



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

To,
Manager
Al-Khawarizmi Institute of Computer Science
University of Engineering and Technology, Lahore
“Solarization of Lahore High Court” Under PEECA.

Reference # CED/TFL **4546** (Dr. M Kashif)
Reference of the request letter # kics-peecca/lhc-p1/002/Test

Dated: 24-01-2024
Dated: 17-01-2024

Tension Test Report (Page – 1/1)

Date of Test 30-01-2024
Gauge length 2 inches
Description Welded Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Breaking Load	Ultimate Stress	Elongation	% Elongation	Remarks
	---	(mm)	(mm ²)	(kg)	(MPa)	(inch)		
1	Welded Strip	33.30x2.90	96.57	5600	568.87	0.30	15.00	Failure at the location other than weld
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
Only one sample for tensile								
Bend Test								

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,

Assistant Resident Engineer
JERS Consultancy (Pvt) Ltd.
Improvement and Construction of Road and Chowks at Wazirabad City.

Reference # CED/TFL **4556** (Dr. Usman Akmal)
Reference of the request letter # 488-J01-ARE-/wzd/26

Dated: 26-01-2024
Dated: 24-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	0.369	3/8	0.372	0.11	0.108	3000	4800	60200	60990	96200	97600	1.30	16.3	
2	0.363	3/8	0.369	0.11	0.107	3000	4700	60200	61990	94200	97200	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
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,
 Garrison Engineer (Army)-1
 Sialkot
 (Const of 8 x Sldrs Flats (G+3) Block No. 1 & 2, 1 AK Regt HQ 15 Div SLK Cantt.)

Reference # CED/TFL **4557** (Dr. Usman Akmal)
 Reference of the request letter # 6002/05/E-6

Dated: 26-01-2024
 Dated: 15-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
 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	0.376	3/8	0.375	0.11	0.111	3400	5300	68200	67760	106200	105700	1.10	13.8	
2	0.398	3/8	0.386	0.11	0.117	3800	5600	76200	71680	112300	105700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples for bend test														
Bend Test														
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
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To,

Sub Divisional Officer
Highway Sub Division
Shujabad

“Construction of Flyover at Railway Phatakj Chak RS Shujabad Expressway Length = 1.08 km District Multan”

Reference # CED/TFL **4559** (Dr. M Kashif)

Dated: 26-01-2024

Reference of the request letter # 69

Dated: 13-12-2023

Tension Test Report (Page -1/2)

Date of Test 30-01-2024

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	780.0	17700	173.64	19300	189.33	198	>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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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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To,

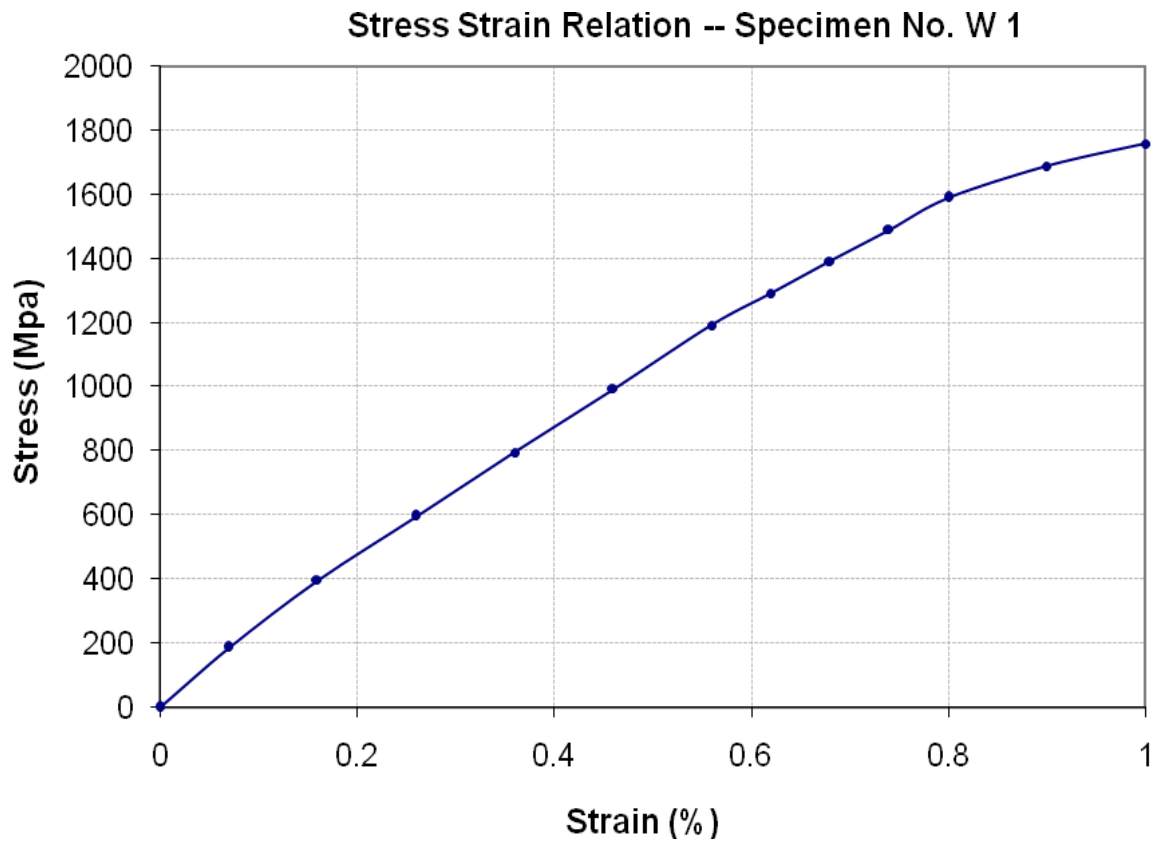
Sub Divisional Officer
Highway Sub Division
Shujabad

“Construction of Flyover at Railway Phatakj Chak RS Shujabad Expressway Length =
1.08 km District Multan”

Reference # CED/TFL **4559** (Dr. M Kashif)
Reference of the request letter # 69

Dated: 26-01-2024
Dated: 13-12-2023

Graph (Page – 2/2)



I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,

Executive Engineer
Highway Division Okara
Okara
(Rehabilitation of Depalpur - Haveli Lakha Road via Bhuman Shah & Wasawawala
Length = 24.50 km Tehsil Depalpur District Okara.)

Reference # CED/TFL **4560** (Dr. Usman Akmal)
Reference of the request letter # 362/CB

Dated: 26-01-2024
Dated: 01-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	0.377	3	0.376	0.11	0.111	3800	5200	76200	75560	104200	103400	1.20	15.0	
2	0.377	3	0.375	0.11	0.111	3800	5200	76200	75640	104200	103600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

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/01/4562

Dated: 29-01-2024

Dated of Test: 30-01-2024

To

Resident Engineer
NESPAK
Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/4562) (Page -1/2)

Reference to your Letter No.4699/ERAF/AS/24/061, dated: 23/01/2024 on the subject cited above. One Hydraulic Jack (Jack No. 313, Gauge No. AES-313) as received by us has been calibrated. The results are tabulated as under:

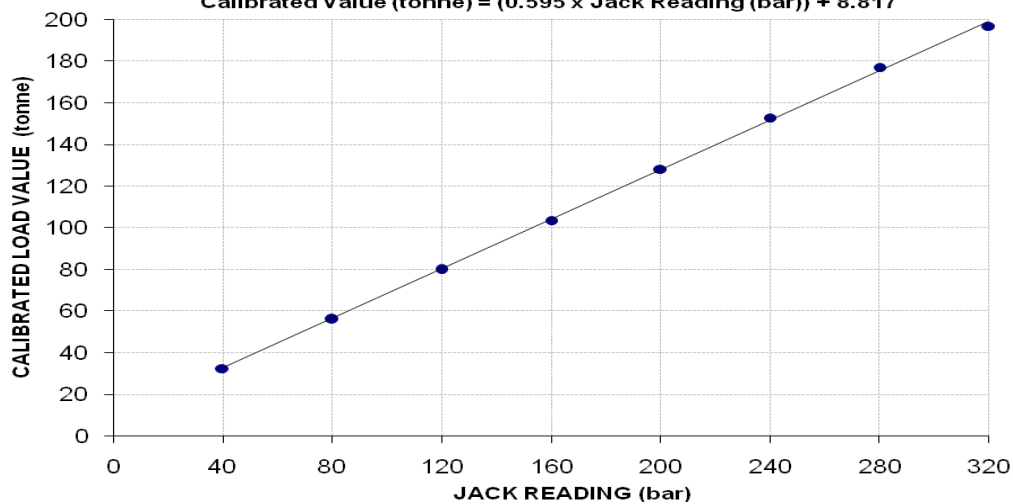
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 320 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	320	
Calibrated Load	(kg)	32400	56200	80000	103600	128200	152900	177200	196800
	(tonne)	32.40	56.20	80.00	103.60	128.20	152.90	177.20	196.80
Calibrated Pressure (bar)	53	92	130	169	209	249	289	321	

The Ram Area of Jack = 602.09 cm²

Calibration Curve For Jack No. 313

Calibrated Value (tonne) = (0.595 x Jack Reading (bar)) + 8.817



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/01/4562

Dated: 29-01-2024

Dated of Test: 30-01-2024

To

Resident Engineer
NESPAK
Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad

Subject: - CALIBRATION OF HYDRAULIC JACK (MARK: TFL/01/4562) (Page -2/2)

Reference to your Letter No.4699/ERAF/AS/24/061, dated: 23/01/2024 on the subject cited above. One Hydraulic Jack (Jack No. 314, Gauge No. AES-314) as received by us has been calibrated. The results are tabulated as under:

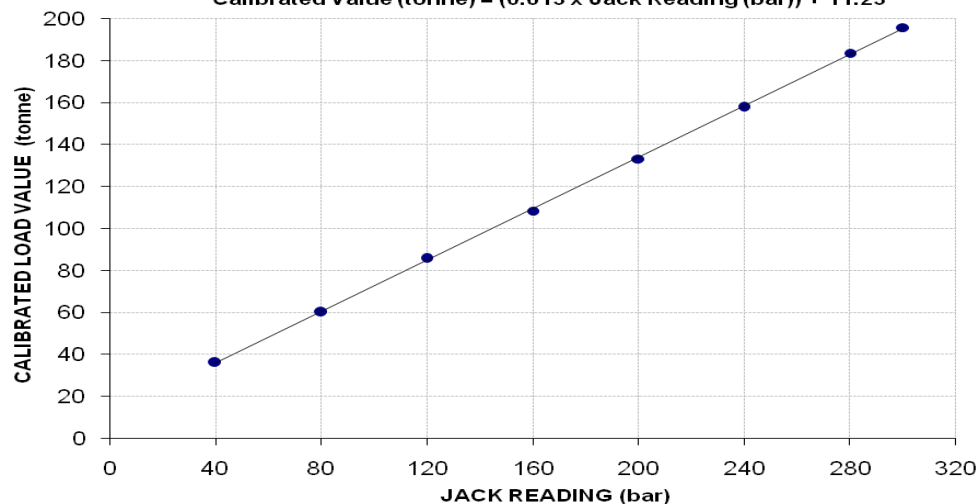
Total Range : Zero - 1000 (bar)
Calibrated Range : Zero - 300 (bar)

Hydraulic Jack Reading (bar)	40	80	120	160	200	240	280	300	
Calibrated Load	(kg)	36100	60200	85800	108400	133200	157800	183600	195800
	(tonne)	36.10	60.20	85.80	108.40	133.20	157.80	183.60	195.80
Calibrated Pressure (bar)	59	98	140	177	217	257	299	319	

The Ram Area of Jack = 602.09 cm²

Calibration Curve For Jack No. 314

Calibrated Value (tonne) = (0.613 × Jack Reading (bar)) + 11.23



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,

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 **4563** (Dr. Usman Akmal)

Dated: 29-01-2024

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/152

Dated: 13-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
 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	0.366	3	0.370	0.11	0.108	3300	5300	66200	67520	106200	108500	1.10	13.8	Bata Permium
2	0.366	3	0.370	0.11	0.108	3300	5300	66200	67610	106200	108600	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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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 **4564** (Dr. Usman Akmal)

Dated: 29-01-2024

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/156

Dated: 15-01-2024

Tension Test Report (Page -1/1)

Date of Test

30-01-2024

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	0.369	3	0.371	0.11	0.108	3400	5300	68200	69140	106200	107800	1.50	18.8	Markhor Steel
2	0.365	3	0.370	0.11	0.107	3400	5300	68200	69860	106200	108900	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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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 **4565** (Dr. M Kashif)

Dated: 29-01-2024

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/165

Dated: 16-01-2024

Tension Test Report (Page -1/1)

Date of Test

30-01-2024

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	4.211	10	1.255	1.27	1.238	36600	57000	63600	65170	99000	101500	1.40	17.5	Markhor Steel
2	4.198	10	1.253	1.27	1.234	36600	57400	63600	65380	99700	102600	1.60	20.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#10 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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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 **4566** (Dr. Usman Akmal)

Dated: 29-01-2024

Reference of the request letter # 3772/103/NBI(P-I)/MWA/04/107

Dated: 11-12-2023

Tension Test Report (Page -1/1)

Date of Test 30-01-2024

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	4.077	10	1.235	1.27	1.198	38600	57800	67000	70990	100400	106300	1.10	13.8	Bata Permium
2	3.969	10	1.219	1.27	1.167	38800	58000	67400	73310	100700	109600	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#10 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
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To,

Sub Divisional Officer
Buildings Sub Division No. 15
Lahore
(Addition / Alteration to District Courts, Lahore(Construction of O.H.R))

Reference # CED/TFL **4567** (Dr. Usman Akmal)
Reference of the request letter # 91

Dated: 29-01-2024
Dated: 24-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	0.375	3	0.374	0.11	0.110	3500	4700	70200	70070	94200	94100	1.60	20.0	
2	0.376	3	0.375	0.11	0.111	3500	4800	70200	69780	96200	95700	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples 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
M/S High-Q Constructions
Construction of High-Q Mall at 3-A, Gulberg II, Lahore.

Reference # CED/TFL **4568** (Dr. Usman Akmal)
Reference of the request letter # QC/HQ/CIVIL/179

Dated: 29-01-2024
Dated: 29-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	0.411	10	9.97	0.12	0.121	4000	5400	73487	72920	99207	98500	1.10	13.8	
2	0.399	10	9.82	0.12	0.117	4000	5300	73487	75120	97370	99600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample 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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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

Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad

Reference # CED/TFL **4569** (Dr. M Kashif)

Dated: 29-01-2024

Reference of the request letter # 4699/ERAF/AS/24/062

Dated: 24-01-2024

Tension Test Report (Page -1/4)

Date of Test 30-01-2024

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	4.272	10	1.264	1.27	1.256	37000	61800	64300	64940	107300	108500	1.40	17.5	Aziz Steel
2	4.278	10	1.265	1.27	1.258	37000	61800	64300	64850	107300	108400	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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:

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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

Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad

Reference # CED/TFL **4569** (Dr. M Kashif)

Dated: 29-01-2024

Reference of the request letter # 4699/ERAF/AS/24/055

Dated: 18-01-2024

Tension Test Report (Page -2/4)

Date of Test 30-01-2024

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	4.056	10	1.232	1.27	1.192	40400	52800	70200	74700	91700	97700	1.60	20.0	Eithad Steel
2	4.061	10	1.233	1.27	1.194	41200	52600	71500	76070	91300	97200	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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:

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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
Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad
(WMI)

Reference # CED/TFL **4569** (Dr. M Kashif)
Reference of the request letter # 4699/ERAF/AS/24/054

Dated: 29-01-2024
Dated: 17-01-2024

Tension Test Report (Page -3/4)

Date of Test 30-01-2024
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	780.0	18100	177.56	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.

Note:

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

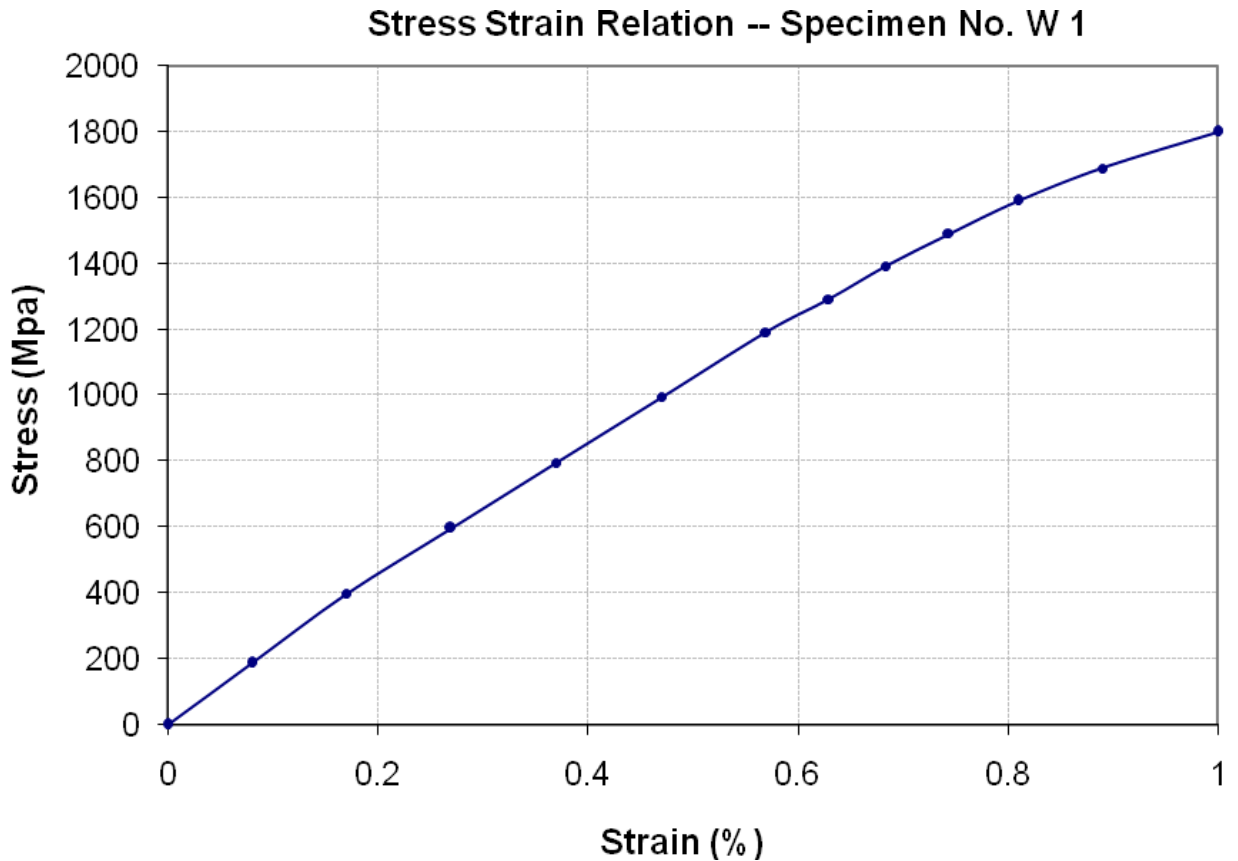
To,

Resident Engineer
NESPAK
Provision of Exit Ramp / Flyover from Existing Abdullahpur Flyover, Faisalabad
(WMI)

Reference # CED/TFL **4569** (Dr. M Kashif)
Reference of the request letter # 4699/ERAF/AS/24/054

Dated: 29-01-2024
Dated: 17-01-2024

Graph (Page – 4/4)



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,
Director Project
Innovative (R) Construction Company
Construction of Allied Bank Sargodha.

Reference # CED/TFL **4570** (Dr. Usman Akmal)
Reference of the request letter # ICL/ABL Sargodha

Dated: 29-01-2024
Dated: 29-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	3600	4800	72200	72280	96200	96400	1.40	17.5	
2	0.375	3	0.375	0.11	0.110	3600	4800	72200	72020	96200	96100	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one samples 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,
Engineer
Dy Dir Infra
Defence Housing Authority, Gujranwala
“Sec C”

Reference # CED/TFL **4571** (Dr. Usman Akmal)
Reference of the request letter # 111/15/DD/RS/Lab/Pkg-2A/1986

Dated: 29-01-2024
Dated: 29-01-2024

Tension Test Report (Page -1/1)

Date of Test 30-01-2024
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	0.377	3	0.376	0.11	0.111	3200	5000	64200	63610	100200	99400	1.20	15.0	Makhor Steel
2	0.396	3	0.385	0.11	0.117	3500	5300	70200	66220	106200	100300	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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,

Project Engineer (Electrical)
Prosperity Consultants
Design, Manufacture, Supply, Erection, Testing and Commissioning on EPC / Turkey
Basis of 132/11.50 kV (GIS) Grid Station # 1 DHA, Gujranwala.

Reference # CED/TFL **4582** (Dr. Asad Ali)
Reference of the request letter # DHA GUJ/GRID/876

Dated: 30-01-2024
Dated: 29-01-2024

Tension Test Report (Page # 1/1)

Date of Test 30-01-2024
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	0.376	3	0.375	0.11	0.110	3280	4640	65800	65490	93000	92700	0.90	11.3	SJ Steel
2	0.378	3	0.376	0.11	0.111	3310	4760	66400	65620	95400	94400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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