POST TENSIONING FORMAT FOR PSC GIRDER

General information:

Name & Location of Bridge: Construction Of 301.00m Long PSC Girder Bridge Over the River Kartoa at Ch 4500 on Chatra GC-Gilabari Ghat Via Nischintobati Primary School Road**, Road ID :** 185764034	**District: Rangpur**	**Upazila: Pirganj**

Span/Girder Ref: Span-2 , Girder-1	Girder Length (m):43m	Cable Ref. to be Stressed	03 of 04
Girder Casting Date:	Stressing Stage of Cable : **02**	Jacking end Ref:	End 1: L804019
Date of Tensioning**: 16-10-2025**			End 2: L804022

Design information:

Dia of Strand (mm): 15.24mm	No. of Strand Cable: 19 nos	Anchorage Brand: Decomate	UTS of Strand (N/mm2): 1860	M. of Elasticity, E (MPA): 197000
Area of Strand (mm2): 140	Area of Cable, A (mm2): 2660	Design Jacking Force P: 3750 **Kn**		
Design Elongation Each end (mm): 150	Design Elongation for Gripping Length (mm): N/A	Actual Gripping Length (mm): 665	Corrected Elongation for Grip Length ð(mm): 4.76	
Design Cable Slip (mm): 6mm	Design Conc. Strength during Tensioning (N/mm2): 36 MPa	Actual Conc. Strength at the time of Tensioning (N/mm2): **MPa**		

Stressing & Jack information:

Pump Model No. P1: 803189 P2: 803180	Pressure gauge Model: M1: 2409120 M2: K-01 (18.12.213)	Tensioning Ram Area (m2): TA1: TA2:	Blocking Ram Area (Cm2): BA1: BA2:
Actual Area of Cable, A1 (mm2) : 2707.50	**Modulus of Elasticity, E1(MPA):** 200400	**Corrected Elongation (mm) for Actual A1 & E1 : ð*(A*E/A1*E1): 149.50 mm**	
Jack Pres. With Jack loss (BAR) Kg/cm2. J1: P/(TA1*efficiency): J2: P/(TA2*efficiency):	Calibrated Jack press.(MPa) CJ1: 43.18 CJ2: 42.45	Initial Jack Press.(MPa) ICJ1: 8.98 ICJ2: 9.01	Initial Marking: IRJ1: IRJ2:
Actual calculated Elongation for Grip Length, ð1 (mm): **4.60 mm**	Gross Slip of Cable (mm): (Final Elong.- Net Elong.)	Net Slip at Jack end after lock-off (mm): (Gross Slip – Calcul. Elong. ð1 for Grip length)	

Blocking Pressure Kg/Cm2):	At end 1	At end 2	At end 1	At end 2
E1: Auto Block				
E2: Auto Block				

Record of Stressing & Elongation:

Avg. % of Design Load	Actual Applied Pressure		Calculated Gauge Pressure MPa		Reading for Elongation (mm)		Measured Elongation At both Jacking end (mm)			Correction Factor For ICJ	Final/Total Elongation. (mm)		Average Elongation At each End.	Remarks (Average Slip at each end)
	Col(1)		Col(2)		Col(3)		Col(4)=(Col 3-IRJ)			Col (5)	Col(6)=(4+5)			
	1	2			1	2	1	2	Avg.		1	2		
	KN	TON	MPA	MPA	-	-	-	-	-		-	-		
20	750	76.48	8.98	9.01			-	-	-					
40	1500	152.96	17.53	17.37										
60	2250	229.44	26.08	25.73										
80	3000	305.91	34.63	34.09										
95	3562.5	363.27	41.04	40.36										
98	3675	374.75	42.33	41.62										
100	3750	382.39	43.18	42.45										
102	3825	390.04	44.04	43.29										
105	3937.5	401.51	45.32	44.54										
Lock -off														

Client's Representative **Consultant's Representative** **Contractor's Representative**