

| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------|-------------|--------|--------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 1 |

D-97-026-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

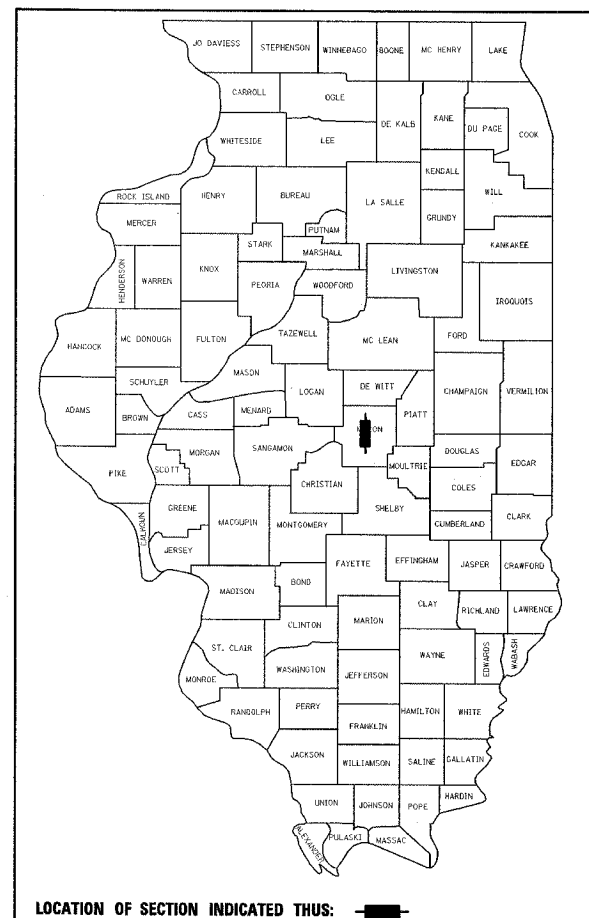
FAP ROUTE 716 (IL 48 /OAKLAND AVE.)
SECTION (130BR-1)BR

PROJECT: F-0716-(011)
MACON COUNTY

C-97-046-07

IL ROUTE 48 OVER SPRING CREEK
BRIDGE REPAIR

R2E, 3RD PM

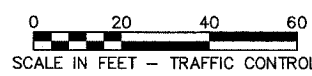


LOCATION OF SECTION INDICATED THUS: [Symbol]

FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL
DESIGN SPEED: 40 mph
POSTED SPEED: 40 mph
ADT: 17115 (2009)
PV: 96.8%
SU: 2.1%
MU: 1.1%

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|----------------------|--|
| ROADWAY PLANS | |
| 1. | COVER SHEET |
| 2. | QUANTITIES, STANDARDS, AND NOTES |
| 3.-5. | TRAFFIC CONTROL AND PROTECTION (SPECIAL) |
| 6. | MCKINLEY AVENUE ROAD CLOSURE DETAILS |
| 7. | GENERAL PLAN |
| 8. | CONSTRUCTION DETAILS |
| 9. | DECK BEAMS |
| 10.-11. | DECK BEAM DETAILS |
| 12.-22. | EXISTING BRIDGE PLANS |



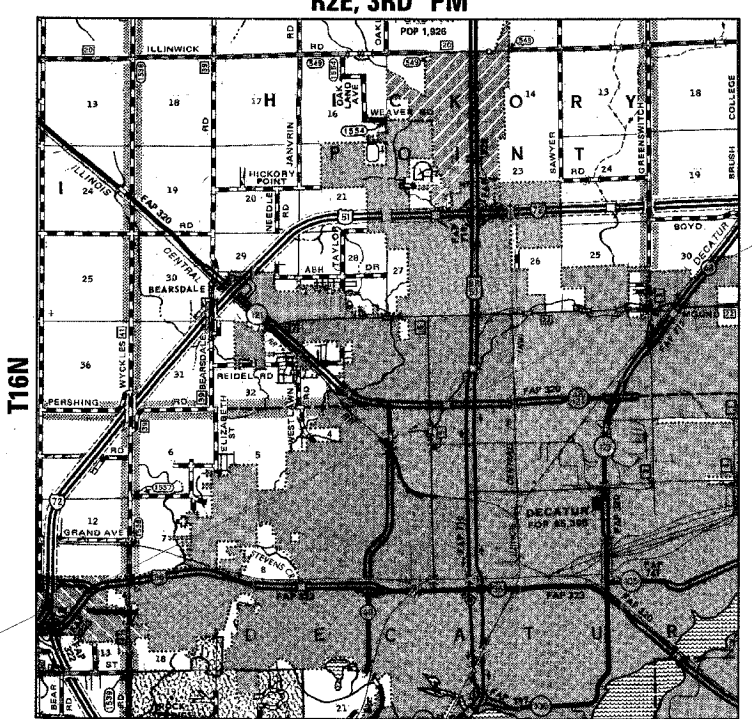
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

MICROFILMED _____
 REEL NUMBER _____
 AWARDED _____
 RESIDENT ENGINEER _____
 AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS _____

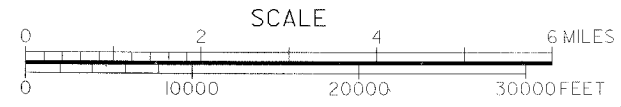
J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123

DISTRICT 7 NO. (217) 342-3951
 PROJECT ENGINEER: BILL STANLEY

CONTRACT NO.: 74239



LOCATION MAP



GROSS LENGTH = 120 FT. = 0.02 MI.
 NET LENGTH = 120 FT. = 0.02 MI.



Richard D. Payne DATE: 03/20/07
 ILLINOIS PROFESSIONAL ENGINEER LICENSE NO. 37421
 (EXPIRATION DATE: 11-30-08)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED *March 22nd 2007*

Christine M. Reedy
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11, 2007
Eric E. Horn
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 11, 2007
Milton R. Secor, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**



| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|----------|----------------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 2 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT AID | |

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

| STANDARD NO. | DESCRIPTION |
|--------------|---|
| 000001-04 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-01 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 442201-02 | CLASS C AND D PATCHES |
| 701101-01 | OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE |
| 701106-01 | OFF-RD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY |
| 701321-08 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701426-02 | LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH |
| 701602-02 | URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE |
| 702001-06 | TRAFFIC CONTROL DEVICES |
| 704001-03 | TEMPORARY CONCRETE BARRIER |
| 780001-01 | TYPICAL PAVEMENT MARKINGS |
| B.L.R. 22-4 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |

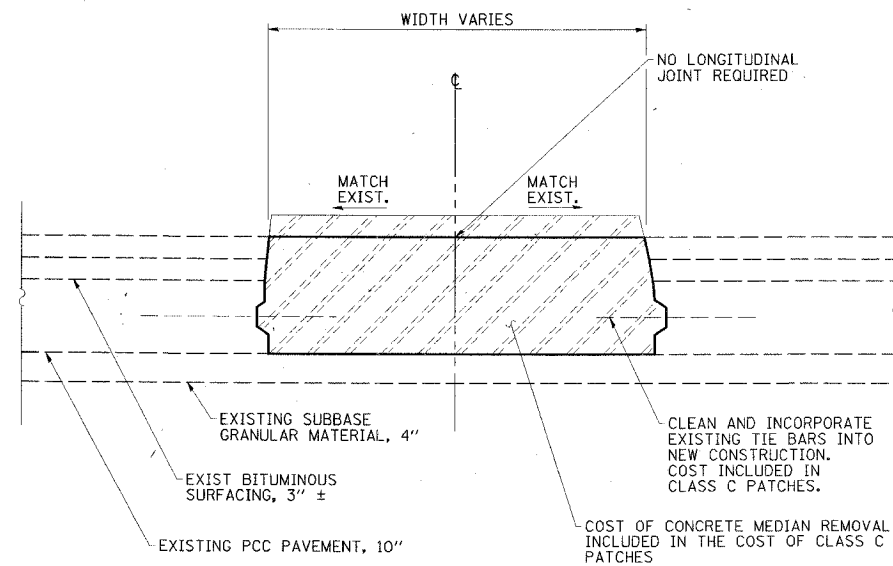
GENERAL NOTES

1. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | 801 FED. 201 STATE CONSTRUCTION TYPE CODE |
|-----------|---|-------|---|
| 40603335 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 | TON | 23 |
| 44001005 | HOT-MIX ASPHALT SURFACE REMOVAL | SQ YD | 35 |
| 44201396 | CLASS C PATCHES, TYPE IV, 13 INCH | SQ YD | 37 |
| 50400305 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SQ FT | 910 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| 70101800 | TRAFFIC CONTROL AND PROTECTION (SPECIAL) | L SUM | 1 |
| 70101835 | TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 22 | L SUM | 1 |
| 70102632 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701602 | L SUM | 1 |
| 70300100 | SHORT-TERM PAVEMENT MARKING | FOOT | 16 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 287.5 |
| *78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 80 |
| X0320047 | REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS | SQ FT | 924 |
| Z0030250 | IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |

*SPECIALTY ITEMS



MEDIAN REMOVAL DETAIL

**QUANTITIES, STANDARDS,
AND NOTES**
 FAP ROUTE 716 (IL 48)
 OAKLAND AVENUE
 SECTION (130BR-1)BR
 MACON COUNTY
 SN 058-0056

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |



CONTRACT NO. 74239

| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|---------------------------|--------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 3 |
| STA. 124+75 | | TO STA. 132+50 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

NOTES

1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701602. SEE STANDARD FOR LOCATIONS OF ITEMS NOT SHOWN HERE.
2. SEE STANDARD 701321 FOR LOCATIONS AND DETAILS OF THE BARRIER WALL REFLECTORS AND THE DOUBLE VERTICAL PANELS WITH STEADY BURNING LIGHTS REQUIRED FOR TEMPORARY CONCRETE BARRIER.
3. THE LEFT TURN LANE AND THE NORTHBOUND DRIVING LANE ARE CURRENTLY CLOSED DUE TO THE CONDITION OF THE EXISTING BRIDGE. TRAFFIC WILL NOT BE ALLOWED ON THESE PORTIONS OF THE STRUCTURE DURING THIS PROJECT. UPON COMPLETION OF THE WORK, THE LEFT TURN LANE SHALL REMAIN CLOSED AND THE NORTHBOUND DRIVING LANE SHALL BE OPENED AS SHOWN ON SHEET 5.
4. THE CONTRACTOR SHALL COLLECT ALL EXISTING TRAFFIC CONTROL DEVICES USED FOR THE CURRENT LANE CLOSURES SUCH AS SIGNS, BARRICADES, DRUMS, ARROW BOARDS, ETC; DELIVER THEM TO THE IDOT MAINTENANCE YARD IN DECATUR; AND UNLOAD AND STACK THEM IN A LOCATION AS DETERMINED BY THE ENGINEER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, INSTALLING, MAINTAINING, AND REMOVING ALL TRAFFIC CONTROL ITEMS SHOWN ON SHEETS 3 AND 4. ALL TRAFFIC CONTROL ITEMS SHOWN ON SHEET 5 WILL BE SUPPLIED BY IDOT. THE CONTRACTOR SHALL PICK THESE ITEMS UP AT THE IDOT MAINTENANCE YARD IN DECATUR, DELIVER THEM TO THE SITE, UNLOAD THEM, AND INSTALL THEM AS SHOWN ON THE PLANS.
6. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

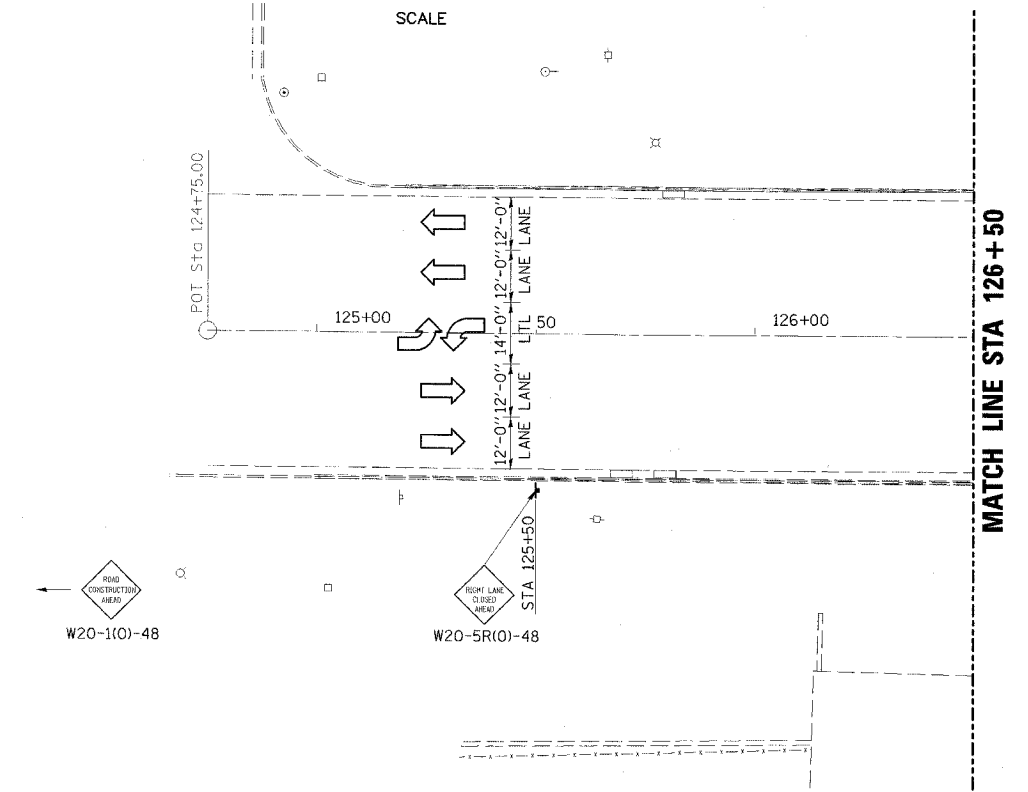
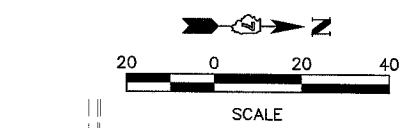
LEGEND

- DRUM WITH STEADY BURNING LIGHT
- MEDIAN REMOVAL
- TRAFFIC DIRECTION
- ARROW BOARD
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- IMPACT ATTENUATORS
- TYPE III BARRICADE

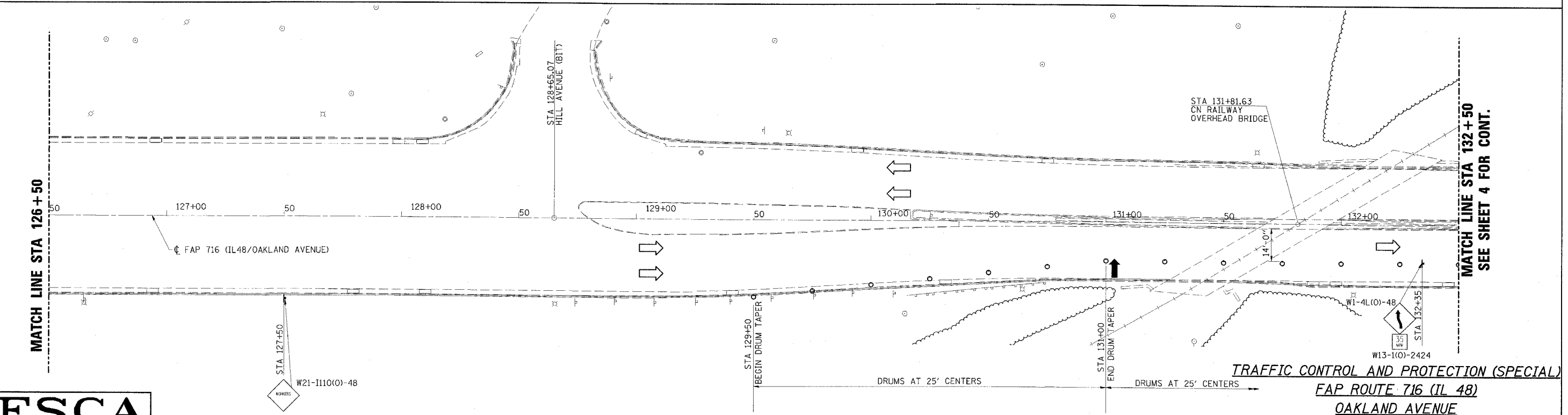
SCHEDULE OF QUANTITIES

| TEMPORARY CONCRETE BARRIER | | | |
|----------------------------|----|---------|------------|
| STATION | TO | STATION | TOTAL FEET |
| 134+12.5 | | 137+00 | 287.5 |

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH



DURING CONSTRUCTION



TRAFFIC CONTROL AND PROTECTION (SPECIAL)

FAP ROUTE 716 (IL 48)
 OAKLAND AVENUE
 SECTION (130BR-1)BR
 MACON COUNTY
 SN 058-0056

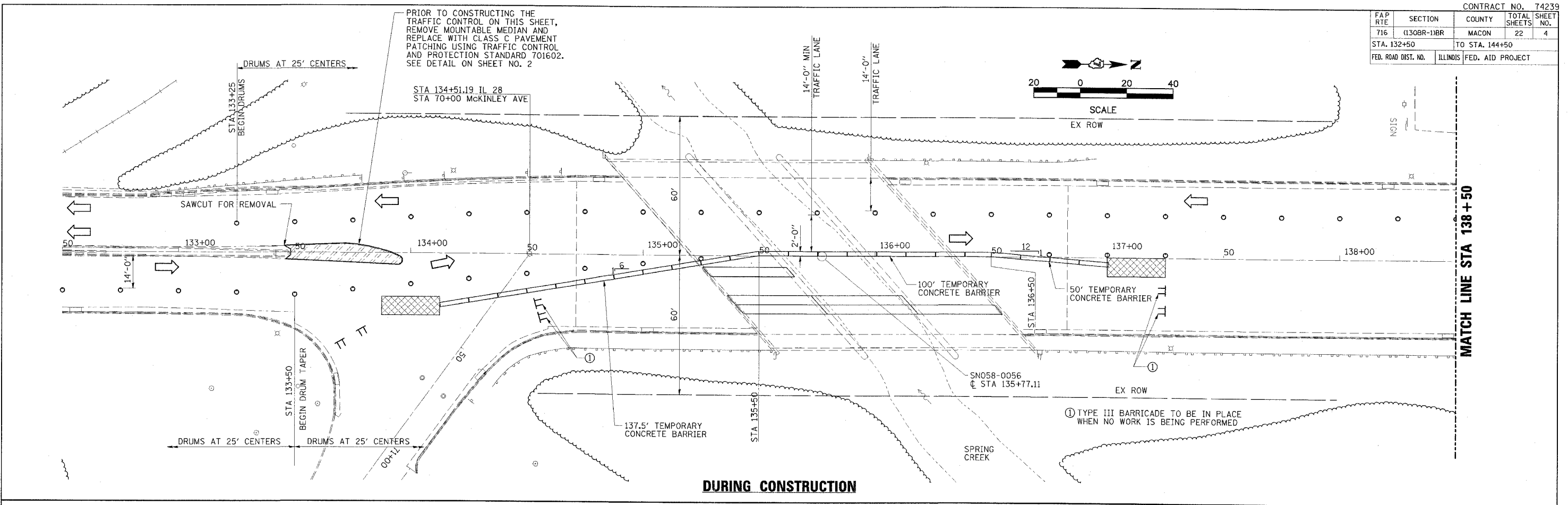
DURING CONSTRUCTION

ESCA
 CONSULTANTS, INC.

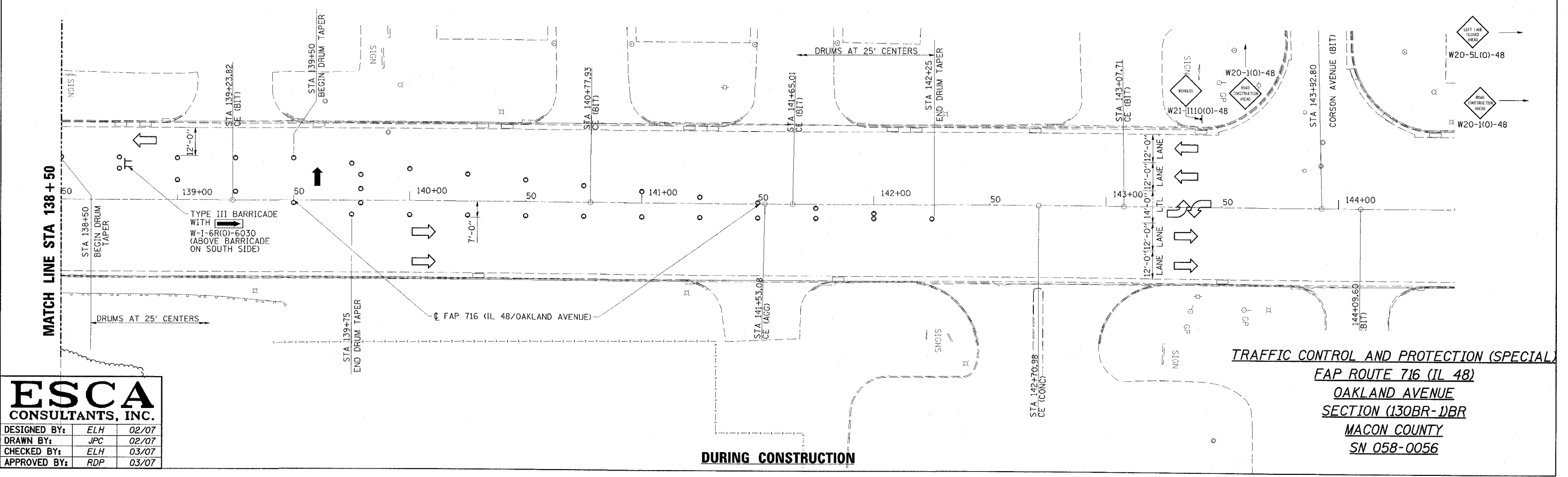
| | | |
|--------------|---------|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC/KAH | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |



| | | | | |
|---------------------|-------------|------------------|--------------|-----------|
| CONTRACT NO. 74239 | | | | |
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 | 4 |
| STA. 132+50 | | TO STA. 144+50 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



DURING CONSTRUCTION



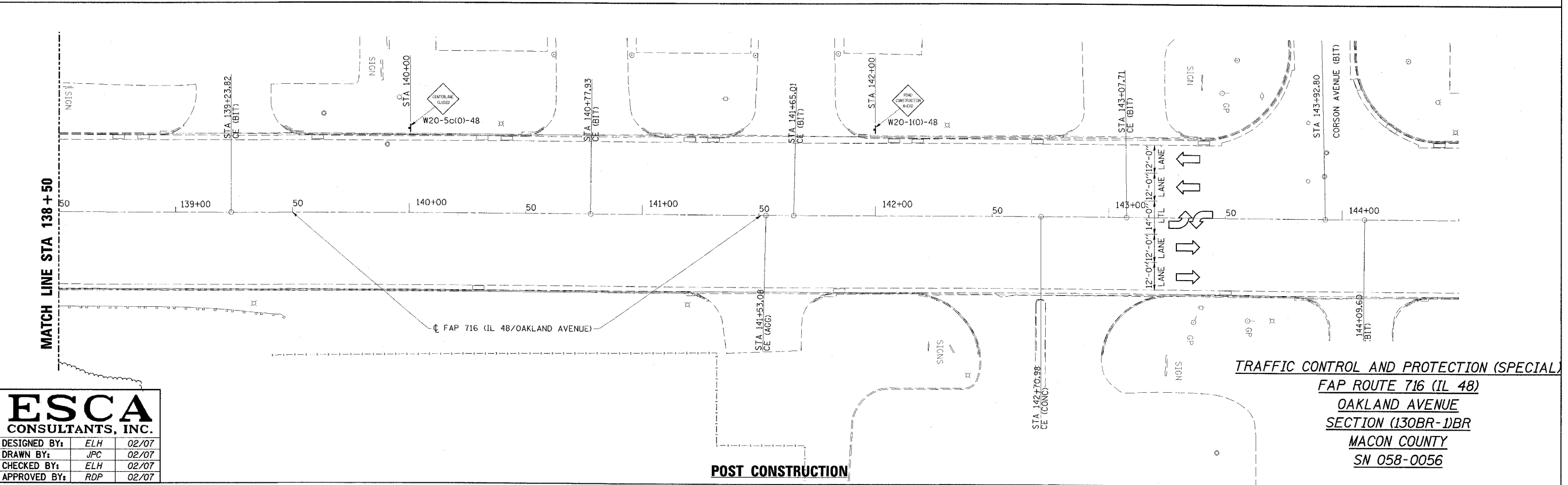
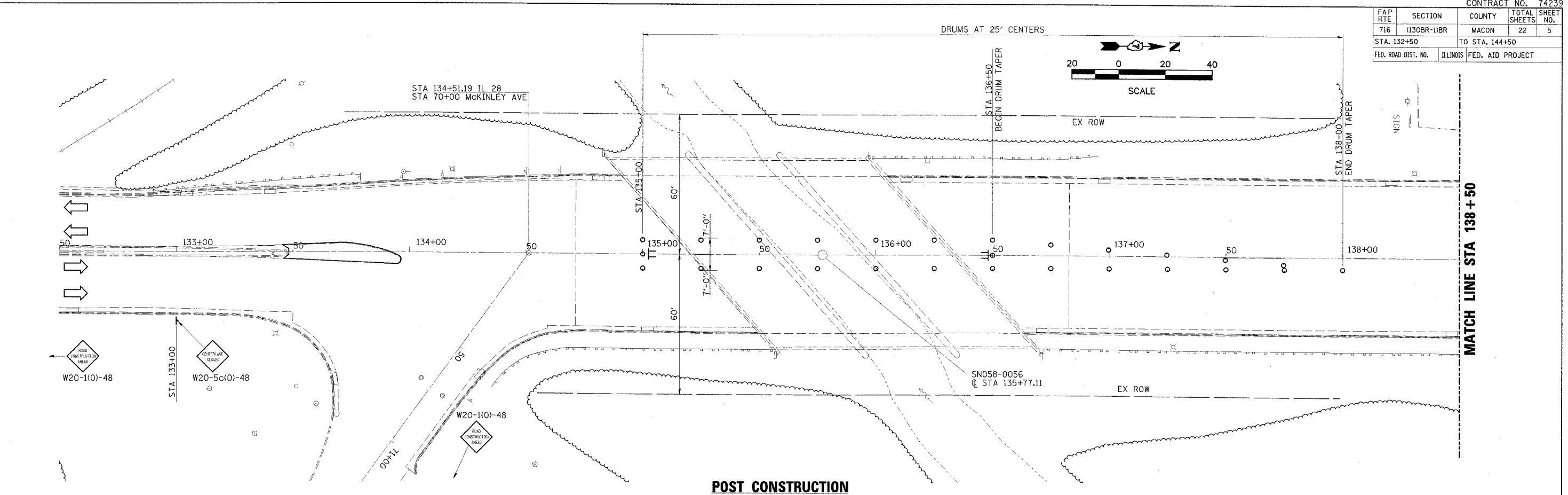
DURING CONSTRUCTION

| | | |
|----------------------------------|-----|-------|
| ESCA CONSULTANTS, INC. | | |
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |



CONTRACT NO. 74239







| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|------------------|--------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 5 |
| STA. 132+50 | | TO STA. 144+50 | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



| | | |
|----------------------------------|-----|-------|
| ESCA CONSULTANTS, INC. | | |
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

| CONTRACT NO. 74239 | | | |
|---------------------|-------------|----------------------|-----------------|
| FAP RTE | SECTION | COUNTY | TOTAL SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 |
| STA. | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | |

LEGEND

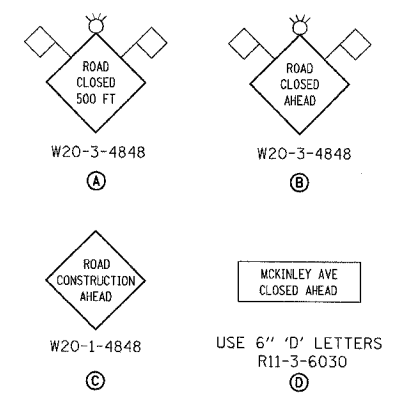
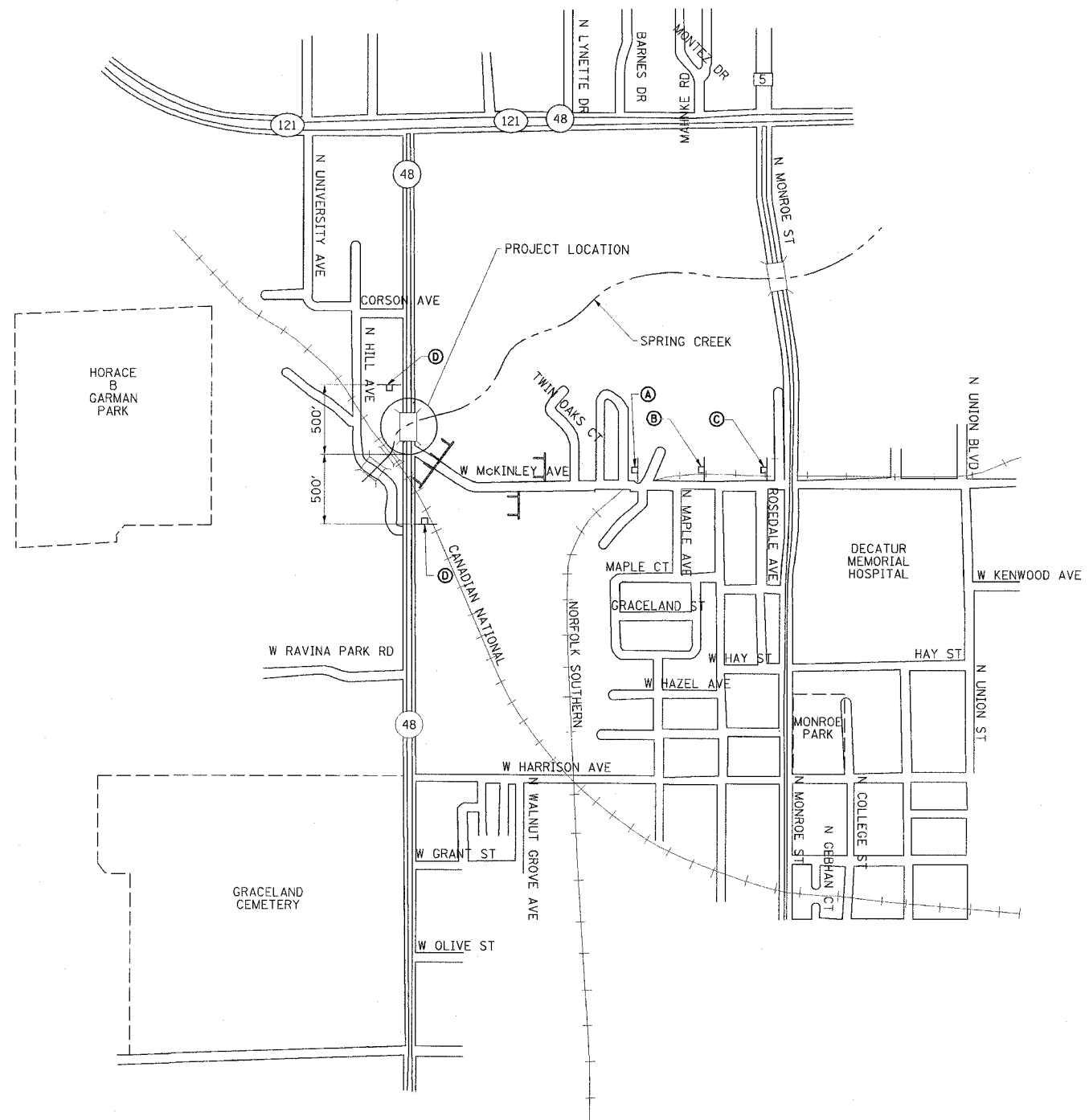
-  TYPE III BARRICADE WITH 2 FLASHING LIGHTS PER BARRICADE
-  SIGNS ON PERMANENT SUPPORTS
-  FLASHING LIGHT ABOVE SIGN
-  18"x18" ORANGE FLAG
-  STANDARD 702001 "ROAD CLOSED TO ALL TRAFFIC" APPLICATION
-  STANDARD 702001 "ROAD CLOSED TO THRU TRAFFIC" APPLICATION

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.
2. ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. COVER ALL MCKINLEY AVENUE SIGNS UNTIL IT IS REOPENED TO TRAFFIC.
5. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR PER LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22. OTHER ITEMS REQUIRED BY THE ENGINEER AND NOT SHOWN ON THIS DRAWING SHALL BE INCLUDED IN THE PAY ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SIGN MOUNTING LOCATIONS

- ⓑ 1000' IN ADVANCE OF ⓐ
- ⓐ 500' IN ADVANCE OF "ROAD CLOSED TO THRU TRAFFIC"



ROAD CLOSURE PLAN

NO SCALE

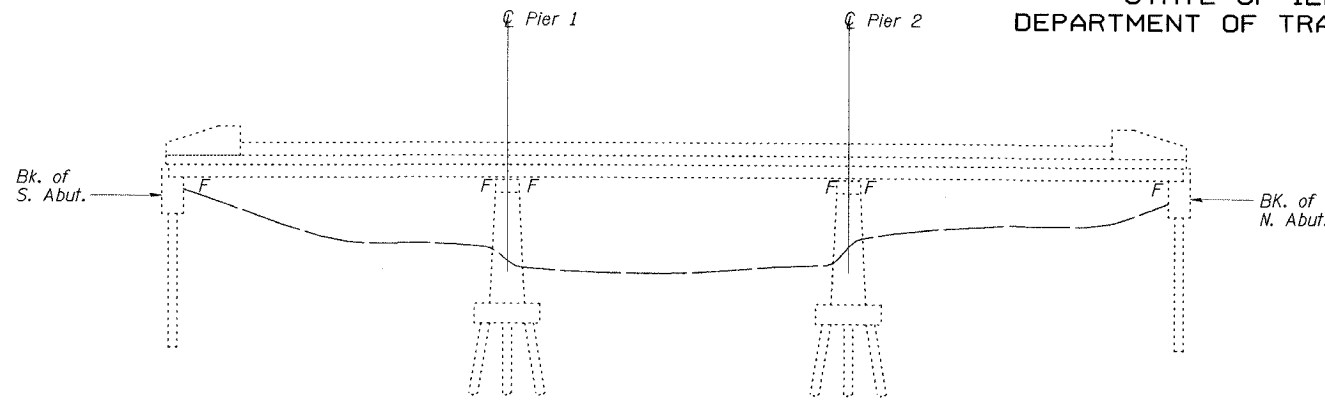
ESCA
CONSULTANTS, INC.

| | | |
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| DESIGNED BY: | ELH | 12/06 |
| DRAWN BY: | HAG/JPC | 12/06 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |

McKINLEY AVENUE
ROAD CLOSURE DETAILS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

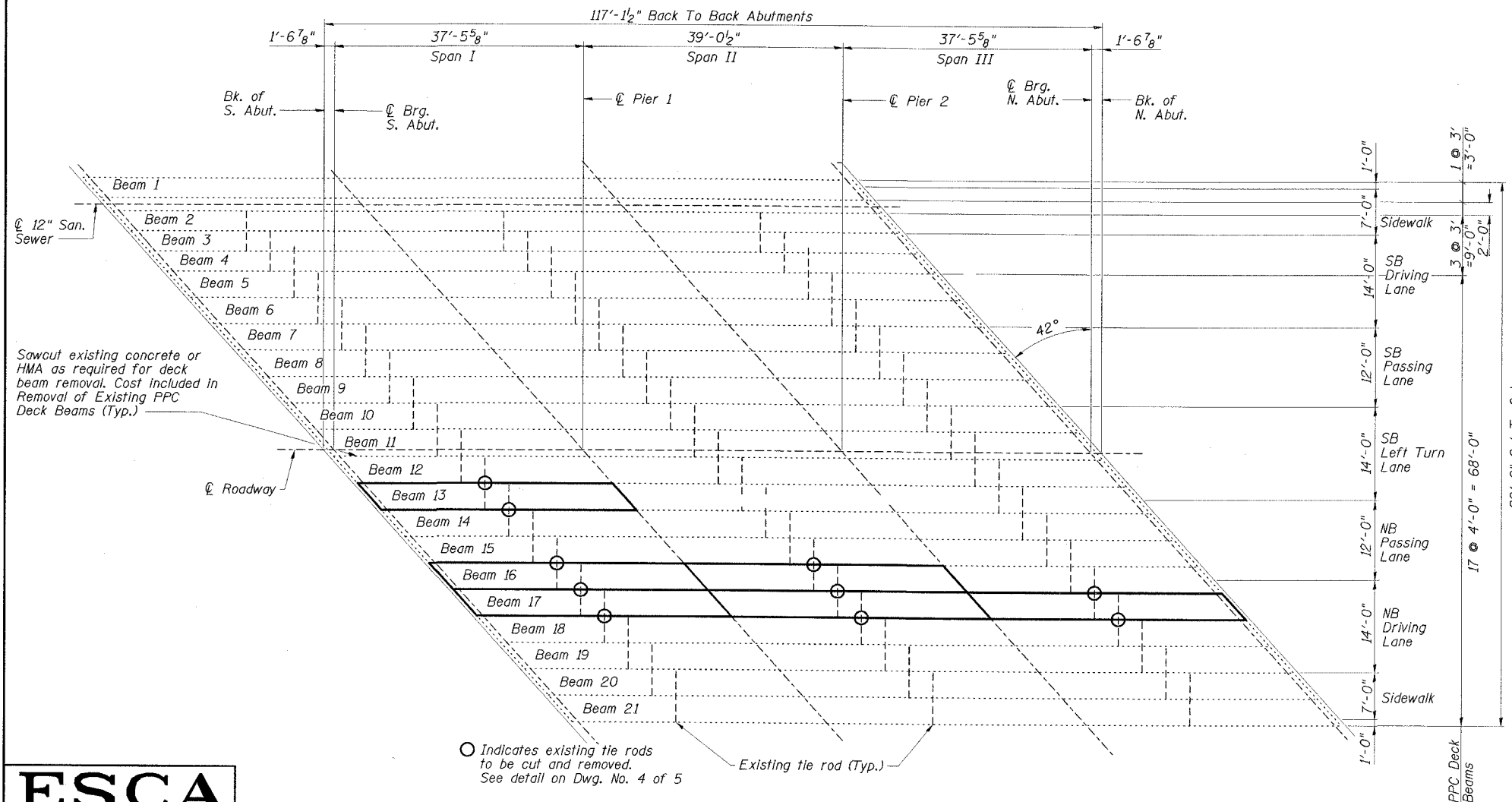
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|-----------------------|-----------|------------------------|--------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FAP 716 | * | MACON | 22 | 7 |
| FED. ROAD DIST. NO. # | BLDG. NO. | FED. AID PROJECT - JWD | | |
| * (130BR-1)BR | | | CONTRACT NO. 74239 | |



ELEVATION

GENERAL NOTES

- Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Truck mixers, concrete pumps, vacuum trucks or other heavy equipment will not be allowed on any portion of the bridge. The sum of all equipment shall not exceed 15 tons in one span.
- Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing PPC Deck Beams.
- The thickness of Hot-Mix Asphalt overlay shall match the existing thickness and shall be adjusted for the new expected beam camber.
- Beam 13 in Span I and Beam 17 in Spans I, II, and III shall be 47" wide. Beam 16 in Spans I and II shall be 48" wide.



DECK BEAM PLAN

TOTAL BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---------|----------|
| Removal of Existing Precast Prestressed Concrete Deck Beams | Sq. Ft. | 924 |
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 910 |
| Hot-Mix Asphalt Surface Course, Mix "D", N50 | Ton | 23 |
| Hot-Mix Asphalt Surface Removal | Sq. Yd. | 35 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |



EXPIRES 11-30-07
SIGNATURE
03-20-07
DATE

DESIGN STRESSES
PRECAST UNITS

$f'_c = 5,000$ psi
 $f'_{ci} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f'_{si} = 201,960$ psi (1/2" ϕ low lax strands)

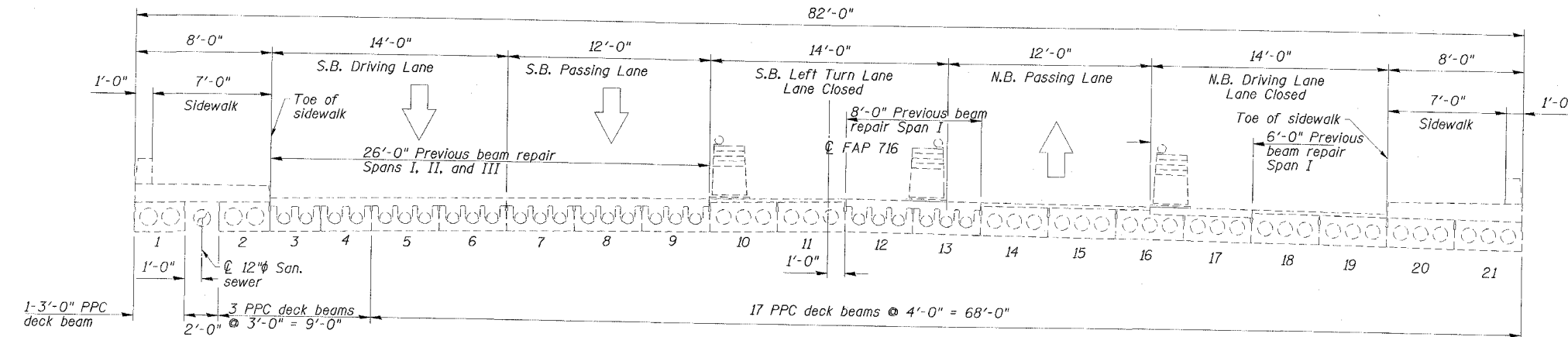
GENERAL PLAN
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056

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CONSULTANTS, INC.

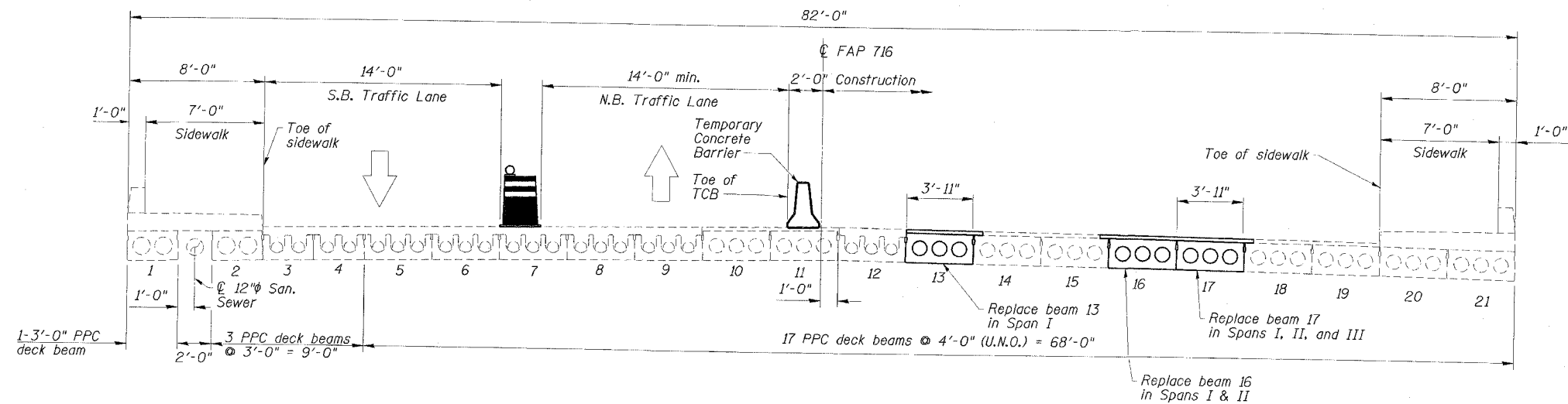
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| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

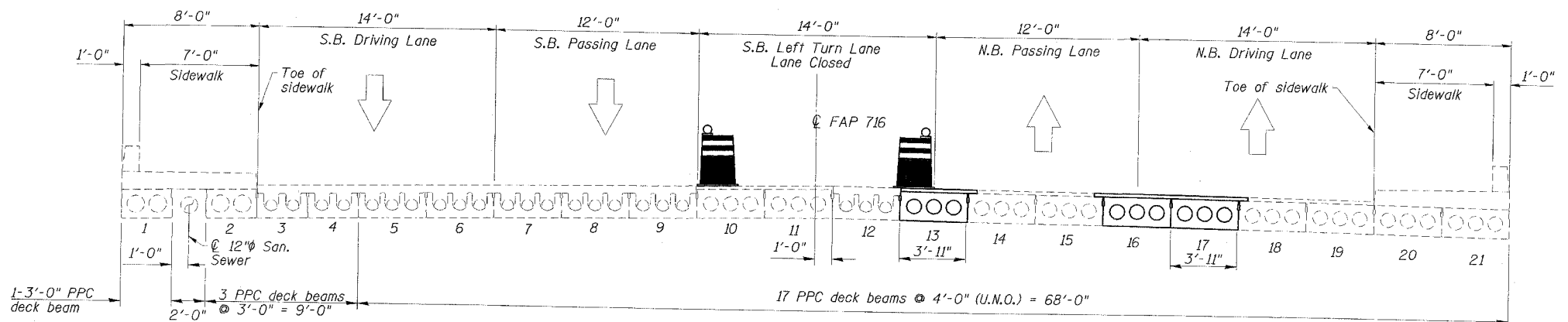
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| ROUTE NO. | SECTION | COUNTY | SHEETS | SHEET NO. |
| FAP 716 | * | MACON | 22 | 8 |
| FED. ROAD DIST. NO. # | ILLINOIS | FED. AID PROJECT | AID | |
| (130BR-1)BR | | CONTACT NO. 74239 | | |



EXISTING BRIDGE SECTION
(Looking North)



CONSTRUCTION SECTION
(Looking North)



POST CONSTRUCTION SECTION
(Looking North)

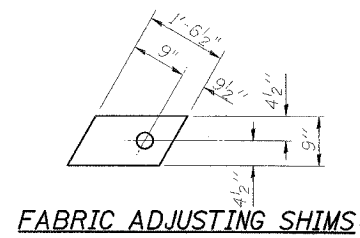
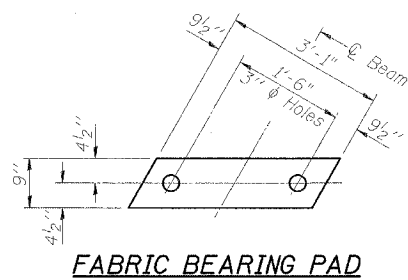
CONSTRUCTION DETAILS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056

ESCA
CONSULTANTS, INC.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

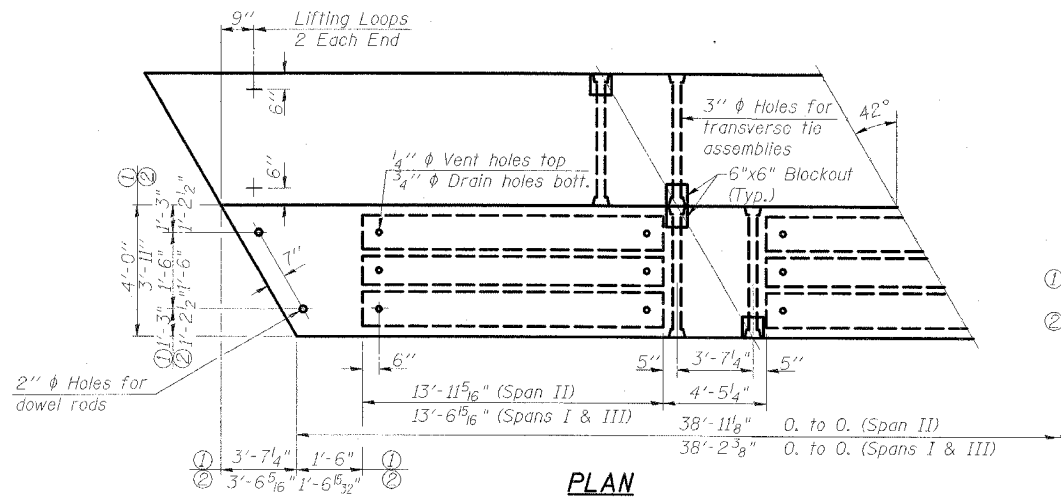
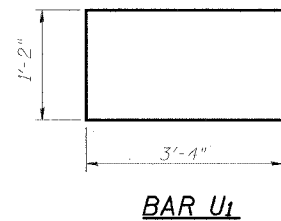
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|-----------------------|------------|------------------------|--------------------|-------------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. 3 |
| FAP 716 | # | MACON | 22 | 9 |
| FED. ROAD DIST. NO. # | ILL. NOTES | FED. AID PROJECT - AID | | 5 SHEETS |
| *130BR-11BR | | | CONTRACT NO. 74239 | |



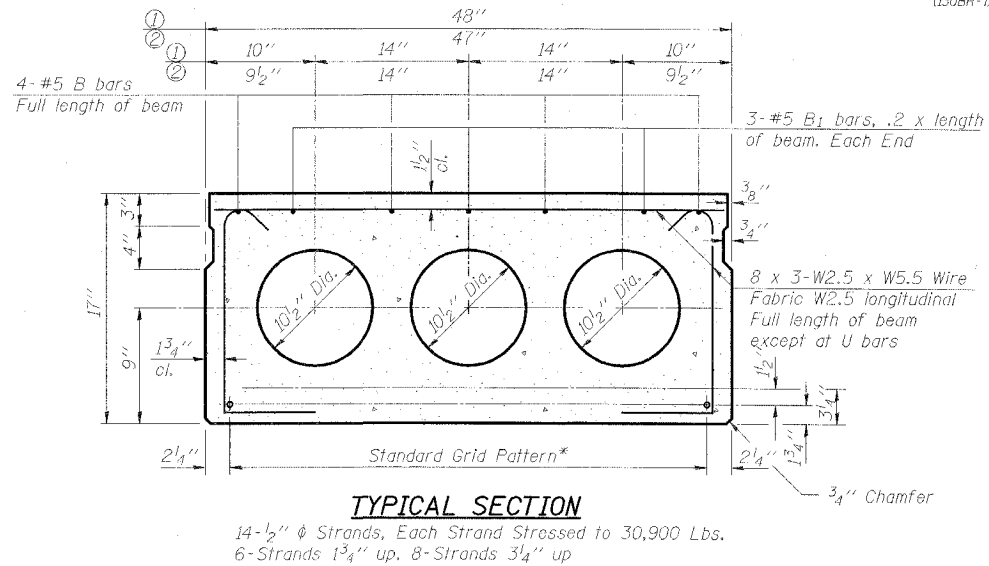
*** TRANSVERSE PLACEMENT GUIDELINES**

1. Place strands symmetrically about centerline of beam.
2. The minimum distance from center to center of strands in all directions shall be 2".
3. The minimum clearance from strand to dowel hole shall be 1/2".
4. The minimum clearance from strand to void shall be 1/2".

Vertical placement of strands shall not be adjusted to satisfy the above guidelines.

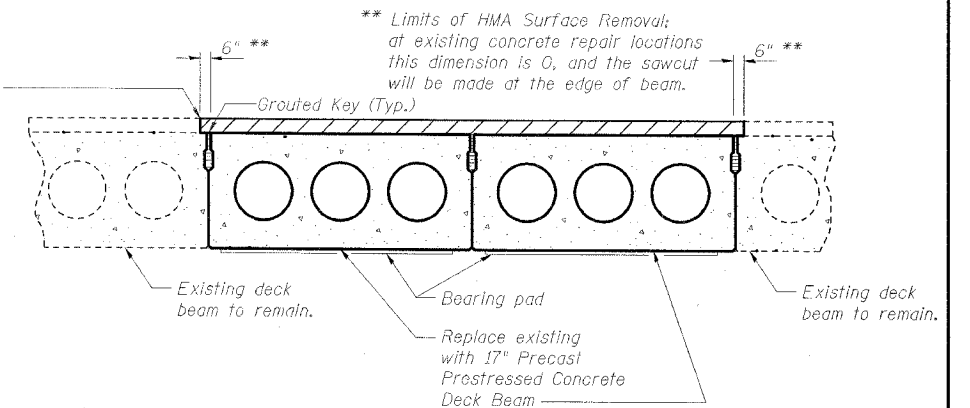


PLAN

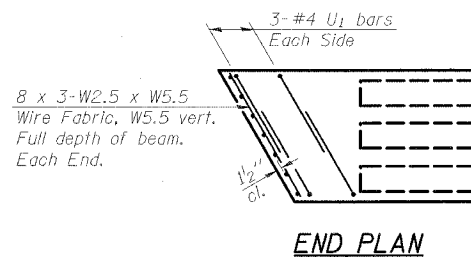


TYPICAL SECTION

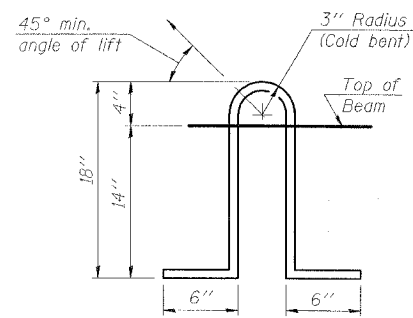
14-1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
6-Strands 1 3/4" up, 8-Strands 3/4" up



PARTIAL CROSS SECTION



END PLAN



LIFTING LOOP DETAIL

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. Lifting loops shall be 2-1/2" ϕ 270 ksi strands, as shown. The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Non prestressing steel shall conform to ASTM A 706 (II. MOD), Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions shown shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'cl, shall be 4,000 p.s.i. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products. The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to manufacturer's specifications prior to another coat of zinc. This work shall be performed by the producer and included with the cost of the beam. Corrosion Inhibitor, per Article 1020.05(b)(12) of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

BILL OF MATERIAL

| Item | Unit | Total |
|---|---------|-------|
| Precast Prestressed Conc. Deck Bms. (17" Depth) | Sq. Ft. | 910 |
| | | |
| | | |

DECK BEAMS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-11BR)
MACON COUNTY
SN 058-0056

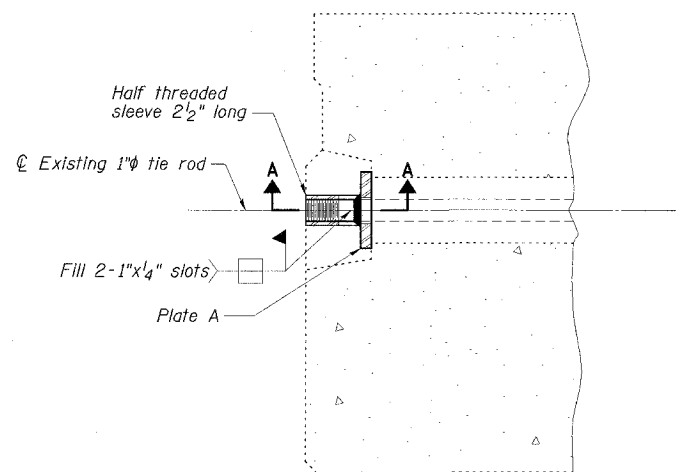
ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |

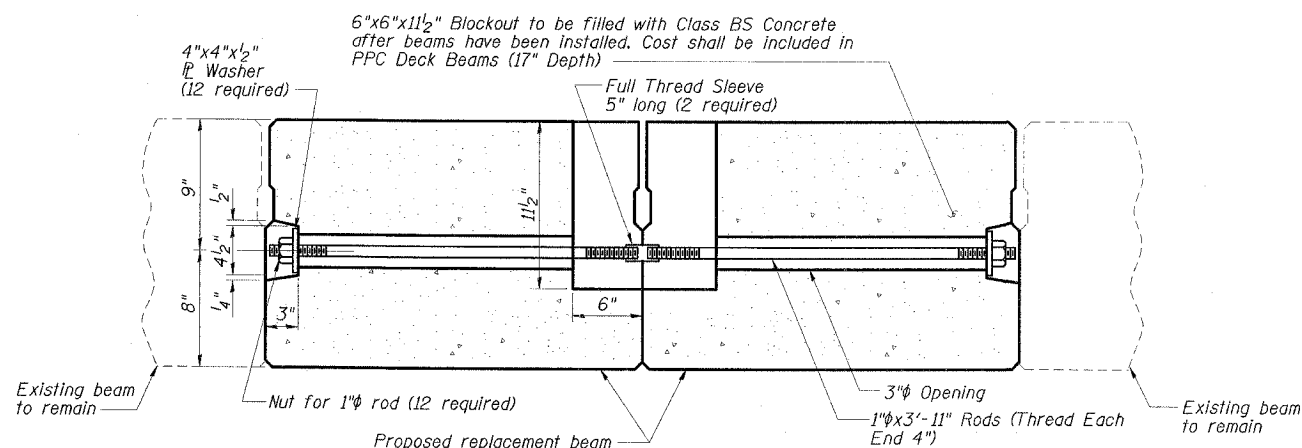
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|----------|------------------------|------|-----------|
| ROUTE NO. | SECTION | QUANTITY | DATE | SHEET NO. |
| FAP 716 | * | MACON | 22 | 10 |
| FED. ROAD DIST. NO. # | ILLINOIS | FED. AID PROJECT - AID | | |
| *130BR-1BR | | CONTRACT NO. 74239 | | |

SHEET NO. 4
5 SHEETS



DETAIL A
(8 Required)



TRANSVERSE TIE ASSEMBLY-DETAIL 1

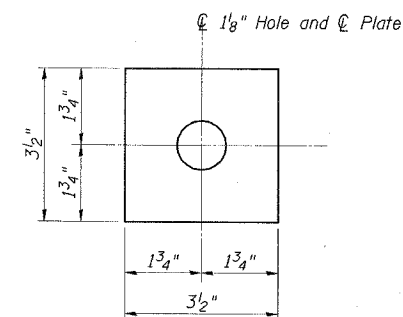
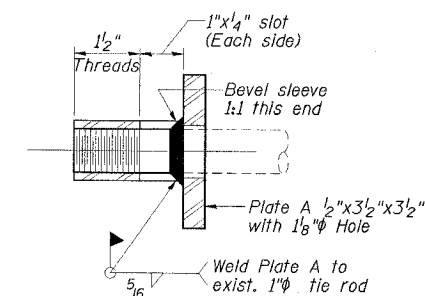
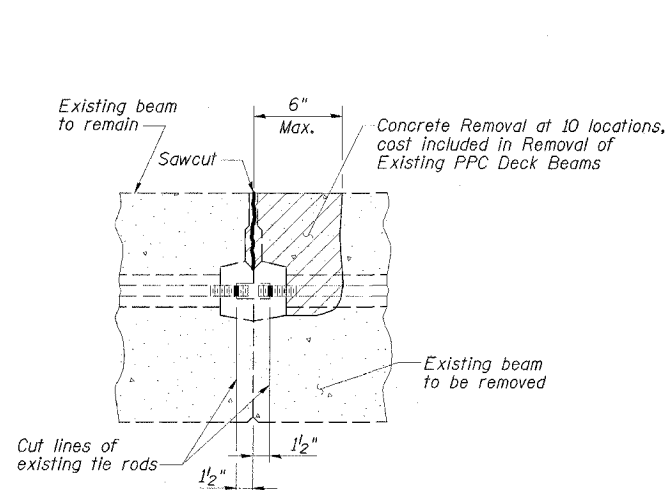


PLATE A

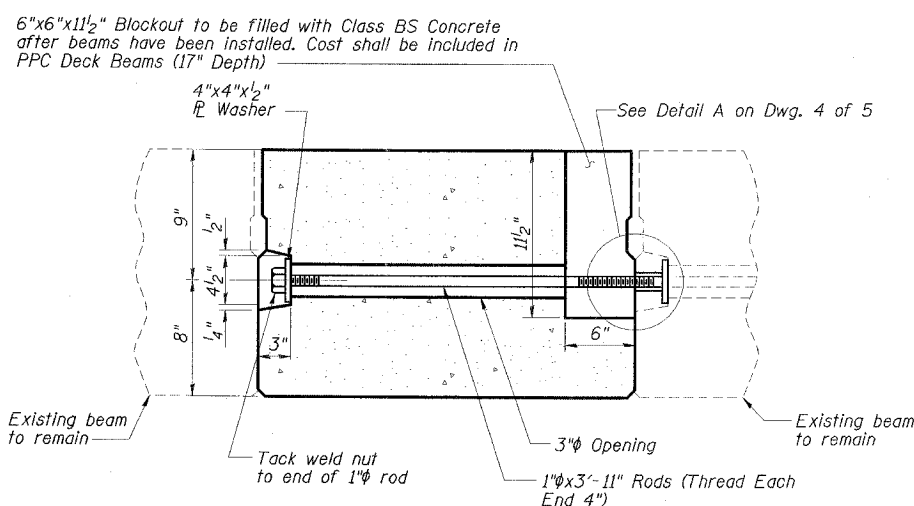


SECTION A-A

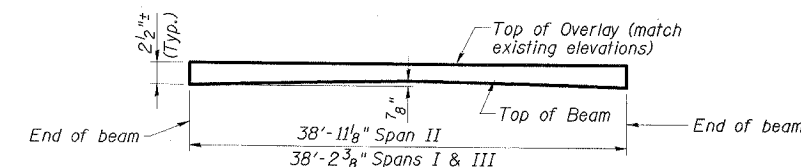


BEAM REMOVAL DETAIL AT TRANSVERSE TIES

Note:
Existing grout covering nuts for transverse tie assemblies shall be removed. Existing rods shall be cut as detailed to allow beam removal. Cost included in Removal of Existing PPC Deck Beams.



TRANSVERSE TIE ASSEMBLY-DETAIL 2



ANTICIPATED INITIAL CAMBER DIAGRAM

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 03/07 |
| APPROVED BY: | RDP | 03/07 |

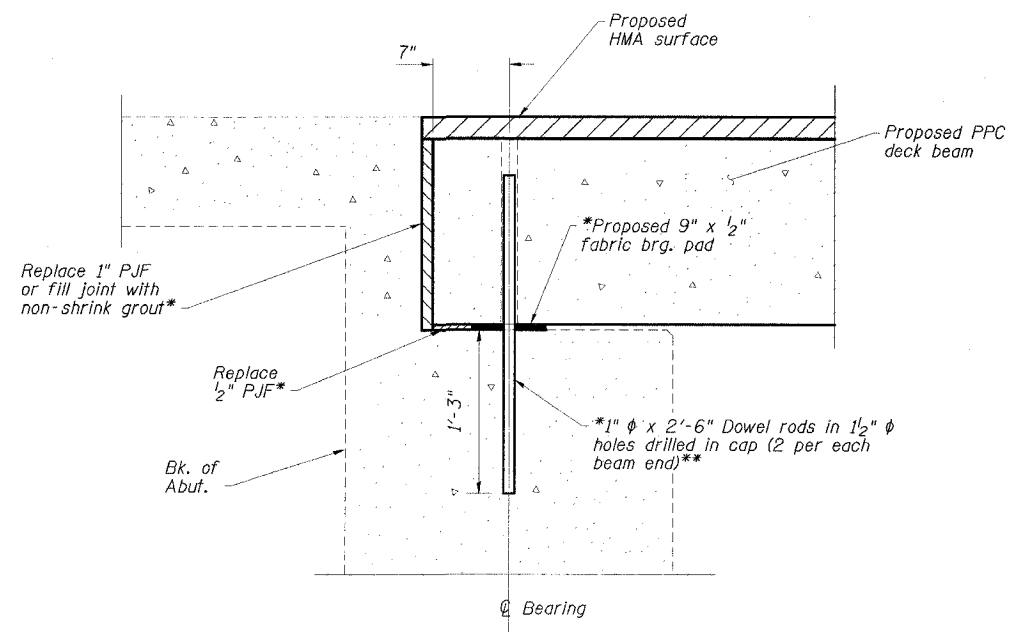
DECK BEAM DETAILS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1BR)
MACON COUNTY
SN 058-0056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

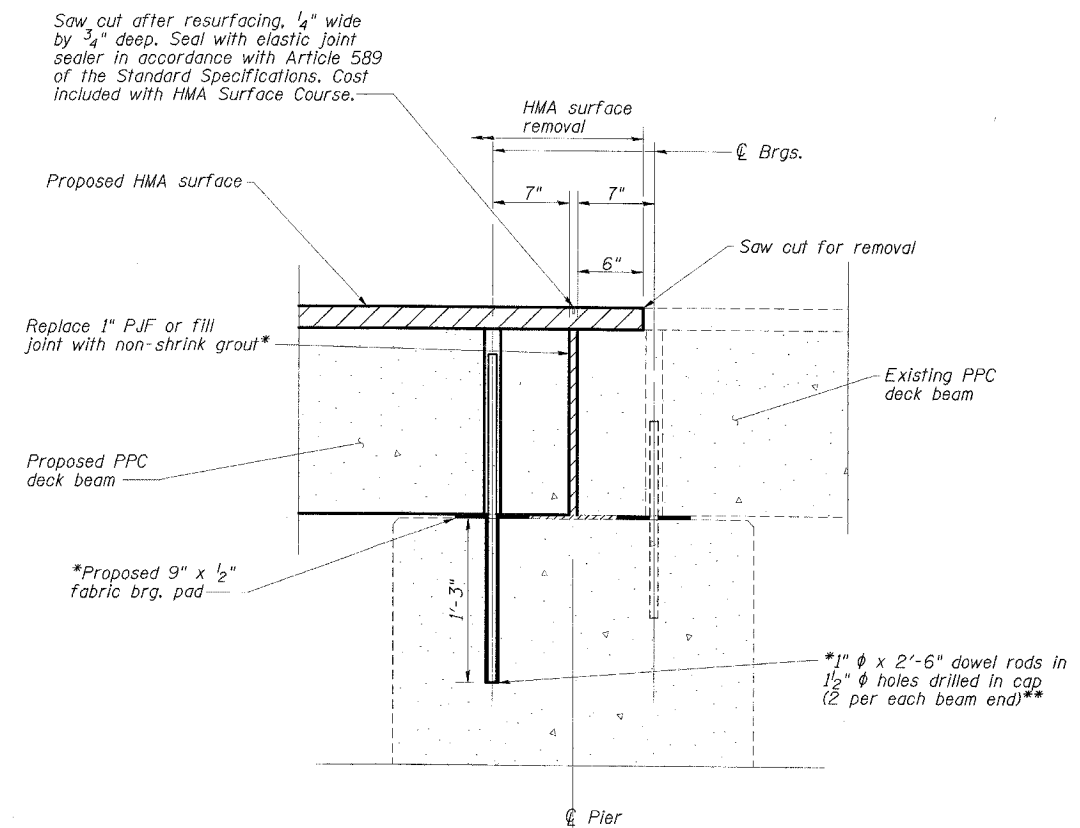
| ROUTE NO. | SECTION | COUNTY | DISTRICT | SHEET NO. | SHEET NO. |
|-----------------------|---------|--------|----------|-----------|---------------------------|
| FAP 716 | * | MACON | 22 | 11 | 5 SHEETS |
| FED. ROAD DIST. NO. * | | | | | FED. ROAD PROJECT NO. AND |
| *130BR-11BR | | | | | CONTRACT NO. 74239 |

*Cost included in PPC Deck Beams

** Existing dowel rods are to be burned off and ground flush prior to placement of new beams. Cost included in Removal of Existing PPC Deck Beams. After beams have been erected holes shall be drilled into cap and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hours prior to grouting the shear keys, cost included in PPC Deck Beams.



TYPICAL SECTION AT ABUTMENT
(Horizontal dimensions are at right angles to beam ends)



TYPICAL SECTION AT PIER
(Horizontal dimensions are at right angles to beam ends)

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

DECK BEAM DETAILS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-11BR)
MACON COUNTY
SN 058-0056

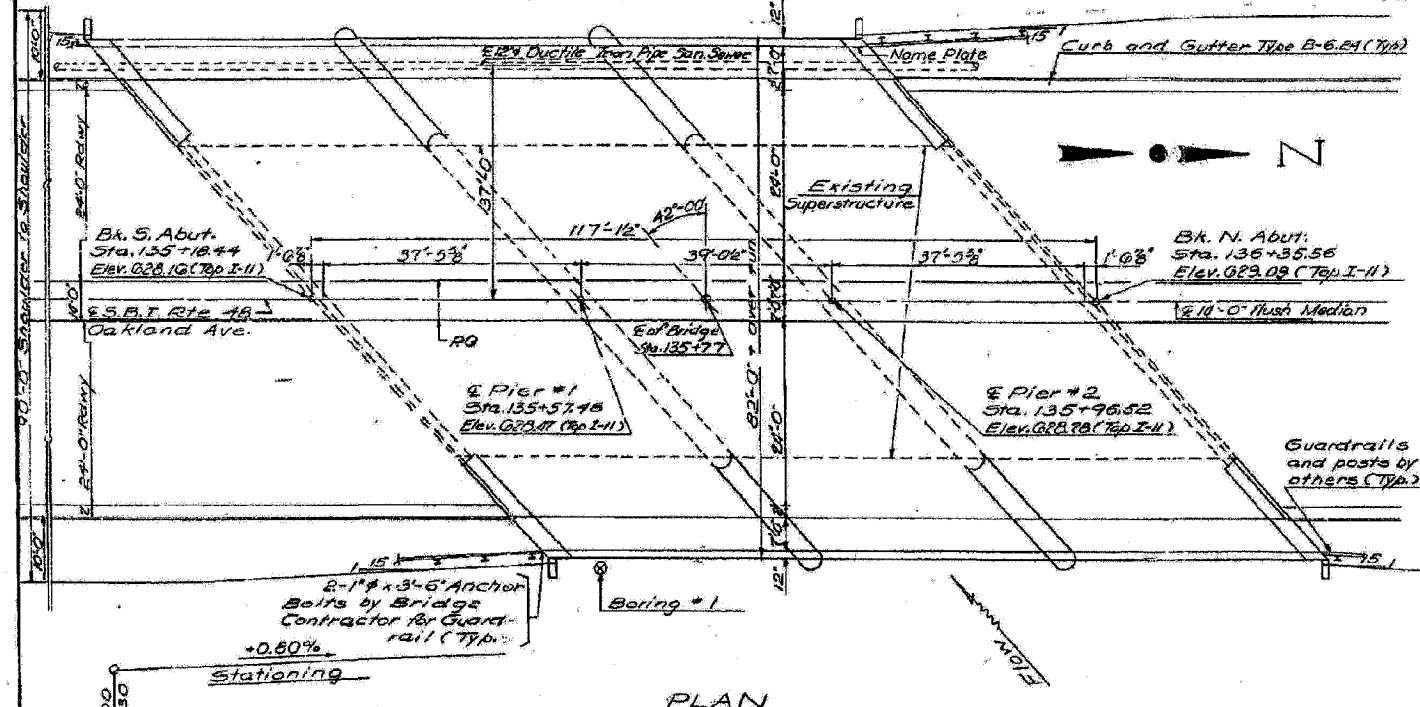
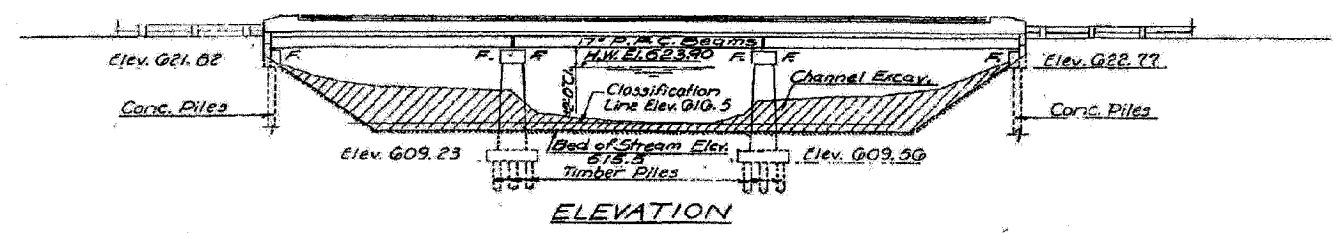


| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|-------------------------------|--------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 12 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT AID | | |

B.M. #17 Chis. & End E. Par. Wall on Existing Bridge over Spring Creek. Elev. 628.80
 Existing Structure @ Sta. 135+77 Built in 1932 as S.B.I. Rte. 48 Sec. 130 B. Existing superstructure to be removed utilizing stage construction so as to maintain traffic over the bridge at all times. Existing Piers and Abutments to be widened.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

| | | | |
|---------|----------|--------------|-----------|
| SECTION | PROJECT | TOTAL SHEETS | SHEET NO. |
| 130BR | MACON ST | 22 | 12 |



PROFILE SBI RTE. 48
 (Inside Edge Part)

| | | | |
|----------|------------------|----------|--------------------|
| DESIGNED | SMITH, T. Desai | DATE | SEPTEMBER 10, 1970 |
| CHECKED | JAMES B. BENTLEY | EXAMINED | W. J. HARRIS |
| DRAWN | JACOB | APPROVED | W. J. HARRIS |
| CHECKED | J.P. | | |

WATERWAY INFORMATION
 Drainage Area 26.3 sq. mi.
 Character: Suburban & Farm, level to rolling, Over one half in Grass and Woods. Rest Farm land & some parking lots & Streets.
 Required Opening (50 Years Reg.) 659 sq. ft.
 Present Opening 408.7 sq. ft.
 Proposed Opening 659 sq. ft.
 Ordinary Water Elev. 617.7
 Low Water Elev. 616.0
 Design H.W. El. 623.7
 (G.M.) = 4.108 cfs

PRECAST PRESTRESSED UNITS

$f_c = 5000$ p.s.i.
 $f_{ti} = 4000$ p.s.i.
 $f_s = 248,000$ p.s.i. Strands (#6)
 $f_{sl} = 173,600$ p.s.i. Strands (#6)

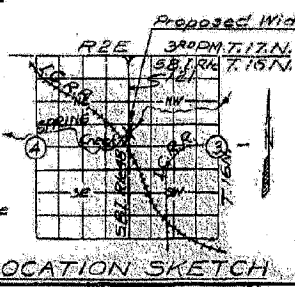
DESIGN STRESSES FIELD UNITS

$f_c = 400$ p.s.i.
 $f_s = 20,000$ p.s.i. (Reinf.)
 $f_s = 20,000$ p.s.i. (Struct.)
 $f_c = 75$ p.s.i. (Footings)
 $n = 10$
 Allow 25% for additional future wearing surface Loading HS 20-44
 Design Specifications: AASHTO 1969 as applicable

GENERAL NOTES
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
 An alternate strand pattern using Extra High Strength Prestressing strand (270 ksi) is permitted.
 Expansion bolts shall consist of self-drilling expansion anchors and 3/4" hooked bolts. Hooked bolts shall extend a minimum of 12" into new concrete unless otherwise shown.
 Limits of Coat for Interlayer Protective Coat shall be back to back of abutments and out to out of deck.
 Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
 The parapet and sidewalk shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
 The Contractor shall drive 2 test piles in a permanent location, one timber test pile at Pier 2 and one conc. test pile at North Abut., as directed by the Engineer before ordering the remainder of piles.

TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub | Total |
|--|----------|-------|-------|--------|
| Bituminous Conc. Surface, C&G, Class I | Tons | 56 | | 56 |
| Concrete Removal | Cu. Yds. | | 24 | 24 |
| Expansion Bolts (3/4") | Each | | 390 | 390 |
| Structure Excavation | Cu. Yds. | | 388 | 388 |
| Protective Coat | Sq. Yds. | 267 | | 267 |
| Class A Concrete | Cu. Yds. | | 3127 | 3127 |
| Class X Concrete | Cu. Yds. | 223 | 518 | 741 |
| Precast Prestressed Conc. Dh. Bms. (U) | Sq. Ft. | 9220 | | 9220 |
| Aluminum Railing, Type L | Lin. Ft. | 195 | | 195 |
| Steel Railing, Type M | Lin. Ft. | 195 | | 195 |
| Reinforcement Bars | Lbs. | 9790 | 17060 | 26,850 |
| Untreated Piles (Up to 30 Ft.) | Lin. Ft. | | 1075 | 1075 |
| Test Pile (Timber) | Each | | 1 | 1 |
| Concrete Piles | Lin. Ft. | | 722 | 722 |
| Test Pile (Concrete) | Each | | 1 | 1 |
| Name Plates | Each | 1 | | 1 |
| Temporary Guardrail | Lin. Ft. | | | 116 |
| Waterproofing Membrane System | Sq. Yds. | 640 | | 640 |
| Removal of Existing Superstructures | Each | | | 1 |
| Preformed Joint Sealer 1 1/2" | Lin. Ft. | | | 46 |



PROJECT U-160(23)
 GENERAL PLAN & ELEVATION
 SBI RTE 48 OVER SPRING CREEK
 SBI RTE 48 SECTION 130 BR.
 MACON COUNTY
 STA 135+77.00

ESCA
 CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

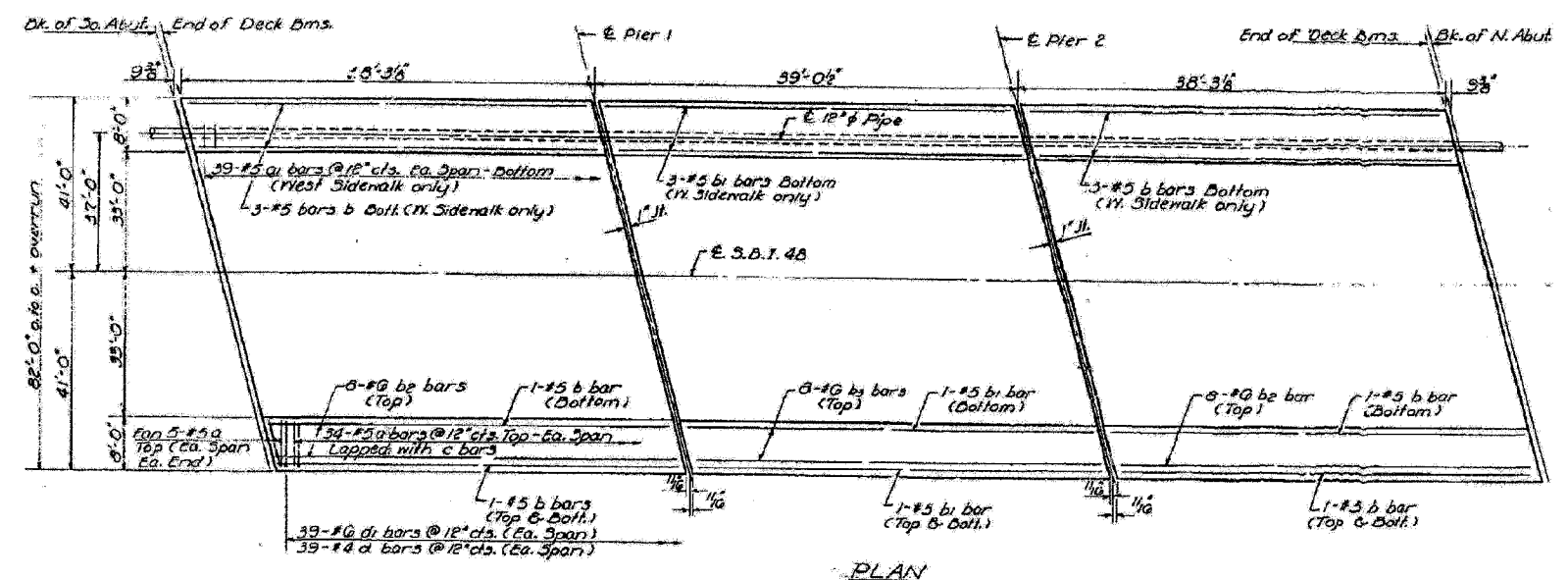
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 FAP ROUTE 716 (IL 48)
 OAKLAND AVENUE
 SECTION (130BR-1)BR
 MACON COUNTY
 SN 058-0056



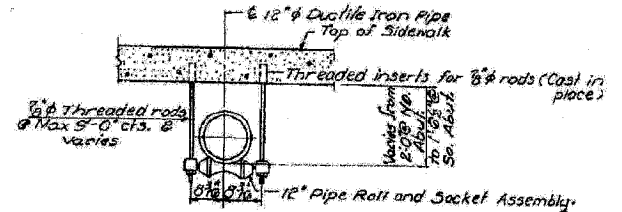
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------|------------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 65 | 130BR-1JBR | MACON | 22 | 11 |

| | | | | |
|---------------------|--------------|----------------------|--------------|-----------|
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1JBR) | MACON | 22 | 13 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | | |

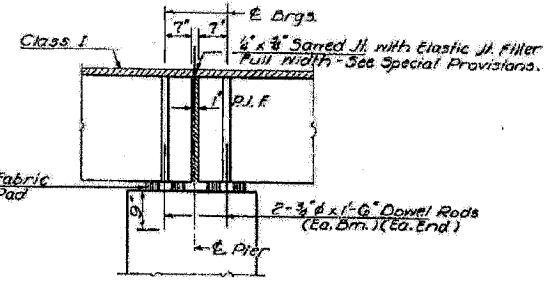


PLAN

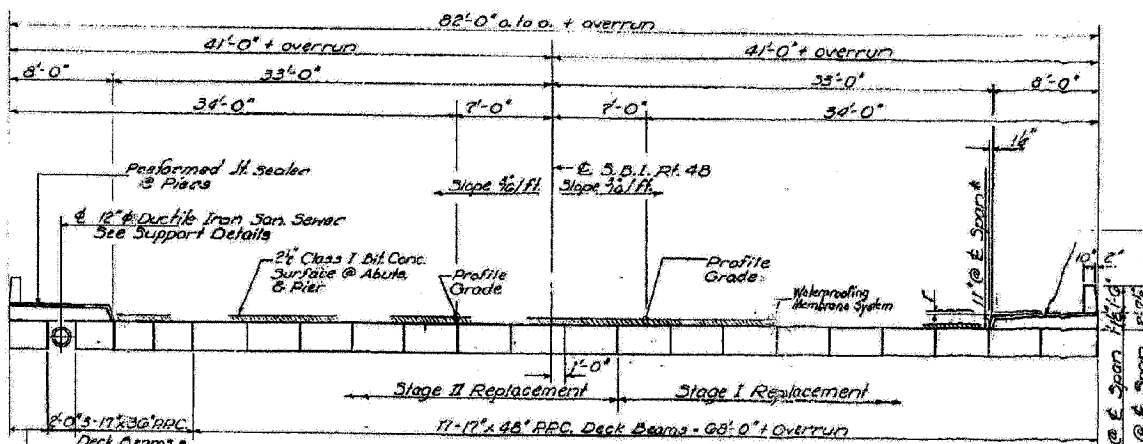


PIPE SUPPORT DETAILS

(Cast incidental to 12" Ductile Iron Sanitary Sinker)



SEC. AT PIER



CROSS SECTION

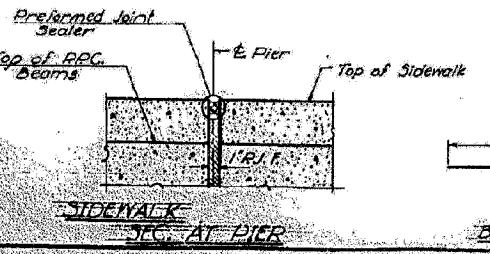
* Construct Top of Sidelwalk parallel to grade.
For Cross Sections thru Sidelwalk See Sheets d & 3.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|--------------------|-----|------|--------|----------|------|
| a | 204 | #5 | 8'-3" | — | |
| a1 | 117 | #5 | 7'-9" | — | |
| b | 10 | #5 | 38'-0" | — | |
| b1 | 9 | #5 | 38'-9" | — | |
| b2 | 32 | #6 | 38'-0" | — | |
| b3 | 16 | #6 | 38'-9" | — | |
| d | 234 | #4 | 8'-9" | L | |
| d1 | 234 | #6 | 5'-3" | L | |
| Class X Concrete | | | | Cu. Yds. | 62.0 |
| Reinforcement Bars | | | | Lbs. | 8630 |

PREFORMED JOINT SEALER

DESIGNED: SUZETTE T. DEAN
CHECKED: JACOB S. JACOBS
DRAWN: JACOBS
CHECKED: JPC

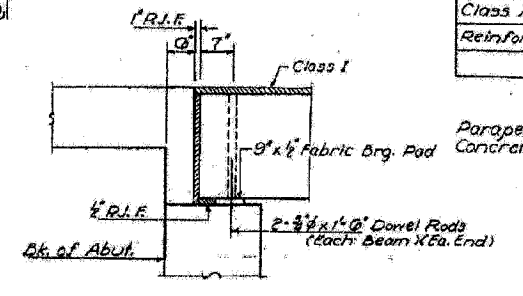


SIDEWALK SEC. AT PIER



BAR a

BAR a1



SEC. AT ABUT

Parapet Reinforcement and Class X Concrete are billed on Sheet No. 6

BRIDGE STRUCTURE
S.D.I. RT. 48 - SEC. 130BR
MACON COUNTY
STA. 135+71.00

Revised 9-24-78

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

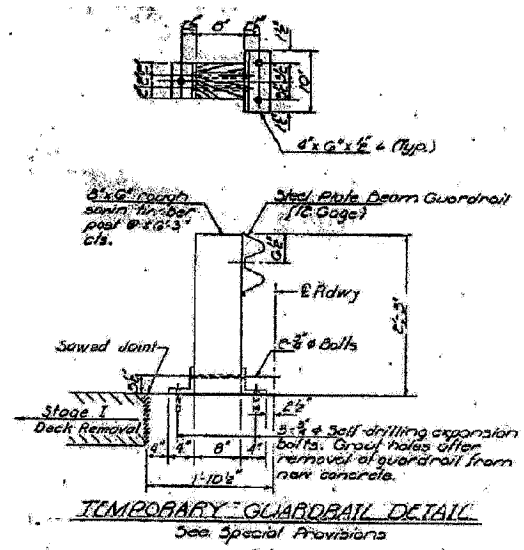
EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1JBR)
MACON COUNTY
SN 058-0056



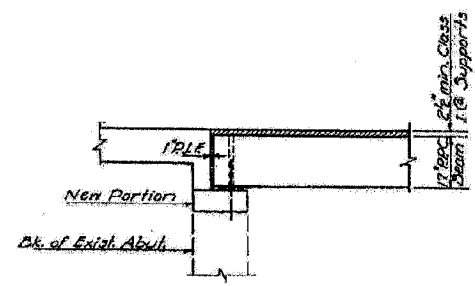
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-------------|------|-------|----|----|-----------|
| PROJECT | ISBR | MACON | 87 | 28 | 11 SHEETS |
| SHEET NO. 2 | | | | | |

| | | | | |
|---------------------|-------------|----------------------|--------------|-----------|
| CONTRACT NO. 74239 | | | | |
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 | 14 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | | |



| Boring No. | Station | Depth | Gravel | W (%) | Soils Value EL | Groundwater EL at Completion | Moisture | Gravel | W (%) |
|--------------|---------|-------|--------|-------|----------------|------------------------------|----------|--------|---------|
| Bored Boring | 000 | 0 | | | | | | | |
| | | 10 | | | | | | | 1.48 13 |
| | | 20 | | | | | | | 2.13 11 |
| | | 30 | | | | | | | 2.98 20 |
| | | 40 | | | | | | | 3.58 10 |
| | | 50 | | | | | | | |
| | | 60 | | | | | | | |
| | | 70 | | | | | | | |
| | | 80 | | | | | | | |
| | | 90 | | | | | | | |
| | | 100 | | | | | | | |



STATION 135 + 77.00
REQU. 197 BY
STATE OF ILLINOIS
S.B.I. RT. 48 SEC. 130BR
P.A. PROJ. U-160(23)
LOADING H320.

NAME PLATE
(See Std. E113)

BORING
S.B.I. RT. 48 SEC. 130BR
MACON COUNTY
STA. 135 + 77.00

| | | |
|----------|----------------|---------------|
| DESIGNED | Smith T. Dean | SEPT. 10 1970 |
| CHECKED | Jacob J. Jacob | |
| DRAWN | Jacob J. Jacob | |
| CHECKED | J.P. | |

ESCA
CONSULTANTS, INC.

DESIGNED BY: ELH 02/07
DRAWN BY: JPC 02/07
CHECKED BY: ELH 02/07
APPROVED BY: RDP 02/07

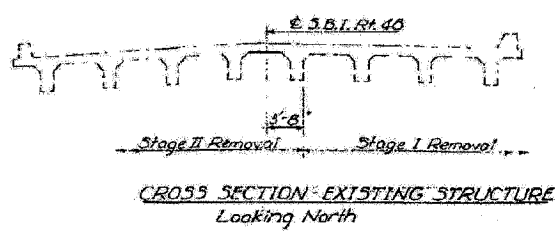
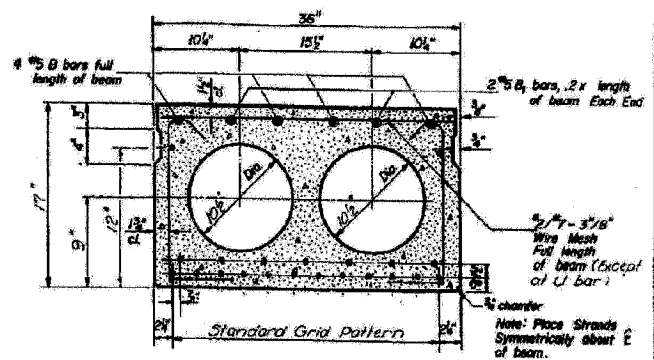
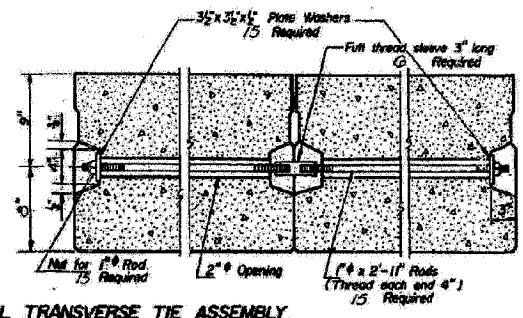
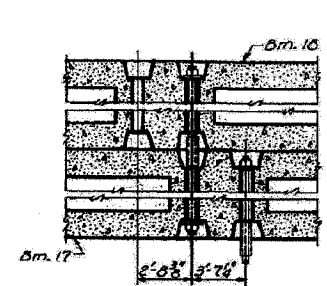
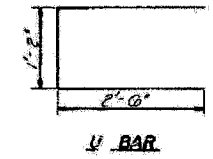
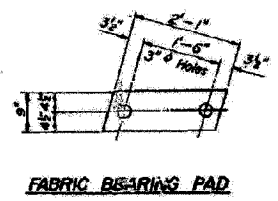
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FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056



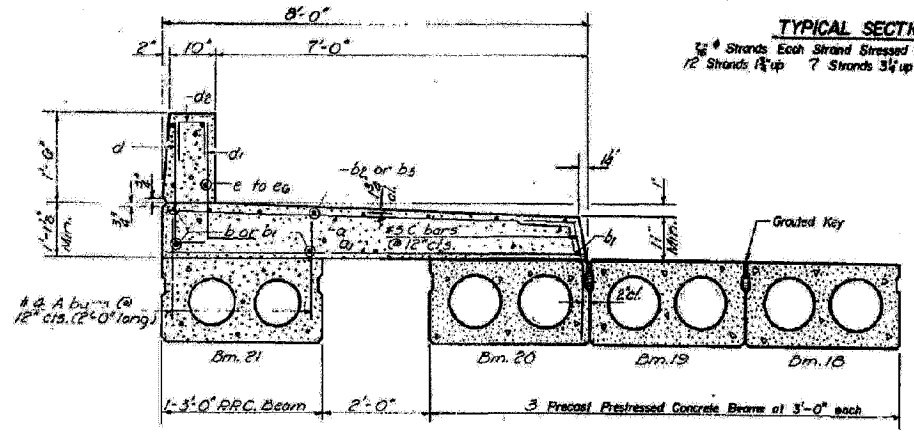
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
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| SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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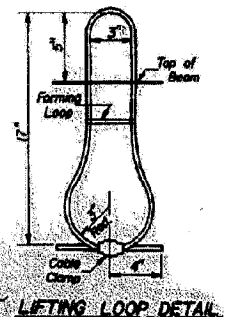
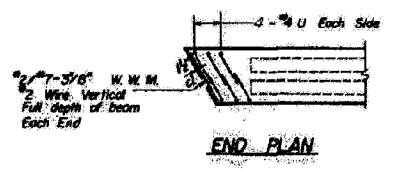
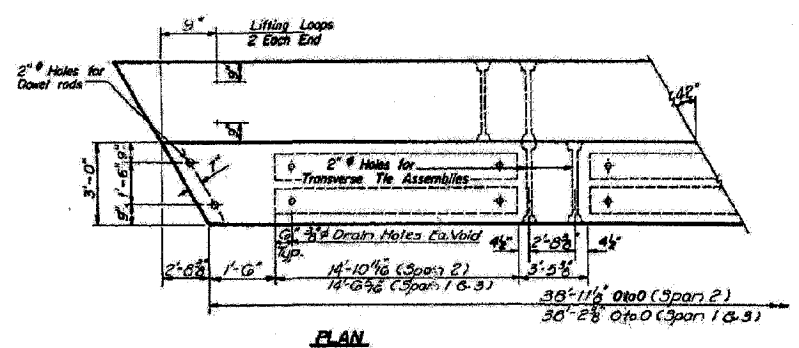
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| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1BR) | MACON | 22 | 15 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | | |



Note: Dm. #21 is not tied transversely to the other beams.



For detail of bar C see Sheet No. 5



GENERAL NOTES

Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand. The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.109 sq. in. Lifting loops shall be 3" diameter, 6 x 19 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 23,000 lbs. The 1/2" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bars on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal shear keys shall be packed with a very dry mix of 2:4 sand and P.C. mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.

After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation A153. Cost of reinforcement and accessories cast into the beam, of bearing rods, of corner angles, and of grouting longitudinal shear keys is included in unit price bid for Precast Prestressed Concrete Deck Beams. Steel for dowel rods shall be ASTM A-306 or ASTM A-G15. Steel for transverse tie rods shall be ASTM A-306, Grade 70-80.

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Concrete Deck Beams | Sq. Ft. | 1504 |
| | | |
| | | |

SUPERSTRUCTURE DETAILS
S.B.L.P.T. 13 SEC. 130BR
MACON COUNTY
STA. 135+77.00

| | |
|--------------------------|------------------------|
| DESIGNED: Simon T. Bessa | EXAMINED: [Signature] |
| CHECKED: [Signature] | DRAWN: James R. Carman |
| CHECKED: JP | |

PD-1-R 11-19-65

ESCA
CONSULTANTS, INC.

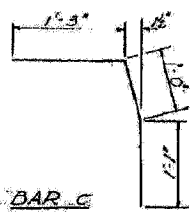
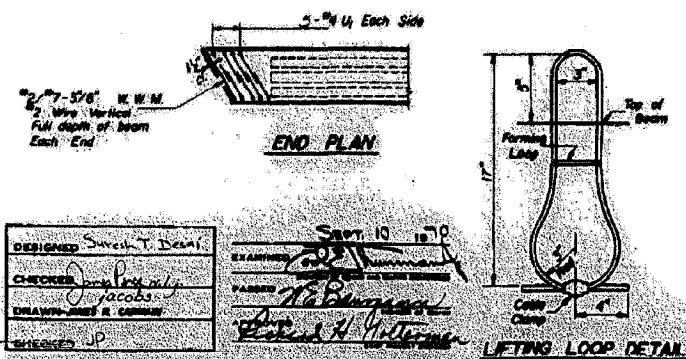
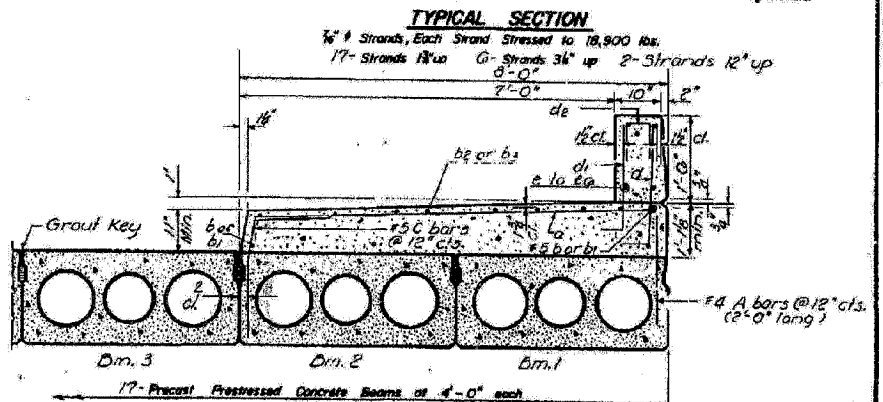
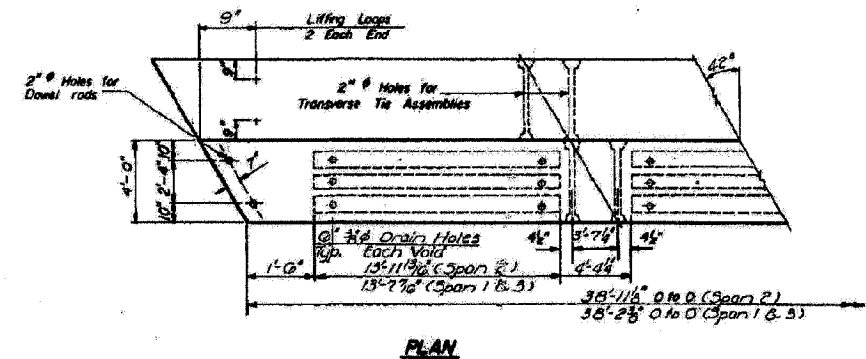
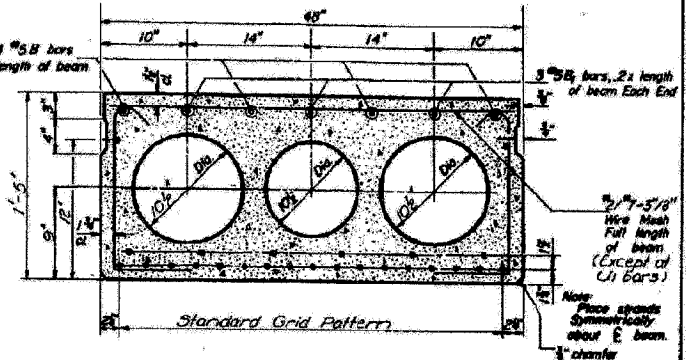
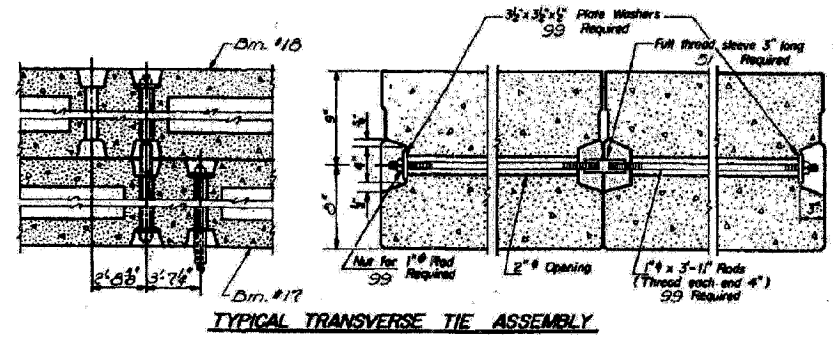
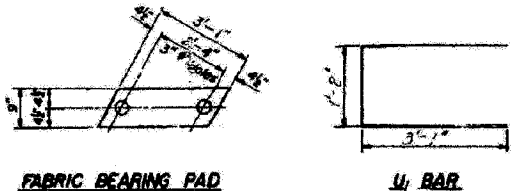
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|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1BR)
MACON COUNTY
SN 058-0056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|----------------|----------|------------|--------|-----------|
| DESIGNED BY | DRAWN BY | CHECKED BY | DATE | SHEET NO. |
| SWEET, T. DEAN | JACOBS | JACOBS | 3/7/68 | 26 |

11 SHEETS



GENERAL NOTES

Pressing steel shall be non-polymerized, high strength, stress-relieved 7-wire strand. The nominal diameter shall be 7/8" and the nominal cross-sectional area shall be 0.109 sq. in. Lifting loops shall be 5/8" diameter, 6 x 19 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 29,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Packers that receive transverse tie bars on outside beam shall be filled with grout after transverse tie assembly is in place. Longitudinal steel ties shall be packed with a very dry mix of 2-1 sand and P.C. mortar. After beams have been erected, holes for the dowl anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place. After fabrication, the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation A153. Cost of reinforcement and accessories cost into the beam, of bearing pads, of armor angles, and of grouting longitudinal steel ties is included in unit price bid for Precast Prestressed Concrete Deck Beams. Steel for dowl rods shall be ASTM A-309 or ASTM A-315. Steel for transverse tie rods shall be ASTM A-309, Grade 70-80.

BILL OF MATERIAL

| | | |
|---|---------|-------|
| Precast Prestressed Concrete Deck Beams | Sq. Ft. | 754.2 |
|---|---------|-------|

SUPERSTRUCTURE DETAILS
 5.B.T.RT.40 SEC.130BR
 MACON COUNTY
 STA.135+77.00

| | | | |
|----------|----------------|------|--------|
| DESIGNED | SWEET, T. DEAN | DATE | 3/7/68 |
| CHECKED | JACOBS | DATE | 3/7/68 |
| DRAWN | JACOBS | DATE | 3/7/68 |
| APPROVED | JACOBS | DATE | 3/7/68 |

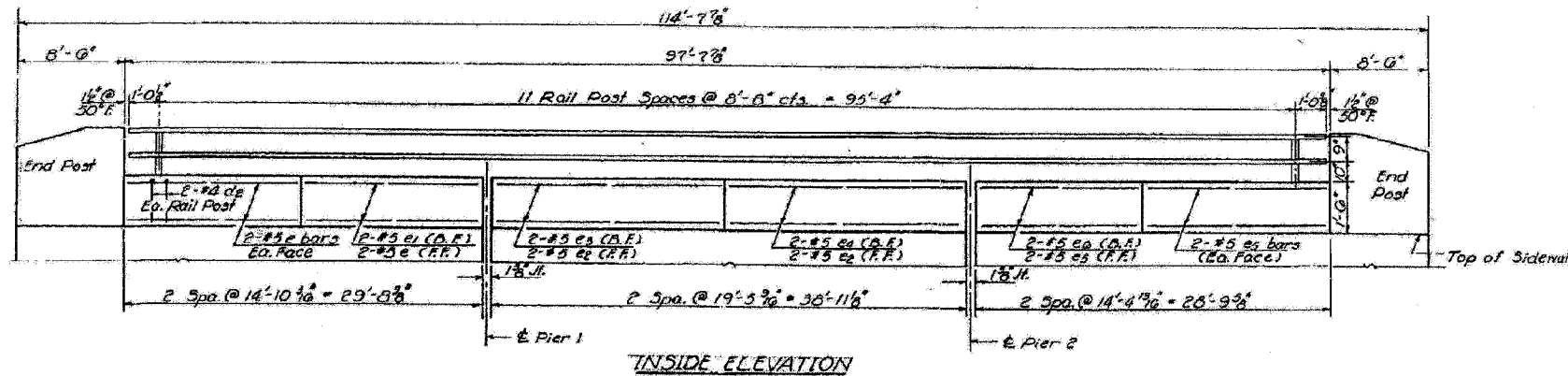
FD-3, R. 11-2-65, Rev. 5-20-66



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

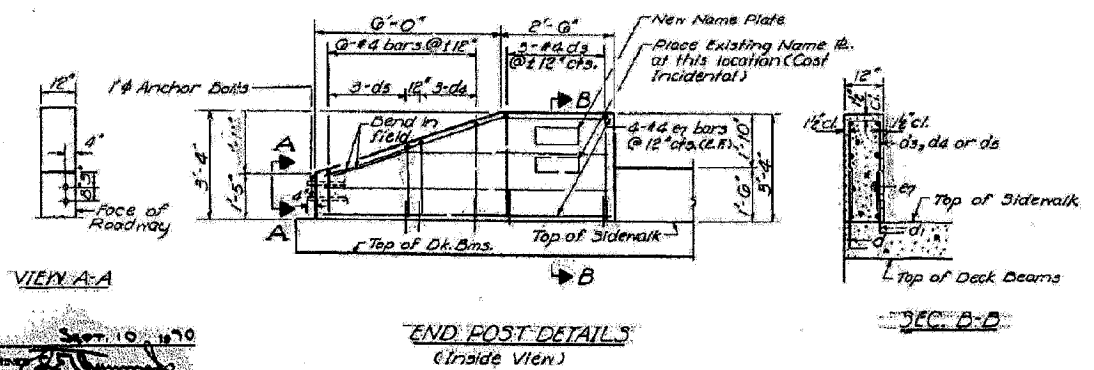
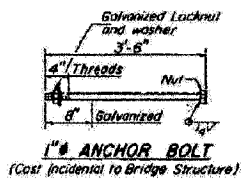
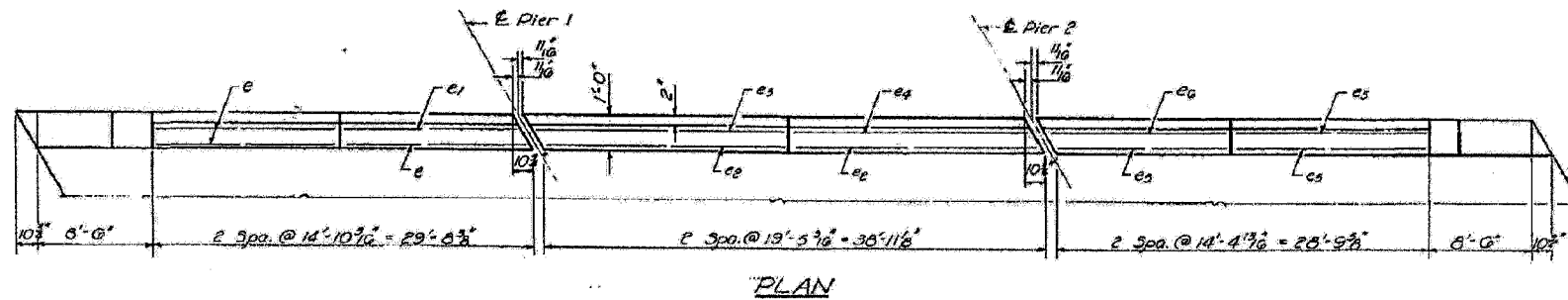
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|---------------------|-----------|-------------------------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | TOTAL SHEETS |
| 65 | 130BR-1BR | MACON | 37 | 22 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT AID | | |

| | | | | |
|---------------------|-------------|-------------------------------|--------------|-----------|
| CONTRACT NO. 74239 | | | | |
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1BR) | MACON | 22 | 17 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT AID | | |



BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------|-----|------|----------|-------|
| d2 | 48 | #4 | 2'-1" | □ |
| d3 | 12 | #4 | 0'-9" | □ |
| d4 | 12 | #4 | 4'-9" | □ |
| da | 12 | #4 | 3'-9" | □ |
| e | 12 | #5 | 14'-7" | — |
| e1 | 4 | #5 | 13'-9" | — |
| e2 | 8 | #5 | 19'-3" | — |
| e3 | 4 | #5 | 20'-1" | — |
| e4 | 4 | #5 | 15'-3" | — |
| e5 | 12 | #5 | 14'-1" | — |
| e6 | 4 | #5 | 15'-0" | — |
| e7 | 32 | #4 | 8'-5" | — |
| Class X Concrete | | | Cu. Yds. | 13.3 |
| Reinforcement Bars | | | Lbs. | 1100 |



A-B-D DIMENSIONS

| Bar | A | B |
|-----|-------|----|
| d2 | 9" | 7" |
| d3 | 5'-0" | 9" |
| d4 | 2'-0" | 9" |
| da | 1'-3" | 9" |

PARAPET DETAILS
S.B.T. RT. 48 SEC. 130BR
MACON COUNTY
STA. 135+77.00

DESIGNED: *Sumner T. Dixon*
CHECKED: *Jacob*
DRAWN: *Jacob*
EXAMINED: *W. B. ...*
PASSED: *W. B. ...*
APPROVED BY: *Edward A. ...*

Note: For Section Thru Parapet See Sheets Nos. 4 & 5

ESCA
CONSULTANTS, INC.
DESIGNED BY: ELH 02/07
DRAWN BY: JPC 02/07
CHECKED BY: ELH 02/07
APPROVED BY: RDP 02/07

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1BR)
MACON COUNTY
SN 058-0056

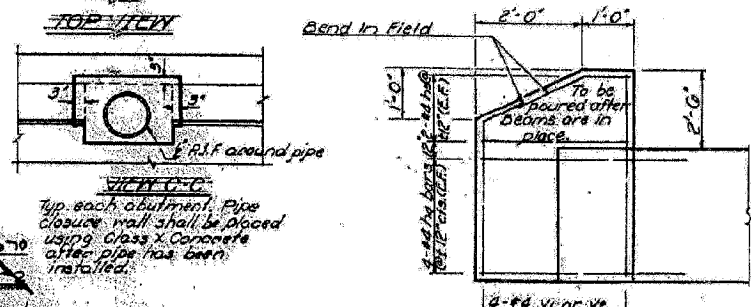
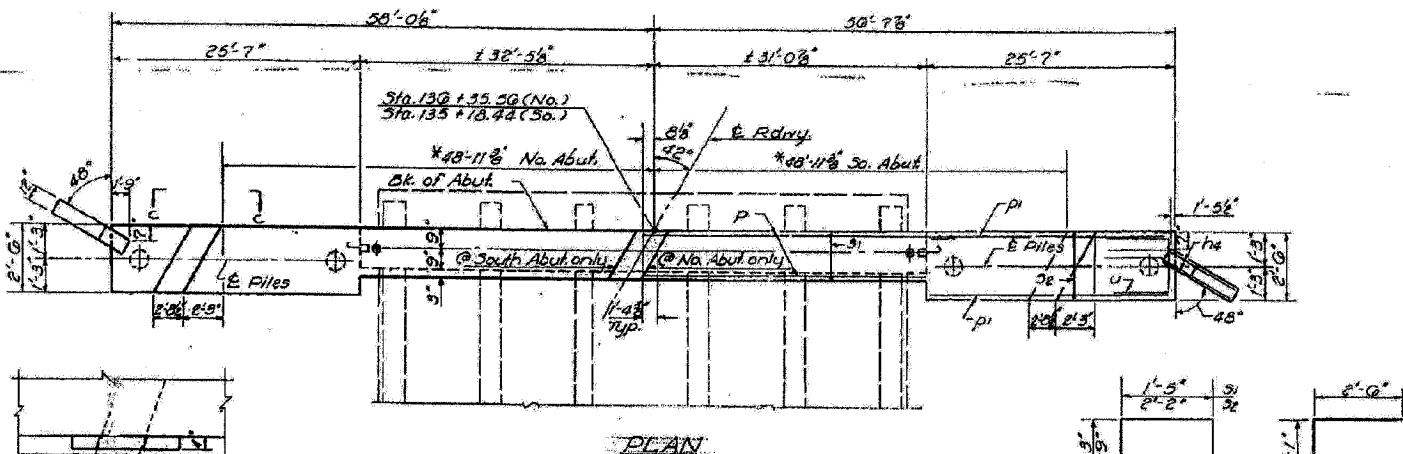
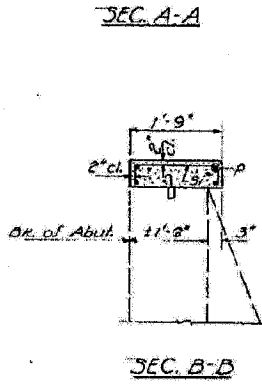
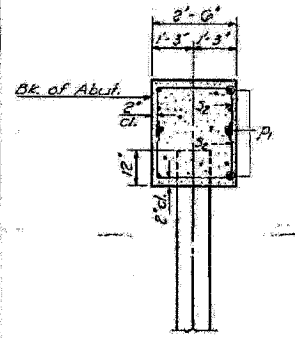
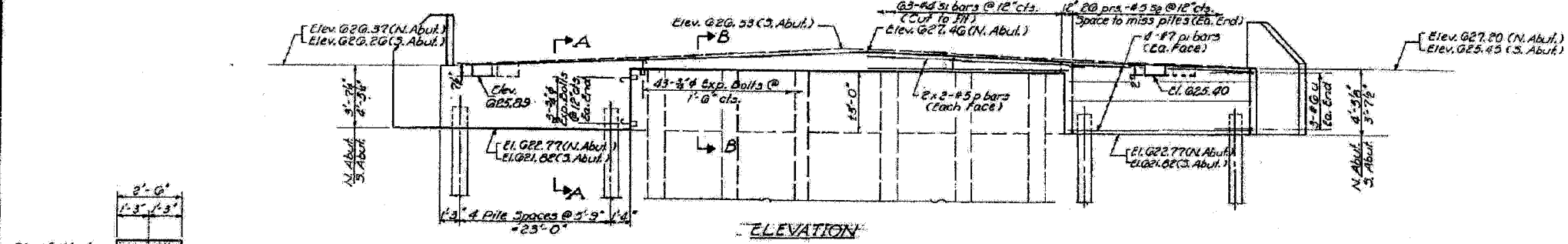


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-------------|-----------|--------|-----------|--------------|
| PROJECT NO. | SECTION | COUNTY | SHEET NO. | TOTAL SHEETS |
| 130BR | 130BR-13R | MACON | 30 | 18 |

| | | | | |
|---------------------|-------------------------------|--------|--------------|-----------|
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-13R) | MACON | 22 | 18 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT AID | | | |

PILE DATA
Type Concrete
Capacity 25 Tons
Est'd Length 38 Ft.
No. Req'd 18 + 1 test pile



**2 ABUTMENTS
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|----------------------|-----|------|----------|-------|
| h4 | 32 | #4 | 4'-0" | — |
| h5 | 10 | #4 | 2'-9" | — |
| p | 10 | #5 | 33'-9" | — |
| pi | 32 | #7 | 25'-3" | — |
| s1 | 120 | #4 | 3'-11" | □ |
| s2 | 208 | #5 | 7'-8" | □ |
| u | 12 | #6 | 7'-1" | — |
| v1 | 10 | #4 | 0'-8" | — |
| v2 | 10 | #4 | 3'-10" | — |
| Class X Concrete | | | Cu. Yds. | 51.8 |
| Reinforcement Bars | | | Lbs. | 4550 |
| Expansion Bolts (#4) | | | Each | 90 |
| Concrete Piles | | | Lin. Ft. | 782 |
| Test Pile (Concrete) | | | Each | 1 |

DESIGNED: *Surell T. Deal*
CHECKED: *Jacob*
DRAWN: *Jacob*
CHECKED: *JF*

EXAMINED: *McB...*
APPROVED: *Richard H. Johnson*

*Dimensions include an allowance for the maximum overrun of the RRC beams. For a lesser overrun increase the neat sidewalk width so that the outside RRC beam is completely seated on the abutment.

Notes: All edges shall have 1/8" chamfer; cut reinforcement bars in the field to provide opening for 12" pipe.

ABUTMENTS
J.B.L.R.T. 48 SEC. 130BR
MACON COUNTY
STA. 135+77.00

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDJ | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-13R)
MACON COUNTY
SN 058-0056



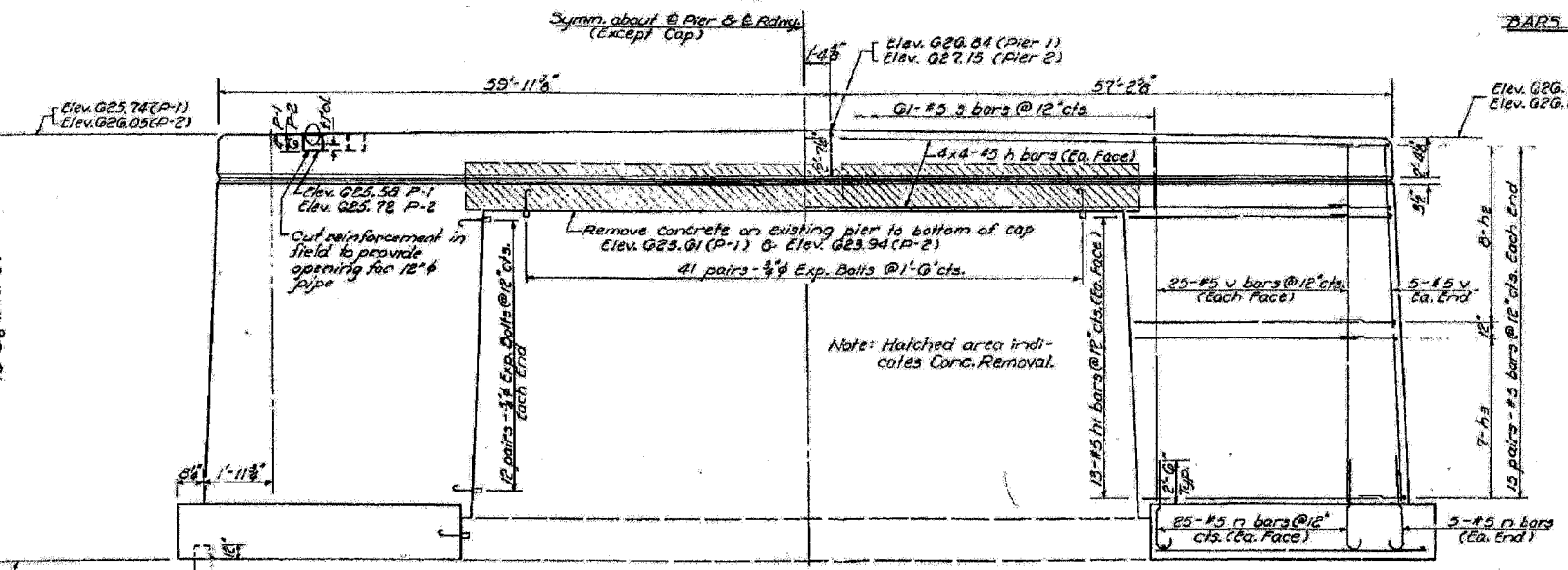
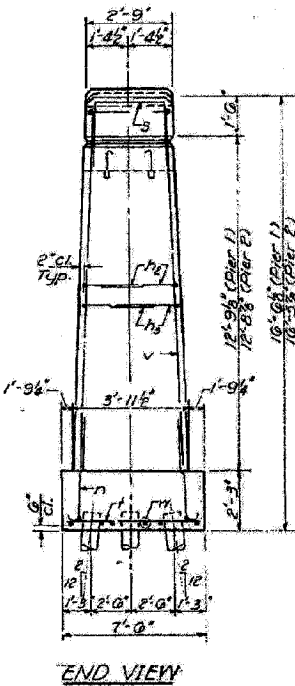
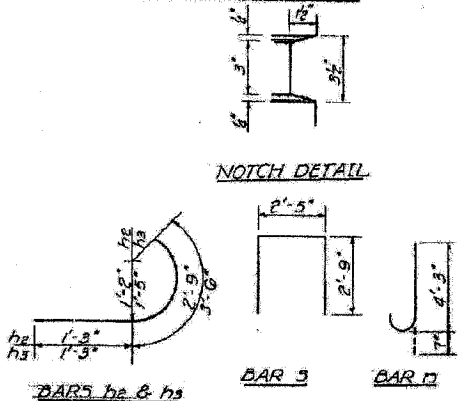
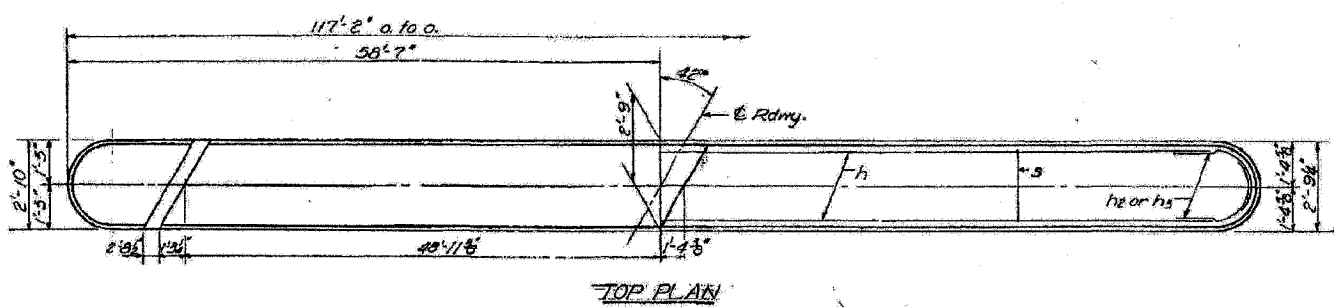
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|---|-------------|--------|-----------------|
| CONTRACT NO. 74239 | | | |
| FAP RTE | SECTION | COUNTY | TOTAL SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 |
| STA. | TO STA. | | 19 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT AID | | | |

| | | | |
|-------------|---------|-----------|--------------|
| PROJECT NO. | SECTION | SHEET NO. | TOTAL SHEETS |
| 130BR | MACON | 37 | 31 |

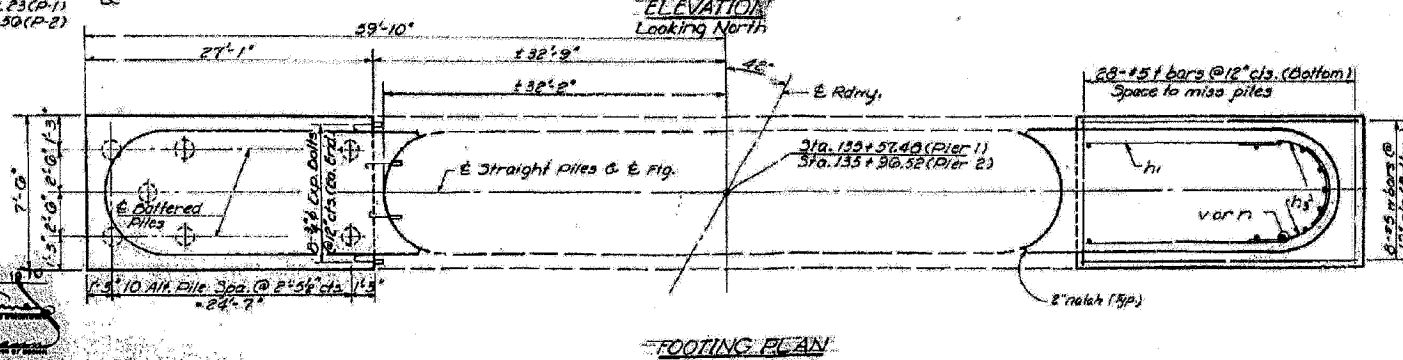
SHEET NO. 10
11 SHEETS

PILE DATA
Type: Untreated
Capacity: 24 Tons
c/sfd Length: 25 Ft.
No. Reqd.: 67 + 1 Test Pile



2 PIERS
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|------------------------|-----|------|--------|----------|--------|
| n | 64 | #5 | 30'-3" | — | |
| h1 | 104 | #5 | 28'-9" | — | |
| h2 | 64 | #5 | 4'-0" | — | |
| h3 | 56 | #5 | 4'-9" | — | |
| n | 220 | #5 | 4'-10" | — | |
| s | 122 | #5 | 7'-11" | □ | |
| i | 112 | #5 | 7'-3" | — | |
| v | 220 | #5 | 13'-9" | — | |
| w | 32 | #5 | 26'-9" | — | |
| Concrete Removal | | | | Cu. Yds. | 24 |
| Class A Concrete | | | | Cu. Yds. | 312.7 |
| Reinforcement Bars | | | | Lbs. | 16,430 |
| Expansion Bolts (3/8") | | | | Each | 252 |
| Untreated Piles | | | | Lin. Ft. | 1675 |
| Test Pile (Timber) | | | | Each | 1 |



DESIGNED: *Smith T. Desoit*
CHECKED: *John H. [Signature]*
DRAWN: *JPC*
CHECKED: *JR*

EXAMINED: *[Signature]*
APPROVED: *[Signature]*

SEP 10 1974

PIERS
S.C. I. RT. 48 SEC. 130BR
MACON COUNTY
STA. 135+77.00

Rev. 4-10-74

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | ROP | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056

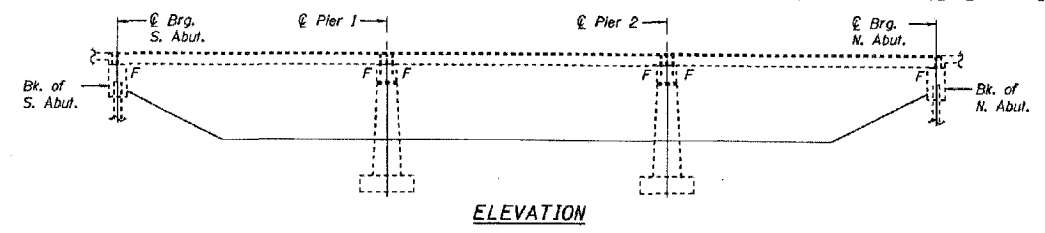


CONTRACT NO. 74239

| | | | | |
|---------------------|-------------|----------------------|--------------|-----------|
| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 | 20 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|----------------------|---------|--------|------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET NO. |
| | | MACON | | 2 SHEETS |
| Contract Number: --- | | | | |



GENERAL NOTES

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

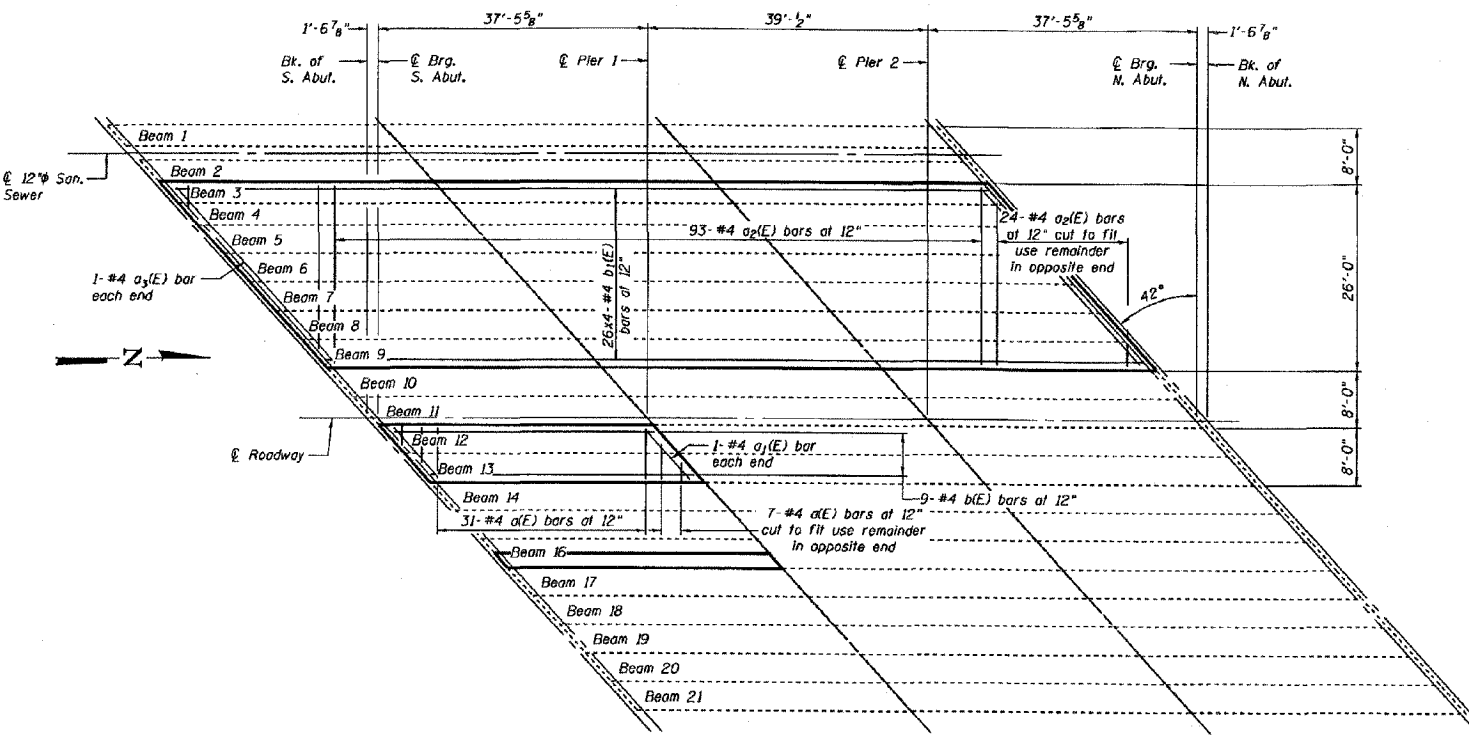
If required to be anchored, temporary concrete barrier shall only be anchored into the overlay and not the PPC Deck Beams.

All construction joints shall be banded.

Existing reinforcement extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splitter or anchorage system. Cost shall be included with Concrete Removal.

Truck mixers, concrete pumps, vacuum trucks or other heavy equipment will not be allowed on any portion of the bridge.

Scarification equipment, combined with other equipment shall not exceed 15 tons in one span.



TOTAL BILL OF MATERIAL

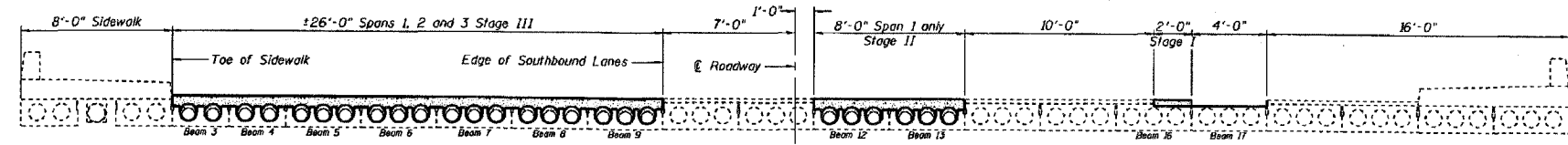
| ITEM | UNIT | QUANTITY |
|-------------------------------------|---------|----------|
| Concrete Removal (Special) | Cu. Yd. | 65.1 |
| Concrete Superstructures | Cu. Yd. | 89.5 |
| Reinforcing Bars, Epoxy Coated | Pound | 4,620 |
| Bituminous Concrete Surface Removal | Sq. Yd. | 367.9 |

Bar List

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| a(E) | 38 | #4 | 7'-9" | --- |
| a1(E) | 2 | #4 | 10'-6" | --- |
| a2(E) | 117 | #4 | 25'-9" | --- |
| a3(E) | 2 | #4 | 34'-6" | --- |
| b(E) | 9 | #4 | 38'-0" | --- |
| b1(E) | 104 | #4 | 30'-7" | --- |

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

Min. Bar Lqd
#4 Bar = 1'-8"



Expires: November 30, 2006

| | | | |
|----------|------------------|----------|-------------------|
| DESIGNED | D.C.P. | EXAMINED | John A. Morris |
| CHECKED | M.A.C. | PASSED | Ralph E. Anderson |
| DRAWN | Drew Christopher | | |
| CHECKED | D.C.P. M.A.C. | | |

PRE-FINAL
DATE: 07/27/2006

PLAN AND ELEVATION
RT. 48 / SPRING CREEK
MACON COUNTY
SN 058-0056

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056

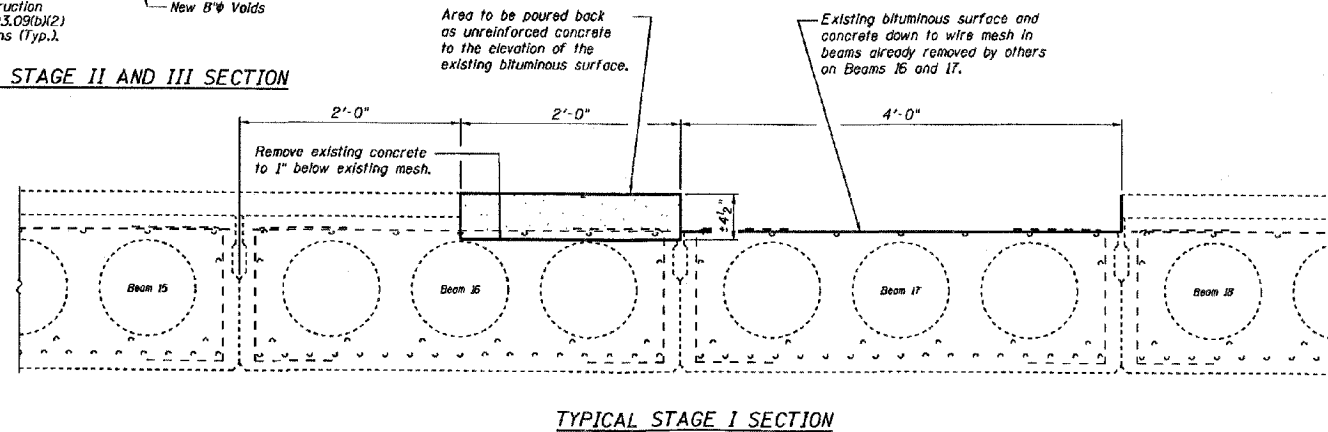
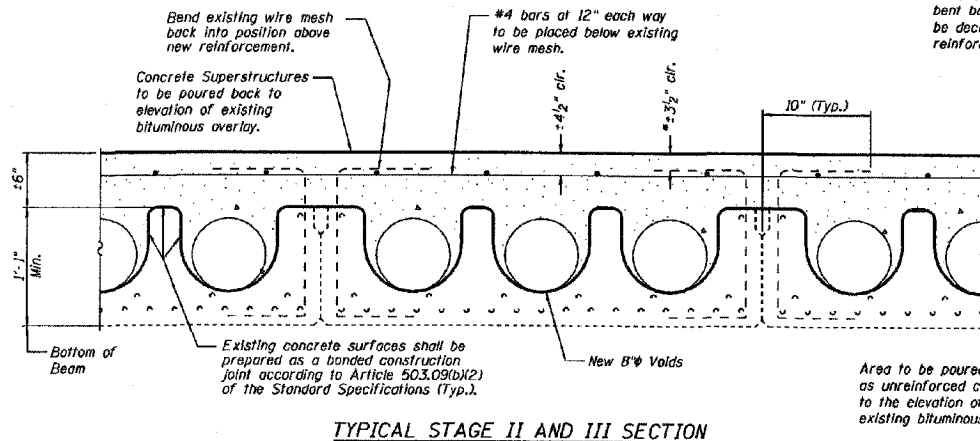
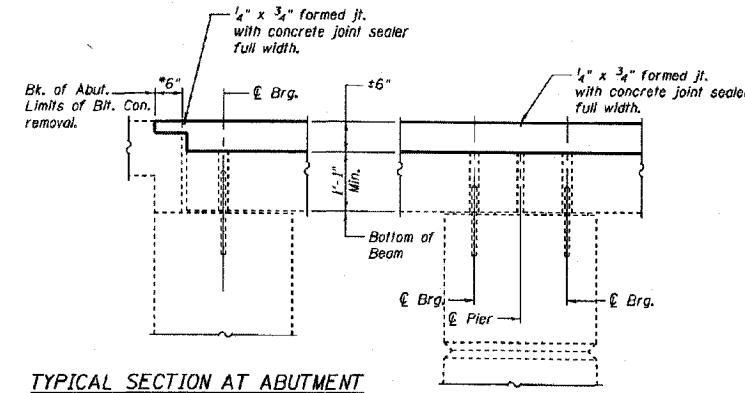
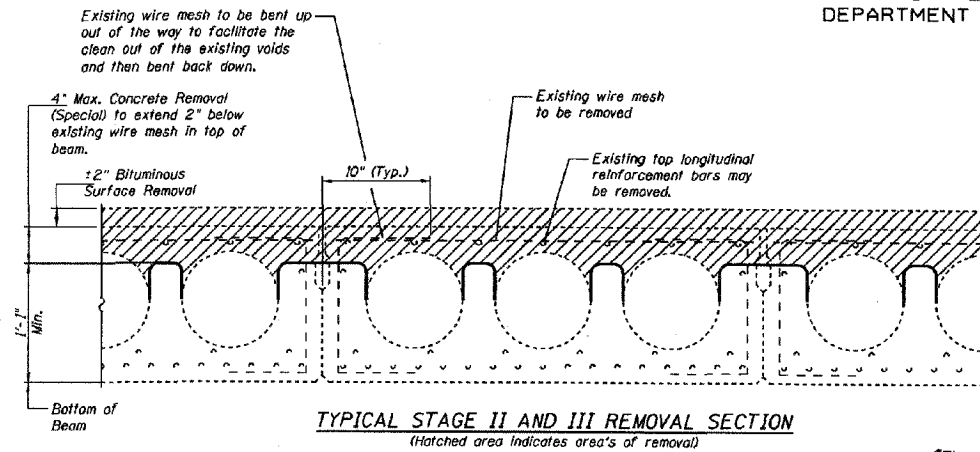
SLT-97-001-06



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|---------------------|-------------|----------------------|-----------------|
| CONTRACT NO. 74239 | | | |
| FAP RTE | SECTION | COUNTY | TOTAL SHEET NO. |
| 716 | (130BR-1)BR | MACON | 22 |
| STA. | TO STA. | | 21 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | |

| | | | | |
|-------------------------|---------|--------|------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET NO. |
| | | MACON | | 2 |
| SHEET NO. 2 2 SHEETS | | | | |
| Contract Number: --- | | | | |



DESIGNED D.C.P.
CHECKED M.A.C.
DRAWN Drew Christopher
CHECKED D.C.P. M.A.C.

EXAMINED John A. Morris
PASSED Ralph E. Anderson

PRE-FINAL
DATE: 07/27/2006

DECK DETAILS
RT. 48 / SPRING CREEK
MACON COUNTY
SN 058-0056

SLT-97-001-06

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056



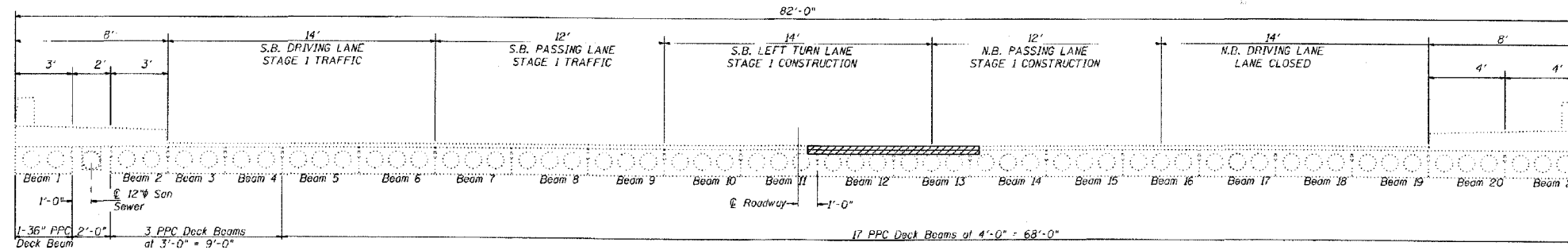
CONTRACT NO. 74239

| FAP RTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|-------------|----------------------|--------------|-----------|
| 716 | (130BR-1)BR | MACON | 22 | 22 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT AID | | |

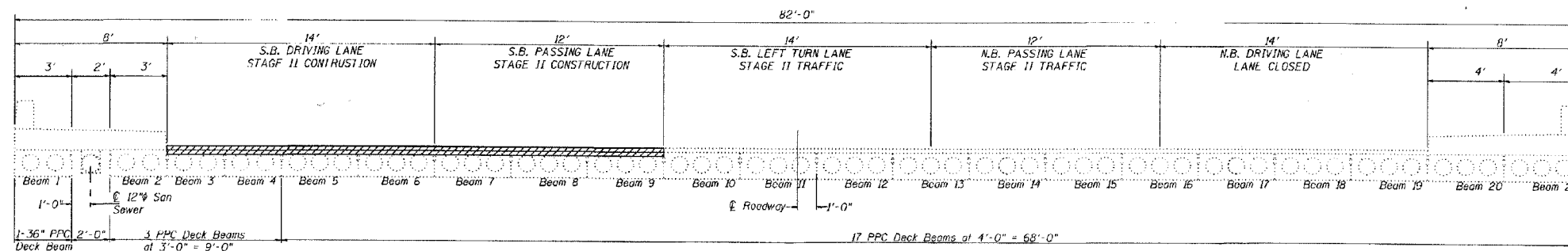
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|------------------|---------|--------|------|-----------|
| ROUTE NO. | SECTION | COUNTY | DATE | SHEET NO. |
| | | MACON | | 3 |
| SHEETS | | | | |
| Contract Number: | | | | |



STAGE 1 CONSTRUCTION
LOOKING NORTH



STAGE 2 CONSTRUCTION
LOOKING NORTH

| | |
|----------|------------------|
| DESIGNED | A.T.H. |
| CHECKED | S.J.B. |
| DRAWN | Drew Christopher |
| CHECKED | A.T.H. S.J.B. |

EXAMINED *John A. Morris*
ENGINEER OF STRUCTURAL SURVEILLANCE
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

STAMP AREA
PRE-FINAL
Line types are turned off. Show in the center of this rectangle to center stamp. Place Stamp on the Title-Block Model.

STAGE CONSTRUCTION DETAILS
RT. 48 / SPRING CREEK
MACON COUNTY
SN 058-0056

SLT-97-001-06

ESCA
CONSULTANTS, INC.

| | | |
|--------------|-----|-------|
| DESIGNED BY: | ELH | 02/07 |
| DRAWN BY: | JPC | 02/07 |
| CHECKED BY: | ELH | 02/07 |
| APPROVED BY: | RDP | 02/07 |

EXISTING BRIDGE PLANS
FAP ROUTE 716 (IL 48)
OAKLAND AVENUE
SECTION (130BR-1)BR
MACON COUNTY
SN 058-0056