



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

To,
Deputy Director (QCD)
WASA (LDA), Lahore
(Manufacturing of RCC Manhole Covers in Different Sizes (M/s Shezone Pipe Industry)
(Package-II))

Reference # CED/TFL **32996** (Dr. Usman Akmal)
Reference of the request letter # QCD/271-72

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

Weight & Size Test Report (Page – 2/2)

Date of Test 11-04-2019
Gauge length -----
Description Angle Iron Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	2x2x1/4	465	115.14	4.04	48.75	50.55	5.60	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only One Sample for Test								

Witness by Ateeq-ur Rehman (QCD WASA)

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,
 Deputy Director (QCD)
 WASA (LDA), Lahore
 (Manufacturing of RCC Manhole Covers in Different Sizes (Package-I) (M/s Eagle R.C.C. Pipe Industry))

Reference # CED/TFL **32997** (Dr. Usman Akmal) Dated: 04-04-2019
 Reference of the request letter # QCD/277 Dated: 02-04-2019

Tension Test Report (Page – 1/2)

Date of Test 11-04-2019
 Gauge length 2 inches
 Description Angle Iron 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)	(mm)									
1	Angle Iron	2x2x1/4	20.40x7.80	159.12	8000	10400	493.21	641.18	0.30	15.00	
2	Angle Iron	2x2x1/4	20.50x7.00	143.50	8400	10000	574.24	683.62	0.20	10.00	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile and One Sample for Bend Test											
Bend Test											
Strip Taken from Angle Iron (2"x2"x1/4") Bend Test Through 180° is Failed											

Witness by Ateeq-ur Rehman (QCD WASA)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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To,
Deputy Director (QCD)
WASA (LDA), Lahore
(Manufacturing of RCC Manhole Covers in Different Sizes (Package-I) (M/s Eagle R.C.C. Pipe Industry))

Reference # CED/TFL **32997** (Dr. Usman Akmal)
Reference of the request letter # QCD/277

Dated: 04-04-2019
Dated: 02-04-2019

Weight & Size Test Report (Page – 2/2)

Date of Test 11-04-2019
Gauge length -----
Description Angle Iron Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	L-1	L-2	Thickness	Remark
	(inch)	(g)	(mm)	(kg/m)	(mm)	(mm)	(mm)	
1	2x2x1/4	559	107.95	5.18	51.15	50.05	7.20	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
Only One Sample for Test								

Witness by Ateeq-ur Rehman (QCD WASA)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Test Floor Laboratory
Department of Civil Engineering
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To,
M/S HH Robetson PAK (Pvt) Limited
Lahore Cantt
(Construction of PEB Building sat Sundar Industrial Estate)

Reference # CED/TFL **33031** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 10-04-2019
Dated: 09-04-2019

Tension Test Report (Page – 1/1)

Date of Test 11-04-2019
Gauge length 2 inches
Description MS Plate Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)										
1	MS Plate	6	22.90x6.00	137.40	5400	6800	385.55	485.50	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test											
Bend Test											

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
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University of Engineering and Technology Lahore, 54890
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To,
 Manager Quality Control
 Ravi Green Engineering (Pvt) Ltd
 Construction of Flag Poles at DHA Bahawalpur 20 meter & 45meter
 (CTE (Pvt) Ltd)(P-643)
 Reference # CED/TFL **33033** (Dr. Usman Akmal)
 Reference of the request letter # RG/MT/UET/2624

Dated: 10-04-2019
 Dated: 09-04-2019

Tension Test Report (Page – 1/1)

Date of Test 11-04-2019
 Gauge length 8 inches
 Description Carbon Steel Plate Steel Strip Tensile Test as per ASTM A36

Sr. No.	Designation		Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	(mm)										
1	P643-T25-1	25	40.05x24.65	987.23	26000	41200	258.36	409.40	2.50	31.25	
2	P643-T32-2	32	40.50x32.10	1300.05	42400	65700	319.94	495.76	2.40	30.00	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test											
Bend Test											

Witness by Muhammad Hinan Ch (Site Engineer, CTE Pvt Ltd)

I/C Testing Laboratoires
UET Lahore, Pakistan.

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Pakistan. Ph: 92-42-99029202

To,
M/S Malik Steel Sales Depot
Lahore
(Moiz Steel)

Reference # CED/TFL **33034** (Dr. Usman Akmal)
Reference of the request letter # Nil

Dated: 10-04-2019
Dated: 10-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
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	0.381	3	0.377	0.11	0.112	3400	5050	68200	66970	101200	99500	1.30	16.3	
.	
.	
.	
.	
.	
Note: only one sample for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

Note:

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Pakistan. Ph: 92-42-99029202

To,
 Project Coordinator
 M/S Seasole Construction
 Construction of KFC Kala Shah Kaku

Reference # CED/TFL **33035** (Dr. Usman Akmal)
 Reference of the request letter # SS/KSK/KFC/2019/01

Dated: 10-04-2019
 Dated: 10-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
 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	3600	4700	72200	73890	94200	96500	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample 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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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 Mosque at Sector-D, DHA Ph-VI)(M/s Warraich Constr)

Reference # CED/TFL **33036** (Dr. Usman Akmal)
Reference of the request letter # 408/241/E/Lab/524/014

Dated: 10-04-2019
Dated: 10-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
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	0.382	3	0.378	0.11	0.112	3700	4550	74200	72600	91200	89300	0.90	11.3	AFCO Steel
2	0.369	3	0.371	0.11	0.108	3400	4450	68200	69150	89200	90500	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 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 Defence Housing Authority.
Lahore Cantt
(Const. of Mosque at Sector-S, DHA Ph-VIII)(M/s Innovative)

Reference # CED/TFL **33037** (Dr. Usman Akmal)
Reference of the request letter # 408/241/E/Lab/525/05

Dated: 10-04-2019
Dated: 10-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
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	0.371	3	0.373	0.11	0.109	4200	5100	84200	84870	102200	103100	1.00	12.5	Supreme Mughal
2	0.366	3	0.370	0.11	0.107	4100	4900	82200	84100	98200	100600	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 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,
 Resident Engineer
 NESPAK
 Construction Supervision of Sewerage & W/S Schemes WASA, Multan
 (Mansoor & Co. RCC Pipe Factory)

Reference # CED/TFL **33038** (Dr. Usman Akmal)
 Reference of the request letter # 3969/11/HAM/01/66

Dated: 10-04-2019
 Dated: 25-03-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
 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	0.091	3/16	0.185	-----	0.027	-----	1200	-----	-----	-----	99000	0.50	6.3	
2	0.094	3/16	0.187	-----	0.028	-----	1120	-----	-----	-----	89700	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
3/16" Dia Bar Bend Test Through 180° 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,
 Resident Engineer (Civil)
 Mangla Dam Organization
 WAPDA Mangla
 (Providing/Installation of Light Poles at 17500 ft Long Sukian Embankment)

Reference # CED/TFL **33039** (Dr. Usman Akmal)

Dated: 10-04-2019

Reference of the request letter # RE/MDO/APS/A-68/SPL/2018-19/8189-92 Dated: 03-04-2019

Tension Test Report (Page – 1/2)

Date of Test 11-04-2019

Gauge length 2 inches

Description Mild Steel Plate 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	3/8	26.40x4.50	118.80	3800	5700	313.79	470.68	0.40	20.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Two Samples for Tensile Test										
Bend Test										

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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To,
Resident Engineer (Civil)
Mangla Dam Organization
WAPDA Mangla
(Providing/Installation of Light Poles at 17500 ft Long Sukian Embankment)

Reference # CED/TFL **33039** (Dr. Usman Akmal)

Dated: 10-04-2019

Reference of the request letter # RE/MDO/APS/A-68/SPL/2018-19/8189-92 Dated: 03-04-2019

Thickness Test Report (Page – 2/2)

Date of Test 11-04-2019

Gauge length -----

Description Mild Steel Plate Thickness Test

Sr. No.	Designation	Thickness	Remark
	(inch)	(mm)	
1	3/8	4.50	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
Only One Sample for Test			

I/C Testing Laboratories
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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To,
 Chief Resident Engineer (Civil)
 Trimmu Panjnad Barrages Consultants
 Trimmu and Panjnad Barrages Improvement Project (TPBIP)
 (Kamran Steel)

Reference # CED/TFL **33040** (Dr. Usman Akmal)
 Reference of the request letter # TPBC/CRE/TECH/67

Dated: 10-04-2019
 Dated: 06-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
 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	5.197	11	1.395	1.56	1.528	49000	66800	69300	70710	94400	96400	1.70	21.3	
2	5.107	11	1.383	1.56	1.501	48400	65800	68400	71060	93000	96600	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#11 Bar Bend Test Through 180° is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION
Test Floor Laboratory
Department of Civil Engineering
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To,
M/S Defence Housing Authority.
Lahore Cantt
(Const of 2 Kanal Villas at DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **33041** (Dr. Usman Akmal)
Reference of the request letter # 408/241/E/Lab/516/72

Dated: 10-04-2019
Dated: 08-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
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	0.372	3	0.373	0.11	0.109	3300	4800	66200	66480	96200	96700	1.40	17.5	Supreme Mughal
2	0.381	3	0.377	0.11	0.112	3600	5100	72200	70900	102200	100500	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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 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,
M/S Defence Housing Authority.
Lahore Cantt

(Proposed Commercial Plaza, DRGCC Ph-III, DHA Ph-VI)(M/s Construct)

Reference # CED/TFL **33042** (Dr. Usman Akmal)

Dated: 10-04-2019

Reference of the request letter # 408/241/E/Lab/517/2094

Dated: 08-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019

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	0.378	3	0.376	0.11	0.111	3100	5100	62200	61510	102200	101200	1.40	17.5	Moiz Steel
2	0.372	3	0.373	0.11	0.109	3100	5000	62200	62510	100200	100900	1.20	15.0	
3	0.379	3	0.377	0.11	0.111	3100	5100	62200	61300	102200	100900	1.30	16.3	
4	0.367	3	0.370	0.11	0.108	3100	5000	62200	63430	100200	102300	1.50	18.8	
5	0.363	3	0.369	0.11	0.107	4100	4900	82200	84680	98200	101200	1.40	17.5	ASG Steel
6	0.367	3	0.371	0.11	0.108	4300	5000	86200	87810	100200	102200	1.00	12.5	
7	0.364	3	0.369	0.11	0.107	4200	5000	84200	86620	100200	103200	1.00	12.5	
8	0.368	3	0.371	0.11	0.108	4300	5000	86200	87600	100200	101900	1.10	13.8	
9	0.369	3	0.372	0.11	0.108	4300	5000	86200	87380	100200	101600	0.90	11.3	
10	0.364	3	0.369	0.11	0.107	4100	4800	82200	84570	96200	99100	1.00	12.5	

Note: only ten samples for tensile and five samples for bend test

Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° is Satisfactory														
#3 Bar Bend Test Through 180° 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,
Project Manager
Habib Rafiq (Pvt) Ltd
Widening and Strengthening of National Highway N-70 (Rakhi Gajj-Bewata Section) of East
Weast Road Improvement Project Package-1 (Al Burhan Pvt Ltd)

Reference # CED/TFL **33044** (Dr. Usman Akmal)
Reference of the request letter # HRL/N70/1421

Dated: 11-04-2019
Dated: 11-04-2019

Tension Test Report (Page – 1/1)

Date of Test 11-04-2019
Gauge length 2 inches
Description Gabin Wire Tensile Test

Sr. No.	Diameter/ Size	Measure Diameter	Area	Breaking Load	Ultimate Stress	Elongation	% Elongation	Marks
	(mm)	(cm)	(cm ²)	(kg)	(kg/cm ²)	(inch)		
1	1.95	0.20	0.031	240	7639.44	0.55	27.50	
2	1.95	0.20	0.031	180	5729.58	0.5	25.00	
3	1.95	0.20	0.031	160	5092.96	0.55	27.50	
4	2.30	0.26	0.053	260	4897.08	0.5	25.00	
5	2.30	0.260	0.053	290	5462.12	0.5	25.00	
6	2.30	0.260	0.053	280	5273.77	0.5	25.00	

Only Six Samples for Tensile Test

Witness by Faisal Shahzad (AME Habib Rafiq)

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,
Project Manager
Habib Rafiq (Pvt) Ltd
Widening and Strengthening of National Highway N-70 (Rakhi Gajj-Bewata Section) of East
Weast Road Improvement Project Package-1 (WMI)

Reference # CED/TFL **33045** (Dr. Usman Akmal)
Reference of the request letter # HRL/N70/1420

Dated: 11-04-2019
Dated: 11-04-2019

Tension Test Report (Page – 1/1)

Date of Test 11-04-2019
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	12.70 (1/2")	775.0	793.0	15000	147.15	19700	193.26	>3.50	xx
2	12.70 (1/2")	775.0	785.0	17600	172.66	20100	197.18	>3.50	xx
3	12.70 (1/2")	775.0	786.0	17100	167.75	19700	193.26	>3.50	xx
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

Only three samples for Test

Witness by Faisal Shahzad (AME Habib Rafiq;)

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,
 Shahbaz Khan
 154/Z. DHA Lahore

Reference # CED/TFL **33050** (Dr. Ali Ahmed)
 Reference of the request letter # Nil

Dated: 11-04-2019
 Dated: 11-04-2019

Tension Test Report (Page -1/1)

Date of Test 11-04-2019
 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	0.384	3/8	0.379	0.11	0.113	3300	4700	66200	64490	94200	91900	0.90	11.3	
2	0.377	3/8	0.375	0.11	0.111	3400	4600	68200	67690	92200	91600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratories
UET Lahore, Pakistan.

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