

NOTES:

1. HYDROGRAPHIC SURVEY PERFORMED BY RACE COASTAL ENGINEERING, LLC (RACE) ON APRIL 8, 2020.
2. IN-WATER DEPTHS RECORDED WITH AN ODOM ECHOTRAC CV-100 ECHO SOUNDER AND 200KHZ 8" TRANSDUCER.
3. HORIZONTAL POSITIONING AND REAL TIME TIDE READINGS WERE RECORDED USING A TOPCON HIPER RTK BASE ROVER SYSTEM.
4. DATA PROCESSED WITH HYPACK SOFTWARE. SOUNDINGS SORTED WITH HYPACK CROSS-SORT UTILITY.
5. SUPPLEMENTAL INFORMATION TAKEN BY RACE ON DECEMBER 14, 2022 UTILIZING TRIMBLE RTK SPS986 GPS UNITS.
6. COORDINATES REFER TO CONNECTICUT STATE PLANE COORDINATE SYSTEM NAD 1983, U.S. SURVEY FEET.
7. BENCHMARK DATA: VERTICAL CONTROL IS TOWN OF WESTPORT BM #398. THE BENCHMARK IS A DRILL HOLE SET IN A ROCK ON THE SOUTH SIDE OF BLUFF POINT. ELEVATION: 10.10' (NAVD 88)
8. THE NAVD 88 TO MLW CONVERSION FOR THE PROJECT HAS BEEN TAKEN AS 3.66' PER NOAA STATION ID: 8468191 - SAUGATUCK RIVER. NAVD 88 IS LOCATED ABOVE MLW THEREFORE THE CONVERSION SHOULD BE ADDED TO NAVD 88 TO CONVERT TO MLW.
9. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED, AND CAN ONLY BE CONSIDERED AS INDICATING CONDITIONS EXISTING AT THAT TIME.
10. AERIAL PHOTOGRAPH TAKEN FROM THE CT ECCO VIEWER ONLINE DATABASE. THE PHOTO HAS A FLYOVER DATE OF MARCH 2016.
11. VOLUME COMPUTATION PERFORMED USING CARLSON 2022 SOFTWARE.
12. CONTOURS IN THE VERTICAL DATUM OF MEAN LOW WATER.

DREDGE QUANTITIES			
DREDGE AREA (SF)	BASE DREDGE VOLUME (CY)	1' OVERDEPTH VOLUME (CY)	BASE + 1' OVERDEPTH VOLUME (CY)
6900	575	300	875

BASE DREDGE TO -8.0' MLW

REV	DATE	DESCRIPTION
PROGRESS NOT FOR CONSTRUCTION		
		611 Access Road Stratford, CT 06615 Tel.: 203-377-0663 racecoastal.com
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THIS DRAWING IS COPYRIGHTED		
Prepared for		
CEDAR POINT YACHT CLUB 1 BLUFF POINT WESTPORT, CT 06880		
Project		
SAND RELOCATION 1 BLUFF POINT WESTPORT, CT 06880		
Drawing		
DREDGE PLAN		
Designed	Drawn	Checked
CBK	CBK	HNS
Job No.	Date	Drawing No.
2022118	02/09/2023	1 of 1

DREDGE PLAN
SCALE: 1" = 30'-0"

NOT VALID WITHOUT ENGINEER'S SEAL



Connecticut Materials Testing Lab, Inc.

7 Lexington Avenue, South Norwalk, CT 06854 (203) 838-6978 Fax (203) 831-8132

GRAIN SIZE DISTRIBUTION

CLIENT: RACE Coastal Engineering

DATE: 12/20/2022

PROJECT No.: 22-202

PROJECT: Cedar Point Yacht Club

LAB ID #: 7909 ~ 7914

METHOD: C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates

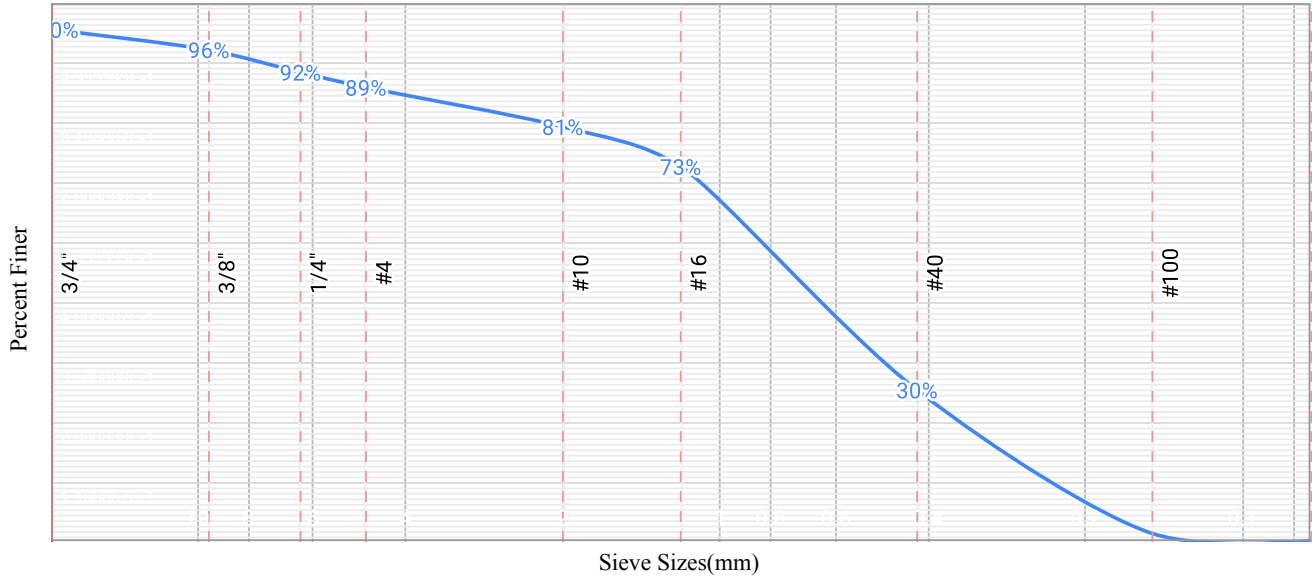
C117 - Standard Test Method for Materials Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing

D422 - Standard Test Method for Particle-Size Analysis of Soils

REMARKS: _____

LAB TECHNICIAN: Jesus Fanas

ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	0.00%	11.3%	7.7%	51.4%	29.4%	0.3%	

Sieve Size	% Finer	Specification *		Pass? (X=No)
		Min	Max	
3/4"	100%			
3/8"	96%			
1/4"	92%			
#4	89%			
#10	81%			
#16	73%			
#40	30%			
#100	2%			
#200	0.3%			

Material Description
Brown Poorly graded Sand
Coefficients
D90= 5.46 D85= 3.43 D60= 0.9560
D50= 0.7794 D30= 0.4263 D15= 0.2782
D10= 0.2298 Cu= 4.16 Cc= 0.83
Classification
USCS= SP AASHTO= A-1-b
Remarks

* No specification provided

Location: Cedar YC North floater 8:22
Sample No: 7909

Type of Sieve: Dry Sieve
Sampled by: Client

Date Sampled: 12/14/2022
Date tested: 12/20/2022

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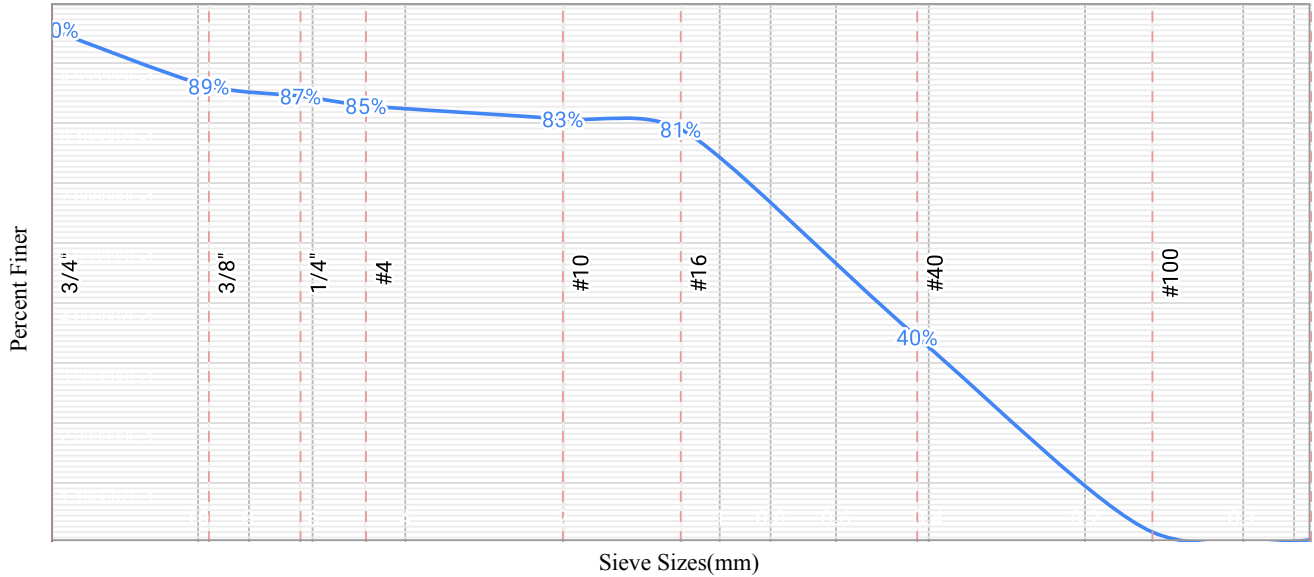
Client: RACE Coastal Engineering
Project: RACE Coastal Engineering

Project No: 22-202

References: ASTM D75, C702, C117, C136, C566 are applied to the above Results

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ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	0.00%	14.9%	2.6%	42.6%	39.5%	0.5%	

Sieve Size	% Finer	Specification *		Pass? (X=No)
		Min	Max	
3/4"	100%			
3/8"	89%			
1/4"	87%			
#4	85%			
#10	83%			
#16	81%			
#40	40%			
#100	2%			
#200	0.5%			

Material Description
Brown Poorly graded Sand
Coefficients
D90= 10.42 D85= 4.61 D60= 0.7999
D50= 0.6101 D30= 0.3489 D15= 0.2421
D10= 0.2065 Cu= 3.87 Cc= 0.74
Classification
USCS= SP AASHTO= A-1-b
Remarks

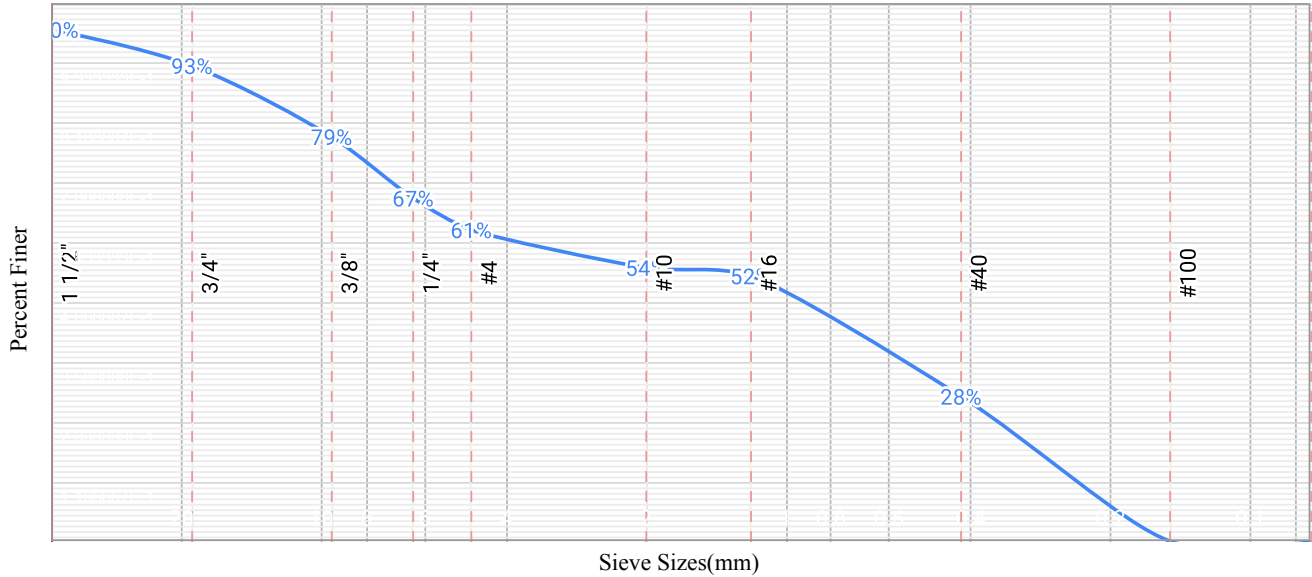
* No specification provided

Location: Cedar YC South floater 8:28 **Type of Sieve:** Dry Sieve **Date Sampled:** 12/14/2022
Sample No: 7910 **Sampled by:** Client **Date tested:** 12/20/2022

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References: ASTM D75, C702, C117, C136, C566 are applied to the above Results
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ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	7.07%	32.0%	7.4%	25.1%	28.3%	0.1%	

Sieve Size	% Finer	Specification *		Pass? (X=No)
		Min	Max	
1 1/2"	100%			
3/4"	93%			
3/8"	79%			
1/4"	67%			
#4	61%			
#10	54%			
#16	52%			
#40	28%			
#100	0.2%			
#200	0.1%			

Material Description		
Brown Poorly graded Sand with Gravel		
Coefficients		
D90= 16.99	D85= 13.57	D60= 4.4222
D50= 1.1276	D30= 0.4722	D15= 0.2914
D10= 0.2435	Cu= 18.16	Cc= 0.21
Classification		
USCS= SP		AASHTO= A-1-b
Remarks		

* No specification provided

Location: Cedar YC South beach 9:05

Type of Sieve: Dry Sieve

Date Sampled: 12/14/2022

Sample No: 7911

Sampled by: Client

Date tested: 12/20/2022

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Client: RACE Coastal Engineering

Project: RACE Coastal Engineering

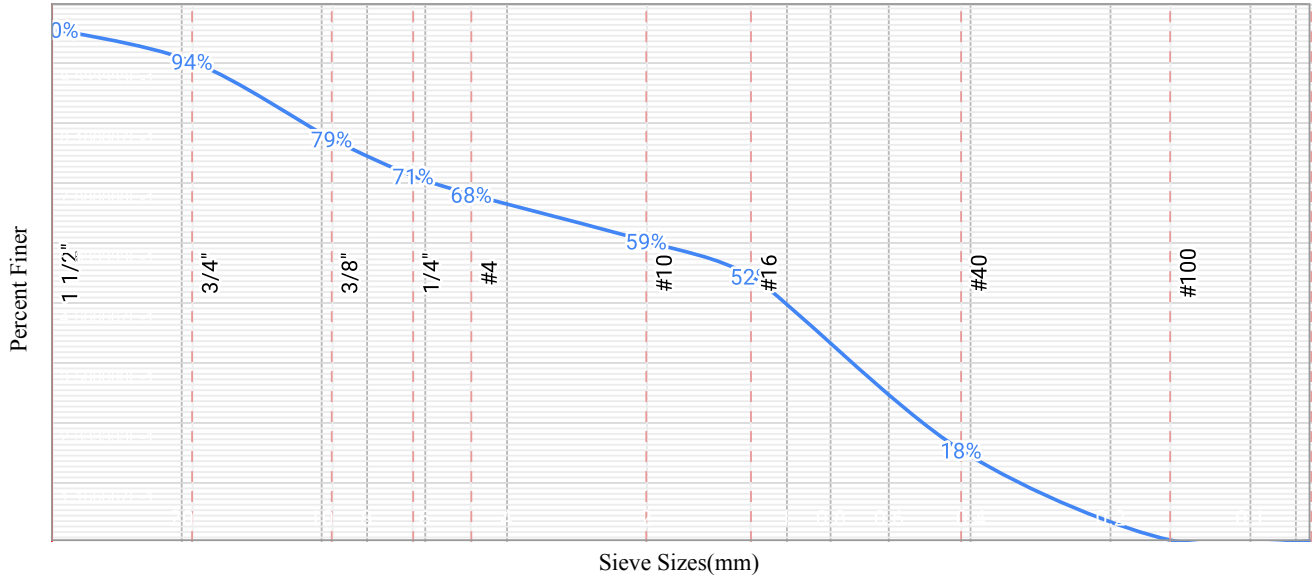
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Project No: 22-202

References: ASTM D75, C702, C117, C136, C566 are applied to the above Results

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ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	6.22%	26.0%	9.1%	40.8%	17.7%	0.2%	

Sieve Size	% Finer	Specification *		Pass? (X=No)
		Min	Max	
1 1/2"	100%			
3/4"	94%			
3/8"	79%			
1/4"	71%			
#4	68%			
#10	59%			
#16	52%			
#40	18%			
#100	0.4%			
#200	0.2%			

Material Description		
Brown Poorly graded Sand with Gravel		
Coefficients		
D90= 16.63	D85= 13.50	D60= 2.3935
D50= 1.1483	D30= 0.6944	D15= 0.3750
D10= 0.2977	Cu= 8.04	Cc= 0.68
Classification		
USCS= SP		AASHTO= A-1-b
Remarks		

* No specification provided

Location: Cedar YC Middle Beach #1 9:22
Sample No: 7912

Type of Sieve: Dry Sieve
Sampled by: Client

Date Sampled: 12/14/2022
Date tested: 12/20/2022

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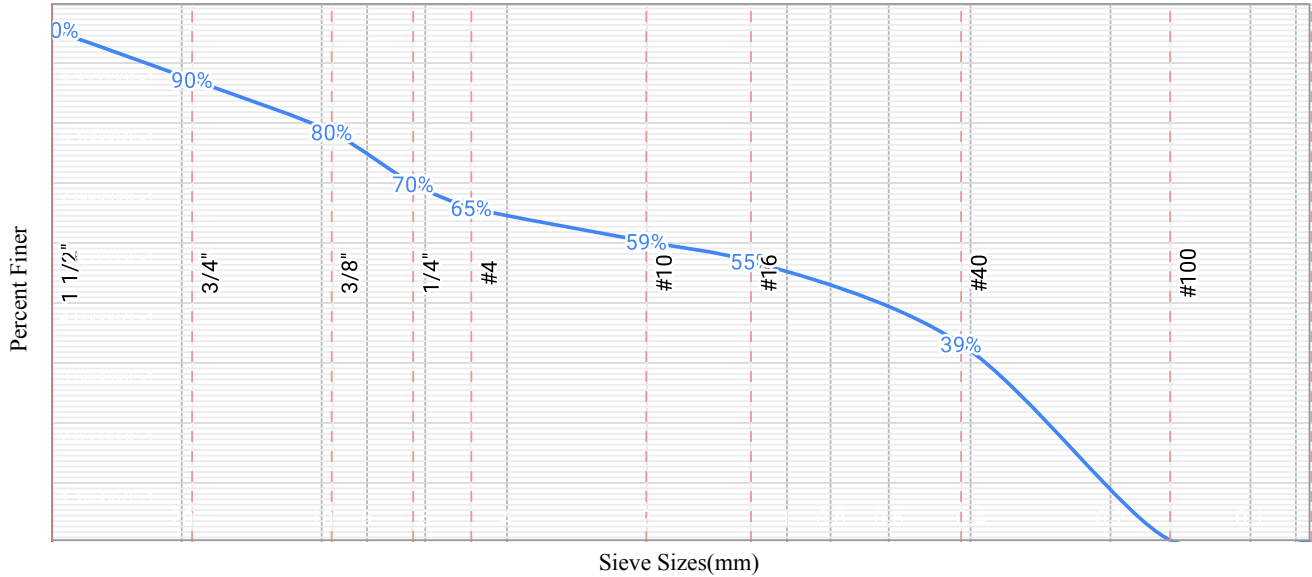
Client: RACE Coastal Engineering
Project: RACE Coastal Engineering

Project No: 22-202

References: ASTM D75, C702, C117, C136, C566 are applied to the above Results

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ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	9.76%	25.0%	6.6%	20.0%	38.4%	0.2%	

Sieve Size	% Finer	Specification *		Pass? (X=No)
		Min	Max	
1 1/2"	100%			
3/4"	90%			
3/8"	80%			
1/4"	70%			
#4	65%			
#10	59%			
#16	55%			
#40	39%			
#100	0.4%			
#200	0.2%			

Material Description		
Brown Poorly graded Sand with Gravel		
Coefficients		
D90= 18.78	D85= 14.14	D60= 2.5676
D50= 0.9622	D30= 0.3589	D15= 0.2526
D10= 0.2172	Cu= 11.82	Cc= 0.23
Classification		
USCS= SP		AASHTO= A-1-b
Remarks		

* No specification provided

Location: Middle Beach #2 9:50
Sample No: 7913

Type of Sieve: Dry Sieve
Sampled by: Client

Date Sampled: 12/14/2022
Date tested: 12/20/2022

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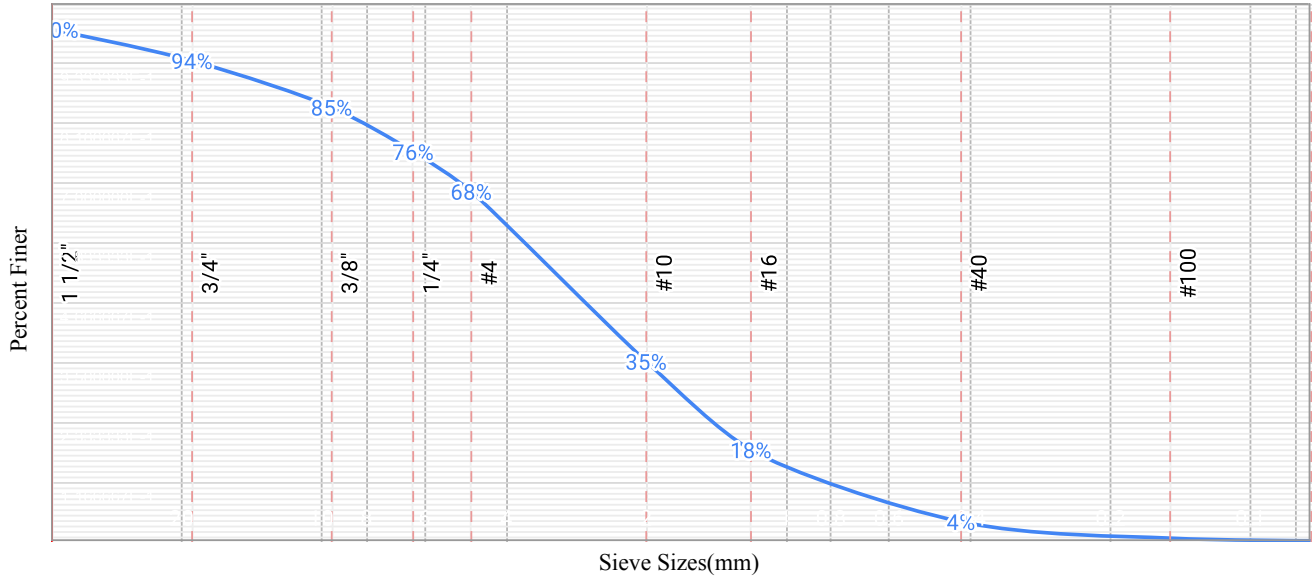
Client: RACE Coastal Engineering
Project: RACE Coastal Engineering

Project No: 22-202

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ASTM C136 Particle Size Distribution Report



%+3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.00%	6.10%	25.5%	33.2%	31.3%	3.7%	0.2%	

Sieve Size	% Finer	Specification *		Pass?
		Min	Max	(X=No)
1 1/2"	100%			
3/4"	94%			
3/8"	85%			
1/4"	76%			
#4	68%			
#10	35%			
#16	18%			
#40	4%			
#100	1%			
#200	0%			

Material Description		
Brown Well-graded Sand with Gravel		
Coefficients		
D90= 14.92	D85= 9.70	D60= 4.0618
D50= 3.2296	D30= 1.7549	D15= 1.0270
D10= 0.7522	Cu= 5.40	Cc= 1.01
Classification		
USCS= SW		AASHTO= A-1-a
Remarks		

* No specification provided

Location: Cedar YC North Beach 11:16
Sample No: 7914

Type of Sieve: Dry Sieve
Sampled by: Client

Date Sampled: 12/14/2022
Date tested: 12/20/2022

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Client: RACE Coastal Engineering
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Figure 1: Area of proposed dredging



Figure 2: Aerial photo of proposed disposal site



Figure 3: Accreted sediment under dock and gangway



Figure 4: East Beach looking southwest



Figure 5: East Beach looking southeast



Figure 6: Tidal vegetation on east beach