



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
 RENARDET S.A ((M-4), Package-II)
 Construction of Faisalabad-Khanewal Motorway (M-4) Project, Package-II, Jamani-Shorkot,
 Section 2B

Reference # CED/TFL **32430** (Dr. Ali Ahmed)
 Reference of the request letter # RE/M-4/2A/2019/512

Dated: 14-01-2019
 Dated: 10-01-2019

Tension Test Report (Page – 1/1)

Date of Test 21-01-2019
 Gauge length 2 inches
 Description W-Section 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
1	W-Section	2.20x0.275	0.61	2300	3100	3801.65	5123.97	0.60	30.00	
2		2.20x0.275	0.61	2300	3000	3801.65	4958.68	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile and Two Samples for Bend Test										
Bend Test										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										
Strip Taken from W-Section Bend Test Through 180° is Satisfactory										

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Test Floor Laboratory
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Pakistan. Ph: 92-42-99029202

To,
 Contractor's Representative
 Sinohydro Corporation Limited
 Panjnad Barrage Project

Reference # CED/TFL **32435** (Dr. Ali Ahmed)
 Reference of the request letter # Nil

Dated: 15-01-2019
 Dated: 15-01-2019

Tension Test Report (Page – 1/1)

Date of Test 21-01-2019
 Gauge length 2 inches
 Description Steel Skin Plate & Angle Steel Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Steel Skin Plate	28.40x11.20	318.08	12500	15100	385.52	465.70	0.70	35.00	
2	Steel Skin Plate	28.40x11.30	320.92	10800	14500	330.14	443.24	0.75	37.50	
3	Angle	28.60x9.40	268.84	7400	12000	270.03	437.88	0.80	40.00	
4	Angle	28.60x9.20	263.12	7300	12000	272.17	447.40	0.85	42.50	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
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Pakistan. Ph: 92-42-99029202

To,
M/S Fahad Engg. Works
Sheikhupura
(Velosi Engg.)

Reference # CED/TFL **32438** (Dr. Ali Ahmed)
Reference of the request letter # Nil

Dated: 15-01-2019
Dated: 15-01-2019

Tension Test Report (Page – 1/1)

Date of Test 21-01-2019
Gauge length 2 inches
Description Welded Plate Tensile and Bend Test

Sr. No.	Designation	Size of Strip	X Section Area	Breaking Load	Ultimate Stress	Elongation	% Elongation	Remarks	Remarks
1	Welded Plate	22.40x7.80	174.72	10300	578.31	0.50	25.00	Failure at the location other than weld	
2		22.40x7.80	174.72	10300	578.31	0.50	25.00		
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	
Only two samples for tensile and four samples for bend test									
Bend Test									
Strip taken from Welded Plate (Root) Bend Test Through 180° is Satisfactory									
Strip taken from Welded Plate (Root) Bend Test Through 180° is Satisfactory									
Strip taken from Welded Plate (Face) Bend Test Through 180° is Satisfactory									
Strip taken from Welded Plate (Face) Bend Test Through 180° is Satisfactory									

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Test Floor Laboratory
Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
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Ref: CED/TFL/01/32449

Dated: 16-01-19

To
Executive Engineer Buildings
PHE Division, Bhimber
(Construction of Sewerage and Storm Water Drainage system Bhimber Town Phase-II, District Bhimber)

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

Reference to your letter No. 1011-13, dated 17.12.2018 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
	(mm)	(m)	(m)	(mm)	(mm)	(mm)	(kg)	(kg)	N/m/mm	N/m/mm
1	304.8 (12")	2.356	2.234	405.00	305.26	49.87	14000	18000	201.39	258.93

I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
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To,
 M/S Defence Housing Authority.
 Lahore Cantt
 (Construction of 1-Kanal Villas at DRGCC Club House DHA Ph-6)(M/s Linker Developers
 (Pvt) Ltd)

Reference # CED/TFL **32467** (Dr. Ali Ahmed)

Dated: 18-01-2019

Reference of the request letter # 408/241/E/Lab/410/347

Dated: 17-01-2019

Tension Test Report (Page -1/1)

Date of Test 21-01-2019

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	0.366	3	0.370	0.11	0.107	3100	4900	62200	63580	98200	100500	1.20	15.0	Ittefaq Steel
2	0.363	3	0.368	0.11	0.107	3100	4800	62200	64080	96200	99300	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,
 Resident Engineer
 PEPAC
 Establishment of Workers Welfare Complex (Phase-I) Adjacent to Sundar Industrial Estate,
 District Kasur. Package-A & B
 (FF Steel)
 Reference # CED/TFL **32468** (Dr. Ali Ahmed) Dated: 18-01-2019
 Reference of the request letter # RE/PEPAC/Sundar/AB-98 Dated: 17-01-2019

Tension Test Report (Page -1/1)

Date of Test 21-01-2019
 Gauge length 8 inches
 Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		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	0.381	3/8	0.378	0.11	0.112	4100	5800	82200	80620	116300	114100	1.00	12.5	
2	0.382	3/8	0.378	0.11	0.112	3800	5800	76200	74570	116300	113900	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/8" Dia 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, DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **32469** (Dr. Ali Ahmed) Dated: 18-01-2019
 Reference of the request letter # 408/241/E/Lab/404/1319 Dated: 14-01-2019

Tension Test Report (Page -1/1)

Date of Test 21-01-2019
 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	0.375	3	0.375	0.11	0.110	3300	4700	66200	65990	94200	94000	1.20	15.0	Kamran Steel
2	0.365	3	0.370	0.11	0.107	3300	4600	66200	67760	92200	94500	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,
M/S Riasat Ali
Lahore

Reference # CED/TFL **32471** (Dr. Ali Ahmed)
Reference of the request letter # Nil

Dated: 18-01-2019
Dated: 18-01-2019

Tension Test Report (Page -1/1)

Date of Test 21-01-2019
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	0.365	3/8	0.370	0.11	0.107	3100	5000	62200	63640	100200	102700	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile and one sample for bend test														
Bend Test														
3/8" Dia Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratories
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Pakistan. Ph: 92-42-99029202

To,
M/S Sui Northern Gas Pipelines Limited
Lahore
(Construction of Two Rooms at Regional Distribution Office Lahore)

Reference # CED/TFL 32472 (Dr. Ali Ahmed)
Reference of the request letter # CC/40/CRR/Lahore

Dated: 18-01-2019
Dated: 18-01-2019

Tension Test Report (Page -1/1)

Date of Test 21-01-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight (lbs/ft)	Diameter/ Size (inch)		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	0.370	3/8	0.372	0.11	0.109	4000	5400	80200	80990	108200	109400	1.10	13.8	
2	0.368	3/8	0.371	0.11	0.108	4000	5200	80200	81530	104200	106000	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

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Department of Civil Engineering
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Ref: CED/TFL/01/32473

Dated: 18-01-19

To
M/S Da Marakish Construction Company

Subject: - **TEST RESULT REPORT FOR BEARING DEVICE (PAD)**

Reference to your letter no. Nil, Dated: 17/01/2019 on the above mentioned subject. One Elastomeric Bearing Rubber Pad (EBRP) has been received by us. The same was tested and results are given below.

Laboratory : **TEST FLOOR LAB**
Machine : **SHIMADZU**
Sample No. : **1/1**
Dimensions of EBRP : **452 x 403.50 x 60.77 mm**

TEST RESULTS - SHORT DURATION

Load Duration : **5+5 minutes**
Test Load : **100 TONS**
Bulging Pattern : **Uniform Buldging.**
Laminated Parallelism : **Parallel**
Cracks : **No crack was observed**

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Assistant Works Manager
 Pakistan Railways
 PR/Bridge Workshop, Jhelum
 (Platform Shelter at Tarnol in Bridge Workshop Jhelum)
 Reference # CED/TFL 32423 (Dr. Ali Ahmed)
 Reference of the request letter # 196-S/103

Dated: 14-01-2019
 Dated: 04-01-2019

Tension Test Report (Page – 1/2)

Date of Test 21-01-2019
 Gauge length 2 inches
 Description Steel Structure Steel Strip Tensile Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)										
1	M.S Plate	4x3/8x15	27.40x9.70	265.78	8600	13000	317.43	479.83	0.75	37.50	
2		4x3/8x15	27.80x9.75	271.05	7900	12700	285.92	459.65	0.90	45.00	
3	M.S Plate	4x1/2x15	27.60x12.10	333.96	10300	15700	302.56	461.18	0.85	42.50	
4		4x1/2x15	27.70x12.10	335.17	10300	15800	301.47	462.45	0.85	42.50	
5	M.S Plate	4x1/4x15	27.60x6.00	165.60	5400	8300	319.89	491.68	0.75	37.50	
6		4x1/4x15	27.50x6.10	167.75	4900	8000	286.55	467.84	0.80	40.00	
7	M.S Plate	4x1/8x15	27.70x2.80	77.56	2600	3900	328.86	493.28	0.75	37.50	
8		4x1/8x15	27.60x2.80	77.28	2800	4000	355.43	507.76	0.70	35.00	
9	M.S Channel	10x3 ¹ / ₂ x12	24.60x10.10	248.46	7400	12100	292.18	477.75	0.75	37.50	
10		10x3 ¹ / ₂ x12	24.50x10.10	247.45	7500	12000	297.33	475.73	0.70	35.00	
11	M.S Angle	2 ¹ / ₂ x2 ¹ / ₂ x1/4x12	23.80x5.60	133.28	5400	8500	397.46	625.64	0.65	32.50	
12		2 ¹ / ₂ x2 ¹ / ₂ x1/4x12	23.70x5.80	137.46	5500	8800	392.51	628.02	0.60	30.00	
Only Twelve Samples for Tensile Test											
Bend Test											

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
 Assistant Works Manager
 Pakistan Railways
 PR/Bridge Workshop, Jhelum
 (Platform Shelter at Tarnol in Bridge Workshop Jhelum)

Reference # CED/TFL **32423** (Dr. Ali Ahmed)
 Reference of the request letter # 196-S/103

Dated: 14-01-2019
 Dated: 04-01-2019

Tension Test Report (Page – 2/2)

Date of Test 21-01-2019
 Gauge length 2 inches
 Description Steel Structure Steel Strip Tensile Test

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(inch)		(mm)	(mm ²)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	M.S Angle	2 ¹ / ₂ x2 ¹ / ₂ x5/16x12	23.60x8.10	191.16	8000	12400	410.55	636.35	0.40	20.00	
2		2 ¹ / ₂ x2 ¹ / ₂ x5/16x12	23.60x8.00	188.80	7800	12600	405.29	654.69	0.40	20.00	
3	M.S Angle	3x3x3/8x12	23.50x9.50	223.25	9500	14600	417.45	641.55	0.40	20.00	
4		3x3x3/8x12	23.40x9.70	226.98	9500	14800	410.59	639.65	0.60	30.00	
5	M.S Angle	3x3x5/16x12	23.70x8.00	189.60	7500	12200	388.05	631.23	0.45	22.50	
6		3x3x5/16x12	23.50x7.90	185.65	7300	12200	385.74	644.66	0.50	25.00	
7	M.S Angle	4x4x3/8x12	24.30x9.00	218.70	7000	11700	313.99	524.81	0.70	35.00	
8		4x4x3/8x12	24.40x9.40	229.36	7200	12100	307.95	517.53	0.65	32.50	
9	M.S Angle	6x6x1/2x12	24.20x12.40	300.08	10300	16400	336.72	536.14	0.70	35.00	
10		6x6x1/2x12	24.20x12.30	297.66	10200	16100	336.16	530.61	0.70	35.00	
Only Ten Samples for Tensile Test											
Bend Test											

I/C Testing Laboratoires
UET Lahore, Pakistan.

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