

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

To,

Assistant Director (QCD) WASA, LDA, Lahore. (M/s Al Madinah Pipe Industries.)

Reference # CED/TFL <u>6253 (Dr. Ali Ahmed)</u> Reference of the request letter # QCD/2658

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

Date of Test 02-01-2025 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test

| Sr. No. | Weight   |         | ieter/<br>ze | Area<br>(in²) |           | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |          |           | e Stress<br>si) | Elongation | % Elongation | Remarks |
|---------|----------|---------|--------------|---------------|-----------|------------|------------------|-----------------------|----------|-----------|-----------------|------------|--------------|---------|
| S       | (lbs/ft) |         |              | Nominal       | Actual    | (kg)       | (kg)             | Nominal               | Actual   | Nominal   | Actual          | (inch)     | % E          | Re      |
| 1       | 0.363    | 3       | 0.369        | 0.11          | 0.107     | 3540       | 5100             | 71000                 | 73090    | 102200    | 105300          | 1.20       | 15.0         |         |
| 1       | 1        | 1       | -            | 1             | -         | -          | -                | -                     | -        | -         | -               | -          | -            |         |
| -       | 1        | 1       | -            | 1             | -         | -          | -                | -                     | -        | -         | -               | -          | -            |         |
| -       | ı        | ı       | -            | ı             | -         | -          | -                | •                     | •        | -         | •               | -          | -            |         |
| 1       | 1        | 1       | -            | 1             | -         | -          | -                | -                     | -        | -         | -               | -          | -            |         |
| 1       | -        | -       | -            | -             | -         | -          | -                | -                     | -        | -         | -               | -          | -            |         |
|         |          |         | N            | ote: on       | ly one s  | sample fo  | or tensile       | and one               | sample f | or bend t | est             | I          | I            |         |
| #3      | Bar Ben  | nd Test | Through      | n 180° i      | s Satisfa | actory     | Bend T           | est                   |          |           |                 |            |              |         |

I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 30-12-2024

Dated: 27-12-2024

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

To,

M/S CM Engineering (Pvt) Ltd.

Lahore.

(Project TAWAL Site ID: TWP (MLT0003-MLT0004-MLT0001-MZG0003-

TTS0003-VRH0001-KRP0001-LDR0001)

Reference # CED/TFL <u>6257 (Dr. Ali Ahmed)</u>

Reference of the request letter # CME/Steel/TAWL/400

Dated: 31-12-2024

Dated: 15-12-2024

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

Date of Test 02-01-2025 Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM-A615

| Sr. No. |          | Si             | neter/<br>ze<br>m) |         | rea<br>n²) | Yield load | Breaking<br>Load |            | Stress<br>si) |         | e Stress<br>si) | Elongation | % Elongation | Remarks |
|---------|----------|----------------|--------------------|---------|------------|------------|------------------|------------|---------------|---------|-----------------|------------|--------------|---------|
| S       | (lbs/ft) | Nominal Actual |                    | Nominal | Actual     | (kg)       | (kg)             | Nominal    | Actual        | Nominal | Actual          | (inch)     | I %          | R       |
| 1       | 0.370    | 10             | 9.46               | 0.12    | 0.109      | 3490       | 5050             | 64117      | 70660         | 92777   | 102300          | 1.20       | 15.0         |         |
| -       | -        | -              | -                  | -       | -          | -          | -                | -          | -             | -       | -               | -          | -            |         |
| -       | -        | 1              | -                  | ı       | -          | 1          | -                | 1          | -             | -       | -               | -          | ı            |         |
| -       | -        | ı              | -                  | ı       | -          | ı          | •                | ı          | -             | •       | -               | -          | ı            |         |
| •       | 1        | 1              | -                  | 1       | -          | ī          | -                | 1          | -             | -       | -               | -          | 1            |         |
| -       | -        | 1              | -                  | 1       | -          | ı          | -                | 1          | -             | -       | -               | -          | 1            |         |
|         |          |                | ı                  |         | No         | te: only o | ne samp          | le for ten | sile test     | ı       | T               | I          |              |         |
|         |          |                |                    |         |            |            |                  |            |               |         |                 |            |              |         |
| -       |          |                |                    |         |            |            | Bend T           | est        |               |         |                 |            |              |         |
|         |          |                |                    |         |            |            |                  |            |               |         |                 |            |              |         |
|         |          |                |                    |         |            |            |                  |            |               |         |                 |            |              |         |
|         |          |                |                    |         |            |            |                  |            |               |         |                 |            |              |         |

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,

Project Manager, HIGH-Q

Construction of HIGH-Q Tower at CBD, Lahore.

Reference # CED/TFL <u>6262(Dr. Ali Ahmed)</u>
Reference of the request letter # QC/HQ/CIVIL/004

Dated: 31-12-2024

Dated: 31-12-2024

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

Date of Test 02-01-2025 Gauge length 8 inches

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

| Sr. No. | Weight   | Si      | neter/<br>ze<br>m) | Area (in²) |          | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |          |           | e Stress<br>si) | 0.0    |              | Remarks |
|---------|----------|---------|--------------------|------------|----------|------------|------------------|-----------------------|----------|-----------|-----------------|--------|--------------|---------|
| S       | (lbs/ft) | Nominal | Actual             |            | Actual   | (kg)       | (kg)             | Nominal               | Actual   | Nominal   | Actual          | (inch) | % Elongation | R       |
| 1       | 0.405    | 10      | 9.89               | 0.12       | 0.119    | 4050       | 5220             | 74405                 | 74940    | 95900     | 96600           | 1.40   | 17.5         |         |
| 2       | 0.405    | 10      | 9.88               | 0.12       | 0.119    | 4150       | 5300             | 76242                 | 76920    | 97370     | 98300           | 1.30   | 16.3         |         |
| -       | -        | -       | -                  | -          | -        | -          | -                | -                     | -        | -         | -               | -      | -            |         |
| -       | -        | -       | -                  | -          | -        | -          | -                | -                     | -        | -         | -               | -      | -            |         |
| -       | -        | -       | -                  | -          | -        | -          | -                | -                     | -        | -         | -               | -      | -            |         |
| -       | -        | -       | -                  | -          | -        | -          | -                | -                     | -        | -         | -               | -      | -            |         |
|         |          |         | N                  | ote: on    | ly two s | amples f   | or tensile       | and one               | sample f | or bend t | test            |        |              |         |
|         |          |         |                    |            |          |            |                  |                       |          |           |                 |        |              |         |
|         |          |         |                    |            |          |            | Bend T           | est                   |          |           |                 |        |              |         |
| 10r     | nm Bar   | Bend T  | est Thro           | ough 18    | 0° is Sa | tisfactory | ,                |                       |          |           |                 |        |              |         |

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,

Project Manager, HIGH-Q Constructions Construction of HIGH-Q Mall at 3-A, Gulberg II, Lahore.

Reference # CED/TFL <u>6263 (Dr. Ali Ahmed)</u>
Dated: 31-12-2024

Reference of the request letter # QC/HQ/CIVIL/253 Dated: 31-12-2024

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

Date of Test 02-01-2025 Gauge length 8 inches

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

| Sr. No. | Weight  | Si             | neter/<br>ze<br>m) | Area<br>(in²)       |          | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |          | Ultimate Stress<br>(psi) |        | Elongation | Elongation | Remarks |
|---------|---|----------------|--------------------|---------------------|----------|------------|------------------|-----------------------|----------|--------------------------|--------|------------|------------|---------|
| S       | (lbs/ft)  | Nominal Actual |                    | Nominal Actual (kg) |          | (kg)       | (kg)             | Nominal               | Actual   | Nominal                  | Actual | (inch)     | <b>3</b> % | Re      |
| 1       | 0.363   | 10             | 9.36               | 0.12                | 0.107    | 3770       | 4840             | 69261                 | 77920    | 88919                    | 100100 | 1.00       | 12.5       |         |
| 2       | 0.368   | 10             | 9.42               | 0.12                | 0.108    | 3490       | 4690             | 64117                 | 71190    | 86163                    | 95700  | 1.30       | 16.3       |         |
| -       | -   | -              | •                  | •                   | -        | -          | -                | •                     | -        | -                        | -      | -          | 1          |         |
| -       | -   | -              | -                  | -                   | -        | -          | -                | -                     | -        | -                        | -      | -          | 1          |         |
| -       | -   | -              | -                  | -                   | -        | -          | -                | -                     | -        | -                        | -      | -          | -          |         |
| -       | -   | -              | -                  | -                   | -        | -          | -                | -                     | -        | -                        | -      | -          | -          |         |
|         |   |                | N                  | ote: on             | ly two s | amples f   | or tensile       | and one               | sample f | or bend                  | test   |            |            |         |
|         |   |                |                    |                     |          |            |                  |                       |          |                          |        |            |            |         |
|         |   |                |                    |                     |          |            | Bend T           | est                   |          |                          |        |            |            |         |
| 101     | 10mm 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,

Assistant Director (QCD) WASA, LDA, Lahore. (M/s Riaz RCC Pipe Factory.)

Reference # CED/TFL <u>6267 (Dr. Ali Ahmed)</u> Reference of the request letter # QCD/2680

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

Date of Test 02-01-2025 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test

| Sr. No. | Weight   | Si      | neter/<br>ze<br>ch) |         | Yield load  Wield load  Breaking  Load |           | Breaking<br>Load | Yield Stress<br>(psi) |          |           | te Stress<br>si) | Elongation | % Elongation | Remarks |
|---------|--|---------|---------------------|---------|--|-----------|------------------|-----------------------|----------|-----------|------------------|------------|--------------|---------|
| S       | (lbs/ft)   | Nominal |                     |         | Actual                                 | (kg)      | (kg)             | Nominal               | Actual   | Nominal   | Actual           | (inch)     | % E          | Re      |
| 1       | 0.078  | 5/32    | 0.171               |         | 0.023                                  | 860       | 1220             |                       | 83020    |           | 117800           | 1.20       | 15.0         |         |
| -       | -  | ı       | -                   | ı       | ı                                      | ı         | -                | 1                     | -        | -         | -                | -          | -            |         |
| -       | -  | ı       | -                   | -       | -                                      | ı         | -                | 1                     | -        | -         | -                | -          | -            |         |
| -       | -  | ı       | -                   | -       | -                                      | ı         | -                | 1                     | -        | -         | -                | -          | -            |         |
| -       |  | 1       | -                   | -       | -                                      | -         | -                | -                     | -        | -         | -                | _          | -            |         |
| -       | -  | -       | -                   | -       | -                                      | -         | -                | -                     | -        | -         | -                | -          | -            |         |
|         |  |         | N                   | ote: on | ly one s                               | sample fo | or tensile       | and one               | sample f | or bend t | est              | 1          | 1            | 1       |
|         |  |         |                     |         |  |           |                  |                       |          |           |                  |            |              |         |
|         | Bend Test  |         |                     |         |  |           |                  |                       |          |           |                  |            |              |         |
| 5/3     | 5/32" Dia Bar Bend Test Through 180° is Satisfactory |         |                     |         |  |           |                  |                       |          |           |                  |            |              |         |

I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 01-01-2025

Dated: 28-12-2024

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

To,

Sub Divisional Officer Buildings Sub Division No. 12

Lahore

(Institutional Strengthing of Primary and Secondary Health Care Department Punjab

"Construction of Development Wing")

Reference # CED/TFL <u>6269 (Dr. Ali Ahmed)</u>
Reference of the request letter # 683

Dated: 01-01-2025

Dated: 30-12-2024

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

Date of Test 02-01-2025 Gauge length 8 inches

Description Deformed Steel Bar Tensile Test as per ASTM A615

| Sr. No. | Weight   | Si  | neter/<br>ze<br>ch) | Area<br>(in²) |        | Yield load | Breaking<br>Load | Breaking Alega Ale |            | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|---------|----------|-----|---------------------|---------------|--------|------------|------------------|--|------------|--------------------------|--------|------------|--------------|---------|
| S       | (lbs/ft) |     |                     | Nominal       | Actual | (kg)       | (kg)             | Nominal  | Actual     | Nominal                  | Actual | (inch)     | % E          | Re      |
| 1       | 0.370    | 3/8 | 0.372               | 0.11          | 0.109  | 4130       | 5070             | 82800  | 83730      | 101600                   | 102800 | 0.80       | 10.0         |         |
| •       | 0.376    | 3/8 | 0.375               | 0.11          | 0.110  | 4450       | 5400             | 89200  | 88770      | 108200                   | 107800 | 1.00       | 12.5         |         |
| •       | -        | -   | -                   | -             | -      | -          | -                | -  | -          | -                        | -      | -          | -            |         |
| •       | -        | -   | -                   | -             | -      | -          | -                | -  | -          | -                        | -      | -          | -            |         |
| -       | -        | -   | -                   | -             | -      | -          | _                | -  | -          | -                        | -      | -          | -            |         |
| -       | -        | -   | -                   | -             | -      | -          | _                | -  | -          | -                        | -      | -          | -            |         |
|         |          |     |                     |               | Not    | te: only t | wo samp          | les for te   | nsile test |                          |        |            | ı            |         |
|         |          |     |                     |               |        |            |                  |  |            |                          |        |            |              |         |
|         |          |     |                     |               |        |            | Bend T           | 'est   |            |                          |        |            |              |         |
|         |          |     |                     |               |        |            |                  |  |            |                          |        |            |              |         |

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,

Assistant Director (QCD) WASA, LDA, Lahore. (M/s New Shalimar Pipe Industries.)

Reference # CED/TFL <u>6270 (Dr. Ali Ahmed)</u> Reference of the request letter # QCD/2683

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

Date of Test 02-01-2025 Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test

| Sr. No. | Weight                      |        | neter/<br>ze  | Area<br>(in²) |           | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |          |           | Ultimate Stress<br>(psi) |        | % Elongation | Remarks |
|---------|-----------------------------|--------|---------------|---------------|-----------|------------|------------------|-----------------------|----------|-----------|--------------------------|--------|--------------|---------|
| S       | (lbs/ft) Nominal (#) Actual |        | Actual (inch) | Nominal       | Actual    | (kg)       | (kg)             | Nominal               | Actual   | Nominal   | Actual                   | (inch) | % E          | R       |
| 1       | 0.373                       | 3      | 0.373         | 0.11          | 0.110     | 4130       | 5250             | 82800                 | 83090    | 105200    | 105700                   | 1.10   | 13.8         |         |
|         | -                           | -      | -             | -             | -         | -          | -                | -                     | -        | -         | -                        | -      | -            |         |
| ı       | •                           | ı      | ı             | ı             | -         | -          | •                | ı                     | -        | -         | -                        | -      | ı            |         |
| 1       | •                           | ı      | ı             | ı             | -         | -          | •                | ı                     | -        | -         | -                        | -      | ı            |         |
| ,       |                             | •      | -             | 1             | -         | -          | -                | -                     | -        | -         | -                        | -      | 1            |         |
| 1       | -                           | -      | -             | -             | -         | -          | -                | -                     | -        | -         | -                        | -      | -            |         |
|         |                             |        | N             | ote: on       | ly one    | sample fo  | or tensile       | and one               | sample f | or bend t | est                      |        |              |         |
|         |                             |        |               |               |           |            | D 1 T            | \4                    |          |           |                          |        |              |         |
| #3      | Bar Ben                     | d Test | Through       | 180° i        | s Satisfa | actory     | Bend T           | est                   |          |           |                          |        |              |         |

I/C Testing Laboratoires UET Lahore, Pakistan.

Dated: 01-01-2025

Dated: 28-12-2024

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

To,

Deputy Manager Civil Construction Division GSC LESCO

Survey, Design, Manufacture, Procurement, Supply, Laying, Installation, Testing and Commission of 132 kV Double Circuit Single Core 1000 mm Sq. Underground Copper Cable for Orange Line Metro Train Project.

Reference # CED/TFL **6279** (Dr. Ali Ahmed)

Dated: 02-01-2025 Reference of the request letter # D.M/CIVIL/GSSSSC/LESCO/3221-23 Dated: 30-12-2024

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

Date of Test 02-01-2025 Gauge length 8 inches

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

| Sr. No. | Weight                  | Si | neter/<br>ze<br>m) | Area<br>(in²) |       | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |             | Ultimate Stress<br>(psi) |        | Elongation | Elongation | Remarks |
|---------|-------------------------|----|--------------------|---------------|-------|------------|------------------|-----------------------|-------------|--------------------------|--------|------------|------------|---------|
|         | (lbs/ft) Nominal Actual |    | Nominal            | Actual        | (kg)  | (kg)       | Nominal          | Actual                | Nominal     | Actual                   | (inch) | <b>3</b> % | R          |         |
| 1       | 0.372                   | 10 | 9.48               | 0.12          | 0.109 | 3600       | 4600             | 66138                 | 72500       | 84510                    | 92700  | 1.20       | 15.0       |         |
| 2       | 0.376                   | 10 | 9.53               | 0.12          | 0.111 | 3700       | 4700             | 67975                 | 73700       | 86347                    | 93700  | 1.20       | 15.0       |         |
| 3       | 0.376                   | 10 | 9.52               | 0.12          | 0.110 | 3700       | 4700             | 67975                 | 73870       | 86347                    | 93900  | 1.00       | 12.5       |         |
| -       | -                       | -  | -                  | -             | -     | -          | -                | -                     | -           | -                        | -      | -          | -          |         |
| -       | -                       | -  | -                  | -             | -     | -          | -                | -                     | -           | -                        | -      | -          | -          |         |
| -       | -                       | -  | -                  | -             | -     | -          | -                | -                     | -           | -                        | -      | -          | -          |         |
|         |                         |    |                    |               | Note  | e: only th | ree samp         | les for te            | ensile test |                          |        |            |            |         |
|         |                         |    |                    |               |       |            |                  |                       |             |                          |        |            |            |         |
|         |                         |    |                    |               |       |            | Bend T           | est                   |             |                          |        |            |            |         |
|         |                         |    |                    |               |       |            |                  |                       |             |                          |        |            |            |         |

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

I/C Testing Laboratoires UET Lahore, Pakistan.

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