



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
PEAS Consulting & Jv,
Islamabad
(Paradise City Bridge.)

Reference # CED/TFL **5023** (Dr. Usman Akmal)
Reference of the request letter # PEAS/Paradise/2024/08

Dated: 06-05-2024
Dated: 06-05-2024

Tension Test Report (Page -1/3)

Date of Test 07-05-2024
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	18300	179.52	19800	194.24	198	>3.50	4429
2	12.70 (1/2")	780.0	785.0	18100	177.56	19800	194.24	199	>3.50	4434
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	

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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To,

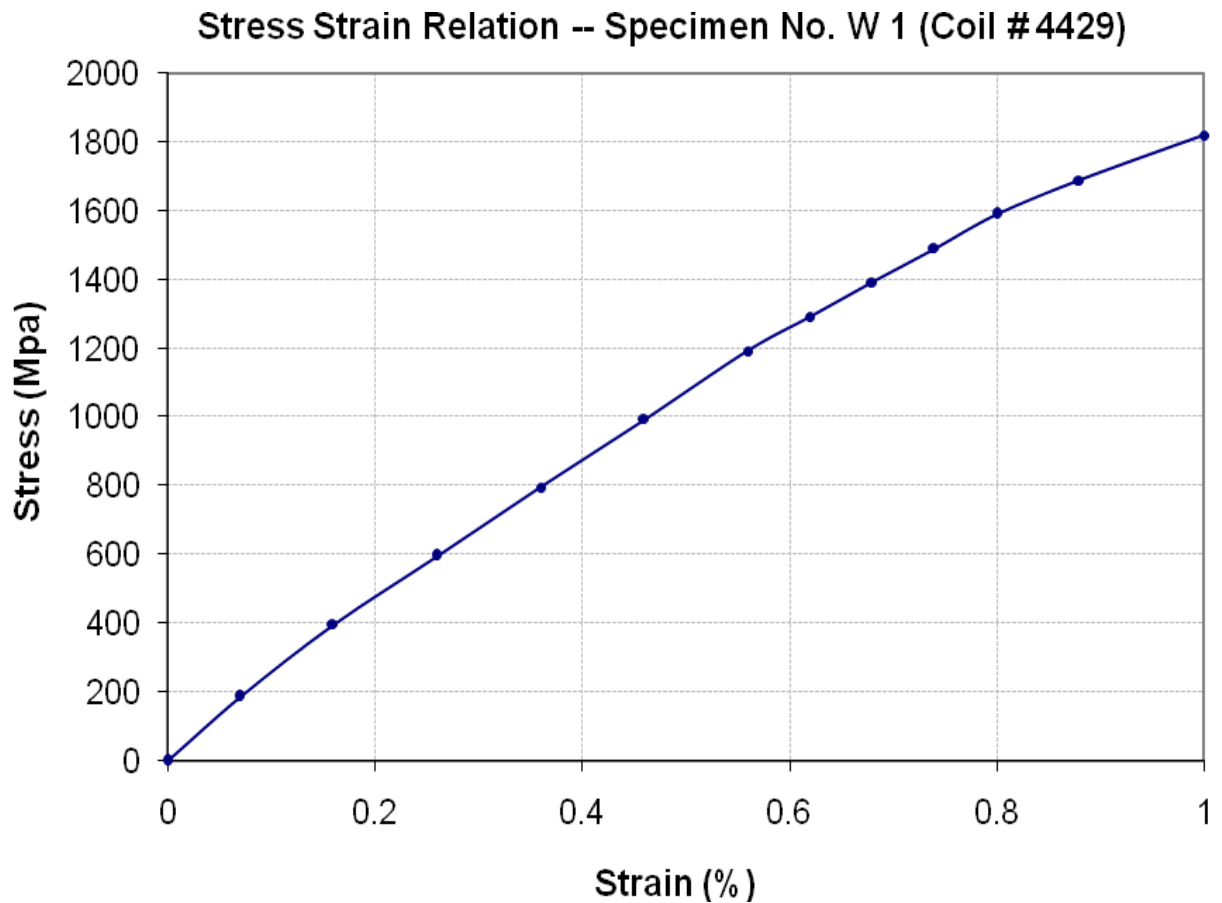
Assistant Resident Engineer
PEAS Consulting & Jv,
Islamabad
(Paradise City Bridge.)

Reference # CED/TFL **5023** (Dr. Usman Akmal)
Reference of the request letter # PEAS/Paradise/2024/08

Dated: 06-05-2024

Dated: 06-05-2024

Graph (Page – 2/3)



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To,

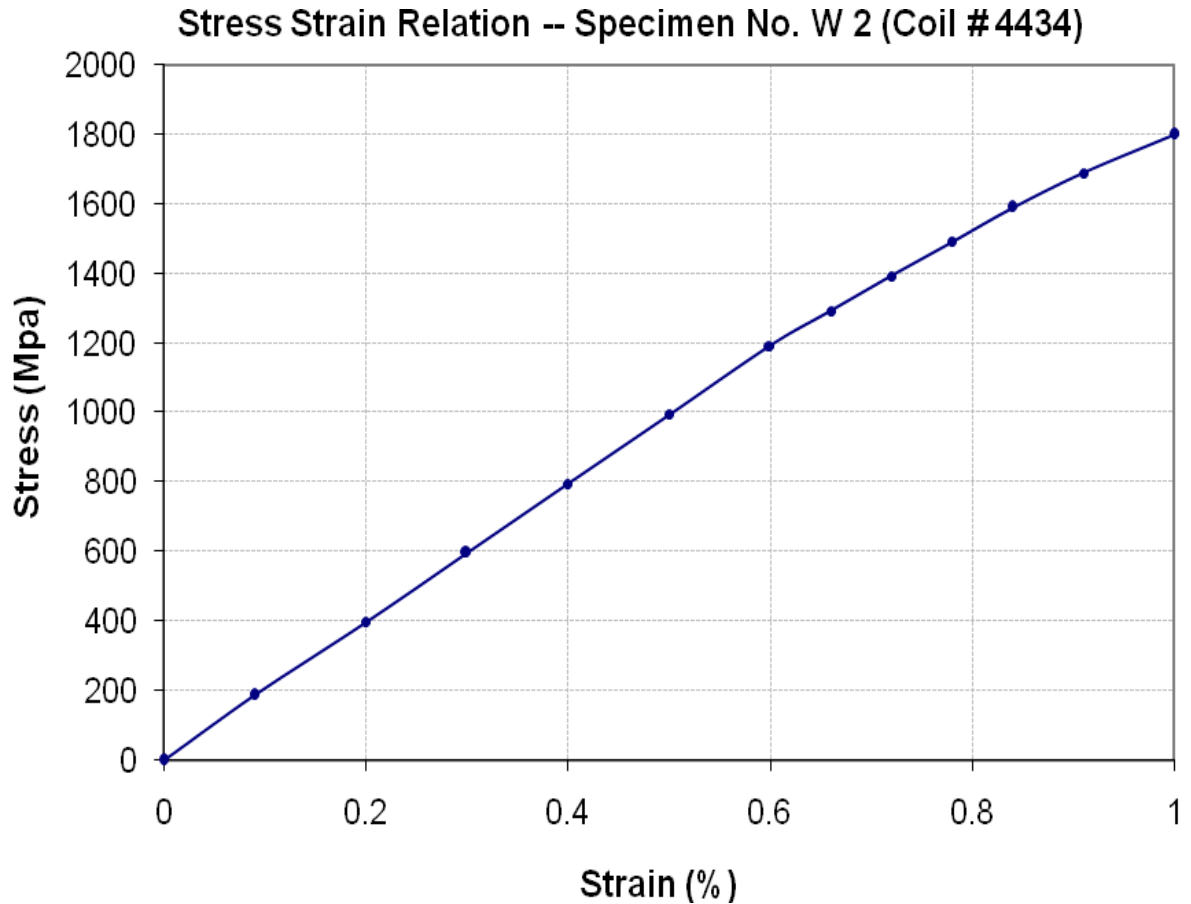
Assistant Resident Engineer
PEAS Consulting & Jv,
Islamabad
(Paradise City Bridge.)

Reference # CED/TFL **5023** (Dr. Usman Akmal)
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Dated: 06-05-2024

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Graph (Page – 3/3)



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To,

Assistant Executive Engineer-II,
CCD, PAK.PWD. Gujranwala
(Establishment of Commandant Office at NHMP Training College Sheikhpura (Phase III) (Deposit Work)

Reference # CED/TFL **5026** (Dr. Usman Akmal)

Dated: 06-05-2024

Reference of the request letter # AEE/CCD/GA/Work/NHMP/P-III/Lab/34-ADated: 30-04-2024

Tension Test Report (Page -1/1)

Date of Test 07-05-2024

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	0.364	3	0.369	0.11	0.107	3400	4700	68200	70060	94200	96900	1.50	18.8	
2	0.365	3	0.370	0.11	0.107	3300	4600	66200	67800	92200	94500	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.

Note:

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STRUCTURAL ENGINEERING DIVISION
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To,
Abid Aziz
Lahore

Reference # CED/TFL **5027** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 06-05-2024
Dated: 06-05-2024

Tension Test Report (Page – 1/1)

Date of Test 07-05-2024
Description Steel Wire Rope Tensile Test

Sr. No.	Nominal Diameter	Measured weight	Breaking Load	Remarks / Coil No.
	(mm)	(kg/m)	(kg)	
1	14	0.73	9800	American
2	14	0.75	12800	
-	-	-	-	
-	-	-	-	
-	-	-	-	
Only two samples for Test				

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STRUCTURAL ENGINEERING DIVISION
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To,

Material Engineer
NESPAK – EPCM Consultants
Punjab Intermediate Cities Improvement Investment Program (PICIIP)
Consultancy Services for Engineering, Procurement and Construction Management
Trunk Main Sewer Conduit, Effluent Pumping Station and Allied Worked
(NBC-WORKS/PICIIP-03 (LOT-3))

Reference # CED/TFL **5028** (Dr. Usman Akmal)

Dated: 06-05-2024

Reference of the request letter # 3976/11/MIA/SWL/Lot-3/1227

Dated: 04-05-2024

Tension Test Report (Page -1/1)

Date of Test 07-05-2024

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	0.369	3	0.371	0.11	0.108	3400	4600	68200	69180	92200	93600	1.10	13.8	Sheikho Steel
2	0.376	3	0.375	0.11	0.110	3500	4700	70200	69870	94200	93900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 Laboratoires
UET Lahore, Pakistan.

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To,

M/S Uzair & Co.
 Lahore
 (Construction of 2No Class Rooms at TCF Secondary School, Awan Dhaiwala, Lahore)

Reference # CED/TFL **5029** (Dr. Usman Akmal)
 Reference of the request letter # Nil

Dated: 06-05-2024
 Dated: 06-05-2024

Tension Test Report (Page -1/1)

Date of Test 07-05-2024
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile 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	0.381	3/8	0.377	0.11	0.112	3400	5200	68200	66980	104200	102500	1.10	13.8	Ittefaq Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,

Project Manager
HMB Developers (Pvt) Ltd.
Lahore.

Reference # CED/TFL **5030** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 06-05-2024
Dated: 06-05-2024

Tension Test Report (Page -1/1)

Date of Test 07-05-2024
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	0.374	3	0.374	0.11	0.110	3400	4600	68200	68120	92200	92200	1.20	15.0	
2	0.373	3	0.373	0.11	0.110	3400	4600	68200	68430	92200	92600	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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To,

Executive Director / Secretary
Lahore Diocesan Board of Education
“St. Denys’ High School, Muree Phase III (Part II).”

Reference # CED/TFL **5031** (Dr. Asad Ali)
Reference of the request letter # COORD/124/57/BLDG

Dated: 07-05-2024
Dated: 02-05-2024

Tension Test Report (Page # 1/1)

Date of Test 07-05-2024
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	0.372	3/8	0.373	0.11	0.109	3060	4710	61400	61690	94400	95000	1.10	13.8	
2	0.371	3/8	0.373	0.11	0.109	3080	4690	61800	62250	94000	94800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,
M/S HSM Engineering
Gujranwala
(Construction of Shed at SDF, Chiniot.)

Reference # CED/TFL **5032** (Dr. Asad Ali)
Reference of the request letter # Nil

Dated: 07-05-2024
Dated: 07-05-2024

Tension Test Report (Page # 1/1)

Date of Test 07-05-2024
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	0.384	3	0.379	0.11	0.113	3520	5010	70600	68710	100400	97800	1.20	15.0	
2	0.383	3	0.379	0.11	0.113	3540	5050	71000	69240	101200	98800	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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To,
 Resident Engineer
 Shahzad Ayub Associates (SAA)
 New Metro City Srai Alamgir

Reference # CED/TFL **5043, 5044** (Dr. Ali Ahmed)
 Reference of the request letter # SAA-St-Rep-019

Dated: 07-05-2024
 Dated: 05-05-2024

Tension Test Report (Page -1/1)

Date of Test 07-05-2024
 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	0.405	3	0.390	0.11	0.119	4130	5420	82800	76380	108600	100300	1.00	12.5	FF Steel
2	0.394	3	0.384	0.11	0.116	4100	5350	82200	78020	107200	101900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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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