



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

To,

Campus Engineer  
 GC University, Lahore  
 Construction of New Girls Hostel and Servant Quarters at GCU Lahore Main Campus

Reference # CED/TFL **2535** (Dr. Rizwan Azam)  
 Reference of the request letter # GCU/Engr/004/A

Dated: 29-12-2022  
 Dated: 26-12-2022

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

Date of Test 02-01-2023  
 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	0.369	3/8	0.372	0.11	0.109	3500	5100	70200	71070	102200	103600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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.**

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



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

To,  
 Asst Dir Lab  
 Defence Housing Authority  
 UGWT, DHA Bahawalpur (TA Builders & Brothers)

Reference # CED/TFL **2536** (Dr. Rizwan Azam)  
 Reference of the request letter # 530/QC/MTL

Dated: 28-12-2022  
 Dated: 28-12-2022

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

Date of Test 02-01-2023  
 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	0.372	3	0.373	0.11	0.109	3700	4700	74200	74490	94200	94700	1.20	15.0	Mughal Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
 Asst Dir Lab  
 Defence Housing Authority  
 (Takmeel Square DHA Bahawalpur)

Reference # CED/TFL **2537** (Dr. Rizwan Azam)  
 Reference of the request letter # 530/QC/MTL

Dated: 29-12-2022  
 Dated: 28-12-2022

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

Date of Test 02-01-2023  
 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	0.407	3	0.391	0.11	0.120	3800	5000	76200	69930	100200	92100	1.30	16.3	Pak Steel	
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<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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**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  
 Development of Underground External Electrification Network in LDA City Housing  
 Scheme, Lahore (Development Area-1) Package-2, 4,5 & 6

Reference # CED/TFL **2540 (Dr. Rizwan Azam)**  
 Reference of the request letter # 4047/13/MA/04/59

Dated: 29-12-2022  
 Dated: 07-12-2022

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

Date of Test 02-01-2023  
 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	0.413	3	0.393	0.11	0.121	3900	5300	78200	70820	106200	96300	1.60	20.0	Kamran Steel
2	0.405	3	0.389	0.11	0.119	3800	5100	76200	70310	102200	94400	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,

DGM (Lab)  
Future Development Holdings (Pvt) Ltd.  
Development of Capital Smart City, Islamabad  
(WMI)

Reference # CED/TFL **2541** (Dr. Rizwan Azam)  
Reference of the request letter # FDHL/CSC/12/2022/0249

Dated: 29-12-2022  
Dated: 28-12-2022

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

Date of Test 02-01-2023  
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	786.0	17900	175.60	19700	193.26	199	>3.50	24394
2	12.70 (1/2")	775.0	788.0	17800	174.62	19600	192.28	198	>3.50	24400
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<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**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,

DGM (Lab)  
Future Development Holdings (Pvt) Ltd.  
Development of Capital Smart City, Islamabad  
(WMI)

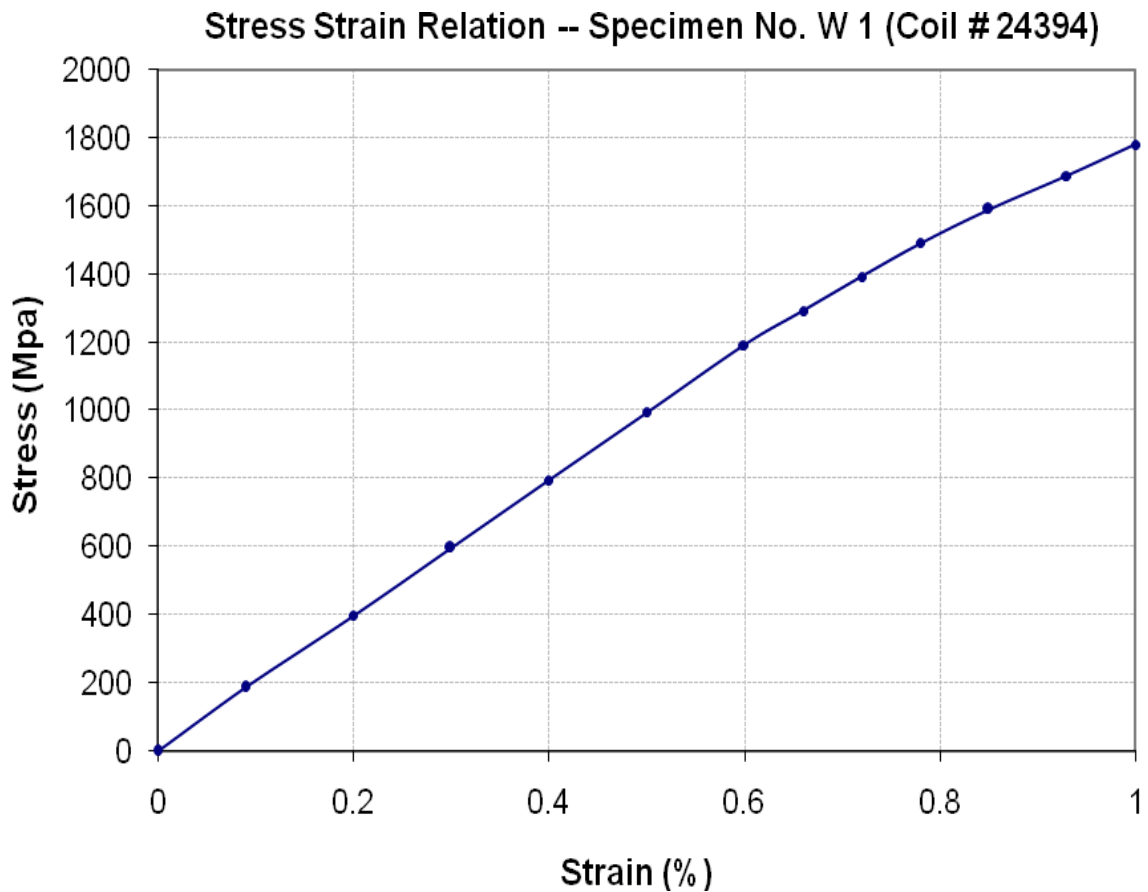
Reference # CED/TFL **2541** (Dr. Rizwan Azam)

Dated: 29-12-2022

Reference of the request letter # FDHL/CSC/12/2022/0249

Dated: 28-12-2022

**Graph** (Page – 2/3)



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

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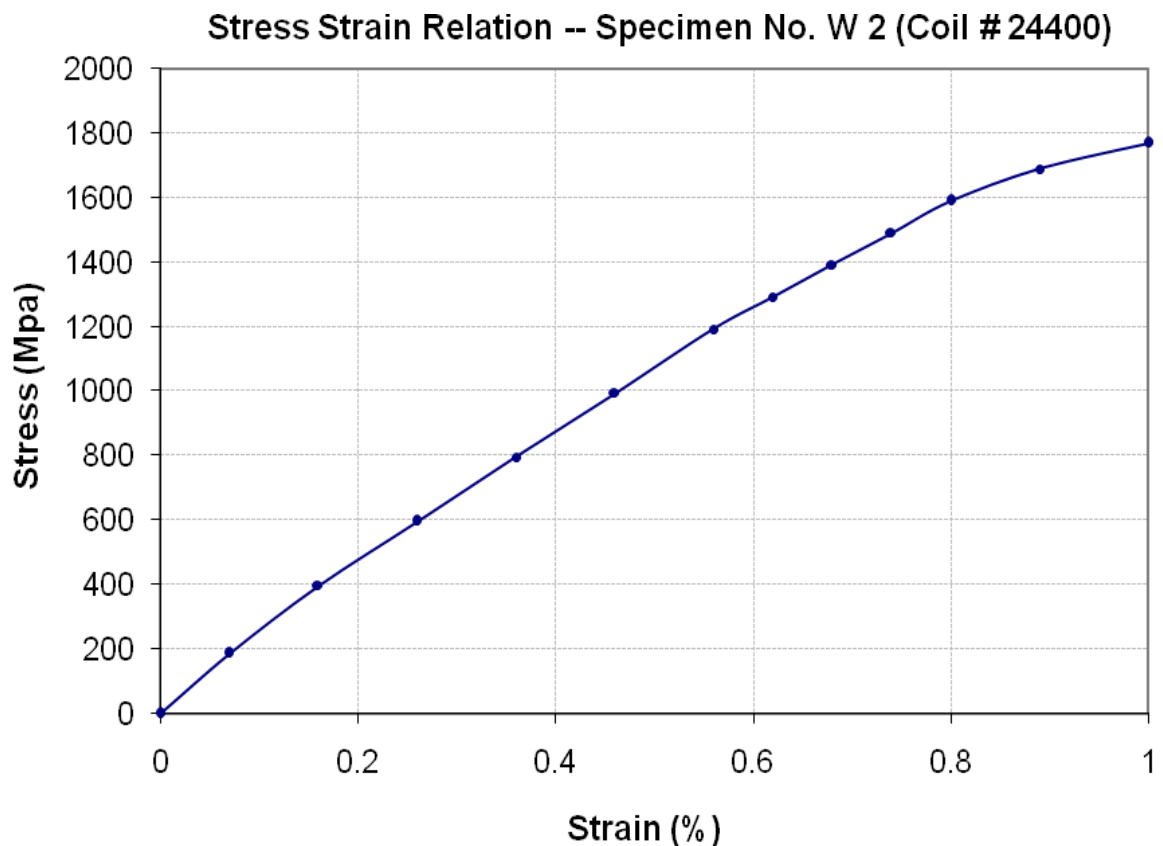
To,

DGM (Lab)  
Future Development Holdings (Pvt) Ltd.  
Development of Capital Smart City, Islamabad  
(WMI)

Reference # CED/TFL **2541** (Dr. Rizwan Azam)  
Reference of the request letter # FDHL/CSC/12/2022/0249

Dated: 29-12-2022  
Dated: 28-12-2022

**Graph** (Page – 3/3)



**I/C Testing Laboratories**  
**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,  
CEO  
M/S Zeco Building System Pvt. Ltd.

Reference # CED/TFL **2542** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 30-12-2022  
Dated: 30-12-2022

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

Date of Test 02-01-2023  
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	Grade
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.371	3/8	0.373	0.11	0.109	3900	4800	78200	78860	96200	97100	0.90	11.3	60
2	0.347	3/8	0.360	0.11	0.102	2400	2900	48100	51830	58200	62700	1.90	23.8	40
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Note: only two samples for tensile and two samples for bend test</b>														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														
3/8" 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,  
 M/S Enaara Developers  
 Gulberg III, Lahore

Reference # CED/TFL **2544** (Dr. Rizwan Azam)  
 Reference of the request letter # Nil

Dated: 30-12-2022  
 Dated: 30-12-2022

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

Date of Test 02-01-2023  
 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	0.373	3	0.374	0.11	0.110	4000	5400	80200	80320	108200	108500	1.00	12.5	Batala Steel
2	0.371	3	0.373	0.11	0.109	3700	5000	74200	74780	100200	101100	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														

**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,

Quantity Surveyor  
M/S Linker  
Construction of Hassan & Huma Residence, DHA Phase VIII, Sector-A, Lahore

Reference # CED/TFL **2545** (Dr. Rizwan Azam)  
Reference of the request letter # Nil

Dated: 30-12-2022  
Dated: 30-12-2022

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

Date of Test 02-01-2023  
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	3700	4800	74200	75410	96200	97900	1.30	16.3	FF Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,

A.T.O (C-1), WASO (SWP)  
 PAEC, D.G. Khan

Reference # CED/TFL **2546** (Dr. Rizwan Azam)

Dated: 30-12-2022

Reference of the request letter # Misc. Works-2021 at DG Khan

Dated: 23-12-2022

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

Date of Test 02-01-2023

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	3700	5400	74200	71820	108200	104900	1.10	13.8	
2	0.382	3	0.378	0.11	0.112	3700	5300	74200	72610	106200	104100	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 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 Coordinator  
 Al Hussain Traders – Al Khurram Associates (Jv)  
 Civil Works, Transportation, Erection, installation, Testing & Commissioning, including  
 Dismantling Works for The Raising/ Relocation of Existing 220 kV T/Lines to Provide  
 Road Clearances Near Upper Jhelum Canal Village Qazi Chak on Industrial Area-II Link  
 Road in District Gujrat.

Reference # CED/TFL **2548** (Dr. Rizwan Azam)

Dated: 30-12-2022

Reference of the request letter # AHT-AKA/JV/PD-ISD-04-2022/4751-53 Dated: 29-12-2022

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

Date of Test 02-01-2023

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	0.421	10	10.08	0.12	0.124	4100	5100	75324	72990	93696	90800	0.80	10.0	
2	0.417	10	10.03	0.12	0.122	4000	5100	73487	71980	93696	91800	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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- 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,

M/S United Wire Industries (Pvt) Ltd  
Lahore

Reference # CED/TFL **2549** (Dr. Rizwan Azam)

Dated: 30-12-2022

Reference of the request letter # UWIL/D-

Dated: 30-12-2022

**Tension Test Report** (Page – 1/1)

Date of Test 02-01-2023

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	436.0	9100	89.27	10100	99.08	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
<b>Only one sample for Test</b>									

**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 China Gezhouba Group Company Limited  
Pakistan

Construction of Mohmand Dam Hydropower Project – Contract No. ICB MDHP-01, Construction of Civil Works Including Design, Supply and Installation of Electrical and Mechanical Works and Hydraulic Steel Structures.

Reference # CED/TFL **2551** (Dr. Rizwan Azam)

Dated: 02-01-2023

Reference of the request letter # MDSYS-209

Dated: 01-01-2023

**Tension Test Report** (Page – 1/3)

Date of Test 02-01-2023

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)			
1	15.24 (0.6")	1102.0	1140.0	23400	229.55	27900	273.70	199	>3.50	9857.2
2	15.24 (0.6")	1102.0	1130.0	24300	238.38	27800	272.72	199	>3.50	10151-2-1
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

**Only Two Samples for Test**

Witness by Noor Tahir (SLT MDCG)

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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To,

M/S China Gezhouba Group Company Limited  
Pakistan

Construction of Mohmand Dam Hydropower Project – Contract No. ICB MDHP-01, Construction of Civil Works Including Design, Supply and Installation of Electrical and Mechanical Works and Hydraulic Steel Structures.

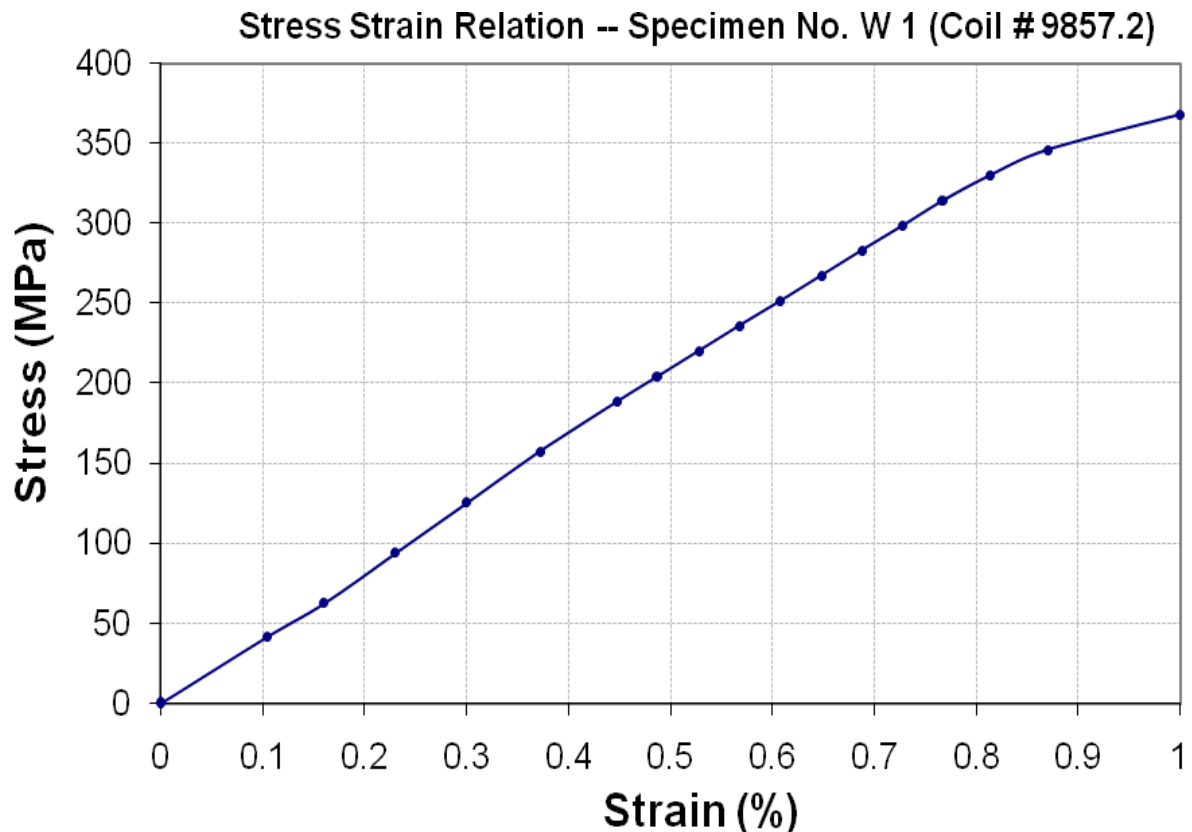
Reference # CED/TFL 2551 (Dr. Rizwan Azam)

Dated: 02-01-2023

Reference of the request letter # MDSYS-209

Dated: 01-01-2023

**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,

M/S China Gezhouba Group Company Limited  
Pakistan

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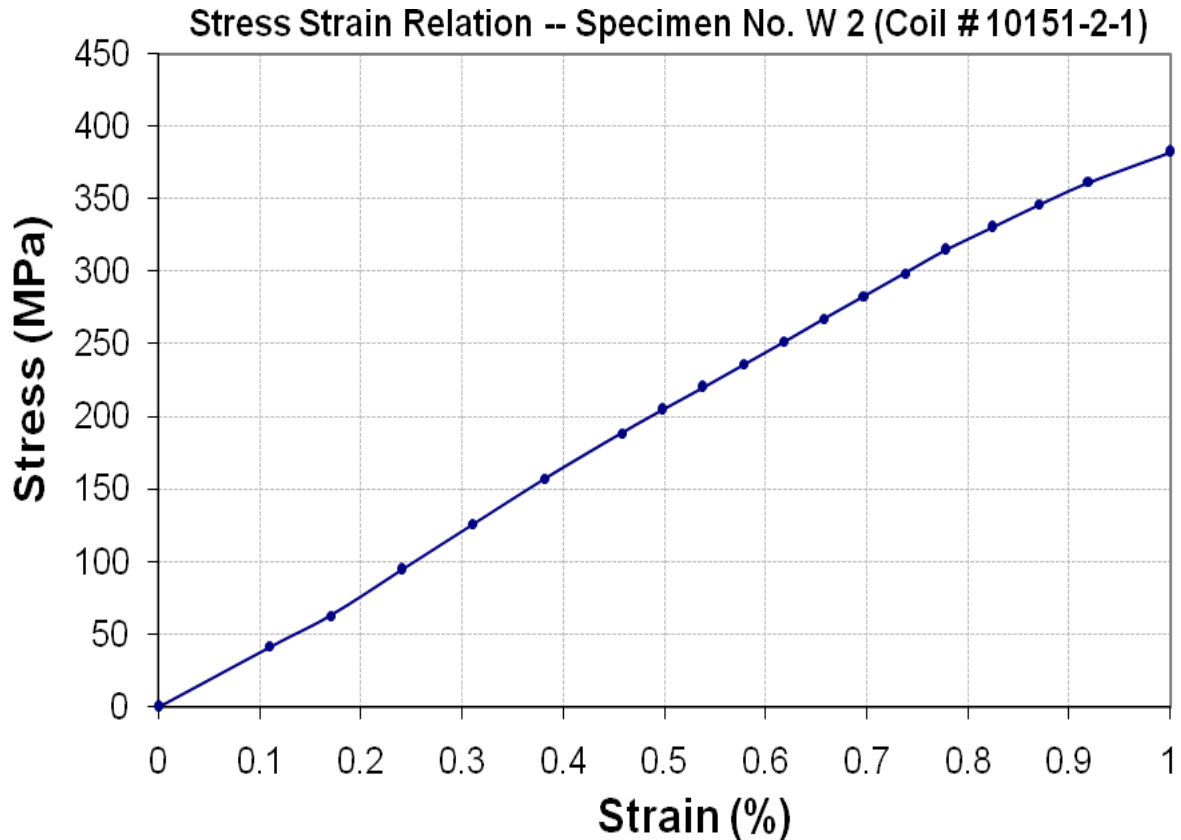
Reference # CED/TFL **2551** (Dr. Rizwan Azam)

Dated: 02-01-2023

Reference of the request letter # MDSYS-209

Dated: 01-01-2023

**Graph** (Page – 3/3)



**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,

Arman Aslam  
 69-CCA Ph-9, DHA Lahore

Reference # CED/TFL **2554** (Dr. Rizwan Azam)  
 Reference of the request letter# NIL

Dated: 02-01-2023  
 Dated: 02-01-2023

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

Date of Test 02-01-2023  
 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	0.376	3	0.375	0.11	0.110	3400	5000	68200	67850	100200	99800	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile test</b>														
Bend Test														

**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,  
 Orbit Housing  
 The Spring Apartment Homes

Reference # CED/TFL **2555** (Dr. Rizwan Azam)  
 Reference of the request letter# NIL

Dated: 02-01-2023  
 Dated: 02-01-2023

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

Date of Test 02-01-2023  
 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	4200	5500	84200	85550	110200	112100	1.00	12.5	
2	0.372	3	0.373	0.11	0.109	4400	5600	88200	88810	112300	113100	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.**

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To,  
Resident Engineer,  
Orbit Housing  
The Spring Apartment Homes

Reference # CED/TFL **2556** (Dr. Rizwan Azam)  
Reference of the request letter# NIL

Dated: 02-01-2023  
Dated: 02-01-2023

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

Date of Test 02-01-2023  
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	3400	4600	68200	70800	92200	95800	1.20	15.0	
2	0.364	3	0.369	0.11	0.107	3700	4900	74200	76170	98200	100900	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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