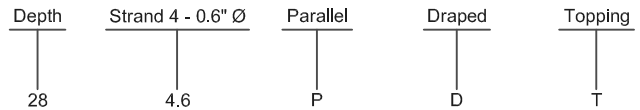
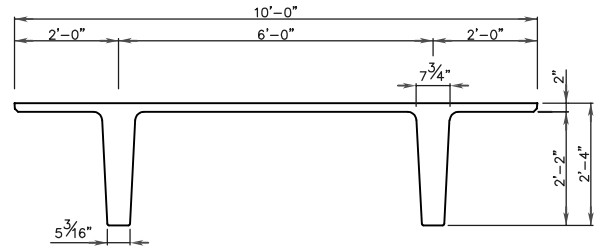


Prestressed Concrete 28" x 10' DOUBLE TEE (NO TOPPING)

PHYSICAL PROPERTIES

A = 576 in. ²	S _b = 2,223 in. ³
I = 42,973 in. ⁴	S _t = 4,957 in. ³
Y _b = 19.33 in.	Wt. = 600 PLF
Y _t = 8.67 in.	Wt. = 60 PSF



DESIGN DATA

1. Precast Strength @ release = 3,500 PSI.
2. Precast Strength @ release for draped tees = 4,500 PSI.
3. Precast Strength @ 28 days = 6,000 PSI
4. Precast Density = 145 PCF
5. Strand = 0.6" Ø 270K Lo-Relaxation.
6. Maximum moment capacity is critical at midspan for parallel strands and is critical near 0.4 span for draped strands.
7. Maximum bottom tensile stress is $12\sqrt{f_c} = 930$ PSI
8. Flexural capacity is based on stress/strain strand relationships.
9. All superimposed load is treated as live load in the flexural strength analysis. To determine the allowable live load if the amount of superimposed dead load is known use the following conversion method...

$$\text{Allowable Live Load} = \frac{(1.6)(\text{Load Table Value}) - (1.2)(\text{Superimposed Dead Load})}{1.6}$$

10. If the above conversion is used then allowable stress limits must be checked so they are not exceeded.
11. Deflection limits were not considered when determining allowable loads in this table.

ALLOWABLE SUPERIMPOSED LIVE LOADS (psf)

Section	Ø Mn (in. Kips)	SPAN (FEET)																							
		40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86
28 - 4.6 P	5,233	91	78	67	58	49	42	35																	
28 - 6.6 P	7,502	142	126	111	101	90	79	70	62	54	47	41	36												
28 - 8.6 P	9,541				137	127	113	101	91	81	73	65	58	52	46	40									
28 - 10.6 P	11,348							124	117	105	95	86	77	70	63	57	51	46	40						
28 - 12.6 P	12,925										112	102	92	82	74	67	60	54	48	43	38				
28 - 14.6 D	16,843													113	103	94	86	78	72	65	59	54	49	44	40
28 - 16.6 D	18,801															105	96	88	81	74	67	62	56	51	47
28 - 18.6 D	20,675																106	97	89	82	75	69	63	58	53