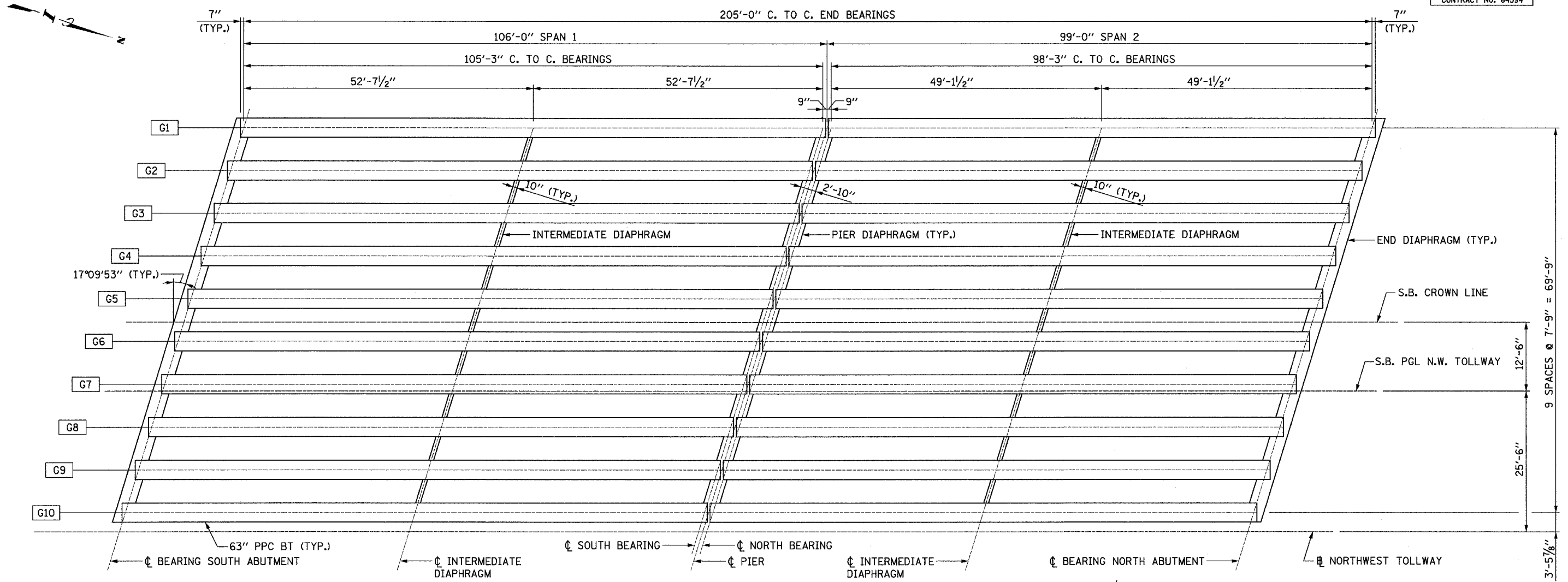


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|--------------------|---------|-----------|----------|-----------|
| ROUTE NO. | SECTION | COUNTY | DISTRICT | SHEET NO. |
| 303 | 129K | WINNEBAGO | 585 | 199 |
| CONTRACT NO. 64594 | | | | |

SHEET NO. S20
OF SHEETS S47

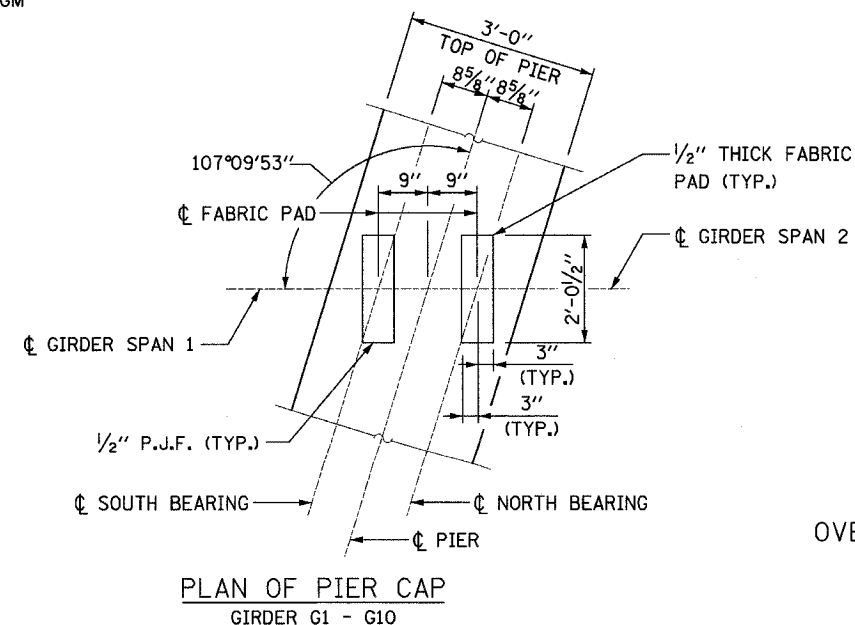


FRAMING PLAN
STAGE I CONSTRUCTION

| | | 0.4 Sp. 1 | PIER | 0.6 Sp. 2 |
|--|--------------------|-----------|--------|-----------|
| I | (In ⁴) | 392638 | 392638 | 392638 |
| I _c (n) | (In ⁴) | 775001 | ---- | 775001 |
| S (TOP) | (In ³) | 12715 | 12715 | 12715 |
| S (BOTTOM) | (In ³) | 12224 | 12224 | 12224 |
| S _c (TOP) | (In ³) | 49993 | ---- | 49993 |
| S _c (BOTTOM) | (In ³) | 16317 | ---- | 16317 |
| I _c | (K/ft.) | 1.513 | ---- | 1.513 |
| M ₀ | (K) | 2150 | ---- | 1882 |
| s ₀ | (K/ft.) | 0.277 | 0.277 | 0.277 |
| M _{s0} | (K) | 228 | 363 | 180 |
| M ₁ | (K) | 926 | 834 | 865 |
| M (Imp) | (K) | 200 | 181 | 193 |
| 5 ₃ [M ₁ +M (Imp)] | (K) | 1877 | 1696 | 1764 |
| MA | (K) | 5598 | 2677 | 5033 |
| MU | (K) | 6929 | 3220 | 5771 |
| FCIB | (k.s.l.) | 2.657 | 2.374 | 2.165 |
| FCIT | (k.s.l.) | 0.173 | 0.445 | 0.134 |
| LOSS | (%) | 21.0 | 19.4 | 18.2 |

| | | S. ABUT. | PIER | N. ABUT. |
|----------------|-----|----------|-------|----------|
| R ₀ | (K) | 94.0 | 195.7 | 87.5 |
| R ₁ | (K) | 49.5 | 76.0 | 44.9 |
| Imp. | (K) | 10.7 | 16.7 | 10.0 |
| R (Total) | (K) | 154.2 | 288.3 | 142.4 |

I AND S ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE BEAM
I_c AND S_c ARE THE MOMENT OF INERTIA AND SECTION MODULUS OF THE COMPOSITE SECTION
MA (APPLIED MOMENT)=1.3[IMD + 5/3 (M L M IMP)]
MU IS THE ULTIMATE STRENGTH OF THE SECTION
FCIB IS THE INITIAL STRESS AT BOTTOM FIBER OF THE BEAM DUE TO INITIAL PRESTRESSING WITHOUT LOSS (POSITIVE = COMPRESSION)
FCIT IS THE INITIAL STRESS AT TOP FIBER OF BEAM DUE TO INITIAL PRESTRESSING WITHOUT LOSS (POSITIVE = COMPRESSION)



PLAN OF PIER CAP
GIRDER G1 - G10



FRAMING PLAN (SB)
N.W. TOLLWAY
OVER IL 173 (F.A.P. ROUTE 303)
SECTION 129K
WINNEBAGO COUNTY
STATION 443+73.62
S.N. 101-9963 (SB) & 101-9964 (NB)
TOLLWAY S.N. 703 (NB) & 704 (SB)

| | |
|----------|-----|
| DESIGNED | AH |
| CHECKED | JIG |
| DRAWN | DCP |
| CHECKED | JIG |