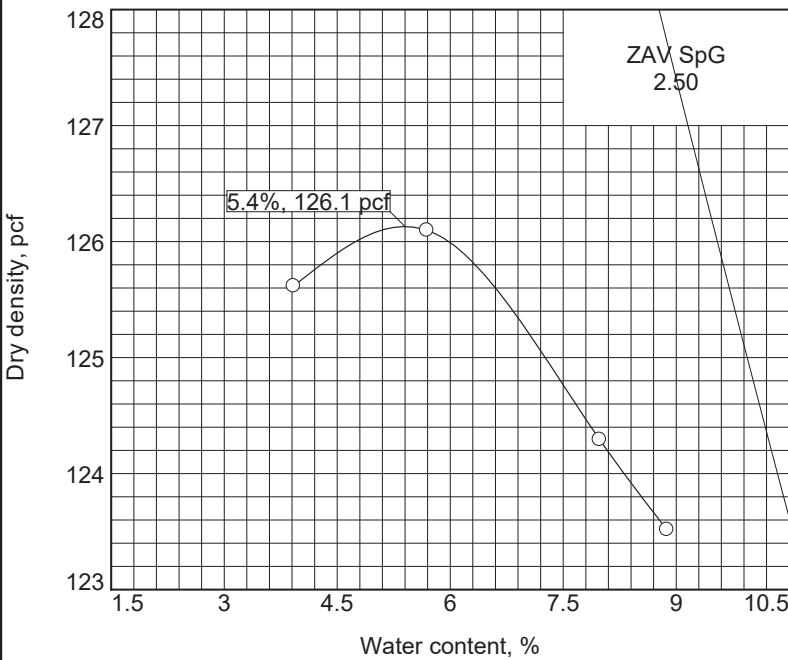


These test results apply only to the samples which were tested. the testing report shall not be reproduced, except in full, without the written approval of K & A, Inc

COMPACTION TEST REPORT

Curve No. 1451



Preparation Method _____	
Rammer: Wt. <u>10 lb.</u>	Drop <u>18 in.</u>
Type <u>Manual</u>	
Layers: No. <u>five</u>	Blows per <u>56</u>
Mold Size <u>0.075 cu. ft.</u>	
Test Performed on Material	
Passing <u>3/4 in.</u> Sieve	
%>3/4 in. <u>0</u>	%<No.200 <u>3.2</u>
Atterberg (D 4318): LL <u>NV</u> PI <u>NP</u>	
NM (D 2216) _____ Sp.G. (D 854) <u>2.5</u>	
USCS (D 2487) <u>GW</u>	
AASHTO (M 145) <u>A-1-a</u>	
Date: Sampled <u>6-21-2021</u>	
Received <u>6-21-2021</u>	
Tested <u>7-6-2021</u>	
Tested By <u>KP</u>	

COMPACTION TESTING DATA ASTM D 1557-12 Method C Modified

	1	2	3	4	5	6
WM + WS	10945.0	11038.0	11070.0	11079.0		
WM	6504.0	6504.0	6504.0	6504.0		
WW + T #1	812.4	870.6	717.0	718.2		
WD + T #1	787.2	831.5	675.0	672.0		
TARE #1	144.7	144.8	149.0	151.6		
WW + T #2						
WD + T #2						
TARE #2						
MOIST.	3.9	5.7	8.0	8.9		
DRY DENS.	125.6	126.1	124.3	123.5		

SIEVE TEST RESULTS ASTM D-422 ASTM D-1140

Opening Size	% Passing	Specs.
1"	100	100
3/4"	100	95 - 100
3/8"	59	
#4	37	30 - 65
#8	26	25 - 55
#16	17	
#30	10	
#50	6	
#100	4	
#200	3.2	3.0 - 12

TEST RESULTS

Maximum dry density = 126.1 pcf
 Optimum moisture = 5.4 %

Project No. 21-1-235 **Client:**
Project: Colorado Aggregate Recycling

○ **Location:** Golden Pit Stockpile **Sample Number:** 1451

Kumar & Associates, Inc.

Denver, Colorado

Material Description

Recycled Asphalt Pavement/ Class 6 ABC/
 well-graded gravel with sand

Remarks:

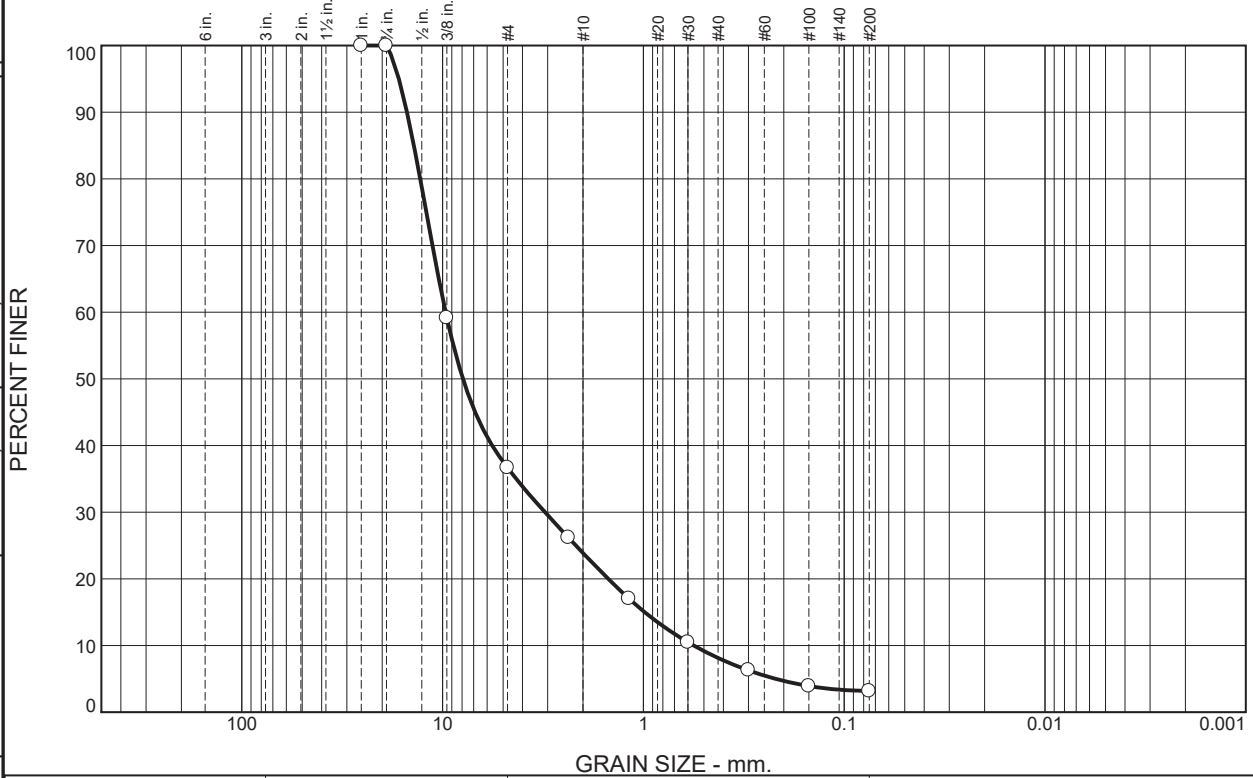
Checked by: _____ DS

Title: Lab Manager

Figure

These test results apply only to the samples which were tested. the testing report shall not be reproduced, except in full, without the written approval of K & A, Inc

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	63	13	16	5	3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1"	100	100	
3/4"	100	95 - 100	
3/8"	59		
#4	37	30 - 65	
#8	26	25 - 55	
#16	17		
#30	10		
#50	6		
#100	4		
#200	3.2	3.0 - 12	

Material Description

Recycled Asphalt Pavement/ Class 6 ABC/ well-graded gravel with sand

Atterberg Limits

PL= NP LL= NV PI= NP

Classification

USCS= GW AASHTO= A-1-a

Remarks

* AASHTO M 147 Class 6 ABC

Location: Golden Pit Stockpile
Sample Number: 1451

Date: 6-21-2021

Kumar & Associates, Inc.
Denver, Colorado

Client:
Project: Colorado Aggregate Recycling
Project No: 21-1-235

Figure

Tested By: KP

Checked By: DS



Kumar & Associates, Inc.
Geotechnical and Materials Engineers
and Environmental Scientists



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TABLE 1
SUMMARY OF LABORATORY TEST RESULTS

PROJECT NO.: 21-1-235
PROJECT NAME: Colorado Aggregate Recycling
DATE SAMPLED: 06-21-2021
DATE RECEIVED: 06-21-2021

SAMPLE LOCATION	DATE TESTED	GRADATION		PERCENT PASSING No. 200 SIEVE	ATTERBERG LIMITS		R-VALUE @ 300 PSI	LOS ANGELES ABRASION GRADING B % LOSS	OMC %	MDD pcf	SOIL OR BEDROCK TYPE
		GRAVEL (%)	SAND (%)		LIQUID LIMIT (%)	PLASTICITY INDEX (%)					
Golden Pit Stockpile	6-30-21	54	41	5.2	NV	NP	80	40.3	12.3	118.7	Class 6 ABC/Recycled Concrete/Well Graded Gravel with Silt and Sand (GW-GM) A-1-a
Golden Pit Stockpile	7-6-21	63	34	3.2	NV	NP			5.4	126.1	Class 6 ABC/Recycled Asphalt/Well Graded Gravel with Sand (GW) A-1-a



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An Employee Owned Company

Office Locations: Denver (HQ), Parker, Colorado Springs, Fort Collins, Glenwood Springs, and Summit County, Colorado

July 13, 2021

Matt Bustamante
Colorado Aggregate Recycling
9615 East County Line Road #303
Centennial, Colorado 80112

Subject: Laboratory Test Results, Recycled Concrete Samples, Golden Pit Stockpile
Project No. 21-1-235

Dear Mr. Bustamante:

Attached are the results of testing performed on four lab samples submitted to our laboratory (Kumar Lab Sample Nos. 1450 and 1451) of recycled concrete obtained from the Golden Pit Stockpile. Testing was performed to determine soil classification parameters, including Atterberg Limits and gradation, moisture-density relationship (modified Proctor), R-Value (Hveem stabilometer) and L.A. Abrasion. The results of the tests are summarized in the attachments.

Based on the test results, two of the submitted samples conform to the gradation requirements for Class 6 Aggregate Base Course presented on Table 703-2 in the Colorado Department of Transportation's (CDOT) 2019 *Standard Specifications for Road and Bridge Construction*.

If you have questions or need further information, please call.

Sincerely,

KUMAR & ASSOCIATES, INC.

Ryan R. Kumar, P.E.



RRK/ma
Attachments
cc: file