



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

March 25th, 2025
File: 1009

Mr. Chris Benna
RILITE AGGREGATES
3025 Mill Street
Reno, NV 89502

RE: Rilite Pit – 4” Minus Structural Fill

Dear Mr. Benna:

Per your request, we have performed testing on the Structural Fill sample you delivered to our laboratory on March 19th, 2025. Test results are provided on the attached page(s) in comparison with the 2016 Standard Specifications for Public Works Construction (SSPWC) - “Orange Book”, current ASTM specification requirements.

We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.

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ROC:srs
Attachments
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STRUCTURAL FILL TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight	
	Sample Results	2016 SSPWC Specification ²
4 Inch	100	100
3 Inch		-
2 1/2 Inch	100	-
2 Inch	95	-
1 1/2 Inch	88	-
1 Inch	76	-
3/4 Inch	74	70-100
1/2 Inch	70	-
3/8 Inch	67	-
#4	59	-
#8	49	-
#10	46	-
#16	40	-
#30	33	-
#40	29	15-65
#50	26	-
#100	23	-
#200	16	5-20

Test Type	Test Method	Sample Results	2016 SSPWC Specification ²
Liquid Limit	ASTM D4318	28	35 Maximum
Plasticity Index	ASTM D4318	5	12 Maximum
R-Value	ASTM D2844	53	30 Minimum

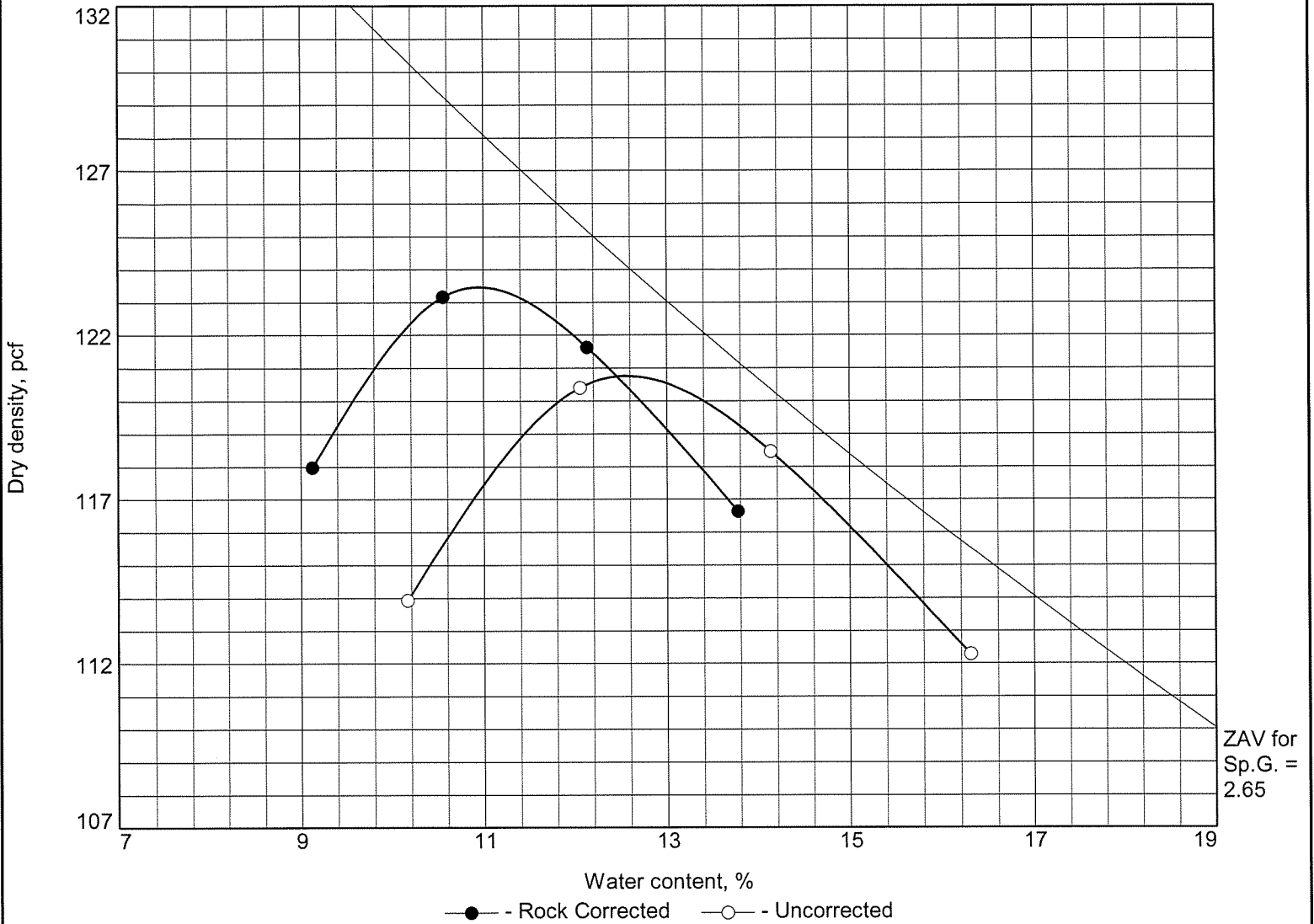
Moisture Density

Test Type	Test Method	Sample Result
Maximum Dry Density	ASTM D1557C	123.5
Optimum Moisture	ASTM D1557C	11.0%

² All specification requirements per the 2016 Standard Specifications for Public Works Construction



MOISTURE DENSITY CURVE for Curve No. 39712



Test specification: ASTM D 1557-12 Method C Modified
 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						
	SM	A-1-b	8.6		28	5	24.3	16.1

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 123.5 pcf	121.0 pcf	-4" STRUCTURAL FILL RILITE PIT silty sand with gravel
Optimum moisture = 11.0 %	12.5 %	

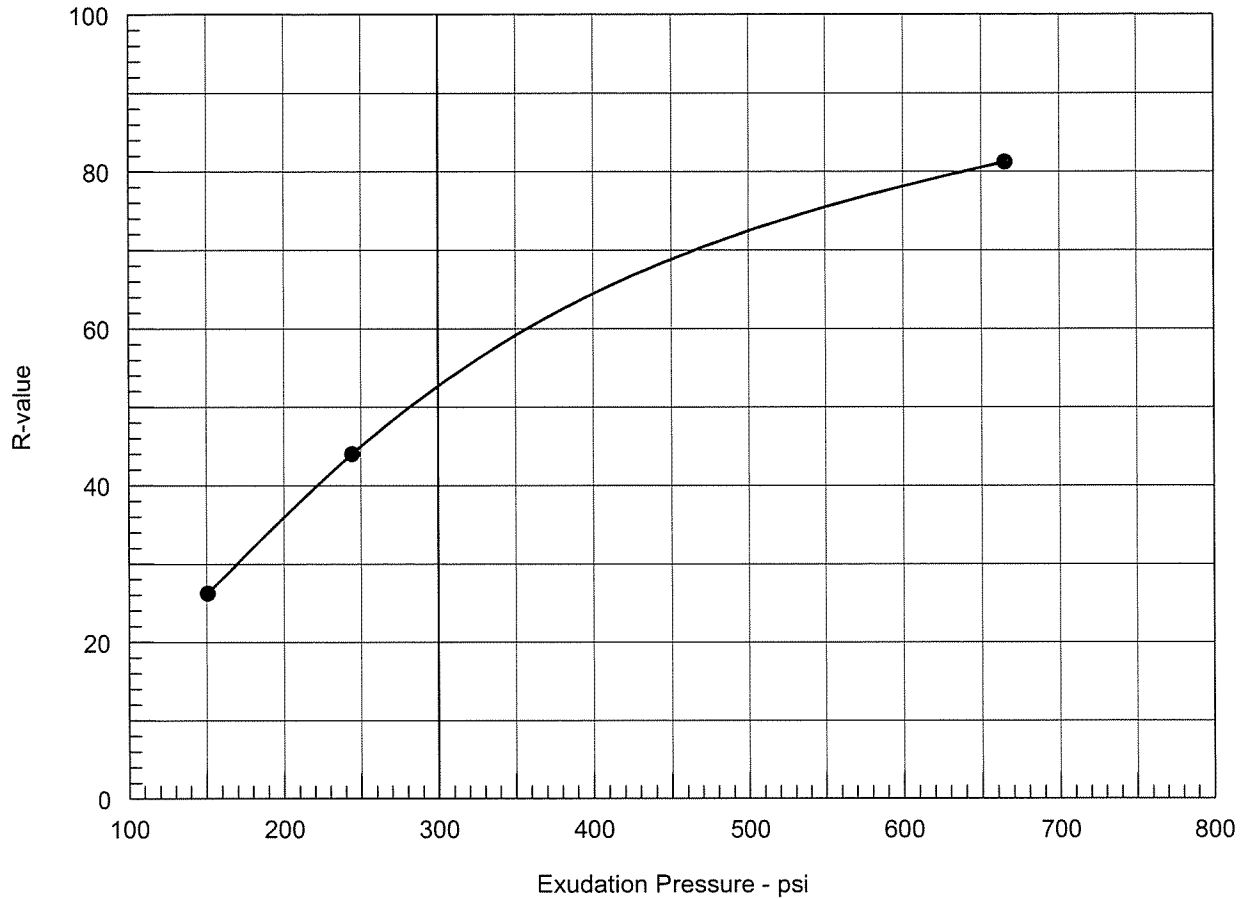
Project No. 1009 Client: RILITE AGGREGATES Project: RILITE AGGREGATES-QUALITY TESTING Date: 3/20/2025 Location: STOCKPILE Sample Number: 39712	Remarks: RECEIVED ON 3/19/2025

Figure

Tested By: R. DELAGUNA

Checked By: S. SCHWEITZER

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	150	123.5	17.0	0.00	101	2.50	151	26	26
2	250	126.4	15.5	0.00	72	2.48	244	44	44
3	350	128.4	14.7	0.00	23	2.46	665	81	81

Test Results	Material Description
<p>R-value at 300 psi exudation pressure = 53</p>	<p>-4" STRUCTURAL FILL RILITE PIT silty sand with gravel</p>
<p>Project No.: 1009 Project: RILITE AGGREGATES-QUALITY TESTING Location: STOCKPILE Sample Number: 39712 Date: 3/25/2025</p>	<p>Tested by: M. PONTONI Checked by: S. SCHWEITZER Remarks: RECEIVED ON 3/20/2025</p>
