



**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  
Allied Engineering Consultants (Pvt) Ltd  
DHQ KHanewal, THQ Mianchannu, THQ Mianwali

Reference # CED/TFL **33272** (Dr. Usman Akmal)  
Reference of the request letter # AEC/KWL/40

Dated: 21-05-2019  
Dated: 13-03-2019

**Tension Test Report** (Page – 1/2)

Date of Test 30-05-2019  
Gauge length 2 inches  
Description Steel Girder 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 <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Steel Girder	28.50x7.50	213.75	7600	12000	348.80	550.74	0.80	40.00	
2	Steel Girder	28.50x7.60	216.60	7500	12000	339.68	543.49	0.80	40.00	
3	Steel Girder	28.50x7.30	208.05	5800	9200	273.48	433.80	0.80	40.00	
4	Steel Girder	28.50x7.50	213.75	6200	9500	284.55	436.00	0.80	40.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Four Samples for Tensile and Two Samples for Bend Test</b>										
<b>Bend Test</b>										
Strip Taken from Steel Girder Bend Test Through 180° is Satisfactory										
Strip Taken from Steel Girder 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,  
Resident Engineer  
Allied Engineering Consultants (Pvt) Ltd  
DHQ KHanewal, THQ Mianchannu, THQ Mianwali

Reference # CED/TFL **33272** (Dr. Usman Akmal)  
Reference of the request letter # AEC/KWL/40

Dated: 21-05-2019  
Dated: 13-03-2019

**Weight & Size Test Report** (Page – 2/2)

Date of Test 30-05-2019  
Gauge length -----  
Description Steel Girder 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
1	Steel Girder	2466	93.00	26.52	202.90	100.80	10.20	7.40	
2	Steel Girder	3462	98.00	35.33	247.70	123.10	11.50	7.55	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Test</b>									

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To,  
M/S Beybani Construction Co.  
Islamabad  
(Civil Work for NG Compression Part (2B))(FFC Mirpur Mathelo)

Reference # CED/TFL **33273** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 21-05-2019  
Dated: 21-05-2019

**Tension Test Report** (Page – 1/1)

Date of Test 30-05-2019  
Gauge length 2 inches  
Description Plate 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)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	20	28.60x22.20	634.92	17500	29100	270.39	449.62	1.00	50.00	
2	20	28.70x22.10	634.27	17800	28900	275.31	446.98	1.00	50.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Two Samples for Tensile Test</b>										
<b>Bend Test</b>										

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

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**University of Engineering and Technology Lahore, 54890**  
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To,  
Resident Engineer  
NESPAK  
China – Pakistan Economic Corridor (CPEC), Western Route Hakla (on M1) to D.I. Khan  
Motorway – Rehmani Khel to Kot Balian – Package 2C (WMI)

Reference # CED/TFL **33297** (Dr. Ali Ahmed)

Dated: 27-05-2019

Reference of the request letter # RE/NESPAK/P-2C/CPEC-WR/379

Dated: 25-04-2019

**Tension Test Report** (Page – 1/3)

Date of Test 30-05-2019

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	17500	171.68	19600	192.28	199	>3.50	xx
2	12.70 (1/2")	775.0	780	17700	173.64	19600	192.28	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<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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To,  
Resident Engineer  
NESPAK  
China – Pakistan Economic Corridor (CPEC), Western Route Hakla (on M1) to D.I. Khan  
Motorway – Rehmani Khel to Kot Balian – Package 2C (WMI)

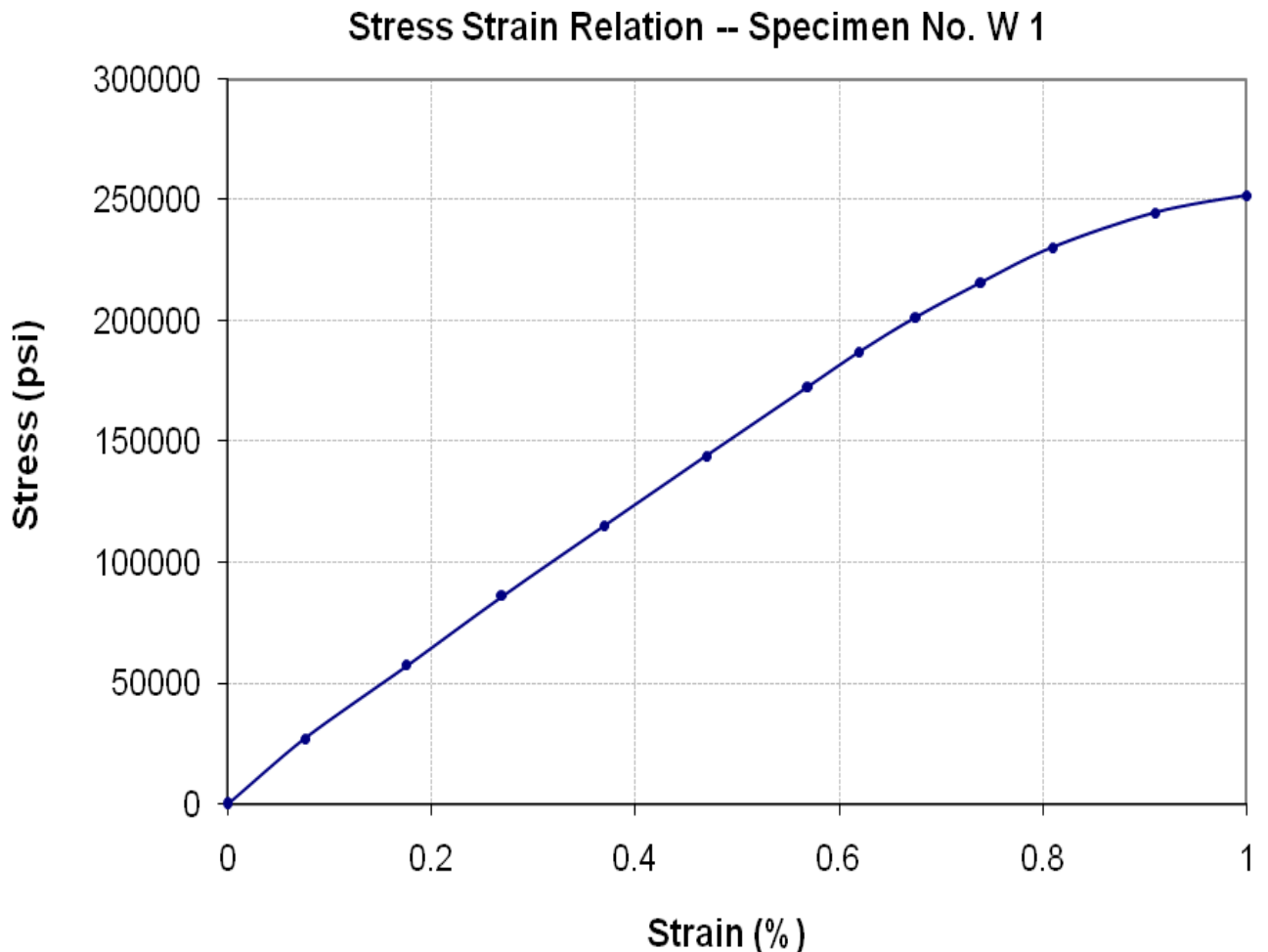
Reference # CED/TFL **33297** (Dr. Ali Ahmed)

Dated: 27-05-2019

Reference of the request letter # RE/NESPAK/P-2C/CPEC-WR/379

Dated: 25-04-2019

**Graph** (Page – 2/3)



**I/C Testing Laboratoires**  
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To,  
Resident Engineer  
NESPAK  
China – Pakistan Economic Corridor (CPEC), Western Route Hakla (on M1) to D.I. Khan  
Motorway – Rehmani Khel to Kot Balian – Package 2C (WMI)

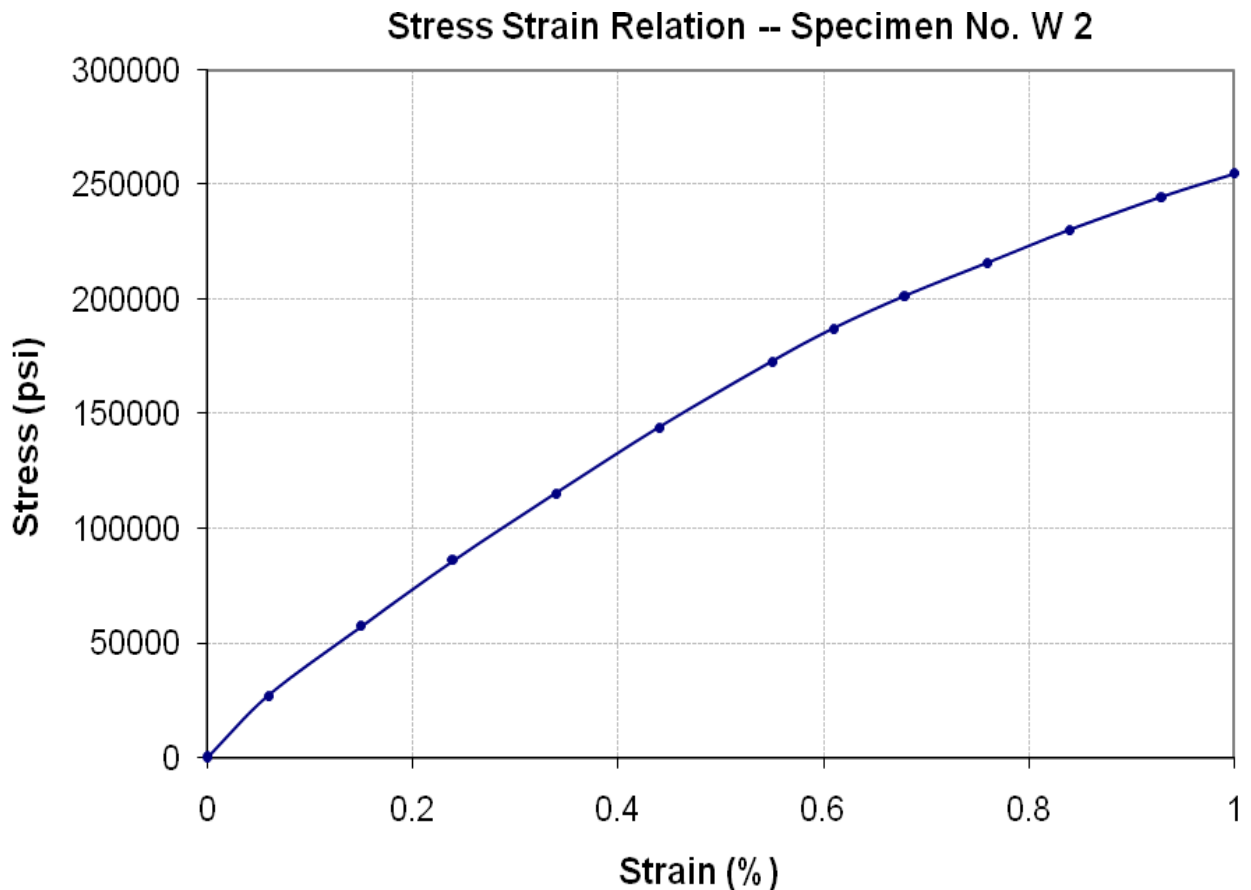
Reference # CED/TFL **33297** (Dr. Ali Ahmed)

Dated: 27-05-2019

Reference of the request letter # RE/NESPAK/P-2C/CPEC-WR/379

Dated: 25-04-2019

**Graph** (Page – 3/3)



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

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

To,  
Executive Engineer PWD  
PHE Division Bhimber

Reference # CED/TFL **33299** (Dr. Usman Akmal)  
Reference of the request letter # 324-25/XEN/PHE/2019

Dated: 27-05-2019

Dated: 20-04-2019

**Weight & Size Test Report** (Page – 1/1)

Date of Test 30-05-2019  
Gauge length -----  
Description G.I Pipe Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	External Diameter	Internal Diameter	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	10	12114	305.00	39.72	275.00	263.00	6.00	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
<b>Only One Sample for Test</b>								

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

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**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
M/S Shoaib International  
Rawalpindi

Reference # CED/TFL **33305** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 28-05-2019

Dated: 28-05-2019

**Tension Test Report** (Page – 1/1)

Date of Test 30-05-2019  
Gauge length -----  
Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load		Remarks / Coil No.
	(mm)	(kg/m)	(kg)	(kN)	
1	18	1.39	14200	139.30	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
-	-	-	-	-	
<b>Only one sample for Test</b>					

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**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 Al-Tech Engineers & Manufacturers  
Gulberg III, Lahore

Reference # CED/TFL **33308** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 28-05-2019

Dated: 28-05-2019

**Tension Test Report** (Page – 1/1)

Date of Test 30-05-2019  
Gauge length 8 inches  
Description High Manganese Steel Square Bar Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)	(mm)	(mm <sup>2</sup> )	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	1-1/2 x 1-1/2	36.20x40.40	1462.48	-----	85600	-----	574.19	1.60	20.00	
.	.	.	.	.	.	.	.	.	.	
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.	.	.	.	.	.	.	.	.	.	
<b>Only One Sample for Tensile Test</b>										
<b>Bend Test</b>										

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

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**University of Engineering and Technology Lahore, 54890**  
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To,  
 C.E.O  
 Technical Builders  
 Construction of Pacha and Shina Bridges Kabul City  
 (Kabul Municipality)

Reference # CED/TFL **33311** (Dr. Ali Ahmed)  
 Reference of the request letter # TB-2019/00101

Dated: 28-05-2019  
 Dated: 28-05-2019

**Tension Test Report** (Page – 1/2)

Date of Test 30-05-2019  
 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	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	E, GPa		
1	15.24 (0.6")	1102.0	1112.0	24500	240.35	27300	267.81	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only one sample 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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To,  
C.E.O  
Technical Builders  
Construction of Pacha and Shina Bridges Kabul City  
(Kabul Municipality)

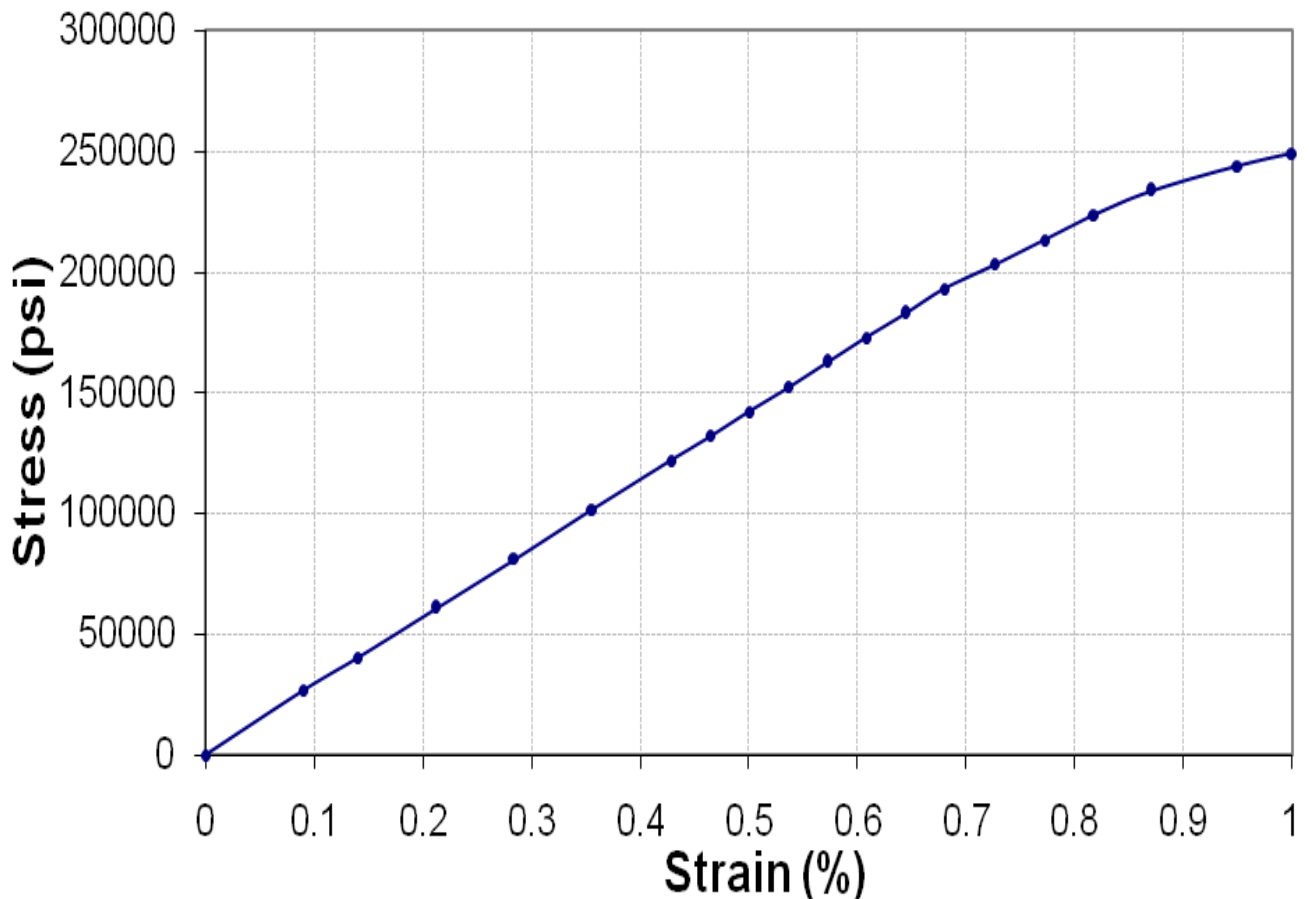
Reference # CED/TFL **33311** (Dr. Ali Ahmed)  
Reference of the request letter # TB-2019/00101

Dated: 28-05-2019

Dated: 28-05-2019

**Graph** (Page – 2/2)

## Stress Strain Relation -- Specimen No. W 1



**I/C Testing Laboratories**  
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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Resident Engineer  
 NESPAK

Construction of Under Passes at Kashmir Bridge along Canal Faisalabad  
 (Ittefaq Iron Industries Ltd)

Reference # CED/TFL **33313** (Dr. Usman Akmal)

Dated: 28-05-2019

Reference of the request letter # 3994/103/AS/02/101

Dated: 27-05-2019

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

Date of Test 30-05-2019

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	3200	5300	64200	64170	106200	106300	1.20	15.0	
2	0.376	3	0.375	0.11	0.111	3200	4900	64200	63760	98200	97700	1.30	16.3	
3	5.189	11	1.394	1.56	1.525	53000	71000	74900	76580	100400	102600	0.90	11.3	
4	5.177	11	1.392	1.56	1.522	49600	63400	70100	71840	89600	91900	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**Note: only four samples for tensile and four samples for bend test**

**Bend Test**

#3 Bar Bend Test Through 180° is Satisfactory

#3 Bar Bend Test Through 180° is Satisfactory

#11 Bar Bend Test Through 180° is Satisfactory

#11 Bar Bend Test Through 180° is Satisfactory

**I/C Testing Laboratoires**  
**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,  
 Resident Engineer  
 Al-Imam Enterprises Pvt Ltd  
 Construction of Penta Square, Phase-V, D.H.A, Lahore  
 (SJ Steel)

Reference # CED/TFL **33316** (Dr. Usman Akmal)

Dated: 29-05-2019

Reference of the request letter # Al-mam/746/PS-1/DHA/LHE/863

Dated: 20-05-2019

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

Date of Test 30-05-2019

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	0.418	10	10.04	0.11	0.123	3400	5600	68200	61020	112300	100500	1.10	13.8	
2	0.423	10	10.11	0.11	0.124	3600	5600	72200	63810	112300	99300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
EA Consulting (Pvt) Ltd  
Sukkur – Multan Motorway Project  
Section – III  
(Beijing Xin Fang Sheng Hardware and Alternating Appliance Co.)

Reference # CED/TFL **33317** (Dr. Usman Akmal)  
Reference of the request letter # CRE/EA/M.P-III/421-2019

Dated: 29-05-2019

Dated: 28-05-2019

**Tension Test Report** (Page – 1/2)

Date of Test 30-05-2019  
Gauge length -----  
Description Fence Wire Tensile Test

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.50	360	3.53	
2	3.50	360	3.53	
3	3.50	320	3.14	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
<b>Only Three Samples for Test</b>				

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

**Note:**

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- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



**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  
EA Consulting (Pvt) Ltd  
Sukkur – Multan Motorway Project  
Section – III  
(Beijing Xin Fang Sheng Hardware and Alternating Appliance Co.)

Reference # CED/TFL **33317** (Dr. Usman Akmal)  
Reference of the request letter # CRE/EA/M.P-III/419-2019

Dated: 29-05-2019

Dated: 28-05-2019

**Tension Test Report** (Page – 2/2)

Date of Test 30-05-2019  
Gauge length -----  
Description Tension Wire Tensile Test

Sr. No.	Diameter of Wire	Breaking Load		Remarks
	(mm)	(kg)	(kN)	
1	3.20	800	7.85	
2	3.20	800	7.85	
3	3.20	880	8.63	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
<b>Only Three Samples for Test</b>				

**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,  
 Engr. Irfan Saleem  
 Mall of Sahiwal  
 Barkat Street, Dhobi Mohalla, Sahiwal  
 (Kamran Steel)

Reference # CED/TFL **33319** (Dr. Usman Akmal)  
 Reference of the request letter # 1158/MOS/SWL

Dated: 29-05-2019  
 Dated: 21-05-2019

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

Date of Test 30-05-2019

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	0.363	3	0.369	0.11	0.107	3300	5500	66200	68180	110200	113700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample 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,  
 Engr. Irfan Saleem  
 Mall of Sahiwal  
 Barkat Street, Dhobi Mohalla, Sahiwal  
 (Bilal Steel)

Reference # CED/TFL **33320** (Dr. Usman Akmal)  
 Reference of the request letter # 1159/MOS/SWL

Dated: 29-05-2019  
 Dated: 02-05-2019

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

Date of Test 30-05-2019

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	0.372	3	0.373	0.11	0.109	3500	4500	70200	70590	90200	90800	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample 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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- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,  
 Assistant Engineer  
 B & W Department,  
 U.E.T Lahore  
 (Workshop and Design Center in UET Lahore)

Reference # CED/TFL **33321** (Dr. Usman Akmal)  
 Reference of the request letter # B&W/AEN/902

Dated: 30-05-2019  
 Dated: 30-05-2019

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

Date of Test 30-05-2019  
 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	0.390	3	0.382	0.11	0.115	3200	5200	64200	61510	104200	100000	1.30	16.3	
2	0.384	3	0.379	0.11	0.113	3200	4700	64200	62440	94200	91700	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.**

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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 Salman Developers  
Lahore  
(Mian Hassan Sb Home at Land Breeze)

Reference # CED/TFL **33330** (Dr. Usman Akmal)  
Reference of the request letter # Nil

Dated: 30-05-2019  
Dated: 30-05-2019

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

Date of Test 30-05-2019  
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	0.360	3	0.367	0.11	0.106	3300	5400	66200	68700	108200	112500	1.20	15.0	
2	0.360	3	0.367	0.11	0.106	3300	5300	66200	68830	106200	110600	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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