



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

July 11, 2023
File: 1009

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

RE: Rilite Pit – Type 2, Class B Aggregate Base

Dear Mr. Benna:

Per your request, we have performed testing on the Type 2, Class B aggregate base sample you delivered to our laboratory. 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, and 2014 Nevada Department of Transportation (NDOT) Standard Specifications for Road and Bridge Construction requirements.

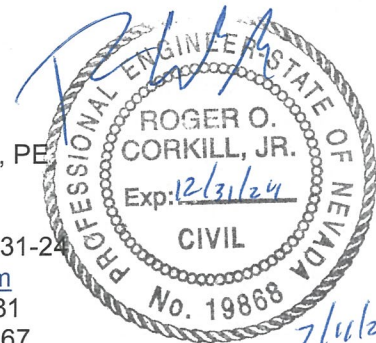
We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.

Spencer Schweitzer
Laboratory Supervisor
sschweitzer@cmenv.com
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Mobile: 208-559-7665

Roger O. Corkill Jr., PE
Project Manager
RE Number 19868
Expiration Date 12-31-24
rcorkill@cmenv.com
Direct: 775-737-7581
Mobile: 775-722-5067



SLV:ROC:roc
Attachments

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TYPE 2 CLASS B AGGREGATE BASE TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight		
	Sample Results	2016 SSPWC Specification ²	NDOT Specification ¹
1 Inch	100	100	100
3/4 Inch	99	90-100	90-100
#4	48	35-65	35-65
#16	22	15-40	15-40
#200	6.8	2-12	2-10

Test Type	Test Method	Sample Results	2016 SSPWC Specification ²	NDOT Specification ¹
Liquid Limit	ASTM D4318	NV	35 Maximum	35 Maximum
Plasticity Index	ASTM D4318	NP	8 Maximum	6 Maximum
Los Angeles Abrasion	ASTM C131	31.7%	45 Maximum	45% Maximum
R-Value	ASTM D2844	76	70 Minimum	70 Minimum
Fractured Particles	ASTM D5821	96%	35% Minimum	35% Minimum

Moisture Density

Test Type	Test Method	Sample Result	NDOT Specification ¹
Maximum Dry Density	ASTM D1557C	116.0	-
Optimum Moisture	ASTM D1557C	14.0%	-

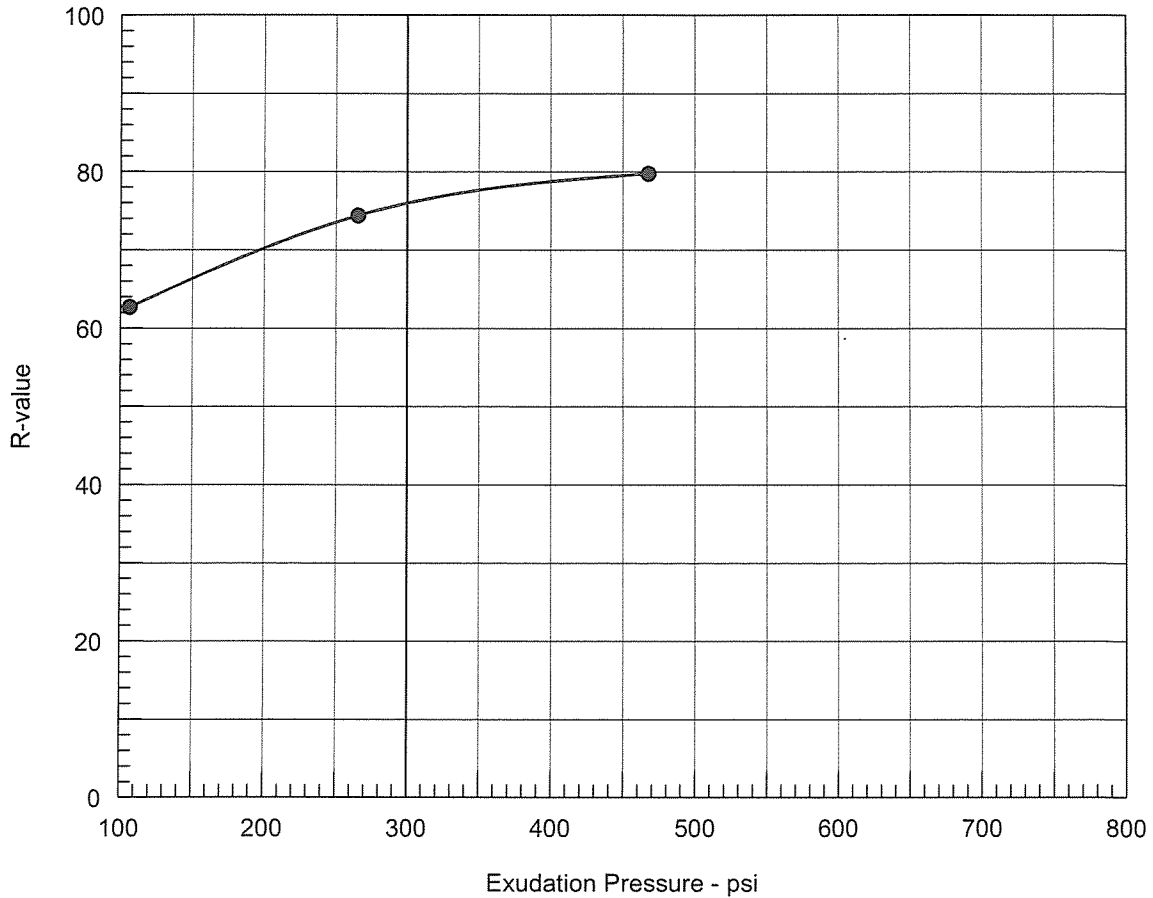
¹ Specifications per *NDOT Silver Book Specifications 2014 Section 704.03.05*

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

* DOES NOT MEET SPECIFICATIONS

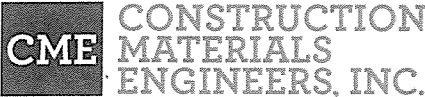


R-VALUE TEST REPORT

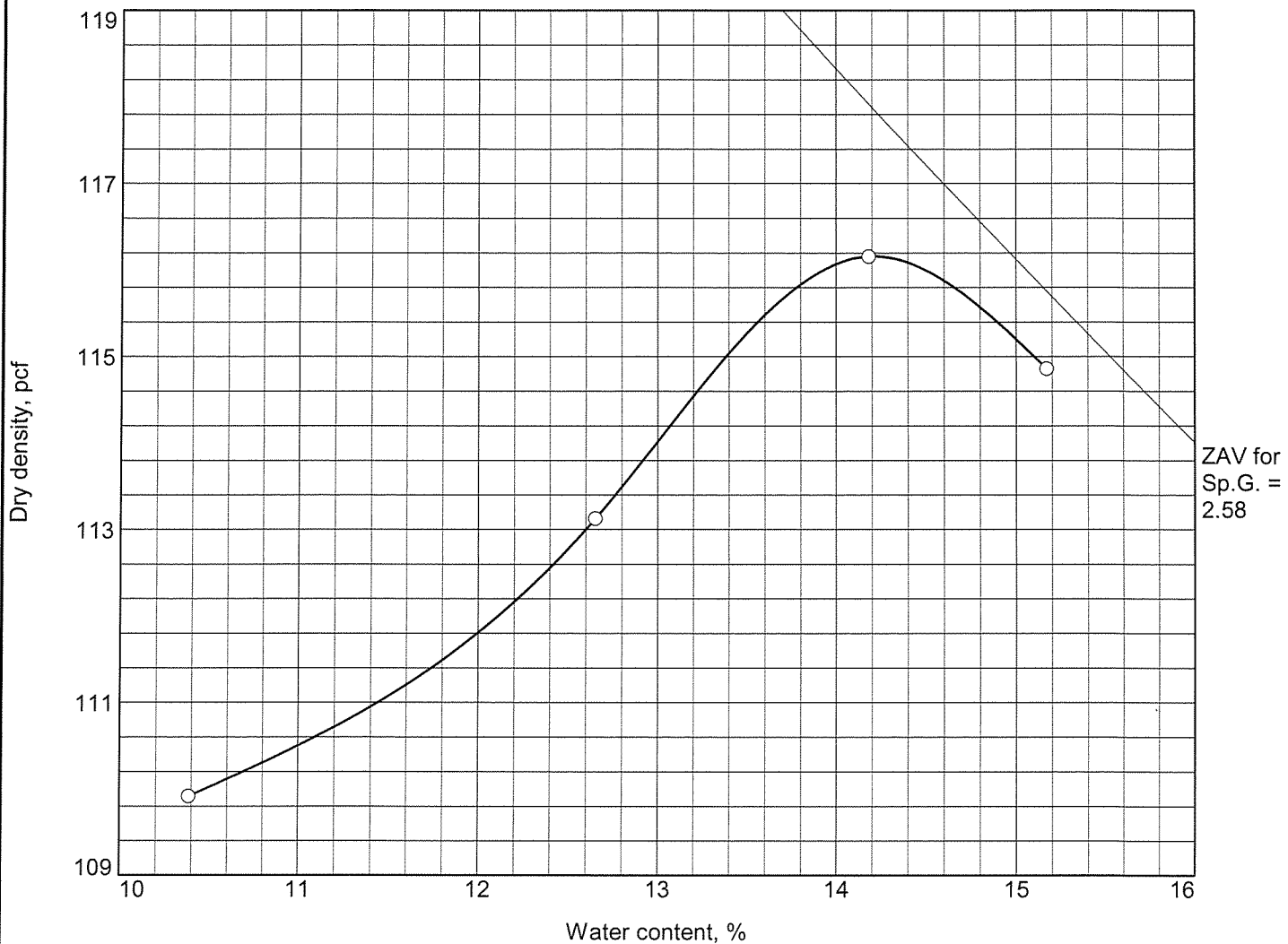


Resistance R-Value and Expansion Pressure - ASTM D2844

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	350	107.4	16.5	0.00	27	2.40	106	65	63
2	350	107.7	15.5	0.00	16	2.50	468	80	80
3	350	108.0	16.0	0.00	20	2.50	266	74	74

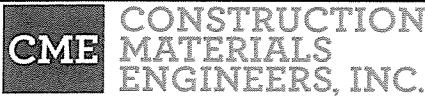
Test Results	Material Description
R-value at 300 psi exudation pressure = 76	TYPE 2 AGGREGATE BASE RILITE PIT GREY SILTY SAND W/ GRAVEL
Project No.: 1009 Project: RILITE AGGREGATES-QUALITY TESTING Location: PLANT STOCKPILE Sample Number: 37716 Date: 7/26/2023	Tested by: M. PONTONI Checked by: S. SCHWEITZER Remarks: SAMPLED ON 6/28/2023
	Figure _____

MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-12 Method C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
	GW-GM	A-1-a			NV	NP	0.6	6.8

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 116.0 pcf Optimum moisture = 14.0 %	TYPE 2 AGGREGATE BASE RILITE PIT GREY SILTY SAND W/ GRAVEL
Project No. 1009 Client: RILITE AGGREGATES Project: RILITE AGGREGATES-QUALITY TESTING ○ Location: PLANT STOCKPILE Sample Number: 37716	Remarks: RECEIVED ON 6/28/2023
	

Figure

Tested By: R. VELARDEZ Checked By: S. SCHWEITZER