



**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  
 Techno Consultant International (Pvt) Ltd  
 CPEC Package-1

Reference # CED/TFL **35452** (Dr. Ali Ahmed)  
 Reference of the request letter # RE/CPEC/DIK/2020/714

Dated: 02-10-2020  
 Dated: 28-09-2020

**Tension Test Report** (Page – 1/2)

Date of Test 07-10-2020  
 Gauge length 2 inches  
 Description Metal Beam Guard Rail & Vertical Steel Post Strip Tensile Test  
 as per AASHTOO M-180, M-183

Sr. No.	Designation	Size of Strip	X Section Area	Yield load	Breaking Load	Yield Stress	Ultimate Stress	Elongation	% Elongation	Remarks
1	Metal Beam Guard Rail	2.25x0.31	0.70	2500	3500	3584	5018	0.60	30.00	
2		2.23x0.31	0.69	2600	3400	3761	4918	0.65	32.50	
3	Vertical Steel Post	2.43x0.60	1.46	4600	7100	3155	4870	0.60	30.00	
4		2.43x0.60	1.46	4700	7100	3224	4870	0.60	30.00	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	
<b>Only Four Samples for Tensile Test</b>										
<b>Bend Test</b>										

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



**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  
Techno Consultant International (Pvt) Ltd  
CPEC Package-1

Reference # CED/TFL **35452** (Dr. Ali Ahmed)  
Reference of the request letter # RE/CPEC/DIK/2020/714

Dated: 02-10-2020  
Dated: 28-09-2020

**Size Test Report** (Page – 2/2)

Date of Test 07-10-2020

Description Metal Beam Guard Rail & Vertical Steel Post thickness Test

Sr. No.	Designation	Thickness	Remark
		(mm)	
1	Metal Beam Guard Rail	3.10	
2	Vertical Steel Post	6.00	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
-	-	-	
<b>Only Two Samples for Test</b>			

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



**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 CPEC-Package-3  
 NESPAK  
 China - Pakistan Economic Corridor (CPEC), Western Route Hakla (on M-1) to D.I Khan  
 Motorway, Package-3 (Trap to Kot Belian)

Reference # CED/TFL **35462** (Dr. Ali Ahmed) Dated: 06-10-2020  
 Reference of the request letter # CPEC/NESPAK/RE/PKG3/20/1646 Dated: 14-09-2020

**Tension Test Report** (Page -1/1)

Date of Test 07-10-2020  
 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 <sup>2</sup> )		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	3000	4300	60200	61330	86200	87900	1.40	17.5	Mughal Steel
2	0.366	3	0.370	0.11	0.108	2800	4400	56200	57310	88200	90100	1.40	17.5	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



**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  
 Izhar Construction (Pvt) Ltd  
 Construction of Production Hall & Raw Material Store at Orient Material (Pvt) Ltd at M3-  
 Industrial Area, Faisalabad

Reference # CED/TFL **35463** (Dr. Ali Ahmed) Dated: 06-10-2020  
 Reference of the request letter # ICPL/CONST-OMPL/20/055 Dated: 05-10-2020

**Tension Test Report** (Page -1/1)

Date of Test 07-10-2020  
 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 <sup>2</sup> )		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	0.367	3/8	0.371	0.11	0.108	3300	5000	66200	67450	100200	102200	1.20	15.0	
2	0.368	3/8	0.371	0.11	0.108	3600	5000	72200	73380	100200	102000	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
<b>Bend Test</b>														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,  
 General Manager Plant  
 Shangrila Foods (Private) Limited  
 Karachi

Reference # CED/TFL **35468** (Dr. Ali Ahmed)  
 Reference of the request letter # Nil

Dated: 06-10-2020  
 Dated: 06-10-2020

**Tension Test Report** (Page -1/1)

Date of Test 07-10-2020  
 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 <sup>2</sup> )		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	0.354	3	0.364	0.11	0.104	3500	5200	70200	74210	104200	110300	0.90	11.3	
2	0.374	3	0.374	0.11	0.110	4100	5700	82200	82140	114300	114200	1.10	13.8	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

To,  
 Chief Engineer  
 Zaitoon  
 New Lahore City  
 Construction of O.H.W.T No. 01 (Cp. 100,000 Gallons) NLC Phase-IV

Reference # CED/TFL **35469** (Dr. Ali Ahmed)  
 Reference of the request letter # NLC/CE/Infra/036

Dated: 06-10-2020  
 Dated: 05-10-2020

**Tension Test Report** (Page -1/1)

Date of Test 07-10-2020  
 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 <sup>2</sup> )		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	0.422	3	0.397	0.11	0.124	4500	5800	90200	80010	116300	103200	0.90	11.3	Afco Steel
2	0.417	3	0.395	0.11	0.123	4600	5800	92200	82660	116300	104300	0.90	11.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Note: only two samples for tensile and one sample for bend test</b>														
Bend Test														
#3 Bar Bend Test Through 180° is Satisfactory														

**I/C Testing Laboratoires**  
**UET Lahore, Pakistan.**

Note:

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
- 2- The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples



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

**I/C Testing Laboratories**  
**UET Lahore, Pakistan.**

**Note:**

- 1- You can See your reports On Internet in the following web site  
[http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing\\_reports](http://www.uet.edu.pk/faculties/facultiesinfo/civil/index.html?RID=testing_reports)
2. The above results pertain to sample /samples supplied to this laboratory.
- 3- Sealed sample / Unsealed sample / Marked sample/Signed Samples