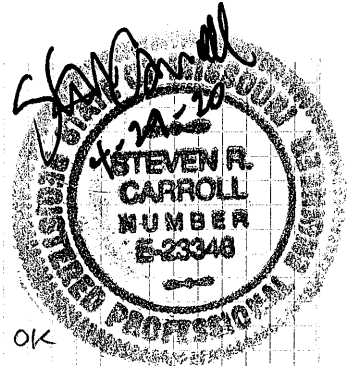


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- RTU-1 & 2 850# JOIST SPAN = 21'-0"
 UNIT SUPPORTED BY 4 JOISTS - $P = .213 \text{ K}$
 UNIFORM ROOF LOAD $(W) = 2(.035) = .07 \text{ KLF}$
 $M_{max} = \frac{.07(21)^2}{8} + \frac{.213(21)}{4} = 4.98 \text{ K'}$
 CHECK 18" TJ1/35: $M_{CAP} = 8.69 \text{ K'} > 4.98 \text{ K'} \therefore \text{OK}$
 CHECK DEFLECTION: $W_{equiv} = 4.98(8)/21^2 = .09 \text{ KLF}$
 $\Delta = \frac{.09(5)(21)^4(1728)}{384(2000)(485)} = .406" @ 1/620 \therefore \text{OK}$

- RTU-8 & 9 1400# JOIST SPAN = 23'-4"
 UNIT SUPPORTED BY 3 JOISTS - $P = .467 \text{ K}$
 UNIFORM ROOF LOAD $(W) = 6(.038) = .23 \text{ KLF}$
 $M_{max} = \frac{.23(23.33)^2}{8} + \frac{.467(11)(12.33)}{23.33} = 18.36 \text{ K'}$
 CHECK 16H5 BAR JOIST: $M_{CAP} = 24.08 \text{ K'} > 18.36 \text{ K'} \therefore \text{OK}$

- RTU-12 850# JOIST SPAN = 20'-0"
 UNIT SUPPORTED BY 2 JOISTS - $P = .425 \text{ K}$
 UNIFORM LOAD $(W) = 5.92(.038) = .23 \text{ KLF}$
 $M_{max} = \frac{.23(20)^2}{8} + \frac{.425(2)(18)}{20} = 12.27 \text{ K'}$
 CHECK 14H4 BAR JOIST: $M_{CAP} = 17.5 \text{ K'} > 12.27 \text{ K'} \therefore \text{OK}$

- RTU-13 850# JOIST SPAN = 21'-0"
 UNIT SUPPORTED BY 4 JOISTS - $P = .215 \text{ K}$
 UNIFORM LOAD = $2(.035) = .07 \text{ KLF}$
 $M_{max} = \frac{.07(21)^2}{8} + \frac{.215(9)(12)}{21} = 4.96 \text{ K'}$
 CHECK 18" TJ1/35: $M_{CAP} = 8.69 \text{ K'} > 4.96 \text{ K'} \therefore \text{OK}$
 CHECK DEFLECTION: $W_{equiv} = \frac{4.96(8)}{(21)^2} = .09$
 $\Delta = \frac{.09(5)(21)^4(1728)}{384(2000)(485)} = .406" @ 1/620 \therefore \text{OK}$