

## PART II LOCATION AND COORDINATION INFORMATION

### A) SOURCES AND TYPE OF WASTE

EC Enterprises, LLC will construct and operate a wastewater treatment plant at the property in Elmendorf, Bexar County and this facility will include a conventional waste water treatment plant (Stage1 Nitrification). Most of the waste processed through the facility will come from external sources in trucks collected from San Antonio, Austin, Corpus Christi and Rio Grande Valley. The waste materials that will be received and processed at the facility are grease trap waste from restaurants and commercial/industrial food preparation/service facilities (55%), household and commercial septic waste (30%), Class II non-hazardous food waste (10%) and grit trap waste (5%). The percentages shown are those planned, the actual percentages may vary. In the future, a trailer and RV site are planned for the front portion of the property between the facility and FM 1303 with black and gray water from this being added to the facility.

There are no site specific conditions that require special design consideration or mitigations.

### B) IMPACTS OF THE FACILITY

Prior to the property being purchased by EC Enterprises, LLC on August 5, 2020 it had previously been used for agricultural purposes. Between 1980 and 1990 various agricultural buildings had been constructed along with garages, coral, rodeo arena and administration building.

The site is well suited for the processing facility since it is away from any main residential areas and has good road access to the county road network. The local area is rural and primarily used for agricultural purposes. The owner of the land around the facility for 150 feet is the applicant.

There is a private water well on the property approximately 90 feet north east of the existing pole barn that will house the waste water treatment plant. The facility and its operations will not impact the water well. There are no oil or gas wells on the property. There are no public water wells within 500 feet of the facility, except the above noted well. There are no property easements.

### C) FACILITY LAYOUT

Attached are the following contained in Exhibit 1:

RGSA-003 Plant Layout

RGSA-004 Plot Plan

Photographs of property showing view towards proposed location of the facility.

The Facility Owner/Operator shall maintain a minimum 50 feet buffer zone per TAC 330.543(b)(1).

### D) PROPERTY BOUNDARY

Attached are the following contained in Exhibit 2:

Survey Abstract 19, C.B. 4009

Google Satellite Map showing property boundary and adjacent land

Google Satellite Map showing existing buildings from previous agricultural use (Water well noted)

#### E) FACILITY ACCESS CONTROL

Public access will be controlled to minimize unauthorized vehicular traffic, unauthorized and illegal dumping and public exposure to hazards associated with waste management. An attendant will be on site during operating hours. Site access is controlled by a minimum six foot high chain link fence and lockable vehicular gate at the entrance to the facility. The vehicular gate will be locked at all times when the site is closed and not attended.

#### F) TRAFFIC

The property is situated on FM1303 approximately 1.5 miles south west of the junction between Texas 1604 Loop and FM1303. The primary traffic route to access the facility is from Texas 1604 Loop along FM1303 for approximately 1.5 miles to the property entrance. The property entrance and facility access road are adequate and have ample turn in to accommodate large trucks. No modifications are necessary to the entrance or facility access road to accommodate the frequency and types of trucks visiting the facility on a daily basis.

As shown on the attached TXDOT 2016 San Antonio District Traffic Map (Exhibit 3) the highway count on FM1303 near the site is 1,951 vehicles per day. Between 10/12 vehicles per day are expected to be generated by the facility at the permitted operating capacity. Based on the noted TXDOT Traffic Map, all of the traffic generated by the facility during operations would constitute less than 0.7% of the traffic on FM1303. This traffic volume will be distributed throughout the day and will not cause any disruption of normal traffic patterns, as such, the facility's impact on FM1303 is insignificant.

Also contained in Exhibit 3 is correspondence with TXDOT requesting their input with regard to traffic volume, road conditions and traffic safety concerns.

#### G) GEOLOGY AND SOILS

The property is located in the south of Bexar County which is part of the South Texas Plains. See attached in Exhibit 4 a Geological Map of Bexar County produced by the US Department of the Interior Geological Survey. The soils on the property are sand on top of clay.

#### H) TOPOGRAPHY

In Exhibit 5 see attached Topographical Map produced by the US Army Corps of Engineers.

#### I) FLOODPLAIN

Although parts of the property are located within the FEMA 100 year floodplain, the location of the plant facility is in an area of minimal flood hazard and not within the 100 year floodplain. See attached FEMA National Flood Hazard Layer FIRMette in Exhibit 6.

#### J) WETLANDS

The facility is not located in or adjacent to any wetlands.



K) PREVAILING WIND DIRECTION

See attached Wind Rose in Exhibit 7.

L) ENDANGERED SPECIES

No endangered species nor habitat of same have been observed on the property.

M) COUNCIL OF GOVERNMENTS REVIEW

We have requested reviews of our MSW Application from the following government agencies (see Exhibit 9):

Bexar County

San Antonio River Authority

US Army Corps of Engineers (USACE)

US Fish and Wildlife Service – Region 2

We will advise the status of the reviews by the above agencies when we receive them.

N) REVIEW LETTER FROM TEXAS HISTORICAL COMMISSION

The proposed project is situated in an area with high probability for archeological sites. The Texas Historical Commission recommends this property undergo archeological investigation conducted by a qualified professional archeologist prior to the installation of the proposed facility (see Exhibit 10). We will advise the results of the archeological investigation when we receive them.

O GROWTH TRENDS WITHIN FIVE MILES OF THE FACILITY

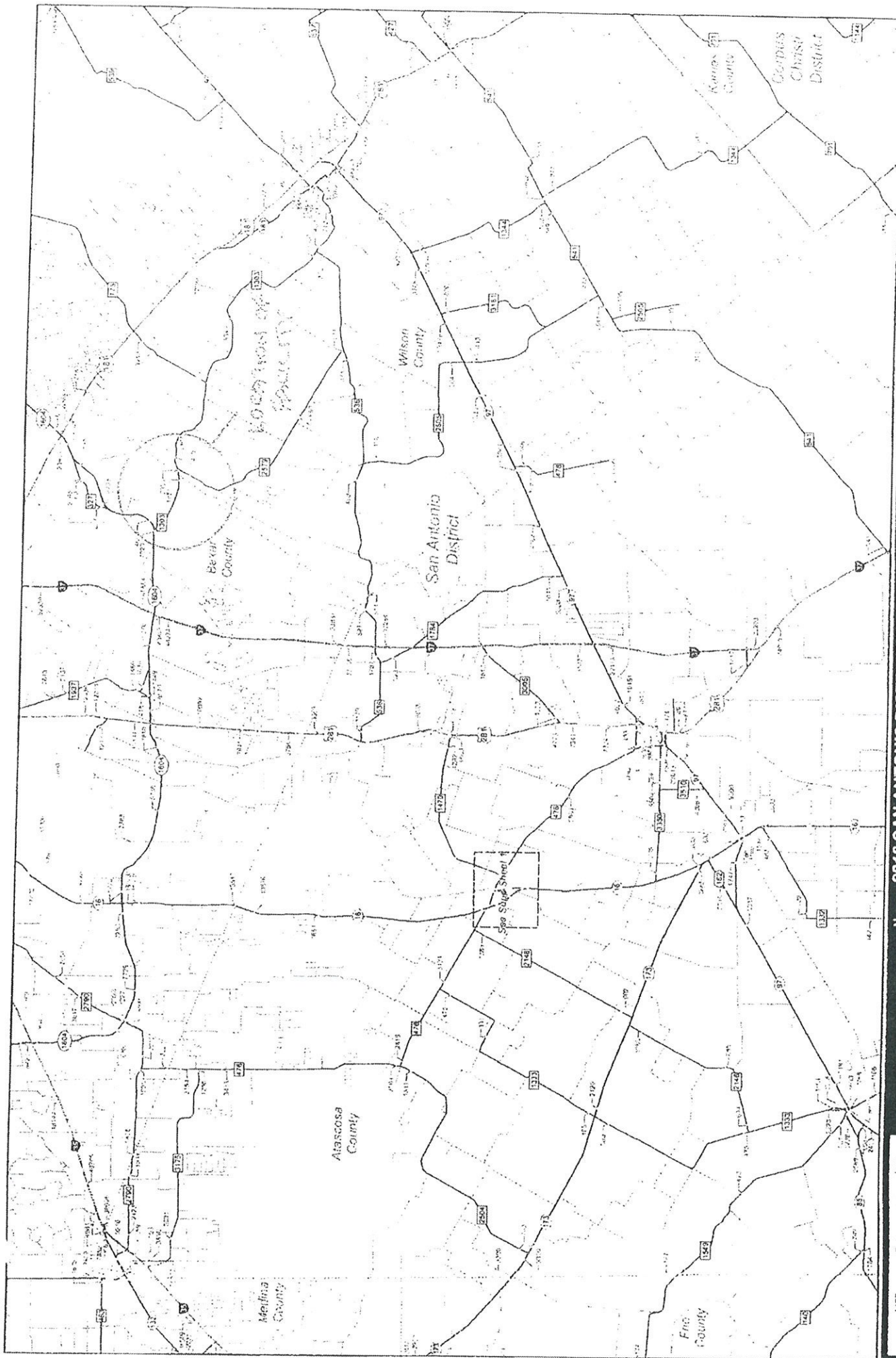
Please find attached in Exhibit 11 the HH estimates and growth projections within five miles of the proposed Facility. The area within five miles of the proposed Facility is largely rural and has only grown by 6% in the last five years. There are no large developments planned or projected within the foreseeable future.

PART II

EXHIBIT 3

TXDOT 2016 SAN ANTONIO DISTRICT TRAFFIC MAP AND COORDINATION  
CORRESPONDENCE WITH TXDOT





**Legend**

	State		Local
	AT&T		County
	Town		City



# **2016 SAN ANTONIO DISTRICT TRAFFIC MAP** Texas Department of Transportation Transportation Planning and Programming Division Traffic Analysis System Support Bureau 2016 Edition

Clay Kennedy  
Fwd: Assistance requested - FW:  
traffic planning

Date Feb 26, 2022 at 3:46:42 PM

To: Dez Burton

## Get Outlook for Android

**From:** Bryan Heiner <[Bryan.Heiner@txdot.gov](mailto:Bryan.Heiner@txdot.gov)>  
**Sent:** Monday, February 14, 2022 5:04:57 PM  
**To:** Clay Kennedy <[ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)>; Scott Nelson <[Scott.Nelson@txdot.gov](mailto:Scott.Nelson@txdot.gov)>  
**Cc:** Rebecca Fox <[Rebecca.Fox@txdot.gov](mailto:Rebecca.Fox@txdot.gov)>; Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>  
**Subject:** RE: Assistance requested - FW: traffic planning

Clay,

On my end, I don't have any issues with the existing driveway remaining based on the number of vehicles you provided for this use. A driveway permit is not required if no changes are made to existing driveway. I'll let Scott chime in if he has any concerns on his end.

Thanks,

**Bryan Heiner, P.E.**

Transportation Engineer

Texas Department of Transportation I SAT Maintenance  
210.707.3696 phone I [bryan.heiner@txdot.gov](mailto:bryan.heiner@txdot.gov)

**From:** Clay Kennedy <[ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)>  
**Sent:** Monday, February 14, 2022 4:09 PM  
**To:** Bryan Heiner <[Bryan.Heiner@txdot.gov](mailto:Bryan.Heiner@txdot.gov)>; Scott Nelson <[Scott.Nelson@txdot.gov](mailto:Scott.Nelson@txdot.gov)>  
**Cc:** Rebecca Fox <[Rebecca.Fox@txdot.gov](mailto:Rebecca.Fox@txdot.gov)>; Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>  
**Subject:** RE: Assistance requested - FW: traffic planning

attachments unless you recognize the sender and know the content is safe.

Hi Bryan,

Currently we do not plan on reconstructing the driveway. The property has an existing driveway that functions well.

Do you still need all of this information? I am not well versed at this and I apologize for my ignorance.

Thanks.

Clay

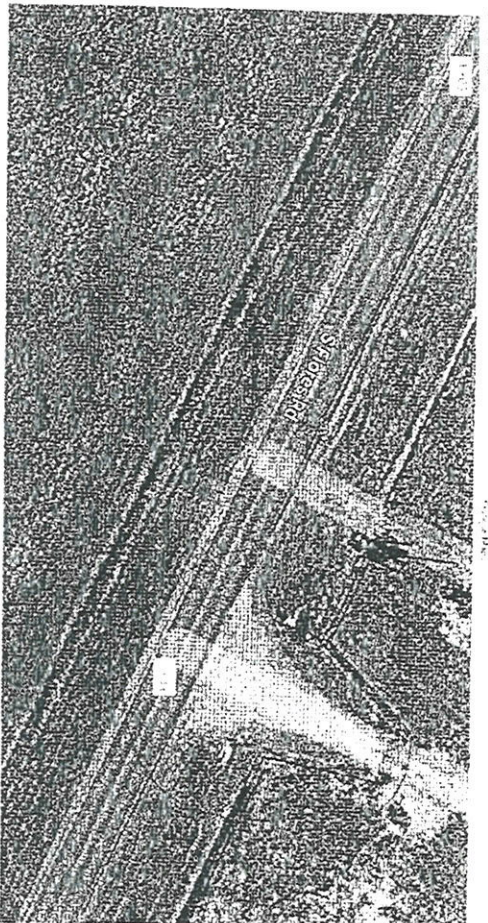
**From:** Bryan Heiner <[Bryan.Heiner@txdot.gov](mailto:Bryan.Heiner@txdot.gov)>  
**Sent:** Monday, February 14, 2022 3:44 PM  
**To:** Clay Kennedy <[ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)>; Scott Nelson <[Scott.Nelson@txdot.gov](mailto:Scott.Nelson@txdot.gov)>  
**Cc:** Rebecca Fox <[Rebecca.Fox@txdot.gov](mailto:Rebecca.Fox@txdot.gov)>; Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>  
**Subject:** RE: Assistance requested - FW: traffic planning

Clay,

I want to go ahead and send you the documents I would need for the driveway permit review and have listed them below. I didn't see the property marked on the overall aerial exhibit you sent, but will this facility be reconstructing the existing driveway circled below?

- Signed 1058 form-Rev 8/20 (attached).
- Access Request Form (attached)
- Driveway Permit Checklist (attached)
- Plat or Survey showing property boundary
- Aerial exhibit showing driveway location
- Drainage Impact Statement showing no negative impact to TxDot infrastructure
- Plans showing driveway dimensions, materials and details.





Thanks,

**Bryan Heiner, P.E.**

Transportation Engineer

Texas Department of Transportation | SAT Maintenance  
210.707.3696 phone | bryan.heiner@txdot.gov

**From:** Clay Kennedy <[ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)>

**Sent:** Monday, February 14, 2022 3:13 PM

**To:** Scott Nelson <[Scott.Nelson@txdot.gov](mailto:Scott.Nelson@txdot.gov)>

**Cc:** Bryan Heiner <[Bryan.Heiner@txdot.gov](mailto:Bryan.Heiner@txdot.gov)>; Rebecca Fox <[Rebecca.Fox@txdot.gov](mailto:Rebecca.Fox@txdot.gov)>; Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>

**Subject:** RE: Assistance requested - FW: traffic planning

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Scott,

Thanks for taking my call.

We are planning a waste water treatment facility to treat municipal waste located at 21090 FM 1303 in Elmendorf Texas. This area is mostly rural with agricultural and residential being the predominant land use.

Our facility should receive around 10-15 large trucks of waste water per day and we should have maximum of 5 employees traveling to and from the facility per day. The trucks usually arrive throughout the day and we should not see more than 3 at a time. There is ample room on property to stage entering and exiting and there is no visual encumbrance at the entrance/exit.

This information is based on experiences with our sister plant located in Spring Texas.

I have attached a plot plan and some aerial photos of the site. We don't believe it will warrant any road changes, but we want to make sure with your department before we get started.

Thank you for your assistance with this!

Clay Kennedy  
7138202777

**From:** Scott Nelson <[Scott.Nelson@txdot.gov](mailto:Scott.Nelson@txdot.gov)>  
**Sent:** Monday, February 14, 2022 9:22 AM  
**To:** [ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)  
**Cc:** Bryan Heiner <[Bryan.Heiner@txdot.gov](mailto:Bryan.Heiner@txdot.gov)>; Rebecca Fox <[Rebecca.Fox@txdot.gov](mailto:Rebecca.Fox@txdot.gov)>; Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>  
**Subject:** FW: Assistance requested - FW: traffic planning

Mr. Kennedy,

I received the email below from Janie Temple. These requests are typically handled by our team here at the San Antonio District. Could you provide us with some additional details on the improvements that are being discussed such as the land-use (site plan if available), the trip generation, and the proposed access locations?

Scott Nelson, P.E., PTOE  
Advanced Planning - Transportation Engineering

E. [scott.nelson@txdot.gov](mailto:scott.nelson@txdot.gov)

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**From:** Clay Kennedy <[ClayKennedy@msn.com](mailto:ClayKennedy@msn.com)>  
**Sent:** Friday, February 11, 2022 4:52 PM  
**To:** Janie Temple <[Janie.Temple@txdot.gov](mailto:Janie.Temple@txdot.gov)>  
**Subject:** traffic planning

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Janie,

We are permitting a MSW plant with the TCEQ. The address is 21090 FM 1303 in Elmhurst Texas and it is located on a straight stretch of road. TXDOT data shows that the highway count on FM 1303 is 1951 vehicles per day. We anticipate 10-15 trucks entering and leaving our facility per day, or around 0.7% of the daily traffic flow. The trucks would flow throughout the day and we feel it should not be a nuisance. Our site has ample turn in to accommodate large trucks. Do you have any input on traffic safety or road modifications for our facility?

Please advise.

Clay Kennedy

Sent from Mail for Windows



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## PART III APPENDICES

### APPENDIX 1 Secondary Containment Calculations for Tankage Area



*George H. Neill P.E.*  
*March 10, 2022*

GEORGE H NEILL & ASSOC., INC.  
 (TBPE FIRM REGN. No. 2566)  
 P.O. BOX 811  
 ATHENS, TEXAS 75751

## PART III DESIGN INFORMATION

A) FACILITY LAYOUT

Attached are the following drawings:

RGSA-003 Plant Layout  
 RGSA-004 Plot Plan  
 RGSA-002 Dump Station Apron Layout

GEORGE H NEILL & ASSOC., INC.  
 (TBPE REGN. Firm No. 2566)  
 P.O. BOX 811  
 ATHENS, TEXAS 75751

B) FACILITY DESIGNB.1 Facility Access Control

Public access will be controlled to minimize unauthorized vehicular traffic, unauthorized and illegal dumping and public exposure to hazards associated with waste management. An attendant will be on site during operating hours. Site access is controlled by a minimum six foot high chain link fence and lockable vehicular gate at the entrance to the facility. The vehicular gate will be locked at all times when the site is closed and not attended.

B.2 Process Design and Flow

A process flow diagram for the facility is included entitled Process Flow Diagram RGSA-001.

B.3 Process Flow and Organic Loading Rates into SludgeNET pre-treatment

	Phase 1	Final Phase
Design Flow (MGD)	0.050	0.125
2-Hr Peak Flow (MGD)	0.200	0.500
Proposed Organic Loading	Phase 1	Phase 2 **
Influent BOD5 Concentration (mg/l)	700	750
Organic Loading based on (lbs/day)***	292	782

\*\* Including RV Park and all other sources

\*\*\* Based on Industry standard data. Bench testing results available on request.

B.4 Design Effluent Quality after Conventional Waste Water Treatment Plant (Stage 1 Nitrification)

Biochemical Oxygen Demand - 5 day (mg/l)	10
Total Suspended Solids (mg/l)	15
Ammonia Nitrogen (mg/l)	3
Total Phosphorous (mg/l)	0
Dissolved Oxygen (mg/l)	4

B.5 Disinfection

1.0 mg/l Chlorine after 20 minutes detention time at peak flow.

B.6 Influent

The facility will receive grease trap waste from restaurants and commercial/industrial food preparation/service facilities, household and commercial septic waste, Class II non-hazardous food waste and grit trap waste.

In the future, a trailer and RV site are planned for the front portion of the property between the facility and FM 1303 with black and gray water from this being added to the facility.

The influent water will be pre-treated in SludgeNet Trailers with a process that removes BOD's via a polymer injection and screen system. The influent water introduced into the waste water treatment plant will contain no more than 300 BOD.

B.7 Equipment

The following summarizes the equipment to be used in processing the waste:

- Reinforced Concrete Truck Dump Apron with pump on frame with hoist
- SludgeNet Trailers on concrete slab adjacent to Truck Dump Apron
- 3,500 gallon cone bottom Polyethylene Tank with grease trap
- 4 No. 16,800 gallon steel or fiberglass Pre-Treatment Tanks
- 2 No. Lift Stations
- 7,140 cubic feet Aeration Unit with 2 Each 2,500 cubic feet Digesters
- 12 ft. diameter Clarifier Unit with Chlorine Contactor
- 2 No. 500 CFM Blowers
- Waste Dumpsters as required
- Various hoses and fixed piping/valves between equipment

B.8 Dewatering System Performance Data

**SludgeNET Trailer Specifics**

Performance data of pumped gallons before drain off

Domestic Septic is 28,000 to 35,000 gallons

**WWTP Wastewater Digester Sludge**

1½% solids	45,000 to 58,000 gallons per Load
2% solids	32,000 to 40,000 gallons per Load
3% solids	25,000 to 32,000 gallons per Load
4% solids	22,000 to 25,000 gallons per Load
5% solids	22,000 to 25,000 gallons per Load



**Grease**

Depending on solid content 20,000 to 32,000 gallons before drain off.

**Trailer Size**

8'-6" x 40'

46 Cubic Yards

32 Cubic Yards Hauling Capacity

80,000 Max Weight Texas D.O.T.

**B.9 Process**

The processing of the wastes is as follows:

1. Septic Trucks offload into the Dump Apron.
2. The Dump Apron contents are pumped into the SludgeNet Trailer via a polymer injection manifold.
3. SludgeNet Trailer contents are filtered within the trailer with a process that removes BOD's via a polymer injection and screen system.
4. Filtrate then goes through a Lift Station into the 3,500 gallon Poly Tank, which by way of its conical bottom and a skimming valve allows any FOG and solids not captured in the SludgeNet Trailer to fall out and be routed back to the Dump Apron.
5. The supernatant from the 3,500 gallon Poly Tank then overflows into the Pre-Treatment Tanks where it is aerated.
6. Contents of the Pre-Treatment Tanks is then sent through Lift Station to the Aeration Compartment of the conventional waste water treatment plant (Stage 1 Nitrification).
7. The Aeration Compartment of the conventional waste water treatment plant (Stage 1 Nitrification) has two digesters which will recycle supernatant. Periodic waste from the digesters will be removed and placed into onsite dumpsters.
8. Once a sufficient capture time has elapsed in the Aeration Compartment of the conventional waste water treatment plant (Stage 1 Nitrification), the water will flow to the Clarifier Unit and then the Chlorine Contact Basin before the plant effluent is discharged to an unnamed draw, thence to the Upper San Antonio River in Segment No.1911 of the San Antonio River Basin, in accordance with TPDES Permit No. WQ0015939001 issued on November 18, 2021.

Approximately 2,100,000 gallons per month of liquid waste will be delivered to the facility by dump trucks owned by EC Enterprises, LLC and other licensed MSW haulage companies. This is equivalent to a 70,000 gallons per day average based on a 30 days per month. The maximum amount of liquid waste stored in the facility at any one time will be 28,500 gallons. Unprocessed grease, grit and septic waste will only be stored on site in tankers for a maximum of 72 hours. In the event that the facility experiences a significant work stoppage then deliveries of unprocessed grease, grit and septic waste will be diverted in tankers to another TCEQ licensed facility for processing.

When the filtrate water is separated in the SludgeNet units and contained for further processing, the remaining sludge/cake will be transported for final disposal at a third party TCEQ registered facility that is permitted for handling such waste.

Sludge/cake from trailer wash-outs, truck dump apron and equipment grease traps will be separated and stored on site for a maximum of two weeks (average one week) in covered dumpsters which will be transported periodically for final disposal at a third party TCEQ registered facility that is permitted for handling such waste.

Grit trap waste will be tracked through the process so that recovered grit trap solids can be separated and transported for final disposal at a third party TCEQ registered facility that is permitted for handling such waste.

#### B.10 Sanitation and Water Pollution Control

Wash-down equipment and water connections will be provided for the process and unloading areas.

The septic dump station and dewatering area is constructed from concrete inside a metal clad building and will be inspected regularly and cleaned as required to minimize solids loading. Wash water will not be allowed to accumulate on site without proper treatment to prevent the creation of odors or an attraction to vectors.

Wash waters used to clean the Dump Station, Tanks and tankers will be processed with waste materials.

The Facility Design will comply with the requirements of 30 TAC 330.303 (a) and (b).

#### B.11 Odor Control

Odor will be controlled at the facility through stabilization of the waste and minimizing contact between unprocessed waste and air and by following good housekeeping practices. Odor Control Misterns will be provided as required pursuant to equipment manufacturer's specifications for abatement of odors.

Apart from the open dump station, wastes will be transferred in hoses and pipes and stored in enclosed tanks and equipment. Under these conditions airflow is limited over the surfaces of the liquids as the waste is transferred and processed, therefore odors will not be mixed with large quantities of air and distributed across the site.

#### B.12 Spill Control

The Operator will train all employees for response to any accidental sludge spill. A water tanker, backhoe and any other equipment required will be made available. Any contaminated soils will be processed in the same way as any other sludge on site.

The Tankage area containing the Cone Bottomed Tank and PreTreatment Tanks will be constructed with a 6" crushed concrete base on top of a clay liner. A three feet high earthen berm will be constructed around the perimeter of the Tankage area for the containment of any spillages. A concrete sump pit will be constructed in the Tankage area base in order that any spillages and/or excess surface water can be pumped out using a portable gas powered trash pump (note: this will be pumped into the Dump Station and processed in the same way as any



other sludge on site. Secondary containment calculations for the Tankage area are contained in Appendix 1 and take account of a 25 year rainfall event.

B.13 Generalized Construction Details of Processing and Storage Tanks

Unit Name	Number	Capacity	Dimensions	Materials of Construction
PreTreatment Tanks	4	16,800 Gallons each	12 ft Dia. X 20 ft High	Steel or Fiberglass
Cone-Bottom Tank	1	3,500 Gallons	8 ft Dia. X 10.42 ft High	Polyethylene

C) CLOSURE PLAN AND COST ESTIMATE

C.1 Public Notice and Certification of Final Facility Closure

No later than 90 days prior the initiation of a final facility closure, the Owner/Operator shall, through a public notice in the newspapers of largest circulation in the vicinity of the facility, provide public notice for final facility closure, in accordance with TAC 330.461(a).

Certification, signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan will be sent to the executive director, in accordance with TAC 330.461(c)(2).

C.2 Closure Plan

1. All equipment to be disassembled, decontaminated and hauled off to an authorized disposal site. All waste, waste residues and any recovered materials will be removed. The Owner/Operator shall evacuate all material on site (feedstock, in process and processed) to an authorized facility and disinfect all leachable handling units, tipping areas, processing areas and post-processing areas.
2. Soils to be examined by a licensed soil professional and remediation steps taken if required.
3. Fencing to be checked and repaired if needed.
4. Required signage installed.
5. Permanent drainage implemented.
6. Thorough records to be kept; State and Local Authorities notified.



C.3 Closure Cost Estimate

The closure cost estimate shall be based on the costs of hiring a third party that is not affiliated with the Owner or Operator. The closure cost estimate will be updated periodically throughout the life of the facility to reflect any changes to the facility.

Dismantle equipment and haul off	\$80,000
Transport/Disposal of wastes	\$20,000
Soils Remediation (if required)	\$40,000
Fees to Soils Professional and RPE's if required	\$20,000
Administration (incl. Notices)	\$6,000
Contingency (10%)	\$16,600
<b>Total Closure Estimated Cost:</b>	<b>\$182,600</b>

GEORGE H NEILL & ASSOC., INC.  
(TBPE REGN. Firm No. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751



*George H Neill*  
*March 10, 2022*

PART III

APPENDIX 1

GEORGE H NEILL & ASSOC., INC.  
(TBPE REGN. No. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751

SECONDARY CONTAINMENT CALCULATIONS FOR TANKAGE AREA



*George H Neill*  
*February 10, 2022*

Area of Tankage Base (made of 6" deep Crushed Rock) = 74FT x 16FT = 1,184 SQ FT

Volume of largest Storage Tank in Tankage Area = 16,800 gallons

Volume in Cubic Feet of largest Storage Tank = 16,800 ÷ 7.481 = 2,246 CU FT

Net Berm height required around base = 2,246 CU FT ÷ 1,184 SQ FT = 1.897 FT

Add 1.0 FT freeboard to berm height for 24 year, 24 hour rainfall event = 2.897 FT

Round up to berm height of 3.0 FT.



GEORGE H NEILL & ASSOC., INC.  
(TBPE REGN. No. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751

*George H. Neill*  
*March 10, 2022*



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*George H. Neill*  
March 10, 2022

GEORGE H NEILL & ASSOC., INC.  
(TBPE FIRM REGN. No. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751

### SITE OPERATING PLAN

This Site Operating Plan contains general instructions for facility management and personnel to operate the EC Enterprises, LLC Elmdorf Waste Water Processing Facility in a manner consistent with the approved design and the TCEQ rules to protect human health, the environment and prevent nuisances. The Operating Plan will be retained and revised as necessary as part of the Operating Record during the life of the facility.

#### A) Personnel

Job descriptions for this facility are shown in the following table. The Facility Owner/Manager will be responsible for operating the facility in compliance with the permit and the applicable regulations. The Facility Owner/Manager will designate a person to act for him during his absence.

<b>Position</b>	<b>Training</b>	<b>Responsibilities</b>
Facility Owner/Manager	Shall receive instruction in basic solid waste management practices and Texas MWS regulations. Must hold a minimum Class C License.	The primary function is to hire, train and supervise plant and administrative employees to operate safely and in compliance at all times. Responsible for maintaining the equipment, tracking inventories and maintaining permits and licenses.
Facility Operator	Six months minimum experience in equipment operations or on-the job training. Training to include recognition of facility prohibited wastes.	The primary functions are to receive waste, conduct process operations and process waste. Other functions include securing trucks and trailers to prevent spills, performing routine maintenance activities, cleaning any spills and work surfaces.

#### B) Equipment

The following summarizes the equipment used at the facility:

- Concrete Truck Dump Apron with pump on frame with hoist
- SludgeNet Trailers
- 3,500 gallon cone bottom Polyethylene Tank with grease trap
- 4 No. 16,800 gallon steel or fiberglass Pre-Treatment Tanks
- 2 No. Lift Stations
- 7,140 cubic feet Aeration Unit with 2 Each 2,500 cubic feet Digesters
- 12 ft. diameter Clarifier Unit with Chlorine Contactor
- 2 No. 500 CFM Blowers
- Waste Dumpsters as required



C) Inspections and Maintenance

The table below contains the routine facility inspections. The Facility Owner/Manager or designee will perform the inspections. The inspection documentation and checklists will be retained in the operation records.

Item	Inspection Task	Frequency
Fence/Gates	Inspect perimeter fence and gates for damage, make repairs as necessary.	Weekly
Facility Access Road	Inspect facility access road for damage from vehicle traffic, erosion or excessive mud accumulation. Maintain and repair as necessary.	Daily
Facility Signs	Inspect all facility signs for damage, general location and accuracy of posted information.	Weekly
Odors	Inspect the perimeter of the facility to assess the performance of the facility operations to control odors.	Daily
Containment	Inspect all concrete containment for cracks and leaks. Repair as necessary.	Monthly

D) Waste Acceptance and Processing

The waste materials that will be received and processed at the facility are grease trap waste from restaurants and commercial/Industrial food preparation/service facilities, household and commercial septic waste, Class II non-hazardous food waste and grit trap waste. Waste will be accepted any time between the hours of 7.00 am and 7.00 pm Monday through Friday. The facility will operate 7 days per week. In addition, authorization from the executive director may include alternative operating hours of up to five days in a calendar-year period to accommodate special occasions, special purpose events, holidays, or other special occurrences. Also, the commission's regional offices may allow additional temporary operating hours to address disaster or other emergency situations, or other unforeseen circumstances that could result in the disruption of waste management services in the area.

Approximately 2,100,000 gallons per month of liquid waste will be delivered to the facility by dump trucks owned by EC Enterprises, LLC and other licensed MSW haulage companies. This is equivalent to a 70,000 gallons per day average based on a 30 days per month. The maximum amount of liquid waste stored in the facility at any one time will be 28,500 gallons.

Each incoming load will be manifested and visually screened by trained employees for unauthorized or prohibited material before being offloaded and processed. The unloading of solid waste shall be confined to as small an area as practical. Appropriate signs shall also be used to indicate where vehicles are to unload. The use of forced access lanes, identified by ditches, dikes, fences, or other means, shall be used in conjunction with signs for the prevention of indiscriminate dumping. The owner or operator is not required to accept any solid waste that he/she determines will cause or may cause problems in maintaining full and continuous compliance with TAC 330.225. The unloading of waste in unauthorized areas is prohibited. The owner or operator shall ensure that any



waste deposited in an unauthorized area will be removed immediately and disposed of properly. The unloading of prohibited wastes at the municipal solid waste facility shall not be allowed. The owner or operator shall ensure that any prohibited waste will be returned immediately to the transporter or generator of the waste.

The sequence of operations for receipt and processing of the wastes is as follows:

1. Septic Trucks offload into the Dump Apron.
2. The Dump Apron contents are pumped into the SludgeNet Trailer via a polymer injection manifold.
3. SludgeNet Trailer contents are filtered within the trailer.
4. Filtrate then goes through a Lift Station into the 3,500 gallon Poly Tank, which by way of its conical bottom allows any solids not captured in the SludgeNet Trailer to fall out and be routed back to the septic Dump Apron.
5. The supernatant from the 3,500 gallon Poly Tank then overflows into the Pre-Treatment Tanks where it is aerated.
6. Contents of the Pre-Treatment Tanks is then sent to the Aeration Unit through a Lift Station.
7. The Aeration Unit has two digesters which will recycle supernatant. Periodic waste from the digesters will be removed and placed into onsite dumpsters.
8. Contents from the Aeration Unit are then sent to the Clarifier Unit, then the plant effluent is discharged into the San Antonio River via a drainage ditch.

A procedure will be implemented using visual checks and waste delivery scheduling to ensure that the design capacity of the facility shall not be exceeded. Waste will not be allowed to accumulate in quantities that create a nuisance, create odors or harbor vectors.

Unprocessed grease, grit and septic waste will only be stored on site in tankers for a maximum of 72 hours. In the event that the facility experiences a significant work stoppage then deliveries of unprocessed grease, grit and septic waste will be diverted in tankers to another TCEQ licensed facility for processing.

BOD testing is required daily on underdrain from each of the batch processes. TPDES permitting also requires periodic BOD effluent monitoring.

The Owner/Operator shall establish the method of sampling and analysis for the effluent discharged to a trap, interceptor or treatment facility permitted under Texas Water Code, Chapter 26. At a minimum, the method of sampling, the frequency of sampling and the tests to be made shall be part of the sampling and analysis plan. All sampling and analysis shall be done according to approved United States Environmental Protection Agency (EPA) methods. Records of each analysis shall be maintained for a three year period.

At a minimum, analyses for wastes received shall be made for benzene, lead and total petroleum hydrocarbons (TPH). Grit trap wastes must be analyzed annually for biochemical oxygen demand, total suspended solids, benzene, TPH and lead. Sludges that are disposed of at a municipal solid waste landfill must be analyzed annually for benzene, lead and TPH. At a minimum, effluent from the facility must be analyzed annually for TPH, fats, oil, grease and pH.

Sludge/cake from trailer wash-outs, truck dump apron and equipment grease traps will be separated and stored on site for a maximum of two weeks (average one week) in covered



dumpsters which will be transported periodically for final disposal at a third party TCEQ registered facility that is permitted for handling such waste.

Wastewaters generated by the Facility shall be managed in accordance with TAC 30.330.207 (relating to Contaminated Water Management). Contaminated water and leachate shall be collected and contained until properly managed. Collection units other than storage tanks shall have a clay or synthetic liner and the liner shall be constructed in accordance with 330.331(b). One foot of freeboard for the 25 year, 24 hour rainfall event shall be provided.

All liquids resulting from the operation of solid waste facilities shall be disposed of in a manner that will not cause surface water or groundwater pollution. The Owner/Operator may send wastewater offsite to an authorized facility or shall provide for the treatment of wastewaters resulting from managing the waste or from cleaning and washing. The Owner/Operator shall not discharge contaminated water without specific written authorization. A connection shall be provided into the licensed wastewater treatment plant at the Facility.

Contaminated water and leachate shall be collected and contained until properly managed. Collection units other than storage tanks shall have a clay or synthetic liner and the liner shall be constructed in accordance with TAC 330.331(b) (relating to Design Criteria). One foot of freeboard for the 25 year, 24 hour rainfall event shall be provided.

The use of leachate and gas condensate in any mining process is prohibited.

Grease trap waste, grit trap waste, septage and mobile liquid waste shall not discharge to a septic system. Wastewaters discharged to a treatment facility permitted under Texas Water Code, Chapter 26 must not interfere with or pass through the treatment facility processes or operations. Lagoons, open-top storage tanks, open vessels and underground storage units are prohibited at liquid waste transfer facilities.

The daily effluent design standard for oil and grease concentration leaving the facility and entering a public sewer system shall not exceed 200 milligrams per liter, the concentration established by the treatment facility permitted under Texas Water Code, Chapter 26, the National Pollutant Discharge Elimination System, or the following liquid effluent limits, if the discharge points do not require compliance with locally set limits.

Storage and processing areas shall be designed to control and contain spills and contaminated water from leaving the facility. The design shall be sufficient to control and contain a worst case spill or release. Unenclosed containment areas shall also account for precipitation from a 25 year, 24 hour storm.

#### E) Recordkeeping and Reporting

A copy of the permit, the approved copy of the permit application, the approved site operating plan and any other required plan and documents will be maintained at the facility at all times. After completion of construction of the facilities, an as-built set of construction plans and specifications will be maintained at the facility. These documents will be considered as part of the operating record for the facility.

The following documents and records will be promptly recorded and retained on site by the owner/operator in the facility's operating record during the life of the facility until after certification of closure:

1. Application related documents as described above per 330.219(a))
2. The Owner/Operator shall record, in the site operating record, the dates, times, and duration when any alternative operating hours are utilized.
3. All location restriction demonstrations per 330.219(b)(1)
4. Inspection records and training procedures per 330.219(b)(2)
5. Closure plans and any monitoring, testing or analytical data relating to closure requirements per 330.219(b)(3)
6. All cost estimates and financial assurance documentation relating to financial assurance for closure per 330.219(b)(4)
7. Copies of all correspondence and responses relating to the operation of the facility, modifications to the permit, approvals and other matters pertaining to technical assistance per 330.219(b)(5)
8. All documents, manifests, shipping documents, trip tickets etc, involving special waste per 330.219(b)(6)
9. Any other documents as specified by the approved permit or by the Executive Director per 330.219(b)(7)
10. Trip tickets (manifests) of wastes received (kept for five years) per 330.219(b)(8)
11. Alternative schedules for recordkeeping and notification requirements, may be set by the Executive Director per 330.219(g)

Trip tickets and manifests will be retained on site as required by 30 TAC 312.145.

F) Report Signatures

The owner/operator or duly authorized representative as defined in 305.44(a) or 330.219(c) will sign all reports and other information requested by the Executive Director and the person signing a report will make the following certification, as required by 305.44(b):

*"I 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"*

If an authorization is no longer accurate because of the change of individual or position, a new authorization satisfying the requirements of 330.219(c) must be submitted to the Executive Director prior to, or together with, any reports, information or applications to be signed by an authorized representative.

G) Site Signage

A sign will be conspicuously displayed at all entrances to the facility through which wastes are received. It will measure 4 feet by 4 feet with letters at least three inches in height



stating the facility name and type, hours and days of operation, authorization number and facility rules. A 24-hour emergency contact telephone number will also be included on the sign. The facility sign will be readable from the facility entrance and will contain up-to-date information at all times.

H) Site Access and Control

Public access will be controlled to minimize unauthorized vehicular traffic, unauthorized and illegal dumping and public exposure to hazards associated with waste management. An attendant will be on site during operating hours. Site access is controlled by a minimum six foot high chain link fence and lockable vehicular gate at the entrance to the facility. The vehicular gate will be locked at all times when the site is closed and not attended.

I) Sanitation and Periodic Cleaning

All working surfaces that come in contact with wastes shall be washed down on a weekly basis, as a minimum, at the completion of processing. During continual operations, exposed working surfaces that come in contact with wastes will be washed down at least two times per week. Wash waters used to clean the Dump Station, Tanks and tankers will be processed with waste materials. Wash waters will not be allowed to accumulate on site without proper treatment to prevent the creation of odors or an attraction to vectors.

J) Control of Windblown Material and Litter

Liquid waste unloading and processing do not involve materials that are susceptible to becoming windblown litter, so special litter control practices would not be suitable or effective at the site. However, at least once per day on days that the facility is in operation all driveways, fences and other areas within the facility boundary will be inspected for litter and other debris and if present, will be collected and managed to minimize unhealthy, unsafe and unsightly conditions.

K) Noise Pollution and Control

The facility equipment, except tankage, is contained within steel clad buildings, which together with the distance of the facility from FM1303 and adjacent properties, will provide no significant noise pollution.

L) Odor Control

Odor Control Misterters will be provided as required pursuant to equipment manufacturer's specifications for abatement of odors. The Misterters will be cleaned and maintained per manufacturer's recommendations as necessary so that the equipment efficiency can be adequately maintained.

M) Health and Safety

Prior to initiating operations, safety procedures will be developed and adapted for the facility and training will be provided for all employees. All the activities will be supervised by the Facility Owner/Manager to ensure the safety of all persons on the site. The Facility Owner/Manager will have a solid waste facility supervisor license.

Facility personnel must successfully complete a program of on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with all health and safety procedures.

The training shall ensure that personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems.

N) Fire Control Plan

The local Fire Department will be informed of the location and processes at the facility. Staff at the facility will be available to guide emergency personnel through the facility to help familiarize them with the process and systems. The facility and its Fire Protection Plan will comply with local fire codes. A limited supply of water for firefighting is available from the well on site, which is adjacent to the facility. In an emergency, the local Fire Department can be reached by dialing 911. Mobile phones can be used in the event of landline phone system failure. Type ABC hand held fire extinguishers will be located near the process building, tankage area and dump apron and will be readily available for use on trash, flammable liquids or electrical fires.

All facility personnel will be trained in the contents of the Fire Protection Plan, fire extinguisher use, communications and responses in the event of a grease, grass, structural or equipment fire.

The liquid waste has sufficient water content to prevent an ignition hazard. During water processing, generation of heat or flammable vapors is not significant. Water should never be used on a grease fire, a type ABC fire extinguisher should be used.

Measures and precautions to be followed at the facility to minimize the possibility of fire hazards include the following:

- Clean up any grease, oil and chemical spills immediately and keep work areas free of any trash, boxes and rags (ie. good housekeeping)
- Electrical cords should not be strung across floors or walkways where they can be stepped on and frayed, exposing the facility to the possibility of electrical fire.

- All machinery/equipment should be de-energized before any maintenance work is started and thoroughly inspected before the power is turned back on.
- Caution should be used when using tools that cause friction or sparks near flammable materials.

Procedure by Facility Staff in the Event of a Fire:

- Contact the Local Fire Department by calling 911.
- Alert other facility personnel.
- Assess extent of the fire, possibilities for the fire to spread and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available firefighting equipment until arrival of the Local Fire Department, attempt to contain or extinguish the fire.
- It is not advisable to attempt to fight the fire alone. Personal protective equipment may be needed. Be familiar with the use and limitations of firefighting equipment available onsite.
- Upon arrival of the Local Fire Department personnel, direct them to the fire and provide assistance as appropriate.

O) Employee Sanitation Facilities

A rest room with a sink, toilet and potable water is provided for the use of all employees and visitors.



3,500 GAL CONE BOTTOM POLY TANK W/GREASE TRAP

16,800 GAL STEEL OR FIBERGLASS TANKS X 4

6" CRUSHED  
CONCRETE  
BASE

GT

PRE-  
TREATMENT  
TANK  
#1

PRE-  
TREATMENT  
TANK  
#2

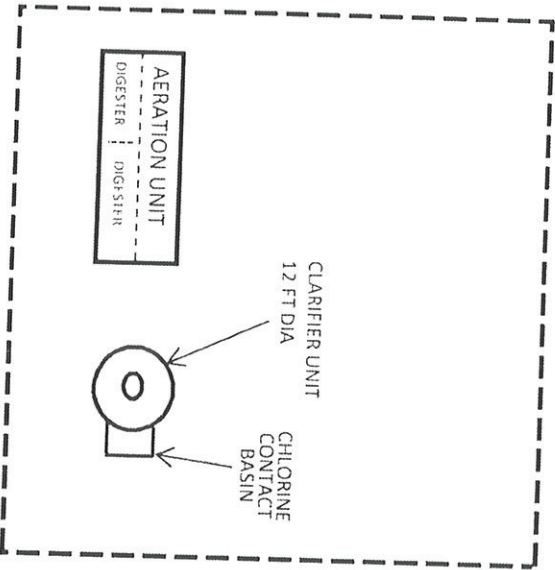
PRE-  
TREATMENT  
TANK  
#3

PRE-  
TREATMENT  
TANK  
#4

CLAY LINER UNDER CRUSHED  
CONCRETE BASE WITH 3 FT HIGH  
EARTHEN BERM AROUND  
PERIMETER OF TANKAGE BASE.

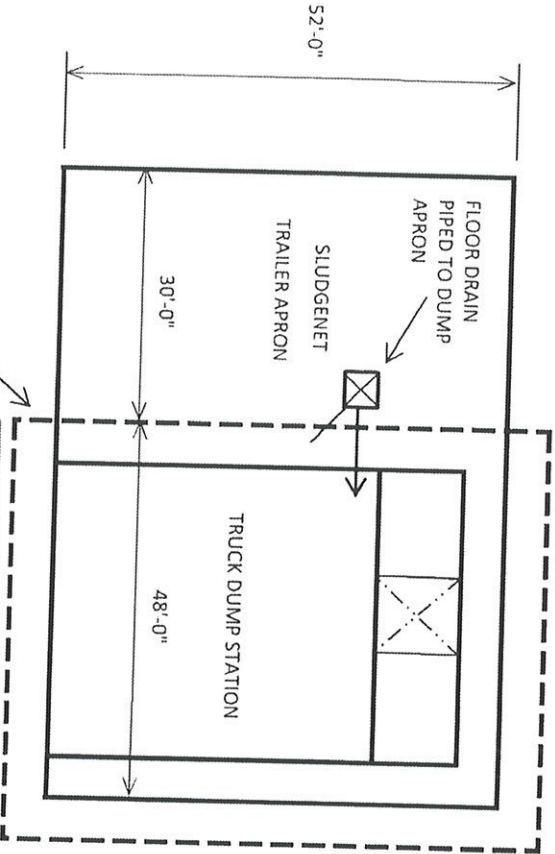
SUMP BASIN FOR PUMPING OUT  
ANY SPILLAGES IN TANKAGE AREA  
WITH PORTABLE GAS POWERED  
CENTRIFUGAL TRASH PUMP.

EXISTING FENCELINE



NEW STEEL FRAME/METAL CLAD BUILDING  
(60' x 65') OVER CRUSHED CONCRETE BASE

NEW STEEL FRAME/METAL CLAD BUILDING (60' x 60')  
OVER TRUCK DUMP APRON



GEORGE H NEILL & ASSOC., INC.

(TBP REGN. NO. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751

NOTE:

6" CONCRETE CONTAINMENT  
BERM AROUND APRON

REV #	DATE	DESCRIPTION
1	2/14/22	FLOOR DRAIN & SUMP ADDED
0	4/30/21	REDRAWN & ISSUED FOR USE

EC ENTERPRISES, LLC

ELMENDORF WASTEWATER

PROCESSING FACILITY

PLANT LAYOUT

DRAWN BY: DB

DWG NO.

APPROVED BY: CK

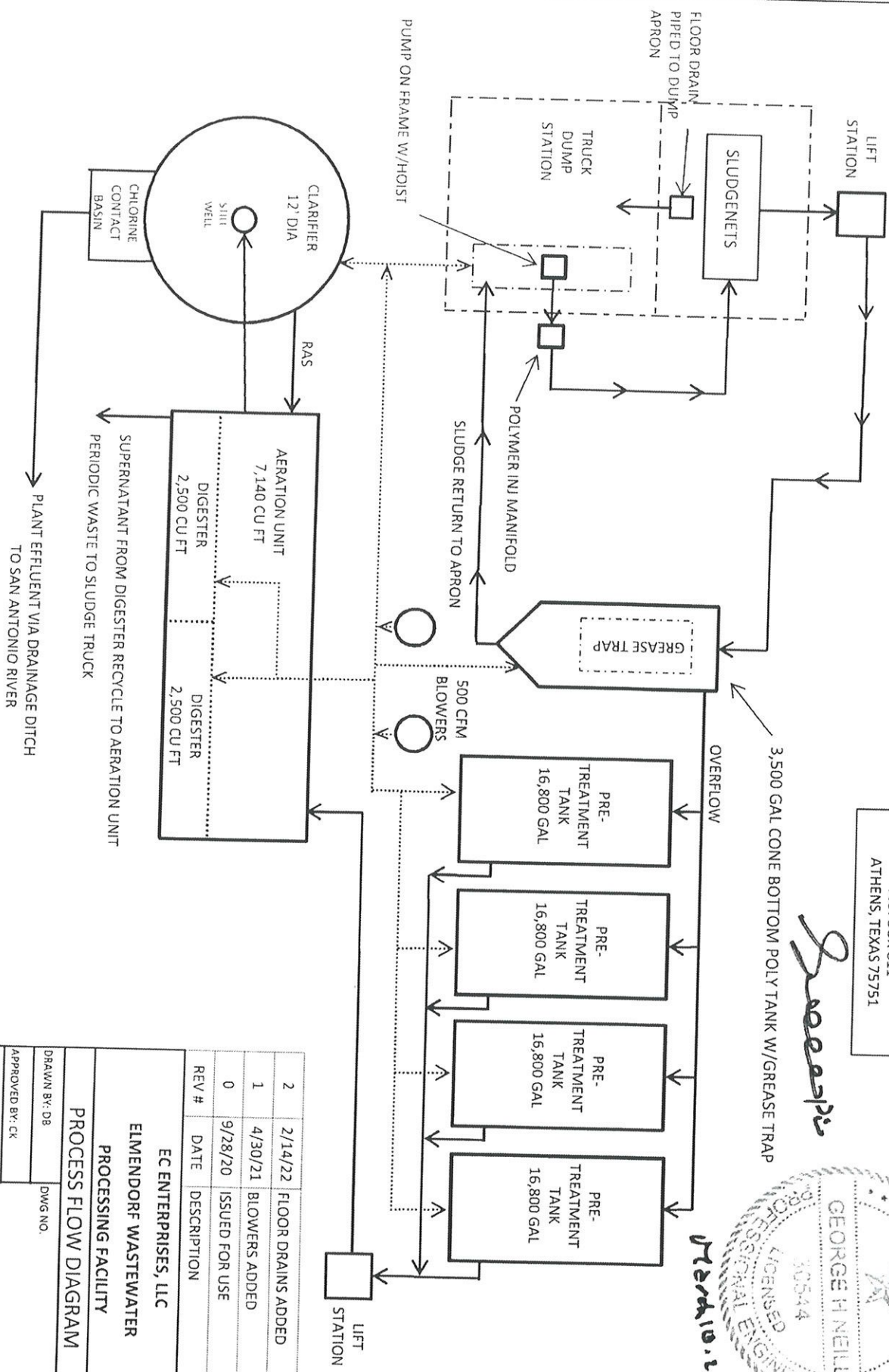
SCALE: NTS

DATE: 4/21/21

RGSA-003

GEORGE H NEILL & ASSOC., INC.  
 (TBPE REGN. No. 2566)  
 P.O. BOX 811  
 ATHENS, TEXAS 75751

*George H Neill*



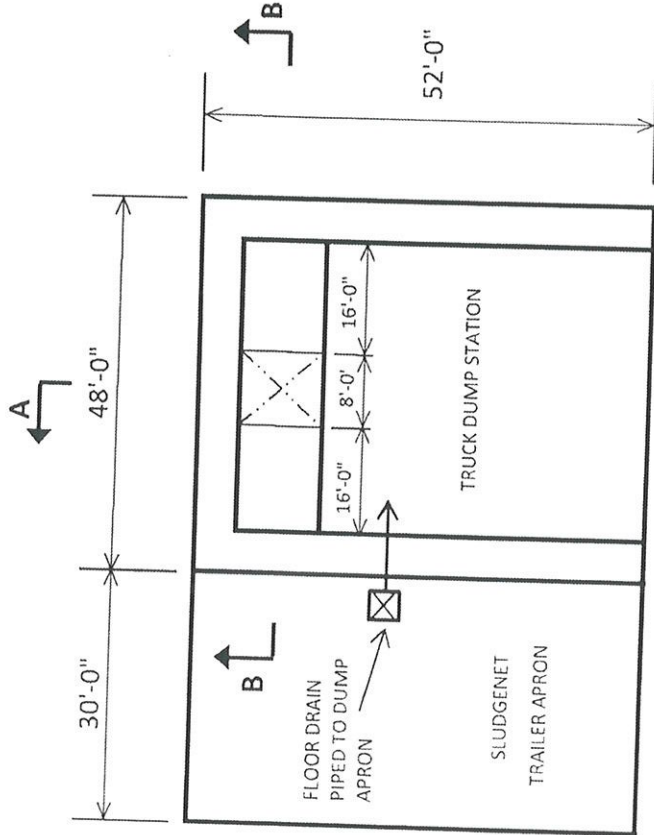
2	2/14/22	FLOOR DRAINS ADDED
1	4/30/21	BLOWERS ADDED
0	9/28/20	ISSUED FOR USE
REV #	DATE	DESCRIPTION

EC ENTERPRISES, LLC  
 ELMENDORF WASTEWATER  
 PROCESSING FACILITY  
 PROCESS FLOW DIAGRAM  
 DRAWN BY: DB  
 APPROVED BY: CK  
 SCALE: NTS  
 DATE: 9/28/20  
 DWG NO.  
 RGSA-001

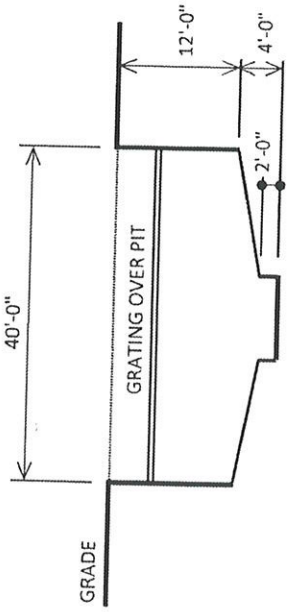
GEORGE H NEILL & ASSOC., INC.  
(TBPE REGN. No. 2566)  
P.O. BOX 811  
ATHENS, TEXAS 75751



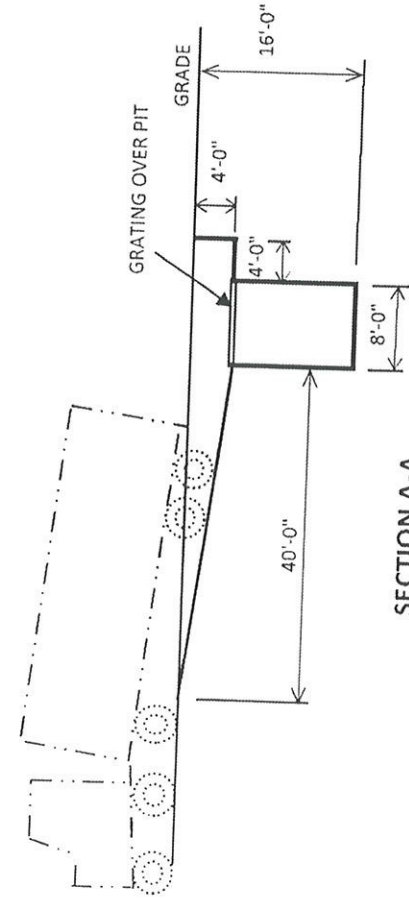
*George H Neill*  
March 19, 2022



**SECTION B-B**



**PLAN VIEW APRON**



**SECTION A-A**

- NOTES:**
- 1) DUMP STATION AND APRON CONSTRUCTED FROM REINFORCED CONCRETE.
  - 2) 6" CONCRETE CONTAINMENT BERM AROUND APRON

REV #	DATE	DESCRIPTION
2	2/14/22	APRON FLOOR DRAIN ADDED
1	4/13/21	BERM ADDED
0	9/28/20	ISSUED FOR USE
A	9/24/20	ISSUED FOR REVIEW

EC ENTERPRISES, LLC	
ELMENDORF WASTEWATER PROCESSING FACILITY	
DUMP STATION APRON LAYOUT	
DRAWN BY: DB	DWG NO.
APPROVED BY: CK	
SCALE: NTS	
DATE: 9/28/20	

RGSA-002