

April 3, 2024

Hon. Everardo Villarreal
 Commissioner, Hidalgo County Precinct #3
 724 Breyfogle Rd
 Mission, TX 78574

RE: El Paraiso Project (C-22-0213-09-06)
Work Authorization No. 2 ~ El Paraiso Health Clinic
B2Z Job # 3101B
B2Z Invoice # 30045

Dear Mr. Villarreal,

Attached for your review and approval is our invoice for services under Work Authorization #2 for the month of March 2024 on the subject referenced project.

The following is attached:

- Invoice No. 30045

The following is a narrative of the progress of this period:

TASK		
Construction Material Testing		15%
<p>B2Z secured a sample of Select Fill, Subgrade & Grab Sample materials for testing on the following items:</p> <ul style="list-style-type: none"> • Moisture/Density Standard Proctor • Atterberg Limits of Soil -200 • Particle Size Analysis <p>Reports: EPHC-5S to EPHC-12S</p> <p>The B2Z Laboratory continues to perform subgrade and select fill density tests for compaction. Reports: EPHC-13S to EPHC-14S</p> <p>B2Z prepares test reports in the field and in our office daily/weekly. The test reports are emailed to clients from our in-house laboratory located in Mission, Texas</p>		

Should you have any questions regarding this submittal please do not hesitate to call me at (956) 585-3773.

Sincerely,

Oliver F. Salgado, P.E.
 Project Manager



P.O. Box 2724
McAllen, Tx. 78502
(956) 585-3773

Invoice

Date	Invoice #
4/3/2024	30045

Please send remittance with copy of invoice to:

Attn: Mrs. Aisha Gonzalez
P.O. Box 2724
McAllen, Tx. 78502

Bill To:
Hidalgo County Precinct #3
724 Breyfogle Rd.
Mission, TX 78574

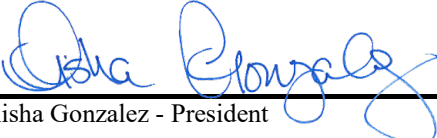
Project Info:
El Paraiso Project (C-22-0213-09-06)
WA#2 - El Paraiso Health Clinic
PO# 872577
B2Z JOB: # 3101B

Billing Period **March 2024**

Description	Contract	Previous Applications	Current Completed	Total Completed	% Complete
Construction Material Testing Services (CMT)	\$ 47,615.80	\$ 1,355.82	\$ 5,959.59	\$ 7,315.41	15%
Total For This Billing Period					\$5,959.59

Work Authorization ~ Summary

<u>WA No.</u>	<u>WA Amount</u>	<u>Previously Inv.</u>	<u>Percent Complete</u>	<u>Remaining Balance</u>
2	\$47,615.80	\$1,355.82	15%	\$41,656.21


Aisha Gonzalez - President

El Paraiso Clinic | ARPA-21-340-019
P.O. # 872577
Acct. # 4-1290-441-12-115-215-6-452

Approved
David Chacon, PE
04/04/2024

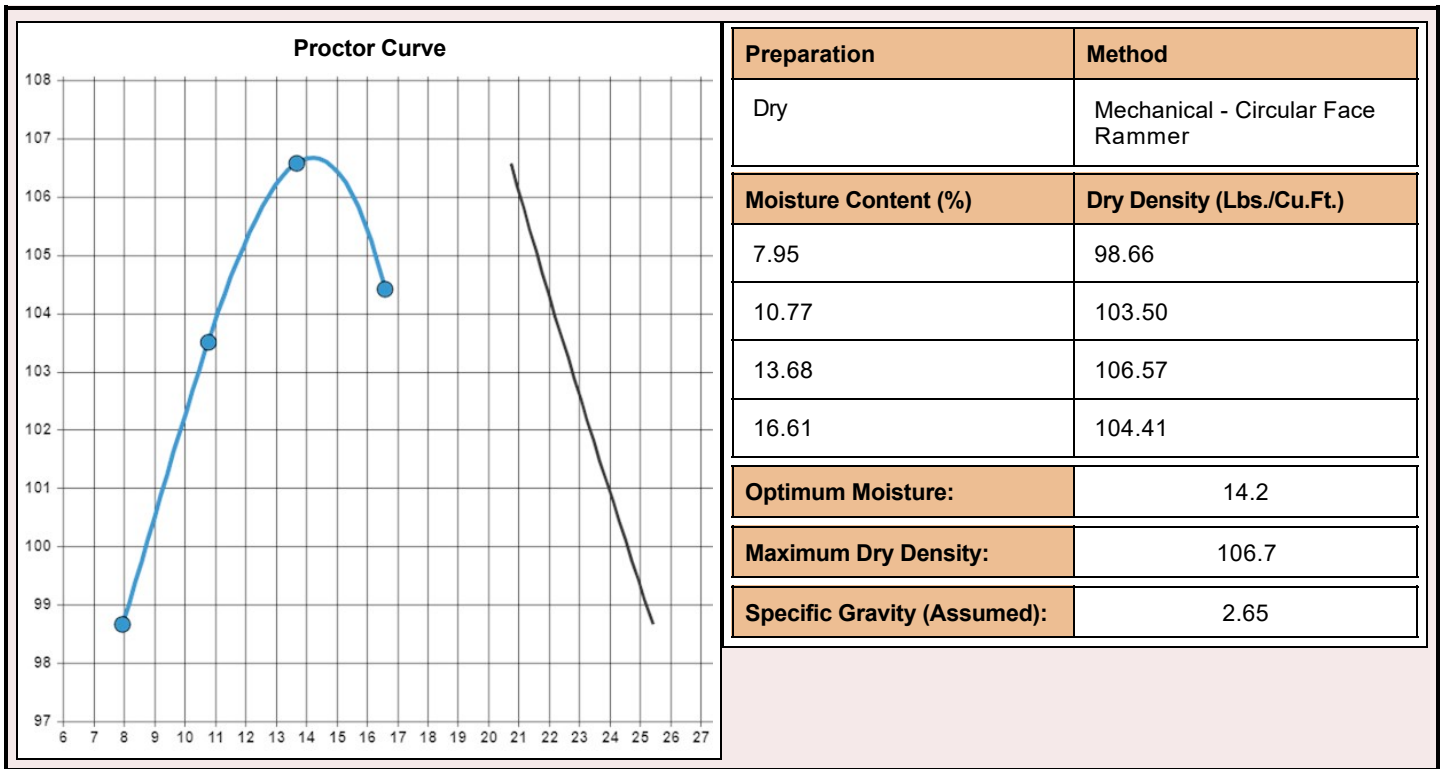
Client:
 Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:
 3101B
 El Paraiso- Health Clinic
 1901 N. Los Ebanos Rd.
 Alton, TX 78573

General Information

Sample Date:	02/23/2024	MF Sample Number:	5345
Sample From:	Stockpile	Material Type:	Select Fill
Sampled By:	Luis Villarreal, Jr.	Location Details:	EMI Pit

Test Results



Test Completed Date:	02/26/2024	Test Completed By:	Jorge Solis
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Test Results: The test is for informational purposes.

Test Method (As Applicable): Tex 114-E / ASTM D-698 Method-A, Method-B or Method-C ;
 Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318 ;
 Tex 110-E / ASTM C-136

Respectfully Submitted by B2Z Engineering

Jorge Solis

 Jorge Solis, Laboratory Manager

Client:

Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:

3101B
 El Paraiso- Health Clinic
 1901 N. Los Ebanos Rd.
 Alton, TX 78573

General Information

Sample Date:	02/23/2024	Sample Number:	5345
Sample From:	Stockpile	Material Type:	Select Fill
Technician:	Luis Villarreal, Jr.	Location Details:	EMI Pit

Atterberg Limits

Liquid Limit (%)	Plastic Limit (%)	Plastic Index	Specification Requirements	Pass/Fail
32	14	18	8-20	Pass

Test Completed Date:	02/23/2024	Test Completed By:	Jorge Solis
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Test Results: The above test result meets the technical specifications.

Test Method (As Applicable):
 Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318

Respectfully Submitted by B2Z Engineering



Jorge Solis, Laboratory Manager

Client:
 Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:
 3101B
 El Paraiso- Health Clinic
 1901 N. Los Ebanos Rd.
 Alton, TX 78573

Boring Information	General Information
Boring No.: MetaField Sample Number: 5429 Location Details: N° 26 09 35.4 W° 097 56 19.1 Septic Tank Area	Sample Date: 03/04/2024

Specimen Number:	Specimen Depth (ft.)/Description
1	1.5

Strength Blow Counts	MC	-200	LL	PL	PI	Sulfate (PPM)	Resistivity (ohm-cm)
		39.1	28.7	14.7	14		

Specimen Number:	Specimen Depth (ft.)/Description
2	2.5

Strength Blow Counts	MC	-200	LL	PL	PI	Sulfate (PPM)	Resistivity (ohm-cm)
		43.5	32.0	11.9	20		

Specimen Number:	Specimen Depth (ft.)/Description
3	3.5

Strength Blow Counts	MC	-200	LL	PL	PI	Sulfate (PPM)	Resistivity (ohm-cm)
		50.3	33.0	12.0	21		

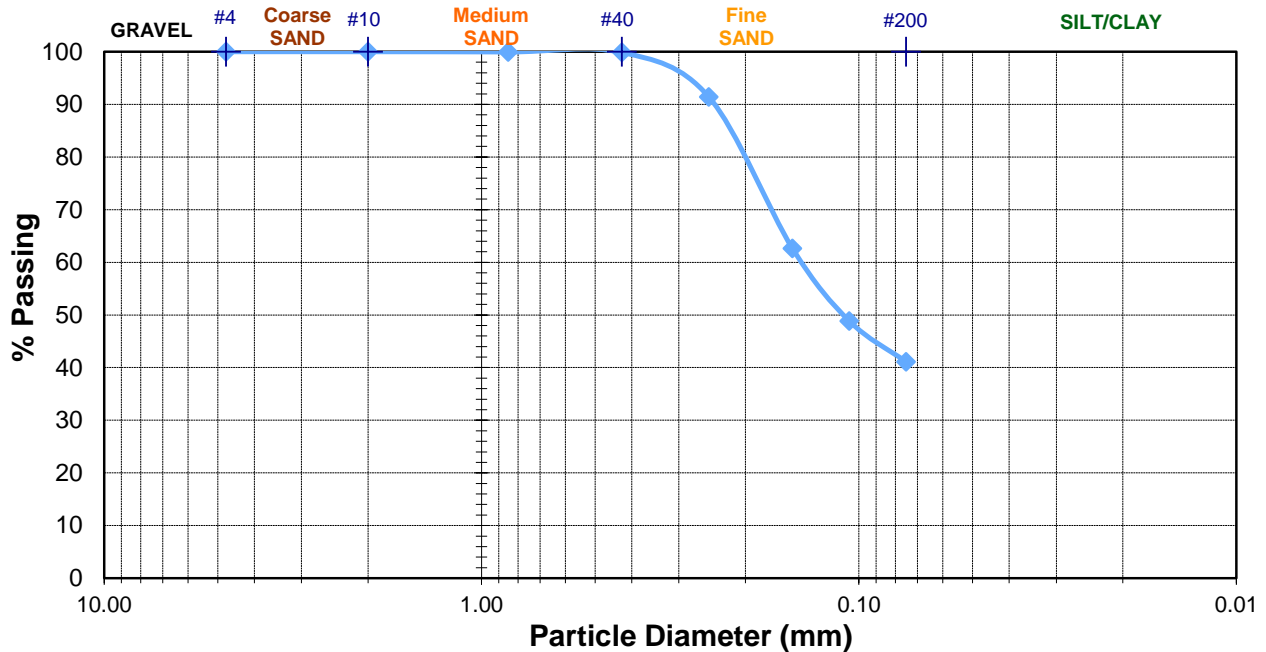
Project Name:	El Paraiso Health Clinic	Tested By:	J.Solis	Date:	3/5/2024
Location:	N°26 09 35.4, W°097 56 19.1	Checked By:	J.Solis	Date:	3/5/2024
Boring No:	Septic Tank Area	B2Z Report No.	EPHC-8S		
Sample Depth:	1.5 ft.	Gnd Elev.:			

USCS Soil Classification: **SC- Clayey Sand**

AASHTO Soil Classification: _____

Weight of Container (g):	0.0	Weight of Container & Soil (g):	226.3
Weight of Dry Sample (g):	226.3	PI :	14

Sieve Number	Diameter (mm)	Mass of Sieve (g)	Mass of Sieve & Soil (g)	Soil Retained (g)	Soil Retained (%)	Soil Passing (%)
#4	4.75	0	0	0.0	0.0	100.0
#10	2.00	0	0	0.0	0.0	100.0
#20	0.85	0	0.1	0.1	0.0	100.0
#40	0.43	0	0.2	0.2	0.1	99.9
#60	0.25	0	19.1	19.1	8.4	91.4
#100	0.15	0	65.2	65.2	28.8	62.6
#140	0.106	0	31.2	31.2	13.8	48.8
#200	0.075	0	17.5	17.5	7.7	41.1
Pan		0	93	93.0	41.1	0.0
TOTAL:				226.3	100.0	



Grain Size Distribution Curve Results:

% Gravel:	0.0
% Sand:	58.9
% Fines:	41.1

NOTE:

- % Gravel= Soil Retained (%) on #4
- % Sand= Sum of Soil Retained (%) #10 to #200
- % Fines= Soil Retained % on Pan

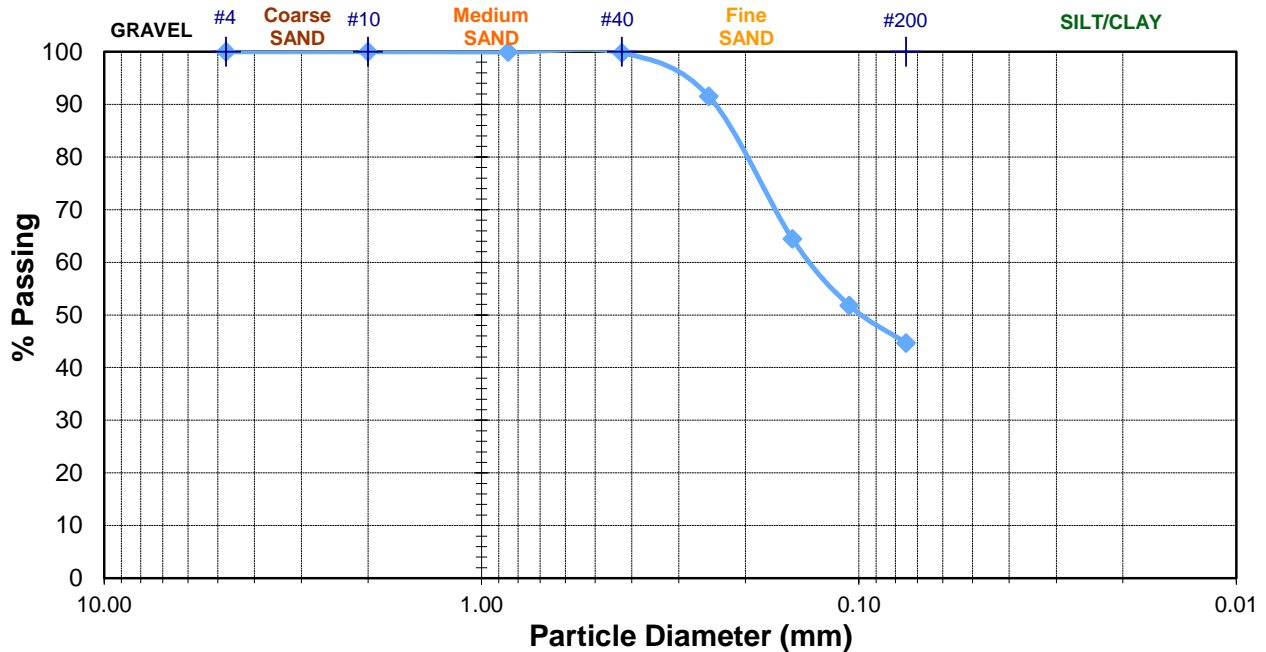
Project Name:	El Paraiso Health Clinic	Tested By:	J.Solis	Date:	3/5/2024
Location:	N°26 09 35.4, W°097 56 19.1	Checked By:	J.Solis	Date:	3/5/2024
Boring No:	Septic Tank Area	B2Z Report No.	EPHC-9S		
Sample Depth:	2.5 ft.	Gnd Elev.:			

USCS Soil Classification: **SC- Clayey Sand**

AASHTO Soil Classification: _____

Weight of Container (g):	0.0	Weight of Container & Soil (g):	193.4
Weight of Dry Sample (g):	193.4	PI :	20

Sieve Number	Diameter (mm)	Mass of Sieve (g)	Mass of Sieve & Soil (g)	Soil Retained (g)	Soil Retained (%)	Soil Passing (%)
#4	4.75	0	0	0.0	0.0	100.0
#10	2.00	0	0	0.0	0.0	100.0
#20	0.85	0	0.1	0.1	0.1	99.9
#40	0.43	0	0.3	0.3	0.2	99.8
#60	0.25	0	16	16.0	8.3	91.5
#100	0.15	0	52.4	52.4	27.1	64.4
#140	0.106	0	24.4	24.4	12.6	51.8
#200	0.075	0	13.8	13.8	7.1	44.7
Pan		0	86.4	86.4	44.7	0.0
TOTAL:				193.4	100.0	



Grain Size Distribution Curve Results:

% Gravel:	0.0
% Sand:	55.3
% Fines:	44.7

NOTE:

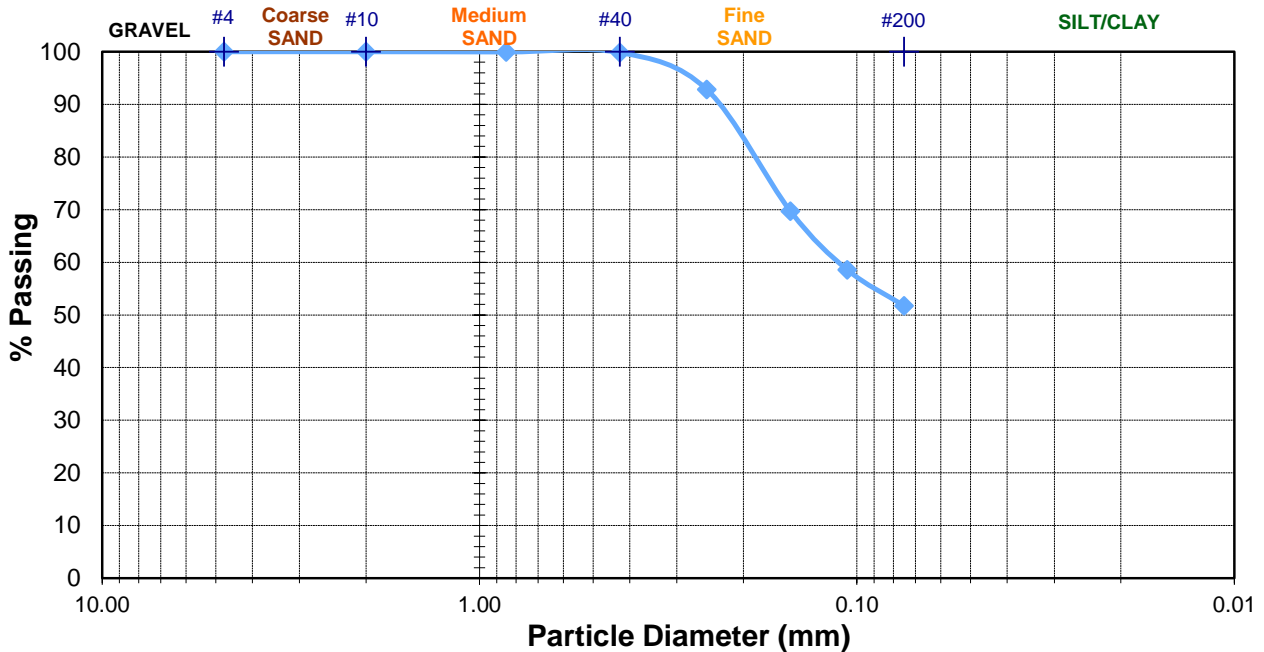
- % Gravel= Soil Retained (%) on #4
- % Sand= Sum of Soil Retained (%) #10 to #200
- % Fines= Soil Retained % on Pan

Project Name: **El Paraiso Health Clinic** Tested By: **J.Solis** Date: **3/5/2024**
 Location: **N°26 09 35.4, W°097 56 19.1** Checked By: **J.Solis** Date: **3/5/2024**
 Boring No: **Septic Tank Area** B2Z Report No. **EPHC-10S**
 Sample Depth: **3.5 ft.** Gnd Elev.: _____

USCS Soil Classification: **CI- Sandy Lean Clay**
 AASHTO Soil Classification: _____

Weight of Container (g): **0.0** Weight of Container & Soil (g): **204.9**
 Weight of Dry Sample (g): **204.9** PI: **21**

Sieve Number	Diameter (mm)	Mass of Sieve (g)	Mass of Sieve & Soil (g)	Soil Retained (g)	Soil Retained (%)	Soil Passing (%)
#4	4.75	0	0	0.0	0.0	100.0
#10	2.00	0	0	0.0	0.0	100.0
#20	0.85	0	0.1	0.1	0.0	100.0
#40	0.43	0	0.2	0.2	0.1	99.9
#60	0.25	0	14.4	14.4	7.0	92.8
#100	0.15	0	47.4	47.4	23.1	69.7
#140	0.106	0	22.8	22.8	11.1	58.6
#200	0.075	0	14	14.0	6.8	51.7
Pan		0	106	106.0	51.7	0.0
TOTAL:				204.9	100.0	



Grain Size Distribution Curve Results:

% Gravel: **0.0**
 % Sand: **48.3**
 % Fines: **51.7**

NOTE: % Gravel= Soil Retained (%) on #4
 % Sand= Sum of Soil Retained (%) #10 to #200
 % Fines= Soil Retained % on Pan

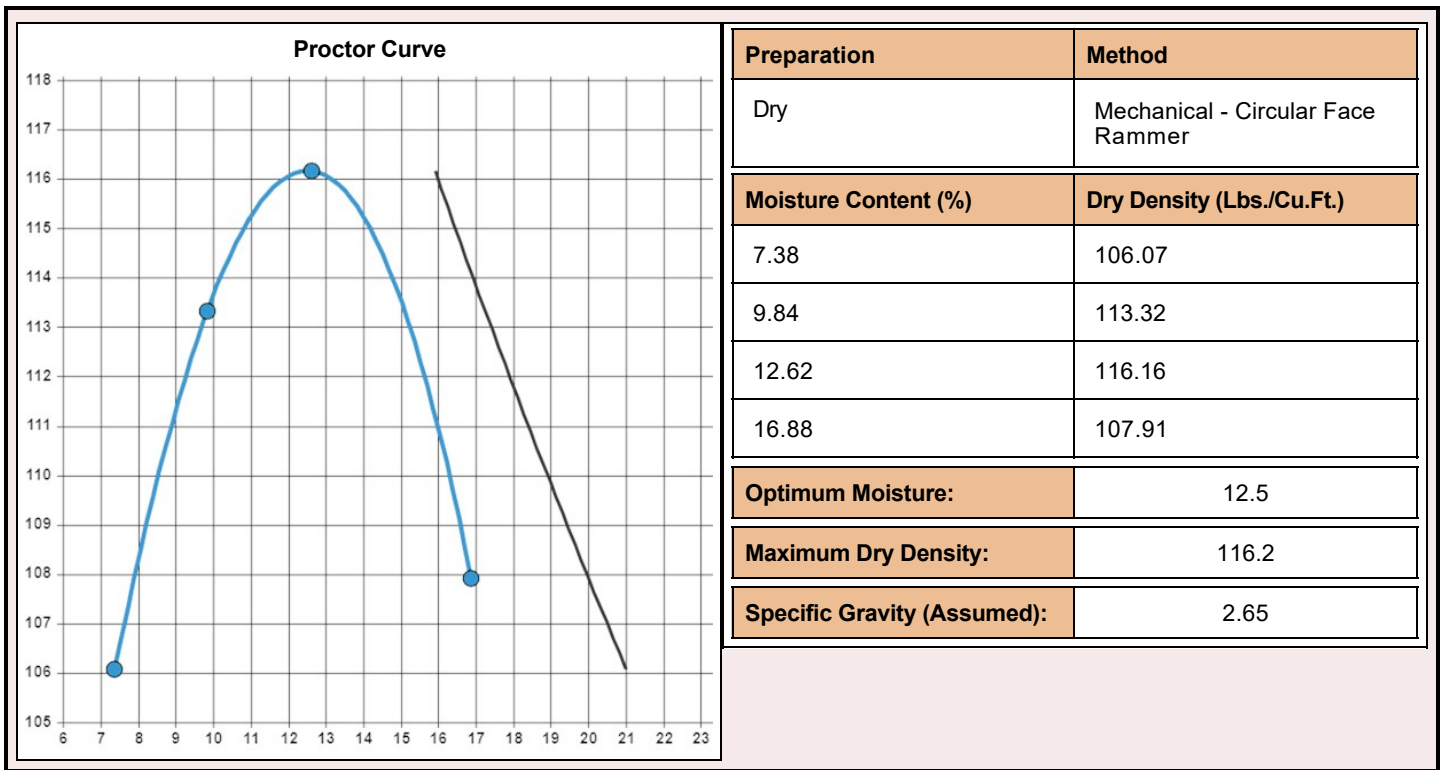
Client:
 Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:
 3101B
 El Paraiso- Health Clinic
 1901 N. Los Ebanos Rd.
 Alton, TX 78573

General Information

Sample Date:	03/07/2024	MF Sample Number:	5435
Sample From:	Native Soil	Material Type:	Subgrade
Sampled By:	Manuel De Santiago	Location Details:	Building A/0-100' N from S.W corner of building 30" Cut

Test Results



Test Completed Date:	03/11/2024	Test Completed By:	Jorge Solis
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Test Results: The test is for informational purposes.

Test Method (As Applicable): Tex 114-E / ASTM D-698 Method-A, Method-B or Method-C ;
 Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318 ;
 Tex 110-E / ASTM C-136

Respectfully Submitted by B2Z Engineering

Jorge Solis
 Jorge Solis, Laboratory Manager

Client:

Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:

3101B
 El Paraiso- Health Clinic
 1901 N. Los Ebanos Rd.
 Alton, TX 78573

General Information

Sample Date: 03/07/2024	Sample Number: 5435
Sample From: Native Soil	Material Type: Subgrade
Technician: Manuel De Santiago	Location Details: Building A/0-100' N from S.W corner of building 30" Cut

Atterberg Limits

Liquid Limit (%)	Plastic Limit (%)	Plastic Index	Specification Requirements	Pass/Fail
26	11	15	8-20	Pass

Test Completed Date: 03/07/2024	Test Completed By: Jorge Solis
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Test Results: The above test result meets the technical specifications.
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Test Method (As Applicable):
 Tex 104-E, Tex 105-E, Tex 106-E / ASTM D4318

Respectfully Submitted by B2Z Engineering



Jorge Solis, Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. EPHC-13S

Report Date: 03/21/2024

Test Method: ASTM D 6938

Client:

Hidalgo County
100 North Closser
Edinburg, TX 78539

Project:

3101B
El Paraiso- Health Clinic "A"
1901 N. Los Ebanos Rd.
Alton, TX 78573

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-585-3773

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
1		03/14/24	Subgrade		CL/CH	12.5	116.2	12.9	113.4	128.0	12	97.6	95	DP/MP
2		03/14/24	Subgrade		CL/CH	12.5	116.2	12.7	116.5	131.3	12	100.3	95	DP/MP
3		03/14/24	Subgrade		CL/CH	12.5	116.2	12.8	114.7	129.4	12	98.7	95	DP/MP
4		03/14/24	Subgrade		CL/CH	12.5	116.2	11.9	114.5	128.1	12	98.5	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
1	Building Pad/Slab: "A" Sta. 6' N 8' W from S.E Corner 1st Lift			Instrotek / 3500 Xplorer / 4015 / 01/31/2024	Ramiro Cantu
2	Building Pad/Slab: "A" Sta. 8' N 10' E from SW Corner 1st Lift			Instrotek / 3500 Xplorer / 4015 / 01/31/2024	Ramiro Cantu
3	Building Pad/Slab: "A" Sta. 8' S 8' E from NW Corner 1st Lift			Instrotek / 3500 Xplorer / 4015 / 01/31/2024	Ramiro Cantu
4	Building Pad/Slab: "A" Sta. 10' S 8' W from NE Corner 1st Lift			Instrotek / 3500 Xplorer / 4015 / 01/31/2024	Ramiro Cantu

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

Respectfully Submitted by B2Z Engineering

Jorge Solis, Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. EPHC-14S

Report Date: 03/21/2024

Test Method: ASTM D 6938

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-585-3773

Client:
Hidalgo County
100 North Closser
Edinburg, TX 78539

Project:
3101B
El Paraiso- Health Clinic "A"
1901 N. Los Ebanos Rd.
Alton, TX 78573

Test Results

Test #	Retest Of	Test Date	Proctor ID	Method	Soil Classification	Optimum Moisture (%)	Maximum Dry Density (pcf)	In Place Moisture (%)	In Place Dry Density (pcf)	In Place Wet Density (pcf)	Probe Depth (in)	Percent Compaction	Min Comp. (%)	Remark
5		03/18/24	Select Fill		CL/CH	14.2	106.7	16.3	108.8	126.5	6	102.0	95	DP/MP
6		03/18/24	Select Fill		CL/CH	14.2	106.7	16.3	109.2	127.0	6	102.3	95	DP/MP
7		03/18/24	Select Fill		CL/CH	14.2	106.7	16.8	109.3	127.7	6	102.4	95	DP/MP
8		03/18/24	Select Fill		CL/CH	14.2	106.7	15.3	109.9	126.7	6	103.0	95	DP/MP

Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
5	Building Pad/Slab: "A" Sta. 10' N 10' W from SE Corner 1st Lift			Instrotek / 3500 Xplorer / 4600 / 01/30/2024	Manuel De Santiago
6	Building Pad/Slab: "A" Sta. 10' N 10' E from SW Corner 1st Lift			Instrotek / 3500 Xplorer / 4600 / 01/30/2024	Manuel De Santiago
7	Building Pad/Slab: "A" Sta. 10' S 8' E from NW Corner 1st Lift			Instrotek / 3500 Xplorer / 4600 / 01/30/2024	Manuel De Santiago
8	Building Pad/Slab: "A" Sta. 10' S 8' W from NE Corner 1st Lift			Instrotek / 3500 Xplorer / 4600 / 01/30/2024	Manuel De Santiago

Remarks	Comments
DP/MP: Density Pass / Moisture Pass	Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.

Respectfully Submitted by B2Z Engineering


 Jorge Solis, Laboratory Manager