

July 1, 2022

Valde Guerra, Executive Officer
Attn: Josefina Garces
County of Hidalgo Texas Executive Office
2818 S. Bus. Hwy. 281
Edinburg, Texas 78539

**RE: Professional Engineering Services for Construction Materials Testing
(C-20-184-01-12) Work Authorization No. 2 ~ Construction Materials Testing
Hidalgo County Health Dept. Testing/Bio-Safety Laboratory
PO #847843**

Dear Mr. Guerra:

Attached for your review and approval is our invoice for services rendered under Work Authorization #2 during the month of June 2022 on the subject referenced project.

The following is attached:


- Invoice No. 20338

The following is a narrative of the progress for this period.

	% Complete
Construction Materials Testing	25%
<u>UPDATED:</u> B2Z continues to perform field testing with the use of the nuclear density gauge to measure compaction of Subgrade and Select Backfill Material at 6" Lifts for the Building Pad. B2Z performed Concrete and Laboratory testing. Casting of concrete cylinders included Preparation / Hold / Cure and Compressive Strength testing. B2Z performed inspection of the structural rebar reinforcing of the building pad.	

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

Sincerely,



Oliver Salgado, P.E.
Project Manager
B2Z Engineering, LLC



Invoice

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

Date	Invoice #
7/1/2022	20338

Please send remittance with copy of invoice to:

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

Bill To:

County of Hidalgo Texas Executive Office
2818 S. Bus. Hwy. 281
Edinburg, TX 78539

Project Info:

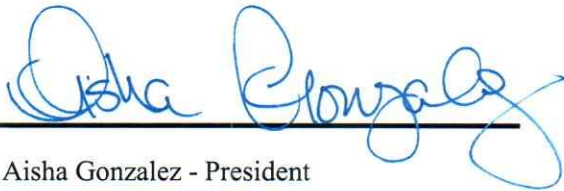
Hidalgo County Bio-Safety Lab Geo & CMT
Contract # C-20-184-01-12
Work Authorization #2
PO# 847843
B2Z JOB: 4124

Billing Period **June 2022**

Description	Contract	Previous Applications	Current Completed	Total Completed	% Complete
Construction Materials Testing	\$ 64,763.07	\$ 7,771.57	\$ 8,419.20	\$ 16,190.77	25.0%
Total For This Billing Period					\$8,419.20

Work Authorization ~ Summary

WA No.	WA Amount	Previously Inv.	Percent Complete	Remaining Balance
2	\$64,763.07	\$7,771.57	25.0%	\$48,572.30


Aisha Gonzalez - President

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:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

Sample Details			
Set #:	1	Technician:	Sergio Navarro
Specimen Size:	4 x 8 Cast Cylinder	Cast By:	Sergio Navarro
Specimens In Set:	6	Date Cast:	06/09/22
Truck / Ticket #:	7164 / 2055840	Sampled From:	Chute
Contractor:		Placement Method:	Chute
Batched:	09:50 CDT	Sampled:	10:35 CDT
		Cast:	10:42 CDT
		Truck Empty:	10:50 CDT
		Placement Time:	60 (min)

Location	
Placement Location:	Building Pad/Slab
Location Details:	Building Pad
Sample Location / Notes:	Rebar Footings

Batch Log		Specifications	
Supplier:	Alamo Concrete	Mix Design:	3000PSI
On-Site Admixtures:	None	Strength:	3000 (psi)

Field Measurements			
Weather:	Hot, Sunny	Slump (in):	6
Air Temperature (F):	84	Concrete Temp (F):	91
		Plastic Unit Weight:	
		Air Content:	1.5
		Load Volume:	10.00 (yd ³)

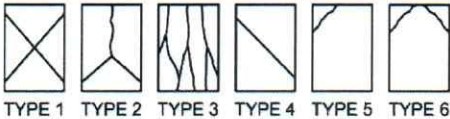
Standard Cure		Field Cure	
Min / Max Temp (F):	79/99		
Initial Cure Method:	Plastic Cover/Lid/Blanket		
Final Cure Method:	Water Storage Tank		

Lab Test Results										
Testing Lab: B2Z Mission Lab, 900 S. Stewart Rd., Suite 2, Mission, TX, 78572										

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
1-1	7	06/16/22	1 / 6	4.00	12.57	26,078	2,080	2	F3	1
1-2	7	06/16/22	1 / 6	4.00	12.57	27,069	2,150	2	F3	1
1-3	7	06/16/22	1 / 6	4.00	12.57	27,656	2,200	2	F3	1
1-4	28	07/07/22	1 / 27							
1-5	28	07/07/22	1 / 27							
1-6	28	07/07/22	1 / 27							

Test Age Average Strengths (psi): 7 Day - 2140

Capping Methods	
F3: The 7 day test results did not meet the specifications. Tested By: Manuel De Santiago (1,2,3) Checked In : 06/10/2022 (1,2,3,4,5,6)	1: Neoprene Pad



Handwritten signature/initials

Respectfully Submitted by B2Z Engineering

Handwritten signature of Hector Cantu
Hector Cantu, Corporate Laboratory Manager

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:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

Sample Details			
Set #:	2	Technician:	Manuel De Santiago
Specimen Size:	4 x 8 Cast Cylinder	Cast By:	Manuel De Santiago
Specimens In Set:	6	Date Cast:	06/16/22
Truck / Ticket #:	7256 / 2060762	Sampled From:	Chute
Contractor:		Placement Method:	Chute
Batched:	06:16 CDT	Sampled:	06:35 CDT
Cast:	06:50 CDT	Truck Empty:	06:50 CDT
Placement Time:	34 (min)		

Location	
Placement Location:	Building Pad/Slab
Location Details:	Building Pad North West corner 10'East 15' South
Sample Location / Notes:	Building Pad North West Corner 10'Em15'S

Batch Log		Specifications	
Supplier:	Alamo Concrete	Mix Design:	3000PSI
Plant:	Edinburg	Strength:	3000 (psi)
On-Site Admixtures:	None		

Field Measurements			
Weather:	Mostly Cloudy	Slump (in):	6"
Air Temperature (F):	74	Concrete Temp (F):	87
Plastic Unit Weight:			
Air Content:	1.2		
Load Volume:	30.00 (yd ³)		

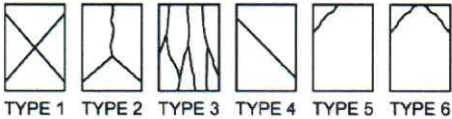
Standard Cure		Field Cure	
Initial Cure Method:	Plastic Cover/Lid/Blanket		
Final Cure Method:	Water Storage Tank		

Lab Test Results										
Testing Lab: B2Z Mission Lab, 900 S. Stewart Rd., Suite 2, Mission, TX, 78572										

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
2-1	7	06/23/22	1 / 6	4.00	12.57	28,914	2,300	5	F3	1
2-2	7	06/23/22	1 / 6	4.00	12.57	30,258	2,410	5	F3	1
2-3	7	06/23/22	1 / 6	4.00	12.57	31,291	2,490	5	F3	1
2-4	28	07/14/22	1 / 27							
2-5	28	07/14/22	1 / 27							
2-6	28	07/14/22	1 / 27							

Test Age Average Strengths (psi): 7 Day - 2400

Capping Methods							
F3: The 7 day test results did not meet the specifications.							
Tested By: Manuel De Santiago (1,2,3)							
Checked In : 06/17/2022 (1,2,3,4,5,6)							
1: Neoprene Pad							



MS

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager

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

Client:
 Hidalgo County
 100 North Closer
 Edinburg, TX 78539

Project:
 4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

Sample Details					
Set #:	3	Technician:	Manuel De Santiago	Batched:	07:03 CDT
Specimen Size:	4 x 8 Cast Cylinder	Cast By:	Manuel De Santiago	Sampled:	07:30 CDT
Specimens In Set:	6	Date Cast:	06/16/22	Cast:	07:45 CDT
Truck / Ticket #:	7257 / 2060893	Sampled From:	Chute	Truck Empty:	08:00 CDT
Contractor:	Econ-Enriquez Construction	Placement Method:	Chute	Placement Time:	57 (min)

Location	
Placement Location:	Building Pad/Slab
Location Details:	Center of Building from east side
Sample Location / Notes:	Center of Building from east side

Batch Log		Specifications	
Supplier:	Alamo Concrete	Mix Design:	3000PSI
Plant:	Edinburg	Strength:	3000 (psi)
On-Site Admixtures:	None		

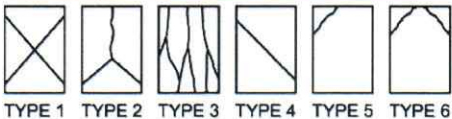
Field Measurements			
Weather:	Mostly Cloudy	Slump (in):	5 1/2"
Air Temperature (F):	74	Concrete Temp (F):	88
		Plastic Unit Weight:	
		Air Content:	1.3
		Load Volume:	90.00 (yd ³)

Standard Cure		Field Cure	
Initial Cure Method:	Plastic Cover/Lid/Blanket		
Final Cure Method:	Water Storage Tank		

Lab Test Results										
Testing Lab: B2Z Mission Lab, 900 S. Stewart Rd., Suite 2, Mission, TX, 78572										

Specimen Number	Test Age Days	Test Date	Field / Lab Cure Days	Average Cylinder Diameter (in)	Cylinder Area (in ²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
3-1	7	06/23/22	1 / 6	4.00	12.57	29,433	2,340	5	F3	1
3-2	7	06/23/22	1 / 6	4.00	12.57	33,787	2,690	5	F3	1
3-3	7	06/23/22	1 / 6	4.00	12.57	33,796	2,690	5	F3	1
3-4	28	07/14/22	1 / 27							
3-5	28	07/14/22	1 / 27							
3-6	28	07/14/22	1 / 27							

Test Age Average Strengths (psi): 7 Day - 2570								Capping Methods		
F3: The 7 day test results did not meet the specifications.								1: Neoprene Pad		
Tested By: Manuel De Santiago (1,2,3)										
Checked In: 06/17/2022 (1,2,3,4,5,6)										



Handwritten signature/initials

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager

Client:

Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

Project Contractor: ECON - Enriquez Construction

On 06/08/2022, a representative of B2Z Engineering was dispatched to the subject project to perform rebar inspection. Please see attached inspection report.

Contractor Present:	ECON - Enriquez Construction
Inspector/Technician Time:	3.0
Trip Charge:	30 miles
Inspector/Technician:	Giovanni Mares

gs

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager

Date Wed 06/08/2022

Job # 4124

Prepared By Gio Mares



Weather

6:00 AM

77°

Humid and Partly Cloudy

Wind: 9 MPH | Precipitation: .0" | Humidity: 95%

12:00 PM

92°

Humid

Wind: 13 MPH | Precipitation: .0" | Humidity: 57%

4:00 PM

97°

Clear

Wind: 14 MPH | Precipitation: .0" | Humidity: 44%

Work Logs

No entry

Name	Description	Quantity	Total Hours	Total Hours To Date
Total		0	0	0

Time Cards

No entry

Materials

No entry

Equipment

No entry

General Notes

No entry

Site Safety Observations

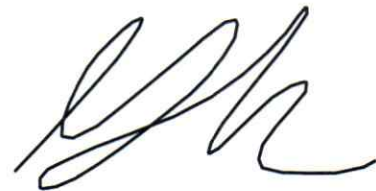
No entry

Quality Control Observations

No entry

Survey

Questions	N/A	No	Yes	Description
1. Rebar epoxy coated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not specified in plans ^{OBJ} Gio Mares 06/08/22 12:31PM
2. Clearance around rebar as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All tolerances and clearances as per plan Gio Mares 06/08/22 12:31PM
3. Bars are properly supported on chairs.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All rebar properly supported and secure on chairs Gio Mares 06/08/22 12:31PM
4. Size & number of bars as specified	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Number five rebar as specified in plans Gio Mares 06/08/22 12:31PM
5. Lap lengths as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All lapping is properly secured and as specified Gio Mares 06/08/22 12:31PM
6. Spacing of bars as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All rebar spacing as per plans ^{OBJ} Gio Mares 06/08/22 12:31PM
7. Dowels in places and tied.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Epoxy coating specified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Bars are properly laid and positioned.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	



I, Gio Mares, have reviewed and completed this report.

Gio Mares | 06/08/22 | 12:32PM

Client:

Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

Project Contractor: ECON

On 06/15/2022, a representative of B2Z Engineering was dispatched to the subject project to perform building pad structural rebar reinforcing inspection. See attached inspection report.

Contractor Present:	ECON
Inspector/Technician Time:	3.0
Trip Charge:	30 miles
Inspector/Technician:	Giovanni Mares

98

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager

Bio-Lab CMT

Edinburg Texas



Date Wed 06/15/2022

Job # 4124

Prepared By Gio Mares



Weather

6:00 AM

78°

Humid and Mostly Cloudy

Wind: 10 MPH | Precipitation: .0" | Humidity: 92%

12:00 PM

92°

Humid and Mostly Cloudy

Wind: 17 MPH | Precipitation: .0" | Humidity: 55%

4:00 PM

95°

Partly Cloudy

Wind: 19 MPH | Precipitation: .0" | Humidity: 40%

Work Logs

No entry

Name	Description	Quantity	Total Hours	Total Hours To Date
Total		0	0	0

Time Cards

No entry

Materials

No entry

Equipment

No entry

General Notes

No entry

Site Safety Observations

No entry

Quality Control Observations

No entry

Survey

Questions	N/A	No	Yes	Description
1. Rebar epoxy coated.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not specify the plans <small>OBJ</small> Gio Mares 06/15/22 02:59PM
2. Clearance around rebar as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All clearances as per specs Gio Mares 06/15/22 03:05PM
3. Bars are properly supported on chairs.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All rebar properly supported with chairs Gio Mares 06/15/22 03:05PM
4. Size & number of bars as specified	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All rebar #4 as per plans and specs Gio Mares 06/15/22 03:05PM
5. Lap lengths as specified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	All laps Minimum 2 feet <small>OBJ</small> Gio Mares 06/15/22 03:05PM
6. Spacing of bars as specified.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All rebar properly spaced 18 inches on center as per plans and specs <small>OBJ</small> Gio Mares 06/15/22 03:05PM
7. Dowels in places and tied.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All dowels for spreader footing properly installed and to length Gio Mares 06/15/22 03:05PM
8. Epoxy coating specified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Bars are properly laid and positioned.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	All rebar properly positioned as for spec's <small>OBJ</small> Gio Mares 06/15/22 03:05PM

Attachments





Gio Mares

I, Gio Mares, have reviewed and completed this report.

Gio Mares | 06/15/22 | 03:05PM



Soil Nuclear Gauge

BZZ Report No. BSL-225
 Report Date: 05/31/2022
 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 Closer
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety Laboratory
 Various
 Edinburg, TX

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
40		05/27/22	Subgrade		CL/CH	18.3	106.0	12.6	115.2	129.7	6	108.7	95	DP/MF
Test Information														
Test #	Test Location	Elevation	Reference	Make / Model / SN / Calibrated	Field Technician									
40	Building Pad/Slab: 25'Sx15'W of N.E. corner 1st Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022	Sergio Navarro									
Remarks		Comments												
DP/MF: Density Pass / Moisture Fail		Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. 40: Jose Sosa, present.												

Respectfully Submitted by BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-23S
Report Date: 05/31/2022
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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
41	40	05/28/22	Select Backfill #2		CL/CH	14.3	111.9	14.5	111.8	128.0	6	99.9	95	DP/MP
42		05/28/22	Select Backfill #2		CL/CH	14.3	111.9	14.6	112.9	129.4	6	100.9	95	DP/MP
43		05/28/22	Select Backfill #2		CL/CH	14.3	111.9	13.4	113.6	128.8	6	101.5	95	DP/MP
44		05/28/22	Select Backfill #2		CL/CH	14.3	111.9	15.4	110.7	127.7	6	98.9	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Make / Model / SN / Calibrated	Gauge	Field Technician								
41	Building Pad/Slab: 25'Sx15'W of N.E. corner 1st Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Sergio Navarro								
42	Building Pad/Slab: 25'Nx15'W of Center of South Side 1st Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Sergio Navarro								
43	Building Pad/Slab: 15'Wx25'N of SE Corner 1st Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Sergio Navarro								
44	Building Pad/Slab: 15'Ex25'N of SW Corner 1st Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Sergio Navarro								
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. 41: Jose Sosa, present.												

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-24S
Report Date: 05/31/2022
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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
45		05/31/22	Select Backfill #2		CL/CH	14.3	111.9	10.4	116.6	128.7	6	104.2	95	DP/MF
Test Information														
Test #	Test Location			Elevation	Reference	Gauge		Make / Model / SN / Calibrated						
45	Building Pad/Slab: 25'Sx15'W of NE Corner Final Lift					Instrotek / 3500 Xplorer / 4507 / 01/25/2022		Sergio Navarro						
Remarks														
DP/MF: Density Pass / Moisture Fail														
Comments														
Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency. 45: Jose Sosa, present.														

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-255
 Report Date: 05/31/2022
 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 Closner
 Edinburg, TX 78539

Project: 4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
46	45	05/31/22	Select Backfill #2		CL/CH	14.3	111.9	16.2	109.0	126.7	6	97.4	95	DP/MP
47		05/31/22	Select Backfill #2		CL/CH	14.3	111.9	16.3	109.5	127.3	6	97.9	95	DP/MP
48		05/31/22	Select Backfill #2		CL/CH	14.3	111.9	16.8	107.2	125.2	6	95.8	95	DP/MF
49		05/31/22	Select Backfill #2		CL/CH	14.3	111.9	14.4	109.6	125.4	6	97.9	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
46	Building Pad/Slab: 25'Sx15'W of NE Corner Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
47	Building Pad/Slab: 25'Nx15'W of SE Corner Final			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
48	Building Pad/Slab: 25'Nx15'E of SW Corner Final			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
49	Building Pad/Slab: 25'Sx15'E of NW Corner Final			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
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.												
DP/MF: Density Pass / Moisture Fail		48: M% Approved												

Respectfully Submitted by BZZ Engineering

Hector Cantu, Corporate Laboratory Manager

This report applies only to the standards or procedures indicated and to the sample(s) tested and/or observed and are not necessarily indicative of the qualities of apparently identical or similar products or procedures, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and are not to be reproduced without written permission.



Soil Nuclear Gauge

B2Z Report No. BSL-265
 Report Date: 06/01/2022
 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 Closner
 Edinburg, TX 78539

Project:

1124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
50		06/01/22	Select Backfill #2		CL/CH	14.3	111.9	15.6	111.9	129.4	12	100.0	95	DP/MP
51		06/01/22	Select Backfill #2		CL/CH	14.3	111.9	15.2	112.6	129.7	12	100.6	95	DP/MP
52		06/01/22	Select Backfill #2		CL/CH	14.3	111.9	13.9	110.1	125.4	12	98.4	95	DP/MP
53		06/01/22	Select Backfill #2		CL/CH	14.3	111.9	13.1	111.0	125.5	12	99.2	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
50	Building Pad/Slab: NW Corner of Building Approx 28'Ex16'S Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Manuel De Santiago									
51	Building Pad/Slab: SW Corner of Building Approx 28'Ex20'N Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Manuel De Santiago									
52	Building Pad/Slab: SE Corner of Building Approx 20'Wx20'N Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Manuel De Santiago									
53	Building Pad/Slab: NE Corner of Building Approx 20'Wx16'S Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	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

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-27S

Report Date: 06/06/2022

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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
54		06/06/22	Select Backfill #2		CL/CH	14.3	111.9	13.1	110.3	124.7	6	98.6	95	DP/MP
55		06/06/22	Select Backfill #2		CL/CH	14.3	111.9	13.1	109.5	123.9	6	97.9	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
54	Utility Trench Backfill: 4" Communication Lines 50'N x 15'E SW Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Frank Velez Jr									
55	Utility Trench Backfill: 4" Communication Lines 55'N x 40'W SE Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Frank Velez Jr									
DP/MP: Density Pass / Moisture Pass		Remarks		Comments										
				Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.										

OR

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-28S

Report Date: 06/06/2022

Test Method: ASTM D 6938

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-565-3773

Client:

Hidalgo County
100 North Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
56		06/06/22	Select Backfill #2		CL/CH	14.3	111.9	13.0	111.9	126.5	6	100.0	95	DP/MP
57		06/06/22	Select Backfill #2		CL/CH	14.3	111.9	15.2	108.8	125.3	6	97.2	95	DP/MP
58		06/06/22	Select Backfill #2		CL/CH	14.3	111.9	12.5	110.0	123.7	6	98.3	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
56	Utility Trench Backfill: 1" Communication Lines 25'S x 20'W NE Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
57	Utility Trench Backfill: 4" Communication Lines 36'N x 15'E West side 2nd Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
58	Utility Trench Backfill: 4" Communication Lines 40'N x 30'E Center 2nd Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
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 BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-29S

Report Date: 06/07/2022

Test Method: ASTM D 6938

Mission Office
900 S Stewart Rd, Ste. 2
Mission, TX 78572
Phone: 956-565-3773

Client:

Hidalgo County
100 North Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
59		06/07/22	Select Backfill #2		CL/CH	14.3	111.9	14.7	108.3	124.2	6	96.8	95	DP/MP
60		06/07/22	Select Backfill #2		CL/CH	14.3	111.9	12.7	104.3	117.5	6	93.2	95	DF/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
59	Utility Trench Backfill: 1" Electrical Line 2'N x 2'W SW Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4600 / 02/20/2022	Frank Velez Jr									
60	Utility Trench Backfill: 4" Communication Line 40'N x 20'E SW Corner of Building 3rd Lift			Instrotek / 3500 Xplorer / 4600 / 02/20/2022	Frank Velez Jr									
Remarks		Comments												
DP/MP: Density Pass / Moisture Pass DF/MP: Density Fail / Moisture Pass		Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.												

OK

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-30S
Report Date: 06/08/2022
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 Closner
Edinburg, TX 78539

Project: 4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
61	60	06/07/22	Select Backfill #2		CL/CH	14.3	111.9	13.4	110.3	125.1	6	98.6	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Make / Model / SN / Calibrated	Gauge	Field Technician								
61	Utility Trench Backfill: 4" Communication Line 40'N x 20'E SW Corner of Building 3rd Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022		Jorge Solis								
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. 61: Inspector Gio Mares moved retest to 30'Sx15'E from NW Corner of Building.												

JS

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-315
 Report Date: 06/08/2022
 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 Closer
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
62		06/07/22	Select Backfill #2		CL/CH	14.3	111.9	9.7	114.2	125.3	6	102.1	95	DP/MF
63		06/07/22	Select Backfill #2		CL/CH	14.3	111.9	12.3	106.5	119.6	6	95.2	95	DP/MP
64		06/07/22	Select Backfill #2		CL/CH	14.3	111.9	13.4	113.0	128.1	6	101.0	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
62	Utility Trench Backfill: 1" Electrical for Pole Lights 10'N x 3'E from SW Corner of Building 2nd & Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Jorge Solis									
63	Utility Trench Backfill: 4" Communication Line 25'S x 10'E NW Corner of Building 3rd & Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Jorge Solis									
64	Utility Trench Backfill: 1" Ammunition Electrical 30'N x 12'W SE Corner of Building 2nd & Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Jorge Solis									
Remarks		Comments												
DP/MF: Density Pass / Moisture Fail		Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.												
DP/MP: Density Pass / Moisture Pass														

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-32S
Report Date: 06/09/2022
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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
65	62	06/08/22	Select Backfill #2		CL/CH	14.3	111.9	12.6	115.8	130.4	6	103.5	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
65	Utility Trench Backfill: 1" Electrical for Pole Lights 10'N x 3'E from SW Corner of Building 2nd & Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Sergio Navarro									
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. 65: Inspector Gio Mares moved testing to 10'W x 15'N SE corner of bldg												

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-33S

Report Date: 06/10/2022

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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
66		06/10/22	Select Backfill #2		CL/CH	14.3	111.9	14.4	112.4	128.6	6	100.4	95	DP/MP
67		06/10/22	Select Backfill #2		CL/CH	14.3	111.9	14.5	114.1	130.6	6	102.0	95	DP/MP
Test Information														
Test #	Test Location			Elevation	Reference	Gauge		Field Technician						
66	Utility Trench Backfill: Powerline for Generator 4'S x 4'W from NE Corner of Building 1st Lift					Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Manuel De Santiago						
67	Utility Trench Backfill: Power Transformer Dry 8'S x 4'W from NE Corner of Building 1st Lift					Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Manuel De Santiago						
DP/MP:		Remarks	Comments											
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

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-345
Report Date: 06/13/2022
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 Closner
 Edinburg, TX 78539

Project:
 4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
68		06/10/22	Select Backfill #2		CL/CH	14.3	111.9	14.1	110.1	125.6	6	98.4	95	DP/MP
69		06/10/22	Select Backfill #2		CL/CH	14.3	111.9	16.2	107.5	124.9	6	96.1	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
68	Utility Trench Backfill: Powerline for Generator 4'S x 4'W from NE Corner of Building 2nd Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022	Manuel De Santiago									
69	Utility Trench Backfill: Power Transformer Dry 4'S x 4'W from NE Corner of Building 2nd Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022	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.												

OK

Respectfully Submitted by BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-35S
Report Date: 06/14/2022
Test Method: ASTM D 6938

Mission Office
 900 S Stewart Rd, Ste. 2
 Mission, TX 78572
 Phone: 956-565-3773

Client:

Hidalgo County
 100 North Closner
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
70		06/13/22	Select Backfill #2		CL/CH	14.3	111.9	15.4	112.0	129.2	6	100.1	95	DP/MP
71		06/13/22	Select Backfill #2		CL/CH	14.3	111.9	12.5	114.8	129.1	6	102.6	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
70	Utility Trench Backfill: Powerline for Generator 4'S x 4'W from NE Corner of Building 3rd & Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
71	Utility Trench Backfill: Powerline for Generator 8'S x 4'W from NE Corner of Building 3rd & Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	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.												

Of

Respectfully Submitted by BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-36S
Report Date: 06/14/2022
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 Closner
Edinburg, TX 78539

Project:

4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

Test Results														
Test #	Re-test 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
72		06/13/22	Select Backfill #2		CL/CH	14.3	111.9	21.0	104.3	126.2	6	93.2	95	DF/MF
Test Information														
Test #	Test Location	Elevation	Reference	Make / Model / SN / Calibrated	Gauge	Field Technician								
72	Utility Trench Backfill: Electrical Conduit 5'S x 5'W from NE Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 3727 /	01/25/2022	Jorge Gallardo								
Remarks														
DF/MF: Density Fail / Moisture Fail														
Comments														
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 BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-375
Report Date: 06/14/2022
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 Closner
Edinburg, TX 78539

Project:
4124
Hidalgo County Health Dept Testing/Bio-Safety
Laboratory
Various
Edinburg, TX

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
73	72	06/14/22	Select Backfill #2		CL/CH	14.3	111.9	14.0	114.1	130.1	6	102.0	95	DP/MP
74		06/14/22	Select Backfill #2		CL/CH	14.3	111.9	15.2	108.6	125.1	6	97.1	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
73	Utility Trench Backfill: Electrical Conduit 5'S x 5'W from NE Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Jorge Solis									
74	Utility Trench Backfill: 1" Sprinkler Line @ Bldg Pad 10'S x 4'W from NE Corner of Building 1st Lift			Instrotek / 3500 Xplorer / 4507 / 01/25/2022	Jorge Solis									
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 BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-38S

Report Date: 06/14/2022

Test Method: ASTM D 6938

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

Project:

4124

Hidalgo County Health Dept Testing/Bio-Safety Laboratory
Various
Edinburg, TX

Client:

Hidalgo County
100 North Clossner
Edinburg, TX 78539

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
75		06/14/22	Select Backfill #2		CL/CH	14.3	111.9	14.0	115.7	131.9	6	103.4	95	DP/MP
76		06/14/22	Select Backfill #2		CL/CH	14.3	111.9	13.1	111.1	125.6	6	99.3	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
75	Utility Trench Backfill: Electrical Panel 5'S x 5'W from NE Corner of Building 2nd Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022	Jorge Gallardo									
76	Utility Trench Backfill: 1" Sprinkler Line 8'S x 5'W from NE Corner of Building 2nd Lift			Instrotek / 3500 Xplorer / 3727 / 01/25/2022	Jorge Gallardo									
Remarks		Comments												
DP/MP: Density Pass / Moisture Pass		<small>Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.</small>												

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-39S
Report Date: 06/16/2022
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 Closner
 Edinburg, TX 78539

Project:
 4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
77		06/15/22	Select Backfill #2		CL/CH	14.3	111.9	14.4	114.7	131.2	6	102.5	95	DP/MP
78		06/15/22	Select Backfill #2		CL/CH	14.3	111.9	16.0	112.1	130.0	6	100.2	95	DP/MP
Test Information														
Test #	Test Location			Elevation	Reference	Gauge		Field Technician						
77	Utility Trench Backfill: Electrical Conduit 5'S x 5'W from NE Corner of Building Final Lift					Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Jorge Gallardo						
78	Utility Trench Backfill: 1" Sprinkler Line @ Bldg Pad 10'S x 4'W from NE Corner of Building Final Lift					Instrotek / 3500 Xplorer / 3727 / 01/25/2022		Jorge Gallardo						
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

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

BZZ Report No. BSL-40S
 Report Date: 06/23/2022
 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 Closner
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
79		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	13.2	108.7	123.1	6	97.1	95	DP/MP
80		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	13.4	106.3	120.5	6	95.0	95	DP/MP
81		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	13.7	108.0	122.8	6	96.5	95	DP/MP
82		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	12.6	109.5	123.3	6	97.9	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician									
79	Other: Spreader Footing East Side of Bldg E1 from S to N Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
80	Other: Spreader Footing East Side of Bldg E2 from S to N Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
81	Other: Spreader Footing East Side of Bldg E3 from S to N Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
82	Other: Spreader Footing East Side of Bldg E4 from S to N Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
Remarks		Comments												
DP/MP: Density Pass / Moisture Pass		<p>Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.</p>												

Respectfully Submitted by BZZ Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-41S
 Report Date: 06/23/2022
 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 Closner
 Edinburg, TX 78539

Project:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
83		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	14.1	108.9	124.2	6	97.3	95	DP/MP
84		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	13.5	110.6	125.5	6	98.8	95	DP/MP
85		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	14.9	108.2	124.3	6	96.7	95	DP/MP
Test Information														
Test #	Test Location	Elevation	Reference	Gauge	Field Technician									
83	Other: Spreader Footing East Side of Bldg E5 from E to W Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
84	Other: Spreader Footing North Side of Bldg N1 from E to W Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
85	Other: Spreader Footing North Side of Bldg N2 from E to W Final Lift			Instrotek / 3500 Xplorer / 4015 / 01/25/2022	Manuel De Santiago									
Remarks		Comments												
DP/MP: Density Pass / Moisture Pass		<small>Tests are "Direct Transmission" (Method A) unless probe depth is noted as "Backscatter". Gauge calibration data on file with the testing agency.</small>												

Respectfully Submitted by B2Z Engineering

Hector Cantu, Corporate Laboratory Manager



Soil Nuclear Gauge

B2Z Report No. BSL-42S
Report Date: 06/23/2022
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:

4124
 Hidalgo County Health Dept Testing/Bio-Safety
 Laboratory
 Various
 Edinburg, TX

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
86		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	15.8	107.3	124.2	6	95.9	95	DP/MP
87		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	12.8	108.9	122.8	6	97.3	95	DP/MP
88		06/23/22	Select Backfill #2		CL/CH	14.3	111.9	13.7	109.8	124.8	6	98.1	95	DP/MP

Test Information			
Test #	Test Location	Elevation	Reference
86	Other: Spreader Footing North Side of Bldg N3 from E to W Final Lift		
87	Other: Spreader Footing North Side of Bldg N4 from E to W Final Lift		
88	Other: Spreader Footing North Side of Bldg N5 from E to W Final Lift		

DP/MP:	Remarks	Comments
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

Hector Cantu, Corporate Laboratory Manager