



**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  
Associated Consulting Engineers - ACE Ltd. Lahore  
Jv Engineering General Consultants (Pvt) Ltd.  
CPEC Project Western Route Hakla (M-1) to D.I Khan Motorway, Package –V Hakla to Pindi  
Gheb (km 0+000 to 62+767.422)

Reference # CED/TFL **37513** (Engr. Amina Rajput)  
Reference of the request letter # RE/ACE/CPEC/P-V/21/1339

Dated: 14-12-2021  
Dated: 10-12-2021

**Tension Test Report** (Page – 1/1)

Date of Test 17-12-2021  
Gauge length -----  
Description Chain Link Fence Wire and Tension Wire Tensile Test

Sr. No.	Measure Diameter of Single Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.00	320	3.14	Chain Link Fence Wire
2	3.00	320	3.14	
3	3.00	680	6.67	Tension Wire
4	3.00	680	6.67	
-	-	-	-	
-	-	-	-	
-	-	-	-	
<b>Only Four Samples for Test</b>				

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

**Note:**

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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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/12/37517

Dated: 15-12-2021

Dated of Test: 17-12-2021

To,

Resident Engineer

ACC - CEC (Jv)

Dualization of Mardan - Swabi Road (Additional Financing) (ADB Assisted.)

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/12/37517) (Page -1/2)

Reference to your Letter No. ACC-CEC(JV)/M-S/SRE/231/21, Dated: 15/12/2021 on the subject cited above. One Pressure Gauge No. AES-3501 as received by us has been calibrated. The results are tabulated as under:

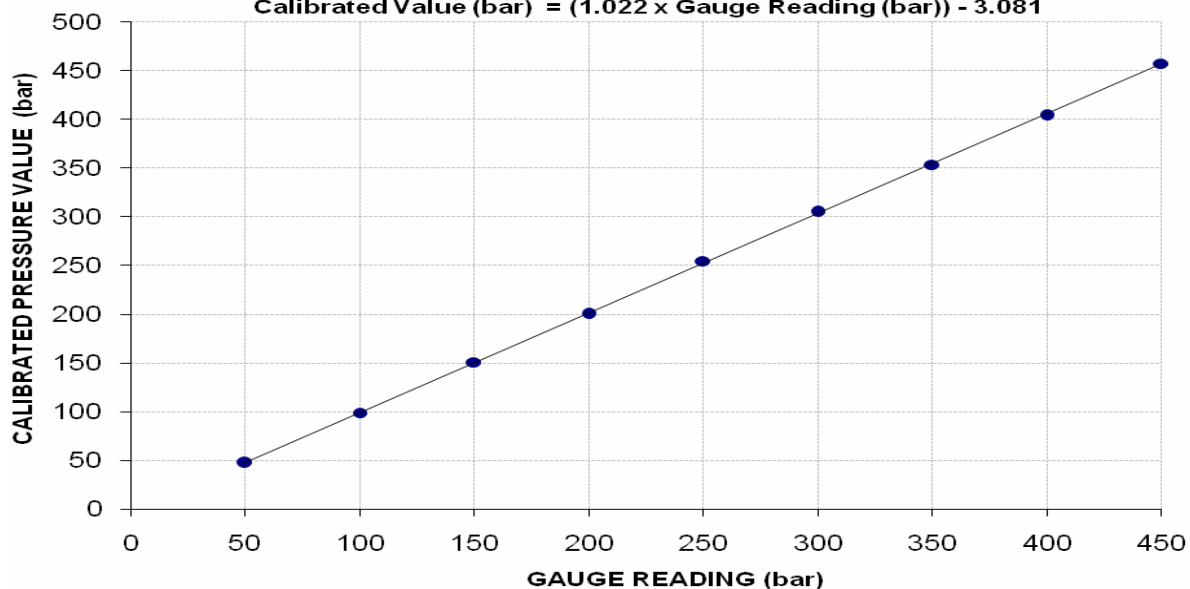
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 450 (bar)**

Pressure Gauge Reading (bar)	50	100	150	200	250	300	350	400	450
Calibrated Load (kg)	9600	20000	30400	40400	51400	61600	71400	81600	92400
Calibrated Pressure (bar)	48	99	151	200	255	305	354	404	458

The Ram Area use for Calibration = 198 cm<sup>2</sup>

**Calibration Curve for Pressure Gauge No. AES-3501**

**Calibrated Value (bar) = (1.022 x Gauge Reading (bar)) - 3.081**



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

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Ref: CED/TFL/12/37517  
Dated of Test: 17-12-2021

Dated: 15-12-2021

To,  
Resident Engineer  
ACC - CEC (JV)  
Dualization of Mardan - Swabi Road (Additional Financing) (ADB Assisted.)

Subject: - CALIBRATION OF PRESSURE GAUGE (MARK: TFL/12/37517) (Page -2/2)

Reference to your Letter No. ACC-CEC(JV)/M-S/SRE/231/21, Dated: 15/12/2021 on the subject cited above. One Pressure Gauge No. AES-3502 as received by us has been calibrated. The results are tabulated as under:

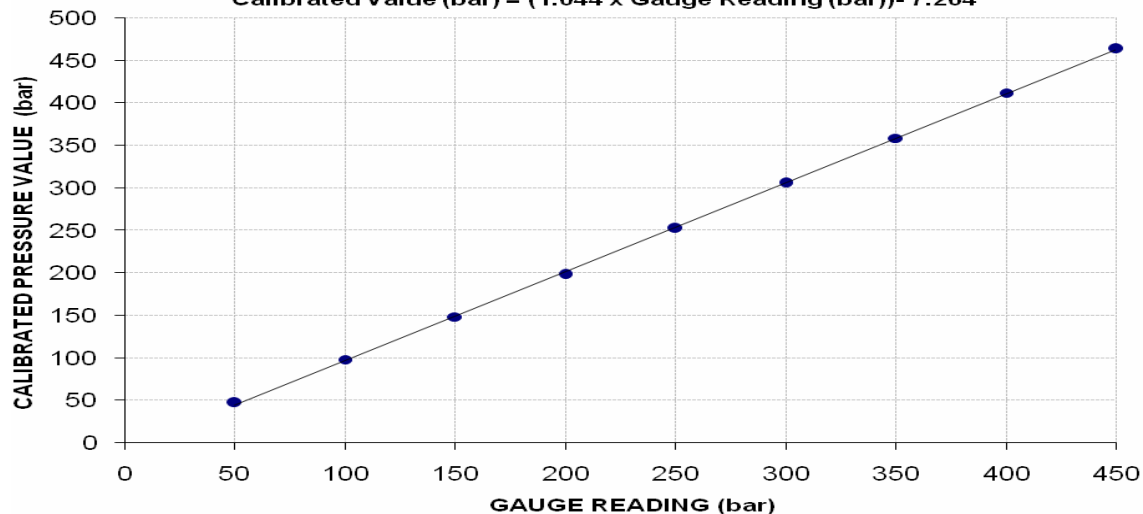
**Total Range : Zero - 1000 (bar)**  
**Calibrated Range : Zero - 450 (bar)**

Pressure Gauge Reading (bar)	50	100	150	200	250	300	350	400	450
Calibrated Load (kg)	9600	19800	30000	40000	51000	61800	72400	83200	93600
Calibrated Pressure (bar)	48	98	149	198	253	306	359	412	464

The Ram Area use for Calibration = 198 cm<sup>2</sup>

**Calibration Curve for Pressure Gauge No. AES-3502**

Calibrated Value (bar) = (1.044 x Gauge Reading (bar)) - 7.264



**I/C Testing Laboratories**  
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To,  
 Project Manager  
 Ikan Engineering Services (Pvt) Limited  
 Relocation of Jotun Manufacturing Facility to Sundar Estate

Reference # CED/TFL **37518** (Engr. Amina Rajput)  
 Reference of the request letter # IKAN/CW138/PM/001

Dated: 15-12-2021  
 Dated: 13-12-2021

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

Date of Test 17-12-2021  
 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	3300	5200	66200	65560	104200	103400	1.20	15.0	
2	0.379	3	0.376	0.11	0.111	3500	5400	70200	69330	108200	107000	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
M/S Junaid (Pvt.) Limited  
Lahore  
(PC Spun Poles for WAPDA DISCOS)

Reference # CED/TFL **37519** (Engr. Amina Rajput)  
Reference of the request letter # Nil

Dated: 15-12-2021  
Dated: 15-12-2021

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

Date of Test 17-10-2021  
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	459.0	8000	78.48	11400	111.83	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only one sample for Test									

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

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

To,  
 Deputy General Manager Projects  
 Habib Rafiq Engineering (Pvt) Limited  
 Construction of Sky Gardens Tower, Lahore

Reference # CED/TFL **37520** (Engr. Amina Rajput)  
 Reference of the request letter # HRLE/SKG/2021/057

Dated: 15-12-2021  
 Dated: 15-12-2021

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

Date of Test 17-12-2021  
 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	0.402	10	9.86	0.12	0.118	3600	5800	66138	67090	106556	108100	1.10	13.8	Afco Steel
2	0.401	10	9.84	0.12	0.118	3600	5800	66138	67270	106556	108400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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

To,  
M/S CM Engineering (Pvt) Ltd.  
Lahore  
(CMPAK Site ID: 53458)

Reference # CED/TFL **37521** (Engr. Amina Rajput)  
Reference of the request letter # CME/Steel/CMPak/315

Dated: 15-12-2021  
Dated: 15-12-2021

**Tension Test Report** (Page -1/2)

Date of Test 17-12-2021  
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	0.378	10	9.55	0.12	0.111	3700	4800	67975	73480	88184	95400	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

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

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

To,  
M/S CM Engineering (Pvt) Ltd.  
Lahore  
(CMPAK Site ID: 53454)

Reference # CED/TFL **37521** (Engr. Amina Rajput)  
Reference of the request letter # CME/Steel/CMPak/314

Dated: 15-12-2021  
Dated: 15-12-2021

**Tension Test Report** (Page -2/2)

Date of Test 17-12-2021  
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	0.382	10	9.61	0.12	0.112	4200	5400	77161	82380	99207	106000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
10mm Dia Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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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,  
 Executive Director  
 Lahore Diocesan Board of Education  
 St. Denys' High School, Murree Phase III

Reference # CED/TFL **37522** (Engr. Amina Rajput)  
 Reference of the request letter # COORD/124/91/BLDG

Dated: 16-12-2021  
 Dated: 15-12-2021

**Tension Test Report** (Page -1/2)

Date of Test 17-12-2021  
 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	0.366	3/8	0.370	0.11	0.108	3600	5200	72200	73730	104200	106500	1.10	13.8	
2	0.363	3/8	0.369	0.11	0.107	3700	5300	74200	76330	106200	109400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia 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**  
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To,  
 Executive Director  
 Lahore Diocesan Board of Education  
 St. Denys' High School, Murree Phase III

Reference # CED/TFL **37522** (Engr. Amina Rajput)  
 Reference of the request letter # COORD/124/92/BLDG

Dated: 16-12-2021  
 Dated: 15-12-2021

**Tension Test Report** (Page -2/2)

Date of Test 17-12-2021  
 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	0.360	3/8	0.367	0.11	0.106	3100	4800	62200	64490	96200	99900	1.00	12.5	
2	0.363	3/8	0.369	0.11	0.107	3200	4700	64200	66090	94200	97100	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia 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,  
 Sub Divisional Officer  
 Buildings Sub Division No. I  
 Rahim Yar Khan  
 (Establishment of Govt. Associate College for Boys at Manthar Rahim Yar Khan)

Reference # CED/TFL **37523** (Engr. Amina Rajput)  
 Reference of the request letter # 1924/RYK

Dated: 16-12-2021  
 Dated: 09-11-2021

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

Date of Test 17-12-2021  
 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	0.413	3/8	0.393	0.11	0.121	3600	5400	72200	65370	108200	98100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one sample for bend test</b>														
Bend Test														
3/8" Dia 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,  
 Chief Resident Engineer  
 Project Implement Consultants (PICs)  
 JIP Consultant  
 Jalalpur Irrigation Project (JIP)

Reference # CED/TFL **37525** (Engr. Amina Rajput)  
 Reference of the request letter # JIPIC/TECH/CRE/P<sub>2</sub> 16

Dated: 16-12-2021  
 Dated: 16-12-2021

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

Date of Test 17-16-2021  
 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	0.376	3	0.375	0.11	0.110	3500	5300	70200	69890	106200	105900	1.10	13.8	Nonsee Steel
2	0.381	3	0.378	0.11	0.112	3600	5300	72200	70760	106200	104200	1.20	15.0	
3	4.254	10	1.262	1.27	1.251	40800	54000	70900	71910	93800	95200	1.40	17.5	
4	4.171	10	1.249	1.27	1.226	40400	55800	70200	72640	96900	100400	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only four samples for tensile and two samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 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,  
Resident Engineer (RRWP-II)  
PEAS Consulting (Pvt) Ltd.  
Rawat – Rawalpindi Project (RRWP) – Phase – II,  
Conversion of 2-Lane Lai and Swan Bridge to 04 Lane Bridge

Reference # CED/TFL **37526** (Engr. Amina Rajput)  
Reference of the request letter # PEAS/NHA/RE/2021/298

Dated: 16-12-2021

Dated: 15-12-2021

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

Date of Test 17-12-2021  
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	776.0	18400	180.50	20000	196.20	199	>3.50	xx
2	12.70 (1/2")	775.0	776.0	18000	176.58	20000	196.20	198	>3.50	xx
3	12.70 (1/2")	775.0	775.0	18200	178.54	19700	193.26	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
<b>Only three 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 Laboratories**  
**UET Lahore, Pakistan.**

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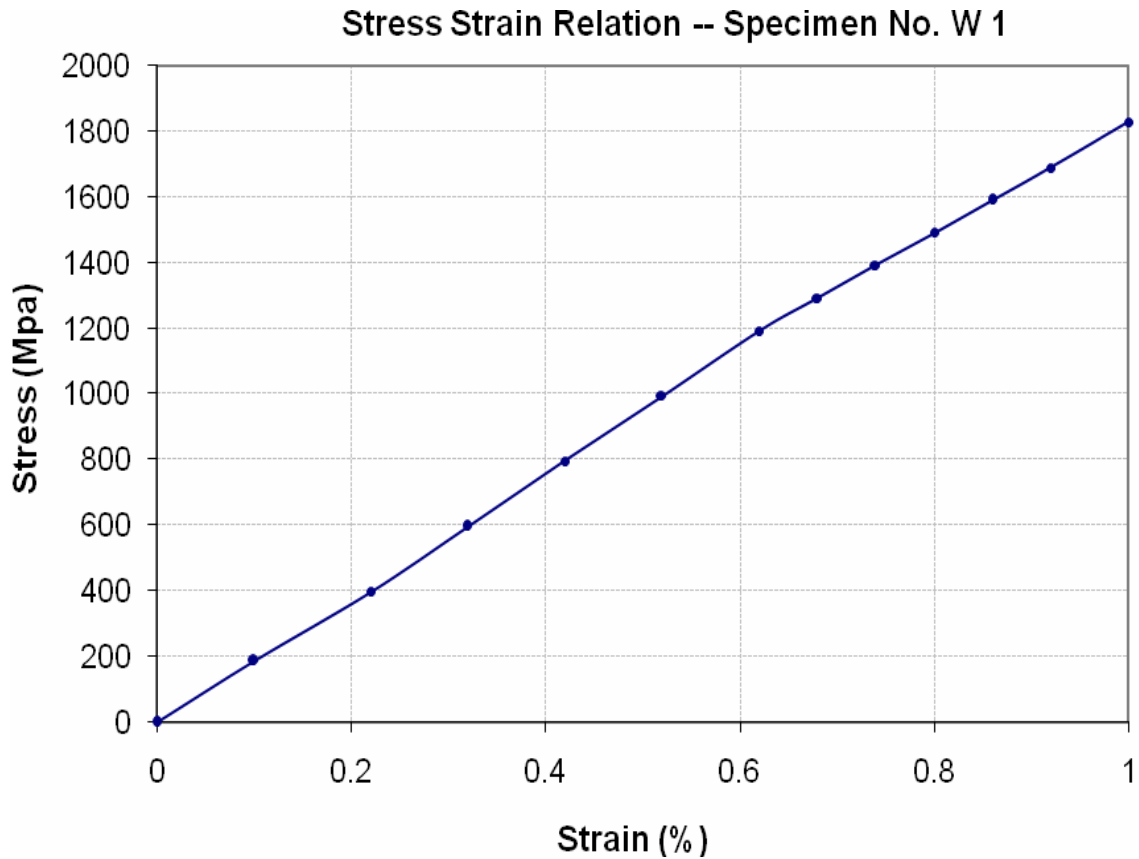
To,  
Resident Engineer (RRWP-II)  
PEAS Consulting (Pvt) Ltd.  
Rawat – Rawalpindi Project (RRWP) – Phase – II,  
Conversion of 2-Lane Lai and Swan Bridge to 04 Lane Bridge

Reference # CED/TFL 37526 (Engr. Amina Rajput)  
Reference of the request letter # PEAS/NHA/RE/2021/298

Dated: 16-12-2021

Dated: 15-12-2021

**Graph** (Page – 2/4)



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

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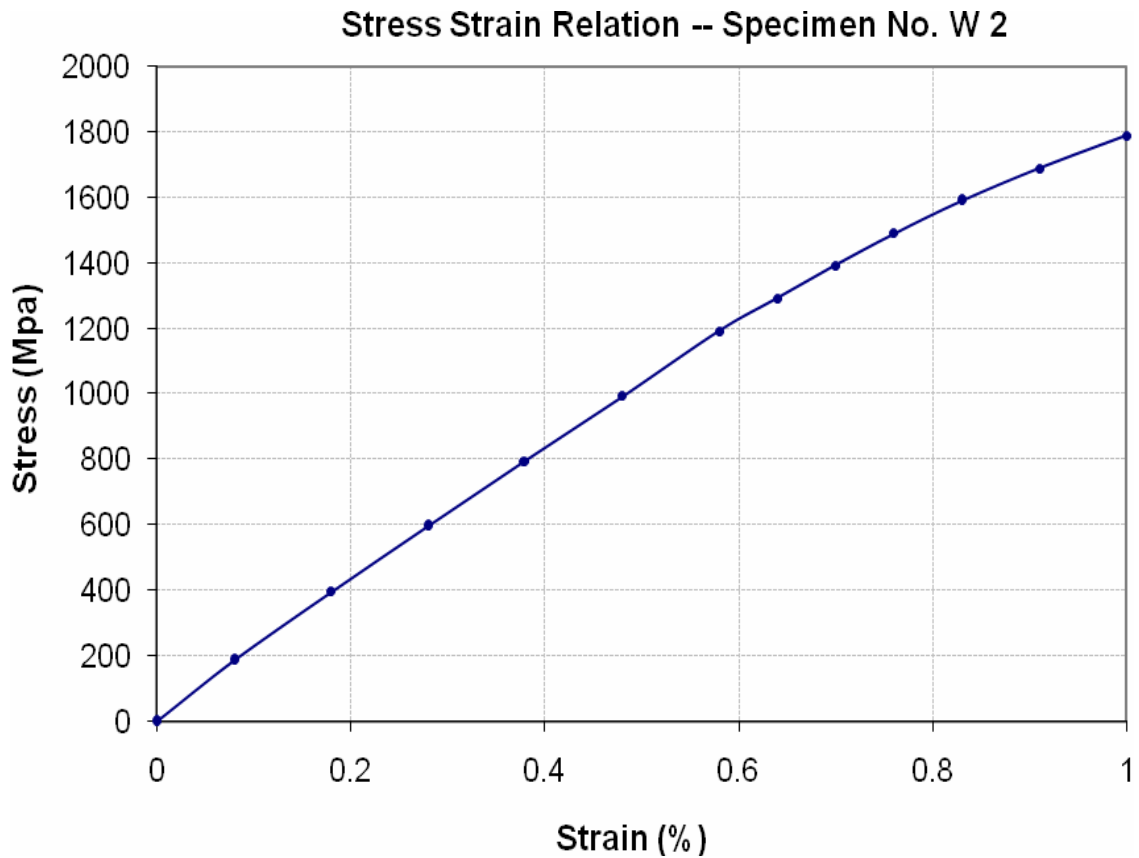
To,  
Resident Engineer (RRWP-II)  
PEAS Consulting (Pvt) Ltd.  
Rawat – Rawalpindi Project (RRWP) – Phase – II,  
Conversion of 2-Lane Lai and Swan Bridge to 04 Lane Bridge

Reference # CED/TFL 37526 (Engr. Amina Rajput)  
Reference of the request letter # PEAS/NHA/RE/2021/298

Dated: 16-12-2021

Dated: 15-12-2021

**Graph** (Page – 3/4)



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

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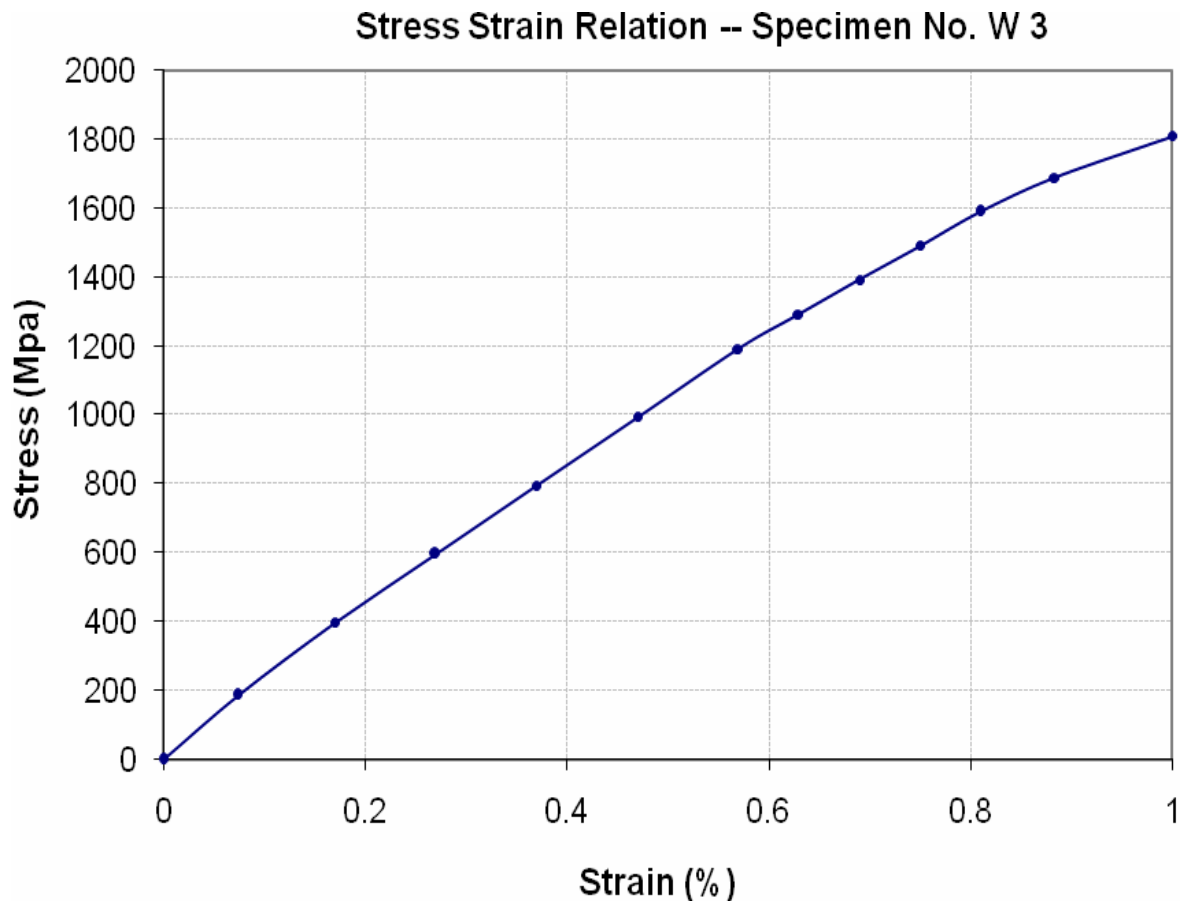
To,  
Resident Engineer (RRWP-II)  
PEAS Consulting (Pvt) Ltd.  
Rawat – Rawalpindi Project (RRWP) – Phase – II,  
Conversion of 2-Lane Lai and Swan Bridge to 04 Lane Bridge

Reference # CED/TFL **37526** (Engr. Amina Rajput)  
Reference of the request letter # PEAS/NHA/RE/2021/298

Dated: 16-12-2021

Dated: 15-12-2021

**Graph** (Page – 4/4)



**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,  
 Planning & Coordination Engineer  
 Ittefaq Building Solutions (Pvt) Ltd  
 Master Textile Mills Ltd. (Extension of Spinning Unit M-7)

Reference # CED/TFL 37527 (Engr. Amina Rajput)  
 Reference of the request letter # IBS/M-7/Steel/07-12-21

Dated: 16-12-2021  
 Dated: 14-12-2021

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

Date of Test 17-12-2021  
 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	0.363	3	0.369	0.11	0.107	3500	4600	70200	72290	92200	95100	1.00	12.5	
2	0.365	3	0.369	0.11	0.107	3600	4700	72200	74030	94200	96700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**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 HRM Construction (Pvt) Ltd  
166-Y Commercial, DHA, Lahore

Reference # CED/TFL **37528** (Engr. Amina Rajput)  
Reference of the request letter # Nil

Dated: 16-12-2021

Dated: 16-12-2021

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

Date of Test 17-12-2021  
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	0.354	3	0.364	0.11	0.104	3600	5000	72200	76220	100200	105900	0.80	10.0	
2	0.353	3	0.363	0.11	0.104	3700	5100	74200	78600	102200	108400	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 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,  
 Project Manager  
 Zaheer Associates  
 Construction of Jamia Mosque "A" Block at Garden City Muridke

Reference # CED/TFL **37529** (Dr. Usman Akmal)  
 Reference of the request letter # Z.A/A.R/002-21

Dated: 16-12-2021  
 Dated: 16-12-2021

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

Date of Test 17-12-2021  
 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	0.371	3	0.372	0.11	0.109	3570	5400	71600	72220	108200	109300	1.00	12.5	Mehboob Steel
2	0.369	3	0.372	0.11	0.109	3540	5320	71000	71910	106600	108100	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**  
**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 Makkah Steel Industries  
Lahore

Reference # CED/TFL **37530** (Engr. Amina Rajput)  
Reference of the request letter # 3 SKP-I-K

Dated: 16-12-2021  
Dated: 16-12-2021

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

Date of Test 17-12-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test

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	0.172	6	6.45	-----	0.051	1900	2400	-----	82680	-----	104500	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

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

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To,  
M/S Makkah Steel Industries  
Lahore

Reference # CED/TFL **37530** (Engr. Amina Rajput)  
Reference of the request letter # 3 SKP-I-K

Dated: 16-12-2021  
Dated: 16-12-2021

**Tension Test Report** (Page -1/1)  
Date of Test 17-12-2021  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile Test

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	0.172	6	6.45	-----	0.051	1900	2400	-----	82680	-----	104500	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**I/C Testing Laboratoires**  
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