

Geotechnical Engineering Report:

Report Number:

26-084-01

Security State Bank and Trust

Johnson City, Texas

May 27, 2026

WES-Project No. 26-084

Prepared for:

Security State Bank and Trust

Fredericksburg, Texas 78624

Prepared by:

Wellborn Engineering & Surveying (WES)

631 Water Street Kerrville, Texas 78028

TBPELS FIRM NO.: F7761



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TBPE&LS Surveying Firm No. 10194410

May 27, 2026

Client:

Security State Bank and Trust

c/o: Mr. Mark Cornett, P.E.

1174 Funf Kinder

Fredericksburg, Texas 78624

mark@cornettengineering.com

210-213-1195

RE: **Geotechnical Engineering Report for the proposed Security State Bank and Trust to be located off Highway 356 and Old River Road in Johnson City, Texas**

WES Project No. 26-084 Security State Bank and Trust (Geotechnical)

Dear Mr. Cornett,

We have completed the geotechnical investigation for the above-mentioned project. This report presents the findings of the subsurface exploration and provides geotechnical recommendations consisting of earthwork and design of the foundation and associated pavement for the proposed project.

We appreciate the opportunity to work with you on this phase of the project and look forward to the opportunity to provide additional services for construction materials testing as the project progresses. If you have any questions concerning this report, or if we may be of any further service, please contact us.

Sincerely,

Wellborn Engineering & Surveying

TBPE Firm No. F7761

A handwritten signature in blue ink, appearing to read "Daniel R. Kovacich", is written over a faint, larger blue signature.

Daniel R. Kovacich, P.E.

Geotechnical Department Manager

danielk@wellbornengineering.com

DRK/

-Copy submitted via email only



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1.0 INTRODUCTION

1.1 Project Description

This report presents the results of a subsurface exploration and foundation evaluation performed for the Security State Bank and Trust to be located on Highway 356 and Old River Road in Johnson City, Texas. The general orientation of the proposed site is shown on the Plan of Borings in the **Appendix** section of this report.

Based on information provided by the client, the project consists of construction of an approximate 4,500-square foot office building, a drive-thru aisle, and associated site paving for parking and drives.

1.2 Authorization

This investigation was authorized by Ms. Suzan Gallion of Security State Bank and Trust by signature of proposal on March 25, 2026.

1.3 Purpose and Scope

The purpose of this investigation has been to evaluate the general subsurface and ground water conditions, and to provide geotechnical recommendations for:

- Design of the foundation system;
- Pavement subgrade preparation and section thicknesses; and
- Site preparation and earthwork compaction criteria

The investigation included drilling sample borings, performing laboratory testing, analyzing engineering and geologic data and developing geotechnical recommendations. The following sections present the methodology used in this investigation.

Recommendations provided herein are site-specific and were developed for the project discussed in the report **Introduction**. Person(s) using this report for other than the intended purpose does so at their own risk.

2.0 FIELD AND LABORATORY INVESTIGATIONS

2.1 General

The field and laboratory investigations have been conducted in accordance with applicable standards and procedures set forth in the 2026 Annual Book of ASTM Standards, Volumes 04.08 and 04.09, "Soil and Rock." These volumes should be reviewed for information on specific test procedures.

2.2 Field Investigation

Subsurface conditions were evaluated by six sample borings drilled to depths of 6 to 20 feet on May 4 and 5, 2026. The locations of the borings are shown on Plate 1 of the report contained in the **Appendix**. Borings were located in the field by representatives of Wellborn Engineering & Surveying (WES).

Borings were advanced between sampling intervals by means of a truck-mounted drilling rig using continuous flight augers. The soils were sampled in conjunction with the Standard Penetration test (SPT) (ASTM D1586).

Delayed water level observations were made in the open boreholes to evaluate ground water conditions. Borings were backfilled at completion of field operations.

Sample depth, description of materials, field tests, water conditions and soil classification [Unified Soil Classification System (USCS), ASTM D2488] are presented on the Boring Logs in the **Appendix** section of this report. Keys to terms and symbols used on the logs are also provided in the **Appendix**.

Elevations shown on the boring logs are approximate and are based on the latest available TNRES information.

2.3 Laboratory Testing

All samples were returned to the laboratory and visually logged in accordance with the USCS. Laboratory tests were performed to evaluate index properties and confirm visual classification of selected samples. Tests and ASTM designations are provided in Table 1.

TABLE 1. TESTS CONDUCTED AND ASTM DESIGNATIONS	
Type of Test	ASTM Designation
Atterberg Limits	D4318
Moisture Content	D2216
Partial Gradation	D1140

The results of these tests are presented on the accompanying bore logs provided in the **Appendix**.

3.0 GENERAL SITE CONDITIONS

3.1 Physiography

The proposed project site is approximately 2.24-acres and is located at the southwest intersection of Highway No. 356 and Old River Road in Johnson City, Texas. Based on topographic information, the site was relatively flat with ground elevations ranging from Elev. 1161 to 1156 feet.

Ground cover consisted of short and tall grass, and a couple scattered trees at the time of the field investigation (May 2026). The most recent aerial photograph, dated March 2025, is provided as Exhibit 2 in the **Appendix**.

3.2 Geology and Stratigraphy

Subsurface conditions encountered in the borings consisted of residual soil overlying dolomitic limestone of the Ordovician age Gorman Formation. The residual soil consisted of dark brown, stiff to hard, high plasticity (CH) sandy fat clay. The residual clay extended to depths of 2-1/2 to 4 feet below existing grades.

Below depths of 2-1/2 to 4 feet (approximate Elev. 1160 to 1156.5 feet), tan, very hard dolomitic limestone was encountered. Due to the sampling methods utilized and the very hard nature of the bedrock materials encountered, it was difficult to definitively distinguish between limestone and dolomite in the borings. The limestone extended through the termination depths of the borings. In addition, some borings were terminated at refusal due to the very hard nature of the bedrock.

3.3 Ground Water

Ground water was not encountered during or after drilling operations within the depths explored. It should be noted that water levels in open boreholes may require several hours to several days to stabilize depending on the permeability of the subsurface materials. In addition, groundwater levels or zones of seepage through soil/rock interfaces or within fractures and seams in the limestone, will vary with seasonal and annual rainfall changes, recent rainfall, drought or temperature effects.

3.4 Seismic Site Classification

The site has been classified with respect to seismic design criteria contained in the 2024 International Building Code (IBC), Section 1613, and ASCE 7-22, Chapter 20. The criteria require characterization of the upper 100 feet of subsurface materials. Given that the borings were limited to a maximum depth of 20 feet, the design professional preparing the engineering report may make reasonable assumptions based on the known geologic conditions. Based on

the ASCE 7-22 criteria and gathered field data, WES recommends that the site be classified as Site Class B in accordance with Table 20.3-1.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 Potential Vertical Rise

The clay at this site is high in plasticity and is relatively shallow prior to encountering non-plastic dolomitic limestone. Potential Vertical Rise (PVR) were evaluated using the Texas Department of Transportation, TxDOT Test approximate Method 124-E¹ in conjunction with soil classification tests and assumed an active zone to the top of intact dolomitic limestone. **Based on the PVR calculations, potential movements are estimated to be approximately two inches.** Movement will be associated with seasonal changes in soil moisture within the upper clay soils above the intact limestone. The estimated PVR is based on existing grades.

Higher magnitudes of movement than those calculated above are possible if the clays become saturated, such as can happen from utility leaks, excessive ponding of water adjacent to the perimeter (i.e., poor drainage). It is anticipated that when completely inundated with water and allowed to become saturated, which would likely be the case if proper drainage around the building structure are not provided or if a broken plumbing line was to occur, the subgrade soils could swell 2 to 3 times or more the magnitude estimated by the PVR method mentioned above.

Ground-supported improvements (i.e., sidewalks and paving) will move in response to changes in soil moisture. The movement will be observed as heave if the soils are dry at the time the pavement or sidewalk is constructed. The movement will be observed as settlement if the soils are moist at the time of construction. Generally, settlement will be limited to the outer perimeter (outer four to five feet) of larger slabs.

4.2 Foundation, General

Based on the type/size of structure and past experience, use of a monolithic slab on grade foundation is anticipated if movements of at least 1-inch can be tolerated. If movements of this magnitude cannot be tolerated, an alternative design consisting of deep piers on a structural suspended slab is recommended. WES should be contacted for additional recommendations if this type of foundation system is desired.

The foundation may be designed as a conventionally reinforced or post-tensioned slab-on-grade. Potential movements are estimated to be on the order of two inches. Soil supported foundations will be subjected to this movement, as discussed earlier in this report. The magnitude of differential movement can be reduced by stiffening the foundation (i.e.,

¹ "Method for Determining the Potential Vertical Rise, PVR." (1978). Texas Department of Transportation, Test Method Tex-124-E.

increasing the beam depths and/or decreasing beam spacing) and by reducing the potential for soil movement prior to construction of the slab.

The recommendations contained below are applicable considering that the finished grade of the structure is within two foot from existing (May 2026) site grades. If more than two feet of fill is required to achieve finished grade, WES should be provided with a final site grading plan for re-evaluation of the recommendations and prior to finalizing construction documents.

4.3 Building Subgrade Improvement

To reduce the potential for heave-related movement before constructing the building foundation, it is recommended that the upper two feet of subgrade soils below existing grades be undercut and replaced with imported select fill. Select fill specifications are included in the "Earthwork" section. All additional fill above existing grade should also consist of select fill.

Although the foundation can be structurally designed to tolerate soil-related movements in excess of 1 inch, it should be understood that utilization of a design PVR greater than 1-inch increases the potential risk of greater structural and cosmetic distress. Even slight differential movements may cause distress resulting in cosmetic damage. This amount should be understood and addressed during the design phase of the proposed structure planned for construction at this site.

Other Considerations: Careful consideration should be given to the actual area treated to reduce movement. The potential for movement will be reduced in the treated (i.e., replacement) areas; however, it may be advantageous from a building perspective to extend the treated zone to account for the flatwork areas. **If it is desired to improve performance and reduce the risk of heave-related movement in areas near the building structure, it is recommended the subgrade be excavated and replaced as specified above, extending to the edge of all movement-sensitive flatwork.**

Positive drainage of water away from the structure must be provided and maintained during and after construction.

Potential post-construction movement associated with heave, considering subgrade replacement outlined in the preceding section, is estimated to be on the order of one inch or less. Additional movement, especially during construction, is possible if the clays become saturated, such as can happen from utility leaks, ponding of water adjacent to the slab during construction, and excessive ponding of water adjacent to the perimeter walls after construction.

4.4 Foundation Design

The proposed building at the site may be supported by a slab-on-grade foundation provided our recommended earthwork preparations are followed as outlined in the "Earthwork" and "Building Subgrade Improvement" sections of this report. This type of foundation can be designed as a conventionally reinforced or post-tensioned slab-on-grade. It is recommended that a conventionally reinforced slab be designed to conform to the current requirements of the American Concrete Institute (ACI) "Building Code Requirements for Reinforced Concrete," ACI 318. A post-tensioned slab should conform to the requirements of the 3rd Edition of the PTI Manual "Design and Construction of Post-Tensioned Slabs-on-Ground."

The design parameters outlined in the following tables are based on the subsurface conditions encountered during this exploration and the recommendations for pad preparation provided herein. The parameters are provided to assist the Structural Engineer in the design of the foundations that are stiffened using grade beams or post tension cables.

TABLE 2. SLAB DESIGN PARAMETERS FOR A CONVENTIONALLY REINFORCED SLAB	
Climate Rating (C_w)	17
Effective Plasticity Index	19
Soil Support Index / Climatic Rating Factor (1-C)	0.94

TABLE 3. SLAB DESIGN PARAMETERS FOR A POST TENSIONED SLAB	
E_m Edge (ft)	4.3
E_m Center (ft)	8.5
Y_m Edge (in)	1.5
Y_m Center (in)	1.2

All grade beams of the slab-on-grade foundation should be founded a minimum of 18 inches below finished grade in compacted select fill. Grade beams bearing in properly compacted select fill may be designed for an allowable bearing of 2,500 pounds per square foot (psf). This value incorporates a minimum factor of safety of three against shear failure.

The exterior grade beams should be a minimum of 12 inches wide to reduce the potential for localized shear failure and should be spaced at a maximum of 20-feet apart in both directions if and where the Structural Engineer of Record deems necessary. In addition, all beams should be provided with sufficient steel reinforcement for positive and negative moment resistance caused by loading and minor movements of foundation soils.

Soil supported foundations will be subjected to slight vertical movements. Even slight differential movements may cause distress to interior wall partitions and rigid exterior facades supported by a slab on grade foundation resulting in cosmetic damage and should be accounted for in the design process. In addition, elements of the foundation that form cantilevers (such as bay windows or other protrusions) are more vulnerable to differential movement relative to the larger areas of the foundation. Contraction, control, or expansion joints should be designed and placed in various portions of the structure. Properly planned placement of these joints will assist in controlling the degree and location of material cracking which normally occurs due to material shrinkage, thermal effects, soil movements, and other related structural conditions.

A minimum 10-mil (0.25 mm) thick vapor retarder (i.e., polyethylene sheet) is recommended below the foundation to limit migration of moisture through the slab from the underlying soil. The vapor retarder should conform to ASTM E1745, Class C or better and should have a permeance of less than 0.1 perms tested in accordance with ASTM E96. Penetrations and lapped joints should be sealed to ensure its integrity. Please refer to the latest edition of ACI 302.2R-06 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials and ASTM E1643, "Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs" for additional guidance on this issue.

Beam excavations should be dry and free of all loose or soft soils and deleterious materials prior to placement of concrete. Cavities formed as a result of excavation of soft or loose zones should be backfilled with properly compacted select fill. Inspection of the foundation excavations by a representative of this office is recommended prior to placement of the concrete.

4.5 Pavement

Both rigid and flexible pavements were analyzed for car and light truck traffic and parking and for drives and service areas. Overall, the specific pavement section will be dependent upon:

1. traffic loads and frequency;
2. pavement type and strength;
3. desired pavement life and ending condition; and
4. strength and condition of the subgrade

Information regarding the conditions stated in Items 1 through 3 was not available at the time of this report writing. In addition, specific laboratory testing to define the subgrade strength (i.e. CBR/K values), as outlined in Item 4, was beyond the scope of the investigation. However, reasonable engineering assumptions can be utilized for the purpose of the analysis in order to provide sections for both rigid and flexible pavements.

Based on the field and laboratory investigations, the upper surface soil consists of high plasticity sandy fat clays. For purposes of pavement analysis, the subgrade was assumed to be recompacted in accordance with the density and moisture recommendations in the **"Earthwork"** section. An effective modulus of subgrade reaction, k , of 100 pci, and a CBR of 3 were used. These values were estimated based on WES's knowledge and experience with similar soils and projects in this area.

Generally for rigid or concrete pavement, it is more cost effective to increase the pavement thickness and construct over a non-lime stabilized subgrade. However, stabilization does provide an all-weather working platform for the contractor, and this may be beneficial from a construction perspective, especially if construction will occur during the wetter part of the year, regardless of pavement type. Refer to the **"Earthwork"** section for additional information regarding the lime stabilization specifications.

Recommended pavement sections for light and heavy-duty traffic conditions are provided in Tables 4 and 5. Light duty is for areas expected to receive only car traffic. Heavy assumes the main access drive areas.

TABLE 4. FLEXIBLE PAVEMENT SECTION				
Section	Light Duty (Car Parking Areas)		Heavy Duty (Main Access Drive Areas)	
Hot Mix Asphaltic Concrete (HMAC) TxDOT Item 340 Type D Surface Coarse	2.0"	2.0"	2.0"	2.0"
Limestone Base Material (TxDOT Item 247 Grade 1-2)	8.0"	6.0"	12.0"	10.0"
TENSAR Geogrid	--	HX-5.5	--	HX-5.5
Compacted Subgrade	6"		6"	

TABLE 5. CONCRETE PAVEMENT SECTION		
Section	Light Duty (Car Parking Areas)	Heavy Duty (Drives Areas)
Reinforced Concrete (Minimum 3,500 pounds per square inch)	5.0"	6.0"
Compacted Subgrade	6"	6"

The heavy-duty concrete at the location of the trash dumpster should be 8-inches in thickness and be large enough to accommodate both the front and rear wheels of the vehicles used to pick up the trash dumpsters. Maintenance or operations managers need to stress the importance of placing the trash dumpsters in their proper locations to reduce the distress trash pickup operations place on the pavement.

Designs are based on a 20-year service life and are comparable to similar type projects in the area.

Analysis of Table 4 indicates an approximate 16 to 25 percent decrease in the thickness of the limestone base section can be obtained by using a geogrid such as a TENSAR HX-5.5 or equivalent. If utilized, it is recommended the geogrid be placed beneath the base material and on top of the compacted subgrade and overlapped in accordance with the manufacturer's recommendations. Overall, a geogrid will significantly improve the long-term performance of the pavement and reduce cracking. Regardless, periodic maintenance of asphalt pavement will be required.

Proper drainage and careful selection of base materials are critical to the performance of asphalt pavement. Ruts and birdbaths can lead to rapid pavement deterioration, mainly because they cause water to saturate the underlying base and subgrade soils.

Concrete pavement is more durable and will have long-term maintenance benefits compared to asphalt pavement. At a minimum, concrete pavement is recommended in areas that receive continuous repetitive traffic such as the drive approaches, truck turning and loading areas, and trash dumpster pads and approaches.

Concrete pavements should be properly reinforced and jointed, as per ACI, and should have a minimum 28-day compressive strength of 3,500 psi. Reinforcing for 6-inch-thick pavements should consist of #4 bars spaced at 18 inches on center each way, and 12 inches on center each way for pavements of 7-inch thickness or greater.

Concrete pavement sections should be saw-cut at an approximate spacing in feet of 2.5 to 3 times the pavement thickness expressed in inches, not to exceed a maximum spacing of 20 feet. (For example, a 6-inch pavement should be saw-cut in approximately 15 to 18-foot squares.) The actual joint pattern should be carefully designed to avoid irregular shapes. Recommended jointing techniques are discussed in detail in "Guide for Design and Construction of Concrete Parking Lots," published by the American Concrete Institute².

4.6 Earthwork

The earthwork construction will involve site and subgrade preparation, along with fill placement. The following subsections offer recommendations for preparing specifications for the work. Additionally, general considerations for foundation construction and related site improvement methods are outlined at the end of the section.

Site and Subgrade Preparation - All vegetation, topsoil containing organic material, and any soft or loose materials should be cleared and grubbed at the beginning of earthwork construction. A stripping depth of at least 6-inches is recommended.

After completion of initial site preparation, the subgrade within the building pad and any movement-sensitive flatwork areas should be excavated to a depth of two feet below existing

² "Guide for Design and Construction of Concrete Parking Lots" (1987). American Concrete Institute, Publication MSP 34, Silver Spring, MD.

grades. **This subgrade preparation should extend a minimum of 5-feet outside the perimeters of the proposed structure, and a minimum of 2-feet beyond any movement sensitive flatwork constructed adjacent to the structure.**

Subgrade Preparation - Upon completion of the stripping and excavation operations, the exposed subgrade should be proof-rolled with a minimum 15-ton dump truck or loader. This procedure is intended to assist in identifying localized soft pockets and should be performed in the presence of a WES representative. If any soft pockets is identified by the proof-rolling operations, these areas should be removed to firm materials and replaced with compacted select fill.

After proofrolling operations are completed, the exposed subgrade soils should be scarified to a depth of 6-inches, moisture conditioned if necessary, and compacted. The subgrade soils should be compacted to at least 95-percent of the maximum dry density as determined by the Standard Proctor (ASTM D698). The moisture content should be maintained at or above the optimum moisture content.

Engineered Fill Materials – After site and subgrade preparation is complete (including proof rolling), fill placement may begin. Fill should consist of imported select fill within the building area to finished grade, and general fill soils and/or select fill for the remainder of the site grading.

Select Fill (Building Area) - Select fill material used at this site for the building pad should consist of imported crushed limestone base or a suitable pit run material. Imported limestone base select fill should meet the plasticity and gradation requirements set forth in Texas Department of Transportation (TxDOT) Standard Specifications 2024; Item 247, Type A, Grade 1-2.

Alternatively, pit run select fills may be utilized provided the material have a maximum liquid limit of 40-percent and plasticity index (PI) between 5 and 18, and classify as a clayey sand (SC), lean sandy clay (CL). The Geotechnical Engineer shall pre-approve the proposed select fill to be utilized at this site. **Regardless, any pit run material should be capped with a minimum of 6-inches of crushed limestone base.**

The select fill soils should be placed in no greater than 8-inch thick loose and horizontal lifts and shall be should be compacted to a minimum density of 95-percent of the maximum dry density as determined by the Standard Proctor (ASTM D698) and within 2-percentage points of the optimum moisture content.

General Fill – On-site excavated soils free of organics and deleterious materials or imported soils can be used to raise the site grades, as necessary. This applies to all areas outside the building extents. Imported general fill soils should have a Plasticity Index (PI) of 35 or less.

General fill should be placed in maximum 8-inch loose lifts (note, loose lift thickness must be compatible with the compaction equipment) and shall be compacted to a minimum of 95

percent of the maximum density as determined by ASTM D 698, "Standard Proctor". The moisture content of the general fill soils should be maintained at or above the optimum moisture content.

Lime Stabilization (Pavement Subgrade)- Although not required, the final 6-inches of pavement subgrade may be lime stabilized as discussed in the **Pavement** section of this report. If utilized, lime stabilization should be conducted in accordance with TxDOT "Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges," 2014 Edition, Item 260. A specific lime series test was not performed on the subgrade soils. For preliminary budgetary purposes, lime shall be properly mixed at a rate of 7-percent of the maximum dry unit weight of the raw subgrade soils as determined by ASTM D698. Assuming an in-place unit weight of 100 pcf for the pavement subgrade soils, this percentage of lime equates to about 32 pounds of lime per square yard of treated subgrade. Once the final grading operations have been completed, additional lime testing should be performed within the upper 12 inches to determine if a higher or lower percentage of lime is required.

After proper curing time, usually 48 to 72 hours, the lime-stabilized soils should be compacted to a minimum of 95 percent of Standard Proctor density, ASTM D698 at or above optimum moisture content.

General Considerations - It is important to note that proper compaction of soil requires both the correct moisture content and "compactive effort" or energy. The compactive effort, or energy, imparted into the soil by the equipment used for compaction, has to be compatible with the lift thickness. The lighter the equipment (lower contact pressure), the thinner the loose lift of soil has to be to achieve adequate compaction.

Proper backfilling around the perimeter will reduce the potential for water seepage beneath the structure. Fill against the perimeter of the foundation, within the top 6 inches of subgrade, should consist of clay soils with a PI between 10 and 25. These materials should be placed and compacted in accordance with the recommendations outlined above.

Very hard dolomitic limestone rock was encountered at this site. As a result, high-powered rock excavation equipment, along with rock hammering, sawing, and milling tools, will be necessary for grading, foundation excavations, and/or utility trenches that extend deeper than approximately three feet below existing site grades.

Effective drainage away from the building should be ensured during construction. The soil and any flatwork areas within 10 feet of the building must slope away from the structure to promote proper drainage.

4.7 Construction Observation and Testing Frequency

It is recommended that the following items (as a minimum) be observed and tested by a representative of WES during construction.

Observation:

- Fill placement and compaction.
- Foundation construction and concrete placement.

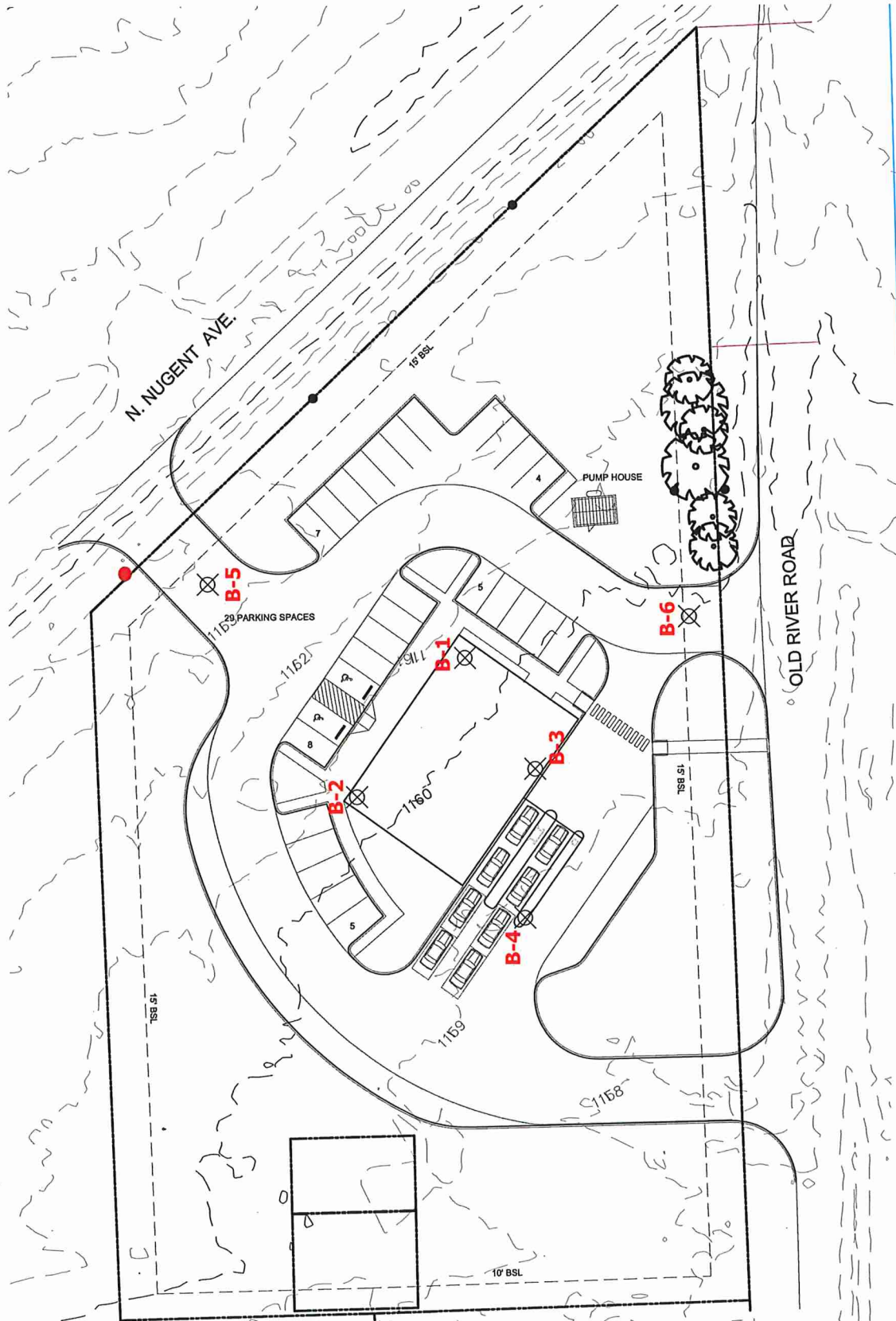
Testing:

- Earthwork
 - Three tests per lift within fills below the building area
 - One test per 5,000 square feet per lift within fills in the paving area
 - One test per 100 linear feet per lift in utility backfill.

(Note: More restrictive requirements may be required by the City, County, or associated entities).

The purpose of the recommended observation and testing is to confirm conformance with the above geotechnical recommendations and specifications for the building foundation.

APPENDIX





Aerial image obtained from Google Earth dated March 2025



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SURVEYING

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This document is
prepared by the
engineer and may
incorporate and may
regulatory approval.
Daniel Kovacsch, P.E.
License # 127402

Site Aerial Photograph
for
Security State Bank and Trust
Highway 356 & Old River Road
Johnson City, Texas

Revisions		
No.	Date	Description

Scale
1"=50' per 100' sheet
MCA Project No.
20-004
Date: No.

Project Number: 26-084

Date Completed: 05/04/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1161

DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P- Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1158				SANDY FAT CLAY, dark brown, stiff to hard (CH)	N = 15	19.0	52	27	26	61	96
					LIMESTONE, tan, very hard, dolomitic	N = 50/3"	18.9					
					N = 50/0"	2.7						
					N = 50/0"	1.7						
					N = 50/0"	2.4						
					N = 50/0"	1.9						
20					N = 50/0"	3.8						
25					Boring terminated at 20 feet Dry during drilling. Dry & Blocked @ 19-1/2' on 05/04/2026.							
30												
GPS Coordinates: N30.30653° W98.40659°												

Project Number: 26-084

Date Completed: 05/05/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1160.5

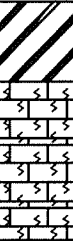
DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P - Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1158											

Project Number: 26-084

Date Completed: 05/04/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1159.5

DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P - Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1157			FAT CLAY, dark brown, very stiff (CH) -w/ sand and gravel	N = 19	17.4	61	24	37	50	77	
				LIMESTONE, tan, very hard, dolomitic	N = 50/0"	10.8						
					N = 50/0"	5.3						
				-refusal @ 7.5'	N = 50/0"	2.5						
10				Boring terminated at 7.5 feet Dry during drilling. Dry & Blocked @ 7' on 05/04/2026.								
15												
20												
25												
30												
						GPS Coordinates: N30.28555° W98.40661°						

Project Number: 26-084

Date Completed: 05/04/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1159

DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P-Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1157.5				SANDY FAT CLAY, dark brown, very stiff (CH)	N = 16	14.0				71	98
					LIMESTONE, tan, very hard, dolomitic	N = 50/0"	9.7					
						N = 50/0"	2.7					
					-refsual @ 7.5'	N = 50/0"	4.7					
10					Boring terminated at 7.5 feet Dry during drilling. Dry & Blocked @ 7' on 05/04/2026.							
15												
20												
25												
30												
GPS Coordinates: N30.28547° W98.40656°												

Project Number: 26-084

Date Completed: 05/05/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1163

DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P - Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1160		</									

Project Number: 26-084

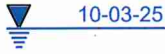
Date Completed: 05/05/2026

Project Name and Address: Security State Bank & Trust
Highway 356 & Old River Crossing
Johnson City, Texas

Ground Elevation: 1160

DEPTH (FT)	ELEVATION (FT)	WATER LEVEL	SAMPLE	GRAPHIC LOG	DESCRIPTION OF STRATA	FIELD TEST RESULTS P - Pocket Penetrometer N - SPT/Blow Count TC - TCP/Blow Count	MOISTURE CONTENT (%)	ATTERBERG LIMITS			PERCENT PASSING NO. 200 SIEVE	PERCENT PASSING NO. 4 SIEVE
								LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
								LL	PL	PI		
5	1156.5				SANDY LEAN CLAY, dark brown, very stiff (CL)	N = 11	16.0	41	17	24	72	98
					LIMESTONE, tan, very hard, dolomitic	N = 30-50/2"	14.9				65	91
					N = 50/0"	3.9						
10					Boring terminated at 6 feet Dry during drilling.							
15												
20												
25												
30												
						GPS Coordinates: N30.28574° W98.40632°						

SYMBOLS AND TERMS USED ON BORING LOGS

SAMPLER TYPE	WATER LEVEL
 Shelby Tube	 Water level at time of drilling
 Standard Penetration Test (SPT) / Split Spoon	 10-03-25 Subsequent water level and date
 Disturbed (Grab Sample)	
 Rock Core	

TERMS DESCRIBING CONSISTENCY OF SOIL AND ROCK

COARSE GRAINED SOILS (More than 50% retained on No. 200 Sieve)		FINE GRAINED SOILS (More than 50% passing the No. 200 sieve)			ROCK	
SPT N-Values (blows / foot)	Relative Density	SPT N-Values (blows / foot)	Pocket Pentrometer (tons / ft ²)	Relative Density	Rock Quality Designation (RQD)	
0 - 4	Very Loose	0 - 2	0 - 0.25	Very Soft	RQD (%)	Rock Quality
4 - 10	Loose	2 - 4	0.25 - 0.50	Soft	0 - 25	Very Poor
10 - 30	Medium Dense	4 - 8	0.50 - 1.0	Medium Stiff	25 - 50	Poor
30 - 50	Dense	8 - 15	1.0 - 2.0	Stiff	50 - 75	Fair
50 +	Very Dense	15 - 30	2.0 - 4.0	Very Stiff	75 - 90	Good
		30 +	4.0 +	Hard	90 - 100	Excellent

SOIL SYMBOLS AND DESCRIPTION

	LEAN CLAY (CL) (LL<50)		FAT CLAY (CH) (LL>50)		SANDY CLAY (CL-CH)		SAND (SP-SW)
	CLAYEY SAND (SC)		SILTY SAND (SM)		GRAVELLY CLAY or CLAYEY GRAVEL		
	(weathered) LIMESTONE (unweathered)						

TERMS CHARACTERIZING SOIL AND / OR ROCK STRUCTURE

calcareous	- containing appreciable quantities of calcium carbonate
well graded	- having wide range in grain sizes and substantial amounts of all intermediate particles sizes
poorly graded	- predominately of one grain size or having a range of sizes with some intermediate size missing
interbedded	- composed of alternate layers of different soil types
severely weathered (SWLS)	- most minerals somewhat decomposes ; much softer than fresh rock ; texture becoming indistinct but fabric and structure preserved
dolomitic	- contains appreciable quantities of magnesium carbonate alongside calcium carbonate; characterized by increased hardness, higher density