



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
Diamer Basha Consultants Group (DBCG)
NESPAK - ACE -MMP - MWH - ROYRY - DOLSAR Jv
Diamer Basha Dam Project
(WMI)

Reference # CED/TFL **4179** (Dr. Safeer Abbass)

Dated: 13-11-2023

Reference of the request letter # DBCG/Lab/PF JV/2023/056

Dated: 07-11-2023

Tension Test Report (Page -1/2)

Date of Test 15-11-2023

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 | 787.0 | 18100 | 177.56 | 19700 | 193.26 | 199 | >3.50 | WS-S4-2023-10 |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| 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 Laboratories
UET Lahore, Pakistan.

Note:

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Diamer Basha Consultants Group (DBCG)
NESPAK - ACE -MMP - MWH - ROYRY - DOLSAR Jv
Diamer Basha Dam Project

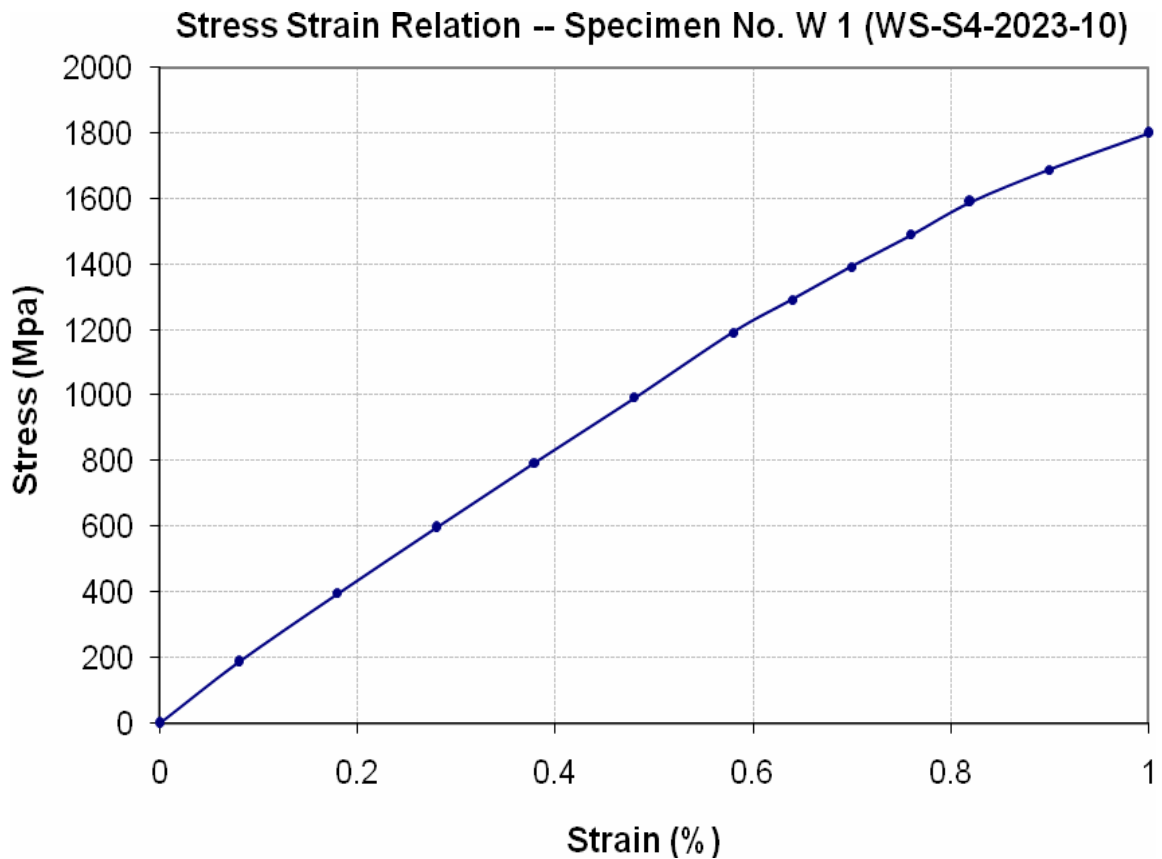
Reference # CED/TFL **4179** (Dr. Safer Abbass)

Dated: 13-11-2023

Reference of the request letter # DBCG/Lab/PF JV/2023/056

Dated: 07-11-2023

Graph (Page – 2/2)



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,

Resident Engineer
PEAS Consulting (Pvt) Ltd.
Dualization of Quetta Western Bypass Project (N-25)

Reference # CED/TFL **4180** (Dr. Safer Abbass)
Reference of the request letter # RE/PEAS/NHA/QWBP/63

Dated: 13-11-2023
Dated: 07-11-2023

Tension Test Report (Page -1/3)

Date of Test 15-11-2023
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 | 785.0 | 17300 | 169.71 | 19800 | 194.24 | 199 | >3.50 | 24783 |
| 2 | 12.70 (1/2") | 780.0 | 786.0 | 17100 | 167.75 | 19200 | 188.35 | 198 | >3.50 | 24784 |
| 3 | 12.70 (1/2") | 780.0 | 786.0 | ----- | ----- | 15700 | 154.02 | ----- | <3.50 Not ok | 24790 |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| 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.

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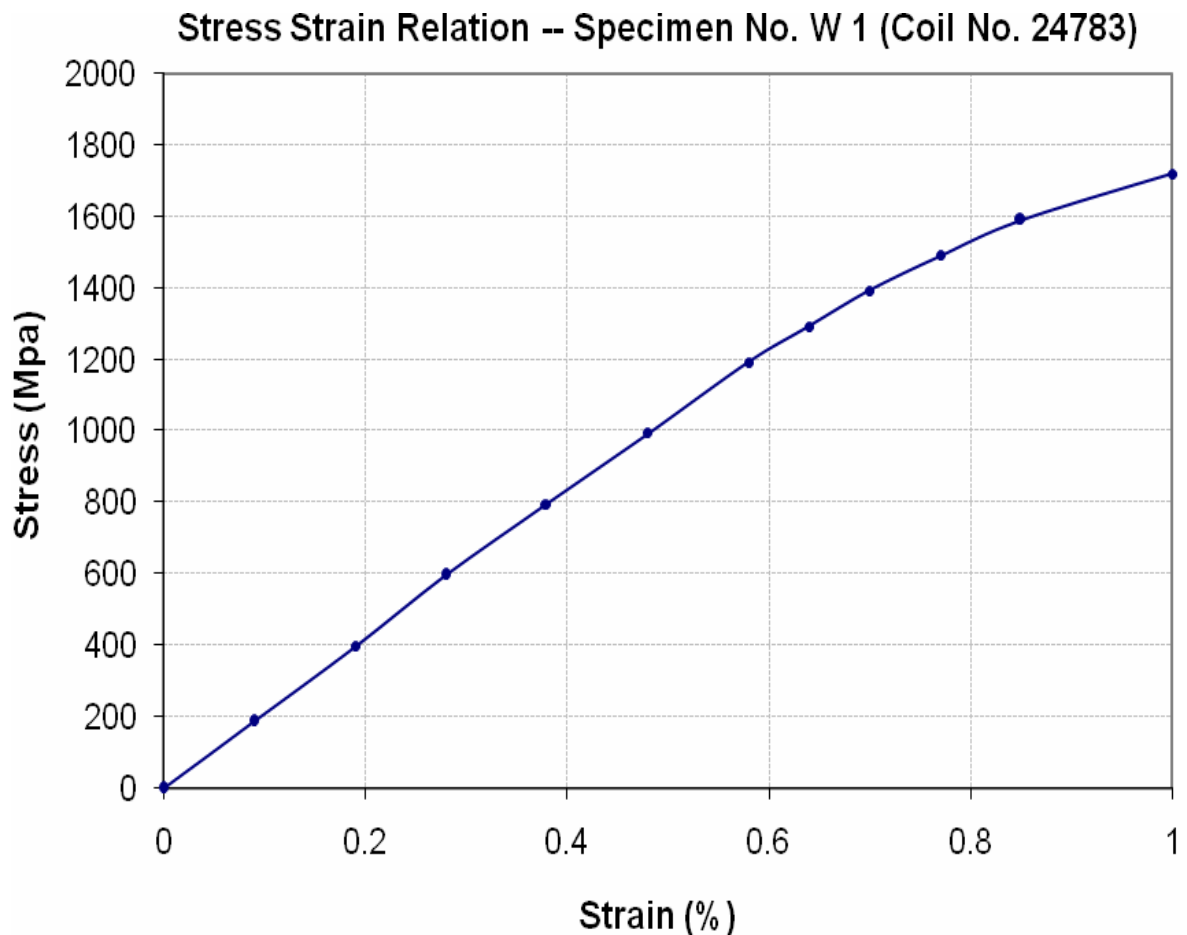
To,

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Dualization of Quetta Western Bypass Project (N-25)

Reference # CED/TFL **4180** (Dr. Safer Abbass)
Reference of the request letter # RE/PEAS/NHA/QWBP/63

Dated: 13-11-2023
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Graph (Page – 2/3)



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UET Lahore, Pakistan.

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Dualization of Quetta Western Bypass Project (N-25)

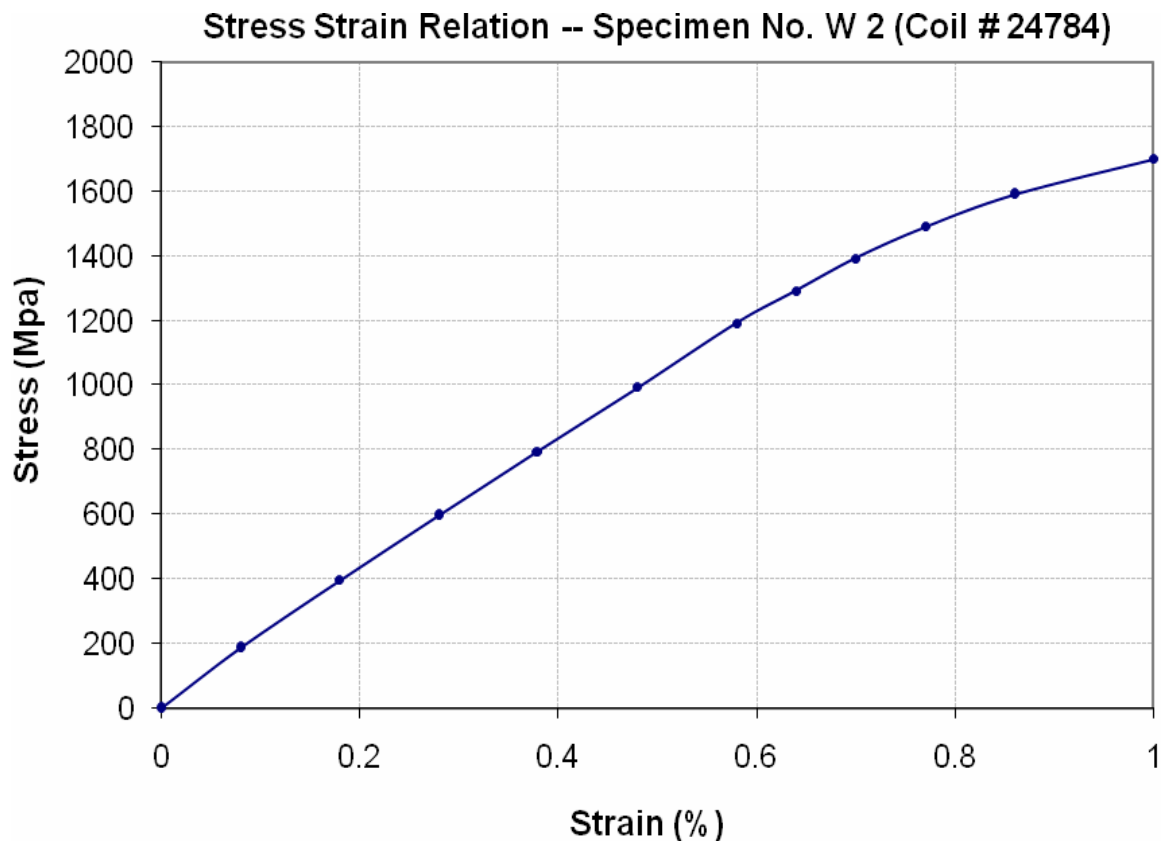
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Graph (Page – 3/3)



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
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To,

Project Director
(Pinjra Bridge)
NHA (N-65), Quetta
(WMI)

Reference # CED/TFL **4181** (Dr. Safer Abbass)

Dated: 13-11-2023

Reference of the request letter # PD(Pinjra-Bridge)/NHA/N-65/2023/011

Dated: 07-11-2023

Tension Test Report (Page -1/4)

Date of Test 15-11-2023

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 | 785.0 | 17700 | 173.64 | 19200 | 188.35 | 199 | >3.50 | xx |
| 2 | 12.70 (1/2") | 780.0 | 785.0 | 18100 | 177.56 | 19600 | 192.28 | 199 | >3.50 | xx |
| 3 | 12.70 (1/2") | 780.0 | 784.0 | 17900 | 175.60 | 19500 | 191.30 | 198 | >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

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To,

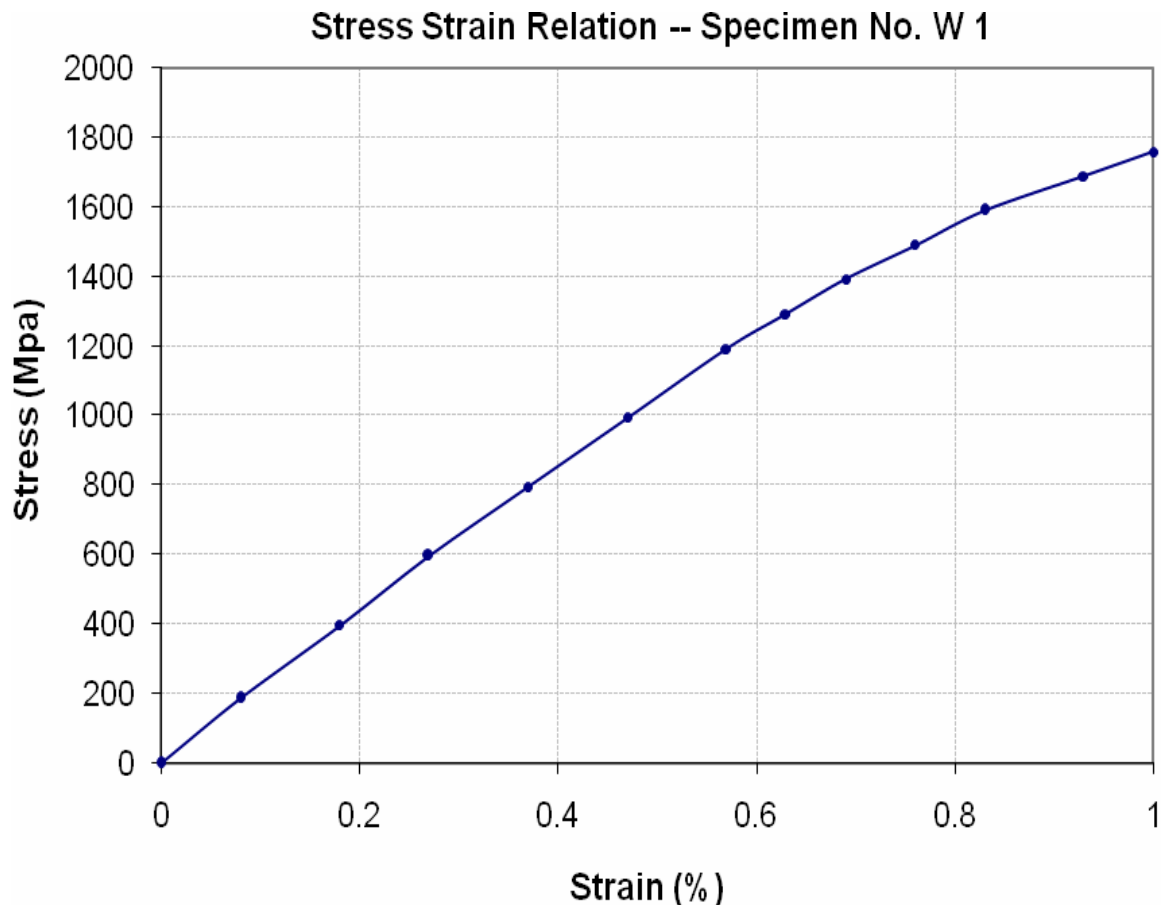
Project Director
(Pinjra Bridge)
NHA (N-65), Quetta
(WMI)

Reference # CED/TFL **4181** (Dr. Safeer Abbass)

Dated: 13-11-2023

Reference of the request letter # PD(Pinjra-Bridge)/NHA/N-65/2023/011 Dated: 07-11-2023

Graph (Page – 2/4)



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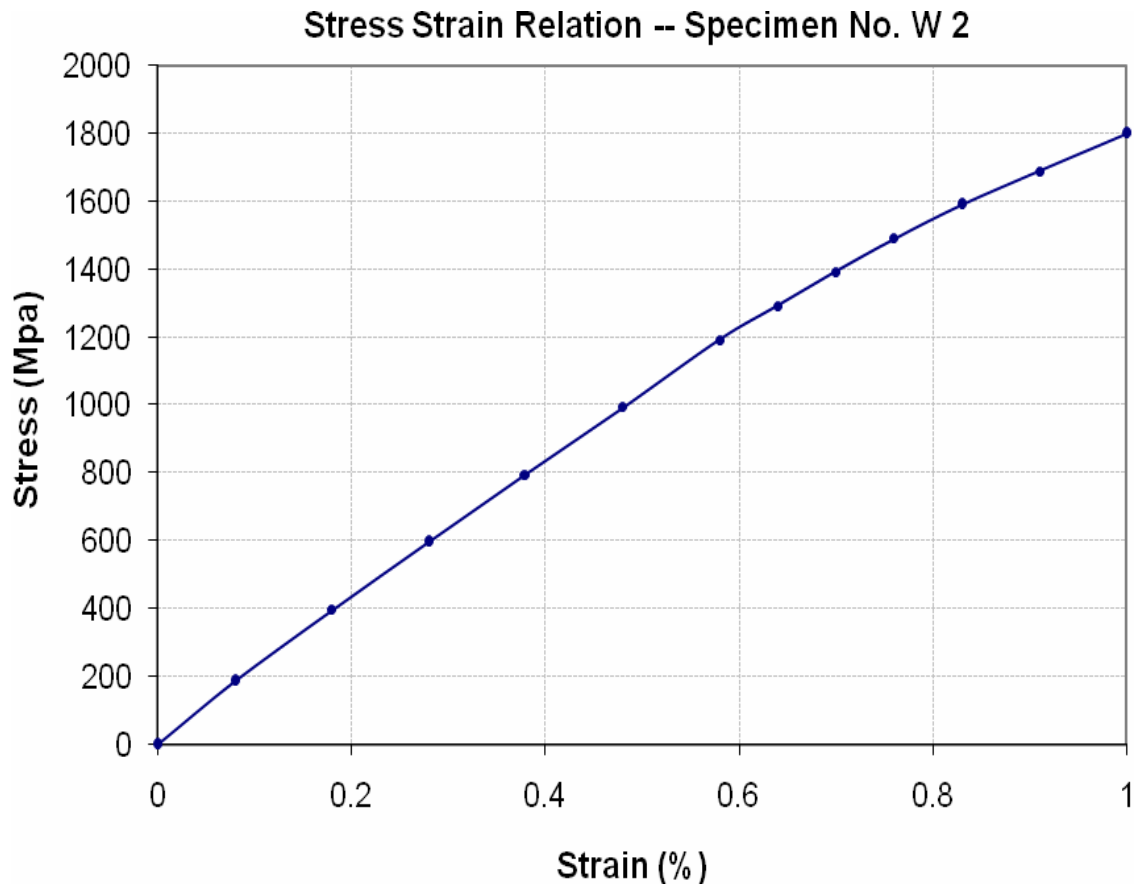
Project Director
(Pinjra Bridge)
NHA (N-65), Quetta
(WMI)

Reference # CED/TFL **4181** (Dr. Safer Abbass)

Dated: 13-11-2023

Reference of the request letter # PD(Pinjra-Bridge)/NHA/N-65/2023/011 Dated: 07-11-2023

Graph (Page – 3/4)



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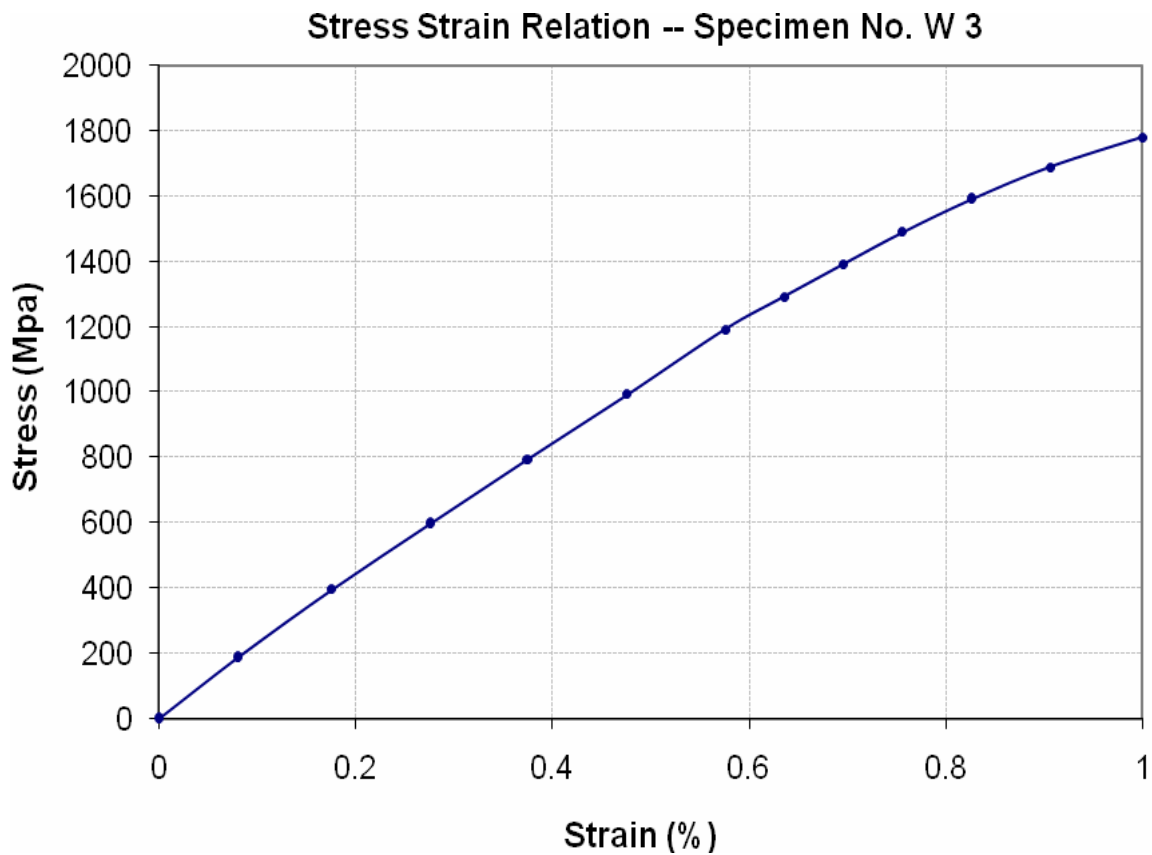
Project Director
(Pinjra Bridge)
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(WMI)

Reference # CED/TFL **4181** (Dr. Safer Abbass)

Dated: 13-11-2023

Reference of the request letter # PD(Pinjra-Bridge)/NHA/N-65/2023/011 Dated: 07-11-2023

Graph (Page – 4/4)



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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,

Chief Engineer
Zaitoon
New Lahore City
Construction of Monument (Zaitoon Life Style) by M/s Stallion Steel Engineering Lahore

Reference # CED/TFL **4187** (Dr. Safer Abbass)
Reference of the request letter # ZLS/CE/0166

Dated: 14-11-2023
Dated: 08-11-2023

Tension Test Report (Page – 1/1)

Date of Test 15-11-2023
Gauge length 2 inches
Description MS Pipe Steel Strip Tensile Test as per ASTM A370

| 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 | 100 | 26.30x5.00 | 131.50 | 50.20 | 65.50 | 381.75 | 498.10 | 0.50 | 25.00 | |
| 2 | 100 | 26.30x5.00 | 131.50 | 49.70 | 65.00 | 377.95 | 494.30 | 0.50 | 25.00 | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| 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

To,
 Chief Resident Engineer
 UMDS Consultants
 NCB Works / PICIP-04 Road Upgradation Lot-01 Sahiwal.

Reference # CED/TFL **4188** (Dr. Ali Ahmed)
 Reference of the request letter # UMDS – JV/SOS/CRE/204

Dated: 14-11-2023
 Dated: 08-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023
 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 | 0.381 | 3 | 0.378 | 0.11 | 0.112 | 4100 | 5020 | 82200 | 80720 | 100600 | 98900 | 1.00 | 12.5 | Naveena Steel |
| 2 | 0.371 | 3 | 0.373 | 0.11 | 0.109 | 4710 | 5350 | 94400 | 95230 | 107200 | 108200 | 0.80 | 10.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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
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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
ZEERUK –LOYA – MINHA Jv
Development of Islamabad Expressway PWD Underpass to GT Road Including Bhandar
Bridge, Japan Road Underpass & Soan Bridge.
(Nizami Brothers)

Reference # CED/TFL **4190** (Dr. Safer Abbass)
Reference of the request letter # RE/FWO/P-N-5/23/178

Dated: 14-11-2023
Dated: 25-10-2023

Tension Test Report (Page -1/4)

Date of Test 15-11-2023
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 | 782.0 | 17900 | 175.60 | 19500 | 191.30 | 199 | >3.50 | 8 |
| 2 | 12.70 (1/2") | 780.0 | 782.0 | 17900 | 175.60 | 19500 | 191.30 | 198 | >3.50 | 15 |
| 3 | 12.70 (1/2") | 780.0 | 783.0 | 17900 | 175.60 | 19500 | 191.30 | 198 | >3.50 | 27 |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | |

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

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To,

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Development of Islamabad Expressway PWD Underpasses to GT Road Including Bhandar
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(Nizami Brothers)

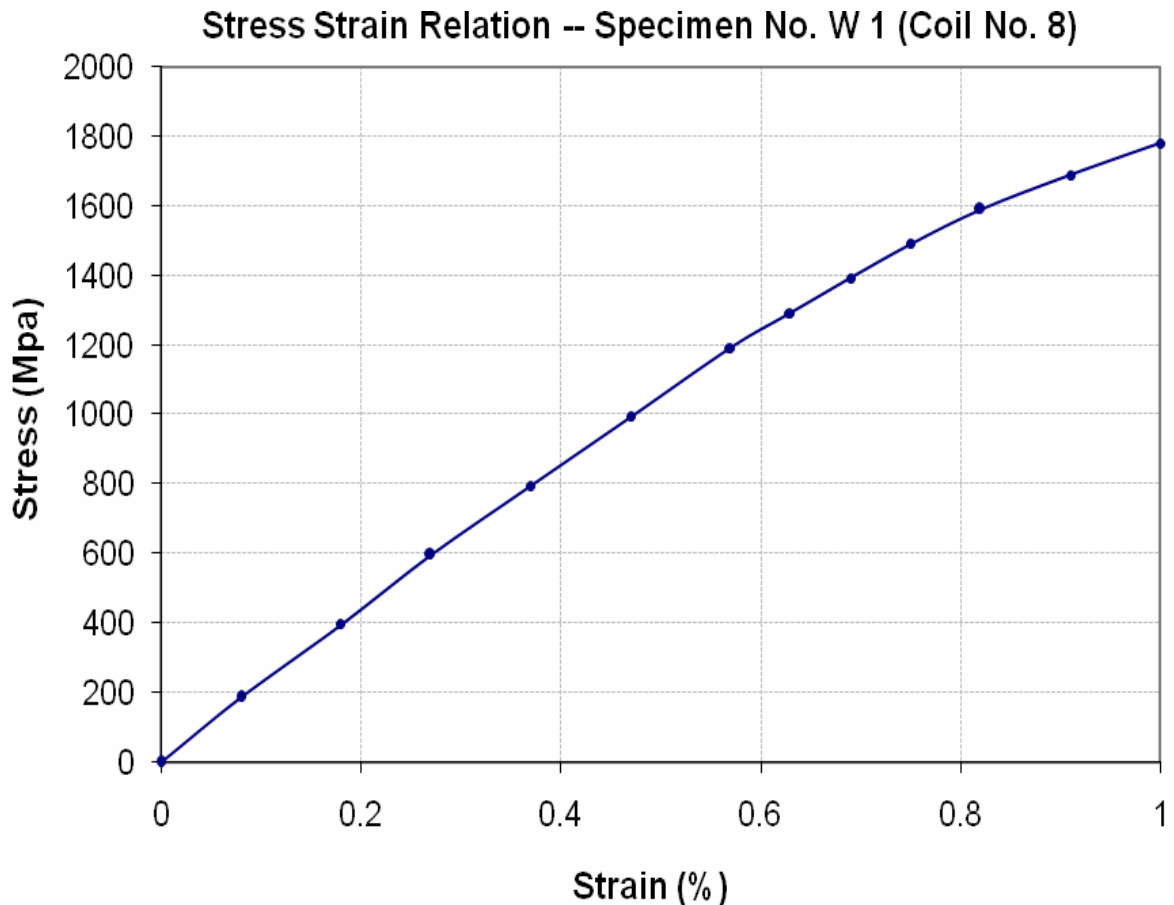
Reference # CED/TFL **4190** (Dr. Safer Abbass)

Dated: 14-11-2023

Reference of the request letter # RE/FWO/P-N-5/23/178

Dated: 25-10-2023

Graph (Page – 2/4)



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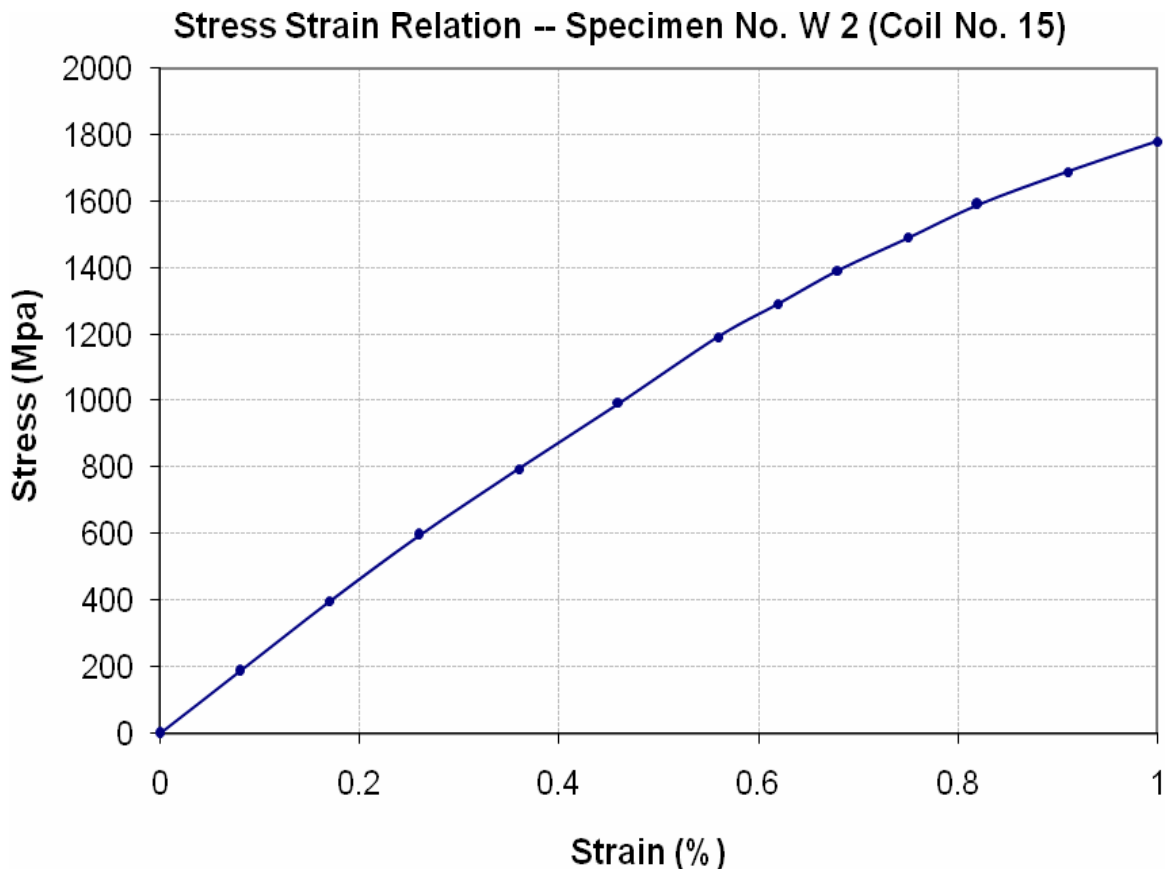
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ZEERUK –LOYA – MINHA Jv
Development of Islamabad Expressway PWD Underpass to GT Road Including Bhandar
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(Nizami Brothers)

Reference # CED/TFL **4190** (Dr. Safer Abbass)
Reference of the request letter # RE/FWO/P-N-5/23/178

Dated: 14-11-2023

Dated: 25-10-2023

Graph (Page – 3/4)



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UET Lahore, Pakistan.

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(Nizami Brothers)

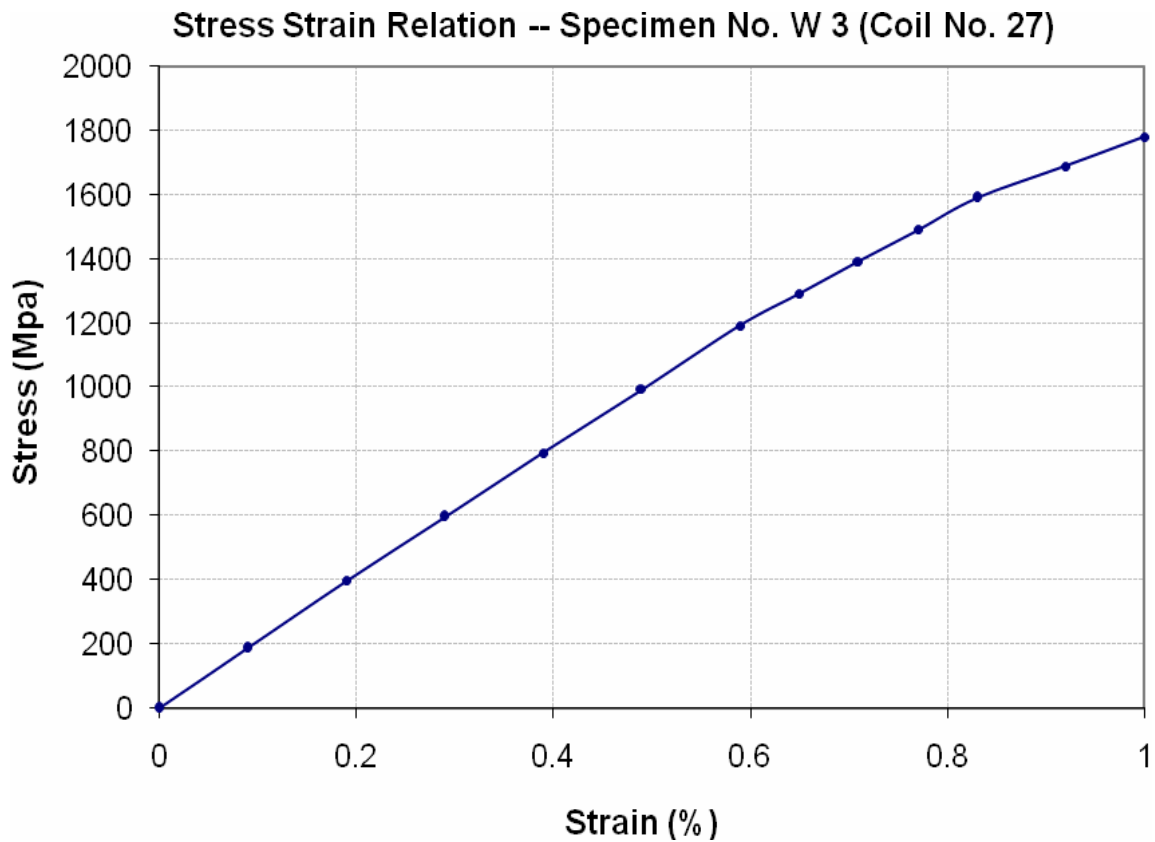
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Dated: 14-11-2023

Reference of the request letter # RE/FWO/P-N-5/23/178

Dated: 25-10-2023

Graph (Page – 4/4)



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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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To,

Resident Engineer
 NESPAK
 Construction of Carriageway from GT Road (Benzir Chowk) to Lahore-Sialkot
 Motorway (Wando Interchange) L= 15.20 km, District Gujranwala.

Reference # CED/TFL **4191** (Dr. Ali Ahmed)

Dated: 14-11-2023

Reference of the request letter # 103/EW/GRW/AR/Lab/33

Dated: 11-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023

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 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 4080 | 5010 | 81800 | 80830 | 100400 | 99300 | 0.90 | 11.3 | Mughal Steel |
| 2 | 0.380 | 3 | 0.377 | 0.11 | 0.112 | 3920 | 4960 | 78600 | 77370 | 99400 | 97900 | 1.10 | 13.8 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
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| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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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I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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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,
Construction Manager
Habib Rafiq Engineering (Pvt) Limited
District One Sheikhpura.

Reference # CED/TFL **4192** (Dr. Ali Ahmed)
Reference of the request letter # HRL/DO/02/2023

Dated: 14-11-2023
Dated: 14-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023
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 | 0.370 | 3 | 0.372 | 0.11 | 0.109 | 3490 | 5120 | 70000 | 70790 | 102600 | 103900 | 1.20 | 15.0 | Aziz Steel |
| 2 | 0.372 | 3 | 0.373 | 0.11 | 0.109 | 3470 | 5120 | 69600 | 69990 | 102600 | 103300 | 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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I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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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,
 Asst Dir Infra
 Defence Housing Authority, Gujranwala
 "Sector L"

Reference # CED/TFL **4194** (Dr. Ali Ahmed)
 Reference of the request letter # 111/15/AD/RS/Lab/Sec L/549

Dated: 14-11-2023
 Dated: 13-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023
 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 | 0.382 | 3 | 0.378 | 0.11 | 0.112 | 3670 | 4840 | 73600 | 72010 | 97000 | 95000 | 1.30 | 16.3 | FF Steel |
| 2 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 3640 | 4790 | 73000 | 72150 | 96000 | 95000 | 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 | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
UET Lahore, Pakistan.

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- 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
Metroplan-Asian Jv
Establishment of Tertiary Care Hospital, Nishtar-II, Multan.
(MIR # 07, Dated 13-05-2023)

Reference # CED/TFL **4196** (Dr. Ali Ahmed)

Dated: 15-11-2023

Reference of the request letter # Metroplan-Asian JV-Nishtar-II-RE-1783-2023 Dated: 13-06-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023

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 | 0.409 | 10 | 9.93 | 0.12 | 0.120 | 4180 | 5500 | 76794 | 76720 | 101044 | 101000 | 1.20 | 15.0 | SJ Gujjar Steel |
| 2 | 0.409 | 10 | 9.93 | 0.12 | 0.120 | 4030 | 5320 | 74038 | 73970 | 97737 | 97700 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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I/C Testing Laboratoires
UET Lahore, Pakistan.

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http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports
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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,
Manager Civil
Shangrila Foods (Private) Limited
Karachi

Reference # CED/TFL **4197** (Dr. Ali Ahmed)
Reference of the request letter # Nil

Dated: 15-11-2023
Dated: 15-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023
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 | 0.381 | 3 | 0.377 | 0.11 | 0.112 | 3640 | 4940 | 73000 | 71690 | 99000 | 97300 | 1.20 | 15.0 | |
| 2 | 0.380 | 3 | 0.377 | 0.11 | 0.112 | 3640 | 4940 | 73000 | 71840 | 99000 | 97500 | 1.30 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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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I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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- 2- The above results pertain to sample /samples supplied to this laboratory.
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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
Oil Trade (Private) Limited.
4 No of Silo Project.

Reference # CED/TFL **4198** (Dr. Safer Abbass)
Reference of the request letter # Nil

Dated: 15-11-2023
Dated: 15-11-2023

Tension Test Report (Page -1/1)

Date of Test 15-11-2023
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 | 0.413 | 10 | 9.99 | 0.12 | 0.121 | 3840 | 5400 | 70547 | 69710 | 99207 | 98100 | 1.30 | 16.3 | |
| 2 | 0.412 | 10 | 9.97 | 0.12 | 0.121 | 3790 | 5300 | 69629 | 69060 | 97370 | 96600 | 1.40 | 17.5 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| 10mm Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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 Manager
 HIGH-Q
 Construction of HIGH-Q Mall at 3-A, Gulberg II, Lahore.

Reference # CED/TFL **4209** (Dr. Safer Abbas)
 Reference of the request letter # QC/HQ/CIVIL/157

Dated: 20-11-2023
 Dated: 17-11-2023

Tension Test Report (Page -1/1)

Date of Test 20-11-2023
 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 (mm) | Actual (inch) | Nominal | Actual | | | Nominal | Actual | Nominal | Actual | | | |
| 1 | 0.407 | 10 | 0.391 | 0.11 | 0.120 | 3840 | 5120 | 77000 | 70670 | 102600 | 94300 | 1.10 | 13.8 | |
| 2 | 0.409 | 10 | 0.391 | 0.11 | 0.120 | 3980 | 5160 | 79800 | 72930 | 103400 | 94600 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Note: only two samples for tensile and one sample for bend test | | | | | | | | | | | | | | |
| Bend Test | | | | | | | | | | | | | | |
| Dia 10mm Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | |
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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 Engineer,
 UET, Lahore.

CONSTRUCTION Of "Construction of RCC Slab for the Entrance in H-Type Quarter,
 UET LAHORE

Reference # CED/TFL 4217 (Dr. Rizwan Riaz)

Dated: 20-11-2023

Reference of the request letter # B&W/AEN.C/3395

Dated: 20-11-2023

Tension Test Report (Page -1/1)

Date of Test 20-11-2023

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 | 0.407 | 3 | 0.390 | 0.11 | 0.120 | 4180 | 5480 | 83800 | 77070 | 109800 | 101100 | 1.30 | 16.3 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 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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