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Exhibit BB.
Neame Industrial Site Preliminary Geotechnical Engineering Report

LOUISIANA ECONOMIC DEVELOPMENT CERTIFIED SITE

LOUISIANA CENTRAL
Industry & Entrepreneurship

Neame Industrial Site
Preliminary Geotechnical Engineering Report

STRATUM ENGINEERING, LLC
Geotechnical Engineering ◆ Testing and Inspection Services

March 5, 2025

Louisiana Central
1302 Murray Street
Alexandria, Louisiana 71301

Attn: Mr. Dan Purvis

Re: Preliminary Geotechnical Investigation
LED Site Characterization
Neam Industrial Site
Vernon Parish, Louisiana
SE Project No. G25-012

Dear Mr. Purvis:

Stratum Engineering, LLC (SE) is pleased to submit our Preliminary Geotechnical Engineering Report for the above referenced project. The report includes the results of field and laboratory testing, as well as preliminary recommendations regarding the suitability of the site for future industrial developments.

We appreciate the opportunity to perform this geotechnical study and look forward to the development of the property and our continued involvement with this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,
STRATUM ENGINEERING, LLC

William "Dean" McInnis, P.E.
Vice President

Tony Y. Maroun, P.E.
Principal

STATE OF LOUISIANA
TONY Y. MAROUN
License No. 26198
PROFESSIONAL ENGINEER
3/5/25
CIVIL ENGINEERING

WDM/TYM

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PROJECT INFORMATION

Project Authorization

Stratum Engineering, LLC (SE) has completed a preliminary geotechnical exploration to characterize the Neam Industrial Site for a potential future development in Vernon Parish, Louisiana in support of the Louisiana Economic Development (LED) Site Certification process. The exploration was accomplished in general accordance with SE Proposal No. G24-191, dated December 5, 2024.

Project Description

The Neam Industrial property is located in an area that may be used for industrial/business developments. The site will be characterized to verify the soil conditions and provide preliminary foundation recommendations for typical structures which could be constructed at the site.

Generally, industrial developments could consist of multiple structures with associated light and heavy duty pavements. The buildings may be single or multi-story structures with steel frames and load bearing masonry or tilt up walls, or could be of cast-in-place concrete. Depending on the building spans, maximum interior column load could range from 100 to 300 kips. Maximum wall loads are assumed to be 5 to 10 kips per foot. Floor loads could range between 150 to 700 psf. The structures may be grade supported or dock high, requiring 4 to 5 feet of fill to reach the building finished floor elevation.

Traffic associated with industrial facilities of this size could consist of heavy tractor trailers with an average daily traffic (ADT) of 50 to 100 trucks per day for a design life of 20 years. For these types of facilities, rigid pavements are widely considered for their longevity and ability to support the high volume of traffic.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site in order to enable an evaluation of a suitable foundation system for potential future industrial facilities.

Based on the parcel size and the criteria provided by CSRS, the scope of services included drilling two (2) borings to a depth ranging from 30 to 50 feet at accessible locations across the site. The borings were located in the field by a Stratum Engineering representative using normal taping from existing landmarks as indicated on the attached Boring Location Plan which is a reproduction of an aerial photograph of the property.

In addition to drilling the soil borings, our scope of services included a reconnaissance of the project site, select laboratory testing, and preparation of this preliminary geotechnical report. The report briefly outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and provides results of analysis and recommendations regarding the following:

- Preliminary foundation types, depths, allowable bearing capacities, allowable pile capacities, and estimate of settlements;

- Seismic site classification;

- Typical soil parameters for flexible and rigid pavements.

The scope of geotechnical services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Prior to development of this site, an environmental site assessment is advisable.

SITE AND SUBSURFACE CONDITIONS

Site Description and Location

We understand the site encompasses approximately 50 acres of undeveloped property located between US Highway 171 and the existing railroad track just north of Parish Road 744 in Vernon Parish, Louisiana. The site is mostly wooded with the exception of a few natural surfaced trails which extend through the property.

Detailed grading information was not available at the time this report was prepared. However, it was assumed that 2 to 3 feet of fill may be needed to reach the design grades.

Drilling and Sampling

The borings were drilled with an All-Terrain Vehicle (ATV) mounted drilling rig. Auger and wet rotary drilling techniques were used to advance the borings. Samples were generally obtained continuously from the ground surface to a depth of ten feet and at maximum five foot intervals thereafter. Drilling and sampling techniques were accomplished in general accordance with ASTM Standards.

Undisturbed samples of cohesive soils were generally obtained using thin-wall tube sampling procedures in general accordance with the procedures for “Thin-Walled Tube Geotechnical Sampling of Soils” (ASTM D1587). These samples were extruded in the field with a hydraulic ram and were wrapped in aluminum foil prior to placement in a plastic wrapping to preserve moisture. The samples were transported to the laboratory in containers to prevent disturbance.

For cohesionless soils and semi-cohesive soils, Standard Penetration Tests (SPT) were performed to obtain standard penetration values of the soil. The standard penetration value (N) is defined as the number of blows of a 140 pound hammer, falling 30 inches, required to advance the split-barrel sampler one (1) foot into the soil. Samples of granular soils were obtained utilizing a 2 inch O.D. split-barrel sampler in general accordance with procedures for "Penetration Test and Split-Barrel Sampling of Soils" (ASTM D1586). To perform the test and obtain a sample, the sampler is lowered to the bottom of the previously cleaned drill hole and advanced by blows from the hammer. The number of blows is recorded for each of three (3) successive increments of 6 inches penetration. The "N" value is obtained by adding the second and third incremental numbers. The results of the standard penetration test indicate the relative density of cohesionless soils and thereby provide a basis for estimating the relative strength and compressibility of the soil profile components. The split spoon samples were identified according to the project number, boring number and depth, and were also placed in polyethylene plastic wrapping to protect against moisture loss.

The laboratory testing program included supplementary visual classification and water content tests on all of the soil samples. In addition, selected samples were subjected to unconfined compression testing, percent passing the #200 sieve and Atterberg Limits determination. Additional estimates of unconfined compressive strength were made using a hand penetrometer. The laboratory testing was performed in general accordance with ASTM Standard Procedures.

Subsurface Conditions

Based on the borings, about 12 inches of silty topsoil with organics covered the surface at the site. The topsoil was underlain by stiff to very stiff sandy lean clay to a depth of around 12 feet. Below the sandy clay, alternating layers of loose to dense silty and poorly graded sand were noted extending to a depth of at least 50 feet, the maximum depth explored.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the Appendix should be reviewed for specific information at the boring locations. These records include soil descriptions, stratification, penetration resistances, and locations of the samples and laboratory test data. The stratification shown on the boring logs represent the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples, which were not altered by laboratory testing, will be retained for 60 days from the date of this report and then will be discarded.

Groundwater Conditions

Groundwater was not encountered in the upper 10 feet in any of the borings during auger drilling, prior to converting to wet rotary drilling techniques. However, it should be noted that groundwater levels will fluctuate with seasonal variations in rainfall, extended periods of drought or surface runoff. Therefore, it is recommended that the actual groundwater level at the site be determined by the contractor at the time of the construction activities, if needed.

IBC Site Classification

The International Building Code (IBC), 2021 Edition, was reviewed to determine the site classification for seismic design. Based on the soils encountered in the borings and our experience in the general vicinity, the site can be classified as Site Class "D" as outlined in Section 1613.2.2 of the Building Code.

EVALUATION AND RECOMMENDATIONS

General

The type and depth of foundation suitable for a given structure primarily depends on several factors including the subsurface conditions, the function of the structure, the loads it may carry, the cost of the foundation and the criteria set by the Design Engineer with respect to vertical and differential movement which the structure can withstand without damage.

It is our understanding the site will be marketed for development of potential industrial facilities. Typical structures could be grade supported or dock high facilities requiring 4 to 5 feet of fill to reach the design grade.

The results of the exploration indicate that the soils at the site are fair in bearing quality and suitable for supporting the potential improvements on a shallow foundation system provided the site is prepared as recommended in the report. Details related to foundation recommendations and construction considerations are presented in subsequent sections of the report.

Shallow Foundations

Based on the field data and laboratory test results, the site is suitable to support typical industrial developments on shallow foundations bearing at least 2 feet below the finished grade. Shallow spread and continuous wall footings bearing in the compacted structural fill or in the naturally occurring stiff clay can be designed for maximum allowable bearing pressures of 2,500 and 2,000 pounds per square foot, respectively. Minimum dimensions of 24 inches for spread footings and 18 inches for continuous footings should be used in the design, even if the resulting bearing pressure is less than the allowable bearing pressure, to minimize the possibility of a local bearing failure. The recommended preliminary bearing capacities include a factor of safety of three (3).

Settlement

Areal settlement under a building is generally caused by the amount of fill placed, the building footprint and the subsurface soil conditions encountered in the building area. Similarly, footing settlement depends on the column or wall loads and the footing size as well as the soil conditions below the footing. At the time this report was prepared, the type of structures had not been identified and the amount of fill needed to achieve the design grade was not known. However, based on the subsurface conditions encountered at the site, areal settlement is anticipated to be minimal with the addition of 2 to 3 feet of fill.

Furthermore, based on the assumed structural loads, foundation settlement will be less than 1 inch provided the footings are designed for the recommended bearing pressures.

Floor Slab

A slab-on-grade may be supported on compacted low plasticity structural fill. While detailed site preparation recommendations were beyond the scope of this study, stripping of at least 12 inches should be anticipated to remove the topsoil with organics and other deleterious materials. Proofrolling should be accomplished following the stripping to identify any soft or unstable soils which should be removed from the floor slab area prior to fill placement and/or floor slab construction. Any required structural fill should be placed in lifts and be compacted to meet the applicable project specifications.

Deep Foundations

Generally, deep foundations systems are used to support heavily loaded structures by transferring the structural loads through the surficial soils to more adequate bearing strata and hence minimizing long term settlements.

Typical deep foundation systems used in the area include timber piles and auger cast-in-place piles as well as drilled piers which will derive their support capabilities mainly from skin friction along with some “end bearing” when embedded in the dense sand encountered around 20 feet.

Large timber piles driven to a penetration depth of about 25 to 30 feet could yield a maximum allowable compression capacity of at least 25 tons while 14-inch diameter auger cast-in-place piles installed to a penetration depth of 35 to 40 feet could be designed for a maximum allowable compression capacity of about 50 to 60 tons. The preliminary pile capacities presented in the report include a factor of safety of two (2) in compression.

Parameters for Pavement Design

Parking areas and drives associated with an industrial park are expected to consist generally of light duty pavement for employee parking as well as heavy duty pavement for large truck staging areas, parking areas and drives.

Based on the field data and laboratory test results, the near surface soil consists of sandy lean clay. Typical California Bearing Ratio (CBR) values for the existing sandy clay subgrade or imported clayey sand structural fill were estimated to be on the order of 4 to 5 corresponding to a Modulus of Subgrade Reaction (k) of about 125 pci which may be used for the design of flexible and rigid pavements, respectively. These values may be used along with the frequency and magnitude of anticipated traffic loads associated with the type of facility being constructed to yield adequate pavement sections for the development. Class II Base including crushed limestone or cement treated low plasticity clays for the flexible and/or rigid pavements would be viable options for the pavement.

CONSTRUCTION CONSIDERATIONS

Moisture Sensitive Soils/Weather Related Concerns

The upper silty soils encountered at the site are extremely sensitive to changes in moisture content and may lose significant strength if allowed to become saturated. In addition, soils that become wet may be slow to dry and thus significantly retard the progress of grading and compaction activities. During wet weather periods, increases in the moisture content of the upper soils can cause some reduction in the soil strength and support capabilities. Therefore, it will be advantageous to perform earthwork construction activities during dry weather. Should the near surface soils become wet, the site may be mitigated by repeated aeration and exposure to sunlight or by admixture treatment.

REPORT LIMITATIONS

The recommendations submitted in this report are based on the available subsurface information obtained by SE and assumed typical design loads for industrial developments. These recommendations are preliminary and general in nature. They should not be used in the design of a specific structure without conducting a detailed project specific investigation to verify the subsurface soil condition and determine if revisions to the recommendations are necessary.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

Once specific plans for a potential development are prepared, Stratum Engineering may be retained and provided the opportunity to conduct a more thorough geotechnical investigation and analysis utilizing project specific plans and specifications under consideration.

This report has been prepared for the exclusive use of Louisiana Central for marketing and planning of the Neam Industrial Site in Vernon Parish, Louisiana.

APPENDIX

STRATUM ENGINEERING, LLC

STRATUM ENGINEERING, LLC

BORING LOCATION PLAN

SE PROJECT NO. G25-012

GEOTECHNICAL ENGINEERING SERVICES
LED SITE CHARACTERIZATION
NEAM INDUSTRIAL SITE
VERNON PARISH, LOUISIANA

STRATUM ENGINEERING, LLC

LOG OF BORING B-1

LED SITE CHARACTERIZATION
NEAM INDUSTRIAL SITE
VERNON PARISH, LOUISIANA

TYPE OF BORING: WET ROTARY **LOCATION:** NORTH END OF SITE **PROJECT NO.:** G25-012

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Silty Topsoil with organics						22			
			Stiff to very stiff red Sandy Lean Clay			4.50			21			
5					1.85	4.50		99	21			
					1.80	4.50		102	18	48	26	60
10						4.50			18			
			Loose red Poorly Graded Sand	WOH					10			7
15												
			Dense red Silty Sand	49					22			
20												
				35					21			14
25												
			Medium dense to dense red Poorly Graded Sand	27					24			
30												
				33					23			9
35												
				29					24			
40												
				36					24			10
45												
				30					24			
50												

DEPTH OF BORING: 50 Feet **GROUNDWATER:** Dry in Upper 10 Feet Prior to Wet Rotary Drilling

DATE: 2/18/2025

STRATUM ENGINEERING, LLC

LOG OF BORING B-2

LED SITE CHARACTERIZATION
NEAM INDUSTRIAL SITE
VERNON PARISH, LOUISIANA

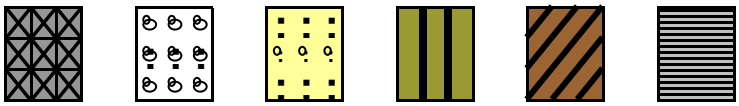
TYPE OF BORING: WET ROTARY **LOCATION:** SOUTH END OF SITE **PROJECT NO.:** G25-012

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Silty Topsoil with organics			1.50			13			
			Stiff to very stiff reddish orange Sandy Lean Clay			1.25			20	44	19	55
5						3.00			21			
					1.73	3.00		95	19			
10						4.50			19			
			Dense reddish orange Silty Sand	49					26			40
15												
20				48					23			
25				38					18			30
30				31					24			
			Boring Terminated at 30 Feet									
35												
40												
45												
50												

DEPTH OF BORING: 30 Feet **GROUNDWATER:** Dry in Upper 10 Feet Prior to Wet Rotary Drilling
DATE: 2/18/2025

KEY TO TERMS AND SYMBOLS USED ON LOGS

SOIL TYPE

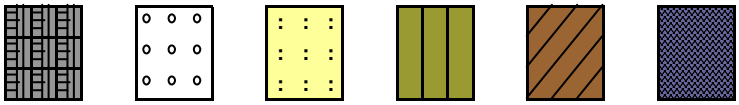


ROCK | GRAVEL | SAND | SILT | CLAY | PEAT

SAMPLER TYPE

NO SAMPLE | AUGER SAMPLE | SHELBY TUBE | SPLIT SPOON

MODIFIERS



STONE | GRAVELY | SANDY | SILTY | CLAYEY | FILL

NO RECOVERY | ROCK CORE | 2" SHELBY TUBE | TXDOT CONE

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487 (1980)

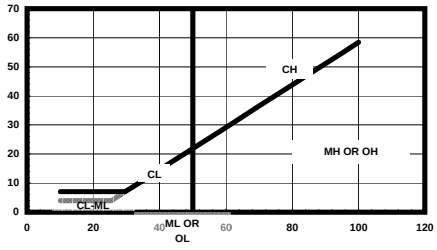
MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS LESS THAN 50% PASSING NO. 200 SIEVE	GRAVEL & GRAVELY SOILS LESS THAN 50% PASSING NO. 4 SIEVE	CLEAN GRAVEL (LITTLE OR NO FINES	GW	WELL GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
			GP	POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		W/ APPRECIABLE FINES	GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN 50% PASSING NO. 4 SIEVE	CLEAN SANDS LITTLE FINES	SW	WELL GRADED SAND, GRAVELY SAND (LITTLE FINES)
			SP	POORLY GRADED SANDS, GRAVELY SAND (L.FINES)
		SANDS WITH APPREA. FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS,SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS & VERY FINE SANDS,ROCK FLOUR SILTY OR CLAYEY FINE SANDS OR CLAYEY SILT W/ LOW PI
			CL	INORGANIC CLAY OF LOW TO MEDIUM PI LEAN CLAY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PI
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS
			OH	ORGANIC CLAYS OF MED TO HIGH PI, ORGANIC SILT
HIGHLY ORGANIC SOIL			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS
UNCLASSIFIED FILL MATERIALS			ARTIFICIALLY DEPOSITED AND OTHER UNCLASSIFIED SOILS AND MAN-MADE SOIL MIXTURES	

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	SHEAR STRENGTH IN TONS/FT^2
VERY SOFT	0. TO 0.125
SOFT	0.125 TO 0.25
FIRM	0.25 TO 0.5
STIFF	0.5 TO 1.0
VERY STIFF	1.0 TO 2.0
HARD	> 2.0 OR 2.0+

RELATIVE DENSITY - GRANULAR SOILS

CONSISTENCY	N-VALUE (BLOWS/FOOT)
VERY LOOSE	0-4
LOOSE	4-9
MEDIUM DENSE	10-29
DENSE	30-49
VERY DENSE	> 50 OR 50+



ABBREVIATIONS

HP - HAND PENETROMETER
TV - TORVANE
MV - MINIATURE VANE
UC - UNCONFINED COMPRESSION TEST
UU - UNCONSOLIDATED UNDRAINED TRAIXIAL
CU - CONSOLIDATED UNDRAINED

NOTE: PLOT INDICATES SHEAR STRENGTH AS OBTAINED BY ABOVE TESTS

DELAYED GROUNDWATER LVL

LEVEL GROUNDWATER ENCOUNTERED

CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

6"	3"	3/4"	4	10	40	200

BOUL--DERS	COBBLES	GRAVEL		SAND			SILT	CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE		

152	76.2	19.1	4.76	2.0	0.42	0.075	0.002

GRAIN SIZE IN MM