Client Reference No.: RE/4084/04/MH/612 **Dated:** 27-08-2025

SOM Lab Ref: CED/SOM/1929 **Dated:** 25-08-2025

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

Engr.Sheikh Maqbool Hassan

Resident Engineer

NESPAK (Pvt.) Ltd

MCL Nishtar Zone,Lahore

(Rehb/Improvement of Street Pavement, Sewerage/Drainage, UC-269, UC-270, UC-253 Nishter Zone MCL)

This is with reference to your above-mentioned letter and SOM receipt No.1929 dated: 14-10-2025. The sample of RPC Manhole Cover submitted in the Laboratory has been tested and the result is provided below.

Load Test Result

Weight of Manhole Cover With Ring	Diameter of Manhole Cover	Average Thickness of Manhole Cover	Maximum Load	Observations/Remarks
49.80 Kg	640 mm	65.0 mm	10300 kg	The sample was cracked at this load

Adnan Jamil (Civil Engineer) **Test Performed By:** **Dr. /Engr.** Nauman Khurram

National Management Foundation Lhr.(Const. of Yusaf Shirazi Complex at Lums Campus)

Client Reference: NMF/GM/C-39/898 **Dated:** 14-10-2025

SOM Lab Ref: CED/SOM/1939(Page-1/1) **Dated:** 14-10-2025

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

Sample Type: Deformed Bar **Gauge Length:** 200 mm

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	3.935	25	25.26	491	501	263.20	336.20	536	526	685	672	40.0	200	20.0	
2	3.920	25	25.21	491	499	261.00	334.00	532	523	680	669	40.0	200	20.0	
3	2.224	20	18.99	314	283	124.20	184.20	395	439	586	651	42.5	200	21.3	
4	2.239	20	19.06	314	285	123.70	184.50	394	434	587	647	40.0	200	20.0	
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BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
20mm	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

AB Traders
For GMSA Pvt Ltd. Faisalabad.

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

Client Reference: GMSA/Test/001
Dated: 07-10-2025

SOM Lab Ref: 1931 (Page-1/1)
Dated: 14-10-2025

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	2.669	8	0.999	0.79	0.784	26.93	35.52	75190	75760	99180	99940	1.10	8.0	13.8	
2	2.666	8	0.998	0.79	0.783	27.12	35.49	75700	76380	99090	99980	1.10	8.0	13.8	
3	1.497	6	0.748	0.44	0.440	14.88	19.22	74600	74600	96320	96320	1.30	8.0	16.3	
4	1.493	6	0.748	0.44	0.439	15.01	19.47	75210	75390	97590	97810	1.20	8.0	15.0	
5	0.649	4	0.493	0.20	0.191	6.98	8.82	77000	80630	97230	101820	1.20	8.0	15.0	
6	0.659	4	0.497	0.20	0.194	7.51	9.33	82850	85410	102860	106040	1.30	8.0	16.3	
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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 Nine Samples Received and Tested

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

M. Akram, Material Engineer **Test Performed By:** **Dr. /Engr.** Nauman Khurram

Maaksons Engineering Corporation.(Enertech Head Office Building Lahore)

Client Reference: Maak/Enertech-04 **SOM Lab Ref:** 1932 (Page-1/1)

Dated: 12-10-2025 **Dated:** 14-10-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Mughal 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	1.487	6	0.746	0.44	0.437	15.21	19.22	76240	76760	96320	96980	1.30	8.0	16.3	
2	1.492	6	0.747	0.44	0.438	14.75	18.93	73940	74270	94880	95320	1.30	8.0	16.3	
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BEND TEST:

# 6	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

Muhammad Shaharyar **Test Performed By:** **Dr. /Engr.** Wasim Abbas

PM ENAARA Lahore.(Madison Square Project at Kasuri Road Gulberg Lahore)

Client Reference: Nil **SOM Lab Ref:** 1935 (Page-1/1)

Dated: 14-10-2025 **Dated:** 14-10-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Batala Gold)

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	2.697	8	1.005	0.79	0.793	23.92	33.66	66790	66540	93970	93610	1.30	8.0	16.3	
2	2.679	8	1.001	0.79	0.787	23.26	33.25	64940	65190	92830	93190	1.40	8.0	17.5	
3	0.654	4	0.494	0.20	0.192	7.56	9.55	83410	86880	105330	109720	1.30	8.0	16.3	
4	0.649	4	0.493	0.20	0.191	7.61	9.55	83970	87930	105330	110290	1.20	8.0	15.0	
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BEND TEST:

# 8	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

Azhar & Younas Builders
Lahore Cantt.

Test Performed By: **Dr. /Engr.** Wasim Abbas

Client Reference: AYB
Dated: 13-10-2025

SOM Lab Ref: 1936 (Page-1/1)
Dated: 14-10-2025

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	1.493	6	0.748	0.44	0.439	10.77	16.26	54010	54130	81500	81680	1.40	8.0	17.5	
2	1.528	6	0.756	0.44	0.449	10.88	16.67	54520	53430	83540	81870	1.20	8.0	15.0	
3	0.663	4	0.498	0.20	0.195	5.27	7.92	58120	59610	87340	89580	1.40	8.0	17.5	
4	0.659	4	0.497	0.20	0.194	5.35	7.97	59020	60840	87910	90620	1.40	8.0	17.5	
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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

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

Metroplan-Asian JV Site Office.(Estb Of NSICTR Lahore Phase-1,Pkg-B)

Client Reference: Metroplan-Asian-NSICTR/RE-B&C/B/522 **SOM Lab Ref:** 1937 (Page-1/1)

Dated: 10-08-2025 **Dated:** 14-10-2025

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

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Moiz 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	2.668	8	0.999	0.79	0.784	24.82	34.83	69300	69830	97240	97990	1.30	8.0	16.3	H # 3909
2	2.670	8	1.000	0.79	0.785	25.74	35.55	71860	72320	99230	99870	1.40	8.0	17.5	H # 3909
3	1.473	6	0.743	0.44	0.433	13.43	18.73	67290	68380	93860	95380	1.40	8.0	17.5	H # 27
4	1.475	6	0.743	0.44	0.433	13.51	18.76	67700	68800	94020	95540	1.40	8.0	17.5	H # 27
5	0.663	4	0.498	0.20	0.195	6.37	8.79	70260	72060	96900	99380	1.30	8.0	16.3	H # 12
6	0.659	4	0.497	0.20	0.194	6.34	8.77	69920	72080	96670	99660	1.30	8.0	16.3	H # 12
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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 Nine Samples Received and Tested

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

Al Rehman Developers
Lahore.

Test Performed By: **Dr. /Engr.** Wasim Abbas

Client Reference: Nil
Dated: 14-10-2025

SOM Lab Ref: 1938 (Page-1/1)
Dated: 14-10-2025

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	2.633	8	0.993	0.79	0.774	24.21	33.61	67590	68990	93830	95770	1.50	8.0	18.8	
2	2.643	8	0.995	0.79	0.777	23.82	33.38	66510	67620	93200	94760	1.50	8.0	18.8	
3	1.500	6	0.749	0.44	0.441	13.88	19.85	69590	69440	99480	99260	1.60	8.0	20.0	
4	1.494	6	0.748	0.44	0.439	13.73	19.83	68830	68980	99380	99610	1.50	8.0	18.8	
5	0.659	4	0.497	0.20	0.194	6.37	8.72	70260	72430	96110	99080	1.40	8.0	17.5	
6	0.661	4	0.497	0.20	0.194	6.24	8.61	68800	70920	94990	97920	1.30	8.0	16.3	
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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 Nine Samples Received and Tested

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