STRUCTURAL ENGINEERING DIVISION

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

To,
A/XEN B&R
AGE (Air) Risalewala
(CA NO. CEAF-CZ-63/2019)

Reference # CED/TFL **33826** (Dr. Ali Ahmed) Dated: 16-09-2019
Reference of the request letter # 6400-63/2019/39/E-6 Dated: 11-09-2019

Tension Test Report (Page – 1/2)

Date of Test 25-09-2019
Gauge length 2 inches
Description Angel Iron & Rail Track Strip Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	------	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	Angel Iron	24.50x6.40	156.80	6200	9400	387.90	588.10	0.60	30.00	
2	Angel Iron	24.50x6.40	156.80	6100	8900	381.64	556.82	0.60	30.00	
3	Rail Track	25.00x10.90	272.50	8400	12400	302.40	446.40	0.60	30.00	
4	Rail Track	24.70x10.90	269.23	9200	12500	335.22	455.47	0.70	35.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only Four Samples for Tensile Test										
Bend Test										

I/C Testing Laboratoires
UET Lahore, Pakistan.

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

To,
A/XEN B&R
AGE (Air) Risalewala
(CA NO. CEAF-CZ-63/2019)

Reference # CED/TFL **33826** (Dr. Ali Ahmed) Dated: 16-09-2019
Reference of the request letter # 6400-63/2019/39/E-6 Dated: 11-09-2019

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

Date of Test 29-05-2019
Gauge length -------
Description Angel Iron & Rail Track Weight and Size Test

Sr. No.	Designation	Weight	Length	Weight per Unit Length	Remark
	------	(g)	(cm)	(kg/m)	
1	**Angel Iron**	**4530**	**92.50**	**4.90**	
2	**Rail Track**	**19200**	**91.50**	**20.98**	
-	**-**	**-**	**-**	**-**	
-	**-**	**-**	**-**	**-**	
-	**-**	**-**	**-**	**-**	
-	**-**	**-**	**-**	**-**	
-	**-**	**-**	**-**	**-**	
Only Two Samples for Test					

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STRUCTURAL ENGINEERING DIVISION

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University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
M/S Al-Tech, Engineers & Manufacturers
Lahore

Reference # CED/TFL **33869** (Dr. Ali Ahmed) Dated: 20-09-2019
Reference of the request letter # Nil Dated: 06-09-2019

Tension Test Report (Page – 1/1)

Date of Test 25-09-2019
Gauge length 2 inches
Description Rectangular Bar Tensile Test

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
	--------	(mm)	(mm^2)	(kg)	(kg)	(MPa)	(MPa)	(in)		
1	**Rectangular Bar**	**32.00x25.40**	**812.80**	**--------**	**39000**	**--------**	**470.71**	**0.10**	**5.00**	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
Only One Sample for Tensile Test										
Bend Test										

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STRUCTURAL ENGINEERING DIVISION

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Department of Civil Engineering
University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Project Manager
Master Tiles, Kamoke
Gujranwala
(Master Tiles Unit-4)

Reference # CED/TFL **33885** (Dr. Ali Ahmed) Dated: 24-09-2019
Reference of the request letter # Nil Dated: 23-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.331	3	0.352	0.11	0.097	2700	3600	54100	61140	72200	81600	1.50	18.8	
2	0.373	3	0.374	0.11	0.110	2700	3800	54100	54210	76200	76300	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º 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,
Sub Divisional Officer
R/O Drainge Sub Division
Sheikhupura
(The Project Channelization of Deg Nullah (Package 1))

Reference # CED/TFL **33875, 934** (Dr. Ali Ahmed) Dated: 23-09-2019
Reference of the request letter # 439/2-W Dated: 18-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
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	0.380	3/8	0.377	0.11	0.112	3700	4900	74200	73030	98200	96800	1.00	12.5	Batala Steel
2	0.376	3/8	0.375	0.11	0.111	3700	4900	74200	73730	98200	97700	1.10	13.8	
3	4.314	10/8	1.271	1.27	1.268	37400	58000	65000	65010	100700	100900	1.40	17.5	BSM
4	4.407	10/8	1.284	1.27	1.296	37200	57400	64600	63290	99700	97700	1.50	18.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

Bend Test

3/8" Dia Bar Bend Test Through 180º is Satisfactory

10/8" Dia Bar Bend Test Through 180º 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,
A.Senior Engineer
University of Education Lahore
Construction of Academic Block at University of Education Lahore (Main/ Township Campus)(AF Steel)
Reference # CED/TFL **33877** (Dr. Ali Ahmed) Dated: 23-09-2019
Reference of the request letter # UE/Engg/UE/19/380 Dated: 19-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.378	3	0.376	0.11	0.111	3300	5100	66200	65530	102200	101300	1.00	12.5	
2	0.380	3	0.377	0.11	0.112	3600	5100	72200	71090	102200	100800	1.20	15.0	
3	4.202	10	1.254	1.27	1.235	41000	53400	71200	73160	92700	95300	1.60	20.0	
4	4.199	10	1.254	1.27	1.234	40200	53200	69800	71790	92400	95100	1.70	21.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only four samples for tensile and two samples for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														
#10 Bar Bend Test Through 180º 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 Engineering Design Bureau
Karachi
(PTM GSM 900/1800 Expansion Project Existing Pechs Block 6 Razi Road, Karachi)

Reference # CED/TFL **33878** (Dr. Ali Ahmed) Dated: 23-09-2019
Reference of the request letter # EDB/HUAWEI(PTML)/312 Dated: 23-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ Size (mm)		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	0.409	10	9.94	0.12	0.120	3900	5000	71650	71470	91858	91700	0.50	6.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only one sample for tensile test														
Bend Test														

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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,
Office Secretary
Employees Co-Operative Housing Society Ltd
Over Head Water Tank of PCSIR ECH Society Phase-I, Lahore

Reference # CED/TFL **33879** (Dr. Ali Ahmed) Dated: 23-09-2019
Reference of the request letter # PECHS.I/OHWT/ Dated: 23-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.355	3	0.365	0.11	0.104	3100	4300	62200	65410	86200	90800	1.00	12.5	
2	0.358	3	0.366	0.11	0.105	3200	4300	64200	67010	86200	90100	1.20	15.0	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile test														
Bend Test														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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STRUCTURAL ENGINEERING DIVISION

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To,
M/S Defence Housing Authority.
Lahore Cantt
(External Elec Works (U/G) IVY Green, Sector-Z, DHA Ph-VIII)(M/s NLC)

Reference # CED/TFL **33884** (Dr. Ali Ahmed) Dated: 24-09-2019
Reference of the request letter # 408/241/E/Lab/711/1659 Dated: 23-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.366	3	0.370	0.11	0.107	3800	5000	76200	77920	100200	102600	1.00	12.5	FF Steel
2	0.370	3	0.372	0.11	0.109	3900	5100	78200	79040	102200	103400	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

I/C Testing Laboratoires
UET Lahore, Pakistan.

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University of Engineering and Technology Lahore, 54890
Pakistan. Ph: 92-42-99029202

To,
Resident Engineer
Orbit Housing
The Spring Apartment Homes

Reference # CED/TFL **33891** (Dr. Asif Hameed) Dated: 25-09-2019
Reference of the request letter # Nil Dated: 25-09-2019

Tension Test Report (Page -1/1)

Date of Test 25-09-2019
Gauge length 8 inches
Description Deformed Steel Bar Tensile and Bend Test as per ASTM-A615

Sr. No.	Weight	Diameter/ size		Area (in^2)		Yield load	Breaking Load	Yield Stress (psi)		Ultimate Stress (psi)		Elongation	% Elongation	Remarks
	(lbs/ft)	Nominal (#)	Actual (inch)	Nominal	Actual	(kg)	(kg)	Nominal	Actual	Nominal	Actual	(inch)		
1	0.374	3	0.374	0.11	0.110	3900	5000	78200	78110	100200	100200	0.90	11.3	
2	0.373	3	0.374	0.11	0.110	3900	4950	78200	78420	99200	99600	1.00	12.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Note: only two samples for tensile and one sample for bend test														
Bend Test														
#3 Bar Bend Test Through 180º is Satisfactory														

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UET Lahore, Pakistan.

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