



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

To,  
 Sub Divisional Officer  
 Buildings Sub Division No. 22  
 Lahore  
 (Up-Gradation and Develop of Shrine of Hazrat Bibi Pak Daman, Lahore)

Reference # CED/TFL **36132** (Dr. Usman Akmal)  
 Reference of the request letter # 30/22<sup>nd</sup>

Dated: 25-02-2021  
 Dated: 13-02-2021

**Tension Test Report** (Page -1/4)

Date of Test 11-03-2021  
 Gauge length 8 inches  
 Description J-Bolt Bar Tensile and Bend Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	5.525	30	29.93	-----	703.8	25800	41400	360	577	1.70	21.3	
2	5.343	30	29.44	-----	680.7	32000	49600	461	715	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>												
Bend Test												
30mm Dia J-Bolt Bar Bend Test Through 180° is Satisfactory												

**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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To,  
Sub Divisional Officer  
Buildings Sub Division No. 22  
Lahore  
(Up-Gradation and Develop of Shrine of Hazrat Bibi Pak Daman, Lahore)  
Reference # CED/TFL **36132** (Dr. Usman Akmal) Dated: 25-02-2021  
Reference of the request letter # 30/22<sup>nd</sup> Dated: 13-02-2021

**Tension Test Report** (Page – 2/4)

Date of Test 11-03-2021  
Gauge length 2 inches  
Description Plate Steel Strip Tensile and Bend 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)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	5	26.10x5.00	130.50	4400	6300	330.76	473.59	0.70	35.00	
2		26.10x5.00	130.50	4500	6300	338.28	473.59	0.70	35.00	
3	8	26.00x7.90	205.40	6200	10000	296.11	477.60	0.80	40.00	
4		25.90x8.00	207.20	6200	10000	293.54	473.46	0.80	40.00	
5	10	26.10x10.10	263.61	6900	11700	256.78	435.40	0.90	45.00	
6		26.00x10.00	260.00	6900	11500	260.34	433.90	0.80	40.00	
7	16	23.10x15.90	367.29	12200	17500	325.85	467.41	0.80	40.00	
8		23.40x15.90	372.06	12000	17200	316.40	453.51	0.90	45.00	
<b>Only Eight Samples for Tensile and Four Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from Plate 5mm Bend Test Through 180° is Satisfactory										
Strip Taken from Plate 8mm Bend Test Through 180° is Satisfactory										
Strip Taken from Plate 10mm Bend Test Through 180° is Satisfactory										
Strip Taken from Plate 16mm Bend Test Through 180° is Satisfactory										

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

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To,  
Sub Divisional Officer  
Buildings Sub Division No. 22  
Lahore  
(Up-Gradation and Develop of Shrine of Hazrat Bibi Pak Daman, Lahore)  
Reference # CED/TFL **36132** (Dr. Usman Akmal) Dated: 25-02-2021  
Reference of the request letter # 30/22<sup>nd</sup> Dated: 13-02-2021

**Tension Test Report** (Page – 3/4)

Date of Test 11-03-2021

Gauge length 2 inches

Description Plate Steel Strip Tensile and Bend 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)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	20	26.20x19.50	510.90	14200	23500	272.66	451.23	0.90	45.00	
2		26.00x19.50	507.00	13800	23400	267.02	452.77	1.00	50.00	
3	25	26.00x25.00	650.00	18500	30400	279.21	458.81	1.00	50.00	
4		26.20x24.90	652.38	19000	30700	285.71	461.64	1.00	50.00	
5	30	26.20x30.00	786.00	29700	39000	370.68	486.76	1.00	50.00	
6		26.20x30.00	786.00	29600	38800	369.44	484.26	1.00	50.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Six Samples for Tensile and Three Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from Plate 20mm Bend Test Through 180° is Satisfactory										
Strip Taken from Plate 25mm Bend Test Through 180° is Satisfactory										
Strip Taken from Plate 30mm Bend Test Through 180° is Satisfactory										

**I/C Testing Laboratoires**  
**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**

To,  
Sub Divisional Officer  
Buildings Sub Division No. 22  
Lahore  
(Up-Gradation and Develop of Shrine of Hazrat Bibi Pak Daman, Lahore)

Reference # CED/TFL **36132** (Dr. Usman Akmal)  
Reference of the request letter # 30/22<sup>nd</sup>

Dated: 25-02-2021  
Dated: 13-02-2021

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

Date of Test 11-03-2021  
Description Plate Weight and Size Test

Sr. No.	Designation	Weight	Length	Width (b)	Weight per Unit Area	Thickness	Remark
	(mm)	(g)	(cm)	(cm)	(kg/m <sup>2</sup> )	(mm)	
1	5	7100	60.20	30.30	38.92	5.00	
2	8	11250	60.10	30.20	61.98	8.10	
3	10	13800	57.50	30.20	79.47	10.10	
4	16	4400	28.60	12.50	123.08	15.90	
5	20	27000	59.60	29.80	152.02	19.60	
6	25	34350	58.00	30.30	195.46	25.00	
7	30	41800	59.50	30.00	234.17	30.10	
-	-	-	-	-	-	-	
<b>Only Seven Samples for Test</b>							

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

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

To,  
M/S S.A Sheikh & Co  
Daroghawala Bundh Road, Lahore

Reference # CED/TFL **36193** (Dr. Usman Akmal)  
Reference of the request letter # S.A.Sheikh.NTT/21/1

Dated: 09-03-2021

Dated: 09-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 11-03-2021  
Gauge length 2 inches  
Description Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	-----	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Steel Strip	23.70x2.50	59.25	1900	2900	314.58	480.15	0.55	27.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only One Sample for Tensile Test</b>										
<b>Bend Test</b>										

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

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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Sub Divisional Officer  
 Buildings Sub Division No. 21  
 Lahore  
 (Establishment of E-Library / Community Center at Revenue Employees Cooperative Housing Society Lahore)  
 Reference # CED/TFL **36194** (Dr. Usman Akmal) Dated: 10-03-2021  
 Reference of the request letter # 1661/21 Dated: 27-02-2021

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

Date of Test 11-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.373	3/8	0.373	0.11	0.110	3500	5000	70200	70450	100200	100700	1.00	12.5	
2	0.376	3/8	0.375	0.11	0.111	3600	5000	72200	71740	100200	99700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
<b>Bend Test</b>														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

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

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**University of Engineering and Technology Lahore, 54890**  
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To,  
 Manager Coordination  
 Izhar Construction (Pvt) Ltd  
 Construction of Mill Building & Cotton Godowns at Nishat Mills Limited, Sahiwala, Faisalabad

Reference # CED/TFL **36196** (Dr. Usman Akmal)  
 Reference of the request letter # ICPL/CONST-NML/21/028

Dated: 10-03-2021  
 Dated: 10-03-2021

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

Date of Test 11-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.410	10	9.95	0.12	0.121	3400	4600	62464	62140	84510	84100	1.50	18.8	
2	0.388	10	9.68	0.12	0.114	3500	4700	64301	67680	86347	90900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

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

Note:

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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 / Team Leader  
Prime Engineering Consultancy  
Kallurkot Bridge Project  
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **36197** (Dr. Usman Akmal) Dated: 10-03-2021  
Reference of the request letter # KK-DIK-BR-PJ/2021/266 Dated: 09-03-2021

**Tension Test Report** (Page – 1/3)

Date of Test 11-03-2021  
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)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	12.70 (1/2")	775.0	779.0	17600	172.66	19800	194.24	199	>3.50	7526
2	12.70 (1/2")	775.0	780.0	17800	174.62	20000	196.20	198	>3.50	7534
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
<b>Only two samples for Test</b>										

Note:

1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

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

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**STRUCTURAL ENGINEERING DIVISION**  
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**University of Engineering and Technology Lahore, 54890**  
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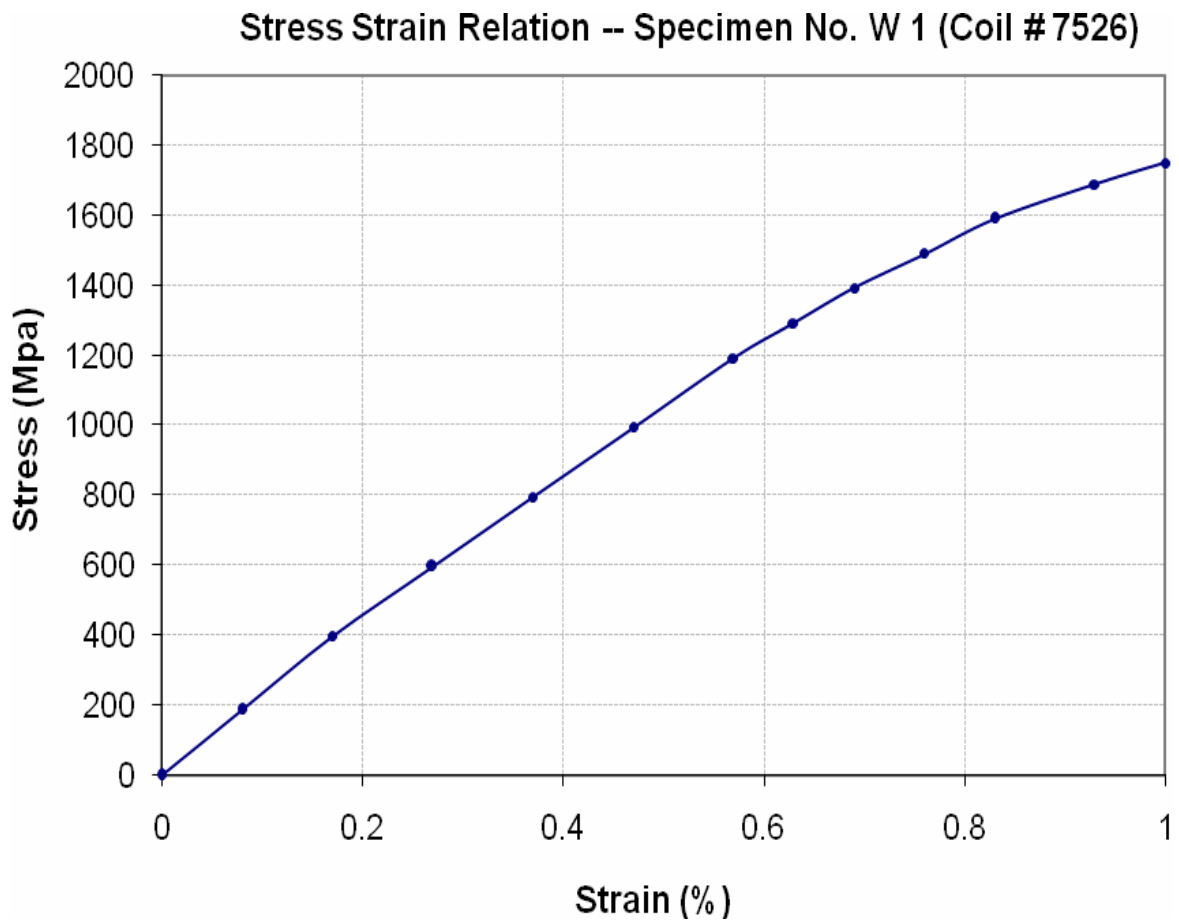
To,  
Resident Engineer / Team Leader  
Prime Engineering Consultancy  
Kallurkot Bridge Project  
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **36197** (Dr. Usman Akmal)

Dated: 10-03-2021

Reference of the request letter # KK-DIK-BR-PJ/2021/266 Dated: 09-03-2021

**Graph** (Page – 2/3)



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

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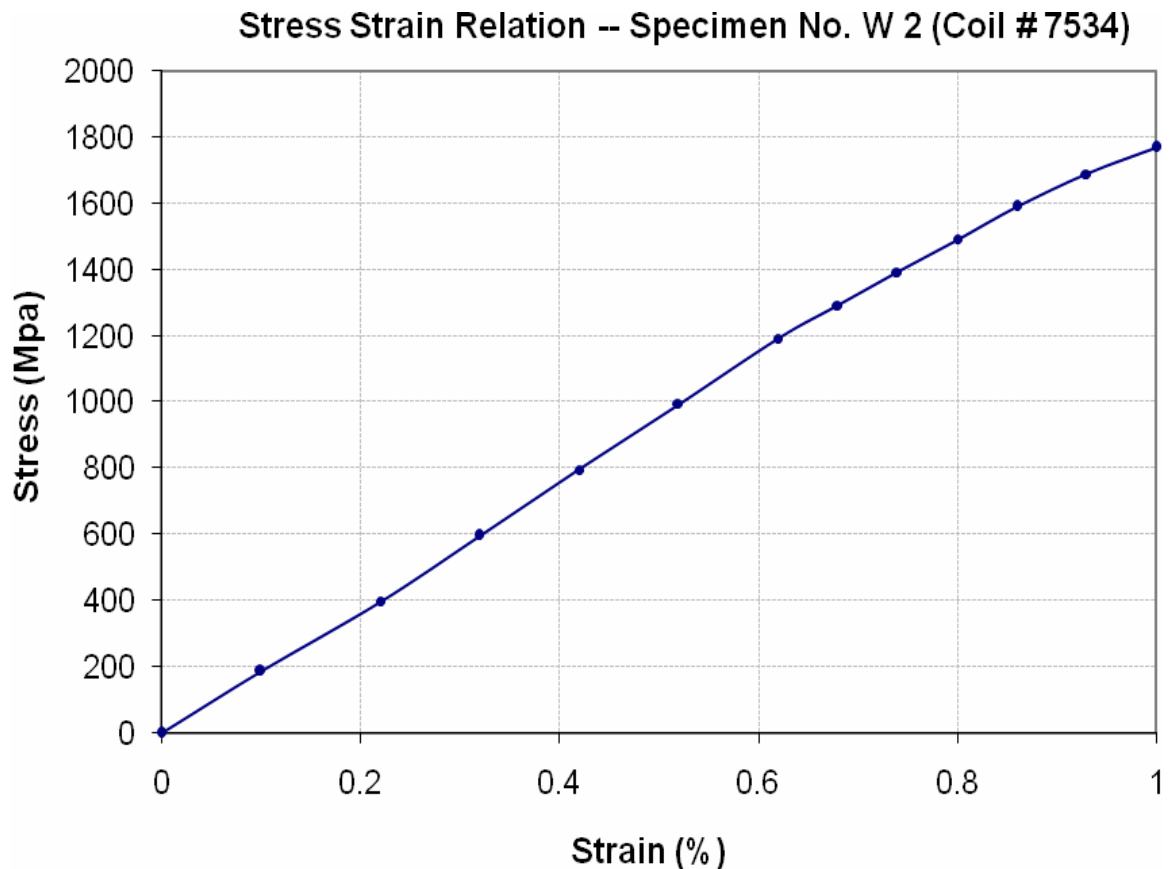
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer / Team Leader  
Prime Engineering Consultancy  
Kallurkot Bridge Project  
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **36197** (Dr. Usman Akmal)  
Reference of the request letter # KK-DIK-BR-PJ/2021/266

Dated: 10-03-2021  
Dated: 09-03-2021

**Graph** (Page – 3/3)



**I/C Testing Laboratoires**  
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To,  
 Manager Monitoring & Coordination  
 Shajar Roads Limited  
 Dualization of Sheikhpura – Gujranwala Road

Reference # CED/TFL **36198** (Dr. Usman Akmal)  
 Reference of the request letter # MMC/SHJR/SGRP/41

Dated: 10-03-2021  
 Dated: 08-03-2021

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

Date of Test 11-03-2021  
 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	0.383	3	0.378	0.11	0.113	3800	4600	76200	74440	92200	90200	1.20	15.0	
2	0.381	3	0.378	0.11	0.112	3700	4700	74200	72730	94200	92400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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 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  
 Dar Engineering  
 Construction of Punjab Agriculture, Food and Durg Authority's Science Enclave (PAFDA)

Reference # CED/TFL **36199** (Dr. Usman Akmal) Dated: 10-03-2021  
 Reference of the request letter # DB-78/DAR/RE/ME/2021/06 Dated: 09-03-2021

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

Date of Test 11-03-2021  
 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	0.374	3	0.374	0.11	0.110	3400	4900	68200	68140	98200	98200	1.30	16.3	
2	0.375	3	0.375	0.11	0.110	3400	4900	68200	68030	98200	98100	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

Note:

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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  
 Osmani & Company (Pvt) Ltd  
 Infrastructure Development Works of Phase-II (Including Construction of UG, OH Tank, Water Supply and Sewerage System) at M-3 Industrial City near Sahianwala Interchange, M3 Motorway, Faisalabad  
 Reference # CED/TFL **36202** (Dr. Usman Akmal) Dated: 10-03-2021  
 Reference of the request letter # CRE/M3IC/FIC-040/Lab/1054 Dated: 09-03-2021

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

Date of Test 11-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/size		Area (in <sup>2</sup> )		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.365	3	0.369	0.11	0.107	3200	4900	64200	65810	98200	100800	1.30	16.3	Ittehad Steel
2	0.360	3	0.367	0.11	0.106	3200	4800	64200	66610	96200	100000	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
<b>Bend Test</b>														
#3 Bar Bend Test Through 180° is Satisfactory														

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

Note:

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2. The above results pertain to sample /samples supplied to this laboratory.
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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,  
 Dy. Manager QA/QC  
 Punjab Industrial Estates  
 Construction of Watch Towers and Left Over Works of Boundary Wall at Quaid-e-Azam  
 Business Park (QABP) on M-2 Motorway Sheikhpura

Reference # CED/TFL **36203** (Dr. Usman Akmal)  
 Reference of the request letter # QA/QC/QABP/GHE/05

Dated: 10-03-2021  
 Dated: 18-02-2021

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

Date of Test 11-03-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in <sup>2</sup> )		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.369	10	9.44	0.12	0.108	4400	5200	80835	89440	95533	105700	0.85	10.6	
2	0.371	10	9.46	0.12	0.109	4200	5200	77161	84950	95533	105200	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

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

Note:

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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  
 Engineering Consultancy Punjab (Pvt) Limited  
 Resident supervision of construction of balance/ left over works of metro bus project, command & control center Multan (Package-9 G.B)

Reference # CED/TFL **36204** (Dr. Usman Akmal)  
 Reference of the request letter # ECSP/CCM/RE/19

Dated: 10-03-2021  
 Dated: 05-03-2021

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

Date of Test 11-03-2021  
 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	0.367	3	0.371	0.11	0.108	3800	4800	76200	77600	96200	98100	0.90	11.3	
2	0.374	3	0.374	0.11	0.110	4100	5000	82200	82120	100200	100200	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**  
**UET Lahore, Pakistan.**

Note:

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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 Siddique Sons  
Lahore

Reference # CED/TFL **36206** (Dr. M Rizwan Riaz)  
Reference of the request letter # SS/Letter # 580

Dated: 11-03-2021  
Dated: 11-03-2021

**Tension Test Report** (Page – 1/1)

Date of Test 11-03-2021  
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
	(mm)	(cm)	(cm <sup>2</sup> )	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	Aluminum	26.20x4.30	112.66	21.18	24.32	188.00	215.87	0.25	12.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only One Sample for Tensile Test</b>										
<b>Bend Test</b>										

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

Note:

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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  
 Orbit Housing  
 The Springs Apartment Lahore

Reference # CED/TFL **36207** (Dr. Usman Akmal)  
 Reference of the request letter # Nil

Dated: 11-03-2021  
 Dated: 10-03-2021

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

Date of Test 11-03-2021  
 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	0.376	0.11	0.111	3000	4600	60200	59670	92200	91500	1.70	21.3	
2	0.372	3	0.373	0.11	0.109	3000	4600	60200	60480	92200	92800	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**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  
 NESPAK Jv TrukPak  
 Residence Construction Supervision for Establishment of Dera Ghazi Khan Institute of  
 Cardiology

Reference # CED/TFL **36208 (Dr. M Rizwan)**

Dated: 11-03-2021

Reference of the request letter # 4161/RE/SFMKB/DGK/242

Dated: 05-03-2021

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

Date of Test 11-03-2021

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	0.368	3	0.371	0.11	0.108	3100	4600	62200	63120	92200	93700	1.00	12.5	Ittehad Steel
2	0.375	3	0.375	0.11	0.110	3100	4700	62200	61970	94200	94000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**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 Mian Muhammad Arshad Builder  
Lahore  
(Palm Avenue 2 Commercial Building Sukh Chayan Garden, Multan Road, Lahore)

Reference # CED/TFL **36209, 210** (Dr. M Rizwan)  
Reference of the request letter # 00-A1

Dated: 11-03-2021  
Dated: 11-03-2021

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

Date of Test 11-03-2021  
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	0.366	3	0.370	0.11	0.107	3200	5000	64200	65620	100200	102600	1.30	16.3	
2	0.366	3	0.370	0.11	0.108	3200	5000	64200	65490	100200	102400	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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