

INDEX OF SHEETS

- 1 Cover Sheet
- 2 Summary of Quantities, General Notes, and Typical Sections
- 3 Plan and Profile
- 4 Horizontal Layout
- 5-10 Station Cross Sections
- 11 Stormwater Pollution Prevention & Erosion Control Plan
- 12-17 Bridge Plans

LIST OF STANDARDS

- Standard 000001-05 Standard symbols, abbreviations and patterns
- Standard 280001-04 Temporary erosion control systems
- Standard 515001-03 Name plate for bridges
- Standard 630301-05 Shoulder Widening for Type 1 (Special) Guardrail Terminals
- Standard 631032-04 Traffic Barrier Terminal, Type 6A
- Standard 635006-03 Reflector and Terminal Marker Placement
- Standard 665001-02 Woven Wire Fence
- Standard 701011-02 Off-road moving operations, 2-l, 2-w, day only
- Standard 701301-03 Lane closure, 2-l, 2-w, short time operations
- Standard 701901-01 Traffic control devices
- Standard BLR-21-8 Typical application of traffic control devices for Construction on Rural Local Highways
- Standard BLR-22-6 Typical application of traffic control devices 2-l, 2-w, rural, Road closed to Thru Traffic

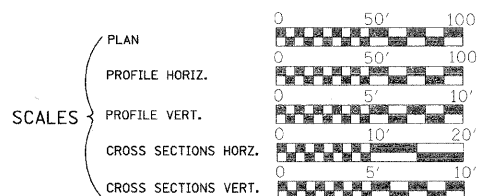
ROADWAY CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
 2027 ADT = 450
 DESIGN SPEED: 60 MPH

JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS
 J.U.L.I.E. Telephone No. Toll Free 1-800-892-0123

CONTRACT NO. : 95599

URS
 345 EAST ASH AVENUE, SUITE B
 DECATUR, ILLINOIS 62526
 PH. 217-875-4800

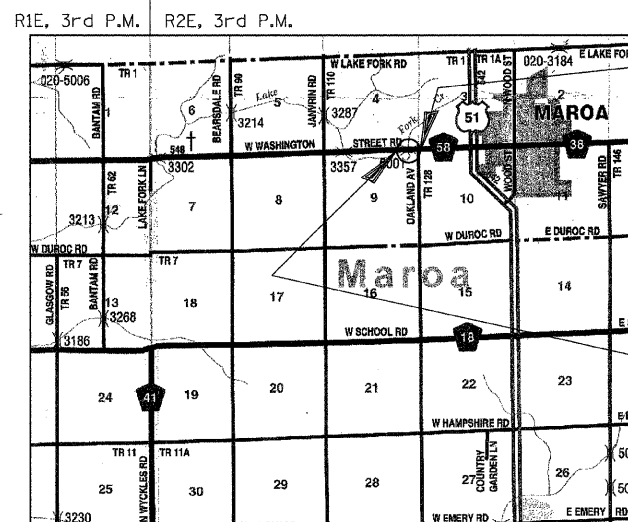
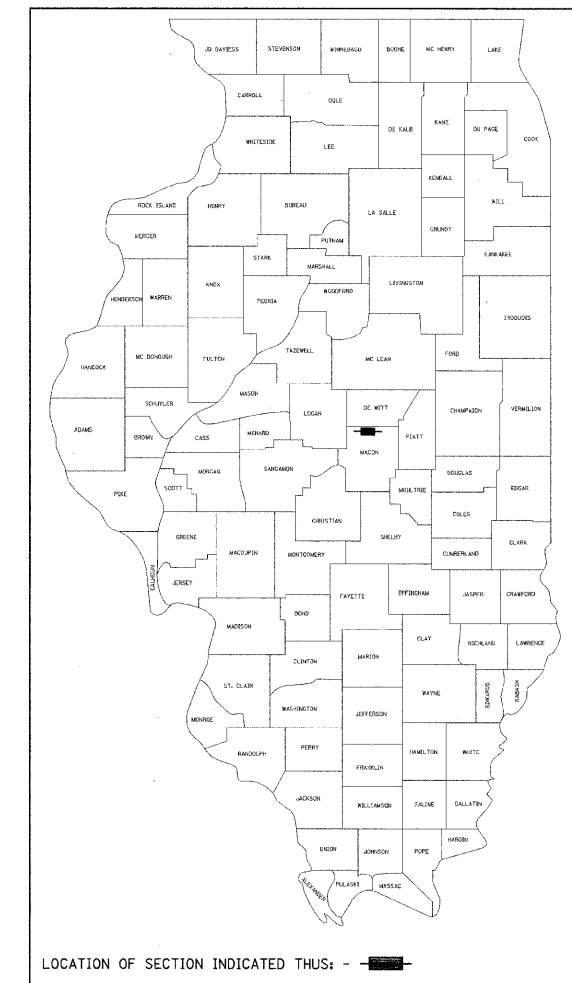
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 LOCAL AGENCY IMPROVEMENT**



AMERICAN RECOVERY &
 REINVESTMENT ACT
 F.A.S. 548 (WASHINGTON STREET)
 OVER LAKE FORK CREEK
 SECTION 05-00196-00-BR
 MACON COUNTY
 PROJECT ARA-0548(103)
 C-97-001-10

| RTE. NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------------|--------------|-----------|
| F.A.S. 548 | 05-00196-00-BR | MACON | 17 | 1 |
| FED. ROAD DIST. NO. | ILLINOIS | PROJECT: ARA-0548(103) | | |

CONTRACT NO. 95599



IMPROVEMENT ENDS
 STA. 18+00.00

EXIST. STR. NO. 058-5001
 PROP. STR. NO. 058-3378

IMPROVEMENT BEGINS
 STA. 10+50.00

IMPROVEMENT CONSISTS OF THE REMOVAL OF A TRIPLE 9' x 6' CAST IN PLACE CONCRETE BOX CULVERT WITH CONCRETE HEADWALLS, 32'-0" 0-0 HEADWALLS AND THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE ON CONCRETE SPILL THRU ABUTMENTS. TOTAL LENGTH = 59'-8", WIDTH = 30'-0" 0-0. DECK AND NECESSARY APPROACH ROADWAY WORK.

LAYOUT

Approximate Scale: miles

Total and Net Length of Improvement 750.00 Feet = 0.142 Miles



EXP. 11/30/09

Keith W. Bentley
 Illinois Professional No. 43789

APPROVED August 14 2009
John H. S.
 COUNTY ENGINEER

PASSED Aug 20 2009
Maureen J. Canal
 COUNTY ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW Aug 20 2009
Roger L. Diaballo
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

8/14/2009
 Date

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE X081-2A

| CODE NO. | ITEM | UNIT | QUANTITY |
|-----------|---|-------|----------|
| 20200100 | EARTH EXCAVATION | CU YD | 1374 |
| 20300100 | CHANNEL EXCAVATION | CU YD | 183 |
| 25000200 | SEEDING, CLASS 2 | ACRE | 0.75 |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 68 |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 68 |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 68 |
| 25100115 | MULCH, METHOD 2 | ACRE | 0.75 |
| 28000200 | EARTH EXCAVATION FOR EROSION CONTROL | CU YD | 24 |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 75 |
| 28000300 | TEMPORARY DITCH CHECK | EACH | 8 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 200 |
| 28100107 | STONE RIPRAP, CLASS A4 | SQ YD | 497 |
| 28200200 | FILTER FABRIC | SQ YD | 497 |
| 30200650 | PROCESSING MODIFIED SOIL 12" | SQ YD | 1871 |
| 30201500 | LIME | TON | 42 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GAL | 243 |
| 40603080 | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 | TON | 590 |
| 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 218 |
| 48101200 | AGGREGATE SHOULDERS, TYPE B | TON | 272 |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 22.6 |
| 50400505 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH) | SQ FT | 1740 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 2740 |
| Δ50901050 | STEEL RAILING, TYPE SM | FOOT | 116 |
| 51200957 | FURNISHING METAL SHELL PILES 12" x 0.250" | FOOT | 459 |
| 51202305 | DRIVING PILES | FOOT | 459 |
| 51203200 | TEST PILE METAL SHELLS | EACH | 1 |
| 51204650 | PILE SHOES | EACH | 12 |
| 51500100 | NAME PLATES | EACH | 1 |
| 58100200 | WATERPROOFING MEMBRANE SYSTEM | SQ YD | 193 |
| 58300100 | PORTLAND CEMENT MORTAR FAIRING COURSE | FOOT | 522 |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL | CU YD | 16 |
| Δ63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A | EACH | 4 |
| Δ63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 4 |
| 66500105 | * WOVEN WIRE FENCE, 4' | FOOT | 748 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| Δ78201000 | * TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |

* SEE SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS

GENERAL NOTES

THE AREA TO BE SEEDING SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.

LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITY FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR THEIR MARKING OF THE EXACT LOCATION.

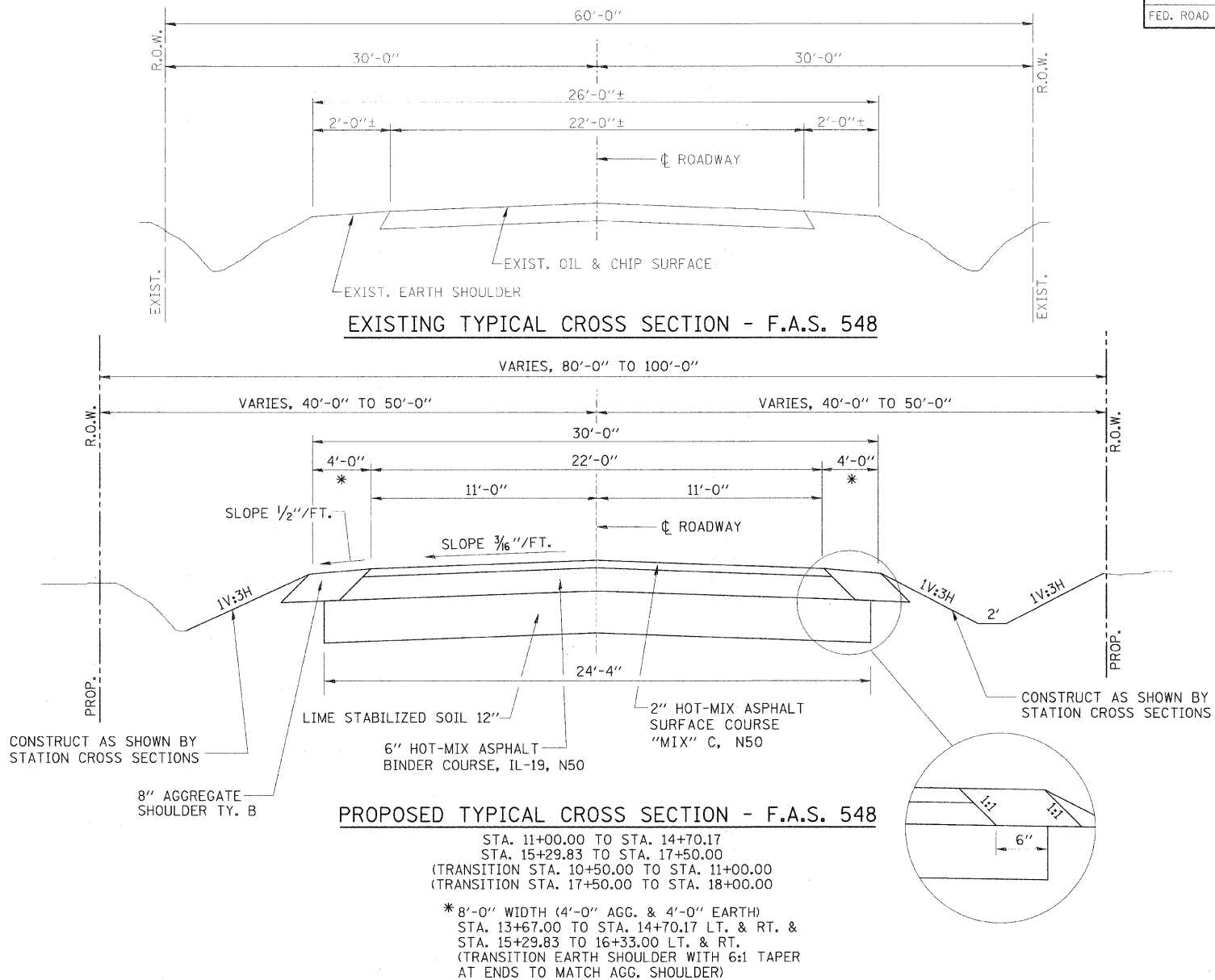
REMOVAL OF EXISTING PAVEMENT MATERIAL AND EXISTING FENCE SHALL BE INCLUDED IN EARTH EXCAVATION.

APPLICATION RATES

| | | |
|-----------------------------------|------|-----------------|
| FERTILIZER NUTRIENTS | 90 | LBS./ACRE |
| MULCH METHOD 2 | 2 | TONS/ACRE |
| TEMPORARY EROSION CONTROL SEEDING | 100 | LBS./ACRE |
| LIME | 45 | LBS./SQ. YD. |
| BITUMINOUS MATERIALS-PRIME COAT | 0.10 | GALS./S. Y. |
| BITUMINOUS MATERIALS-FOG COAT | 0.03 | GALS./S. Y. |
| HOT MIX ASPHALT | 112 | LBS./S. Y./INCH |
| AGGREGATE SHOULDERS | 2.05 | TONS/CU. YD. |

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|------------------------|--------------|-----------|
| F.A.S. 548 | 05-00196-00-BR | MACCN | 17 | 2 |
| FED. ROAD DIST. NO. | ILLINOIS | PROJECT: ARA-0548(103) | | |

CONTRACT NO. 95599



ROADWAY QUANTITY SCHEDULE

| LOCATION | PROC MOD SOIL 12" (SQ YD) | LIME (TON) | BITUMINOUS MATERIALS (PRIME COAT) (GAL) | HMA BC IL-19.0 N50 (TON) | HMA SC "C" N50 (TON) | AGGREGATE SHLDS B (TON) |
|-------------------------------------|---------------------------|------------|---|--------------------------|----------------------|-------------------------|
| M.L. STA. 10+50.00 TO STA. 14+70.17 | 1139 | 25.6 | 148 | 359 | 116 | 166 |
| M.L. STA. 15+29.83 TO STA. 18+00.00 | 732 | 16.5 | 95 | 231 | 75 | 106 |
| OVERLAY AT STRUCTURE | | | | | 27 | |
| TOTALS | 1871 | 42 | 243 | 590 | 218 | 272 |

BITUMINOUS MIXTURE REQUIREMENTS

| LOCATION | FAS 548 | FAS 548 |
|-------------------------------------|------------|------------|
| MIX USE | BINDER | SURFACE |
| AC/PG | PG 64-22 | PG 64-22 |
| RAP % | 25 | 15 |
| DESIGN VOIDS | 4.0 @ N=50 | 4.0 @ N=50 |
| MIXTURE COMPOSITION (GRAD. MIXTURE) | IL-19.0 | IL-9.5 |
| FRICITION | N/A | MIX C |

GENERAL DATA

| | | |
|--------------|---|---|
| Date | Designed MJP | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 |
| Revisions | Drawn BKN | |
| | Checked KWB | |
| | Approved KWB | |
| Prepared by: | URS 345 East Ash Avenue Decatur, IL 62526 | URS Job No. 36431681 |

BENCHMARK:

R.R. SPIKE IN POWER POLE
 STA. 19+64.72, 30.7' RT.
 ELEV. 701.63

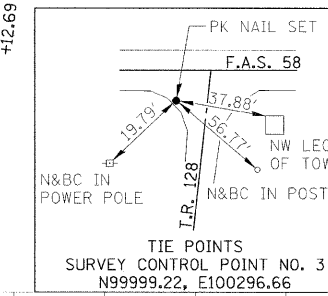
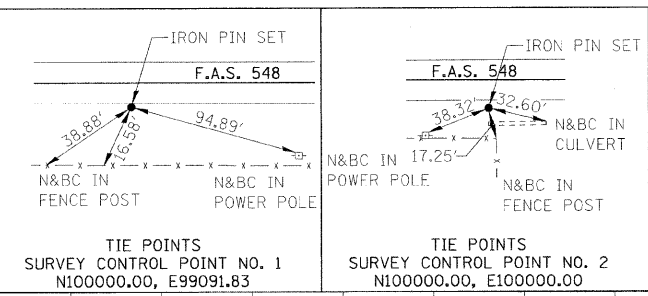
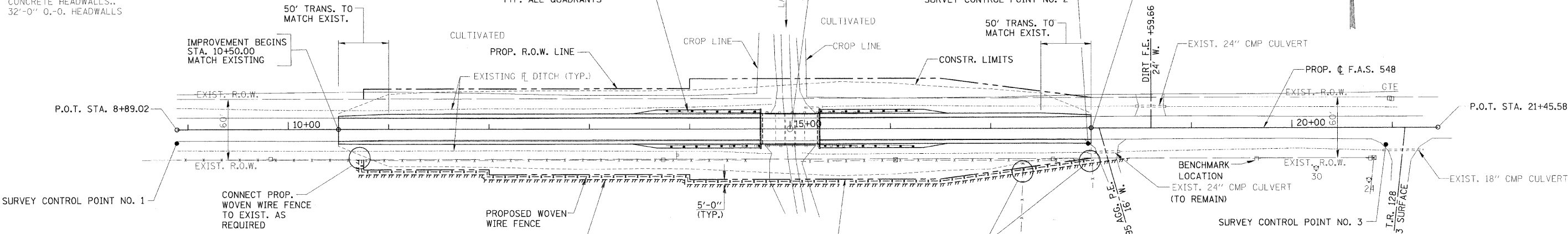
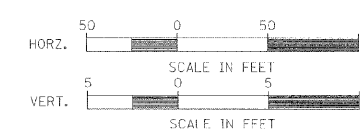
EXISTING STRUCTURE NO. 058-5001

TRIPLE 9'X6' CAST IN PLACE CONCRETE BOX CULVERT WITH
 CONCRETE HEADWALLS.
 32'-0" O.-O. HEADWALLS

HAROLD E. STOUTENBOROUGH

PROPOSED TBT TY. 6A AND
 TBT TY. 1, (SPECIAL) TANGENT
 TYP. ALL QUADRANTS

STA. 15+00.00, SPECIAL BRIDGE DESIGN,
 SINGLE SPAN PPC DECK BEAM BRIDGE,
 SPAN OF 56'-10" ON CONC. PILE BENT ABUT'S
 LENGTH = 59'-8" BK.-BK. ABUTMENTS.
 WIDTH = 30'-0" O.-O. DECK.
 NO SKEW



NOTES:

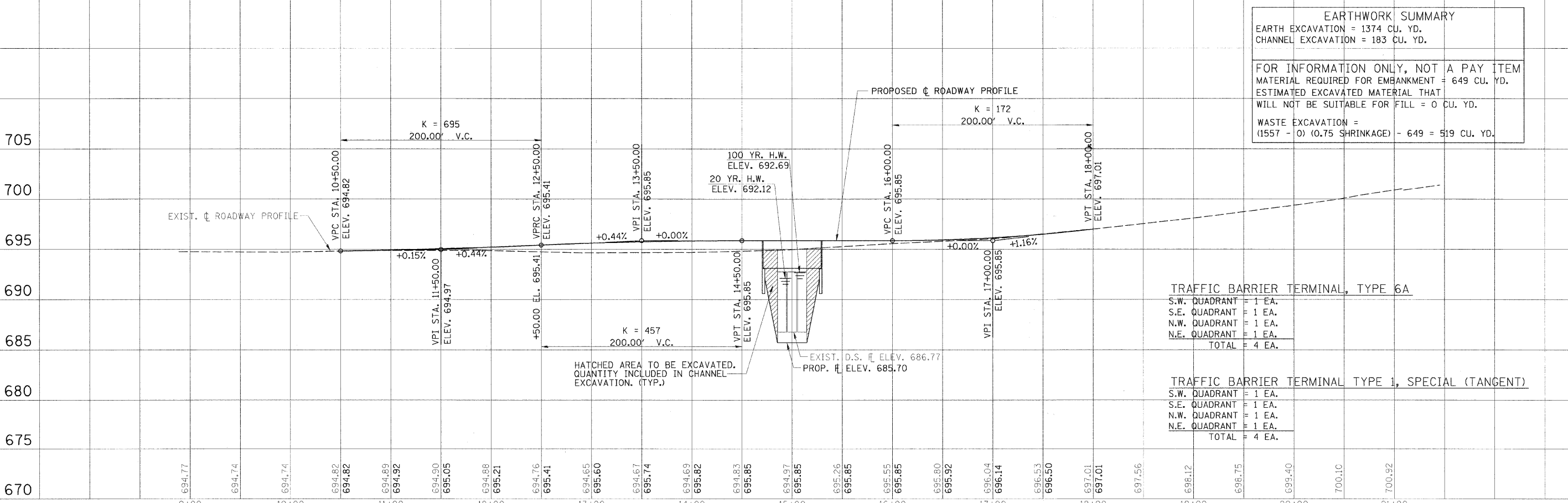
- SEE HORIZONTAL LAYOUT (SHEET 4 OF 17) FOR CONTROL POINT, PROPOSED R.O.W., AND PROPOSED CENTERLINE INFORMATION.
- FENCE SHOWN OFF PROPOSED R.O.W. LINE FOR CLARITY. FENCE SHALL BE LOCATED ON THE PROPOSED R.O.W. LINE.

EARTHWORK SUMMARY

EARTH EXCAVATION = 1374 CU. YD.
 CHANNEL EXCAVATION = 183 CU. YD.

FOR INFORMATION ONLY, NOT A PAY ITEM
 MATERIAL REQUIRED FOR EMBANKMENT = 649 CU. YD.
 ESTIMATED EXCAVATED MATERIAL THAT
 WILL NOT BE SUITABLE FOR FILL = 0 CU. YD.

WASTE EXCAVATION =
 (1557 - 0) (0.75 SHRINKAGE) = 649 = 519 CU. YD.



TRAFFIC BARRIER TERMINAL, TYPE 6A

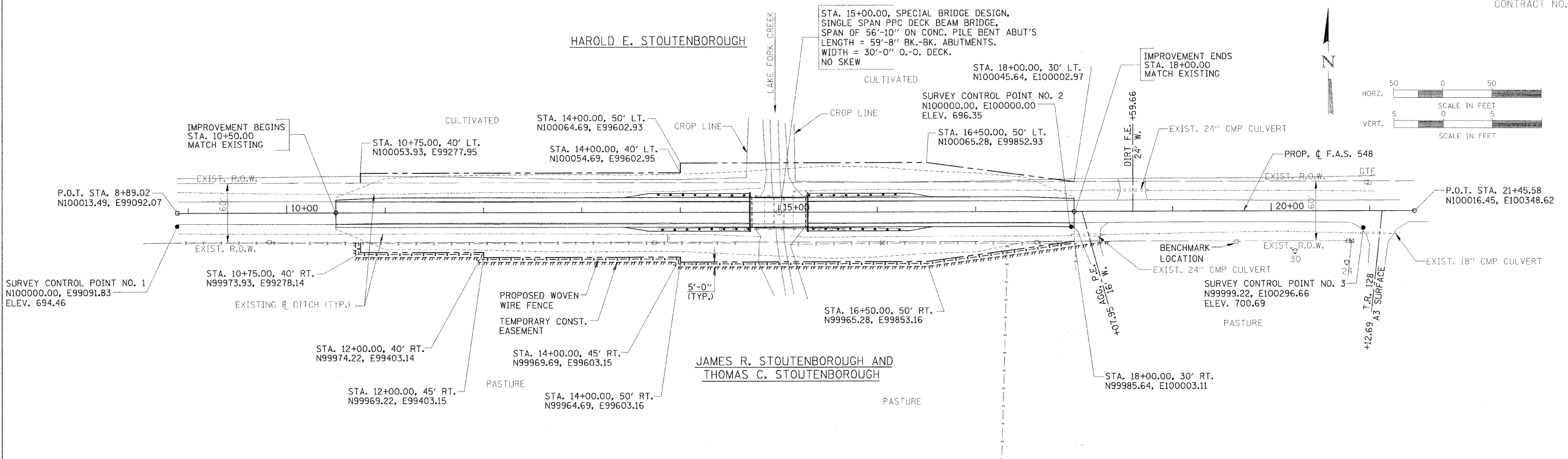
| | |
|---------------|----------------|
| S.W. QUADRANT | = 1 EA. |
| S.E. QUADRANT | = 1 EA. |
| N.W. QUADRANT | = 1 EA. |
| N.E. QUADRANT | = 1 EA. |
| TOTAL | = 4 EA. |

TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)

| | |
|---------------|----------------|
| S.W. QUADRANT | = 1 EA. |
| S.E. QUADRANT | = 1 EA. |
| N.W. QUADRANT | = 1 EA. |
| N.E. QUADRANT | = 1 EA. |
| TOTAL | = 4 EA. |

| RT. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|-------------------------|--------------|-----------|
| FAS 548 | 05-00196-00-BR | MACON | 17 | 4 |
| STA. 10+50.00 | | TO STA. 18+00.00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | PROJECT: ARA-0548-(103) | | |

CONTRACT NO. 95599



PROPOSED STRUCTURE LAYOUT

| | |
|--|--|
| <u>WEST ABUTMENT</u> | <u>EAST ABUTMENT</u> |
| BK. OF W. ABUT. STA. 14+70.17 N100014.86, E99673.21 | BK. OF E. ABUT. STA. 15+29.83 N100015.00, E99732.87 |
| ☐ W. ABUT. STA. 14+71.42 N100014.86, E99674.46 | ☐ E. ABUT. STA. 15+28.58 N100015.00, E99731.62 |

SHOULDER WIDENING FOR GUARDRAIL TERMINALS

| | |
|------------------------------|------------------------------|
| <u>WEST</u> | <u>EAST</u> |
| STA. 13+43.00, 15' LT. & RT. | STA. 15+29.83, 19' LT. & RT. |
| STA. 13+67.00, 19' LT. & RT. | STA. 16+33.00, 19' LT. & RT. |
| STA. 14+70.17, 19' LT. & RT. | STA. 16+57.00, 15' LT. & RT. |

NOTE:
FOR TIE POINTS AND BENCHMARK INFORMATION,
SEE SHEET 3 OF 17.

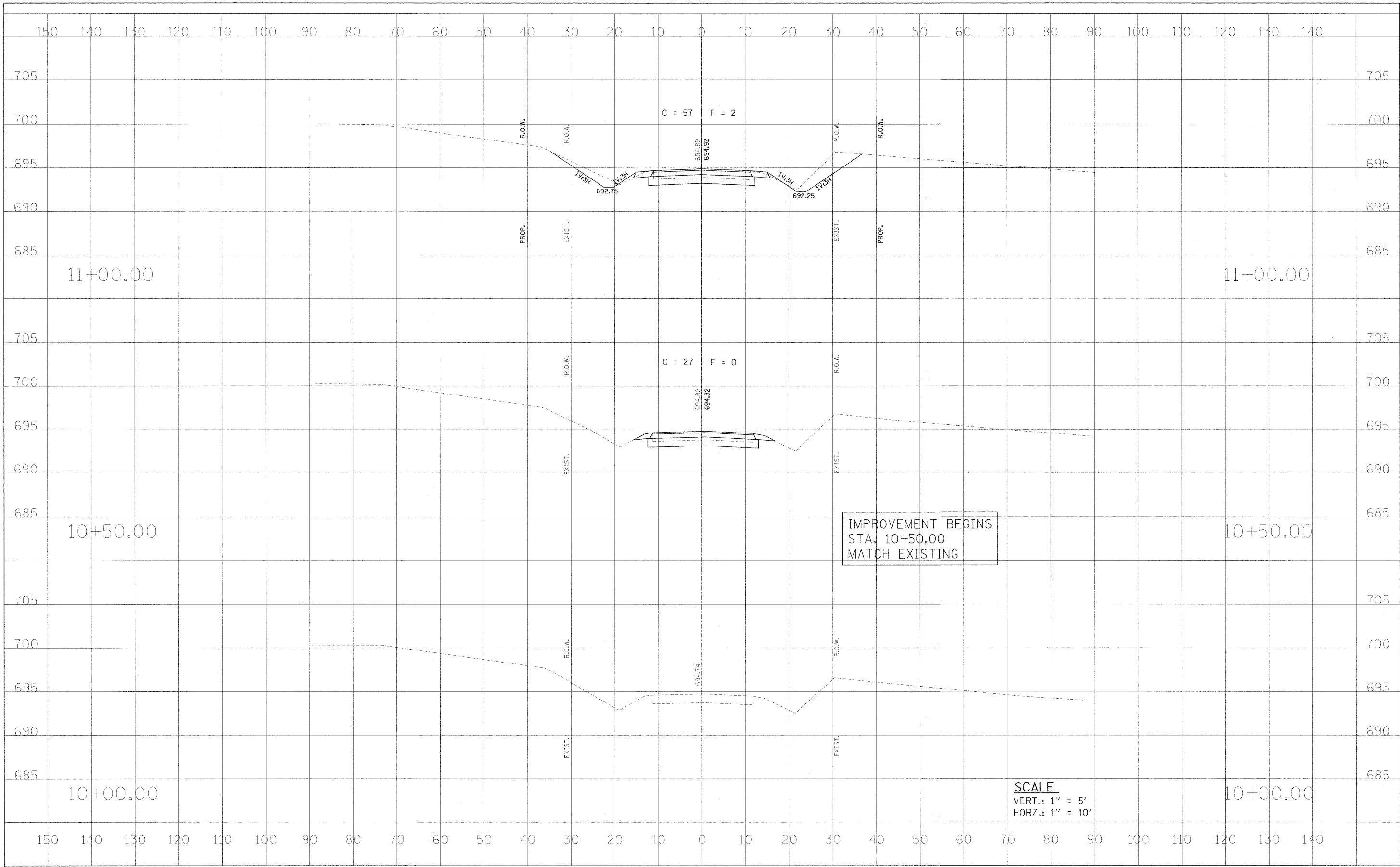
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| DATE | BY |
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HORIZONTAL LAYOUT

| | | |
|--------------|---------------|------|
| FINAL SURVEY | DESIGNED | DATE |
| NOTE BOOK | BY | |
| NO. | | |
| | PLotted | |
| | AREAS CHECKED | |

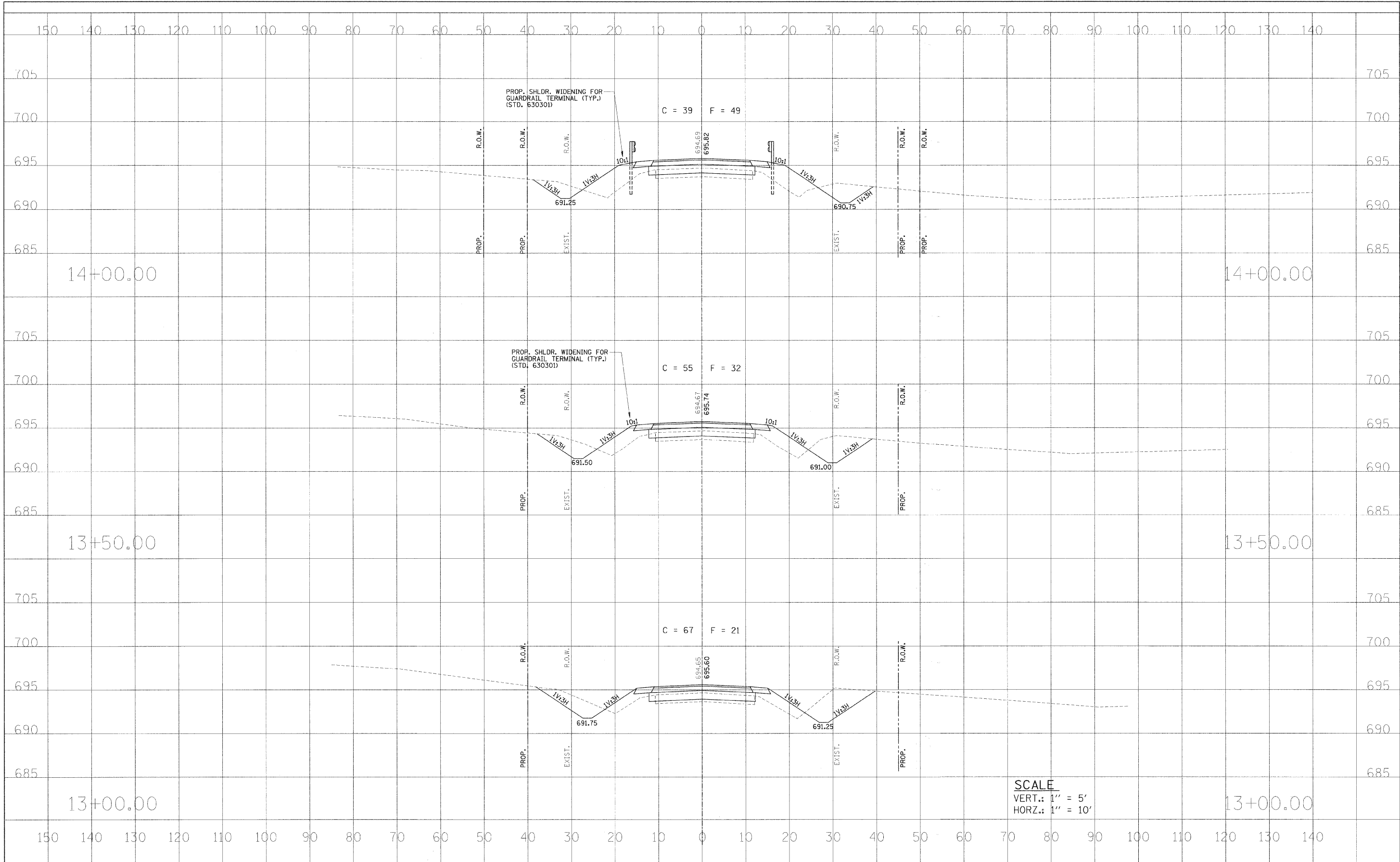
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| ORIGINAL SURVEY | DESIGNED | DATE |
| NOTE BOOK | BY | |
| NO. | | |
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| | AREAS CHECKED | |



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|-------------|--------------------|----------------|-----------|---|-----------------------|--------------------|-------------------------|--------------------------------|---------------------|-----------|-------------------|
| FILE NAME = | USER NAME = *USER* | DESIGNED - MJP | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| *FILE#* | | DRAWN - BKN | REVISED - | | | FAS 548 | 05-00196-00-BR | MACON | 17 | 5 | |
| | | CHECKED - KWB | REVISED - | | | CONTRACT NO. 95599 | | | | | |
| | | DATE | REVISED - | | | SCALE: AS SHOWN | SHEET NO. 1 OF 6 SHEETS | STA. 10+00.00 TO STA. 11+00.00 | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT# |

| | |
|--------------|--|
| DATE | |
| BY | |
| FINAL SURVEY | |
| NOTES | |
| TEMPLATE | |
| AREAS | |
| CHECKED | |
| NO. | |

| | |
|-----------------|--|
| DATE | |
| BY | |
| ORIGINAL SURVEY | |
| NOTES | |
| TEMPLATE | |
| AREAS | |
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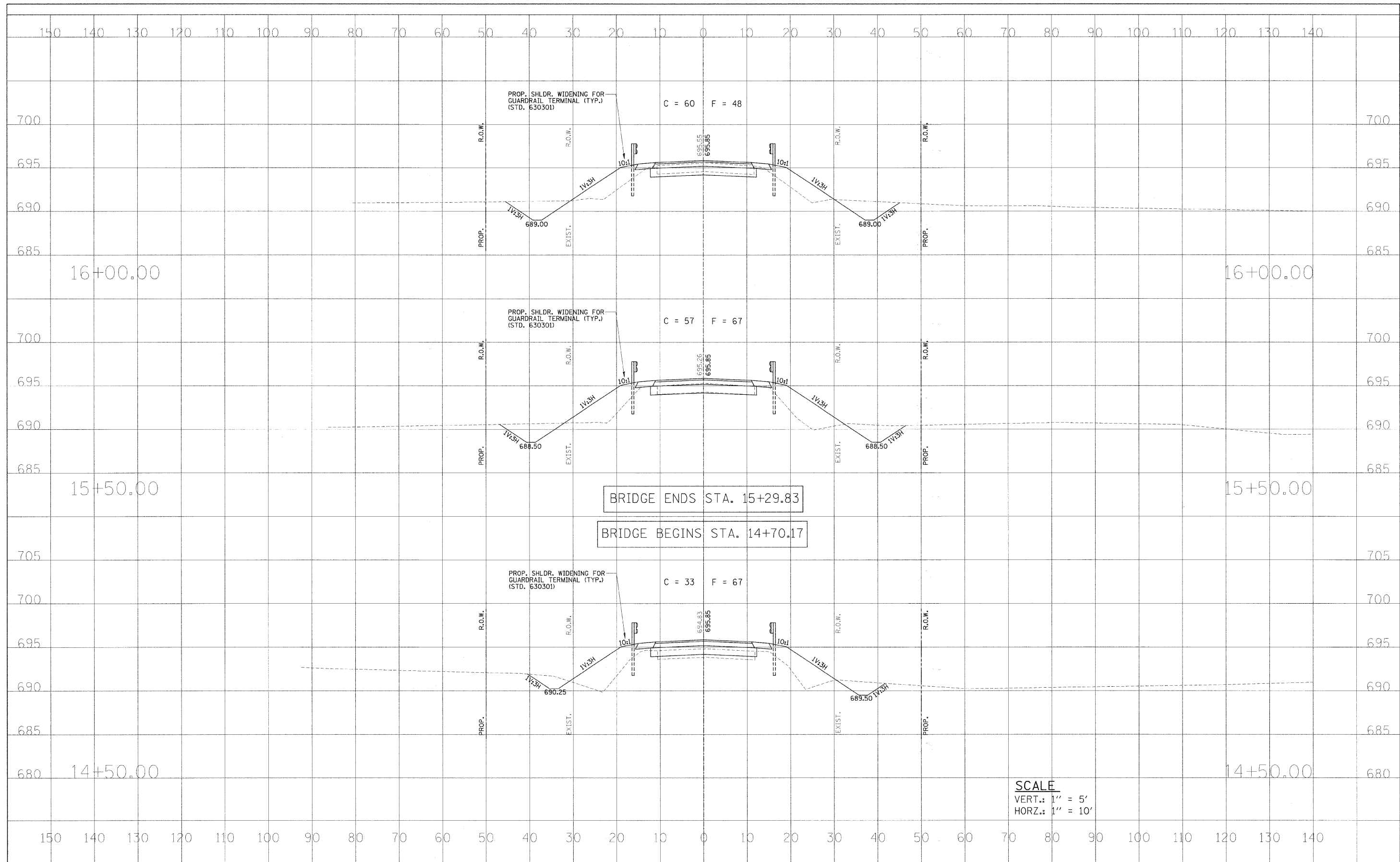


SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

| | | | | | | | | | | |
|----------------------|--------------------|----------------|---------------|---|-----------------------|--|----------------|--|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - MJP | REVISED - --- | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | DRAWN - BKN | REVISED - --- | | | FAS 548 | 05-00196-00-BR | MACON | 17 | 7 |
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| PLOT DATE = #DATE# | | DATE | REVISED | | | SCALE: AS SHOWN SHEET NO. 3 OF 6 SHEETS STA. 13+00.00 TO STA. 14+00.00 | | FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT# ARA-0548(103) | | |

| | |
|--------------|---------------|
| FINAL SURVEY | DATE |
| SURVEYED | BY |
| NOTE BOOK | NO. |
| TEMPLATE | AREAS CHECKED |
| AREAS | |
| AREAS | |

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|-----------------|---------------|
| ORIGINAL SURVEY | DATE |
| SURVEYED | BY |
| NOTE BOOK | NO. |
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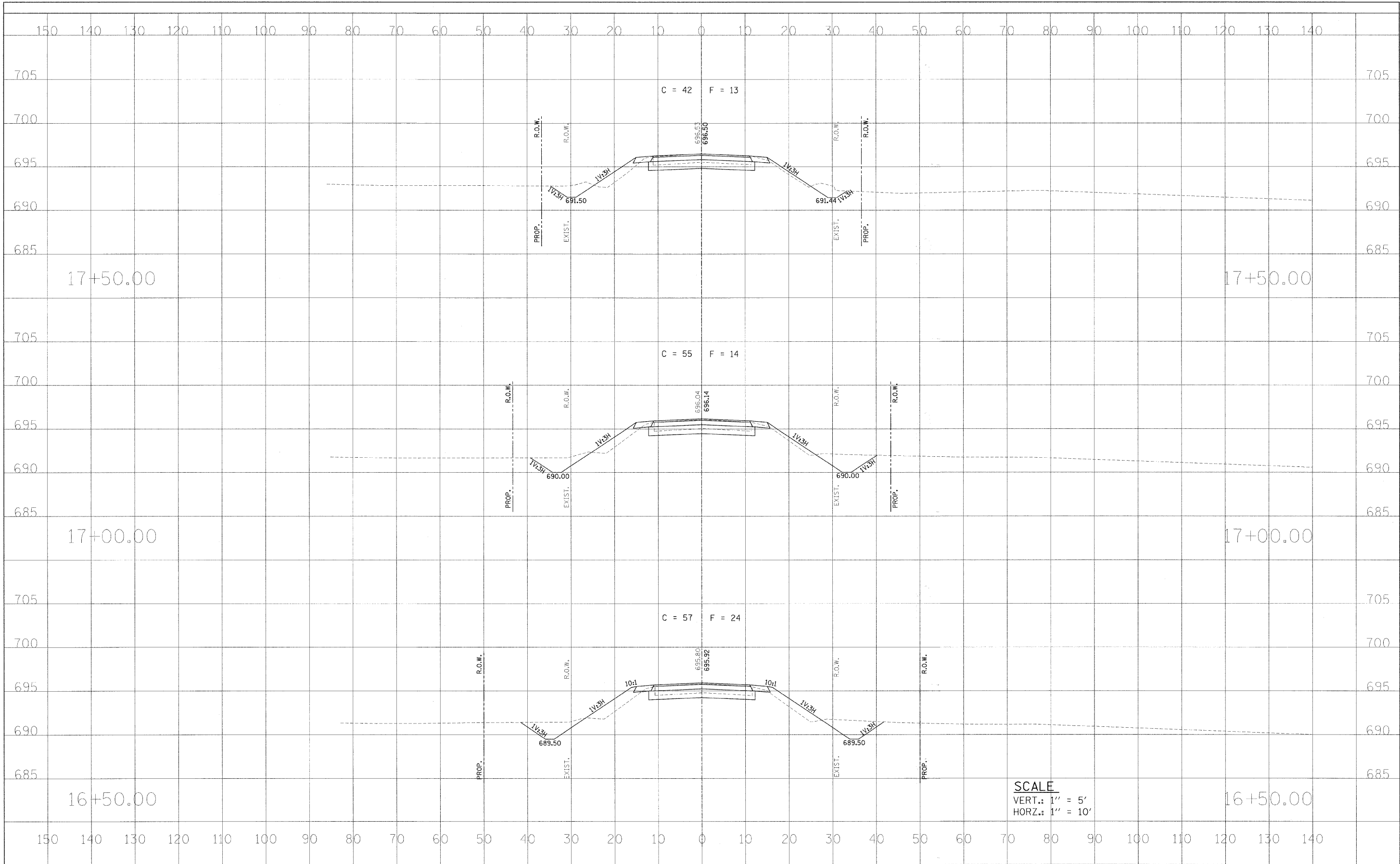


SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

| | | | | | | | | | | | | |
|----------------------|--------------------|----------------|-----------|---|--|-------------------------|--------------------------------|---------|----------------|--------|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - MJP | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | | RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILEL# | | DRAWN - BKN | REVISED - | | SCALE: AS SHOWN | SHEET NO. 4 OF 6 SHEETS | STA. 14+50.00 TO STA. 16+00.00 | FAS 548 | 05-00196-00-BR | MACON | 17 | 8 |
| PLOT SCALE = #SCALE# | | CHECKED - KWB | REVISED - | | CONTRACT NO. 95599 | | | | | | | |
| PLOT DATE = #DATE# | | DATE - | REVISED - | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT# ARA-0548(103) | | | | | | | |

| | |
|---------------|----------|
| FINAL SURVEY | DATE |
| NO. _____ | BY _____ |
| NOTE BOOK | DESIGNED |
| NO. _____ | DRAWN |
| AREAS CHECKED | CHECKED |
| NO. _____ | DATE |

| | |
|-----------------|----------|
| ORIGINAL SURVEY | DATE |
| NO. _____ | BY _____ |
| NOTE BOOK | DESIGNED |
| NO. _____ | DRAWN |
| AREAS CHECKED | CHECKED |
| NO. _____ | DATE |

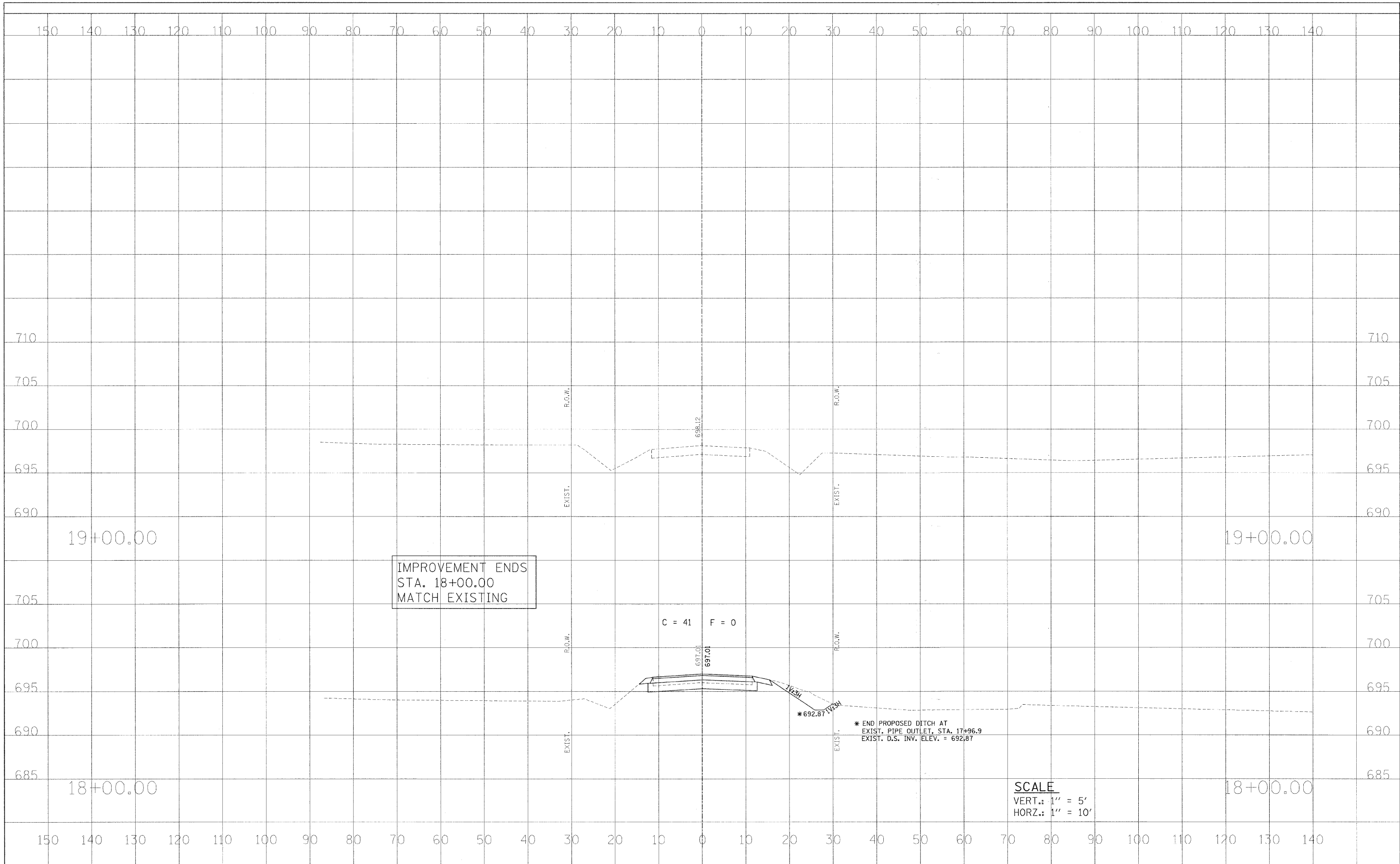


SCALE
 VERT.: 1" = 5'
 HORZ.: 1" = 10'

| | | | | | | | | | | | | |
|-------------|--------------------|----------------|-----------|---|---|-------------------------|--------------------------------|---------|----------------|--------|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - MJP | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | | RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | DRAWN - BKN | REVISED - | | SCALE: AS SHOWN | SHEET NO. 5 OF 6 SHEETS | STA. 16+50.00 TO STA. 17+50.00 | FAS 5/8 | 05-00196-00-BR | MACON | 17 | 9 |
| | | CHECKED - KWB | REVISED - | | CONTRACT NO. 95599 | | | | | | | |
| | | DATE - | REVISED - | | FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT ARA-0548(103) | | | | | | | |

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| DATE | |
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| FINAL SURVEY | |
| NOTE BOOK | |
| NO. | |
| AREAS CHECKED | |

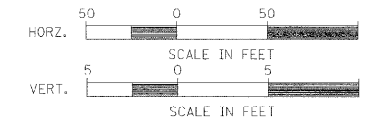
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| NO. | |
| AREAS CHECKED | |



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| FILE NAME = | USER NAME = #USER# | DESIGNED - MJP | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | | DRAWN - BKN | REVISED - | | | FAS 548 | 05-0C196-00-BR | MACON | 17 | 10 | |
| | | CHECKED - KWB | REVISED - | | | CONTRACT NO. 95599 | | | | | |
| | | DATE - | REVISED - | | | FED. ROAD DIST. NO. 1117015 FED. AID PROJECT ARA-0548(103) | | | | | |
| PLOT SCALE = #SCALE# | | | | SCALE: AS SHOWN | | SHEET NO. 6 OF 6 SHEETS | | STA. 18+00.00 TO STA. 19+00.00 | | | |
| PLOT DATE = #DATE# | | | | | | | | | | | |

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|-----------------------|--------------|-----------|
| FAS 548 | 05-00196-00-BR | MACON | 17 | 11 |
| STA. 10+50.00 | | TO STA. 18+00.00 | | |
| FED. ROAD DIST. NO. | ILLINOIS | PROJECT ARA-0548(103) | | |

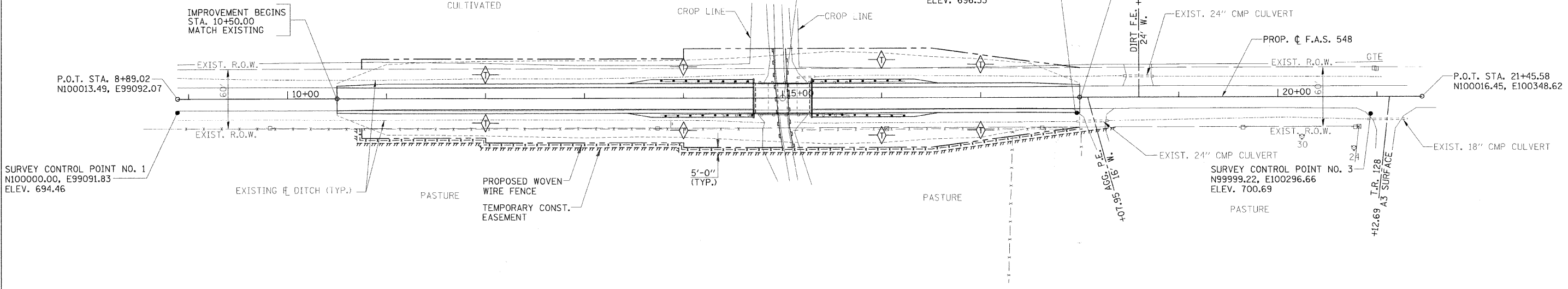
CONTRACT NO. 95599



STA. 15+00.00, SPECIAL BRIDGE DESIGN,
SINGLE SPAN PPC DECK BEAM BRIDGE,
SPAN OF 56'-10" ON CONC. PILE BENT ABUT'S
LENGTH = 59'-8" BK.-BK. ABUTMENTS.
WIDTH = 30'-0" O.-O. DECK.
NO SKEW

SURVEY CONTROL POINT NO. 2
N100000.00, E100000.00
ELEV. 696.35

IMPROVEMENT ENDS
STA. 18+00.00
MATCH EXISTING



LEGEND

- TEMPORARY AGGREGATE DITCH CHECK (TYP.)
(COST INCLUDED IN TEMPORARY DITCH CHECK,
SEE STD. 280001)
- PERIMETER EROSION BARRIER

ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

STORM WATER POLLUTION PREVENTION PLAN

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES:

1. REMOVAL OF EXISTING STRUCTURE.
2. EXCAVATION WILL BE COMPLETED ALONG THE ENTIRE LENGTH OF THE JOB TO REMOVE THE EXISTING ROADWAY AND GRADE THE PROPOSED DITCHES.
3. NECESSARY EMBANKMENT WILL BE PLACED ALONG THE ENTIRE LENGTH OF THE JOB FOR THE PROPOSED ROADWAY.
4. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL ITEMS, SUCH AS PERIMETER EROSION BARRIER, AGGREGATE DITCH CHECKS, TEMPORARY SEEDING AND OTHER MISCELLANEOUS EROSION CONTROL MEASURES.
5. CONSTRUCT NEW BRIDGE SUBSTRUCTURE UNITS.
6. PLACEMENT OF PERMANENT EROSION CONTROL ITEMS, INCLUDING RIPRAP AND SEEDING.
7. CONSTRUCT NEW BRIDGE SUPERSTRUCTURE AND APPROACH ROADWAY.
8. FINAL GRADING AND OTHER MISCELLANEOUS ITEMS.

SCHEDULE OF EROSION CONTROL QUANTITIES

- EARTH EXCAVATION FOR EROSION CONTROL
TOTAL = 24 CU. YD.
- TEMPORARY EROSION CONTROL SEEDING
100 LBS/ACRE X 1.1 ACRES = 75 POUNDS
- SEEDING, CLASS 2
AREA INSIDE OF CONSTRUCTION LIMITS, LESS ROADWAY.
TOTAL = 0.75 ACRES
- NITROGEN FERTILIZER NUTRIENT
TOTAL = 68 POUNDS
- PHOSPHORUS FERTILIZER NUTRIENT
TOTAL = 68 POUNDS
- POTASSIUM FERTILIZER NUTRIENT
TOTAL = 68 POUNDS
- MULCH, METHOD 2
TOTAL = 0.75 ACRES
- PERIMETER EROSION BARRIER
TO BE CONSTRUCTED AT LOCATIONS SHOWN ON PLANS. LAYOUT MAY VARY AS DIRECTED BY THE ENGINEER.
TOTAL = 200 FOOT
- TEMPORARY DITCH CHECK
STA. 12+00, LT. & RT. = 2 EACH
STA. 14+00, LT. & RT. = 2 EACH
STA. 16+00, LT. & RT. = 2 EACH
STA. 17+00, LT. & RT. = 2 EACH
TOTAL = 8 EACH

STORM WATER POLLUTION PREVENTION AND EROSION CONTROL PLAN

| DATE | BY | REVISION |
|------|----|----------|
| | | |

| DATE | BY | REVISION |
|------|----|----------|
| | | |

BENCHMARK:
 Railroad Spike in Power Pole Sta. 19+64.72, 30.7' Rt.
 Elevation = 701.63

EXISTING STRUCTURE (SN 058-500):
 Triple 9'x6' Cast In Place Concrete Box Culvert with
 Concrete Headwalls,
 32'-0" O.-O. Headwalls

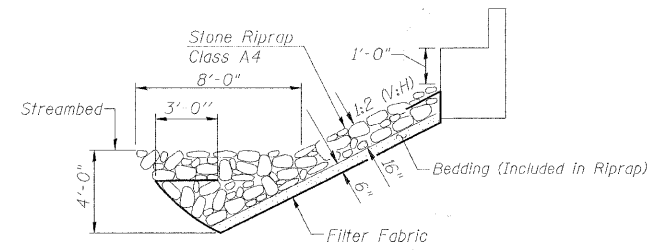
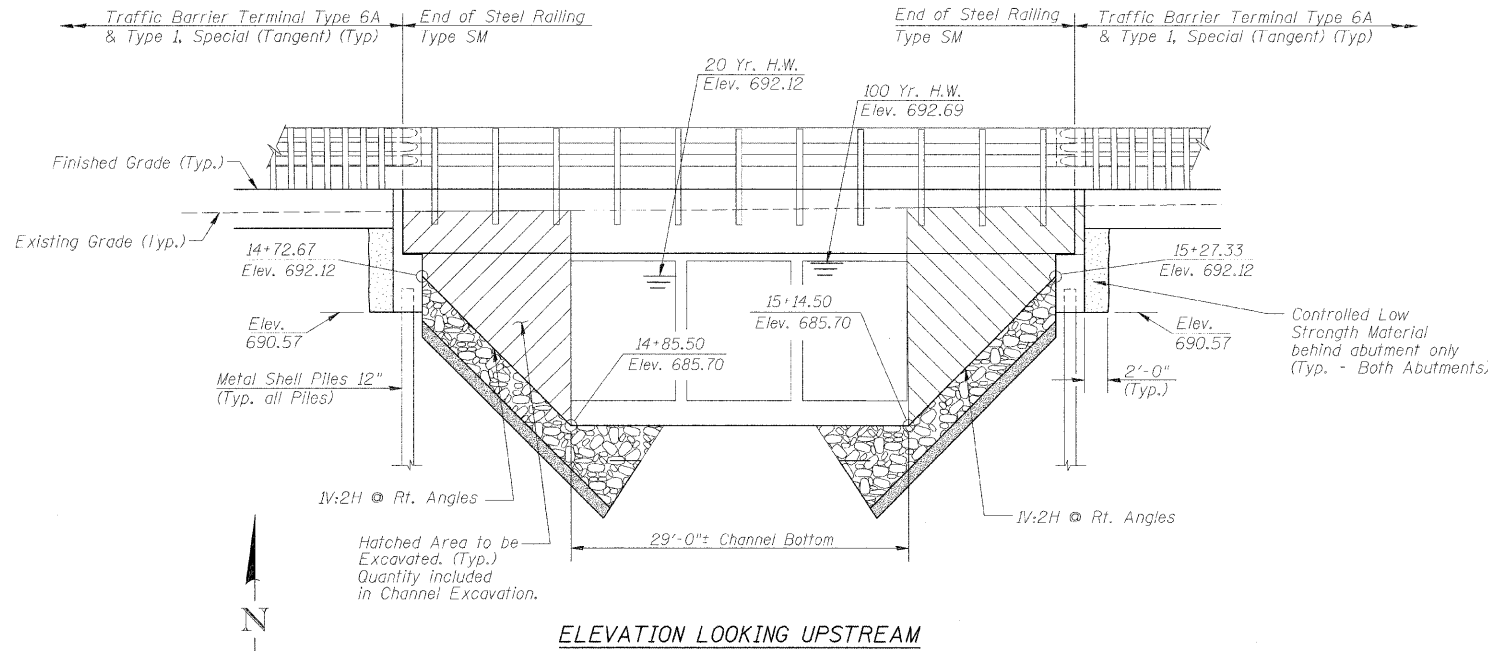
Traffic is to be detoured during construction.
 No Salvage.

| | | | | |
|---------------------|---------------------------------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S 548 | 05-00196-00-BR | MACON | 17 | 2 |
| FED. ROAD DIST. NO. | ILLINOIS PROJECT: ARA-0548(113) | | | |

CONTRACT NO. 95599

GENERAL NOTES

Layout of Riprap Slopes may be varied in the field to suit ground conditions as directed by the Engineer.
 See Proposal for Boring Data.
 Reinforcement Bars shall conform to the requirements of ASTM A 706, Grade 60. See Special Provisions.
 The Contractor shall drive one Metal Shell Test Pile in a permanent location at the East Abutment as directed by the Engineer before ordering the remainder of piles.
 Excavation required for abutment construction shall be included in Concrete Structures. No additional compensation will be provided for Structure Excavation.



STONE RIPRAP DETAIL

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|------|-------|
| Removal of Existing Structures | Each | | | 1 |
| P.P.C Deck Beams (27" Depth) | Sq. Ft. | 1740 | | 1740 |
| Concrete Structures | Cu. Yd. | | 22.6 | 22.6 |
| Reinforcement Bars, Epoxy Coated | Pound | | 2740 | 2740 |
| Furnishing Metal Shell Piles 12"x0.250" | Foot | | 459 | 459 |
| Driving Piles | Foot | | 459 | 459 |
| Test Pile Metal Shells | Each | | 1 | 1 |
| Pile Shoes | Each | | 12 | 12 |
| Channel Excavation | Cu. Yd. | | 183 | 183 |
| Stone Riprap, Class A4 | Sq. Yd. | | 497 | 497 |
| Filter Fabric | Sq. Yd. | | 497 | 497 |
| Name Plates | Each | | 1 | 1 |
| Steel Railing, Type SM | Foot | 116 | | 116 |
| Portland Cement Mortar Fairing Course | Foot | 522 | | 522 |
| Waterproofing Membrane System | Sq. Yd. | 193 | | 193 |
| Hot-Mix Asphalt Surface Course, Mixture C, N50 | Ton | 27 | | 27 |
| Controlled Low-Strength Material | Cu. Yd. | | 16 | 16 |

LAKE FORK CREEK
 BUILT 20__, BY
 MACON COUNTY
 SECTION 05-00196-00-BR
 F.A.S. 548 STA. 15+00.00
 STR. NO. 058-3378 LOADING HL-93
 WYKOFF BRIDGE

NAME PLATE
 (See Std. 515001)

DESIGN SPECIFICATIONS

2007 AASHTO LRFD with 2008 Interim

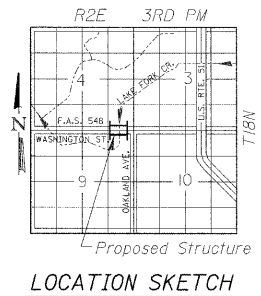
LOADING HL-93

Allowed 50#/sq. ft. for future wearing surface.

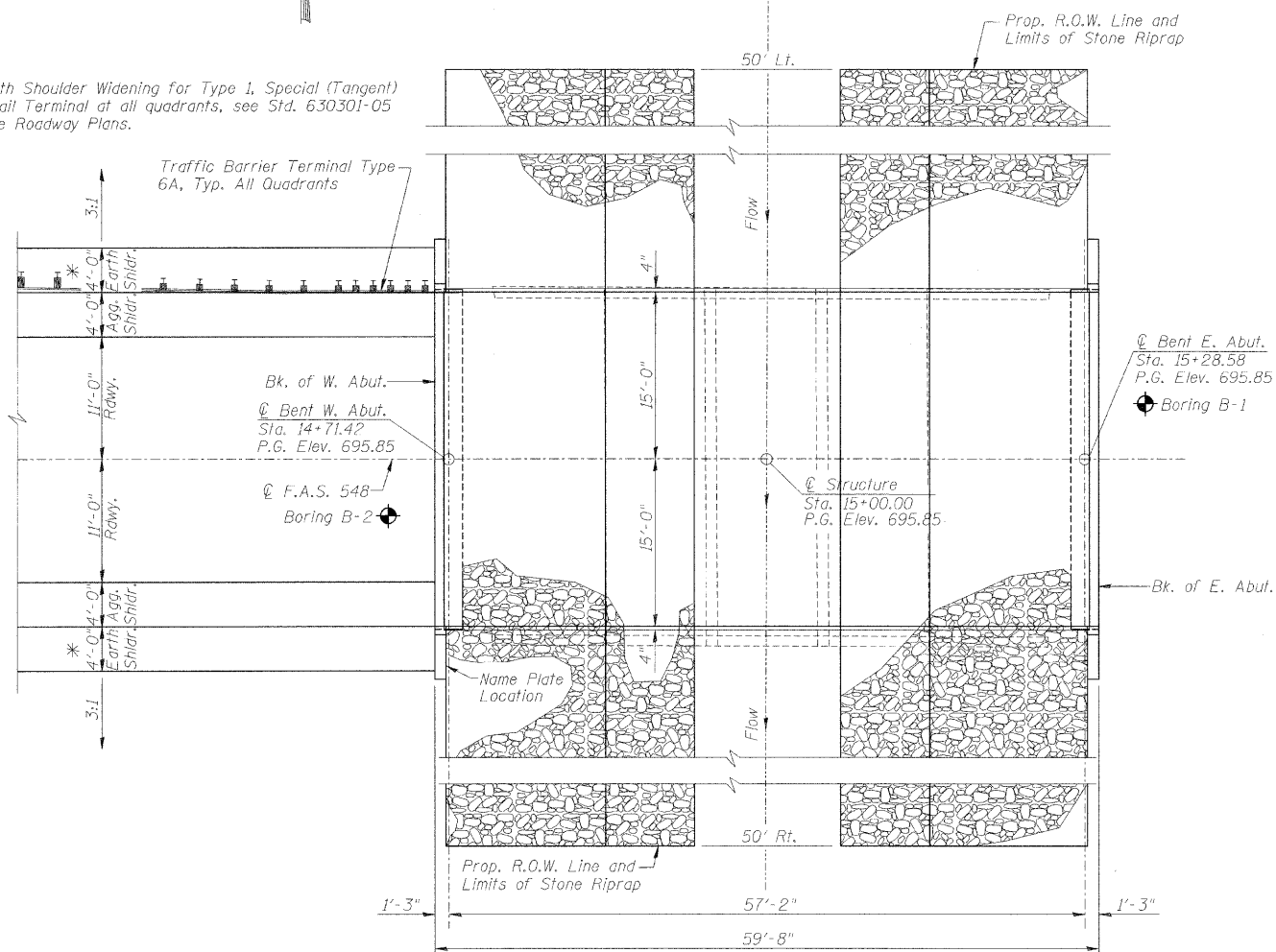
DESIGN STRESSES

FIELD UNITS
 f'c = 3,500 p.s.i.
 f'y = 60,000 p.s.i.
 n = 9

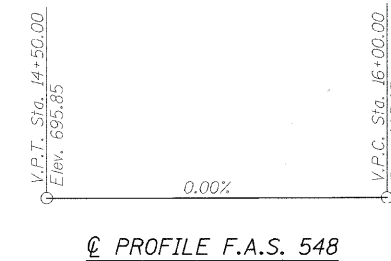
P.P.C UNITS
 f'ci = 5,000 p.s.i.
 f'c = 6,000 p.s.i.
 f's = 270,000 p.s.i.
 f'si = 201,960 p.s.i.



* 4' Earth Shoulder Widening for Type 1, Special (Tangent) Guardrail Terminal at all quadrants, see Std. 630301-05 and the Roadway Plans.



PLAN



@ PROFILE F.A.S. 548

WATERWAY INFORMATION

Drainage Area = 9.8 Sq. Mi. Existing Low Grade Elev. 694.65 @ Sta. 13+00.00
 Proposed Low Grade Elev. 694.82 @ Sta. 10+50.00

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. Head-Ft. | | Headwater El. | | |
|-------------|-----------|----------|-----------------|-------|---------------|-------|---------------|--------|--------|
| | | | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. | |
| Design | 20 | 936 | 162 | 274 | 692.12 | 1.40 | 0.11 | 693.52 | 692.22 |
| Base | 100 | 1408 | 162 | 313 | 692.69 | *2.19 | 0.25 | 694.88 | 692.94 |
| Overtopping | | | | | | | | | |
| Max. Calc. | 500 | 1871 | 162 | 323 | 693.13 | *2.08 | 0.77 | 695.21 | 693.89 |

Low Beam Elev. (Prop.) = 693.12

* Over-the-Road Flow Occurs
 EXISTING
 20 Yr.: None
 100 Yr.: 30.7 Sq. Ft. over roadway
 500 Yr.: 137.8 Sq. Ft. over roadway

PROPOSED
 20 Yr.: None
 100 Yr.: None
 500 Yr.: None



DATE: August 14, 2009
 Keith W. Benting
 KEITH W. BENTING
 ILL. STRUCTURAL NO. 4777

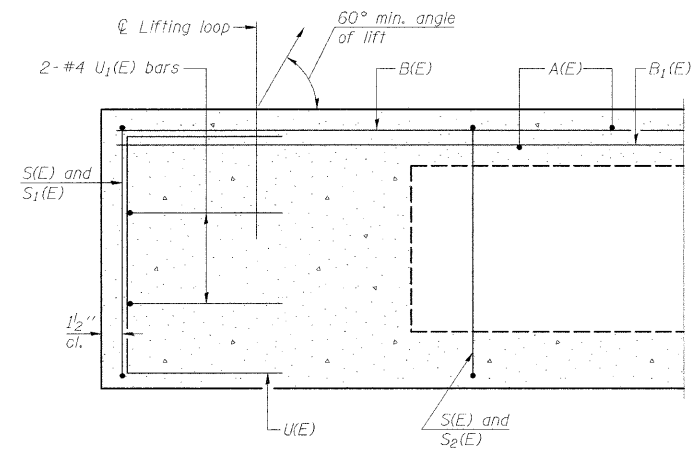
"CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

GENERAL PLAN AND ELEVATION

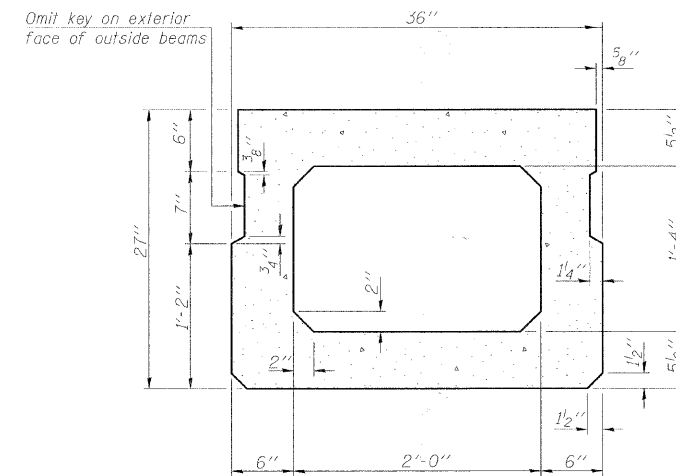
| | | | |
|--------------|---|---|---------------------------------|
| Date | Designed MJJ | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 | Sheet No. |
| Revisions | Drawn BKN | | 1 |
| | Checked KWB | | |
| | Approved KWB | | |
| Prepared by: | URS 345 East Ash Avenue Decatur, IL 62526 | | of 6 URS Job No. 36431681 |

| | | | | |
|---------------------|---------------------------------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 548 | 05-00196-00-BR | MACON | 17 | 13 |
| FED. ROAD DIST. NO. | ILLINOIS PROJECT: ARA-0548(103) | | | |

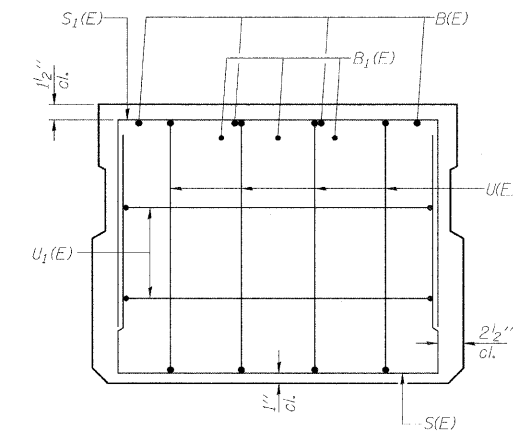
CONTRACT NO. 95599



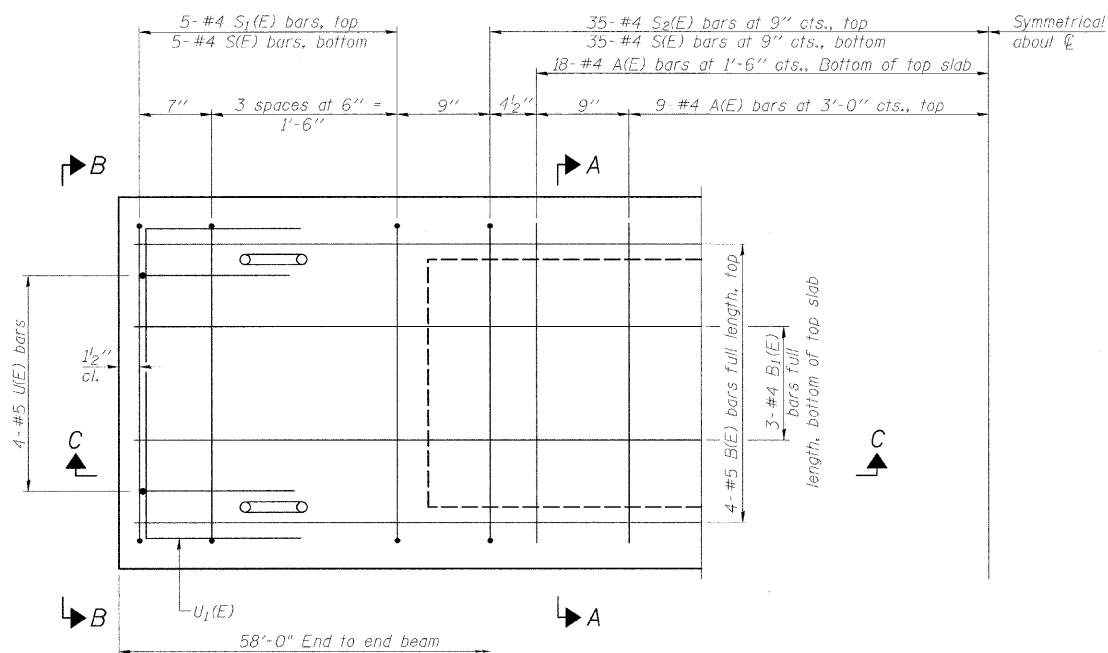
SECTION C-C



SECTION A-A
(Showing dimensions)

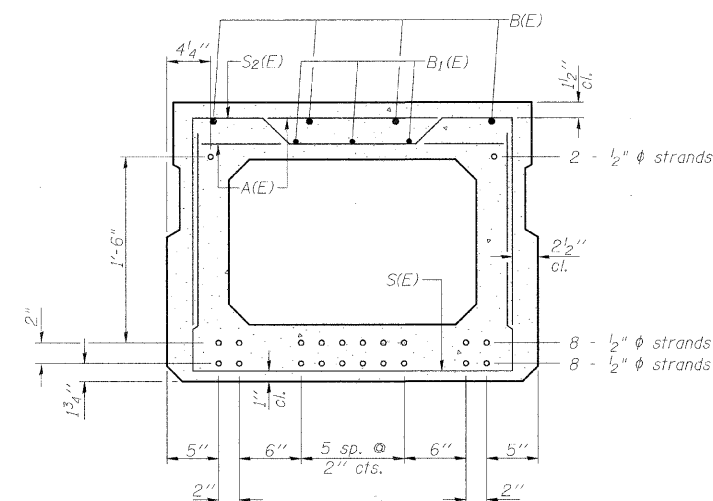


VIEW B-B



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION A-A

(Showing reinforcement and permissible strand locations)

18 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8 - Strands 1 3/4" up, 8 - Strands 3 3/4" up, and 2 - Strands 2 1/4" up.

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| A(E) | 54 | #4 | 2'-7" | — |
| B(E) | 8 | #5 | 29'-11" | — |
| B1(E) | 6 | #4 | 29'-8" | — |
| S(E) | 81 | #4 | 6'-5" | U |
| S1(E) | 10 | #4 | 5'-11" | U |
| S2(E) | 70 | #4 | 6'-2" | U |
| U(E) | 8 | #5 | 4'-6" | U |
| U1(E) | 4 | #4 | 5'-0" | U |

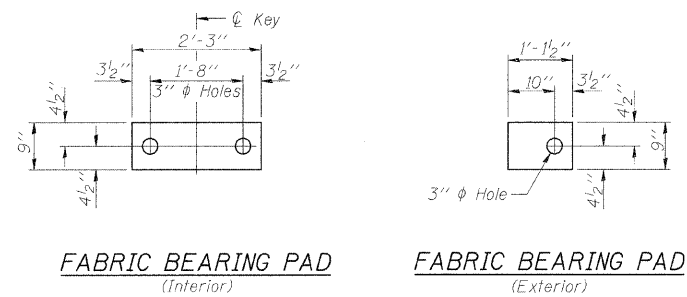
Note: See sheet 3 of 6 for additional details and Bill of Material.

27" X 36" PPC DECK BEAMS
STRUCTURE NO. 058-3378

| SUPERSTRUCTURE | | | |
|--|--------------|---|-------------------------|
| Date | Designed MJP | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 | Sheet No. |
| Revisions | Drawn BKN | | 2 |
| | Checked KWB | | of 6 |
| | Approved KWB | | JRS Job No. 36431681 |
| Prepared by: URS 345 East Ash Avenue Decatur, IL 62526 | | | |

| | | | | |
|---------------------|---------------------------------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 548 | 05-00196-00-BR | MACON | 17 | 14 |
| FED. ROAD DIST. NO. | ILLINOIS PROJECT: ARA-0548(103) | | | |

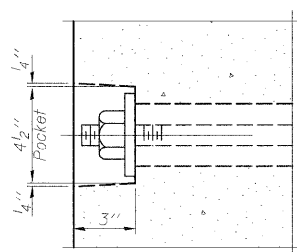
CONTRACT NO. 95599



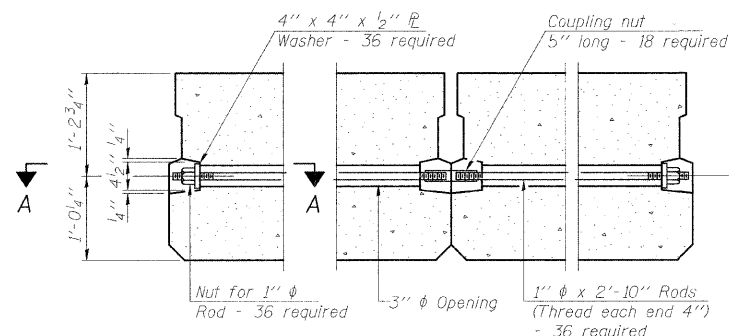
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

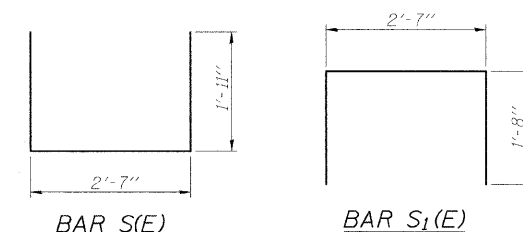
FIXED



SECTION A-A

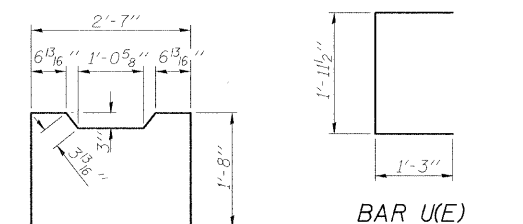


TYPICAL TRANSVERSE TIE ASSEMBLY



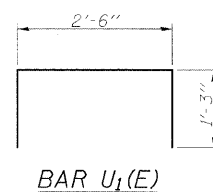
BAR S(E)

BAR S1(E)

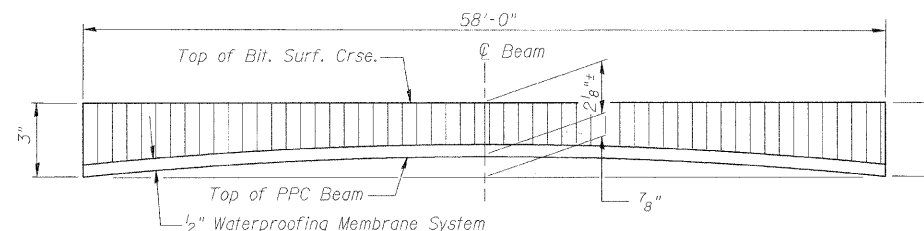


BAR U(E)

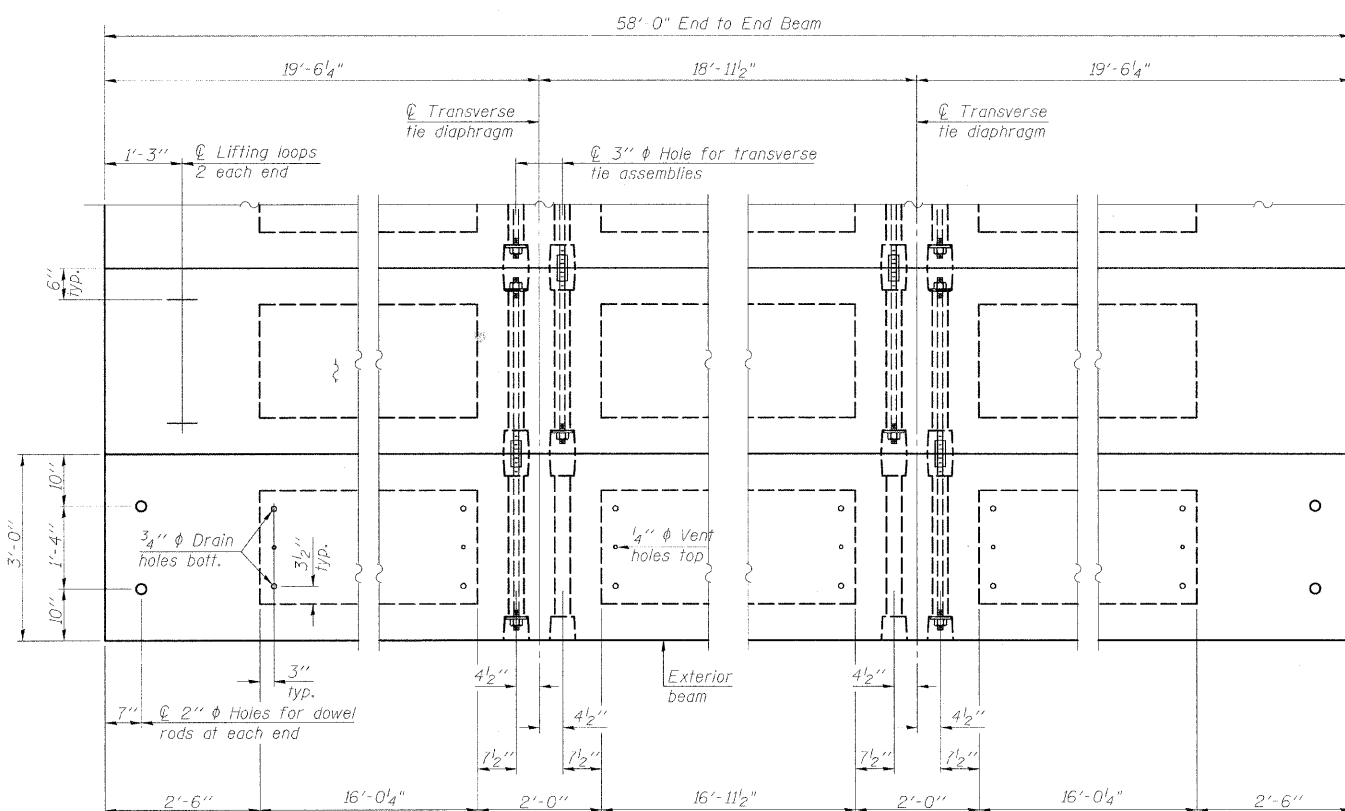
BAR S2(E)



BAR U1(E)



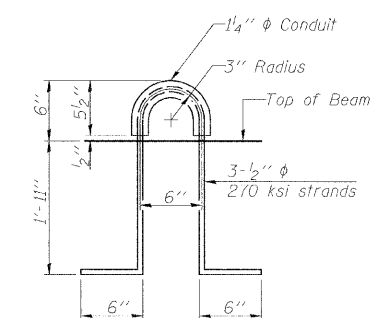
ANTICIPATED CAMBER DIAGRAM



PLAN VIEW

NOTES

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'cl, shall be 5000 psi.



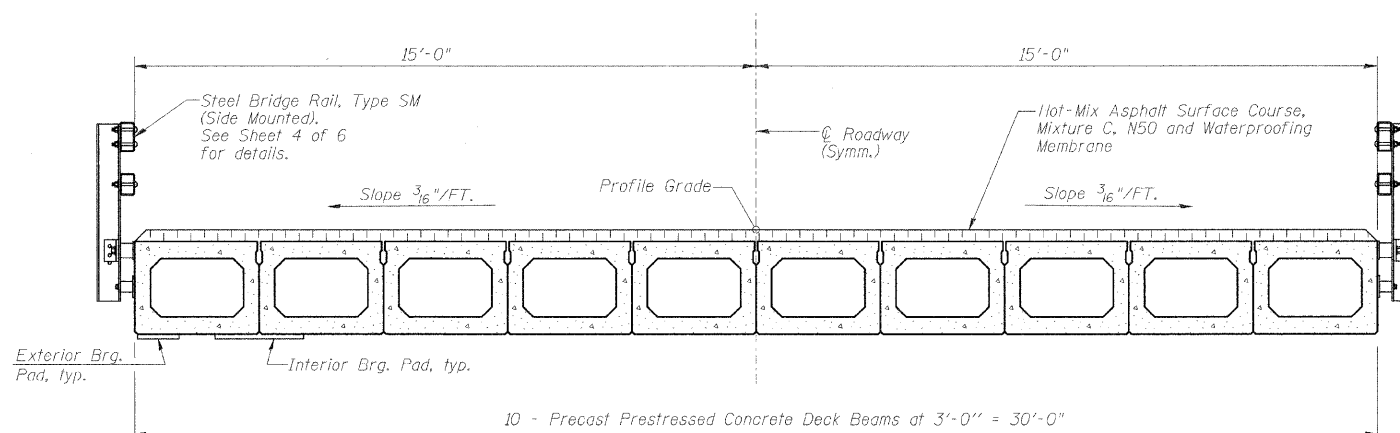
LIFTING LOOP DETAIL

Note: Connect beams in pairs with the transverse tie configuration shown.

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Conc. Deck Bms. (27" depth) | Sq. Ft. | 1740 |
|---|---------|------|

27" X 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 058-3378



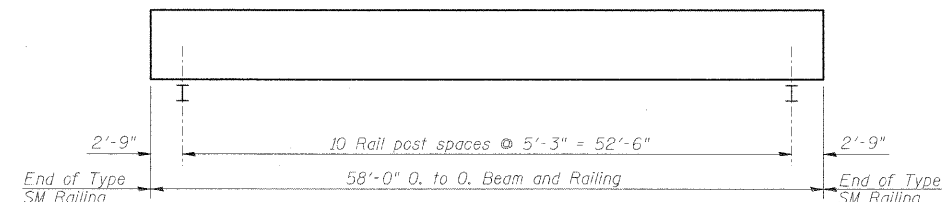
CROSS SECTION

SUPERSTRUCTURE DETAILS

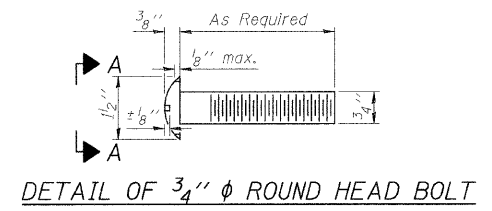
| | | | |
|--------------|--|---|---------------------------------|
| Date | Designed MJP | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 | Sheet No. |
| Revisions | Drawn BKN | | 3 |
| | Checked KWB | | |
| | Approved KWB | | |
| Prepared by: | URS 345 East Ash Avenue Decatur, IL 62526 | | of 6 URS Job No. 36431681 |

| | | | | |
|---------------------|----------------|---------------------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 548 | 05-00196-00-BR | MACON | 17 | 15 |
| FED. ROAD DIST. NO. | | ILLINOIS PROJECT: ARA-0548(103) | | |

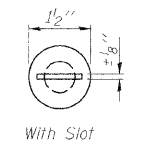
CONTRACT NO. 95599



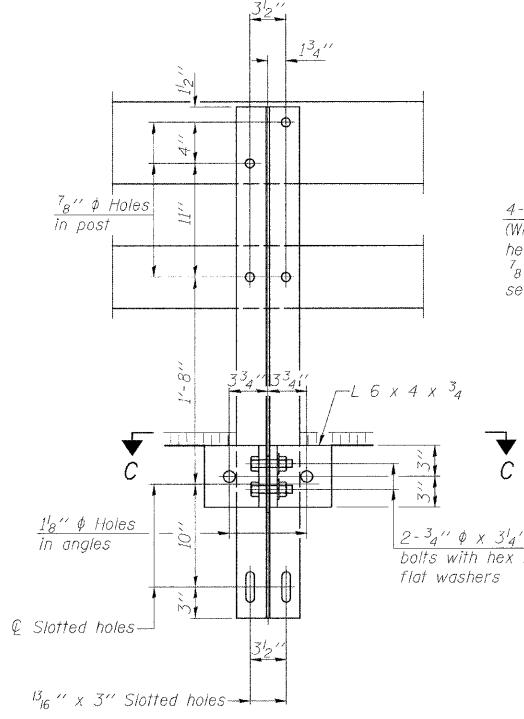
PLAN VIEW - EXTERIOR BEAM
(Showing Rail Post Spacing)



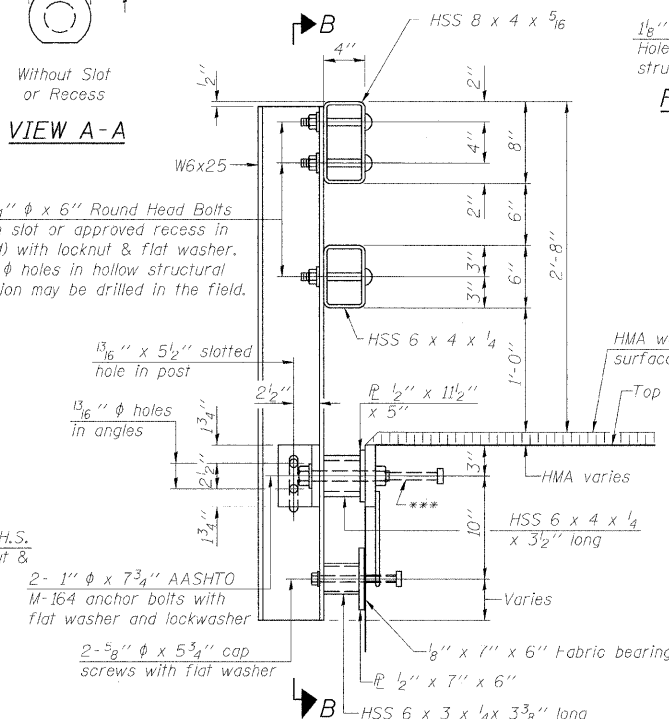
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



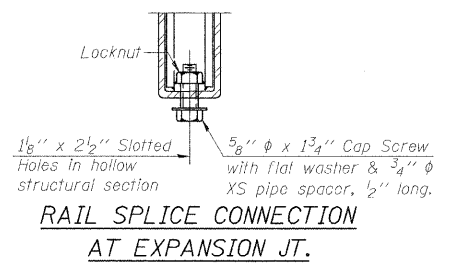
VIEW A-A



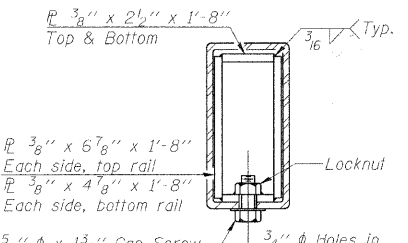
SECTION B-B



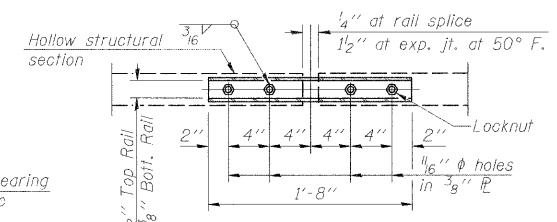
SECTION AT RAIL POST



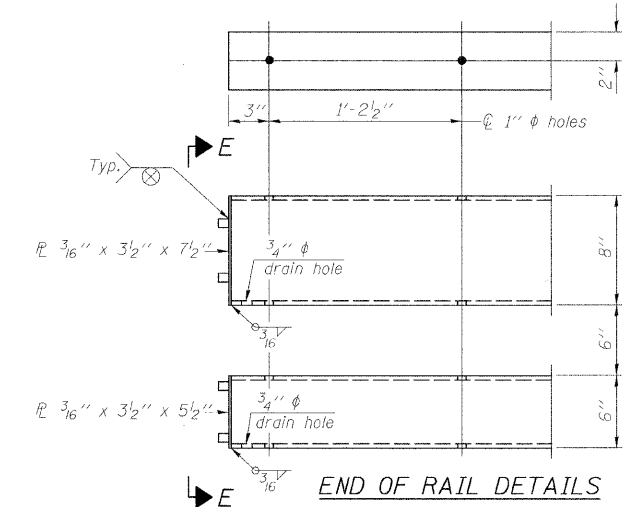
RAIL SPLICE CONNECTION AT EXPANSION JT.



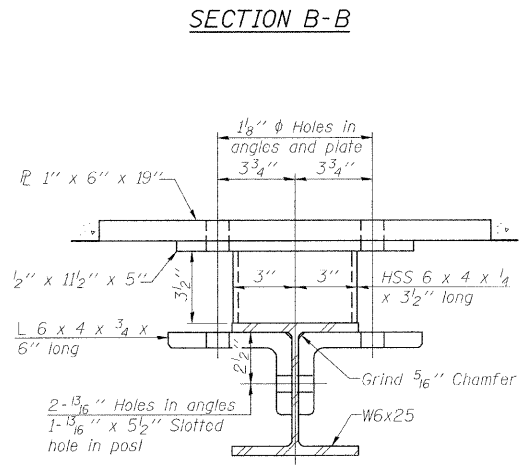
SECTION AT RAIL SPLICE



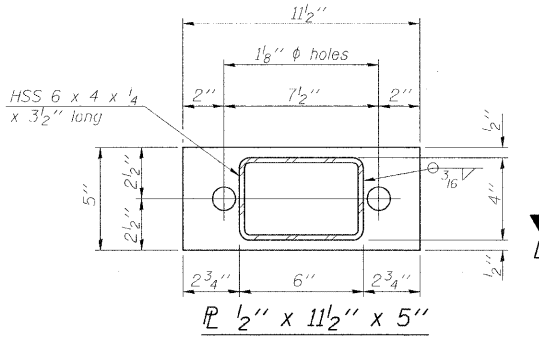
PLAN-BOTT. SPLICE TYPICAL



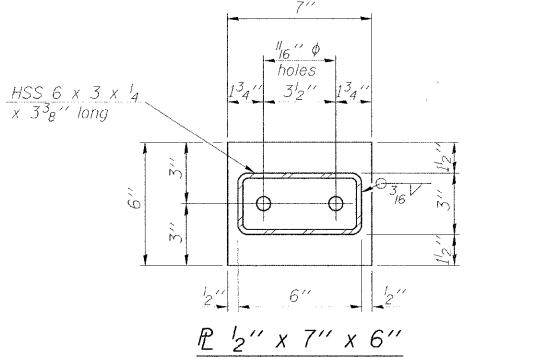
END OF RAIL DETAILS



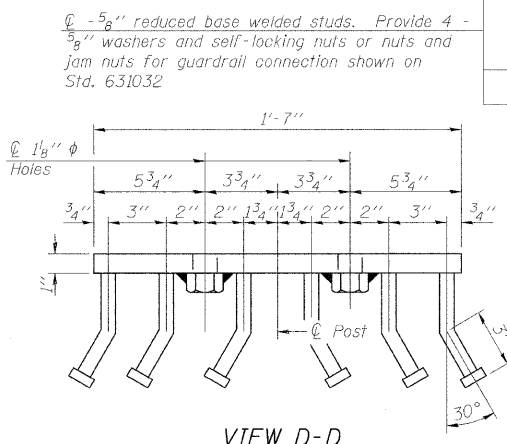
SECTION C-C



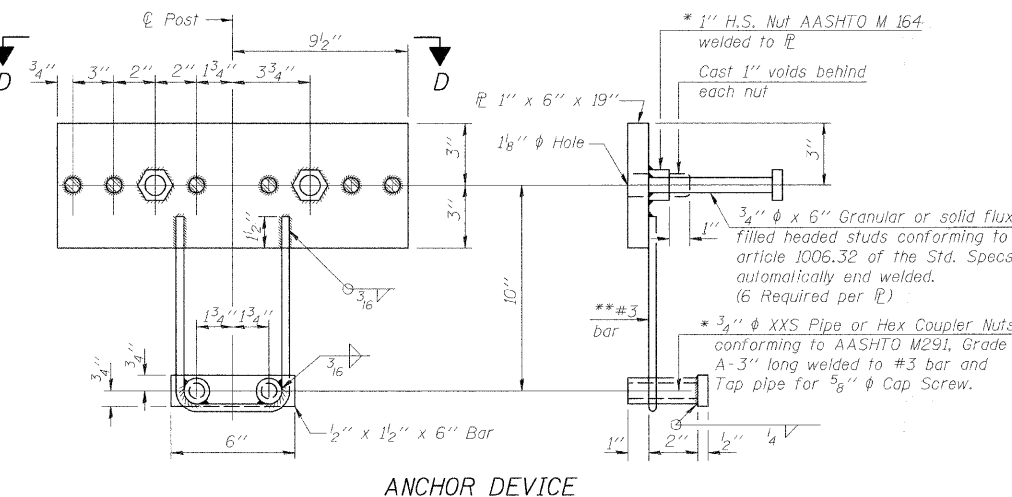
SECTION AT RAIL POST



SECTION AT RAIL POST



VIEW D-D



ANCHOR DEVICE

Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cast included with Steel Railing, Type SM.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 *** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------------|------|----------|
| Steel Railing, Type SM | Foot | 116 |

STEEL RAILING, TYPE SM WITH HOT-MIX ASPHALT WEARING SURFACE
STRUCTURE NO. 058-3378

STEEL RAILING

| | | | |
|------------------|--|---|-------------|
| Date | Designed MJP | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 | Sheet No. |
| Revisions | Drawn BKN | | 4 |
| | Checked KWB | | of 6 |
| | Approved KWB | | URS Job No. |
| Prepared by: URS | 345 East Ash Avenue Decatur, IL 62526 | | 36431681 |

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

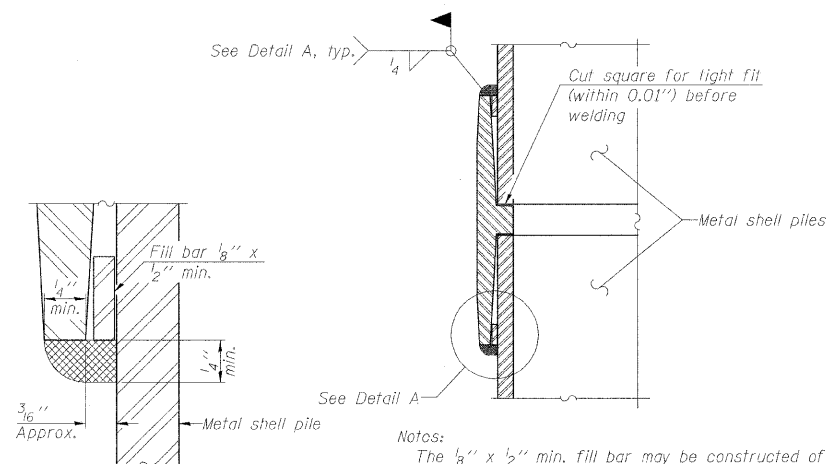
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|---------------------|----------------|----------|------------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 548 | 05-00196-00-BR | MACON | 17 | 17 |
| FED. ROAD DIST. NO. | | ILLINOIS | PROJECT: ARA-0548(103) | |

CONTRACT NO. 95599



METAL SHELL PILE TABLE

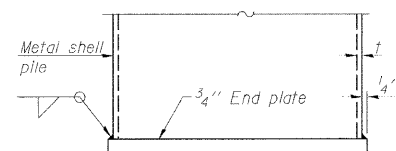
| Designation and outside diameter | Wall thickness t | Weight per foot (Lbs./ft.) | Inside volume (yd. ³ /ft.) |
|----------------------------------|------------------|----------------------------|---------------------------------------|
| PP12 | 0.179" | 22.60 | 0.0274 |
| PP12 | 0.250" | 31.37 | 0.0267 |
| PP14 | 0.250" | 36.71 | 0.0368 |
| PP14 | 0.312" | 45.61 | 0.0361 |



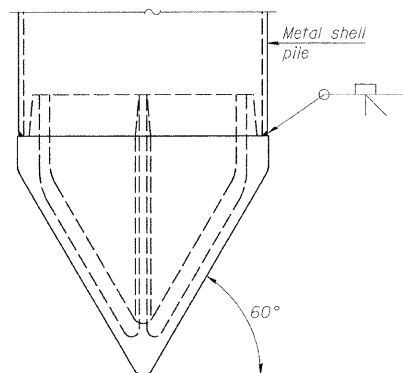
Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splice bar before welding.

DETAIL A

WELDED COMMERCIAL SPLICE



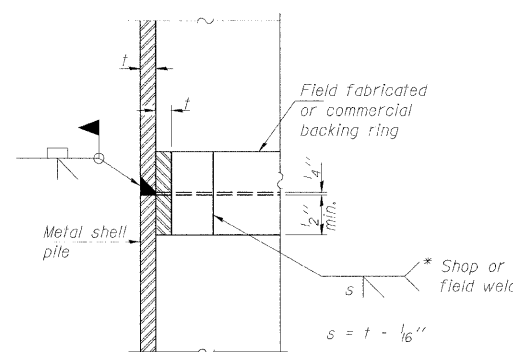
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

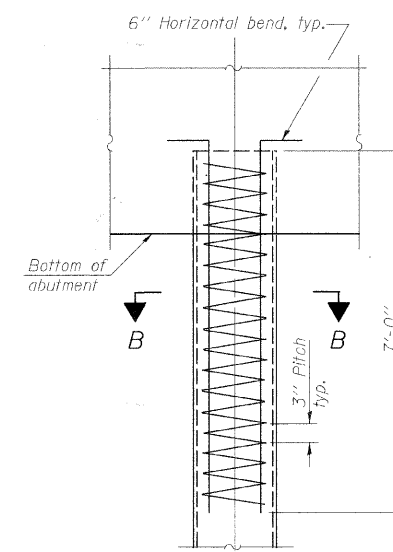
Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



COMPLETE PENETRATION WELD SPLICE

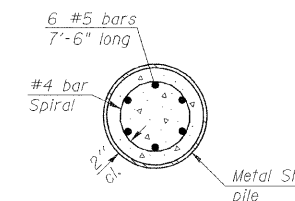
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note: The metal shell piles shall be according to ASTM A 252 Grade 3.



ELEVATION

METAL SHELL REINFORCEMENT AT ABUTMENTS



SECTION B-B

**METAL SHELL PILE DETAILS
 STRUCTURE NO. 058-3378**

| PILE DETAILS | | | Sheet No. |
|--------------|--|---|-------------------------|
| Date | Designed MJP | F.A.S. 548 OVER LAKE FORK CREEK SECTION 05-00196-00-BR MACON COUNTY STA. 15+00.00 PROP. STR. NO. 058-3378 | 6 of 6 |
| Revisions | Drawn BKN | | |
| | Checked KWB | | |
| | Approved KWB | | |
| Prepared by: | URS 3040 North University Avenue Decatur, IL 62526 | | URS Job No. 36431681 |