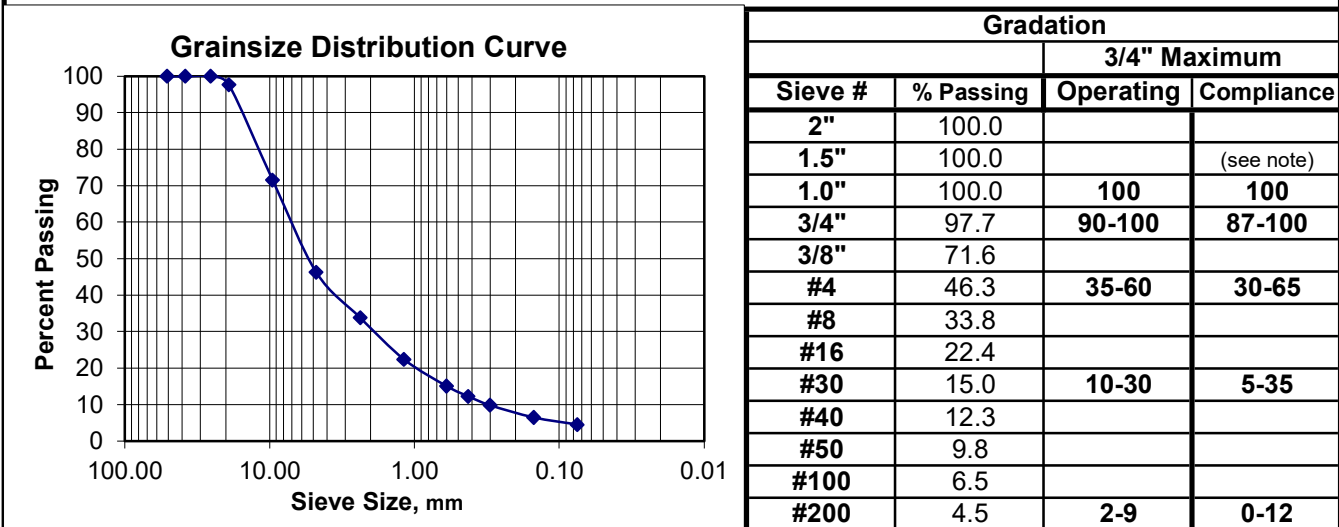
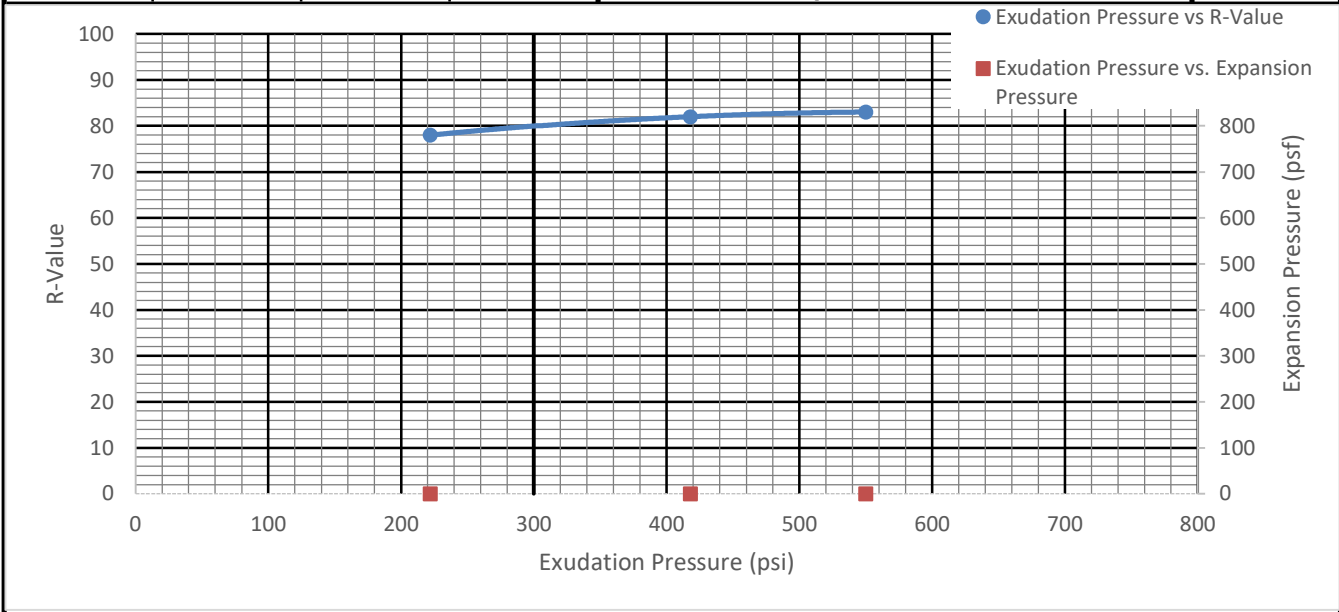




Class 2 Specification Tests for Baserock

CTL No.: 731-134 Sample #: Date: 9/16/2024
Client: Zanker Source: By: PJ
Project: QRT 3 2024 Class 2 Baserock Material: Light Gray Well-Graded GRAVEL w/ Sand
Project No.: Remarks:

Exud. (psi)	R-value	MC, %	Dens. PCF	Tests:	Results	Min. Spec.
222	78	9.1	113.1	R-value by Stabilometer :	80	78
550	83	8.3	113.6	Coarse Durability:	80	35
418	82	8.9	117.3	Fine Durability:	45	35
				Sand Equivalent:	71	25

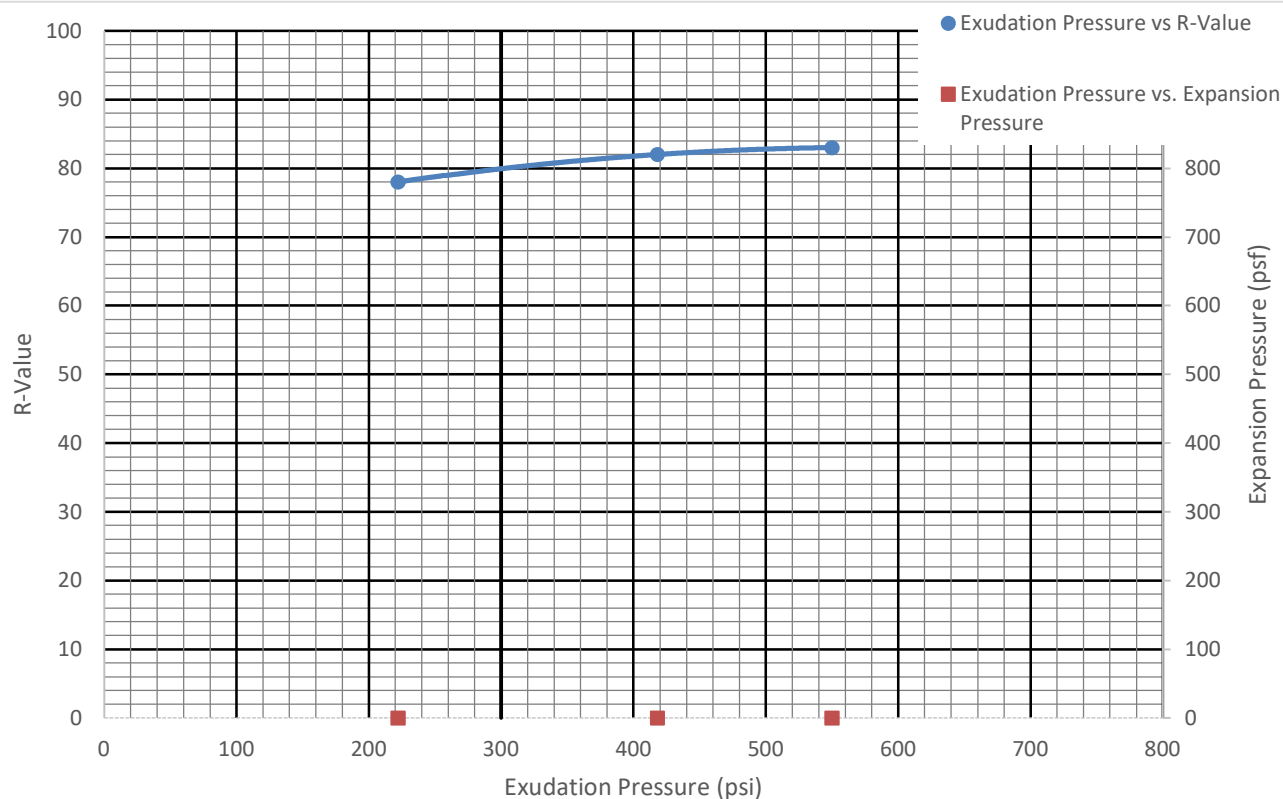


Note: Per the Caltrans Standard Specifications Section 26-1.02A "If the results of either or both the aggregate grading and Sand Equivalent tests do not meet the requirements specified for "Operating Range" but meet the "Contract Compliance" requirements, placement of the aggregate base may be continued for the remainder of the day. However, another day's work may not be started until tests, or other information, indicate to the satisfaction of the Engineer that the next material to be used in the work will comply with the requirements specified for "Operating Range". (This information is noted for the clients convenience. It in no way implies a recommendation by Cooper Testing Labs, Inc.).



R-Value CTM 301

CTL Job No.:	731-134			Boring:		Reduced By:	RU
Client:	Zanker			Sample:		Checked By:	PJ
Project Number:				Depth:		Date:	9/16/2024
Project Name:	QRT 3 2024 Class 2 Baserock				R-Value		80
Soil Description:	Light Gray Well-Graded GRAVEL w/ Sand						
Remarks:					Expansion Pressure		0
Specimen Designation		A	B	C	D	E	
Compactor Foot Pressure (psi)		300	300	300			
Exudation Pressure (psi)		222	550	418			
Exudation Load (lbf)		2790	6912	5253			
Height After Compaction (in)		2.74	2.57	2.54			
Expansion Pressure (psf)		0	0	0			
Stabilometer @ 2000		20	14	18			
Turns Displacement		6.20	5.53	4.46			
R-value		74	83	82			
Corrected R-Value		78	83	82			
Moisture Content (%)		9.1	8.3	8.9			
Wet Density (pcf)		123.3	123.1	127.7			
Dry Density (pcf)		113.1	113.6	117.3			





Durability Index, Caltrans 229

CTL Job No.: 731-134 Boring: Date: 9/16/2024
Client: Zanker Sample: By: PJ
Project Name: QRT 3 2024 Class 2 Baserock Depth (ft): Checked By: PJ
Project No.:
Sample Description: Light Gray Well-Graded GRAVEL w/ Sand

Gradation:		
Sieve	Incremental Weight Retained (g)	% Retained (Of Specified Fractions)
1/2 inch	6065	30.8
3/8 inch	3925	20.0
No. 4	9680	49.2
Passing No. 4	19670	
Total	38250	

Tests Performed:	
Coarse Durability Performed?:	Yes
Fine Durability Performed?:	Yes

Coarse Durability

Pan ID:		
Weights Used:		
Sieve	Incremental Weight Used (g)	Cumulative Weight Used (g)
1/2 inch	1070.0	1070.0
3/8 inch	570.0	1640.0
No. 4	910.0	2550.0

Sediment Column Height at 20 minutes:	7
Coarse Durability:	80

Fine Durability

Pan ID:	
Clay Reading at 20 minutes:	8.1
Sand Reading at 20 minutes:	3.6
Fine Durability:	45

Notes: If either the fine or coarse portion of the sample represents less than 15%, that portion shall not be tested.

Remarks:



Sand Equivalent Test Report

Caltrans Test Method 217

Cooper Testing Labs, Inc.

Job No.: 731-134 Date: 9/16/2024
Client: Zanker By: PJ
Project: QRT 3 2024 Class 2 Baserock Checked By: PJ
Sample # Source:
Soil Description: Light Gray Well-Graded GRAVEL w/ Sand

Trial:	#1	#2
Height of Sand:	3.7	3.8
Clay Reading @ 20 min.:	5.3	5.3
Sand Equivalent:	70	72
Average Sand Equivalent:	71	

Remarks: Sample oven dried.

Notes:

1. Test must be run in duplicate.
2. Sand equivalent of specimens must agree within 4 points.
3. If sand equivalent of an air dried sample does not meet the specification requirement, the test must be repeated using an oven dry sample.



L.A. Abrasion

ASTM C131

CTM 211

CTL Job No.: 731-134 Boring: Date: 9/19/2024
Client: Zanker Sample: By: PJ
Project Name: QRT 3 2024 Class 2 Baserock Depth:
Project No:
Visual Description: Light Gray Well-Graded GRAVEL w/ Sand

As Received Gradation:		Weight of indicated sizes (g)				
		Size	Grading			
			A	B	C	D
Sieve	% Passing					
1.5"	100.0	1 1/2" x 1"	1250 ± 25	-	-	-
3/4"	97.7	1" x 3/4"	1250 ± 25	-	-	-
3/8"	71.6	3/4" x 1/2"	1250 ± 25	2500 ± 10	-	-
#4	46.3	1/2" x 3/8"	1250 ± 25	2500 ± 10	-	-
#8	33.8	3/8" x 1/4"	-	-	2500 ± 10	-
		1/4" x #4	-	-	2500 ± 10	-
		#4 x #8	-	-	-	5000 ± 10
		Total	5000 ± 10	5000 ± 10	5000 ± 10	5000 ± 10
		% of Sample	28.4	26.1	25.3	12.5
		Number of spheres	12	11	8	6
		Wt of charge (g)	5000 ± 25	4584 ± 25	3330 ± 20	2500 ± 15

Grading Used:	B
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Tare #	
Tare Weight (g)	0
Initial Weight + Tare (g)	5008.4
Final Weight + Tare (g)	3671.7

% Loss after 500 revolutions	26.7
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Remarks: