with this project?

____ Yes and I am aware that a separate application for Aboveground or Underground hydrocarbon or hazardous substance storage must be submitted pursuant to 30 TAC §313.10/313.11.

____ No

Attach any narrative answers directly behind this page.

16C. Will there be any sewage holding tanks or cesspools? (Do not include septic tanks.)

____ Yes
____ No

16D. Will there be any new feedlot/concentrated animal feeding operations associated with this project?

____ Yes
____ No

16E. Will there be any waste disposal wells regulated under 30 TAC §331 of this title relating to Underground Injection Control?

____ Yes
____ No

16F. Will there be any land disposal of Class I wastes, as defined in 30 TAC §335.1?

____ Yes
____ No

16G. Will there be any land disposal of Municipal Solid Waste as defined in 30 TAC §330?

____ Yes
____ No

17. ____ The following forms are included in the order listed below.

* **THIS FORM**

* **STORM WATER SECTION**

* **GEOLOGIC ASSESSMENT**, if required. See ITEM #13 above.

* **APPLICANT'S SIGNATURE FORM**

18. ____ One (1) original and three (3) copies of the completed application (ITEM #17 above) are required and are attached.

19. This application is being submitted to the appropriate TNRCC Office.

Attach any narrative answers directly behind this page.

____ This is a TXDOT project and is being submitted to the TNRCC's TXDOT liaison in Austin.

____ This is not a TXDOT project. It is located in Bexar, Comal, Kinney, Medina, or Uvalde County and is being submitted to the SAN ANTONIO Regional Office.

____ This is not a TXDOT project. It is located in Hays, Travis or Williamson County and is being submitted to the AUSTIN Regional Office.

20. ____ Pursuant to 30 TAC 313.25, application fees are due and payable at the time the application is filed. The fee has been sent to the Commission's Austin headquarters, accompanied by an Edwards Aquifer Fee Application Form. I understand that if the correct fee is not submitted the commission is not required to consider the application until the correct fee is submitted.

21. ____ I am aware that if money from any Federal Agency (HUD, DOT, Fhwya, SBA, U.S. Army Corps of Engineers, etc.) is used on this project located on the Edwards Aquifer Recharge Zone, that the Clean Water Act requires that a report (environmental site assessment, impact statement, etc.) is to be submitted to the U.S. EPA for review prior to construction.

10 95 revised

The blank spaces I have marked above signify that the information required is hereby provided and that, to the best of my knowledge, it accurately reflects the proposed project. This WPAP application was prepared by:

_____
(Print Name of Applicant/Owner/Agent, etc.)

_____ _____
(Signature of Applicant/Owner/Agent, etc.) Date

Please list any comments or suggestions you may have to improve this application. They will be considered for inclusion in the next edition of this form.

Attach any narrative answers directly behind this page.