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# SPRING BRANCH TRANSFER STATION

MSW PERMIT No. 2419  
HILL COUNTRY WASTE SOLUTIONS LLC (OPERATOR)  
SPRING BRANCH, COMAL COUNTY, TEXAS

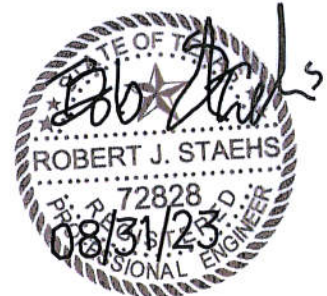
## PART II

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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

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# SPRING BRANCH TRANSFER STATION APPLICATION - PART II

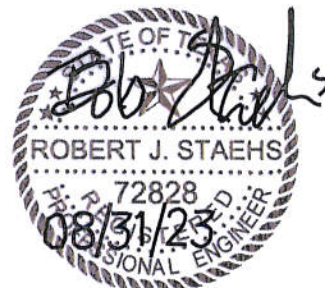
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## PART II: EXISTING CONDITIONS

### SPRING BRANCH TRANSFER STATION

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This document is Part II of the MSW permit/registration 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 and Registration Application Procedures, 30 TAC §330.61. The sections herein are divided by rule citation.

The site of the Spring Branch Transfer Station is located within the incorporated limits of the City of Spring Branch, Texas on U.S. Highway 281 N. The driveway access to the facility is located approximately 730 feet north of the intersection of Highway 281 and Jumbo Evans Boulevard in Comal County, Texas. 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 operated by Hill Country Waste Solutions LLC (**permittee**) and owned by Spring Branch Partners LLC (**facility owner and land owner**).

## **SECTION 1: EXISTING CONDITIONS SUMMARY [30 TAC §330.61(a)]**

This application is for a solid waste transfer facility to be located on a 23.80 acre tract located in Comal County, Texas. The site itself is located on U.S. Highway 281 N and the access driveway to the transfer station is located approximately 730 feet north of the intersection of Highway 281 and Jumbo Evans Boulevard. The entire site is located within the incorporated limits of the City of Spring Branch, Texas.

The transfer station will be owned by Hill Country Waste Solutions LLC, the applicant herein. Generally speaking, the northern portion of the site is currently developed with an existing residence, and several outbuildings, barns, and sheds; the southern portion of the site is currently undeveloped and covered by grass and scattered brush. The tract is bordered by Highway 281 to the east, by a commercial garden center to the north, and Jumbo Evans Sports Park to the west and south.

The proposed transfer station will only occupy a portion of the larger 23.80 acre site. The facility itself will be located on the southeastern portion of the tract adjacent to Highway 281 and will occupy approximately 9.52 acres of the site.

There are no known site-specific conditions that will require special design considerations. As indicated on the attached flood plain map (Attachment II-G), the entire property is located outside of the 100-year floodplain of Cypress Creek. The proposed transfer station will also be situated so as to not encroach upon existing telephone easements that run parallel to the highway.

The permitting of this facility is not expected to have any adverse impact on the surrounding area. The permitting of this facility will not impact threatened or endangered species or their critical habitat. The facility will comply with Texas Pollutant Discharge Elimination System (TPDES) storm water permitting requirements and is therefore not expected to adversely impact surface or ground water resources.

## **SECTION 2: WASTE ACCEPTANCE PLAN [30 TAC §330.61(b)]**

The following sections address the information required by 30 TAC §330.61(b) as pertaining to the facility's waste acceptance plan.

### **2.1 SOURCES AND CHARACTERISTICS OF ACCEPTED WASTES [30 TAC §330.61(b)(1)]** - The following sections briefly describes the sources and characteristics of the wastes to be accepted at the Spring Branch Transfer Station:

**2.1.1 WASTE SOURCES AND GENERATION AREAS [30 TAC §330.61(b)(1)(A)]** - The Spring Branch Transfer Station will accept municipal household and commercial solid wastes and construction debris generated by residents **and businesses** of Comal County and surrounding counties and municipalities. No constituent or characteristic of these wastes is expected to be a limiting parameter that will impact or influence the design and operation of the facility. Hill Country County Waste Solutions LLC currently provides service to approximately 13,000 residential customers and 1,500 commercial clients. They expect those numbers to increase significantly by the time this facility opens due to recent development and population growth in their service area. The design for this facility is based on a maximum **limit of waste acceptance capacity** of 1,500 tons of waste per day ultimately. This facility will not accept regulated hazardous waste. **At no time will the maximum amount of waste stored at the facility overnight exceed 900 tons per day.**

### **2.1.2 MAXIMUM AMOUNT OF WASTE RECEIVED AT SOLID WASTE TRANSFER STATION [30 TAC §330.61(b)(1)(B)]** - The following items address the facility capacities as required by 30 TAC §330.61(b)(1)(B) for transfer stations:

- Maximum Amount of Solid Waste to be Received Daily - As noted above, Hill Country Waste Solutions LLC desires the facility to be sized **daily maximum limit of waste acceptance to have an ultimate capacity** of 1,500 tons per day. However, at the beginning of operations the maximum daily rate of solid waste received is expected to be less than that based on their current operations.

Hill Country Waste Solutions LLC utilizes waste collection trucks to collect solid waste from residential and commercial customers in their service area. They also rent out 20, 30, and 40 cubic yard roll-off boxes. For reference, the following table provides a summary of their current waste collection volumes (based on December 2022 data):

CURRENT WASTE ACCEPTANCE RATE FOR HILL COUNTRY WASTE SOLUTIONS LLC (ALL SOURCES)			
Source	Quantity of Monthly Waste Collected*	Percentage of Waste Coming to Transfer Station**	
		Percentage	Total Monthly Waste to Transfer Station
Residential Customers	1,398 tons	90 %	1,258 tons
Commercial Customers	1,604 tons	50 %	802 tons
Roll-Off Rental Boxes	643 tons	70 %	450 tons
<b>TOTALS</b>	<b>3,645 tons</b>	<b>n/a</b>	<b>2,510 tons</b>

\* Based on historical data for waste collection by Hill Country Waste Solutions LLC in December 2022

\*\* The relative percentages in the above table indicate the percentage of collected waste expected to be delivered to the transfer station itself. The remainder will be delivered directly to landfill disposal sites by collection trucks as part of their normal route.

As indicated in the above table, Hill Country Waste Solutions LLC currently manages around 3,645 tons of waste per month. It will be more economical for the trucks servicing the Fredericksburg, Kerrville, New Braunfels, and Lockhart areas to deliver their collected waste directly to landfill disposal sites in those areas rather than transporting it to the transfer station. As such, the relative percentages in the above table indicate the percentage of collected waste expected to be delivered to the transfer station itself when it becomes operational. As shown, it is expected that approximately ~~2,593~~ 2,510 tons (or ~~74%~~ 69% of the total waste collected) will be routed to the transfer station per month. This equates to approximately ~~83.6~~ 81.0 tons per day (based on December 2022 data).

Similarly, based on December 2022 data, out of the ~~2,593~~ 2,510 tons expected seen by the facility in a month, approximately ~~699~~ 1,258 tons (or approximately ~~27.0%~~ 50.1%) is residential waste, approximately ~~1,444~~ 802 tons (or approximately ~~55.7%~~ 32.0%) is commercial waste, and the remaining 450 tons (or approximately ~~17.3%~~ 17.9%) is from roll-off rental boxes.

It is anticipated that Hill Country Waste Solutions LLC will be managing a total of 140 to 150 tons of solid waste per day by the time that the facility is permitted, constructed, and operational. With ~~74%~~ 69% of that total amount coming to the transfer station, then the facility would be seeing approximately ~~99.4 to 106.5~~ 97 to 104 tons per day at that time. The following table projects future growth, assuming an initial maximum daily rate of 106.5 tons per day (the upper value expected by the time the facility is operational).

Although a **daily maximum limit of waste acceptance capacity** of 1,500 tons per day is requested for this facility, Hill Country Waste Solutions LLC does not anticipate reaching that total volume of business in this decade. Rather, they anticipate sufficient growth over the next five years that the facility will be receiving 300 tons per day by that time (this would correspond to an annual growth of about ~~23.01%~~ 22.98% per year). The following table projects yearly values based on that growth rate for the next five years:

PROJECTED MAXIMUM AMOUNTS OF SOLID WASTE OVER THE NEXT FIVE YEARS		
Year	Maximum Daily Rate	Maximum Annual Rate
Present	104.0 tons/day	37,960.0 tons/year
2024*	127.9 tons/day	46,683.2 tons/year
2025*	157.3 tons/day	57,411.0 tons/year
2026*	193.4 tons/day	70,604.1 tons/year
2027*	237.9 tons/day	86,828.9 tons/year
2028*	292.6 tons/day	106,782.1 tons/year

\* Please note that these projections are based on assumed growth rate of 22.98 % as projected by Hill Country Waste Solutions LLC.

If that growth were to continue at that rate indefinitely, then the maximum capacity of the facility would be reached in the Year 2036. However, Hill Country Waste Solutions LLC further anticipates that this high rate of growth will not be maintained indefinitely and will actually reduce in magnitude after the Year 2028. Therefore, the facility is not expected to reach its maximum permitted rate for several decades.

- Maximum Amount of Solid Waste to be Stored at the Facility - It is requested that the facility be permitted for a daily maximum limit of waste acceptance capacity of 1,500 tons per day.

Each transfer trailer will be filled and dispatched to a TCEQ approved landfill as rapidly as possible. In the event that the trailer is not able to be dispatched immediately, then it will be tarped and staged in the transfer trailer parking area (which is separate from the transfer station building) and staged until transport becomes to the landfill becomes available. Under normal operating conditions, solid waste should be hauled to the landfill at least once per day. In no event will municipal solid waste be stored at the transfer station longer than 72 hours per week. All of the landfills in the area are closed on Sundays and on select holidays. The 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 900 tons per day the ultimate capacity of the facility.

Similarly, it is also proposed that the facility accept C&D materials in the future. When the C&D recycling and storage area becomes operational, those materials will be stored on-site for a maximum of 7 days. The C&D roll off recycling area will consist of an enclosed building and qualified containers will be provided as needed to be consistent with the requirements of 30 TAC §330.245 and §330.209.

- Intended Destination of Solid Waste Received at this Facility - All waste collected at the facility will be loaded onto transport trucks and driven to a TCEQ approved landfill for disposal.

**2.1.3 MAXIMUM ANNUAL WASTE ACCEPTANCE RATE FOR LANDFILLS [30 TAC §330.61(b)(1)(c)]** - Not applicable for this facility. This requirement pertains to landfills, not transfer stations.



**2.1.4 ACCEPTED AND PROHIBITED WASTES** - The following sections provide a listing of the wastes to be accepted at the facility and of the prohibited wastes that will not be accepted at the facility:

**2.1.4.1 ACCEPTED WASTES** - The Spring Branch Transfer Station will only accept municipal household and commercial solid wastes and construction debris. This waste will not contain special waste and no hazardous wastes will be accepted.

~~The facility will also be equipped with a Citizen Collection Station where the public will be able to drop off waste oil. A designated area will be provided at the transfer station for this purpose. The waste oil will be placed in special containers designed for that task. When full, the containers will be transported to a TCEQ approved facility for recycling.~~

The portion of the transfer station will also be set aside for the temporary storage of **treated and de-watered municipal sewage sewer sludge from local wastewater treatment plants**. The sludge will be stored at the facility temporarily prior to being transported to a separate TCEQ approved beneficial use site. **The sludge will be stored in its own bin separate from the rest of the solid waste while at the facility.**

No medical waste, Class I waste, electronic waste, or any of the items listed under Prohibited Wastes (below) will be accepted.

**2.1.4.2 PROHIBITED WASTES** - The solid wastes accepted at the facility shall not contain and the transfer station will not accept the following:

- Large Items - Items that will not fit in the box will not be accepted.
- Containers containing liquids will not be accepted.
- Empty or Full Containers that are marked with a skull and cross bones, marked Hazardous, or labeled as a chemical container will not be accepted.
- Dead animals (or live animals) will not be accepted.
- Industrial wastes will not be accepted. ~~, except with a manifest and without the specific approval of the site owner.~~
- No hazardous waste will be accepted.
- No liquids or sludge will be accepted (aside from the de-watered sewage sludge listed in Section 2.1.4.1 above).
- No ashes will be accepted. ~~without a manifest and without the specific approval of the site owner.~~
- No medical wastes will be accepted at this transfer station.
- No gasoline or diesel fuel will be accepted.
- No chemical wastes will be accepted.
- No whole used or scrap tires.
- Special Wastes - This facility will not accept special wastes as defined in ~~30 TAG §330.3(148)~~ **30 TAC §330.3(154)**.

- Batteries - This facility will not accept lead acid storage batteries
- Chlorinated Fluorocarbons - Items containing chlorinated fluorocarbons (CFC's), such as refrigerators, freezers, and air conditioners, will not be accepted.
- Regulated Asbestos Containing Materials (RACM's) will not be accepted at this facility.
- Polychlorinated Biphenyls (PCBs) wastes, as defined under 40 Code of Federal Regulations, Part 761.

**2.1.5 WASTE RECOVERY [30 TAC §330.61(b)(1)(A)]** - The roll-off spots at the facility are for brush and metal recycling. A portion of the site is slated for future development as a C&D roll-off and recycling area. No scavenging will be allowed at the facility.

**2.2 REGISTRATION QUALIFICATIONS [30 TAC §330.61(b)(2)]** - Not applicable. The facility will not comply with 30 TAC §330.9(c)(3) because it will transfer more than 125 tons of waste per day. A permit is being sought for this facility.

## SECTION 3: GENERAL LOCATION MAPS [30 TAC §330.61(c)]

The following information is provided in order to comply with the requirements of 30 TAC §330.61(c). Note that multiple figures were required in some cases to show all the required items from that section. For ease of reading, the following table summarizes the attached maps and the data that they display:

**3.1 GENERAL LOCATION MAP AND WINDROSE** - Attachment II-A contains General Location Maps showing major features of Comal County and the location of the project site therein. The map is also equipped with the following items:

- Windrose [30 TAC §330.61(c)(1)] - A copy of the windrose for San Antonio (as obtained from the TCEQ Air Quality website) is included on the General Location Map. San Antonio is located approximately 30 miles south of the project site and represents the nearest location for which a windrose was available.
- Features within One Mile of the Facility [30 TAC §330.61(c)(4)] - Features within 1 mile of the facility are generally indicated on the General Location Map. Spring Branch Baptist Church is located approximately 1,500 feet north of the facility. There are no known schools, licensed day care centers, hospitals, nursing homes, or cemeteries within one mile of the facility. For ease of reading, the locations of these features have been indicated on the aerial photograph in Attachment II-E that shows features within a 1 mile radius of the facility. Refer to the map in Attachment II-F and to Sections 7 and 8 below for more information regarding ponds, residential, and commercial areas within 1 mile of the facility's boundaries.
- Latitude and Longitude [30 TAC §330.61(c)(6)] - The location of the project site is indicated on the map with the latitude and longitude of the site noted.
- Area Streams [30 TAC §330.61(c)(7)] - These are generally indicated on this map.
- Airports within 6 Miles of the Facility [30 TAC §330.61(c)(8)] - This map has been marked to show the location of Dean Ranch Airport, which is approximately 0.6 miles southeast of the site. It is the only airport within 6 miles of the project site, although Kestrel Air Park (also shown on the general location map) is located just slightly beyond that limit to the southwest of the site.

**3.2 FEATURES WITHIN 500 FEET OF THE PROJECT SITE [30 TAC §330.61(c)(2)-(4)]** - Attachment II-B shows a recent aerial photograph of the project site and all features within 500 feet of its boundaries. In order to be conservative, the 500 foot distance is taken from the boundaries of the 23.80 acre tract of land on which the transfer station is located rather than from the boundaries of the transfer station itself. The following items are shown or otherwise indicated:

- Known Nearby Water Wells [30 TAC §330.61(c)(2)] - **An existing water well is located on the 23.801 acre tract.** The Texas Water Development Board's Groundwater Database was checked for information regarding other known wells in the area. According to that information, there appears to be one domestic water well and one plugged well within 500 feet of the project site's boundaries. There is also one domestic well and one irrigation well that lie slightly beyond the 500 foot limit that are also included in this section for completeness. The following table provides a summary of relevant data for those wells from the drillers' reports:

SUMMARY OF KNOWN WATER WELLS			
Well ID No.	Location	Proposed Use	Notes
59520	About 185 feet north of the Site Boundary	Domestic	Drilled in 2005. Located at the adjacent commercial garden center. Depth is 480 feet; 25-30 gpm yield. Water level listed as 280 feet below ground surface on 05-19-2005. Owner's name listed as Jack Brooks.

SUMMARY OF KNOWN WATER WELLS			
Well ID No.	Location	Proposed Use	Notes
407287	About 280 feet north of the Site Boundary	Domestic	This well was drilled in 2015; it is noted as having a bore depth of 564 feet. Owner: Karlis Ercums.
100122	About 275 feet northeast of Site Boundary	Withdrawal of water (plugged well)	This a plugged well. It appears to be located within the highway right of way. Owner is listed as TxDOT PHARR. Depth listed as 180 feet.
168211	About 525 feet west of Site Boundary	Irrigation	Drilled in 2008. Located at Jumbo Evans Park; listed owner is SB Youth Football Association. Depth is 400 feet; estimated 22 gpm yield. Water level listed as 165 ft below ground surface in 2008.
35938	About 530 feet south of the Site Boundary	Irrigation	Drilled in 2004. Located at Jumbo Evans Park; listed owner is Comal County (Jumbo Evans Park). Depth is 248 feet; estimated yield is 15 - 20 gpm. Water level listed as 90 ft below ground surface in 2004.

- All Structures and Inhabitable Buildings [30 TAC §330.61(c)(3)] - The aerial photograph shows all structures within 500 feet of the project site's boundaries.
- Roadways [30 TAC §330.61(c)(5)] - All access to the site will be from southbound U.S. Highway 281, which is a paved two lane roadway with shoulders. The facility's access driveway ties directly to this highway. The site is not accessible by any other state highway or city street.
- Property Boundary of the Facility [30 TAC §330.61(c)(9)] - The property boundary is indicated on the aerial photograph. The portion of the site occupied by the transfer station is also clearly delineated therein for reference.
- Easements Within or Adjacent to the Facility [30 TAC §330.61(c)(10)] - There is an existing 20' wide telephone easement running parallel to the eastern boundary of the site. There do not appear to be any drainage easements within the site boundaries.

In accordance with 30 TAC §330.551, no solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the facility.

- Facility Access and Control [30 TAC §330.61(c)(11)] - Refer to the figure in Attachment II-C (Project Site at Developed Conditions) for information regarding facility access and control features.
- Archeological, Historic, and Aesthetic Sites [30 TAC §330.61(c)(12)] - There are no known archeological or historic sites located on or adjacent to the project site. In order to verify this, a letter was submitted to the State Historical Preservation Officer (SHPO) on September 30, 2022 to ask for their review. Their comments (dated November 2, 2022) are as follows:

*"No effect on identified archeological sites or other cultural resources. However, if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains."*

They also verified that no archeological survey of the project area is needed. Please refer to Attachment II-H for copies of this correspondence.

## **SECTION 4: FACILITY LAYOUT MAPS [30 TAC §330.61(d)]**

Attachment II-C contains two drawings with recent aerial photographs of the project site. The first drawing shows the project site at existing conditions. The second drawing has been modified to show the locations of the site improvements as required by 30 TAC §330.61(d).

- 4.1 FACILITY UNITS AND BUILDINGS [30 TAC §330.61(d)(1), (2), and (4)]** - Attachment II-C contains a figure showing a recent aerial photograph of the site at existing conditions. A second figure is also included therein which shows the site at proposed conditions with the facility layout (including buildings and driveways) superimposed on the same aerial photograph. In addition, Attachment II-C also contains a site grading plan that clearly shows the locations of all buildings, driveways, and appurtenances.
- 4.2 INTERIOR FACILITY ROADWAYS AND ENTRANCE ROADS [30 TAC §330.61(d)(2) and (8)]** - The facility's interior driveway and entrance driveway is clearly shown on the Site Grading Plan in Attachment II-C.
- 4.3 LOCATIONS OF MONITOR WELLS [30 TAC §330.61(d)(3)]** - This facility has no associated monitor wells.
- 4.4 FENCING [30 TAC §330.61(d)(6)]** - Access to the site will be controlled by a security fence surrounding the site and gates at the entrances.
- 4.5 MAINTENANCE OF WINDBREAKS [30 TAC §330.61(d)(7)]** - The site has a four wire fence around it to prevent the entry of livestock and to discourage unauthorized entry by the public. Some additional screening is provided by existing brush and trees which will be maintained during the operations of the facility.
- 4.6 CONSTRUCTION SEQUENCE OF THE FACILITY [30 TAC §330.61(d)(5)]** - The driveway, transfer building, office building/scale house, scale, transfer trailer parking area, and appurtenances are to be constructed as part of the site development. **Note that the transfer trailer parking area is separate from the transfer station building.** An additional scale and construction and demolition waste roll-off and recycling area are anticipated to be constructed at the facility at some future date.
- 4.7 LANDFILL UNITS [30 TAC §330.61(d)(9)]** - This section is not applicable to this facility, because this permit application is for a transfer station, not a landfill. At no time will this facility be utilized as a landfill.

## SECTION 5: GENERAL TOPOGRAPHIC MAP [30 TAC §330.61(e)]

Attachment II-D shows relevant portions of the 7.5 minute USGS map of the *Spring Branch, Texas* Quadrangle as required by 30 TAC §330.61(e). The boundaries of the Spring Branch Transfer Station are clearly overlaid onto this map. The exhibit is provided at a scale of one inch equals 2,000 feet and with 20 foot contour intervals. The map shows the surrounding area in over a mile radius from the project site. In addition, Attachment II-C contains the Site Grading Plan for the facility on a smaller scale. The contours therein are at 1 foot intervals. That figure shows more detail of the site and clearly identifies the transfer station building, office/scale-house, transfer trailer parking area, scale, access drive, and appurtenances. **Note that the transfer trailer parking area is separate from the transfer station building.** The proposed locations of the future scale and C&D roll-off recycling area are also indicated.

## **SECTION 6: AERIAL PHOTOGRAPH [30 TAC §330.61(f)]**

An aerial photograph is provided in Attachment II-E that shows the area within a one-mile radius of the Spring Branch Transfer Station's boundaries. The boundaries of the site are clearly marked on this exhibit. For ease of reading, a one-mile offset line from the site boundaries is also provided.

This permit application is submitted in order for the facility to operate as a solid waste transfer station. This facility will not be operated as a landfill facility; therefore, no fill areas are located at the facility.

## **SECTION 7: LAND-USE MAP [30 TAC §330.61(g)]**

The entire Spring Branch Transfer Station site is located within the incorporated limits of the City of Spring Branch. There currently is no established zoning in the project area.

As noted above, Attachment II-E contains a recent aerial photograph showing the area within a mile of the boundaries of the project site. Attachment II-F contains a land-use map that was developed based on the apparent land uses observed in the aerial photograph. Every effort has been made to indicate areas that are currently residentially developed.

There are no known schools or licensed daycare centers within a mile of the facility's boundaries..

Spring Branch Baptist Church is located 1,500 feet north of the project site. No other churches are known to exist within a mile of the facility.

There are no known cemeteries within one mile of the facility.

There is an existing 20 ft wide telephone easement running parallel to the eastern boundary of the site. In accordance with 30 TAC §330.551, no solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the facility.



**SECTION 8: IMPACT ON SURROUNDING AREA [30 TAC §330.61(h)]**

The following sections contain information regarding the likely impacts of the facility on cities, communities, groups of property owners, or individuals:

**8.1 ZONING MAP [30 TAC §330.61(h)(1)]** - The City of Spring Branch does not currently have a zoning ordinance.

**8.2 SURROUNDING LAND USES [30 TAC §330.61(h)(2)]** - A land-use map was constructed for Attachment II-F that indicates general land uses within a one-mile radius of the facility's boundaries. That land use map was based on recent aerial photographs of the area and data obtained from the Comal County Appraisal District. The following table summarizes the general land uses within that area:

SUMMARY OF EXISTING GENERAL LAND USE WITHIN 1-MILE OF PROJECT SITE		
General Land Use	Estimated Percentage of Land within 1 mile of the Facility	Description
Project Site	0.9%	This is the area occupied by the project site
Undeveloped Areas	56.4%	These areas are estimated from a recent aerial photograph of the area. These undeveloped areas appear to be covered mostly by grass or trees.
Residential Areas	24.7%	These area are based on solely observation of residences from the aerial photograph. For the most part, these areas incorporate the area visibly occupied by the residences and their yards and appurtenances. Note that some residential areas with thick tree coverage may have been inadvertently overlooked due to the vegetation screening the area.
Government	0.1%	This site is owned by the U.S. Postal Service
Commercial Areas	2.6%	These areas indicate listed businesses in the area.
RV Parks	4.7%	These areas represent the approximate boundaries of the listed RV parks in the area.
Water Features (Ponds)	0.1%	Several ponds are visible in the aerial photograph. This area represents the total percentage of the area that is occupied by surface water from those ponds.
Recreational Areas	2.4%	Jumbo Evans Sports Park is located south of the project site. There are no other known parks or recreational areas within a mile of the facility
Churches	0.8%	Spring Branch Baptist Church is located immediately north of the project site. There are no other known churches within a mile of the site.
Roadways	7.1%	This is the approximate area occupied by U.S. Highway 281, other existing roadways, and their right of ways.

At the present time about 24.7% of the area is occupied by residential development within a mile of the facility, although this is expected to increase steadily over time. Please refer to Exhibit II-F for more information regarding surrounding land uses and their general distribution in the area.

**8.3 GROWTH TRENDS WITHIN 5 MILES OF THE FACILITY [30 TAC §330.61(h)(3)]** - As noted previously, the Spring Branch Transfer Station is located within Comal County within the incorporated

limits of the City of Spring Branch. No specific growth projections are available solely for the immediate area within five miles of the facility so, in order to get an indication of potential future growth, the following table is provided that summarizes the population projections for Comal County as obtained from the Texas Water Development Board (TWDB) 2021 Regional Water Plan. The Plan did not provide growth projections for Spring Branch, but it did provide projections for the Canyon Lake Water Service in whose CCN the project site is located; so those projects are also provided for comparison:

GROWTH PROJECTIONS					
Year	Comal County		Canyon Lake Water Service		Notes
	Population	Growth Rate	Population	Growth Rate	
2020	152,499	---	48,660	---	These population projections were obtained from the Texas Water Development Board's 2021 Regional Water Plan
2030	193,188	26.68 %	63,573	30.65 %	
2040	234,515	21.39 %	79,783	25.50 %	
2050	276,239	17.79 %	96,323	20.73 %	
2060	317,682	15.00 %	112,342	16.63 %	
2070	357,464	12.52 %	127,327	13.34 %	

The projections utilized by the TWDB expect a significant rate of population growth for this area over the next decade with the rate slowing slightly over the following decades.

**8.4 PROXIMITY OF SITE [30 TAC §330.61(h)(4)]** - As required under 30 TAC §330.61(h)(4), the following sections provide information regarding the proximity of the site to residences and other uses within one mile of the facility:

**8.4.1 POPULATION DENSITIES WITHIN A MILE OF THE SITE** - The Environmental Protection Agency's *EJScreen* website was consulted for information regarding population densities within a one-mile radius of the facility. Based on that information, *EJScreen* lists the population density of the area to be 255 people per square mile.

**8.4.2 PROXIMITY TO RESIDENCES** - The nearest offsite residence is located approximately 1,200 feet to the west of the project site's western boundary.

**8.4.3 PROXIMITY TO SCHOOLS** - There are no known schools within a mile of the project site's boundaries.

**8.4.4 PROXIMITY TO CHURCHES** - Spring Branch Baptist Church owns and is located 1,500 feet north of the project site.

**8.4.5 PROXIMITY TO CEMETERIES** - There are no known cemeteries within a mile of the project site.

**8.4.6 PROXIMITY TO HISTORIC STRUCTURES AND SITES** - There are no known historic structures or sites within a mile of the facility.

**8.4.7 PROXIMITY TO ARCHEOLOGICALLY SIGNIFICANT SITES** - There are no known archeologically significant sites within a mile of the facility.

**8.4.8 PROXIMITY TO SITES HAVING EXCEPTIONALLY AESTHETIC QUALITY** - There are no known sites having exceptional aesthetic quality within a mile of the facility.

**8.5 WATER WELLS WITHIN 500 FEET [30 TAC §330.61(h)(5)]** - As shown on the attached map, there is an existing well located on the 23.801 acre tract. The TWDB Groundwater Database was consulted for information pertaining to existing water wells in the area. According to that information, there is one domestic water well and one plugged well within 500 feet of the project site's boundaries. There is also one domestic well and one irrigation well that lie slightly beyond the 500 foot limit . These are listed in detail in Section 3.2 above.

## SECTION 9: TRANSPORTATION [30 TAC §330.61(i)]

The following sections provide information regarding roadways within a mile of the facility:

- 9.1 AVAILABILITY AND ADEQUACY OF ROADS [30 TAC §330.61(i)(1)]** - The facility will be accessed from the southbound lane of U.S. Highway 281, which runs parallel and immediately adjacent to the eastern boundary line of the project site. The roadway consists of two asphalt paved lanes with shoulders.
- 9.2 VOLUME OF VEHICULAR TRAFFIC [30 TAC §330.61(i)(2) and (3)]** - It is requested that this transfer station be permitted for a daily maximum limit of waste acceptance capacity of 1,500 tons per day. However, it should be noted that that maximum rate is not expected to be reached in the near future. Hill Country Waste Solutions LLC is expected to average 300 tons per day by the Year 2028, with the peak permitted capacity of 1,500 tons per day not being reached for several decades.

The following sections estimate the amount of vehicular traffic associated with the facility on roadways within a mile of the transfer station at the anticipated Year 2028 acceptance rate of 300 tons per day and at the ultimate peak capacity of 1,500 tons per day:

- 9.2.1 EXISTING TRAFFIC DATA** - The Texas Department of Transportation's (TxDOT) Traffic Count Database System (TCDS) was consulted for travel data for Highway 281 near the site. The TCDS shows annual average daily traffic (AADT) on TxDOT maintained roads, county roads and city streets that were collected for the listed reporting year. The nearest location for which a count was available was near the intersection of Highway 281 and Spring Branch Road, which is located approximately 1.2 miles south of the project site. The following table summarizes a decade of daily traffic data for Highway 281:

ANNUAL AVERAGE DAILY TRAFFIC (AADT) ON HIGHWAY 281 NEAR SITE			
Year	Annual Average Daily Traffic (AADT)		
	Two Way	North Bound Lane	South Bound Lane
2021	27,067	12,887	14,180
2020	19,445	9,451	9,994
2019	21,846	10,844	11,002
2018	19,626	---	---
2017	18,912	9,690	9,221
2016	17,729	8,863	8,867
2015	16,658	8,174	8,485
2014	16,689	---	---
2013	15,315	---	---
2012	17,800	---	---

As noted above, the average traffic on Highway 281 has steadily increased over the past decade. Access to the site will be from the south bound lane of Highway 281. For the sake of comparison, it is assumed that the current traffic on that section of highway at the project site sees 14,180 vehicles per day.

- 9.2.2 VEHICULAR TRAFFIC (HILL COUNTRY WASTE SOLUTIONS LLC VEHICLES ONLY)** - The

following sections provide estimates the number of vehicles expected to access the facility when it reaches its anticipated 300 tons of waste in the Year 2028 and its maximum **permitted waste acceptance rate capacity** of 1,500 tons per day. Please note, however, that the maximum **permitted rate capacity** is not expected to be reached for several decades:

- A. **COLLECTION TRUCKS** - Hill Country Waste Solutions LLC currently operates 8 residential collection trucks and 6 commercial collection trucks. The residential trucks have a 25 cubic yard capacity (approximately 7 tons) and commercial collection trucks have a 40 cubic yard capacity (approximately 10 tons).
- B. **TRANSFER TRUCKS** - The transfer trucks will remove the waste from the transfer station and deliver it to the landfill for final disposal. The waste will be transported in walking floor trailers that are of the 130 cubic yard variety with a legal carrying capacity of 26 tons.
- C. **EMPLOYEE PERSONAL VEHICLES** - It is anticipated that only three full-time employees will be stationed at the facility during normal operations. The Hill Country Waste Solutions LLC collection fleet will be based out of a separate facility and will not park their personal vehicles at the Spring Branch Transfer Station while on duty. As such, it is assumed herein that on-site personnel will only contribute 3 personal vehicles accessing the site on a daily basis.
- D. **GENERAL PUBLIC** - Hill Country Waste Solutions LLC anticipates allowing public drop-offs after the facility opens. Due to the distances involved, it will be far more convenient and economical for most of the customers of Hill Country Waste Solutions LLC to have their solid waste collected at their residences by the collection trucks. However, a small segment of the population living within a short distance of the transfer station may deem it more economical or convenient to simply transport their solid waste to the facility upon their own initiative. ~~To this end, an area will be designated in which the public will be able to deposit their domestic waste directly into front-load bins or roll-off boxes.~~ **Members of the public who wish to utilize the facility will be directed to the transfer station building where they may unload their waste directly to the tipping floor.** It is estimated that this volume of waste will account for no more than 2 to 3 tons per day at the facility. The vehicles that the public utilize are not uniform in nature and so are assumed to have a fairly small transport capacity. In order to remain conservative, it is assumed herein that each public vehicle can transport approximately 1.0 cubic yard of un-compacted solid waste. Assuming a value of 400 lbs/cy for un-compacted waste, this equates to each vehicle carrying 0.2 tons. Therefore, approximately 15 vehicles would be needed to deliver 3 tons of solid waste to the facility.
- E. **ESTIMATED NUMBER OF TRIPS AT 300 TONS PER DAY (YEAR 2028)** - As noted in Section 2.1.2 (above), approximately ~~27.0%~~ **50.1%** of the waste at the facility is from residential collection. Assuming 300 tons of waste per day in the Year 2028, then this would equate to ~~81~~ **150** tons per day of residential waste. Since the residential collection trucks can transport approximately 7 tons each, then this would require ~~41.6~~ **21.4** trips (rounded up to ~~42~~ **22**).

Similarly, commercial waste makes up approximately ~~32.0%~~ **55.7%** of the waste received at the facility. Assuming 300 tons per day in the Year 2023 would equate to approximately ~~467.4~~ **96** tons of commercial waste. Since the commercial collection trucks can transport 10 tons, then this would equate to ~~46.7~~ **9.6** trips (rounded up to ~~47~~ **10**).

Hill Country Waste Solutions LLC also rents out 20, 30, and 40 cubic yard roll-off boxes. As noted in Section 2.1.2 (above), approximately ~~47.3%~~ **17.9%** of the waste received at this facility will be from that source. Accordingly, assuming 300 tons per day at the facility in the Year 2028 would correspond to ~~53.7~~ **54.9** tons from this source. Assuming an average of 7.5 tons per box, then this would equate to ~~7.2~~ **6.9** trips (rounded to 7).

Assuming that the transfer trucks remove 300 tons per day from the transfer station and deliver it to the landfill for final disposal with a legal carrying capacity of 26 tons, then this would equate to 11.5 trips (rounded up to 12).

As noted above, it is anticipated that employees personal vehicles will account for 3 trips per day and that the public accessing the facility will account for 15 vehicles per day.

The following table summarizes the maximum volume of vehicles expected for the facility when it is operating at 300 tons per day:

Estimated Volume of Vehicles per Day to the Facility at 300 tons/day (Circa 2028)	
Residential Collection Trucks	12 22 vehicles
Commercial Collection Trucks	17 10 vehicles
Transfer of Rental Boxes	7 vehicles
Transfer Trucks	12 vehicles
Personal Vehicles of Facility Staff	3 vehicles
Public Vehicles	15 vehicles
<b>Total Number of Hill Country Waste Solutions, LLC Vehicles</b>	<b>66 69 vehicles</b>

Access to the transfer station will be via the south bound lane of Highway 281. Assuming the average daily traffic on the south bound lane is 14,180 vehicles per day (the 2021 AADT), then the estimated 66 69 vehicles associated with this project would equate to only 0.5% of the traffic on that roadway. Similarly, assuming that the two way AADT (for both north and south bound lanes) is 27,067 vehicles per day (the 2021 AADT), then the 66 69 vehicles associated with this project would account only 0.2% of that total. As such, the operation of the Spring Branch Transfer Station is not expected to significantly increase the volume of traffic flow on Highway 281.

**F. ESTIMATED NUMBER OF TRIPS AT MAXIMUM PERMITTED ACCEPTANCE RATE CAPACITY (1,500 TONS/DAY)** - The facility is not expected to reach its daily maximum limit of waste acceptance capacity of 1,500 tons per day for several decades. However, at that capacity and assuming 27.0% 50.1% of the waste at the facility is from residential collection, then approximately 751.5 405 tons would be collected by residential collection trucks. Since the residential collection trucks can transport approximately 7 tons each, this would require 107.4 57.8 trips (rounded up to 58 107).

Similarly, assuming that 32.0% 55.7% of the waste received at the facility is commercial, then this would equate to 836 480.0 tons collected by the commercial collection trucks. Since the commercial collection trucks can transport 10 tons, then this would equate to 48 83.6 trips (rounded up to 84).

Hill Country Waste Solutions LLC also rents out 20, 30, and 40 cubic yard roll-off boxes. Assuming that 47.3% 17.9% of the waste received at this facility will be from that source, then this would equate to 259.5 268.5 tons per day when the facility is operating at full capacity. Assuming an average of 7.5 tons per box, then this would equate to 34.6 35.8 trips (rounded up to 36 35).

Assuming that the transfer trucks remove 1,500 tons per day from the transfer station and deliver it to the landfill for final disposal with a legal carrying capacity of 26 tons, then this would equate to 57.7 trips (rounded up to 58).

As noted above, it is anticipated that employees personal vehicles will account for 3 trips per day and that the public accessing the facility will account for 15 vehicles per day.

The following table summarizes the maximum volume of vehicles expected for the facility when it is operating at 1,500 tons per day:

Estimated Volume of Vehicles per Day to the Facility at Maximum Permitted Waste Acceptance Rate Capacity (1,500 tons per day)	
Residential Collection Trucks .....	58 107 vehicles
Commercial Collection Trucks .....	84 48 vehicles
Transfer of Rental Boxes .....	35 36 vehicles
Transfer Trucks .....	58 vehicles
Personal Vehicles of Facility Staff .....	3 vehicles
Public Vehicles .....	15 vehicles
<b>Total Number of Hill Country Waste Solutions, LLC Vehicles .</b>	<b>253 267 vehicles</b>

Access to the transfer station will be via the south bound lane of Highway 281. Assuming the average daily traffic on the south bound lane is 14,180 vehicles per day (the 2021 AADT), then the estimated 253 267 vehicles associated with this project would equate to 1.8% of the traffic on that roadway. Similarly, assuming that the two way AADT (for both north and south bound lanes) is 27,067 vehicles per day (the 2021 AADT), then the 253 vehicles associated with this project would account only 0.9% 1.0% of that total.

**9.3 DESIGN COORDINATION [30 TAC §330.61(i)(4)]** - The Texas Department of Transportation (TxDOT) is responsible for the maintenance of Highway 281. As required, the design of the proposed driveway access to the project site was coordinated with the local TxDOT office for traffic and location restrictions. The proposed site plan was submitted to the local TxDOT office on February 2, 2023 and on April 27, 2023 for their review and comment. At that time, feedback was requested for any traffic or location restrictions that TxDOT might require. Refer to Attached II-H for a copy of that correspondence.

In their response, Mr. Jorge A. Millan, P.E., CFM (TxDOT San Antonio District - New Braunfels Area Office) reply was as follows: "TxDOT has no objection to the proposed driveway location and configuration". He also provided additional instructions to follow when the driveway construction permit was applied for. TxDOT voiced no additional requirements for the project. Please refer to Attachment II-H for a copy of that correspondence.

Construction of the transfer station (including the proposed driveway) will not begin until it is permitted by TCEQ. Since TxDOT driveway permits normally expire after six months, the driveway permit application will not be submitted until the facility has been permitted.

**9.4 IMPACT OF THE FACILITY ON AIRPORTS [30 TAC §330.61(i)(5)]** - This requirement applies only to landfill units and landfill mining operations. As such, it is not applicable for this solid waste transfer station permit application.

## **SECTION 10: GENERAL GEOLOGY AND SOILS STATEMENT [30 TAC §330.61(j)]**

The following sections generally address the geology and soils at the Spring Branch Transfer Station site:

**10.1 GENERAL GEOLOGY DATA FOR THE SITE [30 TAC §330.61(j)(1)]** - Data obtained from the Texas Water Development Board's (TWDB) Interactive Groundwater Viewer indicates that the Lower Glen Rose Formation is the geologic formation on which the facility is located. It is described therein as consisting of limestone, dolomite, and marl in alternating resistant and recessive beds forming stair-step topography; limestone, aphanitic to fine grained, hard to soft and marly, light gray to yellowish-gray; and dolomite, fine grained, porous, yellowish brown. It indicates that marine mega-fossils are present which include molluscan steinkerns, rudistids, oysters, and echinoids. The part of the formation is further indicated to be more massive and contains some rudistid reefs. The thickness of the Glen Rose Formation is listed as being 900 feet.

**10.2 GENERAL SOIL DATA FOR THE SITE [30 TAC §330.61(j)(1)]** - The United States Department of Agriculture - Soil Conservation Service's *Web Soil Survey* was consulted with regard to soil data at the project site. According to that information, the eastern portion of the 23.80 acre property is located in an area of Comfort-Rock outcrop complex and the southern and western portions of the property are located in an area of Krum clay.

The transfer station itself will be located on the southern portion of the property. Approximately 2/3 of the transfer station boundaries are located within areas of Comfort-Rock outcrop complex with the remaining 1/3 located in an area of Krum Clay.

The following sections contain general information for those two soil types as summarized from the *Survey*:

**10.2.1 COMFORT-ROCK OUTCROP COMPLEX, 1 TO 8 PERCENT SLOPES** - This soil type is not prime farmland. Its composition is listed as being 70% Comfort and similar soils, 15% Rock Outcrop, and 15% Minor Components. Those estimates are based on observations, descriptions, and transects of the map unit. The components are further described below:

A. Description of Comfort Component - This component makes up 70% of the Comfort-Rock Outcrop Complex. The following table summarizes relevant descriptions from the *Survey* for this component:

<b>Description of Comfort Component</b>	
<b>Setting</b>	<u>Landform</u> : Ridges
	<u>Parent material</u> : Residuum weathered from limestone
<b>Typical profile</b>	0 to 6 inches: very stony clay 6 to 13 inches: extremely stony clay 13 to 40 inches: bedrock
<b>Properties and qualities</b>	<u>Slopes</u> : 1 to 8 percent slopes
	<u>Depth to restrictive feature</u> : 10 to 20 inches to lithic bedrock
	<u>Drainage class</u> : Well drained
	<u>Runoff class</u> : Very high
	<u>Capacity of the most limiting layer to transmit water (Ksat)</u> : Moderately low to moderately high (0.06 to 0.20 in/hr)



<b>Properties and qualities</b>	<u>Depth to water table:</u> More than 80 inches
	<u>Frequency of flooding:</u> None
	<u>Frequency of ponding:</u> None
	<u>Available water supply, 0 to 60 inches:</u> Very low (about 0.8 inches)
	<u>Ecological site:</u> R081CY360TX - Low Stony Hill 29-35 PZ
	<u>Hydrologic Soil Group:</u> D

The ecological listing for R081CY360TX - Low Stony Hill 29-35 PZ denotes a site that occurs on very shallow and shallow clay loam soils over indurated limestone bedrock. The reference vegetation includes tall and midgrasses along with numerous forbs and scattered mottes of live oak. Without fire or brush management, juniper and other woody species are likely to increase across the site.

- B. Description of Rock Outcrop Component - This component makes up 15% of the Comfort-Rock Outcrop Complex. The following tables summarizes relevant descriptions from the *Survey* for this component:

<b>Description of Rock Outcrop Component</b>	
<b>Setting</b>	<u>Landform:</u> Ridges
	<u>Parent material:</u> Limestone
<b>Typical profile</b>	0 to 80 inches: bedrock
<b>Properties and qualities</b>	<u>Slopes:</u> 1 to 8 percent
	<u>Depth to restrictive feature:</u> 0 to 2 inches to lithic bedrock
	<u>Runoff class:</u> High
	<u>Capacity of the most limiting layer to transmit water (Ksat):</u> Moderately low to high (0.06 to 1.98 in/hr)
	<u>Hydrologic Soil Group:</u> D

- C. Minor Components - These components make up 15% of the Comfort-Rock Outcrop Complex and has four minor soil types listed:
- Ekrant Soils - These soils make up approximately 6% of the Comfort-Rock Outcrop Complex. The following table summarizes relevant descriptions from the *Survey* for this minor component:

<b>Description of Ekrant Component</b>	
<b>Landform:</b>	Ridges
<b>Ecological site:</b>	R081CY360TX - Low Stony Hill 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological listing for R081CY360TX - Low Stony Hill 29-35 PZ denotes a site that occurs on very shallow and shallow clay loam soils over indurated limestone bedrock. The reference vegetation includes tall and midgrasses along with numerous forbs and scattered mottes of live oak. Without fire or brush management, juniper and other woody species are likely to increase across the site.

- **Real Soils** - These soils make up approximately 3% of the Comfort-Rock Outcrop Complex. The following table summarizes relevant information from the *Survey*:

Description of Real Component	
<b>Landform:</b>	Ridges
<b>Ecological site:</b>	R081CY355TX - Adobe 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological listing for R081CY355TX - Adobe 29-35 PZ denotes a site that occurs on shallow loams and clay loams over limestone bedrock. The reference vegetation consists of an oak savannah including live oak and Texas red oak, with an understory of tall and midgrasses, shrubs and forbs. Without periodic fire or brush management, woody species may increase and dominate the site.

- **Purves Soils** - These soils make up 3% of the Comfort-Rock Outcrop Complex. Relevant data from the *Survey* is summarized in the following table:

Description of Purves Component	
<b>Landform:</b>	Ridges
<b>Ecological site:</b>	R081CY574TX - Shallow 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological site listing of R081CY574TX - Shallow 29-35 PZ pertain to areas that occur on shallow calcareous clays over hard limestone. Reference vegetation includes tall and midgrasses, numerous forbs, and few scattered shrubs. Without periodic fire or other brush management, juniper and other woody species are likely to increase on the site.

- **Rumple Soils** - These soils make up 3% of the Comfort-Rock Outcrop Complex:

Description of Purves Component	
<b>Landform:</b>	Ridges
<b>Ecological site:</b>	R081CY359TX - Gravelly Redland 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological site listing of R081CY359TX - Gravelly Redland 29-35 PZ indicates areas that occur on gravelly clay loam soils over limestone. Gravel content ranges up to 25 percent at the surface to 80 percent in the subsoil. Reference vegetation includes mid and tallgrasses with numerous forbs and scattered oaks. Without fire or other brush management, woody species are likely to increase on the site.

**10.2.2 KRUM CLAY, 1 TO 3 PERCENT SLOPES** - This soil type is classified as prime farmland. Its composition is listed as being 90% Krum and similar soils with 10% Minor Components. Those

estimates are based on observations, descriptions, and transects of the map unit. The components are further described below:

- A. Description of Krum Soils - This component makes up 90% of the Krum Clay. The following table summarizes relevant descriptions from the *Survey* for this component:

Description of Krum Component	
<b>Setting</b>	<u>Landform</u> : Stream terraces
	<u>Parent material</u> : Calcareous silty and clayey alluvium derived from limestone
<b>Typical profile</b>	0 to 16 inches: clay 16 to 58 inches: clay 58 to 66 inches: clay 66 to 80 inches: clay
<b>Properties and qualities</b>	<u>Slopes</u> : 1 to 3 percent slopes
	<u>Depth to restrictive feature</u> : More than 80 inches
	<u>Drainage class</u> : Well drained
	<u>Runoff class</u> : High
	<u>Capacity of the most limiting layer to transmit water (Ksat)</u> : Moderately low to moderately high (0.06 to 0.20 in/hr)
<b>Properties and qualities</b>	<u>Depth to water table</u> : More than 80 inches
	<u>Frequency of flooding</u> : None
	<u>Frequency of ponding</u> : None
	<u>Available water supply, 0 to 60 inches</u> : High (about 9.5 inches)
	<u>Ecological site</u> : R081CY357TX - Clay Loam 29-35 PZ
	<u>Hydrologic Soil Group</u> : C

The ecological listing for R081CY357TX - Clay Loam 29-35 PZ denotes a site that occurs on moderately deep to deep clay loam soils over limestone. The reference vegetation on these upland sites consists of tall grasses, numerous forbs, few shrubs and scattered live oak mottes. Without fire or brush management, woody species are likely to increase across the site. Grazing management is key to maintain the reference vegetation.

- B. Minor Components - These components make up 10% of the Krum Clay and has three minor soil types listed:

- Bolar Soils - These soils make up approximately 5% of the Krum Clay. The following table summarizes relevant descriptions from the *Survey* for this minor component:

Description of Bolar Component	
<b>Landform:</b>	Hill slopes
<b>Ecological site:</b>	R081CY357TX - Clay Loam 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological listing for R081CY357TX - Clay Loam 29-35 PZ denotes a site that occurs moderately deep to deep clay loam soils over limestone. The reference vegetation on these upland sites consists of tallgrasses, numerous forbs, few shrubs and scattered live oak mottes. Without fire or brush management, woody species are likely to increase across the site. Grazing management is key to maintain the reference vegetation.

- Doss Soils - These soils make up 3% of the Krum Clay. Relevant data from the *Survey* is summarized in the following table:

Description of Doss Component	
<b>Landform:</b>	Hill slopes
<b>Ecological site:</b>	R081CY574TX - Shallow 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological site listing of R081CY574TX - Shallow 29-35 PZ pertains to areas that occur on shallow calcareous clays over hard limestone. Reference vegetation includes tall and midgrasses, numerous forbs, and few scattered shrubs. Without periodic fire or other brush management, juniper and other woody species are likely to increase on the site.

- Lewisville Soils - These soils make up 2% of the Krum Clay:

Description of Lewisville Component	
<b>Landform:</b>	Stream terraces
<b>Ecological site:</b>	R081CY357TX - Clay Loam 29-35 PZ
<b>Hydric soil rating:</b>	No

The ecological site listing of R081CY357TX - Clay Loam 29-35 PZ indicates areas that occur on moderately deep to deep clay loam soils over limestone. The reference vegetation on these upland sites consists of tallgrasses, numerous forbs, few shrubs and scattered live oak mottes. Without fire or brush management, woody species are likely to increase across the site. Grazing management is key to maintain the reference vegetation.

- 10.3 FAULTS, SEISMIC ZONES, AND UNSTABLE AREAS [30 TAC §330.61(j)(2) thru (4)]** - These items are required only for landfills and as such are not applicable to this permit application for a solid waste transfer station.

## SECTION 11: GROUNDWATER AND SURFACE WATER [30 TAC §330.61(k)]

**11.1 GROUNDWATER CONDITIONS [30 TAC §330.61(k)(1)]** - The following sections provide general information about groundwater in the project area and a summary of available site-specific information for the domestic water wells located near to the facility:

**11.1.1 GENERAL GROUNDWATER INFORMATION** - The *Texas Aquifers Study* (December 31, 2016) indicates that the facility is located in the outcrop area of the Trinity Aquifer. It is classified as the major aquifer for Comal County.

The *Study* notes that the Trinity is composed of several smaller aquifers and include the Antlers, Glen Rose, Paluxy, Twin Mountains, Travis Peak, Hensell, and Hosston aquifers. These aquifers consist of limestones, sands, clays, gravels, and conglomerates. Their combined freshwater saturated thickness averages about 600 feet in North Texas and about 1,900 feet in Central Texas.

The *Study* indicates that water from the Trinity Aquifer is fresh but very hard in the outcrop of the aquifer. Total dissolved solids increase from less than 1,000 milligrams per liter in the east and southeast to between 1,000 and 5,000 milligrams per liter, or slightly to moderately saline, as the depth to the aquifer increases. Sulfate and chloride concentrations also tend to increase with depth.

The *Study* further notes that the Trinity Aquifer is highly used for groundwater resources, primarily for municipal use, but also for irrigation, livestock, and other domestic purposes.

**11.1.2 NEARBY WATER WELLS** - **There is an existing water well located on the 23.801 tract.** The Texas Water Development Board's Groundwater Database was checked for information regarding other known wells in the area. According to that information, there appears to be one domestic water well and one plugged well within 500 feet of the project site's boundaries. There is also one domestic well and one irrigation well that lie slightly beyond the 500 foot limit that are also included in this section for completeness. The following table provides a summary of relevant data for those wells from the drillers' reports:

SUMMARY OF KNOWN WATER WELLS			
Well ID No.	Location	Proposed Use	Notes
59520	About 185 feet north of the Site Boundary	Domestic	Drilled in 2005. Located at the adjacent commercial garden center. Depth is 480 feet; 25-30 gpm yield. Water level listed as 280 feet below ground surface on 05-19-2005. Owner's name listed as Jack Brooks.
100122	About 275 feet northeast of Site Boundary	Withdrawal of water (plugged well)	This a plugged well. It appears to be located within the highway right of way. Owner is listed as TxDOT PHARR. Depth listed as 180 feet.
168211	About 525 feet west of Site Boundary	Irrigation	Drilled in 2008. Located at Jumbo Evans Park; listed owner is SB Youth Football Association. Depth is 400 feet; estimated 22 gpm yield. Water level listed as 165 ft below ground surface in 2008.

35938	About 530 feet south of the Site Boundary	Irrigation	Drilled in 2004. Located at Jumbo Evans Park; listed owner is Comal County (Jumbo Evans Park). Depth is 248 feet; estimated yield is 15 - 20 gpm. Water level listed as 90 ft below ground surface in 2004.
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**11.2 SURFACE WATER CONDITIONS [30 TAC §330.61(k)(2)]** - The following sections describe surface water conditions at and near the site:

**11.2.1 SURFACE WATER AT THE SITE** - There are no surface water bodies located at the site.

**11.2.2 SURFACE WATER NEAR THE SITE** - Cypress Creek is located approximately 200 feet to the southwest of the site boundary. The U.S. Fish and Wildlife Service's National Wetlands Inventory assigned a wetlands code of R4SBA to the creek, which can be broken down as follows:

R	Denotes a riverine system, which includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
4	Denotes an intermittent subsystem, which includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.
SB	Denotes a stream bed, which includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
A	Indicates that surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

The TCEQ Surface Water Quality Viewer does not show any information pertaining to Cypress Creek.

**11.3 COMPLIANCE WITH TPDES REQUIREMENTS [30 TAC §330.61(k)(3)]** - The transfer station will be designed to comply with the criteria of 30 TAC §330.227 that requires storage and processing areas be designed to control and contain spills and contaminated water from leaving the facility. The site will also be graded to protect the transfer station from external storm water runoff. In addition, best management practices will be utilized during construction of the facility to reduce erosion and minimize the potential for sediment transport to streams.

Wash-water and any other contaminated water from the working floor and ramp area of the transfer building will be directed to a drain, then pumped to an above-ground contaminated water storage tank. The drain will also collect any rainfall that may enter these areas due to being blown by the high winds and direct it to the tank. The storage tank will be emptied by vacuum truck on an as-needed basis and its contents transported to a TCEQ approved treatment facility for final disposal. The installation of the holding tank and its drain system will be completed prior to commencement of transfer station

operations.

The facility will be designed to control and contain a worst case spill or release. The holding tank will be equipped with a concrete berm for secondary containment should the integrity of the holding tank ever be compromised. The berm will be sized to contain a worst-case release from that unit. In the unlikely event that a breach of both the tank and the berm occurs, 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 final disposal and then replacing it with clean backfill. 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 disposed of in a manner that will not cause surface water or groundwater pollution. Drainage patterns will be minimally affected by this project, so no TPDES permit is required. However, the owner or operator will obtain the appropriate TPDES permit coverage if one becomes required at some future date.

## **SECTION 12: ABANDONED OIL AND WATER WELLS [30 TAC §330.61(I)]**

The following sections provide information regarding abandoned wells in the area:

- 12.1 ABANDONED WATER WELLS [30 TAC §330.61(I)(1)]** - The Texas Water Development Board's *Ground Water Database* was consulted for data with regard to water wells in the area. Only one plugged well was indicated within 500 feet of the boundaries of the project site. An old TxDOT well appears to be located 275 feet northeast of the site boundaries and it is noted to have been utilized for the "withdrawal of water" (presumably during the construction of Highway 281) as is noted as being plugged. It appears to be located within the highway right of way and its depth is listed as 180 feet.
- 12.2 ABANDONED CRUDE OIL OR NATURAL GAS WELLS [30 TAC §330.61(I)(2)]** - The Texas Railroad Commission's *Public GIS Viewer for Oil, Gas, and Pipeline Data* was consulted for data with regard to oil and gas wells in the area. According to that data no crude oil or natural gas wells (abandoned or otherwise) are located within the facility boundaries. Similarly, no crude oil or natural gas wells are indicated within 500 feet of the facility's boundaries.



## **SECTION 13: FLOODPLAINS AND WETLANDS STATEMENT [30 TAC §330.61(m)]**

The following sections contain information pertaining to floodplains and wetlands at the facility:

**13.1 FLOODPLAINS [30 TAC §330.61(m)(1)]** - Attachment II-G shows relevant portions of the Flood Insurance Rate Maps (FIRM) for the *Comal County, Texas and Incorporated Areas (Community Panel Number 48091C0070F (Effective Date - September 2, 2009))* with the location of the Spring Branch Transfer Station's boundaries overlain onto it.

The project site and the boundaries of the solid waste transfer station are located outside of the 100-year floodplain.

All buildings, driveways, and appurtenances will be located at a sufficient elevation to remain above the 100-Year flood level at all times.

**13.2 WETLANDS [30 TAC §330.61(m)(2) and (3)]** - The US Fish and Wildlife Service's National Wetlands Inventory (NWI) database was consulted regarding wetlands at the facility. Refer to Attachment II-G for a copy of the National Wetlands Inventory map with the boundaries of the project site superimposed upon it.

**1.3.2.1 WETLAND-TYPE FEATURES AT THE PROJECT SITE** - The NWI map indicates that no wetland-type features are located within the boundaries of the project site.

The project does not call for the development of any ponds (or similar features) at the site that might potentially be classified as wetland-type features at some future date.

As such, no impacts to wetlands are anticipated as a result of this project.

**1.3.2.2 WETLAND-TYPE FEATURES NEAR THE PROJECT SITE** - The NWI assigned a code of R4SBA to Cypress Creek, which is located approximately 200 feet from the site's southwestern boundary. That code can be broken down as follows:

R	Denotes a riverine system, which includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.
4	Denotes an intermittent subsystem, which includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.
SB	Denotes a stream bed, which includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
A	Indicates that surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

No development will occur along the channel of Cypress Creek as a result of this project. During construction of the transfer station facilities, the site will be contoured so that stormwater runoff is directed away from the working areas of the transfer station. Best management

practices will also be utilized during construction of the facility in order to reduce erosion and minimize the potential for sediment transport to streams. In addition, all contaminated wash-water generated at the site in the course of its normal operations will be directed to a drain and then pumped to an above ground contaminated water storage tank, thereby eliminating the potential for contamination to the tributary. Based on the above information, it is our opinion that no wetlands will be impacted by the project.

## **SECTION 14: ENDANGERED OR THREATENED SPECIES [30 TAC §330.61(n)]**

The requirements of 30 TAC §330.61(n)(2) pertain to landfill applications and is therefore not applicable to this application for a transfer station permit.

The requirements of 30 TAC §330.61(n)(1) states that the owner shall consider the impact of a solid waste disposal facility upon endangered or threatened species. A list of endangered or threatened plant and animal species for Comal County, Texas was obtained from the Texas Parks and Wildlife Service's website. Those species are discussed in Section 14.1 and 14.2 (below).

No threatened or endangered species of plants or animals have been observed at the site. As such, 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. In order to verify this, a letter was submitted to the Texas Parks and Wildlife Department (TPWD) and United States Fish and Wildlife Service (USF&WL) on November 10, 2022 requesting an endangered species determination for the site. Copies of all letters are included in the Attachment II-H (Correspondence).

**14.1 THREATENED AND ENDANGERED ANIMAL SPECIES IN COMAL COUNTY** - An *Annotated County List of Rare Species* for Comal County, Texas, was obtained from the Texas Park & Wildlife Department's website in October 2022. The following sections address those species that were listed as having a threatened or endangered status by their taxonomic class. Note :

**14.1.1 AMPHIBIANS** - The following table summarize the threatened or endangered amphibian species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown:

- Cascade Caverns salamander (*Eurycea latitans*) - This species' State Status is listed as Threatened. The list notes that it is "aquatic" and that its habitat consists of "springs, streams and caves with rocky or cobble beds".
- San Marcos salamander (*Eurycea nana*) - This species' Federal Status is Listed Threatened and its State Status is Threatened. The *List* notes that it is "aquatic" and may be found near "springs and associated water"
- Texas salamander (*Eurycea neotenes*) - This species' State Status is listed as Threatened. The *List* notes it is associated with "springs, streams and caves with rocky or cobble beds."
- Texas blind salamander (*Eurycea rathbuni*) - Federal Status is Listed Endangered and its State Status is Endangered. Description and habitat is noted as being "aquatic and subterranean; streams and caves.

There are no know cave systems located at the project site. Additionally, as noted in Section 13 (above) the transfer station is located at least 200 feet distant from the nearest stream (Cypress Creek). There are no known springs or water bodies located on the project site itself. During construction of the transfer station facilities, the site will be contoured so that stormwater runoff is directed away from the working areas of the transfer station. Best management practices will also be utilized during construction of the facility in order to reduce erosion and minimize the potential for sediment transport to streams. In addition, all contaminated wash-water generated at the site in the course of its normal operations will be pumped to an above ground contaminated water holding tank, thereby eliminating the potential for surface water contamination. Because of this, it appears that the proposed project is unlikely to adversely impact the above listed amphibian species or their habitat.

**14.1.2 BIRDS** - The following sections summarize the threatened or endangered bird species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown:

- White-faced ibis (*Plegadis chihi*) - State Status is Threatened. Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.
- Wood stork (*Mycteria americana*) - State Status is Threatened. Prefers to nest in large tracts of bald cypress (*Taxodium distichum*) or red mangrove (*Rhizophora mangle*); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.
- Whooping crane (*Grus americana*) - Federal Status is Listed Endangered and State Status is Endangered. Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.
- Piping plover (*Charadrius melodus*) - Federal Status is Listed Threatened and State Status is Threatened. Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intra-coastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.
- Golden-cheeked warbler (*Setophaga chrysoparia*) - Federal Status is Listed Endangered and State Status is Endangered. Ashe juniper in mixed stands with various oaks (*Quercus* spp.). Edges of cedar brakes. Dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer.

Generally speaking, the portion of the project site to be occupied by the transfer station does not reflect the habitat description for the above listed species. As such, the project is not expected to adversely impact those species.

In their comments for this project (dated December 14, 2022), the Texas Parks and Wildlife Department also added the following:

*"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."

**14.1.3 FISHES** - The sections below summarize the threatened or endangered fish species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown.

- Fountain darter (*Etheostoma fonticola*) - Federal status is Listed Endangered and State Status is Endangered. Known only from the spring-fed San Marcos and Comal rivers in dense beds of aquatic plants growing close to bottom; may be found in slow- and fast-flowing habitats.
- Guadalupe darter (*Percina apristis*) - State Status is Threatened. Endemic to the Guadalupe River Basin; Found in riffles; most common under or around 25-30 cm boulders in the main current; seems to prefer moderately turbid water.

The project site does not correspond to the favored habitat for the above listed species. As noted in Section 13 (above), the boundary of the transfer station is located at least 200 feet away from the nearest aquatic feature (Cypress Creek). No springs or other water bodies are located within the boundaries of the site. During construction of the transfer station facilities, the site will be contoured so that stormwater runoff is directed away from the working areas of the transfer station. Best management practices will also be utilized during construction of the facility in order to reduce erosion and minimize the potential for sediment transport to streams. In addition, during normal operations of the facility, all contaminated wash-water generated at the site in the course of its normal operations will be pumped to an above ground contaminated water storage tank, thereby eliminating the potential for surface water contamination. Because of this, it appears that the proposed project is unlikely to adversely impact the above listed fish species or their habitat.

**14.1.4 INSECTS** - The sections below summarize the threatened or endangered insect species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown:

- Comal Springs riffle beetle (*Heterelmis comalensis*) - Federal Status is Listed Endangered and State Status is Endangered. Comal and San Marcos Springs.
- Comal Springs dryopid beetle (*Stygoparnus comalensis*) - Federal Status is Listed Endangered and State Status is Endangered. Dryopids usually cling to objects in a stream; dryopids are sometimes found crawling on stream bottoms or along shores; adults may leave the stream and fly about, especially at night; most dryopid larvae are vermiform and live in soil or decaying wood.

The project site does not correspond to the favored habitat for the above listed species. As noted in Section 13 (above), the boundary of the transfer station is located at least 200 feet away from the nearest stream (Cypress Creek). No springs or other water bodies are located

at the project site. Because of this, it appears that the proposed project is unlikely to adversely impact the above listed insect species or their habitat.

**14.1.5 MAMMALS** - The following sections summarize the threatened or endangered mammal species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown:

- White-nosed coati (*Nasua narica*) - State Status is Threatened. Woodlands, riparian corridors and canyons. Most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade.

Due to the developed nature of the adjacent areas and much of the project site, it is generally felt that the white-nosed coati is unlikely to favor habitat in the portion of the site to be occupied by the transfer station. The development of the site is not expected to adversely impact this species.

**14.1.6 MOLLUSKS** - The following sections summarize the threatened or endangered mollusk species detailed on the *Annotated County List of Rare Species for Comal County*. Please note that only species with a state and/or federal status are shown:

- Guadalupe Fatmucket (*Lampsilis bergmanni*) - State Status is Threatened. Reported to occur in slow to moderate current in sand, mud, and gravel substrates among large cobble, boulders, bedrock ledges, horizontal cracks in bedrock slabs, and macrophyte beds. Has also been observed inhabiting the roots of cypress trees and vegetation along steep banks. Reported in lakes at Kerrville, Texas, which suggests it may occasionally persist in some impoundment conditions.
- Guadalupe Orb (*Cyclonaias necki*) - State Status is Threatened. Species' distribution is limited to the Guadalupe River basin. Occurs in both mainstem and tributary habitats. Often found in substrates composed of sand, gravel, and cobble, including mud-silt or gravel-filled cracks in bedrock slabs. Considered intolerant of reservoirs, but are known to occur in them.
- False Spike Mussel (*Fusconaia mitchelli*) - State Status is Threatened. Occurs in small streams to medium-size rivers in habitats such as riffles and runs with flowing water. Is often found in stable substrates of sand, gravel, and cobble.

As noted in Section 13 (above), the boundary of the transfer station is located at least 200 feet away from Cypress Creek, the nearest water body in the immediate area. Best management practices will also be utilized during construction of the facility in order to reduce erosion and minimize the potential for sediment transport to streams. As such, it appears that the proposed project is unlikely to adversely impact the above listed fish species or their habitat.

**14.1.7 REPTILES** - The following sections summarize the threatened or endangered reptile species from the *Annotated County List of Rare Species for Comal County*. Only species with a state and/or federal status are shown:

- Cagle's map turtle (*Graptemys caglei*) - State Status is Threatened. Aquatic: shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas between riffles and pools especially important in providing insect prey items; nests on gently sloping sand banks within ca. 30 feet of waters edge.
- Texas tortoise (*Gopherus berlandieri*) - State Status is Threatened. Terrestrial: Open scrub woods, arid brush, lomas, grass-cactus association; often in areas with sandy well-drained

soils. When inactive occupies shallow depressions dug at base of bush or cactus; sometimes in underground burrow or under object. Eggs are laid in nests dug in soil near or under bushes.

- Texas horned lizard (*Phrynosoma cornutum*) - State Status is Threatened. Terrestrial: Open habitats with sparse vegetation, including grass, prairie, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive. Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area.

The portion of the project site occupied by the transfer station does not correspond to the favored habitat of the map turtle. As such, the project is not expected to impact that species.

Any reptiles observed during construction will be allowed to safely leave the site. Hill Country Waste Solutions LLC employees and contractors will be advised to avoid injury or harm to all reptiles encountered during clearing and construction. All contractors should avoid contact if encountered and allow them to safely leave the premises. Erosion and seed/mulch stabilization materials that avoid entanglement hazards to reptiles and other wildlife species will be used 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, the use of no-till drilling, hydromulching, and/or hydroseeding rather than erosion control blankets or mats to reduce risk to wildlife will be encouraged. 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 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.

In addition, the Texas Parks and Wildlife Department provided the following comments: *"Please note that only state listed species need to be handled by a permitted individual, contractors and construction personnel are not required to be permitted to handle common species, although it is always recommended to avoid contact with wildlife if possible."*

#### **14.1.8 CRUSTACEANS** - Only species with a state and/or federal status are shown:

- Peck's Cave amphipod (*Stygobromus pecki*) - Federal Status is Listed Endangered and State Status is Endangered. Small, aquatic crustacean; lives underground in the Edwards Aquifer; collected at Comal Springs and Hueco Springs.

The project site does not correspond to the favored habitat for the above listed species. Because of this, it appears unlikely that the project will adversely impact this amphipod.

**14.2 THREATENED AND ENDANGERED PLANT SPECIES IN COMAL COUNTY** - There were no plants on the *Annotated County List of Rare Species for Comal County* that held any current State or Federal listing of threatened or endangered.

**14.3 RESPONSE FROM TEXAS PARKS AND WILDLIFE DEPARTMENT** - 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. A copy of those comments is provided in Attachment II-H. Relevant excerpts are summarized as follows:

*“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.”*

**14.4 RESPONSE FROM U.S. FISH AND WILDLIFE SERVICE** - The US F&WL Service had no response or additional comments pertaining to this project.

**14.5 ADDITIONAL INFORMATION** - In compliance with 30 TAC 330.543.(a), no solid waste unloading, storage, disposal, or processing operations shall occur within any easement, buffer zone, or right-of-way that crosses the facility.



## **SECTION 15: TEXAS HISTORICAL COMMISSION REVIEW [30 TAC §330.61(o)]**

A letter was submitted to the Texas Historical Commission (THC) on September 20, 2022 requesting a review for this facility. Their response was received on November 2, 2022 in which they provided the following comments:

*"No effect on identified archeological sites or other cultural resources. However , if cultural materials are encountered during project activities, work should cease in the immediate area; work can continue where no cultural materials are present. Please contact the THC's Archeology Division at 512-463-6096 to consult on further actions that may be necessary to protect the cultural remains."*

They also verified that no archeological survey of the project area is needed. Please refer to Attachment II-H for copies of this correspondence.

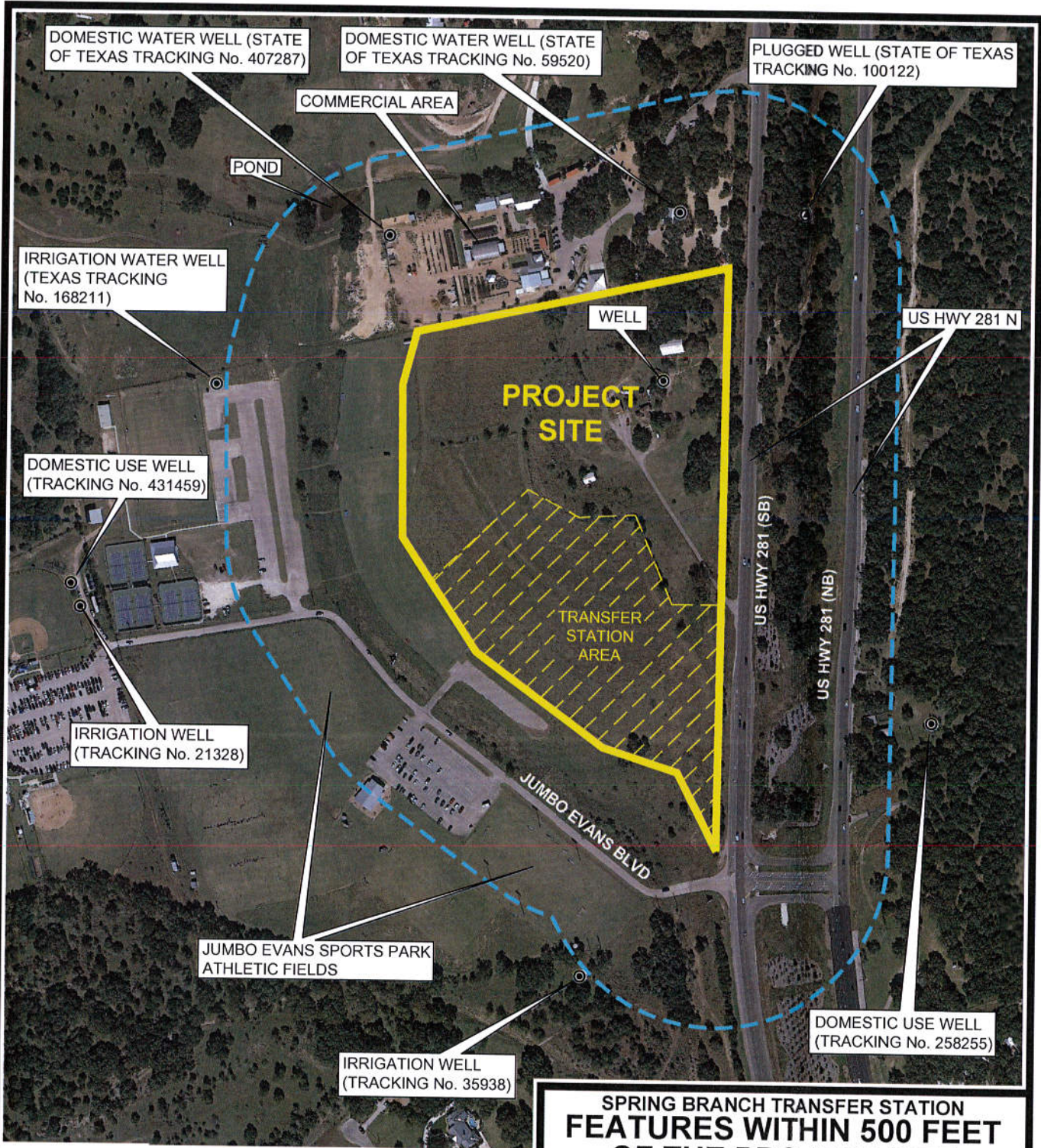
**SECTION 16: COUNCIL OF GOVERNMENTS AND LOCAL  
GOVERNMENTS REVIEW REQUEST [30 TAC §330.61(p)]**

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A draft copy of Parts I and II of this application was submitted to the regional council of governments (Alamo Area Council of Governments, or AACOG) on May 2, 2023 to be reviewed for compliance with regional solid waste plans. A review letter was requested. Any comments from the council of governments will be included in Attachment II-H of this application upon receipt.

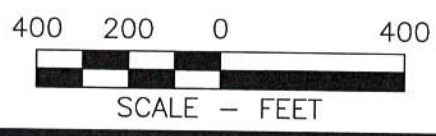
ATTACHMENT II-B

**FEATURES WITHIN 500 FEET**



NOTE: THE ABOVE FIGURE SHOWS THE ENTIRE 23.80 ACRE PROJECT SITE AND AREAS WITHIN 500 FEET OF ITS BOUNDARIES.

THE HATCHED AREA INDICATES THE PORTION OF THE SITE OCCUPIED BY THE TRANSFER STATION WHICH WILL BE ENCLOSED WITHIN A SECURITY FENCE (APPROXIMATELY 9.52 ACRES).



### SPRING BRANCH TRANSFER STATION FEATURES WITHIN 500 FEET OF THE PROJECT SITE



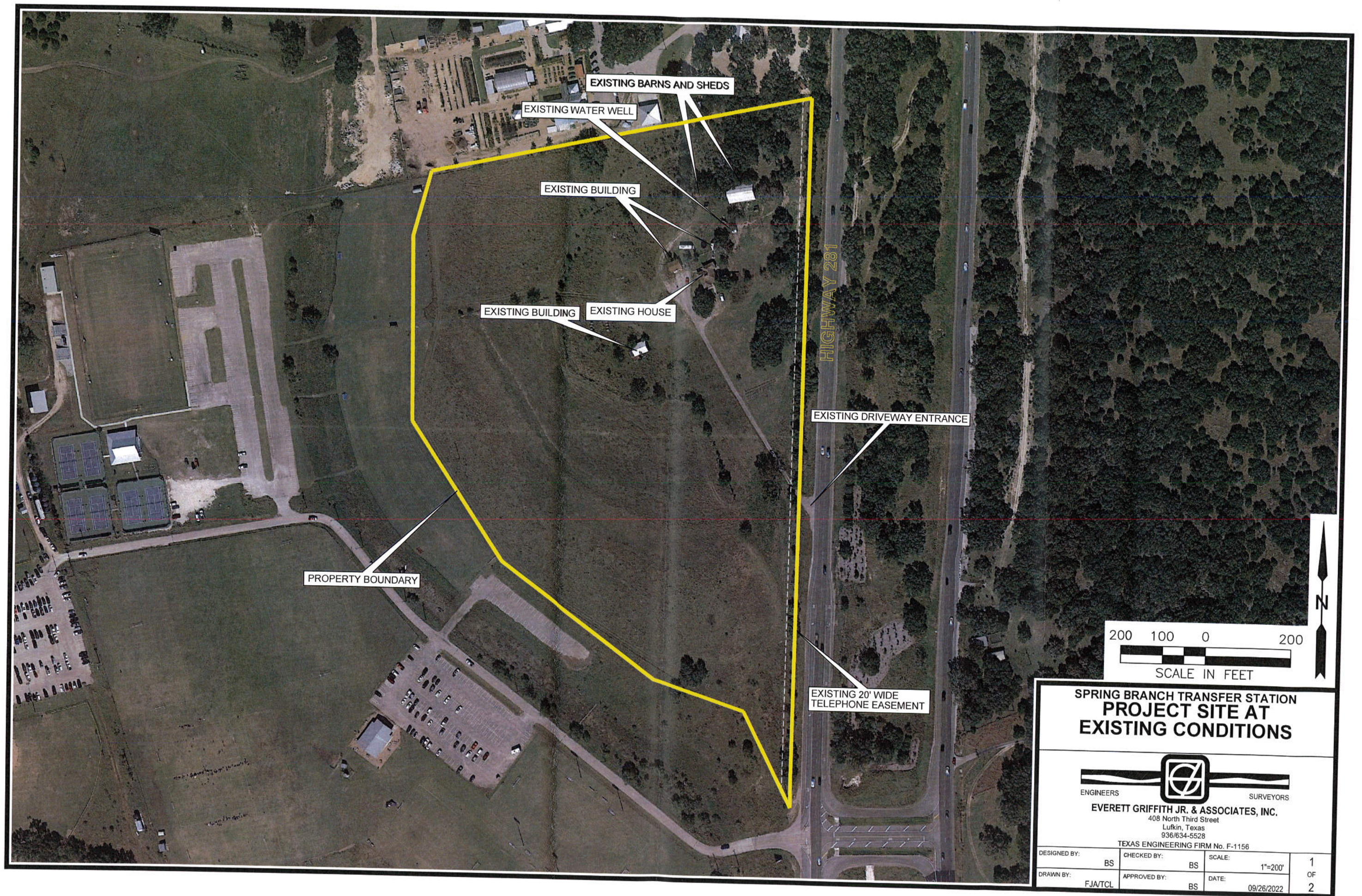
**EVERETT GRIFFITH JR. & ASSOCIATES, INC.**  
408 North Third Street  
Lufkin, Texas  
936/634-5528

TEXAS ENGINEERING FIRM No. F-1156

DESIGNED BY:	N/A	CHECKED BY:	BS	SCALE:	1"=400'	1
DRAWN BY:	TCL	APPROVED BY:	BS	DATE:	09/23/2022	OF 1

ATTACHMENT II-C

**EXISTING AND DEVELOPED CONDITIONS**

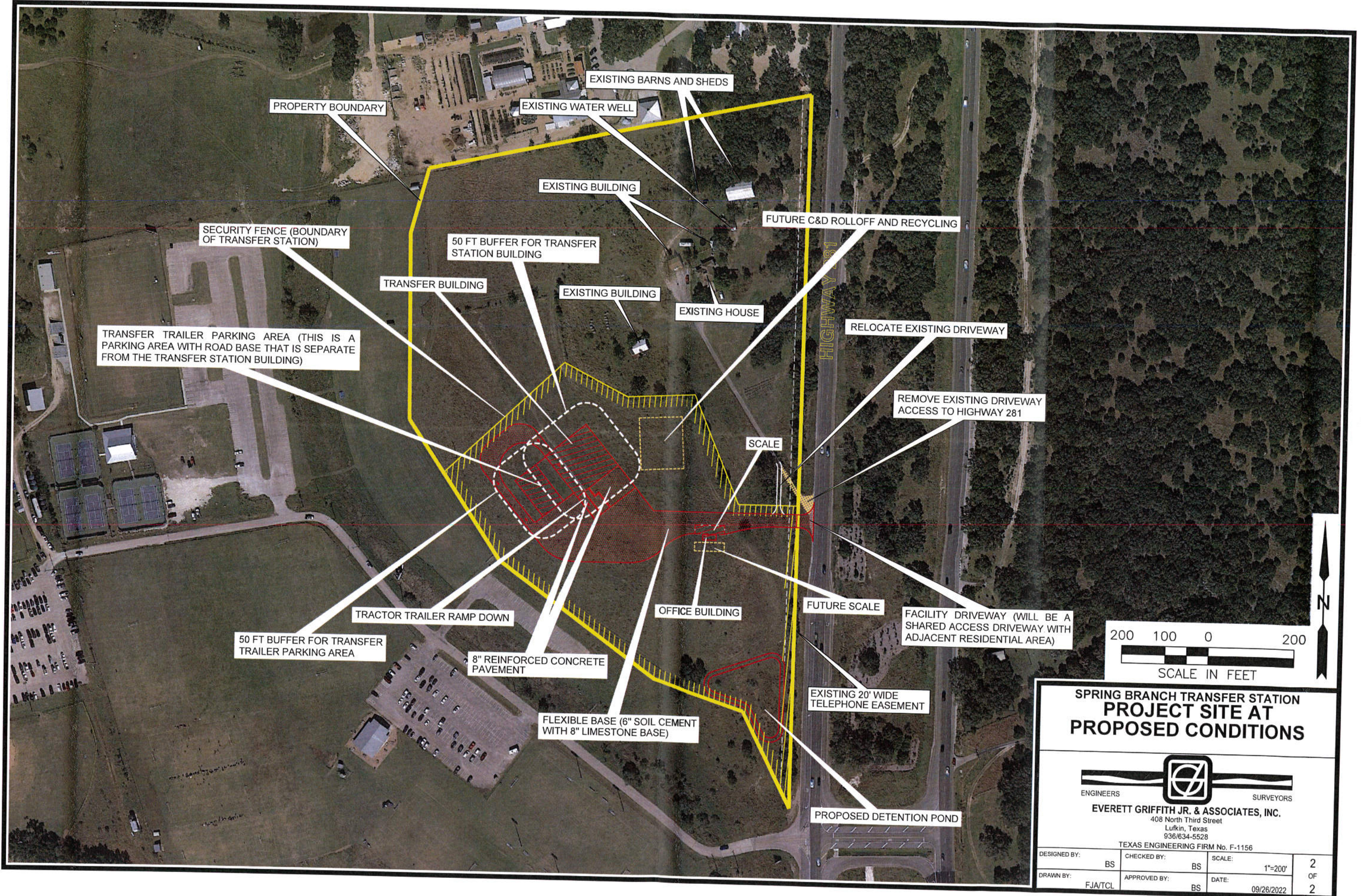


**SPRING BRANCH TRANSFER STATION  
PROJECT SITE AT  
EXISTING CONDITIONS**

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:	1"=200'	1 OF 2
DRAWN BY:	FJA/TCL	APPROVED BY:	BS	DATE:	09/26/2022	



PROPERTY BOUNDARY

EXISTING BARN AND SHEDS

EXISTING WATER WELL

EXISTING BUILDING

FUTURE C&D ROLLOFF AND RECYCLING

SECURITY FENCE (BOUNDARY OF TRANSFER STATION)

50 FT BUFFER FOR TRANSFER STATION BUILDING

TRANSFER BUILDING

EXISTING BUILDING

EXISTING HOUSE

TRANSFER TRAILER PARKING AREA (THIS IS A PARKING AREA WITH ROAD BASE THAT IS SEPARATE FROM THE TRANSFER STATION BUILDING)

RELOCATE EXISTING DRIVEWAY

REMOVE EXISTING DRIVEWAY ACCESS TO HIGHWAY 281

SCALE

TRACTOR TRAILER RAMP DOWN

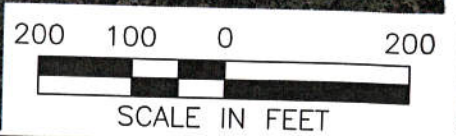
OFFICE BUILDING

FUTURE SCALE

FACILITY DRIVEWAY (WILL BE A SHARED ACCESS DRIVEWAY WITH ADJACENT RESIDENTIAL AREA)

50 FT BUFFER FOR TRANSFER TRAILER PARKING AREA

8" REINFORCED CONCRETE PAVEMENT



FLEXIBLE BASE (6" SOIL CEMENT WITH 8" LIMESTONE BASE)

EXISTING 20' WIDE TELEPHONE EASEMENT

**SPRING BRANCH TRANSFER STATION  
PROJECT SITE AT  
PROPOSED CONDITIONS**



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: 1"=200'	2 OF
DRAWN BY: FJA/TCL	APPROVED BY: BS	DATE: 09/26/2022	2

PROPOSED DETENTION POND