



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

To,  
 Deputy Project Manager  
 Engineering Consultancy Services Punjab (Pvt.) Ltd.  
 Establishment of District Integrated Command, Control & Communication (DIC3) Centers in  
 Eighteen (18) Cities (Smart Safe Cities Project Phase-I)  
 Reference # CED/TFL **6729 & 6731** (Dr. Ali Ahmed)  
 Reference of the request letter # ECSP/DIC3/25-11

Dated: 19-03-2025

Dated: 17-03-2025

**Tension Test Report** (Page – 1/2)

Date of Test 26-03-2025

Gauge length 2 inches

Description 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 <sup>2</sup> ) | (kN)       | (kN)          | (MPa)        | (MPa)           | (in)       |              |         |
| 1       | Steel Plates (3.5 mm) | 24.20x3.20    | 77.44              | 39.70      | 46.00         | 513          | 594             | 0.50       | 25.00        |         |
| 2       | Steel Plates (3.5 mm) | 24.40x3.20    | 78.08              | 39.00      | 44.50         | 499          | 570             | 0.50       | 25.00        |         |
| 3       | Steel Plates (4 mm)   | 24.10x3.80    | 91.58              | 33.00      | 45.50         | 360          | 497             | 0.60       | 30.00        |         |
| 4       | Steel Plates (4 mm)   | 24.50x3.50    | 85.75              | 31.20      | 44.20         | 364          | 515             | 0.60       | 30.00        |         |
| 5       | Steel Plates (5 mm)   | 24.20x5.00    | 121.00             | 46.20      | 59.50         | 382          | 492             | 0.60       | 30.00        |         |
| 6       | Steel Plates (5 mm)   | 24.20x4.80    | 116.16             | 43.50      | 59.70         | 374          | 514             | 0.70       | 35.00        |         |
| 7       | Steel Plates (20 mm)  | 24.50x20.60   | 504.70             | 166.50     | 228.00        | 330          | 452             | 0.80       | 40.00        |         |
| 8       | Steel Plates (20 mm)  | 24.80x19.50   | 483.60             | 172.20     | 232.50        | 368          | 497             | 0.90       | 45.00        |         |

**Only Eight Samples for Tensile and Four for Bend Test**

**Bend Test**

Nominal Thickness 3.5mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 4mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 5mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 20mm Strip Bend Test Through 180° is Satisfactory

Test Performed and Verified by:

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

To,  
 Deputy Project Manager  
 Engineering Consultancy Services Punjab (Pvt.) Ltd.  
 Engineering, Procurement & Construction and Operation & Maintenance of Nineteen (19)  
 Districts (Smart Safe Cities) Project Phase-II  
 Reference # CED/TFL **6729 & 6731** (Dr. Ali Ahmed)  
 Reference of the request letter # ECSP/SSC/PHII/25-08

Dated: 19-03-2025

Dated: 17-03-2025

**Tension Test Report** (Page – 2/2)

Date of Test 26-03-2025

Gauge length 2 inches

Description 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 <sup>2</sup> ) | (kN)       | (kN)          | (MPa)        | (MPa)           | (in)       |              |         |
| 1       | Steel Plates (3.5 mm) | 24.90x3.20    | 79.68              | 31.20      | 46.50         | 392          | 584             | 0.50       | 25.00        |         |
| 2       | Steel Plates (3.5 mm) | 24.40x3.20    | 78.08              | 31.30      | 46.50         | 401          | 596             | 0.50       | 25.00        |         |
| 3       | Steel Plates (4 mm)   | 24.20x3.80    | 84.70              | 31.50      | 44.50         | 372          | 525             | 0.60       | 30.00        |         |
| 4       | Steel Plates (4 mm)   | 24.40x3.90    | 95.16              | 31.70      | 45.50         | 333          | 478             | 0.50       | 25.00        |         |
| 5       | Steel Plates (5 mm)   | 24.20x4.90    | 118.58             | 44.50      | 59.70         | 375          | 503             | 0.60       | 30.00        |         |
| 6       | Steel Plates (5 mm)   | 24.20x4.90    | 118.58             | 42.70      | 59.00         | 360          | 498             | 0.50       | 25.00        |         |
| 7       | Steel Plates (20 mm)  | 24.80x19.80   | 491.04             | 166.20     | 225.70        | 338          | 460             | 0.80       | 40.00        |         |
| 8       | Steel Plates (20 mm)  | 24.90x19.90   | 495.51             | 166.00     | 226.00        | 335          | 456             | 0.90       | 45.00        |         |

**Only Eight Samples for Tensile and Four for Bend Test**

**Bend Test**

Nominal Thickness 3.5mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 4mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 5mm Strip Bend Test Through 180° is Satisfactory

Nominal Thickness 20mm Strip Bend Test Through 180° is Satisfactory

Test Performed and Verified by:

**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,

Imran Hafeez Khan  
Resident Engineer,  
NESPAK Pvt. Ltd.

Restoration/Improvement of Road From Haranpur to Sauwal I/C Links, Length = 10.50  
KM, Tehsil P.D Khan District Jhelum

Reference # CED/TFL **6740** (Dr. Ali Ahmed)

Dated: 20-03-2025

Reference of the request letter # NESPAK/RE/JH/HS/25/05

Dated: 28-02-2025

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

Date of Test

26-03-2025

Gauge length

8 inches

Description

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

| Sr. No.   | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|---|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|   | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1   | 0.372    | 3                 | 0.373            | 0.11                       | 0.109  | 34.50      | 50.70            | 70500                 | 70870  | 103600                   | 104200 | 1.20       | 15.0         |         |
| 2   | 0.375    | 3                 | 0.375            | 0.11                       | 0.110  | 34.50      | 51.20            | 70500                 | 70250  | 104600                   | 104300 | 1.30       | 16.3         |         |
| -   | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -   | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| <b>Note: Only Two Sample for Tensile and One for Bend test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| Bend Test   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| #3 Bar Bend Test Through 180° is Satisfactory.                  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |

Test Performed and Verified by:

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

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

M Waseem Azhar  
Assistant Director (QCD)  
WASA, LDA, Lahore

Reference # CED/TFL **6742** (Dr. Ali Ahmed)  
Reference of the request letter # QCD/1194

Dated: 20-03-2025

Dated: 18-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.   | Weight | Diameter/ Size |               | Area (in <sup>2</sup> ) |        | Yield load | Breaking Load | Yield Stress (psi) |        | Ultimate Stress (psi) |        | Elongation | % Elongation | Remarks |
|---|--------|----------------|---------------|-------------------------|--------|------------|---------------|--------------------|--------|-----------------------|--------|------------|--------------|---------|
|   |        | Nominal (inch) | Actual (inch) | Nominal                 | Actual |            |               | Nominal            | Actual | Nominal               | Actual |            |              |         |
| 1   | 0.365  | 3/8            | 0.369         | 0.11                    | 0.107  | 33.50      | 48.50         | 68500              | 70250  | 99100                 | 101700 | 1.20       | 15.0         |         |
| -   | -      | -              | -             | -                       | -      | -          | -             | -                  | -      | -                     | -      | -          | -            |         |
| -   | -      | -              | -             | -                       | -      | -          | -             | -                  | -      | -                     | -      | -          | -            |         |
| -   | -      | -              | -             | -                       | -      | -          | -             | -                  | -      | -                     | -      | -          | -            |         |
| <b>Note: Only One Sample for Tensile and One for Bend test.</b> |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |
|   |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |
| Bend Test   |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |
| 3/8 Bar Bend Test Through 180° is Satisfactory.                 |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |
|   |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |
|   |        |                |               |                         |        |            |               |                    |        |                       |        |            |              |         |

Test Performed and Verified by:

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

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**STRUCTURAL ENGINEERING DIVISION**  
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**Department of Civil Engineering**  
**University of Engineering and Technology Lahore, 54890**  
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To,  
Farhan Sajid  
Team Leader  
M/s HA Consulting Jv Mascon Associates  
Construction of Stitching Unit in Quaid-E-Azam Business Park at Sheikhpura (Group-1)  
Reference # CED/TFL **6743** (Dr. Ali Ahmed) Dated: 20-03-2025  
Reference of the request letter # 24/HA-MAS/U-/01668 Dated: 19-02-2025

**Tension Test Report** (Page – 1/2)

Date of Test 26-03-2025  
Gauge length 2 inches  
Description 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 <sup>2</sup> ) | (kN)       | (kN)          | (MPa)        | (MPa)           | (in)       |              |         |
| 1                                | MS Plate (450*456*4mm)  | 30.40x3.5     | 106.40             | 53.20      | 62.70         | 500          | 589             | 0.60       | 30.00        |         |
| 2                                | MS Plate (125*456*5mm)  | 30.30x4.0     | 121.20             | 47.20      | 64.70         | 389          | 534             | 0.70       | 35.00        |         |
| 3                                | MS Plate (200*456*6mm)  | 30.60x5.2     | 159.12             | 84.70      | 112.20        | 532          | 705             | 0.60       | 30.00        |         |
| 4                                | MS Plate (370*456*8mm)  | 30.40x7.7     | 234.08             | 125.70     | 152.70        | 537          | 652             | 0.70       | 35.00        |         |
| 5                                | MS Plate (300*456*10mm) | 30.40x9.3     | 282.72             | 134.50     | 171.20        | 476          | 606             | 0.80       | 40.00        |         |
| 6                                | MS Plate (355*456*12mm) | 30.40x11.2    | 340.48             | 153.40     | 196.70        | 451          | 578             | 0.80       | 40.00        |         |
| 7                                | MS Plate (350*456*14mm) | 30.50x13.3    | 405.65             | 188.50     | 249.00        | 465          | 614             | 0.80       | 40.00        |         |
| 8                                | MS Plate (360*456*20mm) | 30.60x17.2    | 526.32             | 192.50     | 261.70        | 366          | 497             | 1.00       | 50.00        |         |
| 9                                | MS Plate (200*456*24mm) | 30.50x19.5    | 594.75             | 278.00     | 356.20        | 467          | 599             | 1.10       | 55.00        |         |
| 10                               | MS Plate (316*456*30mm) | 27.50x24.8    | 682.00             | 311.70     | 412.00        | 457          | 604             | 1.10       | 55.00        |         |
| Only Ten Sample for Tensile Test |                         |               |                    |            |               |              |                 |            |              |         |
| Bend Test                        |                         |               |                    |            |               |              |                 |            |              |         |
|                                  |                         |               |                    |            |               |              |                 |            |              |         |

Test Performed and Verified by:

**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,  
Farhan Sajid  
Team Leader  
M/s HA Consulting Jv Mascon Associates  
Construction of Stitching Unit in Quaid-E-Azam Business Park at Sheikhpura (Group-2)  
Reference # CED/TFL **6743** (Dr. Ali Ahmed) Dated: 20-03-2025  
Reference of the request letter # 24/HA-MAS/U-/01668 Dated: 19-02-2025

**Tension Test Report** (Page – 2/2)

Date of Test 26-03-2025  
Gauge length 2 inches  
Description 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 <sup>2</sup> ) | (kN)       | (kN)          | (MPa)        | (MPa)           | (in)       |              |         |
| 1                                | MS Plate (460*460*4mm)  | 28.30x3.40    | 96.22              | 42.50      | 57.70         | 442          | 600             | 0.50       | 25.00        |         |
| 2                                | MS Plate (460*460*5mm)  | 28.20x4.1     | 115.62             | 45.20      | 64.70         | 391          | 560             | 0.60       | 30.00        |         |
| 3                                | MS Plate (460*460*6mm)  | 28.20x5.2     | 146.64             | 55.50      | 80.20         | 378          | 547             | 0.70       | 35.00        |         |
| 4                                | MS Plate (460*460*8mm)  | 27.70x7.2     | 199.44             | 67.70      | 101.70        | 339          | 510             | 0.80       | 40.00        |         |
| 5                                | MS Plate (460*460*10mm) | 27.80x9.5     | 264.10             | --         | 135.00        | --           | 511             | 0.90       | 45.00        |         |
| 6                                | MS Plate (460*460*12mm) | 27.40x11.5    | 315.10             | --         | 160.00        | --           | 508             | 0.90       | 45.00        |         |
| 7                                | MS Plate (460*460*16mm) | 27.30x15.3    | 417.69             | 155.00     | 220.50        | 371          | 528             | 1.00       | 50.00        |         |
| 8                                | MS Plate (460*460*20mm) | 29.10x19.2    | 558.72             | 191.50     | 271.00        | 343          | 485             | 1.00       | 50.00        |         |
| 9                                | MS Plate (460*460*24mm) | 27.30x24.2    | 660.66             | 198.50     | 301.00        | 300          | 456             | 1.20       | 60.00        |         |
| 10                               | MS Plate (460*460*30mm) | 27.50x29.6    | 814.00             | 257.50     | 378.20        | 316          | 465             | 1.10       | 55.00        |         |
| Only Ten Sample for Tensile Test |                         |               |                    |            |               |              |                 |            |              |         |
| Bend Test                        |                         |               |                    |            |               |              |                 |            |              |         |
|                                  |                         |               |                    |            |               |              |                 |            |              |         |

Test Performed and Verified by:

**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,

Muhammad Shahbaz Abbas  
 Executive Engineer  
 GE (Army)-I Gwa  
 Const of 8 x Sldrs Flats (G+3) Block No.3, HQ 1 ALRG at Gwa

Reference # CED/TFL **6744** (Dr. Ali Ahmed)

Dated: 21-03-2025

Reference of the request letter # 6180-2856/12/E-6

Dated: 18-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615 (S.J Steel)

| Sr. No.   | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|---|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|   | (lbs/ft) | Nominal<br>(inch) | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1   | 0.386    | 3/8               | 0.380            | 0.11                       | 0.114  | 35.20      | 51.50            | 71900                 | 69640  | 105200                   | 101900 | 0.80       | 10.0         |         |
| -   | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -   | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -   | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| <b>Note: Only One Sample for tensile and One for Bend test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| Bend Test   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| 3/8 Bar Bend Test Through 180° is Satisfactory. (S.J Steel)     |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |

Test Performed and Verified by:

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

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

To,

M. Yasir Kiani  
 Resident Engineer (JCP Wahga)  
 NESPAK, Pvt. Ltd. Lahore.  
 Expansion of Joint Check Post Wahga, Lahore.

Reference # CED/TFL **6746** (Dr. Ali Ahmed)  
 Reference of the request letter # 4749/031/YK/01/155

Dated: 21-03-2025  
 Dated: 18-03-2025

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

Date of Test 26-03-2025  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks    |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|------------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |            |
| 1  | 0.377    | 3                 | 0.376            | 0.11                       | 0.111  | 32.50      | 45.20            | 66400                 | 65820  | 92400                    | 91600  | 1.20       | 15.0         | Aziz Steel |
| 2  | 0.386    | 3                 | 0.380            | 0.11                       | 0.113  | 33.00      | 46.00            | 67500                 | 65420  | 94000                    | 91200  | 1.20       | 15.0         |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| <b>Note: Only Two Samples for Tensile and One for Bend test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| #3 Bar Bend Test Through 180° is Satisfactory. (Aziz Steel)      |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |

Test Performed and Verified by:

**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,

Head Construction Site.  
 ABL-UML P-199 & 200  
 Construction of ABL Upper Mall Lahore Plot No 199, 200.

Reference # CED/TFL **6747** (Dr. Ali Ahmed)

Dated: 21-03-2025

Reference of the request letter # ABL-UML-AMC-QAQC-109

Dated: 21-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks    |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|------------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |            |
| 1  | 0.374    | 3                 | 0.374            | 0.11                       | 0.110  | 36.20      | 46.70            | 74000                 | 73930  | 95400                    | 95400  | 1.40       | 17.5         | (FF Steel) |
| 2  | 0.379    | 3                 | 0.377            | 0.11                       | 0.111  | 36.70      | 47.20            | 75000                 | 73960  | 96500                    | 95200  | 1.40       | 17.5         |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| #3 Bar Bend Test Through 180° is Satisfactory. (FF Steel)              |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |

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**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,  
 Muhammad Ibrar  
 Innovative Construction Company  
 Shoring Works at Kingdom Arena, RUDA, Lahore.

Reference # CED/TFL **6748** (Dr. Ali Ahmed)  
 Reference of the request letter # ICL/KA/PW/0324/05

Dated: 21-03-2025  
 Dated: 21-03-2025

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

Date of Test 26-03-2025  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1  | 0.367    | 3                 | 0.370            | 0.11                       | 0.108  | 37.50      | 46.50            | 76600                 | 78190  | 95000                    | 97000  | 1.40       | 17.5         |         |
| 2  | 0.364    | 3                 | 0.369            | 0.11                       | 0.107  | 39.50      | 48.70            | 80700                 | 83050  | 99500                    | 102400 | 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.                         |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |

Test Performed and Verified by:

**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,

Sub Divisional Officer  
Buildings Sub Division,  
Layyah.

Revamping of 581 BHUs of South Punjab Tehsil Layyah & Selected BHUs of Tehsil  
Choubara (Phase-1) for the Year 2024-25

Reference # CED/TFL **6749** (Dr. Ali Ahmed)

Dated: 21-03-2025

Reference of the request letter # 200/Ly

Dated: 17-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kg)       | (kg)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1  | 0.365    | 3                 | 0.370            | 0.11                       | 0.107  | 3020       | 4180             | 60600                 | 61990  | 83800                    | 85800  | 1.70       | 21.3         |         |
| 2  | 0.359    | 3                 | 0.366            | 0.11                       | 0.105  | 2960       | 4080             | 59400                 | 61880  | 81800                    | 85300  | 1.60       | 20.0         |         |
| 3  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| 4  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| 5  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| 6  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| <b>Note: only two samples for tensile and One sample for Bend test</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| 3/8 Bar Bend Test Through 180° is Satisfactory                         |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |

Test Performed and Verified by:

**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

HA Consulting

Establishment/Construction of Model Bazar Sharaqpur District Sheikhupura.

Reference # CED/TFL **6753** (Dr. Ali Ahmed)

Dated: 24-03-2025

Reference of the request letter # 25/HAC-MAS/RE/Sharaqpur/129 Dated: 19-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.   | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks         |
|---|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|-----------------|
|   | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |                 |
| 1   | 0.373    | 3                 | 0.373            | 0.11                       | 0.110  | 39.20      | 48.00            | 80100                 | 80400  | 98100                    | 98500  | 1.10       | 13.8         | Mughal<br>Steel |
| 2   | 0.373    | 3                 | 0.373            | 0.11                       | 0.110  | 37.70      | 47.50            | 77100                 | 77340  | 97100                    | 97500  | 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. (Mughal Steel)           |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
|   |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |

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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,

Engr. Aziz ur Rehman  
Assistant Resident Engineer  
ACE-Arts

Reference # CED/TFL **6755** (Dr. Ali Ahmed)

Dated: 24-03-2025

Reference of the request letter # NZEB/ACE/LAB/2025/29

Dated: 21-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks       |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |               |
| 1  | 0.362    | 3                 | 0.368            | 0.11                       | 0.107  | 31.20      | 48.70            | 63800                 | 65810  | 99500                    | 102800 | 1.20       | 15.0         | Karachi Steel |
| 2  | 0.367    | 3                 | 0.370            | 0.11                       | 0.108  | 32.70      | 49.70            | 66800                 | 68160  | 101600                   | 103600 | 1.20       | 15.0         |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| #3 Bar Bend Test Through 180° is Satisfactory. <b>(Karachi Steel)</b>  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |

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

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

To,

Muhammad Shahbaz Abbas  
 Executive Engineer  
 GE (Army)-I Gwa

Reference # CED/TFL **6757** (Dr. Ali Ahmed)

Dated: 24-03-2025

Reference of the request letter # 6180-2843/10/E-6

Dated: 18-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks       |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------------|
|  | (lbs/ft) | Nominal<br>(Inch) | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |               |
| 1  | 0.366    | 3/8               | 0.370            | 0.11                       | 0.107  | 31.50      | 46.00            | 64400                 | 65880  | 94000                    | 96200  | 1.40       | 17.5         | Aziz<br>Steel |
| 2  | 0.361    | 3/8               | 0.368            | 0.11                       | 0.106  | 31.70      | 46.20            | 64800                 | 67070  | 94400                    | 97800  | 1.30       | 16.3         |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| <b>Note: Only Two Samples for Tensile and One Sample for Bend Test</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| 3/8 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,

Muhammad Shahbaz Abbas  
 Executive Engineer  
 GE (Army)-I Gwa

Reference # CED/TFL **6758** (Dr. Ali Ahmed)  
 Reference of the request letter # 6180-2854/11/E-6

Dated: 24-03-2025  
 Dated: 19-03-2025

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

Date of Test 26-03-2025  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks       |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------------|
|  | (lbs/ft) | Nominal<br>(Inch) | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |               |
| 1  | 0.365    | 3/8               | 0.369            | 0.11                       | 0.107  | 32.20      | 45.70            | 65800                 | 67490  | 93400                    | 95800  | 1.50       | 18.8         | Aziz<br>Steel |
| 2  | 0.363    | 3/8               | 0.368            | 0.11                       | 0.107  | 32.50      | 46.20            | 66400                 | 68510  | 94400                    | 97400  | 1.30       | 16.3         |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| <b>Note: Only Two Samples for Tensile and One Sample for Bend Test</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| 3/8 Bar Bend Test Through 180° is Satisfactory.                        |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |

Test Performed and Verified by:

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

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

To,

Muhammad Rehman Siddiqi  
SDO B&R-I  
GE (Army)-I Gwa  
Const. of 8 x E Type Flats for HQ 1ALRG at Gwa

Reference # CED/TFL **6761 (Dr. Ali Ahmed)**

Dated: 24-03-2025

Reference of the request letter # 6180-2843/10/E-6

Dated: 18-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks    |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|------------|
|  | (lbs/ft) | Nominal<br>(Inch) | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |            |
| 1  | 0.360    | 3/8               | 0.367            | 0.11                       | 0.106  | 31.70      | 44.70            | 64800                 | 67310  | 91300                    | 94900  | 1.40       | 17.5         | Aziz Steel |
| 2  | 0.361    | 3/8               | 0.368            | 0.11                       | 0.106  | 31.70      | 45.70            | 64800                 | 67090  | 93400                    | 96800  | 1.40       | 17.5         |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |            |
| <b>Note: Only Two Samples for Tensile and One Sample for Bend Test</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
| 3/8 Bar Bend Test Through 180° is Satisfactory.                        |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |            |

Test Performed and Verified by:

**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,

Engr. Farrukh Alvi  
Deputy General Manager (Works)  
Habib Rafiq Engineering (Pvt.) Ltd.  
101 Tower, Lahore.

Reference # CED/TFL **6765** (Dr. Ali Ahmed)

Dated: 25-03-2025

Reference of the request letter # HRLE/SKG/2025/Hunza/10-7.025/205

Dated: 25-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks       |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------------|
|  | (lbs/ft) | Nominal<br>(mm)   | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |               |
| 1  | 0.369    | 10                | 0.372            | 0.11                       | 0.108  | 33.20      | 44.00            | 67900                 | 68790  | 89900                    | 91200  | 1.50       | 18.8         | (Hunza Steel) |
| 2  | 0.369    | 10                | 0.372            | 0.11                       | 0.109  | 33.00      | 43.50            | 67500                 | 68330  | 88900                    | 90100  | 1.60       | 20.0         |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |               |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
| 10mm Bar Bend Test Through 180° is Satisfactory. <b>(Hunza Steel)</b>  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |               |

Test Performed and Verified by:

**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,

Usman Habib  
Project Engineer  
New Diamond Glass House

Reference # CED/TFL **6766** (Dr. Ali Ahmed)  
Reference of the request letter # Nil

Dated: 25-03-2025  
Dated: 25-03-2025

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

Date of Test 26-03-2025  
Gauge length 8 inches  
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1  | 0.369    | 3                 | 0.371            | 0.11                       | 0.108  | 31.50      | 46.20            | 64400                 | 65300  | 94400                    | 95800  | 1.70       | 21.3         |         |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| <b>Note: Only One Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| #3 Bar Bend Test Through 180° is Satisfactory.                         |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |

Test Performed and Verified by:

**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,

Mohsin Abbas

QAQC Manager

Zameen Development

Construction of JADE Project by Zameen Development, Lahore Pakistan

Reference # CED/TFL **6768** (Dr. Ali Ahmed)

Dated: 25-03-2025

Reference of the request letter # ZD/QAQC/SS2503-000136/JADE/07 Dated: 25-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks         |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|-----------------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |                 |
| 1  | 0.391    | 3                 | 0.383            | 0.11                       | 0.115  | 35.50      | 54.20            | 72600                 | 69410  | 110800                   | 106000 | 1.10       | 13.8         | Heat#<br>SS-108 |
| 2  | 0.382    | 3                 | 0.378            | 0.11                       | 0.112  | 34.00      | 53.20            | 69500                 | 68090  | 108700                   | 106600 | 1.20       | 15.0         |                 |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |                 |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |                 |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
| #3 Bar Bend Test Through 180° is Satisfactory. (Heat# SS-108)          |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                 |

Test Performed and Verified by:

**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,

Mohsin Abbas  
 QAQC Manager  
 Zameen Development  
 Construction of JADE Project by Zameen Development, Lahore Pakistan

Reference # CED/TFL **6769** (Dr. Ali Ahmed)

Dated: 25-03-2025

Reference of the request letter # ZD/QAQC/KS-013347/Phoenix/13

Dated: 25-03-2025

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

Date of Test 26-03-2025

Gauge length 8 inches

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

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks           |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|-------------------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |                   |
| 1  | 0.363    | 3                 | 0.369            | 0.11                       | 0.107  | 34.50      | 46.20            | 70500                 | 72600  | 94400                    | 97300  | 1.30       | 16.3         | Heat #<br>KS-M116 |
| 2  | 0.368    | 3                 | 0.371            | 0.11                       | 0.108  | 34.20      | 46.70            | 69900                 | 70960  | 95400                    | 96900  | 1.20       | 15.0         |                   |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |                   |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |                   |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |
| Bend Test  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |
| #3 Bar Bend Test Through 180° is Satisfactory. (Heat# KS-M116)         |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |                   |

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**UET Lahore, Pakistan.**

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

To,  
 Abdul Sattar  
 Infitech Engineering Pvt.

Reference # CED/TFL **6771** (Dr. Ali Ahmed)  
 Reference of the request letter # Nil

Dated: 25-03-2025  
 Dated: 25-03-2025

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

Date of Test 26-03-2025  
 Gauge length 8 inches  
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

| Sr. No.  | Weight   | Diameter/<br>Size |                  | Area<br>(in <sup>2</sup> ) |        | Yield load | Breaking<br>Load | Yield Stress<br>(psi) |        | Ultimate Stress<br>(psi) |        | Elongation | % Elongation | Remarks |
|--|----------|-------------------|------------------|----------------------------|--------|------------|------------------|-----------------------|--------|--------------------------|--------|------------|--------------|---------|
|  | (lbs/ft) | Nominal<br>(#)    | Actual<br>(inch) | Nominal                    | Actual | (kN)       | (kN)             | Nominal               | Actual | Nominal                  | Actual | (inch)     |              |         |
| 1  | 0.364    | 3                 | 0.369            | 0.11                       | 0.107  | 33.00      | 45.50            | 67500                 | 69320  | 93000                    | 95600  | 1.40       | 17.5         |         |
| 2  | 0.363    | 3                 | 0.369            | 0.11                       | 0.107  | 33.20      | 45.00            | 67900                 | 69850  | 92000                    | 94700  | 1.50       | 18.8         |         |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| -  | -        | -                 | -                | -                          | -      | -          | -                | -                     | -      | -                        | -      | -          | -            |         |
| <b>Note: Only Two Sample for Tensile and One Sample for Bend Test.</b> |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
|  |          |                   |                  |                            |        |            |                  |                       |        |                          |        |            |              |         |
| 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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