TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

August 17, 2016

RECEIVED

AUG 18 2016

COUNTY ENGINEER

Mr. Charlie Hill
DHJB Development, LLC
102A Cordillera Ridge
Boerne, Texas 780006

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: Johnson Ranch WWTP; Located at 673 Horseshoe Path; Bulverde, Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Subchapter B Edwards Aquifer

Regulated Entity No. RN104912704; Additional ID 13000196

Dear Mr. Hill:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP Application for the above-referenced project submitted to the San Antonio Regional Office by Bowman Consulting on behalf of DHJB Development, LLC on July 1, 2016. Final review of the CZP was completed after additional material was received on August 10, 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 development will have an area of approximately 3.888 acres with 0.374 acres (9.61 percent) of impervious cover. The project proposes the construction of the Johnson Ranch Wastewater Treatment Plant and associated roadways.

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, a sedimentation/filtration basin and an engineered vegetative filter strip (VFS), designed using the TCEQ technical guidance document,

Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment is 335 pounds of TSS generated from a total of 0.374 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The total capture volume of the sedimentation/filtration basin is 2,145 cubic feet (1,737 cubic feet required). The filtration system for the basin will consist of 250 square feet of sand (145 square feet required) meeting ASTM C-33, which is 18 inches thick and an underdrain piping system covered with a minimum two inch gravel layer. The required TSS removal is 287 pounds and the designed TSS removal is 287 pounds.

A VFS is proposed to treat 0.054 acres of impervious cover. The required TSS removal is 48 pounds. The VFS shall have a uniform slope of less than 20 percent and vegetated cover of at least 80 percent which will extend along the entire length of the contributing area and will be free of gullies or rills that can concentrate overland flow. The contributing area shall be relatively flat to evenly distribute runoff, and the impervious cover in the direction of flow shall not exceed 72 feet.

SPECIAL CONDITION

I. 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 format (Deed Recordation Affidavit, TCEQ-0625A) that you may use to deed record the approved CZP is enclosed.

II. The applicant is hereby advised that the after-the-fact approval of the Contributing Zone Plan application, as provided by this letter, shall not absolve the applicant of any violations of Commission rules related to this project.

III. The permanent pollution abatement measures shall be operational prior to first occupancy of a facility within the measure's respective drainage area.

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. 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 Contributing Zone Plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP 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.

6. 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 name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.
7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) 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.

During Construction:

8. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If 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 significantly reduced. 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).
10. 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.
11. 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.
12. 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.
13. 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. 5, above.

After Completion of Construction:

14. Owners of permanent BMPs and measures must insure that the 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 San Antonio Regional Office within 30 days of site completion.

15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through the San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
17. A Contributing Zone 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 Contributing Zone Plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

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,

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

LB/DPM/eg

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

cc: Ms. Mia Parton, P.E., Bowman Consulting
The Honorable Bill Krawietz, City of Bulverde
Mr. Thomas H. Hornseth, P.E., Comal County Engineers
Mr. George Wissmann, Comal Trinity Groundwater Conservation District
Mr. Roland Ruiz, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC212

Bowman
CONSULTING

RECEIVED
AUG 12 2016
COUNTY ENGINEER

REC'D
AUG 10 2016
Region 13

TO: Ms. Dianne Pavlicek-Mesa, P.G.
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
14250 Judson Rd
San Antonio, TX 78233

DATE: 8/4/2016

JOB NO.: 5522-01-105

JOB NAME: Johnson Ranch WWTP CZP Application

RECEIVED
AUG 12 2016
COUNTY ENGINEER

LETTER OF TRANSMITTAL

WE ARE SENDING THE ITEMS VIA HAND DELIVERY

COPIES	DESCRIPTION
1	Comments Response
1	Original
5	Copies
1	PDF (via email)

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ For approval & signature ☐ For review and comment ☐ For Bids due _____ to us
☐ As requested ☐ For your use ☐ _____

REMARKS

Ms. Dianne, Please let me or Tim Holland know if you have any questions.
Best regards,
Mia Parton, PE

cc: Tim Holland

SIGNED: _____

Bowman
CONSULTING

August 4, 2016

RECEIVED
AUG 12 2016
COUNTY ENGINEER

Dianne Pavlicek-Mesa, P.G.
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality
14250 Judson Rd
San Antonio, TX 78233

Re: Edwards Aquifer, Comal County

Name of Project: Johnson Ranch WWTP; Located at 30673 Horseshoe Path; Bulverde, Texas

Plan Type: Request for the Contributing Zone Plan; 30 Texas Administrative Code (TAC) Chapter 213

San Antonio File No. 13000196

Dear Ms. Dianne Pavlicek-Mesa,

Thank you for your comments (round 1) as a response to our Johnson Ranch WWTP CZP Application submittal dated July 1, 2016. We have addressed them as follows:

1. Please explain how existing impervious cover (gravel drives + buildings) listed in the summary table on Sheet 9 of 67 is being treated. If no treatment is being provided, is the existing impervious cover dated 1984 or older?
   Bowman Response:

   The "existing impervious cover" refers to the condition of the site prior to this project. The "proposed impervious cover" represents the condition of the site at the completion of the project. The "proposed impervious cover" includes existing impervious cover incorporated in to the project. Accordingly the existing impervious cover is being treated by the proposed BMPs.

   We have added a pre-development category that reflects conditions prior to plant construction on the project site.

   The clarified information has been included in Attachments C, E, J, K, and sheet 9 of the construction plans has been revised to clarify this issue.

2. Please note that item #15 of the CZP Application lists 0.413 acres of impervious cover while the summary table on Sheet 9 of 67 infers 0.42 acres of proposed impervious cover. Please review and revise accordingly.
   Bowman Response:

   The application and Sheet 9 has been revised to be consistent. The tables on Sheet 9 of 67 has been revised to clarify impervious cover and drainage calculations.

Bowman Consulting Group, Ltd. • 1120 S. Capital of TX HWY, Bldg. 3, Ste. 220 • Austin, Texas 78746 • P: 512.327.1180
TBPE Firm No. 14309 • TBPLS Firm No.101206-00

3. Please revise Attachment K of the CZP Application (BMPs for On-Site Stormwater) to include vegetative filter strips.
   Bowman Response:

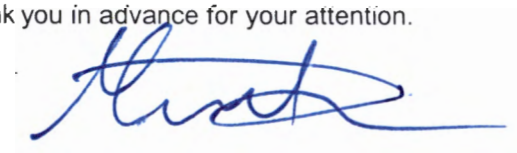
   Attachment K has been revised to include the Vegetative Filter Strip.

4. Please provide Attachment N of the CZP Application (Inspection, Maintenance, Repair and Retrofit Plan) to include vegetative filter strips.
   Bowman Response:
   Attachment N has been revised to include maintenance practices for a Vegetative Filter Strip.

   In addition the above change, the application has been revised to reflect a change in the plat for the site to be dedicated for the treatment plant. That WWTP site is now 3.888 acres vs. the previous 1.61 acres.

Please do not hesitate to contact me for any additional clarifications or questions in regards to our submittal.

Thank you in advance for your attention.



Best regards,

Mia Parton, P.E.
Bowman Consulting
mparton@bowmancg.com

ATTACHMENTS REVISED 8-4-2016:

TCEQ-10257 Contributing Zone Plan Application

- Updated signature and date of the
- Revised the impervious cover numbers under item 15

Attachment C – Project Narrative

- Updated acres

Attachment E – Volume and Character of Stormwater

- Revised

Attachment J – BMPs for Upgradient Stormwater

- Revised

Attachment K – BMPs for Onsite Stormwater

- Revised

Attachment N – Inspection, Maintenance, Repair and Retrofit Plan

- Revised

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), 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.

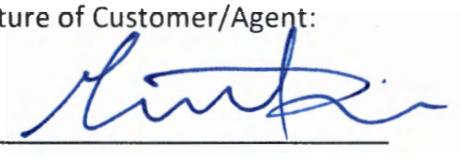
Signature

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 **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Mia Parton, PE.

Date: 8/4/2016

Signature of Customer/Agent:



Regulated Entity Name: Johnson Ranch Wastewater Treatment Plant

Project Information

1. County: Comal
2. Stream Basin: Cibolo Creek
3. Groundwater Conservation District (if applicable): 99 - Comal Trinity GCD 6/17/15.
4. Customer (Applicant):

   Contact Person: Charlie Hill
   Entity: DHJB Development, LLC
   Mailing Address: 102A Cordillera Ridge
   City, State: Boerne, TX Zip: 78006
   Telephone: (830) 336-2518 Fax: N/A
   Email Address: cphill@dhinv.com

5. Agent/Representative (If any):

Contact Person: Mia Parton, P.E.
Entity: Bowman Consulting
Mailing Address: 1120 S. Cap. Of Tx Hwy, Bldg 3, Suite 220
City, State: Austin, TX Zip: 78746
Telephone: (512) 327-1180 Fax: (512) 327-4062
Email Address: mparton@bowmanconsulting.com

6. Project Location:

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

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.
Address: 30673 Horseshoe Path, Bulverde TX 78163. The site is located approximately 3,000 linear feet north of the FM 1863 and Johnson Way intersection in Bulverde, Texas, Comal County.

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

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

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. 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

11. Existing project site conditions are noted below:

☐ Existing commercial site
☒ Existing industrial site
☐ Existing residential site

[X] Existing paved and/or unpaved roads
[X] Undeveloped (Cleared)
[X] Undeveloped (Undisturbed/Not cleared)
[ ] Other: _____

12. The type of project is:

[ ] Residential: # of Lots: _____
[ ] Residential: # of Living Unit Equivalents: _____
[ ] Commercial
[X] Industrial
[X] Other: Wastewater Treatment Plant

13. Total project area (size of site): 3.888 Acres

Total disturbed area: 1.66 Acres

14. Estimated projected population: N/A

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	*Sq. Ft.*	*Sq. Ft./Acre*	*Acres*
Structures/Rooftops	2,067	÷ 43,560 =	0.047
Parking		÷ 43,560 =	
Other paved surfaces	14,255	÷ 43,560 =	0.327
Total Impervious Cover	16,322	÷ 43,560 =	0.375

Total Impervious Cover 0.375 **÷ Total Acreage** 3.888 **X 100 =** 9.64 **% Impervious Cover**

16. [X] **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. [X] Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

[X] N/A

18. 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.

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

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

Length of R.O.W.: _____ feet.
Width of R.O.W.: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

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.

22. ☐ A rest stop will be included in this project.

☐ A rest stop will not be included in this project.

23. ☐ 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

24. ☒ **Attachment E - 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 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

25. ☒ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☐ N/A

26. Wastewater will be disposed of by:

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

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

☐ Existing.
☐ Proposed.

☒ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

34. [x] The Site Plan must have a minimum scale of 1" = 400'.

    Site Plan Scale: 1" = 30 '.

35. 100-year floodplain boundaries:

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

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

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA MAP NUMBER 48091C0220F DATED SEPTEMBER 2,2009

36. [X] 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, etc. are shown on the site plan.

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

37. [X] A drainage plan showing all paths of drainage from the site to surface streams.

38. [X] The drainage patterns and approximate slopes anticipated after major grading activities.

39. [X] Areas of soil disturbance and areas which will not be disturbed.

40. [x] Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. [x] Locations where soil stabilization practices are expected to occur.

42. [X] Surface waters (including wetlands).

    ☐ N/A

43. [X] Locations where stormwater discharges to surface water.

    ☐ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    [x] Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

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

☐ N/A

48. ☒ 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

49. ☒ 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

50. 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.

51. 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 I - 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.
- [x] The site will not be used for multi-family residential developments, schools, or small business sites.

52. [x] **Attachment J - BMPs for Upgradient Stormwater**.

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

53. [x] **Attachment K - BMPs for On-site Stormwater**.

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

54. [ ] **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

- [x] N/A

55. [x] **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

- ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
- ☒ Signed by the owner or responsible party
- ☒ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
- ☒ Contains a discussion of record keeping procedures

☐ N/A

57. ☐ **Attachment O - 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

58. ☒ **Attachment P - 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 result in water quality degradation.

☐ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☒ 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.

60. ☒ 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.

Administrative Information

61. [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.

62. [x] Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. [x] The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

[x] The Temporary Stormwater Section (TCEQ-0602) is included with the application.

Attachment C – Project Narrative

The Johnson Ranch Wastewater Treatment Plant is a 1.66 acre low density non-residential development on a 3.888 ac lot located in Comal County, TX, within the City of Bulverde ETJ.

The 3.888 ac. plant site is currently being platted as Lot 36A, Block D, Johnson Ranch Subdivision, Unit 1, Phase 2. Only 1.66 ac. of the lot will be used for construction of this project.

The original tract of land was used for agriculture for many years. The site area is 3.888 acres, and the total disturbed area is1.66 acres. The pre-development impervious cover was 0 square feet. The existing treatment plant constructed circa 2013 included 13,461 SF of gravel roads, 1,870 SF of building/slab, and 1,072 SF of tankage. The total existing impervious cover (excluding tank) is approximately 0.40 acres.

The proposed treatment plan removes some of the existing impervious cover and adds new impervious cover resulting in a reduced total of impervious cover including 14,255 SF of proposed drives and 2,067 SF of buildings/slab for a total of 0.37 ac., a reduction of 0.03 ac. The proposed impervious cover will be condition of the site after this proposed construction is complete.

The contributing drainage areas to the site exceed the site boundaries. The off-site areas are undeveloped and will remain open space.

The proposed impervious cover will be treated using two BMPs. The plant site area (BMP sedimentation/filtration) has a drainage area of 2.44 ac and includes 0.32 ac. of impervious cover. The south 200 LF of access road (BMP vegetative filter strip) has a drainage area of 0.39 ac. and includes 0.05 ac. of impervious cover.

The dedicated treatment plant site will contain 3.888 ac.

Attachment E – Volume and Character of Stormwater

Stormwater runoff will increase as a result of this overall development.

For a 25-year storm event, the proposed project drainage areas had a pre-development total flow of 15.3 cfs, and after full development will generate approximately 17.5 cfs of runoff.

For a 100-year storm event, the proposed project drainage areas a pre-development total flow of 119.1cfs, and after full development will generate approximately 21.8 cfs of runoff.

The Composite C runoff coefficient for the site changes from approximately 0.46 before development to 0.52 after full build-out.

The project drains into infrastructure built for the Johnson Ranch subdivision. The infrastructure is adequate for the proposed project.

Values are based on the hydraulic study of the subdivision using HEC-HMS with runoff coefficients from the TxDOT Hydraulic Design Manual – Comal County.

Attachment J – BMPs for Upgradient Stormwater

This WPAP submittal consists of a Wastewater Treatment Plant and access road located within the Johnson Ranch Subdivision. The plan will be located on a 3.888 ac. lot. 1.66 ac. will be disturbed by this project.

The project has two drainage basins: 1) for the plant site proper and 2) for the south 200 LF of the plant access road. Both basins include upgradient areas.

The treatment plant site will be treated using a Sedimentation/Filtration Pond BMP.

The 200 LF of access road will be treated using a Vegetative Filter Strip BMP.

All upgradient stormwater from both areas with impervious cover is being conveyed to the proposed BMPs for this project for treatment. The BMPs are sized to provide treatment for the off-site upgradient storm water. All upgradient off-site drainage area have no impervious cover.

Calculations for BMPs and Drainage are included on the construction plans.

Attachment K – BMPs for On-site Stormwater

This WPAP submittal consists of a modifications to an existing Wastewater Treatment Plant and consists of new impervious cover and remaining portions of impervious cover created by the existing wastewater treatment plant located within the Johnson Ranch Subdivision.

Two BMPs are proposed. The plant site proper and its upgradient drainage area will be treated using a sedimentation/filtration pond. The south 200 LF of the access road and its upgradient area will be treated using a Vegetative Filter Strip.

ATTACHMENT N
INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

SUGGESTED MAINTENANCE PLAN AND SCHEDULE FOR PERMANENT BEST MANAGEMENT PLANS

PROJECT NAME: JOHNSON RANCH – WASTEWATER TREATMENT PLANT

ADDRESS: 30673 HORSESHOE PATH

CITY, STATE, ZIP: BULVERDE, TX 78163

Partial Sedimentation/Filtration Pond

1. During site construction the sediment load to the partial sand filter/sedimentation basin must be carefully monitored and the sediment shall be removed when 1/3 of the basin volume is lost.

2. Construction within the watershed should be complete prior to exposing the filter to storm water runoff. All exposed areas should be stabilized to minimize sediment loads.

3. Runoff from any un-stabilized construction areas should be treated via a separate sediment system that bypasses the filter media.

4. Inspections:

   BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection:

   A. erosion areas inside and downstream of the BMP must be identified and repaired or re-vegetated immediately.

   B. damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately.

   C. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage.

5. Sediment Removal

Remove sediment from the inlet structure and sedimentation chamber when sediment buildup reaches a depth of 6 inches or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the inlet structure at least every year and from the sedimentation basin at least every 5 years.

6. Media Replacement

Maintenance of the filter media is necessary when the drawdown time exceeds 48 hours. When this occurs, the upper layer of sand should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced. In filters that have been regularly maintained, this should be limited to the top 2 to 3 inches.

7. Debris and Litter Removal.

Debris and litter will accumulate near the sedimentation basin outlet device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.

8. Filter Underdrain.

Clean underdrain piping network to remove any sediment buildup as needed to maintain design drawdown time.

9. Mowing.

Grass areas in and around sand filters must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

10. Record Keeping.

Project superintendent shall have a log for entering site inspections for all regular rainfall events. Results of inspections, including damage and any recommended remedial actions, shall be noted along with inspection personnel data and date of completion of any action. The log shall be made available for review by TCEQ, if requested.

11. Proper disposal of accumulated silt and vegetative matter shall be accomplished following TCEQ and local authority rules.

Vegetative Filter Strip

1. Maintenance Practices:

   Reseed or interseed bare areas of the strip, preferably using mulch or sod.

   Weed Control- Control all noxious weeds as identified by state and local laws, by: (1) treating with chemicals per label directions, or (2) spot mow before seed heads form.

   Mowing- Mow and remove hay as required to maintain moderate vegetation height The vegetation should nor be mowed closer than 6 inches.

   Rodent Control- Control rodent infestations that adversely affect the ground cover or the ability to carry out management activities.
   Dead Furrows- Prevent dead furrows from forming along the edge of the filter strip.

   Do not apply animal or other organic waste.

   Sol test periodically and apply soil amendments according to test results and recommendations.

   Repair small breaks in the sod and small erosion channels immediately.

   Periodically remove unevenly deposited sediment accumulation that disrupts sheet flow and re-level the filter strip and filter strip-field interface. Reseed the leveled area if necessary or other areas that do not have adequate permanent cover.

2. Inspections:
   Inspect the Filter Strip frequently, especially after intense rainfall and runoff events of long duration. Repair small breaks in the sod and small erosion channels immediately.

   BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection:
   A. erosion areas inside and downstream of the BMP must be identified and repaired or re-vegetated immediately.
   B. damage to the structural elements of the system (vegetation) must be identified and repaired immediately.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Plan Prepared By: Charles Wirtanen, PE

Mailing Address: Bowman Consulting Group

1120 South Capital of Texas Hwy, Building 3, Suite 220

City, State: Austin, TX Zip: 78746

Telephone: (512) 327-1180 Email: cwirtanen@bowmancg.com

Signature

08/04/2016

Date:

Responsible Party: DHJB DEVELOPMENT, LLC

Mailing Address: 102A CORDILLERA RIDGE

City, State: BOERNE, TX Zip: 78006

Telephone: 830-336-2518 FAX:

Signature of Responsible Party

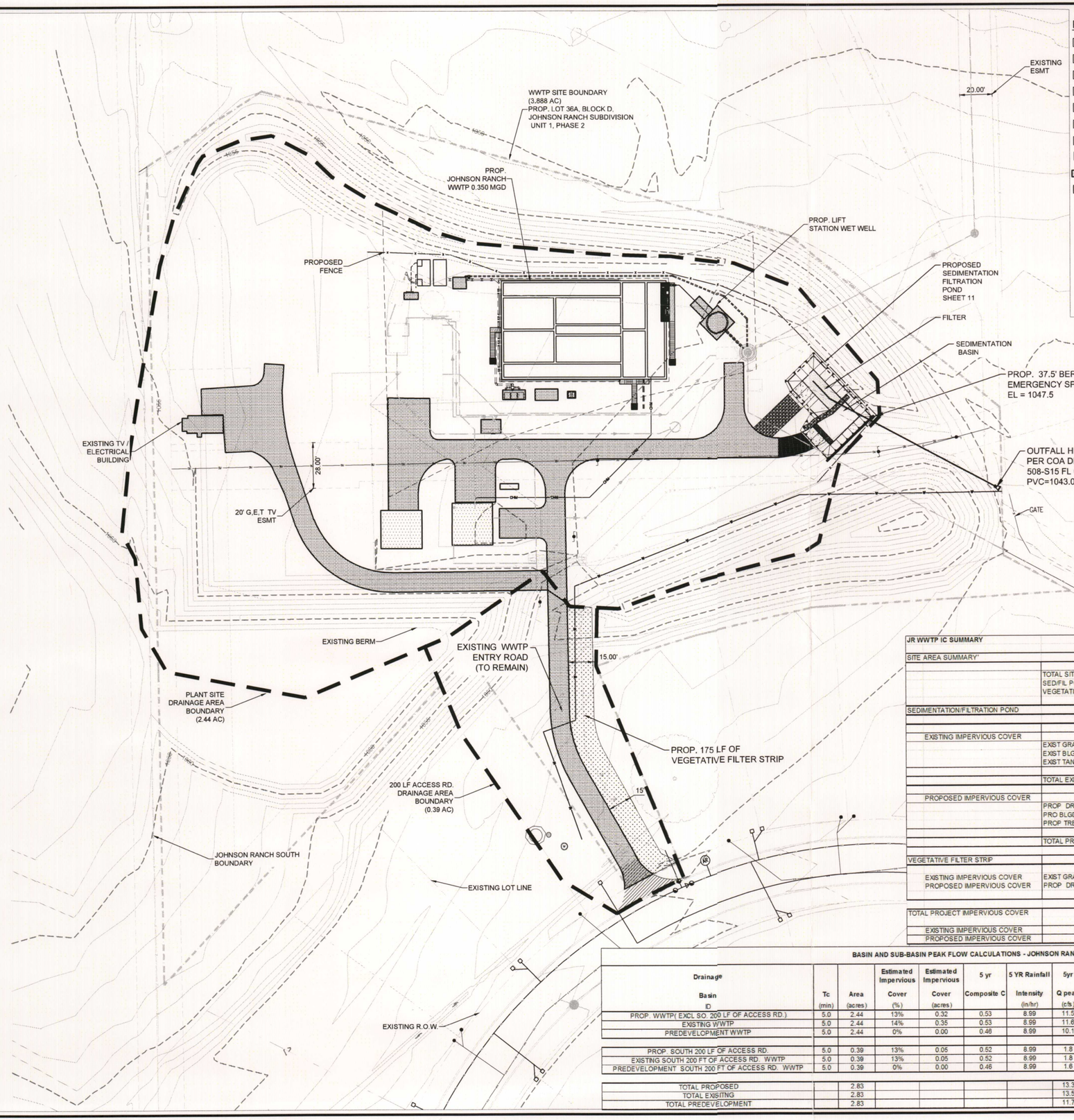
08/04/2016

Date

RECEIVED

AUG 12 2016

COUNTY ENGINEER



PROPOSED STRUCTURES

- A CHLORINE CONTACT TANKS
- B FILTER
- C BLOWER PAD
- D CONTROL PANEL
- E AIR COMPRESSOR ON CONCRETE PAD
- F VALVE PAD
- G INFLUENT PUMP STATION
- H CHLORINE CONTACT TANK BLOWERS & PAD
- PROP. IMPERVIOUS COVER
- PROP. TREATMENT TANKAGE

EXISTING STRUCTURES

1. NON-POTABLE WATER SYSTEM
2. CLARIFER
3. TREATMENT TRAIN
4. POST-AERATION TANK
5. FILTER
6. BLOWER PAD
7. CHLORINE DISINFECTION BUILDING
8. GENERATOR
9. OPERATIONS BUILDING
10. VALVE VAULT
11. INFLUENT PUMP STATION

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED LOT LINE
- EASEMENT LINE
- ADJOINER PROPERTY LINE
- PROPOSED RIBBON CURB
- 830 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 830 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED WASTEWATER
- PROPOSED STORMSEWER
- PROPOSED MANHOLE
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE
- SINGLE WASTEWATER SERVICE
- DOUBLE WASTEWATER SERVICE
- PROPOSED SITE DRAINAGE AREA

REC'D
AUG 10 2016
Region 13

RECEIVED
AUG 12 2016
COUNTY ENGINEER

NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS OR PROVIDED BY VARIOUS OWNERS OF THE FACILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. SHALL VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. NOTIFY THE OWNER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.
2. UNLESS INDICATED ON PLANS, ALL EXISTING FENCES AND GATES REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED OR RESTORED WITH SAME TYPE, STYLE AND MATERIAL TO AN EQUAL OR BETTER CONDITION. THIS SUBSIDIARY TO THE COST UNLESS OTHERWISE SHOWN ON BID PROPOSAL.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AT ALL TIME FOR THE DURATION OF THE PROJECT CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE WASTEWATER TREATMENT PLANT FACILITY.
4. TEXAS STATE LAW ARTICLE 1436C, MAKES IT UNLAWFUL TO OPERATE EQUIPMENT OR MACHINES WITH 10-FEET OF ANY OVERHEAD ELECTRIC LINES UNLESS DANGER AGAINST CONTACT WITH HIGH VOLTAGE OVER HEADLINES HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THIS ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRIC LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS AND STANDARD SAFETY PRACTICES ARE MET.
5. EXISTING CONTOURS INDICATED ON PLANS AR BASED ON LIDAR AND DESIGN CAD FILES PROVIDED BY OWNER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EXISTING TOPOGRAPHY PRIOR TO CONSTRUCTION.

!!!!CAUTION!!!!
EXISTING OVERHEAD ELECTRIC AND UNDERGROUND UTILITIES ARE WITHIN PROJECT AREA.

JR WWTP IC SUMMARY

		SF	AC	
SITE AREA SUMMARY				
	TOTAL SITE AREA	169,361	3.888	
	SED/FIL POND SITE DRAINAGE AREA	106,141	2.44	
	VEGETATIVE FILTER STRIP DRAINAGE SITE AREA	17,104	0.39	
SEDIMENTATION/FILTRATION POND				
EXISTING IMPERVIOUS COVER		SF	AC	IC%
	EXIST GRAVEL DRIVES	13,461		
	EXIST BLGDS/SLABS	1,870		
	EXIST TANKAGE	1,072		
	TOTAL EXISTING IC (EXCLUING TANKAGE)	15,331	0.35	9.1%
PROPOSED IMPERVIOUS COVER		SF	AC	
	PROP DRIVES	12,042	0.276	
	PRO BLGDS/SLABS	2,067	0.047	
	PROP TREATMENT BASIN (TANKAGE)	6,412		
	TOTAL PROPOSED (EXCLUING TANKAGE)	14,109	0.324	8.3%
VEGETATIVE FILTER STRIP		SF	AC	
EXISTING IMPERVIOUS COVER	EXIST GRAVEL DRIVES	2,213	0.051	1.3%
PROPOSED IMPERVIOUS COVER	PROP DRIVES	2,213	0.051	1.3%
TOTAL PROJECT IMPERVIOUS COVER				
EXISTING IMPERVIOUS COVER		17,544	0.403	10.36%
PROPOSED IMPERVIOUS COVER		16,322	0.375	9.64%

BASIN AND SUB-BASIN PEAK FLOW CALCULATIONS - JOHNSON RANCH WWTP

Drainage Basin ID	Tc (min)	Area (acres)	Estimated Impervious Cover (%)	Estimated Impervious Cover (acres)	5 yr Composite C	5 YR Rainfall Intensity (in/hr)	5yr Q peak (cfs)	25 yr Composite C	25YR Rainfall Intensity (in/hr)	25 yr Q peak (cfs)	100 yr Composite C	100 YR Rainfall Intensity (in/hr)	100yr Q peak (cfs)
PROP. WWTP(EXCL SO. 200 LF OF ACCESS RD.)	5.0	2.44	13%	0.32	0.53	8.99	11.5	0.53	11.78	15.1	0.53	14.68	18.8
EXISTING WWTP	5.0	2.44	14%	0.35	0.53	8.99	11.8	0.53	11.78	15.2	0.46	14.68	16.5
PREDEVELOPMENT WWTP	5.0	2.44	0%	0.00	0.46	8.99	10.1	0.46	11.78	13.2	0.46	14.68	16.5
PROP. SOUTH 200 LF OF ACCESS RD.	5.0	0.39	13%	0.05	0.52	8.99	1.8	0.52	11.78	2.4	0.52	14.68	3.0
EXISTING SOUTH 200 FT OF ACCESS RD. WWTP	5.0	0.39	13%	0.05	0.52	8.99	1.8	0.52	11.78	2.4	0.52	14.68	3.0
PREDEVELOPMENT SOUTH 200 FT OF ACCESS RD. WWTP	5.0	0.39	0%	0.00	0.46	8.99	1.6	0.46	11.78	2.1	0.46	14.68	2.7
TOTAL PROPOSED		2.83					13.3			17.5			21.8
TOTAL EXISITNG		2.83					13.5			17.7			19.5
TOTAL PREDEVELOPMENT		2.83					11.7			15.3			19.1

NOTE:
THESE PLANS AND SPECIFICATIONS INCLUDE PROPRIETARY INFORMATION. REPRODUCTION OF THESE PLANS AND SPECIFICATIONS IS NOT AUTHORIZED WITHOUT THE WRITTEN CONSENT OF BOWMAN CONSULTING GROUP, LTD.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

Bowman CONSULTING
TBPE Firm Registration No. F-14309

Bowman Consulting Group, Ltd.
1120 S. Capital of Texas Hwy.
Bldg. 3, Suite 220
Austin, Texas 78746

Phone: (512) 327-1180
Fax: (512) 327-4062
www.bowmanconsulting.com

WATER QUALITY PLAN AND DRAINAGE AREA MAP

JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS
CHARLES R. WIRTANEN
55422
REGISTERED PROFESSIONAL ENGINEER
8/4/16

PLAN STATUS

DATE	DESCRIPTION
8/4/16	PER COMMENTS

MP/CW	DAZ	TH
DESIGN	DRAWN	CHKD

SCALE H: 1" = 30' V:

JOB No. 005522-01-009

DATE : JUNE 2016

FILE No. 5522-01-009

SHEET 9 OF 67

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 1, 2016

RECEIVED
JUL 06 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: Johnson Ranch WWTP, located at 673 Horseshoe Path, Bulverde, Texas

PLAN TYPE: Application for Contributing Zone Water Pollution Abatement Plan (CZP) 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 August 1, 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, Water Section Work Leader
San Antonio Regional Office

TJ/eg

Contributing Zone Plan

Permit Application

Johnson Ranch

Wastewater Treatment Plant

Prepared for:

DHJB Development LLC.

102A Cordillera Ridge

Boerne, TX 78006

Prepared by:

Bowman Consulting Group Ltd.
1120 S. Cap. Of Tx. Hwy, Bldg 3,
Suite 220
Austin, Texas 78746

Contributing Zone Plan

Permit Application

Johnson Ranch

Wastewater Treatment Plant

Prepared for:

DHJB Development LLC.

102A Cordillera Ridge

Boerne, TX 78006

RECEIVED
TCEQ-R13 (EAPP)

JUL 0 1 2016

SAN ANTONIO

Prepared by:

Bowman Consulting Group Ltd.
1120 S. Cap. Of Tx. Hwy, Bldg 3,
Suite 220
Austin, Texas 78746

Contributing Zone Plan Checklist

✓ **Edwards Aquifer Application Cover Page (TCEQ-20705)**

✓ **Contributing Zone Plan Application (TCEQ-10257)**

- ✓ Attachment A - Road Map
- ✓ Attachment B - USGS Quadrangle Map
- ✓ Attachment C - Project Narrative
- ✓ Attachment D - Factors Affecting Surface Water Quality
- ✓ Attachment E - Volume and Character of Stormwater
- N/A Attachment F - Suitability Letter from Authorized Agent (if OSSF is proposed)
- N/A Attachment G - Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)
- N/A Attachment H - AST Containment Structure Drawings (if AST is proposed)
- N/A Attachment I - 20% or Less Impervious Cover Declaration (if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site)
- ✓ Attachment J - BMPs for Upgradient Stormwater
- ✓ Attachment K - BMPs for On-site Stormwater
- N/A Attachment L - BMPs for Surface Streams
- ✓ Attachment M - Construction Plans
- ✓ Attachment N - Inspection, Maintenance, Repair and Retrofit Plan
- N/A Attachment O - Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs
- ✓ Attachment P - Measures for Minimizing Surface Stream Contamination

– **Storm Water Pollution Prevention Plan (SWPPP)**

-OR-

✓ **Temporary Stormwater Section (TCEQ-0602)**

- ✓ Attachment A - Spill Response Actions
- ✓ Attachment B - Potential Sources of Contamination
- ✓ Attachment C - Sequence of Major Activities
- ✓ Attachment D - Temporary Best Management Practices and Measures
- N/A Attachment E - Request to Temporarily Seal a Feature, if sealing a feature
- ✓ Attachment F - Structural Practices
- ✓ Attachment G - Drainage Area Map
- N/A Attachment H - Temporary Sediment Pond(s) Plans and Calculations
- ✓ Attachment I - Inspection and Maintenance for BMPs
- N/A Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

✓ **Copy of Notice of Intent (NOI)**

✓ **Agent Authorization Form (TCEQ-0599), if application submitted by agent**

- ✓ Application Fee Form (TCEQ-0574)
- ✓ Check Payable to the "Texas Commission on Environmental Quality"
- ✓ Core Data Form (TCEQ-10400)

TCEQ-20705 Attachments

Edwards Aquifer Application Cover Page

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: Johnson Ranch Wastewater Treatment Plant						**2. Regulated Entity No.:** RN104912704			
3. Customer Name: DHJB Development, LLC						**4. Customer No.:** CN604156356			
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):**		1.66 AC	
9. Application Fee:	$4,000.00		**10. Permanent BMP(s):**			Sedimentation filtration pond			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Comal		**14. Watershed:**			Headwaters Cibolo Creek			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	__	__	__
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.)	__	1	__	__	__
Region (1 req.)	__	2	__	__	__
County(ies)	__	1	__	__	__
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	1 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	1 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.
Mia Parton, P.E./ Bowman Consulting Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent — Date: 6-30-2016

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):	

TCEQ – 10257

Contributing Zone Plan Application

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), 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.

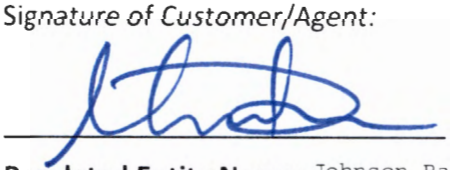
Signature

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 **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Mia Parton, PE.

Date: 6-30-2016

Signature of Customer/Agent:



Regulated Entity Name: Johnson Ranch Wastewater Treatment Plant

Project Information

1. County: Comal
2. Stream Basin: Cibolo Creek
3. Groundwater Conservation District (if applicable): 99 - Comal Trinity GCD 6/17/15.
4. Customer (Applicant):

   Contact Person: Charlie Hill
   Entity: DHJB Development, LLC
   Mailing Address: 102A Cordillera Ridge
   City, State: Boerne, TX Zip: 78006
   Telephone: (830) 336-2518 Fax: N/A
   Email Address: cphill@dhinv.com

5. Agent/Representative (If any):

Contact Person: Mia Parton, P.E.
Entity: Bowman Consulting
Mailing Address: 1120 S. Cap. Of Tx Hwy, Bldg 3, Suite 220
City, State: Austin,TX Zip: 78746
Telephone: (512) 327-1180 Fax: (512) 327-4062
Email Address: mparton@bowmanconsulting.com

6. Project Location:

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

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.
Address: 30673 Horseshoe Path, Bulverde TX 78163. The site is located approximately 3,000 linear feet north of the FM 1863 and Johnson Way intersection in Bulverde, Texas, Comal County.

8. ☒ **Attachment A - Road Map**. A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

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

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative**. A detailed narrative description of the proposed project is attached. 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

11. Existing project site conditions are noted below:

☐ Existing commercial site
☒ Existing industrial site
☐ Existing residential site

[X] Existing paved and/or unpaved roads
[X] Undeveloped (Cleared)
[X] Undeveloped (Undisturbed/Not cleared)
[ ] Other: _____

12. The type of project is:

[ ] Residential: # of Lots: _____
[ ] Residential: # of Living Unit Equivalents: _____
[ ] Commercial
[X] Industrial
[X] Other: Wastewater Treatment Plant

13. Total project area (size of site): 1.66 Acres

Total disturbed area: 1.69 Acres

14. Estimated projected population: N/A

15. The amount and type of impervious cover expected after construction is complete is shown below:

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	*Sq. Ft.*	*Sq. Ft./Acre*	*Acres*
Structures/Rooftops	2,214	÷ 43,560 =	0.051
Parking		÷ 43,560 =	
Other paved surfaces	15,767	÷ 43,560 =	0.362
Total Impervious Cover	17,981	÷ 43,560 =	0.413

Total Impervious Cover 0.413 **÷ Total Acreage** 1.66 **X 100 =** 24.88**% Impervious Cover**

16. [X] **Attachment D - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. [X] Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

Complete questions 18 - 23 if this application is exclusively for a road project.

[X] N/A

18. 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.

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

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

20. Right of Way (R.O.W.):

Length of R.O.W.: _____ feet.
Width of R.O.W.: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

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.

22. ☐ A rest stop will be included in this project.

☐ A rest stop will not be included in this project.

23. ☐ 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

24. ☒ **Attachment E - 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 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

25. ☒ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☐ N/A

26. Wastewater will be disposed of by:

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

☐ **Attachment F - 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):

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

☐ Existing.
☐ Proposed.

☒ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods**. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

Table 3 - Secondary Containment

Length (L)(Ft.)	*Width(W)(Ft.)*	*Height (H)(Ft.)*	*L x W x H = (Ft3)*	*Gallons*

Total: _____ Gallons

30. Piping:

☐ All piping, hoses, and dispensers will be located inside the containment structure.
☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
☐ The piping will be aboveground
☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: _____.

32. ☐ **Attachment H - AST Containment Structure Drawings**. A scaled drawing of the containment structure is attached that shows the following:

☐ Interior dimensions (length, width, depth and wall and floor thickness).
☐ Internal drainage to a point convenient for the collection of any spillage.
☐ Tanks clearly labeled
☐ Piping clearly labeled
☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

Items 34 - 46 must be included on the Site Plan.

34. [x] The Site Plan must have a minimum scale of 1" = 400'.

    Site Plan Scale: 1" = 30 '. (See Construction Plans)

35. 100-year floodplain boundaries:

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

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

    The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA MAP NUMBER 48091C0220F DATED SEPTEMBER 2,2009.

36. [X] 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, etc. are shown on the site plan.

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

37. [X] A drainage plan showing all paths of drainage from the site to surface streams.

38. [X] The drainage patterns and approximate slopes anticipated after major grading activities.

39. [X] Areas of soil disturbance and areas which will not be disturbed.

40. [x] Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

41. [x] Locations where soil stabilization practices are expected to occur.

42. [X] Surface waters (including wetlands).

    ☐ N/A

43. [X] Locations where stormwater discharges to surface water.

    ☐ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    [x] Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

Practices and measures that will be used during and after construction is completed.

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

☐ N/A

48. ☒ 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

49. ☒ 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

50. 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.

51. 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 I - 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.

52. ☒ **Attachment J - 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.

53. ☒ **Attachment K - 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.

54. ☐ **Attachment L - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

☒ N/A

55. ☒ **Attachment M - Construction Plans**. Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan**. A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
    ☒ Contains a discussion of record keeping procedures

    ☐ N/A

57. ☐ **Attachment O - 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

58. ☒ **Attachment P - 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 result in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. ☒ 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.

60. ☒ 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.

Administrative Information

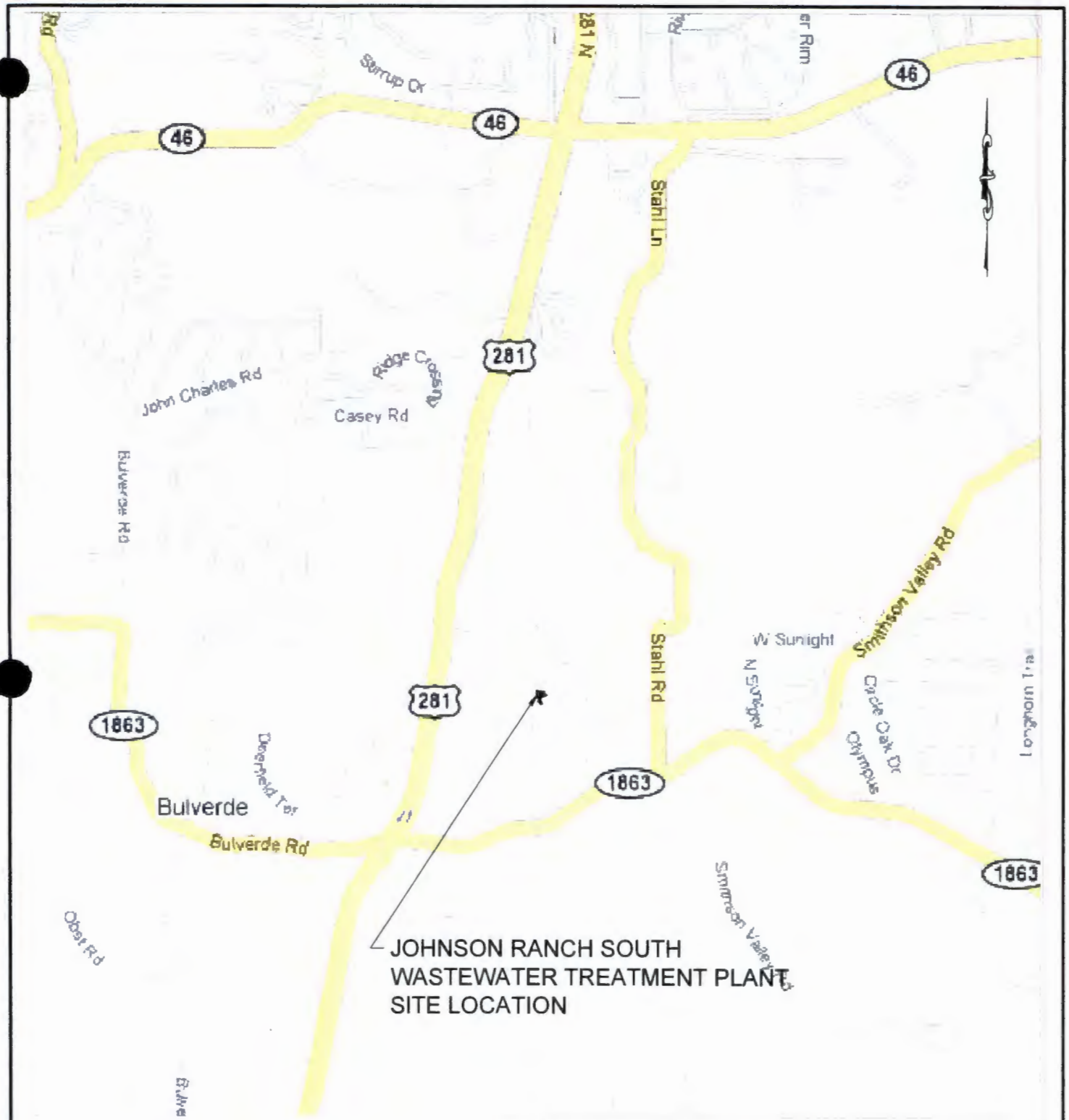
61. [x] Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.

62. [x] Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. [x] The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

[x] The Temporary Stormwater Section (TCEQ-0602) is included with the application.

Attachment A – Road Map



4000 0 4000 8000

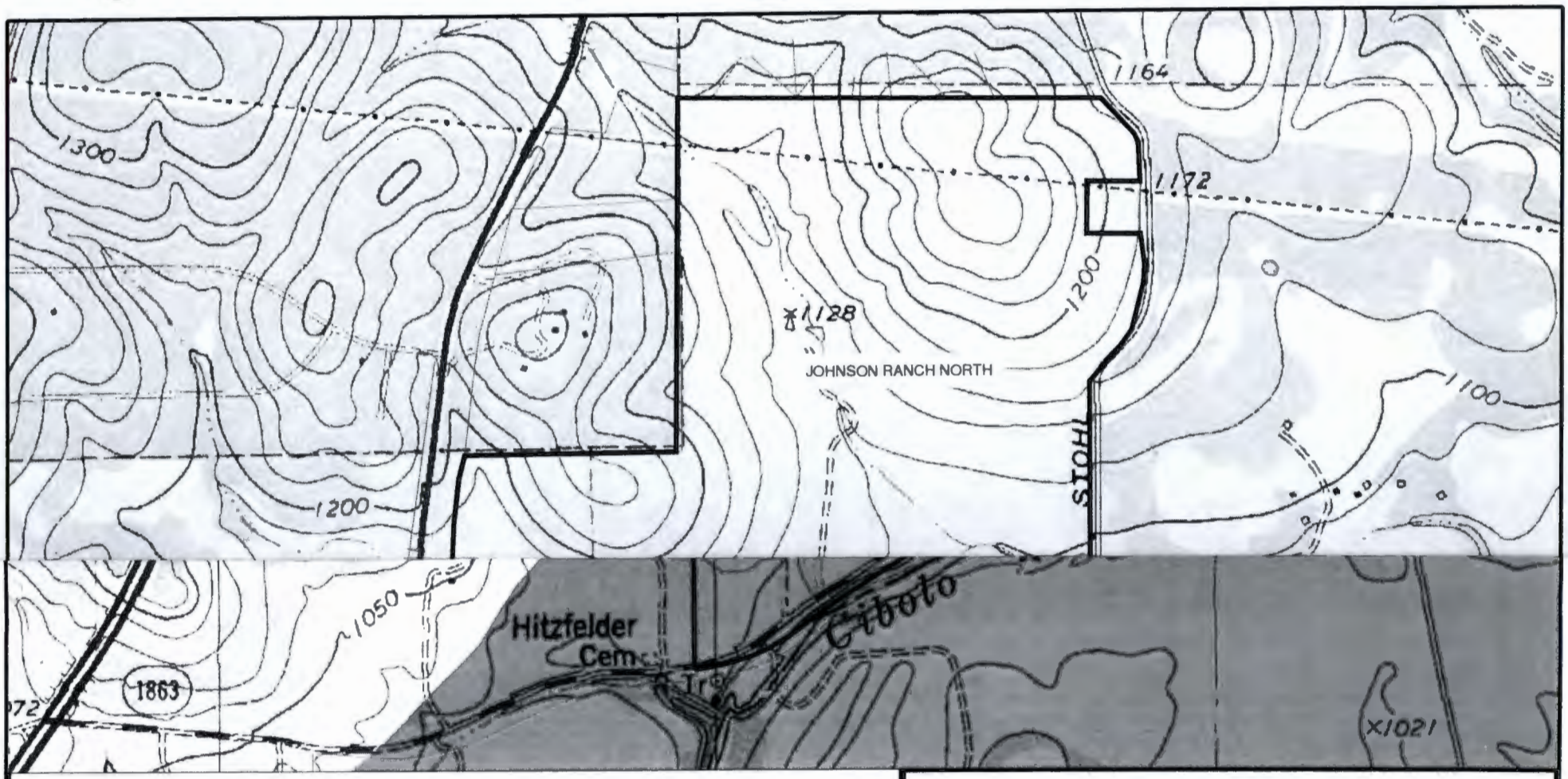
SCALE: 1 INCH = 4000 FT

ATTACHMENT A
LOCATION MAP
WASTEWATER TREATMENT PLANT

Bowman
CONSULTING
1120 S. Cap. Of Tx Hwy, Bldg 3, Suite 220 • Austin, Texas 78746
Phone: (512) 327-1180 • Fax: (512) 327-4062 • www.bowmanconsulting.com

TBPE Firm Registration No. F-14309

Attachment B– USGS Quadrangle Map



1000 0 1000 2000

SCALE: 1 INCH = 1000 FT

ATTACHMENT B
USGS QUADRANGLE MAP
JUNE 2016

Bowman
CONSULTING
1120 S. Capital of Texas Hwy. • Building 3, Suite 220 • Austin, Texas 78746
Phone: (512) 327-1180 • Fax: (512) 327-4062 • www.bowmanconsulting.com

TBPE Firm Registration No. F-14309

Attachment C – Project Narrative

Attachment C – Project Narrative

The Johnson Ranch Wastewater Treatment Plan is a 1.66 acre low density non-residential development located in Comal County, TX, within the City of Bulverde ETJ.

The original tract of land was used for agriculture for many years and had associated structures and pavements. The site area is 1.66 acres, and the total disturbed area is 1.69 acres. The pre-development impervious cover included 15,599 SF of gravel roads, 1,872 SF of building/slab, and 1,072 SF of tankage. The total pre-development impervious cover (excluding tank) totaled approximately 0.40 acres.

The final proposed impervious cover includes removed tank (1,072 SF) and addition of treatment plant and roads for final numbers as follows: 15,767 SF of proposed drives, 2,214 SF of building/slab, and 6,156 SF of tank. The total proposed development impervious cover (excluding tank) totals approximately 0.413 acres.

Attachment D - Factors Affecting Surface Water Quality

Attachment D – Factors Affecting Water Quality

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

- Soil erosion due to the clearing of the site for roads, buildings, and drainage structures.
- Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings.
- Hydrocarbons from asphalt paving operations.
- Miscellaneous trash and litter from construction.
- Concrete truck washout.

Attachment E - Volume and Character of Stormwater

Attachment E – Volume and Character of Stormwater

Stormwater runoff will increase as a result of this overall development.

For a 25-year storm event, the proposed site has an existing total flow of 13.2 cfs, and after full development will generate approximately 15.1 cfs of runoff.

For a 100-year storm event, the proposed subdivision has an existing total flow of 16.5 cfs, and after full development will generate approximately 18.8 cfs of runoff.

The Composite C runoff coefficient for the site changes from approximately 0.46 before development to 0.52 after full build-out.

Values are based on the hydraulic study of the subdivision using HEC-HMS with runoff coefficients from the TxDOT Hydraulic Design Manual – Comal County.

Attachment F - Suitability Letter from Authorized Agent (if OSSF is proposed)

N/A

Attachment G - Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)

N/A

Attachment H – AST Containment Structure Drawings (if AST is proposed)

N/A

Attachment I - 20% or Less Impervious Cover Declaration (if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site)

N/A

Attachment J – BMPs for Upgradient Stormwater

Attachment J – BMPs for Upgradient Stormwater

This WPAP submittal consists of a Wastewater Treatment Plant located within the Johnson Ranch Subdivision. All upgradient stormwater from areas with impervious cover is being conveyed to the proposed BMP for this project for treatment. The BMP is sized to provide treatment for the off-site upgradient storm water.

Attachment K – BMPs for On-site Stormwater

Attachment K – BMPs for On-site Stormwater

This WPAP submittal consists of a Wastewater Treatment Plant and remaining portions of impervious cover created by the existing wastewater treatment plant located within the Johnson Ranch Subdivision. A proposed sedimentation and filtration pond has been included to treat the on-site and off-site stormwater, please refer to Sedimentation Filtration Pond Plans included in this application.

Attachment L – BMPs for Surface Streams

N/A

Attachment M – Construction Plans

Attachment N – Inspection, Maintenance, Repair and Retrofit Plan

ATTACHMENT N
INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

SUGGESTED MAINTENANCE PLAN AND SCHEDULE FOR PERMANENT BEST MANAGEMENT PLANS

PROJECT NAME: Johnson Ranch South - Wastewater Treatment Plant

ADDRESS: 30673 Horseshoe Path

CITY, STATE, ZIP: Bulverde, TX 78163

Partial Sedimentation/Filtration Pond

1. During site construction the sediment load to the partial sand filter/sedimentation basin must be carefully monitored and the sediment shall be removed when 1/3 of the basin volume is lost.

2. Construction within the watershed should be complete prior to exposing the filter to storm water runoff. All exposed areas should be stabilized to minimize sediment loads.

3. Runoff from any un-stabilized construction areas should be treated via a separate sediment system that bypasses the filter media.

4. Inspections:

   BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection:

   A. erosion areas inside and downstream of the BMP must be identified and repaired or re-vegetated immediately.

   B. damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately.

   C. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage.

5. Sediment Removal

Remove sediment from the inlet structure and sedimentation chamber when sediment buildup reaches a depth of 6 inches or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the inlet structure at least every year and from the sedimentation basin at least every 5 years.

6. Media Replacement

Maintenance of the filter media is necessary when the drawdown time exceeds 48 hours. When this occurs, the upper layer of sand should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced. In filters that have been regularly maintained, this should be limited to the top 2 to 3 inches.

7. Debris and Litter Removal.

Debris and litter will accumulate near the sedimentation basin outlet device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.

8. Filter Underdrain.

Clean underdrain piping network to remove any sediment buildup as needed to maintain design drawdown time.

9. Mowing.

Grass areas in and around sand filters must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

10. Record Keeping.

Project superintendent shall have a log for entering site inspections for all regular rainfall events. Results of inspections, including damage and any recommended remedial actions, shall be noted along with inspection personnel data and date of completion of any action. The log shall be made available for review by TCEQ, if requested.

11. Proper disposal of accumulated silt and vegetative matter shall be accomplished following TCEQ and local authority rules.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Plan Prepared By: Charles Wirtanen, PE

Mailing Address: Bowman Consulting Group

1120 South Capital of Texas Hwy, Building 3, Suite 220

City, State: Austin, TX Zip: 78746

Telephone: (512) 327-1180 Email: cwirtanen@bowmancg.com

Signature

06/30/2016

Date:

Responsible Party: DHJB DEVELOPMENT, LLC

Mailing Address: 102A CARDINAL RIDGE

City, State: BOERNE TX Zip: 78006

Telephone: 830 336 2518 FAX:

Signature of Responsible Party

6/30/16

Date

Attachment O – Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs

N/A

Attachment P - Measures for Minimizing Surface Stream Contamination

Attachment P – Measures for Minimizing Surface Stream Contamination

All flows on site and from off-site are conveyed to tributaries of Cibolo Creek, or Cibolo Creek itself, through grass swales with velocities less than 6 feet per second, contamination of surface streams should be minimized.

TCEQ-0602

Temporary Stormwater Section

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.

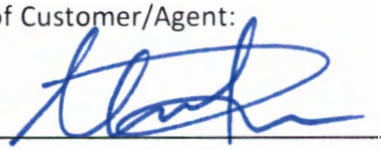
Signature

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: Mia Parton, P.E.

Date: 6-30-2016

Signature of Customer/Agent:



Regulated Entity Name: Johnson Ranch Wastewater Treatment Plant

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. NA 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: Cibolo 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:

[x] 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.

[x] 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.

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

[x] 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. [x] 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.

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

9. [x] **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. [x] **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.

    [x] 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. ☒ N/A 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

Attachment A – Spill Response Actions

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

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

Education

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

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

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

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

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

General Measures

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

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

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

(4) Train employees in spill prevention and cleanup.

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

(6) Spills should be covered and protected from stormwater runoff during rainfall to the extent that is doesn't compromise cleanup activities.

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

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

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

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

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

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

Cleanup

(1) Clean up leaks and spills immediately

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

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

Minor Spills

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

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

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

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

(5) Contain the spread of the spill

(6) Recover spilled materials

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

Semi-Significant Spills

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

Spills should be cleaned up immediately using the following steps:

(1) Contain spread of the spill

(2) Notify the project foreman immediately

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

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

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

Significant/Hazardous Spills

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

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

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

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

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

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

Vehicle and Equipment Maintenance

(1) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

(4) Always use secondary containment, such as drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over the waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all of the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

Attachment B – Potential Sources of Contamination

TCEQ-0602 Attachments

Johnson Ranch Wastewater Treatment Plan

Temporary Stormwater Section

Attachment B – Potential Sources of Contamination

Potential Source:	Asphalt products used on this project
Preventative Measure:	After placement of asphalt, emulsion or coatings, the contractor will be responsible for immediate cleanup, should an unexpected rain occur. For the duration of the asphalt curing time, the contractor will maintain standby personnel and equipment to contain any asphalt wash-off, should an unexpected rain occur. The contractor will be instructed not to place asphalt products on the ground within 48 hours of a forecasted rain event.

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

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

Potential Source:	Construction debris
Preventative Measure:	Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

Attachment C – Sequence of Major Activities

Attachment C – Sequence of Major Activities

The sequence of major activities will be based on the following:

- Installation of Erosion/Sedimentation Controls (approx. 1.68 AC)
- Installation of underground utilities (approx. 0.37 AC)
- Construction of wastewater treatment plant (approx. 0.37 AC)
- Revegetation of disturbed areas (approx. 0.91 AC)
- Removal and proper disposal of erosion/sedimentation controls once permanent vegetation is established (approx. 1.68 AC)

Please refer to the Erosion and Sedimentation Control Plan for measures to be implemented throughout the construction phase.

Attachment D – Temporary Best Management Practices and Measures

Attachment D – Temporary Best Management Practices and Measures

Upgradient water will be intercepted through channels along the northwest side of the property and northwest side of the proposed extension of Johnson Way, and directed to a tributary of Cibolo Creek. Silt fences and rock berms will be placed along the channel. Diversion dikes will be used to redirect the upgradient flows from north of the disturbed areas to the tributary of Cibolo Creek running down the east side of the site.

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

BMP measures utilized in this plan are intended to allow storm water to continue downstream after passing through for treatment. This will allow stormwater runoff to continue downstream to any existing sensitive features.

Site Preparation:

The clearing and grading of the land will disturb the largest area of soil, so erosion control measures will be installed as the first step in construction. The methodology for pollution prevention of all on-site stormwater will include a) the erection of silt fences along the downgradient boundary of the construction activities, b) installation of rock berms with silt fence covering downgradient from areas of concentrated stormwater flow, c) installation of stabilized construction entrances to reduce the dispersion of sediment from the site, and d) installation of a construction staging area.

Construction:

All installed erosion control measures will be inspected, and if necessary, repaired before any additional construction begins, as well as periodically throughout the construction process. The contractor will be responsible for all maintenance of erosion control measures, as well as the installation of all remaining on-site control measures, including the concrete truck washout, as necessary.

Attachment E – Request to Temporarily Seal a Feature

N/A

Attachment F – Structural Practices

Attachment F – Structural Practices

The following structural measures will be installed prior to the initiation of site construction:

- Silt fences along the downstream boundary of all construction activity, and rock berms with silt fence covering for secondary protection
- Installation of stabilized construction entrances and construction staging areas
- Installation of concrete truck washout pits, as required

Attachment G – Drainage Area Map

SEE CONSTUCTION PLANS

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

N/A

Attachment I - Inspection and Maintenance for BMPs

Attachment I – Inspection and Maintenance for BMPs

Inspections

Designated and qualified person(s) shall inspect BMPs every seven days, and within 24 hours after a storm event greater than 0.5 inches of rainfall. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations, and actions taken as a result of the inspection shall be recorded and maintained as part of the Storm Water TPDES data for a period of three years after the date of the inspection. A copy of the Inspection Report Form is provided in the Storm Water Pollution Prevention Plan.

As a minimum, the inspector shall observe: (1) significant disturbed areas for evidence of erosion. (2) storage areas for evidence of leakage from the exposed stored materials, (3) structural controls (rock berm outlets, silt fences, drainage swales, etc.) for evidence of failure or excess siltation (over 6 inches deep), (4) vehicle exit point for evidence of off-site sediment tracking, (5) vehicle storage areas for signs of leaking equipment or spills, and (6) concrete truck rinse-out pit for signs of potential failure. Deficiencies noted during the inspection will be corrected and documented within seven (7) calendar days following the inspection or before the next anticipated storm event if practicable.

SWPPP Inspection Report

Project Name: _____ **Date of Inspection:** _____

Inspection Frequency: (Every 7 Days, 14 Days, or Post Rain)_____

Post Significant Rainfall: N/A / Rainfall Amount:_____

Is inspector qualified to perform inspections? Yes

Are inspector qualifications present in SWPPP? Yes

Was the entire site inspected? _____

If no, please list conditions limiting the scope of the inspection:_____

General Notes:

_____

_____

Please note if the following areas or controls were observed in compliance during the inspection.

Do the following items comply with SWPPP regulation?	Yes/No or Note Corrective Action Taken
Copy of the NOI with the SWPPP?	
Construction Site Notice posted at entrance(s) to site?	
Copy of the NOI at the site entrance?	
Do storage areas show signs of erosion?	
Do disturbed areas show signs of erosion?	
Are there signs of erosion at outfalls?	
BMPs working properly? (If no, make list of issue locations in area of concern/corrective action section below)	
Do BMPs need maintenance? (If yes, make a detailed list of issue locations in area of concern/corrective action seciton below.	
Are new BMPs required on-site?	
Did the site map/BMP map get updated?	

SWPPP Inspection Report

Control	Compliant (Yes - No - N/A)
General	
Revegetation	
Silt Fence	
Rock Berm	
Sediment Traps	
Tree Protection	
Site Stabilization	
Detention and/or Water Quality Pond	
Stabilized Construction Entrance	
Concrete Washout	
Spoils/Materials Site	
Drainage Channells	
Outfall/Outlet Protections	
Inlet Protections	
No Off-site Discharge	
Equipment Area	
Trash receptacles	
Construction Debris	
Infrastructure	
Roadway clearing	
Utility clearing	
Roadway grading	
Utility construction	
Drainage construction	
Roadway base	
Roadway surfaces	
Site cleanups	

Inspector Qualifications: _____

By my signature below, I certify that all terms are acceptable and the project site is in compliance with SWPPP.

_____ _____

Inspector's Name Inspector's Signature

_____ _____

Name of Owner/Operator (Firm) Date

SWPPP Inspection Report

Project Milestone Dates

Date when major site grading activities begin:

Construction Activity	Date

Dates when construction activities temporarily or permanently cease on all or a portion of the project:

Construction Activity	Date

Dates when stabilization measures are initiated:

Stabilization Activity	Date

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

N/A

COPY OF Notice of Intent (NOI)

TCEQ Office Use Only
Permit No.:
RN:
CN:
Region:

TCEQ Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit (TXR150000)

IMPORTANT:

- Use the INSTRUCTIONS to fill out each question in this form.
- Use the CHECKLIST to make certain you filled out all required information. Incomplete applications **WILL** delay approval or result in denial.
- Once processed your permit can be viewed at: http://www.tceq.texas.gov/goto/wq-dpa

ePERMITS: Sign up now for online NOI: https://www3.tceq.texas.gov/steers/
Pay a $225 reduced application fee by using ePermits.

APPLICATION FEE:

- You must pay the **$325** Application Fee to TCEQ for the paper application to be complete.
- Payment and NOI must be mailed to separate addresses.
- Did you know you can pay on line?
  - Go to http://www.tceq.texas.gov/goto/epay
  - Select Fee Type: GENERAL PERMIT CONSTRUCTION STORM WATER DISCHARGE NOI APPLICATION
- **Provide your payment information below, for verification of payment:**

☑ Mailed Check/Money Order Number: _____
Name Printed on Check: _____
Copy of check enclosed? ☐ Yes

☐ EPAY Voucher Number: _____
Is the Payment Voucher copy attached? ☐ Yes

RENEWAL: Is this NOI a Renewal of an existing General Permit Authorization? (Note: A permit cannot be renewed after June 3, 2013.)

☐ Yes The Permit number is: TXR15_____
(If a permit number is not provided, a new number will be assigned.)

☑ No

1) OPERATOR (Applicant)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? You may search for your CN at: http://www.tceq.texas.gov/goto/cr-customer

CN 604156356

b) What is the Legal Name of the entity (applicant) applying for this permit?
DHJB Development, LLC
(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

c) What is the contact information for the Operator (Responsible Authority)? The mailing address must be recognized by the US Postal Service (USPS). You may verify the address at: https://tools.usps.com/go/ZipLookupAction!input.action
Prefix (Mr. Ms. Miss): Mr.
First/Last Name: Charlie Hill Suffix:
Title: President Credential:
Phone Number: (830) 336-2518 Ext: Fax Number:
E-mail: cphill@dhinv.com
Mailing Address: 102A Cordillera Ridge
Internal Routing (Mail Code, Etc.):
City: Boerne State: Texas ZIP Code: 78006
If outside USA:
Territory: N/A Country Code: N/A Postal Code: N/A

d) Indicate the type of Customer (The instructions will help determine your customer type):

☐ Individual	☐ Limited Partnership	☐ Sole Proprietorship-DBA
☐ Joint Venture	☐ General Partnership	☑ Corporation
☐ Trust	☐ Estate	☐ Federal Government
☐ State Government	☐ County Government	☐ City Government
☐ Other Government		

e) Independent Operator? (If governmental entity, subsidiary, or part of a larger corporation, check "No".)
☑ Yes ☐ No

f) Number of Employees:
☑ 0-20; ☐ 21-100; ☐ 101-250; ☐ 251-500; or ☐ 501 or higher

g) Customer Business Tax and Filing Numbers:
(REQUIRED for Corporations and Limited Partnerships. Not Required for Individuals, Government, or Sole Proprietors)
State Franchise Tax ID Number: 32043642142
Federal Tax ID: 454962685
Texas Secretary of State Charter (filing) Number: 801577210
DUNS Number (if known):

2) APPLICATION CONTACT

If TCEQ needs additional information regarding this application, who should be contacted?

Is the application contact the same as the applicant identified above?

☐ Yes, go to Section 3).

☑ No, complete section below

Prefix (Mr. Ms. Miss): Ms.
First/Last Name: Mia Parton Suffix: P.E.
Title: Project Manager Credential:
Organization Name: Bowman Consulting Group
Phone Number: (512) 537-1180 Ext: Fax Number: (512) 327-4062
E-mail: mparton@bowmanconsulting.com
Mailing Address: 1120 S. Capital of Texas Hwy, Building 3, Suite 220
Internal Routing (Mail Code, Etc.): N/A
City: Austin State: Texas ZIP Code: 78746
Mailing Information if outside USA:
Territory: N/A Country Code: N/A Postal Code: N/A

3) REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

If the site of your business is part of a larger business site or if other businesses were located at this site before yours, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at:
http://www.tceq.texas.gov/goto/cr-searchrn

If the site is found, provide the assigned Regulated Entity Reference Number and provide the information for the site to be authorized through this application below. The site information for this authorization may vary from the larger site information.

a) TCEQ issued RE Reference Number (RN): RN 10412704

b) Name of project or site (the name known by the community where located):
Johnson Ranch Wastewater Treatment Plant

c) In your own words, briefly describe the primary business of the Regulated Entity: (Do not repeat the SIC and NAICS code):

Wastewater Treatment Plant

d) County (or counties if > 1)

Comal County

e) Latitude: 29d 45' 14.64" Longitude: 98d 25' 17.57"

f) Does the site have a physical address?

☑ Yes, complete Section A for a physical address.

☐ No, complete section B for site location information.

Section A: Enter the physical address for the site.
Verify the address with USPS. If the address is not recognized as a delivery address, provide the address as identified for overnight mail delivery, 911 emergency or other online map tools to confirm an address.

Physical Address of Project or Site:
Street Number: 0673 Street Name: Horseshoe Path
City: Bulverde State: TX ZIP Code: 78163

Section B: Enter the site location information.
If no physical address (Street Number & Street Name), provide a written location access description to the site. (Example: located 2 miles west from intersection of Hwy 290 & IH35 accessible on Hwy 290 South)

Address 0673 Horseshoe Path is approx. location is about 3,000 ft north of FM1863 and Johnson Way Intersection.

City where the site is located or, if not in a city, what is the nearest city:
Bulverde

State: Texas ZIP Code where the site is located: 78163

4) GENERAL CHARACTERISTICS

a) Is the project/site located on Indian Country Lands?

☐ Yes - If the answer is Yes, you must obtain authorization through EPA, Region 6.

☑ No

b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?

☐ Yes - If the answer is Yes, you may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA, Region 6.

☑ No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?
Primary SIC Code: 1521

d) If applicable, what is the Secondary SIC Code(s):

e) What is the total number of acres disturbed? 1.69 AC

f) Is the project site part of a larger common plan of development or sale?

☑ Yes - If the answer is Yes, the total number of acres disturbed can be less than 5 acres.

☐ No - If the answer is No, the total number of acres disturbed must be 5 or more. If the total number of acres disturbed is less than 5 then the project site does not qualify for coverage through this Notice of Intent. Coverage will be denied. See the requirements in the general permit for small construction sites.

g) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?

Cibolo Creek

h) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?

Segment ID: 1908
Segment Name: Upper Cibolo Creek

i) Is the discharge into an MS4?

☐ Yes - If the answer is Yes, provide the name of the MS4 operator below.

Note: The general permit requires you to send a copy of the NOI to the MS4 operator.

☑ No

j) Are any of the surface water bodies receiving discharges from the construction site on the latest EPA-approved CWA 303(d) List of impaired waters?

☐ Yes - If the answer is Yes, provide the name(s) of the impaired water body(s) below.

☑ No

k) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer as defined in 30 TAC Chapter 213?

☑ Yes - If the answer is Yes, complete certification below by checking "Yes."

☐ No

I certify that a copy of the TCEQ approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) is either included or referenced in the Stormwater Pollution Prevention Plan.

☑ Yes

5) CERTIFICATION

Check Yes to the certifications below. Failure to indicate Yes to ***ALL*** items may result in denial of coverage under the general permit.

a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☑ Yes

b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☑ Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☑ Yes

d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who operate under a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator. ☑ Yes

Operator Certification:

I, Charlie Hill (Typed or printed name) President (Title)

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

I further certify that I am authorized under **30 Texas Administrative Code §305.44** to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature: _____ Date: _____

(Use blue ink)

NOTICE OF INTENT CHECKLIST (TXR150000)

- Did you complete everything? Use this checklist to be sure!
- Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

This checklist is for use by the operator to ensure a complete application. Missing information may result in denial of coverage under the general permit. (See NOI process description in the Instructions)

Application Fee:

If paying by Check:

- ☑ Check was mailed **separately** to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
- ☐ Check number and name on check is provided in this application.

If using ePay:

- ☐ The voucher number is provided in this application or a copy of the voucher is attached.

PERMIT NUMBER:

- ☐ Permit number provided – if this application is for renewal of an existing authorization.

OPERATOR INFORMATION - Confirm each item is complete:

- ☑ Customer Number (CN) issued by TCEQ Central Registry
- ☑ Legal name as filed to do business in Texas (Call TX SOS 512/463-5555)
- ☑ Name and title of responsible authority signing the application
- ☑ Mailing address is complete & verifiable with USPS. www.usps.com
- ☑ Phone numbers/e-mail address
- ☑ Type of operator (entity type)
- ☑ Independent operator
- ☑ Number of employees
- ☑ For corporations or limited partnerships – Tax ID and SOS filing numbers
- ☑ Application contact and address is complete & verifiable with USPS. http://www.usps.com

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE - Confirm each item is complete:

- ☑ Regulated Entity Reference Number (RN) (if site is already regulated by TCEQ)
- ☑ Site/project name/regulated entity
- ☑ Latitude and longitude http://www.tceq.texas.gov/gis/sqmaview.html
- ☑ County
- ☑ Site/project physical address. Do not use a rural route or post office box.
- ☑ Business description

GENERAL CHARACTERISTICS - Confirm each item is complete:

- ☑ Indian Country Lands –the facility is not on Indian Country Lands
- ☑ Construction activity related to facility associated to oil, gas, or geothermal resources
- ☑ Standard Industrial Classification (SIC) Code www.osha.gov/oshstats/sicser.html
- ☑ Acres disturbed is provided and qualifies for coverage through a NOI
- ☑ Common plan of development or sale
- ☑ Receiving water body(s)
- ☐ Segment number(s)
- ☑ Impaired water body(s)
- ☑ MS4 operator
- ☑ Edwards Aquifer rule

CERTIFICATION

- ☑ Certification statements have been checked indicating "Yes"
- ☑ Signature meets 30 Texas Administrative Code (TAC) 305.44 and is original.

Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit (TXR150000)

General Information and Instructions

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

BY REGULAR U.S. MAIL
Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
P.O. Box 13087
Austin, Texas 78711-3087

BY OVERNIGHT/EXPRESS MAIL
Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
12100 Park 35 Circle
Austin, TX 78753

TCEQ Contact List:

Application – status and form questions:	512/239-3700, swpermit@tceq.texas.gov
Technical questions:	512/239-4671, swgp@tceq.texas.gov
Environmental Law Division:	512/239-0600
Records Management - obtain copies of forms:	512/239-0900
Reports from databases (as available):	512/239-DATA (3282)
Cashier's office:	512/239-0357 or 512/239-0187

Notice of Intent Process:

When your NOI is received by the program, the form will be processed as follows:

1) **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(s) on the form must be verified with the US Postal service as receiving regular mail delivery. Never give an overnight/express mailing address.

2) **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.

3) **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.

   -or-

   Denial of Coverage: If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

General Permit (Your Permit)

For NOIs submitted **electronically** through ePermits, provisional coverage under the general permit begins immediately following confirmation of receipt of the NOI form by the TCEQ.

For **paper** NOIs, provisional coverage under the general permit begins **7 days after a completed NOI is postmarked for delivery** to the TCEQ.

You should have a copy of your general permit when submitting your application. You may view and print your permit for which you are seeking coverage, on the TCEQ web site http://www.tceq.texas.gov. Search using key word TXR150000.

General Permit Forms
The Notice of Intent (NOI), Notice of Termination (NOT), and Notice of Change (NOC) (including instructions) are available in Adobe Acrobat PDF format on the TCEQ web site http://www.tceq.texas.gov.

Change in Operator
An authorization under the general permit is not transferable. If the operator of the regulated entity changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted no later than 10 days prior to the change in Operator status.

TCEQ Central Registry Core Data Form
The Core Data Form has been incorporated into this form. Do not send a Core Data Form to TCEQ. After final acknowledgment of coverage under the general permit, the program will assign a Customer Number and Regulated Entity Number.

You can find the information on the Central Registry web site at http://www15.tceq.texas.gov/crpub/. You can search by the Regulated Entity (RN), Customer Number (CN) or Name (Permittee), or by your permit number under the search field labeled "Program ID". Capitalize all letters in the permit number.

The Customer (Permittee) is responsible for providing consistent information to the TCEQ, and for updating all CN and RN data for all authorizations as changes occur. For General Permits, a Notice of Change form must be submitted to the program area.

Fees associated with a General Permit
Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

Application Fee: This fee is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit.

Mailed Payments:
Payment must be mailed under separate cover at one of the addresses below using the attached Application Fee submittal form. (DO NOT SEND A COPY OF THE NOI WITH THE APPLICATION FEE SUBMITTAL FORM)

BY REGULAR U.S. MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

ePAY Electronic Payment: http://www.tceq.texas.gov/epay
When making the payment you must select Water Quality, and then select the fee category "General Permit Construction Storm Water Discharge NOI Application". You must include a copy of the payment voucher with your NOI. Your NOI will not be considered complete without the payment voucher.

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

Renewal of General Permit. Dischargers holding active authorizations under the expired General Permit are required to submit a NOI to continue coverage. The existing permit number is required. If the permit number is not provided or has been terminated, expired, or denied a new permit number will be issued.

1. Operator (Applicant)

a) Enter assigned Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. **This is not a permit number, registration number, or license number.**
If this customer has not been assigned a CN, leave the space for the CN blank.
If this customer has already been assigned this number, enter the permittee's CN.

b) Legal Name

Provide the current legal name of the permittee, as authorized to do business in Texas. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at 512/463-5555, for more information related to filing in Texas. If filed in the county where doing business, provide a copy of the legal documents showing the legal name.

c) Operator Contact's (Responsible Authority) Contact Information and Mailing Address

Provide the first and last name, and the title of the person signing the Certification section of the application. This person must be an individual having signatory authority in accordance with 30 TAC Chapter §305.44. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The address must be verifiable with the US Postal Service at https://tools.usps.com/go/ZipLookupAction!input.action for regular mail delivery (not overnight express mail). If you find that the address is not verifiable using the USPS web search, please indicate the address is used by the USPS for regular mail delivery.

The area code and phone number should provide contact to the operator. Leave Extension blank if not applicable.

The fax number and e-mail address are optional and should correspond to the operator.

d) Type of Customer (Entity Type)

Check only one box that identifies the type of entity. Use the descriptions below to identify the appropriate entity type. Note that the selected entity type also indicates the name that must be provided as an applicant for a permit, registration or authorization.

Sole Proprietorship – DBA

A sole proprietorship is a customer that is owned by only one person and has not been incorporated. This business may:

- be under the person's name
- have its own name (doing business as or d.b.a.)
- have any number of employees

If the customer is a Sole Proprietorship or DBA, the 'legal name' of the individual business 'owner' must be provided. The DBA name is not recognized as the 'legal name' of the entity. The DBA name may be used for the site name (regulated entity).

Individual

An individual is a customer who has not established a business, but conducts an activity that needs to be regulated by the TCEQ.

Partnership

- A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). A Limited Partnership or Limited Liability Partnership (Partnership) is required to file with the Texas Secretary of State. A General Partnership or Joint Venture is not required to register with the state.
- **Partnership (Limited Partnership or Limited Liability Partnership):** A limited partnership is defined in the Act as a partnership formed by two or more persons under the provisions of Section 3 of the Uniform Limited Partnership Act (Art. 6132a, Revised Civil Statutes of Texas) and having as members one or more general partners and one or more limited partners. The limited partners as such are not bound by the obligations of the partnership. Limited partners may not take part in the day-to-day operations of the business. A Limited Partnership must file with the Texas Secretary of State. A registered limited liability partnership is a general or limited partnership that is registered with the Texas Secretary of State. The partnership's name must contain the words "Registered Limited Liability Partnership" or the abbreviation "L.L.P." as the last words or letters of its name.
- **General Partnership:** A general partner may or may not invest, participates in running the partnership and is liable for all acts and debts of the partnership and any member of it. A General Partnership does not have limited partners. For a General Partnership, there is no registration with the state or even written agreement necessary for a general partnership to be formed. The legal definition of a partnership is generally stated as "an association of two or more persons to carry on as co-owners a business for profit" (Revised Uniform Partnership Act § 101 [1994]).
- **Joint Venture:** A joint venture is but another name for a special partnership. It might be distinguished from a general partnership in that the latter is formed for the transaction of a general business, while a joint venture is usually limited to a single transaction. That is, a joint venture is a special combination of persons in the nature of a partnership engaged in the joint prosecution of a particular transaction for mutual benefit or profit.

Corporation

A customer meets all of these conditions:

- is a legally incorporated entity under the laws of any state or country
- is recognized as a corporation by the Texas Secretary of State
- has proper operating authority to operate in Texas.
- The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

Government

Federal, state, county, or city government (as appropriate)
The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the

applicant. A department name or other description of the organization should not be included as a part of the 'legal name' as applicant.

Trust or Estate

A trust and an estate are fiduciary relationships governing the trustee/executor with respect to the trust/estate property.

Other Government

A utility district, water district, tribal government, college district, council of governments, or river authority. Write in the specific type of government.

e) Independent Entity

Check No if this customer is a subsidiary, part of a larger company, or is a governmental entity. Otherwise, check Yes.

f) Number of Employees

Check one box to show the number of employees for this customer's entire company, at all locations. This is not necessarily the number of employees at the site named in the application.

g) Customer Business Tax and Filing Numbers

These are required for Corporations and Limited Partnerships. These are not required for Individuals, Government, and Sole Proprietors.

State Franchise Tax ID Number

Corporations and limited liability companies that operate in Texas are issued a franchise tax identification number. If this customer is a corporation or limited liability company, enter this number here.

Federal Tax ID

All businesses, except for some small sole proprietors, individuals, or general partnerships should have a federal taxpayer identification number (TIN). Enter this number here. Use no prefixes, dashes, or hyphens. Sole proprietors, individuals, or general partnerships do not need to provide a federal tax ID.

TX SOS Charter (filing) Number

Corporations and Limited Partnerships required to register with the Texas Secretary of State are issued a charter or filing number. You may obtain further information by calling SOS at 512/463-5555.

DUNS Number

Most businesses have a DUNS (Data Universal Numbering System) number issued by Dun and Bradstreet Corp. If this customer has one, enter it here.

2. APPLICATION CONTACT

Provide the name, title and communication information of the person that TCEQ can contact for additional information regarding this application.

3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) Regulated Entity Reference Number (RN)

A number issued by TCEQ's Central Registry to sites (a location where a regulated activity occurs) regulated by TCEQ. This is not a permit number, registration number, or license number. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at: http://www.tceq.texas.gov/goto/cr-searchrn

If the site is found, provide the assigned Regulated Entity Reference Number (RN) and provide the information for the site to be authorized through this application. The site information for this authorization may vary from the larger site information.

An example is a chemical plant where a unit is owned or operated by a separate corporation that is accessible by the same physical address of your unit or facility. Other examples include industrial parks identified by one common address but different corporations have control of defined areas within the site. In both cases, an RN would be assigned for the physical address location and the permitted sites would be identified separately under the same RN.

b) Site/Project Name/Regulated Entity
Provide the name of the site as known by the public in the area where the site is located. The name you provide on this application will be used in the TCEQ Central Registry as the Regulated Entity name.

c) Description of Activity Regulated
In your own words, briefly describe the primary business that you are doing that requires this authorization. Do not repeat the SIC Code description.

d) County
Identify the county or counties in which the regulated entity is located.

e) Latitude and Longitude
Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. *For help obtaining the latitude and longitude, go to:*
http://www.tceq.texas.gov/gis/sqmaview.html or http://nationalmap.gov/ustopo

f) Site/Project (RE) Physical Address/Location Information
Enter the complete address for the site in Section A if the address can be validated through the US Postal Service. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street (or house) number and street name, enter NO ADDRESS for the street name in Section A. In Section B provide a complete written location description. For example: "The site is located 2 miles west from intersection of Hwy 290 & IH35, located on the southwest corner of the Hwy 290 South bound lane."
Provide the city (or nearest city) and zip code of the facility location.

4. GENERAL CHARACTERISTICS

a) Indian Country Lands
If your site is located on Indian Country Lands, the TCEQ does not have authority to process your application. You must obtain authorization through EPA, Region 6, Dallas. Do not submit this form to TCEQ.

b) Construction activity associated with facility associated with exploration, development, or production of oil, gas, or geothermal resources

If your activity is associated with oil and gas exploration, development, or production, you may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization from EPA Region 6. *For more information, see:*
http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30

Construction activities associated with a facility related to oil, gas or geothermal resources may include the construction of a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

Where required by federal law, discharges of stormwater associated with construction activities under the Railroad Commission's jurisdiction must be authorized by the EPA and the Railroad Commission of Texas, as applicable. Activities under Railroad Commission of Texas jurisdiction include construction of a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources, such as a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility under the jurisdiction of the Railroad Commission of Texas; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel. The Railroad Commission of Texas also has jurisdiction over stormwater from land disturbance associated with a site survey that is conducted prior to construction of a facility that would be regulated by the Railroad Commission of Texas. Under 33 U.S.C. §1342(l)(2) and §1362(24), EPA cannot require a permit for discharges of stormwater from "field activities or operations associated with {oil and gas} exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities" unless the discharge is contaminated by contact with any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the facility. Under §3.8 of this title (relating to Water Protection), the Railroad Commission of Texas prohibits operators from causing or allowing pollution of surface or subsurface water. Operators are encouraged to implement and maintain best management practices (BMPs) to minimize discharges of pollutants, including sediment, in stormwater during construction activities to help ensure protection of surface water quality during storm events.

c) Primary Standard Industrial Classification (SIC) Code

Provide the SIC Code that best describes the construction activity being conducted at this site.

Common SIC Codes related to construction activities include:

- 1521 - Construction of Single Family Homes
- 1522 - Construction of Residential Bldgs. Other than Single Family Homes
- 1541 - Construction of Industrial Bldgs. and Warehouses

- 1542 - Construction of Non-residential Bldgs, other than Industrial Bldgs. and Warehouses
- 1611 - Highway and Street Construction, except Highway Construction
- 1622 - Bridge, Tunnel, and Elevated Highway Construction
- 1623 - Water, Sewer, Pipeline and Communications, and Power Line Construction

For help with SIC Codes, go to:
http://www.osha.gov/pls/imis/sicsearch.html

d) Secondary SIC Code
Secondary *SIC Code(s) may be provided. Leave blank* if not applicable. For help with SIC Codes, go to: http://www.osha.gov/pls/imis/sicsearch.html

e) Total Number of Acres Disturbed
Provide the approximate number of acres that the construction site will disturb. Construction activities that disturb less than one acre, unless they are part of a larger common plan that disturbs more than one acre, do not require permit coverage. Construction activities that disturb between one and five acres, unless they are part of a common plan that disturbs more than five acres, do not require submission of an NOI. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

If you have any questions about this item, please contact the stormwater technical staff by phone at (512)239-4671 or by email at swgp@tceq.texas.gov.

f) Common Plan of Development
Construction activities that disturb less than five acres do not require submission of an NOI unless they are part of a common plan of development or for sale where the area disturbed is five or more acres. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

For more information on "What is a common plan of development?" go to:
www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

For further information, go to the TCEQ stormwater construction webpage at:
www.tceq.texas.gov/goto/construction and search for "Additional Guidance and Quick Links". If you have any further questions about this item, please call the stormwater technical staff at (512)239-4671.

g) Identify the water body(s) receiving stormwater runoff
The stormwater may be discharged directly to a receiving stream or through a MS4 from your site. It eventually reaches a receiving water body such as a local stream or lake, possibly via a drainage ditch. You must provide the name of the water body that receives the discharge from the site (a local stream or lake).

If your site has more than one outfall you need to include the name of the first water body for each outfall, if they are different.

h) Identify the segment number(s) of the classified water body(s)
Identify the classified segment number(s) receiving a discharge directly or indirectly. Go to the following link to find the segment number of the classified water body where stormwater will flow from the site: www.tceq.texas.gov/waterquality/monitoring/viewer.html

You may also find the segment number in TCEQ publication GI-316:
www.tceq.texas.gov/publications/gi/gi-316

If the discharge is into an unclassified receiving water and then crosses state lines prior to entering a classified segment, select the appropriate watershed:

- 0100 (Canadian River Basin)
- 0200 (Red River Basin)
- 0300 (Sulfur River Basin)
- 0400 (Cypress Creek Basin)
- 0500 (Sabine River Basin)

Call the Water Quality Assessments section at (512)239-4671 for further assistance.

i) Discharge into MS4 – Identify the MS4 Operator
The discharge may initially be into a municipal separate storm sewer system (MS4). If the stormwater discharge is into an MS4, provide the name of the entity that operates the MS4 where the stormwater discharges. An MS4 operator is often a city, town, county, or utility district, but possibly can be another form of government. Please note that the Construction General Permit requires the Operator to supply the MS4 with a copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at (512)239-4671.

j) Surface Water bodies on list of impaired waters – Identify the impaired water body(s)
Indicate Yes or No if any surface water bodies receiving discharges from the construction site are on the latest EPA-approved CWA 303(d) List of impaired waters. Provide the name(s) of surface water bodies receiving discharges or potential discharges from the construction site that are on the latest EPA-approved CWA 303(d) List of impaired waters. The EPA-approved CWA 303(d) List of impaired waters in Texas can be found at:
www.tceq.texas.gov/waterquality/assessment/305_303.html

NOTE: Do not use any "draft" documents.

k) Discharges to the Edwards Aquifer Recharge Zone and Certification
See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer at:
www.tceq.texas.gov/field/eapp/viewer.html

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin. The certification must be answered "Yes" for coverage under the Construction General Permit. The TCEQ approved plan must be readily available for TCEQ staff to review at the time that the NOI is submitted.

The general permit requires the approved Contributing Zone Plan or Water Pollution Abatement Plan to be included or referenced as a part of the Stormwater Pollution Prevention Plan.

For questions regarding the Edwards Aquifer Protection Program, contact the appropriate TCEQ Regional Office. For projects in Hays, Travis and Williamson Counties: Austin Regional Office, 12100 Park 35 Circle, Austin, TX 78753, 512-339-2929. For Projects in Bexar, Comal, Kinney, Medina and Uvalde Counties: TCEQ San Antonio Regional Office, 14250 Judson Rd., San Antonio, TX 78233-4480, 210-490-3096.

5. CERTIFICATIONS

Failure to indicate **Yes** to ALL of the certification items may result in denial of coverage under the general permit.

a) Certification of Understanding the Terms and Conditions of Construction General Permit (TXR150000)

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. (Electronic applications submitted through ePermits have immediate provisional coverage). You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site: www.tceq.texas.gov/goto/construction

b) Certification of Legal Name

The full legal name of the applicant as authorized to do business in Texas is required. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at (512)463 5555, for more information related to filing in Texas.

c) Understanding of Notice of Termination

A permittee shall terminate coverage under this Construction General Permit through the submittal of a NOT when the operator of the facility changes, final stabilization has been reached, the discharge becomes authorized under an individual permit, or the construction activity never began at this site.

d) Certification of Stormwater Pollution Prevention Plan

The SWP3 identifies the areas and activities that could produce contaminated runoff at your site and then tells how you will ensure that this contamination is mitigated. For example, in describing your mitigation measures, your site's plan might identify the devices that collect and filter stormwater, tell how those devices are to be maintained, and tell how frequently that maintenance is to be carried out. You must develop this plan in accordance with the TCEQ general permit requirements. This plan must be developed and implemented before you complete this NOI. The SWP3 must be available for a TCEQ investigator to review on request.

Operator Certification:

The certification must bear an original signature of a person meeting the signatory requirements specified under 30 Texas Administrative Code (TAC) §305.44.

IF YOU ARE A CORPORATION:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(1) (see below). According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(3) (see below). According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statute(s) under which your government entity was formed. An NOI or similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a)(3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the Texas Commission on Environmental Quality's Environmental Law Division at (512)239-0600.

30 Texas Administrative Code
§305.44. Signatories to Applications

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

Texas Commission on Environmental Quality
General Permit Payment Submittal Form

Use this form to submit your Application Fee only if you are mailing your payment.

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- Do not mail this form with your NOI form.
- Do not mail this form to the same address as your NOI.

Mail this form and your check to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, TX 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

Fee Code: GPA General Permit: TXR150000

1. Check / Money Order Number: _____
2. Amount of Check/Money Order: _____
3. Date of Check or Money Order: _____
4. Name on Check or Money Order: _____
5. NOI INFORMATION

   If the check is for more than one NOI, list each Project/Site (RE) Name and Physical Address exactly as provided on the NOI. DO NOT SUBMIT A COPY OF THE NOI WITH THIS FORM AS IT COULD CAUSE DUPLICATE PERMIT ENTRIES.

   See Attached List of Sites (If more space is needed, you may attach a list.)

   Project/Site (RE) Name: _____

   Project/Site (RE) Physical Address:

Staple Check in This Space

TCEQ-0599 Attachments

Agent Authorization Form

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

I Charlie Hill,
Print Name

President,
Title - Owner/President/Other

of DHJB Development, LLC.,
Corporation/Partnership/Entity Name

have authorized Mia Parton, PE
Print Name of Agent/Engineer

of Bowman Consulting
Print Name of Firm

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

I also understand that:

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

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

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

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

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

SIGNATURE PAGE:

Applicant's Signature

6/22/16
Date

THE STATE OF Texas §

County of Kendall §

BEFORE ME, the undersigned authority, on this day personally appeared Charles Hill 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 22 day of June, 2016

NOTARY PUBLIC

Erin Carragher Tamplet
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: February 12, 2018

ERIN CARRAGHER TAMPLET
Notary Public State of Texas
My Commission Expires
February 12, 2018

12970996

TCEQ-0574 Attachments

Application Fee Form

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Johnson Ranch Wastewater Treatment Plant

Regulated Entity Location: 30673 Horseshoe Path Bulverde, TX 78163 USA

Name of Customer: DHJB Development, LLC

Contact Person: Charlie Hill Phone: (830) 336-2518

Customer Reference Number (if issued):CN 602996472

Regulated Entity Reference Number (if issued):RN 105332522

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	1.66 Acres	$ 4,000.00
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: June 22, 2016

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

Check Payable to the "Texas Commission on Environmental Quality" submitted

TCEQ-10400 Attachments

Core Data Form

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

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

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

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

2. 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 604156356		RN 104912704

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	6/29/2016

☐ 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:
DHJB Development, 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)

11. Type of Customer:	☒ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	13. Independently Owned and Operated?
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ 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:	102A Cordillera Ridge						
	City	Boerne	State	TX	ZIP	78006	ZIP + 4 5948

16. Country Mailing Information (if outside USA)	17. E-Mail Address (if applicable)
N/A	cphill@dhinv.com

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(830) 336 - 2518		( ) -

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.)

Johnson Ranch Wastewater Treatment Plant

23. Street Address of the Regulated Entity: (No PO Boxes)								
	City	Bulverde	State	TX	ZIP	78163	ZIP + 4	NA
24. County	Comal							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	Address 0673 Horseshoe Path is approx. location is about 3,000 ft north of FM1863 and Johnson Way Intersection.				
26. Nearest City			State	Nearest ZIP Code	
Bulverde			TX	78163	
27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	45	14.64	98	25	17.57

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)
1521	N/A		

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

34. Mailing Address:	102A Cordillera Ridge							
	City	Boerne	State	TX	ZIP	78006	ZIP + 4	5748
35. E-Mail Address:	cphill@dhinv.com							

36. Telephone Number	37. Extension or Code	38. Fax Number (if applicable)
(830) 336 - 2518		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Mia Parton, P.E.		41. Title: Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 327 - 1180		(512) 327 - 4062	mparton@bowmanconsulting.com

SECTION V: Authorized Signature

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

Company:	Bowman Consulting Group	Job Title:	Project Manager
Name(*In Print*):	Mia Parton, P.E.	Phone:	(512)327-1180
Signature:		Date:	6-30-2016

RECEIVED
JUL 06 2016
COUNTY ENGINEER

CONSTRUCTION PLANS FOR JOHNSON RANCH SOUTH WASTEWATER TREATMENT PLANT

FLOODPLAIN NOTE:

1. NO PORTION OF THIS PROJECT FALLS WITHIN THE 100 YEAR FLOODPLAIN AS DEFINED BY THE FEDERAL FLOOD INSURANCE ADMINISTRATION FIRM PANEL 48091C0220F, MAP REVISED SEPTEMBER 2, 2009.

AQUIFER NOTE:

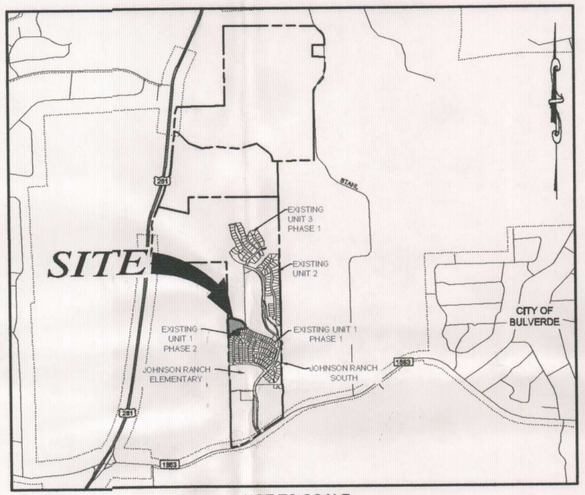
1. THIS PROJECT IS LOCATED IN THE EDWARD'S AQUIFER CONTRIBUTING ZONE AND SUBJECT TO THE TERMS OF THE APPROVED TCEQ WATER POLLUTION ABATEMENT PLAN. (OCTOBER 10, 2012) REGULATED ENTITY NO. RN105332522

BENCHMARKS:

1. PANEL POINT –7: 1/2 INCH IRON ROD WITH CAP STAMPED "CDS MUERY TRAV", ELEVATION = 1,044.48 FEET (NAVD88)

LEGAL DESCRIPTION:

DESCRIPTION OF 4.181 ACRES OF LAND IN THE AGAPITA GAYTAN SURVEY NO. 194, A–174, COMAL COUNTY, TEXAS; BEING A PORTION OF THAT CERTAIN CALLED 21.90 ACRE TRACT DESIGNATED AS TRACT I, AND DESCRIBED IN THE DEED TO DHJB DEVELOPMENT, LLC, OF RECORD IN DOCUMENT NO. 201206015244, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS, A PORTION OF THAT CERTAIN CALLED 3.232 ACRE TRACT DESIGNATED AS TRACT II, AND DESCRIBED IN THE DEED TO DHJB DEVELOPMENT, LLC, OF RECORD IN DOCUMENT NO. 201206015248, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS, AND ALL OF LOT 36, BLOCK D, JOHNSON RANCH SUBDIVISION UNIT 1, PHASE 2, A SUBDIVISION ACCORDING TO THE PLAT OF RECORD IN DOCUMENT NO. 201506027360, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS.



NOT TO SCALE

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	SWPPP NOTES
4	EXISTING WWTP SITE CONDITIONS
5	SITE PLAN
6	GRADING PLAN
7	EROSION AND SEDIMENTATION CONTROL PLAN
8	EROSION AND SEDIMENTATION CONTROL DETAILS
9	WATER QUALITY PLAN AND DRAINAGE AREA MAP
10	SEDIMENTATION FILTRATION POND- BMP CALCULATIONS
11	SEDIMENTATION FILTRATION POND PLAN
12	SEDIMENTATION FILTRATION POND- SECTIONS AND DETAILS
13	SEDIMENTATION FILTRATION POND DETIALS
14	CONSTRUCTION DETAIL

OWNER:
DHJB DEVELOPMENT, LLC
102A Cordillera Ridge
Boerne, Texas 78006
[Tel] 830.336.2518
[Fax] 866.741.4501

ENGINEER:
BOWMAN CONSULTING GROUP
1120 S. Capital of Texas Hwy
Building 3, Ste 220
Austin, Texas 78746
[Tel] 512.327.1180
[Fax] 512.327.4062

SURVEYOR:
BOWMAN CONSULTING GROUP
1120 S. Capital of Texas Hwy
Building 3, Ste 120
Austin, Texas 78746
[Tel] 512.327.1180
[Fax] 512.327.4062

Bowman CONSULTING
TBPE Firm Registration No. F-14309

REVISION		
NO.	DESCRIPTION	DATE

SUBMITTED FOR APPROVAL BY:

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED PROFESSIONAL ENGINEER
6/21/16

6.21.2016
DATE
MIA M. PARTON, P.E. #111369
(SITE PLAN AND EROSION CONTROL DESIGN)

STATE OF TEXAS
CHARLES R. WIRTANEN
55422
REGISTERED PROFESSIONAL ENGINEER
6/21/16

6.21.2016
DATE
CHARLES R. WIRTANEN, P.E. #55422
(WATER QUALITY AND DRAINAGE DESIGN)

DATE: JUNE 2016
SHEET 1 OF 14

JOHNSON RANCH SOUTH
WASTEWATER TREATMENT PLANT - CONSTRUCTION PLANS

TCEQ-0592A (REV. JULY 15, 2015)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES
EDWARDS AQUIFER PROTECTION PROGRAM CONSTRUCTION NOTES – LEGAL DISCLAIMER
THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION OF WATER QUALITY. ADDITIONALLY, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY OTHER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIL ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAININ
G "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THROUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC § 213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWING/LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVED EXCEPTION BY THE ED TO ANY PART OF TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION 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 SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.

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

4. 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 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.

5. 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.

6. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

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

8. ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.

9. IF PORTIONS OF THE SITE WILL HAVE A 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.

10. THE FOLLOWING RECORDS SHOULD 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.

11. THE HOLDER OF ANY APPROVED CZP 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 BEST MANAGEMENT PRACTICES (BMPS) OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
D. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED CONTRIBUTING ZONE PLAN.

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12100 PARK 35 CIRCLE, BUILDING A
AUSTIN, TEXAS 78753-1808
PHONE (512) 339-2929
FAX (512) 339-3795

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

JOHNSON RANCH M.U.D. CONSTRUCTION NOTES:

1. AT LEAST 48 HOURS BEFORE BEGINNING ANY WATER CONSTRUCTION IN PUBLIC R.O.W. OR PUBLIC EASEMENT, THE CONTRACTOR SHALL NOTIFY THE JOHNSON RANCH M.U.D. AND GBRA (GUADELUPE-BLANCO RIVER AUTHORITY).

2. THE CONTRACTOR SHALL CONTACT THE BULVERDE AREA "ONE CALL" SYSTEM FOR EXISTING UTILITY LOCATIONS AT LEAST 48 PRIOR TO BEGINNING EXCAVATION. IN ADVANCE OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES TO BE TIED TO, OR ALTERED OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.

3. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER SERVICE THAT WOULD INTERFERE WITH THE WATER SERVICES. NO DRY UTILITIES (GAS, ELECTRIC) SHALL BE PLACED WITHIN 5 FEET OF WATER OR WASTEWATER SERVICES.

4. THE S.A.W.S. SPECIFICATION ITEM DD-804-1 WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE CONTRACT DOCUMENTS WHICH INCLUDE A TRENCH SAFETY PLAN AND A PAY ITEM FOR TRENCH SAFETY MEASURES.

5. ALL MATERIALS TEST, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY.

6. THRUST RESTRAINT SHALL BE IN ACCORDANCE WITH S.A.W.S. STANDARD SPECIFICATION ITEM DD-839-04. RESTRAINED JOINTS TO BE IN ACCORDANCE WITH AWWA NO. A9, CHAPTER 7, FOR A TEST PRESSURE OF 200 PSI AND A COEFFICIENT OF FRICTION OF 0.3. IN AREAS OF HIGH PRESSURE, CONCRETE WILL BE REQUIRED IN ADDITION TO MECHANICAL RESTRAINT.
   a. CONCRETE STEEL CYLINDER PIPE USE JOINTS IN ACCORDANCE WITH AWWA NO. M9, CHAPTER 7, FOR A TEST PRESSURE OF 200 PSI AND A COEFFICIENT OF FRICTION AND 0.3.
   b. DUCTILE IRON PIPES: JOINTS SHALL BE RESTRAINED THE REQUIRED LENGTH IN ACCORDANCE WITH THE THIRD EDITION OF THRUST RESTRAINT DESIGN OF DUCTILE IRON PIPE RESEARCH ASSOCIATION FOR A TEST PRESSURE OF 200 PSI RESTRAINED JOINTS SHALL BE THE AMERICAN FLEX-RING JOINT OR EQUAL.

7. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH S.A.W.S. STANDARD SPECIFICATION ITEM DD-834-01. BULVERDE FIRE HYDRANT-NATIONAL STANDARD THREAD WITH STEAMER CONNECTOR OF 4.5 (FOUR AND ONE HALF) INCHES. COLORS THE BASES SHALL BE PAINTED SILVER AND THE BOLT AND CAPS SHALL BE PAINTED THE DESIGNATED COLOR PER THE GALLON PER MINUTE (GPM) AS FOLLOWS:
   CLASS AA LIGHT BLUE 1500 OR HIGHER GPM
   CLASS A GREEN 1000 1499 GPM
   CLASS B ORANGE 500 999 GPM
   CLASS C RED LESS THAN 500 GPM
   CLASS D BLACK OR BAGGED OUT OF SERVICE

8. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH S.A.W.S. STANDARD SPECIFICATIONS, ANY FITTINGS, VALVES OR OTHER APPURTENANCES NECESSARY FOR TESTING OR STERILIZATION OF UTILITY LINES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

9. ALL MAINS SHALL HAVE A MINIMUM 48 INCHES OF COVER FROM FINISHED GRADE TO TOP OF PIPE UNLESS OTHERWISE NOTED ON PLANS.

10. MANHOLE FRAMES AND COVERS AND WATER VALVES SHALL BE RAISED TO FINISH PAVEMENT GRADE AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL CONSTRUCTION.

11. ALL DUCTILE IRON PIPE AND FITTINGS TO BE WRAPPED WITH A MINIMUM 8 MIL. POLYETHYLENE.

12. PROVIDE EXTENSION STEMS FOR ALL VALVES WITH OPERATING NUTS DEEPER THAN 36". EXTENSION STEMS SHALL BE EQUIPPED WITH CENTERING RINGS. EXTEND TO 18" – 24" OF FINISHED GRADE.

13. CONTRACTOR TO MARK LOCATION OF VALVES OUTSIDE OF PAVEMENT AREA. VERIFY WITH JOHNSON RANCH M.U.D. ON WHAT TYPES OF MARKS.

14. PRIOR TO ANY CONSTRUCTION, THE TEMPORARY EROSION CONTROL ITEMS SHALL BE IN PLACE.

15. CONTRACTOR SHALL KEEP THE ENGINEER AND BULVERDE PUBLIC WORKS DIRECTOR CURRENT ON THE STATUS OF EACH STAGE OF CONSTRUCTION ACTIVITY.

16. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. UTILITY RELOCATION WORK HAS BEEN OR WILL BE ACCOMPLISHED TO CLEAR THE WORK SPACE. THE RELOCATIONS ARE NOT REFLECTED ON THESE DRAWINGS.

17. ALL FORCE MAINS SHALL BE WHITE WITH BROWN POLY WRAP STATING "FORCE MAIN".

18. FORCE MAINS SHALL HAVE BROWN "FORCE MAIN" TWELVE INCH WIDE MAGNETIC TAPE PLACED EIGHTEEN INCHES BELOW FINISH GRADES.

19. WATER PIPE AND GRAVITY SEWER SHALL HAVE SIX INCH WIDE MAGNETIC TRACER TAPE INSTALLED 24" ABOVE TOP OF PIPE.

20. AIR VALVES FOR SEWER SHALL BE 2" MINIMUM A.R.I. MODEL D-025 WITH NYLON BODY, MALE THREADED INLET, AND MALE CAM LOCK OUTLET. AIR VALVES FOR WATER SHALL BE 2" MINIMUM A.R.I. MODEL D-040 WITH NYLON BODY.

21. HDPE RINGS FOR MANHOLES ARE ACCEPTABLE.

22. SINGLE BOLT SELF SEALING MANHOLE LIDS ARE NOT ACCEPTABLE.

23. ALL VALVE PIPING IN LIFT STATION DRY WELLS AND FORCE MAIN CLEANOUTS SHALL BE PAINTED OR COATED AGAINST CORROSION.

24. CONTRACTORS ARE RESPONSIBLE FOR FLUSHING OF WATER LINES. SCHEDULE FLUSHING WITH JOHNSON RANCH M.U.D. AND GBRA, 24 HOUR NOTICE REQUIRED.

25. CONTRACTOR TO PROVIDE GBRA 48-HOUR NOTICE FOR ALL INSPECTIONS. CONTRACTOR MUST OBTAIN GBRA INSPECTION AND APPROVAL PRIOR TO PERFORMING ANY BACKFILLING, PLACING OF CONCRETE, OR OTHERWISE COVERING WATER OR SEWER WORK.

26. FORCEMAIN TESTING SHALL BE IN ACCORDANCE WITH TAC 217.68 PROCEDURES. TEST PRESSURE SHALL BE 150 PSI.

27. PROVIDE TRACING WIRE AND TEST STATIONS FOR WATER MAINS AND FORCE MAINS. TRACING WIRE SHALL BE A 14GA. COPPER CLAD STEEL WITH 30MIL HDPE JACKET BY COPPERHEAD OR EQUAL. TRACING WIRE SHALL BE BLUE FOR WATER MAINS AND GREEN FOR FORCE MAINS. TEST STATIONS SHALL BE HANDLEY INDUSTRIES MODEL T2IH2BI FOR WATER MAINS AND T2IH2C1 FOR FORCE MAINS. WIRE SPLICE KITS SHALL BE 3M BRAND MODEL DBR/Y-6. WRAP SPLICES SECURELY WITH TAPE. WIRE SHALL BE TAPED TO TOP OF PIPE AT 4FT INTERVALS. PROVIDE COILED SLACK AT EVERY VALVE, BEND, AND SPLICE. PROVIDE 12" OF SLACK INSIDE EACH TEST STATION. TEST STATIONS SHALL BE INSTALLED WITHIN CONCRETE VALVE BOX PADS AT MAIN LINE VALVES OR FIRE HYDRANT ISOLATION VALVES OR OTHERWISE TO ACHIEVE A MAXIMUM SPACING OF 500FT.

28. WASTEWATER MANHOLES SHALL BE TESTED USING A PLATE TYPE TESTER INSTALLED ON TOP OF METAL CASTING RING PRIOR TO ASPHALT / PAVING FOR 3 MINUTES.

29. WASTEWATER LINE CAMERA TESTING: WATER SHALL BE ADDED TO LINES DURING TEST AND A GOLF BALL SHALL BE ATTACHED TO THE CAMERA UNIT PER GBRA INSPECTORS DIRECTION.

GENERAL CONSTRUCTION NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

2. DESIGN PROCEDURES ARE IN GENERAL COMPLIANCE WITH THE CITY OF BULVERDE SUBDIVISION ORDINANCE.

3. PRIOR TO BEGINNING CONSTRUCTION, THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY OF BULVERDE, CONSULTING ENGINEER, CONTRACTOR, COUNTY ENGINEER (IF APPROPRIATE), GBRA, AND ANY OTHER AFFECTED PARTIES. NOTIFY PROJECT ENGINEER AT LEAST 48 HOURS PRIOR TO THE TIME OF THE CONFERENCE AND 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.

4. THE CONTRACTOR SHALL GIVE THE OWNER A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING CONSTRUCTION. CALL DEPARTMENT OF PUBLIC WORKS CONSTRUCTION INSPECTION DIVISION, (830) 438-4912.

5. BARRICADES SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB SAFETY. (STREETS, ETC. MAY BE LISTED IN ADDITION TO OR INSTEAD OF NOTE.)

6. IF BLASTING IS PLANNED BY THE CONTRACTOR, A BLASTING PERMIT MUST BE SECURED PRIOR TO COMMENCEMENT OF ANY BLASTING.

7. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED WILL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.

8. THE LOCATION OF ANY EXISTING WATER AND/OR WASTEWATER LINES SHOWN ON THE PLANS MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

9. ALL STORM SEWER PIPES TO BE CLASS III RCP UNLESS NOTED OTHERWISE.

10. CAST BRONZE SURVEY MARKERS SHALL BE PLACED IN CONCRETE IN PERMANENT, ACCESSIBLE LOCATIONS AT THE TIME OF CONSTRUCTION. THE LOCATIONS OF THE MARKERS SHALL BE INDICATED ON THE CONSTRUCTION PLANS. A MINIMUM OF ONE MARKER SHALL BE PLACED FOR EACH 20 ACRES OF THE PROJECT.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

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GENERAL NOTES

JOHNSON RANCH
WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED
PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS	
DATE	DESCRIPTION

MP/CW	DAZ	TH
DESIGN	DRAWN	CHKD

SCALE H: NTS V:
JOB No. 005522-01-009
DATE : JUNE 2016
FILE No. 5522-01-009
SHEET 2 OF 67

Cad file name: W:\005522 – Johnson Ranch\005522-01-009 (ENG) – WWTP\Engineering\Engineering Plans\Construction Documents\5522-01-009 WWTP NTS.dwg

GENERAL NOTES:

1. THE CONTRACTOR SHALL COMPLY WITH ALL OF THE REQUIREMENTS SET FORTH IN THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ) "TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM" (TPDES). INFORMATION ON THE TPDES CONSTRUCTION GENERAL PERMITS MAY BE OBTAINED BY CONTACTING THE TCEQ AT 512-339-2929. INFORMATION IS ALSO AVAILABLE THROUGH TCEQ WEB SITE. DISCLAIMER: INFORMATION CONTAINED IN THIS PARAGRAPH IS BASED UPON THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL NECESSARY FORMS AND DOCUMENTATION AND COMPLY WITH THE PROVISIONS OF THE TPDES.
2. THE CONTRACTOR WILL BE REQUIRED TO FOLLOW BEST MANAGEMENT PRACTICES AND TO USE AND MAINTAIN SEDIMENTATION AND WATER POLLUTION CONTROL DEVICES AS REQUIRED.
3. THE CONTRACTOR SHALL PROVIDE THE OWNER 48 HOURS NOTICE PRIOR TO DISTURBING ANY VEGETATION OR BEGINNING ANY SITE PREPARATION IN ADVANCE OF THE EARTHWORK OPERATION. THE 48 HOUR NOTICE PROVIDES THE OWNER THE REQUIRED TIME TO FILE AND POST THE "NOTICE OF INTENT" (NOI) WITH THE TCEQ.
4. THE CONTRACTOR SHALL NOT RECEIVE FINAL PAYMENT FOR THE PROJECT UNTIL THE UNPAVED AREAS HAVE ACHIEVED 95% VEGETATIVE COVER WITH PERMANENT GRASSES, AND THE OWNER HAS FILED THE "NOTICE OF TERMINATION" (NOT) WITH THE TCEQ.
5. IN AREAS THAT HAVE ACHIEVED 95% VEGETATIVE COVER (WHEN COMPARED TO THE SURROUNDING, UNDISTURBED, VEGETATIVE COVER), THE CONTRACTOR MAY REMOVE AND REUSE ANY TEMPORARY EROSION CONTROL DEVICES (THAT ARE IN REASONABLE CONDITION) ON OTHER LOCATIONS IN THE DEVELOPMENT. ADDITIONAL SEEDING MAY BE REQUIRED TO VEGETATE THE AREAS WHERE THE STRUCTURAL CONTROLS WERE REMOVED.
6. PRIOR TO ACCEPTANCE AND FINAL PAYMENT, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES.
7. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE PLACED PRIOR TO CONSTRUCTION IN ANY AREA, OR AS SOON AS PRACTICAL.
8. THE CONTRACTOR SHALL PROVIDE FOR ALL INTERIM DRAINAGE ON THE PROJECT. THE INTERIM DRAINAGE SHALL ENSURE THAT ALL RUNOFF IS CHANNELED TO THE TEMPORARY CONTROL DEVICES.
9. THE CONTRACTOR SHALL TAKE THE STEPS NECESSARY TO ENSURE THAT ALL CONSTRUCTION TRAFFIC LEAVING THE PROJECT SHALL NOT TRACK MUD OR OTHER DEBRIS ONTO ANY ROADWAY, PUBLIC STREET OR ANY ROADWAY WITHIN THE DEVELOPMENT. SHOULD MUD OR OTHER DEBRIS BE TRACKED ONTO ANY ROADWAY, THE CONTRACTOR SHALL TAKE IMMEDIATE STEPS TO REMOVE IT TO THE SATISFACTION OF THE OWNER AND/OR ANY REGULATORY AUTHORITY.
10. TEMPORARY CONSTRUCTION ENTRANCES SHALL BE UTILIZED WHERE NECESSARY.
11. SPRINKLING OF ROADWAYS SHALL BE REQUIRED TO CONTROL DUST.
12. THE CONTRACTOR SHALL MODIFY, AS NECESSARY, ANY TEMPORARY EROSION CONTROL DEVICES SO THAT THEY SERVE THEIR INTENDED PURPOSE.
13. THE CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION DEVICES TO A CONDITION SIMILAR TO THAT OF WHEN IT WAS ORIGINALLY INSTALLED.
14. THE CONTRACTOR SHALL KEEP ALL TEMPORARY EROSION CONTROL DEVICES FREE OF SILT AND/OR ANY OTHER MATERIAL THAT MAY ACCUMULATE. REMOVAL SHALL OCCUR AS SOON AS PRACTICAL AFTER A RAINFALL. IN NO INSTANCE SHALL SILT BE PERMITTED TO ACCUMULATE TO A DEPTH ABOVE, OR IN EXCESS OF 50% OF THE DESIGN CAPACITY OF THE DEVICE.
15. AS REQUIRED BY THE OWNER, THE CONTRACTOR SHALL ACCOMPANY THE OWNER DURING THE INSPECTION OF THE EROSION CONTROL DEVICES TO DISCUSS MODIFICATIONS TO ENSURE THE DEVICES SERVE THEIR INTENDED PURPOSE.
16. THE CONTRACTOR SHALL PROTECT ALL AREAS (TREES AND MATURE VEGETATION), WHETHER WITHIN OR OUTSIDE OF THE ACTUAL LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION AS GOOD AS, OR BETTER THAN, THAT PRESENT PRIOR TO THE CONSTRUCTION.
17. ALL CONSTRUCTION AND CONSTRUCTION EQUIPMENT SHALL REMAIN WITHIN THE ESTABLISHED STREET RIGHT OF WAY AND DRAINAGE EASEMENTS UNLESS THE OWNER HAS GRANTED PRIOR AUTHORIZATION.
18. IN THE EVENT THE CONTRACTOR ESTABLISHES A YARD ON THE PROJECT, HE SHALL BE RESPONSIBLE FOR ESTABLISHING HIS OWN STORM WATER POLLUTION PREVENTION PLAN AND COMPLYING WITH THE REQUIREMENTS THEREOF.
19. THE CONTRACTOR SHALL KEEP THE DEVELOPMENT FREE FROM LITTER.

SITE DESCRIPTION:

A) THE PROJECT SHALL CONSIST OF THE CONSTRUCTION OF UTILITY IMPROVEMENTS.

B) SEQUENCE OF MAJOR ACTIVITIES:
-INSTALLATION OF EROSION/ SEDIMENTATION CONTROLS.
-INSTALLATION OF UNDERGROUND UTILITIES.
-CONSTRUCTION OF WASTEWATER TREATMENT PLANT.
-REVEGETATION OF DISTURBED AREAS.
-REMOVAL AND PROPER DISPOSAL OF EROSION/SEDIMENTATION CONTROLS ONCE PERMANENT VEGETATION IS ESTABLISHED.

C) ESTIMATE OF SITE AREA:
TOTAL SIZE: 1.66 ACRES
TOTAL DISTURBED AREA: 1.66 ACRES

D) ESTIMATED RUNOFF COEFFICIENTS FOR THE 100 YEAR STORM AND DESCRIPTION OF RUNOFF:
SEE DRAINAGE PLAN AND CALCULATIONS SHEETS OF THESE CONSTRUCTION PLANS.

E) LOCATION MAP (COVER SHEET)

F) THERE IS NO INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ACTIVITIES.

G) RECEIVING WATERS:
RUNOFF FROM THE SITE DISCHARGES TO LEWIS CREEK, WHICH DISCHARGES TO CIBOLO CREEK, WHICH DISCHARGES TO THE SAN ANTONIO RIVER, FLOWING TO THE GULF OF MEXICO.

NOTE:
DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED IMMEDIATELY UNLESS ACTIVITIES ARE SCHEDULED TO RESUME AND DO SO WITHIN FOURTEEN (14) DAYS.
THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.

REQUIREMENTS:

THE FOLLOWING RECORDS SHALL BE KEPT BY THE CONTRACTOR, WITH THE SWPPP:
-DATES WHEN MAJOR GRADING ACTIVITIES OCCUR
-DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY CEASE
-DATES WHEN CONSTRUCTION ACTIVITIES PERMANENTLY CEASE
-DATES WHEN STABILIZATION MEASURES ARE INITIATED

THE SWPPP SHALL BE AMENDED WHEN:
-THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE SYSTEM OR SITE
-INSPECTIONS INDICATE THE PLAN IS NOT MEETING THE DESIRED OBJECTIVES

THE OWNER/OPERATOR SHALL POST A NOTICE NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE WITH THE FOLLOWING INFORMATION:
-TPDES PERMIT NUMBER OR A COPY OF THE NOI IF THE PERMIT NUMBER HAS NOT YET BEEN ASSIGNED
-THE NAME AND TELEPHONE NUMBER OF A LOCAL CONTACT PERSON
-A BRIEF DESCRIPTION OF THE PROJECT
-THE LOCATION OF THE SWPPP.

STABILIZATION / REVEGETATION NOTES:

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE TCEQ TECHNICAL GUIDANCE MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
3. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF BULVERDE STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
4. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK.
5. ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER OR ENVIRONMENTAL SPECIALIST. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
6. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
7. PRIOR TO FINAL ACCEPTANCE, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
8. ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A TCEQ INSPECTOR FOR FURTHER INVESTIGATION. PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
   A. A MINIMUM OF FOUR INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND BETWEEN THE CURB AND RIGHT-OF-WAY LINE.
   B. RESEEDING SHALL IMMEDIATELY FOLLOW TOP SOILING WITH THE FOLLOWING MIXTURE OF GRASSES AT THE FOLLOWING RATES OF APPLICATION:

BLUE GRAMA	5.0 LBS/ACRE
TREATED "TOP GUN" BUFFALO GRASS	10.0 LBS/ACRE
TEXAS BLUEBONNETS	4.0 LBS/ACRE
PRAIRIE VERBENAS	0.5 LBS/ACRE
GREENTHREAD	1.0 LBS/ACRE
PLAINS COREOPSIS	0.5 LBS/ACRE
TOTAL SEEDING RATE*	21.0 LBS/ACRE

*PERENNIAL RYE GRASS TO BE ADDED TO THE DESCRIBED MIX AT A RATE OF 10 LBS/ACRE WHEN SEEDING BETWEEN OCTOBER 1 AND MARCH 31.

   C. FERTILIZER SHALL BE A PELLETED OR GRANULAR SLOW RELEASE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1 POUND PER 1000 SF.
   D. FERTILIZER SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT A RATE OF 1.5 POUNDS PER 1000 SF.
   E. MULCH TYPE USED SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1000 SF, WITH SOIL TACKIFIER AR A RATE OF 1.4 POUNDS PER 1000 SF
   F. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT TEN-DAY INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF ½ INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK
   G. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1½ INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
   H. WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF SAN ANTONIO.
9. ANNUAL GRASSES SUCH AS RYE GRASS WILL NOT BE ACCEPTED AS PERMANENT VEGETATION.
10. ALL DISTURBED AREAS TO BE STABILIZED BY VEGETATION OR STRUCTURE.
11. DEVELOPER INFORMATION:

OWNER	OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
DHJB DEVELOPMENT, LLC	BOWMAN CONSULTING GROUP
102-A CORDILLERA RIDGE	1120 S. CAPITAL OF TEXAS HWY
BOERNE, TEXAS 78006	BUILDING 3, SUITE 220
830-336-2518	AUSTIN, TEXAS 78746
	512-327-1180

TCEQ NOTES:

TCEQ-0592 (REV. JULY 15, 2015) PAGE 1 OF 2
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES
EDWARDS AQUIFER PROTECTION PROGRAM CONSTRUCTION NOTES - LEGAL DISCLAIMER
THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION OF WATER QUALITY. ADDITIONALLY, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY OTHER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIL ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THROUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC § 213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWING/LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVED EXCEPTION BY THE ED TO ANY PART OF TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION

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 TCEQ-0592 (REV. JULY 15, 2015) PAGE 2 OF 2 WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

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 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 FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE
12100 PARK 35 CIRCLE, BUILDING
AUSTIN, TEXAS 78753-1808
PHONE (512) 339-2929
FAX (512) 339-3795

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

STRUCTURAL PRACTICES

- ___X___ SILT FENCES
- _____ HAY BALES
- ___X___ ROCK BERMS
- _____ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- _____ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- _____ DIVERSION DIKE AND SWALE COMBINATION
- _____ BRUSH BERMS
- _____ CONCRETE FLUMES
- ___X___ STABILIZED (ROCK) CONSTRUCTION ENTRANCES
- ___X___ SEDIMENT TRAPS
- ___X___ SEDIMENT BASINS
- _____ STONE OUTLET STRUCTURES CURB AND GUTTERS
- _____ STORM SEWERS
- _____ VELOCITY CONTROL DEVICES

STABILIZATION PRACTICES

- _____ TEMPORARY VEGETATION
- ___X___ PERMANENT VEGETATION
- _____ CELLULOSE FIBER MULCHING
- ___X___ VEGETATIVE BUFFER STRIPS
- _____ PROTECTION OF TREES
- ___X___ PROTECTION OF MATURE VEGETATION
- _____ GEOTEXTILES
- _____ SOD STABILIZATION

INSPECTIONS:

QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED, STORAGE AREAS, STRUCTURAL CONTROLS, AND AREAS WHERE CONSTRUCTION AND OTHER VEHICLES LEAVE THE SITE AT LEAST ONCE EVERY FOURTEEN (14) DAYS AND WITHIN TWENTY-FOUR (24) HOURS OF THE END OF A STORM EVENT OF ½ INCHES OR GREATER.

DISTURBED AREAS SHALL BE INSPECTED FOR EVIDENCE OF, OR POTENTIAL FOR, SEDIMENT ENTERING THE DRAINAGE SYSTEM.

AFTER THE INSPECTIONS, THE SWPPP SHALL BE MODIFIED AS NECESSARY TO INCLUDE ADDITIONAL BMP'S (BEST MANAGEMENT PRACTICES) DESIGNED TO CORRECT DEFICIENCIES IDENTIFIED.

REVISIONS (MODIFICATIONS) SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE INSPECTION, IF POSSIBLE IMPLEMENT BEFORE NEXT STORM EVENT.

IF EXISTING BMP'S NEED TO BE MODIFIED OR ADDITIONAL BMP'S ARE REQUIRED, IMPLEMENTATIONS SHALL BE COMPLETED PRIOR TO THE NEXT ANTICIPATED STORM EVENT OR AS SOON AS PRACTICAL.

A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWPPP SHALL BE MADE AND RETAINED AS PART OF THE SWPPP FOR AT LEAST THREE (3) YEARS FROM THE DATE THE "NOTICE OF TERMINATION" (NOT) IS SUBMITTED.

THE OBSERVATIONS SHOULD INCLUDE:
-SEDIMENT DISCHARGES FROM THE SITE
-LOCATION OF BMP'S THAT SHOULD BE MAINTAINED
-LOCATION OF BMP'S THAT WERE INADEQUATE
-LOCATION WHERE ADDITIONAL BMP'S SHALL BE INSTALLED

WHERE AN INSPECTION DOES NOT INDICATE THAT MODIFICATIONS TO EXISTING BMP'S ARE NECESSARY OR ADDITIONAL BMP'S ARE REQUIRED, A REPORT SHALL BE PREPARED WITH A CERTIFICATION THAT THE FACILITY IS IN COMPLIANCE WITH THE SWPPP AND THE TPDES PERMIT.

STANDARD PERMIT CONDITIONS:

1. THE PERMITTEE HAS A DUTY TO COMPLY WITH ALL PERMIT CONDITIONS. FAILURE TO COMPLY WITH ANY PERMIT CONDITION IS A VIOLATION OF THE PERMIT AND STATUTES UNDER WHICH IT WAS ISSUED, AND IS GROUNDS FOR ENFORCEMENT ACTION, FOR TERMINATING COVERAGE UNDER THIS GENERAL PERMIT, OR FOR REQUIRING A DISCHARGER TO APPLY FOR AND OBTAIN AN INDIVIDUAL TPDES PERMIT.
2. AUTHORIZATION UNDER THIS GENERAL PERMIT MAY BE SUSPENDED OR REVOKED FOR CAUSE. FILING A NOTICE OF PLANNED CHANGES OR ANTICIPATED NON-COMPLIANCE BY THE PERMITTEE DOES NOT STAY ANY PERMIT CONDITION. THE PERMITTEE MUST FURNISH TO THE EXECUTIVE DIRECTOR, UPON REQUEST AND WITHIN A REASONABLE TIME, ANY INFORMATION NECESSARY FOR THE EXECUTIVE DIRECTOR TO DETERMINE WHETHER CAUSE EXISTS FOR REVOKING, SUSPENDING, OR TERMINATING AUTHORIZATION UNDER THIS PERMIT. ADDITIONALLY, THE PERMITTEE MUST PROVIDE TO THE EXECUTIVE DIRECTOR, UPON REQUEST, COPIES OF ALL RECORDS THAT THE PERMITTEE IS REQUIRED TO MAINTAIN AS A CONDITION OF THIS GENERAL PERMIT.
3. IT IS NOT A DEFENSE FOR A DISCHARGER IN AN ENFORCEMENT ACTION THAT IT WOULD HAVE BEEN NECESSARY TO HALT OR REDUCE THE PERMITTED ACTIVITY TO MAINTAIN COMPLIANCE WITH THE PERMIT CONDITIONS.
4. INSPECTION AND ENTRY SHALL BE ALLOWED UNDER TEXAS WATER CODE CHAPTERS 26-28, HEALTH AND SAFETY CODE §§ 361.032-361.033 AND 361.037, AND 40 CODE OF FEDERAL REGULATIONS (CFR) § 122.41(i). THE STATEMENT IN TEXAS WATER CODE § 26.014 THAT COMMISSION ENTRY OF A FACILITY SHALL OCCUR ACCORDING TO AN ESTABLISHMENT'S RULES AND REGULATIONS CONCERNING SAFETY, INTERNAL SECURITY, AND FIRE PROTECTION IS NOT GROUNDS FOR DENIAL OR RESTRICTION OF ENTRY TO ANY PART OF THE FACILITY OR SITE, BUT MERELY DESCRIBES THE COMMISSION'S DUTY TO OBSERVE APPROPRIATE RULES AND REGULATIONS DURING AN INSPECTION.
5. THE DISCHARGER IS SUBJECT TO ADMINISTRATIVE, CIVIL, AND CRIMINAL PENALTIES, AS APPLICABLE, UNDER TEXAS WATER CODE §§ 26.136, 26.212, AND 26.213 FOR VIOLATIONS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   a. NEGLIGENTLY OR KNOWINGLY VIOLATING CWA, §§ 301, 302, 306, 307, 308, 318, OR 405, OR ANY CONDITION OR LIMITATION IMPLEMENTING ANY SECTIONS IN A PERMIT ISSUED UNDER CWA § 402, OR ANY REQUIREMENT IMPOSED IN A PRETREATMENT PROGRAM APPROVED UNDER CWA, §§ 402(a)(3) OR 402(b)(8);
   b. KNOWINGLY MAKING ANY FALSE STATEMENT, REPRESENTATION, OR CERTIFICATION IN ANY RECORD OR OTHER DOCUMENT SUBMITTED OR REQUIRED TO BE MAINTAINED UNDER A PERMIT, INCLUDING MONITORING REPORTS OR REPORTS OF COMPLIANCE OR NONCOMPLIANCE.
6. ALL REPORTS AND OTHER INFORMATION REQUESTED BY THE EXECUTIVE DIRECTOR MUST BE SIGNED BY THE PERSON AND IN THE MANNER REQUIRED BY 30TAC § 305.128 (RELATING TO SIGNATORIES TO REPORTS).
7. AUTHORIZATION UNDER THIS GENERAL PERMIT DOES NOT CONVEY PROPERTY OR WATER RIGHTS OF ANY SORT AND DOES NOT GRANT ANY EXCLUSIVE PRIVILEGE.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

Bowman
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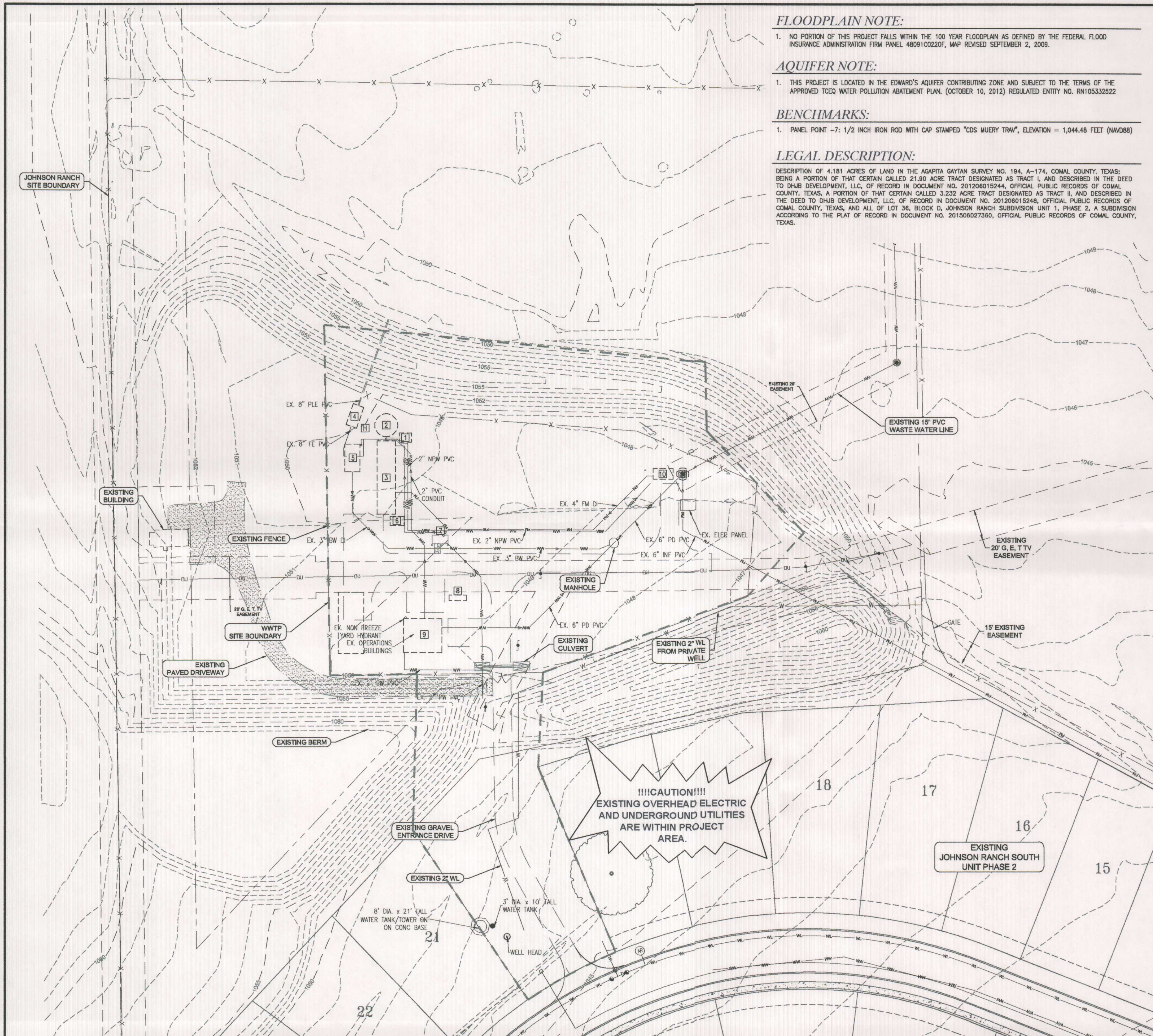
SWPPP NOTES

JOHNSON RANCH
WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS	
DATE	DESCRIPTION
MP/CW	DAZ / TH
DESIGN	DRAWN / CHKD
SCALE	H: 1" = XXX' V: 1" = XXX'
JOB No.	005522-01-009
DATE :	JUNE 2016
FILE No.	5522-01-009
SHEET	3 OF 67



FLOODPLAIN NOTE:

1. NO PORTION OF THIS PROJECT FALLS WITHIN THE 100 YEAR FLOODPLAIN AS DEFINED BY THE FEDERAL FLOOD INSURANCE ADMINISTRATION FIRM PANEL 48091C0220F, MAP REVISED SEPTEMBER 2, 2009.

AQUIFER NOTE:

1. THIS PROJECT IS LOCATED IN THE EDWARD'S AQUIFER CONTRIBUTING ZONE AND SUBJECT TO THE TERMS OF THE APPROVED TCEQ WATER POLLUTION ABATEMENT PLAN. (OCTOBER 10, 2012) REGULATED ENTITY NO. RN105332522

BENCHMARKS:

1. PANEL POINT -7: 1/2 INCH IRON ROD WITH CAP STAMPED "CDS MUERY TRAV", ELEVATION = 1,044.48 FEET (NAVD88)

LEGAL DESCRIPTION:

DESCRIPTION OF 4.181 ACRES OF LAND IN THE AGAPITA GAYTAN SURVEY NO. 194, A-174, COMAL COUNTY, TEXAS; BEING A PORTION OF THAT CERTAIN CALLED 21.90 ACRE TRACT DESIGNATED AS TRACT I, AND DESCRIBED IN THE DEED TO DHJB DEVELOPMENT, LLC, OF RECORD IN DOCUMENT NO. 201206015244, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS, A PORTION OF THAT CERTAIN CALLED 3.232 ACRE TRACT DESIGNATED AS TRACT II, AND DESCRIBED IN THE DEED TO DHJB DEVELOPMENT, LLC, OF RECORD IN DOCUMENT NO. 201206015248, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS, AND ALL OF LOT 36, BLOCK D, JOHNSON RANCH SUBDIVISION UNIT 1, PHASE 2, A SUBDIVISION ACCORDING TO THE PLAT OF RECORD IN DOCUMENT NO. 201506027360, OFFICIAL PUBLIC RECORDS OF COMAL COUNTY, TEXAS.

PROCESS FLOW STREAM CODES

- FM FORCE MAIN
- SLT SLUDGE TRANSFER
- DE DISINFECTED EFFLUENT
- PW POTABLE WATER
- CS CHLORINE SOLUTION
- PD PLANT DRAIN
- WW WASTEWATER
- BW FILTER BACKWASH
- NPW NON-POTABLE WATER
- AL ALUM
- FE FILTERED EFFLUENT
- PLE PLANT EFFLUENT

EXISTING STRUCTURES

1. NON-POTABLE WATER SYSTEM
2. CLARIFER
3. TREATMENT TRAIN
4. POST-AERATION TANK
5. FILTER
6. BLOWER PAD
7. CHLORINE DISINFECTION BUILDING
8. GENERATOR
9. OPERATIONS BUILDING
10. VALVE VAULT
11. INFLUENT PUMP STATION

30 0 30 60

SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- ADJOINER PROPERTY LINE
- 830 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- TREE TO REMAIN

NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS OR PROVIDED BY VARIOUS OWNERS OF THE FACILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. SHALL VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. NOTIFY THE OWNER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.
2. UNLESS INDICATED ON PLANS, ALL EXISTING FENCES AND GATES REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED OR RESTORED WITH SAME TYPE, STYLE AND MATERIAL TO AN EQUAL OR BETTER CONDITION. THIS SUBSIDIARY TO THE COST UNLESS OTHERWISE SHOWN ON BID PROPOSAL.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AT ALL TIME FOR THE DURATION OF THE PROJECT CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE WASTEWATER TREATMENT PLANT FACILITY.
4. TEXAS STATE LAW ARTICLE 1436C, MAKES IT UNLAWFUL TO OPERATE EQUIPMENT OR MACHINES WITH 10-FEET OF ANY OVERHEAD ELECTRIC LINES UNLESS DANGER AGAINST CONTACT WITH HIGH VOLTAGE OVER HEADLINES HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THIS ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRIC LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS AND STANDARD SAFETY PRACTICES ARE MET.
5. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD BY CLEARING OR CLEANING DEBRIS PER OWNER'S DIRECTION.
6. EXISTING CONTOURS INDICATED ON PLANS AR BASED ON LIDAR AND DESIGN CAD FILES PROVIDED BY OWNER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EXISTING TOPOGRAPHY PRIOR TO CONSTRUCTION.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

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EXISTING WWTP SITE CONDITIONS

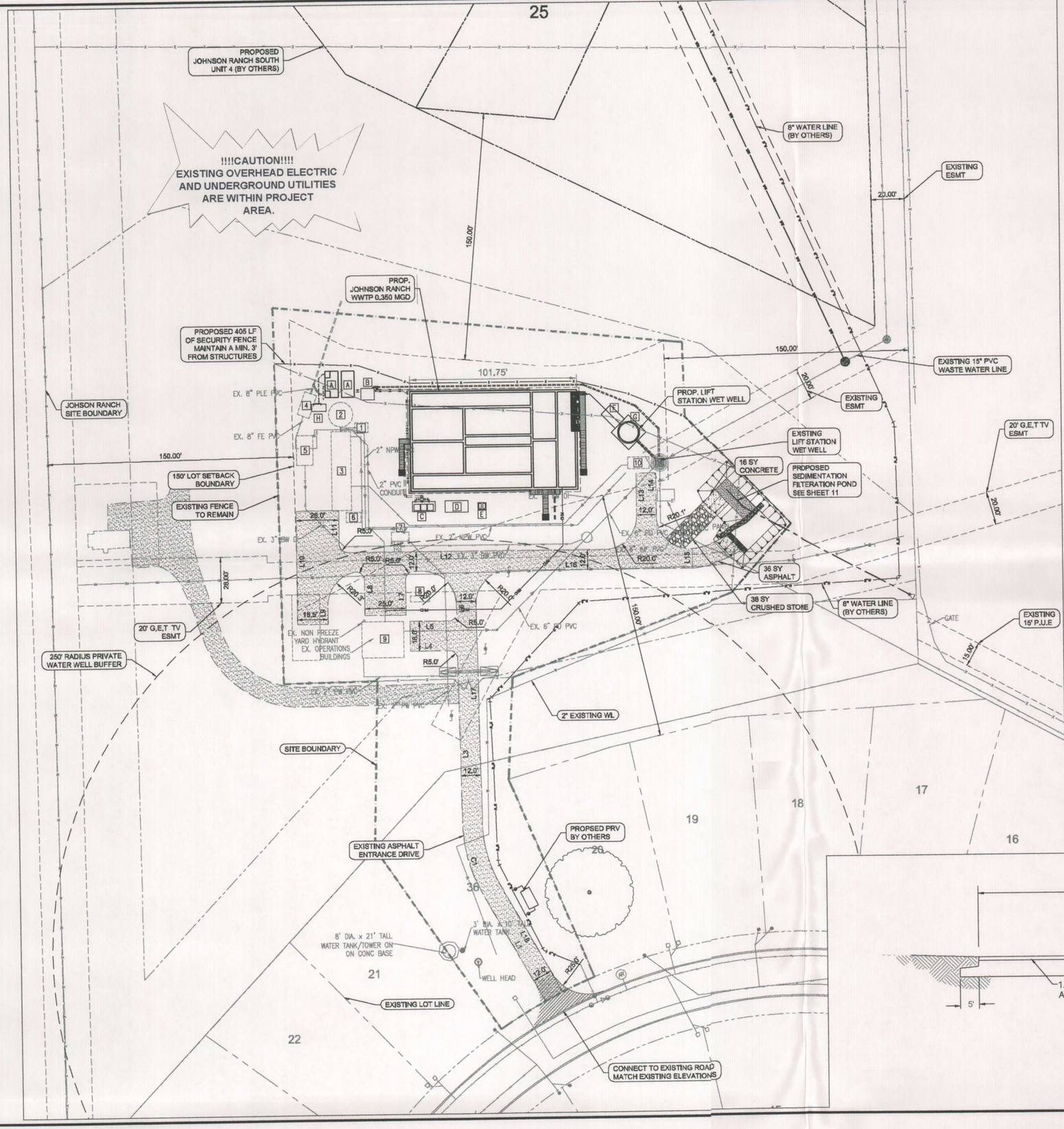
JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS

DATE	DESCRIPTION

MP/CW DESIGN	DAZ DRAWN	TH CHKD
SCALE	H: 1" = 30' V:	
JOB No.	005522-01-009	
DATE :	JUNE 2016	
FILE No.	5522-01-009	



PROPOSED STRUCTURES

- A CHLORINE CONTACT TANKS
- B FILTER
- C BLOWER PAD
- D CONTROL PANEL
- E AIR COMPRESSOR ON CONCRETE PAD
- F VALVE PAD
- G INFLUENT PUMP STATION
- H CHLORINE CONTACT TANK BLOWERS & PAD

EXISTING STRUCTURES

1. NON-POTABLE WATER SYSTEM
2. CLARIFER
3. TREATMENT TRAIN
4. POST-AERATION TANK
5. FILTER
6. BLOWER PAD
7. CHLORINE DISINFECTION BUILDING
8. GENERATOR
9. OPERATIONS BUILDING
10. VALVE VAULT
11. INFLUENT PUMP STATION

PROCESS FLOW STREAM CODES

FM	FORCE MAIN
SLT	SLUDGE TRANSFER
DE	DISINFECTED EFFLUENT
PW	POTABLE WATER
CS	CHLORINE SOLUTION
PD	PLANT DRAIN
WW	WASTEWATER
W	OFFSITE WATER MAIN
BW	FILTER BACKWASH
NPW	NON-POTABLE WATER
AL	ALUM
FE	FILTERED EFFLUENT
PLE	PLANT EFFLUENT

SCALE: 1" = 30'

LEGEND

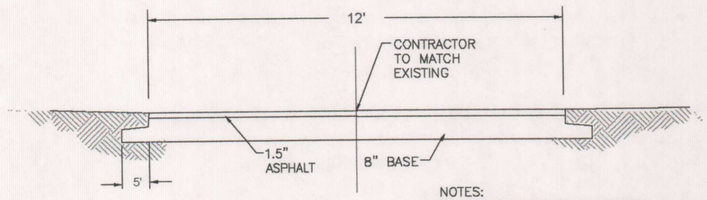
- PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED LOT LINE
- EASEMENT LINE
- ADJOINER PROPERTY LINE
- PROPOSED RIBBON CURB
- EXISTING MAJOR CONTOUR (830)
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR (830)
- PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED WASTEWATER
- PROPOSED STORMSEWER
- PROPOSED MANHOLE
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE
- SINGLE WASTEWATER SERVICE
- DOUBLE WASTEWATER SERVICE

CURVE DATA

CURVE #	LENGTH	RADIUS	DELTA
C1	41.85'	92.24'	25°59'37"

LINE DATA

LINE #	BEARING	DISTANCE
L1	S29°35'25"E	75.64'
L3	S0°56'56"E	90.96'
L4	N90°00'00"E	22.44'
L5	N90°00'00"W	23.53'
L6	S0°55'47"E	5.74'
L7	N0°00'00"E	21.50'
L8	S0°00'00"E	21.50'
L9	N0°00'00"E	11.23'
L10	S0°00'00"E	69.20'
L11	N0°00'00"E	20.70'
L12	N90°00'00"W	156.77'
L13	S0°00'00"E	28.26'
L14	N0°00'00"E	24.76'
L15	N0°00'00"E	12.00'
L16	N90°00'00"E	112.26'
L17	N0°56'56"W	90.96'
L18	N29°35'10"W	76.35'



NOTES:
1. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE @ 2%
2. CONTRACTOR SHALL REVIEW AND ABIDE WITH GEOTECHNICAL REPORT PREPARED BY KLEINFELDER INC. DATED MAY 2008.

TYPICAL SECTION
WWTP DRIVEWAY

NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS OR PROVIDED BY VARIOUS OWNERS OF THE FACILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. SHALL VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. NOTIFY THE PROJECT INSPECTOR PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.
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3. CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AT ALL TIME FOR THE DURATION OF THE PROJECT CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE WASTEWATER TREATMENT PLANT FACILITY.
4. TEXAS STATE LAW ARTICLE 1436C, MAKES IT UNLAWFUL TO OPERATE EQUIPMENT OR MACHINES WITH 10-FEET OF ANY OVERHEAD ELECTRIC LINES UNLESS DANGER AGAINST CONTACT WITH HIGH VOLTAGE OVER HEADLINES HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THIS ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRIC LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS AND STANDARD SAFETY PRACTICES ARE MET.
5. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD BY CLEARING OR CLEANING DEBRIS PER OWNER'S DIRECTION.

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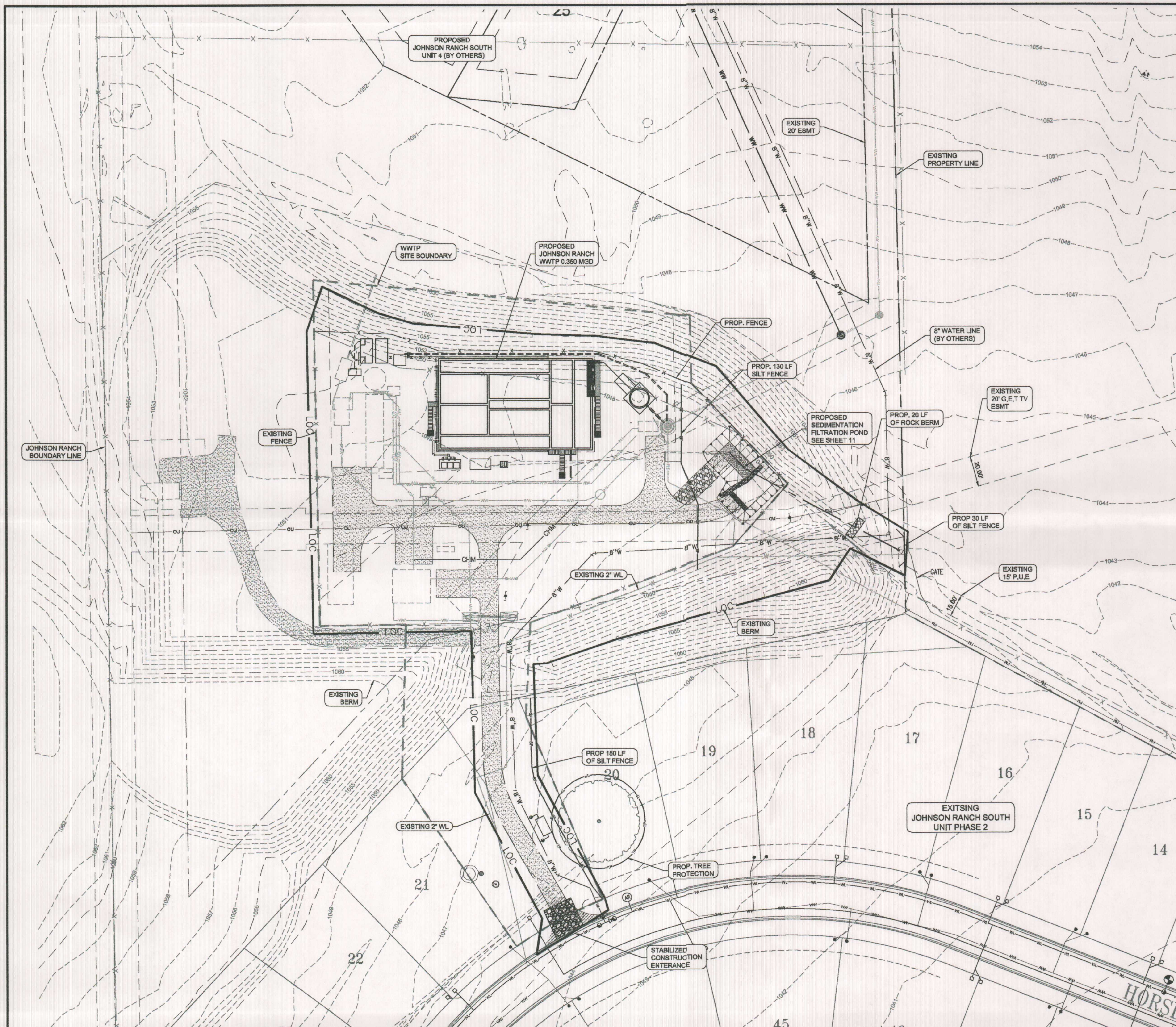
PROPOSED SITE PLAN

JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M PARTON
111369
LICENSED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS		
DATE	DESCRIPTION	
MP/CW DESIGN	DAZ DRAWN	TH CHKD
SCALE	H: 1" = 30' V:	
JOB No.	005522-01-009	
DATE :	JUNE 2016	
FILE No.	5522-01-009	
SHEET	5 OF 67	



SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED LOT LINE
- EASEMENT LINE
- ADJOINER PROPERTY LINE
- PROPOSED RIBBON CURB
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF CONSTRUCTION
- SILT FENCE
- TREE PROTECTION
- BERM
- SWALE
- PROPOSED CULVERT
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED ROCK BERM
- TREE TO BE PROTECTED

E&S CONTROL PLAN NOTES:

1. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS PRIOR TO ANY SITE DISTURBANCE AND SHALL MAINTAIN THEM THROUGHOUT THE PROJECT DURATION.
2. IF ANY DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, THE DISTURBED AREA SHALL BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING PER ECM 1.4.5(A) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. CONTRACTOR SHALL EXECUTE ALL REQUIRED PROVISIONS OF THE STORM WATER POLLUTION PREVENTION AND EROSION CONTROL PLAN. ANY FINE RESULTING FROM FAILURE TO EXECUTE REQUIRED PROVISIONS WILL BE AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR MUST HAVE A DESIGNATED PERSON RESPONSIBLE FOR MONITORING EROSION CONTROL MEASURES TO INSURE THAT ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS ARE BEING COMPLIED WITH. THIS PERSON SHALL BE RESPONSIBLE FOR ALL REQUIRED FORMS AND DOCUMENTATION TO MEET REGULATIONS OF THE EPA, NPDES, AND TPDES GENERAL PERMIT.
6. IN THE EVENT OF UNUSUAL SITE CONDITIONS, OR WEATHER RELATED EVENTS, MORE STRINGENT REQUIREMENTS MAY BE REQUIRED (ON-SITE OR OFF) TO MAINTAIN EROSION CONTROL.
7. STORM DRAIN INLETS WITHIN 200 FOOT DOWNSTREAM OF ANY PERMITTED CONSTRUCTION AREA MUST BE PROTECTED PER DETAIL PROVIDED BY THE CITY.
8. ALL DISTURBED AREAS DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF FOUR (4) INCHES OF TOPSOIL AND SEEDING/SODDING. NO PAYMENT SHALL BE MADE FOR RESTORATION OUTSIDE THE LIMITS OF CONSTRUCTION.

TREE PROTECTION AND PRESERVATION GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO PROTECT PRESERVED TREES AGAINST INJURY OR DAMAGE, INCLUDING CUTTING, SOIL COMPACTION, AND BREAKING OR SKINNING OF ROOTS. THE CONTRACTOR SHALL COORDINATE WITH CITY INSPECTOR PRIOR TO ANY TRIMMING OR PRUNING. COORDINATION WITH A CERTIFIED ARBORIST MAY BE REQUIRED AND WILL NOT BE ADDITIONAL COST TO THE CITY.
2. THE CONTRACTOR WILL NOT OPERATE OR STORE EQUIPMENT, VEHICLES OR MATERIALS WITHIN THE ROOT PROTECTION ZONE OF ANY TREE WITHIN OR NEAR THE PROJECT.
3. AT THE END OF THE DAY THE CONTRACTOR WILL COVER EXPOSED ROOTS USING SOIL, MULCH OR WET BURLAP.
4. THE CONTRACTOR WILL NOT BEGIN ANY UTILITY OR STREET EXCAVATION WORK WHERE TREE PRESERVATION AND TREATMENT MEASURES HAVE NOT BEEN COMPLETED AND APPROVED.
5. THE CONTRACTOR WILL MAKE SURE TO CLEANLY CUT ROOTS OR BRANCHES IN CONFLICT WITH CONSTRUCTION ACCORDING TO PROPER PRUNING METHODS. PAINT OVER OAK WOUNDS WITHIN 30 MINUTES TO PREVENT OAK WILT.
6. THE CONTRACTOR WILL DISPOSE OF ALL DEBRIS GENERATED BY PRUNING AND TRIMMING PROPERLY.
7. THE CONTRACTOR WILL REMOVE SAPLINGS, SHRUBS AND BUSHES FROM THE ROOT PROTECTION ZONE OF A LARGE TREE BY HAND.
8. THE CONTRACTOR WILL REMOVE ALL TREES SIX (6) INCHES IN DIAMETER AND GREATER IDENTIFIED WITHIN THESE PLANS. PAYMENT FOR THEIR REMOVAL TO BE COVERED UNDER ITEM 101S, PREPARING RIGHT-OF-WAY. WHEN DIRECTED BY THE CITY, REMOVAL OF ADDITIONAL TREES, SIX (6) INCHES IN DIAMETER OR GREATER, NOT IDENTIFIED IN THESE PLANS, TO BE PAID FOR UNDER ITEM 101S, PREPARING RIGHT-OF-WAY. CITY INSPECTOR (512.393.8130) MUST APPROVE ANY TREE REMOVAL.
9. THE CONTRACTOR WILL PROTECT ALL EXISTING LANDSCAPE AND TREES FROM A CHANGE IN THE SOIL PH FACTOR BY PREVENTING THE DISPOSAL OF LIME BASED MATERIALS SUCH AS CONCRETE, PLASTER, OR LIME TREATMENT AT THE PAVEMENT SUBGRADE IN THE PROXIMITY OF PRESERVED TREE AREAS.
10. TREES DAMAGED OR LOST DUE TO THE CONTRACTOR'S NEGLIGENCE DURING CONSTRUCTION SHALL BE MITIGATED TO THE CITY'S SATISFACTION.

SUMMARY OF EROSION & SEDIMENTATION CONTROL

ITEM	QUANTITIES
ROCK BERM	20 LF
SILT FENCE	350 LF

LIMITS OF CONSTRUCTION = 1.66 AC.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

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EROSION AND SEDIMENTATION CONTROL PLAN

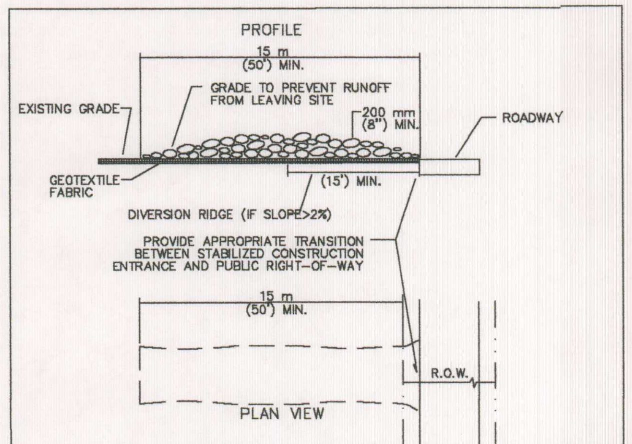
JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS — MIA M. PARTON — 111369 — LICENSED PROFESSIONAL ENGINEER — 6/21/16

PLAN STATUS

DATE	DESCRIPTION	
MP/CW DESIGN	DAZ DRAWN	TH CHKD
SCALE	H: 1" = 30' V:	
JOB No.	005522-01-009	
DATE :	JUNE 2016	
FILE No.	5522-01-009	

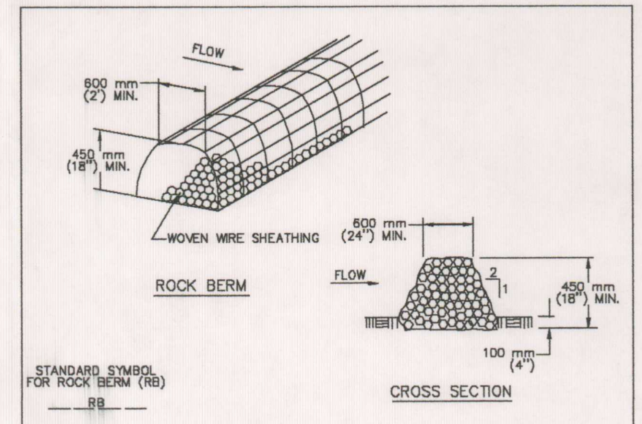
RECEIVED
JUL 06 2016
COUNTY ENGINEER



NOTES: (BUILD TO TCEQ SPECIFICATION, REFER TO TECHNICAL GUIDANCE MANUAL)

1. STONE SIZE: 75–125 mm (4–8") WASHED STONE.
2. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6OZ/YD², A MULLEN BURST RATING OF 140 LB/IN², AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.
3. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
4. THICKNESS: NOT LESS THAN 200 mm (8").
5. WIDTH: NOT LESS THAN 12' WIDE.
6. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH MIN. 4" WASHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
7. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
8. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

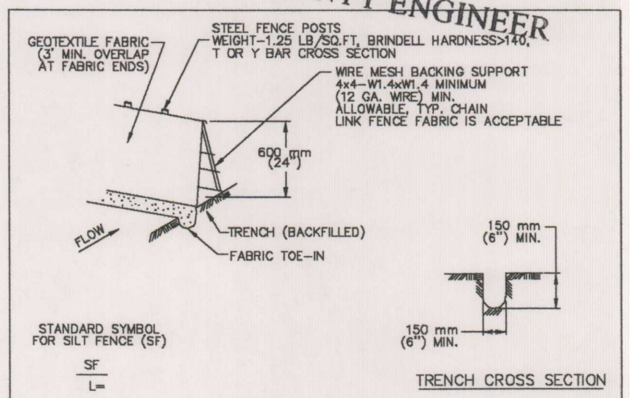
STABILIZED CONSTRUCTION ENTRANCE



NOTES: (BUILD TO TCEQ SPECIFICATION, REFER TO TECHNICAL GUIDANCE MANUAL)

1. BUILD ALONG CONTOUR AT 0% SLOPE OR AS NEAR AS POSSIBLE AND ENDS TO BE TIED INTO EXISTING UPLOPE GRADE.
2. USE ONLY CLEAN, OPEN GRADED ROCK 100 to 200 mm (5 to 8") DIAMETER FOR STREAM FLOW CONDITIONS. USE CLEAN OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR OTHER CONDITIONS.
3. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE). ROCK BERMS IN CHANNEL APPLICATIONS SHALL BE ANCHORED FIRMLY INTO THE SUBSTRATE A MINIMUM OF 150 mm (6 ") WITH T-POSTS OR WITH 15M OR 20M (#5 OR #6) REBAR, WITH MAXIMUM SPACING APART OF 1.2 m (48") ON CENTER.
4. THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
5. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SILTATION PROBLEM.
6. DAILY INSPECTION SHALL BE MADE ON SEVERE-SERVICE ROCK BERMS; SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 150 mm (6").
7. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

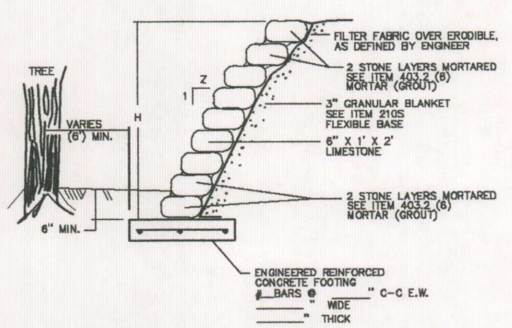
ROCK BERM



NOTES: (BUILD TO TCEQ SPECIFICATION, REFER TO TECHNICAL GUIDANCE MANUAL)

1. MAX. DRAINAGE AREA TO SILT FENCE=1/4 ACRE PER 100 L.F.
2. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (1'), AT LEAST 4' LONG AND NO MORE THAN 6' APART.
3. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CAN NOT BE TRENCHED INTO THE SURFACE (E.G. PAVEMENT), THE FABRIC FLAP SHALL BE WEIGHTED DOWN WITH WASHED GRAVEL ON UPHILL SIDE TO PREVENT FLOW UNDER FENCE.
4. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 inches) DEEP AND 150 mm (6 inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
6. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
7. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE



THIS STANDARD APPLIES ONLY UNDER THE FOLLOWING CONDITIONS:

A. H AND Z ARE SPECIFIED ON THE DRAWING.
B. GROUNDWATER IS NO HIGHER THAN THE BOTTOM OF THE FOOTING.
C. THE MATERIAL BELOW THE FOOTING IS FIRM AND STABLE.
D. THE MATERIAL BEHIND THE WALL HAS A LEVEL SURFACE.
E. THE MATERIAL IN FRONT OF THE WALL HAS A SLOPE NO STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL.
F. THE FACE OF THE WALL IS NO STEEPER THAN 1 HORIZONTAL TO 2 VERTICAL.
G. SURCHARGE LOADS BEHIND THE WALL ARE NO CLOSER THAN DISTANCE H FROM THE TOP OF WALL.

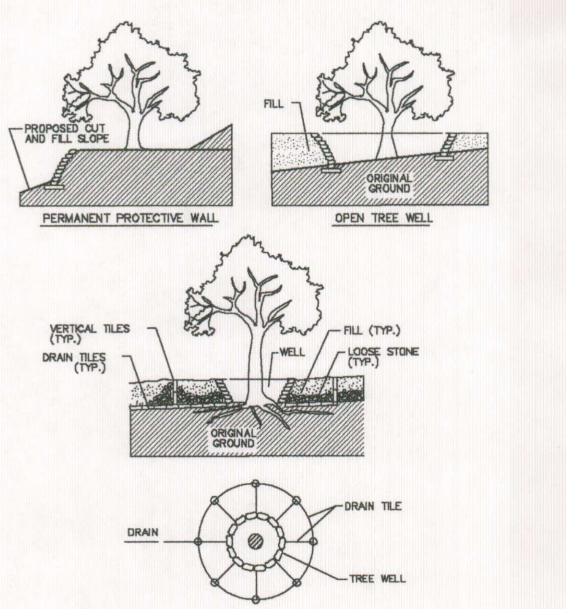
NOTES

1. DESIGN AND CONSTRUCTION OF ROCK WALL SHALL CONFORM TO THE REQUIREMENTS OF CITY CODE 16-7-2, PLACEMENT OF FENCES IN STREET CORNER AREAS, AND THE CITY OF AUSTIN TRANSPORATION CRITERIA MANUAL FOR MINIMUM SIGHT DISTANCE.
2. CONCRETE SHALL CONFORM TO ITEM 403, "CONCRETE FOR STRUCTURES".

TREE WELL WITH RAISED GRADE

SHEET 1 OF 2

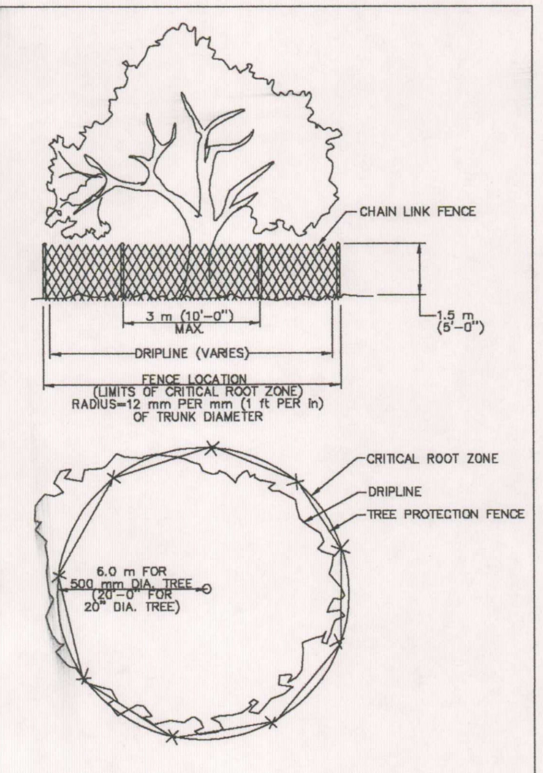
STANDARD DETAIL N.T.S.	APPROVED BY:



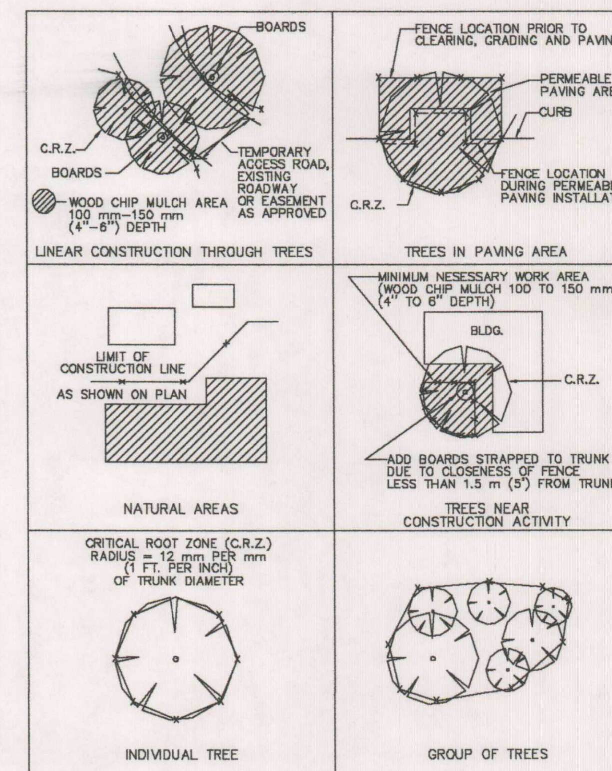
TREE WELL WITH RAISED GRADE

SHEET 2 OF 2

STANDARD DETAIL N.T.S.	APPROVED BY:



TREE PROPTECTION FENCE TYPE A – CHAIN LINK



TREE PROTECTION FENCE LOCATIONS

Bowman CONSULTING
TBPE Firm Registration No. F-14309

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1120 S. Capital of Texas Hwy.
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EROSION AND SEDIMENTATION CONTROL DETAILS

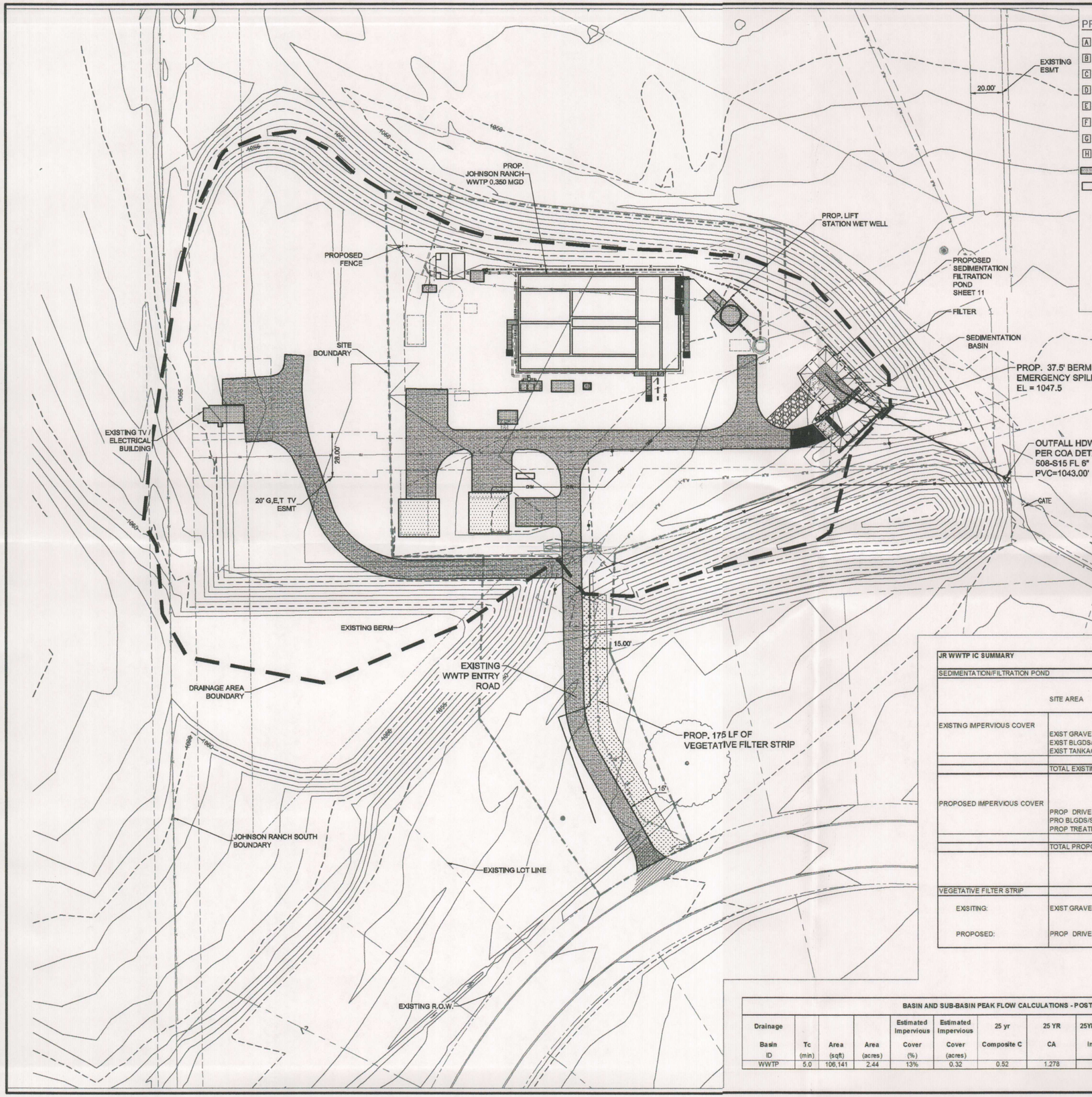
JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS

DATE	DESCRIPTION	
MP/CW DESIGN	DAZ DRAWN	TH CHKD
SCALE	H: NTS V: NTS	
JOB No.	005522-01-009	
DATE :	JUNE 2016	
FILE No.	5522-01-009	

SHEET 8 OF 67



PROPOSED STRUCTURES

- A CHLORINE CONTACT TANKS
- B FILTER
- C BLOWER PAD
- D CONTROL PANEL
- E AIR COMPRESSOR ON CONCRETE PAD
- F VALVE PAD
- G INFLUENT PUMP STATION
- H CHLORINE CONTACT TANK BLOWERS & PAD
- PROP. IMPERVIOUS COVER
- PROP. TREATMENT TANKAGE

EXISTING STRUCTURES

- 1 NON-POTABLE WATER SYSTEM
- 2 CLARIFER
- 3 TREATMENT TRAIN
- 4 POST-AERATION TANK
- 5 FILTER
- 6 BLOWER PAD
- 7 CHLORINE DISINFECTION BUILDING
- 8 GENERATOR
- 9 OPERATIONS BUILDING
- 10 VALVE VAULT
- 11 INFLUENT PUMP STATION

RECEIVED
JUL 06 2016
COUNTY ENGINEER

RECEIVED
JUL 06 2016
COUNTY ENGINEER

30 0 30 60
SCALE: 1" = 30'

LEGEND

- PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED LOT LINE
- EASEMENT LINE
- ADJOINER PROPERTY LINE
- PROPOSED RIBBON CURB
- 830 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 830 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED WASTEWATER
- PROPOSED STORMSEWER
- PROPOSED MANHOLE
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE
- SINGLE WASTEWATER SERVICE
- DOUBLE WASTEWATER SERVICE
- PROPOSED SITE DRAINAGE AREA

NOTES:

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2. UNLESS INDICATED ON PLANS, ALL EXISTING FENCES AND GATES REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED OR RESTORED WITH SAME TYPE, STYLE AND MATERIAL TO AN EQUAL OR BETTER CONDITION. THIS SUBSIDIARY TO THE COST UNLESS OTHERWISE SHOWN ON BID PROPOSAL.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AT ALL TIME FOR THE DURATION OF THE PROJECT CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE WASTEWATER TREATMENT PLANT FACILITY.
4. TEXAS STATE LAW ARTICLE 1436c, MAKES IT UNLAWFUL TO OPERATE EQUIPMENT OR MACHINES WITH 10-FEET OF ANY OVERHEAD ELECTRIC LINES UNLESS DANGER AGAINST CONTACT WITH HIGH VOLTAGE OVER HEADLINES HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THIS ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRIC LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS AND STANDARD SAFETY PRACTICES ARE MET.
5. EXISTING CONTOURS INDICATED ON PLANS AR BASED ON LIDAR AND DESIGN CAD FILES PROVIDED BY OWNER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EXISTING TOPOGRAPHY PRIOR TO CONSTRUCTION.

!!!!CAUTION!!!!
EXISTING OVERHEAD ELECTRIC AND UNDERGROUND UTILITIES ARE WITHIN PROJECT AREA.

JR WWTP IC SUMMARY				
SEDIMENTATION/FILTRATION POND				
		SF	AC	
	SITE AREA	102,165	2.35	
		SF	AC	IC%
EXISTING IMPERVIOUS COVER				
	EXIST GRAVEL DRIVES	15674		
	EXIST BLGDS/SLABS	1870		
	EXIST TANKAGE	1072		
	TOTAL EXISTING IC (EXCLUING TANKAGE)	17,544	0.40	17.2%
		SF	AC	
PROPOSED IMPERVIOUS COVER				
	PROP DRIVES	12042		
	PRO BLGDS/SLABS	2027		
	PROP TREATMENT BASIN	6412		
	TOTAL PROPOSED (EXCLUING TANKAGE)	14,069	0.32	13.8%
VEGETATIVE FILTER STRIP		SF	AC	
EXSISITNG:	EXIST GRAVEL DRIVES	2213	0.05	
PROPOSED:	PROP DRIVES	2213	0.05	

BASIN AND SUB-BASIN PEAK FLOW CALCULATIONS - POST DEVELOPMENT CONDITIONS

Drainage Basin ID	Tc (min)	Area (sqft)	Area (acres)	Estimated Impervious Cover (%)	Estimated Impervious Cover (acres)	25 yr Composite C	25 YR CA	25YR Rainfall Intensity (in/hr)	25 yr Q peak (cfs)	100 yr Composite C	100 yr CA	100 YR Rainfall Intensity (in/hr)	100yr Q peak (cfs)
WWTP	5.0	106,141	2.44	13%	0.32	0.52	1.278	11.78	15.1	0.52	1.278	14.68	18.8

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WATER QUALITY PLAN AND DRAINAGE AREA MAP

JOHNSON RANCH WASTEWATER TREATMENT PLANT

STATE OF TEXAS
CHARLES R. WIRTANEN
55422
REGISTERED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS

DATE	DESCRIPTION

MP/CW DESIGN	DAZ DRAWN	TH CHKD

SCALE H: 1" = 30' V:

JOB No. 005522-01-009

DATE : JUNE 2016

FILE No. 5522-01-009

SHEET 9 OF 67

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: JR WWTP CZP
Date Prepared: 5/12/2016

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

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

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

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

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

County =	**Comal**	
Total project area included in plan * =	2.44	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.32	acres
Total post-development impervious cover fraction * =	0.13	
P =	33	inches
$L_{M\ TOTAL\ PROJECT}$ =	**287**	lbs.

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

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

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	2.44	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.32	acres
Post-development impervious fraction within drainage basin/outfall area =	0.13	
$L_{M\ THIS\ BASIN}$ =	287	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Sand Filter**
Removal efficiency = 89 percent

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

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

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

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

A_C =	2.44	acres
A_I =	0.32	acres
A_P =	2.12	acres
L_R =	359	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 287 lbs.

F = 0.80

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

Rainfall Depth =	1.08	inches
Post Development Runoff Coefficient =	0.15	
On-site Water Quality Volume =	1447	cubic feet

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

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	289	
Total Capture Volume (required water quality volume(s) x 1.20) =	1737	cubic feet

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

7. Retention/Irrigation System Designed as Required in RG-348 Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = NA cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate =	0.1	in/hr	**Enter determined permeability rate or assumed value of 0.1**
Irrigation area =	NA	square feet	
	NA	acres	

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = NA cubic feet

9. Filter area for Sand Filters Designed as Required in RG-348 Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin =	1737	cubic feet	
Minimum filter basin area =	80	square feet	
Maximum sedimentation basin area =	724	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	181	square feet	**For maximum water depth of 8 feet**

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	1737	cubic feet	
Minimum filter basin area =	145	square feet	
Maximum sedimentation basin area =	579	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	36	square feet	**For maximum water depth of 8 feet**

JOHNSON RANCH WWTP
CZP BMP DESIGN SUMMARY
PARTIAL SEDIMENTATION/FILTRATION POND CALCULATIONS

DRAINAGE AREA DATA

Drainage Area to Control (DA)	2.35	ac
Drainage Area Impervious Cover	32.0%	
Water Quality Volume	1,448	CF
Required Capture Volume	1,737	CF

BMP CALCULATIONS

The BMP is to be PARTIAL SEDIMENTATION FILTRATION

25-year Peak Flow Rate to control (Q25)	14.60	cfs.
100-year Peak Flow Rate to control (Q100)	18.10	cfs.

	Required		Provided	
Water Quality Volume	1,737	cf	2,145	cf
Maximum Ponding Depth in Sedimentation Pond (H)			2.00	ft
Sedimentation Pond Area	174	sf	380	sf
Sedimentation Pond Volume	347	cf	1,069	cf
Filtration Pond Area	143	sf	250	sf
Filtration Pond Volume		cf	1,077	cf

Water Quality Elevation	1047.50'	ft
Elevation of Splitter/Overflow Weir (>WQ elev)	1047.50'	ft
Height of Gabiion Wall	1047.00	ft
Length of Splitter Weir	37.50	ft.
Required Head to Pass Q100	0.30	ft.
Pond Freeboard Provided to Pass Q100	0.20	ft.
48 Hour Drawdown Time Orifice Opening Diameter (Inches)	0.97	in.

Sedimentation Pond:

Stage (ft msl)	Area (sf)	Storage (cf)		
1045.5	0			
1,045.75	390	49	48.75	
1,046.00	440	104	152.50	
1,046.50	541	245	397.75	
1,047.00	662.00	301	698.50	
1,047.50	818.00	370	1,068.50	at WQV

Filtration Pond:

Stage (ft msl)	Area (sf)	Incremental Storage (cf)		
1,045.50	250	-		
1,046.00	441	172.75	172.75	
1,046.50	552	248.25	421.00	
1,047.00	678	307.50	728.50	
1,047.50	715	348.25	1,076.75	at WQV

Total Storage: 2,145.25 at WQV

POND DRAW DOWN CALCULATIONS

Pond

Minimum Drawdown Time = 24 hours =	86,400	seconds
Pond volume to be removed =	2,145	cf
Volume removed per second =	0.02	cfs

Oriface equation is "Q = 0.6*A*(2*g*h)^.5
A = area of orifice g= 32.2
h = average depth of pond= 1.00 ft
A = Q/ (0.6* (2*g*h)^.5) = p*r2 = 0.005 sf
r = 0.041 ft
r = 0.49 in

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SEDIMENTATION FILTRATION POND- BMP
CALCULATIONS

JOHNSON RANCH
WASTEWATER TREATMENT PLANT

STATE OF TEXAS
CHARLES R. WIRTANEN
55422
REGISTERED
PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS

DATE	DESCRIPTION

MP/CW DESIGN	DAZ DRAWN	TH CHKD
SCALE	H: 1" = 30' V:	
JOB No.	005522-01-009	
DATE :	JUNE 2016	
FILE No.	5522-01-009	

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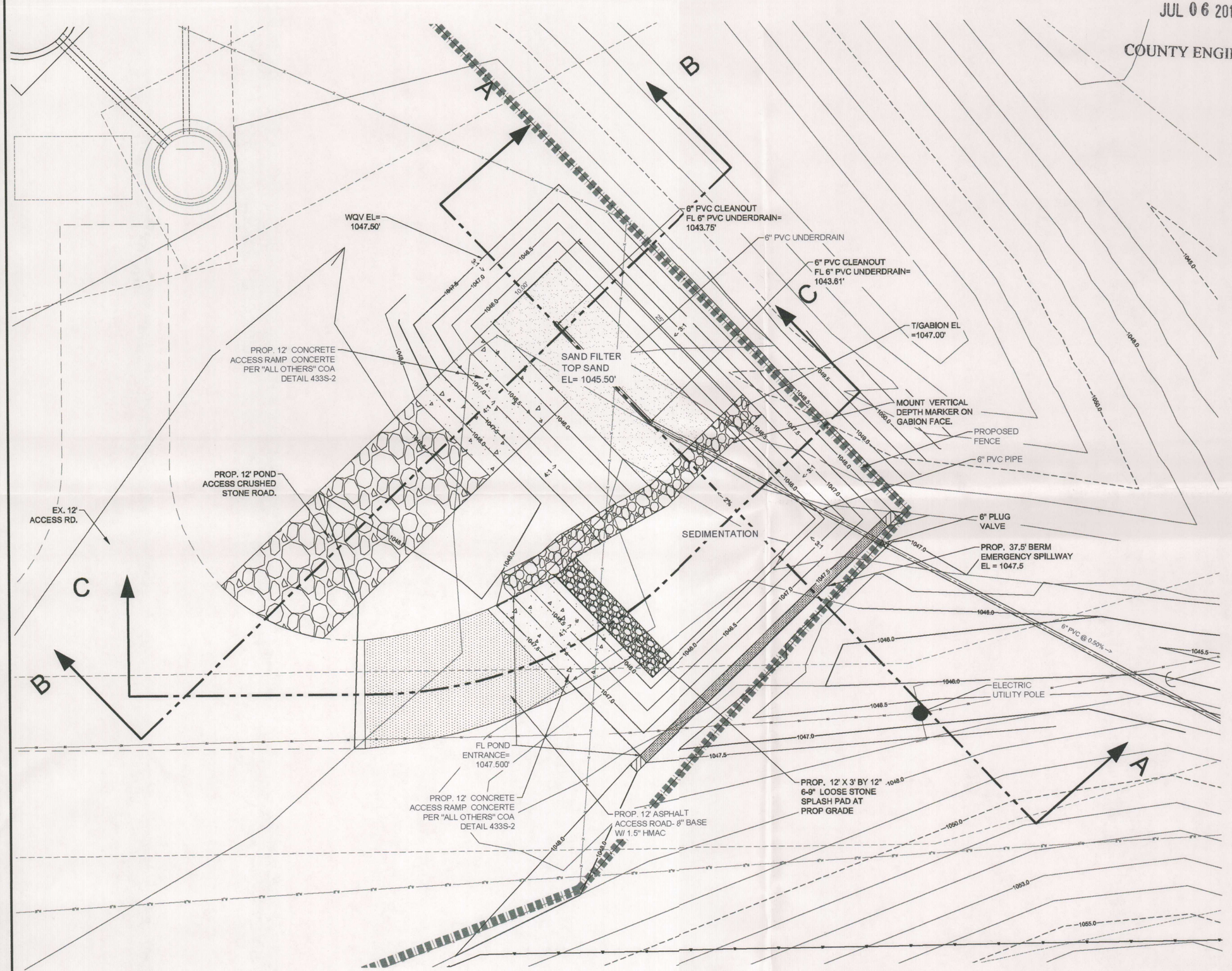

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SCALE: 1" = 5

LEGEND

- PROPERTY BOUNDARY
- PROPOSED R.O.W.
- PROPOSED LOT LINE
- EASEMENT LINE
- ADJOINER PROPERTY LINE
- PROPOSED RIBBON CURB
- 830 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 830 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WATER LINE
- PROPOSED WASTEWATER
- PROPOSED STORMSEWER
- PROPOSED MANHOLE
- SINGLE WATER SERVICE
- DOUBLE WATER SERVICE
- SINGLE WASTEWATER SERVICE
- DOUBLE WASTEWATER SERVICE
- PROPOSED BERM
- PROPOSED CONCRETE WALL

NOTES:

1. THE LOCATIONS OF ALL EXISTING UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS OR PROVIDED BY VARIOUS OWNERS OF THE FACILITIES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFICATION OF VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. SHALL VERIFICATION SHALL BE CONSIDERED SUBSIDIARY TO ALL OTHER BID ITEMS. NOTIFY THE OWNER PROMPTLY OF ALL CONFLICTS OF THE WORK WITH EXISTING UTILITIES.
2. UNLESS INDICATED ON PLANS, ALL EXISTING FENCES AND GATES REMOVED OR DAMAGED BY CONSTRUCTION SHALL BE REPLACED OR RESTORED WITH SAME TYPE, STYLE AND MATERIAL TO AN EQUAL OR BETTER CONDITION. THIS SUBSIDIARY TO THE COST UNLESS OTHERWISE SHOWN ON BID PROPOSAL.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SECURITY FENCING AT ALL TIME FOR THE DURATION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY OF THE WASTEWATER TREATMENT PLANT FACILITY.
4. TEXAS STATE LAW ARTICLE 1436C, MAKES IT UNLAWFUL TO OPERATE EQUIPMENT OR MACHINES WITH 10-FEET OF ANY OVERHEAD ELECTRIC LINES UNLESS DANGER AGAINST CONTACT WITH HIGH VOLTAGE OVER HEADLINES HAS BEEN EFFECTIVELY GUARDED AGAINST PURSUANT TO THE PROVISIONS OF THIS ARTICLE. WHEN CONSTRUCTION OPERATIONS REQUIRE WORKING NEAR AN OVERHEAD ELECTRIC LINE, THE CONTRACTOR SHALL CONTACT THE OWNER/OPERATOR OF THE OVERHEAD LINE TO MAKE ADEQUATE ARRANGEMENTS AND TO TAKE NECESSARY SAFETY PRECAUTIONS TO ENSURE THAT ALL LAWS, ELECTRICAL LINE OWNER/OPERATOR REQUIREMENTS AND STANDARD SAFETY PRACTICES ARE MET.
5. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD BY CLEARING OR CLEANING DEBRIS PER OWNER'S DIRECTION.
6. EXISTING CONTOURS INDICATED ON PLANS AR BASED ON LIDAR AND DESIGN CAD FILES PROVIDED BY OWNER. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE EXISTING TOPOGRAPHY PRIOR TO CONSTRUCTION.

NOTES:
1) BOTTOM OF SEDIMENTATION BASIN SHALL BE GRASS LINED.
2) BASIN LINERS NOT REQUIRED. SEDIMENTATION BASIN SHALL BE OVER-EXCATED 6" AND PLATED WITH TOPSOIL.
3) ALL DISTURBED AREAS TO BE RE-VEGETATED.
4) VERTICAL DEPTH MARKER TO BE CRAIN MODEL 99001 0-4; MOUNTED PER MANUFACTURER'S RECOMMENDATIONS.

!!!!CAUTION!!!!
EXISTING OVERHEAD ELECTRIC AND UNDERGROUND UTILITIES ARE WITHIN PROJECT AREA.

BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

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SEDIMENTATION/FILTRATION POND PLAN

JOHNSON RANCH
WASTEWATER TREATMENT PLANT

STATE OF TEXAS
CHARLES R. WIRTANEN
55422
REGISTERED PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS	

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DATE :	JUNE 2016	
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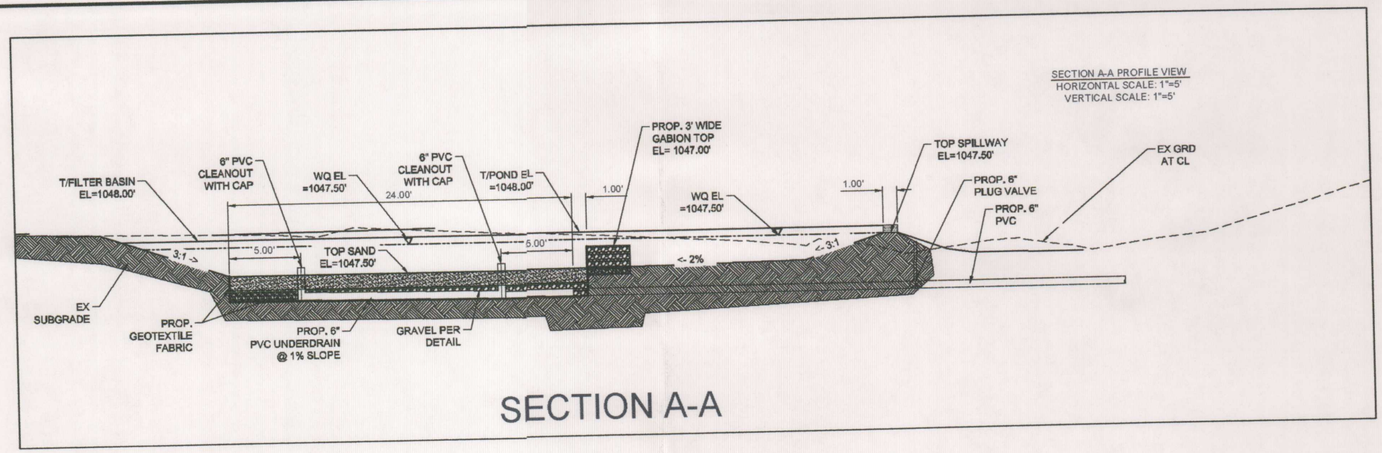
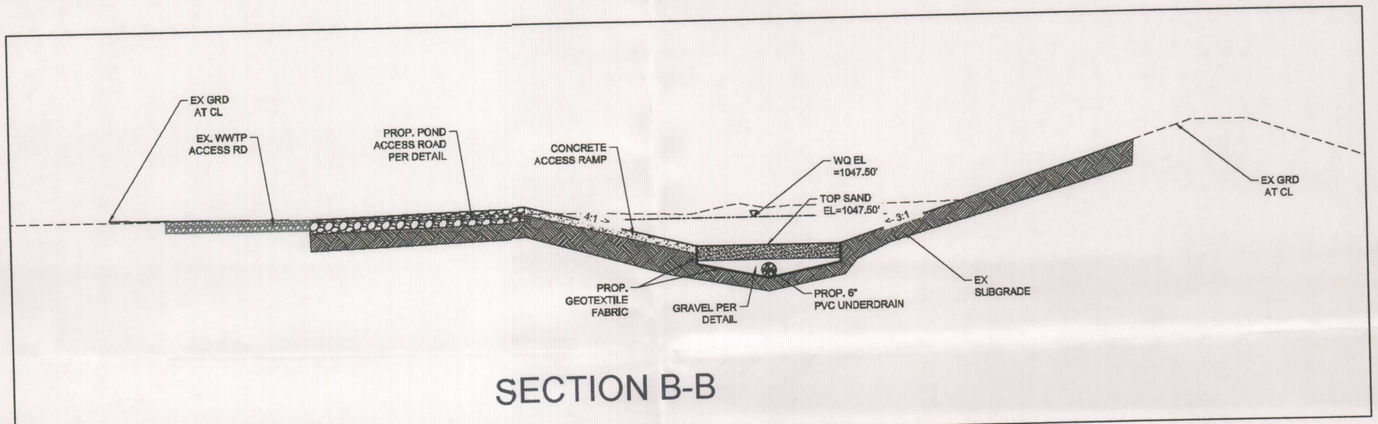
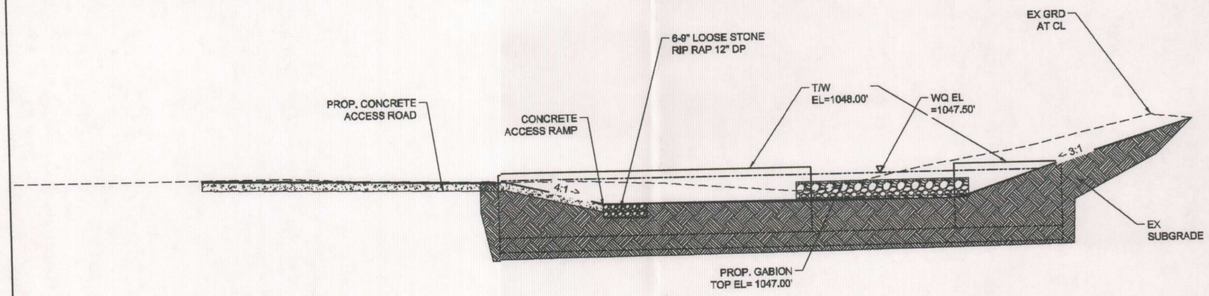
SHEET	11 OF 67	



SECTION A-A



SECTION B-B



SECTION C-C

NOTES:
1) CONCRETE RAMP TO BE CONSTRUCTED PER CITY OF AUSTIN TYPE II DRIVEWAY REQUIREMENTS.
2) BASIN LINERS NOT REQUIRED. SEDIMENTATION BASIN SHALL BE OVER-EXCATED 6" AND PLATED WITH TOPSOIL.
3) BOTTOM OF SEDIMENTATION BASIN SHALL BE GRASS LINED.
4) GABION TO BE 3' X 4' GALVANIZED BASKET MEETING THE REQUIREMENTS OF ITEM 594S OF THE CITY OF AUSTIN, TX TECHNICAL SPECIFICATIONS.
5) LOOSE RIP RAP SHALL BE LEFT FREE OF WEEDS AND DEBRIS. A WEED BLOCKING GEOTEXTILE SHALL BE INSTALLED BELOW THE RIP RAP.

5 0 5 10
SCALE: 1" = 5

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SEDIMENTATION/FILTRATION POND SECTIONS AND DETAILS

JOHNSON RANCH WASTEWATER TREATMENT PLANT

CHARLES R. WIRTANEN 55422 REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
6/21/16

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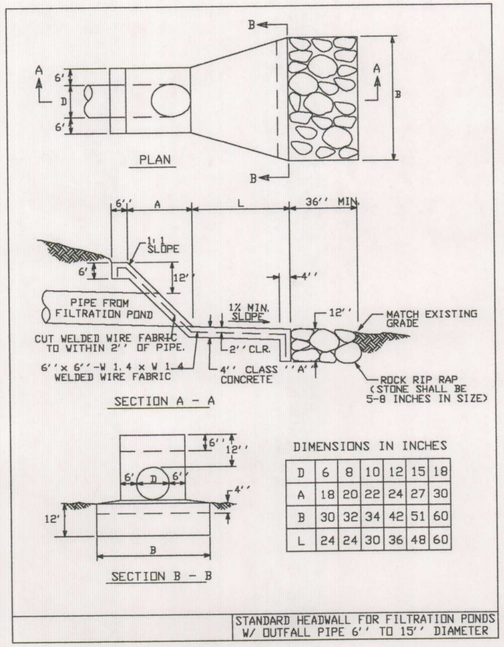
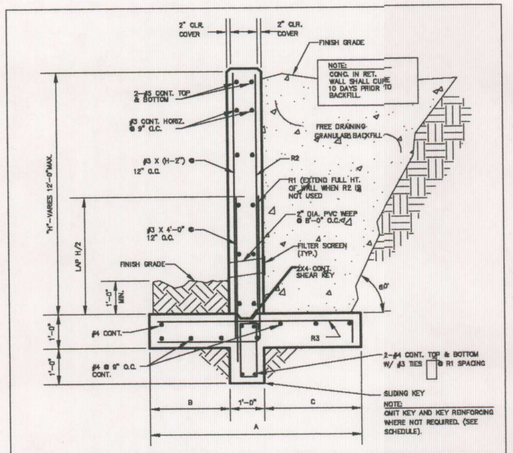


DIMENSIONS IN INCHES

D	6	8	10	12	15	18
A	18	20	22	24	27	30
B	30	32	34	42	51	60
L	24	24	30	36	48	60

STANDARD HEADWALL FOR FILTRATION PONDS W/ OUTFALL PIPE 6'' TO 15'' DIAMETER

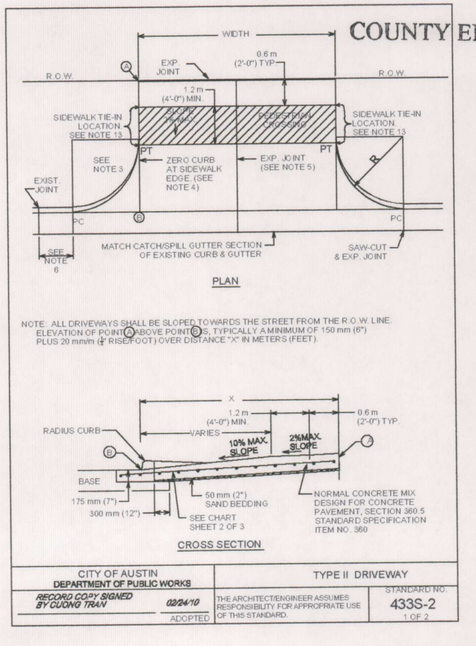


RETAINING WALL SCHEDULE

H, MAX	A	B	C	R1	R2	R3	SLIDING KEY
2'-0''	2'-4''	8''	8''	#4 @ 9''	NOT USED	#4 @ 9''	NOT USED
4'-0''	3'-8''	8''	2'-0''	#4 @ 9''	NOT USED	#4 @ 9''	NOT USED
6'-0''	5'-0''	1'-4''	2'-8''	#4 @ 9''	#4 @ 9''	#4 @ 9''	YES
8'-0''	6'-0''	1'-8''	3'-4''	#4 @ 9''	#4 @ 18''	#4 @ 9''	YES
10'-0''	7'-4''	2'-4''	4'-0''	#5 @ 9''	#5 @ 18''	#5 @ 9''	YES
12'-0''	8'-4''	2'-8''	4'-8''	#6 @ 8''	#6 @ 18''	#6 @ 10''	YES

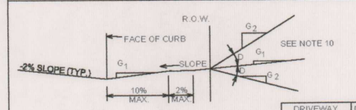
RETAINING WALL DETAIL

N.T.S.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



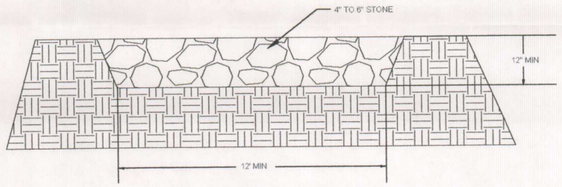
ALLOWABLE GRADES

DRIVEWAY VOLUME (ADT)	G=GRADE CHANGE STD.	MAX.
>1500	0%	3%
500-1500	3%	6%
<500	6%	15%

NOTES:

1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET). WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2" IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 5.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CUONG TRAN	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2



POND MAINTENANCE ACCESS

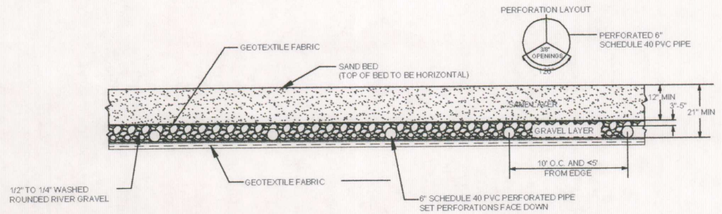
NTS

SAND BED WITH GRAVEL LAYER

NOTE: SAND BED DEPTHS ARE FINAL, COMPACTED DEPTHS. CONSOLIDATION EFFECTS MUST BE TAKEN INTO ACCOUNT.

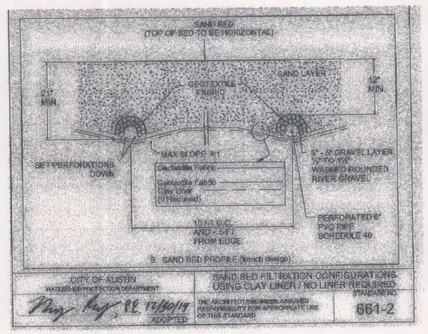
THE TOP LAYER IS TO BE A MINIMUM OF EIGHTEEN (18) INCHES OF 0.02-0.04 INCH DIAMETER SAND WHICH CORRESPONDS WITH ASTM C-33 CONCRETE SAND (SMALLER SAND SIZE IS NOT ACCEPTABLE). UNDER THE SAND SHALL BE A LAYER OF ONE-HALF (0.5) TO ONE AND ONE-HALF (1.5) INCH DIAMETER WASHED, ROUNDED, RIVER GRAVEL WHICH PROVIDES THREE (3) INCHES TO FIVE (5) INCHES OF COVER OVER THE TOP OF THE UNDERDRAIN LATERAL PIPES. THE SAND AND GRAVEL MUST BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC MEETING THE SPECIFICATIONS LISTED IN SECTION 1.6.2.(C) OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

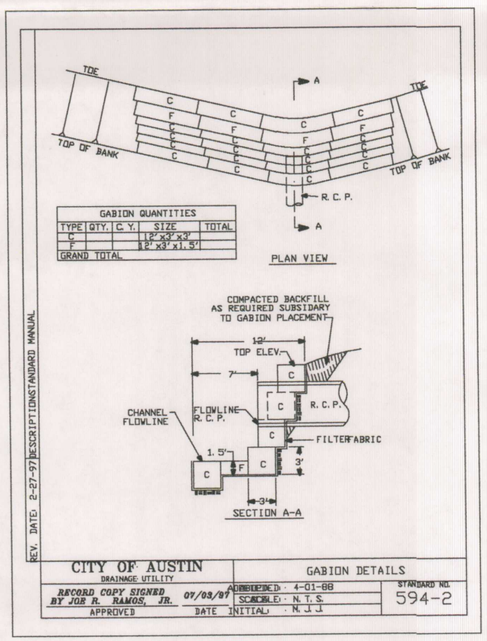
PROPERTY	TEST METHOD	UNIT	SPECS.
MATERIAL	NONWOVEN GEOTEXTILE FABRIC		
UNIT WEIGHT		OZ/SQ.YD.	20
FLOW RATE (FABRIC)		GPM/FT²	180 (MIN.)
PERMEABILITY	ASTM D-2434	CM/SEC	12.4 x 10-2
GRAB STRENGTH (FABRIC)	ASTM D-1682	LB.	DRY LG. 90 DRY WD: 70 WET LG. 95 WET WD: 70
PUNCTURE STRENGTH (FABRIC)	COE CW-02215	LB.	42 (MIN.)
MULLEN BURST STRENGTH	ASTM D-1117	PSI.	140 (MIN.)
EQUIV. OPENING SIZE	US STANDARD SIEVE	NO.	100 (70-120)
FLOW RATE (DRAINAGE CORE)	DREXEL UNIV. TEST METHOD	GPM/FT WIDTH	14



SAND BED PROFILE (WITH GRAVEL FILTER)

NTS





CITY OF AUSTIN DRAINAGE UTILITY		GABION DETAILS	
RECORD COPY SIGNED BY JOE R. RAMOS, JR. APPROVED	07/03/97 DATE	ADOPTED: 4-01-88 SCRIBED: N. T. S. INITIAL: N. J. J.	STANDARD NO. 594-2

NOTE:
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BEFORE DIGGING CALL "TEXAS EXCAVATION SAFETY SYSTEM" AT 811

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TBPE Firm Registration No. F-14309

Bowman Consulting Group, Ltd.
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SEDIMENTATION /FILTRATION POND DETAILS

JOHNSON RANCH WASTEWATER TREATMENT PLANT

CHARLES R. WIRTANEN 55422 REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
6/21/16

PLAN STATUS

DATE	DESCRIPTION

MP/CW DESIGN	DAZ DRAWN	TH CHKD

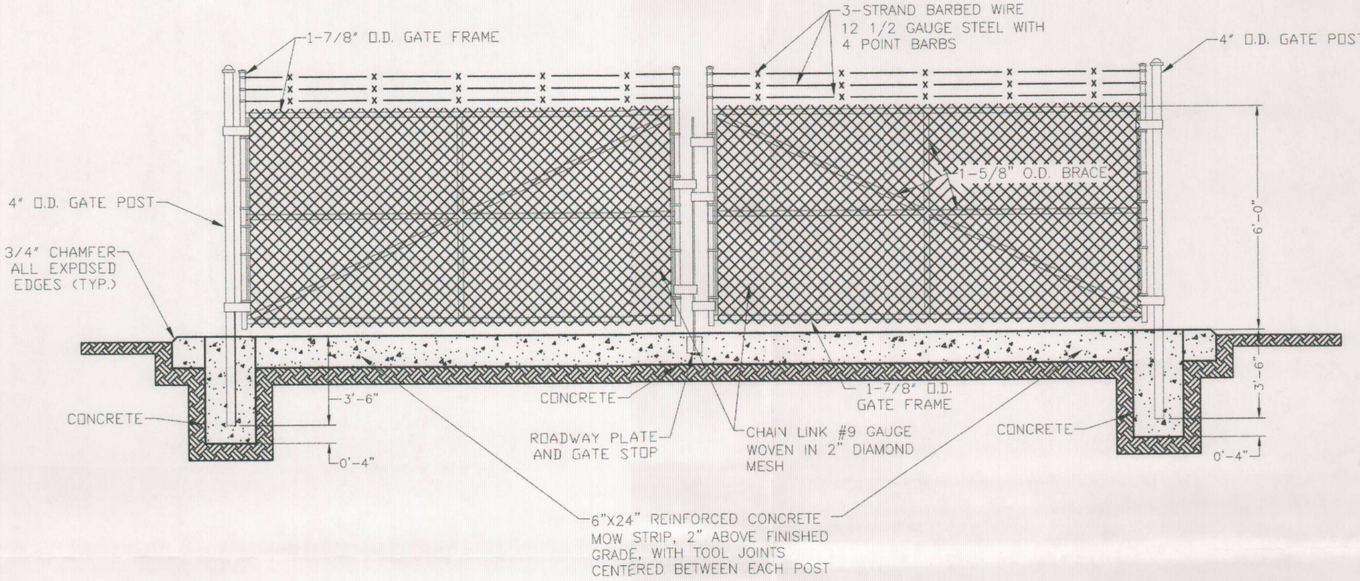
SCALE H: 1" = 30' V:

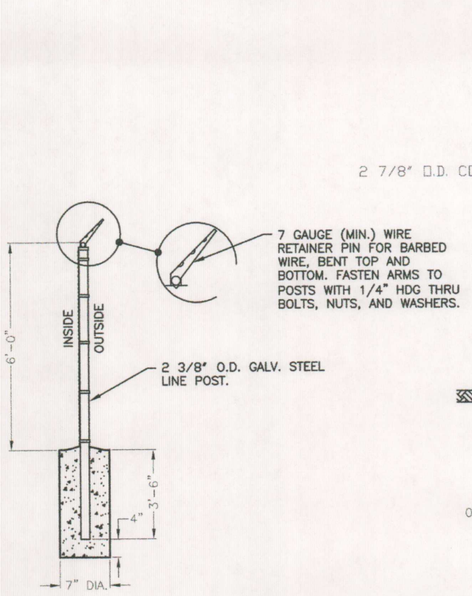
JOB No. 005522-01-009

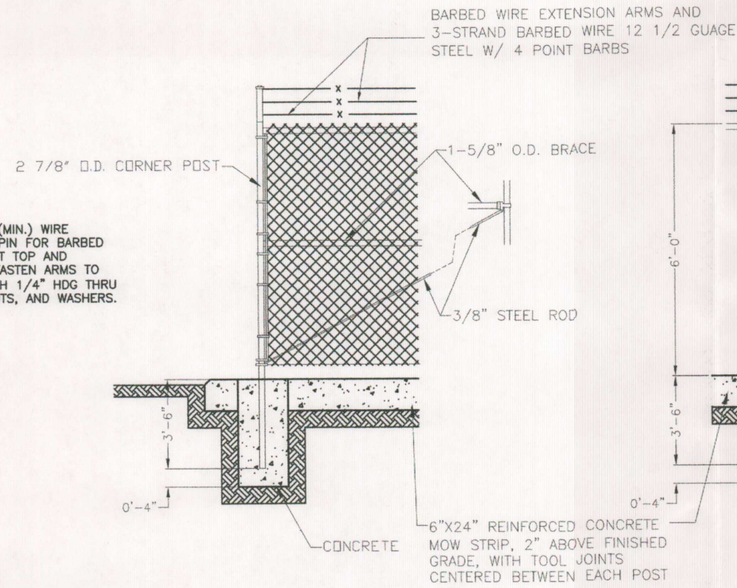
DATE : JUNE 2016

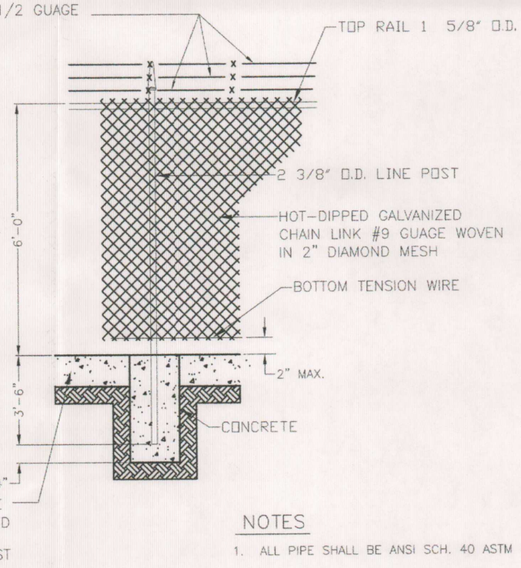
FILE No. 5522-01-009

SHEET 13 OF 67









NOTES

1. ALL PIPE SHALL BE ANSI SCH. 40 ASTM 53.
2. 2" MAX GAP AT BOTTOM OF FENCE.
3. 10' MAX. POST SPACING.
4. INSTALL GATE LEAF HOLD BACKS.
5. ALL MATERIAL TO BE HOT DIP GALV.

GBRA

CHAIN LINK FENCE AND GATES DETAILS

REVISION
JUNE 2016

OPERATIONS & MAINTENANCE ENGINEERING

PROPERTY OF
GUADALUPE-BLANCO RIVER AUTHORITY
SEGUIN, TEXAS

LS-04

Bowman CONSULTING
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CONSTRUCTION DETAIL

JOHNSON RANCH
WASTEWATER TREATMENT PLANT

STATE OF TEXAS
MIA M. PARTON
111369
LICENSED
PROFESSIONAL ENGINEER
6/21/16

PLAN STATUS

DATE	DESCRIPTION

MP/CW	DAZ	TH
DESIGN	DRAWN	CHKD

SCALE H: NTS V: NTS
JOB No. 005522-01-009
DATE : JUNE 2016
FILE No. 5522-01-009
SHEET 14 OF 67