



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 KAY & EMMS (Pvt) Ltd.
Faisalabad

Reference # CED/TFL 4575 (Dr. Rizwan Azam)
Reference of the request letter # Nil

Dated: 30-01-2024
Dated: 30-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
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 ²)		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	0.371	3	0.373	0.11	0.109	3690	4890	74000	74630	98000	98900	1.50	18.8	
2	0.372	3	0.373	0.11	0.109	3670	4860	73600	74030	97400	98100	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
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,

Material Engineer
NESPAK

Infrastructure Development of Quaid-E-Azam Business Park on Motorway M-2, District Sheikhupura – Construction of Priority Works.

Reference # CED/TFL **4577** (Dr. Rizwan Azam)
Reference of the request letter # 4163/11/ZA/01/02

Dated: 30-01-2024
Dated: 25-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024

Gauge length 8 inches

Description Plain Dowel Bar Tensile and Bend Test

Sr. No.	Weight (kg/m)	Diameter/ size		Area (mm ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (MPa) Actual	Ultimate Stress (MPa) Actual	Elongation (inch)	% Elongation	Remarks
		Nominal (mm)	Actual (mm)	Nominal	Actual							
1	11.411	43	43.02	-----	1453.6	66800	95800	451	647	2.60	32.5	
2	11.416	43	43.03	-----	1454.3	61800	95800	417	646	2.50	31.3	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test												
Bend Test												
43mm 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,

Resident Engineer
NESPAK
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km) (WMI)

Reference # CED/TFL **4583** (Dr. Rizwan Azam)
Reference of the request letter # RE/4376-E/SMH/4a/337

Dated: 30-01-2024
Dated: 16-10-2023

Tension Test Report (Page -1/3)

Date of Test 01-02-2024
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)			
1	12.70 (1/2")	780.0	784.0	17400	170.69	19400	190.31	199	>3.50	xx
2	12.70 (1/2")	780.0	781.0	17500	171.68	19700	193.26	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

Only two samples 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

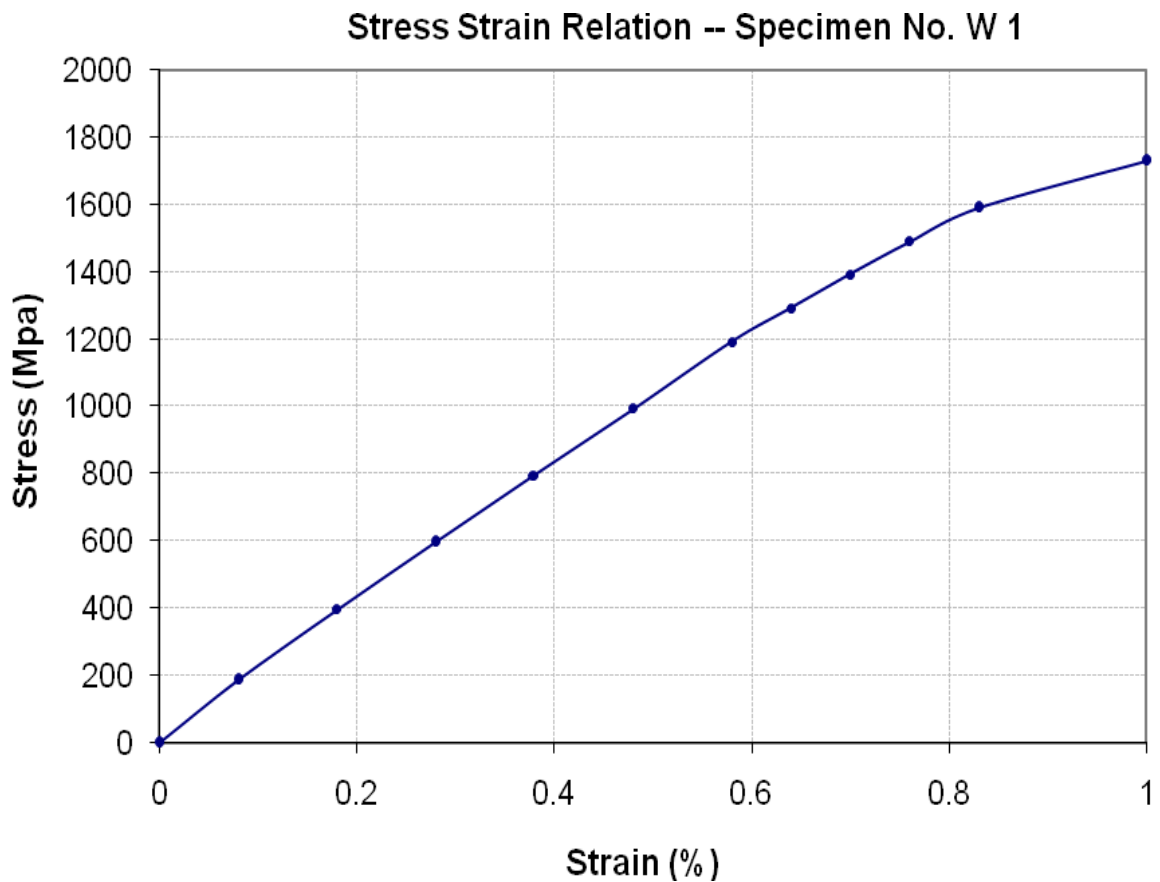
To,

Resident Engineer
NESPAK
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km) (WMI)

Reference # CED/TFL **4583** (Dr. Rizwan Azam)
Reference of the request letter # RE/4376-E/SMH/4a/337

Dated: 30-01-2024
Dated: 16-10-2023

Graph (Page – 2/3)



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,

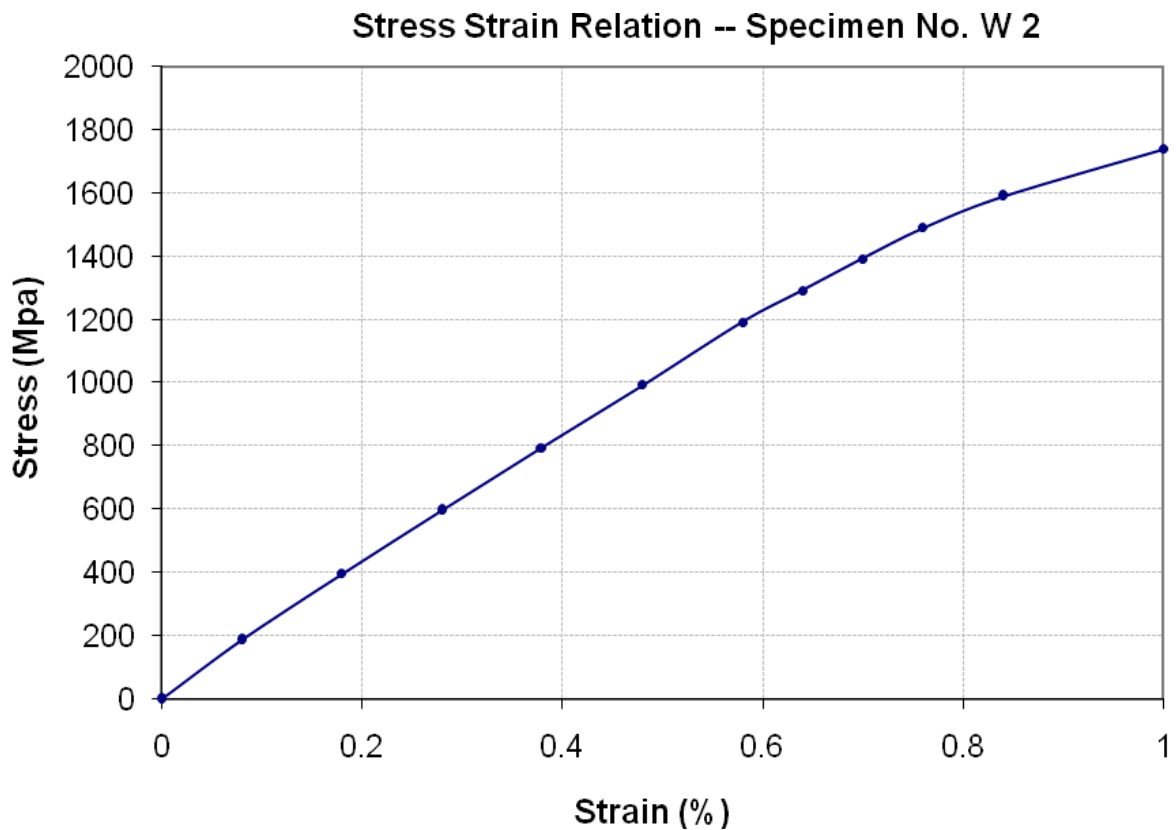
Resident Engineer
NESPAK
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km) (WMI)

Reference # CED/TFL **4583** (Dr. Rizwan Azam)
Reference of the request letter # RE/4376-E/SMH/4a/337

Dated: 30-01-2024

Dated: 16-10-2023

Graph (Page – 3/3)



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,

Project Manager / RE
EDCS, Pakpattan
Osmani & Company (Pvt) Ltd.
Engineering Design & Construction Supervision for Punjab Rural Sustainable.
Water Supply and Sanitation Project (PRSWSSP) Cluster Central II.

Reference # CED/TFL **4585** (Dr. Rizwan Azam)

Dated: 30-01-2024

Reference of the request letter # PM/OCL/PRSWSSP/EDCS/Pkg-07/2023/14 Dated: 30-01-2023

Tension Test Report (Page -1/2)

Date of Test 01-02-2024

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 ²)		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	0.373	0.11	0.110	3360	5010	67400	67600	100400	100800	1.10	13.8	Sheikhu
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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,

Project Manager / RE
EDCS, Pakpattan
Osmani & Company (Pvt) Ltd.
Engineering Design & Construction Supervision for Punjab Rural Sustainable.
Water Supply and Sanitation Project (PRSWSSP) Cluster Central II.

Reference # CED/TFL **4585** (Dr. Rizwan Azam)

Dated: 30-01-2024

Reference of the request letter # PM/OCL/PRSWSSP/EDCS/Pkg-04/2023/12 Dated: 30-01-2023

Tension Test Report (Page -2/2)

Date of Test 01-02-2024

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 ²)		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	3540	4760	71000	71380	95400	96000	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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,

Material Engineer
NESPAK
Punjab Rural Municipal Services Company
Punjab Sustainable Water Supply & Sanitation Project (PRSWSSP) Tehsil Taunsa
(Package -II & V)

Reference # CED/TFL **4589** (Dr. Rizwan Azam)

Dated: 31-01-2024

Reference of the request letter # NESPAK/PRSWSSP/TAUNSA/ME/ME/109 Dated: 21-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024

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 ²)		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	3590	4790	72000	72440	96000	96700	1.50	18.8	Sheikhoo Steel
2	0.373	3	0.373	0.11	0.110	3620	4810	72600	72830	96400	96800	1.40	17.5	
3	4.189	10	1.252	1.27	1.231	41600	54600	72200	74460	94800	97800	1.90	23.8	
4	4.200	10	1.254	1.27	1.235	41600	55000	72200	74270	95500	98200	1.90	23.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#10 Bar Bend Test Through 180° is Satisfactory														

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
Rehabilitation of Road from Kot Radha Kishan to Kasur Length = 31.00 km (Phase-I
0.00 to 24.00 Length = 24.00 km) in District Kasur.

Reference # CED/TFL **4590** (Dr. Rizwan Azam)
Reference of the request letter # 3811/103/MUR104/1129

Dated: 31-01-2024
Dated: 17-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
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 ²)		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	5.148	11	1.388	1.56	1.513	48600	66000	68700	70790	93300	96200	1.50	18.8	
2	5.279	11	1.406	1.56	1.552	50600	66600	71500	71880	94100	94600	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
#11 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
Dualization of Sargodha Khushab Mianwali Road
(Group-I from km 206.94 to 211.50 = 4.56 km)

Reference # CED/TFL **4591** (Dr. Rizwan Azam)
Reference of the request letter # RE/4376-E/SMH/4a/263

Dated: 31-01-2024
Dated: 24-03-2023

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
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 ²)		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	4.014	10	1.226	1.27	1.180	43400	55600	75400	81080	96500	103900	1.00	12.5	Sheikho Steel
2	3.992	10	1.222	1.27	1.174	42800	54200	74300	80390	94100	101800	0.50	6.3	
3	5.165	11	1.390	1.56	1.518	49200	66200	69600	71430	93600	96100	1.40	17.5	Pak Steel
4	5.157	11	1.389	1.56	1.516	49400	65600	69800	71840	92700	95400	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

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

To,

Material Engineer
NESPAK Sahiwal
Punjab Intermediated Cities Improvement Investment Program (PICIP)
Consultancy Services for Engineering, Procurement and Construction Management
Trunk Main Sewer Conduit, Effluent Pumping Station and Allied Worked (Lot-04)

Reference # CED/TFL **4592** (Dr. Rizwan Azam)

Dated: 31-01-2024

Reference of the request letter # 3976/11/MS/SWL/Lot-04/01/751

Dated: 24-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024

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 ²)		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	4100	4990	82200	82360	100000	100300	0.90	11.3	SGI Steel
2	0.373	3	0.374	0.11	0.110	4130	5070	82800	82980	101600	101900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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
Construction of RCC Bridge over Cantt Drain near Cricket House in Shadman, Lahore.
(WMI)

Reference # CED/TFL **4593** (Dr. Ali Ahmed)
Reference of the request letter # 3772/103/SB/SA/04/10

Dated: 31-01-2024
Dated: 30-01-2024

Tension Test Report (Page -1/2)

Date of Test 01-02-2024
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	787.0	17900	175.60	20000	196.20	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 Laboratories
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
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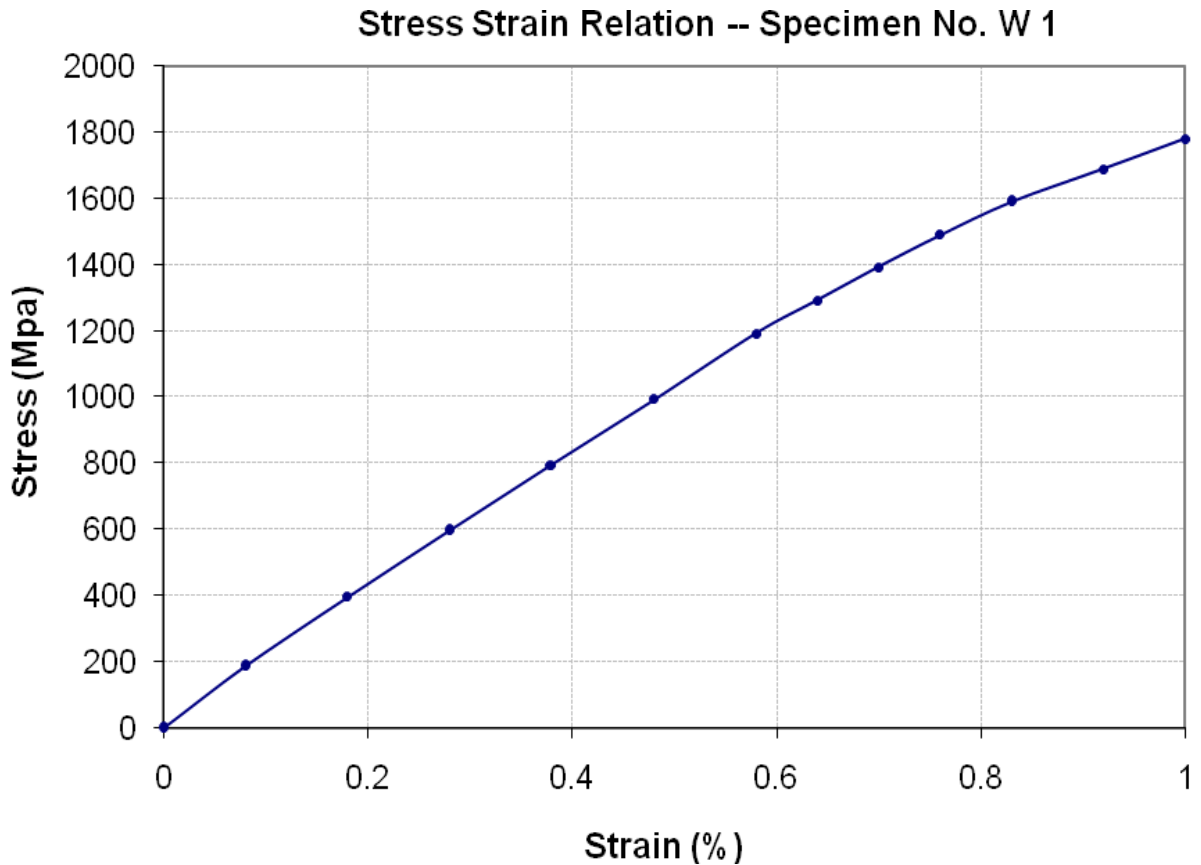
To,

Resident Engineer
NESPAK
Construction of RCC Bridge over Cantt Drain near Cricket House in Shadman, Lahore.
(WMI)

Reference # CED/TFL **4593** (Dr. Ali Ahmed)
Reference of the request letter # 3772/103/SB/SA/04/10

Dated: 31-01-2024
Dated: 30-01-2024

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,
 Resident Engineer
 NESPAK
 Construction of 4-Lane Bridge Ravi River, Lahore.

Reference # CED/TFL **4594** (Dr. Rizwan Azam)
 Reference of the request letter # 4537/03/MSA/09/188

Dated: 31-01-2024
 Dated: 31-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
 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 ²)		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	4.179	10	1.251	1.27	1.228	35400	58200	61500	63520	101100	104500	0.90	11.3	Mughal Steel
2	4.152	10	1.247	1.27	1.221	35200	58000	61100	63570	100700	104800	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
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
- 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,

Assistant Resident Engineer
NESPAK
Punjab Rural Sustainable Water Supply & Sanitation Project Tehsil Ahmed Pur Sial.

Reference # CED/TFL **4596** (Dr. Rizwan Azam)
Reference of the request letter # A.P.S No. 05

Dated: 31-01-2024
Dated: 30-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
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 ²)		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	0.106	3/16	0.199	-----	0.031	1050	1350	-----	74620	-----	96000	0.90	11.3	
2	0.103	3/16	0.197	-----	0.030	1040	1400	-----	75400	-----	101500	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
3/16" 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,
 Manager
 ABL – UML P-199 & 200
 Allied Bank
 Construction of ABL Upper Mall Lahore Plot No. 199, 200.

Reference # CED/TFL **4597** (Dr. Rizwan Azam)
 Reference of the request letter # ABL-UML-AMC-QAQC; 60

Dated: 31-01-2024
 Dated: 31-01-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
 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 ²)		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	0.113	4430	5350	88800	86030	107200	103900	1.00	12.5	Amreli Steel
2	0.386	3	0.380	0.11	0.114	4380	5250	87800	85020	105200	101900	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
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.
- 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,
 Civil Engineer
 National Management Foundation
 “Yousaf Shirazi Complex, at LUMS Campus”

Reference # CED/TFL **4598** (Dr. Rizwan Azam)
 Reference of the request letter # NMF/GM/C-39/848

Dated: 01-02-2024
 Dated: 01-02-2024

Tension Test Report (Page -1/1)

Date of Test 01-02-2024
 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 ²)		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	0.370	10	9.45	0.12	0.109	3920	4960	72017	79410	91123	100500	1.10	13.8	
2	0.370	10	9.45	0.12	0.109	3790	4740	69629	76830	87082	96100	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
10mm Dia 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.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples