



**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
M/S Defence Housing Authority.  
Lahore Cantt  
(Const of 1-Kanal NGV at DRGCC Ph-III Club House DHA Ph-6) – (M/s Linker Developers  
(Pvt) Ltd))

Reference # CED/TFL **36214** (Dr. Asad Ali)  
Reference of the request letter # 408/241/E/Lab/50/288

Dated: 12-03-2021  
Dated: 12-03-2021

**Tension Test Report** (Page -1/1)

Date of Test 12-03-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.383	3	0.378	0.11	0.112	3570	5660	71600	69970	113500	111000	0.90	11.3	Afco Steel
2	0.383	3	0.379	0.11	0.113	3520	5660	70600	68850	113500	110700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 AAA Jv ACC  
 TurakPak  
 Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
 Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
 Dated: 05-12-2020

**Tension Test Report** (Page – 1/6)

Date of Test 15-03-2021  
 Gauge length 2 inches  
 Description Steel Structure Steel Strip Tensile Test as per ASTM A-36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)										
1	MS I-Beam	600x200x11x10	24.70x10.30	254.41	9200	12600	354.75	485.85	0.70	35.00	
2			24.70x10.30	254.41	9000	12600	347.04	485.85	0.70	35.00	
3	MS Channel	100x50x6	17.50x5.20	91.00	3800	5800	409.65	625.25	0.50	25.00	
4			17.50x5.20	91.00	3900	6000	420.43	646.81	0.50	25.00	
5	MS Plate	40	26.60x40.20	1069.32	38800	51600	355.95	473.38	1.10	55.00	
6			26.60x40.10	1066.66	39400	51800	362.36	476.40	1.00	50.00	
7	MS Plate	16	24.90x16.10	400.89	16000	20200	391.53	494.31	0.80	40.00	
8			24.90x16.10	400.89	15800	19800	386.63	484.52	0.80	40.00	
<b>Only Eight Samples for Tensile Test</b>											
<b>Bend Test</b>											

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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To,  
 Resident Engineer  
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 TurakPak  
 Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
 Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
 Dated: 05-12-2020

**Tension Test Report** (Page – 2/6)

Date of Test 15-03-2021  
 Gauge length 2 inches  
 Description Steel Structure Steel Strip Tensile Test as per ASTM A-36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)										
1	Chequered Plate	5	25.00x5.00	125.00	3800	5900	298.22	463.03	0.75	37.50	
2			25.00x5.00	125.00	3800	5900	298.22	463.03	0.75	37.50	
3	MS Angle	100x100x8	24.70x7.50	185.25	6500	9800	344.21	518.96	0.70	35.00	
4			24.70x7.60	187.72	6600	9800	344.91	512.14	0.70	35.00	
5	MS Tube	50x50x4	17.60x3.95	69.52	3000	3500	423.33	493.89	0.45	22.50	
6			17.60x3.95	69.52	2900	3500	409.22	493.89	0.50	25.00	
7	MS Tube	20x20	17.60x5.20	91.52	3200	4300	343.01	460.92	0.60	30.00	
8			17.60x5.20	91.52	3100	4200	332.29	450.20	0.55	27.50	
<b>Only Eight Samples for Tensile Test</b>											
<b>Bend Test</b>											

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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To,  
Resident Engineer  
AAA Jv ACC  
TurakPak  
Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
Dated: 05-12-2020

**Weight & Size Test Report** (Page – 3/6)

Date of Test 15-03-2021  
Description MS I-Beam & MS Channel Weight and Size Test

Sr. No.	Designation		Weight	Length	Weight per Unit Length	Depth (d)	Flange Width (b <sub>f</sub> )	Flange Thickness (t <sub>f</sub> )	Web Thickness (t <sub>w</sub> )	Remark
	(mm)		(g)	(cm)	(kg/m)	mm	mm	mm	mm	
1	MS I-Beam	600x200x11x10	62550	62.50	100.08	602.00	200.00	17.20	10.50	
2	MS Channel	100x50x6	5100	61.00	8.36	100.10	50.00	6.50	5.25	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Test</b>										

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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To,  
Resident Engineer  
AAA Jv ACC  
TurakPak  
Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
Dated: 05-12-2020

**Weight & Size Test Report** (Page – 4/6)

Date of Test 18-01-2019  
Description Base Plate Weight and Size Test

Sr. No.	Designation		Weight	Length	Width (b)	Weight per Unit Area	Thickness	Remark
			(g)	(cm)	(cm)	(kg/m <sup>2</sup> )	(mm)	
1	MS Plate	40	29400	61.00	15.20	317.08	40.10	
2	MS Plate	16	15500	61.00	20.00	127.05	16.20	
3	Chequered Plate	5	5050	63.30	20.50	38.92	5.20	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only Three Samples for Test</b>								

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
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To,  
Resident Engineer  
AAA Jv ACC  
TurakPak  
Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
Dated: 05-12-2020

**Weight & Size Test Report** (Page – 5/6)

Date of Test 18-01-2019  
Description MS Angle Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Wall Thickness	Remark
	(mm)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	100x100x8	7050	62.50	11.28	102.00	100.00	7.80	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only One Sample for Test</b>								

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
AAA Jv ACC  
TurakPak  
Improvement/ Widening of Thokar Niaz Baig – Hudiyara Drain Section of N-5

Reference # CED/TFL **36081** (Dr. Qasim Khan)  
Reference of the request letter # THDP/RE/01/624

Dated: 12-02-2021  
Dated: 05-12-2020

**Weight & Size Test Report** (Page – 6/6)

Date of Test 18-01-2019  
Description MS Tube Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Wall Thickness	Remark
	(mm)	(g)	(cm)	(kg/m)	(mm)	(mm)	(mm)	
1	50x50x4	3700	71.20	5.20	50.10	50.00	3.95	
2	20x20	8150	72.50	11.24	100.1	52.00	5.20	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only Two Samples for Test</b>								

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

Ref: CED/TFL/03/36189

Dated: 09-03-2021

Dated of Test: 15-03-2021

To  
**Assistant Resident Engineer**  
**Asian Consulting Engineers Pvt. Ltd**  
**Rehabilitation of Municipal Services Infrastructure (M&R) Punjab Cities Program**  
**(PCP) - Package 2-MC Jhng**

**Subject: - TESTING OF R.C.C. MANHOLE COVER**

Reference to your letter no. AsCE-PMDFC-JH-ARE-068, Dated: 25/02/2021 on the above mentioned subject. One R.C.C. Manhole Cover as received by us has been tested and results are given below.

**Sample No. 1 (PTCL (Mark-1))**

**Dia of Sample = 63.1 cm**

**Thickness of Sample = 13.50 cm**

**Breaking Load = 6500 Kg**

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
M/S Ravi Concrete  
Lahore

Reference # CED/TFL **36205** (Dr. Qasim Khan)  
Reference of the request letter # Nil

Dated: 11-03-2021

Dated: 10-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 15-03-2021

Gauge length 640 mm

Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks/ Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	9.53 (3/8")	432.0	437.0	9700	95.16	10500	103.01	>3.50	xx
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
<b>Only one sample for Test</b>									

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**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Manager Project  
 Ittefaq Construction Services  
 Construction of Commercial Plaza (42B, 43B, 44B, Sector C and 19A Main Boulevard Bahria  
 Town Lahore  
 Reference # CED/TFL **36213** (Dr. Qasim Khan) Dated: 12-03-2021  
 Reference of the request letter # ICS/H.O/B.T.P/40 Dated: 11-03-2021

**Tension Test Report** (Page -1/1)

Date of Test 15-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.377	3	0.375	0.11	0.111	3200	5000	64200	63700	100200	99600	1.30	16.3	Afco Steel
2	0.377	3	0.376	0.11	0.111	3200	5100	64200	63680	102200	101500	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 Bahria Town Private Limited  
 Workshop at Toheed Block Bahria Town Multan Road Site Lahore

Reference # CED/TFL **36215** (Dr. Qasim Khan)  
 Reference of the request letter # QA/QC 2258

Dated: 12-03-2021  
 Dated: 12-03-2021

**Tension Test Report** (Page -1/1)

Date of Test 15-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.386	3	0.380	0.11	0.114	3900	4900	78200	75720	98200	95200	0.85	10.6	Mughal Steel
2	0.384	3	0.379	0.11	0.113	3900	5100	78200	76100	102200	99600	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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**Pakistan. Ph: 92-42-99029202**

To,  
M/S Siddique Sons  
Lahore

Reference # CED/TFL **36218** (Dr. Asif Hameed)  
Reference of the request letter # SS/Letter # 101

Dated: 15-03-2021

Dated: 15-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 15-03-2021  
Gauge length 2 inches  
Description Aluminum Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(cm)	(cm <sup>2</sup> )	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	Aluminum	25.40x4.20	106.68	18.99	22.97	178.01	215.32	0.30	15.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only One Sample for Tensile Test</b>										
<b>Bend Test</b>										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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