



AGGREGATE SUBMITTAL
Report of Physical Properties

GRP Material Description: Fill - 3/8" HARDPAC 100% Manufactured **Report Date:** July 13, 2023
GRP Material Code: FINE **Reviewed by:** Dan McDaniel
Source Location/Code: North Hansen / 527 **Report No.** 527FINE00323

TEST RESULTS				
Standard	PHYSICAL PROPERTIES		Result	Test Source
ASTM C 29 AASHTO T19	Unit Weight	Unit Weight, lbs./cu.ft. =	114	
		Voids, % =	28	
		<input type="checkbox"/> Jigged <input type="checkbox"/> Loose <input checked="" type="checkbox"/> Rodded		
ASTM D1557 AASHTO T180	Modified Proctor	Max. density, lbs./cu.ft. =	133.0	
		Optimum Moisture, % =	7.7	
ASTM D698 AASHTO T99	Standard Proctor	Max. density, lbs./cu.ft. =	125.1	
		Optimum Moisture, % =	9.3	
ASTM D4318 AASHTO T89/90	Liquid Limit Plastic Limit Plasticity Index	Liquid Limit=	0	
		Plastic Limit=	0	
		Plasticity Index=	NP	
ASTM C131 AASHTO T96	L.A. Abrasion	Small Coarse Loss, % =		
		Grading/Revolutions, =		
ASTM C535	L.A. Abrasion	Large Coarse Loss, % =		
		Grading/Revolutions, =		
ASTM C 128 AASHTO T84	Fine Specific Gravity & Absorption	Bulk Specific Gravity (dry) =	2.553	
		Bulk Specific Gravity, SSD =	2.582	
		Apparent Specific Gravity =	2.63	
		Absorption, % =	1.2	
ASTM C 127 AASHTO T85	Coarse Specific Gravity & Absorption	Bulk Specific Gravity (dry) =		
		Bulk Specific Gravity, SSD =		
		Apparent Specific Gravity =		
		Absorption, % =		
ASTM D2419 AASHTO T176	Sand Equivalent	Sand Equivalent, % =	46	
ASTM C 88 AASHTO T104	Soundness	Coarse Soundness Loss, % =		
		Magnesium No. of Cycles =		
	Soundness	Fine Soundness Loss, % =	1.1	
		Sodium Sulfate No. of Cycles =	5	
ASTM C 1252 AASHTO T304	Fine Aggregate Angularity	Uncompacted Voids, % =	46.1	
		Method C (as received material)		
ASTM C40 AASHTO T21	Organic Impurities	Coarse Aggregate, % =	LIGHTER PLATE 1	
		Fine Aggregate, % =		
ASTM C142 AASHTO T112	Clay / Friable Particles	Coarse Aggregate, % =	0.0	
		Fine Aggregate, % =		
ASTM C123 AASHTO T113	Lightweight Pieces	Coarse Aggregate, % =	0.0	
		Fine Aggregate, % =		
ASTM D1883 AASHTO T193	CBR	Surcharge = 10 lbs CBR @ 0.1"=	95	
		Swell% = 0.0% CBR @ 0.2"=	121	
ASTM D5821	Fractured Face	1 or 2 Faces =	1 2	
		Fractured Face, % =	100 99	
ASTM D2487	Soil Classification	Group Symbol =	SM	
		Group Name =	Silty Sand	
ASTM D2488	Soil Description & Identification	Group Symbol =		
		Group Name =		

SIEVE ANALYSIS		
ASTM C136	AASHTO T27	
Sieve Size	% Passing	Spec.
450 mm (18")		
375 mm (15")		
300 mm (12")		
250 mm (10")		
225 mm (9")		
200 mm (8")		
150 mm (6")		
125 mm (5")		
100 mm (4")		
75.0 mm (3")		
63.0 mm (2-1/2")		
50.0 mm (2")		
37.5 mm (1-1/2")		
25.0 mm (1")		
19.0 mm (3/4")		
12.5 mm (1/2")	100	
9.5 mm (3/8")	100	
6.3 mm (1/4")	92	
4.75 mm (No.4)	80	
2.36 mm (No.8)	56	
2.00 mm (No.10)	51	
1.18 mm (No.16)	41	
0.600 mm (No.30)	34	
0.425 mm (No.40)	31	
0.300 mm (No.50)	29	
0.180 mm (No.80)		
0.150 mm (No.100)	24	
0.075 mm (No.200)	17.5	
ASTM D422	Hydrometer =	
ASTM C566 AASHTO T255	Moisture Content, % =	
ASTM C136 AASHTO T27	Fineness Modulus (FM) =	
AASHTO M145	Classification of Soils =	
	A-1-b	
ASTM D4791	Ratio =	
	Flat & Elongated =	
	Flakiness Index =	
	Internal Friction Angle	
	PH	