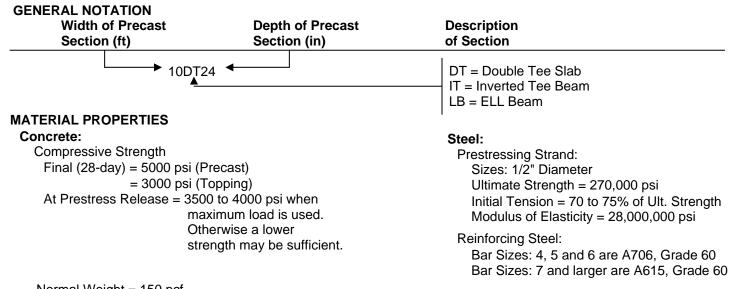
# **PREFACE TO PRODUCT LOAD TABLES**

The following pages contain load tables for the standard products available from Coreslab Structures (ARIZ) Inc. Load capacities are in conformance with the American Concrete Institute "Building Code Requirements for Structural Concrete (ACI 318-05)". However, values given in the tables are intended for preliminary member selections, not final designs. These values assume that the safe superimposed load is composed of 60% dead load and 40% live load.

In some cases, loads in excess of those shown can be accommodated by modifying the general parameters such as concrete strength and/or reinforcing patterns.



Normal Weight = 150 pcf Modulus of Elasticity =  $W^{1.5} 33\sqrt{f'c}$ 

### FLEXURAL MEMBERS

In general, maximum spans shown for the various prestressing conditions will result in an upward camber under dead load, after loss of prestress has occurred. Roof deflection, however, should always be checked. It is recommended that a positive slope always be provided for roofs. Whenever span-to-depth ratio exceeds 30 for double tees a positive roof slope is essential to preclude ponding. Also, see the 2006 Edition "International Building Code" IBC.

### **Topping Slab Design by Others**

For composite members, reinforcement (i.e., welded wire fabric or reinforcing bar) is generally required for the structural design of the topping slab. The Engineer of Record should furnish this design.

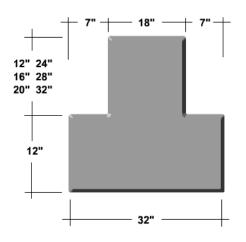
DESIGN RECOMMENDATIONS	Maximum Bottom Tension Stress	Range of Maximum Precast Span-To-Depth Ratio	
Double Tee Floor Slabs	12 $\sqrt{f'c}$	25 to 30	
Double Tee Roof Slabs	12 $\sqrt{f'c}$	35 to 40	
Inverted Tee or ELL Beams	$6\sqrt{f'c}$	10 to 20	
Hollow Core Slabs	$6\sqrt{f'c}$	45 to 50	

The required depth of a beam or slab is influenced by the ratio of live load to total load. When this ratio is high, deeper sections may be needed.



## **PRESTRESSED JUMBO INVERTED TEE BEAMS**

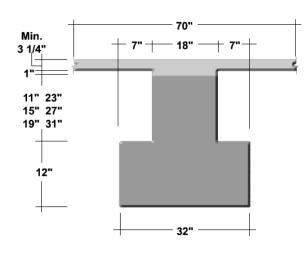
## Non-Composite Jumbo IT Beam - 12 inch Ledge





Allowable Superimposed Service Load, Kips per Lineal Foot														
Span(ft)	28	30	32	34	36	38	40	42	44	46	48	Beam Type	Depth (in)	Weight (plf)
32IT24	5.8	5.0	4.3	3.6	3.2	2.9	2.5	2.2				32IT24	24	625
32IT28	8.6	7.5	6.4	5.4	4.8	4.3	3.7	3.2	2.8	2.5	2.2	32IT28	28	700
32IT32	11.2	9.8	8.5	7.2	6.5	5.8	5.1	4.4	3.9	3.4	3.0	32IT32	32	775
32IT36	14.2	12.6	11.0	9.4	8.5	7.6	6.7	5.8	5.2	4.7	4.2	32IT36	36	850
32IT40	17.6	15.6	13.6	11.6	10.5	9.4	8.3	7.2	6.6	6.0	5.4	32IT40	40	925
32IT44	20.8	18.4	16.1	13.8	12.5	11.2	9.9	8.6	7.8	7.1	6.4	32IT44	44	1000

### Composite Jumbo IT Beam - 12 inch Ledge





Allowable Superimposed Service Load, Kips per Lineal Foot										Beam Type	Beam Type Depth (in)	Weight (plf)		
Span(ft)	28	30	32	34	36	38	40	42	44	46	48	32IT23	23	606
32IT23	6.0	5.2	4.5	3.8	3.4	3.0	2.6	2.2	1.9			32IT27	27	681
32IT27	9.0	7.9	6.8	5.8	5.2	4.6	4.0	3.4	3.0	2.7	2.4	32IT31	31	756
32IT31	11.4	10.1	8.8	7.6	6.8	6.1	5.3	4.6	4.2	3.8	3.4	32IT35	35	831
32IT35	14.8	13.1	11.4	9.8	8.8	7.9	6.9	6.0	5.4	4.9	4.4	32IT39	39	906
32IT39	18.0	15.9	13.9	11.9	10.7	9.6	8.5	7.4	6.7	6.0	5.4	32IT43	43	981
32IT43	21.4	19.0	16.6	14.2	12.9	11.6	10.3	9.0	8.2	7.4	6.6	021110	10	001