

January 4, 2024

Eddie Guerra, Sheriff  
Attn: Roy Mendez, Lieutenant  
County of Hidalgo Sheriff's Office  
711 El Cibolo Rd.  
Edinburg, TX 78541

**RE: Contract # C-22-0728-01-01 - Work Authorization #2 ~ Hidalgo County CDI East  
Parking Facility  
PO # 870316**

Dear Sheriff Guerra:

Attached for your review and approval is our invoice for services rendered under Work Authorization #2 during the month of December 2023 on the subject referenced project.

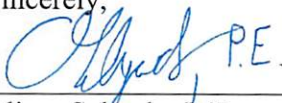
The following is attached:  
• Invoice No. 40226

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

TASK	% Complete
<b>Geotechnical Drilling, Testing &amp; Eng. Services</b>	
<b>UPDATED:</b> B2Z secured a sample of Lime Treated Flexbase material for testing on the following item: <ul style="list-style-type: none"><li>• Moisture/Density Standard Proctor</li><li>• Atterberg Limits of Soil</li></ul> <b>Reports: HCSO-5S &amp; HCSO-6S</b>	50%
B2Z continued to perform Concrete and Laboratory testing. Casting of concrete cylinders included Preparation / Hold / Cure and Compressive Strength testing. <b>Reports: HCSO-1C through HCSO-2C</b>	
B2Z continues to perform field testing with the use of the nuclear density gauge to measure compaction of Lime Treated Flexbase material for Roadways. <b>Reports: HCSO-7S</b>	

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

Sincerely,



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



Invoice

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

P.O.#: 870316

Invoice Received By: A Eilenberger on: 1/4/2024

Goods/Services Received By: Sgt. E. Longoria on: December 2023

13-1100-428-21-280-002-0-334

Date	Invoice #
1/4/2024	40226

Please send remittance with copy of invoice to:

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

*M-M*

Bill To:  
County of Hidalgo Sheriff's Office  
711 El Cibolo Rd.  
Edinburg, TX 78541

Project Info:  
Hidalgo County  
CDI East Parking Facility Project  
Contract # C-22-0728-01-01  
Work Authorization #2  
B2Z JOB: 4128  
PO # 870316

Billing Period December 2023

Description	Contract	Previous Applications	Current Completed	Total Completed	% Complete
Construction Materials Testing (CMT)	\$ 10,197.23	\$ 2,909.60	\$ 2,189.02	\$ 5,098.62	50%
<b>Total For This Billing Period</b>					<b>\$2,189.02</b>

Work Authorization ~ Summary

WA No.	WA Amount	Previously Inv.	Percent Complete	Remaining Balance
2	\$10,197.23	\$2,909.60	50%	\$5,098.61

Aisha Gonzalez  
Aisha Gonzalez - President

Sgt. 4277  
12-31-23



# Soil Nuclear Gauge

**B2Z Report No. HCSO-7S**  
**Report Date: 12/13/2023**  
**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:**  
4128  
HCSO Detention Center East Parking Facility  
CMT  
701 El Cibolo Rd  
Edinburg, TX 78541

### 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
4		12/12/23	Limed Flexbase		CL/CH	22.6	101.4	20.9	105.5	127.6	6	104.0	98	DP/MP
5		12/12/23	Limed Flexbase		CL/CH	22.6	101.4	20.8	107.8	130.2	6	106.3	98	DP/MP
6		12/12/23	Limed Flexbase		CL/CH	22.6	101.4	21.0	102.5	124.0	6	101.1	98	DP/MP

### Test Information

Test #	Test Location	Elevation	Reference	Gauge Make / Model / SN / Calibrated	Field Technician
4	Roadway: Parking Lot Sta. 40ft from N' Side Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Ana Quitarero
5	Roadway: Parking Lot Sta. Center/Middle Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Ana Quitarero
6	Roadway: Parking Lot Sta. 20ft from S' Side Final Lift			Instrotek / 3500 Xplorer / 4507 / 01/24/2023	Ana Quitarero

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

**Client:**

Hidalgo County  
 100 North Closner  
 Edinburg, TX 78539

**Project:**

4128  
 HCSO Detention Center East Parking Facility CMT  
 701 El Cibolo Rd  
 Edinburg, TX 78541

**General Information**

<b>Sample Date:</b>	12/01/2023	<b>Sample Number:</b>	4901
<b>Sample From:</b>	Roadway	<b>Material Description:</b>	Limed Flexbase
<b>Technician:</b>	Jacob Chavez	<b>Location Details:</b>	South East Quadrant/ North West Quadrant Composite Sample From Peralez Pit

**Atterberg Limits**

Liquid Limit (%)	Plastic Limit (%)	Plastic Index	Specification Requirements	Pass/Fail
41	31	10	≤ 12	Pass

<b>Test Completed Date:</b>	12/01/2023	<b>Test Completed By:</b>	Jorge Solis
-----------------------------	------------	---------------------------	-------------

**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

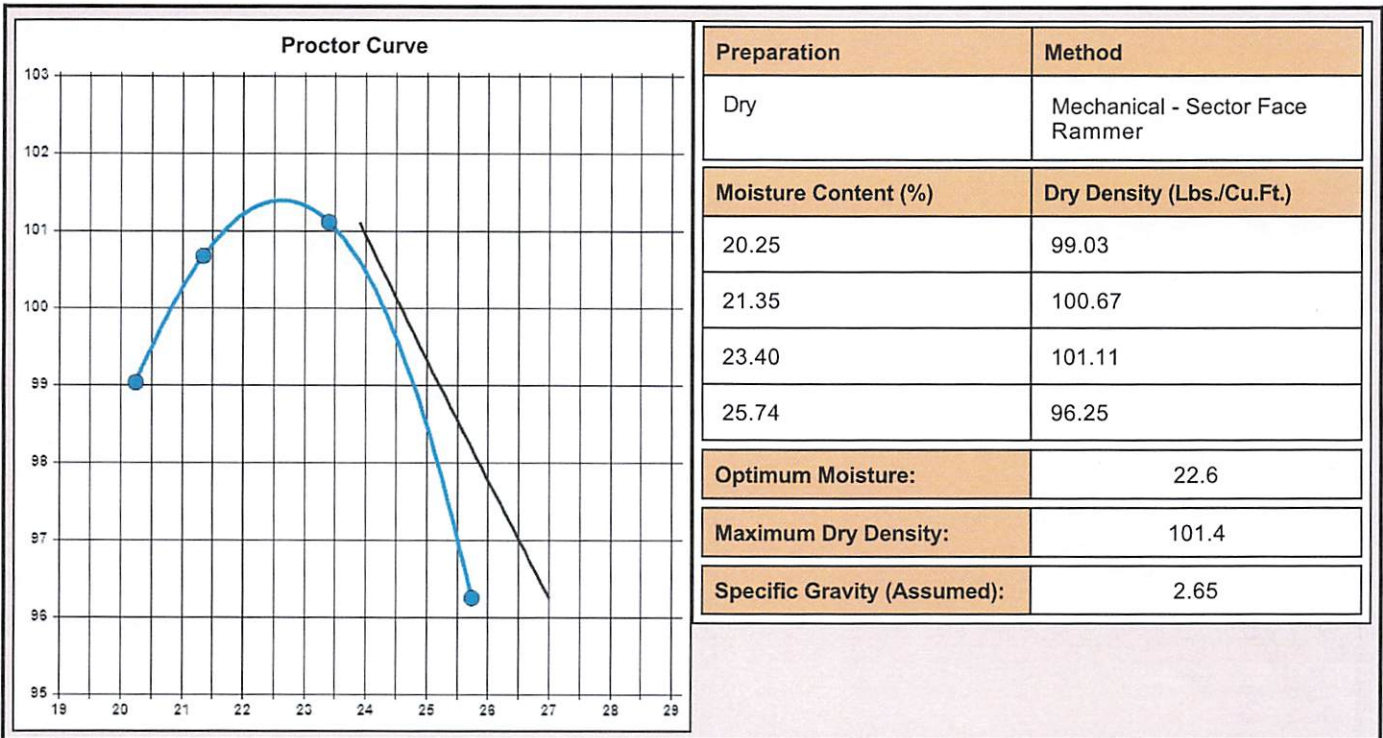
Project:

4128  
HCSO Detention Center East Parking Facility CMT  
701 El Cibolo Rd  
Edinburg, TX 78541

**General Information**

<b>Sample Date:</b>	12/01/2023	<b>MF Sample Number:</b>	4901
<b>Sample From:</b>	Roadway	<b>Material Description:</b>	Limed Flexbase
<b>Sampled By:</b>	Jacob Chavez	<b>Location Details:</b>	South East Quadrant/ North West Quadrant Composite Sample From Peralez Pit

**Test Results**



<b>Test Completed Date:</b>	12/07/2023	<b>Test Completed By:</b>	Jorge Solis
-----------------------------	------------	---------------------------	-------------

**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

**Mission Office**

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

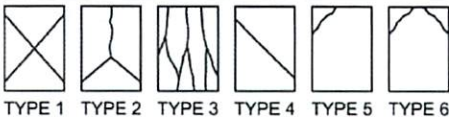
**Client:**

Hidalgo County  
100 North Closner  
Edinburg, TX 78539

**Project:**

4128  
HCSO Detention Center East Parking Facility CMT  
701 El Cibolo Rd  
Edinburg, TX 78541

Sample Details												
<b>Set #:</b>	2	<b>Technician:</b>	Jorge Solis	<b>Batched:</b>	12:07 CST							
<b>Specimen Size:</b>	4 x 8 Cast Cylinder	<b>Cast By:</b>	Jorge Solis	<b>Sampled:</b>	12:50 CST							
<b>Specimens In Set:</b>	4	<b>Date Cast:</b>	11/08/23	<b>Cast:</b>	12:55 CST							
<b>Truck / Ticket #:</b>	10064705 / 48053305	<b>Sampled From:</b>	Chute	<b>Truck Empty:</b>	13:17 CST							
<b>Contractor:</b>	HERRCON, LLC	<b>Placement Method:</b>	Chute	<b>Placement Time:</b>	70 (min)							
Location												
<b>Placement Location:</b>	Paving - Sidewalk											
<b>Location Details:</b>	East parking lot											
<b>Sample Location / Notes:</b>	East Sidewalk											
Batch Log						Specifications						
<b>Supplier:</b>	Cemex	<b>Mix Design:</b>	3000 1" GR 3-5"	<b>Strength:</b>	3000 (psi)							
<b>Plant:</b>	4207-A Edinburg											
<b>On-Site Admixtures:</b>	None											
Field Measurements												
<b>Weather:</b>	Sunny and Humid			<b>Slump (in):</b>	5	<b>Plastic Unit Weight:</b>						
<b>Air Temperature (F):</b>	80			<b>Concrete Temp (F):</b>	84	<b>Air Content:</b>						
						<b>Load Volume:</b>	10.00 (yd³)					
Standard Cure						Field Cure						
<b>Min / Max Temp (F):</b>	69/92											
<b>Initial Cure Method:</b>	Plastic Cover/Lid/Blanket											
<b>Final Cure Method:</b>	Water Storage Tank											
Lab Test Results												
<b>Testing Lab:</b> 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 (in²)	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method		
2-1	7	11/15/23	1 / 6	4.00	12.57	32,243	2,570	2	F3	1		
2-2	7	11/15/23	1 / 6	4.00	12.57	34,093	2,710	2	F3	1		
2-3	28	12/06/23	1 / 27	4.00	12.57	38,370	3,050	2	R8	1		
2-4	28	12/06/23	1 / 27	4.00	12.57	40,098	3,190	2	R8	1		
<b>Test Age Average Strengths (psi): 7 Day - 2640, 28 Day - 3120</b>												
										Capping Methods		
F3: The 7 day test results did not meet the specifications. R8: The 28 day test results meets specified strength. Tested By: Jorge Solis (1,2,3,4)										1: Neoprene Pad		
Checked In : 11/09/2023 (1,2,3,4)												



Respectfully Submitted by B2Z Engineering



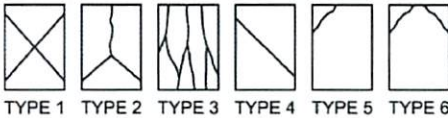
Jorge Solis, Laboratory Manager

**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:**  
 4128  
 HCSO Detention Center East Parking Facility CMT  
 701 El Cibolo Rd  
 Edinburg, TX 78541

Sample Details										
<b>Set #:</b>	1	<b>Technician:</b>	Jacob Chavez	<b>Batched:</b>	07:16 CDT					
<b>Specimen Size:</b>	4 x 8 Cast Cylinder	<b>Cast By:</b>	Jacob Chavez	<b>Sampled:</b>	08:17 CDT					
<b>Specimens In Set:</b>	4	<b>Date Cast:</b>	11/01/23	<b>Cast:</b>	08:20 CDT					
<b>Truck / Ticket #:</b>	1117 / 40064	<b>Sampled From:</b>	Chute	<b>Truck Empty:</b>						
<b>Contractor:</b>	S&W Paving	<b>Placement Method:</b>	Chute	<b>Placement Time:</b>						
Location										
<b>Placement Location:</b>	Paving - Sidewalk									
<b>Location Details:</b>	East Parking Lot									
<b>Sample Location / Notes:</b>	East side parking lot									
Batch Log						Specifications				
<b>Supplier:</b>	VMK Concrete LLC	<b>Mix Design:</b>	3000R PSI SS	<b>Strength:</b>	3000 (psi)					
<b>On-Site Admixtures:</b>	None									
Field Measurements										
<b>Weather:</b>	Mostly Sunny	<b>Slump (in):</b>	5	<b>Plastic Unit Weight:</b>						
<b>Air Temperature (F):</b>	46	<b>Concrete Temp (F):</b>	66	<b>Air Content:</b>						
				<b>Load Volume:</b>	10.00 (yd <sup>3</sup> )					
Standard Cure					Field Cure					
<b>Min / Max Temp (F):</b>	46/68									
<b>Initial Cure Method:</b>	Plastic Cover/Lid/Blanket									
<b>Final Cure Method:</b>	Water Storage Tank									
Lab Test Results										
<b>Testing Lab:</b> 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 <sup>2</sup> )	Max Load (lbs)	Strength (psi)	Fracture Type	Break Remark	Capping Method
1-1	7	11/08/23	1 / 6	4.00	12.57	42,732	3,400	2	R3	1
1-2	7	11/08/23	1 / 6	4.00	12.57	44,997	3,580	2	R3	1
1-3	28	11/29/23	1 / 27	4.00	12.57	60,297	4,800	5	R8	1
1-4	28	11/29/23	1 / 27	4.00	12.57	61,715	4,910	2	R8	1
<b>Test Age Average Strengths (psi):</b> 7 Day - 3490, 28 Day - 4850										
								Capping Methods		
<b>R3:</b> The 7 day test results meets or exceeds the 28 day specified strength.								1: Neoprene Pad		
<b>R8:</b> The 28 day test results meets specified strength.										
<b>Tested By:</b> Jorge Solis (1,2,3,4)										
<b>Checked In :</b> 11/02/2023 (1,2,3,4)										



Respectfully Submitted by B2Z Engineering

*Jorge Solis*

Jorge Solis, Laboratory Manager