



**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 a Controlled Access Corridor Facility from Niazi Interchange to Babu Sabu Interchange, Lahore  
(Package – I (km 0+000 to km 3+650))

Reference # CED/TFL **4185** (Dr. Safer Abbass)

Dated: 13-11-2023

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/53

Dated: 04-11-2023

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

Date of Test 16-11-2023

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	4.154	10	1.247	1.27	1.221	43000	59400	74700	77620	103100	107300	1.20	15.0	Batala Premium
2	4.130	10	1.243	1.27	1.214	42200	59200	73300	76620	102800	107500	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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 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



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

Ref: CED/TFL/11/4186

Dated: 13-11-2023

Dated of Test: 16-11-2023

To

**Head QA/QC**  
**Vision Developers Pvt. Ltd.**  
**Park View City Lahore**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. Nil, dated 12.11.2023 on the subject cited above. Four R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	9	7.70	7.22	12.52	8.82	1.85	10000	15500	4152	6435
2	9	7.71	7.24	12.52	8.99	1.76	9500	15500	3863	6302
3	9	7.78	7.28	12.40	8.59	1.90	10000	16000	4227	6763
4	9	7.78	7.29	12.52	8.64	1.94	11000	17000	4623	7144

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

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To,  
 M/S Ittefaq Building Solutions (Pvt) Ltd.  
 Lahore

Reference # CED/TFL **4199** (Dr. Rizwan Azam)  
 Reference of the request letter # Nil

Dated: 15-11-2023

Dated: 15-11-2023

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

Date of Test 16-11-2023  
 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	0.363	3	0.369	0.11	0.107	3570	4890	71600	73680	98000	101000	1.10	13.8	
2	0.364	3	0.369	0.11	0.107	3540	4890	71000	72960	98000	100800	1.10	13.8	
3	0.364	3	0.369	0.11	0.107	3490	4860	70000	71930	97400	100200	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<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**  
**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  
Lahore Ring Road Southern Loop (SL-3) Project.  
(Nizami Brothers)

Reference # CED/TFL **4200** (Dr. Rizwan Azam)  
Reference of the request letter # Nespak.LRRA.MNA.SL-3/062

Dated: 15-11-2023  
Dated: 11-11-2023

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

Date of Test 16-11-2023  
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")	780.0	781	18700	183.45	19800	194.24	198	>3.50	xx
2	12.70 (1/2")	780.0	784	18900	185.41	19600	192.28	199	>3.50	xx
3	12.70 (1/2")	780.0	784	18300	179.52	19800	194.24	198	>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.**

Note:

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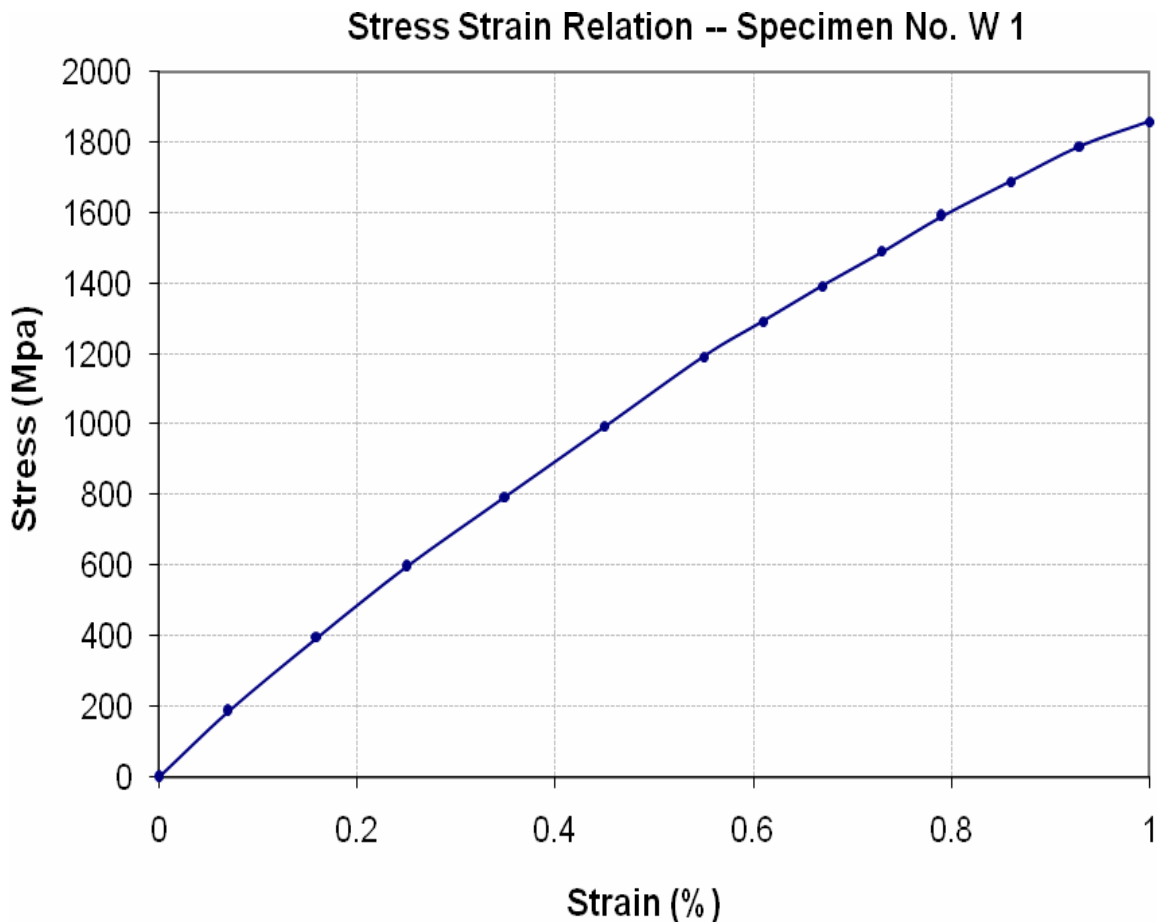
**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
NESPAK  
Lahore Ring Road Southern Loop (SL-3) Project.  
(Nizami Brothers)

Reference # CED/TFL **4200** (Dr. Rizwan Azam)  
Reference of the request letter # Nespak.LRRA.MNA.SL-3/062

Dated: 15-11-2023  
Dated: 11-11-2023

**Graph** (Page – 2/4)



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

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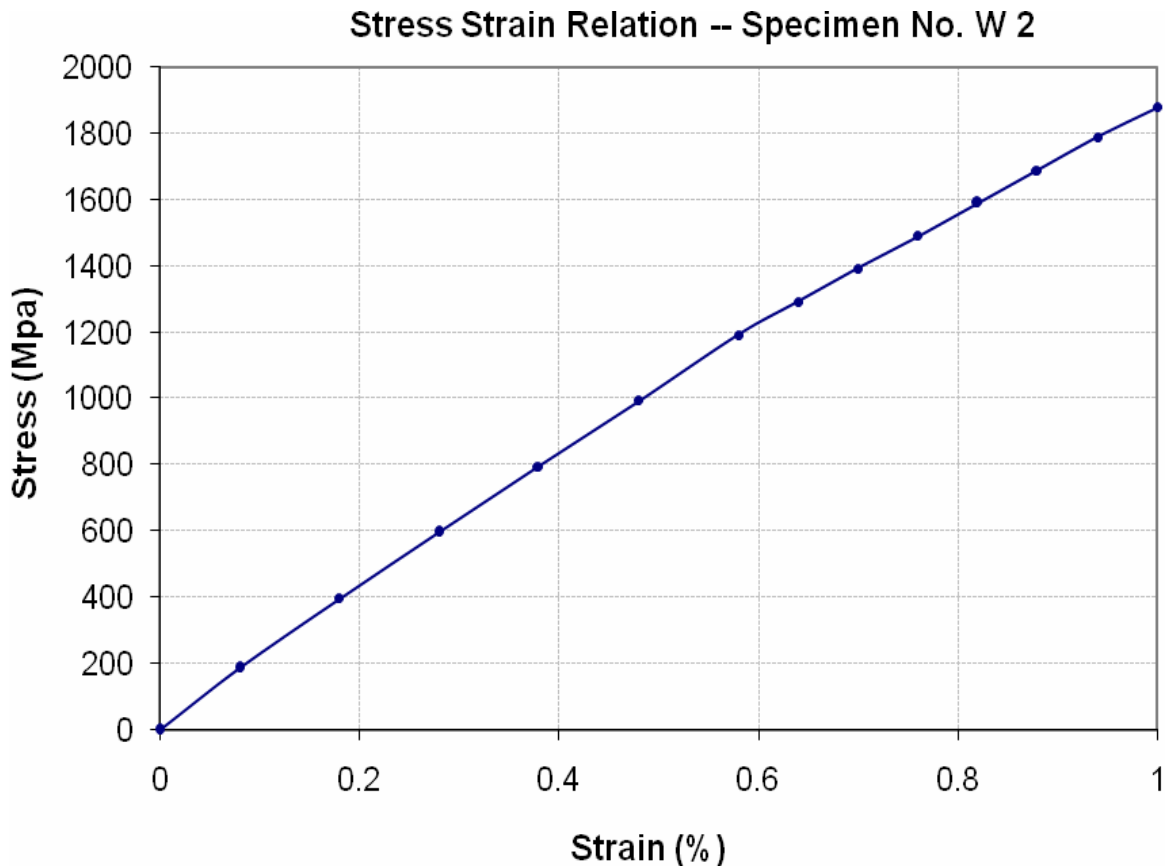
**STRUCTURAL ENGINEERING DIVISION**  
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**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,  
Resident Engineer  
NESPAK  
Lahore Ring Road Southern Loop (SL-3) Project.  
(Nizami Brothers)

Reference # CED/TFL **4200** (Dr. Rizwan Azam)  
Reference of the request letter # Nespak.LRRA.MNA.SL-3/062

Dated: 15-11-2023  
Dated: 11-11-2023

**Graph** (Page – 3/4)



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

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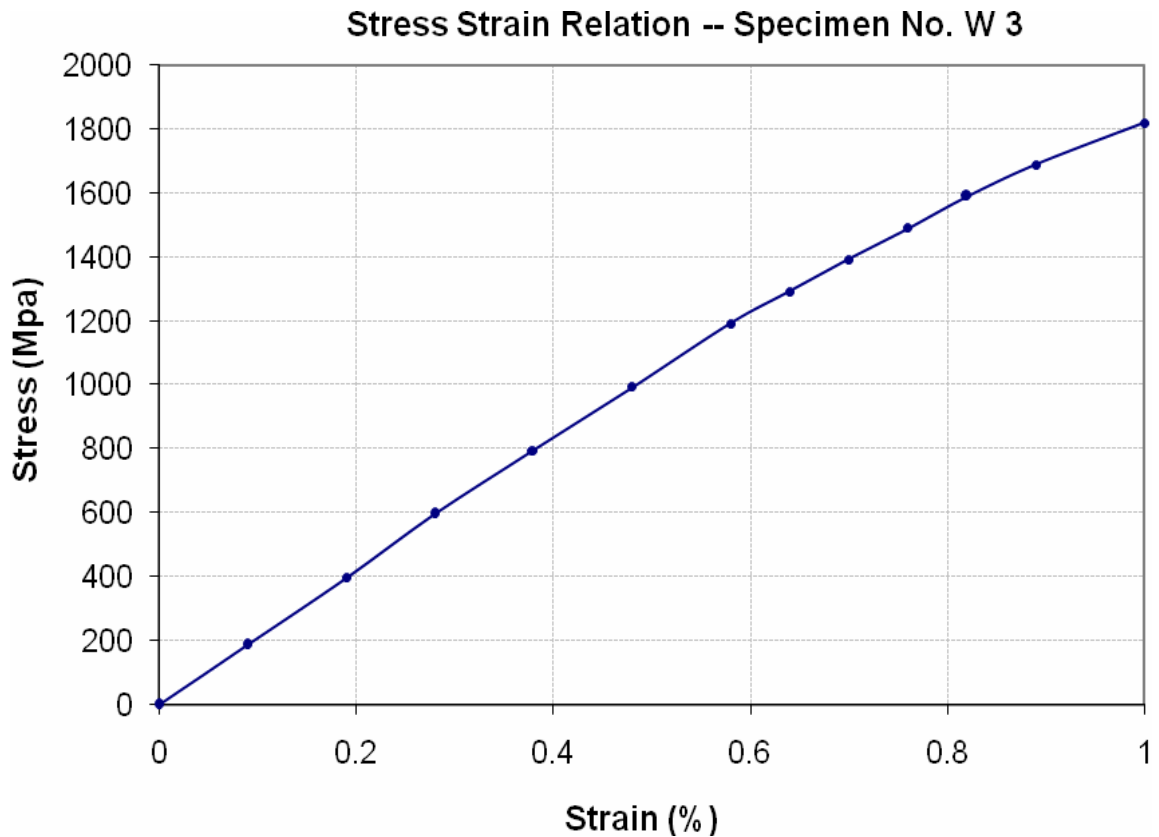
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To,  
Resident Engineer  
NESPAK  
Lahore Ring Road Southern Loop (SL-3) Project.  
(Nizami Brothers)

Reference # CED/TFL **4200** (Dr. Rizwan Azam)  
Reference of the request letter # Nespak.LRRA.MNA.SL-3/062

Dated: 15-11-2023  
Dated: 11-11-2023

**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**

Ref: CED/TFL/11/4201

Dated: 15-11-2023

Dated of Test: 16-11-2023

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Chunian**  
**(RCC Sewer Pipe Being Laid at RCC Sewer Pipe Line Depal Pur Road Theing**  
**More/ Illah abad, Tehsil Chunian, District Kasur)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -1/2)**

Reference to your letter No. 123/C, dated 15.11.2023 on the subject cited above. One R.C.C. Pipe as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	18	7.77	7.36	23.23	17.85	2.69	9000	14200	1813	2861

**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**

Ref: CED/TFL/11/4201

Dated: 15-11-2023

Dated of Test: 16-11-2023

To

**Sub Divisional Officer**  
**Public Health Engg: Sub Division**  
**Chunian**  
**(RCC Sewer Pipe Being Laid at RCC Sewer Pipe Line Depal Pur Road Theing**  
**More/ Illah abad, Tehsil Chunian, District Kasur)**

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a] (Page -2/2)**

Reference to your letter No. 123/C, dated 15.11.2023 on the subject cited above. One R.C.C. Pipe as received by us have been tested. The results are tabulated as under.

Sr. No	Nominal Size	Total Length	Loaded Length	External Diameter	Internal Diameter	Wall Thickness	Proof load	Ultimate Load	Proof Stress	Ultimate Stress
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	15	7.77	7.34	19.61	14.93	2.34	11000	15500	2656	3743

**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,

Engineer's Representative  
NESPAK  
Construction of Additional Block at Pakistan Engineering Council (PEC) Headquarters,  
G-5/2, Islamabad.  
(M/s United Wire Industries.)

Reference # CED/TFL **4202** (Dr. Rizwan Azam)

Dated: 16-11-2023

Reference of the request letter # 4125/321/NS/03/806

Dated: 14-11-2023

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

Date of Test 16-11-2023

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")	780.0	789.0	17500	171.68	19100	187.37	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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**STRUCTURAL ENGINEERING DIVISION**  
**Test Floor Laboratory**  
**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
**Pakistan. Ph: 92-42-99029202**

To,

Engineer's Representative  
NESPAK

Construction of Additional Block at Pakistan Engineering Council (PEC) Headquarters,  
G-5/2, Islamabad.

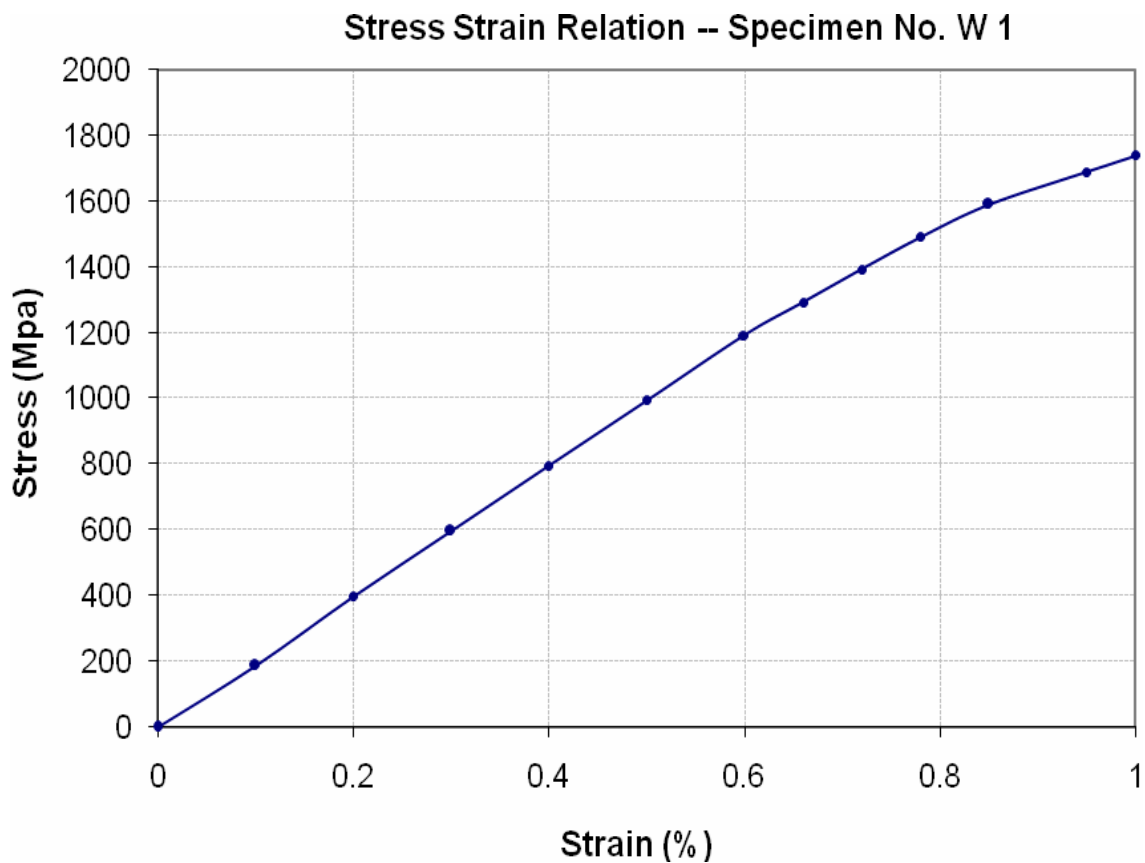
Reference # CED/TFL **4202** (Dr. Rizwan Azam)

Dated: 16-11-2023

Reference of the request letter # 4125/321/NS/03/806

Dated: 14-11-2023

**Graph** (Page – 2/2)



**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,

Project Incharge (WASO)  
 PAEC, Chashma  
 “Construction of Overhead Water Tank (20, 000 Gallon) Pump Rooms (03 Nos.) &  
 Deep Well Turbines for Hostel Near Mianwali.”

Reference # CED/TFL **4204** (Dr. Rizwan Azam)

Dated: 16-11-2023

Reference of the request letter # WASO-P(CH)/OHWT-WB-149/2032

Dated: 13-11-2023

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

Date of Test

16-11-2023

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	0.370	3	0.372	0.11	0.109	3430	4760	68800	69530	95400	96500	1.40	17.5	Sheikho Steel
2	0.371	3	0.372	0.11	0.109	3430	4740	68800	69420	95000	96000	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.**

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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(ACE) ARTS  
 Construction of Academic Block New Campus of GC University Lahore (KSK).

Reference # CED/TFL 4231 (Dr Rashid)  
 Reference of the request letter # RE/PERK/C-40

Dated: 21-11-2023  
 Dated: 15-11-2023

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

Date of Test 21-11-2023  
 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 (inch)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.380	3/8	0.377	0.11	0.112	3460	4800	69400	68290	96200	94800	1.50	18.8	Sheikho Steel
2	0.376	3/8	0.375	0.11	0.110	3440	4740	69000	68690	95000	94700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
3/8 Bar Bend Test Through 180° is Satisfactory														

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

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