

October 22, 2019

TO: **Eastern Carolina Construction**

154 US-158
Camden, NC 27921

Attn: Mr. Sean Robey

RE: Report of Construction Materials Testing Services

Currituck Reserve Subdivision – Phase I

Moyock, Currituck County, North Carolina

GET Solutions Project # EC19-244T

Dear Mr. Robey:

As requested, a representative of **G E T Solutions Inc.** visited the project site between the dates of September 20, 2019 and October 15, 2019. The purpose of our visits was to observe and evaluate the roadway construction activities within the proposed subdivision. These evaluations were performed by completing the following tasks:

- Ø Performing an evaluation on the Aggregate Base Course (ABC) materials and the Crushed Concrete materials used as ABC including compaction and thickness testing within the roadway alignment as well as Crushed Concrete bulk sampling.
- Ø Performing laboratory analysis on the Crushed Concrete bulk sample including Proctor, moisture content, and sieve analysis and testing. The proctor previously completed on the ABC materials for Phase I of this project was referenced during compaction testing on the limited portion of the roadway alignments where ABC was placed.
- Ø Performing asphalt coring, sampling, and laboratory testing of the recently placed surface mix (S-9.5B) asphalt materials.

The development at this site and as it pertains to this report included the overlay of an existing portion of Ephraim Drive as well as the construction of new Deceleration and Acceleration lanes along Tulls Creek Road, Campus Drive (extension of Ephraim Drive; STA 10+00 to STA 30+20), and Currituck Reserve Parkway (STA 10+00 to 36+00) per plan Sheet C001 dated June 29, 2018. The project required a pavement section composed of 6 inches of ABC materials overlain by 2-inches of surface mix asphalt materials (Type S-9.5b) for Campus Drive and Currituck Reserve Parkway. Additionally, it is understood that the pavement section required for the proposed deceleration and acceleration lanes was to consist of 8 inches of ABC materials overlain by 4 inches of surface mix asphalt materials (Type S-9.5b). The project specifications required testing of the ABC materials and asphalt materials is performed for quality assurance, in accordance with the NCDOT requirements.

SCOPE OF SERVICES

For this project, **G E T Solutions, Inc.** has performed the following tasks:

- § Performed bulk soil sampling of the Crushed Concrete materials placed within the observed roadway alignments. The sample was returned to our Elizabeth City, NC laboratory for natural moisture, full sieve, and Proctor testing in general accordance with NCDOT requirements. The laboratory test results indicated the imported Crushed Concrete materials were in general accordance with NCDOT requirements with respect to aggregate gradation and were classified to consist of poorly graded GRAVEL (GP-GM) with Sand. The results of these testing procedures are provided on the “Moisture Density Relationship Proctor Curve” and “Particle Size Distribution” test report sheets attached to this report.
- § Performed compaction testing on the Crushed Concrete materials placed within the observed roadway alignments. The compaction testing procedures that were performed on the dates of September 20 and September 26, 2019 indicated the in place Crushed Concrete materials were compacted, or re-compacted, to at least 100% of the materials’ maximum dry density as determined by the Standard Proctor (ASTM D698). Additionally, the Crushed Concrete materials within the roadway alignments as well as within the deceleration and acceleration lanes were evaluated for thickness at the compaction test locations, which indicated a thickness ranging from 6 to 7 inches and 8 to 8.5 inches (respectively) at the tested locations. The results of these testing procedures and their associated test locations are provided on the “Compaction Test Report” sheets attached to this report.
- § Performed coring operations at fifteen (15) locations with the use of a 6-inch diameter core barrel within the observed roadway alignment. Core locations were established in the field by a **G E T Solutions, Inc.** representative prior to initiating the coring operations.
- § Performed laboratory testing procedures at **G E T Solutions, Inc.’s** laboratory located in Elizabeth City, NC. The laboratory testing procedures consisted of average core specimen thickness and bulk specific gravity as well as asphalt content and asphalt aggregate gradation analysis. The laboratory test procedures were executed in general accordance with NCDOT testing procedures. The specific gravity (density) and thickness test results are provided in the following table (Table I – Asphalt Laboratory Test Results). The asphalt content test results are presented in Table II and the aggregate gradation test results are attached to this report. As an exception, the aggregate gradation testing procedures for core samples ED-1 and ED-4 (Ephraim Dr overlay and Campus Dr, respectively) are currently on-going and will be provided upon completion.

Table I – Asphalt Laboratory Test Results

Sample #	Sample Location ⁽¹⁾	Asphalt Type	Average Sample Thickness (in.)	Specific Gravity	Percent Compaction (Min. 90%) ⁽²⁾
Acceleration / Deceleration Lanes					
AC-1	Acceleration Lane: Approx. 40' from Campus Drive, Approximate Center	S-9.5B	1.55	2.214	91.0
		S-9.5B	2.65	2.213	90.9
AC-2	Acceleration Lane: Approx. 240' from Campus Drive, Approximate Center	S-9.5B	1.76	2.204	90.4
		S-9.5B	3.54	2.207	90.7
DC-1	Deceleration Lane: Approx. 130' from Campus Drive, Approximate Center	S-9.5B	1.07	2.210 ⁽³⁾	90.8 ⁽³⁾
		S-9.5B	3.06		
DC-2	Deceleration Lane: Approx. 30' from Campus Drive, Approximate Center	S-9.5B	0.47	2.193 ⁽³⁾	90.1 ⁽³⁾
		S-9.5B	3.66		
Average Composite Thickness (S-9.5b)			4.44	2.206	91
Campus Drive					
ED-1	Approx. STA 29+70; 4' Offset of West Curb	S-9.5B	1.84	2.193	90.1
ED-2	Approx. STA 24+70; 4.5' Offset of East Curb	S-9.5B	2.06	2.195	90.2
ED-3	Approx. STA 19+70; 4' Offset of West Curb	S-9.5B	2.14	2.188	89.9
ED-4	Approx. STA 14+70; 3.' Offset of West Curb	S-9.5B	1.74	2.174	89.3
ED-5	(Ephraim Dr. Overlay): Approx. STA 9+70; 4' Offset of North Curb	S-9.5B	1.32	2.136	87.8
ED-6	(Ephraim Dr. Overlay): Approx. STA 04+70; 5' Offset of South Curb	S-9.5B	1.03	2.093	86.0
Average (S-9.5B)			1.18	2.163	89
Currituck Reserve Parkway					
CR-1	Approx. STA 10+50; 5' Offset of North Curb	S-9.5B	2.58	2.198	90.3
CR-2	Approx. STA 15+50; 4' Offset of South Curb	S-9.5B	1.97	2.245	92.2
CR-3	Approx. STA 20+50; 3.5' Offset of North Curb	S-9.5B	2.08	2.176	89.4
CR-4	Approx. STA 25+50; 4.5' Offset of South Curb	S-9.5B	1.91	2.164	88.9
CR-5	Approx. STA 30+50; 5' Offset of North Curb	S-9.5B	1.62	2.123	87.2
Average (S-9.5B)			2.03	2.181	90

Note (1) = Locations provided in the table above are considered to be approximate.

Note (2) = Percent compaction specification based on 2018 NCDOT HMA requirements and on the laboratory rice specific gravity value of 2.434 for Type S-9.5B, furnished by C&L Concrete Works, Inc.

Note (3) = Specific gravity testing performed as a composite sample test on the adhered (tack coat) top and bottom layers due to potential damage to the top lift of asphalt when attempting to split the lifts.

Table II – Asphalt Content Test Results

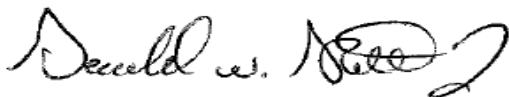
Sample # and Asphalt Type	Sample Location	Asphalt Content (%)⁽¹⁾
AC-2 S-9.5B	Acceleration Lane: Approx. 240' from Campus Drive, Approximate Center	5.6
DC-1 S-9.5B	Deceleration Lane: Approx. 130' from Campus Drive, Approximate Center	5.6
ED-1 S-9.5B	Ephrain Drive Overlay: Approx. STA 29+70; 4' Offset of West Curb	5.7 ⁽²⁾
ED-4 S-9.5B	Ephrain Drive Ext (Campus Drive): Approx. STA 14+70; 3' Offset of West Curb	5.7 ⁽²⁾
CR-1 S-9.5B	Currituck Reserve Parkway; Approx. STA 10+50; 5' Offset of North Curb	5.7
CR-4 S-9.5B	Currituck Reserve Parkway; Approx. STA 25+50; 4.5' Offset of South Curb	6.0

Note (1) = Percent asphalt requirement for Type S9.5b is 5.8% +/- 0.7% per the Job Mix Formula (JMF) sheet provided by the contractor and the NCDOT allowable tolerance.

Note (2) = Asphalt aggregate gradation testing is currently in process for these samples and not completed at this time.

We appreciate the opportunity to be of service to you on this project, and trust you will call this office with any questions that you may have.

Respectfully Submitted,
GET Solutions, Inc.

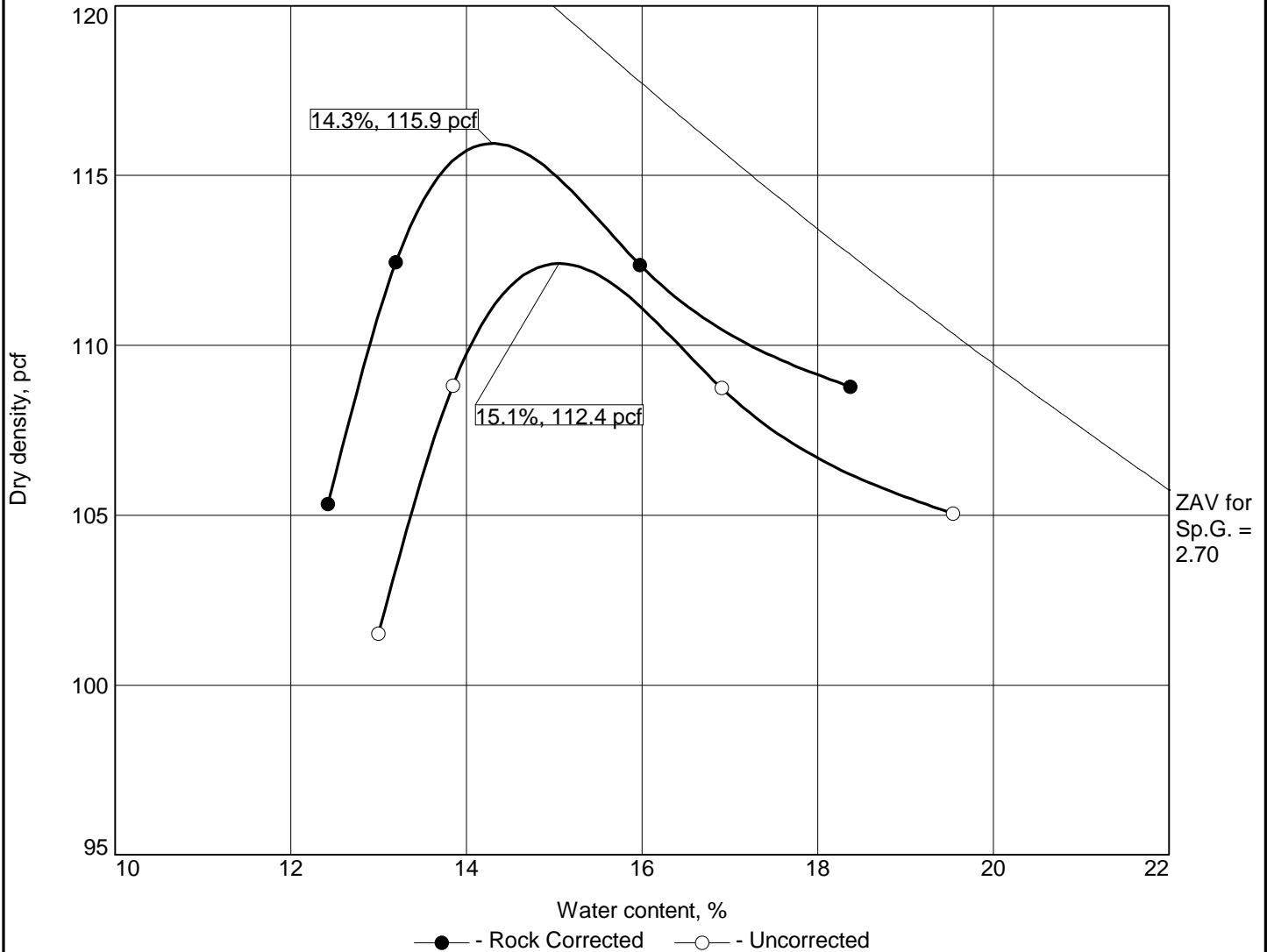


Gerald W. Stalls Jr., P.E.
Senior Project Engineer
NC Lic. #034336



Attachment: Moisture Density Relationship (Proctor Curve)
Particle Size Distribution Report
Compaction Test Report(s)
Particle Size Distribution Report(s):
Mix Type S-9.5B; Cores AC-2, DC-1, CR-1, CR-4

MOISTURE DENSITY RELATIONSHIP (PROCTOR CURVE)



Test specification: ASTM D 698-12 Method C Standard
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

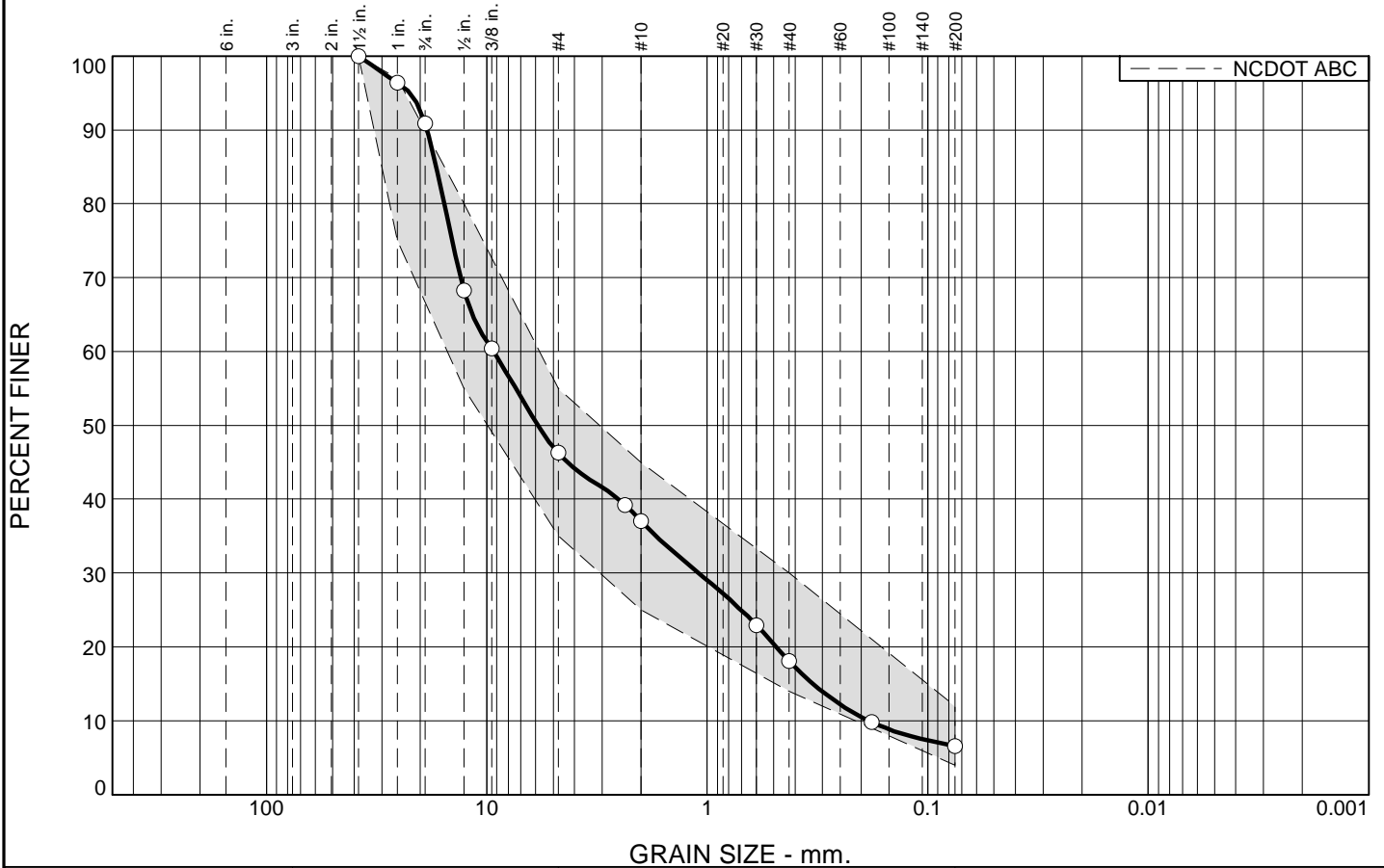
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
	GP-GM	A-1-a	8.8		NV	NP	9.1	6.6

ROCK CORRECTED TEST RESULTS		UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 115.9 pcf		112.4 pcf	Crushed Concrete
Optimum moisture = 14.3 %		15.1 %	
Project No. EC19-244T Client: Eastern Carolina Construction Project: Currituck Reserve <input type="radio"/> Location: CRMP, Moyock Plant Stockpile Sample Number: 1			Remarks: Proctor No. 1 <

Figure

Tested By: D. Forehand

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	9.1	44.6	9.3	18.9	11.5	6.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0	100.0	
1.0	96.4	75.0 - 97.0	
.75	90.9		
.5	68.2	55.0 - 80.0	
.375	60.4		
#4	46.3	35.0 - 55.0	
#8	39.2		
#10	37.0	25.0 - 45.0	
#30	22.9		
#40	18.1	14.0 - 30.0	
#80	9.8		
#200	6.6	4.0 - 12.0	

* NCDOT ABC

Material Description

Crushed Concrete

Atterberg Limits

PL= NP

LL= NV

PI= NP

Coefficients

D₉₀= 18.6617

D₈₅= 16.9412

D₆₀= 9.3255

D₅₀= 5.8610

D₃₀= 1.0937

D₁₅= 0.3318

D₁₀= 0.1860

C_u= 50.14

C_c= 0.69

Classification

USCS= GP-GM

AASHTO= A-1-a

Remarks

F.M.=4.87

Location: CRMP, Moyock Plant Stockpile
Sample Number: 1

Date:

GET
SOLUTIONS, INC.
Elizabeth City, North Carolina

Client: Eastern Carolina Construction

Project: Currituck Reserve

Project No: EC19-244T

Figure

**G E T Solutions, Inc.**

106 Capital Trace; Unit E
Elizabeth City, North Carolina 27909
Tel: (252) 335-9765
Fax: (252) 335-9766

COMPACTION TEST REPORT

Project:	Currituck Reserve	Date:	9/20/19
Project Location:	Moyock, North Carolina	Technician:	T. Schuyler
Client:	Eastern Carolina Construction	Job Number:	EC19-244T
General Contractor:	Eastern Carolina Construction	Weather:	Clear Temp. (°F) _____
Grading Contractor:	Eastern Carolina Construction	General Test Location:	Roadway Alignments

Test Number	Moisture (%)	Dry Density (pcf)	Wet Density (pcf)	Proctor Number	% Proctor		Pass	Fail	Test Elevation*	Test Location (Grid, Coordinates, Roadway Station, etc.)
					Spec	Actual				
1	11.6	116.0	129.5	1	100	100	X		2" BFG	Campus Drive; Approx. STA 10+50; Center of Inbound Lane
2	12.3	117.3	131.7	1	100	100	X		2" BFG	Campus Drive; Approx. STA 13+00; Center of Outbound Lane
3	12.5	111.0	124.9	1	100	96		X	2" BFG	Campus Drive; Approx. STA 15+50; Center of Outbound Lane
4	13.6	116.2	132.0	1	100	100	X		2" BFG	Campus Drive; Approx. STA 18+00; Center of Inbound Lane
5	13.4	111.9	126.9	1	100	97		X	2" BFG	Campus Drive; Approx. STA 20+50; Center of Inbound Lane
6	12.8	115.8	130.6	1	100	100	X		2" BFG	Campus Drive; Approx. STA 23+00; Center of Outbound Lane
7	12.9	110.6	124.9	1	100	95		X	2" BFG	Campus Drive; Approx. STA 25+50; Center of Inbound Lane
8	11.7	112.4	125.6	1	100	97		X	2" BFG	Campus Drive; Approx. STA 28+00; Center of Outbound Lane
9	11.5	116.0	129.3	1	100	100	X		4" BFG	Deceleration Lane; Approx. 20' From Ephraim Dr.
10	11.6	115.8	129.2	1	100	100	X		4" BFG	Acceleration Lane; Approx. 20' From Ephraim Dr.

Compaction Equipment Used:	Vibratory Roller	Proctor Number:	1
Field Testing Procedure:	ASTM D 6938	Proctor Type:	ASTM D 698
Field Testing Method:	x Method A Depth: 4" - 6" inches	Material Description:	Crushed Concrete
	Method B Depth: Backscatter	Max. Dry Density (pcf):	115.9
		Optimum Moisture (%):	14.3

Gauge Standardization Counts:		Gauge Identification:	
Moisture: 634	Density: 2101	Make: Troxler	Model: 3430 Serial #: 32867

Test locations and test elevations are approximate and are established in the field by the GET Solutions, Inc. technician.

* Note: BFF = Below Finish Floor, BFG = Below Finish Grade, FG = Finished Grade

Remarks: _____

**GET Solutions, Inc.**

106 Capital Trace; Unit E
Elizabeth City, North Carolina 27909
Tel: (252) 335-9765
Fax: (252) 335-9766

COMPACTION TEST REPORT

Project:	Currituck Reserve	Date:	9/20/19
Project Location:	Moyock, North Carolina	Technician:	T. Schuyler
Client:	Eastern Carolina Construction	Job Number:	EC19-244T
General Contractor:	Eastern Carolina Construction	Weather:	Clear Temp. (°F) _____
Grading Contractor:	Eastern Carolina Construction	General Test Location:	Roadway Alignments

Test Number	Moisture (%)	Dry Density (pcf)	Wet Density (pcf)	Proctor Number	% Proctor		Pass	Fail	Test Elevation*	Test Location (Grid, Coordinates, Roadway Station, etc.)
					Spec	Actual				
11	13.7	115.5	131.3	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 35+80; Inbound Lane
12	13.9	116.2	132.4	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 33+10; Outbound Lane
13	14.2	115.4	131.8	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 30+60; Inbound Lane
14	13.8	117.7	133.9	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 28+10; Outbound Lane
15	14.6	115.6	132.5	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 25+80; Inbound Lane
16	15.7	116.1	134.3	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 23+30; Outbound Lane
17	14.1	115.5	131.8	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 20+80; Inbound Lane
18	13.6	117.6	133.6	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 18+30; Outbound Lane
19	13.8	117.4	133.6	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 15+80; Inbound Lane
20	13.6	117.1	133.0	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 13+30; Inbound Lane

Compaction Equipment Used:	Vibratory Roller	Proctor Number:	1
Field Testing Procedure:	ASTM D 6938	Proctor Type:	ASTM D 698
Field Testing Method:	x Method A Depth: 4" - 6" inches	Material Description:	Crushed Concrete
	Method B Depth: Backscatter	Max. Dry Density (pcf):	115.9
		Optimum Moisture (%):	14.3

Gauge Standardization Counts:		Gauge Identification:	
Moisture: 634	Density: 2101	Make: Troxler	Model: 3430 Serial #: 32867

Test locations and test elevations are approximate and are established in the field by the GET Solutions, Inc. technician.

* Note: BFF = Below Finish Floor, BFG = Below Finish Grade, FG = Finished Grade

Remarks: _____

**G E T Solutions, Inc.**

106 Capital Trace; Unit E
Elizabeth City, North Carolina 27909
Tel: (252) 335-9765
Fax: (252) 335-9766

COMPACTION TEST REPORT

Project:	Currituck Reserve	Date:	9/20/19
Project Location:	Moyock, North Carolina	Technician:	T. Schuyler
Client:	Eastern Carolina Construction	Job Number:	EC19-244T
General Contractor:	Eastern Carolina Construction	Weather:	Clear Temp. (°F) _____
Grading Contractor:	Eastern Carolina Construction	General Test Location:	Roadway Alignments

Test Number	Moisture (%)	Dry Density (pcf)	Wet Density (pcf)	Proctor Number	% Proctor		Pass	Fail	Test Elevation*	Test Location (Grid, Coordinates, Roadway Station, etc.)
					Spec	Actual				
21	13.1	116.1	131.3	1	100	100	X		2" BFG	Currituck Reserve Pkwy; Approx. STA 11+00; Inbound Lane
22	10.9	115.6	128.2	1	100	100	X		2" BFG	Campus Drive; Approx. STA 30+00; Center of Outbound Lane

Compaction Equipment Used:	Vibratory Roller	Proctor Number:	1
Field Testing Procedure:	ASTM D 6938	Proctor Type:	ASTM D 698
Field Testing Method:	x Method A	Material Description:	Crushed Concrete
	Method B	Max. Dry Density (pcf):	115.9
		Optimum Moisture (%):	14.3

Gauge Standardization Counts:		Gauge Identification:	
Moisture: 634	Density: 2101	Make: Troxler	Model: 3430
		Serial #:	32867

Test locations and test elevations are approximate and are established in the field by the GET Solutions, Inc. technician.

* Note: BFF = Below Finish Floor, BFG = Below Finish Grade, FG = Finished Grade

Remarks: _____

**G E T Solutions, Inc.**

106 Capital Trace; Unit E
Elizabeth City, North Carolina 27909
Tel: (252) 335-9765
Fax: (252) 335-9766

COMPACTION TEST REPORT

Project:	Currituck Reserve	Date:	9/26/19
Project Location:	Moyock, North Carolina	Technician:	A. Strickland
Client:	Eastern Carolina Construction	Job Number:	EC19-244T
General Contractor:	Eastern Carolina Construction	Weather:	Cloudy Temp. (°F) _____
Grading Contractor:	Eastern Carolina Construction	General Test Location:	Roadway & Turn Lanes

Test Number	Moisture (%)	Dry Density (pcf)	Wet Density (pcf)	Proctor Number	% Proctor		Pass	Fail	Test Elevation*	Test Location (Grid, Coordinates, Roadway Station, etc.)
					Spec	Actual				
1	14.8	115.8	132.9	1	100	100	X		4" BFG	Acceleration Lane; Approx. 50' From Campus Drive
2	11.8	115.8	129.5	1	100	100	X		4" BFG	Acceleration Lane; Approx. 150' From Campus Drive
3	13.8	116.3	132.3	1	100	100	X		4" BFG	Deceleration Lane; Approx. 30' From Campus Drive
4	13.9	117.1	133.4	1	100	100	X		4" BFG	Deceleration Lane; Approx. 80' From Campus Drive
5	14.0	117.5	134.0	1	100	100	X		2" BFG	Re-Test: Campus Drive; Approx. STA 15+50; Center of Outbound Lane
6	10.6	116.8	129.2	1	100	100	X		2" BFG	Re-Test: Campus Drive; Approx. STA 20+50; Center of Inbound Lane
7	11.8	119.4	133.5	1	100	100	X		2" BFG	Re-Test: Campus Drive; Approx. STA 25+50; Center of Inbound Lane
8	10.8	116.2	128.7	1	100	100	X		2" BFG	Re-Test: Campus Drive; Approx. STA 28+00; Center of Outbound Lane
9	12.6	115.6	130.2	1	100	100	X		2" BFG	Grander Dr; Approx. STA 42+65; Inbound Lane
10	11.9	116.1	129.9	1	100	100	X		2" BFG	Grander Dr ; Approx. STA 10+30; Inbound Lane

Compaction Equipment Used:	Vibratory Roller	Proctor Number:	1
Field Testing Procedure:	ASTM D 6938	Proctor Type:	ASTM D 698
Field Testing Method:	x Method A Depth: 4" - 6" inches	Material Description:	Crushed Concrete
	Method B Depth: Backscatter	Max. Dry Density (pcf):	115.9
		Optimum Moisture (%):	14.3

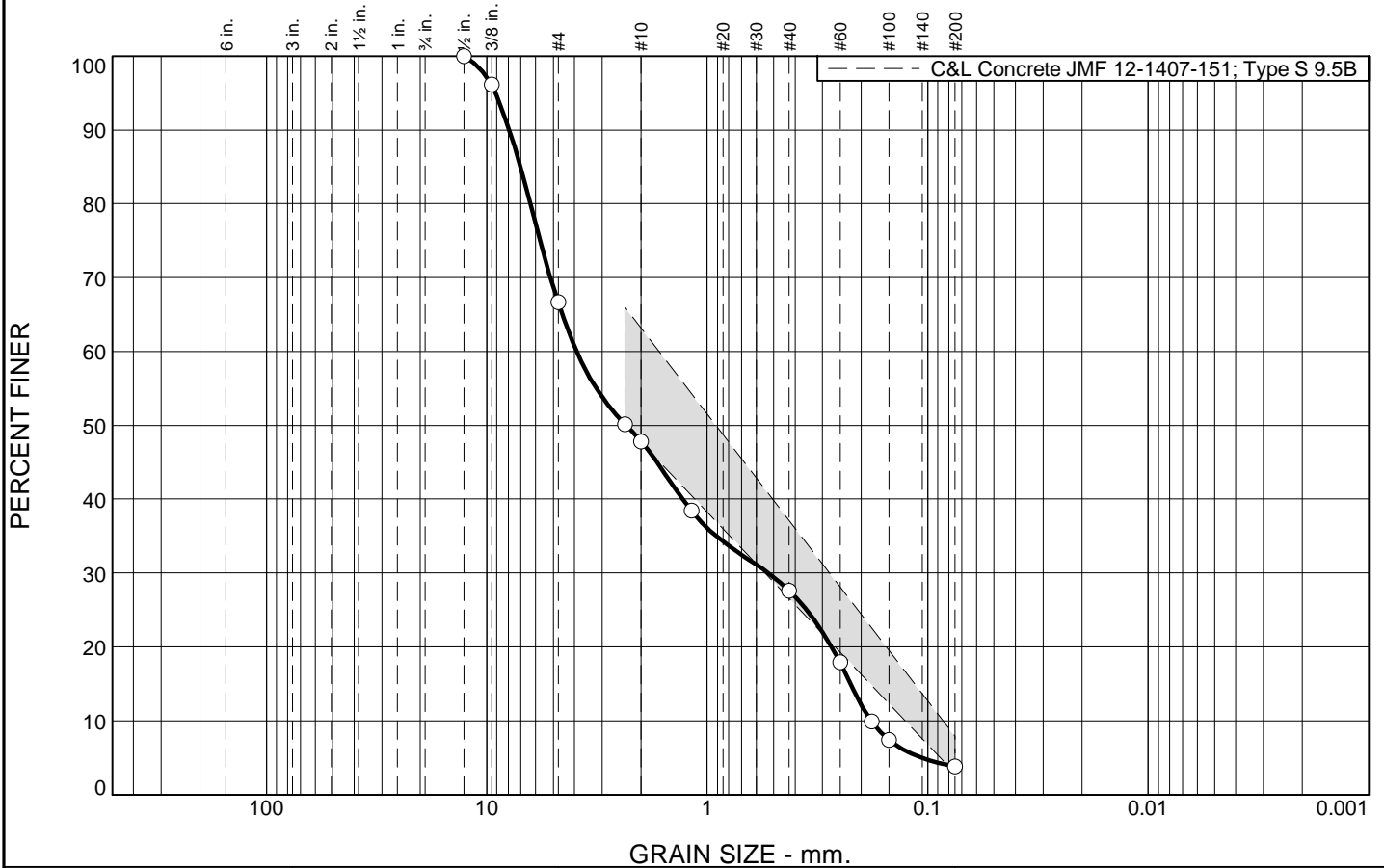
Gauge Standardization Counts:		Gauge Identification:		
Moisture: 711	Density: 2066	Make: Troxler	Model: 3430	Serial #: 32487

Test locations and test elevations are approximate and are established in the field by the GET Solutions, Inc. technician.

* Note: BFF = Below Finish Floor, BFG = Below Finish Grade, FG = Finished Grade

Remarks: _____

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	33.4	18.8	20.2	23.8	3.8	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100.0	50.0 - 66.0	
.375	96.1		
#4	66.6		
#8	50.1		
#10	47.8		
#16	38.4	2.9 - 7.9	
#40	27.6		
#60	17.9		
#80	9.9		
#100	7.4		
#200	3.8		

Material Description

Asphalt Core Sample: S-9.5B mix type

Atterberg Limits

PL= NP

LL= NV

PI= NP

Coefficients

D₉₀= 7.9147

D₈₅= 7.0555

D₆₀= 3.9137

D₅₀= 2.3419

D₃₀= 0.5296

D₁₅= 0.2237

D₁₀= 0.1810

C_u= 21.62

C_c= 0.40

Classification

USCS= SP

AASHTO= A-1-a

Remarks

Asphalt Core AC-2: Top Lift

Asphalt Content = 5.6%

F.M.=3.88

* C&L Concrete JMF 12-1407-151; Type S 9.5B

Location: Acceleration Lane Core AC-2; Surface
Sample Number: 1

Date:

GET
SOLUTIONS, INC.
Elizabeth City, North Carolina

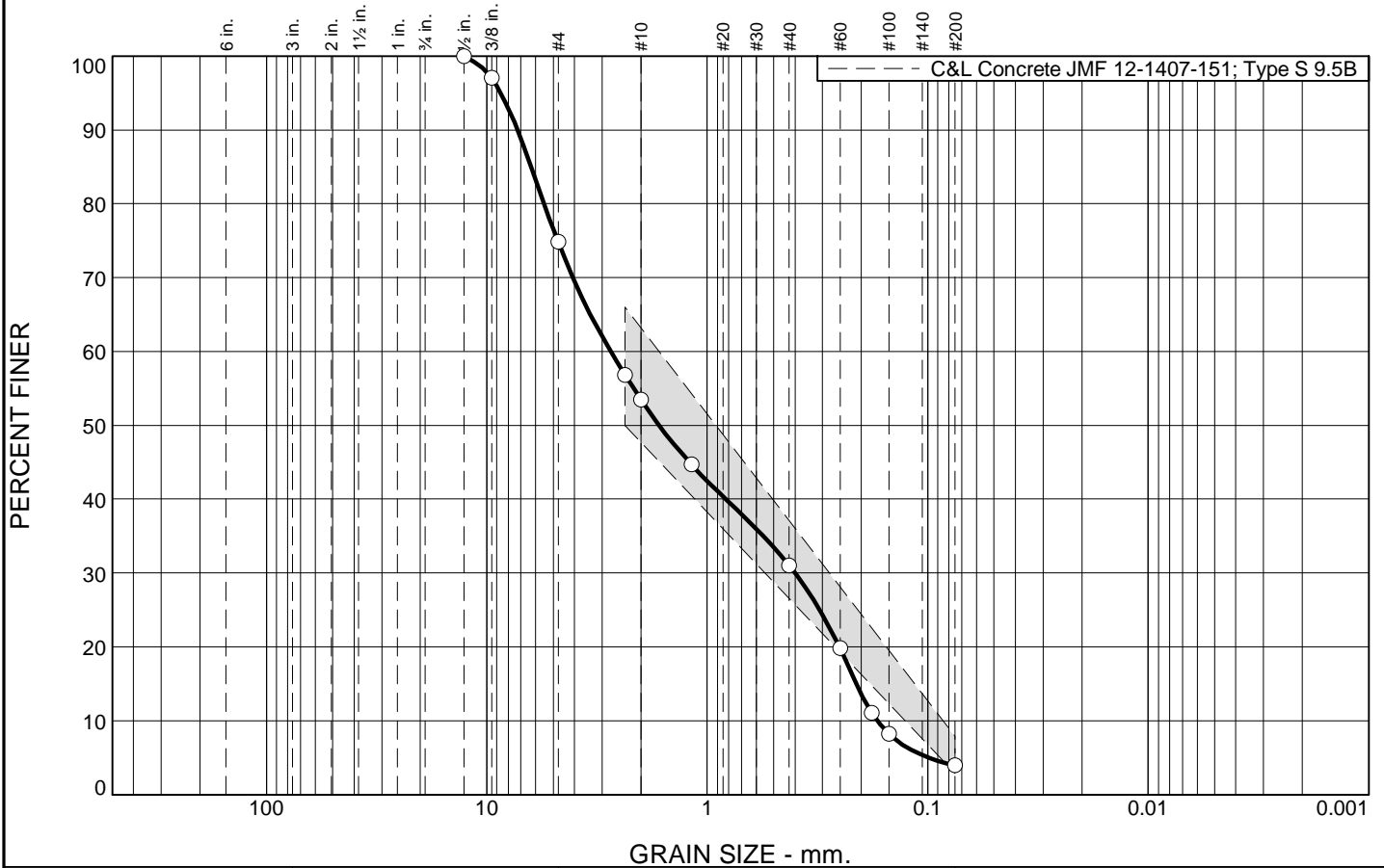
Client: Eastern Carolina Construction

Project: Currituck Reserve

Project No: EC19-244T

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	25.2	21.3	22.5	27.1	3.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100.0	50.0 - 66.0	
.375	97.1		
#4	74.8		
#8	56.8		
#10	53.5		
#16	44.7	2.9 - 7.9	
#40	31.0		
#60	19.8		
#80	11.1		
#100	8.2		
#200	3.9		

Material Description

Asphalt Core Sample: S-9.5B mix type

Atterberg Limits

PL= NP

LL= NV

PI= NP

Coefficients

D₉₀= 7.2723

D₈₅= 6.2992

D₆₀= 2.7424

D₅₀= 1.6543

D₃₀= 0.4001

D₁₅= 0.2108

D₁₀= 0.1699

C_u= 16.14

C_c= 0.34

Classification

USCS= SP

AASHTO= A-1-b

Remarks

Asphalt Core DC-1: Bottom Lift

Asphalt Content = 5.6%

F.M.=3.58

* C&L Concrete JMF 12-1407-151; Type S 9.5B

Location: Deceleration Lane Core DC-1, Base
Sample Number: 2

Date:

GET
SOLUTIONS, INC.
Elizabeth City, North Carolina

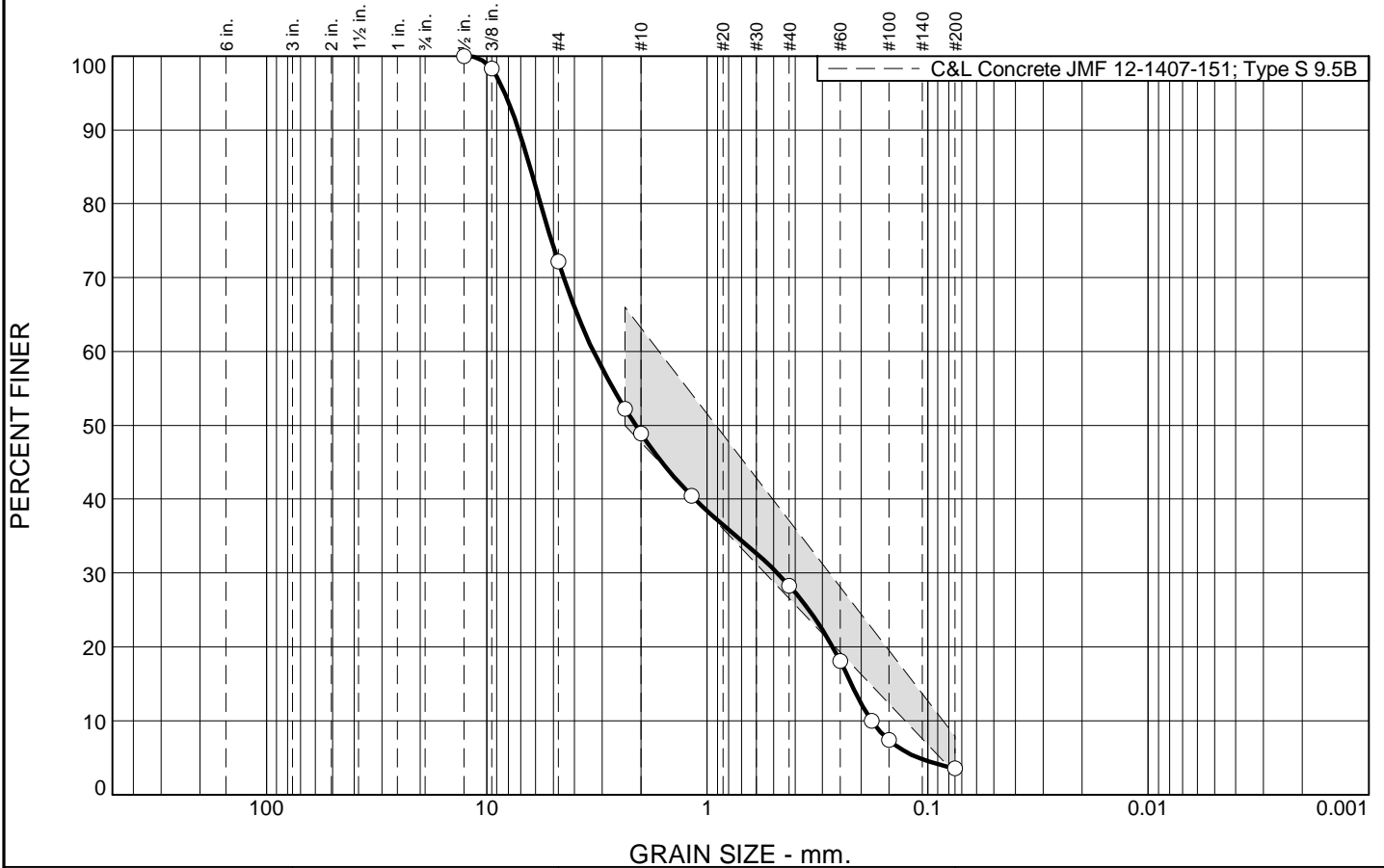
Client: Eastern Carolina Construction

Project: Currituck Reserve

Project No: EC19-244T

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	27.8	23.3	20.6	24.7	3.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100.0	50.0 - 66.0	
.375	98.3		
#4	72.2		
#8	52.3		
#10	48.9		
#16	40.5	2.9 - 7.9	
#40	28.3		
#60	18.1		
#80	10.0		
#100	7.4		
#200	3.6		

Material Description

Asphalt Core Sample: S-9.5B mix type

Atterberg Limits

PL= NP

LL= NV

PI= NP

Coefficients

D₉₀= 7.1884

D₈₅= 6.3763

D₆₀= 3.2777

D₅₀= 2.1154

D₃₀= 0.4820

D₁₅= 0.2221

D₁₀= 0.1804

C_u= 18.17

C_c= 0.39

Classification

USCS= SP

AASHTO= A-1-a

Remarks

Asphalt Core CR-1

Asphalt Content = 5.7%

F.M.=3.74

* C&L Concrete JMF 12-1407-151; Type S 9.5B

Location: Currituck Reserve Parkway Core CR-1
Sample Number: 3

Date:

GET
SOLUTIONS, INC.
Elizabeth City, North Carolina

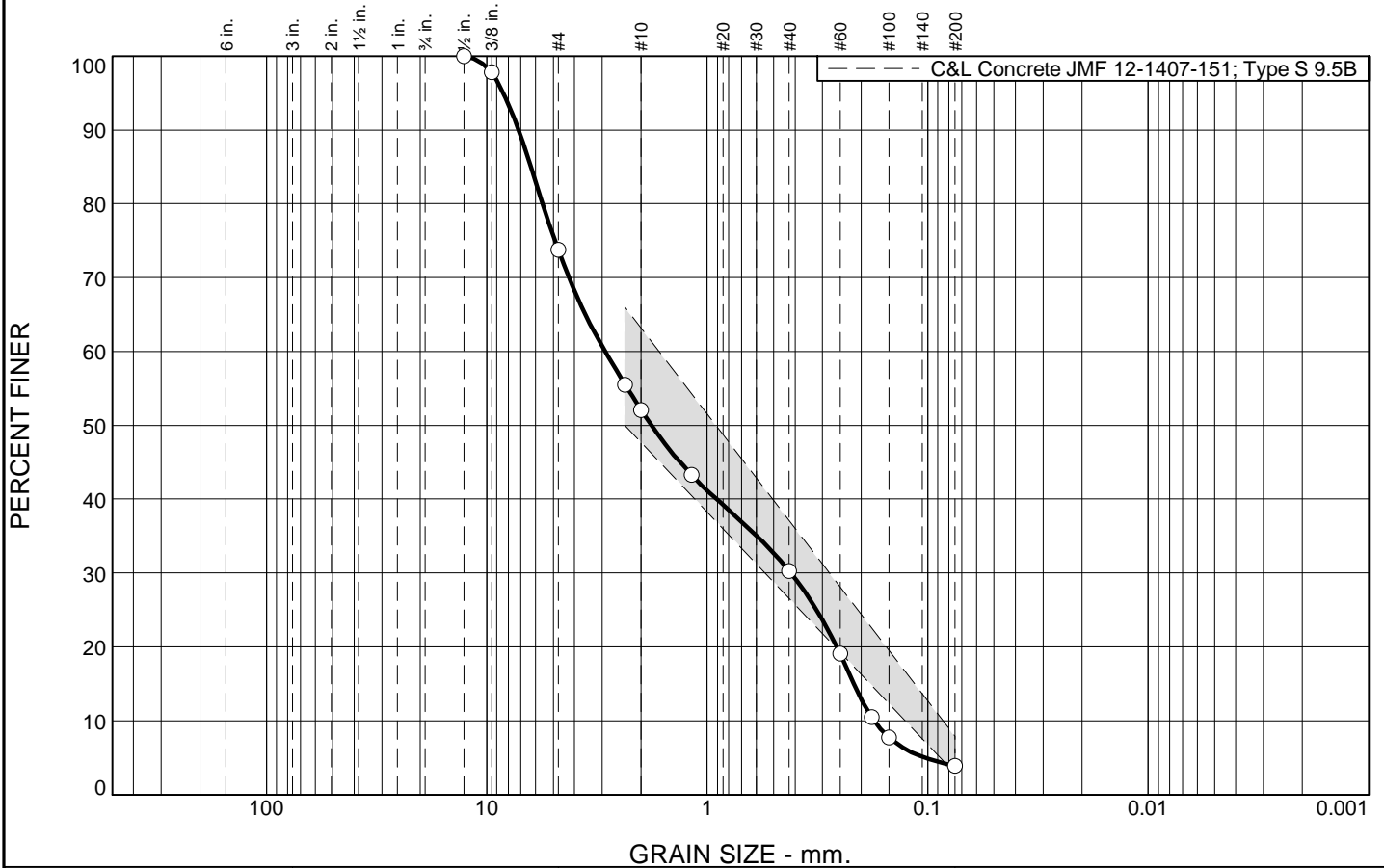
Client: Eastern Carolina Construction

Project: Currituck Reserve

Project No: EC19-244T

Figure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	26.2	21.7	21.8	26.4	3.9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
.5	100.0	50.0 - 66.0	
.375	97.8		
#4	73.8		
#8	55.5		
#10	52.1		
#16	43.3	2.9 - 7.9	
#40	30.3		
#60	19.1		
#80	10.5		
#100	7.8		
#200	3.9		

* C&L Concrete JMF 12-1407-151; Type S 9.5B

Material Description

Asphalt Core Sample: S-9.5B mix type

Atterberg Limits

PL= NP

LL= NV

PI= NP

Coefficients

D₉₀= 7.1951

D₈₅= 6.3164

D₆₀= 2.9054

D₅₀= 1.7954

D₃₀= 0.4183

D₁₅= 0.2162

D₁₀= 0.1757

C_u= 16.53

C_c= 0.34

Classification

USCS= SP

AASHTO=

Remarks

Asphalt Core CR-4

Asphalt Content = 5.7%

F.M.=3.63

Location: Currituck Reserve Parkway Core CR-4
Sample Number: 4

Date:

GET
SOLUTIONS, INC.
Elizabeth City, North Carolina

Client: Eastern Carolina Construction

Project: Currituck Reserve

Project No: EC19-244T

Figure