



ENTECH
ENGINEERING, INC.

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February 24, 2021

MA Infrastructure
1230 Scarsbrook Court
Monument, Colorado 80132

Attn: Matt Dunston

Re: Cement Stabilized Subgrade Results - Laboratory Testing
Walden Preserve Filing No. 4
Pinehurst Circle and Deboodt Court
El Paso County, Colorado

Ref: Pavement Recommendations Report by Entech Engineering, Inc., dated February 24, 2021, Entech Job No. 210191.

Dear Mr. Dunston:

As requested, personnel of Entech Engineering, Inc. have performed strength testing on two sets of three soil/cement composite samples of Soil Type 1 for the above reference project. Testing was performed on soil samples prepared with 2% and 4% Portland Cement Type 1/2, from Martin Marietta, near Pueblo, Colorado.

A compression strength of 160 psi is recommended for cement stabilized subgrade. The 5-day average strength value of the 2% mix was 193 psi. The 5-day average strength value of the 4% mix was 217 psi. A 2% mix is recommended based on the laboratory test results. A summary of the testing results is attached.

Pending the results of the field density testing, microfracturing of the stabilized subgrade may be required. Soil strengths in excess of 200 psi require microfracturing.

We trust this has provided you with the information you required. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,

ENTECH ENGINEERING, INC.

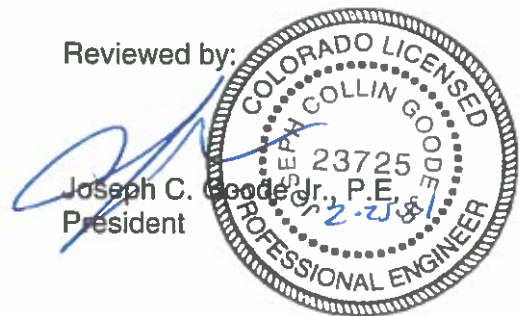
Daniel P. Stegman

DPS/bs

Encl.

Entech Job No. 210191
AAprojects/2021/210191 cssr - lab

Reviewed by:



Joseph C. Goode Jr., P.E.
President

El Paso County File No. SF-1834

SUMMARY OF CTS TEST RESULTS
LAB TESTING

CLIENT MA INFRASTRUCTURE
 PROJECT WALDEN PRESERVE
 FIELD SAMPLE ID TB-4 @ 0-3'
 SOIL ADDITIVE TYPE I/II CEMENT

JOB NO 210191
 DATE 2/22/21
 BY BL

<i>ADDITIVE %</i>	<i>WATER %</i>	<i>DENSITY (dry)</i>	<i>AGE (days)</i>	<i>STRENGTH (psi)</i>
2	8.6	113.9	5	189
2	8.6	113.9	5	182
2	8.6	114.1	5	206
AVERAGE:				193
4	8.6	114.2	5	216
4	8.6	113.6	5	214
4	8.6	113.8	5	222
AVERAGE:				217

CURING METHOD

100° HUMIDIFIED OVEN