

| F.A.P. R/F | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083 00-BR | WILL | 46 | 1 |
| CONTRACT NO. 61F12 | | | | |

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

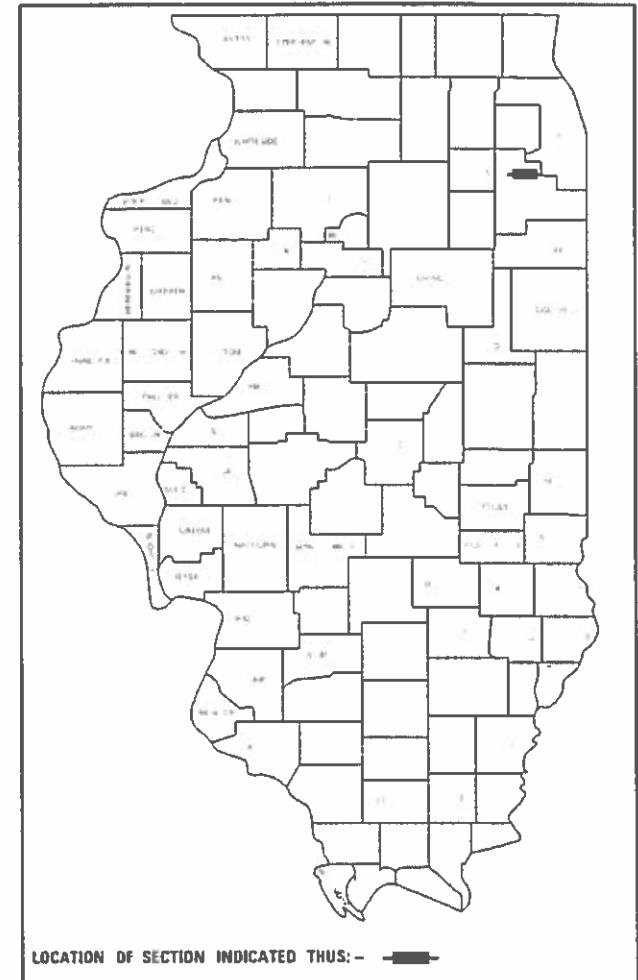
TRAFFIC DATA

POSTED SPEED LIMIT - 30 MPH
 DESIGN SPEED LIMIT - 30 MPH
 2016 ADT = 450 VPD
 2040 ADT = 470 VPD

DESIGN DESIGNATION

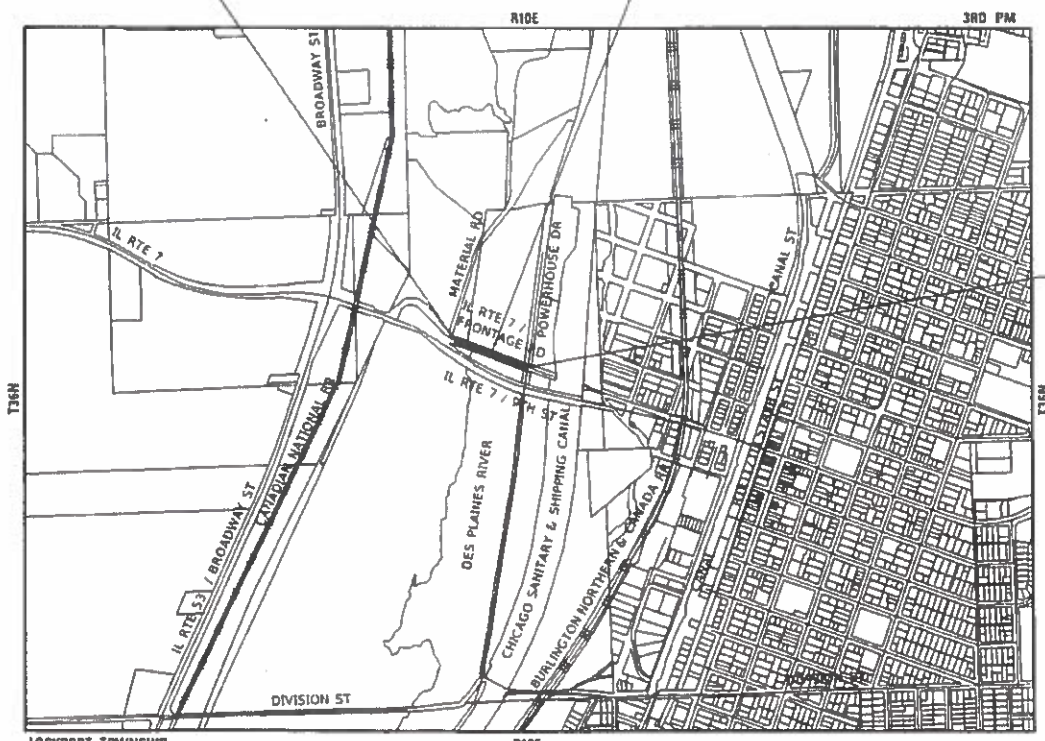
LOCAL ROAD

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**
 FAP 351 (IL ROUTE 7) (FRONTAGE ROAD)
 OVER DES PLAINES RIVER
 BRIDGE REHABILITATION AND BRIDGE PAINTING
 SECTION: 15-00083-00-BR
 PROJECT: AB2A(540)
 CITY OF LOCKPORT
 WILL COUNTY
 JOB: C-91-068-16

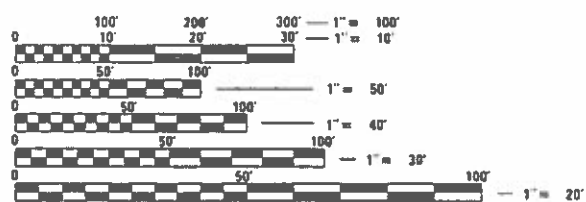


IMPROVEMENT BEGINS
 STA. 13 + 90.67

EXISTING SN 099-0135



IMPROVEMENT ENDS
 STA. 22 + 67.42



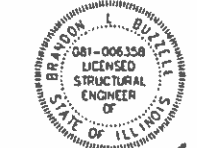
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. DESIGN STAGE REQUEST
 DIG. No. X0460219



CONTACT JULIE AT 811 OR 800-892-0123 WITH THE FOLLOWING:
 COUNTY = WILL
 CITY-TOWNSHIP = LOCKPORT
 SEC. & 1/4 SEC. NO. = 22NE
 48 HOURS (2 working days) BEFORE YOU DIG

GROSS LENGTH = 877 FT. = 0.166 MILE
 NET LENGTH = 877 FT. = 0.166 MILE



Jay C. Coleman
 PROJECT MANAGER
 "LICENSE EXPIRES 11-30-2019"

Bryan D. Buzell
 STRUCTURAL ENGINEER
 "LICENSE EXPIRES 11-30-2020"

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED October 16, 2018
B.D.C.
 CITY OF LOCKPORT

PASSED OCTOBER 31, 2018
Christopher...
 DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW NOVEMBER 8, 2018
Anthony J. Wanjigya
 REGIONAL ENGINEER

PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS

10/8/2018 4:40:59 PM (M:\Projects\LOCKPORT\150440-Des Plaines Bridge\CADD\Sheets\PH2\150440_SHT_COVER.dgn
 FEDERAL AID DESIGN PROGRAM ENGINEER: CARMEN E. RAMOS, P.E., SCHAUMBURG, IL

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HIGHWAY STANDARDS

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| 000001-07 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 280001-07 | TEMPORARY EROSION CONTROL SYSTEMS |
| 420001-09 | PAVEMENT JOINTS |
| 420401-13 | PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB |
| 442201-03 | CLASS C AND D PATCHES |
| 515001-03 | NAME PLATE FOR BRIDGES |
| 601101-02 | CONCRETE HEADWALL FOR PIPE UNDERDRAINS |
| 630001-12 | STEEL PLATE BEAM GUARDRAIL |
| 630301-09 | SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS |
| 631011-10 | TRAFFIC BARRIER TERMINAL, TYPE 2 |
| 631032-09 | TRAFFIC BARRIER TERMINAL, TYPE 6A |
| 664001-02 | CHAIN LINK FENCE |
| 701001-02 | OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY |
| 701006-05 | OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE |
| 701011-04 | OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701311-03 | LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY |
| 701901-08 | TRAFFIC CONTROL DEVICES |
| 720001-01 | SIGN PANEL MOUNTING DETAILS |
| 720006-04 | SIGN PANEL ERECTION DETAILS |
| 720011-01 | METAL POSTS FOR SIGNS, MARKERS & DELINEATORS |
| 725001-01 | OBJECT AND TERMINAL MARKERS |
| 729001-01 | APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS) |
| 780001-05 | TYPICAL PAVEMENT MARKINGS |
| 782006 | GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS |
| B.L.R. 21-9 | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL |

DISTRICT 1 DETAILS

| | |
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| BD-34 | DISTRICT 1 DETAILS - DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL |
| TC-10 | DISTRICT 1 DETAILS - TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS |
| TC-13 | DISTRICT 1 DETAILS - TYPICAL PAVEMENT MARKINGS |
| TC-22 | DISTRICT 1 DETAILS - ARTERIAL ROAD INFORMATION SIGN |

COMMITMENTS

1. TO MINIMIZE DISTURBANCE OF THE BANDED KILLIFISH DURING SPAWNING, NO IN-STREAM WORK SHALL BE PERFORMED FROM MAY 15 TO JUNE 30.
2. SILTATION HAS THE POTENTIAL TO DESTROY THE PREFERRED HABITAT FOR THE BANDED KILLIFISH. THEREFORE, CONTROLLING SILTATION AND REDUCING THE DESTRUCTION OF AQUATIC PLANTS IS CRITICAL.
3. WORK MAY NOT BE PERFORMED IN THE WATER, EXCEPT FOR THE PLACEMENT OF MATERIALS NECESSARY FOR THE CONSTRUCTION OF CAUSEWAYS. ALL MATERIALS FOR CAUSEWAYS AND ANY FILLS USED MUST BE NON-ERODABLE. LOW GROUND-PRESSURE EQUIPMENT IS REQUIRED FOR WORK IN WETLANDS. LUMBAR TO BE USED FOR TEMPORARY CONSTRUCTION ACTIVITIES MUST BE FREE OF ALL CHEMICAL TREATMENT, NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME.

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| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 20.0000 ' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_GEN-NOTE.dgn |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, COMMITMENTS AND HIGHWAY STANDARDS

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 2 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: "THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (REFERRED TO AS THE "STANDARD SPECIFICATIONS"), THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE "MANUAL OF TEST PROCEDURES FOR MATERIALS" AND THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS".
2. THE LOCATIONS OF PUBLIC UTILITIES SHOWN ON THE PLANS REPRESENTS ONLY THE OPINION OF THE OWNER AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER AND THE ACCURACY IS NOT GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND, SURFACE, AND OVERHEAD UTILITIES, INCLUDING SPRINKLER SYSTEMS, EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS.
3. THE CONTRACTOR SHALL NOTIFY THE CITY OF LOCKPORT PUBLIC WORKS DEPARTMENT AT 1-815-838-0549 AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK TO OBTAIN CITY UTILITY LOCATIONS.
4. THE INDISCRIMINATE USE OF FIRE HYDRANTS IS STRICTLY PROHIBITED. WATER FOR CONSTRUCTION SHALL BE METERED OR OTHERWISE ACCOUNTED FOR AND A DAILY LOG MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE WATER TRUCK AND DRIVER REQUIRED TO OBTAIN AND TRANSPORT THIS WATER. THE CITY RESERVES THE RIGHT TO RESTRICT OR REFUSE THE USE OF CITY WATER IF DEEMED NECESSARY. THE CONTRACTOR SHALL CONTACT CITY OF LOCKPORT PUBLIC WORKS AT 1-815-838-0549 REGARDING OBTAINING WATER.
5. ACCESS TO PRIVATE DRIVEWAYS SHALL BE PROVIDED AT ALL TIMES EXCEPT DURING ACTUAL CONSTRUCTION ADJACENT THERE TO. TEMPORARY RAMPS SHALL BE CONSTRUCTED AS NEEDED TO PROVIDE SUCH ACCESS, UTILIZING CRUSHED STONE OR CRUSHED GRAVEL AS TEMPORARY ACCESS.
6. THE CONTRACTOR SHALL CONTACT THE LOCAL AGENCY MATERIAL INSPECTOR AT LEAST 48 HOURS PRIOR TO ANY CONCRETE OR HOT-MIX ASPHALT MATERIAL DELIVERIES. CONTACT INFORMATION WILL BE PROVIDED AT THE PRE-CONSTRUCTION MEETING.
7. ALL EXISTING POSTS, RAILROAD TIES, AND DECORATIVE TIMBER AND ROCKS IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND RELOCATED AS DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR WHEN REMOVING THESE ITEMS TO PRESERVE THEM FROM HARM. ITEMS NOT RELOCATED OR SALVAGED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
8. TRENCH BACKFILL FOR THIS PROJECT SHALL CONSIST OF CRUSHED CA-6 AND SHALL BE COMPACTED BY METHOD 1 ONLY.
9. ANY DAMAGE TO PAVEMENT, SIDEWALK, CURB OR ANY OTHER PORTION OF THE ROADWAY NOT SPECIFICALLY TO BE REMOVED AND REPLACED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL REPLACE ALL STREET SIGNS AND MAIL BOXES REMOVED DURING CONSTRUCTION AS NEAR AS POSSIBLE TO THEIR ORIGINAL LOCATION OR AS DETERMINED BY THE ENGINEER. THIS WORK SHALL BE IN ACCORDANCE WITH ARTICLES 107.20 AND 107.25.
11. NO STOCKPILING MATERIAL WILL BE ALLOWED IN FLOODPLAIN.
12. THE SUBGRADE STABILITY SHALL BE VERIFIED BY PROOF ROLLING WITH A FULLY LOADED TANDEM-AXLE TRUCK.
13. ANY AGGREGATE SUBGRADE IMPROVEMENT CONTAMINATED AND/OR DAMAGED BY THE CONTRACTOR'S VEHICLES AND/OR EQUIPMENTS IS TO BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
14. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORICAL AS-BUILT OR OTHER RECORD PLANS AND DOCUMENTS MUST CONTACT THE OWNER OF RECORD TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION. CONTACT JAY COLEMAN WITH BAXTER & WOODMAN, INC. AT 1-815-444-3277.
15. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. A FULL HYDRAULIC REPORT IS NOT AVAILABLE FOR THIS STRUCTURE, BUT THE IDNR-OWR PERMIT APPLICATION INCLUDING HYDRAULIC INFORMATION IS AVAILABLE. THOSE SEEKING THE IDNR-OWR PERMIT APPLICATION SHOULD CONTACT JAY COLEMAN WITH BAXTER & WOODMAN, INC. AT 1-815-444-3277.
16. IF THE CONTRACTOR'S MEANS AND METHODS REQUIRE THE CONSTRUCTION OF TEMPORARY ACCESS CAUSEWAYS IN THE DES PLAINES RIVER, THE WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PERMITS AND RECURRING SPECIAL PROVISION FOR TEMPORARY STREAM CROSSINGS AND IN-STREAM WORK PADS.
17. THE PERMITS LISTED BELOW AND INCLUDED IN THE SPECIAL PROVISIONS ARE BEING PROVIDED FOR PROJECT CONSTRUCTION:
 - A. METROPOLITAN WATER RECLAMATION DISTRICT OF GREATOR CHICAGO GENERAL PERMIT AND ADDENDUM.
 - B. UNITED STATES ARMY CORP OF ENGINEERS PERMIT
 - C. ILLINOIS DEPARTMENT OF NATURAL RESOURCES, OFFICE OF WATER RESOURCES PERMIT.
 - D. ILLINOIS DEPARTMENT OF NATURAL RESOURCES INCIDENTAL TAKE AUTHORIZATION.

THE PERMITS ACCOMMODATE STAGING AREA, ACCESS ROUTES AND THE INSTALLATION OF TEMPORARY CAUSEWAYS; SEE EACH PERMIT FOR ADDITIONAL INFORMATION. IF THE CONTRACTOR ELECTS TO PURSUE MEANS AND METHODS NOT ACCOMODATED BY THE APPROVED PERMITS, HE WILL BE RESPONSIBLE FOR PERMIT RESUBMITTAL, AGENCY COORDINATION AND RELATED COSTS. NO EXTENSION OF TIME OR COMPENSATION WILL BE GRANTED AS A RESULT OF ANY DELAY IN OBTAINING THE PERMIT TO START CONSTRUCTION.
18. THIS PROJECT REQUIRES AN INCIDENTAL TAKE AUTHORIZATION FROM ILLINOIS DEPARTMENT OF NATURAL RESOURCES FOR CONSTRUCTION ACTIVITIES THAT MAY POTENTIALLY AFFECT THE BANDED KILLIFISH. IN ACCORDANCE WITH THAT AUTHORIZATION, THE FOLLOWING CONDITIONS MUST BE MET IF TEMPORARY ACCESS CAUSEWAYS ARE USED DURING CONSTRUCTION:
 - A. TO KEEP AS MUCH RIVER HABITAT OPEN AS POSSIBLE, ONLY ONE CAUSEWAY SHALL BE CONSTRUCTED AND OPERATED AT A TIME. ONCE WORK IS DONE ON ONE SIDE OF THE BRIDGE, THE TEMPORARY CAUSEWAY WILL BE REMOVED AND THE OTHER CAUSEWAY COULD THEN BE CONSTRUCTED.
 - B. TEMPORARY CULVERTS SHALL BE PLACED THROUGH THE CAUSEWAYS TO ALLOW THE FLOW OF THE RIVER TO PASS. THIS WILL MINIMIZE TEMPORARY PONDING AND OBSTRUCTIONS OF FLOW, KEEPING THE FLOW CONDITIONS AS CLOSE TO EXISTING CONDITIONS AS POSSIBLE.
19. ALL WORK SHALL BE IN ACCORDANCE WITH THE COMMITMENTS LISTED ON SHEET 2.

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| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 20.0000 ' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 3/13/2019 | DATE - 03-12-19 | FILE - 150440_SHT_GEN-NOTE.dgn |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------|------------------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 3 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS | | FED. AID PROJECT | | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE | |
|------------|--|-------|----------------|--------|-------|
| | | | | 0013 | RURAL |
| 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 60 | 60 | |
| 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 18 | 18 | |
| 20101000 | TEMPORARY FENCE | FOOT | 400 | 400 | |
| 20101100 | TREE TRUNK PROTECTION | EACH | 10 | 10 | |
| * 20101200 | TREE ROOT PRUNING | EACH | 10 | 10 | |
| * 20101300 | TREE PRUNING (1 TO 10 INCH DIAMETER) | EACH | 15 | 15 | |
| * 20101350 | TREE PRUNING (OVER 10 INCH DIAMETER) | EACH | 15 | 15 | |
| 20200100 | EARTH EXCAVATION | CU YD | 110 | 110 | |
| 20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | CU YD | 56 | 56 | |
| 21001000 | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION | SQ YD | 144 | 144 | |
| 21101505 | TOPSOIL EXCAVATION AND PLACEMENT | CU YD | 157 | 157 | |
| * 25000312 | SEEDING, CLASS 4A | ACRE | 0.10 | 0.10 | |
| * 25000314 | SEEDING, CLASS 4B | ACRE | 0.04 | 0.04 | |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 526 | 526 | |
| 28000305 | TEMPORARY DITCH CHECKS | FOOT | 105 | 105 | |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAINEES

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| | USER NAME = 488cac | DESIGNED - CAC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - | | | | | 351 | 15-00083-00-BR | WILL | 46 | 4 |
| | PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - | | SCALE: N.T.S. SHEET 1 OF 6 SHEETS STA. TO STA. | | | CONTRACT NO. 61F12 | | | | |
| | | DATE = 10-08-18 | FILE - 150440_SHT_50Q.dgn | | | | | ILLINOIS FED. AID PROJECT | | | | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE |
|----------|---|-------|----------------|---------------|
| | | | | 0013 RURAL |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 1,017 | 1,017 |
| 28001100 | TEMPORARY EROSION CONTROL BLANKET | SQ YD | 1,497 | 1,497 |
| 30300001 | AGGREGATE SUBGRADE IMPROVEMENT | CU YD | 27 | 27 |
| 30300112 | AGGREGATE SUBGRADE IMPROVEMENT 12" | SQ YD | 136 | 136 |
| 42001300 | PROTECTIVE COAT | SQ YD | 128 | 128 |
| 42000080 | PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB | SQ YD | 128 | 128 |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 262 | 262 |
| 44201299 | DOWEL BARS 1 1/2" | EACH | 46 | 46 |
| 44201765 | CLASS D PATCHES, TYPE II, 10 INCH | SQ YD | 40 | 40 |
| 44213204 | TIE BARS 3/4" | EACH | 38 | 38 |
| 48101500 | AGGREGATE SHOULDERS, TYPE B 6" | SQ YD | 126 | 126 |
| 50102400 | CONCRETE REMOVAL | CU YD | 41.6 | 41.6 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 100 | 100 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 29.6 | 29.6 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 55.3 | 55.3 |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAININGS

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| | DRAWN - CJC | REVISED - |
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| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_SOQ.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 2 OF 6 SHEETS STA. TO STA.

| | | | | |
|--------------------|----------------|--------|---------------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 5 |
| CONTRACT NO. 61F12 | | | ILLINOIS FED. AID PROJECT | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE | |
|------------|--|-------|----------------|--------|-------|
| | | | | 0013 | RURAL |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 1,828 | 1,828 | |
| 50300300 | PROTECTIVE COAT | SQ YD | 298 | 298 | |
| 50301350 | CONCRETE SUPERSTRUCTURE (APPROACH SLAB) | CU YD | 90 | 90 | |
| 50500405 | FURNISHING AND ERECTING STRUCTURAL STEEL | POUND | 24,608 | 24,608 | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 44,810 | 44,810 | |
| 50900200 | STEEL RAILING, TYPE 2399 | FOOT | 1,254 | 1,254 | |
| 51500100 | NAME PLATES | EACH | 1 | 1 | |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 77 | 77 | |
| 52100110 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 24 | 24 | |
| 52100120 | ELASTOMERIC BEARING ASSEMBLY, TYPE II | EACH | 12 | 12 | |
| 52100505 | ANCHOR BOLTS, 5/8" | EACH | 72 | 72 | |
| 59100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 40 | 40 | |
| 60100060 | CONCRETE HEADWALLS FOR PIPE DRAINS | EACH | 4 | 4 | |
| * 63000001 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | FOOT | 50 | 50 | |
| * 63000003 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS | FOOT | 114 | 114 | |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAININGS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|------------------------------|---------------------|------------|---------------|
| SUMMARY OF QUANTITIES | | | |
| SCALE: N.T.S. | SHEET 3 OF 6 SHEETS | STA. _____ | TO STA. _____ |


| | | | | |
|---------------------------|----------------|--------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 6 |
| ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 61F12 | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE |
|------------|--|--------|----------------|----------------|
| | | | | 001.3 RURAL |
| * 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 1 | 1 |
| * 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 1 | 1 |
| * 63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A | EACH | 1 | 1 |
| 63200310 | GUARDRAIL REMOVAL | FOOT | 548 | 548 |
| * 66900200 | NON-SPECIAL WASTE DISPOSAL | CU YD | 143 | 143 |
| * 66901001 | REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN | L SUM | 1 | 1 |
| * 66901002 | ON-SITE MONITORING OR REGULATED SUBSTANCES | DAYS | 5 | 5 |
| * 66901003 | REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT | L SUM | 1 | 1 |
| * 66900530 | SOIL DISPOSAL ANALYSIS | EACH | 2 | 2 |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 6 | 6 |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 |
| 70101830 | TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 | L SUM | 1 | 1 |
| * 72400100 | REMOVE SIGN PANEL ASSEMBLY - TYPE A | EACH | 2 | 2 |
| * 72400500 | RELOCATE SIGN PANEL ASSEMBLY - TYPE A | EACH | 3 | 3 |
| * 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 | 4 |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAINEES

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 488cac MODEL: D:\a\l\ I:\Mokrenal\CKPT\150440-Des Plaines Bridge\CADD\Sheets-Ph2\150440_SHT_SOQ.dgn

| | | | | | | | | | | | |
|---|-----------------------------|---------------------------|---------------|---|------------------------------|---------------------|----------------|--------------|--------------|---------------------------|--|
|  | USER NAME = 488cac | DESIGNED - CAC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | PLOT SCALE = 20,0000' / in. | DRAWN - CJC | REVISED - | | | 351 | 15-00083-00-BR | WILL | 46 | 7 | |
| | PLOT DATE = 3/12/2019 | CHECKED - JCC | REVISED - | | | CONTRACT NO. 61F12 | | | | | |
| | DATE - 03-12-19 | FILE - 150440_SHT_SOQ.dgn | SCALE: N.T.S. | | | SHEET 4 OF 6 SHEETS | | STA. TO STA. | | ILLINOIS FED. AID PROJECT | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE |
|------------|--|-------|----------------|----------------|
| | | | | 001-3 RURAL |
| * 78008310 | POLYUREA PAVEMENT MARKING TYPE II - LINE 4" | FOOT | 3,216 | 3,216 |
| * 78200005 | GUARDRAIL REFLECTORS, TYPE A | EACH | 8 | 8 |
| Z0001899 | JACK AND REMOVE EXISTING BEARINGS | EACH | 12 | 12 |
| Z0001904 | STRUCTURAL STEEL REMOVAL | L SUM | 1 | 1 |
| Z0003802 | REMOVAL OF EXISTING BEARINGS | EACH | 24 | 24 |
| Z0004552 | APPROACH SLAB REMOVAL | SQ YD | 128 | 128 |
| Z0006012 | BRIDGE DECK LA TEX CONCRETE OVERLAY, 2 1/4 INCHES | SQ YD | 1,959 | 1,959 |
| * Z0007112 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES | L SUM | 1 | 1 |
| * Z0010501 | CLEANING AND PAINTING STEEL BRIDGE NO. 1 | L SUM | 1 | 1 |
| Z0012130 | BRIDGE DECK SCARIFICATION 3/4" | SQ YD | 1,959 | 1,959 |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 1 |
| Z0015802 | PLUG EXISTING DECK DRAINS | EACH | 135 | 135 |
| Z0016001 | DECK SLAB REPAIR (FULL DEPTH, TYPE I) | SQ YD | 5 | 5 |
| Z0018004 | DRAINAGE SCUPPERS, DS-12 | EACH | 6 | 6 |
| Z0022800 | FENCE REMOVAL | FOOT | 60 | 60 |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAINEES

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| | | | | | | | | | | | |
|--|-----------------------------|-----------------|---------------------------|---|------------------------------|---------------------|---------------------------|----------------|--------|--------------|-----------|
| | USER NAME = 488cac | DESIGNED - CAC | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | DRAWN - CJC | CHECKED - JCC | REVISED - | | | | 351 | 15-00083-00-BR | WILL | 46 | 8 |
| | PLOT SCALE = 20.0000' / in. | DATE - 03-12-19 | FILE - 150440_SHT_500.dgn | | | | CONTRACT NO. 61F12 | | | | |
| | PLOT DATE = 3/12/2019 | | | | | | ILLINOIS FED. AID PROJECT | | | | |
| | | | | | SCALE: N.T.S. | SHEET 5 OF 6 SHEETS | | STA. TO STA. | | | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE |
|-------------|--|-------|----------------|---------------|
| | | | | 0013 RURAL |
| Z0030850 | TEMPORARY INFORMATION SIGNING | SQ FT | 75 | 75 |
| Z0032300 | JACKING EXISTING SUPERSTRUCTURE | L SUM | 1 | 1 |
| Z0046304 | PIPE UNDERDRAINS FOR STRUCTURES 4" | FOOT | 150 | 150 |
| Z0073410 | TEMPORARY SUPPORT SYSTEM, LOCATION 1 | EACH | 1 | 1 |
| Z0073420 | TEMPORARY SUPPORT SYSTEM, LOCATION 2 | EACH | 1 | 1 |
| ** Z0076600 | TRAINEES | HOUR | 500 | 500 |
| ** Z0076604 | TRAINEES TRAINING PROGRAM GRADUATE | HOUR | 500 | 500 |
| * A2002616 | TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALPER, BALLED AND BURLAPPED | EACH | 1 | 1 |
| * A2002716 | TREE, CARYA OVATA (SHAGBARK HICKORY), 2" CALIPER, BALLED AND BURLAPPED | EACH | 2 | 2 |
| * A2006714 | TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED | EACH | 2 | 2 |
| * X2511630 | EROSION CONTROL BLANKET (SPECIAL) | SQ YD | 1,497 | 1,497 |
| X4022000 | TEMPORARY ACCESS (COMMERCIAL ENTRANCE) | EACH | 2 | 2 |
| X5860110 | GRANULAR BACKFILL FOR STRUCTURES | CU YD | 78 | 78 |
| * X6310088 | TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL) | EACH | 3 | 3 |
| * X6330725 | STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) | FOOT | 55 | 55 |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAINEES

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | BRIDGE |
|------------|--------------------------------|------|----------------|---------------|
| | | | | 0013 RURAL |
| * X6640560 | CHAIN LINK FENCE, 6' (SPECIAL) | FOOT | 60 | 60 |

* INDICATES SPECIALTY ITEM
 ** INDICATES CONSTRUCTION CODE 0042 TRAINEES

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| | | |
|-----------------------------|-----------------|---------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 3/12/2019 | CHECKED - JCC | REVISED - |
| | DATE - 03-12-19 | FILE - 150440_SHT_SOQ.dgn |

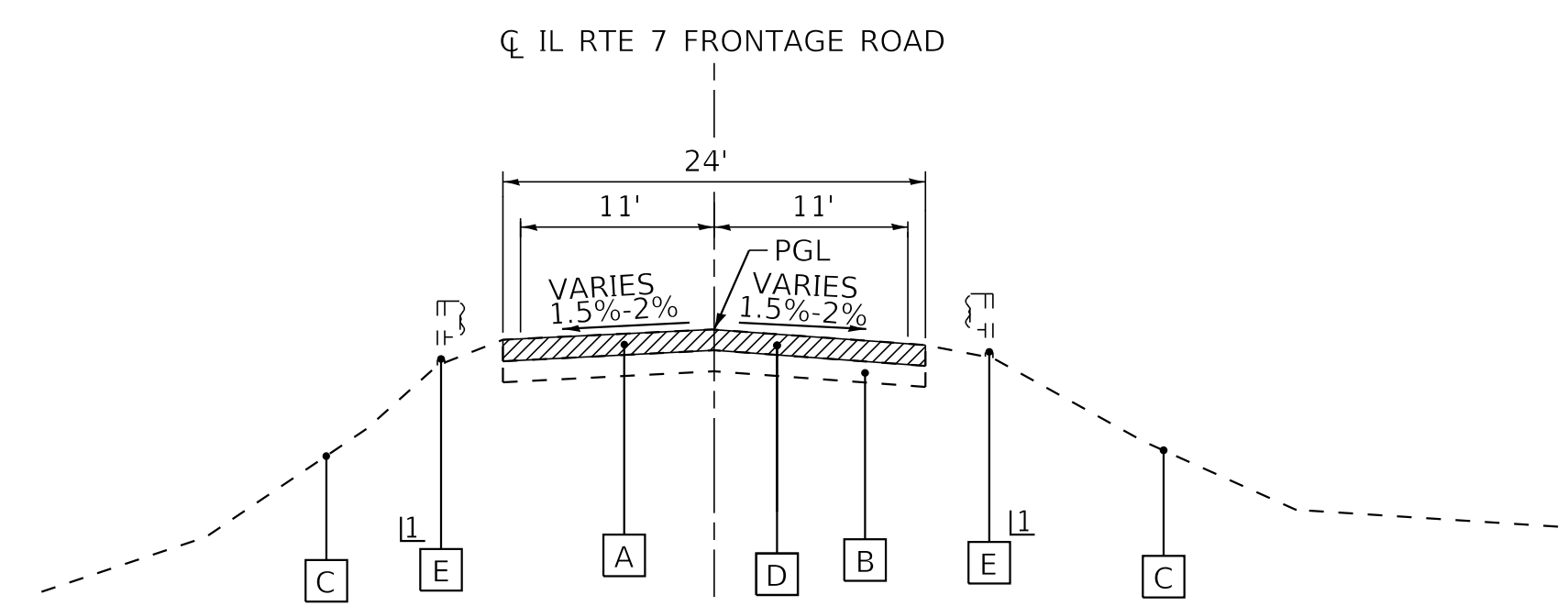
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 6 OF 6 SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 9 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

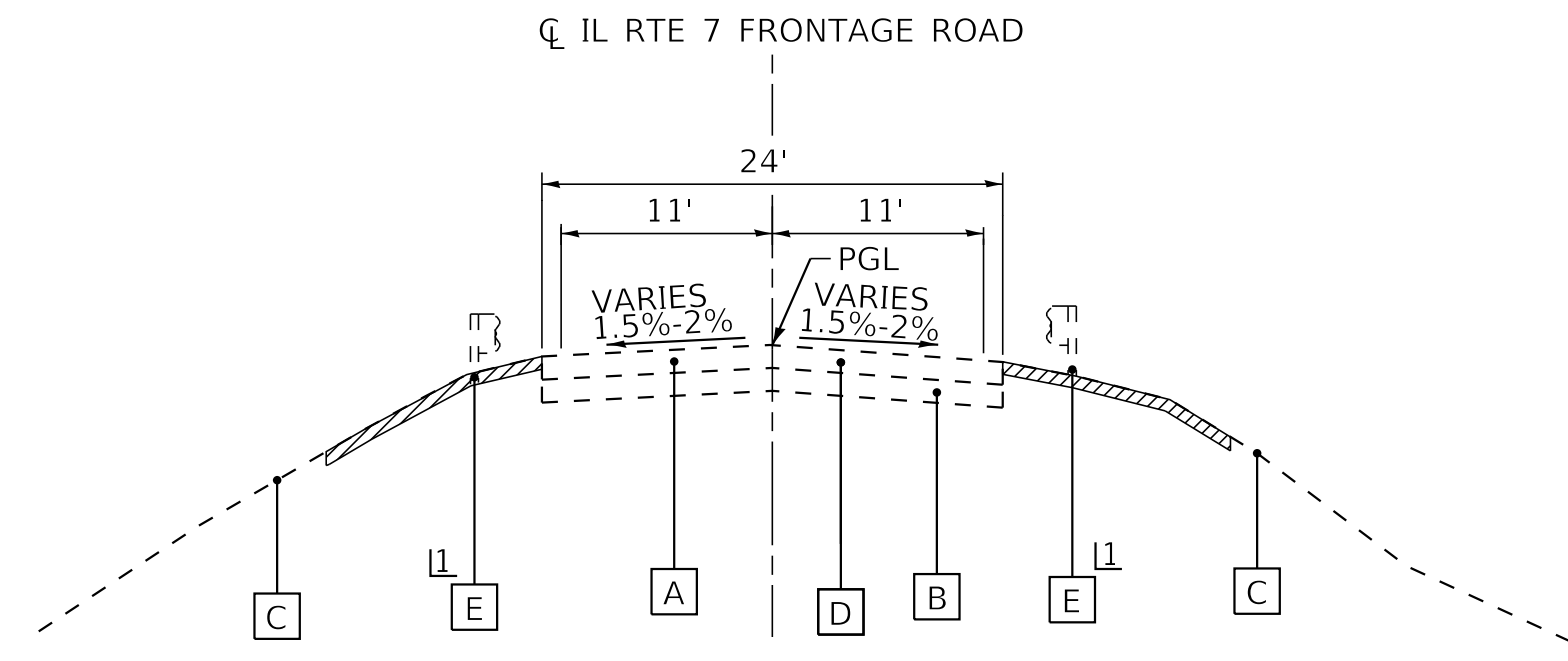
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EXISTING TYPICAL SECTION

STA 15+60.60 TO STA 16+09.60, IL ROUTE 7 FRONTAGE ROAD
 STA 22+14.40 TO STA 22+63.42, IL ROUTE 7 FRONTAGE ROAD

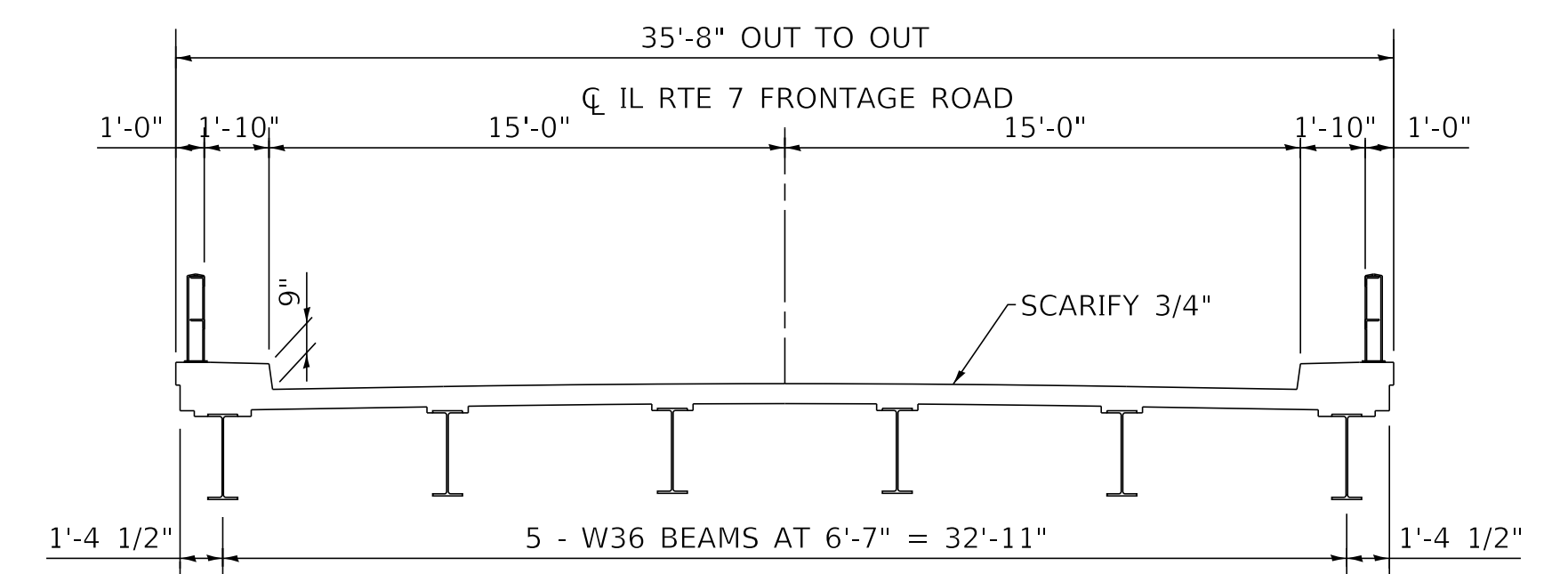
SEE EXISTING CONDITIONS AND REMOVAL PLANS FOR LOCATIONS



EXISTING TYPICAL SECTION

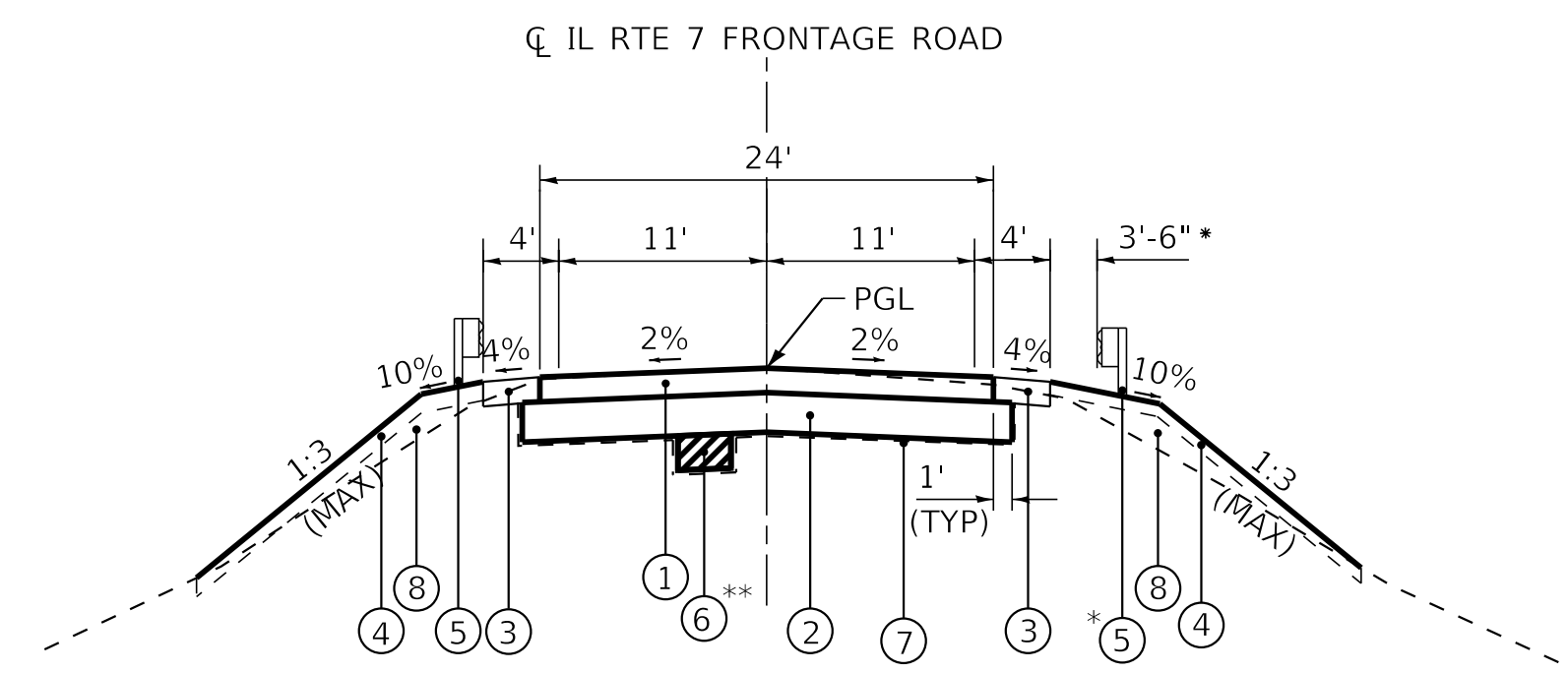
STA 13+90.67 TO 15+60.60, IL ROUTE 7 FRONTAGE ROAD
 STA 22+63.42 TO STA 22+67.42, IL ROUTE 7 FRONTAGE ROAD

SEE EXISTING CONDITIONS AND REMOVAL PLANS FOR LOCATIONS



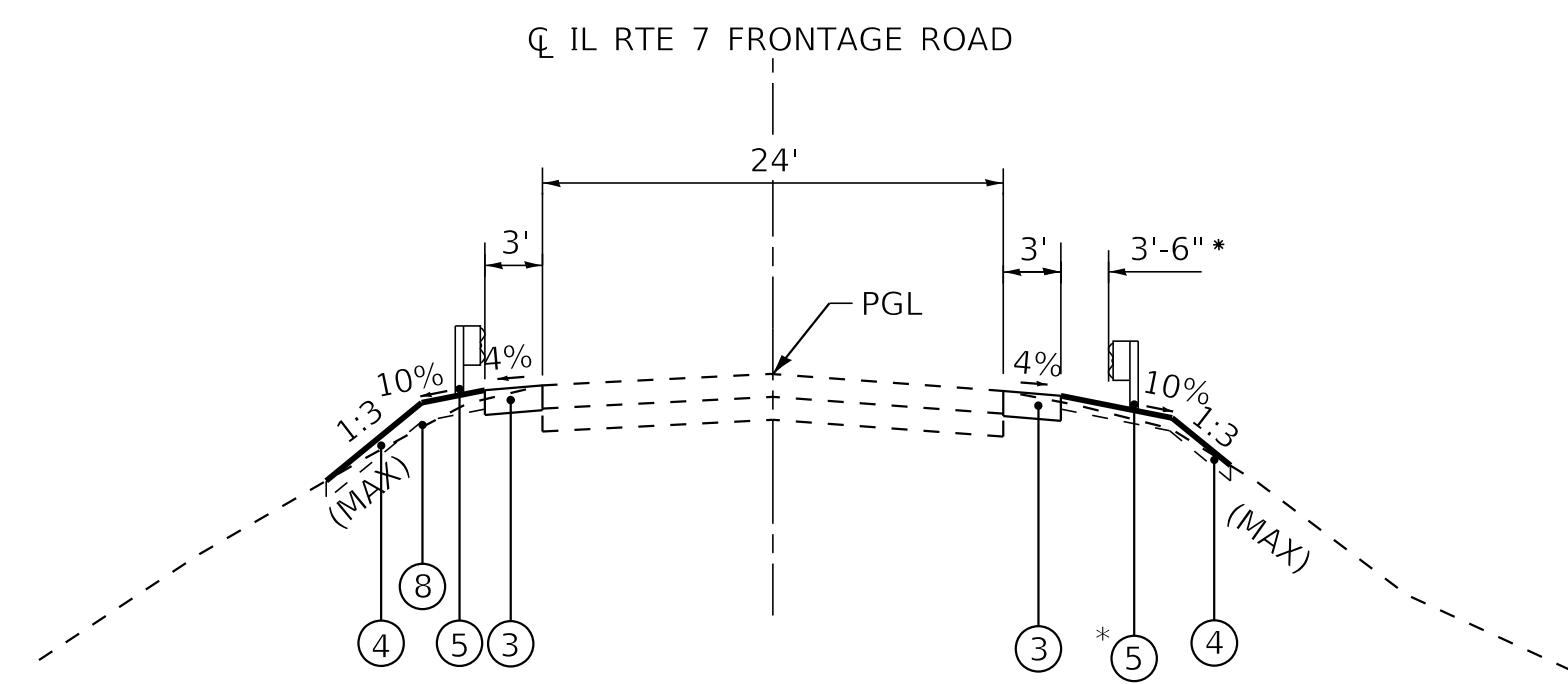
EXISTING TYPICAL SECTION

STA 16+09.60 TO STA 22+14.40, IL ROUTE 7 FRONTAGE ROAD



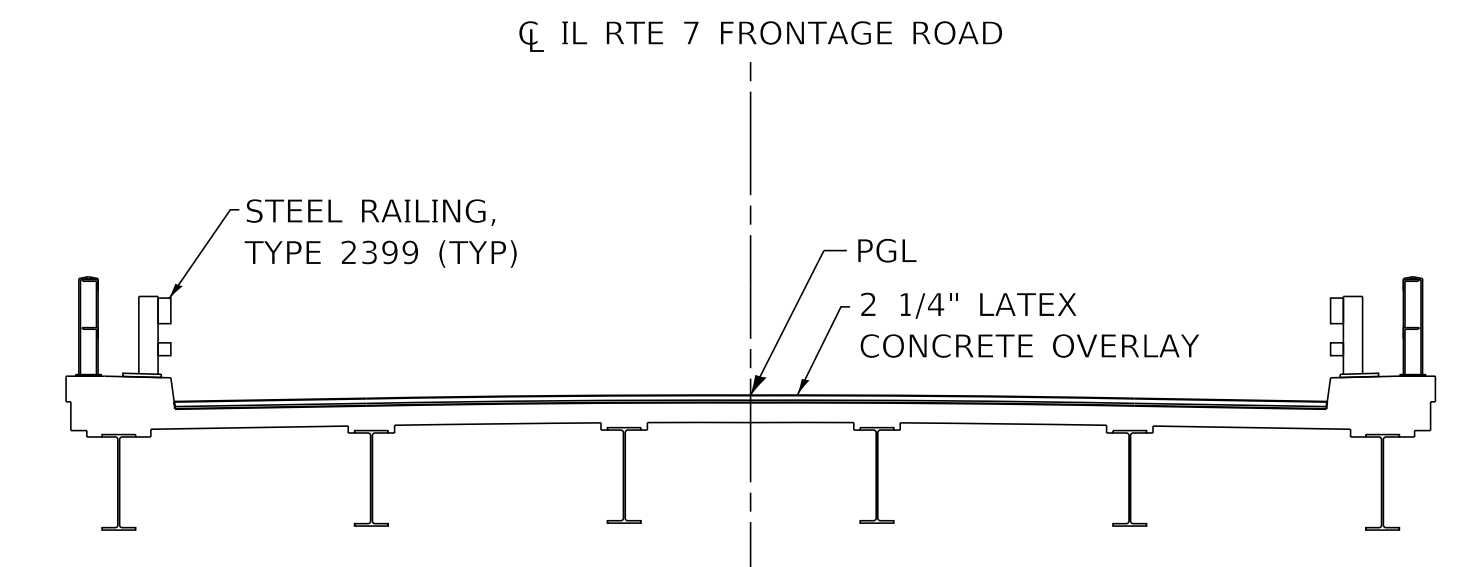
PROPOSED TYPICAL SECTION

STA 15+60.60 TO STA 16+09.60 IL ROUTE 7 FRONTAGE ROAD
 STA 22+14.40 TO STA 22+63.42, IL ROUTE 7 FRONTAGE ROAD



PROPOSED TYPICAL SECTION

STA 13+90.67 TO 15+60.60, IL ROUTE 7 FRONTAGE ROAD
 STA 22+63.42 TO STA 22+67.42, IL ROUTE 7 FRONTAGE ROAD



PROPOSED TYPICAL SECTION

STA 16+09.60 TO STA 22+14.40, IL ROUTE 7 FRONTAGE ROAD

EXISTING LEGEND

- A PCC PAVEMENT - (VARIES 10" - 11 1/4")
- B AGGREGATE SUBBASE
- C GROUND
- D PAVEMENT REMOVAL
- E GUARDRAIL REMOVAL
- ITEM TO BE REMOVED

PROPOSED LEGEND

- 1 PCC PAVEMENT CONNECTOR FOR BRIDGE APPROACH SLAB
- 2 AGGREGATE SUBGRADE IMPROVEMENT, 12"
- 3 AGGREGATE SHOULDERS, TYPE B, 6"
- 4 TOPSOIL EXCAVATION AND PLACEMENT AND SEEDING (6" TOPSOIL REMOVAL, 4" TOPSOIL PLACEMENT - SEE EARTHWORK TABLE)
- 5 * PROPOSED GUARDRAIL
- 6 REMOVAL OF UNSUITABLE MATERIAL **AGGREGATE SUBGRADE IMPROVEMENT (AT LOCATIONS DETERMINED BY THE ENGINEER)
- 7 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- 8 EMBANKMENT

NOTES:

- * GUARDRAIL SET BACK TO AVOID CONFLICT WITH AT&T DUCT BANK.
- **AGGREGATE SUBGRADE IMPROVEMENT (ASI) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.03 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED WITH ASI OR EMBANKMENT AS DETERMINED BY THE ENGINEER. THE REMOVAL AND REPLACEMENT AREA SHALL EXTEND TO 12 INCHES BEYOND THE BACK OF CURB AND GUTTER AND COME UP AT A 1:1 SLOPE TO AGGREGATE SUBGRADE IMPROVEMENT 12". THESE LIMITS MAY BE ALTERED BY THE ENGINEER IF FIELD CONDITIONS SO WARRANT. REMOVAL OF THESE UNSUITABLE SOILS SHALL BE PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL." ANY ASI AND REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR GROUND STABILIZATION NOT NEEDED AT THE TIME OF CONSTRUCTION SHALL BE DELETED FROM THE CONTRACT.

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | |
|---|------------------|
| MIXTURE TYPE | AIR VOIDS @ Ndes |
| PATCHING | |
| CLASS D PATCH (HMA BINDER IL-19mm), 10" | 4% @ 70 GYR |

NOTE: THE CONTRACTOR SHALL MILL BEFORE PATCHING.

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LB/SQ YD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE 'SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR HMA FULL DEPTH "AC TYPE" SEE SPECIAL PROVISIONS.
3. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.



| | | |
|-----------------------------|-----------------|------------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - |
| | DATE - 10-08-18 | FILE - 150440_SHT_TYPSEC.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 10 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

EARTHWORK

| LOCATION STA TO STA | TOPSOIL EXCAVATION (CU YD) | TOPSOIL EXCAVATION FOR PLACEMENT (15% SHRINKAGE) (CU YD) | 21101505 TOPSOIL EXCAVATION AND PLACEMENT (CU YD) | TOPSOIL BALANCE WASTE (+) OR SHORTAGE (-) (CU YD) | 30300001 AGGREGATE SUBGRADE IMPROVEMENT (CU YD) | UNSUITABLE EXCAVATION (TOPSOIL) (CU YD) | 20201200 REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL (CU YD) | 20200100 EARTH EXCAVATION (CU YD) | TOTAL SUITABLE EXCAVATION (CU YD) | EXCAVATION TO BE USED IN EMBANKMENT (15% SHRINKAGE) (CU YD) | EMBANKMENT (CU YD) | EARTHWORK BALANCE WASTE (+ OR SHORTAGE (-)) (CU YD) | 66900200 NON-SPECIAL WASTE DISPOSAL (CU YD) |
|---------------------------|----------------------------------|--|---|--|---|--|---|--|---|---|-----------------------|--|--|
| FRONTAGE ROAD | 94 | 80 | 52 | +29 | 27 | 29 | 56 | 110 | 110 | 93 | 10 | +87 | +143 |
| 13+90.00 14+00.00 | 2.0 | 1.8 | 1.1 | +0.7 | - | 0.7 | 0.7 | 0.1 | 0.1 | 0.1 | 0.5 | (-0) | +0 |
| 14+00.00 14+50.00 | 16.3 | 13.9 | 9.2 | +4.7 | - | 4.7 | 4.7 | 1.0 | 1.0 | 1.0 | 2.8 | (-3) | +2 |
| 14+50.00 15+00.00 | 24.3 | 20.7 | 12.8 | +7.9 | - | 7.9 | 7.9 | 4.0 | 4.0 | 3.5 | 1.8 | +2 | +10 |
| 15+00.00 15+50.00 | 26.5 | 22.6 | 12.9 | +9.7 | - | 9.7 | 9.7 | 5.2 | 5.2 | 4.5 | 1.2 | +4 | +14 |
| 15+50.00 15+70.00 | 10.7 | 9.1 | 5.2 | +3.9 | 6.0 | 3.9 | 9.9 | 13.4 | 13.4 | 11.4 | 0.9 | +11 | +21 |
| 15+70.00 16+00.00 | 11.5 | 9.8 | 7.8 | +2.0 | 7.0 | 2.0 | 9.0 | 39.3 | 39.3 | 33.4 | 1.8 | +32 | +41 |
| 16+00.00 16+09.60 | 2.2 | 2.0 | 2.5 | (-0.5) | 1.0 | - | 1.0 | 13.0 | 13.0 | 11.1 | 0.6 | +11 | +12 |
| 16+09.60 16+09.60 | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| 16+09.60 22+14.40 | 0.0 | - | 0.0 | - | - | - | - | - | - | - | - | - | - |
| 22+14.40 22+50.00 | 0.0 | - | 0.0 | - | 5.5 | - | 5.5 | 19.3 | 19.3 | 16.5 | - | +17 | +23 |
| 22+50.00 22+63.40 | 0.0 | - | 0.0 | - | 7.5 | - | 7.5 | 14.6 | 14.6 | 12.4 | - | +13 | +21 |
| TEMPORARY CAUSEWAY | 105 | 90 | 105 | -16 | | | | | | | | | |
| 13+75 14+14 RT | 17.0 | 14.5 | 17.0 | (-2.5) | | | | | | | | | |
| 14+14 16+15 RT | 35.0 | 29.8 | 35.0 | (-5.2) | | | | | | | | | |
| 21+35 21+97 LT | 35.0 | 29.8 | 35.0 | (-5.2) | | | | | | | | | |
| 21+97 22+51 LT | 18.0 | 15.3 | 18.0 | (-2.7) | | | | | | | | | |
| TOTALS | 199 | 170 | 157 | 13 | 27 | 29 | 56 | 110 | 110 | 93 | 10 | 87 | 143 |

EARTHWORK PAY ITEM SUMMARY

| | TOTAL | CU YD |
|--|-------|-------|
| (20200100) EARTH EXCAVATION | 110 | CU YD |
| (20201200) REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | 56 | CU YD |
| (21101505) TOPSOIL EXCAVATION AND PLACEMENT | 157 | CU YD |
| (30300001) AGGREGATE SUBGRADE IMPROVEMENT | 27 | CU YD |
| (66900200) NON-SPECIAL WASTE DISPOSAL | 143 | CU YD |

TREE SCHEDULE

| STATION | OFFSET (FT) | SIDE | A2002616 TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED EACH | A2002716 TREE, CARYA OVATA (SHAGBARK HICKORY), 2" CALIPER, BALLED AND BURLAPPED EACH | A2006714 TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED EACH |
|---------------|-------------|------|---|--|--|
| 15+00 | 30.0 | RT | | | 1 |
| 15+25 | 30.0 | RT | | 1 | |
| 15+50 | 30.0 | RT | 1 | | |
| 15+75 | 30.0 | RT | | 1 | |
| 16+00 | 30.0 | RT | | | 1 |
| TOTALS | | | 1 | 2 | 2 |

ROADWAY SCHEDULE

| FROM | TO | 44000100 PAVEMENT REMOVAL SQ YD | 42000080 PROPOSED PCC PAVEMENT CONNECTOR FOR BRIDGE APPROACH SLAB SY YD | 44201765 CLASS D PATCHES, TYPE II, 10 INCH SY YD | 30300112 AGGREGATE SUBGRADE IMPROVEMENT 12" SY YD | 21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION SQ YD | 48101500 AGGREGATE SHOULDERS, TYPE B 6" SQ YD |
|-----------------------------------|----------|--|---|---|---|--|---|
| IL ROUTE 7 (FRONTAGE ROAD) | | | | | | | |
| 15+60.60 | 16+09.60 | 131 | 64 | | 68 | 72 | |
| 22+14.40 | 22+63.40 | 131 | 64 | | 68 | 72 | |
| 14+50.00 | 15+60.60 | | | | | | 37 |
| 13+92.00 | 15+60.60 | | | | | | 57 |
| 22+10.00 | 22+49.00 | | | | | | 18 |
| 22+48.00 | 22+67.00 | | | 20 | | | |
| 22+48.00 | 22+67.00 | | | 20 | | | |
| 22+18.00 | 22+48.00 | | | | | | 14 |
| TOTALS | | 262 | 128 | 40 | 136 | 144 | 126 |

EROSION CONTROL SCHEDULE

| FROM | TO | SIDE | 28001100 TEMPORARY EROSION CONTROL BLANKET SQ YD | 28000250 TEMPORARY EROSION CONTROL SEEDING POUND | 28000305 TEMPORARY DITCH CHECKS FOOT | 28000400 PERIMETER EROSION BARRIER FOOT |
|---|-------|------|--|--|---|--|
| IL 7 FRONTAGE ROAD | | | | | | |
| 14+32 | 16+04 | LT | 187 | 66 | | 185 |
| 13+92 | 16+14 | RT | 241 | 85 | | 217 |
| 22+15 | 22+31 | LT | 15 | 5 | | |
| 22+27 | 22+54 | RT | 13 | 5 | | |
| TEMPORARY ACCESS FOR BRIDGE WORK | | | | | | |
| 13+75 | 14+14 | RT | 515 | 181 | 45 | 300 |
| 21+35 | 21+97 | LT | 526 | 185 | 60 | 315 |
| TOTALS | | | 1,497 | 526 | 105 | 1,017 |

PARKWAY RESTORATION SCHEDULE

| FROM | TO | SIDE | PROPOSED RESTORATION AREA SQ YD | 21101505 TOPSOIL EXCAVATION AND PLACEMENT CU YD | 25000312 SEEDING, CLASS 4A ACRE | 25000314 SEEDING, CLASS 4B ACRE | X2511630 EROSION CONTROL BLANKET (SPECIAL) SQ YD |
|---|-------|------|--|---|---------------------------------------|---------------------------------------|---|
| IL 7 FRONTAGE ROAD | | | | | | | |
| 14+32 | 16+04 | LT | 187 | 21 | 0.01 | | 187 |
| 13+92 | 16+14 | RT | 241 | 27 | 0.01 | | 241 |
| 22+15 | 22+31 | LT | 15 | 2 | 0.01 | | 15 |
| 22+27 | 22+54 | RT | 13 | 2 | 0.01 | | 13 |
| TEMPORARY ACCESS FOR BRIDGE WORK | | | | | | | |
| 13+75 | 14+14 | RT | 178 | 17 | 0.02 | | 178 |
| 14+14 | 16+15 | RT | 337 | 35 | | 0.02 | 337 |
| 21+35 | 21+97 | LT | 338 | 35 | 0.02 | 0.02 | 338 |
| 21+97 | 22+51 | LT | 188 | 18 | 0.02 | | 188 |
| TOTALS | | | 1,497 | 157 | 0.10 | 0.04 | 1,497 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|-----------------|--------------|
| 351 | 15-00083-00-BR | WILL | 46 | 11 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

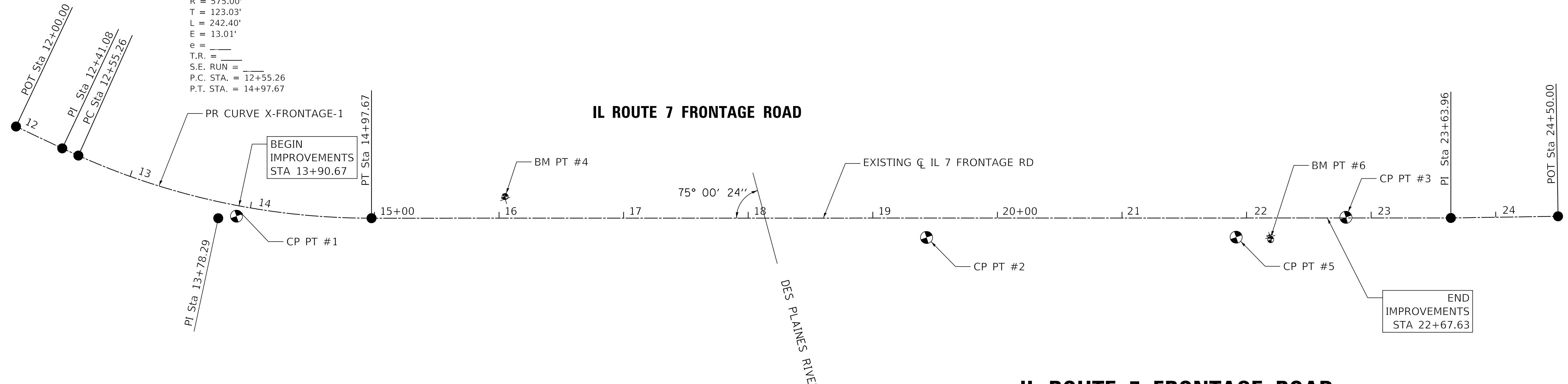
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 488cac FILE NAME: I:\Mokena\CKPT\150440-Des Plaines Bridge\CADD\Sheets-Ph2\150440_SHT_SCHEDULE.dgn



| | | |
|-----------------------------|-----------------|--------------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - |
| | DATE - 10-08-18 | FILE - 150440_SHT_SCHEDULE.dgn |

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PROP. CURVE X-FRONTAGE-1
 PI STA. = 13+78.29
 $\Delta = 24^\circ 09' 16''$ (LT)
 $D = 9^\circ 57' 52''$
 $R = 575.00'$
 $T = 123.03'$
 $L = 242.40'$
 $E = 13.01'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 12+55.26$
 $P.T. STA. = 14+97.67$



BECNCHMARK DATA

- BM #4 X SET ONTOP CONCRETE PILLAR
ELEV 578.07 (NAVD 88)
- BM #6 X SET SE ONTOP POST OF BRIDGE
ELEV 584.63 (NAVD 88)

CONTROL POINTS

| | | | | |
|-------|--------------|--------------|--------------|---|
| CP #1 | N1794324.331 | E1056168.827 | ELEV 573.89 | CP X CL W BRIDGE |
| CP #2 | N1794125.241 | E1056685.927 | ELEV 579.023 | CP X S WALK CENTER BRIDGE |
| CP #4 | N1794029.313 | E1057008.953 | ELEV 582.025 | CP X CL EAST OF BRIDGE |
| CP #5 | N1794043.384 | E1056920.552 | ELEV 581.652 | CP X S WALK 30' W OF EAST END OF BRIDGE |

IL ROUTE 7 FRONTAGE ROAD

Chain X-FRONTAGE contains:
 100 101 CUR X-FRONTAGE-1 102 103

Beginning chain X-FRONTAGE description

Point 100 N 1,794,450.78 E 1,056,025.54 Sta 12+00.00
 Course from 100 to 101 S 45° 24' 12.41" E Dist 41.08
 Point 101 N 1,794,421.94 E 1,056,054.80 Sta 12+41.08
 Course from 101 to PC X-FRONTAGE-1 S 46° 34' 10.38" E Dist 14.18

Curve Data

| | | | |
|--------------------|------------|---------------------|--------------|
| Curve X-FRONTAGE-1 | | | |
| P.I. Station | 13+78.29 N | 1,794,327.61 E | 1,056,154.44 |
| Delta | = | 24° 09' 15.66" (LT) | |
| Degree | = | 9° 57' 52.14" | |
| Tangent | = | 123.03 | |
| Length | = | 242.40 | |
| Radius | = | 575.00 | |
| External | = | 13.01 | |
| Long Chord | = | 240.61 | |
| Mid. Ord. | = | 12.73 | |
| P.C. Station | 12+55.26 N | 1,794,412.19 E | 1,056,065.09 |
| P.T. Station | 14+97.67 N | 1,794,287.00 E | 1,056,270.57 |
| C.C. | N | 1,794,829.76 E | 1,056,460.39 |
| Back | = | S 46° 34' 10.38" E | |
| Ahead | = | S 70° 43' 26.04" E | |
| Chord Bear | = | S 58° 38' 48.21" E | |

Course from PT X-FRONTAGE-1 to 102 S 70° 43' 26.04" E Dist 866.29
 Point 102 N 1,794,001.01 E 1,057,088.30 Sta 23+63.96
 Course from 102 to 103 S 71° 36' 56.69" E Dist 86.04
 Point 103 N 1,793,973.88 E 1,057,169.95 Sta 24+50.00

Ending chain X-FRONTAGE description



| | | |
|-----------------------------|-----------------|-----------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 50.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - |
| | DATE - 10-08-18 | FILE - 150440_SHT_ALIGN.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1" = 20' SHEET OF SHEETS STA. 13+50 TO STA. 24+00

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 12 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

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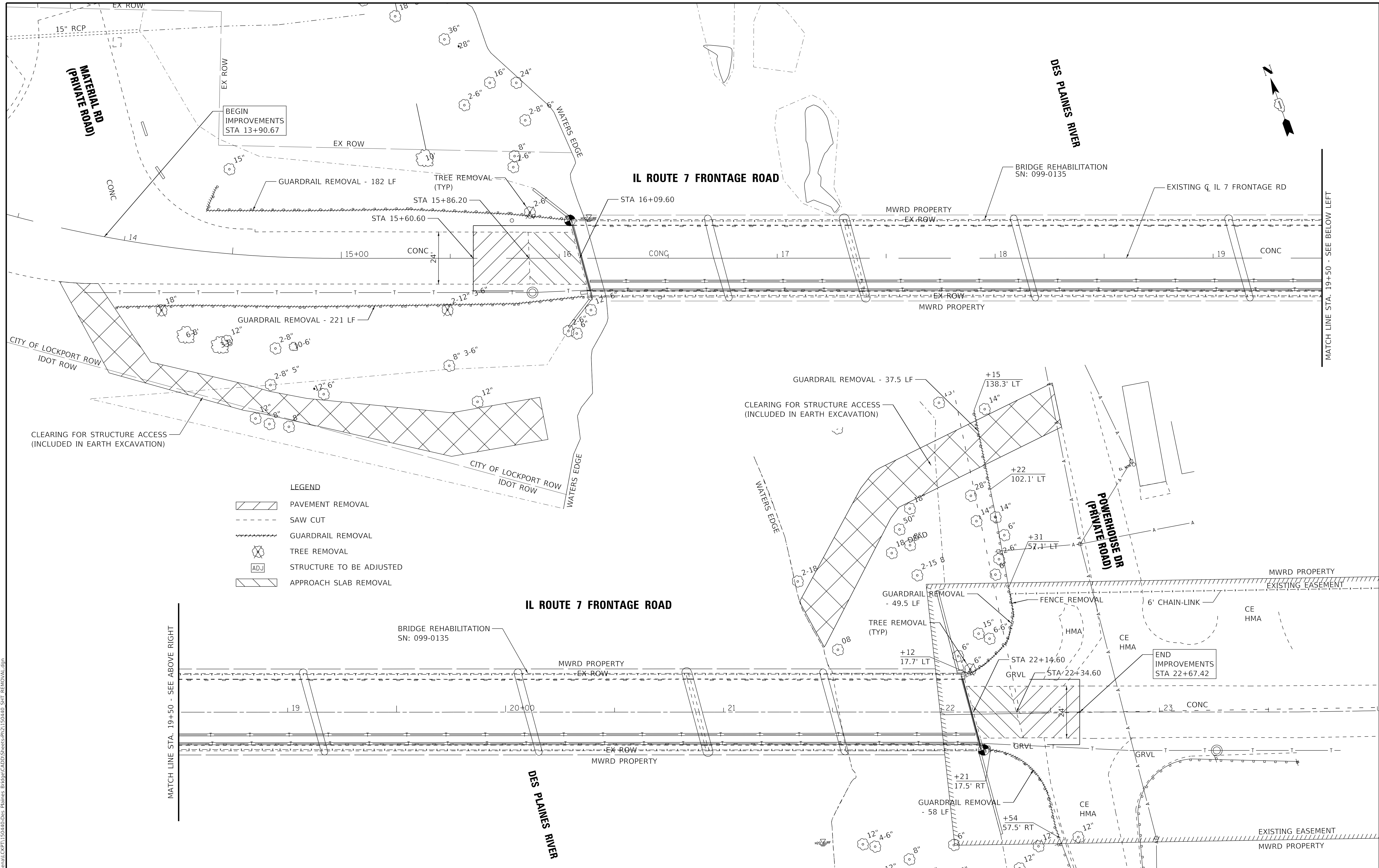


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| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 3/12/2019 | CHECKED - JCC | REVISED - |
| | DATE - 03-12-19 | FILE - 150440_SHT_REMOVAL.dgn |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING CONDITIONS AND REMOVAL PLAN
SCALE: 1" = 20' SHEET OF SHEETS STA. 13+50 TO STA. 24+00

| | | | | |
|--------------------|------------------------|-------------|---------------------------|--------------|
| F.A.P. RTE. 351 | SECTION 15-00083-00-BR | COUNTY WILL | TOTAL SHEETS 46 | SHEET NO. 13 |
| CONTRACT NO. 61F12 | | | ILLINOIS FED. AID PROJECT | |



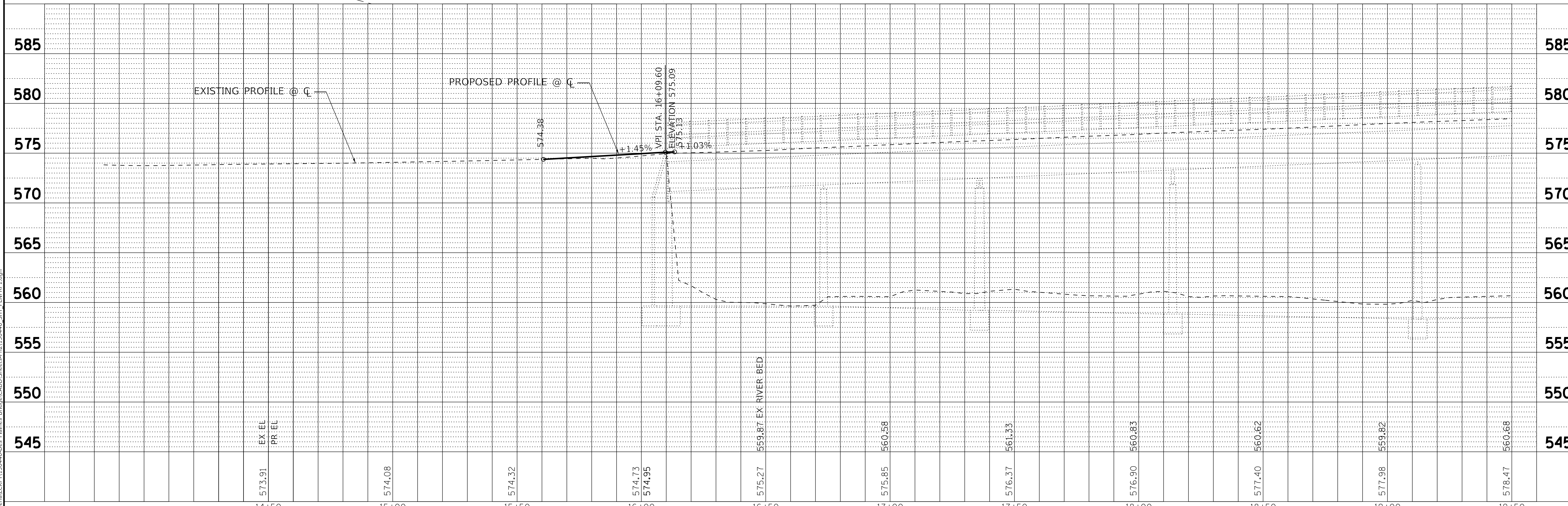
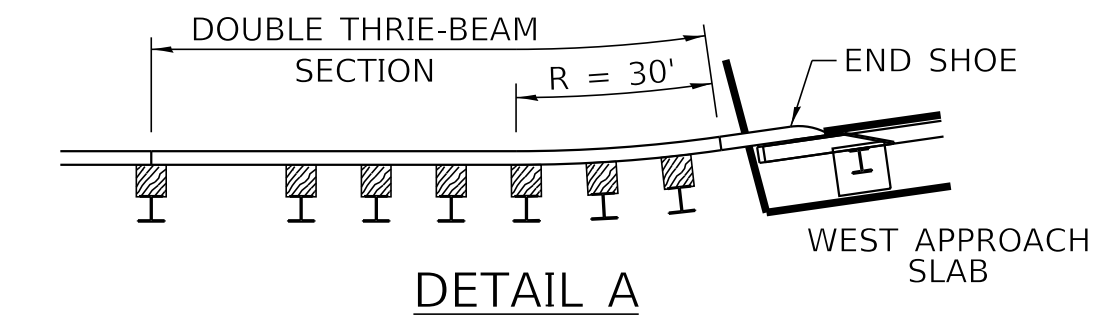
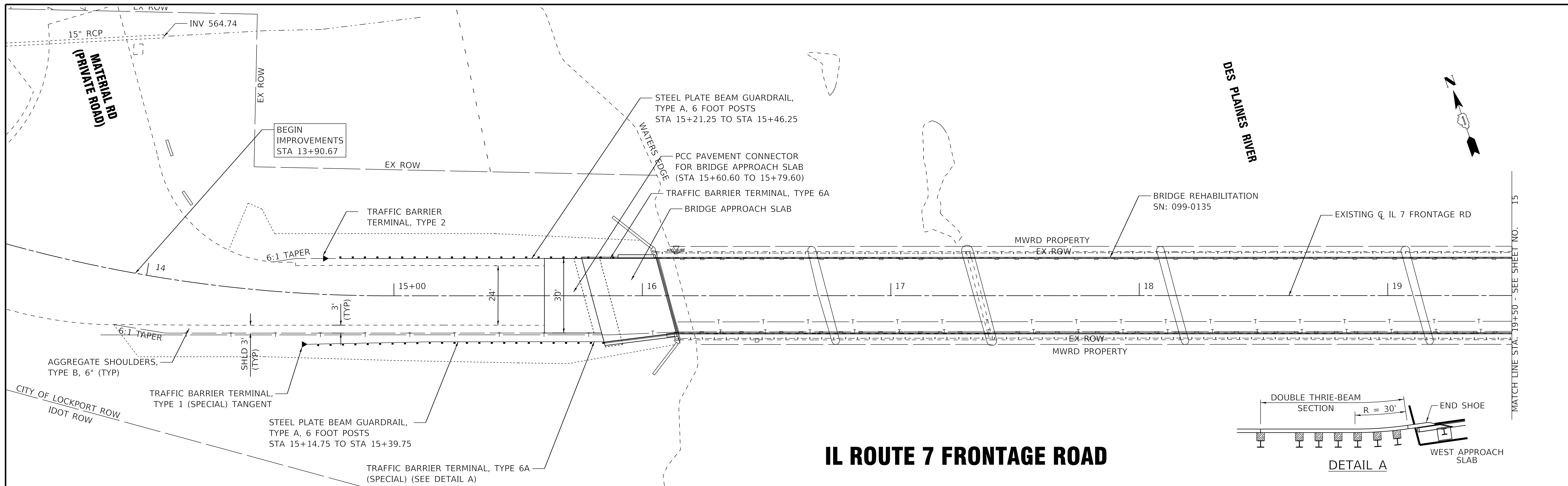
MATCH LINE STA. 19+50 - SEE BELOW LEFT

MATCH LINE STA. 19+50 - SEE ABOVE RIGHT

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

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

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| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 20.0000' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_PLNPRF1.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

| | |
|------------------|--------------------------|
| PLAN & PROFILE | |
| SCALE: H: 1"=20' | SHEET OF SHEETS |
| V: 1"=50' | STA. 13+50 TO STA. 19+50 |

| | | | | |
|-------------------------------------|------------------------|-------------|-----------------|--------------|
| F.A.P. RTE. 351 | SECTION 15-00083-00-BR | COUNTY WILL | TOTAL SHEETS 46 | SHEET NO. 14 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT A62A(540) | | | | |

MATCH LINE STA. 19+50 - SEE SHEET NO. 15

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|------|----------------------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | ALIGNMENT CHECKED | |
| | GRADE CHECKED | |
| | STRUCTURE NOTATION CHECKED | |
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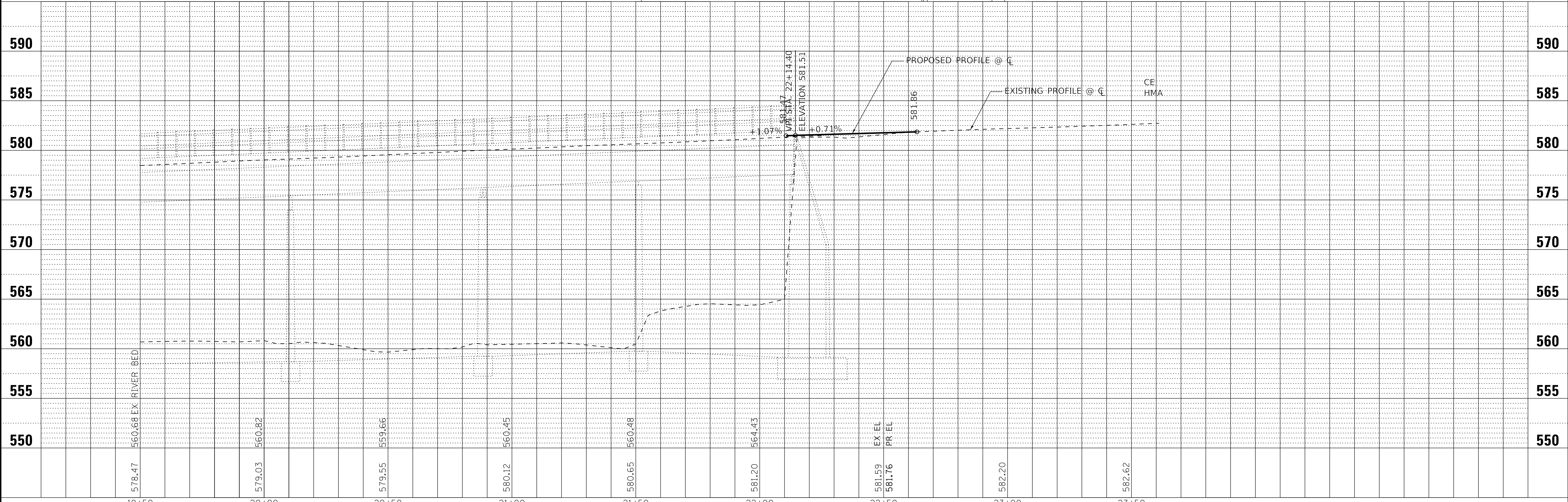
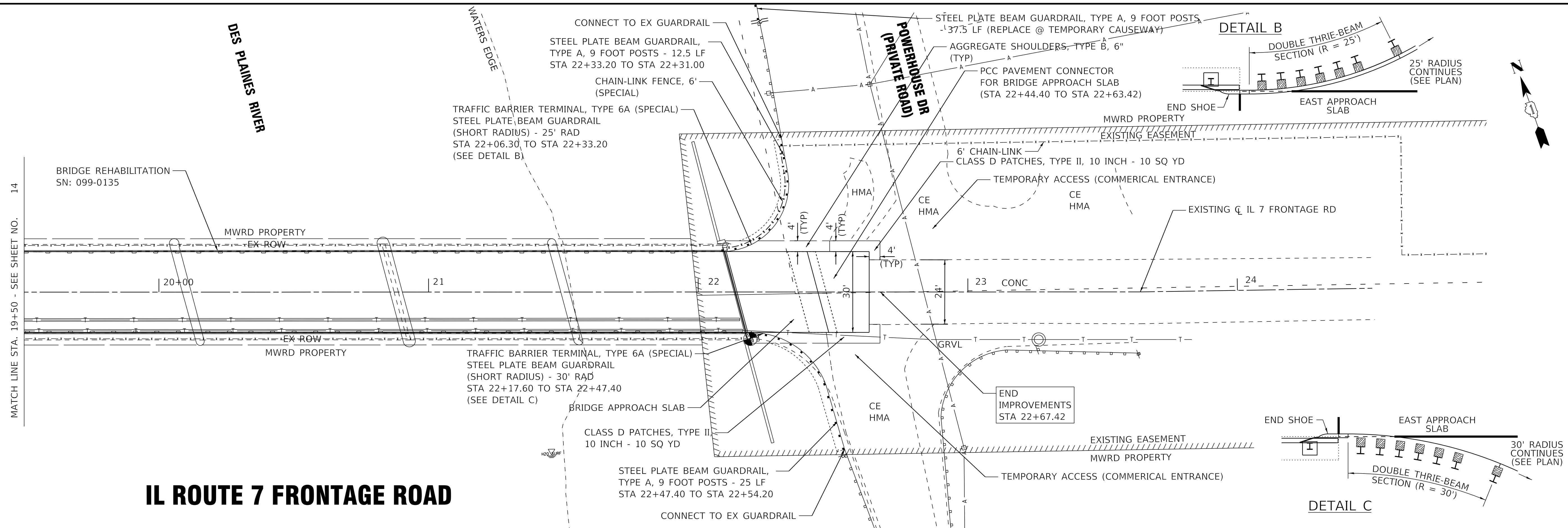
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| PROFILE | SURVEYED | DATE |
| | PLOTTED | BY |
| | GRADES CHECKED | |
| | STRUCTURE NOTATION CHECKED | |
| | NO. | |

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MATCH LINE STA. 19+50 - SEE SHEET NO. 14

BRIDGE REHABILITATION
 SN: 099-0135

IL ROUTE 7 FRONTAGE ROAD



| | | |
|-----------------------------|-----------------|-------------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 3/12/2019 | CHECKED - JCC | REVISED - |
| | DATE - 03-12-19 | FILE - 150440_SHT_PLNPRF2.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

| | | | |
|-----------------|--|-----------------|--------------------------|
| SCALE: H:1"=20' | | SHEET OF SHEETS | STA. 19+50 TO STA. 24+50 |
| V:1"=5' | | | |

PLAN & PROFILE

| | | | | |
|--------------------|------------------------|-------------|-------------------------------------|--------------|
| F.A.P. RTE. 351 | SECTION 15-00083-00-BR | COUNTY WILL | TOTAL SHEETS 46 | SHEET NO. 15 |
| CONTRACT NO. 61F12 | | | ILLINOIS FED. AID PROJECT AB2A(540) | |

MAINTENANCE OF TRAFFIC AND CONSTRUCTION STAGING NOTES

- IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER, BUSINESSES, RESIDENTS AND THE CITY WHEN ACCESS TO DRIVEWAYS WILL BE TEMPORARILY CLOSED DUE TO CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DISTRIBUTE NOTICES PROVIDED BY THE CITY TO BUSINESSES AND RESIDENTS AT LEAST 24 HOURS PRIOR TO PLANNED CLOSURES. EVERY EFFORT SHALL BE MADE TO NOTIFY RESIDENTS INCLUDING KNOCKING ON DOORS WHEN DRIVEWAYS ARE ABOUT TO BE CLOSED.
- THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE IN CONSTRUCTION STAGING.
- THE FURNISHING, INSTALLING, AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION. ALL CONFLICTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER. THIS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO COMMERCIAL DRIVEWAYS DURING CONSTRUCTION UTILIZING THE PAY ITEM FOR TEMPORARY ACCESS (COMMERCIAL ENTRANCE).
- THE CONTRACTOR SHALL SUBMIT A PREPLANNED SEQUENCE OF WORK AT THE PRECONSTRUCTION CONFERENCE FOR REVIEW AND APPROVAL. WORK SHALL BE SCHEDULED TO MINIMIZE INCONVENIENCE TO RESIDENTS AND BUSINESSES AND TO MAINTAIN A REASONABLE LEVEL OF CONSTRUCTION EFFICIENCY. THE ENGINEER RESERVES THE RIGHT TO RESTRICT WORK ON ANY ROADWAY SEGMENT IF CONSTRUCTION OPERATIONS ON A PREVIOUS SEGMENT ARE UNACCEPTABLE; TRAFFIC CONTROL OPERATIONS BECOME UNACCEPTABLE; OR AN EROSION CONTROL DEFICIENCY EXISTS.
- CONSTRUCTION VEHICLES AND/OR EQUIPMENT SHALL NOT BE PARKED OVERNIGHT WITHIN THE RIGHT-OF-WAY. THE ENGINEER WILL ASSIST THE CONTRACTOR IN IDENTIFYING CONSTRUCTION STAGING LOCATIONS AT THE START OF CONSTRUCTION.

SUGGESTED SEQUENCE OF CONSTRUCTION

STAGE 1

CONSTRUCTION

- ESTABLISH EROSION CONTROL MEASURES AND TREE PROTECTION.
- COMPLETE TREE REMOVAL.
- COMPLETE UTILITY RELOCATIONS.

TRAFFIC

- UTILIZE B.L.R. 21-9 FOR CLOSURE OF IL 7 FRONTAGE ROAD. MODIFY AND/OR SUPPLEMENT THE ROAD CLOSURE HIGHWAY STANDARD B.L.R. 21-9. R11-2 SIGN, SPECIFIED IN THE HIGHWAY STANDARD, SHALL READ "BRIDGE CLOSED".
- EXISTING TYPE III BARRICADES AND TEMPORARY CONCRETE BARRIER SHALL BE RELOCATED TO THE LOCKPORT PUBLIC WORKS YARD AT 17112 PRIME BOULEVARD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- FOR WORK OUTSIDE THE ROAD CLOSURE, UTILIZE TRAFFIC CONTROL STANDARDS AND LANE CLOSURES AS APPROVED BY THE ENGINEER ACCORDING TO HIGHWAY STANDARDS 701001, 701006, 701011, 701301, AND 701311.

STAGE 2

CONSTRUCTION

- INSTALL TEMPORARY SUPPORT SYSTEM AT PIERS 2 & 6.
- PERFORM STRUCTURAL REPAIRS OF BRIDGE (SEE BRIDGE PLANS FOR SPECIFIC STAGING).
- REMOVE EXISTING PAVEMENT AND GUARDRAIL.
- PERFORM EARTHWORK GRADING.
- CONSTRUCT AGGREGATE SUBGRADE IMPROVEMENTS.
- CONSTRUCT APPROACH AND CONNECTOR PAVEMENT.
- INSTALL PAVEMENT MARKINGS.
- INSTALL GUARDRAIL AND TERMINAL SECTIONS

TRAFFIC

- MAINTAIN THE ROAD CLOSURE ACCORDING TO HIGHWAY STANDARD B.L.R. 21-9.
- FOR WORK OUTSIDE THE ROAD CLOSURE, UTILIZE TRAFFIC CONTROL STANDARDS AND LANE CLOSURES AS APPROVED BY THE ENGINEER ACCORDING TO HIGHWAY STANDARDS 701001, 701006, 701011, 701301, AND 701311.

STAGE 3

CONSTRUCTION

- REOPEN ROADWAY.
- COMPLETE PUNCH LIST ITEMS.
- REMOVE TEMPORARY EROSION CONTROL ITEMS ONCE SEED ESTABLISHES.

TRAFFIC

- UTILIZE TRAFFIC CONTROL STANDARDS AND LANE CLOSURES AS APPROVED BY THE ENGINEER ACCORDING TO HIGHWAY STANDARDS 701001, 701006, 701011, 701301, AND 701311.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SUGGESTED MAINTENANCE OF TRAFFIC NOTES
AND SEQUENCE OF CONSTRUCTION**

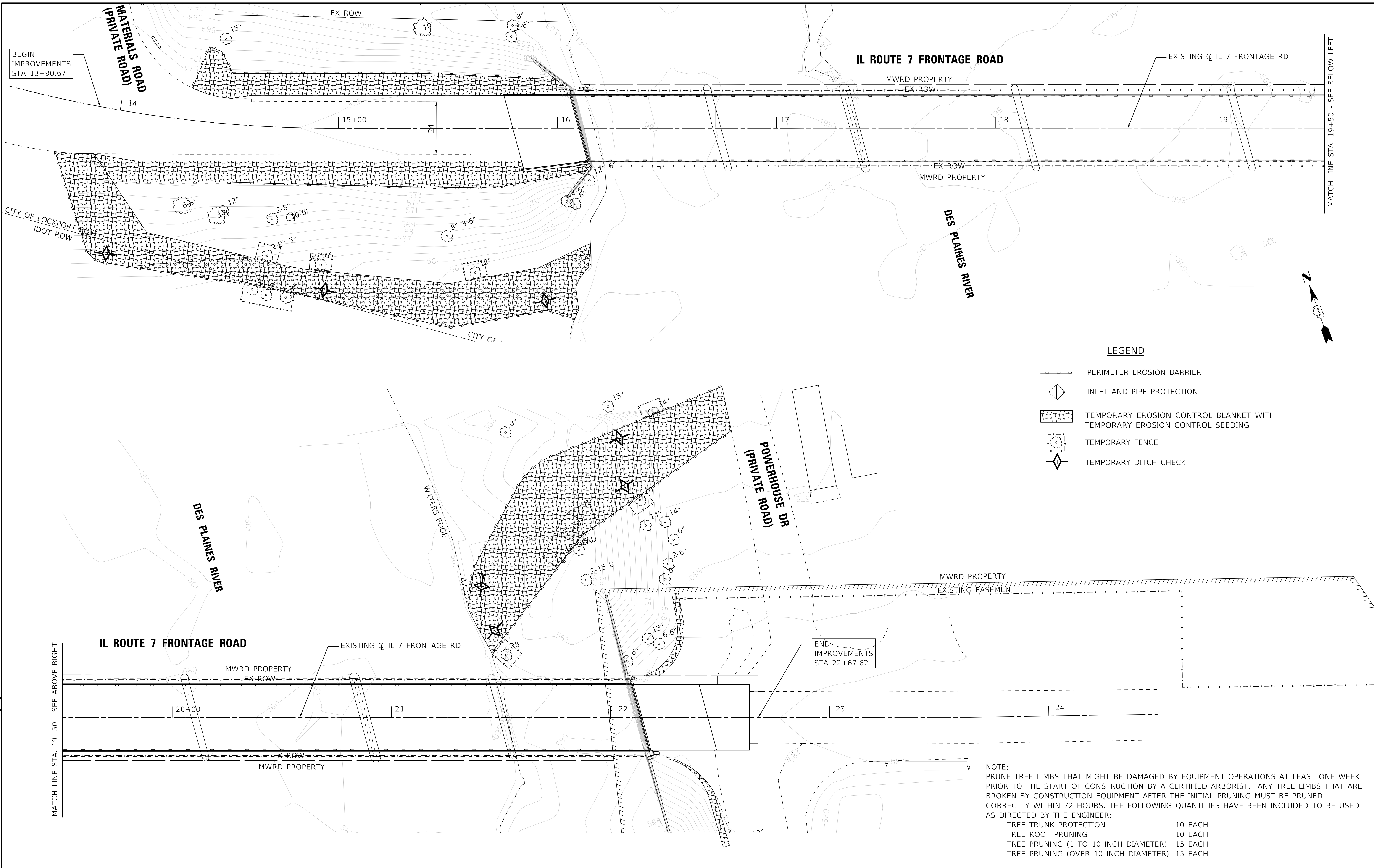
SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 16 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



| | | |
|-------------------------------|-----------------|-----------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 300.0000 ' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_MOT-1.dgn |

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LEGEND

- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL BLANKET WITH TEMPORARY EROSION CONTROL SEEDING
- TEMPORARY FENCE
- TEMPORARY DITCH CHECK

NOTE:
 PRUNE TREE LIMBS THAT MIGHT BE DAMAGED BY EQUIPMENT OPERATIONS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION BY A CERTIFIED ARBORIST. ANY TREE LIMBS THAT ARE BROKEN BY CONSTRUCTION EQUIPMENT AFTER THE INITIAL PRUNING MUST BE PRUNED CORRECTLY WITHIN 72 HOURS. THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED TO BE USED AS DIRECTED BY THE ENGINEER:

| | |
|--------------------------------------|---------|
| TREE TRUNK PROTECTION | 10 EACH |
| TREE ROOT PRUNING | 10 EACH |
| TREE PRUNING (1 TO 10 INCH DIAMETER) | 15 EACH |
| TREE PRUNING (OVER 10 INCH DIAMETER) | 15 EACH |

| | | | |
|---|-----------------------------|-----------------|----------------------------|
| BAXTER & WOODMAN Consulting Engineers | USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | PLOT SCALE = 20.0000' / in. | DRAWN - CJC | REVISED - |
| | PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - |
| | | DATE - 10-08-18 | FILE - 150440_SHT_EROS.dgn |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

SCALE: 1" = 20' SHEET 1 OF 1 SHEETS STA. 13+50 TO STA. 24+00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 17 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES IMMEDIATELY AFTER DISTURBANCE, OR REDISTURBANCE.
- AREAS OR EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, AND APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE STABILIZED WITH MAT OR BLANKET IN COMBINATION WITH SEEDING.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR OF EROSION CONTROL MEASURES.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE. DEWATERING DIRECTLY INTO STREAMS, WETLANDS, FIELD TILES OR STORM WATER STRUCTURES IS PROHIBITED.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE WILL-SOUTH COOK COUNTY SWCD, ENGINEER, OR LOCAL AGENCY.
- THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH WILL-SOUTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT AND OTHER INTERESTED REGULATORY AGENCIES AND OFFICIALS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS FROM THE U.S. ARMY CORPS OF ENGINEERS, WILL-SOUTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT, AND CITY OF LOCKPORT.
- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL.
- ALL EROSION CONTROL MEASURES MUST BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH RAIN EVENT RESULTING IN RUNOFF FROM THE SITE.
- WORK IN THE WATERWAY SHOULD BE TIMED TO TAKE PLACE DURING LOW FLOW CONDITIONS.
- WORK MAY NOT BE PERFORMED IN THE WATER, EXCEPT FOR THE PLACEMENT OF MATERIALS NECESSARY FOR THE CONSTRUCTION OF CAUSEWAYS. ALL MATERIALS FOR CAUSEWAYS AND ANY FILLS USED MUST BE NON-ERODABLE AND CONSTRUCTED TO WITHSTAND HIGH FLOWS. LOW GROUND-PRESSURE EQUIPMENT IS REQUIRED FOR WORK IN WETLANDS. LUMBER TO BE USED FOR TEMPORARY CONSTRUCTION ACTIVITIES MUST BE FREE OF ALL CHEMICAL TREATMENT. NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME.

- IF BYPASS PUMPING IS NECESSARY, THE PUMP SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM BEING SUCKED INTO THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE (ROCK CHECK DAM, PLYWOOD, SHEET PILE, ETC.) PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION OF DOWNSTREAM AREAS. CLEANING OR FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.
- DEWATERING MEASURES SHALL COMPLY WITH THE ILLINOIS URBAN MANUAL. DURING DEWATERING, THE WATER SHALL BE FILTERED TO REMOVE SEDIMENT PRIOR TO DISCHARGE TO THE STREAM. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMERS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. FILTRATION AREA SHALL BE PLACED ON A STABILIZED AREA OR DISCHARGE TO AN ENERGY DISSIPATING SURFACE PRIOR TO BEING RE-INTRODUCED TO DOWNSTREAM WATERWAY. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY. THE DISCHARGE FROM THE DEWATERING DEVICE SHALL NOT CAUSE EROSION. ANY TREATMENT REQUIRED IS THE CONTRACTORS RESPONSIBILITY AND NO EXTRA COSTS WILL BE PAID.
- PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED FOR REVIEW BY THE WILL-SOUTH COOK COUNTY SWCD.
- EXCEPT WHERE SHOWN OTHERWISE ON THE PLANS, THE SIDE SLOPES MUST BE RESEEDED AND STABILIZED IMMEDIATELY AFTER FINAL GRADING WITH AN APPROPRIATE EROSION CONTROL BLANKET PRIOR TO ACCEPTING FLOWS. THE BOTTOM OF THE CHANNEL MUST BE BROUGHT BACK TO ITS ORIGINAL GRADE AND STABLE ENOUGH TO ACCEPT FLOWS.
- THE PORTION OF THE SIDE SLOPE THAT IS ABOVE THE OBSERVED WATER ELEVATION SHALL BE STABILIZED AS SPECIFIED IN THE PLANS PRIOR TO ACCEPTING FLOWS. THE SUBSTRATE AND TOE OF SLOPE THAT HAS BEEN DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PROPOSED OR PRE-CONSTRUCTION CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.
- STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- CONCRETE WASHOUT FACILITIES SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
- ALL ADJACENT ROADWAYS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY AND CLEANED WHEN NECESSARY.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- FINAL ACCEPTANCE OF PROJECT WILL BE CONTINGENT ON RECORD DRAWING APPROVAL BY THE ENGINEER.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS, PERMITS, AND ASSURE COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO THE DEVELOPMENT SITE, CHANNEL, WATERS OF THE U.S. OR ISOLATED WATERS OF WILL COUNTY. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
- THIS PROJECT REQUIRES ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE CITY, AS A CONDITION OF THIS PERMIT. THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO WILL-SOUTH COOK SWCD FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK.

THE COST OF ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE, ACCESS, AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR THE WORK FOR WHICH IT IS REQUIRED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

MAINTENANCE SCHEDULE

- SILT FENCE - AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL SILT FENCE WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE SILT FENCE FUNCTIONAL AS DESIGNED.
- EROSION BLANKET - AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL EROSION BLANKET WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE EROSION BLANKET FUNCTIONAL AS DESIGNED.
- THE EROSION CONTROL QUANTITIES PROVIDED IN THE PLANS ARE APPROXIMATE. THE ACTUAL NEED FOR QUANTITIES WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

SUGGESTED CONSTRUCTION SEQUENCING

- INSTALL SEDIMENT AND EROSION CONTROL SYSTEMS.
- INSTALL FIRST CAUSEWAY (EITHER SIDE).
- PERFORM WORK WITHOUT DEBRIS ENTERING THE EXISTING WATERWAY.
- DECONSTRUCT FIRST CAUSEWAY.
- INSTALL SECOND CAUSEWAY ON OPPOSITE SIDE OF THE RIVER.
- PERFORM WORK WITHOUT DEBRIS ENTERING THE EXISTING WATERWAY.
- DECONSTRUCT SECOND CAUSEWAY.
- COMPLETE RESTORATION OF ALL DISTURBED AREAS.
- REMOVE EROSION CONTROL MEASURES.

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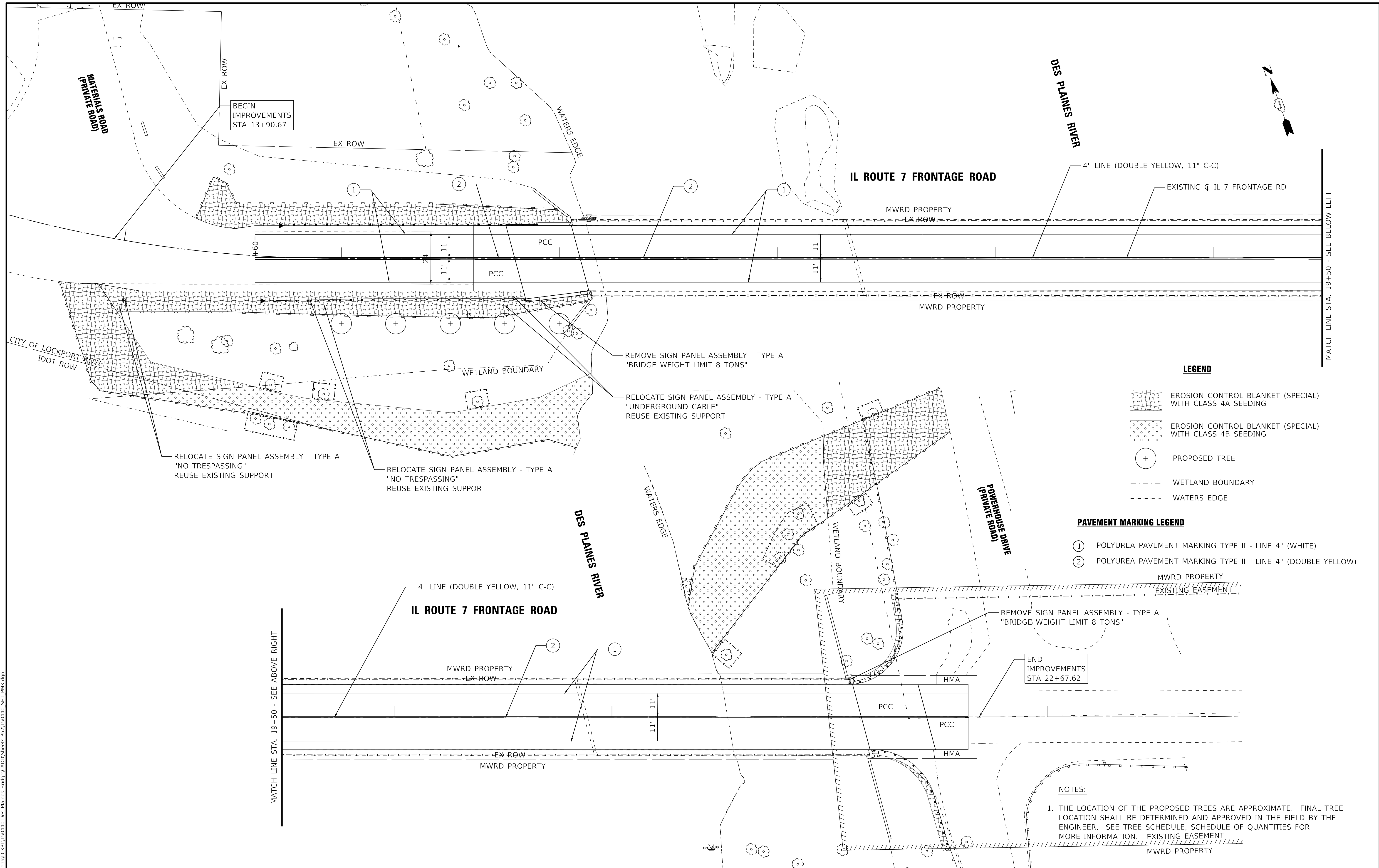
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| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 20.0000' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_EROS-DET.dgn |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | |
|---|---------------------|------|---------|
| EROSION AND SEDIMENT CONTROL NOTES | | | |
| SCALE: N.T.S. | SHEET 1 OF 1 SHEETS | STA. | TO STA. |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 18 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

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- LEGEND**
- EROSION CONTROL BLANKET (SPECIAL) WITH CLASS 4A SEEDING
 - EROSION CONTROL BLANKET (SPECIAL) WITH CLASS 4B SEEDING
 - PROPOSED TREE
 - WETLAND BOUNDARY
 - WATERS EDGE
- PAVEMENT MARKING LEGEND**
- ① POLYUREA PAVEMENT MARKING TYPE II - LINE 4" (WHITE)
 - ② POLYUREA PAVEMENT MARKING TYPE II - LINE 4" (DOUBLE YELLOW)

NOTES:

- THE LOCATION OF THE PROPOSED TREES ARE APPROXIMATE. FINAL TREE LOCATION SHALL BE DETERMINED AND APPROVED IN THE FIELD BY THE ENGINEER. SEE TREE SCHEDULE, SCHEDULE OF QUANTITIES FOR MORE INFORMATION. EXISTING EASEMENT



| | | |
|-----------------------------|-----------------|---------------------------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| | DRAWN - CJC | REVISED - |
| PLOT SCALE = 20.0000' / in. | CHECKED - JCC | REVISED - |
| PLOT DATE = 11/5/2018 | DATE - 10-08-18 | FILE - 150440_SHT_PMK.dgn |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING, SIGNING AND LANDSCAPE PLAN

SCALE: 1" = 20' SHEET OF SHEETS STA. 13+50 TO STA. 24+00

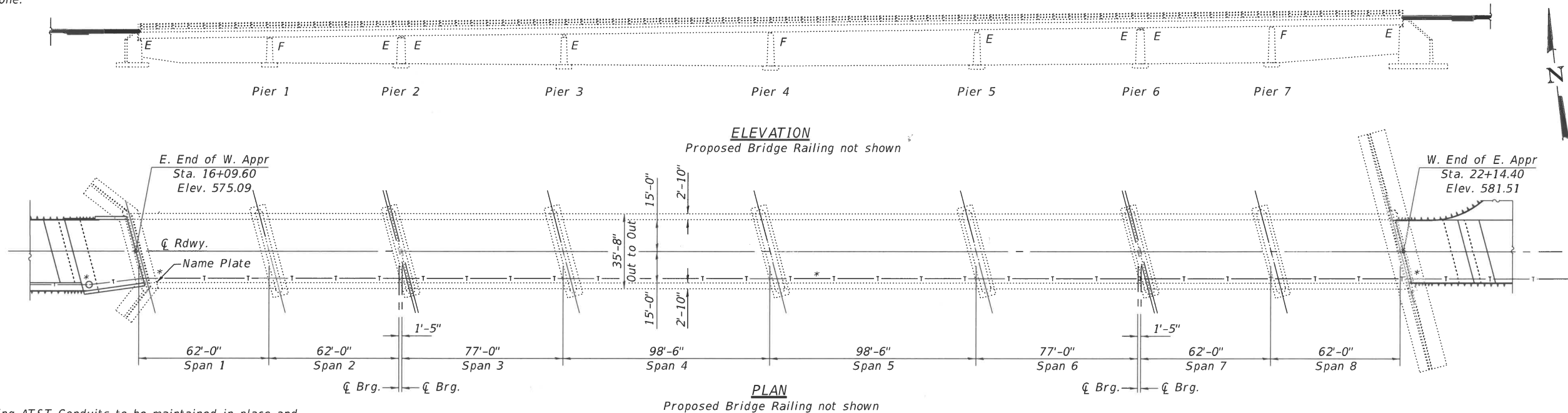
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|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 19 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

MATCH LINE STA. 19+50 - SEE BELOW LEFT

Benchmark: See Alignment & Ties Sheet

Existing Structure: S.N. 099-0135 is an 8-span steel superstructure with concrete deck, built in 1957 under Section 535-B-F-1, F.A. Route 62. Bridge skew is 15 degree (right). Configuration for spans 1-2 continuous 62'-62"; spans 3-6 continuous 77'-98'-6"-98'-6"-77'; spans 7-8 continuous 62'-62". Overall span back to back of abutments is 603'-0 1/2" with an out to out width of 35'-8". 36" steel girders spaced at 6'-7" support a non-composite 7" concrete slab. Steel roller bearings at abutment and piers 2 & 6; steel rocker bearings at Piers 3 & 5; fixed steel bearings at piers 1, 4 & 7. Closed concrete abutments supported on spread footing, keyed into rock. Solid wall concrete piers on spread footings, keyed into rock.

Salvage: None.



* Existing AT&T Conduits to be maintained in place and incorporated into new construction. Manhole details and abutment penetration details to be coordinated with AT&T.

PROPOSED SCOPE OF WORK

1. Install Temporary Support System at Piers 2 & 6.
2. Remove portions of existing bridge deck over Piers 2 & 6 and Abutments.
3. Perform Structural Steel Repairs at beam ends, Piers 2 & 6.
4. Remove and replace existing diaphragms at Piers 2 & 6.
5. Clean existing diaphragms at abutments and incorporate into Semi-integral abutment conversion.
6. Remove and replace expansion bearings at Piers 2 & 6 and Abutments.
7. Replace bridge deck and expansion joint at Piers 2 & 6.
8. Replace bridge deck and construct concrete diaphragm at abutments.
9. Remove Temporary Support System.
10. Scarify existing bridge deck.
11. Construct Latex Concrete Overlay.
12. Install Type 2399 Railing and approach guardrail terminals.
13. Remove and replace approach slabs.
14. Clean & Paint entire steel superstructure.

LOAD RATING SPECIFICATIONS

AASHTO Manual for Bridge Evaluation
2nd Edition with Interims

DESIGN SPECIFICATIONS

AASHTO Standard Specifications for Highway Bridges
17th Edition

DESIGN STRESSES

EXISTING UNITS (ALLOWABLE)

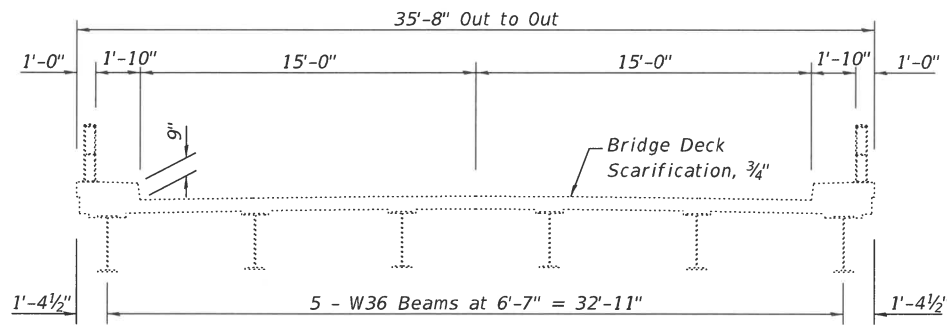
$f_c = 1,400$ psi (super)
 $f_c = 800$ psi (sub)
 $f_y = 18,000$ psi (structural steel)
 $f_y = 20,000$ psi (reinforcement)

FIELD UNITS

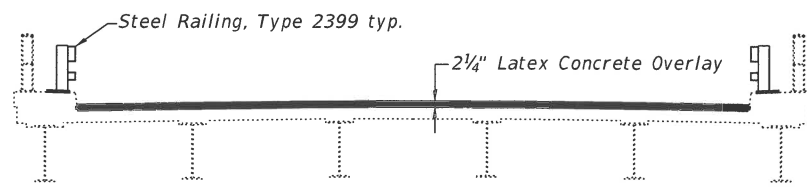
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)

LOADING HS-20

No allowance for future wearing surface.



EXISTING CROSS SECTION



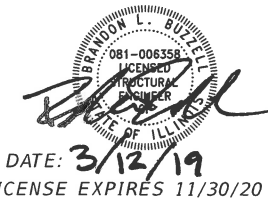
PROPOSED CROSS SECTION

DES PLAINES RIVER
REHABILITATED 2019 BY
CITY OF LOCKPORT
SEC. 15-00083-00-BR
F.A.P. RT. 0351 STA. 19+12
STR. NO. 099-0135 LOADING HS-20

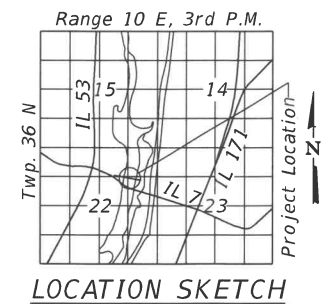
NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate on new railing near southwest corner. Cost included with Name Plates.



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO LRFD Bridge Design Specifications.



LOCATION SKETCH

GENERAL PLAN
IL-7 FRONTAGE ROAD OVER DES PLAINES RIVER
SECTION 15-00083-00-BR
WILL COUNTY
STATION 19+12
STRUCTURE NO. 099-0135

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| PLOT SCALE = | CHECKED - BAB | REVISIONS - |
| PLOT DATE = | DRAWN - BLB | REVISIONS - |
| | DATE - 03-12-19 | REVISIONS - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 099-0135

SHEET NO. 1 OF 21 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 20 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas. Bolts 7/8-in. Ø, holes 1-in. Ø, unless otherwise noted.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

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.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except causeways.

Copies of record drawings for the existing bridge are available upon request. Contact Baxter & Woodman at (815) 459-1260 Ext. 4415 and allow up to two business days.

PAINTING NOTES

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

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures". All existing steel shall be cleaned per Near White Blast Cleaning - SSPC-SP10. All existing steel shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.

The Organic Zinc Rich Primer/Epoxy/Urethane paint system shall be used for painting of new structural steel unless otherwise noted. The entire system shall be shop applied, with the exception of the exterior surfaces, masked off connection surfaces, field installed fasteners, and damaged areas, all of which shall be touched up and finish coated in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior surfaces shall be Interstate Green, Munsell No. 7.5G 4/8.

The entire existing steel superstructure shall be cleaned and painted as noted, with the exception of existing beam ends at abutments to be encased in concrete, and associated steel diaphragms. These areas shall be cleaned as noted and painted with the primer coat only, or additional coats at the contractor's option. All steel surfaces not to be encased in concrete shall receive the complete OZ/E/U paint system as noted.

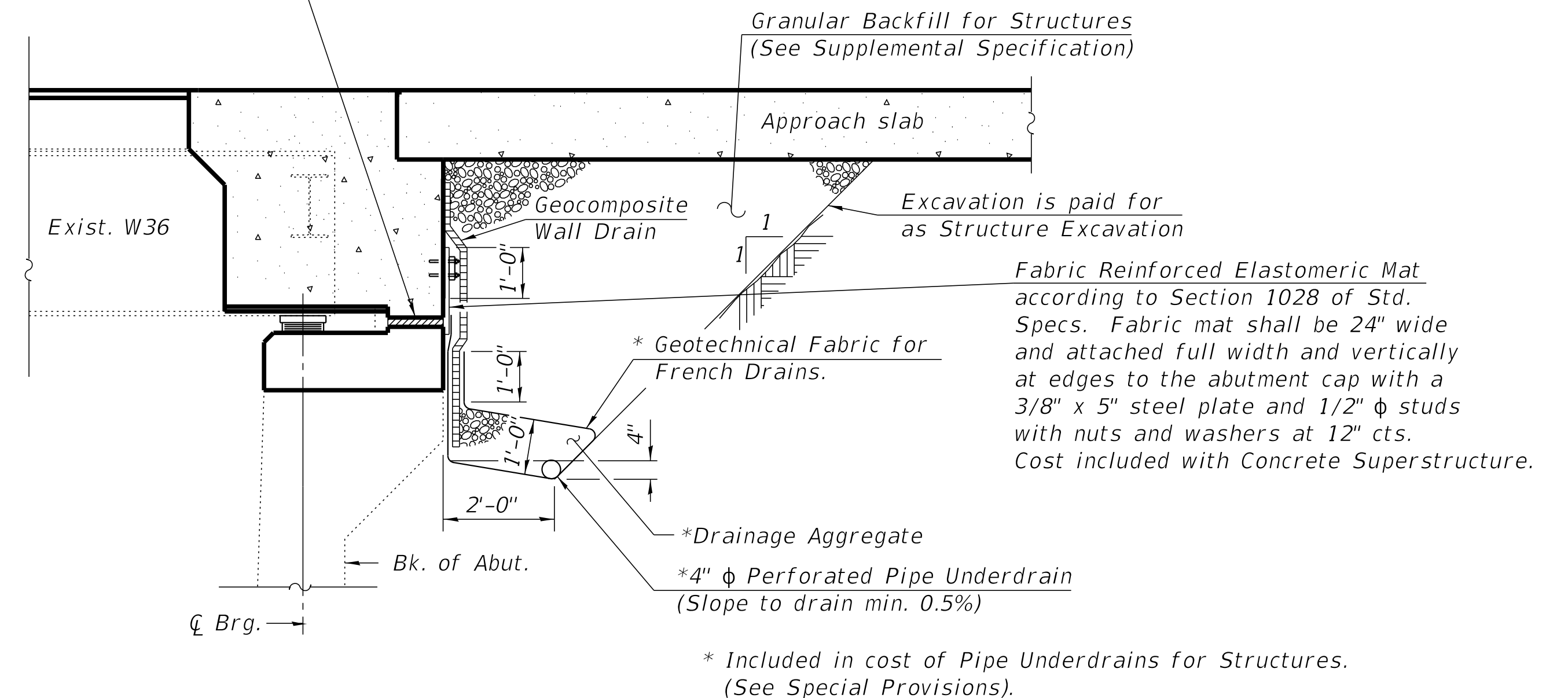
INDEX OF SHEETS

1. General Plan
2. General Data
3. Deck Repair I
4. Deck Repair II
5. Expansion Joint Replacement Details
6. Preformed Joint Strip Seal
7. Diaphragm Details
8. West Approach Slab Details I
9. West Approach Slab Details II
10. East Approach Slab Details
11. Bearing Details at Abutments
12. Bearing Details I at Piers 2 & 6
13. Bearing Details II at Piers 2 & 6
14. Abutment Removal Details
15. West Abutment
16. East Abutment
17. Structural Steel Repairs I
18. Structural Steel Repairs II
19. Structural Steel Repairs III
20. Drainage Scupper, DS-12
21. Steel Railing, Type 2399

TOTAL BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|--|-------|--------|
| Concrete Removal | Cu Yd | 41.6 |
| Structure Excavation | Cu Yd | 100 |
| Concrete Structures | Cu Yd | 29.6 |
| Concrete Superstructure | Cu Yd | 55.3 |
| Bridge Deck Grooving | Sq Yd | 1,828 |
| Protective Coat | Sq Yd | 298 |
| Concrete Superstructure (Approach Slab) | Cu Yd | 90 |
| Furnishing And Erecting Structural Steel | Pound | 24,608 |
| Cleaning and Painting Steel Bridge No. 1 | L Sum | 1 |
| Reinforcement Bars, Epoxy Coated | Pound | 44,810 |
| Steel Railing, Type 2399 | Foot | 1,254 |
| Name Plates | Each | 1 |
| Preformed Joint Strip Seal | Foot | 77 |
| Elastomeric Bearing Assembly, Type I | Each | 24 |
| Elastomeric Bearing Assembly, Type II | Each | 12 |
| Anchor Bolts, 5/8" | Each | 72 |
| Geocomposite Wall Drain | Sq Yd | 40 |
| Granular Backfill for Structures | Cu Yd | 78 |
| Jack and Remove Existing Bearings | Each | 12 |
| Structural Steel Removal | L Sum | 1 |
| Removal of Existing Bearings | Each | 24 |
| Approach Slab Removal | Sq Yd | 128 |
| Bridge Deck Latex Concrete Overlay, 2 1/4 Inches | Sq Yd | 1,959 |
| Containment and Disposal of Lead Paint Cleaning Residues | L Sum | 1 |
| Bridge Deck Scarification 3/4" | Sq Yd | 1,959 |
| Plug Existing Deck Drains | Each | 135 |
| Deck Slab Repair (Full Depth, Type I) | Sq Yd | 5 |
| Drainage Scuppers, DS-12 | Each | 6 |
| Jacking Existing Superstructure | L Sum | 1 |
| Pipe Underdrains for Structures 4" | Foot | 150 |
| Temporary Support System, Location 1 | Each | 1 |
| Temporary Support System, Location 2 | Each | 1 |

2" PJF (per Article 1051.09 of Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.

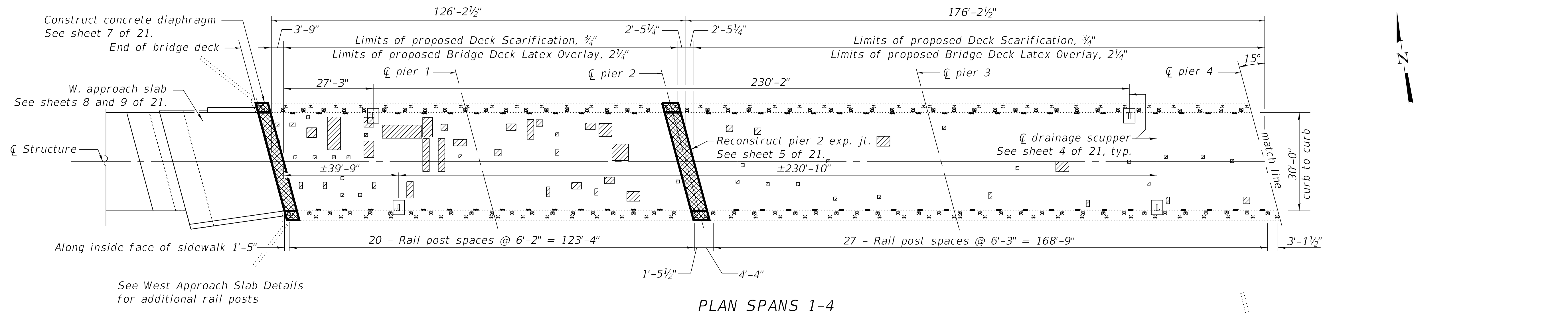


SECTION THRU SEMI-INTEGRAL ABUTMENT
(Horiz. dims. @ Rt. L's)

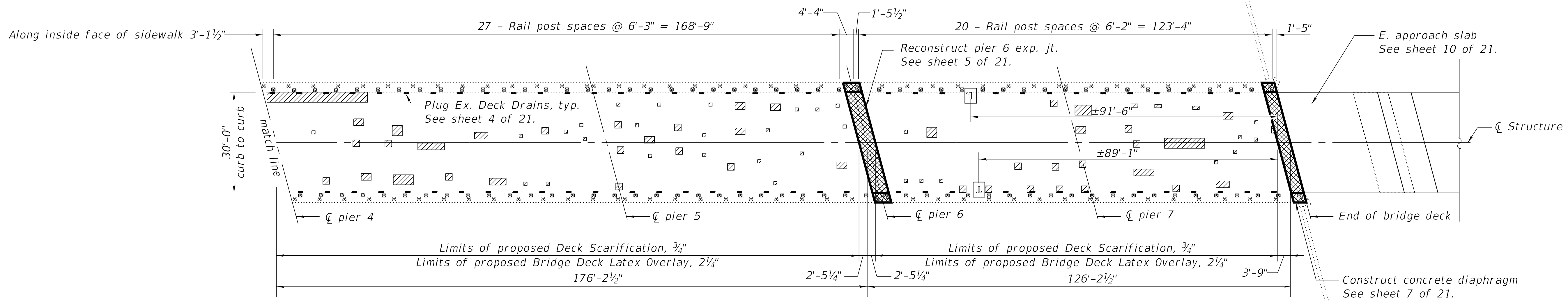
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

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| | | | | | | | | | | |
|--|--------------|-----------------|-----------|---|--|---------------------------|----------------|--------|--------------|-----------|
| | USER NAME = | DESIGNED - BLB | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | GENERAL DATA STRUCTURE NO. 099-0135 | F.A.P. RTE. = | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | PLOT SCALE = | CHECKED - BAB | REVISED - | | | 351 | 15-00083-00-BR | WILL | 46 | 21 |
| | PLOT DATE | DRAWN - BLB | REVISED - | | | CONTRACT NO. 61F12 | | | | |
| | | DATE - 03-12-19 | REVISED - | | | ILLINOIS FED. AID PROJECT | | | | |



PLAN SPANS 1-4



PLAN SPANS 5-8

Notes:
 Entire existing deck to be scarified 3/4" and overlaid with 2 1/4" Latex Concrete.
 Existing reinforcement bars & dowel rods extending into new concrete are to be cleaned and incorporated into new construction.
 Deck repair areas are estimated from field visit Fall 2015. Actual locations or repairs made shall be shown by the Engineer on As Built plans.
 Drains shall be located clear of all diaphragms.

LEGEND
 [Cross-hatched box] Deck reconstruction
 [Diagonal-hatched box] **Partial Depth Patching (88 Sq Yd, for entire deck)
 **Partial Depth Patching shown for information only.

BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| * Deck Slab Repair (Full Depth, Type I) | Sq Yd | 5 |
| Bridge Deck Scarification, 3/4" | Sq Yd | 1,959 |
| Bridge Deck Grooving | Sq Yd | 1,828 |
| Bridge Deck Latex Concrete Overlay, 2 1/4" | Sq Yd | 1,959 |

* Quantity is estimated. (not shown on plan)

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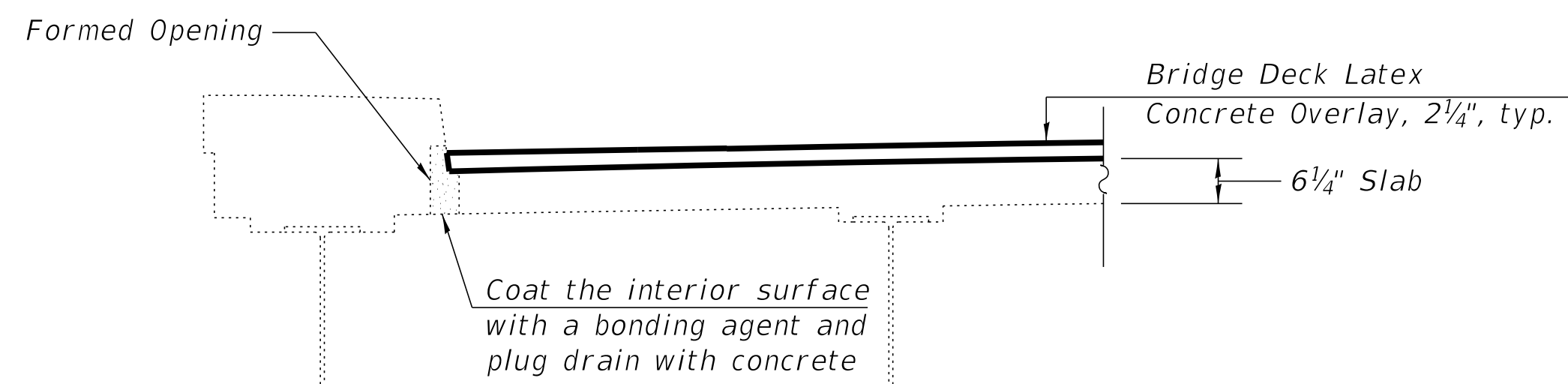


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| PLOT SCALE = | DRAWN - BLB | REVISED - |
| PLOT DATE = | DATE - 10-08-18 | REVISED - |

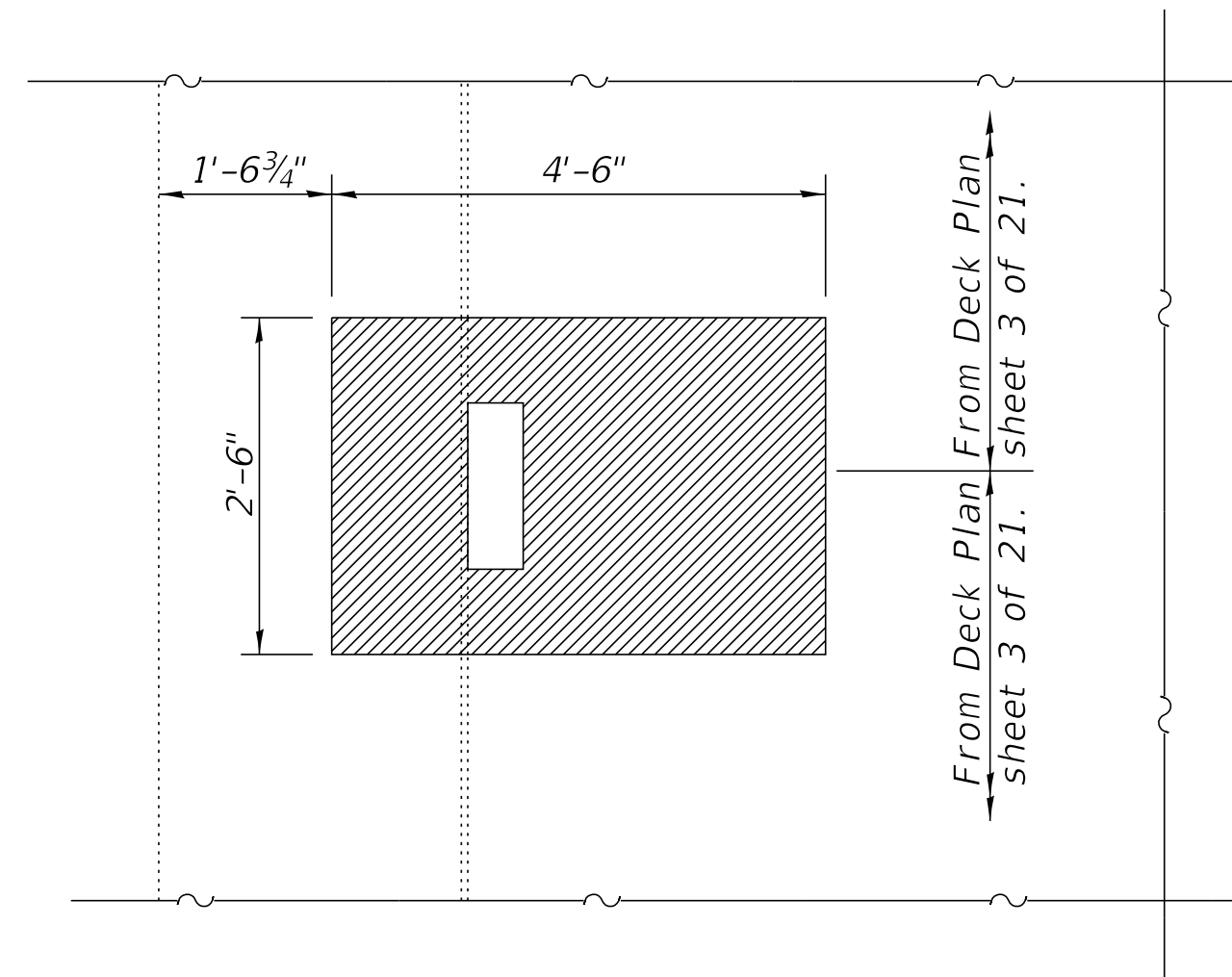
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DECK REPAIRS I
 STRUCTURE NO. 099-0135
 SHEET NO. 3 OF 21 SHEETS

| | | | | |
|--------------------|----------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 22 |
| CONTRACT NO. 61F12 | | | | |
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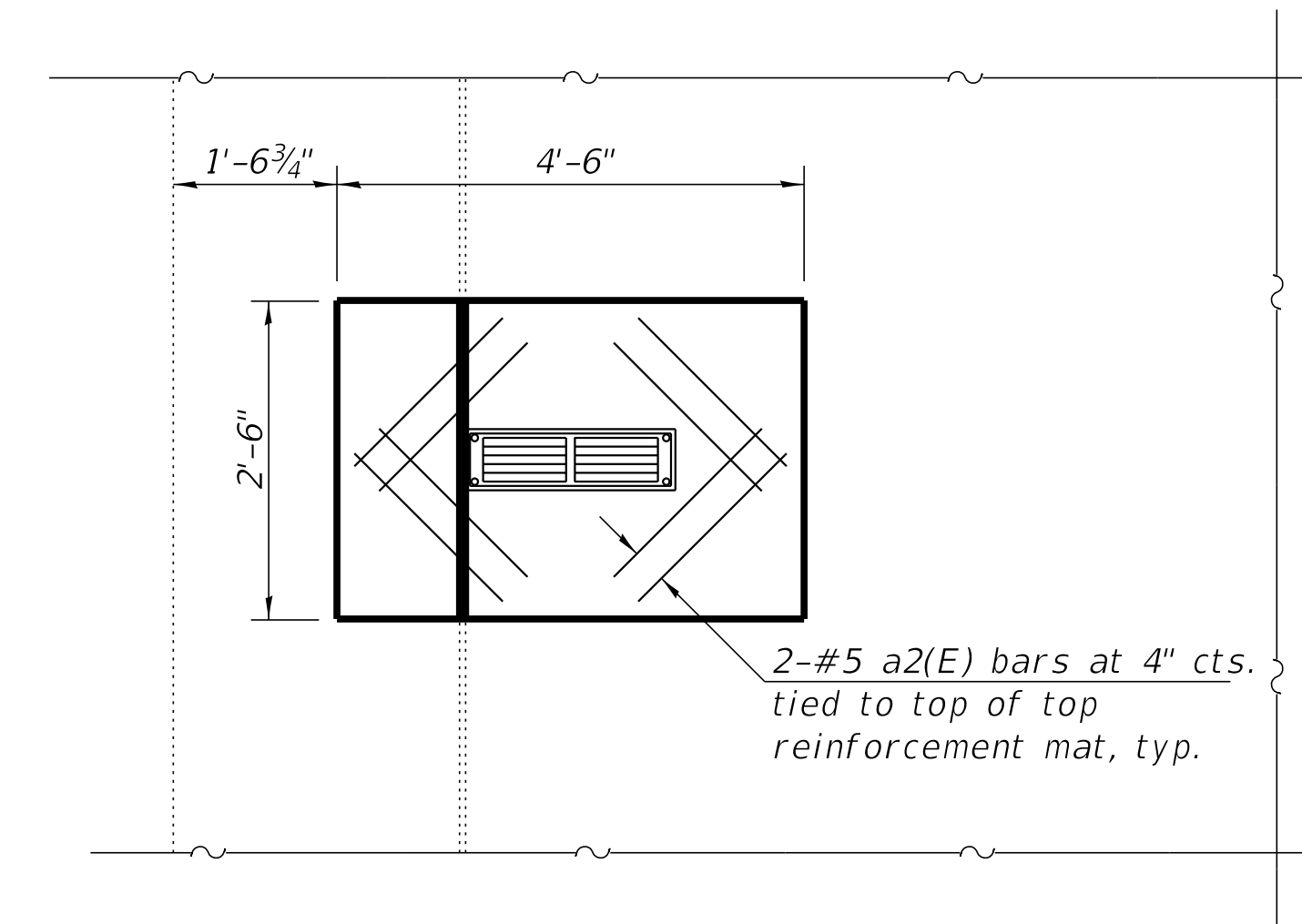


DRAINS TO BE PLUGGED DETAIL



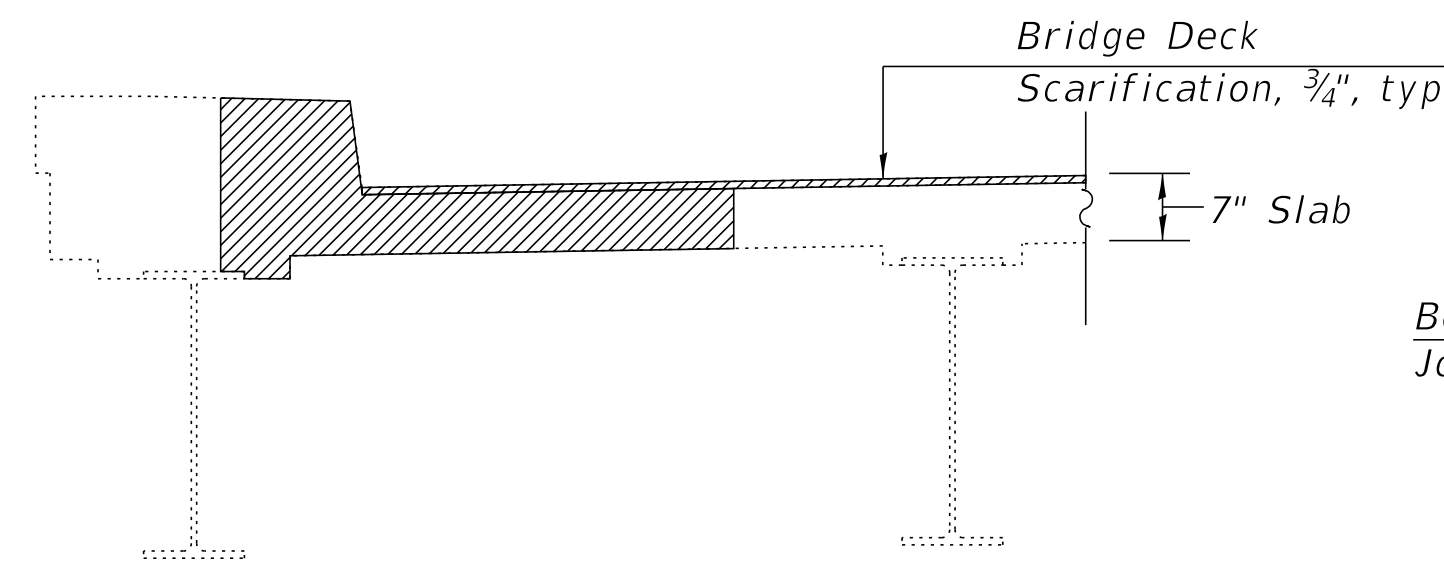
REMOVAL PLAN FOR SCUPPER

Location of existing deck drain may vary.
Bridge Rail not shown for clarity.

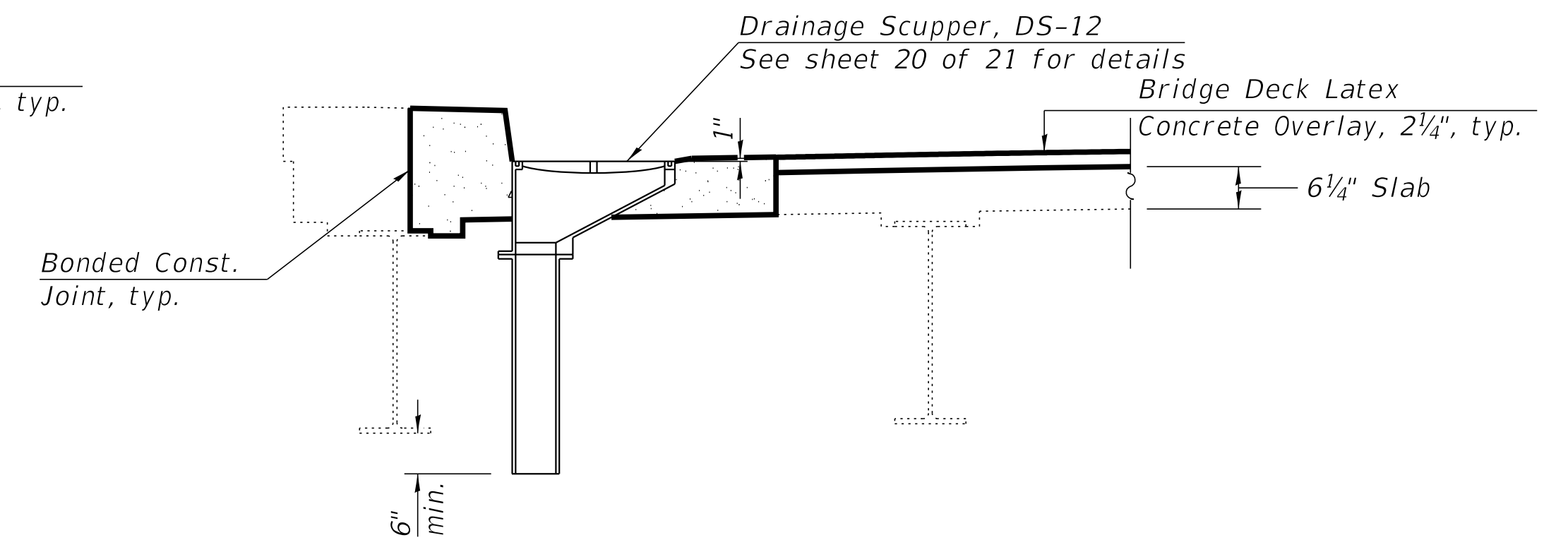


DRAINAGE SCUPPER PLAN

Cut longitudinal reinforcement to clear drainage scuppers.



REMOVAL SECTION FOR SCUPPER



DRAINAGE SCUPPER SECTION

Existing reinforcement not shown.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-------------------------------------|-----|------|--------|-------|
| a2(E) | 48 | #5 | 2'-0" | — |
| Concrete Removal | | | Cu Yd | 2.0 |
| Plug Existing Deck Drains | | | Each | 135 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 110 |
| Concrete Superstructure | | | Cu Yd | 2.1 |
| Protective Coat | | | Sq Yd | 9 |

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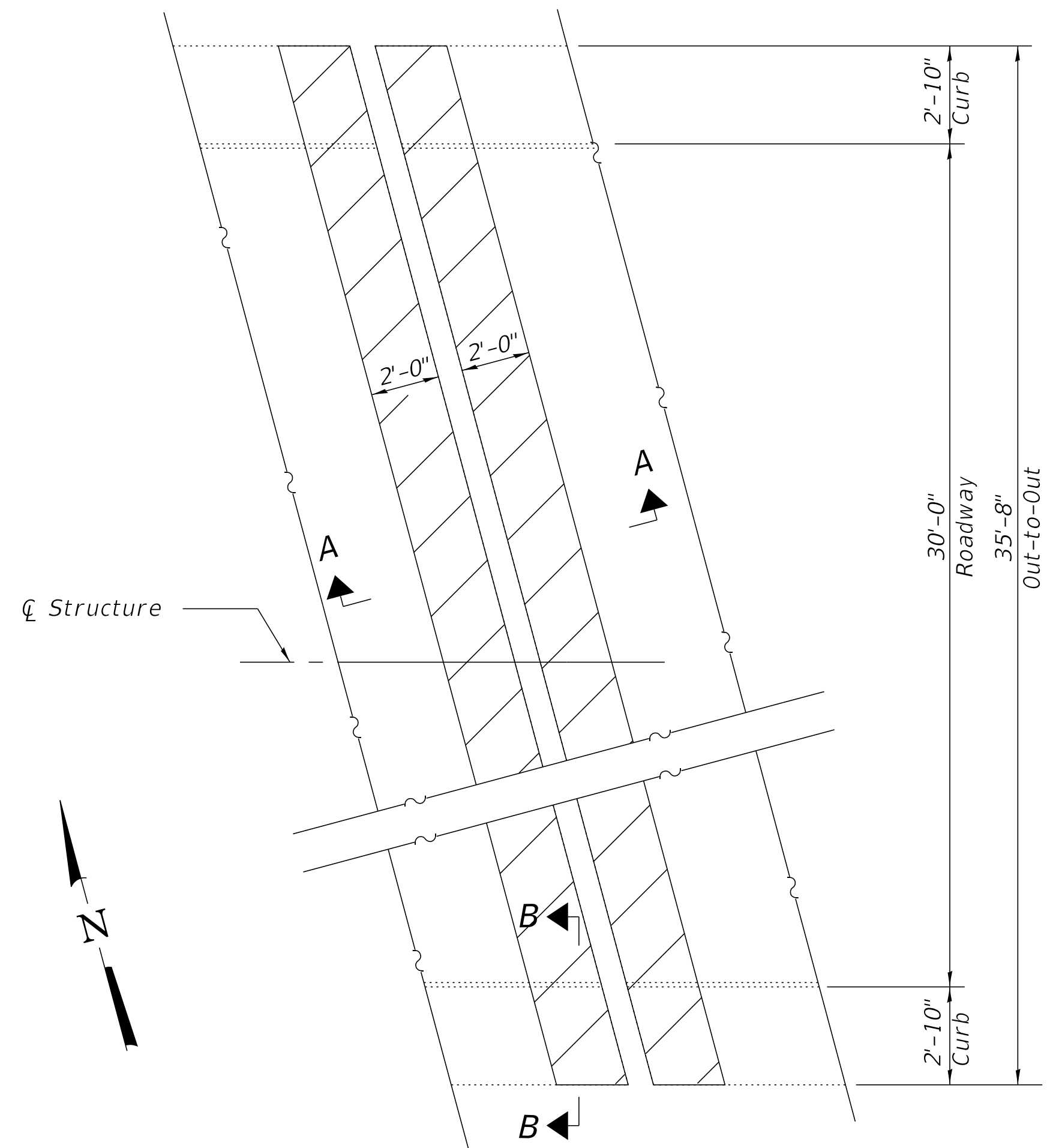
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| | CHECKED - BAB | REVISED - |
| PLOT SCALE = | DRAWN - BLB | REVISED - |
| PLOT DATE = | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

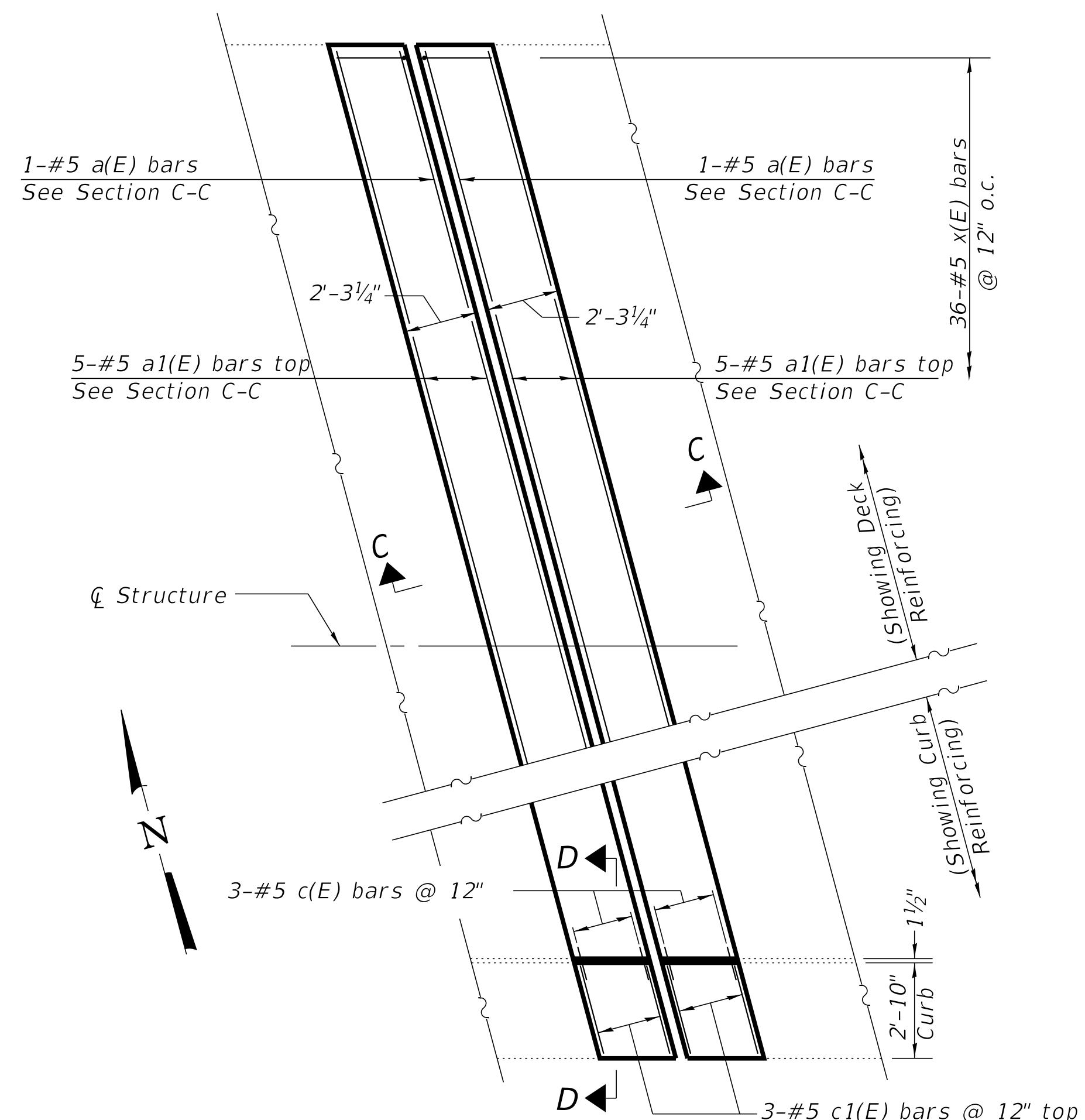
**DECK REPAIRS II
STRUCTURE NO. 099-0135**

SHEET NO. 4 OF 21 SHEETS

| | | | | |
|-------------|----------------|----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 23 |
| | | | CONTRACT NO. 61F12 | |
| | | ILLINOIS | FED. AID PROJECT | |



JOINT REMOVAL PLAN - PIERS NO. 2 & NO. 6



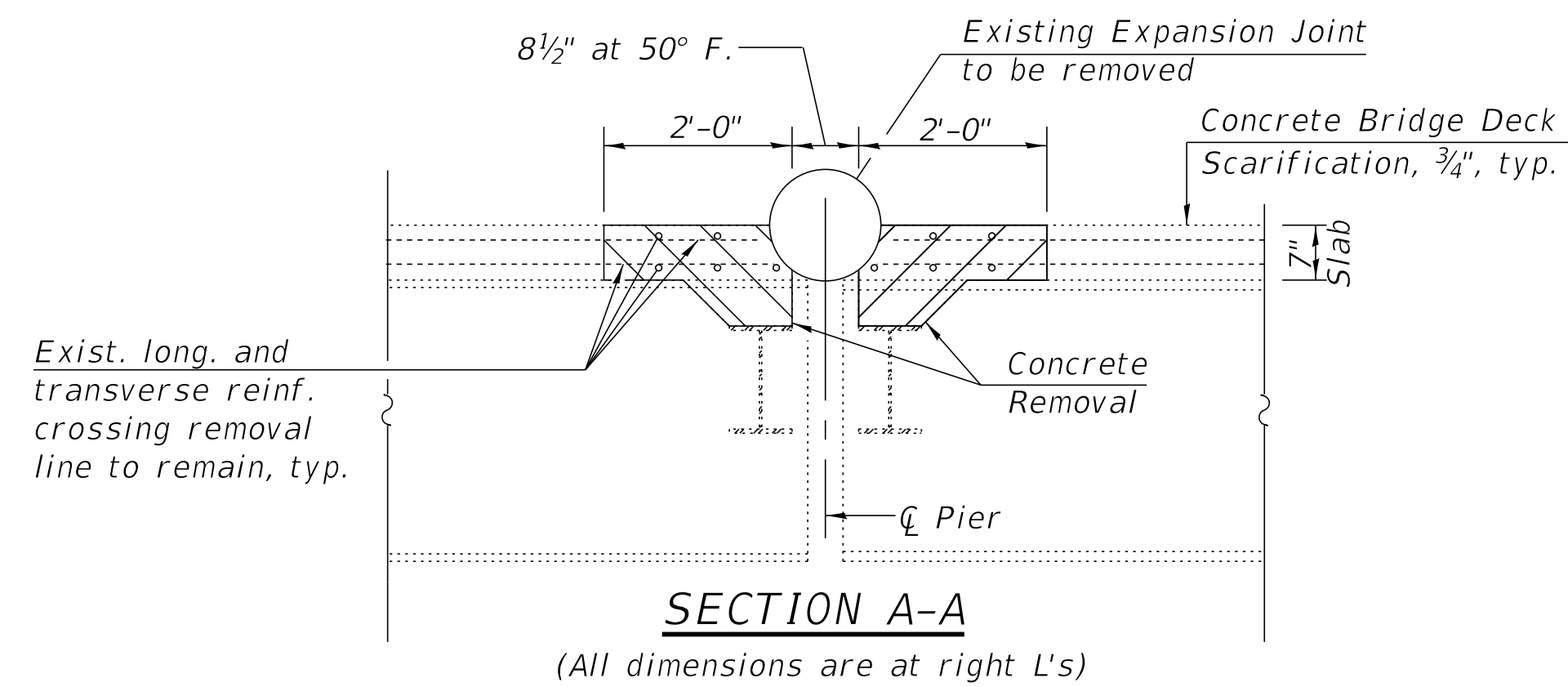
JOINT REPLACEMENT PLAN - PIERS NO. 2 & NO. 6

Notes:

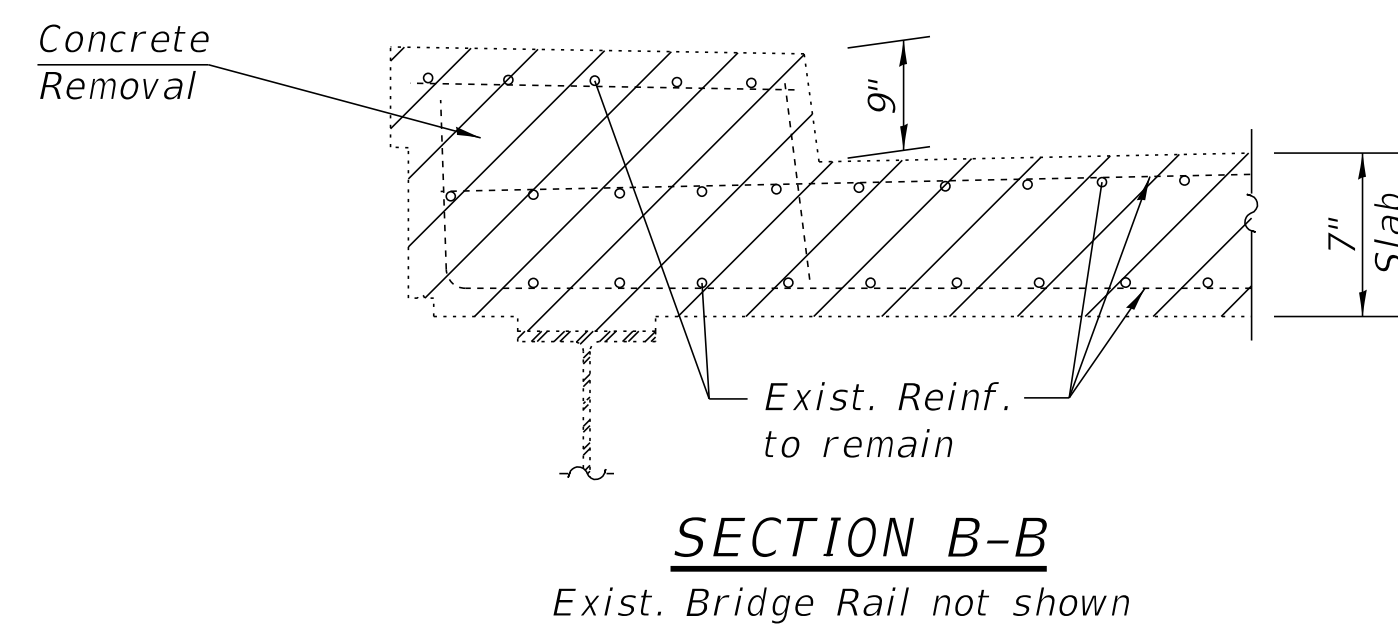
Hatched areas indicate concrete sections to be removed. Care shall be exercised by the contractor during and following Concrete Removal operations to ensure that the existing rebar remaining in place are not damaged. All existing reinforcement to be incorporated into new construction shall be blast-cleaned, straightened, and properly positioned prior to concrete placement. Any reinforcement damaged during Concrete Removal shall be repaired or replaced using an approved Bar Splicer or Mechanical System. Cost Included with Concrete Removal. Existing railing posts and anchorage devices adjacent to expansion joints shall be maintained in place, cleaned and incorporated into new construction Cost included with Concrete Removal. Existing reinforcement bars that are parallel to the expansion joint shall be removed. Removal of the existing expansion joints will not be paid for separately, but shall be included with the cost of Structural Steel Removal. Top Surface of new concrete shall be constructed 1 1/2" higher than existing slab elevation, after all Jacking Superstructure operations are completed.

BILL OF MATERIAL

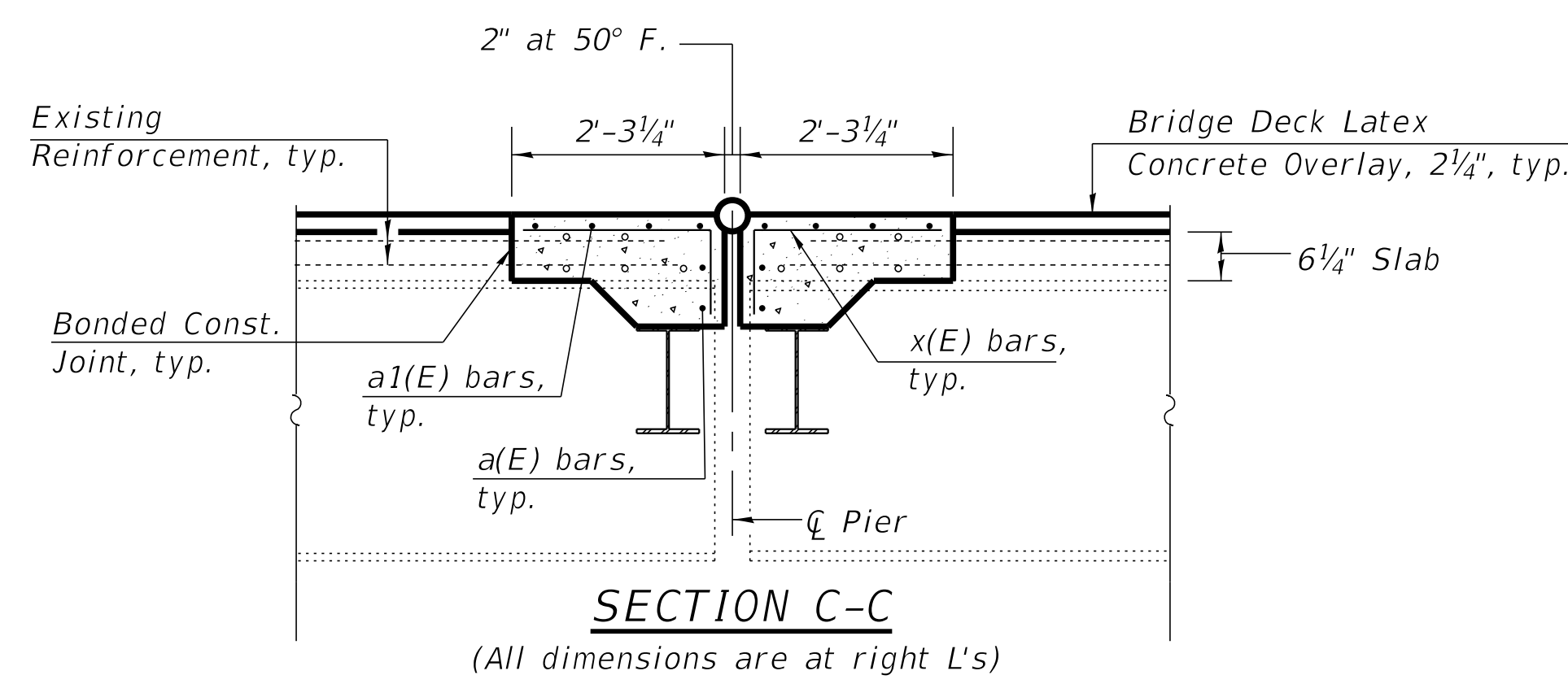
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|--------|-------|
| a(E) | 20 | #5 | 6'-3" | — |
| a1(E) | 20 | #5 | 36'-4" | — |
| c(E) | 24 | #5 | 2'-6" | ┌ |
| c1(E) | 24 | #5 | 2'-7" | └ |
| x(E) | 144 | #5 | 2'-7" | ┌ |
| Concrete Removal | | | Cu Yd | 10.2 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 1,920 |
| Concrete Superstructure | | | Cu Yd | 12.6 |
| Protective Coat | | | Sq Yd | 37 |



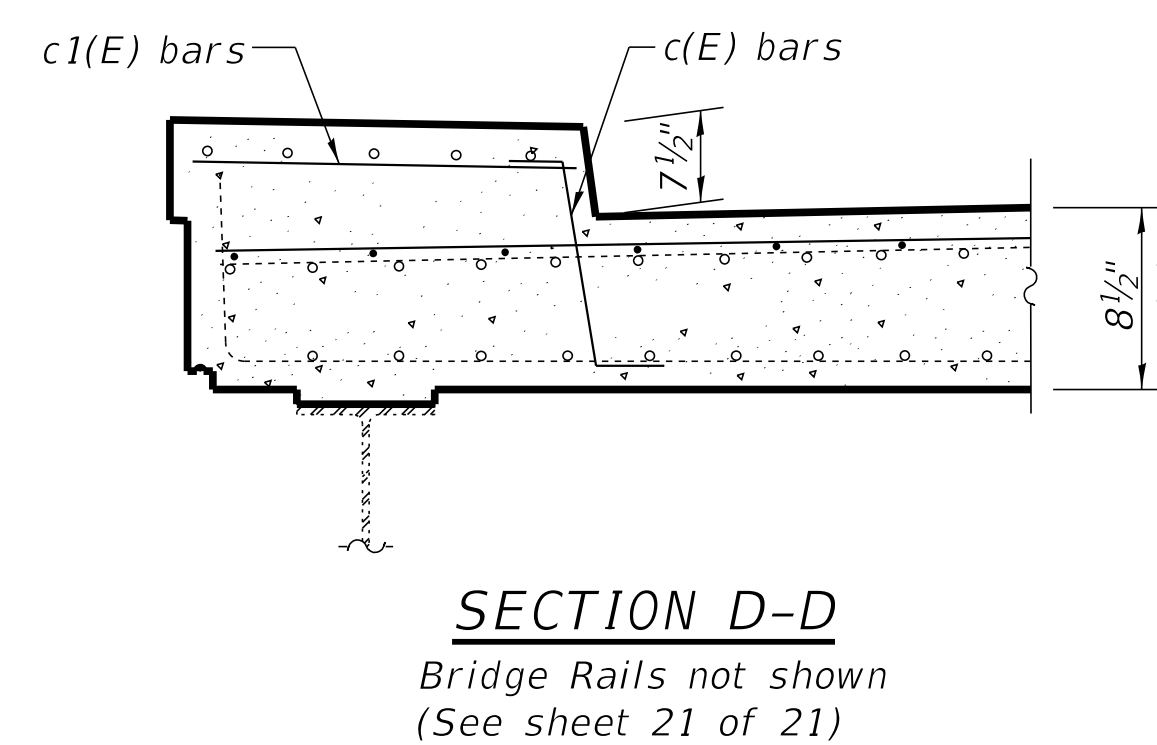
SECTION A-A
(All dimensions are at right L's)



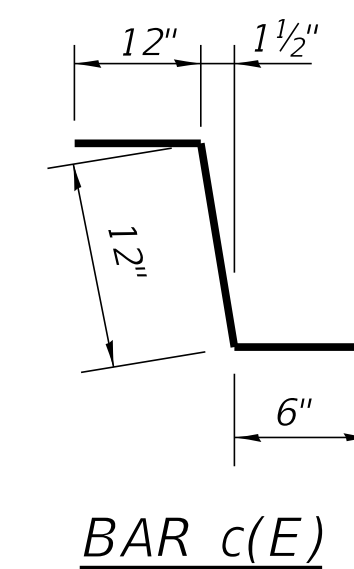
SECTION B-B
Exist. Bridge Rail not shown



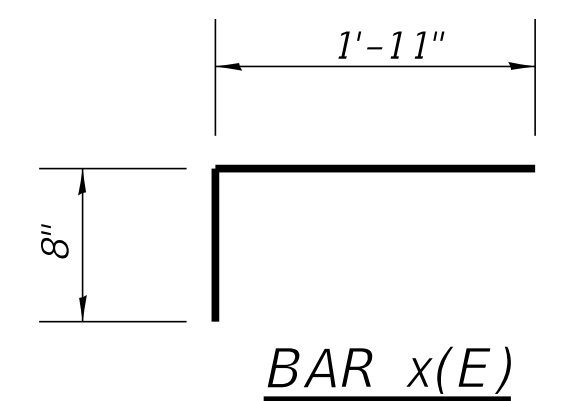
SECTION C-C
(All dimensions are at right L's)



SECTION D-D
Bridge Rails not shown
(See sheet 21 of 21)



BAR c(E)



BAR x(E)

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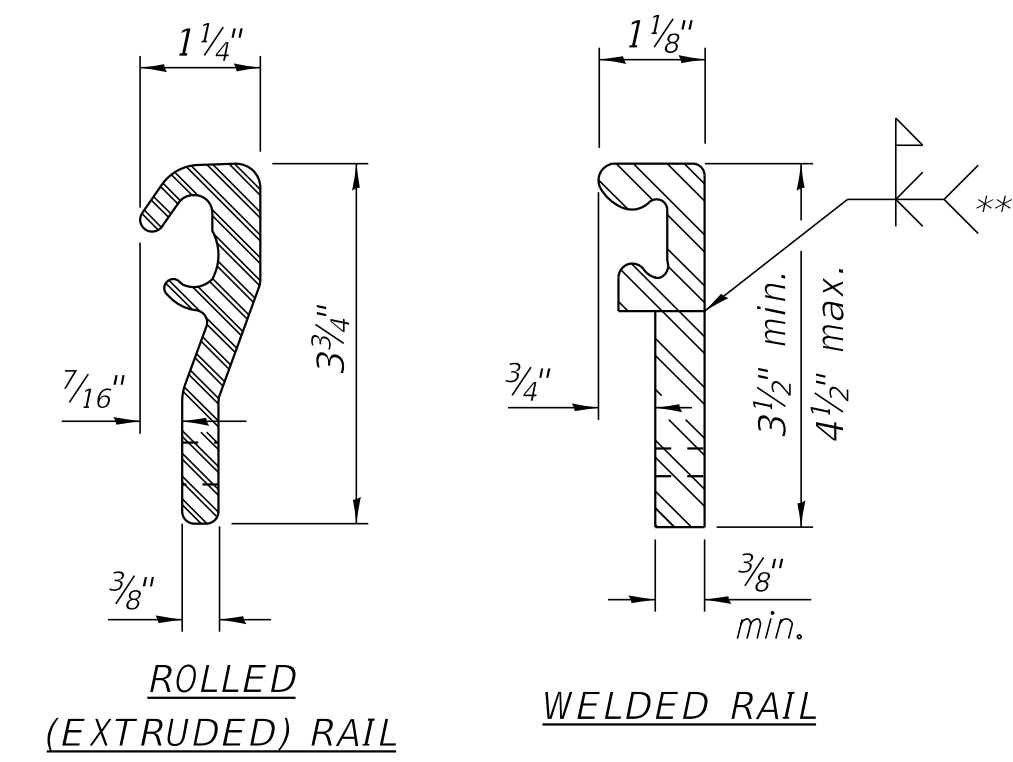
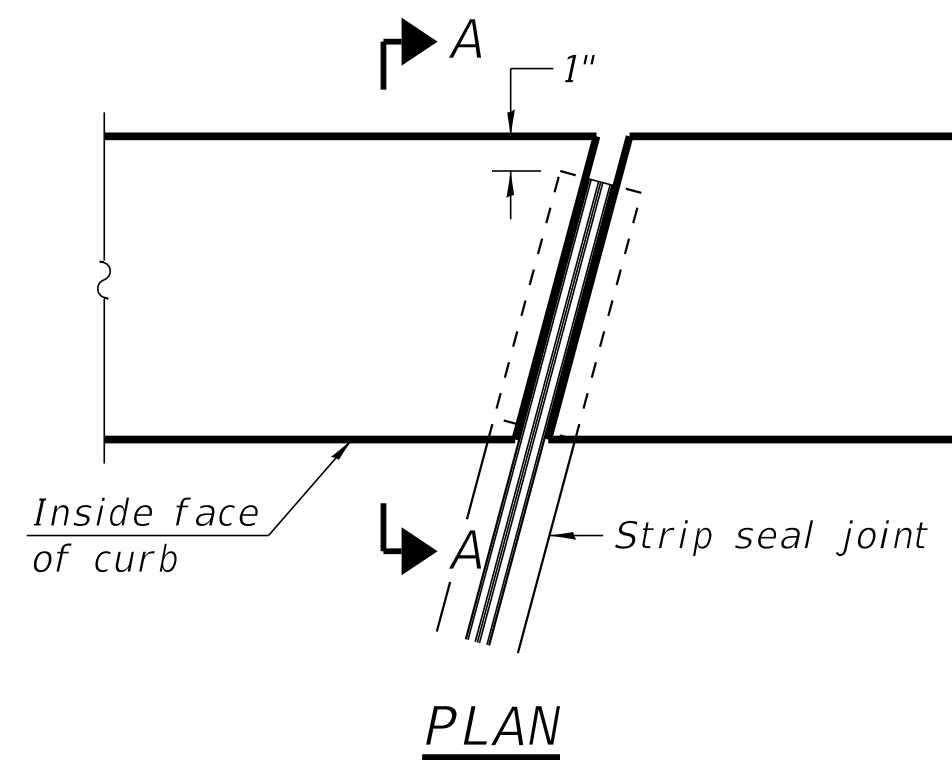
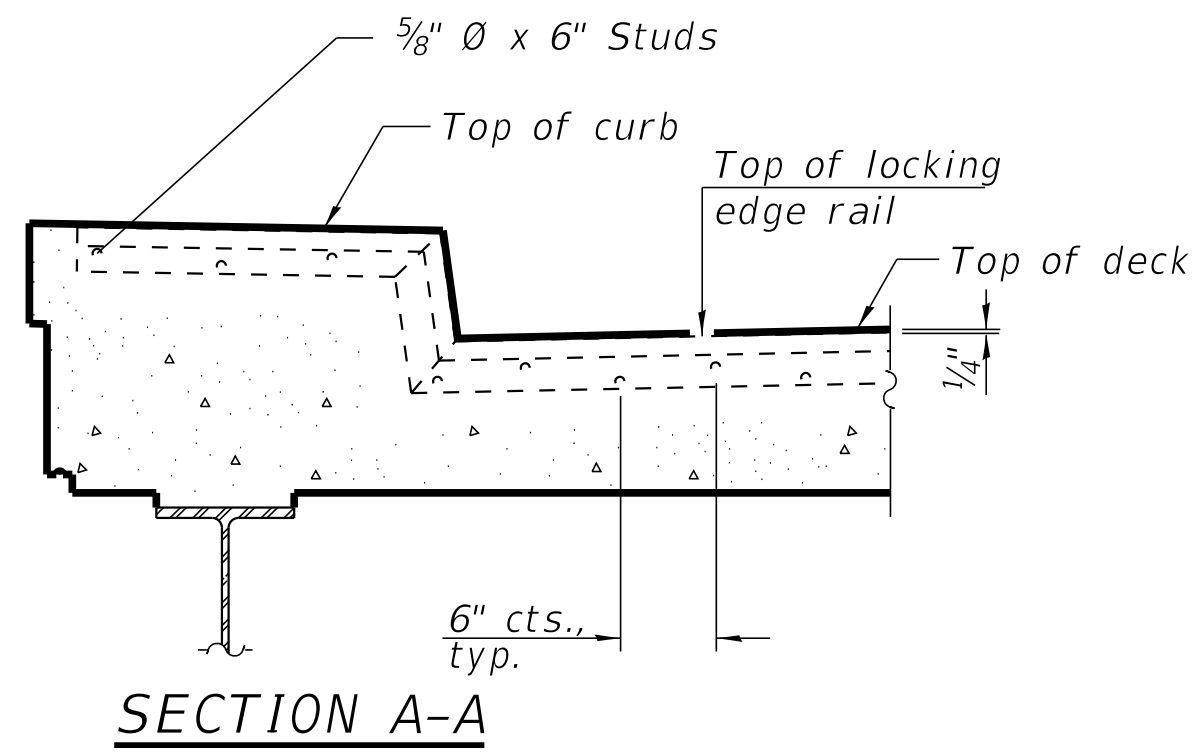
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| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE = | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXPANSION JOINT REPLACEMENT DETAILS
STRUCTURE NO. 099-0135**

SHEET NO. 5 OF 21 SHEETS

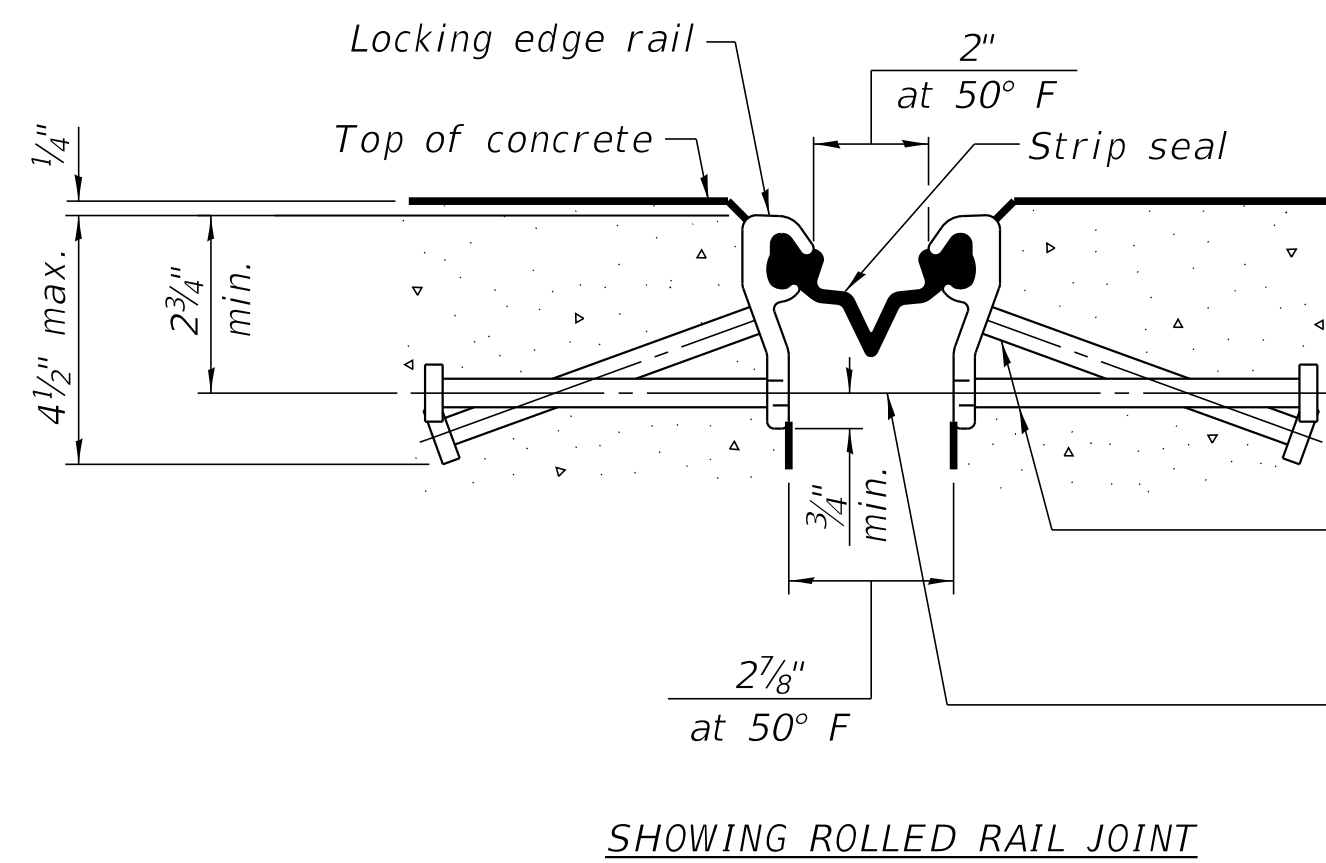
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|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 24 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



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

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

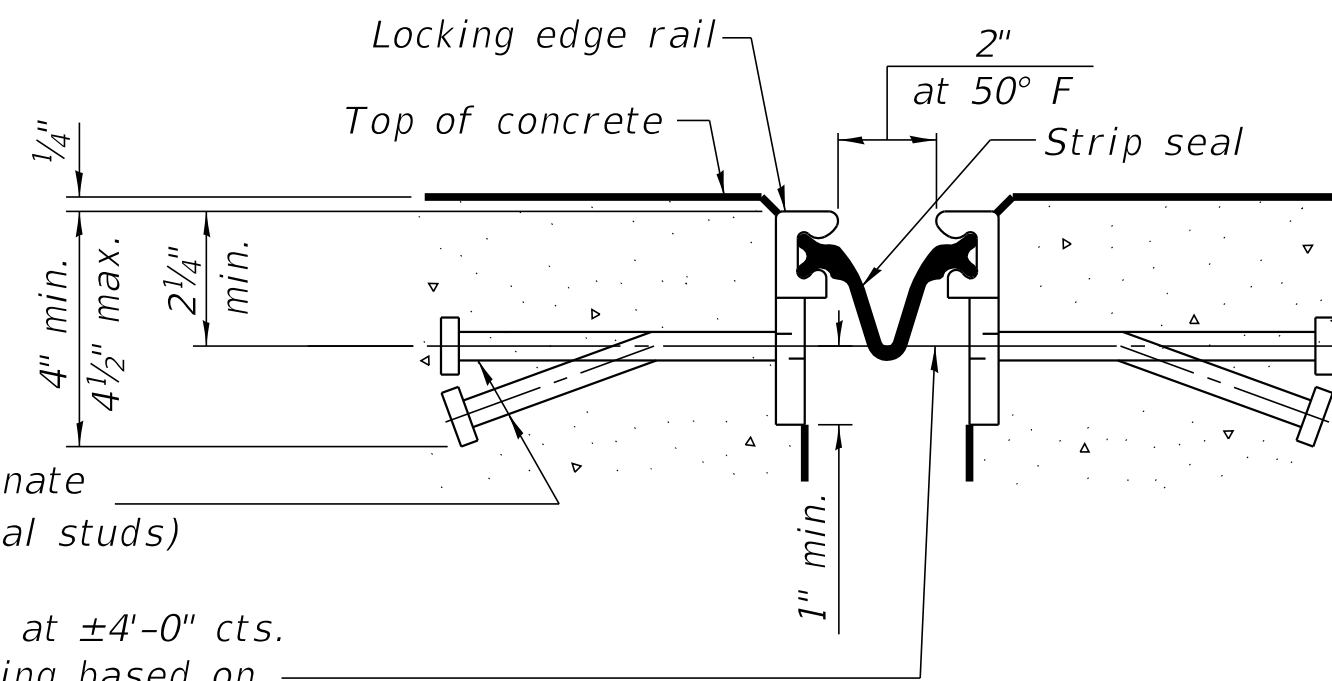
LOCKING EDGE RAILS



* 5/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

3/8" ϕ threaded rods in 7/16" ϕ holes at $\pm 4'-0"$ cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SHOWING ROLLED RAIL JOINT



SHOWING WELDED RAIL JOINT

SECTION A-A

* 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 locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.
- The manufacturer's recommended installation methods shall be followed.
- All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
- The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb shall be welded as shown in the locking edge rail splice detail.
- Cost of embedded plates, and anchorage studs included with Preformed Joint Strip Seal.
- The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required.

BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 77 |

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 ...CADD\Plots\150440_PEN\PH2.tbl
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| | CHECKED - BAB | REVISED - |
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| PLOT DATE = | DATE - 10-08-18 | REVISED - |

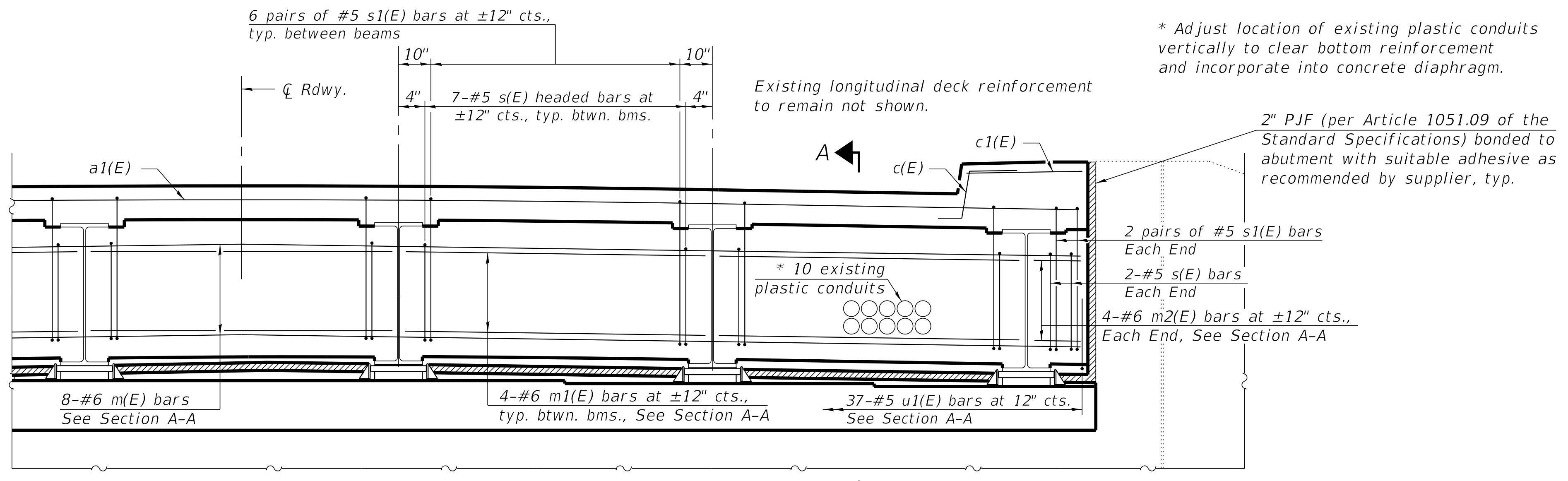
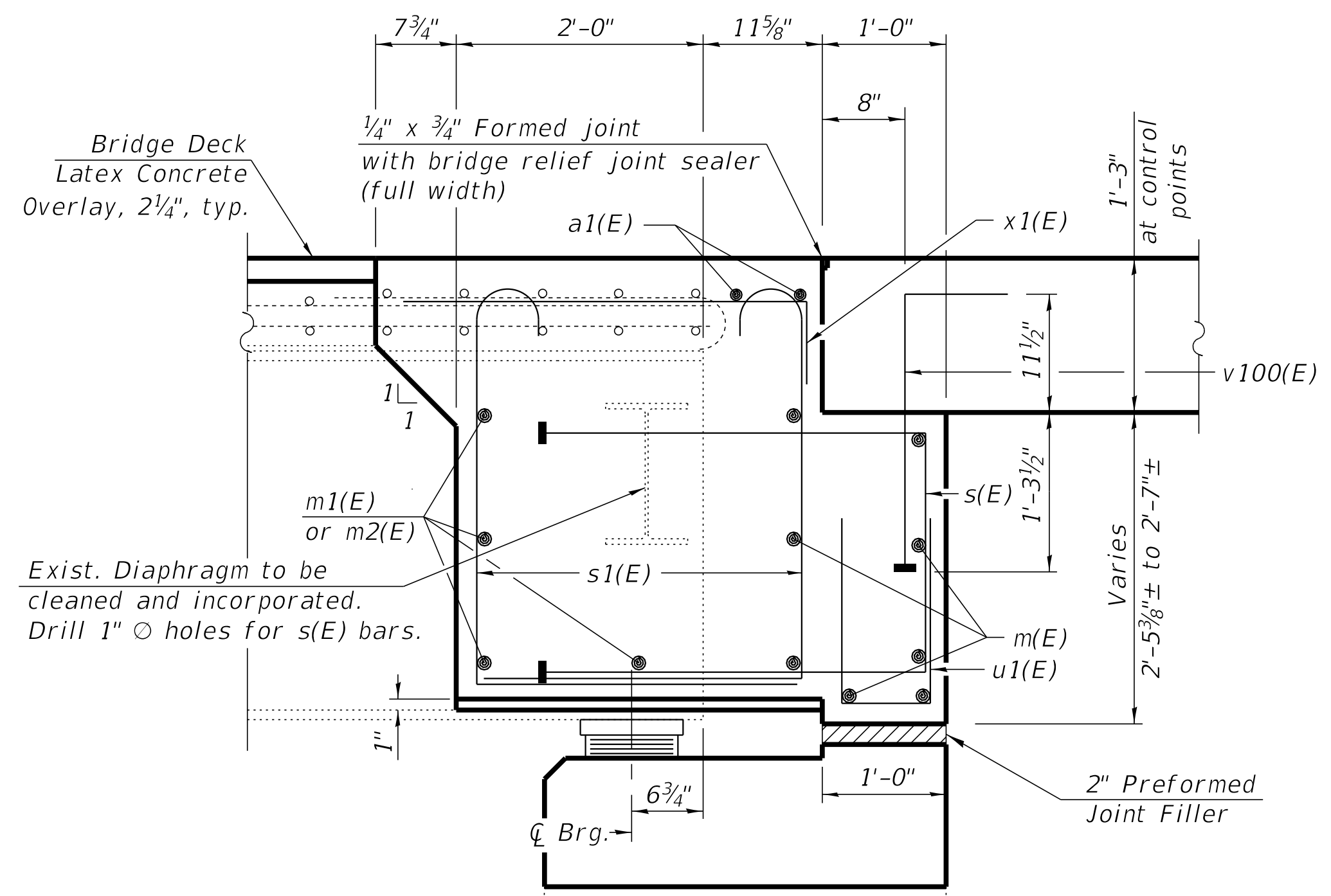
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PREFORMED JOINT STRIP SEAL
 STRUCTURE NO. 099-0135**

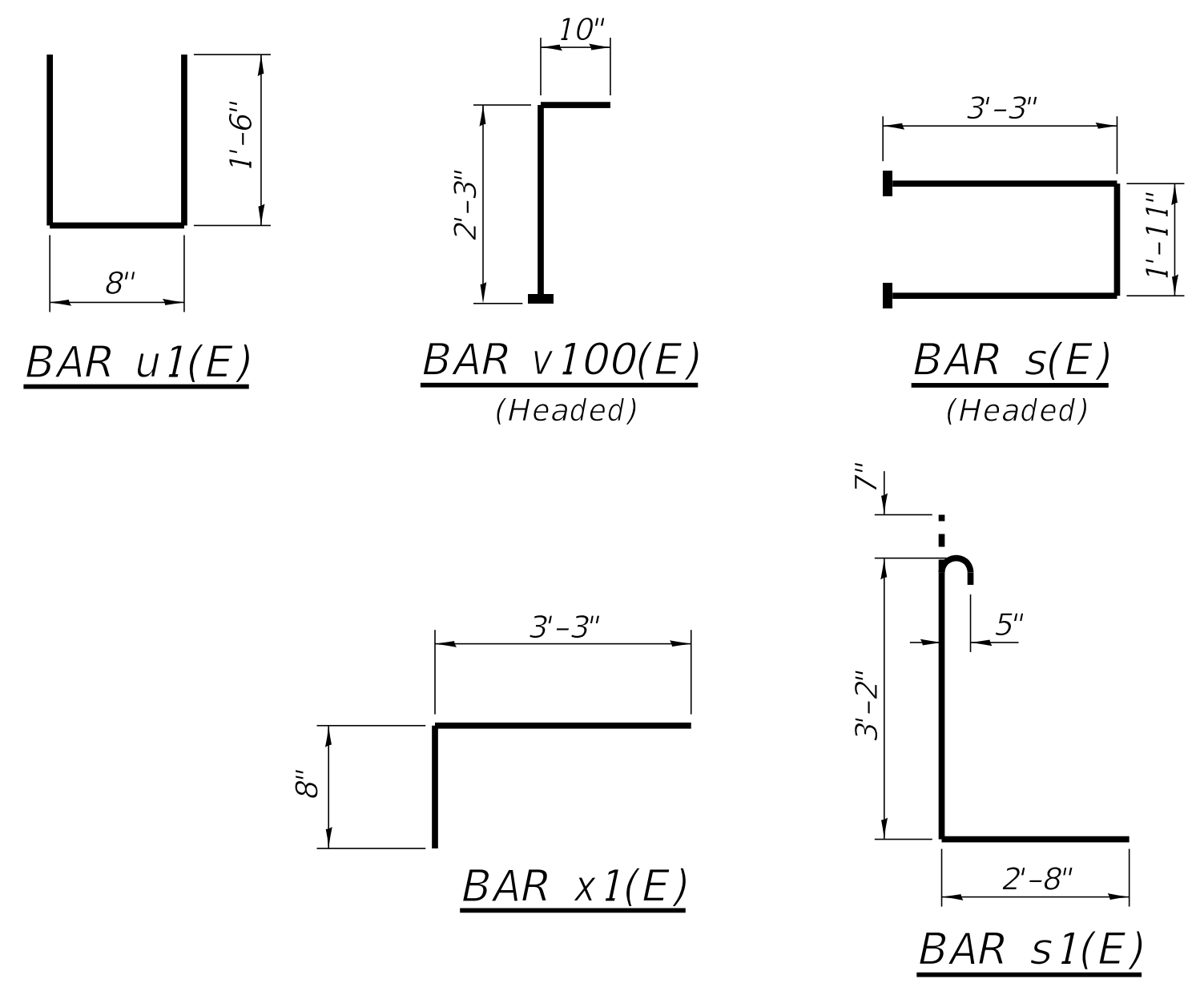
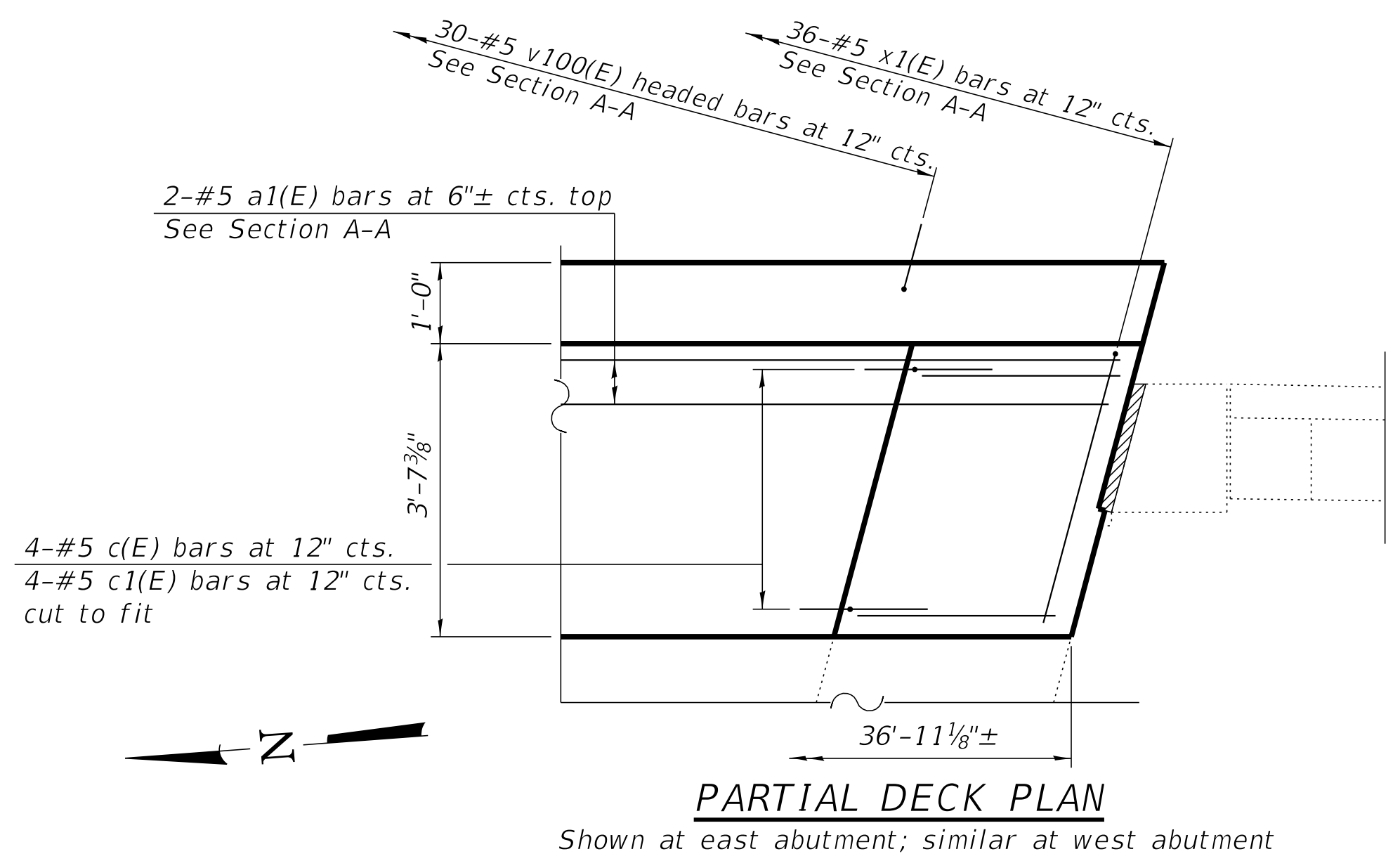
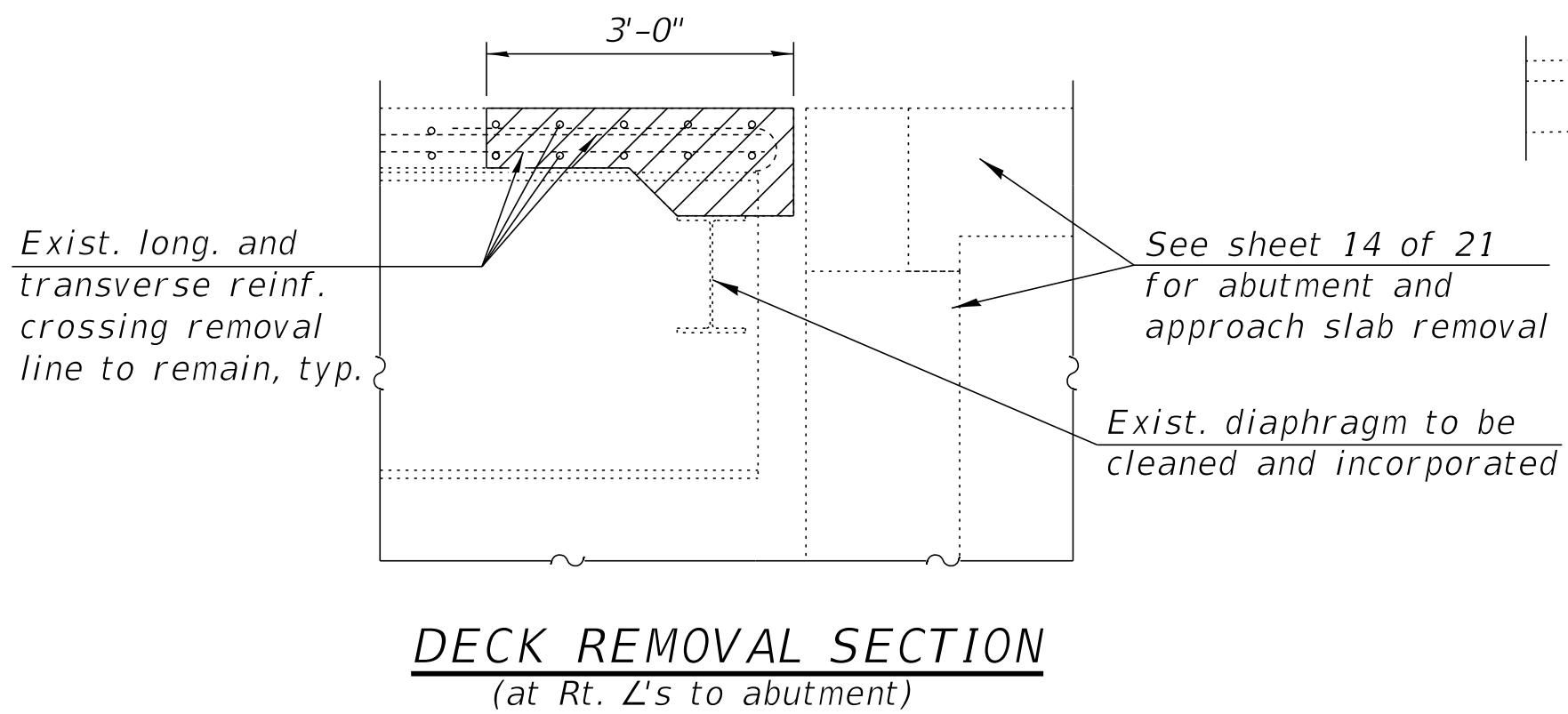
SHEET NO. 6 OF 21 SHEETS

| | | | | |
|-------------|----------------|-----------------------------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 25 |
| | | | CONTRACT NO. 61F12 | |
| | | ILLINOIS / FED. AID PROJECT | | |

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Notes:
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
 The s(E), s1(E) and x1(E) bars shall be placed parallel to the beams. Spacing for those bars shall be at right angles to the beams.
 See sheet 5 of 21 for bar c(E) details.
 The approach slab seat shall have a constant slope determined from the control points at \bar{C} of Roadway and at inside edges of curbs.
 For bearing details see sheet 11 of 21.
 Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 Cost of 2" PJF included with Concrete Superstructure.



**TWO DIAPHRAGMS
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|--------|-------|
| a1(E) | 4 | #5 | 36'-4" | — |
| c(E) | 16 | #5 | 2'-6" | ┌ |
| c1(E) | 16 | #5 | 2'-7" | — |
| m(E) | 16 | #6 | 36'-4" | — |
| m1(E) | 40 | #6 | 6'-5" | — |
| m2(E) | 16 | #6 | 0'-11" | — |
| s(E) | 78 | #5 | 8'-5" | ┌ |
| s1(E) | 136 | #5 | 6'-5" | ┌ |
| u1(E) | 74 | #5 | 3'-8" | ┌ |
| v100(E) | 60 | #5 | 3'-1" | ┌ |
| x1(E) | 72 | #5 | 3'-11" | ┌ |
| Concrete Removal | | | Cu Yd | 7.6 |
| Concrete Superstructure | | | Cu Yd | 38.8 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 3,890 |
| Protective Coat | | | Sq Yd | 32 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DIAPHRAGM DETAILS
STRUCTURE NO. 099-0135**

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 26 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

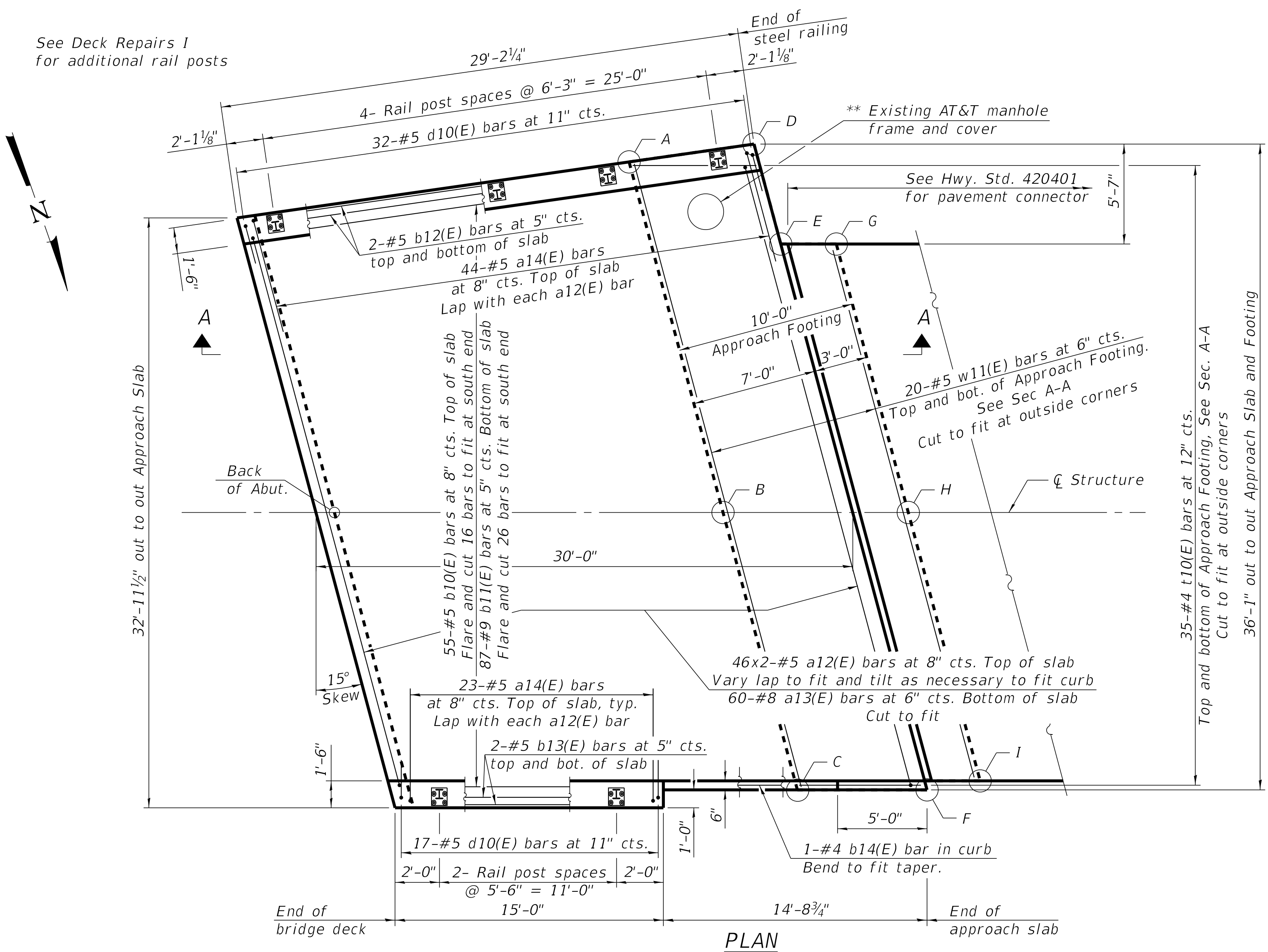
BAXTER & WOODMAN
Consulting Engineers

| USER NAME | DESIGNED | REVISIONS |
|-----------|----------|-----------|
| BLB | BLB | - |
| BAB | BAB | - |
| BLB | BLB | - |
| DATE | DATE | REVISIONS |
| 10-08-18 | 10-08-18 | - |

SHEET NO. 7 OF 21 SHEETS

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See Deck Repairs I for additional rail posts

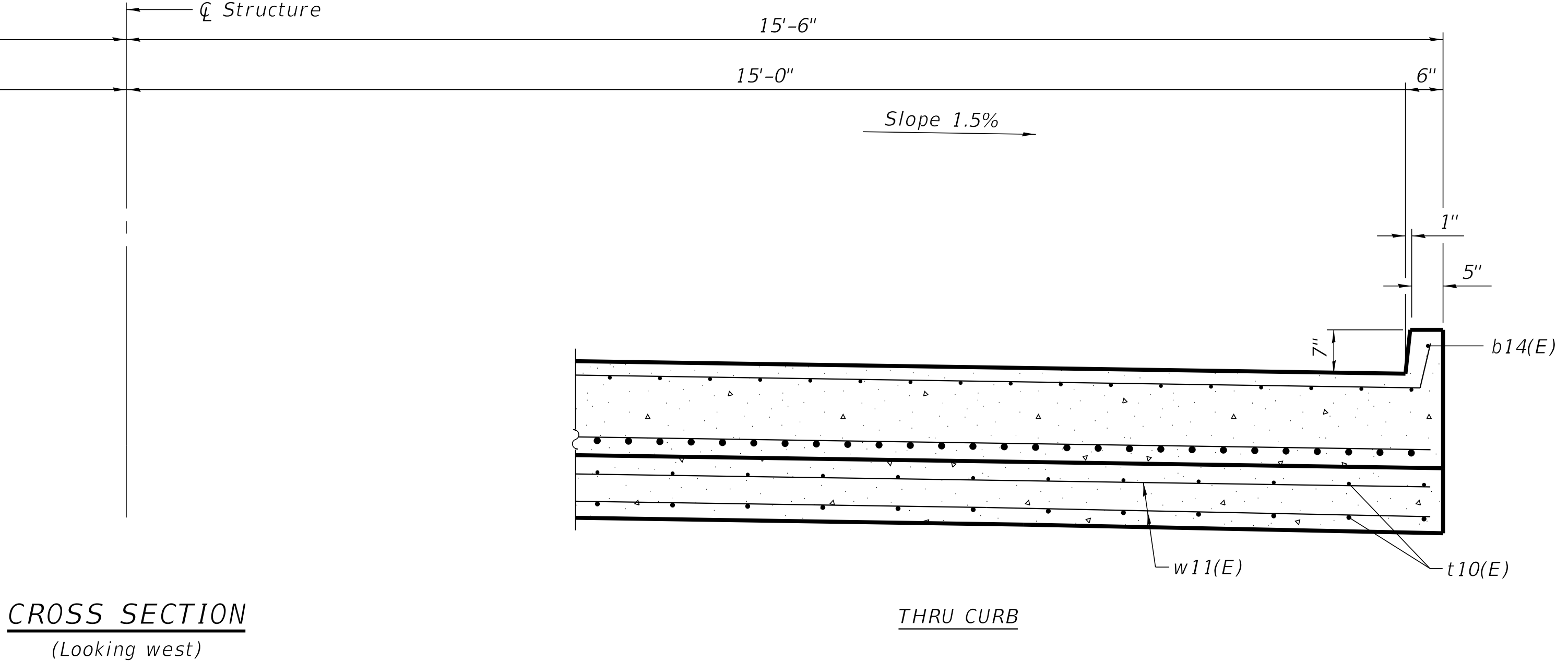
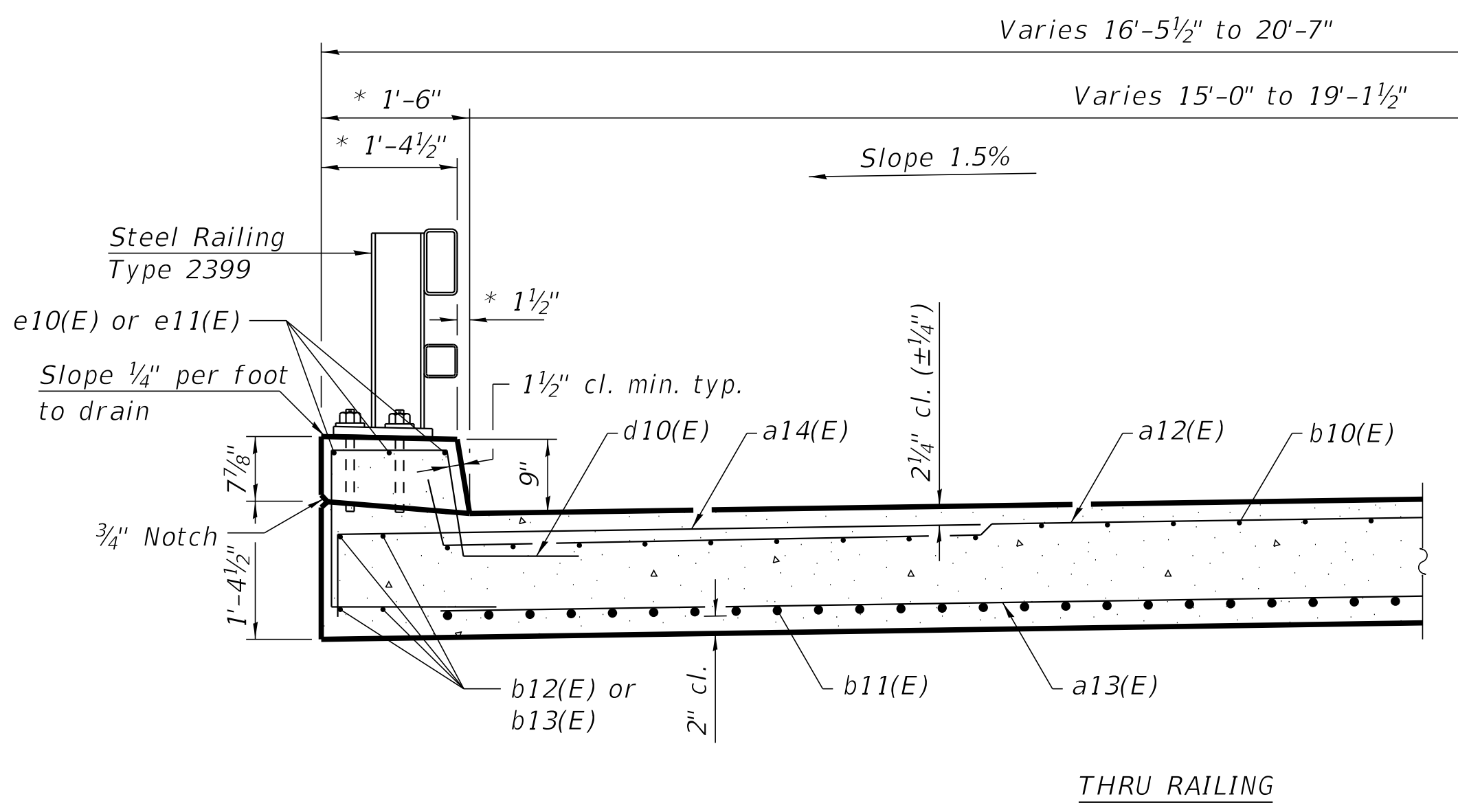


** Adjust frame to match proposed approach slab elevation and incorporate into concrete approach footing and approach slab; cut bars to fit.

TOP AND BOTTOM ELEVATIONS FOR WEST APPROACH FOOTING

| Point | West Approach | |
|-------|---------------|--------|
| | Top | Bottom |
| A | 573.29 | 572.46 |
| B | 573.51 | 572.68 |
| C | 573.22 | 572.39 |
| D | 573.18 | 572.35 |
| E | 573.24 | 572.41 |
| F | 573.11 | 572.28 |
| G | 573.19 | 572.36 |
| H | 573.36 | 572.53 |
| I | 573.08 | 572.25 |

* Dimensions at right angles to curb



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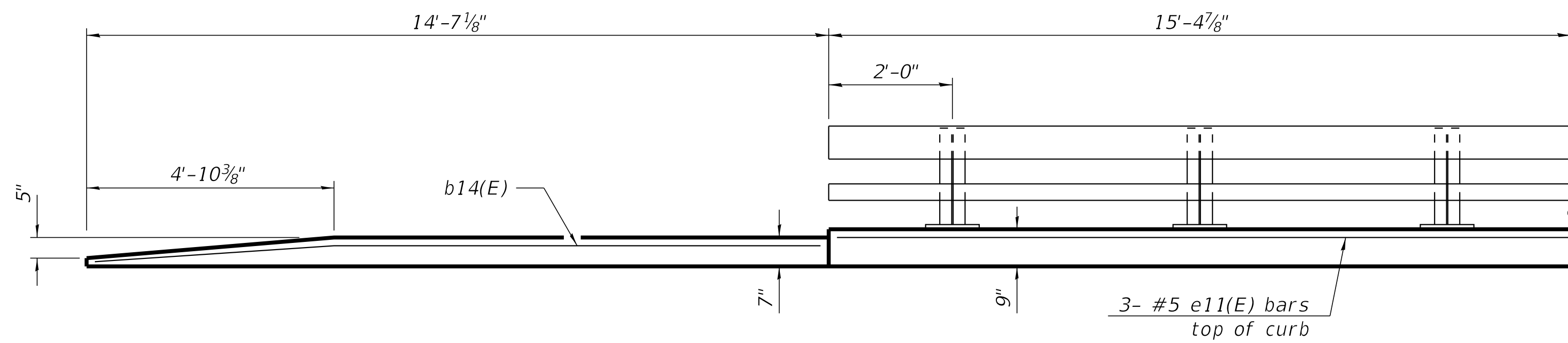
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| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE = | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

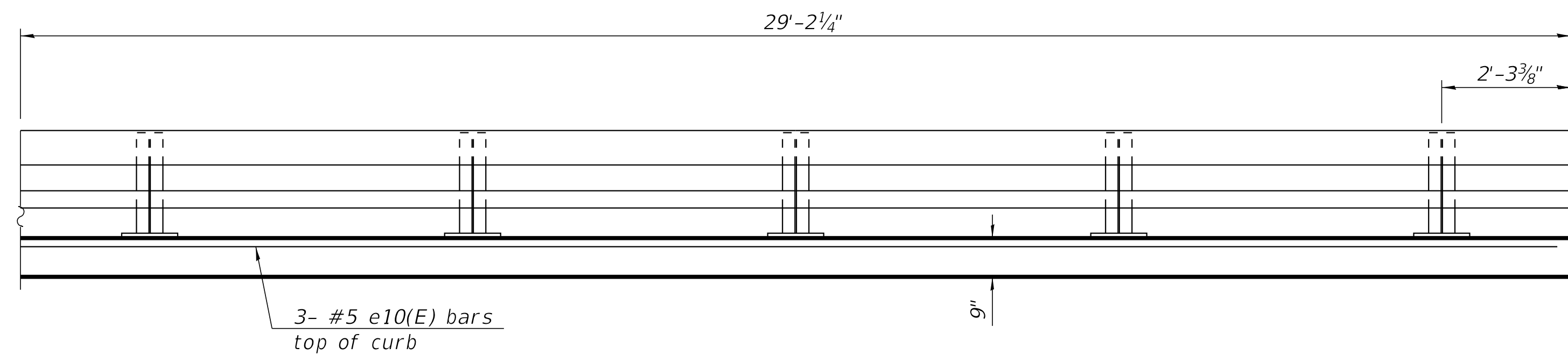
**WEST APPROACH SLAB DETAILS I
STRUCTURE NO. 099-0135**

SHEET NO. 8 OF 21 SHEETS

| | | | | |
|---------------------------|------------------------|-------------|-----------------|--------------|
| F.A.P. RTE. 351 | SECTION 15-00083-00-BR | COUNTY WILL | TOTAL SHEETS 46 | SHEET NO. 27 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

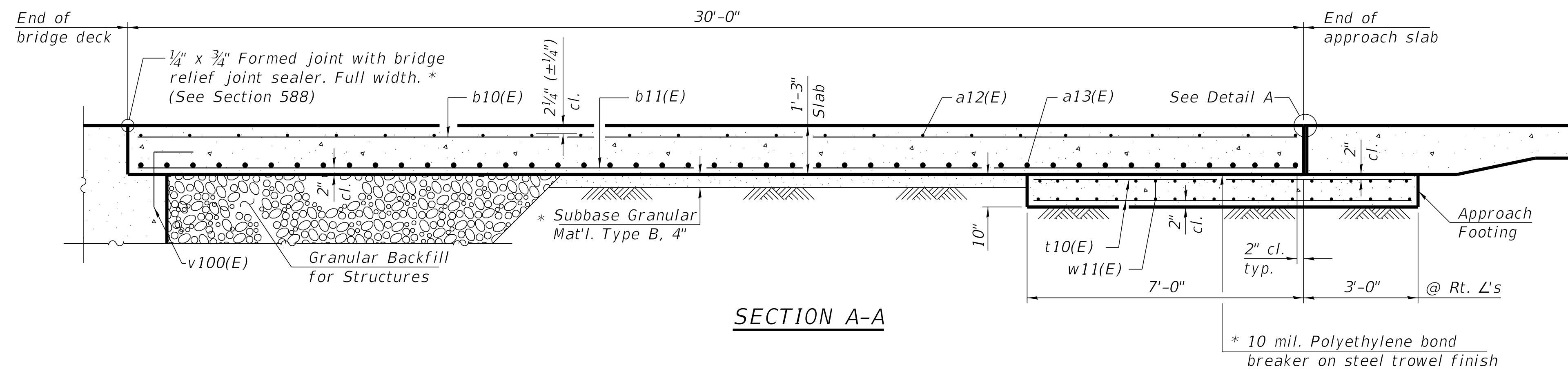


INSIDE ELEVATION OF NORTH RAILING AND CURB

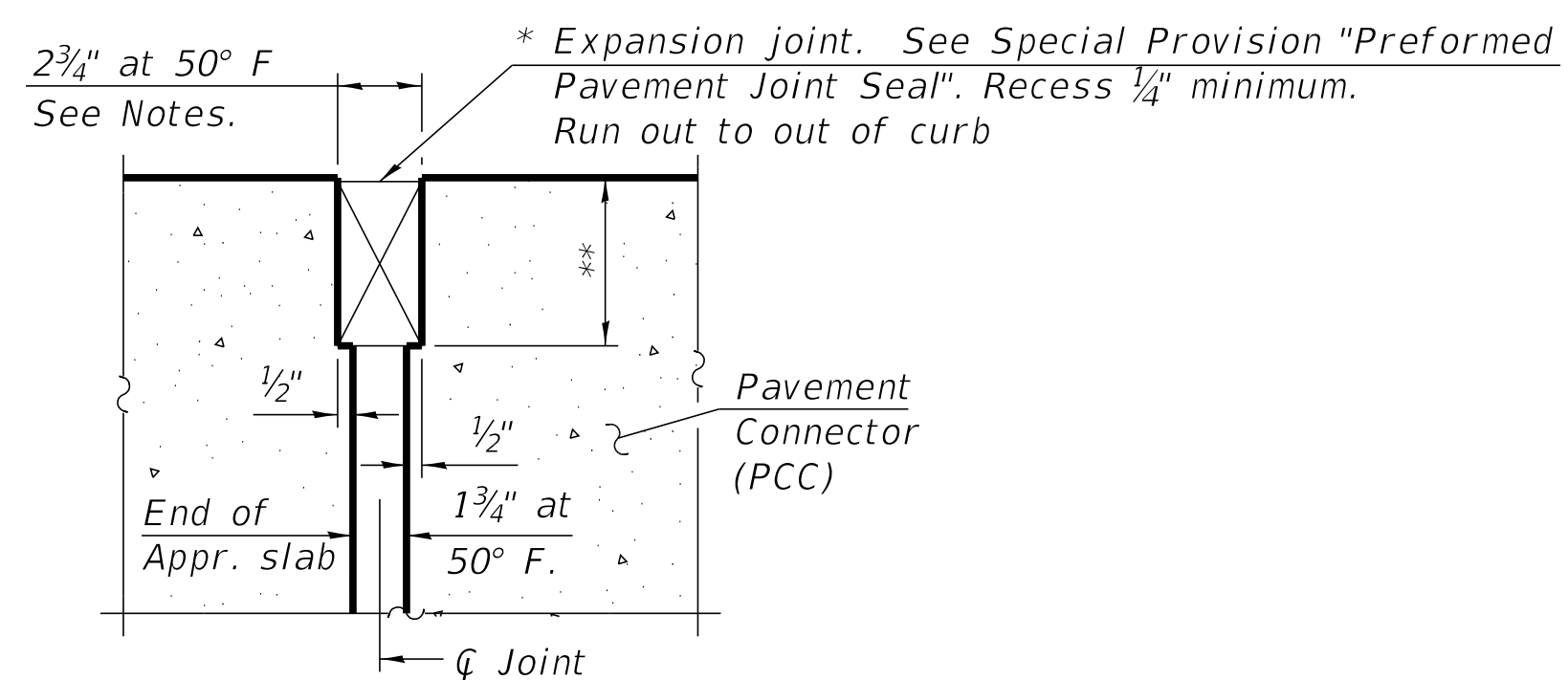


INSIDE ELEVATION OF SOUTH RAILING AND CURB

Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications.
 Curb concrete under railing shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 21.
 For railing details, see sheet 21 of 21.



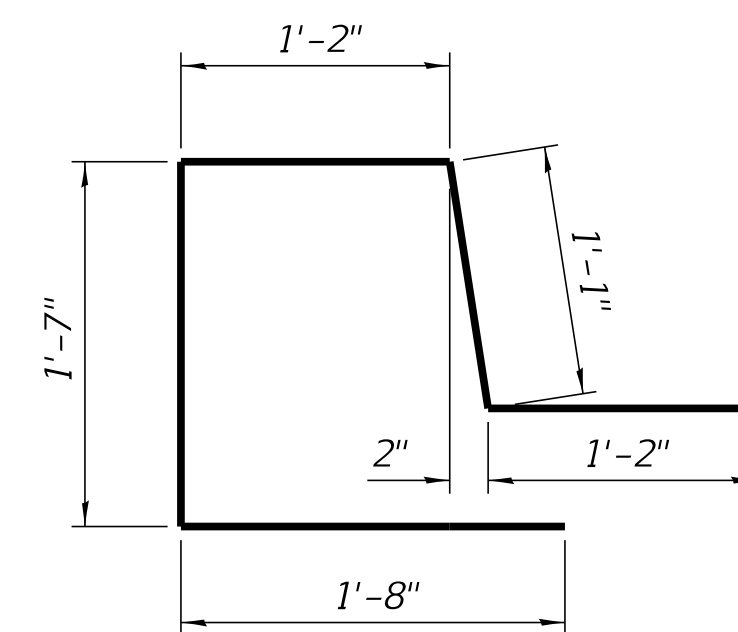
SECTION A-A



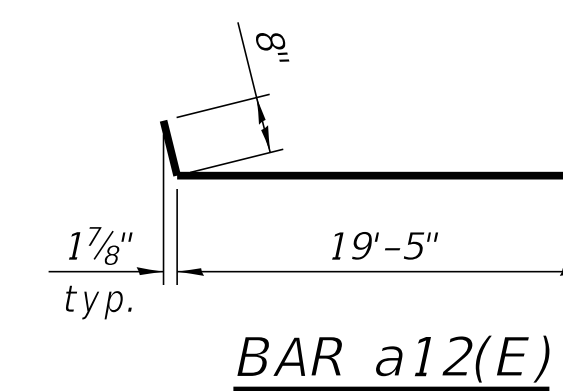
DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations



BAR d10(E)



BAR a12(E)

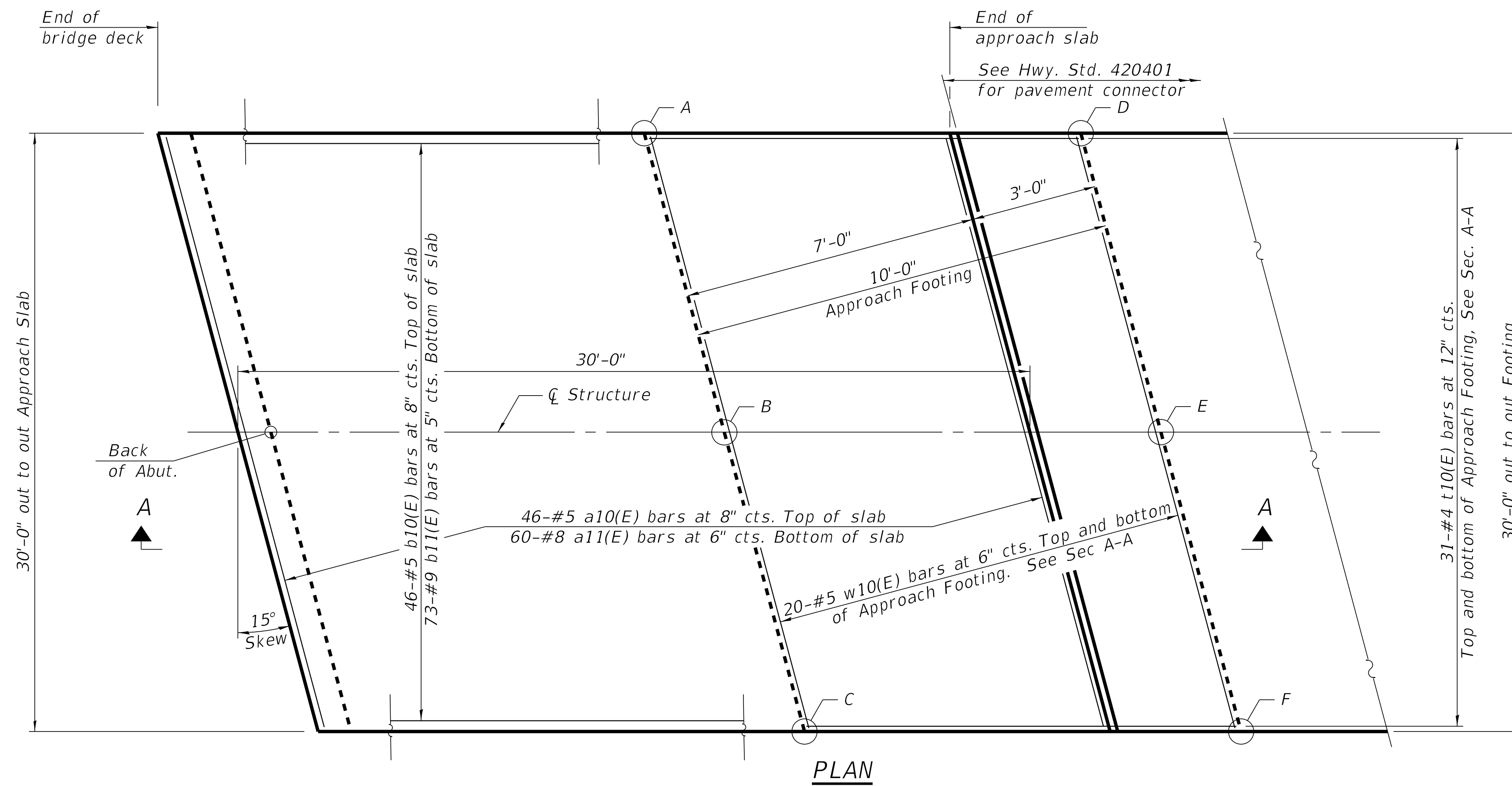


BAR a14(E)

**WEST APPROACH
BILL OF MATERIAL**

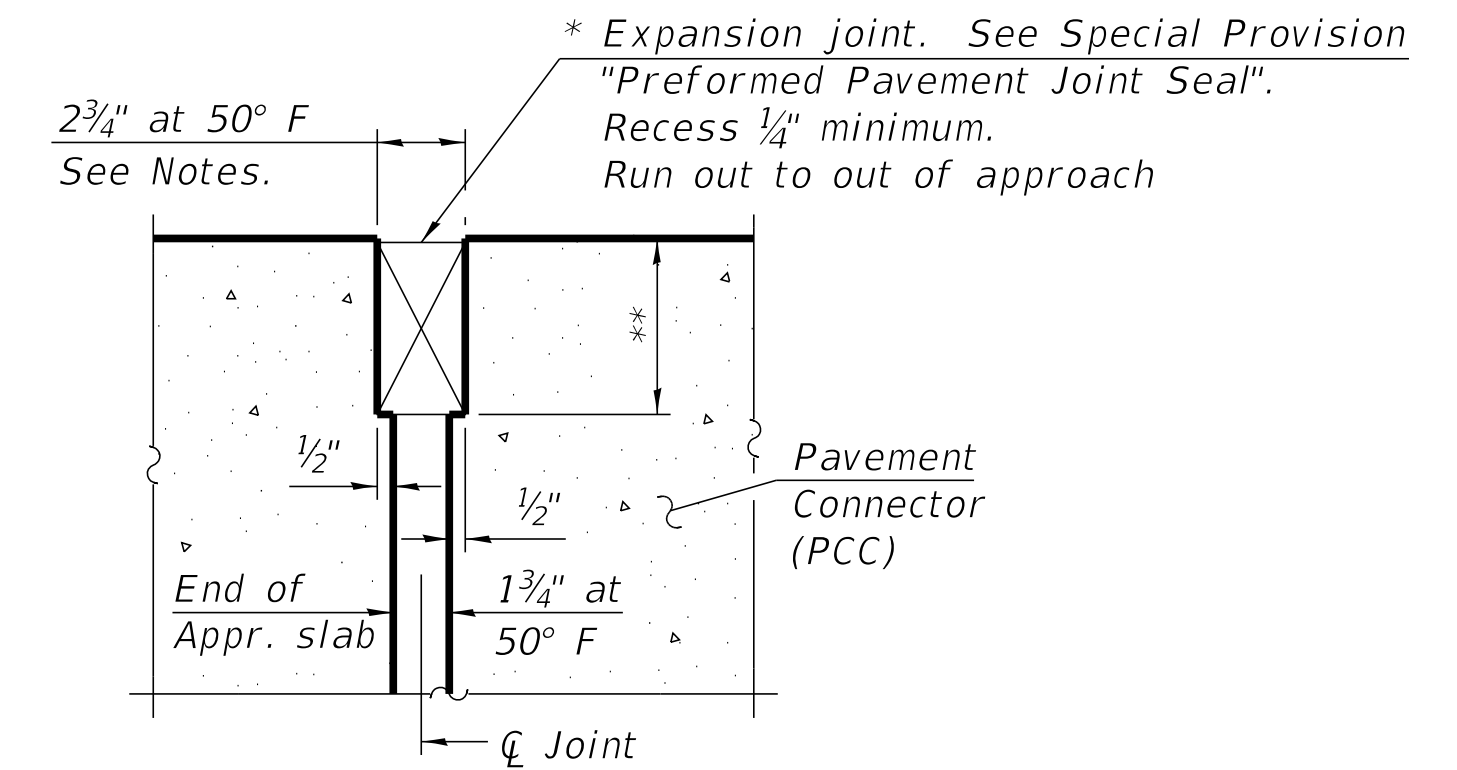
| Bar | No. | Size | Length | Shape |
|---|-----|------|---------|--------|
| a12(E) | 92 | #5 | 20'-1" | |
| a13(E) | 60 | #8 | 35'-10" | |
| a14(E) | 67 | #5 | 7'-4" | |
| b10(E) | 55 | #5 | 29'-8" | |
| b11(E) | 87 | #9 | 29'-8" | |
| b12(E) | 4 | #5 | 28'-10" | |
| b13(E) | 4 | #5 | 14'-8" | |
| b14(E) | 1 | #4 | 14'-4" | |
| d10(E) | 49 | #5 | 6'-8" | |
| e10(E) | 3 | #5 | 28'-10" | |
| e11(E) | 3 | #5 | 14'-8" | |
| t10(E) | 70 | #4 | 10'-0" | |
| w11(E) | 40 | #5 | 36'-0" | |
| Concrete Superstructure | | | Cu Yd | 1.8 |
| Concrete Superstructure (Approach Slab) | | | Cu Yd | 48.3 |
| Concrete Structures | | | Cu Yd | 10.9 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 21,300 |
| Protective Coat | | | Sq Yd | 120 |

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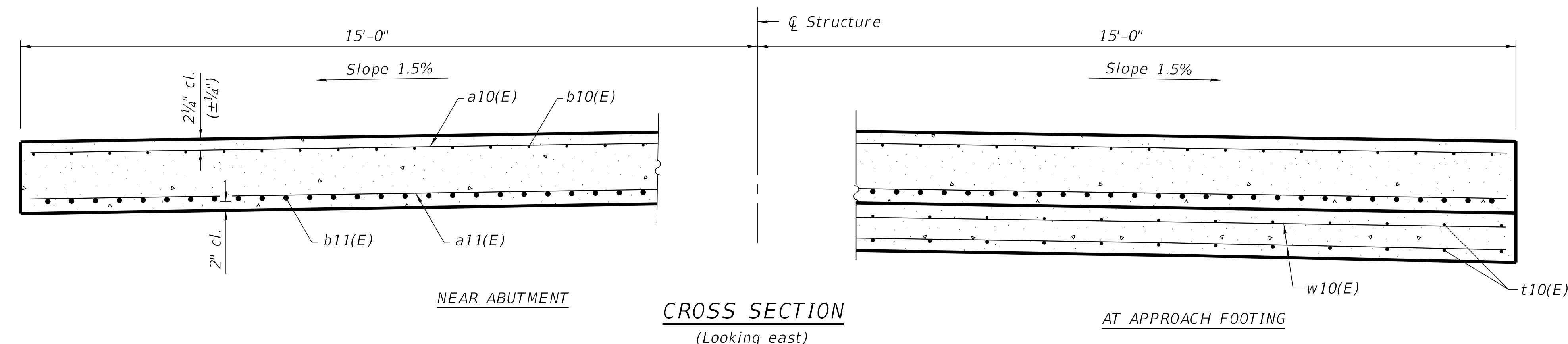
TOP AND BOTTOM ELEVATIONS FOR EAST APPROACH FOOTING

| Point | East Approach | |
|-------|---------------|--------|
| | Top | Bottom |
| A | 580.17 | 579.34 |
| B | 580.42 | 579.59 |
| C | 580.23 | 579.40 |
| D | 580.24 | 579.41 |
| E | 580.50 | 579.67 |
| F | 580.30 | 579.47 |



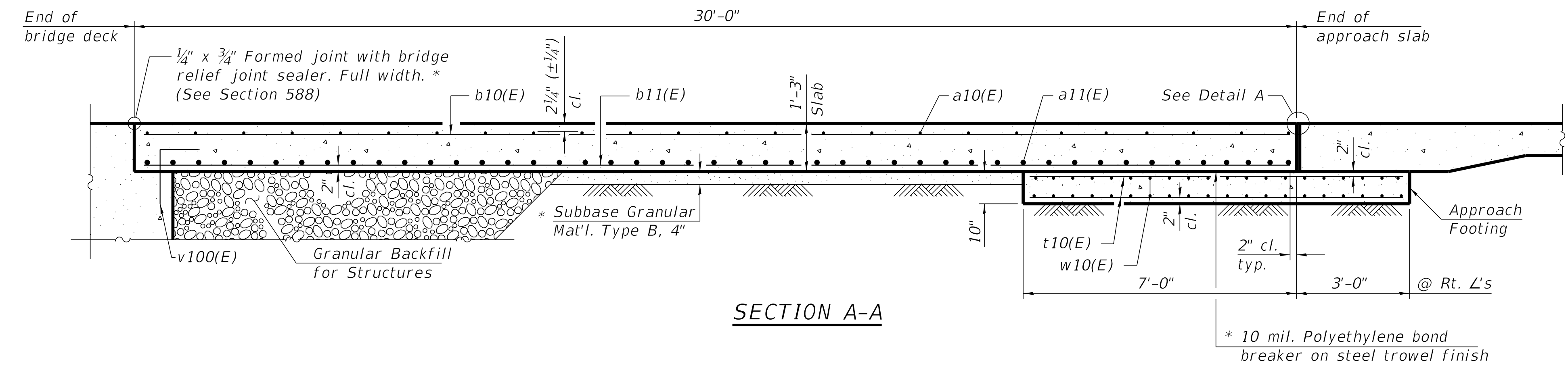
DETAIL A
(@ Rt. L's)

* Cost included with Concrete Superstructure (Approach Slab).
** Per manufacturer recommendations



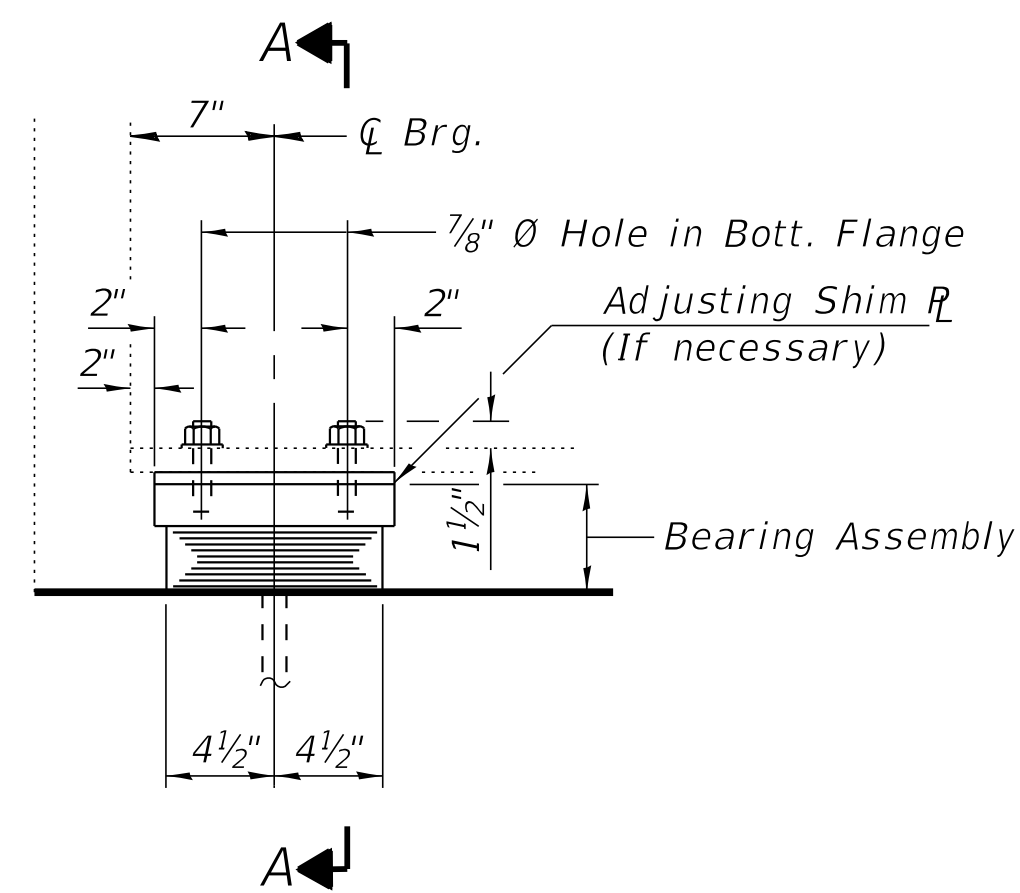
EAST APPROACH BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|-----|------|--------|--------|
| a10(E) | 46 | #5 | 30'-8" | — |
| a11(E) | 60 | #8 | 30'-8" | — |
| b10(E) | 46 | #5 | 29'-8" | — |
| b11(E) | 73 | #9 | 29'-8" | — |
| t10(E) | 62 | #4 | 10'-0" | — |
| w10(E) | 40 | #5 | 30'-8" | — |
| Concrete Superstructure (Approach Slab) | | | Cu Yd | 41.7 |
| Concrete Structures | | | Cu Yd | 9.6 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 16,870 |
| Protective Coat | | | Sq Yd | 100 |

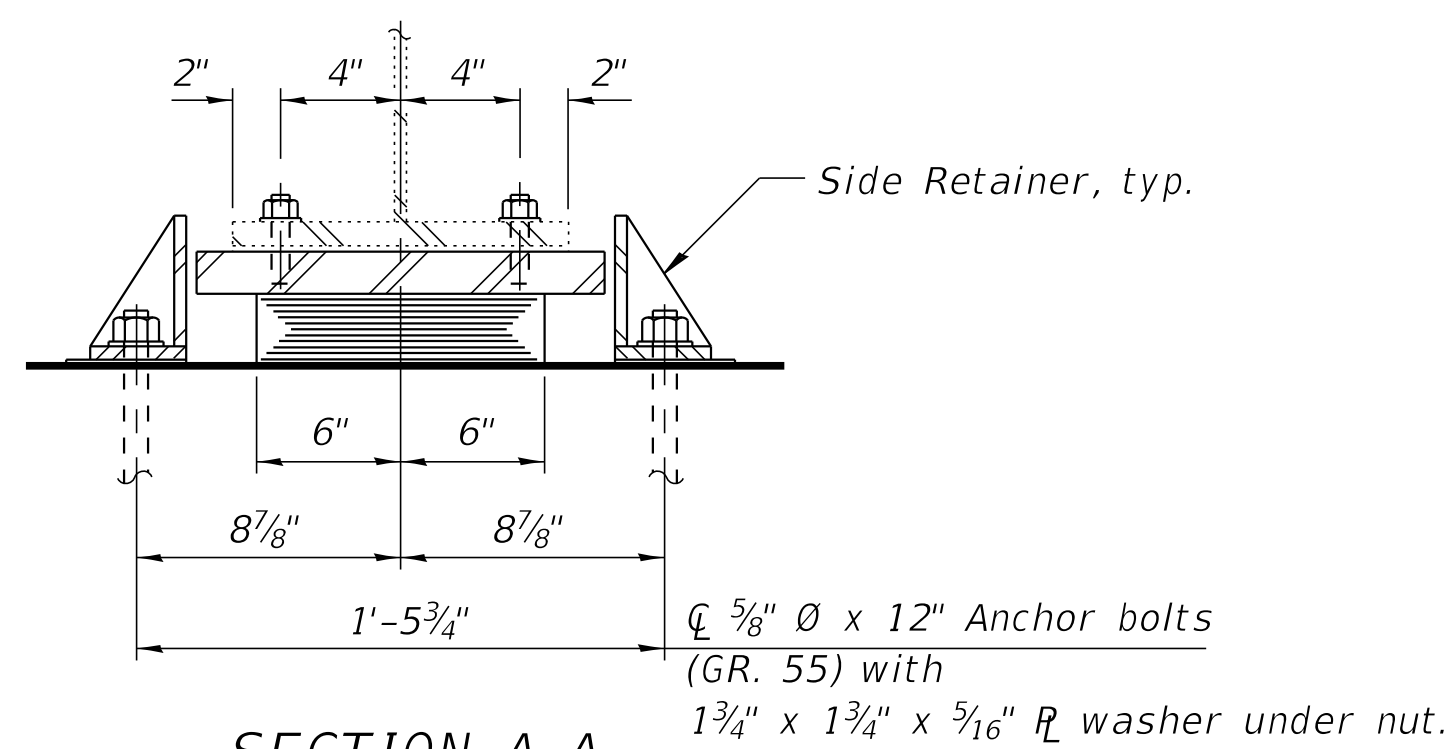


Notes:
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications.
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 21.

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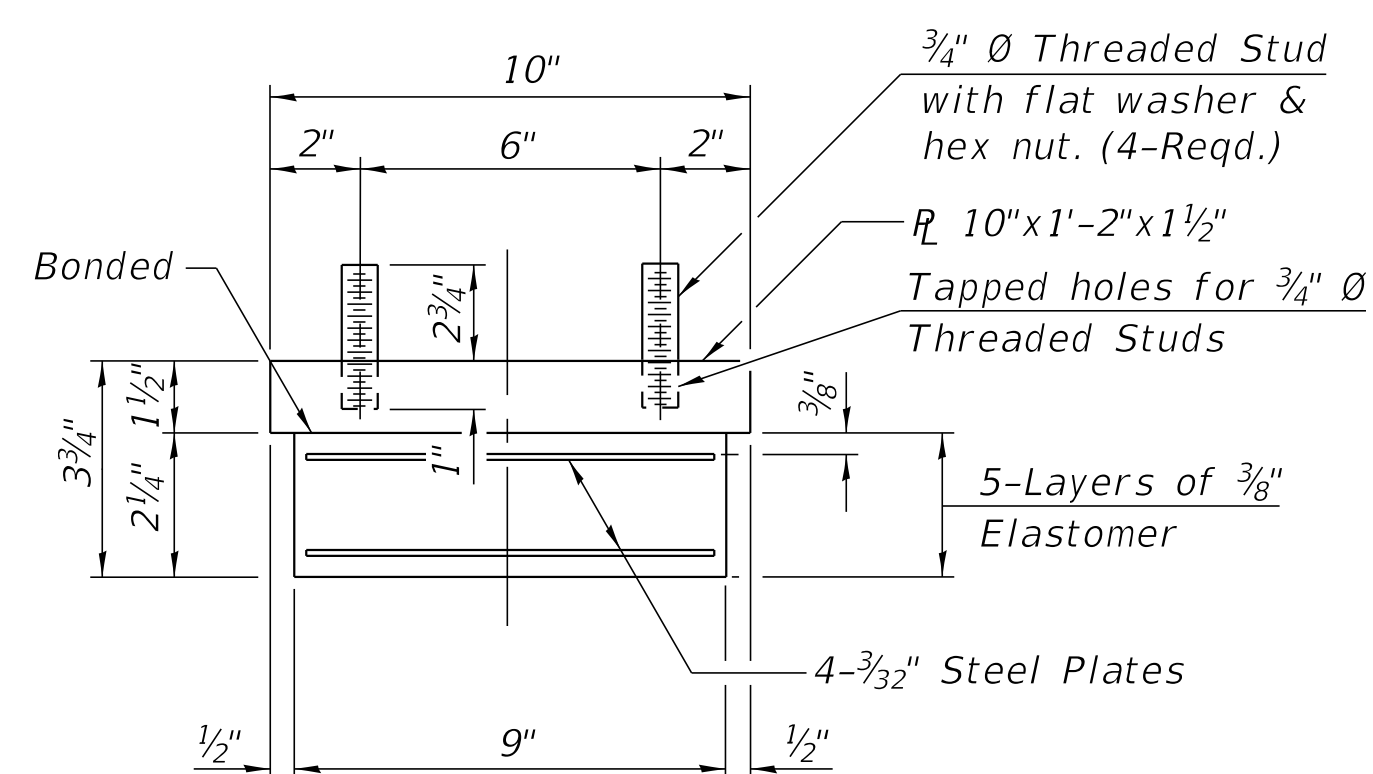


ELEVATION AT ABUT.



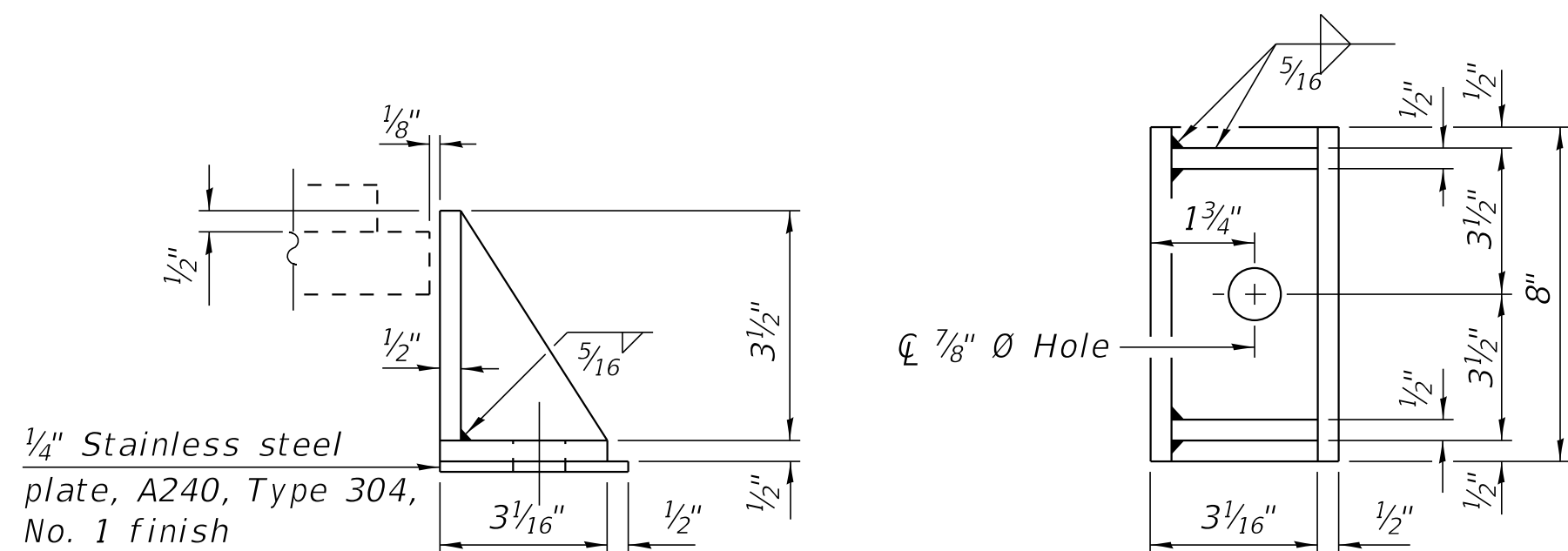
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



SIDE RETAINER

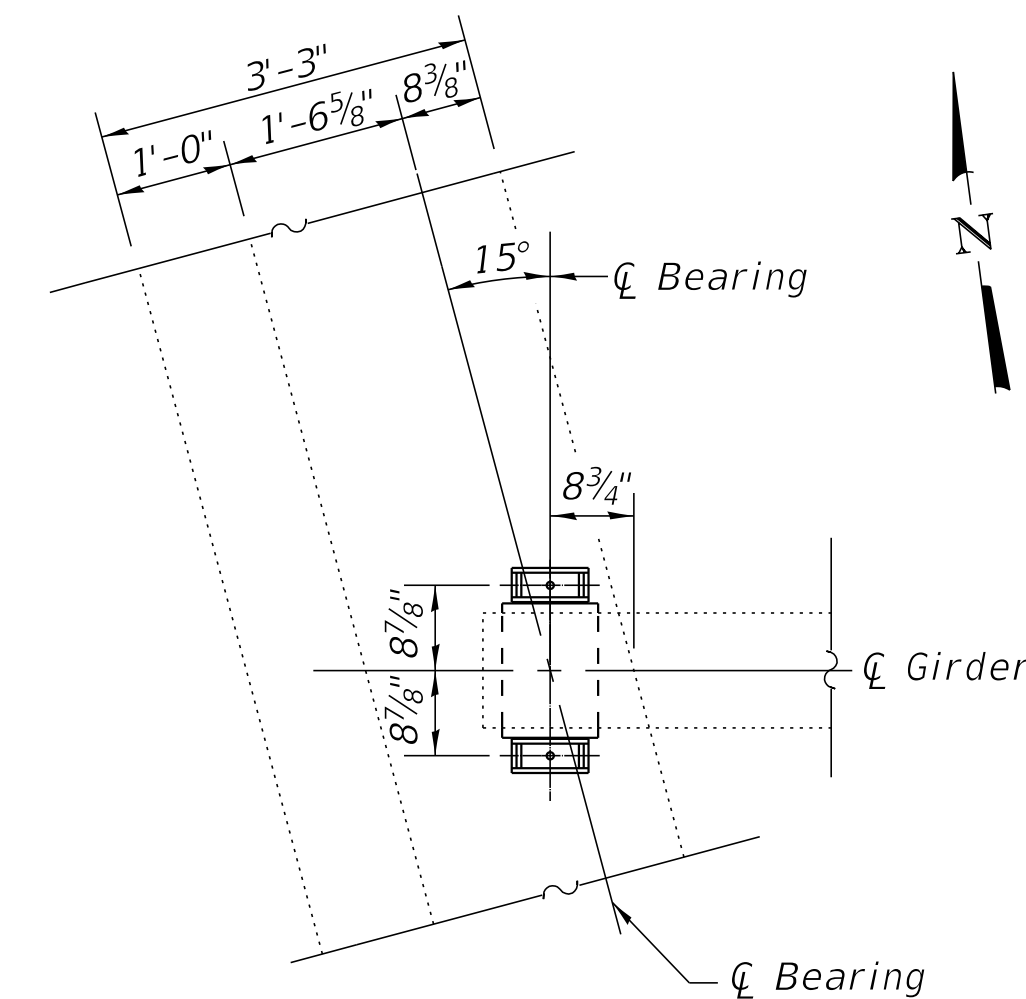
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

| BEAM REACTIONS AT ABUTMENTS | | East & West |
|-----------------------------|-----|-------------|
| R \bar{D} | (K) | 35.7 |
| R \bar{L} | (K) | 35.3 |
| IMP. | (K) | 9.4 |
| R (Total) | (K) | 80.4 |

| | East Abut. | West Abut. |
|--------|------------|------------|
| Beam 1 | | |
| Beam 2 | | |
| Beam 3 | | |
| Beam 4 | 1/4" | 1/4" |
| Beam 5 | 3/8" | 3/8" |
| Beam 6 | | |

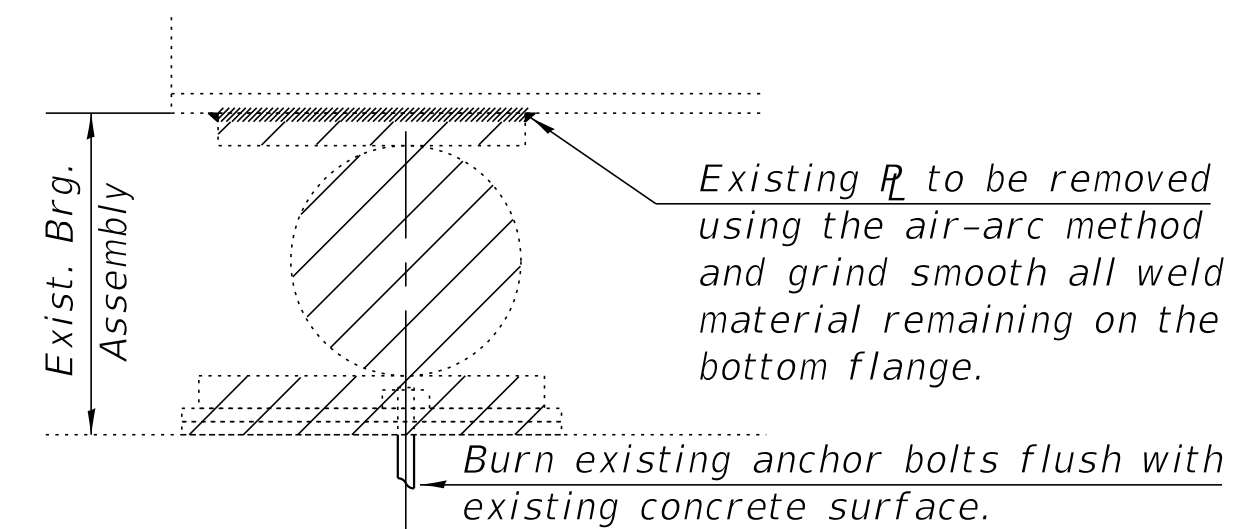
SHIM TABLE

Match plan dimension of top bearing plate. Weight included with Furnishing and Erecting Structural Steel.



PLAN AT ABUTMENTS

West Abutment (as shown)
East Abutment is similar - opposite hand



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 |
| Anchor Bolts, 5/8" | Each | 24 |
| Furnishing and Erecting Structural Steel | Pound | 169 |
| Jack and Remove Existing Bearings | Each | 12 |

Notes:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

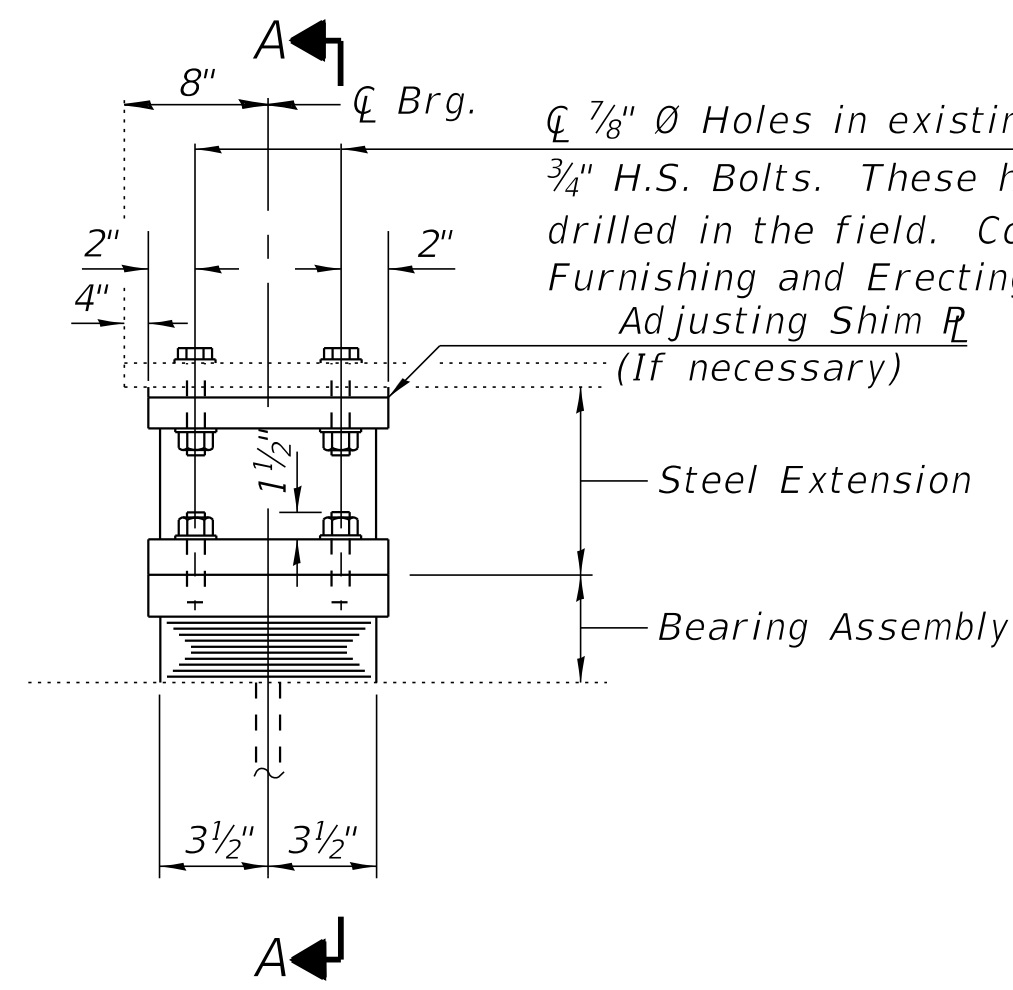
Min Jack Capacity = 62 Tons.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

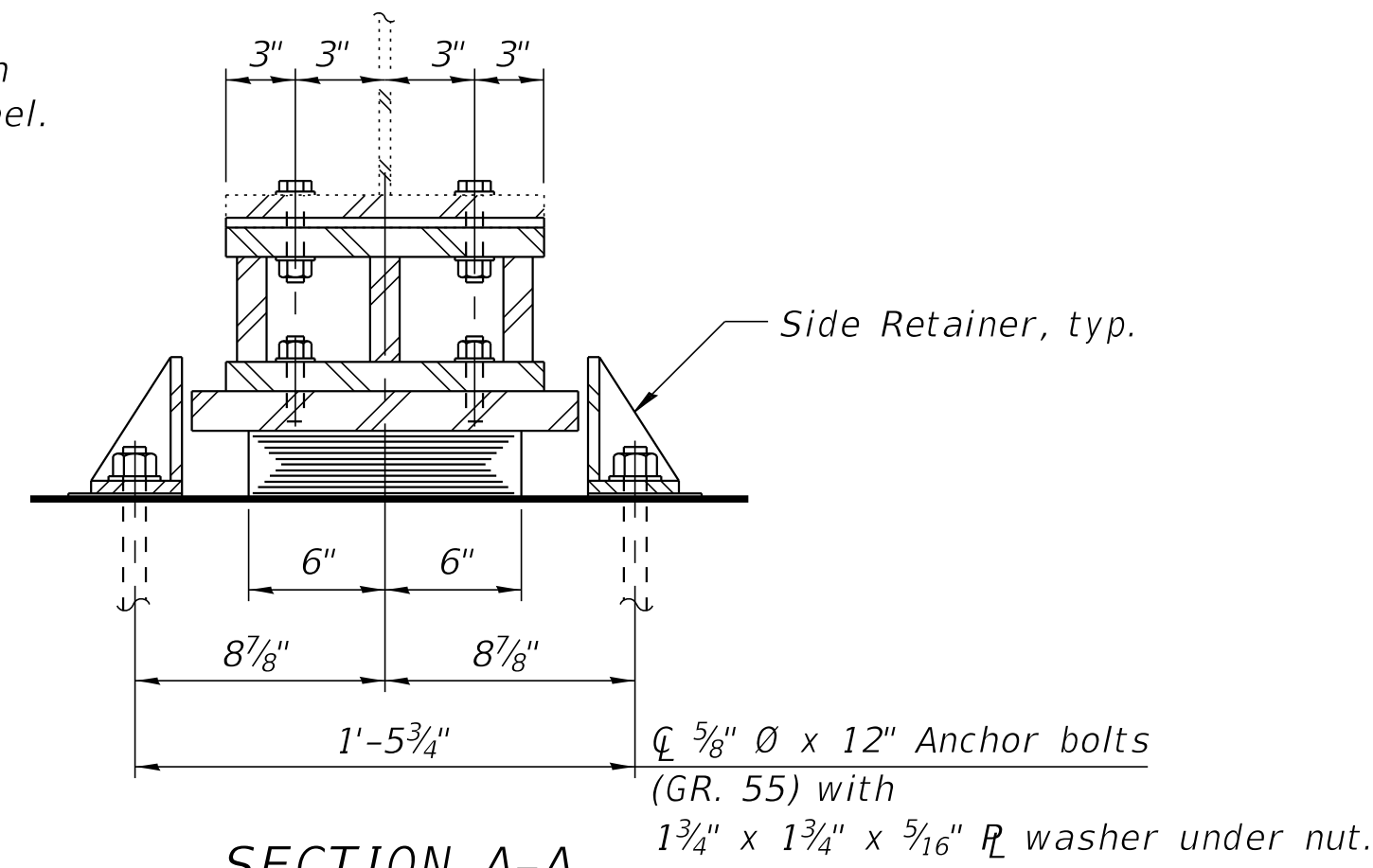
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 207, Grade 50.

Two 1/2 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

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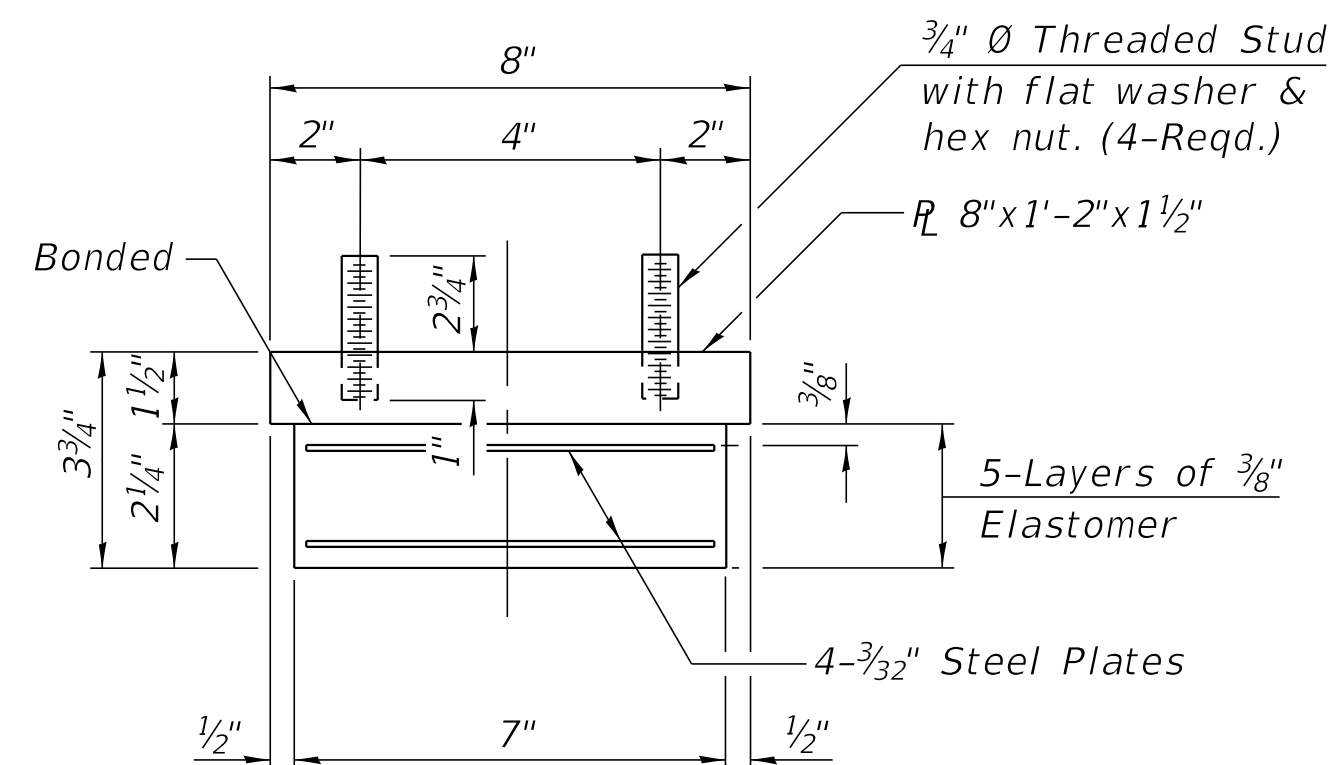


ELEVATION AT PIER



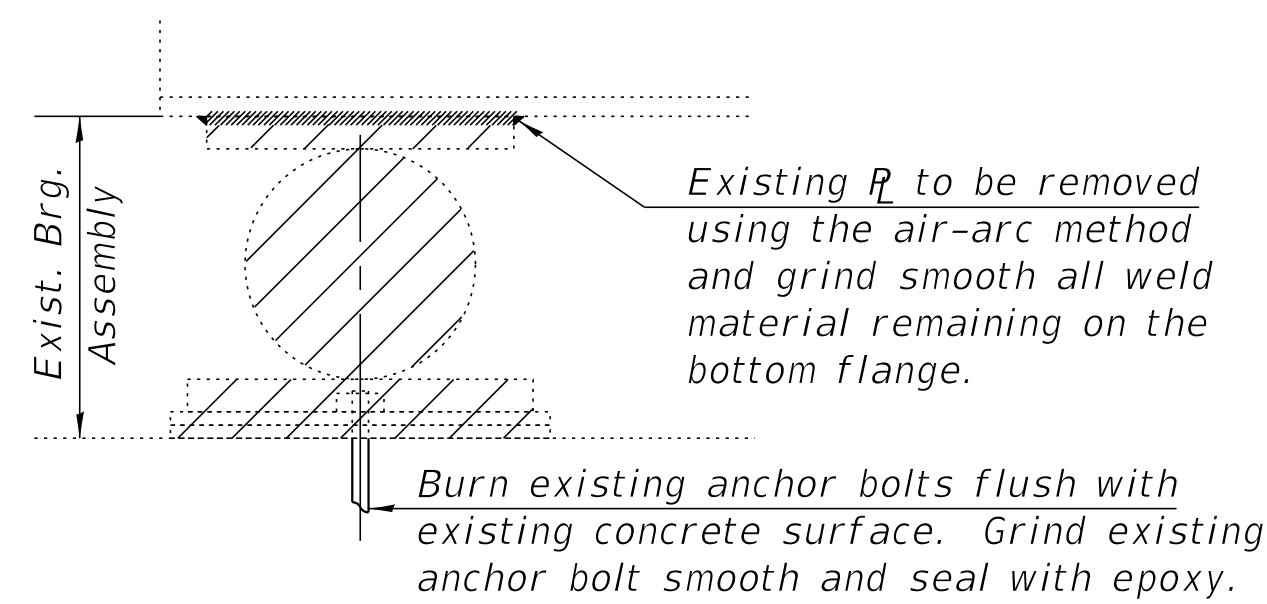
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



EXISTING BEARING REMOVAL DETAIL

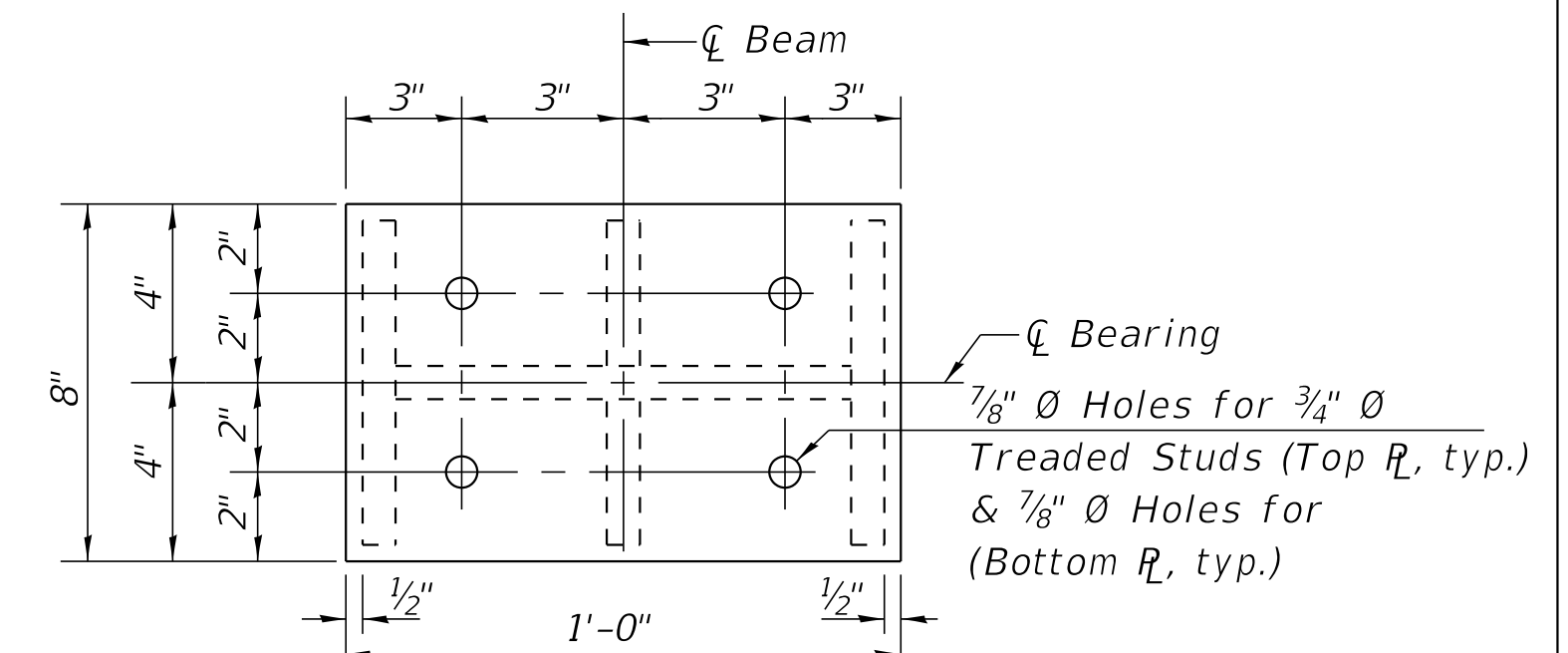
Cost Included with Removal of Existing Bearings

| BEAM REACTIONS AT SPANS 2 & 7 | | Piers 2 & 6 |
|-------------------------------|-----|-------------|
| R D | (K) | 21.9 |
| R L | (K) | 35.3 |
| IMP. | (K) | 9.4 |
| R (Total) | (K) | 66.6 |

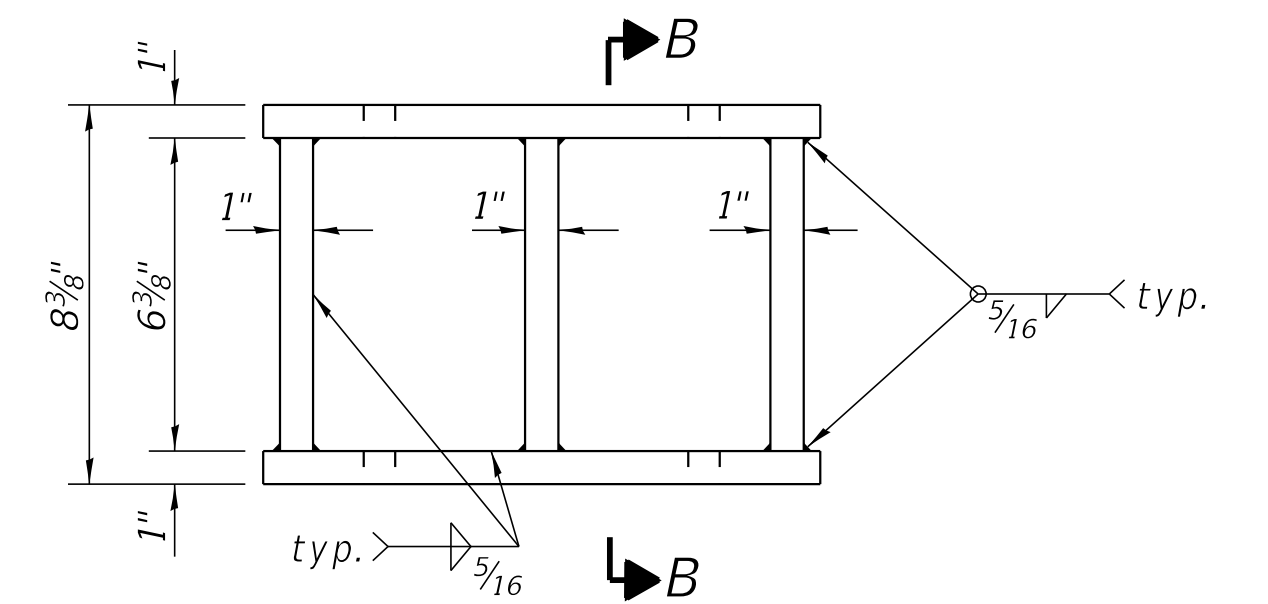
| | Pier 2 | Pier 6 |
|--------|-------------|-------------|
| Beam 1 | 1/2" | 1/2" |
| Beam 2 | | |
| Beam 3 | 1/2" | 1/2" |
| Beam 4 | 1/4" & 1/2" | 1/4" & 1/2" |
| Beam 5 | 3/8" | 3/8" |
| Beam 6 | 1/2" | 1/2" |

SHIM TABLE

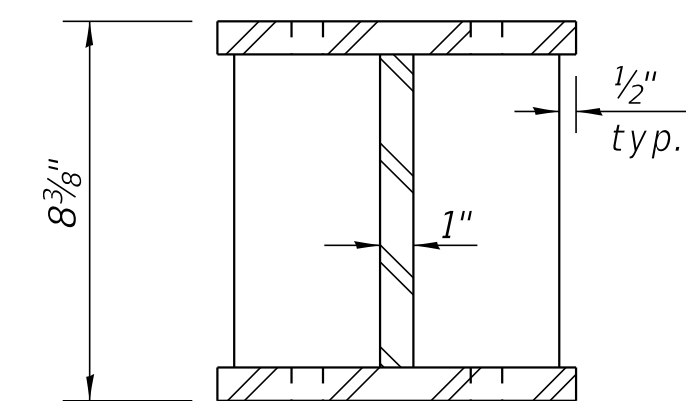
Match plan dimension of steel extension. Weight included with Furnishing and Erecting Structural Steel.



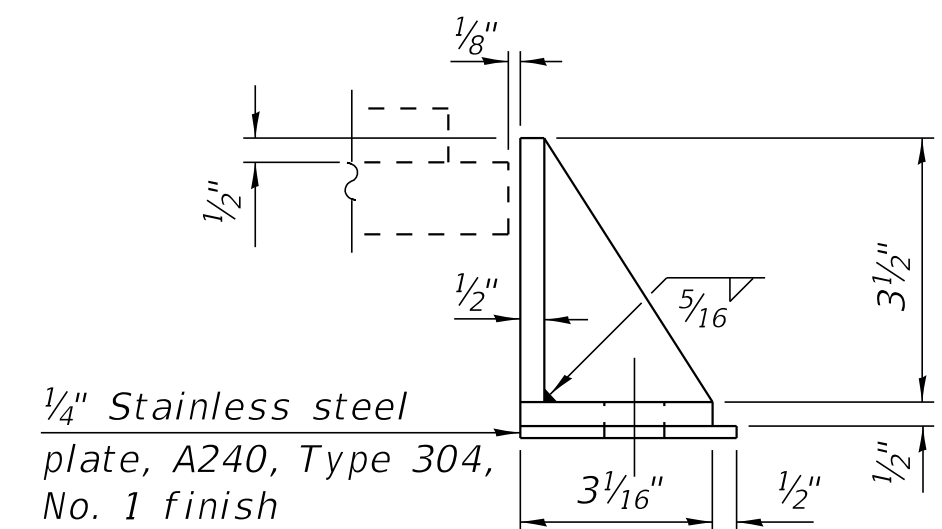
STEEL EXTENSION PLAN



STEEL EXTENSION ELEVATION

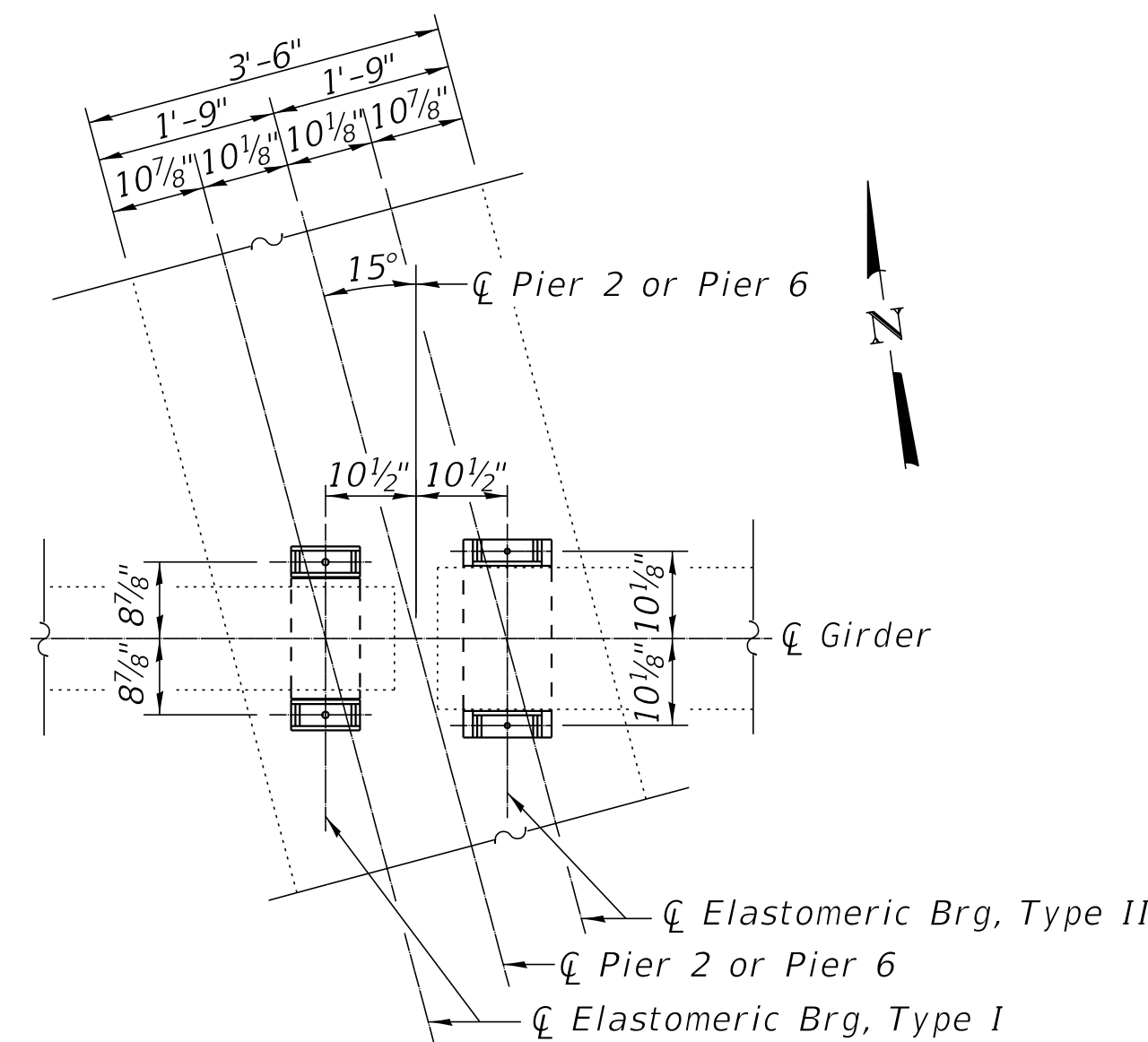
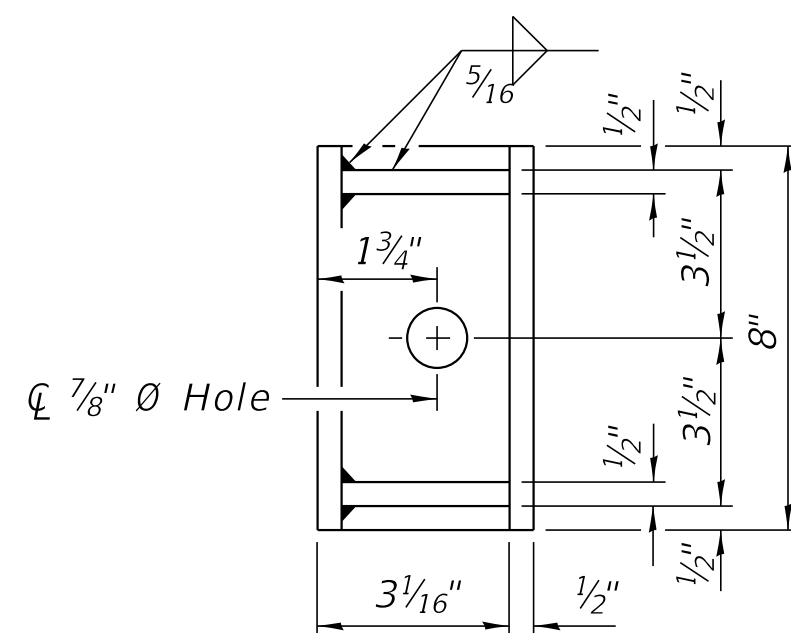


SECTION B-B



SIDE RETAINER

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



PLAN AT PIERS 2 & 6

Pier 2 (as shown)
Pier 6 is similar - opposite hand

Notes:

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. Adjustment must account for deck heave due to pack rust (if present).

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 207, Grade 50.

Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

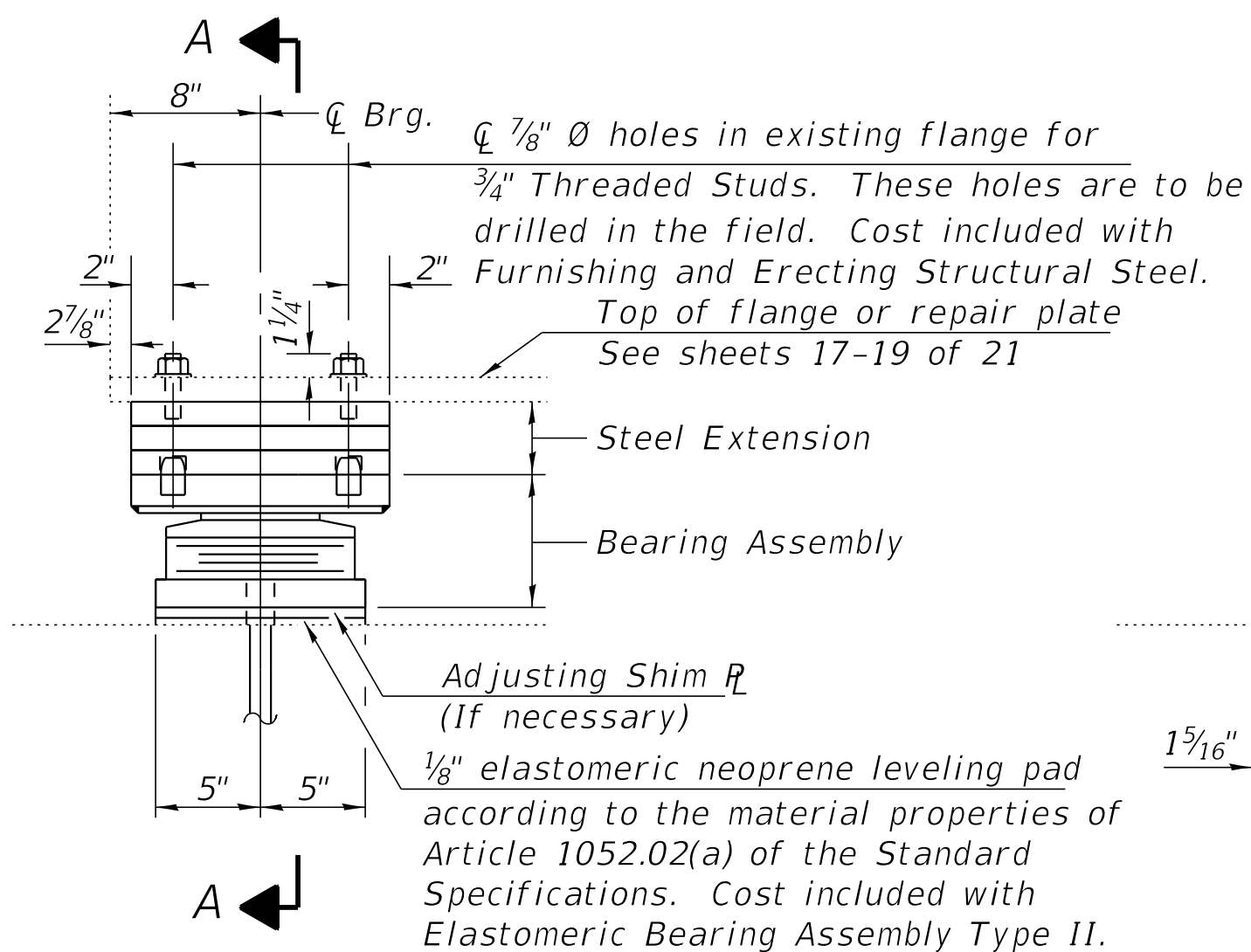
Length of 3/4 inch bolts connecting to bottom beam flange varies by location. See sheets 17-19 of 21 for additional plates not shown here.

BILL OF MATERIAL

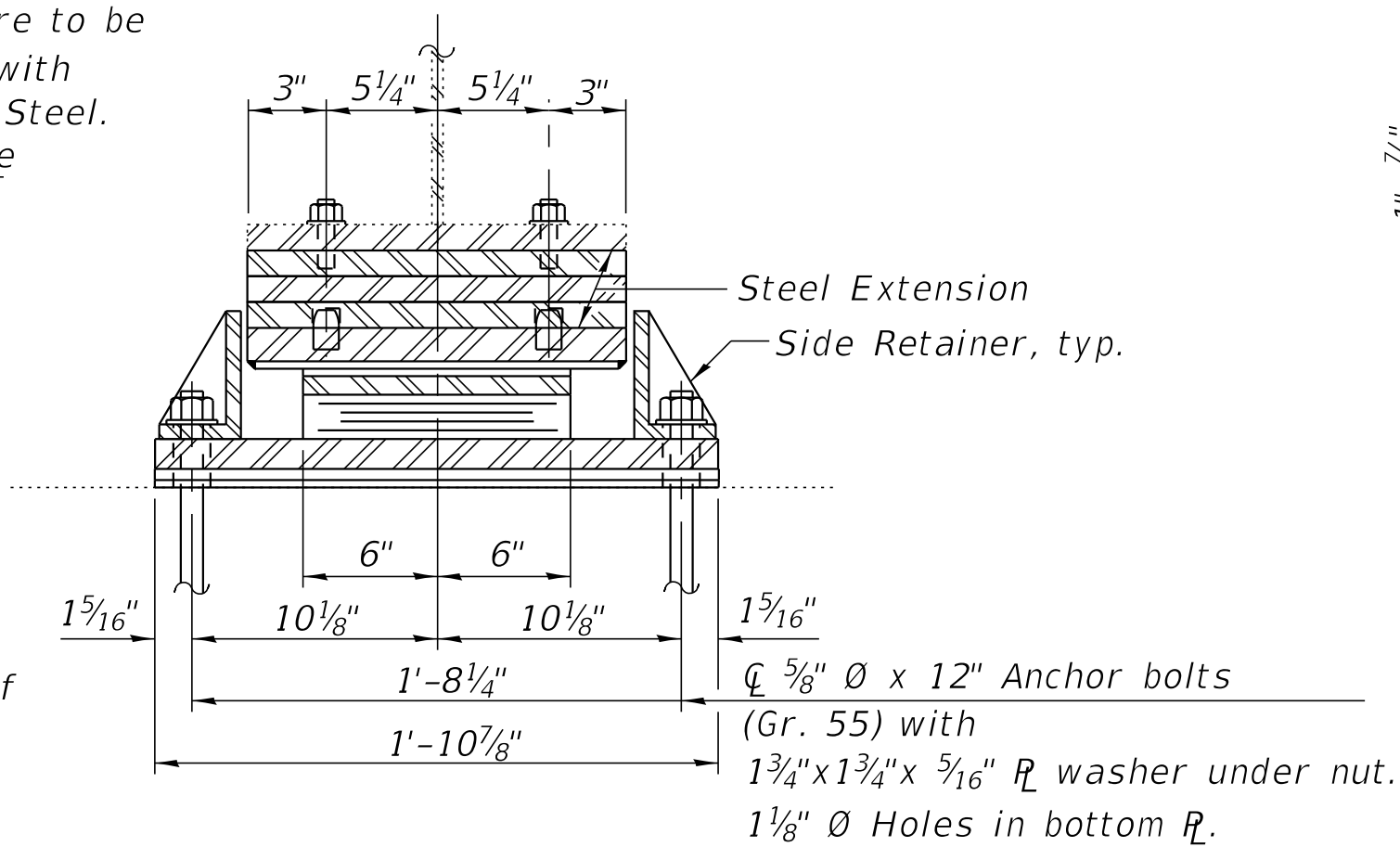
| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type I | Each | 12 |
| Anchor Bolts, 5/8" | Each | 24 |
| Furnishing and Erecting Structural Steel | Pound | 1,528 |
| Removal of Existing Bearings | Each | 12 |

| | | |
|--------------|-----------------|-----------|
| USER NAME = | DESIGNED - BLB | REVISED - |
| | CHECKED - BAB | REVISED - |
| PLOT SCALE = | DRAWN - BLB | REVISED - |
| PLOT DATE | DATE - 10-08-18 | REVISED - |

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 31 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

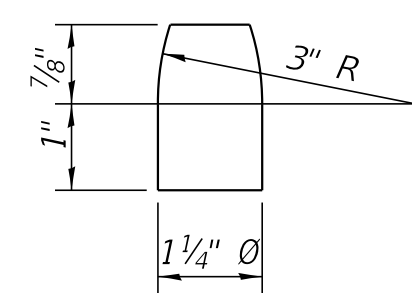


ELEVATION AT PIER



SECTION A-A

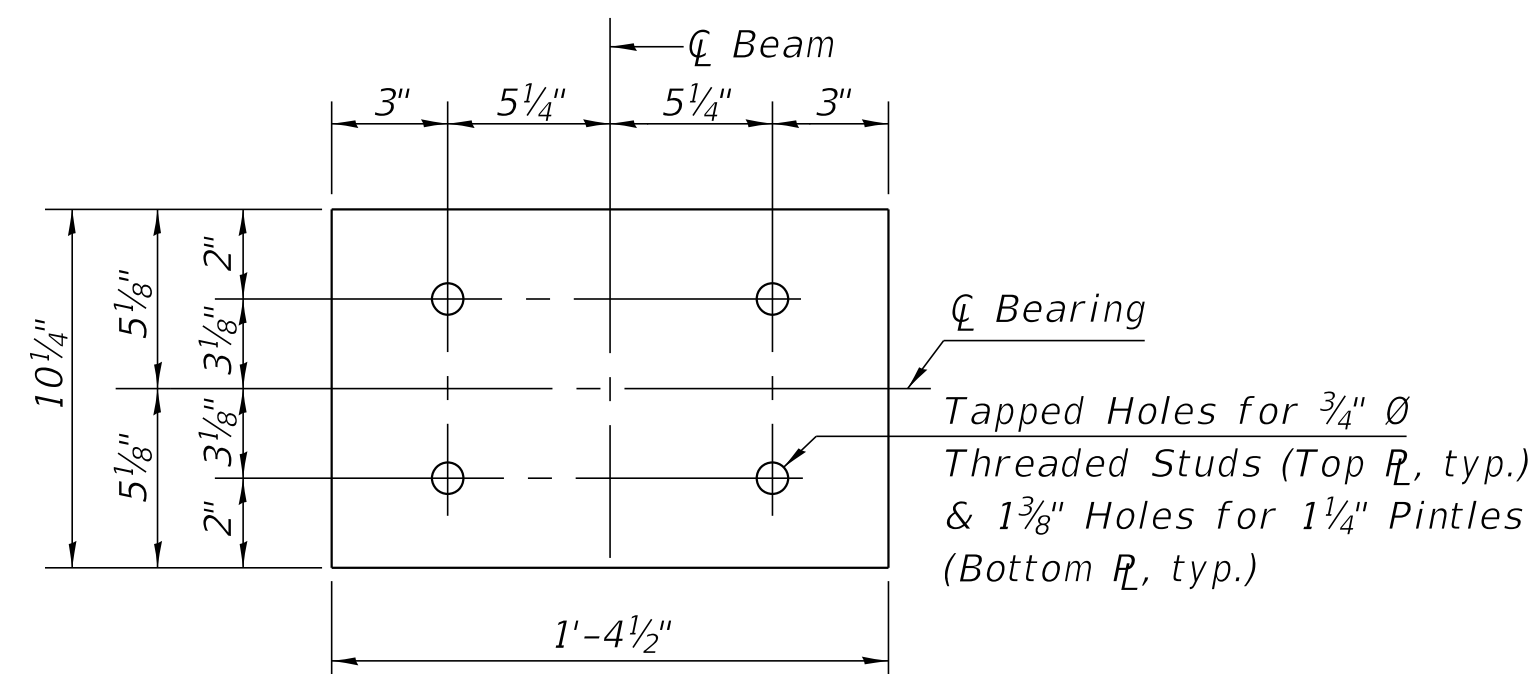
TYPE II ELASTOMERIC EXP. BRG.



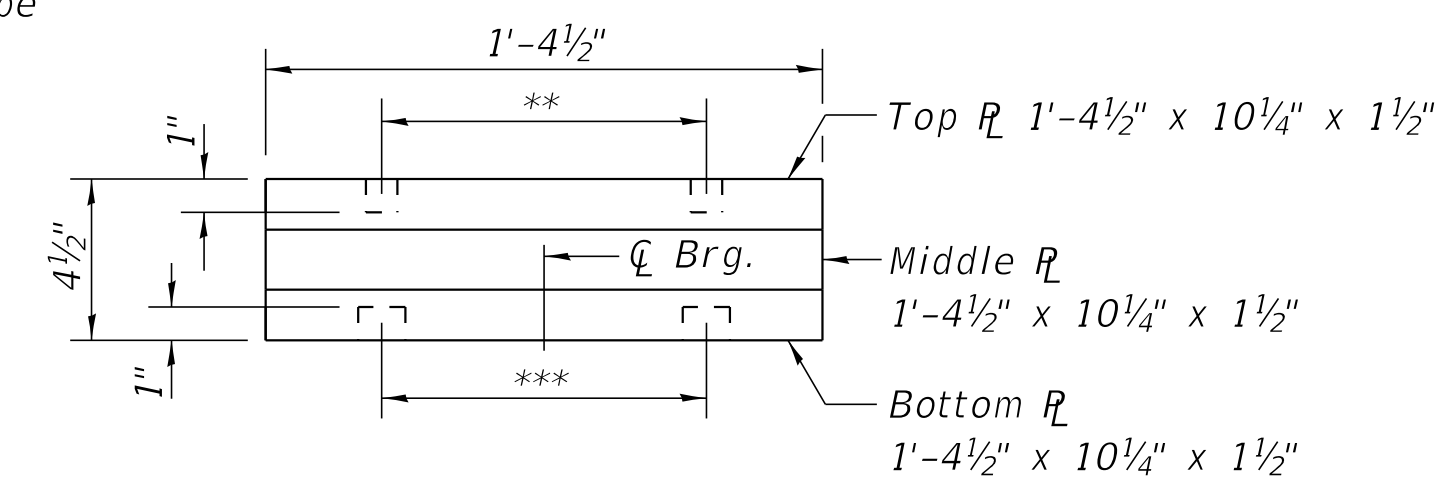
PINTLE

** Tapped Holes for $\frac{3}{4}$ " ϕ Threaded Studs (may be tapped in field)

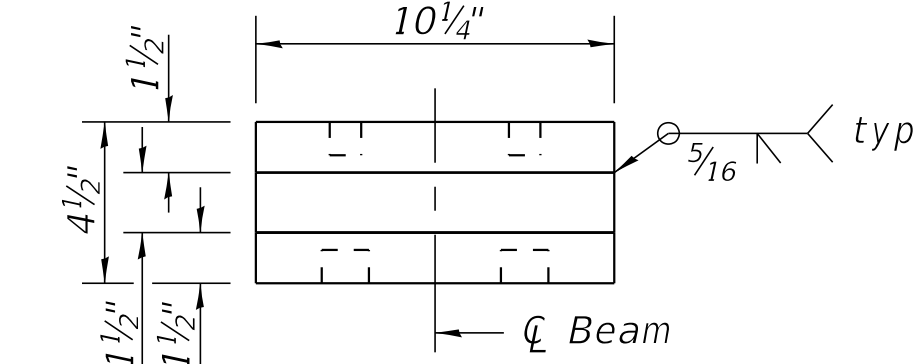
*** $1\frac{3}{8}$ " Holes for $1\frac{1}{4}$ " Pintles



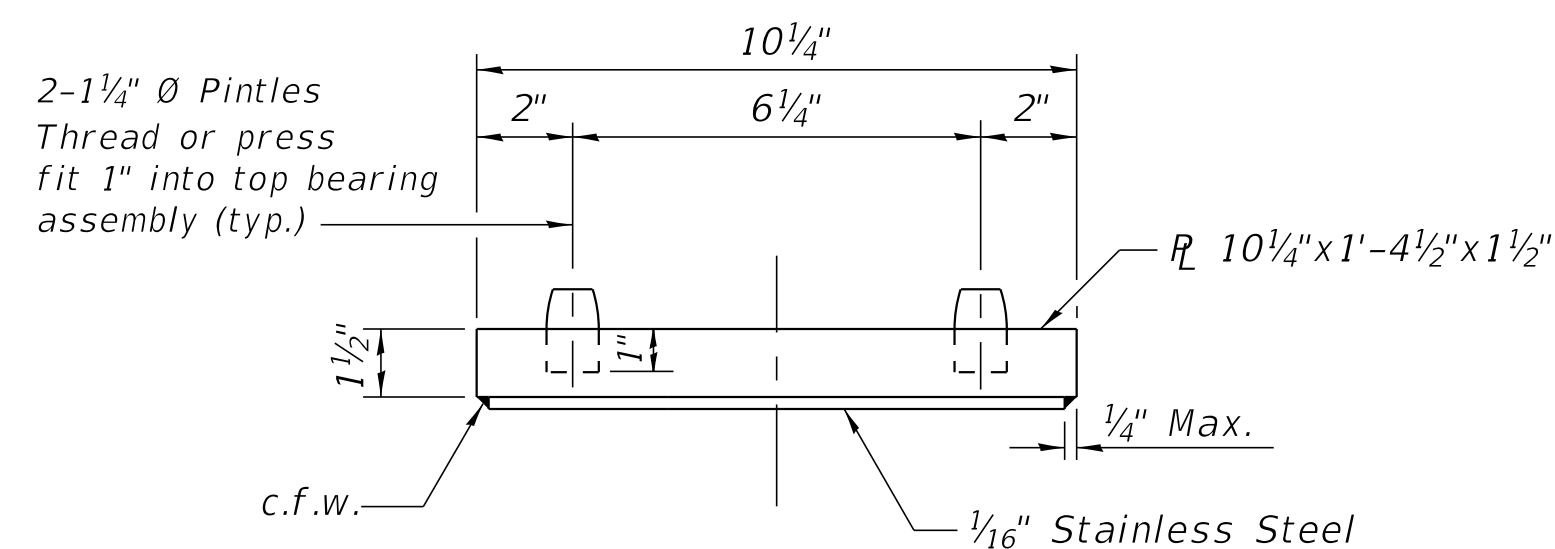
STEEL EXTENSION PLAN



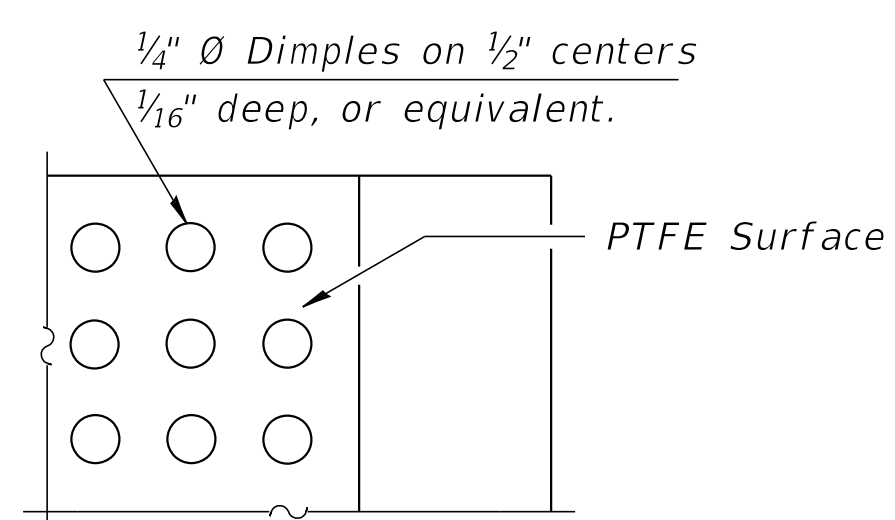
STEEL EXTENSION ELEVATION



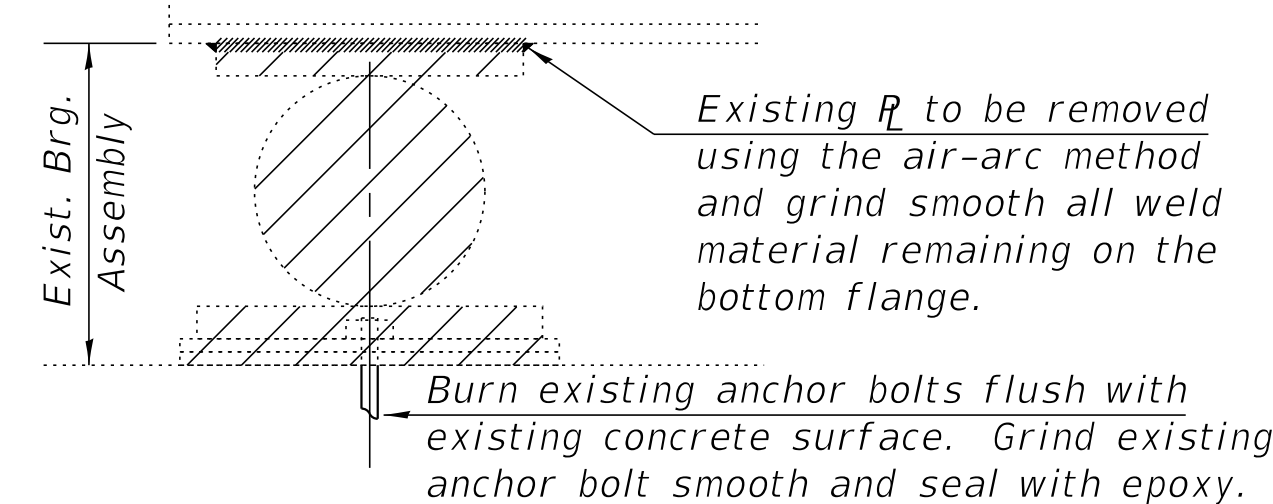
STEEL EXTENSION END VIEW



TOP BEARING ASSEMBLY

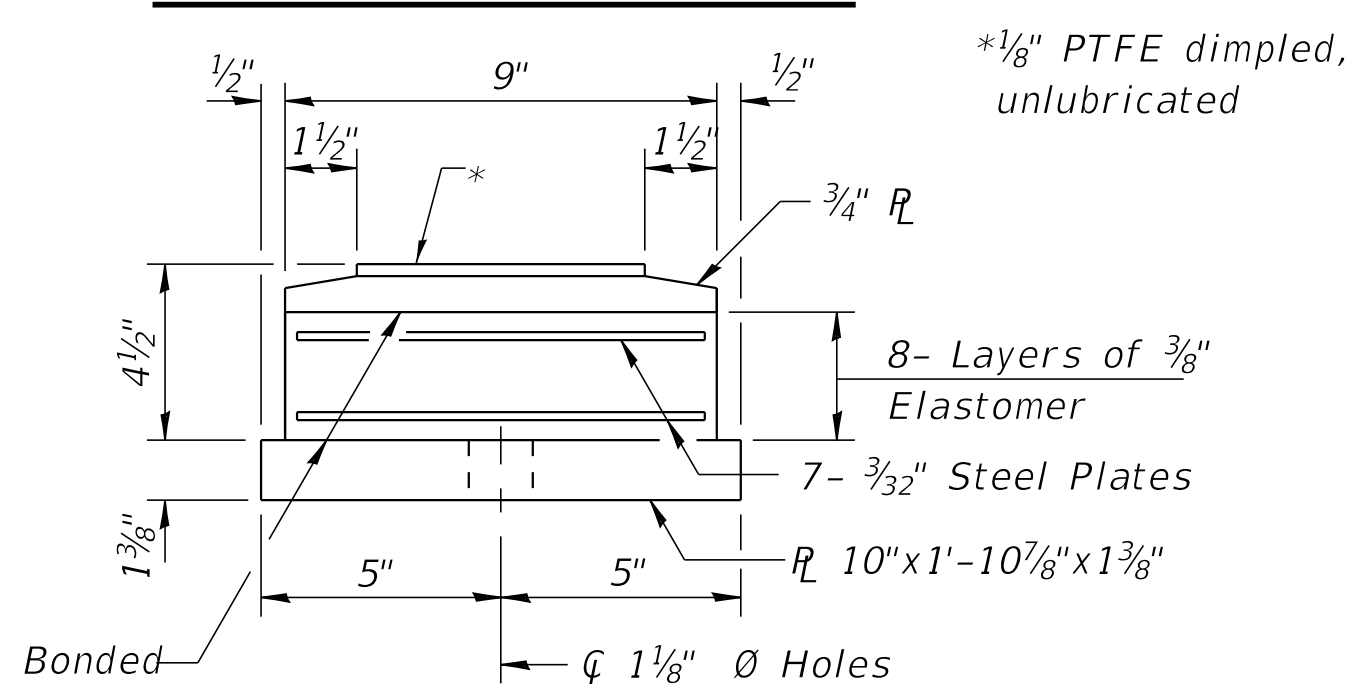


PLAN-PTFE SURFACE

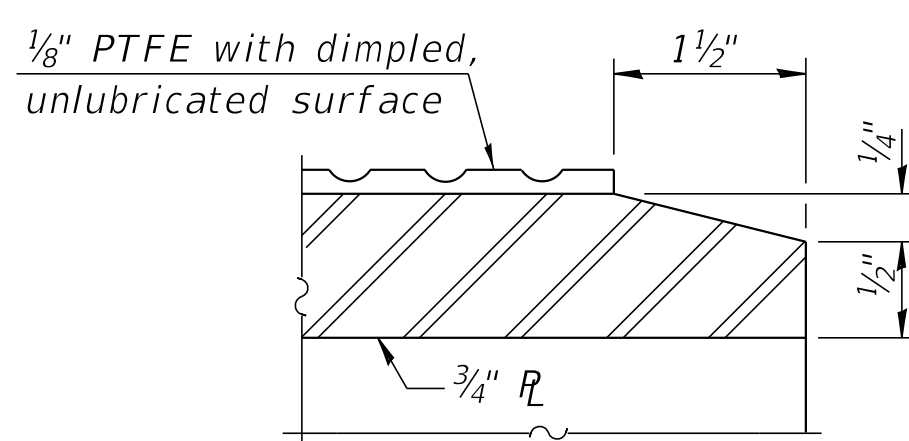


EXISTING BEARING REMOVAL DETAIL

Cost Included with Removal of Existing Bearings



BOTTOM BEARING ASSEMBLY



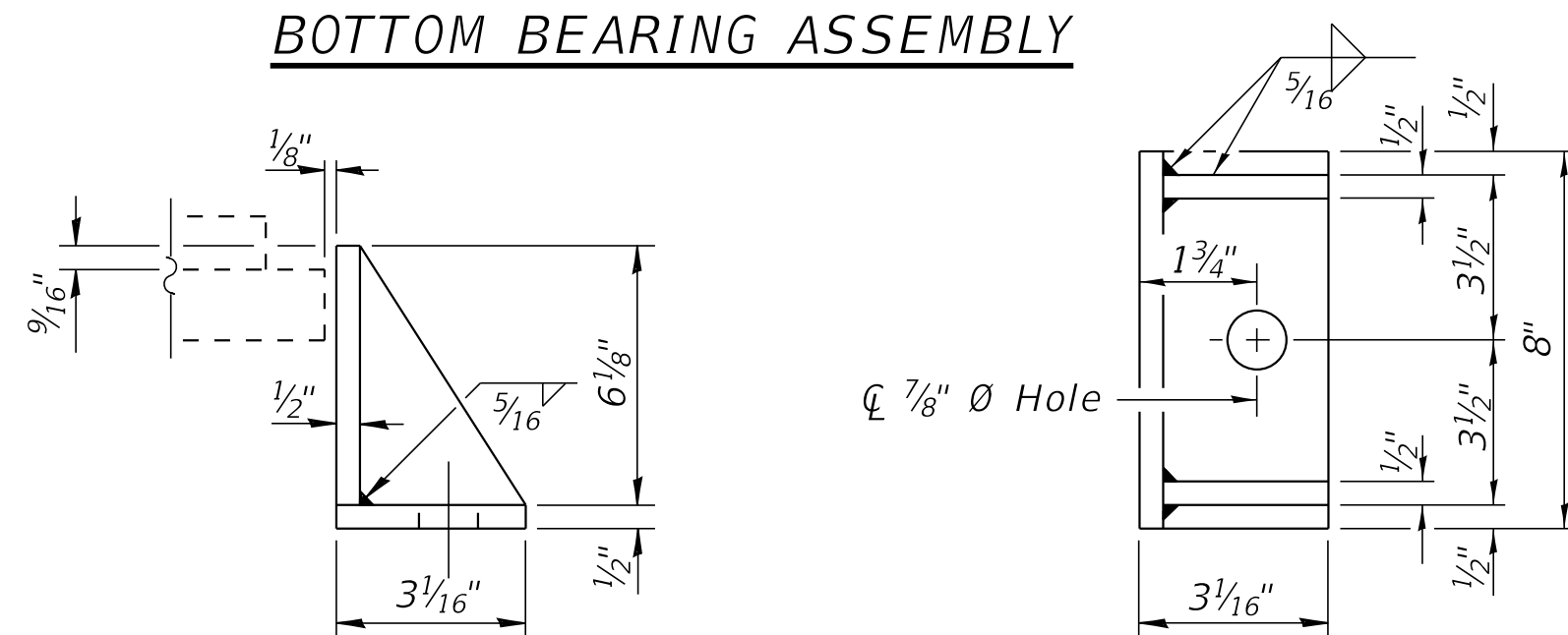
SECTION THRU PTFE

| BEAM REACTIONS AT SPANS 3 & 6 | | |
|-------------------------------|-----|------|
| Piers 2 & 6 | | |
| R ϕ | (K) | 29.2 |
| R \perp | (K) | 36.5 |
| IMP. | (K) | 9.0 |
| R (Total) | (K) | 74.7 |

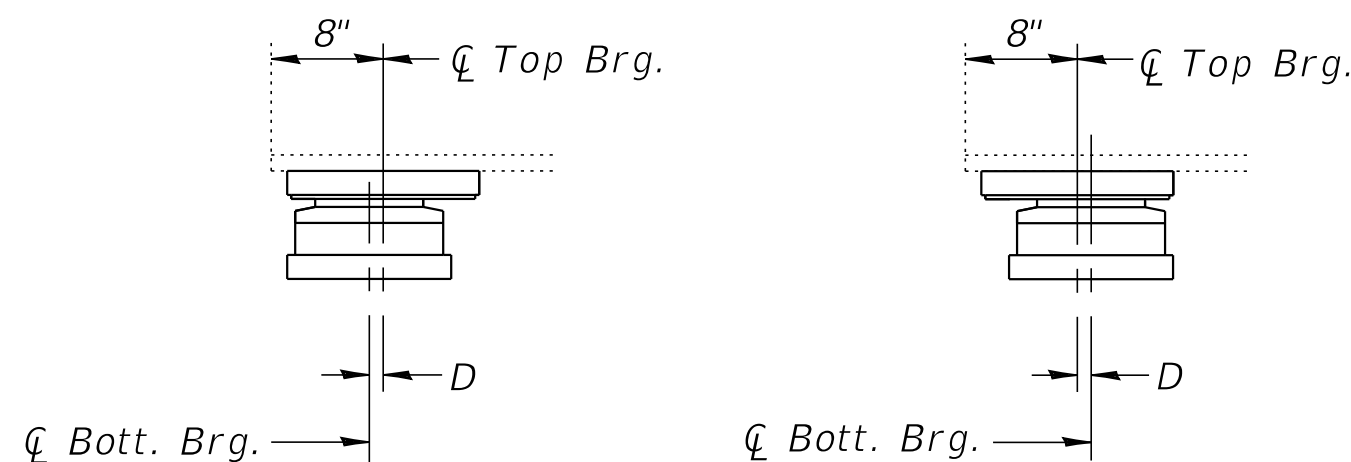
| | Pier 2 | Pier 6 |
|--------|-------------|-------------|
| Beam 1 | 1/2" | 1/2" |
| Beam 2 | | |
| Beam 3 | | |
| Beam 4 | 1/4" & 1/2" | 1/4" & 1/2" |
| Beam 5 | 3/8" | 3/8" |
| Beam 6 | 1/2" | 1/2" |

SHIM TABLE

Match plan dimension of bottom bearing plate. Weight included with Furnishing and Erecting Structural Steel.



SIDE RETAINER



EXPANSION BEARING ORIENTATION

The above diagrams are for informational purposes only to show the amount of expected offset "D" for the current temperature in the field.

Notes:

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. Adjustment must account for deck heave due to pack rust (if Present).

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The structural steel plates of the bearing assembly shall conform to the requirements of AASHTO M 270, Grade 50.

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.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

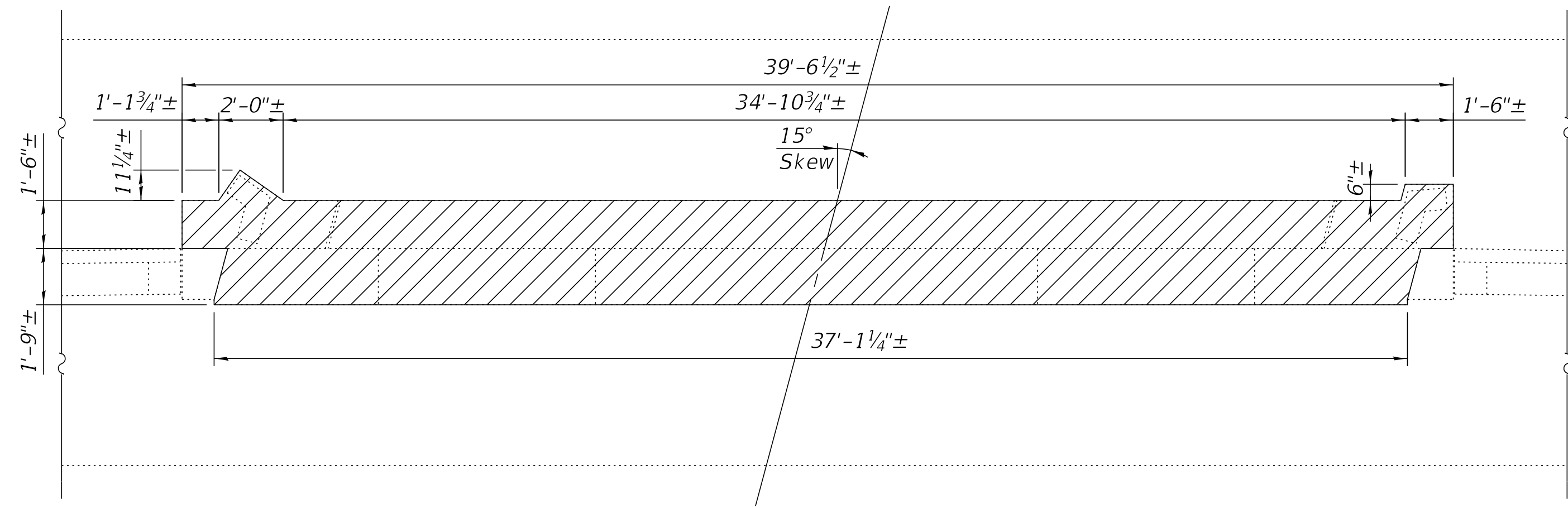
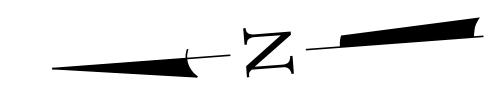
See sheet 12 of 21 for Plan at Piers 2 & 6.

Length of 3/4" threaded studs varies by location. See sheets 17-19 of 21 for additional plates not shown here.

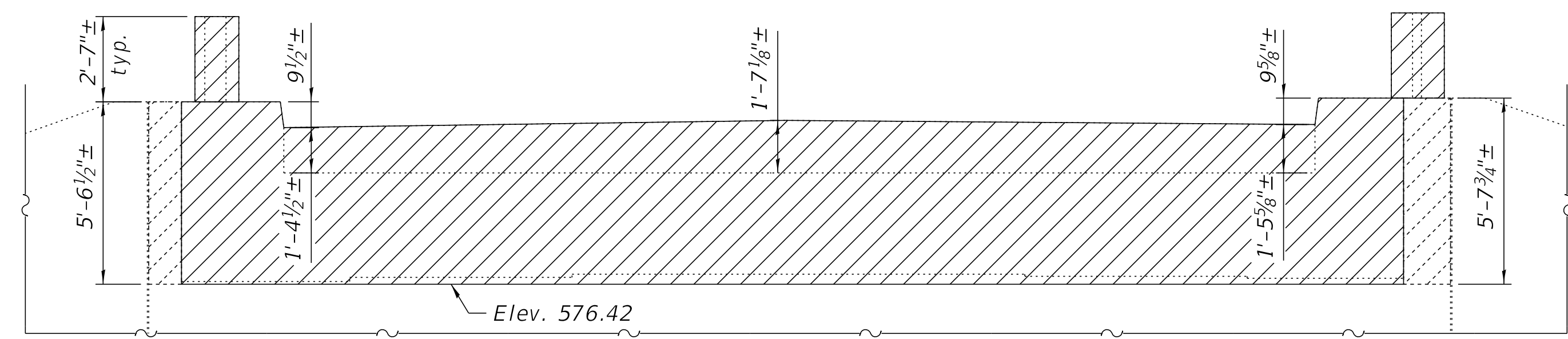
BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|-------|
| Elastomeric Bearing Assembly Type II | Each | 12 |
| Anchor Bolts, 3/8" | Each | 24 |
| Furnishing and Erecting Structural Steel | Pound | 3,084 |
| Removal of Existing Bearings | Each | 12 |

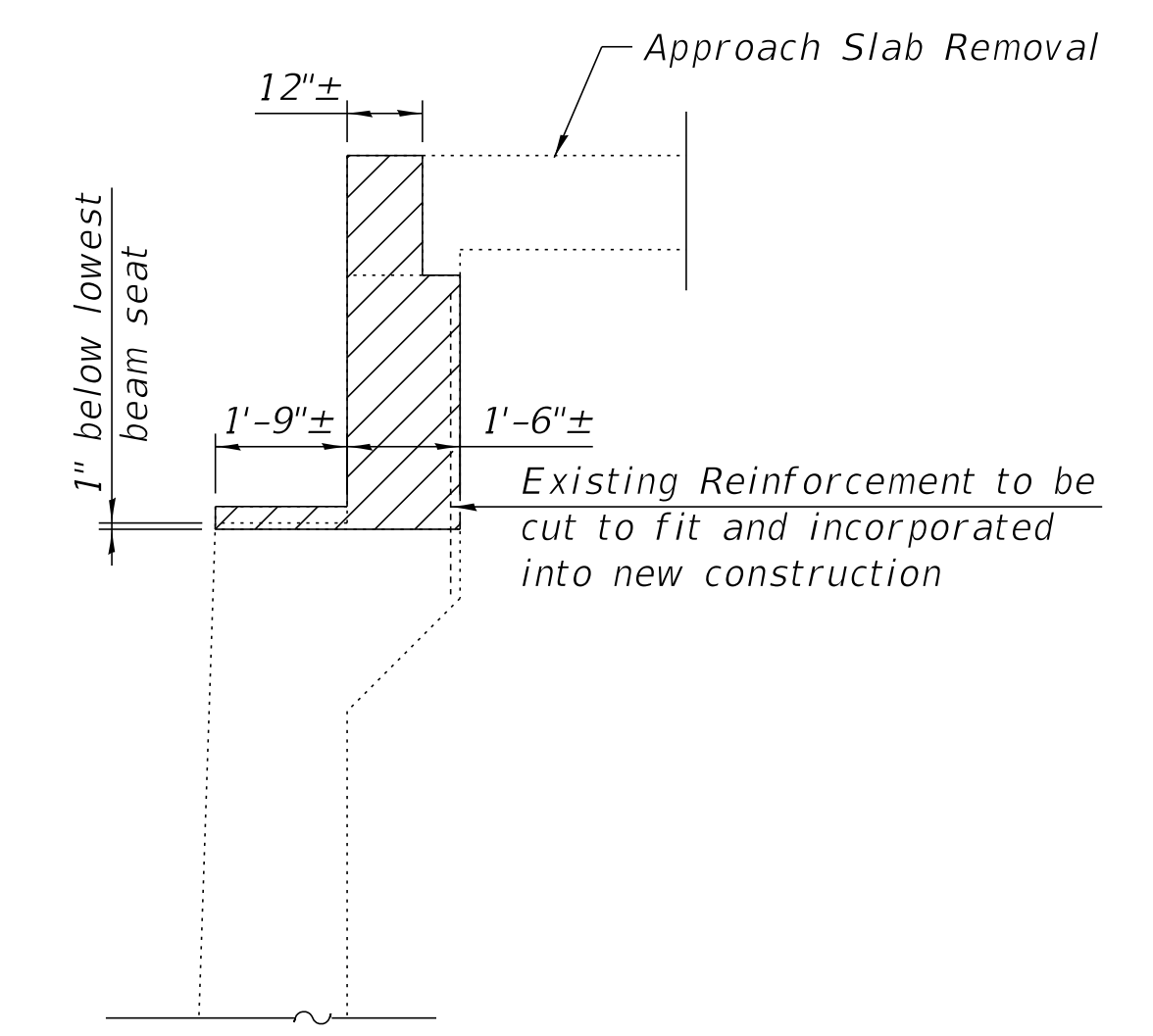
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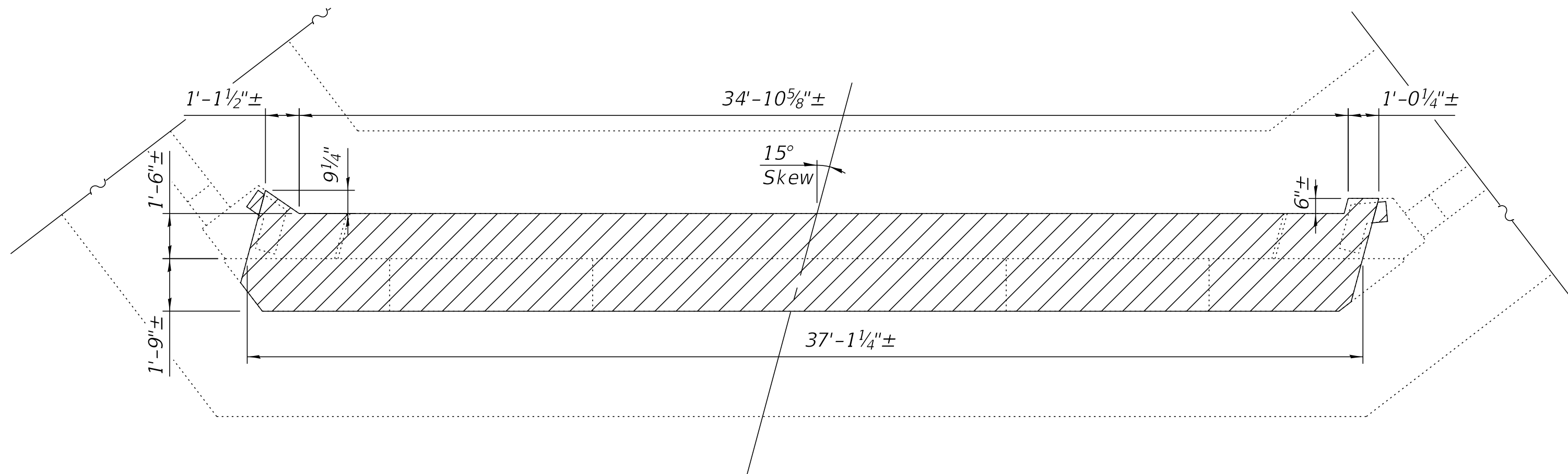
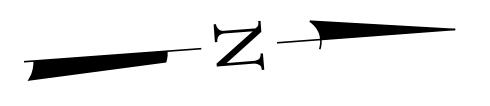
PLAN



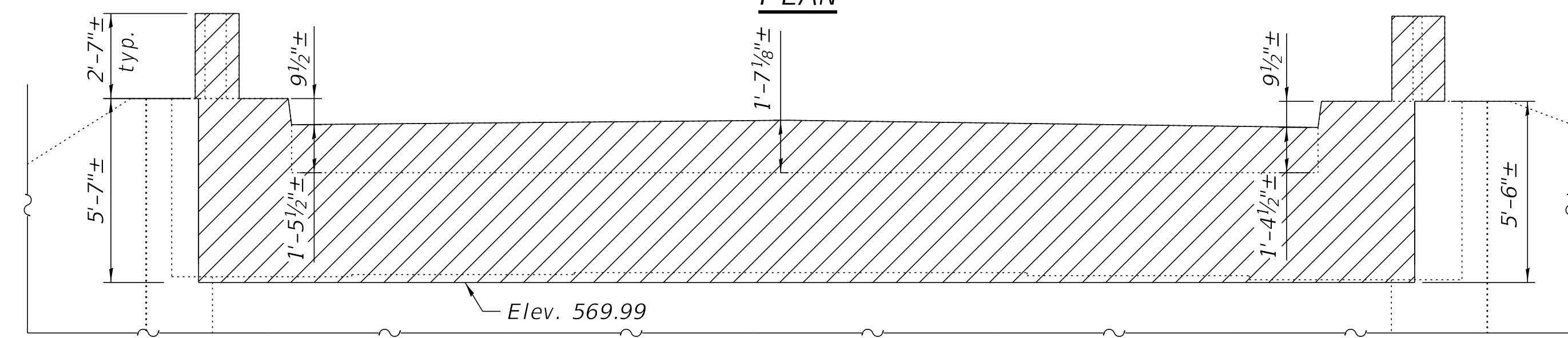
**ELEVATION
EAST ABUTMENT REMOVAL**



TYPICAL SECTION THRU ABUTMENT
Dimensions at right angles to abutment.



PLAN



**ELEVATION
WEST ABUTMENT REMOVAL**

Notes:
 Hatched areas indicate Concrete Removal.
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
 See sheets 15 and 16 of 21 for Concrete Removal quantities for abutments.



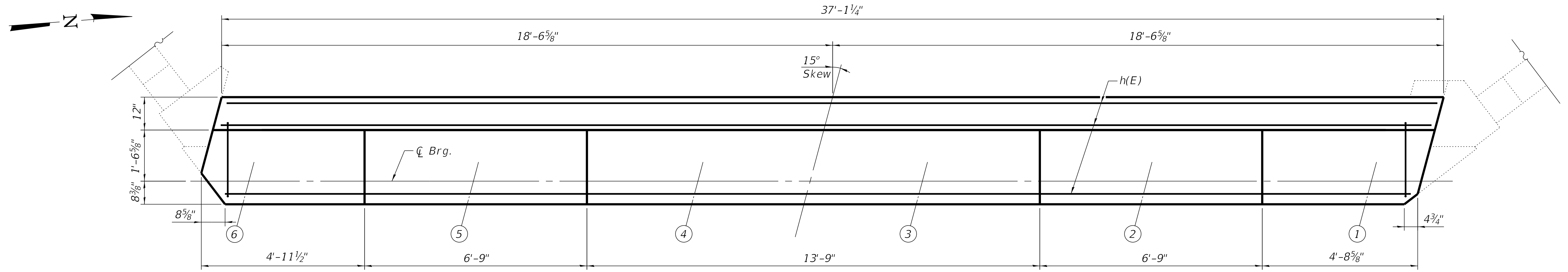
| | | |
|--------------|-----------------|-----------|
| USER NAME = | DESIGNED - BLB | REVISED - |
| | CHECKED - BAB | REVISED - |
| PLOT SCALE = | DRAWN - BLB | REVISED - |
| PLOT DATE = | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

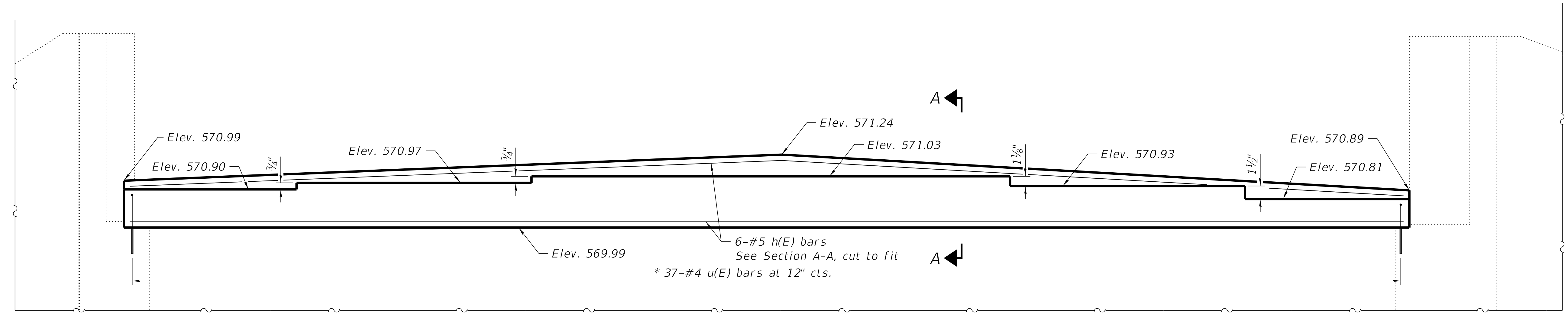
**ABUTMENT REMOVAL DETAILS
STRUCTURE NO. 099-0135**

SHEET NO. 14 OF 21 SHEETS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------|----------|------------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 33 |
| CONTRACT NO. 61F12 | | | | |
| | | ILLINOIS | FED. AID PROJECT | |

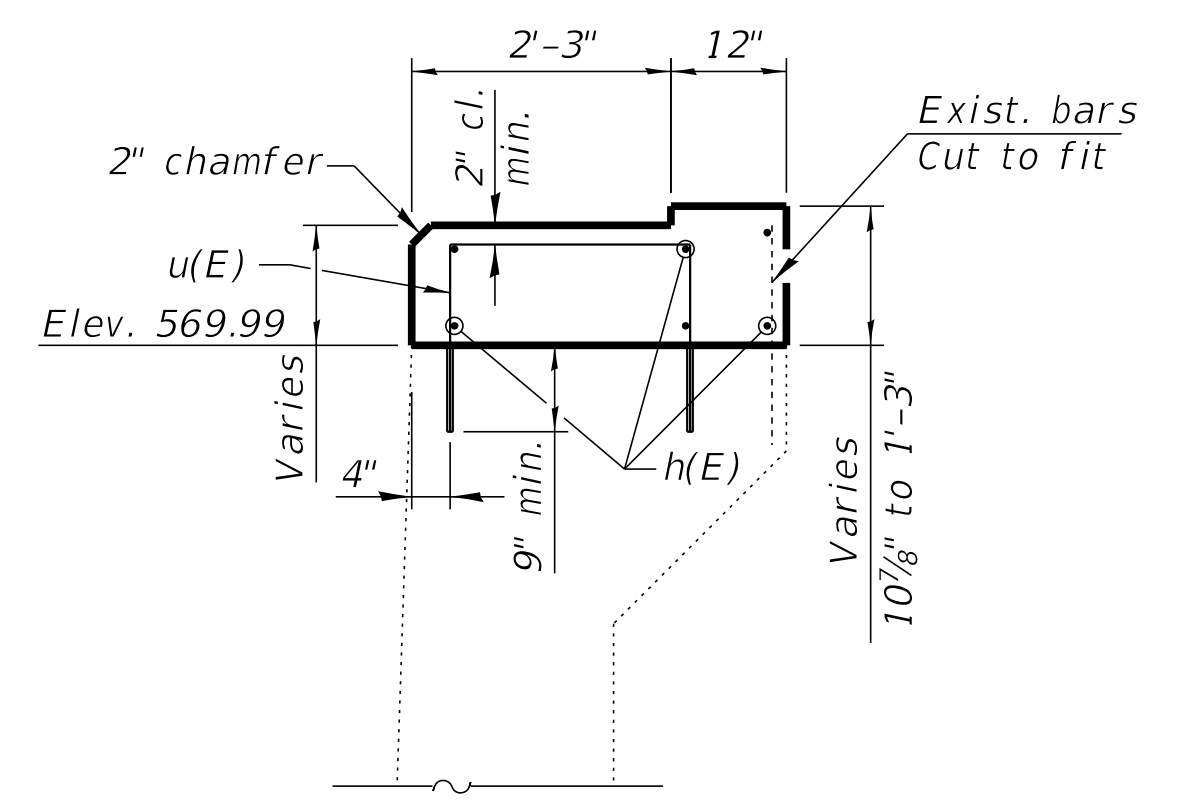


PLAN

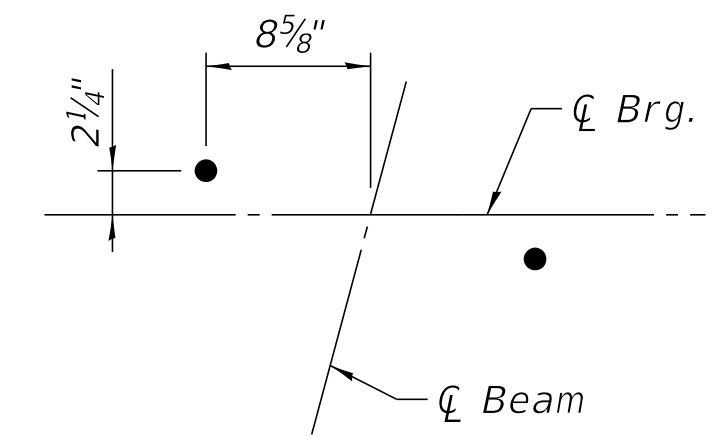


ELEVATION

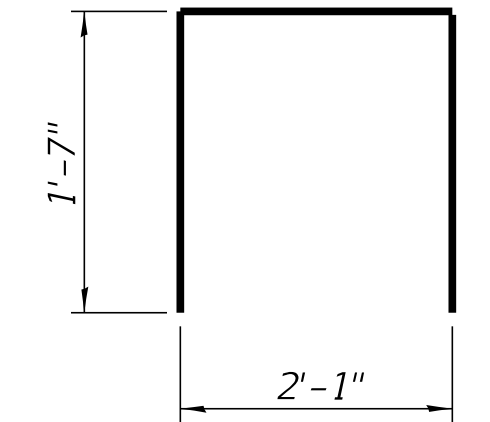
* Cut bars or drill deeper holes to fit



SECTION A-A
Dimensions at right angles to abutment.



ANCHOR BOLT LAYOUT



BAR u(E)

Notes:
All construction joints between new and existing concrete shall be Bonded Construction Joints.
Space reinforcement in cap to miss anchor bolts.
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

**WEST ABUTMENT
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| h(E) | 6 | #5 | 36'-9" | — |
| u(E) | 37 | #4 | 5'-3" | □ |
| Concrete Removal | | | Cu. Yd. | 10.4 |
| Concrete Structures | | | Cu. Yd. | 4.5 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 360 |

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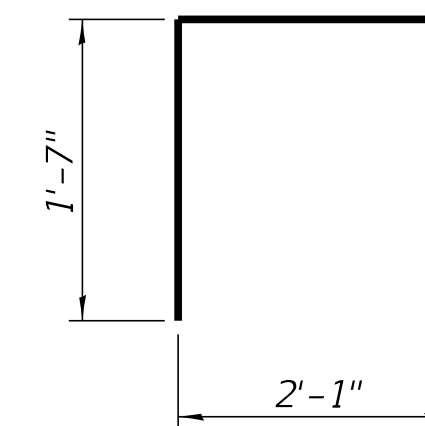
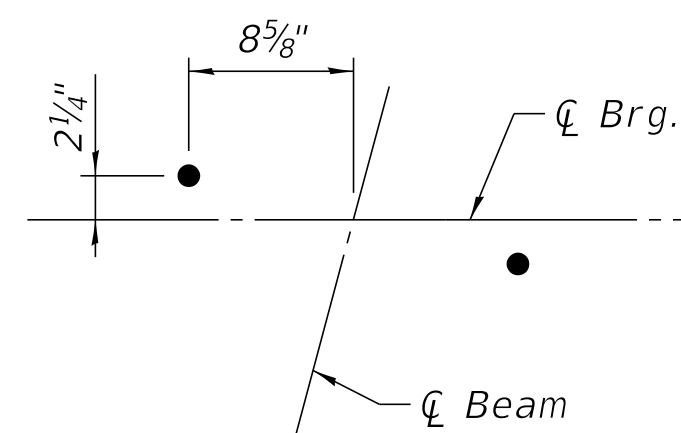
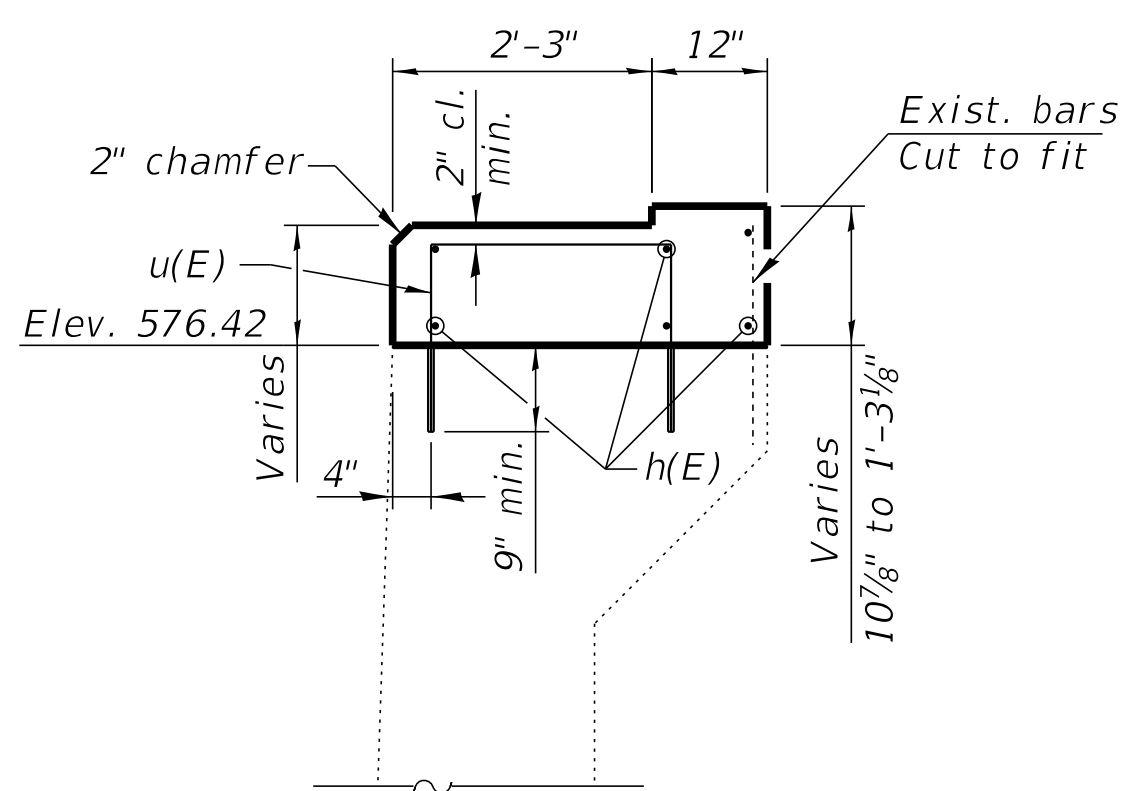
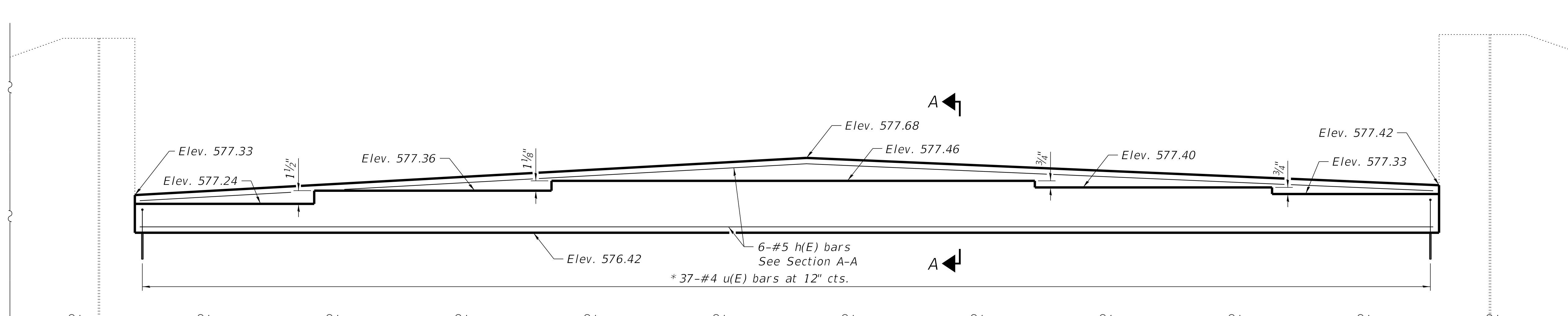
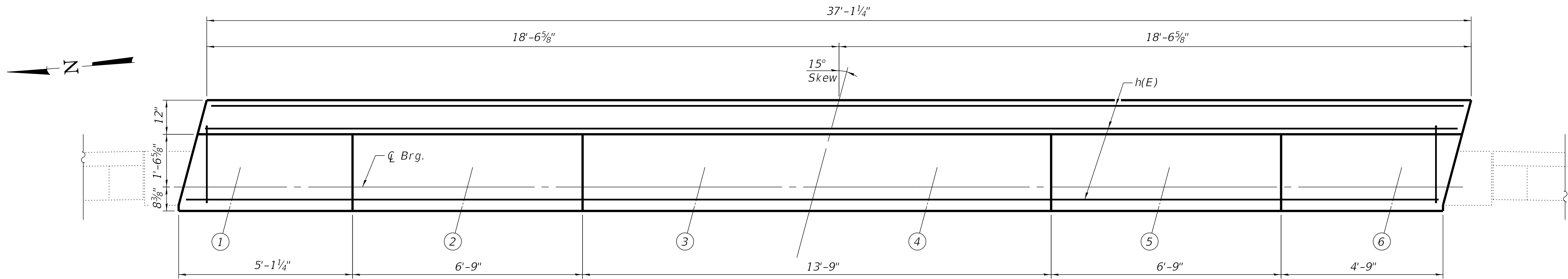
| | | |
|--------------|-----------------|-----------|
| USER NAME = | DESIGNED - BLB | REVISED - |
| | CHECKED - BAB | REVISED - |
| PLOT SCALE = | DRAWN - BLB | REVISED - |
| PLOT DATE = | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT
STRUCTURE NO. 099-0135**

SHEET NO. 15 OF 21 SHEETS

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 34 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



Notes:
 All construction joints between new and existing concrete shall be Bonded Construction Joints.
 Space reinforcement in cap to miss anchor bolts.
 Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

**EAST ABUTMENT
 BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| h(E) | 6 | #5 | 36'-9" | — |
| u(E) | 37 | #4 | 5'-3" | □ |
| Concrete Removal | | | Cu. Yd. | 11.4 |
| Concrete Structures | | | Cu. Yd. | 4.6 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 360 |

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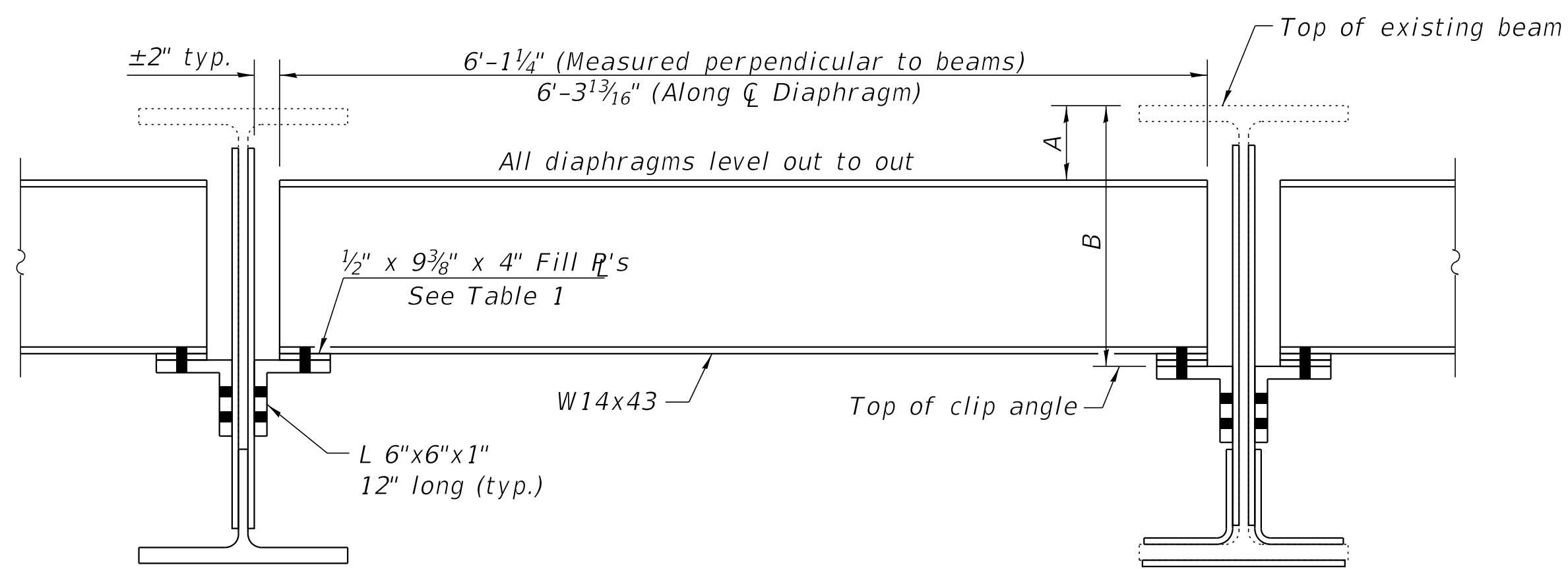
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| PLOT DATE = | DATE - 10-08-18 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

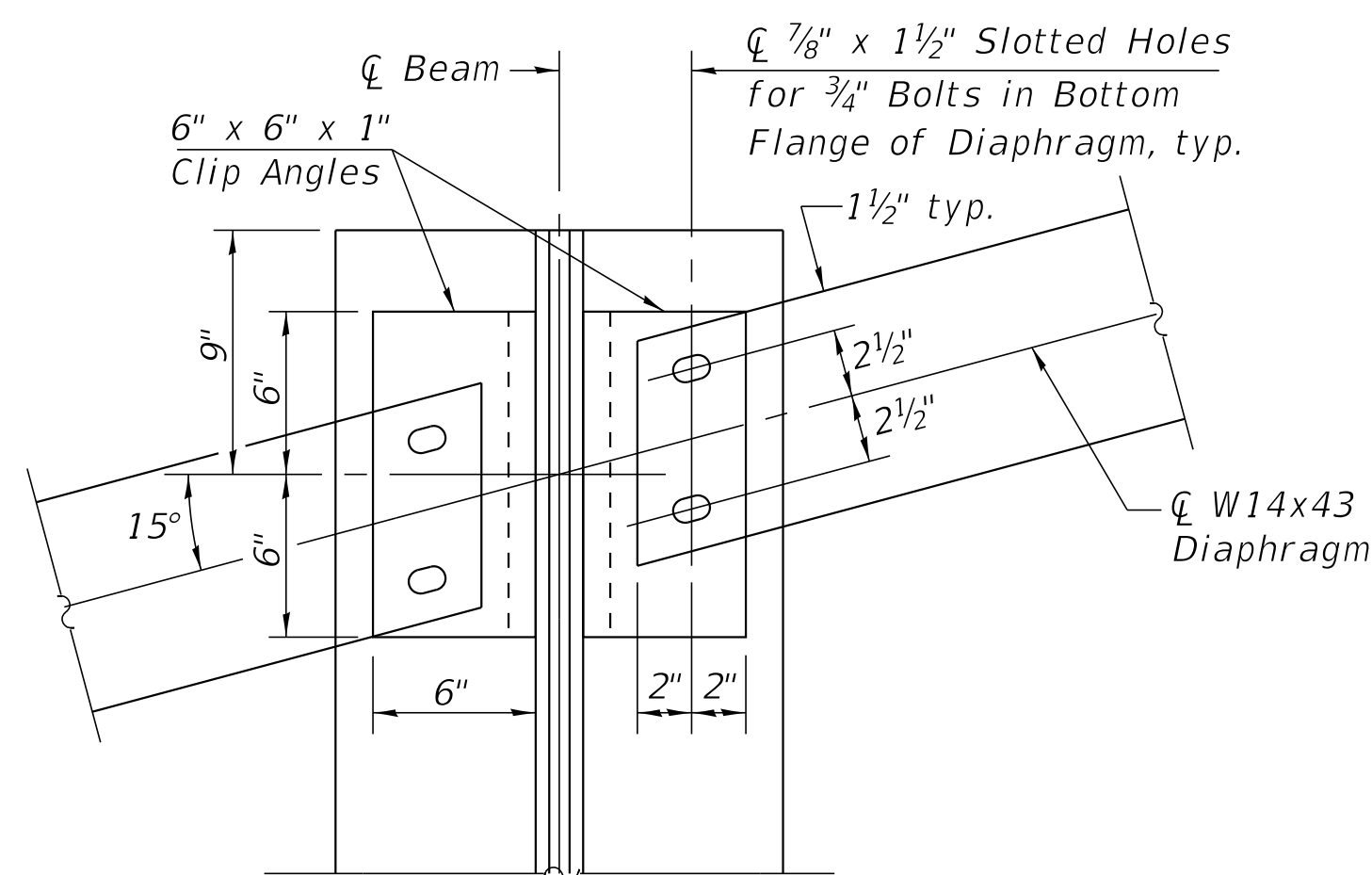
**EAST ABUTMENT
 STRUCTURE NO. 099-0135**

SHEET NO. 16 OF 21 SHEETS

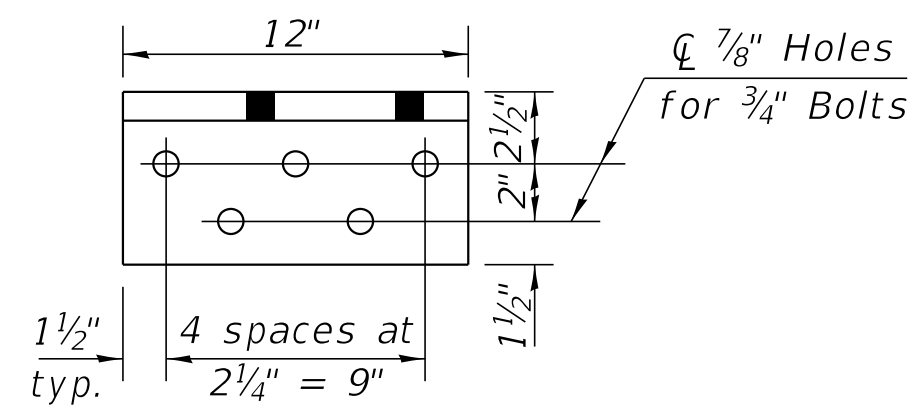
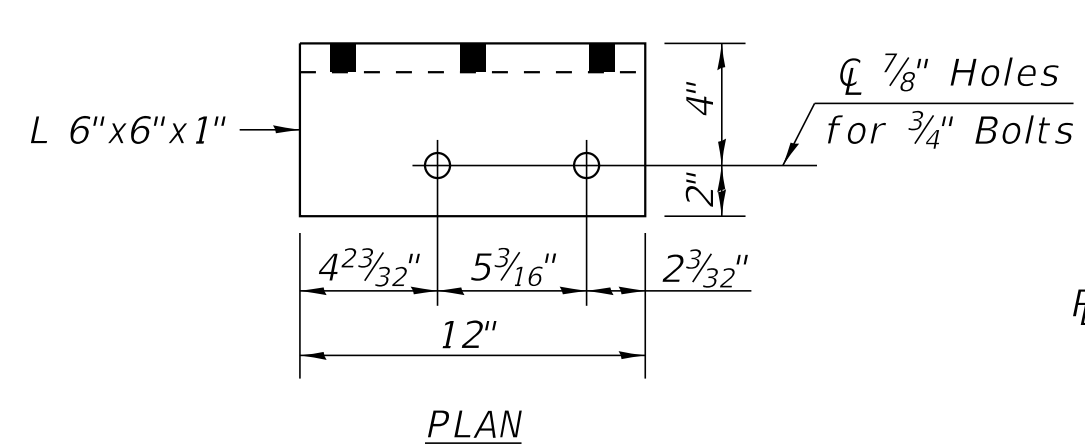
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| | | | CONTRACT NO. 61F12 | |
| | | ILLINOIS | FED. AID PROJECT | |



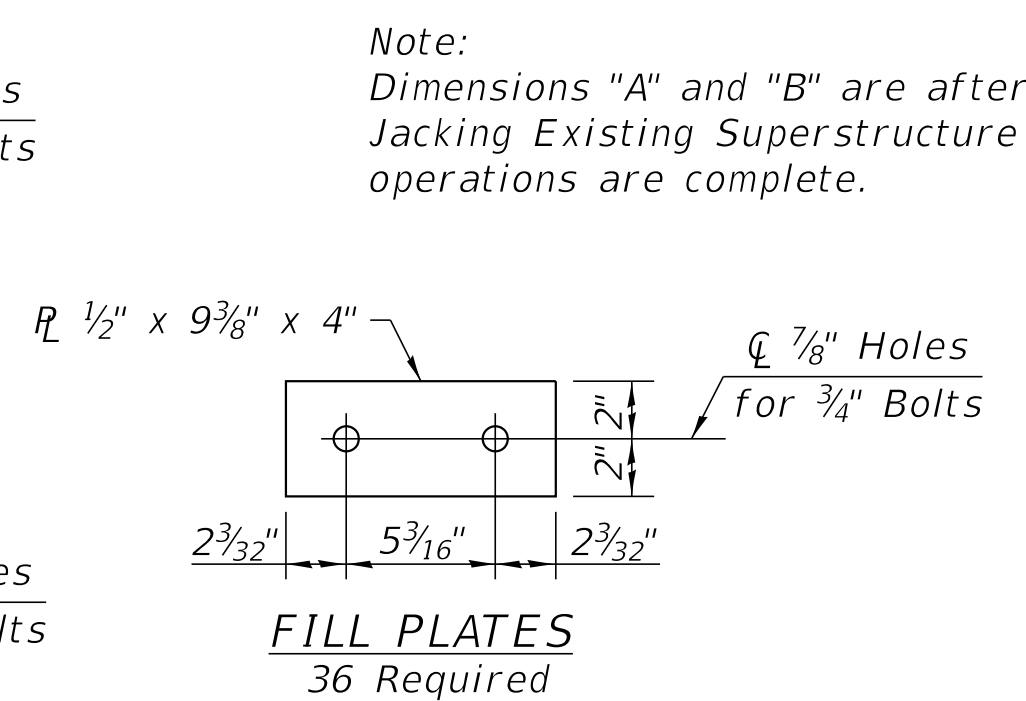
TYPICAL DIAPHRAGM ELEVATION
(20 Required)



TYPICAL DIAPHRAGM PLAN



CLIP ANGLE DETAILS
(40 Required)
At Contractor's option, holes in clip angles maybe field drilled.



BILL OF MATERIAL

| Item | Unit | Total |
|--|-------|--------|
| Temporary Support System, Location No. 1 | Each | 1 |
| Temporary Support System, Location No. 2 | Each | 1 |
| Jacking Existing Superstructure | L Sum | 1 |
| Structural Steel Removal | L Sum | 1 |
| Furnishing and Erecting Structural Steel | Pound | 19,827 |

Notes:
All holes 1" \varnothing for 7/8" bolts unless noted otherwise. Cost of drilling holes in existing steel members is included with Furnishing and Erecting Structural Steel.

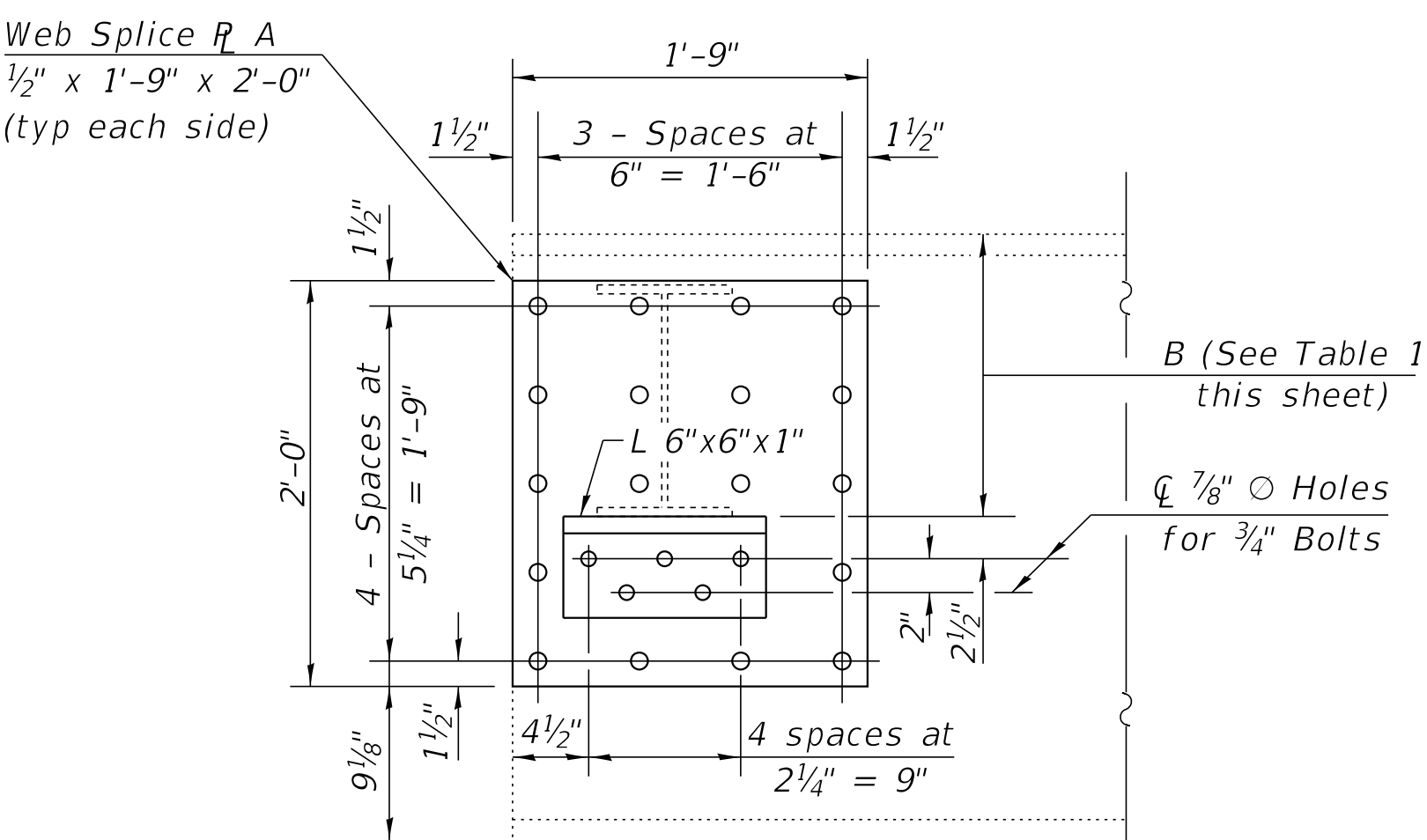
See sheets 18 and 19 of 21 for Repairs "B" thru "F".

Prior to installation of new structural steel, all portions of existing beams within one foot of new steel elements shall be cleaned according to the contract requirements, painted with the Primer Coat as specified, and painted with the intermediate coat at the contractor's option. Cost included with Cleaning and Painting Steel Bridge No. 1.

Installation of new diaphragms shall not commence until all bolts for new web plates and clip angles are fully tightened, Jacking Existing Superstructure operations are completed, and all beams are in their final relative positions.

Removal of the existing expansion joints will not be paid for separately, but shall be included with cost of Structural Steel Removal.

Jacking Existing Superstructure shall consist of permanently adjusting the designated beam ends upward from their current positions, as shown in the Steel Repair Location Plan on this sheet. Three beams shall receive this adjustment, at the locations shown and by the amounts shown. Cost of these adjustments shall be included with Jacking Existing Superstructure.



REPAIR "A"
(8 Required)

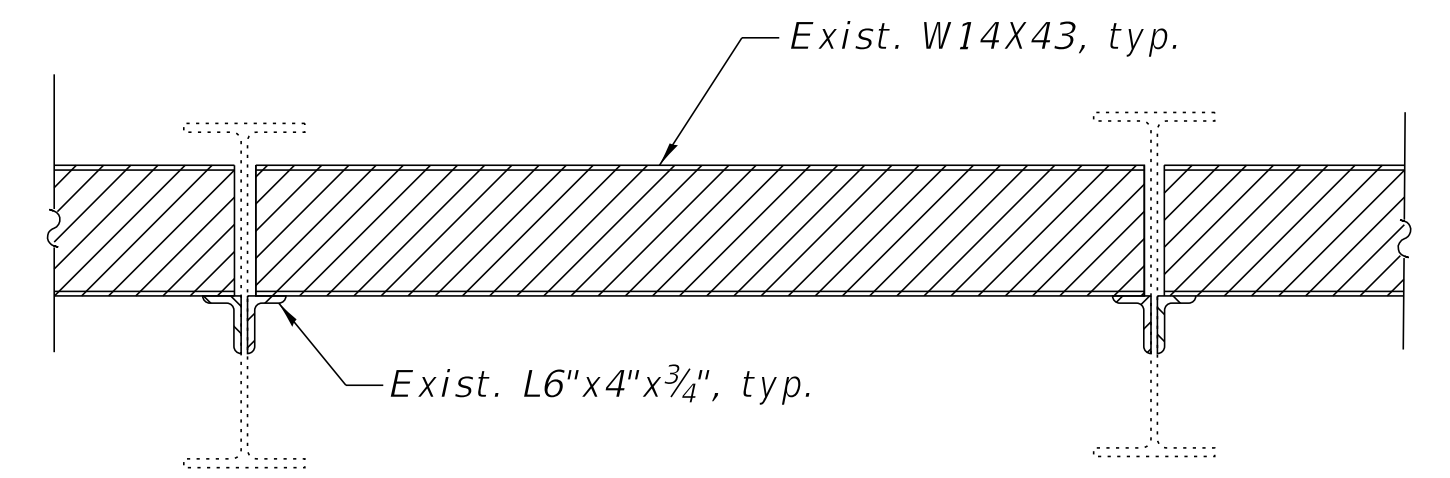
TABLE 1
SPANS 2 & 7

| Beam No. | A | B | # of Fill Pl's |
|----------|--------|-----------|----------------|
| 1 | 3" | 1'-4 3/4" | 0 |
| 2 | 4 1/2" | 1'-7 3/4" | 3 |
| 3 | 5 5/8" | 1'-8 7/8" | 3 |
| 4 | 5 7/8" | 1'-8 5/8" | 2 |
| 5 | 5 1/4" | 1'-8" | 2 |
| 6 | 4 1/8" | 1'-5 7/8" | 0 |

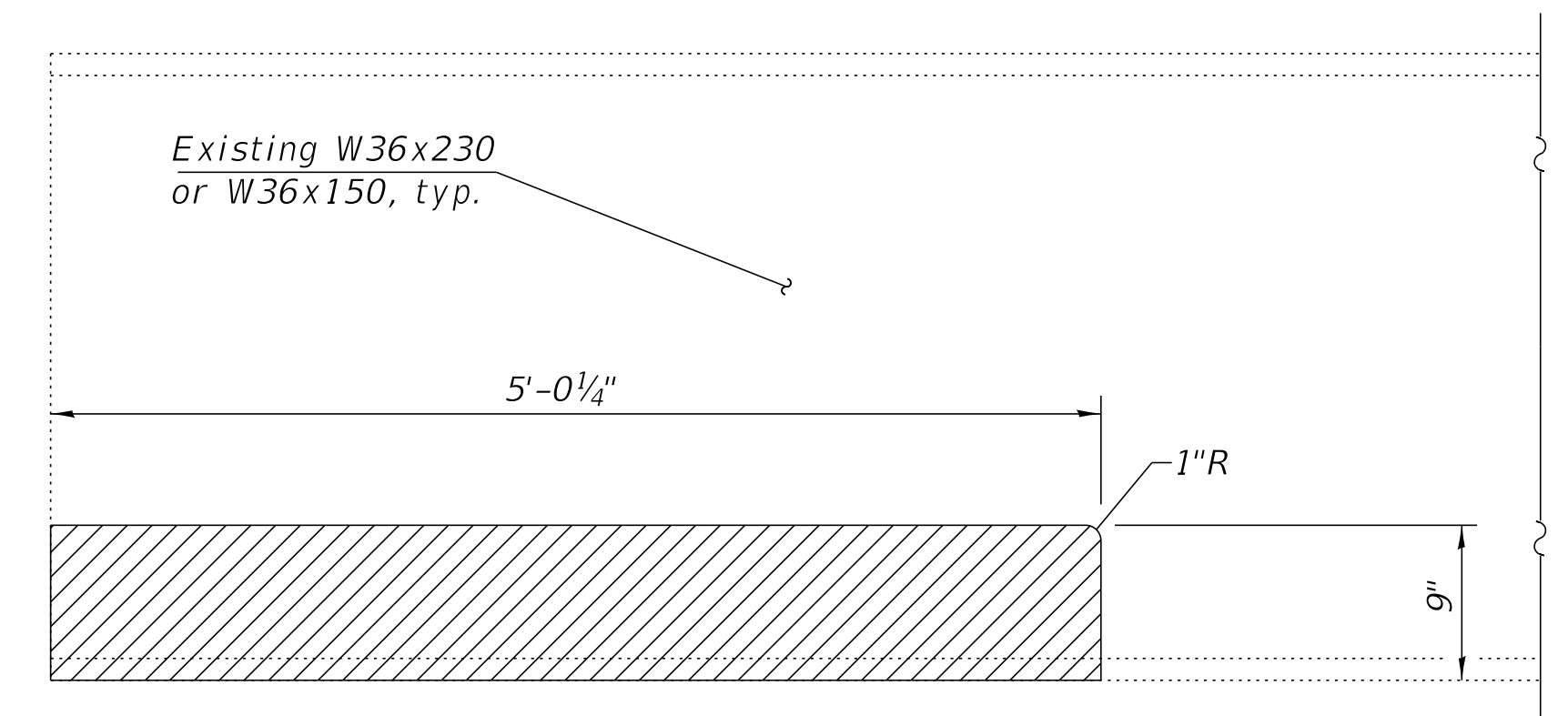
SPANS 3 & 6

| Beam No. | A | B | # of Fill Pl's |
|----------|--------|-----------|----------------|
| 1 | 3" | 1'-4 3/4" | 0 |
| 2 | 4 1/2" | 1'-7 3/4" | 3 |
| 3 | 5 5/8" | 1'-7 7/8" | 1 |
| 4 | 5 7/8" | 1'-8 5/8" | 2 |
| 5 | 5 1/4" | 1'-8" | 2 |
| 6 | 4 1/8" | 1'-5 7/8" | 0 |

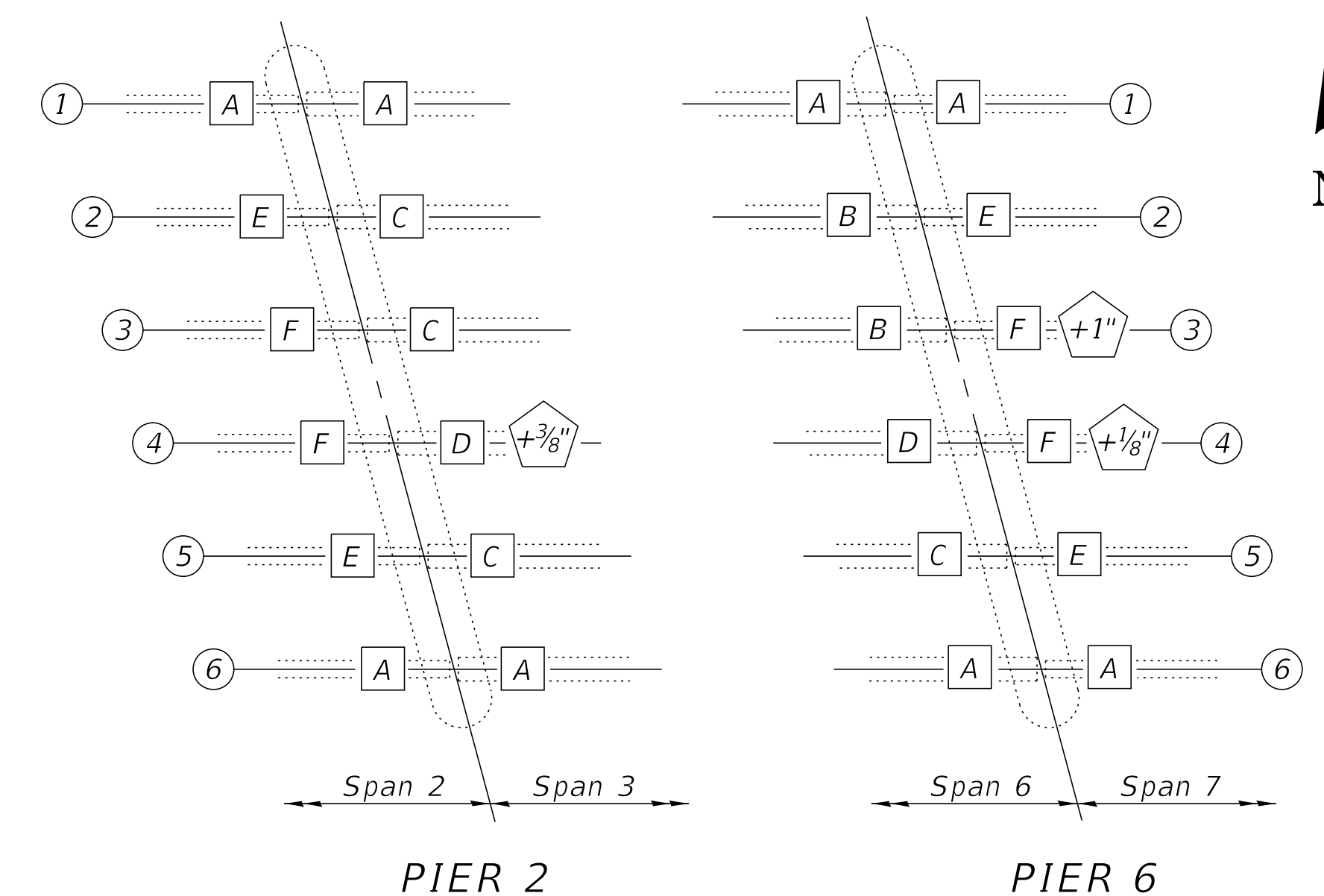
Note:
Dimensions "A" and "B" are after Jacking Existing Superstructure operations are complete.



DIAPHRAGM REMOVAL DETAIL



REMOVAL DETAIL "D" & "F"
Diaph. & Clip L's not shown for clarity



STEEL REPAIR LOCATION PLAN

- ② Beam Number
- Repair Type
- ⬡ Jacking Existing Superstructure

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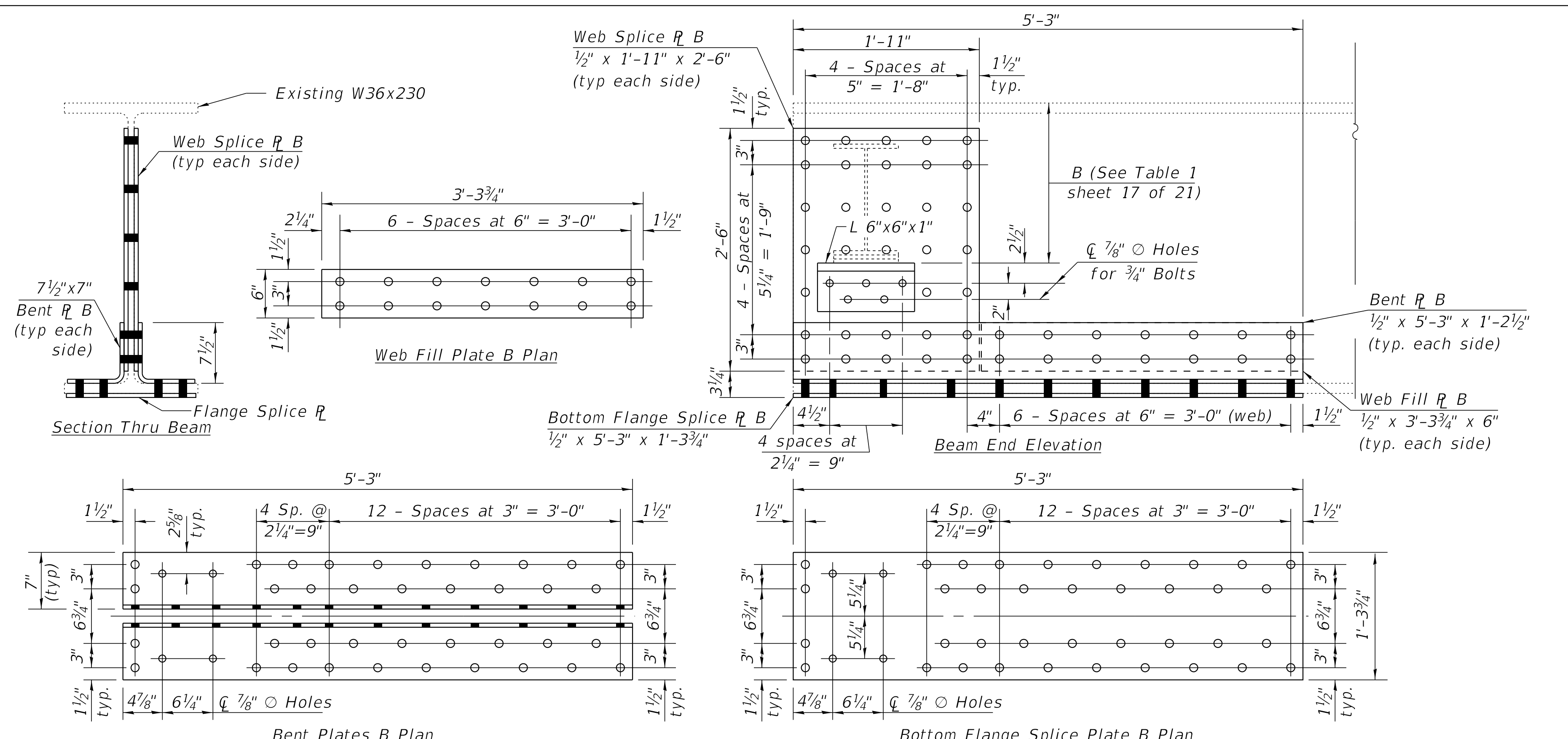
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| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE | DRAWN - BLB | REVISED - |
| | DATE - 03-12-19 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

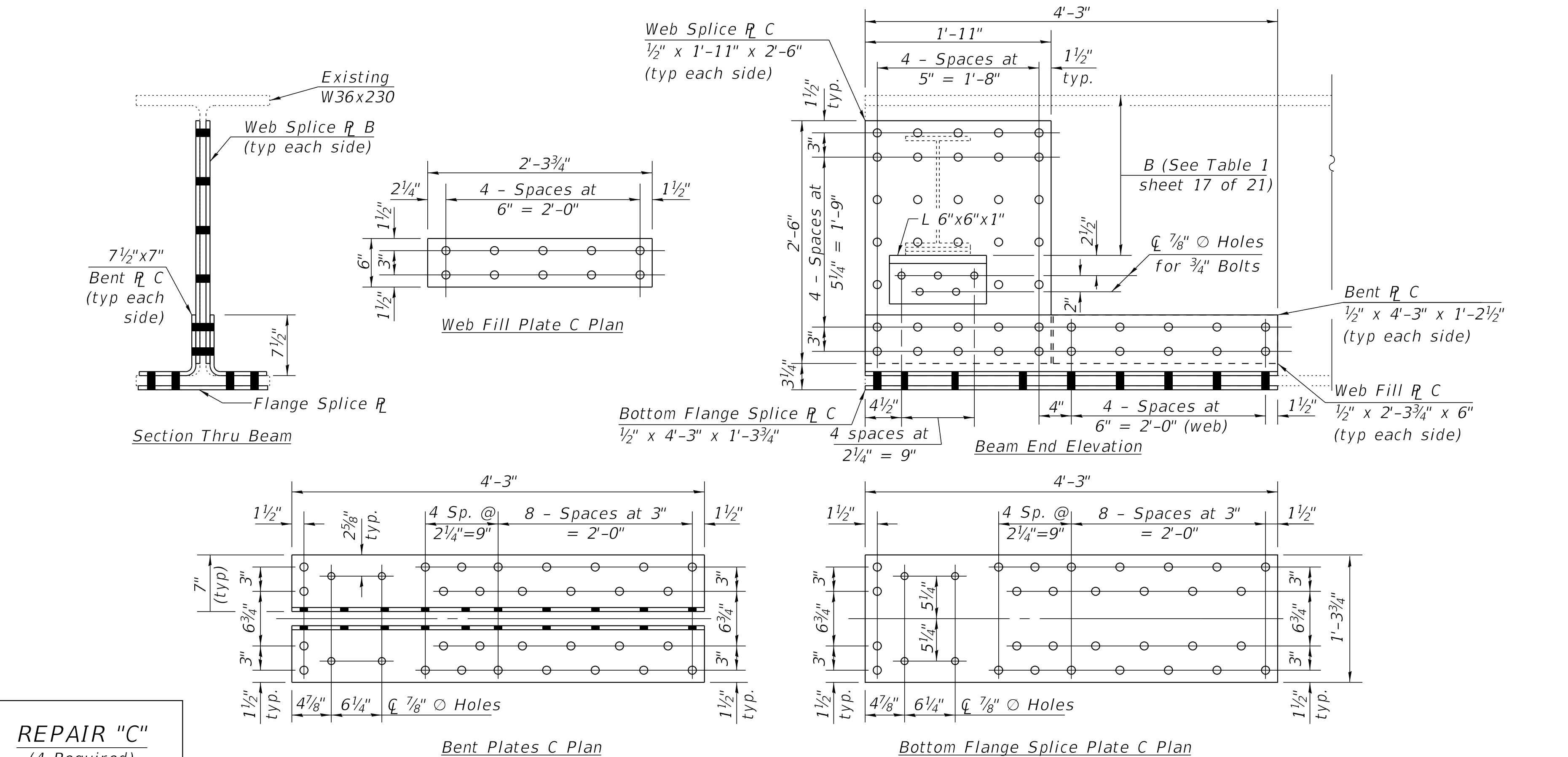
STRUCTURAL STEEL REPAIRS I
STRUCTURE NO. 099-0135

SHEET NO. 17 OF 21 SHEETS

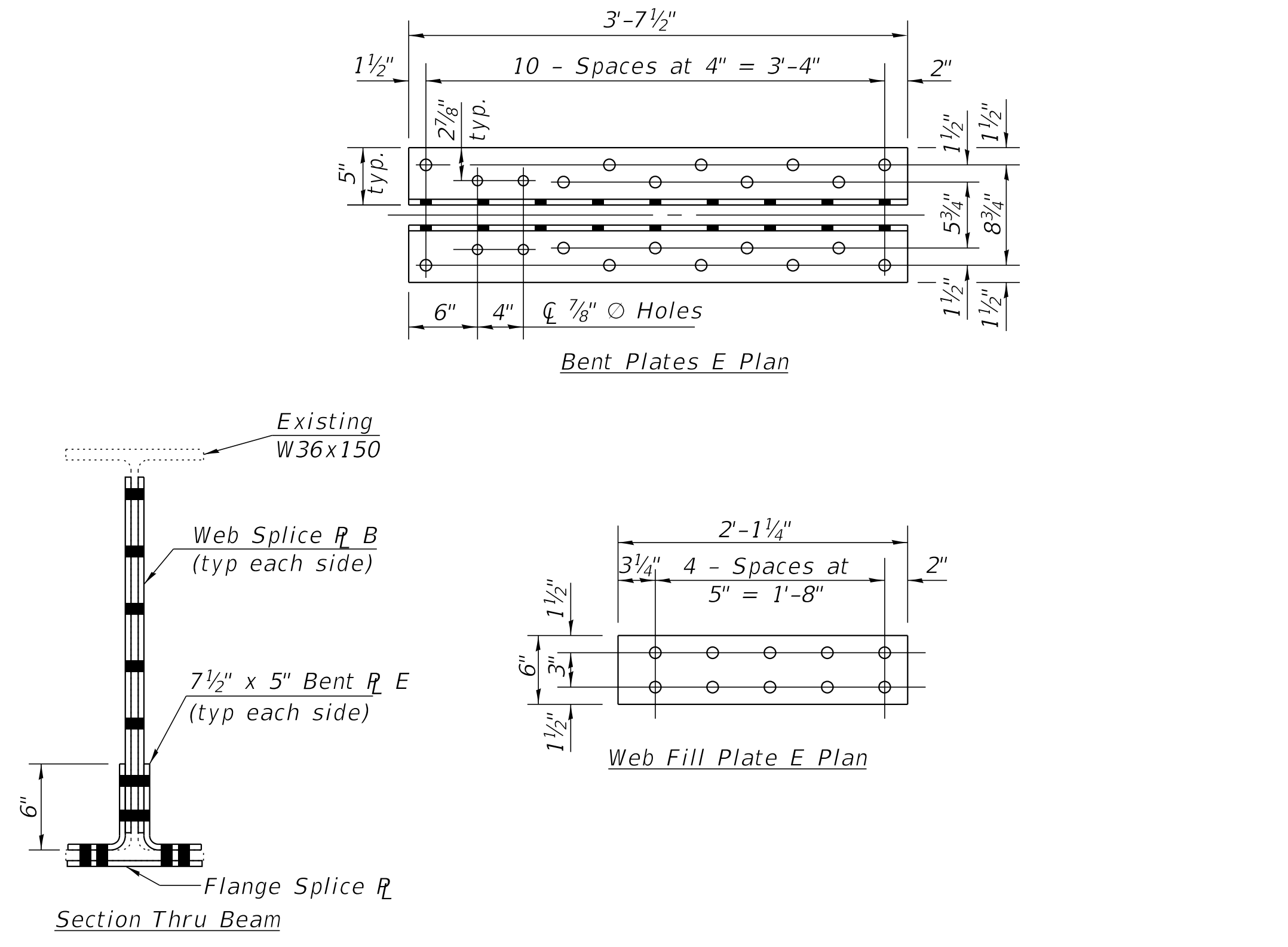
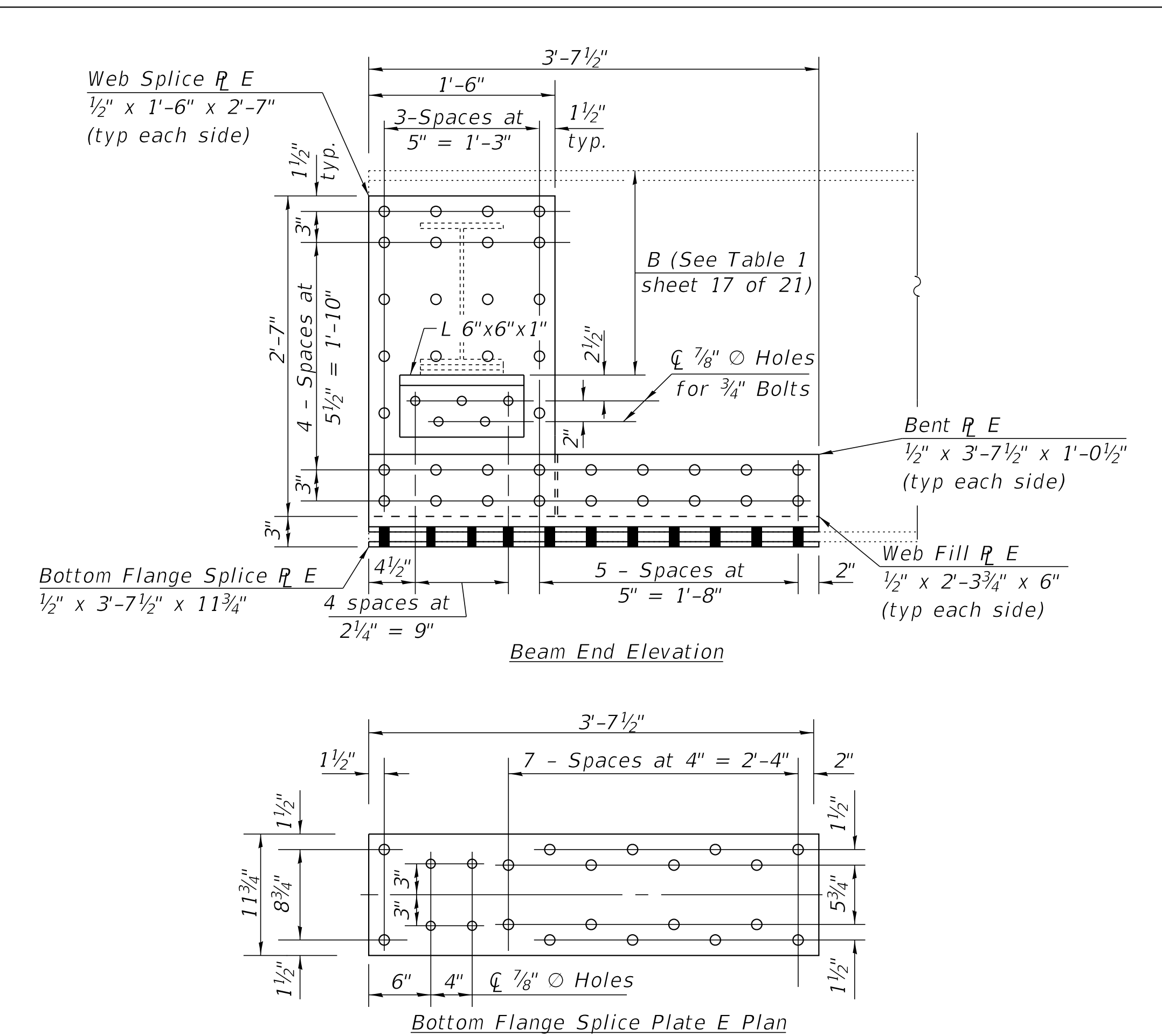
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| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 36 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS / FED. AID PROJECT | | | | |



REPAIR "B"
(2 Required)



REPAIR "C"
(4 Required)



REPAIR "E"
(4 Required)

See sheet 17 of 21 for structural steel repair notes.

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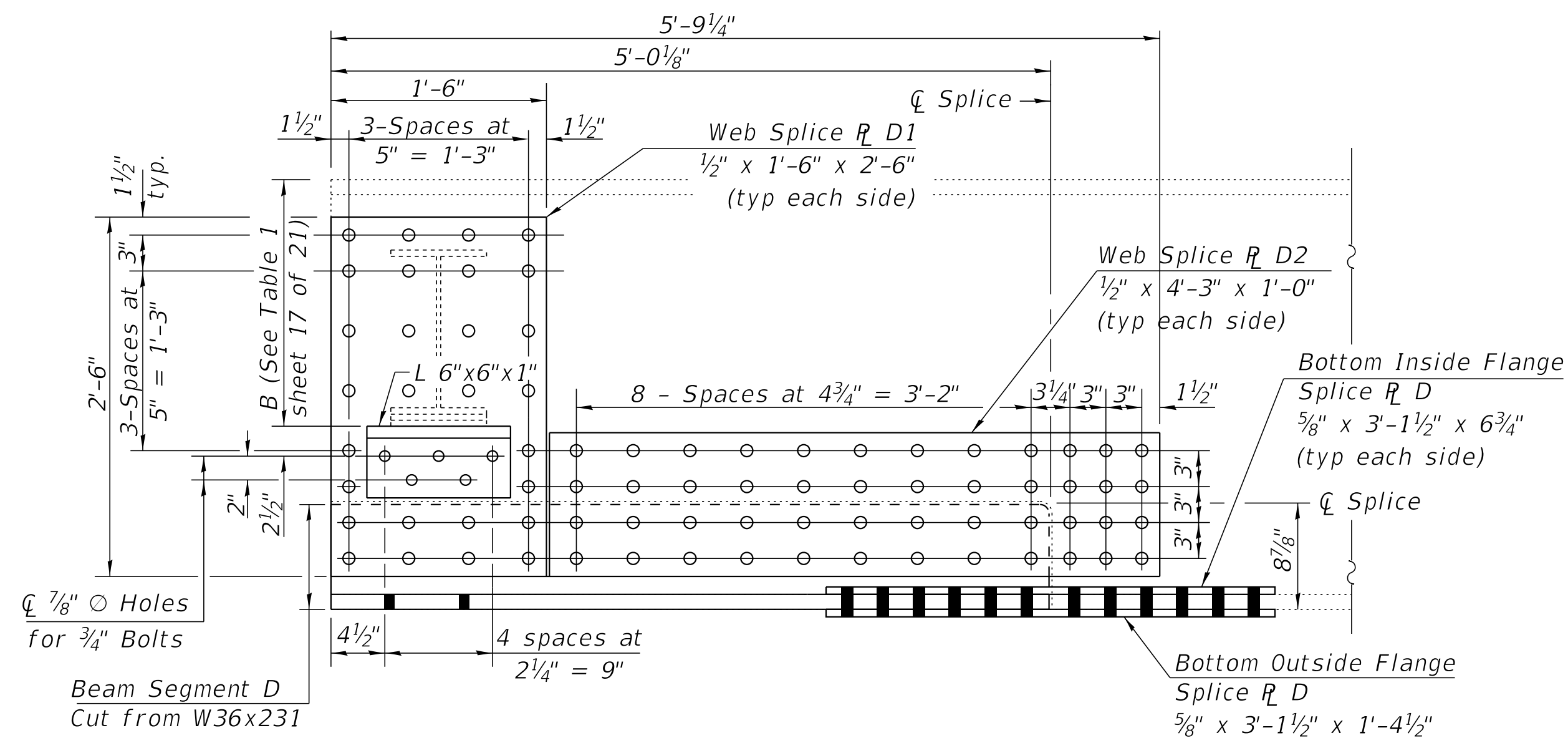
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| USER NAME = | DESIGNED - BLB | REVISED - |
| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

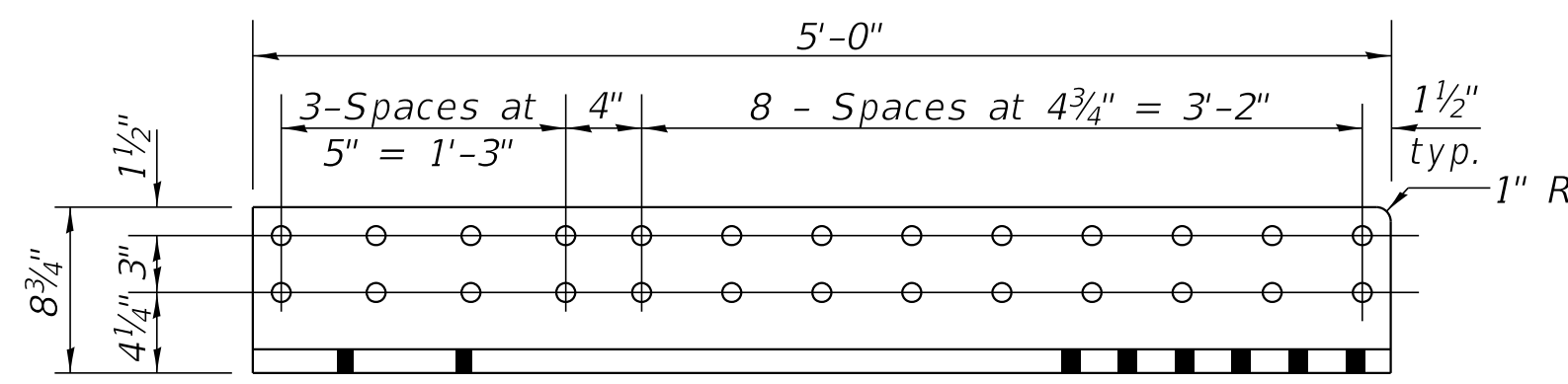
STRUCTURAL STEEL REPAIRS II
STRUCTURE NO. 099-0135

SHEET NO. 18 OF 21 SHEETS

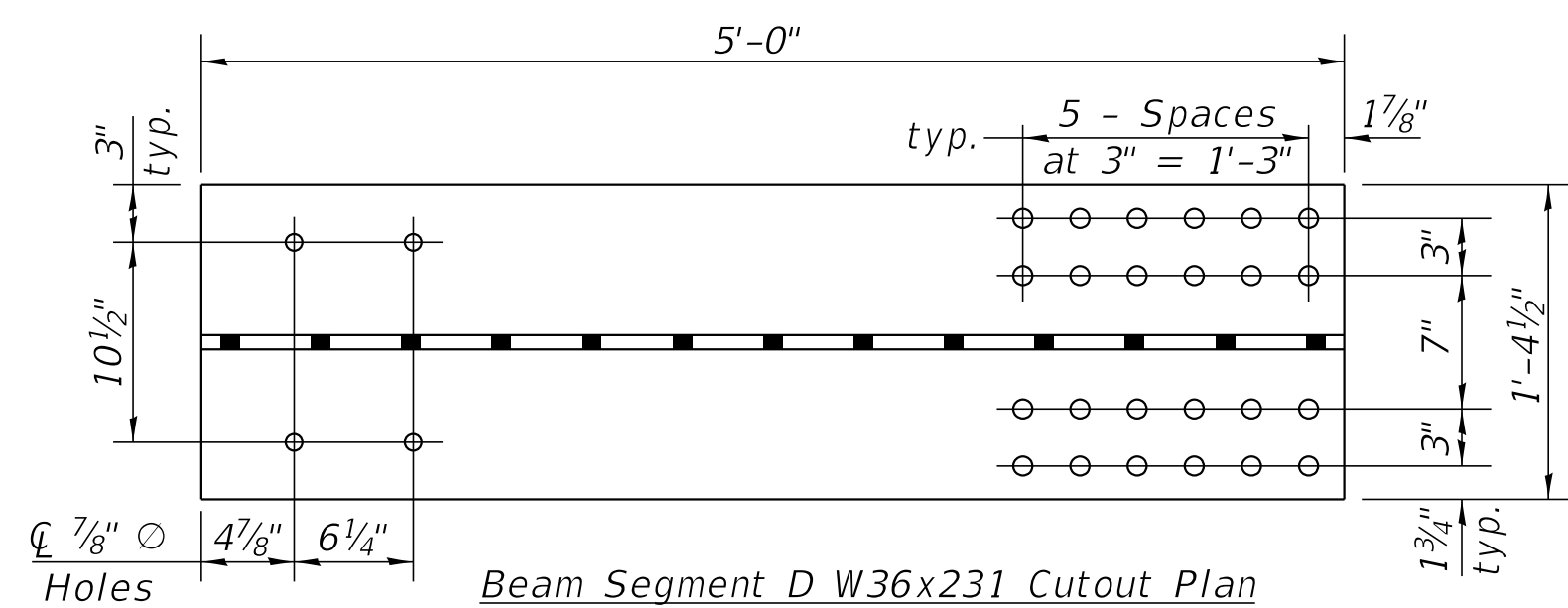
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 37 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS / FED. AID PROJECT | | | | |



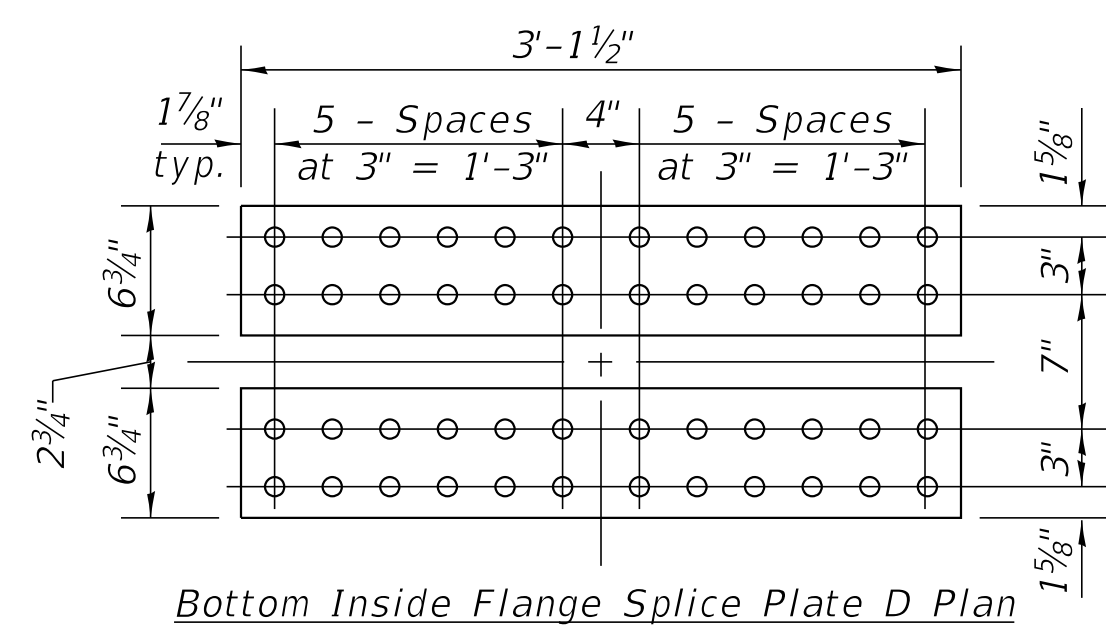
Beam End Elevation



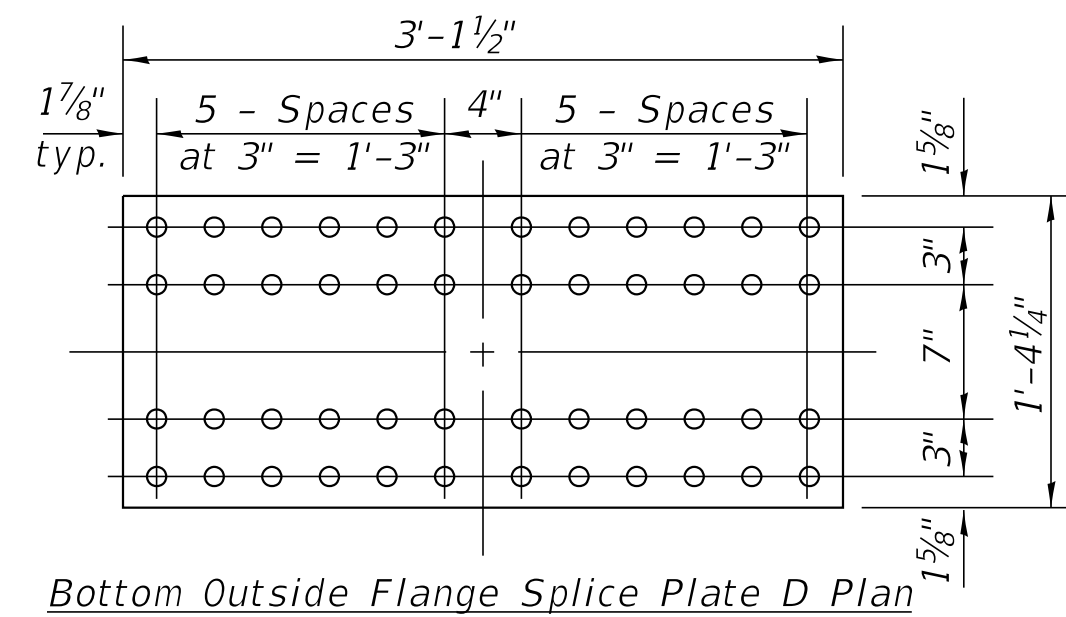
Beam Segment D W36x231 Cutout Elevation



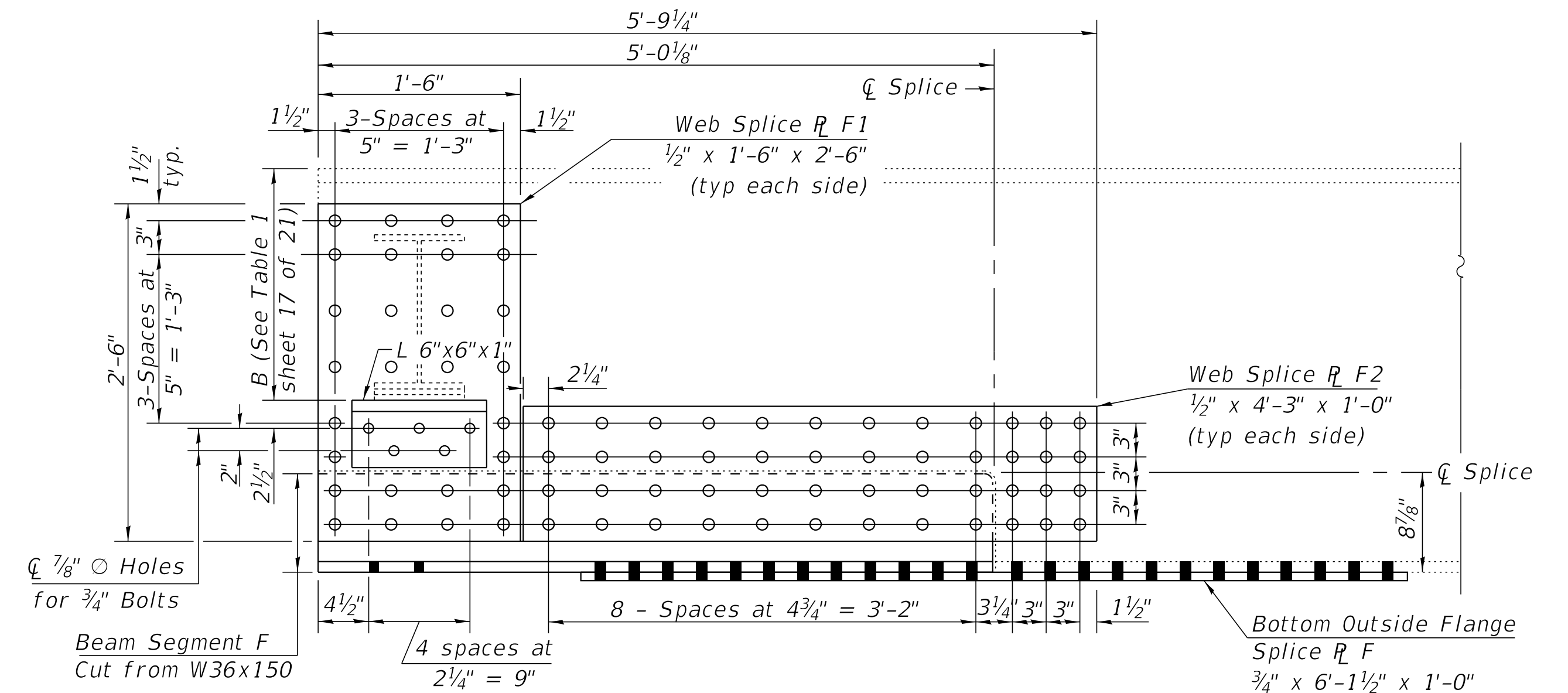
Beam Segment D W36x231 Cutout Plan



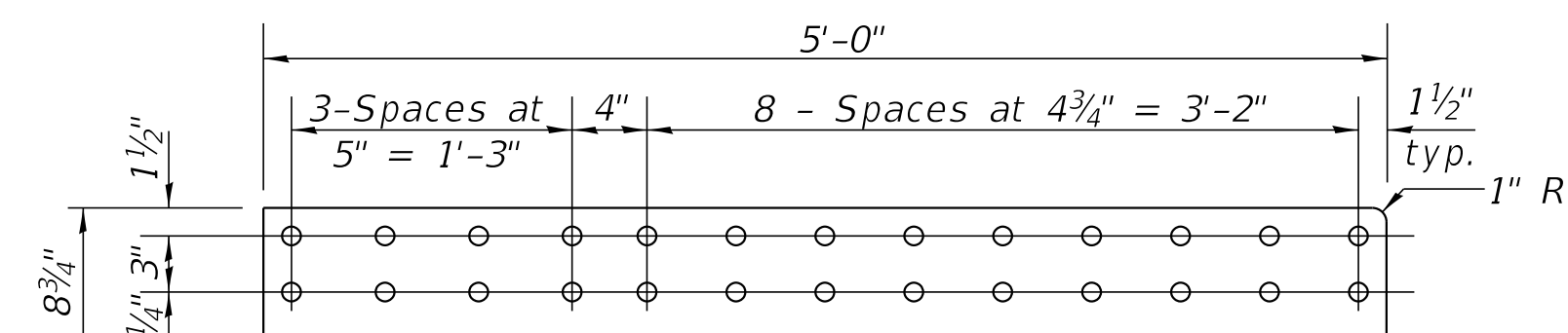
Bottom Inside Flange Splice Plate D Plan



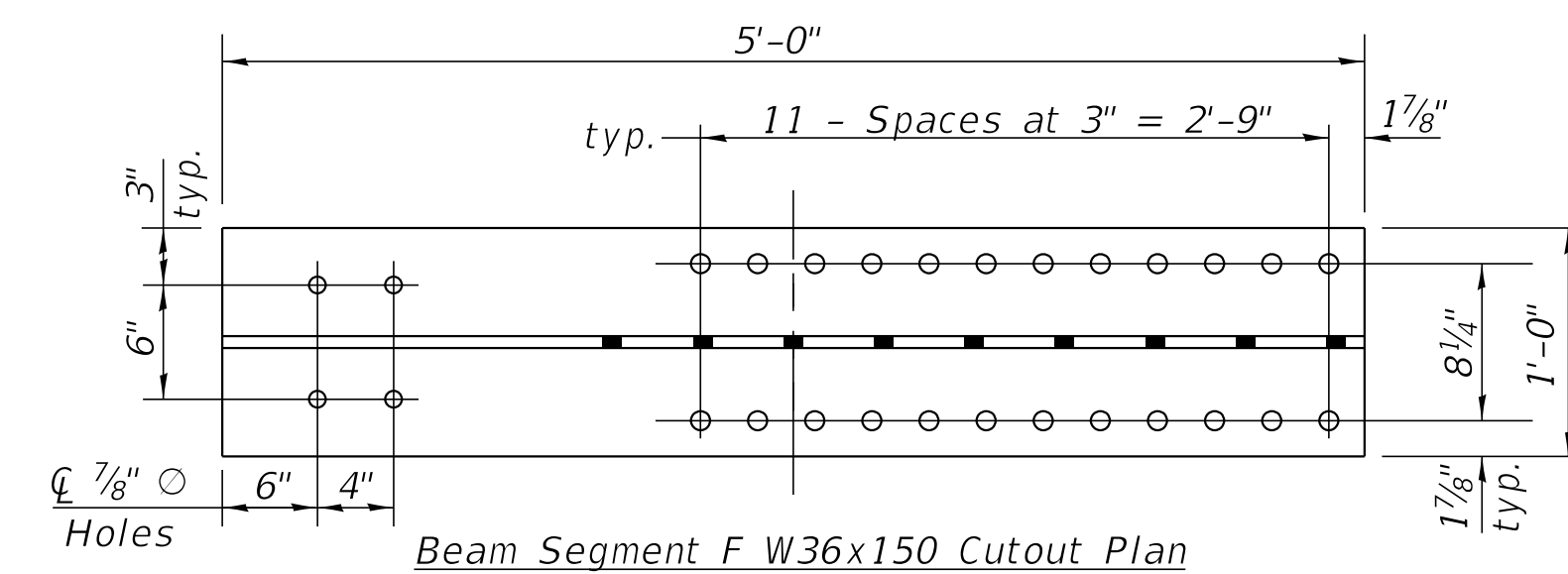
Bottom Outside Flange Splice Plate D Plan



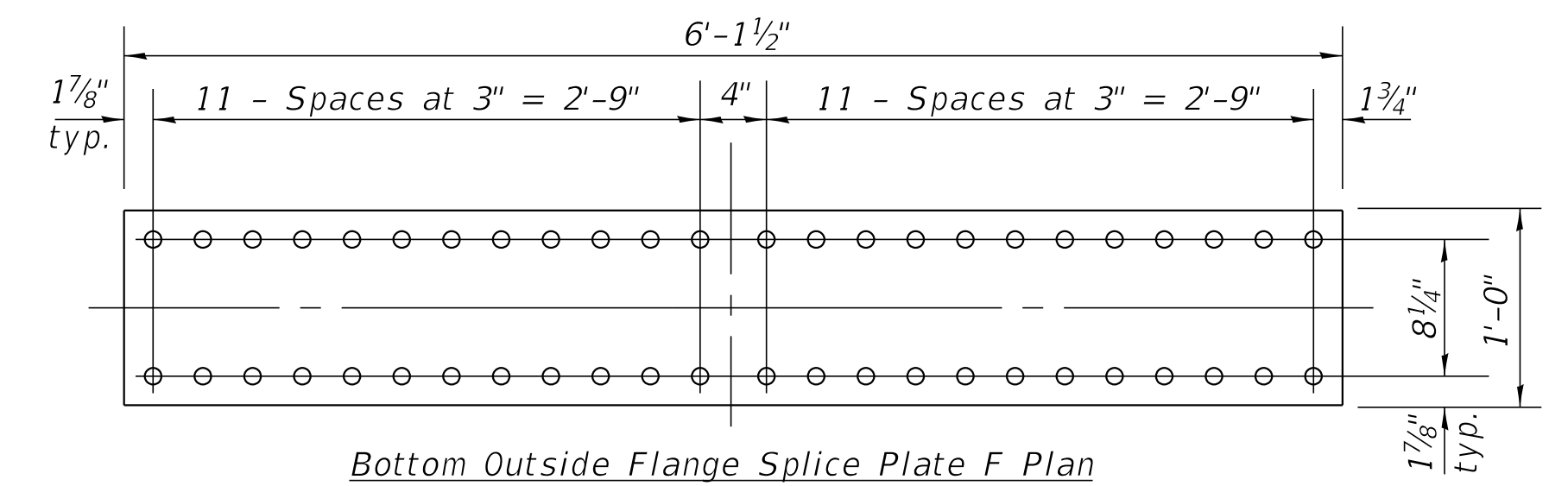
Beam End Elevation



Beam Segment F W36x150 Cutout Elevation



Beam Segment F W36x150 Cutout Plan



Bottom Outside Flange Splice Plate F Plan

REPAIR "D"
(2 Required)

REPAIR "F"
(4 Required)

See sheet 17 of 21 for structural steel repair notes.

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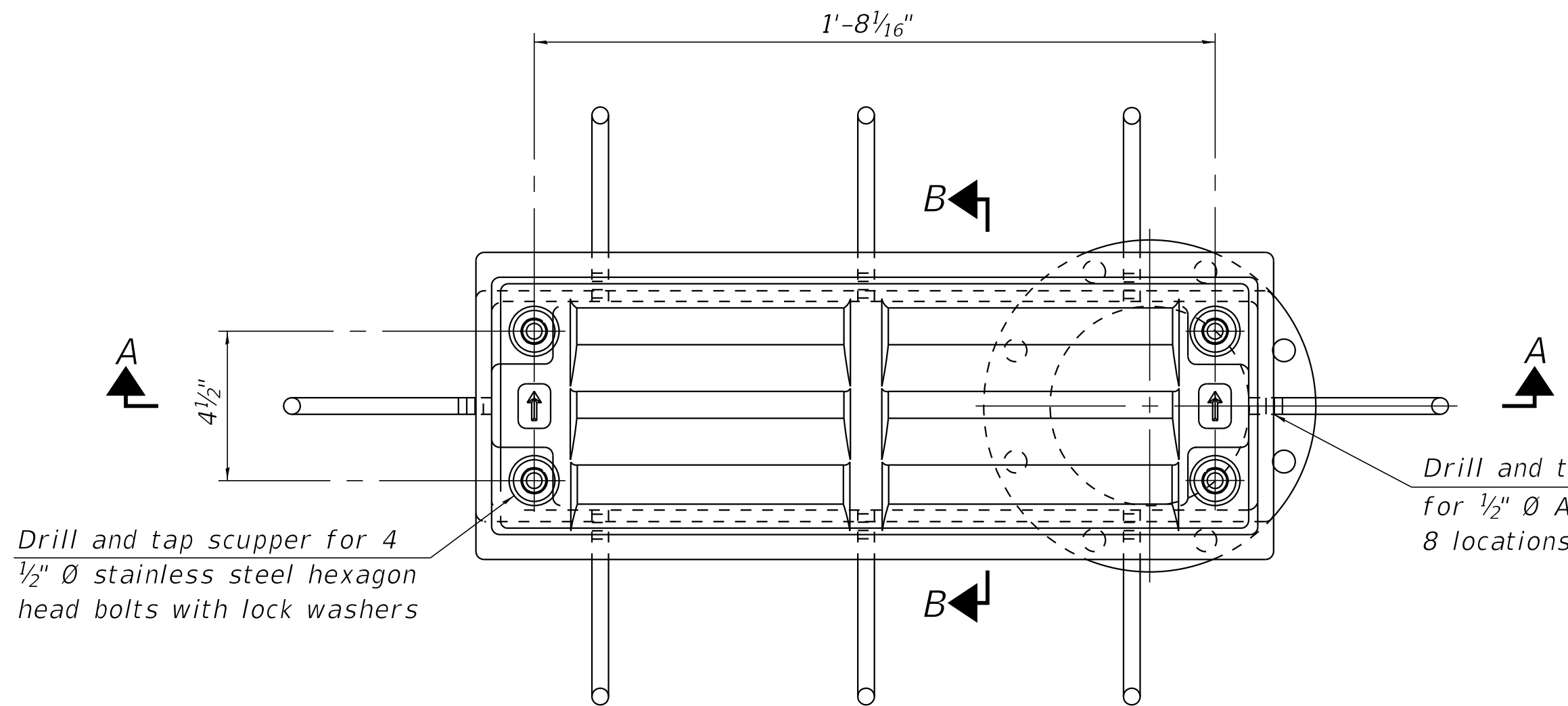
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| USER NAME = | DESIGNED - BLB | REVISED - |
| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

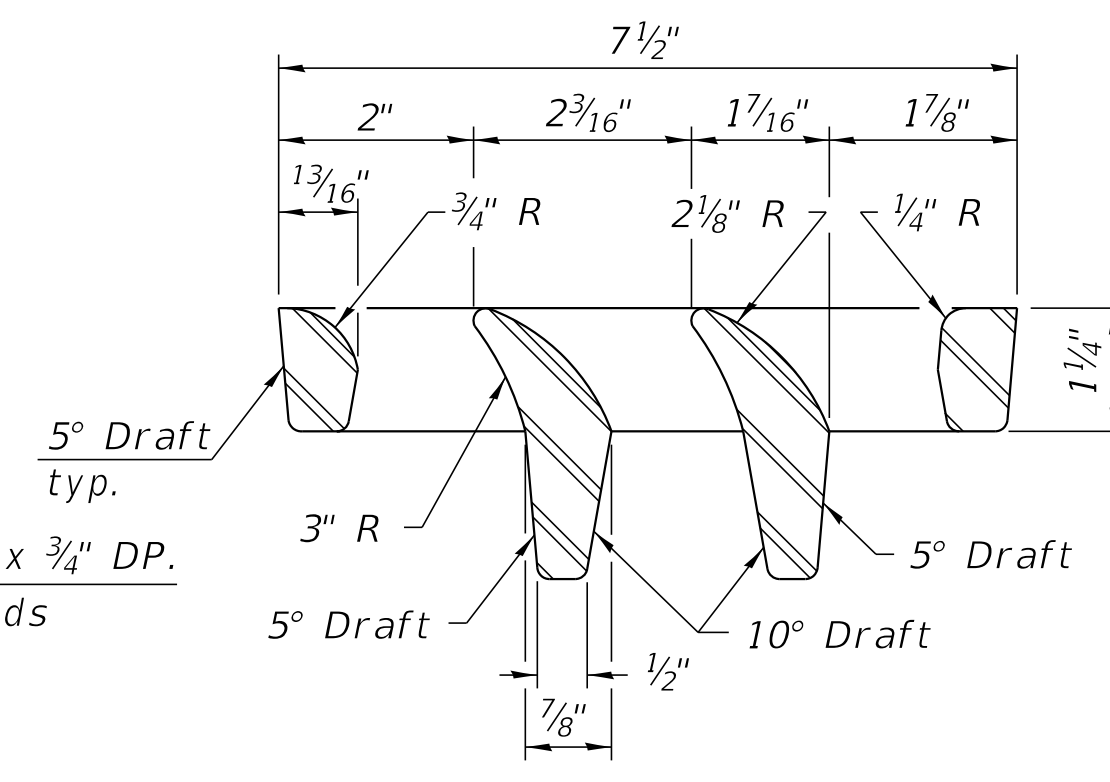
STRUCTURAL STEEL REPAIRS III
STRUCTURE NO. 099-0135

SHEET NO. 19 OF 21 SHEETS

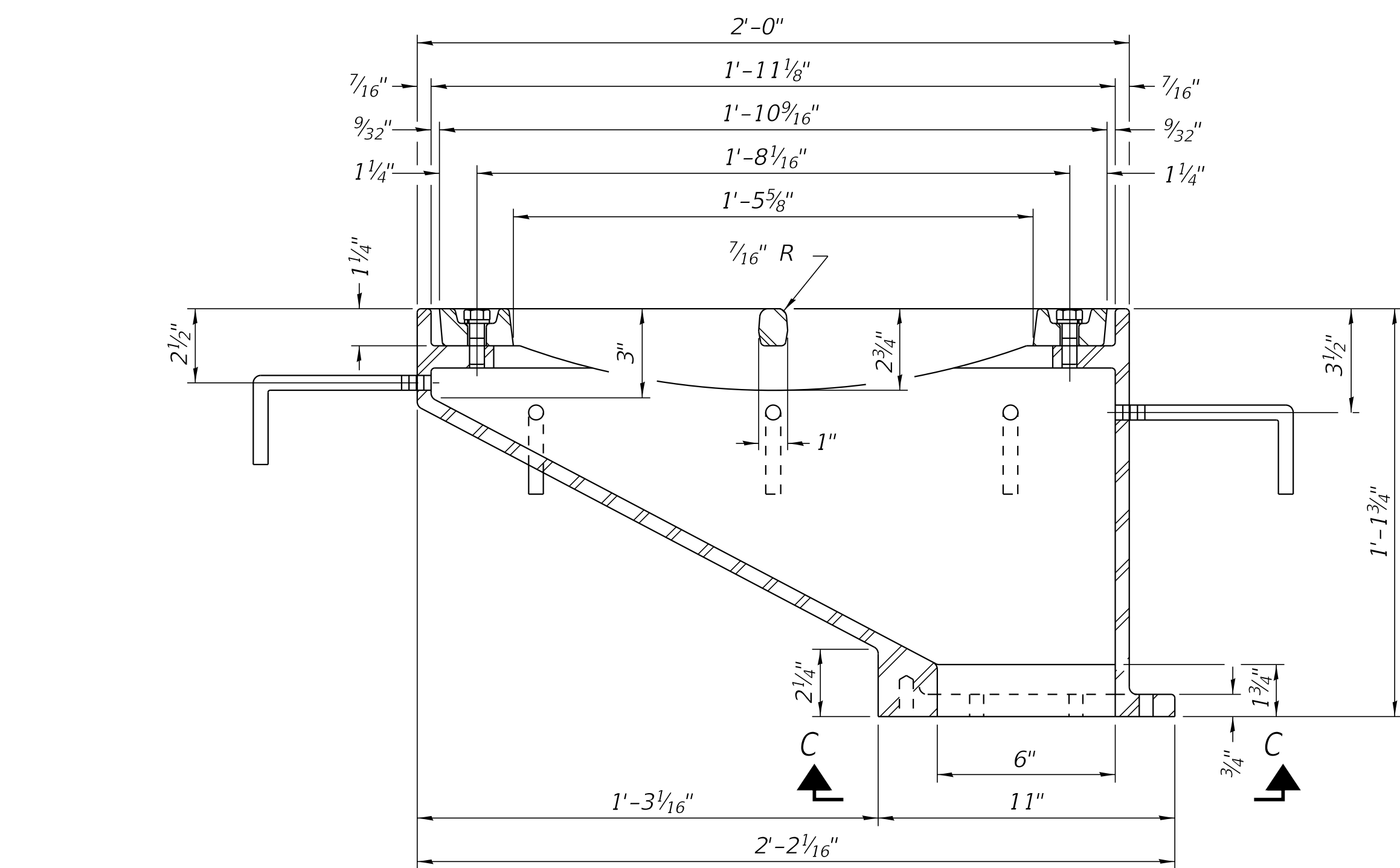
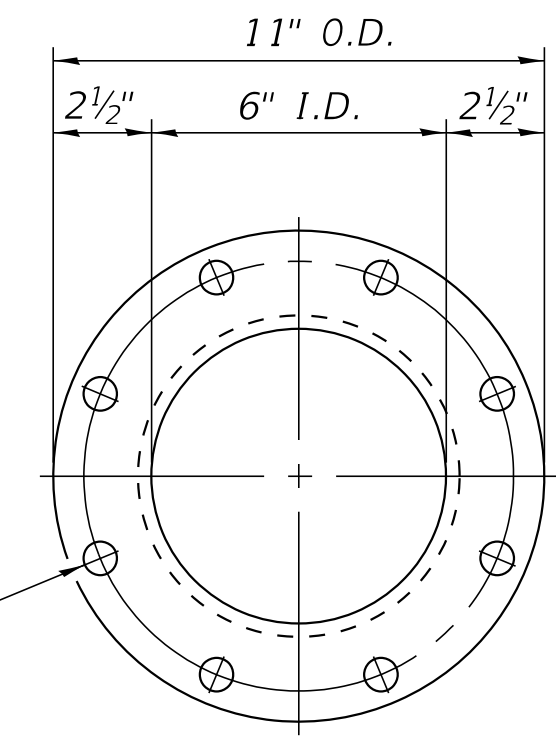
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 38 |
| CONTRACT NO. 61F12 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



PLAN

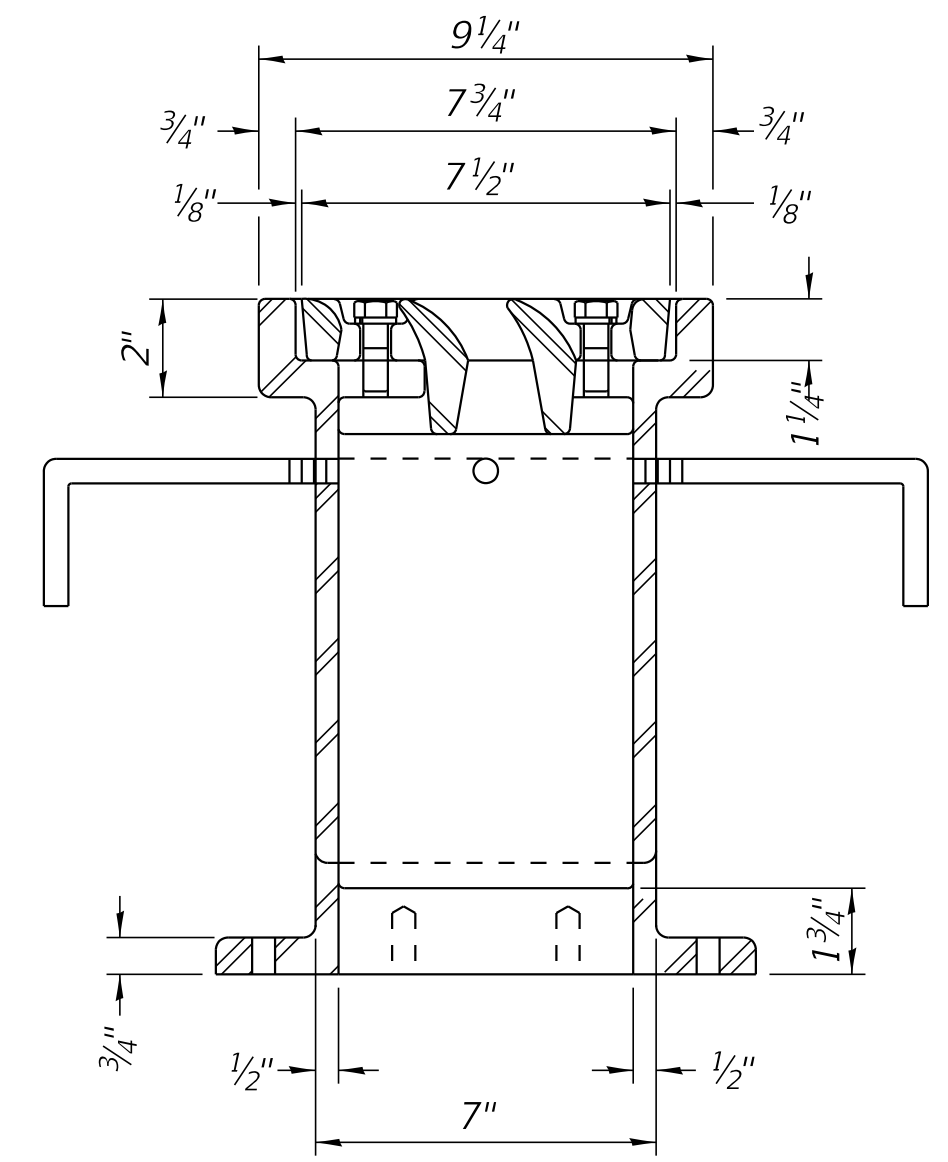


VANE GRATE DETAIL

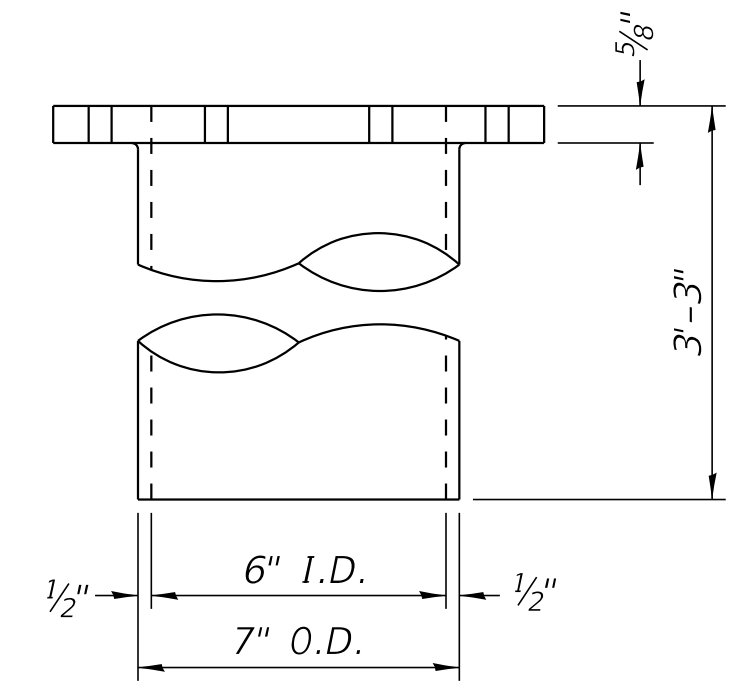


SECTION A-A

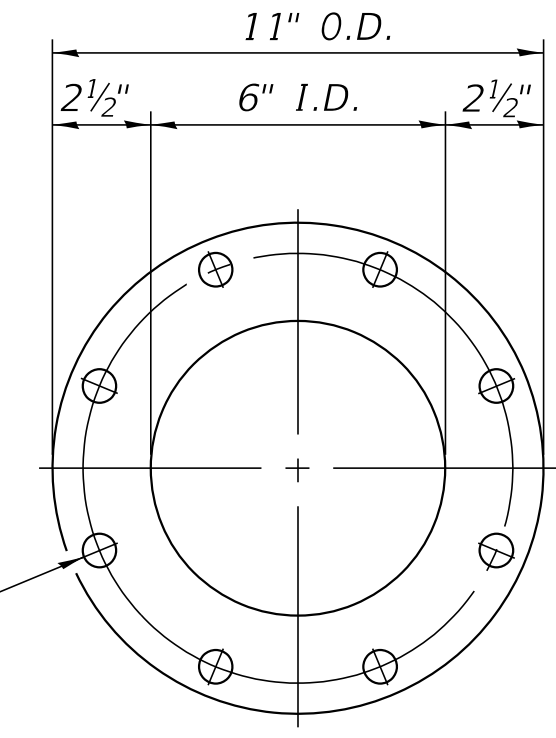
See sheet 4 of 21 for scupper locations.



SECTION B-B

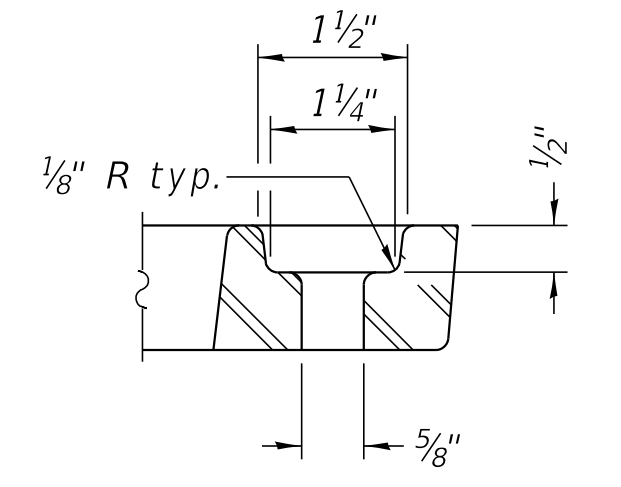


DOWNSPOUT

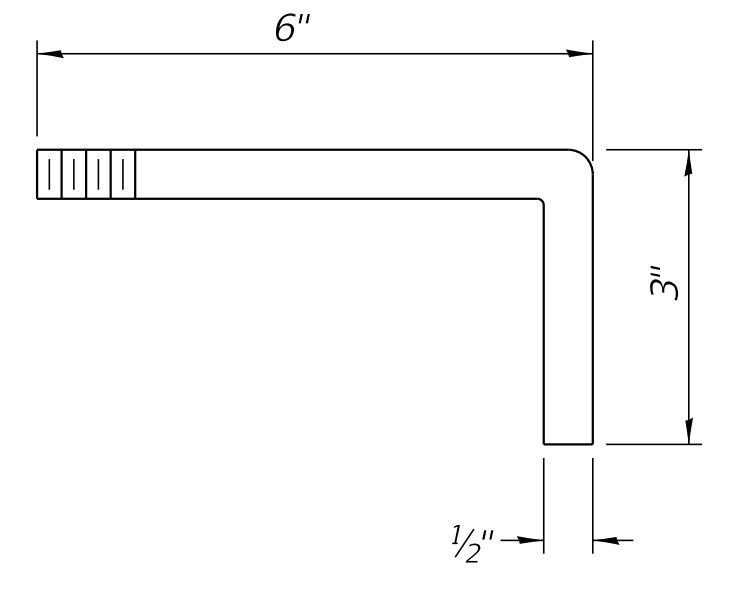


VIEW C-C

Drill and tap 8 holes for 1/2"-13 bolts on a 9 1/2" Ø bolt circle. (2 blind holes are 1 1/4" deep, 6 thru holes)



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|-------------------------|------|----------|
| Drainage Scupper, DS-12 | Each | 6 |

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DS-12

2-17-2017



| | | |
|--------------|-----------------|-----------|
| USER NAME = | DESIGNED - BLB | REVISED - |
| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE = | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

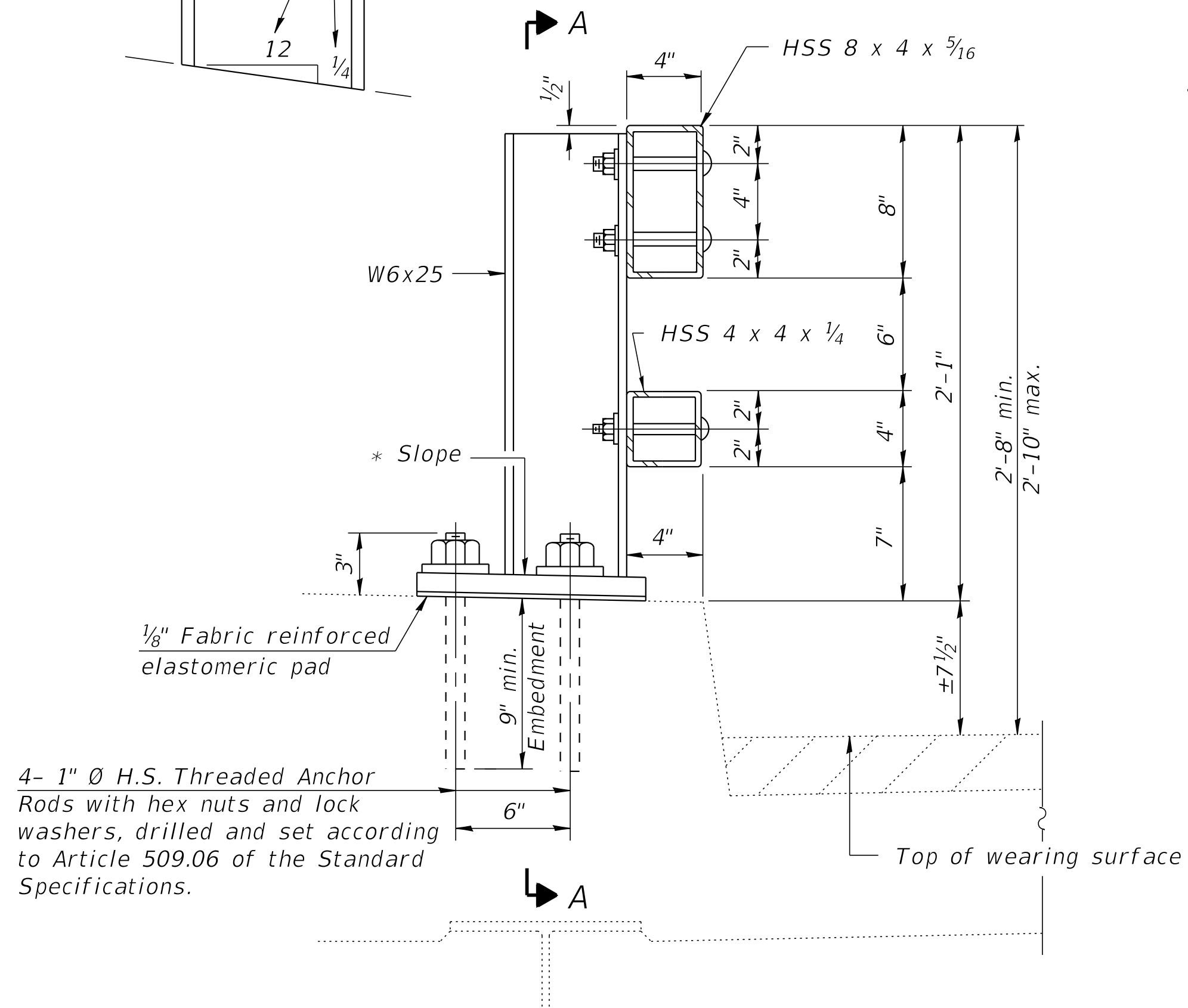
STATE OF ILLINOIS
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SCUPPER DETAILS
 STRUCTURE NO. 099-0135

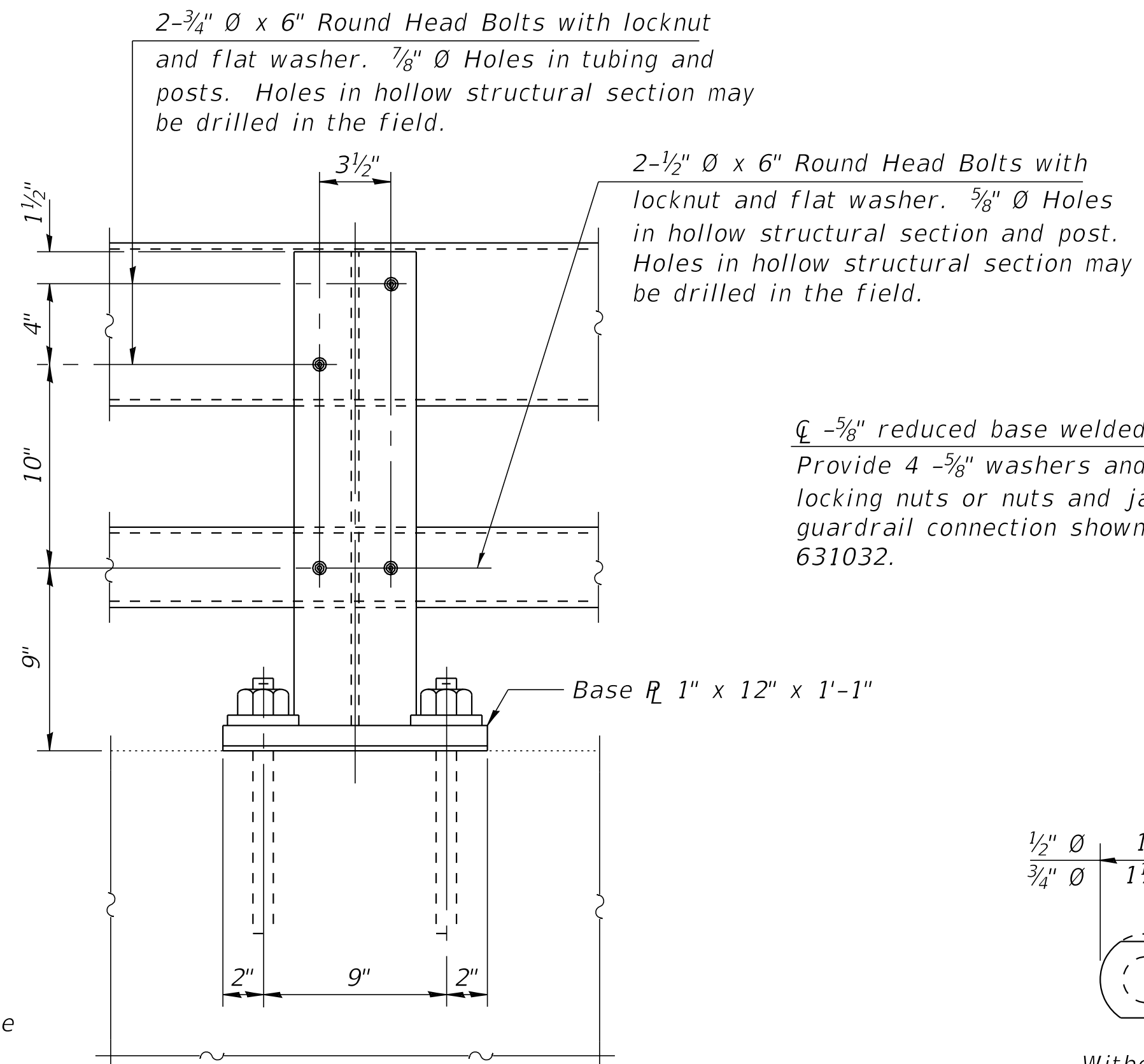
SHEET NO. 20 OF 21 SHEETS

| | | | | |
|-------------|----------------|----------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 39 |
| | | | CONTRACT NO. 61F12 | |
| | | ILLINOIS | FED. AID PROJECT | |

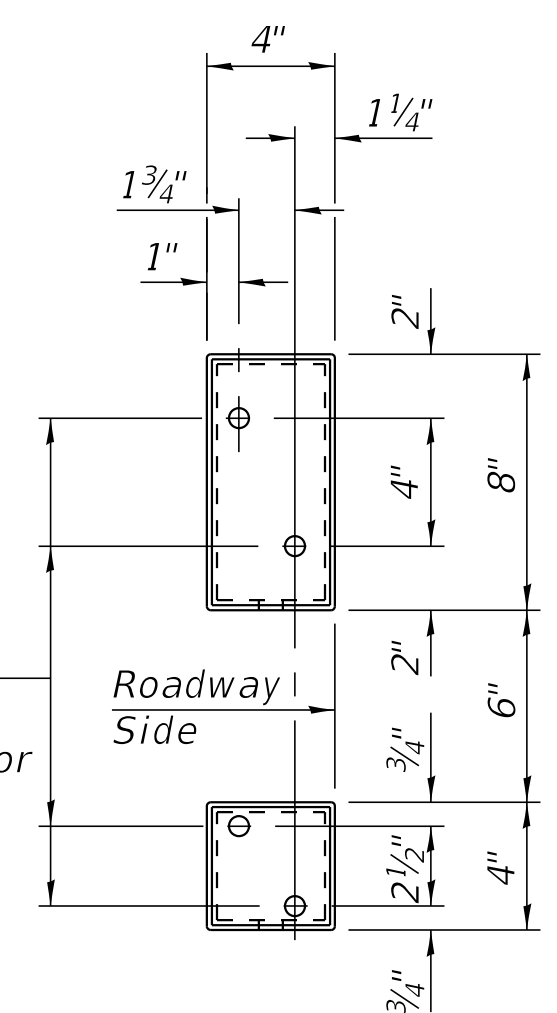
* Cut bottom end of post to curb slope.



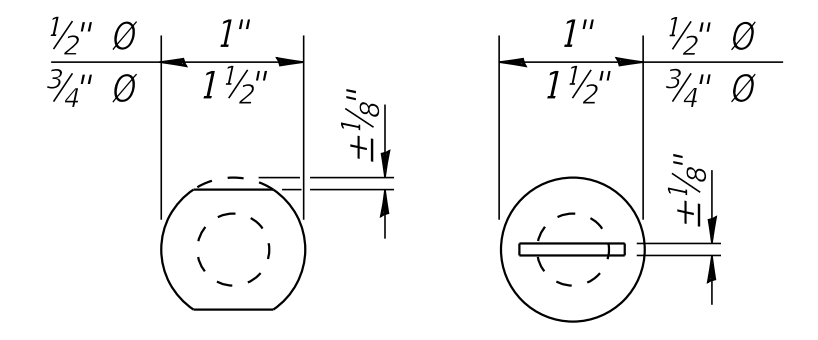
SECTION AT RAIL POST



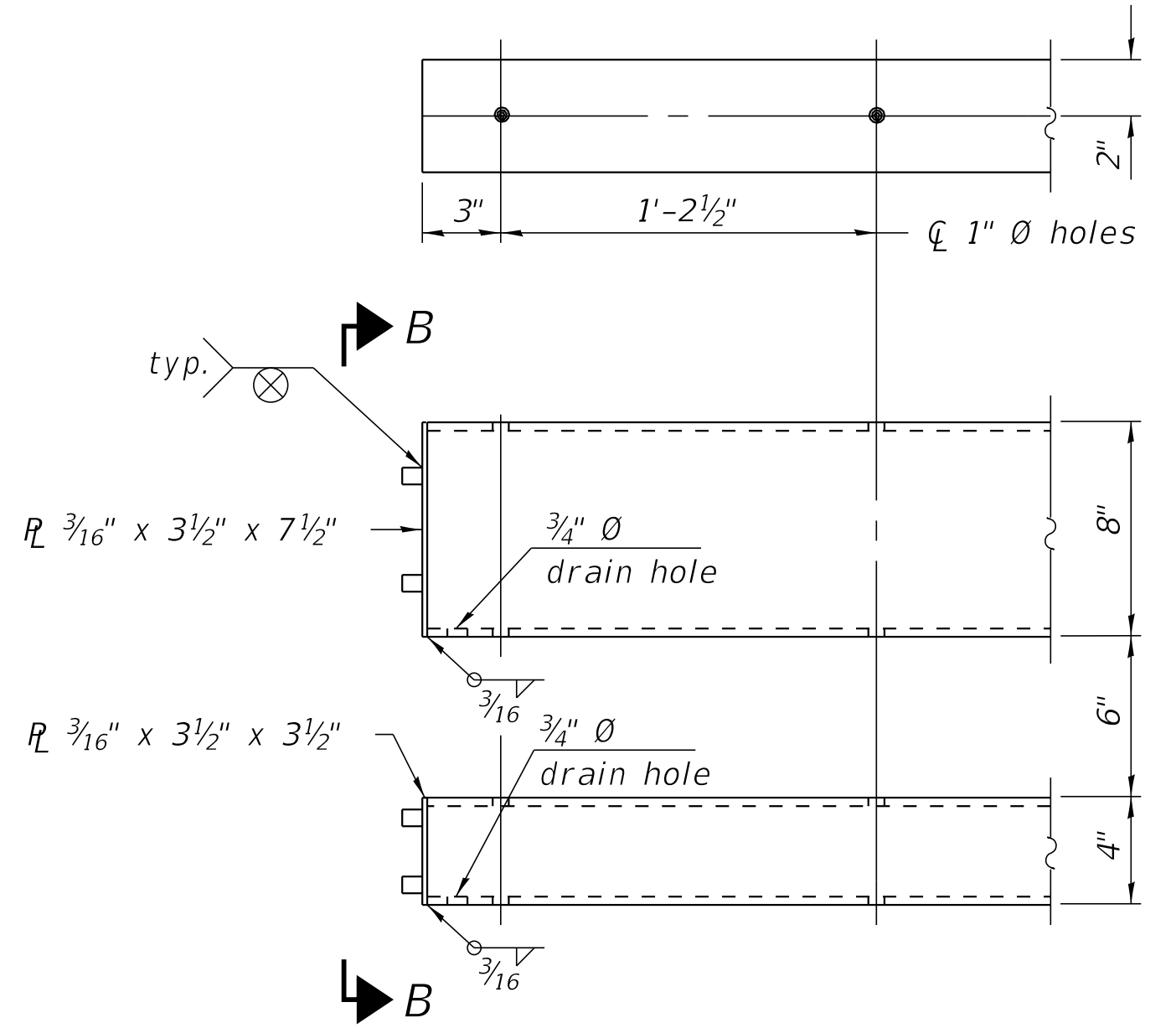
SECTION A-A



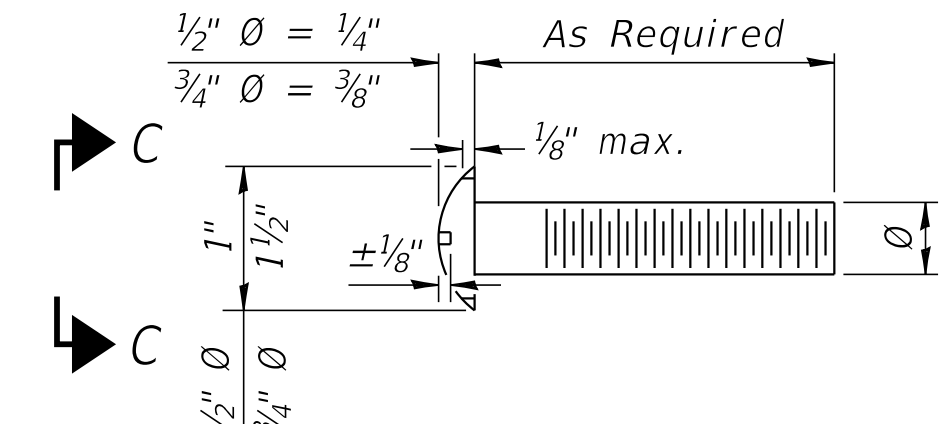
VIEW B-B



VIEW C-C

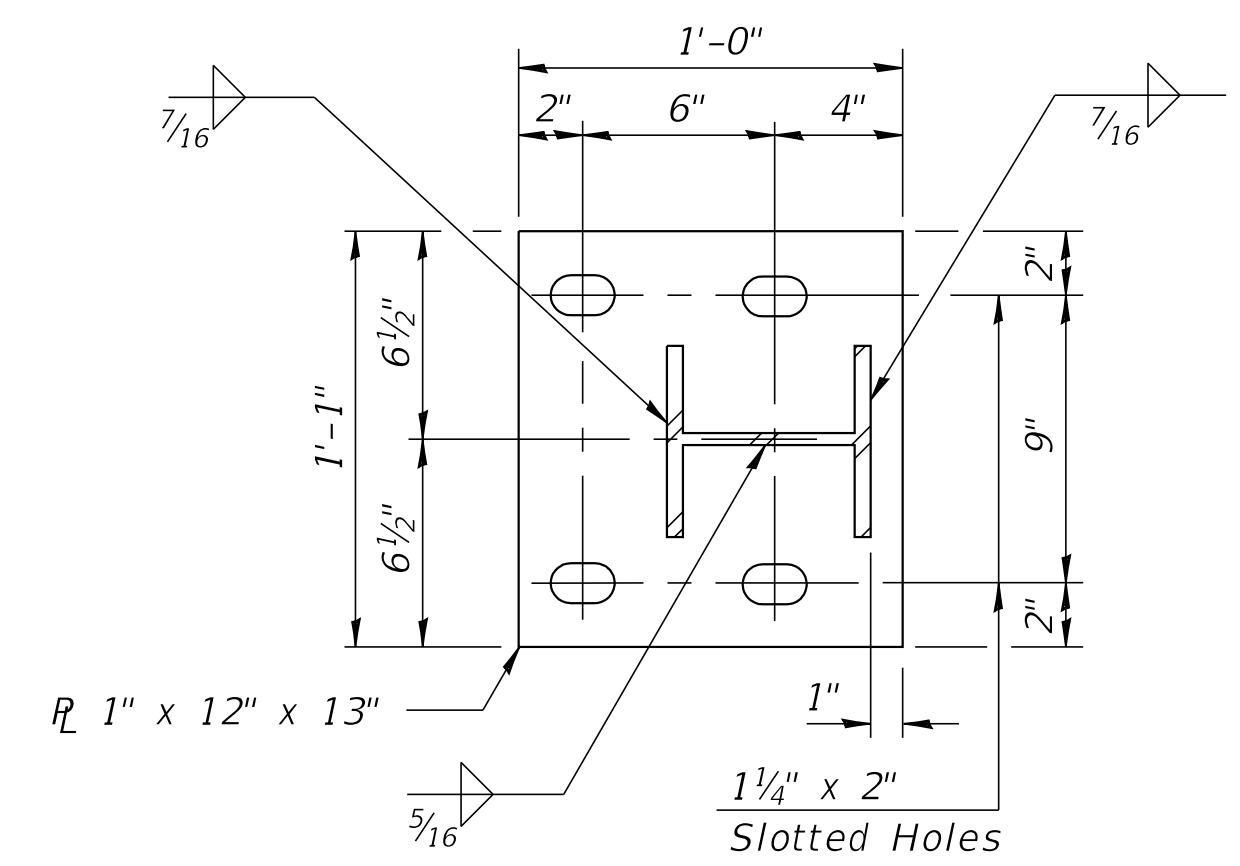


END OF RAIL DETAILS

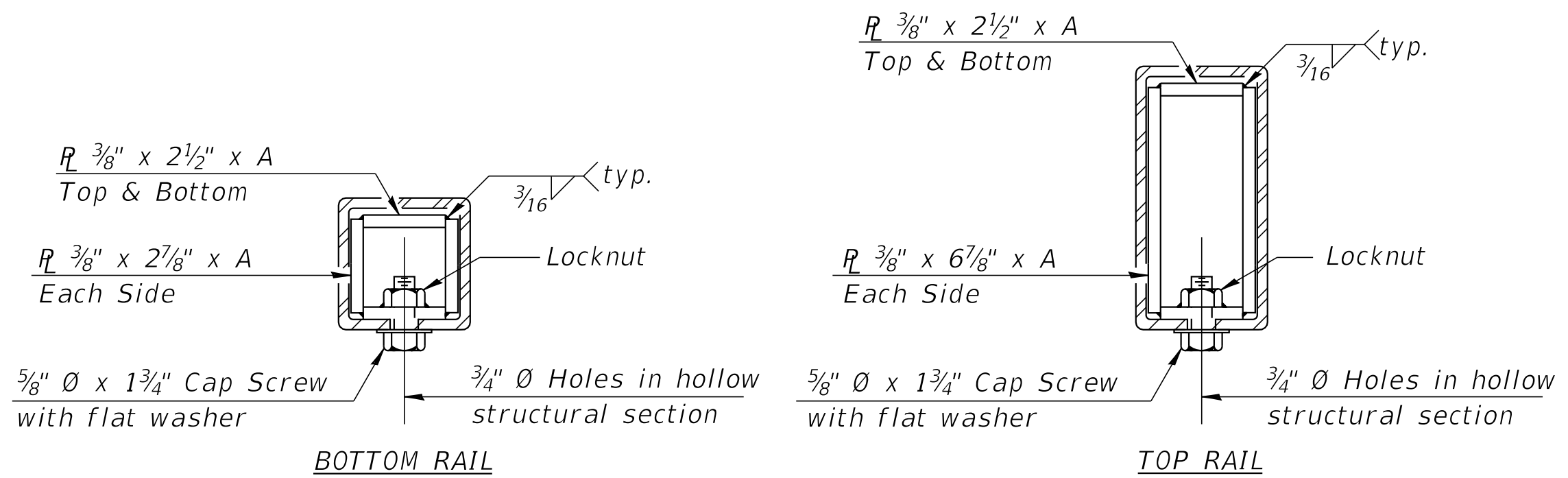


DETAIL OF 1/2" & 3/4" ROUND HEAD BOLTS

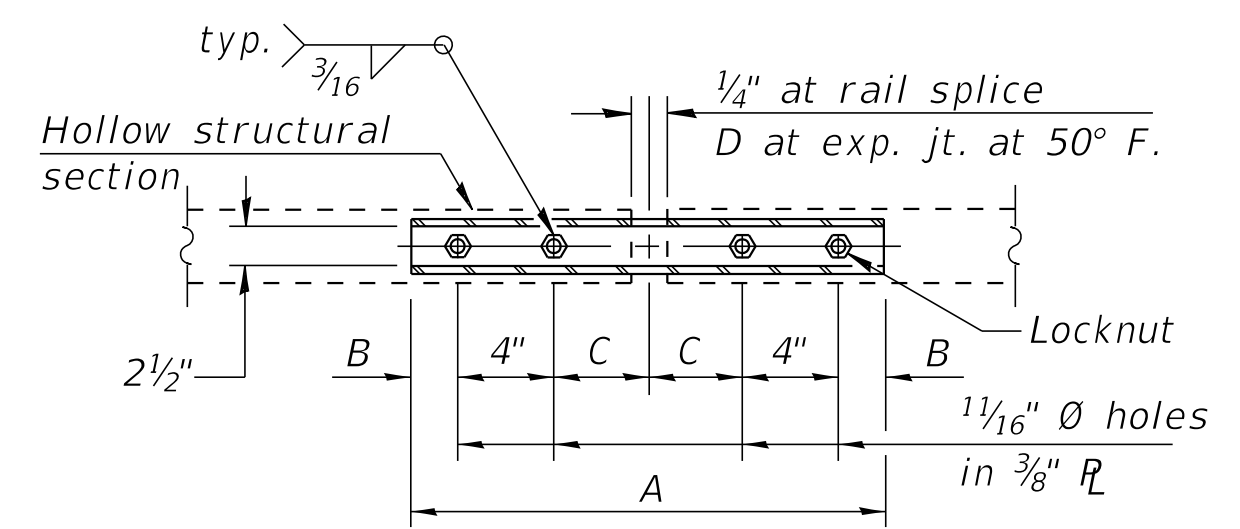
NOTES:
 Top and Bottom rail sections shall be fabricated with a mitered angle to accommodate the transition from bridge to approach slab at southwest corner. See West Approach Slab Details and Deck Repair I for rail post locations and other dimensions.
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



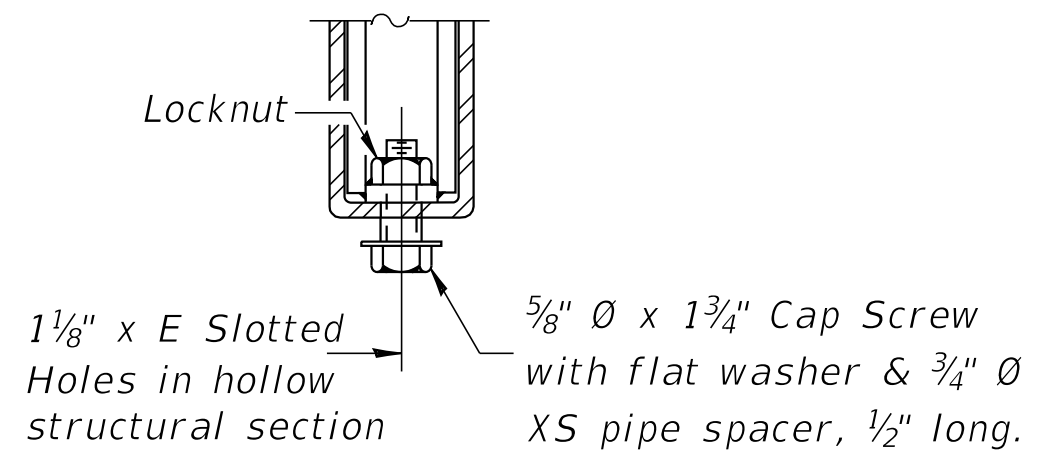
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOT. SPLICE R TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

| T | D | A | B | C | E |
|---------------|--------|--------|--------|--------|--------|
| ≤ 4" | 2 1/2" | 1'-8" | 2" | 4" | 2 1/2" |
| > 4" ≤ 6 1/2" | 3 3/4" | 2'-0" | 2 1/2" | 5 1/2" | 3 1/2" |
| > 6 1/2" ≤ 9" | 5" | 2'-4" | 3 1/2" | 6 1/2" | 9" |
| > 9" ≤ 13" | 7" | 2'-10" | 4 1/2" | 8 1/2" | 11" |
| Rail Splice | 1/4" | 1'-8" | 2" | 4" | — |

T = Total movement at expansion joint as shown on the design plans.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--------------------------|------|----------|
| Steel Railing, Type 2399 | Foot | 1,254 |

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R-31

8-11-2017

(6'-3" Maximum Post Spacing)



| | | |
|--------------|-----------------|-----------|
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| PLOT SCALE = | CHECKED - BAB | REVISED - |
| PLOT DATE | DRAWN - BLB | REVISED - |
| | DATE - 10-08-18 | REVISED - |

STATE OF ILLINOIS
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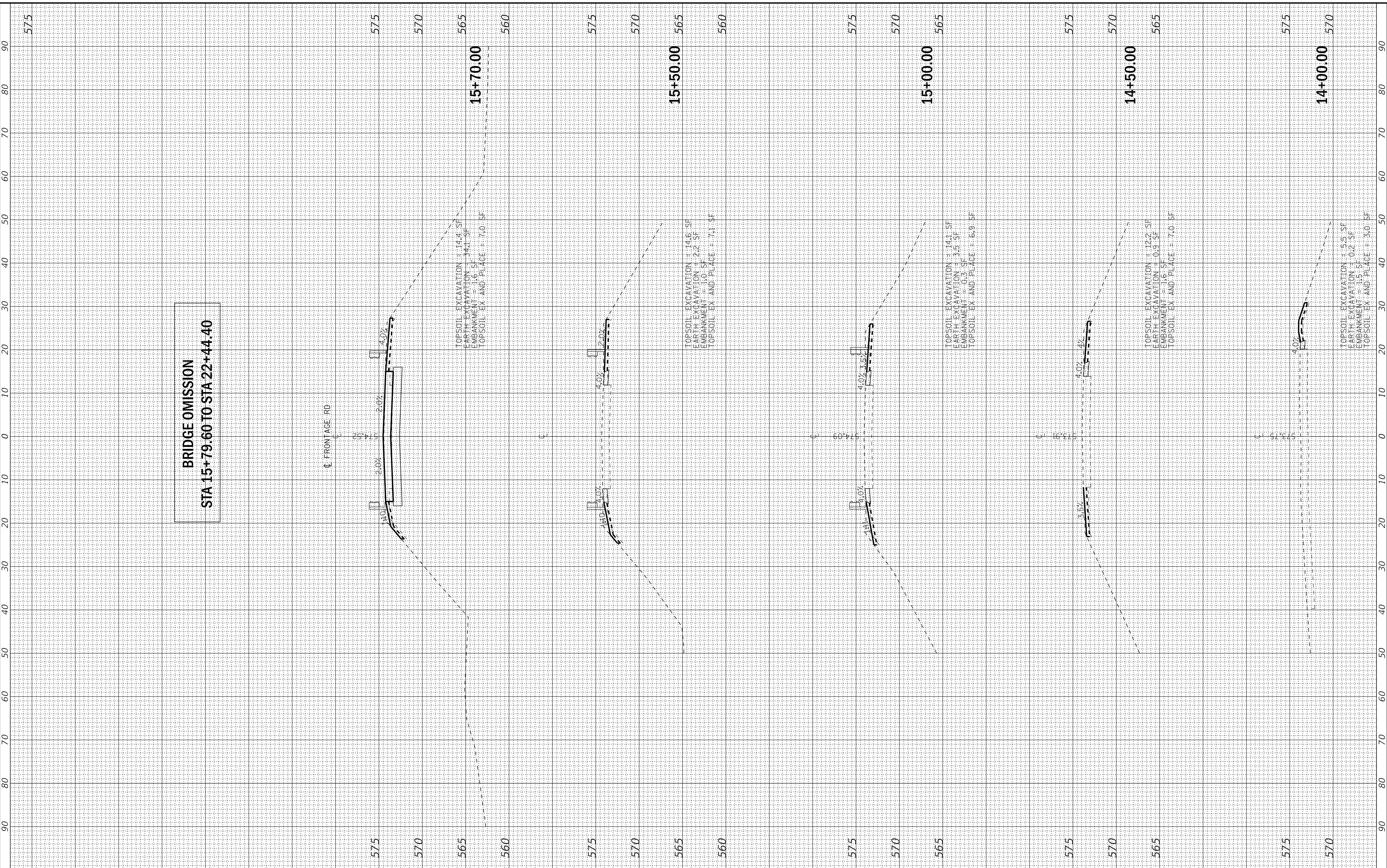
STEEL RAILING, TYPE 2399
 STRUCTURE NO. 099-0135

SHEET NO. 21 OF 21 SHEETS

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 351 | 15-00083-00-BR | WILL | 46 | 40 |
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| | | |
|------------------|--------------------------------|------|
| FINAL SURVEY NO. | SURVEYED BY | DATE |
| NO. | PLOTTED TEMPLATE AREAS CHECKED | |
| | NOTE BOOK | |



BAXTER & WOODMAN
 Consulting Engineers

| | | |
|-----------------------------|-----------------|-----------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 10.0000' / in. | DRAWN - CJC | REVISED - |
| PLOT DATE = 11/5/2018 | CHECKED - JCC | REVISED - |
| | DATE - 10-08-18 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: 1" = 10' H:
 1" = 5' V

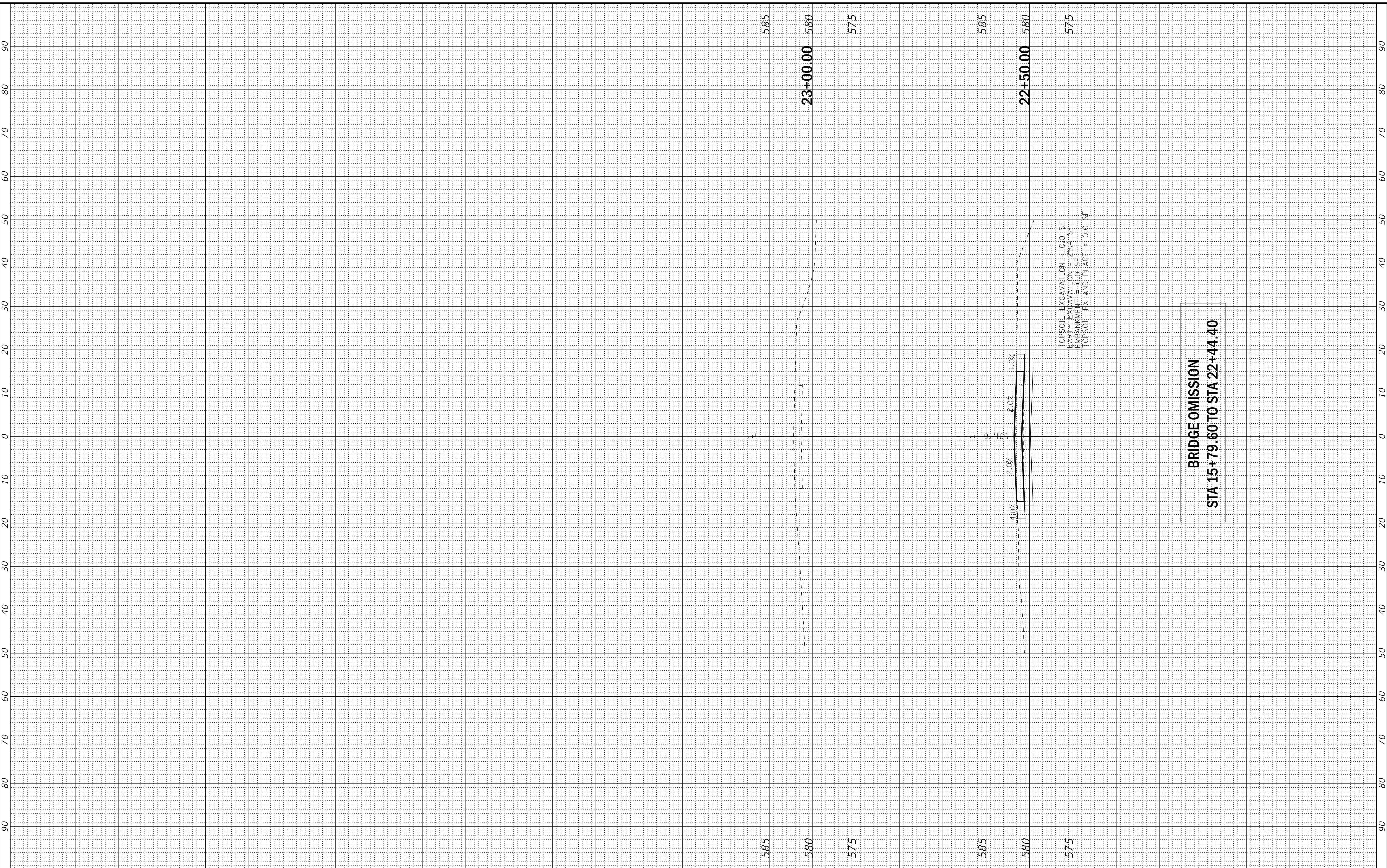
SHEET 1 OF 2 SHEETS STA. 14+00.00 TO STA. 16+00.00

CROSS SECTIONS

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 45 |
| CONTRACT NO. 61F12 | | | | |
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| FINAL SURVEY NO. | SURVEY PLOTTED | BY | DATE |
| NOTE BOOK | TEMPLATE | | |
| AREAS | CHECKED | | |



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|-----------------------------|-----------------|-----------|
| USER NAME = 488cac | DESIGNED - CAC | REVISED - |
| PLOT SCALE = 10.0000' / in. | DRAWN - CJC | REVISED - |
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: $\frac{1"}{50'}$ H: $\frac{1"}{10'}$ V

SHEET 2 OF 2 SHEETS STA. 21+00.00 TO STA. 20+50.00

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------|----------|------------------|-----------|
| 351 | 15-00083-00-BR | WILL | 46 | 46 |
| CONTRACT NO. 61F12 | | | | |
| | | ILLINOIS | FED. AID PROJECT | |