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/05/3281 Dated: 25-05-2023

Dated of Test: 07-06-2023

To

Resident Engineer
NESPAK
Improvement of Infrastructure in Mohlanwal Housing Scheme, Lahore.

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

Reference to your letter No. 2599/13/RK/05/M-1/52, dated 05.05.2023 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	21	7.76	7.15	26.57	20.93	2.82	12070	15260	2133	2697

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:
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3- Sealed sample / Unsealed sample / Marked sample/Signed Samples

STRUCTURAL ENGINEERING DIVISION

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

Ref: CED/TFL/05/3282 Dated: 25-05-2023

Dated of Test: 07-06-2023

To

Resident Engineer
NESPAK
Improvement of Infrastructure in Mohlanwal Housing Scheme, Lahore.

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

Reference to your letter No. 2599/13/RK/05/M-1/53, dated 05.05.2023 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	24	7.72	7.18	29.84	24.14	2.85	11010	15260	1682	2331

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

Ref: CED/TFL/06/3363 Dated: 02-06-2023

Dated of Test: 08-06-2023

To

Asst Dir Dev
Defence Housing Authority
Gujranwala
Sector C

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

Reference to your letter No. 111/15/AD/RS/Pkg-2A/1294, dated 06.05.2023 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
	(inch)	(foot)	(foot)	(inch)	(inch)	(inch)	(kg)	(kg)	Pound/Linear foot/foot	Pound/Linear foot/foot
1	18	7.74	7.35	22.87	17.96	2.46	11500	17000	2306	3408
2	24	7.78	7.14	30.12	24.26	2.93	14200	20580	2169	3143

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,

M/S United Wire Industries (Pvt) Limited
Lahore
(Rana Concrete)

Reference # CED/TFL **3379** (Dr. M Rizwan Riaz) Dated: 06-06-2023
Reference of the request letter # Nil Dated: 06-06-2023

Tension Test Report (Page – 1/1)

Date of Test 08-06-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)		
1	**9.53 (3/8")**	**432.0**	**432.0**	**8400**	**82.40**	**9400**	**92.21**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
Only one sample for Test									

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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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
ACE – PAVRON
Widening and Improvement of Tarnawa - Kohala Bala Road (35km) District Haripur, Package-I (0+000 to 9+000)

Reference # CED/TFL **3401** (Dr. M Rizwan Riaz) Dated: 06-06-2023
Reference of the request letter # RE/TKR-393 Dated: 30-05-2023

Tension Test Report (Page -1/2)

Date of Test 08-06-2023
Gauge length 640 mm
Description Steel Strand Tensile Test as per ASTM A-416-94a

Sr. No.	Nominal Diameter	Nominal Weight	Measured weight	Yield strength clause (6.3)		Breaking strength clause (6.2)		Young's Modulus of Elasticity "E"	% Elongation	Remarks / Coil No.
	(mm)	(kg/km)	(kg/km)	(kg)	(kN)	(kg)	(kN)	GPa		
1	**12.70 (1/2")**	**775.0**	**790.0**	**18100**	**177.56**	**19900**	**195.22**	**199**	**>3.50**	**xx**
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only one sample for Test										

Note:
1. Modulus of Elasticity is based on nominal steel area of the steel strand vide clause 13.3 of ASTM – A416a
2. Load versus percentage strain graphs are attached

I/C Testing Laboratoires
UET Lahore, Pakistan.

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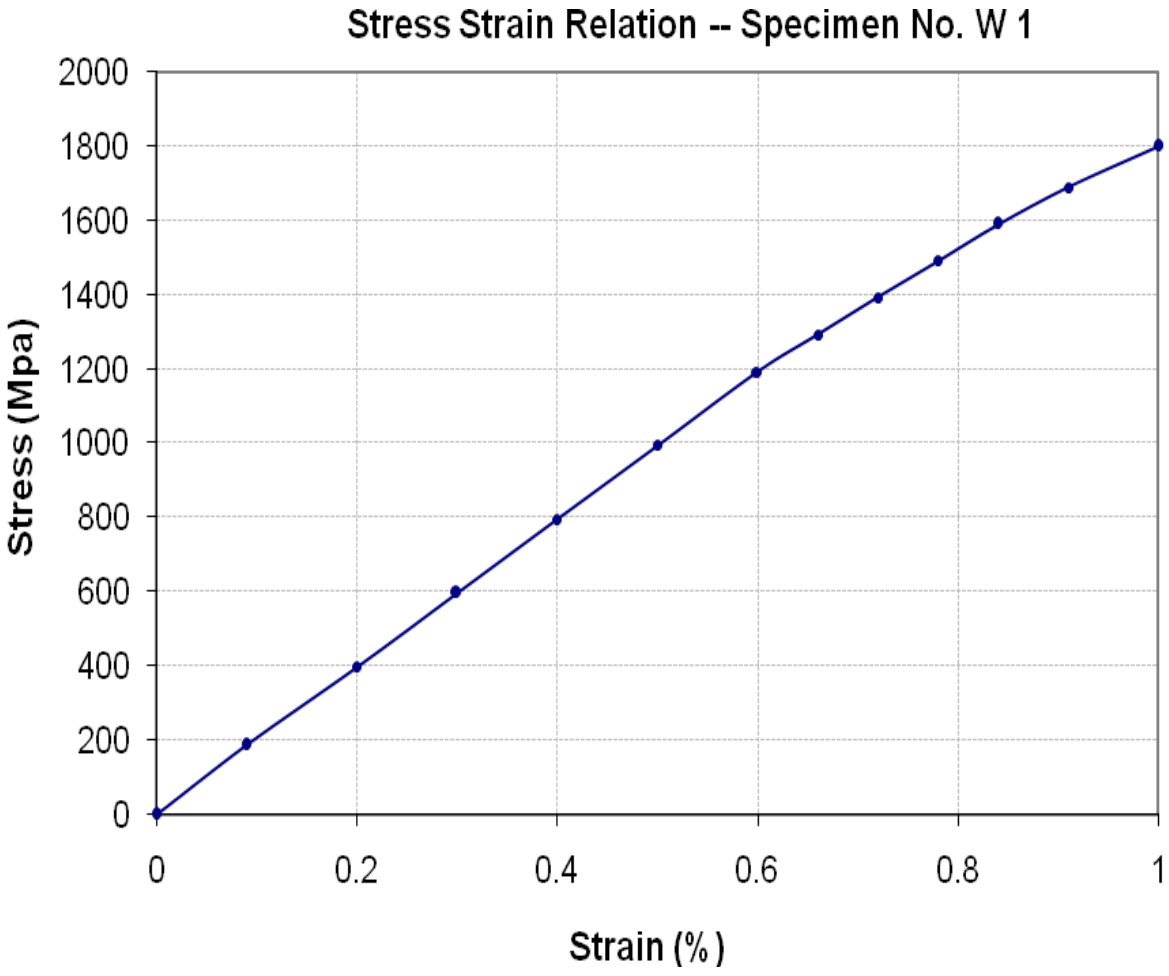
STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,

Resident Engineer
ACE – PAVRON
Widening and Improvement of Tarnawa - Kohala Bala Road (35km) District Haripur,
Package-I (0+000 to 9+000)

Reference # CED/TFL **3401** (Dr. M Rizwan Riaz) Dated: 06-06-2023
Reference of the request letter # RE/TKR-393 Dated: 30-05-2023

Graph (Page – 2/2)



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,

M/S Sheikh Younis & Sons Constructions
Gulberg III, Lahore

Reference # CED/TFL **3404** (Dr. M Rizwan Riaz) Dated: 07-06-2023
Reference of the request letter # Nil Dated: 07-06-2023

Tension Test Report (Page -1/1)

Date of Test 08-06-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.382	3	0.378	0.11	0.112	4200	4900	84200	82350	98200	96100	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

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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2. The above results pertain to sample /samples supplied to this laboratory.
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STRUCTURAL ENGINEERING DIVISION

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

To,

Civil Engineer
Fazaia Housing Scheme, Gujranwala
Construction of 8.5 Marla Commercial Plaza, Mall Commercial Plot # 3 in Sector-A at Fazia Housing Scheme Gujranwala.

Reference # CED/TFL **3405** (Dr. M Rizwan Riaz) Dated: 07-06-2023
Reference of the request letter # FHSG/PMO/6015/5/Dev Dated: 30-05-2023

Tension Test Report (Page -1/1)

Date of Test 08-06-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.411	3	0.392	0.11	0.121	3900	5800	78200	71150	116300	105900	1.00	12.5	SJ Steel
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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,

Campus Engineer
GC University, Lahore
"Construction of New Girls Hostel at Main Campus GCU Lahore".

Reference # CED/TFL **3406** (Dr. M Rizwan Riaz) Dated: 07-06-2023
Reference of the request letter # GCU/Engr/877/W.O Dated: 02-06-2023

Tension Test Report (Page -1/1)

Date of Test 08-06-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (inch)		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal	Actual	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.374	3/8	0.374	0.11	0.110	3500	5100	70200	70100	102200	102200	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180º is Satisfactory														

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
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To,

Asst Dir Infra
Defence Housing Authority
Gujranwala
Sector K

Reference # CED/TFL **3412** (Dr. M Rizwan Riaz) Dated: 08-06-2023
Reference of the request letter # 111/15/AD/RS/Lab/Sec-K/294 Dated: 07-06-2023

Tension Test Report (Page -1/1)

Date of Test 08-06-2023
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.372	3	0.373	0.11	0.109	3500	4800	70200	70610	96200	96900	1.20	15.0	Sheikhoo Steel
2	0.372	3	0.373	0.11	0.109	3500	4800	70200	70610	96200	96900	1.50	18.8	
3	4.260	10	1.263	1.27	1.252	36400	51800	63200	64070	89900	91200	1.50	18.8	
4	4.231	10	1.258	1.27	1.244	37400	52400	65000	66290	91000	92900	1.50	18.8	
5	5.354	11	1.416	1.56	1.574	47800	65800	67600	66950	93000	92200	1.60	20.0	
6	5.272	11	1.405	1.56	1.550	48400	66000	68400	68840	93300	93900	1.80	22.5	
Note: only six samples for tensile and three samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														
#10 Bar Bend Test Through 180º is Satisfactory														
#11 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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