## APPENDIX



## **BORING LOCATION PLAN**

- · GEOTECHNICAL ENGINEERING
- Construction Materials
   Engineering & Testing
- · Soils · ASPHALT · CONCRETE



October 26, 2018 City of Kingsville Attn: Bill Donnell CAESAR AVENUE RECONSTRUCTION 6<sup>th</sup> Street to 7<sup>th</sup> Street; Kingsville, Texas RETL Job No.: G118392

## ROCK ENGINEERING & TESTING LABORATORY, INC.

www.rocktesting.com

6817 LEOPARD STREET • CORPUS CHRISTI, TEXAS 78409-1703 OFFICE: (361) 883-4555 • FAX: (361) 883-4711 10856 VANDALE ST. SAN ANTONIO, TEXAS 78216-3625 OFFICE: (210) 495-8000 • FAX: (210) 495-8015

Rock Engineering and Testing Laboratory, Inc. 6817 Leopard St Corpus Christi, TX 78409 Telephone: 361-883-4555 Fax: 361-883-4711

CLIENT: City of Kingsville PROJECT: Caesar Avenue

LOCATION: 6th Street to 7th Street; Kingsville, Texas

NUMBER: G118392

	170	il lice	Fa	X: 361	-883-4	1711					DATE(S) DRILLED: 9/12/18 - 9/12/18
П	FIELD DATA LABORATORY DATA										DRILLING METHOD(S):
H			No. (1995) (1995)		AT	TERBI LIMIT	ERG				Diamond Tip Coring Rig/Hand Auger
SOIL SYMBOL	ОЕРТН (FT)	SAMPLE NUMBER	N: BLOWS/FT P: TONS/SQ FT Tv: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	GROUNDWATER INFORMATION: Groundwater was not encountered during drilling.
IL S	PTH	SAMPLE	VON TONS	TSIC				S DE	REN NS/	NUS	SURFACE ELEVATION: N/A
SC	<u> </u>	8 /	6/ 2 2 2 8	ž	LL	PL	PI	문요	S TS	Σ	DESCRIPTION OF STRATUM
TASK.		AUGER S-1	Qc= 25	20	35	27	8			23	PAVEMENT; 21/2-inches HMAC over 91/2-inches Caliche Base.
	- 1	AUGER S-2	Qc= 26	26	46	23	23			65	SANDY LEAN CLAY, dark brown, moist, very stiff. (CL)
	- 2 -	AUGER S-3	Qc= 25	29							Same as above, light brown.
	- 3	AUGER S-4	Qc= 19	26							Same as above, stiff.
	- 4	AUGER S-5	Qc= 22	25						,	SANDY LEAN CLAY, light brown, moist, very stiff.
	- 5										Boring was terminated at a depth of 5-feet.
	N - STANDARD PENETRATION TEST RESISTANCE P - POCKET PENETROMETER RESISTANCE Qc - STATIC CONE PENETROMETER TEST INDEX							NCE			REMARKS: Boring depth and location were determined by RETL. Drilling operations were performed by RETL at GPS Coordinates N 27.50663° W 97.86629°.



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		N. III	_									DATE(S) DRILLED: 9/12/18 - 9/12/18
	FIELD DATA LABORATORY DATA									Α		DRILLING METHOD(S):
SOIL SYMBOL	<b>DEP</b> TH (FT)	SAMPLE NUMBER	SAMPLES	N: BLOWS/FT P: TONS/SQ FT Tv: TONS/SQ FT Qc: TONS/SQ FT	MOISTURE CONTENT (%)		LEASTIC LIMIT		DRY DENSITY POUNDS/CU.FT	COMPRESSIVE STRENGTH (TONS/SQ FT)	MINUS NO. 200 SIEVE (%)	Diamond Tip Coring Rig/Hand Auger  GROUNDWATER INFORMATION: Groundwater was not encountered during drilling.  SURFACE ELEVATION: N/A  DESCRIPTION OF STRATUM  PAVEMENT; 2½-inches HMAC over 9½-inches Caliche Base.
T C C	- 1	AUGE S-1	R	Qc= 22	25	45	20	25			24	
		AUGE S-2	R	Qc= 20	22	57	18	39			65	SANDY FAT CLAY, dark brown, moist, very stiff. (CH)
	- 2	AUGE S-3	R	Qc= 15	24							Same as above, brown to light brown, stiff.
	- 4	AUGE S-4	R	Qc= 20	19							Same as above, light brown, very stiff.
	_	AUGE S-5	R	Qc= 15	17							SANDY FAT CLAY, light brown, moist, stiff.
	P - P(	OCK	ΞT	RD PENE PENETRO CONE PE	OME	TER	RES	ISTA	NCE			REMARKS:  Boring depth and location were determined by RETL. Drilling operations were performed by RETL at GPS Coordinates N 27.50674° W 97.86710°.



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Field Classification for "Consistency" is determined with a 0.25" diameter penetrometer

KEY TO SOIL CLASSIFICATION AND SYMBOLS UNIFIED SOIL CLASSIFICATION SYSTEM TERMS CHARACTERIZING SOIL STRUCTURE MAJOR DIVISIONS SYMBOL NAME Well Graded Gravels or Gravel-Sand mixtures, SLICKENSIDED - having inclined planes of little or no fines weakness that are slick and glossy in appearance Poorly Graded Gravels or Gravel-Sand mixtures, **GP GRAVEL** little or no fines FISSURED - containing shrinkage cracks, AND GRAVELLY 0 frequently filled with fine sand or silt; usually more or less vertical SOILS **GM** Silty Gravels, Gravel-Sand-Silt mixtures LAMINATED (VARVED) - composed of thin layers of varying color and texture, usually grading from GC Clayey Gravels, Gravel-Sand-Clay Mixtures sand or silt at the bottom to clay at the top COARSE GRAINED CRUMBLY - cohesive soils which break into small SOILS Well Graded Sands or Gravelly Sands, little or no SW blocks or crumbs on drying CALCAREOUS - containing appreciable quantities Poorly Graded Sands or Gravelly Sands, little or SP of calcium carbonate, generally nodular SAND no fines AND SANDY WELL GRADED - having wide range in grain sizes SOILS and substantial amounts of all intermediate SM Silty Sands, Sand-Silt Mixtures particle sizes POORLY GRADED - predominantly of one grain SC Clayey Sands, Sand-Clay mixtures size uniformly graded) or having a range of sizes with some intermediate size missing (gap or skip Inorganic Silts and very fine Sands, Rock Flour, graded) ML Silty or Clayey fine Sands or Clayey Silts SILTS Inorganic Clays of low to medium plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean SYMBOLS FOR TEST DATA AND CLAYS CL LL < 50 Groundwater Level (Initial Reading)  $\nabla$ Organic Silts and Organic Silt-Clays of low OL FINE plasticity **GRAINED** Groundwater Level SOILS (Final Reading) Inorganic Silts, Micaceous or Diatomaceous fine MH Sandy or Silty soils, Elastic Silts Shelby Tube Sample SILTS AND CLAYS CH Inorganic Clays of high plasticity, Fat Clays LL > 50 SPT Samples Organic Clays of medium to high plasticity, OH Organic Silts Auger Sample HIGHLY ORGANIC PT Peat and other Highly Organic soils Rock Core SOILS TERMS DESCRIBING CONSISTENCY OF SOIL COARSE GRAINED SOILS FINE GRAINED SOILS NO. BLOWS/FT. NO. BLOWS/FT. UNCONFINED DESCRIPTIVE DESCRIPTIVE STANDARD PEN. STANDARD PEN. COMPRESSION **TERM TERM** TEST TEST TONS PER SQ. FT. Very Loose 0 - 4Very Soft < 2 < 0.25 Loose 4 - 10 Soft 2 - 4 0.25 - 0.50Medium 10 - 30Firm 4 - 8 0.50 - 1.0030 - 50Stiff 8 - 15 1.00 - 2.00 Dense 15 - 30 Very Dense Very Stiff 2.00 - 4.00 over 50 Hard over 30 over 4.00