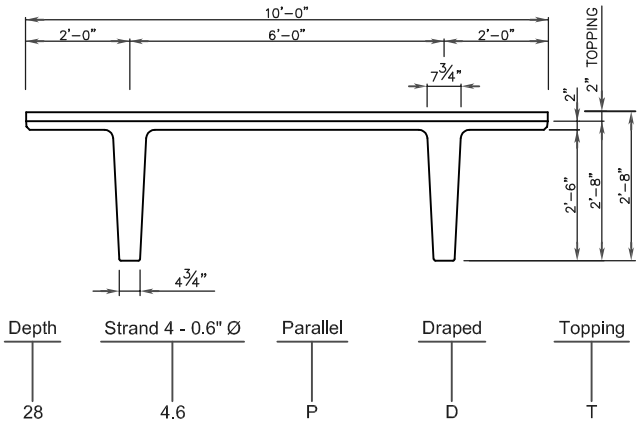
Prestressed Concrete
32" x 10' DOUBLE TEE
(2" TOPPING)

PHYSICAL PROPERTIES

$A = 615$ in.^{2}	$S_b = 2{,}718$ in.^{3}
$I = 59{,}720$ in.^{4}	$S_t = 5{,}957$ in.^{3}
$I' = 75{,}941$ in.^{4}	$S'_{tt} = 11{,}141$ in.^{3}
$Y_b = 21.98$ in.	Wt.= 641 PLF
$Y_t = 10.02$ in.	Wt.= 64 PSF
$Y'_{bb} = 24.36$ in.	Wt.'= 891 PLF
$Y'_{tt} = 9.64$ in.	Wt.'= 89 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. Topping Strength @ 28 days = 3,000 PSI.
5. Precast / Topping Density = 150 PCF.
6. Strand = 0.6" Ø 270K Lo-Relaxation.
7. Maximum moment capacity is critical at midspan for parallel strands and is critical near 0.4 span for draped strands.
8. Maximum bottom tensile stress is $12\sqrt{f'c} = 930$ PSI.
9. Flexural capacity is based on stress/strain strand relationships.
10. 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...

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

11. If the above conversion is used then allowable stress limits must be checked so they are not exceeded.
12. 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
32 - 4.6PT	6,458	101	85	72	60	49	40	32																	
32 - 6.6PT	9,310				116	101	88	76	66	56	48	40	34												
32 - 8.6PT	11,911							116	103	91	80	71	62	54	47	40	34								
32 - 10.6PT	14,260									122	109	98	87	78	69	61	54	47	41	34					
32 - 12.6PT	16,359											122	110	98	87	76	67	58	50	43	36				
32 - 14.6DT	21,319															116	105	94	85	76	67	60	53	46	40
32 - 16.6DT	23,972																	110	100	90	81	73	65	58	51
32 - 18.6DT	26,539																		113	103	93	85	77	69	62

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This load table is for general information only for preliminary design. It is not intended for final design without competent professional examination and verification of its accuracy, suitability, and applicability by a licensed professional engineer, designer, or architect. It is for simple spans and uniform loads. Design data for any of these span-load conditions is available on request. Individual designs may be furnished to satisfy unusual conditions of heavy loads, concentrated loads, cantilevers, flange or stem openings and narrow widths.

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