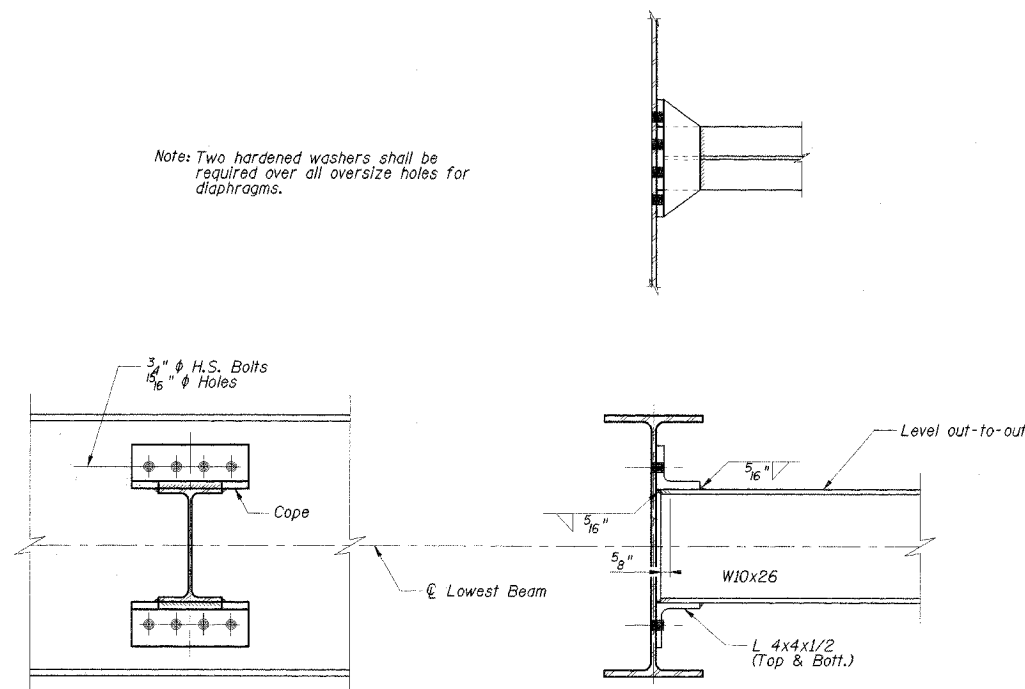


| INTERIOR GIRDER MOMENT TABLE | | |
|--------------------------------|--------------------|-------|
| 0.5 Span | | |
| I_s | (in ⁴) | 1830 |
| I_c (n) | (in ⁴) | 5952 |
| I_c (3n) | (in ⁴) | 4358 |
| S_s | (in ³) | 154 |
| S_c (n) | (in ³) | 253 |
| S_c (3n) | (in ³) | 227 |
| Q | (K/ft.) | 0.631 |
| M | (K) | 150 |
| $s \cdot Q$ | (K/ft.) | .128 |
| $M_s \cdot Q$ | (K) | 30 |
| $M \cdot I$ | (K) | 222 |
| M (Imp) | (K) | 66 |
| $S_x(M \cdot I + I)$ | (K) | 479 |
| M_a | (K) | 857 |
| $f_s \cdot Q$ non-comp | (k.s.i.) | 11.67 |
| $f_s \cdot Q$ (comp) | (k.s.i.) | 1.61 |
| $f_s \cdot S_x(M \cdot I + I)$ | (k.s.i.) | 22.75 |
| f_s (Overload) | (k.s.i.) | 36.03 |
| f_s (Total) | (k.s.i.) | 46.83 |
| VR | (K) | 31.63 |

| INTERIOR GIRDER REACTION TABLE | | | |
|--------------------------------|-----|-----------|-----------|
| | | @ Abut. 1 | @ Abut. 2 |
| $R \cdot Q$ | (K) | 17.56 | 17.56 |
| $R \cdot I$ | (K) | 25.94 | 25.94 |
| Imp. | (K) | 7.69 | 7.69 |
| R (Total) | (K) | 51.19 | 51.19 |

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 $I_c(n)$ and $S_c(n)$ are the moment of inertia and section modulus used in computing stresses due to live load.
 $I_c(3n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section due to superimposed dead loads.
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
 The Plastic Moment Capacity (M_u) is computed according to AASHTO 10.48.1 & 10.50.1.1.
 M - Moment due to dead loads on non-composite section.
 M - Moment due to live loads on non-composite section.
 $M(Imp)$ - Moment due to live load impact on non-composite or composite section.
 M_a (Applied Moment) = $1.3M_D + M_{sQ} + S_x(M + I)$.
 f_s (Overload) is the sum of the stresses due to $M_D + M_{sQ} + S_x(M + I)$.

Note: Two hardened washers shall be required over all oversize holes for diaphragms.



| | | | | | |
|------|---------------|-----|------|----------|----|
| DSGN | K.J. Hoffmann | | | | |
| DR | K.J. Hoffmann | | | | |
| CHK | K.E. Brandau | | | | |
| APVD | K.E. Brandau | NO. | DATE | REVISION | BY |

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STEEL FRAMING DETAILS - SHEET 2 OF 2

CATLIN ROAD DISTRICT
 SECTION 02-04130-00-BR
 VERMILION COUNTY

| | |
|----------|----------|
| SHEET | 12 |
| DWG NO. | stl2.dgn |
| DATE | FEB 2006 |
| PROJ NO. | 5068 |