



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

To,  
 Mr. Syed Adnan Aqib  
 Project Engineer  
 M. Saleem Construction Company  
 Construction of R.c.c Footing Workk for Ware House PE Steel Building  
 35 – km Sheikhpura Road, Beacon Impex Faisalabad

Reference # CED/TFL **35888** (Dr. M Rizwan Riaz)  
 Reference of the request letter # B.I/CIVIL/21-107

Dated: 07-01-2021  
 Dated: 04-01-2021

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

Date of Test 08-01-2021  
 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	0.363	3	0.369	0.11	0.107	3900	4800	78200	80600	96200	99200	0.75	9.4	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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2. The above results pertain to sample /samples supplied to this laboratory.
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To,  
 CEO  
 Crust Builders (Pvt) Ltd  
 Engineering Building Project – CCL Pharmaceutical (Pvt.) Ltd

Reference # CED/TFL **35889** (Dr. M Rizwan Riaz)  
 Reference of the request letter # Crust/CCL/01

Dated: 07-01-2021  
 Dated: 06-01-2021

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

Date of Test 08-01-2021  
 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	3800	4800	76200	75500	96200	95400	0.90	11.3	
2	0.377	3	0.376	0.11	0.111	3900	4900	78200	77590	98200	97500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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To,  
 Assistant Engineer PWD  
 Highway Division Bhimber AK

Reference # CED/TFL **35891** (Dr. M Rizwan Riaz)  
 Reference of the request letter # 380-21 SDO/Highways/2021

Dated: 07-01-2021  
 Dated: 07-01-2021

**Tension Test Report** (Page -1/3)

Date of Test 08-01-2021  
 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	5.162	10	1.390	1.27	1.517	41600	67200	72200	60430	116700	97700	1.50	18.8	
2	5.307	10	1.409	1.27	1.560	45800	77000	79500	64720	133700	108800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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

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**University of Engineering and Technology Lahore, 54890**  
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To,  
Assistant Engineer PWD  
Highway Division Bhimber AK

Reference # CED/TFL **35891** (Dr. M Rizwan Riaz)  
Reference of the request letter # 380-21 SDO/Highways/2021

Dated: 07-01-2021

Dated: 07-01-2021

**Tension Test Report** (Page -2/3)

Date of Test 08-01-2021  
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	781.0	17700	173.64	19700	193.26	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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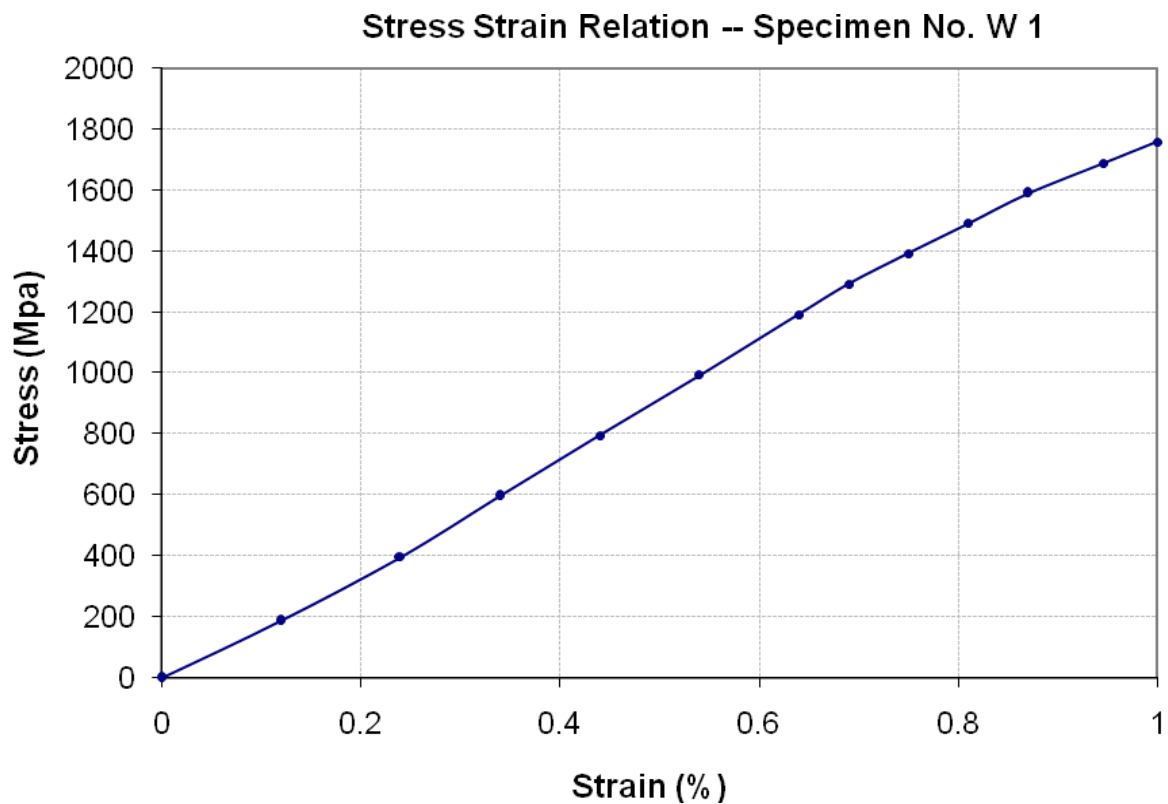
To,  
Assistant Engineer PWD  
Highway Division Bhimber AK

Reference # CED/TFL **35891** (Dr. M Rizwan Riaz)  
Reference of the request letter # 380-21 SDO/Highways/2021

Dated: 07-01-2021

Dated: 07-01-2021

**Graph** (Page – 3/3)



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**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  
 Life Style Residency Apartment - Bedian Road

Reference # CED/TFL **35892** (Dr. M Rizwan Riaz)  
 Reference of the request letter # EA/FGEHA/LHE/061

Dated: 07-01-2021  
 Dated: 06-01-2021

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

Date of Test 08-01-2021  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Diameter/ Size		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Nominal (#)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	4.256	10	1.262	1.27	1.251	47600	58600	82700	83860	101700	103300	1.40	17.5	
2	4.155	10	1.247	1.27	1.221	34600	41800	60100	62450	72600	75500	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and two samples for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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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 Imperium Hospitality (Pvt) Limited  
Gulberg II, Lahore

Reference # CED/TFL **35893** (Dr. M Rizwan Riaz)  
Reference of the request letter # IHPL/Steel/035

Dated: 07-01-2021  
Dated: 06-01-2021

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

Date of Test 08-01-2021  
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	0.387	3	0.380	0.11	0.114	3400	5300	68200	65960	106200	102900	1.20	15.0	PCS Steel
2	0.386	3	0.380	0.11	0.113	3400	5300	68200	66120	106200	103100	1.20	15.0	
3	0.385	3	0.380	0.11	0.113	3500	5300	70200	68150	106200	103200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three 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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To,  
 M/S Imperium Hospitality (Pvt) Limited  
 Gulberg II, Lahore

Reference # CED/TFL **35894** (Dr. M Rizwan Riaz)  
 Reference of the request letter # IHPL/Steel/032

Dated: 07-01-2021  
 Dated: 06-01-2021

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

Date of Test 08-01-2021  
 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	3.927	10	1.212	1.27	1.154	32400	40600	56300	61860	70500	77600	1.30	16.3	PCS Steel
2	3.920	10	1.211	1.27	1.152	29400	37400	51100	56240	65000	71600	1.20	15.0	
3	3.931	10	1.213	1.27	1.155	27400	35000	47600	52270	60800	66800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and one sample for bend test</b>														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

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To,  
 Project Manager  
 Liberty Builders  
 Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore

Reference # CED/TFL **35895** (Dr. M Rizwan Riaz)  
 Reference of the request letter # ST/UET/20210108

Dated: 08-01-2021  
 Dated: 08-01-2021

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

Date of Test 08-01-2021  
 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	0.356	3	0.365	0.11	0.104	3100	4700	62200	65390	94200	99200	1.20	15.0	Batalka Premium
2	0.359	3	0.366	0.11	0.105	3200	4900	64200	66910	98200	102500	1.10	13.8	
3	0.357	3	0.365	0.11	0.105	3200	4900	64200	67290	98200	103100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only three samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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