



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 Defence Housing Authority.
Lahore Cantt
(Const of Community Club DHA Phase-VIII (Ex Park View) (M/s UEC)

Reference # CED/TFL **33722** (Dr. Safer Abbas)
Reference of the request letter # 408/241/E/Lab/666/731

Dated: 20-08-2019
Dated: 06-08-2019

Tension Test Report (Page – 1/2)

Date of Test 02-09-2019
Gauge length 2 inches
Description MS Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)										
1	MS Pipe	3	28.40x5.10	144.84	5500	8000	372.51	541.84	0.50	25.00	
2		3	28.40x5.10	144.84	5800	7800	392.83	528.29	0.50	25.00	
3	MS Pipe	2 ^{1/2}	28.50x4.80	136.80	4700	6800	337.04	487.63	0.50	25.00	
4		2 ^{1/2}	28.50x4.80	136.80	5000	7200	358.55	516.32	0.55	27.50	
5	MS Pipe	2	28.50x3.50	99.75	4000	5400	393.38	531.07	0.50	25.00	
6		2	28.50x3.50	99.75	4100	5400	403.22	531.07	0.50	25.00	
7	MS Pipe	1 ^{1/2}	28.20x3.30	93.06	4200	5800	442.75	611.41	0.40	20.00	
8		1 ^{1/2}	28.20x3.30	93.06	4400	5600	463.83	590.33	0.40	20.00	
Only Eight Samples for Tensile and Four Samples for Bend Test											
Bend Test											
Strip Taken from MS Pipe (3") Bend Test Through 180° is Satisfactory											
Strip Taken from MS Pipe (2 ^{1/2} ") Bend Test Through 180° is Satisfactory											
Strip Taken from MS Pipe (2") Bend Test Through 180° is Satisfactory											
Strip Taken from MS Pipe (1 ^{1/2} ") Bend Test Through 180° is Satisfactory											

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Dated: 20-08-2019
Dated: 06-08-2019

Tension Test Report (Page – 2/2)

Date of Test 02-09-2019
Gauge length 2 inches
Description MS Pipe Steel Strip Tensile and Bend Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)										
1	MS Pipe	1 ¹ / ₄	28.10x3.75	105.38	4500	6000	418.93	558.58	0.40	20.00	
2		1 ¹ / ₄	28.10x3.75	105.38	4700	6000	437.55	558.58	0.35	17.50	
3	MS Pipe	1	28.20x3.30	93.06	3900	5400	411.12	569.25	0.40	20.00	
4		1	28.20x3.30	93.06	4000	5300	421.66	558.70	0.30	15.00	
5	MS Pipe	3/4	18.60x3.20	59.52	2100	3000	346.12	494.46	0.35	17.50	
6		3/4	18.60x3.20	59.52	2200	3000	362.60	494.46	0.30	15.00	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	

Only Six Samples for Tensile and Three Samples for Bend Test

Bend Test

Strip Taken from MS Pipe (1¹/₄") Bend Test Through 180° is Satisfactory

Strip Taken from MS Pipe (1") Bend Test Through 180° is Satisfactory

Strip Taken from MS Pipe (3/4") Bend Test Through 180° is Satisfactory

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To,
M/S Zikria Construction Company
Ferozpur Road, Lahore
(Construction of Beacon House School A-Level Campus)

Reference # CED/TFL **33758** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 30-08-2019
Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
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	0.374	3	0.374	0.11	0.110	3600	4800	72200	72220	96200	96300	1.20	15.0	
2	0.380	3	0.377	0.11	0.112	3500	4750	70200	69040	95200	93700	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Coordination Engineer
 Izhar Construction (Pvt) Ltd
 Hyundai Nishat Motor Pvt. Limited, Faisalabad

Reference # CED/TFL **33759** (Dr. Qasim Khan)
 Reference of the request letter # ICPL/CONST-HNMPL/19/079

Dated: 30-08-2019
 Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (mm)		Area (in ²)		Yield load (kg)	Breaking Load (kg)	Yield Stress (psi)		Ultimate Stress (psi)		Elongation (inch)	% Elongation	Remarks
		Nominal	Actual	Nominal	Actual			Nominal	Actual	Nominal	Actual			
1	0.412	10	9.98	0.12	0.121	3500	5700	64301	63660	104719	103700	1.20	15.0	
2	0.407	10	9.92	0.12	0.120	3600	5700	66138	66250	104719	104900	1.20	15.0	
3	0.409	10	9.93	0.12	0.120	3600	5700	66138	66080	104719	104700	1.10	13.8	
4	0.407	10	9.92	0.12	0.120	3600	5700	66138	66250	104719	104900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Note: only four samples for tensile and two samples for bend test

Bend Test

10mm Dia Bar Bend Test Through 180° is Satisfactory

10mm Dia Bar Bend Test Through 180° is Satisfactory

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UET Lahore, Pakistan.

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To,
M/S EPS Solutions Pakistan Pvt Ltd
For and on Behalf of
Bilal Steel Mills Pvt Ltd

Reference # CED/TFL **33761** (Dr. Qasim Khan)
Reference of the request letter # Nil

Dated: 30-08-2019
Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
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	0.447	3	0.409	0.11	0.132	4450	5400	89200	74570	108200	90500	1.30	16.3	
2	0.375	3	0.375	0.11	0.110	4000	4900	80200	79890	98200	97900	0.80	10.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
M/S Defence Housing Authority.
Lahore Cantt
(Proposed Commercial Plaza, DGRCC Ph-III, DHA Ph-VI - (M/s Constract)

Reference # CED/TFL **33763** (Dr. Safer Abbas)
Reference of the request letter # 408/241/E/Lab/680/3451

Dated: 30-08-2019
Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
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	0.367	3	0.371	0.11	0.108	3500	4800	70200	71420	96200	98000	1.30	16.3	Kamran Steel
2	0.363	3	0.368	0.11	0.107	3200	4650	64200	66140	93200	96200	1.30	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 GM
 Professional Construction Services (Pvt) Ltd
 TCF School at Chak # 521, Adda Zaheer Nagar Burewala

Reference # CED/TFL **33764** (Dr. Qasim Khan)
 Reference of the request letter # PCS/19/Eng-56-A

Dated: 30-08-2019
 Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile 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	0.359	3	0.367	0.11	0.106	2700	3900	54100	56390	78200	81500	1.50	18.8	
2	0.359	3	0.367	0.11	0.106	2600	3800	52100	54300	76200	79400	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

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To,
 Site Engineer
 Emporia Mall, Faisalabad

Reference # CED/TFL **33765** (Dr. Qasim Khan)
 Reference of the request letter # Nil

Dated: 30-08-2019
 Dated: 30-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
 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	0.365	3	0.370	0.11	0.107	3100	4700	62200	63710	94200	96600	1.00	12.5	
2	0.360	3	0.367	0.11	0.106	3000	4600	60200	62410	92200	95700	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														

I/C Testing Laboratories
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To,
 Chief Resident Engineer, Package-1
 NESPAK
 Construction/ Improvement & Rehabilitation of at Grade Works along Lahore Orange Line Metro Train Corridor
 Package-I (Section-I) Pakistan Mint to Shalimar Chowk (Right Site)

Reference # CED/TFL **33766** (Dr. Qasim Khan) Dated: 30-08-2019
 Reference of the request letter # 4042/13/FAM/steel-099 Dated: 28-08-2019

Tension Test Report (Page -1/1)

Date of Test 02-09-2019
 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	0.370	3	0.372	0.11	0.109	3100	5050	62200	62900	101200	102500	1.00	12.5	City UAE
2	0.369	3	0.371	0.11	0.108	3100	5100	62200	63040	102200	103800	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

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