

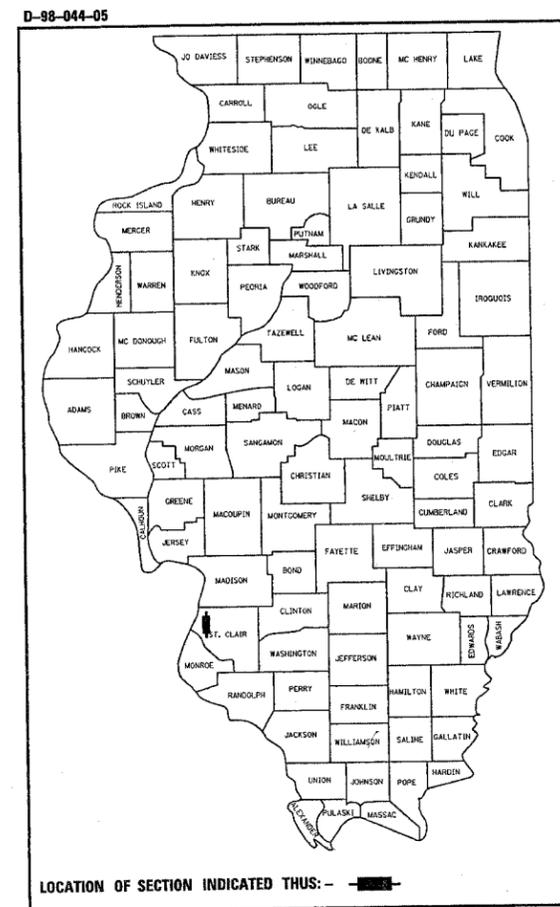
| F.A.P. RTE. | SECTION  | COUNTY    | TOTAL SHEETS | SHEET NO. |
|-------------|----------|-----------|--------------|-----------|
| 592         | 28BR-2,3 | ST. CLAIR | 51           | 1         |

50 total sheets

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PROPOSED  
HIGHWAY PLANS**  
FAP ROUTE 592 (IL13-157)  
SECTION 28BR-2,28BR-3

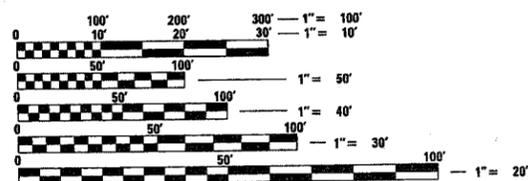
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT NO: ACBRF-ACBHF-0592 (048)  
**REMOVE AND REPLACE WITH BOX CULVERT  
AND SUPERSTRUCTURE REPLACEMENT**  
**ST. CLAIR COUNTY**  
**C-98-111-05**



PROJECT ENGINEER: PATTI LEBEAU (618) 346-3179  
SQUAD LEADER: ART MUEHLFELD (618) 346-3209

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



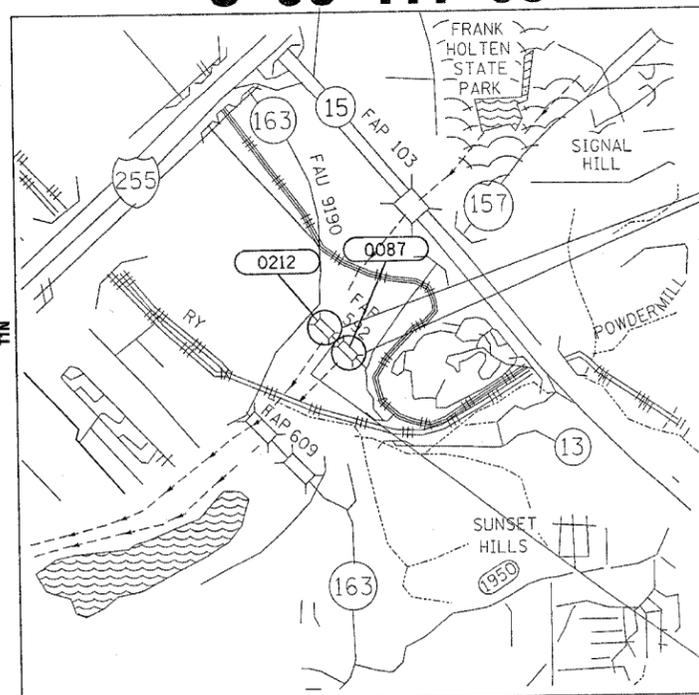
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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



TRAFFIC DATA  
ADT = 7300 (2007)  
ADT = 3900 (2027)  
SU = 2.8%  
MU = 1.1%

DESIGN DESIGNATION  
8900 (07) ARTERIAL 3.81 (HMA-20)

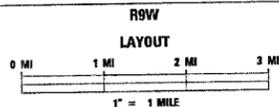


PROJECT LOCATIONS  
IL 13157 OVER CANAL NO. 1  
S.N. 082-0087, AT STA. 426+56.34  
  
IL 13157 OVER HARDING DITCH  
S.N. 082-0212, AT STA. 435+93.16

GROSS LENGTH: OVER CANAL NO. 1 = .066 MI.  
OVER HARDING DITCH = .041 MI.  
  
NET LENGTH: OVER CANAL NO. 1 = .066 MI.  
OVER HARDING DITCH = .041 MI.

OMISSION  
STA. 429+99.51 TO  
STA. 435+23.16

CANAL NO. 1  
LATITUDE: Y: 38.56017  
LONGITUDE: X: 90.55167



HARDING DITCH  
LATITUDE: Y: 38.56178  
LONGITUDE: X: 90.10367

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
  
SUBMITTED December 14, 2006  
*May C. Janic*  
DEPUTY DIRECTOR OF HIGHWAYS  
REGION FIVE ENGINEER  
  
February 2, 2007  
*Eric E. Harau*  
ENGINEER OF DESIGN AND ENVIRONMENT  
  
February 2, 2007  
*Milton R. Sees, P.E.*  
DIRECTOR, DIVISION OF HIGHWAYS

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

CONTRACT NO. 76904

| F.A.P. RTE.         | SECTION  | COUNTY    | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------|-----------|------------------|-----------|
| 592                 | 28BR-2,3 | ST. CLAIR | 51               | 2         |
| STA.                |          | TO STA.   |                  |           |
| FED. ROAD DIST. NO. |          | ILLINOIS  | FED. AID PROJECT |           |

**GENERAL NOTES**

- THE STANDARDS AND REVISION NUMBERS LISTED SHALL APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
- ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
  - AMEREN IP
  - AMERICAN BOTTOMS REGIONAL WASTEWATER TREATMENT FACILITY
  - AMEREN UE
  - CENTERPOINT ENERGY
  - COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT
  - CONOCO PHILLIPS PIPE LINE COMPANY
  - HARRISONVILLE TELEPHONE CO.
  - ILLINOIS AMERICAN WATER CO.
  - LACLEDE PIPELINE COMPANY
  - LEVEL 3 COMMUNICATIONS, LLC
  - MCI NETWORK SERVICES, INC.
  - 360 NETWORKS (USA) INC.
  - AT&T ILLINOIS

MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY •. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
- SAW CUTTING ON ALL EDGES FOR REMOVAL ITEMS SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM AS INDICATED AND ACCORDING TO SECTION 440 OF THE STANDARD SPECIFICATION.
- THE THICKNESS OF THE BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.
- THE EXISTING BEAMS SHALL BE CAREFULLY REMOVED AND DISPOSED OF OUTSIDE OF THE JOB SITE.
- THE COST OF THE BRIDGE RAIL REMOVAL SHALL BE INCLUDED IN THE COST OF REMOVAL OF THE EXISTING SUPERSTRUCTURE.
- THE ENGINEER WILL SPECIFY THE LOCATION OF THE CHANGEABLE MESSAGE SIGNS AND THE MESSAGE TO BE PLACED ON THEM. THEY SHALL BE IN PLACE A MINIMUM OF 14 DAYS PRIOR TO THE CLOSURE.
- THE WIDTHS OF BITUMINOUS SURFACE REMOVAL SHOWN ON THE PLANS ARE THE NOMINAL WIDTHS. IRREGULARITIES IN THE SURFACE WIDTH MAY OCCUR THROUGHOUT THE LENGTH OF THE SECTION. BITUMINOUS SURFACE REMOVAL WILL BE PAID FOR IN SQUARE YARDS BASED UPON THE NOMINAL WIDTHS INDICATED.
- THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE WORK TO BE PERFORMED ON IL 13 @ 157 ROUNDABOUT BY OTHER CONTRACTORS. THERE SHOULD ALSO BE COOPERATION OF CONSTRUCTION ACTIVITIES BETWEEN CONTRACTORS. THE DETOUR SIGNING SHALL BE IN PLACE PRIOR TO THE IL 13 AND 157 ROUNDABOUT PROJECT. THE LAST CONTRACTOR WORKING SHALL COMPLETE THE WORK ON THE GUARDRAIL.
- ANY REFERENCE TO "BITUMINOUS CONCRETE" SHALL BE CONSTRUED TO DENOTE "HOT MIX ASPHALT".
- RIGHT OF WAY MARKERS SHALL BE SET IN ACCORDANCE WITH SECTION 666 OF THE STANDARD SPECIFICATIONS. RIGHT OF WAY MARKERS SHALL BE SET SO THE BACK OF THE POST IS TWELVE (12") INCHES INSIDE THE RIGHT OF WAY BOUNDARY. RIGHT OF WAY PROPERTY CORNERS ARE MARKED BY A 5/8" IRON ROD WITH IDOT ALUMINUM CAP AND SHALL NOT BE REMOVED OR DAMAGED WHEN SETTING THE RIGHT OF WAY MARKERS.
- THE WETLANDS WILL BE IMPACTED BY 1.7 ACRES.

**EROSION AND SEDIMENT CONTROL NOTES**

- PLANS INCLUDE ESTIMATED QUANTITIES FOR TEMPORARY EROSION AND SEDIMENT CONTROL. THESE ARE WORST CASE ESTIMATE. DISTURBANCE OF AREAS BEYOND THE LIMITS OF ACTUAL IMPROVEMENT IS TO BE HELD TO A MINIMUM.
- TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS EXCEPT THAT MULCH AND TEMPORARY SEEDING SHALL BE PAID FOR AS TEMPORARY EROSION CONTROL SEEDING AND NO OTHER PAYMENT WILL BE PERMITTED.
- ALL AREAS DISTURBED FOR ANY REASON SHALL BE SEEDED WITH CLASS 2 SEEDING, AS DIRECTED BY THE ENGINEER. NUTRIENTS SHALL CONFORM TO ARTICLE 250.04.
- ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.
- EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
- FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE.

**COMMITMENTS**

- THE DEPARTMENT WILL NOTIFY METRO EAST SANITARY DISTRICT AND BI-STATE DEVELOPMENT AGENCY 2 WEEKS PRIOR TO THE CLOSURE OF THEIR ENTRANCES. AT THAT TIME, THE DEPARTMENT WILL ADVISE THEM OF THE DATES THE CLOSURES WILL BE IN EFFECT.
- COORDINATION EFFORTS WILL CONTINUE THROUGHOUT THE DESIGN AND CONSTRUCTION PHASES OF THE PROJECT. THE DESIGNER WILL CONTACT LOCAL OFFICIALS, HOMEOWNERS, AND BUSINESSES AS THE PROJECT IS CLOSER TO LETTING. IN ADDITION, CONSTRUCTION WILL NOTIFY THE STATE LEGISLATURES AND LOCAL OFFICIALS OF THE UPCOMING DETOUR 2 WEEKS PRIOR TO CLOSURE. THE DESIGNER WILL NOTE THIS COMMITMENT REGARDING COORDINATION EFFORTS IN THE DESIGN PLANS.
- SPECIAL EROSION CONTROL MEASURES DUE TO THE CLOSE PROXIMITY OF THE EXISTING WETLANDS WILL BE IMPLEMENTED. SIGNING AND FENCING NEED TO BE CONSIDERED TO KEEP CONSTRUCTION ACTIVITIES FROM ENTERING THE WETLANDS. REFER TO THE ATTACHED DOCUMENTS FOR SUPPLEMENTAL INFORMATION.

**INDEX OF SHEETS**

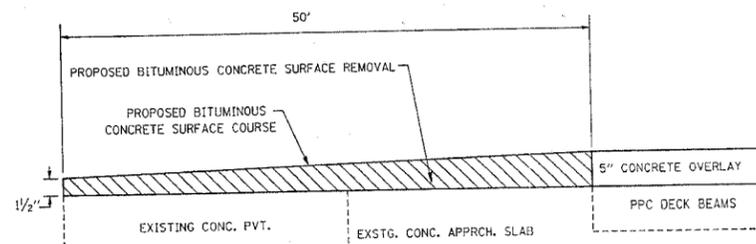
- COVER SHEET
- GENERAL NOTES AND TRANSITION DETAIL
- 4. SUMMARY OF QUANTITIES
- TYPICAL SECTIONS
- TIE POINTS AND SCHEDULES
- 8. PLAN AND ELEVATION
- 10. STORM WATER POLLUTION PREVENTION PLAN
- 13. PLAT OF HIGHWAYS
- TRAFFIC CONTROL
- DETOUR SIGNING SHEET
- 23. CROSS SECTIONS
- \*24.-51. BOX CULVERT PLANS S.N. 082-0087 AND BRIDGE PLANS S.N. 082-0212

\*38 - DELETED

**HIGHWAY STANDARDS**

|           |             |
|-----------|-------------|
| 000001-04 | 635011-01   |
| 001001-01 | 666001      |
| 001006    | 701006-02   |
| 420401-05 | 701011-01   |
| 515001-02 | 701201-02   |
| 601101    | 702001-06   |
| 630001-07 | 780001-01   |
| 630301-04 | 781001-02   |
| 631032-03 | 886001      |
| 635006-02 | 886006      |
|           | B.L.R. 21-6 |

**TRANSITION DETAIL**



| MIXTURE USE         | SURFACE      | LEVEL BINDER | BINDER/WIDENING | SHOULDERS    | TOP LIFT SHOULDERS |
|---------------------|--------------|--------------|-----------------|--------------|--------------------|
| AC/PG               | PG 64-22     | PG 64-22     | PG 64-22        | PG 58-22     | PG 58-22           |
| RAP % (MAX)         | 10%          | 10%          | 15%             | 30%          | 30%                |
| DESIGN AIR VIDS     | 4% @ Ndes=70 | 4% @ Ndes=70 | 4% @ Ndes=70    | 2% @ Ndes=30 | **2% @ Ndes=30     |
| MIX COMPOSITION     |              |              |                 |              |                    |
| (GRADATION MIXTURE) |              |              |                 |              |                    |
| FRICITION AGG       | MIXTURE "D"  | MIXTURE "C"  | MIXTURE "B"     | BAM          | BAM                |

\*\*TOP LIFT SHOULDERS - DESIGN THIS MIX AT 2.0% VOIDS AND ADD ASPHALT TO REDUCE TO 1.5%.

DATE = DATE  
 PLOT DATE = DATE  
 PLOT SCALE = SCALE  
 REFERENCE = REF

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
|           |      |
|           |      |
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|           |      |
|           |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**GENERAL NOTES, STANDARDS  
 COMMITMENTS, INDEX OF SHEETS**  
 FAP ROUTE 592 (IL 13/157)  
 SECTION 28BR-2,3  
 ST. CLAIR COUNTY  
 SCALE: VERT. \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

80% FED. / 20% STATE  
 X088-2A ACBHF X088-2A ACBHF  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES**

|                     |          |                  |              |           |
|---------------------|----------|------------------|--------------|-----------|
| CONTRACT NO. 76904  |          |                  |              |           |
| F.A.P. RTE.         | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| 592                 | 288R-2.3 | ST. CLAIR        | 51           | 3         |
| STA.                |          | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT |              |           |

| SUMMARY OF QUANTITIES |   |       | CONSTRUCTION TYPE CODE |                    |                  |                      |                    |                    |
|-----------------------|---|-------|------------------------|--------------------|------------------|----------------------|--------------------|--------------------|
| CODE NO               | ITEM  | UNIT  | TOTAL QUANTITIES       | S.N. 082-0087      |                  | S.N. 082-0212        |                    |                    |
|                       |   |       |                        | BRIDGE CANAL NO. 1 | RDWY CANAL NO. 1 | BRIDGE HARDING DITCH | RDWY HARDING DITCH | RDWY HARDING DITCH |
| 20200100              | EARTH EXCAVATION                                    | CU YD | 46                     | 46                 |                  |                      |                    |                    |
| 20400800              | FURNISHED EXCAVATION                                | CU YD | 12838                  | 12838              |                  |                      |                    |                    |
| 20700220              | POROUS GRANULAR EMBANKMENT                          | CU YD | 70                     |                    |                  | 70                   |                    |                    |
| 25000200              | SEEDING, CLASS 2                                    | ACRE  | 1.25                   | 1.25               |                  |                      |                    |                    |
| 25000400              | NITROGEN FERTILIZER NUTRIENT                        | POUND | 113                    |                    | 113              |                      |                    |                    |
| 25000500              | PHOSPHORUS FERTILIZER NUTRIENT                      | POUND | 113                    |                    | 113              |                      |                    |                    |
| 25000600              | POTASSIUM FERTILIZER NUTRIENT                       | POUND | 113                    |                    | 113              |                      |                    |                    |
| 25100105              | MULCH, METHOD 1                                     | ACRE  | 1.25                   | 1.25               |                  |                      |                    |                    |
| 28000250              | TEMPORARY EROSION CONTROL SEEDING                   | POUND | 625                    | 625                |                  |                      |                    |                    |
| 31101810              | SUB-BASE GRANULAR MATERIAL, TYPE B 12"              | SQ YD | 732                    |                    | 732              |                      |                    |                    |
| 35102000              | AGGREGATE BASE COURSE, TYPE B 8"                    | SQ YD | 80                     |                    | 80               |                      |                    |                    |
| 40600200              | BITUMINOUS MATERIALS (PRIME COAT)                   | TON   | 0.4                    |                    | 0.3              |                      | 0.1                |                    |
| 40603085              | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70         | TON   | 446                    | 446                |                  |                      |                    |                    |
| 40603340              | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70        | TON   | 99                     |                    | 77               |                      | 22                 |                    |
| 40800050              | INCIDENTAL HOT-MIX ASPHALT SURFACING                | TON   | 13                     |                    | 13               |                      |                    |                    |
| 42001165              | BRIDGE APPROACH PAVEMENT                            | SQ YD | 160                    |                    |                  | 160                  |                    |                    |
| 42001300              | PROTECTIVE COAT                                     | SQ YD | 420                    |                    |                  | 420                  |                    |                    |
| 44000155              | HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"             | SQ YD | 694                    |                    | 267              |                      | 427                |                    |
| 48101500              | AGGREGATE SHOULDERS, TYPE B 6"                      | SQ YD | 18                     | 12                 |                  | 6                    |                    |                    |
| 48203029              | HOT-MIX ASPHALT SHOULDERS, 8"                       | SQ YD | 229                    | 163                | 66               |                      |                    |                    |
| 50100100              | REMOVAL OF EXISTING STRUCTURES                      | EACH  | 1                      | 1                  |                  |                      |                    |                    |
| 50101500              | REMOVAL OF EXISTING SUPERSTRUCTURES                 | EACH  | 1                      |                    |                  | 1                    |                    |                    |
| 50102400              | CONCRETE REMOVAL                                    | CU YD | 12.5                   |                    |                  | 12.5                 |                    |                    |
| 50200100              | STRUCTURE EXCAVATION                                | CU YD | 72                     |                    |                  | 72                   |                    |                    |
| 50200300              | COFFERDAM EXCAVATION                                | CU YD | 1133                   | 1133               |                  |                      |                    |                    |
| 50200500              | COFFERDAMS  | EACH  | 1                      | 1                  |                  |                      |                    |                    |
| 50300225              | CONCRETE STRUCTURES                                 | CU YD | 16.3                   |                    |                  | 16.3                 |                    |                    |
| 50300260              | BRIDGE DECK GROOVING                                | SQ YD | 398                    |                    |                  | 398                  |                    |                    |
| 50300265              | SEAL COAT CONCRETE                                  | CU YD | 852.3                  | 852.3              |                  |                      |                    |                    |
| 50301200              | CONCRETE WEARING SURFACE                            | SQ YD | 399                    |                    |                  | 399                  |                    |                    |
| 50400305              | PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SQ FT | 3770                   |                    |                  | 3770                 |                    |                    |
| 50800105              | REINFORCEMENT BARS                                  | POUND | 50130                  | 50130              |                  |                      |                    |                    |
| 50800205              | REINFORCEMENT BARS, EPOXY COATED                    | POUND | 7600                   |                    |                  | 7600                 |                    |                    |
| 50800515              | BAR SPLICERS  | EACH  | 68                     |                    |                  | 68                   |                    |                    |
| 50901050              | STEEL RAILING, TYPE SM                              | FOOT  | 229                    |                    |                  | 229                  |                    |                    |
| 51500100              | NAME PLATES   | EACH  | 2                      | 1                  |                  | 1                    |                    |                    |

PLOT DATE = 12/11/2006  
 PLOT SCALE = 500000 / IN  
 REFERENCE = #REF#

| F.A.P. RTE.         | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|---------------------------|--------------|-----------|
| 592                 | 288R-2,3 | ST. CLAIR                 | 51           | 4         |
| STA.                |          | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

80% FED. / 20% STATE

X028-2A ACBHF      X080-2A ACBHF

# SUMMARY OF QUANTITIES

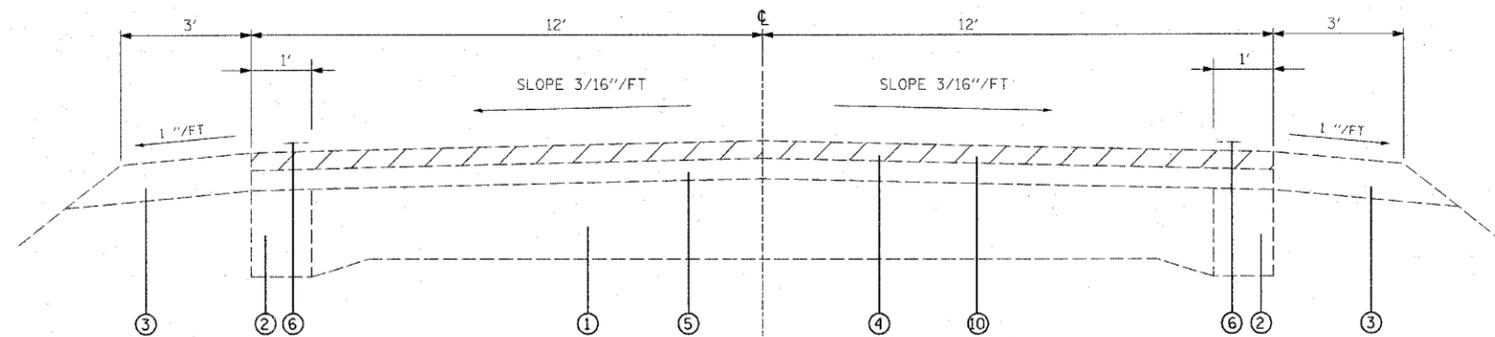
ILLINOIS DEPARTMENT OF TRANSPORTATION

| SUMMARY OF QUANTITIES |  |                 | URBAN TOTAL QUANTITIES | CONSTRUCTION TYPE CODE |                  |                      |                    |                    |     |
|-----------------------|--|-----------------|------------------------|------------------------|------------------|----------------------|--------------------|--------------------|-----|
| CODE NO               | ITEM   | UNIT            |                        | S.N. 082-0087          |                  | S.N. 082-0212        |                    |                    |     |
|                       |  |                 |                        | BRIDGE CANAL NO. 1     | RDWY CANAL NO. 1 | BRIDGE HARDING DITCH | RDWY HARDING DITCH | RDWY HARDING DITCH |     |
| 54003000              | CONCRETE BOX CULVERTS  | CU YD           | 212.1                  | 212.1                  |                  |                      | 48.2               |                    |     |
| 58700300              | CONCRETE SEALER  | SQ FT           | 48.2                   |                        |                  |                      | 34                 |                    |     |
| 59000200              | EPOXY CRACK INJECTION  | FOOT            | 34                     |                        |                  |                      |                    |                    |     |
| 59300100              | CONTROLLED LOW-STRENGTH MATERIAL                                     | CU YD           | 2.1                    |                        |                  |                      | 2.1                |                    |     |
| * 63000000            | STEEL PLATE BEAM GUARD RAIL, TYPE A                                  | FOOT            | 1370                   | 979                    |                  |                      | 391                |                    |     |
| * 63100087            | TRAFFIC BARRIER TERMINAL, TYPE 6A                                    | EACH            | 4                      |                        |                  |                      | 4                  |                    |     |
| * 63100167            | TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)                   | EACH            | 6                      | 2                      |                  |                      | 4                  |                    |     |
| 63200310              | GUARDRAIL REMOVAL  | FOOT            | 1120                   | 721                    |                  |                      | 399                |                    |     |
| 66600105              | FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS                         | EACH            | 4                      |                        | 4                |                      |                    |                    |     |
| 66700095              | PERMANENT SURVEY MARKERS   | EACH            | 2                      |                        | 2                |                      |                    |                    |     |
| 67000400              | ENGINEER'S FIELD OFFICE, TYPE A                                      | CAL MO          | 8                      | 1.6                    | 1.6              | 1.6                  | 1.6                | 1.6                | 1.6 |
| 67100100              | MOBILIZATION   | L SUM           | 1                      | 0.5                    |                  | 0.5                  |                    |                    |     |
| 70100450              | TRAFFIC CONTROL AND PROTECTION, STANDARD 701201                      | L SUM           | 1                      | 0.5                    |                  | 0.5                  |                    |                    |     |
| 70101830              | TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21                      | L SUM           | 1                      | 0.5                    |                  | 0.5                  |                    |                    |     |
| 70106800              | CHANGEABLE MESSAGE SIGN  | CAL MO          | 8                      | 1.6                    | 1.6              | 1.6                  | 1.6                | 1.6                | 1.6 |
| * 72000100            | SIGN PANEL - TYPE 1  | SQ FT           | 9                      |                        |                  |                      | 9                  |                    |     |
| * 72800100            | TELESCOPING STEEL SIGN SUPPORT                                       | FOOT            | 16                     |                        |                  |                      | 16                 |                    |     |
| * 78000200            | THERMOPLASTIC PAVEMENT MARKING - LINE 4"                             | FOOT            | 1040                   |                        | 400              |                      | 640                |                    |     |
| * 78008210            | POLYUREA PAVEMENT MARKING TYPE I - LINE 4"                           | FOOT            | 1444                   | 976                    |                  | 468                  |                    |                    |     |
| * 78100100            | RAISED REFLECTIVE PAVEMENT MARKER                                    | EACH            | 8                      | 4                      |                  | 4                    |                    |                    |     |
| * 78200410            | GUARDRAIL MARKERS, TYPE A  | EACH            | 32                     | 16                     |                  | 16                   |                    |                    |     |
| * 78201000            | TERMINAL MARKER - DIRECT APPLIED                                     | EACH            | 6                      | 2                      |                  | 4                    |                    |                    |     |
| 78300200              | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL                            | EACH            | 5                      | 2                      |                  | 3                    |                    |                    |     |
| * 88600100            | DETECTOR LOOP, TYPE I  | FOOT            | 26                     |                        |                  |                      |                    |                    | 26  |
| X0323491              | SLOPEWALL CRACK SEALING  | FOOT            | 130                    |                        |                  | 130                  |                    |                    |     |
| <del>X0323557</del>   | <del>BRIDGE JOINT SYSTEM (EXPANSION), 1/4"</del>                     | <del>FOOT</del> | <del>66</del>          |                        |                  | <del>66</del>        |                    |                    |     |
| X0325244              | PREFORMED JOINT STRIP SEAL   | FOOT            | 66                     |                        |                  | 66                   |                    |                    |     |
| X0324952              | DETOUR SIGNING   | L SUM           | 1                      | 0.5                    |                  | 0.5                  |                    |                    |     |
| X0325305              | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT           | 193                    |                        |                  | 193                  |                    |                    |     |
| Z0001900              | ASBESTOS BEARING PAD REMOVAL   | EACH            | 66                     | 66                     |                  |                      |                    |                    |     |
| Z0065700              | SLOPE WALL REPAIR  | SQ YD           | 8                      |                        |                  | 8                    |                    |                    |     |
| ©Z0070600             | TRAINEES   | HOUR            | 1000                   | 1000                   |                  |                      |                    |                    |     |

PLOT DATE = \*DATE\*  
 FILE NAME = \*SCALE\*  
 REFERENCE = \*REF\*

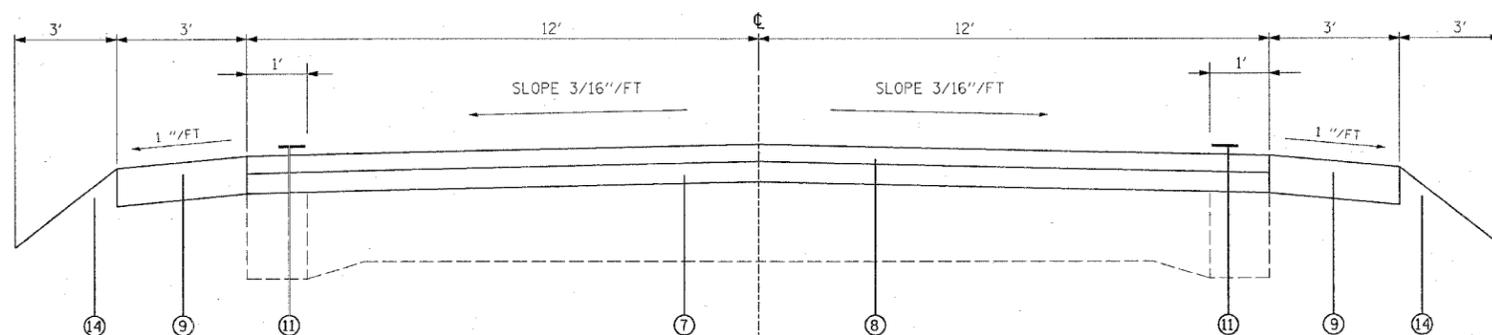
© 1980  
 \*SPECIALTY ITEMS

Rev.



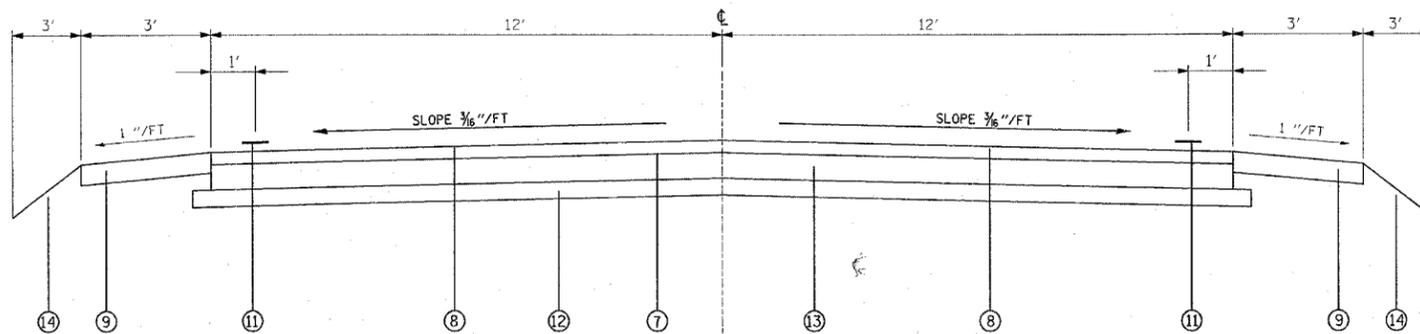
**EXISTING TANGENT SECTION**

CANAL # 1: STA. 426+56.34 TO STA. 429+99.91  
 HARDING DITCH: STA. 435+93.16 TO STA. 436+73.16  
 STA. 436+90.56 TO STA. 438+70.56



**PROPOSED TANGENT SECTION**

CANAL # 1: STA. 426+56.34 TO STA. 427+06.34  
 STA. 429+49.91 TO STA. 429+99.91  
 HARDING DITCH: STA. 435+93.16 TO STA. 436+73.16  
 STA. 436+90.56 TO STA. 438+70.56



**PROPOSED TANGENT SECTION**

STA. 427+06.34 TO STA. 429+49.91

**LEGEND**

- ① EXISTING PAVEMENT 9-6-9
- ② EXISTING BASE COURSE WIDENING, 8"
- ③ EXISTING AGGREGATE SHOULDER
- ④ EXISTING BITUMINOUS CONCRETE SURFACE COURSE, 1 1/2"
- ⑤ EXISTING BINDER COURSE, 1 1/2"
- ⑥ EXISTING PAVEMENT MARKING
- ⑦ PROPOSED HOT-MIX ASPHALT MATERIALS (PRIME COAT)
- ⑧ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, SUPERPAVE, 1 1/2"
- ⑨ PROPOSED HOT-MIX ASPHALT SHOULDER, TYPE B, 8" (CANAL #1)
- ⑩ PROPOSED BITUMINOUS SURFACE REMOVAL, 1 1/2"
- ⑪ PROPOSED PAVEMENT MARKING
- ⑫ PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B 12"
- ⑬ PROPOSED HOT MIX ASPHALT BINDER COURSE, 12 1/4"
- ⑭ PROPOSED AGGREGATE SHOULDER, TYPE B 6" (CANAL #1)

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTIONS**  
 FAP ROUTE 592 (IL 13/157)  
 SECTION 28BR-2,3  
 ST. CLAIR COUNTY

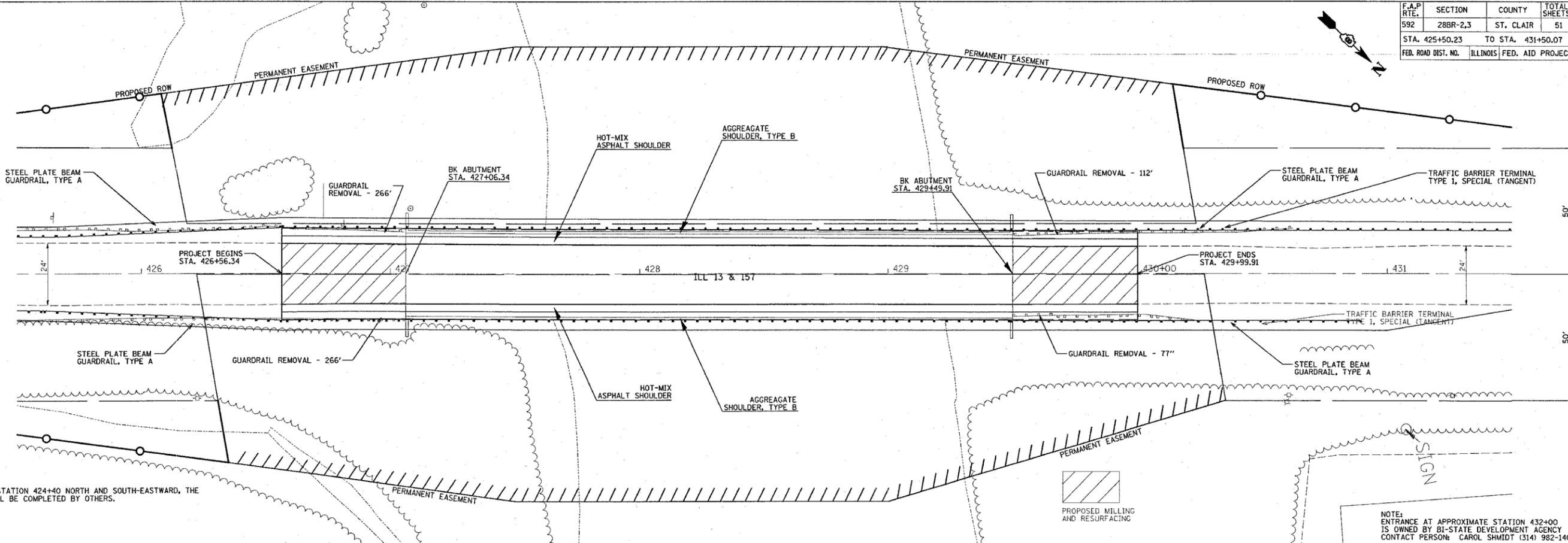
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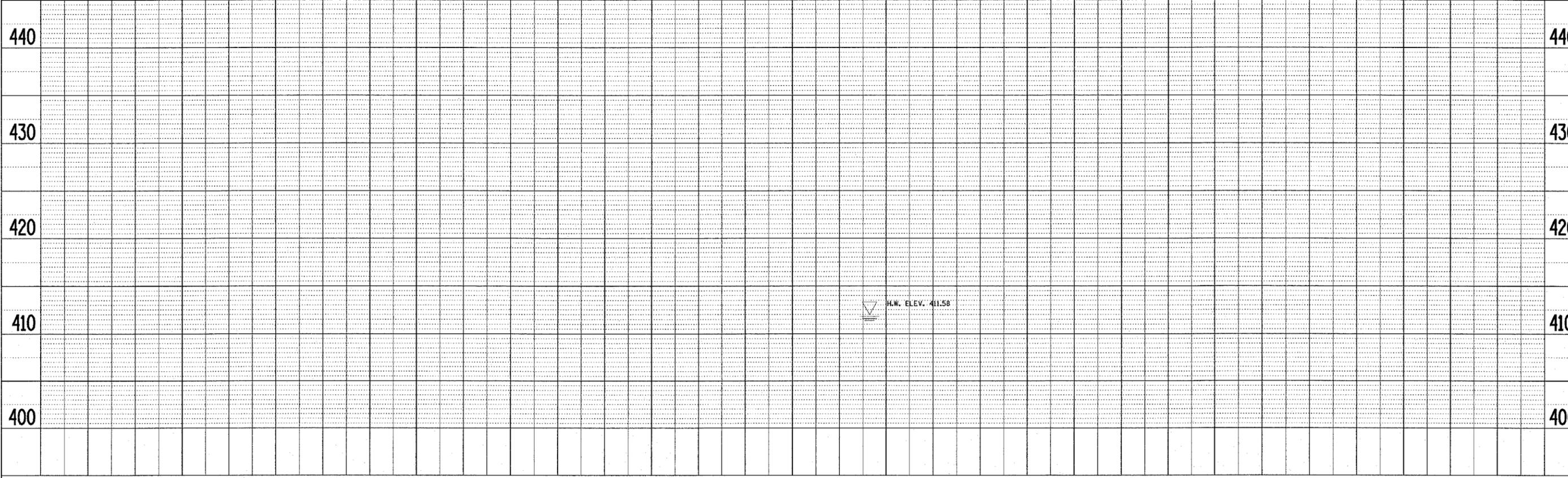


| F.A.P. RTE.         | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
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| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 7         |
| STA. 425+50.23      |          | TO STA. 431+50.07         |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |



NOTE: FROM STATION 424+40 NORTH AND SOUTH-EASTWARD, THE GUARDRAIL WILL BE COMPLETED BY OTHERS.

NOTE: ENTRANCE AT APPROXIMATE STATION 432+00 IS OWNED BY BI-STATE DEVELOPMENT AGENCY CONTACT PERSON: CAROL SHMIDT (314) 982-1400



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 PLOT SCALE = 20,000 / 1 IN.  
 USER NAME = elford

| F.A.P. RTE.         | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
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| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 8         |
| STA.                |          | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

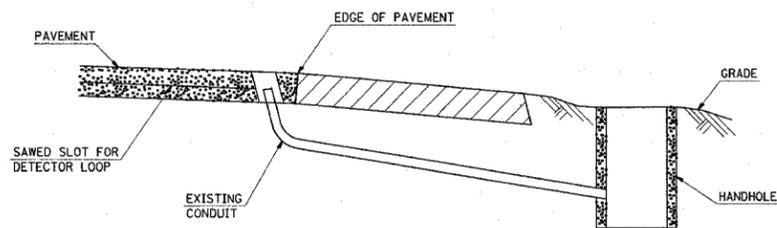
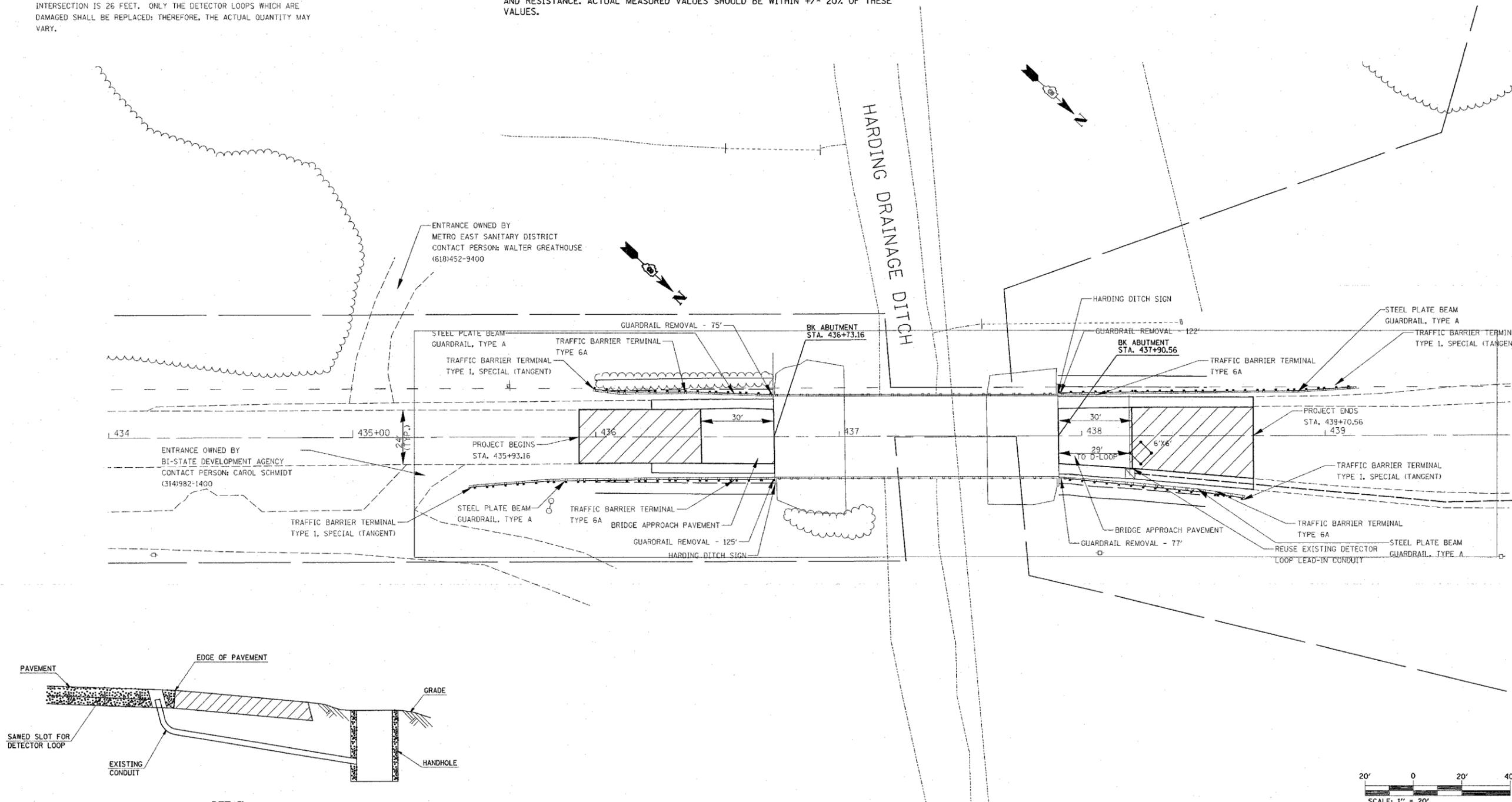
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS

| LOOP        | PHASE (φ) | LOOP SIZE(FT) | REQUIRED # OF TURNS | CALCULATED INDUCTANCE MICROHENRIES (μH) | CALCULATED RESISTANCE OHMS (Ω) |
|-------------|-----------|---------------|---------------------|---|--------------------------------|
| WB THRU L-1 | 2         | 6' X 6'       | 6                   | 633.82                                  | 3.99                           |

THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

NOTES:

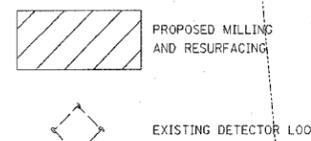
1. THE EXISTING HANDHOLES AND CONDUITS SHALL BE REUSED. IF THEY HAVE BEEN DAMAGED, THEY SHALL BE REPLACED AT THE COST OF THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION AND TO THE SATISFACTION OF THE ENGINEER.
2. THE TOTAL QUANTITY OF DETECTOR LOOPS, TYPE 1 AT THIS INTERSECTION IS 26 FEET. ONLY THE DETECTOR LOOPS WHICH ARE DAMAGED SHALL BE REPLACED; THEREFORE, THE ACTUAL QUANTITY MAY VARY.



DETAIL (NO SCALE)  
RE-USE EXISTING DETECTOR LOOP LEAD-IN CONDUIT

- 1 DRILL OUT PAVEMENT SEALANT AND CLEAN EXISTING CONDUIT.
- 2 REMOVE EXISTING CABLE TO HANDHOLE.
- 3 INSTALL LOOP LEAD-IN CONDUCTORS IN CONDUIT.
- 4 SPLICE NEW DETECTOR LOOP LEAD-IN CONDUCTORS TO EXISTING LEAD-IN CABLE IN HANDHOLE.
- 5 FILL HOLE WITH APPROVED SEALER. PREVENT SEALER FROM ENTERING INTO CONDUIT.

NOT A PAY ITEM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "DETECTOR LOOP, TYPE 1"



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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN VIEW**  
FAP ROUTE 592 (IL13/157)  
SECTION 28BR-2,3  
ST. CLAIR COUNTY

PLOT DATE \* DATES \*  
FILE NAME \* FILE # \*  
USER NAME \* USER #

| F.A.P. RTE.         | SECTION  | COUNTY   | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------|----------|------------------|-----------|
| 592                 | 28BR-2,3 | ST CLAIR | 51               | 9         |
| STA.                |          | TO STA.  |                  |           |
| FED. ROAD DIST. NO. |          | ILLINOIS | FED. AID PROJECT |           |

STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

1. THE PROJECT CONSISTS OF REMOVAL OF AN EXISTING STRUCTURE + REPLACEMENT WITH A BOX CULVERT AND SUPERSTRUCTURE REPLACEMENT.
2. CONSTRUCTION INCLUDES EXCAVATION, EMBANKMENT, AND PAVEMENT

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. EXCAVATION AND EMBANKMENT WILL BE COMPLETED AT VARIOUS LOCATIONS ALONG THE JOB SITE TO GRADE OUT FOR PROPOSED ROADWAY WIDENING AND DITCHES.
2. CHANNEL EXCAVATION TO PROVIDE FOR REALIGNED FLOW INTO BOX CULVERT.
3. PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERMETER EROSION BARRIER, TEMPORARY SEEDING, ETC.
4. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS EROSION CONTROL BLANKET, SEEDING, ETC.
5. FINAL GRADING, PAVING, AND OTHER MISCELLANEOUS ITEMS.

AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 2.475 ACRES OF WHICH 1.14 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:

1. INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.
2. PROJECT PLAN DOCUMENTS, STANDARD SPECIFICATIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

1. LIST ALL CREEKS AND OR WATERWAYS
2. HARDING DITCH

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL

DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

1. THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
  - (a.) AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.
  - (b.) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.
  - (c.) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.
  - (d.) BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.
  - (e.) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREAS WHICH ARE HIGHLY ERODABLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.
  - (f.) AT LOCATIONS WHERE A SIGNIFICANT AMOUNT OF WATER DRAINS INTO THE CONSTRUCTION ZONE FROM OUTSIDE AREAS (ADJACENT LANDOWNERS), TEMPORARY DITCH CHECKS WILL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES, AND COLLECT OUTSIDE SILTATION INSIDE THE RIGHT-OF-WAY LINE.
2. ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVERSEEDING CAN BE COMPLETED.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

*Mary C. Jamis* 12-17-46  
 DEPUTY DIRECTOR OF HIGHWAYS DATE  
 REGION FIVE ENGINEER

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STORM WATER POLLUTION  
 PREVENTION PLAN**  
 FAP ROUTE 592  
 SECTION 28BR-2,3  
 ST CLAIR COUNTY

SCALE: VERT. \_\_\_\_\_  
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| F.A.P. RTE.         | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
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| 592                 | 28BR-2,3 | ST CLAIR         | 51           | 10        |
| STA.                |          | TO STA.          |              |           |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT |              |           |

DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
  - (a.) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
  - (b.) EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.
  - (c.) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:
    - I. PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
    - II. TEMPORARILY SEED ERODABLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODABLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
    - III. CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
    - IV. TEMPORARILY DIVERT WATER AROUND PROPOSED CULVERT LOCATIONS.
    - V. BUILD NECESSARY EMBANKMENT AT CULVERT LOCATIONS AND THEN EXCAVATE AND PLACE CULVERT.
    - VI. CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE AT THE SAME TIME, PLACING PERMANENT CONTROL SUCH AS RIPRAP DITCH LINING AND CONDUCTING FINAL SHAPING TO THE SLOPES.
  - (d.) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR 7 DAYS.
  - (e.) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
  - (f.) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.
  - (g) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION.
  - (h) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR TEMPORARY EROSION CONTROL SYSTEM.

DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

1. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED.
2. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

MAINTENANCE AFTER CONSTRUCTION:

1. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T. FINAL INSPECTION. MAINTENANCE UP TO THIS DATE WILL BE BY THE CONTRACTOR.

MISCELLANEOUS:

1. TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY FT. FALL/RISE IN DITCH GRADE.
2. TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3- REMOVE AT END OF CONSTRUCTION.
3. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRES.
4. MULCH AS APPLIED TO TEMPORARY EROSION CONTROL SEEDING SHALL BE BY THE METHOD SPECIFIED IN THE CONTRACT AND AT THE DIRECTION OF THE ENGINEER. MULCH WILL BE PAID SEPARATELY AND SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS.
5. CONSTRUCT PERIMETER EROSION CONTROL AT BEGINNING OF CONSTRUCTION. REMOVE AT END OF CONSTRUCTION.
6. ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

LEGEND

-  TEMPORARY DITCH CHECK- ROLLED EXCELSIOR, SILT WEDGES/PANELS
-  TEMPORARY DITCH CHECK- AGGREGATE
-  EROSION CONTROL BLANKET
-  PERIMETER EROSION BARRIER- SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
-  INLET AND PIPE PROTECTION- STRAW BALES, FILTER FABRIC, AGGREGATES

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 FILE NAME \* FILE \*  
 PLOT SCALE \* SCALE \*  
 REFERENCE \* REF \*

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STORM WATER POLLUTION  
 PREVENTION PLAN**  
 FAP ROUTE 529  
 SECTION 28BR-2,3  
 ST CLAIR COUNTY

SCALE: VERT.  
 HORIZ.  
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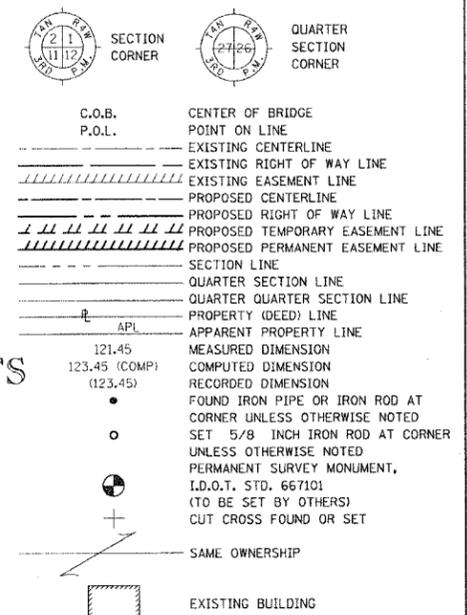
CAHOKIA COMMONFIELDS

PLAT BOOK E, PAGES 16-17  
Recorded January 18, 1881

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

| FAP NO.                          | SECTION        | COUNTY    | TOTAL SHEETS | SHEET NO. |
|----------------------------------|----------------|-----------|--------------|-----------|
| 592                              | 28BR-2, 28BR-3 | ST. CLAIR | 51           | 11        |
| STA. 424+29.47 TO STA. 431+75.00 |                |           |              |           |
| CONTRACT NO.:                    |                |           |              |           |

LEGEND



CAYA TRACT

PLAT BOOK A, PAGE 74  
Recorded November 17, 1860

METRO EAST SANITARY DISTRICT, OF THE COUNTY MADISON AND STATE OF ILLINOIS  
BK. 3289, PG. 784  
10-12-1998

VOUDRIE TRACTS

PLAT BOOK 41, PAGE 89  
Recorded May 1, 1940

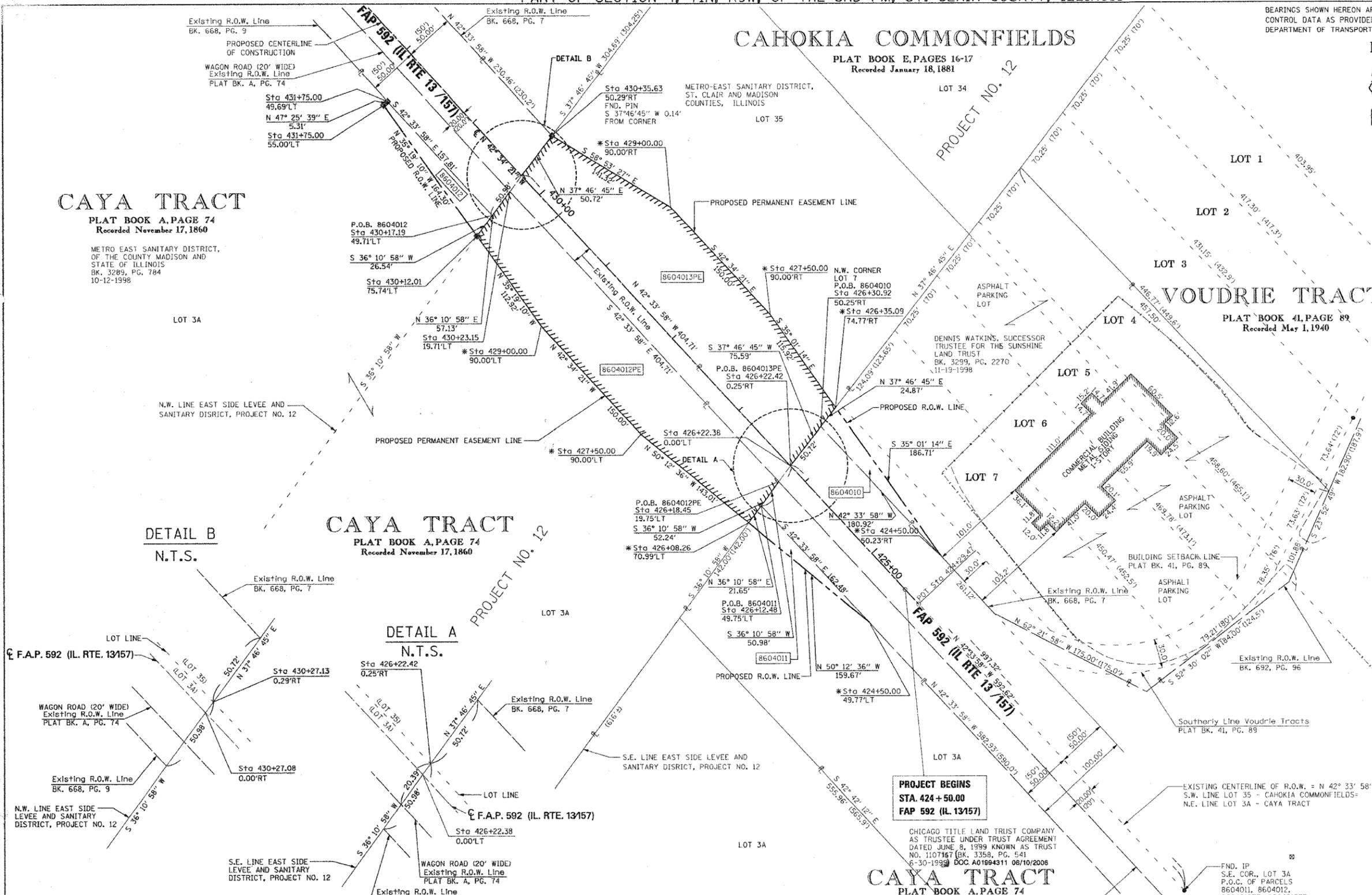
CAYA TRACT

PLAT BOOK A, PAGE 74  
Recorded November 17, 1860

CAYA TRACT

PLAT BOOK A, PAGE 74  
Recorded November 17, 1860

| NO. | DATE | DESCRIPTION |
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- STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- \* COULD NOT SET PINS DUE TO THE POINTS FALLING IN THE WATER

STATE OF ILLINOIS  
COUNTY OF ST. CLAIR  
I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAY SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATED April 20, 2006  
Tony Hard  
TONY HARD, PLS NO. 2953  
LICENSE EXPIRATION DATE: 11/30/2006

**McDonough-Whitlow, P.C.**  
Consulting Engineers & Land Surveyors  
138 East Wood Street  
Hillsboro, IL 62049  
Phone: 217.532.9233  
Fax: 217.532.6300  
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PLAT OF HIGHWAYS  
FAP ROUTE 592 (IL 13157)  
SECTION 28BR-2, 28BR-3  
ST. CLAIR COUNTY  
JOB NO. R-98-004-06  
STATION 424+29.47 TO STATION 431+75.00  
50' 0 50' 100'  
SCALE: 1" = 50'  
COMPLETION DATE OF FIELD WORK PERFORMED  
LAND SURVEY: 02-14-2006  
RIGHT OF WAY STAKING: 03-30-2006  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINSVILLE, ILLINOIS 62234-6198  
SHEET 1 IS A COVER SHEET

| PARCEL NO. | OWNER  | TOTAL HOLDING ACRES | FEE SIMPLE ACQUISITION |         |                            |           | REMAINDER ACRES | EASEMENTS            |                      | PERMANENT TAX NUMBER | PROPERTY ACQUIRED BY |                                    |                                    |
|------------|--|---------------------|------------------------|---------|----------------------------|-----------|-----------------|----------------------|----------------------|----------------------|----------------------|------------------------------------|------------------------------------|
|            |  |                     | GROSS ACRES            | SQ. FT. | PREVIOUSLY DEDICATED ACRES | NET ACRES |                 | PE - PERMANENT ACRES | TE - TEMPORARY ACRES |                      |                      |                                    |                                    |
| 8604010    | DENNIS WATKINS, SUCCESSOR TRUSTEE FOR THE SUNSHINE LAND TRUST TITLE REPORT SC-5053.0   | 3.3866              | 0.0509                 | 2,218   | N/A                        | N/A       | 0.0509          | 2,218                | 3,3357               | N/A                  | N/A                  | 07-04-0-400-025                    |                                    |
| 8604011    | CHICAGO TITLE LAND TRUST COMPANY, AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED THE 8TH DAY OF JUNE, 1999, KNOWN AS TRUST NUMBER 1107187 TITLE REPORT SC-5046.0 | 1.8122              | 0.0396                 | 1,725   | N/A                        | N/A       | 0.0396          | 1,725                | 1,7726               | N/A                  | N/A                  | 07-04-0-306-029                    |                                    |
| 8604012    | METRO EAST SANITARY DISTRICT, OF THE COUNTY MADISON AND STATE OF ILLINOIS TITLE REPORT 5047.0  | N/A                 | 0.0571                 | 2,487   | N/A                        | N/A       | 0.0571          | 2,487                | N/A                  | 0.6032               | 26,276               | 07-04-0-306-032<br>07-04-0-301-023 | HIGHWAY CONSTRUCTION & MAINTENANCE |
| 8604013    | METRO-EAST SANITARY DISTRICT, ST. CLAIR AND MADISON COUNTIES, ILLINOIS TITLE REPORT 5049.0   | N/A                 | N/A                    | N/A     | N/A                        | N/A       | N/A             | N/A                  | N/A                  | 0.7491               | 32,632               | 07-04-0-301-023                    | HIGHWAY CONSTRUCTION & MAINTENANCE |

PLOT DATE: 02-09-06 9:05 A.M.

PART OF SECTION 4, T1N, R9W, OF THE 3RD PM, ST. CLAIR COUNTY, ILLINOIS

COORDINATES SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

| COORDINATE TABLE |             |              |                |
|------------------|-------------|--------------|----------------|
| STATION          | OFFSET      | NORTH        | EAST           |
|                  | C.P. 9911   | 688,935.2750 | 2,315,876.4840 |
| 424+29.47        | P.O.T. #210 | 689,090.4895 | 2,315,704.4886 |
| 424+50.00        | 0.00' RT    | 689,105.6082 | 2,315,690.5986 |
| 424+50.00        | 50.23' RT   | 689,139.5884 | 2,315,727.5883 |
| 424+50.00        | 49.77' LT   | 689,071.9361 | 2,315,653.9461 |
| 426+08.26        | 70.99' LT   | 689,174.1241 | 2,315,531.2532 |
| 426+12.48        | 49.75' LT   | 689,191.6025 | 2,315,544.0374 |
| 426+18.45        | 19.75' LT   | 689,216.2911 | 2,315,562.0953 |
| 426+22.42        | 0.25' RT    | 689,232.7501 | 2,315,574.1340 |
| 426+30.92        | 50.25' RT   | 689,272.8368 | 2,315,605.2050 |
| 426+35.09        | 74.77' RT   | 689,292.4935 | 2,315,620.4409 |
| 427+11.38        | P.O.T. #206 | 689,298.0931 | 2,315,513.7709 |
| 427+50.00        | 90.00' RT   | 689,387.4217 | 2,315,553.9206 |
| 427+50.00        | 90.00' LT   | 689,265.6476 | 2,315,421.3647 |
| 429+00.00        | 90.00' RT   | 689,497.8850 | 2,315,452.4422 |
| 429+00.00        | 90.00' LT   | 689,376.1109 | 2,315,319.8863 |
| 430+12.01        | 75.74' LT   | 689,468.2432 | 2,315,254.6063 |
| 430+17.19        | 49.71' LT   | 689,489.6675 | 2,315,270.2767 |
| 430+23.15        | 19.71' LT   | 689,514.3560 | 2,315,288.3347 |
| 430+27.13        | 0.29' RT    | 689,530.8151 | 2,315,300.3733 |
| 430+35.63        | 50.29' RT   | 689,570.9017 | 2,315,331.4444 |
| 430+81.42        | C.P. #10    | 689,559.4820 | 2,315,251.3240 |
| 431+75.00        | 55.00' LT   | 689,602.3051 | 2,315,159.6173 |
| 431+75.00        | 49.69' RT   | 689,605.8957 | 2,315,163.5258 |
| 440+15.86        | 0.00' RT    | 690,258.7413 | 2,314,631.2594 |
| 441+11.84        | P.O.T. #218 | 690,329.4235 | 2,314,566.3263 |

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

| FAP NO. | SECTION        | COUNTY    | TOTAL SHEETS | SHEET NO. |
|---------|----------------|-----------|--------------|-----------|
| 592     | 28BR-2, 28BR-3 | ST. CLAIR | 51           | 12        |

STA. 431+75.00 TO STA. 440+15.86  
CONTRACT NO.:

LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- C.O.B. CENTER OF BRIDGE
- P.O.L. POINT ON LINE
- EXISTING CENTERLINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- PROPOSED CENTERLINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED TEMPORARY EASEMENT LINE
- PROPOSED PERMANENT EASEMENT LINE
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER SECTION LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- APL
- 121.45 MEASURED DIMENSION
- 123.45 (COMP) COMPUTED DIMENSION
- (123.45) RECORDED DIMENSION
- FOUND IRON PIPE OR IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- SET 5/8 INCH IRON ROD AT CORNER UNLESS OTHERWISE NOTED
- PERMANENT SURVEY MONUMENT, I.D.O.T. STD. 667101 (TO BE SET BY OTHERS)
- CUT CROSS FOUND OR SET
- SAME OWNERSHIP
- EXISTING BUILDING

- STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 3/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- \* COULD NOT SET PINS DUE TO THE POINTS FALLING IN THE WATER

STATE OF ILLINOIS  
COUNTY OF ST. CLAIR  
I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.  
DATED April 20, 2006  
Tony Hard  
TONY HARD, PLS NO. 2953  
LICENSE EXPIRATION DATE: 11/30/2006

**McDonough-Whitlow, P.C.**  
Consulting Engineers & Land Surveyors  
138 East Wood Street  
Hillsboro, IL 62049  
Phone: 217.532.9233  
Fax: 217.532.6300  
PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PLAT OF HIGHWAYS  
FAP ROUTE 592 (IL 13/157)  
SECTION 28BR-2, 28BR-3  
ST. CLAIR COUNTY  
JOB NO. R-98-004-06  
STATION 431+75.00 TO STATION 440+15.86  
SCALE: 1" = 50'  
SHEET 3 OF 4  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS/DISTRICT 8  
1102 EASTPORT PLAZA DRIVE  
COLLINSVILLE, ILLINOIS 62234-6188  
SHEET 1 IS A COVER SHEET

COMPLETION DATE OF FIELD WORK PERFORMED  
LAND SURVEY: 02-14-2006  
RIGHT OF WAY STAKING: 03-30-2006

CAHOKIA COMMONFIELDS

PLAT BOOK E, PAGES 16-17  
Recorded January 18, 1881

CAHOKIA COMMONFIELDS

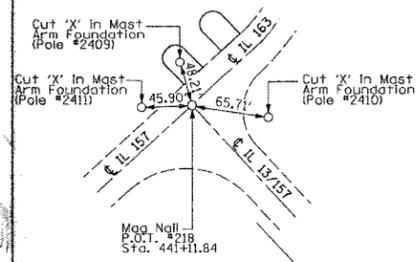
PLAT BOOK E, PAGES 16-17  
Recorded January 18, 1881

CAYA TRACT

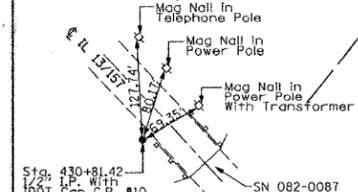
PLAT BOOK A, PAGE 74  
Recorded November 17, 1860

| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
|     |      |             |    |

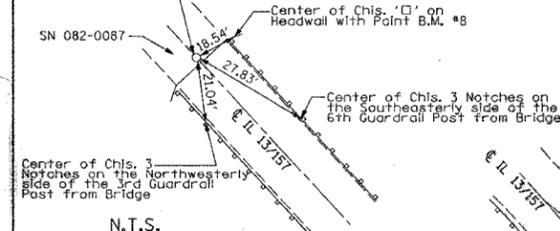
N.T.S. P.O.T. #218  
Centreyllie Beauty Supply Ties Provided by IDOT



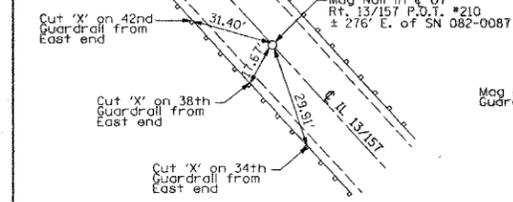
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Ties Provided by IDOT  
All measurements pulled direct



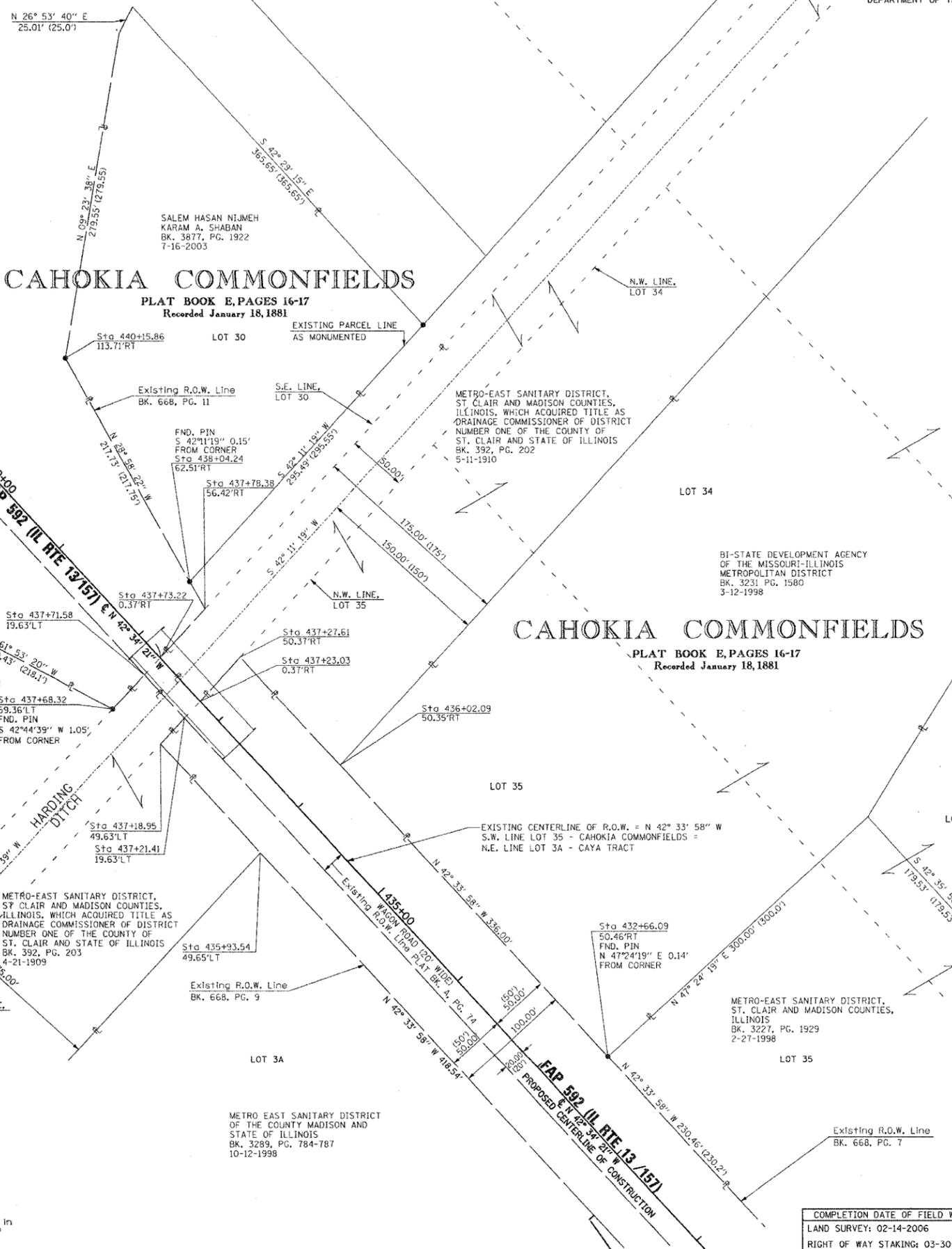
N.T.S. P.O.T. #206



N.T.S. P.O.T. #210  
Ties Provided by IDOT  
All measurements pulled direct



PROJECT ENDS  
STA. 440+15.86  
FAP 592 (IL 13/157)



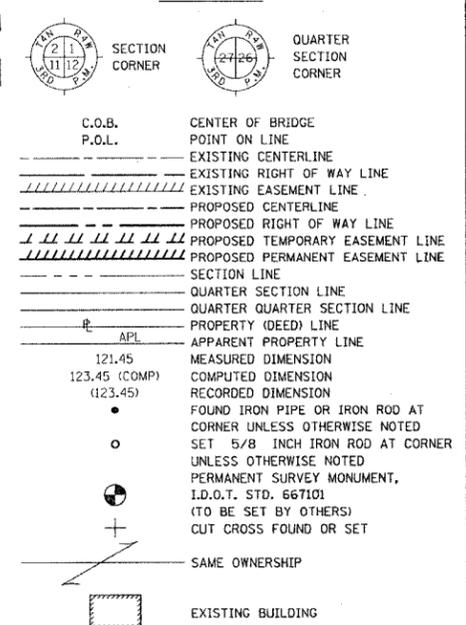
PLAT DATE: 02-09-06 9:05 A.M.

TOTAL HOLDING PLAT

BEARINGS SHOWN HEREON ARE BASED ON SURVEY CONTROL DATA AS PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

| FAP NO.                          | SECTION        | COUNTY    | TOTAL SHEETS | SHEET NO. |
|----------------------------------|----------------|-----------|--------------|-----------|
| 592                              | 28BR-2, 28BR-3 | ST. CLAIR | 51           | 13        |
| STA. 424+29.47 TO STA. 440+15.86 |                |           |              |           |
| CONTRACT NO.:                    |                |           |              |           |

LEGEND



■ STAKING OF PROPOSED RIGHT OF WAY. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■ M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. SET 5/8 INCH METAL ROD WITH DIVISION OF HIGHWAY SURVEY MARKER 20 INCHES BELOW GROUND SURFACE TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

\* COULD NOT SET PINS DUE TO THE POINTS FALLING IN THE WATER

STATE OF ILLINOIS  
 COUNTY OF ST. CLAIR

I, TONY HARD, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, CERTIFY THAT I HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THE PROPOSED PARCEL(S) TO BE ACQUIRED BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, SHOWN HEREON.

DATE: April 20, 2006  
 Tony Hard  
 TONY HARD, PLS NO. 2953  
 LICENSE EXPIRATION DATE: 11/30/2006

**McDonough-Whitlow, P.C.**  
 Consulting Engineers & Land Surveyors  
 138 East Wood Street  
 Hillsboro, IL 62049  
 Phone: 217.532.9233  
 Fax: 217.532.6300  
 PROFESSIONAL DESIGN NO. 184-002754

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAT OF HIGHWAYS**  
 FAP ROUTE 592 (IL 13/157)  
 SECTION 28BR-2, 28BR-3  
 ST. CLAIR COUNTY  
 JOB NO. R-98-004-06

STATION 424+29.47 TO STATION 440+15.86

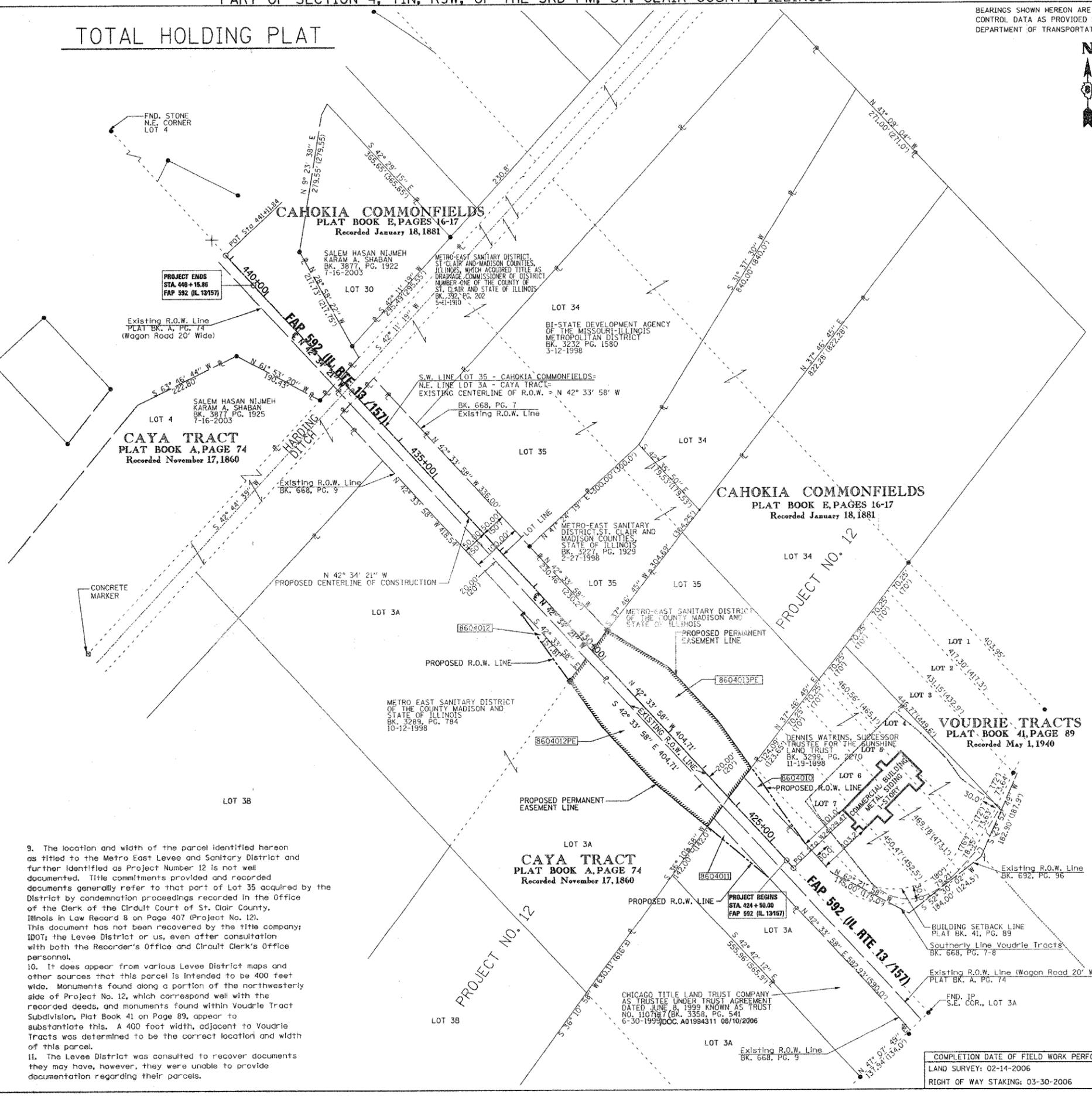
SCALE: 1" = 100'

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS/DISTRICT 8  
 1102 EASTPORT PLAZA DRIVE  
 COLLINSVILLE, ILLINOIS 62234-6198

SHEET 1 IS A COVER SHEET

NOTES

- The plat of Caya Tract (Plat Book A, Pg. 74) shows and labels the canal (Harding Ditch), but fails to clearly identify a width or whether the canal is included in the lots.
- The plat of Cahokia Commonfields (Plat Book E, Pages 16 & 17) show a double set of lines for the canal, but do not label it as such. It appears on this plat that the canal is not part of the lots. This position is reflected hereon.
- Various recorded and unrecorded documents appear to support a 50 foot width for the original canal. The deed, and the associated plat, recorded in Book 392 on Page 203, shows on the plat a total width of 175 feet, with the 150 foot subject acquisition measured from the center of the canal, thereby indicating a 50 foot original width. The text in the document describes the acquisition as "A strip of ground 150 feet in width extending across the Northwesterly end of lots 34 and 35 of the Commonfields of Cahokia being along and adjacent to the centerline of the "Old Canal". Unrecorded old maps and drawings of the canals by area surveyors and the Levee District show the total width of Harding Ditch in several places to be 175 feet, but do not provide clear information as to the location or width of the original canal. One of these documents shows the total width as 175 feet, but shows what appears to be the original canal, but dimension it such that the original canal would only be 25 feet wide. Scaling the width appears to more closely approximate a 50 foot width. This document also clearly labels the easterly side of the original canal as being the west line of Lots 33, 34 and 35.
- The deed in Record Book 360 on Page 41 describes "A strip of land 150 feet in width off of the northwesterly end of Lot three (3) of the Caya Tract". I believe this is intended to convey from the center of the original 50 foot wide canal. This maintains a total Harding Ditch width of 175 feet.
- The most direct evidence of the location of the Harding Ditch in the subject area was found on the Commonfields of Cahokia Plat. This plat shows a dimension along the northeasterly line of Lot 4, to northwesterly side of the canal, as 10.54 chains. This dimension is very close to the dimension measured in the field, from the found stone at the northeasterly corner of Lot 4 to a line of found monuments (concrete canal markers and iron pins) along the northwesterly side of Harding Ditch and southwesterly of Illinois Route 13/157. The combination of the 3 dimensions shown on the plat along the southwesterly line of Lot 4, totaling 11.75 chains, is also very close to the field measurement along the southwesterly line of Lot 4 to this line of monuments. This line of monuments was the basis used for the location of the northwesterly line of the Harding Ditch, with a 50 foot original width, and a current width of 175 feet.
- The above line of the monuments found is supported by unrecorded plats by Jeffrey B. Meyer, P.L.S., No. 2977 of Hurst-Rosche Engineers, Job Number 16138-0, dated May 15, 2000 and Daniel W. Crawford, P.L.S., 2459, File DCS547, dated September 10, 2003. The Crawford plat shows a 150 foot width for Harding Ditch southwesterly of Illinois Route 13/157 and a 175 foot width northeasterly of the highway. No recorded documentation or documents from the Levee District was recovered indicating differing widths of the canal.
- Northwesterly of Illinois Route 13/157 along a line approximately 25 feet northwesterly of the northwesterly line of Harding Ditch as located above; we recovered monuments apparently by Crawford, per an unrecorded, unsigned, undated plat provided by Crawford. This, together with other found monuments; dimensions shown on the plats of East In Tracts recorded in Plat Book 41 on Page 86 and East Weston Place recorded on August 5, 1946 as Instrument Number 471590, creates an area of uncertain ownership, between the northwesterly line of Harding Ditch and the line as apparently monumented and occupied.
- The dimensions associated with the public road rights of way described in Deed Book 668 on Pages 7, 9 and 11 appear to only fit if those dimensions are to the centerline of the original canal, whereas they are clearly shown on the plat thereof as being to the edge. The monuments found in this area appear to agree with this interpretation. Since the conveyance was from a private individual, the road right of way in the canal area could not have been acquired by the Town of Centreville. The plat hereon reflects this opinion.
- The location and width of the parcel identified hereon as titled to the Metro East Levee and Sanitary District and further identified as Project Number 12 is not well documented. Title commitments provided and recorded documents generally refer to that part of Lot 35 acquired by the District by condemnation proceedings recorded in the Office of the Clerk of the Circuit Court of St. Clair County, Illinois in Law Record 8 on Page 407 (Project No. 12). This document has not been recovered by the title company IDOT; the Levee District or us, even after consultation with both the Recorder's Office and Circuit Clerk's Office personnel.
- It does appear from various Levee District maps and other sources that this parcel is intended to be 400 feet wide. Monuments found along a portion of the northwesterly side of Project No. 12, which correspond well with the recorded deeds, and monuments found within Voudrie Tract Subdivision, Plat Book 41 on Page 89, appear to substantiate this. A 400 foot width, adjacent to Voudrie Tracts was determined to be the correct location and width of this parcel.
- The Levee District was consulted to recover documents they may have, however, they were unable to provide documentation regarding their parcels.



| NO. | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
|     |      |             |    |

PLOT DATE: 02-09-06 9:05 A.M.

|                     |          |                           |              |           |
|---------------------|----------|---------------------------|--------------|-----------|
| CONTRACT NO. 76904  |          |                           |              |           |
| F.A.P. RTE.         | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 14        |
| STA.                |          | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

•LIGHT ALL BARRICADES

**ROAD CLOSED**  
R11-2

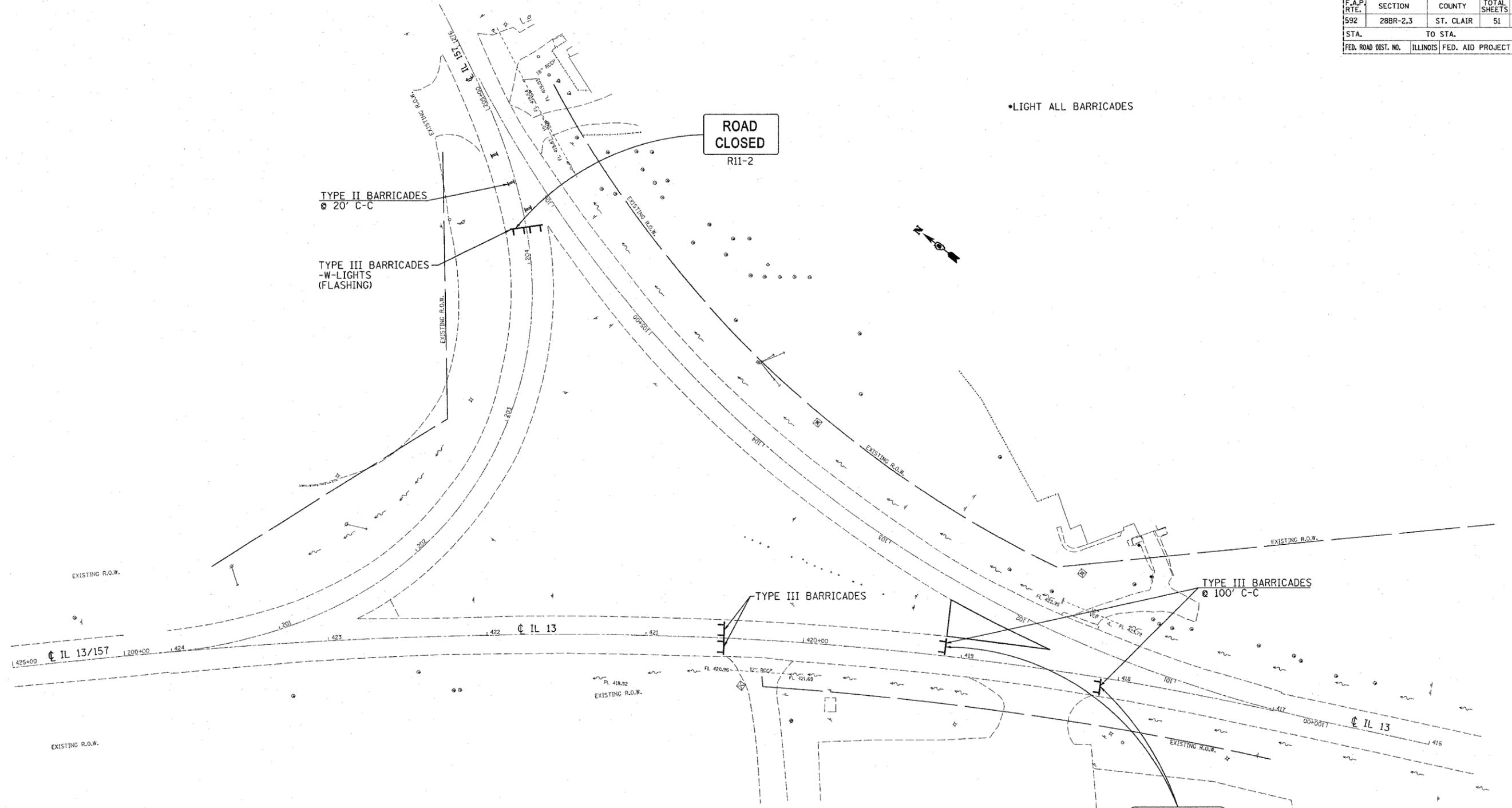
TYPE II BARRICADES  
@ 20' C-C

TYPE III BARRICADES  
-W-LIGHTS  
(FLASHING)

TYPE III BARRICADES  
@ 100' C-C

TYPE III BARRICADES

**ROAD CLOSED TO THRU TRAFFIC**  
R11-4

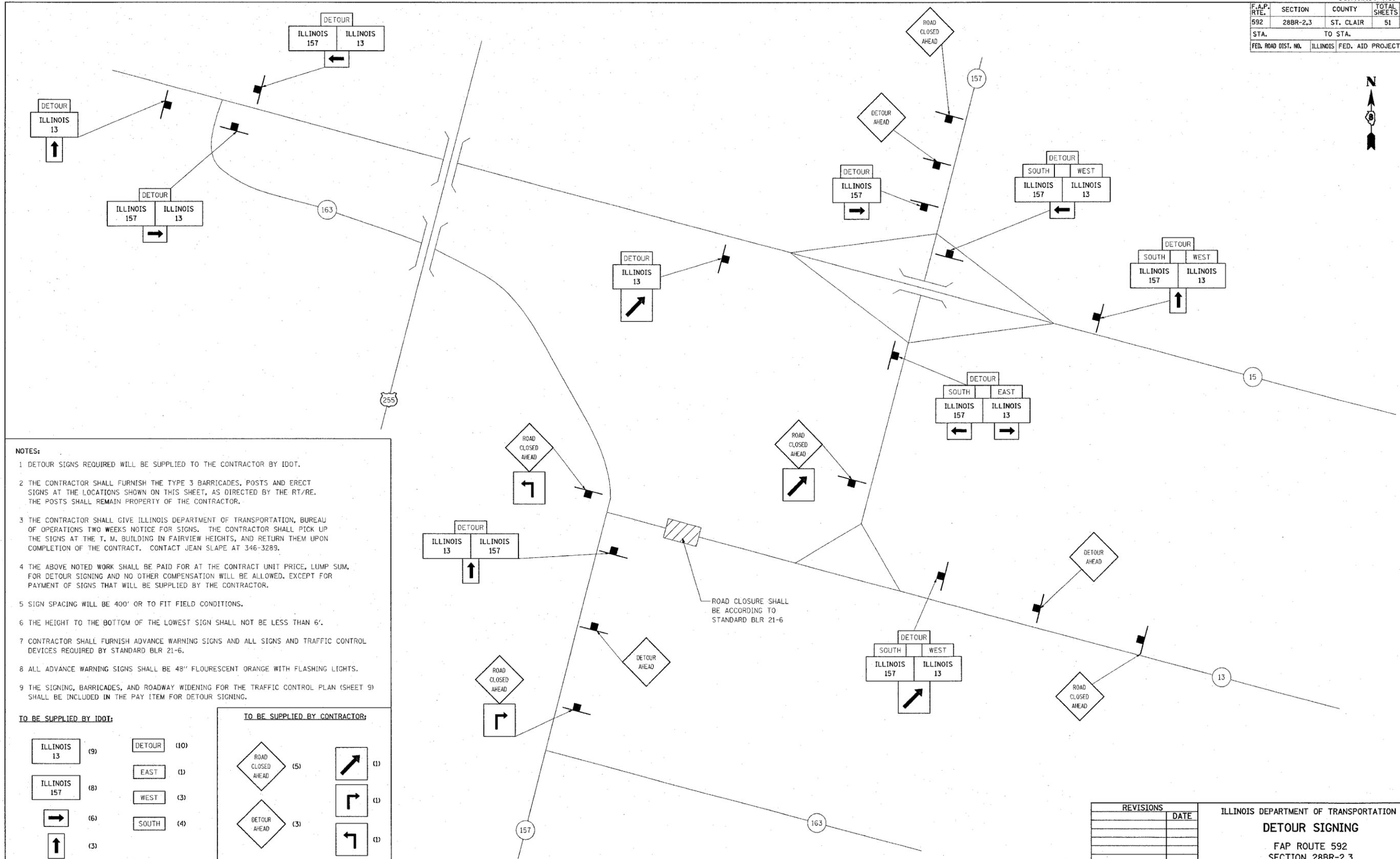


PLOT DATE = #DATE#  
FILE NAME = #FILE#  
USER NAME = #USER#

| REVISIONS |      |
|-----------|------|
| NAME      | DATE |
|           |      |
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL PLAN**  
FAP ROUTE 592 (IL13/157)  
SECTION 28BR-2,3  
ST. CLAIR COUNTY

|                     |          |                           |              |           |
|---------------------|----------|---------------------------|--------------|-----------|
| F.A.P. RTE.         | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 15        |
| STA.                |          | TO STA.                   |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |



- NOTES:**
- 1 DETOUR SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY IDOT.
  - 2 THE CONTRACTOR SHALL FURNISH THE TYPE 3 BARRICADES, POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RT/RE. THE POSTS SHALL REMAIN PROPERTY OF THE CONTRACTOR.
  - 3 THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T. M. BUILDING IN FAIRVIEW HEIGHTS, AND RETURN THEM UPON COMPLETION OF THE CONTRACT. CONTACT JEAN SLAPE AT 346-3289.
  - 4 THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR DETOUR SIGNING AND NO OTHER COMPENSATION WILL BE ALLOWED. EXCEPT FOR PAYMENT OF SIGNS THAT WILL BE SUPPLIED BY THE CONTRACTOR.
  - 5 SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
  - 6 THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
  - 7 CONTRACTOR SHALL FURNISH ADVANCE WARNING SIGNS AND ALL SIGNS AND TRAFFIC CONTROL DEVICES REQUIRED BY STANDARD BLR 21-6.
  - 8 ALL ADVANCE WARNING SIGNS SHALL BE 48" FLOURESCENT ORANGE WITH FLASHING LIGHTS.
  - 9 THE SIGNING, BARRICADES, AND ROADWAY WIDENING FOR THE TRAFFIC CONTROL PLAN (SHEET 9) SHALL BE INCLUDED IN THE PAY ITEM FOR DETOUR SIGNING.

|                                |             |                                      |       |
|--------------------------------|-------------|--------------------------------------|-------|
| <b>TO BE SUPPLIED BY IDOT:</b> |             | <b>TO BE SUPPLIED BY CONTRACTOR:</b> |       |
| ILLINOIS 13 (9)                | DETOUR (10) | ROAD CLOSED AHEAD (5)                | ↗ (1) |
| ILLINOIS 157 (8)               | EAST (1)    | DETOUR AHEAD (3)                     | ↖ (1) |
| → (6)                          | WEST (3)    |                                      | ↙ (1) |
| ↑ (3)                          | SOUTH (4)   |                                      |       |
| ↗ (2)                          |             |                                      |       |

CONTRACTOR SHALL ALSO SUPPLY ALL SIGNS REQUIRED BY STANDARD BLR 21-6.

| REVISIONS |  | DATE |
|-----------|--|------|
|           |  |      |
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|           |  |      |

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DETOUR SIGNING**  
 FAP ROUTE 592  
 SECTION 28BR-2,3  
 ST. CLAIR COUNTY

SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

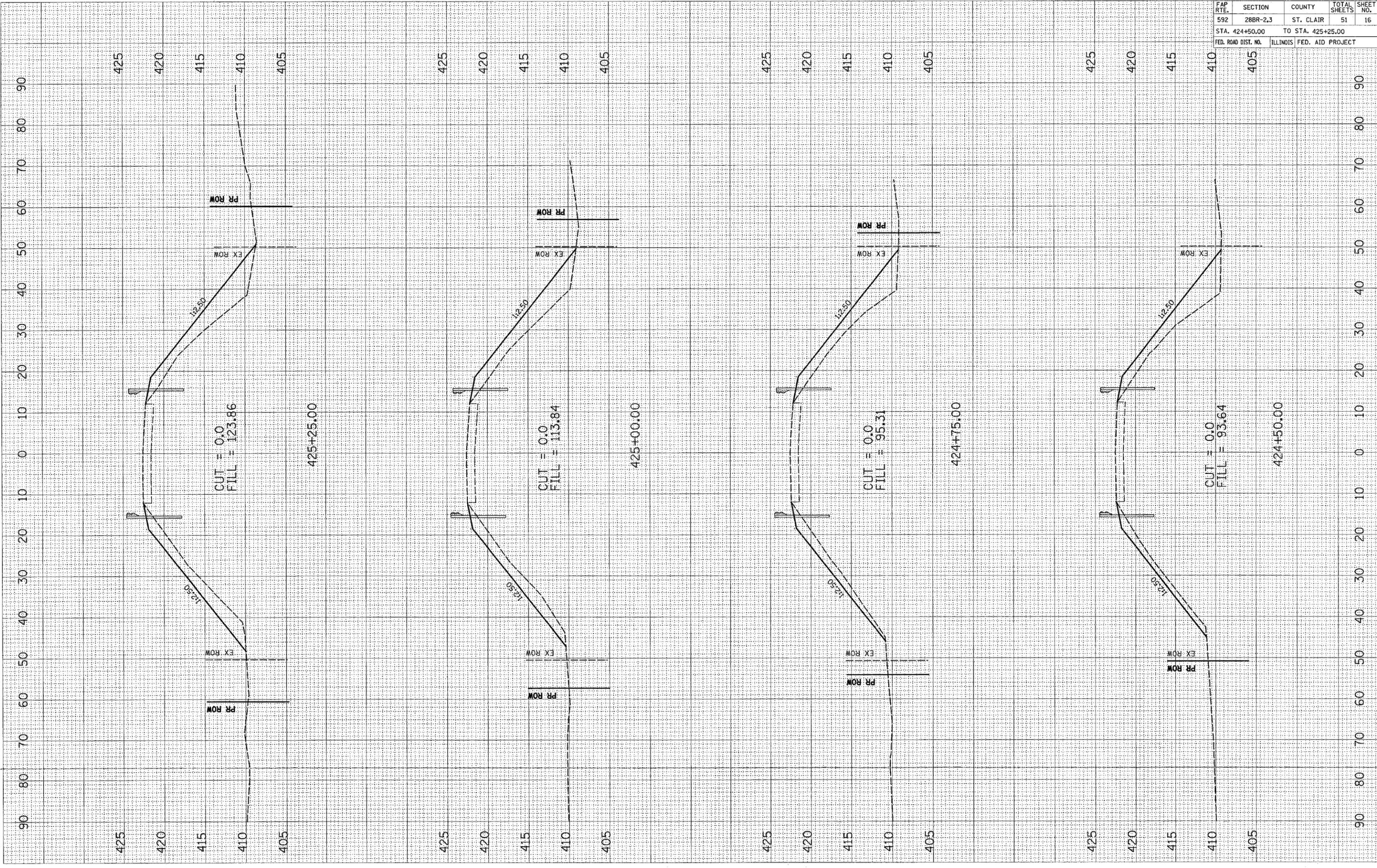
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 SHEET NO. = 05110105  
 REFERENCE = 05110105

| FAP RTE.            | SECTION  | COUNTY            | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------|-------------------|------------------|-----------|
| 592                 | 28BR-2,3 | ST. CLAIR         | 51               | 16        |
| STA. 424+50.00      |          | TO STA. 425+25.00 |                  |           |
| FED. ROAD DIST. NO. |          | ILLINOIS          | FED. AID PROJECT |           |

FINAL SURVEY  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 BY \_\_\_\_\_  
 DATE \_\_\_\_\_

ORIGINAL SURVEY  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 BY \_\_\_\_\_  
 DATE \_\_\_\_\_

PLOT DATE = DATE  
 PLOT SCALE = SCALE  
 PLOT NAME = USER

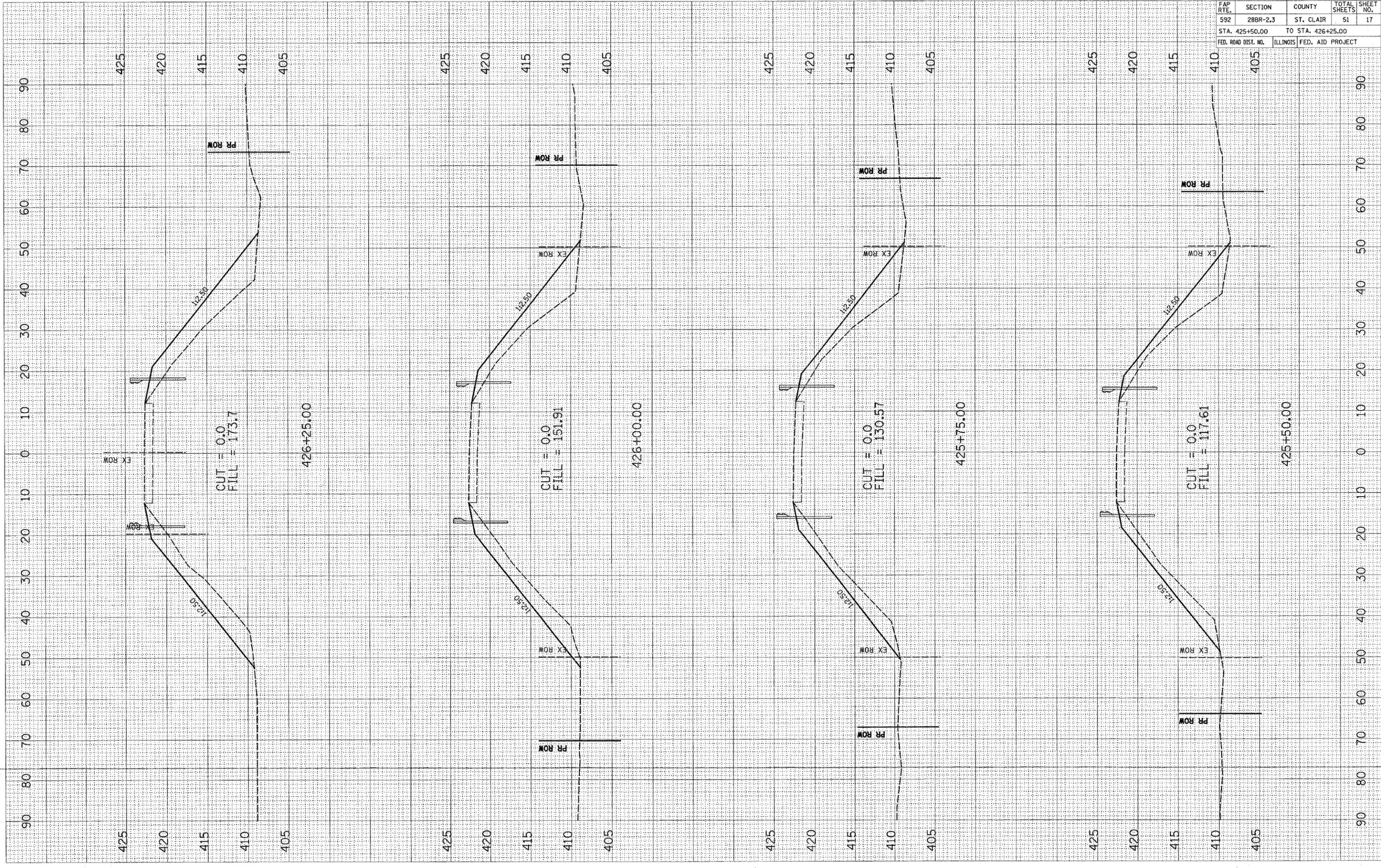


| FAP RTE.            | SECTION  | COUNTY            | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|-------------------|--------------|-----------|
| 592                 | 28BR-2.3 | ST. CLAIR         | 51           | 17        |
| STA. 425+50.00      |          | TO STA. 426+25.00 |              |           |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT  |              |           |

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

|                 |               |    |      |
|-----------------|---------------|----|------|
| ORIGINAL SURVEY | REVISIONS     | BY | DATE |
| NOTE BOOK NO.   | PLOTTED       |    |      |
|                 | TEMPLATE      |    |      |
|                 | AREAS CHECKED |    |      |

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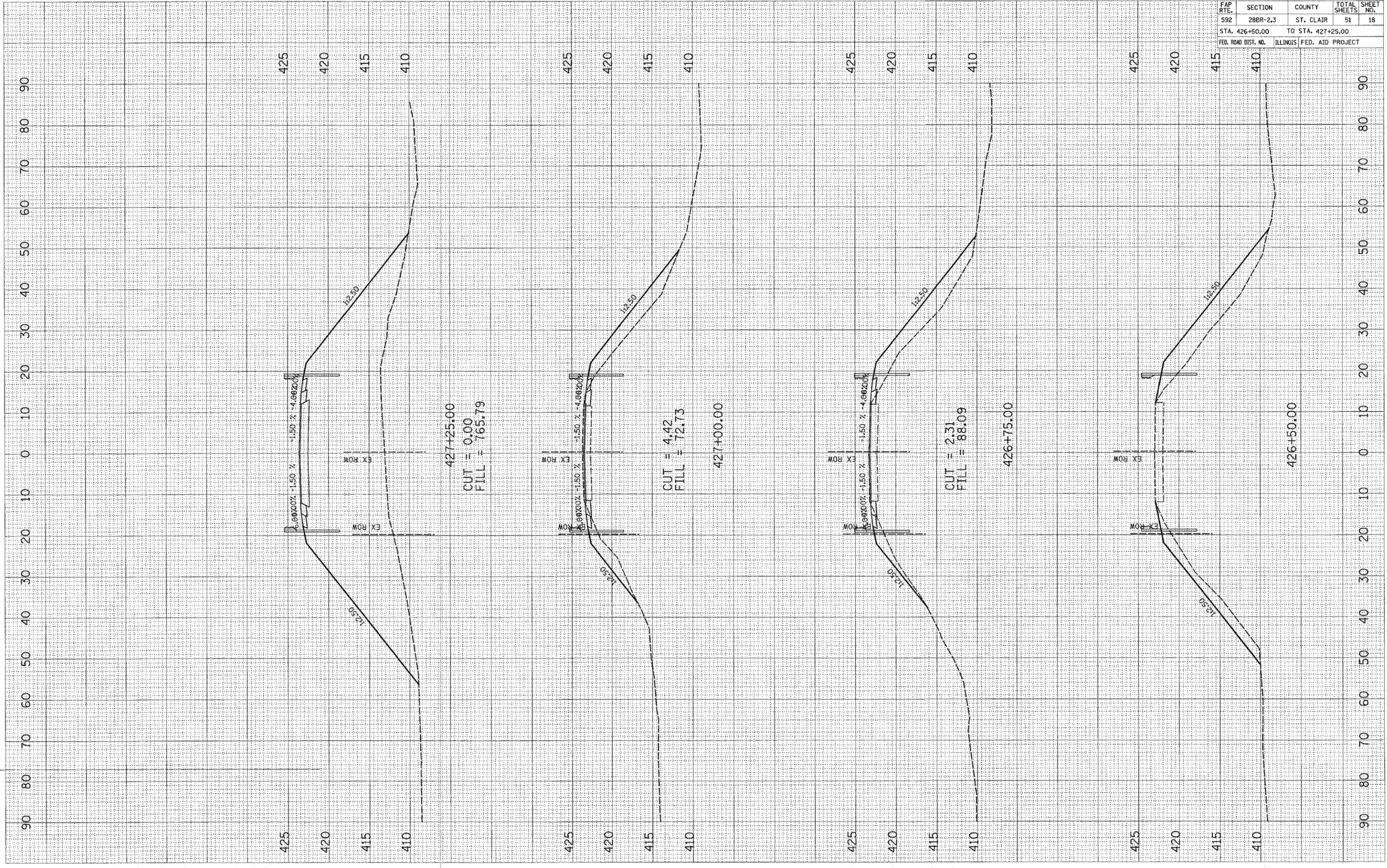


| FAP RT.             | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|---------------------------|--------------|-----------|
| 592                 | 288R-2.3 | ST. CLAIR                 | 51           | 18        |
| STA. 426+50.00      |          | TO STA. 427+25.00         |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

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

|                     |                |      |
|---------------------|----------------|------|
| ORIGINAL SURVEY NO. | SURVEY PLOTTED | DATE |
|                     | NOTE BOOK      |      |
|                     | AREAS CHECKED  |      |

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 USER NAME = \*USER\*



PLOT DATE \* DATE \*  
 FILE NAME \*  
 PLOT SCALE \* SCALE \*  
 USER NAME \* USER \*

ORIGINAL SURVEY  
 SURVEY PLOTTED  
 NOTE BOOK NO.  
 AREAS CHECKED

FINAL SURVEY  
 SURVEY PLOTTED  
 NOTE BOOK NO.  
 AREAS CHECKED

BY \_\_\_\_\_

DATE \_\_\_\_\_

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

425  
420  
415  
410  
405

425  
420  
415  
410  
405

$6.00000\% -1.50\%$   
 $-1.50\%$   $-4.00000\%$

CUT = 0.00  
 FILL = 1643.3

1:2.50

1:2.50

EX ROW

EX ROW

428+00.00

425  
420  
415  
410  
405

425  
420  
415  
410  
405

$6.00000\% -1.50\%$   
 $-1.50\%$   $-4.00000\%$

CUT = 0.00  
 FILL = 1373

1:2.50

1:2.50

EX ROW

EX ROW

427+75.00

425  
420  
415  
410  
405

425  
420  
415  
410  
405

$6.00000\% -1.50\%$   
 $-1.50\%$   $-4.00000\%$

CUT = 0.00  
 FILL = 1133.4

1:2.50

1:2.50

EX ROW

EX ROW

427+50.00

425  
420  
415  
410  
405

425  
420  
415  
410  
405

$6.00000\% -1.50\%$   
 $-1.50\%$   $-4.00000\%$

CUT = 0.00  
 FILL = 1133.4

427+50.00

1:2.50

1:2.50

EX ROW

EX ROW

425  
420  
415  
410  
405

425  
420  
415  
410  
405

$6.00000\% -1.50\%$   
 $-1.50\%$   $-4.00000\%$

CUT = 0.00  
 FILL = 1133.4

427+50.00

1:2.50

1:2.50

EX ROW

EX ROW

90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90

CONTRACT NO. 76904

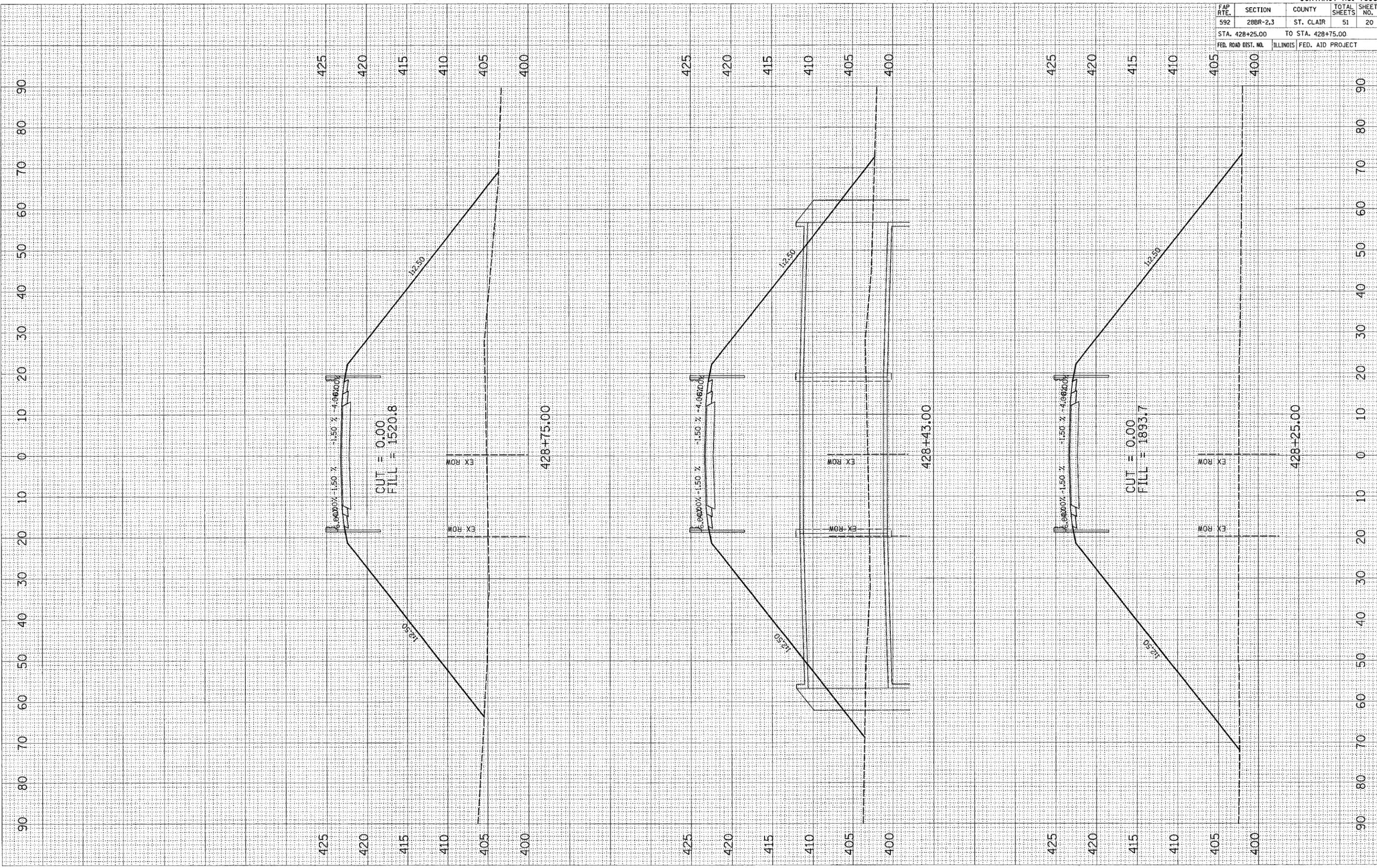
| FAP RTE.            | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|---------------------------|--------------|-----------|
| 592                 | 28BR-2.3 | ST. CLAIR                 | 51           | 19        |
| STA. 427+50.00      |          | TO STA. 428+00.00         |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

| FAP RTE.            | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|---------------------------|--------------|-----------|
| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 20        |
| STA. 428+25.00      |          | TO STA. 428+75.00         |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

FINAL SURVEY SURVEYED BY DATE  
 PLOTTED BY  
 NOTE BOOK NO.  
 AREAS CHECKED

ORIGINAL SURVEY SURVEYED BY DATE  
 PLOT PLOT BY  
 NOTE BOOK NO.  
 AREAS CHECKED

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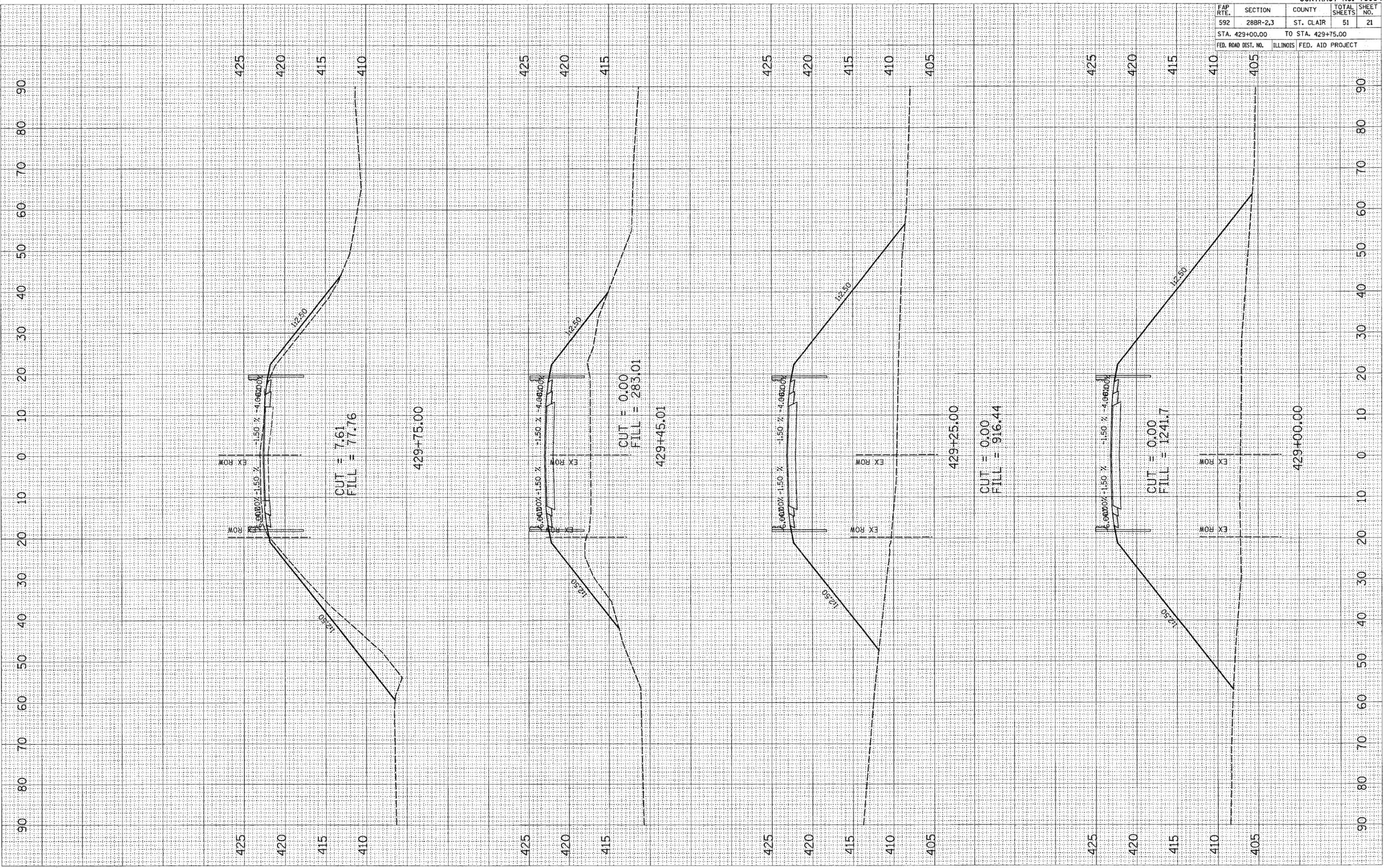


| FAP RTE.            | SECTION  | COUNTY                    | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|---------------------------|--------------|-----------|
| 592                 | 28BR-2,3 | ST. CLAIR                 | 51           | 21        |
| STA. 429+00.00      |          | TO STA. 429+75.00         |              |           |
| FED. ROAD DIST. NO. |          | ILLINOIS FED. AID PROJECT |              |           |

FINAL SURVEY  
 SURVEYED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 BY \_\_\_\_\_  
 DATE \_\_\_\_\_

ORIGINAL SURVEY  
 SURVEYED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 BY \_\_\_\_\_  
 DATE \_\_\_\_\_

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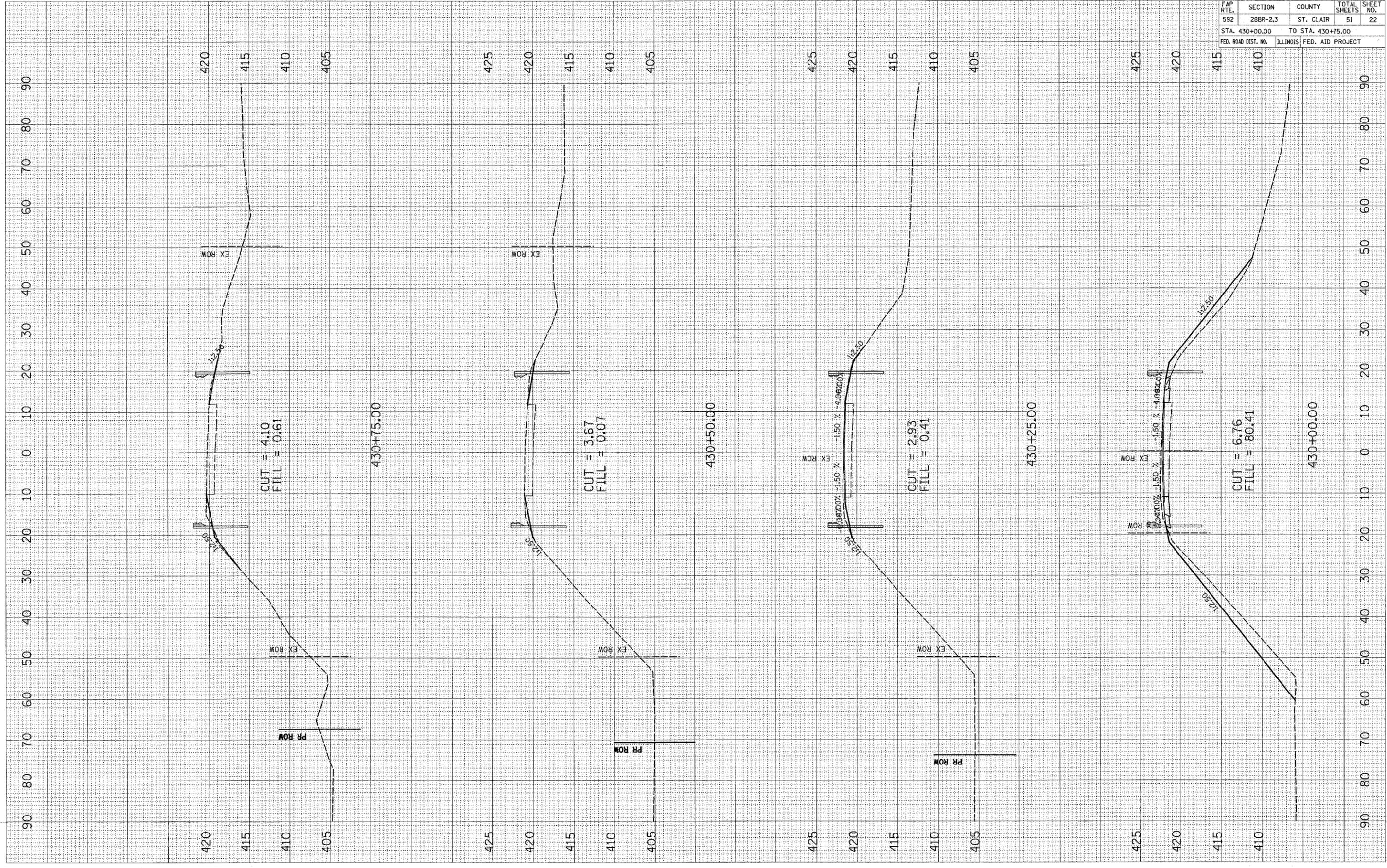


| FAP RTE.            | SECTION  | COUNTY            | TOTAL SHEETS     | SHEET NO. |
|---------------------|----------|-------------------|------------------|-----------|
| 592                 | 28BR-2,3 | ST. CLAIR         | 51               | 22        |
| STA. 430+00.00      |          | TO STA. 430+75.00 |                  |           |
| FED. ROAD DIST. NO. |          | ILLINOIS          | FED. AID PROJECT |           |

| FINAL SURVEY  | DATE |
|---------------|------|
| NO.           |      |
| AREAS CHECKED |      |
| PLATE         |      |
| TEMP.         |      |
| NO.           |      |

| ORIGINAL SURVEY | DATE |
|-----------------|------|
| NO.             |      |
| AREAS CHECKED   |      |
| PLATE           |      |
| TEMP.           |      |
| NO.             |      |

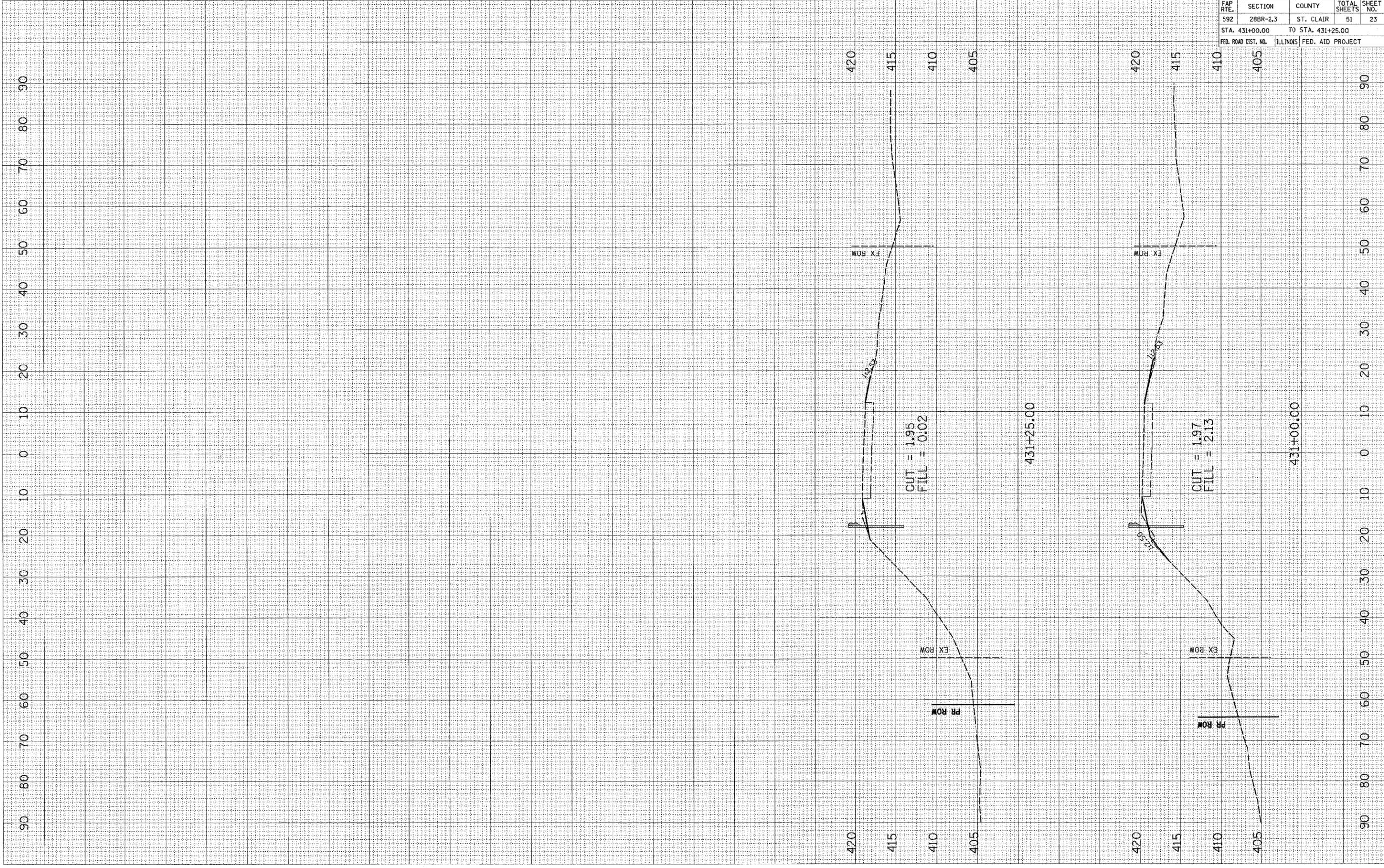
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ORIGINAL SURVEYED BY DATE  
 SURVEY PLOT  
 NOTE BOOK NO. AREAS CHECKED

FINAL SURVEYED BY DATE  
 SURVEY PLOT  
 NOTE BOOK NO. AREAS CHECKED



| CONTRACT NO. 76904               |          |           |                  |           |
|----------------------------------|----------|-----------|------------------|-----------|
| FAP RTE.                         | SECTION  | COUNTY    | TOTAL SHEETS     | SHEET NO. |
| 592                              | 28BR-2,3 | ST. CLAIR | 51               | 23        |
| STA. 431+00.00 TO STA. 431+25.00 |          |           |                  |           |
| FED. ROAD DIST. NO.              |          | ILLINOIS  | FED. AID PROJECT |           |

Bench Mark: BM "8" - Square cut on wingwall @ NE corner of SN 082-0087, Elevation: 423.805

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |                  |                   |           |           |
|-----------------------|------------------|-------------------|-----------|-----------|
| ROUTE NO.             | SECTION          | COUNTY            | SHEET NO. | SHEET NO. |
| FAP 592               | 28BR-2<br>28BR-3 | ST. CLAIR         | 51        | 24        |
| FED. ROAD DIST. NO. 7 | ILLINOIS         | FED. AID PROJECT- |           |           |

SHEET NO. 1  
7 SHEETS

Contract #76904

Existing Structure: S.N. 082-0087 built as SBI 13, Sec. 28 B&C in 1928. The original 3-span structure was rebuilt in 1972 under Sec. 28 BR-1. The existing is a 6-span structure with PPC deck beams. The substructure consists of the original pile bent abutments, 2-original hammerhead piers, and 3-additional pile bent piers.

Existing structure to be removed in accordance with Section 501 of the Standard Specifications except the piers shall be removed to elevation 412.0 or lower. Cost shall be included with Removal of Existing Structures. Roadway to remain closed during construction.

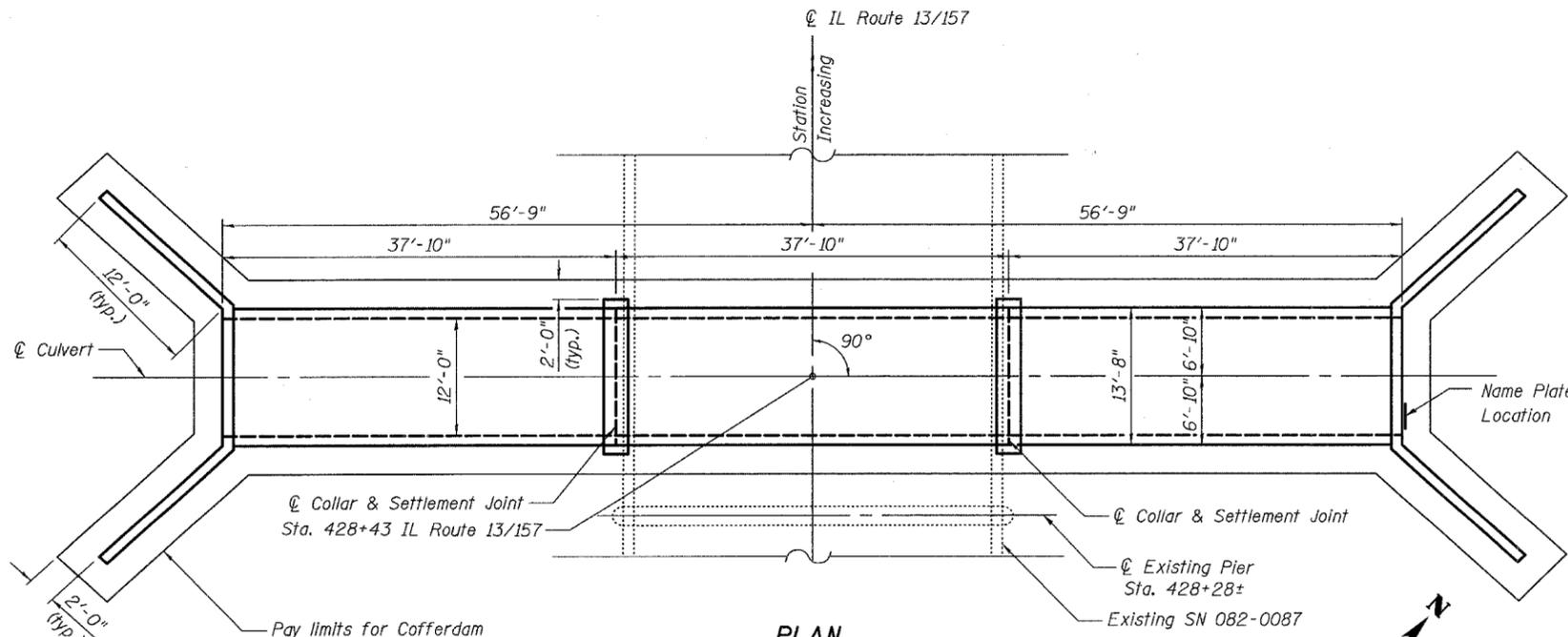
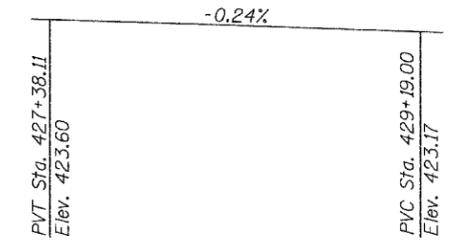
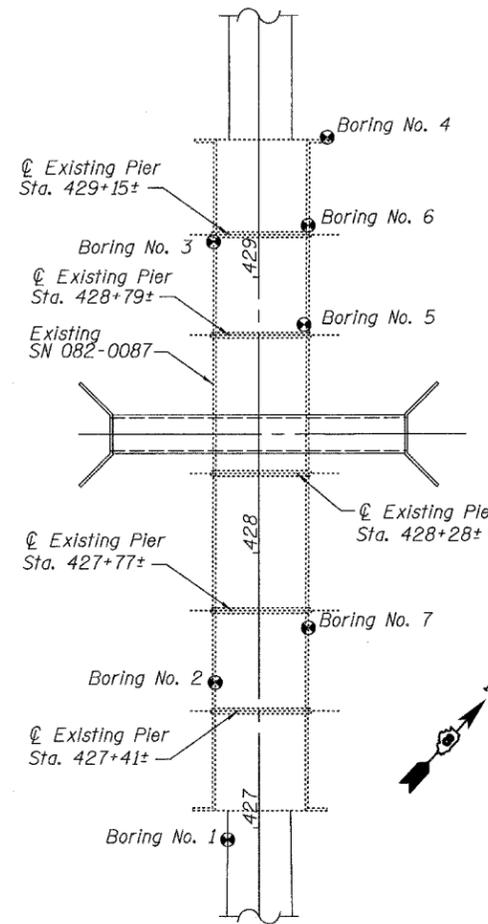
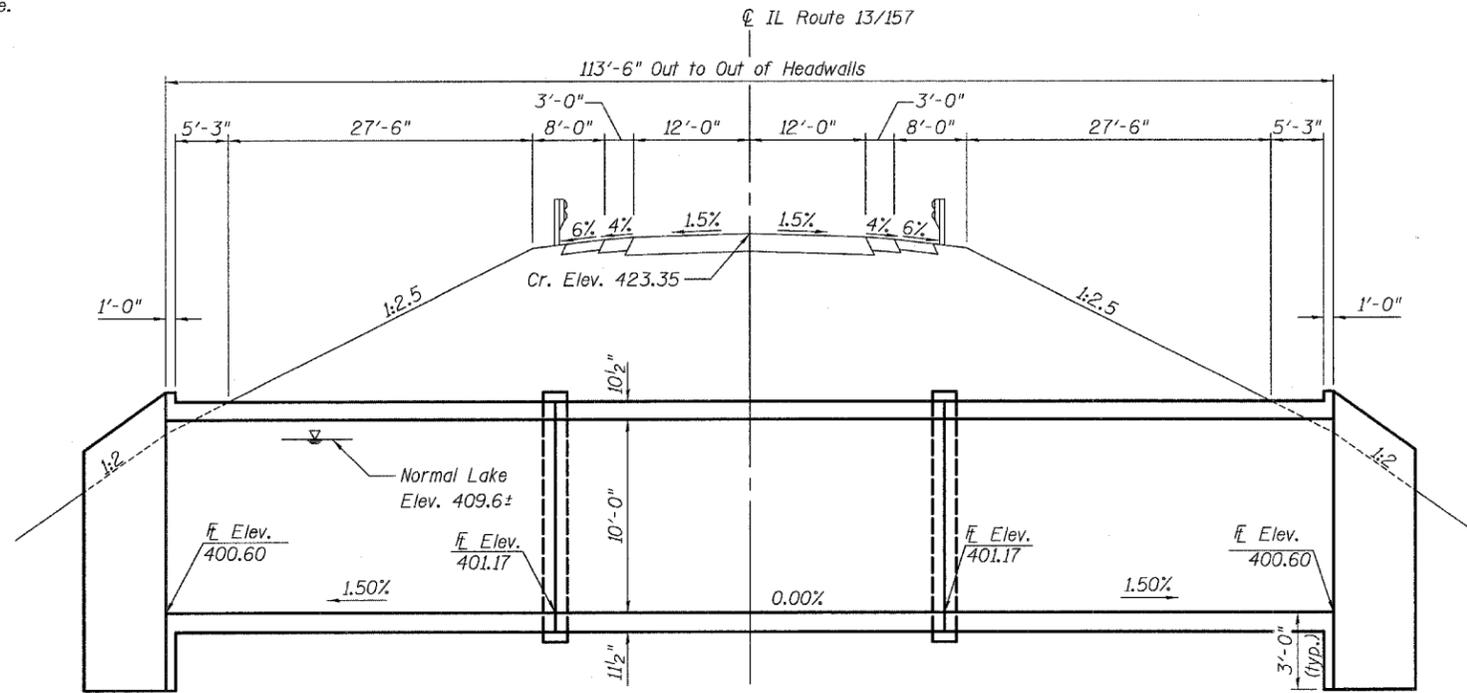
No Salvage.

**GENERAL NOTES**

- Flowline elevations shown at collar locations have been adjusted for camber to allow for settlement.
- Exposed edges shall have a 3/4" chamfer unless otherwise noted.
- Precast Alternate is not allowed.
- All construction joints shall be bonded.

**TOTAL BILL OF MATERIAL**

| ITEM                           | UNIT    | TOTAL  |
|--------------------------------|---------|--------|
| Removal of Existing Structures | L. Sum  | 1      |
| Cofferdam Excavation           | Cu. Yd. | 1,133  |
| Cofferdams                     | Each    | 1      |
| Seal Coat Concrete             | Cu. Yd. | 852.3  |
| Reinforcement Bars             | Pound   | 50,130 |
| Name Plates                    | Each    | 1      |
| Concrete Box Culverts          | Cu. Yd. | 212.1  |
| Asbestos Bearing Pad Removal   | Each    | 66     |



STATION 428+43  
BUILT 200\_ BY  
STATE OF ILLINOIS  
FAP ROUTE 592 - SEC 28-BR-2  
LOADING HS20  
STR. NO. 082-2568

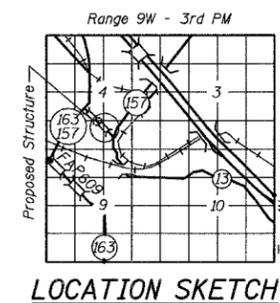
**NAME PLATE**  
See Std. 515001

**WATERWAY INFORMATION**

Drainage Area = 0.044 Sq. Mi. Low Grade Elev. 414.43 @ Sta. 435+83.05

| Flood       | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. |       | Nat. H.W.E. | Head - Ft. |       | Headwater El. |        |
|-------------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|--------|
|             |           |          | Exist.          | Prop. |             | Exist.     | Prop. | Exist.        | Prop.  |
| Erosion     | 10        | 35       | 1,032.8         | 103.5 | 410.95      | 0.12       | 0.15  | 411.07        | 411.10 |
| Design      | 50        | 73       | 1,115.4         | 107.9 | 411.39      | 0.16       | 0.19  | 411.55        | 411.58 |
| Base        | 100       | 93       | 1,153.4         | 109.9 | 411.59      | 0.18       | 0.22  | 411.77        | 411.81 |
| Overtopping | NA        | NA       | NA              | NA    | NA          | NA         | NA    | NA            | NA     |
| Max. Calc.  | 500       | *144     | 1,245.5         | 114.7 | 412.07      | 0.23       | 0.27  | 412.30        | 412.34 |

\*Existing Q = 146 cfs, Proposed Q = 144 cfs



Plans Prepared By:  
Oates Associates, Inc.



Bruce P. Schopp  
01/23/07  
EXPIRES 11/30/08

**GENERAL PLAN**  
**IL ROUTE 13/157 OVER CANAL NO. 1**  
**ST. CLAIR COUNTY**  
**STA. 428+43**  
**STRUCTURE NO. 082-2568**

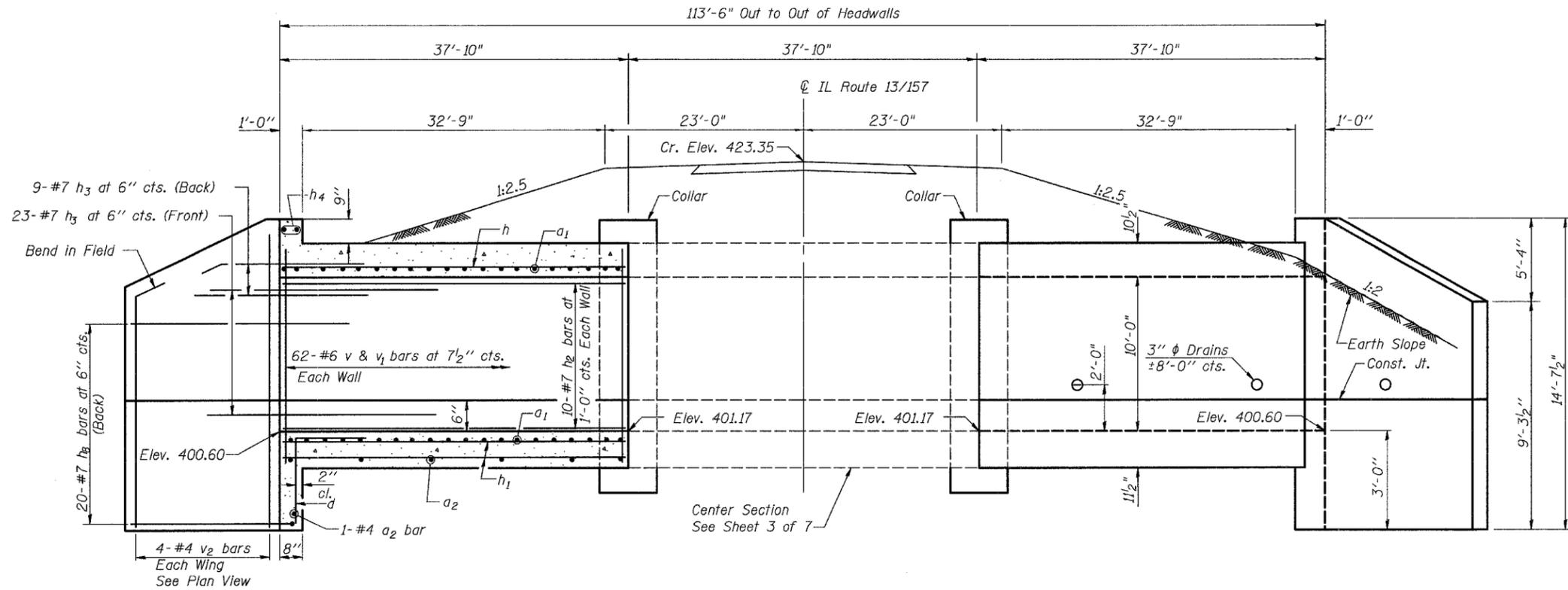
**LOADING HS20-44**  
**DESIGN SPECIFICATIONS**  
2002 AASHTO

**DESIGN STRESSES**  
FIELD UNITS  
f'c = 3,500 psi  
fy = 60,000 psi (reinforcement)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

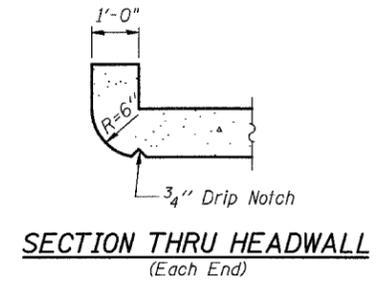
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|-----------------------|------------------|------------------|--------------|-----------|-------------------------|
| ROUTE NO.             | SECTION          | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 2<br>7 SHEETS |
| FAP 592               | 2BBR-2<br>2BBR-3 | ST. CLAIR        | 51           | 25        |                         |
| FED. ROAD DIST. NO. 7 | ILLINOIS         | FED. AID PROJECT |              |           |                         |

Contract #76904

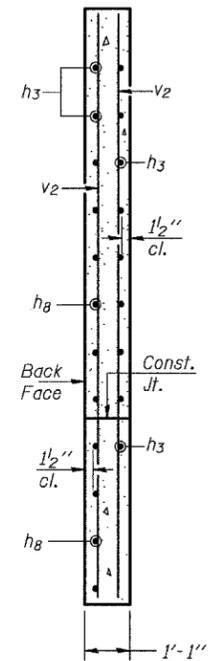


**LONG. SECTION- END SECTIONS**  
(Similar each End Section)

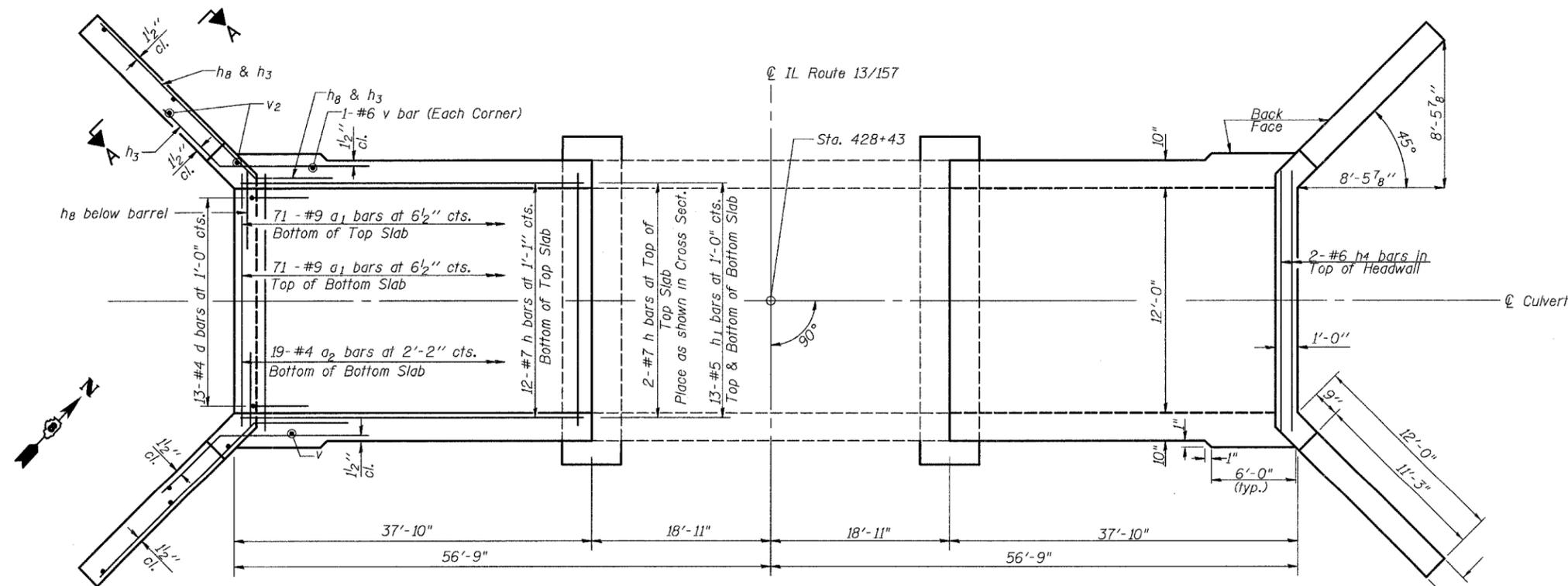
**ELEVATION- END SECTIONS**  
(Similar each End Section)



**SECTION THRU HEADWALL**  
(Each End)



**SECTION A-A**



**SHOWING REINFORCEMENT**  
(Similar each End Section)

**SHOWING OUTLINES**  
(Similar each End Section)

**PLAN- END SECTIONS**

Notes:

- ① A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
- ② See Sheet 3 of 7 for Section Thru Barrel, Bar List and Bill of Materials.

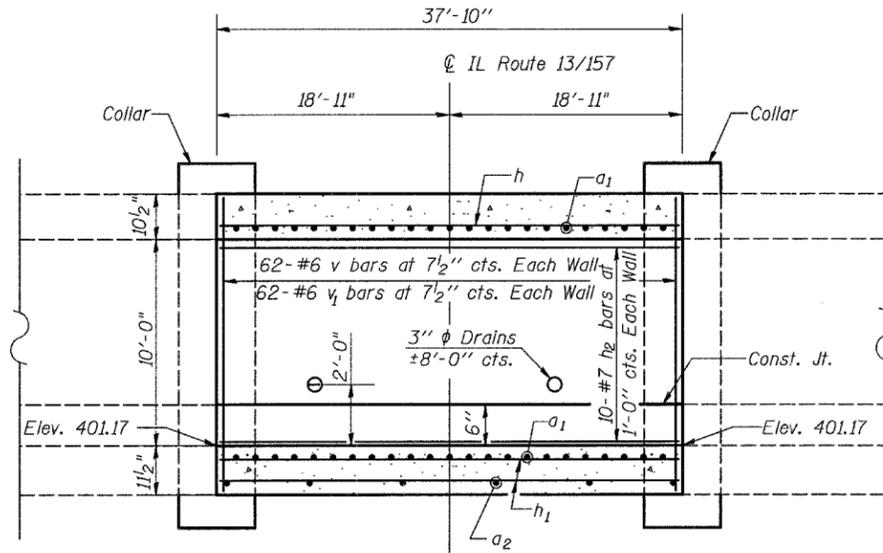
**CULVERT DETAILS**  
**IL ROUTE 13/157 OVER CANAL NO. 1**  
**ST. CLAIR COUNTY**  
**STA. 428+43**  
**STRUCTURE NO. 082-2568**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

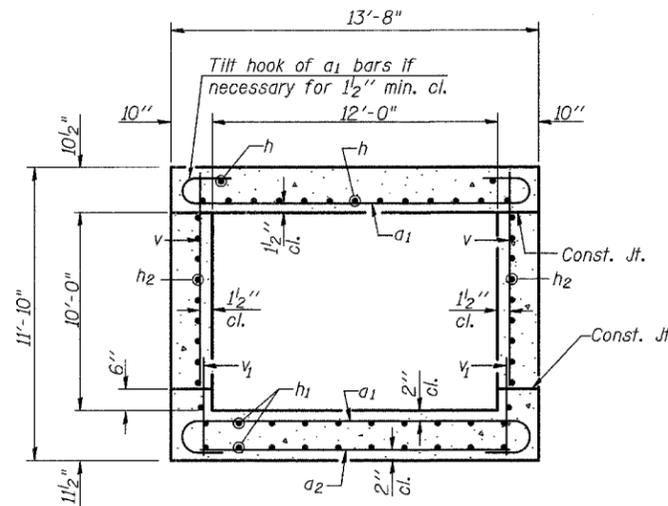
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|-----------------------|------------------|-------------------|--------------|-----------|
| ROUTE NO.             | SECTION          | COUNTY            | TOTAL SHEETS | SHEET NO. |
| FAP 592               | 28BR-2<br>28BR-3 | ST. CLAIR         | 51           | 26        |
| FED. ROAD DIST. NO. 7 | ILLINOIS         | FED. AID PROJECT- |              |           |

SHEET NO. 3  
7 SHEETS

Contract #76904



LONG. SECTION- CENTER SECTION

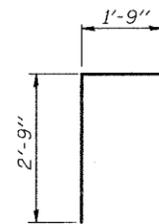


SECTION THRU BARREL

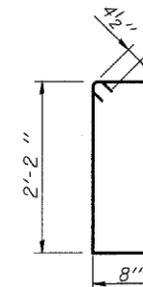
**BILL OF MATERIAL**

(Total for 3-Sections and 2-Collars)

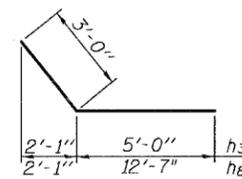
| Bar                   | No. | Size | Length  | Shape  |
|-----------------------|-----|------|---------|--------|
| a <sub>1</sub>        | 426 | #9   | 15'-10" | U      |
| a <sub>2</sub>        | 59  | #4   | 12'-3"  | —      |
| b                     | 20  | #8   | 14'-0"  | ┌      |
| b <sub>1</sub>        | 20  | #8   | 15'-8"  | ┌      |
| b <sub>2</sub>        | 20  | #8   | 4'-10"  | ┌      |
| b <sub>3</sub>        | 18  | #8   | 15'-5"  | —      |
| b <sub>4</sub>        | 10  | #8   | 22'-7"  | ┌      |
| d                     | 26  | #4   | 4'-6"   | ┌      |
| h                     | 42  | #7   | 37'-6"  | —      |
| h <sub>1</sub>        | 78  | #5   | 37'-6"  | —      |
| h <sub>2</sub>        | 60  | #7   | 37'-6"  | —      |
| h <sub>3</sub>        | 128 | #7   | 8'-0"   | ┌      |
| h <sub>4</sub>        | 4   | #6   | 12'-11" | —      |
| h <sub>8</sub>        | 80  | #7   | 15'-7"  | ┌      |
| s                     | 112 | #4   | 6'-5"   | □      |
| v                     | 376 | #6   | 10'-3"  | —      |
| v <sub>1</sub>        | 372 | #6   | 2'-7"   | —      |
| v <sub>2</sub>        | 16  | #4   | 14'-4"  | —      |
| Concrete Box Culverts |     |      | Cu. Yd. | 212.1  |
| Reinforcement Bars    |     |      | Pound   | 50,130 |



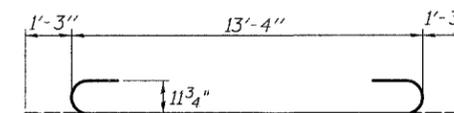
BAR d



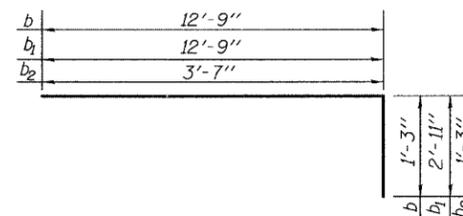
BAR s



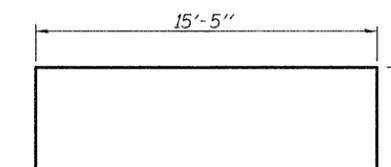
BARS h<sub>3</sub> & h<sub>8</sub>



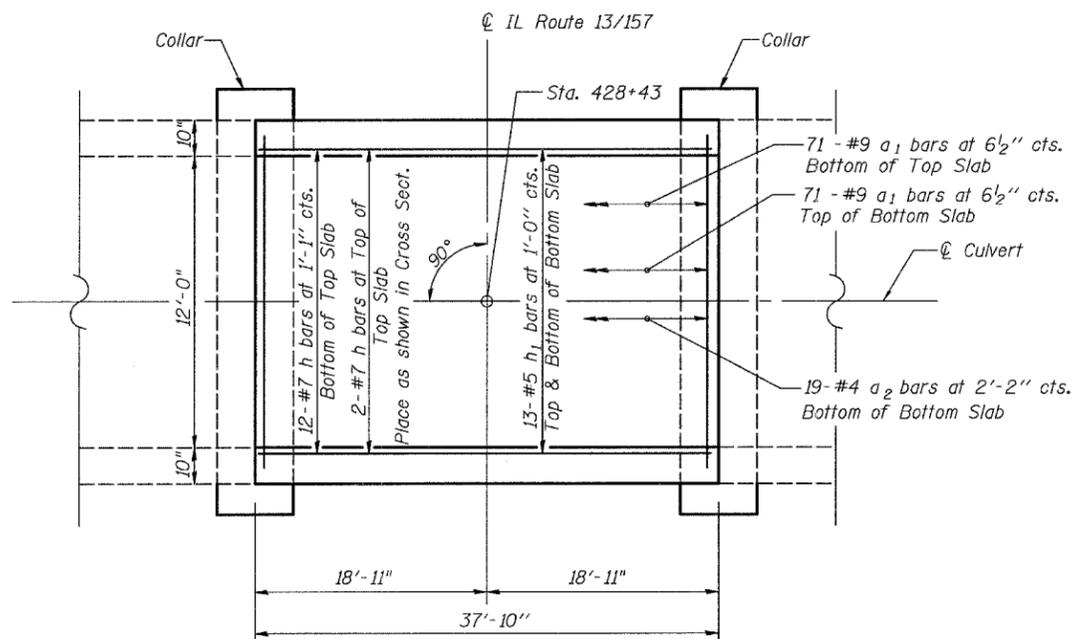
BAR a<sub>1</sub>



BARS b, b<sub>1</sub> & b<sub>2</sub>



BAR b<sub>4</sub>



PLAN- CENTER SECTION

Notes:  
① See Sheet 4 of 7 for concrete collar details.

**CULVERT DETAILS**  
IL ROUTE 13/157 OVER CANAL NO. 1  
ST. CLAIR COUNTY  
STA. 428+43  
STRUCTURE NO. 082-2568

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

| ROUTE NO.             | SECTION          | COUNTY            | TOTAL SHEETS | SHEET NO. | SHEET NO. |
|-----------------------|------------------|-------------------|--------------|-----------|-----------|
| FAP 592               | 28BR-2<br>28BR-3 | ST. CLAIR         | 51           | 27        | 7 SHEETS  |
| FED. ROAD DIST. NO. 7 | ILLINOIS         | FED. AID PROJECT- |              |           |           |

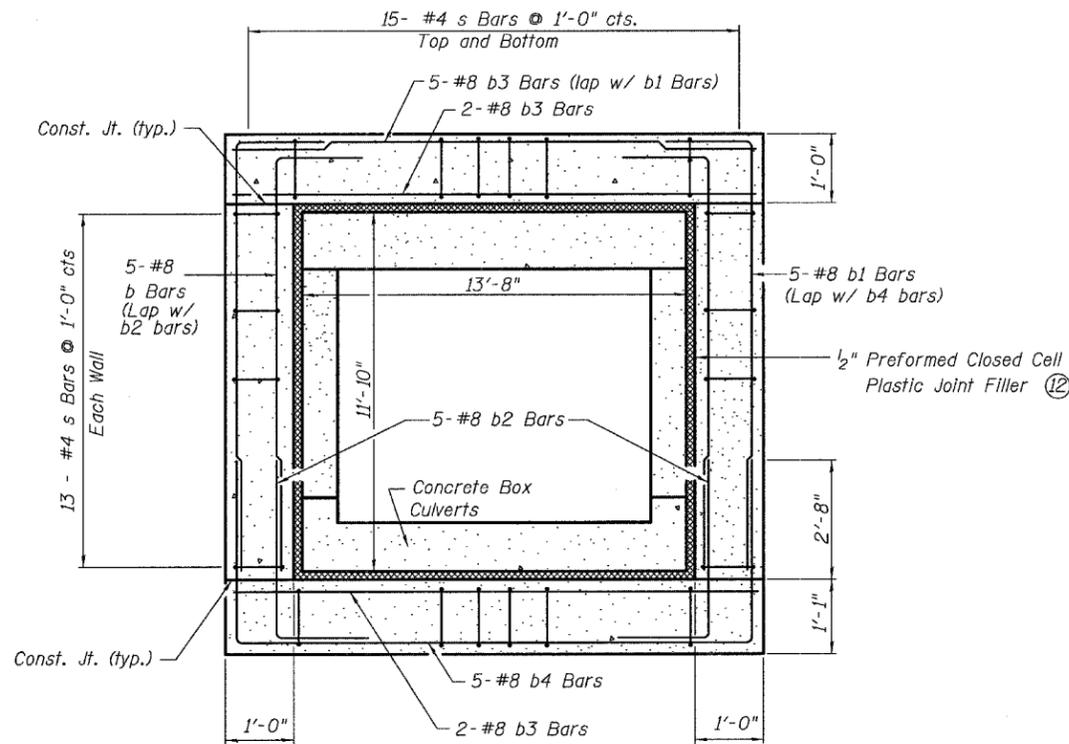
Contract #76904

Cofferdam Notes:

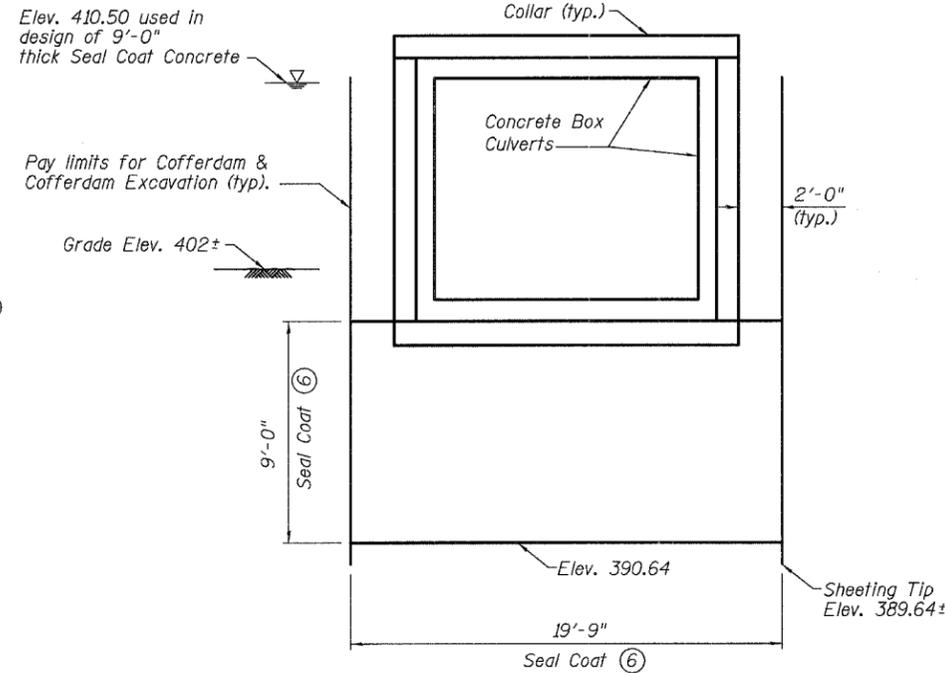
- ① Cofferdam shall be in accordance with Section 502.06 of the Standard Specification and shall include any and all means and methods necessary to construct the box culvert, including sheeting, bracing, pumping, dewatering, diverting water, etc.
- ② All costs for providing a means of constructing the box culvert shall be included in the cost of Cofferdams. If the Contractor elects to provide a different method of construction than what is shown in the plans, including alternate shoring location, placement of embankment, dams, dikes, etc.; such methods shall be approved by the Engineer prior to construction. Shop drawings shall be submitted as applicable. Costs associated with alternate cofferdam methods will not be considered as additional compensation but shall be included with the cost for Cofferdams.
- ③ Contractor shall not extend construction activities beyond proposed Right-of-Way or Temporary Easements limits as shown on roadway plans.
- ④ Design High Water elevation is included in the waterway information table.
- ⑤ Normal pool elevation is assumed as elevation 409.60 per IDOT survey data. Contractor shall verify pool elevations prior to design of cofferdam.
- ⑥ Seal Coat Concrete thickness is shown for estimating purposes only and is approximated based on elevations and dimensions shown on plans. It shall be the Contractor's responsibility to design the Seal Coat Concrete as an integral part of the final cofferdam layout and dimensions.
- ⑦ Lowering existing water elevation outside of the cofferdam by means of pumping, draining, or other dewatering methods will not be allowed.
- ⑧ Seal Coat Concrete shall be blocked out, adjusted or removed, as required to construct the wingwalls, toewalls, and concrete collars. Cost for this work shall be included with Concrete Box Culverts.
- ⑨ To account for embankment settlement, the box culvert is cambered and includes settlement joints and concrete collars.

Miscellaneous Notes:

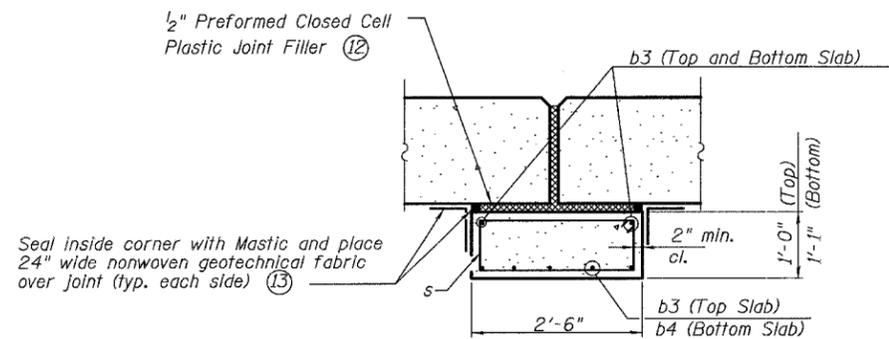
- ⑩ See Sheet 3 of 7 for bar bending details, Bar List and Bill of Materials.
- ⑪ Concrete collar shall be centered over barrel settlement joint.
- ⑫ Preformed Closed Cell Plastic Joint Filler shall be in accordance with Article 1051.08 of the Standard Specifications. The cost shall be included in the cost for Concrete Box Culverts.
- ⑬ Mastic and Geotechnical Fabric shall be as indicated in section 540 of the Standard Specifications. The cost shall be included in the cost for Concrete Box Culverts.



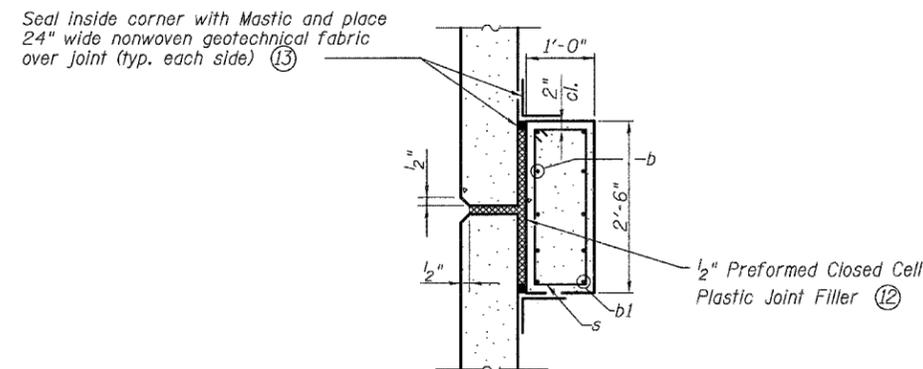
**SECTION THRU BOX AT COLLAR**



**SECTION THRU COFFERDAM  
AT BOX CULVERT  
(WINGWALLS SIMILAR) ⑧**



**SECTION THRU TOP AND BOTTOM SLAB**



**SECTION THRU SIDEWALL**

**CULVERT DETAILS**  
**IL ROUTE 13/157 OVER CANAL NO. 1**  
**ST. CLAIR COUNTY**  
**STA. 428+43**  
**STRUCTURE NO. 082-2568**







Bench Mark: Chiseled square on northeast wingwall of S.N. 082-0212. Right of Station 438+68 Elevation 414.95

Existing Structure: S.N. 082-0212 was built in 1972 at Sta. 437+31.90 as SBI Rte. 13 Sec. 28BR

The structure consists of three simple span PPC-deck beams on pile bent abutments and piers on concrete piles.

The bk. to bk. abutments dimension measures 117'-8<sup>3</sup>/<sub>8</sub>" while the O.-O. width measures 33'-4<sup>1</sup>/<sub>2</sub>".

The existing superstructure shall be removed and replaced with PPC deck beams.

Road closure shall be used during construction. Traffic to be detoured.

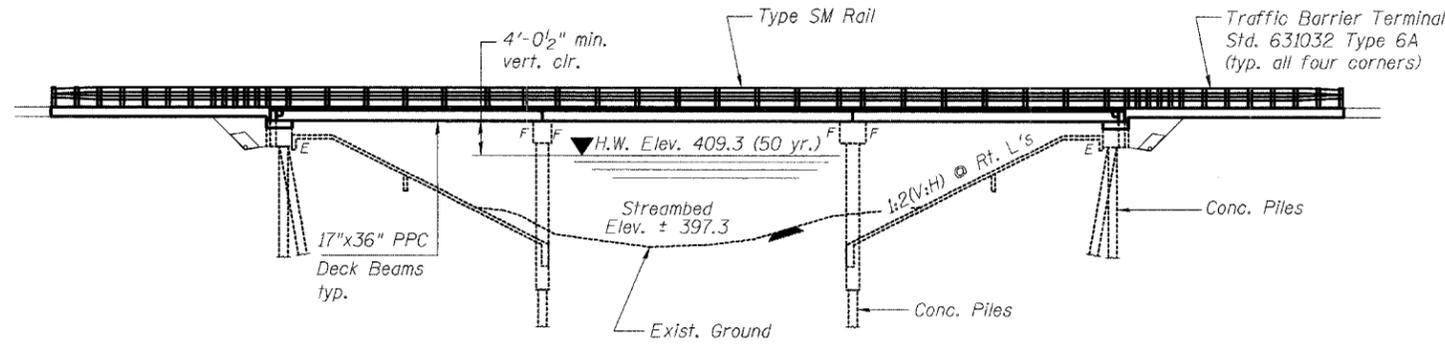
No salvage

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                            |                   |                     |                    |                    |                          |
|----------------------------|-------------------|---------------------|--------------------|--------------------|--------------------------|
| ROUTE NO.<br>F.A.P.<br>592 | SECTION<br>28BR-2 | COUNTY<br>ST. CLAIR | SHEET<br>NO.<br>51 | SHEET<br>NO.<br>31 | SHEET NO. 1<br>21 SHEETS |
| FED. ROAD DIST. NO. 7      |                   | ILLINOIS            |                    | FED. AID PROJECT   |                          |

INDEX OF SHEETS

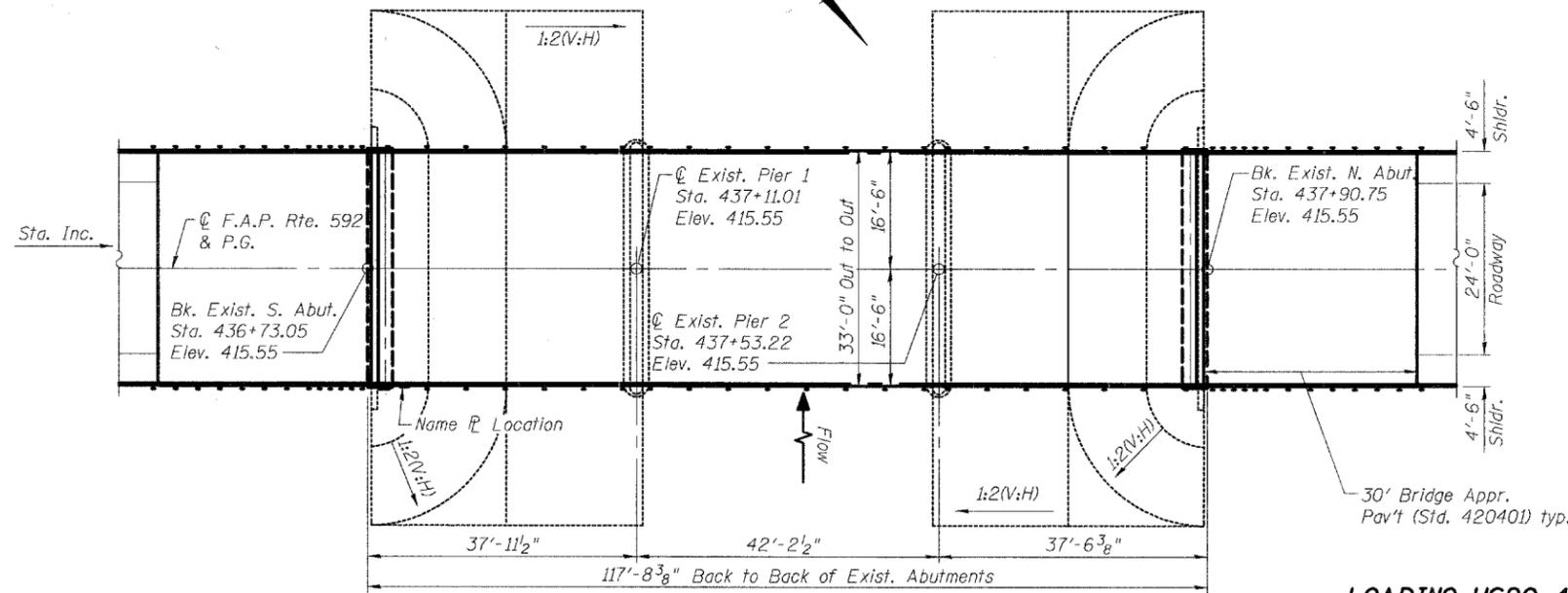
- 1 General Plan & Elevation
- 2 General Details
- 3 Superstructure
- 4 Superstructure Details
- 5 Superstructure Details - Span 1
- 6 Superstructure Details - Span 2
- 7 Superstructure Details - Span 3
- 8 Bridge Joint System - Expansion (Preformed Joint Seal)
- 9 Bridge Joint System - Expansion (Strip Seal)
- 10 Type SM Steel Bridge Rail Side Mounted
- 11 Concrete Removal and Repairs - South Abutment
- 12 Concrete Removal and Repairs - North Abutment
- 13 Pier 1 Repairs
- 14 Pier 2 Repairs
- 15 Slope Wall Repairs
- 16 South Abutment
- 17 North Abutment
- 18 Abutment Details
- 19 Pier 1
- 20 Pier 2
- 21 Bar Splicer Assembly Details



ELEVATION

SCOPE OF WORK

1. Existing deck beams, HMA wearing surface, and railing shall be removed.
2. Repair abutments, repair piers, and repair slope walls.
3. New deck beams shall be installed and doweled into position.
4. Concrete wearing surface shall be poured and bridge rail installed.



PLAN

STATION 437+31.90  
BUILT 200 BY  
STATE OF ILLINOIS  
FAP RTE 592 - SEC 28BR-2  
LOADING HS20  
STR. NO. 082-0212

NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated adjacent to new Name Plate. Cost included with Name Plates.



Alan D. Lukens 6-14-06  
Date

Alan D. Lukens  
Licensed Structural Engineer  
State of Illinois No. 081-005167  
License Expires 11/30/06

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

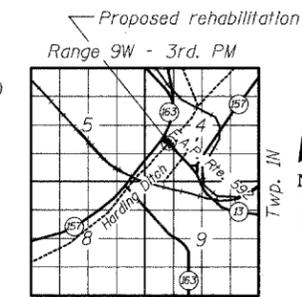
DESIGN STRESSES

FIELD UNITS

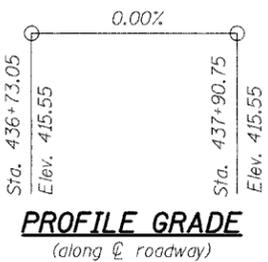
- $f'_c = 3,500$  psi
- $f'_c = 5,000$  psi (Concrete Wearing Surface)
- $f_y = 60,000$  psi (reinforcement)

PRECAST PRESTRESSED UNITS

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



LOCATION SKETCH



PROFILE GRADE  
(along  $\phi$  roadway)

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

GENERAL PLAN & ELEVATION  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

6/13/2006

p:\02f1\ees\020409\020409-22 W0 No11 IL13-157\SN 0820212.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                  |              |           |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| F.A.P. 592            | 28BR-2   | ST. CLAIR        | 51           | 32        |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |

SHEET NO. 2  
21 SHEETS

TOTAL BILL OF MATERIAL

| ITEM   | UNIT    | SUPER  | SUB  | TOTAL  |
|--|---------|--------|------|--------|
| Removal of Existing Superstructures                              | Each    | 1      |      | 1      |
| Concrete Structures  | Cu. Yd. |        | 15.3 | 15.3   |
| Precast Prestressed Concrete Deck Beams (17" Depth)              | Sq. Ft. | 3770.0 |      | 3770.0 |
| Reinforcement Bars, Epoxy Coated                                 | Pound   | 5310   | 2120 | 7430   |
| Concrete Wearing Surface, 5"                                     | Sq. Yd. | 420    |      | 420    |
| Bridge Deck Grooving   | Sq. Yd. | 420    |      | 420    |
| Protective Coat  | Sq. Yd. | 420    |      | 420    |
| Steel Railing Type SM  | Foot    | 229    |      | 229    |
| Name Plates  | Each    | 1      |      | 1      |
| Structure Excavation   | Cu. Yd. |        | 63   | 63     |
| Porous Granular Embankment (Special)                             | Cu. Yd. |        | 55   | 55     |
| Concrete Removal   | Cu. Yd. |        | 12.5 | 12.5   |
| Structural Repair of Concrete (Depth equal to or less than 5 in) | Sq. Ft. |        | 193  | 193    |
| Preformed Joint Strip Seal                                       | Foot    | 66     |      | 66     |
| Epoxy Crack Injection  | Foot    |        | 34   | 34     |
| Bar Splicers   | Each    |        | 68   | 68     |
| Slope Wall Crack Sealing   | Foot    |        | 136  | 136    |
| Slope Wall Repair  | Sq. Yd. |        | 1    | 1      |
| Controlled Low - Strength Material                               | Cu. Yd. |        | 2.1  | 2.1    |
| Asbestos Bearing Pad Removal                                     | Each    |        | 48   | 48     |
| Pipe Underdrains for Structures                                  | Foot    |        | 112  | 112    |
| Geocomposite Wall Drain  | Sq. Yd. |        | 26   | 26     |

GENERAL NOTES

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. This work shall be performed by the producer and included with the cost of the beam.

Repair of abutments and pier caps shall be completed prior to placement of new deck beams. The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.

The contractor is advised that the existing PPC Deck Beams are in deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

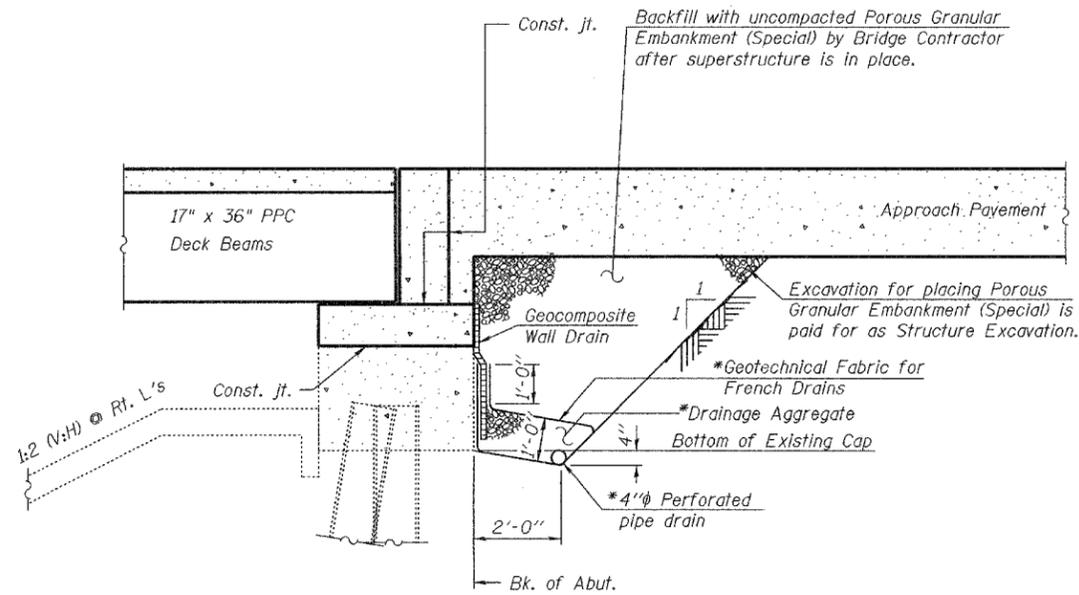
If the contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on the new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedures used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of the beams to prevent movement of the beams.

The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions

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

All construction joints shall be bonded.

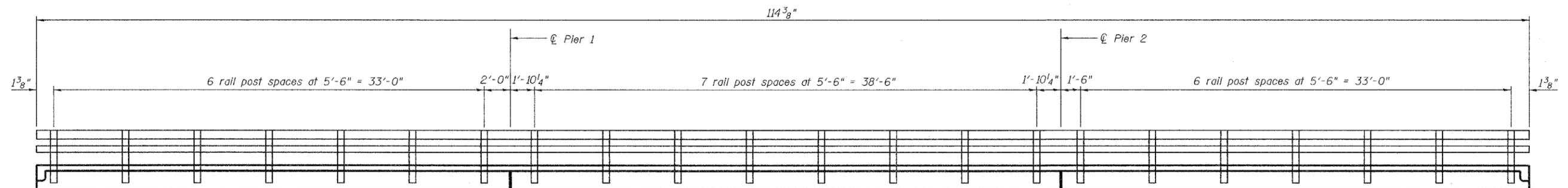


SECTION THRU ABUTMENT  
(Horiz. dim. @ Rt. L's)

\* Included in the cost of Pipe Underdrains for Structures.

Note:

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).



RAIL POST SPACING

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

GENERAL DETAILS  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

\$DATE\$

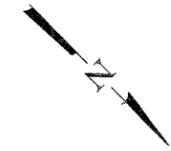
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                  |              |           |                          |
|-----------------------|----------|------------------|--------------|-----------|--------------------------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 3<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2   | ST. CLAIR        | 51           | 33        |                          |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |                          |

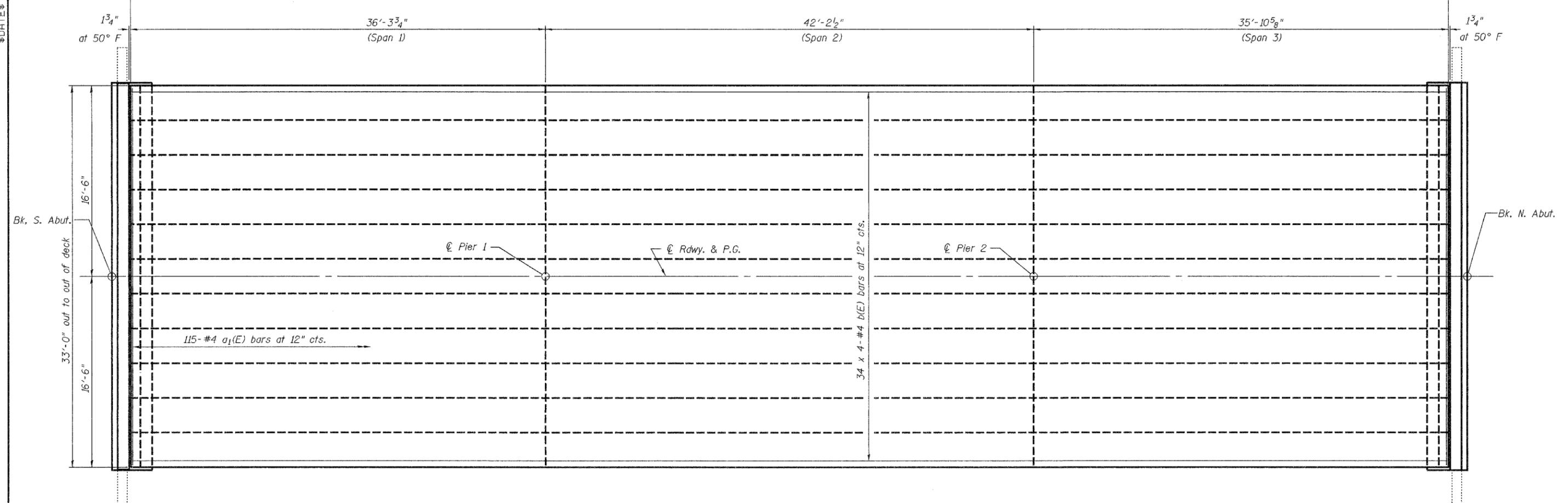
MIN. BAR LAP

#4 bar = 1'-8"



114'-4<sup>7</sup>/<sub>8</sub>" End to End of Deck

DATE\$



PLAN

Notes:

Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 32 x 4-#4 etc. indicates 32 lines of bars with 4 lengths per line.  
For remainder of superstructure details, see sheets 4, 5, 6, and 7 of 21.

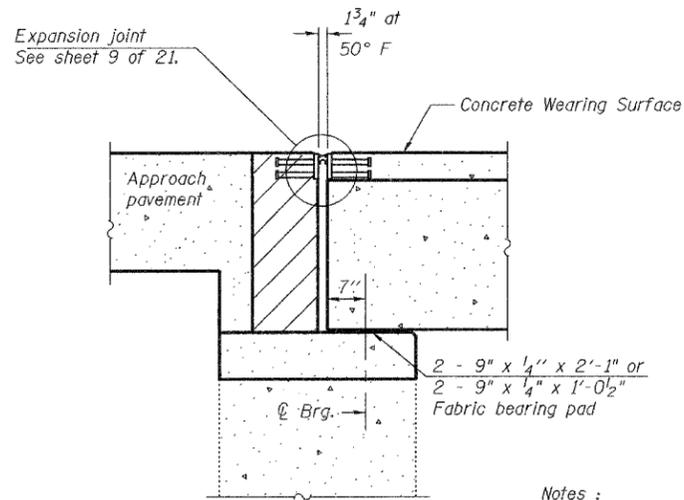
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

**SUPERSTRUCTURE**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

FILE\$

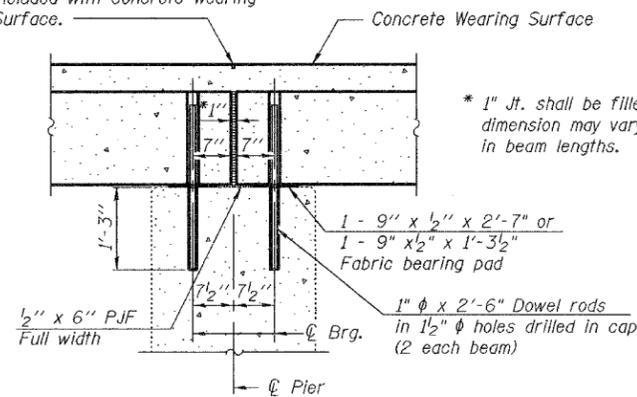
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                   |              |           |                          |
|-----------------------|----------|-------------------|--------------|-----------|--------------------------|
| ROUTE NO.             | SECTION  | COUNTY            | TOTAL SHEETS | SHEET NO. | SHEET NO. 4<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2   | ST. CLAIR         | 51           | 34        |                          |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- |              |           |                          |



**SECTION THRU ABUTMENTS**

1/4" wide x 3/4" deep Formed joint with concrete sealer without the backer rod (full width). Cost included with Concrete Wearing Surface.



**SECTION THRU PIERS**

Notes :

Ends of beams shall be aligned at the expansion joints. Any lineal variation in the beam lengths shall be placed at the fixed joints.

After beams have been erected, temporary retainers shall be installed, holes for dowel rods shall be drilled into substructure and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure a minimum of 24 hrs prior to grouting the shear keys.

Concrete wearing surface to be poured after grouting the shear keys.

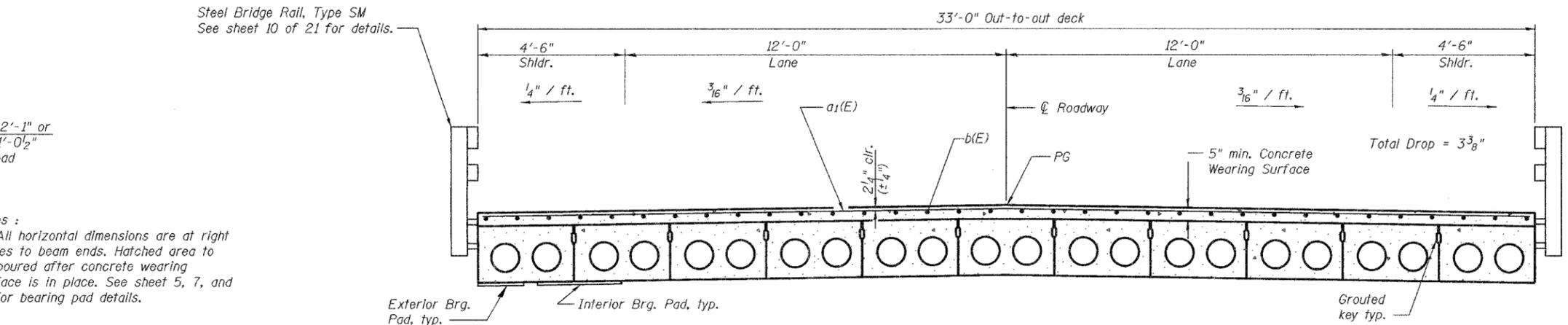
Hatched area to be poured after concrete wearing surface (including blackout) is in place. Quantity included with Concrete Structures on sheets 16 and 17 of 21.

See sheets 5, 6, and 7 of 21 for bearing pad details.

Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (17" Depth).

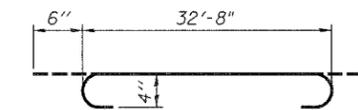
Notes :

All horizontal dimensions are at right angles to beam ends. Hatched area to be poured after concrete wearing surface is in place. See sheet 5, 7, and 18 for bearing pad details.



11 - 17" x 36" Precast Prestressed Concrete Deck Beams = 33'-0"

**CROSS SECTION**

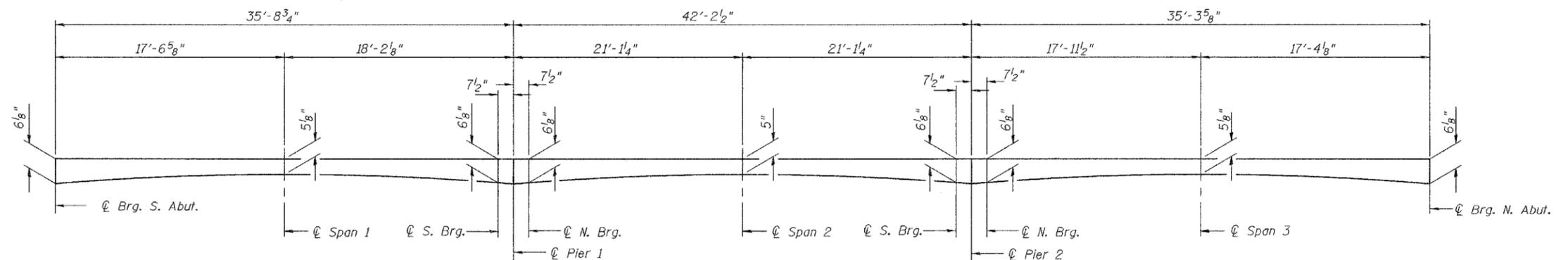


**BAR a1(E)**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

| Bar                              | No. | Size | Length  | Shape |
|----------------------------------|-----|------|---------|-------|
| a1(E)                            | 115 | #4   | 33'-8"  |       |
| b(E)                             | 136 | #4   | 30'-0"  |       |
| Reinforcement Bars, Epoxy Coated |     |      | Pound   | 5310  |
| Concrete Wearing Surface, 5"     |     |      | Sq. Yd. | 420   |

Reinforcement bars designated (E) shall be epoxy coated.



Note:

The depth of Concrete Wearing Surface at center of roadway over level deck beam is 9/16" higher.

**REINFORCED CONCRETE WEARING SURFACE PROFILE @ EDGE OF DECK**

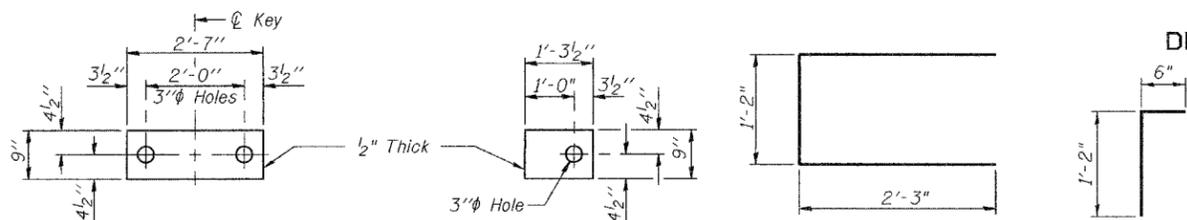
(Concrete wearing surface at blackout at expansion end of beams not shown.)

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

**SUPERSTRUCTURE DETAILS**  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

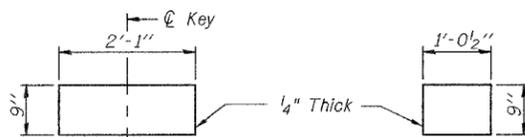
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                  |              |           |                          |
|-----------------------|----------|------------------|--------------|-----------|--------------------------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 5<br>21 SHEETS |
| F.A.P. 592            | 28BR-2   | ST. CLAIR        | 51           | 35        |                          |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |                          |



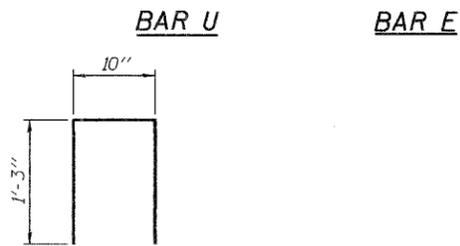
**FABRIC BEARING PAD**  
(Interior) **FABRIC BEARING PAD**  
(Exterior)

**FIXED**

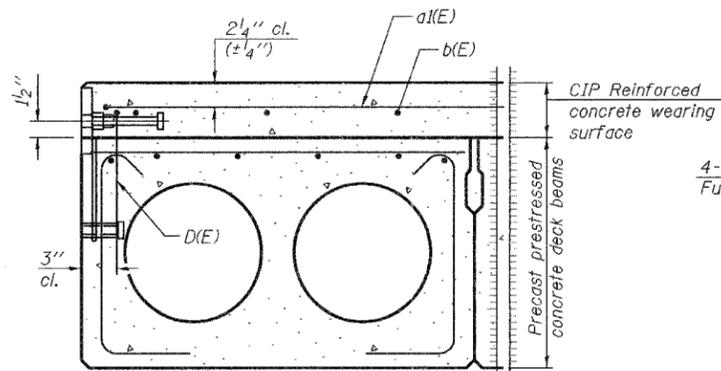


**FABRIC BEARING PAD**  
(Interior) **FABRIC BEARING PAD**  
(Exterior)

**EXPANSION**

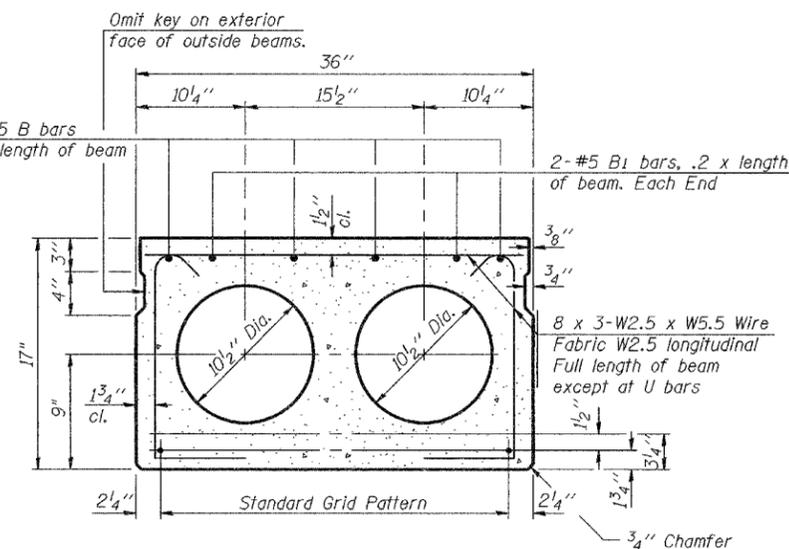


**BAR U**  
**BAR D(E)**



**SECTION THRU EXTERIOR BEAMS**

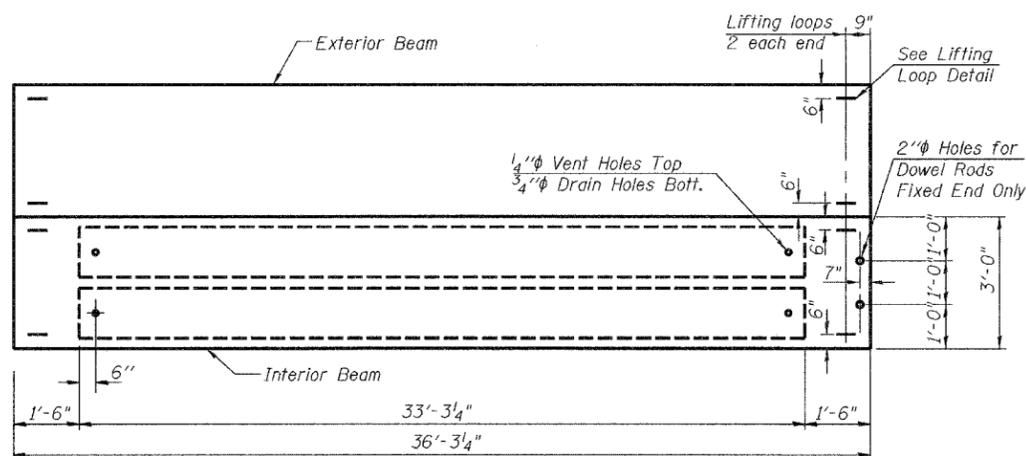
See Section Thru Interior Beams for strand pattern, dimensions and bar call outs.



**SECTION THRU INTERIOR BEAMS**

1/2" Strands, Each Strand Stressed to 30,900 Lbs.  
9-Strands 3/4" up, 4-Strands 3/4" up, 2-Strands 12" up

Note:  
Place strands symmetrically about center of beam.



**PLAN**

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 2 - 1/2" - 270 ksi strands, as shown.

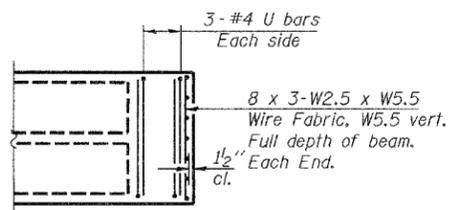
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

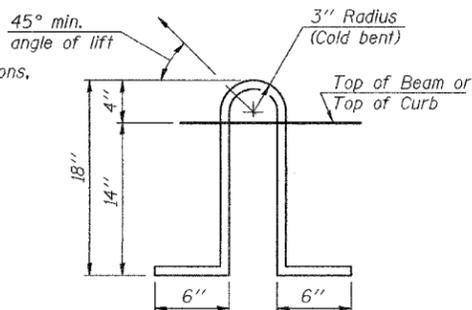
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion Inhibitor, per Articles 1020.05(b)(12) & 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be 4000 p.s.i.

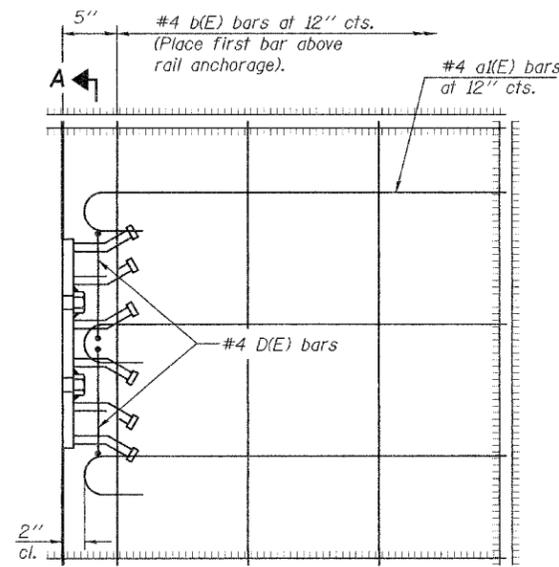
See sheet 10 of 21 for location of rail inserts.



**END OF BEAM - PLAN**  
(Fixed end)



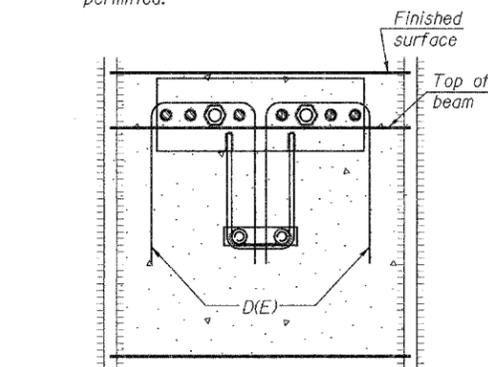
**LIFTING LOOP DETAIL**



**PLAN**

Notes:

The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



**SECTION A-A**

**BILL OF MATERIAL**

|   |         |        |
|---|---------|--------|
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 1197.0 |
|---|---------|--------|

**SUPERSTRUCTURE DETAILS**  
**SPAN 1**

F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

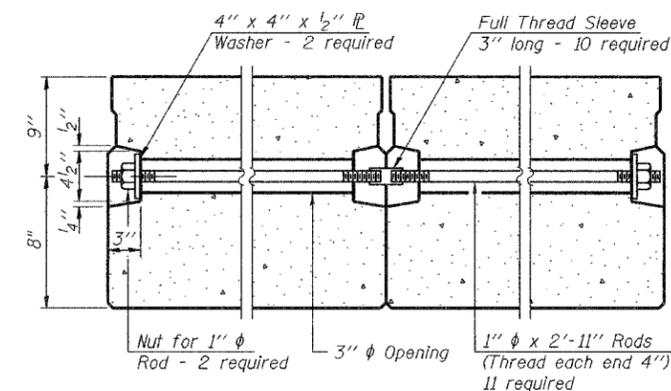
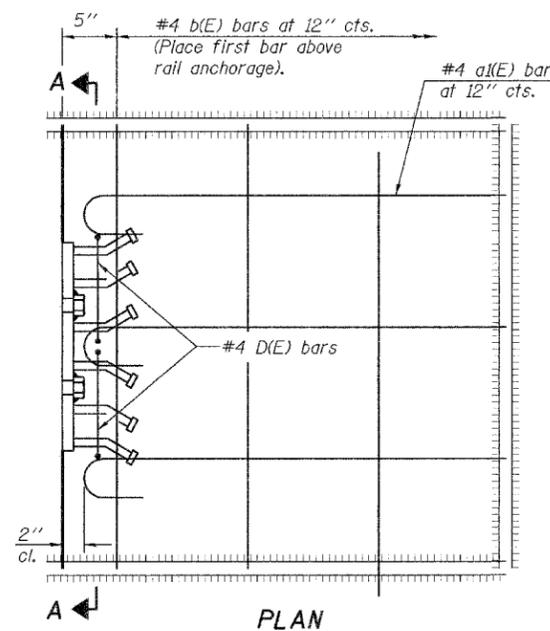
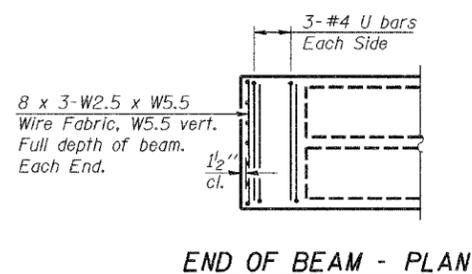
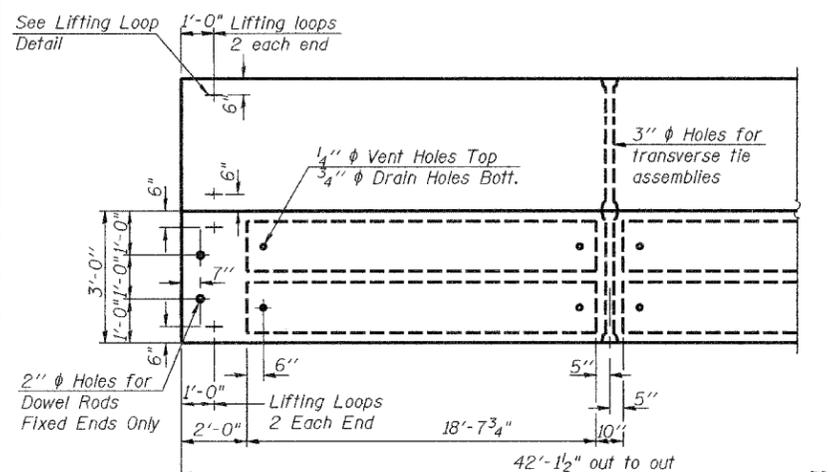
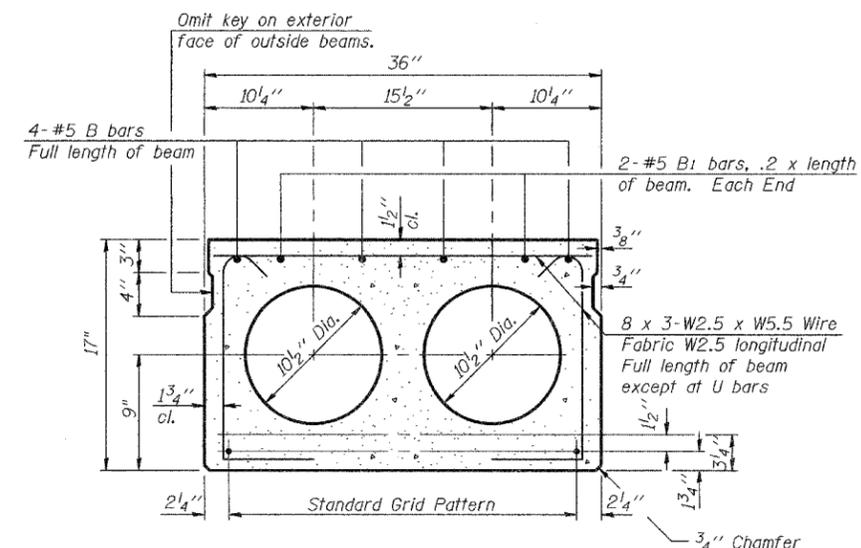
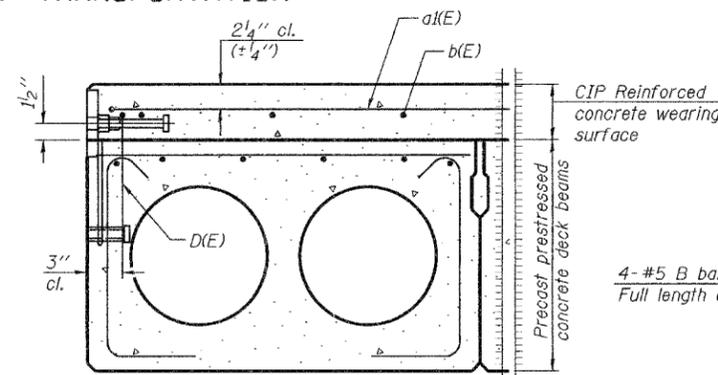
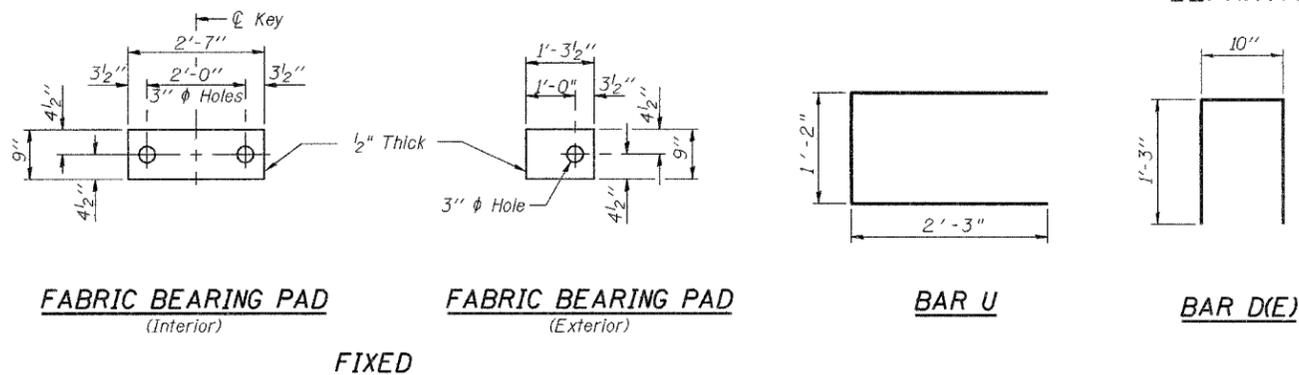
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

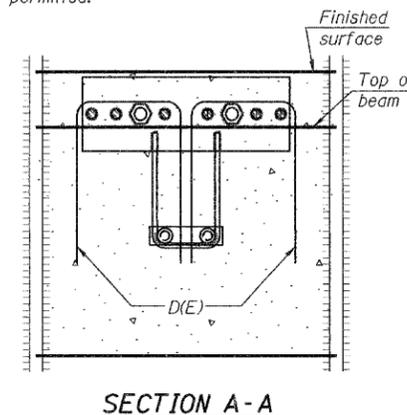
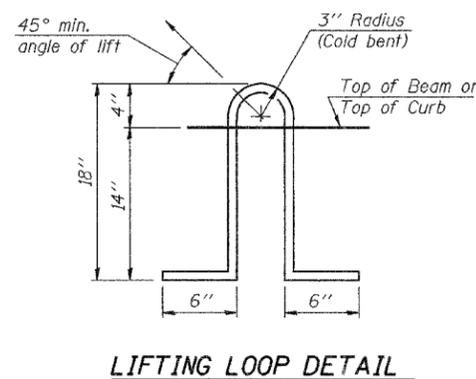
|                       |          |                  |              |           |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| F.A.P. 592            | 28BR-2   | ST. CLAIR        | 51           | 36        |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |

SHEET NO. 6  
21 SHEETS



**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.  
The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.  
Lifting loops shall be 2 - 1/2" φ-270 ksi strands, as shown.  
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.  
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.  
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.  
Corrosion Inhibitor, per Articles 1020.05(b)(12) & 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.  
Required Release Strength, f'ci, shall be 4000 p.s.i.  
See sheet 10 of 21 for location of rail inserts.



Notes:  
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

**TYPICAL TRANSVERSE TIE ASSEMBLY**

**BILL OF MATERIAL**

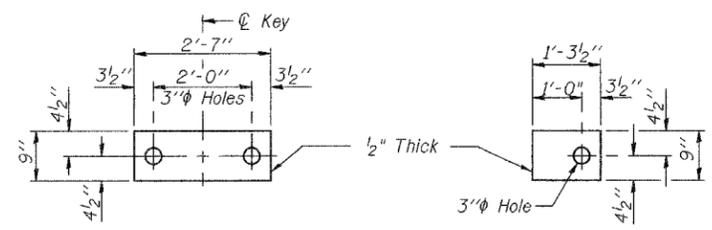
|   |                |
|---|----------------|
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. 1390.0 |
|---|----------------|

**SUPERSTRUCTURE DETAILS**  
**SPAN 2**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

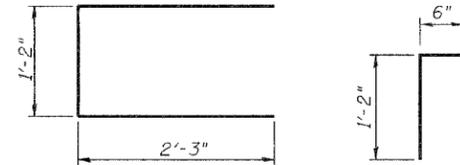
|                       |          |                   |              |           |
|-----------------------|----------|-------------------|--------------|-----------|
| ROUTE NO.             | SECTION  | COUNTY            | TOTAL SHEETS | SHEET NO. |
| F.A.P. 592            | 28BR-2   | ST. CLAIR         | 51           | 37        |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- |              | 21 SHEETS |



**FABRIC BEARING PAD**  
(Interior)

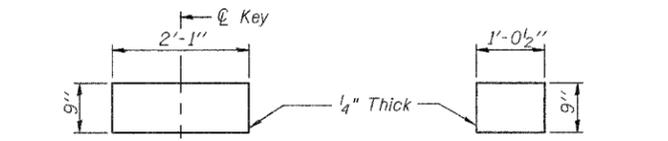
**FABRIC BEARING PAD**  
(Exterior)

**FIXED**



**BAR U**

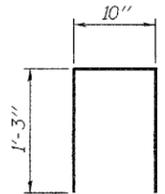
**BAR E**



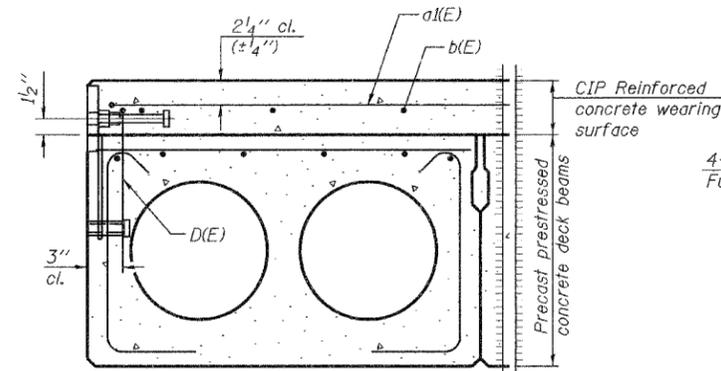
**FABRIC BEARING PAD**  
(Interior)

**FABRIC BEARING PAD**  
(Exterior)

**EXPANSION**

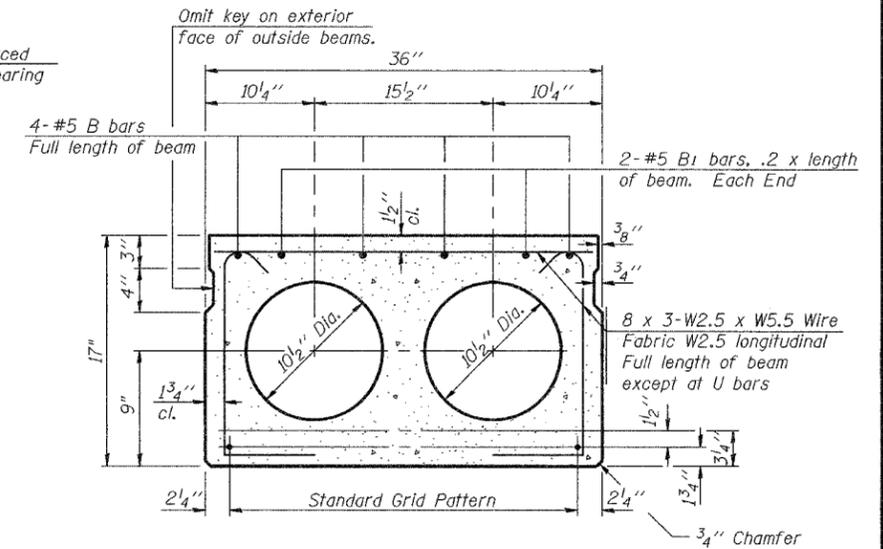


**BAR D/E**



**SECTION THRU EXTERIOR BEAMS**

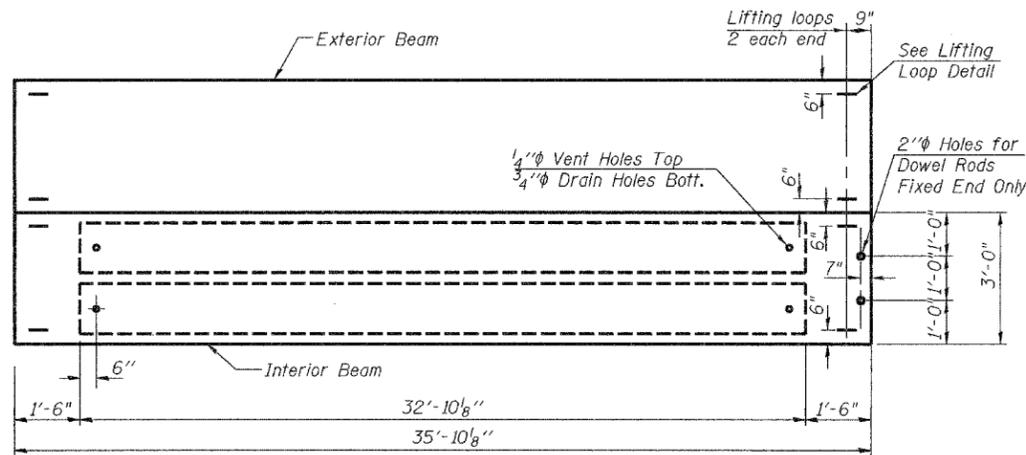
See Section Thru Interior Beams for strand pattern, dimensions and bar call outs.



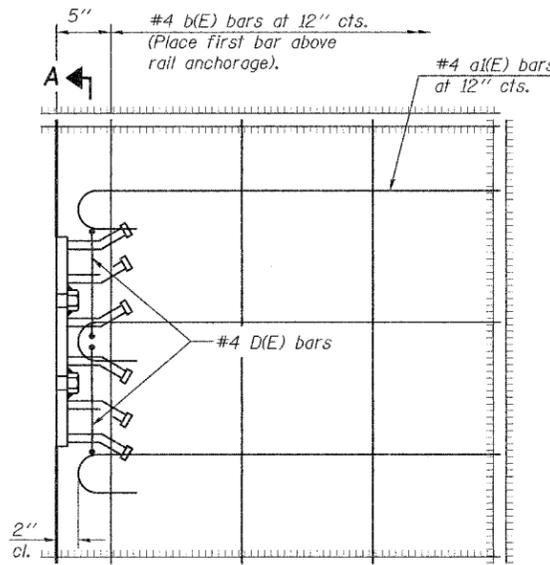
**SECTION THRU INTERIOR BEAMS**

1/2" Strands, Each Strand Stressed to 30,900 Lbs.  
9-Strands 1 3/4" up, 4-Strands 3 1/4" up, 2-Strands 12" up

Note:  
Place strands symmetrically about  $\phi$  of beam.



**PLAN**



**PLAN**

Notes:  
The rail anchorage shall be cast with the beam and the wearing surface shall be cast in the field. Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.

The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 2 - 1/2"  $\phi$  - 270 ksi strands, as shown.

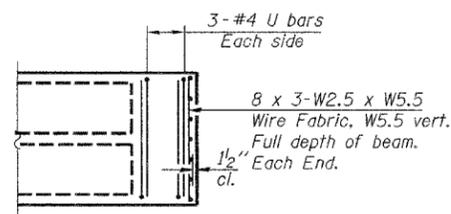
Non prestressing steel shall conform to ASTM A 706 (IL MOD), Grade 60.

The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

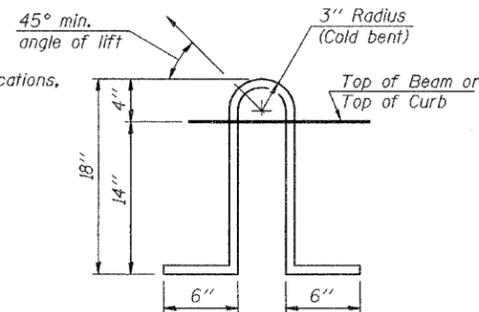
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Corrosion inhibitor, per Articles 1020.05(b)(12) & 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength,  $f'_{ci}$ , shall be 4000 p.s.i.

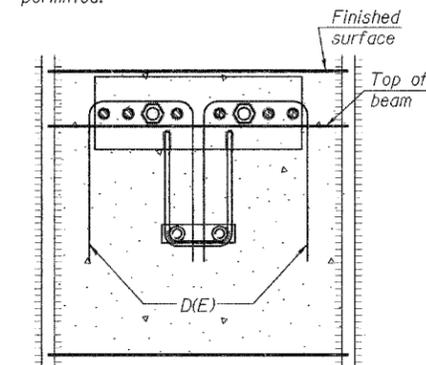
See sheet 10 of 21 for location of rail inserts.



**END OF BEAM - PLAN**  
(Fixed end)



**LIFTING LOOP DETAIL**



**SECTION A-A**

**BILL OF MATERIAL**

|   |                |
|---|----------------|
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. 1183.0 |
|---|----------------|

**SUPERSTRUCTURE DETAILS**  
**SPAN 3**

F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

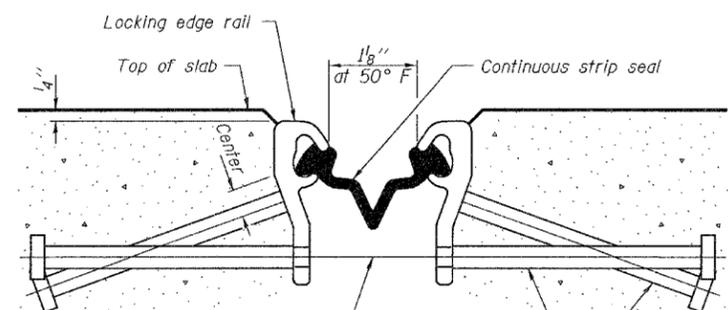
DATE: \$

FILE: \$

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                            |                   |                     |                    |                  |                          |
|----------------------------|-------------------|---------------------|--------------------|------------------|--------------------------|
| ROUTE NO.<br>F.A.P.<br>592 | SECTION<br>28BR-2 | COUNTY<br>ST. CLAIR | TOTAL SHEETS<br>51 | SHEET NO.<br>39  | SHEET NO. 9<br>21 SHEETS |
| FED. ROAD DIST. NO. 7      |                   | ILLINOIS            |                    | FED. AID PROJECT |                          |

\* Omit weld at seal opening.



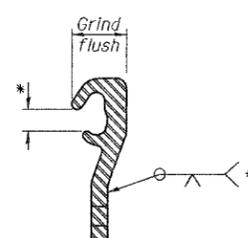
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place 1/2" φ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.

**SECTION THRU STRIP SEAL JOINT  
FOR OVERLAY OVER DECK BEAMS**

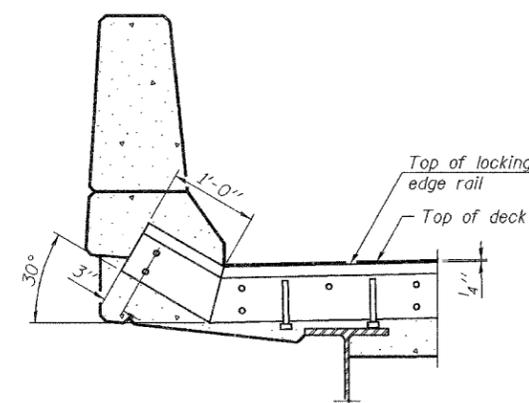


**LOCKING EDGE RAIL**

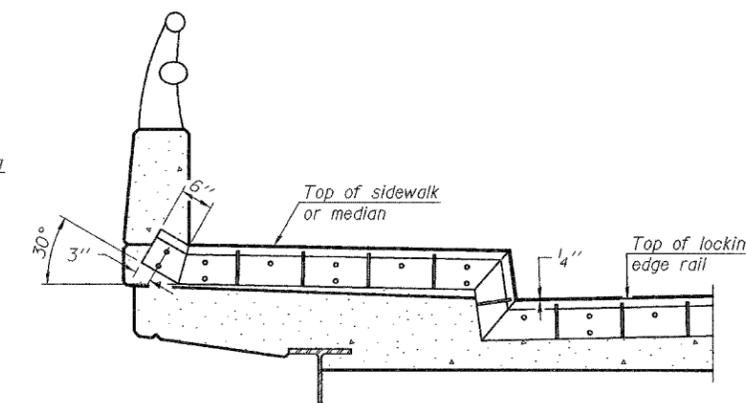


**LOCKING EDGE RAIL SPLICE**

**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.  
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.  
The inside of the Locking Edge Rail groove shall be free of weld residue.  
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.  
The manufacturer's recommended installation methods shall be followed.



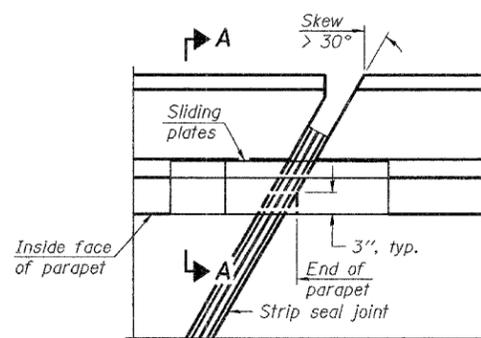
**AT PARAPET**



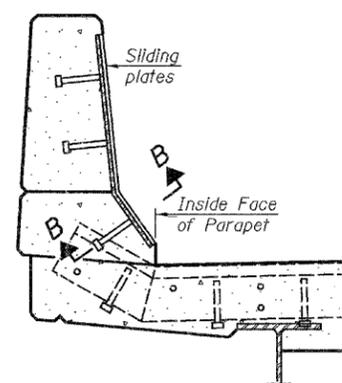
**AT SIDEWALK OR MEDIAN**

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

**TYPICAL END TREATMENTS**

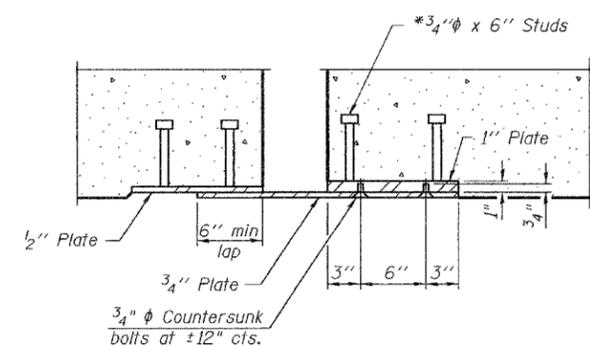


**PLAN**



**SECTION A-A**

**POINT BLOCK DETAILS  
(for skews > 30°)**



**SECTION B-B**

**BILL OF MATERIAL**

| Item                       | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 66    |

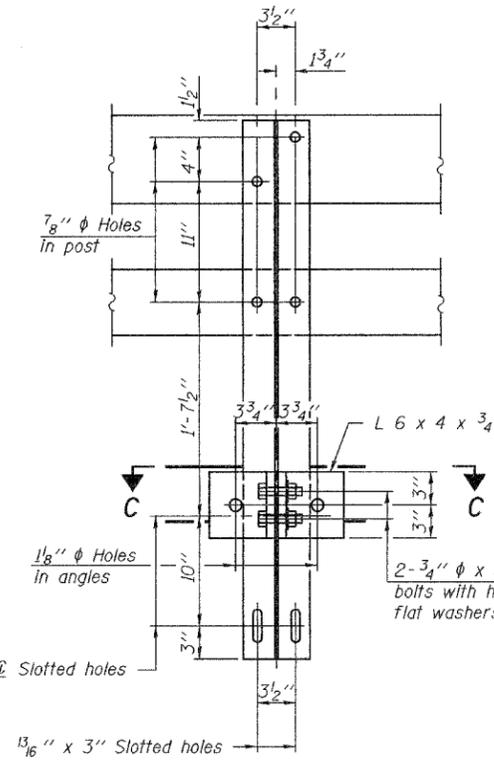
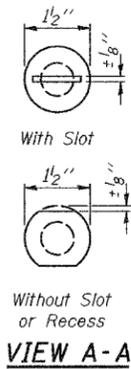
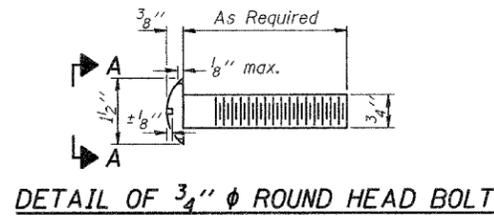
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

EJ-SSJ 11-1-06

**PREFORMED JOINT STRIP SEAL  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212**

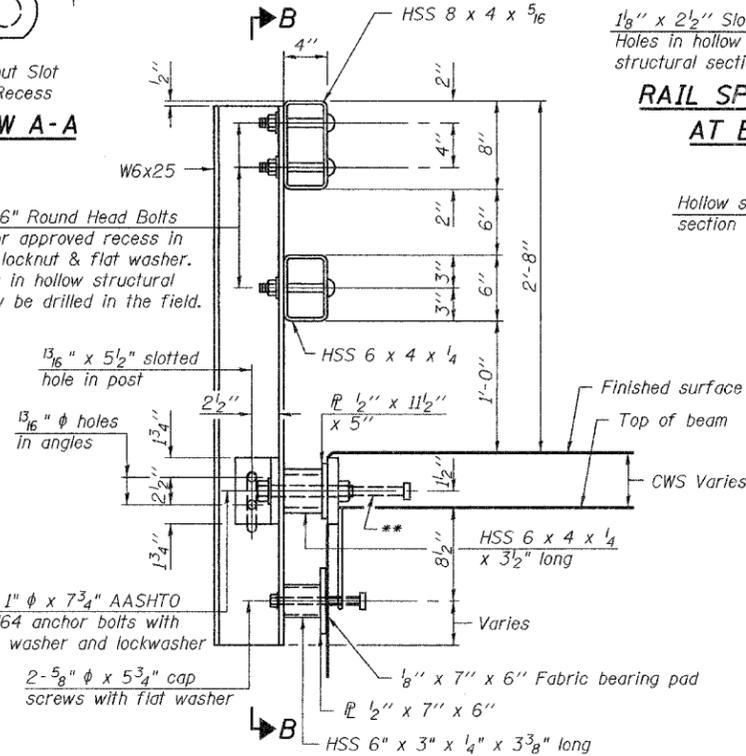
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                   |              |           |              |
|-----------------------|----------|-------------------|--------------|-----------|--------------|
| ROUTE NO.             | SECTION  | COUNTY            | TOTAL SHEETS | SHEET NO. | SHEET NO. 10 |
| F.A.P. 592            | 28BR-2   | ST. CLAIR         | 51           | 40        | 21 SHEETS    |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- |              |           |              |

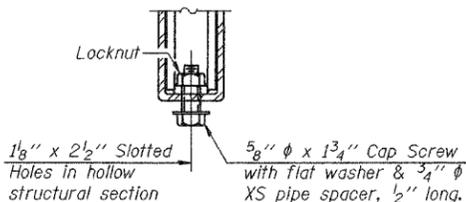


SECTION B-B

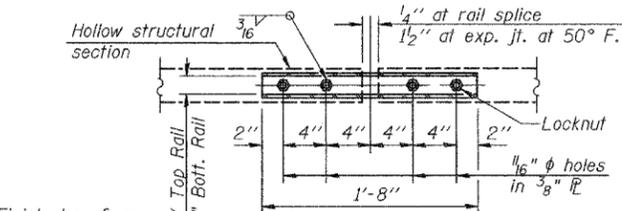
4-3/4"  $\phi$  x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8"  $\phi$  holes in hollow structural section may be drilled in the field.



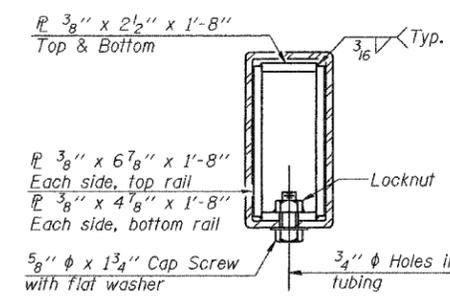
SECTION AT RAIL POST



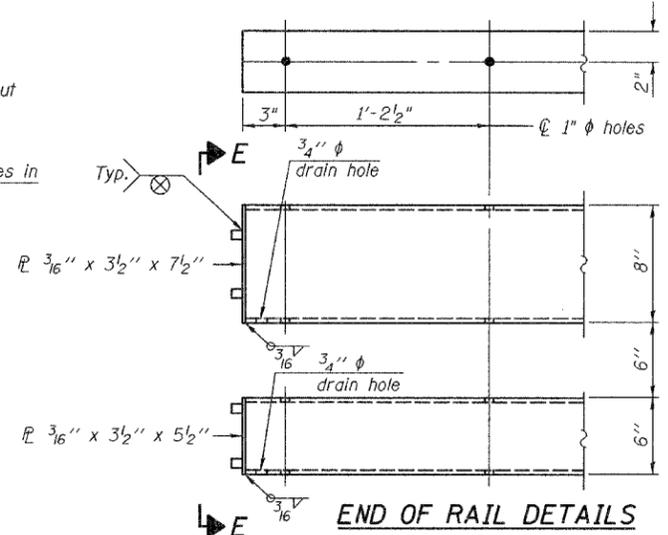
RAIL SPLICE CONNECTION AT EXPANSION JT.



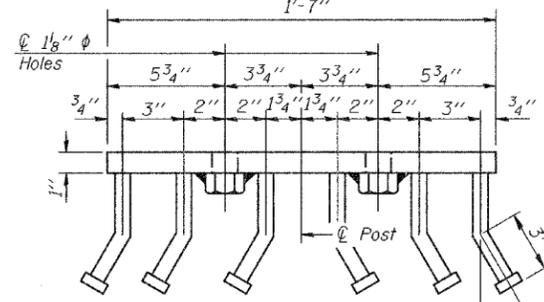
PLAN-BOTT. SPLICE P TYPICAL



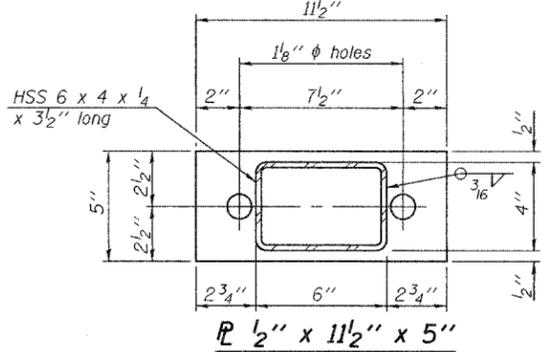
SECTION AT RAIL SPLICE



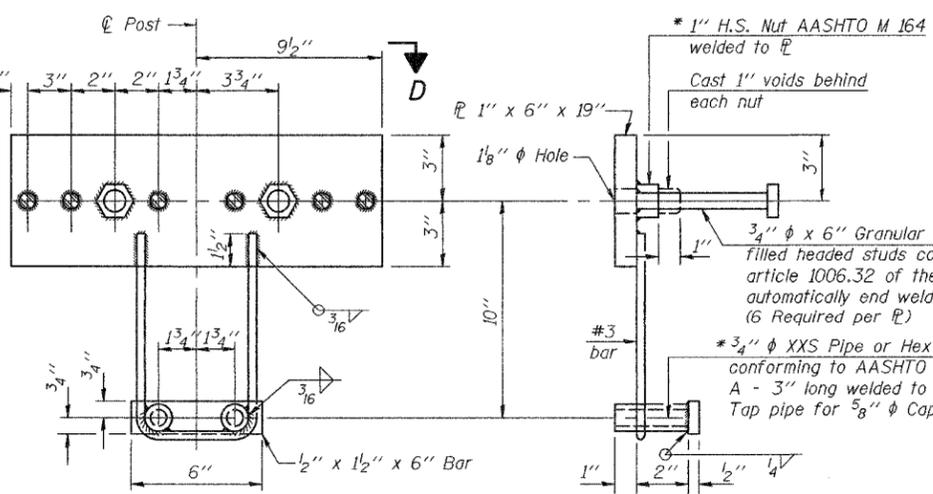
END OF RAIL DETAILS



VIEW D-D



SECTION C-C



ANCHOR DEVICE

Notes:  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.  
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.  
For rail post spacing, see sheet 2 of 21.

\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

| Item                   | Unit | Quantity |
|------------------------|------|----------|
| Steel Railing, Type SM | Foot | 229      |

TYPE SM  
STEEL BRIDGE RAIL SIDE MOUNTED  
WITH CONCRETE WEARING SURFACE  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

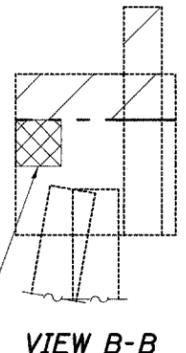
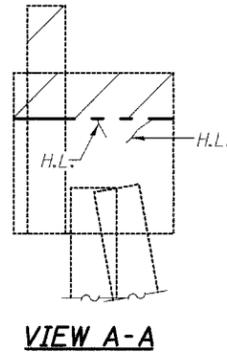
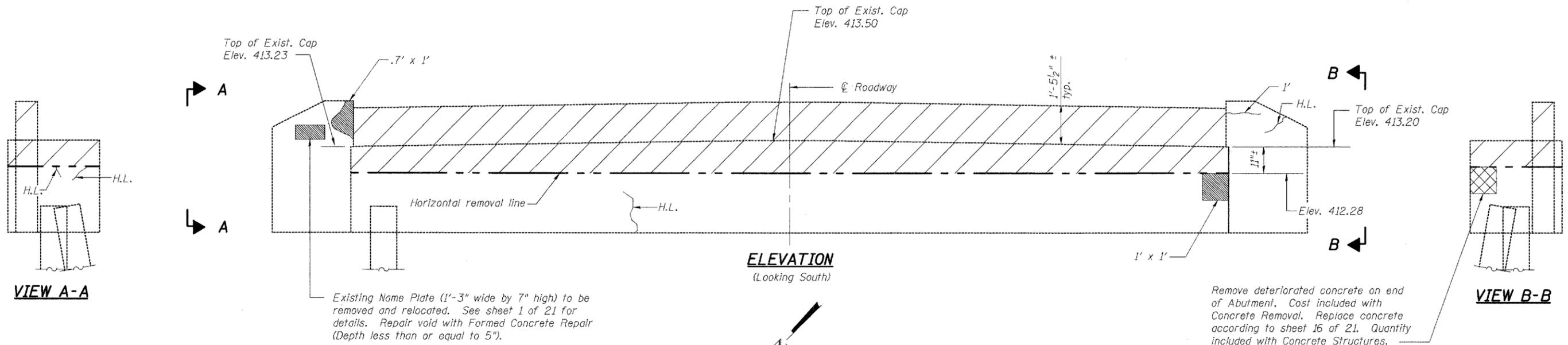
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | EAW |
| CHECKED  | ADL |

R-34CWS 11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 7' maximum CWS thickness)

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

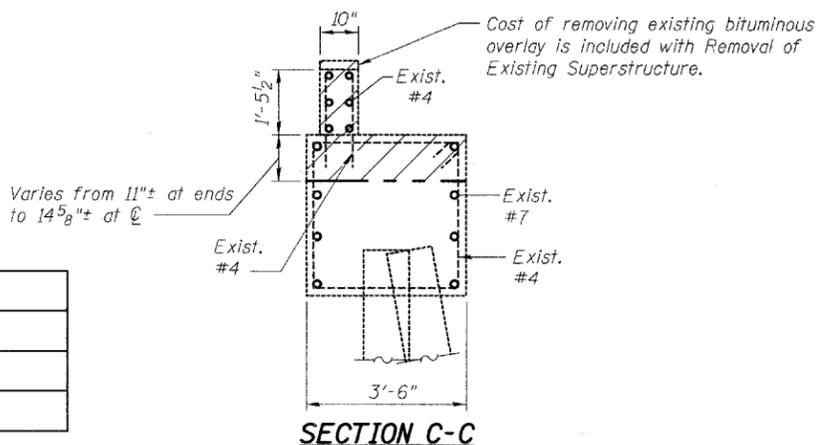
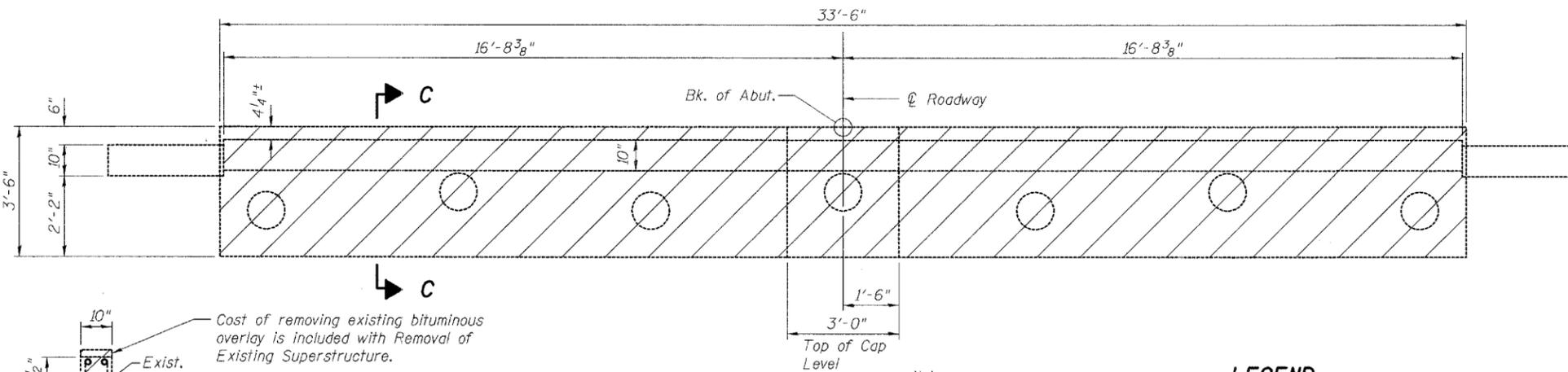
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                      |          |                  |              |           |                           |
|----------------------|----------|------------------|--------------|-----------|---------------------------|
| ROUTE NO.            | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 11<br>21 SHEETS |
| F.A.P. 592           | 28BR-2   | ST. CLAIR        | 51           | 41        |                           |
| FED. RDG DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |                           |



Existing Name Plate (1'-3" wide by 7" high) to be removed and relocated. See sheet 1 of 21 for details. Repair void with Formed Concrete Repair (Depth less than or equal to 5").

Remove deteriorated concrete on end of Abutment. Cost included with Concrete Removal. Replace concrete according to sheet 16 of 21. Quantity included with Concrete Structures.



PLAN

Note:  
\*Only cracks equal to or wider than 1/8" shall be sealed with "Epoxy Crack Sealing"

LEGEND

Formed Concrete Repair (Depth equal to or less than 5")

Concrete Removal

\* 6' Epoxy Crack Sealing

H.L. Hairline Crack - Not to be sealed

Note: Crack widths are 1/8" ± 1/16" unless otherwise noted.

BILL OF MATERIAL

| Item  | Unit    | Total |
|---|---------|-------|
| Concrete Removal  | Cu. Yd. | 6.2   |
| * Epoxy Crack Sealing   | Foot    | 1     |
| Structural Repair of Concrete (Depth equal to or less than 5 in.) | Sq. Ft. | 2.5   |

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

**CONCRETE REMOVAL AND REPAIRS**  
**SOUTH ABUTMENT**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

6/13/2006

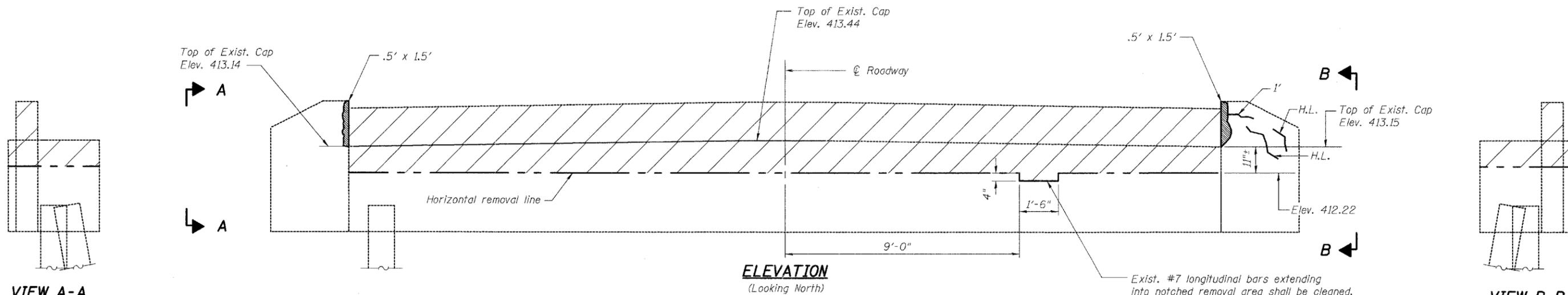
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |         |           |                  |       |                           |
|-----------------------|---------|-----------|------------------|-------|---------------------------|
| ROUTE NO.             | SECTION | COUNTY    | SHEET NO.        | SHEET | SHEET NO. 12<br>21 SHEETS |
| F.A.P. 592            | 28BR-2  | ST. CLAIR | 51               | 42    |                           |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS  | FED. AID PROJECT |       |                           |

6/13/2006

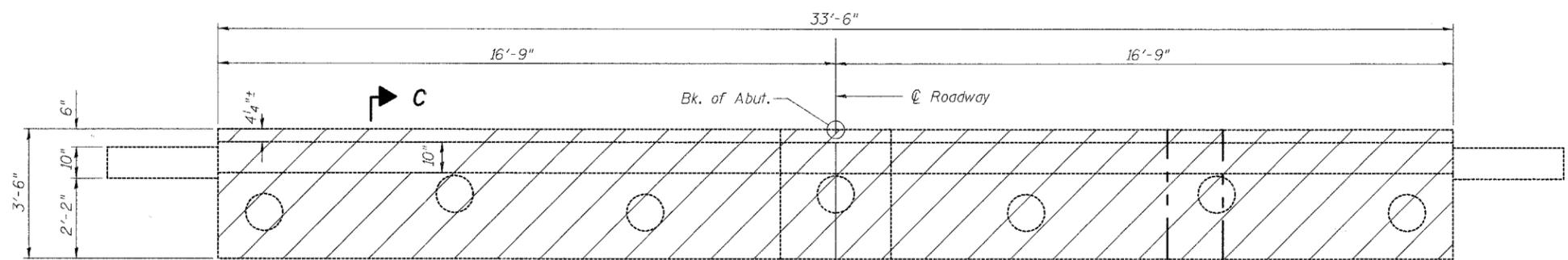
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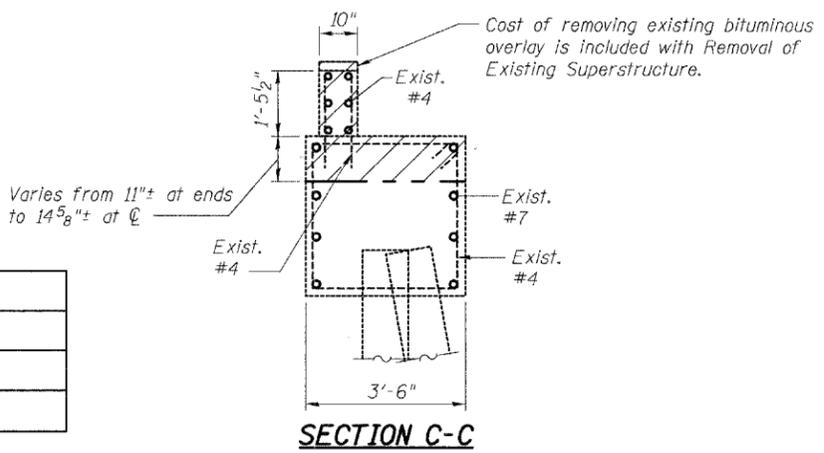
VIEW A-A

VIEW B-B

Exist. #7 longitudinal bars extending into notched removal area shall be cleaned, straightened, and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cast shall be included with Concrete Removal.



PLAN



SECTION C-C

Note:  
\*Only cracks equal to or wider than 1/8" shall be sealed with "Epoxy Crack Sealing"

LEGEND

- Formed Concrete Repair (Depth equal to or less than 5")
- Concrete Removal
- \* 6' Epoxy Crack Sealing
- H.L. Hairline Crack - Not to be sealed

Note: Crack widths are 1/8" ± 1/16" unless otherwise noted.

BILL OF MATERIAL

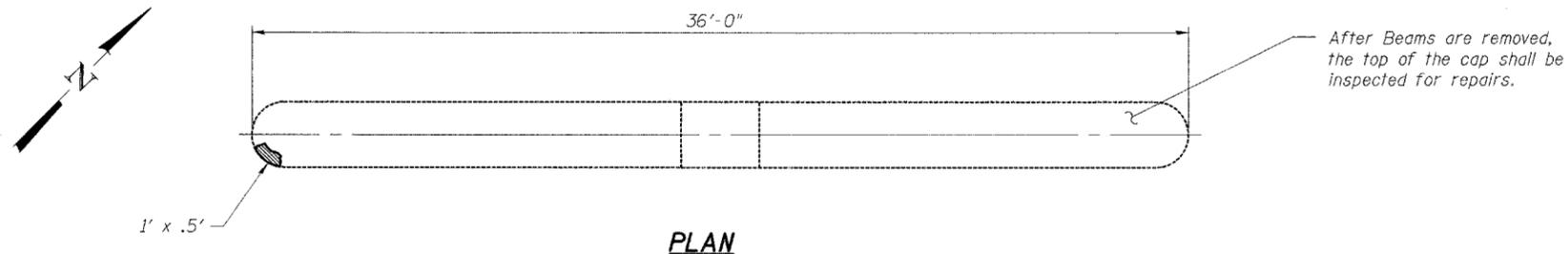
| Item  | Unit    | Total |
|---|---------|-------|
| Concrete Removal  | Cu. Yd. | 6.3   |
| Epoxy Crack Sealing   | Foot    | 1     |
| Structural Repair of Concrete (Depth equal to or less than 5 in.) | Sq. Ft. | 1.5   |

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

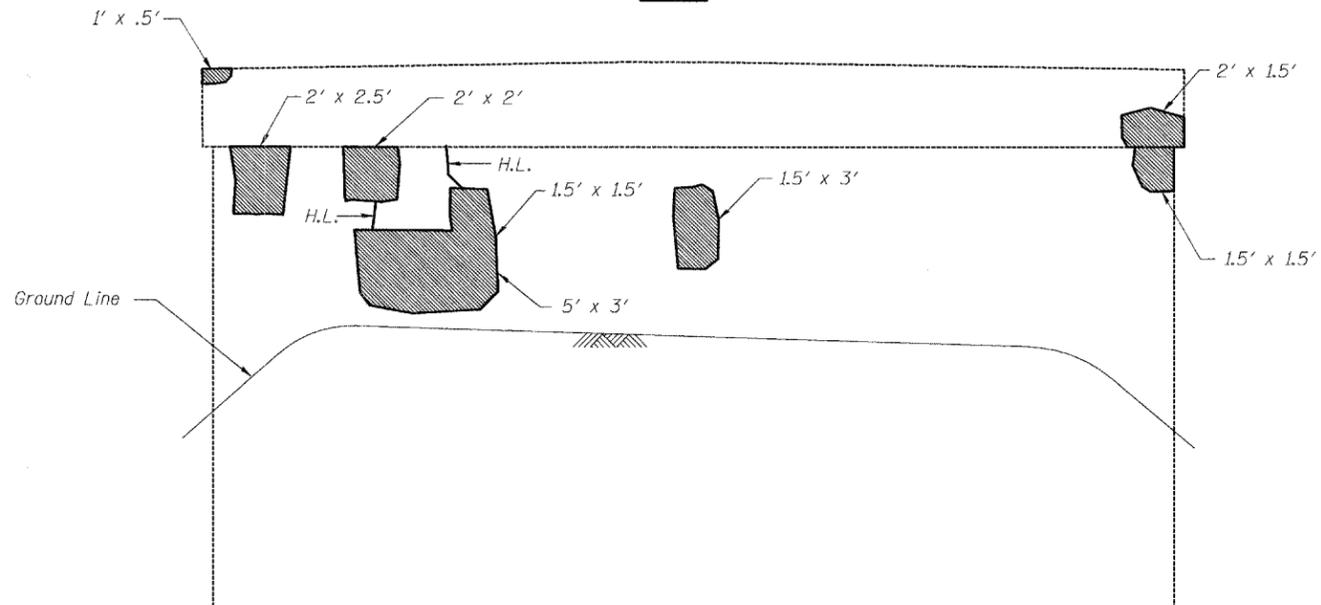
**CONCRETE REMOVAL AND REPAIRS  
NORTH ABUTMENT  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

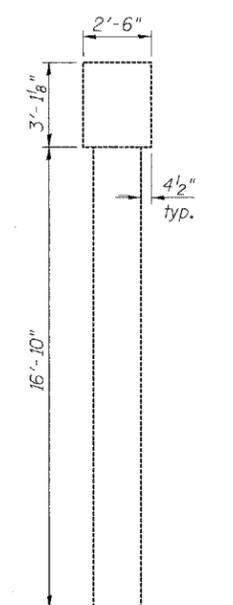
|                       |         |           |                  |           |                           |
|-----------------------|---------|-----------|------------------|-----------|---------------------------|
| ROUTE NO.             | SECTION | COUNTY    | TOTAL SHEETS     | SHEET NO. | SHEET NO. 13<br>21 SHEETS |
| F.A.P. 592            | 28BR-2  | ST. CLAIR | 51               | 43        |                           |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS  | FED. AID PROJECT |           |                           |



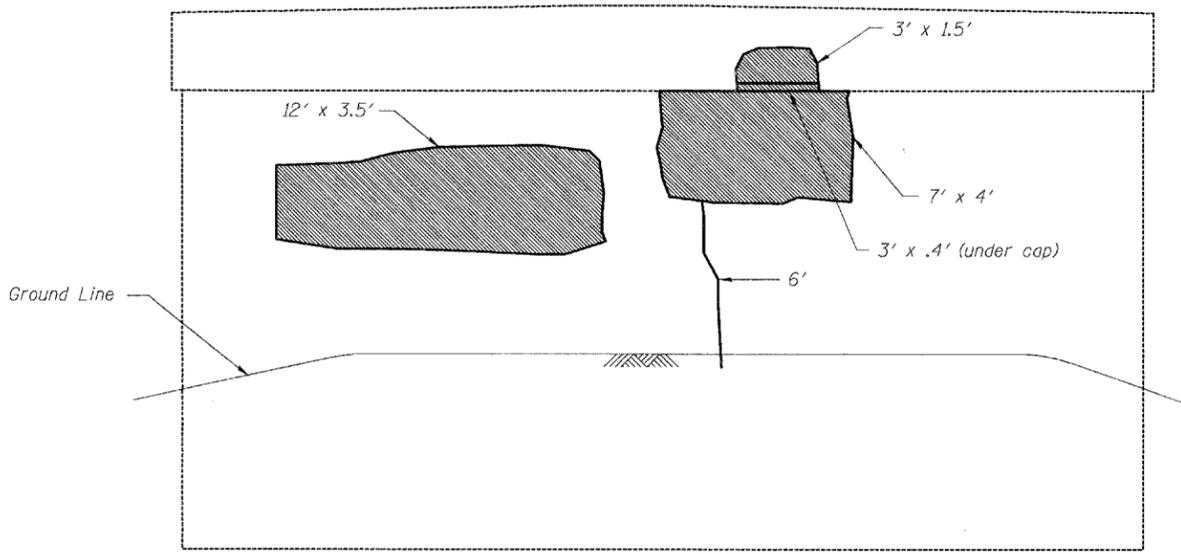
**PLAN**



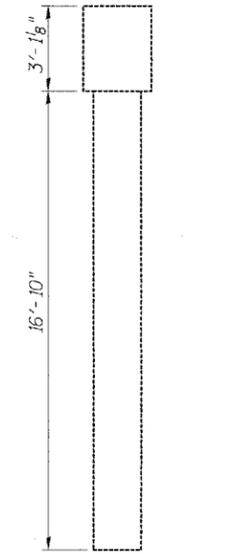
**SOUTH ELEVATION**  
(Looking North)



**WEST END VIEW**  
(Looking East)



**NORTH ELEVATION**  
(Looking South)



**EAST END VIEW**  
(Looking West)

Note:  
\*Only cracks equal to or wider than 1/8" shall be sealed with "Epoxy Crack Sealing"

**BILL OF MATERIAL**

| Item  | Unit    | Total |
|---|---------|-------|
| * Epoxy Crack Sealing   | Foot    | 6     |
| Structural Repair of Concrete (Depth equal to or less than 5 in.) | Sq. Ft. | 113   |

**LEGEND**

- Formed Concrete Repair (Depth equal to or less than 5")
- \* 6' Epoxy Crack Sealing
- H.L. Hairline Crack - Not to be sealed

Note: Crack widths are 1/8" ± 1/16" unless otherwise noted.

**PIER 1 REPAIRS**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

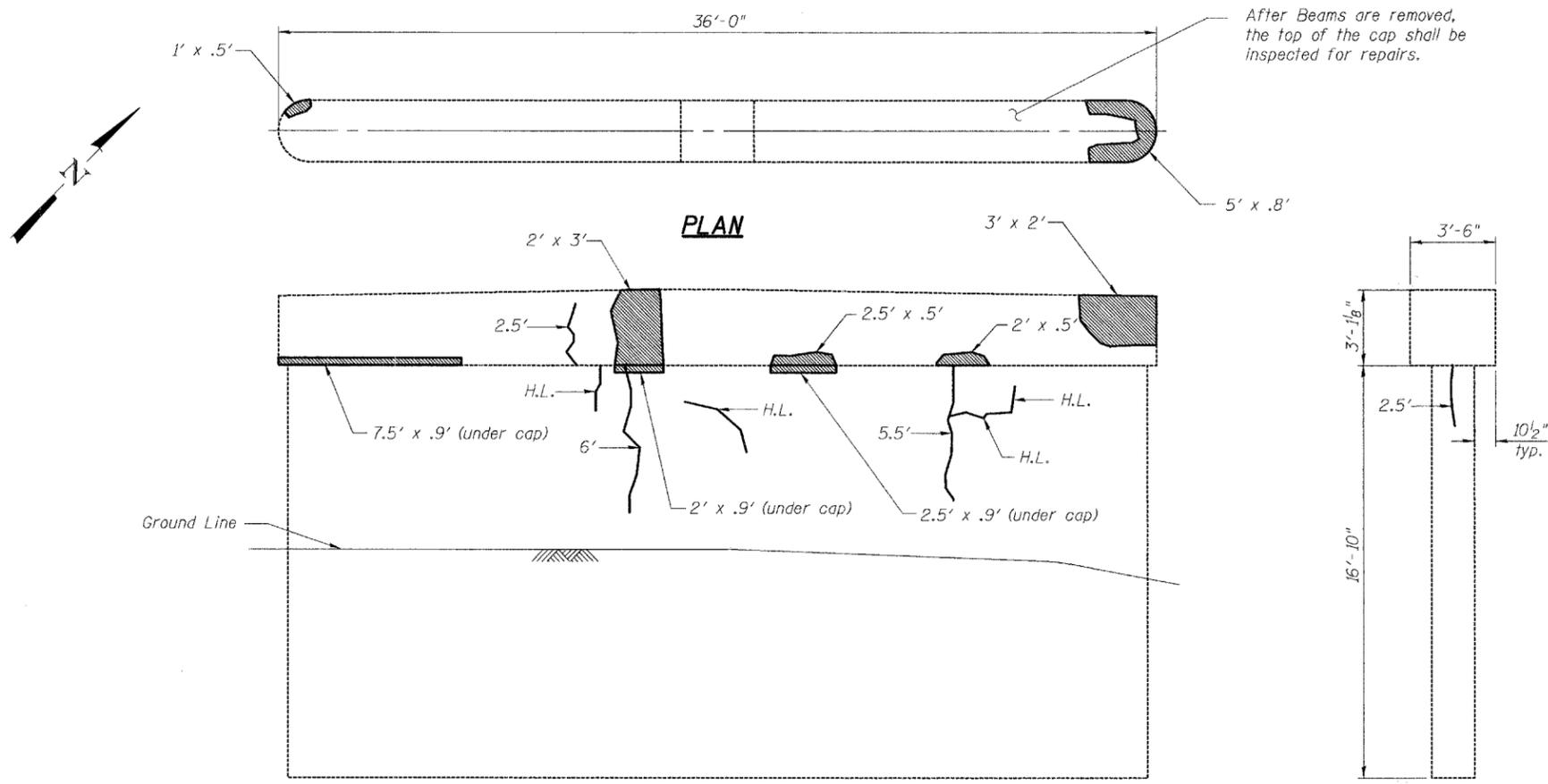
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

6/13/2006

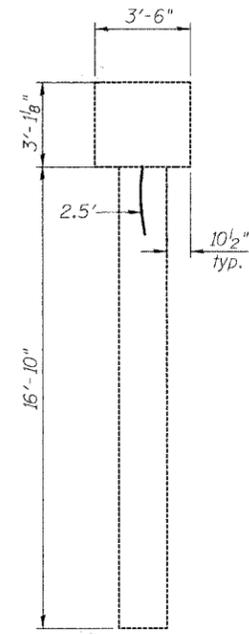
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

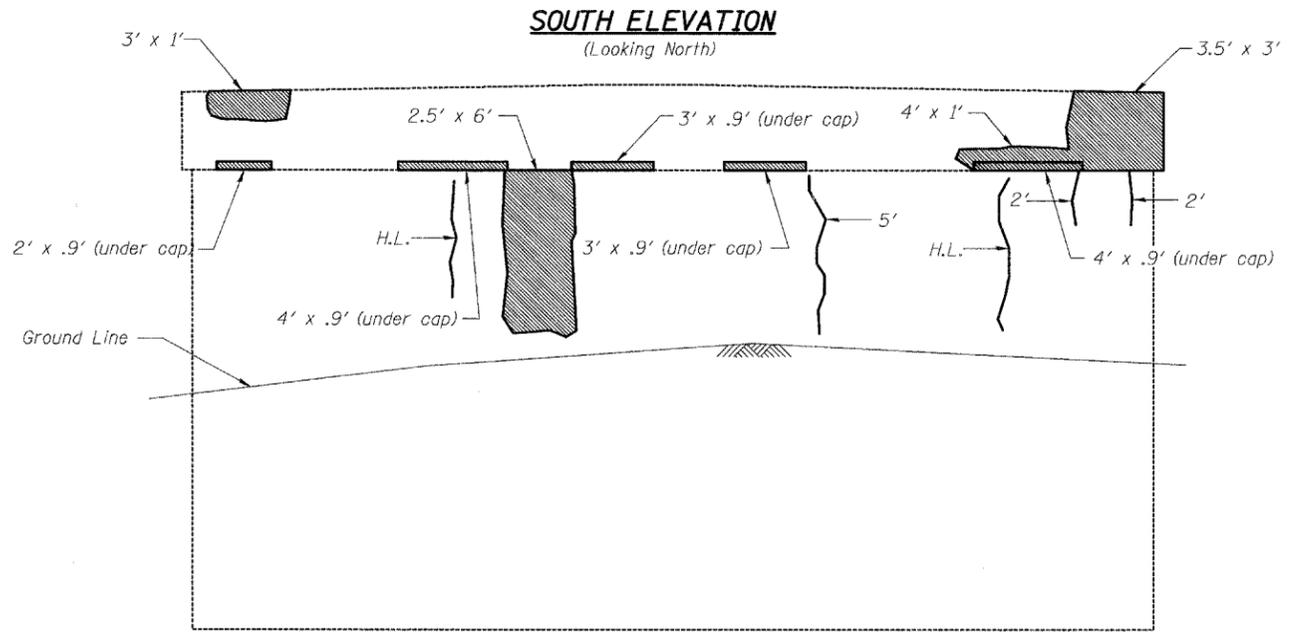
|                       |         |           |                  |           |                           |
|-----------------------|---------|-----------|------------------|-----------|---------------------------|
| ROUTE NO.             | SECTION | COUNTY    | TOTAL SHEETS     | SHEET NO. | SHEET NO. 14<br>21 SHEETS |
| F.A.P. 592            | 28BR-2  | ST. CLAIR | 51               | 44        |                           |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS  | FED. AID PROJECT |           |                           |



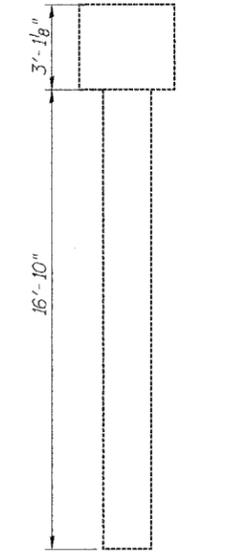
**PLAN**



**WEST END VIEW**  
(Looking East)



**SOUTH ELEVATION**  
(Looking North)



**EAST END VIEW**  
(Looking West)

**NORTH ELEVATION**  
(Looking South)

Note:  
\*Only cracks equal to or wider than 1/8" shall be sealed with "Epoxy Crack Sealing"

**BILL OF MATERIAL**

| Item  | Unit    | Total |
|---|---------|-------|
| * Epoxy Crack Sealing   | Foot    | 26    |
| Structural Repair of Concrete (Depth equal to or less than 5 in.) | Sq. Ft. | 76    |

**LEGEND**

- Formed Concrete Repair (Depth equal to or less than 5")
- \* 6' Epoxy Crack Sealing
- H.L. Hairline Crack - Not to be sealed

Note: Crack widths are 1/8" ± 1/16" unless otherwise noted.

**PIER 2 REPAIRS**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

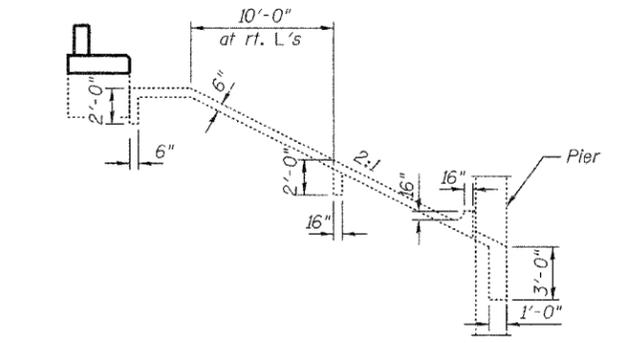
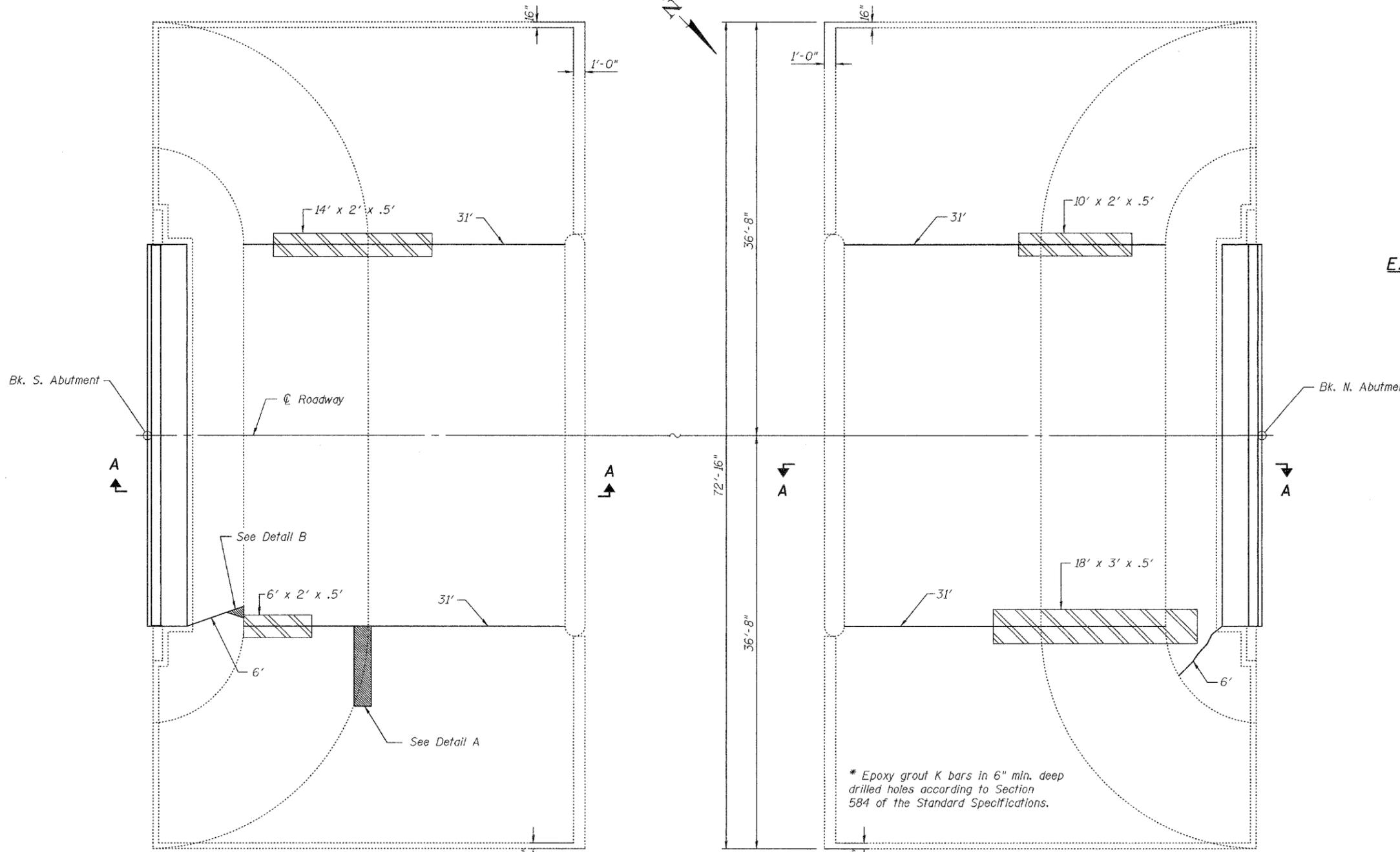
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

6/13/2006

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                  |              |           |                           |
|-----------------------|----------|------------------|--------------|-----------|---------------------------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 15<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2   | ST. CLAIR        | 51           | 45        |                           |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |                           |



EXISTING SLOPEWALL SECTION A-A

\* Epoxy grout K bars in 6" min. deep drilled holes according to Section 584 of the Standard Specifications.

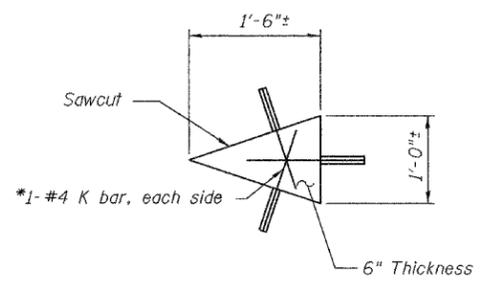
BAR LIST

| Bar            | No. | Size | Length | Shape |
|----------------|-----|------|--------|-------|
| K              | 13  | #4   | 1'-5"  | —     |
| K <sub>1</sub> | 1   | #4   | 6'-9"  | —     |

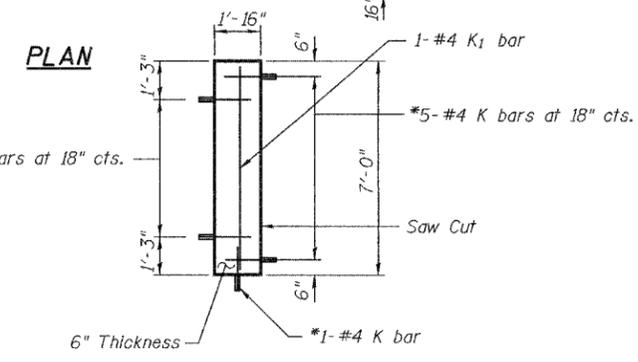
BILL OF MATERIAL

| Item                               | Unit    | Total |
|------------------------------------|---------|-------|
| Slope Wall Crack Injection         | Foot    | 136   |
| Slope Wall Repair                  | Sq. Yd. | 1     |
| Controlled Low - Strength Material | Cu. Yd. | 2.1   |

**SLOPE WALL REPAIRS**  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212



DETAIL B



DETAIL A

LEGEND

- Slope Wall Repair
- Slope Wall Crack Sealing
- Controlled Low-Strength Material

Note: See Special Provisions for description of Slope Wall Repair, Slope Wall Crack Sealing, and Controlled Low-Strength Material.

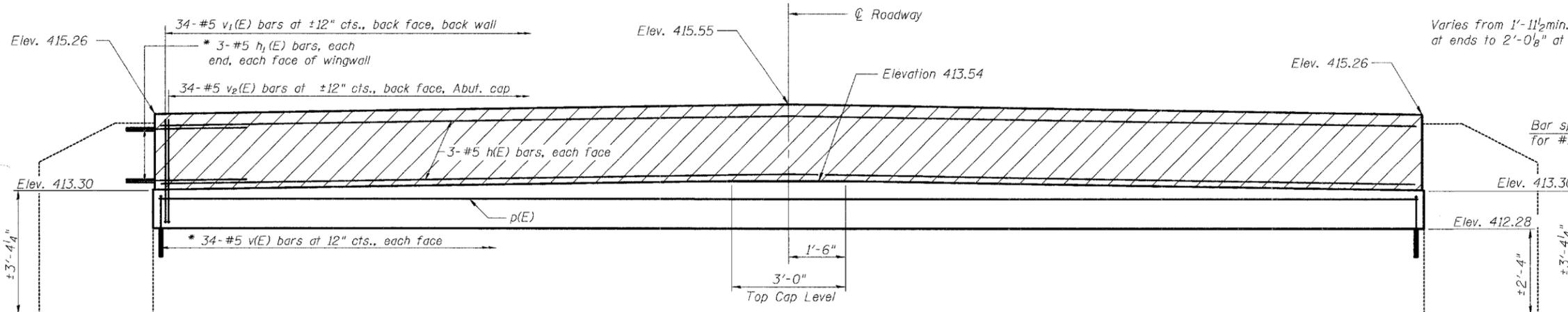
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

DATE \$

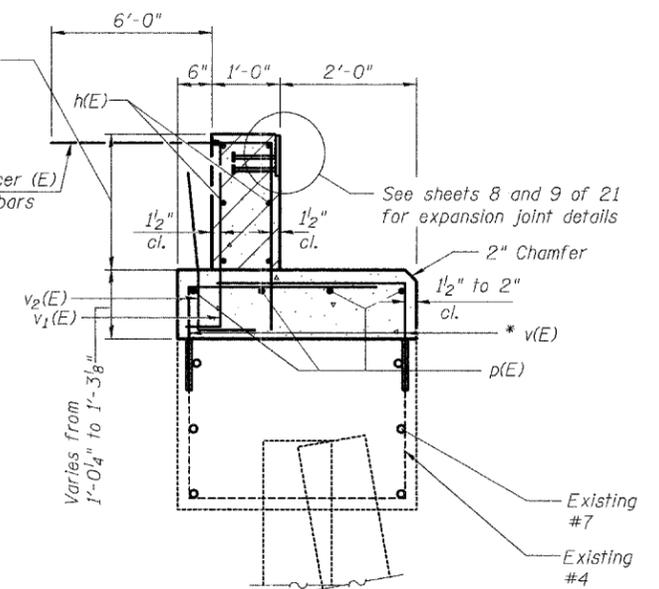
FILE \$

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

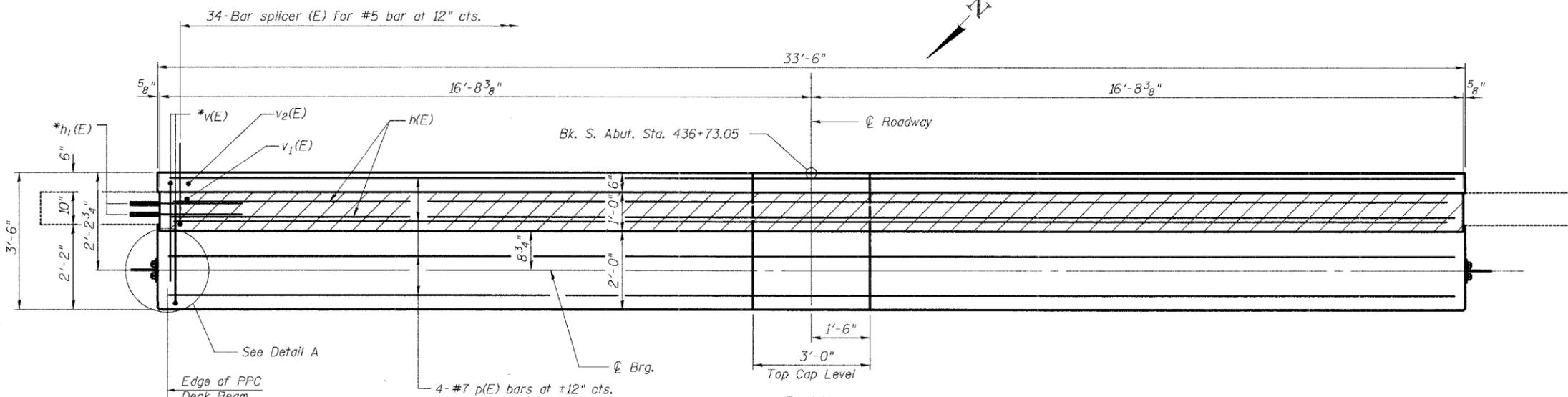
|                       |          |                  |       |       |              |
|-----------------------|----------|------------------|-------|-------|--------------|
| ROUTE NO.             | SECTION  | COUNTY           | SHEET | SHEET | SHEET NO. 16 |
| F.A.P.<br>592         | 28BR-2   | ST. CLAIR        | 51    | 46    | 21 SHEETS    |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |       |       |              |



**ELEVATION**  
(Looking South)



**SECTION THRU ABUTMENT**

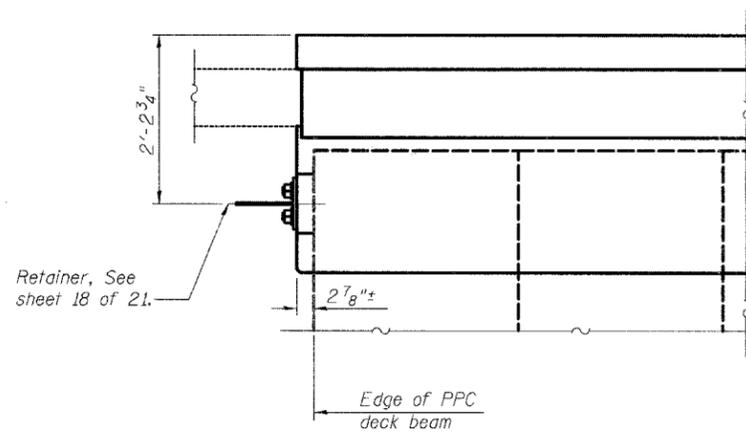


**PLAN**

\* Epoxy grout  $h_1(E)$ , and  $v(E)$  bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.

Notes:

- Hatched area to be poured after Concrete Wearing Surface (including blackout) is in place and cured. Quantity of concrete included with Concrete Structures.
- Install Retainers and temporary wedges after beams are in place and before wearing surface is poured.
- Cost of Retainers, Temporary wedges and accessories are included with Precast Prestressed Concrete Deck Beams (17" Depth).
- After concrete wearing surface (including blackout) is poured and cured, the temporary wedges shall be removed. The Retainers with no wedges shall remain. Cost included with Precast Prestressed Concrete Deck Beams (17" Depth).
- For details of Bar Splicers, see sheet 21 of 21.
- See sheet 18 of 21 for Bend Details of Bars.



**DETAIL A**

**BILL OF MATERIAL**

| Bar                              | No. | Size | Length  | Shape |
|----------------------------------|-----|------|---------|-------|
| $h(E)$                           | 6   | #5   | 33'-2"  | —     |
| $h_1(E)$                         | 12  | #5   | 3'-2"   | —     |
| $p(E)$                           | 4   | #7   | 33'-2"  | —     |
| $v(E)$                           | 68  | #5   | 4'-3"   | —     |
| $v_1(E)$                         | 34  | #5   | 3'-6"   | —     |
| $v_2(E)$                         | 34  | #5   | 3'-4"   | —     |
| Bar Splicers                     |     |      | Each    | 34    |
| Concrete Structures              |     |      | Cu. Yd. | 7.5   |
| Reinforcement Bars, Epoxy Coated |     |      | Pound   | 1060  |

Reinforcement bars designated (E) shall be epoxy coated.

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

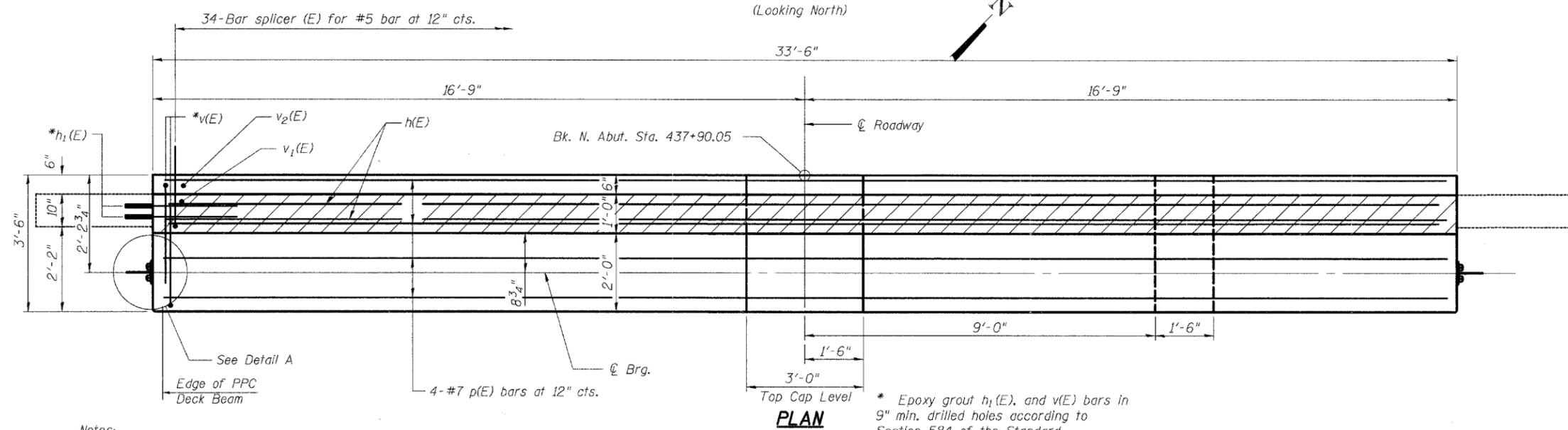
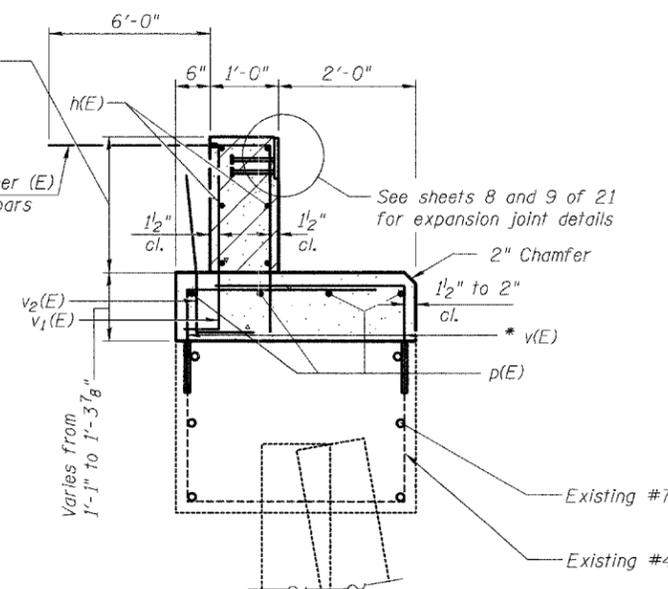
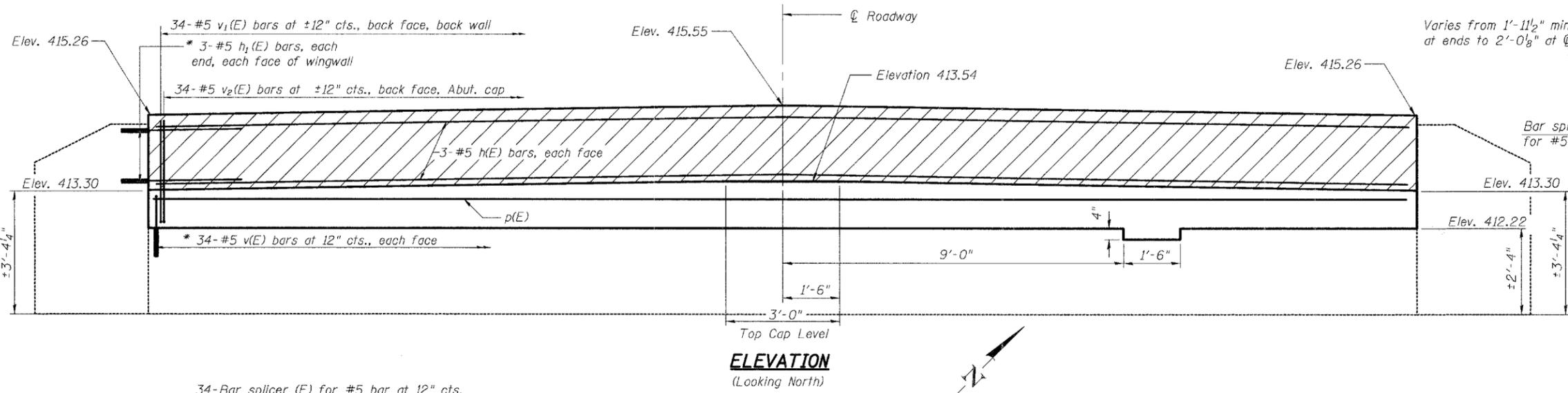
**SOUTH ABUTMENT**  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

6/13/2006

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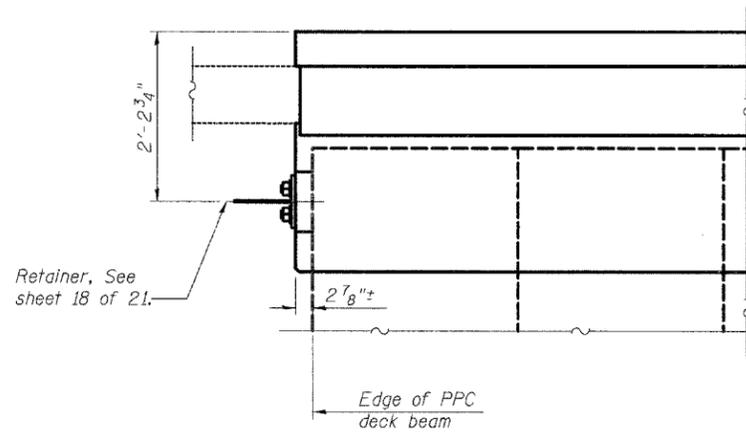
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |         |           |                  |           |                           |
|-----------------------|---------|-----------|------------------|-----------|---------------------------|
| ROUTE NO.             | SECTION | COUNTY    | TOTAL SHEETS     | SHEET NO. | SHEET NO. 17<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2  | ST. CLAIR | 51               | 47        |                           |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS  | PRO. AND PROJECT |           |                           |



\* Epoxy grout h<sub>1</sub>(E), and v(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications.

Notes:  
Hatched area to be poured after Concrete Wearing Surface (including blackout) is in place and cured. Quantity of concrete included with Concrete Structures.  
Install Retainers and temporary wedges after beams are in place and before wearing surface is poured.  
Cost of Retainers, Temporary wedges and accessories are included with Precast Prestressed Concrete Deck Beams (17" Depth).  
After concrete wearing surface (including blackout) is poured and cured, the temporary wedges shall be removed. The Retainers with no wedges shall remain. Cost included with Precast Prestressed Concrete Deck Beams (17" Depth).  
For details of Bar Splicers, see sheet 21 of 21.  
See sheet 18 of 21 for Bend Details of Bars.



**BILL OF MATERIAL**

| Bar                              | No. | Size | Length  | Shape |
|----------------------------------|-----|------|---------|-------|
| h(E)                             | 6   | #5   | 33'-2"  | —     |
| h <sub>1</sub> (E)               | 12  | #5   | 3'-2"   | —     |
| p(E)                             | 4   | #7   | 33'-2"  | —     |
| v(E)                             | 68  | #5   | 4'-3"   | —     |
| v <sub>1</sub> (E)               | 34  | #5   | 3'-6"   | —     |
| v <sub>2</sub> (E)               | 34  | #5   | 3'-4"   | —     |
| Bar Splicers                     |     |      | Each    | 34    |
| Concrete Structures              |     |      | Cu. Yd. | 7.8   |
| Reinforcement Bars, Epoxy Coated |     |      | Pound   | 1060  |

Reinforcement bars designated (E) shall be epoxy coated.

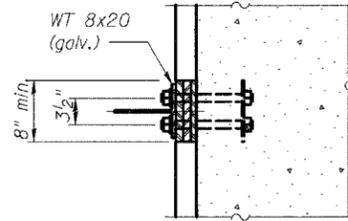
|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

**NORTH ABUTMENT**  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

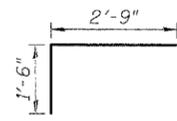
6/13/2006 p:\02files\020409\020409-22 WO No.11 IL13-157\SN 0820212.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

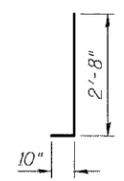
|                       |          |                  |              |           |                           |
|-----------------------|----------|------------------|--------------|-----------|---------------------------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. | SHEET NO. 18<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2   | ST. CLAIR        | 51           | 48        |                           |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |                           |



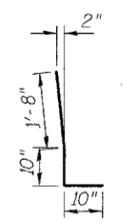
**PLATE**



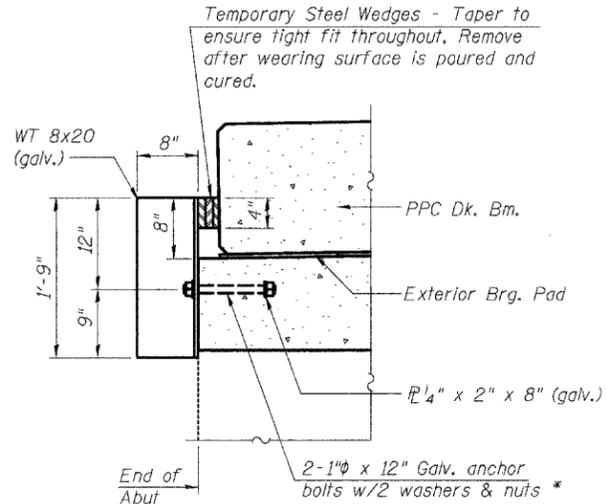
**BAR V(E)**



**BAR V1(E)**



**BAR V2(E)**



**RETAINER DETAIL**

\* Anchor bolts may be cast into the masonry or approved threaded rod may be placed in drilled holes and grouted in place. Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.

The permanent retainers, except the temporary Wedges shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385.

**ANCHOR BOLTS FOR RETAINERS**

Holes in the masonry for anchor bolts shall be drilled according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for the Precast Prestressed Concrete Deck Beams (17" Depth).

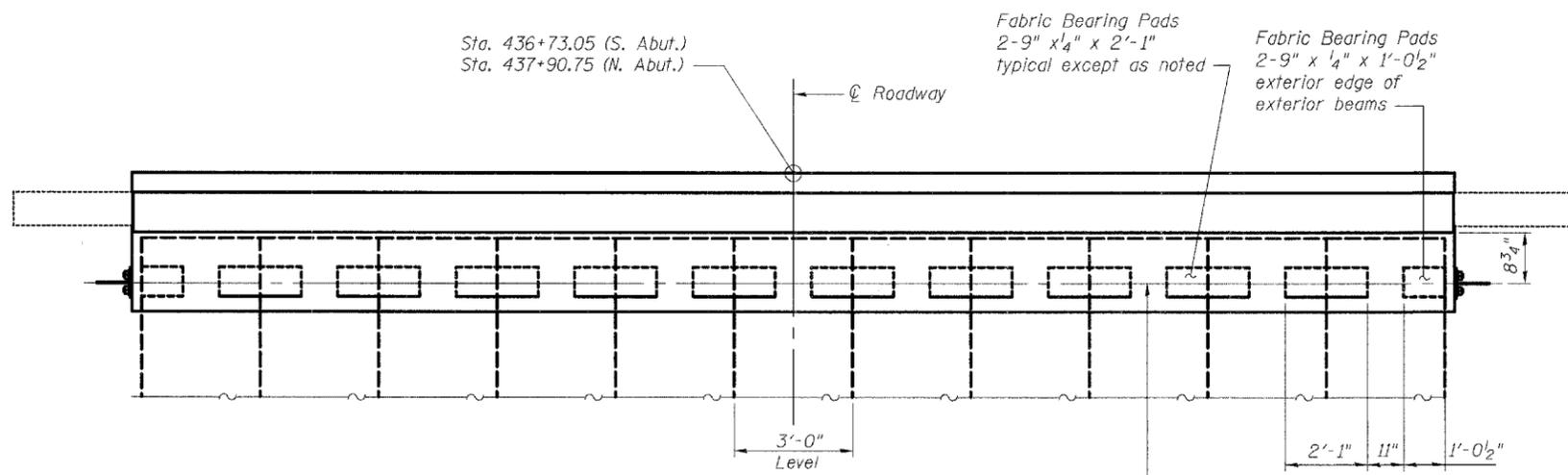
The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

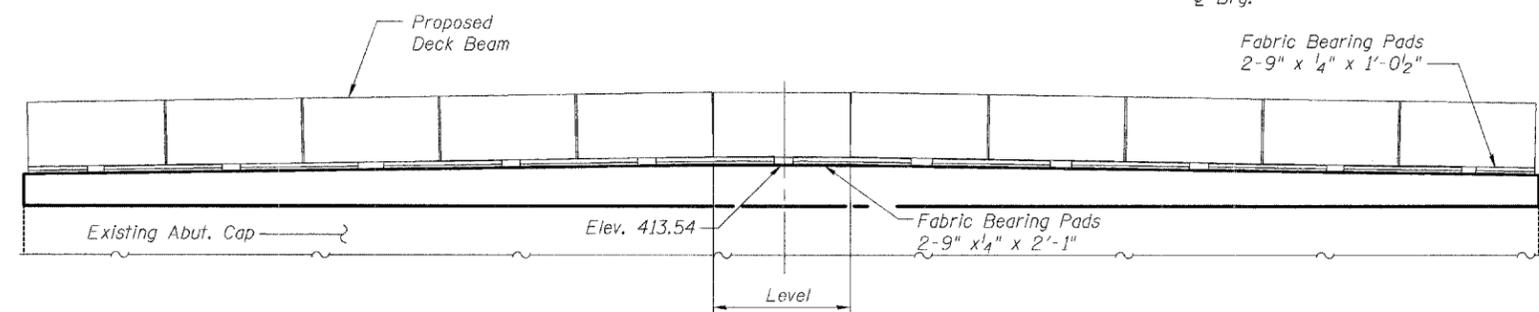
1. A threaded rod stud with nut and washer of the type specified.
2. A sealed capsule or a sealed adhesive cartridge containing premeasured amounts of the adhesive chemical.

| Location | Type | Size     | Embedded Depth | Retainer Type  |
|----------|------|----------|----------------|----------------|
| Abut.    | A325 | 1 1/2" φ | 9 1/4"         | Perm. Retainer |

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.



**TYPICAL ABUTMENT BEARING PAD PLAN**



**TYPICAL ABUTMENT BEARING PAD ELEVATION**  
(Concrete wearing surface not shown.)

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

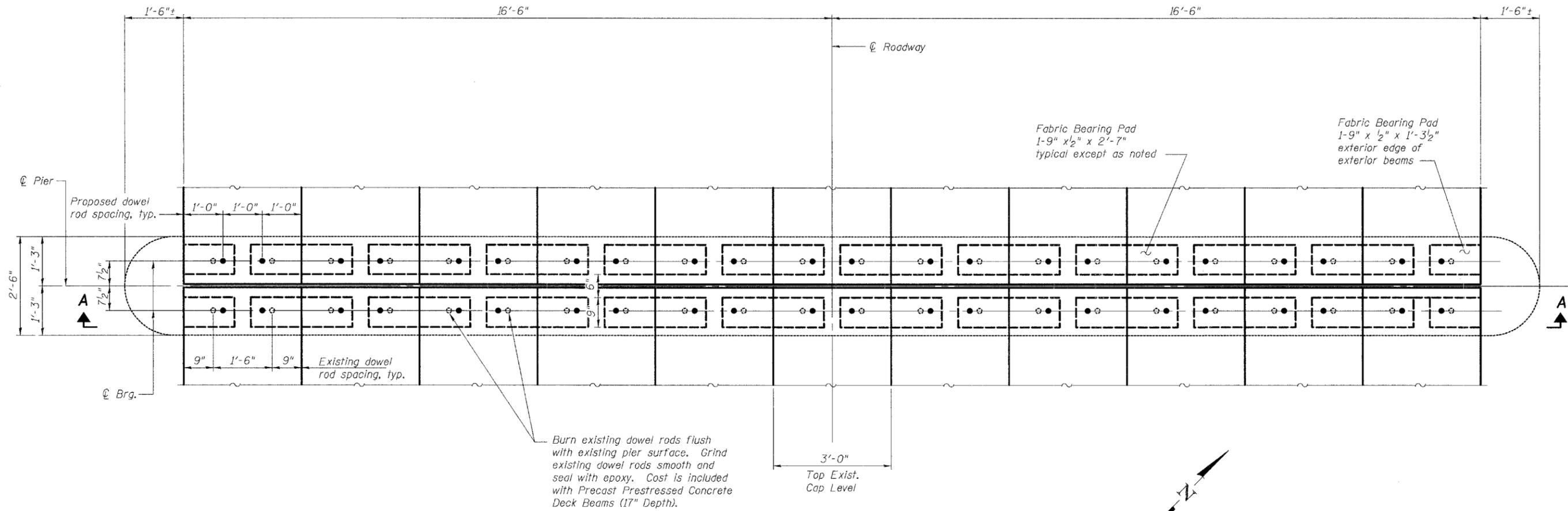
**ABUTMENT DETAILS**  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

6/13/2006 p:\0211es\020409\020409-22 w0 No11 IL13-157\SN 0 10212.dgn

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                  |              |           |
|-----------------------|----------|------------------|--------------|-----------|
| ROUTE NO.             | SECTION  | COUNTY           | TOTAL SHEETS | SHEET NO. |
| F.A.P. 592            | 28BR-2   | ST. CLAIR        | 51           | 49        |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT |              |           |

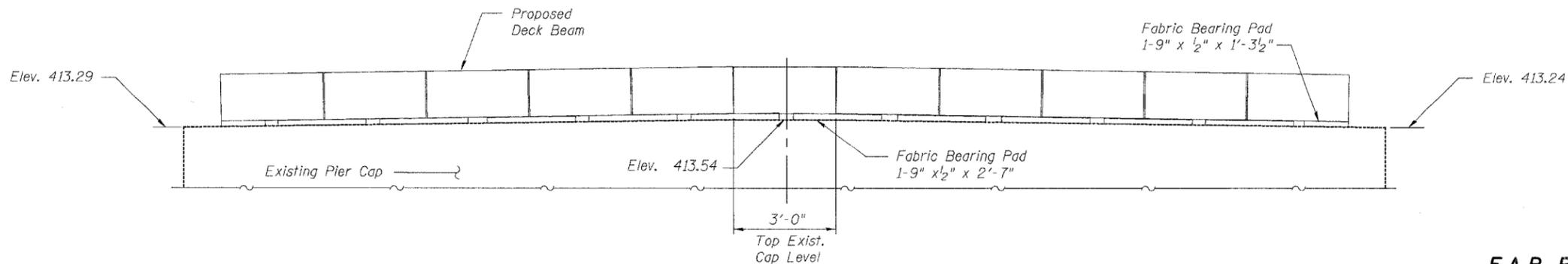
SHEET NO. 19  
21 SHEETS



Burn existing dowel rods flush with existing pier surface. Grind existing dowel rods smooth and seal with epoxy. Cost is included with Precast Prestressed Concrete Deck Beams (17" Depth).

**PLAN**

(Concrete curb and concrete wearing surface not shown.)



**VIEW A-A**

(Concrete wearing surface not shown.)  
(Looking North)

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

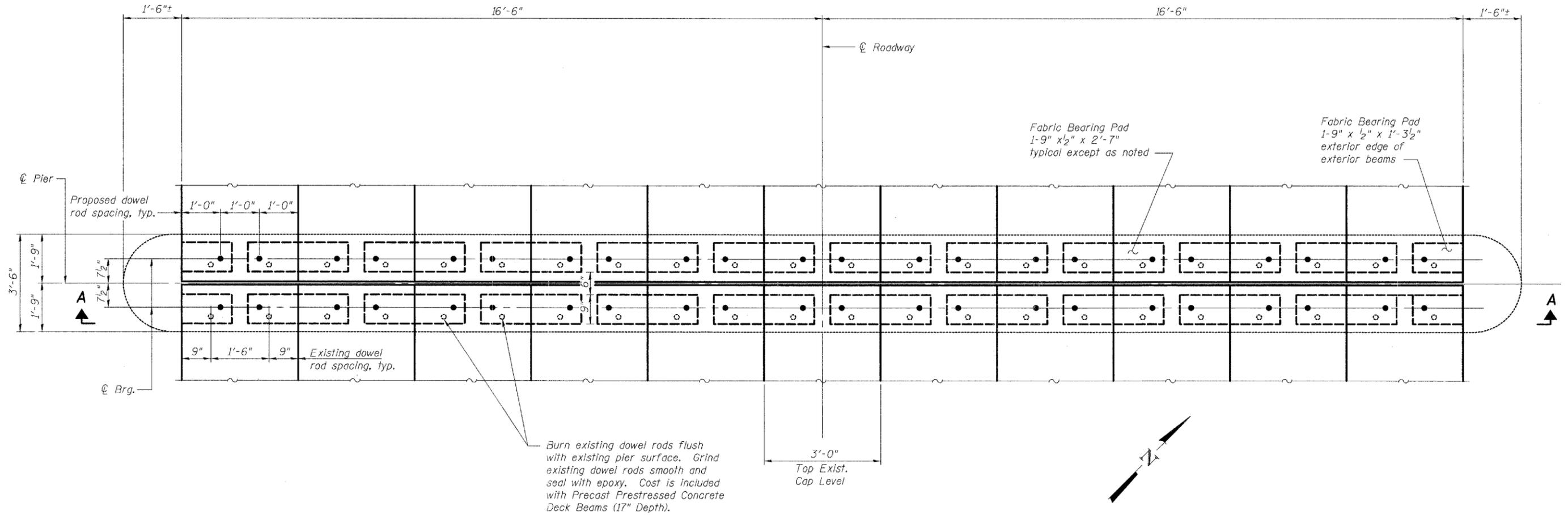
**PIER 1**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

6/13/2006

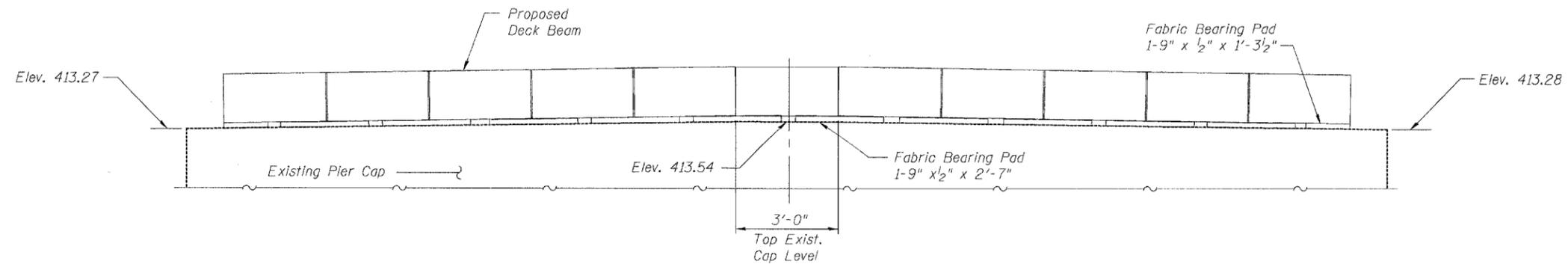
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |         |           |                   |           |                           |
|-----------------------|---------|-----------|-------------------|-----------|---------------------------|
| ROUTE NO.             | SECTION | COUNTY    | TOTAL SHEETS      | SHEET NO. | SHEET NO. 20<br>21 SHEETS |
| F.A.P.<br>592         | 28BR-2  | ST. CLAIR | 51                | 50        |                           |
| FED. ROAD DIST. NO. 7 |         | ILLINOIS  | FED. AID PROJECT- |           |                           |



**PLAN**  
(Concrete curb and concrete wearing surface not shown.)



**VIEW A-A**  
(Concrete wearing surface not shown.)  
(Looking North)

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

**PIER 2**  
**F.A.P. ROUTE 592 - SECTION 28BR-2**  
**ST. CLAIR COUNTY**  
**STATION 437+31.90**  
**STRUCTURE NO. 082-0212**

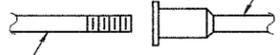
6/13/2006

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                       |          |                   |              |           |              |
|-----------------------|----------|-------------------|--------------|-----------|--------------|
| ROUTE NO.             | SECTION  | COUNTY            | TOTAL SHEETS | SHEET NO. | SHEET NO. 21 |
| F.A.P. 592            | 28BR-2   | ST. CLAIR         | 51           | 51        | 21 SHEETS    |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- |              |           |              |

The diameter of this part is equal or larger than the diameter of bar spliced.



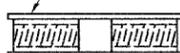
The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



\*\* ONE PIECE

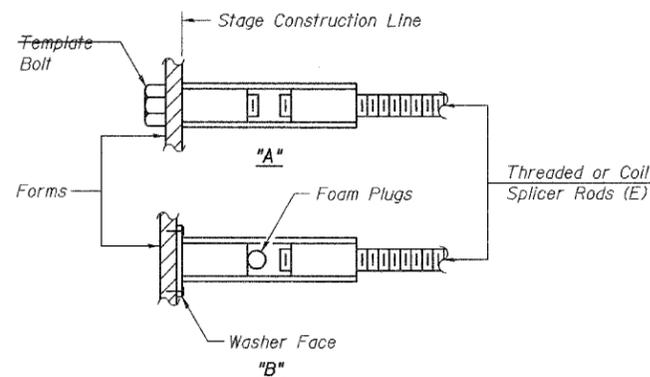
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

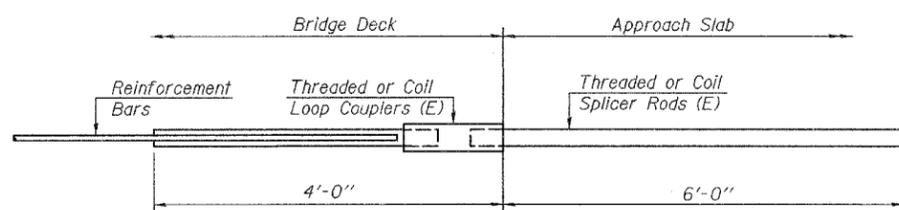
"A" : Set bar splicer assembly by means of a template bolt.  
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

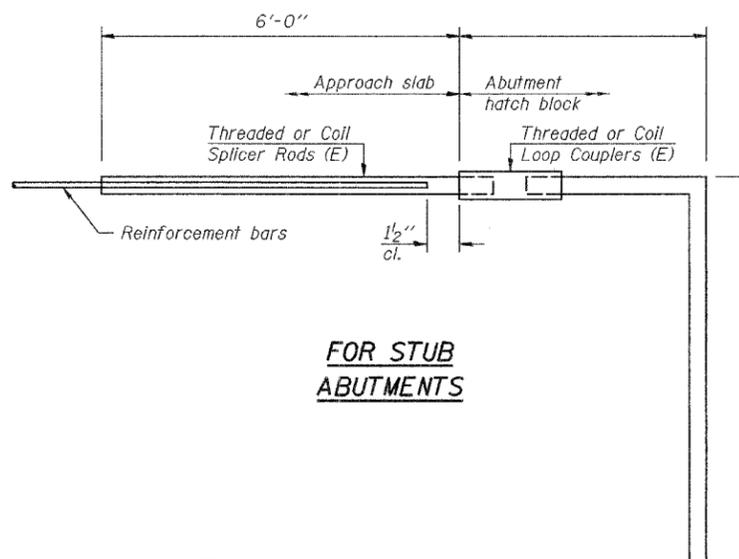
- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
  - ② Minimum \*Pull-out Strength =  $0.66 \times f_y \times A_t$   
(Tension in kips)
- Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
\* = 28 day concrete

| BAR SPLICER ASSEMBLIES |                                 |                              |                                       |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements        |                                       |
|                        |                                 | Min. Capacity kips - tension | Min. Pull-Out Strength kips - tension |
| #4                     | 1'-8"                           | 14.7                         | 7.9                                   |
| #5                     | 2'-0"                           | 23.0                         | 12.3                                  |
| #6                     | 2'-7"                           | 33.1                         | 17.4                                  |
| #7                     | 3'-5"                           | 45.1                         | 23.8                                  |
| #8                     | 4'-6"                           | 58.9                         | 31.3                                  |
| #9                     | 5'-9"                           | 75.0                         | 39.6                                  |
| #10                    | 7'-3"                           | 95.0                         | 50.3                                  |
| #11                    | 9'-0"                           | 117.4                        | 61.8                                  |



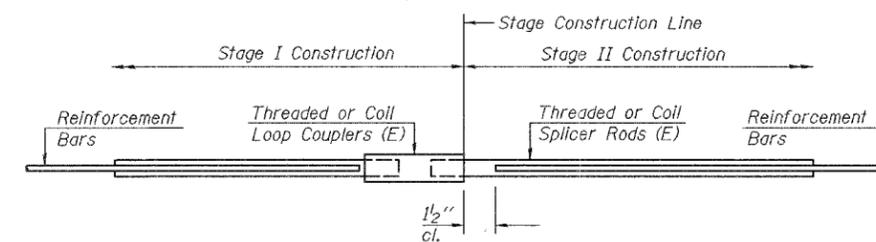
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

|  |
|--|
| Bar Splicer for #5 bar                       |
| Min. Capacity = 23.0 kips - tension          |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required =                               |



FOR STUB ABUTMENTS

|  |
|--|
| Bar Splicer for #5 bar                       |
| Min. Capacity = 23.0 kips - tension          |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = 68                            |



STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|----------|
|          |                         |          |
|          |                         |          |
|          |                         |          |
|          |                         |          |

BAR SPLICER ASSEMBLY DETAILS  
F.A.P. ROUTE 592 - SECTION 28BR-2  
ST. CLAIR COUNTY  
STATION 437+31.90  
STRUCTURE NO. 082-0212

|          |     |
|----------|-----|
| DESIGNED | ADL |
| CHECKED  | WLW |
| DRAWN    | RJP |
| CHECKED  | ADL |

BSD-1

11-1-06