

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|                     |                     |                  |                    |                |
|---------------------|---------------------|------------------|--------------------|----------------|
| F.A.S. RTE.<br>2247 | SECTION<br>13X-CR-1 | COUNTY<br>BUREAU | TOTAL SHEETS<br>23 | SHEET NO.<br>1 |
| ILLINOIS            |                     |                  | CONTRACT NO. 66B65 |                |

D-93-047-16

**INDEX OF SHEETS**

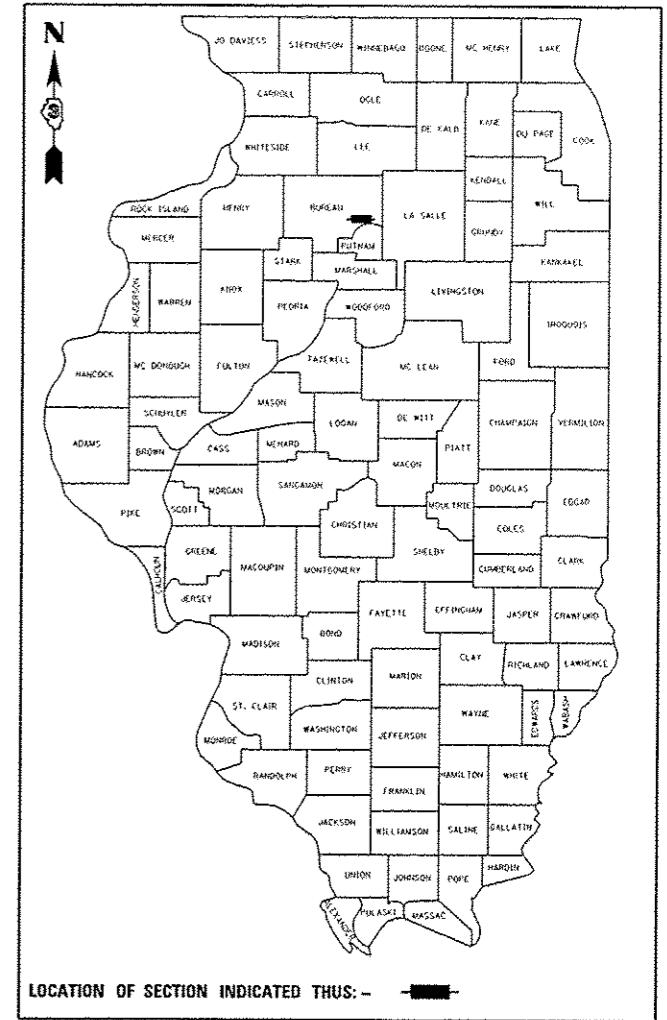
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# PROPOSED HIGHWAY PLANS

**F.A.S. 2247 ROUTE (US 6)  
SECTION 13X-CR-1  
PROJECT ACRS-2247(105)  
BUREAU COUNTY  
BOX CULVERT REMOVAL, REPLACEMENT  
AND APPROACH ROADWAY RECONSTRUCTION**

C-93-093-16  
R 8E

FOR LIST OF STANDARDS, SEE SHEET NO. 2



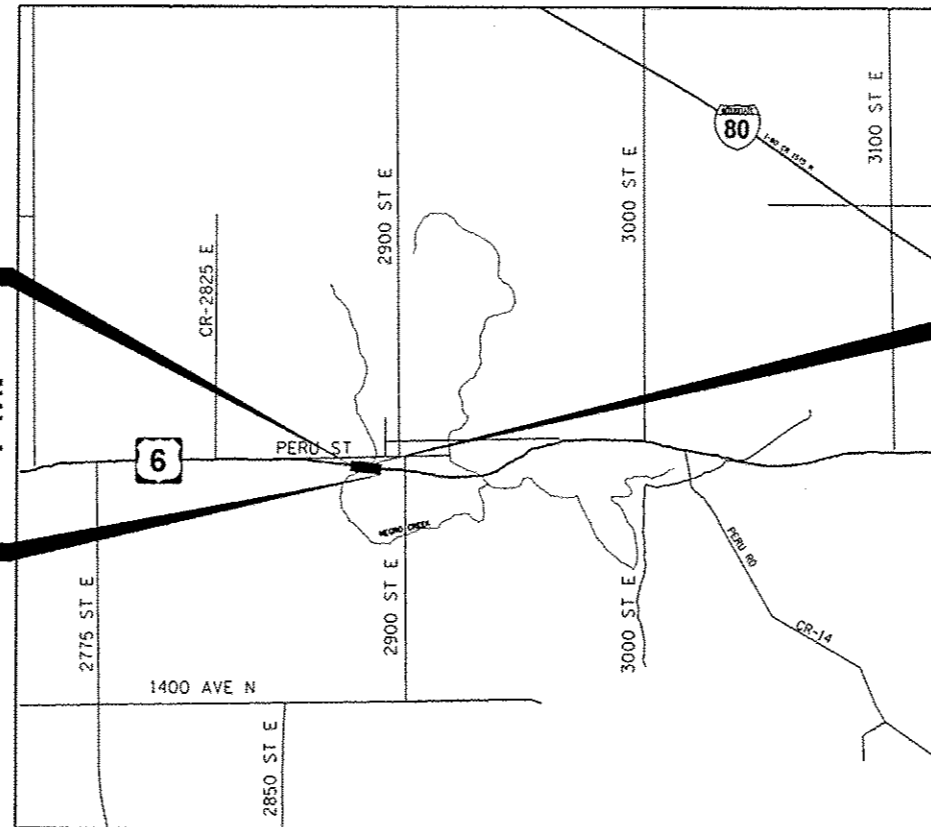
**FUNCTIONAL CLASSIFICATION**  
RURAL MAJOR COLLECTOR  
(CLASS II TRUCK ROUTE)  
2015 ADT = 3025  
P.V. = 91% S.U. = 4% M.U. = 5%

**STRUCTURE REPLACEMENT**  
REMOVE 10'x5.5' SINGLE  
BARREL BOX CULVERT  
OVER A TRIB. OF  
NEGRO CREEK  
STA. 89 + 04.00  
EXIST SN 006-2574  
PROP SN 006-2596  
10'x6' SINGLE BARREL  
BOX CULVERT

PROJECT BEGINS  
STA 86 + 50.00

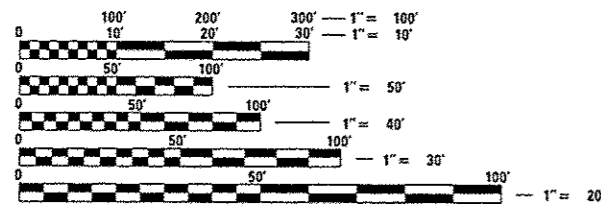
PROJECT ENDS  
STA 91 + 50.00

PROJECT LOCATED IN  
VILLAGE OF  
HOLLOWAYVILLE



**LOCATION MAP**

GROSS LENGTH = 500 FT. = 0.095 MILE  
NET LENGTH = 500 FT. = 0.095 MILE



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

PROJECT ENGINEER: DAVE ALEXANDER, P.E.  
UNIT CHIEF: RUTH GEDYE  
DISTRICT 3 NO. (815) 434-6131  
CONTRACT NO. 66B65



Signed: *Olufemi A. Oladeinde* 12/8/16  
OLUFEMI A. OLADEINDE Date  
LICENSE EXPIRES 11-30-2017

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED 12-13-2016  
*K. Mark*  
REGIONAL ENGINEER

Jan 27 2017  
*Muhammad M. Addis, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 27 2017  
*David J. ...*  
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS**

**GENERAL NOTES**

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

|  |        |                            |
|--|--------|----------------------------|
| GRANULAR MATERIALS                                       | 2.05   | TONS / CU YD               |
| HMA RESURFACING  | 112    | LBS / SQ YD / IN           |
| SHORT TERM PAVEMENT MARKING MIX FOR CRACKS, JTS & FLOWYS | 10     | FT / 100 FT OF APPLICATION |
| LEVEL BINDER (HAND METHOD)                               | 0.0003 | TONS / SQ YD               |
| SUPPLEMENTAL WATERING                                    | 0.0005 | TONS / SQ YD               |
| CALCIUM CHLORIDE   | 3      | GAL / SQ YD / APPLICATION  |
| AGGREGATE DITCH CHECKS                                   | 2      | LB / SQ YD / APPLICATION   |
|  | 5      | TONS AGGREGATE             |

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE: AT&T.

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

**HIGHWAY STANDARDS**

|           |   |
|-----------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  |
| 001001-02 | AREAS OF REINFORCEMENT BARS   |
| 001006    | DECIMAL OF AN INCH AND OF A FOOT  |
| 280001-07 | TEMPORARY EROSION CONTROL SYSTEM  |
| 482011-03 | HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS           |
| 515001-03 | NAME PLATE FOR BRIDGES  |
| 630001-11 | STEEL PLATE BEAM GUARDRAIL  |
| 630101-10 | STRONG POST GUARDRAIL ATTACHED TO CULVERT   |
| 630201-07 | PCC / HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL                                   |
| 630301-07 | SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINAL                               |
| 701001-02 | OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY                                   |
| 701006-05 | OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE               |
| 701201-04 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEED > 45 MPH                                      |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS   |
| 701306-03 | LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEED > 45 MPH               |
| 701311-03 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS DAY ONLY  |
| 701901-06 | TRAFFIC CONTROL DEVICES   |
| 725001-01 | OBJECT AND TERMINAL MARKERS   |
| 780001-05 | TYPICAL PAVEMENT MARKING  |
| 781001-04 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS                                 |
| 782006    | GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS                                   |
| BLR 21-9  | TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS |

**COMMITMENTS**

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

1. THE RESIDENT ENGINEER SHALL COORDINATE WITH THE BUREAU COUNTY HIGHWAY DEPARTMENT AND THE SELBY TOWNSHIP ROAD COMMISSIONER TO PERFORM AN INSPECTION OF TOWNSHIP ROADS PARALLEL TO US 6 AND WITHIN THE PROJECT VICINITY BEFORE AND AFTER THE DETOUR IS IN EFFECT. THE INSPECTIONS WILL DOCUMENT THE ROAD CONDITION AND DETERMINE IF ANY DAMAGE TO THE LOCAL SYSTEM CAN BE ATTRIBUTED TO THE STATE MARKED DETOUR BEING IN PLACE.

2. THE DETOUR WILL BE ALLOWED TO BE IN PLACE ONLY FROM JUNE 15TH TO AUGUST 15TH TO MINIMIZE IMPACTS TO SCHOOL BUSING AND FARMING ACTIVITIES.

3. THE RESIDENT ENGINEER SHALL CONTACT THE PROPERTY OWNER TWO WEEKS PRIOR TO STARTING WORK TO COORDINATE RELOCATION OF THE EXISTING FENCE ON IDOT ROW.

|  |   |
|--|---|
| STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION<br>DISTRICT THREE<br>AS BUILT INFORMATION  | STATE OF ILLINOIS<br>DEPARTMENT OF TRANSPORTATION<br>DISTRICT THREE   |
| SUPERVISING CONSTRUCTION FIELD ENGINEER<br>_____<br>RESIDENT ENGINEER / TECHNICIAN<br>_____<br>START & END DATES OF CONSTRUCTION: _____<br>INSPECTORS: _____ | PREPARED BY: <u>Tom Beaulieu</u><br>DISTRICT STUDIES & PLANS ENGINEER<br>DATE: <u>December 9, 2016</u><br>EXAMINED BY: <u>Tom Beaulieu</u><br>DISTRICT CONSTRUCTION ENGINEER<br><u>Tom Beaulieu</u><br>DISTRICT MATERIALS ENGINEER<br><u>Tom Beaulieu</u><br>DISTRICT OPERATIONS ENGINEER |

FILE NAME: \$FILES

| CODE NO. | ITEM                                  | UNIT  | TOTAL QUANTITY | CONSTRUCTION CODE |           |
|----------|---------------------------------------|-------|----------------|-------------------|-----------|
|          |                                       |       |                | 80% FED           | 20% STATE |
|          |                                       |       |                | BOX CULVERT       |           |
|          |                                       |       |                | 0004              |           |
|          |                                       |       |                | S. N. 006-2596    |           |
| 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT  | 82             | 82                |           |
| 20200100 | EARTH EXCAVATION                      | CU YD | 365            | 365               |           |
| 20400800 | FURNISHED EXCAVATION                  | CU YD | 240            | 240               |           |
| 20700220 | POROUS GRANULAR EMBANKMENT            | CU YD | 280            | 280               |           |
| 25000210 | SEEDING, CLASS 2A                     | ACRE  | 0.5            | 0.5               |           |
| 25000400 | NITROGEN FERTILIZER NUTRIENT          | POUND | 43             | 43                |           |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT        | POUND | 43             | 43                |           |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT         | POUND | 43             | 43                |           |
| 25100630 | EROSION CONTROL BLANKET               | SQ YD | 2,298          | 2,298             |           |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING     | POUND | 50             | 50                |           |
| 28000305 | TEMPORARY DITCH CHECKS                | FOOT  | 40             | 40                |           |
| 28000400 | PERIMETER EROSION BARRIER             | FOOT  | 468            | 468               |           |
| 31100300 | SUBBASE GRANULAR MATERIAL, TYPE A 4"  | SQ YD | 231            | 231               |           |
| 40600275 | BITUMINOUS MATERIALS (PRIME COAT)     | POUND | 520            | 520               |           |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT)      | POUND | 975            | 975               |           |

\* SPECIALTY ITEM

FILE NAME: WFILE\*



USER NAME : \*USER\*  
 PLOT SCALE : \*SCALE\*  
 PLOT DATE : \*DATE\*

DESIGNED - JL  
 DRAWN - JL  
 CHECKED - OAO  
 DATE - 11/28/2016

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |          |        |              |           |
|---------------------------|----------|--------|--------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23           | 3         |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |

| CODE NO.   | ITEM   | UNIT  | TOTAL QUANTITY | CONSTRUCTION CODE |            |
|------------|--|-------|----------------|-------------------|------------|
|            |  |       |                | 80 % FED          | 20 % STATE |
|            |  |       |                | BOX CULVERT       |            |
|            |  |       |                | 0004              |            |
|            |  |       |                | S. N. 006-2596    |            |
| 40600525   | LEVELING BINDER (HAND METHOD), N50                         | TON   | 4              | 4                 |            |
| 40600625   | LEVELING BINDER (MACHINE METHOD), N50                      | TON   | 47             | 47                |            |
| 40603080   | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50                | TON   | 110            | 110               |            |
| 40603310   | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50               | TON   | 122            | 122               |            |
| 44000100   | PAVEMENT REMOVAL   | SQ YD | 232            | 232               |            |
| 44000158   | HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"                    | SQ YD | 1,214          | 1,214             |            |
| 48101200   | AGGREGATE SHOULDERS, TYPE B                                | TON   | 21             | 21                |            |
| 48203029   | HOT-MIX ASPHALT SHOULDERS, 8"                              | SQ YD | 587            | 587               |            |
| 50100100   | REMOVAL OF EXISTING STRUCTURES                             | EACH  | 1              | 1                 |            |
| 50200450   | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES | CU YD | 245            | 245               |            |
| 50800105   | REINFORCEMENT BARS   | POUND | 19,410         | 19,410            |            |
| 50800205   | REINFORCEMENT BARS, EPOXY COATED                           | POUND | 210            | 210               |            |
| 54003000   | CONCRETE BOX CULVERTS                                      | CU YD | 104            | 104               |            |
| * 63000001 | STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS          | FOOT  | 200            | 200               |            |
| * 63000030 | STRONG POST GUARDRAIL ATTACHED TO CULVERT                  | FOOT  | 50             | 50                |            |

\* SPECIALTY ITEM

15

FILE NAME = #FILE#



|                      |                   |           |
|----------------------|-------------------|-----------|
| USER NAME * #USER#   | DESIGNED - OAO    | REVISED - |
| PLGT SCALE * #SCALE# | DRAWN - JL        | REVISED - |
| PLGT DATE * #DATE#   | CHECKED - OAO     | REVISED - |
|                      | DATE - 11/28/2016 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |          |        |              |           |
|---------------------------|----------|--------|--------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23           | 4         |
| CONTRACT NO. 66865        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |

| CODE NO.   | ITEM  | UNIT   | TOTAL QUANTITY | CONSTRUCTION CODE    |                                      |
|------------|---|--------|----------------|----------------------|--------------------------------------|
|            |   |        |                | 80% FED<br>20% STATE | BOX CULVERT<br>0004<br>S.N. 006-2596 |
| * 63100169 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED | EACH   | 4              |                      | 4                                    |
| 63200310   | GUARDRAIL REMOVAL                                 | FOOT   | 580            |                      | 580                                  |
| 67000400   | ENGINEER'S FIELD OFFICE, TYPE A                   | CAL MO | 2              |                      | 2                                    |
| 67100100   | MOBILIZATION                                      | L SUM  | 1              |                      | 1                                    |
| * 72501000 | TERMINAL MARKER - DIRECT APPLIED                  | EACH   | 4              |                      | 4                                    |
| * 78001110 | PAINT PAVEMENT MARKING - LINE 4"                  | FOOT   | 3,000          |                      | 3,000                                |
| * 78001130 | PAINT PAVEMENT MARKING - LINE 6"                  | FOOT   | 250            |                      | 250                                  |
| * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER                 | EACH   | 7              |                      | 7                                    |
| * 78200005 | GUARDRAIL REFLECTORS, TYPE A                      | EACH   | 8              |                      | 8                                    |
| X0322128   | MEMBRANE WATERPROOFING FOR BURIED STRUCTURES      | SO YD  | 125            |                      | 125                                  |
| X7010216   | TRAFFIC CONTROL AND PROTECTION, (SPECIAL)         | L SUM  | 1              |                      | 1                                    |
| Z0030850   | TEMPORARY INFORMATION SIGNING                     | SO FT  | 42             |                      | 42                                   |
| * Z0054400 | ROCK FILL   | CU YD  | 237            |                      | 237                                  |

\* SPECIALTY ITEM

FILE NAME \* #FILE#



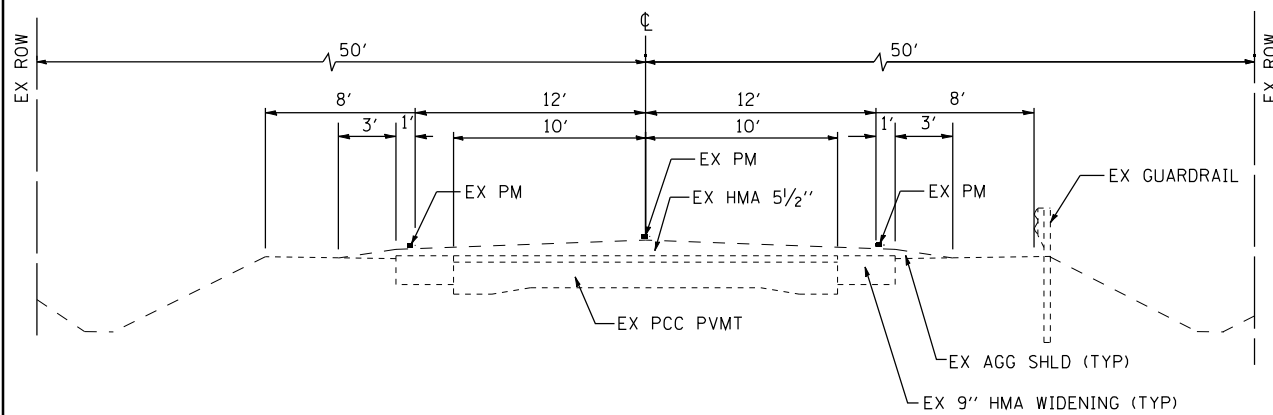
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| USER NAME * #USER#   | DESIGNED - JL     | REVISED - |
| PLOT SCALE * #SCALE# | DRAWN - JL        | REVISED - |
| PLOT DATE * #DATE#   | CHECKED - OAO     | REVISED - |
|                      | DATE - 11/28/2016 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

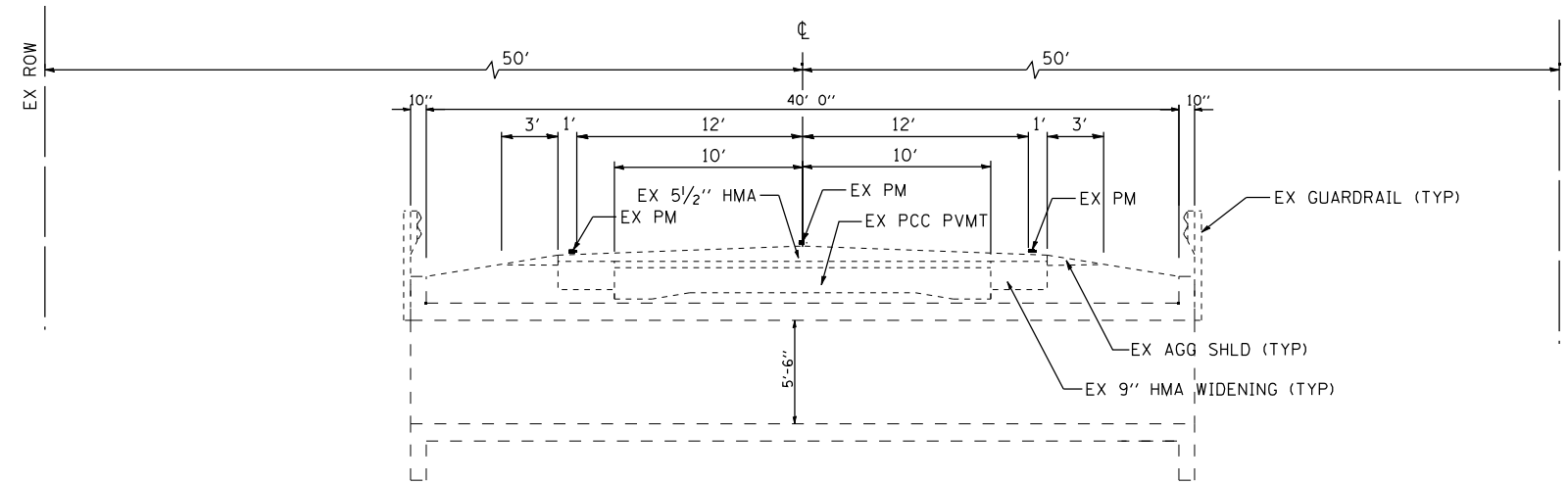
SUMMARY OF QUANTITIES

|        |       |    |        |      |         |
|--------|-------|----|--------|------|---------|
| SCALE: | SHEET | OF | SHEETS | STA. | TO STA. |
|--------|-------|----|--------|------|---------|

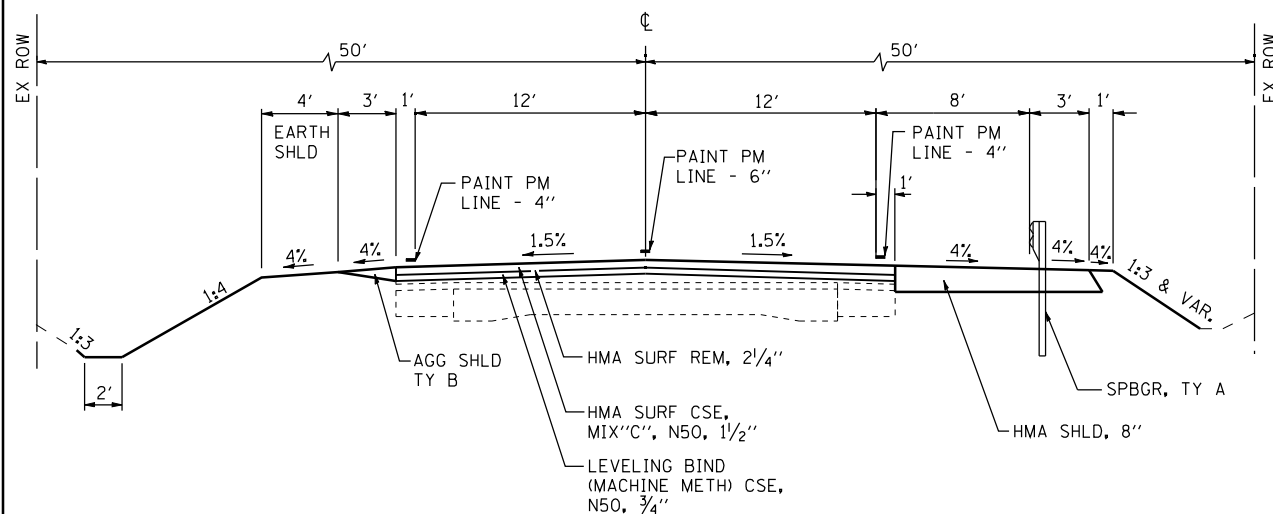
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|--------------------|----------|--------|---------------------------|-----------|
| F.A.S. RTE.        | SECTION  | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 2247               | 13X-CR-1 | BUREAU | 23                        | 5         |
| CONTRACT NO. 66865 |          |        | ILLINOIS FED. AID PROJECT |           |



**EXISTING ROADWAY TYPICAL SECTION**

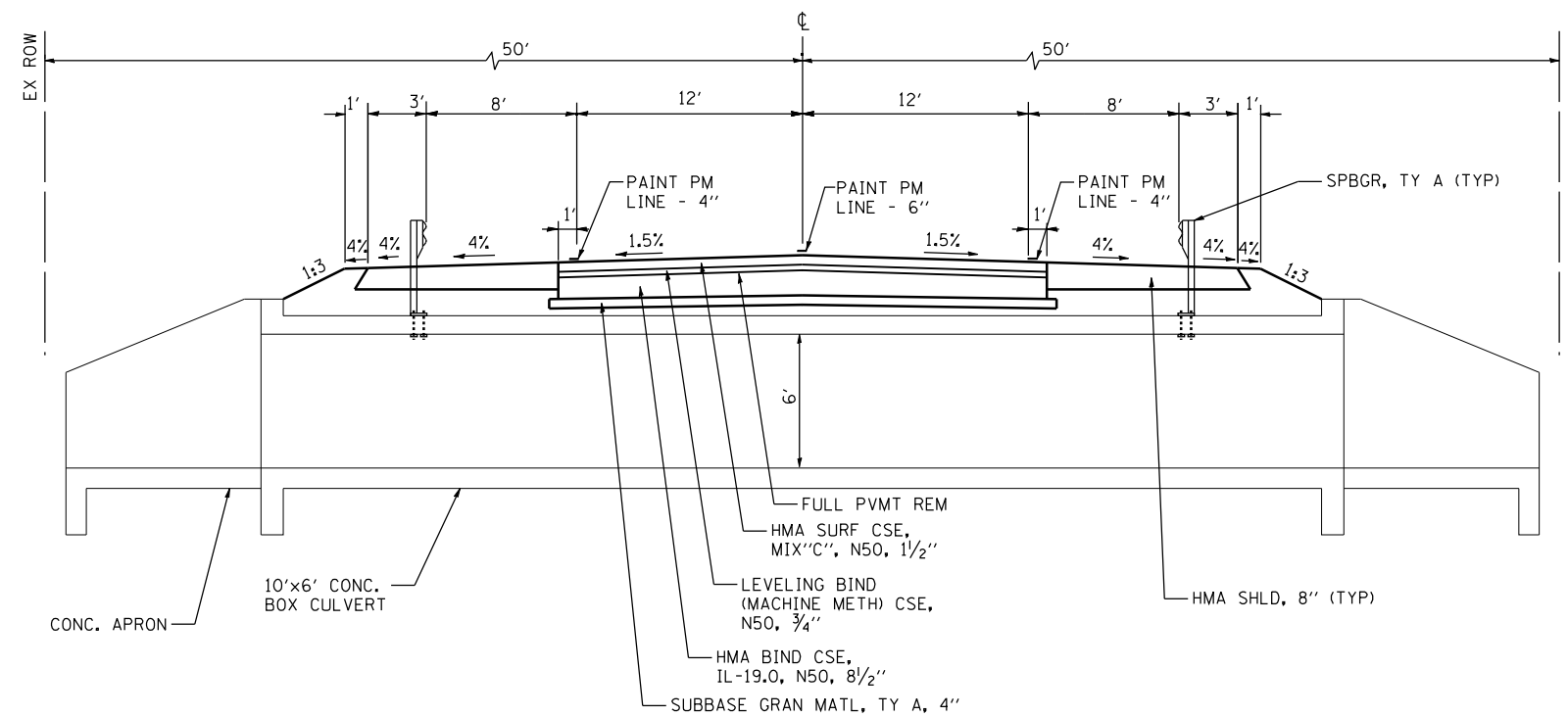


**EXISTING STRUCTURE TYPICAL SECTION**



**PROPOSED ROADWAY TYPICAL SECTION**

REMOVE AND REPLACE PAVEMENT SURFACE 2 1/4"  
 STA 86+50.00 TO STA 88+64.00  
 STA 89+44.00 TO STA 91+50.00  
 PROPOSED GUARDRAIL  
 LT STA 88+42.10 TO STA 90+67.10  
 RT STA 87+41.00 TO STA 89+66.00



**PROPOSED STRUCTURE TYPICAL SECTION**

REMOVE AND REPLACE FULL PAVEMENT  
 STA 88+64.00 TO STA 89+44.00  
 NOTE: SEE SHEET NO. 19 FOR LIMITS OF POROUS GRANULAR EMBANKMENT

**HMA MIXTURE REQUIREMENT TABLE**

| LOCATION(S):                                | ENTIRE PROJECT     | ENTIRE PROJECT               | ENTIRE PROJECT           | ENTIRE PROJECT        | ENTIRE PROJECT |
|---|--------------------|------------------------------|--------------------------|-----------------------|----------------|
| MIXTURE USE(S):                             | HMA SURFACE COURSE | HMA LEVELING BINDER          | HMA SHOULDER BOTTOM LIFT | HMA SHOULDER TOP LIFT | HMA BINDER     |
| BINDER GRADE (PG):                          | PG64-22            | PG64-22                      | PG64-22                  | PG64-22               | PG64-22        |
| DESIGN AIR VOIDS:                           | 4.0% @ N50         | 4.0% @ N50                   | 4.0% @ N50               | 4.0% @ N50            | 4.0% @ N50     |
| MIXTURE COMPOSITION:<br>(MIXTURE GRADATION) | IL 9.5             | IL 9.5                       | IL 19.0                  | IL 9.5                | IL 19.0        |
| FRICTION AGGREGATE:                         | MIXTURE C          |                              |                          |                       |                |
| MIXTURE WEIGHT:                             | 112.0 LB/SY/IN     | 112.0 LB/SY/IN               | 112.0 LB/SY/IN           | 112.0 LB/SY/IN        | 112.0 LB/SY/IN |
| QUALITY MANAGEMENT PROGRAM:                 | QCOA               | QCOA                         | QCOA                     | QCOA                  | QCOA           |
| SUBLOT SIZE:                                | N/A                | N/A                          | N/A                      | N/A                   | N/A            |
| DENSITY TEST METHOD:                        | CORES              | SATISFACTION OF THE ENGINEER | CORES                    | CORES                 | CORES          |

FILE NAME = #FILE#



|                      |                   |           |
|----------------------|-------------------|-----------|
| USER NAME = #USER#   | DESIGNED - JL     | REVISED - |
| PLOT SCALE = #SCALE# | DRAWN - SD        | REVISED - |
| PLOT DATE = #DATE#   | CHECKED - OAO     | REVISED - |
|                      | DATE - 11/28/2016 | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |          |        |              |           |
|---------------------------|----------|--------|--------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23           | 6         |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |

| EARTHWORK              |                  |   |  |            |   |
|------------------------|------------------|---|--|------------|---|
| LOCATION               | EARTH EXCAVATION | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR 25% SHRINKAGE | EMBANKMENT | FURNISHED EXCAVATION BALANCE WASTE (+) SHORTAGE (-) |
|                        | CU YD            | CU YD                                       | CU YD  | CU YD      | CU YD   |
| STA 86+50 TO STA 91+50 | 365              |   | 90   | 330        | -240  |
| STA 89+04              |                  | 245   |  |            |   |
| TOTAL                  | 365              | 245   | 90   | 330        | -240  |

| POROUS GRANULAR EMBANKMENT |       |
|----------------------------|-------|
| LOCATION                   | CU YD |
| STA 88+82.0 TO STA 88+95.6 | 124   |
| STA 89+12.3 TO STA 89+26.0 | 124   |
| STA 88+82.0 TO STA 89+26.0 | 32    |
| TOTAL                      | 280   |

| ROCK FILL |       |
|-----------|-------|
| LOCATION  | CU YD |
| STA 89+04 | 237   |
| TOTAL     | 237   |

| GUARDRAIL ITEMS                  |                   |  |   |   |                              |                                  |
|----------------------------------|-------------------|--|---|---|------------------------------|----------------------------------|
| LOCATION                         | GUARDRAIL REMOVAL | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | STRONG POST GUARDRAIL ATTACHED TO CULVERT | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED | GUARDRAIL REFLECTORS, TYPE A | TERMINAL MARKER - DIRECT APPLIED |
|                                  | FOOT              | FOOT   | FOOT                                      | EACH  | EACH                         | EACH                             |
| STA 87+98 LT TO STA 90+88 LT     | 290               |  |   |   |                              |                                  |
| STA 87+12 RT TO STA 90+02 RT     | 290               |  |   |   |                              |                                  |
| STA 88+92.1 LT TO STA 89+17.1 LT |                   | 25   |   |   |                              |                                  |
| STA 89+17.1 LT TO STA 89+42.1 LT |                   |  | 25  |   |                              |                                  |
| STA 89+42.1 LT TO STA 90+17.1 LT |                   | 75   |   |   |                              |                                  |
| STA 87+91 RT TO STA 88+66 RT     |                   | 75   |   |   |                              |                                  |
| STA 88+66 RT TO STA 88+91 RT     |                   |  | 25  |   |                              |                                  |
| STA 88+91 RT TO STA 89+16 RT     |                   | 25   |   |   |                              |                                  |
| STA 88+42.1 LT TO STA 88+92.1 LT |                   |  |   | 1   |                              |                                  |
| STA 87+41 RT TO STA 87+91 RT     |                   |  |   | 1   |                              |                                  |
| STA 90+17.1 LT TO STA 90+67.1 LT |                   |  |   | 1   |                              |                                  |
| STA 89+16 RT TO STA 89+66 RT     |                   |  |   | 1   |                              |                                  |
| 88+92.1 LT                       |                   |  |   |   | 1                            |                                  |
| 89+34.1 LT                       |                   |  |   |   | 1                            |                                  |
| 89+75.1 LT                       |                   |  |   |   | 1                            |                                  |
| 90+17.1 LT                       |                   |  |   |   | 1                            |                                  |
| 87+91 RT                         |                   |  |   |   | 1                            |                                  |
| 88+33 RT                         |                   |  |   |   | 1                            |                                  |
| 88+74 RT                         |                   |  |   |   | 1                            |                                  |
| 89+16 RT                         |                   |  |   |   | 1                            |                                  |
| 88+42.1 LT                       |                   |  |   |   |                              | 1                                |
| 90+67.1 LT                       |                   |  |   |   |                              | 1                                |
| 87+42.6 RT                       |                   |  |   |   |                              | 1                                |
| 89+67.6 RT                       |                   |  |   |   |                              | 1                                |
| TOTAL                            | 580               | 200  | 50  | 4   | 8                            | 4                                |

| PAVING MATERIALS             |                                      |                                   |                                  |                                       |                                    |   |  |                               |
|------------------------------|--------------------------------------|-----------------------------------|----------------------------------|---------------------------------------|------------------------------------|---|--|-------------------------------|
| LOCATION                     | SUBBASE GRANULAR MATERIAL, TYPE A 4" | BITUMINOUS MATERIALS (PRIME COAT) | BITUMINOUS MATERIALS (TACK COAT) | LEVELING BINDER (MACHINE METHOD), N50 | LEVELING BINDER (HAND METHOD), N50 | HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | HOT-MIX ASPHALT SHOULDERS, 8" |
|                              | SQ YD                                | POUND                             | POUND                            | TON                                   | TON                                | TON   | TON  | SQ YD                         |
| STA 86+50 TO STA 88+64       |                                      |                                   | 417                              | 24.0                                  | 2                                  |   |  |                               |
| STA 88+64 TO STA 89+44       | 231                                  | 520                               | 156                              |                                       |                                    | 110.0                                       |  |                               |
| STA 89+44 TO STA 91+50       |                                      |                                   | 402                              | 23.0                                  | 2                                  |   |  |                               |
| STA 86+50 TO STA 91+50       |                                      |                                   |                                  |                                       |                                    |   | 122  |                               |
| STA 87+22 RT TO STA 89+86 RT |                                      |                                   |                                  |                                       |                                    |   |  | 294                           |
| STA 88+22 LT TO STA 90+86 LT |                                      |                                   |                                  |                                       |                                    |   |  | 293                           |
| TOTAL                        | 231                                  | 520                               | 975                              | 47.0                                  | 4                                  | 110.0                                       | 122  | 587                           |

| AGGREGATE SHOULDER, TYPE B   |      |
|------------------------------|------|
| LOCATION                     | TON  |
| STA 86+50 LT TO STA 88+22 LT | 7.35 |
| STA 86+50 RT TO STA 87+20 RT | 2.99 |
| STA 89+86 RT TO STA 91+50 RT | 7.0  |
| STA 90+84 LT TO STA 91+50 LT | 2.82 |
| TOTAL                        | 21   |

| LANDSCAPING ITEMS            |                   |                              |                                |                               |                                   |
|------------------------------|-------------------|------------------------------|--------------------------------|-------------------------------|-----------------------------------|
| LOCATION                     | SEEDING, CLASS 2A | NITROGEN FERTILIZER NUTRIENT | PHOSPHORUS FERTILIZER NUTRIENT | POTASSIUM FERTILIZER NUTRIENT | TEMPORARY EROSION CONTROL SEEDING |
|                              | ACRE              | POUND                        | POUND                          | POUND                         | POUND                             |
| STA 86+50 LT TO STA 91+50 LT | 0.25              | 22                           | 22                             | 22                            | 25                                |
| STA 86+50 RT TO STA 91+50 RT | 0.25              | 21                           | 21                             | 21                            | 25                                |
| TOTAL                        | 0.5               | 43                           | 43                             | 43                            | 50                                |

| PAVEMENT REMOVAL ITEMS |                  |   |
|------------------------|------------------|---|
| LOCATION               | PAVEMENT REMOVAL | HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4" |
|                        | SQ YD            | SQ YD                                   |
| STA 86+50 TO STA 88+64 |                  | 619                                     |
| STA 88+64 TO STA 89+44 | 232              |   |
| STA 89+44 TO STA 91+50 |                  | 595                                     |
| TOTAL                  | 232              | 1214                                    |

| PAVEMENT MARKINGS            |                  |                                  |                                  |
|------------------------------|------------------|----------------------------------|----------------------------------|
| LOCATION                     | DESCRIPTION      | PAINT PAVEMENT MARKING - LINE 4" | PAINT PAVEMENT MARKING - LINE 6" |
|                              |                  | FOOT                             | FOOT                             |
| STA 86+50 LT TO STA 91+50 LT | SOLID WHITE      | 1000                             |                                  |
| STA 86+50 RT TO STA 91+50 RT | SOLID WHITE      | 1000                             |                                  |
| STA 86+50 CT TO STA 91+50 CT | SOLID YELLOW     | 1000                             |                                  |
| STA 86+50 CT TO STA 91+50 CT | SKIP-DASH YELLOW |                                  | 250                              |
| TOTAL                        |                  | 3000                             | 250                              |

NOTE:  
PAVEMENT MARKING QUANTITIES ARE FOR TWO SEPARATE APPLICATIONS.  
EXISTING PAVEMENT MARKING WILL BE RECORDED BY ENGINEER BEFORE ANY PAVEMENT REMOVAL OR SURFACE REMOVAL AND REPLACED IN THE SAME LOCATION.

| EROSION CONTROL ITEMS        |                         |                        |                           |
|------------------------------|-------------------------|------------------------|---------------------------|
| LOCATION                     | EROSION CONTROL BLANKET | TEMPORARY DITCH CHECKS | PERIMETER EROSION BARRIER |
|                              | SQ YD                   | FOOT                   | FOOT                      |
| STA 86+50 LT TO STA 91+50 LT | 1170                    |                        |                           |
| STA 86+50 LT TO STA 91+50 RT | 1128                    |                        |                           |
| STA 89+20 LT TO STA 91+50 LT |                         |                        | 230                       |
| STA 86+50 RT TO STA 88+88 RT |                         |                        | 238                       |
| STA 87+00 LT                 |                         | 10                     |                           |
| STA 88+50 LT                 |                         | 10                     |                           |
| STA 89+50 RT                 |                         | 10                     |                           |
| STA 91+00 RT                 |                         | 10                     |                           |
| TOTAL                        | 2298                    | 40                     | 468                       |

| TREE REMOVAL (OVER 15 UNITS DIAMETER) |          |    |
|---------------------------------------|----------|----|
| LOCATION                              | UNIT     |    |
| STA 88+30.8                           | 43.1' RT | 28 |
| STA 89+08.5                           | 29.2' LT | 30 |
| STA 90+13.0                           | 37.5' LT | 24 |
| TOTAL                                 |          | 82 |

FILE NAME = \$FILE\$



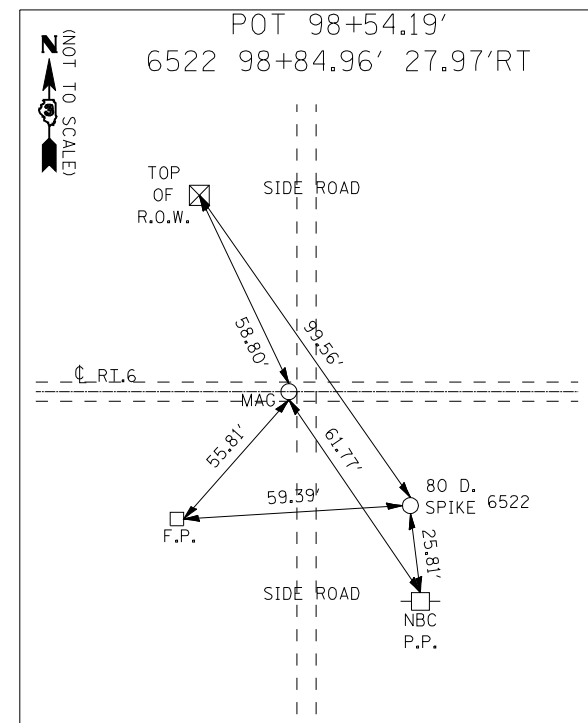
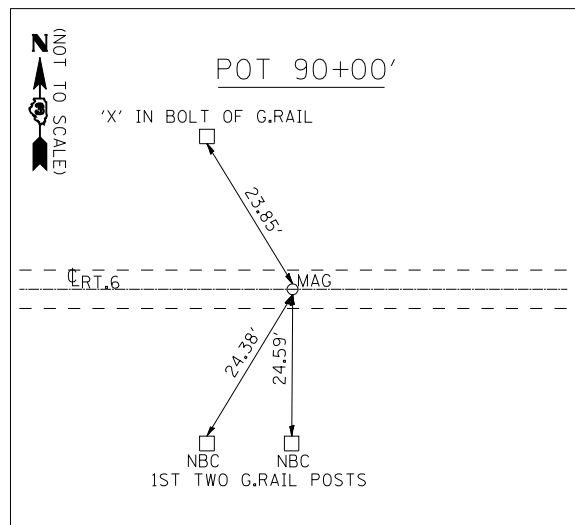
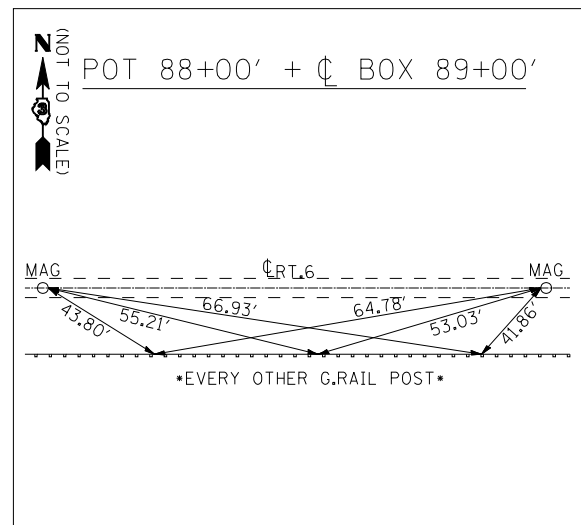
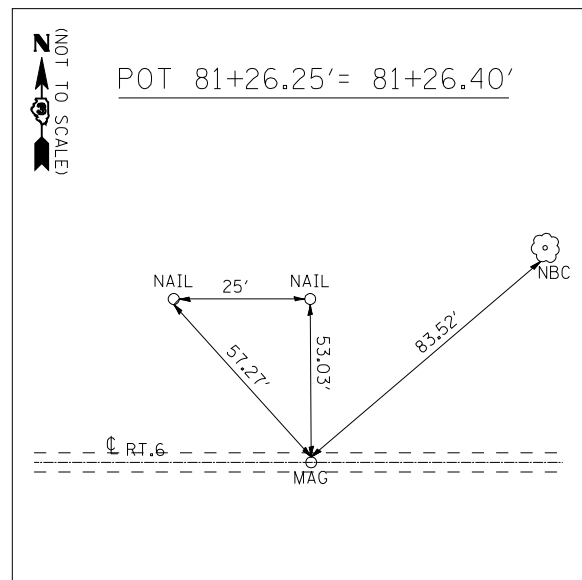
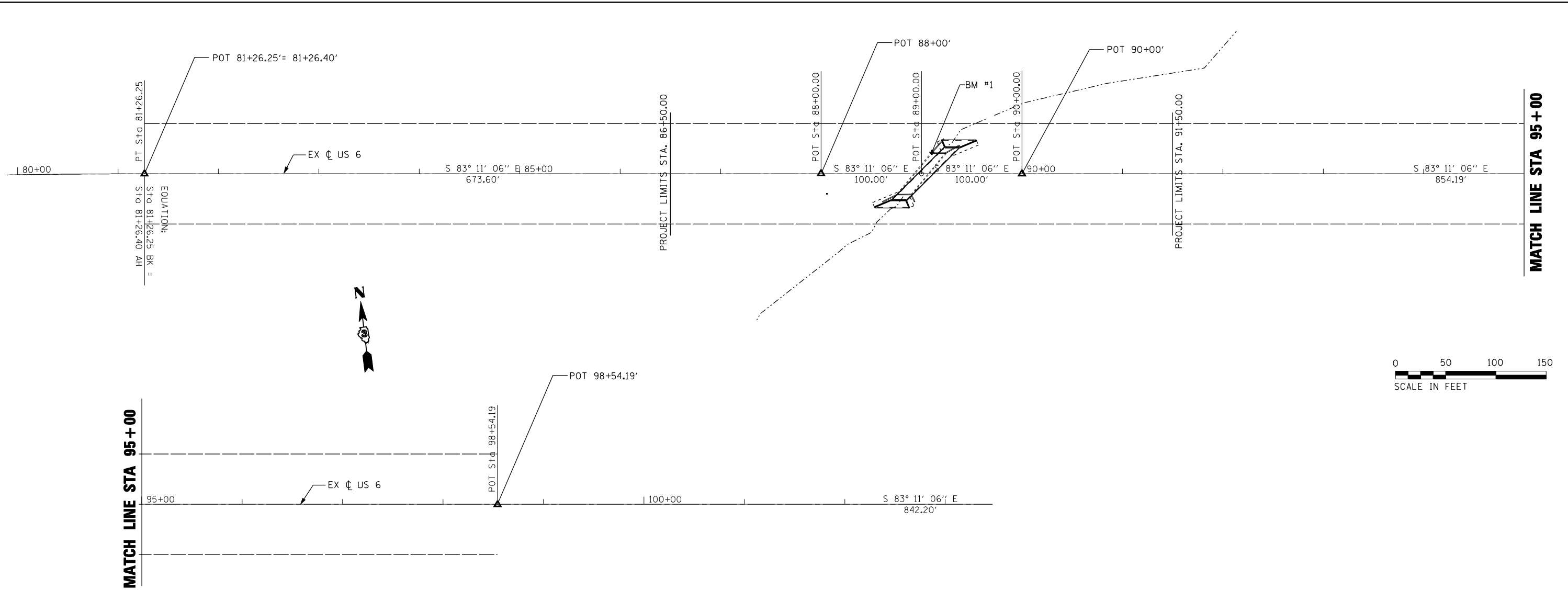
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|                        | DRAWN - JL        | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - OAO     | REVISED - |
| PLOT DATE = \$DATE\$   | DATE - 11/28/2016 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULES OF QUANTITIES

SCALE: SHEET OF SHEETS STA. TO STA.

|                    |          |        |                           |           |
|--------------------|----------|--------|---------------------------|-----------|
| F.A.S. RTE.        | SECTION  | COUNTY | TOTAL SHEETS              | SHEET NO. |
| 2247               | 13X-CR-1 | BUREAU | 23                        | 7         |
| CONTRACT NO. 66B65 |          |        | ILLINOIS FED. AID PROJECT |           |



BENCH MARK #1,  
ELEV. 645.984  
STA. 89+10.40, 21.64' LT  
CHISELED BOX ON NW HEADWALL

FILE NAME = \$FILEL\$



|                        |                   |           |
|------------------------|-------------------|-----------|
| USER NAME = \$USER\$   | DESIGNED - JL     | REVISED - |
| DRAWN - JL             | REVISOR -         |           |
| PLOT SCALE = \$SCALE\$ | CHECKED - OAO     | REVISED - |
| PLOT DATE = \$DATE\$   | DATE - 11/28/2016 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS

SCALE: SHEET OF SHEETS STA. TO STA.

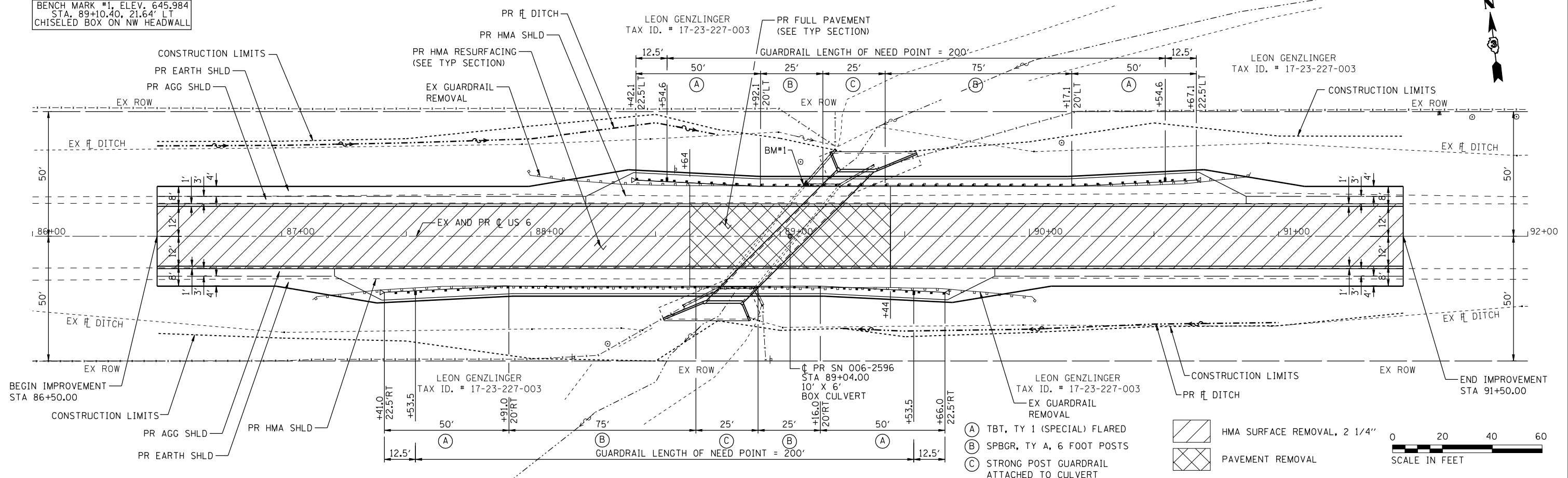
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|---------------------------|------------------|---------------|-----------------|--------------------|
| F.A.S. RTE. 2247          | SECTION 13X-CR-1 | COUNTY BUREAU | TOTAL SHEETS 23 | SHEET NO. 8        |
| ILLINOIS FED. AID PROJECT |                  |               |                 | CONTRACT NO. 66B65 |



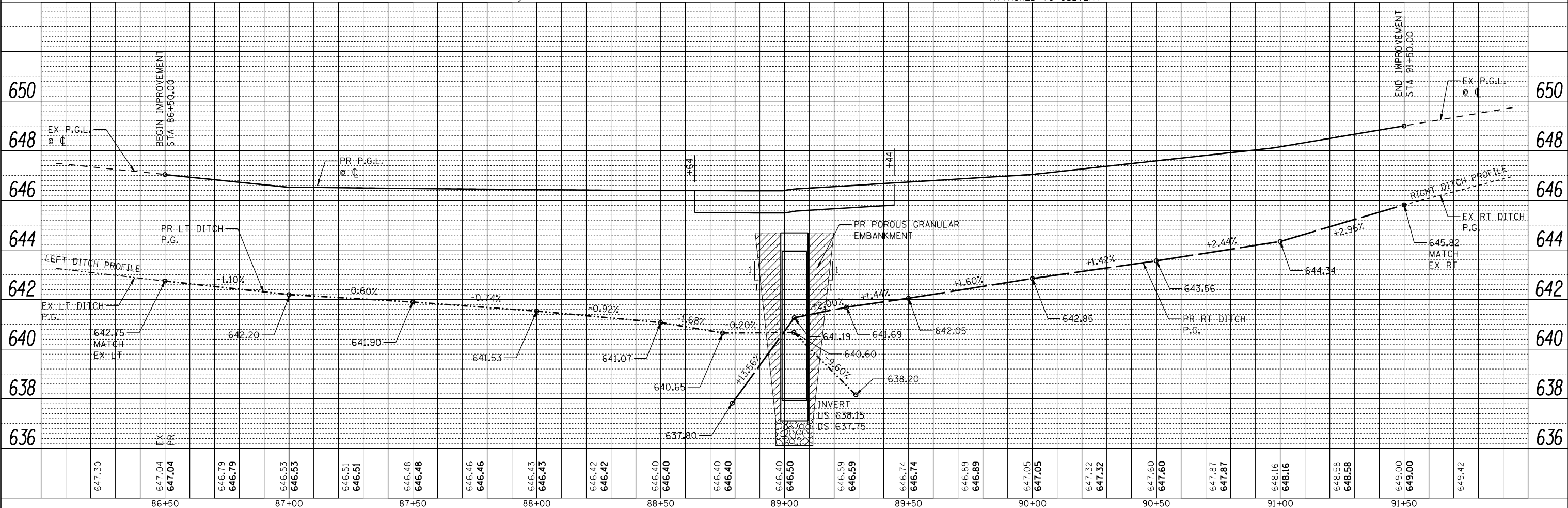
BENCH MARK #1, ELEV. 645.984  
 STA. 89+10.40, 21.64' LT  
 CHISELED BOX ON NW HEADWALL



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



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



|        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 647.30 | 647.04 | 646.79 | 646.53 | 646.51 | 646.48 | 646.46 | 646.43 | 646.42 | 646.40 | 646.40 | 646.40 | 646.40 | 646.50 | 646.59 | 646.74 | 646.89 | 647.05 | 647.32 | 647.60 | 647.87 | 648.16 | 648.58 | 649.00 | 649.42 |
|        | 86+50  |        | 87+00  |        | 87+50  |        | 88+00  |        | 88+50  |        | 89+00  |        | 89+50  |        | 90+00  |        | 90+50  |        | 91+00  |        | 91+50  |        |        |        |

**SDI ENGINEERING CORP.**  
 www.sdiengr.com

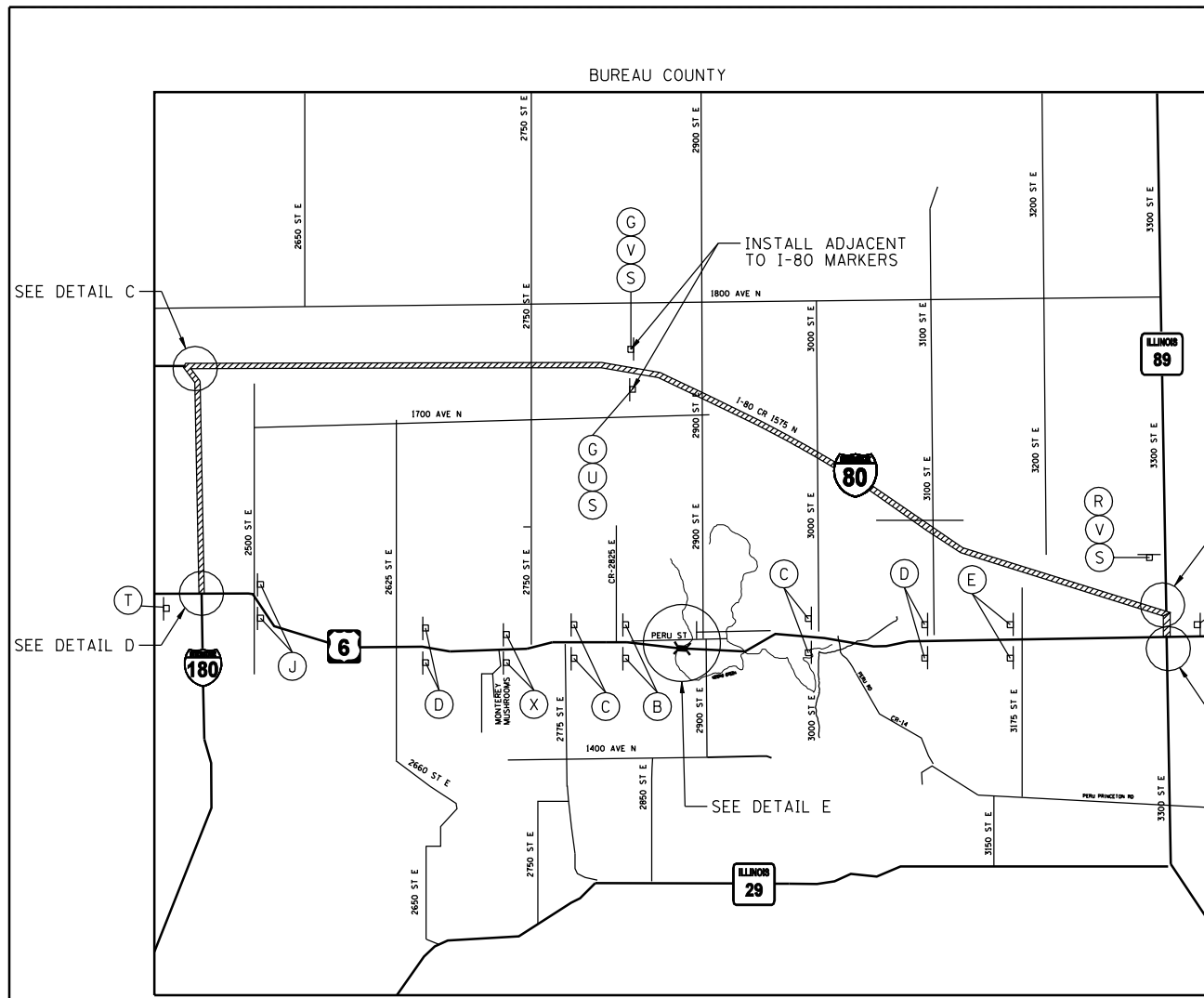
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|----------------------|--------------------|-----------|
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| PLOT SCALE = #SCALE# | DRAWN - AA / JL    | REVISED - |
| PLOT DATE = #DATE#   | CHECKED - OAO      | REVISED - |
|                      | DATE - 11/28/2016  | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

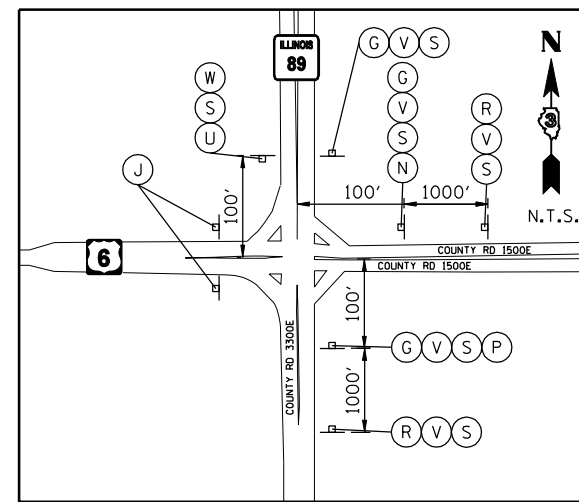
**PLAN AND PROFILE**

SCALE: SHEET OF SHEETS STA. 86+00 TO STA. 92+00

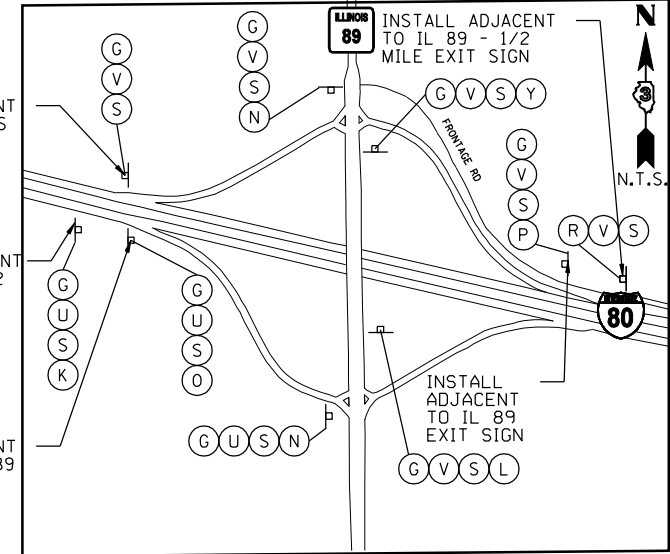
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|---------------------------|------------------|---------------|-----------------|-------------|
| F.A.S. RTE. 2247          | SECTION 13X-CR-1 | COUNTY BUREAU | TOTAL SHEETS 23 | SHEET NO. 9 |
| CONTRACT NO. 66B65        |                  |               |                 |             |
| ILLINOIS FED. AID PROJECT |                  |               |                 |             |



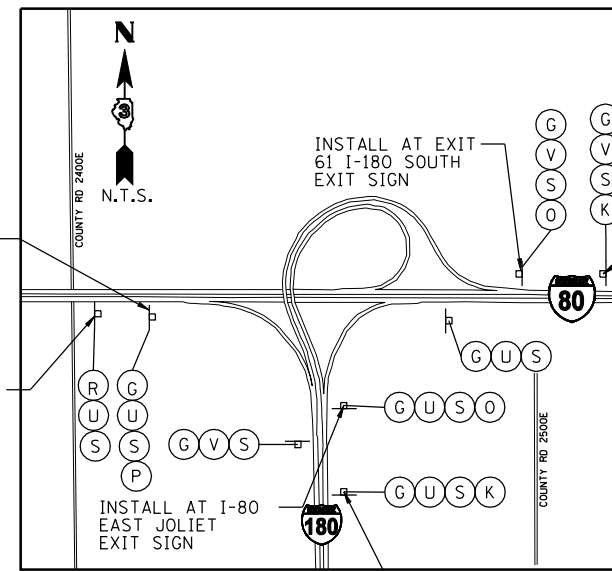
**DETOUR MAP**



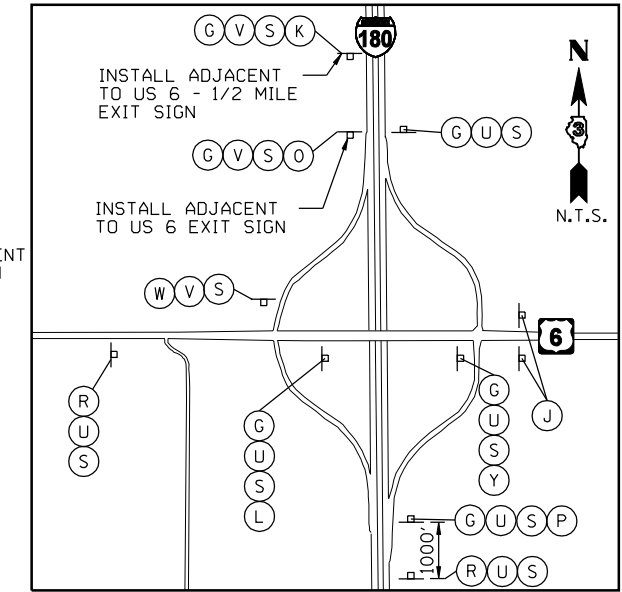
**DETAIL A**



**DETAIL B**



**DETAIL C**



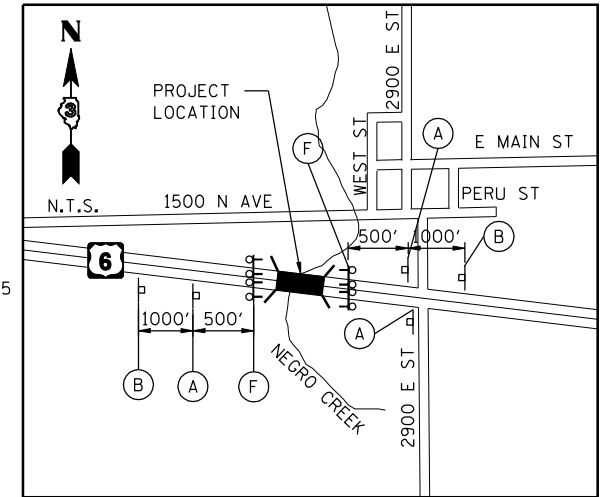
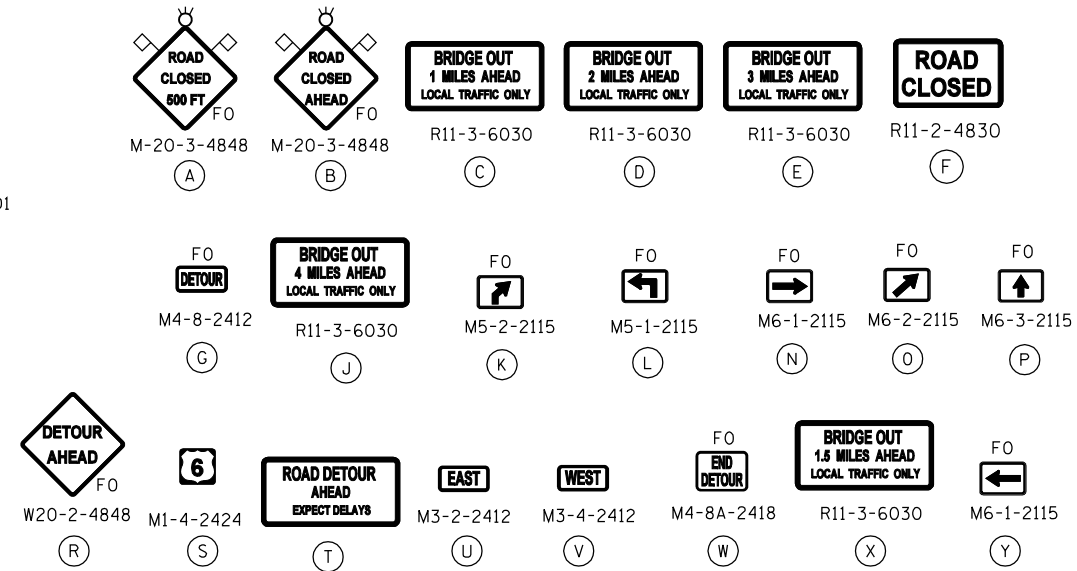
**DETAIL D**

**NOTES**

- ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
- ALL SIGNS NOT ATTACHED TO BARRICADES SHALL BE POST MOUNTED, UNLESS OTHERWISE NOTED.
- LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
- WORK SHALL BE DONE IN ACCORDANCE WITH BLR 21, EXCEPT THAT ALL WARNING SIGNS SHALL BE 48"x48".
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES, THE HIGHWAY STANDARDS AND SPECIAL PROVISIONS.
- COVER OR REMOVE ANY EXISTING CONFLICTING DESTINATION SIGNS (NOTE: NO DRILLING OR TAPE WILL BE ALLOWED ON THE SIGN FACE).
- CONFIRMATION DETOUR ROUTE SIGN ASSEMBLIES SHALL BE PLACED ADJACENT TO THE EXISTING ROUTE ASSEMBLIES

**LEGEND**

- † SIGNS ON PERMANENT SUPPORTS
- ♁ TYPE III BARRICADES CONFORMING TO STD 701901 WITH 2 FLASHING LIGHTS PER BARRICADE
- ⚡ FLASH LIGHT ABOVE SIGN
- ◇ 18" X 18" ORANGE FLAG
- ▬ DETOUR ROUTE
- FO FLUORESCENT ORANGE



**DETAIL E**

FILE NAME = #FILE#



|                      |                   |           |
|----------------------|-------------------|-----------|
| USER NAME = #USER#   | DESIGNED - JL     | REVISED - |
| DRAWN - SD           | REVISOR -         |           |
| PLOT SCALE = #SCALE# | CHECKED - OAO     | REVISED - |
| PLOT DATE = #DATE#   | DATE - 11/28/2016 | REVISED - |






**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

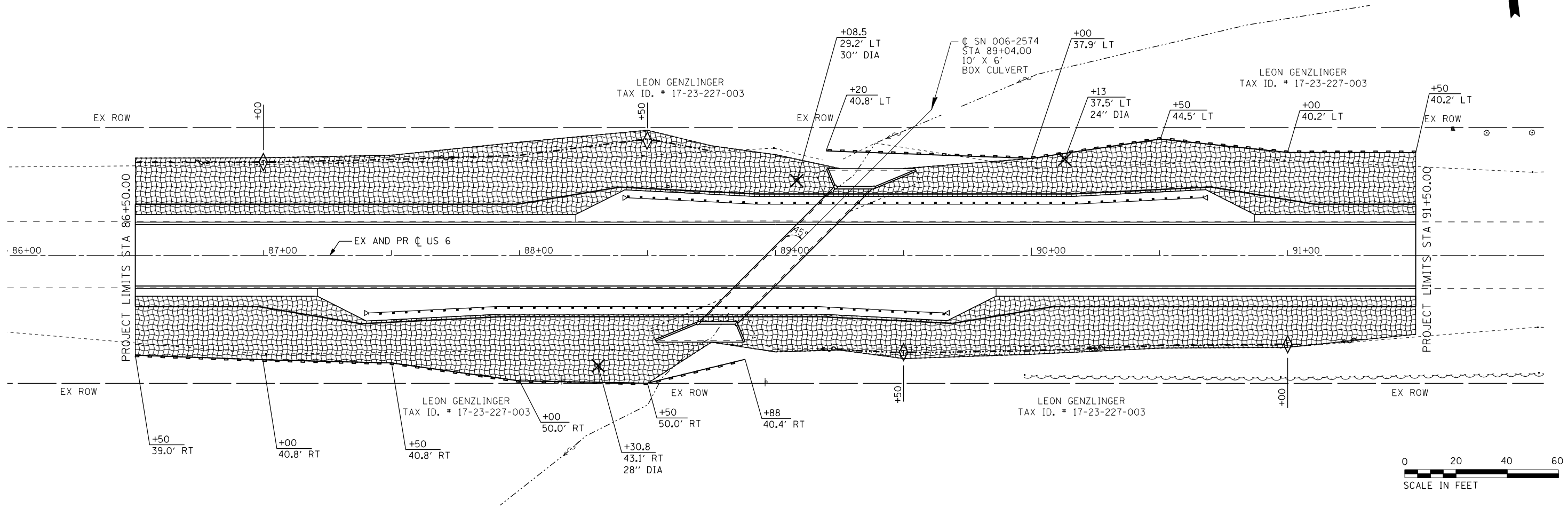
**DETOUR PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |                  |               |                 |              |
|---------------------------|------------------|---------------|-----------------|--------------|
| F.A.S. RTE. 2247          | SECTION 13X-CR-1 | COUNTY BUREAU | TOTAL SHEETS 23 | SHEET NO. 10 |
| CONTRACT NO. 66B65        |                  |               |                 |              |
| ILLINOIS FED. AID PROJECT |                  |               |                 |              |

**LEGEND**

-  TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET AND SEEDING CLASS 2A
-  TEMPORARY DITCH CHECK
-  PERIMETER EROSION BARRIER
-  TREE REMOVAL
-  CONSTRUCTION LIMITS



FILE NAME = #FILE#



|                      |                   |           |
|----------------------|-------------------|-----------|
| USER NAME = #USER#   | DESIGNED - AA     | REVISED - |
| DRAWN - AA           | REVISIONS -       |           |
| PLOT SCALE = #SCALE# | CHECKED - OAO     | REVISED - |
| PLOT DATE = #DATE#   | DATE - 11/28/2016 | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

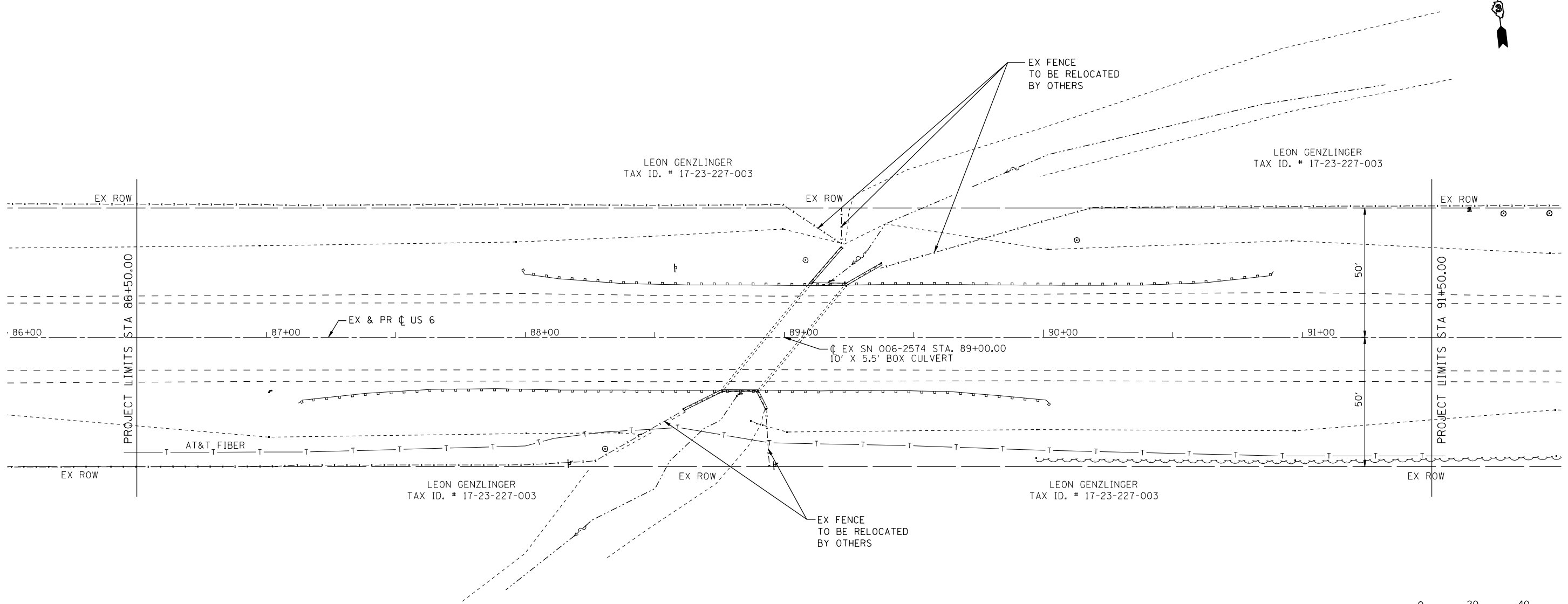
**EROSION CONTROL AND LANDSCAPING PLAN**

SCALE: SHEET OF SHEETS STA. 86+50.00 TO STA. 91+50.00

|                           |                  |               |                 |              |
|---------------------------|------------------|---------------|-----------------|--------------|
| F.A.S. RTE. 2247          | SECTION 13X-CR-1 | COUNTY BUREAU | TOTAL SHEETS 23 | SHEET NO. 11 |
| CONTRACT NO. 66B65        |                  |               |                 |              |
| ILLINOIS FED. AID PROJECT |                  |               |                 |              |

LEGEND

—T—T— EXISTING AT&T FIBER CABLE



EXISTING UTILITIES WITHIN IMPROVEMENT

AT&T FIBER CABLE - BURIED TELEPHONE

FRONTIER HAS A NON-WORKING COPPER TOLL CABLE ON THE NORTH SIDE. PEDESTALS ON EACH SIDE ARE SCHEDULED TO BE REMOVED SO LOCATORS WILL NOT LOCATE IT.

FILE NAME = #FILE#

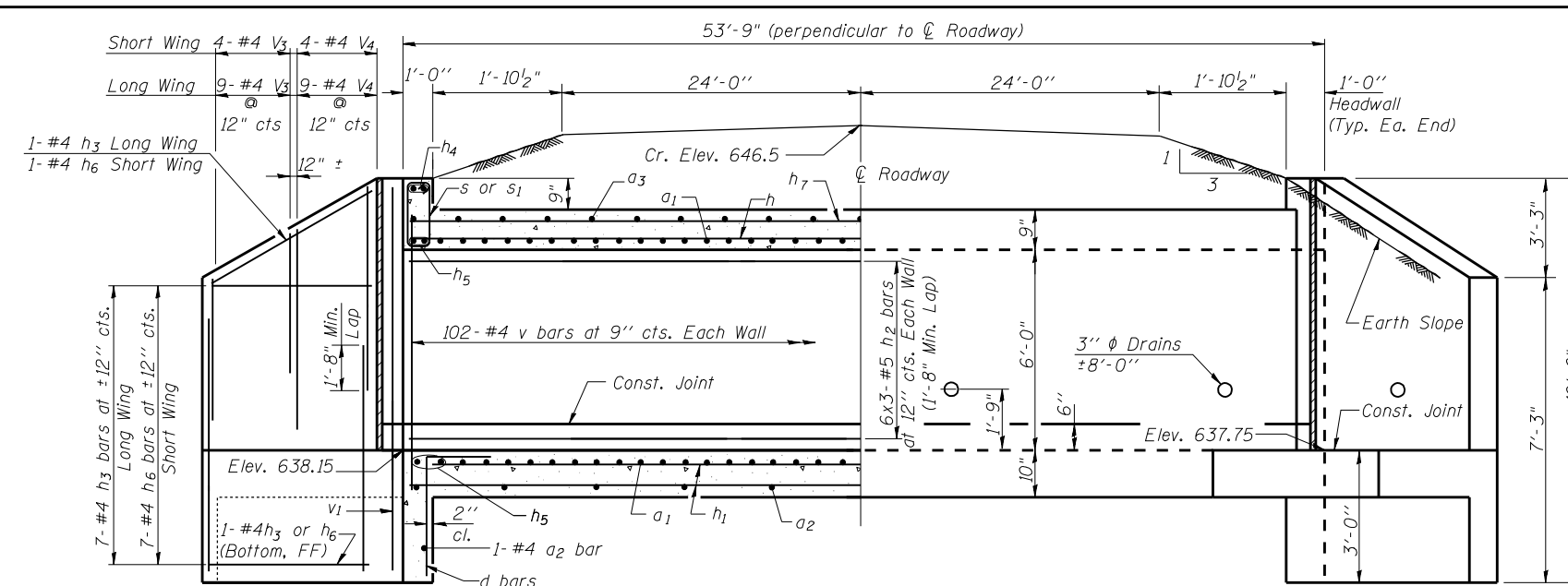


|                      |                   |           |
|----------------------|-------------------|-----------|
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|                      | DRAWN - SD        | REVISED - |
| PLOT SCALE = #SCALE# | CHECKED - OAO     | REVISED - |
| PLOT DATE = #DATE#   | DATE - 11/28/2016 | REVISED - |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

|           |       |    |                                |
|-----------|-------|----|--------------------------------|
| UTILITIES |       |    |                                |
| SCALE:    | SHEET | OF | SHEETS                         |
|           |       |    | STA. 86+50.00 TO STA. 91+50.00 |

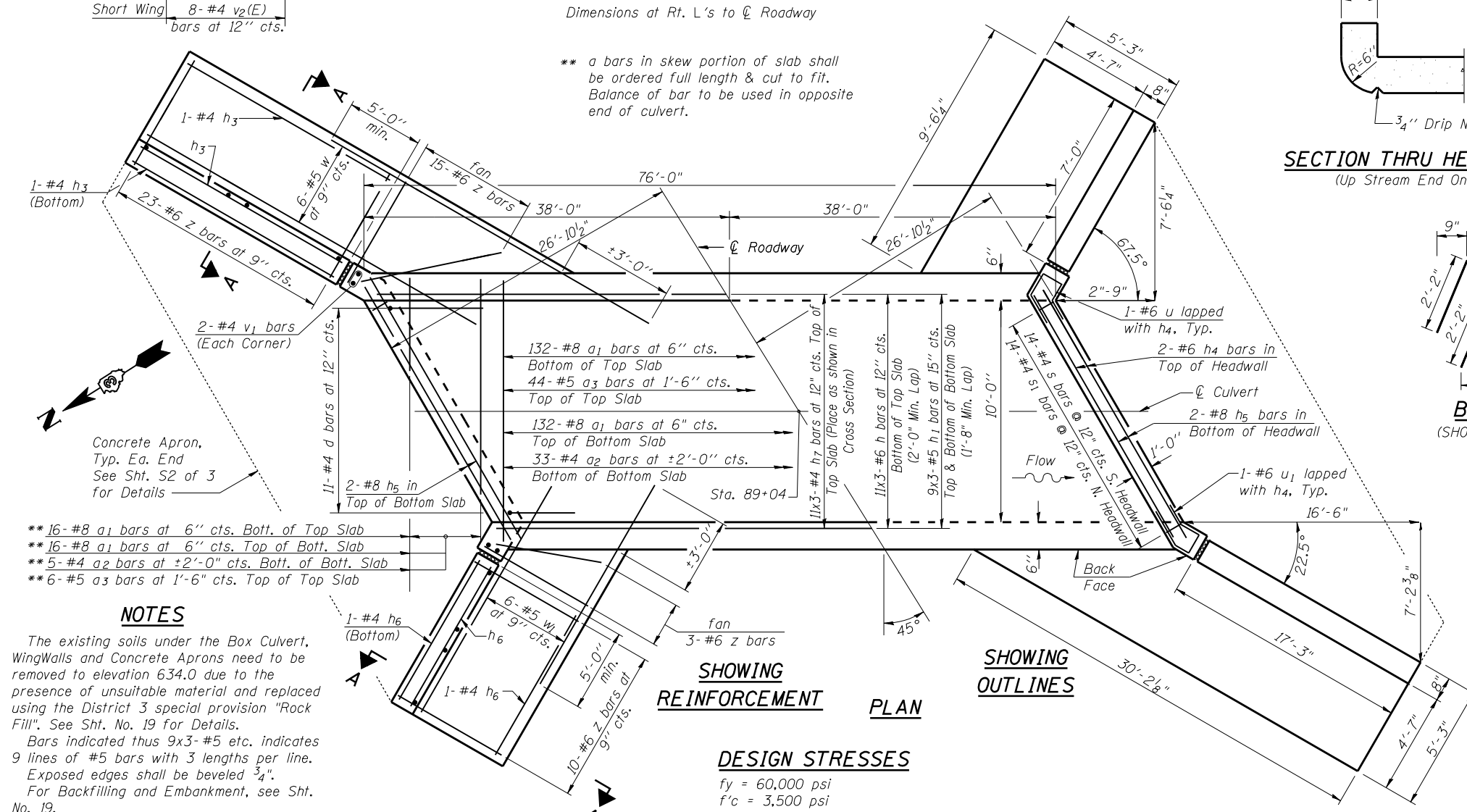
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| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23           | 12        |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |



**HALF LONG. SECT. HALF ELEVATION**

Dimensions at Rt. L's to  $\mathcal{C}$  Roadway

\*\* a bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of culvert.



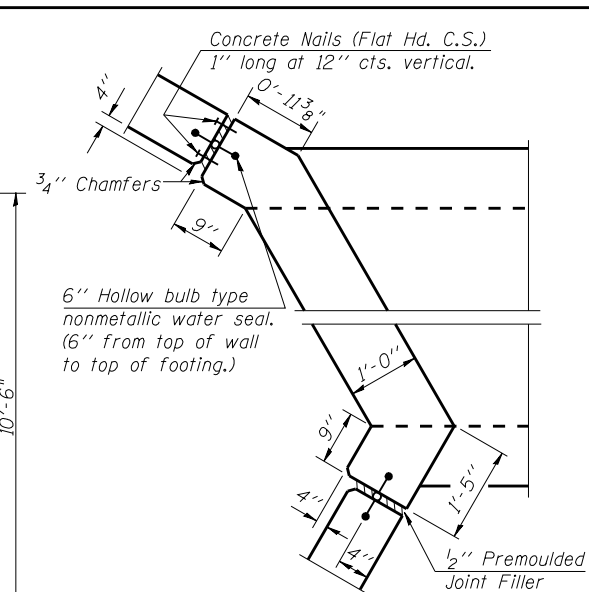
**SHOWING REINFORCEMENT PLAN**

**DESIGN STRESSES**

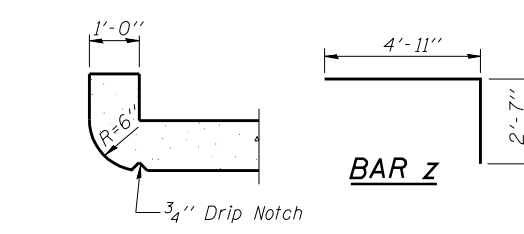
$f_y = 60,000 \text{ psi}$   
 $f'_c = 3,500 \text{ psi}$

Max. Soil Pressure under footing = 2,609 psf

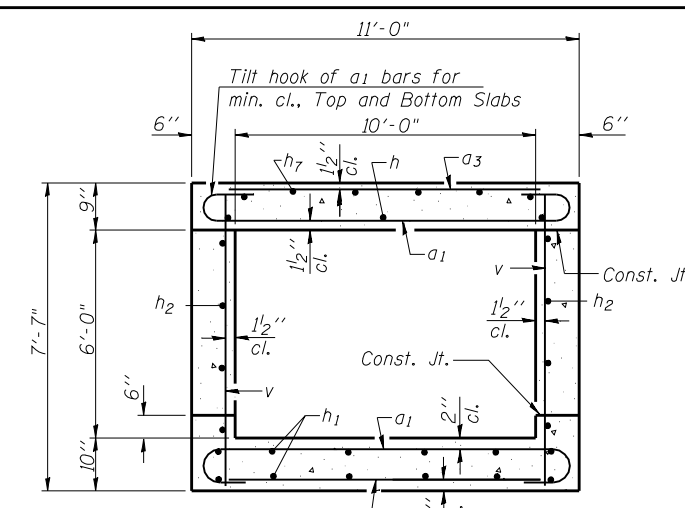
**LOADING HS 20-44 & ALT.**



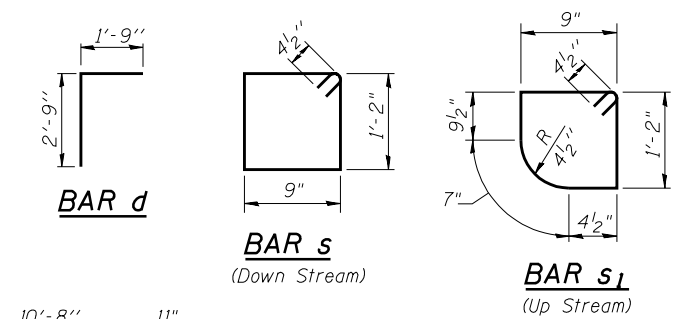
**CORNER DETAIL**



**SECTION THRU HEADWALL (Up Stream End Only)**

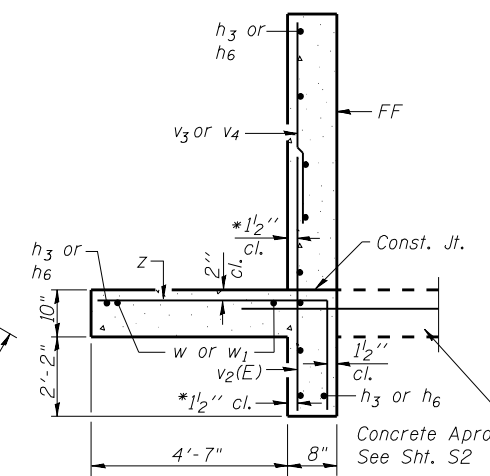
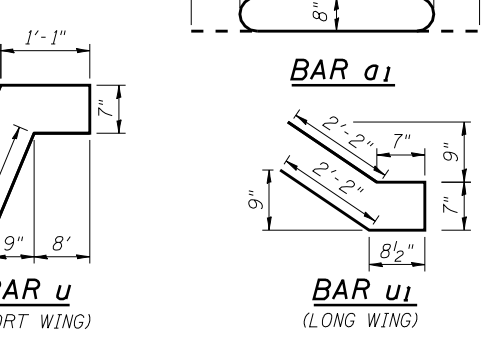


**SECTION THRU BARREL**



**BILL OF MATERIAL**

| Bar  | No. | Size    | Length  | Shape |
|--|-----|---------|---------|-------|
| a1   | 296 | #8      | 12'-6"  | C     |
| a2   | 40  | #4      | 10'-8"  | —     |
| a3   | 50  | #5      | 10'-8"  | —     |
| d  | 22  | #4      | 4'-6"   | L     |
| h  | 33  | #6      | 26'-7"  | —     |
| h1   | 54  | #5      | 26'-4"  | —     |
| h2   | 36  | #5      | 26'-6"  | —     |
| h3   | 20  | #4      | 16'-11" | —     |
| h4   | 4   | #6      | 14'-9"  | —     |
| h5   | 8   | #8      | 14'-9"  | —     |
| h6   | 20  | #4      | 6'-8"   | —     |
| h7   | 33  | #4      | 26'-2"  | —     |
| s  | 14  | #4      | 4'-7"   | □     |
| s1   | 14  | #4      | 4'-5"   | □     |
| v  | 204 | #4      | 7'-2"   | —     |
| v1   | 8   | #4      | 10'-1"  | —     |
| v2(E)  | 52  | #4      | 6'-0"   | —     |
| v3   | 26  | #4      | 4'-2"   | —     |
| v4   | 26  | #4      | 5'-10"  | —     |
| u  | 2   | #6      | 6'-8"   | —     |
| u1   | 2   | #6      | 6'-3"   | —     |
| w  | 12  | #5      | 23'-7"  | —     |
| w1   | 12  | #5      | 10'-9"  | —     |
| z  | 102 | #6      | 7'-6"   | —     |
| Concrete Box Culverts                        |     | Cu. Yd. | 89.4    |       |
| Reinforcement Bars, Epoxy Coated             |     | Pound   | 210     |       |
| Reinforcement Bars                           |     | Pound   | 18,790  |       |
| Membrane Waterproofing For Buried Structures |     | Sq. Yd. | 125.0   |       |



**SECTION A-A**

\* v bars shall not be placed more than 1 1/2" cl. from back face of wingwall.

FF = Front Face  
**SSB-L-L** 7-1-10



| USER NAME = *USER* | DESIGNED - | REVISIONS |
|--------------------|------------|-----------|
|                    | LT         | REVISIONS |
|                    | OA0        | REVISIONS |
|                    | AA         | REVISIONS |
|                    | OA0        | REVISIONS |

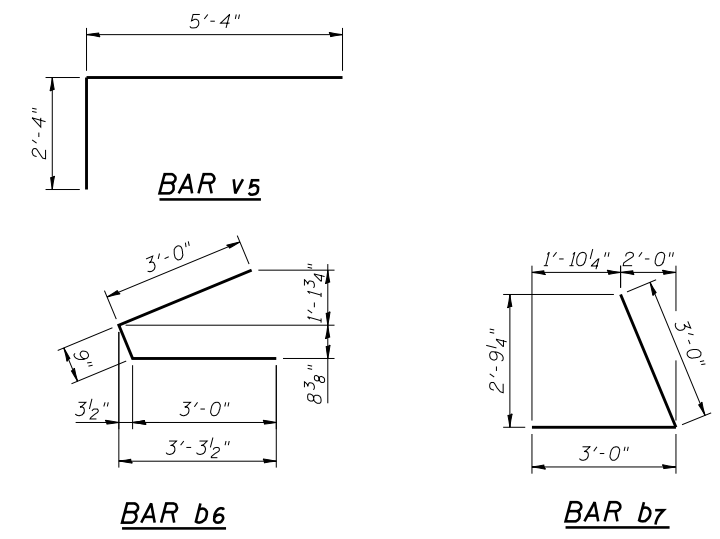
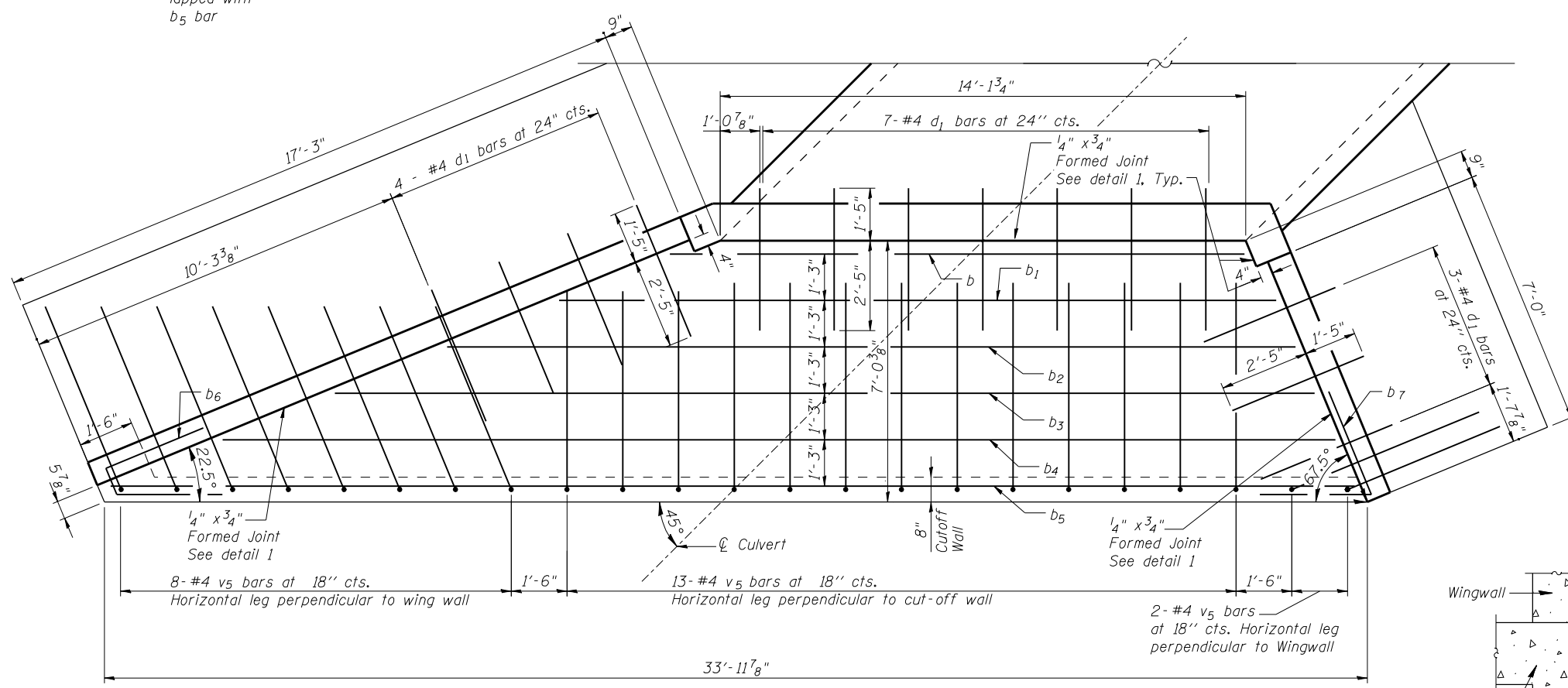
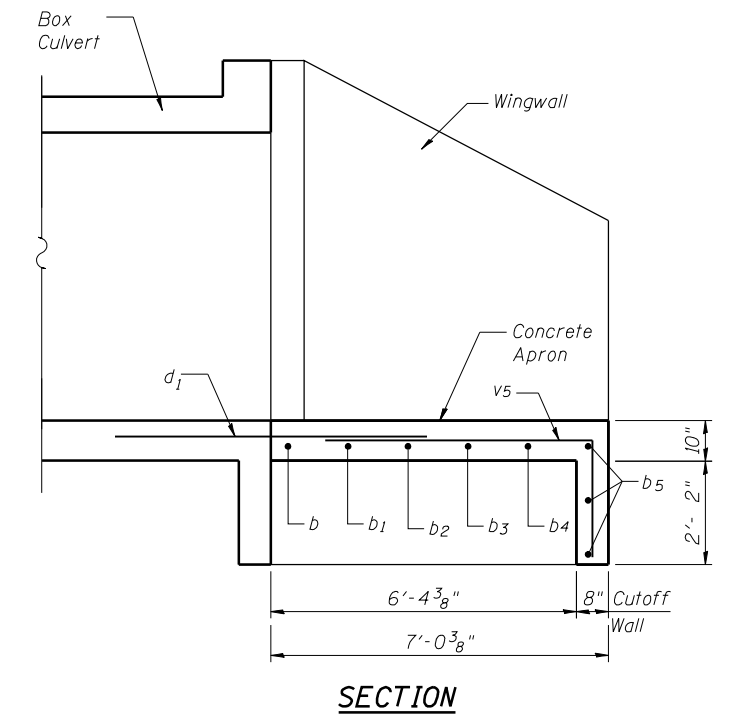
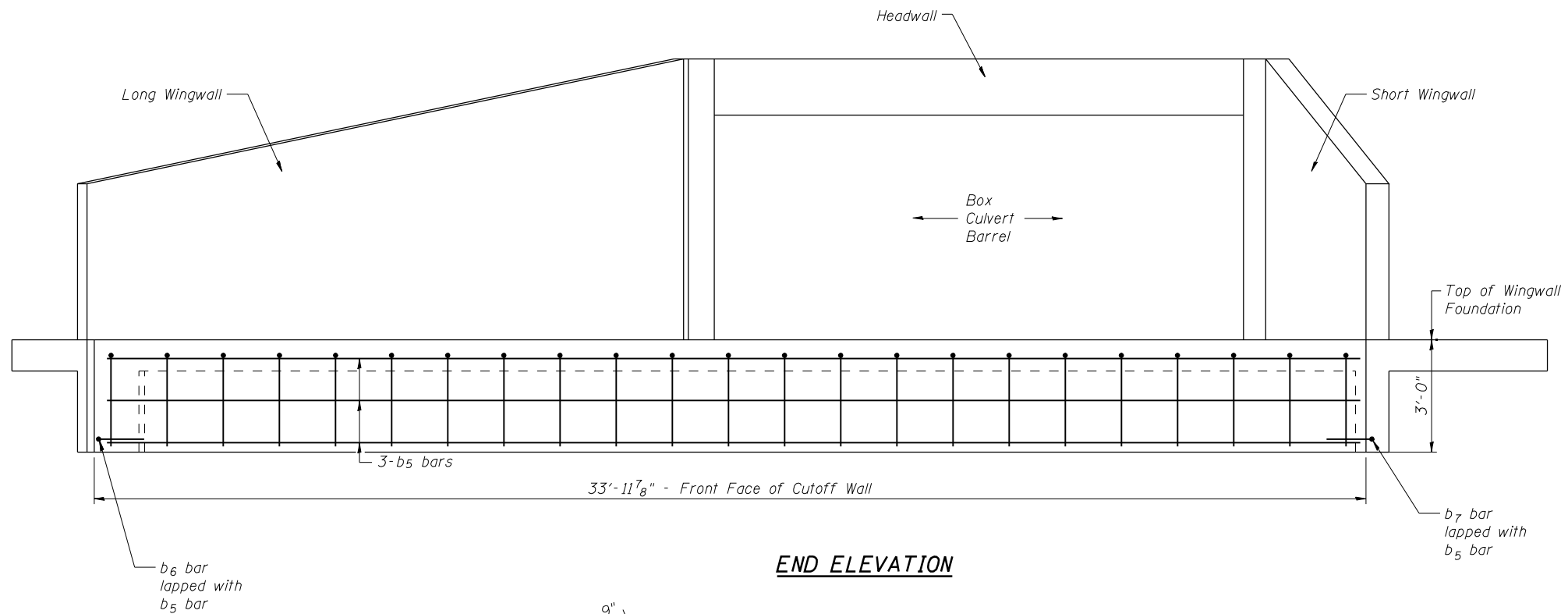
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT PLAN STRUCTURE NO. 006-2596**

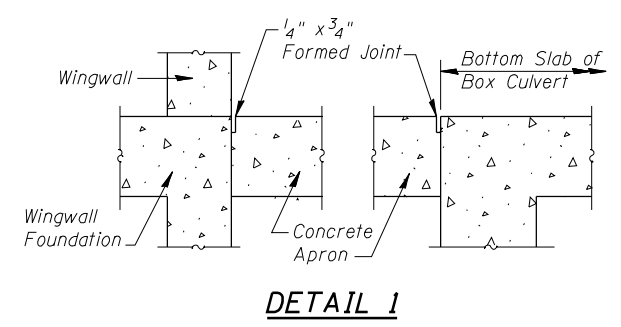
| F.A.S. R.T.E. | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------|----------|--------|--------------|-----------|
| 2247          | 13X-CR-1 | BUREAU | 23           | 13        |

CONTRACT NO. 66B65  
 ILLINOIS FED. AID PROJECT

FILE NAME = \*FILES\*



**NOTE**  
See Sht. S1 of 3 for Details of Concrete Box Culvert



**BILL OF MATERIAL**

| Bar                   | No. | Size | Length  | Shape |
|-----------------------|-----|------|---------|-------|
| b                     | 1   | #4   | 15'-5"  | —     |
| b1                    | 1   | #4   | 19'-3"  | —     |
| b2                    | 1   | #4   | 22'-10" | —     |
| b3                    | 1   | #4   | 26'-4"  | —     |
| b4                    | 1   | #4   | 29'-11" | —     |
| b5                    | 3   | #4   | 33'-5"  | —     |
| b6                    | 1   | #4   | 6'-9"   | ⤵     |
| b7                    | 1   | #4   | 6'-0"   | ⤴     |
| d1                    | 14  | #4   | 3'-10"  | —     |
| v5                    | 23  | #4   | 7'-8"   | —     |
| Concrete Box Culverts |     |      | Cu. Yd. | 7.3   |
| Reinforcement Bars    |     |      | Pound   | 310   |

BILL OF MATERIAL IS FOR ONE CONCRETE APRON ONLY

FILE NAME = \$FILES\$



|                        |               |         |
|------------------------|---------------|---------|
| USER NAME = \$USER\$   | DESIGNED - LT | REVISED |
|                        | CHECKED - OAO | REVISED |
| PLOT SCALE = \$SCALE\$ | DRAWN - AA    | REVISED |
| PLOT DATE = \$DATE\$   | CHECKED - OAO | REVISED |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE APRON DETAILS  
STRUCTURE NO. 006-2596**

SHEET NO. S2 OF 3 SHEETS

| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------|--------|--------------|-----------|
| 2247                      | 13X-CR-1 | BUREAU | 23           | 14        |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |





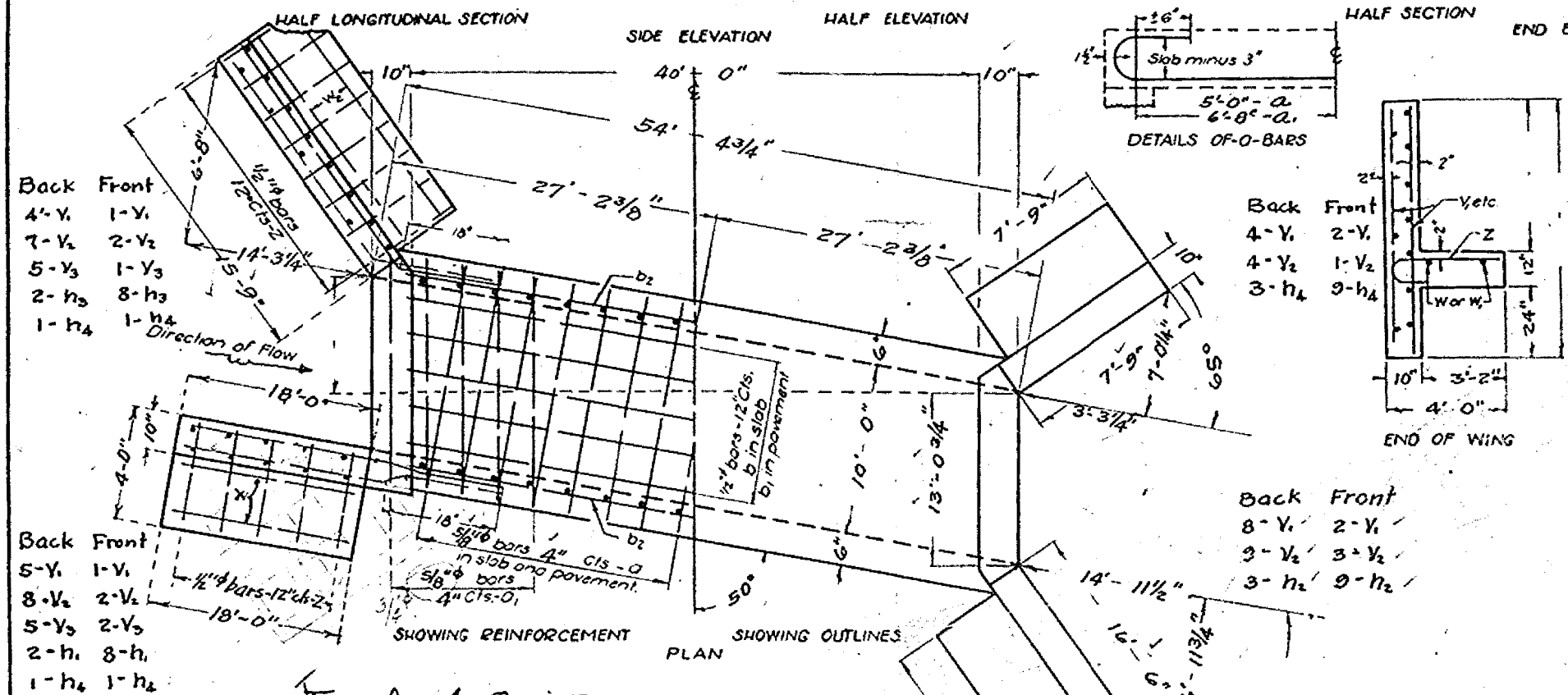
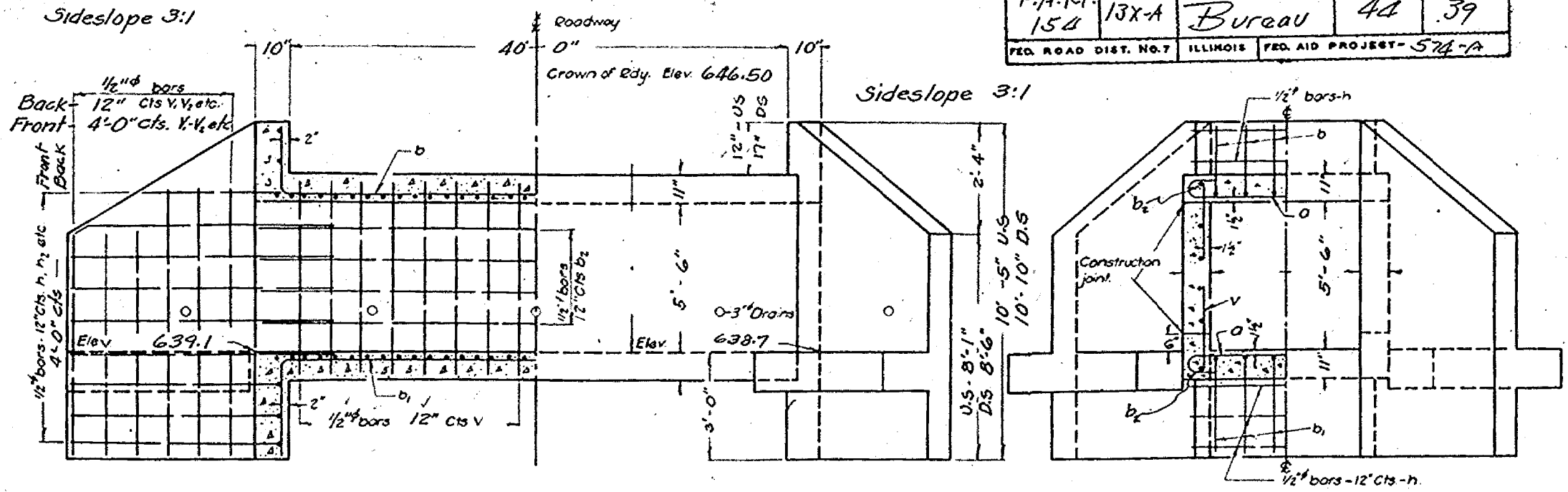


Grade: 0.00%

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

|                       |          |                         |              |           |
|-----------------------|----------|-------------------------|--------------|-----------|
| ROAD ISSUE ROUTE NO.  | SECTION  | COUNTY                  | TOTAL SHEETS | SHEET NO. |
| F.A.R.I. 154          | 13X-A    | Bureau                  | 44           | 39        |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT- 574-A |              |           |

SHEET NO. 1  
OF SHEETS



**BILL OF MATERIAL**

| Bars           | Number | Size   | Length |
|----------------|--------|--------|--------|
| O              | 264    | 5/8" φ | 13'-0" |
| O <sub>1</sub> | 84     | "      | 16'-6" |
| b              | 30     | 1/2" φ | 20'-0" |
| b <sub>1</sub> | 30     | "      | 21'-0" |
| b <sub>2</sub> | 48     | "      | 19'-6" |
| h              | 8      | "      | 13'-6" |
| h <sub>1</sub> | 10     | "      | 19'-6" |
| h <sub>2</sub> | 12     | "      | 18'-0" |
| h <sub>3</sub> | 10     | "      | 17'-3" |
| h <sub>4</sub> | 16     | "      | 9'-3"  |
| W <sub>2</sub> | 2      | "      | 15'-6" |
| W <sub>3</sub> | 2      | "      | 7'-6"  |
| V              | 106    | "      | 7'-0"  |
| V <sub>1</sub> | 27     | "      | 9'-6"  |
| V <sub>2</sub> | 36     | "      | 8'-6"  |
| V <sub>3</sub> | 13     | "      | 7'-6"  |
| W              | 2      | "      | 17'-6" |
| W <sub>1</sub> | 2      | "      | 16'-0" |
| Z              | 59     | "      | 4'-6"  |

Reinforcing Steel Lbs. 8220  
Class X concrete Cu Yds. 78.4

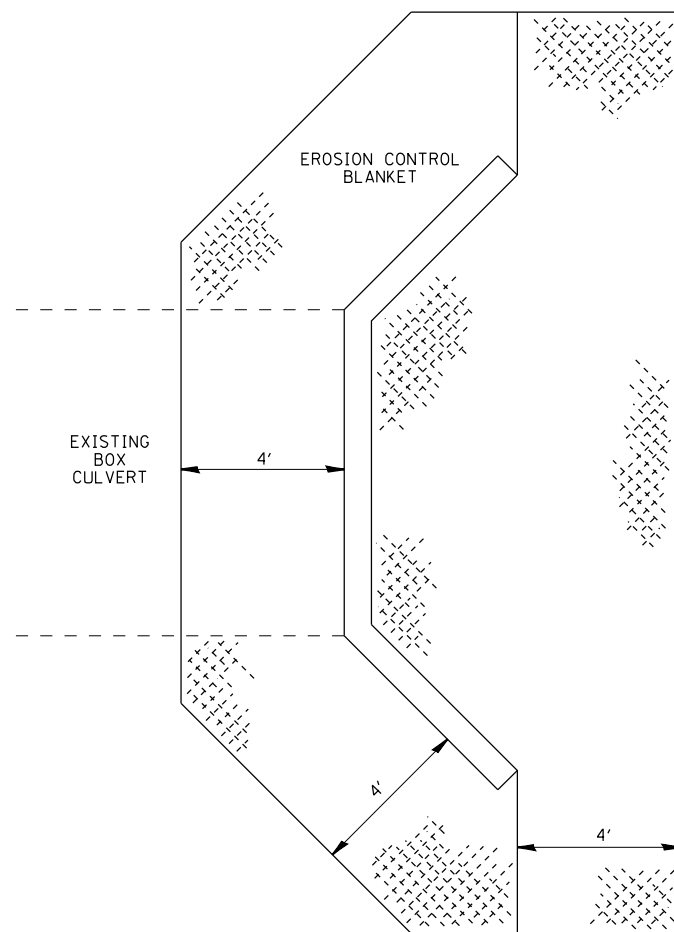
|          |           |              |
|----------|-----------|--------------|
| STANDARD | COMPUTED  |              |
|          | CHECKED   |              |
|          | DRAWN     | H. L. Ekin   |
|          | CHECKED   | J. D. Taylor |
| SPECIAL  | ASSEMBLED | D. Crawford  |
|          | CHECKED   | H. R. G.     |

DESIGNED - 4-8-37  
 CHECKED - H. J. Pouch  
 PASSED - [Signature]  
 APPROVED - [Signature]  
 Class X concrete shall be used throughout.  
 All reinforcing steel shall be wired securely in place before the concrete is poured.

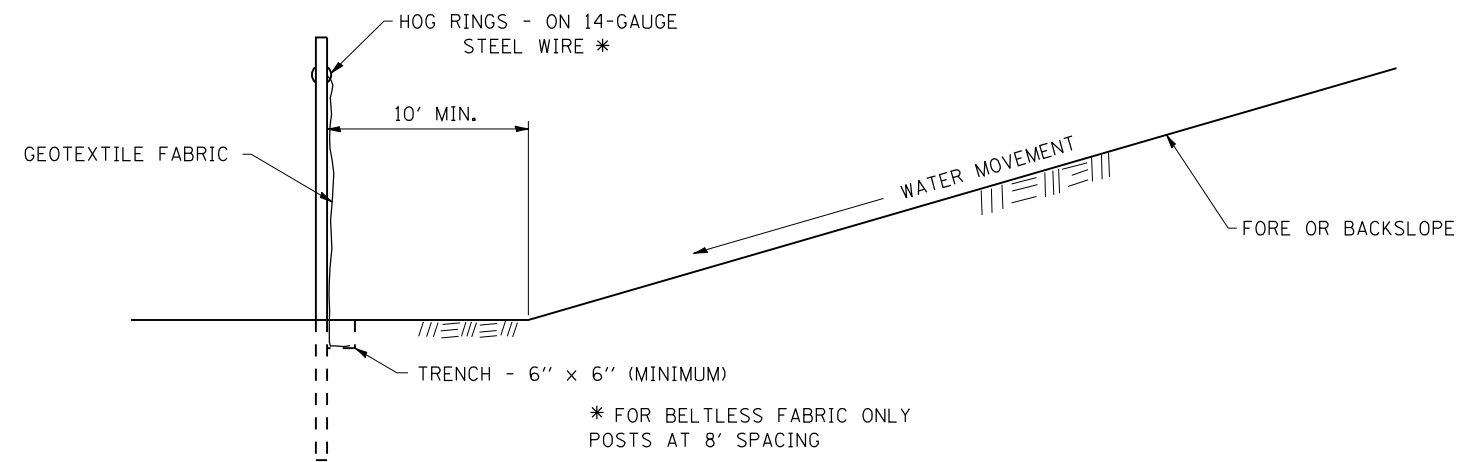
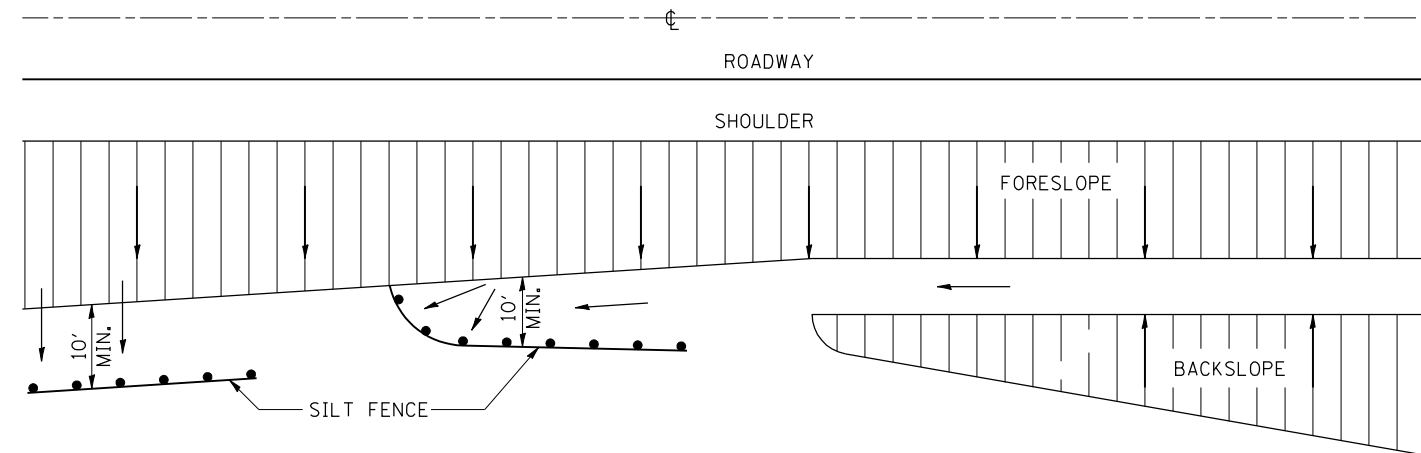
STA 89+00  
F.A. PROJ. 574-A  
SEC. 13 X A  
BUREAU COUNTY

FOR INFORMATIONAL  
USE ONLY

FILE NAME = #FILES#



**EROSION CONTROL BLANKET  
AT BOX CULVERT END SECTIONS**



DETAILS OF SILT FENCE

**EROSION CONTROL DETAILS  
FOR SILT FENCE**

FILE NAME = \$FILEL\$



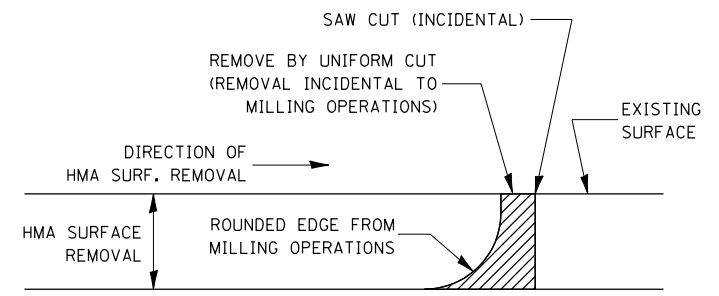
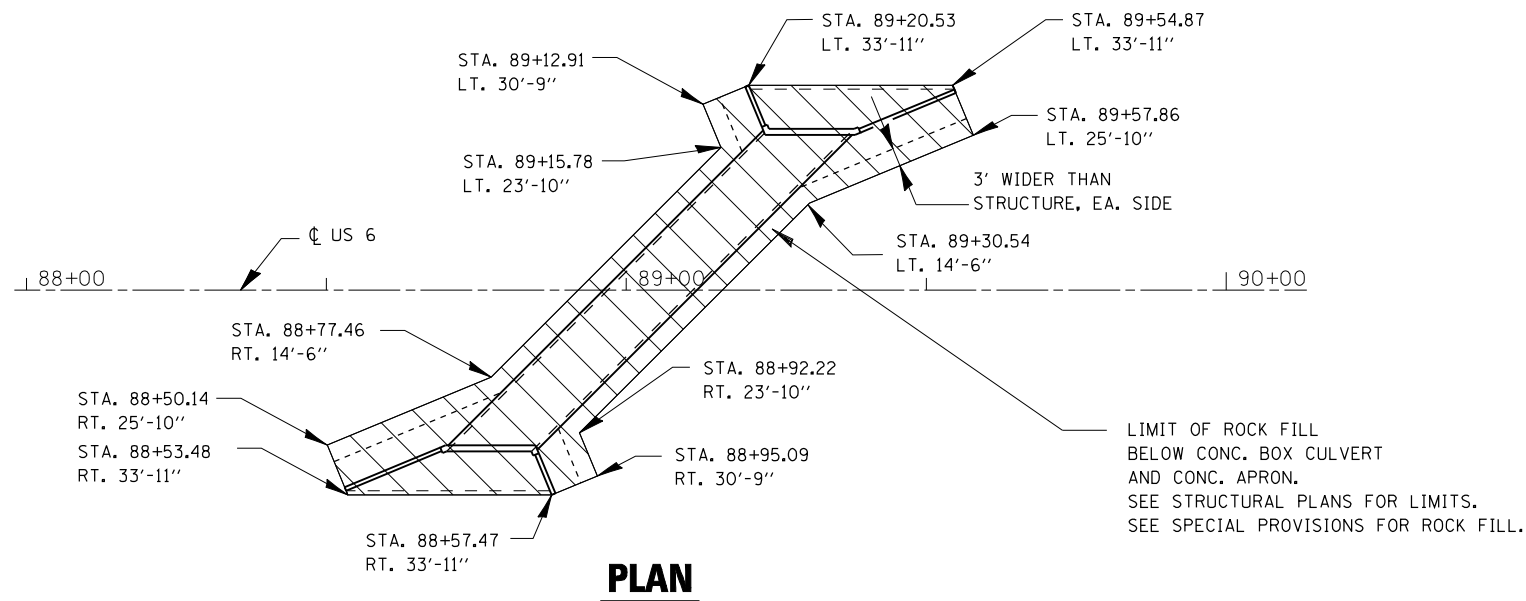
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|                        | DRAWN - AA        | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - OAO     | REVISED - |
| PLOT DATE = \$DATE\$   | DATE - 11/28/2016 | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILS**

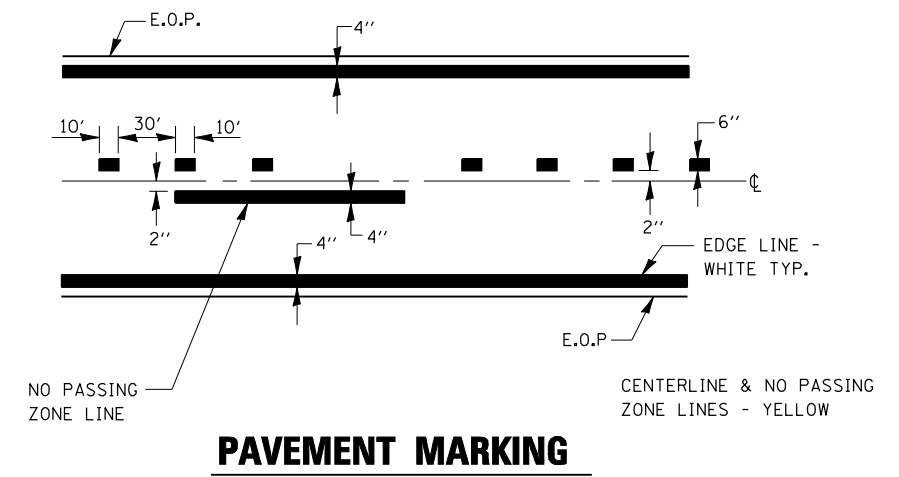
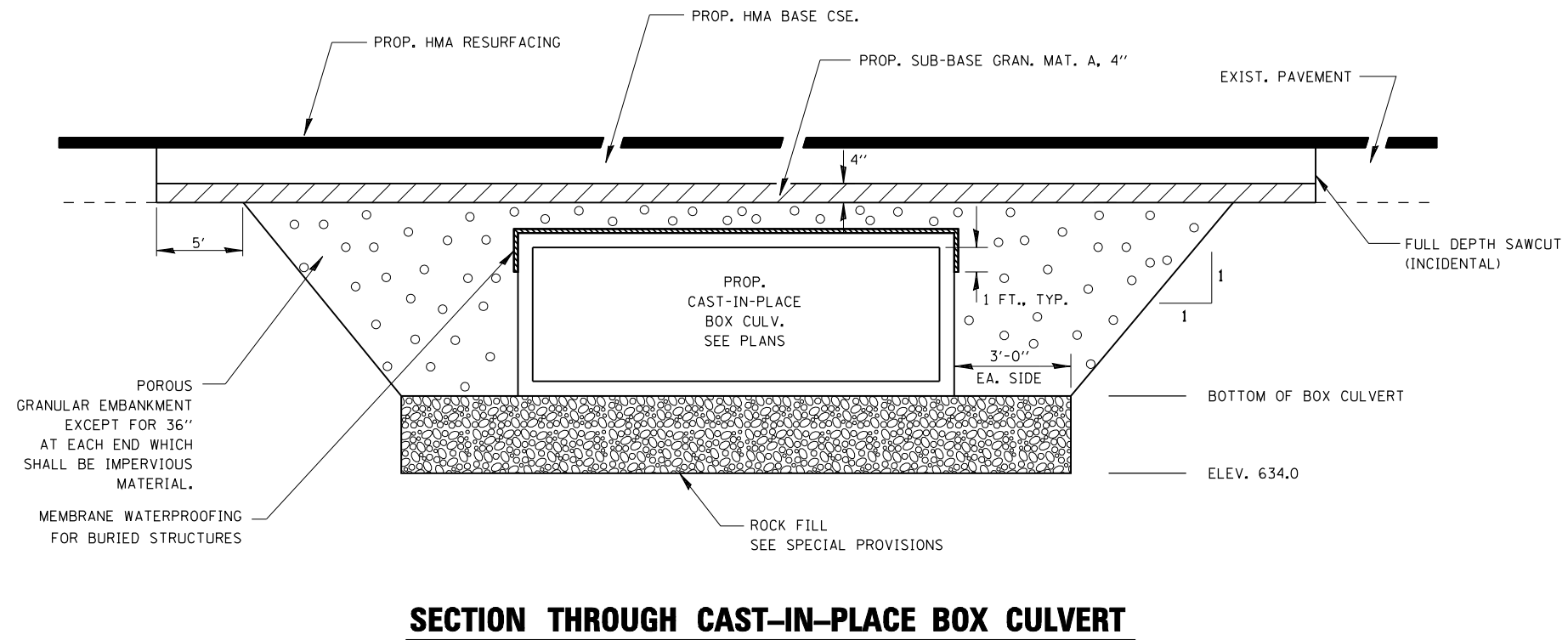
SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------|--------|--------------|-----------|
| 2247                      | 13X-CR-1 | BUREAU | 23           | 18        |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |



NOTE:  
 WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

**HMA DETAIL AT BUTT JOINTS**



FILE NAME = \$FILEL\$



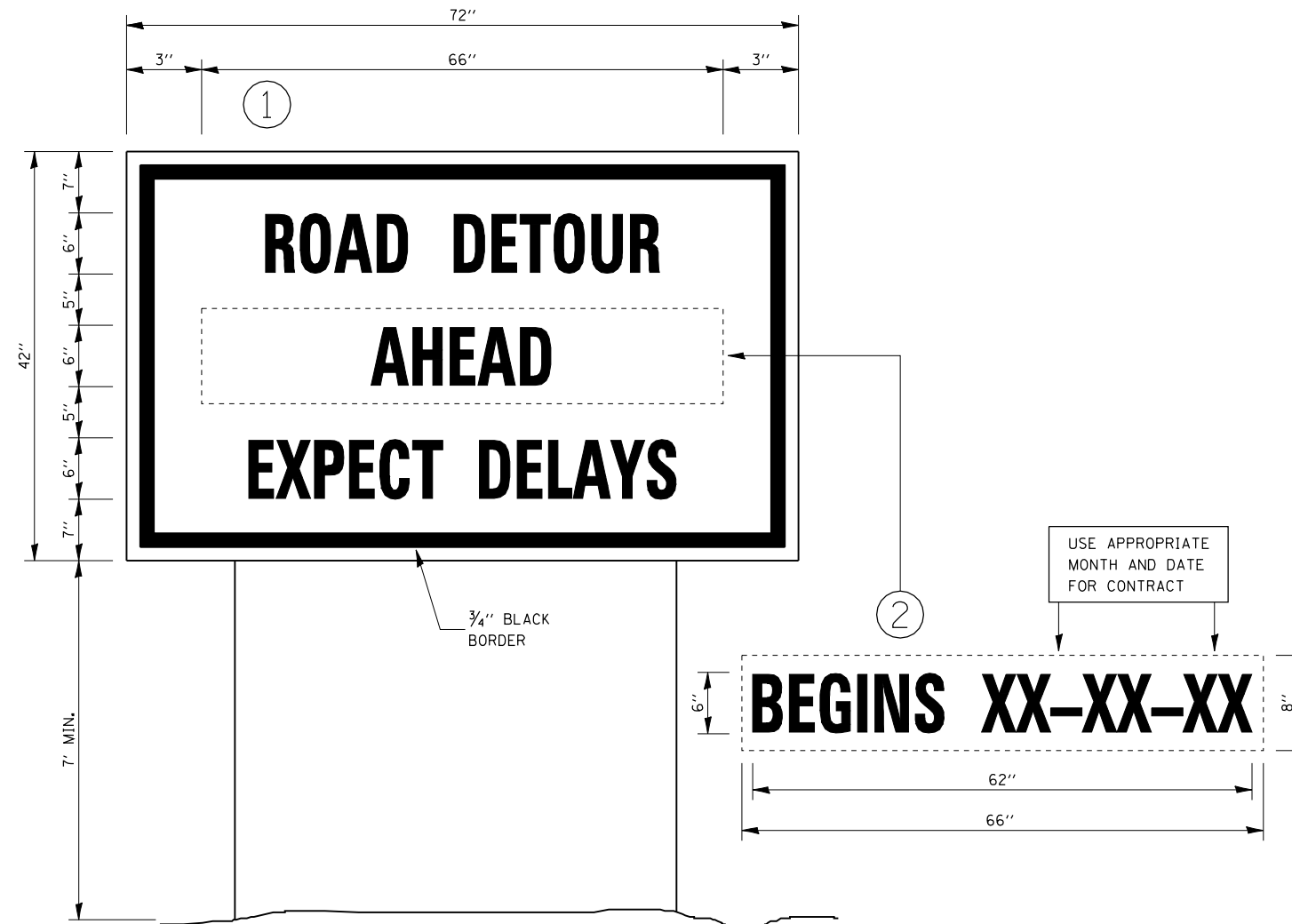
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| USER NAME = \$USER\$   | DESIGNED - JL     | REVISED - |
| DRAWN - AA             | REVISOR -         |           |
| PLOT SCALE = \$SCALE\$ | CHECKED - OAO     | REVISED - |
| PLOT DATE = \$DATE\$   | DATE - 11/28/2016 | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

|                           |          |        |              |           |
|---------------------------|----------|--------|--------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23           | 19        |
| CONTRACT NO. 66B65        |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |



**TEMPORARY INFORMATION SIGNING**

**NOTES:**

1. USE 6" D BLACK LETTERING ON FLOURESENT ORANGE BACKGROUND.
2. ERECT SIGNS AT LOCATIONS IN ADVANCE OF THE "ROAD CONSTRUCTION AHEAD" SIGNS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② A MINIMUM OF ONE WEEK PRIOR TO THE START OF THE DETOUR.
4. REMOVE PANEL ② ON THAT DATE.
5. SEE SPECIAL PROVISION "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. WILL BE PAID FOR PER SQ FT AS "TEMPORARY INFORMATION SIGNING". EACH SIGN = 21 SQ FT AND THE DATE PANEL ② WILL NOT BE MEASURED SEPARATELY FOR PAYMENT.

FILE NAME = \$FILEL\$



|                        |                   |           |
|------------------------|-------------------|-----------|
| USER NAME = \$USER\$   | DESIGNED - JL     | REVISED - |
|                        | DRAWN - AA        | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - OAO     | REVISED - |
| PLOT DATE = \$DATE\$   | DATE - 11/28/2016 | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

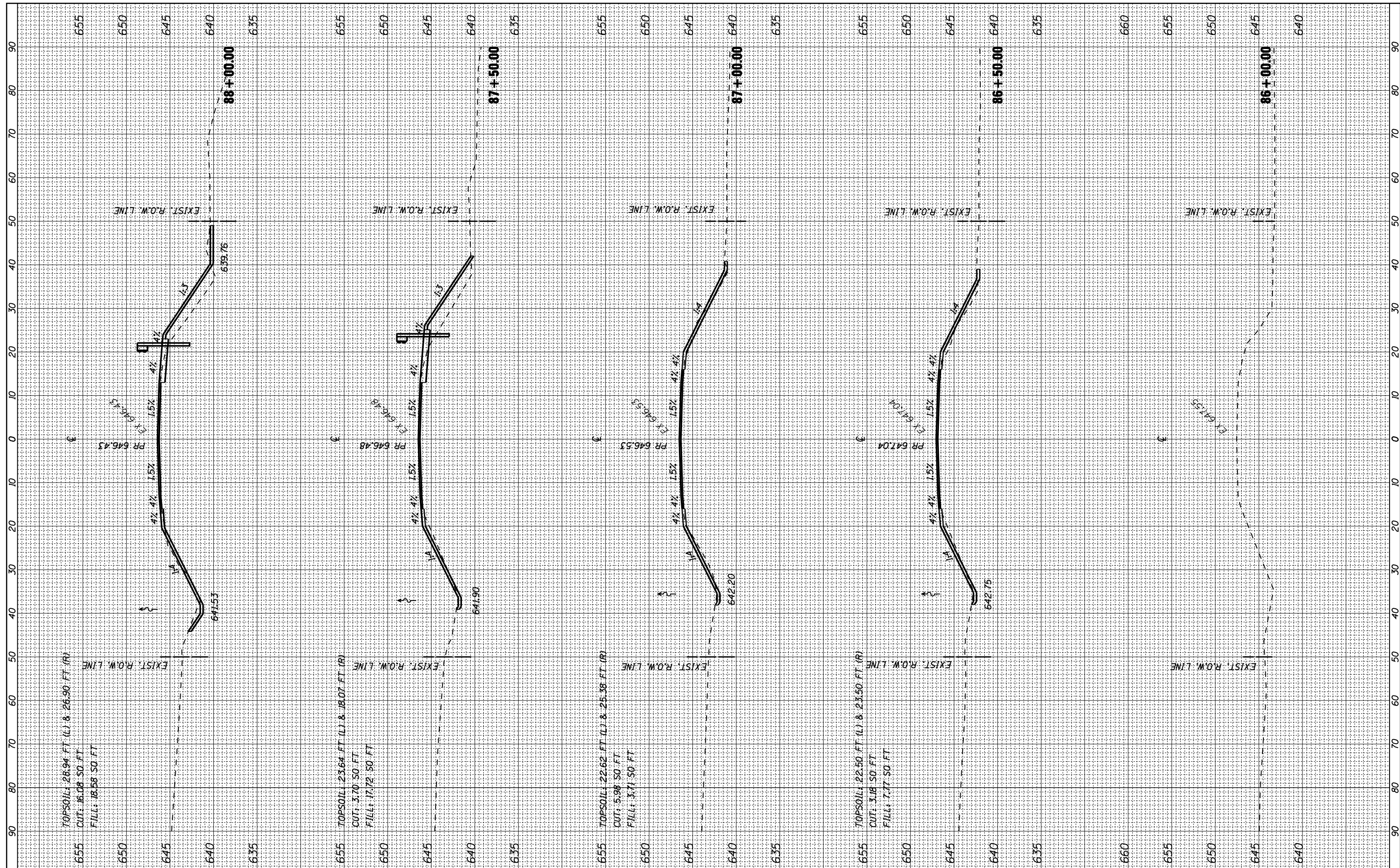
**DETAILS**

SCALE: SHEET OF SHEETS STA. TO STA.

| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------|--------|--------------|-----------|
| 2247                      | 13X-CR-1 | BUREAU | 23           | 20        |
| <b>CONTRACT NO. 66B65</b> |          |        |              |           |
| ILLINOIS FED. AID PROJECT |          |        |              |           |

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

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



|           |              |
|-----------|--------------|
| USER NAME | = *USER*     |
| DESIGNED  | - AA / JL    |
| DRAWN     | - AA / JL    |
| CHECKED   | - OAO        |
| DATE      | - 11/28/2016 |

|         |   |
|---------|---|
| REVISED | - |
| REVISED | - |
| REVISED | - |
| REVISED | - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

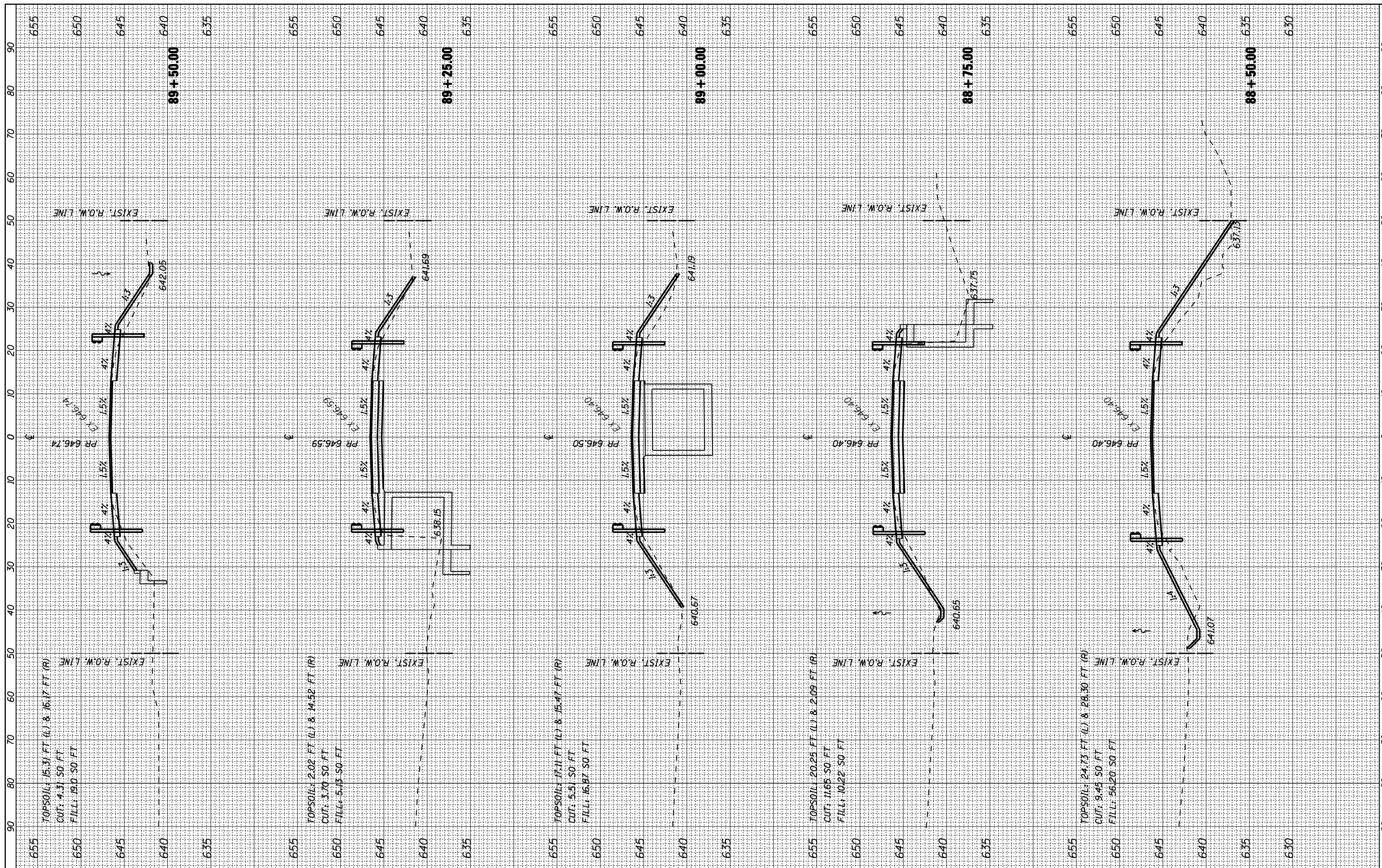
**CROSS SECTIONS**

SCALE: SHEET OF SHEETS STA. 86+00.00 TO STA. 88+00.00

|                           |          |        |                    |           |
|---------------------------|----------|--------|--------------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS       | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23                 | 21        |
| ILLINOIS FED. AID PROJECT |          |        | CONTRACT NO. 66B65 |           |

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ORIGINAL SURVEY PLOTTED \_\_\_\_\_  
 SURVEYED SURVEY PLOTTED \_\_\_\_\_  
 FINISH SURVEY PLOTTED \_\_\_\_\_  
 NO. NO. NO. AREAS CHECKED

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 ORIGINAL SURVEY PLOTTED \_\_\_\_\_  
 SURVEYED SURVEY PLOTTED \_\_\_\_\_  
 FINISH SURVEY PLOTTED \_\_\_\_\_  
 NO. NO. NO. AREAS CHECKED



**S&D I ENGINEERING CORP.**  
 www.sdiengr.com

|                      |                    |           |
|----------------------|--------------------|-----------|
| USER NAME : *USER*   | DESIGNED - AA / JL | REVISED - |
| PLOT SCALE : *SCALE* | DRAWN - AA / JL    | REVISED - |
| PLOT DATE : *DATE*   | CHECKED - OAO      | REVISED - |
|                      | DATE - 11/28/2016  | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

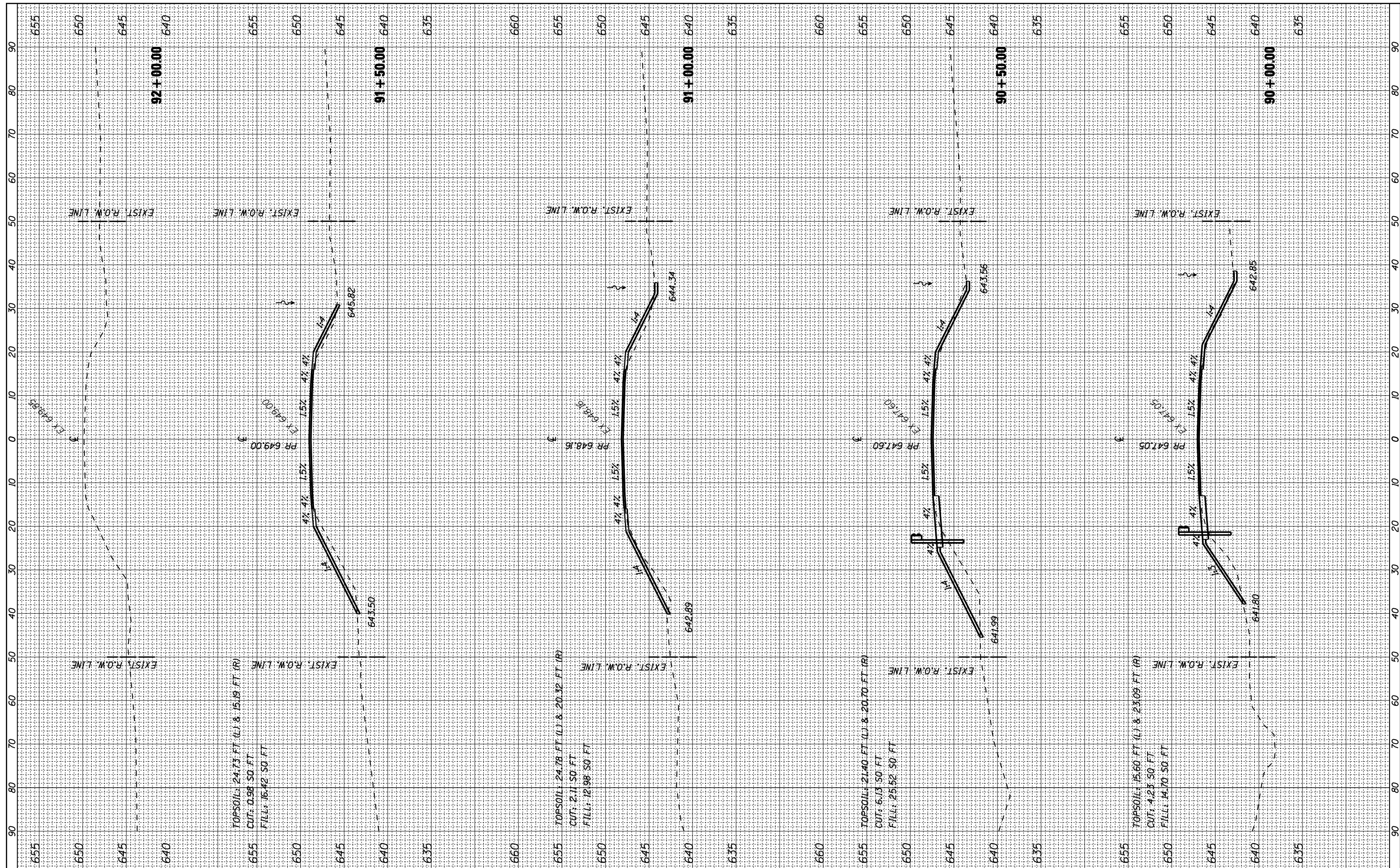
SCALE: SHEET OF SHEETS STA. 88+50.00 TO STA. 89+50.00

|                    |          |        |              |           |
|--------------------|----------|--------|--------------|-----------|
| F.A.S. RTE.        | SECTION  | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2247               | 13X-CR-1 | BUREAU | 23           | 22        |
| CONTRACT NO. 66B65 |          |        |              |           |

ILLINOIS FED. AID PROJECT

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

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



|                      |                    |           |
|----------------------|--------------------|-----------|
| USER NAME = *USER*   | DESIGNED - AA / JL | REVISED - |
| PLOT SCALE = *SCALE* | DRAWN - AA / JL    | REVISED - |
| PLOT DATE = *DATE*   | CHECKED - OAO      | REVISED - |
|                      | DATE - 11/28/2016  | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS**

SCALE: SHEET OF SHEETS STA. 90+00.00 TO STA. 92+00.00

|                           |          |        |                    |           |
|---------------------------|----------|--------|--------------------|-----------|
| F.A.S. RTE.               | SECTION  | COUNTY | TOTAL SHEETS       | SHEET NO. |
| 2247                      | 13X-CR-1 | BUREAU | 23                 | 23        |
| ILLINOIS FED. AID PROJECT |          |        | CONTRACT NO. 66B65 |           |