

November 9, 2023

SR Land, LLC 20 Boulder Crescent, 1st Floor, Suite 100 Colorado Springs, CO 80903

Attn: Chaz Collins

Re: Cement Stabilized Subgrade – Field Tests

Homestead North, Filing No. 3 El Paso County, Colorado Entech Job No. 230423

## Dear Mr. Collins:

As requested, personnel of Entech Engineering, Inc. performed strength testing on two sets of three soil/cement samples from the above referenced project. Testing was performed on soil samples prepared with 2% and 4% Portland Cement Type I/II. A compression strength of 160 pounds per square inch (psi) is recommended for cement stabilized subgrade. The average 7-day strengths of the 2% and 4% mix were 348 and 430 pounds per square inch (psi), respectively. A summary of the testing results is attached.

A 2% mix is recommended based on the laboratory test results. A summary of the testing results is attached.

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

Geotechnical Engineering Staff

Encl.

DPS:JCG/

Reviewed by:

Digitally signed by Joseph C Goode III Date: 2023.11.09 12:33:04 -07'00'

Joseph C. Goode III, P.E. Sr. Engineer

Accepted for File

By: Gilbert LaForce, P.E.
Engineering Manager

Date: 11/16/2023 10:00:27 AM
El Paso County Department of Public Works



## TABLE 1 SUMMARY OF CTS TEST RESULTS

FIELD SAMPLE ID

SOIL ADDITIVE

CURING METHOD

TB-7 @ 0-3'

TYPE I/II CEMENT

100° HUMIDIFIED OVEN

| ADDITIVE<br>% | WATER<br>% | DENSITY<br>(dry) | AGE<br>(days) | STRENGTH<br>(psi) |
|---------------|------------|------------------|---------------|-------------------|
| 2             | 7.4        | 121.7            | 7             | 351               |
| 2             | 7.4        | 122.1            | 7             | 319               |
| 2             | 7.4        | 122.0            | 7             | 375               |
|               |            |                  | AVERAGE:      | 348               |
| 4             | 7.4        | 122.1            | 7             | 430               |
| 4             | 7.4        | 121.9            | 7             | 430               |
| 4             | 7.4        | 122.3            | 7             | 430               |
|               |            |                  | AVERAGE:      | 430               |

Job No: 230423