



October 17, 2024

El Paso County  
Development Services Division  
2880 International Circle  
Colorado Springs, CO 80910

**RE: Lot 1 Independence Place at Cheyenne Mountain Filing No. 1A – Street Improvements**

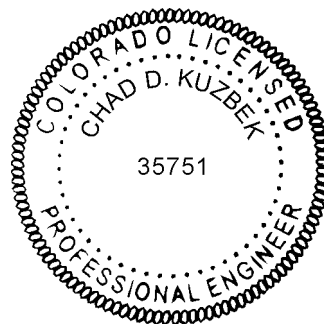
The street improvements for Lot 1 Independence Place at Cheyenne Mountain Filing No. 1A consist of curb and gutter, paving, cross-pans, sidewalk, and pedestrian ramps. WestWorks Engineering has reviewed the attached letter from Entech Engineering. Based upon this information and information gathered from periodic site visits to the project during construction of the street improvements, WestWorks Engineering is of the opinion that the street improvements have been constructed in general compliance with the approved design plans and specifications prepared by WestWorks Engineering, as filed with the County.

On behalf of El Dorado Springs 6035, LLC, WestWorks Engineering hereby requests probationary inspection of these facilities by County Engineering so that the warranty period can begin.

STATEMENT OF ENGINEER IN RESPONSIBLE CHARGE:

To the best of knowledge, information, and belief, the referenced public street improvements have been constructed in general compliance with the approved design plans and specifications as filed with El Paso County.

Seal & Signature of P.E.



Chad Kuzbek, P.E.  
Colorado No. 35751  
For and on behalf of WestWorks Engineering

October 18, 2024



**ENTECH**  
ENGINEERING, INC.

505 ELKTON DRIVE  
COLORADO SPRINGS, CO 80907  
PHONE (719) 531-5599

City of Colorado Springs  
City Engineering Division  
30 South Nevada Avenue, Suite 702  
Colorado Springs, Colorado

Attn: Cyndi Morris  
Subdivision Engineering Review Manager

Subject: Utility Trench Backfill, Curb and Gutter and Sidewalk Subgrade Preparation  
Within the Public Streets Rights of Ways of:

El Dorado Springs Apartments – Westmark Avenue  
Colorado Springs, Colorado  
Entech Job No. 212982

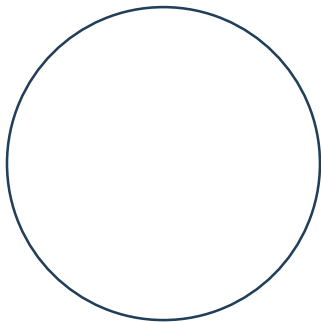
Dear Ms. Morris:

Representatives of Entech Engineering, Inc. (Entech) periodically visited the site and performed field density testing and concrete testing during the construction of the street improvements pertaining to the above referenced site along Westmark Avenue. Testing was performed in general compliance with the frequency indicated in the City of Colorado Springs Standard Specifications. Results of field density tests and concrete tests have previously been provided. Field density tests and concrete tests were taken by Entech personnel from October 2, 2023 to August 5, 2024. Results indicate that the compaction efforts and concrete strengths meet the requirements specified in the City of Colorado Springs Standard Specifications.

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

Respectfully Submitted,

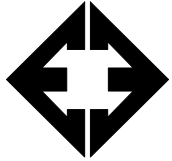
ENTECH ENGINEERING, INC.



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

JCG/cw

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**ENTECH**  
ENGINEERING, INC.  
**Density Testing Summary**

**Client:** ESH Development, LLC  
**Project:** El Dorado Springs Apartments  
**Entech Job #:** 212982.65  
**Subject:** Curb & Gutter

**QC Reviewed by:** \_\_\_\_\_  
**QA Reviewed by:** \_\_\_\_\_  
**Report Date:** 18-Oct-24

Test #	Test Location	Testing Date	Percent Compaction	Percent Required	Percent Moisture	Soil Type	Proctor Type/Value	Pass/Fail <input checked="" type="checkbox"/> = Fail
128.3	Curb & Gutter, 25' northwest of the entrance at Westmark Avenue, at grade.	10/2/2023	100	95	10.4	SM	S - 120.1 @ 11.0	<input type="checkbox"/>
129	Curb & Gutter, 30' west of the northwest corner of the intersection at Venetucci Boulevard & Westmark Avenue, at grade.	10/4/2023	99	95	10.3	SM	M - 115.9 @ 12.0	<input type="checkbox"/>
130	Curb & Gutter, 70' west of the northwest corner of the intersection at Venetucci Boulevard & Westmark Avenue, at grade.	10/4/2023	98	95	10.0	SM	M - 115.9 @ 12.0	<input type="checkbox"/>



# Soil Density Report

**Client:**

ESH Development  
 5671 North Oracle Road #1102  
 Tucson, AZ 85704

**Project:**

212982  
 El Dorado Springs Apartments  
 El Dorado Springs Apartments  
 Colorado Springs, CO

**Entech Engineering**  
 505 Elkton Dr  
 Colorado Springs, CO 80907  
 Phone: 719-531-5599

**Test Results**

Subject / Overall Test #	Test Location	Elevation (feet)	Reference	Test Date	Proctor ID	In Place Moist. (%)	In Place Dry Density (pcf)	Percent Comp.	Min Comp. (%)	Opt. Moisture Tolerance (%)	Rem. Code	Retest Of	Field Tech
12 / 32	Sidewalk Subgrade: 13' south of the southwest corner of the intersection at Westmark Ave. & Angelic Vw.	-	At Grade	06/06/2024	P7	15.6	108.2	99	95	-1 / 3	DPMP		LM
13 / 33	Sidewalk Subgrade: 50' west of the northwest corner of the intersection at Westmark Ave. & Venetucci Blvd.	-	At Grade	06/06/2024	P16	7.8	127.3	99	95	-2 / 2	DPMP		LM
14 / 34	Sidewalk Subgrade: 150' south of the southwest corner of the intersection at Venetucci Blvd. & Westmark Ave.	-	At Grade	08/05/2024	P1	11.2	116.6	98	95	-2 / 2	DPMP		JB

**Remarks**

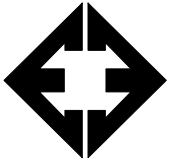
DP/MP : Density Pass / Moisture Pass

**Comments**

Tests are "Direct Transmission" (Method A). Gauge calibration data on file with the testing Agency.

**Proctor Data**

Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)
P7	ASTM D698 - A	CL	16.2	109.1
P16	ASTM D1557 - A	SM	6.5	128.5
P1	ASTM D698 - A	SC	11.4	118.7



**ENTECH**

ENGINEERING, INC.

505 Elkton Drive  
Colorado Springs, CO 80907  
(719) 531-5599 • (719) 531-5238 (fax)

Client:	ESH Development, LLC
Project:	El Dorado Springs Apartments
Entech Job #	212982

**CONCRETE TEST**

<b>CH</b>			<b>Test #: 149</b>		
Date:	# of Specimens	Specified Strength (psi)	Time of Test	Hours Field Cured	Lab Receive Date:
3/29/2023	4	5000	1:01 PM	24	3/30/2023

<b>Specimen Type</b>	<b>Test Type</b>	<b>Type of Cure</b>
<b>Cylinders 4x8</b>	<b>Field</b>	<b>Lab</b>

Contractor:	Supplier:	Mix Design Number
Ideal Concrete	Pete Lien	90CG51
Truck Number	Ticket Number	Batch Time:
994	17507	12:14 PM

Location:  
Curb and Gutter, South Approach at Westmark Avenue

Slump (in.)	Air (%):	Unit Weight (PCF):	Concrete Temp (°F)	Air Temp (°F)
3.5	5.4	140	68	61

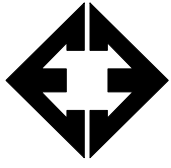
<i>7-Day Strength</i>	<i>28-Day Strength</i>	<i>-Day Strength</i>	<i>56-Day Strength</i>	<i>-Day Strength</i>
5070	5350			
	4650			
	5070			
Average:	Average:	Average:	Average:	Average:
5070	5020			
Break Date:	Break Date:	Break Date:	Break Date:	Break Date:
4/5/2023	4/26/2023			

Remarks:  
28 Day results

Specifications: 5000 PSI, 5" Max Slump, 5-8% Air	Break Sequence: 1@7, 3@28
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Summary Comments:  
Ideal, Pete Lien

Reviewed By:

**ENTECH**

ENGINEERING, INC.

505 Elkton Drive

Colorado Springs, CO 80907

(719) 531-5599 • (719) 531-5238 (fax)

Client:	ESH Development, LLC
Project:	El Dorado Springs Apartments
Entech Job #	212982

**CONCRETE TEST**

JB			Test #: 152		
Date: 5/17/2023	# of Specimens: 4	Specified Strength (psi): 4000	Time of Test: 9:39 AM	Hours Field Cured: 24	Lab Receive Date: 5/18/2023
<b>Specimen Type</b>		<b>Test Type</b>		<b>Type of Cure</b>	
Cylinders 4x8		Field		Lab	
Contractor: Ideal Concrete		Supplier: Pete Lien		Mix Design Number: 42DG50	
Truck Number: 20-00305		Ticket Number: 24244		Batch Time: 8:40 AM	

Location:  
Curb and Gutter, 15' N off North corner of Westmark and Vennetucci Blvd

Slump (in.): 1.5	Air (%): 5.5	Unit Weight (PCF): 140.1	Concrete Temp (°F): 72	Air Temp (°F): 67
<b>7-Day Strength</b>	<b>28-Day Strength</b>	<b>-Day Strength</b>	<b>56-Day Strength</b>	<b>-Day Strength</b>
4380	5570			
	5240			
	4910			
Average: 4380	Average: 5240	Average:	Average:	Average:
Break Date: 5/24/2023	Break Date: 6/14/2023	Break Date:	Break Date:	Break Date:

Remarks:  
28 Day results

Specifications: 4000 PSI, 5" Max Slump, 5-8% Air	Break Sequence: 1@7, 3@28
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Summary Comments:  
Ideal, Pete Lien

Reviewed By:



# Concrete Test

**Client:****Project:**

ESH Development  
 5671 North Oracle Road #1102  
 Tucson, AZ 85704

212982  
 El Dorado Springs Apartments  
 El Dorado Springs Apartments  
 Colorado Springs, CO

**Entech Engineering**  
 505 Elkton Dr  
 Colorado Springs, CO 80907  
 Phone: 719-531-5599

**Set #:** 6      **Sample #:** 721      **Placement Date:** 04/08/2024      **Technician:** Ross Lewis      **Weather Conditions:** Partly Cloudy      **Air Temp (°F):** 45

**Contractor:** Ideal      **Supplier:** Burnco      **Mix Design:** 40E4C1C4C      **Specified Strength (psi):** 4000

**Placement Location:** Sidewalk      **Location Details:** 500' W. off NW corner of intersection at Westmark and Venetucci      **Lat/Long:** 38.7844739 / -104.7918656

**PLACEMENT DATA**

Set #	Truck # Ticket #	Load Vol (yd³)	Slump (in)	Air Content (%)	Unit Weight (lb/ft³)	Concrete Temp (°F)	Air Temp (°F)
6	1368 20621320	10.00	Slump: 3 1/2 Spec: - 4	Result: 6.5 Spec.: 5 - 8	138.6	66	45

**STRENGTH DATA**

Set / Test	Age (days)	Test Date	Strength (psi)	Remark	Fracture Pattern
6 / 2544	7	04/15/2024	4810		Type 3
6 / 2545	28	05/06/2024	6230	CP	Type 3
6 / 2546	28	05/06/2024	6230	CP	Type 3
6 / 2547	28	05/06/2024	5970	CP	Type 2

**Average Strength (psi):** 28 Day - 6140 psi



# Concrete Test

**Client:****Project:**

ESH Development  
5671 North Oracle Road #1102  
Tucson, AZ 85704

212982  
El Dorado Springs Apartments  
El Dorado Springs Apartments  
Colorado Springs, CO

**Entech Engineering**  
505 Elkton Dr  
Colorado Springs, CO 80907  
Phone: 719-531-5599

**Set #:** 28      **Sample #:** 2049      **Placement Date:** 08/05/2024      **Technician:** Jack Bowyer      **Weather Conditions:** Sunny      **Air Temp (°F):** 75

**Contractor:** Ideal Concrete      **Supplier:** Burnco      **Mix Design:** 45E5C1C4C      **Specified Strength (psi):** 4000

**Placement Location:** Sidewalk      **Location Details:** Northwest corner of Venetucci Blvd & Westmark Ave      **Lat/Long:** 38.7833397 / -104.7908596

### PLACEMENT DATA

Set #	Truck # Ticket #	Load Vol (yd³)	Slump (in)	Air Content (%)	Unit Weight (lb/ft³)	Concrete Temp (°F)	Air Temp (°F)
28	1385 20657031	9.00	Slump: 4 Spec: 3 - 5	Result: 5.9 Spec.: 5 - 8	138.0	88	75

### STRENGTH DATA

Set / Test	Age (days)	Test Date	Strength (psi)	Fracture Pattern
28 / 7427	7	08/12/2024	3810	Type 5
28 / 7428	28	09/02/2024	4960	Type 2
28 / 7429	28	09/02/2024	4850	Type 3
28 / 7430	28	09/02/2024	5010	Type 2

**Average Strength (psi):** 7 Day - 3810 psi, 28 Day - 4940 psi

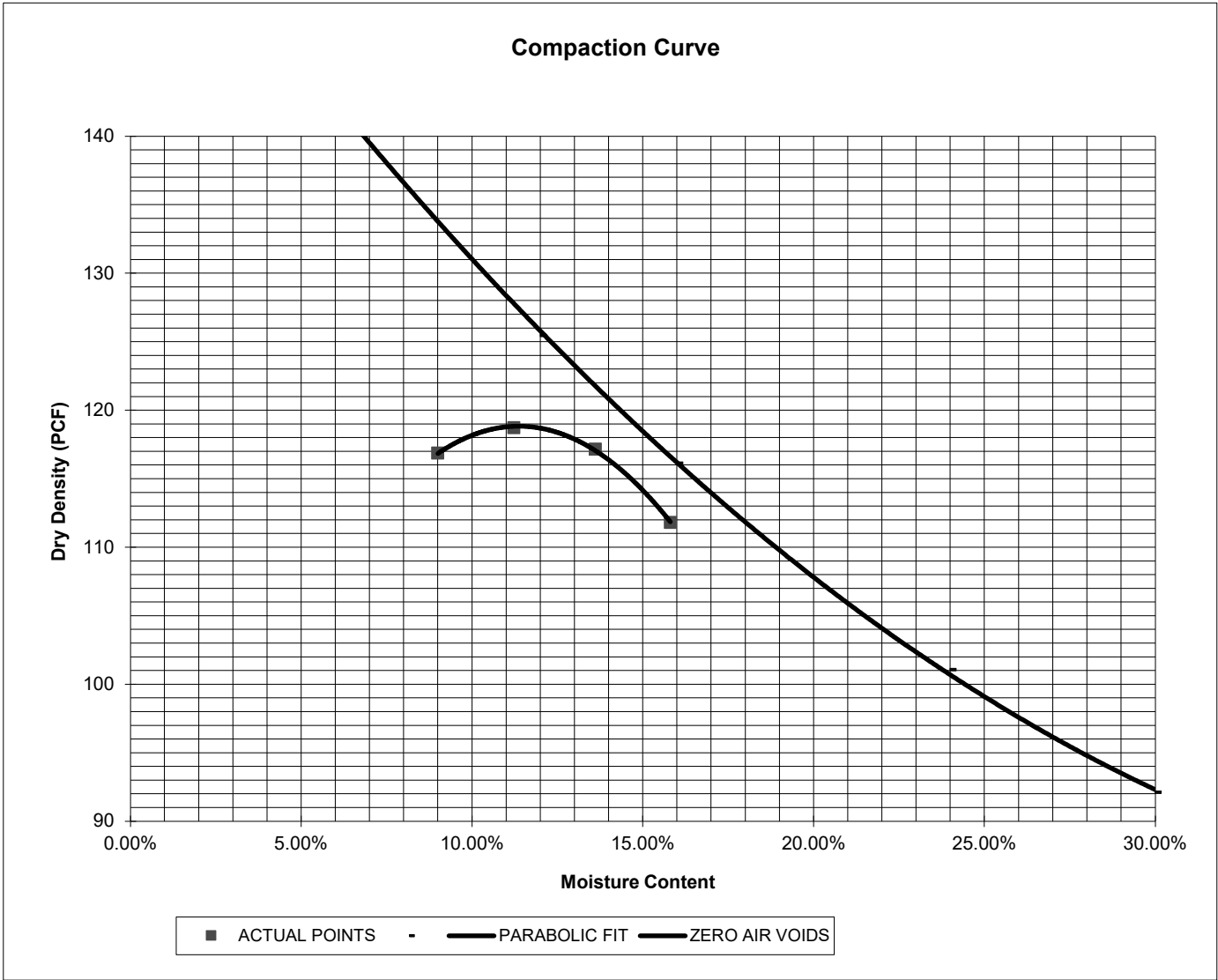
09/03/2024

Reviewed by: Dylan Gassmann, PE



<u>PROJECT</u>	ELDORADO SPRINGS	<u>CLIENT</u>	ESH DEVELOPMENT
<u>SAMPLE LOCATION</u>	BUILDING 3	<u>JOB NO.</u>	212982
<u>SOIL DESCRIPTION</u>	SAND, VERY CLAYEY, BROWN	<u>DATE</u>	11/10/21

<u>IDENTIFICATION</u>	SC	<u>PROCTOR TEST #</u>	1
<u>TEST DESIGNATION / METHOD</u>	ASTM D-698-A	<u>TEST BY</u>	AL
<u>MAXIMUM DRY DENSITY (PCF)</u>	118.7	<u>OPTIMUM MOISTURE</u>	11.4%



**ENTECH  
ENGINEERING, INC.**

505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

**MOISTURE DENSITY RELATION**

DRAWN:

DATE:

CHECKED:

DATE:

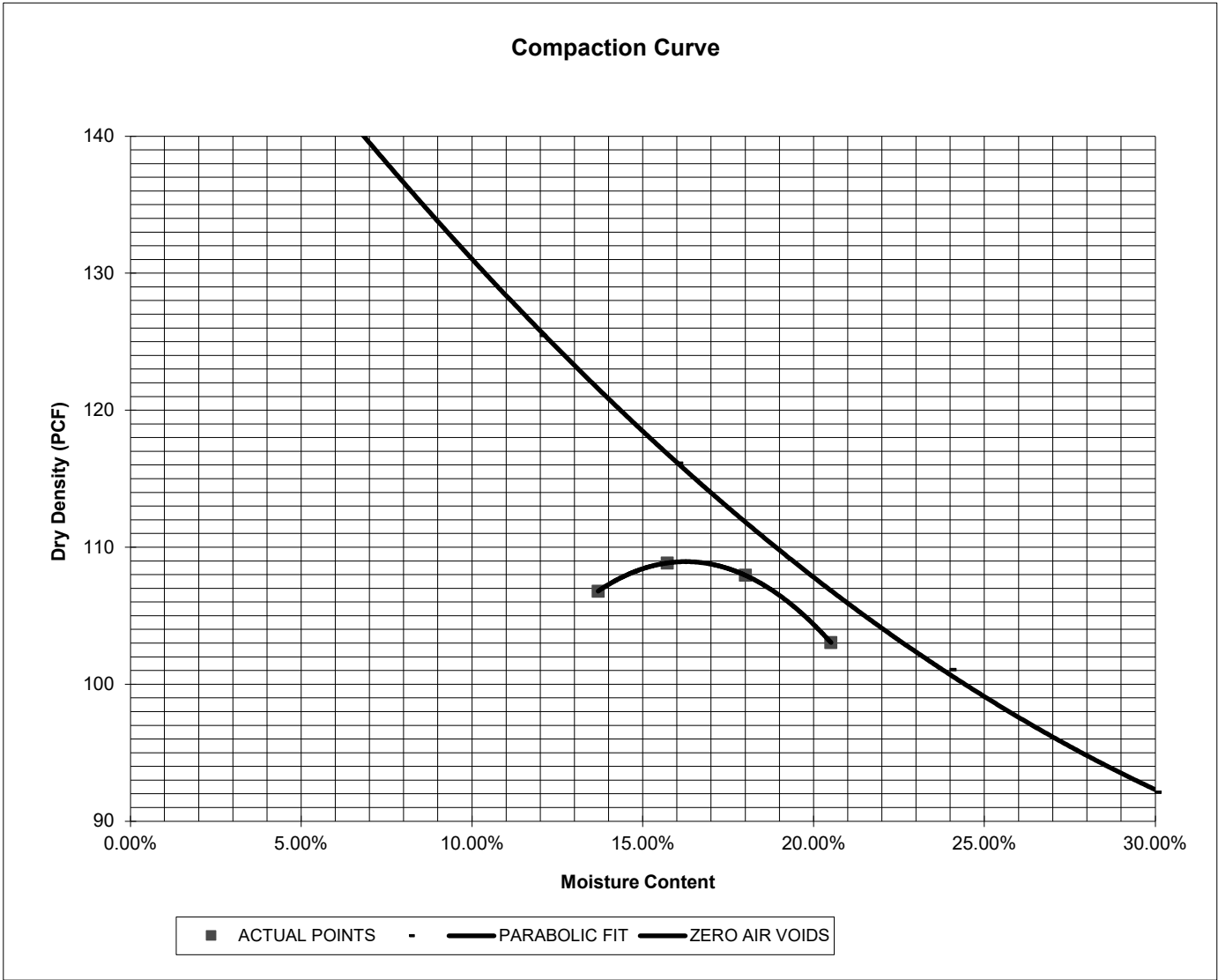
JOB NO.:

212982

FIG NO.:

<u>PROJECT</u>	ELDORADO SPRINGS	<u>CLIENT</u>	ESH DEVELOPMENT
<u>SAMPLE LOCATION</u>	BUILDING 6, FILL	<u>JOB NO.</u>	212982
<u>SOIL DESCRIPTION</u>	CLAY, SANDY, BROWN	<u>DATE</u>	12/10/21

<u>IDENTIFICATION</u>	CL	<u>PROCTOR TEST #</u>	7
<u>TEST DESIGNATION / METHOD</u>	ASTM D-698-A	<u>TEST BY</u>	AL
<u>MAXIMUM DRY DENSITY (PCF)</u>	109.1	<u>OPTIMUM MOISTURE</u>	16.2%



**ENTECH  
ENGINEERING, INC.**

505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

### MOISTURE DENSITY RELATION

DRAWN:

DATE:

CHECKED:

DATE:

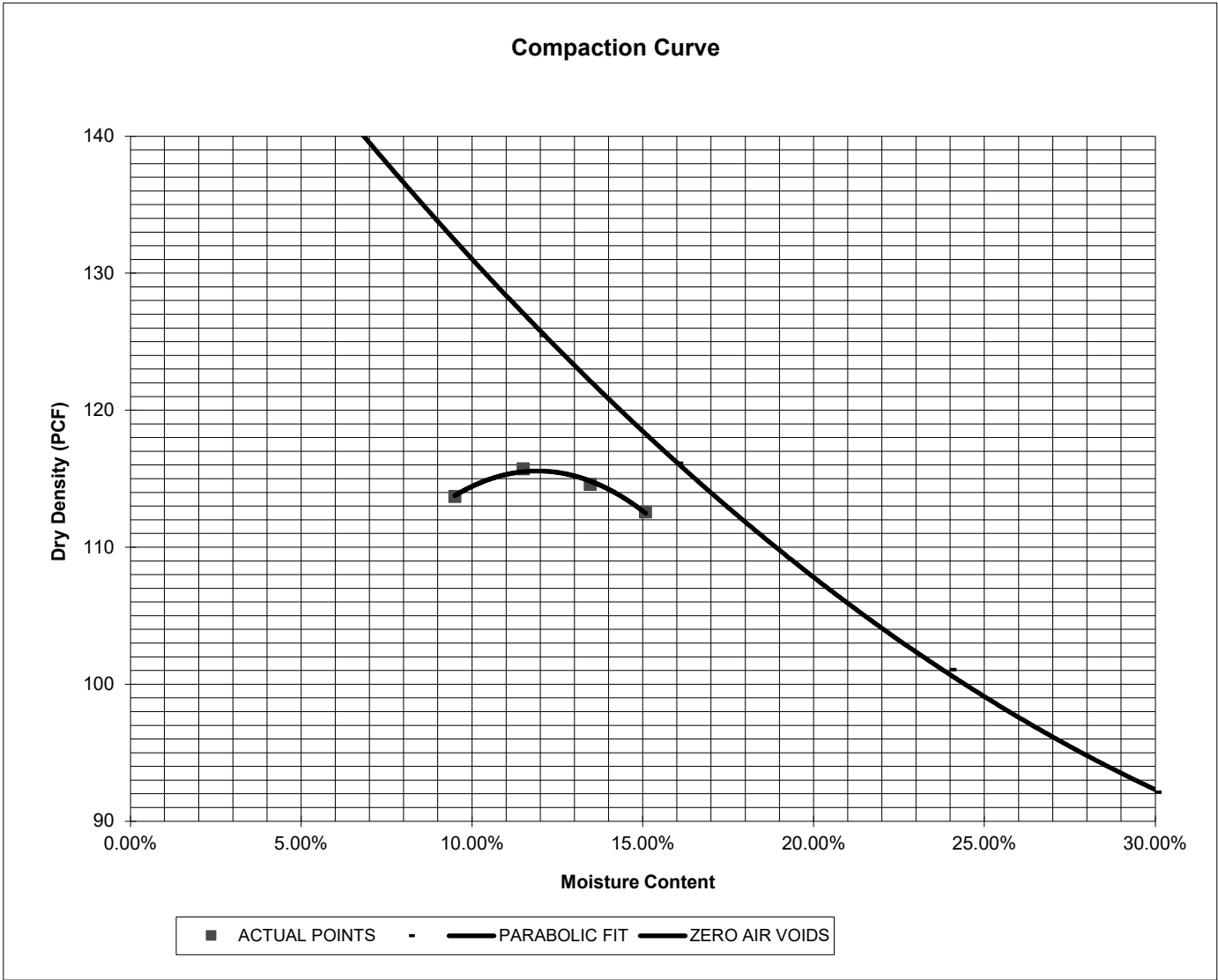
JOB NO.:

212982

FIG NO.:

<u>PROJECT</u>	ELDORADO SPRINGS	<u>CLIENT</u>	ESH DEVELOPMENT
<u>SAMPLE LOCATION</u>	CHAMERLAIN AVENUE	<u>JOB NO.</u>	212982
<u>SOIL DESCRIPTION</u>	SAND, SILTY, RED BROWN	<u>DATE</u>	03/31/22

<u>IDENTIFICATION</u>	SM	<u>PROCTOR TEST #</u>	11
<u>TEST DESIGNATION / METHOD</u>	ASTM D-1557-A	<u>TEST BY</u>	BC
<u>MAXIMUM DRY DENSITY (PCF)</u>	115.9	<u>OPTIMUM MOISTURE</u>	12.0%



**ENTECH  
ENGINEERING, INC.**

505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

**MOISTURE DENSITY RELATION**

DRAWN:

DATE:

CHECKED:

DATE:

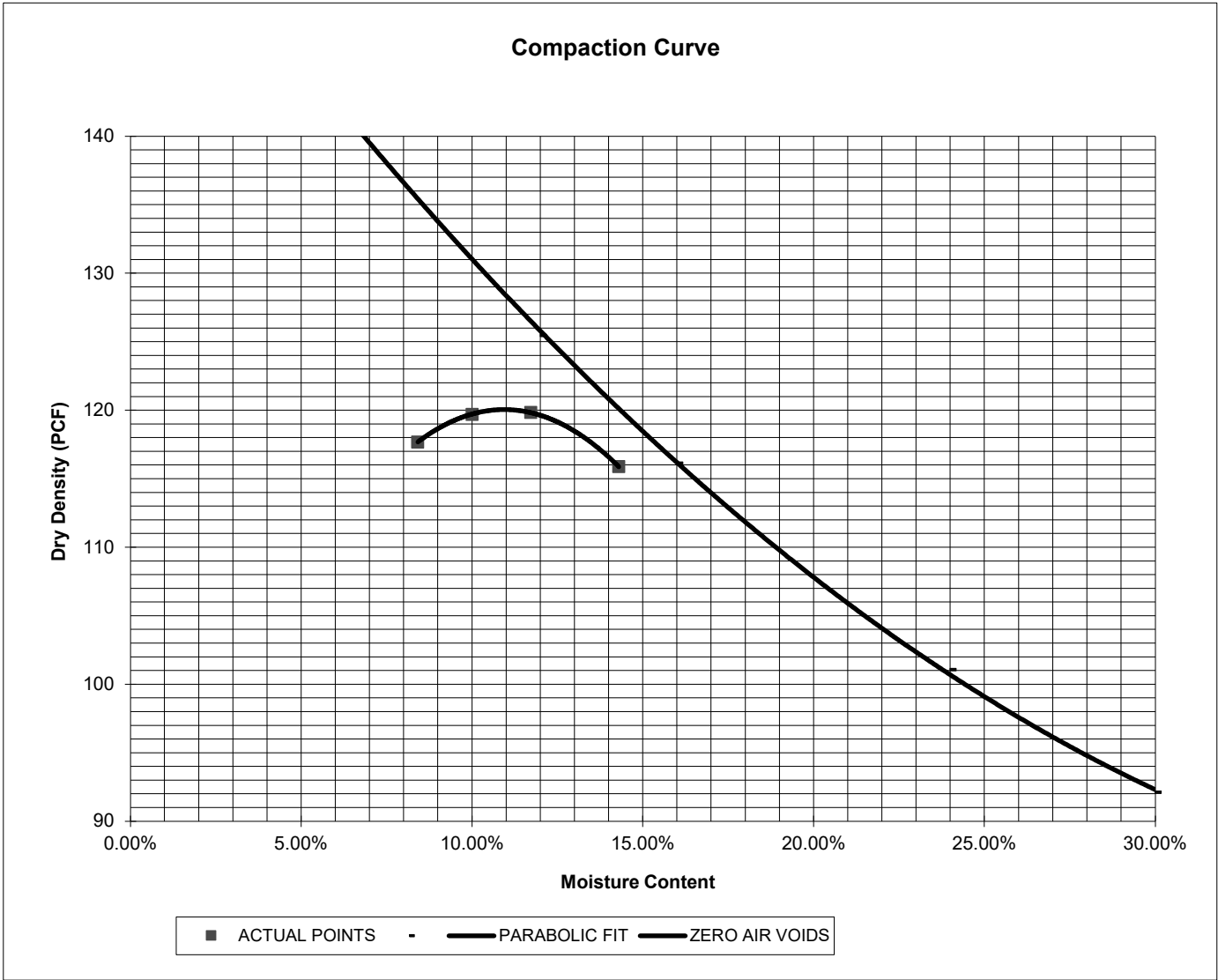
JOB NO.:

212982

FIG NO.:

<u>PROJECT</u>	ELDORADO SPRINGS	<u>CLIENT</u>	ESH DEVELOPMENT
<u>SAMPLE LOCATION</u>	RETAINING WALL	<u>JOB NO.</u>	212982
<u>SOIL DESCRIPTION</u>	SAND, CLAYEY, BROWN	<u>DATE</u>	05/05/22

<u>IDENTIFICATION</u>	SC	<u>PROCTOR TEST #</u>	12
<u>TEST DESIGNATION / METHOD</u>	ASTM D-1557-A	<u>TEST BY</u>	BC
<u>MAXIMUM DRY DENSITY (PCF)</u>	120.1	<u>OPTIMUM MOISTURE</u>	11.0%



**ENTECH  
ENGINEERING, INC.**

505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

**MOISTURE DENSITY RELATION**

DRAWN:

DATE:

CHECKED:

DATE:

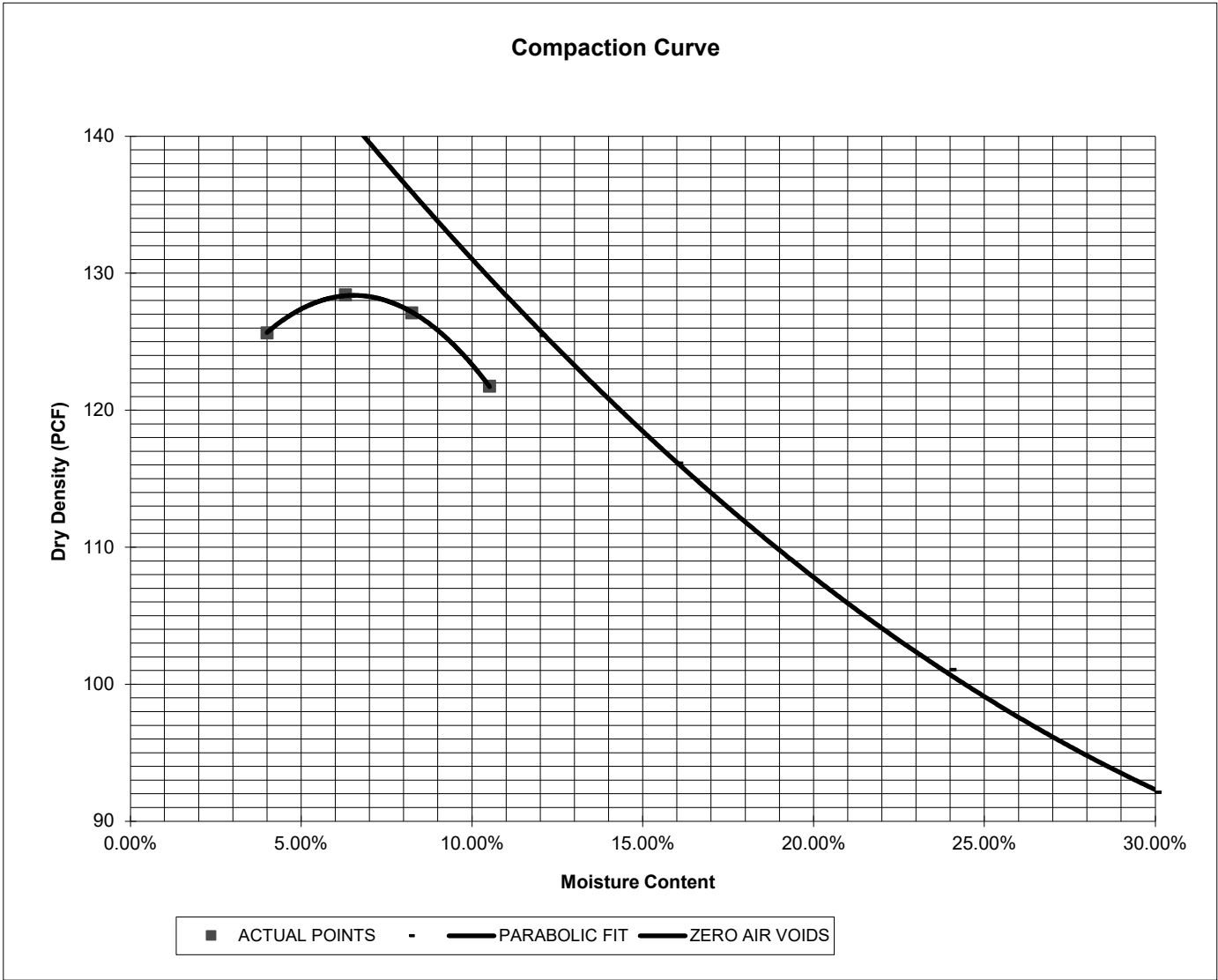
JOB NO.:

212982

FIG NO.:

<u>PROJECT</u>	ELDORADO SPRINGS	<u>CLIENT</u>	ESH DEVELOPMENT
<u>SAMPLE LOCATION</u>	RETAINGING WALL 19	<u>JOB NO.</u>	212982
<u>SOIL DESCRIPTION</u>	SAND, SILTY, RED BROWN	<u>DATE</u>	03/29/23

<u>IDENTIFICATION</u>	SM	<u>PROCTOR TEST #</u>	16
<u>TEST DESIGNATION / METHOD</u>	ASTM D-1557-A	<u>TEST BY</u>	AL
<u>MAXIMUM DRY DENSITY (PCF)</u>	128.5	<u>OPTIMUM MOISTURE</u>	6.5%



**ENTECH  
ENGINEERING, INC.**

505 ELKTON DRIVE  
COLORADO SPRINGS, COLORADO 80907

**MOISTURE DENSITY RELATION**

DRAWN:

DATE:

CHECKED:

DATE:

JOB NO.:

212982

FIG NO.: