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/01/6309 Dated: 08-01-2025

Date of Test: 14-01-2025

To,

Manager – Planning & Coordination
Birudo Engiineers
The Centaurus Mall, Tower-D at Sector F-8, Blue Area, Islamabad.

Subject: **- CALIBRATION OF DIAL GAUGES** (Page # 1/1)

Reference to your Letter No. BE/2025/002, Dated: 07/01/2025 on the subject cited above. Four Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 100 (mm)
Calibrated Range : Zero - 50 (mm)

Standard Reading	Dial Gauge Readings			
	Dial Gauge No. I (8115809)	Dial Gauge No. II (8115864)	Dial Gauge No. III (8115806)	Dial Gauge No. IV (8115822)
400	400	401	400	398
800	801	800	800	800
1200	1202	1200	1201	1200
1600	1604	1600	1602	1600
2000	2003	1999	2004	2001
2400	2403	2400	2404	2402
2800	2803	2799	2806	2802
3200	3203	3199	3205	3203
3600	3605	3599	3605	3603
4000	4006	3999	4006	4005
4400	4406	4399	4405	4404
4800	4806	3799	4805	4804
5000	5005	4999	5000	5005

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 Engineering Associated Precast (Pvt) Ltd.
Lahore

Reference # CED/TFL **6314** (Dr. Ali Ahmed) Dated: 08-01-2025
Reference of the request letter # Nil Dated: 07-01-2025

Tension Test Report (Page -1/2)

Date of Test 14-01-2025
Gauge length 8 inches
Description MS Wire Tensile Test

Sr. No.	Weight	Diameter/ size		Area (mm^2)		Yield load	Breaking Load	Yield Stress (MPa)	Ultimate Stress (MPa)	Elongation	% Elongation	Remarks
	(kg/m)	Nominal (mm)	Actual (mm)	Nominal	Actual	(kg)	(kg)	Actual	Actual	(inch)		
1	0.136	5	4.69	--------	17.3	1040	1440	590	817	0.30	3.8	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test												
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 Engineering Associated Precast (Pvt) Ltd.
Lahore

Reference # CED/TFL **6314** (Dr. Ali Ahmed) Dated: 08-01-2025
Reference of the request letter # Nil Dated: 07-01-2025

Tension Test Report (Page -2/2)

Date of Test 14-01-2025
Gauge length 600 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")**	**430.0**	**434.0**	**10000**	**98.10**	**11100**	**108.89**	**>3.50**	**xx**
2	**11.11 (7/16")**	**582.0**	**594.0**	**11600**	**113.80**	**13200**	**129.49**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
Only two samples for 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
NESPAK
Rehabilitationation / Improvement of Streets (P.C.C), Sewerage / Drainage UC-195
Nishter Zone MCL.

Reference # CED/TFL **6326** (Dr. Ali Ahmed) Dated: 10-01-2025
Reference of the request letter # 4084/103/LDP/NZ/04/84 Dated: 07-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	4800	70200	70580	96200	96800	1.30	16.3	
2	0.372	3	0.373	0.11	0.109	3500	4800	70200	70490	96200	96700	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3Bar Bend Test Through 180º 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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STRUCTURAL ENGINEERING DIVISION

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

To,

Manager Construction
Aziz Fatima Medical & Dental College, Faisalabad
Canal View Hospital Faisalabad

Reference # CED/TFL **6328** (Dr. Ali Ahmed) Dated: 10-01-2025
Reference of the request letter # AFT/Civil/25/01/06-04 Dated: 06-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.366	3	0.370	0.11	0.108	3500	4600	70200	71650	92200	94200	1.30	16.3	Sheikhoo Steel
2	0.377	3	0.376	0.11	0.111	3600	4800	72200	71530	96200	95400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3Bar Bend Test Through 180º 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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STRUCTURAL ENGINEERING DIVISION

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

To,

Development Engineeer
University of The Punjab
Construction of Law College Graduate Block (Phase-I) at University Law College at Q.A.C, University of The Punjab, Lahore.

Reference # CED/TFL **6329** (Dr. Ali Ahmed) Dated: 10-01-2025
Reference of the request letter # D-4151-DE Dated: 10-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.368	3	0.371	0.11	0.108	3400	5100	68200	69320	102200	104000	1.00	12.5	
2	0.369	3	0.372	0.11	0.109	3400	5100	68200	69030	102200	103600	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3Bar Bend Test Through 180º 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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STRUCTURAL ENGINEERING DIVISION

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

To,

Dy Dir Infra
DHA Gujranwala
"150 Men Cook House."

Reference # CED/TFL **6330** (Dr. Ali Ahmed) Dated: 10-01-2025
Reference of the request letter # 111/3/DD/Dev/Men Cook House/15 Dated: 02-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.365	3	0.369	0.11	0.107	3600	5400	72200	74000	108200	111000	1.10	13.8	SJ Steel
2	0.372	3	0.373	0.11	0.109	3300	4800	66200	66550	96200	96800	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3Bar Bend Test Through 180º 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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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 Crafters Polypropylene Packages (Pvt) Ltd.
Karachi

Reference # CED/TFL **6331** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # Nil Dated: 13-01-2025

Tension Test Report (Page – 1/1)

Date of Test 14-01-2025
Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	**12**	**0.59**	**7800**	
-	-	-	-	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only one sample for 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,

Sub Divisional Officer-I
C & W Highway Sub Division
Saidu Sharif, Swat
(Feasibility Study & Design of Conversion of 40 No of Existing Steel Bridges to RCC Bridges including New Bridges (DFID Assisted Acrow / Nato Candian Steel Bridges Provided by Pak Army)(Phase-I).)

Reference # CED/TFL **6332** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 1132/1-W Dated: 06-01-2025

Tension Test Report (Page -1/2)

Date of Test 14-01-2025
Gauge length 600 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**18200**	**178.54**	**19900**	**195.22**	**199**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
		Only one sample for Test						

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.

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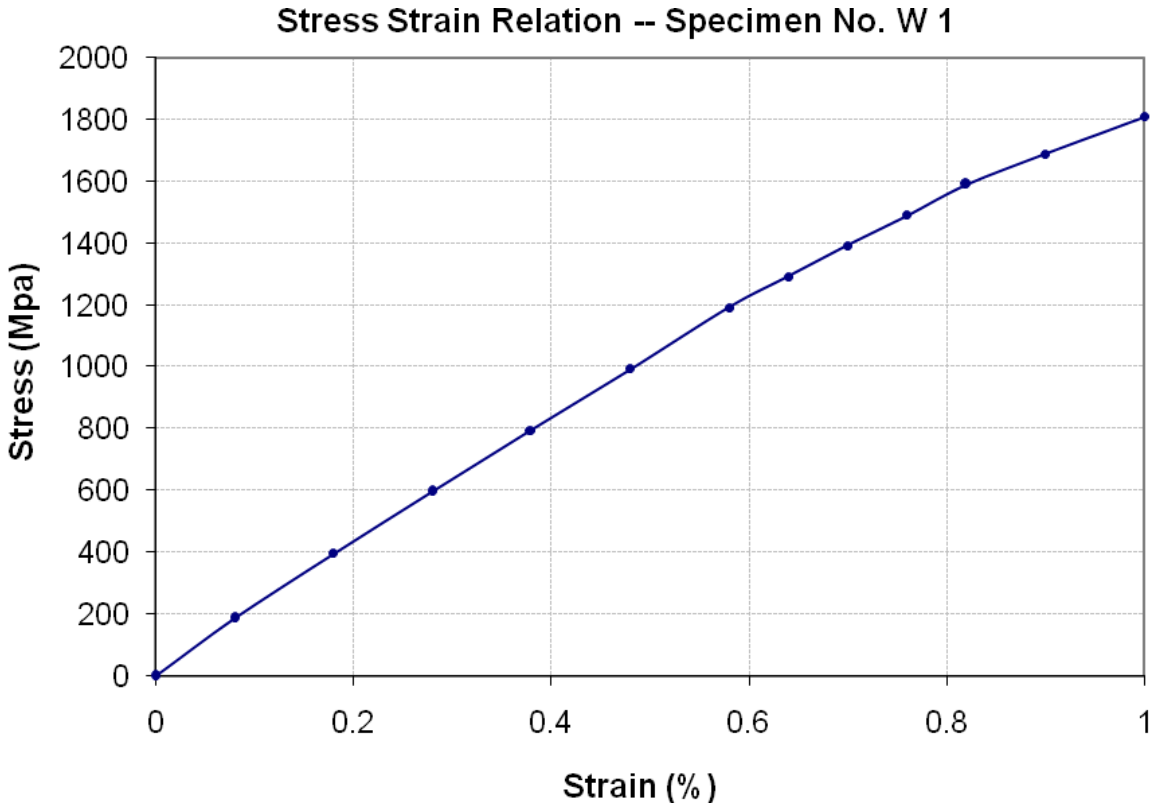
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Sub Divisional Officer-I
C & W Highway Sub Division
Saidu Sharif, Swat
(Feasibility Study & Design of Conversion of 40 No of Existing Steel Bridges to RCC Bridges including New Bridges (DFID Assisted Acrow / Nato Candian Steel Bridges Provided by Pak Army)(Phase-I).)

Reference # CED/TFL **6332** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 1132/1-W Dated: 06-01-2025

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 Manager
Sunshina Health Care Private Limited.
Sunshine Medical Tower Shahdra.

Reference # CED/TFL **6333** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # Nil Dated: 10-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.368	3	0.371	0.11	0.108	4200	4800	84200	85610	96200	97900	1.00	12.5	
2	0.361	3	0.367	0.11	0.106	4300	5000	86200	89380	100200	104000	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3Bar Bend Test Through 180º 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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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,

Sub Divisional Officer
Highway Sub Division
Daska
(Restoration / Improvement of Gujranwala Pasrur Road (Section km 13.00 to 46.00) L=33 km in District Sialkot.)

Reference # CED/TFL **6336** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 252 Dated: 30-12-2024

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.375	3	0.375	0.11	0.110	3000	4300	60200	59960	86200	86000	1.40	17.5	
2	0.378	3	0.376	0.11	0.111	2800	3800	56200	55550	76200	75400	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3Bar Bend Test Through 180º 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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STRUCTURAL ENGINEERING DIVISION

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

To,

Waseem Abbas
Burewala

Reference # CED/TFL **6337** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # Nil Dated: 13-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.371	3	0.373	0.11	0.109	3700	4600	74200	74720	92200	92900	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

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
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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,

Resident Engineer
NESPAK
Establishment of Labour Colony at Quaid-e-Azam Business Park, M2 – Motorway, Distt. Sheikhpura.

Reference # CED/TFL **6339** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 3844/311/RE/016 Dated: 31-12-2024

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.398	3	0.386	0.11	0.117	3700	5600	74200	69760	112300	105600	1.20	15.0	SJ Steel
2	0.364	3	0.369	0.11	0.107	3500	5200	70200	72190	104200	107300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3Bar Bend Test Through 180º 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

Ref: CED/TFL/01/6340 Dated: 13-01-2025

Date of Test: 14-01-2025

To,

Resident Engineer
Minconsult – CEC
KP-RAP Pkg-5
D.I Khan

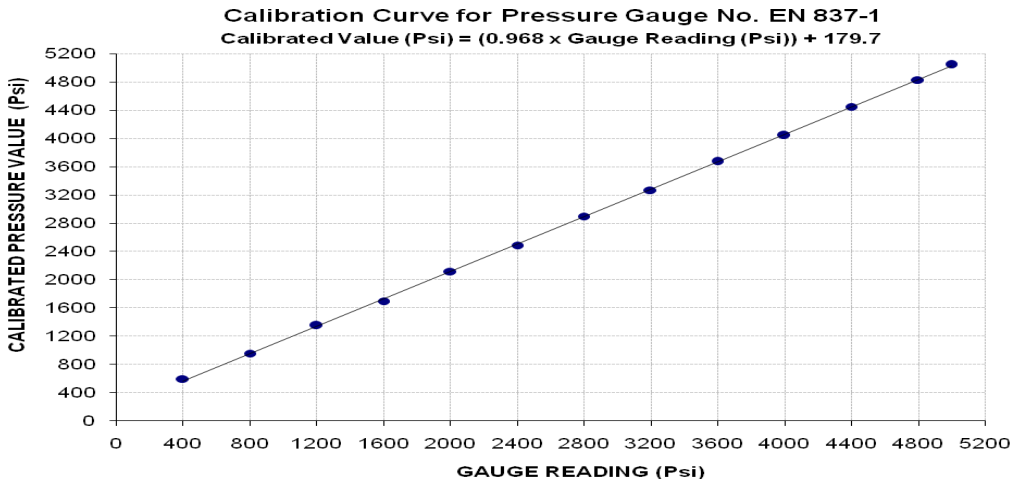
Subject: **- CALIBRATION OF PRESSURE GAUGE (MARK: TFL/01/6340)** (Page # 1/2)

Reference to your Letter No. KP-RAP/RE/P-5/25, Dated: 30/12/2024 on the subject cited above. One Pressure no. EN 837-1 as received by us has been calibrated. The results are tabulated as under:

Total Range : Zero - 10000 (Psi)
Calibrated Range : Zero - 5000 (Psi)

Pressure Gauge Reading (Psi)	**400**	**800**	**1200**	**1600**	**2000**	**2400**	**2800**	**3200**	**3600**	**4000**	**4400**	**4800**	**5000**
Calibrated Load (kg)	**8300**	**13300**	**18800**	**23600**	**29500**	**34600**	**40300**	**45500**	**51100**	**56300**	**61900**	**67200**	**70200**
Calibrated Pressure (Psi)	**596**	**955**	**1350**	**1695**	**2119**	**2485**	**2895**	**3268**	**3671**	**4044**	**4446**	**4827**	**5043**

The Ram Area for Calibration = 198 cm^2



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

Ref: CED/TFL/01/6340 Dated: 13-01-2025

Date of Test: 14-01-2025

To,

Resident Engineer
Minconsult – CEC
KP-RAP Pkg-5
D.I Khan

Subject: **- CALIBRATION OF DIAL GAUGES** (Page # 2/2)

Reference to your Letter No. KP-RAP/RE/P-5/25, Dated: 30/12/2024 on the subject cited above. Three Dial Gauges as received by us have been calibrated on standard calibration device. The results are tabulated as under.

Total Range : Zero - 100 (mm)
Calibrated Range : Zero - 50 (mm)

Standard Reading	Dial Gauge Readings		
	Dial Gauge No. I (6310162)	Dial Gauge No. II (6310242)	Dial Gauge No. III (4324445)
400	397	399	398
800	798	799	798
1200	1198	199	1199
1600	1597	1599	1599
2000	1997	1999	1999
2400	2397	2399	2398
2800	2796	2799	2799
3200	3196	3200	3199
3600	3596	3600	3599
4000	3995	4000	4000
4400	4395	4401	4400
4800	4794	4800	4800
5000	4995	4999	5000

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,

Assistant Resident Engineer
MM Pakistan (Pvt) Ltd.
Storm Water Drainge Facilities in Jhelum.

Reference # CED/TFL **6341** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # ARE/JHE-SWDF/MC-04 Dated: 13-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.368	3	0.371	0.11	0.108	3100	4700	62200	63130	94200	95800	1.20	15.0	Mehmboob Steel
2	0.369	3	0.372	0.11	0.109	3100	4700	62200	62930	94200	95500	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3 Bar Bend Test Through 180º is Satisfactory

Witness by Waqas (Site Inspector (MM Pakistan) Consultant Jhelum.)

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,

C.E/ Resident Engineer
NESPAK
Lahore Ring Road Project – Bridge – 08 (RE Panel) SL 1 & 2

Reference # CED/TFL **6342** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 2636/103/AQC/02/668 Dated: 13-01-2025

Tension Test Report (Page -1/1)

Date of Test 14-01-2025
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		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	0.373	3	0.374	0.11	0.110	3900	4900	78200	78360	98200	98500	1.00	12.5	Mughal Steel
2	0.369	3	0.371	0.11	0.108	3900	4800	78200	79350	96200	97700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only two samples for tensile and one sample for bend test

Bend Test

#3Bar Bend Test Through 180º 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,

C.E/ Resident Engineer
NESPAK
Lahore Ring Road Project. Rectification Works of RE Panel at Bridge 8 Halloki Interchange.

Reference # CED/TFL **6343** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 2636/103/AQC/SL/02/665 Dated: 27-11-2024

Tension Test Report (Page -1/2)

Date of Test 14-01-2025
Gauge length 600 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**	**783.0**	**17600**	**172.66**	**19600**	**192.28**	**199**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

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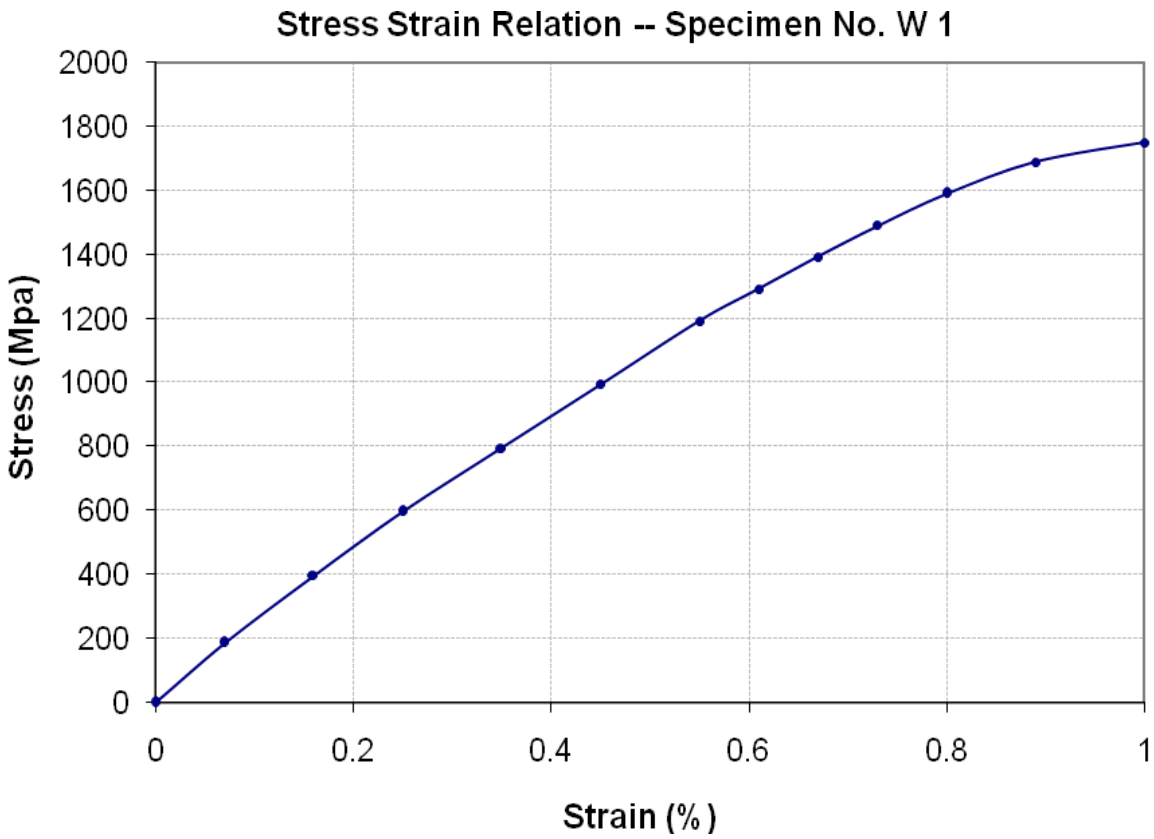
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

C.E/ Resident Engineer
NESPAK
Lahore Ring Road Project. Rectification Works of RE Panel at Bridge 8 Halloki Interchange.

Reference # CED/TFL **6343** (Dr. Ali Ahmed) Dated: 13-01-2025
Reference of the request letter # 2636/103/AQC/SL/02/665 Dated: 27-11-2024

Graph (Page – 2/2)



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UET Lahore, Pakistan.

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