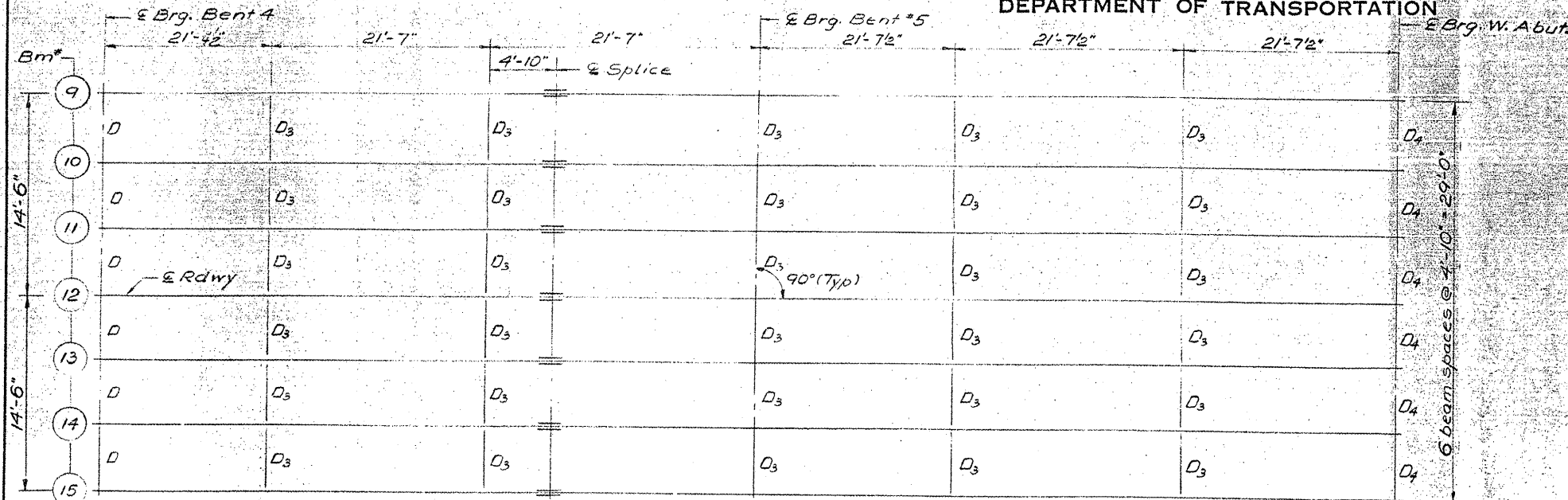


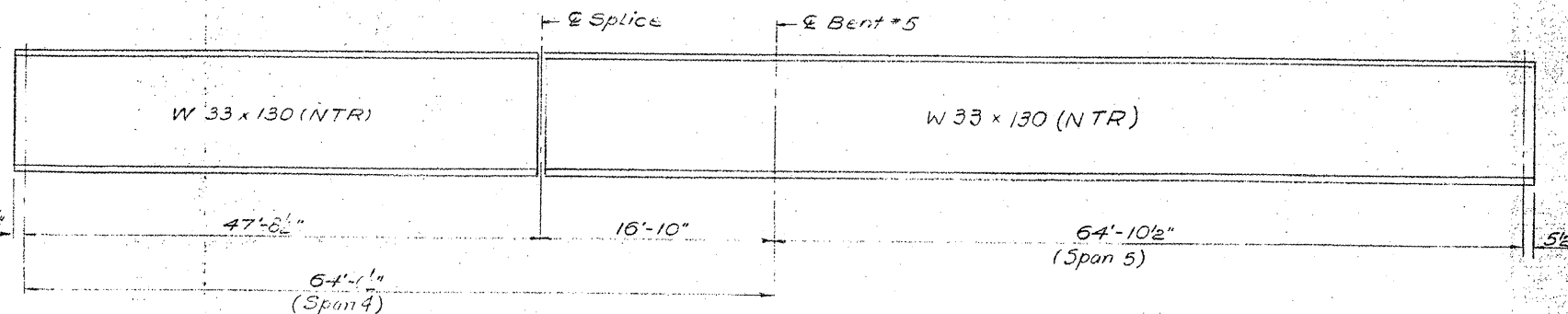
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

VARIOUS ROUTES
D9 BRIDGE PAINTING FY 09-1
VARIOUS COUNTIES
CONTRACT 78093
FOR INFORMATION ONLY
SHEET 28 OF 31



FRAMING PLAN

All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.



BEAM ELEVATION

Note: The main load carrying members of steel bridges subject to tensile stresses shall conform to the Supplemental Requirements for Notch Toughness (Zone 2). These tensile members, including beams and splice plates, are designated by (NTR).

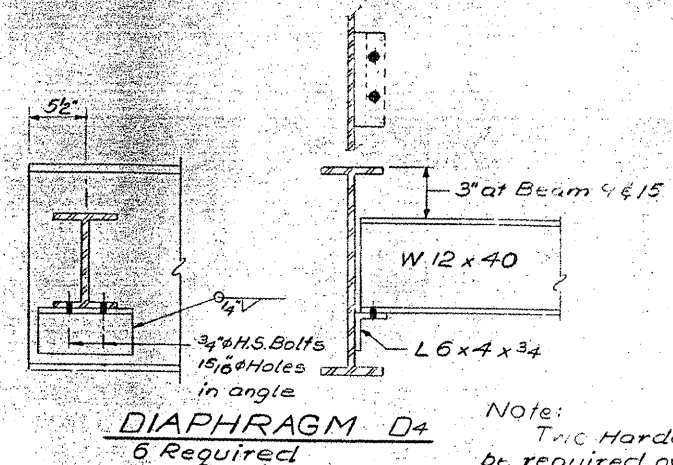
| | Abut. or Bent 4 | Bent 5 |
|-------------|-----------------|--------|
| RQ (K) | 16.2 | 53.8 |
| RA (K) | 29.6 | 34.7 |
| IMP (K) | 7.7 | 9.0 |
| P Total (K) | 53.5 | 97.5 |

TOP OF FLANGE ELEVATION
(For fabrication only)

| Girder Location | Brig. Bent 4 | Splice | Brig. Bent 5 | Brig. Bent 6 |
|-----------------|--------------|--------|--------------|--------------|
| 9 & 15 | 385.41 | 385.38 | 385.36 | 385.31 |
| 10 & 14 | 385.50 | 385.47 | 385.47 | 385.40 |
| 11 & 13 | 385.58 | 385.54 | 385.55 | 385.48 |
| 12 | 385.65 | 385.62 | 385.62 | 385.55 |

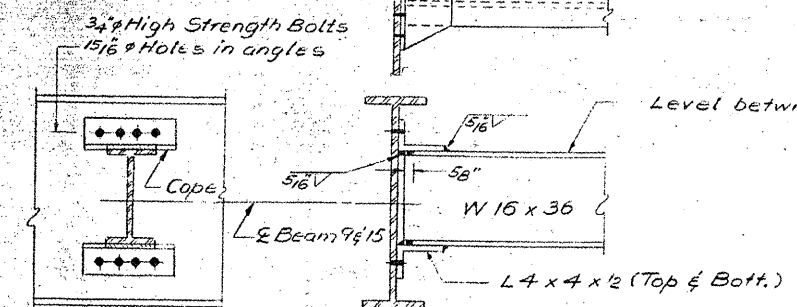
| | 4 spans or 6 spans | Bent 5 |
|--|--------------------|--------|
| I _s (in ⁴) | 6710 | 6710 |
| S _s (in ³) | 406 | 406 |
| I ₂ +S ₂ (in ⁴) | .667 | .667 |
| M ₂ +S ₂ (K) | 196.8 | 351.3 |
| P ₂ /Q ₂ -S ₂ (K) | 5.8 | 10.4 |
| M ₁ (K) | 358.0 | 244.7 |
| M _{imp} (K) | 93.0 | 63.6 |
| M ₂ (K) | 451.0 | 308.3 |
| P ₂ /Q ₂ (K) | 13.3 | 9.1 |
| P ₂ Total (K) | 19.1 | 19.5 |

I_s and S_s are the moment of inertia and section modulus, respectively of the steel section, used in computing f_s.

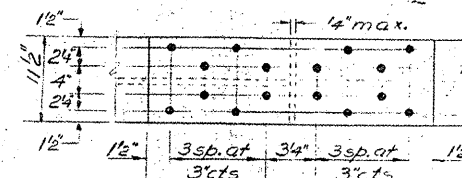


DIAPHRAGM D4
6 Required

Note: Two Hardened washers shall be required over 15/16" holes in angles.



DIAPHRAGM D3
30 Required



SPLICE

2-Web splice plates 76" x 19" x 29" (NTR) (1 each side)
2-inside Flange splice plates 76" x 42" x 24" (NTR) (1 each side) Top & Bottom Flange
1-outside Flange splice plate 76" x 112" x 24" (NTR) Top & Bottom Flange

STRUCTURAL STEEL
SPANS 4 & 5

F.A. RTE. 857-SECTION 101 BR-2

| | |
|------------------------------|--|
| DESIGNED <i>Steve Wilson</i> | EXAMINED <i>[Signature]</i> Jan. 13 1981 |
| CHECKED <i>[Signature]</i> | PASSED <i>[Signature]</i> |
| DRAWN <i>V.F.</i> | APPROVED <i>[Signature]</i> |
| CHECKED <i>[Signature]</i> | |