

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

| F.A.S. R/O. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------|----------|--------------|-----------|
| 659 | 1 (BR & BR-1) | MAULTRIE | 38 | 1 |

P-95-029-79

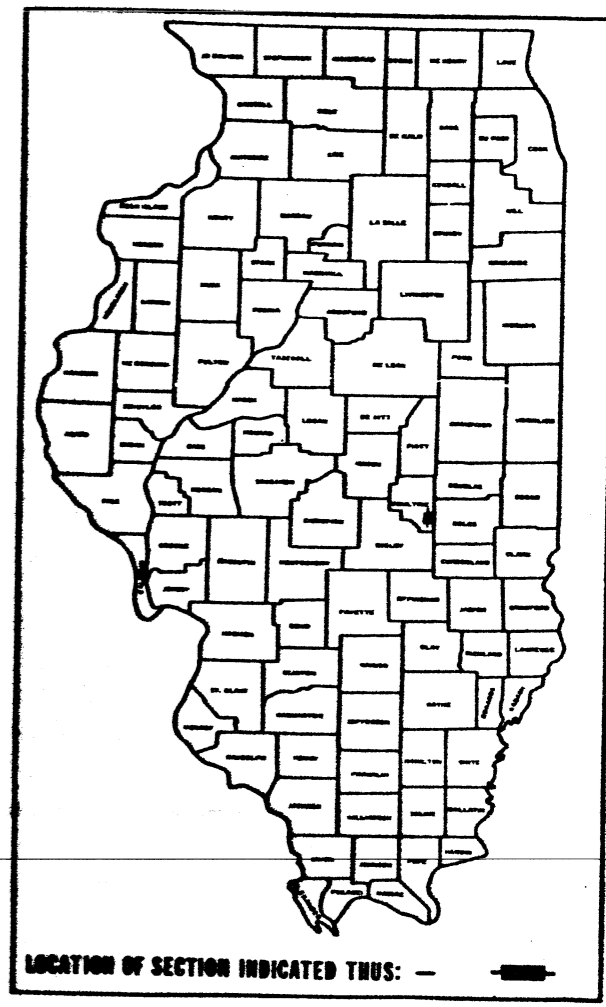
FOR INDEX OF SHEETS, SEE SHEET NO. 6A
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 6B

PLAN 1" = 20'
 PROFILE VIEW 1" = 20'
 PROFILE VIEW 1" = 5'
 CROSS SECTION 1" = 40' (HORIZ.)
 1" = 5' (VERT.)

F.A.S. ROUTE 659, SECTION 1 (BR & BR-1)
MOULTRIE COUNTY
PROJECT BR-S-659(102)

C-95-121-M

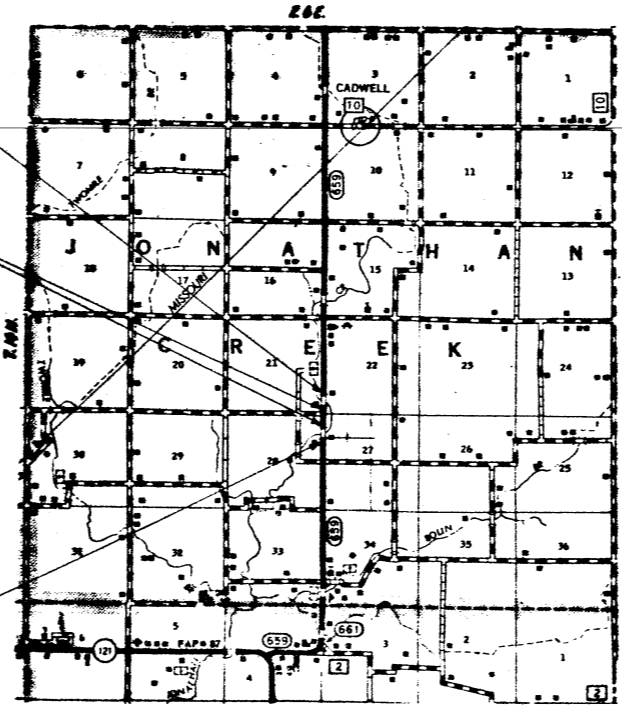
BRIDGE REPLACEMENT



PROJECT BR-S-659(102) AND
 SECTION 1 (BR & BR-1) BEGINS
 STA. 176+50

UPPER END PROJECT AND SECTION
 STA. 157+75 TO STA. 170+00

PROJECT BR-S-659(102) AND
 SECTION 1 (BR & BR-1) BEGINS
 STA. 153+25



SPECIAL BRIDGE DESIGN
 SECTION 1 BR-1
 7 1/2" R.C. DECK ON STEEL "I" BEAMS ON
 NEW P.L.C. ABUTMENTS AND PIERS
 3 SPANS, 2 @ 32'-10 1/2" & 1 @ 39'-8"
 30'-2" OUT TO OUT WITH 32'-0" RAMPWAY
 SLOPE 2%
 STATION 173+60

SPECIAL BRIDGE DESIGN
 SECTION 1 BR-1
 7 1/2" R.C. DECK ON STEEL "I" BEAMS ON
 NEW P.L.C. ABUTMENTS AND PIERS
 3 SPANS, 2 @ 20'-9" & 1 @ 24'-10"
 35'-2" OUT TO OUT WITH 32'-0" RAMPWAY
 SLOPE 1%
 STATION 157+75.46

DESIGN DESIGNATION
 RPS (OR) MAJOR COLLECTOR 0.71 (FLEX-20)

NET LENGTH OF SECTION 1 (BR & BR-1) = 2,325.00 FEET = 0.990 MILES
 NET LENGTH OF SECTION 1 (BR & BR-1) = 1,100.00 FEET = 0.206 MILES
 NET LENGTH OF PROJECT BR-S-659(102) = 1,100.00 FEET = 0.206 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 2 1981

EXAMINED Feb 8 1982 DISTRICT ENGINEER
Robert E. Kromet

FORWARDED Feb 8 1982 ENGINEER OF PLANS AND CONTRACTS
R. Wolow

APPROVED Feb 8 1982 ENGINEER OF BRIDGES
Thomas R. Broyt
John J. Thompson

C.N. 141049

CONTRACT NO. 35357

070-0039

TOTAL FREE J.U.L.I.E. NO. 020-892-0123
 JOHNSON CREEK TOWNSHIP

Bench Mark: Chiseled "a" on north end of west hubguard. Elev. 645.77
 Existing structure: Built as S.A. Route 6, Section I-A-MFT in 1935, No. 070-0011
 The superstructure consists of reinforced concrete slab on steel I-beams.
 The substructure consists of creosoted plank and timber pile abutments
 and creosoted timber pile pier. F. to F. 23'-9" and Bk. to Bk. of abuts. 74'-8"
 The Contractor shall remove the existing structure before the new one is con-
 structed. Traffic will be detoured. No salvage.

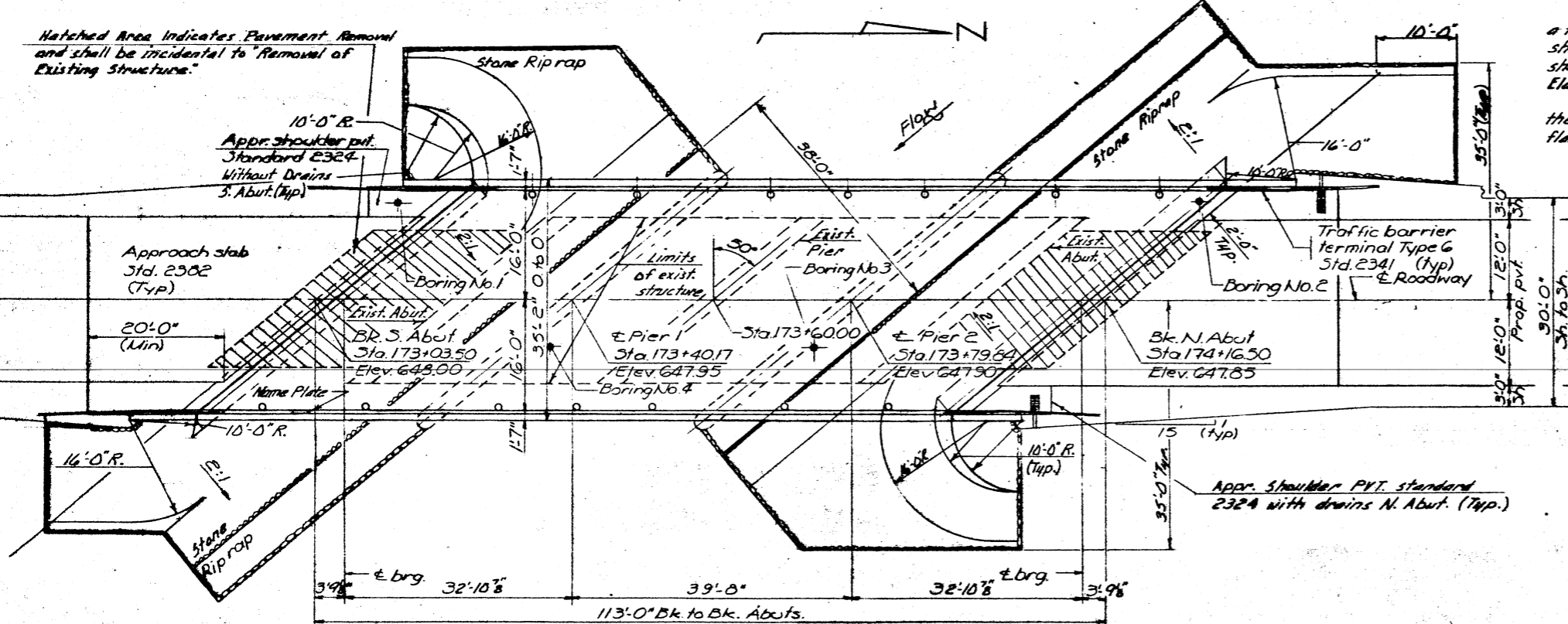
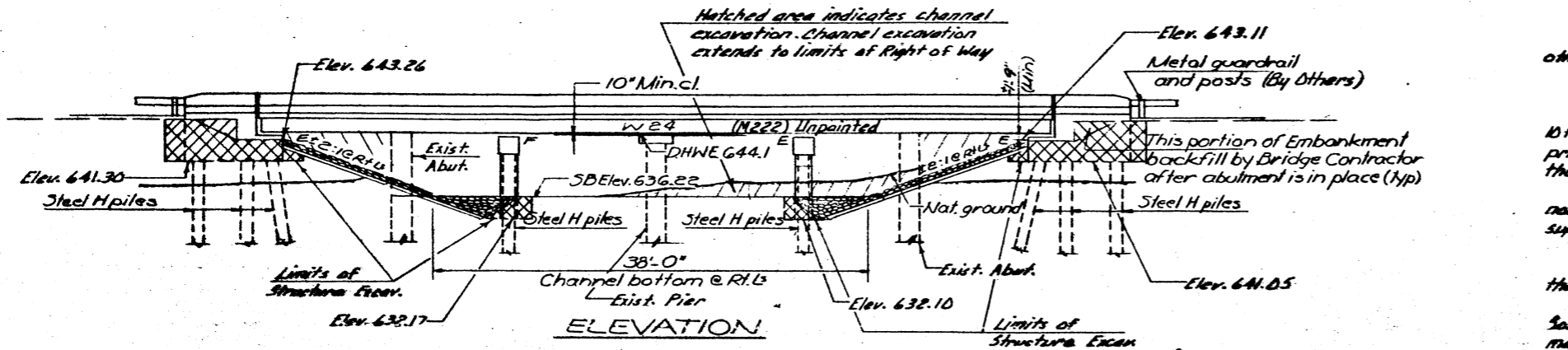
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

| | | | | |
|---------------|---------|-------------|--------------|-----------|
| PROJECT NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 659 | IBR | Moultrie | 38 | 20 |
| DATE: 10/6/81 | | DESIGNED BY | DRAWN BY | |
| | | EXAMINED BY | CHECKED BY | |

SHEET NO. 1
12 SHEETS

GENERAL NOTES

See proposal for Boring Data.
 Fasteners shall be high strength bolts (AASHTO M164, Type 3). Bolts 1/2", open holes 3/4", unless otherwise noted.
 Calculated weight of Structural Steel = 52840 Lbs.
 All structural steel shall be AASHTO M222 unpainted.
 All structural steel for a distance of three times the depth of the beams, but not exceeding 10 feet each way from deck joints shall be cleaned and given one coat of the basic lead silice chromate primer and maroon field coat. Both coats to be applied in the shop with spot painting only in the field.
 Field welding of construction accessories will not be permitted to the bottom flange of beams near to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
 Anchor bolts shall be set before bolting diaphragms over supports.
 Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
 The contractor shall drive two steel (HPBx36) test piles in a permanent location, one at South Abutment and other at Pier "2", as directed by the engineer before ordering the remainder of piles.
 Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjustment shims of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric Bearings, shims of the dimensions of top plate shall be provided and placed as detailed.
 The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material of the wide flange beams.
 Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.
 All contact surfaces of joints for the diaphragms shall be free of paint or lacquer.



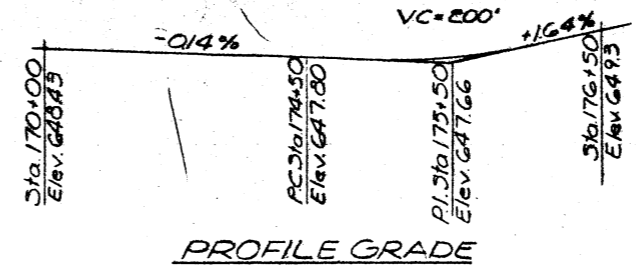
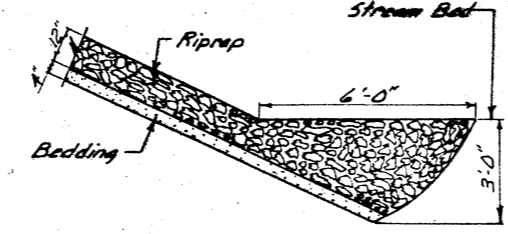
TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|-------------------------------------|----------|-------|-------|-------|
| Class X Concrete | Cu. Yds. | 122.0 | 195.8 | 317.8 |
| Structural Steel | Lbs. | — | — | 52840 |
| Protective Coat | Sq. Yds. | 500 | — | 500 |
| Neoprene Expansion Joint (2") | Lin. Ft. | 104 | — | 104 |
| Floor Drains | Each | 14 | — | 14 |
| Elastomeric Brg. Assem. Type I | Each | 15 | — | 15 |
| Steel Piles (HPBx36) | Lin. Ft. | — | 1078 | 1078 |
| Test Piles Steel (HPBx36) | Each | — | 2 | 2 |
| Structure Excavation | Cu. Yds. | — | 283 | 283 |
| Reinforcement Bars | Lbs. | 11280 | 15680 | 26960 |
| Reinforcement Bars (Epoxy Coated) | Lbs. | 17450 | — | 17450 |
| Name Plate | Each | 1 | — | 1 |
| Riprap | Sq. Yds. | — | 637 | 637 |
| Channel Excavation | Cu. Yds. | — | 467 | 467 |
| Removal of Existing Structure No. 2 | Each | — | — | 1 |

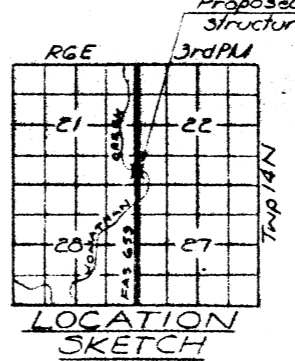
WATERWAY INFORMATION

Drainage Area: 1940 sq. mi. Low Grade Elev. 645.14 (Exist) @ Sta 647.10 (Prop)

| Flood Yr. | Q CFS | Opening 3x Ft. Exist | 3x Ft. Prop | Nat. H.W.E. Exist | Head - Ft. Exist | Head - Ft. Prop | Headwater El. Exist | Headwater El. Prop |
|-------------|-------|----------------------|-------------|-------------------|------------------|-----------------|---------------------|--------------------|
| Design | 30 | 1766 | 252 | 334 | 644.14 | 0.56 | 0.51 | 644.7 |
| Base | 100 | 2251 | 252 | 334 | 644.8 | 0.94 | 0.79 | 645.74 |
| Overtopping | | | | | | | | |
| Max. Calc. | 500 | 2869 | 252 | 334 | 645.6 | 1.27 | 0.56 | 646.87 |



DESIGN STRESSES
 $f_c = 3500$ psi
 $f_y = 60,000$ psi (Reinf.)
 $f_y = 50,000$ psi (Struct.)
 (M-222 unpainted)



DESIGNED Chagan P. Patel
 CHECKED R. F. ROYCE
 DRAWN R. Sommer JS
 CHECKED R. F. R. C.R.P.

October 6, 1981
 EXAMINED [Signature]
 PASSED [Signature]
 APPROVED [Signature]

STATION 173+60.00
 JONATHAN CREEK
 BUILT 1981
 F.A.S. RTE. 659 SEC. I-BR
 FA PROJ. BRS 659(102)
 LOADING HS 20
 STR. NO. ---

NAME PLATE
 (See Std. 211.9)
 *Structure No. to be supplied by Dist.

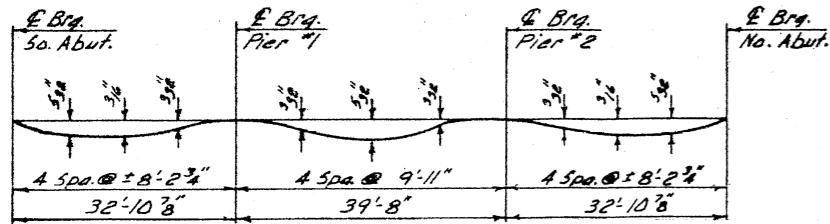
Allow 25#/sq. ft. for future wearing surface.
 Design Specifications: 1977 AASHTO, 1976, 1979 and 1980 interims.

GENERAL PLAN
 F.A.S. RTE. 659 OVER JONATHAN CREEK
 F.A.S. ROUTE 659
 SECTION I-BR
 MOULTRIE COUNTY
 STATION 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

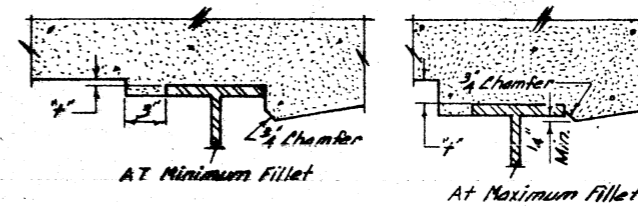
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|------------|---------|------------------|--------------|-----------|
| F.A.S. 659 | 1BR | Moultrie | 38 | 21 |
| ILLINOIS | | FED. AID PROJECT | | |

SHEET NO. 2
12 SHEETS



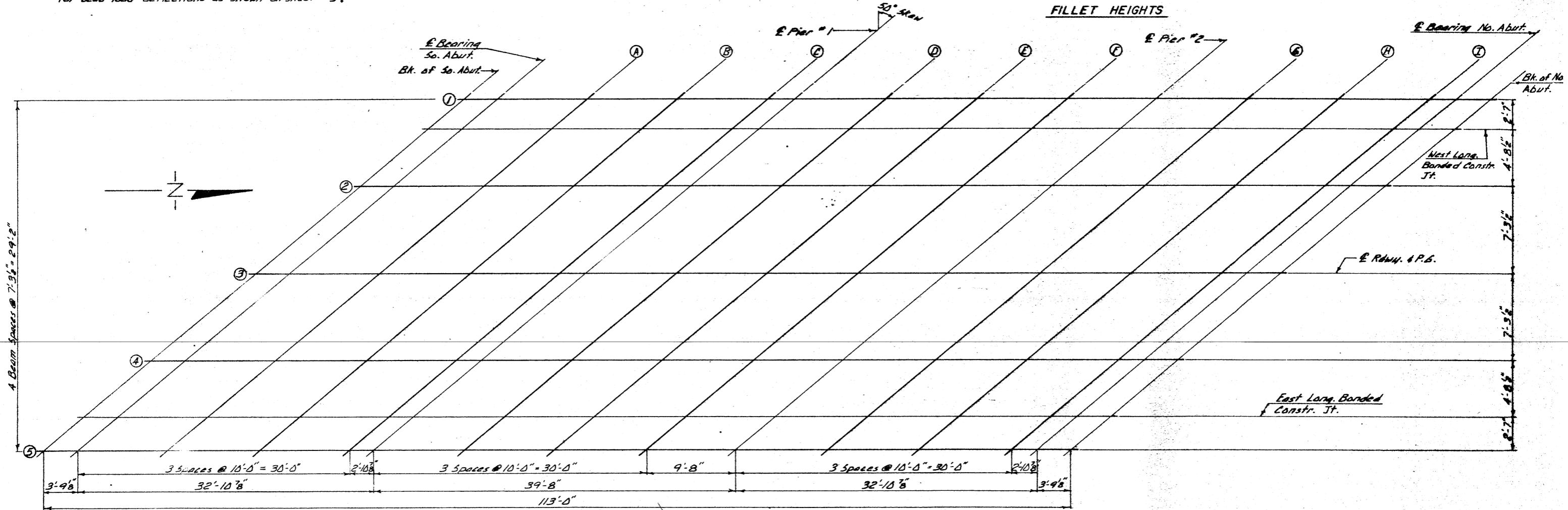
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)
Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet # 3.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

| |
|---------------------------|
| DESIGNED Chhagan P. Patel |
| CHECKED R. F. Jones |
| DRAWN R. Sammer |
| CHECKED R. F. R. C.P.P. |

October 6 19 81
 EXAMINED [Signature]
 ENGINEER OF BRIDGE DESIGN
 PASSED [Signature]
 ENGINEER OF BRIDGES AND STRUCTURES
 APPROVED [Signature]
 DIRECTOR OF HIGHWAYS

TOP OF SLAB ELEVATIONS
F.A.S. RTE. 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-------------|------------|----------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| R. 659 | 1BR | Moultrie | 38 | 22 |
| DESIGNED BY | CHECKED BY | DRAWN BY | APPROVED | |
| | | | | |

BEAM #1

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|---------|------------------------------|--|
| BK. S. ABUT. | 17320.889 | -14.583 | 647.748 | 647.748 |
| E BRG. S. ABUT. | 17324.640 | -14.583 | 647.734 | 647.734 |
| A C | 17334.640 | -14.583 | 647.720 | 647.733 |
| | 17344.640 | -14.583 | 647.706 | 647.718 |
| | 17354.640 | -14.583 | 647.692 | 647.693 |
| E BRG. PIER 1 | 17357.546 | -14.583 | 647.688 | 647.688 |
| D F | 17367.546 | -14.583 | 647.674 | 647.682 |
| | 17377.546 | -14.583 | 647.660 | 647.674 |
| | 17387.546 | -14.583 | 647.646 | 647.654 |
| E BRG. PIER 2 | 17397.213 | -14.583 | 647.633 | 647.633 |
| G H | 17407.213 | -14.583 | 647.619 | 647.627 |
| | 17417.213 | -14.583 | 647.605 | 647.618 |
| | 17427.213 | -14.583 | 647.591 | 647.592 |
| E BRG. N. ABUT. | 17430.119 | -14.583 | 647.587 | 647.587 |
| BK. N. ABUT. | 17433.880 | -14.583 | 647.581 | 647.581 |

WEST LONG. BONDED CONSTR. JOINT

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|---------|------------------------------|--|
| BK. S. ABUT. | 17317.881 | -12.000 | 647.738 | 647.738 |
| E BRG. S. ABUT. | 17321.261 | -12.000 | 647.732 | 647.732 |
| A C | 17331.561 | -12.000 | 647.778 | 647.791 |
| | 17341.561 | -12.000 | 647.764 | 647.774 |
| | 17351.561 | -12.000 | 647.758 | 647.753 |
| E BRG. PIER 1 | 17354.568 | -12.000 | 647.756 | 647.756 |
| D F | 17364.568 | -12.000 | 647.732 | 647.748 |
| | 17374.568 | -12.000 | 647.718 | 647.732 |
| | 17384.568 | -12.000 | 647.704 | 647.712 |
| E BRG. PIER 2 | 17386.134 | -12.000 | 647.691 | 647.691 |
| G H | 17404.134 | -12.000 | 647.677 | 647.685 |
| | 17414.134 | -12.000 | 647.663 | 647.676 |
| | 17424.134 | -12.000 | 647.649 | 647.653 |
| E BRG. N. ABUT. | 17427.041 | -12.000 | 647.645 | 647.645 |
| BK. N. ABUT. | 17430.881 | -12.000 | 647.639 | 647.639 |

BEAM #2

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| BK. S. ABUT. | 17312.198 | -7.292 | 647.879 | 647.879 |
| E BRG. S. ABUT. | 17315.950 | -7.292 | 647.874 | 647.874 |
| A C | 17325.950 | -7.292 | 647.860 | 647.872 |
| | 17335.950 | -7.292 | 647.846 | 647.857 |
| | 17345.950 | -7.292 | 647.832 | 647.834 |
| E BRG. PIER 1 | 17348.857 | -7.292 | 647.828 | 647.828 |
| D F | 17358.857 | -7.292 | 647.814 | 647.822 |
| | 17368.857 | -7.292 | 647.800 | 647.814 |
| | 17378.857 | -7.292 | 647.786 | 647.793 |
| E BRG. PIER 2 | 17388.523 | -7.292 | 647.772 | 647.772 |
| G H | 17398.523 | -7.292 | 647.758 | 647.767 |
| | 17408.523 | -7.292 | 647.744 | 647.758 |
| | 17418.523 | -7.292 | 647.730 | 647.734 |
| E BRG. N. ABUT. | 17421.430 | -7.292 | 647.726 | 647.726 |
| BK. N. ABUT. | 17425.190 | -7.292 | 647.721 | 647.721 |

E ROADWAY @ PG. 8 BEAM #3

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| BK. S. ABUT. | 17383.508 | -8.000 | 648.005 | 648.005 |
| E BRG. S. ABUT. | 17387.268 | -8.000 | 648.000 | 648.000 |
| A C | 17397.268 | -8.000 | 647.986 | 647.998 |
| | 17407.268 | -8.000 | 647.972 | 647.983 |
| | 17417.268 | -8.000 | 647.958 | 647.960 |
| E BRG. PIER 1 | 17340.167 | -8.000 | 647.954 | 647.954 |
| D F | 17350.167 | -8.000 | 647.940 | 647.948 |
| | 17360.167 | -8.000 | 647.926 | 647.940 |
| | 17370.167 | -8.000 | 647.912 | 647.920 |
| E BRG. PIER 2 | 17379.833 | -8.000 | 647.898 | 647.898 |
| G H | 17389.833 | -8.000 | 647.884 | 647.893 |
| | 17399.833 | -8.000 | 647.870 | 647.884 |
| | 17409.833 | -8.000 | 647.856 | 647.860 |
| E BRG. N. ABUT. | 17412.740 | -8.000 | 647.852 | 647.852 |
| BK. N. ABUT. | 17416.500 | -8.000 | 647.847 | 647.847 |

BEAM #4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| BK. S. ABUT. | 17294.810 | 7.292 | 647.903 | 647.903 |
| E BRG. S. ABUT. | 17298.570 | 7.292 | 647.898 | 647.898 |
| A C | 17308.570 | 7.292 | 647.884 | 647.897 |
| | 17318.570 | 7.292 | 647.870 | 647.881 |
| | 17328.570 | 7.292 | 647.856 | 647.859 |
| E BRG. PIER 1 | 17331.477 | 7.292 | 647.852 | 647.852 |
| D F | 17341.477 | 7.292 | 647.838 | 647.846 |
| | 17351.477 | 7.292 | 647.824 | 647.838 |
| | 17361.477 | 7.292 | 647.810 | 647.818 |
| E BRG. PIER 2 | 17371.143 | 7.292 | 647.796 | 647.796 |
| G H | 17381.143 | 7.292 | 647.782 | 647.791 |
| | 17391.143 | 7.292 | 647.768 | 647.782 |
| | 17401.143 | 7.292 | 647.754 | 647.759 |
| E BRG. N. ABUT. | 17404.058 | 7.292 | 647.750 | 647.750 |
| BK. N. ABUT. | 17407.818 | 7.292 | 647.745 | 647.745 |

EAST LONG. BONDED CONSTR. JOINT

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| BK. S. ABUT. | 17289.199 | 12.000 | 647.838 | 647.838 |
| E BRG. S. ABUT. | 17292.959 | 12.000 | 647.832 | 647.832 |
| A C | 17302.959 | 12.000 | 647.818 | 647.831 |
| | 17312.959 | 12.000 | 647.804 | 647.816 |
| | 17322.959 | 12.000 | 647.790 | 647.793 |
| E BRG. PIER 1 | 17325.866 | 12.000 | 647.786 | 647.786 |
| D F | 17335.866 | 12.000 | 647.772 | 647.780 |
| | 17345.866 | 12.000 | 647.758 | 647.772 |
| | 17355.866 | 12.000 | 647.744 | 647.752 |
| E BRG. PIER 2 | 17365.532 | 12.000 | 647.731 | 647.731 |
| G H | 17375.532 | 12.000 | 647.717 | 647.725 |
| | 17385.532 | 12.000 | 647.703 | 647.716 |
| | 17395.532 | 12.000 | 647.689 | 647.693 |
| E BRG. N. ABUT. | 17398.439 | 12.000 | 647.685 | 647.685 |
| BK. N. ABUT. | 17402.199 | 12.000 | 647.679 | 647.679 |

BEAM #5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------|-----------|--------|------------------------------|--|
| BK. S. ABUT. | 17284.128 | 14.583 | 647.788 | 647.788 |
| E BRG. S. ABUT. | 17288.081 | 14.583 | 647.783 | 647.783 |
| A C | 17298.081 | 14.583 | 647.769 | 647.781 |
| | 17308.081 | 14.583 | 647.755 | 647.766 |
| | 17318.081 | 14.583 | 647.741 | 647.743 |
| E BRG. PIER 1 | 17322.787 | 14.583 | 647.737 | 647.737 |
| D F | 17332.787 | 14.583 | 647.723 | 647.731 |
| | 17342.787 | 14.583 | 647.709 | 647.723 |
| | 17352.787 | 14.583 | 647.695 | 647.703 |
| E BRG. PIER 2 | 17362.454 | 14.583 | 647.681 | 647.681 |
| G H | 17372.454 | 14.583 | 647.667 | 647.676 |
| | 17382.454 | 14.583 | 647.653 | 647.667 |
| | 17392.454 | 14.583 | 647.639 | 647.644 |
| E BRG. N. ABUT. | 17395.360 | 14.583 | 647.635 | 647.635 |
| BK. N. ABUT. | 17399.120 | 14.583 | 647.630 | 647.630 |

DESIGNED C. D. PATEL
 CHECKED R. F. ROONEY
 DRAWN A. Sommer
 CHECKED R. F. R. C.P.P.

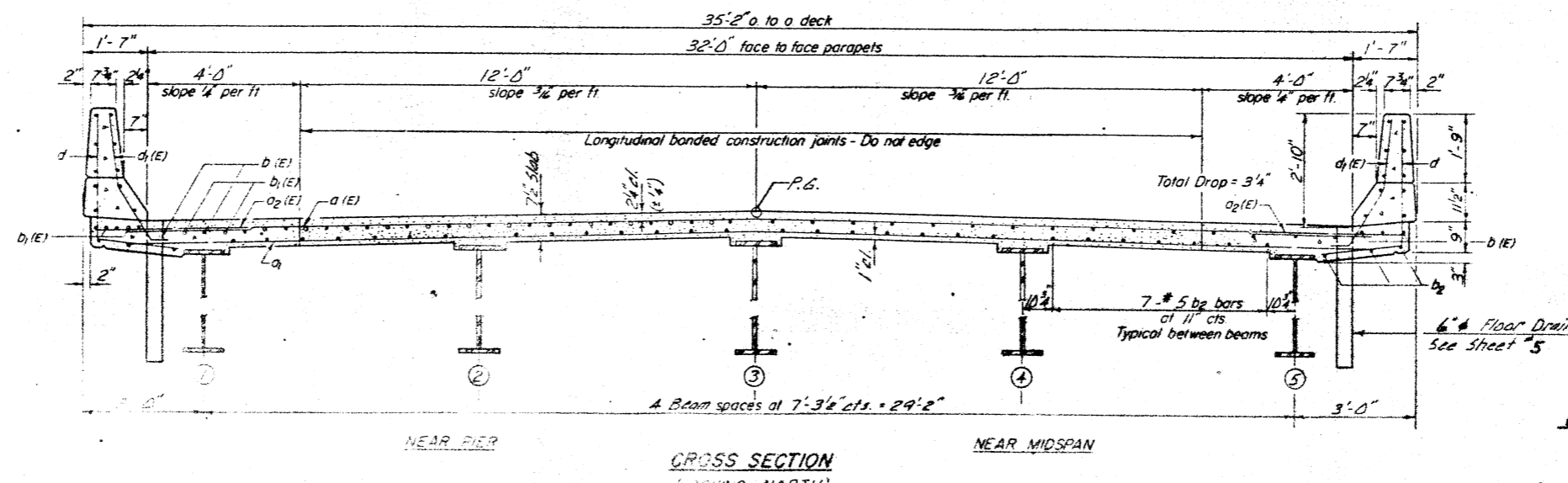
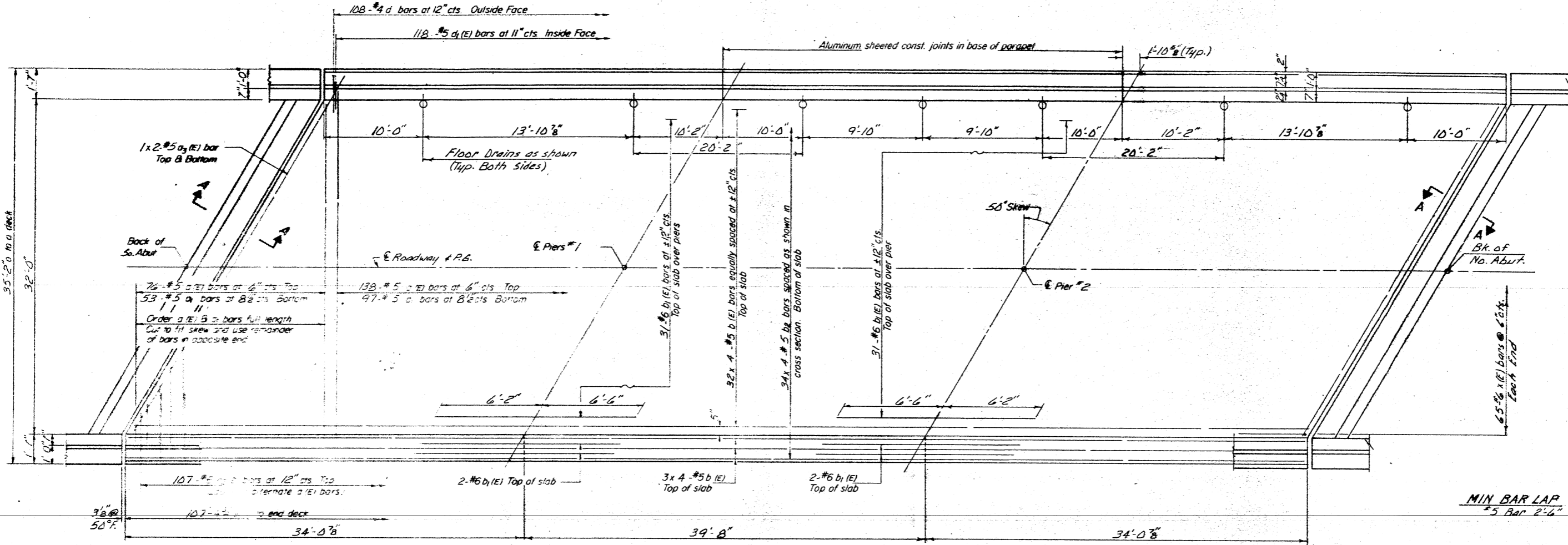
October 6, 1981
 EXAMINED James S. Kowalick
 PASSED Carl E. Hermann
 APPROVED _____

ENGINEER OF BRIDGE DESIGN
 ENGINEER OF BRIDGES AND STRUCTURES
 DIRECTOR OF HIGHWAYS

TOP OF SLAB ELEVATIONS
 F.A.S. RTE. 659 SECTION 1-BR
 MOULTRIE COUNTY
 STA. 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|--|---------|----------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 4 |
| 659 | 1BR | Moultrie | 38 | 24 | 12 SHEETS |
| DESIGNED BY: R. F. HESS CHECKED BY: R. F. HESS DRAWN BY: P. SOMMER APPROVED BY: [Signature] DIRECTOR OF HIGHWAYS | | | | | |



NOTES:
See sheet #5 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

DESIGNED Chagan, R. Butz
CHECKED R. F. HESS
DRAWN P. Sommer
CHECKED R. F. HESS C.P.P.

October 6, 1959

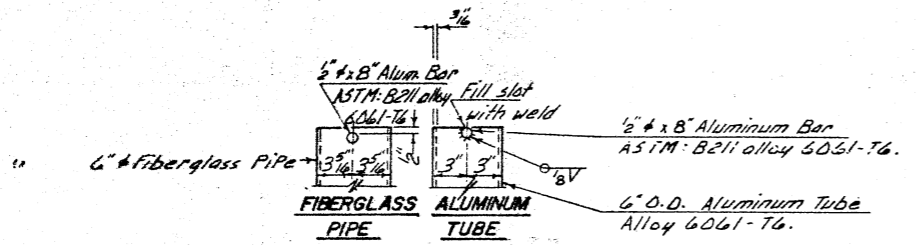
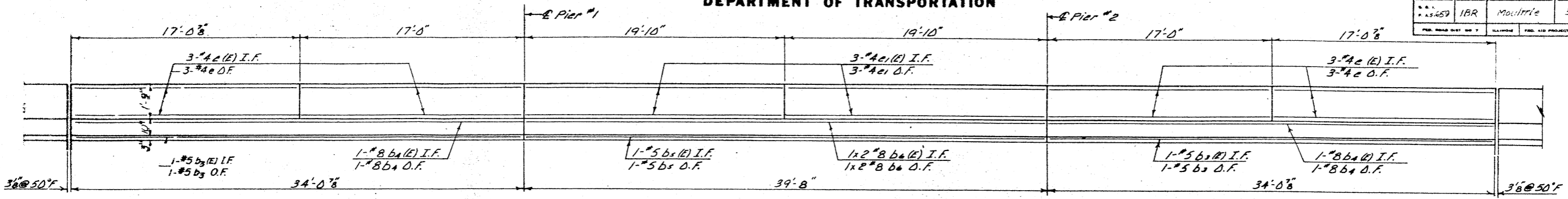
EXAMINED [Signature]
PASSED [Signature]
APPROVED [Signature]
DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE
FAS. RTE. 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173+60.00

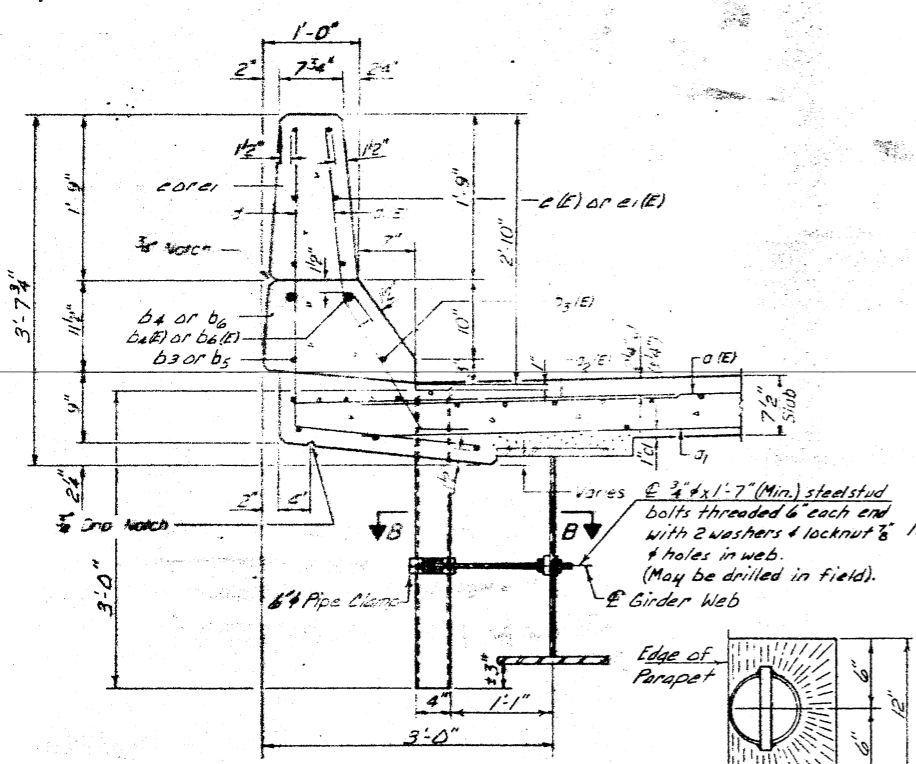
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 659 | 1BR | Moultrie | 38 | 23 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |

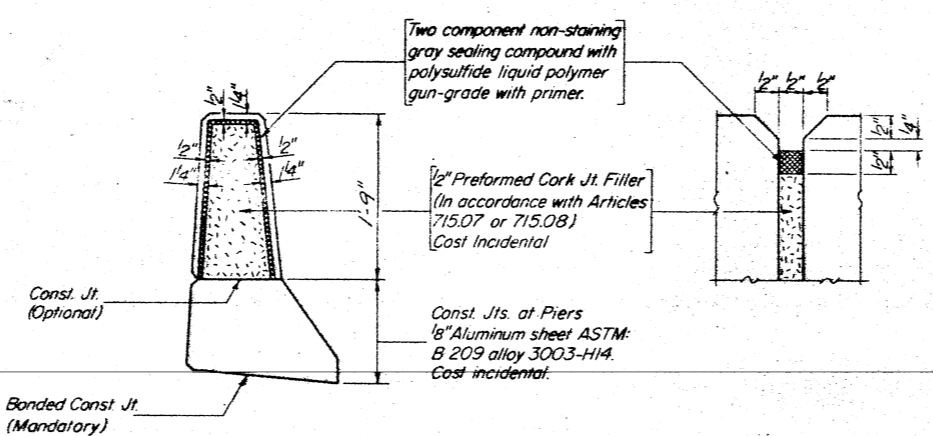
SHEET NO. 5
12 SHEETS



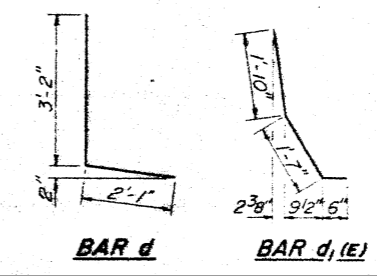
INSIDE ELEVATION OF PARAPET
(West side)



SECTION THRU PARAPET
The surface of the fiberglass pipe shall be free of bond inhibiting agents.
*Dimension as required by Pipe Clamp.



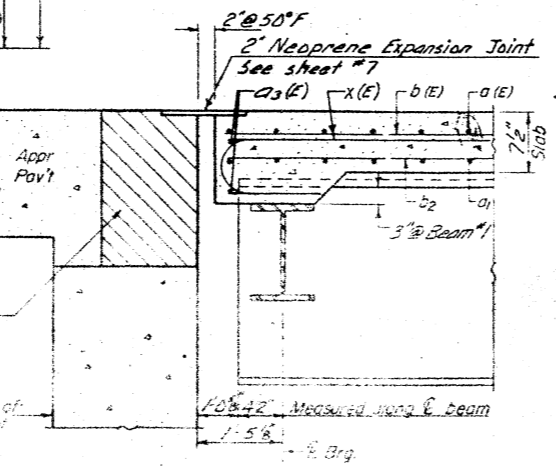
PARAPET JOINT DETAILS



BAR x (E)

Note: Fiberglass pipe shall conform to ASTM D2996, Designation Code RTRP-11A-E-5112. Pipes with Class C or F liner are acceptable.
The exterior surfaces of the Floor Drain shall be painted with one coat of the Basic Lead Silico Chromate Primer and Mason Field Coat. Both coats to be applied in the shop with spot painting only in the field. The exterior surface of the Aluminum Tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SPI & SSPC-PT3 prior to painting.

TOP PLAN



SECTION A-A

SUPERSTRUCTURE
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-----------------------------------|-----|---------|--------|-------|
| a (E) | 214 | #5 | 33'-3" | — |
| a1 | 150 | #5 | 33'-3" | — |
| a2 (E) | 214 | #6 | 4'-0" | — |
| a3 (E) | 8 | #5 | 27'-8" | — |
| b (E) | 152 | #5 | 28'-4" | — |
| b1 (E) | 70 | #6 | 12'-8" | — |
| b2 | 136 | #5 | 28'-4" | — |
| b3 (E) | 4 | #5 | 33'-9" | — |
| b3 | 4 | #5 | 33'-9" | — |
| b4 | 4 | #8 | 33'-9" | — |
| b4 (E) | 4 | #8 | 33'-9" | — |
| b5 | 2 | #5 | 39'-5" | — |
| b5 (E) | 2 | #5 | 39'-5" | — |
| b6 | 4 | #8 | 21'-7" | — |
| b6 (E) | 4 | #8 | 21'-7" | — |
| d | 216 | #4 | 5'-5" | L |
| d (E) | 236 | #5 | 3'-11" | L |
| e (E) | 24 | #4 | 16'-9" | — |
| e1 (E) | 12 | #4 | 19'-7" | — |
| e | 24 | #4 | 16'-9" | — |
| e1 | 12 | #4 | 19'-7" | — |
| x (E) | 130 | #6 | 4'-9" | C |
| Reinforcement Bars | | Lbs. | 11280 | |
| Reinforcement Bars (Epoxy Coated) | | Lbs. | 17950 | |
| Class X Concrete | | Cu Yds. | 122.0 | |

Reinforcement bars designated (E) shall be epoxy coated. See Special Provisions.

SUPERSTRUCTURE DETAILS
F.A.S. RTE. 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173+60.00

DESIGNED: Pradhan, P. Patel
CHECKED: R. F. ROBERTS
DRAWN: R. Sommer
CHECKED: R. F. CRP

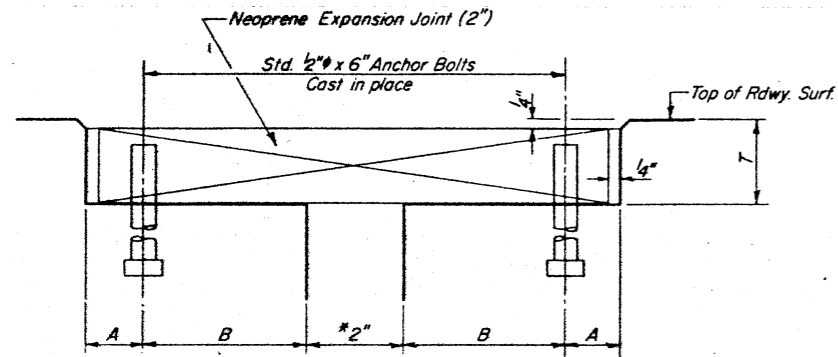
October 6, 1981
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|-----------|-------------------|-----------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 6 12 SHEETS |
| F.A.S. RTE. 659 | 1BR | Moultrie | 38 | 25 | |
| FED. ROAD DIST. NO. 7 | | ALIGNMENT | FED. AID PROJECT: | | |

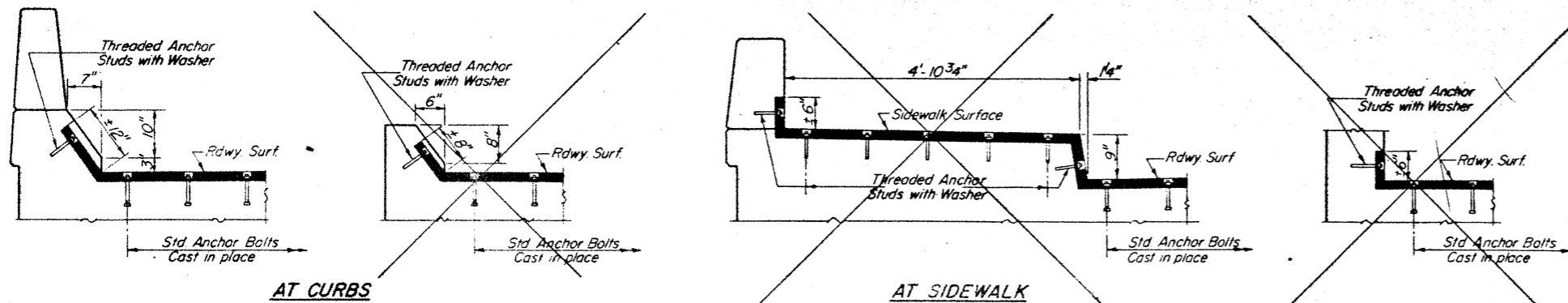
ALTERNATE NEOPRENE EXPANSION JOINTS (2")
(See Special Provisions)

| Model | Supplier | Blockout Dimensions |
|---|--------------------------------|---|
| TRANSFLEX, MODEL 200A | General Tire Company | $T = 1\frac{3}{16}"$, $A = 1\frac{1}{8}"$, $B = 3\frac{5}{16}"$ |
| FEL-SPAN, MODEL T-30 Set joint seal $1\frac{5}{8}"$ at 50°F. | Fel-Pro Building Products Inc. | $T = 1\frac{3}{4}"$, $A = 2\frac{1}{4}"$, $B = 2\frac{13}{16}"$ |
| WABO ELASTODAM, TYPE 300 Set joint seal $1\frac{5}{8}"$ at 50°F. | Watson Bowman Associates, Inc. | $T = 1\frac{3}{4}"$, $A = 2\frac{1}{4}"$, $B = 2\frac{13}{16}"$ |
| WABO ALU-STRIP, TYPE III S300 Set joint seal $1\frac{1}{2}"$ at 50°F Permitted for up to 50° skew. | Watson Bowman Associates, Inc. | $T = 1\frac{3}{4}"$, $A = 1\frac{5}{8}"$, $B = 2\frac{3}{4}"$ |
| LOW PROFILE ONFLEX-25 Set joint seal $1\frac{1}{2}"$ at 50°F Roadway bolt channel shall be filled with approved grout. Permitted for up to 50° skew. | Structural Accessories, Inc. | $T = 1\frac{3}{4}"$, $A = 1\frac{5}{8}"$, $B = 2\frac{3}{8}"$ |



CROSS SECTION
*At 50°F
Dimensions are at right angles.

NOTE
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Std. Specs. when the deck is poured at an ambient temperature other than 50°F.



TYPICAL END TREATMENTS

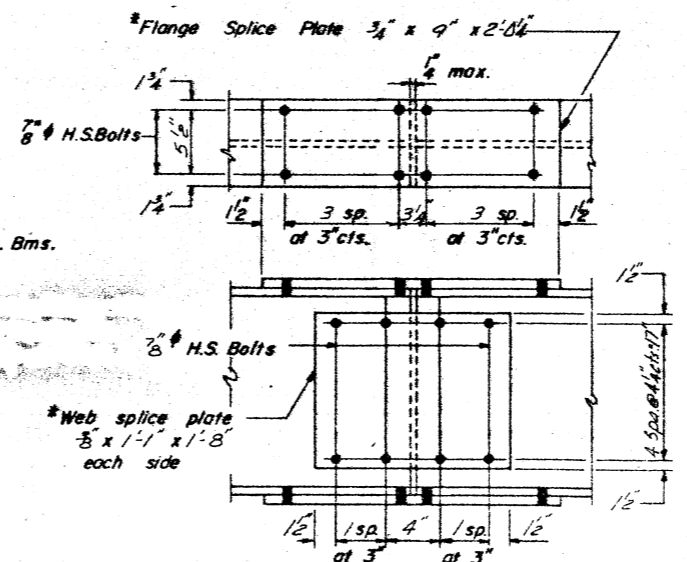
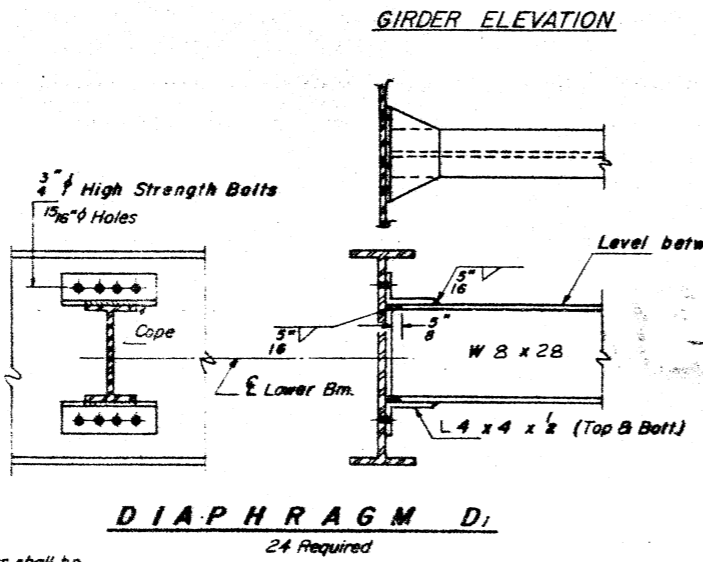
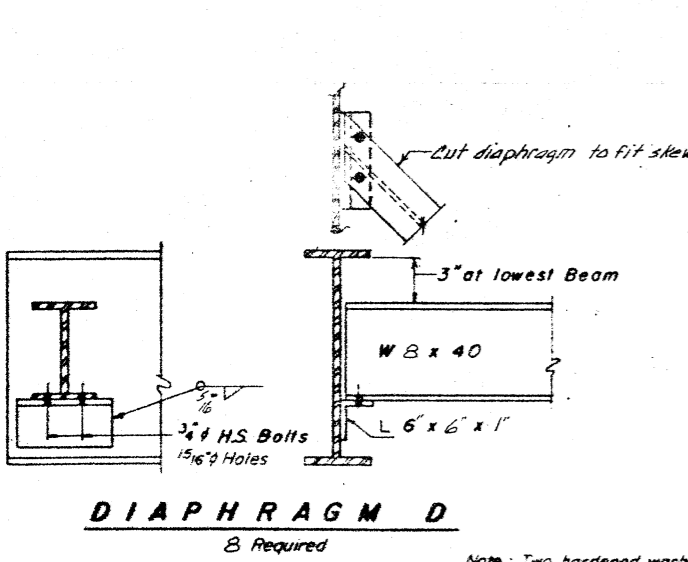
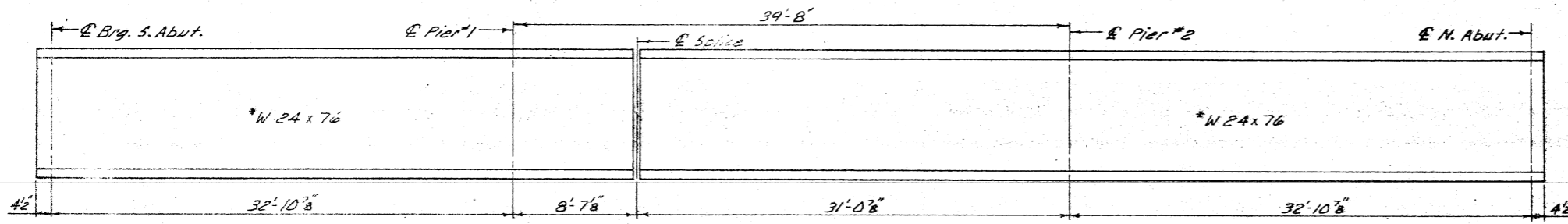
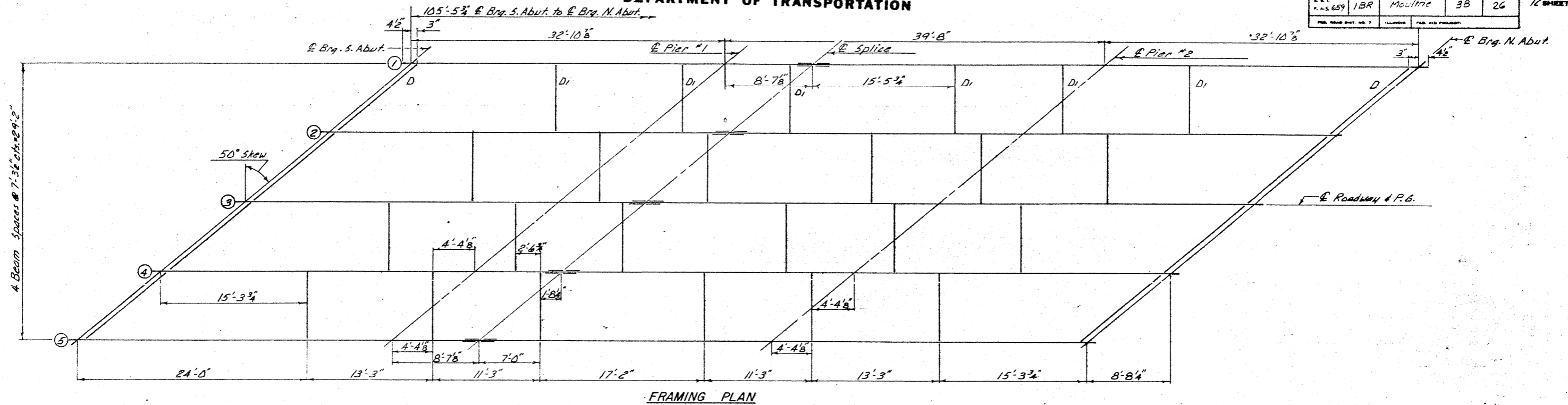
| |
|---------------------------------|
| DESIGNED <i>Chagan P. Patel</i> |
| CHECKED <i>R. F. Rokey</i> |
| DRAWN <i>R. Sommer</i> |
| CHECKED <i>R. F. R. CPP</i> |

October 6, 1981
EXAMINED *James J. K... II*
PASSED *Carl... II*
APPROVED
ENGINEER OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS

NEOPRENE EXPANSION JOINTS (2")
F.A.S. RTE. 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-------------|---------|----------|------------------|-----------|-------------|
| DESIGN NO. | SECTION | LENGTH | TOTAL SHEETS | SHEET NO. | SHEET NO. 7 |
| P.S. 659 | 1BR | Moultrie | 38 | 26 | 12 SHEETS |
| DESIGNED BY | | ILLINOIS | FED. AID PROJECT | | |



Note: Two hardened washers shall be required over all 1 5/16" holes. All contact surfaces of joints shall be free of paint or lacquer.

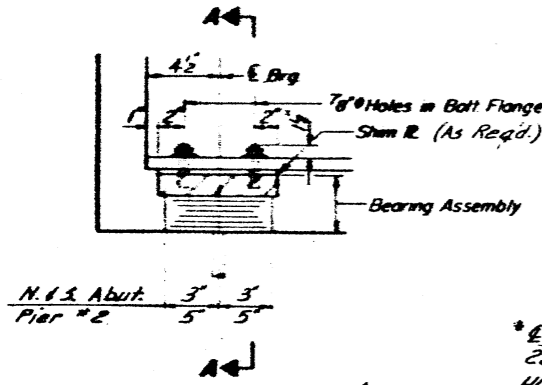
All steel shall be AASHTO M222 (Unpainted)

| | | |
|----------|-------------------|------------------------------------|
| DESIGNED | Ch. J. P. Patel | October 6, 1981 |
| CHECKED | R. J. ... | |
| DRAWN | R. ... | |
| CHECKED | R. F. A. C. B. R. | |
| EXAMINED | ... | ENGINEER OF BRIDGE DESIGN |
| PASSED | ... | ENGINEER OF BRIDGES AND STRUCTURES |
| APPROVED | ... | DIRECTOR OF HIGHWAYS |

STRUCTURAL STEEL
F.A.S. RTE. 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173+60.00

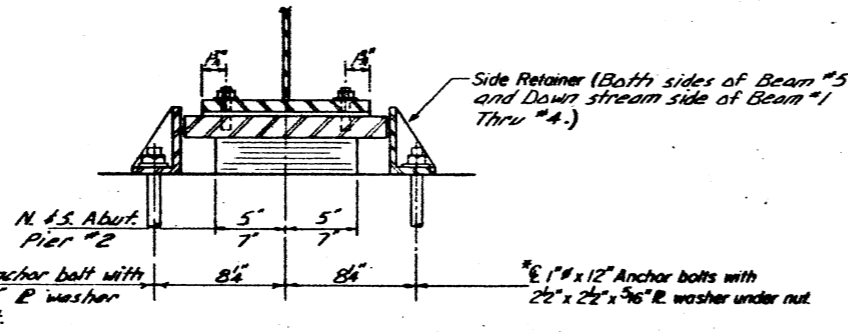
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-------------|---------|-----------|-------|-----------|
| PROJECT NO. | SECTION | DATE | SCALE | SHEET NO. |
| 659 | 1BR | MOULTRIE | 38 | 27 |
| SHEET NO. 8 | | 12 SHEETS | | |

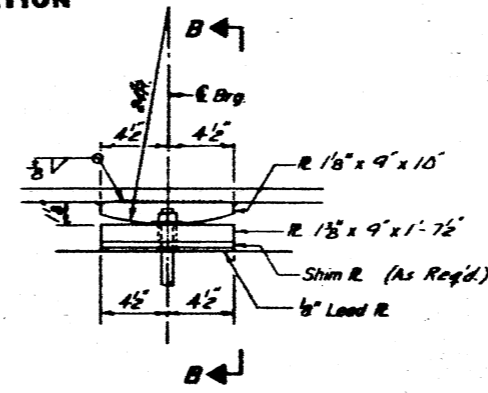


SECTION AT ABUTS & PIER #2

TYPE I ELASTOMERIC EXP BRG.

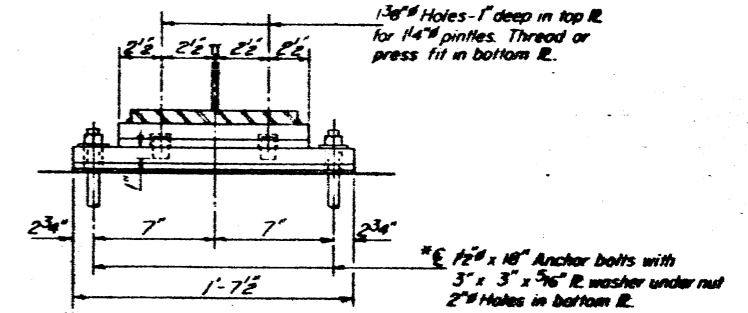


SECTION A-A
(at Beam #5)

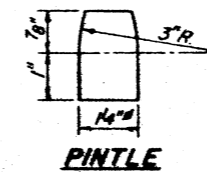


ELEVATION AT PIER #1

FIXED BEARING

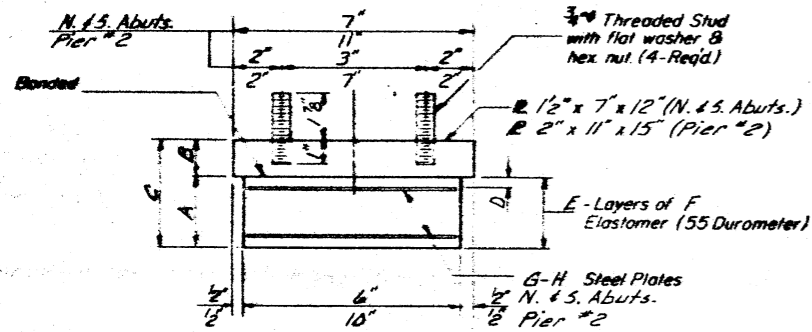


SECTION B-B



PINTLE

*Note: After girders have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place. Anchor bolts at fixed bearings may be built into the masonry.

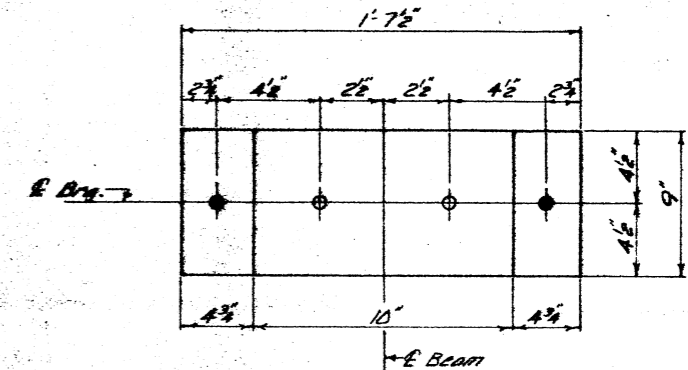


BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

TABLE FOR A THRU H

| Location | A | B | C | D | E | F | G | H |
|----------|-------|-------|--------|-------|---|-------|---|-------|
| N. Abut. | 2 1/4 | 1 1/2 | 3 3/4 | 3 1/2 | 6 | 5 1/2 | 5 | 14.6a |
| S. Abut. | 1 1/2 | 1 1/2 | 2 9/16 | 3 1/2 | 3 | 5 1/2 | 2 | 14.6a |
| Pier #2 | 2 1/4 | 2 | 4 1/2 | 3 1/2 | 5 | 1/2 | 4 | B |



PLAN

INTERIOR BEAM MOMENT TABLE

| | 0.4 Span #14 | Pier #1 & 0.6 Span #3 | Pier #2 | 0.5 Span #2 |
|-----------------------------------|--------------|-----------------------|---------|-------------|
| I _s (in ⁴) | 2100 | 2100 | 2100 | 2100 |
| S _s (in ³) | 176 | 176 | 176 | 176 |
| Q (M) | 1.122 | 1.122 | 1.122 | 1.122 |
| M _e (K) | 112 | 193 | 93 | |
| M _s (K) | 381 | 307 | 386 | |
| MIMP (K) | 114 | 92 | 116 | |
| M Total (K) | 607 | 592 | 595 | |
| f _s (ksi) | 41.4 | 40.4 | 40.6 | |

The Load Factor (1.3) [Q + 5 (E + IMP)] is used in computing moments and stresses.

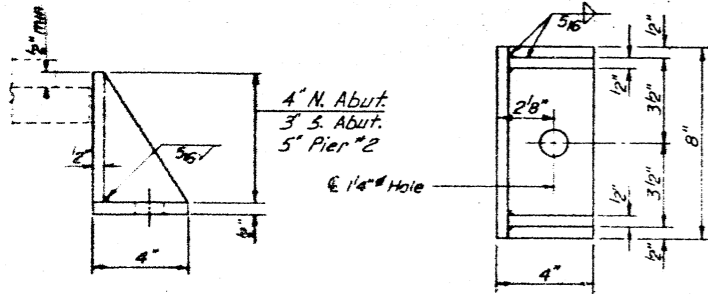
INTERIOR BEAM REACTION TABLE

| | So. No. Abut. | Piers #1 & #2 |
|--------------------|---------------|---------------|
| R _e (K) | 13.9 | 45.2 |
| R _s (K) | 32.1 | 42.8 |
| RIMP (K) | 9.6 | 12.8 |
| R TOTAL (K) | 55.6 | 100.8 |

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--------------------------------------|------|----------|
| Elastomeric Bearing Assembly, Type I | Each | 15 |

Note:
All steel shall be AASHTO M 222. Steel at Piers shall be unpainted. Steel at Abutments shall be cleaned and given one coat of the Basic Lead Silico Chromate Primer and Maroon Field Coat. Both coats to be applied in the shop with spot painting only in the field.



SIDE RETAINER
(No. Req'd: 18)

** TOP OF FLANGE ELEVATION

| | E Brg. S. Abut. | E Brg. N. Abut. | E Pier #1 | E Pier #2 | E Splice |
|---------|-----------------|-----------------|-----------|-----------|----------|
| Beam #1 | 647.01 | 646.86 | 646.96 | 646.90 | 646.95 |
| Beam #2 | 647.15 | 647.00 | 647.10 | 647.04 | 647.09 |
| Beam #3 | 647.27 | 647.12 | 647.22 | 647.17 | 647.21 |
| Beam #4 | 647.17 | 647.02 | 647.12 | 647.07 | 647.11 |
| Beam #5 | 647.05 | 646.91 | 647.01 | 646.95 | 647.00 |

** For Fabrication only

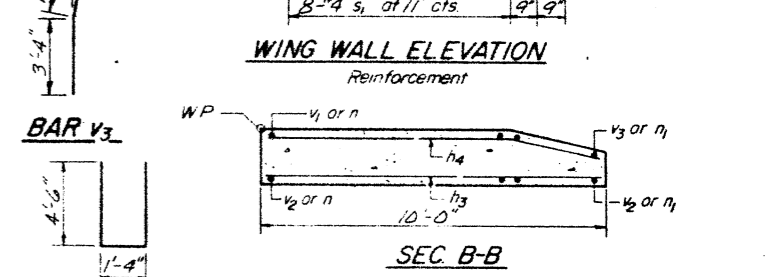
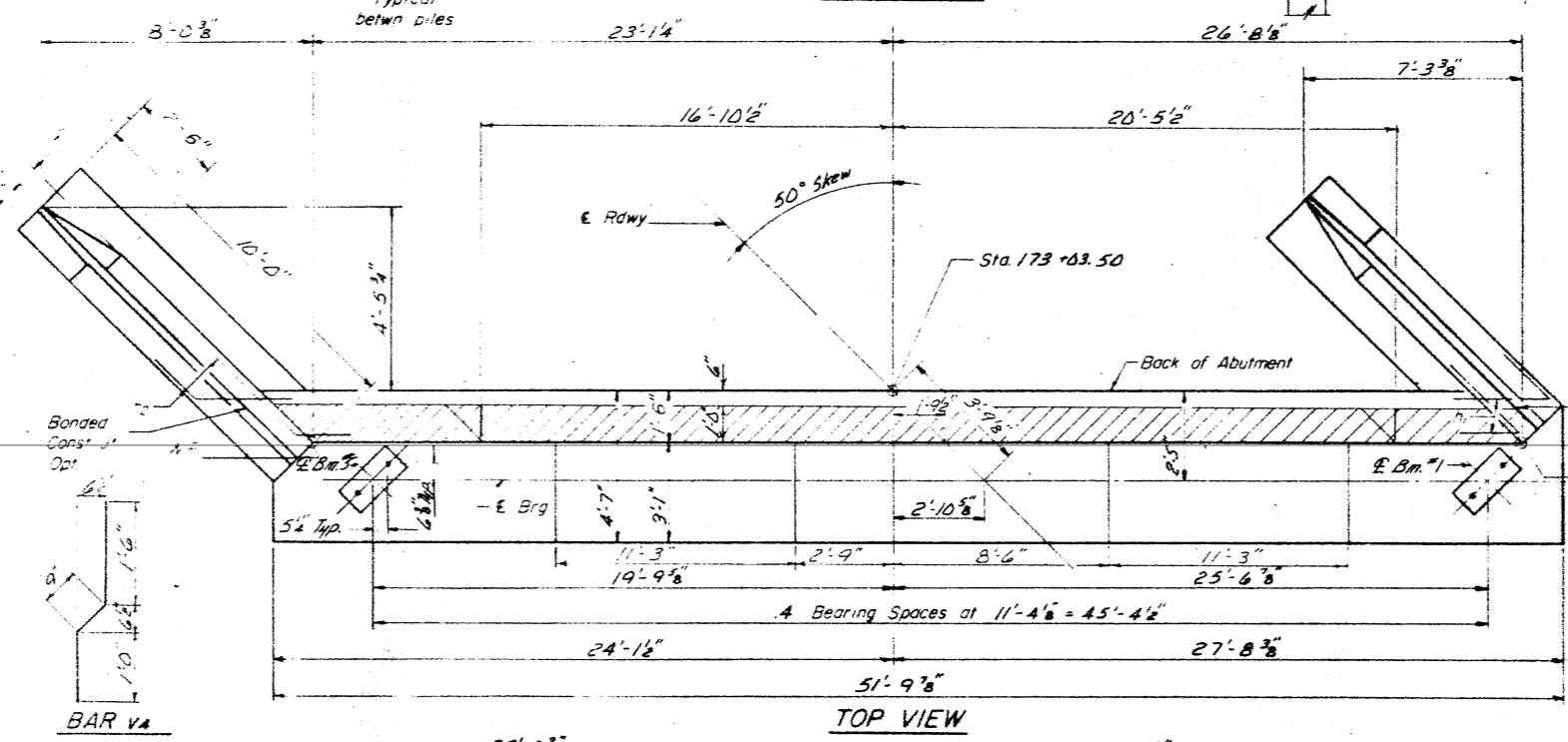
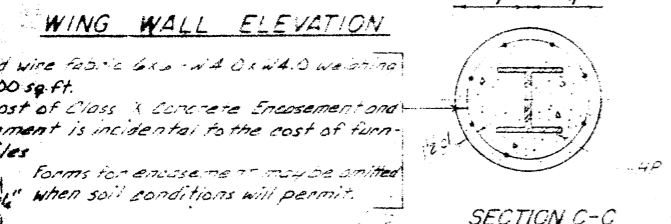
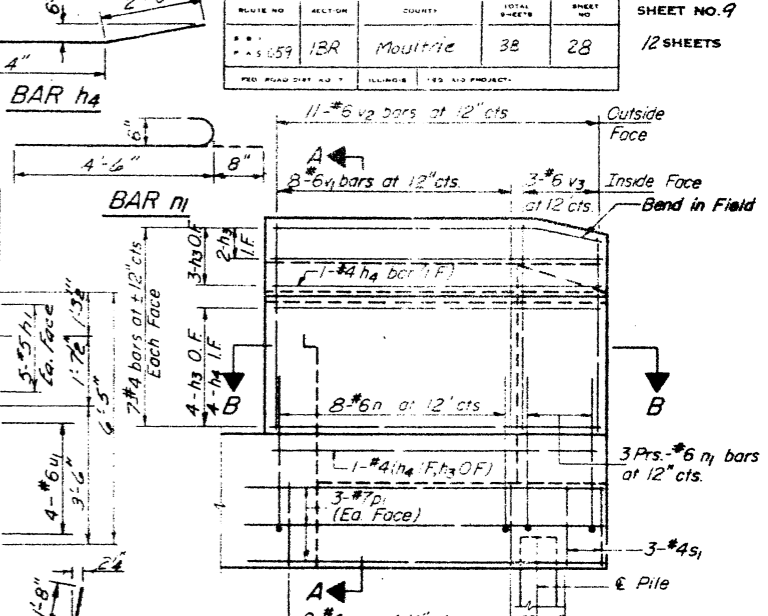
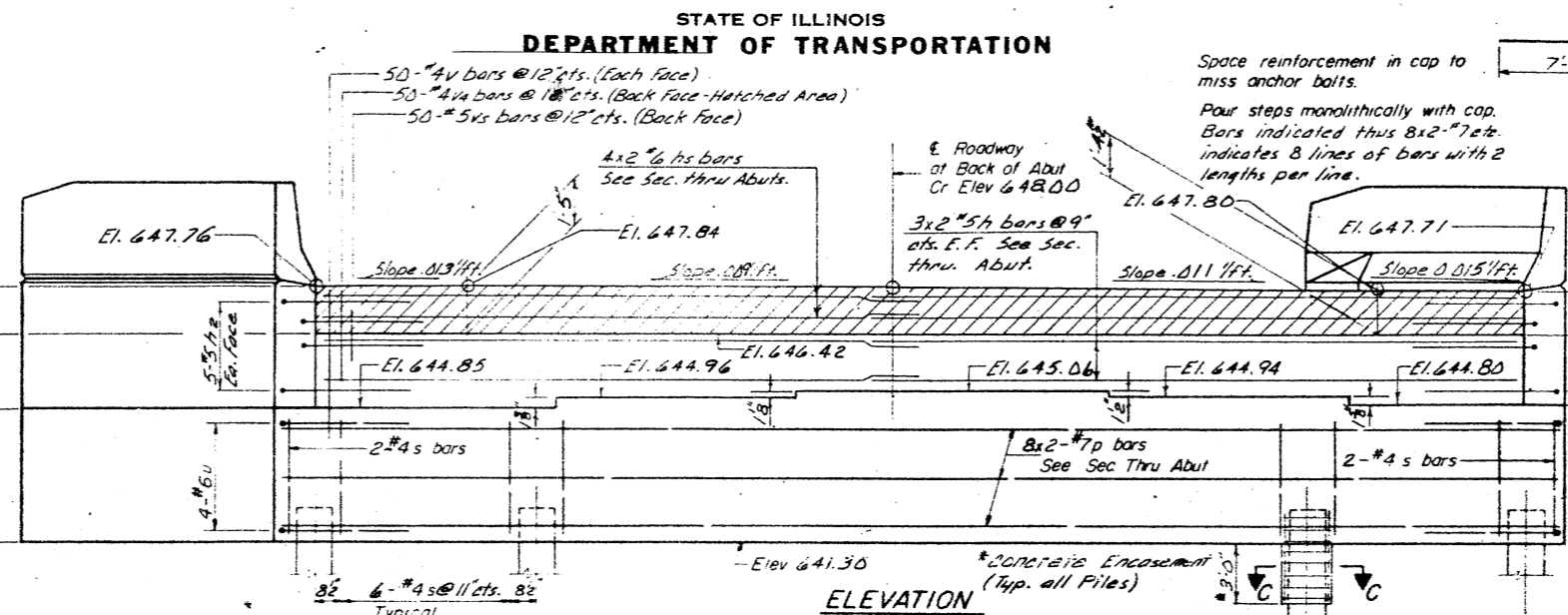
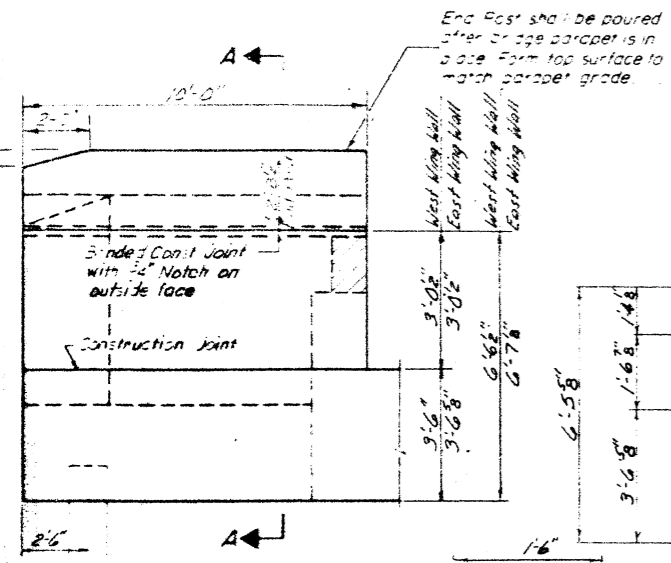
| | |
|----------|------------------|
| DESIGNED | Chhagan P. Patel |
| CHECKED | R. Sommer |
| DRAWN | R. Sommer |
| CHECKED | L.F. & C.P.P. |

| | |
|----------|-----------------|
| EXAMINED | October 6, 1981 |
| PASSED | [Signature] |
| APPROVED | [Signature] |

BEARING DETAILS
F.A.S. RTE. 659 SECTION I-BR
MOULTRIE COUNTY
STA. 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-------------|---------|----------|--------------|-----------|-----------|
| PROJECT NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. |
| 659 | 1BR | Moultrie | 38 | 28 | 12 SHEETS |

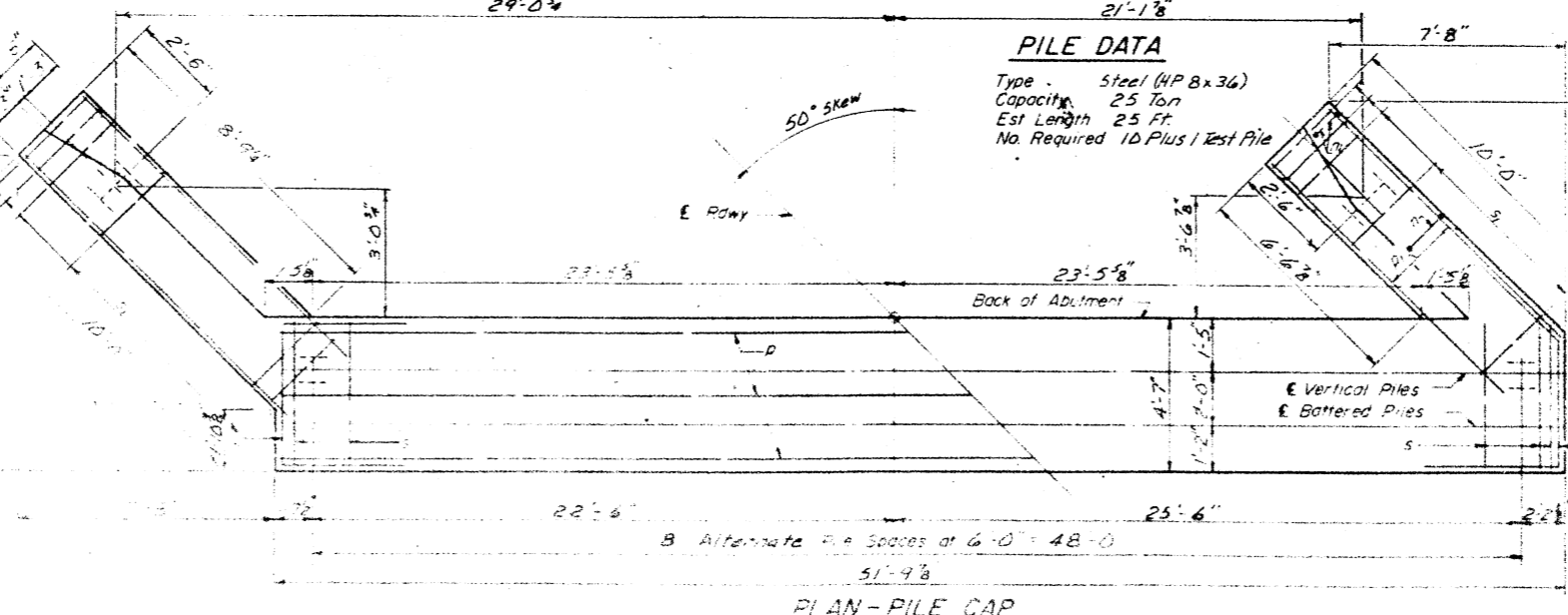


SOUTH ABUTMENT
BILL OF MATERIAL

| Bar | No | Size | Length | Shape |
|---------------------------|----|--------|--------|-------|
| n1 | 12 | #5 | 25'-9" | — |
| n2 | 10 | #5 | 6'-0" | — |
| n3 | 10 | #5 | 6'-0" | — |
| n4 | 20 | #4 | 9'-9" | — |
| n5 | 12 | #4 | 9'-9" | — |
| n6 | 8 | #6 | 26'-0" | — |
| n7 | 16 | #6 | 10'-4" | U |
| n8 | 12 | #6 | 5'-2" | — |
| n9 | 6 | #7 | 27'-2" | — |
| n10 | 12 | #7 | 9'-9" | — |
| s1 | 52 | #4 | 15'-7" | □ |
| s2 | 22 | #4 | 9'-5" | □ |
| u1 | 4 | #6 | 11'-2" | □ |
| u2 | 4 | #5 | 12'-1" | □ |
| v1 | 50 | #4 | 4'-3" | — |
| v2 | 50 | #4 | 5'-2" | — |
| v3 | 50 | #4 | 5'-5" | — |
| v4 | 50 | #4 | 5'-0" | — |
| v5 | 50 | #4 | 3'-9" | — |
| v6 | 50 | #5 | 2'-6" | — |
| Class X Concrete | | Cu Yds | 46.5 | |
| Reinforcing Bars | | Lbs. | 4140 | |
| Steel (HP 8x36) | | Lin Ft | 250 | |
| Test P. = Steel (HP 8x36) | | Each | 1 | |

PILE DATA

Type - Steel (HP 8x36)
Capacity - 25 Ton
Est Length - 25 Ft
No. Required - 10 Plus 1 Test Pile



SOUTH ABUTMENT
FAS. RTE 659 SECTION 1-BR
MOULTRIE COUNTY
STA. 173 +60.00

DESIGNED: [Signature] 1931
CHECKED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]

MIN. BAR LAPS
#5 Bars 1'-9"
#6 Bars 2'-3"
#7 Bars 2'-9"

Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure.

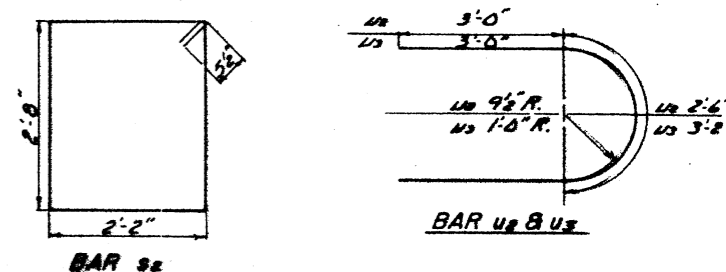
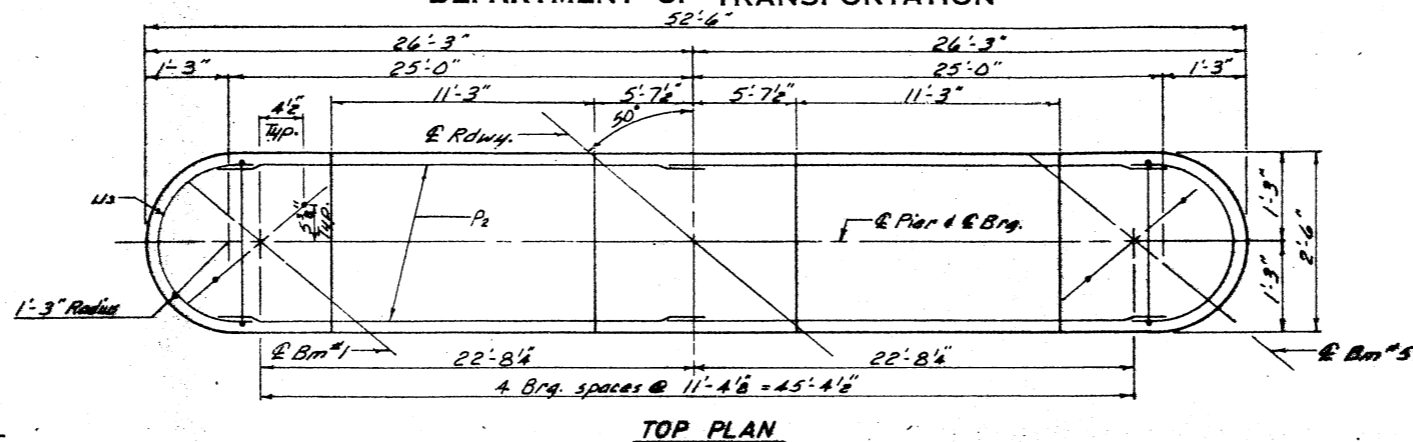
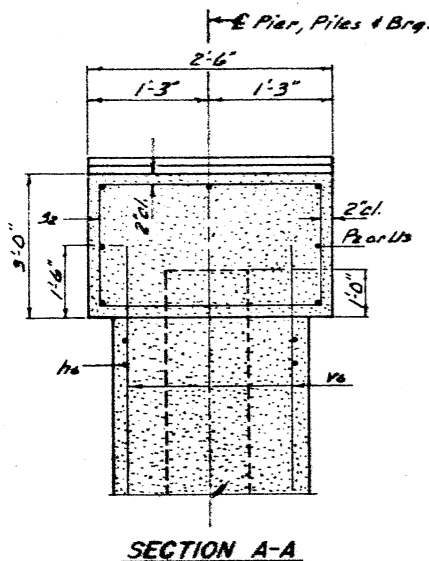
October 6, 1931

DESIGNER OF BRIDGE DESIGN
ENGINEER IN CHARGE OF BRIDGE AND STRUCTURES
DEPARTMENT OF HIGHWAYS

A-1-L 135-60

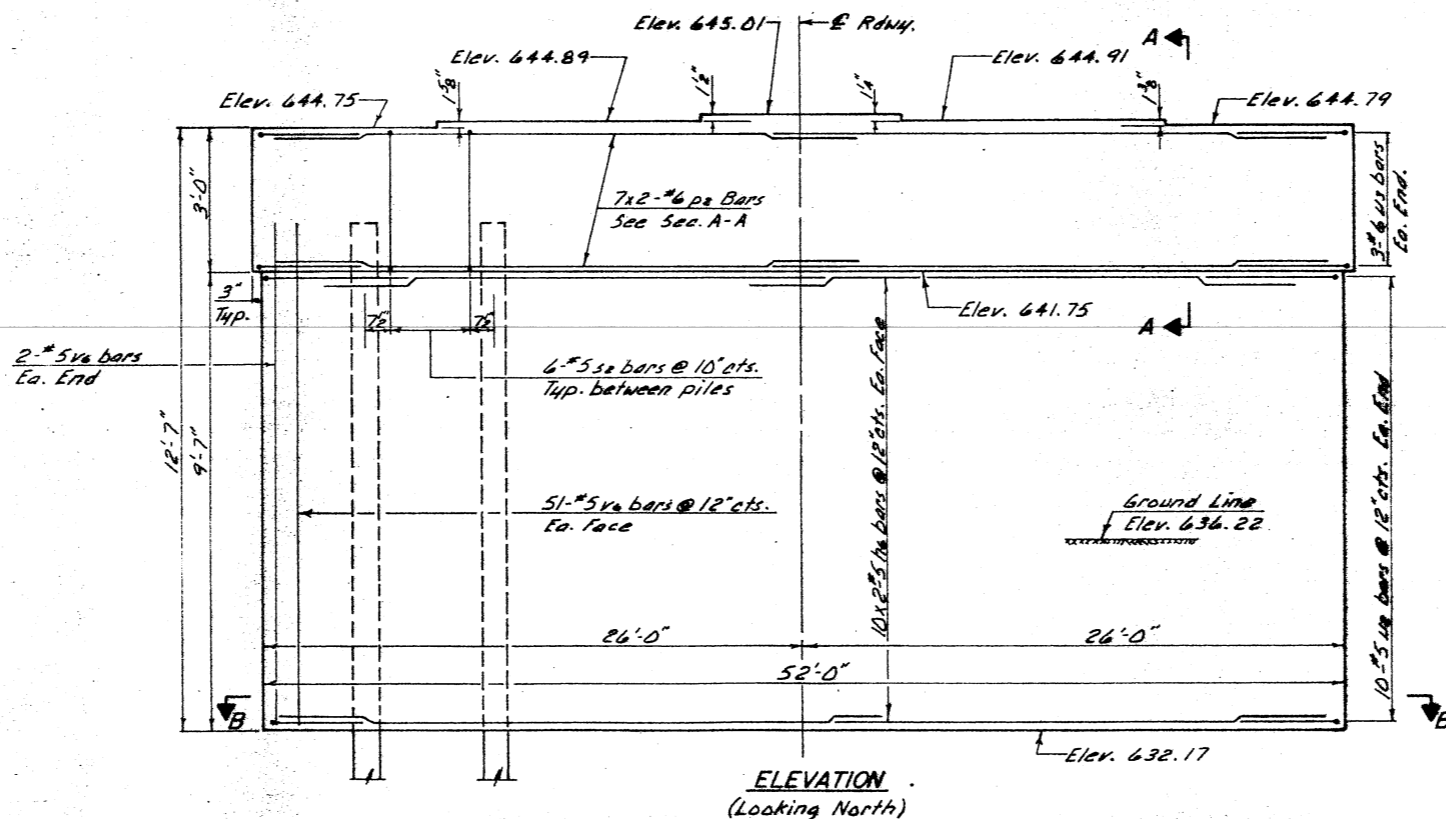
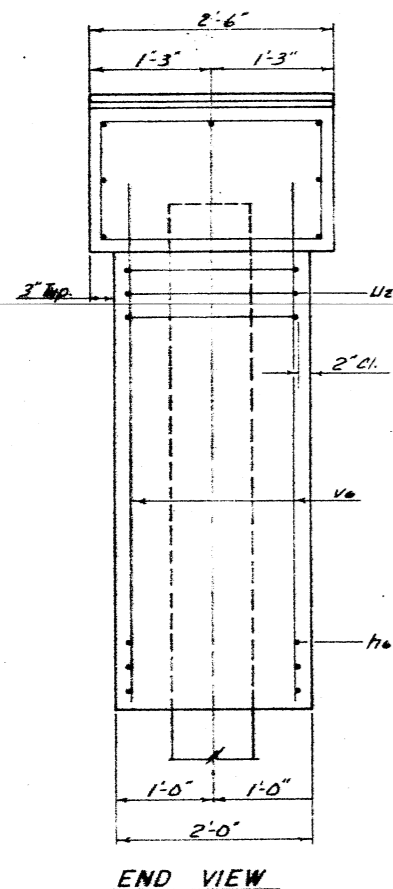
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 11 12 SHEETS |
| F.A.S. 659 | IBR | Moultrie | 38 | 30 | |
| FILE ROAD DIST. NO. 7 | | ALLIANCE | FILE A/S PROJECT | | |



FILE DATA

Type Steel HP 8x36
Capacity 30 Ton
Est. Length 31'-0"
No. Required 10 piles



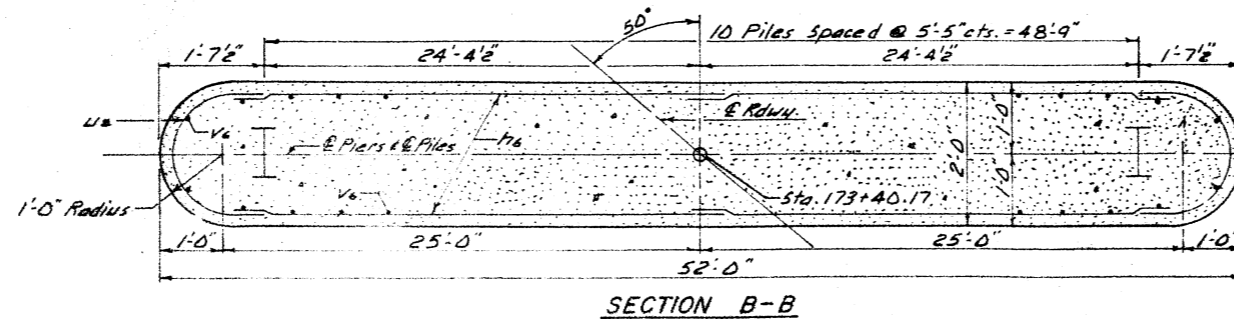
BILL OF MATERIAL

| BAR | NO. | SIZE | LENGTH | SHAPE |
|-----------------------|-----|----------|---------|-------|
| #4 | 40 | # 5 | 26'-0" | — |
| #6 | 14 | # 6 | 26'-2" | — |
| #4 | 54 | # 5 | 10'-7" | □ |
| #5 | 20 | # 5 | 8'-6" | U |
| #6 | 6 | # 6 | 9'-2" | U |
| #6 | 106 | # 5 | 10'-11" | — |
| Class X Concrete | | Cu. Yds. | 51.6 | |
| Reinforcement Bars | | Lbs. | 3720 | |
| Steel Piles (HP 8x36) | | Lin. Ft. | 310 | |

Note:
Pour steps monolithically with cap. Space reinforcement in cap to miss anchor bolts.
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
All edges shall have standard 3/4 chamfers.

MIN. BAR LAP

#5 Bar 2'-3"
#6 Bar 2'-9"

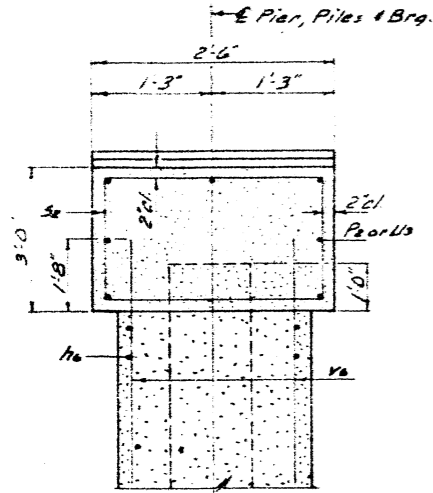


| | |
|----------------------|----------------------|
| DESIGNED Schuyler HF | EXAMINED [Signature] |
| CHECKED [Signature] | PASSED [Signature] |
| DRAWN R. Sommer | APPROVED [Signature] |
| CHECKED [Signature] | DIRECTOR OF HIGHWAYS |

October 6 1981

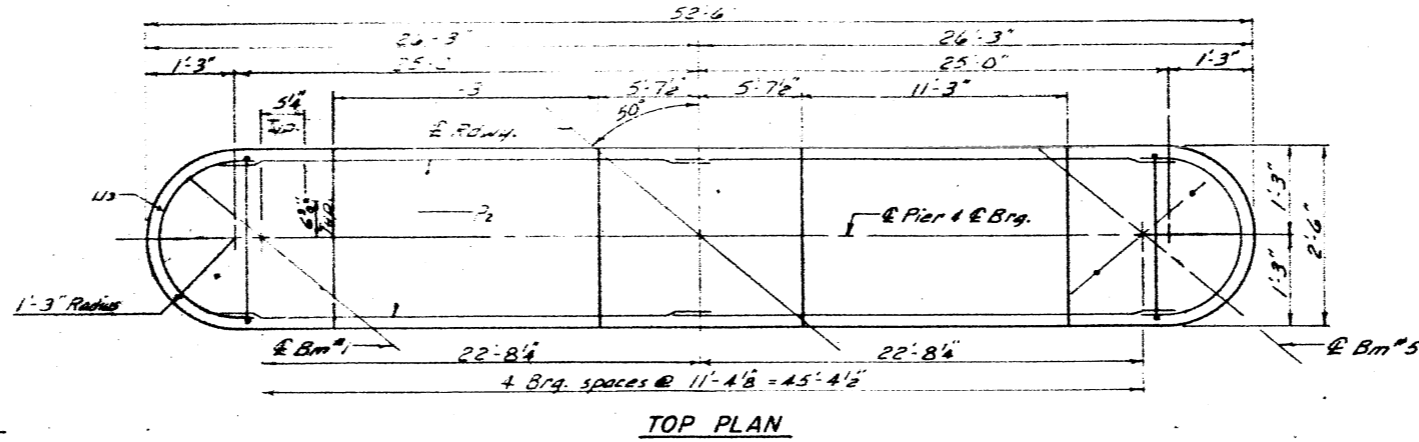
PIER 1
FAS. RTE. 659 SECTION I-BR
MOULTRIE COUNTY
STA. 173+60.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

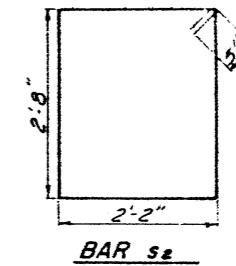


SECTION A-A

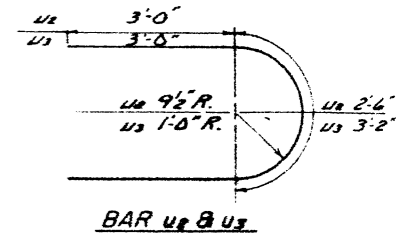
PILE DATA
 Type Steel HP Bx36
 Capacity 30 Ton
 Est. Length 27'-0"
 No. Required 9 Plus 1 Test Pile



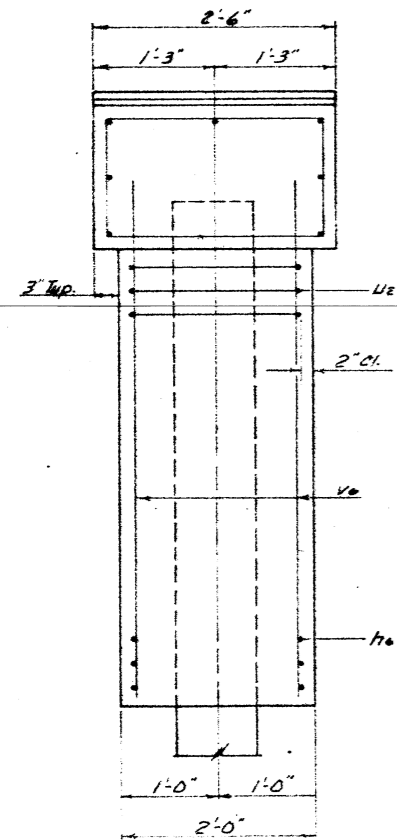
TOP PLAN



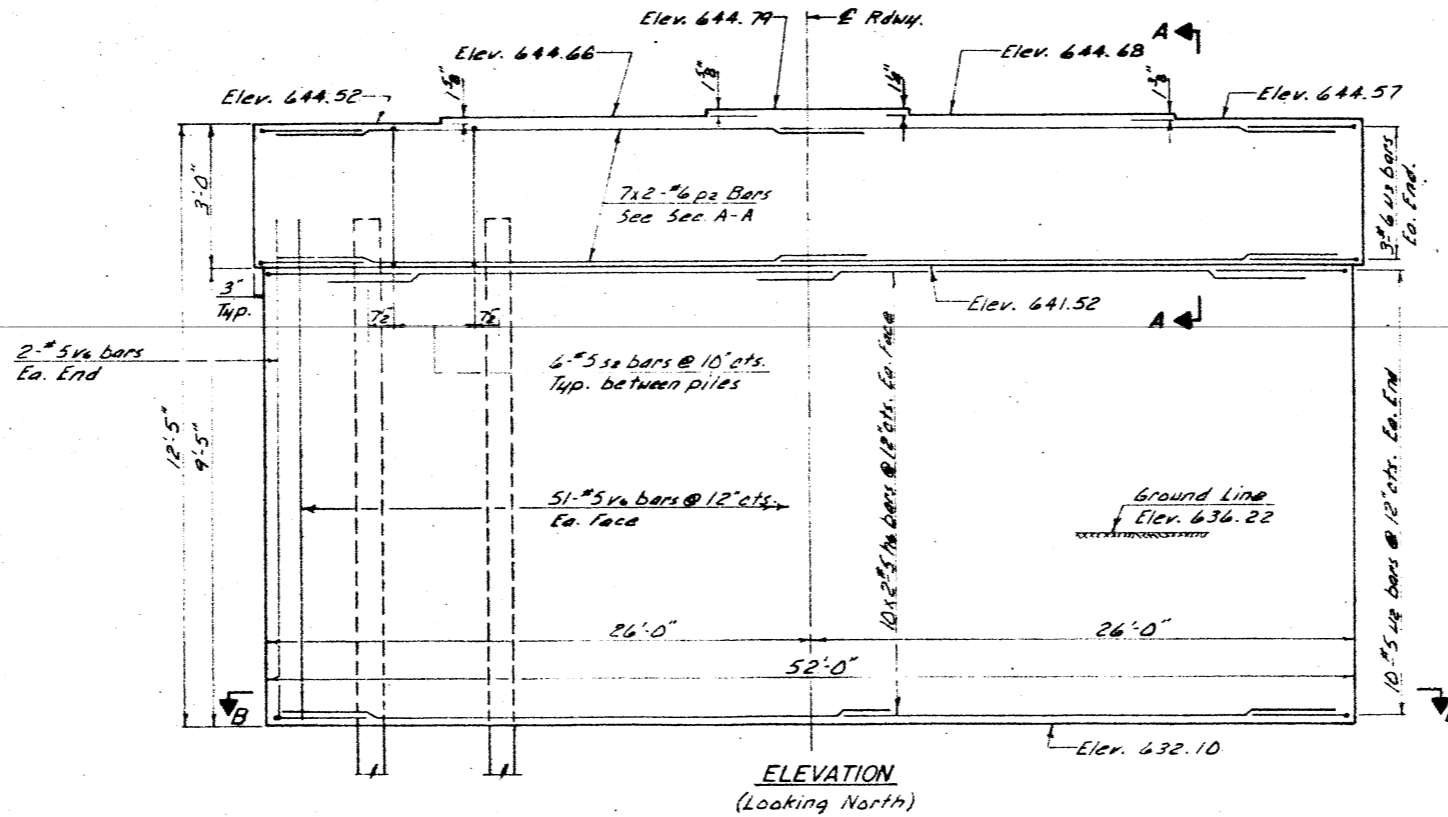
BAR SCHEDULE



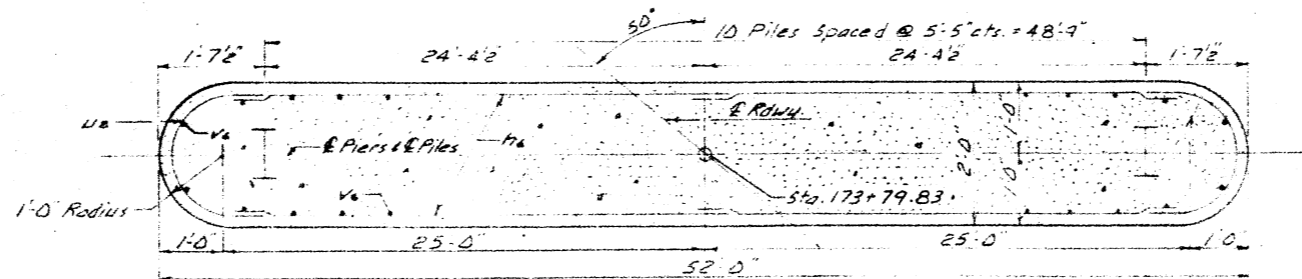
BAR SCHEDULE



END VIEW



ELEVATION
(Looking North)



SECTION B-B

BILL OF MATERIAL

| BAR | NO. | SIZE | LENGTH | SHAPE |
|-----|-----|---------------------------|----------|-------|
| #6 | 14 | # 6 | 26'-2" | — |
| #5 | 54 | # 5 | 10'-7" | □ |
| U2 | 20 | # 5 | 8'-6" | U |
| U3 | 6 | # 6 | 9'-2" | U |
| V6 | 106 | # 5 | 10'-11" | — |
| | | Class X Concrete | Cu. Yds. | 51.0 |
| | | Reinforcement Bars | Lbs. | 3700 |
| | | Steel Piles (HPBx36) | Lin. Ft. | 243 |
| | | Test Piles Steel (HPBx36) | Each | 1 |

Note:
 Pour steps monolithically with cap. Space reinforcement in cap to miss anchor bolts.
 Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 All edges shall have standard 3/4" chamfers.

MIN. BAR LAP
 #5 Bar 2'-3"
 #6 Bar 2'-9"

DESIGNED BY [Signature]
 CHECKED BY [Signature]
 DRAWN BY [Signature]
 CHECKED BY [Signature]

October 6, 1981
 EXAMINED [Signature]
 PASSED [Signature]
 APPROVED [Signature]

PIER 2
 FAS. RTE. 659 SECTION 1-BP
 MCULTRIE COUNTY
 STA. 173+60.00