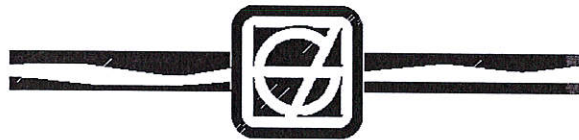

SPRING BRANCH TRANSFER STATION

MSW PERMIT No. **[PENDING]**
SPRING BRANCH, COMAL COUNTY, TEXAS

PART III: SITE DEVELOPMENT PLAN

MAY, 2023

Prepared By



Everett Griffith, Jr. & Associates, Inc.
Engineers-Surveyors
408 N. Third St.
Lufkin, Texas 75901
(936) 634-5528



Engineering Registration No. F-1156
Surveying Registration No. 100291-0

SPRING BRANCH TRANSFER STATION APPLICATION PART III

SECTION	PAGE No.
SECTION 1: GENERAL FACILITY DESIGN	III-2
1.1 FACILITY ACCESS	III-2
1.2 WASTE MOVEMENT	III-2
1.2.1 FLOW DIAGRAM	III-2
1.2.2 SCHEMATICS	III-2
1.2.3 VENTILATION AND ODOR CONTROL	III-2
1.2.4 GENERALIZED CONSTRUCTION DETAILS	III-3
1.2.5 CONTAINMENT DIKES OR WALLS	III-4
1.2.6 STORAGE OF GREASE, OIL, AND SLUDGE	III-4
1.2.7 DISPOSITION OF EFFLUENT	III-4
1.2.8 NOISE POLLUTION CONTROL	III-5
1.3 SANITATION	III-5
1.4 WATER POLLUTION CONTROL	III-5
1.5 ENDANGERED SPECIES PROTECTION	III-6
 SECTION 2: SURFACE WATER DRAINAGE	 III-8
2.1 DRAINAGE ANALYSIS	III-8
2.2 FLOOD CONTROL AND ANALYSIS	III-8
 SECTION 3: WASTE MANAGEMENT UNIT DESIGN	 III-9
3.1 STORAGE AND TRANSFER UNITS	III-9
3.1.1 DETENTION OF SOLID WASTE	III-9
3.1.2 SPILL CONTROL	III-9
3.1.3 MAXIMUM ALLOWABLE STORAGE TIME	III-9
3.2 INCINERATION UNITS	III-9
3.3 SURFACE IMPOUNDMENTS	III-10
3.4 LANDFILL UNITS AND ARID LANDFILL EXEMPTIONS	III-10
3.5 TYPE V MOBILE LIQUID WASTE PROCESSING UNITS	III-10
3.6 TYPE IX ENERGY, MATERIAL, GAS RECOVERY FOR BENEFICIAL USE, OR LANDFILL MINING WASTE PROCESS UNITS	III-10
3.7 COMPOST UNITS	III-10
3.8 TYPE IV WASTE PROCESSING DEMONSTRATION FACILITIES	III-10
 SECTION 4: GEOLOGY REPORT	 III-11
 SECTION 5: GROUNDWATER SAMPLING AND ANALYSIS	 III-12
 SECTION 6: LANDFILL GAS MANAGEMENT PLAN	 III-13
 SECTION 7: CLOSURE PLAN	 III-14
7.1 NOTIFICATION	III-14
7.2 CLOSURE ACTIVITIES	III-14
7.3 CERTIFICATION	III-14
 SECTION 8: POST-CLOSURE PLAN	 III-15
 SECTION 9: COST ESTIMATE FOR CLOSURE AND POST-CLOSURE	 III-16
9.1 CLOSURE COST ESTIMATE	III-16
9.1.1 MAXIMUM QUANTITIES OF SOLID WASTE	III-16
9.1.2 DISPOSAL OF WASH-WATER FROM HOLDING POND	III-16
9.1.3 DISPOSAL OF WASH AND DISINFECTANT WATERS	III-16
9.1.4 DISPOSITION OF BUILDINGS, PAVEMENT, AND APPURTENANCES	III-17
9.1.5 FUTURE IMPROVEMENTS	III-17

**SPRING BRANCH TRANSFER STATION APPLICATION
PART III**

<u>SECTION</u>	<u>PAGE No.</u>
9.2 COST ESTIMATE FOR CLOSURE	III-18
9.3 DEMONSTRATION OF FINANCIAL ASSURANCE	III-18
9.4 INCREASES TO THE COST ESTIMATE	III-18
9.5 REDUCTIONS TO THE COST ESTIMATE	III-18
9.6 CERTIFICATE OF FINAL FACILITY CLOSURE	III-18
ATTACHMENT III-A: FLOW DIAGRAM	
ATTACHMENT III-B: SCHEMATIC DIAGRAM	
ATTACHMENT III-C: FACILITY LAYOUT	



PART III: SITE DEVELOPMENT PLAN SPRING BRANCH TRANSFER STATION

This is an application for a new solid waste transfer facility to be located within the incorporated limits of the City of Spring Branch, Texas in Comal County, Texas. The driveway access to the facility is located approximately 730 feet north of the intersection of Highway 281 and Jumbo Evans Boulevard in the northern portion of Spring Branch.

The facility will serve as a transfer station for solid waste generated by the citizens of Comal County and adjacent counties. The facility will be owned by Spring Branch Partners LLC and operated by Hill Country Waste Solutions LLC. It will be designed to accommodate a maximum of 1,500 tons of solid waste per day.

This document is Part III of the MSW permit application for the Spring Branch Transfer Station and consists of the information required by Title 30, Texas Administrative Code (TAC), Chapter 330, Subchapter B: Municipal Solid Waste Permit Registration Application Procedures, 30 TAC §330.63. The sections herein are divided by rule citation.

SECTION 1: GENERAL FACILITY DESIGN [30 TAC §330.63(b)]

The Spring Branch Transfer Station is designed to accommodate 1,500 tons of solid waste per day. The following sections describe the general design aspects of the facility as applicable:

- 1.1 FACILITY ACCESS [30 TAC §330.63(b)(1)]** - The transfer station will be enclosed by intruder-resistant fencing. Access to the facility is via a driveway to U.S. Highway 281 N and this entrance will be equipped with a gate. The gate will be monitored during facility operations to prevent unauthorized vehicles and pedestrian traffic from accessing the facility. The gate will be locked on nights, holidays, or any other time the facility will be unattended by Hill Country Waste Solutions LLC personnel. Facility personnel will inspect the integrity of the fences, gate, and locks on a daily basis on the days when the facility is in operation. Any access control breaches will be repaired as needed.
- 1.2 WASTE MOVEMENT [30 TAC §330.63(b)(2)]** - The following sections describe the generalized process design and working plan of the overall facility:
 - 1.2.1 FLOW DIAGRAM [30 TAC §330.63(b)(2)(A)]** - The figure in Attachment III-A shows a flow diagram indicating storage and processing sequences for the solid waste received.
 - 1.2.2 SCHEMATICS [30 TAC §330.63(b)(2)(B)]** - The figure in Attachment III-B contains a schematic showing the various stages of collection and processing of solid wastes received at the facility. The figures in Attachment III-C showing the site layout plan also provide details regarding these activities.

With regard to traffic flow patterns of the vehicular traffic at the facility, it should be noted that traffic will enter the facility via the entrance driveway. After passing through the security gate, traffic will be directed to the gravel surface. This area will provide ample space for turn-around areas and parking for employees and visitors. The transfer trucks owned by Hill Country Waste Solutions LLC will also be parked in this area when they are not in operation. The Hill Country Waste Solutions LLC collection trucks will be parked at a separate facility when they are not in operation.

In the normal course of operations the collection trucks will collect waste along their routes in Comal County and adjacent areas. Upon completion of the routes, the collection trucks will return to the facility and enter the transfer building and deposit their waste on the working floor. The trucks will then exit the building.

Transfer trucks will drive down the ramp on the south side of the transfer building and stop in the loading area. The solid waste will then be transferred from the working floor to the transfer truck's walking floor trailer. When the trailer is full, the transfer truck will transport it to a TCEQ approved landfill where the waste will be deposited for final disposal or be staged in the transfer trailer parking area.

Hill Country Waste Solutions LLC also rents 20, 30, and 40 cubic yard roll-off boxes to various clients. When those bins are full, they will be collected and brought to the transfer building where the waste will be transferred to the working floor, thence to the transfer trucks as described above. The now-empty bin will then be stored until it is cycled back into service again.

- 1.2.3 VENTILATION AND ODOR CONTROL MEASURES[30 TAC §330.63(b)(2)(c)]** - The transfer station will include a covered transfer building. The working floor will be covered by a roof to protect it from rainfall. However, this building will not be a completely enclosed structure, rather it will be equipped with three walls with the front of the building opening onto 8" thick concrete pavement that provides for operational access of vehicles to the facility. The open front will ensure that all working areas within the building are well ventilated. Please note that the open front entrances will also be equipped with roll up doors that will be closed at night (or when the

transfer building is otherwise not in use) and locked to prevent access by unauthorized persons. This operation, the operator, and the individuals unloading at the station are not expected to suffer due to lack of proper ventilation. As noted previously, the trailers utilized within the transfer building can also be covered in order to contain odors as needed. Wash-water and other contaminated water will be directed via drain to a sump, thence pumped to above-ground storage tank located outside of the building. The above-ground storage tank will contain any odors from the wash-water and contaminated water that they store. The above-ground storage tanks will be emptied on an as-needed basis and their contents transported to a TCEQ approved facility for final disposal.

The design capacity of the Spring Branch Transfer Station will not be exceeded during operation. Solid waste accumulated at the facility will be processed within such time as will preclude the creation of odors, insect breeding, or harborage of other vectors. If such accumulations occur, additional solid waste will not be received until the adverse conditions are abated. In no event will solid waste be stored at the transfer station longer than 72 hours prior to transport off-site. Note that all of the landfills in the area are closed on Sundays and on select holidays, so 72 hours of storage would allow for those times when the landfills are closed on Sunday with a holiday on the following Monday. Under normal circumstances the longest time that municipal solid waste would be stored on-site would typically be from Friday afternoon to Monday morning (around 60 hours). At no time will the amount of stored waste exceed the ultimate capacity of the facility; it is anticipated that the facility will not exceed 900 tons of storage overnight. Each walking floor trailer will be filled and dispatched to a TCEQ approved landfill as rapidly as possible.

If nuisance odors are found to be passing the facility boundary, the operator may suspend operations until the nuisance is abated or immediately take action to abate the nuisance.

The facility will restrict additional solid waste receipt if a significant work stoppage should occur due to a mechanical breakdown or other causes. Under such circumstances, incoming solid waste will be diverted to an approved backup storage, processing, or disposal facility. If the work stoppage is anticipated to last long enough to create objectionable odors, insect breeding, or harborage of vectors, steps will be taken to remove the accumulated solid waste from the facility to an approved backup storage, processing, or disposal facility within 24 hours.

A secondary procedure will be put in place should the transfer station become inoperable for more than 24 hours. This procedure will consist of the collection trucks hauling their collected solid waste directly to TCEQ landfills for final disposal. This procedure will remain in operation until the transfer station is returned to operation.

- 1.2.4 GENERALIZED CONSTRUCTION DETAILS [30 TAC §330.63(b)(2)(D) and (E)]** - The facility and its units are shown on the figure in Attachment III-C. The facility will be accessible from Highway 281 via the entrance driveway. The facility will be equipped with a covered transfer building that is constructed with a loading area. The loading area of the transfer building will be accessed by a ramp down from the exterior driveway. Transfer trucks with empty collection walking floor trailers will be driven down the ramp to the loading area. The working floor of the transfer building will be accessible from the exterior access drives and from the concrete pavement adjacent to the building. Collection vehicles will be able to enter the transfer building and deposit their loads onto the working floor, from which point the solid waste will be transferred to the trailer in the loading dock's pit area. When full, those trailers will be removed by transfer truck and delivered to a landfill for final disposal. This facility will be partially enclosed to protect it from rainfall and also equipped with a floor drain (equipped with pump) to accommodate wash water and direct it to the above ground contaminated water holding tank.

In addition to those areas, the facility will also be equipped with an modular office building, transfer trailer parking building, and scale. The site will be screened by fencing and natural vegetation.

- 1.2.5 CONTAINMENT DIKES OR WALLS [30 TAC §330.63(b)(2)(F)]** - All working areas will be located within the transfer building which will consist of a covered metal building that is enclosed on three sides. No berms will be required to protect the working areas from rainfall because it will be located under the roof of the transfer building. The building will not be subject to runoff because the surrounding ground will be contoured so as to slope away from the building. The building entry will be equipped with roll-up doors that can be closed if needed to shield the entries from rainfall that might be blown in by the wind.

Both the working floor and the loading pit area located on the southern side of the building (accessed by ramp) will be slightly sloped to direct wash water or other liquids to a drain (which is equipped with a pump); it will then be pumped from the drain to an above-ground contaminated water holding tank. The above ground contaminated water holding tank will have a closed top and a maximum storage volume of 1,500 gallons. The location of the holding tank is indicated on the Facility Layout in Attachment III-C. The holding tank will be equipped with a concrete berm to provide secondary containment should the tank wall ever be compromised. The berm will be sized to provide enough storage volume to control and contain a worst-case spill or release from that unit. In the unlikely event that a breach of both the tank and the berm occurs, then the unit will be repaired or replaced and all affected areas will be remediated by removing contaminated soil and transporting it to a TCEQ approved facility for disposal and then replacing it with clean backfill.

The site will be graded so that stormwater runoff is directed away from the transfer building and ramped loading area. In addition, the entry ways to the transfer building will be equipped with a roll-over curb to prevent runoff from entering these areas and to prevent any wash water or other contaminated water from flowing out of these areas. Instead, the working floor and loading area will be sloped so as to direct wash water toward the drains, thence pumped to the holding tank. As indicated on the facility layout, roll over curbs will be also provided at the bottom of the ramp to serve as a physical barrier to prevent any rainfall shed by the ramp from entering the pit area; slot drains will be provided in front of the roll over curb to collect uncontaminated rainfall from the ramp and direct it into a storm sewer system and away from the facility.

- 1.2.6 STORAGE OF GREASE, OIL, AND SLUDGE [30 TAC §330.63(b)(2)(G)]** - Two areas will be set aside at the Spring Branch Transfer Station for the storage of waste oil and treated municipal sewage sludge. Those areas are described as follows:

- Waste Oil - A portion of the Transfer Station building will be set aside and designated as a Citizen Collection Station where the public may come and drop off waste oil. The waste oil will be placed special containers designed for that task. When full, the containers will be transported to a TCEQ approved facility for recycling. The storage time for this waste oil will vary depending on the frequency and quantity of the public's deposits.
- Sludge Storage Area - A portion of the Transfer Station building will be set aside and designated as a sludge storage area. Treated and de-watered municipal sewage sludge from local wastewater treatment plants will be stored there in its own bin, separate from the rest of the solid waste at the facility. When full, the contents of the container will be loaded into and end dump and then will be transported to a TCEQ permitted beneficial use site for disposal. It is anticipated that this sludge will not be stored on-site for longer than 72 hours.

- 1.2.7 DISPOSITION OF EFFLUENT [30 TAC §330.63(b)(2)(H)]** - Wash water and contaminated water generated will be taken to a TCEQ approved facility for treatment and final disposal. All wash water and contaminated water will be directed to the above-ground holding tank, from which it will be removed on an as-needed basis by a licensed hauler.

1.2.8 NOISE POLLUTION CONTROL [30 TAC §330.63(b)(2)(I)] - The adjacent area to the north of the project site is currently occupied by a commercial area; the area to the south of the site and west of the site is occupied by a sports complex; and the site is occupied on the east by U.S Highway 281. Existing trees and bushes provide limited screening for the facility. The nearest offsite residence is located approximately 1,750 feet to the northwest of the project site's western boundary. In addition, the entire facility will be enclosed and screened by fencing. Transfer operations will be conducted in the transfer building, which is a partially enclosed structure which should limit the amount of noise pollution associated with daily operations at the facility. The screening provided by the walls of the transfer building, fence, and (to a lesser degree) the vegetation at the site is expected to substantially reduce the amount of potential noise pollution at the site. In addition, the nearest residence is located a significant distance away from the actual area of operations which should also aid in alleviating the impact of any potential noise pollution generated as a result of routine operations at the facility.

1.3 SANITATION [30 TAC §330.63(b)(3)(A) thru (D)] - The working floor of the transfer building is designed to facilitate proper cleaning. The potable water at this facility is supplied either from well water or from the Canyon Lake Water Service Company. Both sources are capable of providing the facility with an around-the-clock supply of potable water. The facility will be equipped with several hose bibs to easily facilitate cleaning of all working surfaces and employees will be provided with hand-washing areas at the facility. Cleaning will be accomplished with standard equipment (water hoses, mops, brooms, etc.). The walls and floors in the operating areas are constructed of hard-surfaced materials that can be hosed down and scrubbed as needed. Specifically, the floors will be constructed of concrete and the walls of the building will be metal. These areas are protected from rain by a covering roof and the surrounding external areas will be graded to direct runoff away from the facility. The working floor and loading area will be gently sloped so as to direct wash-water (and any other contaminated water) to the drains, thence pumped to the above-ground holding tank. This holding tank will be emptied on an as-needed basis and hauled to a TCEQ approved facility for treatment and final disposal.

Portable restrooms will be provided at various locations on the facility grounds for use by the public and staff. These will be emptied and maintained on a regular basis. The waste from these portable restrooms will be hauled to a TCEQ approved facility for final disposal.

1.4 WATER POLLUTION CONTROL [30 TAC §330.63(b)(4)] - Wastewater resulting from cleaning and washing will be directed to a drain from which it will be pumped to the above-ground holding tank. The site will be generally graded so that stormwater runoff is directed away from the transfer building and ramped loading area. In addition, the entry ways to the transfer building will be equipped with a roll-over curb to prevent any runoff from entering these areas and to prevent any wash water or other contaminated water from flowing out of these areas. The working floor and loading area will be sloped so as to direct wash water toward the drain. Any rain water that might be incidentally blown in through the building's doors during strong winds that comes into contact with the waste will also be collected and sent to the holding tank.

Roll over curbs will also be provided at the foot of the ramp to serve as a physical barrier to protect the pit area from any rainwater shed by the ramp. Slot drains will be provided before the curb (on the ramp side) to intercept uncontaminated runoff from the ramp and direct it to an on-site storm sewer and away from the transfer building. The pit area will be sloped toward the drain, from which any wash water will be pumped to the above ground contaminated water holding tank.

The holding tank will be emptied on an as-needed basis by vacuum truck (operated by a third-party hauler) and hauled to a TCEQ approved facility for treatment and final disposal. The above ground holding tank will also be equipped with a concrete berm for secondary containment in the event that the tank ever becomes compromised. The bermed area will provided sufficient volume to contain a worst case tank breach.

This facility will be designed to comply with 30 TAC§330.303 which requires that be constructed, maintained, and operated to manage run-on and runoff during the peak discharge of a 25-year rainfall

event and must prevent the off-site discharge of waste material.

1.5 ENDANGERED SPECIES PROTECTION [30 TAC §330.63(b)(5)] - The permitting of this facility to serve as a solid waste transfer station is not expected to impact threatened or endangered species or their critical habitat. The site improvements and operation of the facility are not expected to result in the destruction or adverse modification of critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species. The following procedures will be implemented to avoid any potential impacts:

- During development the construction area will be visually surveyed to ensure that no bird nests with eggs or young are disturbed if clearing vegetation during the March 15 to September 15 nesting season is unavoidable. Any vegetation or bare ground within 25 feet of the occupied nests will not be disturbed until the eggs have hatched and the young have fledged.
- Hill Country Waste Solutions LLC employees and contractors will be advised to avoid injury or harm to all snakes encountered during clearing and construction. Any snakes observed during construction will be allowed to safely leave the site or be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed by construction. Personnel will avoid contact with all snakes if encountered and allow all native snakes to safely leave the premises.
- Hill Country Waste Solutions LLC employees and contractors will be informed that wildlife may be encountered in the project area. Any wildlife observed during construction should be allowed to safely leave the site. Construction staging and parking areas should be consolidated within disturbed areas where possible.
- Erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species are recommended for soil stabilization and/or re-vegetation of disturbed areas within the project area. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, it is recommended that no-till drilling, hydromulching, and/or hydroseeding be used rather than erosion control blankets or mats to reduce risk to wildlife. If erosion control blankets or mats are used, the product should contain no netting or contain loosely woven, natural fiber netting in with the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided.
- Hill Country Waste Solutions LLC personnel will develop sanitation procedure protocols during construction, operation, and maintenance of the facility in order to prevent the establishment and spread of invasive terrestrial plants. Such protocols may include (but not be limited to) the following measures to minimize invasive plant spread: (1) Inspect the site for invasive species infestation before operations; (2) Avoid driving vehicles, mowers, all-terrain vehicles, or spray equipment through infestations in seed or fruit; (3) Brush and wipe all seeds and debris from clothes, boots, socks, and personal protective equipment; (4) Clean motorized equipment, especially the undercarriage and tire surfaces of vehicles that have driven through infestations; and (5) Cover loads or bag cut invasive plants before transport.

In addition to the above items, Hill Country Waste Solutions LLC has coordinated with the Texas Parks and Wildlife Department (TPWD) soliciting recommendations for minimizing potential impacts to endangered species. Additional comments were received from Jessica E. Schmerler, CWB, a Habitat Assessment Biologist with the TP&WL Department's Ecological & Environmental Planning Program on December 14, 2022, relevant excerpts of which are summarized below:

"Sky glow because of light pollution can have negative impacts on wildlife and ecosystems by disrupting natural diurnal and nocturnal behaviors such as migration, reproduction, nourishment, rest, and cover from predators. TPWD recommends utilizing the minimum amount of permanent night-time lighting needed for safety and security. TPWD recommends minimizing the project's contribution toward sky glow by focusing light downward, with full cutoff luminaires to avoid light emitting above the horizontal, and to use dark-sky friendly lighting that is illuminated only when needed, down-shielded, only as bright as needed, and minimizes blue

light emissions. Appropriate lighting technologies, BMPs, and other dark sky resources can be found at the International Dark-Sky Association and McDonald Observatory websites.”

“Federal Law: Migratory Bird Treaty Act and State Law: Parks and Wildlife Code – Chapter 64, Birds: Potential impacts to nesting birds may occur during disturbance of a project area’s vegetation and bare ground. Active nests may occur in grass, shrubs, and trees and on bare ground. TPWD recommends avoiding vegetation clearing activities during the general bird nesting season, March 15 through September 15, to avoid adverse impacts to breeding birds. If vegetation clearing during the general bird nesting season is unavoidable, TPWD recommends surveying the area proposed for disturbance to ensure that no nests with eggs or young will be impacted by construction activities. Nest surveys should be conducted not more than five days prior to clearing activities in order to maximize detection of active nests. TPWD generally recommends a 100-foot radius buffer of vegetation remain around active nests until the eggs have hatched and the young have fledged; however, the size of the buffer zone depends on various factors and can be coordinated with the local or regional U.S. Fish and Wildlife Service (USFWS) office. Raptor nesting occurs late winter through early spring; TPWD recommends construction activities be excluded from a minimum zone of 100 meters (approximately 328 feet) surrounding any raptor nest during the period of February 1 through July 15. The USFWS Migratory Bird Office can be contacted at (505) 248-7882 for further information.”

SECTION 2: SURFACE WATER DRAINAGE [30 TAC §330.63.c]

Operations involving solid waste transfer will be conducted in the covered working floor area in the transfer building which will protect them from rainfall. In addition, the building itself will be located such that the proposed contouring of the site will prevent runoff from entering the facility. In addition, the entry ways to the transfer building will be equipped with a roll-over curb to prevent any runoff from entering these areas and to prevent any wash water or other contaminated water from flowing out of these areas. Any rain water that might be blow into the facility by strong winds that comes into contact with the waste will be collected via the facility drain, then be pumped to the above-ground contaminated water holding tank. This holding tank will be emptied on an as-needed basis and hauled to a TCEQ approved facility for treatment and final disposal.

The pit area of the transfer building will also be covered. The pit area will be sloped such that wash water will be directed to the drain, from which it will then be pumped to the above ground contaminated water holding tank. Roll over curbs will be provided at the foot of the ramps to provide a physical barrier to any rainfall that is shed by the ramp and prevent it from entering the pit area. Slot drains will be provided adjacent to the roll over curb (on the ramp side) to intercept any uncontaminated rainfall shed by the ramps and direct it to an on-site storm sewer system and away from the transfer building.

There will be no runoff directed into the working areas of the facility under normal operating conditions. The site will be graded so that all runoff is directed away from the transfer building. The interior of the transfer building will be constructed so as to direct all wash water generated at the facility (or any other contaminated water) to the drain located in the pit area, thence to the drain line which will direct it to a sump from which it will be pumped into an above-ground holding tank. The tank will be emptied on an as needed basis by a certified third-party hauler. The holding tank will also be equipped with a berm designed to provide secondary containment should the integrity of the holding tank ever become compromised. The berm will be sized to provide sufficient volume to contain a worst-case spill or release from the holding tank. In the unlikely event that a breach of both the tank and the berm occurs, then the unit will be repaired or replaced and all affected areas will be remediated by removing contaminated soil and transporting it to a TCEQ approved facility for disposal and then replacing it with clean backfill.

All site improvements will be constructed, maintained, and operated to manage run-on and runoff during the during the peak discharge of the 25-year rainfall event. The improvements will be constructed, maintained and operated to prevent the off-site discharge of waste, in-process, or processed materials. Best management procedures will be utilized during construction to minimize erosion and reduce the potential for sediment to be transported to area streams.

Wash water will be managed in accordance with TAC §330.207 (Contaminated Water Management). No contaminated water is allowed to pond at the transfer station or to run off as surface age. All liquids resulting from the operation of the transfer station will be disposed of in a manner that will not cause surface water or groundwater pollution. Wastewater resulting from cleaning and washing will be directed via drain to the above-ground holding tank. The holding tank will be emptied on an as-needed basis and hauled to a TCEQ approved facility for final disposal. The operator will not discharge contaminated water without specific written authorization.

- 2.1 DRAINAGE ANALYSIS [30 TAC §330.63(c)(1)]** - This requirement appears to be required solely for landfill applications and as such is not applicable for this facility.
- 2.2 FLOOD CONTROL AND ANALYSIS [30 TAC §330.63(c)(2)]** - The attachments of Part II of this application shows relevant portions of the most recent flood map of the area with the Spring Branch Transfer Station's boundaries superimposed onto it. Based on that information, is not located within the 100-year floodplain.

SECTION 3: WASTE MANAGEMENT UNIT DESIGN [30 TAC §330.63(d)]

3.1 STORAGE AND TRANSFER UNITS [30 TAC §330.63(d)(1)] - The following sections provide a brief description of the storage and transfer units at the Spring Branch Transfer Station:

3.1.1 DETENTION OF SOLID WASTE [30 TAC §330.63(d)(1)(A)] - The facility will be designed for the rapid processing and minimum detention of solid waste at the facility. The design capacity of the transfer station will not be exceeded during operation. Solid waste accumulated at the facility will be processed within such time as will preclude the creation of odors, insect breeding, or harborage of other vectors. If such accumulations occur, additional solid waste will not be received until the adverse conditions are abated. In no event will solid waste be stored at the transfer station longer than 72 hours prior to transport off-site. Solid waste will be dispatched to an approved landfill as rapidly as possible.

3.1.2 SPILL CONTROL [30 TAC §330.63(d)(1)(B)] - Walking floor trailers will be utilized at the facility to transfer waste from the transfer building to an approved landfill for final disposal. Each walking floor trailer will be of the 130 cubic yard variety with a legal carrying capacity of 26 tons. This will require approximately 58 trailer loads per day at the maximum storage volume of 1,500 tons of municipal waste. These trailers will be driven down the ramp to the loading area on the south side of the transfer building where waste will be loaded onto them from the working floor. When full, the trailers will be covered and removed from the loading area and either driven directly to the receiving landfill or staged for transport in the transfer trailer parking area.

The transfer station is designed to collect all contaminated water and direct it to the above-ground holding tank. A drain will be provided to direct facility wash water or any other contaminated water to the holding tank. The holding tank has been designed to control and contain a worst case spill or release. No contaminated water will be allowed to pond on the surface or run off as surface drainage. All liquids resulting from the operation of the transfer station will be directed to the holding tank which will be emptied on an as-needed basis and the contents hauled to an approved treatment facility where it will be disposed of in a manner that will not cause surface water or groundwater pollution. The holding tank will be monitored daily to ensure that no overflows or other discharges occur. The holding tank will also be equipped with a concrete berm to provide secondary containment should the integrity of the holding tank ever become compromised. The berm will be sized to provide sufficient volume to contain a worst-case spill or release from the holding tank. In the unlikely event that a breach of both the tank and the berm occurs, then the unit will be repaired or replaced and all affected areas will be remediated by removing contaminated soil and transporting it to a TCEQ approved facility for disposal and then replacing it with clean backfill.

3.1.3 MAXIMUM ALLOWABLE STORAGE TIME[30 TAC §330.63(d)(1)(c)] - In no event will municipal solid waste be stored at the transfer station longer than 72 hours prior to transport off-site.

The waste oil contained in holding containers in the designated Citizens Collection area will be taken to a recycling facility when full. Therefore, the storage time for waste oil at the facility will vary depending on the frequency and quantity of the public's deposits.

It is anticipated that under normal circumstances the treated and de-watered municipal sewage sludge will be stored on-site for no longer than 72 hours.

C&D waste storage will be stored separately in the transfer building and under normal circumstances will be stored on site for no more than seven days within the transfer building. The C&D waste will be kept separate from putrescible municipal solid waste.

3.2 INCINERATION UNITS [30 TAC §330.63(d)(2)] - This item is not applicable for this facility. This solid

waste transfer station will not be equipped with an incinerator.

- 3.3 **SURFACE IMPOUNDMENTS [30 TAC §330.63(d)(3)]** - This item is not applicable for this facility. This solid waste transfer station will not utilize impoundments for the storage of waste.
- 3.4 **LANDFILL UNITS AND ARID LANDFILL EXEMPTIONS [30 TAC §330.63(d)(4) and (5)]** - These items are not applicable for this solid waste transfer station.
- 3.5 **TYPE V MOBILE LIQUID WASTE PROCESSING UNITS [30 TAC §330.63(d)(6)]** - This item is not applicable for this solid waste transfer station.
- 3.6 **TYPE IX ENERGY, MATERIAL, GAS RECOVERY FOR BENEFICIAL USE, OR LANDFILL MINING WASTE PROCESSING UNITS [30 TAC §330.63(d)(7)]** - This item is not applicable for this solid waste transfer station.
- 3.7 **COMPOST UNITS[30 TAC §330.63(d)(8)]** - Not applicable. This solid waste transfer station will not be equipped with composting units.
- 3.8 **TYPE VI WASTE PROCESSING DEMONSTRATION FACILITIES [30 TAC §330.63(d)(9)]** - This item is not applicable for this solid waste transfer station.

SECTION 4: GEOLOGY REPORT [30 TAC §330.63(e)]

This requirement is for landfills and compost units. As such, it does not appear to be applicable for this new application for a solid waste transfer station.

SECTION 5: GROUNDWATER SAMPLING AND ANALYSIS [30 TAC §330.63(f)]

This requirement appears to be addressed to landfills. As such, it does not appear to be applicable for this new application for a solid waste transfer station.

SECTION 6: LANDFILL GAS MANAGEMENT PLAN [30 TAC §330.63(g)]

This requirement is for landfills and thus is not applicable for this solid waste transfer station.

SECTION 7: CLOSURE PLAN [30 TAC §330.63(h)]

The requirements of 30 TAC §330.63(h) states that the closure plan must be prepared in accordance with Subchapter K of 30 TAC §330:

7.1 NOTIFICATION - In compliance with the requirements of 30 TAC §330.461(a), the owner or operator shall provide public notice for final facility closure through a public notice in the newspaper of largest circulation in the vicinity of the facility no later than 90 days prior to the initiation of a final closure. The notice shall provide the name, address, physical location of the facility, permit number, and the last date of intended receipt of waste. An adequate number of copies of the approved final closure plan will be made available for public access and review.

The owner or operator shall also provide written notification to the Executive Director of the intent to close the facility and place this notice of intent in the operating record. In accordance with 30 TAC §330.461(b), upon notification to the Executive Director, the owner or operator shall post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility of the date of closing for the entire facility and the prohibition against further receipt of waste materials after the stated date. Suitable barriers shall be installed at all gates or access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.

7.2 CLOSURE ACTIVITIES - All waste and waste residues will be removed from the site prior to closure, and no waste will remain at the closed facility. Facility units will either be dismantled and removed off site or decontaminated. The working floor will be disinfected. All processed or unprocessed materials will be collected and transported to an authorized facility for disposition. Closure of the facility must be completed within 180 days following the most recent acceptance of processed or unprocessed materials unless otherwise directed or approved in writing by the Executive Director of the TCEQ. If there is evidence of a release from a municipal solid waste unit, the Executive Director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct the impact to groundwater.

7.3 CERTIFICATION - In accordance with the requirements found in 30 TAC §330.461©, within 10 days after completion of final closure the owner or operator will submit to the Executive Director the following items by registered mail:

- A certification signed by an independent licensed professional engineer verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the Executive Director shall include all applicable documentation necessary for certification of final facility closure
- A request for voluntary revocation of the facility permit.

More information regarding the full requirements of 30 TAC §330.461.c is provided in Section 9.6 below. Please refer to that section for more details.

SECTION 8: POST-CLOSURE PLAN [30 TAC §330.63(i)]

This item does not appear to be applicable for this facility.

**SECTION 9: COST ESTIMATE FOR CLOSURE
AND POST-CLOSURE CARE [30 TAC §330.63(i)]**

This section addresses closure for the facility (post-closure care does not seem to be applicable to this facility). With respect to closure, 30 TAC §330.63(j) requires that a cost estimate for closure be provided in accordance with Subchapter L of that section.

In accordance with 30 TAC §330.459 (pertaining to Closure Requirements for Municipal Solid Waste Storage and Processing Units), the owner or operator shall remove all waste, waste residues, and any recovered materials. Facility units shall either be dismantled and removed off-site or decontaminated. The owner or operator shall evacuate all material on-site to an authorized facility and disinfect all leachate handling units, tipping areas, processing areas, and post-processing areas. If there is evidence of a release from a municipal solid waste unit, the executive director may require an investigation into the nature and extent of the release and an assessment of measures necessary to correct an impact to groundwater.

9.1 CLOSURE COST ESTIMATE - The requirements for cost estimates for storage and processing units are listed in 30 TAC §330.505, which states that the estimate must: (a) equal the cost of closure of the facility, including the dispositions of the maximum inventories of all waste stored outdoors on site during the life of the facility; (b) be based on the costs of hiring a third party that is not affiliated with the owner or operator; and © be based on a per cubic yard and/or short ton measure for collection and disposition costs. The following serves as an itemized list of the work to be performed:

9.1.1 MAXIMUM QUANTITIES OF SOLID WASTE - The estimate must include the cost of transporting and disposing of the maximum quantities of waste to be authorized by this permit. Those are summarized as follows:

- Maximum Quantity of Solid Waste 1,500 tons

The cost estimate assumes that a third party hauls the maximum amount of solid waste allowed at the facility from the facility to a TCEQ approved landfill for final disposal. The cost estimate also includes the disposal fee at the landfill.

9.1.2 DISPOSAL OF WASH-WATER FROM HOLDING TANK - As noted in previous sections, the site will be equipped with drains to direct wash-water from the facility to an above-ground holding tank. The cost estimate assumes that the full volume of those units must be hauled by a third party from the transfer station to a TCEQ approved facility for final disposal.

- Maximum Volume of Liquids from the Holding Tank 1,500 gallons

9.1.3 DISPOSAL OF WASH AND DISINFECTANT WATERS - The facility will be equipped with a transfer building that encloses the working floor and pit area under a common roof. It will also be equipped with access driveways, gravel surface (including parking area), scale, trailer parking building, and office. It is assumed that the driveways, gravel surface, scale, trailer parking area, and office will not need washing and disinfecting prior to closure.

However, it is assumed that the transfer building is will need to be washed down and disinfected prior to closure. The working floor area of the transfer building will be 120 feet long and 100 feet wide, providing approximately 12,000 square feet of enclosed area; similarly, the pit area will be 120 feet long by 20 feet wide, providing approximately 2,400 square feet of area; when combined, this totals 14,400 square feet. It is further assumed that washing and disinfecting will require 1 gallon per square foot of enclosed area (including washing and disinfection of floors, walls, and equipment). Based on those assumptions, the total amount of wash water generated for this item is 14,400 gallons. It is further assumed that disinfection and washing of the above-ground holding tank will require a volume of wash water equivalent to 25% of the total volume (or 375 gallons). Therefore, the total volume of wash water required for this item is estimated as follows:

- Volume of Wash Water to Disinfect Buildings and Equipment. 14,400 gallons
- Volume of Wash Water to Disinfect Holding Tank 375 gallons
- Total Volume Estimated for Washing and Disinfection 14,775 gallons

9.1.4 DISPOSITION OF BUILDINGS, PAVEMENT, AND APPURTENANCES - This closure estimate assumes partial dismantling of the facility in that the scales and any waste handling equipment will be dismantled and removed. However, all buildings and gravel are assumed to remain in place after closure. In other words, no demolition costs are assumed for the structures at the facility. The security fencing will be left in place and after closer the gates to the facility will be locked to prevent access to the site.

9.1.5 FUTURE IMPROVEMENTS - A C&D roll-off recycling area and additional scale are anticipated to be constructed at the site at some future date but no plans for those facilities have been finalized yet. This closure cost estimate will be updated to reflect the addition of those facilities in the future when their plans have been finalized and approved by TCEQ prior to their construction.

9.2 COST ESTIMATE FOR CLOSURE - The following table provides a cost estimate for the items listed above based on the costs of hiring a third party that is not affiliated with the owner or operator:

CLOSURE COST ESTIMATE*					
Description	Quantity	Unit	Unit Cost	Total	
Solid Waste Removal	Total cost of transporting the Maximum Permitted Quantity of Solid Waste from the facility to a TCEQ approved landfill by a Third Party (includes labor and landfill disposal fee)	1,500	tons	\$30	\$45,000
Disinfection and Decontamination of Buildings and Equipment	Total cost of transporting contaminated water from the above-ground holding tank	1,500	gallons	\$0.30	\$450
	Total cost of transporting wash water from the facility to a TCEQ approved facility for treatment and final disposal	14,775	gallons	\$0.30	\$4,433
	Labor required to disinfect and wash buildings and equipment at the facility	24	hours	\$40	\$960
Dismantling or Removal of Waste Equipment	Removal of scales	1	lump sum	\$2,000	\$2,000
	Removal of all storage bins	1	lump sum	\$2,000	\$2,000
	Removal and disposal of waste oil tank	1	lump sum	\$1,500	\$1,500
Signage	Installation of a sign stating that the facility is closed	1	lump sum	\$100	\$100
Locks	Install padlocks for all access gates and buildings	1	lump sum	\$20	\$20

CLOSURE COST ESTIMATE*				
Description	Quantity	Unit	Unit Cost	Total
Supervisory Costs	1	lump sum	\$1,000	\$1,000
Administrative Costs	1	lump sum	\$100	\$100
Professional Engineer's Certification	1	lump sum	\$500	\$500
SUBTOTAL				\$58,063
Contingency Cost (10%)				\$5,806
TOTAL				\$63,869

* The above estimates are based on the costs of hiring a third party that is not affiliated with the owner or operator. All amounts are in 2022 dollars

9.3 DEMONSTRATION OF FINANCIAL ASSURANCE - Financial assurance will be submitted upon final approval by the TCEQ. The owner or operator shall will submit a copy of the documentation required to demonstrate financial assurance as specified in 30 TAC Chapter 37, Subchapter R relating to Financial Assurance for Municipal Solid Waste Facilities at least 60 days prior to the initial receipt of waste, in accordance with 30 TAC §330.63(j).

In accordance with 30 TAC §330.505(b)(2), continuous financial assurance coverage for closure must be provided until all requirements of the final closure plan have been completed and the site is determined to be closed in writing by the Executive Director.

9.4 INCREASES TO THE COST ESTIMATE - In accordance with 30 TAC §330.505(a)(3), an increase in the closure cost estimate and the amount of financial assurance must be made if changes to the facility conditions increase the maximum cost of closure at any time during the active life of the facility.

9.5 REDUCTIONS TO THE COST ESTIMATE - In accordance with 30 TAC §330.505(a)(4), an reduction in the closure cost estimate and the financial assurance may be approved if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility and the owner or operator has provided written notice to the Executive Director of the detailed justification for the reduction for the closure cost estimate and the amount of financial assurance. After permitting, a reduction in the cost estimate and the financial assurance must be considered a modification and must be handled as such.

9.6 CERTIFICATION OF FINAL FACILITY CLOSURE - The requirements of 30 TAC §330.461 pertaining to the Certification of Final Facility Closure will be complied with. Those requirements are as follows:

[a] No later than 90 days prior to the initiation of a final facility closure, the owner or operator shall, through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility, provide public notice for final facility closure. This notice shall provide the name, address, and physical location of the facility; the permit, or notification number, as appropriate; and the last date of intended receipt of waste. The owner or operator shall also make available an adequate number of copies of the approved final closure and post-closure plans for public access and review. The owner or operator shall also provide written notification to the executive director of the intent to close the facility and place this notice of intent in the operating record.

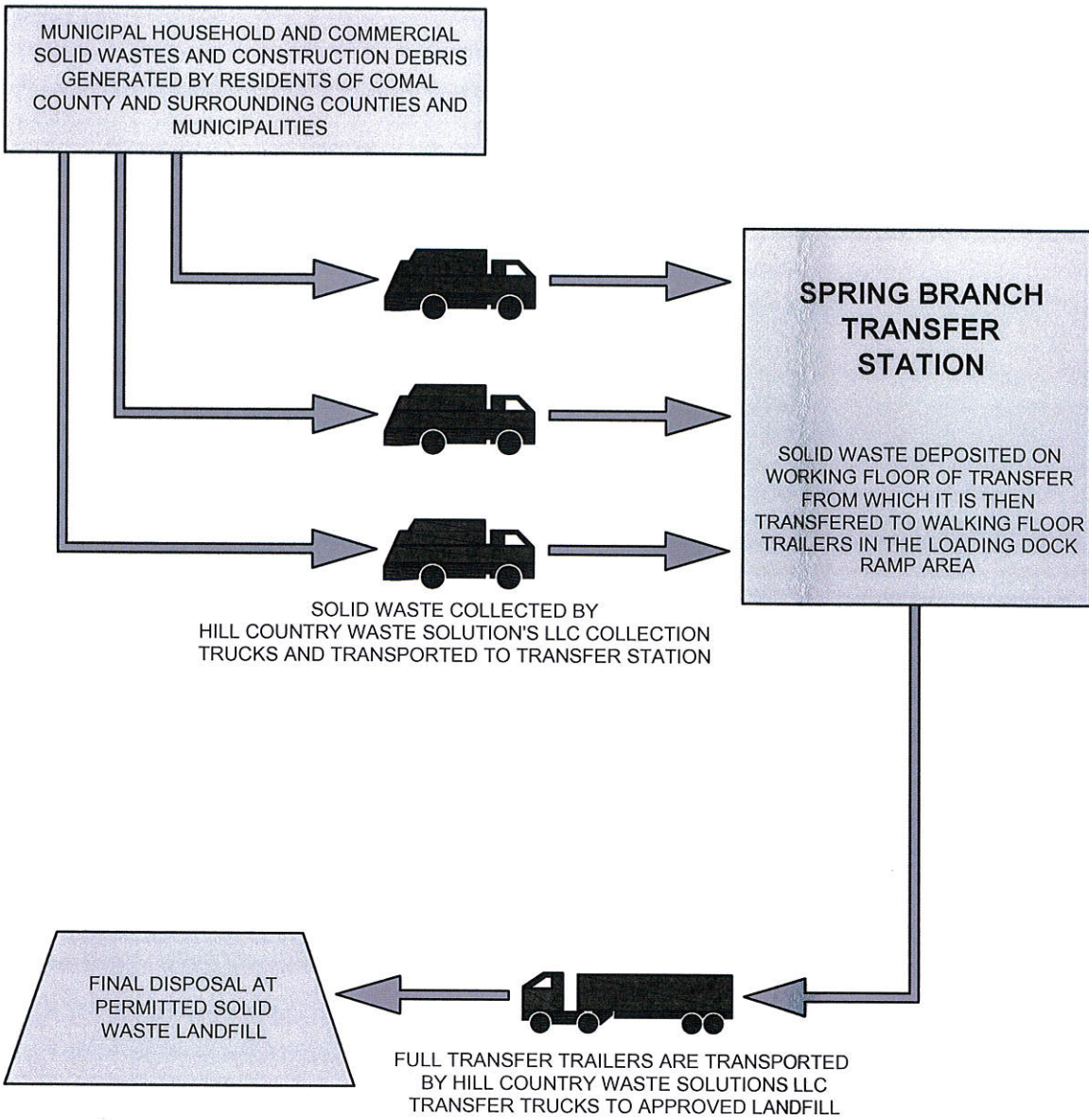
[b] Upon notification to the executive director as specified in subsection (a) of this section, the owner or operator of a municipal solid waste management facility shall post a minimum of one sign at the main entrance and all other frequently used points of access for the facility notifying all persons who may utilize the facility of the date of closing for the entire facility and the prohibition against further receipt of waste materials after the stated date. Further, suitable barriers shall be installed at all

gates or access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.

- [c] Within ten days after completion of final closure activities of a facility, the owner and operator shall submit to the executive director by registered mail the following:
 - [1] if wastes will remain at the closed facility, a certified copy of an "affidavit to the public" in accordance with the requirements of §330.19 and §330.457(g) of this title (relating to Deed Recordation and Closure Requirements for Municipal Solid Waste Landfill Units that Receive Waste on or after October 9, 1993). In addition, the owner or operator of the closed facility shall record a certified notation on the deed to the facility property, or on some other instrument that is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that the land has been used as a landfill facility and use of the land is restricted according to the provisions specified in §330.465 of this title (relating to Certification of Completion of Post-Closure Care). The owner or operator shall submit a certified copy of the modified deed to the executive director and place a copy of the modified deed in the operating record within the time frame specified in this paragraph;
 - [2] a certification, signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. The submittal to the executive director shall include all applicable documentation necessary for certification of final facility closure; and
 - [3] for a facility that does not require post-closure care, a request for voluntary revocation of the facility permit, as applicable.
- [d] The owner or operator of the facility may request permission from the executive director to remove the notation from the deed if all wastes are removed from the facility in accordance with §330.7(a) of this title (relating to Permit Required).

ATTACHMENT III-A

FLOW DIAGRAM



**SPRING BRANCH TRANSFER STATION
FLOW DIAGRAM
(SOLID WASTE)**

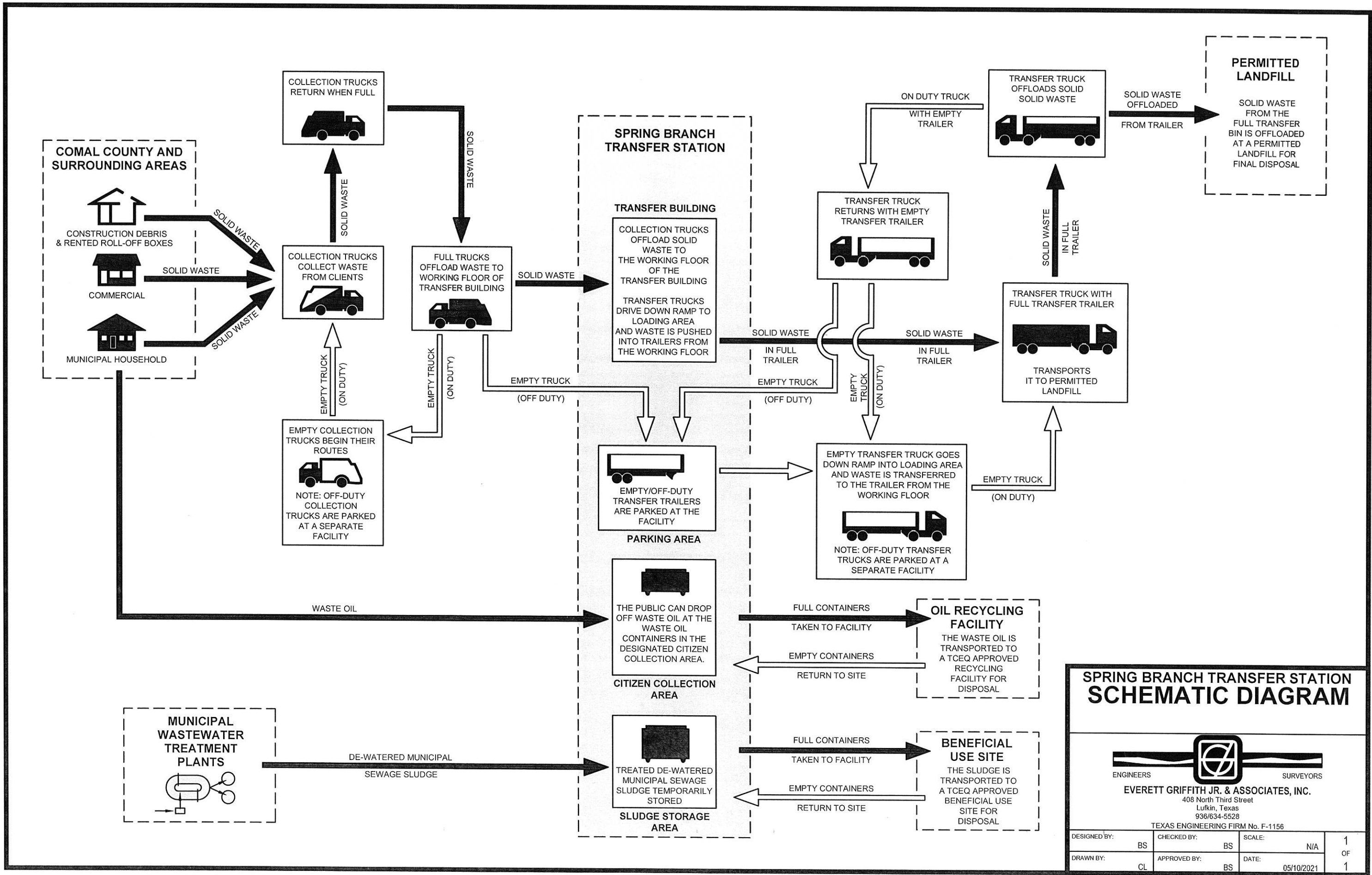
ENGINEERS SURVEYORS

EVERETT GRIFFITH JR. & ASSOCIATES, INC.
408 North Third Street
Lufkin, Texas
936/634-5528
TEXAS ENGINEERING FIRM No. F-1156

DESIGNED BY:	BS	CHECKED BY:	BS	SCALE:	N/A	1 OF 1
DRAWN BY:	CL	APPROVED BY:	BS	DATE:	05/10/2021	

ATTACHMENT III-B

SCHEMATIC DIAGRAM



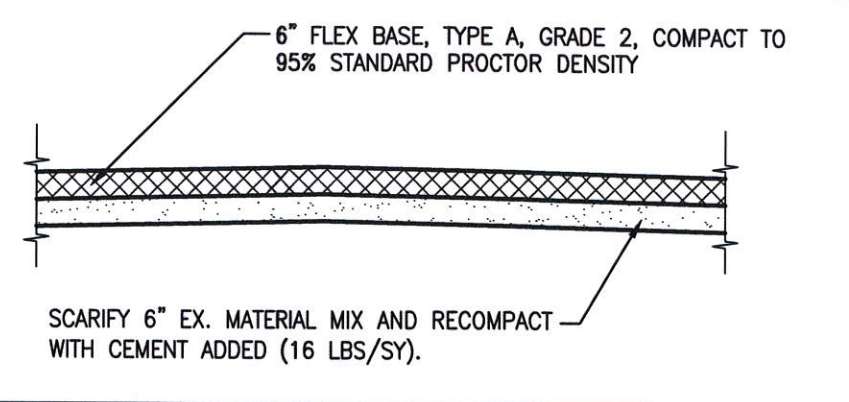
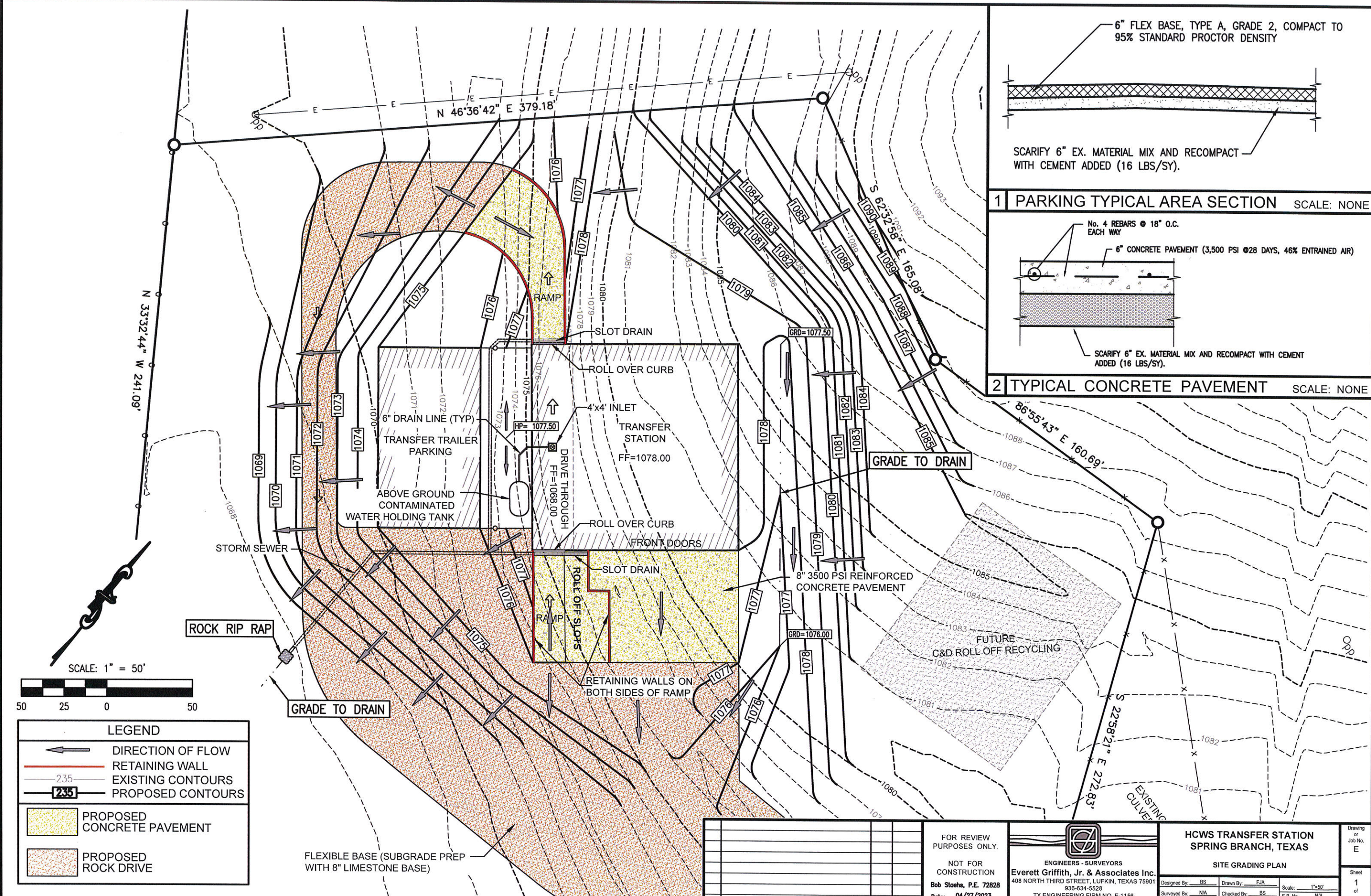
**SPRING BRANCH TRANSFER STATION
SCHEMATIC DIAGRAM**

ENGINEERS SURVEYORS
EVERETT GRIFFITH JR. & ASSOCIATES, INC.
 408 North Third Street
 Lufkin, Texas
 936/634-5528
 TEXAS ENGINEERING FIRM No. F-1156

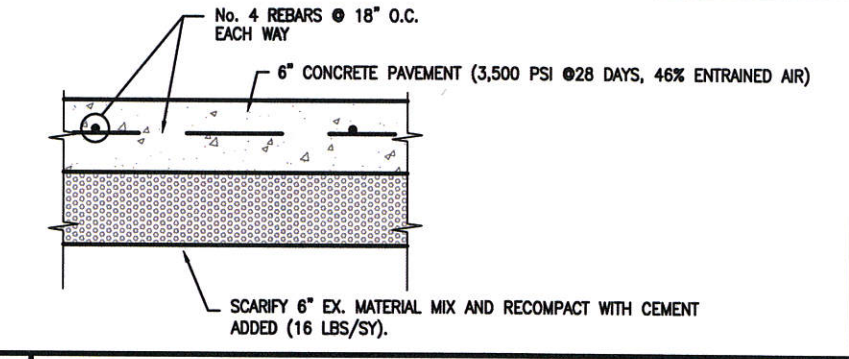
DESIGNED BY:	BS	CHECKED BY:	BS	SCALE:	N/A	1
DRAWN BY:	CL	APPROVED BY:	BS	DATE:	05/10/2021	OF 1

ATTACHMENT III-C

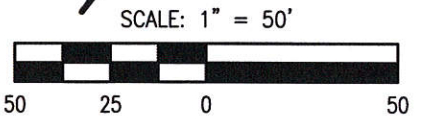
FACILITY LAYOUT



1 PARKING TYPICAL AREA SECTION SCALE: NONE



2 TYPICAL CONCRETE PAVEMENT SCALE: NONE



LEGEND	
	DIRECTION OF FLOW
	RETAINING WALL
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ROCK DRIVE

FLEXIBLE BASE (SUBGRADE PREP WITH 8" LIMESTONE BASE)

No.	Description	By	Date

FOR REVIEW PURPOSES ONLY.
NOT FOR CONSTRUCTION
Bob Stoehs, P.E. 72828
Date: 04/27/2023

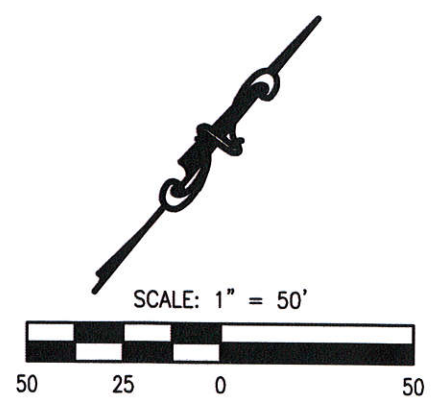
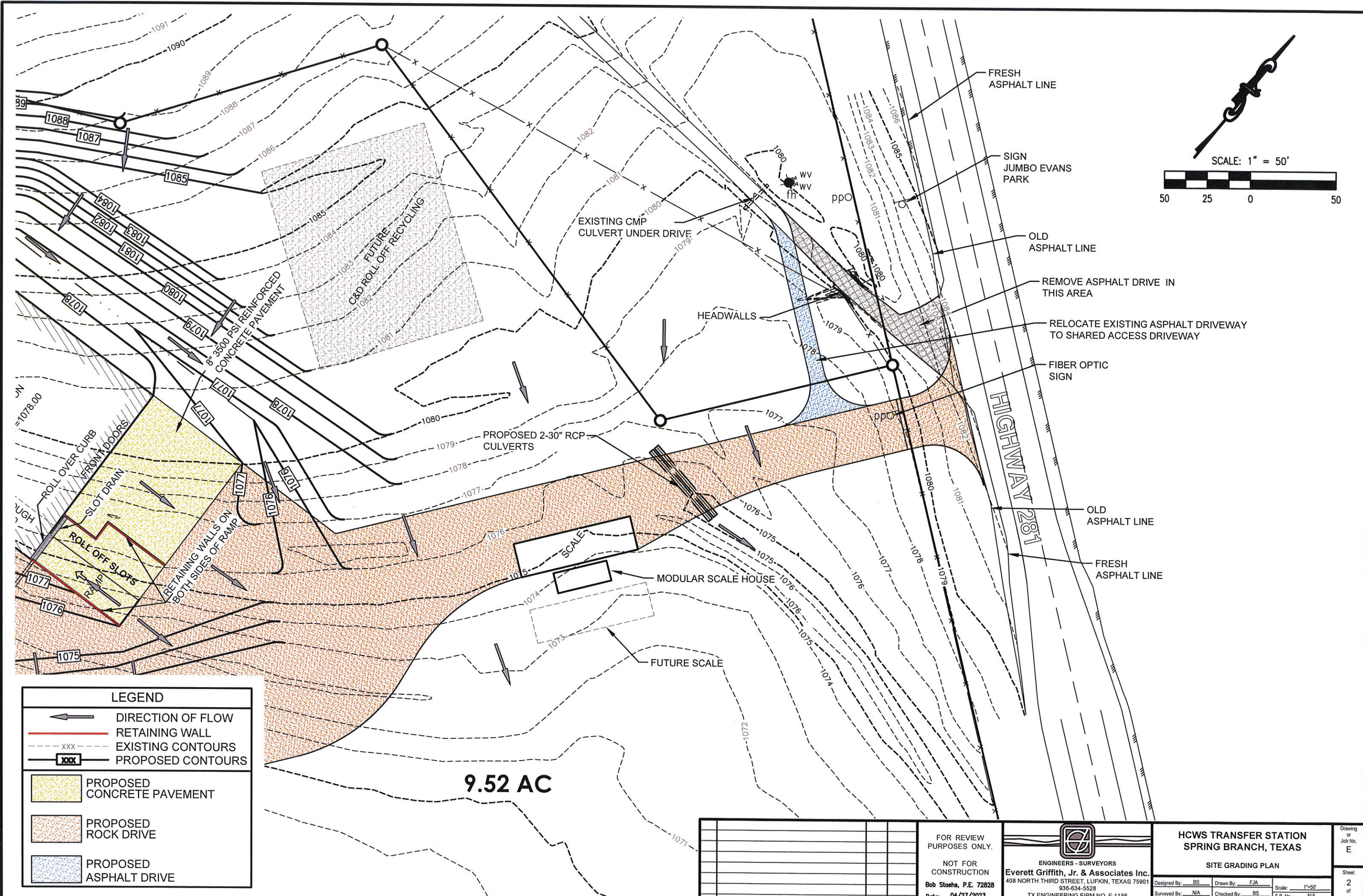
ENGINEERS - SURVEYORS
Everett Griffith, Jr. & Associates Inc.
408 NORTH THIRD STREET, LUFKIN, TEXAS 75901
936-634-5528
TX ENGINEERING FIRM NO. F-1156
TX SURVEYING FIRM NO. 100291-00

**HCWS TRANSFER STATION
SPRING BRANCH, TEXAS**

SITE GRADING PLAN

Designed By: BS	Drawn By: FJA	Scale: 1"=50'
Surveyed By: N/A	Checked By: BS	F.B. No.: N/A
Calculated By: BS	Date: 04/27/2023	Save Name: HCWS

Drawing or Job No. E
Sheet 1 of 2



LEGEND	
	DIRECTION OF FLOW
	RETAINING WALL
	EXISTING CONTOURS
	PROPOSED CONTOURS
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ROCK DRIVE
	PROPOSED ASPHALT DRIVE

9.52 AC

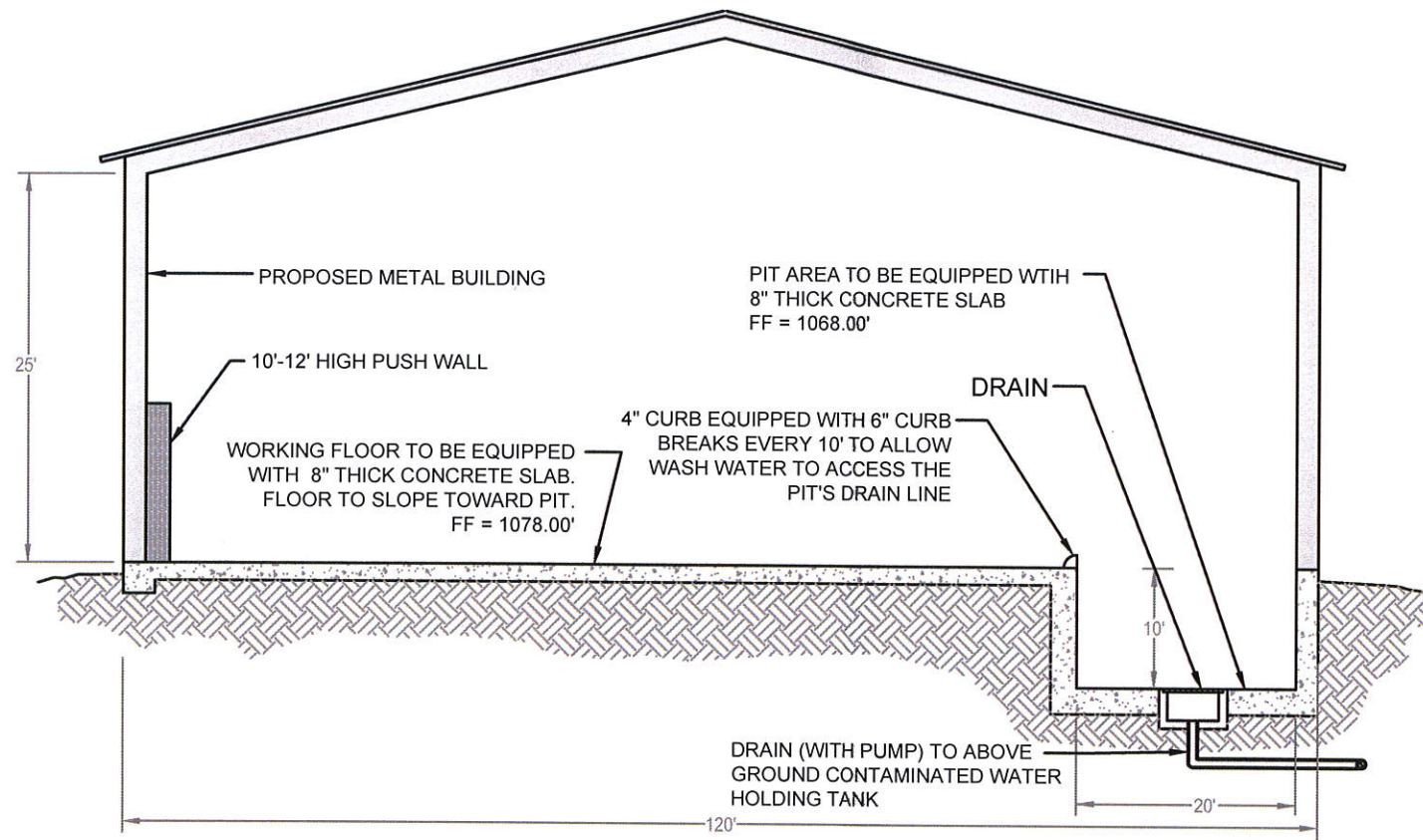
No.	Description	By	Date

FOR REVIEW PURPOSES ONLY.
 NOT FOR CONSTRUCTION
 Bob Stoehs, P.E. 72828
 Date: 04/27/2023

ENGINEERS - SURVEYORS
Everett Griffith, Jr. & Associates Inc.
 408 NORTH THIRD STREET, LUFKIN, TEXAS 75901
 938-834-5528
 TX ENGINEERING FIRM NO. F-1156
 TX SURVEYING FIRM NO. 100291-00

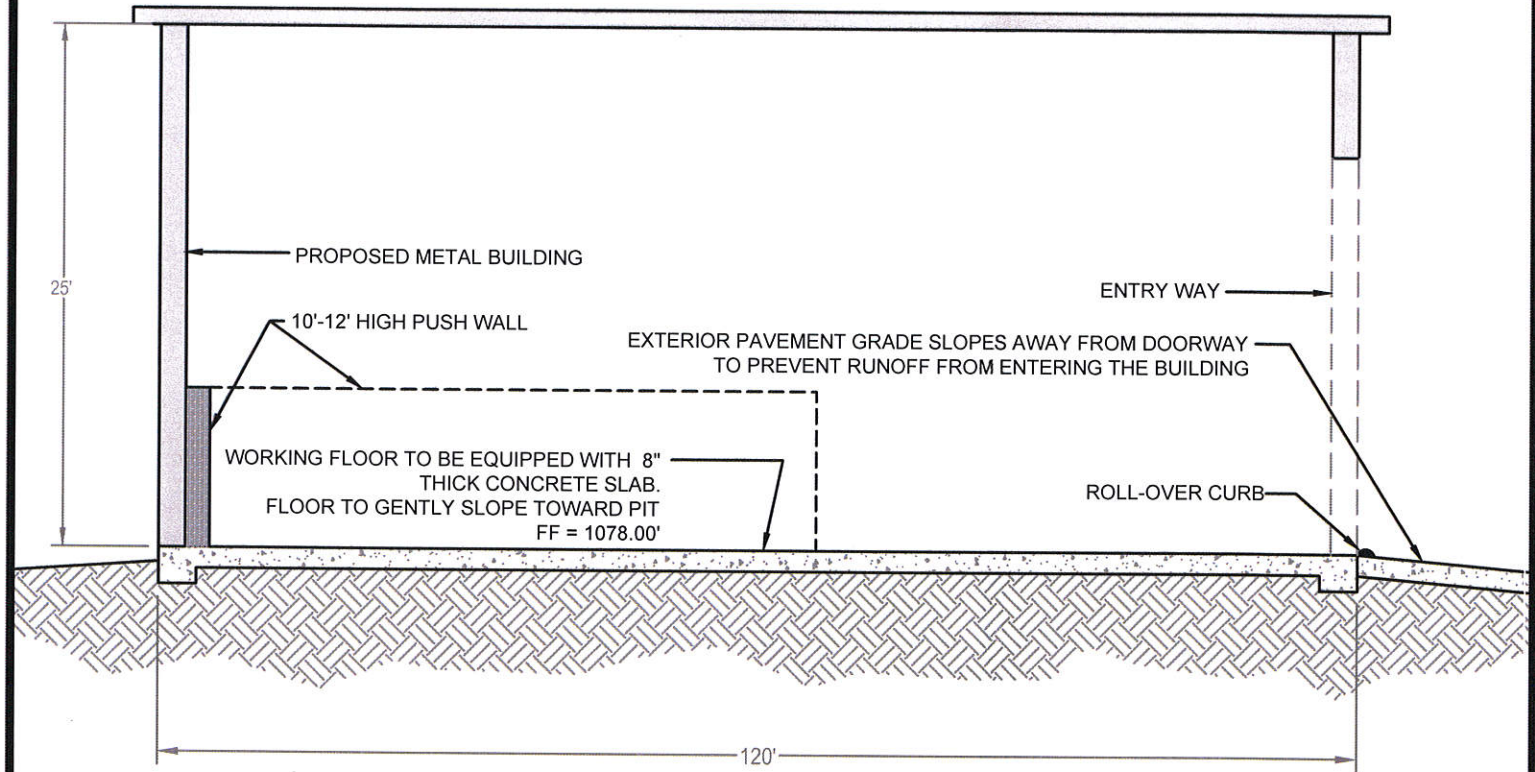
HCWS TRANSFER STATION SPRING BRANCH, TEXAS			
SITE GRADING PLAN			
Designed By: BS	Drawn By: FJA	Scale: 1"=50'	Sheet 2 of 2
Surveyed By: N/A	Checked By: BS	F.B. No.: N/A	
Calculated By: BS	Date: 04/27/2023	Save Name: HCWS	

Drawing or Job No. E
 Sheet 2 of 2



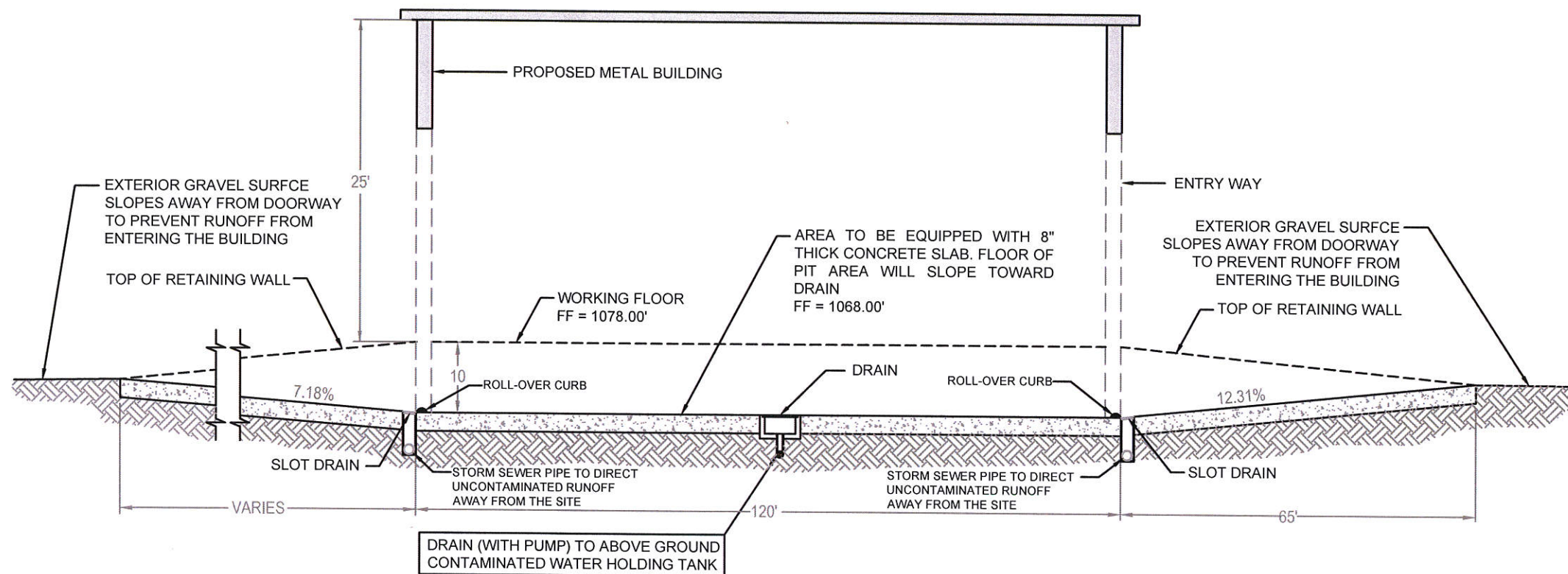
TRANSFER BUILDING: SECTION A-A

SCALE: NTS



TRANSFER BUILDING: SECTION B-B

SCALE: NTS



TRANSFER BUILDING: SECTION C-C

SCALE: NTS

FOR REVIEW
PURPOSES ONLY.

NOT FOR
CONSTRUCTION

Bob Staehs, P.E. 72828

Date: 04/27/2023

HCWS TRANSFER STATION
BUILDING SECTIONS
(PROFILE VIEWS)



ENGINEERS SURVEYORS

EVERETT GRIFFITH JR. & ASSOCIATES, INC.

408 North Third Street
Lufkin, Texas
936/634-5528

TEXAS ENGINEERING FIRM No. F-1156

DESIGNED BY:	BS	CHECKED BY:	BS	SCALE:	NONE	2
DRAWN BY:	FJA	APPROVED BY:	BS	DATE:	04/27/2023	OF
						2