

## ALABAMA DEPARTMENT OF TRANSPORTATION PRESTRESS TENSIONING WORKSHEET

### GENERAL INFORMATION

PROJECT NUMBER _____	DATE _____
COUNTY _____	DIVISION _____ POUR # _____
MEMBER DESCRIPTION _____	QA INSPECTOR _____

STRAND DATA	HEAT NO.	AREA (in <sup>2</sup> )	MODULUS OF ELASTICITY (PSI)
	<b>AVERAGE</b>		

GENERAL DATA	STRAIGHT		DRAPED		
	[1]	STRAND TYPE			
	[2]	STRAND AREA (in <sup>2</sup> )			
	[3]	STRAND Es.(PSI)			
	[4]	NO. OF STRANDS			
	[5]	STRAND LENGTH (in.)			
	[6]	INITIAL FORCE (lbs)			
[7]	SPECIFIED FORCE (lbs)				

CALCULATIONS	ELONGATIONS		GROSS THEORETICAL		NET THEORETICAL	
	[6]	STRAND TYPE	STRAIGHT	DRAPED	STRAIGHT	DRAPED
	[7]	BASIC ELONGATION				
	[8]	DEAD END SLIPPAGE				
	[9]	LIVE END SEATING				
	[10]	OTHER LOSSES				
	[11]	TOTAL ELONGATION	[10]		[11]	
	[12]	± 5% TOLERANCE				
	[13]	<b>STRESSES</b>	STRAIGHT		DRAPED	
	[14]	OVER PULL FORCE (lbs)				
	[15]	TOTAL FORCE (lbs)				
	[16]	± 5% TOLERANCE				

CORRECTIONS	STRAND TYPE	STRAIGHT	DRAPED
	[14]	ACTUAL JACK READING	
	[15]	ACTUAL OVER PULL	
	[16]	ACTUAL TOTAL ELONG.	
	[17]	MEASURED ELONG.	
	[18]	ACTUAL LIVE END SEATING	
[19]	ACTUAL LOAD RETAINED		

**FORMULAS**

$$6 = \frac{(5 - 4) \times 3}{1 \times 2} \quad 12 = \frac{8 \times 1 \times 2}{3} \quad 13 = 5 + 12 \quad 15 = 14 - 5 \quad 16 = 11 + \frac{15 \times 3}{1 \times 2} \quad 18 = 16 - 17 \quad 19 = 14 - \frac{18 \times 1 \times 2}{3}$$