



El Paso County
20HCT- Fountain Creek Stabilization at
Hanson Trailhead
Transmittal of Contractor's
Submittal
(Attached to each Submittal)

Date: 12/24/2020 MST

Submittal Number: 013

To: Veronica Cid

Revision Number: 0

From: Tezak Heavy Equipment Co., Inc.

Responsible Contact: Holly Fransua

Submittal Description: Breeze Material for Trail Surfacing

Specification Section: C.3.25

(Cover only one section with each transmittal)

Variation to Contract:

Drawing Number:

Notes/Comments:

Attached for review is the testing reports for the Breeze material that was presented to EPC on site by Tezak. Tezak is still requesting to test a section of the trail with both materials presented for a visual inspection on-site by both EPC and Tezak.

CONTRACTOR hereby certifies that CONTRACTOR has complied with the requirements of Contract Documents in preparation, review, and submission of designated Submittal, and the Submittal is complete and in accordance with Contract Documents and requirement of the laws and regulations and governing agencies.

From: Holly Fransua

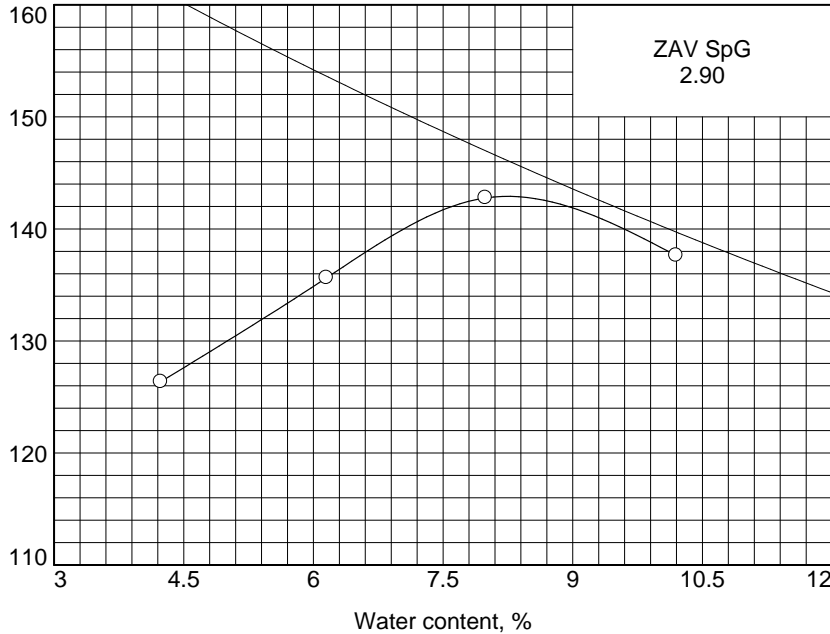
Date: 12/24/2020 MST

Holly Fransua
Tezak Heavy Equipment Co., Inc.

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. 1794



Preparation Method	
Rammer: Wt. <u>5.5 lb.</u>	Drop <u>12 in.</u>
Type _____	
Layers: No. <u>three</u>	Blows per <u>25</u>
Mold Size <u>0.03333 cu. ft.</u>	
Test Performed on Material	
Passing <u>3/8 in.</u>	Sieve _____
%>3/8 in. <u>0</u>	%<No.200 <u>15</u>
Atterberg (D 4318): LL <u>17</u>	PI <u>3</u>
NM (D 2216) _____	Sp.G. (D 854) <u>2.9</u>
USCS (D 2487) <u>SM</u>	
AASHTO (M 145) <u>A-1-a</u>	
Date: Sampled <u>12/15/2020</u>	
Received <u>12/15/2020</u>	
Tested <u>12/16/2020</u>	
Tested By <u>JEE</u>	

COMPACTION TESTING DATA ASTM D 698-12 Method B Standard

	1	2	3	4	5	6
WM + WS	6330.0	6514.7	6668.3	6630.4		
WM	4346.5	4346.5	4346.5	4346.5		
WW + T #1	626.4	662.0	644.4	598.1		
WD + T #1	609.9	636.5	613.1	560.8		
TARE #1	220.3	222.0	221.4	195.0		
WW + T #2						
WD + T #2						
TARE #2						
MOIST.	4.2	6.2	8.0	10.2		
DRY DENS.	126.4	135.6	142.8	137.6		

SIEVE TEST RESULTS ASTM D 422 ASTM D 1140

Opening Size	% Passing	Specs.
3/4"	100	
3/8"	100	
#4	75	
#8	47	
#16	30	
#30	22	
#50	18	
#100	16	
#200	15	

TEST RESULTS

Maximum dry density = 142.9 pcf
Optimum moisture = 8.2 %

Project No. 20-2-253 **Client:** THE Aggregate Source
Project: Lab Testing

Location: Byzantine Quarry - Stockpile **Sample Number:** 24

Kumar and Associates, Inc.

Colorado Springs, CO

Material Description

Breeze, silty sand with gravel

Remarks:

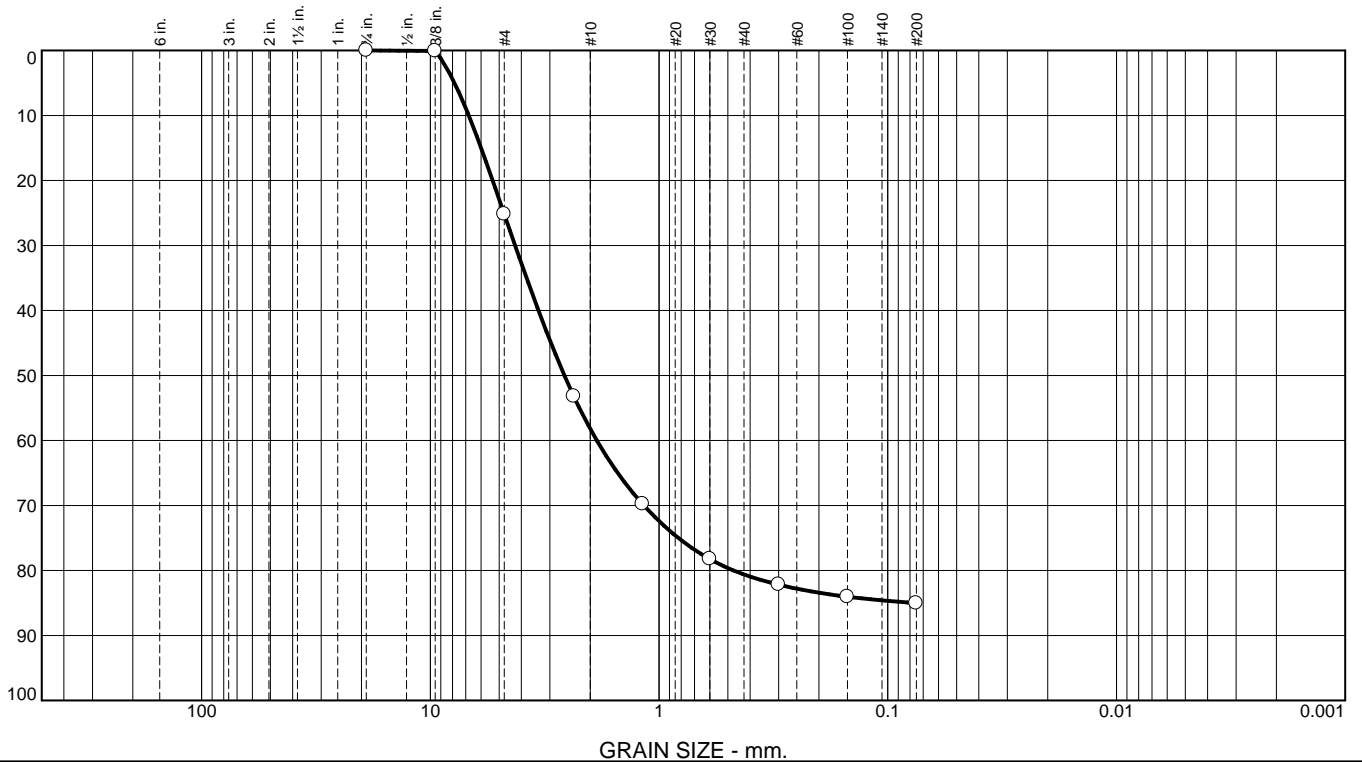
Checked by: _____ **BKB**

Title: Project Supervisor

Figure P2

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	25	33	23	4	15	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
3/8"	100		
#4	75		
#8	47		
#16	30		
#30	22		
#50	18		
#100	16		
#200	15		

* (no specification provided)

Material Description

Breeze, silty sand with gravel

PL= 14	Atterberg Limits	PI= 3
	LL= 17	
	Classification	
USCS= SM	AASHTO=	A-1-a
Remarks		

Location: Byzantine Quarry - Stockpile
Sample Number: 24

Date: 12/15/2020

Kumar and Associates, Inc.

Client: THE Aggregate Source
Project: Lab Testing

Colorado Springs, CO

Project No: 20-2-253

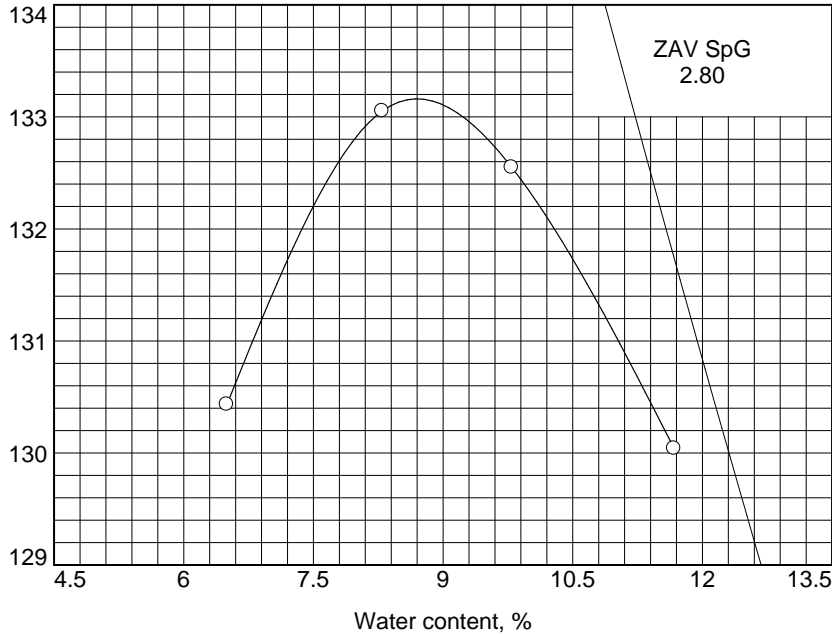
Figure P2

Tested By: JEE **Checked By:** BKB

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. 1793



Preparation Method _____	
Rammer: Wt. <u>5.5 lb.</u>	Drop <u>12 in.</u>
Type _____	
Layers: No. <u>three</u>	Blows per <u>25</u>
Mold Size <u>0.03333 cu. ft.</u>	
Test Performed on Material _____	
Passing <u>3/8 in.</u>	Sieve _____
%>3/8 in. <u>0</u>	%<No.200 <u>12</u>
Atterberg (D 4318): LL <u>NV</u>	PI <u>NP</u>
NM (D 2216) _____	Sp.G. (D 854) <u>2.8</u>
USCS (D 2487) _____	SP-SM _____
AASHTO (M 145) _____	A-1-a _____
Date: Sampled <u>12/15/2020</u>	
Received <u>12/15/2020</u>	
Tested <u>12/16/2020</u>	
Tested By <u>JEE</u>	

COMPACTION TESTING DATA ASTM D 698-12 Method B Standard

	1	2	3	4	5	6
WM + WS	6438.6	6516.6	6538.3	6533.6		
WM	4346.7	4346.7	4346.7	4346.7		
WW + T #1	543.6	610.2	600.0	615.4		
WD + T #1	523.9	578.9	566.2	574.1		
TARE #1	220.8	201.6	221.1	220.3		
WW + T #2						
WD + T #2						
TARE #2						
MOIST.	6.5	8.3	9.8	11.7		
DRY DENS.	130.4	133.1	132.5	130.0		

SIEVE TEST RESULTS ASTM D 422 ASTM D 1140

Opening Size	% Passing	Specs.
3/4"	100	
3/8"	100	
#4	73	
#8	48	
#16	35	
#30	26	
#50	20	
#100	15	
#200	12	

TEST RESULTS

Maximum dry density = 133.2 pcf
Optimum moisture = 8.7 %

Material Description

Breeze, poorly graded sand with silt and gravel

Remarks:

Project No. 20-2-253 **Client:** THE Aggregate Source
Project: Lab Testing

Checked by: _____ BKB

○ **Location:** Dolomite Quarry - Stockpile **Sample Number:** 23

Kumar and Associates, Inc.

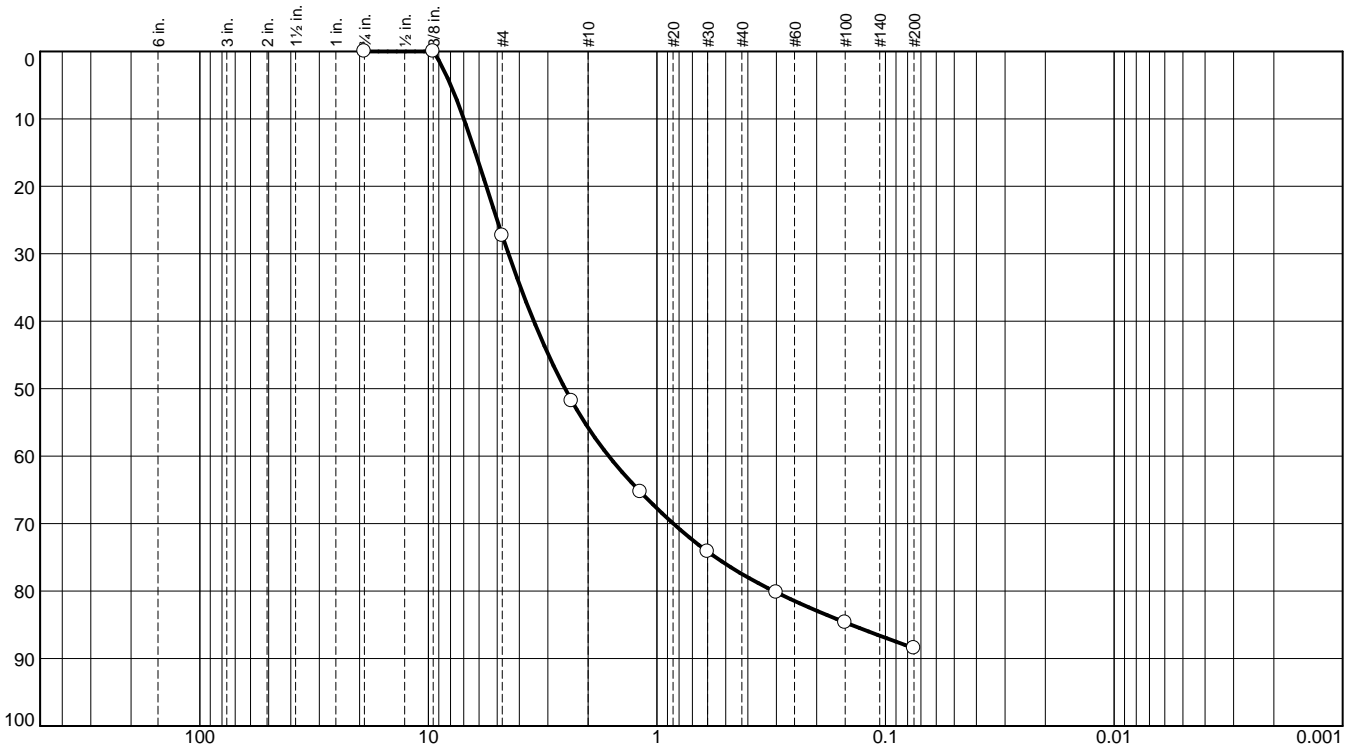
Title: Project Supervisor

Colorado Springs, CO

Figure P1

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



GRAIN SIZE - mm.

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	27	29	21	11	12	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/4"	100		
3/8"	100		
#4	73		
#8	48		
#16	35		
#30	26		
#50	20		
#100	15		
#200	12		

* (no specification provided)

Material Description

Breeze, poorly graded sand with silt and gravel

Atterberg Limits

PL= NP LL= NV PI= NP

Classification

USCS= SP-SM AASHTO= A-1-a

Remarks

Location: Dolomite Quarry - Stockpile
Sample Number: 23

Date: 12/15/2020

Kumar and Associates, Inc. Colorado Springs, CO	Client: THE Aggregate Source Project: Lab Testing Project No: 20-2-253
Figure P1	