



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

To,

Engr. Khalid Rizwan Gandapur
Minconsult SDN BHD, Creative Engineering Consultants JV
Khyber Pakhtunkhwa Rural Assessibility Project KP-RAP Rehabilitation and
Improvement 04-Nos Roads of 28.80 km Length Package-V Lot-1 Distt D.I. Khan.

Reference # CED/TFL **6675** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # KP-RAP/RE/P-5-34

Dated: 06-03-2025

Tension Test Report (Page -1/2)

Date of Test 17-03-2025

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	782.0	17700	173.64	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:

- 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,

Engr. Khalid Rizwan Gandapur
Minconsult SDN BHD, Creative Engineering Consultants JV
Khyber Pakhtunkhwa Rural Assessibility Project KP-RAP Rehabilitation and
Improvement 04-Nos Roads of 28.80 km Length Package-V Lot-1 Distt D.I. Khan.

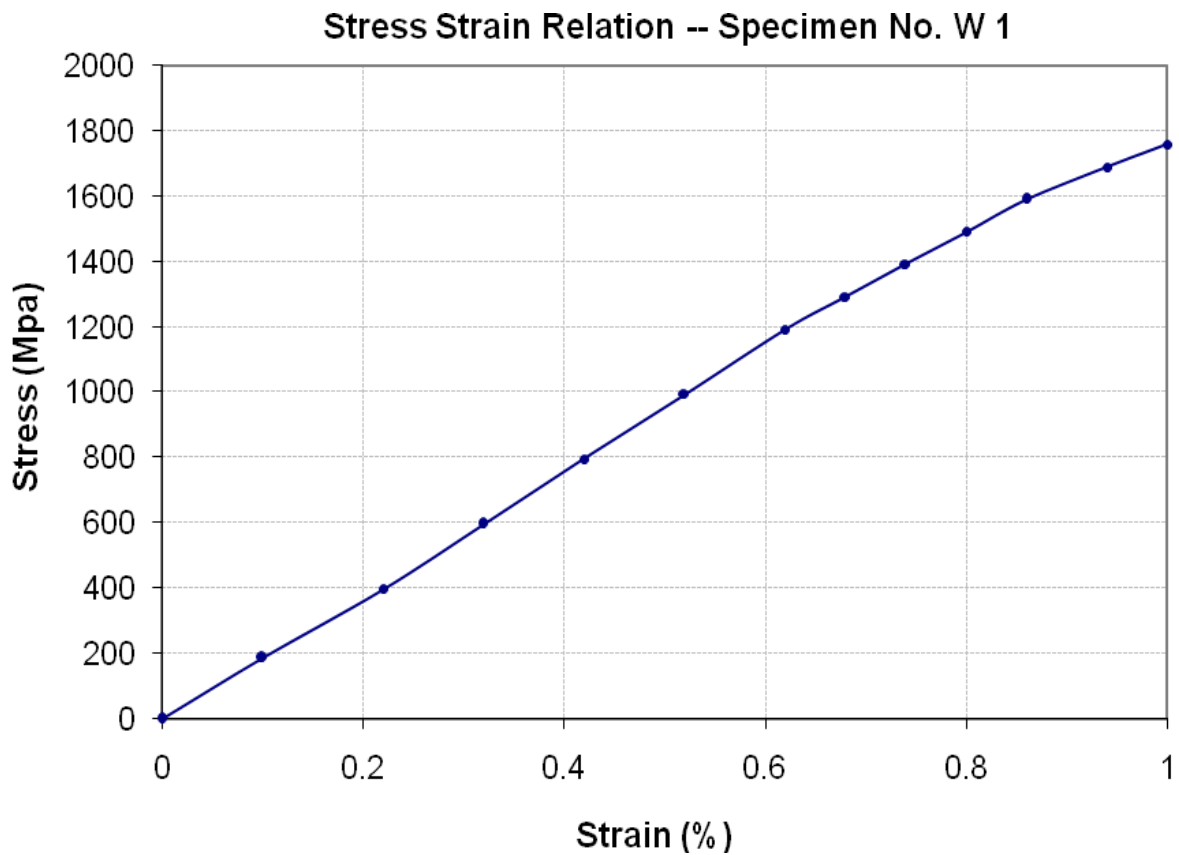
Reference # CED/TFL **6675** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # KP-RAP/RE/P-5-34

Dated: 06-03-2025

Graph (Page – 2/2)



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,

Amir Haider
Deputy Director (Maintenance)
National Highway Authority, Sahiwal
(Geometric Improvement of Intersections at McDonalds Chowk (km 08+900) Sahiwal
Bypass, Royal / KFC Chowk (km 0+300) Sahiwal including Widening of Canal Bridge
Both Sides (NBC & SBC), Additional Slip Lanes and U-Turns.

Reference # CED/TFL **6673** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # DD(Maint)/SWL/PS/NHA/2025/324

Dated: 06-03-2025

Tension Test Report (Page -1/4)

Date of Test 17-03-2025

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	785.0	18700	183.45	20200	198.16	198	>3.50	xx
2	12.70 (1/2")	780.0	785.0	18500	181.49	20100	197.18	199	>3.50	xx
3	12.70 (1/2")	780.0	784.0	17800	174.62	20200	198.16	199	>3.50	xx
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only three 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 Laboratories
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,

Amir Haider
Deputy Director (Maintenance)
National Highway Authority, Sahiwal
(Geometric Improvement of Intersections at McDonalds Chowk (km 08+900) Sahiwal
Bypass, Royal / KFC Chowk (km 0+300) Sahiwal including Widening of Canal Bridge
Both Sides (NBC & SBC), Additional Slip Lanes and U-Turns.

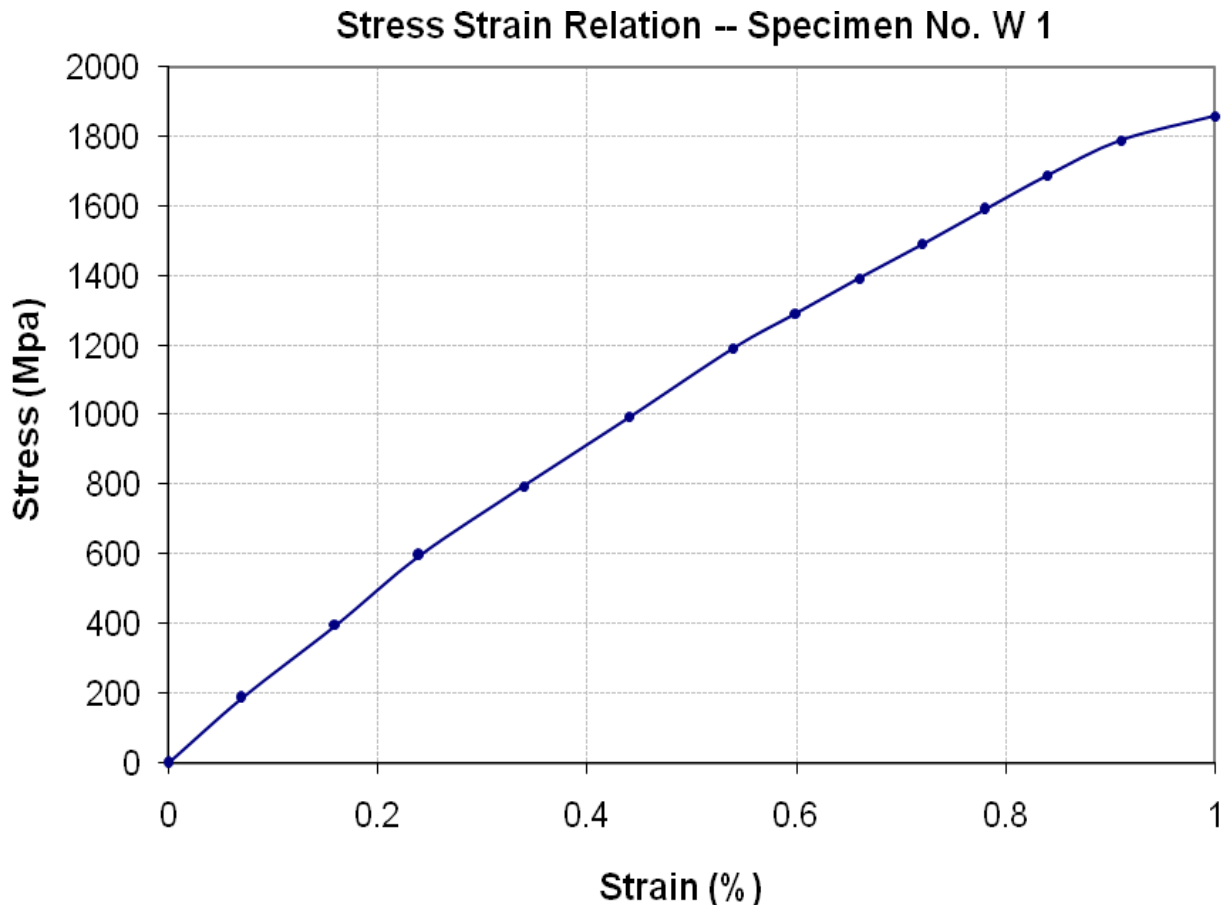
Reference # CED/TFL **6673** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # DD(Maint)/SWL/PS/NHA/2025/324

Dated: 06-03-2025

Graph (Page – 2/4)



I/C Testing Laboratories
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,

Amir Haider
Deputy Director (Maintenance)
National Highway Authority, Sahiwal
(Geometric Improvement of Intersections at McDonalds Chowk (km 08+900) Sahiwal
Bypass, Royal / KFC Chowk (km 0+300) Sahiwal including Widening of Canal Bridge
Both Sides (NBC & SBC), Additional Slip Lanes and U-Turns.

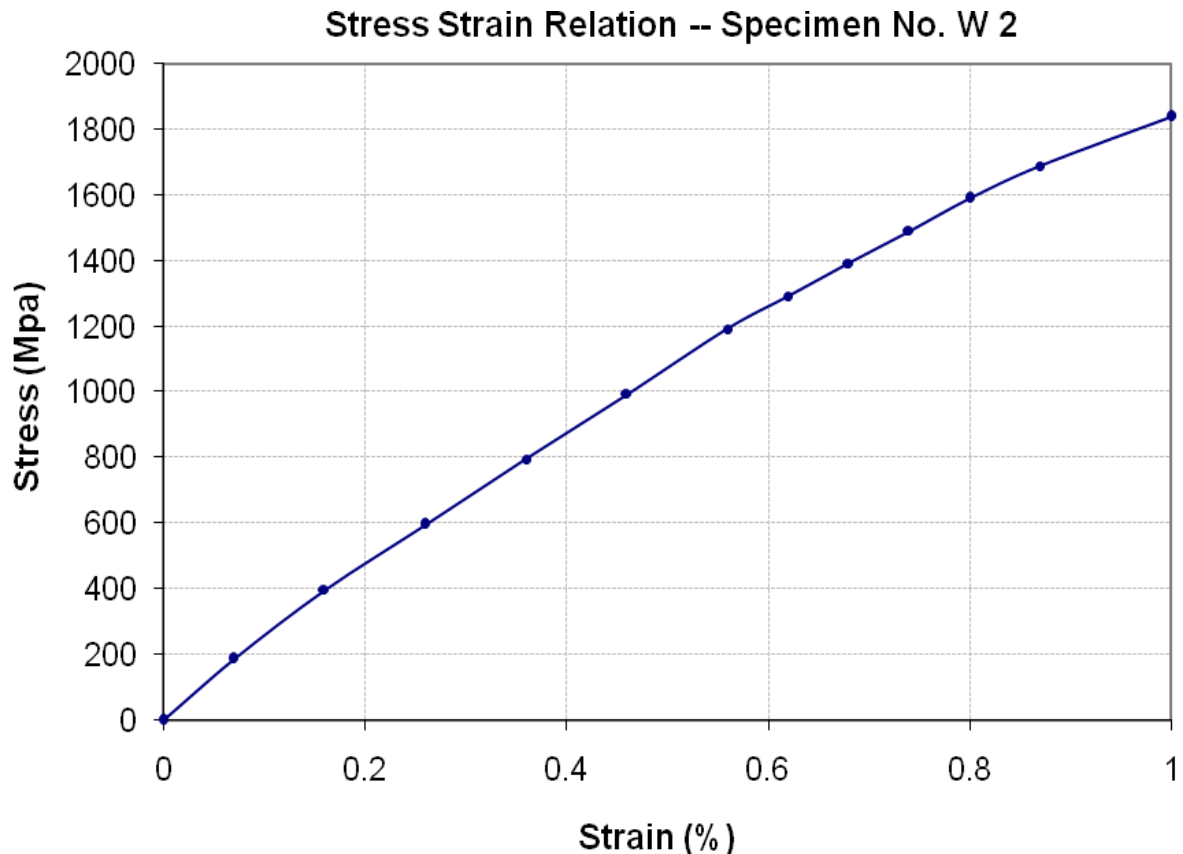
Reference # CED/TFL **6673** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # DD(Maint)/SWL/PS/NHA/2025/324

Dated: 06-03-2025

Graph (Page – 3/4)



I/C Testing Laboratories
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,

Amir Haider
Deputy Director (Maintenance)
National Highway Authority, Sahiwal
(Geometric Improvement of Intersections at McDonalds Chowk (km 08+900) Sahiwal
Bypass, Royal / KFC Chowk (km 0+300) Sahiwal including Widening of Canal Bridge
Both Sides (NBC & SBC), Additional Slip Lanes and U-Turns.

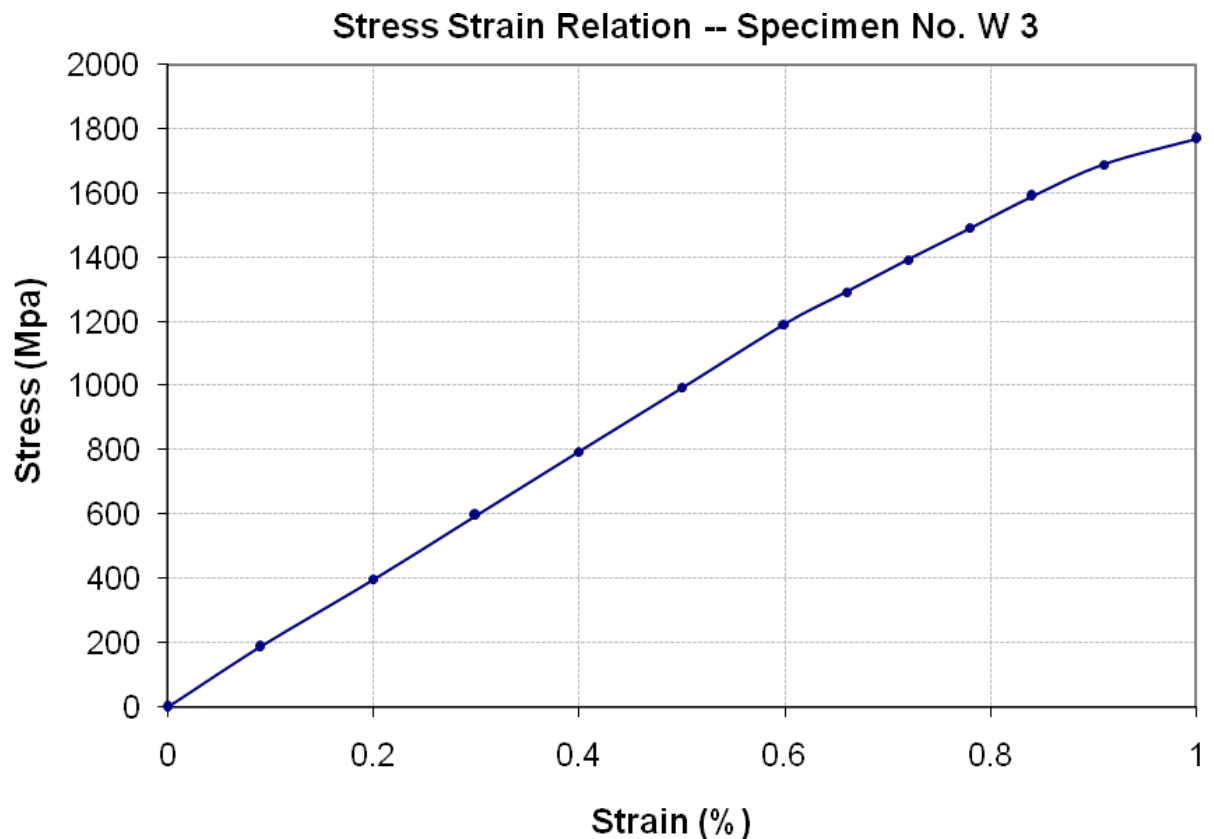
Reference # CED/TFL **6673** (Dr. M Kashif)

Dated: 10-03-2025

Reference of the request letter # DD(Maint)/SWL/PS/NHA/2025/324

Dated: 06-03-2025

Graph (Page – 4/4)



I/C Testing Laboratories
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,

Resident Engineer

CAMEOS jv HES, NIES, The Group of Engineers

Construction of Flyover at the Junction of N-5 and N-65 Sukkar.(NHA)(WMI)

Reference # CED/TFL **6696** (Dr. M Kashif)

Dated: 12-03-2025

Reference of the request letter # CFJN5, 65/RE/045

Dated: 08-03-2025

Tension Test Report (Page -1/3)

Date of Test 17-03-2025

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	15.24 (0.6")	1102.0	1107.0	24200	237.40	27300	267.81	199	>3.50	7297
2	15.24 (0.6")	1102.0	1107.0	24300	238.38	27100	265.85	199	>3.50	7305
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
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:

- 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,

Resident Engineer
CAMEOS jv HES, NIES, The Group of Engineers
Construction of Flyover at the Junction of N-5 and N-65 Sukkar.
(NHA)(WMI)

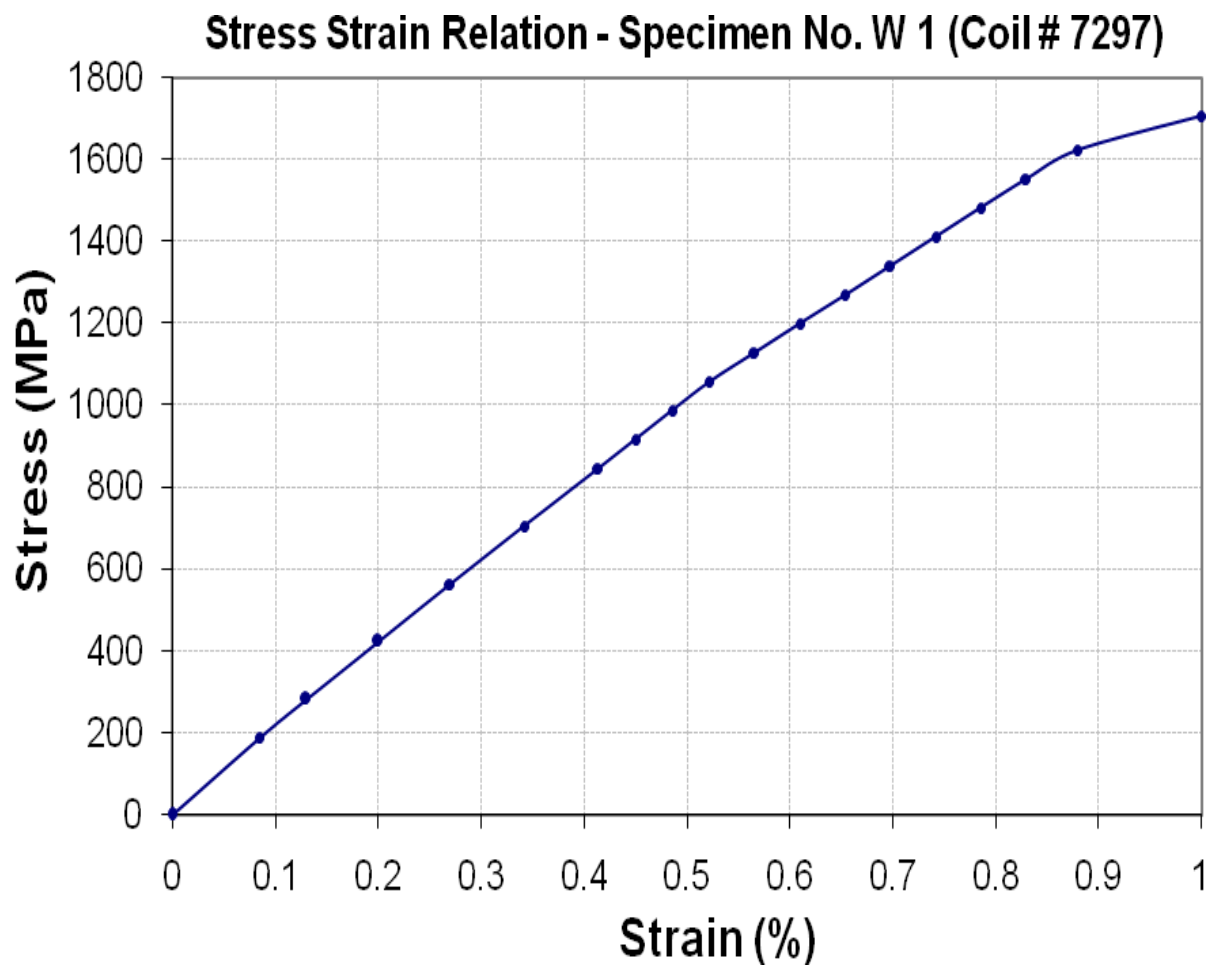
Reference # CED/TFL **6696** (Dr. M Kashif)

Reference of the request letter # CFJN5, 65/RE/045

Dated: 12-03-2025

Dated: 08-03-2025

Graph (Page – 2/3)



I/C Testing Laboratories
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,

Resident Engineer

CAMEOS JV HES, NIES, The Group of Engineers

Construction of Flyover at the Junction of N-5 and N-65 Sukkar. (NHA)(WMI)

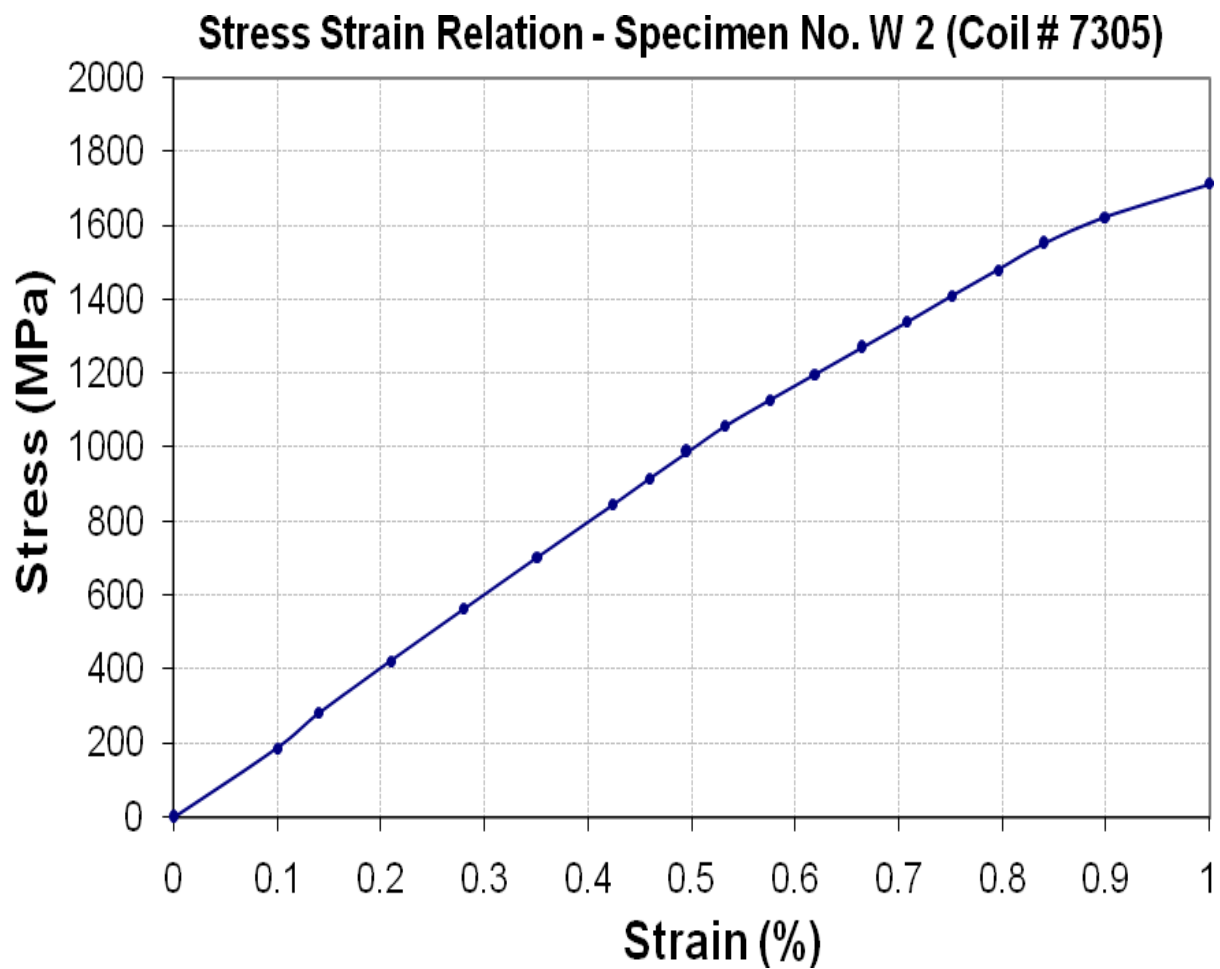
Reference # CED/TFL **6696** (Dr. M Kashif)

Dated: 12-03-2025

Reference of the request letter # CFJN5, 65/RE/045

Dated: 08-03-2025

Graph (Page – 3/3)



I/C Testing Laboratories
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,

M/S Rizwan Nazir Consulting Engineers
Lahore

Reference # CED/TFL **6711** (Dr. M Kashif)
Reference of the request letter # Nil

Dated: 14-03-2025

Dated: 14-03-2025

Tension Test Report (Page – 1/1)

Date of Test 17-03-2025

Gauge length 2 inches

Description Steel Plate 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
	(mm)	(mm)	(mm ²)	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	10	29.00x9.50	275.50	95.70	139.70	347	507	0.90	45.00	
2	12	29.10x11.10	323.01	119.20	166.50	369	515	0.80	40.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples 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
- 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,

Muhammad Ahsan Ali
Resident Engineer, NESPAK
Infrastructure Development at Chahar Bagh Under Ravi Riverfront Urban Development
Project.

Reference # CED/TFL **6712** (Dr. M Kashif)
Reference of the request letter # 4559/13/MAA/09/501

Dated: 14-03-2025
Dated: 12-03-2025

Tension Test Report (Page – 1/1)

Date of Test 17-03-2025
Gauge length 2 inches
Description Steel Plate Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)	(mm)	(mm ²)	(kN)	(kN)	(MPa)	(MPa)	(in)		
1	Street Light Pole	25.60x4.00	102.40	44.20	55.50	432	542	0.80	40.00	
2	Base Plate	25.90x19.20	497.28	190.00	250.00	382	503	1.00	50.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

I/C Testing Laboratories
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,

M/S Asim Builders
 Sapphire Fibres Ltd-03
 Packing Shed Civil Work

Reference # CED/TFL **6713 (Dr. Asad Ali)**
 Reference of the request letter # Nil

Dated: 17-03-2025
 Dated: 15-03-2025

Tension Test Report (Page -1/1)

Date of Test 17-03-2025
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		Area (in ²)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.405	10	9.89	0.12	0.119	3840	4840	70547	71060	88919	89600	1.00	12.5	
2	0.404	10	9.88	0.12	0.119	4000	4910	73487	74220	90205	91100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two sample 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:

- 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,

Engr. Bilala Shahid
 Manager Projects, Ittefaq Building Solutions (Pvt) Ltd.
 AM International, Raiwind Road Lahore.

Reference # CED/TFL **6715** (Dr. M Kashif)
 Reference of the request letter # Nil

Dated: 17-03-2025
 Dated: 17-03-2025

Tension Test Report (Page -1/1)

Date of Test 17-03-2025
 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	0.370	0.11	0.107	30.20	46.00	61700	63260	94000	96400	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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.

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,

Resident Engineer
 Al-Imam Enterprises (Pvt) Ltd.
 Construction of Zonal Office Building of Bank Al Habib Limited, Main Boulevard
 Gulberg, Lahore. (Civil & Structure Works Package.)

Reference # CED/TFL **6720** (Dr. M Kashif)

Dated: 17-03-2025

Reference of the request letter # ALM/BAHL/0325/1703

Dated: 17-03-2025

Tension Test Report (Page -1/1)

Date of Test 17-03-2025

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615
 Mughal Steel

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	(kN)	(kN)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.368	3	0.371	0.11	0.108	35.20	44.70	71900	73110	91300	92900	1.20	15.0	
2	0.370	3	0.372	0.11	0.109	35.70	45.00	73000	73750	92000	93000	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.

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