TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 25, 2016

Mr. Gary Avants
Avants Texas Properties, LLC
1091 Founders Boulevard, Suite D
Athens, Georgia 30606

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: Zaxby's Restaurant; Located at the northwest corner of the intersection of Hwy 46 and Oak Run Parkway; New Braunfels, Texas

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

Regulated Entity No. RN109010033; Additional ID No. 13000176

Dear Mr. Avants:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP modification for the above-referenced project submitted to the San Antonio Regional Office by Carter Engineering Consultants, Inc. on behalf of Avants Texas Properties, LLC on June 22, 2016. Final review of the WPAP modification was completed after additional material was received on August 8, 2016 and August 12, 2016. 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.*

BACKGROUND

The CVS Pharmacy 10947 WPAP was approved by letter dated April 6, 2016, for a commercial project with an area of approximately 2.79 acres (Lot 1 and Lot 2) with 1.68 acres (60.21 percent) of impervious cover. The project included the construction of a commercial building with associated parking lots, sidewalks, drainage and utilities on Lot 1. Two Storm Trooper systems were proposed as permanent BMPs.

PROJECT DESCRIPTION

This WPAP modification proposes the construction of a Zaxby's restaurant and associated parking on Lot 2 of the previously approved WPAP. Proposed impervious cover now totals 2.10 acres (75.26 percent). Project wastewater will be disposed of by conveyance to the existing Gruene Road Wastewater Treatment Plant owned by the New Braunfels Utilities.

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, two Storm Trooper model SWST-110 systems, 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 is 1,885 pounds of TSS generated from a total of 2.10 acres of impervious cover. The provided TSS treatment is 1,953 pounds. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project. See the summary table below.

BMP	Development Treated	Impervious Area (acres)	TSS Removal Provided (lbs/yr)
Area 1 Storm Trooper (Lot 1)	CVS	1.00	
Area 1 Storm Trooper (Lot1)	Zaxby's	0.07	
		TOTAL: 1.07	991
Area 2 Storm Trooper (Lot2)	CVS	0.68	
Area 2 Storm Trooper (Lot 2)	Zaxby's	0.35	
		TOTAL: 1.03	962

GEOLOGY

According to the geologic assessment included with the application, the site is located on the Edwards Group. No geologic or manmade features were noted by the project geologist. The San Antonio Regional Office site assessment conducted on August 18, 2016 revealed that the site was generally as described in the application.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated April 6, 2016.

II. The permanent pollution abatement measures shall be operational prior to first occupancy of the facility.

III. All sediment and/or media removed from the permanent pollution abatement measures during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

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.

During Construction:

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 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.
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 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 Dianne Pavlicek-Mesa, P.G., of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210-403-4074.

Sincerely,

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

LB/DPM/eg

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

cc: Mr. Jeff Carter, P.E., Carter Engineering Consultants, Inc.
Mr. Robert Camareno, City of New Braunfels
Mr. Thomas H. Hornseth, P.E., Comal County Engineer
Mr. Roland Ruiz, Edwards Aquifer Authority
Mr. George Wissmann, Comal Trinity Groundwater Conservation District
TCEQ Central Records, Building F, MC 212

CARTER
ENGINEERING
CONSULTANTS

COMMENT REVIEW CHECKLIST AND RESPONSE

Comments Received:	08/09/16	Project Name:	Zaxby's	Addressed By:	Jeff Carter
Municipality:	City of New Braunfels	Project Number:	13000176	Submitted To:	Dianne Pavlicek-Mesa

Municipality Comment:		Carter Engineering Response:
Section:	Item No.	
	1	
	2	Per discussion with Dianne Pavlicek-Mesa, the calculations equal 2.1 acres. 0.68 acres (existing) + 1.00 acres (existing) + 0.36 acres (new) + 0.07 acres (new) = 2.1 acres Please see the attached Exhibit C.
	3	Please see the attached authorization letter.
	4	Please see the attached TCEQ Core Data Form.

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REC'D
AUG 12 2016
Region 13

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Fax Cover Sheet

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Number of Pages: 2
(including this sheet)

Date: August 9, 2016
To: Jeff Carter, P.E.
Organization: Carter Engineering Consultants, Inc.
Fax: jeff@carterengineering.net

To: Gary Avants
Organization: Avants Texas Properties, LLC
Fax: garya@avantsmgmt.com

From: Dianne Pavlicek-Mesa, P.G.
Division : Edwards Aquifer Protection Program – San Antonio Region
Texas Commission on Environmental Quality
Phone: 210-403-4074
Fax: 210-545-4329

Re: Edwards Aquifer, Comal County

Name of Project: Zaxby's Restaurant; Located on the northwest corner of Hwy 46 and Oak Run Parkway intersection; New Braunfels, Texas

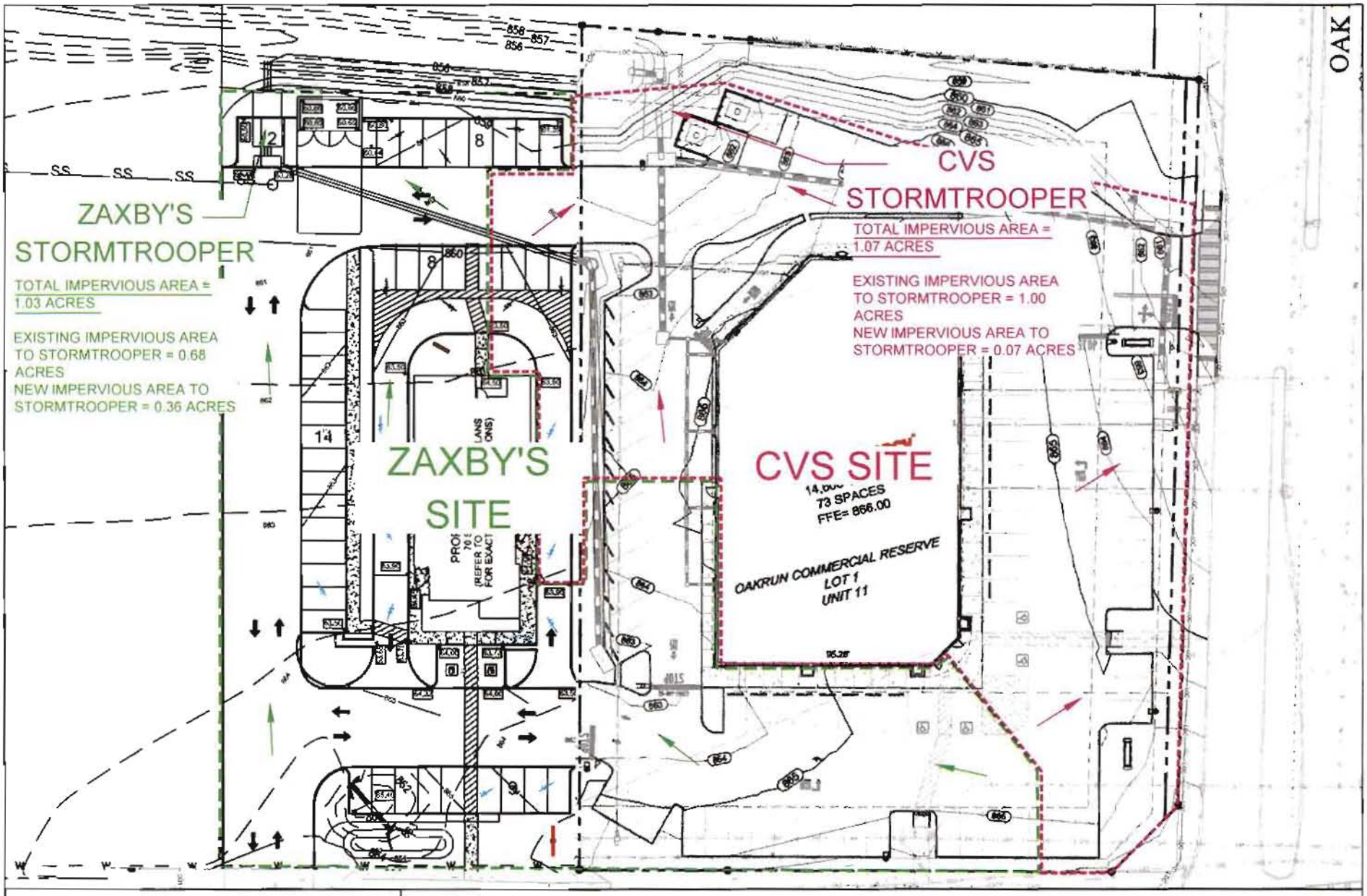
Plan Type: Request for the Modification of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213

San Antonio File No. 13000176

Dear Mr. Carter:

We are in the process of technically reviewing the WPAP Modification you submitted on the above-referenced project. Before we can proceed with our review, the following comments relating to the application must be addressed.

1. Thank you for your response to NOD1.
2. Please note that Exhibit A shows 0.68 acres and 1.00 acres of existing impervious cover and Exhibit B shows 0.07 acres of new impervious cover. 1.00 + 0.68 + 0.07 = 1.75, not 2.10 acres. Also note that the StormTrooper calculations show Drainage Basin A with 1.07 acres of impervious cover and Drainage Basin B with 1.03 acres of impervious



Carter Engineering Consultants, Inc.
3651 Mars Hill Road, Suite 2000
Watkinsville, GA 30677

P: 770.725.1200
F: 770.725.1204
www.carterengineering.net

EXHIBIT "C"
TOTAL IMPERVIOUS AREA

SCALE: 1"=50'

NewB, LLC
116 Jefferson St., S.
Suite 204
Huntsville, AL 35801

August 4, 2016

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program - San Antonio Region

Re: San Antonio File No. 13000176

To whom it may concern:

NewB, LLC, an Alabama limited liability company dba NewB AL, LLC, in Texas ("NewB"), as the current owner of the Property (defined below), does hereby authorize and appoint **Gary Avants of Avants Texas Properties, LLC** ("Avants") as its agent with the right to represent NewB with regard to the construction of a 3,652 square foot Zaxby's restaurant with associated parking and utilities (the "Project") upon the property located at the northwest corner of Hwy 46 and Oak Run Parkway in New Braunfels, Texas, as more particularly described in the attached Exhibit "A" (the "Property") in matters before and/or involving the Texas Commission on Environmental Quality ("TCEQ"), and NewB further authorizes TCEQ to share any and all information about said Property and/or the Project with Avants. Avants has or will have upon its acquisition of fee simple interest in the Property the right to control and possess the Property and the authorization to construct the Project upon the Property.

Sincerely,

NewB, LLC,
an Alabama limited liability company

By: Sally Pamblett

Its: Managing member

cc: File

EXHIBIT "A"

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METES AND BOUNDS DESCRIPTION OF PROPOSED LOT 2, BLOCK 1 OAKRUN COMMERCIAL RESEARVE 11B

(NOT YET FILED AT TIME OF DESCRIPTION)

BEING a 1.0804 acre tract of land located in the San Antonio & Mexican Gulf Railroad Company Survey, Abstract No. 586, City of New Braunfels, Comal County, Texas, said 1.0804 acre tract of land being a portion of **LOT 1, BLOCK 1, OAK RUN COMMERCIAL RESERVE – UNIT 11A,** being an Addition to the said City and State, according to the plat thereof filed for record in Comal County Clerk's Instrument No. 201506001838, O.P.R.C.C.T., said 1.0804 acre tract of land also being a portion of those certain tracts of land conveyed to **NEWB LLC**, by deed as recorded in Comal County Clerk's Instrument No. 201506044596 and 201606000859, O.P.R.C.C.T., said 1.0804 acre tract of land being more particularly described by metes and bounds as follows:

BEGINNING at a "X" cut found on the south lot line of said Lot 1, same being the north right of way line of U.S. Highway 46, being a variable width public right-of-way at this point, said "X" cut found being located North 76°30'14" West, a distance of 58.25 feet from a 1/2" iron rod found at the southeast property corner of the said NEWB LLC tract (Ins. 201606000859);

THENCE North 76°30'04" West, along the said south lot line of Lot 1 and along the said north right-of-way line, at 121.44 feet passing the southwest lot corner of said Lot 1, continuing along the south property line of the said NEWB LLC tracts and along the said right-of-way line in all a total distance of 139.32 feet to a 5/8" iron rod found stamped "SPOONER & ASSOC";

THENCE North 13°32'05" East, departing the said property line and said right-of-way line, over and across the said NEWB LLC tracts, at 340.87 feet passing a 5/8" iron rod found with cap stamped "SPOONER & ASSOC" found, continuing in all a total distance of 343.87 feet to the north property line of the said NEWB LLC tracts;

THENCE South 71°32'04" East, along the said north property line, 139.85 feet to the northeast property corner of the said NEWB LLC tract (Ins. 201606000859);

THENCE South 13°32'05" West, along the east property line of the said NEWB LLC tract (Ins. 201606000859) at 3.00 feet passing a 5/8" iron rod found with cap stamped "SPOONER & ASSOC" found, continuing in all a total distance of 331.76 feet to the **POINT OF BEGINNING**;

The hereinabove described tract of land contains a computed area of **1.0804 acres (47,064 square feet)** of land, more or less.

NOTE: The basis of bearings for this survey is the Texas State Plane NAD83 South Central Zone (4204).

I do hereby certify that the above legal description was prepared from public records and from an actual and accurate survey upon the ground and that the same is true and correct.

Eric S. Spooner, RPLS
Registered Professional Land Surveyor
Texas Registration Number 5922
TBPLS Firm No. 10054900

8-3-16

SPOONER AND ASSOCIATES, INC, 309 BYERS STREET, #100, EULESS, TEXAS 76039 – PH. 817-885-8448 – ESPOONER@SPOONERSURVEYORS.COM – S&A #16-031

TCEQ Core Data Form

TCEQ Use Only

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

SECTION II: Customer Information

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

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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

6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John)	If new Customer, enter previous Customer below:
NEWB, LLC	

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0802315219	32058598775	475294875	

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

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

12. Number of Employees ☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated? ☒ Yes ☐ No

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

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

15. Mailing Address:								
	116 Jefferson Street S.							
	Suite 202							
	City	Huntsville	State	AL	ZIP	35801	ZIP + 4	8811

16. Country Mailing Information (if outside USA)	17. E-Mail Address (if applicable)
	sally@fivestardevelopment.net

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(256) 532 - 1081		(256) 532 - 1083

SECTION III: Regulated Entity Information

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

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

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

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

ZAXBY'S RESTAURANT

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

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	NW corner of Highway 46 and Oak Run Parkway		
26. Nearest City		State	Nearest ZIP Code
New Braunfels		TX	78132

27. Latitude (N) In Decimal:	29°43'12.06"N		28. Longitude (W) In Decimal:	98° 9'52.72"W	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
5814		722513	

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33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)
Zaxby's Restaurant with drive-thru

34. Mailing Address:	1091 Founders Boulevard						
	Suite D						
	City	Athens	State	GA	ZIP	30606	ZIP + 4	6177

35. E-Mail Address:	garya@avantsmgmt.com

36. Telephone Number	37. Extension or Code	38. Fax Number (if applicable)
(706) 316 - 9888		( ) -

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

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
		13000086		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name: Sally Lambert			41. Title: Member
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(256) 532 - 1081		(256) 532 - 1083	sally@fivestardevelopment.net

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	NEWB. LLC	Job Title:	Managing Member
Name(*In Print*):	Sally Lambert	Phone:	(256) 532 - 1081
Signature:	Sally Lambert	Date:	8/10/2016

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 22, 2016

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JUN 29 2016

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: Zaxby's Restaurant, located on the northwest corner of Highway 46 and Oak Run Parkway, New Braunfels, Texas

PLAN TYPE: Application for Approval of a Water Pollution Abatement Plan (WPAP) 30 Texas Administration Code (TAC) Chapter 213; Edwards Aquifer Protection Program

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. More information regarding this project may be obtained from the TCEQ Central Registry website at http://www.tceq.state.tx.us/permitting/central_registry/.

Please forward your comments to this office by July 22, 2016.

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

Todd Jones, Water Section Work Leader
San Antonio Regional Office

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TCEQ-R13
JUN 22 2016
SAN ANTONIO

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

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

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

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

Technical Review

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

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.
3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or if not withdrawn the application will be denied and the application fee will be forfeited.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

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

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

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

- You can withdraw your application, and your fees will be refunded or credited for a resubmittal.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

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

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

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

1. Regulated Entity Name: Zaxby's Restaurant						**2. Regulated Entity No.:**			
3. Customer Name: Avants Texas Properties, LLC						**4. Customer No.:**			
5. Project Type: (Please circle/check one)	New		Modification ✓			Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP ✓	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		Non-residential ✓			**8. Site (acres):**			1.08
9. Application Fee:	$3,000.00		**10. Permanent BMP(s):**						
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**						
13. County:	Comal		**14. Watershed:**					Middle Guadalupe	

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	—	—	—
Region (1 req.)	—	—	—
County(ies)	—	—	—
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __Georgetown __Jerrell __Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	✓Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park __San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge ✓New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Jeff Carter

Print Name of Customer/Authorized Agent

Signature of Customer/Authorized Agent

6/10/2016

Date

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

RECEIVED

JUN 29 2016

COUNTY ENGINEER

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jeff Carter

Date: 6/10/2016

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: Zaxby's Restaurant
2. County: Comal
3. Stream Basin: Blieders Creek
4. Groundwater Conservation District (If applicable): _____
5. Edwards Aquifer Zone:
   - ☑ Recharge Zone
   - ☐ Transition Zone
6. Plan Type:
   - ☐ WPAP
   - ☐ SCS
   - ☑ Modification
   - ☐ AST
   - ☐ UST
   - ☐ Exception Request

7. Customer (Applicant):

Contact Person: Gary Avants
Entity: Avants Texas Properties, LLC
Mailing Address: 1091 Founders Boulevard, Suite D
City, State: Athens, GA Zip: 30606
Telephone: 706-316-9888 FAX: _____
Email Address: garya@avantsmgmt.com

8. Agent/Representative (If any):

Contact Person: Jeff Carter
Entity: Carter Engineering Consultants, Inc.
Mailing Address: 3651 Mars Hill Road, Suite 2000
City, State: Watkinsville, GA Zip: 30677
Telephone: 770-725-1200 FAX: 770-725-1204
Email Address: jeff@carterengineering.net

9. Project Location:

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

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

NW corner of Highway 46 and Oak Run Parkway

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

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

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

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

☑ Survey staking will be completed by this date: 6/1/2016

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

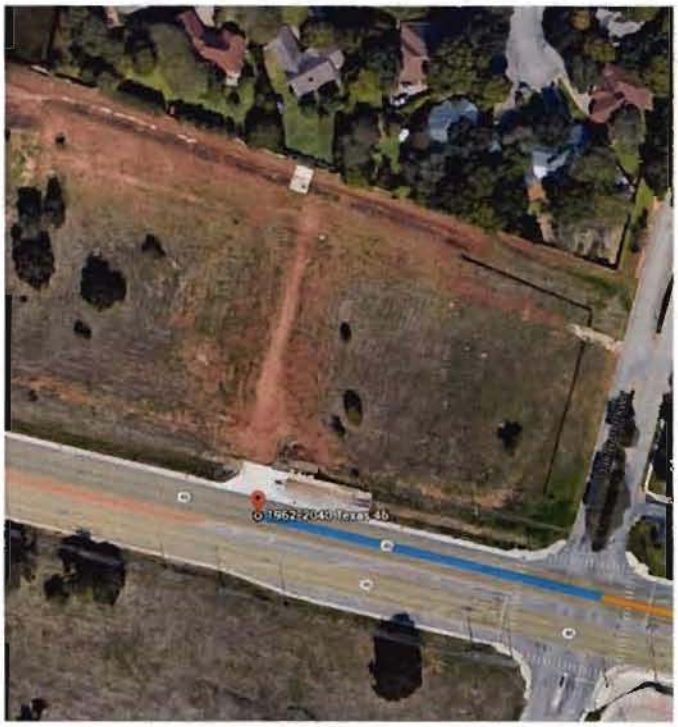
19. [x] Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

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

20. [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.

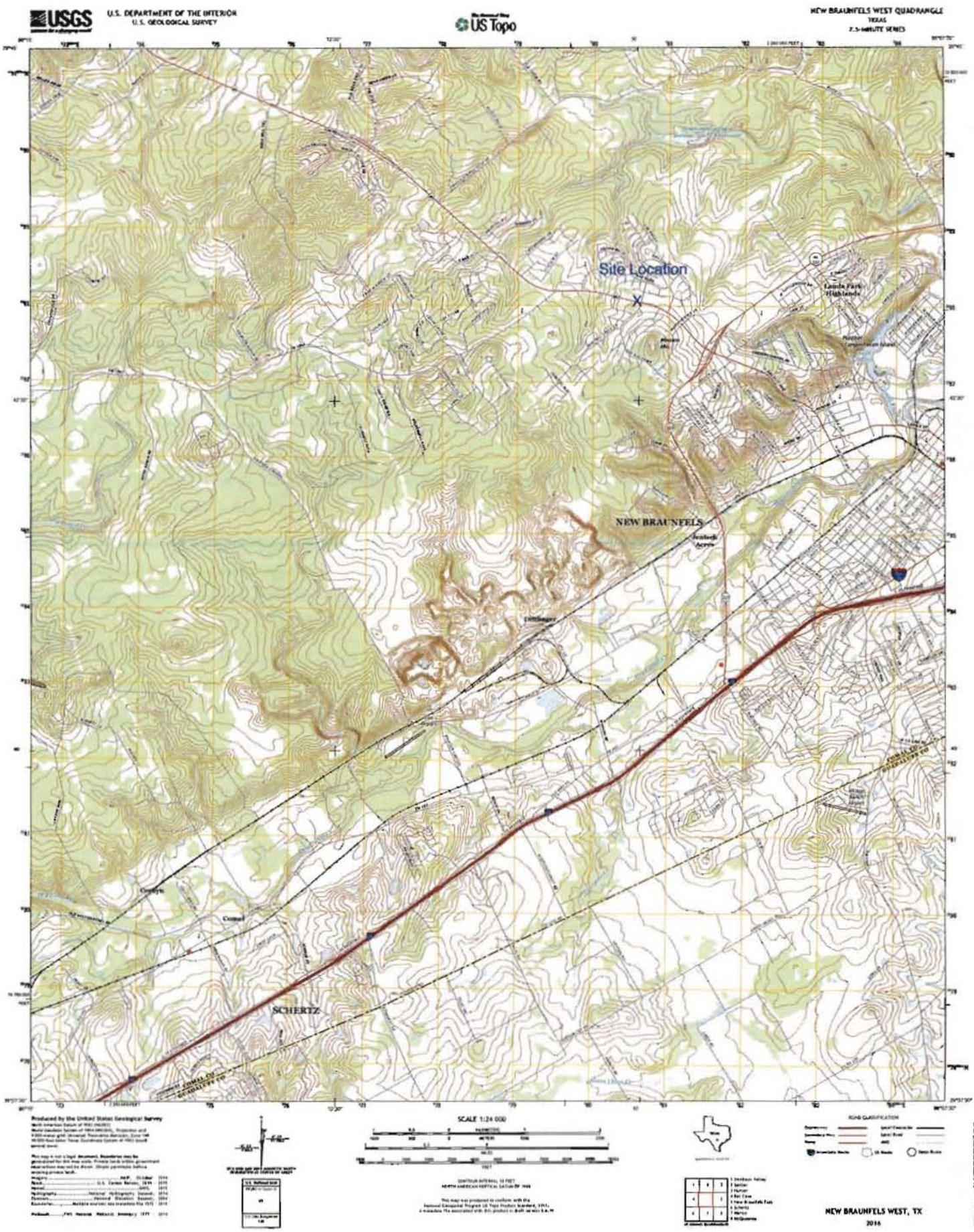
21. [x] No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Road Map



Directions to Zaxby's Restaurant on Oak Run Parkway:

1. From San Antonio, take I-35 N toward Austin
2. Take exit 184 toward TX-337 Loop
3. Turn left onto TX-337 Loop
4. Use the right lane to take the TX-46 W/TX-46 BUS ramp to Boerne/New Braunfels
5. Turn left onto TX-46 E/State Spur 453/N Walnut Ave
6. Once you cross Oak Run Parkway, the Zaxby's Restaurant site will be on the right; approximately 0.9 miles after left turn onto TX-46.


USGS
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
US Topo
NEW BRAUNFELS WEST QUADRANGLE
TEXAS
7.5-MINUTE SERIES
Site Location
NEW BRAUNFELS
SCHERTZ
Produced by the United States Geological Survey
SCALE 1:24 000
NEW BRAUNFELS WEST, TX
2016

CARTER
ENGINEERING
CONSULTANTS

Project Narrative

For

Zaxby's Restaurant

Edwards Aquifer Permit No.13000086

NW Corner of Hwy 46 & Oak Run Parkway
New Braunfels, Texas

May 1, 2016

3651 Mars Hill Road Suite 2000 Watkinsville, GA 30677 www.carterengineering.net P:770.725.1200 F:770.725.1204

Narrative

The site is located at the NW Corner of Highway 46 and Oak Run Parkway in New Braunfels, Texas. An Edwards Aquifer Permit was issued on April 6, 2016 to NEWB, LLC for a CVS Pharmacy. The total land area permitted is 2.79 acres with 1.68 of impervious area. This land area includes two separate commercial properties. The CVS Pharmacy is currently under construction on the corner parcel and the adjoining parcel includes infrastructure installation for future development. The infrastructure includes a curb cut and drive aisles around the property creating a building pad for future development. The infrastructure includes the installation of two storm trooper permanent BMP's. One on the CVS parcel and the other on the future building pad development. Please refer to the attached CVS site plan that demonstrates the existing impervious area on site.

The purpose of this application is to modify the original permit. The parcel adjacent to the CVS Pharmacy will be a Zaxby's Restaurant and will utilize the infrastructure associated with the original permit. There will be additional impervious area as a result of the development of this parcel. The increased impervious area is summarized on the following pages and has been routed through the previously mentioned BMP's to ensure that the minimum requirements are satisfied. The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMP's is 1953 pounds.

The proposed modification is consistent with the Texas Commission on Environmental Quality requirements.

CARTER
ENGINEERING
CONSULTANTS

Project Narrative

For

Zaxby's Restaurant

Edwards Aquifer Permit No.13000086

NW Corner of Hwy 46 & Oak Run Parkway
New Braunfels, Texas

May 1, 2016

3651 Mars Hill Road Suite 2000 Watkinsville, GA 30677 www.carterengineering.net P:770.725.1200 F:770.725.1204

Edwards Aquifer Permit 13000086

Impervious Area Summary

Permitted Impervious Area	1.68	AC
Modified Impervious Area	2.10	AC

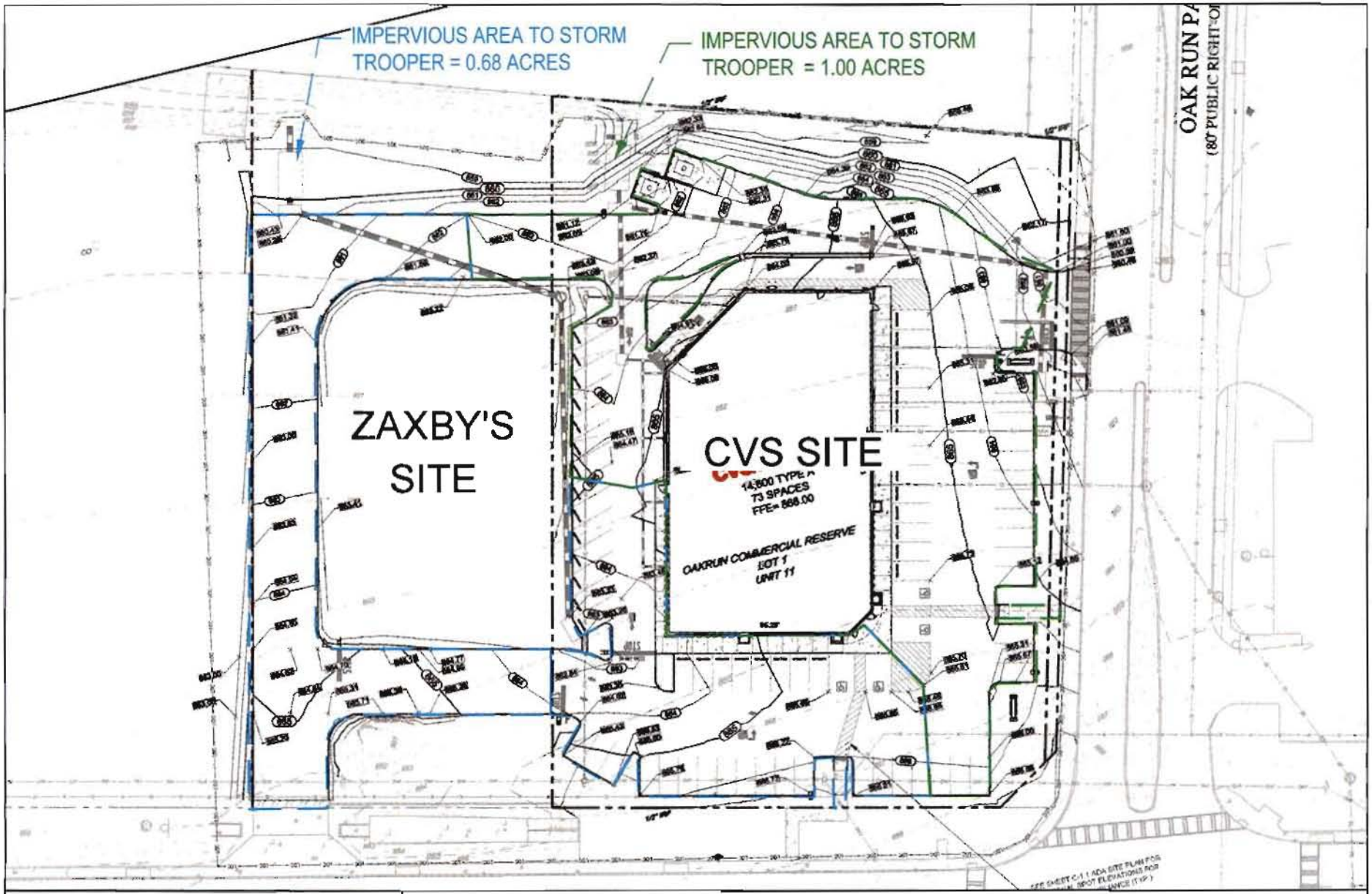
Impervious Area Summary

CVS Storm Trooper (East Lot)

CVS Development	1.00	AC
Zaxbys Development	0.07	AC
New Total	1.07	AC

Zaxby's Storm Trooper

CVS Development	0.68	AC
Zaxbys Development	0.35	AC
New Total	1.03	AC



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Watkinsville, GA 30677

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F: 770.725.1204
www.carterengineering.net

EXHIBIT "A"

EXISTING PERMITTED IMPERVIOUS AREA

SCALE: 1"=60'

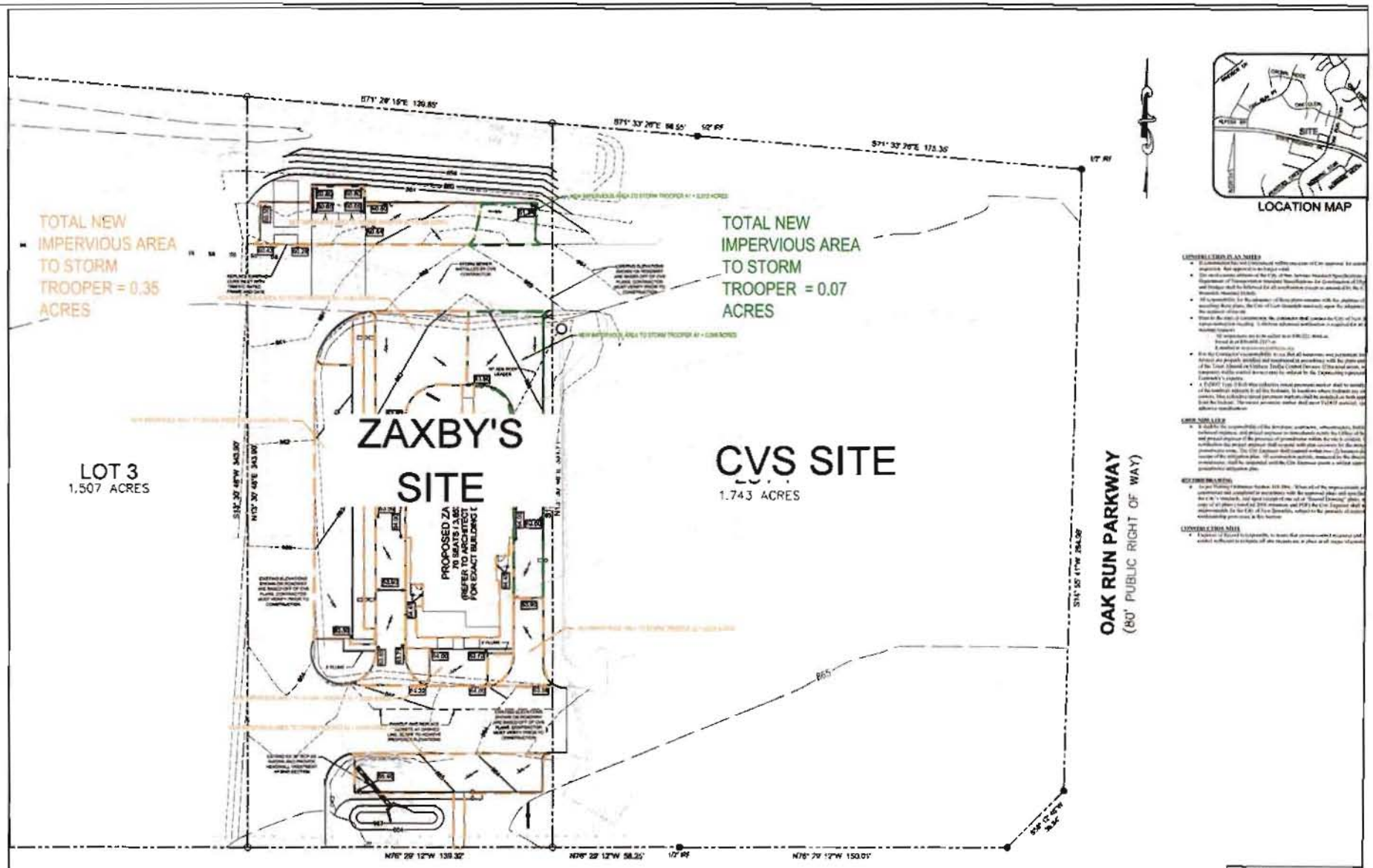

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EXHIBIT "B"

NEW IMPERVIOUS AREA

SCALE: 1"=60'

Texas Commission on Environmental Quality
TSS Required Load Reduction Calculations

Project Name: Hwy 46 & Oak Run
Project Location: New Braunfels, TX
Date Prepared: 6/1/2016
Prepared For: Jeff Carter

$Lm = 27.2(AN \times P)$

where:
Lm = Required TSS removal
An = Net increase in impervious area for site
P = Average annual precipitation, inches

Site Data:
County = Comal
Stormwater Quality Structure = **Wet Vault**
Total site area = 2.97 acres
Pre-development impervious area = 0.00 acres
Post-development impervious area = 2.100 acres
Post-development impervious fraction = 0.71
P = 33 inches

Lm = **1885** lbs. Total Project Required Removal

Drainage Basin	Area	Total Area	Impervious Cover	Impervious Area	Pre-Dev. Impervious Cover	A_n for Drainage Area	Runoff Coef. (C)	Pervious Area	Runoff Coef. (C)	Composite Runoff Coef. (C)	**Effective Area**	Intensity (I)	Calculated Flow (Q)	Required Pollutant Removal	StormTrooper Model	Unit Surface Area	By-Pass Flowrate	Intensity Treated	Fraction of Flow Treated (F)	F/0.9	Overflow Rate (ft/s)	Removal Effeciency	Actual Effeciency	Load Reduction (L_R)
	[ID]	[ac]	[%]	[ac]	[ac]	[ac]		[ac]			(ac)	[in/hr]	(cfs)	L_m in [lbs]	#	(sf)	(cfs)	[in/hr]	Figure 3-11]			[Figure 3-10]		(lbs)
A	1	1.19	89.9%	1.07	0.00	1.07	0.9	0.12	0.03	0.81	0.97	1.1	1.06	960	110	913	8.91	1.10	0.90	1.00	1.16E-03	81%	81%	991
B	2	1.69	60.9%	1.03	0.00	1.03	0.9	0.66	0.03	0.56	0.95	1.1	1.04	925	110	913	8.91	1.10	0.90	1.00	1.14E-03	81%	81%	962
C	3			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
D	4			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
E	5			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
F	6			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
G	7			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
H	8			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
I	9			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
J	10			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
K	11			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
L	12			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
M	13			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
N	14			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0

Total TSS Removed by BMP's Annually = 1953
1885

Sufficient Removal = Yes

STORMTROOPER

Model	S.A.	By-Pass	E.A. @ 80%
5	100	420	< 0.13
10	149	600	0.14 - 0.20
20	248	1000	0.21 - 0.33
25	369	1440	0.34 - 0.50
40	588	2250	0.51 - 0.79
70	730	2720	0.80 - 0.98
110	913	4000	0.99 - 1.23

E.A. = (Imp. x 0.9 + Perv. x 0.03)
100% Impervious Acres Treated/Single Unit
0.14 Acres
0.22 Acres
0.37 Acres
0.56 Acres
0.88 Acres
1.09 Acres
1.37 Acres

Texas Commission on Environmental Quality
TSS Removal Calculations

AREA 1	DRAINAGE BASIN A

TOTAL SITE DETAILS

Project Name: Hwy 46 & Oak Run
Project Location: New Braunfels, TX
Date Prepared: 6/1/2016
Prepared By: Jeff Carter
Total Project Area to be Treated = 2.97
Pre-Development Impervious Area = 0.00
Post-Development Impervious Area = 2.10
Composite Run-Off Coefficient = 0.71
Required TSS Removal L_m = 1885
County = Comal

STEP ONE: Required TSS Removal

EQUATION 3.3
$L_m = 27.2(A_n \times P)$
L_m = Required TSS Removal (pounds)
A_n = Net Increase in Impervius Area (acres)
P = Average Annual Precipitation (inches)

Drainage Basin =	1.19	Acres
Pre-Dev. Imp. Area =	0.00	Acres
Post-Dev. Imp. Area =	1.07	
Pervious Area =	0.12	Acres
P =	33	Inches
L_m =	960	Lbs

STEP TWO: Select an Appropriate BMP

Effective Area =	0.97	EA = (Ai x 0.9) + (Ap x 0.03)
StormTrooper SWAQ_	110	
Unit Surface Area =	913	Sq. Ft.

STORMTROOPER

Model	E.A. @ 80%
5	< 0.13
10	0.14 - 0.20
20	0.21 - 0.33
25	0.34 - 0.50
40	0.51 - 0.79
70	0.80 - 0.98
110	0.99 - 1.23

EQUATION 3.4
Q = CiA, where:

C =	0.81	Composite Run-Off Coefficient
i =	1.10	Stormwater Quality Intensity
A =	1.19	Drainage Basin Acreage
Q =	1.06	Required Treatment Flow

EQUATION 3.5
V_{OR} = Q/A, where:

Q =	1.06	Required Treatment Flow
A =	913	Unit Surface Area
V_{OR} =	1.16E-03	Overflow Rate
BMP Effeciency =	81%	

STEP THREE: Calculate Fraction of Annual Runoff to be Treated

Unit By-Pass Flowrate =	8.91	cfs
Treated Intensity =	1.10	in/hr
Annual Volume Treated =	90%	Volume of Run-Off Entering Unit
Treatment Reduction =	1.00	BMP Effeciency Reduction Factor
Actual BMP Effeciency =	81%	

STEP FOUR: Calculate TSS Load Removed by BMPs

EQUATION 3.8
$L_r = (\text{BMP Efficiency}) \times P \times (A_i \times 34.6 + A_p \times 0.54)$
L_r = Load Removed by BMP
BMP Efficiency = TSS Removal Efficiency
A_i = Impervious Tributary Area to the BMP (ac)
A_p = Pervious Tributary Area to the BMP (ac)

A_i = 1.07
A_p = 0.12

L_r = 991 lbs

Texas Commission on Environmental Quality
TSS Removal Calculations

AREA 2	DRAINAGE BASIN	B

TOTAL SITE DETAILS	
Project Name:	Hwy 46 & Oak Run
Project Location:	New Braunfels, TX
Date Prepared:	6/1/2016
Prepared By:	Jeff Carter
Total Project Area to be Treated =	2.97
Pre-Development Impervious Area =	0.00
Post-Development Impervious Area =	2.10
Composite Run-Off Coefficient =	0.71
Required TSS Removal L_m =	**1885**
County =	Comal

STEP ONE: Required TSS Removal

EQUATION 3.3

$L_m = 27.2(A_n \times P)$

L_m = Required TSS Removal (pounds)

A_n = Net Increase in Impervius Area (acres)

P = Average Annual Precipitation (inches)

Drainage Basin =	1.69	Acres
Pre-Dev. Imp. Area =	0.00	Acres
Post-Dev. Imp. Area =	1.03	
Pervious Area =	0.66	Acres
P =	33	Inches
L_m =	925	Lbs

STEP TWO: Select an Appropriate BMP

Effective Area =	0.95	EA = (Ai x 0.9) + (Ap x 0.03)
StormTrooper SWAQ_	110	
Unit Surface Area =	913	Sq. Ft.

STORMTROOPER	
Model	**E.A. @ 80%**
5	< 0.13
10	0.14 - 0.20
20	0.21 - 0.33
25	0.34 - 0.50
40	0.51 - 0.79
70	0.80 - 0.98
110	0.99 - 1.23

EQUATION 3.4

Q = CiA, where:

C =	0.56	Composite Run-Off Coefficient
i =	1.10	Stormwater Quality Intensity
A =	1.69	Drainage Basin Acreage
Q =	1.04	Required Treatment Flow

EQUATION 3.5

V_{OR} = Q/A, where:

Q =	1.04	Required Treatment Flow
A =	913	Unit Surface Area
V_{OR} =	1.14E-03	Overflow Rate
BMP Effeciency =	81%	

STEP THREE: Calculate Fraction of Annual Runoff to be Treated

Unit By-Pass Flowrate =	8.91	cfs
Treated Intensity =	1.10	in/hr
Annual Volume Treated =	90%	Volume of Run-Off Entering Unit
Treatment Reduction =	1.00	BMP Effeciency Reduction Factor
Actual BMP Effeciency =	81%	

STEP FOUR: Calculate TSS Load Removed by BMPs

EQUATION 3.8

$L_r = (\text{BMP Efficiency}) \times P \times (A_i \times 34.6 + A_p \times 0.54)$

L_r = Load Removed by BMP

BMP Efficiency = TSS Removal Efficiency

A_i = Impervious Tributary Area to the BMP (ac)

A_p = Pervious Tributary Area to the BMP (ac)

A_i = 1.03

A_p = 0.66

L_r = 962 lbs

JUN 27 2016

COUNTY ENGINEER

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jeff Carter

Date: 6/10/2016

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: Zaxby's Restaurant
   Original Regulated Entity Name: _____
   Regulated Entity Number(s) (RN): _____
   Edwards Aquifer Protection Program ID Number(s): 13000086
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☑ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☑ **Attachment A: Original Approval Letter and Approved Modification Letters.** A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☐ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☑ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☑ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	2.79	2.79
Type of Development	Commercial	Commercial
Number of Residential Lots	0	0
Impervious Cover (acres)	1.68	2.10
Impervious Cover (%	60.2	75.3
Permanent BMPs	Storm trooper system	Storm trooper system
Other		

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet		
Pipe Diameter		
Other		

AST Modification Summary	*Approved Project*	*Proposed Modification*
Number of ASTs	____	____
Volume of ASTs	____	____
Other	____	____

UST Modification Summary	*Approved Project*	*Proposed Modification*
Number of USTs	____	____
Volume of USTs	____	____
Other	____	____

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

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

7. ☑ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage. (IMPERVIOUS AREA HAS INCREASED)
   ☐ Acreage has not been added to or removed from the approved plan.

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 6, 2016

Ms. Sally Lambert
NewB, LLC
200 Office Park Drive
Birmingham, AL 35223

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: CVS Pharmacy 10947; Located at 1910 Highway 46, northwest corner of Highway 46 and Oak Run Parkway, New Braunfels, Texas

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

Regulated Entity ID: RN109010033; Additional ID No.: 13000086

Dear Ms. Lambert:

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 Foresite Group, Inc. on behalf of NewB, LLC on January 29, 2016. Final review of the WPAP was completed after additional material was received on March 24, 2016 and March 31, 2016. 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 2.79 acres. It will include the construction of a commercial building with associated parking lots, sidewalks, drainage, and

utilities. The impervious cover will be 1.68 acres (60.2 percent). Project wastewater will be disposed of by conveyance to the existing Gruene Wastewater Treatment Plant owned by New Braunfels Utilities.

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, two (2) Storm Trooper systems, 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 1,508 pounds of TSS generated from the 1.68 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The two storm troopers are Park USA SWAQ-110 models with a capacity of 11,000 gallons each. Both storm troopers are designed to receive and treat stormwater runoff on a gravity-flow of approximately 9.30 cfs/ 4,175 gpm. The TSS removal provided by the two systems is 2,004 pounds.

GEOLOGY

According to the geologic assessment included with the application, the project site is located on the Georgetown Formation. Three (3) non-sensitive manmade features and one (1) non-sensitive geologic feature were identified by the project geologist. The San Antonio Regional Office site assessment conducted on March 29, 2016 revealed the site generally as described in the application.

SPECIAL CONDITION

All permanent pollution abatement measures shall be operational prior to first 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.

During Construction:

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 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 Ms. Lillian Butler of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210) 403-4026.

Sincerely,

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

LB/LB/eg

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

cc: Mr. John B. Rhodes, P.E., Foresite Group
Mr. Robert Camareno, City of New Braunfels
Mr. Thomas H. Hornseth, P.E., Comal County
Mr. Roland Ruiz, Edwards Aquifer Authority
Mr. George Wissmann, Comal Trinity GW Conservation District
TCEQ Central Records, Building F, MC 212

GENERAL NOTES:

1) ALL SPOT ELEVATIONS SHOWN ARE AT THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

2) ALL PROPOSED SIDEWALKS SHALL BE BUILT WITH A 1.5% CROSS-SLOPE AWAY FROM THE BUILDING.

3) ALL HEAD WALL SECTIONS SHALL BE CONSTRUCTED TO BE FLUSH WITH THE EXISTING DITCH BANK AND PROPOSED EMBANKMENT SLOPES.

SITE NOTES:

1) THE CONTRACTOR SHALL CLEAN OUT ACCUMULATED SILT IN STORM WATER CONVEYANCE CHANNELS AND PIPES AT END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.

2) COORDINATE WITH THE CITY OF NEW BRAUNFELS INSPECTIONS DURING CONSTRUCTION.

3) NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED.

4) CONSTRUCT EROSION CONTROL BARRIERS PER THE CITY OF NEW BRAUNFELS INSPECTOR AND MAINTAIN UNTIL PERMANENT VEGETATION IS ESTABLISHED.

5) THE CONTRACTOR SHALL RE-ESTABLISH ALL RIGHT OF WAY AREA WHICH IS DAMAGED OR DISTURBED TO ORIGINAL CONDITIONS OR BETTER DURING AUTHORIZED WORK. ALL WORK IN THE CITY OF NEW BRAUNFELS RIGHT OF WAY SHALL COMPLY WITH GDOT SPECIFICATIONS.

6) ALL CURBED LANDSCAPE ISLANDS SHALL BE FILLED TO TOP OF CURB WITH TOPSOIL AND SEEDED.

7) MAXIMUM CUT OR FILL SLOPES IS 2H:1V

8) TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING ACTIVITIES.

9) ALL PLASTIC STORM PIPE SHOWN ON THIS PLAN SHALL BE WRAPPED WITH LOCATION WIRE AND TAPE.

10) ALL CMP STORM PIPE SHALL BE TYPE 2 ALUMINIZED. ALL HDPE SHALL BE AASHTO TYPE "S" AND SHALL BE INSTALLED IN ACCORDANCE TO ASTM D2321 OR AASHTO SECTION 30 STANDARD PRACTICES AND AS RECOMMENDED BY THE MANUFACTURER. ALL RCP STORM PIPE SHALL BE CLASS III.

11) IN ALL AREAS OF FILL OR OTHERWISE DISTURBANCE OF EXISTING CONDITIONS, UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL FULLY AND COMPLETELY REMOVE AND LEGALLY DISPOSE OFF-SITE, ALL PLANT MATERIALS INCLUDING BUT NOT LIMITED TO ROOT SYSTEMS, CONCRETE, REINFORCED CONCRETE, ASPHALT DEBRIS, UNDERBRUSH, TOPSOIL, AND OTHER DELETERIOUS MATERIAL. THE SUBGRADE TO REMAIN SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY FOLLOWING FULL REMOVAL OF THESE MATERIALS.

12) REFER TO SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION REPORTS AS PROVIDED BY OWNER FOR RECOMMENDATIONS ASSOCIATED WITH: GENERAL SITE PREPARATION, BUILDING PAD PREPARATION, SUBGRADE PREP, AREAS TO RECEIVE FILL, AREAS TO BE OVEREXCAVATED, PAVEMENT SECTIONS, FILL SLOPES AND EXCAVATION. THE CONTRACTOR SHALL HAVE THIS REPORT ON THE JOB SITE FOR REFERENCE AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE EARTHWORK OPERATIONS AND CONSTRUCTION PHASE MONITORING TO ENSURE THAT ALL COMPACTION IS COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PROVIDE TESTING REPORTS TO THE OWNER REGARDING COMPACTION TESTING PER THE TESTING PROTOCOL IN THE GEOTECHNICAL REPORT.

13) COMPACTION OF ALL FILL MATERIAL BETWEEN THE FRONT AND REAR BUILDING LINES TO BE 95% STANDARD PROCTOR MUST BE CERTIFIED BY STATE REGISTERED PROFESSIONAL SOILS ENGINEER PRIOR TO THE INSTALLATION OF CURB. THIS CERTIFICATION WILL BE SUBMITTED TO THE CHIEF DEVELOPMENT INSPECTIONS. LOTS WITH 2' OF FILL OR GREATER, AS DELINEATED ON THE CONSTRUCTION PLANS, WILL REQUIRE A COMPACTION CERTIFICATION PRIOR TO ISSUANCE OF BUILDING PERMIT. THE ENGINEER WILL ALSO PROVIDE A LETTER LISTING THOSE LOTS THAT REQUIRE COMPACTION CERTIFICATION. THOSE LOTS THAT REQUIRE COMPACTION CERTIFICATION WILL BE INDICATED ON THE FINAL RECORDED PLAT.

14) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES. **24 HR. CONTACT: MR. JOHN B. RHODES JR. P.E. (214) 939-7123**

15) NO PORTION OF THIS PROPERTY LIES WITHIN A SPECIAL FLOOD HAZARD AREA PER PANEL 48091C0435F DATED 09/02/2009

16) DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO BE ACCOMPLISHED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

17) EXTREME CAUTION SHALL BE USED WHEN WORKING WITHIN THE VICINITY OF THE EXISTING OVERHEAD POWER LINES. CONTRACTORS SHALL NOTIFY/COORDINATE WITH NEW BRAUNFELS UTILITIES PRIOR TO CONSTRUCTION.

18) STORM WATER MANAGEMENT SHALL BE IN ACCORDANCE WITH COUNTY, STATE, AND OTHER APPROPRIATE ORDINANCES AND REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION PLAN APPROVAL.

19) IN HEAVY DUTY PAVEMENT AREAS G.A.B. SHALL EXTEND UNDER THE GUTTER TO PROVIDE ADDITIONAL STABILITY FOR TRUCK TRAVEL.

20) CONTRACTOR SHALL INSTALL DOWNSTREAM STORM PIPE CONNECTION IN THE RIGHT-OF-WAY PRIOR TO INSTALLATION OF ON-SITE STORM PIPING AND/OR STORM WATER DETENTION FACILITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE PLANS BY POT HOLING THE LINES. THE CONTRACTOR SHALL HAVE THE LINES SURVEYED, INCLUDING HORIZONTAL AND VERTICAL LOCATION, AND THE SURVEYED POINTS SENT TO THE PROJECT ENGINEER TO DETERMINE IF ANY UTILITY CONFLICTS WILL AFFECT THE CURRENT STORM DRAINAGE DESIGN.

TCEQ CONSTRUCTION NOTES:

1) A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:

- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2) ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL DURING THE COURSE OF THESE REGULATED ACTIVITIES. THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3) IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4) NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5) PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6) ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7) SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN

8) LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

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) IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION 3Y THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

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.

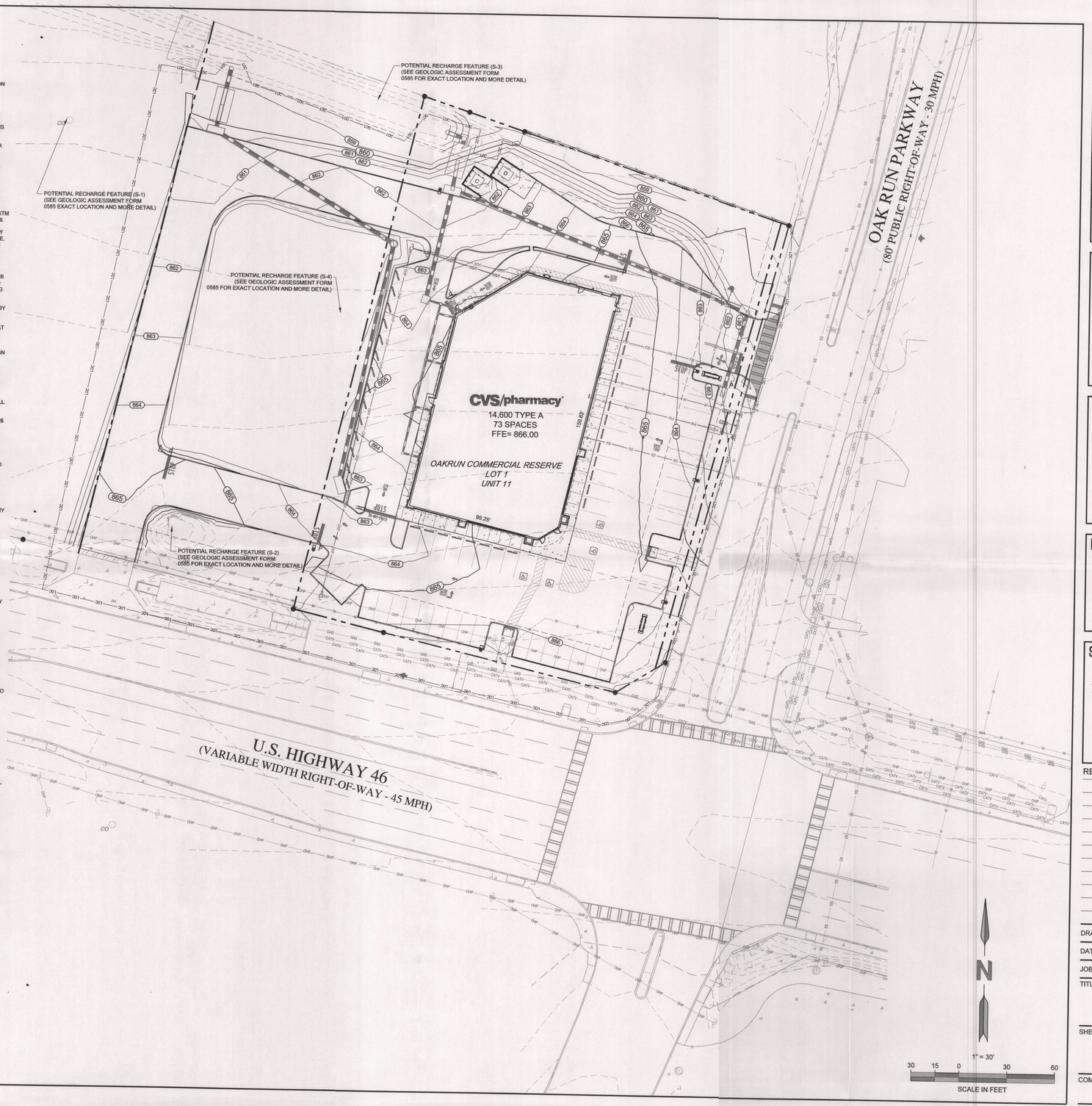
12) THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING ANE OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

- 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 APPROVID 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

811 Know what's **below** **Call** before you dig

LEGEND

XXXX	EXISTING CONTOURS
XXXX	PROPOSED CONTOURS
	EXISTING STORM PIPE
	PROPOSED STORM PIPE
XXXX.XX	EXISTING SPOT ELEVATION
XXXX.XX	PROPOSED SPOT ELEVATION
XXXX.XX TW / XXXX.XX BW	PROPOSED SPOT ELEVATION FOR TOP OF WALL / BOTTOM OF WALL AT FINISHED SURFACE GRADE (SEE STRUCTURAL FOR FOOTING ELEVATIONS)



CVS pharmacy®

TEXAS 14,600-RIGHT CHAMFER DRIVE-THRU

STORE NUMBER: 10947

1910 HIGHWAY 46
NEW BRAUNFELS, COMAL CO., TEXAS 78132

PROJECT TYPE: NEW CONSTRUCTION
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 89057

ENGINEER:

FORESITE group

Foresite Group, Inc.
1999 Bryan St.
Suite 890
Dallas, TX 75201

o | 214.939.7123
f | 888.765.8135
w | www.fg-inc.net

CONSULTANT:

DEVELOPER:

SEAL:

THESE PLANS WERE PREPARED UNDER THE SUPERVISION AND DIRECTION OF

SEAN FAULKNER, PE #92581

THESE PLANS ARE RELEASED FOR INITIAL REVIEW PURPOSES ONLY.

REVISIONS:

DRAWING BY: RC

DATE: 03/16/2016

JOB NUMBER: 164.065

TITLE:

TCEQ CONSTRUCTION PLAN

SHEET NUMBER:

C-2.4

COMMENTS:

NOT RELEASED FOR CONSTRUCTION

CARTER
ENGINEERING
CONSULTANTS

Project Narrative

For

Zaxby's Restaurant

Edwards Aquifer Permit No.13000086

NW Corner of Hwy 46 & Oak Run Parkway
New Braunfels, Texas

May 1, 2016

3651 Mars Hill Road Suite 2000 Watkinsville, GA 30677 www.carterengineering.net P:770.725.1200 F:770.725.1204

Narrative

The site is located at the NW Corner of Highway 46 and Oak Run Parkway in New Braunfels, Texas. An Edwards Aquifer Permit was issued on April 6, 2016 to NEWB, LLC for a CVS Pharmacy. The total land area permitted is 2.79 acres with 1.68 of impervious area. This land area includes two separate commercial properties. The CVS Pharmacy is currently under construction on the corner parcel and the adjoining parcel includes infrastructure installation for future development. The infrastructure includes a curb cut and drive aisles around the property creating a building pad for future development. The infrastructure includes the installation of two storm trooper permanent BMP's. One on the CVS parcel and the other on the future building pad development. Please refer to the attached CVS site plan that demonstrates the existing impervious area on site.

The purpose of this application is to modify the original permit. The parcel adjacent to the CVS Pharmacy will be a Zaxby's Restaurant and will utilize the infrastructure associated with the original permit. There will be additional impervious area as a result of the development of this parcel. The increased impervious area is summarized on the following pages and has been routed through the previously mentioned BMP's to ensure that the minimum requirements are satisfied. The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMP's is 1953 pounds.

The proposed modification is consistent with the Texas Commission on Environmental Quality requirements.

Edwards Aquifer Permit 13000086

Impervious Area Summary

Permitted Impervious Area	1.68	AC
Modified Impervious Area	2.10	AC

Impervious Area Summary

CVS Storm Trooper (East Lot)		
CVS Development	1.00	AC
Zaxbys Development	0.07	AC
New Total	1.07	AC
Zaxby's Storm Trooper		
CVS Development	0.68	AC
Zaxbys Development	0.35	AC
New Total	1.03	AC

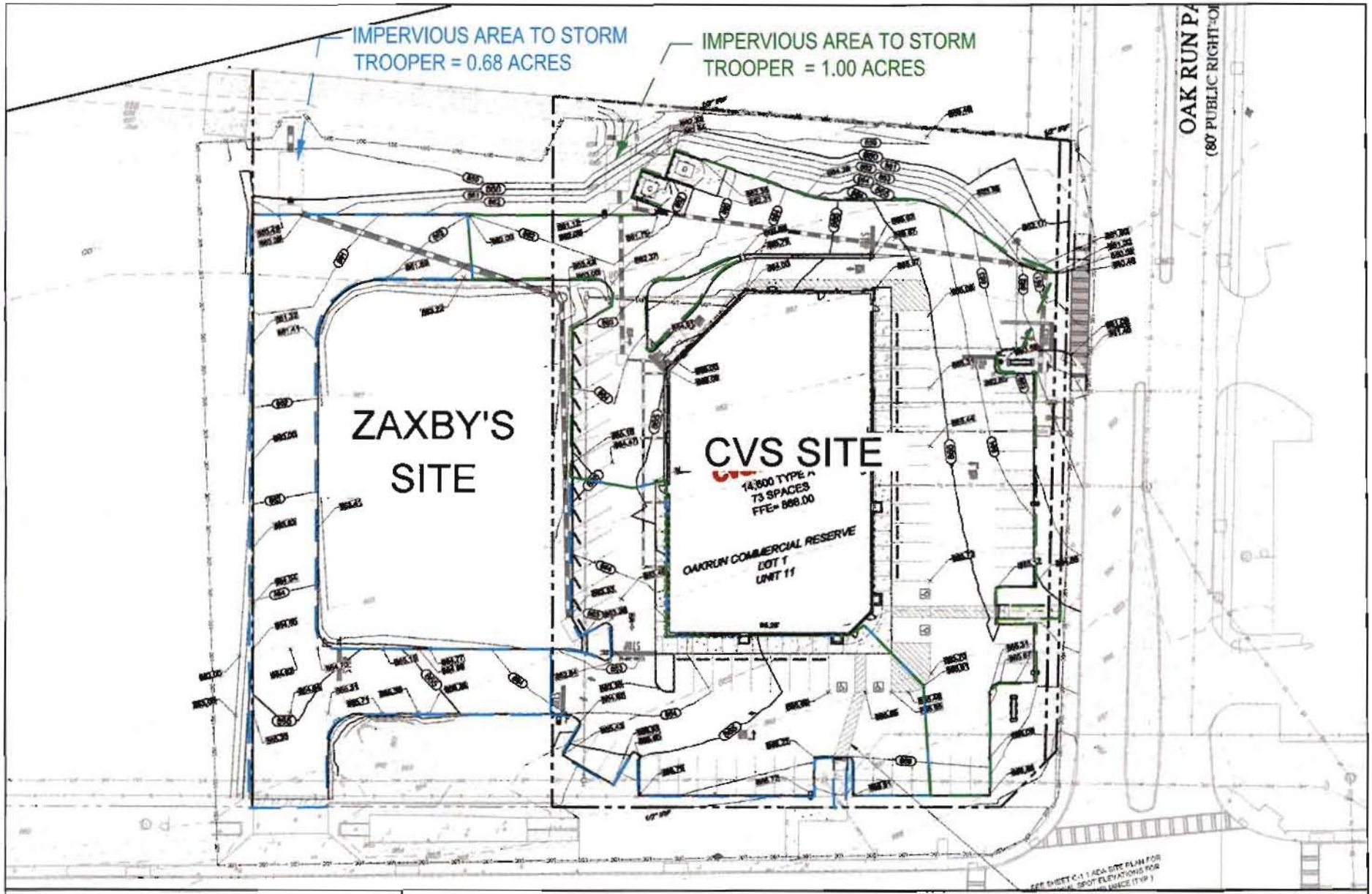


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EXHIBIT "A"
EXISTING PERMITTED IMPERVIOUS AREA

SCALE: 1"=60'

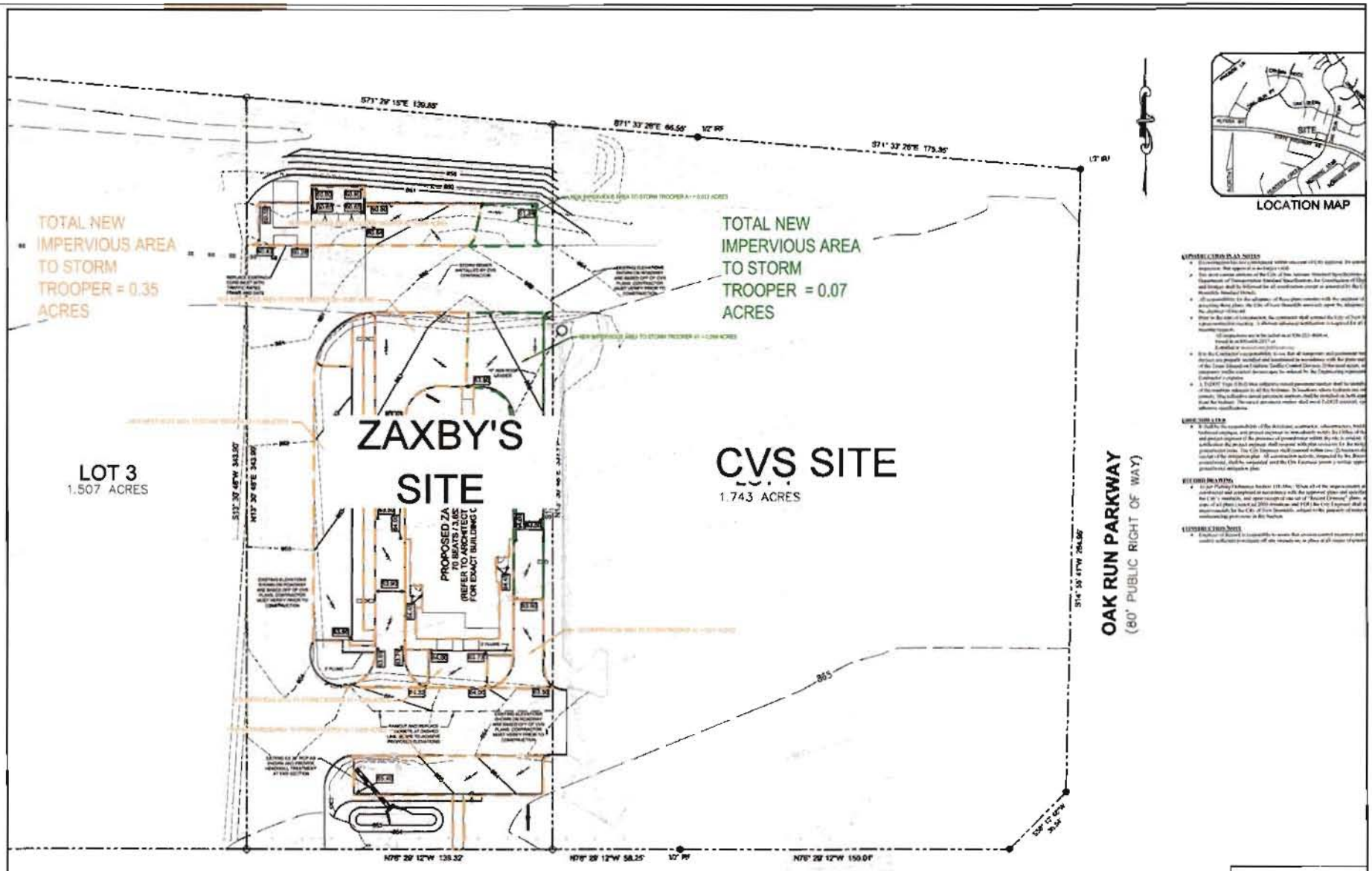

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EXHIBIT "B"
NEW IMPERVIOUS AREA
SCALE: 1"=60'

Texas Commission on Environmental Quality
TSS Required Load Reduction Calculations

Project Name: Hwy 46 & Oak Run
Project Location: New Braunfels, TX
Date Prepared: 6/1/2016
Prepared For: Jeff Carter

Lm = 27.2(AN x P)

where: Lm = Required TSS removal
An = Net increase in impervious area for site
P = Average annual precipitation, inches

Site Data:
County = Comal
Stormwater Quality Structure = Wet Vault
Total site area = 2.97 acres
Pre-development impervious area = 0.00 acres
Post-development impervious area = 2.100 acres
Post-development impervious fraction = 0.71
P = 33 inches

Lm = 1885 lbs. Total Project Required Removal

Drainage Basin	Area	Total Area	Impervious Cover	Impervious Area	Pre-Dev. Impervious Cover	A_n for Drainage Area	Runoff Coef. (C)	Pervious Area	Runoff Coef. (C)	Composite Runoff Coef. (C)	**Effective Area**	Intensity (I)	Calculated Flow (Q)	Required Pollutant Removal	StormTrooper Model	Unit Surface Area	By-Pass Flowrate	Intensity Treated	Fraction of Flow Treated (F)	F/0.9	Overflow Rate (ft/s)	Removal Effeciency	Actual Effeciency	Load Reduction (L_R)
	[ID]	[ac]	[%]	[ac]	[ac]	[ac]		[ac]			[ac]	[in/hr]	[cfs]	L_m in [lbs]	#	(sf)	(cfs)	[in/hr]	Figure 3-11]			[Figure 3-10]		(lbs)
A	1	1.19	89.9%	1.07	0.00	1.07	0.9	0.12	0.03	0.81	0.97	1.1	1.06	960	110	913	8.91	1.10	0.90	1.00	1.16E-03	81%	81%	991
B	2	1.69	60.9%	1.03	0.00	1.03	0.9	0.66	0.03	0.56	0.95	1.1	1.04	925	110	913	8.91	1.10	0.90	1.00	1.14E-03	81%	81%	962
C	3			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
D	4			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
E	5			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
F	6			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
G	7			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
H	8			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
I	9			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
J	10			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
K	11			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
L	12			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
M	13			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0
N	14			0.00		0.00	0.9	0.00	0.03	#DIV/0!	0.00	1.1	#DIV/0!	0		#N/A	#N/A	#N/A	0.90	1.00	#N/A		0%	0

Total TSS Removed by BMP's Annually = 1953
1885

Sufficient Removal = Yes

STORMTROOPER

Model	S.A.	By-Pass	E.A. @ 80%
5	100	420	< 0.13
10	149	600	0.14 - 0.20
20	248	1000	0.21 - 0.33
25	369	1440	0.34 - 0.50
40	588	2250	0.51 - 0.79
70	730	2720	0.80 - 0.98
110	913	4000	0.99 - 1.23

E.A. = (Imp. x 0.9 + Perv. x 0.03)
100% Impervious Acres Treated/Single Unit
0.14 Acres
0.22 Acres
0.37 Acres
0.56 Acres
0.88 Acres
1.09 Acres
1.37 Acres

Texas Commission on Environmental Quality
TSS Removal Calculations

AREA 1	DRAINAGE BASIN A

TOTAL SITE DETAILS

Project Name: Hwy 46 & Oak Run
Project Location: New Braunfels, TX
Date Prepared: 6/1/2016
Prepared By: Jeff Carter
Total Project Area to be Treated = 2.97
Pre-Development Impervious Area = 0.00
Post-Development Impervious Area = 2.10
Composite Run-Off Coefficient = 0.71
Required TSS Removal L_m = 1885
County = Comal

STEP ONE: Required TSS Removal

EQUATION 3.3
$L_m = 27.2(A_n \times P)$
L_m = Required TSS Removal (pounds)
A_n = Net Increase in Impervius Area (acres)
P = Average Annual Precipitation (inches)

Drainage Basin =	1.19	Acres
Pre-Dev. Imp. Area =	0.00	Acres
Post-Dev. Imp. Area =	1.07	
Pervious Area =	0.12	Acres
P =	33	Inches
L_m =	960	Lbs

STEP TWO: Select an Appropriate BMP

Effective Area =	0.97	EA = (Ai x 0.9) + (Ap x 0.03)
StormTrooper SWAQ_	110	
Unit Surface Area =	913	Sq. Ft.

STORMTROOPER	
Model	**E.A. @ 80%**
5	< 0.13
10	0.14 - 0.20
20	0.21 - 0.33
25	0.34 - 0.50
40	0.51 - 0.79
70	0.80 - 0.98
110	0.99 - 1.23

EQUATION 3.4
Q = CiA, where:

C =	0.81	Composite Run-Off Coefficient
i =	1.10	Stormwater Quality Intensity
A =	1.19	Drainage Basin Acreage
Q =	1.06	Required Treatment Flow

EQUATION 3.5
V_{OR} = Q/A, where:

Q =	1.06	Required Treatment Flow
A =	913	Unit Surface Area
V_{OR} =	1.16E-03	Overflow Rate
BMP Effeciency =	81%	

STEP THREE: Calculate Fraction of Annual Runoff to be Treated

Unit By-Pass Flowrate =	8.91	cfs
Treated Intensity =	1.10	in/hr
Annual Volume Treated =	90%	Volume of Run-Off Entering Unit
Treatment Reduction =	1.00	BMP Effeciency Reduction Factor
Actual BMP Effeciency =	81%	

STEP FOUR: Calculate TSS Load Removed by BMPs

EQUATION 3.8
$L_r = (BMP\ Efficiency) \times P \times (A_I \times 34.6 + A_p \times 0.54)$
L_r = Load Removed by BMP
BMP Efficiency = TSS Removal Efficiency
A_I = Impervious Tributary Area to the BMP (ac)
A_p = Pervious Tributary Area to the BMP (ac)

A_I = 1.07
A_p = 0.12

L_r = 991 lbs

Texas Commission on Environmental Quality
TSS Removal Calculations

AREA 2	DRAINAGE BASIN B

STEP ONE: Required TSS Removal

EQUATION 3.3

$L_m = 27.2(A_n \times P)$

L_m = Required TSS Removal (pounds)

A_n = Net Increase in Impervius Area (acres)

P = Average Annual Precipitation (inches)

Drainage Basin =	1.69	Acres
Pre-Dev. Imp. Area =	0.00	Acres
Post-Dev. Imp. Area =	1.03	
Pervious Area =	0.66	Acres
P =	33	Inches
L_m =	925	Lbs

STEP TWO: Select an Appropriate BMP

Effective Area =	0.95	EA = (Ai x 0.9) + (Ap x 0.03)
StormTrooper SWAQ_	110	
Unit Surface Area =	913	Sq. Ft.

EQUATION 3.4

Q = CiA, where:

C =	0.56	Composite Run-Off Coefficient
i =	1.10	Stormwater Quality Intensity
A =	1.69	Drainage Basin Acreage
Q =	1.04	Required Treatment Flow

EQUATION 3.5

V_{OR} = Q/A, where:

Q =	1.04	Required Treatment Flow
A =	913	Unit Surface Area
V_{OR} =	1.14E-03	Overflow Rate
BMP Effeciency =	81%	

STEP THREE: Calculate Fraction of Annual Runoff to be Treated

Unit By-Pass Flowrate =	8.91	cfs
Treated Intensity =	1.10	in/hr
Annual Volume Treated =	90%	Volume of Run-Off Entering Unit
Treatment Reduction =	1.00	BMP Effeciency Reduction Factor
Actual BMP Effeciency =	81%	

STEP FOUR: Calculate TSS Load Removed by BMPs

EQUATION 3.8

$L_r = (\text{BMP Efficiency}) \times P \times (A_I \times 34.6 + A_p \times 0.54)$

L_r = Load Removed by BMP

BMP Efficiency = TSS Removal Efficiency

A_I = Impervious Tributary Area to the BMP (ac)

A_p = Pervious Tributary Area to the BMP (ac)

A_I = 1.03

A_p = 0.66

L_r = 962 lbs

TOTAL SITE DETAILS	
Project Name:	Hwy 46 & Oak Run
Project Location:	New Braunfels, TX
Date Prepared:	6/1/2016
Prepared By:	Jeff Carter
Total Project Area to be Treated =	2.97
Pre-Development Impervious Area =	0.00
Post-Development Impervious Area =	2.10
Composite Run-Off Coefficient =	0.71
Required TSS Removal L_m =	**1885**
County =	Comal

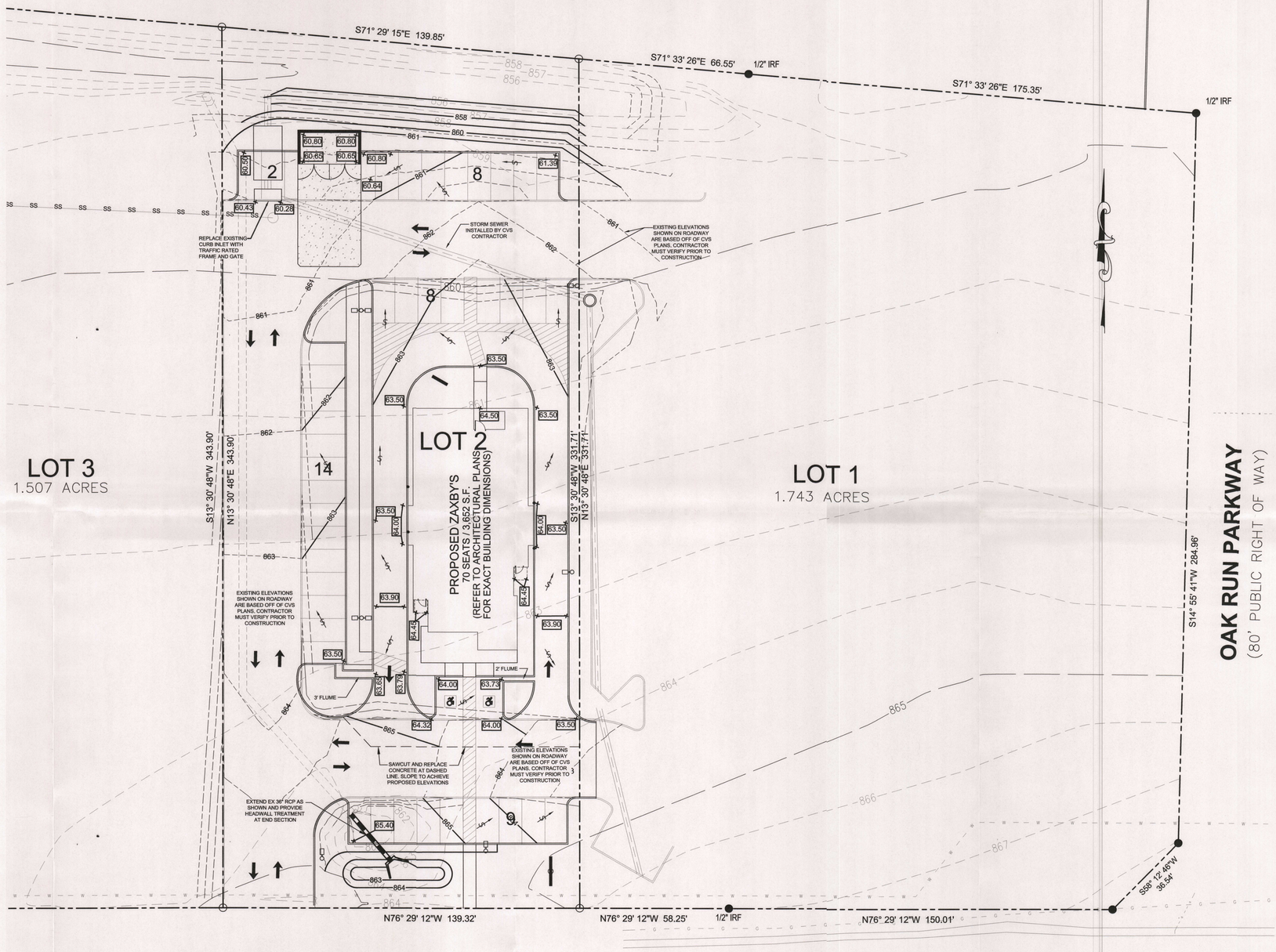
STORMTROOPER	
Model	**E.A. @ 80%**
5	< 0.13
10	0.14 - 0.20
20	0.21 - 0.33
25	0.34 - 0.50
40	0.51 - 0.79
70	0.80 - 0.98
110	0.99 - 1.23

TCEQ NOTES:

1) A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
2) ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3) IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4) NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
5) PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURE MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6) ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
7) SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN
8) LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
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 SPOILS AT THE OTHER SITE.
10) IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14th DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
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 FOR THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
   - ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN

SITE NOTES:

1) THE CONTRACTOR SHALL CLEAN OUT ACCUMULATED SILT IN THE STORM WATER CONVEYANCE CHANNELS AND PIPES AT THE END OF CONSTRUCTION WHEN DISTURBED AREAS HAVE BEEN STABILIZED.
2) COORDINATE WITH THE CITY OF NEW BRAUNFELS INSPECTIONS DURING CONSTRUCTION.
3) NO CERTIFICATE OF OCCUPANCY WILL BE ISSUED UNTIL ALL SITE IMPROVEMENTS HAVE BEEN COMPLETED.
4) CONSTRUCT EROSION CONTROL BARRIERS PER THE CITY OF NEW BRAUNFELS INSPECTOR AND MAINTAIN UNTIL PERMANENT VEGETATION IS ESTABLISHED.
5) THE CONTRACTOR SHALL RE-ESTABLISH ALL RIGHT OF WAY AREA WHICH IS DAMAGED OR DISTURBED TO ORIGINAL CONDITIONS OR BETTER DURING AUTHORIZED WORK. ALL WORK IN THE CITY OF NEW BRAUNFELS RIGHT OF WAY SHALL COMPLY WITH TXDOT SPECIFICATIONS.
6) ALL CURBED LANDSCAPE ISLANDS SHALL BE FILLED TO TOP OF CURB WITH TOPSOIL AND SEEDED.
7) MAXIMUM CUT OR FILL SLOPES IS 2H:1V
8) TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING ACTIVITIES.
9) ALL PLASTIC STORM PIPE SHOWN ON THIS PLAN SHALL BE WRAPPED WITH LOCATION WIRE AND TAPE.
10) ALL CMP STORM PIPE SHALL BE TYPE 2 ALUMINIZED. ALL HDPE SHALL BE AASHTO TYP "S" AND SHALL BE INSTALLED IN ACCORDANCE TO ASTM D2321 OR AASHTO SECTION 30 STANDARD PRACTICES AND AS RECOMMENDED BY THE MANUFACTURER. ALL RCP STORM PIPE SHALL BE CLASS III.
11) IN ALL AREAS OF FILL OR OTHERWISE DISTURBANCE OF EXISTING CONDITIONS, UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL FULLY AND COMPLETELY REMOVE AND LEGALLY DISPOSE OFF-SITE, ALL PLANT MATERIALS INCLUDING BUT NOT LIMITED TO ROOT SYSTEMS, CONCRETE, REINFORCED CONCRETE, ASPHALT DEBRIS, UNDERBRUSH, TOPSOIL, AND OTHER DELETERIOUS MATERIAL. THE SUBGRADE TRO REMAIN SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY FOLLOWING FULL REMOVAL OF THESE MATERIALS
12) REFER TO SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION REPORTS AS PROVIDED BY OWNER FOR RECOMMENDATIONS ASSOCIATED WITH: GENERAL SITE PREPARATION, BUILDING PAD PREPARATION, SUBGRADE PREP, AREAS TO RECEIVE FILL, AREAS TO BE OVER EXCAVATED, PAVEMENT SECTIONS, FILL, SLOPES AND EXCAVATION. THE CONTRACTOR SHALL HAVE THIS REPORT ON THE JOB SITE FOR REFERENCE AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE EARTHWORK OPERATIONS AND CONSTRUCTION PHASE MONITORING TO ENSURE THAT ALL COMPACTION IS COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL PROVIDE TESTING REPORTS TO THE OWNER REGARDING COMPACTION TESTING PER THE TESTING PROTOCOL IN THE GEOTECHNICAL REPORT.
13) COMPACTION OF ALL FILL MATERIAL BETWEEN THE FRONT AND REAR BUILDING LINES TO BE 95% STANDARD PROCTOR MUST BE CERTIFIED BY STATE REGISTERED PROFESSIONAL SOILS ENGINEER PRIOR TO THE INSTALLATION OF CURB. THIS CERTIFICATION WILL BE SUBMITTED TO THE CHIEF DEVELOPMENT INSPECTIONS. LOTS WITH 2' OF FILL OR GREATER, AS DELINEATED ON THE CONSTRUCTION PLANS, WILL REQUIRE A COMPACTION CERTIFICATION PRIOR TO ISSUANCE OF BUILDING PERMIT. THE ENGINEER WILL ALSO PROVIDE A LETTER LISTING THOSE LOTS THAT COMPACTION CERTIFICATION. THOSE LOTS THAT REQUIRE COMPACTION CERTIFICATION WILL BE INDICATED ON THE FINAL RECORDED PLAT.
14) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN QUALIFIED PROFESSIONAL ADVICE WHEN QUESTIONS ARISE CONCERNING DESIGN AND EFFECTIVENESS OF EROSION CONTROL DEVICES. 24 HR. CONTACT: MR. GARY AVANTS, TEL (706) 316 6888
15) NO PORTION OF THIS PROPERTY LIES WITHIN A SPECIAL FLOOD HAZARD AREA PER PANEL 48091C0435F DATED 09/02/2009
16) DETENTION FACILITIES AND EROSION CONTROL MEASURES ARE TO BE ACCOMPLISHED PRIOR TO ANY OTHER CONSTRUCTION ON THE SITE AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
17) EXTREME CAUTION SHALL BE USED WHEN WORKING WITHIN THE VICINITY OF THE EXISTING OVERHEAD POWER LINES. CONTRACTORS SHALL NOTIFY/COORDINATE WITH NEW BRAUNFELS UTILITIES PRIOR TO CONSTRUCTION.
18) STORM WATER MANAGEMENT SHALL BE IN ACCORDANCE WITH COUNTY, STATE, AND OTHER APPROPRIATE ORDINANCES AND REGULATIONS IN EFFECT AT TIME OF CONSTRUCTION PLAN APPROVAL.
19) IN HEAVY DUTY PAVEMENT AREAS G/A/B/ SHALL EXTEND UNDER THE GUTTER TO PROVIDE ADDITIONAL STABILITY FOR TRUCK TRAVEL.
20) CONTRACTOR SHALL INSTALL DOWNSTREAM STORM PIPE CONNECTION IN THE RIGHT-OF-WAY PRIOR TO INSTALLATION OF ON-SITE STORM PIPING AND/OR STORM WATER DETENTION FACILITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES SHOWN ON THE PLANS BY POT HOLDING THE LINES. THE CONTRACTOR SHALL HAVE THE LINES SURVEYED, INCLUDING HORIZONTAL AND VERTICAL LOCATION, AND THE SURVEYED POINTS SENT TO THE PROJECT ENGINEER TO DETERMINE IF ANY UTILITY CONFLICTS WILL AFFECT THE CURRENT STORM DRAINAGE DESIGN.



U.S. HIGHWAY 46
(VARIABLE WIDTH PUBLIC RIGHT OF WAY)

811 Know what's below. Call before you dig dial 811

10' 0 20' 40' 60'
GRAPHIC SCALE
SCALE 1" = 20'

REVISION BLOCK:

#	DATE	DESCRIPTION
A	2/29/16	SITE PLAN SUBMITTAL
B	5/9/16	ADDRESS CITY COMMENTS
C	5/12/16	CONTRACTOR BID DOCUMENTS

STATE OF TEXAS
JAMES J. CARTER
89061
LICENSED
PROFESSIONAL ENGINEER

CARTER ENGINEERING CONSULTANTS
Carter Engineering Consultants, Inc.
3651 Mars Hill Road, Suite 2000
Watkinsville, GA 30677
P: 770.725.1200
F: 770.725.1204
www.carterengineering.net
TBPE FIRM NO.: 11053

SITE DEVELOPMENT PLANS
for
AVANTS MANAGEMENT GROUP, INC.
OAK RUN PARKWAY, NEW BRAUNFELS, TEXAS

PROJECT NAME: ZAXBY'S

SHEET TITLE: TCEQ CONSTRUCTION PLAN

SHEET NUMBER: 16

PROJECT NUMBER: 16225ZAX

DATE: 2/08/15

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JUN 29 2016

COUNTY ENGINEER

TCEQ R-13 2016 JUN 06 12:05

Geologic Assessment

Texas Commission on Environmental Quality

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

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

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

Signature

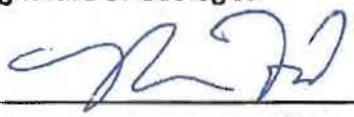
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Russell C Ford Telephone: 512 442-1122

Date: 5/3/16 Fax: _____

Representing: Terracon Consultants, Inc. (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Zaxby's Restaurant, Oak Run Parkway and Highway 46, New Braunfels, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 3/9/16
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

13. ☐ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

NO FEATURES OBSERVED

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Zaxby's Restaurant, Oak Run Parkway and Highway 46, New Braunfels, Texas

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.8	≥1.8	

* DATUM NAD27

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 Natural Resource Conservation Commission's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC 213

Russell C. Ford

Date 5/3/16

TNRCC-0585-Table (Rev. 5-1-02)

Sheet 1 of 1

TABLE 1

Stratigraphic Column
Zaxby's Restaurant
Oak Run Parkway and Highway 46, New Braunfels, Texas

HYDROGEOLOGIC SUBDIVISION	FORMATION	THICKNESS (feet)	LITHOLOGY
Edwards Aquifer	Edwards Limestone	300	Mudstone to packstone, crystalline limestone, wackestone

Source: Maclay, 1995

Terracon

SITE-SPECIFIC GEOLOGY

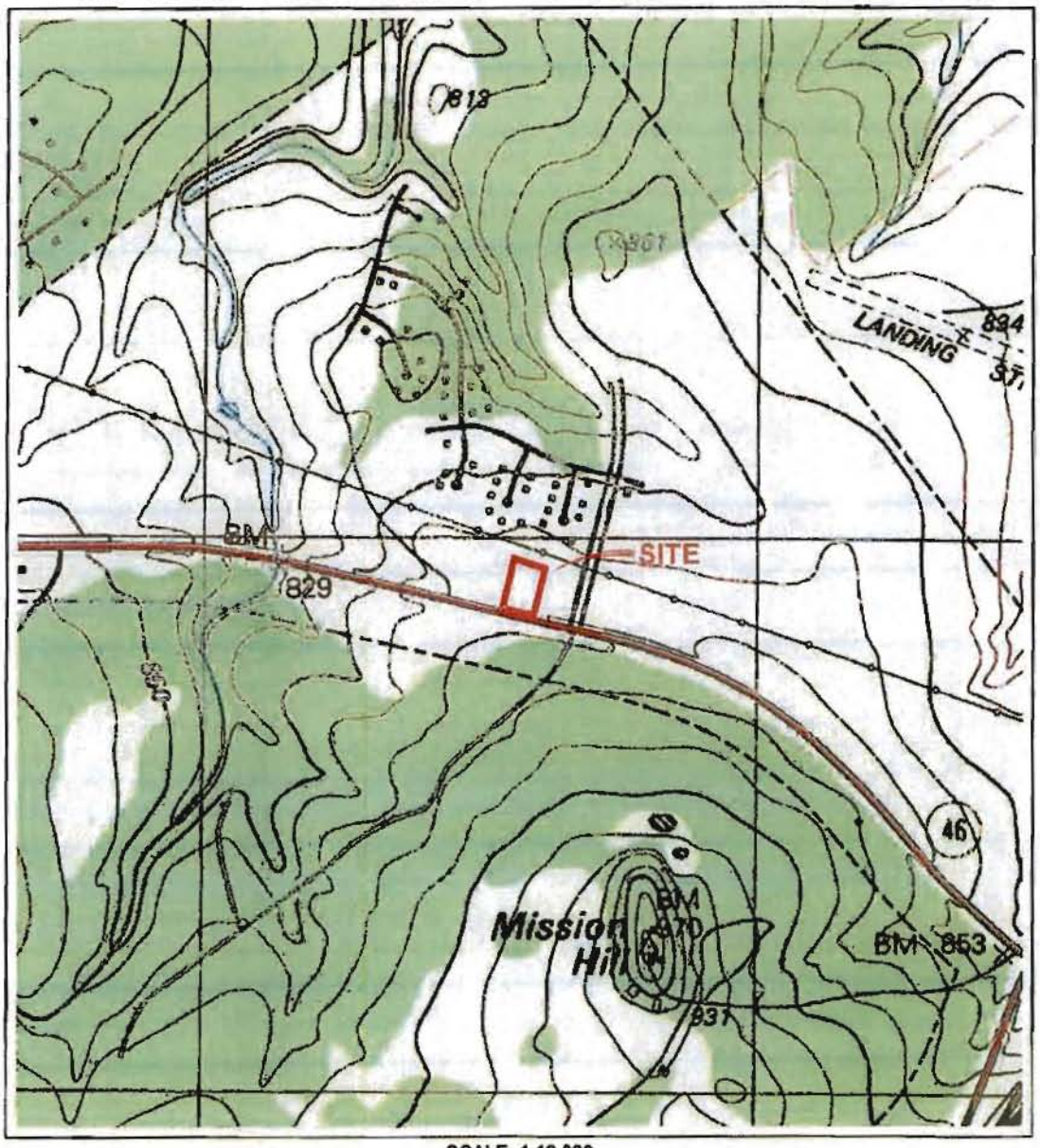
The Geologic Assessment (GA) of the Zaxby's Restaurant site was performed by Mr. Russell C. Ford, P.G., of Terracon on March 9, 2016. The site is located on the north side of Highway 46, just west of Oak Run Parkway in New Braunfels, Texas and consists of an approximate 1.06-acre tract of undeveloped land.

Exhibit 1 (attached) is a site location map depicting the site in relation to the surrounding area. The areas immediately surrounding the site are a mix of undeveloped and residential properties. The site is characterized as gently sloping to the north. Site elevation is about 865 feet above mean sea level (msl).

The surficial geologic unit present at the site has been identified as the Edwards Limestone. Exhibit 2 (attached) is a geologic map of the site. The Edwards consists of massive to thin bedded limestones and dolostones. The formation is characterized by honeycomb textures, collapse breccias and cavern systems, which account for most of the significant porosity within the strata that compose most of the aquifer. The site is located entirely within the recharge zone of the Edwards Aquifer and the recharge zone boundary is located about 1 mile southeast of the site. Table 1 (attached) is a stratigraphic column prepared for the site. Exposure of this unit onsite is obscured by the existing soil cover and vegetation present. No faulting was observed on the site and the nearest mapped fault is located approximately ½ mile west of the site. The fault, which trends toward the northeast, is associated with the Balcones Fault zone which represents the dominant structural trend in the vicinity of the site. The completed Geologic Assessment form is attached.

No geologic features were observed on the site. Due to the lack of any significant sensitive recharge features observed on the site, the potential for fluid movement to the Edwards aquifer beneath the project is considered low.

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY



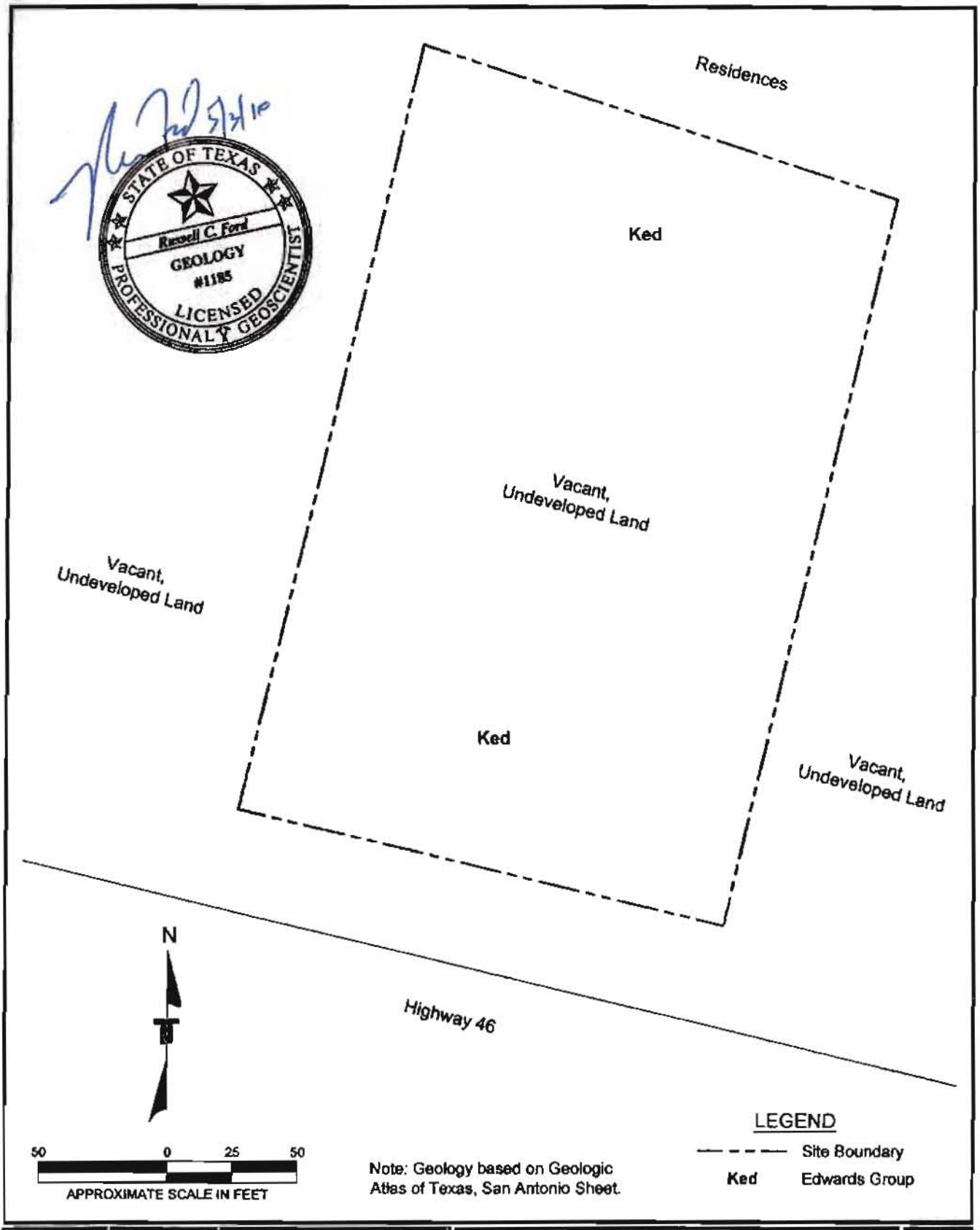
SCALE 1:12,000

KILOMETERS .5 0 .5 1
METERS 500 0 500 1000
.5 .25 0 .5
MILES
500 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

New Braunfels West, Texas
29098-F2-TF-024
1988
7.5 MINUTE SERIES (TOPOGRAPHIC)

Project Mngr: RF Drawn By: ATX Drafting Checked By: RF Approved By: RF	Project No. 96167178 Scale: AS SHOWN File No. 96167178 Date: May 02, 2016	Terracon Consulting Engineers and Scientists 5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735 PH. (512) 442-1122 FAX (512) 442-1181	TOPOGRAPHIC MAP Zaxby's Restaurant Oak Run Parkway New Braunfels, Comal County, Texas	EXHIBIT 1



STATE OF TEXAS
Russell C. Ford
GEOLOGY
#1185
LICENSED
PROFESSIONAL GEOSCIENTIST

Project Mngr: RF	Project No.: 96167178	Terracon Consulting Engineers and Scientists	SITE GEOLOGIC MAP
Drawn By: ATX Drafting	Scale: AS SHOWN	5307 INDUSTRIAL OAKS BLVD. - #160 AUSTIN, TX 78735	Zaxby's Restaurant
Checked By: RF	File No.: 96167178	PH. (512) 442-1122 FAX (512) 442-1181	Oak Run Parkway
Approved By: RF	Date: May 02, 2016		New Braunfels, Comal County, Texas

EXHIBIT 2

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JUN 29 2016

COUNTY ENGINEER

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jeff Carter

Date: 6/10/2016

Signature of Customer/Agent:

Regulated Entity Name: Zaxby's Restaurant

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☑ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property): 2.79

3. Estimated projected population:_____

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	18,252	÷ 43,560 =	0.419
Parking		÷ 43,560 =	
Other paved surfaces	73,224	÷ 43,560 =	1.68
Total Impervious Cover		÷ 43,560 =	2.10

Total Impervious Cover 2.10 ÷ **Total Acreage** 2.79 **X 100 =** 75.3 **% Impervious Cover**

5. ☑ **Attachment A - Factors Affecting Surface Water Quality.** A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

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

For Road Projects Only

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

7. Type of project:

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

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

☐ Concrete
☐ Asphaltic concrete pavement
☐ Other: _____

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

Width of R.O.W.: _____ feet.
L x W = _____ Ft^2 ÷ 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. ☑ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

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

_____% Domestic	_____Gallons/day
_____% Industrial	_____Gallons/day
100 % Commingled	3,500 Gallons/day
TOTAL gallons/day 3,500	

15. Wastewater will be disposed of by:

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

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

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

☑ Sewage Collection System (Sewer Lines):

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

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

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

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

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

☐ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 20 '.

18. 100-year floodplain boundaries:

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

☑ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): 48091C0435F dated 9/2/2009

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

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

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

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

☐ The wells are not in use and have been properly abandoned.
☐ The wells are not in use and will be properly abandoned.
☐ The wells are in use and comply with 16 TAC §76.

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

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

☐ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☑ No sensitive geologic or manmade features were identified in the Geologic Assessment.
☐ **Attachment D - Exception to the Required Geologic Assessment.** A request and justification for an exception to a portion of the Geologic Assessment is attached.

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

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

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

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

26. ☐ Surface waters (including wetlands).

☑ N/A

27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

☑ There will be no discharges to surface water or sensitive features.

28. ☑ Legal boundaries of the site are shown.

Administrative Information

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

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

Factors Affecting Surface Water Quality

The site is located at the NW Corner of Highway 46 and Oak Run Parkway in New Braunfels, Texas. An Edwards Aquifer Permit was issued on April 6, 2016 to NEWB, LLC for a CVS Pharmacy. The total land area permitted is 2.79 acres with 1.68 of impervious area. This land area includes two separate commercial properties. The CVS Pharmacy is currently under construction on the corner parcel and the adjoining parcel includes infrastructure installation for future development. The infrastructure includes a curb cut and drive aisles around the property creating a building pad for future development. The infrastructure includes the installation of two storm trooper permanent BMP's. One on the CVS parcel and the other on the future building pad development. Please refer to the attached CVS site plan that demonstrates the existing impervious area on site.

The purpose of this application is to modify the original permit. The parcel adjacent to the CVS Pharmacy will be a Zaxby's Restaurant and will utilize the infrastructure associated with the original permit. There will be additional impervious area as a result of the development of this parcel. The increased impervious area is summarized on the following pages and has been routed through the previously mentioned BMP's to ensure that the minimum requirements are satisfied. The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMP's is 1953 pounds.

The potential factors affecting water quality would be the additional impervious area planned for this modification. During construction, there will be Best Management Practices implemented to ensure that soil erosion does not leave the site. The BMP's consist of inlet protection, silt fence, temporary and permanent vegetation, and a stabilized construction entrance. All BMP's will be inspected daily and will be maintained as necessary. As previously stated, the permanent BMP will be a storm trooper water quality unit that will be installed prior to construction of the Zaxby's Restaurant and will be immediately downstream of the temporary BMP's. The storm trooper until will be inspected on a daily basis as well to ensure water quality is maintained.

Attachment B - Volume and Character of Stormwater

Edwards Aquifer Permit 13000086

Stormwater Summary

The post-developed peak flow shown below is prior to the existing master detention pond. The existing master pond has been previously permitted and constructed which provides detention for the subdivision in accordance with Local and State requirements

Total Area Permitted	2.79	AC

Post-Developed Condition			Pre-Developed Condition		
Modified Impervious Area	2.10	AC	Modified Impervious Area	0.00	AC
Runoff Coefficient for Impervious Area	0.95		Runoff Coefficient for Impervious Area	0.95	
Modified Landscape Area	0.69	AC	Modified Landscape Area	2.79	AC
Runoff Coefficient for Landscape Area	0.35		Runoff Coefficient for Landscape Area	0.35	
Post-Developed Runoff Coefficient	0.80		Pre-Developed Runoff Coefficient	0.35	
Time of Concentration	5.00	min	Time of Concentration	17.51	min
2 year peak flow	**7.86**	**cfs**	**2 year peak flow**	**3.44**	**cfs**
10 year peak flow	**14.28**	**cfs**	**10 year peak flow**	**6.25**	**cfs**
25 year peak flow	**18.01**	**cfs**	**25 year peak flow**	**7.88**	**cfs**
100 year peak flow	**22.70**	**cfs**	**100 year peak flow**	**9.93**	**cfs**

2 year rainfall intensity	3.52	in/hr
10 year rainfall intensity	6.40	in/hr
25 year rainfall intensity	8.07	in/hr
100 year rainfall intensity	10.17	in/hr

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JUN 29 2016

COUNTY ENGINEER

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Jeff Carter

Date: 6/10/2016

Signature of Customer/Agent:

Regulated Entity Name: Zaxby's Restaurant

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

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

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☑ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

Attachment A
Spill Response Actions

- If a spill has occurred, contact the following persons immediately:

  (Primary) Nate Welch (678) 431 - 0242

  (Secondary) Mac Smith (205) 490 - 5260

- **In the event of a large spill, a properly trained employee should**:
  - Assess the area for any immediate dangers to health or safety (i.e. a wrecked car on fire). If any dangers are present, move away from the area, **call 911**.
  - Notify the primary and/or secondary contact from the list above and then continue your spill response. The primary contact should assess additional notification requirements
  - Retrieve the spill kit from the closest location.
  - Assess the size of the leak and any immediate threat of the spill reaching the floor/storm drains or permeable surfaces in the area. If there is an immediate threat and there are no safety concerns, then attempt to block the spill from coming in contact with the floor/storm drain or permeable surface. If no drain covers are available, then try to use absorbent (cat litter) and/or sock booms or rags to stop the spill from getting into the drains or to any permeable surfaces.
  - If the spill can be contained with absorbent booms, deploy them around the spill. Use the booms to direct the spill away from any immediate hazards
  - If there is no immediate threat to the floor/storm drains or permeable surfaces, or after controlling the spill, try to plug or stop the leak, if possible. If applicable, put on protective gear (gloves, goggles, protective clothing, etc.) and plug the leak.
  - Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the spill cleanup contractor and dispatch them to clean up the spill or commence spill cleanup procedures.

Attachment B

Potential Sources of Contamination

Nature of Construction and List of Pollutants

Description of the general nature of construction activities:

Site development of a Zaxby's Restaurant with drive thru and on-site parking.

List of ALL potential pollutants and their sources:

Potential Pollutants	***Source***
Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Pesticides – Herbicides used for noxious weed control
Nitrogen, phosphorus	Fertilizer – Newly seeded areas
Calcium sulphate, calcium carbonate, sulfuric acid	Plaster – Building construction
Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Cleaning solvents – No equipment cleaning allowed in project lines
Oil, petroleum distillates	Asphalt – streets
Limestone, sand, pH, chromium	Concrete – Curb & gutter, building construction
Polymers, epoxies	Glue, adhesives – Building construction
Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Paints – Building construction
Naphtha	Curing compounds – Curb & gutter
Stoddard solvent, petroleum distillates, arsenic, copper, chromium	Wood preservatives – Timber pads & building construction
Mineral oil	Hydraulic oil & fluids – Leaks or broken hoses from equipment
Benzene, ethyl benzene, toluene, xylene, MTBE	Gasoline – Secondary containment & staging area
Petroleum distillate, oil & grease, naphthalene, xylenes	Diesel fuel – Secondary containment & staging area
Coal, oil, petroleum distillates	Kerosene – Secondary containment & staging area
Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Antifreeze/Coolant – Leaks or broken hoses from equipment
Bacteria, parasites, & viruses	Sanitary toilets – Staging area

Attachment C

Sequence of Major Activities

Construction Schedule

Description of the intended schedule, or a sequence of the major activities that will be disturbing soil for the major portions of the site. ***Add or subtract rows as needed.***

Name of operator	***Phase of Project Projected dates Month/year***	***Activity Disturbing Soil clearing, excavation, etc.***	***Location on-site where activity will be conducted***	***Acreage being disturbed***
	July 2016	Construction Exit & Silt Fence	Exit & around perimeter	0.78
	July 2016	Temporary Sediment Storage Facility		0.78
	July 2016	Clearing & Grubbing		0.78
	July/August 2016	Rough Grading		0.78
	August/September 2016	Temporary Stabilization (Grassing)		0.78
	September 2016	Curb & Gutter		0.78
	September 2016	Gravel Subbase for Roads & Parking Areas		0.78
	August – November 2016	Building Construction		0.78
	October 2016	Final Grading		0.78
	November 2016	Paving		0.78
	November 2016	Final Stabilization		0.78

Name of Receiving Waters: Blieders Creek

Attachment D

Temporary Best Management Practices and Measures (BMPs)

Description of Erosion and Sediment Controls designed to retain sediment. ***Add as many rows as needed.***

BMPs Installed	***Location(s) On-Site***	***Inspection / Maintenance Schedule***	***Modifications / Replacement Activities***
Silt Fence (S_d1)	Around Perimeter	Removal of any silt once fence is 1/3 full	
Intel Protection (S_d2)	Around all catch basins	Removal of any silt once 1/3 height of fencing	
Mulching & Seeding (D_S1) & D_S2)	Placed on any disturbed areas where construction activities are not taking place	Bare areas will be re-seeded & re-mulched if needed	

Are there sedimentation basins or traps ?* **Yes ☐** **No ☒**
If yes, list the measures taken to reduce the pollutants transported off-site by pumping activities.

Prevention Measure	Location On-Site	Implementation Date

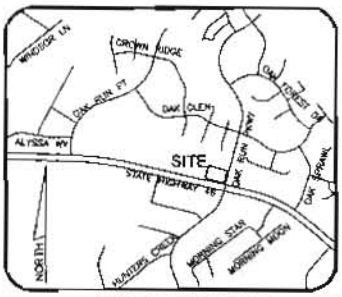
*** Part III Section F.2.a.(iii), Sediment must be removed from sediment traps and basins no later than the time that the design capacity has been reduced by 50 percent.**

Attachment F – Structural Practices

The structural practice includes the installation of two storm trooper permanent BMPs. One on the CVS parcel and the other on the future building pad development.

The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMPs is 1953 pounds.

The BMPs will be in place when the subject projects commences construction and will limit runoff discharge from the property.



LOCATION MAP N.T.S.

TES:
ANTS MANAGEMENT GROUP, INC 1091 FOUNDERS BLVD ATHENS,
888
Y AVANTS (706) 316-9888
STRUCTION OF A 3,652 S.F. BUILDING WITH ASSOCIATED UTILITIES
8 ACRES, TOTAL DISTURBED AREA = 0.78 ACRES
WILL BE ADDED IF DETERMINED TO BE NEEDED BY ON-SITE

NT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF
CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT
ACTIVITIES.
SURES WILL BE MAINTAINED AT ALL TIMES IF FULL IMPLEMENTATION
S DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL,
D SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO
SEDIMENT SOURCE PRACTICES WILL BE CHECKED DAILY
CATIONS ALL DESIGN WILL CONFORM TO AND ALL WORK WILL WILL
RDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE
MANUAL FOR EROSION AND SEDIMENT CONTROL IN TEXAS"

ACTIVITY SCHEDULE

TASK DESCRIPTION	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER
CONSTRUCTION EXIT AND PERIMETER SILT FENCE	X				
TEMPORARY SEDIMENT STORAGE FACILITIES	X				
CLEARING & GRUBBING	X				
ROUGH GRADING	X	X			
TEMPORARY STABILIZATION (SEEDING)		X	X		
CURB AND GUTTER			X		
GRAVEL SUBBASE FOR ROADS AND PARKING AREAS			X		
BUILDING CONSTRUCTION		X	X	X	X
FINAL GRADING				X	
PAVING					X
FINAL STABILIZATION (LANDSCAPING)					X

LEGEND

Ds3	DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)
Co	CONSTRUCTION EXIT
Sd1	SEDIMENT BARRIER
Sd2-F	INLET SEDIMENT TRAP *
Sd2p	INLET SEDIMENT TRAP *
Mb	MATTING BLANKET
	LIMITS OF DISTURBANCE

NOTE: * INLET SEDIMENT TRAP Sd2-F SHALL BE USED IN NON PAVED AREAS UNTIL PAVING IS COMPLETE. WHILE Sd2-P SHALL BE USED IN AREAS THAT IS PAVED

LOT 3
1.507 ACRES

S13° 30' 48"W 343.90'
N13° 30' 48"E 343.90'

Sd1-P
Sd1-C
Ds3

(VARIAB

Know what's below
Call before you dig
dial 811

10' 0 20' 40' 60'
GRAPHIC SCALE
SCALE 1" = 20'

REVISION BLOCK

#	DATE	DESCRIPTION
A	2/23/15	SITE PLAN SUBMITTAL
B	5/8/15	ADDRESS CITY COMMENTS

STATE OF TEXAS
JAMES E. CARTER
LICENSED
PROFESSIONAL ENGINEER

CARTER
ENGINEERING
CONSULTANTS

Carter Engineering Consultants, Inc
3651 Mars Hill Road, Suite 2000
Watkinsville, GA 30677
P: 770.725.1209
F: 770.725.1234
www.carterengineering.net
TBPE FIRM NO.: 11053

SITE DEVELOPMENT PLANS
for
AVANTS MANAGEMENT GROUP, INC.
OAK RUN PARKWAY, NEW BRAUNFELS, TEXAS

PROJECT NAME:
ZAXBYS

SHEET TITLE:
EROSION CONTROL PLAN

SHEET NUMBER:
6

PROJECT NUMBER:
16225ZAX

DATE:
2/08/15

Attachment I

Inspection & Maintenance for BMPs

BMP MAINTENANCE (PART IV.D.5)

1) THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION UPON DISCOVERY OF ANY DEFICIENCIES IN EROSION CONTROL BEST MANAGEMENT PRACTICES, WHETHER OR NOT IT IS INCLUDED IN AN INSPECTION REPORT.
2) ALL STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/3 OF THE STORAGE CAPACITY OF THE MEASURE.
3) ALL SILT FENCE STORAGE SHALL BE CLEANED OUT OR RECONSTRUCTED WHEN SEDIMENT VOLUMES EXCEED 1/2 OF THE HEIGHT OF THE SILT FENCE.
4) SEDIMENT CLEANED OUT FROM STORAGE DEVICES AND SILT FENCE SHOULD BE SPREAD IN UPLAND AREAS, MIXED WITH TOPSOIL, AND MULCHED OR SEEDED IMMEDIATELY. DO NOT SPOIL IN AREAS WHERE STRUCTURAL FILLS ARE REQUIRED (SUCH AS PAVEMENT, BUILDING FOOTPRINTS, ETC.)
5) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
6) WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.
7) REAPPLICATION OF VEGETATIVE BMPS MAY BE REQUIRED TO ACHIEVE FULL COVERAGE. REFER TO VEGETATIVE BMP NOTES AND DETAILS FOR INSTALLATION AND MAINTENANCE OF VEGETATIVE BMP'S.

INSPECTIONS (PART IV.D.4)

1) IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO MAKE SURE THAT INSPECTIONS ARE BEING PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PERMIT NOTED BELOW.
2) EACH DAY WHEN ANY TYPE OF CONSTRUCTION ACTIVITY HAS TAKEN PLACE AT A PRIMARY PERMITTEE'S SITE, CERTIFIED PERSONNEL PROVIDED BY THE PRIMARY PERMITTEE SHALL INSPECT: (A) ALL AREAS AT THE PRIMARY PERMITTEE'S SITE WHERE PETROLEUM PRODUCTS ARE STORED, USED, OR HANDLED FOR SPILLS AND LEAKS FROM VEHICLES AND EQUIPMENT AND (B) ALL LOCATIONS AT THE PRIMARY PERMITTEE'S SITE WHERE VEHICLES ENTER OR EXIT THE SITE FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING. THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
3) MEASURE RAINFALL ONCE EVERY 24 HOURS EXCEPT ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY AND NON-WORKING FEDERAL HOLIDAY UNTIL A NOTICE OF TERMINATION IS SUBMITTED. MEASUREMENT OF RAINFALL MAY BE SUSPENDED IF ALL AREAS OF THE SITE HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION.
4) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT THE FOLLOWING AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES RAINFALL OR GREATER (UNLESS SUCH STORM ENDS AFTER 5:00 PM ON ANY FRIDAY OR ON ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY OR ANY NON-WORKING FEDERAL HOLIDAY IN WHICH CASE THE INSPECTION SHALL BE COMPLETED BY THE END OF THE NEXT BUSINESS DAY AND/OR WORKING DAY, WHICHEVER OCCURS FIRST): (A) DISTURBED AREAS OF THE PRIMARY PERMITTEE'S CONSTRUCTION SITE ; (B) AREAS USED BY THE PRIMARY PERMITTEE FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION ; AND (C) STRUCTURAL CONTROL MEASURES. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN APPLICABLE TO THE PRIMARY PERMITTEE'S SITE SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S). FOR AREAS OF A SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION, THE PERMITTEE MUST COMPLY WITH PART IV.D .4. A. (4). THESE INSPECTIONS MUST BE CONDUCTED UNTIL A NOTICE OF TERMINATION IS SUBMITTED.
5) CERTIFIED PERSONNEL (PROVIDED BY THE PRIMARY PERMITTEE) SHALL INSPECT AT LEAST ONCE PER MONTH DURING THE TERM OF THIS PERMIT (I.E., UNTIL A NOTICE OF TERMINATION IS RECEIVED BY EPD) THE AREAS OF THE SITE THAT HAVE UNDERGONE FINAL STABILIZATION OR ESTABLISHED A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET PERENNIALS APPROPRIATE FOR THE REGION. THESE AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM AND THE RECEIVING WATER(S). EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATER(S).
6) BASED ON THE RESULTS OF EACH INSPECTION, THE SITE DESCRIPTION AND THE POLLUTION PREVENTION AND CONTROL MEASURES IDENTIFIED IN THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, THE PLAN SHALL BE REVISED AS APPROPRIATE NOT LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION. IMPLEMENTATION OF SUCH CHANGES SHALL BE MADE AS SOON AS PRACTICAL BUT IN NO CASE LATER THAN SEVEN (7) CALENDAR DAYS FOLLOWING EACH INSPECTION.

SAMPLING REQUIREMENTS (PART IV.D.6):

THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS PARAGRAPH SHALL NOT APPLY TO ANY LAND DISTURBANCE ASSOCIATED WITH THE CONSTRUCTION OF SINGLE-FAMILY HOMES WHICH ARE NOT PART OF A SUBDIVISION OR PLANNED COMMON DEVELOPMENT UNLESS FIVE (5) ACRES OR MORE WILL BE DISTURBED. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

SAMPLE TYPE:

1) ALL SAMPLING SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED); THE GUIDANCE DOCUMENT TITLED "NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT, EPA 833-8-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.
    A) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
    B) SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
    C) LARGE MOUTH, WELL CLEANED AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATION.
    D) MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED. IF AUTOMATIC SAMPLING IS UTILIZED AND THE AUTOMATIC SAMPLER IS NOT ACTIVATED DURING THE QUALIFYING EVENT, THE PERMITTEE MUST UTILIZE MANUAL SAMPLING OR RISING STAGE SAMPLING DURING THE NEXT QUALIFYING EVENT. DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER. SAMPLES ARE NOT REQUIRED TO BE COOLED.
    E) SAMPLING AND ANALYSIS OF THE RECEIVING WATER(S) OR OUTFALLS BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED TO EPD AS SPECIFIED IN PART IV.E OF THE NPDES PERMIT.

SAMPLING POINTS:

1) FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES.
    A) THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATERDISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
    B) THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
    C) IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).
    D) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
    E) THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
    F) THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
    G) PERMITTEES DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR LANDSCAPED ACCORDING TO THE PLAN (UNIFORMLY COVERED WITH LANDSCAPING MATERIALS IN PLANNED LANDSCAPED AREAS), OR EQUIVALENT PERMANENT STABILIZATION MEASURES AS REGION).
    H) ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS 111. D.3. OR 111. D.4., WHICHEVER IS APPLICABLE.

SAMPLING FREQUENCY:

1) THE PRIMARY PERMITTEE MUST SAMPLE IN ACCORDANCE WITH THE PLAN AT LEAST ONCE FOR EACH RAINFALL EVENT DESCRIBED BELOW. FOR A QUALIFYING EVENT, THE PERMITTEE SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER

DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN FORTY-FIVE (45) MINUTES OR AS SOON AS POSSIBLE.

2) HOWEVER, WHERE MANUAL AND AUTOMATIC SAMPLING ARE IMPOSSIBLE (AS DEFINED IN THIS PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORM WATER DISCHARGE.
3) SAMPLING BY THE PERMITTEE SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS:
    A) FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;
    B) IN ADDITION TO (a) ABOVE, FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORM WATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A NOT, IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST;
    C) AT THE TIME OF SAMPLING PERFORMED PURSUANT TO (a) AND (b) ABOVE, IF BMPS IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN TWO (2) BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS** UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMPS ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED;
    D) WHERE SAMPLING PURSUANT TO (a), (b) OR (c) ABOVE IS REQUIRED BUT NOT POSSIBLE (OR NOT REQUIRED BECAUSE THERE WAS NO DISCHARGE), THE PERMITTEE, IN ACCORDANCE WITH PART IV.D.4.A.(6), MUST INCLUDE A WRITTEN JUSTIFICATION IN THE INSPECTION REPORT OF WHY SAMPLING WAS NOT PERFORMED. PROVIDING THIS JUSTIFICATION DOES NOT RELIEVE THE PERMITTEE OF ANY SUBSEQUENT SAMPLING OBLIGATIONS UNDER (a), (b) OR (c) ABOVE; AND
    E) EXISTING CONSTRUCTION ACTIVITIES, I.E., THOSE THAT ARE OCCURRING ON OR BEFORE THE EFFECTIVE DATE OF THIS PERMIT, THAT HAVE MET THE SAMPLING REQUIRED BY (a) ABOVE SHALL SAMPLE IN ACCORDANCE WITH (b). THOSE EXISTING CONSTRUCTION ACTIVITIES THAT HAVE MET THE SAMPLING REQUIRED BY (b) ABOVE SHALL NOT BE REQUIRED TO CONDUCT ADDITIONAL SAMPLING OTHER THAN AS REQUIRED BY (c) ABOVE.

** NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF (a) AND (b) ABOVE BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR

EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

REPORTING [PART V.E]

1) THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART 11.C. OF THE PERMIT BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAMPLING RESULTS SHALL BE IN A CLEARLY LEGIBLE FORMAT. UPON WRITTEN NOTIFICATION, EPD MAY REQUIRE THE APPLICABLE PERMITTEE TO SUBMIT THE SAMPLING RESULTS ON A MORE FREQUENT BASIS. SAMPLING AND ANALYSIS OF ANY STORM WATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO THE EPD. THE SAMPLING REPORTS MUST BE SIGNED IN ACCORDANCE WITH PART V.G.2 OF THE PERMIT. SAMPLING REPORTS MUST BE SUBMITTED TO EPD UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THE PERMIT.
2) ALL SAMPLING REPORTS SHALL INCLUDE THE FOLLOWING INFORMATION:
    A) SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
    B) THE RAINFALL AMOUNT, DATE, EXACT PLACE AND TIME OF SAMPLING OR MEASUREMENTS;
    C) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE SAMPLING AND MEASUREMENTS;
    D) THE DATE(S) ANALYSES WERE PERFORMED;
    E) THE TIME(S) ANALYSES WERE INITIATED;
    F) THE NAME(S) OF THE CERTIFIED PERSONNEL WHO PERFORMED THE ANALYSES;
    G) REFERENCES AND WRITTEN PROCEDURES, WHEN AVAILABLE, FOR THE ANALYTICAL TECHNIQUES OR METHODS USED;
    H) THE RESULTS OF SUCH ANALYSES, INCLUDING THE BENCH SHEETS, INSTRUMENT READOUTS, COMPUTER DISKS OR TAPES, ETC., USED TO DETERMINE THESE RESULTS;
    I) RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU;" AND
    J) CERTIFICATION STATEMENT THAT SAMPLING WAS CONDUCTED AS PER THE PLAN.

3) ALL WRITTEN CORRESPONDENCE REQUIRED BY THIS PERMIT SHALL BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL (OR SIMILAR SERVICE) TO THE APPROPRIATE DISTRICT OFFICE OF THE EPD ACCORDING TO THE SCHEDULE IN APPENDIX A OF THIS PERMIT. THE PERMITTEE SHALL RETAIN A COPY OF THE PROOF OF SUBMITTAL AT THE CONSTRUCTION SITE OR THE PROOF OF SUBMITTAL SHALL BE READILY AVAILABLE AT A DESIGNATED LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI. IF AN ELECTRONIC SUBMITTAL IS PROVIDED BY EPD THEN THE WRITTEN CORRESPONDENCE

MAY BE SUBMITTED ELECTRONICALLY; IF REQUIRED, A PAPER COPY MUST ALSO BE SUBMITTED BY RETURN RECEIPT CERTIFIED MAIL OR SIMILAR SERVICE.

RETENTION OF RECORDS (PART IV.F):

1) THE PRIMARY PERMITEE SHALL RETAIN THE FOLLOWING RECORDS AT THE CONSTRUCTION SITE OR THE RECORDS SHALL BE READILY AVAILABLE AT A DESIGNATED ALTERNATE LOCATION FROM COMMENCEMENT OF CONSTRUCTION UNTIL SUCH TIME AS A NOT IS SUBMITTED IN ACCORDANCE WITH PART VI:
    A) A COPY OF ALL NOTICES OF INTENT SUBMITTED TO EPD;
    B) A COPY OF THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN REQUIRED BY THIS PERMIT;
    C) THE DESIGN PROFESSIONAL'S REPORT OF THE RESULTS OF THE INSPECTION CONDUCTED IN ACCORDANCE WITH PART IV.A.5. OF THIS PERMIT;
    D) A COPY OF ALL MONITORING INFORMATION, RESULTS, AND REPORTS REQUIRED BY THIS PERMIT;
    E) A COPY OF ALL INSPECTION REPORTS GENERATED IN ACCORDANCE WITH PART IV.D.4.A. OF THIS PERMIT;
    F) A COPY OF ALL VIOLATION SUMMARIES AND VIOLATION SUMMARY REPORTS GENERATED IN ACCORDANCE WITH PART III.D.2. OF THIS PERMIT; AND
    G) DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(1)(C) OF THIS PERMIT.
2) COPIES OF ALL NOI'S, NOT'S, REPORTS, PLANS, MONITORING REPORTS, MONITORING INFORMATION, INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS, RECORDS OF ALL DATA USED TO COMPLETE THE NOTICE OF INTENT TO BE COVERED BY THIS PERMIT AND ALL OTHER RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED BY THE PERMITTEE WHO EITHER PRODUCED OR USED IT FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE THAT THE NOT IS SUBMITTED IN ACCORDANCE WITH PART VI OF THIS PERMIT. THESE RECORDS MUST BE MAINTAINED AT THE PERMITTEE'S PRIMARY PLACE OF BUSINESS OR AT A DESIGNATED ALTERNATIVE LOCATION ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT THE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

Attachment J

Soil Stabilization Practices

Description of Erosion and Sediment Controls designed to retain sediment. ***Add as many rows as needed.***

BMPs Installed	***Location(s) On-Site***	***Inspection / Maintenance Schedule***	***Modifications / Replacement Activities***
Mulching & Seeding (D_S1) & D_S2)	Placed on any disturbed areas where construction activities are not taking place	Bare areas will be re-seeded & re-mulched if needed	
Sodding & Landscaping (D_S3)	Planted once an area has been final graded	Watered and mowed to ensure the plants survivability	

1) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASE IS PRECLUDED BY SNOW COVER OR OTHER ADVERSE WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
2) WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED, (E.G., THE TOTAL TIME PERIOD THAT THE CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED LESS THAN 21 DAYS) THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.
3) REAPPLICATION OF VEGETATIVE BMPS MAY BE REQUIRED TO ACHIEVE FULL COVERAGE. REFER TO VEGETATIVE BMP NOTES AND DETAILS FOR INSTALLATION AND MAINTENANCE OF VEGETATIVE BMP'S.

RECEIVED

JUN 29 2016

COUNTY ENGINEER

Permanent Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jeff Carter

Date: 6/10/2016

Signature of Customer/Agent

Regulated Entity Name: Zaxby's Restaurant

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

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

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

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

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

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

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

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

☑ N/A

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

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

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

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

☑ Design calculations (TSS removal calculations)
☑ TCEQ construction notes
☑ All geologic features
☑ All proposed structural BMP(s) plans and specifications

☐ N/A

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

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

    ☐ N/A

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

    ☑ N/A

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

    ☑ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    ☐ N/A

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

    ☐ N/A

Attachment B – BMPs for Upgradient Stormwater

The structural BMPs for upgradient stormwater includes the installation of two storm trooper permanent BMPs. One on the CVS parcel and the other on the subject parcel which will be a Zaxby's Restaurant. The upgradient flows consist of the CVS flows from their parking lot through the Zaxby's site to one of the storm trooper BMPs.

The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMPs is 1953 pounds.

The BMPs will be in place when the subject projects commences construction and will limit runoff discharge from the property.

Attachment C – BMPs for On-Site Stormwater

The structural BMPs for on-site stormwater includes the installation of a storm trooper permanent BMPs. One on the CVS parcel and the other on the subject parcel which will be a Zaxby's Restaurant.

The total project required TSS removal required annually is 1885 pounds and the actual removal for the permanent BMPs is 1953 pounds.

The BMPs will be in place when the subject projects commences construction and will limit runoff discharge from the property. Please refer to the following pages for the storm trooper description.

Specifications

CONCRETE : Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced with steel rebar conforming to ASTM A615 on required centers or equal.

GRATING: All steel fabrication shall be in accordance to AWA D1.1. Steel shall be ASTM A36 carbon steel, and hot-dipped galvanized after fabrication in accordance to ASTM A123

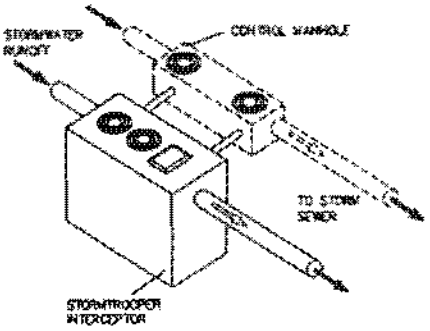
ACCESS: Manhole frames, covers or grates are manufactured of grey cast iron conforming to ASTM A48 Class 30. Manholes shall have 30 inch inside diameter and be traffic duty.

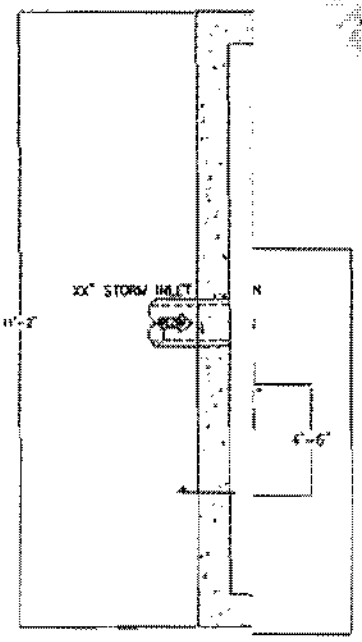
HATCHWAYS: Galvanized steel skid-resistant double leaf H-20 rated.

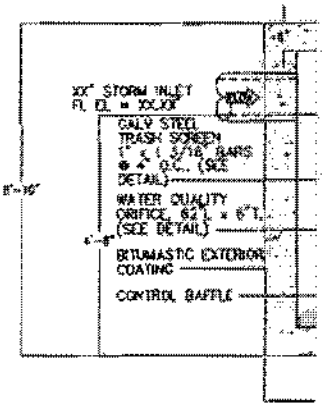
Engineering Data

Interceptor is structurally and hydraulically engineered conforming to regulatory standards. Nominal capacity as indicated.

Field excavation and preparation shall be completed prior to delivery of interceptor. Use dimensional data as shown.







General Information

The StormTrooper® AQ stormwater interceptor is designed to receive & treat stormwater runoff on a gravity-flow and once-through basis.

Guaranteed Performance
Pre-engineered coalescing media packs are utilized for enhanced separation which provide SUPERIOR performance compared to other separators which utilize baffles or diverters.

Applications
The Park StormTrooper interceptor is designed for stormwater runoff from commercial & industrial applications where excessive pollutants may harm the environment or damage sewer systems.

By-Pass Design
A by-pass manhole diverts stormwater during heavy peak storm periods. This allows for optimal interceptor sizing.

Maintenance
The Park StormTrooper interceptor requires minimal maintenance. Hydrocarbons and solids are removed from the stormwater via baffles and compartments.

These pollutants are removed from the separator when serviced by a licensed vacuum truck operator.

ENGINEER PROVIDE ELEVATIONS PRIOR TO FABRICATION

PROJECT :

CUSTOMER :

ORDER # : PM:

PARK

StormTrooper AQ

STORMTROOPER AQ
STORMWATER QUALITY INTERCEPTOR

SCALE	NONE	DWG. NO.	REV.
DATE	11/12/12	SWAQ-110-BYPASS	A

SWAQ-110-BYPASS

3.2.19 StormTrooper®

StormTrooper® is a patented stormwater treatment system used as a best management practice to intercept free oils, grease, TSS, debris, and other pollutants commonly found in storm water runoff. StormTrooper is manufactured in Texas by ParkUSA and is third-party tested by Southwest Research Institute (SwRI) in San Antonio.

Figure 1. The StormTrooper® Stormwater Separator

The StormTrooper Storm Water Treatment System utilizes "Enhanced" Gravity Separation. Enhanced Gravity Separation has been predominantly used in industrial applications of the separation of free oil and suspended solids from effluent water.

Enhanced Gravity Separation is an improvement over "gravity separation." Gravity separation is the phenomenon where a phase with higher density will settle and the phase with lower density will float to the surface of fluid. **Enhanced** Gravity Separation is achieved by utilizing CMP technology (coalescing media plates).

CMP technology introduces multi layer separation which provides **an extensive reduction in surface area and ultimately smaller separators**. Surface area requirements are reduced according to the number of CMP plates utilized. The StormTrooper System makes it feasible to achieve high levels of separation not typically achieved by a larger surface area separator.

Operation of StormTrooper® Storm Water Treatment System

Untreated storm water enters the first chamber of the unit known as the "grit chamber." Larger particles, as well as semi-buoyant material, are captured in this chamber to prevent excessive clogging and obstruction of the frontal area of the coalescing media plates. This reduces the potential for short circuiting and higher velocities through the plates. The "diffusion baffle," which separates the two chambers, works to perform two vital functions. First, it distributes flow evenly through the entire cross-section of the unit allowing for a more uniform delivery of pollutants through the plate. Next, a water quality orifice regulates flow through the plates and

lower section of unit to prevent re-suspension of pollutants. Each StormTrooper has a specific maximum flow rate that has been pre-calibrated. Higher flow rates by-pass the system once the pre-calibrated flow rates are exceeded.

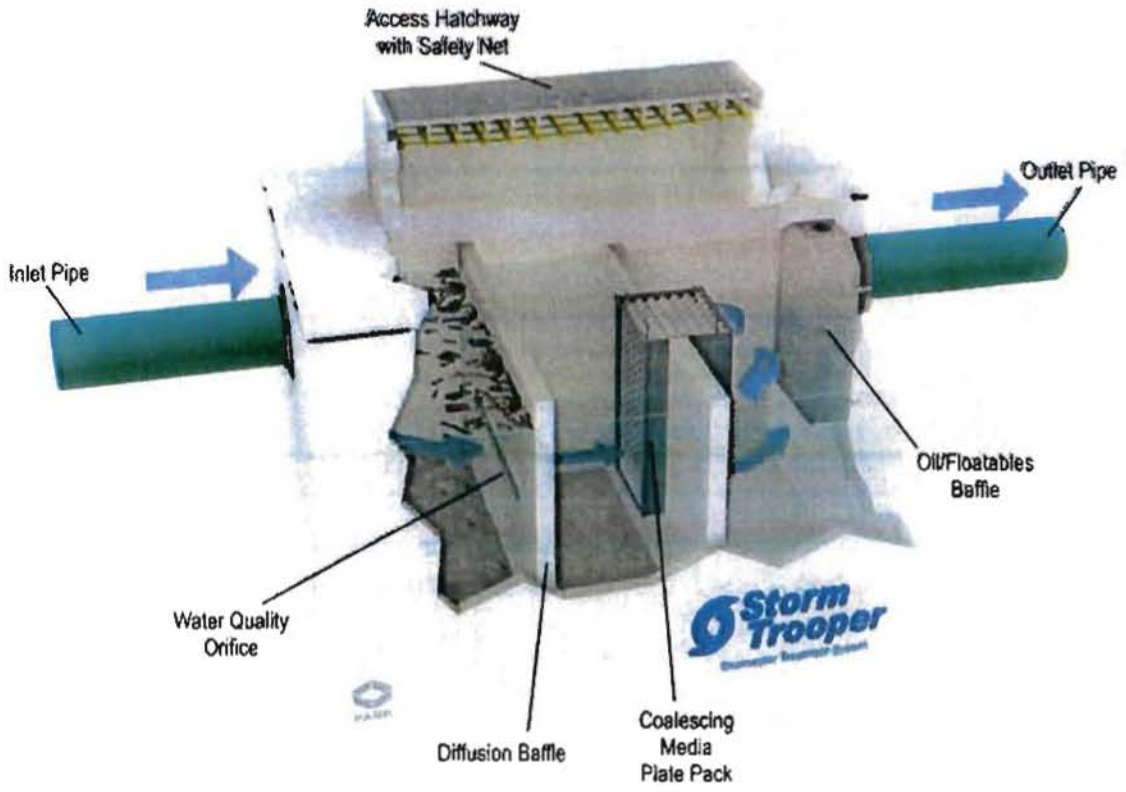


Figure 2. StormTrooper® Components

As the treatable flow of pollutants travel through the CMP (coalescing media plate pack) oil rises to the top and solids drop to the bottom through dedicated surfaces and weep holes. Plate supports at the bottom allow for easy removal of the solids that collect beneath the plates. Because of the steep angles and short travel distances, oils and solids are quickly released eventually floating to the surface of the StormTrooper unit or settling to the bottom of the unit.

Figure 3. Coalescing Media Plates

A submerged oil/floatable baffle is located around the effluent pipe to allow for the capture and containment of these pollutants. Collected pollutants will remain in the interceptor until removal. Because no filter cartridges are required operating costs are minimal. Furthermore, the StormTrooper System has no moving parts substantially reducing maintenance costs.

Selection Criteria

- Use when space constraints make installation of a surface treatment system infeasible
- Achieves greater than 80% TSS removal when properly sized, so can be used as a standalone BMP, as well as in a treatment train
- Provides smallest footprint possible and safest entry
- Appropriate for retrofits as well as new development

Limitations

- Below grade installation requires pump out to remove accumulated sediment and other pollutants
- Manhole covers must be removed to determine whether maintenance is required
- Requires regular maintenance for optimum efficiently

3.4.20 StormTrooper® Design Criteria

As a flow-based BMP, the StormTrooper is designed using the treatment flow rate for the site, as calculated using the Rational Method. The runoff rate from the tributary area is calculated using Equation 3.4:

$$Q = CIA$$

Where:

Q	=	flow rate (ft^3/s)
C	=	runoff coefficient for the tributary area
I	=	design rainfall intensity (1.1 in/hr)
A	=	drainage area (ac)

The runoff coefficient is calculated as the weighted average of the impervious and pervious areas. Runoff coefficient for impervious areas is assumed to be 0.90 and the runoff coefficient for pervious areas is assumed to be 0.03.

The overflow rate (hydraulic loading rate) is calculated using Equation 3.5:

$$V_{OR} = Q/A$$

Where:

V_{OR}	=	overflow rate (ft/s)
Q	=	runoff rate calculated with Equation 3.4 (ft^3/s)
A	=	surface Area of Unit (ft^2)

The overflow rate can then be used with Table 3 to determine the StormTrooper unit that provides the desired TSS removal.

The StormTrooper system is available in several models. The table below summarizes the various unit models and their corresponding dimensions.

Table 1. StormTrooper® *SWAQ* Models

Storm Trooper Model SWAQ	System Length (in)	System Width (in)	Minimum Settling Depth (in)	Vault Surface Area (sf)	Number of Plate Columns	Number of Stack Feet / Column	Projected Surface Area of Plates (sf)	Total Surface Area of System (sf)
05	84	36	48	21	1	2	79	100
10	90	48	48	30	1	3	119	149
20	120	60	48	50	2	2.5	198	248
25	144	72	48	72	3	2.5	297	369
40	180	90	48	113	4	3	475	588
70	204	96	48	136	5	3	594	730
110	240	120	48	200	6	3	713	913

The characteristics of the catchment area are defined as **Effective Area** (EA). The Effective Area is the number of acres draining to a single treatment unit and is calculated using the following equation:

$$EA = (A_i * 0.9) + (A_p * 0.03)$$

Where:

EA = Effective Area (ac)
A_i = Impervious Area (ac)
A_p = Pervious Area (ac)

StormTrooper models can be selected from Table 2 below that will achieve an 80% TSS reduction at the corresponding Effective Areas shown.

Table 2. StormTrooper® Sizing Chart (for 80% Reduction)

Effective Area - EA Acres	StormTrooper® Model
Less than 0.13	SWAQ-05
0.14 - 0.20	SWAQ-10
0.21 - 0.33	SWAQ-20
0.34 – 0.50	SWAQ-25
0.51 – 0.79	SWAQ-40
0.80 – 0.98	SWAQ-70
0.99 – 1.23	SWAQ-110

The **StormTrooper® *SWAQ*** system for the Edwards Aquifer is designed using the overflow rates provided in Table 3. These were calculated based on the surface area of the vault alone and a rainfall intensity of 1.1 in/hr.

Table 3. StormTrooper® BMP Efficiency vs. Overflow Rate (V_{OR})							
Eff (%)	Overflow (ft/s)	Eff (%)	Overflow (ft/s)	Eff (%)	Overflow (ft/s)	Eff (%)	Overflow (ft/s)
40%	1.74E-02	55%	6.28E-03	70%	2.54E-03	85%	8.38E-04
41%	1.66E-02	56%	6.00E-03	71%	2.42E-03	86%	7.78E-04
42%	1.58E-02	57%	5.72E-03	72%	2.30E-03	87%	7.18E-04
43%	1.51E-02	58%	5.44E-03	73%	2.18E-03	88%	6.58E-04
44%	1.43E-02	59%	5.16E-03	74%	2.06E-03	89%	5.98E-04
45%	1.35E-02	60%	4.87E-03	75%	1.93E-03	90%	5.36E-04
46%	1.27E-02	61%	4.59E-03	76%	1.81E-03	91%	4.95E-04
47%	1.20E-02	62%	4.35E-03	77%	1.69E-03	92%	4.54E-04
48%	1.12E-02	63%	4.11E-03	78%	1.57E-03	93%	4.13E-04
49%	1.04E-02	64%	3.87E-03	79%	1.45E-03	94%	3.72E-04
50%	9.65E-03	65%	3.63E-03	80%	1.33E-03	95%	3.31E-04
51%	8.88E-03	66%	3.39E-03	81%	1.23E-03	96%	2.90E-04
52%	8.11E-03	67%	3.14E-03	82%	1.13E-03	97%	2.49E-04
53%	7.34E-03	68%	2.90E-03	83%	1.04E-03	98%	2.08E-04
54%	6.56E-03	69%	2.66E-03	84%	9.38E-04	99%	1.67E-04

Example:

A civil engineer is designing a 1.0 acre office park located over the Edward's Aquifer. 0.90 acres, which is 90% impervious, is draining to a single StormTrooper unit. 0.10 Acres, which is 10% impervious, cannot be treated and therefore TSS removal must be compensated within the single unit. Below is a detailed example of how to calculate annual load reduction of the StormTrooper model chosen.

PROJECT: StormTrooper® SWAQ - 40 Example AREA #: 1 DATE: 6/10/2011

Table 2. Sizing Chart for 80% Reduction

Effective Area (Ac.)	StormTrooper® Model	Total Surface Area (ft^2)
E.A. < 0.13	SWAQ - 05	100
0.14 < E.A. < 0.20	SWAQ - 10	149
0.21 < E.A. < 0.33	SWAQ - 20	248
0.34 < E.A. < 0.50	SWAQ - 25	369
0.51 < E.A. < 0.79	SWAQ - 40	588
0.80 < E.A. ≤ 0.98	SWAQ - 70	730
0.99 < E.A. ≤ 1.23	SWAQ - 110	913

Use additional sheets for additional units.
A_I = Impervious Cover (Acres)
A_P = Pervious Cover (Acres)
A = Total Area (Acres)
P = Avg Annual Rainfall (33" for Example)
A_N = Net Impervious Cover (Acres)

List only the uncaptured area being compensated for in the unit. TSS compensation for uncaptured areas can be divided up between multiple units or BMP's.

BMP Catchment Area "A"		Untreated Catchment Area "A" - Compensation Req'd
A_{I1} = 0.81		A_{I2} = 0.01
A_{P1} = 0.09		A_{P2} = 0.09
A_1 = 0.90		A_2 = 0.1
A_{N1} = 0.81		A_{N2} = 0.01
L_{M1} = 1534.90		L_{M2} = 8.98

1 StormTrooper® Model Sizing based on Individual Catchement Areas to the BMP.

Effective Area (EA) = (0.9 x A_I) + (0.03 x A_P)

EA = (0.9 x 0.81) + (0.03 x 0.09) = 0.7317 Acres *Page 3-27 "RG-348" (C=0.90 Imp. Area, C=0.03 for Perv. Area)*

From Table 2 choose an initial Model: SWAQ - 40

Surface Area of Model: 588 Sq. Ft.

Required TSS removal for catchment area:

$L_{M1} = 27.2 \times A_N \times P$ *Equation 3.3 "RG-348"*

$L_{M1} = 27.2 \times 0.81 \times 33 = 727.06$

2 Overflow Rate

$I'_{OR} = Q/SA$. *where:* $Q = i(EA)$ *Equation 3.4 & 3.5 "RG-348"*

Page 3-30 "RG-348" (i = 1.1 in./hr., 90% Volume Treated)

$Q = (i \times EA)/Model\ Surface\ Area$

Q = (1.1 x 0.7317) / 588 = 0.00137 fps

3 BMP efficiency (Table 3). If the overflow rate is between two percent efficiencies, use the smaller.

V_{OR} =	0.00133 fps
BMP Eff. (%) =	80 %

4 Maximum TSS Removal of BMP: L_{R1}

$L_r = (BMP\ Efficiency) \times P \times (A_I \times 34.6 + A_P \times 0.54)$ *Equation 3.8 "RG-348"*

L_r = Load Removed by BMP

BMP Efficiency = TSS Removal Efficiency (expressed as a decimal fraction from Table 3)

L_{R1} = 0.80 x 33 x (0.81 x 34.6 + 0.09 x 0.54) = 741.17 #TSS

TSS removal exceeding required L_M to be counted towards untreated area = L_C

$L_C = L_{R1} - L_{M1}$

LC = 741.17 - 727.06 = 14.11 #TSS

Required TSS removal for untreated area:

L_{M2} = 27.2 x 0.01 x 33 = 8.98 #TSS < 14.11 #TSS => O.K.

UNIT IS SUFFICIENTLY SIZED TO REMOVE REQUIRED TSS FROM BOTH CAPTURED AND UNCAPTURED AREAS!!

3.5.22 StormTrooper® Maintenance Guidelines

A preventative maintenance cleanout schedule is the most valuable tool for maintaining the proper operation of StormTrooper. Separator maintenance costs will be greatly reduced if a good housekeeping plan for the property is developed i.e., trash pickup, lawn maintenance, dumpster control, etc.

StormTrooper separators have no moving parts and no filter cartridges. The manufacturer recommends quarterly ongoing inspections for accumulated pollutants. Pollutant deposition may vary from year to year. Quarterly inspections ensure that the system is serviced at the appropriate times. Table 4 lists recommended maximum capacities of oil and sediment. Professional vacuum services should be considered when capacities exceed these recommended levels.

Table 4. StormTrooper® Maintenance Levels		
Model Number	**Oil Depth**	**Sediment Depth**
SWAQ-05	12"	12"
SWAQ-10	12"	12"
SWAQ-20	12"	12"
SWAQ-25	12"	12"
SWAQ-40	12"	12"
SWAQ-70	12"	12"
SWAQ-110	12"	12"

It is very useful to keep a record of each inspection; therefore, an inspection and maintenance form has been attached for your use.

Inspection Procedures

1. Easiest observation and maintenance is best accomplished during non-flow (dry weather) conditions 3-4 days after the most recent rain.

2. Remove interceptor covers or open hatchway to observe conditions. Remove hatchway safety net ("EnterNet"). Observe for trash and debris and remove if necessary. This is the most important maintenance requirement. If absorbent pillows are utilized, observe their condition. Uniform browning or gray color of the pillow means they should be replaced. Observe baffle debris screen and clean if necessary.

3. Coalescing plates are self-cleaning and seldom require maintenance unless damaged. Do not walk on or stand on plate packs. Call ParkUSA (888-611-PARK) for replacement parts.

4. Check of the depth (level) of oil and sediment with a tank sampler device designed for this purpose.

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

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JUN 29 2016

COUNTY ENGINEER

I Gary Avants,
Print Name

Owner,
Title - Owner/President/Other

of Avants Texas Properties, LLC,
Corporation/Partnership/Entity Name

have authorized Jeff Carter
Print Name of Agent/Engineer

of Carter Engineering Consultants, Inc.
Print Name of Firm

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

I also understand that:

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

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

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

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

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director. TCEQ R-13 2016 JUN 06 12:08

SIGNATURE PAGE:

Applicant's Signature

5/31/16
Date

THE STATE OF Georgia §

County of Oconee §

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

GIVEN under my hand and seal of office on this 31st day of May.

NOTARY PUBLIC

Tammy L. Arnold
Typed or Printed Name of Notary

TAMMY LYNN ARNOLD NOTARY PUBLIC My Comm. Expires May 2, 2020 WILKES COUNTY, GEORGIA

MY COMMISSION EXPIRES: May 2, 2020

RECEIVED

JUN 29 2016

COUNTY ENGINEER

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

I Sally Lambert,
Print Name

Member,
Title - Owner/President/Other

of NEWB, LLC,
Corporation/Partnership/Entity Name

have authorized Gary Avants
Print Name of Agent/Engineer

of Avants Texas Properties, LLC
Print Name of Firm

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

I also understand that:

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

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

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

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

SIGNATURE PAGE:

Sally Lambert
Applicant's Signature

6/17/16
Date

THE STATE OF Alabama §

County of Madison §

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

GIVEN under my hand and seal of office on this 17th day of June 2016.

L. Schwartz
NOTARY PUBLIC

Lisa A. Schwartz
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: October 2016

RECEIVED

JUN 29 2016

COUNTY ENGINEER

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: ZAXBY'S RESTAURANT

Regulated Entity Location: NW corner of Highway 46 and Oak Run Parkway

Name of Customer: Avants Texas Properties, LLC

Contact Person: Gary Avants Phone: 706-316-9888

Customer Reference Number (if issued):CN _____

Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☑ Comal ☐ Kinney

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

☐ Austin Regional Office

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

☑ San Antonio Regional Office

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

Site Location (Check All That Apply):

☑ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.08 Acres	$ 3,000.00
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: _____ Date: 6/3/2016

TCEQ-0574 (Rev. 02-24-15)

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

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JUN 27 2016

COUNTY ENGINEER

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.) JUN 21 2016

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

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

SECTION II: Customer Information

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

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

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

6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John)	If new Customer, enter previous Customer below:
Avants Texas Properties, LLC	

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
802223314	32057380688	46-371698	

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

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

12. Number of Employees ☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated? ☒ Yes ☐ No

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

☐ Owner ☐ Operator ☒ Owner & Operator

☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:							
	1091 Founders Boulevard						
	Suite D						
	City	Athens	State	GA	ZIP	30606	ZIP + 4

16. Country Mailing Information (if outside USA)	17. E-Mail Address (if applicable)
	garya@avantsmgmt.com

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(706) 316 - 9888		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

ZAXBY'S RESTAURANT

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

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	NW corner of Highway 46 and Oak Run Parkway				
26. Nearest City			State	Nearest ZIP Code	
New Braunfels			TX	78132	
27. Latitude (N) In Decimal:	29°43'12.06"N		28. Longitude (W) In Decimal:	98° 9'52.72"W	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
5814		722513	

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

Zaxby's Restaurant with drive-thru

34. Mailing Address:	1091 Founders Boulevard						
	Suite D						
	City	Athens	State	GA	ZIP	30606	ZIP + 4	
35. E-Mail Address:	garya@avantsmgmt.com						
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)			
(706) 316 - 9888				( ) -			

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

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
		13000086		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name: Jeff Carter, P.E.			41. Title: Authorized Agent
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(770) 725 - 1200		(770) 725 - 1204	jeff@carterengineering.net

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Carter Engineering Consultants, Inc.	Job Title:	Civil Engineer
Name(*In Print*):	Jeff Carter, P.E.	Phone:	(770) 725-1200
Signature:		Date:	