

| | | | | |
|-----------------------|-------------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAP 303 IL 173 | 134B-B-2R-1 | LAKE | 137 | 64 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 1
17 SHEETS

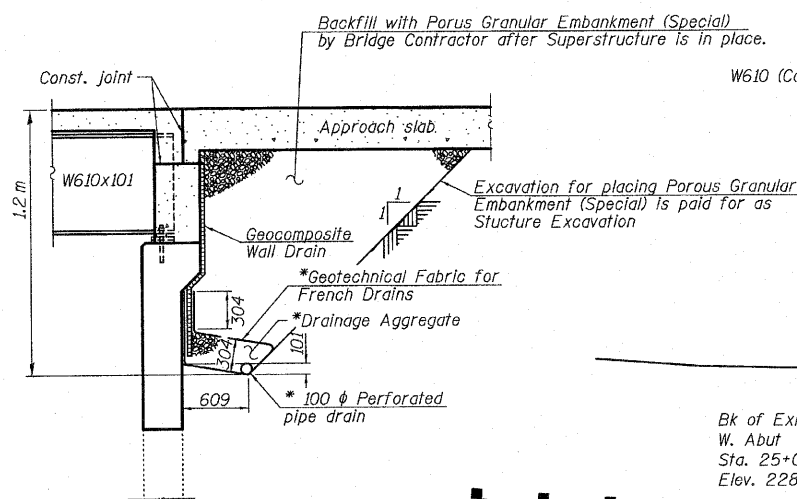
Bench Mark: USGS Reference Mark on S.W. wingwall of structure 049-0055 Elev. 228.867

Existing Structure: S.N. 049-0055, single span 9.720m Back to Back abutments, 15.748m Out to Out, R.C. slab bridge on closed abutments. Built as IL Route 173, Section 134B at Sta. 830+21 (English) in 1931. The contractor shall remove the existing superstructure and replace it with a single span Composite Steel Wide Flange Superstructure. The road shall be kept open to traffic at all times utilizing stage construction.

Note: All dimensions in millimeters (mm) except as noted.

No Salvage.

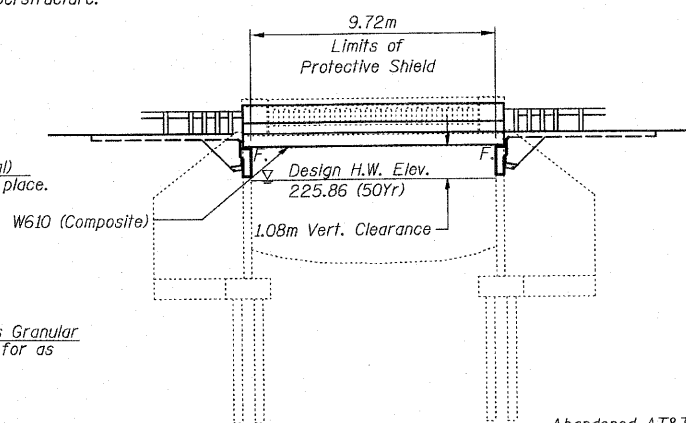
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



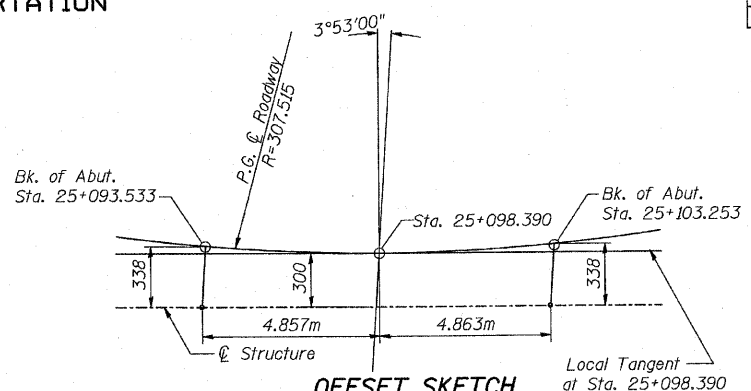
SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures

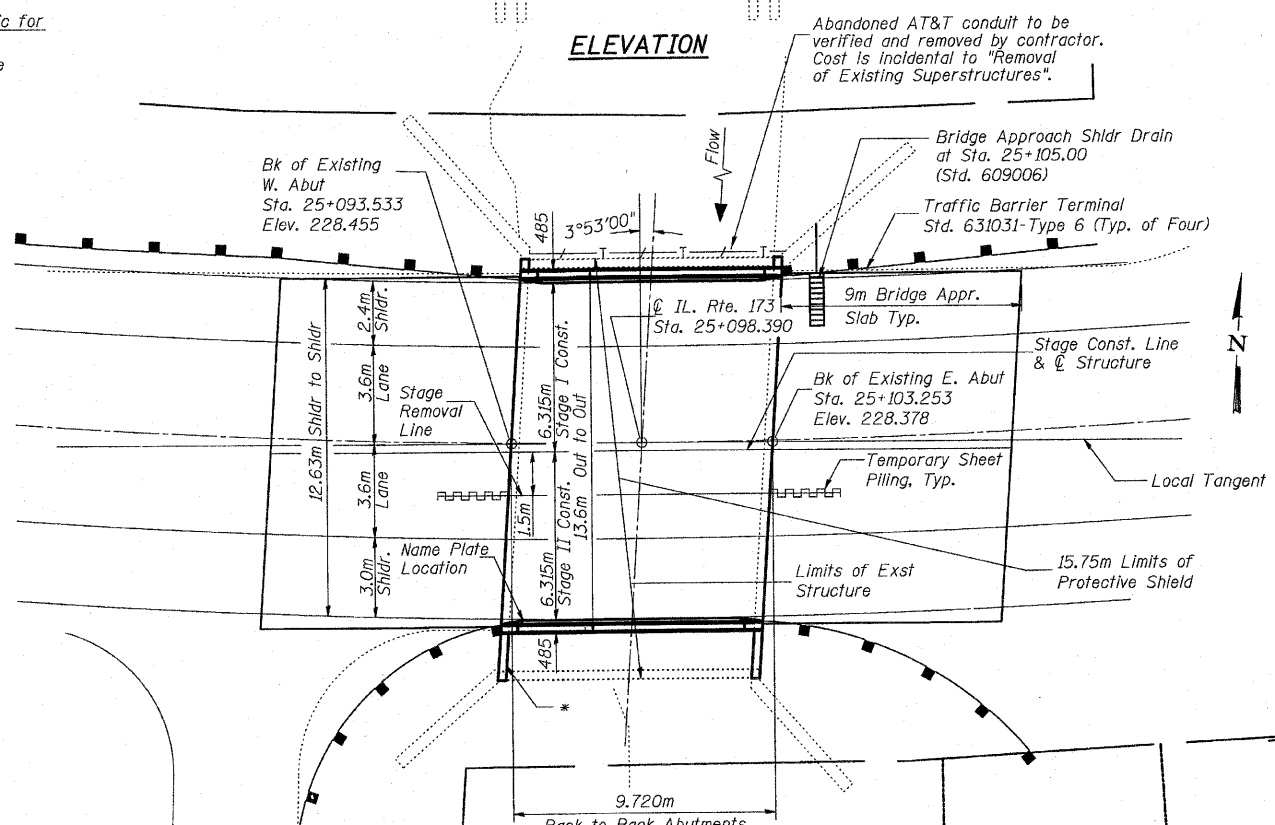
All drainage systems components shall extend to 308mm from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into the concrete headwalls. (See Article 601.04 of the Standard Specifications and Highway Standard 601101) Drain may be connected to existing drain holes in existing abutment.



ELEVATION



OFFSET SKETCH



PLAN

CURVE DATA

Δ = 117°58'50.836"
T = 511.600
R = 307.515
L = 633.221
E = 289.394
S.E. = 0.083
P.C. STA = 24+702.249
P.T. STA = 25+335.470
P.I. STA = 25+213.849

WATERWAY INFORMATION

Drainage Area = 2256 km² Low Grade Elev. 226.94 @ Sta. 25+103

| Flood | Freq. Yr. | Q C.M.S. | Opening Sq. M | | Natural H.W.E. | | Head - Ft. | | Headwater El. | |
|-------------|-----------|----------|---------------|--------|----------------|--------|------------|--------|---------------|--------|
| | | | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. |
| 10 | 0 | 12.5 | 12.5 | 225.46 | 225.46 | 0.00 | 0.00 | 225.46 | 225.46 | |
| NPDES | 25 | 0 | 14.7 | 14.7 | 225.69 | 225.69 | 0.00 | 0.00 | 225.69 | 225.69 |
| Design | 50 | 0 | 16.3 | 16.3 | 225.86 | 225.86 | 0.00 | 0.00 | 225.86 | 225.86 |
| Base | 100 | 0 | 17.8 | 17.8 | 226.04 | 226.04 | 0.00 | 0.00 | 226.04 | 226.04 |
| Overtopping | | 0 | | | | | 0.00 | 0.00 | | |
| Max. Calc. | 500 | 0 | 21.8 | 21.8 | 226.44 | 226.44 | 0.00 | 0.00 | 226.44 | 226.44 |

INDEX OF SHEETS

- | Sheet Number | Description of Sheet |
|--------------|--|
| 1. | General Plan and Elevation |
| 2. | Stage Construction and General Data |
| 3. | Top of Slab Elevations - 1 |
| 4. | Top of Slab Elevations - 2 |
| 5. | Top of West Approach Slab Elevations |
| 6. | Top of East Approach Slab Elevations |
| 7. | Deck Plan and Cross Section |
| 8. | Superstructure Details |
| 9. | Bridge Approach Slab - 1 |
| 10. | Bridge Approach Slab - 2 |
| 11. | Framing Plan |
| 12. | Framing Details and Design Data Tables |
| 13. | Abutment Details |
| 14. | Substructure Repair |
| 15. | Temporary Concrete Barrier |
| 16. | Bar Splicer Details |
| 17. | Cantilever Forming Brackets |

STATION 25+098.390
BUILT 200... BY
STATE OF ILLINOIS
FAP 303 SEC 134B
LOADING MS18
STRUCTURE NO. 049-0055

NAME PLATE

See Std. 515001
Existing Name Plate Shall be Cleaned and Relocated Next to New Name Plate. Cost Included with "Name Plates".

LOADING MS18

Allow 2.4 kN/m² for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO 1996 thru 2000 & 2002 Interims

DESIGN STRESSES

FIELD UNITS

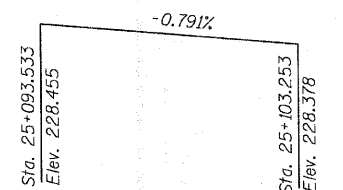
f_c = 24 MPa
f_y = 420 MPa (Reinforcement)
f_y = 250 MPa (M270M Grade 250)
f_y = 345 MPa (M270M Grade 345)

EXISTING UNITS

f_c = 24 MPa
f_y = 228 MPa (reinforcement)

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.035g
Site Coefficient (S) = 1.0

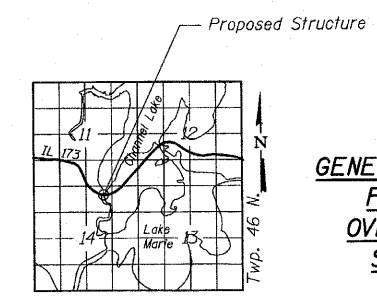
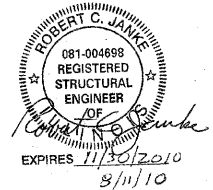


PROFILE GRADE

Along Roadway

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson (SE)
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAP 303 IL. ROUTE 173
OVER WEST BOAT CHANNEL
SECTION 134(B&B-2)R-1
LAKE COUNTY
STATION 25+098.390
STRUCTURE NO. 049-0055

| | |
|----------|---------|
| DESIGNED | PATZ |
| CHECKED | RCJ/JRF |
| DRAWN | RDS |
| CHECKED | PATZ |



3117-049-0055.DGN