



**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 Road Connecting Sub Division Wazir to Bannu Circular Road.  
Sub Head: Package-VIII (04 No. Bridges alongwith Approaches B/W km 50+000 to 63+000)  
(M/s United Wir Industries (Pvt) Ltd.)

Reference # CED/TFL **5475** (Dr. Safer Abbass)  
Reference of the request letter # 4040/021/SI08/0686

Dated: 06-08-2024  
Dated: 05-08-2024

**Tension Test Report** (Page -1/4)

Date of Test 15-08-2024  
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	784.0	18100	177.56	19600	192.28	198	>3.50	xx
2	12.70 (1/2")	780.0	780.0	18100	177.56	19600	192.28	198	>3.50	xx
3	12.70 (1/2")	780.0	780.0	18500	181.49	19600	192.28	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 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](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
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**STRUCTURAL ENGINEERING DIVISION**  
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**University of Engineering and Technology Lahore, 54890**  
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To,

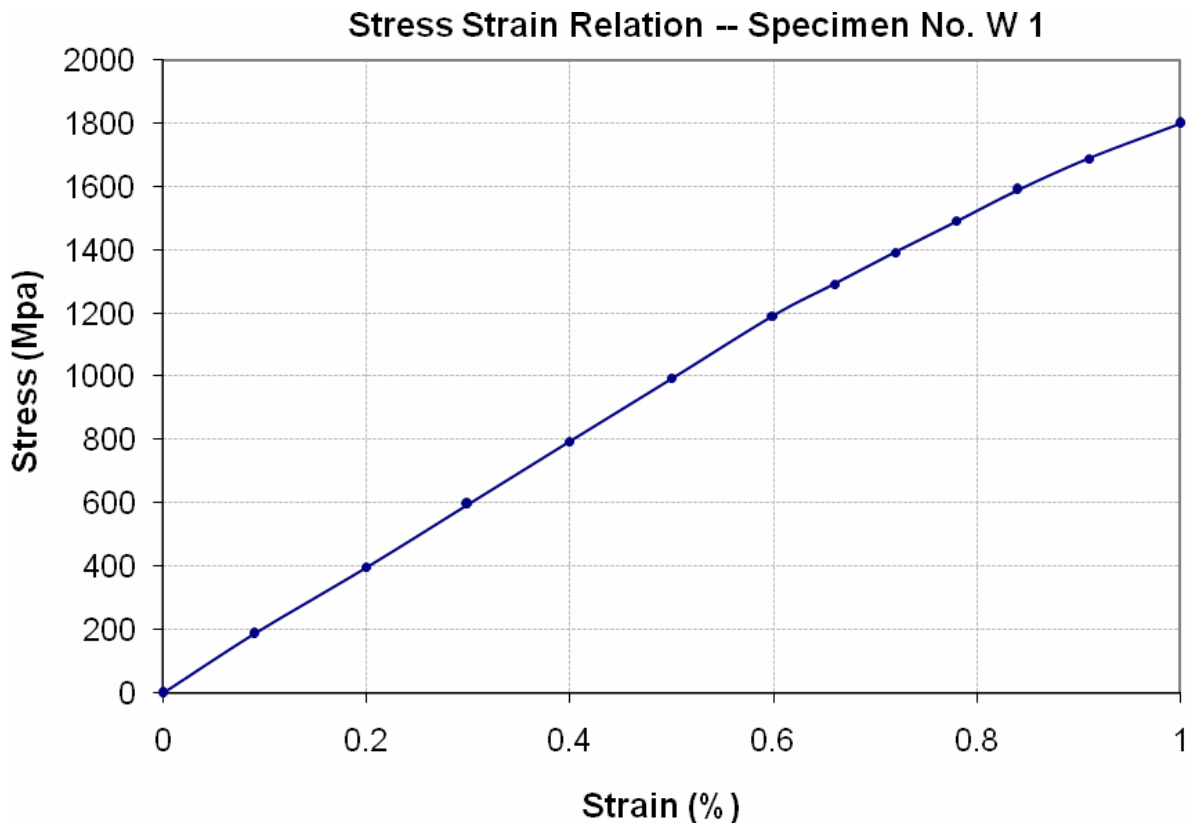
Resident Engineer  
NESPAK  
Construction of Road Connecting Sub Division Wazir to Bannu Circular Road.  
Sub Head: Package-VIII (04 No. Bridges alongwith Approaches B/W km 50+000 to 63+000)  
(M/s United Wir Industries (Pvt) Ltd.)

Reference # CED/TFL **5475** (Dr. Safer Abbass)  
Reference of the request letter # 4040/021/SI08/0686

Dated: 06-08-2024

Dated: 05-08-2024

**Graph** (Page – 2/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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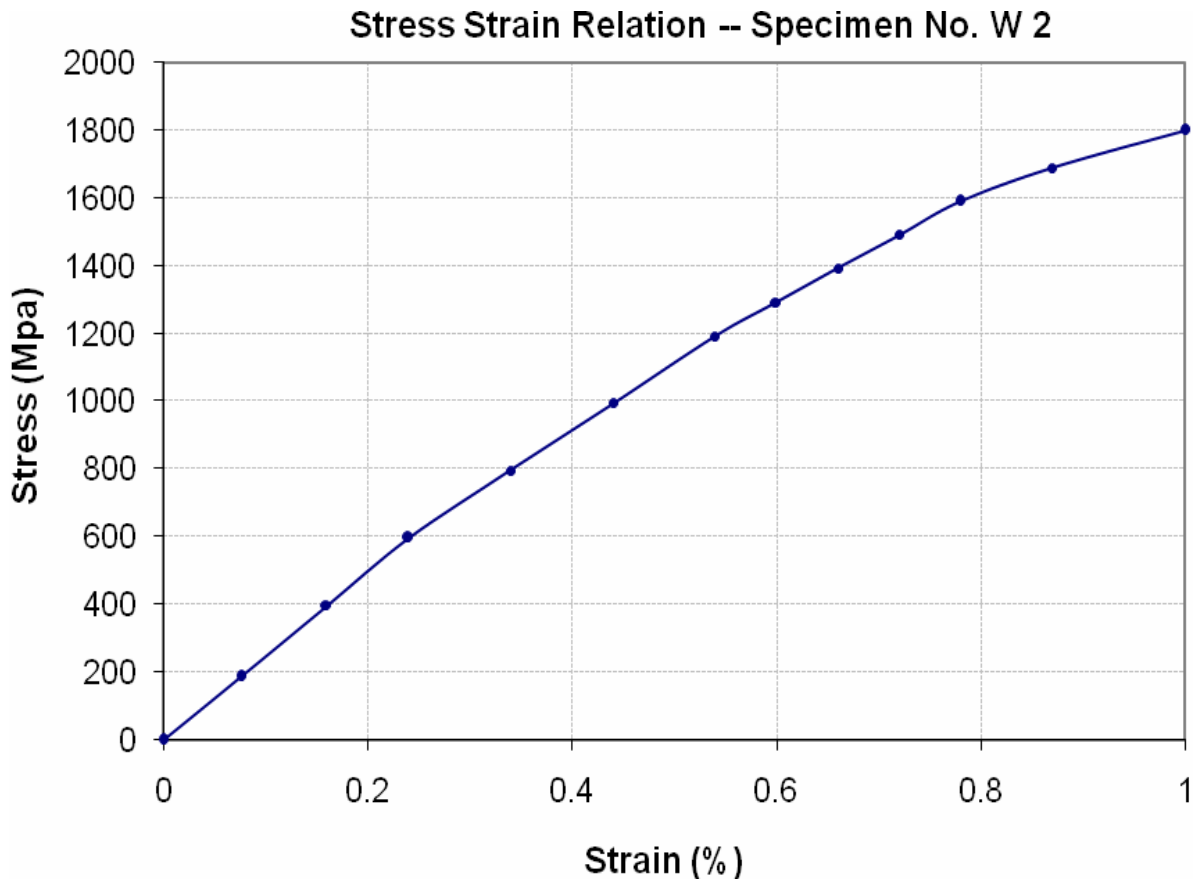
To,

Resident Engineer  
NESPAK  
Construction of Road Connecting Sub Division Wazir to Bannu Circular Road.  
Sub Head: Package-VIII (04 No. Bridges alongwith Approaches B/W km 50+000 to 63+000)  
(M/s United Wir Industries (Pvt) Ltd.)

Reference # CED/TFL **5475** (Dr. Safer Abbass)  
Reference of the request letter # 4040/021/SI08/0686

Dated: 06-08-2024  
Dated: 05-08-2024

**Graph** (Page – 3/4)



**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

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**University of Engineering and Technology Lahore, 54890**  
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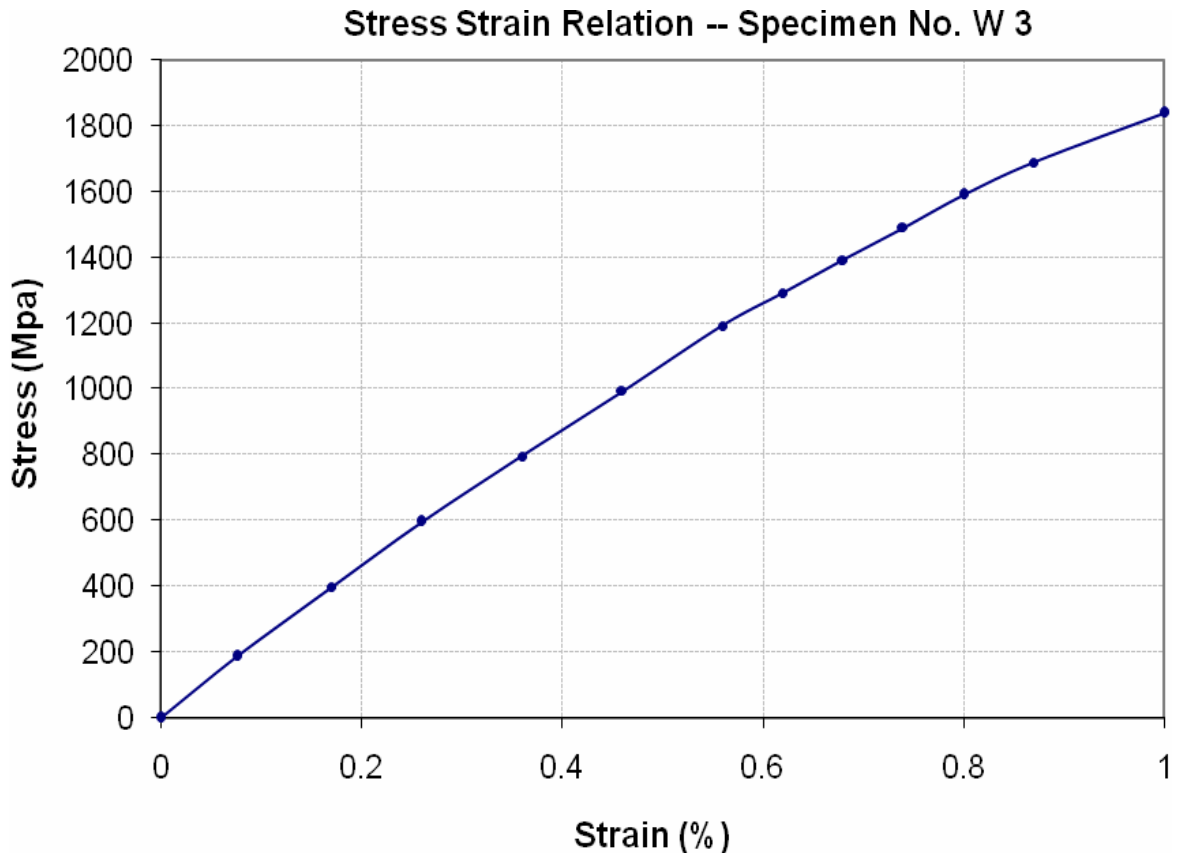
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Reference # CED/TFL **5475** (Dr. Safeer Abbass)  
Reference of the request letter # 4040/021/SI08/0686

Dated: 06-08-2024

Dated: 05-08-2024

**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,  
Senior Engineer  
University of Okara  
“Construction of Central Mosque at University of Okara”

Reference # CED/TFL **5480** (Dr. Usman Akmal)  
Reference of the request letter # UO/Eng.Deptt/2024/2298

Dated: 07-08-2024  
Dated: 06-07-2024

**Tension Test Report** (Page -1/1)

Date of Test 13-08-2024  
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 <sup>2</sup> )		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	3080	4590	61800	61810	92000	92100	1.30	16.3	Mughal Steel	
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Note: only one sample for tensile and one samples for bend test</b>															
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  
Development of DHA-AWT Land Adyala (RVS Ph-IV) (WMI)

Reference # CED/TFL **5485** (Dr. M Kashif)  
Reference of the request letter # 4592/103/DHA-AWT/FM102/46

Dated: 08-08-2024  
Dated: 26-05-2024

**Tension Test Report** (Page -1/4)

Date of Test 13-08-2024  
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" GPa	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)			
1	12.70 (1/2")	780.0	782.0	18100	177.56	20000	196.20	199	>3.50	25560
2	12.70 (1/2")	780.0	781.0	18000	176.58	19900	195.22	199	>3.50	25560
3	12.70 (1/2")	780.0	783.0	18000	176.58	20100	197.18	198	>3.50	25560
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only three samples for Test</b>										

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**  
**University of Engineering and Technology Lahore, 54890**  
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To,

Resident Engineer  
NESPAK  
Development of DHA-AWT Land Adyala (RVS Ph-IV) (WMI)

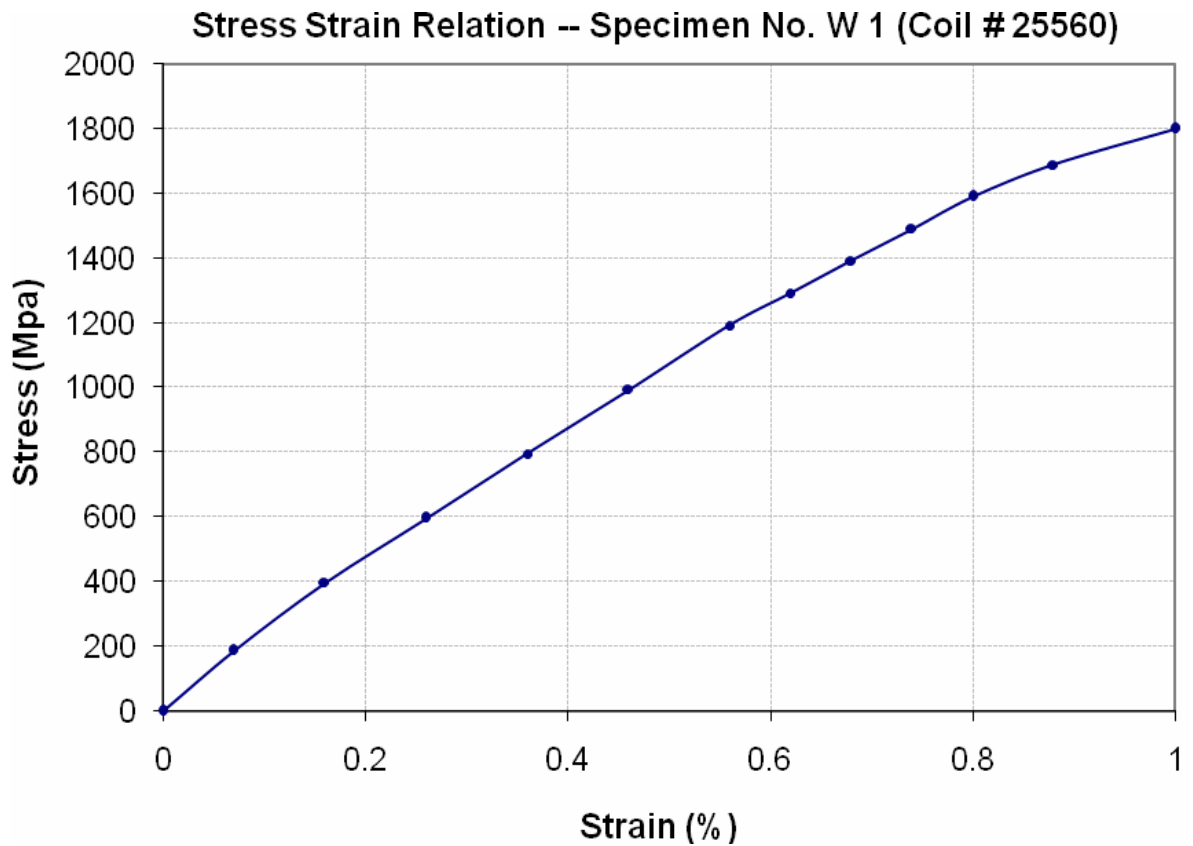
Reference # CED/TFL **5485** (Dr. M Kashif)

Dated: 08-08-2024

Reference of the request letter # 4592/103/DHA-AWT/FM102/46

Dated: 26-05-2024

**Graph** (Page – 2/4)



**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

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To,

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NESPAK  
Development of DHA-AWT Land Adyala (RVS Ph-IV) (WMI)

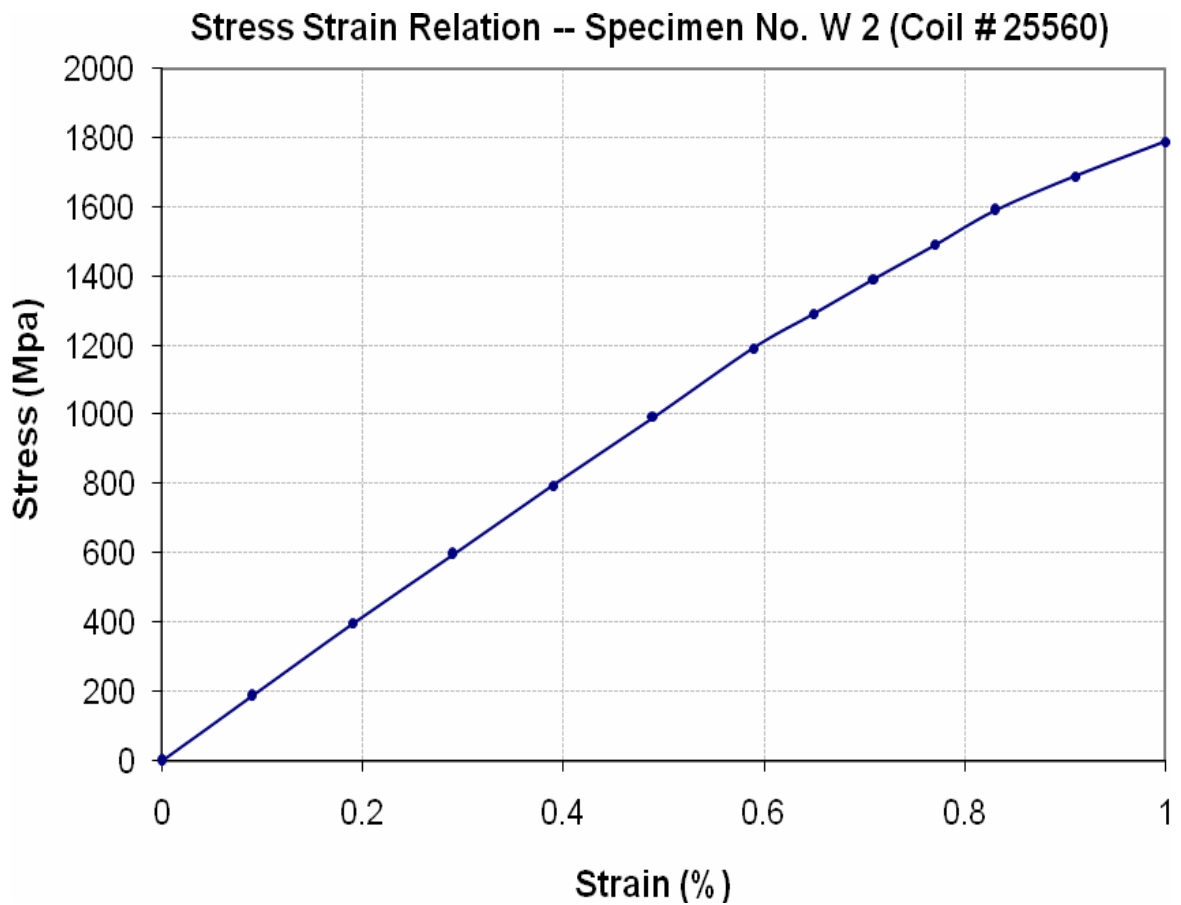
Reference # CED/TFL **5485** (Dr. M Kashif)

Dated: 08-08-2024

Reference of the request letter # 4592/103/DHA-AWT/FM102/46

Dated: 26-05-2024

**Graph** (Page – 3/4)



**I/C Testing Laboratories**  
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**Test Floor Laboratory**  
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To,

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NESPAK  
Development of DHA-AWT Land Adyala (RVS Ph-IV) (WMI)

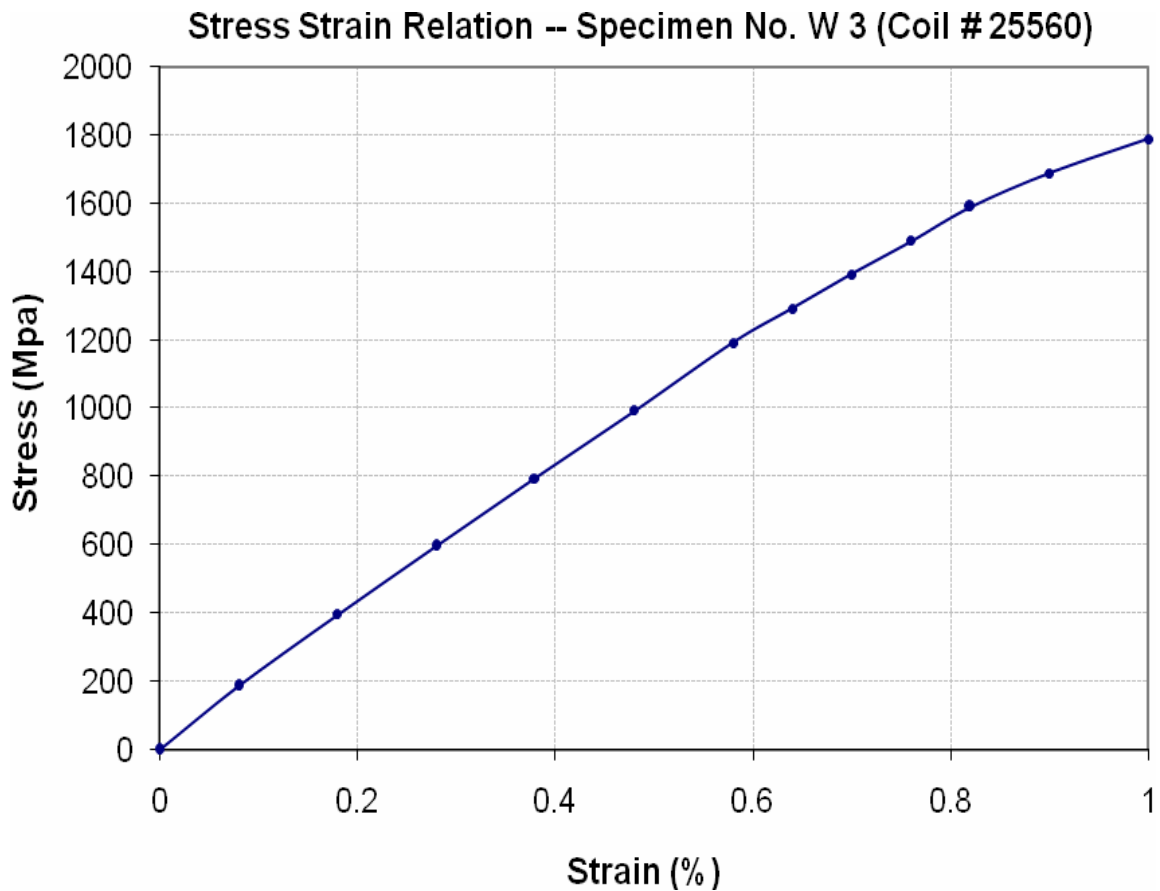
Reference # CED/TFL **5485** (Dr. M Kashif)

Dated: 08-08-2024

Reference of the request letter # 4592/103/DHA-AWT/FM102/46

Dated: 26-05-2024

**Graph** (Page – 4/4)



**I/C Testing Laboratories**  
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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,  
 CEO  
 Al-Tawakkal Construction Company  
 Extension of Magic River F/S, PSO Lahore Division.

Reference # CED/TFL **5497** (Dr. Usman Akmal)  
 Reference of the request letter # TCC/24/51

Dated: 12-08-2024  
 Dated: 12-08-2024

**Tension Test Report** (Page -1/1)

Date of Test 13-08-2024  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		Area (in <sup>2</sup> )		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	0.363	3/8	0.369	0.11	0.107	3820	4960	76600	78820	99400	102400	1.00	12.5	
2	0.363	3/8	0.369	0.11	0.107	4050	5100	81200	83570	102200	105300	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile test</b>														
Bend Test														

**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,  
HOD,  
Design & Construction Department-HO  
City Schools (Pvt) Ltd.  
Project: Iqbal Campus Sialkot Phase-II.

Reference # CED/TFL **5498** (Dr. Usman Akmal)  
Reference of the request letter # TCS/D&C/HO/001/SKT/2027

Dated: 12-08-2024  
Dated: 12-08-2024

**Tension Test Report** (Page # 1/1)

Date of Test 13-08-2024  
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 <sup>2</sup> )		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	3330	5150	66800	67990	103200	105200	1.00	12.5	
2	0.364	3	0.369	0.11	0.107	3280	5050	65800	67530	101200	104000	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
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,

Assistant Manager  
 Allied Engineering & Services (Private) Ltd.  
 Project of Rest House, Staff Residences, Staff Offices, Generator Room, Guard Room  
 etc. Situated at Main Okara Depalpur Road District Okara.  
 (M/s Ittefaq Building Solutions.)

Reference # CED/TFL **5499** (Dr. Usman Akmal)  
 Reference of the request letter # Nil

Dated: 12-08-2024  
 Dated: 12-08-2024

**Tension Test Report** (Page -1/1)

Date of Test 13-08-2024  
 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 <sup>2</sup> )		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	0.358	3	0.366	0.11	0.105	4540	5300	91000	95040	106200	111000	0.75	9.4	Afco Steel
2	0.354	3	0.364	0.11	0.104	4100	4960	82200	86860	99400	105100	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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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 Civil  
 Gulberg City Centre, Lahore  
 Gulberg City Centre, Gulberg II 5 K, Lahore.

Reference # CED/TFL **5500** (Dr. Usman Akmal)  
 Reference of the request letter # Nil

Dated: 12-08-2024  
 Dated: 09-08-2024

**Tension Test Report** (Page -1/1)

Date of Test 13-08-2024  
 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 <sup>2</sup> )		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	0.365	3	0.370	0.11	0.107	3620	5300	72600	74300	106200	108800	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only one sample for tensile and one samples for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
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