

48.) DESIGN VALUES FOR PRESTRESSED CONCRETE VOIDED SLABS

- a) CONCRETE COMPRESSIVE STRENGTH: $f_c = 7,500$ PSI.
- b) LIVE LOAD HL-93.
- c) CONCRETE COMPRESSIVE STRENGTH AT RELEASE: $f_{ci} = 5,000$ PSI
- d) ASSUMED MODULUS OF ELASTICITY = 28,500 KSI.
- e) PRESTRESSING STRANDS: 0.6 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7-WIRE STRAND PULLED TO 75% OF THEIR ULTIMATE TENSILE STRENGTH.
- f) POST TENSIONING STRANDS: 0.5 INCH DIAMETER, 270 KSI, LOW-RELAXATION 7 WIRE STRAND.
- g) THERE SHALL BE TWO (2) TRANSVERSE STRANDS PER CONDUIT. JACKING FORCE PER STRAND = 32 KIPS.
- h) POST-TENSIONING STRANDS SHALL BE COVERED WITH SEAMLESS POLYPROPYLENE SHEATH (WITH CORROSION INHIBITOR GREASE BETWEEN SHEATH AND STRAND) FOR THE LENGTH OF THE STRAND, EXCEPT AT ANCHORAGE LOCATIONS.
- i) SERVICE LOADS:

	FASCIA UNITS		4 FOOT INTERIOR UNITS		UNIT 5 (3 FOOT UNIT)
MEMBER MOMENT (UNFACTORED)	320 FT-KIPS		290 FT-KIPS		230 FT- KIPS
SUPERIMPOSED DEAD LOAD MOMENT (UNFACTORED)	40 FT-KIPS		40 FT-KIPS		40 FT-KIPS
LIVE LOAD AND IMPACT MOMENT (UNFACTORED)	332 FT-KIPS		312 FT-KIPS		273 FT-KIPS
DEAD LOAD REACTION PER BRG (UNFACTORED)	16 KIPS		14 KIPS		12 KIPS
LIVE LOAD AND IMPACT REACTION PER BRG (UNFACTORED)	24 KIPS		24 KIPS		15 KIPS
TOTAL REACTION PER BRG (UNFACTORED)	40 KIPS		38 KIPS		27 KIPS
FINAL CAMBER	3/8 INCH		3/8 INCH		3/8 INCH

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 PROJECT LEADER: C. CARLSON DRAWN BY: R. PELLETT
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 PROJECT NOTES (2) SHEET 6 OF 54