

01-15-2016 LETTING ITEM 050

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI ROUTE 74 (I-74)
SECTION 20-1(HVB,HB-1,VB-1,B,B-1)|
PROJECT ACNHPP-0074 (317)
THIN CONCRETE OVERLAY
DEWITT COUNTY

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|----------|--------------------|-----------|
| 74 | * | DEWITT | 166 | 1 |
| | | ILLINOIS | CONTRACT NO. 90876 | |

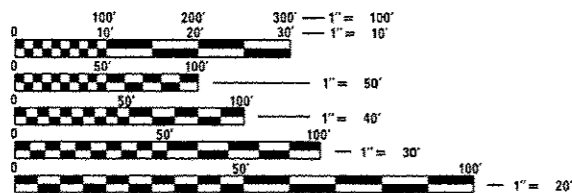
*20-1HVB,HB-1,VB-1,B,B-1|

D-95-014-97

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-7

| CURRENT TRAFFIC DATA | |
|--------------------------|--------|
| MCLEAN CO. LINE TO IL 54 | |
| 2011 ADT: | 21,600 |
| 2031 ADT: | 29,800 |
| PU + PC% = | 66.7 |
| SU% = | 4.2 |
| MU% = | 29.1 |
| IL 54 TO PIATT CO. LINE | |
| 2011 ADT: | 19,000 |
| 2031 ADT: | 22,400 |
| PU + PC% = | 65.5 |
| SU% = | 3.9 |
| MU% = | 30.6 |

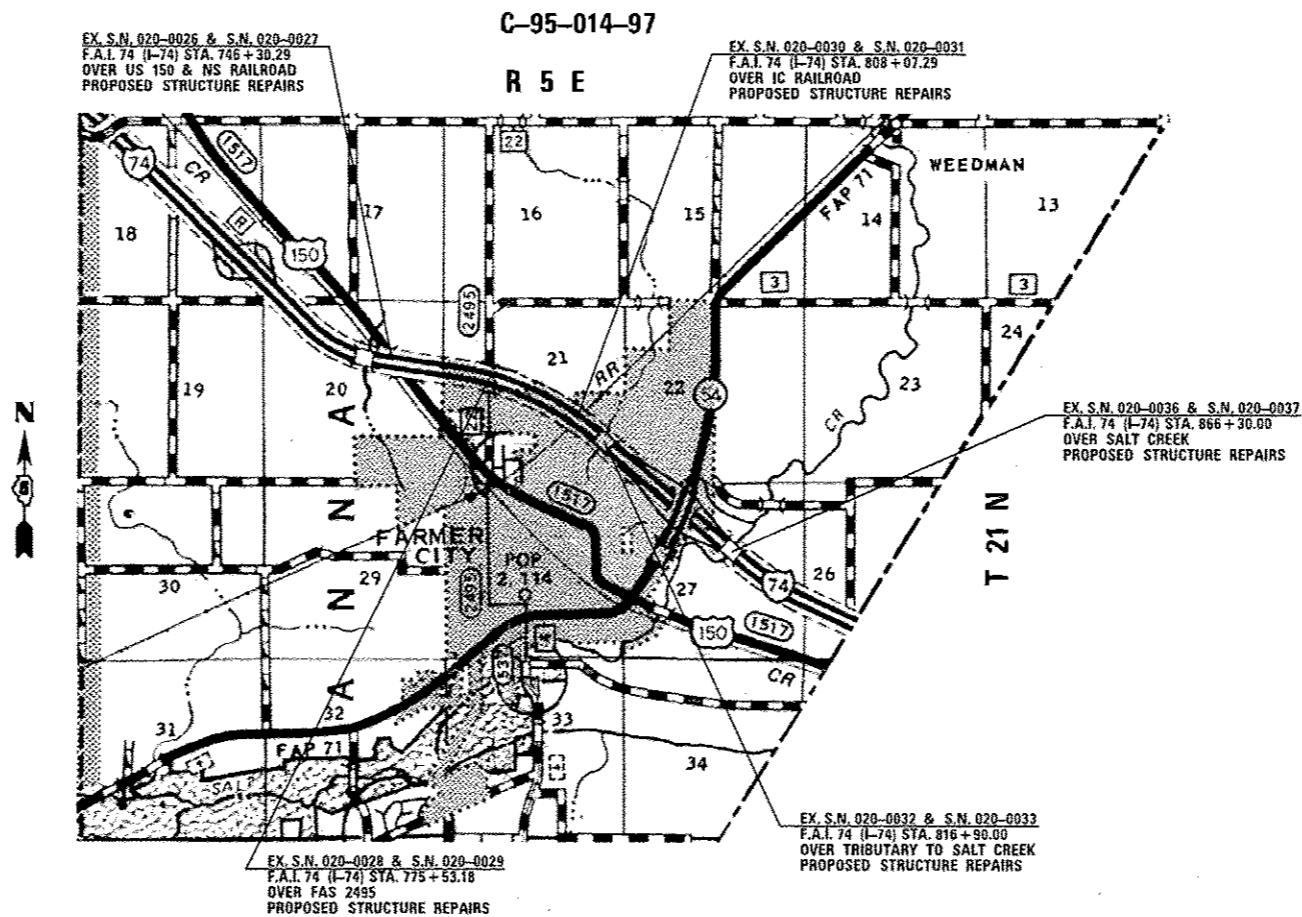
DESIGN DESIGNATION
INTERSTATE



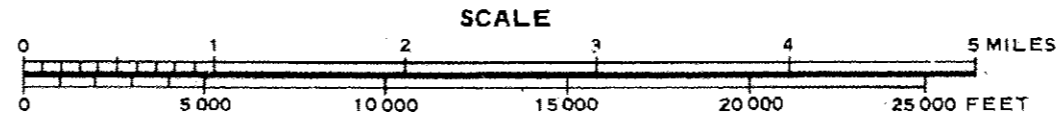
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: TIM BRANDENBURG
DESIGNER: RYAN CARROLL
217.465.4181
CONTRACT NO. 90876



GROSS LENGTH = 12,602.88 FT. = 2.387 MILE
NET LENGTH = 2,254.23 FT. = 0.427 MILE



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED OCTOBER 13 20 15
Kensel A. Garnett
DEPUTY DIRECTOR OF HIGHWAYS, REGION 3 ENGINEER

Dec 4 20 15
Jim D. Baranzoli, P.E.
CHIEF ENGINEER OF DESIGN AND ENVIRONMENT

Dec 4 20 15
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED OCTOBER 13 20 15
Kensel A. Garnett
DEPUTY DIRECTOR OF HIGHWAYS, REGION 3 ENGINEER

Dec 4 20 15
Jim D. Baranzoli, P.E.
CHIEF ENGINEER OF DESIGN AND ENVIRONMENT

Dec 4 20 15
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|------------|--|
| 1 | COVER SHEET |
| 2 | INDEX OF SHEETS & LIST OF STANDARDS |
| 3 | GENERAL NOTES |
| 4 to 7 | SUMMARY OF QUANTITIES |
| 8 | TYPICAL ROADWAY CROSS SECTIONS |
| 9 to 12 | MILLING TRANSITION - S.N. 020-0026 & S.N. 020-0027 |
| 13 to 38 | STRUCTURE REPAIR DETAILS - S.N. 020-0026 & S.N. 020-0027 |
| 39 to 40 | MILLING TRANSITION - S.N. 020-0028 & S.N. 020-0029 |
| 41 to 68 | STRUCTURE REPAIR DETAILS - S.N. 020-0028 & S.N. 020-0029 |
| 69 to 70 | MILLING TRANSITION - S.N. 020-0030 & S.N. 020-0031 |
| 71 to 99 | STRUCTURE REPAIR DETAILS - S.N. 020-0030 & S.N. 020-0031 |
| 100 to 101 | MILLING TRANSITION - S.N. 020-0032 & S.N. 020-0033 |
| 102 to 124 | STRUCTURE REPAIR DETAILS - S.N. 020-0032 & S.N. 020-0033 |
| 125 to 126 | MILLING TRANSITION - S.N. 020-0036 & S.N. 020-0037 |
| 127 to 157 | STRUCTURE REPAIR DETAILS - S.N. 020-0036 & S.N. 020-0037 |
| 158 | MILLING TRANSITION DETAIL AT STRUCTURES |
| 159 to 163 | TEMPORARY CONCRETE BARRIER LAYOUT |
| 164 to 166 | WIDTH RESTRICTION SIGNING |

LIST OF STANDARDS

| STANDARD NO. | DESCRIPTION |
|--------------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 630001-10 | STEEL PLATE BEAM GUARDRAIL |
| 701201-04 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS \geq 45 MPH |
| 701400-08 | APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY |
| 701401-09 | LANE CLOSURE, FREEWAY/EXPRESSWAY |
| 701402-10 | LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER |
| 701411-09 | LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP |
| 704001-07 | TEMPORARY CONCRETE BARRIER |
| 780001-05 | TYPICAL PAVEMENT MARKINGS |
| 781001-03 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS |
| 701901-04 | TRAFFIC CONTROL DEVICES |
| 701101-05 | OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701426-08 | LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS \geq 45 MPH |

REV.

*20-(HVB,HB-1,VB-1,B,B-1)

| | | | | | | | | | | |
|--|--|------------|-----------|---|---|---------------------------|---------|--------|-----------------|--------------|
| FILE NAME * | USER NAME = brandenbourgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS /LIST OF STANDARDS | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pw\110846RIDINTED\illinois.gov\PI\DOT\Documents\IGOT Offices\District 5\Projects\DSB | *BROWNData\Hydraulics\DS92876 Cover-sh | REVISOR | REVISOR | | | 74 | * | DEWITT | 166 | 2 |
| PLOT SCALE = 48,0000' / 1" = | CHECKED - | REVISOR | REVISOR | | | CONTRACT NO. 90876 | | | | |
| PLOT DATE = 10/13/2015 | DATE - | REVISOR | REVISOR | | | ILLINOIS FED. AID PROJECT | | | | |
| | | | | SCALE: | SHEET OF SHEETS | STA. TO STA. | | | | |

GENERAL NOTES

G.N.-100
 ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A
 ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-107.12
 THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD CONTACT:

Mr. Paul Chojenski
 Manager, Public Projects CN
 Division
 CN Railroad
 17641 South Ashland Avenue
 Homewood, IL 60430
 (708) 332-3557

Ms. Carrie Reynolds
 Division Office Manager-Illinois
 Norfolk Southern Railway Company
 1735 East Condit Street
 Decatur, IL 62521
 (217) 425-2078

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE RAILROAD FLAGGER CONTACT:

Ms. MaryEllen Carmody
 CN Railroad
 700 Pershing Road
 Pontiac, MI 48340
 (734) 783-4533

Ms. Carrie Reynolds
 Division Office Manager-Illinois Division
 Norfolk Southern Railway Company
 1735 East Condit Street
 Decatur, IL 62521
 (217) 425-2078

SOME RAILROADS REQUIRE CONTRACTORS TO OBTAIN A RIGHT OF ENTRY PERMIT BEFORE ENTERING UPON RAILROAD RIGHT OF WAY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A RAILROAD RIGHT OF ENTRY PERMIT FROM THE RAILROAD IF REQUIRED BY THE RAILROAD(S).

ALL WORK ON, OVER, UNDER, OR ADJACENT TO NORFOLK SOUTHERN (NS) RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS" (NS SPECIAL PROVISIONS).

G.N.-406
 THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406H

MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

| Location: | FAI 74 | FAI 74 | FAI 74 |
|--------------------|-----------------|----------------------|----------------|
| Mixture Use: | Polymer Surface | Polymer Level Binder | HMA Shoulder |
| AC/PG | SBS PG 70-22 | SBS PG 70-22 | PG 58-28 |
| RAP % (Max) | 10 | 10 | 30 |
| Design Air Voids | 4.0% @ Ndes=105 | 4.0% @ Ndes=105 | 4.0% @ Ndes=30 |
| Mix | | | |
| Comp(Gradation) | IL 9.5 | IL 9.5 | IL 9.5L |
| Friction Aggregate | Mix D | Mix C | Mix C |

G.N.-482

ALL MATERIAL PLACED AS HOT-MIX ASPHALT SHOULDERS SHALL BE COMPACTED TO 94.0 - 98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO IL 9.5L GRADATION SHOULDER MIXES AND OTHER MIXES (BOTTOM LIFT OF SHOULDERS). THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/QA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR THE IL 9.5L MIXES AND OTHER MIXES USING STANDARD CORRELATION PROCEDURES

*20-10VB,HB-1,VB-1,B,B-111

| | | | | | | | | | | |
|--|--|------------|---------------------|---|----------------------|-------------------------------------|---------|--|--------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL NOTES | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| p:\11\084E8ID\INTEG\11\mex.gov\FWIDOT\084E8ID\DOT\Office\District 5\Projects\084E8ID\Drawings\Hydraulics\084E8ID\Cover\084E8ID\REVISED - | p:\11\084E8ID\INTEG\11\mex.gov\FWIDOT\084E8ID\DOT\Office\District 5\Projects\084E8ID\Drawings\Hydraulics\084E8ID\Cover\084E8ID\REVISED - | DRAWN - | REVISED - | | | 74 | * | DEWITT | 166 | 3 |
| PLOT SCALE = 40.0000' / 1" = | CHECKED - | DATE - | REVISED - TJB | | | | | | | |
| PLOT DATE = 18/12/2015 | DATE - | REVISED - | REVISED - 3/16/2015 | | | | | | | |
| | | | | | | SCALE: SHEET OF SHEETS STA. TO STA. | | ILLINOIS FED. AID PROJECT CONTRACT NO. 90876 | | |

SUMMARY OF QUANTITIES

LOCATION OF WORK: DEWITT CO.
 FAI 74 (I-74)
 RURAL INTERSTATE
 BRIDGE REPAIRS
 STRUCTURE NO.: 020-0026 020-0027 020-0028 020-0029 020-0030 020-0031 020-0032 020-0033 020-0036 020-0037
 FUNDING BREAKOUT: 90% FED./10% STATE
 CONSTRUCTION TYPE CODE: 0014

| CODE NO. | DESCRIPTION | UNIT | TOTAL QUANTITY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|---|-------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 40600275 | BITUMINOUS MATERIALS (PRIME COAT) | POUND | 6,208.0 | 585.0 | 591.0 | 621.0 | 622.0 | 621.0 | 622.0 | 624.0 | 624.0 | 674.0 | 624.0 |
| 40600855 | POLYMERIZED LEVELING BINDER (MACHINE METHOD), N105 | TON | 616.0 | 56.0 | 56.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 |
| 40603550 | POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N105 | TON | 616.0 | 56.0 | 56.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 |
| 44001114 | HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS) | SQ YD | 3,982.0 | 1,570.0 | | | 436.0 | 628.0 | | 674.0 | 674.0 | | |
| 48203100 | HOT-MIX ASPHALT SHOULDERS | TON | 550.0 | 54.0 | 55.0 | 54.0 | 54.0 | 54.0 | 54.0 | 54.0 | 54.0 | 63.0 | 54.0 |
| 50102400 | CONCRETE REMOVAL | CU YD | 180.9 | 49.2 | 36.9 | 12.5 | 13.3 | 18.6 | 18.8 | 7.6 | 7.6 | 7.7 | 8.7 |
| 50157300 | PROTECTIVE SHIELD | SQ YD | 946.0 | 294.0 | 294.0 | 85.0 | 85.0 | 94.0 | 94.0 | | | | |
| 50300100 | FLOOR DRAINS | EACH | 152.0 | 18.0 | 18.0 | 8.0 | 8.0 | 12.0 | 12.0 | 18.0 | 18.0 | 20.0 | 20.0 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 187.5 | 49.9 | 37.6 | 12.5 | 13.3 | 21.2 | 21.4 | 7.6 | 7.6 | 7.7 | 8.7 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 10,177.0 | 1,791.0 | 1,791.0 | 651.0 | 651.0 | 817.0 | 817.0 | 861.0 | 861.0 | 983.0 | 954.0 |
| 50300300 | PROTECTIVE COAT | SQ YD | 498.0 | 121.0 | 100.0 | 32.0 | 34.0 | 62.0 | 62.0 | 21.0 | 21.0 | 21.0 | 24.0 |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 21,530.0 | 5,257.0 | 3,203.0 | 2,665.0 | 2,315.0 | 3,700.0 | 4,390.0 | | | | |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 1,416.0 | 560.0 | 280.0 | | | 288.0 | 288.0 | | | | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 12,940.0 | 1,800.0 | 1,800.0 | 1,260.0 | 1,360.0 | 1,260.0 | 1,260.0 | 1,020.0 | 1,020.0 | 1,040.0 | 1,020.0 |

* SPECIALTY ITEM

*20-I(HV),HB-1,VB-1,B,B-111

| | | | | | | | | | | |
|---|---|------------|-----------|---|------------------------------|--------------------|---------------------|---------------------------|-----------------|--------------|
| FILE NAME * | USER NAME * orandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| g:\1\2084EB\ID\INTEG\Illinois.gov\FIDOT\020-0026-0027-0028-0029-0030-0031-0032-0033-0036-0037 | g:\1\2084EB\ID\INTEG\Illinois.gov\FIDOT\020-0026-0027-0028-0029-0030-0031-0032-0033-0036-0037 | CHECKED - | REVISED - | | | 74 | * | DEWITT | 166 | 4 |
| PLOT SCALE * 40.0000 1/2 in. | PLOT DATE * 10/12/2015 | DATE - | REVISED - | | | CONTRACT NO. 90876 | | ILLINOIS FED. AID PROJECT | | |
| | | | | | SCALE: | | SHEET 1 OF 4 SHEETS | | STA. TO STA. | |

SUMMARY OF QUANTITIES

LOCATION OF WORK: DEWITT CO.
 FAI 74 (I-74)
 RURAL INTERSTATE
 BRIDGE REPAIRS

STRUCTURE NO.: 020-0026 020-0027 020-0028 020-0029 020-0030 020-0031 020-0032 020-0033 020-0036 020-0037

FUNDING BREAKOUT: 90% FED./10% STATE

CONSTRUCTION TYPE CODE: 0014

| CODE NO. | DESCRIPTION | UNIT | TOTAL QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY |
|----------|--|--------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 50800515 | BAR SPLICERS | EACH | 176.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 14.0 | 14.0 | 14.0 |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 960.0 | 126.0 | 126.0 | 88.8 | 88.8 | 88.6 | 88.6 | 88.0 | 88.0 | 89.2 | 88.0 |
| 52100010 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 36.0 | | | 12.0 | 12.0 | 6.0 | 6.0 | | | | |
| 52100020 | ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 64.0 | 14.0 | 14.0 | | | 6.0 | 6.0 | | | 12.0 | 12.0 |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 200.0 | 28.0 | 28.0 | 24.0 | 24.0 | 24.0 | 24.0 | | | 24.0 | 24.0 |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 18.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| 67100100 | MOBILIZATION | L SUM | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 70100207 | TRAFFIC CONTROL & PROTECTION, STANDARD 701402 | EACH | 10.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 70100420 | TRAFFIC CONTROL & PROTECTION, STANDARD 701411 | EACH | 2.0 | | | | | | | | | 1.0 | 1.0 |
| 70100450 | TRAFFIC CONTROL & PROTECTION, STANDARD 701201 | L SUM | 1.0 | 0.4 | 0.4 | 0.1 | 0.1 | | | | | | |
| 70100800 | TRAFFIC CONTROL & PROTECTION, STANDARD 701401 | L SUM | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 8,500.0 | 1,000.0 | 1,000.0 | 750.0 | 750.0 | 775.0 | 775.0 | 800.0 | 800.0 | 1,025.0 | 825.0 |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 8,300.0 | 1,000.0 | 1,000.0 | 750.0 | 750.0 | 775.0 | 775.0 | 800.0 | 800.0 | 825.0 | 825.0 |
| 70600250 | IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIONAL), TEST LEVEL 3 | EACH | 10.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |

* SPECIALTY ITEM

*20-31HVB,HB-1,VB-1,B,B-1H

| | | | | | | | | | | |
|--|--------------------------|------------|------------|---|------------------------------|---------------------|---------|--------|--------------|-----------|
| FILE NAME = | USER NAME = brandenburgj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pm\1120842BID\INTEG\Illinois.gov\PWIDGT\Documents\DOT Offices\District 5\Projects\DS24\BPM\Bids\Hydraulics\05\90876 Cover.sh | | | | | | 74 | * | DEWITT | 165 | 5 |
| PLOT SCALE = 40.0000' / in. | CHECKED - | REVISIED - | REVISIED - | | | | | | | |
| PLOT DATE = 10/13/2016 | DATE - | REVISIED - | REVISIED - | | | | | | | |
| | | | | | SCALE: | SHEET 2 OF 4 SHEETS | | STA. | TO STA. | |
| ILLINOIS FED. AID PROJECT | | | | | | | | | | |

SUMMARY OF QUANTITIES

LOCATION OF WORK: DEWITT CO.
 FAI 74 (I-74)
 RURAL INTERSTATE
 BRIDGE REPAIRS

STRUCTURE NO.:
 FUNDING BREAKOUT: 90% FED./10% STATE
 CONSTRUCTION TYPE CODE: 0014

020-0026 020-0027 020-0028 020-0029 020-0030 020-0031 020-0032 020-0033 020-0036 020-0037

TOTAL

| CODE NO. | DESCRIPTION | UNIT | TOTAL QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY |
|------------|---|----------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 70600350 | IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIONAL), TEST LEVEL 3 | EACH | 10.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| * 78009004 | MODIFIED URETHANE PAVEMENT MARKING LINE 4" | FOOT | 12,488.0 | 1,636.0 | 1,636.0 | 1,056.0 | 1,056.0 | 1,148.0 | 1,148.0 | 1,176.0 | 1,176.0 | 1,228.0 | 1,228.0 |
| * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 80.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 48.0 | 10.0 | 10.0 | 2.0 | 2.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 128.0 | 18.0 | 18.0 | 10.0 | 10.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 | 12.0 |
| X0322194 | POLYMER MODIFIED PORTLAND CEMENT MORTAR | SQ FT | 69.0 | | | | | | | 21.0 | 21.0 | 13.0 | 14.0 |
| X0325682 | PUMPABLE CONCRETE MIX | CU FT | 12.0 | | | | | | | 3.0 | 3.0 | 3.0 | 3.0 |
| X4401198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 16,125.0 | 1,600.0 | 1,613.0 | 1,599.0 | 1,602.0 | 1,600.0 | 1,601.0 | 1,600.0 | 1,600.0 | 1,710.0 | 1,600.0 |
| X6330900 | VERTICAL ADJUSTMENT OF GUARDRAIL | FOOT | 4,125.0 | 362.5 | 362.5 | 362.5 | 362.5 | 550.0 | 550.0 | 350.0 | 525.0 | 350.0 | 350.0 |
| X7010410 | SPEED DISPLAY TRAILER | CAL MON | 10.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| X7015005 | CHANGEABLE MESSAGE SIGN | CAL DA | 28.0 | 14.0 | | | | | | | | | 14.0 |
| X7200201 | WIDTH RESTRICTION SIGNING | LUMP SUM | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| * X7830070 | GROOVING FOR RECESSED PAVEMENT MARKING | FOOT | 12,488.0 | 1,636.0 | 1,636.0 | 1,056.0 | 1,056.0 | 1,148.0 | 1,148.0 | 1,176.0 | 1,176.0 | 1,228.0 | 1,228.0 |
| Z0001899 | JACK AND REMOVE EXISTING BEARINGS | EACH | 100.0 | 14.0 | 14.0 | 12.0 | 12.0 | 12.0 | 12.0 | | | 12.0 | 12.0 |

* SPECIALTY ITEM

*20-11HVB,HB-1,VB-1,B,B-111

| | | | | | | | | | | | |
|--|--|-----------------------------|---------------------------|---|------------------------------|----------------|---------|--------|-----------------|--------------|--------------------|
| FILE NAME = | USER NAME = brandenburgj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw\dl284ESID\INTEG\Illinois.gov\PI00T\De | uments\DOT Offices\District 5\Projects\020 | *DRAWING\020\90876 Cover.sh | *REVISED - | | | 74 | * | DEWITT | 166 | 6 | |
| PLOT SCALE = 48.0000' / 1" = | CHECKED - | REVISED - | SCALE: | | | SHEET 3 | OF 4 | SHEETS | STA. | TO STA. | CONTRACT NO. 90876 |
| PLOT DATE = 12/13/2015 | DATE - | REVISED - | ILLINOIS FED. AID PROJECT | | | | | | | | |

SUMMARY OF QUANTITIES

LOCATION OF WORK: DEWITT CO.
FAI 74 (I-74)
RURAL INTERSTATE
BRIDGE REPAIRS

STRUCTURE NO.: 020-0026 020-0027 020-0028 020-0029 020-0030 020-0031 020-0032 020-0033 020-0036 020-0037
FUNDING BREAKOUT: 90% FED./10% STATE
CONSTRUCTION TYPE CODE: 0014

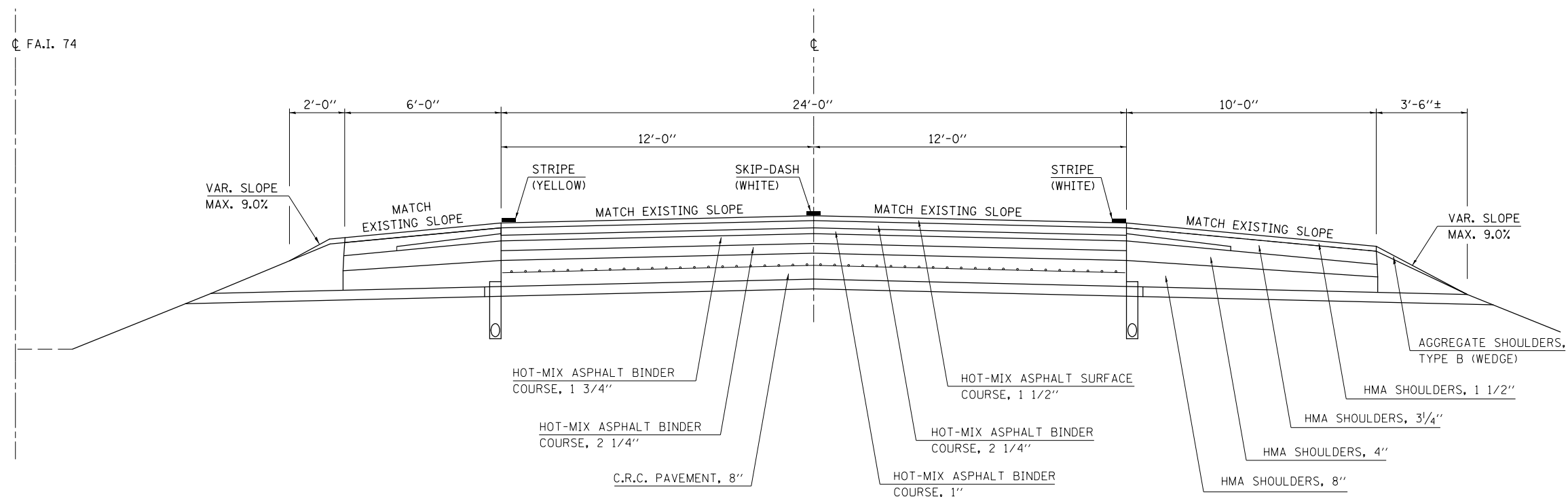
| CODE NO. | DESCRIPTION | UNIT | TOTAL QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY | QUANTITY |
|------------|---|-------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Z0001903 | STRUCTURAL STEEL REMOVAL | POUND | 11,090.0 | 3,082.0 | 1,028.0 | 1,380.0 | 1,030.0 | 1,960.0 | 2,610.0 | | | | |
| Z0001905 | STRUCTURAL STEEL REPAIR | POUND | 1,850.0 | 420.0 | 310.0 | 70.0 | 120.0 | 460.0 | 470.0 | | | | |
| Z0004556 | HOT-MIX ASPHALT SURFACE REMOVAL (DECK) | SQ YD | 4,190.0 | | 1,570.0 | 436.0 | | | 628.0 | | | 784.0 | 772.0 |
| Z0006014 | BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2" | SQ YD | 10,344.0 | 1,810.0 | 1,829.0 | 658.0 | 658.0 | 806.0 | 806.0 | 888.0 | 888.0 | 1,015.0 | 986.0 |
| Z0012130 | BRIDGE DECK SCARIFICATION, 3/4" | SQ YD | 10,344.0 | 1,810.0 | 1,829.0 | 658.0 | 658.0 | 806.0 | 806.0 | 888.0 | 888.0 | 1,015.0 | 986.0 |
| Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH <or= 5 INCHES) | SQ FT | 390.0 | 61.0 | 59.0 | 31.0 | 40.0 | 36.0 | 24.0 | 32.0 | 22.0 | 53.0 | 32.0 |
| Z0012755 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) | SQ FT | 24.0 | | | | | | | | | | 24.0 |
| Z0016001 | DECK SLAB REPAIR (FULL DEPTH, TYPE I) | SQ YD | 181.0 | 26.0 | 27.0 | 10.0 | 10.0 | 14.0 | 14.0 | 19.0 | 19.0 | 21.0 | 21.0 |
| Z0016002 | DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 10.0 | 3.0 | | | 5.0 | | 2.0 | | | | |
| Z0048665 | RAILROAD PROTECTIVE LIABILITY INSURANCE | L SUM | 1.0 | 0.25 | 0.25 | | | 0.25 | 0.25 | | | | |
| φ Z0076600 | TRAINEES | Hour | 1500 | 300 | 300 | 100 | 100 | 100 | 100 | 100 | 100 | 200 | 100 |
| φ Z0076604 | TRAINEES TRAINING PROGRAM GRADUATE | Hour | 1500 | 300 | 300 | 100 | 100 | 100 | 100 | 100 | 100 | 200 | 100 |

* SPECIALTY ITEM

φ 0042

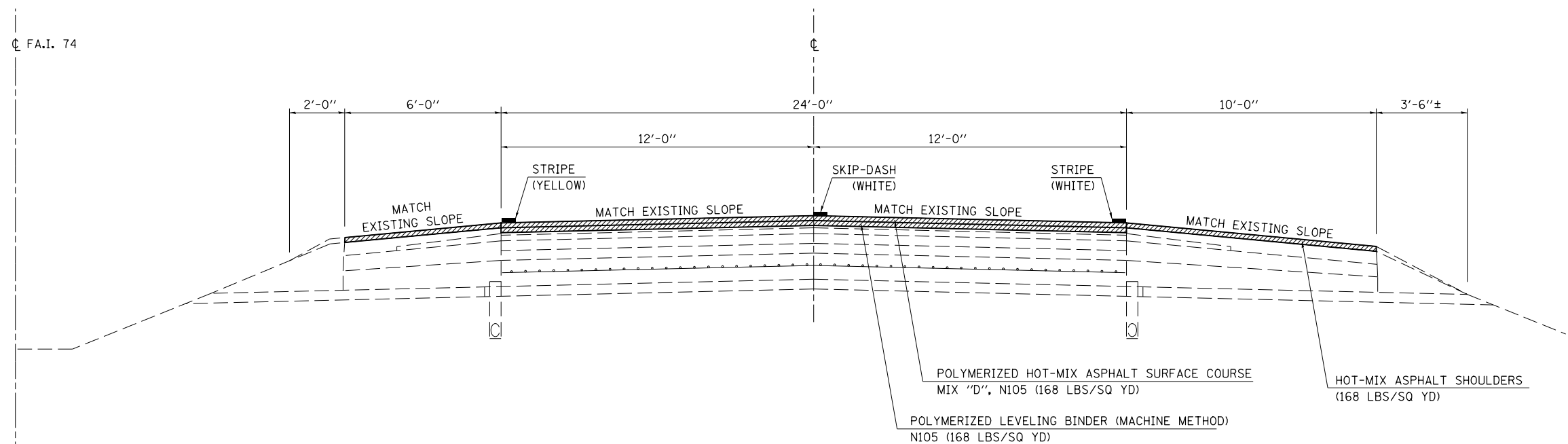
| | | | | | | | | | | | |
|--|--|------------|-----------|---|------------------------------|----------------------|--------------|------------------|---------------------|----------------|---|
| FILE NAME = | USER NAME = brandenburgj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.J. RTE. 74 | SECTION * | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 7 | *20-11HV8,MB-1,VB-1,B,B-111 CONTRACT NO. 90876 |
| g:\11\204EBID\INTEG.Illinois.gov\PI\DOT\00 | Documents\DOT Offices\District 5\Projects\0502 | *DRAWN | *REVISED | | | | | | | | ILLINOIS FED. AID PROJECT |
| | PLOT SCALE = 40,0000' / 1" = | CHECKED - | REVISED - | | SCALE: | SHEET 4 | OF 4 | SHEETS | STA. | TO STA. | |
| | PLOT DATE = 12/12/2015 | DATE - | REVISED - | | | | | | | | |

EXISTING TYPICAL SECTION



| Resurfacing Limits | | |
|--------------------|---------------|-------------|
| Structure | Begin Station | End Station |
| 020-0026 | 743+92.71 | 745+72.71 |
| | 749+35.28 | 751+15.28 |
| 020-0027 | 742+97.25 | 744+77.25 |
| | 748+41.27 | 750+21.27 |
| 020-0028 | 773+25.54 | 775+05.54 |
| | 776+11.00 | 777+91.00 |
| 020-0029 | 773+13.29 | 774+93.29 |
| | 775+99.13 | 777+79.13 |
| 020-0030 | 805+47.98 | 807+27.98 |
| | 808+75.06 | 810+55.06 |
| 020-0031 | 805+57.96 | 807+37.96 |
| | 808+85.04 | 810+65.04 |
| 020-0032 | 814+24.34 | 816+04.34 |
| | 817+65.54 | 819+45.54 |
| 020-0033 | 814+25.19 | 816+05.19 |
| | 817+65.15 | 819+45.15 |
| 020-0036 | 863+56.96 | 865+36.96 |
| | 867+20.13 | 869+00.13 |
| 020-0037 | 863+56.93 | 865+36.93 |
| | 867+19.31 | 868+99.31 |

PROPOSED TYPICAL SECTION



| Resurfacing Limits | | |
|--------------------|---------------|-------------|
| Structure | Begin Station | End Station |
| 020-0026 | 743+92.71 | 745+72.71 |
| | 749+35.28 | 751+15.28 |
| 020-0027 | 742+97.25 | 744+77.25 |
| | 748+41.27 | 750+21.27 |
| 020-0028 | 773+25.54 | 775+05.54 |
| | 776+11.00 | 777+91.00 |
| 020-0029 | 773+13.29 | 774+93.29 |
| | 775+99.13 | 777+79.13 |
| 020-0030 | 805+47.98 | 807+27.98 |
| | 808+75.06 | 810+55.06 |
| 020-0031 | 805+57.96 | 807+37.96 |
| | 808+85.04 | 810+65.04 |
| 020-0032 | 814+24.34 | 816+04.34 |
| | 817+65.54 | 819+45.54 |
| 020-0033 | 814+25.19 | 816+05.19 |
| | 817+65.15 | 819+45.15 |
| 020-0036 | 863+56.96 | 865+36.96 |
| | 867+20.13 | 869+00.13 |
| 020-0037 | 863+56.93 | 865+36.93 |
| | 867+19.31 | 868+99.31 |

HOT-MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH)

| | | | |
|--|---------------------------|------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - |
| pw:\11\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\Hydraulics\0590876-Sht-Typical | | CHECKED - | REVISED - |
| | | DATE - | REVISED - |
| | | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL CROSS SECTIONS

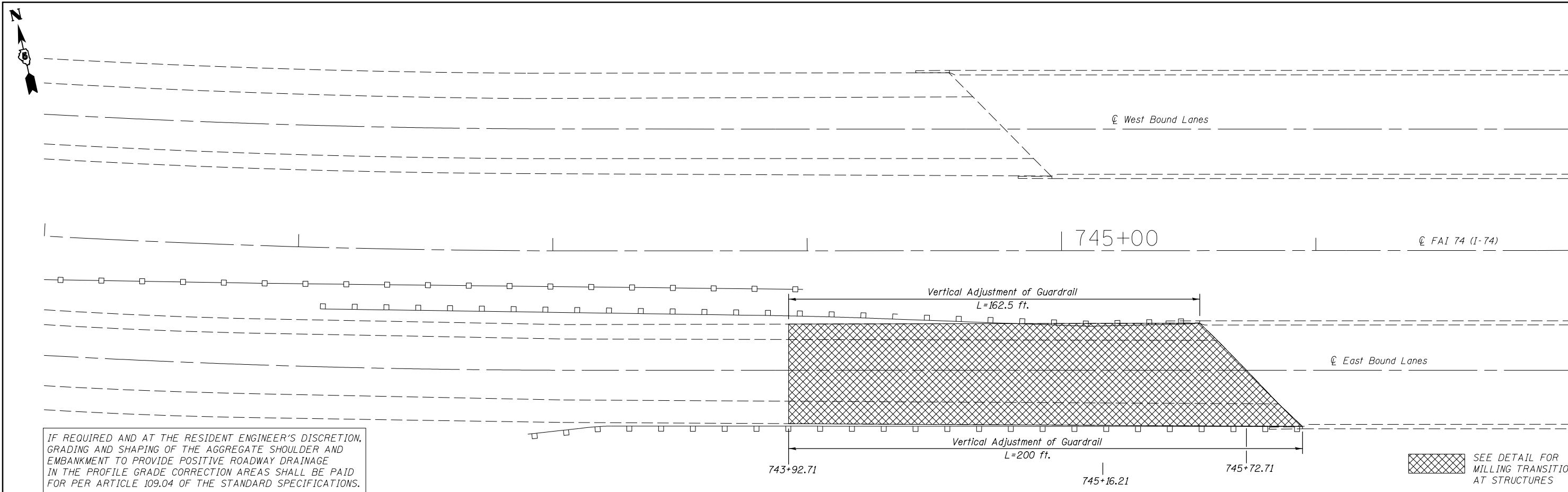
SCALE: SHEET OF SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | • | DEWITT | 166 | 8 |
| CONTRACT 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

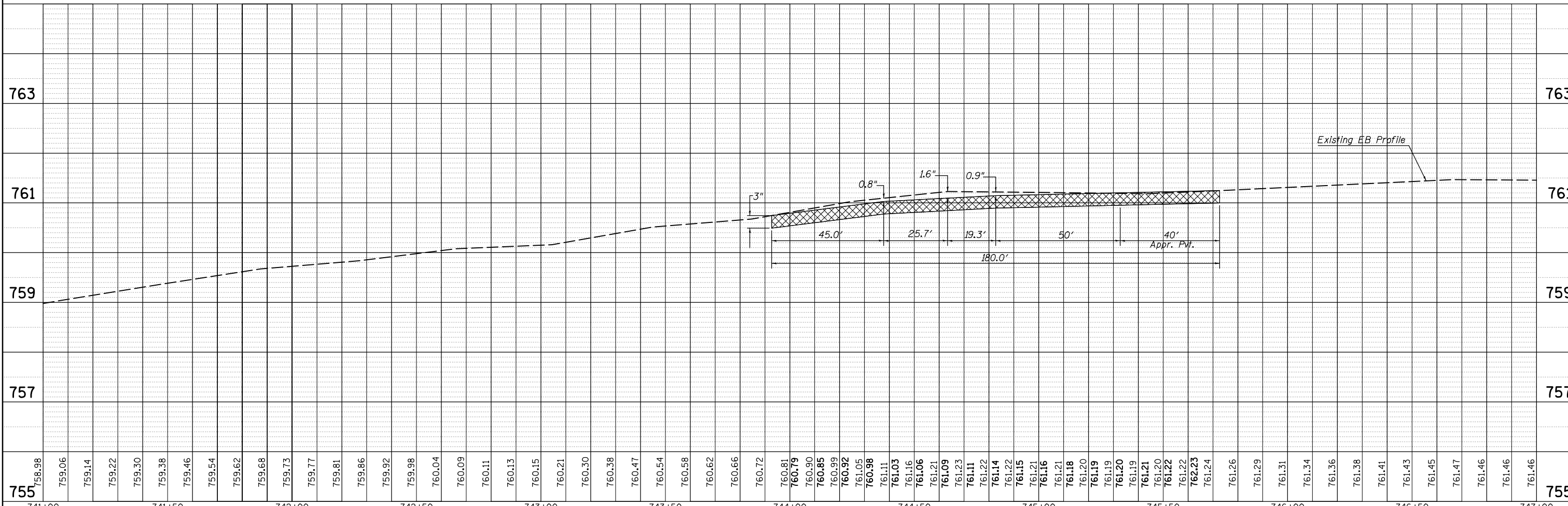
*20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|------|-----------------------------|----|------|
| PLAN | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | GRADES CHECKED | | |
| | STRUCTURE NOTATIONS CHECKED | | |
| | NOTE BOOK NO. | | |
| | CADD FILE NAME | | |

| | | | |
|---------|-----------------------------|----|------|
| PROFILE | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | GRADES CHECKED | | |
| | STRUCTURE NOTATIONS CHECKED | | |
| | NOTE BOOK NO. | | |
| | CADD FILE NAME | | |



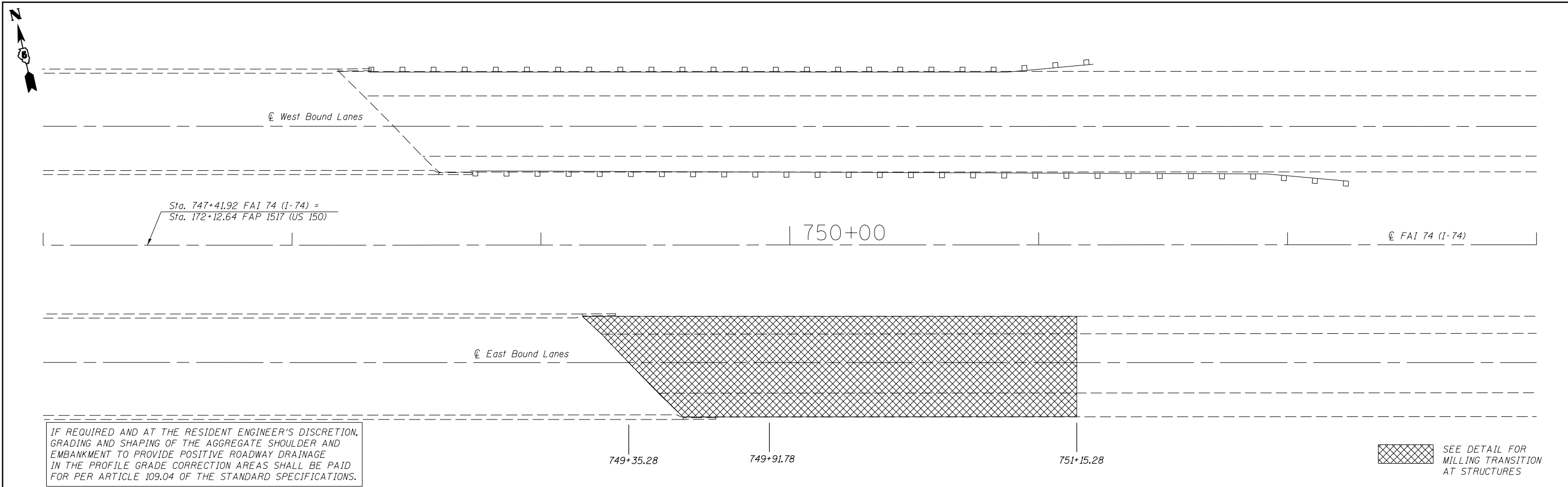
IF REQUIRED AND AT THE RESIDENT ENGINEER'S DISCRETION, GRADING AND SHAPING OF THE AGGREGATE SHOULDER AND EMBANKMENT TO PROVIDE POSITIVE ROADWAY DRAINAGE IN THE PROFILE GRADE CORRECTION AREAS SHALL BE PAID FOR PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.



| | | | | | | | | | | | |
|-----------------------------|---------------------------|------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION-WEST APPROACH PAVEMENT S.N. 020-0026 (EB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | CHECKED - | REVISED - | | | 74 | • | DEWITT | 166 | 9 | |
| | | DATE - | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| | | | | | | ILLINOIS FED. AID PROJECT | | | | | |
| PLOT SCALE = 40.0000' / in. | | | | SCALE: | | SHEET | OF | SHEETS | STA. | TO | STA. |

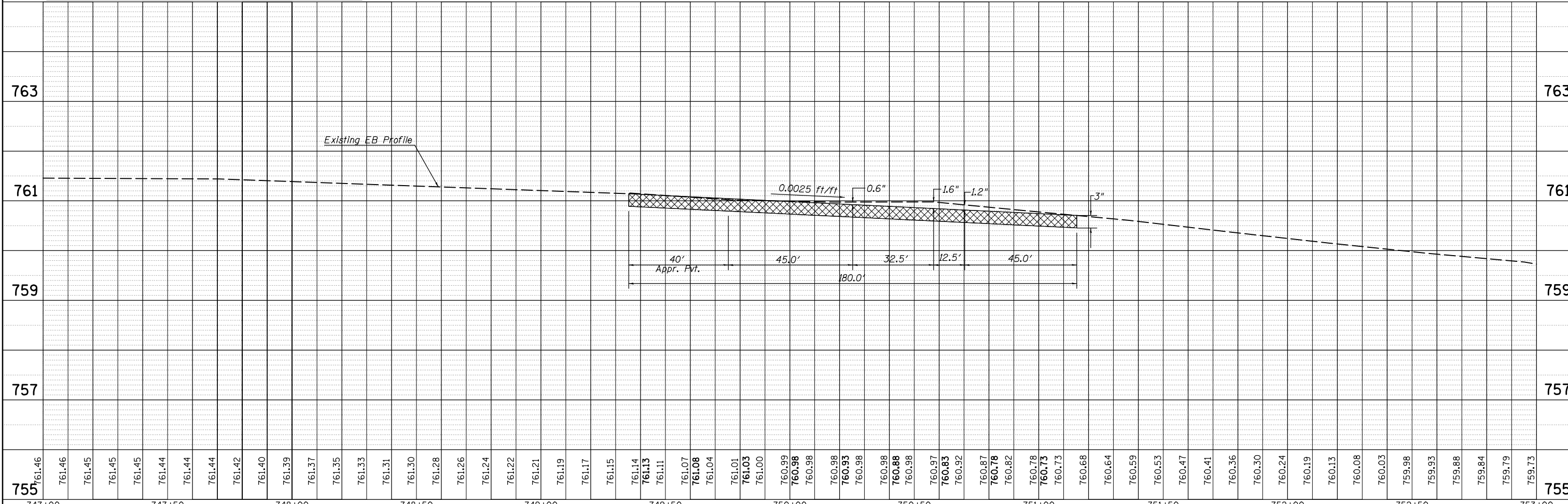
| | | | |
|------|----------|----|------|
| PLAN | SURVEYED | BY | DATE |
| | NOTED | | |
| | ALIGNED | | |
| | CHECKED | | |
| | FILED | | |
| | CARD | | |
| | FILE | | |
| | NAME | | |
| | NO. | | |

| | | | |
|---------|-----------|----|------|
| PROFILE | SURVEYED | BY | DATE |
| | GRADES | | |
| | CHECKED | | |
| | STRUCTURE | | |
| | NOTATIONS | | |
| | CPAD | | |
| | NO. | | |



IF REQUIRED AND AT THE RESIDENT ENGINEER'S DISCRETION, GRADING AND SHAPING OF THE AGGREGATE SHOULDER AND EMBANKMENT TO PROVIDE POSITIVE ROADWAY DRAINAGE IN THE PROFILE GRADE CORRECTION AREAS SHALL BE PAID FOR PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

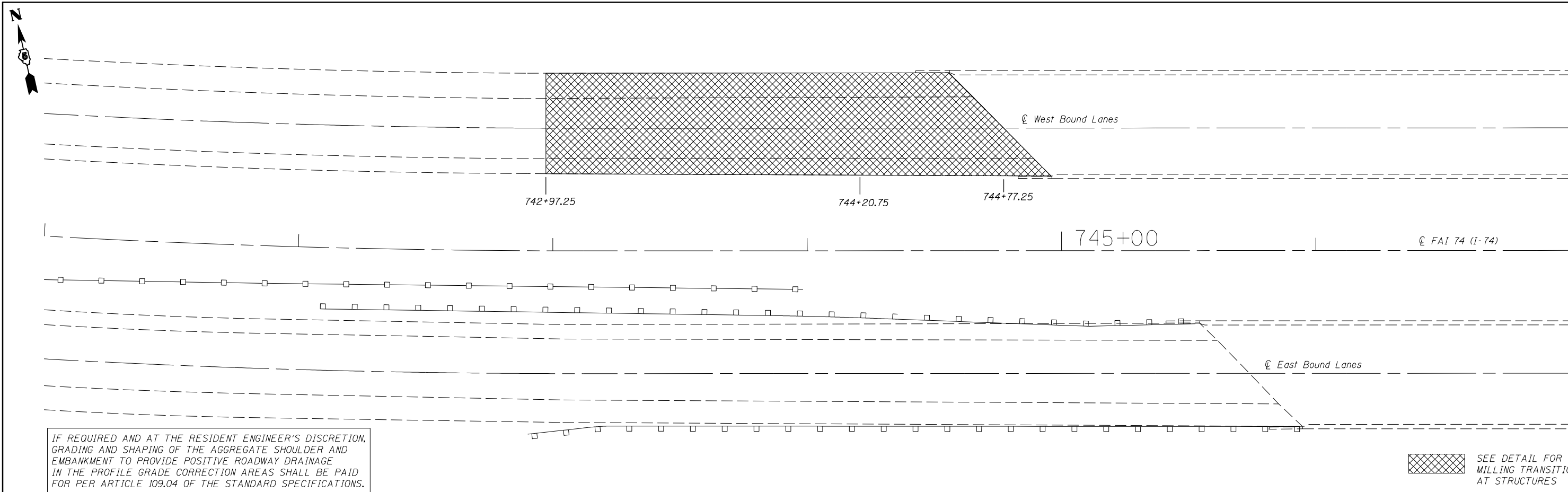
SEE DETAIL FOR MILLING TRANSITION AT STRUCTURES



| | | | | | | | | | | | |
|-------------|---------------------------|------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION-EAST APPROACH PAVEMENT S.N. 020-0026 (EB) | F.A.I. RTE. = | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | CHECKED - | REVISED - | | | 74 | • | DEWITT | 166 | 10 | |
| | | DATE - | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| | | | | | | ILLINOIS FED. AID PROJECT | | | | | |

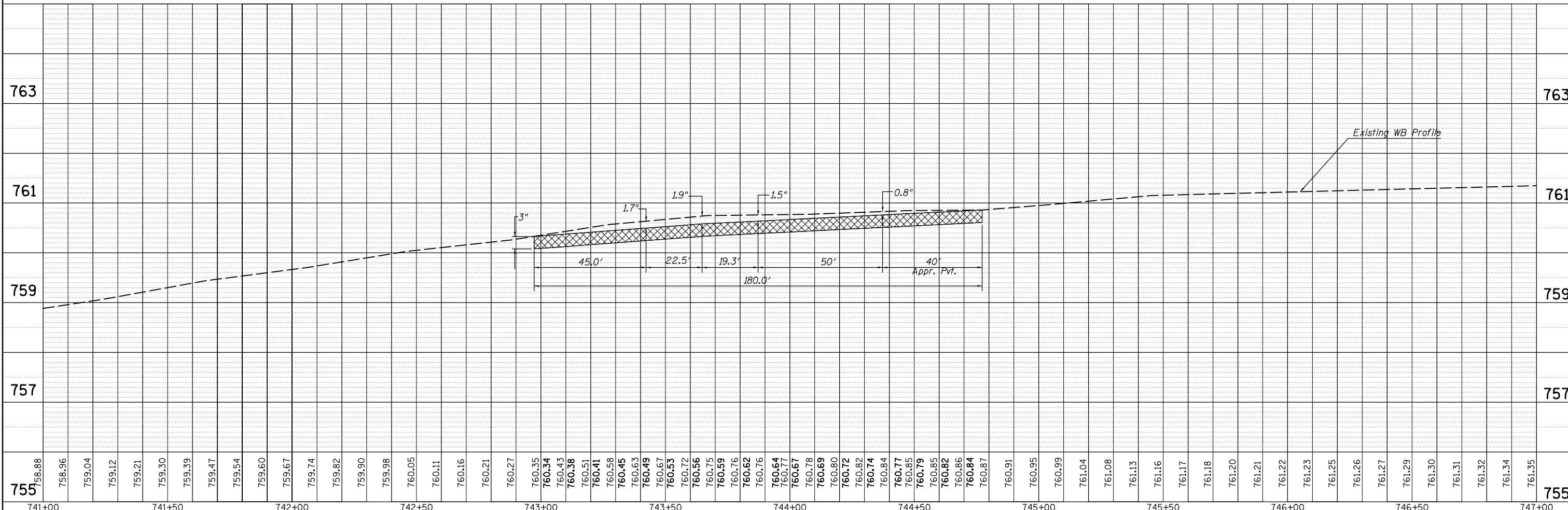
| | | |
|------|-----------------------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | ALIGNMENT CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NOTE BOOK NO. | |
| | CARD FILE NAME | |

| | | |
|---------|-----------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | ALIGNMENT CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NOTE BOOK NO. | |
| | CARD FILE NAME | |



IF REQUIRED AND AT THE RESIDENT ENGINEER'S DISCRETION, GRADING AND SHAPING OF THE AGGREGATE SHOULDER AND EMBANKMENT TO PROVIDE POSITIVE ROADWAY DRAINAGE IN THE PROFILE GRADE CORRECTION AREAS SHALL BE PAID FOR PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

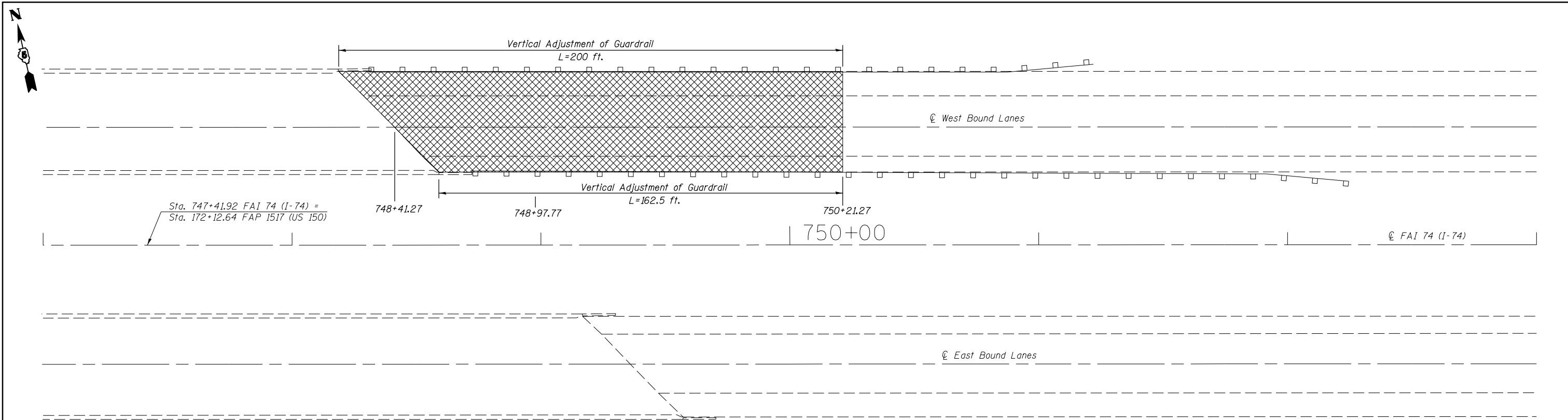
SEE DETAIL FOR MILLING TRANSITION AT STRUCTURES



| | | | | | | | | | | | |
|-----------------------------|---------------------------|------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION-WEST APPROACH PAVEMENT S.N. 020-0027 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| 74 | • | DEWITT | 166 | | | 11 | | | | | |
| | | | | | | CONTRACT NO. 90876 | | | | | |
| | | | | | | ILLINOIS FED. AID PROJECT | | | | | |
| PLOT SCALE = 40.0000' / in. | CHECKED - | REVISED - | DATE - | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | |
| PLOT DATE = 10/13/2015 | DATE - | REVISED - | | | | | | | | | |

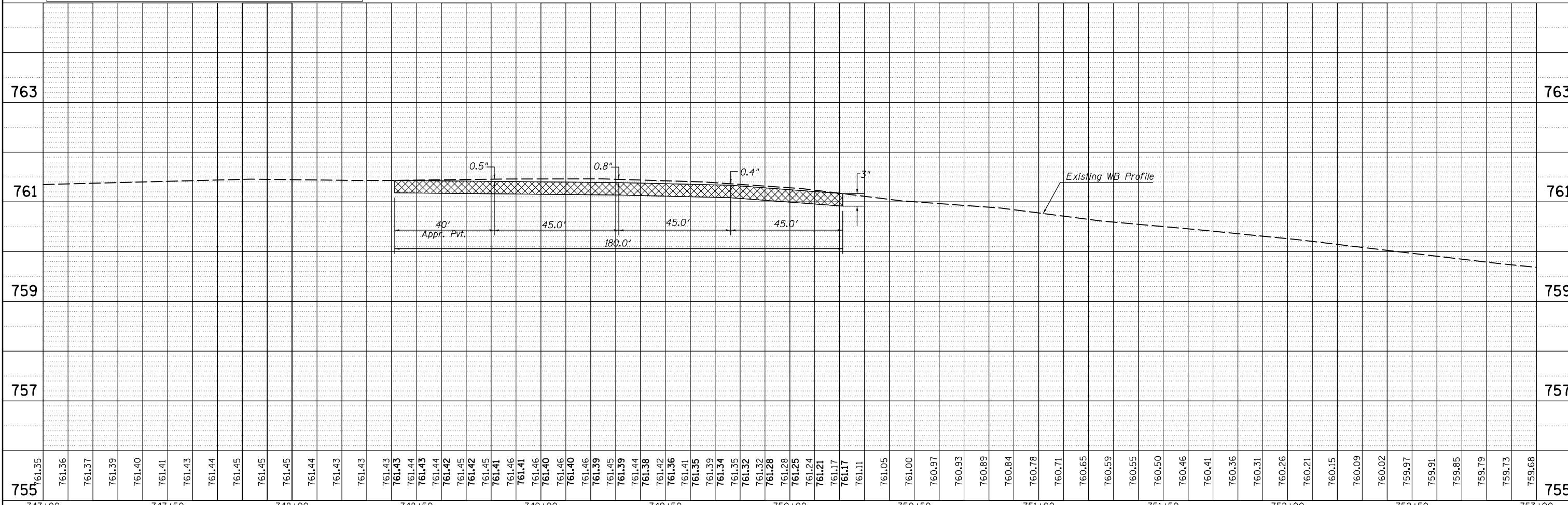
| | | | |
|------|----------------|----|------|
| PLAN | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | ALIGNED | | |
| | CHECKED | | |
| | FILED | | |
| | CARD FILE NAME | | |
| | NO. | | |

| | | | |
|---------|-----------------------------|----|------|
| PROFILE | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | GRADES CHECKED | | |
| | STRUCTURE NOTATIONS CHECKED | | |
| | NO. | | |



IF REQUIRED AND AT THE RESIDENT ENGINEER'S DISCRETION, GRADING AND SHAPING OF THE AGGREGATE SHOULDER AND EMBANKMENT TO PROVIDE POSITIVE ROADWAY DRAINAGE IN THE PROFILE GRADE CORRECTION AREAS SHALL BE PAID FOR PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

SEE DETAIL FOR MILLING TRANSITION AT STRUCTURES

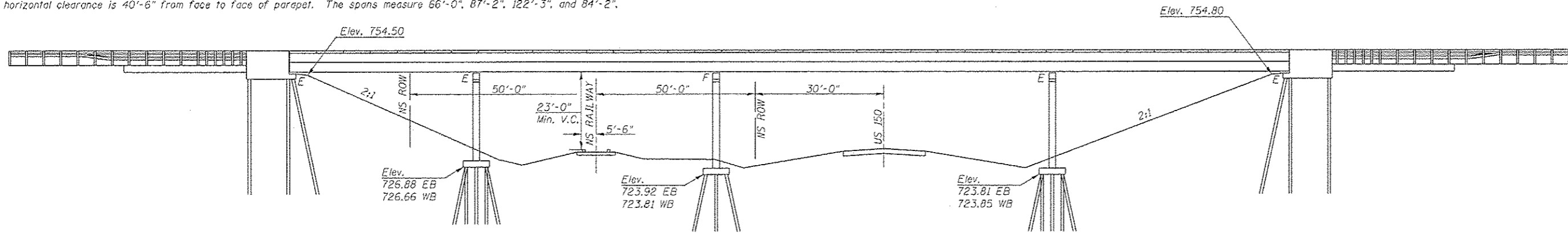


| | | | | | | | | | | | | | |
|-------------|---------------------------|------------|-----------|---|---|--|--|--|-----------------------------|-----------|--------|------------------|--------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION-EAST APPROACH PAVEMENT S.N. 020-0027 (WB) | | | | F.A.I. RTE. 74 | SECTION • | COUNTY | TOTAL SHEETS 166 | SHEET NO. 12 |
| | | CHECKED - | REVISED - | | SCALE: SHEET OF SHEETS STA. TO STA. | | | | CONTRACT NO. 90876 | | | | |
| | | DATE - | REVISED - | | | | | | ILLINOIS FED. AID PROJECT | | | | |
| | | | | | | | | | #20-1(HVB,HB-1,VB-1,B,B-1)I | | | | |

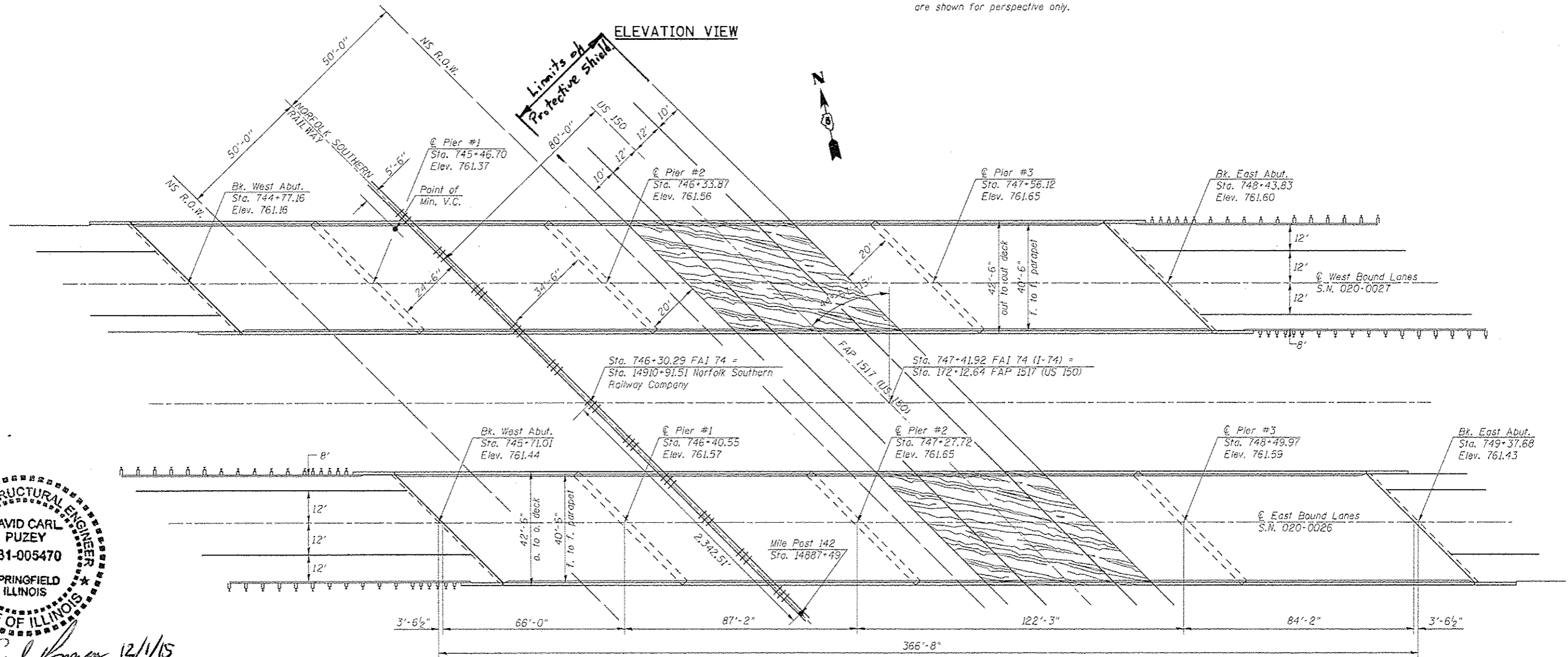
The existing structures were built in 1970 as Route FAI-74, Section 20-IHVB of Sta. 746+30.29 in DeWitt County. The structures carry I-74 over US 150 and Norfolk Southern Railway Company northwest of Farmer City. In 1975 a waterproofing membrane and HMA wearing surface was placed under Section D5 Bridge Deck Waterproofing 1975-3, Contract 29686. In 2004 the HMA wearing surface was removed and replaced with Section 74(RS-2, 4-1-RS-1), Contract 70027.

The superstructure consists of seven 44" steel plate girders supporting a 7 1/2" R.C. deck and 1 3/4" HMA wearing surface with waterproofing membrane system. The substructure consists of concrete pile supported stub abutments and timber pile supported piers. The structures measure 366'-8" bk. to bk. abutments and 42'-6" out to out of deck. The horizontal clearance is 40'-6" from face to face of parapet. The spans measure 66'-0", 87'-2", 122'-3", and 84'-2".

NOTE:
See Next Sheet for the Proposed Work, Bill of Material, and General Notes.



Elevations taken from as-built plans and are shown for perspective only.



PLAN VIEW



David Carl Puzey 12/1/15
Expires 11/30/16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

*20-IHVB,HB-1,VB-1,B,B-111

| | | | | | | | | | | | | |
|-----------------------------|---------------------------|--------------|---------------------|---|---|---|--------|---------------------------|---------|--------|--------------|-----------|
| FILE NAME = | USER NAME = bbrandenburgj | DESIGNED RTC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL PLAN AND ELEVATION S.N. 020-0026 (EB) & S.N. 020-0027 (WB) | | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PROJECT = | PROJECT = | CHECKED TJB | REVISED - TJB | | 74 | - | DEWITT | 166 | 13 | | | |
| PLOT SCALE = 42.2000' / in. | DATE = 11/29/2011 | REVISED - | REVISED - 8/31/2015 | | CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | | | | |
| PLOT DATE = 10/13/2015 | DATE = 11/29/2011 | REVISED - | REVISED - | | SCALE: SHEET 1 OF 26 SHEETS STA. TO STA. | | | | | | | |

PROPOSED WORK

1. Remove Existing Waterproofing Membrane System and H.M.A. Wearing Surface.
2. Mill Existing H.M.A. Wearing Surface at Milling Transition Locations at ends of Structures.
3. Perform Bridge Deck Scarification on Bridge Deck and Approach Slabs.
4. Partial Removal of Deck Ends, Parapets, and Removal of Hatch Block.
5. Removal of Existing Joints.
6. Perform Full-Depth Patching.
7. Place New Floor Drains.
8. Replace Existing Bearings with Elastomeric Bearings at Abutments.
9. Place Reinforcement Bars, Locking Edge Rail, and Studs.
10. Pour Deck Ends and Hatch Block.
11. Insert Rubber Strip Seal into Locking Edge Rails.
12. Pour Parapet Ends.
13. Place Latex Concrete Overlay on Bridge Deck and Approach Slabs.
14. Place HMA Overlay on Approach Pavements and Milling Transition.

BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|---|-------|---------|
| HOT-MIX ASPHALT SURFACE REMOVAL (DECK) | SQ YD | 1,570.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS) | SQ YD | 1,570.0 |
| BRIDGE DECK SCARIFICATION, 3/4" | SQ YD | 3,639.0 |
| BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2" | SQ YD | 3,639.0 |
| BRIDGE DECK GROOVING | SQ YD | 3,582.0 |
| PROTECTIVE COAT | SQ YD | 221.0 |
| JACK AND REMOVE EXISTING BEARINGS | EACH | 28.0 |
| ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 28.0 |
| ANCHOR BOLTS, 1" | EACH | 56.0 |
| STUD SHEAR CONNECTORS | EACH | 840.0 |
| FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 8,460.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE I) | SQ YD | 53.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 3.0 |
| CONCRETE REMOVAL | CU YD | 86.1 |
| PROTECTIVE SHIELD | SQ YD | 588.0 |
| BAR SPLICERS | EACH | 40.0 |
| REINFORCEMENT BARS, EPOXY COATED | POUND | 3,600.0 |
| CONCRETE SUPERSTRUCTURE | CU YD | 87.5 |
| PREFORMED JOINT STRIP SEAL | FOOT | 252.0 |
| FLOOR DRAINS | EACH | 36.0 |
| STRUCTURAL STEEL REPAIR | POUND | 730.0 |
| STRUCTURAL STEEL REMOVAL | POUND | 4,110.0 |
| POLYMERIZED LEVELING BINDER (MACHINE METHOD), N105 | TON | 112.0 |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N105 | TON | 112.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 3,213.0 |
| VERTICAL ADJUSTMENT OF GUARDRAIL | FOOT | 725.0 |
| STRUCTURAL REPAIR OF CONCRETE (DEPTH < or = 5 INCHES) | SQ FT | 120.0 |

GENERAL NOTES

The deck ends and hatch blocks shall have its final surface tined according to Article 420.09 (e) (1) of the Standard Specifications. Cost to be included with concrete superstructure.

Plan dimensions and details relative to the 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 the 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 work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surface in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

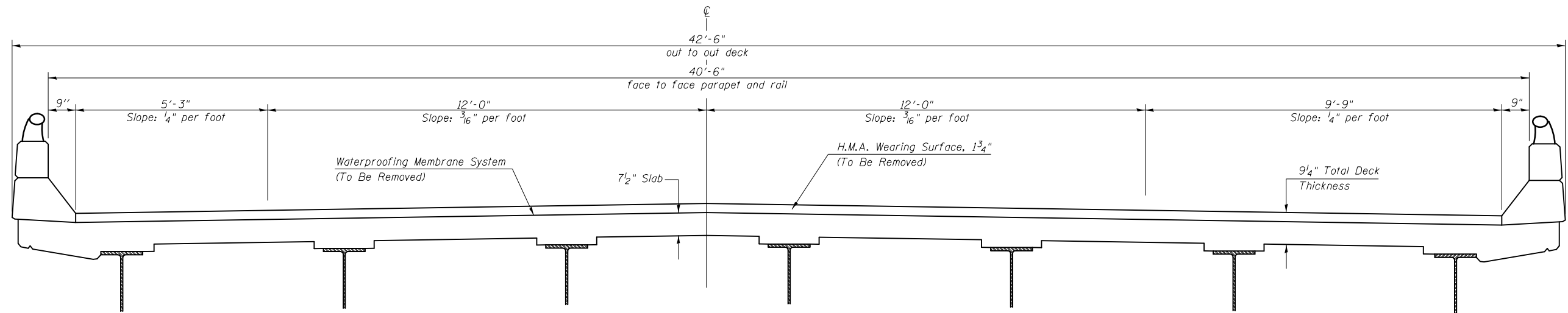
Joint openings shall be adjusted according to article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50* F.

Existing S.N. 020-0026 (E.B.) has been determined through testing to involve asbestos in the HMA Wearing Surface and/or Waterproofing Membrane. Recurring Special Provision, Check Sheet No. 7, Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal shall be used for the removal and disposal of this material.

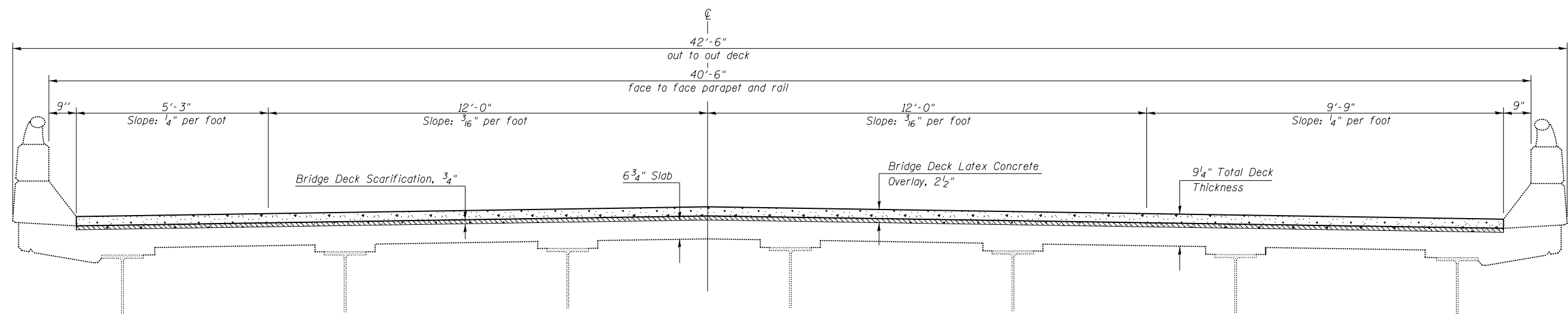
•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | |
|---|---------------------------|------------------------|---------------------|---|--|--------------------|----------------------|--------|--------------|---------------------------|
| FILE NAME = | USER NAME = brändenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL NOTES & BILL OF MATERIALS S.N. 020-0026 (EB) & S.N. 020-0027 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pw:\IL\084EBID\INTEG.illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\Public\90876-details.sht | | CHECKED <i>TJB</i> | REVISED - TJB | | | 74 | * | DEWITT | 166 | 14 |
| PLOT SCALE = 40.0000' / in. | | DATE <i>11/29/2011</i> | REVISED - 8/31/2015 | | | CONTRACT NO. 90876 | | | | |
| PLOT DATE = 10/13/2015 | | | | | | SCALE: | SHEET 2 OF 26 SHEETS | STA. | TO STA. | ILLINOIS FED. AID PROJECT |

EXISTING CROSS SECTION S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



PROPOSED CROSS SECTION S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



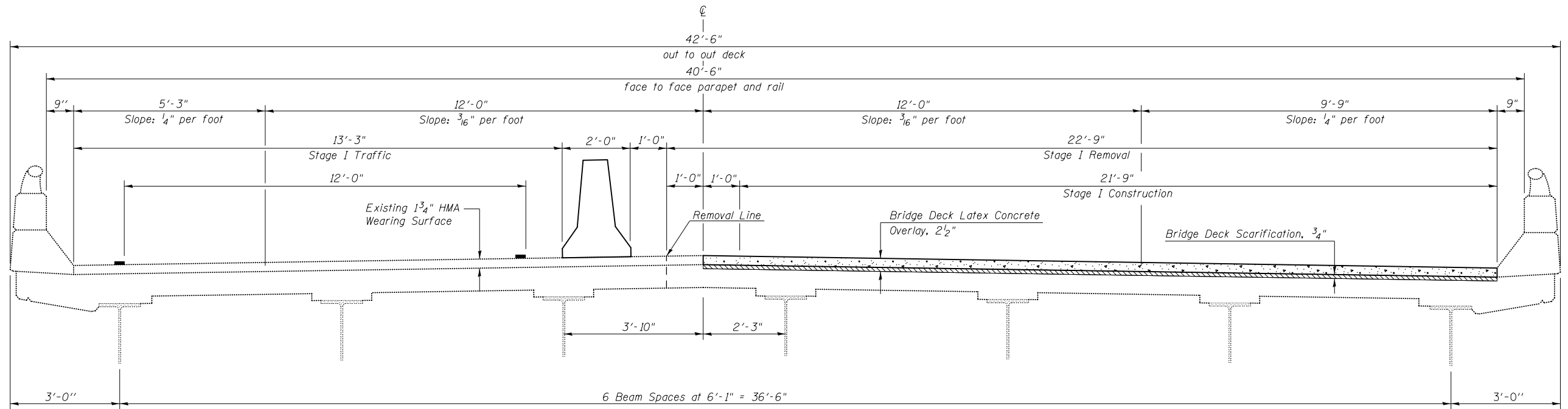
•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | | |
|---|---------------------------|------------------------|----------------------|---|---|-----------------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING AND PROPOSED TYPICAL CROSS SECTIONS S.N. 020-0026 (EB) & S.N. 020-0027 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | CHECKED <i>TJB</i> | REVISED - | | | 74 | * | DEWITT | 166 | 15 | |
| PLOT SCALE = 40.0000' / in. | | DATE <i>11/29/2011</i> | REVISED - <i>TJB</i> | | | CONTRACT NO. 90876 | | | | | |
| PLOT DATE = 10/13/2015 | | DATE <i>11/29/2011</i> | REVISED - 8/31/2015 | | | ILLINOIS FED. AID PROJECT | | | | | |
| | | | | SCALE: | | SHEET 3 OF 26 SHEETS STA. TO STA. | | | | | |

STAGE I CONSTRUCTION DETAILS

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

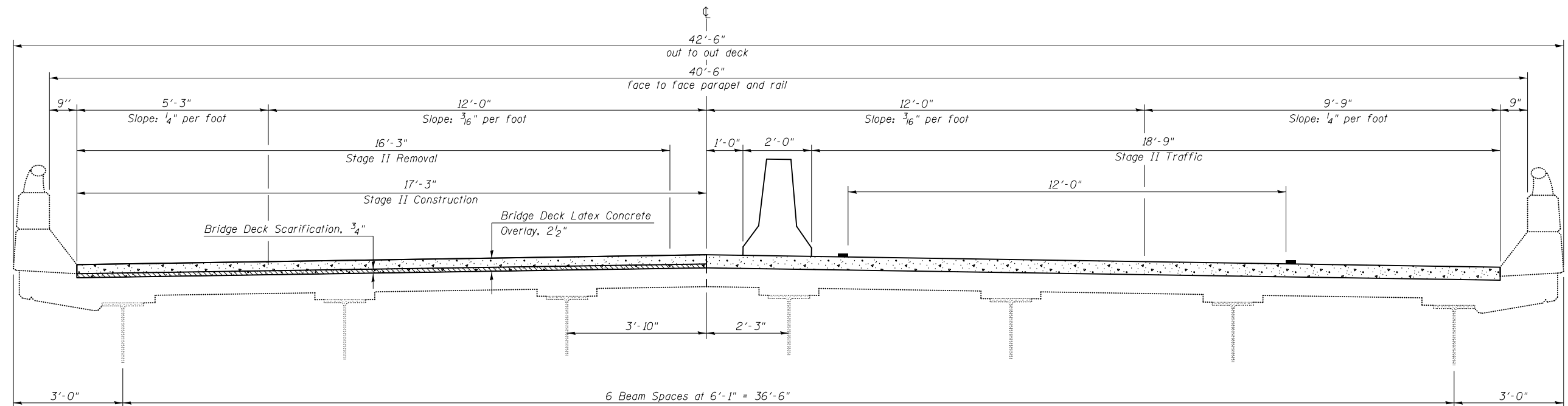
Looking East on East Bound Structure
Looking West on West Bound Structure



STAGE II CONSTRUCTION DETAILS

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

Looking East on East Bound Structure
Looking West on West Bound Structure



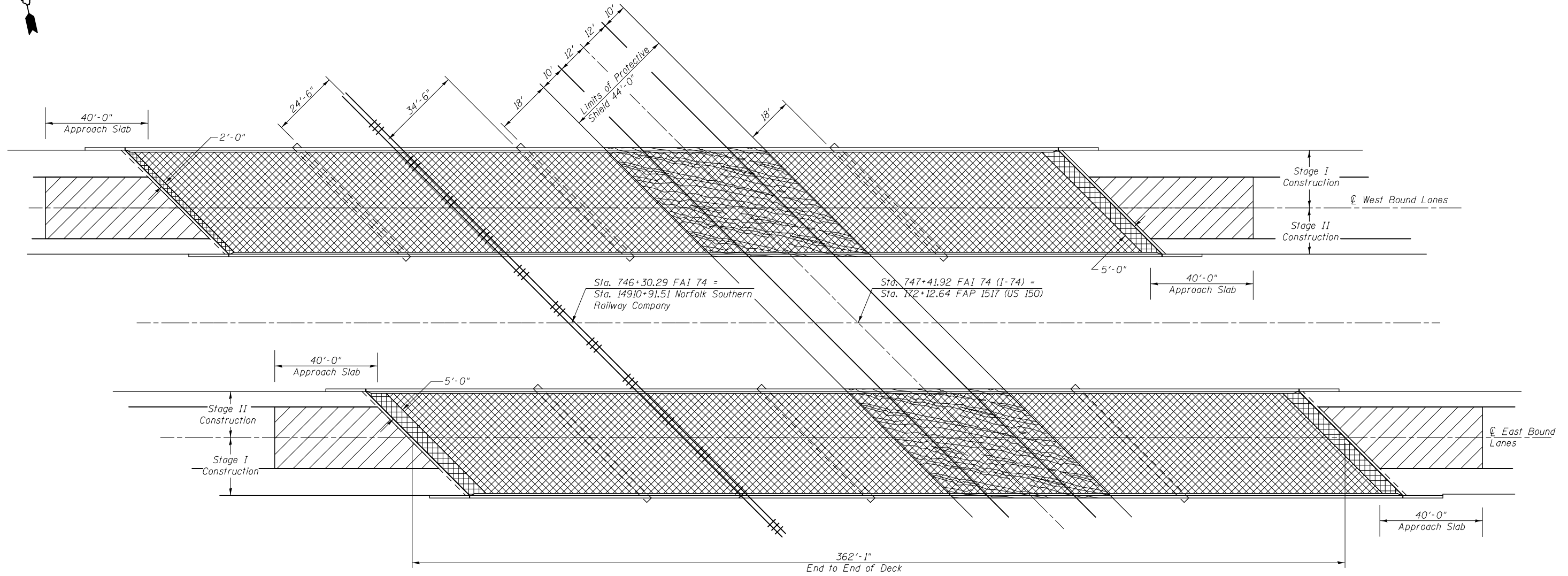
•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | | |
|--|---------------------------|------------------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | STAGE CONSTRUCTION DETAILS S.N. 020-0026 (EB) & S.N. 020-0027 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.shp | | DRAWN <i>TJB</i> | REVISED - | | | 74 | * | DEWITT | 166 | 16 | |
| PLOT SCALE = 40.0000' / in. | | CHECKED <i>TJB</i> | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| PLOT DATE = 10/13/2015 | | DATE <i>11/29/2011</i> | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | |

SCALE: SHEET 4 OF 26 SHEETS STA. TO STA.

WEARING SURFACE PLAN

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



BILL OF MATERIAL (Deck & Approach)

- H.M.A. Wearing Surface Removal (Deck) or (Asbestos)
- H.M.A. Wearing Surface Removal (Deck) or (Asbestos) & Bridge Deck Latex Concrete Overlay
- HMA Surface Removal, Variable Depth; Bridge Deck Scarification 3/4" and Bridge Deck Latex Concrete Overlay 2 1/2" (varies to 4")
- Protective Shield

| Structure | Item | Unit | Total |
|-----------|--|-------|---------|
| 020-0026 | Hot-Mix Asphalt Surface Removal (Asbestos) | Sq Yd | 1,570.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 1,810.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 1,810.0 |
| | Bridge Deck Grooving | Sq Yd | 1,791.0 |
| 020-0027 | Hot-Mix Asphalt Surface Removal (Deck) | Sq Yd | 1,570.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 1,829.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 1,829.0 |
| | Bridge Deck Grooving | Sq Yd | 1,791.0 |

| | | | |
|---|---------------------------|---------------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Bridges\020-0026\90876-details.sht | DRAWN <i>RTC</i> | CHECKED <i>TJB</i> | REVISED - TJB |
| PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISIONS | REVISED - 8/31/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEARING SURFACE PLAN
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)**

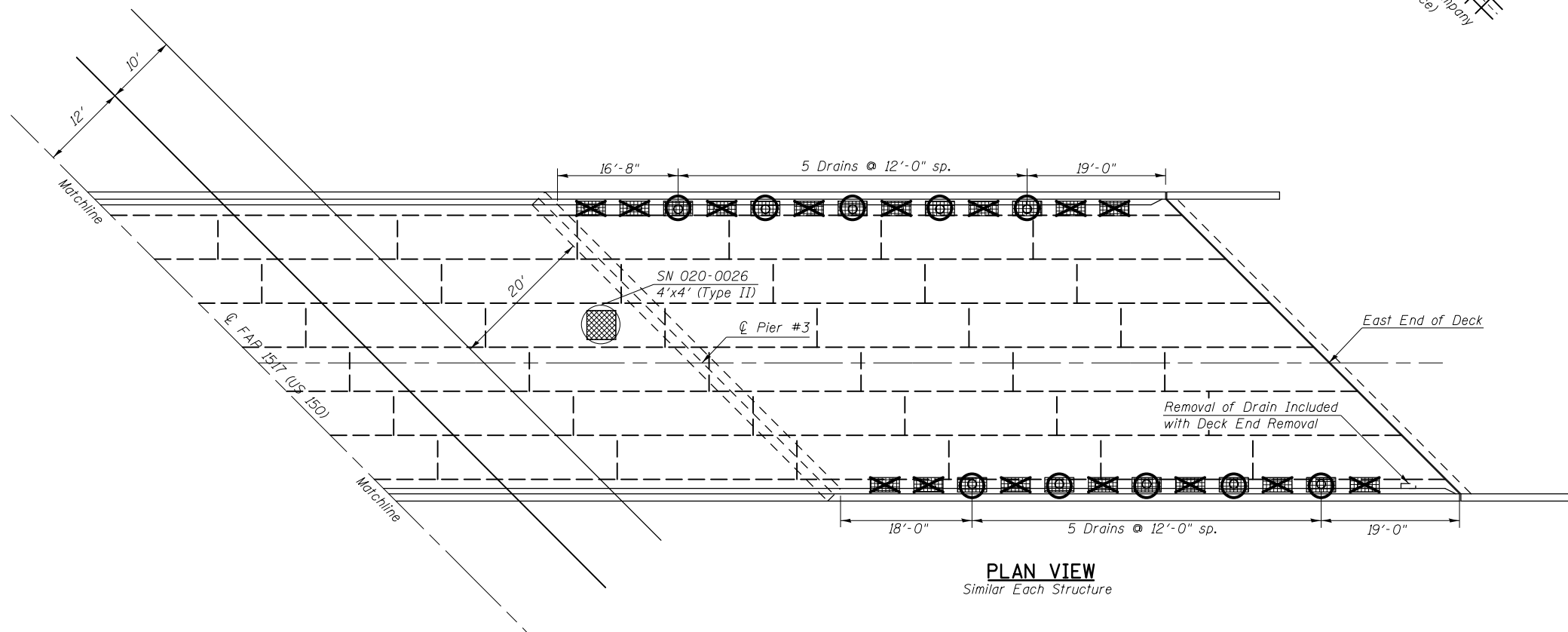
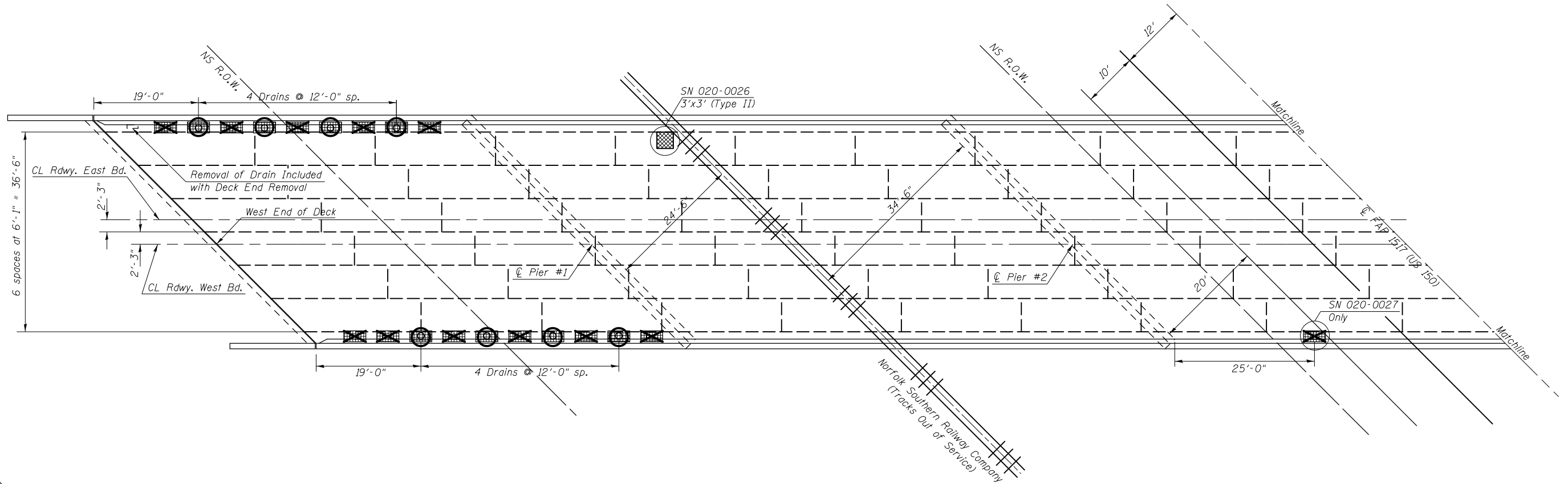
SCALE: SHEET 5 OF 26 SHEETS STA. TO STA.

| | | | | |
|---------------------------|-----------|---------------|------------------|--------------|
| F.A.I. RTE. 74 | SECTION * | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 17 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

*20-1(HVB,HB-1,VB-1,B,B-1)I

FLOOR DRAIN & PATCHING DETAILS

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



LEGEND

- Eliminate floor drain
 - Proposed floor drain location
 - Deck Slab Repair (Full Depth, Type I) at all Drain Locations. All repair areas are 2'-0" x 1'-0", unless otherwise noted.
 - Deck Slab Repair (Full Depth, Type II)
- See next sheet for details associated with proposed floor drains

NOTES:

- Patch sizes shown represent conditions at the time the plans were completed. An Estimated 1% of the Deck Area has been included should additional Deck Slab Repair (Full Depth, Type I) be required after Bridge Deck Scarification.
- The actual sizes and locations of patching shall be determined by the engineer. The Engineer shall show the actual locations of the deck repairs on this sheet.
- The existing drains and extensions shall be removed. Cost included with "Deck Slab Repair (Full Depth, Type I)".
- Extreme care must be used when removing concrete near the top flange of the beams. The contractor is responsible for any damage to the beams.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|--|-------|-------|
| 020-0026 | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 26.0 |
| 020-0026 | Deck Slab Repair (Full Depth, Type II) | Sq Yd | 3.0 |
| 020-0027 | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 27.0 |

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|--|-----------------------------|-----------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Bridges\020-0026\020-0026-details.sht | DRAWN DataViz | CHECKED TJB | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE 11/29/2011 | REVISED - 8/31/2015 |
| | PLOT DATE = 10/13/2015 | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

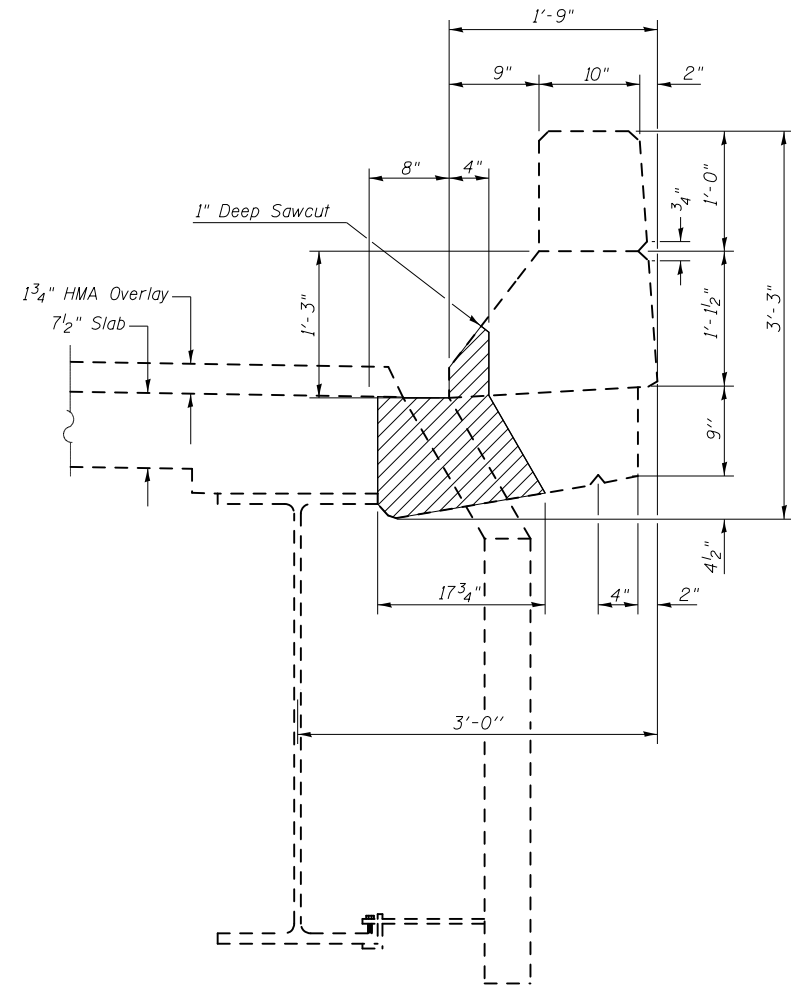
FLOOR DRAIN AND PATCHING DETAILS
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

SCALE: SHEET 6 OF 26 SHEETS STA. TO STA.

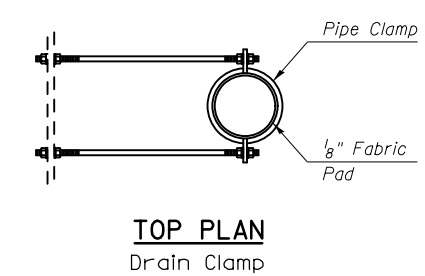
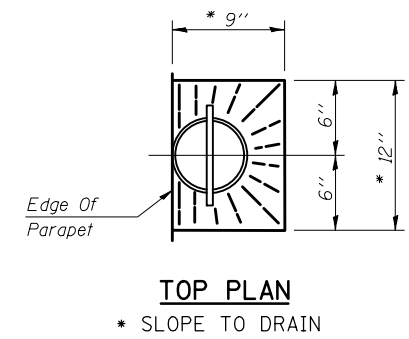
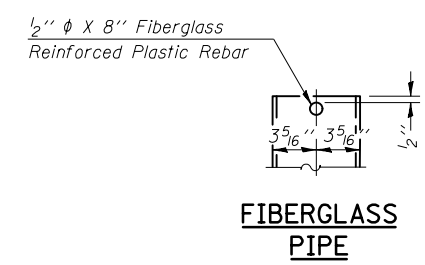
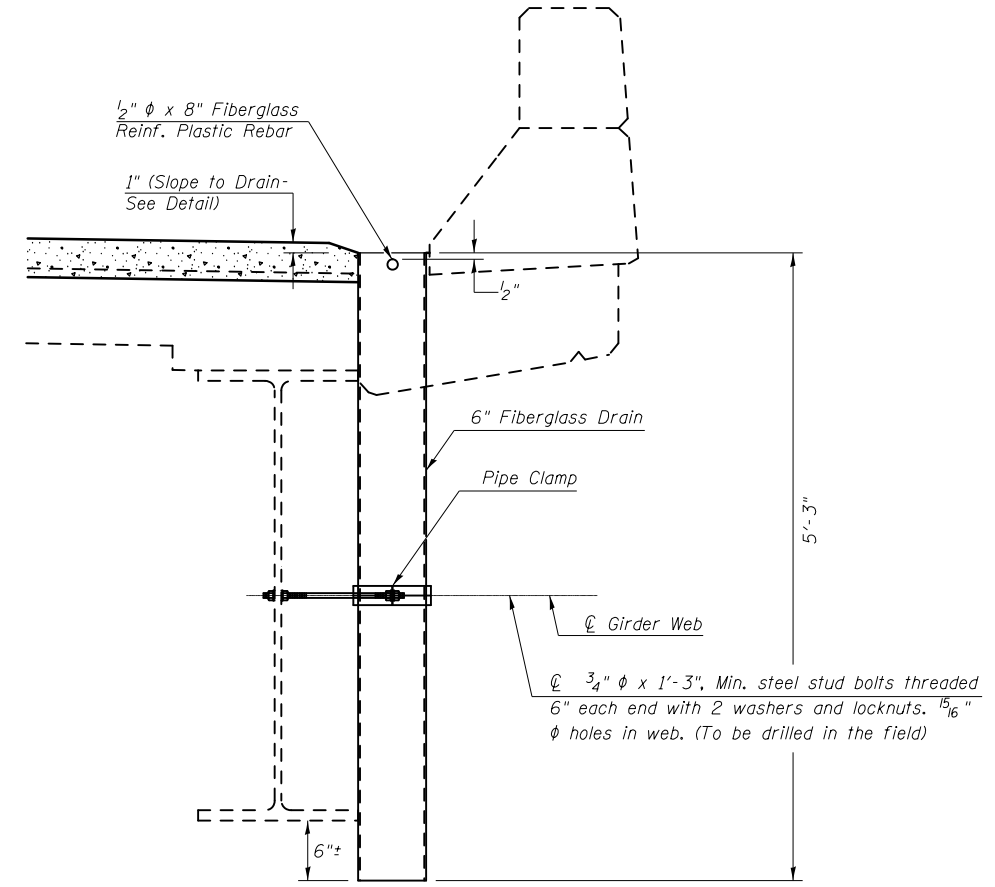
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 18 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

FLOOR DRAIN DETAILS

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



Removal Limits for Deck Slab Repair (Full-Depth, Type I) at Drain Locations



NOTES:

All dimensions shall be field verified by the contractor prior to ordering of materials.

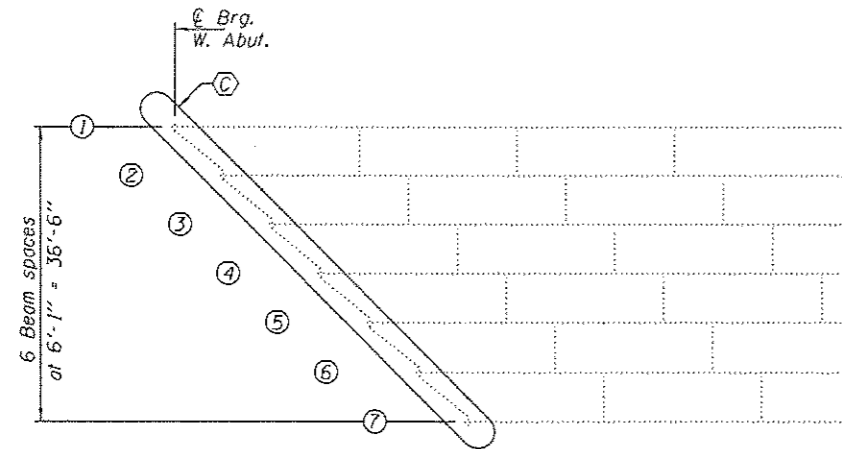
BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|--------------|------|-------|
| 020-0026 | Floor Drains | Each | 18.0 |
| 020-0027 | Floor Drains | Each | 18.0 |

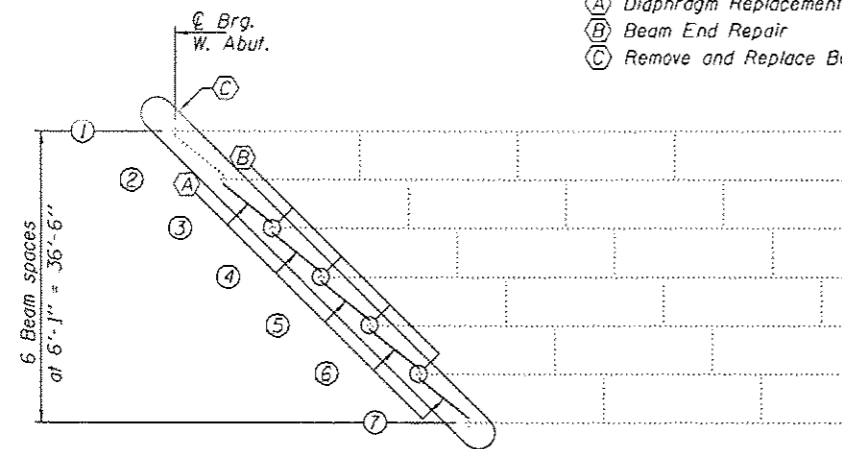
Cost of removal of existing drains and extensions is included in Deck Slab Repair (Full Depth, Type I).

*20-1(HVB,HB-1,VB-1,B,B-1)I

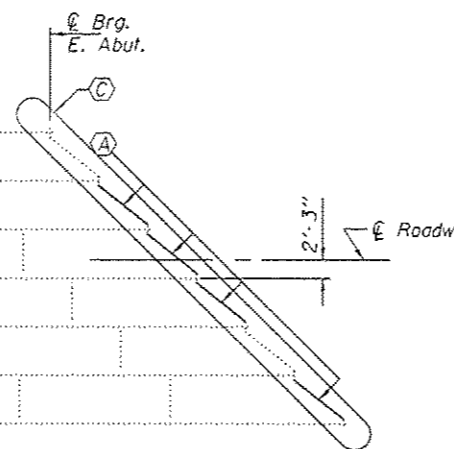
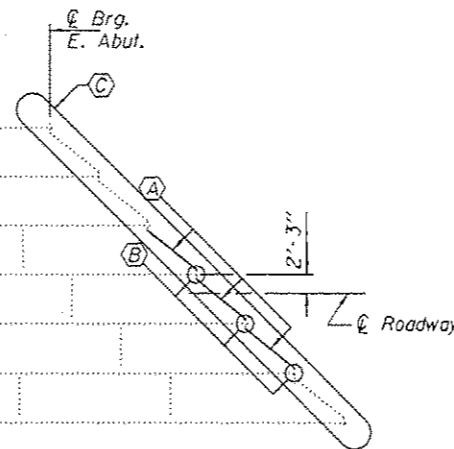
| | | | | | | | | | | | |
|--|---------------------------|------------------------|---------------------|---|--|--------------------|---------|--------------|---------------------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FLOOR DRAIN DETAILS S.N. 020-0026 (EB) & S.N. 020-0027 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw\11084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\020-0026-0027-details.sht | | CHECKED <i>TJB</i> | REVISED - TJB | | | 74 | * | DEWITT | 166 | 19 | |
| PLOT SCALE = 40.0000' / in. | | DATE <i>11/29/2011</i> | REVISED - 3/17/2015 | | | CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | | |
| PLOT DATE = 10/13/2015 | | | | | | SCALE: | SHEET 7 | OF 26 SHEETS | STA. | TO STA. | |



FRAMING PLAN WEST BOUND LANES SN 020-0027



FRAMING PLAN EAST BOUND LANES SN 020-0026



- (A) Diaphragm Replacement
- (B) Beam End Repair
- (C) Remove and Replace Bearings

- (A) Diaphragm Replacement
- (B) Beam End Repair
- (C) Remove and Replace Bearings

NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 13/16"φ, unless otherwise noted.
 Diaphragm connection holes shall be 13/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.
 Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
 All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.
 Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|-------|----------|
| Structural Steel Repair | Pound | 730 |
| Furnishing and Erecting Structural Steel | Pound | 4110 |
| Structural Steel Removal | Pound | 4110 |
| | | |
| | | |
| | | |
| | | |

* Beam End Repairs only

DESIGNED **SMR**
 CHECKED **CCG**
 DRAWN **Summer**
 CHECKED

PASSED *[Signature]*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE **NOVEMBER 19, 2015**
 REVISED
 REVISED

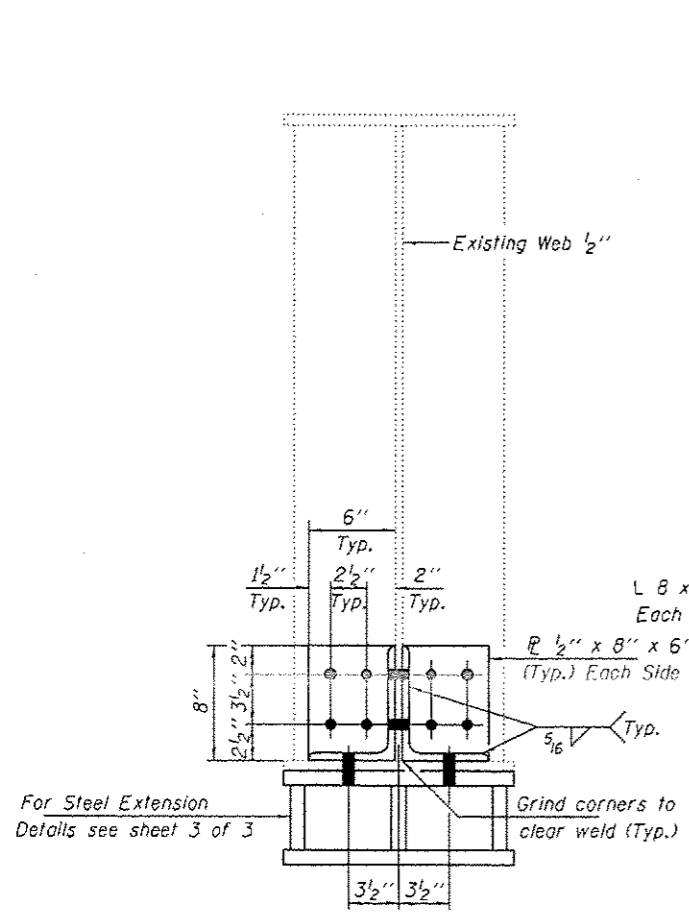
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAMING PLAN
 SN 020-0026 (EB) & SN 020-0027 (WB)

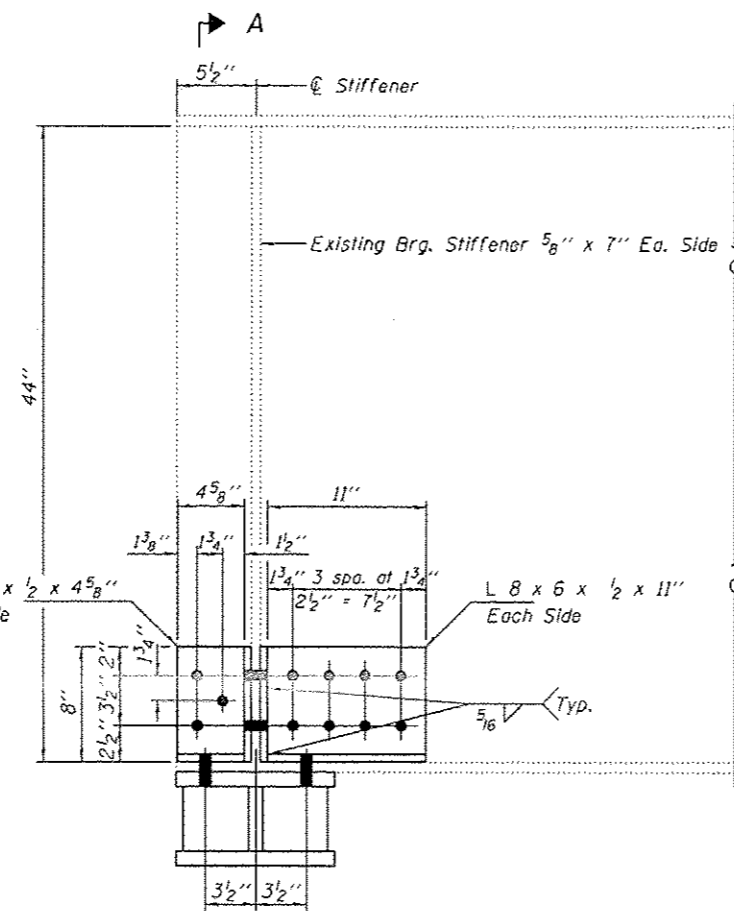
SHEET NO. 8 OF 26 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|----------------------------|--------|--------------|-----------|
| 74 | 20-1(HV)B,HB-1,VB-1,2,B-1H | DEWITT | 166 | 20 |

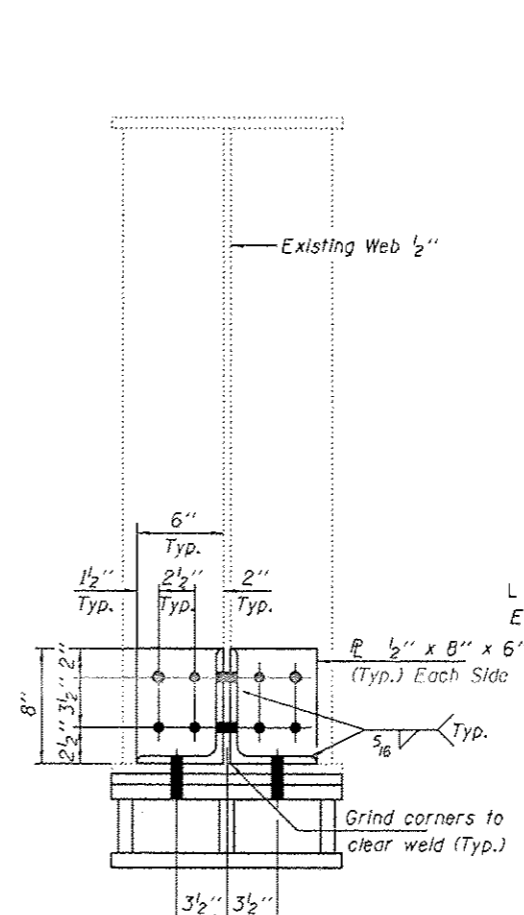
CONTRACT NO. 90876
 ILLINOIS FED. AID PROJECT



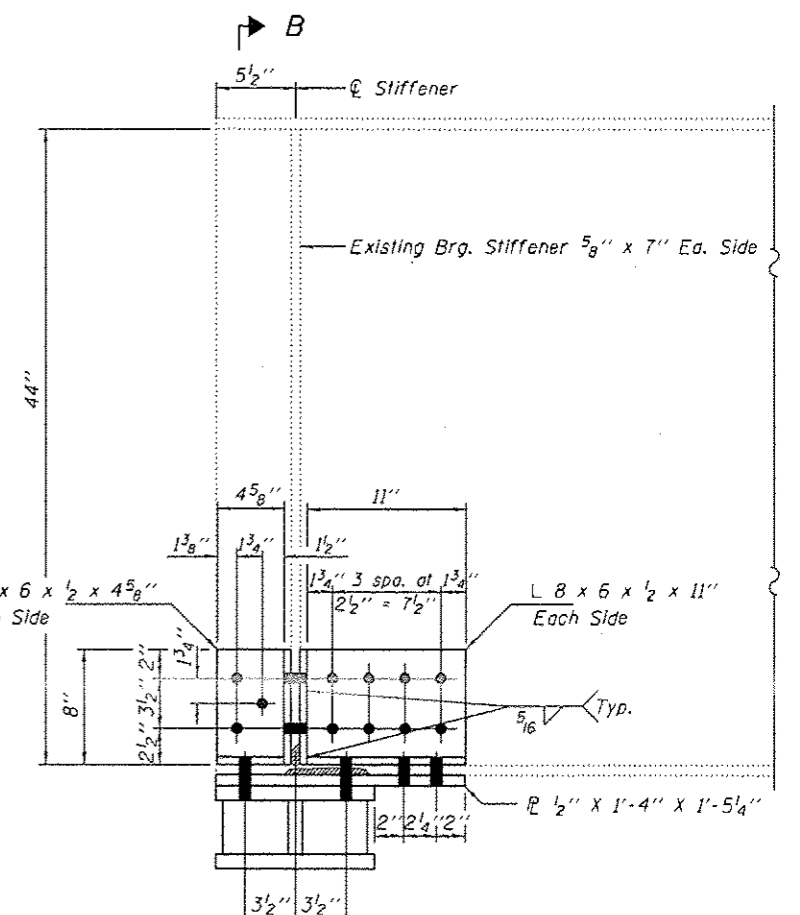
SECTION A-A



TYPICAL BEAM END REPAIR EXCEPT BEAM 4 WEST ABUTMENT EB SN 020-0026

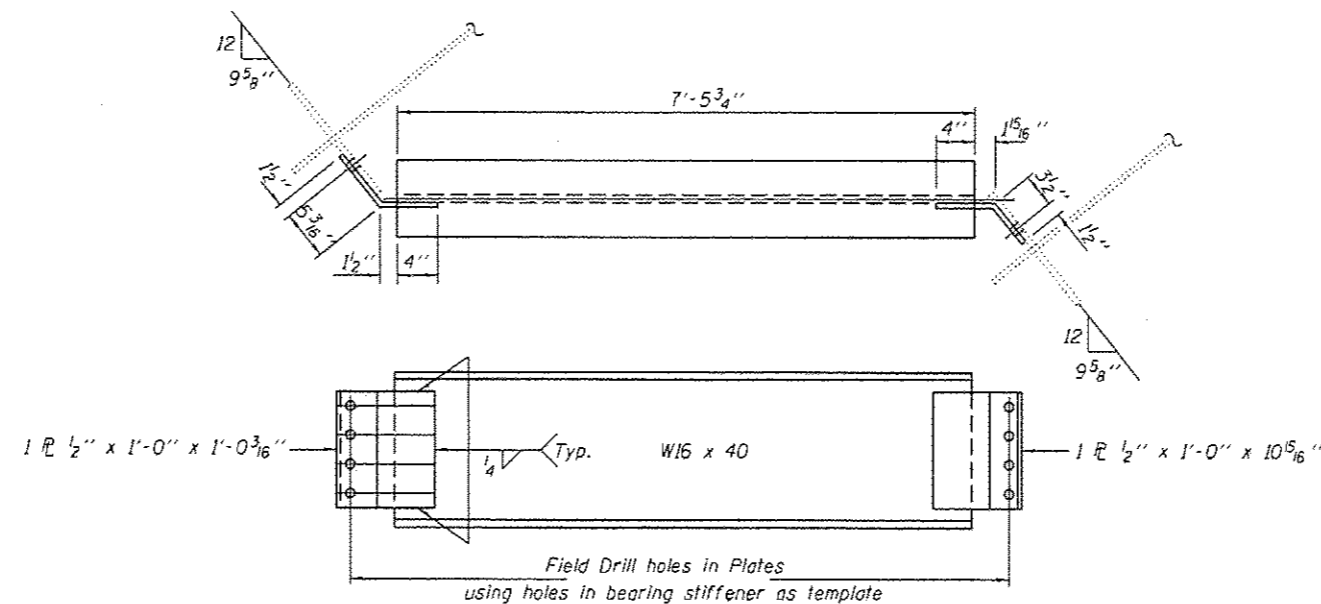


SECTION B-B



BEAM END REPAIR BEAM 4 WEST ABUTMENT EB SN 020-0026

Epoxy Leveling Compound. Cast included with Structural Steel Repair.



DIAPHRAGM REPLACEMENT DETAIL

- Field Drilled Holes
- Shop Drilled Holes (12 Required)

DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED
 DATE NOVEMBER 19, 2015
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

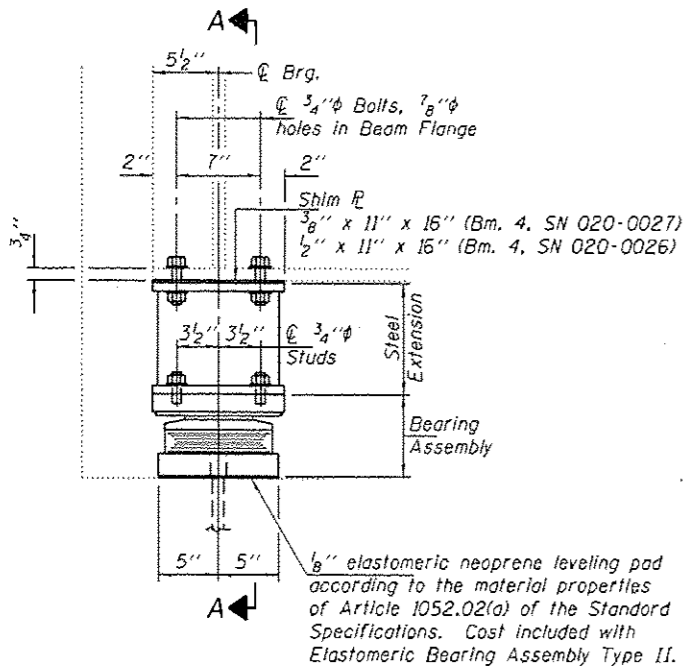
DIAPHRAGM REPLACEMENT & BEAM END REPAIR
 SN 020-0026 (EB) & 020-0027 (WB) WEST ABUTMENT

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------------------|--------|---------------------------|-----------|
| 74 | 20-1HWB, EB-LVB-1, B, B-1H | DEWITT | 166 | 21 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

BEAM REACTIONS

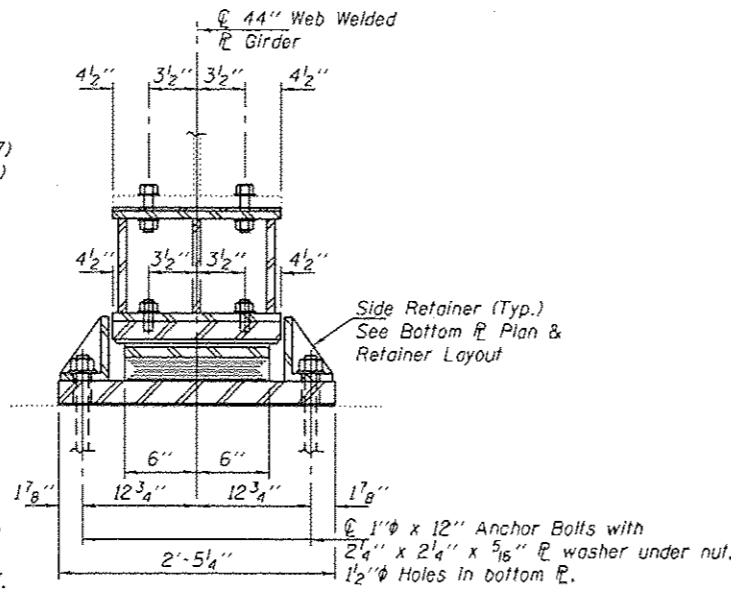
| | W. Abut. | E. Abut. |
|---------------|----------|----------|
| RR (K) | 27.4 | 29.1 |
| Rt (K) | 33.0 | 34.0 |
| Imp. (K) | 8.6 | 8.1 |
| R (Total) (K) | 69.0 | 71.2 |

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 40 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

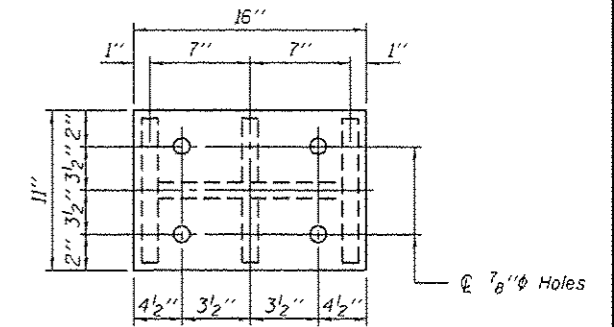


ELEVATION AT ABUTMENT

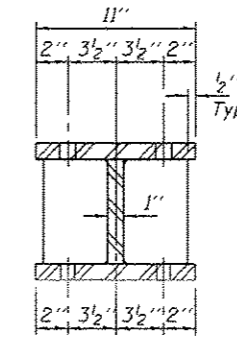
TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A



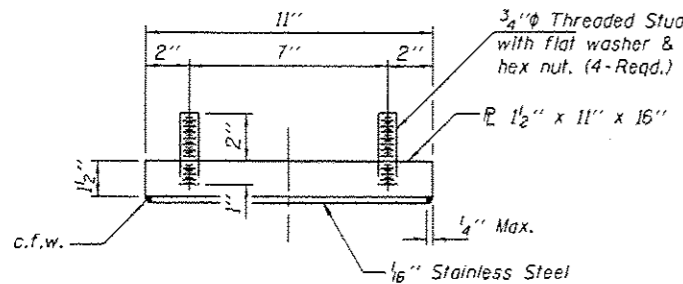
PLAN TOP AND BOTTOM PLATE



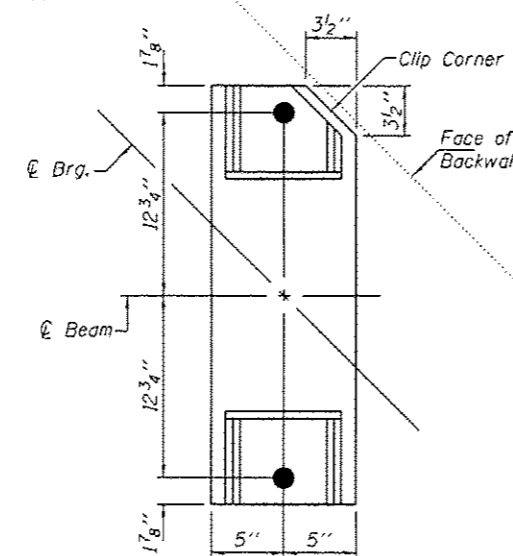
SECTION B-B

STEEL EXTENSION DETAIL

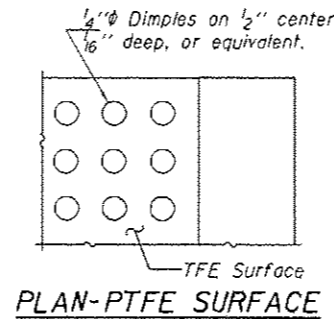
•• 5 3/4" Beam 4 W. Abut. EB Str. No. 020-0026
 ••• 3 3/4" Beam 4 W. Abut. EB Str. No. 020-0026



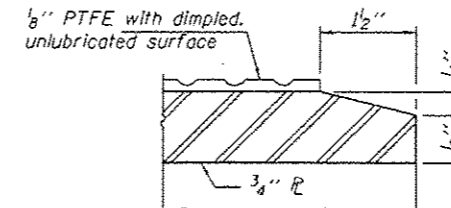
TOP BEARING ASSEMBLY



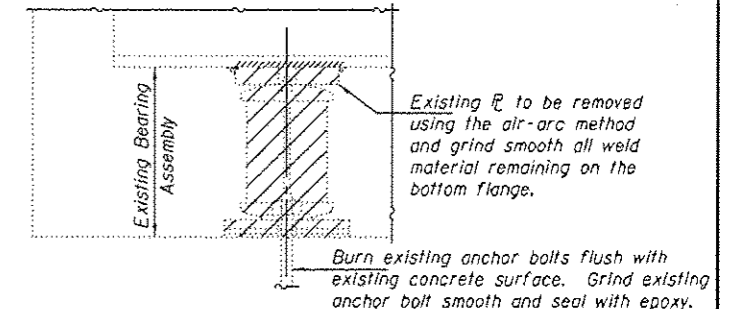
BOTTOM PLATE PLAN & RETAINER LAYOUT



PLAN-PTFE SURFACE

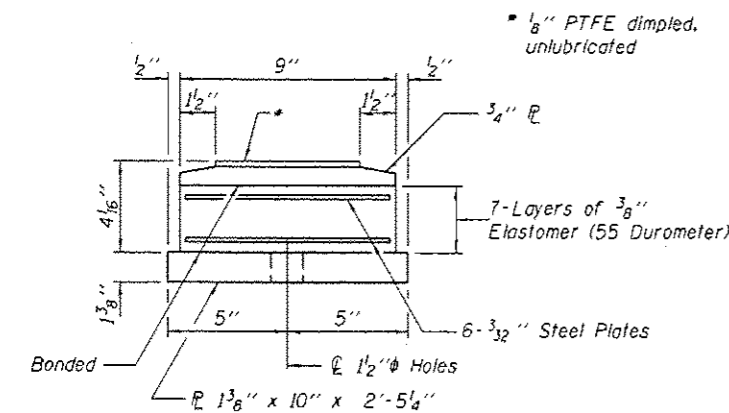


SECTION THRU PTFE

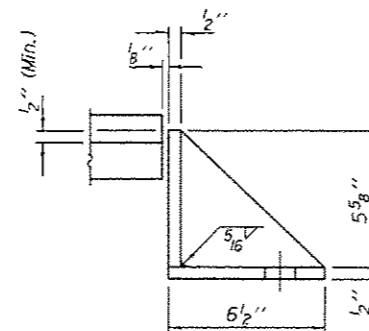


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

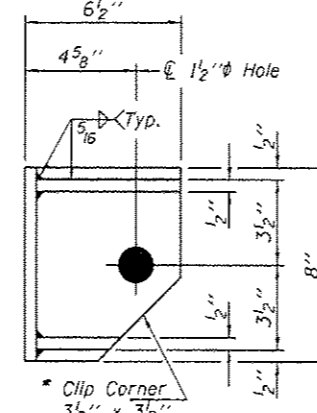


BOTTOM BEARING ASSEMBLY



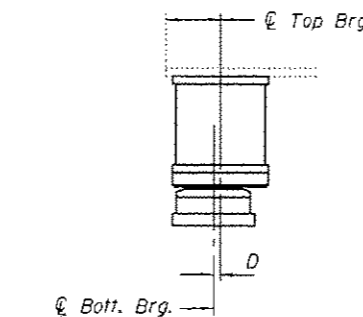
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



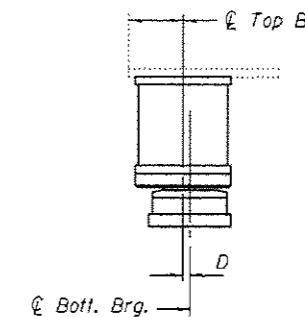
SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



BELOW 50° F.

(Move bott. brg. away from fixed brg.)



ABOVE 50° F.

(Move bott. brg. toward fixed brg.)

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly, Type II | Each | 28 |
| Jack and Remove Existing Bearings | Each | 28 |
| Furnishing and Erecting Structural Steel | Pound | 4350 |
| Anchor Bolts 1"φ | Each | 56 |

TYII/REPS 12-03-2008

DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015
 REVISED
 REVISED

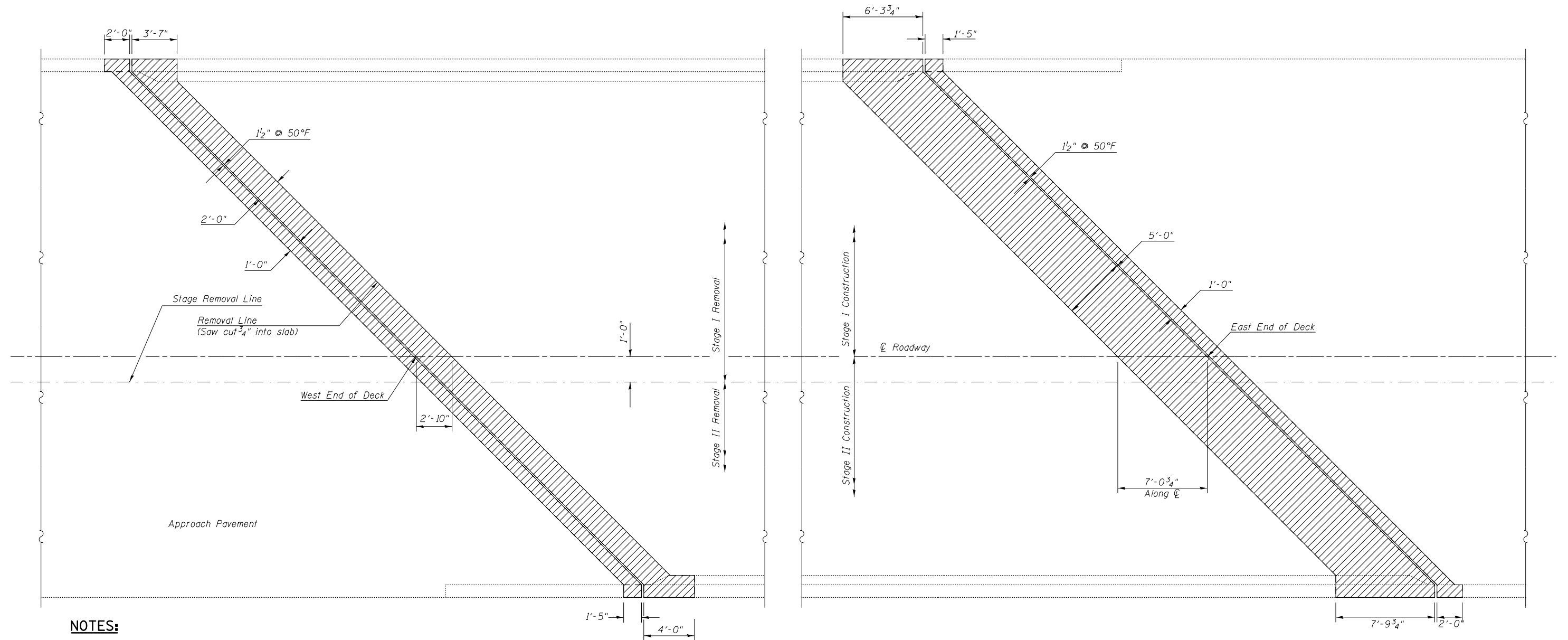
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING REPLACEMENT DETAILS AT ABUTMENTS
 SN 020-0026 (E.B.) & 0027 (W.B.)

SHEET NO. 10 OF 26 SHEETS

F.A.J. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 74 20-11RVB-NB-1,VB-1,B,B-1H DEWITT 166 22
 CONTRACT NO. 90876
 ILLINOIS FED. AID PROJECT

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL S.N. 020-0027 (WB)



NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0027 | Concrete Removal | 0.7 | 1.4 | 3.6 | 7.8 | 3.2 | 3.1 | 0.7 | 0.7 | Cu Yd | 21.2 |

| | | | |
|--|-----------------------------|-----------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN BY TJB | CHECKED TJB | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE 11/29/2011 | REVISED - 8/31/2015 |
| | PLOT DATE = 10/13/2015 | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-CONCRETE REMOVAL DETAILS
S.N. 020-0027 (WB)**

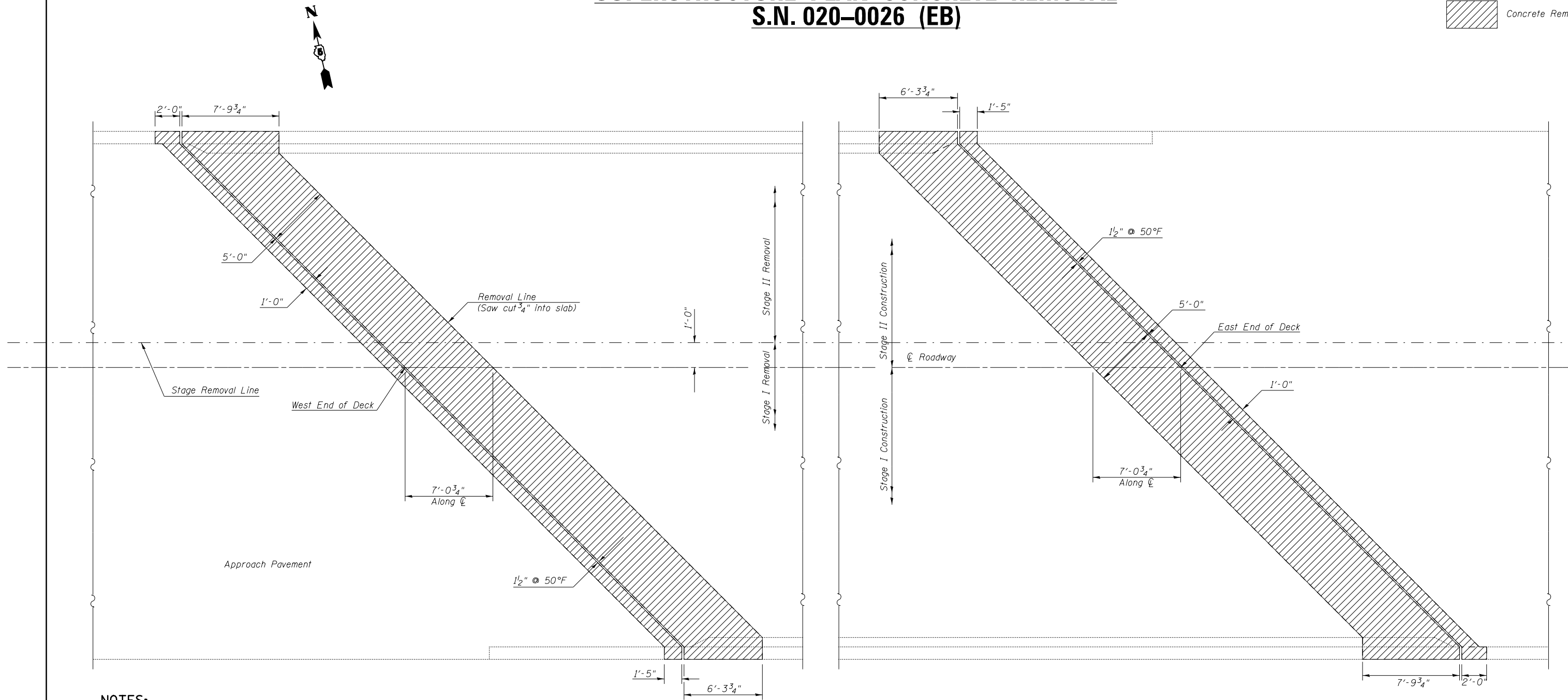
SCALE: SHEET 11 OF 26 SHEETS STA. TO STA.

| | | | | |
|---------------------------|-----------|---------------|--------------------|--------------|
| F.A.I. RTE. 74 | SECTION * | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 23 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 90876 | |

*20-1(HVB,HB-1,VB-1,B,B-1)I

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL

S.N. 020-0026 (EB)



NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0026 | Concrete Removal | 1.4 | 1.4 | 7.8 | 7.8 | 3.2 | 3.1 | 0.7 | 0.7 | Cu Yd | 26.1 |

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|---|-----------------------------|-----------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\084EBID\084EBID-Details.sht | DRAWN Data | CHECKED TJB | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE 11/29/2011 | REVISED - 8/31/2015 |
| | PLOT DATE = 10/13/2015 | | |

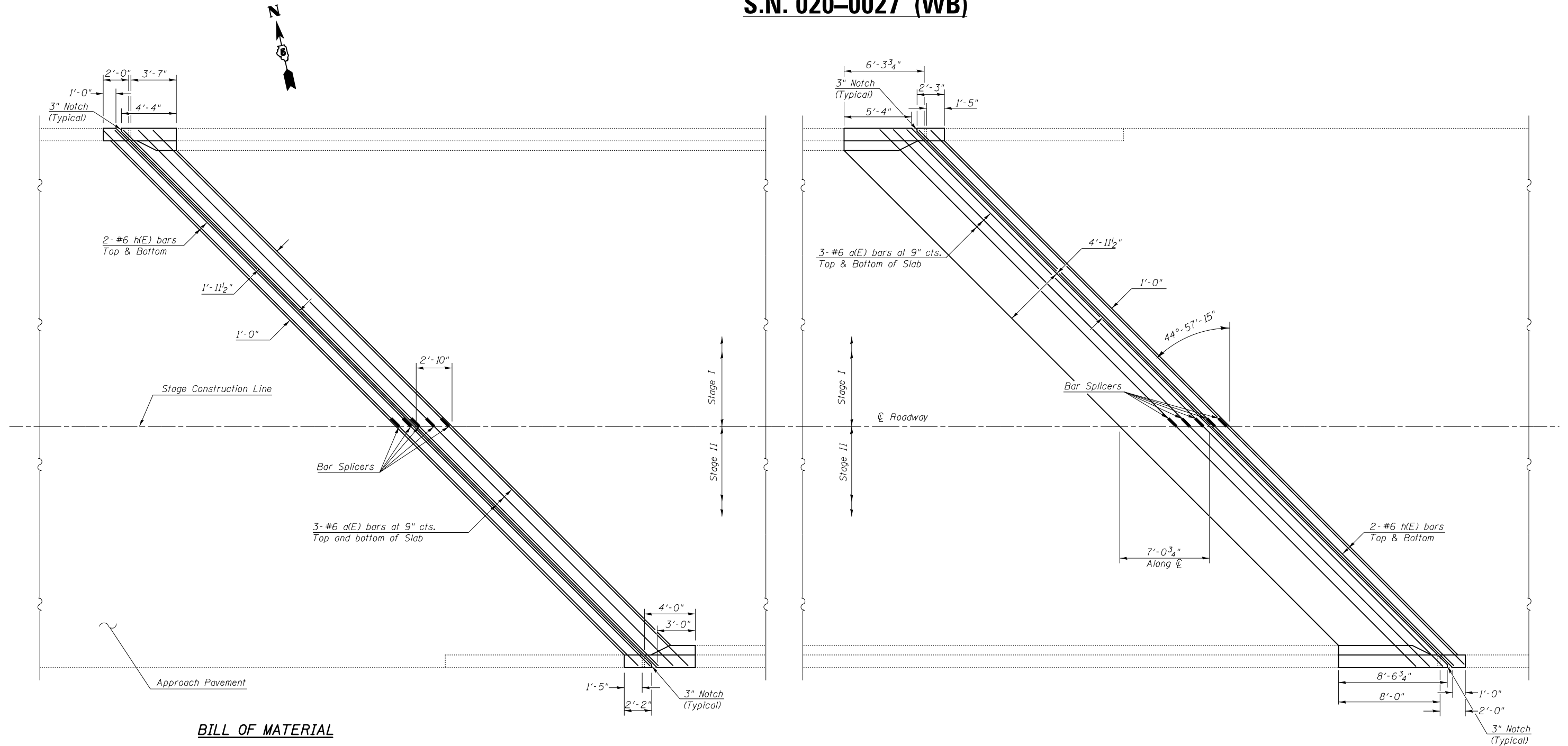
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-CONCRETE REMOVAL DETAILS
S.N. 020-0026 (EB)**

SCALE: SHEET 12 OF 26 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 24 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

SUPERSTRUCTURE PLAN-DECK REINFORCEMENT S.N. 020-0027 (WB)



BILL OF MATERIAL

| S.N. 020-0027 (East Joint & West Joint) | | | | | |
|---|------|-----|------|--------------------|--------------|
| Bill of Materials per Joint | | | | | |
| Stage | Bar | No. | Size | Bar Length (ft-in) | Weight (lbs) |
| I | a(E) | 6 | 6 | 33'-0" | 297.7 |
| II | a(E) | 6 | 6 | 26'-8" | 240.4 |
| Deck Total (lbs) = | | | | | 538.1 |
| I | h(E) | 4 | 6 | 33'-0" | 198.4 |
| II | h(E) | 4 | 6 | 26'-8" | 160.3 |
| Hatch Block Total (lbs) = | | | | | 358.7 |
| Total Weight (lbs) = | | | | | 900.0 |
| Total for Both Joints (lbs) = | | | | | 1,800.0 |
| Stud Shear Connectors Each | | | | | 280.0 |

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|-------------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0027 | Concrete Superstructure | 0.7 | 1.4 | 3.6 | 7.8 | 3.5 | 3.5 | 0.7 | 0.7 | Cu Yd | 21.9 |

NOTES

Existing Reinforcement Bars 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 Splicer or Anchorage System. Cost included with Concrete Removal.

Reinforcement Bars Designated (E) shall be Epoxy Coated.

| | | | |
|---|---------------------------|------------------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBIDINTEG.illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\084EBID-Details\084EBID-Details.sht | DRAWN <i>RTC</i> | CHECKED <i>TJB</i> | REVISED - TJB |
| PLOT SCALE = 48.0000' / in. | DATE <i>11/29/2011</i> | DATE <i>11/29/2011</i> | REVISED - 8/31/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

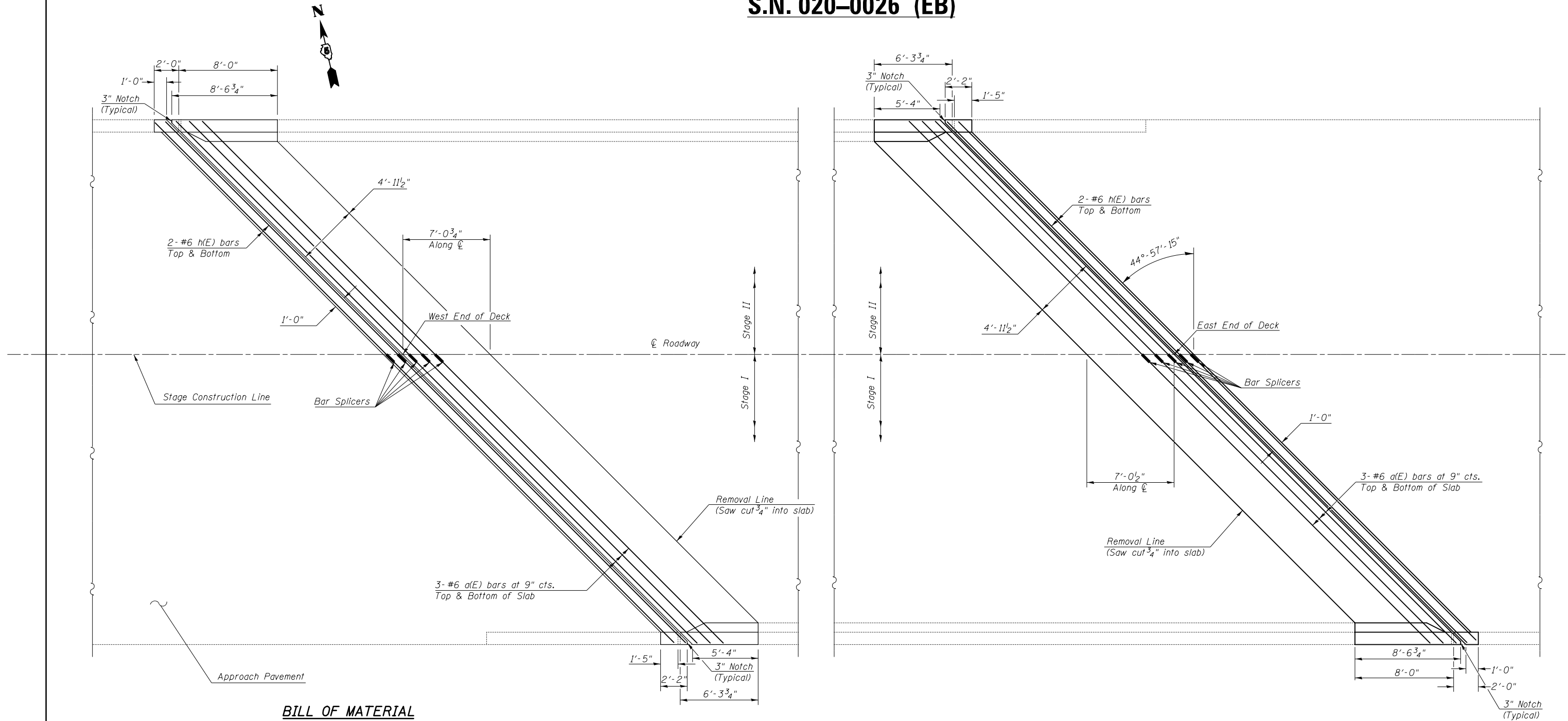
**SUPERSTRUCTURE PLAN-DECK REINFORCEMENT DETAILS
S.N. 020-0027 (WB)**

SCALE: SHEET 13 OF 26 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 25 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

SUPERSTRUCTURE PLAN-DECK REINFORCEMENT S.N. 020-0026 (EB)



BILL OF MATERIAL

| S.N. 020-0026 (East Joint & West Joint) Bill of Materials per Joint | | | | | |
|--|------|-----|------|--------------------|--------------|
| Stage | Bar | No. | Size | Bar Length (ft-in) | Weight (lbs) |
| I | a(E) | 6 | 6 | 33'-0" | 297.7 |
| II | a(E) | 6 | 6 | 26'-8" | 240.4 |
| Deck Total (lbs) = | | | | | 538.1 |
| I | h(E) | 4 | 6 | 33'-0" | 198.4 |
| II | h(E) | 4 | 6 | 26'-8" | 160.3 |
| Hatch Block Total (lbs) = | | | | | 358.7 |
| Total Weight (lbs) = | | | | | 900.0 |
| Total for Both Joints (lbs) = | | | | | 1,800.0 |
| Stud Shear Connectors | | | | Each | 560.0 |

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|-------------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0026 | Concrete Superstructure | 1.4 | 1.4 | 7.8 | 7.8 | 3.5 | 3.5 | 0.7 | 0.7 | Cu Yd | 26.8 |

NOTES

Existing Reinforcement Bars 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 Splicer or Anchorage System. Cost included with Concrete Removal.

Reinforcement Bars Designated (E) shall be Epoxy Coated.

| | | | |
|--|--------------------------|-----------------|---------------------|
| FILE NAME = | USER NAME = brandenburgj | DESIGNED RTC | REVISED - |
| pw:\IL\084EBID\INTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Bridges\020-0026\020-0026-details.sht | DRAWN BY TJB | CHECKED TJB | REVISED - TJB |
| PLOT SCALE = 40.0000' / in. | DATE 11/29/2011 | DATE 11/29/2011 | REVISED - 8/31/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-DECK REINFORCEMENT DETAILS
S.N. 020-0026 (EB)**

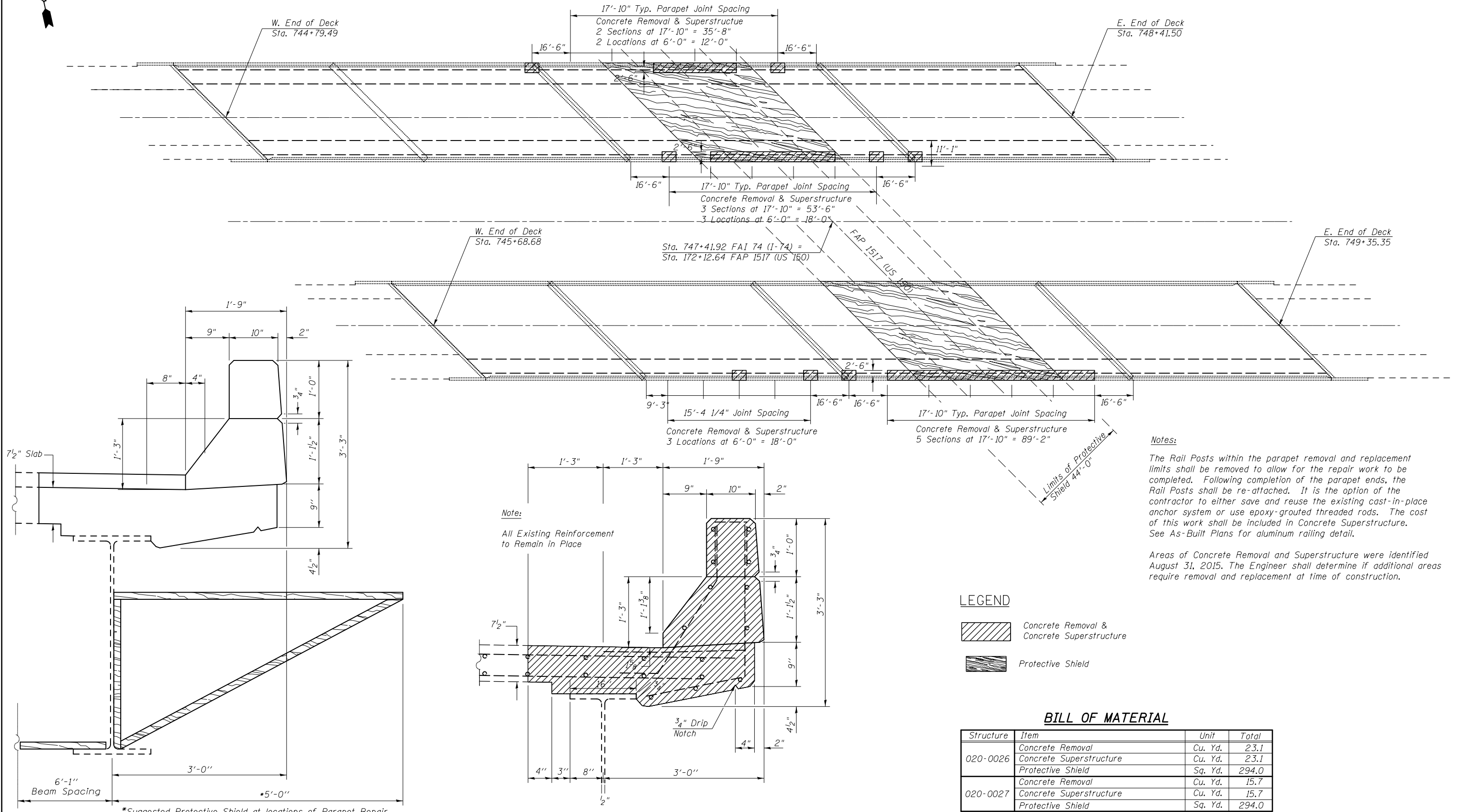
SCALE: SHEET 14 OF 26 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 26 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

PARAPET REPAIR PLAN

S.N. 020-0026 (EB) S.N. 020-0027 (WB)



Notes:
The Rail Posts within the parapet removal and replacement limits shall be removed to allow for the repair work to be completed. Following completion of the parapet ends, the Rail Posts shall be re-attached. It is the option of the contractor to either save and reuse the existing cast-in-place anchor system or use epoxy-grouted threaded rods. The cost of this work shall be included in Concrete Superstructure. See As-Built Plans for aluminum railing detail.

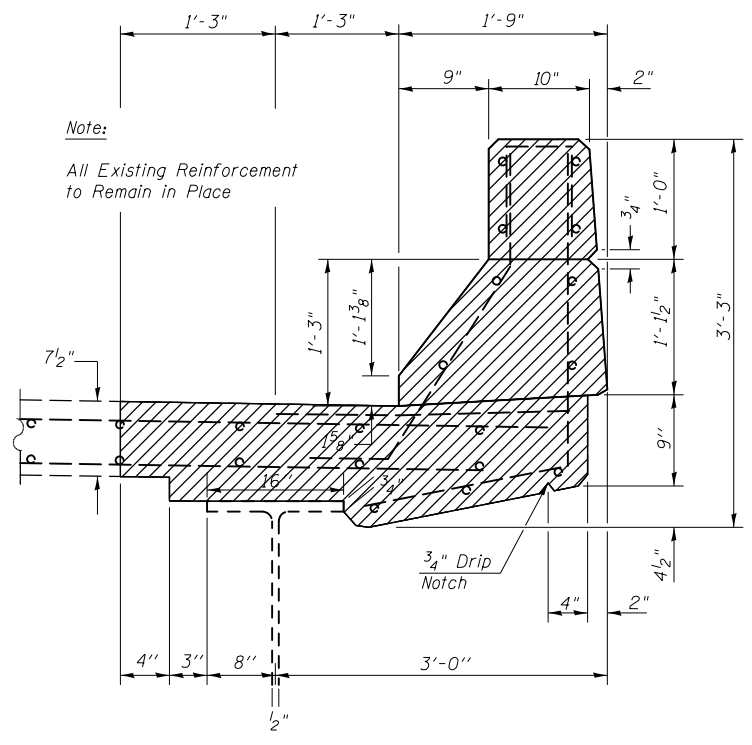
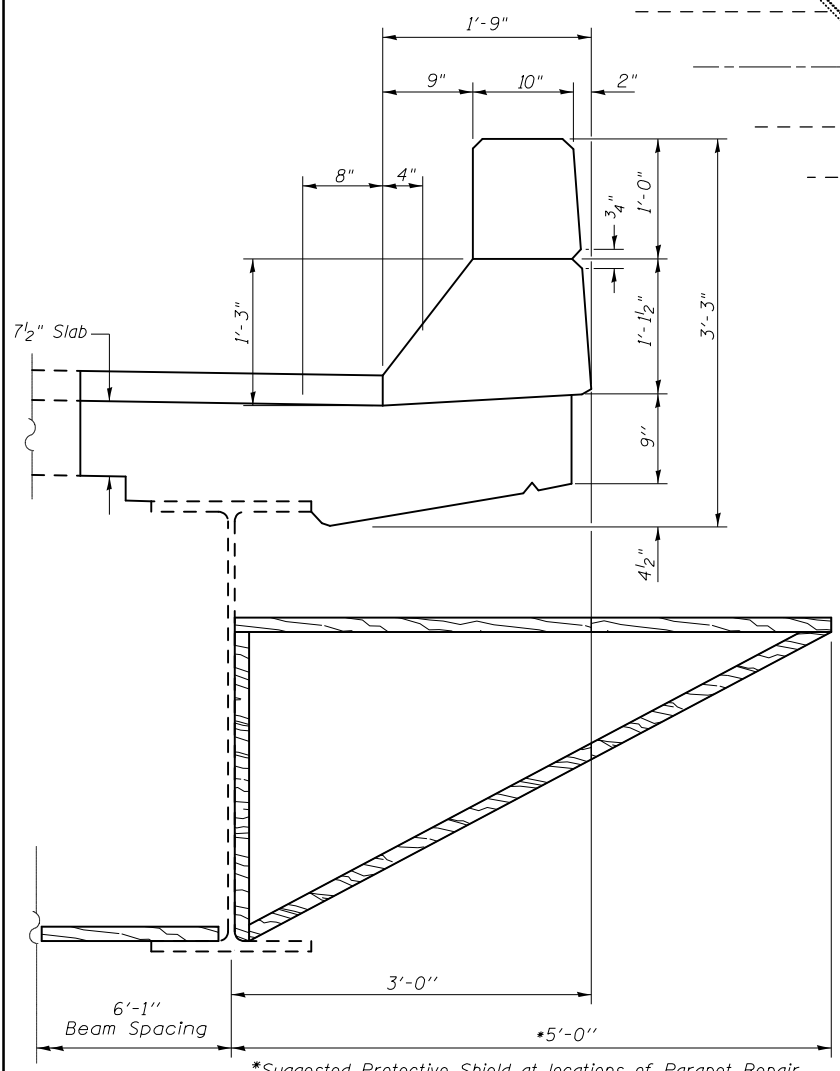
Areas of Concrete Removal and Superstructure were identified August 31, 2015. The Engineer shall determine if additional areas require removal and replacement at time of construction.

LEGEND

| | |
|--|--|
| | Concrete Removal & Concrete Superstructure |
| | Protective Shield |

BILL OF MATERIAL

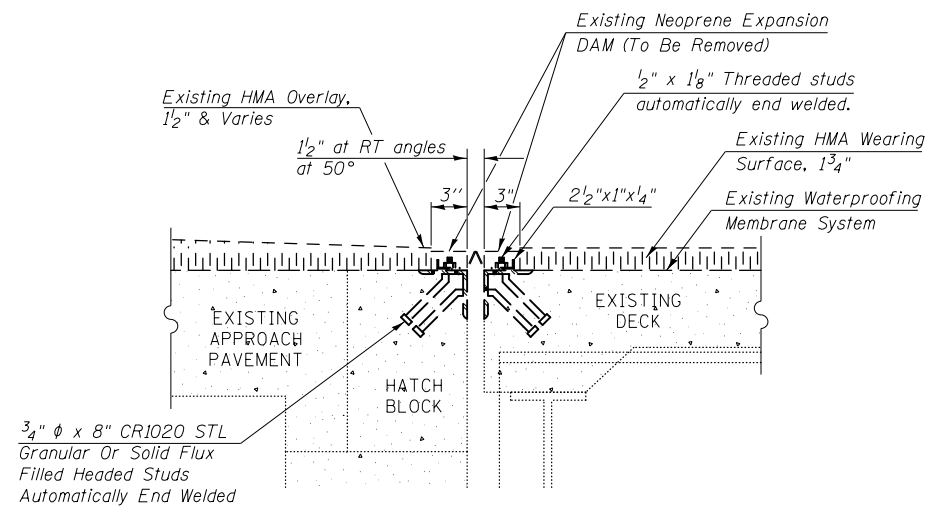
| Structure | Item | Unit | Total |
|-----------|-------------------------|---------|-------|
| 020-0026 | Concrete Removal | Cu. Yd. | 23.1 |
| | Concrete Superstructure | Cu. Yd. | 23.1 |
| | Protective Shield | Sq. Yd. | 294.0 |
| 020-0027 | Concrete Removal | Cu. Yd. | 15.7 |
| | Concrete Superstructure | Cu. Yd. | 15.7 |
| | Protective Shield | Sq. Yd. | 294.0 |



PROTECTIVE SHIELD

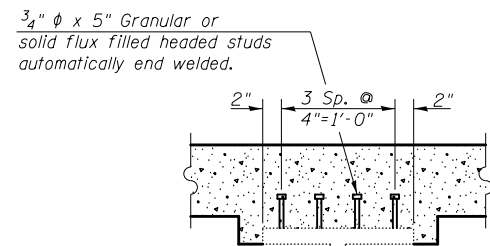
SECTION AT PARAPET

•20-1(HVB,HB-1,VB-1,B,B-1)I

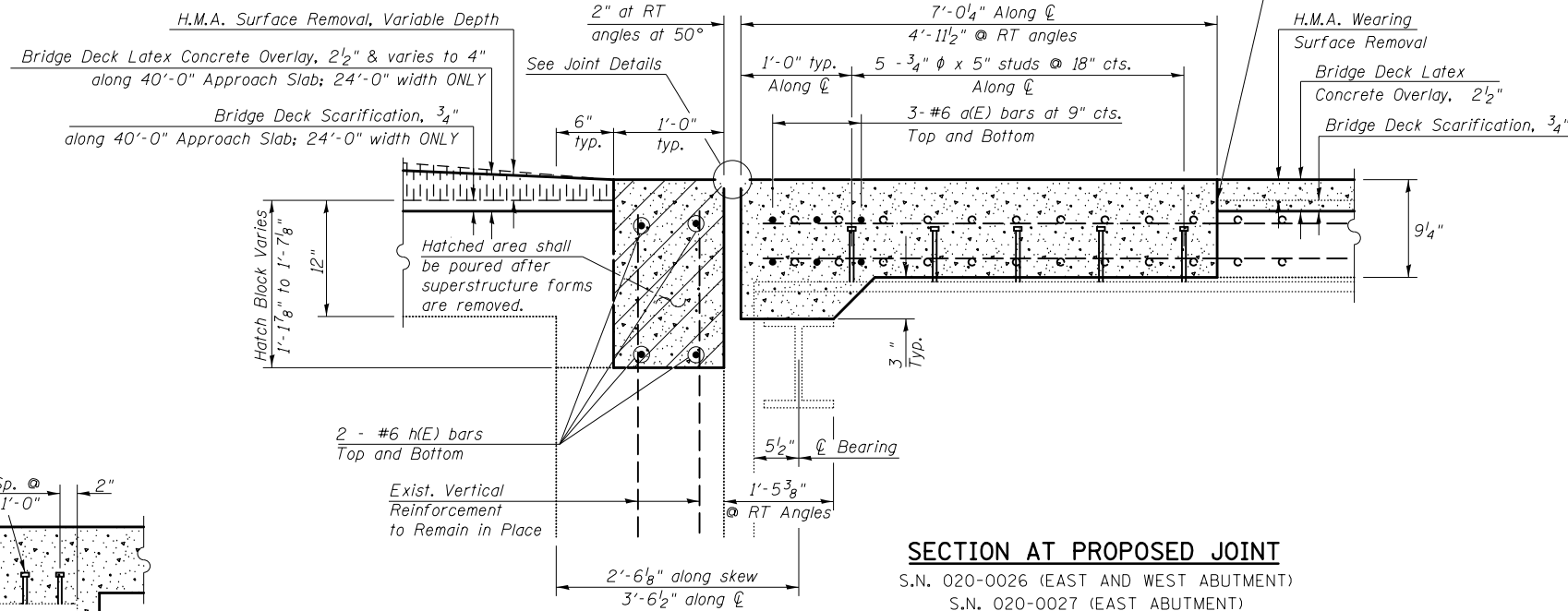


SECTION AT EXISTING JOINT

S.N. 020-0026 (EAST AND WEST ABUTMENT)
S.N. 020-0027 (EAST AND WEST ABUTMENT)



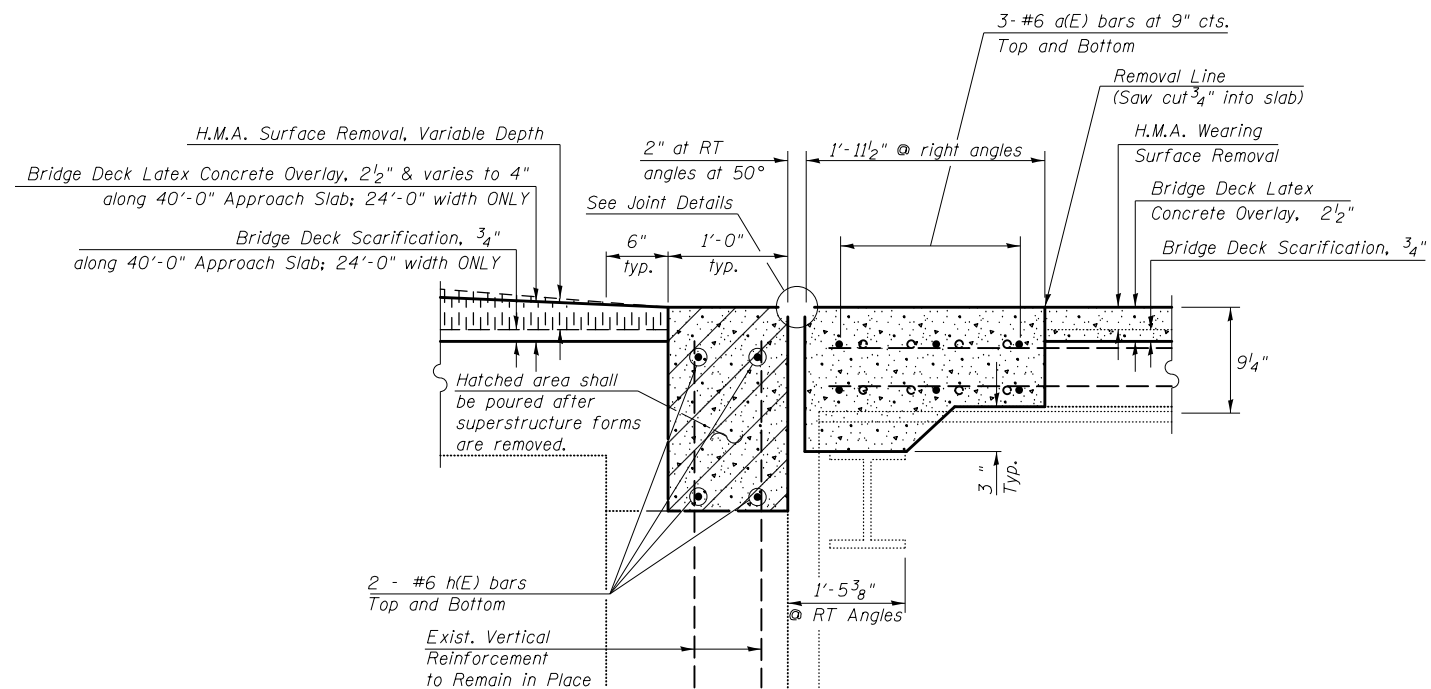
SECTION AT BEAM AT DECK END



SECTION AT PROPOSED JOINT

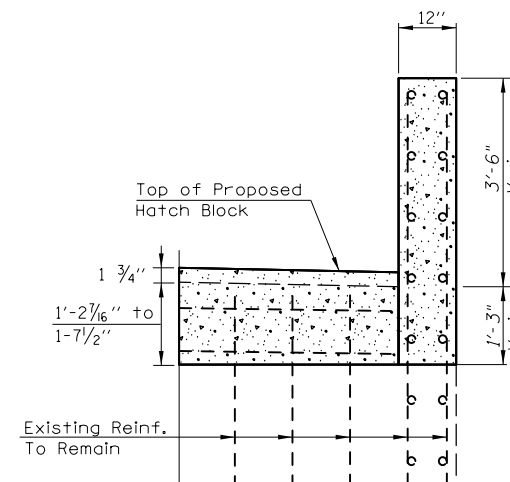
S.N. 020-0026 (EAST AND WEST ABUTMENT)
S.N. 020-0027 (EAST ABUTMENT)

Note:
All Existing Reinforcement to Remain in Place

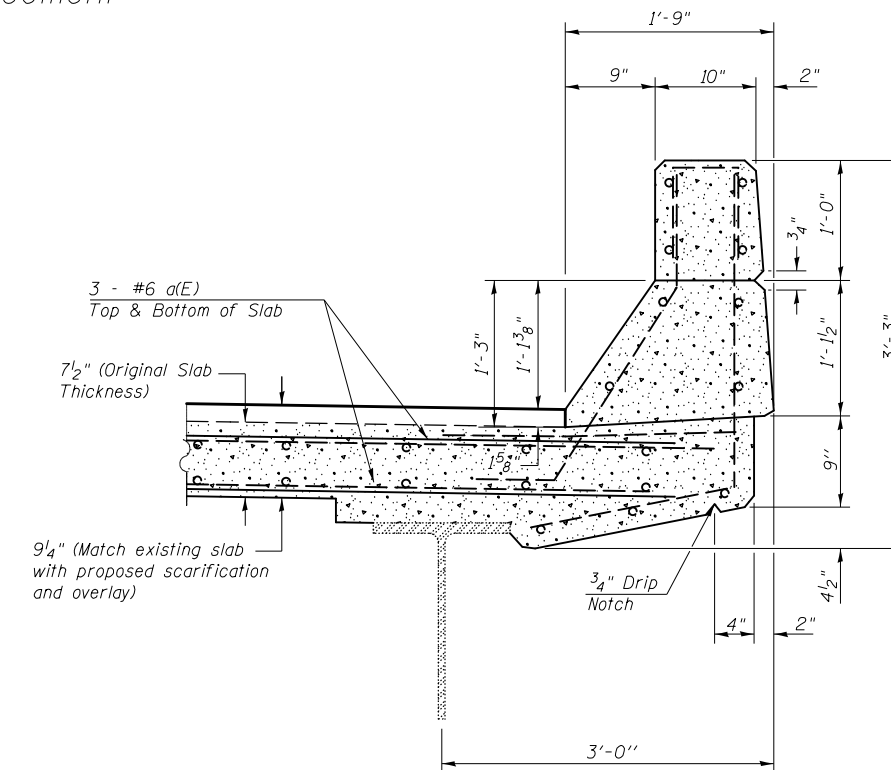


SECTION AT PROPOSED JOINT

S.N. 020-0027 (WEST ABUTMENT)



SECTION AT WINGWALL



SECTION AT PARAPET

| | | | |
|--|---------------------------|--------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\11\084EBID\INTEG.11\inois.gov\PIWID\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED TJB | | REVISED - TJB |
| PLOT DATE = 10/13/2015 | DATE 11/29/2011 | | REVISED - 8/31/2015 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK END, WINGWALL AND HATCH BLOCK DETAILS
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

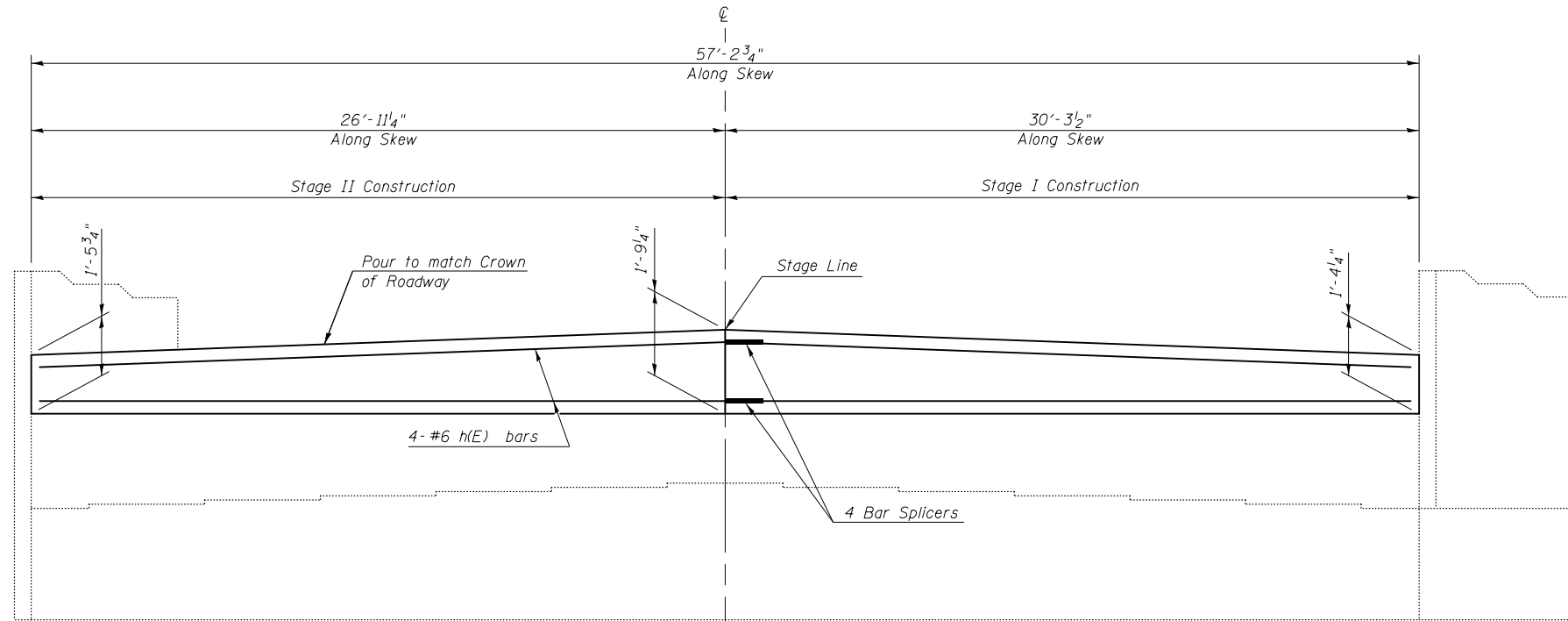
SCALE: SHEET 16 OF 26 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 28 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

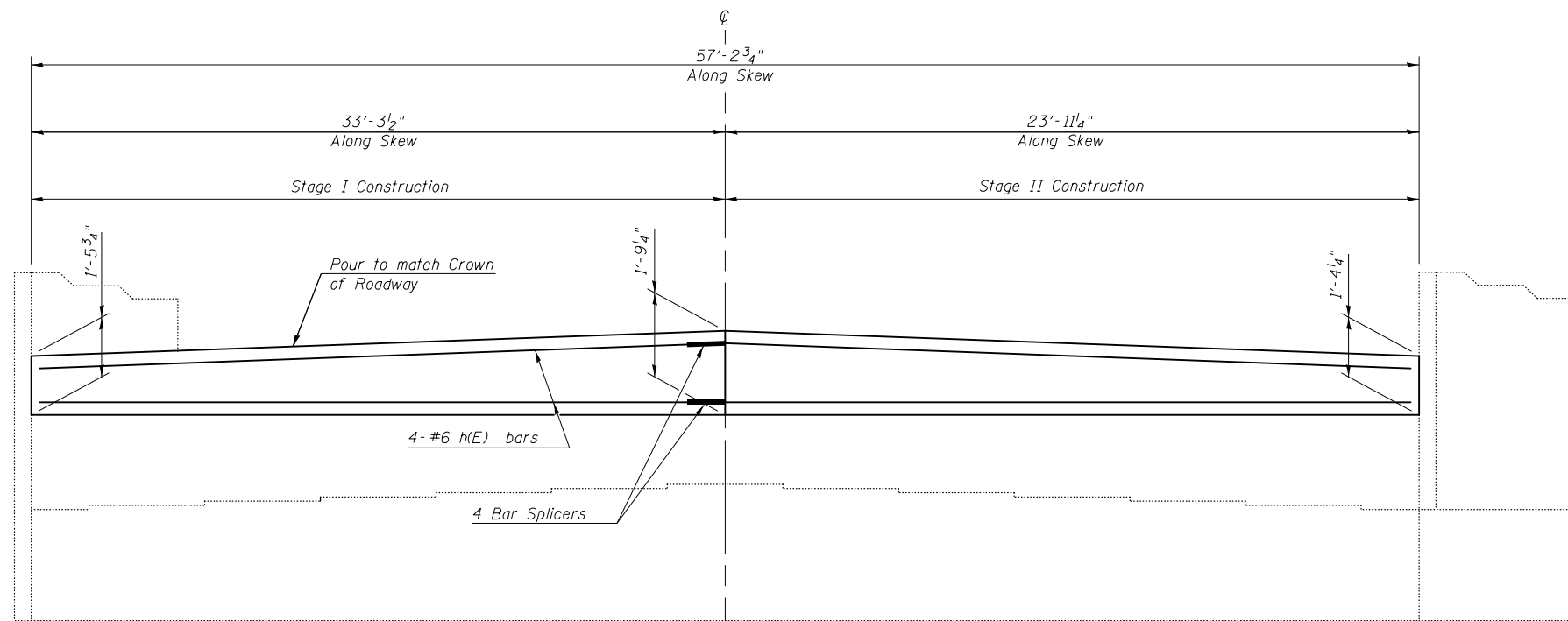
•20-1(HVB,HB-1,VB-1,B,B-1)I

HATCH BLOCK DETAILS

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



ELEVATION
 S.N. 020-0026 (EAST ABUTMENT)
 S.N. 020-0027 (WEST ABUTMENT)



ELEVATION
 S.N. 020-0026 (WEST ABUTMENT)
 S.N. 020-0027 (EAST ABUTMENT)

| | | | |
|--|-----------------------------|------------------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | DRAWN <i>WJF</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | REVISED - |
| | PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

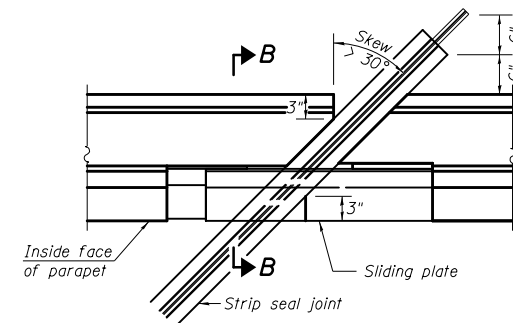
HATCH BLOCK DETAILS
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

SCALE: SHEET 17 OF 26 SHEETS STA. TO STA.

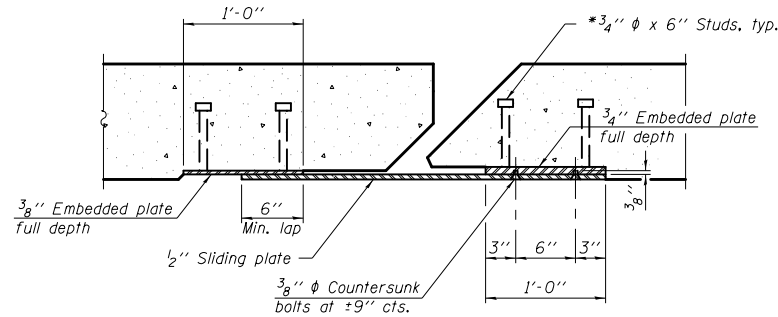
| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 29 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

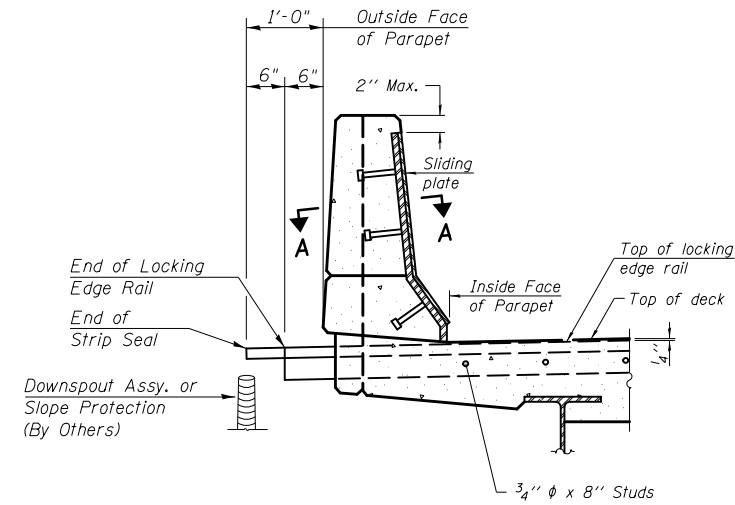
PREFORMED JOINT STRIP SEAL DETAILS S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



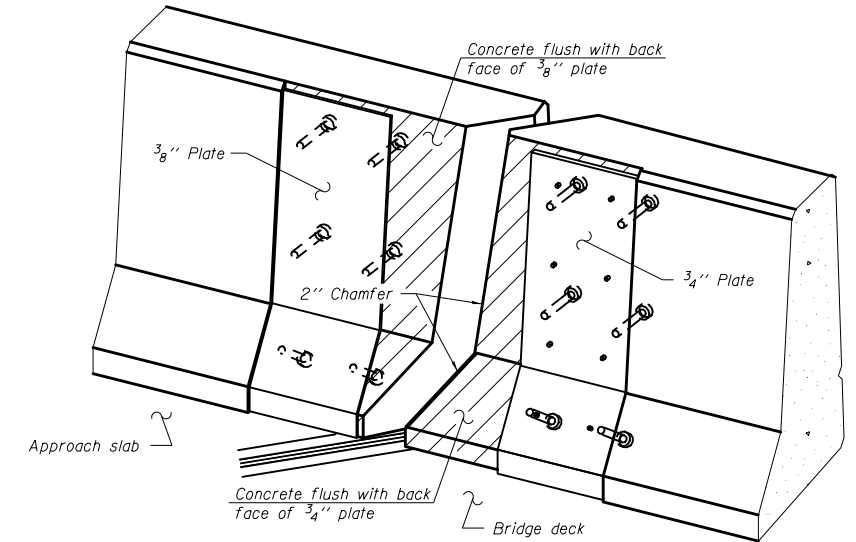
PLAN
(For skews > 30°)
Showing point block



SECTION A-A

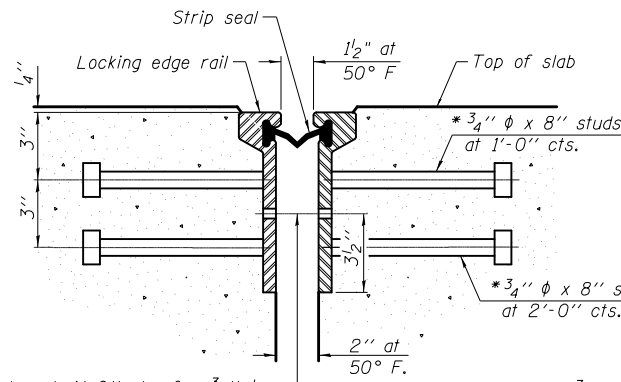


SECTION B-B

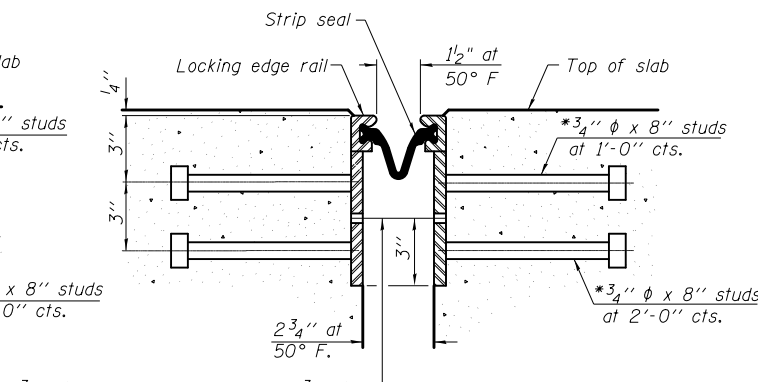


TRIMETRIC VIEW
(Showing back plates only)

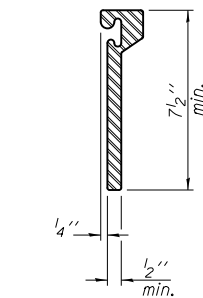
SLIDING PLATE IS NOT REQUIRED SINCE EXISTING PARAPET DOES NOT EXTEND ALONG APPROACH SLAB;
I.E. PROPOSED PARAPET AND WINGWALL DIMENSIONS MATCH EXISTING CONDITIONS



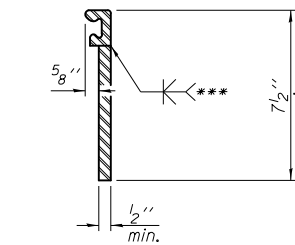
**SECTION THRU
ROLLED RAIL JOINT**



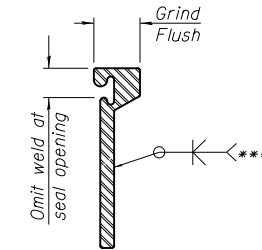
**SECTION THRU
WELDED RAIL JOINT**



**ROLLED
EXTRUDED RAIL**



WELDED RAIL



**LOCKING EDGE
RAIL SPLICE**

*** Back gouge not required if complete joint penetration is verified by mock-up.

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The strip seal shall be inserted into the Locking Edge Rails before the parapet ends are formed and poured to allow for proper placement of the strip seal.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

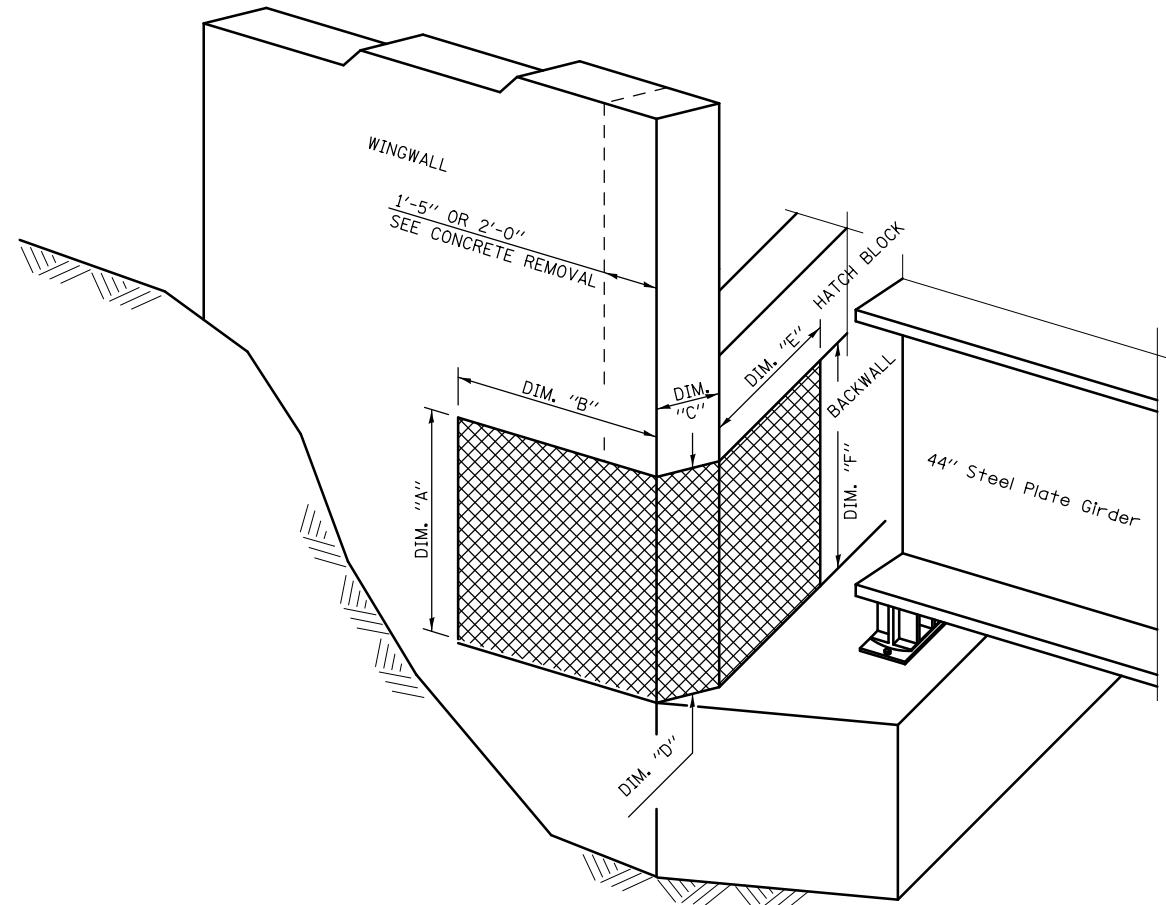
BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|----------------------------|------|-------|
| 020-0026 | Preformed Joint Strip Seal | Foot | 126.0 |
| 020-0027 | Preformed Joint Strip Seal | Foot | 126.0 |

•20-1(HVB,HB-1,VB-1,B,B-1)1

SUBSTRUCTURE REPAIR PLAN

S.N. 020-0026 (EB) S.N. 020-0027 (WB)



ISOMETRIC VIEW AT ABUTMENT CORNER

S.N. 020-0026

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|-------|--------|-------|----------|---|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | 4'-4" | 3'-0" | 1'-0" | 4'-4" | - | - | 17.3 |
| SOUTHEAST | 4'-4" | 2'-0" | 1'-0" | 4'-4" | - | - | 13.0 |
| SOUTHWEST | 4'-4" | 6'-0" | 1'-0" | 4'-4" | - | - | 30.3 |

S.N. 020-0027

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|-------|--------|-------|----------|-------|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | - | - | 1'-0" | 4'-4" | - | - | 4.3 |
| SOUTHEAST | - | - | 1'-0" | 4'-4" | 3'-0" | 4'-4" | 17.3 |
| SOUTHWEST | 4'-4" | 2'-6" | 1'-0" | 4'-4" | 5'-0" | 4'-4" | 36.8 |

LEGEND

STRUCTURAL REPAIR OF CONCRETE, DEPTH EQUAL TO OR LESS THAN 5"

NOTE:

SEE SPECIAL PROVISION FOR STRUCTURAL REPAIR OF CONCRETE.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|---|---------|-------|
| 020-0026 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 61.0 |
| 020-0027 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 59.0 |

| | | | |
|---|-----------------------------|------------------------|---------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN <i>RTC</i> | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - 8/31/2015 |

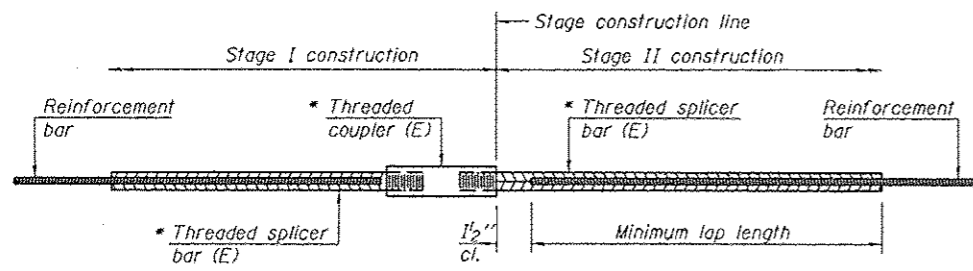
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE REPAIR PLAN
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)**

SCALE: SHEET 19 OF 26 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 31 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

*20-1(HVB,HB-1,VB-1,B,B-1)I

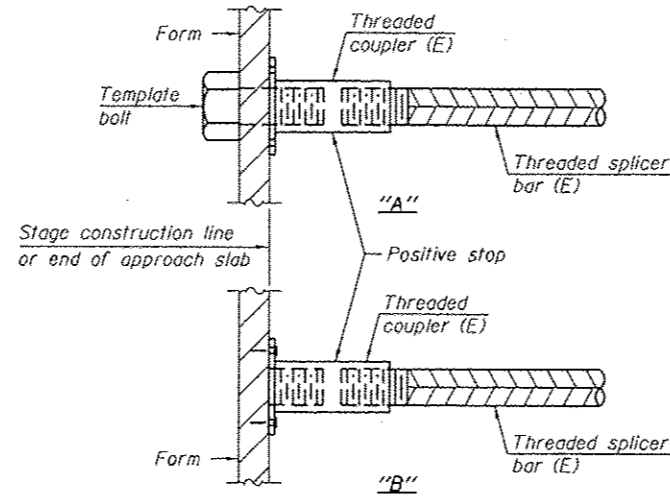


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Structure | Location | Bar size | No. assemblies required | Minimum lap length |
|-----------|-------------|----------|-------------------------|--------------------|
| 020-0026 | Deck End | #6 | 12 | 3'-10" |
| | Hatch Block | #6 | 8 | 3'-10" |
| 020-0027 | Deck End | #6 | 12 | 3'-10" |
| | Hatch Block | #6 | 8 | 3'-10" |

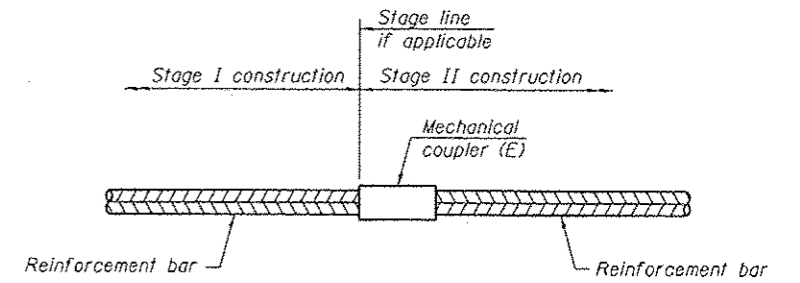


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

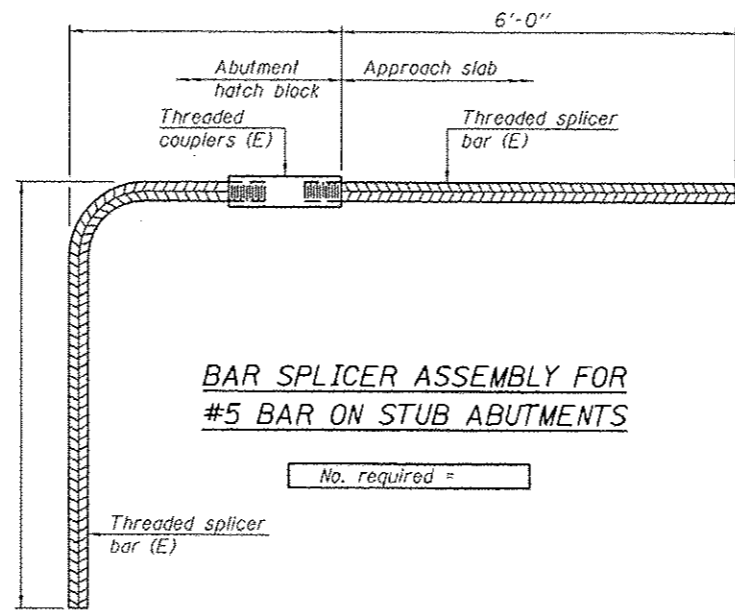
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

6-8-15

| | | | |
|-------------|----------------------------|-----------------|-----------|
| FILE NAME = | USER NAME = brandenbargtj | DESIGNED RTC | REVISED - |
| FILE# | | DRAWN RTC | REVISED - |
| | PLOT SCALE = 40,0000' / 1" | CHECKED TJB | REVISED - |
| | PLOT DATE = 10/13/2015 | DATE 11/29/2015 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 020-0026 (EB) & 020-0027 (WB)

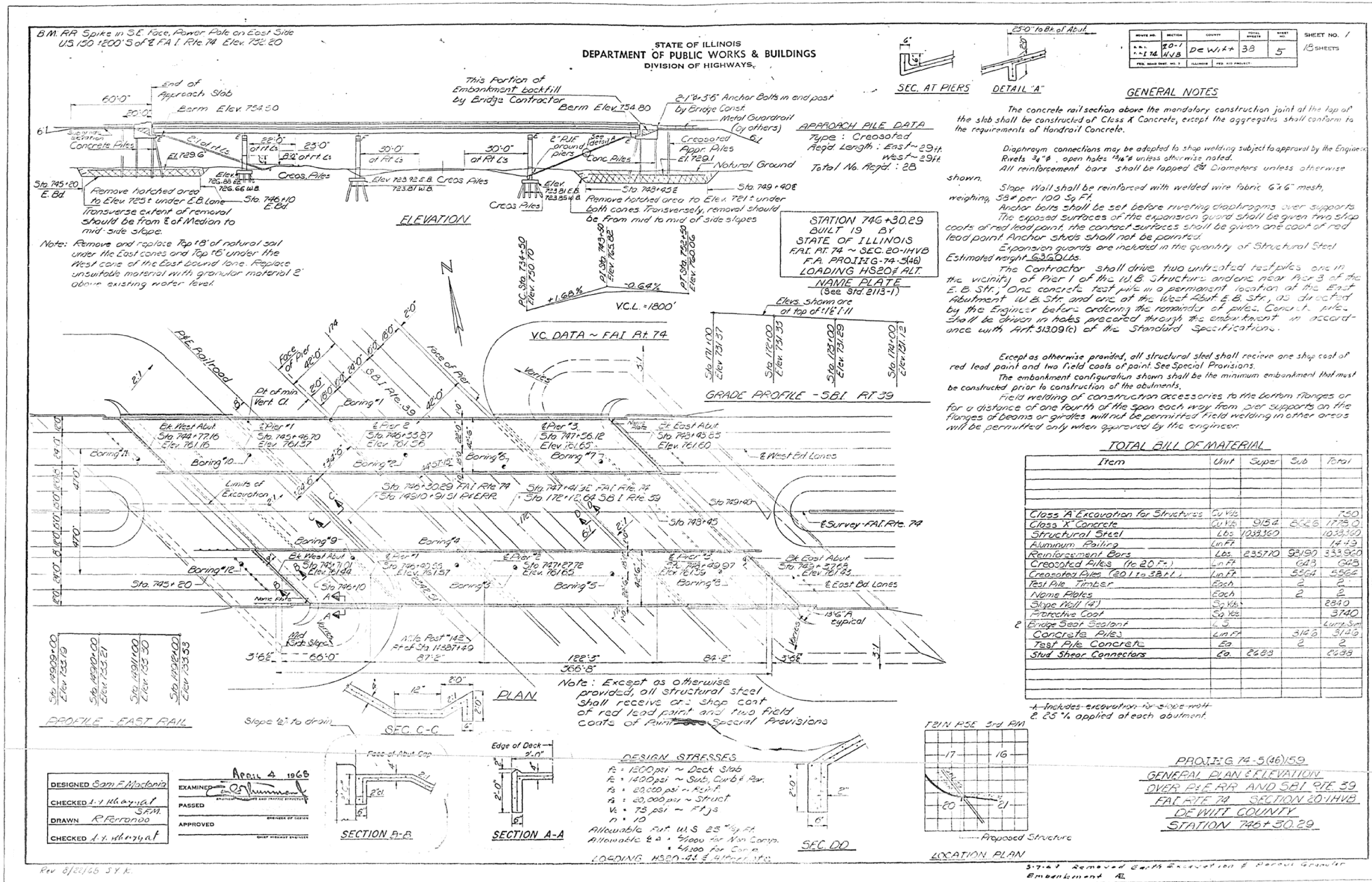
| | | | | | | | | |
|--------|-----------------------|------|---------|----------------|---------|---------------|------------------|--------------|
| SCALE: | SHEET 20 OF 26 SHEETS | STA. | TO STA. | F.A.I. RTE. 74 | SECTION | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 32 |
|--------|-----------------------|------|---------|----------------|---------|---------------|------------------|--------------|

*20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | |
|---|---------|---------------|------------------|--------------|
| F.A.I. RTE. 74 | SECTION | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 32 |
| CONTRACT NO. 90876 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



| | | | | |
|-----------|---------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 20-1 | DEWITT | 38 | 5 | 18 SHEETS |

GENERAL NOTES

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Diaphragm connections may be adopted to shop welding subject to approval by the Engineer. Rivets 3/4" open holes 1 1/4" unless otherwise noted. All reinforcement bars shall be lapped 28" diameters unless otherwise shown.

Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 Sq Ft. Anchor bolts shall be set before riveting diaphragms over supports. The exposed surfaces of the expansion guard shall be given two shop coats of red lead paint, the contact surfaces shall be given one coat of red lead paint. Anchor studs shall not be painted.

Expansion guards are included in the quantity of Structural Steel. Estimated weight 6325 Lbs.

The Contractor shall drive two untreated test piles one in the vicinity of Pier 1 of the W.B. Structure and one near Pier 3 of the E.B. Str. One concrete test pile in a permanent location at the East Abutment W.B. Str. and one at the West Abut. E.B. Str., as directed by the Engineer before ordering the remainder of piles. Concrete piles shall be driven in holes pre-cored through the embankment in accordance with Art. 513.09(c) of the Standard Specifications.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of paint. See Special Provisions.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Field welding of construction accessories to the bottom flanges or for a distance of one fourth of the span each way from pier supports on the flanges of beams or girdles will not be permitted. Field welding in other areas will be permitted only when approved by the engineer.

TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub | Total |
|-----------------------------------|--------|---------|-------|---------|
| Class A Excavation for Structures | Cu Yds | | | 750 |
| Class X Concrete | Cu Yds | 9154 | 6626 | 17780 |
| Structural Steel | Lbs | 1033360 | | 1033360 |
| Aluminum Purling | Lin Ft | | | 1443 |
| Reinforcement Bars | Lbs | 235710 | 98190 | 333900 |
| Creosoted Piles (to 20 Ft.) | Lin Ft | | | 643 |
| Creosoted Piles (20 ft to 32 ft) | Lin Ft | | | 5564 |
| Test Pile Timber | Each | | | 2 |
| Name Plates | Each | | | 2 |
| Slope Wall (4') | Sq Yds | | | 2840 |
| Protective Coat | Sq Yds | | | 3740 |
| Bridge Seat Sealant | Lbs | | | 444.5 |
| Concrete Piles | Lin Ft | | 3126 | 3126 |
| Test Pile Concrete | Each | | | 2 |
| Stud Shear Connectors | Each | 2689 | | 2689 |

* Includes excavation for slope wall.
 † 25% applied at each abutment.

DESIGN STRESSES

$f_c = 1500 \text{ psi} \sim$ Deck Slab
 $f_t = 1400 \text{ psi} \sim$ Subs, Curbs & Per.
 $f_s = 20,000 \text{ psi} \sim$ Reinf.
 $f_a = 20,000 \text{ psi} \sim$ Struct.
 $v_c = 75 \text{ psi} \sim$ Ft's
 $n = 10$

Allowable Fut. U.S. 25 # by Ft.
 Allowable & A = 7000 for Non Comp.
 = 4300 for Comp.

LOADING HS20-44 & 44 ft. etc.

DESIGNED **Som F. Macdonia**
 CHECKED **A. J. Kharyat**
 DRAWN **R. Ferrario**
 CHECKED **A. J. Kharyat**

EXAMINED **A. J. Kharyat**
 PASSED
 APPROVED

Rev 8/22/15 SYK

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS (FOR INFORMATION ONLY) S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

SCALE: SHEET 21 OF 26 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 33 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

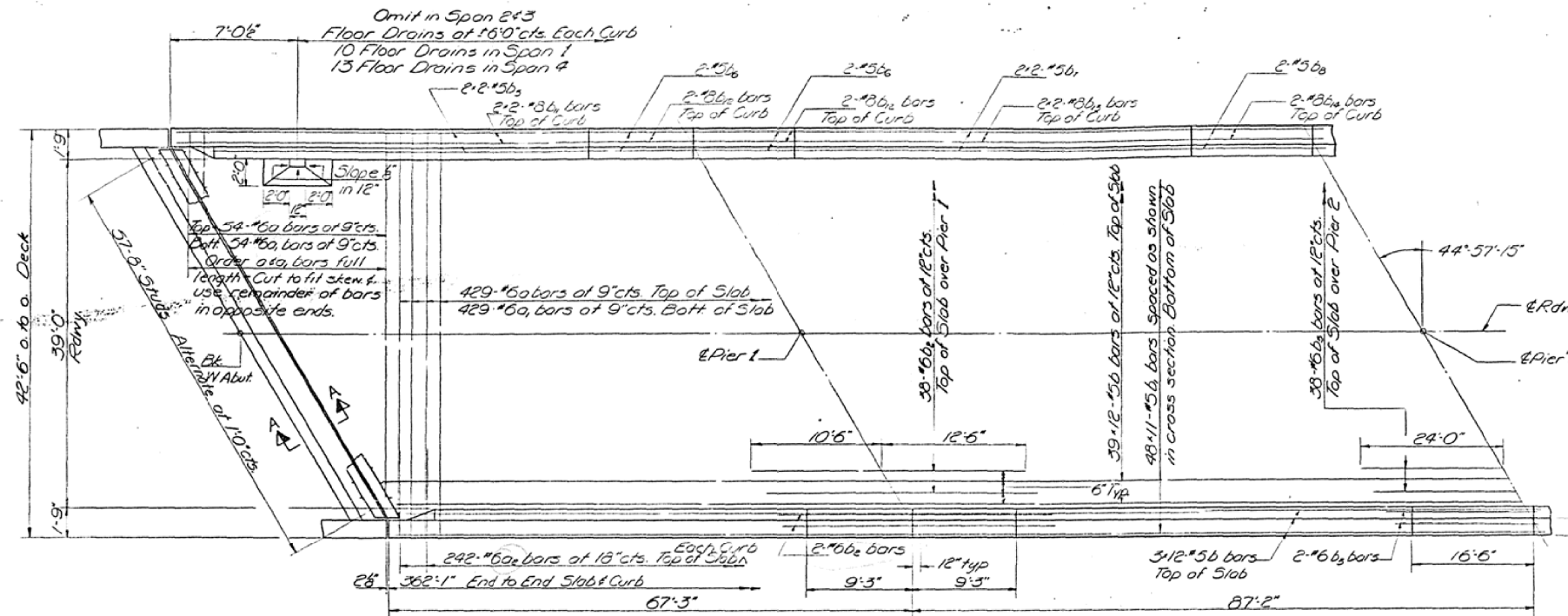
*20-1(HVB,HB-1,VB-1,B,B-1)11

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

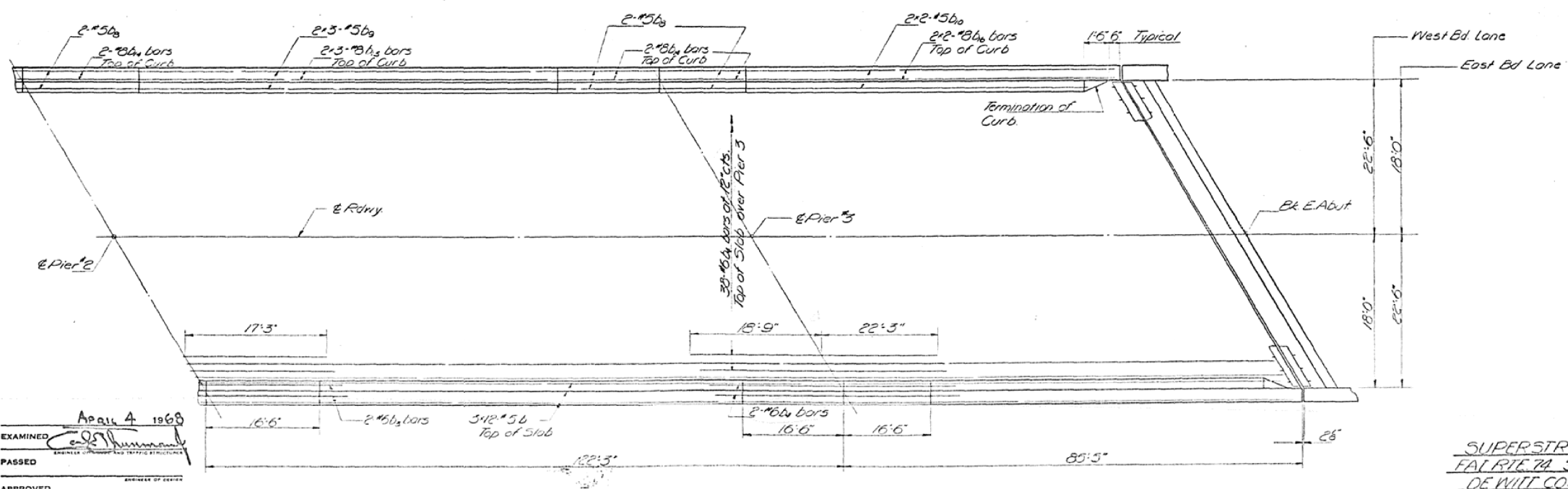
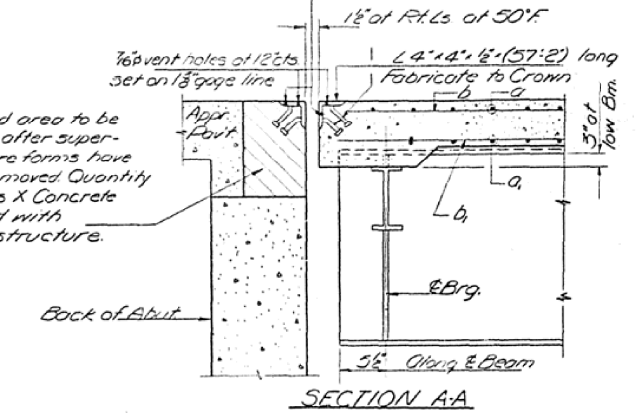
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | | |
|-----------------------|---------|--------|--------------|-----------|-------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 2 |
| 74 | 20-1 | Dewitt | 38 | 7 | 13 SHEETS |
| FED. ROAD DIST. NO. 7 | | | | | FED. AID PROJECT: |



7/8" holes at 12" cts for 3/8" bolts set on 28" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.

3/4" x 1 1/2" CR 1020 STL granular or solid flux filled headed studs, automatically end welded. (Alternate at 10" cts)



| | |
|------------------------------|------------------------------|
| DESIGNED <i>S.F. Madonia</i> | EXAMINED <i>April 4 1968</i> |
| CHECKED <i>A.Y. Maynard</i> | PASSED |
| DRAWN <i>R. Ferrando</i> | APPROVED |
| CHECKED <i>A.Y. Maynard</i> | |

PLAN
Either Structure

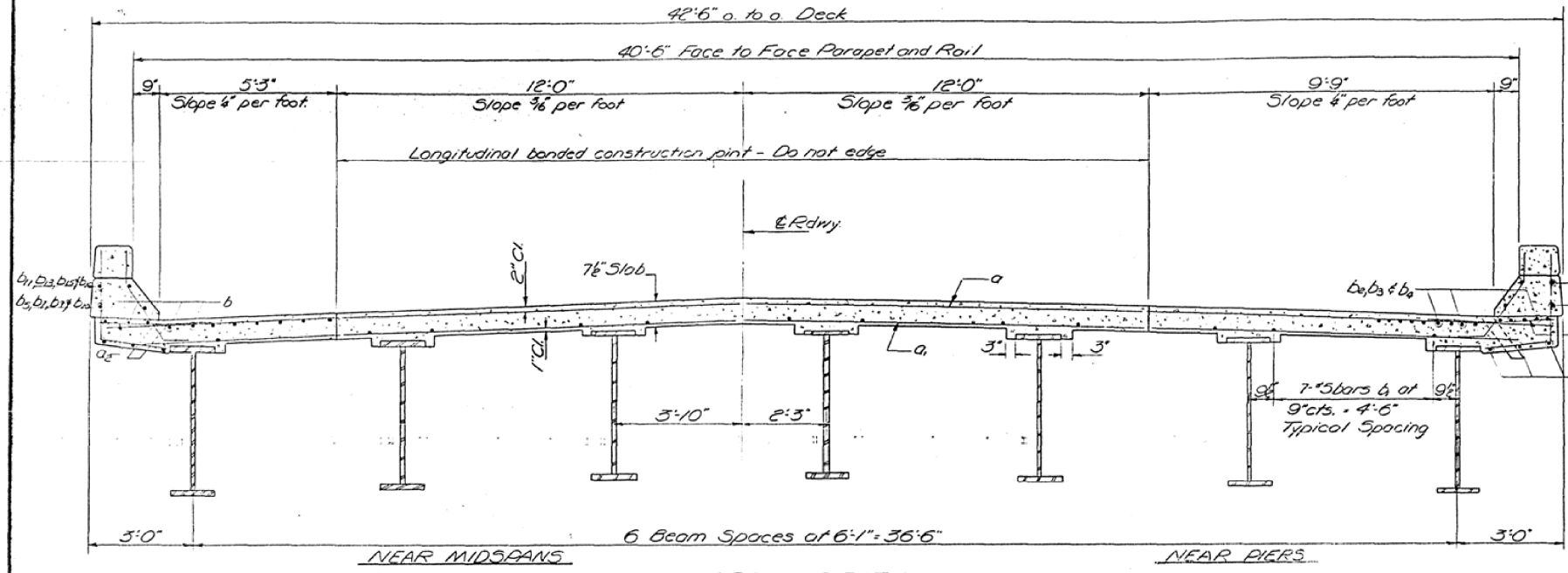
SUPERSTRUCTURE
FAL RIE 74 SEC 20-1 HVB
DEWITT COUNTY
STA 746+30.89

AS-BUILT PLANS (FOR INFORMATION ONLY)

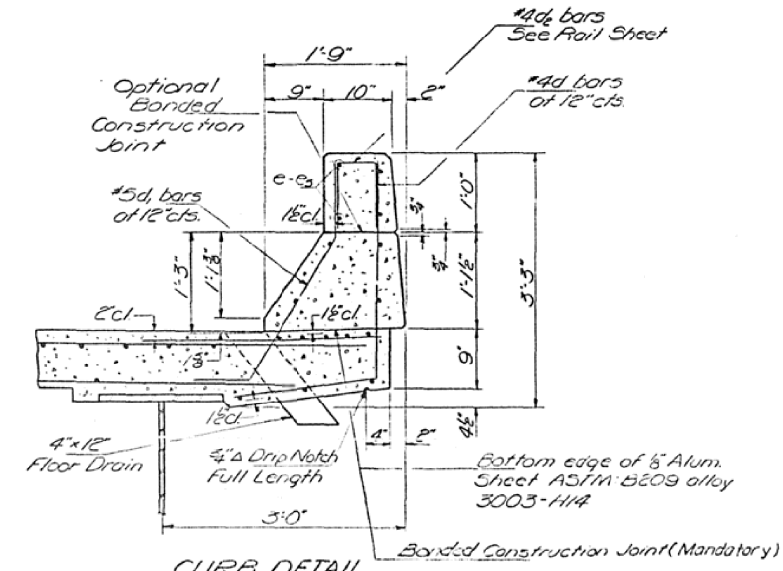
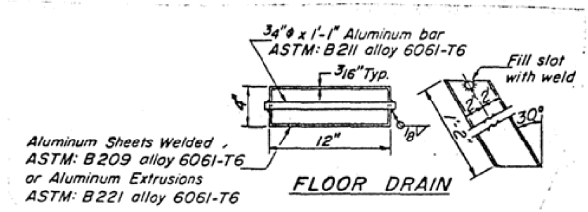
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

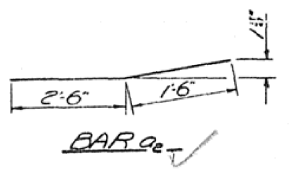
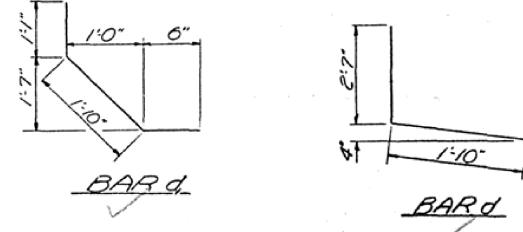
| | | | | | |
|---|---------|--------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 3 |
| P.A.I. 74 | 20-1 | DEWITT | 38 | 3 | 18 SHEETS |
| FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT | | | | | |



CROSS SECTION
Looking East on East Bound Structure
Looking West on West Bound Structure



CURB DETAIL
Cost of Aluminum Drains and Sheets shall be incidental to Class X Concrete



BILL OF MATERIAL
TWO SUPERSTRUCTURES

| Bar | No. | Size | Length | Shape |
|-----|------|------|--------|-------|
| a | 966 | #6 | 41'-9" | — |
| a1 | 966 | #6 | 40'-6" | — |
| a2 | 968 | #6 | 4'-0" | — |
| b | 1080 | #5 | 31'-5" | — |
| b1 | 1056 | #5 | 34'-0" | — |
| b2 | 84 | #6 | 23'-0" | — |
| b3 | 84 | #6 | 41'-3" | — |
| b4 | 84 | #6 | 41'-0" | — |
| b5 | 16 | #5 | 29'-6" | — |
| b6 | 16 | #5 | 3'-0" | — |
| b7 | 10 | #5 | 31'-3" | — |
| b8 | 32 | #5 | 16'-3" | — |
| b9 | 84 | #5 | 30'-6" | — |
| b10 | 16 | #5 | 30'-0" | — |
| b11 | 16 | #8 | 29'-9" | — |
| b12 | 16 | #8 | 9'-0" | — |
| b13 | 16 | #8 | 31'-9" | — |
| b14 | 32 | #8 | 16'-3" | — |
| b15 | 24 | #8 | 31'-0" | — |
| b16 | 16 | #8 | 35'-3" | — |
| c | 1448 | #4 | 4'-5" | — |
| d | 1448 | #5 | 3'-5" | — |

| Class X Concrete | CuKts | BSG |
|--------------------|-------|---------|
| Reinforcement Bars | Lbs | 231460 |
| Structural Steel | Lbs | 1023360 |
| Stud Shear Conn. | Ea | 2688 |

Weight of bearing assemblies with lead plates & anchor bolts are included as structural steel. Est Weight = 23,510

The lengths and quantities of longitudinal reinforcement & Class X Concrete in parapets are not included in above quantities. See Sheet # 7

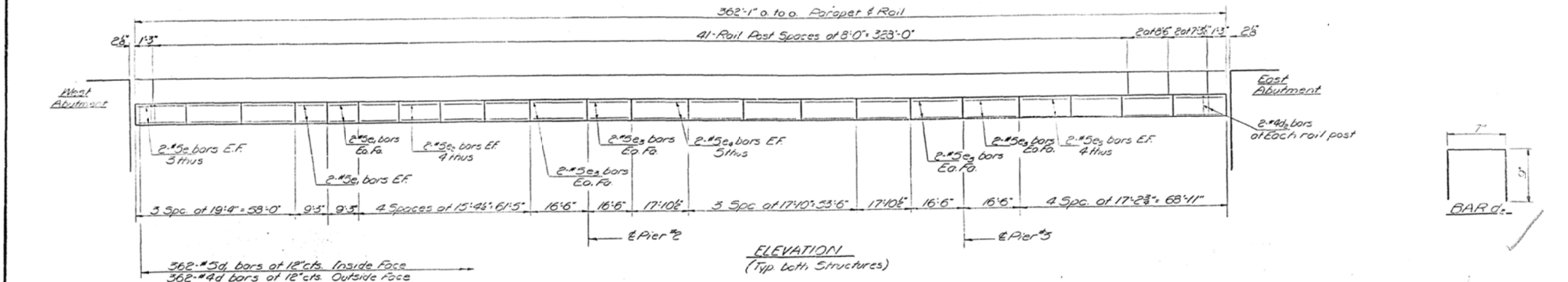
SLAB DETAILS
FARIE 74 SEC. 20-1HVB
DEWITT COUNTY
STA 746+30.29

| | |
|------------------------------|-------------------------------|
| DESIGNED S.F. Madonia | EXAMINED April 4, 1965 |
| CHECKED A.Y. Mbayat | PASSED [Signature] |
| DRAWN R. Fernandez | APPROVED [Signature] |
| CHECKED A.Y. Mbayat | CHIEF HIGHWAY ENGINEER |

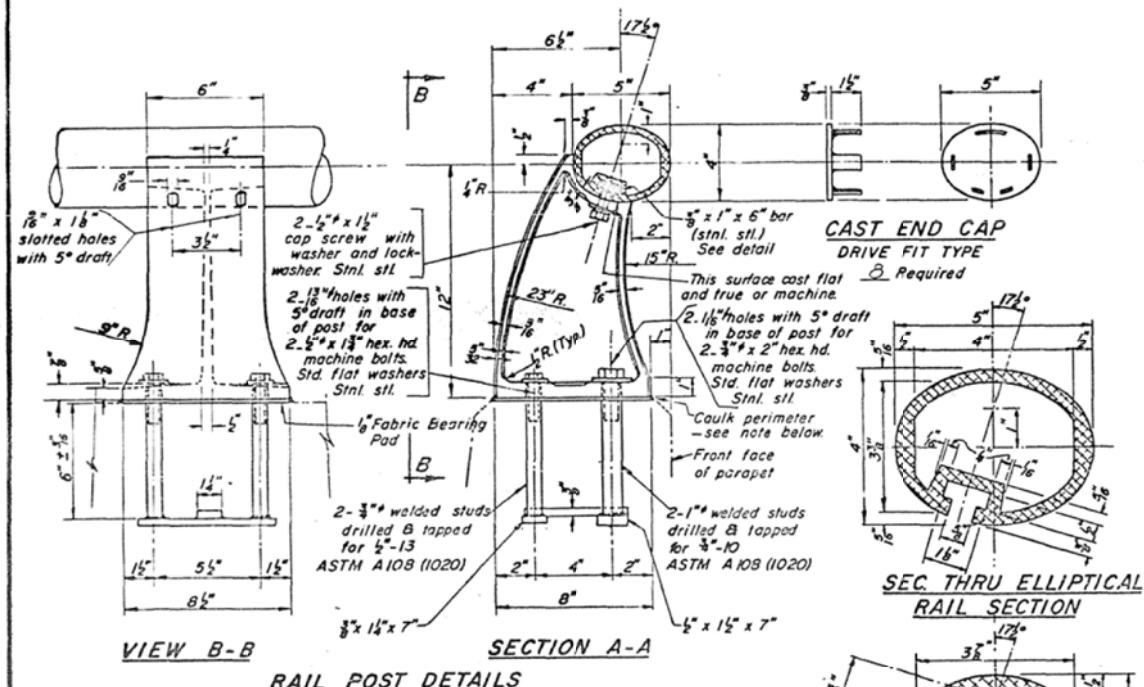
AS-BUILT PLANS (FOR INFORMATION ONLY) S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

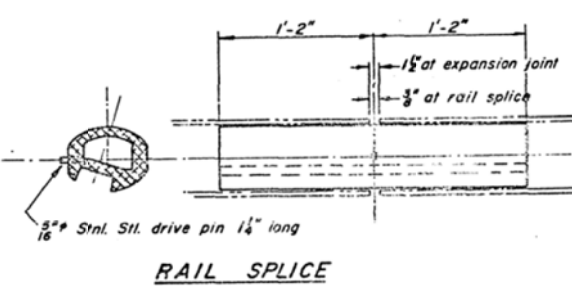
| | | | | |
|----------|----------|-------|-----------|-------------|
| DATE | SCALE | COUNT | SHEET NO. | SHEET TOTAL |
| 11-18-66 | AS BUILT | 36 | 12 | 10 SHEETS |



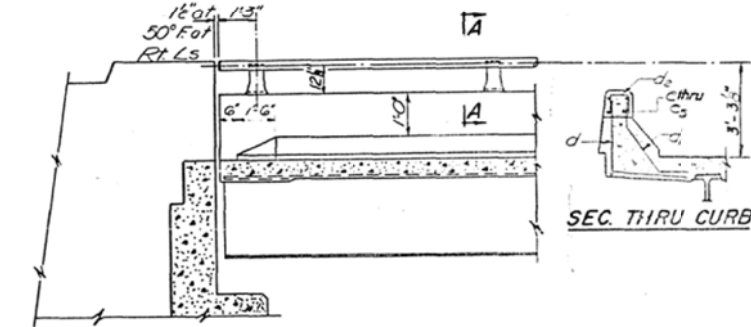
ELEVATION
(Typ both Structures)



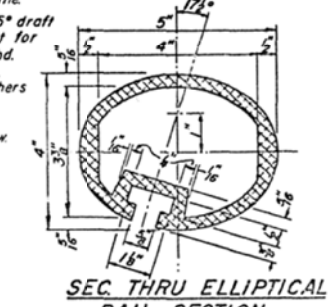
RAIL POST DETAILS



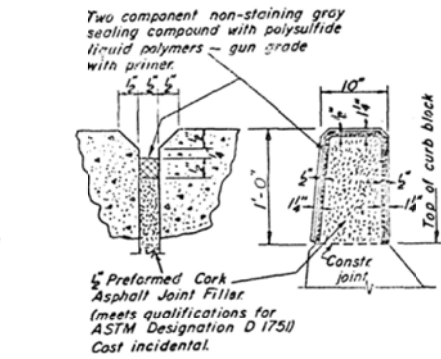
RAIL SPLICE



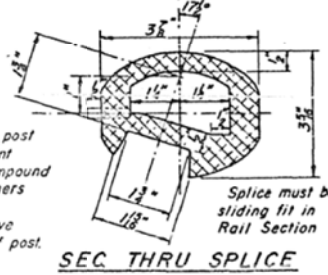
INSIDE VIEW AT ABUTMENT



SEC THRU ELLIPTICAL RAIL SECTION



PARAPET JOINT DETAIL



SEC THRU SPLICE

NOTES:
All Aluminum Alloy Extruded Rail shall conform to ASTM specification and shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.

BASIS OF PAYMENT: Aluminum handrail shall be paid for at the contract unit price per linear foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Provide 1-1/2\"/>

Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.

**PARAPETS & RAILS
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--------------------|-----|------|----------|-------|
| e | 45 | #2 | 17'-0" | |
| e1 | 32 | #4 | 3'-0" | |
| e2 | 62 | #2 | 15'-0" | |
| e3 | 62 | #2 | 16'-3" | |
| e4 | 20 | #2 | 17'-6" | |
| e5 | 62 | #2 | 17'-0" | |
| d | 45 | #2 | 2'-1" | □ |
| Class X Concrete | | | Cu Yds. | 55.0 |
| Reinforcement Bars | | | Lbs | 2510 |
| Aluminum Railing | | | Lin. Ft. | 1443 |

**ALUMINUM HANDRAIL
F.A.I.R.T.E.M. - SEC. POLI/HUB
DEWITT COUNTY
STA 740+30.29**

DESIGNED S.F. Madonia
CHECKED A.J. Mahan
DRAWN W.M. Best
CHECKED A.J. Mahan

EXAMINED
PASSED
APPROVED

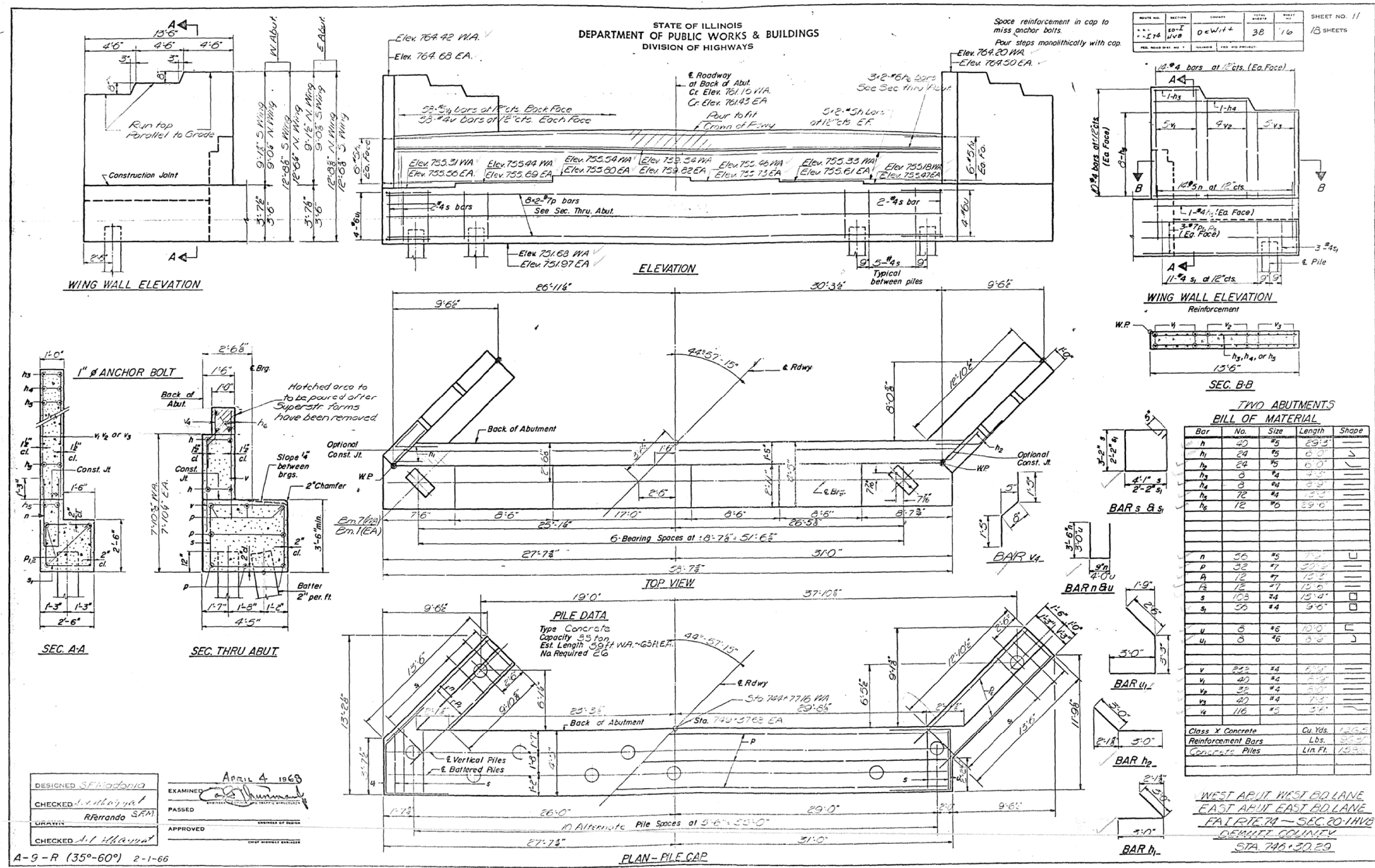
Note:
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer.
Fabric Bearing Pad shall have same dimensions as base of post.

R-17 11-18-66 9-22-67

AS-BUILT PLANS (FOR INFORMATION ONLY)

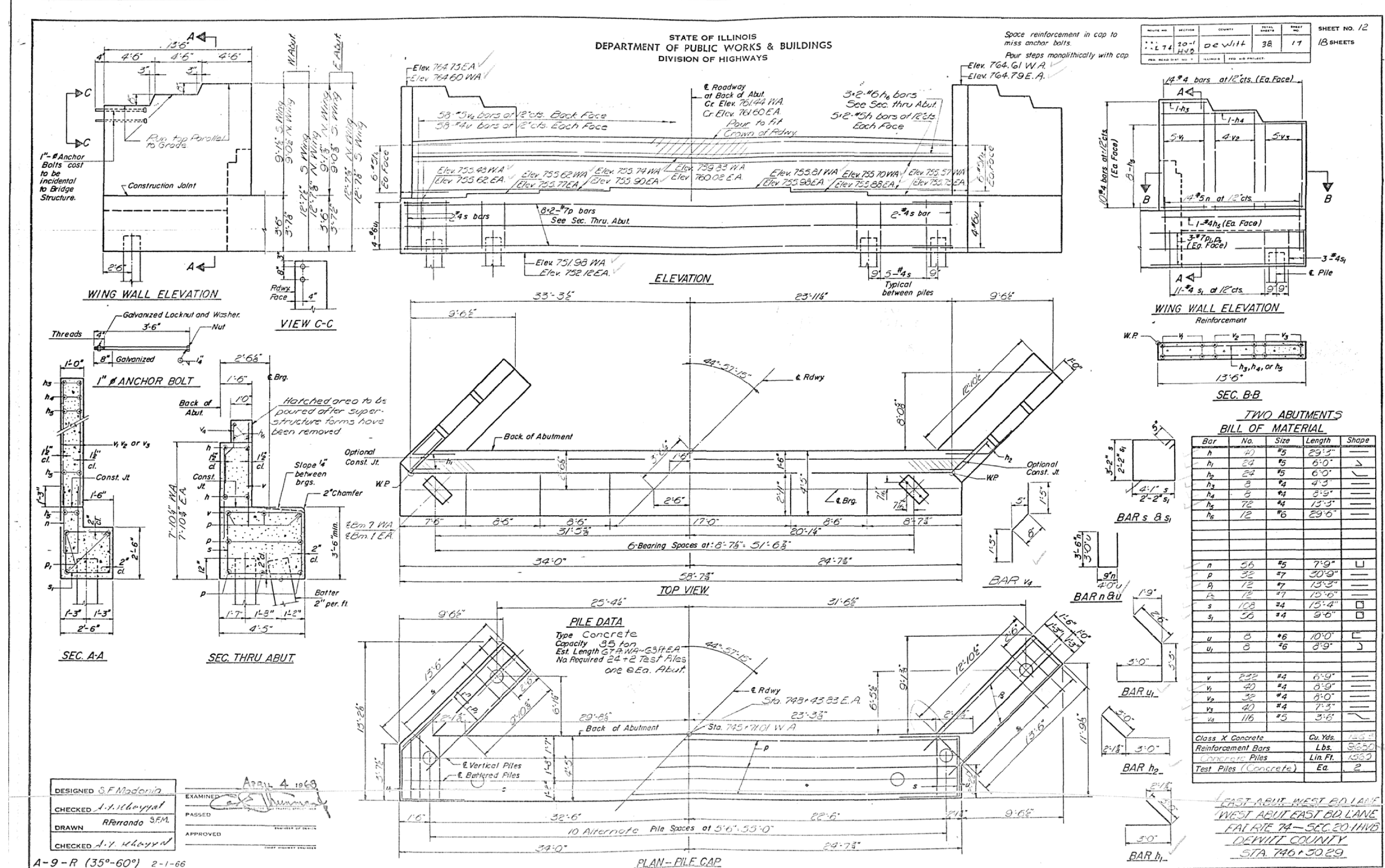
S.N. 020-0026 (EB) & S.N. 020-0027 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0026 (EB) & S.N. 020-0027 (WB)



DESIGNED *S.F. Madonia*
CHECKED *A.Y. Khayyat*
DRAWN *R. Ferrando S.F.M.*
CHECKED *A.Y. Khayyat*

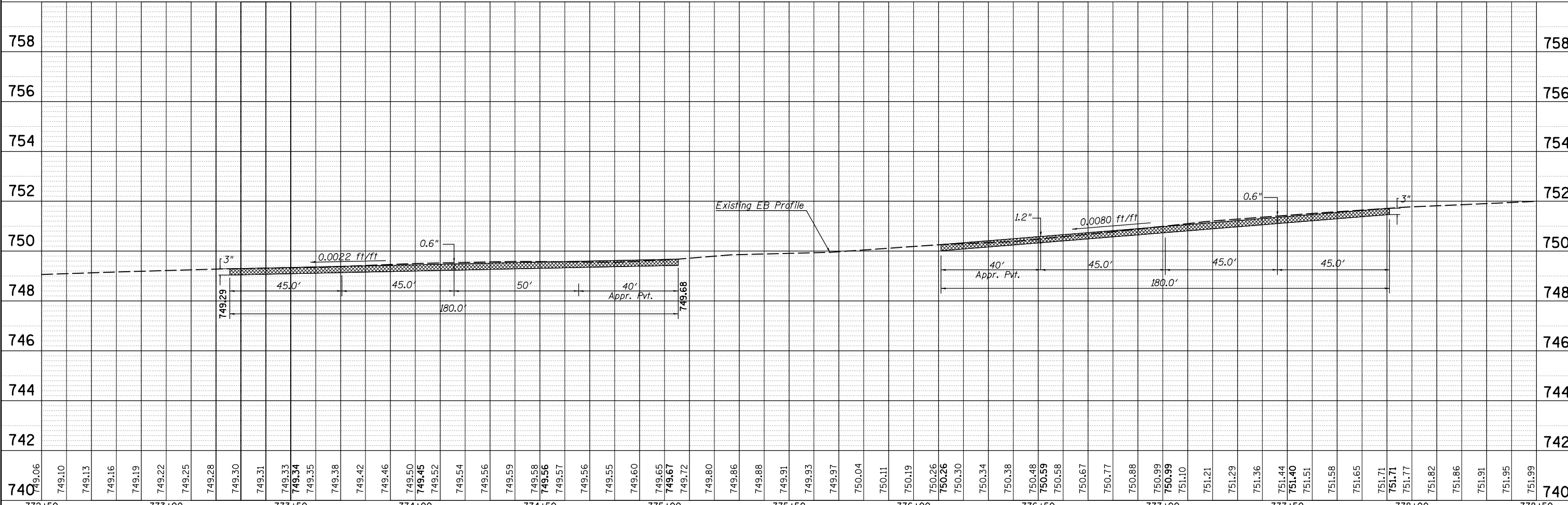
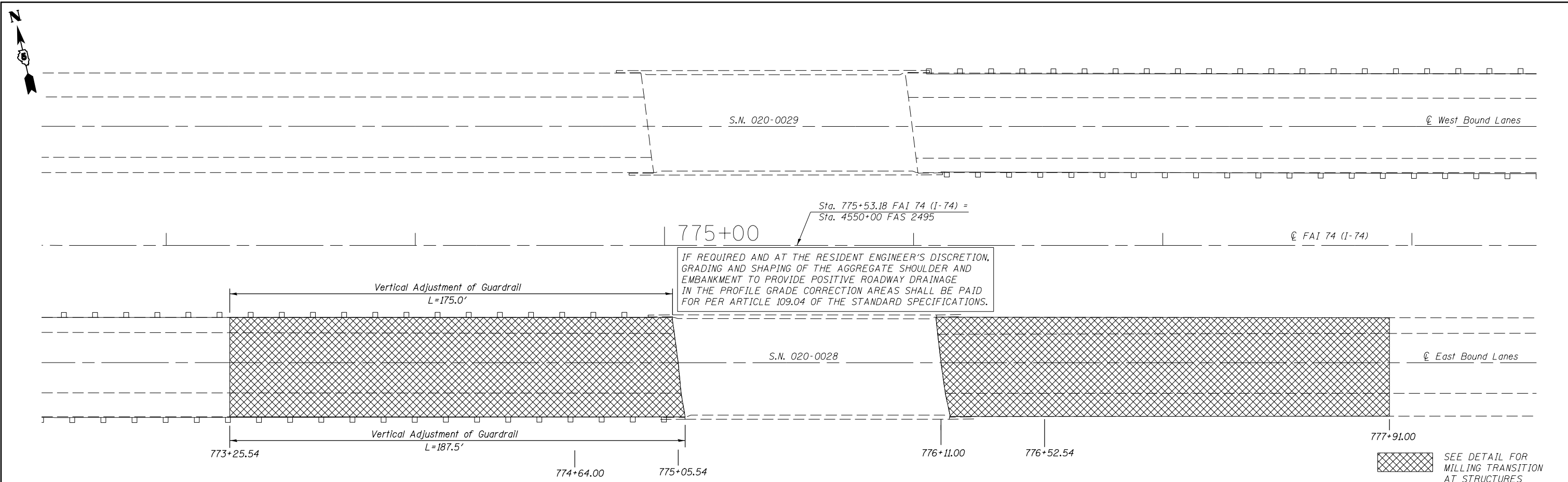
EXAMINED *[Signature]*
PASSED
APPROVED

DATE *April 4 1969*
DATE *11/29/2011*

A-9-R (35°-60°) 2-1-66

| | | |
|------|----------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | |
| | NOTE BOOK | |
| | NO. | |
| | CARD FILE NAME | |

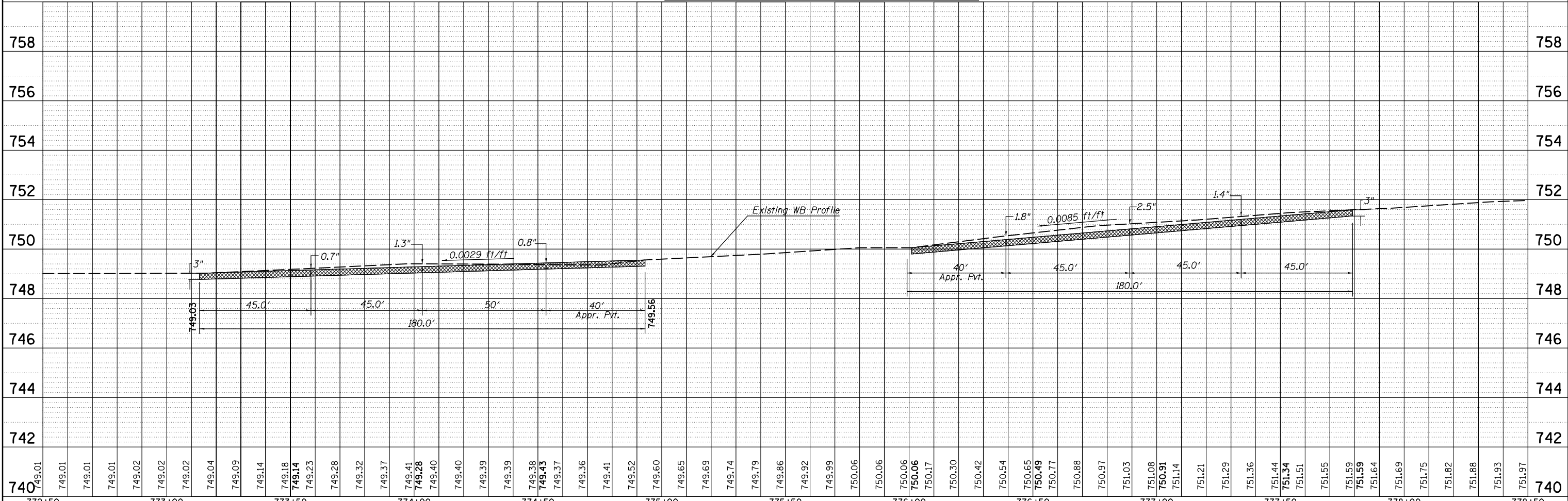
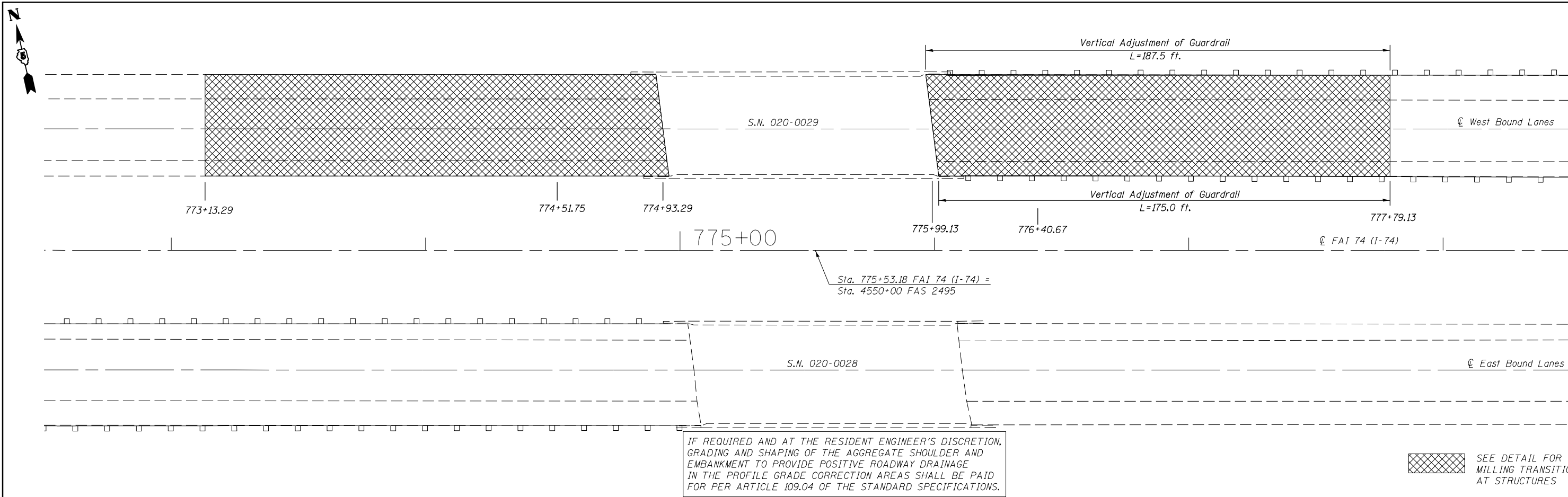
| | | |
|---------|-----------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NO. | |



| | | | | | | | | | | | | | |
|-----------------------------|---------------------------|------------|-----------|---|--|--|--|--|--------------------|-----------|---------------|------------------|--------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION S.N. 020-0028 (EB) | | | | F.A.I. RTE. 74 | SECTION • | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 39 |
| DRAWN = | | CHECKED - | REVISED - | | SCALE: SHEET OF SHEETS STA. TO STA. | | | | CONTRACT NO. 90876 | | | | |
| PLOT SCALE = 40.0000' / in. | | DATE - | REVISED - | | ILLINOIS FED. AID PROJECT | | | | | | | | |
| PLOT DATE = 10/13/2015 | | DATE - | REVISED - | | *20-1(HVB,HB-1,VB-1,B,B-1)I | | | | | | | | |

| | | |
|------|-----------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | NOTE BOOK | |
| | NO. | |
| | CHECKED | |
| | FILE NAME | |

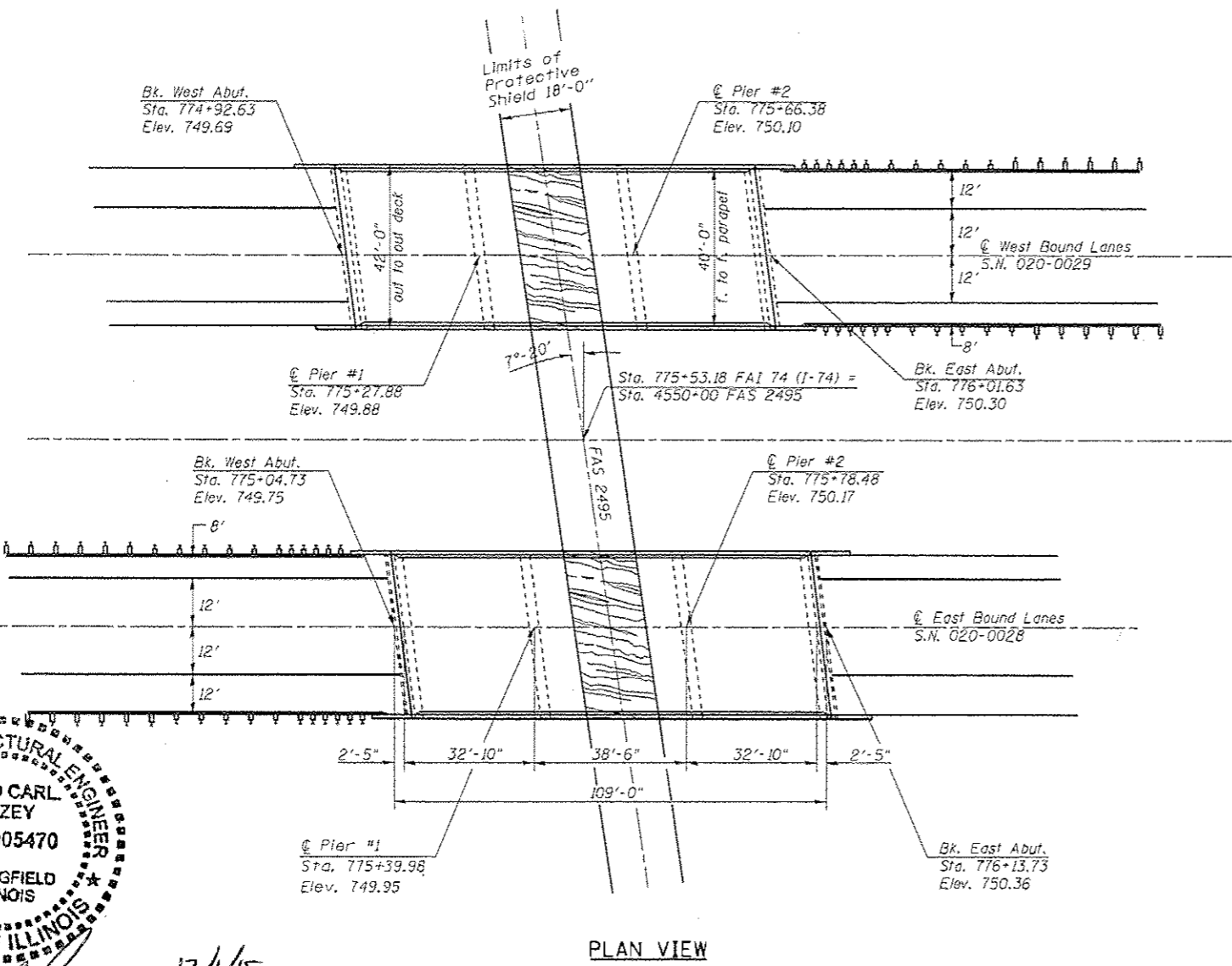
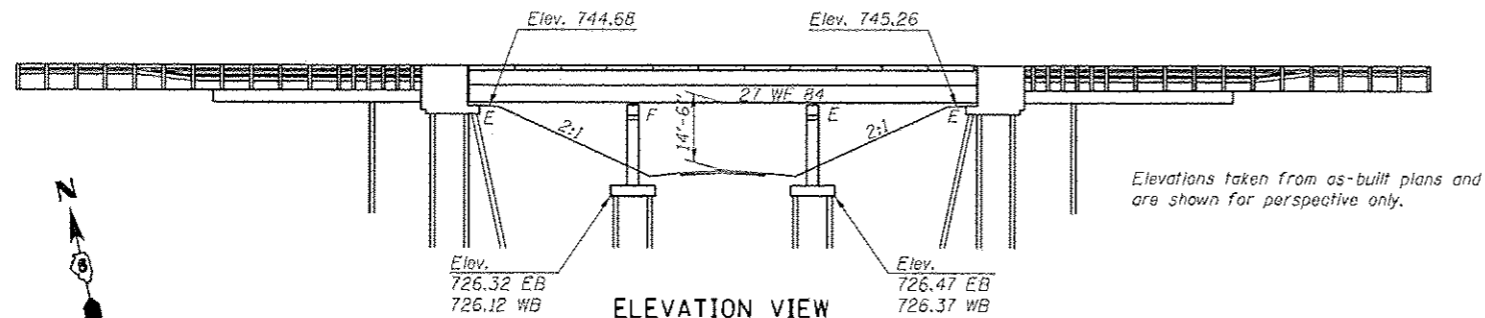
| | | |
|---------|----------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | STRUCTURE | |
| | NOTATIONS | |
| | CHKD | |



| | | | | | | | | | | | | |
|-----------------------------|---------------------------|------------|---------------------------|---|--|----------------|-----------|--------|------------------|--------------|------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION S.N. 020-0029 (WB) | F.A.I. RTE. 74 | SECTION • | COUNTY | TOTAL SHEETS 166 | SHEET NO. 40 | | |
| PLOT SCALE = 40.0000' / in. | CHECKED - | REVISED - | SCALE: | | | SHEET | OF | SHEETS | STA. | TO | STA. | CONTRACT NO. 90876 |
| PLOT DATE = 10/13/2015 | DATE - | REVISED - | ILLINOIS FED. AID PROJECT | | | | | | | | | |
| *20-1(HVB,HB-1,VB-1,B,B-1)I | | | | | | | | | | | | |

The existing structures were built in 1970 as Route FA1-74, Section 20-IHB-1st Sta. 775+53.18 in Dewitt County. The structures carry I-74 over FAS 2495 North of Farmer City. In 1975 a waterproofing membrane and HMA wearing surface was placed under Section D5 Bridge Deck Waterproofing 1975-3, Contract 29686. In 1990 the abutment joints were reconstructed as Section D5 Bridge Repair 1989-2, Contract 90084. In 2004 the HMA wearing surface was removed and replaced with Section 74(3RS-2, 4-1-RS-1), Contract 70027.

The superstructure consists of six 27" rolled steel beams supporting a 8" R.C. deck and 1 3/4" HMA wearing surface with waterproofing membrane system. The substructure consists of concrete pile supported stub abutments and timber pile supported piers. The structures measure 109'-0" bk. to bk. abutments and 42'-0" out to out of deck. The horizontal clearance is 38'-6" from face to face of hub guard. The spans measure 32'-10", 38'-6", and 32'-10".



PROPOSED WORK

1. Remove Existing Waterproofing Membrane System and H.M.A. Wearing Surface.
2. Mill Existing H.M.A. Wearing Surface at Milling Transition Locations at ends of Structures.
3. Perform Bridge Deck Scarification on Bridge Deck and Approach Slabs.
4. Partial Removal of Deck Ends, Parapets, and Removal of Hatch Block.
5. Removal of Existing Joints.
6. Perform Full-Depth Patching.
7. Place New Floor Drains in Deck.
8. Replace Existing Bearings with Elastomeric Bearings at Abutments.
9. Place Reinforcement Bars, Locking Edge Rail, and Studs.
10. Pour Deck Ends and Hatch Block.
11. Insert Rubber Strip Seal into Locking Edge Rails.
12. Pour Parapet Ends.
13. Place Latex Concrete Overlay on Bridge Deck and Approach Slabs.
14. Place HMA Overlay on Approach Pavements and Milling Transition.

BILL OF MATERIALS

| ITEM | UNIT | TOTAL |
|---|-------|---------|
| HOT-MIX ASPHALT SURFACE REMOVAL (DECK) | SQ YD | 436.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS) | SQ YD | 436.0 |
| BRIDGE DECK SCARIFICATION, 3/4" | SQ YD | 1,316.0 |
| BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2" | SQ YD | 1,316.0 |
| BRIDGE DECK GROOVING | SQ YD | 1,302.0 |
| PROTECTIVE COAT | SQ YD | 66.0 |
| JACK AND REMOVE EXISTING BEARINGS | EACH | 24.0 |
| ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 24.0 |
| ANCHOR BOLTS, 1" | EACH | 48.0 |
| FURNISHING AND ERECTING STRUCTURAL STEEL | FOOT | 4,990.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE I) | SQ YD | 20.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 5.0 |
| CONCRETE REMOVAL | CU YD | 25.8 |
| PROTECTIVE SHIELD | SQ YD | 170.0 |
| BAR SPLICERS | EACH | 40.0 |
| REINFORCEMENT BARS, EPOXY COATED | POUND | 2,620.0 |
| CONCRETE SUPERSTRUCTURE | CU YD | 25.8 |
| PREFORMED JOINT STRIP SEAL | FOOT | 177.6 |
| FLOOR DRAINS | EACH | 18.0 |
| POLYMERIZED LEVELING BINDER (MACHINE METHOD), N105 | TON | 126.0 |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N105 | TON | 126.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 3,201.0 |
| VERTICAL ADJUSTMENT OF GUARDRAIL | FOOT | 725.0 |
| STRUCTURAL REPAIR OF CONCRETE (DEPTH < or = 5 INCHES) | SQ FT | 71.0 |
| STRUCTURAL STEEL REMOVAL | POUND | 2,410.0 |
| STRUCTURAL STEEL REPAIR | POUND | 190.0 |

GENERAL NOTES

The deck ends and hatch blocks shall have its final surface tined according to Article 420.09 (e) (1) of the Standard Specifications. Cost to be included with concrete superstructure.

Plan dimensions and details relative to the 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 the 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 work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Reinforcement bars designated (E) shall be epoxy coated.

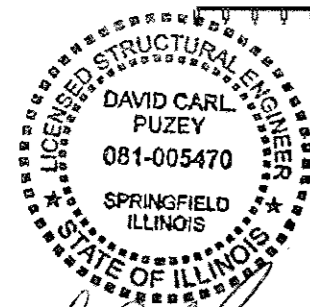
Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surface in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

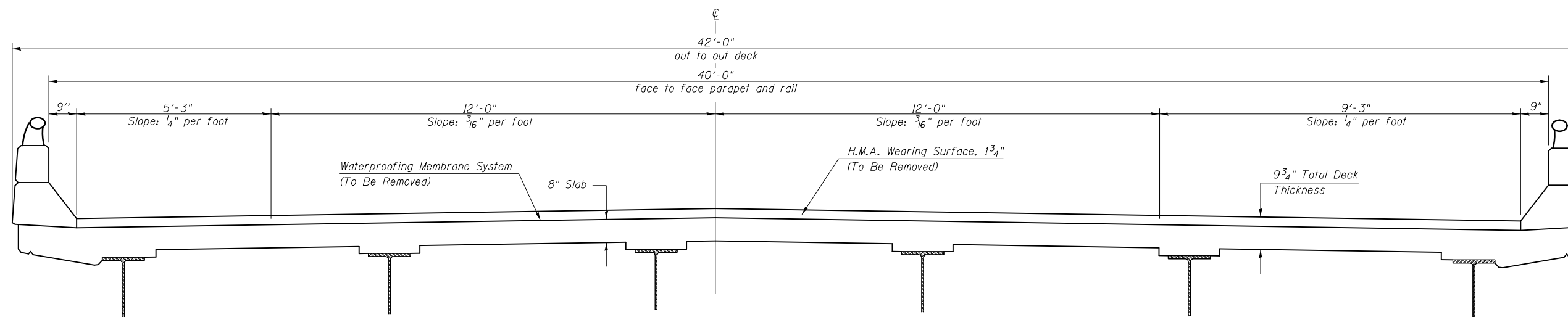
Existing S.N. 020-0029 (W.B.) has been determined through testing to involve asbestos in the HMA Wearing Surface and/or Waterproofing Membrane. Recurring Special Provision, Check Sheet No. 7. Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal shall be used for the removal and disposal of this material.



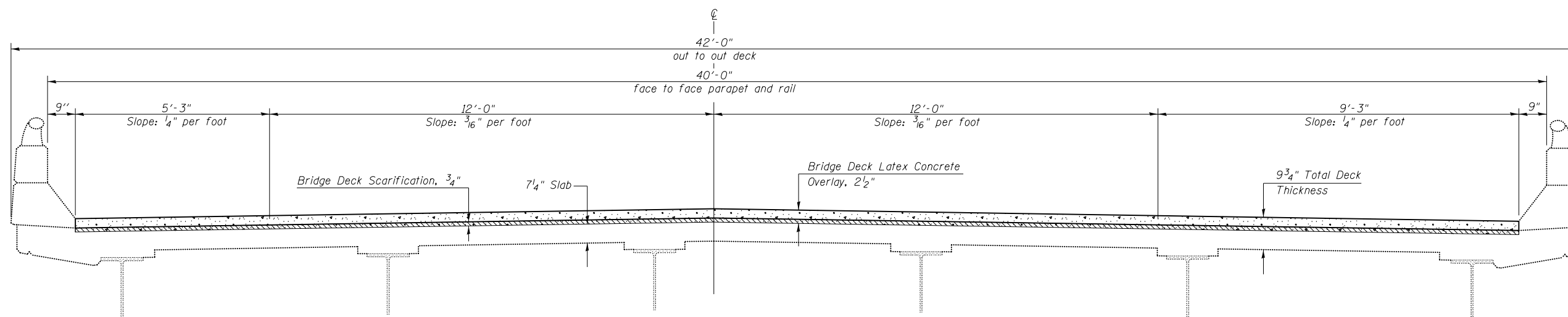
David Carl Puzey 12/1/15
Expires 11/30/16

| | | | | | | | | | | | |
|---|---------------------------|-----------------|---------------------|---|-----------------------------------|----------------------|-------------|---------|---------------------------|--------------|-----------|
| FILE NAME = | USER NAME = brendenburgtj | DESIGNED RTC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL PLAN AND ELEVATION | | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pw:\NL84EBI0NTEG.illinois.gov\PW1007\Documents\1007 Offices\District 5\Projects\0504\DR\WD\Detail\9876\9876-details.sht | | CHECKED TJB | REVISED - TJB | | 74 | | DEWITT | 166 | 41 | | |
| PLOT SCALE = 40,0000 / in. | | DATE 11/29/2011 | REVISED - 12/1/2015 | | SCALE: | SHEET 1 OF 28 SHEETS | STA. | TO STA. | CONTRACT NO. 90876 | | |
| PLOT DATE = 12/1/2015 | | | | | | | | | ILLINOIS FED. AID PROJECT | | |

**EXISTING CROSS SECTION
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**



**PROPOSED CROSS SECTION
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**



| | | | |
|--|-----------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN <i>RTC</i> | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - 9/3/2015 |
| | PLOT DATE = 10/13/2015 | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING AND PROPOSED TYPICAL CROSS SECTIONS
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

SCALE: SHEET 2 OF 28 SHEETS STA. TO STA.

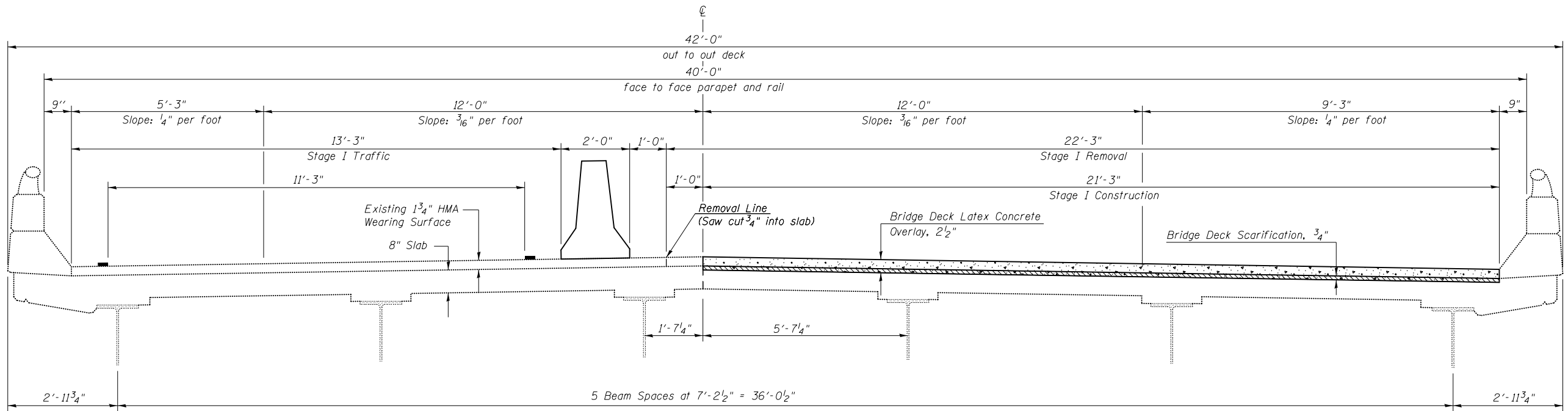
| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 42 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

STAGE I CONSTRUCTION DETAILS

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

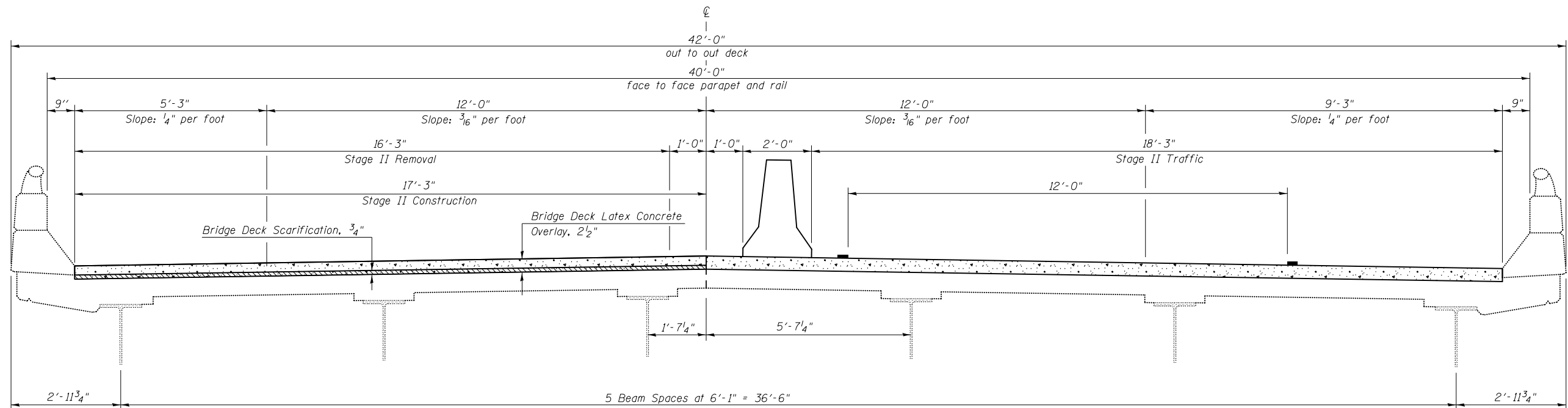
Looking East on East Bound Structure
Looking West on West Bound Structure



STAGE II CONSTRUCTION

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

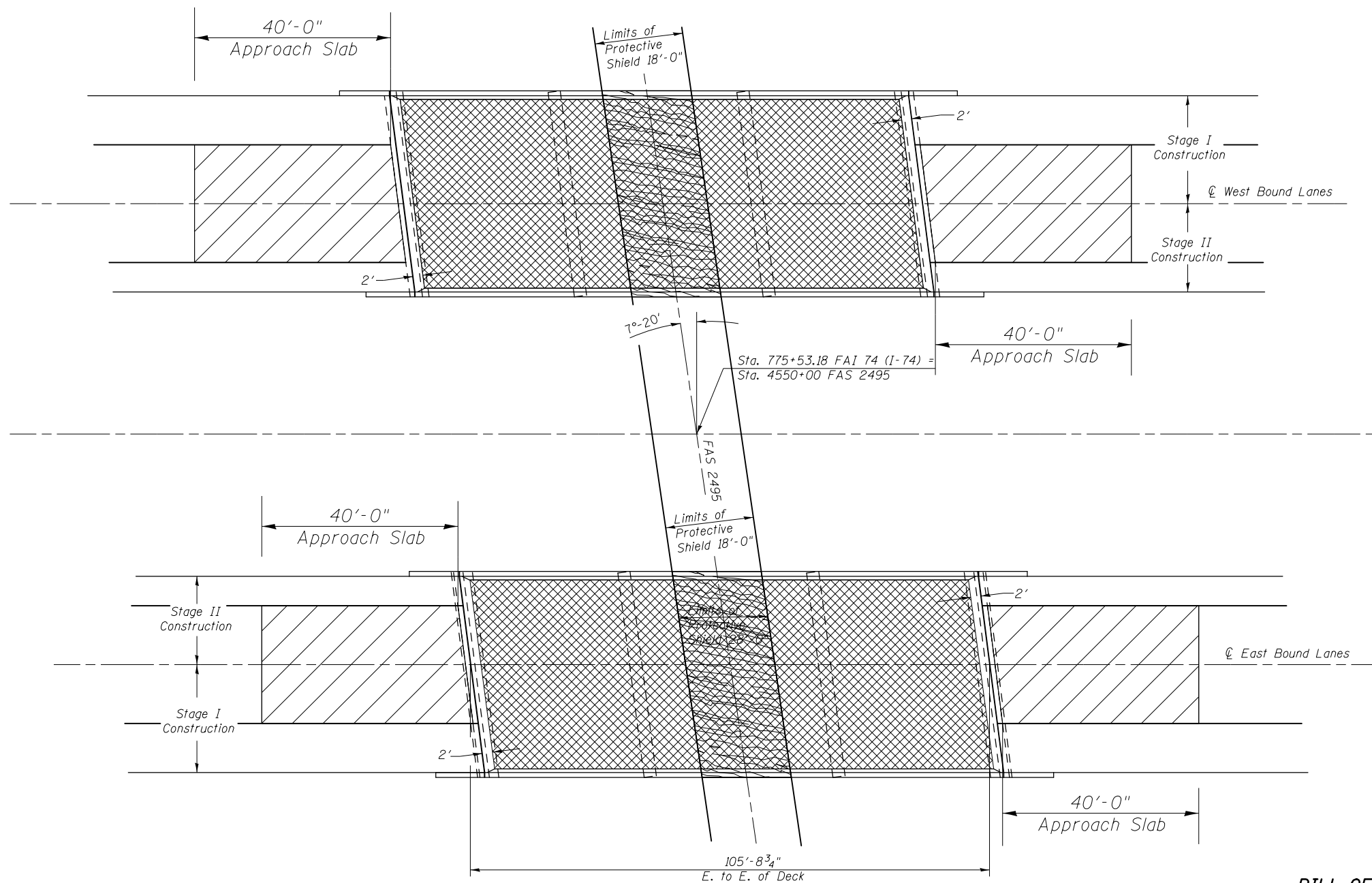
Looking East on East Bound Structure
Looking West on West Bound Structure



•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | | |
|---|---------------------------|---------------------|-----------|---|--|---------------------------|-----------|-----------------------------------|----------------|-------------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | STAGED CONSTRUCTION DETAILS S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | F.A.I. RTE. = | SECTION = | COUNTY = | TOTAL SHEETS = | SHEET NO. = | |
| | | | | | | 74 | * | DEWITT | 166 | 43 | |
| | | | | | | CONTRACT NO. 90876 | | | | | |
| | | | | | | ILLINOIS FED. AID PROJECT | | | | | |
| PLOT SCALE = 40.0000' / in. PLOT DATE = 10/13/2015 | | | | CHECKED <i>TJB</i> DATE <i>11/29/2011</i> | | SCALE: | | SHEET 3 OF 28 SHEETS STA. TO STA. | | | |

WEARING SURFACE PLAN S.N. 020-0028 & S.N. 020-0029



BILL OF MATERIAL (Deck & Approach)

| Structure | Item | Unit | Total |
|-----------|--|-------|-------|
| 020-0028 | Hot-Mix Asphalt Surface Removal (Deck) | Sq Yd | 436.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 658.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 658.0 |
| | Bridge Deck Grooving | Sq Yd | 651.0 |
| | Protective Shield | Sq Yd | 85.0 |
| 020-0029 | Hot-Mix Asphalt Surface Removal (Asbestos) | Sq Yd | 436.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 658.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 658.0 |
| | Bridge Deck Grooving | Sq Yd | 651.0 |
| | Protective Shield | Sq Yd | 85.0 |

- H.M.A. Wearing Surface Removal (Deck) or (Asbestos) & Bridge Deck Latex Concrete Overlay
- HMA Surface Removal, Variable Depth; Bridge Deck Scarification 3/4" and Bridge Deck Latex Concrete Overlay 2 1/2" (varies to 4")
- Protective Shield

| | | | |
|--|-----------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Bridges\020-0028\Details\90876-details.sht | DRAWN <i>RTC</i> | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - 9/3/2015 |
| | PLOT DATE = 10/13/2015 | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEARING SURFACE PLANS
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

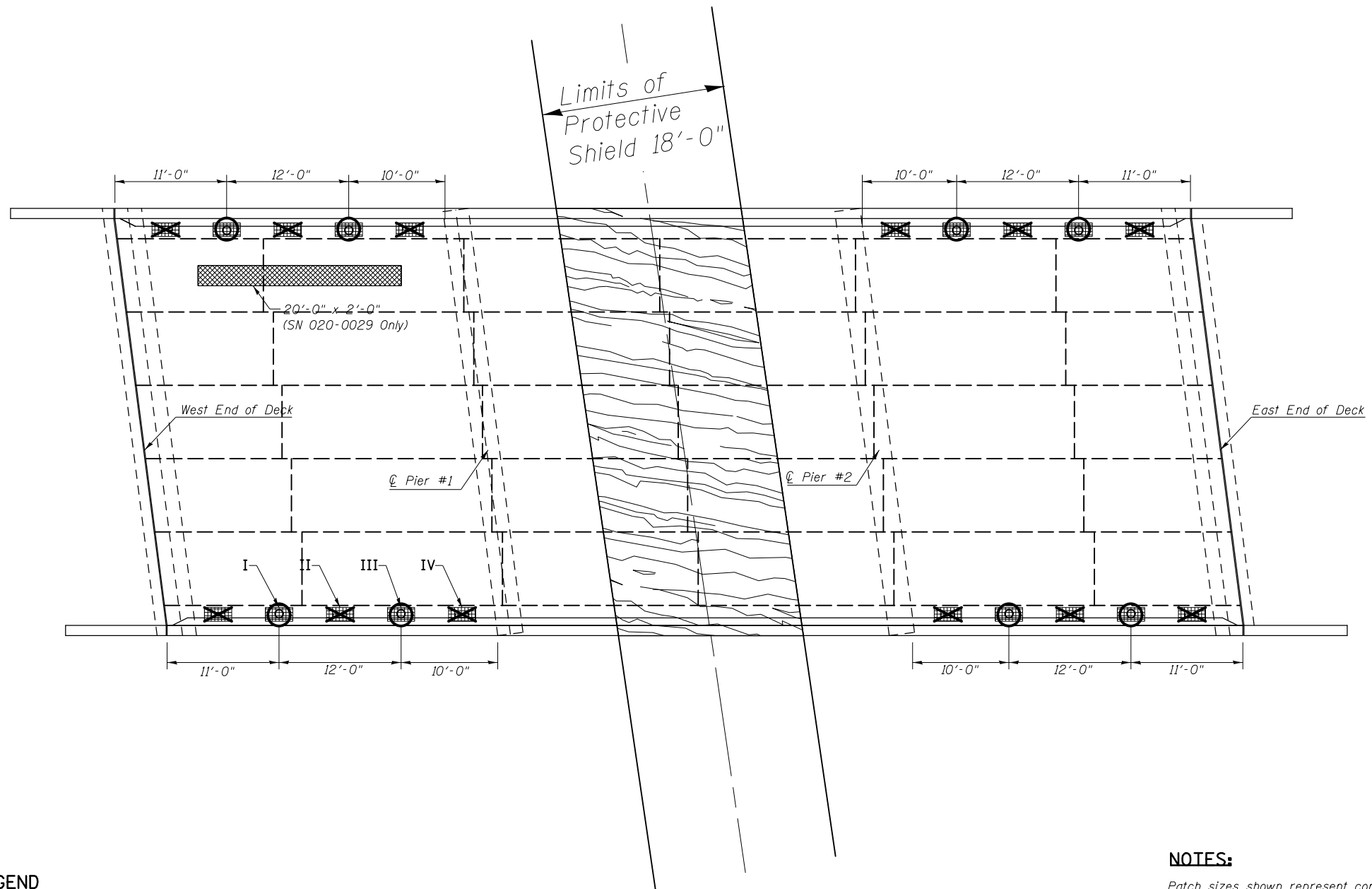
SCALE: SHEET 4 OF 28 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 44 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

*20-1(HVB,HB-1,VB-1,B,B-1)I

FLOOR DRAIN & PATCHING DETAILS

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



LEGEND

- Eliminate floor drain
- Proposed floor drain location
- Deck Slab Repair (Full Depth, Type I) at all Drain Locations. All repair areas are 2'-0" x 1'-2", unless otherwise noted.

REMOVAL LIMITS (SN 020-0029 ONLY)

- I 2'-6" x 1'-2"
- II 2'-6" x 1'-2"
- III 2'-6" x 1'-2"
- IV 3'-0" x 1'-2"

- Deck Slab Repair (Full Depth, Type II)
- Protective Shield

PLAN VIEW
Either Structure

NOTES:

Patch sizes shown represent conditions at the time the plans were completed. An Estimated 1% of the Deck Area has been included should additional Deck Slab Repair (Full Depth, Type I) be required after Bridge Deck Scarification.

The actual sizes and locations of patching shall be determined by the engineer. The Engineer shall show the actual locations of the deck repairs on this sheet.

The existing drains and extensions shall be removed. Cost included with "Deck Slab Repair (Full Depth, Type I)".

Extreme care must be used when removing concrete near the top flange of the beams. The contractor is responsible for any damage to the beams.

BILL OF MATERIAL

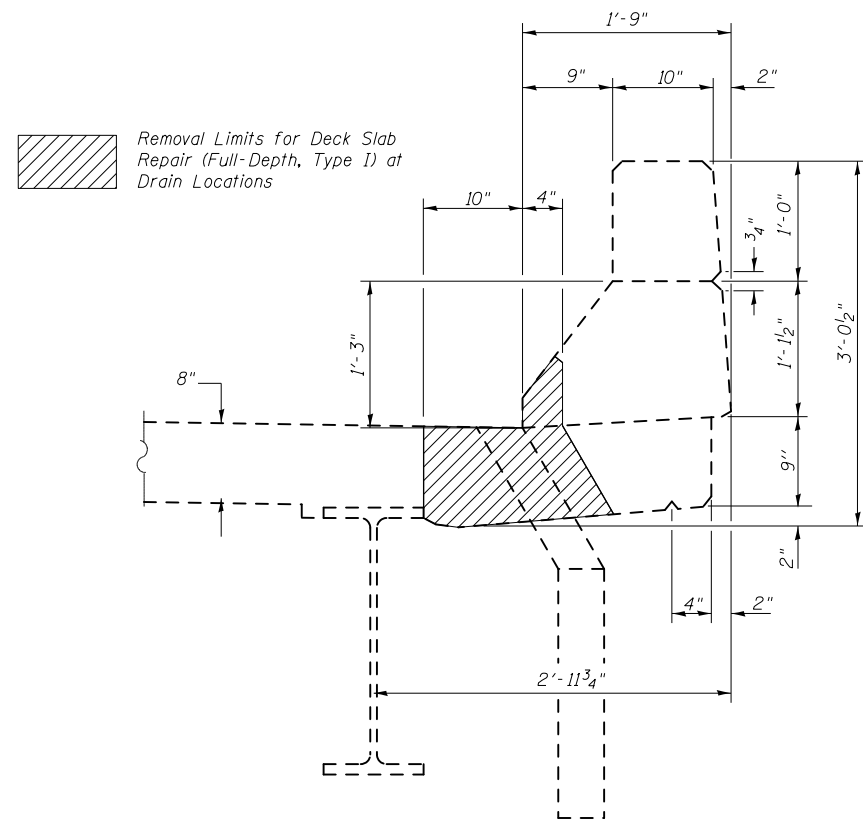
| Structure | Item | Unit | Total |
|-----------|--|-------|-------|
| 020-0028 | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 10.0 |
| | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 10.0 |
| 020-0029 | Deck Slab Repair (Full Depth, Type II) | Sq Yd | 5.0 |

•20-1(HVB,HB-1,VB-1,B,B-1)1

| | | | | | | | | | | | |
|--|---------------------------|----------------------|----------------------|---|---|--------------------|----------------------|---------------------------|----------------|-------------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FLOOR DRAIN AND PATCHING DETAILS S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | F.A.I. RTE. = | SECTION = | COUNTY = | TOTAL SHEETS = | SHEET NO. = | |
| pw:\IL\084EBIDINTEG\illinois.gov\PIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | 4/27/2011 | CHECKED <i>TJB</i> | REVISED - <i>TJB</i> | | | 74 | * | DEWITT | 166 | 45 | |
| PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | DATE <i>9/3/2015</i> | REVISED - | | | CONTRACT NO. 90876 | | ILLINOIS FED. AID PROJECT | | | |
| PLOT DATE = 10/13/2015 | | | | | | SCALE: | SHEET 5 OF 28 SHEETS | STA. TO STA. | | | |

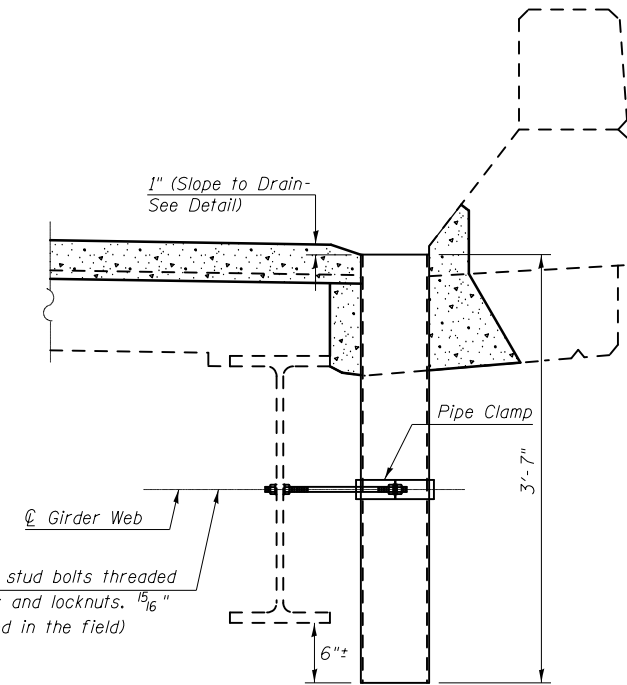
FLOOR DRAIN DETAILS

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



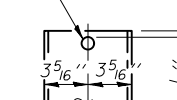
Removal Limits for Deck Slab Repair (Full-Depth, Type I) at Drain Locations

TYPICAL REMOVAL LIMITS

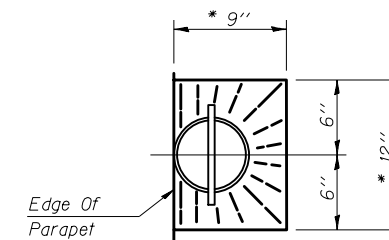


$\frac{3}{4}$ " ϕ x 1'-3". Min. steel stud bolts threaded 6" each end with 2 washers and locknuts. $\frac{1}{16}$ " ϕ holes in web. (To be drilled in the field)

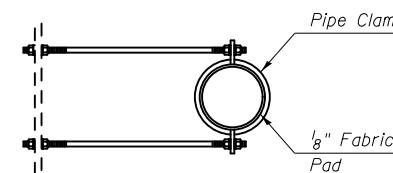
$\frac{1}{2}$ " ϕ X 8" Fiberglass Reinforced Plastic Rebar



FIBERGLASS PIPE



TOP PLAN
* SLOPE TO DRAIN



TOP PLAN
Drain Clamp

NOTES:

All dimensions shall be field verified by the contractor prior to ordering of materials.

BILL OF MATERIAL

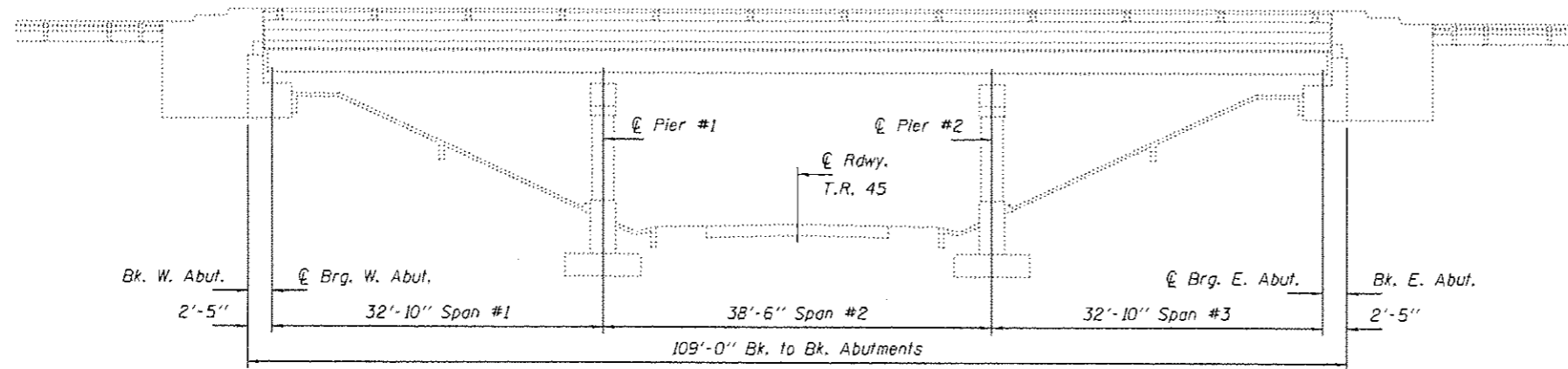
| Structure | Item | Unit | Total |
|-----------|--------------|------|-------|
| 020-0028 | Floor Drains | Each | 8.0 |
| 020-0029 | Floor Drains | Each | 8.0 |

Cost of removal of existing drains and extensions is included in Deck Slab Repair (Full Depth, Type I).

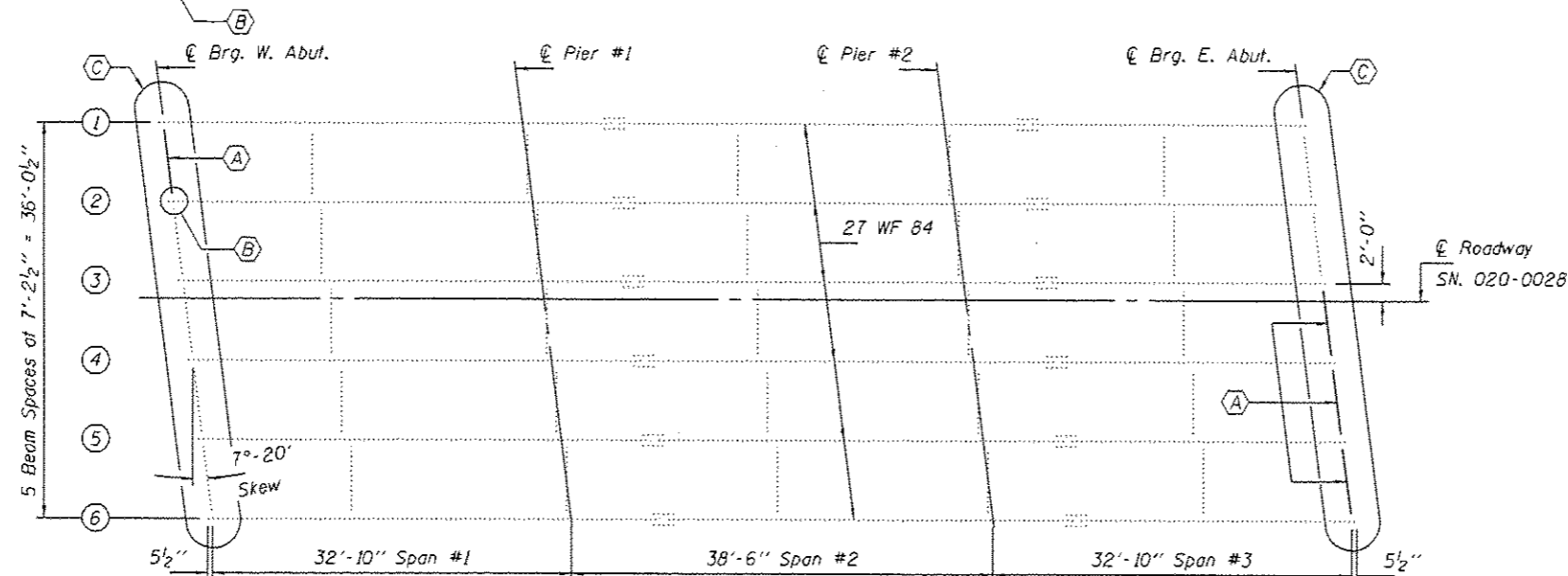
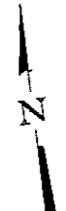
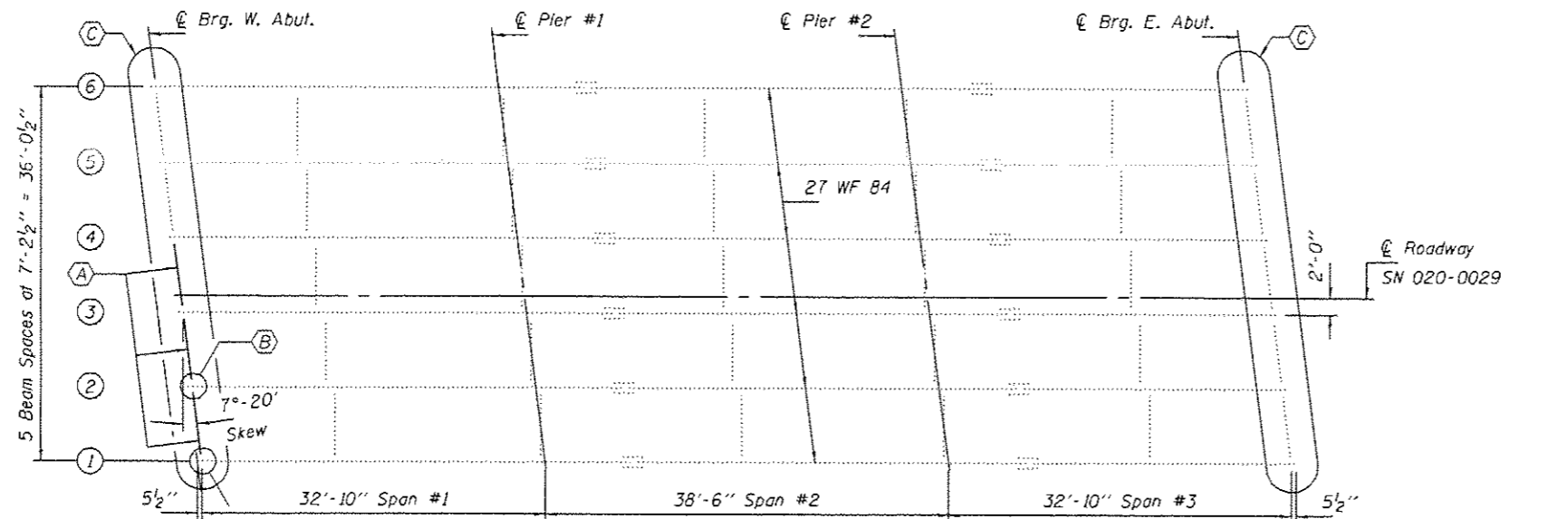
•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | | |
|--|---------------------------|---------------------|-----------|---|--|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FLOOR DRAIN DETAILS S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\084EBIDINTEG\90876-details.sht | DRWN Date: 11/29/2011 | CHECKED <i>TJB</i> | REVISED - | | | 74 | * | DEWITT | 166 | 46 | |
| PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISI | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISI | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | |

SCALE: SHEET 6 OF 28 SHEETS STA. TO STA.



ELEVATION



FRAMING PLAN

- (A) Diaphragm Replacement
- (B) Beam End Repair
- (C) Remove and Replace Bearings

NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Fasteners shall be high strength bolts. Bolts 3/4"φ, open holes 13/16"φ, unless otherwise noted.
 Diaphragm connection holes shall be 13/16"φ for 3/4"φ bolts. Two hardened washers shall be required at diaphragm connections.
 Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
 All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.
 Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|-------|----------|
| Structural Steel Removal | Pound | 2410 |
| Furnishing and Erecting Structural Steel | Pound | 2410 |
| Structural Steel Repair | Pound | 190 |

* Beam end repairs only

DESIGNED **SMR**
 CHECKED **DTB**
 DRAWN **J. Schneller**
 CHECKED

PASSED *[Signature]*
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

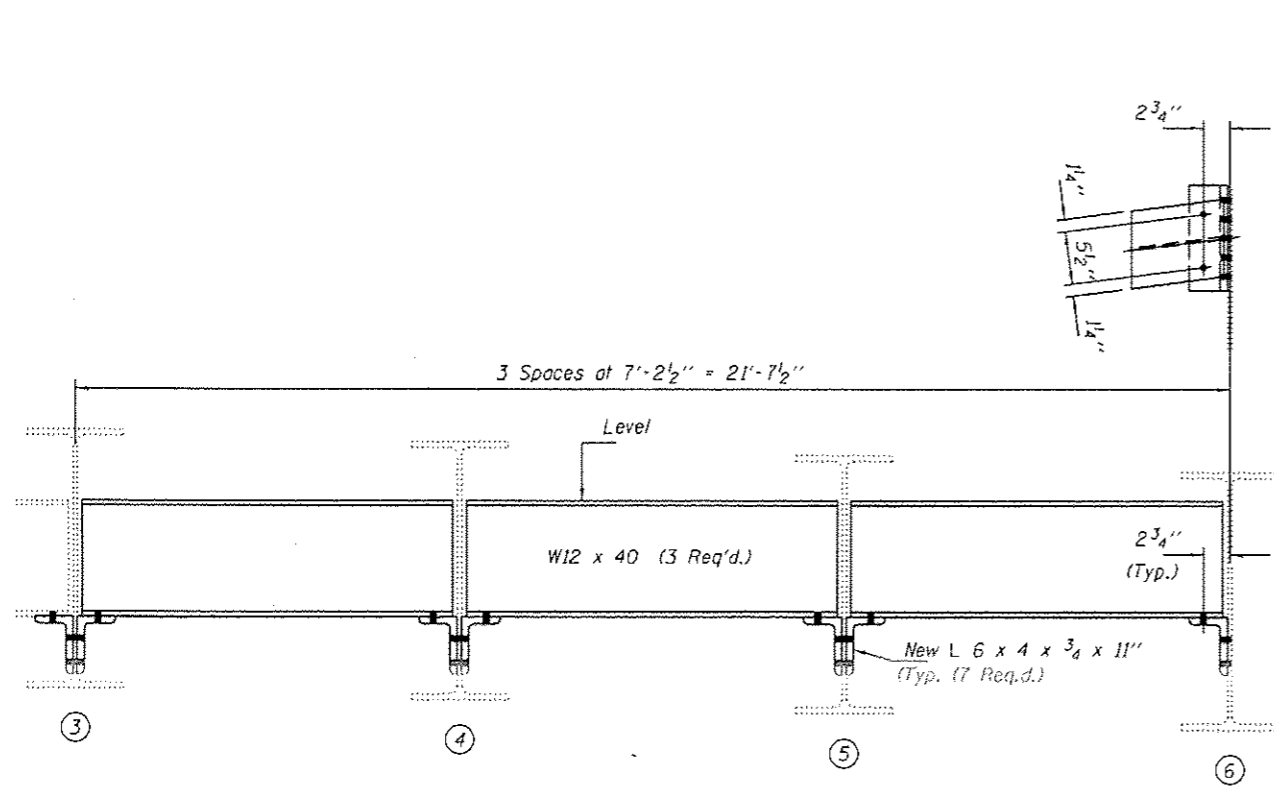
DATE **NOVEMBER 19, 2015**
 REVISED
 REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

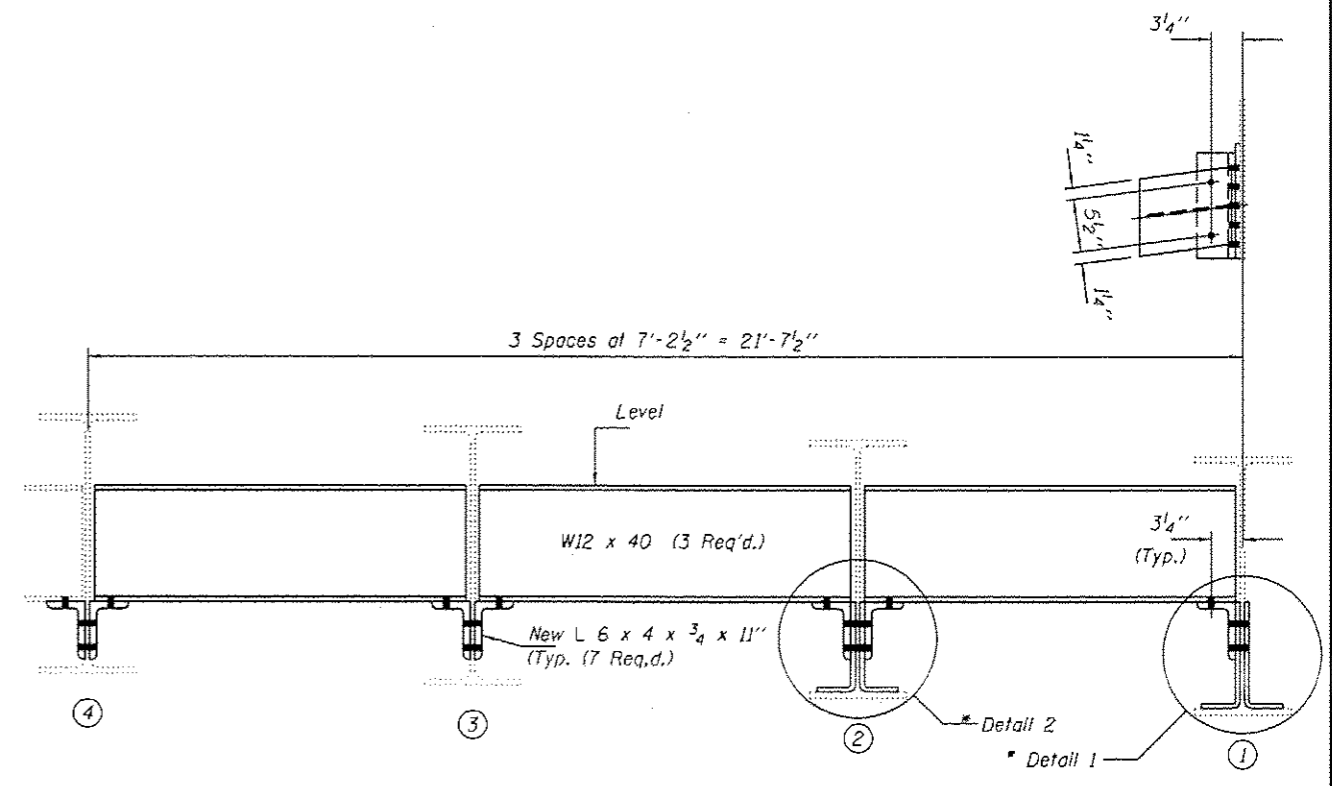
PLAN & ELEVATION
F.A.I. RT. 74 OVER TWP. RD. 45
SN 020-0028 (E.B.) & 020-0029 (W.B.)
 SHEET NO. 7 OF 28 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------------------|--------|--------------|-----------|
| T4 | 20-11HVB,HB-1,VB-1,8,B-1H | DEWITT | 155 | 47 |

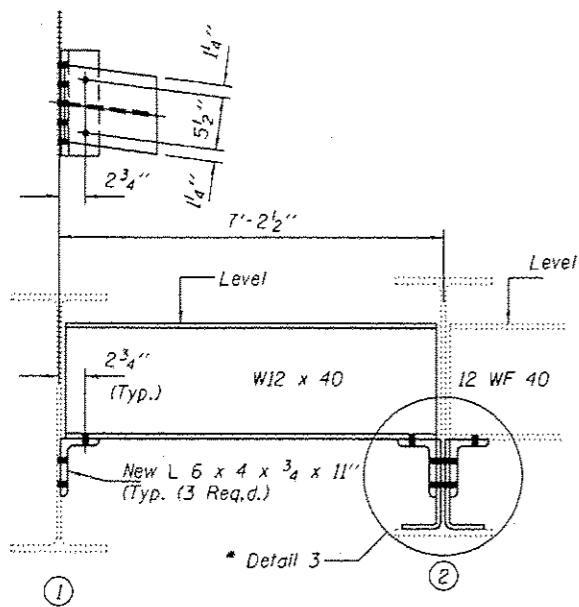
CONTRACT NO. 90876
 ILLINOIS FED. AID PROJECT



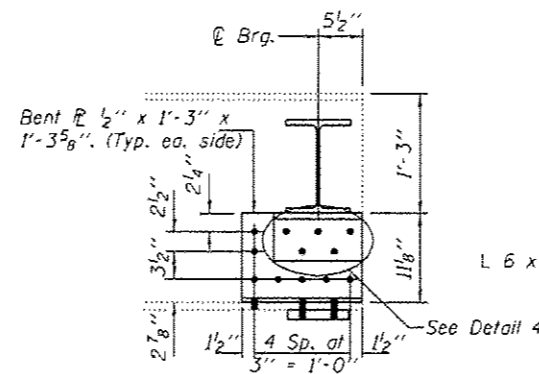
DIAPHRAGM REPLACEMENT DETAIL
EAST ABUTMENT EAST BD. LANES
 (Looking East)



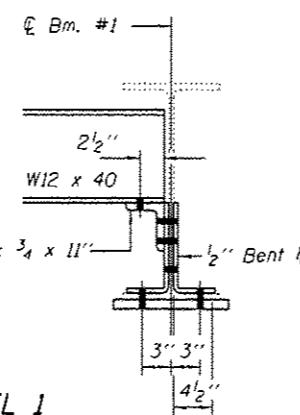
DIAPHRAGM REPLACEMENT & BEAM END REPAIR
DETAILS WEST ABUTMENT WEST BD. LANES
 (Looking East)



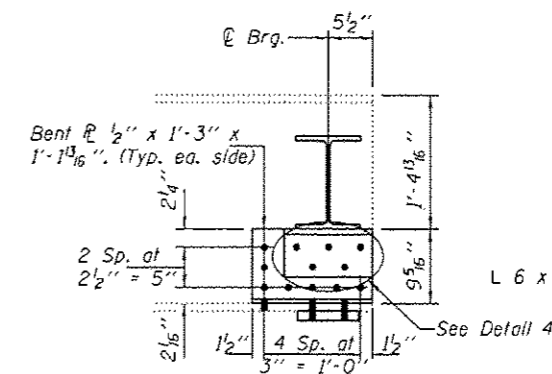
DIAPHRAGM REPLACEMENT & BEAM END REPAIR
DETAILS WEST ABUTMENT EAST BD. LANES
 (Looking East)
 (1 Req'd.)



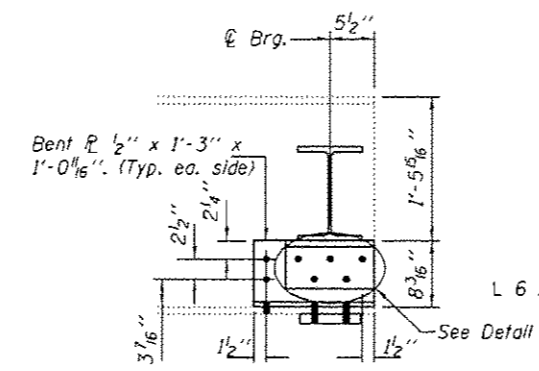
DETAIL 1



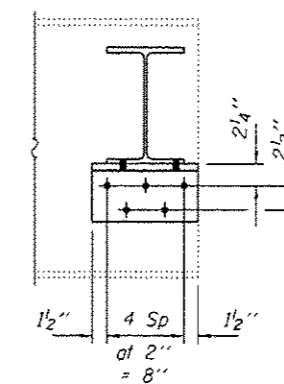
DETAIL 2



DETAIL 3



DETAIL 4



DETAIL 4

* Details 1 & 2 are at the West Abutment of the West Bound Lanes Str. No. 020-0029 Beams #1 & #2. Detail 3 located at the West Abutment of the East Bound Lanes Str. No. 020-0028 Beam #2.

DESIGNED *SNR*
 CHECKED *ATH*
 DRAWN *J. Schneller*
 CHECKED

PASSED

Carl Prosser
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015

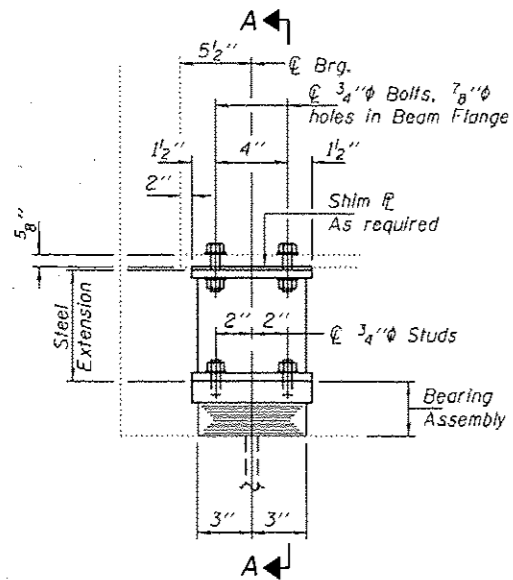
REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

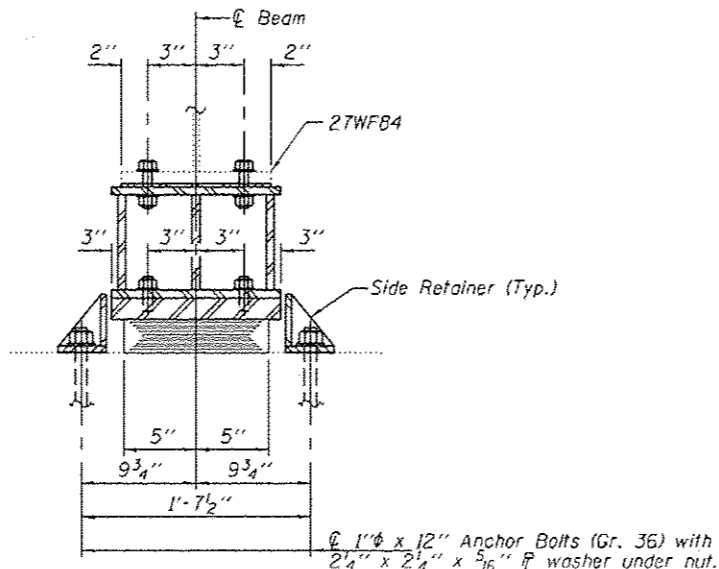
DIAPHRAGM REPLACEMENT & BEAM END REPAIRS
 SN 020-0028 & 020-0029

SHEET NO. 8 OF 28 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|--------------------------|--------|---------------------------|-----------|
| T4 | 20-114VB,MB-LVB-1,8,8-1H | DEWITT | 166 | 48 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

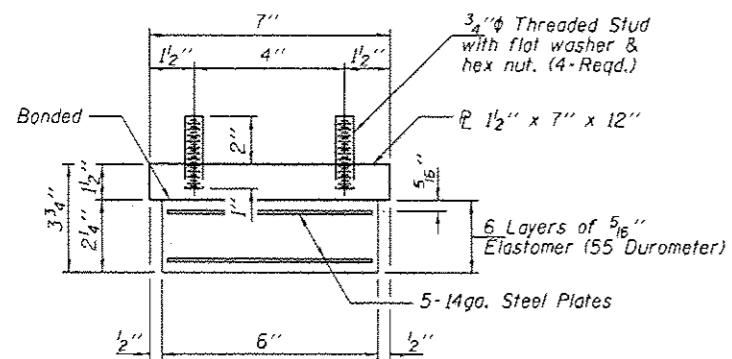


ELEVATION AT ABUTMENT



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



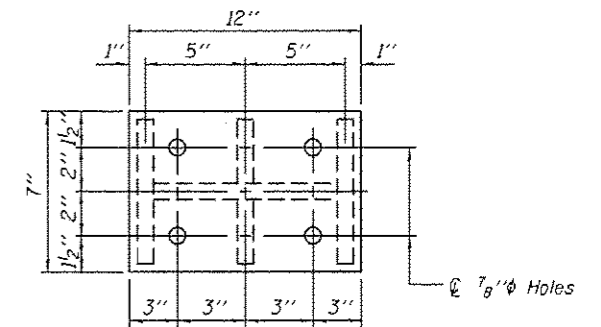
BEARING ASSEMBLY

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

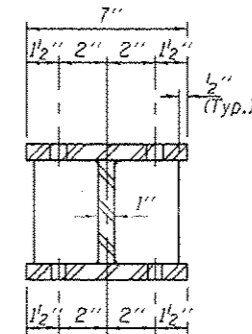
BEAM REACTIONS

| | | |
|----------------|-----|------|
| R _l | (K) | 14.5 |
| R _r | (K) | 31.5 |
| Imp. | (K) | 9.5 |
| R (Total) | (K) | 55.5 |

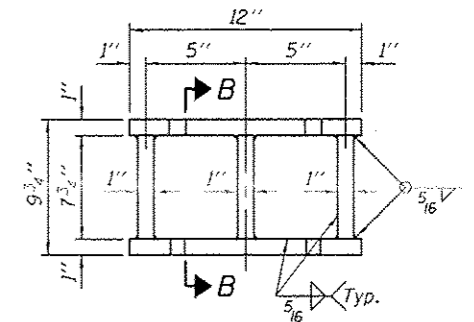
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 30 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified, ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



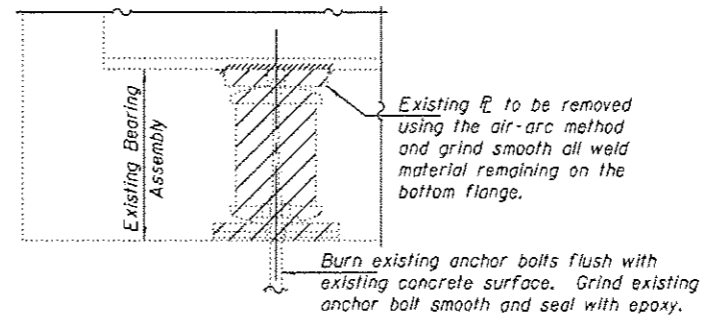
PLAN TOP AND BOTTOM PLATE



SECTION B-B

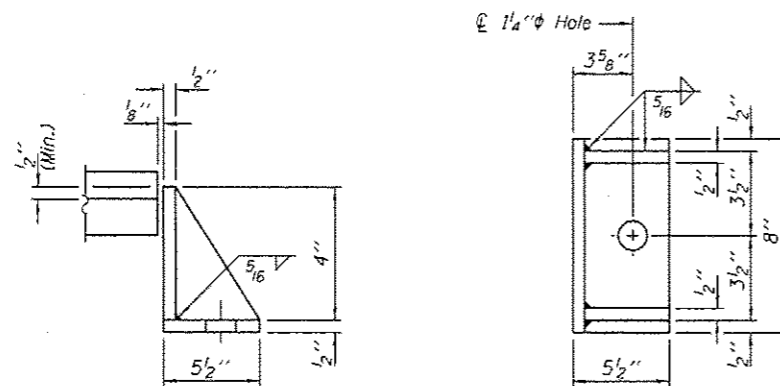


STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type I | Each | 24 |
| Jack and Remove Existing Bearings | Each | 24 |
| Furnishing and Erecting Structural Steel | Pound | 2570 |
| Anchor Bolts 1\"/> | | |

TYI/REPS 12-03-2008

DESIGNED IJL
 CHECKED GGE
 DRAWN baliva
 CHECKED IJL

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015

REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

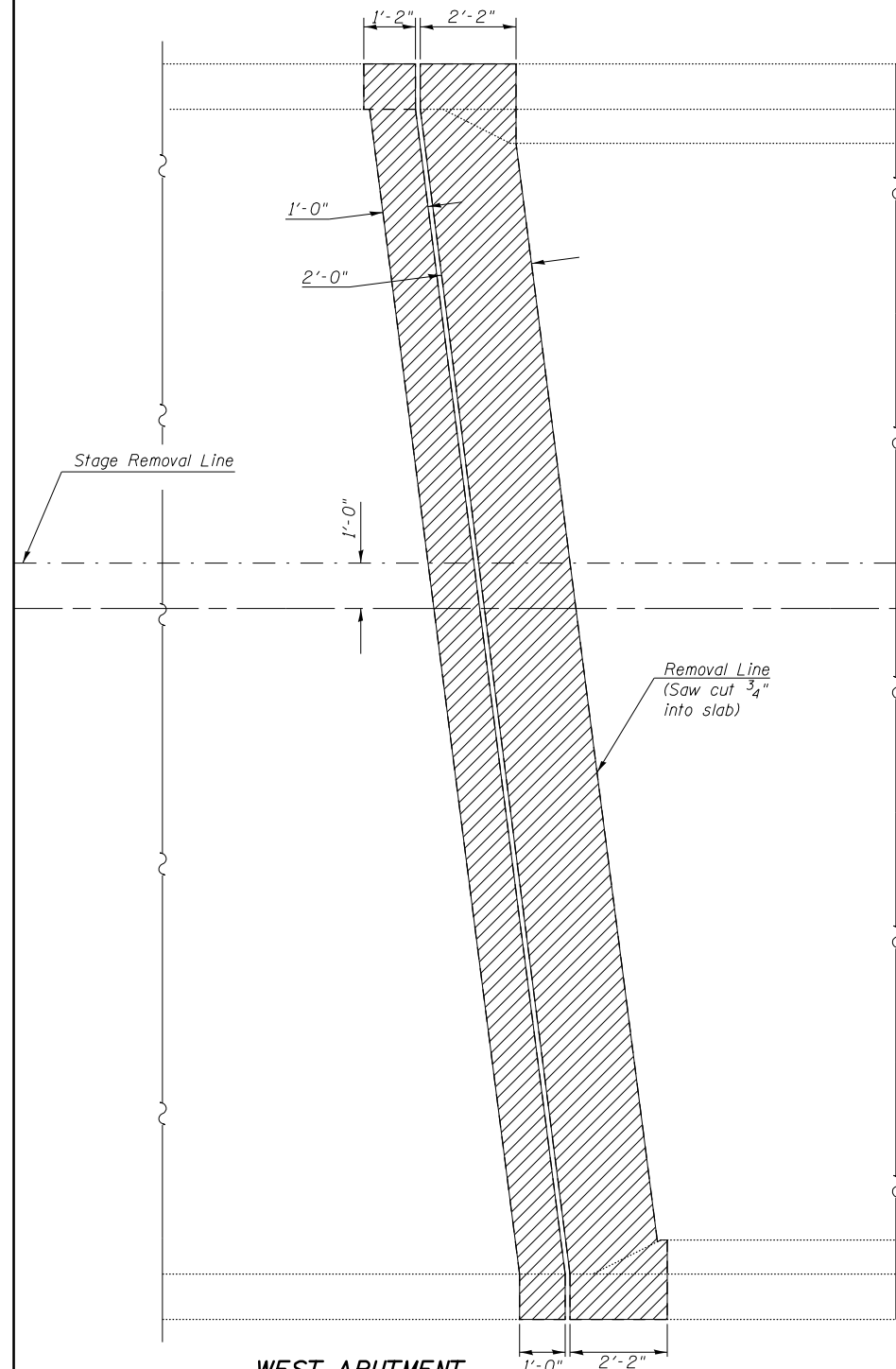
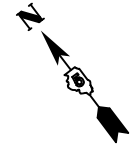
ABUTMENT BEARING REPLACEMENT DETAILS
 SN 020-0028 (EB) & 0029 (WB)

SHEET NO. 9 OF 28 SHEETS

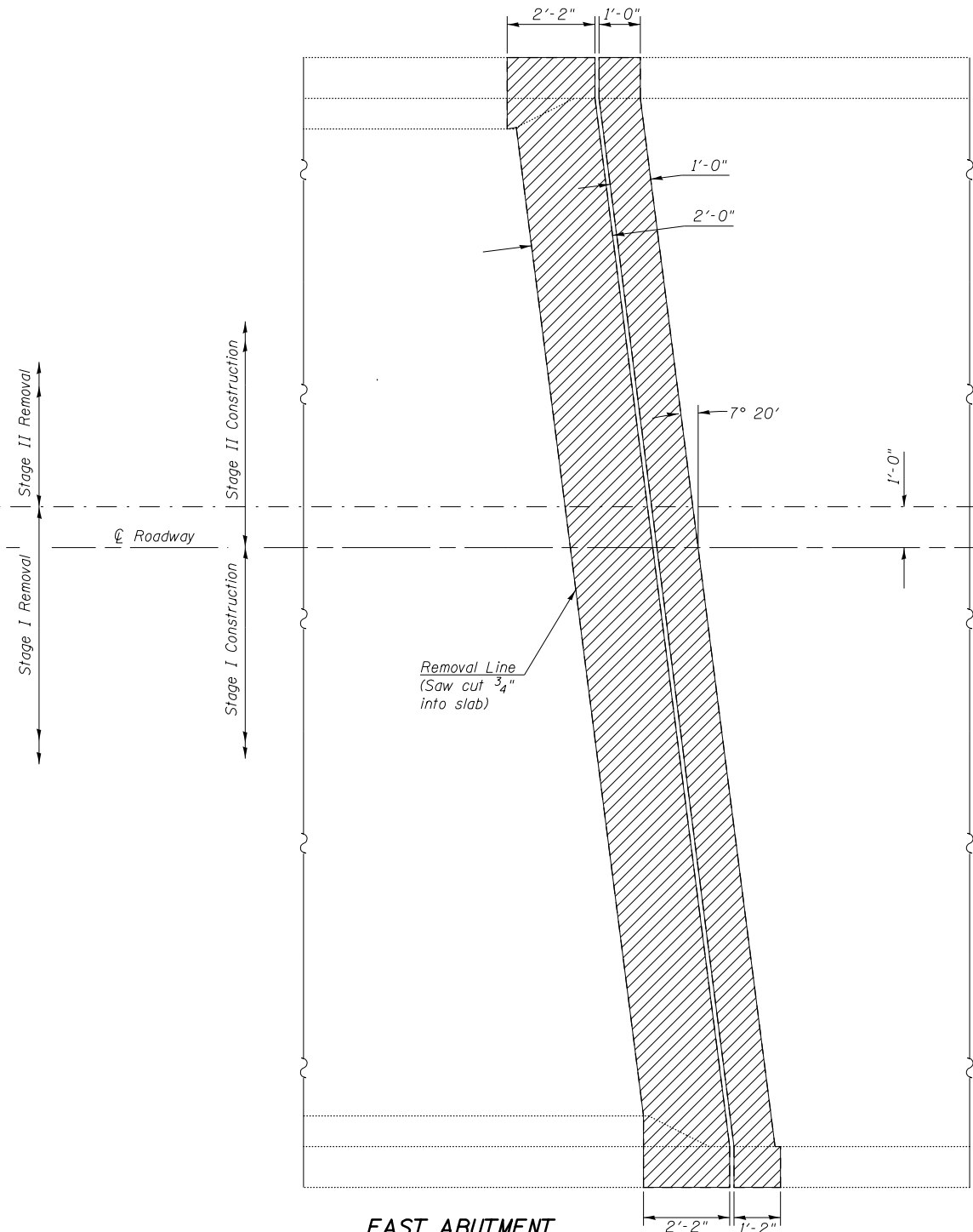
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|-------------------------|--------|--------------|-----------|
| 74 | 20-11HV8-1-VB-1.8.8-111 | DEWITT | 156 | 49 |

CONTRACT NO. 90876
 ILLINOIS FED. AID PROJECT

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL S.N. 020-0028 (EB)



**WEST ABUTMENT
DETAILS**



**EAST ABUTMENT
DETAILS**

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0028 | Concrete Removal | 0.4 | 0.4 | 3.0 | 3.0 | 2.4 | 2.3 | 0.5 | 0.5 | Cu Yd | 12.5 |

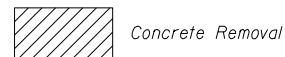
NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.



| | | | |
|--|---------------------------|-----------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\IL\084EBID\INTEG.illinois.gov\PIWID\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | BRAND | DATE 11/29/2011 | REVISED - TJB |
| PLOT SCALE = 40.0000' / in. | CHECKED TJB | DATE 11/29/2011 | REVISED - 9/3/2015 |
| PLOT DATE = 10/13/2015 | | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-CONCRETE REMOVAL
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

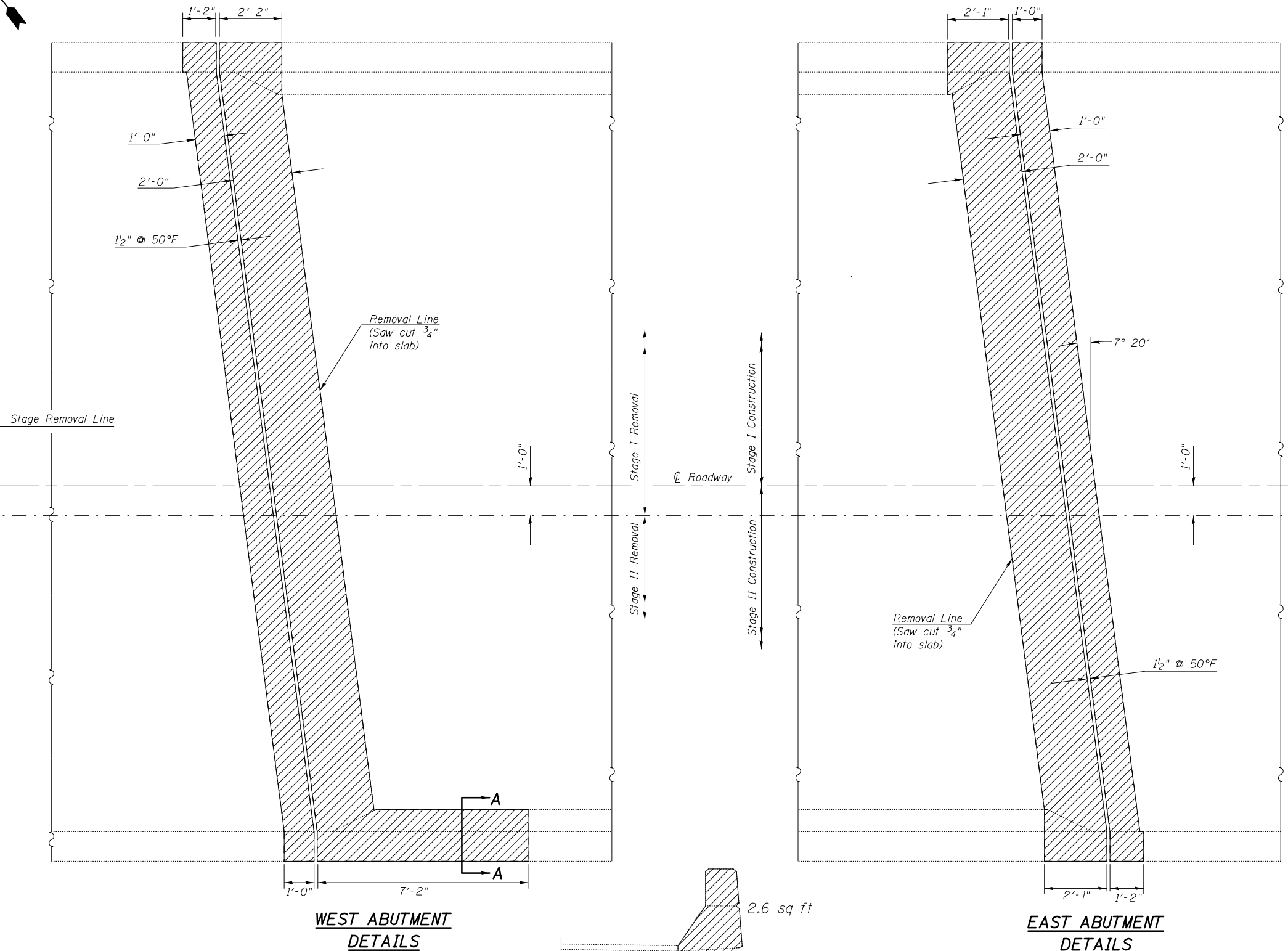
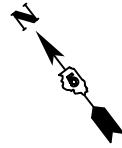
SCALE: SHEET 10 OF 28 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 50 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL

S.N. 020-0029 (WB)



NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.

BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0029 | Concrete Removal | 1.2 | 0.4 | 3.0 | 3.0 | 2.4 | 2.3 | 0.5 | 0.5 | Cu Yd | 13.3 |

SECTION A-A

| | | | |
|--|-----------------------------|------------------------|----------------------|
| FILE NAME = | USER NAME = brandenburgj | DESIGNED <i>RTC</i> | REVISED - |
| p:\11\084EBID\INTEG.illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\DRAWING\0504\0504-90876-details.sht | | DRAWN <i>TJB</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | REVISED - <i>TJB</i> |
| | PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISED - 9/3/2015 |

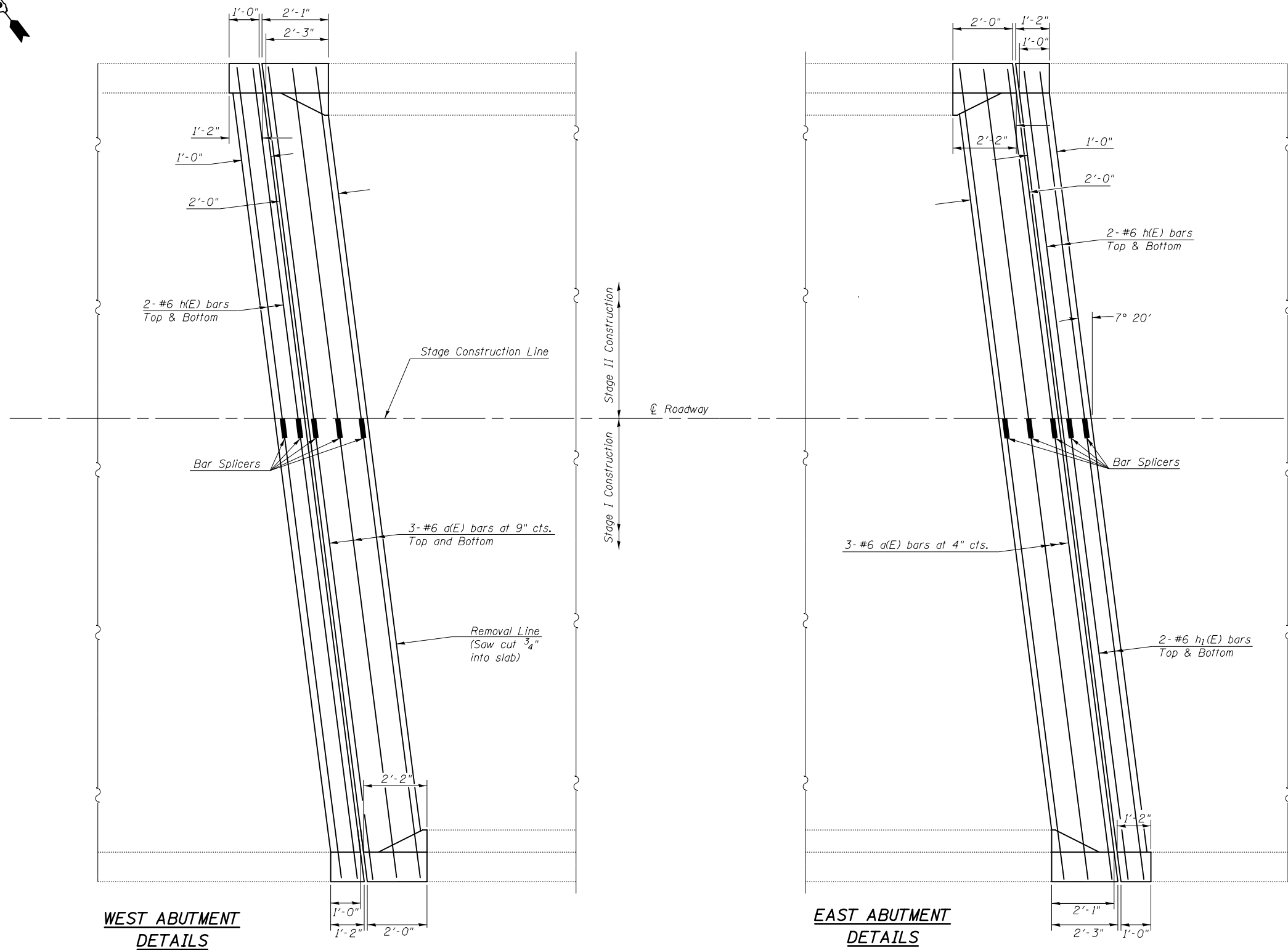
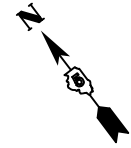
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

SCALE: SHEET 11 OF 28 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 51 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

SUPERSTRUCTURE PLAN-DECK REINFORCEMENT S.N. 020-0028 (EB)



NOTES

Existing Reinforcement Bars 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 Splicer or Anchorage System. Cost included with Concrete Removal.

Reinforcement Bars Designated (E) shall be Epoxy Coated.

BILL OF MATERIAL

| Bill of Materials (Per Joint) S.N. 020-0028 (East Joint & West Joint) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------|-----|------|--------------------|--------------|---------------------------|--|--|--|--|-------|----------------------|------|---|---|--------|-------|-------------------------------|------|---|---|--------|---------|---------------------------|--|--|--|--|-------|----------------------|--|--|--|--|-------|-------------------------------|--|--|--|--|---------|
| Stage | Bar | No. | Size | Bar Length (ft-in) | Weight (lbs) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | a(E) | 6 | 6 | 23'-0" | 207.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| II | a(E) | 6 | 6 | 19'-0" | 171.2 | Deck Total (lbs) = | | | | | 378.5 | I | h(E) | 4 | 6 | 23'-0" | 138.2 | II | h(E) | 4 | 6 | 19'-0" | 114.2 | Hatch Block Total (lbs) = | | | | | 252.3 | Total Weight (lbs) = | | | | | 630.0 | Total for Both Joints (lbs) = | | | | | 1,260.0 |
| Deck Total (lbs) = | | | | | 378.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | h(E) | 4 | 6 | 23'-0" | 138.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| II | h(E) | 4 | 6 | 19'-0" | 114.2 | Hatch Block Total (lbs) = | | | | | 252.3 | Total Weight (lbs) = | | | | | 630.0 | Total for Both Joints (lbs) = | | | | | 1,260.0 | | | | | | | | | | | | | | | | | | |
| Hatch Block Total (lbs) = | | | | | 252.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Weight (lbs) = | | | | | 630.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total for Both Joints (lbs) = | | | | | 1,260.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

BILL OF MATERIAL

| STRUCTURE | | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|-----------|-------------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| NUMBER | Item | West | East | West | East | West | East | West | East | | |
| 020-0028 | Concrete Superstructure | 0.4 | 0.4 | 3.0 | 3.0 | 2.4 | 2.3 | 0.5 | 0.5 | Cu Yd | 12.5 |

| | | | |
|--|-----------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | DRAWN <i>TJB</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISED - 9/3/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-DECK REINFORCEMENT
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

SCALE: SHEET 12 OF 28 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 52 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

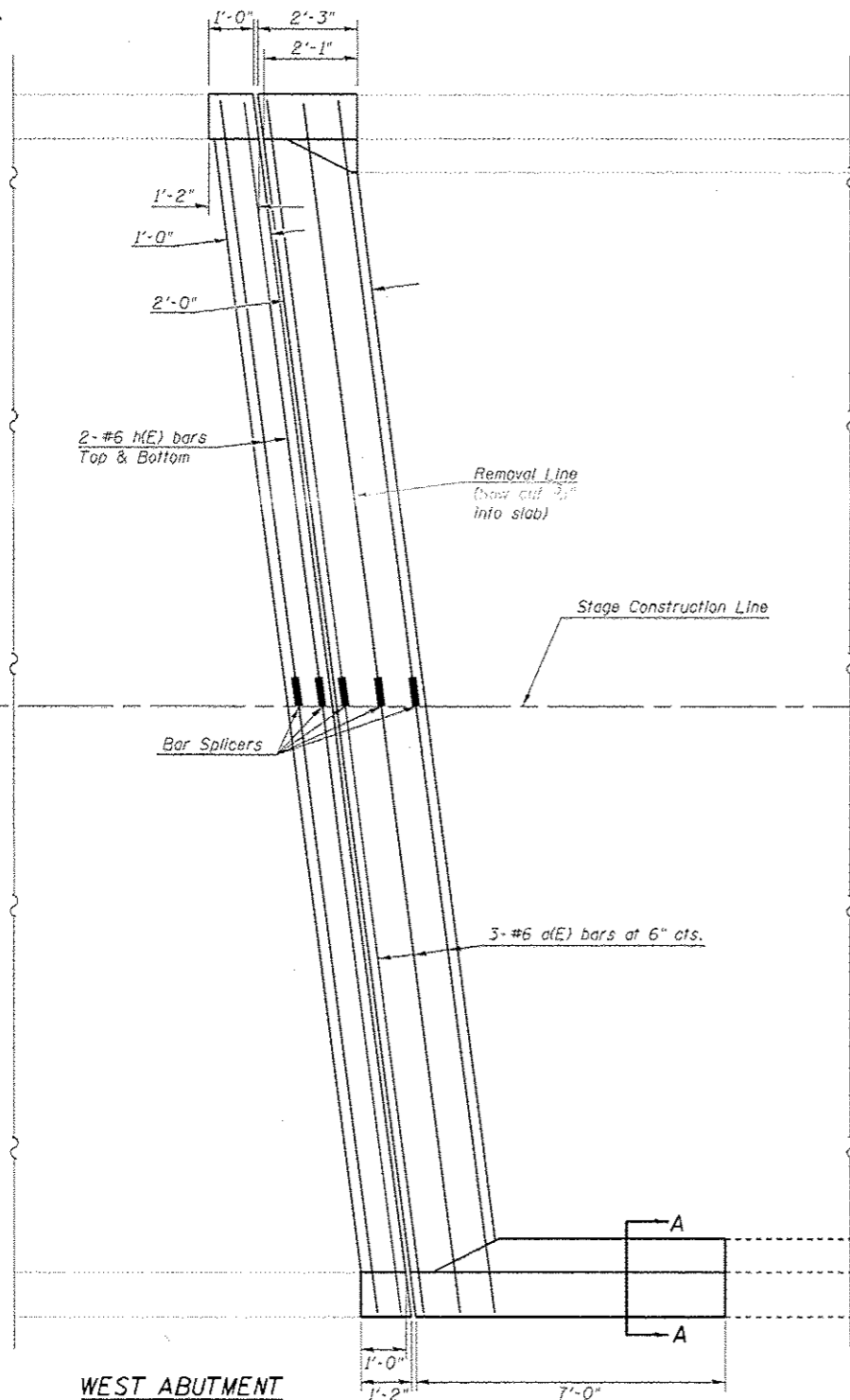
*20-1(HVB,HB-1,VB-1,B,B-1)I

SUPERSTRUCTURE PLAN-DECK REINFORCEMENT S.N. 020-0029 (WB)

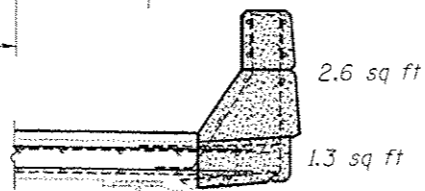
NOTES

Existing Reinforcement Bars 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 Splicer or Anchorage System. Cost Included with Concrete Removal.

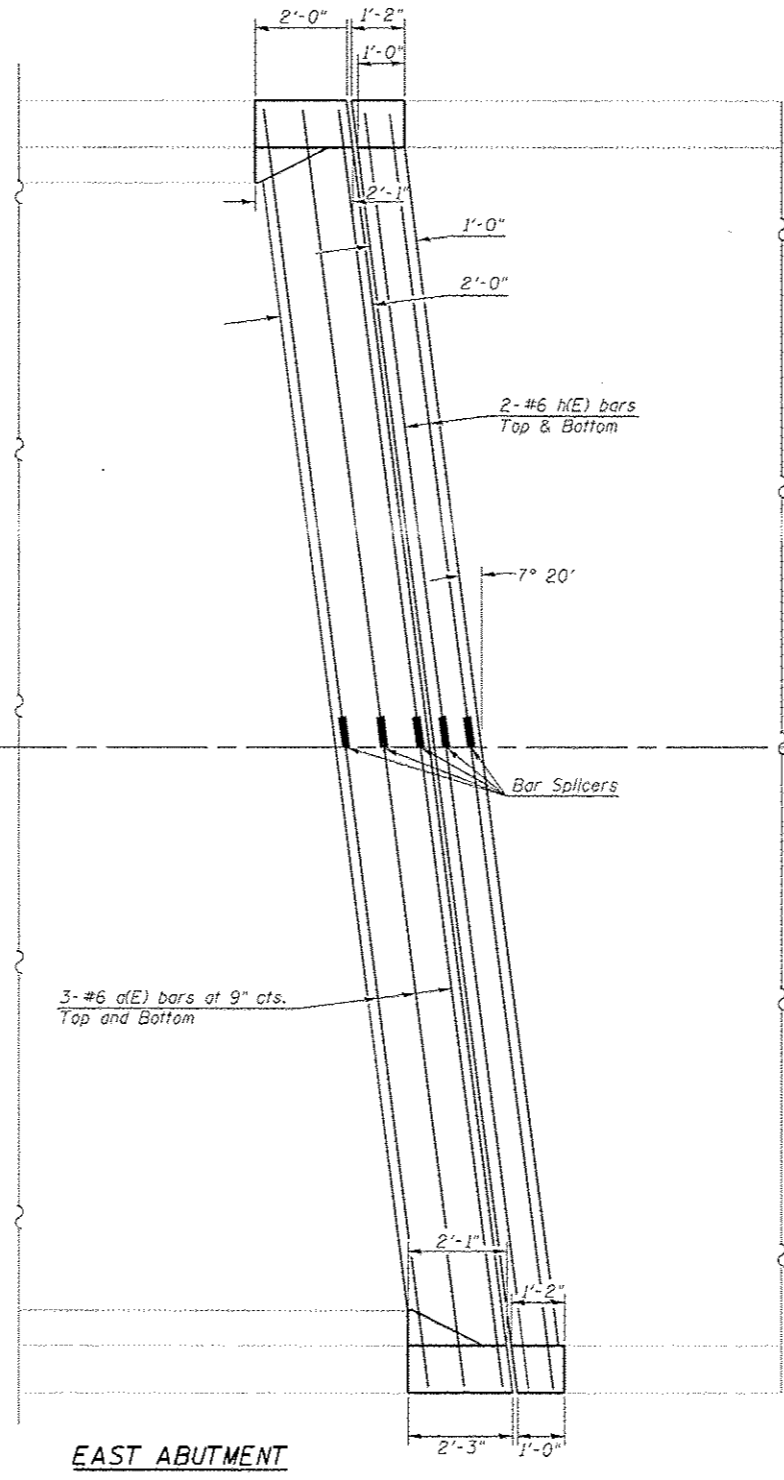
Reinforcement Bars Designated (E) shall be Epoxy Coated.



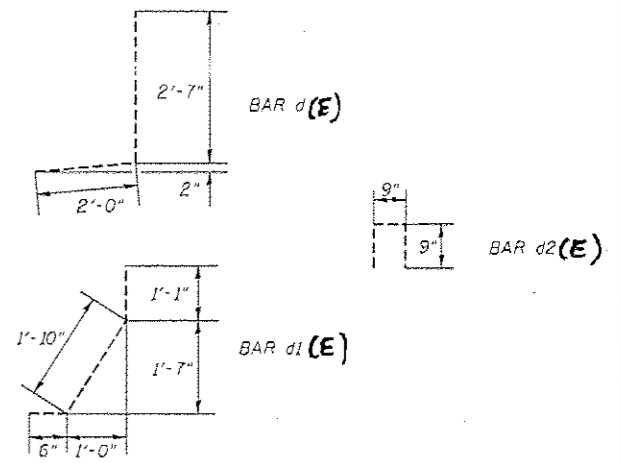
**WEST ABUTMENT
DETAILS**



SECTION A-A



**EAST ABUTMENT
DETAILS**



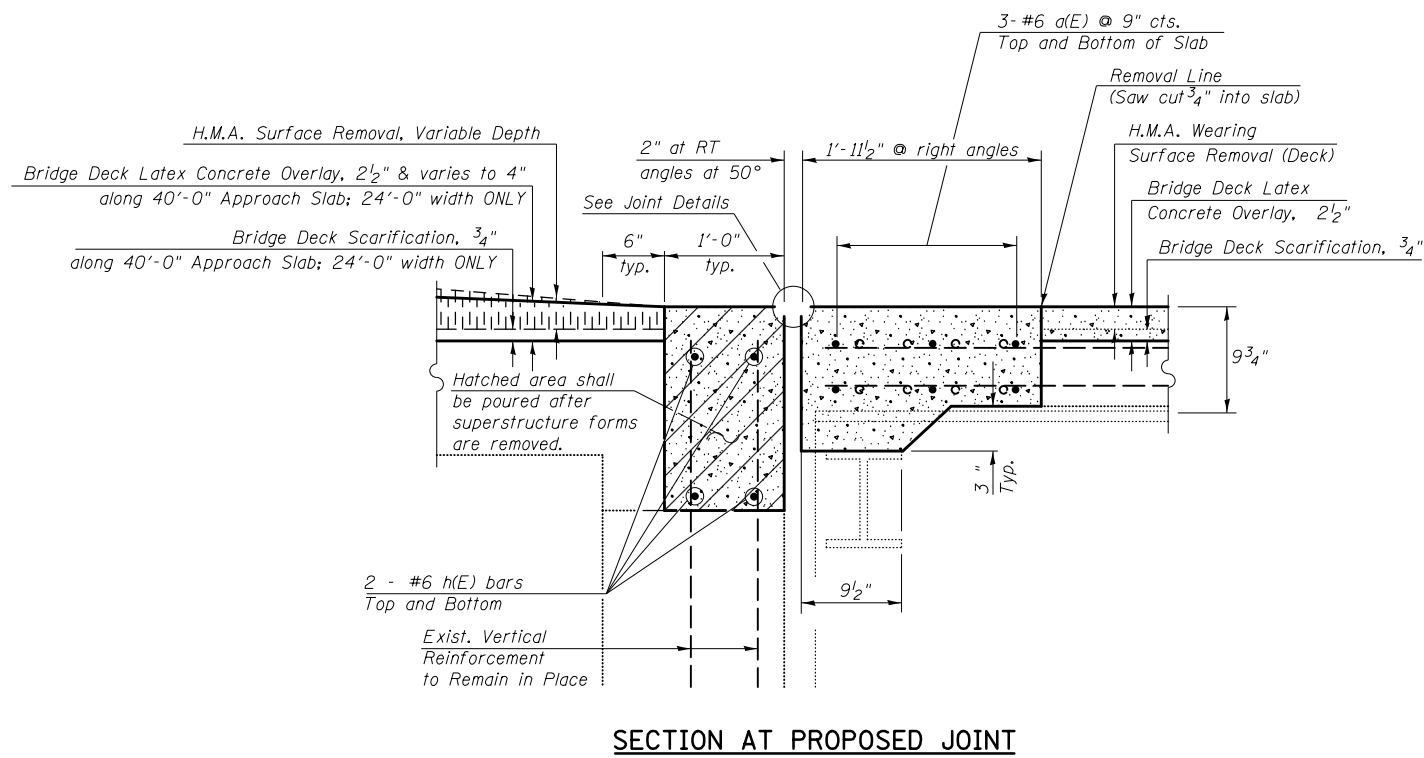
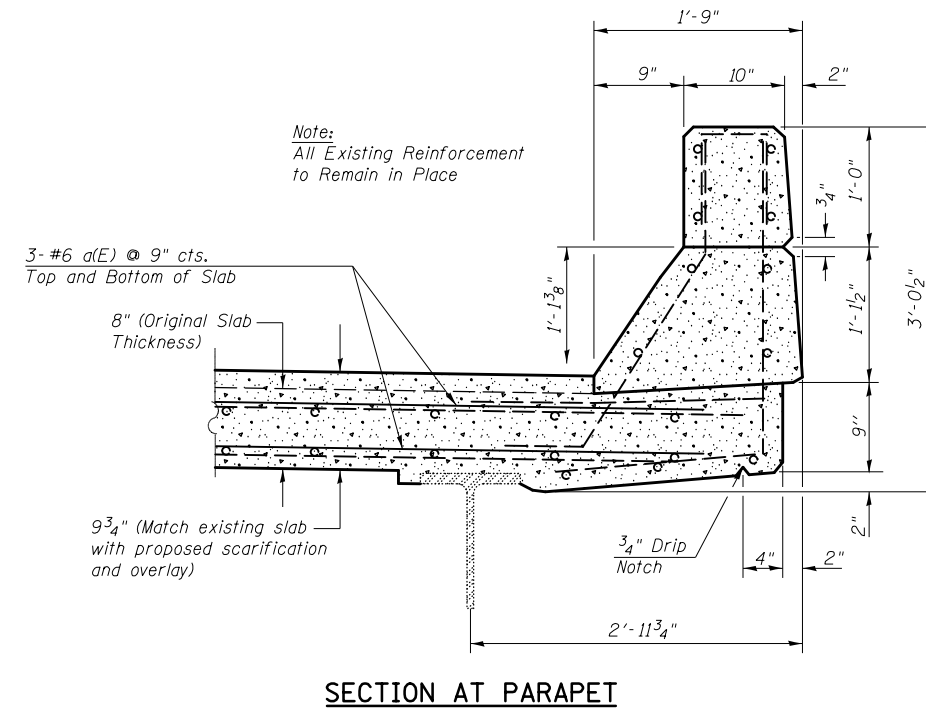
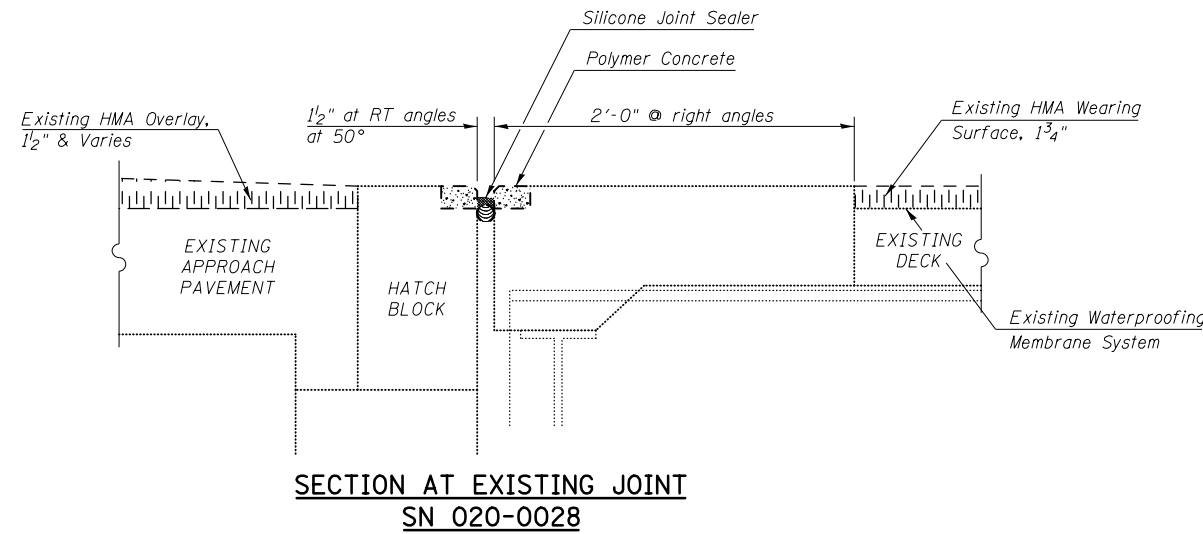
BILL OF MATERIAL

| Bill of Materials (Per Joint) S.N. 020-0029 (East Joint & West Joint) | | | | | |
|--|-------|-----|------|--------------------|--------------|
| Stage | Bar | No. | Size | Bar Length (ft-in) | Weight (lbs) |
| I | a(E) | 6 | 6 | 23'-0" | 207.3 |
| II | a(E) | 6 | 6 | 19'-0" | 171.2 |
| II | d(E) | 6 | 4 | 4'-7" | 18.4 |
| II | d1(E) | 6 | 5 | 3'-5" | 21.4 |
| II | d2(E) | 2 | 4 | 2'-1" | 6.3 |
| Deck Total (lbs) = | | | | | 424.5 |
| I | h(E) | 4 | 6 | 23'-0" | 138.2 |
| II | h(E) | 4 | 6 | 19'-0" | 114.2 |
| Hatch Block Total (lbs) = | | | | | 252.3 |
| Total Weight (lbs) = | | | | | 680.0 |
| Total for Both Joints (lbs) = | | | | | 1,360.0 |

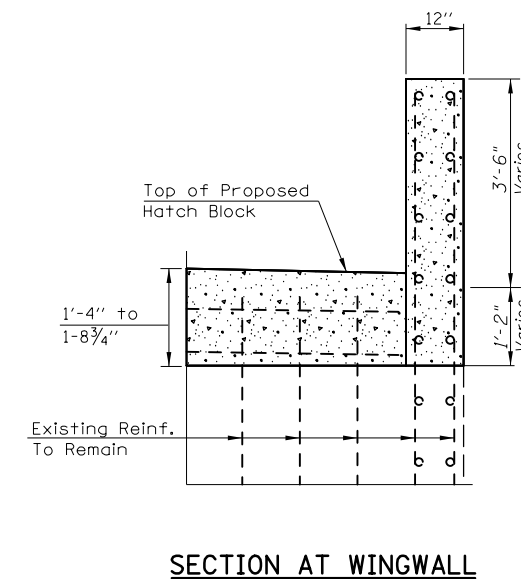
BILL OF MATERIAL

| STRUCTURE NUMBER | Item | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|------------------|-------------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| | | West | East | West | East | West | East | West | East | | |
| 020-0029 | Concrete Superstructure | 1.2 | 0.4 | 3.0 | 3.0 | 2.4 | 2.3 | 0.5 | 0.5 | Cu Yd | 13.3 |

DECK END, WINGWALL AND HATCH BLOCK DETAILS S.N. 020-0028 (EB)



Note:
All Existing Reinforcement
to Remain in Place



| | | | |
|--|---------------------------|------------------------|----------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\BROWNDATA\90876\90876-details.shp | | DRAWN <i>TJB</i> | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | DATE <i>11/29/2011</i> | REVISED - <i>TJB</i> |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | | REVISED - 9/3/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK END, WINGWALL AND HATCH BLOCK DETAILS
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

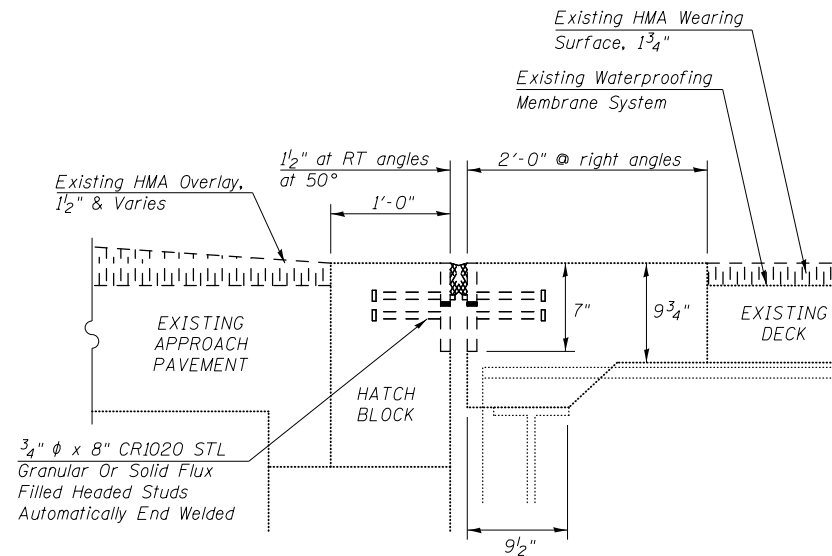
SCALE: SHEET 14 OF 28 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 54 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

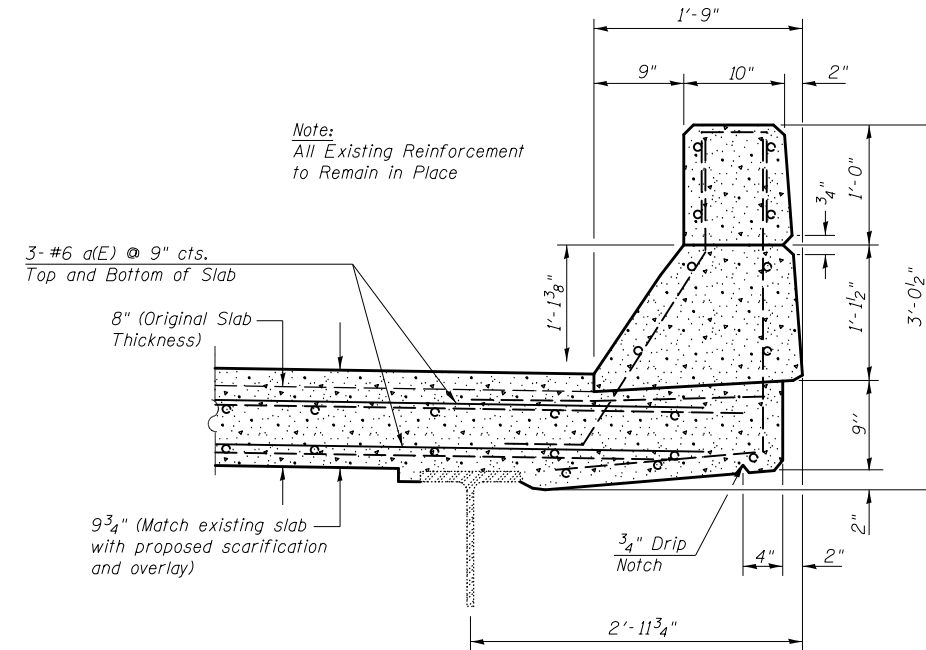
•20-1(HVB,HB-1,VB-1,B,B-1)I

DECK END, WINGWALL AND HATCH BLOCK DETAILS

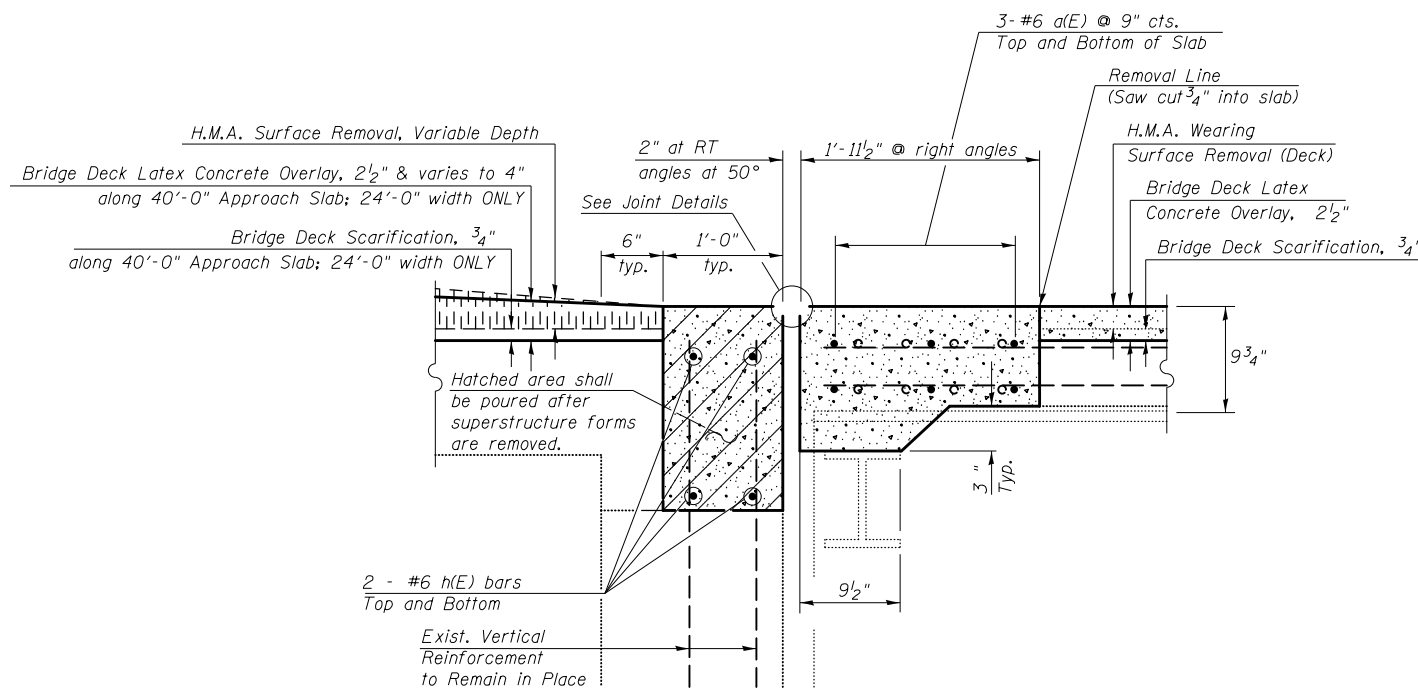
S.N. 020-0029 (WB)



SECTION AT EXISTING JOINT
SN 020-0029

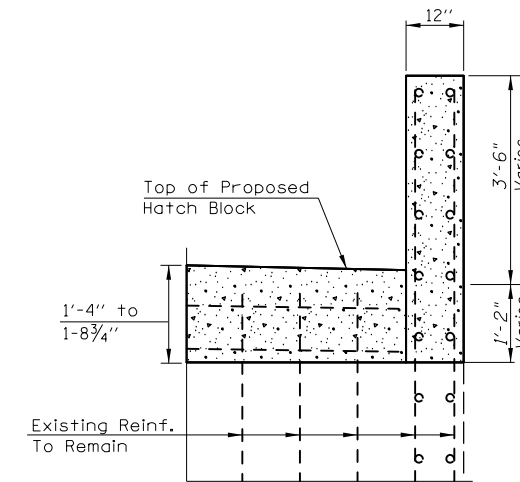


SECTION AT PARAPET



SECTION AT PROPOSED JOINT

Note:
All Existing Reinforcement
to Remain in Place



SECTION AT WINGWALL

| | | | |
|--|---------------------------|------------------------|----------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\BROWNDATA\084EBIDINTEG\90876-details.sht | | DRAWN <i>TJB</i> | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | DATE <i>11/29/2011</i> | REVISED - <i>TJB</i> |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | | REVISED - 9/3/2015 |

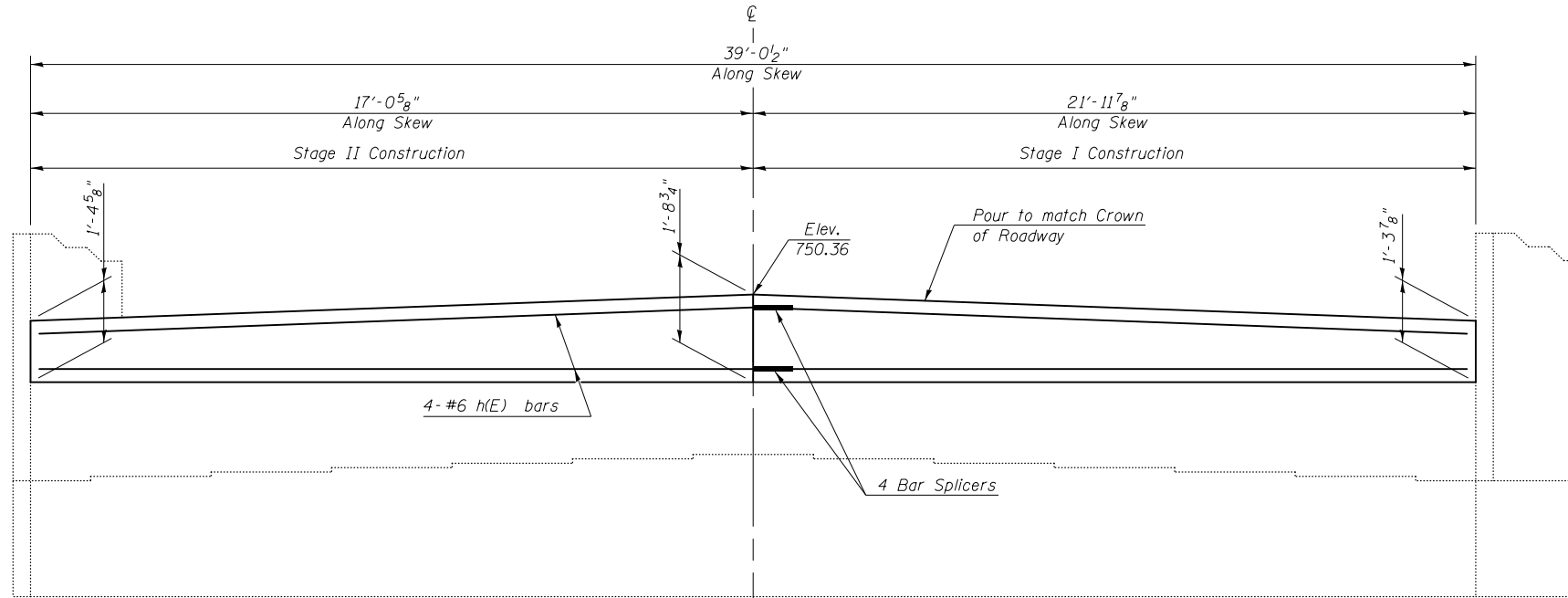
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|--|----------|--------------|--------------|
| DECK END, WINGWALL AND HATCH BLOCK DETAILS | | | |
| S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | | | |
| SCALE: | SHEET 15 | OF 28 SHEETS | STA. TO STA. |

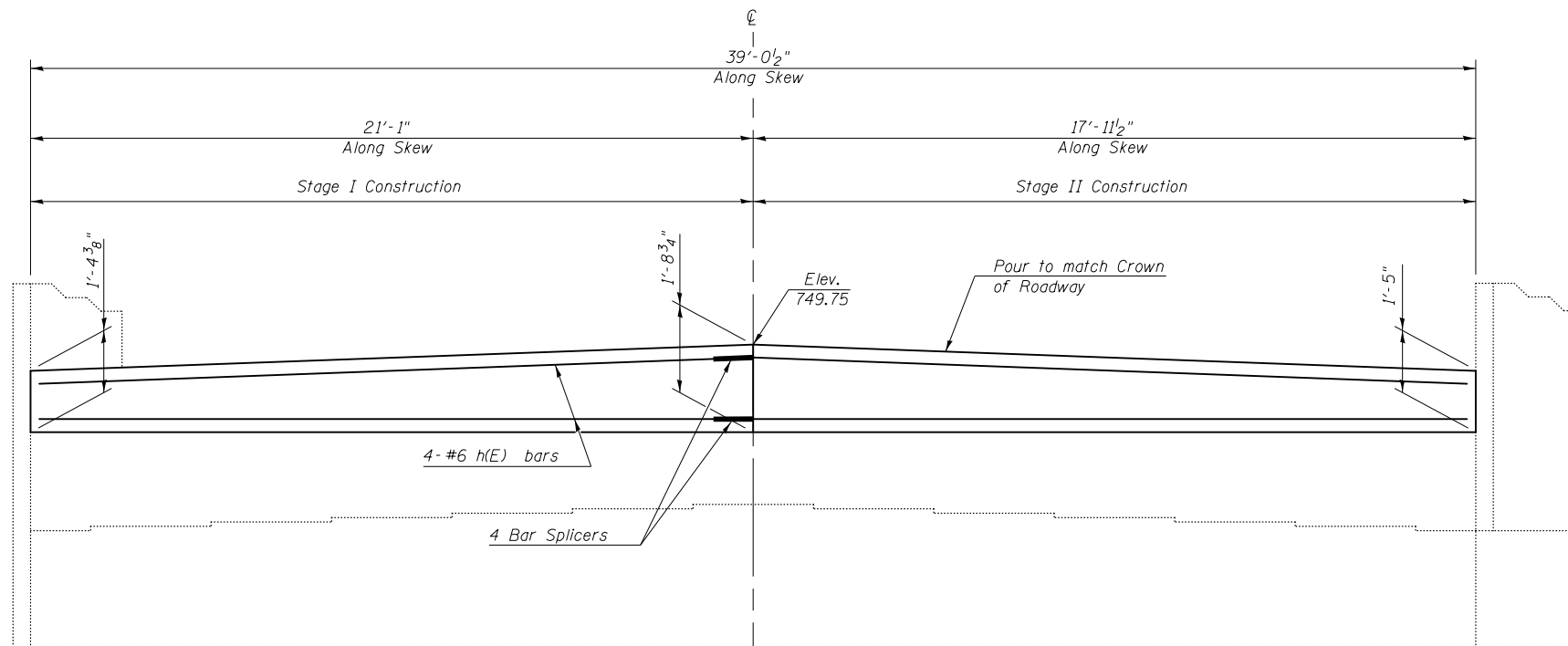
| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 55 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

•20-1(HVB,HB-1,VB-1,B,B-1)I

HATCH BLOCK DETAILS 020-0028 (EB)



ELEVATION
(EAST ABUTMENT)



ELEVATION
(WEST ABUTMENT)

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|--|-----------------------------|------------------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\084EBID\084EBID-Details.sht | DRAWN <i>TJB</i> | CHECKED <i>TJB</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - |
| | PLOT DATE = 10/13/2015 | | |

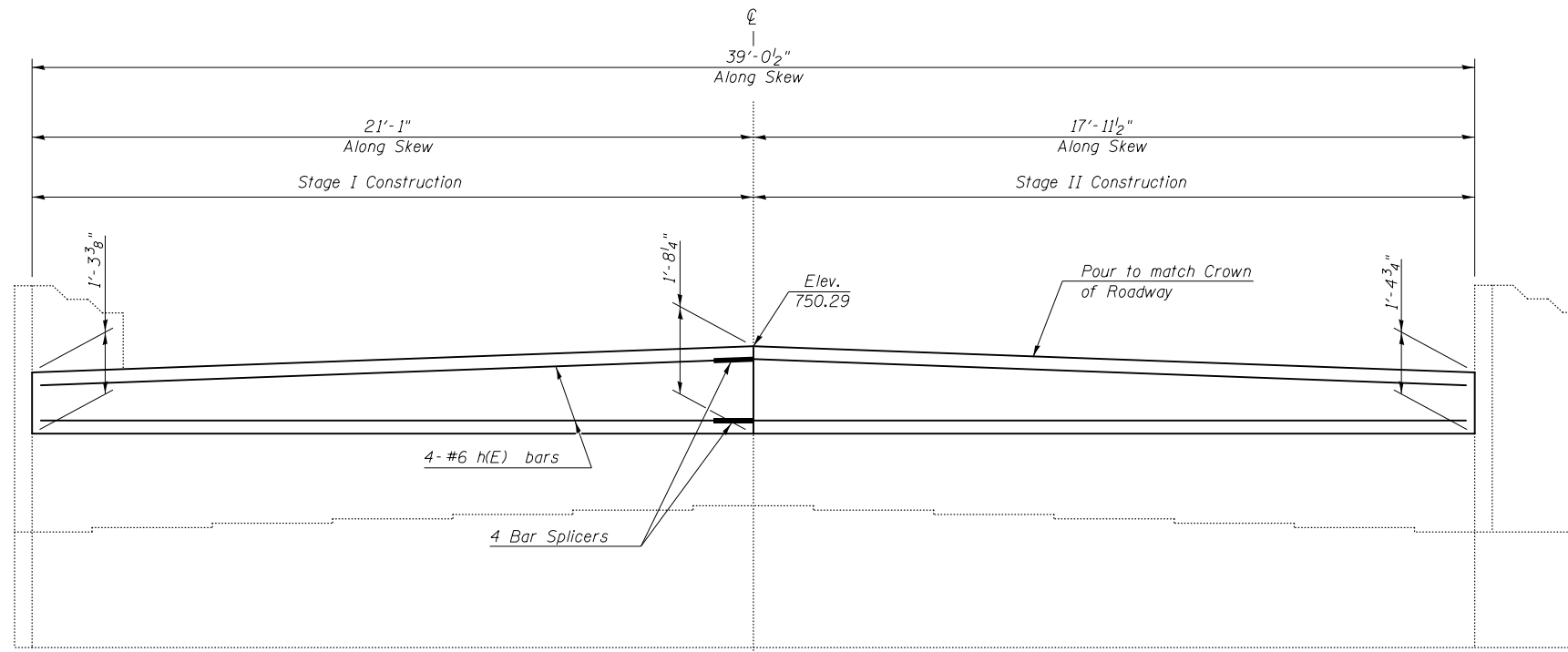
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | |
|--|------------------------------------|
| HATCH BLOCK DETAILS | |
| S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | |
| SCALE: | SHEET 16 OF 28 SHEETS STA. TO STA. |

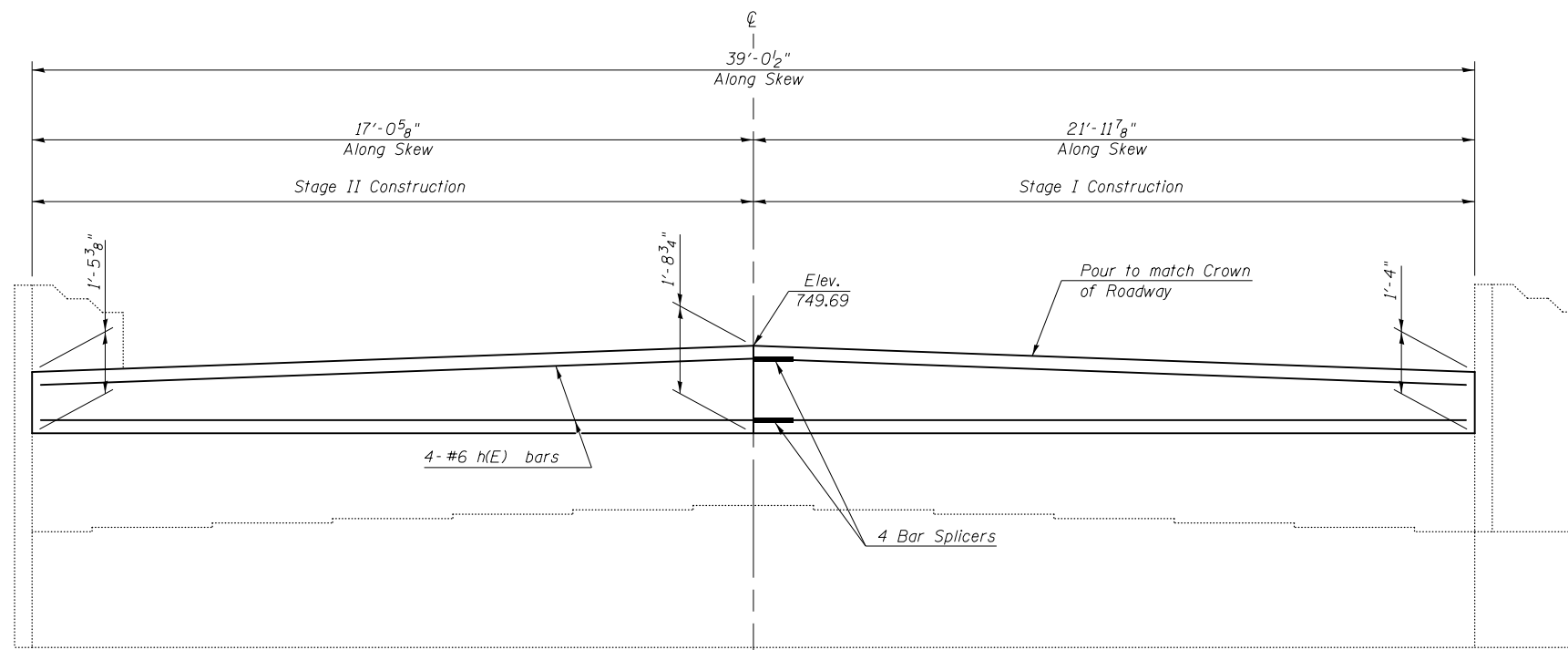
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 56 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

HATCH BLOCK DETAILS

020-0029 (WB)



ELEVATION
(EAST ABUTMENT)



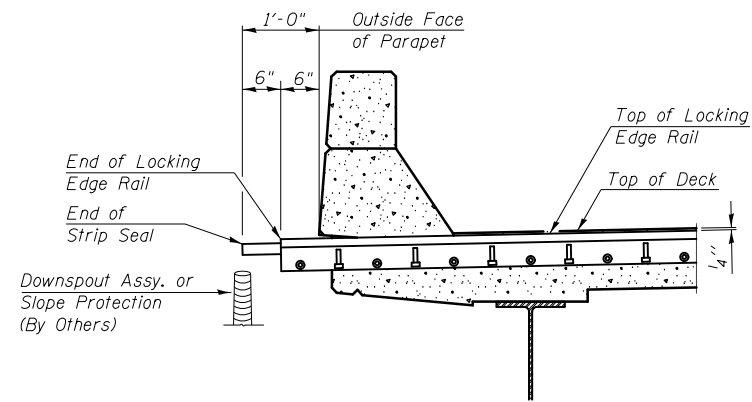
ELEVATION
(WEST ABUTMENT)

•20-1(HVB,HB-1,VB-1,B,B-1)I

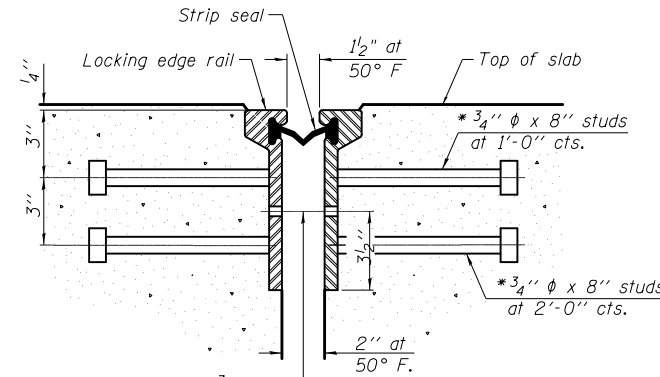
| | | | | | |
|--|--|--|---|--|---|
| FILE NAME = pw:\1L\084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\084EBIDINTEG\020-0029\020-0029-hatch-blocks-details.sht | USER NAME = brandenburgtj DESIGNED <i>RTC</i> CHECKED <i>TJB</i> DATE <i>11/29/2011</i> | REVISED - REVISED - REVISED - REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | HATCH BLOCK DETAILS S.N. 020-0028 (EB) & S.N. 020-0029 (WB) | F.A.I. RTE. 74 SECTION * COUNTY DEWITT TOTAL SHEETS 166 SHEET NO. 57 CONTRACT NO. 90876 ILLINOIS FED. AID PROJECT |
| | | | SCALE: SHEET 17 OF 28 SHEETS STA. TO STA. | | |

PREFORMED JOINT STRIP SEAL DETAILS

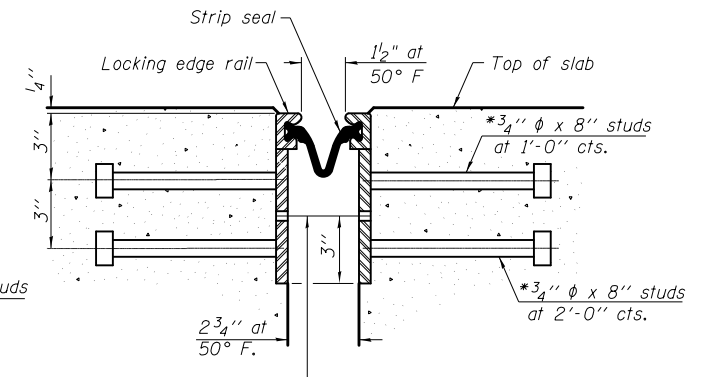
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



**SECTION AT
PROPOSED JOINT**



**SECTION THRU
ROLLED RAIL JOINT**



**SECTION THRU
WELDED RAIL JOINT**

$\frac{7}{16}$ " ϕ holes at 4'-0" cts. for $\frac{3}{8}$ " ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

$\frac{7}{16}$ " ϕ holes at 4'-0" cts. for $\frac{3}{8}$ " ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $\frac{1}{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The strip seal shall be inserted into the Locking Edge Rails before the parapet ends are formed and poured to allow for proper placement of the strip seal.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

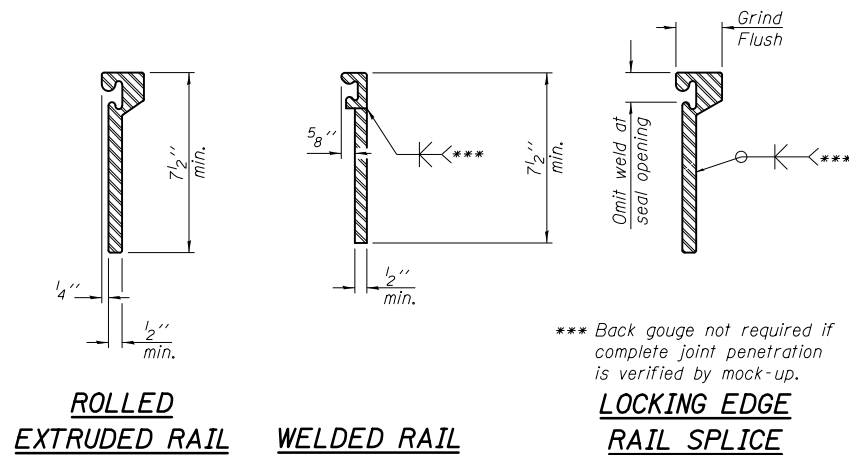
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be $\frac{3}{16}$ ", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



LOCKING EDGE RAILS

*** Back gouge not required if complete joint penetration is verified by mock-up.

The inside of the locking edge rail groove shall be free of weld residue.

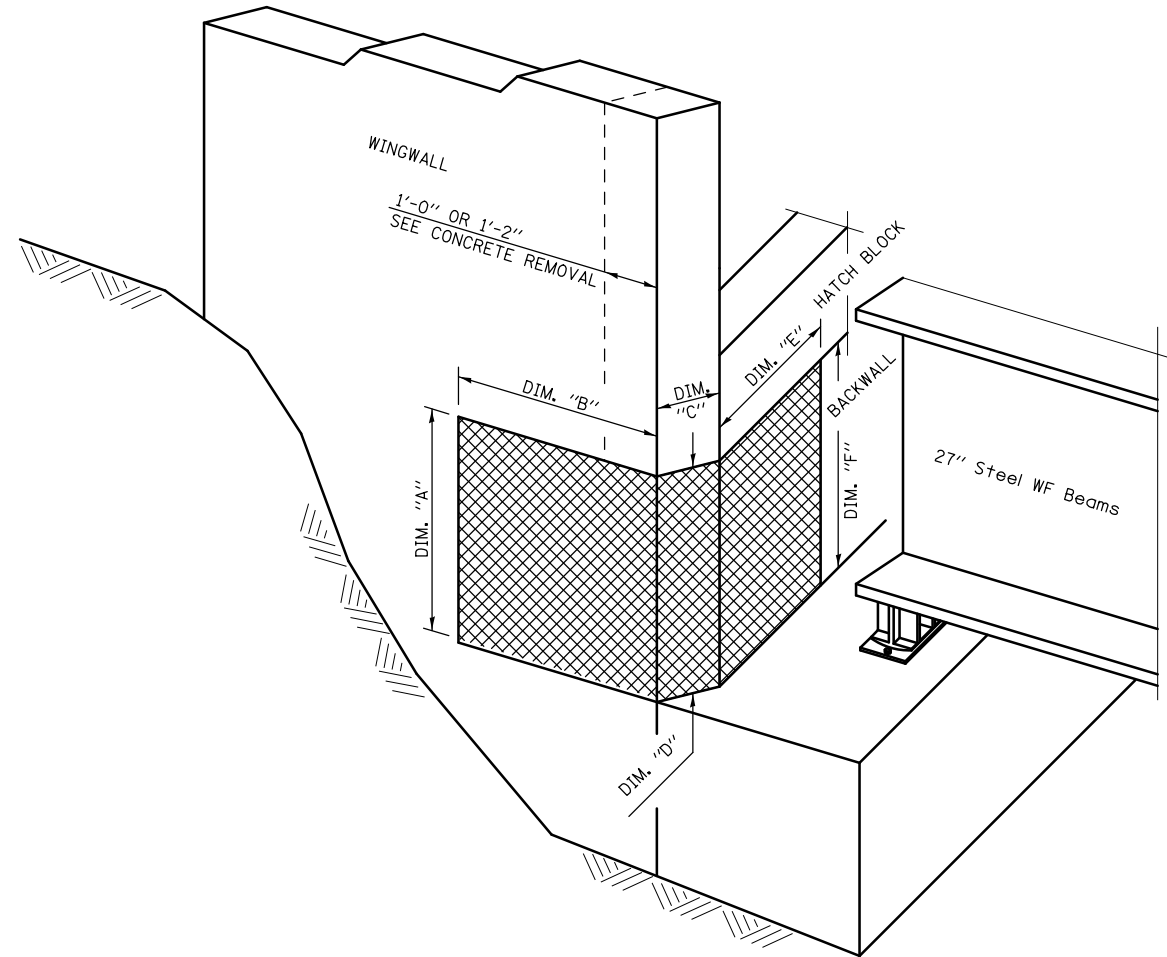
Rolled rail shown, welded rail similar.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|----------------------------|------|-------|
| 020-0028 | Preformed Joint Strip Seal | Foot | 88.8 |
| 020-0029 | Preformed Joint Strip Seal | Foot | 88.8 |

SUBSTRUCTURE REPAIR PLAN

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



ISOMETRIC VIEW AT ABUTMENT CORNER

S.N. 020-0028

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|-------|--------|--------|----------|--------|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | 2'-10" | 2'-0" | 1'-0" | 2'-10" | 1'-6" | 2'-10" | 12.7 |
| SOUTHEAST | - | - | 1'-0" | 2'-10" | 1'-0" | 2'-10" | 5.7 |
| NORTHWEST | - | - | - | - | - | - | - |
| SOUTHWEST | 2'-10" | 2'-0" | 1'-0" | 2'-10" | 1'-6" | 2'-10" | 12.7 |

S.N. 020-0029

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|---|--------|--------|----------|--------|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | - | - | 1'-0" | 2'-10" | 2'-0" | 2'-10" | 8.5 |
| SOUTHEAST | - | - | 1'-0" | 2'-10" | 3'-0" | 2'-10" | 11.3 |
| NORTHWEST | - | - | 1'-0" | 2'-10" | 2'-0" | 2'-10" | 8.5 |
| SOUTHWEST | - | - | 1'-0" | 2'-10" | 3'-0" | 2'-10" | 11.3 |

LEGEND

STRUCTURAL REPAIR OF CONCRETE, DEPTH EQUAL TO OR LESS THAN 5"

NOTE:

SEE SPECIAL PROVISION FOR STRUCTURAL REPAIR OF CONCRETE.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|---|---------|-------|
| 020-0028 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 31.0 |
| 020-0029 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 40.0 |

| | | | |
|---|-----------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | DRAWN <i>TJB</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISED - 9/3/2015 |

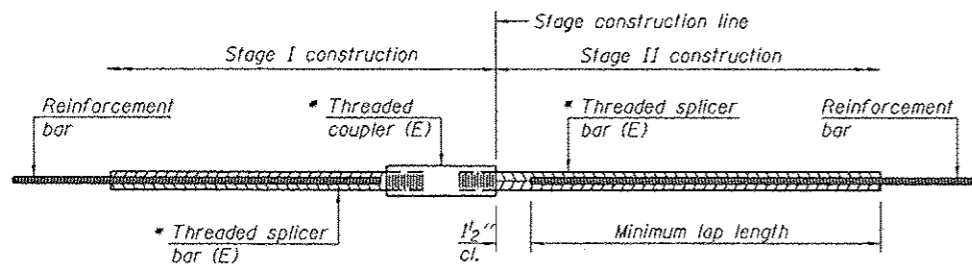
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE REPAIR PLAN
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)**

SCALE: SHEET 19 OF 28 SHEETS STA. TO STA.

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 59 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

*20-1(HVB,HB-1,VB-1,B,B-1)I

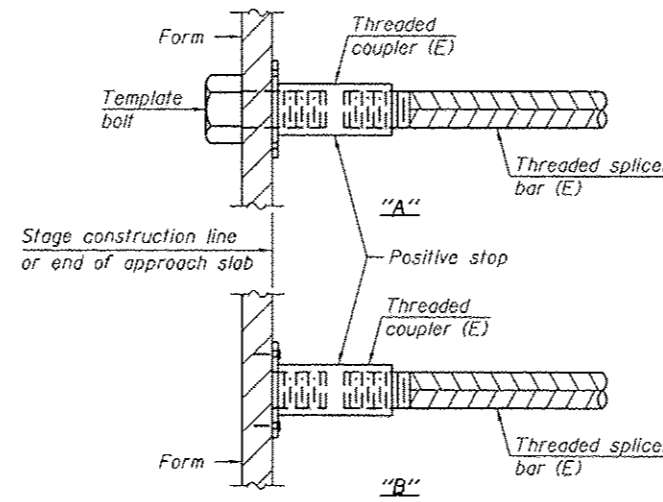


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1/2" + thread length

Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Structure | Location | Bar size | No. assemblies required | Minimum lap length |
|-----------|-------------|----------|-------------------------|--------------------|
| 020-0028 | Deck End | #6 | 12 | 3'-10" |
| | Hatch Block | #6 | 8 | 3'-10" |
| 020-0029 | Deck End | #6 | 12 | 3'-10" |
| | Hatch Block | #6 | 8 | 3'-10" |

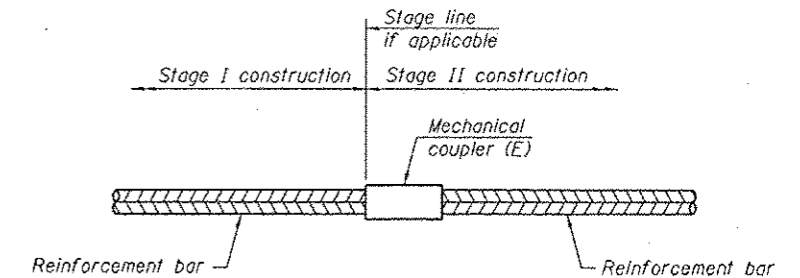


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

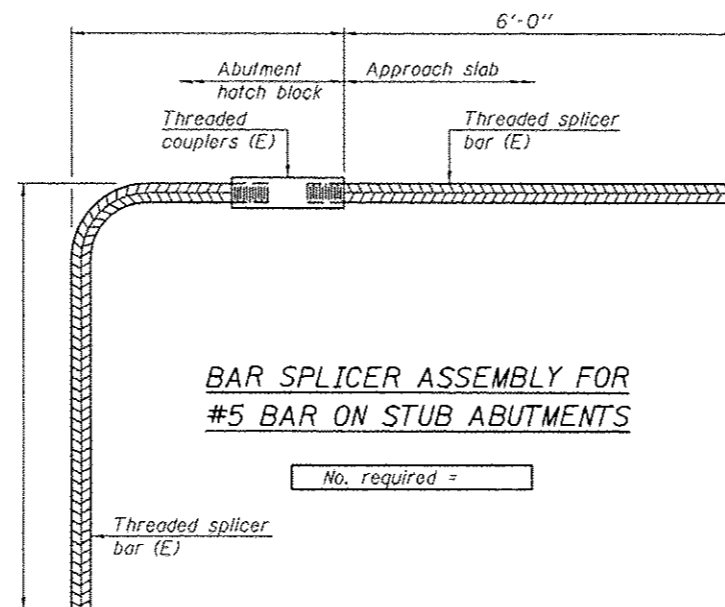
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications. See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 6-8-15

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 020-0028 (EB) & 020-0029 (WB)

| F.A.J. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 60 |

*20-KHVB,HB-1,VB-1,B,B-111

| FILE NAME | USER NAME | DESIGNED | REVISED |
|-----------|--------------|----------|------------|
| *FILEL* | brandenbergj | RTC | - |
| | | DRAWN | RTC |
| | | CHECKED | TJB |
| | | DATE | 11/29/2015 |

SCALE: SHEET 20 OF 28 SHEETS STA. TO STA.

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

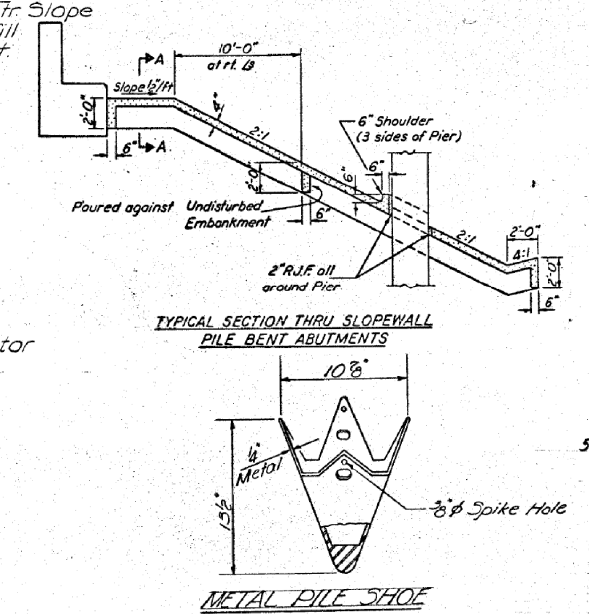
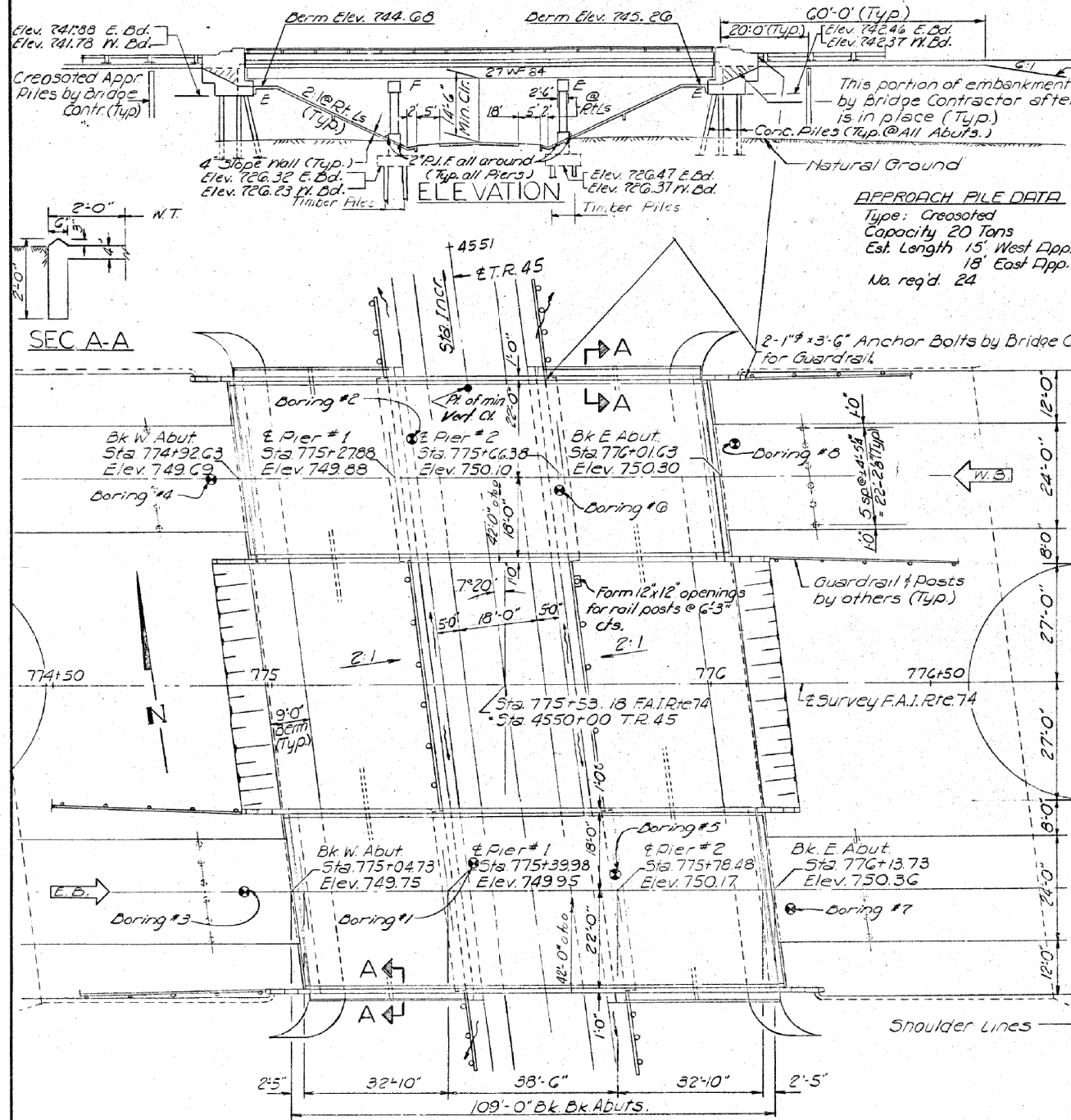
AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | |
|---|----------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | 20-1HB-1 | DEWITT | 30 | 6 |
| SHEET NO. 1 OF 15 SHEETS | | | | |
| ILLINOIS FED. AID PROJECT: I-74-5(84) 157 | | | | |

B.M. R.R. Spike in west face power pole on east side T.R. 45, 872' north of E.F.A.I. 74 Elev. 732.62



GENERAL NOTES

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 38# per 100 Sq. Yds.

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Rivets 3/8" Open Holes 1 3/8" unless otherwise noted.

Anchor bolts shall be set before fastening diaphragms over supports.

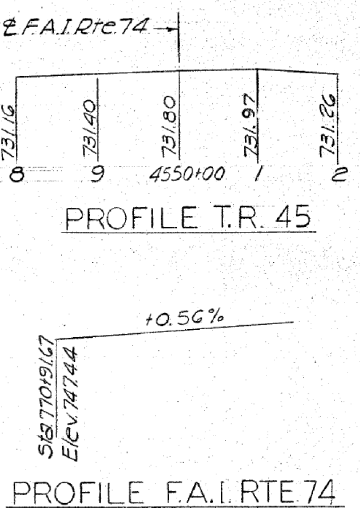
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of Aluminum paint.

The Contractor shall drive two concrete test piles in permanent locations, one at East Abut. W.D. Lane and one at West Abut. E. Bd. Lane; also drive one timber test pile in the vicinity of Pier 1 W.D. Lane as directed by the Engineer before ordering the remainder of piles.

Concrete piles at abutments shall be driven in holes pre-cored thru the embankment in accordance with Article 513.09(c) of the Standard Specifications.

Diaphragm connections may be adapted to shop welding subject to approval by the Engineer.

Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.



TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub | Total |
|-----------------------------------|----------|---------|--------|---------|
| Class A Excavation for Structures | Cu. Yds. | | | 274 |
| Class X Concrete | Cu. Yds. | 272.7 | 355.8 | 628.5 |
| Structural Steel | Lbs. | 152,050 | | 152,050 |
| Aluminum Railing | Lin. Ft. | 423 | | 423 |
| Reinforcement Bars | Lbs. | 67,030 | 37,510 | 104,540 |
| Creasoted Piles (20' to 38') | Lin. Ft. | | 1744 | 1744 |
| Creasoted Piles (Up to 20') | Each | | 396 | 396 |
| Concrete Piles | Lin. Ft. | | 2131 | 2131 |
| Test Piles (Concrete) | Each | | 2 | 2 |
| Name Plates | Each | | 2 | 2 |
| Slope Wall 4" | Sq. Yds. | | | 1520 |
| Metal Shoes | Each | | 64 | 64 |
| Protective Coat | Sq. Yds. | | | 1138 |
| Test Piles (Timber) | Each | | 1 | 1 |
| Preformed Joint Sealer | Lin. Ft. | 168 | | 168 |

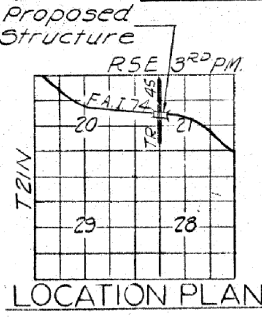
DESIGNED: *James H. Ruce*
CHECKED: *Tom T. Johnson*
DRAWN: *F.M. Jacobs*
CHECKED: *SFM*

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

STATION 775+53.18
BUILT 19 BY
STATE OF ILLINOIS
F.A.I. RTE 74 SEC. 20-1HB-1
LOADING HS20 & ALT.
NAME PLATE

DESIGN STRESSES

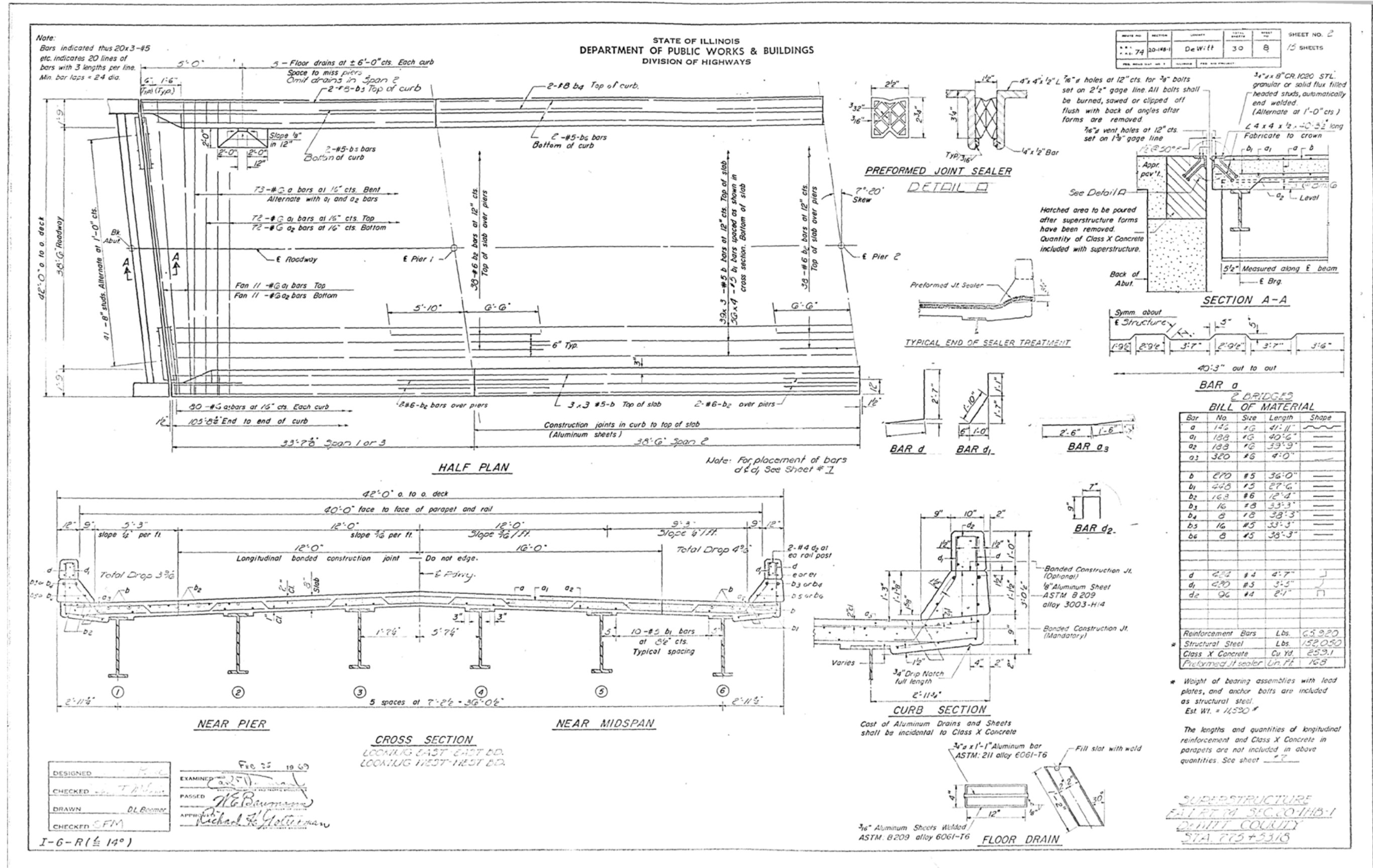
fc = 1200 psi Deck Slab
fc = 1400 psi (Parapet & Sub)
fs = 20000 psi (Reinf.)
fs = 29000 psi (Struct)
vc = 75 psi (Ftgs)
n = 10
Allow & Deflection = L/1000
LOADING HS20-44 & ALT.



GENERAL PLAN & ELEVATION
PROJ. I-74-5(84)
F.A.I. RTE. 74 OVER TWP. RD. 45
F.A.I. RTE 74 SEC. 20-1HB-1
DEWITT COUNTY
STA. 775+53.18

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



BILL OF MATERIAL

| Bar No. | Size | Length | Shape |
|----------------|------|---------|-------|
| a | 1/2 | 41'-11" | |
| a ₁ | 1/2 | 40'-6" | |
| a ₂ | 1/2 | 33'-9" | |
| a ₃ | 3/8 | 4'-0" | |
| b | 2/0 | 36'-0" | |
| b ₁ | 4/8 | 27'-6" | |
| b ₂ | 1/2 | 12'-2" | |
| b ₃ | 1/2 | 33'-3" | |
| b ₄ | 1/2 | 38'-3" | |
| b ₅ | 1/2 | 33'-3" | |
| b ₆ | 1/2 | 38'-3" | |
| d | 2/4 | 4'-7" | |
| d ₁ | 2/4 | 3'-5" | |
| d ₂ | 2/4 | 2'-7" | |

| Reinforcement Bars | Lbs. |
|--------------------|------|
| 65,920 | |

| Structural Steel | Lbs. |
|------------------|------|
| 153,050 | |

| Class X Concrete | Cu Yd. |
|------------------|--------|
| 253.1 | |

Preformed Jt sealer Lin. Ft. 168

* Weight of bearing assemblies with lead plates, and anchor bolts are included as structural steel. Est. Wt. = 11,530 #

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet # 7

DESIGNED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: DL Boomer
 CHECKED: SFM

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

Feb 25 19 69

I-6-R (± 14°)

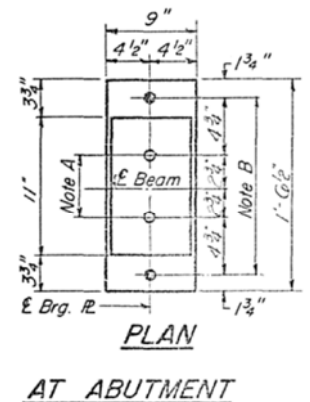
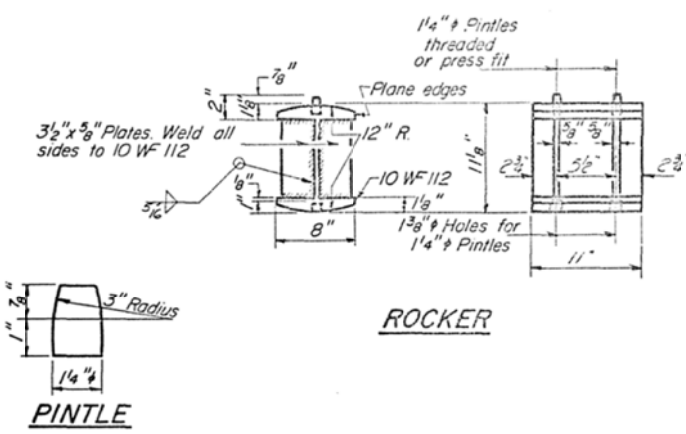
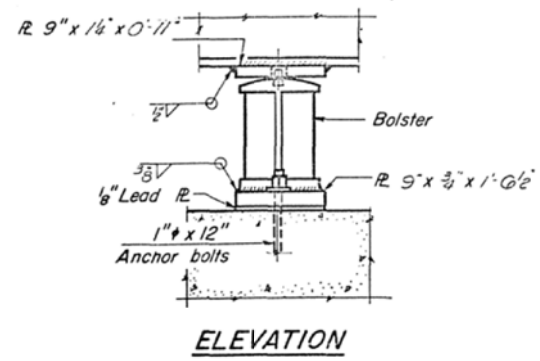
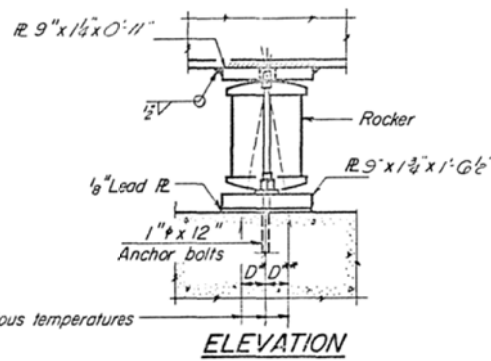
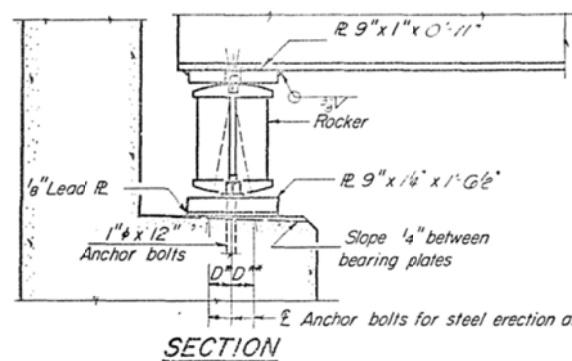
SUPERSTRUCTURE
 PART 4 SEC. 20-1HB-1
 DEWITT COUNTY
 STA. 775+5310

AS-BUILT PLANS (FOR INFORMATION ONLY)

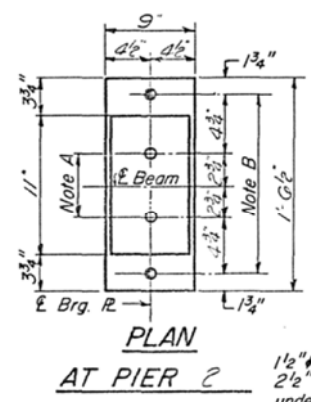
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

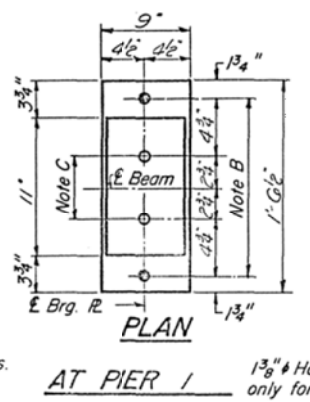
| | | | | | |
|-------------|----------|--------|--------------|-----------|-----------|
| PROJECT NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEETS |
| 74 | 20-145-1 | DeWitt | 30 | 12 | 15 SHEETS |



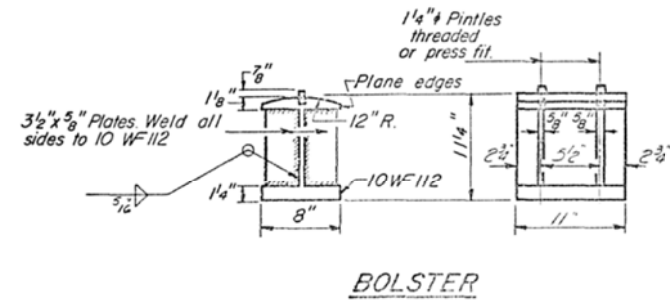
NOTE A
1 3/8" Holes - 1" deep in top R.
for pintles. Thread or press fit
pintles into bottom R.



NOTE B
1 1/2" Holes for 1" anchor bolts.
2 1/2" x 2 1/2" x 5/16" R. Washers
under nut.



NOTE C
1 3/8" Holes 1" deep in top R.
only for 1 1/4" pintles.



BEARING ASSEMBLY DETAILS

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D^* (Side of brg. away from fixed brg.)
 $D^* = \frac{1}{8}''$ per each 100' of expansion for every 15° fall below the normal temp. of 50°F
- D^{**} (Side of brg. toward fixed brg.)
 $D^{**} = \frac{1}{8}''$ per each 100' of expansion for every 15° rise above the normal temp. of 50°F
- b) After beams have been erected and dimensions D^* or D^{**} determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

| | MOMENTS | | | REACTIONS | |
|-------|---------|--------|---------|-----------|--------|
| | 4 So. 1 | Pier 1 | 3 So. 2 | Abut. | Pier 1 |
| D.L. | 91 | 127 | 60 | 14.5 | 45.5 |
| L.C. | 187 | 143 | 178 | 31.5 | 38.2 |
| Imp. | 56 | 43 | 34 | | |
| Total | 334 | 313 | 300 | 46.0 | 83.7 |

DESIGNED: *James M. Pines*
 CHECKED: *James T. Pines*
 DRAWN: *P.G. Barnett*
 CHECKED: *SFM*

EXAMINED: *Richard H. Gottenman*
 PASSED: *Richard H. Gottenman*
 APPROVED: *Richard H. Gottenman*

FEB 25 1969

I-2-B 9-1-65

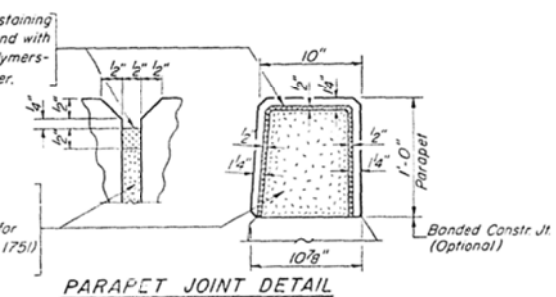
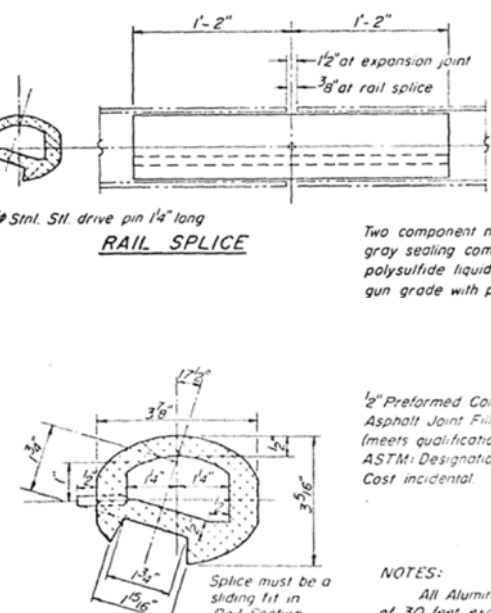
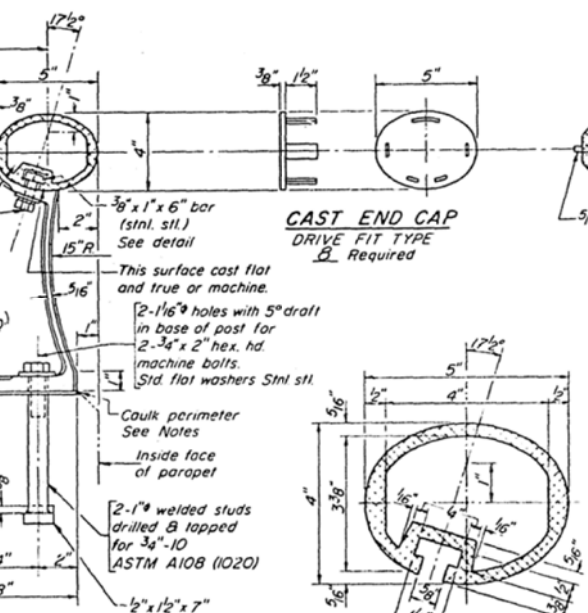
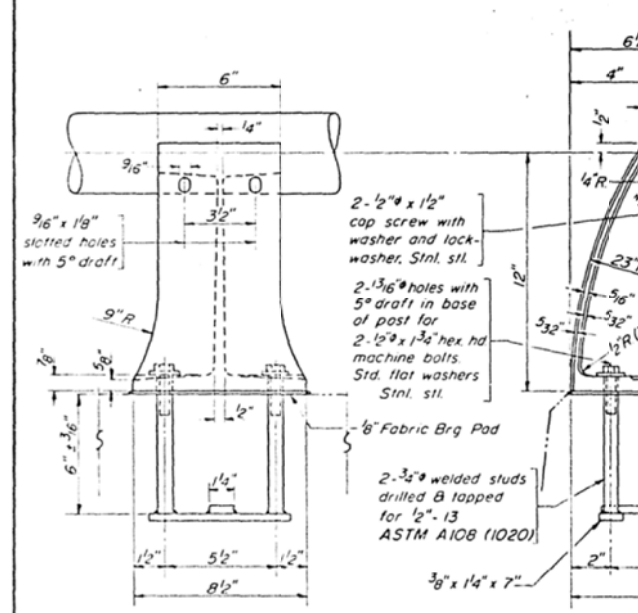
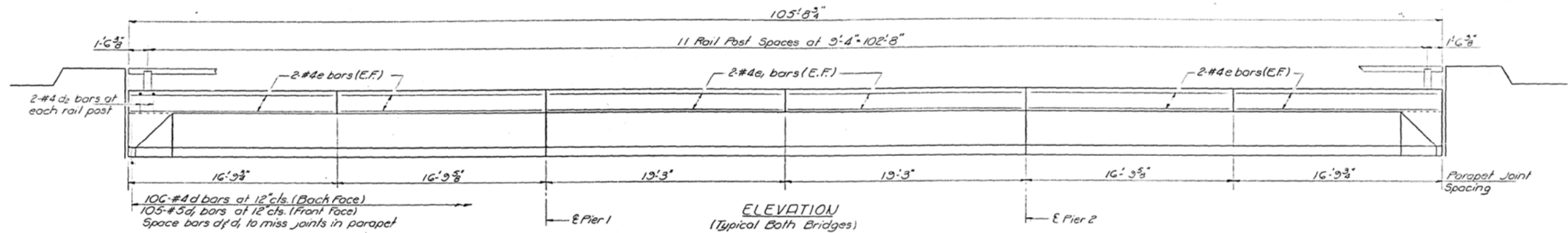
BEARING DETAILS
 FAIRMOUNT SEC. 20-145-1
 DEWITT COUNTY
 STA. 775+53.18

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | |
|--------------------------|-------------|--------|-----------|--------|
| SHEET NO. | PROJECT NO. | DATE | SHEET NO. | SHEETS |
| 74 | 20-1HB-1 | DeWitt | 30 | 15 |
| SHEET NO. 7 15 SHEETS | | | | |



2-BRIDGES PARAPETS & RAILS BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------|-----|--------|--------|-------|
| e | 64 | #3 | 16'6" | |
| e | 52 | #4 | 19'0" | |
| Reinforcement Bars | | Lbs | 1110 | |
| Class X Concrete | | Cu Yds | 1.36 | |
| Aluminum Railing | | Lin Ft | 423 | |

ALUMINUM RAILING
RAIL RT 74 SEC. 20-1HB-1
DeWITT COUNTY
STA. 775+53.13

NOTES:
All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2500 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.
All joints in rail shall be spliced per detail.
Provide 1-8" and 2-1/8" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.
Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.
Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

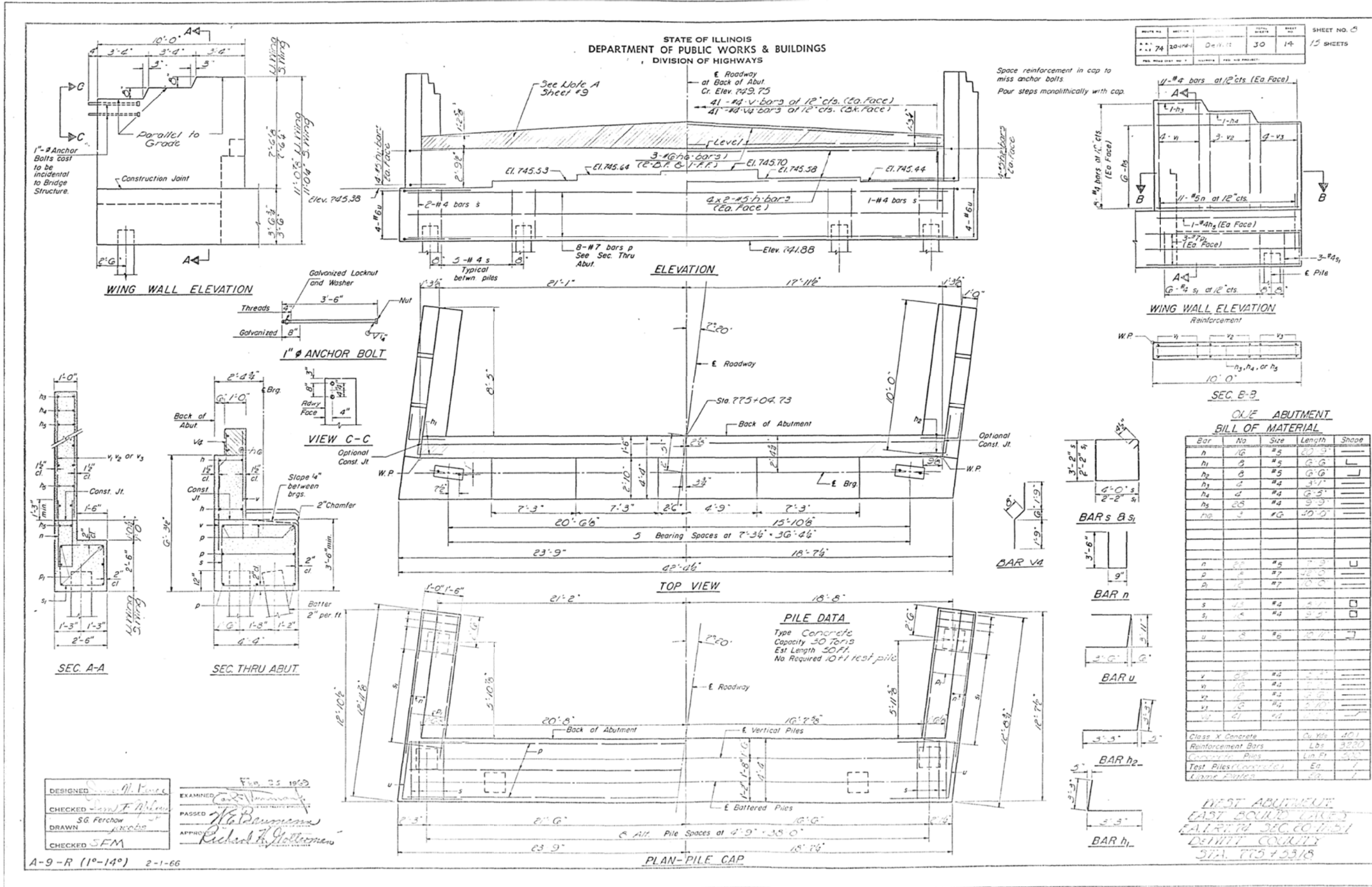
DESIGNED: J.L. FENCE
CHECKED: J.M. Madonia
DRAWN: J.L. Downing
CHECKED: J.L. Downing

EXAMINED: Feb. 25 1962
PASSED: W.G. Baumann
APPROVED: Richard J. Holloman

R-17 4-22-68

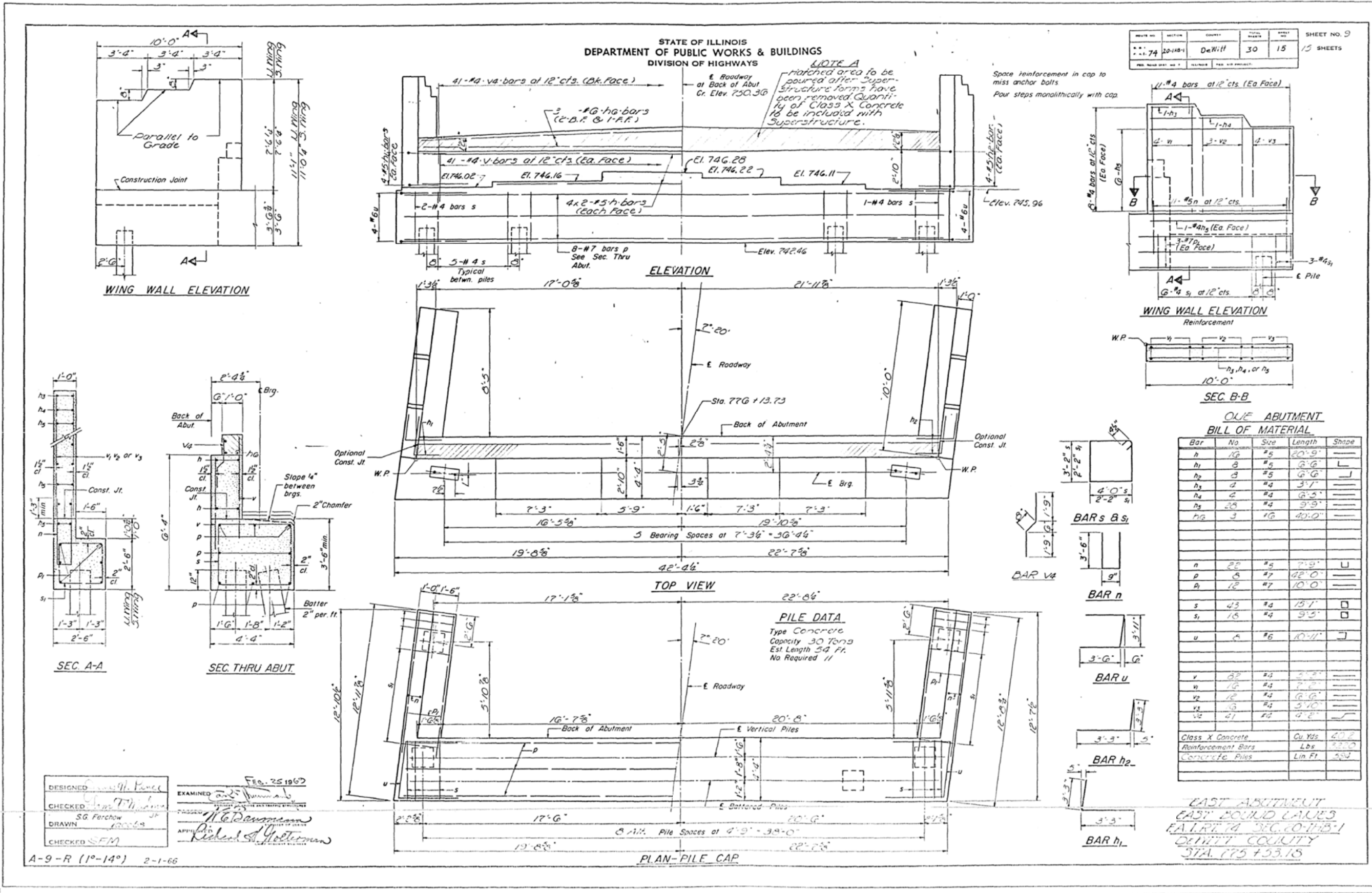
AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



DESIGNED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: *[Signature]*
 CHECKED: *[Signature]*

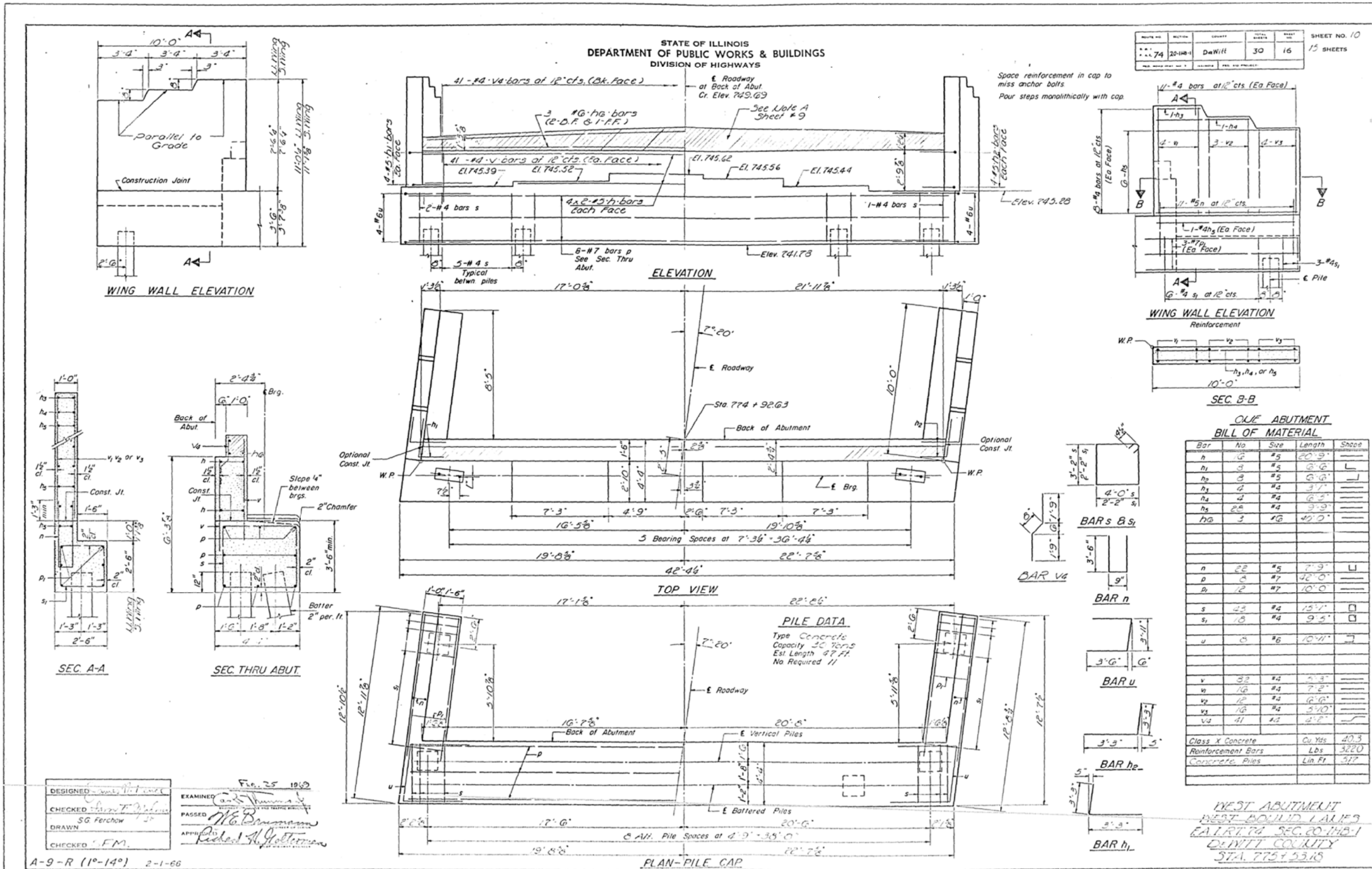
EXAMINED: *[Signature]*
 PASSED: *[Signature]*
 APPROVED: *[Signature]*

DESIGNED *RTC*
 CHECKED *TJB*
 DATE *11/29/2011*

A-9-R (1°-14°) 2-1-66

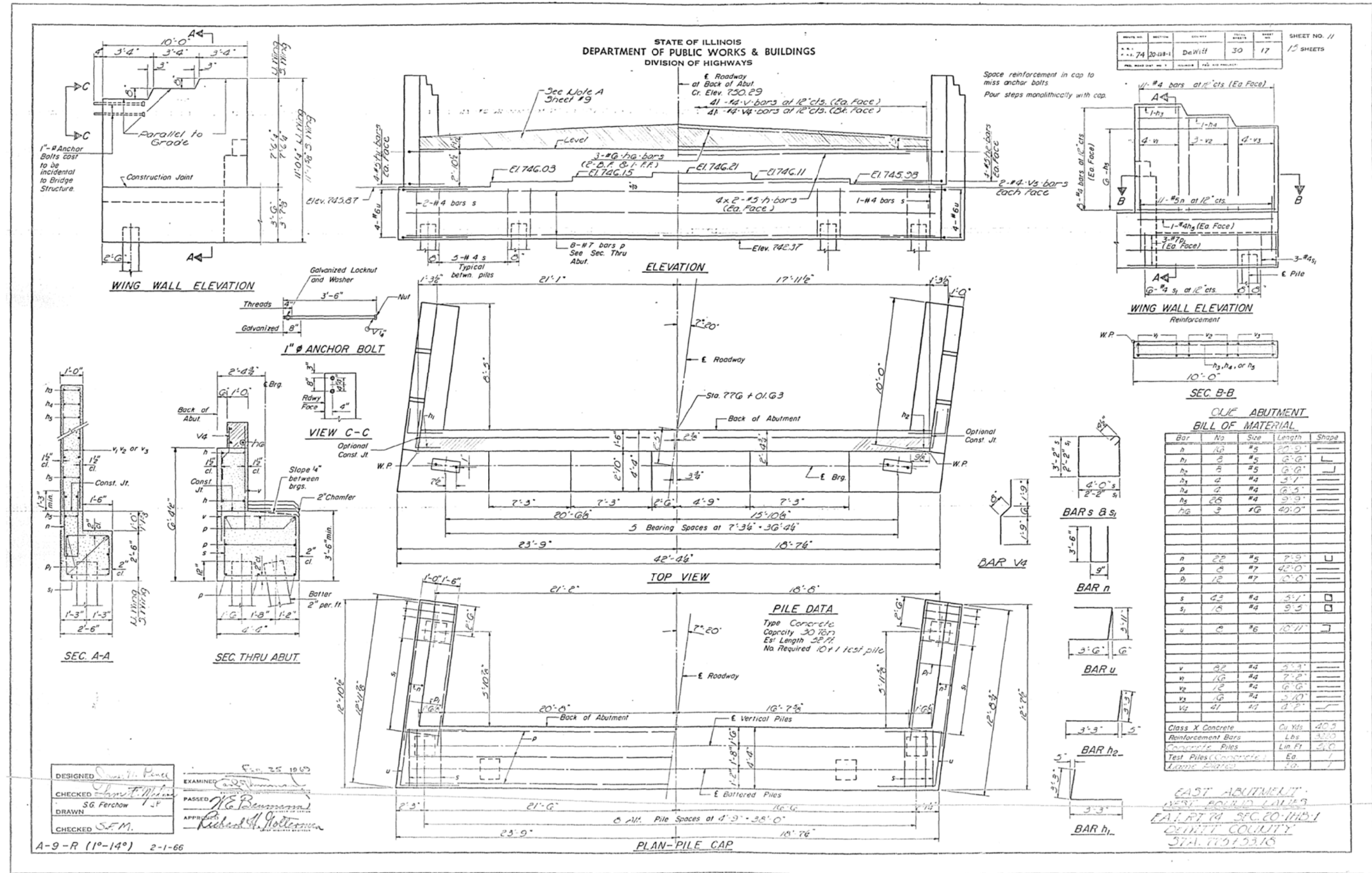
AS-BUILT PLANS (FOR INFORMATION ONLY)

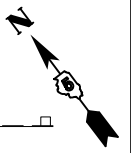
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)



AS-BUILT PLANS (FOR INFORMATION ONLY)

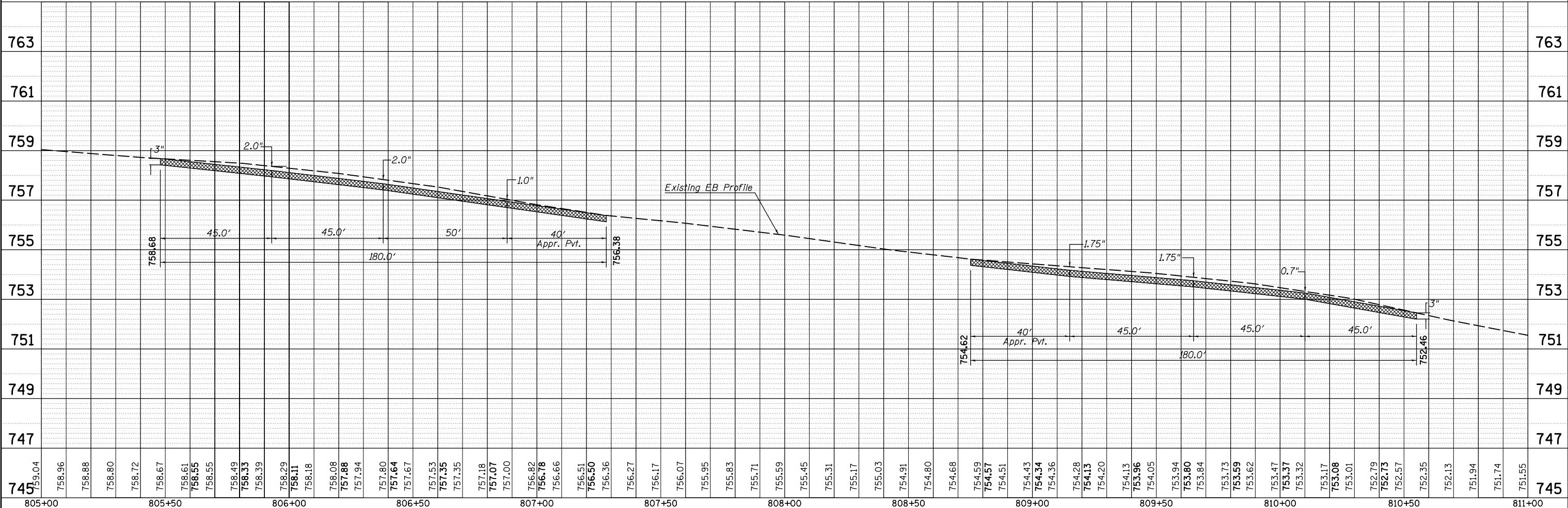
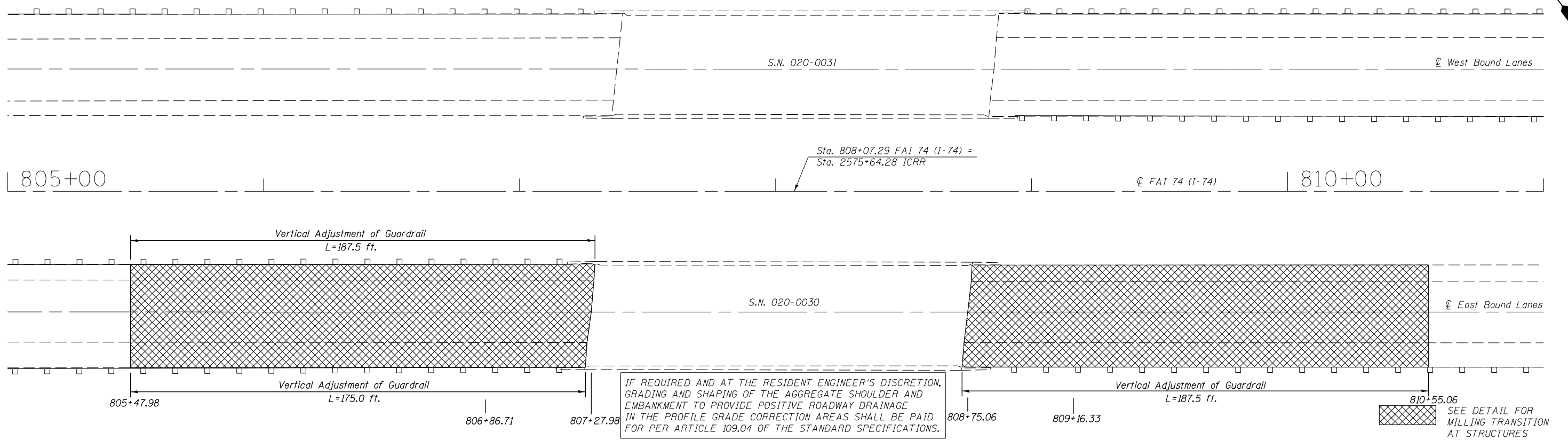
S.N. 020-0028 (EB) & S.N. 020-0029 (WB)





| | | |
|------|-----------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | |
| | NOTE BOOK | |
| | NO. | |
| | FILE NAME | |

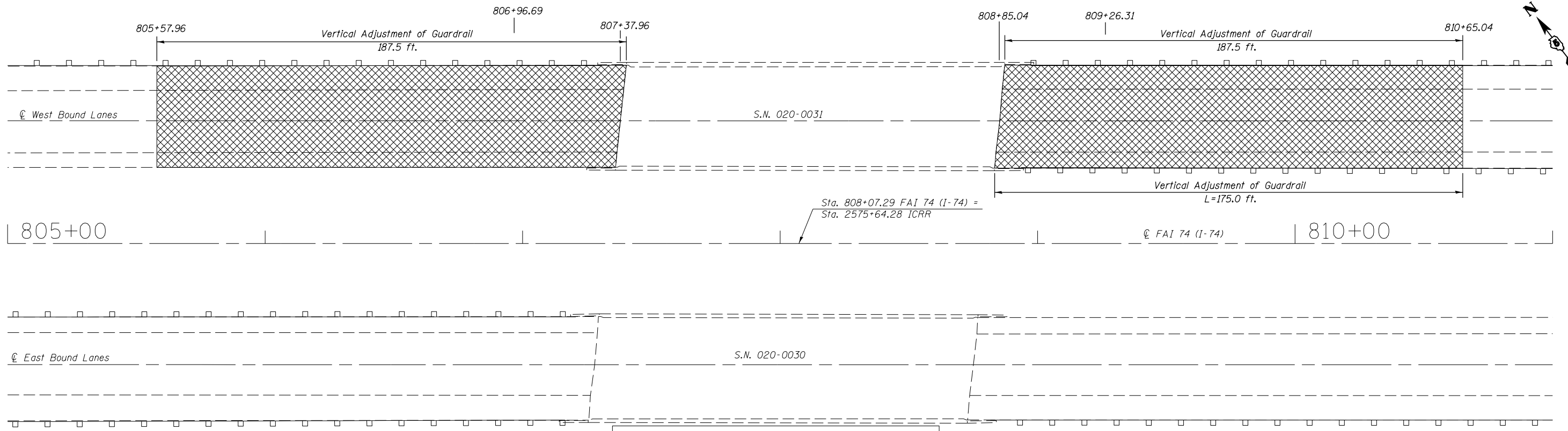
| | | |
|---------|----------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | GRADES CHECKED | |
| | STRUCTURE | |
| | NOTATIONS | |
| | CPAD | |



| | | | | | | | | | | | | | |
|-------------|---------------------------|------------|-----------|---|--|-------|----|--------|----------------|-----------|---------------|--------------------|--------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION S.N. 020-0030 (EB) | | | | F.A.I. RTE. 74 | SECTION • | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 69 |
| | | CHECKED - | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | CONTRACT NO. 90876 | |
| | | DATE - | REVISED - | | ILLINOIS FED. AID PROJECT | | | | | | | | |
| | | | | | #20-1(HVB,HB-1,VB-1,B,B-1)I | | | | | | | | |

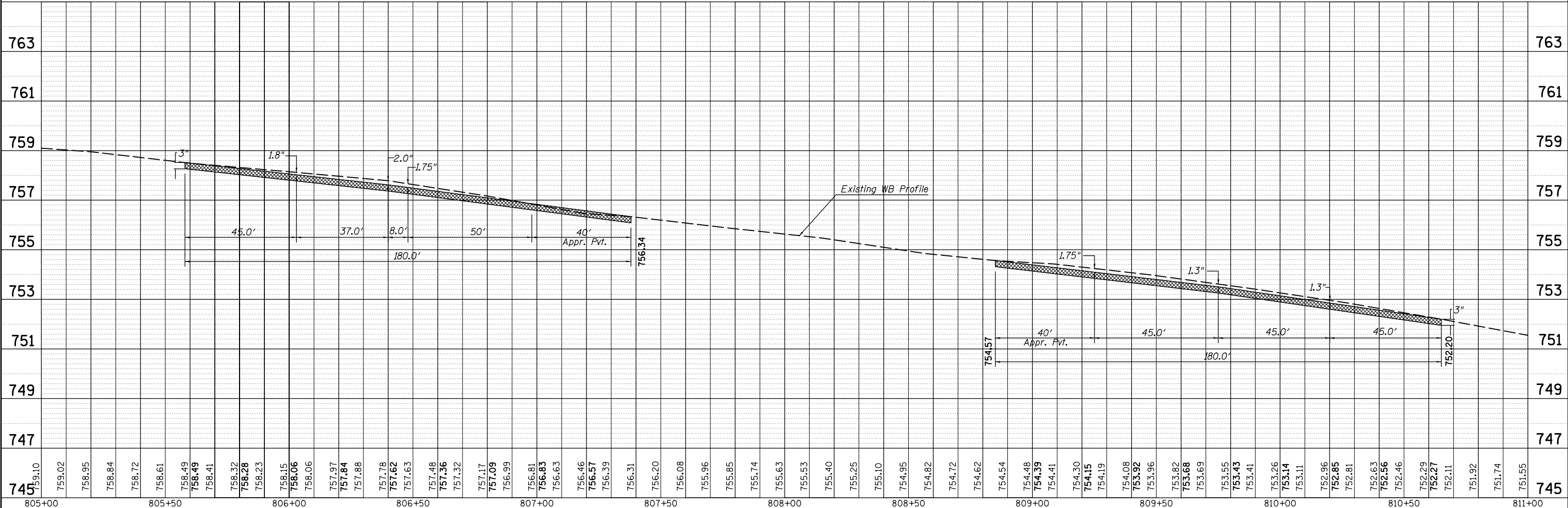
| | | |
|------|-----------------------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NOTE BOOK NO. | |
| | CARD FILE NAME | |

| | | |
|---------|-----------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | STRUCTURE NOTATIONS CHECKED | |
| | NOTE BOOK NO. | |
| | CARD FILE NAME | |



IF REQUIRED AND AT THE RESIDENT ENGINEER'S DISCRETION, GRADING AND SHAPING OF THE AGGREGATE SHOULDER AND EMBANKMENT TO PROVIDE POSITIVE ROADWAY DRAINAGE IN THE PROFILE GRADE CORRECTION AREAS SHALL BE PAID FOR PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

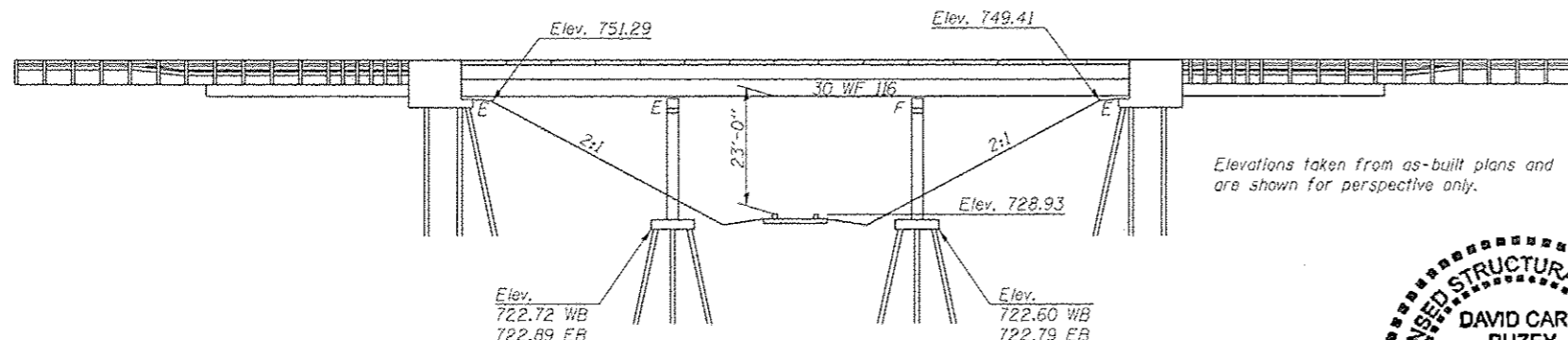
SEE DETAIL FOR MILLING TRANSITION AT STRUCTURES



| | | | | | | | | | | | | | |
|-------------|---------------------------|------------|-----------|---|--|-------|----|--------|------------------|-----------|-----------------|--------------------|----------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION S.N. 020-0031 (WB) | | | | F.A.I. RTE. = 74 | SECTION = | COUNTY = DEWITT | TOTAL SHEETS = 166 | SHEET NO. = 70 |
| | | CHECKED - | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | CONTRACT NO. 90876 | |
| | | DATE - | REVISED - | | ILLINOIS FED. AID PROJECT | | | | | | | | |
| | | | | | *20-1(HVB,HB-1,VB-1,B,B-1)I | | | | | | | | |

The existing structures were built in 1970 as Route FAI-74, Section 20-IVB-1 at Sta. 808+07.29 in DeWitt County. The structures carry I-74 over the IC Railroad north of Farmer City. In 1975 a waterproofing membrane and HMA wearing surface was placed under Section D5 Bridge Deck Waterproofing 1975-3, Contract 29696. In 2004 the HMA wearing surface was removed and replaced with Section 74(SRS-2, 4-1-RS-1), Contract 70027.

The superstructure consists of six 30" rolled steel beams supporting a 8" R.C. deck and 1 3/4" HMA wearing surface with waterproofing membrane system. The substructure consists of concrete pile supported stub abutments and timber pile supported piers. The structures measure 150'-0" bk. to bk. abutments and 42'-0" out to out of deck. The horizontal clearance is 38'-6" from face to face of hub guard. The spans measure 45'-10", 53'-8", and 45'-10".

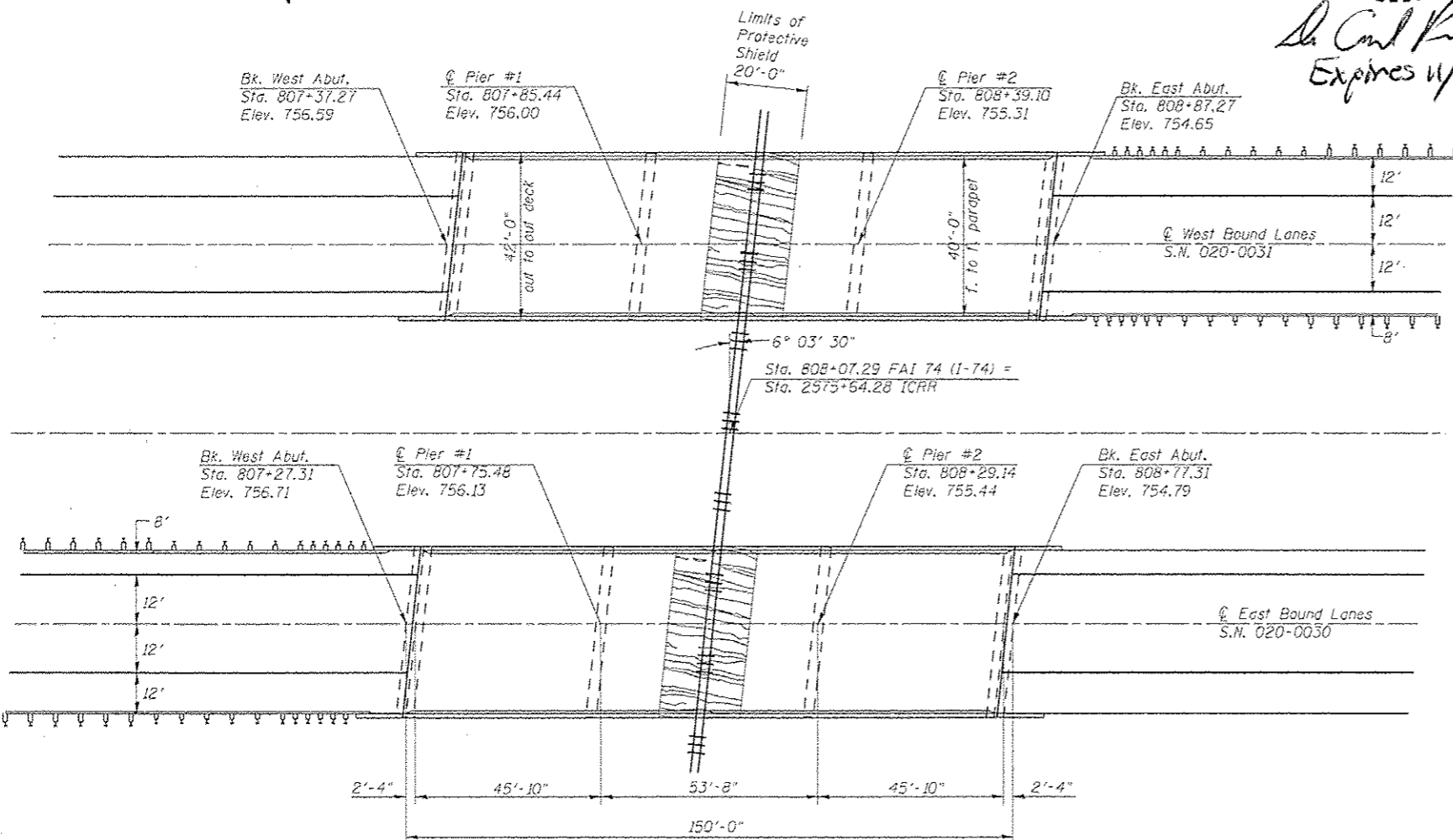


Elevations taken from as-built plans and are shown for perspective only.

ELEVATION VIEW



*David Carl Puzey 12/1/15
Expires 1/30/16*



PLAN VIEW

PROPOSED WORK

1. Remove Existing Waterproofing Membrane System and H.M.A. Wearing Surface.
2. Mill Existing H.M.A. Wearing Surface at Milling Transition Locations at ends of Structures.
3. Perform Bridge Deck Scarification on Bridge Deck and Approach Slabs.
4. Partial Removal of Deck Ends, Parapets, and Removal of Hatch Block.
5. Removal of Existing Joints.
6. Perform Full-Depth Patching.
7. Place New Floor Drains in Deck.
8. Replace Existing Bearings with Elastomeric Bearings at Abutments.
9. Place Reinforcement Bars, Locking Edge Rail, and Studs.
10. Pour Deck Ends and Hatch Block.
11. Insert Rubber Strip Seal Into Locking Edge Rails.
12. Pour Parapet Ends.
13. Place Latex Concrete Overlay on Bridge Deck and Approach Slabs.
14. Place HMA Overlay on Approach Pavements and Milling Transition.

BILL OF MATERIALS

| ITEM | UNIT | TOTAL |
|---|-------|---------|
| HOT-MIX ASPHALT SURFACE REMOVAL (DECK) | SQ YD | 628.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL (ASBESTOS) | SQ YD | 628.0 |
| BRIDGE DECK SCARIFICATION, 3/4" | SQ YD | 1,612.0 |
| BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2" | SQ YD | 1,612.0 |
| BRIDGE DECK GROOVING | SQ YD | 1,634.0 |
| PROTECTIVE COAT | SQ YD | 124.0 |
| JACK AND REMOVE EXISTING BEARINGS | EACH | 24.0 |
| ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 12.0 |
| ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 12.0 |
| ANCHOR BOLTS, 1" | EACH | 48.0 |
| STUD SHEAR CONNECTORS | EACH | 576.0 |
| FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 8,090.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE I) | SQ YD | 28.0 |
| DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 2.0 |
| CONCRETE REMOVAL | CU YD | 37.4 |
| PROTECTIVE SHIELD | SQ YD | 188.0 |
| BAR SPLICERS | EACH | 40.0 |
| REINFORCEMENT BARS, EPOXY COATED | POUND | 2,520.0 |
| CONCRETE SUPERSTRUCTURE | CU YD | 42.6 |
| PREFORMED JOINT STRIP SEAL | FOOT | 177.2 |
| FLOOR DRAINS | EACH | 24.0 |
| POLYMERIZED LEVELING BINDER (MACHINE METHOD), M105 | TON | 126.0 |
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", M105 | TON | 126.0 |
| HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 3,201.0 |
| VERTICAL ADJUSTMENT OF GUARDRAIL | FOOT | 1,100.0 |
| STRUCTURAL REPAIR OF CONCRETE (DEPTH < or = 5 INCHES) | SQ FT | 60.0 |
| STRUCTURAL STEEL REMOVAL | POUND | 4,570.0 |
| STRUCTURAL STEEL REPAIR | POUND | 930.0 |

GENERAL NOTES

The deck ends and hatch blocks shall have its final surface tined according to Article 420.09 (e) (1) of the Standard Specifications. Cost to be included with concrete superstructure.

Plan dimensions and details relative to the 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 the 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 work. However, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surface in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

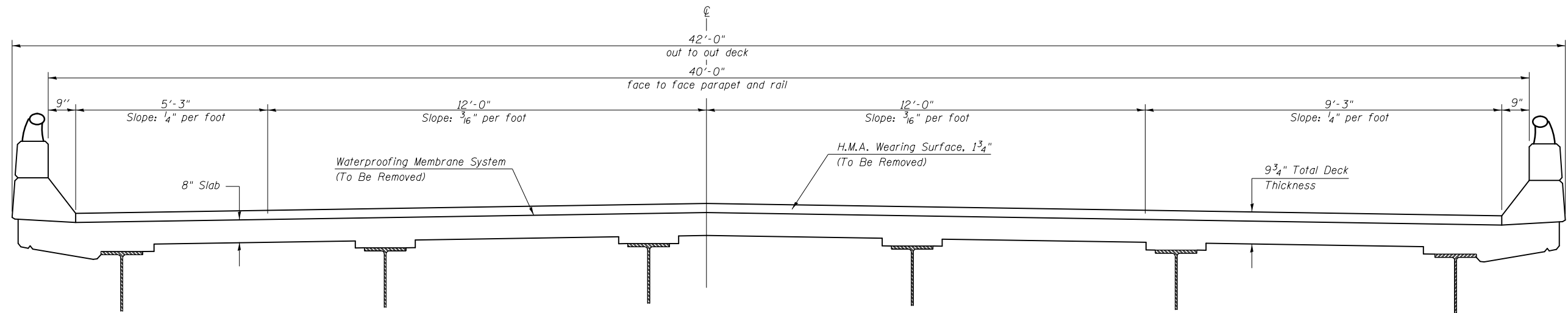
Joint openings shall be adjusted according to article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

Existing S.N. 020-0030 (E.B.) has been determined through testing to involve asbestos in the HMA Wearing Surface and/or Waterproofing Membrane. Recurring Special Provision, Check Sheet No. 7, Asbestos Waterproofing Membrane and Asbestos Hot-Mix Asphalt Surface Removal shall be used for the removal and disposal of this material.

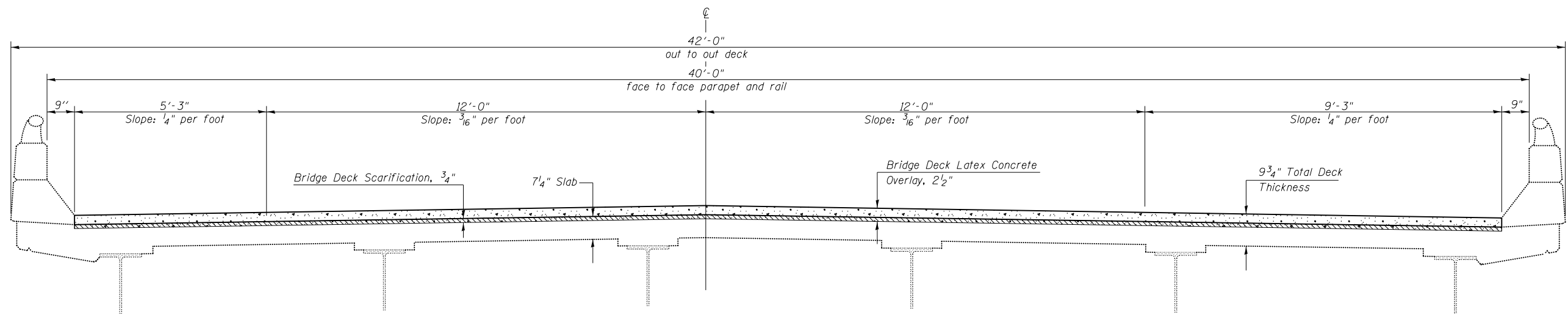
*20-1(HV6,HB-1,VB-1,B,B-1)

| | | | | | | | | | | |
|-------------------------|-----------------------------|-----------------|--------------------|---|---|----------------|---------------------------|---------------|------------------|--------------|
| FILE NAME = | USER NAME = brandenburgkj | DESIGNED RTC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL PLAN AND ELEVATION S.N. 020-0030 (EB) & S.N. 020-0031 (WB) | F.A.I. RTE. 74 | SECTION * | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 71 |
| CONTRACT NO. 90876 | SCALE: SHEET 1 OF 29 SHEETS | DATE 11/29/2011 | REVISED - 9/8/2015 | | | STA. TO STA. | ILLINOIS FED. AID PROJECT | | | |
| PLANT DATE = 12/13/2015 | CHECKED TJB | DATE 11/29/2011 | REVISED - 9/8/2015 | | | | | | | |
| | | | | | | | | | | |

EXISTING CROSS SECTION S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



PROPOSED CROSS SECTION S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



•20-1(HVB,HB-1,VB-1,B,B-1)I

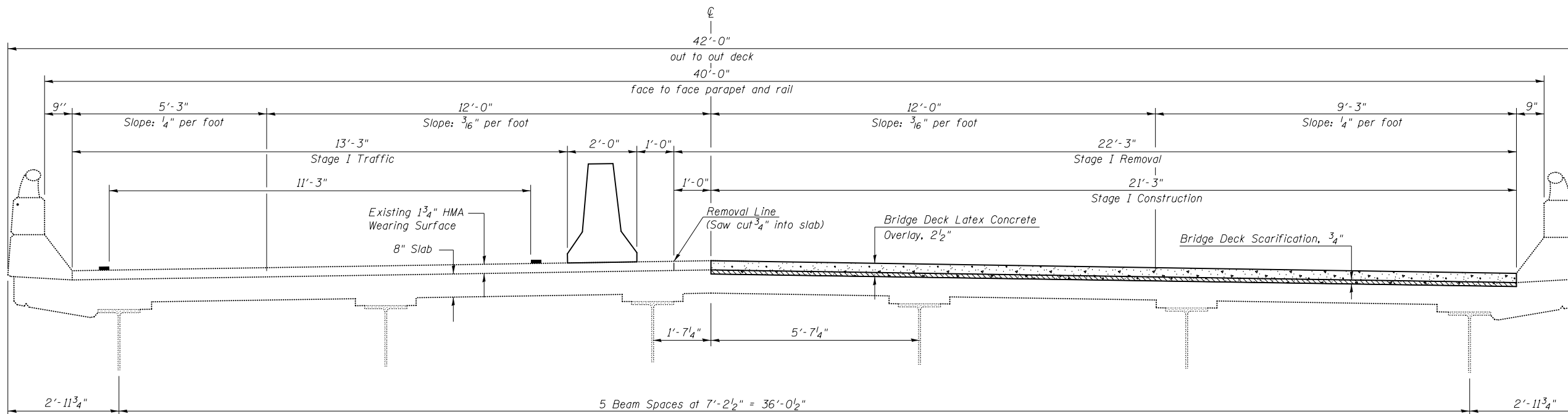
| | | | | | | | | | | | |
|--|---------------------------|------------------------|----------------------|---|---|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING AND PROPOSED TYPICAL CROSS SECTIONS S.N. 020-0030 (EB) & S.N. 020-0031 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | CHECKED <i>TJB</i> | REVISED - <i>TJB</i> | | | 74 | * | DEWITT | 166 | 72 | |
| PLOT SCALE = 40.0000' / in. | | DATE <i>11/29/2011</i> | REVISED - 9/8/2015 | | | CONTRACT NO. 90876 | | | | | |
| PLOT DATE = 10/13/2015 | | | | | | ILLINOIS FED. AID PROJECT | | | | | |

SCALE: SHEET 2 OF 29 SHEETS STA. TO STA.

STAGE I CONSTRUCTION DETAILS

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

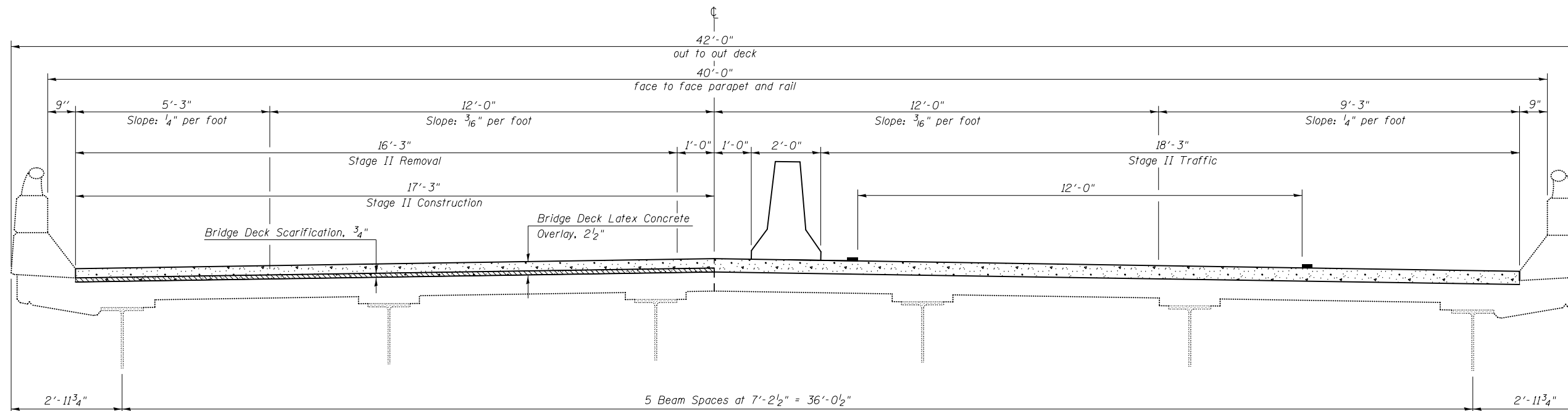
Looking East on East Bound Structure
Looking West on West Bound Structure



STAGE II CONSTRUCTION DETAILS

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

Looking East on East Bound Structure
Looking West on West Bound Structure

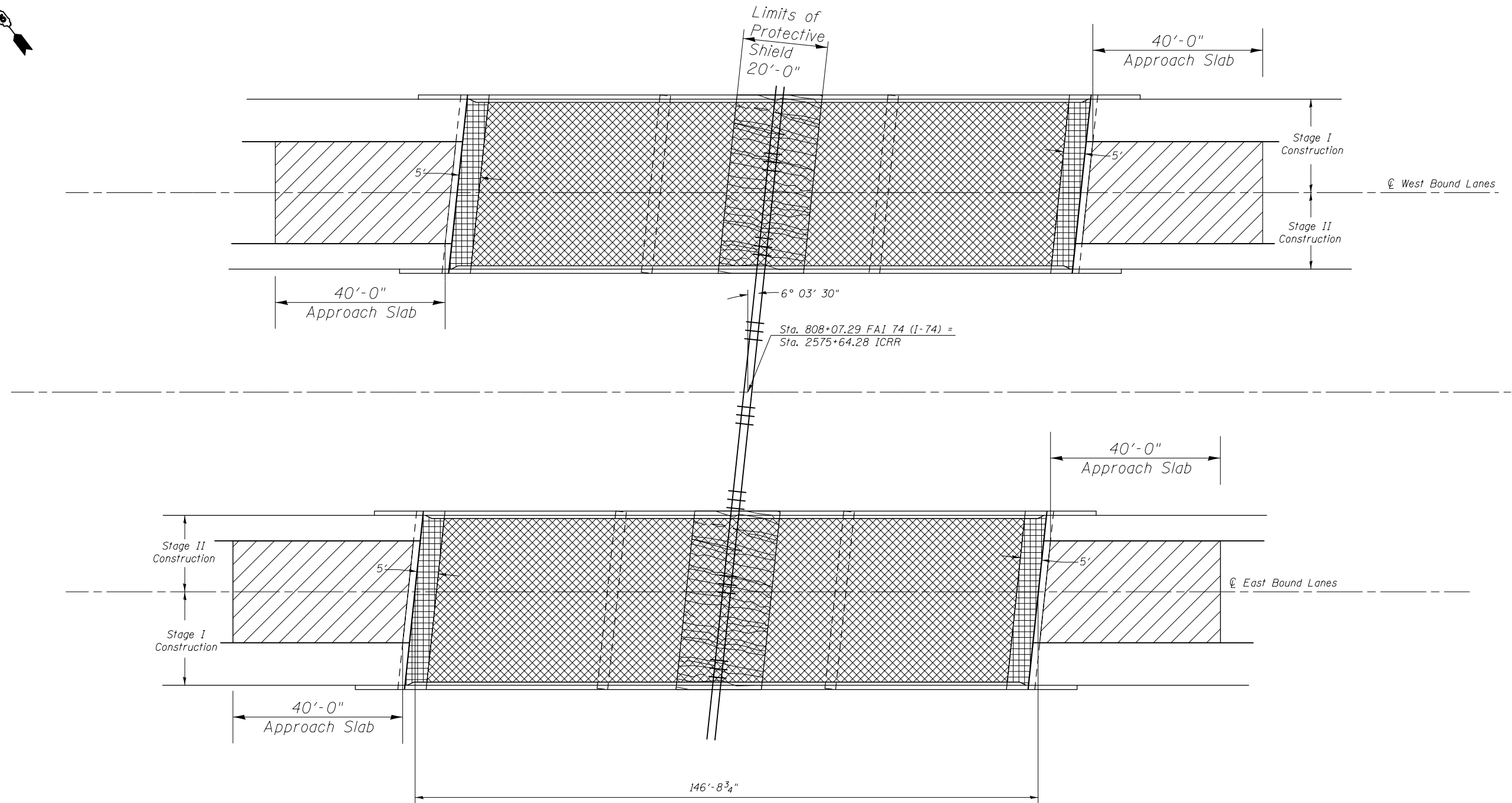
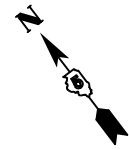


•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | | |
|---|---------------------------|---------------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | STAGE CONSTRUCTION DETAILS S.N. 020-0030 (EB) & S.N. 020-0031 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 5\Projects\0504\Drawings\90876-details.shd | DRAWN <i>TJB</i> | REVISED - | REVISED - | | | 74 | * | DEWITT | 166 | 73 | |
| PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | REVISED - | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | REVISED - | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | | |

SCALE: SHEET 3 OF 29 SHEETS STA. TO STA.

WEARING SURFACE PLAN S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



BILL OF MATERIAL (Deck & Approach)

- H.M.A. Wearing Surface Removal (Deck) or (Asbestos)
- H.M.A. Wearing Surface Removal (Deck) or (Asbestos) & Bridge Deck Latex Concrete Overlay
- HMA Surface Removal, Variable Depth; Bridge Deck Scarification 3/4" and Bridge Deck Latex Concrete Overlay 2 1/2" (varies to 4")
- Protective Shield

| Structure | Item | Unit | Total |
|-----------|--|-------|-------|
| 020-0030 | Hot-Mix Asphalt Surface Removal (Asbestos) | Sq Yd | 628.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 806.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 806.0 |
| | Bridge Deck Grooving | Sq Yd | 817.0 |
| 020-0031 | Hot-Mix Asphalt Surface Removal (Deck) | Sq Yd | 628.0 |
| | Bridge Latex Concrete Overlay, 2 1/2" | Sq Yd | 806.0 |
| | Bridge Deck Scarification, 3/4" | Sq Yd | 806.0 |
| | Bridge Deck Grooving | Sq Yd | 817.0 |

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|---|---------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0504\BROWNSVILLE\084EBID\Details\90876-details.sht | | DRAWN <i>RTC</i> | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED <i>TJB</i> | DATE <i>11/29/2011</i> | REVISED - TJB |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | | REVISED - 9/8/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

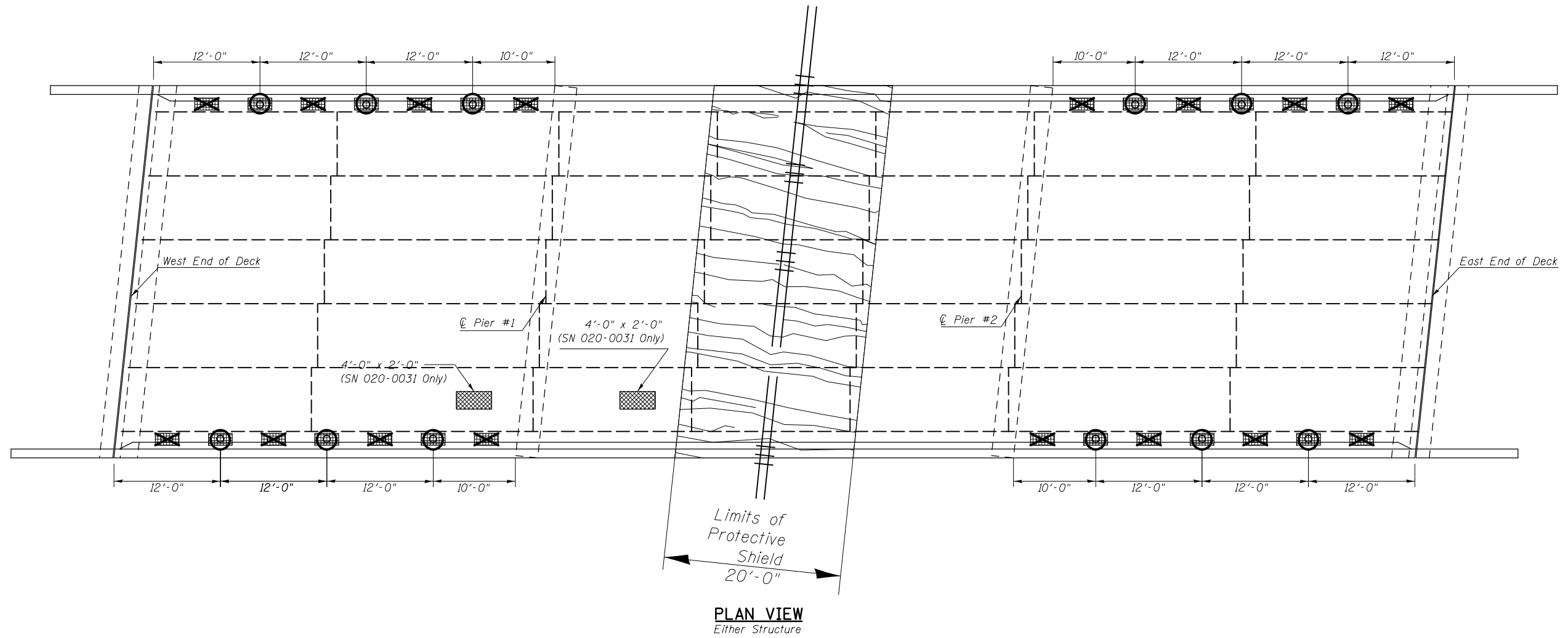
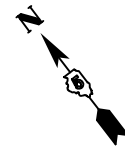
**WEARING SURFACE PLAN
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)**

SCALE: SHEET 4 OF 29 SHEETS STA. TO STA.






| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 74 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

FLOOR DRAIN & PATCHING DETAILS

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



LEGEND

-  Eliminate floor drain
-  Proposed floor drain location
-  Deck Slab Repair (Full Depth, Type I & Type II) at all Drain Locations. All repair areas are 2'-0" x 1'-2", unless otherwise noted.
-  Deck Slab Repair (Full Depth, Type II)
-  Protective Shield

NOTES:

- Patch sizes shown represent conditions at the time the plans were completed. An Estimated 1% of the Deck Area has been included should additional Deck Slab Repair (Full Depth, Type I) be required after Bridge Deck Scarification.
- The actual sizes and locations of patching shall be determined by the engineer. The Engineer shall show the actual locations of the deck repairs on this sheet.
- The existing drains and extensions shall be removed. Cost included with "Deck Slab Repair (Full Depth, Type I)".
- Extreme care must be used when removing concrete near the top flange of the beams. The contractor is responsible for any damage to the beams.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|--|-------|-------|
| 020-0030 | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 14.0 |
| | Protective Shield | Sq Yd | 94.0 |
| 020-0031 | Deck Slab Repair (Full Depth, Type I) | Sq Yd | 14.0 |
| | Deck Slab Repair (Full Depth, Type II) | Sq Yd | 2.0 |
| | Protective Shield | Sq Yd | 94.0 |

| | | | |
|---|--------------------------|-----------------|--------------------|
| FILE NAME = | USER NAME = brandenburtj | DESIGNED RTC | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.shp | | DRAWN BY TJB | REVISED - |
| | | CHECKED TJB | REVISED - TJB |
| PLOT SCALE = 40.0000' / in. | | DATE 11/29/2011 | REVISED - 9/8/2015 |
| PLOT DATE = 10/13/2015 | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FLOOR DRAIN AND PATCHING DETAILS
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

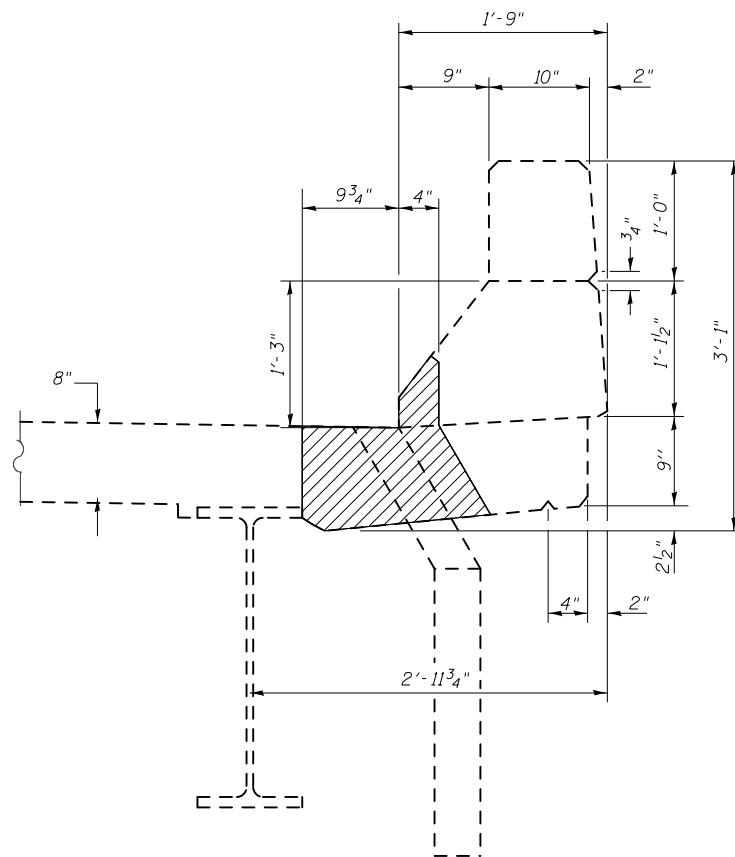
SCALE: SHEET 5 OF 29 SHEETS STA. TO STA.

| | | | | |
|--------------------|-----------|---------------|---------------------------|--------------|
| F.A.I. RTE. 74 | SECTION * | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 75 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

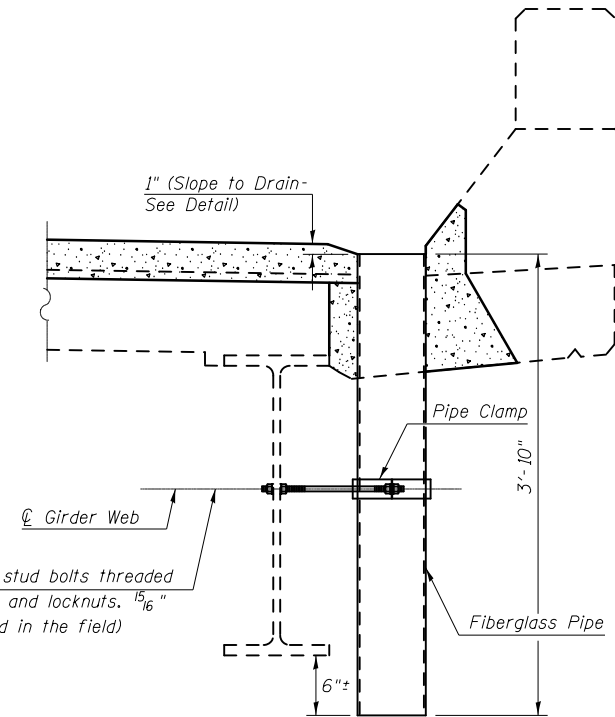
•20-1(HVB,HB-1,VB-1,B,B-1)I

FLOOR DRAIN DETAILS

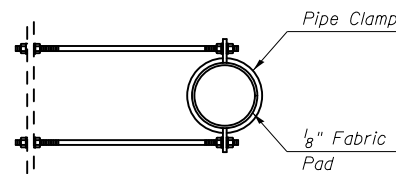
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



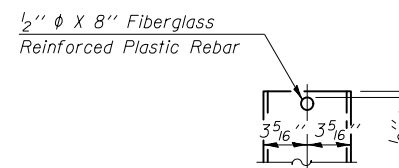
Removal Limits for Deck Slab Repair (Full-Depth, Type I) at Drain Locations



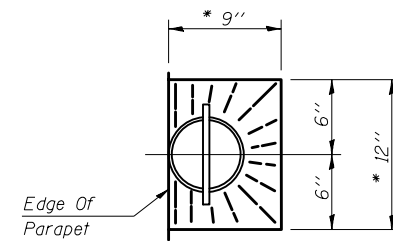
C $\frac{3}{4}$ " ϕ x 1'-3", Min. steel stud bolts threaded 6" each end with 2 washers and locknuts, $\frac{5}{16}$ " ϕ holes in web. (To be drilled in the field)



TOP PLAN
Drain Clamp



FIBERGLASS PIPE



TOP PLAN
* SLOPE TO DRAIN

NOTES:

All dimensions shall be field verified by the contractor prior to ordering of materials.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|--------------|------|-------|
| 020-0030 | Floor Drains | Each | 12.0 |
| 020-0031 | Floor Drains | Each | 12.0 |

Cost of removal of existing drains and extensions is included in Deck Slab Repair (Full Depth, Type I). See sheet 5 of 24.

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | |
|---|---------------------------|---------------------|-----------|---|--|--------------------|--------------|--------|--------------|---------------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FLOOR DRAIN DETAILS S.N. 020-0030 (EB) & S.N. 020-0031 (WB) | F.A.I. RTÉ. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pw:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN <i>TJB</i> | CHECKED <i>TJB</i> | REVISED - | | | 74 | * | DEWITT | 166 | 76 |
| PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | DATE | REVISED - | | | CONTRACT NO. 90876 | | | | |
| PLOT DATE = 10/13/2015 | DATE | REVISED - | SCALE: | | | SHEET 6 | OF 29 SHEETS | STA. | TO STA. | ILLINOIS FED. AID PROJECT |

NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " ϕ , open holes $\frac{13}{16}$ " ϕ , unless otherwise noted.

Diaphragm connection holes shall be $\frac{13}{16}$ " ϕ for $\frac{3}{4}$ " ϕ bolts. Two hardened washers shall be required at diaphragm connections.

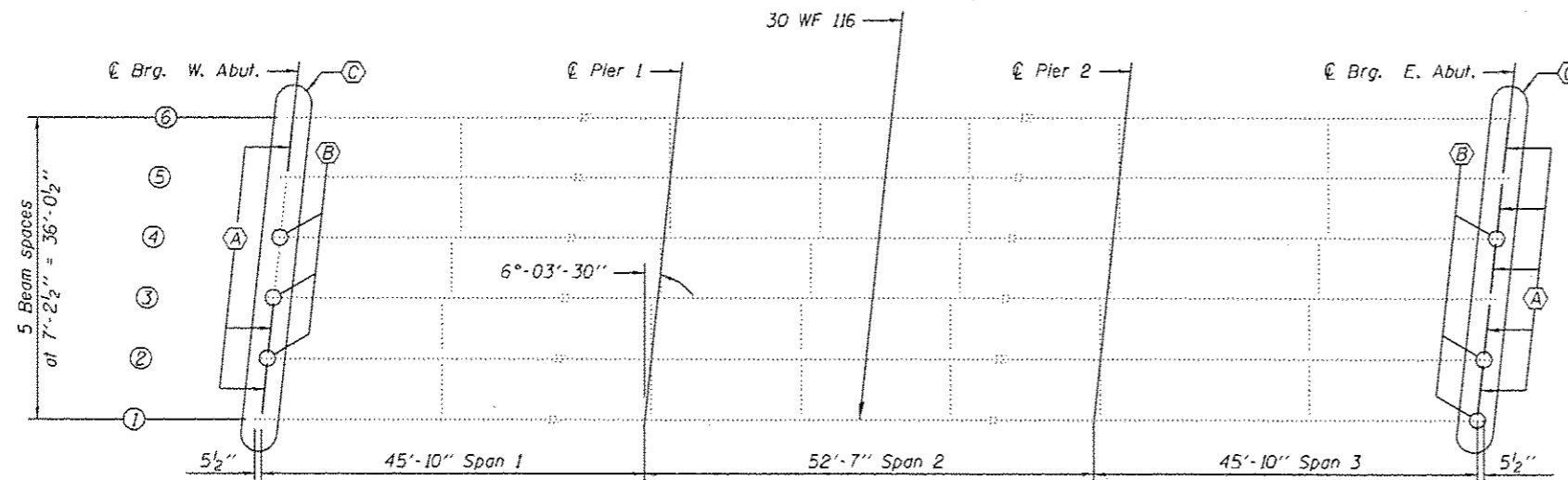
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall 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 at the unit price bid for the work.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the GBSP "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

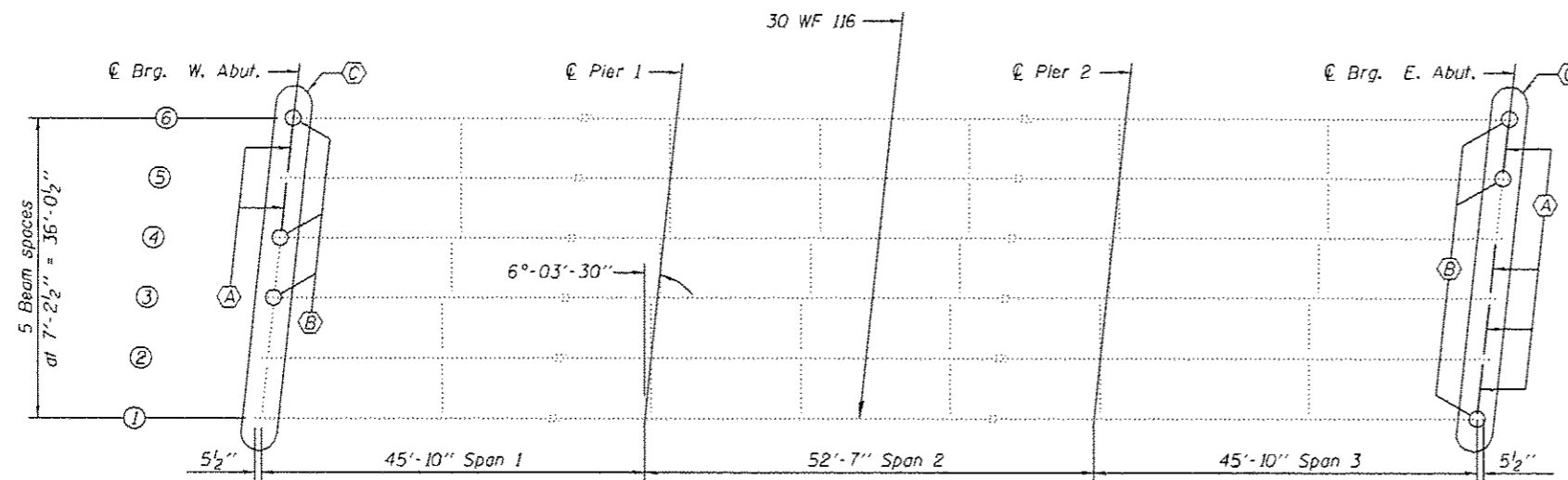
All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.



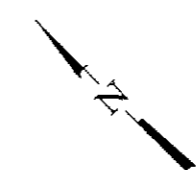
FRAMING PLAN WEST BOUND LANES SN 020-0031

- (A) Diaphragm Replacement
- (B) Beam End Repair
- (C) Remove and Replace Bearings



FRAMING PLAN EAST BOUND LANES SN 020-0030

- (A) Diaphragm Replacement
- (B) Beam End Repair
- (C) Remove and Replace Bearings

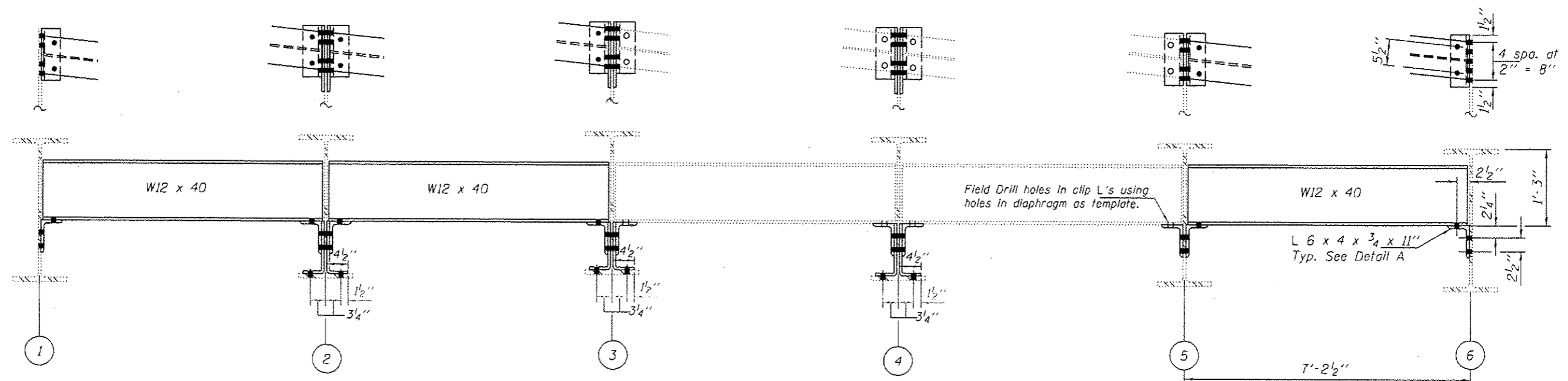


BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|--|-------|----------|
| Structural Steel Repair | Pound | 930 |
| Furnishing and Erecting Structural Steel | Pound | 4890 |
| Structural Steel Removal | Pound | 4570 |
| | | |
| | | |
| | | |
| | | |

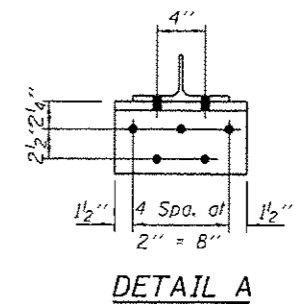
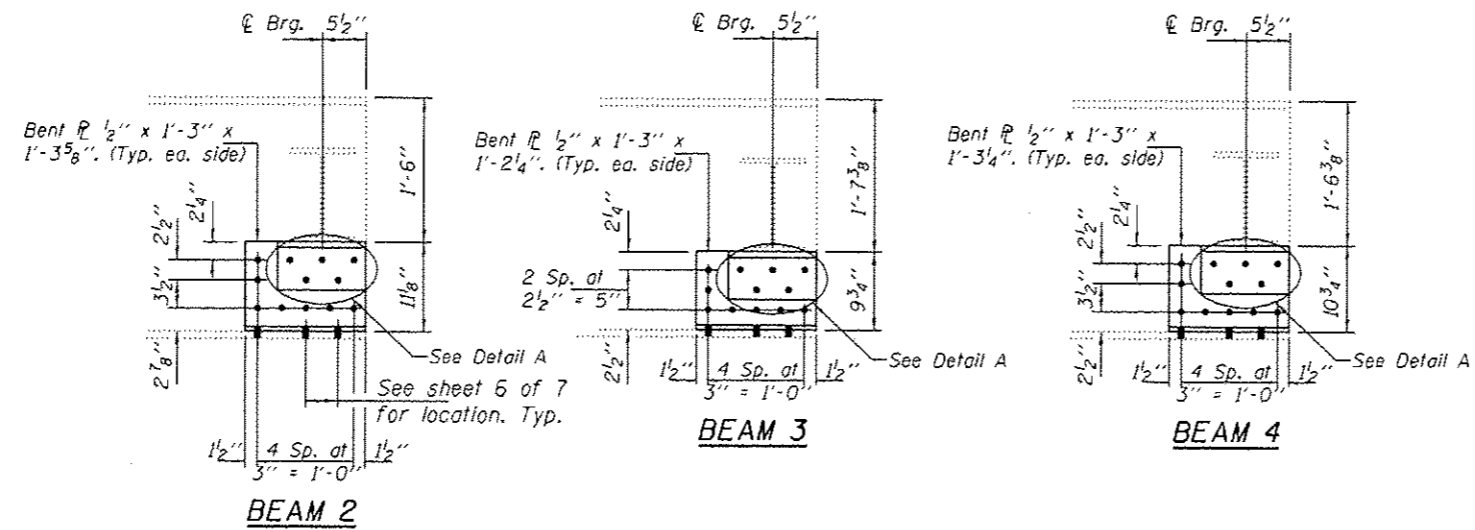
* Beam End Repairs only

| | | | | | | | | | | |
|---------------------|---|-------------------------------|---|---|---------------------------|-------------------------------|--------|--------------|-----------|--|
| DESIGNED SMR | EXAMINED | DATE NOVEMBER 19, 2015 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | FAMING PLAN SN 020-0030 (EB) & 020-0031 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| CHECKED CCG | PASSED <i>[Signature]</i> | REVISED | | | 14 | 20-114WB, RB-1, VB-1, B, B-1H | DEWITT | 166 | 77 | |
| DRAWN Summer | ACTING ENGINEER OF BRIDGES AND STRUCTURES | REVISED | | | CONTRACT NO. 90876 | | | | | |
| CHECKED | | REVISED | | | ILLINOIS FED. AID PROJECT | | | | | |



NORTH BRIDGE WEST ABUTMENT

Looking West
 ○ Field Drilled Holes
 ● Shop Drilled Holes



DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015

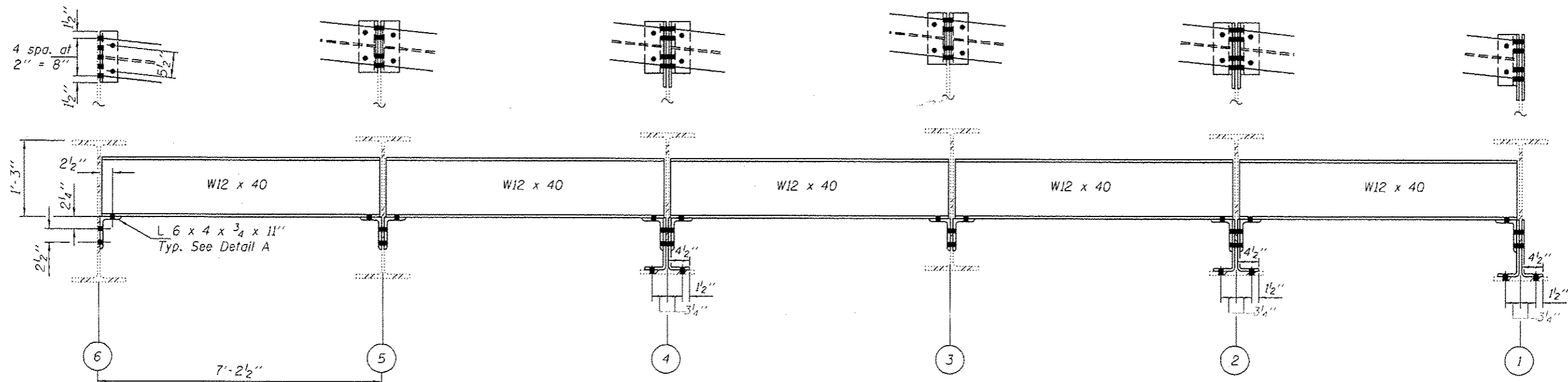
REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM REPLACEMENT & BEAM END REPAIR
 SN 020-0031 (WB) WEST ABUTMENT

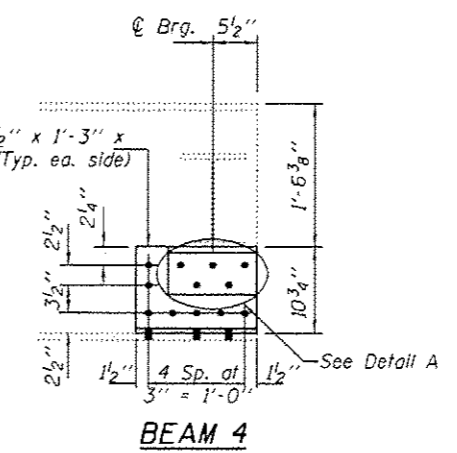
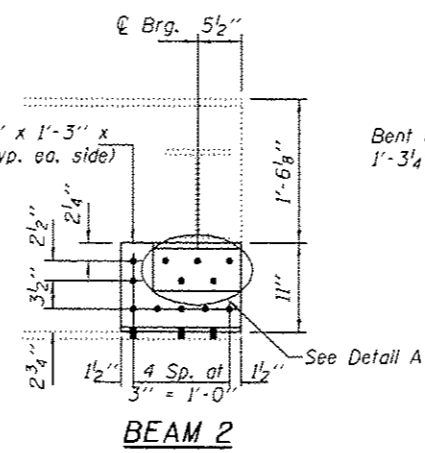
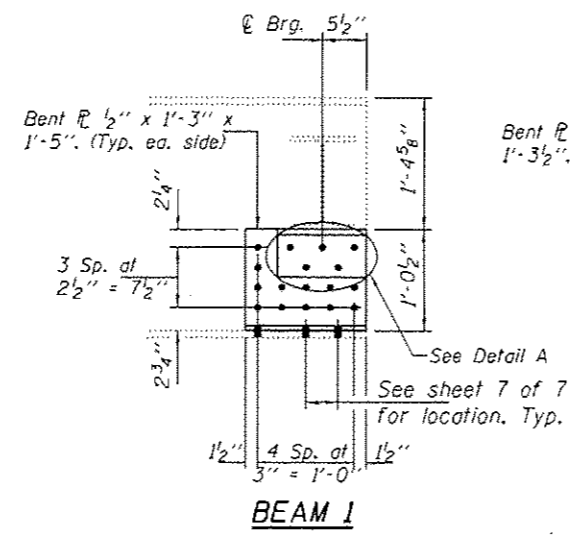
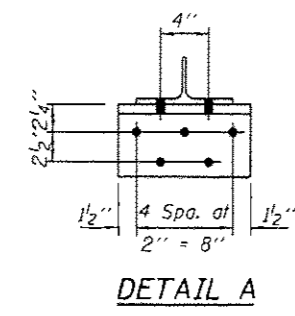
SHEET NO. 8 OF 29 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|-------------------------------|--------|---------------------------|-----------|
| 74 | 20-11HV8, HB-1, VB-1, B, B-1H | DEWITT | 166 | 78 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |




NORTH BRIDGE EAST ABUTMENT

Looking East
 ○ Field Drilled Holes
 ● Shop Drilled Holes



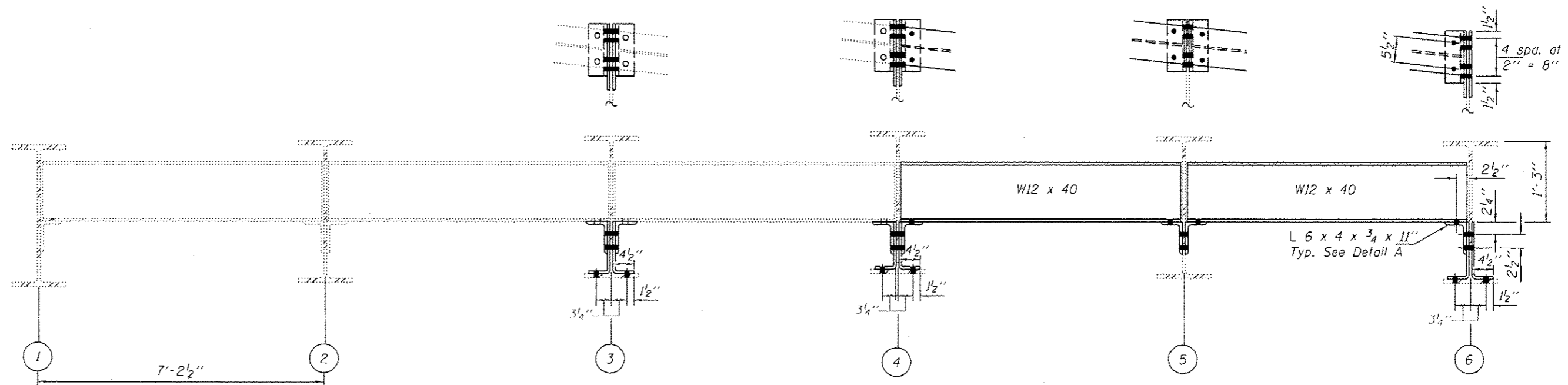
DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED

 ACTING ENGINEER OF BRIDGES AND STRUCTURES
 DATE NOVEMBER 19, 2015
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

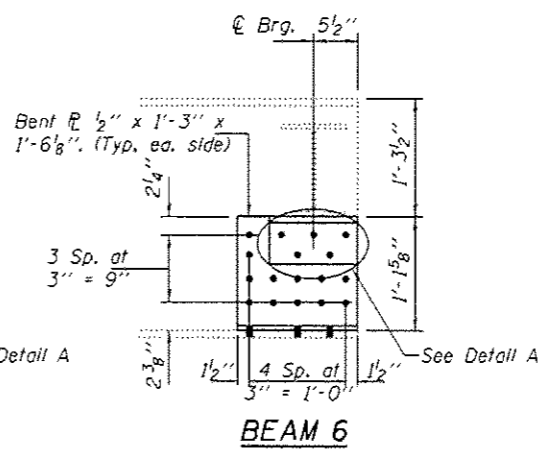
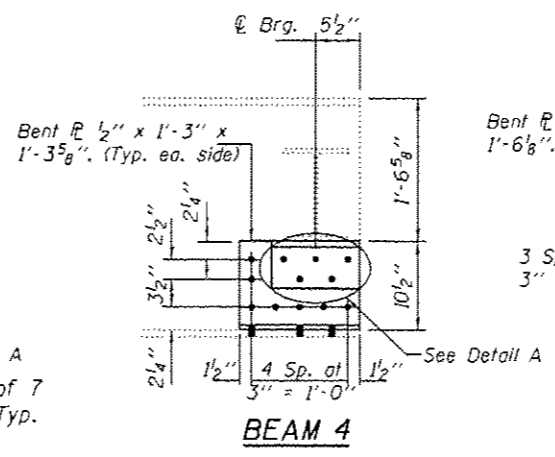
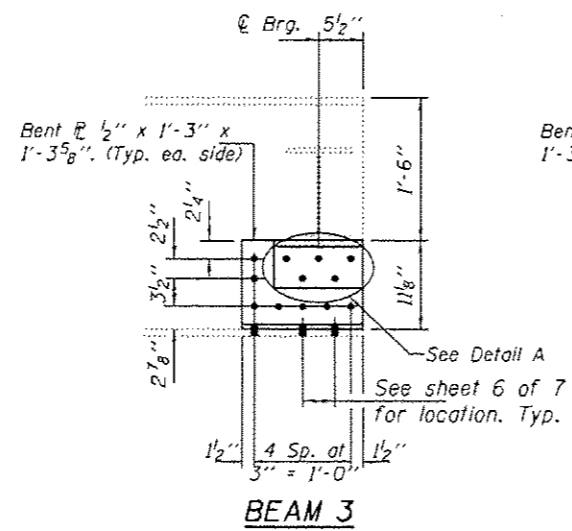
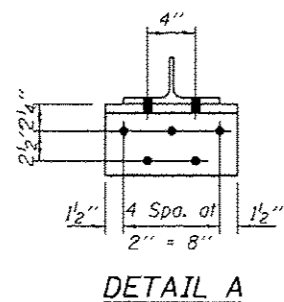
DIAPHRAGM REPLACEMENT & BEAM END REPAIR
 SN 020-0031 (WB) EAST ABUTMENT
 SHEET NO. 9 OF 29 SHEETS

| | | | | |
|--------------------|--------------------------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| T4 | 20-14HVB-RB-1VB-1.B.B-1H | DEWITT | 166 | 79 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |



SOUTH BRIDGE WEST ABUTMENT

Looking West
 ○ Field Drilled Holes
 ● Shop Drilled Holes



DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

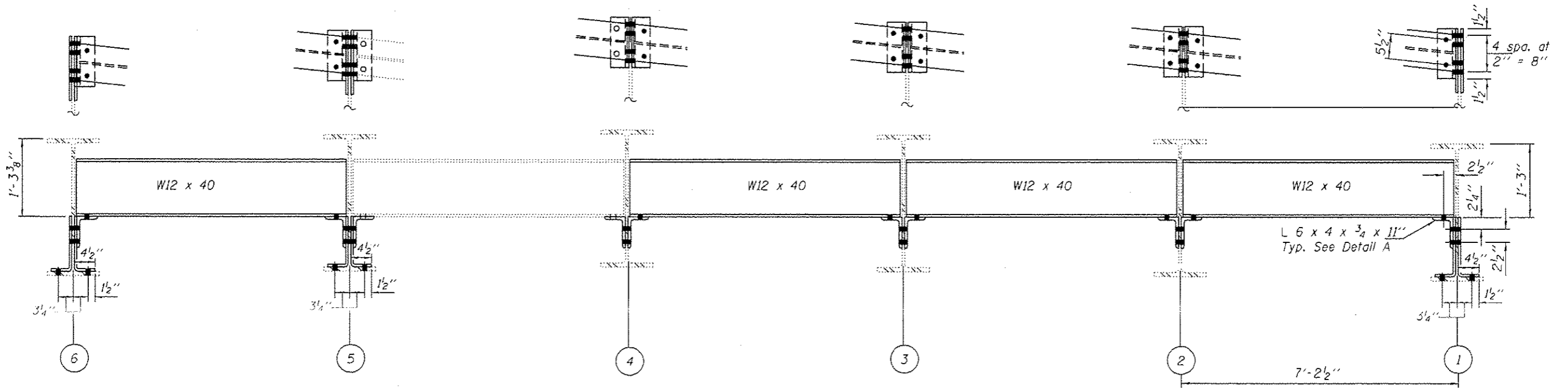
DATE NOVEMBER 19, 2015
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM REPLACEMENT & BEAM END REPAIR
 SN 020-0030 (EB) WEST ABUTMENT

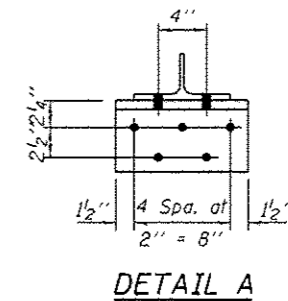
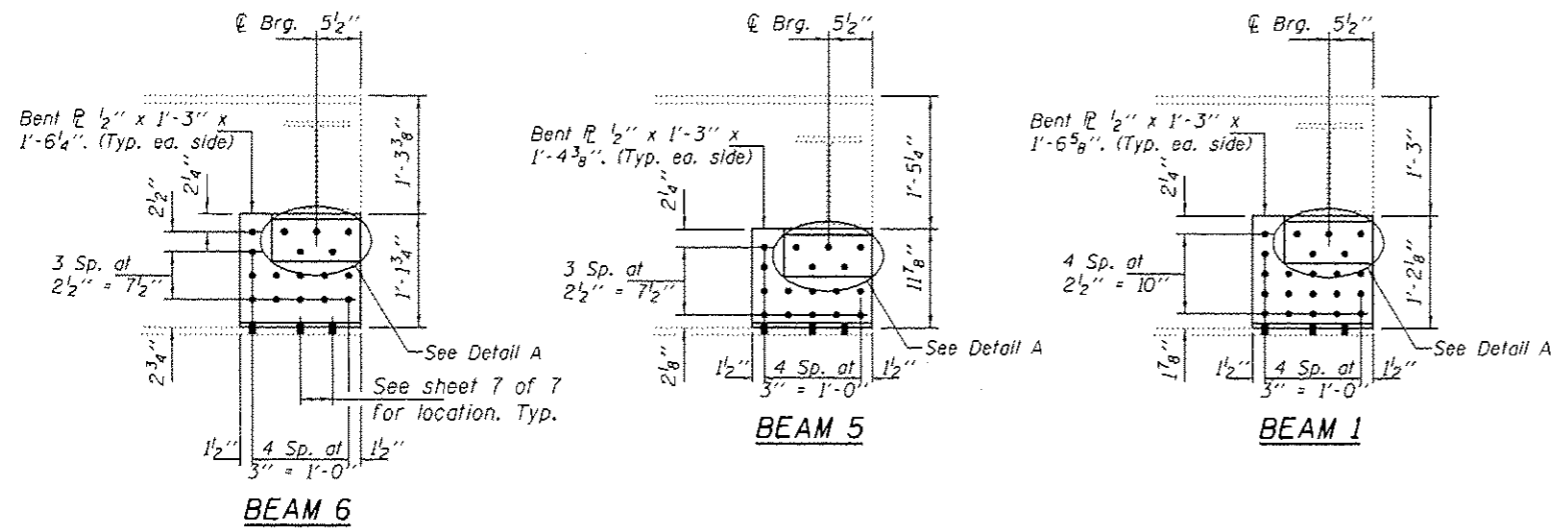
SHEET NO. 10 OF 29 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|---------------------------------|--------|---------------------------|-----------|
| T4 | 20-1(H)VB, NB-1, VB-L, B-B-1(H) | DEWITT | 166 | 80 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |



SOUTH BRIDGE EAST ABUTMENT

Looking East
 ○ Field Drilled Holes
 ● Shop Drilled Holes



DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015

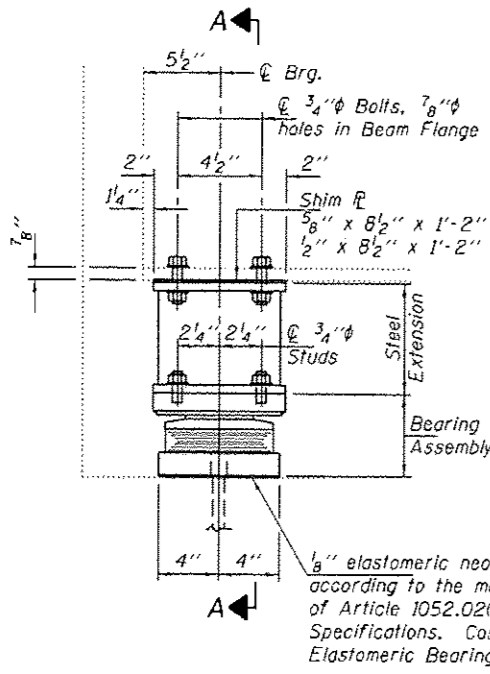
REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DIAPHRAGM REPLACEMENT & BEAM END REPAIR
 SN 020-0030 (EB) EAST ABUTMENT

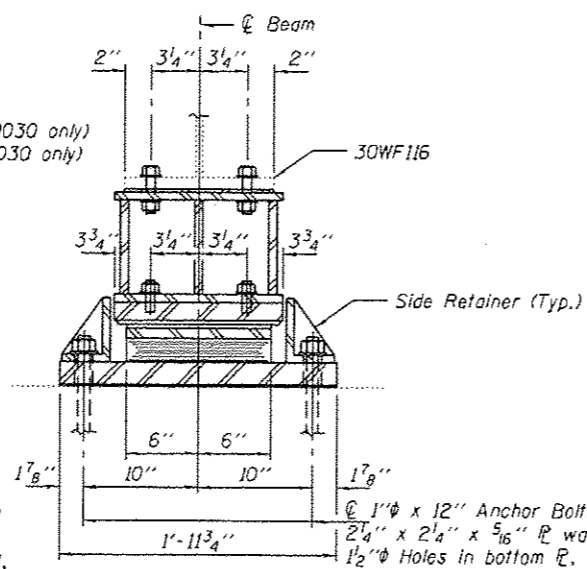
SHEET NO. 11 OF 29 SHEETS

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------------------|--------|---------------------------|-----------|
| 74 | 20-11HV8,HS-1,VB-1,B,B-111 | DEWITT | 166 | 81 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |



ELEVATION AT WEST ABUTMENT

TYPE II TFE ELASTOMERIC EXP. BRG.

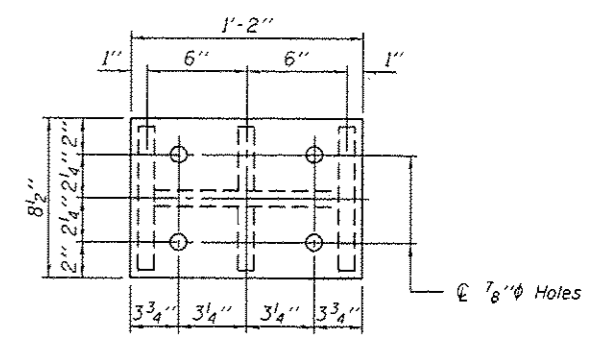


SECTION A-A

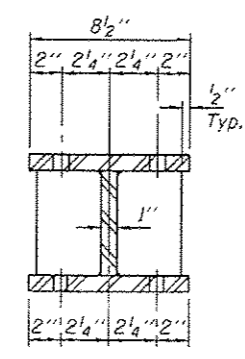
BEAM REACTIONS

| | | |
|----------------|-----|------|
| R ₂ | (K) | 19.8 |
| R ₄ | (K) | 35.6 |
| Imp. | (K) | 10.4 |
| R (Total) | (K) | 65.8 |

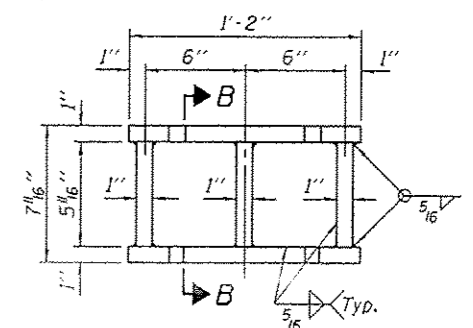
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel. Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 35 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications. Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



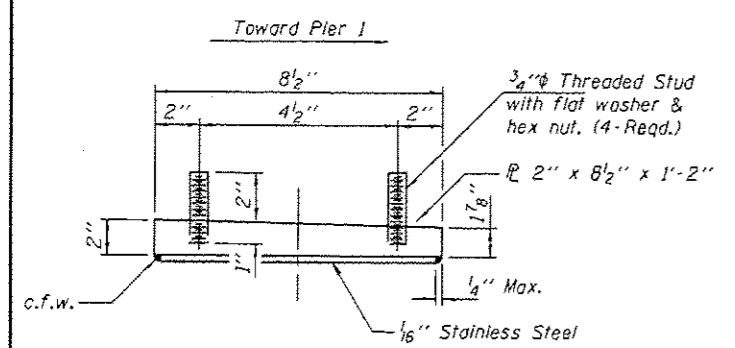
PLAN TOP AND BOTTOM PLATE



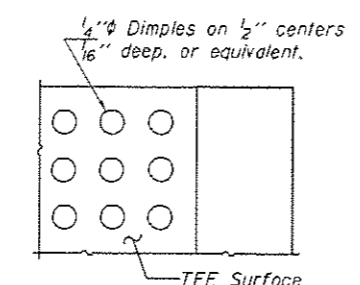
SECTION B-B



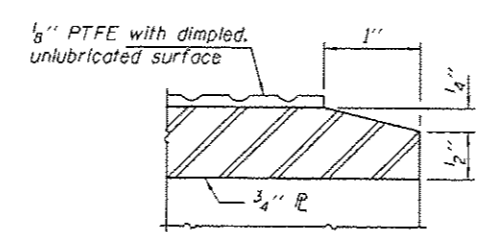
STEEL EXTENSION DETAIL



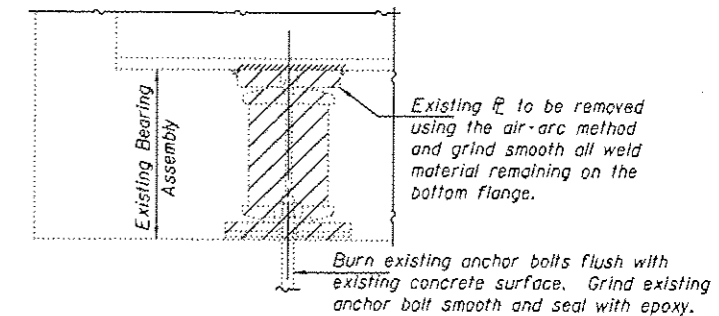
TOP BEARING ASSEMBLY



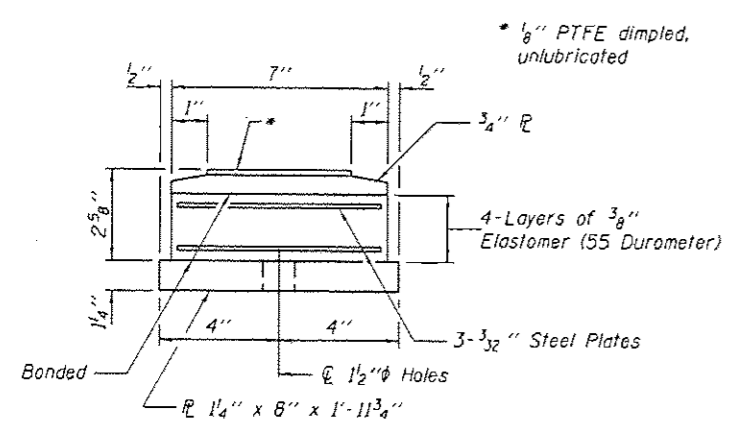
PLAN-PTFE SURFACE



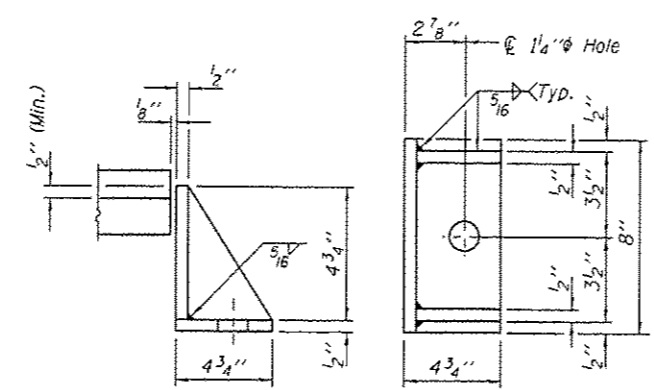
SECTION THRU PTFE



EXISTING BEARING REMOVAL DETAIL

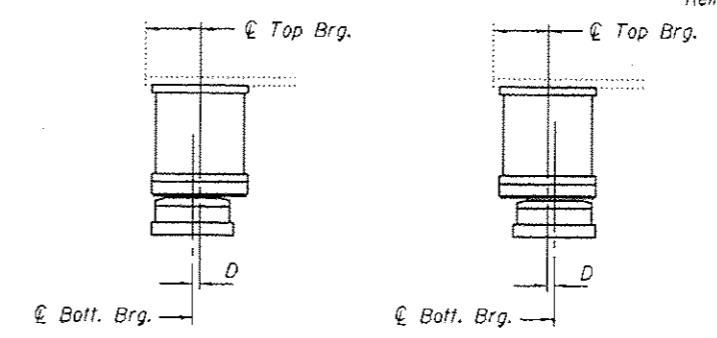


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly, Type II | Each | 12 |
| Jack and Remove Existing Bearings | Each | 12 |
| Furnishing and Erecting Structural Steel | Pound | 1520 |
| Anchor Bolts 1"φ | Each | 24 |

TYII/REPS 12-03-2008

DESIGNED SMR
 CHECKED CCC
 DRAWN Summer
 CHECKED SMR CCC

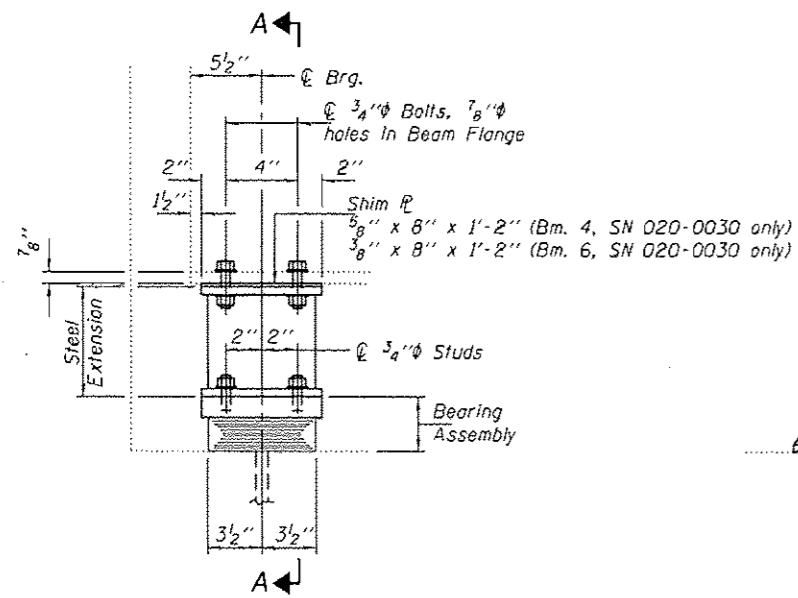
PASSED
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

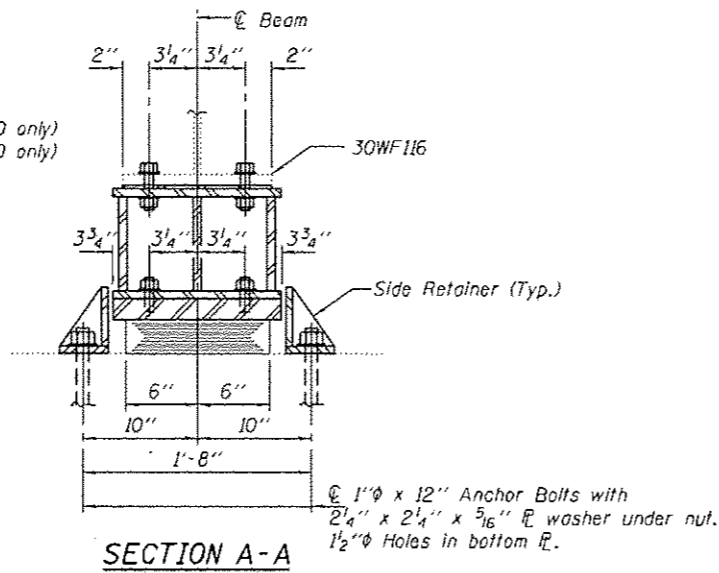
BEARING REPLACEMENT DETAILS AT WEST ABUTMENTS
 SN 020-0030 (E.B.) & 0031 (W.B.)

F.A.I. SECTION COUNTY TOTAL SHEETS SHEET NO.
 74 20-1HWB,MB-1,VB-1,B,B-1H DEWITT 156 82
 CONTRACT NO. 90876

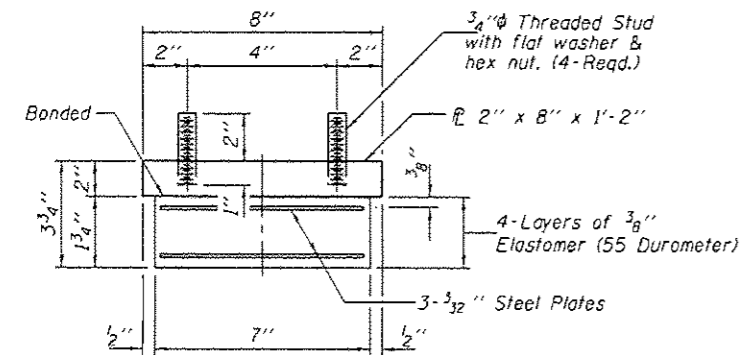


ELEVATION AT EAST ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.

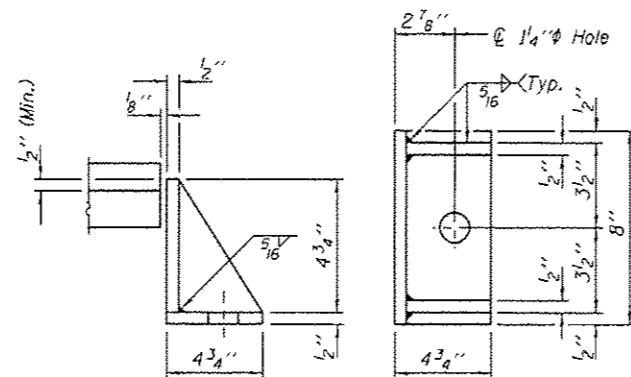


SECTION A-A



BEARING ASSEMBLY

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



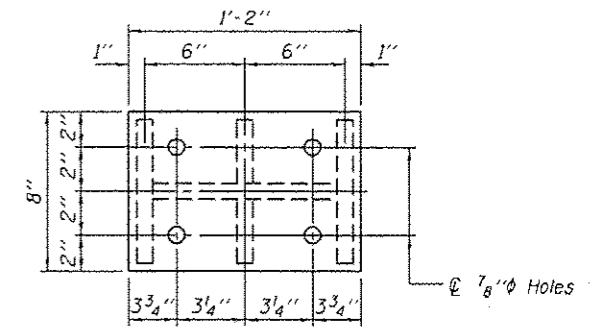
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

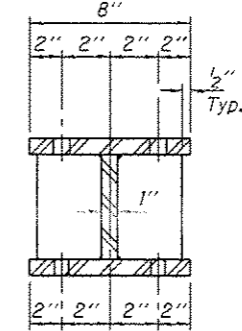
BEAM REACTIONS

| | | |
|----------------|-----|------|
| R _l | (K) | 19.8 |
| R _t | (K) | 35.6 |
| Imp. | (K) | 10.4 |
| R (Total) | (K) | 65.8 |

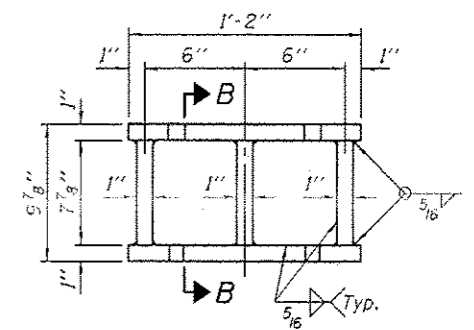
Notes:
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 35 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



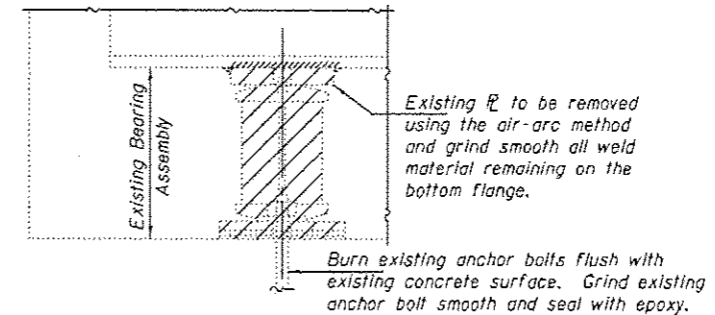
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost Included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly, Type I | Each | 12 |
| Jack and Remove Existing Bearings | Each | 12 |
| Furnishing and Erecting Structural Steel | Pound | 1680 |
| Anchor Bolts 1"φ | Each | 24 |

TYI/REPS 12-03-2008

DESIGNED SMR
CHECKED CCC
DRAWN Summer
CHECKED SMR CCC

PASSED

D. Carl Perry
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE NOVEMBER 19, 2015

REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

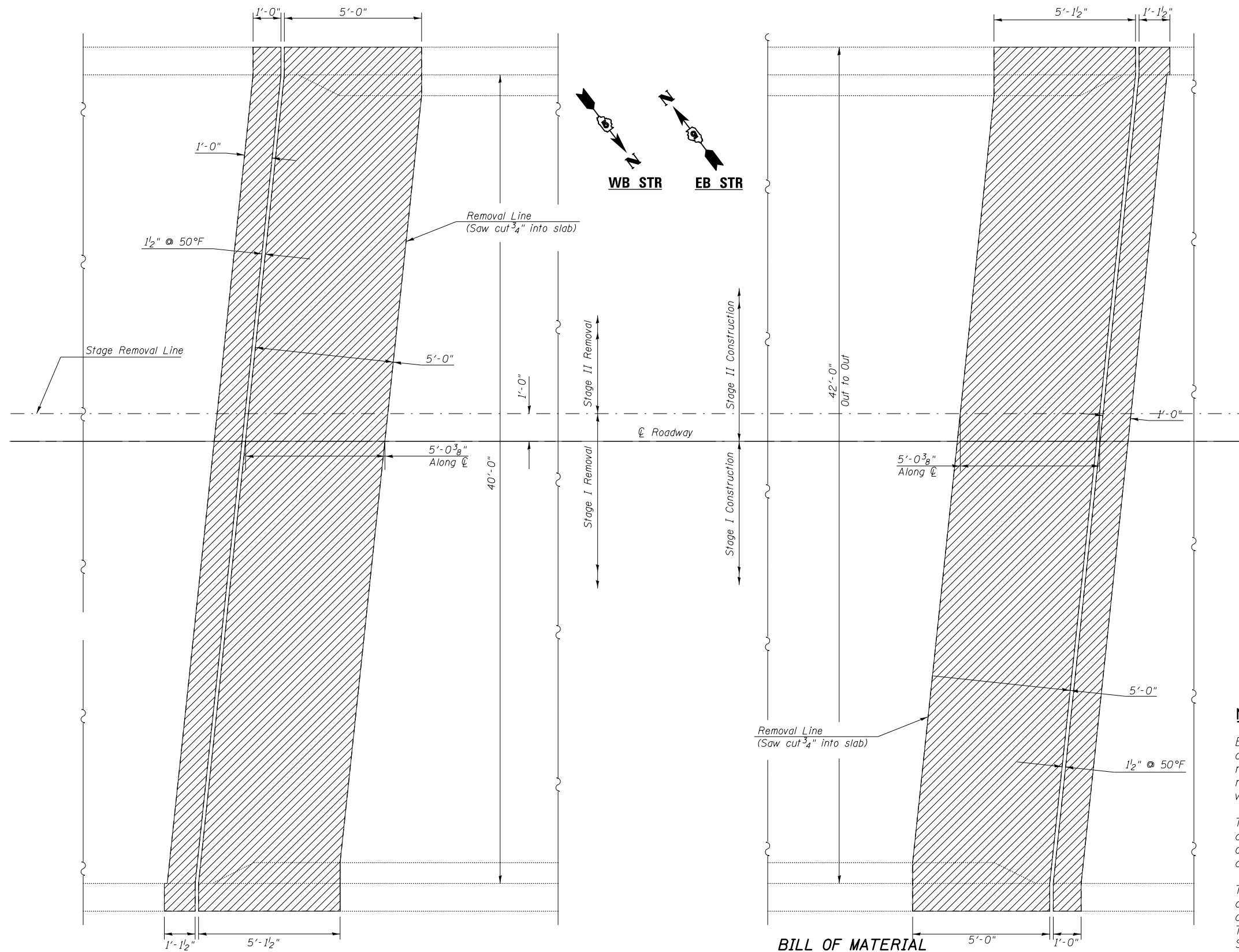
BEARING REPLACEMENT DETAILS AT EAST ABUTMENTS
SN 020-0030 (E.B.) & 0031 (W.B.)

SHEET NO. 13 OF 29 SHEETS

| | | | | |
|---------------------------|----------------------------|--------|--------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 14 | 20-1HWB, RB-LVB-1, 8, B-1H | DEWITT | 166 | 83 |
| | | | CONTRACT NO. 90876 | |
| ILLINOIS FED. AID PROJECT | | | | |

SUPERSTRUCTURE PLAN-CONCRETE REMOVAL

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.

| STRUCTURE | | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|-----------|------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| NUMBER | Item | West | East | West | East | West | East | West | East | | |
| 020-0030 | Concrete Removal | 1.0 | 1.0 | 5.7 | 5.7 | 2.2 | 2.2 | 0.4 | 0.4 | Cu Yd | 18.6 |
| 020-0031 | Concrete Removal | 1.0 | 1.0 | 5.7 | 5.7 | 2.4 | 2.2 | 0.4 | 0.4 | Cu Yd | 18.8 |

SUPERSTRUCTURE PLAN-DECK REINFORCEMENT

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

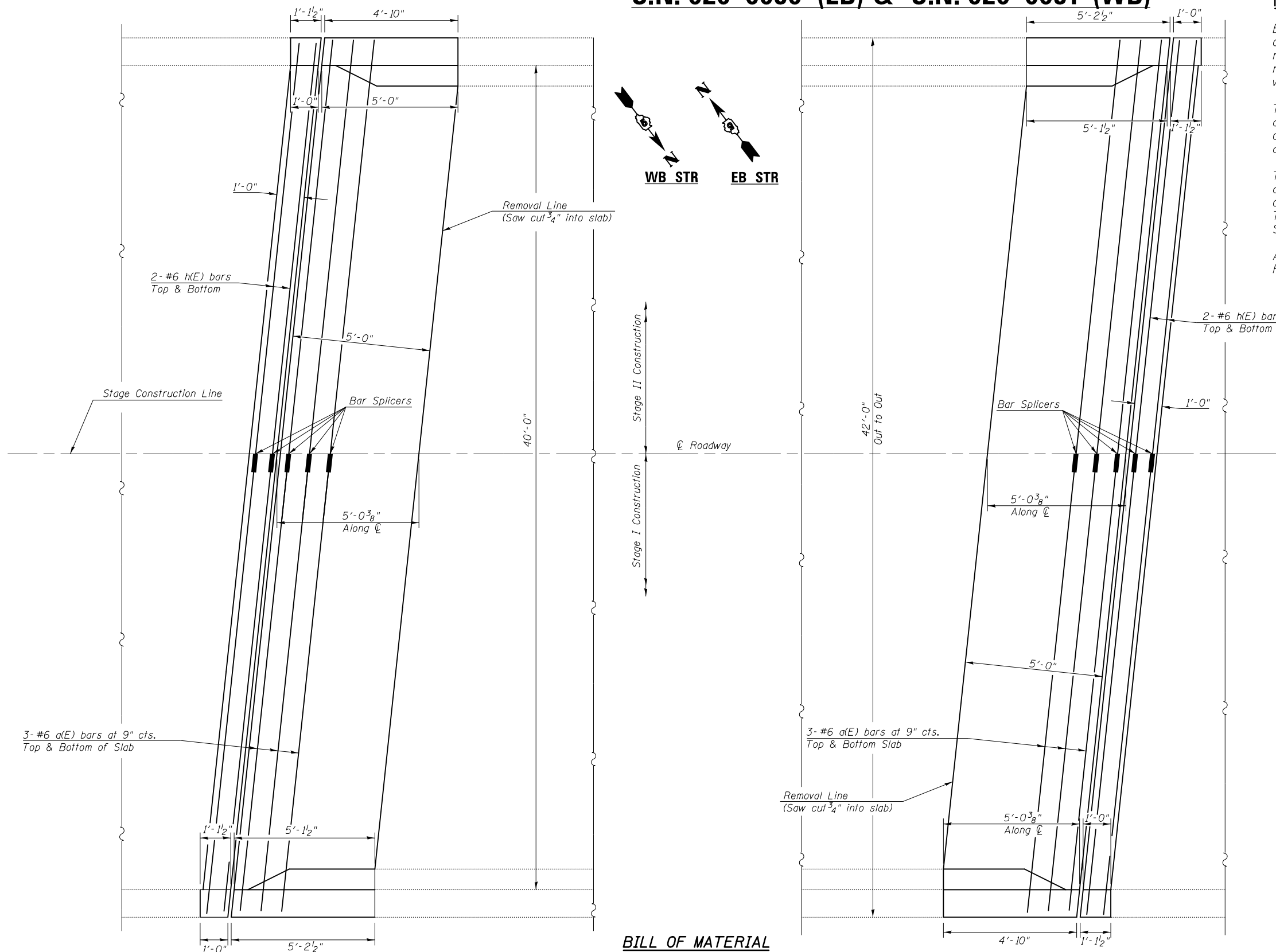
NOTES:

Existing reinforcement bars 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 splicer or anchorage system. Cost included with Concrete Removal.

The existing expansion joint system shall be removed completely, as well as any foreign material that has accumulated or been placed in the joint openings. The cost for this work is included in Concrete Removal and no additional compensation will be allowed.

The handrail attached to the top of the parapets shall be unbolted to allow for the removal and placement of the parapet ends. Following completion of the parapet ends, the handrail shall be re-attached. The cost of this work shall be included in Concrete Removal & Concrete Superstructures.

All existing deck tie downs shall be removed. Cost included with Concrete Removal.



BILL OF MATERIAL

| Bill of Materials (Per Joint) | | | | | |
|---|------|-----|------|-------------|--------------|
| S.N. 020-0030 (East Joint & West Joint) | | | | | |
| Stage | Bar | No. | Size | Bar (ft-in) | Weight (lbs) |
| I | a(E) | 6 | 6 | 23'-0" | 207.3 |
| II | a(E) | 6 | 6 | 19'-0" | 171.2 |
| Deck Total (lbs) = | | | | | 378.5 |
| I | h(E) | 4 | 6 | 23'-0" | 138.2 |
| II | h(E) | 4 | 6 | 19'-0" | 114.2 |
| Hatch Block Total (lbs) = | | | | | 252.3 |
| Total Weight (lbs) = | | | | | 630.0 |
| Total for Both Joints (lbs) = | | | | | 1,260.0 |
| Stud Shear Connectors | | | | Each | 288.0 |

| Bill of Materials (Per Joint) | | | | | |
|---|------|-----|------|-------------|--------------|
| S.N. 020-0031 (East Joint & West Joint) | | | | | |
| Stage | Bar | No. | Size | Bar (ft-in) | Weight (lbs) |
| I | a(E) | 6 | 6 | 23'-0" | 207.3 |
| II | a(E) | 6 | 6 | 19'-0" | 171.2 |
| Deck Total (lbs) = | | | | | 378.5 |
| I | h(E) | 4 | 6 | 23'-0" | 138.2 |
| II | h(E) | 4 | 6 | 19'-0" | 114.2 |
| Hatch Block Total (lbs) = | | | | | 252.3 |
| Total Weight (lbs) = | | | | | 630.0 |
| Total for Both Joints (lbs) = | | | | | 1,260.0 |
| Stud Shear Connectors | | | | Each | 288.0 |

BILL OF MATERIAL

| STRUCTURE | | Parapet | | Deck End | | Hatch Block | | Wingwall | | Unit | Total |
|-----------|-------------------------|---------|------|----------|------|-------------|------|----------|------|-------|-------|
| NUMBER | Item | West | East | West | East | West | East | West | East | | |
| 020-0030 | Concrete Superstructure | 1.0 | 1.0 | 6.8 | 6.8 | 2.4 | 2.4 | 0.4 | 0.4 | Cu Yd | 21.2 |
| 020-0031 | Concrete Superstructure | 1.0 | 1.0 | 6.8 | 6.8 | 2.6 | 2.4 | 0.4 | 0.4 | Cu Yd | 21.4 |

| | | | |
|--|---------------------------|-----------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED RTC | REVISED - |
| pw:\11084EBIDINTEG.illinois.gov\PI\DOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.shp | DRAWN Data | DATE 11/29/2011 | REVISED - |
| PLOT SCALE = 40.0000' / in. | CHECKED TJB | DATE 11/29/2011 | REVISED - TJB |
| PLOT DATE = 10/13/2015 | DATE 11/29/2011 | | REVISED - 9/8/2015 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE PLAN-DECK REINFORCEMENT
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)**

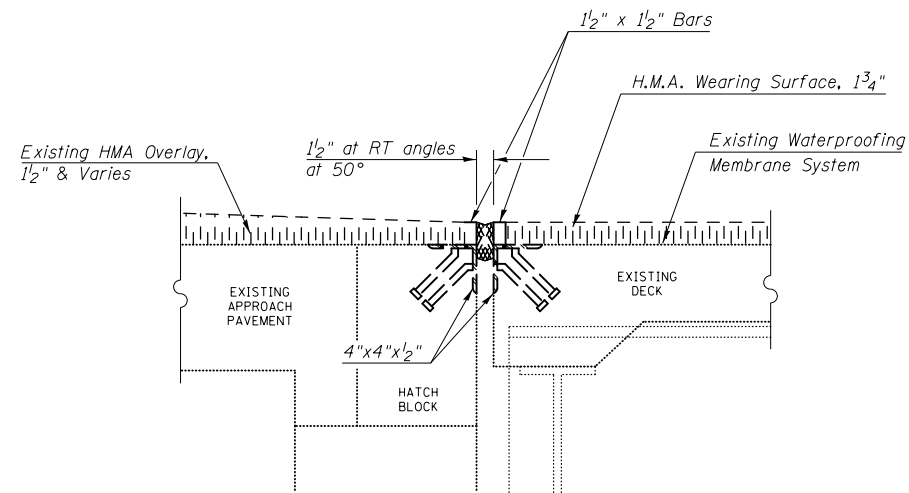
SCALE: SHEET 15 OF 29 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 85 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

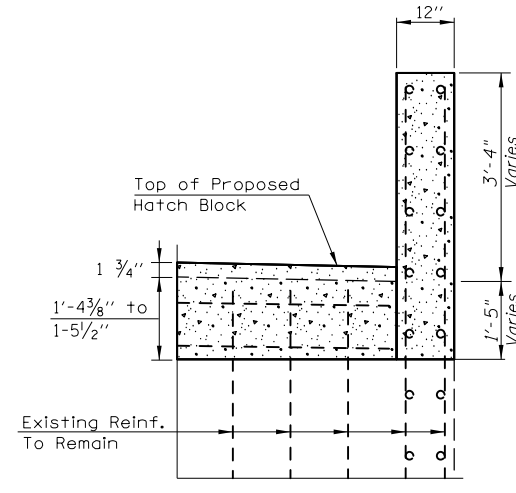
*20-1(HVB,HB-1,VB-1,B,B-1)I

DECK END, WINGWALL AND HATCH BLOCK DETAILS

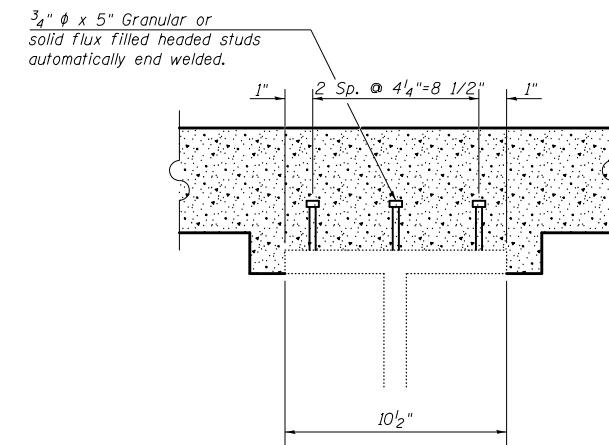
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



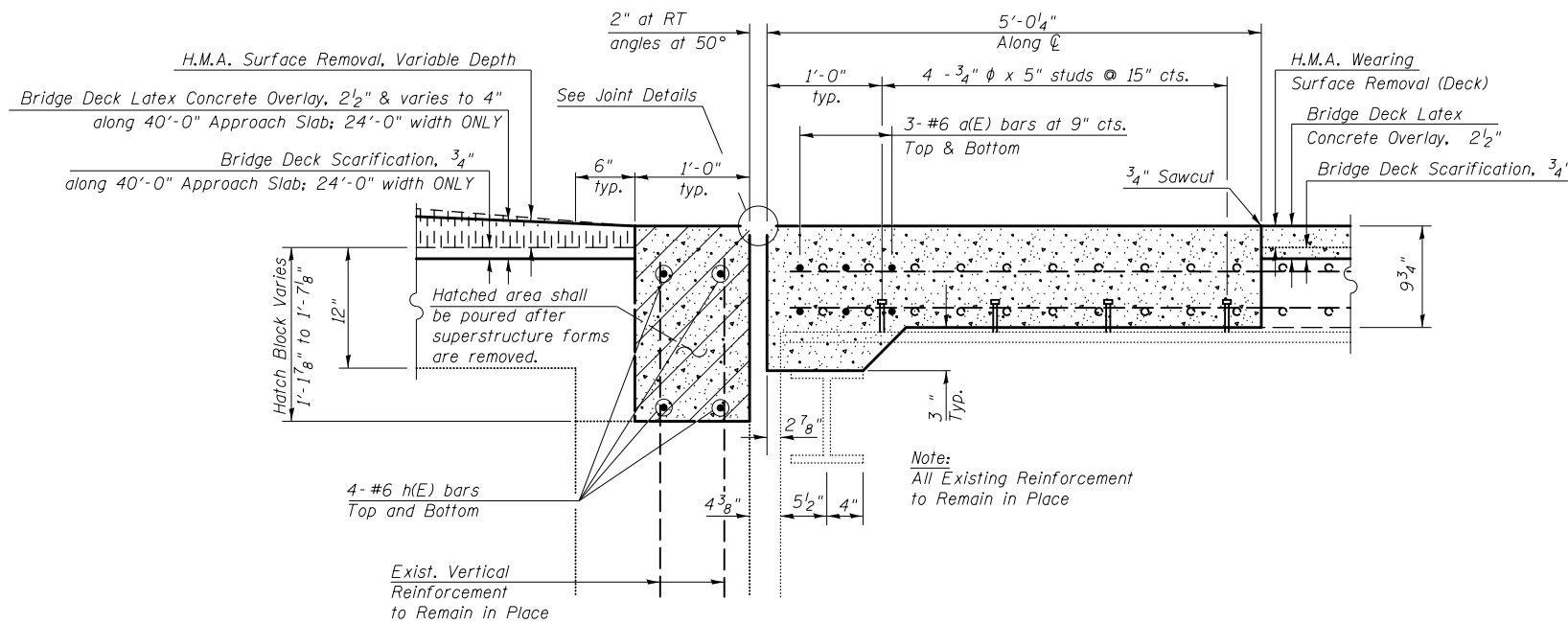
SECTION AT EXISTING JOINT



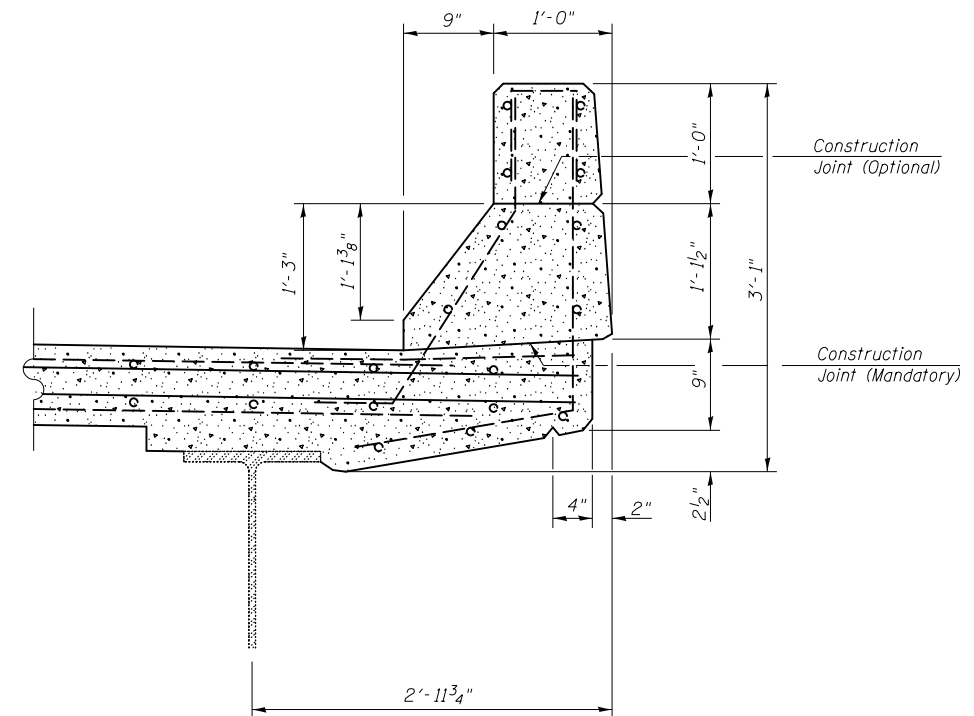
SECTION AT WINGWALL



SECTION AT PROPOSED BEAM AT DECK END



SECTION AT PROPOSED JOINT



SECTION AT PARAPET

Note:
All Existing Reinforcement
to Remain in Place

| | | | |
|--|-----------------------------|------------------------|--------------------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN Date: 11/29/2011 | CHECKED <i>TJB</i> | REVISED - TJB |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - 9/8/2015 |
| | PLOT DATE = 10/13/2015 | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK END, WINGWALL AND HATCH BLOCK DETAILS
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)**

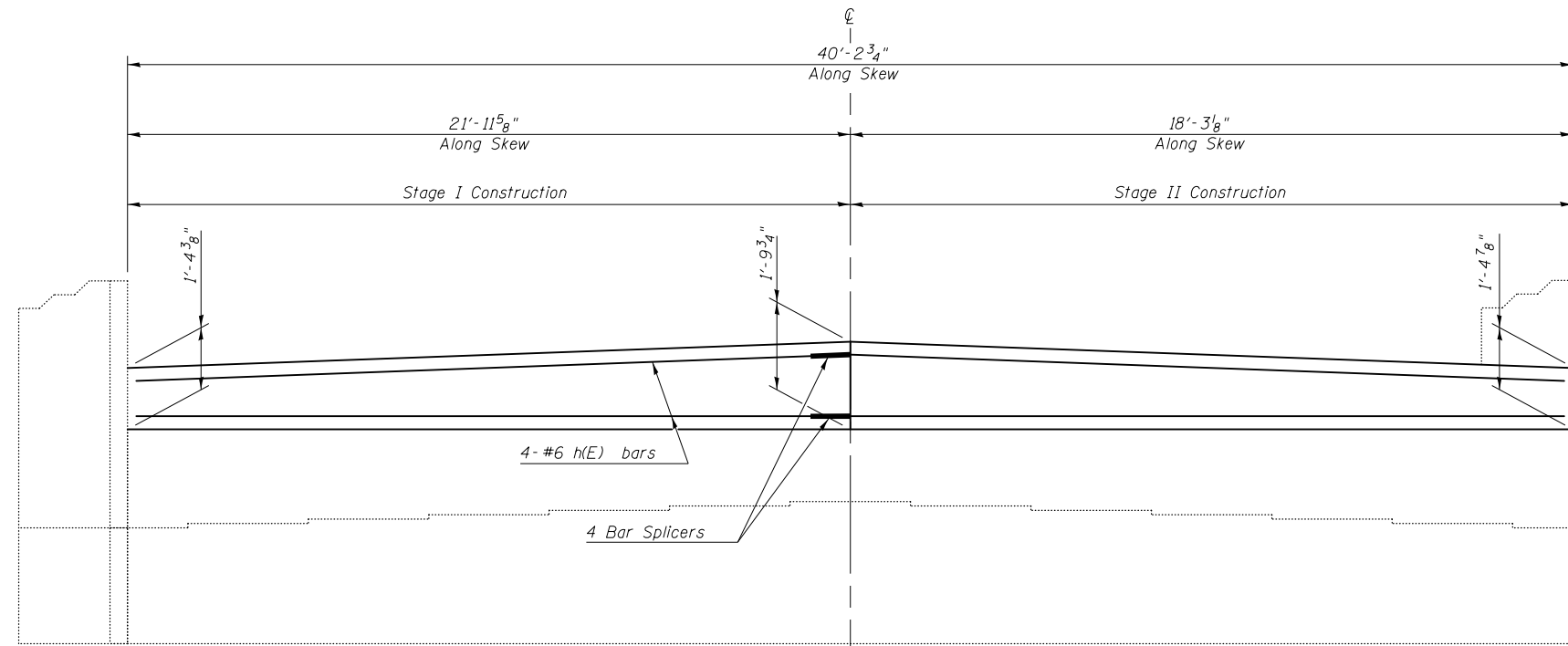
SCALE: SHEET 16 OF 29 SHEETS STA. TO STA.

| | | | | |
|---------------------------|---------|--------|--------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | * | DEWITT | 166 | 86 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

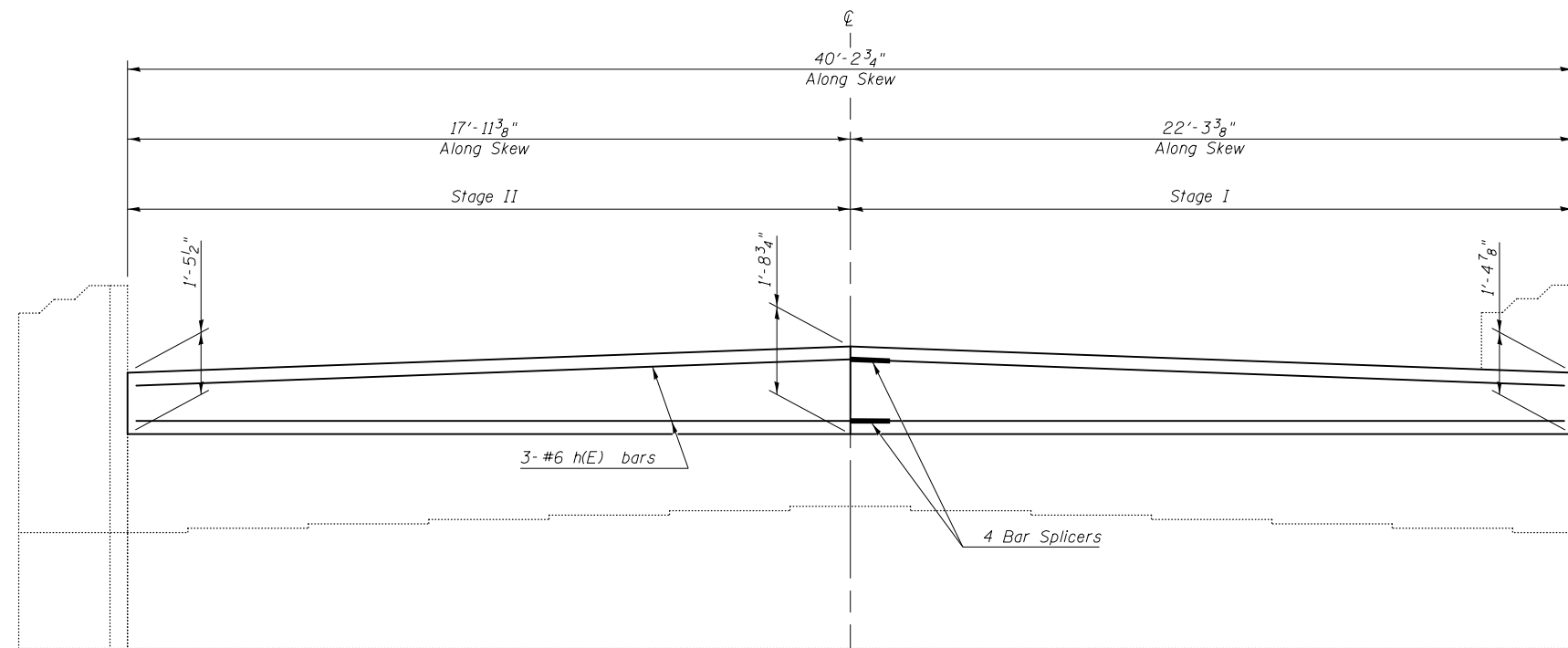
•20-1(HVB,HB-1,VB-1,B,B-1)I

HATCH BLOCK DETAILS

S.N. 020-0030 (EB)



ELEVATION
(WEST ABUTMENT)



ELEVATION
(EAST ABUTMENT)

•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|--|---------------------------|------------------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw:\IL\084EBID\INTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | | DRAWN <i>TJB</i> | REVISED - |
| | | CHECKED <i>TJB</i> | REVISED - |
| | | DATE <i>11/29/2011</i> | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

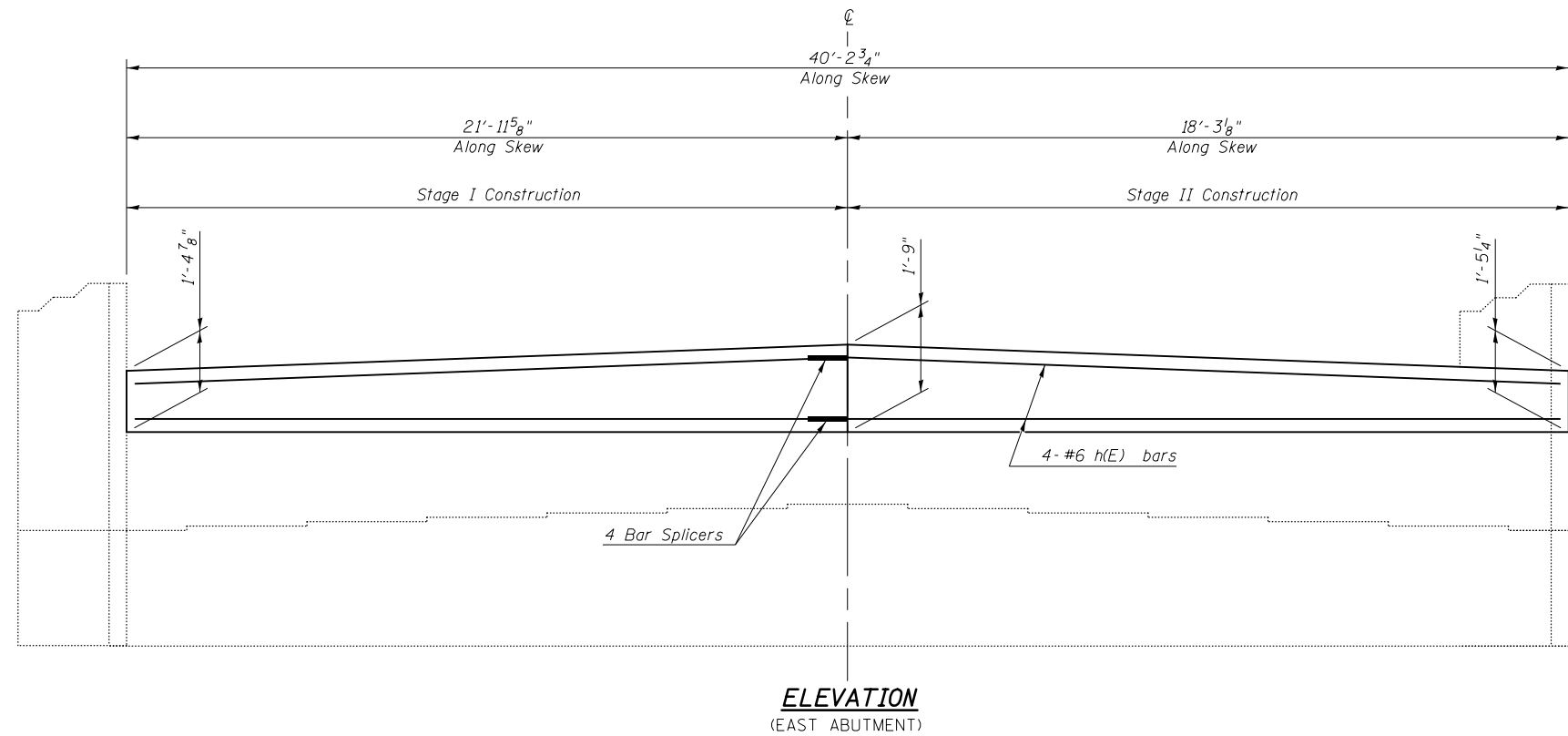
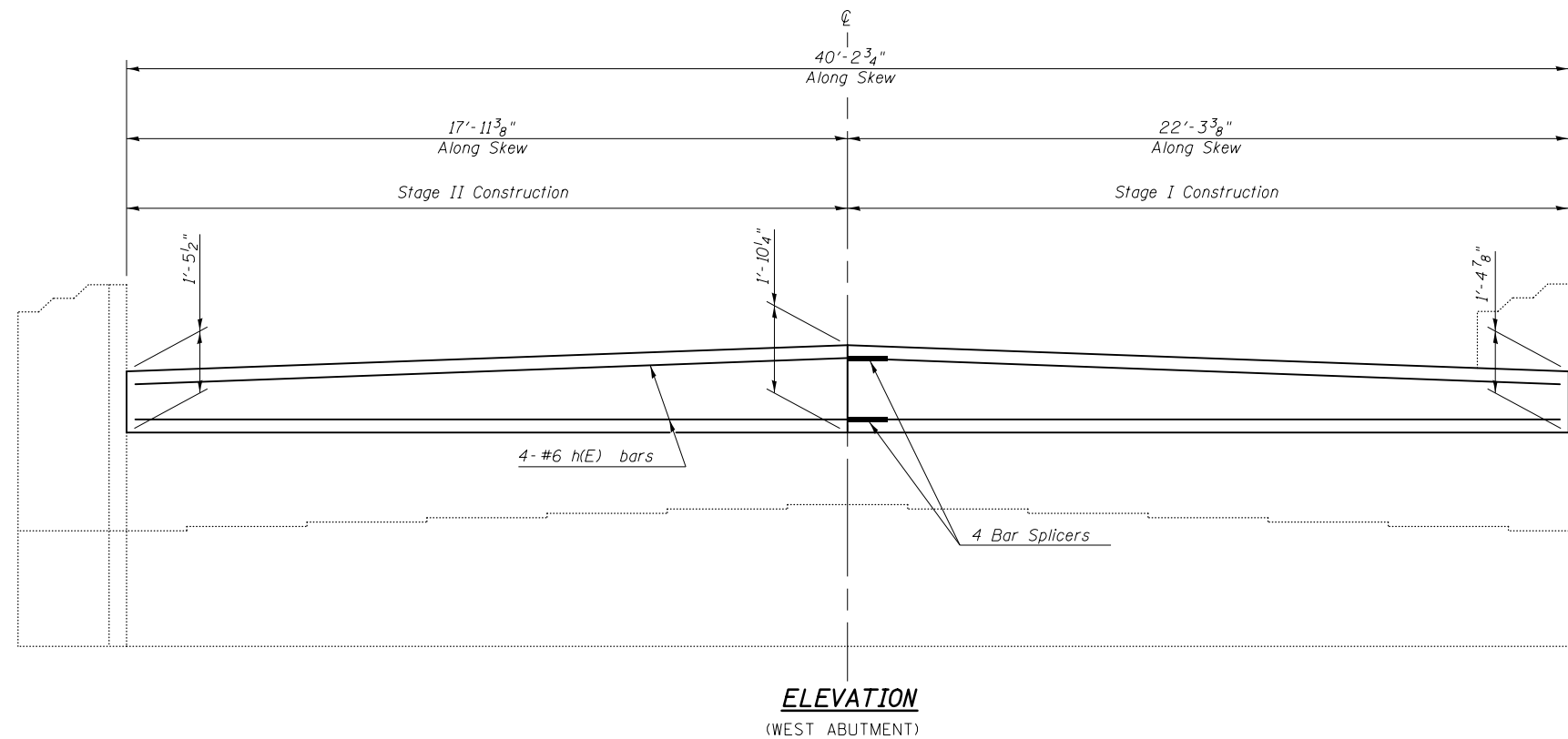
**HATCH BLOCK DETAILS
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)**

SCALE: SHEET 17 OF 29 SHEETS STA. TO STA.

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 87 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

HATCH BLOCK DETAILS

S.N. 020-0031 (WB)



•20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | |
|--|-----------------------------|------------------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| p:\11\084EBID\INTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\90876-details.sht | DRAWN <i>WJF</i> | CHECKED <i>TJB</i> | REVISED - |
| | PLOT SCALE = 40.0000' / in. | DATE <i>11/29/2011</i> | REVISED - |
| | PLOT DATE = 10/13/2015 | | |

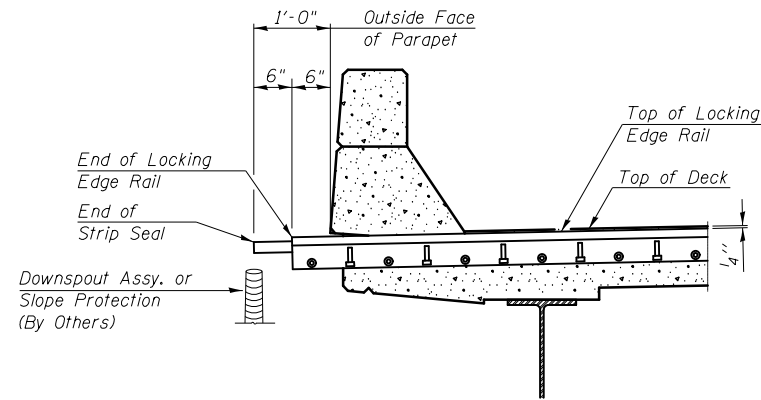
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HATCH BLOCK DETAILS
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

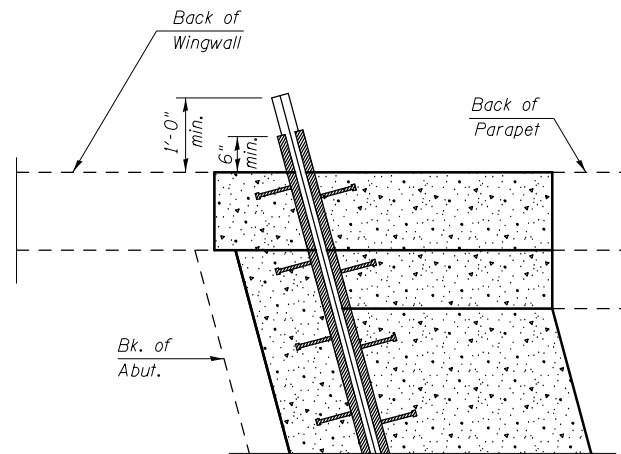
SCALE: SHEET 18 OF 29 SHEETS STA. TO STA.

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|---------|--------|--------------|-----------|
| 74 | * | DEWITT | 166 | 88 |
| CONTRACT NO. 90876 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

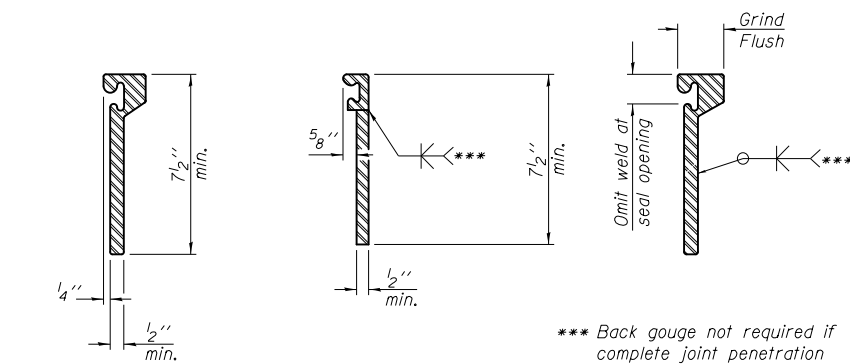
PREFORMED JOINT STRIP SEAL DETAILS S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



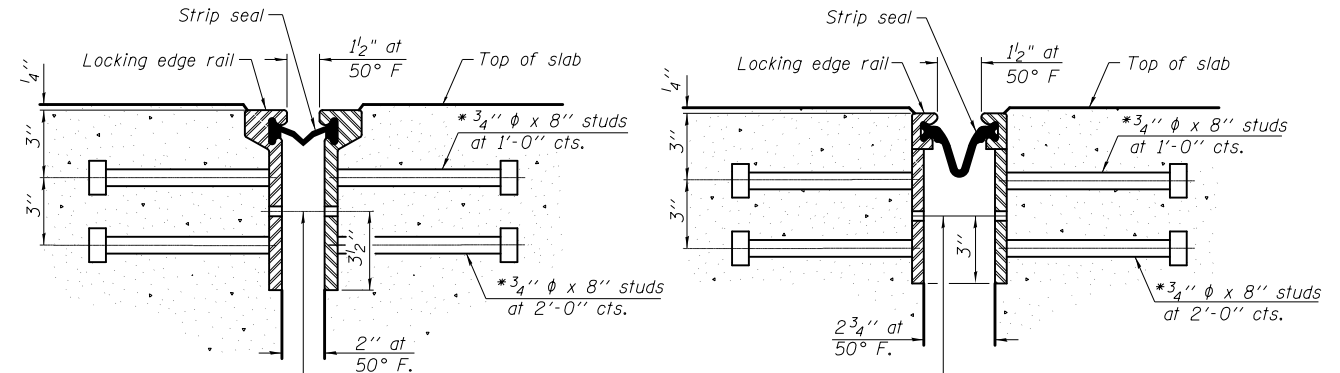
SECTION AT PROPOSED JOINT



PLAN VIEW AT PARAPET



LOCKING EDGE RAILS



SECTION THRU ROLLED RAIL JOINT

SECTION THRU WELDED RAIL JOINT

7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The strip seal shall be inserted into the Locking Edge Rails before the parapet ends are formed and poured to allow for proper placement of the strip seal.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

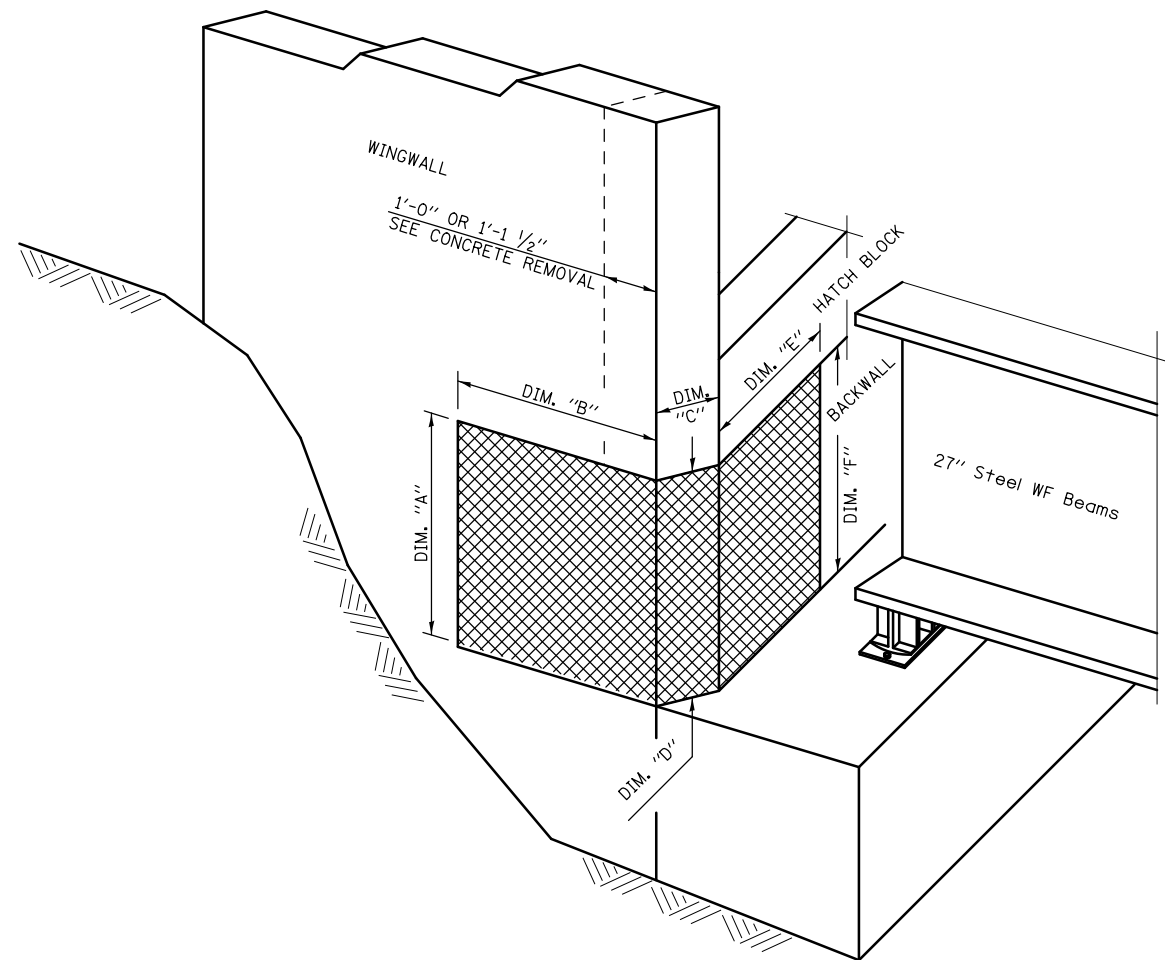
| Structure | Item | Unit | Total |
|-----------|----------------------------|------|-------|
| 020-0030 | Preformed Joint Strip Seal | Foot | 88.6 |
| 020-0031 | Preformed Joint Strip Seal | Foot | 88.6 |

*20-1(HVB,HB-1,VB-1,B,B-1)I

| | | | | | | | | | | |
|--|---------------------------|------------------------|-----------|---|---|---------------------------|---------|--------|--------------|-----------|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED <i>RTC</i> | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | PREFORMED JOINT STRIP SEAL DETAILS S.N. 020-0030 (EB) & S.N. 020-0031 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| pw:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\BROWNSVILLE\90876-details.sht | DRAWN <i>TJB</i> | CHECKED <i>TJB</i> | REVISED - | | | 74 | * | DEWITT | 166 | 89 |
| PLOT SCALE = 48.0000' / in. | DATE <i>11/29/2011</i> | DATE <i>11/29/2011</i> | REVISED - | | | CONTRACT NO. 90876 | | | | |
| PLOT DATE = 10/13/2015 | DATE <i>11/29/2011</i> | DATE <i>11/29/2011</i> | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | |
| SCALE: | | SHEET 19 OF 29 SHEETS | | STA. | TO STA. | | | | | |

SUBSTRUCTURE REPAIR PLAN

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



ISOMETRIC VIEW AT ABUTMENT CORNER

S.N. 020-0030

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|-------|--------|-------|----------|-------|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | 3'-0" | 1'-0" | 1'-0" | 3'-0" | 2'-0" | 3'-0" | 12.0 |
| SOUTHEAST | 3'-0" | 1'-0" | 1'-0" | 3'-0" | 3'-0" | 3'-0" | 15.0 |
| NORTHWEST | 3'-0" | 1'-0" | 1'-0" | 3'-0" | 1'-0" | 3'-0" | 9.0 |
| SOUTHWEST | - | - | - | - | - | - | - |

S.N. 020-0031

TABLE FOR STRUCTURAL REPAIR OF CONCRETE

| ABUTMENT CORNER | REPAIR AREA DIMENSIONS | | | | | | REPAIR AREA SQ. FT. |
|-----------------|------------------------|-------|--------|-------|----------|-------|---------------------|
| | WINGWALL | | CORNER | | BACKWALL | | |
| | A | B | C | D | E | F | |
| NORTHEAST | 3'-0" | 1'-0" | 1'-0" | 3'-0" | 2'-0" | 3'-0" | 12.0 |
| SOUTHEAST | - | - | - | - | - | - | - |
| NORTHWEST | - | - | - | - | - | - | - |
| SOUTHWEST | 3'-0" | 1'-0" | 1'-0" | 3'-0" | 2'-0" | 3'-0" | 12.0 |

LEGEND

STRUCTURAL REPAIR OF CONCRETE, DEPTH EQUAL TO OR LESS THAN 5"

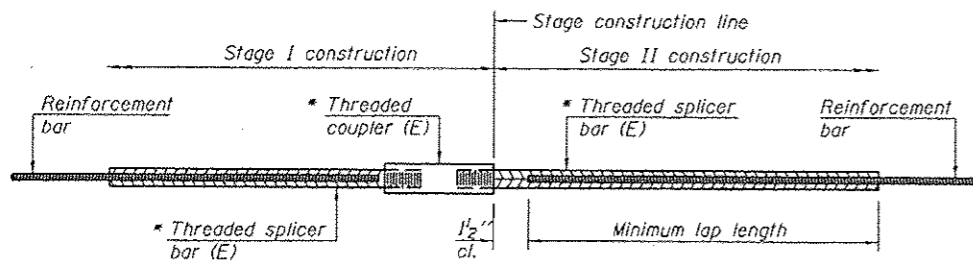
NOTE:

SEE SPECIAL PROVISION FOR STRUCTURAL REPAIR OF CONCRETE.

BILL OF MATERIAL

| Structure | Item | Unit | Total |
|-----------|---|---------|-------|
| 020-0030 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 36.0 |
| 020-0031 | Structural Repair of Concrete, Depth Equal to or Less than 5" | Sq. Ft. | 24.0 |

•20-1(HVB,HB-1,VB-1,B,B-1)I

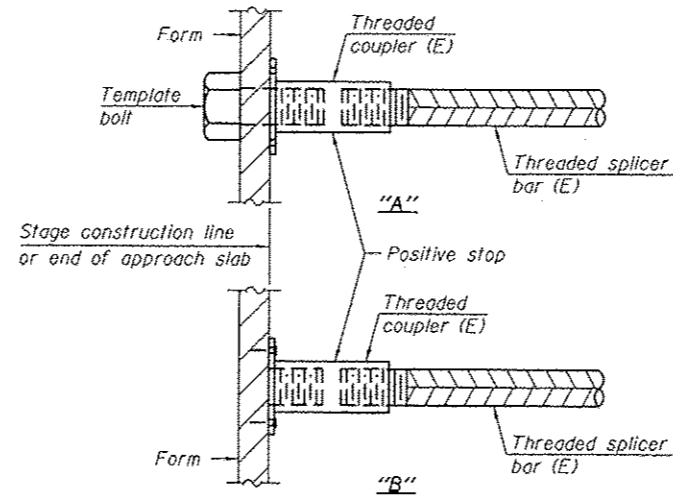


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Structure | Location | Bar size | No. assemblies required | Minimum lap length |
|-----------|-------------|----------|-------------------------|--------------------|
| 020-0030 | Deck End | #7 | 12 | 4'-5" |
| | Hatch Block | #6 | 8 | 3'-10" |
| 020-0031 | Deck End | #7 | 12 | 4'-5" |
| | Hatch Block | #6 | 8 | 3'-10" |

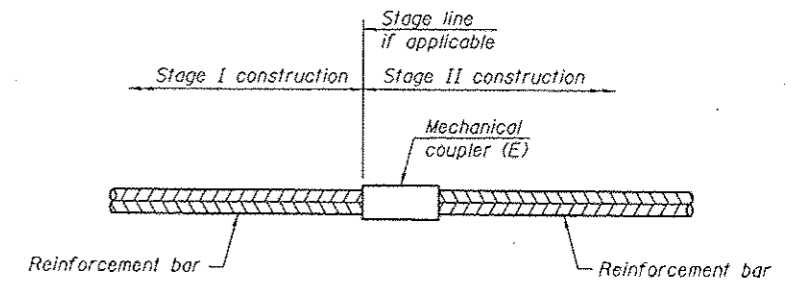


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

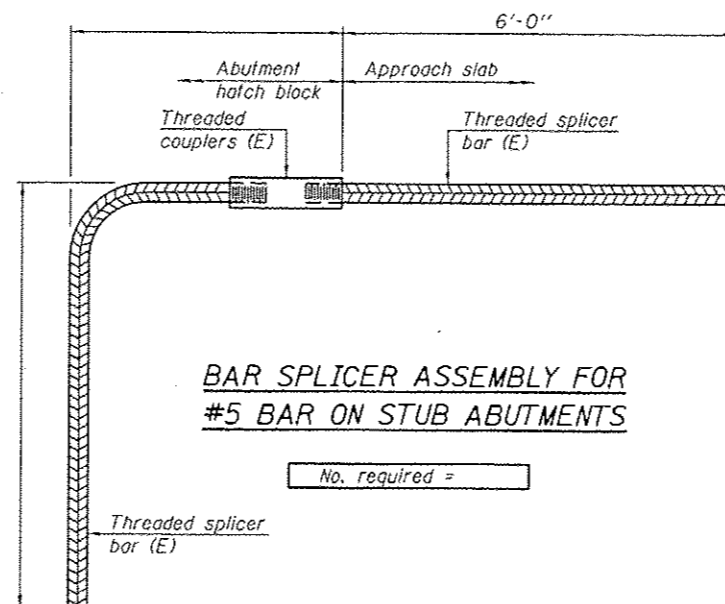
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 6-8-15

| | | | | | | | | | | | |
|-------------|------------------------------|-----------------|-----------|---|---|---|---------|--------|--------------|-----------|--|
| FILE NAME * | USER NAME * carrollrt | DESIGNED RTC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS SN 020-0030 (EB) & 020-0031 (WB) | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | PLLOT SCALE = 40.0000' / in. | DRAWN RTC | REVISED - | | | 74 | * | DEWITT | 166 | 91 | |
| | PLDT DATE = 1/3/2012 | CHECKED TJB | REVISED - | | | CONTRACT NO. 90876 | | | | | |
| | | DATE 11/29/2015 | REVISED - | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

*20-10HV6,HD-1,VB-1,B,D-101

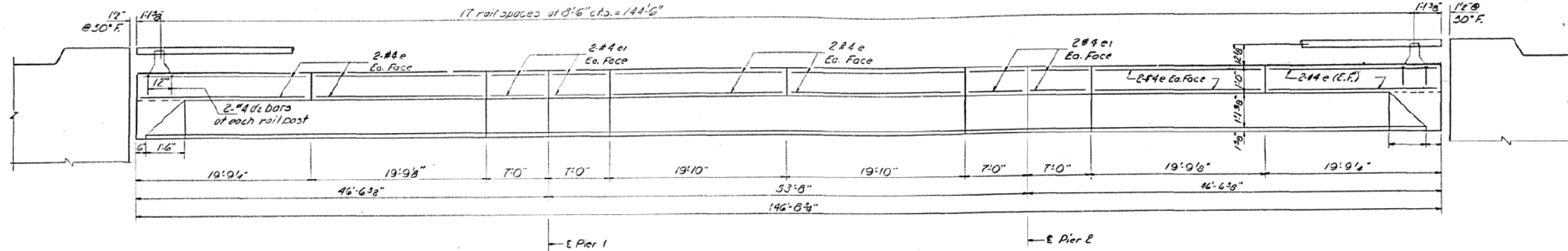
SCALE: SHEET 21 OF 29 SHEETS STA. TO STA.

AS-BUILT PLANS (FOR INFORMATION ONLY)

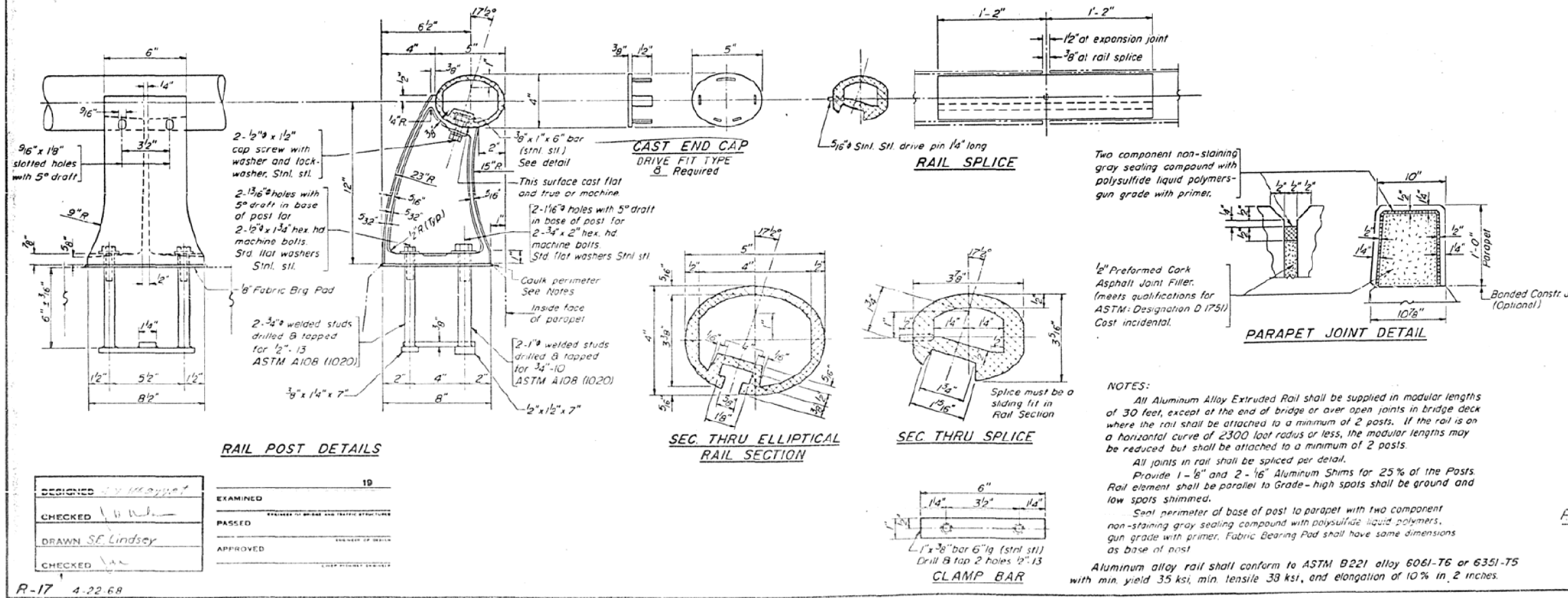
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | |
|-----------|--------------|-----------|--------------|
| SHEET NO. | TOTAL SHEETS | SHEET NO. | TOTAL SHEETS |
| 74 | 20-IVB-1 | DE WITT | 27 |
| | | 9 | 15 SHEETS |



ELEVATION



**PARAPETS & RAILS
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|--------------------|-----|------|--------|-------|
| e | 96 | #4 | 10'-6" | — |
| e1 | 64 | #4 | 6'-9" | — |
| | | | | |
| Reinforcement Bars | | | Lbs | 1540 |
| Class X Concrete | | | Cu Yds | 16.9 |
| Aluminum Railing | | | Lin Ft | 587 |

ALUMINUM RAILING
NORTH & SOUTH BRIDGES
EAL. RT. 74 SEC. 20-IVB-1
DEWITT COUNTY
STA. 808+07.29

NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade—high spots shall be ground and low spots shimmed.

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

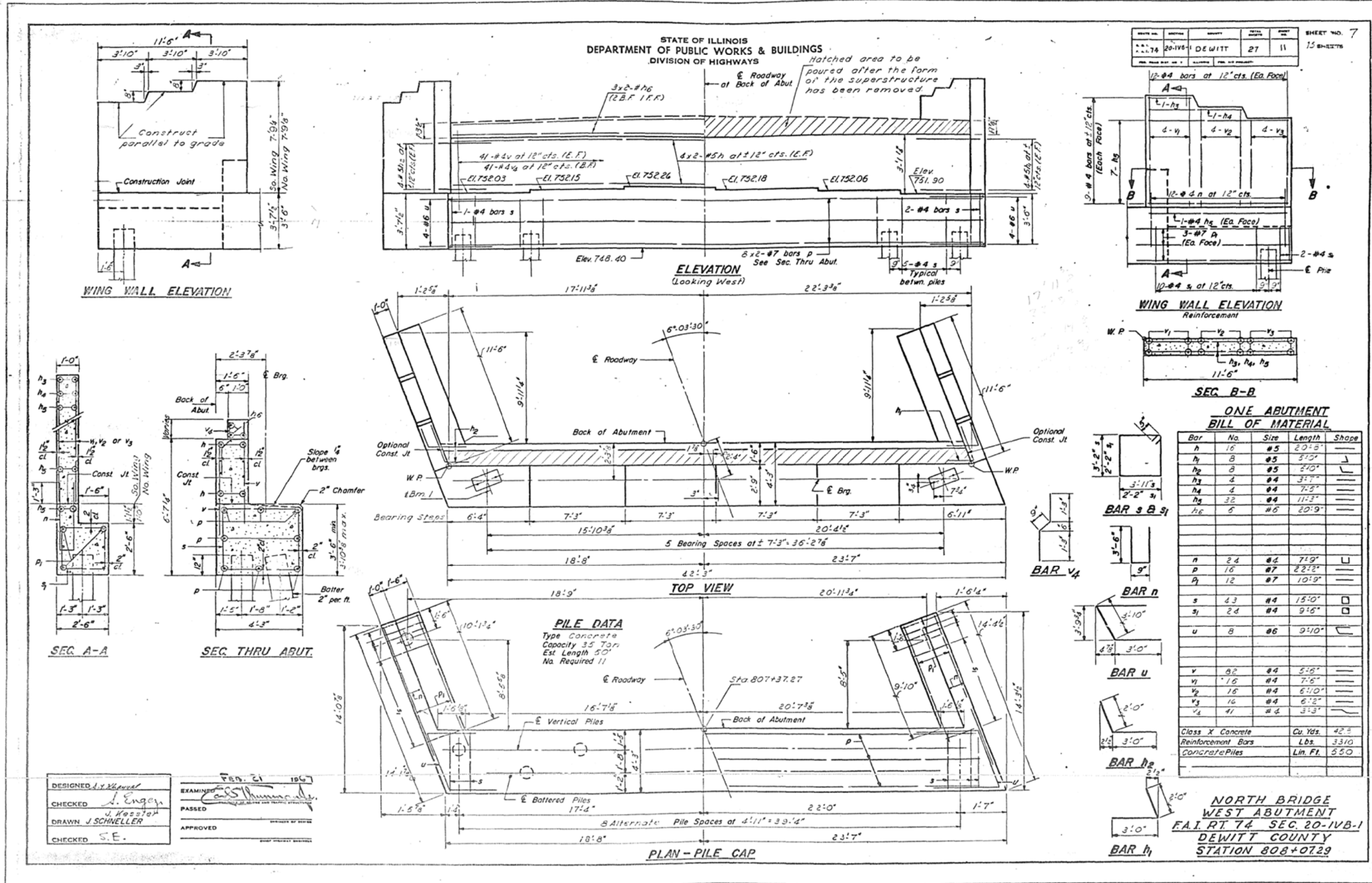
Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.

| | |
|-----------------------------|----------------|
| DESIGNED <i>[Signature]</i> | EXAMINED _____ |
| CHECKED <i>[Signature]</i> | PASSED _____ |
| DRAWN <i>SF. Lindsey</i> | APPROVED _____ |
| CHECKED <i>[Signature]</i> | _____ |

R-17 4-22-68

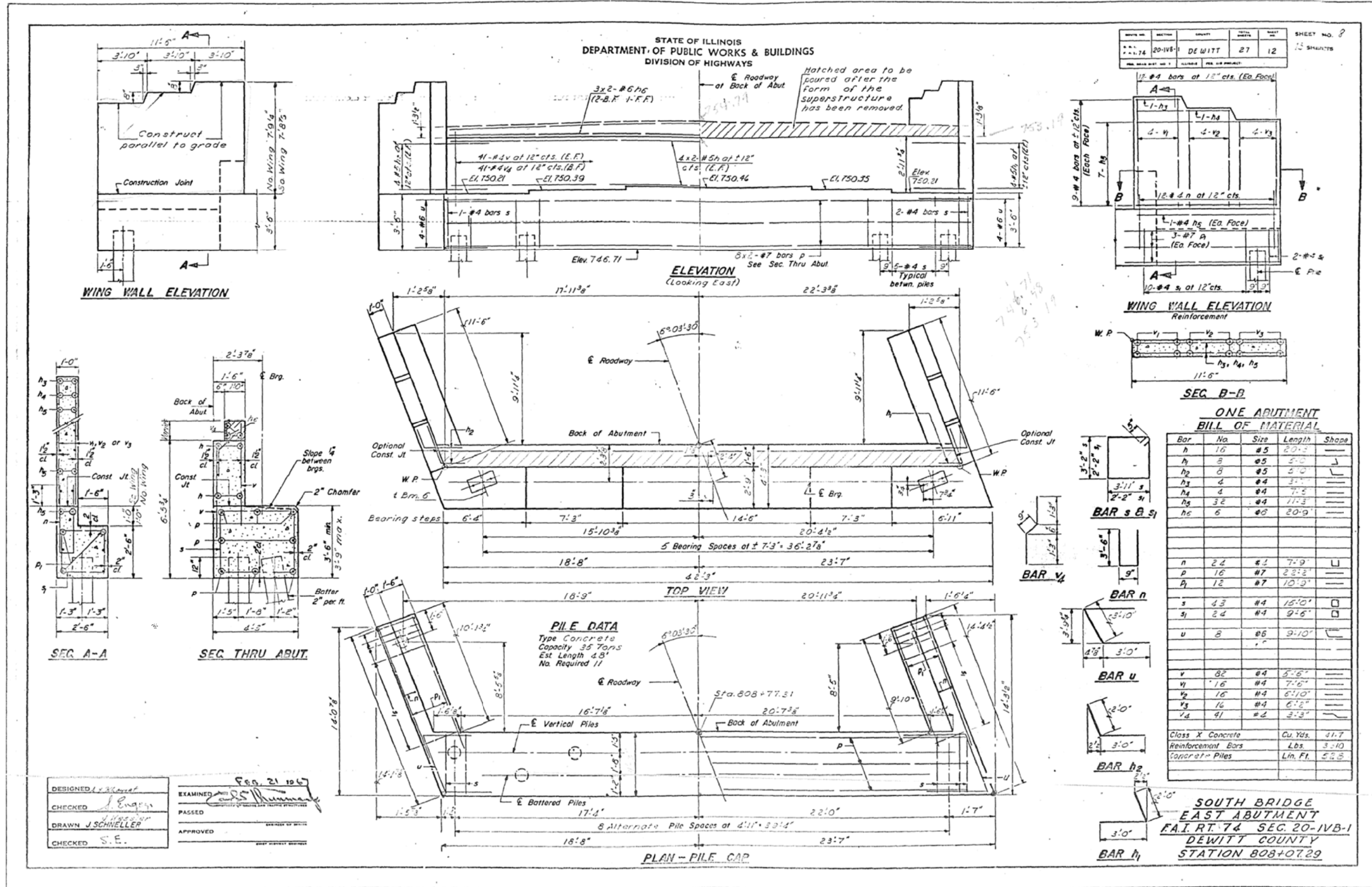
AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

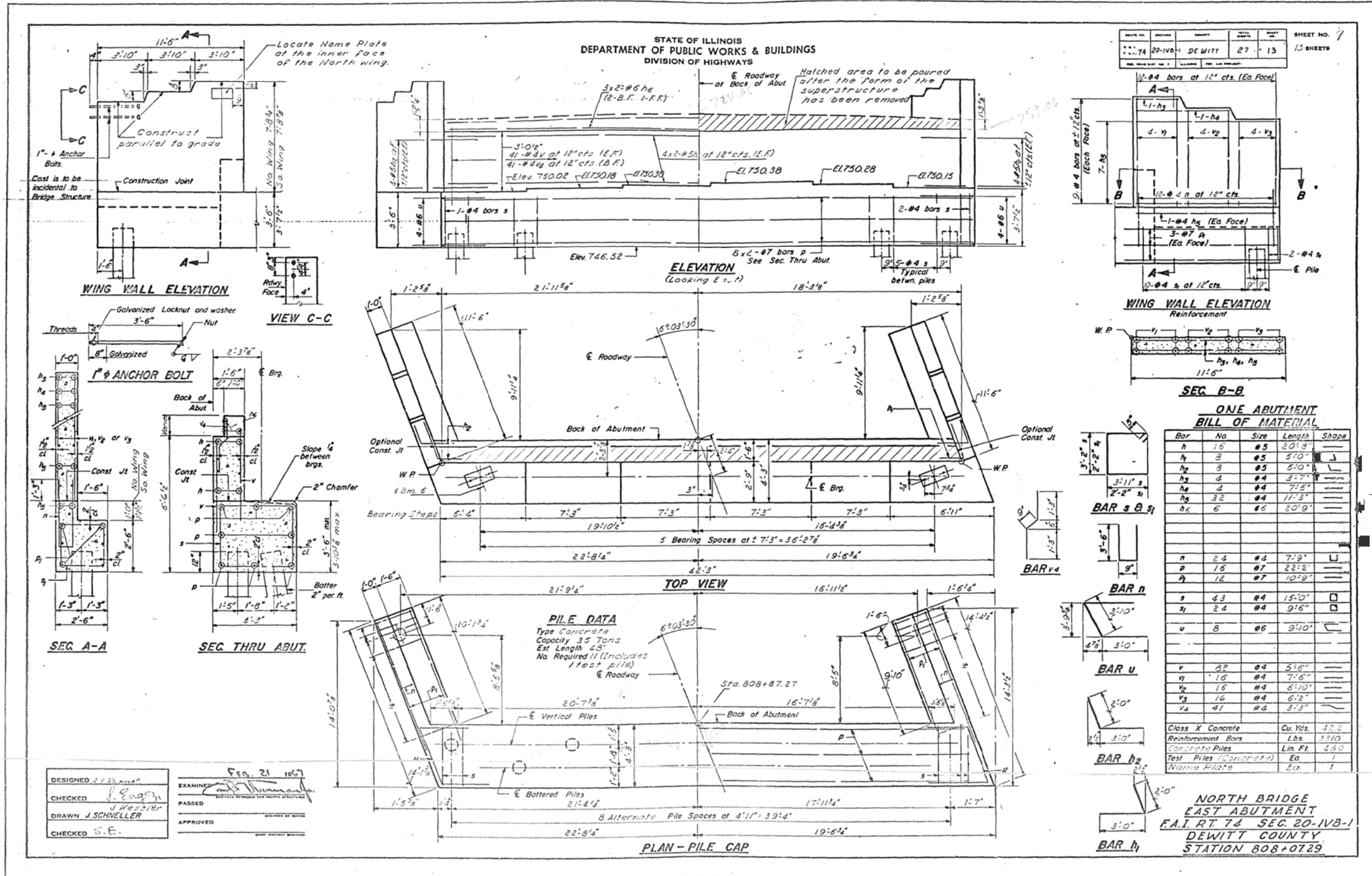


DESIGNED: J. Engler
CHECKED: J. Engler
DRAWN: J. SCHNELLER
CHECKED: S.E.

EXAMINED: [Signature]
PASSED:
APPROVED: [Signature]

DATE: 11/29/2011

AS-BUILT PLANS (FOR INFORMATION ONLY)
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)



DESIGNED *J. Engen*
 CHECKED *J. Messier*
 DRAWN *J. SCHNELLER*
 CHECKED *S.E.*

EXAMINED *and*
 PASSED
 APPROVED

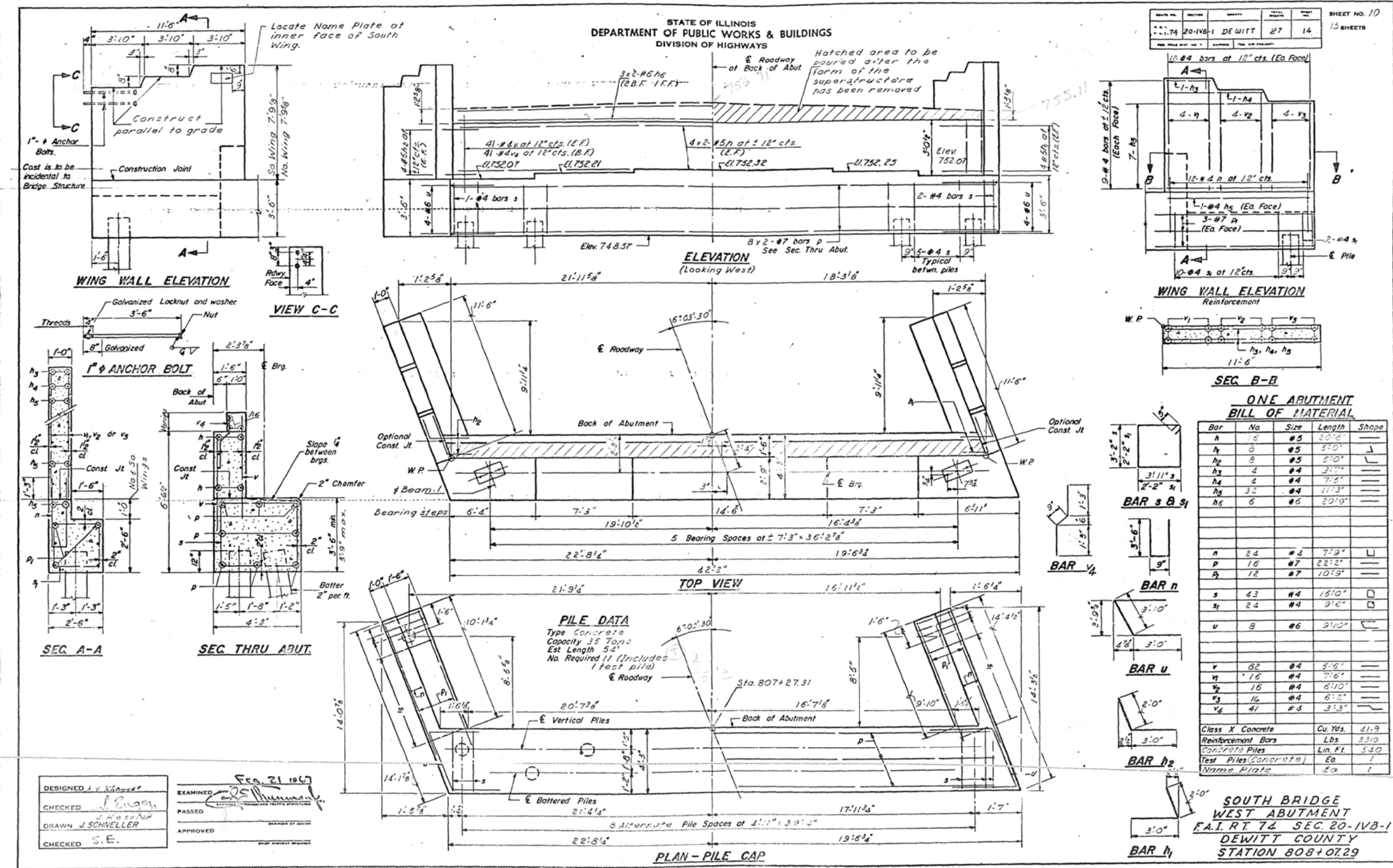
DESIGNED *RTC*
 CHECKED *TJB*
 DATE *11/29/2011*

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | |
|------------------|---------|-----------|--------------|
| PROJECT NO. | SECTION | SHEET NO. | TOTAL SHEETS |
| 20-IVB-1 DE WITT | 27 | 14 | 15 SHEETS |



DESIGNED *J. V. ...*
CHECKED *J. ...*
DRAWN *J. SCHNELLER*
CHECKED *S. E.*

EXAMINED *[Signature]*
PASSED
APPROVED

Feb 21 1967

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS-BUILT PLANS (FOR INFORMATION ONLY)
S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

| | | | | |
|--------------------|---------|--------|---------------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 74 | . | DEWITT | 166 | 98 |
| CONTRACT NO. 90876 | | | ILLINOIS FED. AID PROJECT | |

| | | | |
|--|---------------------------|---------------------|-----------|
| FILE NAME = | USER NAME = brundenburgtj | DESIGNED <i>RTC</i> | REVISED - |
| pw\11084EBIDINTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 5\Projects\0504\Drawings\0504\0504-0001\0504-0001-0001\0504-0001-0001-0001.dwg | | CHECKED <i>TJB</i> | REVISED - |
| PLOT SCALE = 40.0000 / 1 in. | DATE <i>11/29/2011</i> | | REVISED - |

SCALE: SHEET 28 OF 29 SHEETS STA. TO STA.

*20-1(HVB,HB-1,VB-1,B,B-1)1

AS-BUILT PLANS (FOR INFORMATION ONLY)

S.N. 020-0030 (EB) & S.N. 020-0031 (WB)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | |
|----------|---------|--------|--------------|-----------|
| DATE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 20-IVB-1 | DE WITT | 27 | 10 | 13 SHEETS |

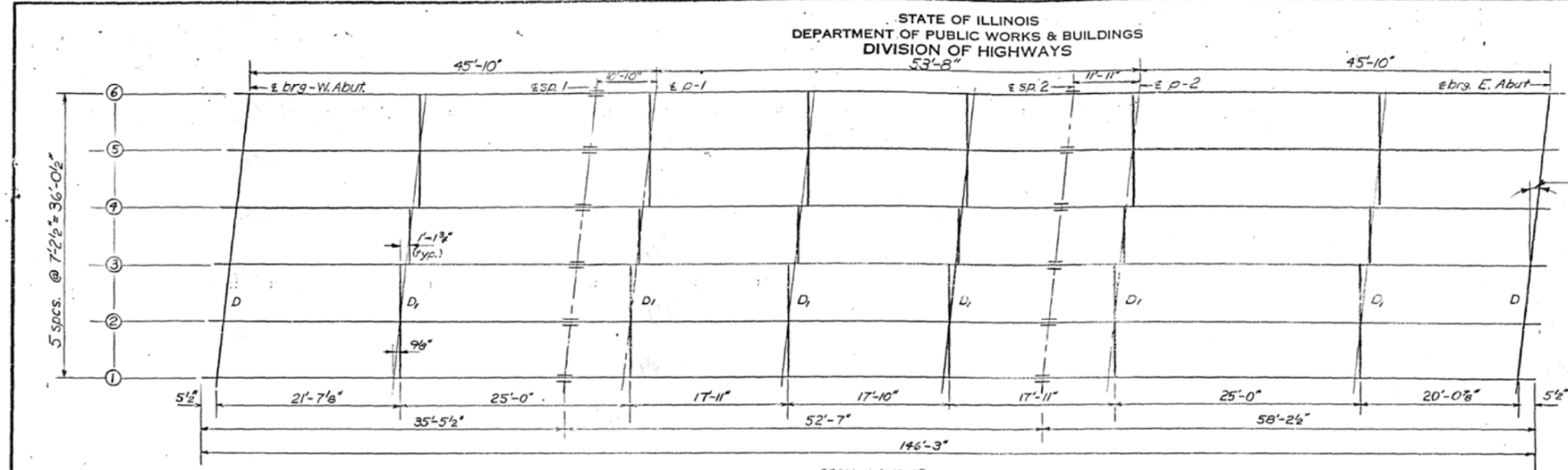
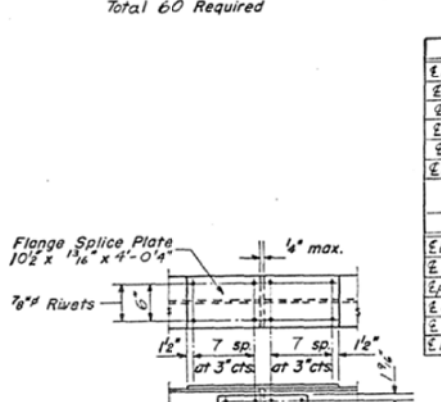
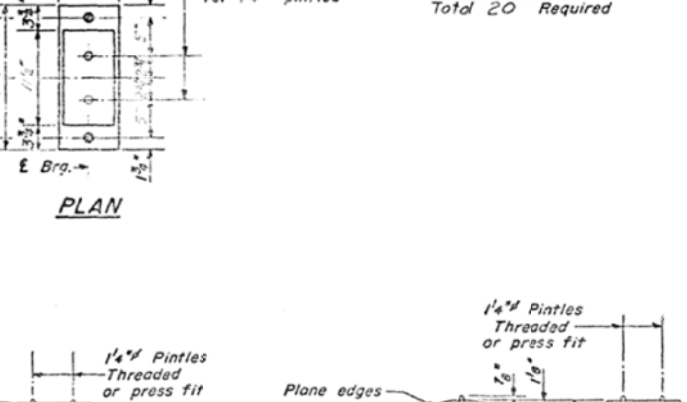
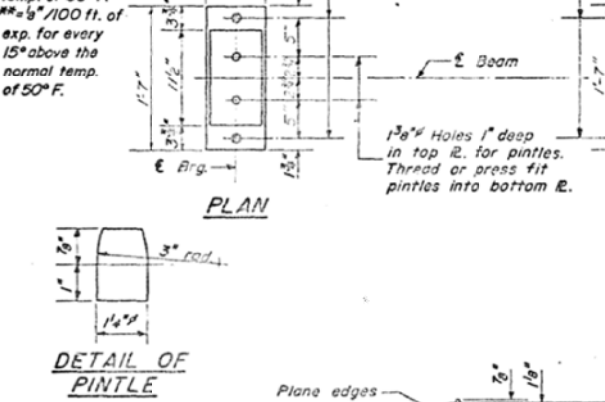
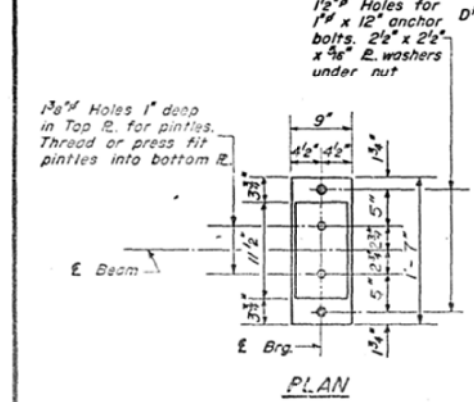
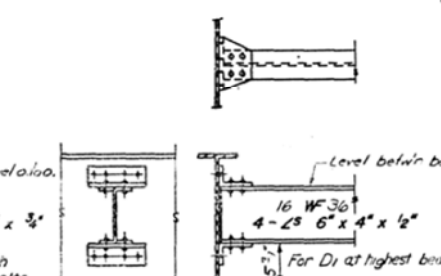
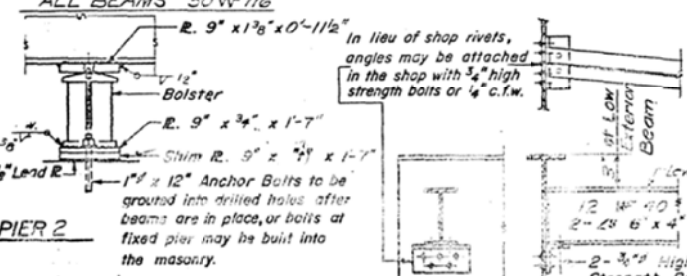
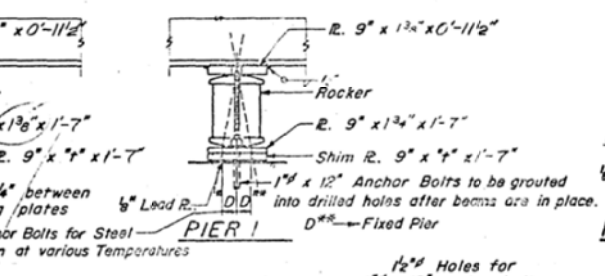
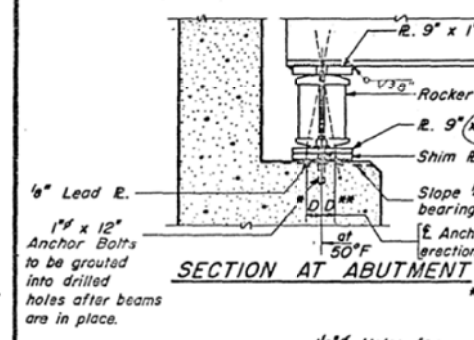


TABLE OF MOMENTS and REACTIONS (INTERIOR BEAMS)

| D.L. | Moments (ft-K) | | Reaction (K) | |
|--------------|----------------|--------------|--------------|--------------|
| | 0.5 span 1 | 0.5 span 2 | Support | Pier |
| 151.1 | 245.9 | 110.1 | 17.3 | 54.6 |
| 290.2 | 225.8 | 280.3 | 35.8 | 44.0 |
| 85.0 | 64.8 | 78.5 | 10.5 | 12.6 |
| Total | 526.3 | 536.5 | 46.6 | 111.2 |

Shim Rates 7" in. south Br.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------|---|---|---|-----|---|-----|
| E BRG-WA. | 0 | 0 | 0 | 5/8 | 0 | 1/2 |
| P-1 | 0 | 0 | 0 | 5/8 | 0 | 1/2 |
| P-2 | 0 | 0 | 0 | 5/8 | 0 | 1/2 |
| E BRG-EA. | 0 | 0 | 0 | 5/8 | 0 | 1/2 |



ELEVATION TOP OF WF (For Fabrication Only)

S Bridge

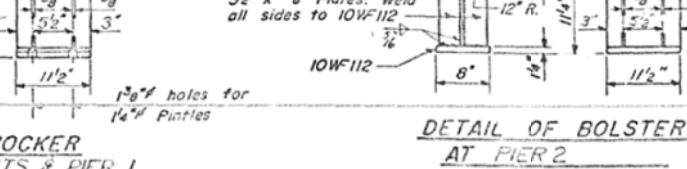
| | BM 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|--------|--------|--------|--------|--------|--------|
| E BRG west abut | 755.71 | 755.35 | 755.00 | 756.01 | 755.02 | 755.23 |
| E splice 1 | 755.23 | 755.31 | 755.49 | 755.43 | 755.41 | 755.27 |
| E pier 1 | 755.03 | 755.23 | 755.22 | 755.22 | 755.21 | 755.33 |
| E splice 2 | 754.51 | 754.71 | 754.81 | 754.83 | 754.74 | 754.60 |
| E pier 2 | 754.45 | 754.25 | 754.21 | 754.75 | 754.39 | 754.33 |
| E BRG east abut | 753.65 | 753.89 | 754.10 | 754.15 | 754.13 | 753.83 |

N Bridge

| | BM 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|--------|--------|--------|--------|--------|--------|
| E BRG west abut | 755.67 | 755.79 | 755.90 | 755.82 | 755.70 | 755.54 |
| E splice 1 | 755.19 | 755.31 | 755.41 | 755.34 | 755.21 | 755.01 |
| E pier 1 | 755.03 | 755.17 | 755.27 | 755.22 | 755.07 | 754.85 |
| E splice 2 | 754.52 | 754.64 | 754.74 | 754.67 | 754.54 | 754.33 |
| E pier 2 | 754.37 | 754.49 | 754.59 | 754.52 | 754.39 | 754.23 |
| E BRG east abut | 753.79 | 753.92 | 754.02 | 753.94 | 753.82 | 753.64 |

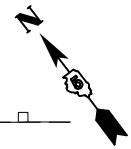
DESIGNED: *[Signature]*
CHECKED: *[Signature]*
DRAWN: *[Signature]*

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



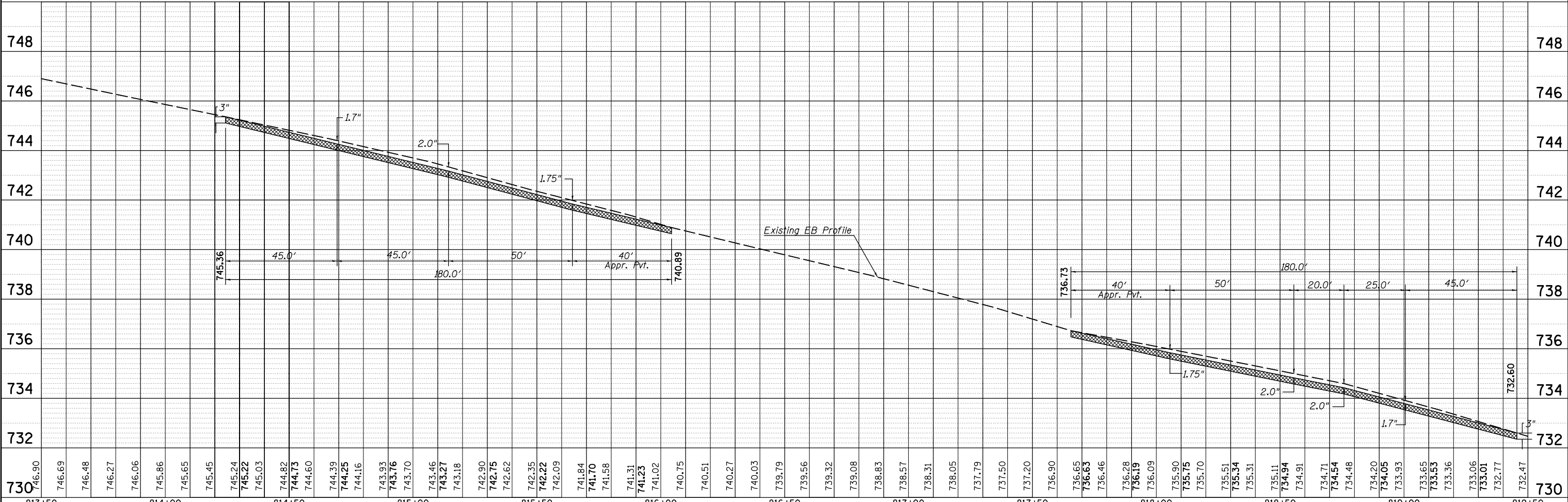
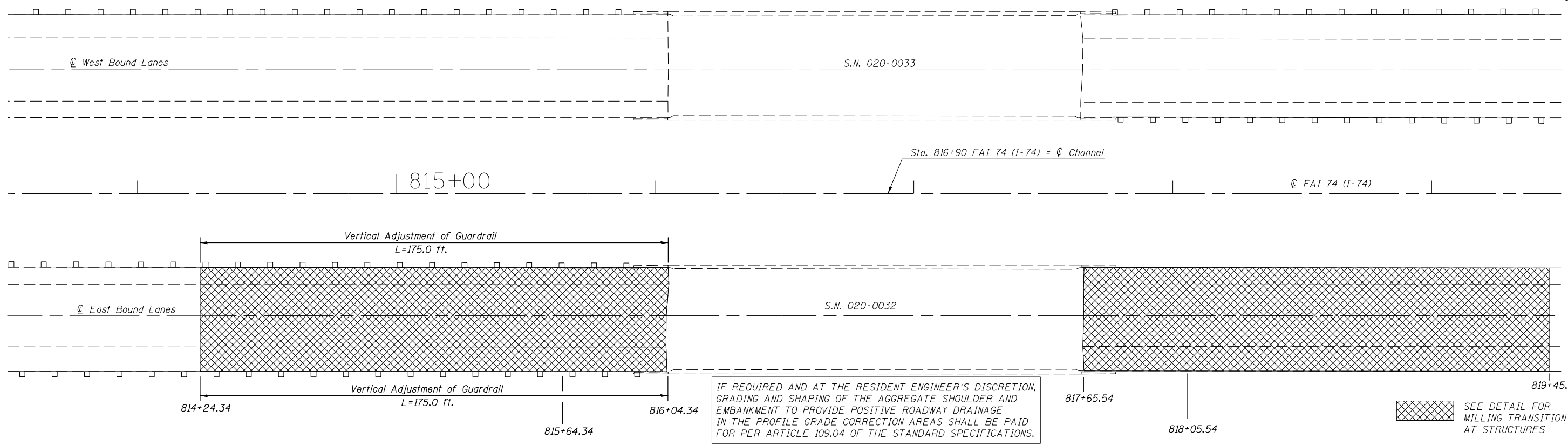
STRUCTURAL STEEL
NORTH & SOUTH BRIDGES
FAI RT. 74 SEC 20-IVB-1
DEWITT COUNTY
STA 808+07.29

I-2 7-2-62 Rev. 11-9-62 Rev. 8-16-63 Rev. 12-10-63



| | | | |
|------|-----------|----|------|
| PLAN | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | ALIGNED | | |
| | CHECKED | | |
| | FILED | | |
| | NO. | | |
| | FILE NAME | | |

| | | | |
|---------|-----------------------------|----|------|
| PROFILE | SURVEYED | BY | DATE |
| | PLOTTED | | |
| | GRADES CHECKED | | |
| | STRUCTURE NOTATIONS CHECKED | | |
| | NO. | | |
| | NOTATIONS CHECKED | | |



| | | | | | | | | | | | | | |
|-------------|---------------------------|------------|-----------|---|--|-------|----|----------------|-----------|---------------|------------------|--------------------|--|
| FILE NAME = | USER NAME = brandenburgtj | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | MILLING TRANSITION S.N. 020-0032 (EB) | | | F.A.I. RTE. 74 | SECTION • | COUNTY DEWITT | TOTAL SHEETS 166 | SHEET NO. 100 | |
| | | CHECKED - | REVISED - | | SCALE: | SHEET | OF | SHEETS | STA. | TO | STA. | CONTRACT NO. 90876 | |
| | | DATE - | REVISED - | | ILLINOIS FED. AID PROJECT | | | | | | | | |
| | | | | | #20-1(HVB,HB-1,VB-1,B,B-1)I | | | | | | | | |