*02-00382-02-PV

F.A.U.

8071

02-PV CONTRACT NO. 7254

<u>NOTES</u>

All Sleeves, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete Bulb T-Beams shall be included in the contract unit price per foot of "Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63 in."

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be $^{l}_{2}^{\prime\prime}$ and the nominal cross-sectional area shall be 0.153 sq. in.

Non-prestressing steel shall conform to AASHTO designation $\it M-31$ or $\it M~322$, Grade 60.

A minimum $2^l2^{\prime\prime}$ ϕ lifting pin shall be used to engage the lifting loops during handling.

Reinforcement bars designated (E) shall be epoxy coated.

Cut G_6 bars when necessary to maintain $I_2^{\prime\prime\prime}$ clearance.

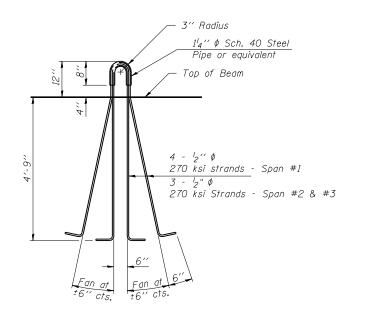
The Dottom plates and studs shall be galvanized according to AASHTO M111 and ASTM A385.

Threaded rods shall be ASTM F 1554 Grade 55.

 $\frac{Outside}{R = 2'}$

BAR G2

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to all portions of the I-beam or Bulb-T beam, except the top surface of the top flange and the bottom surface of the bottom flange, starting at each beam end and extending out a distance of 63 inches. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

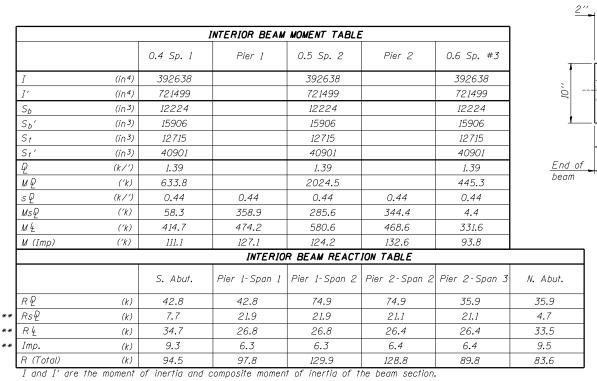


PLAN OF BEAM AT PIER

m6(E)

Beam

<u>LIFTING LOOP DETAIL</u>



- S_b and $S_{b'}$ are the non-composite and composite section modulus for the bottom fiber of the prestressed beam. S_t and $S_{t'}$ are the non-composite and composite section modulus for the top fiber of the prestressed beam
- M \mathcal{D} is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.
- Ms Q is the moment due to dead loads on the composite section.
- M \(\int \) is the moment due to live load on the composite section.
- M (Imp) is the moment due to live load impact on the composite section.

End of beams

(See sheet 11 of 27)

No. 9 wire ties

To outside face

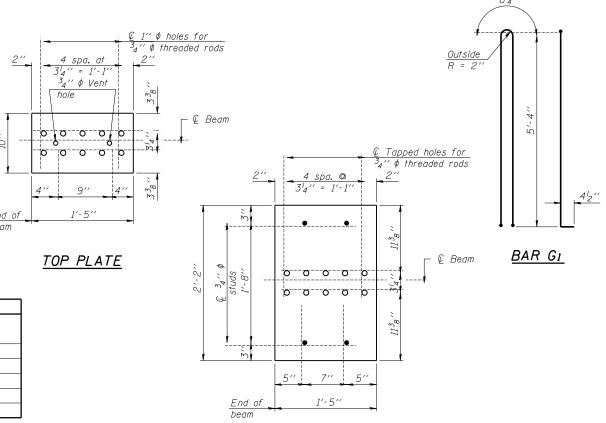
 $m_6(F)$

ELEVATION OF BEAM AT PIER

of bar, typ.

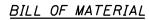
Bottom of beam

** The total RsD, RL and Impact Reactions are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier shall be based on the maximum reactions of either span.



BOTTOM PLATE

See bearing details for pintle hole locations when required.



3'-0"

BAR G6

BAR G4

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete Bulb T-Beams, 63''	Ft.	3859.5

Corporate License Number 184-001-084

63" PPC BULB T-BEAM DETAILS
MACARTHUR BLVD. OVER N.S. R.R.
SECTION 02-00382-02-PV
SANGAMON COUNTY
STATION 800+69.78
STRUCTURE NUMBER 084-0512

96S2002B

10/10/06

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