



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 - I
MM Pakistan (Pvt) Ltd
Disaster and Climate Resilience Improvement Project (DCRIP) – Enhancing Resilience against
Sub-Surface Flow/Seepage underneath LMB Taunsa Barrage from RD 18+000 to 46+000.

Reference # CED/TFL **35971** (Dr. Ali Ahmed)
Reference of the request letter # DCRIP/RE/PMIC/-116

Dated: 21-01-2021
Dated: 18-01-2021

Tension Test Report (Page – 1/1)

Date of Test 27-01-2021
Gauge length 2 inches
Description Sheet Pile Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Sheet Pile	25.13x6.00	150.78	6700	8600	435.91	559.53	0.55	27.50	
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Only One Sample for Tensile Test										
Bend Test										

I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
 Resident Engineer
 Dar Engineering
 Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

Reference # CED/TFL **35977** (Dr. Ali Ahmed)
 Reference of the request letter # DB-78/DAR/RE/ME/2021/03

Dated: 22-01-2021
 Dated: 22-01-2021

Tension Test Report (Page – 1/2)

Date of Test 27-01-2021
 Gauge length 2 inches
 Description MS Steel Pipe Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	MS Steel Pipe	4"x4"x3mm	25.30x3.00	75.90	2400	3200	310.20	413.60	0.70	35.00	Bashir Pipe
2			25.30x3.00	75.90	2400	3200	310.20	413.60	0.65	32.50	
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-	-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test											
Bend Test											

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Resident Engineer
 Dar Engineering
 Punjab Agriculture Food and Durg Authority's Science Enclave, Lahore Pakistan

Reference # CED/TFL **35977** (Dr. Ali Ahmed)
 Reference of the request letter # DB-78/DAR/RE/ME/2021/04

Dated: 22-01-2021
 Dated: 22-01-2021

Tension Test Report (Page – 2/2)

Date of Test 27-01-2021
 Gauge length 2 inches
 Description MS Angle Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)		(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	MS Angle	5x5x1/2	28.35x12.80	362.88	12100	20300	327.11	548.78	0.75	37.50	
2			28.35x12.80	362.88	11800	19300	319.00	521.75	0.70	35.00	
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-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test											
Bend Test											

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Ref: CED/TFL/01/35979

Dated: 22-01-2021

Dated of Test: 27-01-2021

To
Resident Engineer
NESPAK
Development of Infrastructure Works in Newly Planned Areas of LDA Avenue-I,
Housing Scheme, Lahore

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

Reference to your letter No. 2599/13/LDAAV-I/RK/05/028, dated 22.01.2021 on the subject cited above. Two 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)	(foot)	(foot)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.78	7.27	1.34	0.98	2.18	11000	18000	3416	5590
2	27	8.04	7.71	2.78	2.26	3.14	11740	23390	1485	2959

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To,
Resident Engineer / Team Leader
Prime Engineering Consultancy
Kallurkot Bridge Project
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **35987** (Dr. Ali Ahmed)
Reference of the request letter # KK-DIK-BR-PJ/2021/231

Dated: 26-01-2021
Dated: 25-01-2021

Tension Test Report (Page – 1/3)

Date of Test 27-01-2021
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	790.0	17500	171.68	19800	194.24	199	>3.50	xx
2	12.70 (1/2")	775.0	790.0	17900	175.60	19900	195.22	198	>3.50	xx
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-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
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.

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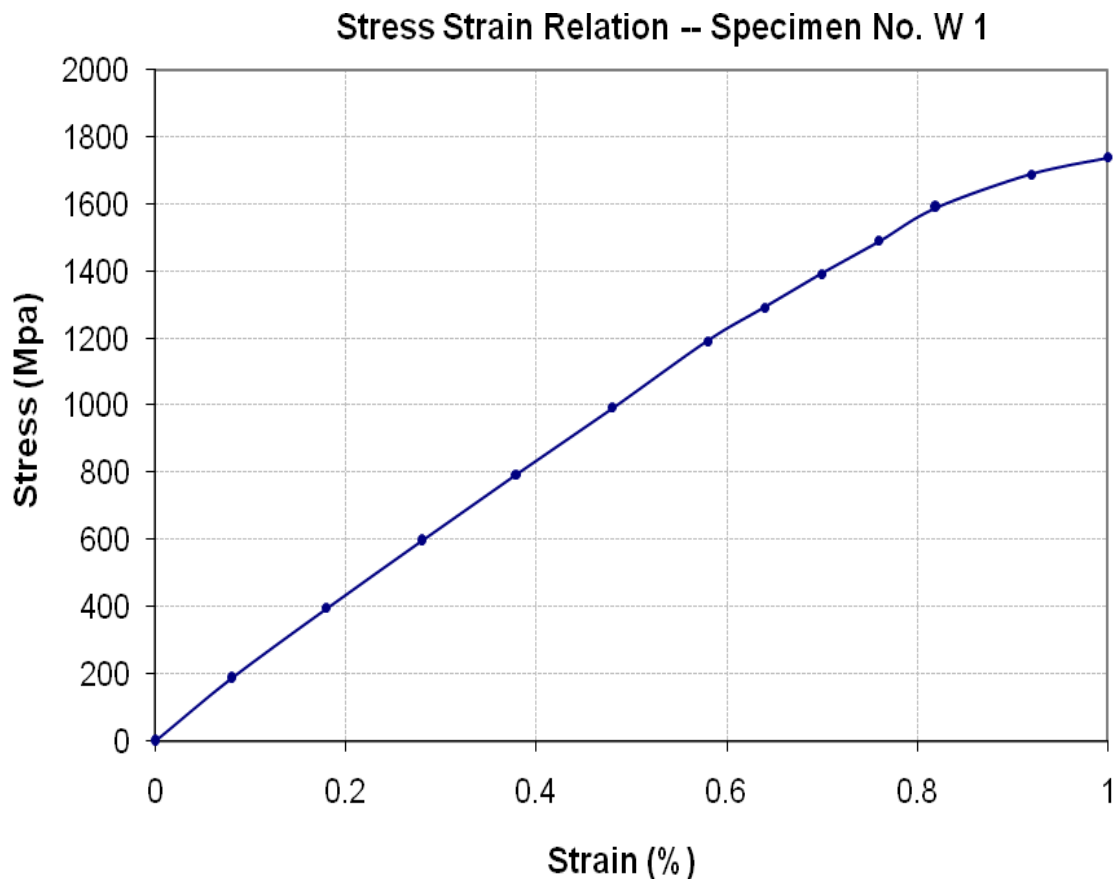
To,
Resident Engineer / Team Leader
Prime Engineering Consultancy
Kallurkot Bridge Project
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **35987** (Dr. Ali Ahmed)
Reference of the request letter # KK-DIK-BR-PJ/2021/231

Dated: 26-01-2021

Dated: 25-01-2021

Graph (Page – 2/3)



I/C Testing Laboratoires
UET Lahore, Pakistan.

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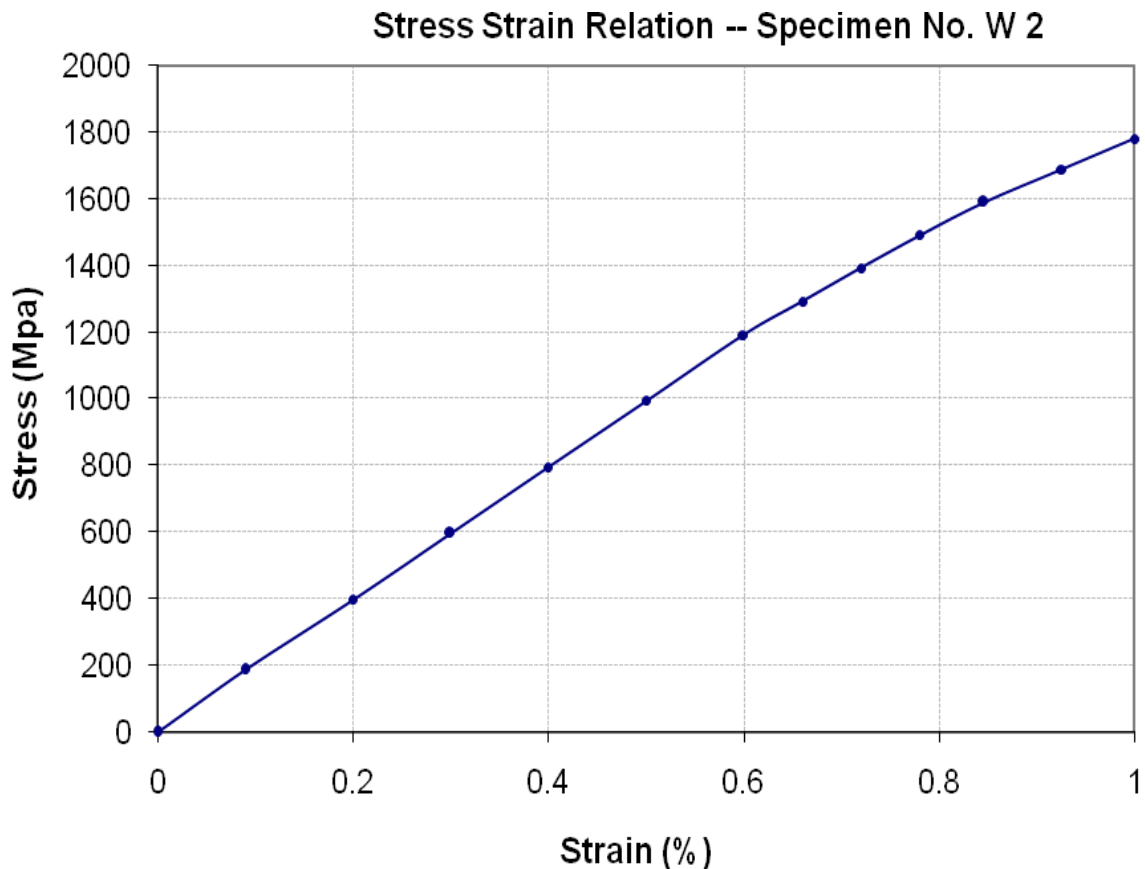
To,
Resident Engineer / Team Leader
Prime Engineering Consultancy
Kallurkot Bridge Project
Construction of 4 Lane Bridge over River Indus Connecting Kallur Kot with D.I Khan

Reference # CED/TFL **35987** (Dr. Ali Ahmed)
Reference of the request letter # KK-DIK-BR-PJ/2021/231

Dated: 26-01-2021

Dated: 25-01-2021

Graph (Page – 3/3)



I/C Testing Laboratories
UET Lahore, Pakistan.

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To,
 Project Engineer
 NETRACON Technologies (Pvt) Ltd
 Design, Manufacture, Supply, Installation, Testing and Commission of Plant for 500 / 220 / 132
 kV Faisalabad West Substation
 Reference # CED/TFL **35989** (Dr. M Rizwan Riaz) Dated: 26-01-2021
 Reference of the request letter # NTT-HO/FSDW-GS/040 Dated: 26-01-2021

Tension Test Report (Page -1/1)

Date of Test 27-01-2021
 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 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	0.368	3	0.371	0.11	0.108	3300	4900	66200	67210	98200	99800	1.50	18.8	
2	0.369	3	0.372	0.11	0.109	3400	5200	68200	69040	104200	105600	1.30	16.3	
3	0.371	3	0.373	0.11	0.109	3300	4900	66200	66610	98200	99000	1.50	18.8	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Sohaib Ali (Sub Engr. NESPAK)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Project Director, North-III
 PAEC-WASO
 "Construction of Archive Building at Chashma"

Reference # CED/TFL **35991** (Dr. Ali Ahmed)
 Reference of the request letter # PD(CH)/WASO/C-2/CAB/103/188

Dated: 26-01-2021
 Dated: 22-01-2021

Tension Test Report (Page -1/1)

Date of Test 27-01-2021
 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 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	0.390	3	0.382	0.11	0.115	3400	4700	68200	65290	94200	90300	1.10	13.8	Al-Moez Steel
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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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To,
 Project Director, North-III
 PAEC-WASO
 “Construction of Multi Storey Building for C-2 Warehouse at Chashma”

Reference # CED/TFL **35992** (Dr. Ali Ahmed) Dated: 26-01-2021
 Reference of the request letter # PD(CH)/WASO/C-2/CAB/97/18 Dated: 22-01-2021

Tension Test Report (Page -1/1)

Date of Test 27-01-2021
 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 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	0.367	3	0.371	0.11	0.108	3100	5000	62200	63340	100200	102200	1.30	16.3	Al-Moez Steel
2	0.380	3	0.377	0.11	0.112	3100	5000	62200	61100	100200	98600	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														

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To,
M/S Ittefaq Construction Associates
Johar Town, Lahore
(Construction of Commercial Plaza (S-42) Bahria Town Lahore)

Reference # CED/TFL **35994** (Dr. Ali Ahmed)
Reference of the request letter # ICS/H.O/A.M O.B/01

Dated: 26-01-2021
Dated: 26-01-2021

Tension Test Report (Page -1/1)

Date of Test 27-01-2021
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 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	0.377	3	0.376	0.11	0.111	3400	5100	68200	67660	102200	101500	1.40	17.5	
2	0.377	3	0.376	0.11	0.111	3700	5200	74200	73540	104200	103400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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Department of Civil Engineering
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To,
 General Manager
 New Mujahid ALCON Indus. Pvt Ltd.
 The Qube Lahore

Reference # CED/TFL **35995** (Dr. Ali Ahmed)
 Reference of the request letter # Nil

Dated: 26-01-2021
 Dated: 25-01-2021

Tension Test Report (Page -1/1)

Date of Test 27-01-2021
 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 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	3100	5000	62200	62590	100200	101000	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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