

Architecture  
Structural  
Geotechnical



Materials Testing  
Forensic  
Civil/Planning

**ROCKY MOUNTAIN GROUP**  
**EMPLOYEE OWNED**

Job No. 181479

September 10, 2021

Revised September 13, 2021

Landhuis Company  
212 N. Wahsatch Ave. Ste 301  
Colorado Springs, CO

Re: Cement Treated Subgrade Test Results (August 24, 2021, Set 1)  
The Hills at Lorson Ranch, Area "B"  
El Paso County, Colorado

Dear Landhuis Company:

RMG – Rocky Mountain Group sampled cement treated subgrade (CTS) soils during placement and compaction during construction of the streets in the above referenced subdivision. Our sampling and testing consisted of preparation of four (4) CTS “pucks” for each sample location. Pucks were prepared by compacting sampled CTS materials in the Standard Proctor mold utilizing Standard Proctor compactive effort (ASTM D-698). The pucks were extruded from the mold and moist-cured in the laboratory at least seven (7) days prior to testing for compressive strength. Additional pucks were provided to RMG by the supplier Pyramid Construction, Inc.

The compressive strength for each puck was determined at least seven (7) days after placement to verify that the minimum required compressive strength of 125 psi was obtained prior to placement of hot-mix bituminous pavements. The results of our testing are presented in the table below:

Sample Location	Date Prepared	Puck #	Compressive Strength	
			Tested Strength, psi	Average Compressive Strength, psi
Bufflehead Lane, STA 2+50	8/24/2021	A	57	126.4
		B	80	
		C	80	
		D	Not Tested	
		E	212	
		F	203	

Based upon our test results, the cement treated subgrade that was placed and compacted at the locations tested met the minimum design strength requirements as recommended in RMG's *Pavement Design Report, The Hills at Lorson Ranch – Area "B", El Paso County, Colorado, Job No. 181479, dated June 7, 2021.*

I hope this provides the information you have requested. Should you have questions, please feel free to contact our office.

Cordially,

RMG – Rocky Mountain Group



Tony Munger, P.E.  
Geotechnical Project Manager