Test Performed by: Dr. Asad Ali Gillani

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

Client Reference No.: HRLE/SKG/2025/L-19/15-22/227 Dated: 22-09-2025

SOM Lab Ref: CED/SOM/1810(Page-1/1) Dated: 23-09-2025

Test: Tensile Test

Sample Type: M.S Deformed Steel bar with Coupler (Zahid Engineering)

Tension Test Results

Sr. No.	Bar Size	Area	Yield Load	Ultimate Load	Yield Stress	Ultimate stress	Remarks
	(mm)	(mm^2)	kN	kN	(Mpa)	(Mpa)	
1	22	387	223.7	238.7	578	617	Steel Sample breaks at this load

Note: Please always confirm the results on web www.uet-civil.edu.pk

Client Reference No.: 4084/LDP/103/AIZ/04/106 **Dated:** 02-09-2025

SOM Lab Ref: CED/SOM/1814 **Dated:** 23-09-2025

Test Type: Load Test of RPC Manhole Cover

Test Standard: Non-standard test was performed as per requirement of the client [Application of load at the center of the Manhole Cover through circular thick steel plate of 15 Inch diameter]

Test Performed by: Dr. Asad Ali Gillani

Muhammad Sohail Akhtar

Resident Engineer

Nespak Allama Iqbal Zone. Lahore.

[Rehb/Impro of Street Sewerage/Drainage UC-109 Margazzar Colony (Gulshan-e-Abbas Scheme No.1,No.2 Rana Town, Maha Town etc) in (Allama Iqbal Zone MCL]

This is with reference to your above-mentioned letter and SOM receipt No.1814 dated: 23-09-2025. The samples of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

Load Test Result

Sr. No	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
1	640 mm	70.0 mm	14500 kg	The sample was cracked at this load

Kashif Sajjad Rao **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

RE PAVRON.(Const Of An Interchange at Abdul Hakeem Motorway at Essan Sharaqpur)

Client Reference: RE/Essan Interchange/2025/23 **SOM Lab Ref:** 1815 (P-1/1)

Dated: 23-09-2025 **Dated:** 23-09-2025

Test: Tension Test **Test Specification:** ASTM-A-615 Deformed Bar (Sheikhoo Steel)

Guage Length: 200 mm **Sample Type:**

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.461	20	19.96	314	313	199.20	236.70	634	637	754	757	32.5	200	16.3	
2	2.493	20	20.11	314	318	188.00	227.20	599	593	724	716	30.0	200	15.0	
3	1.566	16	15.94	201	199	89.00	138.00	443	447	687	692	35.0	200	17.5	
4	1.546	16	15.83	201	197	85.00	135.70	423	432	675	690	32.5	200	16.3	
5	0.869	12	11.87	113	111	57.00	73.00	504	515	646	660	27.5	200	13.8	
6	0.863	12	11.83	113	110	56.70	73.20	502	516	648	666	32.5	200	16.3	
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BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack
16mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Nine Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Model Steel
Badami Bagh Lahore.

Test Performed By: **Dr. /Engr.** Asad Ali Gillani

Client Reference: Nil
Dated: 22-09-2025

SOM Lab Ref: 1811 (Page-1/1)
Dated: 23-09-2025

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.688	8	1.003	0.79	0.790	25.99	35.49	72570	72570	99090	99090	1.20	8.0	15.0	
2	1.467	6	0.741	0.44	0.431	12.76	17.86	63970	65310	89520	91390	1.20	8.0	15.0	
3	0.670	4	0.501	0.20	0.197	6.09	8.15	67110	68130	89930	91300	1.00	8.0	12.5	
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BEND TEST:

--	No Bend test performed

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Resident Engineer **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

IT University of Punjab Lahore.(Const of Sewerage System at IT University Lahore)

Client Reference: ITU/OEW/25/147 **SOM Lab Ref:** 1812 (Page-1/1)

Dated: 11-09-2025 **Dated:** 23-09-2025

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Markhor Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.484	6	0.745	0.44	0.436	14.37	19.59	72050	72710	98210	99110	1.30	8.0	16.3	
2	1.499	6	0.749	0.44	0.441	13.99	19.37	70100	69950	97080	96860	1.20	8.0	15.0	
3	0.676	4	0.503	0.20	0.199	6.49	9.14	71610	71970	100830	101340	0.90	8.0	11.3	
4	0.672	4	0.501	0.20	0.197	6.44	9.02	71040	72130	99480	101000	1.00	8.0	12.5	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Rana Imran Mahmood
Site Manager Amanah Estate (Pvt) Ltd Lahore.

Test Performed By: **Dr. /Engr.** Nauman Khurram

Client Reference: Nil
Dated: Nil

SOM Lab Ref: 1813 (Page-1/1)
Dated: 23-09-2025

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar (Aziz Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.657	8	0.997	0.79	0.781	25.33	34.58	70720	71540	96530	97640	1.40	8.0	17.5	
2	1.494	6	0.748	0.44	0.439	14.80	19.80	74190	74360	99230	99450	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

M.Abdullah **Test Performed By:** **Dr. /Engr.** Bilal Khokhar

Project Supervisor HAYAT Construction Co.(Const Of Boundary Wall at Nisar Synthetic Mill)

Client Reference: Nil **SOM Lab Ref:** 1816 (Page-1/1)

Dated: 23-09-2025 **Dated:** 23-09-2025

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.658	4	0.496	0.20	0.193	5.37	7.75	59240	61390	85430	88530	1.50	8.0	18.8	
2	0.661	4	0.497	0.20	0.194	5.45	7.75	60140	62000	85430	88070	1.40	8.0	17.5	
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BEND TEST:

# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Resident Engineer (WT Zone) **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

EPHE Div,Nespak Lhr.[Provision of Trunk Sewer (BRBD Canal to Madina Town Bus Stop)]

Client Reference: 4891/WASA/WT/RE/LAB-48 **SOM Lab Ref:** 1817 (Page-1/1)

Dated: 01-09-2025 **Dated:** 23-09-2025

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Kamran Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.665	8	0.998	0.79	0.783	27.42	36.72	76550	77240	102510	103420	1.30	8.0	16.3	
2	1.493	6	0.748	0.44	0.439	13.12	18.60	65760	65910	93250	93460	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Four Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Model Steel
Badami Bagh Lahore.

Test Performed By: **Dr. /Engr.** Asad Ali Gillani

Client Reference: Nil
Dated: 23-09-2025

SOM Lab Ref: 1818 (Page-1/1)
Dated: 23-09-2025

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.662	8	0.998	0.79	0.782	24.94	35.52	69640	70350	99180	100190	1.40	8.0	17.5	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

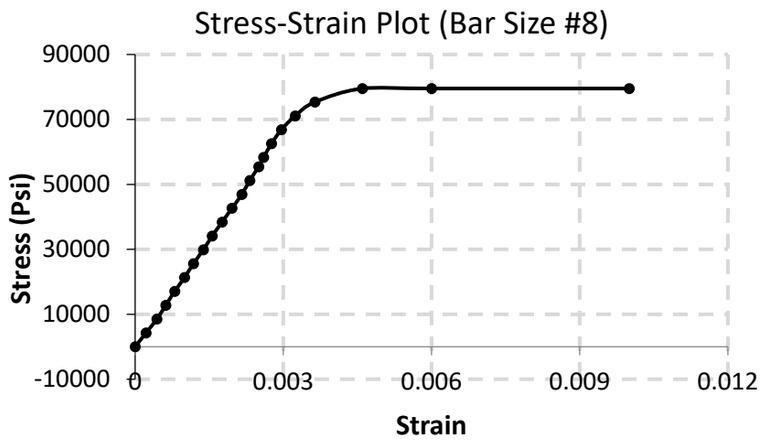
Only Two Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

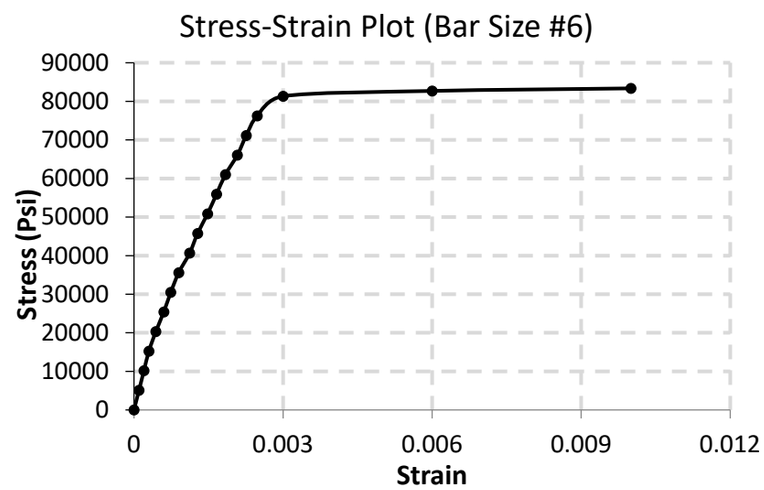
Test Performed by: Dr. S. Asad Ali Gillani

Muddassar Maqsood,
Quality Manager Aziz Industries Muridke.

Client Reference No. Steel/G-80 Dated: 19-09-2025
SOM Lab Ref: CED/SOM/1819 (Page – 2/3) Dated: 23-09-2025
Sample # 2* Graph



Sample # 4*



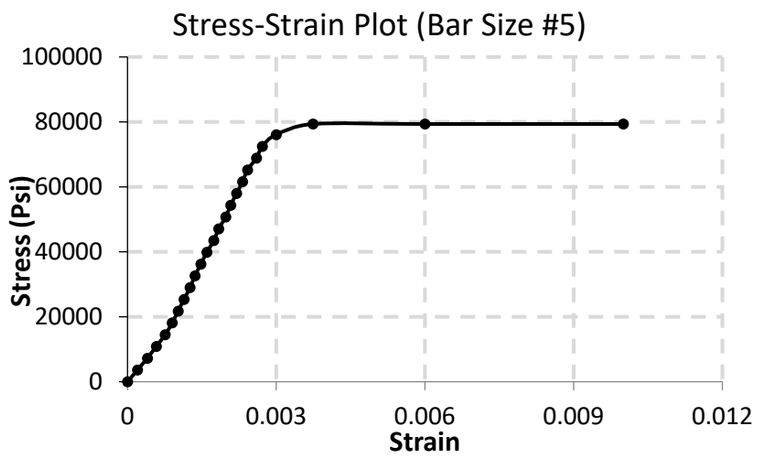
Test Performed by: Dr. S. Asad Ali Gillani

Muddassar Maqsood,
Quality Manager Aziz Industries Muridke.

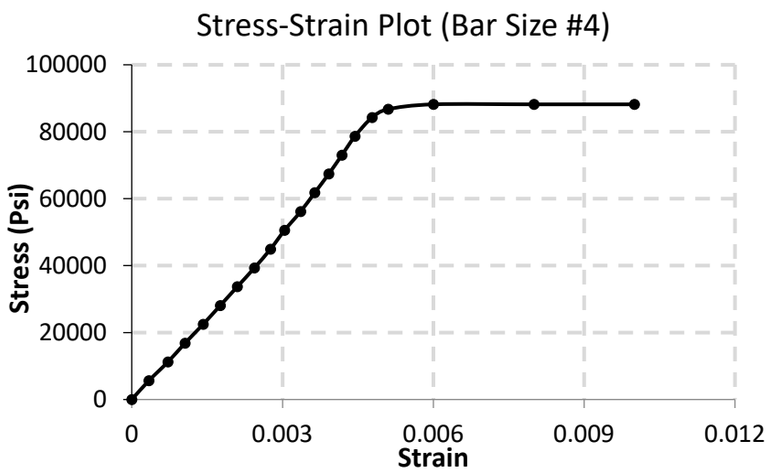
Client Reference No. Steel/G-80 Dated: 19-09-2025

SOM Lab Ref: CED/SOM/1819 (Page – 3/3) Dated: 23-09-2025

Sample # 6* Graph



Sample # 8*



Muddassar Maqsood,
Quality Manager Aziz Industries Muridke.

Test Performed By: **Dr. /Engr.** Asad Ali Gillani

Client Reference: Steel/G-80
Dated: 19-09-2025

SOM Lab Ref: 1819 (Page-1/3)
Dated: 23-09-2025

Test: Tension Test & Bend Test
Gauge Length: 8 inch

Test Specification: ASTM-A-615
Sample Type: Deformed Bar (Aziz Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.612	8	0.989	0.79	0.768	28.59	36.82	79830	82110	102790	105740	1.10	8.0	13.8	
2	2.611	8	0.988	0.79	0.767	28.50	36.82	79570	81960	102790	105870	1.00	8.0	12.5	*
3	1.467	6	0.741	0.44	0.431	17.09	21.92	85690	87480	109850	112150	1.10	8.0	13.8	
4	1.481	6	0.744	0.44	0.435	16.72	21.73	83800	84760	108940	110190	1.00	8.0	12.5	*
5	1.036	5	0.622	0.31	0.304	11.16	14.58	79410	80980	103710	105750	1.00	8.0	12.5	
6	1.051	5	0.627	0.31	0.309	11.16	14.60	79410	79670	103850	104190	1.00	8.0	12.5	*
7	0.661	4	0.497	0.20	0.194	7.03	9.19	77560	79960	101390	104530	0.90	8.0	11.3	
8	0.656	4	0.496	0.20	0.193	8.00	9.91	88240	91440	109260	113220	1.00	8.0	12.5	*
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk