

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

Ref: <u>CED/TFL/12/34273</u> Dated: <u>06-12-18</u>

Dated of Test: <u>17-12-18</u>

To
Deputy Director
Punjab Housing & Town Planning Agency
Sub Region, Gujranwala
(Laid Area Development Scheme, No II, Hafizabad

Subject: TESTING OF R.C.C. PIPE [ASTM-C76] (Page -1/1)

Reference to your letter No. 701, dated 22.10.2019 on the subject cited above. Two R.C.C. Pipes as received by us have been tested. The results are tabulated as under.

| Sr. No | Nominal Size | Total Length | Loaded Length | External Diameter | Internal Diameter | Wall Thickness | Proof load | Ultimate Load | Proof Stress | Ultimate Stress |
|-----------|-----------------|-----------------|--------------------------------|----------------------|----------------------|-------------------|------------|------------------|-----------------|--------------------|
| • | (mm) | (m) | (m) | (mm) | (mm) | (mm) | (kg) | (kg) | N/m/mm | N/m/mm |
| 1 | 228.6 (9") | 2.394 | 2.242 | 283.00 | 224.34 | 29.33 | 11000 | 17000 | 214.55 | 331.57 |
| 2 | 304.8 (12") | 2.358 | 2.235 | 412.00 | 309.86 | 51.07 | 17000 | 25000 | 240.81 | 354.13 |

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

Ref: <u>CED/TFL/12/34289</u> Dated: <u>09-12-18</u>

Dated of Test: 17-12-18

To Maintenance Engineer-II University of The Punjab Sewer Line from Cricket Atadium to Near Girls Hostel No. 1

Subject: TESTING OF R.C.C. PIPE [ASTM-C76] (Page -1/2)

Reference to your letter No. 1249-MEII, dated 29.11.2019 on the subject cited above. One R.C.C. Pipe as received by us has been tested. The results are tabulated as under.

| Sr. No | Nominal Size | Total Length | Loaded Length | External Diameter | Internal Diameter | Wall Thickness | Proof load | Ultimate Load | Proof Stress | Ultimate Stress |
|-----------|-----------------|-----------------|------------------|----------------------|----------------------|-------------------|------------|------------------|-----------------|--------------------|
| • | (mm) | (m) | (m) | (mm) | (mm) | (mm) | (kg) | (kg) | N/m/mm | N/m/mm |
| 1 | 381.0 (15") | 2.376 | 2.235 | 500.00 | 382.00 | 59.00 | 9500 | 14500 | 109.16 | 166.61 |

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To,
Maintenance Engineer-II
University of The Punjab
Sewer Line from Cricket Atadium to Near Girls Hostel No. 1

Reference # CED/TFL **34289** (Dr. Ali Ahmed)

Reference of the request letter # 1249-MEII

Dated: 09-12-2019

Dated: 29-11-2019

Tension Test Report (Page -2/2)

Date of Test 17-12-2019
Gauge length 8 inches

Description Steel Bar (From RCC Pipe 15") Tensile Test

| Sr. No. | Weight | Diameter/ Size (inch) | | Size | | Size | | Size | | Size | | Size | | Size | | Size | | Size (inch) | | Size (inch) | | Area (in²) | | | | Yield load | Breaking Load | | Stress si) | | te Stress si) | Elongation | Elongation | Remarks |
|---------|----------|-----------------------------|--------|---------|--------|-----------|----------|-----------|------------|---------|--------|--------|-----|------|--|------|--|----------------|--|----------------|--|------------|--|--|--|------------|------------------|--|---------------|--|------------------|------------|------------|---------|
| S | (lbs/ft) | Nominal | Actual | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | Re | | | | | | | | | | | | | | | | | | | | |
| 1 | 0.104 | 3/16 | 0.197 | | 0.031 | 1300 | 1500 | | 93560 | | 108000 | 0.50 | 6.3 | | | | | | | | | | | | | | | | | | | | | |
| 2 | 0.104 | 3/16 | 0.198 | | 0.031 | 1260 | 1480 | | 90640 | | 106500 | 0.60 | 7.5 | | | | | | | | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | | | | | | | | | |
| | | | 1 | | Not | e: only t | wo sampl | es for te | nsile test | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | Bend T | est | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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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, Executive Engineer Building Division No. 2 Faisalabad

Reference # CED/TFL **34322** (Dr. Ali Ahmed)

Reference of the request letter # 3651/CB

Dated: 13-12-2019

Dated: 10-12-2019

Tension Test Report (Page -1/1)

Date of Test 17-12-2019 Gauge length 8 inches

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

| Sr. No. | eig S | | 170 | | Area (in²) | | | | Breaking Load | Yield Stress (psi) | | Ultimate Stress (psi) | | Elongation | Elongation | Remarks |
|---------|--|---------|--------|---------|---------------|----------|------------|---------|------------------|-----------------------|--------|--------------------------|------|------------|------------|---------|
| S | (lbs/ft) | Nominal | Actual | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | H % | Re | | |
| 1 | 0.389 | 3/8 | 0.382 | 0.11 | 0.114 | 3400 | 5200 | 68200 | 65470 | 104200 | 100200 | 1.10 | 13.8 | | | |
| 2 | 0.393 | 3/8 | 0.383 | 0.11 | 0.115 | 3600 | 5300 | 72200 | 68730 | 106200 | 101200 | 1.00 | 12.5 | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| - | - | - | • | ı | - | • | - | • | - | - | • | - | ı | | | |
| - | - | - | | • | - | • | - | - | - | - | - | - | | | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| | | | No | ote: on | ly two s | amples f | or tensile | and one | sample f | or bend | test | 1 | | | | |
| 3/8 | Bend Test 3/8" Dia Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | | | |

I/C Testing Laboratoires UET Lahore, Pakistan.

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To,

General Manager (Const)

Potential Engineers (Pvt) Limited

Construction of Foundations, Erection, Stringing Testing and Commission of 220kV D/C NKLP-Sarfraz Nagar Transmission Line in/out at 220kV Ghazi Grid Station Lahore (City UAE Steel)

Reference # CED/TFL **34323** (Dr. Ali Ahmed)

Reference of the request letter # PE-Ghazi Road/TL/509

Dated: 16-12-2019

Dated: 16-12-2019

Tension Test Report (Page -1/1)

Date of Test 17-12-2019 Gauge length 8 inches

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

| Sr. No. | Weight | | neter/ ze | | rea 1 ²) | Yield load | Breaking Load | | Stress si) | Ultimate Stress (psi) | | Elongation | Elongation | Remarks |
|------------|----------|--|------------------|---------|-------------------------|------------|------------------|-----------|---------------|--------------------------|--------|------------|------------|---------|
| 3 2 | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | R |
| 1 | 5.153 | 11 | 1.389 | 1.56 | 1.515 | 42600 | 68800 | 60200 | 61990 | 97300 | 100200 | 1.70 | 21.3 | |
| 2 | 5.160 | 11 | 1.390 | 1.56 | 1.517 | 44000 | 72000 | 62200 | 63950 | 101800 | 104700 | 1.40 | 17.5 | |
| 3 | 5.121 | 11 | 1.384 | 1.56 | 1.505 | 49600 | 76400 | 70100 | 72630 | 108000 | 111900 | 1.20 | 15.0 | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | Note: only three samples for tensile and three sam | | | | | e sample | s for ben | d test | | | | | |
| | | | | | | | | | | | | | | |
| | 45.5 | | | | | | Bend T | est | | | | | | |

11 Bar Bend Test Through 180° is Satisfactory

11 Bar Bend Test Through 180° is Satisfactory

11 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

Ref: <u>CED/TFL/12/34327</u> Dated: <u>16-12-19</u>

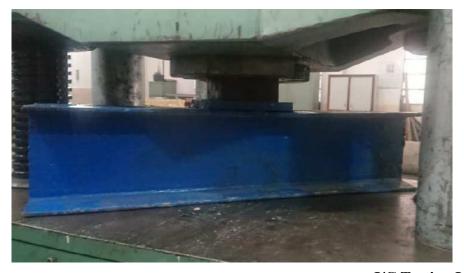
Dated of Test: 17-12-19

To M/S Baba Mughal Hussain Drilling Co. Islamabad (The Aquatic Mall Project Islamabad)

Subject: - TEST RESULT REPORT FOR MS C-CHANNEL RECTION BEAM FOR BEARING LOAD TEST

Reference to your letter no. 93, dated: 16/12/2019 on the above mentioned subject. One MS Channel Reaction Beam for bearing load test as received by us has been tested and results are given below:

| Sr. | Contact Area of Bearing | Design/ | Remarks |
|-----|-------------------------|--------------|---|
| No. | Plate at Center | Applied Load | |
| 1 | 6"x6" | 50 Ton | The MS Channel is Safe at 50 ton applied load |



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Fig: Loading Argement

To.

Senior Manager Civil - OTL

Orient

Orient Squure Hostel Tower Johar Town, Lahore

(Afco Steel)

Reference # CED/TFL **34331** (Dr. Ali Ahmed) Dated: 17-12-2019

Reference of the request letter # ORIENT/AFCO/Hostel Tower/Steel/017 Dated: 17-12-2019

Tension Test Report (Page -1/1)

Date of Test 17-12-2019 Gauge length 8 inches

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

| Sr. No. | Weight | Si | neter/ ze m) | | rea 1 ²) | Yield load | Breaking Load | | Stress si) | Ultimate Stress (psi) | | Ultimate Stress (isq) | | Elongation | Remarks |
|---------|----------|---|--------------------|---------|-------------------------|------------|------------------|---------|---------------|--------------------------|--------|-----------------------|------|------------|---------|
| S | (lbs/ft) | Nominal Actual | | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | R | |
| 1 | 4.164 | 32 | 31.71 | 1.25 | 1.224 | 34800 | 57800 | 61376 | 62670 | 101941 | 104100 | 1.50 | 18.8 | | |
| 2 | 4.255 | 32 | 32.05 | 1.25 | 1.251 | 35200 | 59000 | 62082 | 62030 | 104057 | 104000 | 1.60 | 20.0 | | |
| - | - | - | - | - | - | | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| | | Note: only two samples for tensile and one sample for bend test | | | | | | | | | test | · | | | |
| | | | | | | | L | | | | | | | | |
| 22 | D:- | D D . | 1 T4 | Tl | 1. 1000 | ic Saticfa | Bend T | est | | | | | | | |

32mm Dia Bar Bend Test Through 180° is Satisfactory

Witness by M Omair (Orient), & Asad (Izhar)

I/C Testing Laboratoires UET Lahore, Pakistan.

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To, Project Manager Liberty Builders

(Construction of Zee Avenue-Ramada Hotel & Suites 17-A Cooper Road, Lahore)

Reference # CED/TFL **34332** (Dr. Ali Ahmed)

Reference of the request letter # ST/UET/20191217

Dated: 17-12-2019

Tension Test Report (Page -1/1)

Date of Test 17-12-2019 Gauge length 8 inches

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

| Sr. No. | Weight | Diameter/ Size | | | Area (in²) | | Ultimate Stress (psi) | | Elongation | Elongation | Remarks | | | |
|---------|--|-------------------|------------------|----------|------------|---------|--------------------------|-----------|------------|------------|---------|--------|------|-------|
| S | (lbs/ft) | Nominal (#) | Actual (inch) | Nominal | Actual | (kg) | (kg) | Nominal | Actual | Nominal | Actual | (inch) | % E | R |
| 1 | 0.359 | 3 | 0.367 | 0.11 | 0.106 | 3100 | 4300 | 62200 | 64670 | 86200 | 89800 | 1.20 | 15.0 | |
| 2 | 0.378 | 3 | 0.376 | 0.11 | 0.111 | 3100 | 4600 | 62200 | 61480 | 92200 | 91300 | 1.20 | 15.0 | Model |
| 3 | 0.338 | 3 | 0.356 | 0.11 | 0.099 | 3000 | 4100 | 60200 | 66540 | 82200 | 91000 | 1.30 | 16.3 | Mo |
| | | • | | • | - | - | - | - | - | - | - | - | - | |
| | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| | | | No | te: only | y three : | samples | for tensil | e and one | e sample | for bend | test | | | |
| | | | | | | | | | | | | | | |
| | Bend Test | | | | | | | | | | | | | |
| # 3 | # 3 Bar Bend Test Through 180° is Satisfactory | | | | | | | | | | | | | |
| | | | | - | | | | | | | | | | |

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