



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

Ref: CED/TFL/10/4116

Dated: 27-10-2023

Dated of Test: 01-11-2023

To

Resident Engineer
Asian Consulting Engineers Pvt Ltd.
Punjab Rural Sustainable Water Supply & Sanitation Project (PRSWSSP)
Engineering Design & Construction Supervision of Cluster South-I.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 1/2)

Reference to your letter No. AsCE/PRSWSSP/CS1/SITE-026, dated 24.10.2023 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.78	7.33	15.71	11.76	1.97	14000	19000	4294	5827

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
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To

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Asian Consulting Engineers Pvt Ltd.
Punjab Rural Sustainable Water Supply & Sanitation Project (PRSWSSP)
Engineering Design & Construction Supervision of Cluster South-I.

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 2/2)

Reference to your letter No. AsCE/PRSWSSP/CS1/SITE-025, dated 24.10.2023 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12	7.75	7.33	15.75	11.55	2.10	13000	17000	4061	5311

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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University of Engineering and Technology Lahore, 54890
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To,

Construction Manager
 Barqaab Consulting Services (Pvt) Limited
 Procurement of Plant, Design, Supply, Installation, Testing and Commissioning of
 500/220/132kV Lahore North Substation and Extension Works at 500/220/132kV Nokhar
 Substation Under ADB Loan-3677-Pak Second Power Transmission Enhancement
 Investment Program Trench-III.

Reference # CED/TFL **4124** (Dr. M Rizwan Riaz)

Dated: 27-10-2023

Reference of the request letter # 500kV/SS/N-LHR/BQB/164

Dated: 27-10-2023

Tension Test Report (Page -1/1)

Date of Test 01-11-2023

Gauge length 8 inches

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

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.363	3	0.369	0.11	0.107	3400	4700	68200	70230	94200	97100	1.20	15.0	FF Steel
2	0.371	3	0.373	0.11	0.109	3300	4300	66200	66670	86200	86900	1.40	17.5	
3	0.370	3	0.372	0.11	0.109	3200	4300	64200	64820	86200	87200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only three samples for tensile and three samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by Jamshed Ali (S.D.O NTDC) & Muhammad Azam (Design Engineer, Barqaab)

I/C Testing Laboratories
UET Lahore, Pakistan.

Note:

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Ref: CED/TFL/10/4126

Dated: 27-10-2023

Dated of Test: 01-11-2023

To

Resident Engineer
NESPAK
Construction of Flyover / Underpass at Akbar Chowk Lahore.
(Revised: Signal Free Corridor)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 1/2)

Reference to your letter No. 3772/103/ACF/MWA/04/270, dated 21.10.2023 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
.	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	12 (300mm)	7.81	7.32	16.02	12.07	1.98	6900	10600	2067	3176

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/10/4126

Dated: 27-10-2023

Dated of Test: 01-11-2023

To

Resident Engineer
NESPAK
Construction of Flyover / Underpass at Akbar Chowk Lahore.
(Revised: Signal Free Corridor)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]** (Page # 2/2)

Reference to your letter No. 3772/103/ACF/MWA/04/269, dated 21.10.2023 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	30 (2.5') (760mm)	7.94	7.62	37.91	30.09	3.91	17990	28650	2076	3306

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,

Construction Manager
 Barqaab Consulting Services (Pvt) Limited
 Procurement of Plant, Design, Supply, Installation, Testing and Commissioning of
 500/220/132kV Lahore North Substation and Extension Works at 500/220/132kV Nokhar
 Substation Under ADB Loan-3677-Pak Second Power Transmission Enhancement
 Investment Program Trench-III.

Reference # CED/TFL **4127** (Dr. M Rizwan Riaz)

Dated: 27-10-2023

Reference of the request letter # 500kV/SS/N-LHR/BQB/161

Dated: 24-10-2023

Tension Test Report (Page -1/1)

Date of Test 01-11-2023

Gauge length 8 inches

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

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.375	3	0.375	0.11	0.110	3800	5000	76200	75930	100200	99900	1.20	15.0	FF Steel
2	0.375	3	0.375	0.11	0.110	3600	4900	72200	72010	98200	98100	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

Witness by M Farhan (Senior Engr. Civil Barqaab)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/10/4136

Dated: 30-10-2023

Dated of Test: 01-11-2023

To

Resident Engineer
MM Pakistan (Pvt) Ltd
Damaged Sewer Line along Stadium Road in Daska City, (Package-I)

Subject: **TESTING OF R.C.C. PIPE [ASTM-C76 - 08a]**

Reference to your letter No. DSK/CON/1094/SW/118/2023, dated 26.10.2023 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	36	7.96	7.63	44.02	35.09	4.46	13730	20120	1356	1988

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

- 1- You can See your reports On Internet in the following web site
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To,

Resident Engineer
 MM Pakistan (Pvt) Ltd.
 Rehabilitation of 36" i.d Damaged Sewer Line along Stadium Road in Daska City,
 (Package- I)

Reference # CED/TFL **4137** (Dr. M Rizwan Riaz)

Dated: 30-10-2023

Reference of the request letter # DS/CON/1094/SW/119/2023

Dated: 26-10-2023

Tension Test Report (Page -1/1)

Date of Test 01-11-2023

Gauge length 8 inches

Description Deformed Steel Bar Tensile and Bend Test

Sr. No.	Weight (lbs/ft)	Diameter/ Size		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal (#)	Actual (inch)	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.094	3/16	0.188	-----	0.028	1040	1200	-----	82610	-----	95400	1.10	13.8	
2	0.097	3/16	0.190	-----	0.028	1040	1200	-----	80480	-----	92900	1.10	13.8	
3	0.144	1/4	0.232	-----	0.042	1400	1840	-----	72690	-----	95600	0.30	3.8	
4	0.173	1/4	0.254	-----	0.051	1640	2080	-----	71090	-----	90200	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
3/16" Dia Bar Bend Test Through 180° is Satisfactory														
1/4" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Ref: CED/TFL/10/4139

Dated: 30-10-2023

Dated of Test: 01-11-2023

To

M/S Rehman Engineering Works
Lahore

Subject: - TEST RESULT REPORT FOR SURFACE BOX FOR BEARING LOAD TEST

Reference to your letter no. REW/UET/2023/10/01, dated: 30/10/2023 on the above mentioned subject. One Surface Box Class D 400, Brand REW (mentioned in request letter) for bearing load test as received by us has been tested as requested by the client and results are given below.

Diameter of Sample : **150 mm**
Diameter of Loading Pin : **95 mm**
Breaking Load : **20400 kg**
Load Application : **Center**

I/C Testing Laboratoires
UET Lahore, Pakistan.

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