

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|----------------|----------|--------------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 1 |
| | | ILLINOIS | CONTRACT NO. 61F27 | |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**

**F.A.S. 29 (O'BRIEN ROAD)
 OVER NIPPERSINK CREEK
 BRIDGE RECONSTRUCTION**

**SECTION 14-00432-00-BR
 PROJECT EZFS(264)
 McHENRY COUNTY**

C-91-144-15

FOR INDEX OF SHEETS AND
 HIGHWAY STANDARDS, SEE SHEET NO. 2

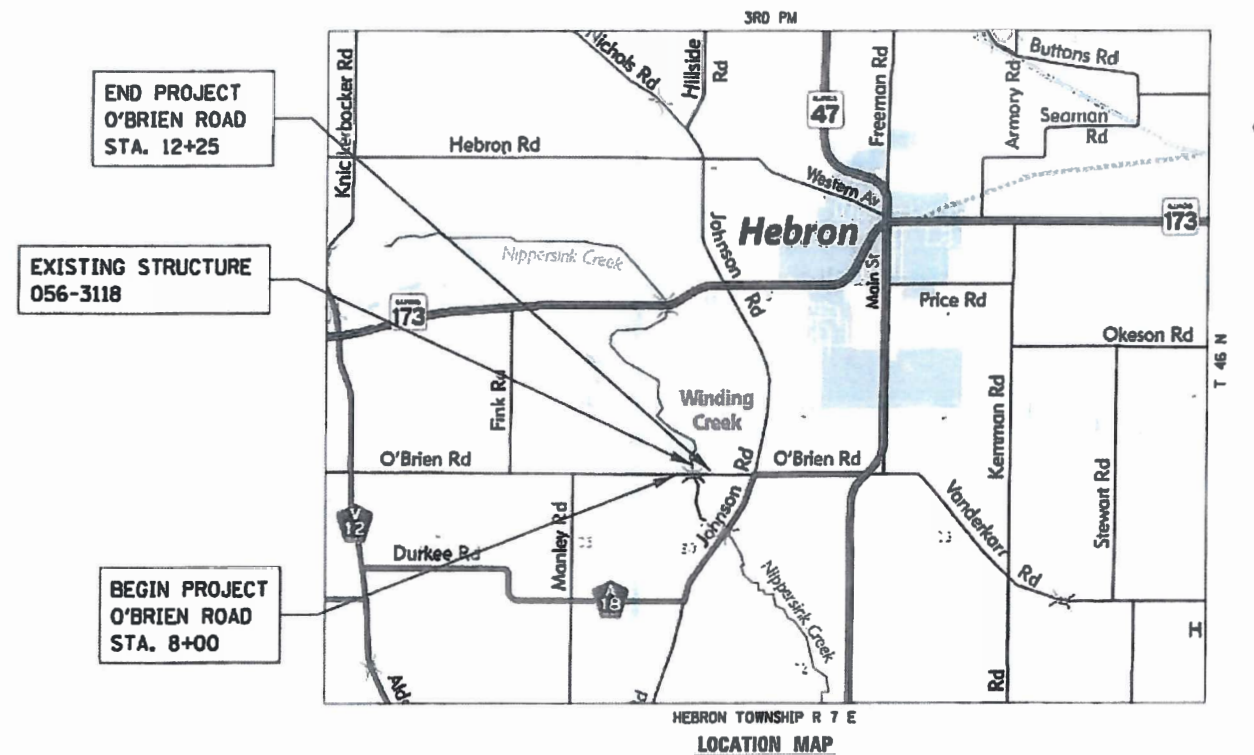
PROJECT LOCATED IN HEBRON TOWNSHIP

TRAFFIC DATA

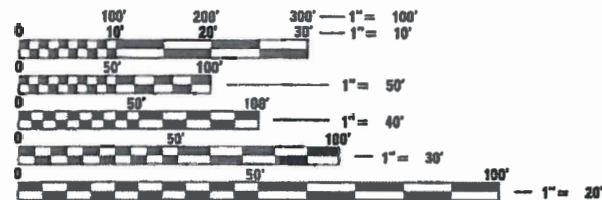
O'BRIEN ROAD
 REGULATORY SPEED LIMIT = 55 MPH
 DESIGN SPEED LIMIT = 50 MPH
 2013 ADT = 550
 2040 ADT = 800

DESIGN DESIGNATION

MAJOR COLLECTOR



GROSS LENGTH = 425 FT. = 0.08 MILE
 NET LENGTH = 425 FT. = 0.08 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.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

CONTRACT NO. 61F27

EXPIRES: 11-30-2019
 SHEETS: 1-14, 30-44

EXPIRES: 11-30-2020
 SHEETS: 15-29

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

APPROVED NOVEMBER 8, 2018
Joseph P. Kozeski Jr.
 COUNTY OF McHENRY, COUNTY ENGINEER

PASSED NOVEMBER 15, 2018
Christina Herzog
 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED
 REVIEW NOVEMBER 19, 2018
Anthony J. Dwyer/CAS
 REGIONAL ENGINEER

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

FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, PE SCHAUMBURG, IL
 HEBRON TOWNSHIP PROFESSIONAL DESIGN FIRM, P.C.
 14409989 ELKHORN PROFESSIONAL DESIGN FIRM, P.C.
 www.hireengineering.com
 ELOIN - SPRINGFIELD - WOODRIDGE - MT. CARMEL
 CEM & Structural Engineers, Land Surveyors, Environmental Services
 1800/11/11, 1800/11/11, 1800/11/11, 1800/11/11, 1800/11/11

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES
- 3-4 SUMMARY OF QUANTITIES
- 5 EARTHWORK SCHEDULE
- 6 TYPICAL SECTIONS
- 7 ALIGNMENT, TIES AND BENCHMARKS
- 8 REMOVAL PLAN
- 9 PLAN AND PROFILE
- 10 DETOUR PLAN
- 11-13 LANDSCAPING AND SOIL EROSION & SEDIMENT CONTROL PLAN
- 14 PLAT OF HIGHWAYS
- 15-29 STRUCTURAL PLANS
 - 30 STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS
 - 31-33 TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)
 - 34 DISTRICT 1 DETAIL - BENCHING DETAIL FOR EMBANKMENT WIDENING (BD-51)
 - 35 DISTRICT 1 DETAIL - TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS (TC-10)
- 36-44 CROSS SECTIONS

HIGHWAY STANDARDS

- 000001-07 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCMENT BARS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATE FOR BRIDGES
- 630001-12 STEEL PLATE BEAM GUARDRAIL
- 630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631011-10 TRAFFIC BARRIER TERMINAL, TYPE 2
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-04 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY FOR SPEEDS ≥ 45 MPH
- 701901-08 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

DISTRICT 1 DETAILS

- BD-51 BENCHING DETAIL FOR EMBANKMENT WIDENING
- TC-10 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS

GENERAL NOTES

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," ADOPTED APRIL 1, 2016 (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS," ADOPTED JANUARY 1, 2019; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.
2. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE DEPARTMENT.
3. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.

APPLICATION RATES

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

| | |
|-------------------------------------|--------------------------------|
| AGGREGATE BASE COURSE AND SHOULDERS | 2.05 TONS/CU. YD. |
| STONE RIPRAP, CLASS A4 | 1.75 TONS/CU. YD. |
| HOT MIX ASPHALT | 112 LBS/SQ. YD./INCH THICKNESS |

PUBLIC SERVICE CONTACT LIST

HEBRON-ALDEN-GREENWOOD FIRE PROTECTION DISTRICT
 12302 ROUTE 173
 HEBRON, IL 60034
 (815) 648-2218

HEBRON ROAD DISTRICT
 10206 SEAMAN ROAD
 HEBRON, IL 60034
 (815) 648-2994
 CONTACT: ZEKE NICKELS, HIGHWAY COMMISSIONER

ALDEN-HEBRON SCHOOL DISTRICT 19
 9604 ILLINOIS STREET
 HEBRON, IL 60034
 (815) 648-2442
 CONTACT: DEBBIE EHLENBURG, SUPERINTENDENT

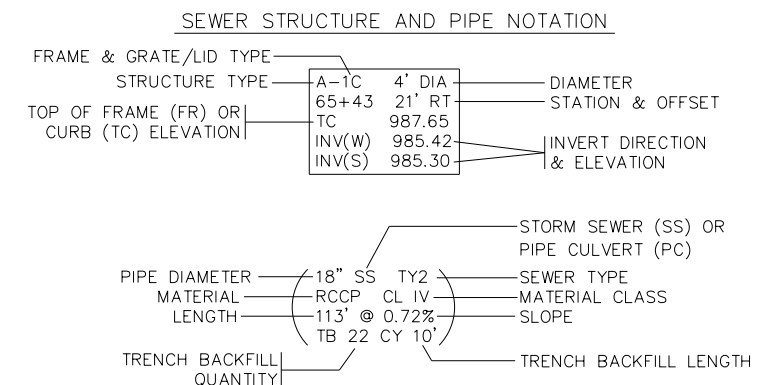
HEBRON POST OFFICE
 9912 ILLINOIS STREET
 HEBRON, IL 60034
 (815) 648-1719
 CONTACT: JAMES K. JOHNSON, POSTMASTER

McHENRY COUNTY SHERIFF'S OFFICE
 2200 N. SEMINARY AVENUE
 WOODSTOCK, IL 60098
 (815) 338-2144
 CONTACT: BILL PRIM, SHERIFF

HEBRON POLICE DEPARTMENT
 12007 PRAIRIE AVENUE
 P.O. BOX 372
 HEBRON, IL 60034
 CONTACT: ELOF BORGESON, CHIEF

UTILITY CONTACT LIST

UTILITY CONTACT INFORMATION CAN BE FOUND UNDER STATUS OF UTILITY SPECIFICATION.



| | | |
|------------------------|----------------|-----------|
| USER NAME = steves | DESIGNED - JAM | REVISED - |
| | DRAWN - JAM | REVISED - |
| PLOT SCALE = 5SCALES | CHECKED - RGN | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
INDEX OF SHEETS, HIGHWAY STANDARDS AND GENERAL NOTES

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|---------------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 2 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| | | ILLINOIS FED. AID PROJECT | | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | |
|------------|---|-------|----------------|--------------------------|--------------------------|
| | | | | STP-BR 80% FED 20% LOCAL | STP-BR 80% FED 20% LOCAL |
| | | | | ROADWAY 0004 | BRIDGE 0013 |
| | | | | NON-URBAN | NON-URBAN |
| * 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 60 | 60 | |
| 20200100 | EARTH EXCAVATION | CU YD | 285 | 285 | |
| 20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | CU YD | 50 | 50 | |
| 20300100 | CHANNEL EXCAVATION | CU YD | 320 | | 320 |
| 20800150 | TRENCH BACKFILL | CU YD | 49 | 49 | |
| 21101505 | TOPSOIL EXCAVATION AND PLACEMENT | CU YD | 130 | 130 | |
| * 25000210 | SEEDING, CLASS 2A | ACRE | 0.13 | 0.13 | |
| * 25000312 | SEEDING, CLASS 4A | ACRE | 0.05 | 0.05 | |
| * 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 12 | 12 | |
| * 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 12 | 12 | |
| * 25100115 | MULCH, METHOD 2 | ACRE | 0.5 | 0.5 | |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 50 | 50 | |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 700 | 700 | |
| 28100105 | STONE RIPRAP, CLASS A3 | SQ YD | 2 | 2 | |
| 28100107 | STONE RIPRAP, CLASS A4 | SQ YD | 470 | | 470 |
| 28200200 | FILTER FABRIC | SQ YD | 470 | | 470 |

* INDICATES SPECIALTY ITEM

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | |
|----------|--|-------|----------------|--------------------------|--------------------------|
| | | | | STP-BR 80% FED 20% LOCAL | STP-BR 80% FED 20% LOCAL |
| | | | | ROADWAY 0004 | BRIDGE 0013 |
| | | | | NON-URBAN | NON-URBAN |
| 30300001 | AGGREGATE SUBGRADE IMPROVEMENT | CU YD | 50 | 50 | |
| 30300112 | AGGREGATE SUBGRADE IMPROVEMENT 12" | SQ YD | 840 | 840 | |
| 40600275 | BITUMINOUS MATERIALS (PRIME COAT) | POUND | 1890 | 1890 | |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT) | POUND | 190 | 190 | |
| 40603080 | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 | TON | 175 | 175 | |
| 40603335 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 | TON | 87 | 87 | |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 795 | 795 | |
| 48101500 | AGGREGATE SHOULDERS, TYPE B 6" | SQ YD | 405 | 405 | |
| 50101500 | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 | | 1 |
| 50102400 | CONCRETE REMOVAL | CU YD | 2.6 | | 2.6 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 43 | | 43 |
| 50201101 | COFFERDAM (TYPE 1) (LOCATION - 1) | EACH | 2 | | 2 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 2.9 | | 2.9 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 168.6 | | 168.6 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 306 | | 306 |
| 50300300 | PROTECTIVE COAT | SQ YD | 438 | | 438 |

* INDICATES SPECIALTY ITEM

Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers, Land Surveyors, Environmental Engineers
 ELGIN, SPRINGFIELD, WOODBRIDGE, MT CARMEL
 www.hlrengineering.com
 184-008869 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE CORPORATION

MODEL: S:\MODEL\WAMEX
 FILE NAME: 151127\218500-1.dgn

| | | | | | | | | | | | |
|------------------------|----------------|-----------|---|---|--|----------------------|---------------------|--------------------|--------------|---------------------------|--|
| USER NAME = steves | DESIGNED - JAM | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | O'BRIEN ROAD OVER NIPPERSINK CREEK SUMMARY OF QUANTITIES | | F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| PLOT SCALE = SCALES | DRAWN - JAM | REVISED - | | | | 29 | 14-00432-00-BR | McHENRY | 44 | 3 | |
| PLOT DATE = 11/13/2018 | CHECKED - RGN | REVISED - | | | | HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | ILLINOIS FED. AID PROJECT | |
| | DATE - | REVISED - | | | | SCALE: N.T.S. | SHEET 1 OF 3 SHEETS | STA. TO STA. | | | |

SUMMARY OF QUANTITIES

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | |
|------------|--|--------|----------------|--------------------------|--------------------------|
| | | | | STP-BR 80% FED 20% LOCAL | STP-BR 80% FED 20% LOCAL |
| | | | | ROADWAY 0004 | BRIDGE 0013 |
| | | | | NON-URBAN | NON-URBAN |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 66290 | | 66290 |
| 51500100 | NAME PLATES | EACH | 1 | | 1 |
| 54213681 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36" | EACH | 1 | 1 | |
| 550A0160 | STORM SEWERS, CLASS A, TYPE 1 36" | FOOT | 69 | 69 | |
| 59100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 29 | | 29 |
| 60204805 | CATCH BASINS, TYPE A, 5'-DIAMETER, TYPE 11 FRAME AND GRATE | EACH | 1 | 1 | |
| 60221100 | MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID | EACH | 1 | 1 | |
| 60224020 | MANHOLES, TYPE A, 6'-DIAMETER, TYPE 11 FRAME AND GRATE | EACH | 1 | 1 | |
| 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT | 32 | 32 | |
| * 63000003 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS | FOOT | 87.5 | 87.5 | |
| * 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 1 | 1 | |
| * 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 3 | 3 | |
| 63200310 | GUARDRAIL REMOVAL | FOOT | 100 | 100 | |
| 67000500 | ENGINEER'S FIELD OFFICE, TYPE B | CAL MO | 4 | 4 | |
| 67100100 | MOBILIZATION | LSUM | 1 | 1 | |
| 70107025 | CHANGEABLE MESSAGE SIGN | CAL DA | 14 | 14 | |
| 72400100 | REMOVE SIGN PANEL ASSEMBLY - TYPE A | EACH | 1 | 1 | |

* INDICATES SPECIALTY ITEM

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | |
|--------------------|---|--------|----------------|--------------------------|--------------------------|
| | | | | STP-BR 80% FED 20% LOCAL | STP-BR 80% FED 20% LOCAL |
| | | | | ROADWAY 0004 | BRIDGE 0013 |
| | | | | NON-URBAN | NON-URBAN |
| * 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 3 | 3 | |
| * 78200005 | GUARDRAIL REFLECTORS, TYPE A | EACH | 8 | 8 | |
| * A2006524 | TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 3" CALIPER, BALLED AND BURLAPPED | EACH | 6 | 6 | |
| X0327301 | RELOCATE EXISTING MAILBOX | EACH | 1 | 1 | |
| * X2511630 | EROSION CONTROL BLANKET (SPECIAL) | SQ YD | 870 | 870 | |
| 5360001 | GRANULAR BACKFILL FOR STRUCTURES | CU YD | 43 | | 43 |
| * X6310088 | TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL) | EACH | 4 | 4 | |
| * X6330725 | STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS) | FOOT | 12.5 | 12.5 | |
| X7010216 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | LSUM | 1 | 1 | |
| Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 36 | | 36 |
| * Z0007124 | STEEL RAILING (SPECIAL) | FOOT | 212 | | 212 |
| Z0013798 | CONSTRUCTION LAYOUT | LSUM | 1 | 1 | |
| Z0022800 | FENCE REMOVAL | FOOT | 31 | 31 | |
| Z0046304 | PIPE UNDERDRAINS FOR STRUCTURES 4" | FOOT | 77 | | 77 |
| Z0066400 | STABILIZED DRIVEWAYS 6" | SQ YD | 65 | 65 | |
| Z0076600 | TRAINEES | HOURLY | 500 | | CONSTRUCTION CODE 0042 |
| Z0076604 | TRAINEES TRAINING PROGRAM GRADUATE | HOURLY | 500 | | CONSTRUCTION CODE 0042 |

* INDICATES SPECIALTY ITEM

Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers, Land Surveyors, Environmental Services
 ELGIN, SPRINGFIELD, WOODBRIDGE, MT CARMEL
 WWW.HLRENGINEERING.COM
 184.000858 ILLINOIS PROFESSIONAL DESIGN FIRMS L.P./P.E. CORPORATION

MODEL - MODEL NAMES
 FILE NAME - 15107241500-3.dgn

| | | |
|------------------------|----------------|-----------|
| USER NAME = steves | DESIGNED - JAM | REVISED - |
| | DRAWN - JAM | REVISED - |
| PLOT SCALE = SSCALES | CHECKED - RGN | REVISED - |
| PLOT DATE = 11/14/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 2 OF 3 SHEETS STA. TO STA.

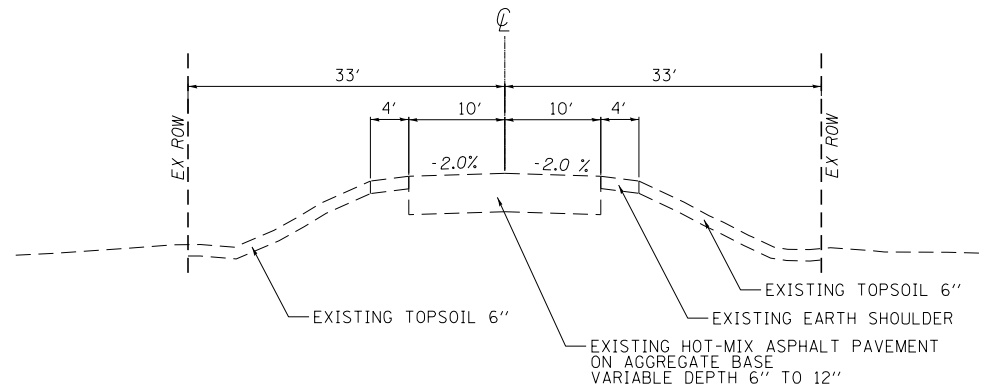
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|---------------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 4 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |

| EARTHWORK | | | | | | | | | |
|---------------|---------------------------------------|--|--------------------------------------|--|--------------------------|----------------------------|---|--------------------|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| LOCATION | TOPSOIL EXCAVATION (DEPTH 6") (CU YD) | TOPSOIL EXCAVATION FOR PLACEMENT (15% SHRINKAGE) (CU YD) | TOPSOIL PLACEMENT (DEPTH 6") (CU YD) | TOPSOIL BALANCE WASTE (+) SHORTAGE (-) (CU YD) | EARTH EXCAVATION (CU YD) | CHANNEL EXCAVATION (CU YD) | EXCAVATION TO BE USED IN EMBANKMENT (15% SHRINKAGE) (CU YD) | EMBANKMENT (CU YD) | EARTHWORK BALANCE WASTE (+) SHORTAGE (-) |
| O'BRIEN ROAD | | | | | | | | | |
| 8+00 8+50 | 6.02 | 5.12 | 3.98 | +1.14 | 41.39 | - | 35.18 | 6.2 | +28.98 |
| 8+50 8+75 | 5.88 | 5.00 | 1.99 | +3.01 | 21.16 | - | 17.99 | 5.28 | +12.71 |
| 8+75 8+93 | 3.43 | 2.92 | 0.67 | +2.25 | 21.47 | - | 18.25 | 2.9 | +15.35 |
| 8+93 9+00 | 1.43 | 1.21 | 0.65 | +0.56 | 10.42 | - | 8.86 | 1.3 | +7.56 |
| 9+00 9+25 | 7.27 | 6.18 | 3.94 | +2.24 | 33.61 | - | 28.57 | 6.25 | +22.32 |
| 9+25 9+47 | 3.61 | 3.07 | 4.63 | -1.56 | 38.66 | - | 32.86 | 3.73 | +29.13 |
| BRIDGE - | - | - | - | - | - | 320.00 | - | - | - |
| 10+25 10+54 | 4.61 | 3.92 | 4.03 | -0.11 | 4.35 | - | 3.70 | 14.9 | -11.20 |
| 10+54 10+75 | 10.17 | 8.64 | 8.66 | -0.02 | 9.45 | - | 8.03 | 25.24 | -17.21 |
| 10+75 11+00 | 16.62 | 14.13 | 13.52 | +0.61 | 16.39 | - | 13.93 | 27.82 | -13.89 |
| 11+00 11+25 | 17.50 | 14.88 | 13.70 | +1.18 | 18.29 | - | 15.55 | 21.67 | -6.12 |
| 11+25 11+50 | 17.64 | 14.99 | 13.66 | +1.33 | 16.81 | - | 14.29 | 31.81 | -17.52 |
| 11+50 12+00 | 27.50 | 23.38 | 20.74 | +2.64 | 31.67 | - | 26.92 | 53.24 | -26.32 |
| 12+00 12+25 | 4.86 | 4.13 | 3.52 | +0.61 | 18.75 | - | 15.94 | 5.19 | +10.75 |
| TOTALS | 126.54 | 107.56 | 93.69 | +13.87 | 282.42 | 320.00 | 240.06 | 205.53 | +34.53 |

COLUMN 1 = FROM CROSS SECTION END AREAS, DEPTH 6"
 COLUMN 2 = (COLUMN 1) x 0.85
 COLUMN 3 = FROM CROSS SECTION END AREAS, DEPTH 6"
 COLUMN 4 = (COLUMN 2) - (COLUMN 3)
 COLUMN 5 = FROM CROSS SECTION END AREAS
 COLUMN 6 = FROM PLANS
 COLUMN 7 = (COLUMN 5) x 0.85
 COLUMN 8 = FROM CROSS SECTION END AREAS
 COLUMN 9 = (COLUMN 7) - (COLUMN 8)

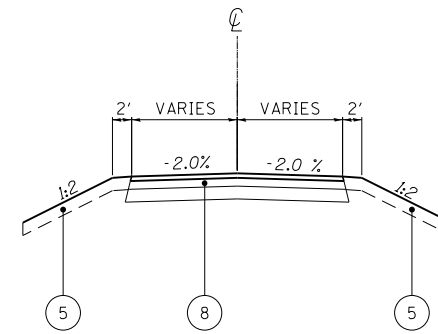
| EARTHWORK PAY ITEM SUMMARY | | TOTAL | |
|---|-----|-------|--|
| EARTH EXCAVATION | 285 | CU YD | |
| REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | 50 | CU YD | |
| CHANNEL EXCAVATION | 320 | CU YD | |
| TOPSOIL EXCAVATION AND PLACEMENT | 130 | CU YD | |
| AGGREGATE SUBGRADE IMPROVEMENT | 50 | CU YD | |

MODEL: 44061.DWG
 FILE NAME: 1310107-211-500-3.dwg



EXISTING TYPICAL SECTION O'BRIEN ROAD

STA. 8+00 TO STA. 9+47.37
 STA. 10+52.62 TO STA. 12+25

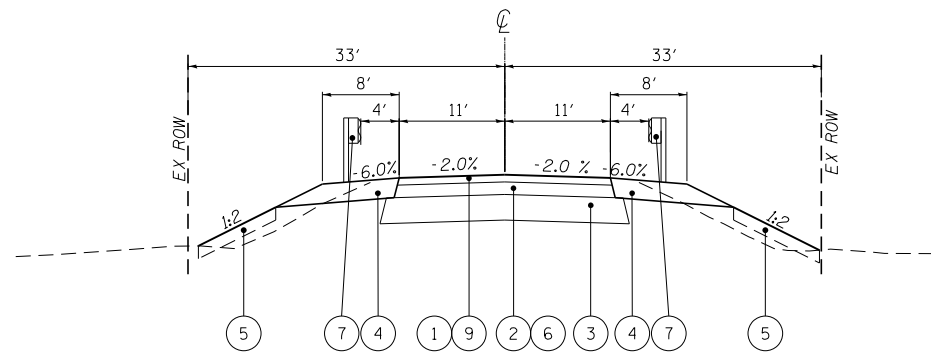


PROPOSED TYPICAL SECTION PRIVATE DRIVEWAY

NOTES

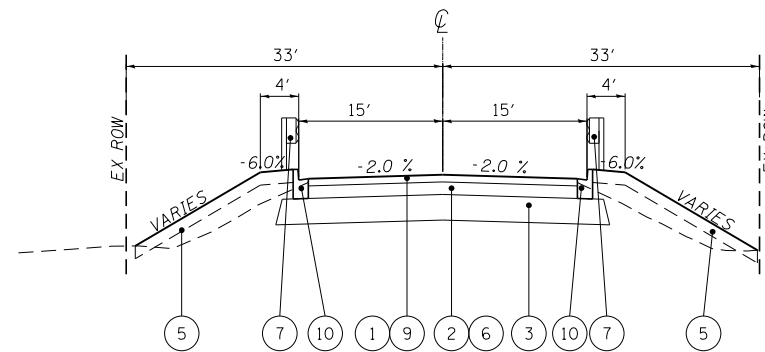
ALL AREAS TO BE SEEDED SHALL INCLUDE EROSION CONTROL BLANKET (SPECIAL). THE BLANKET SHALL CONTAIN ONLY NATURAL FIBERS.

AGGREGATE SUBGRADE IMPROVEMENT (CU YD) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSTABLE AND/OR UNSUITABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH AGGREGATE SUBGRADE IMPROVEMENT (CU YD) WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE GEOTECHNICAL ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE AND/OR DYNAMIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 (04/01/2016) OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE CURRENT IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.



PROPOSED TYPICAL SECTION O'BRIEN ROAD

STA. 8+55 TO STA. 9+26.6 (LT) / 9+36.8 (RT)
 STA. 10+52.62 TO STA. 11+50

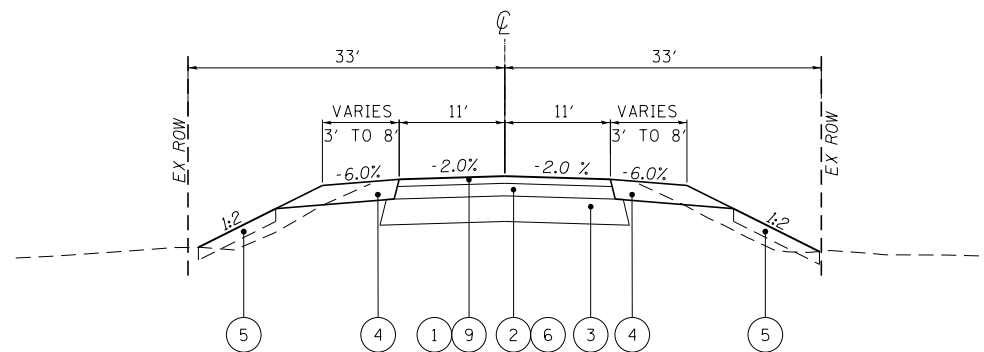


PROPOSED TYPICAL SECTION O'BRIEN ROAD

STA. 9+26.6 TO STA. 9+42.6 LT
 STA. 9+36.8 TO STA. 9+52.1 RT

LEGEND

- ① 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50
- ② 4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
- ③ AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ④ 6" AGGREGATE SHOULDERS, TYPE B
- ⑤ EXCAVATING & PLACING TOPSOIL, 6" AND SEEDING
- ⑥ BITUMINOUS MATERIALS, PRIME COAT
- ⑦ STEEL PLATE BEAM GUARDRAIL (SEE PLANS FOR TYPE)
- ⑧ STABILIZED DRIVEWAYS, 6"
 2" HMA SURFACE COURSE, MIX "D", N50
 BITUMINOUS MATERIALS, TACK COAT
 4" HMA BASE COURSE, IL-19.0L, N30
 4" SUBBASE GRANULAR MATERIAL, TYPE B
- ⑨ BITUMINOUS MATERIALS, TACK COAT
- ⑩ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12



PROPOSED TYPICAL SECTION O'BRIEN ROAD

STA. 8+00 TO STA. 8+55
 STA. 11+50 TO STA. 12+25

| HOT MIX ASPHALT MIXTURE REQUIREMENTS | |
|--|---------------------|
| MIXTURE TYPE | AIR VOIDS @ Ndes |
| HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL-9.5mm), 2" | 4% @50 GYR. |
| HOT MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4" | 4% @50 GYR. |
| HOT MIX ASPHALT BASE COURSE, IL-19.0L, N30, 4" | 4% @30 GYR. |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR NON-POLYMERIZED HMA SHALL BE "PG58-28" UNLESS MODIFIED BY THE DISTRICT ONE SPECIAL PROVISIONS.

FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

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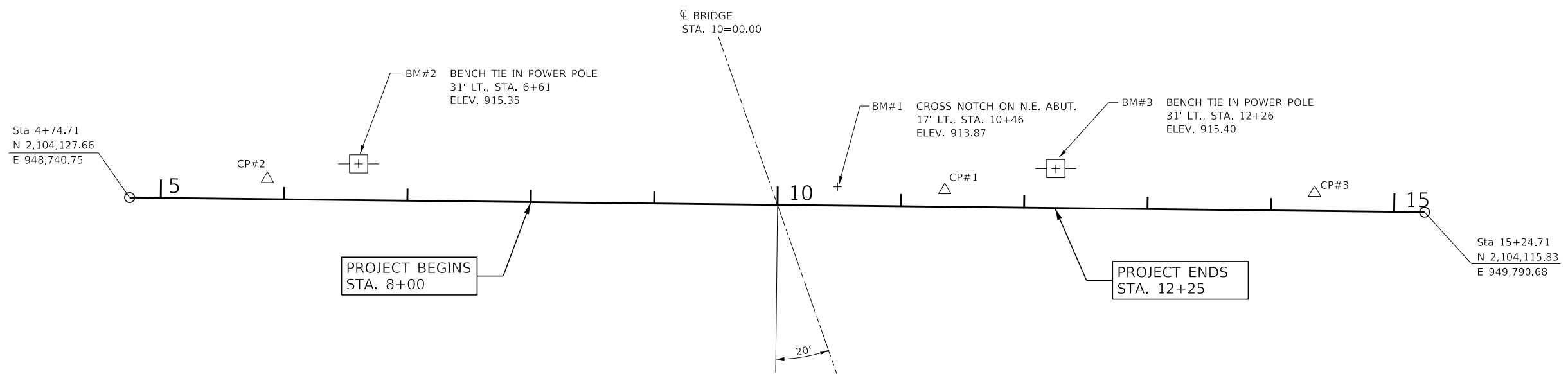
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| | DRAWN - JAM | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - RGN | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
 TYPICAL SECTIONS

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

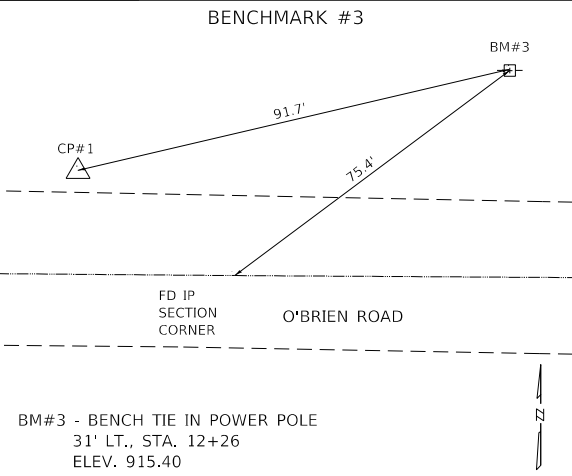
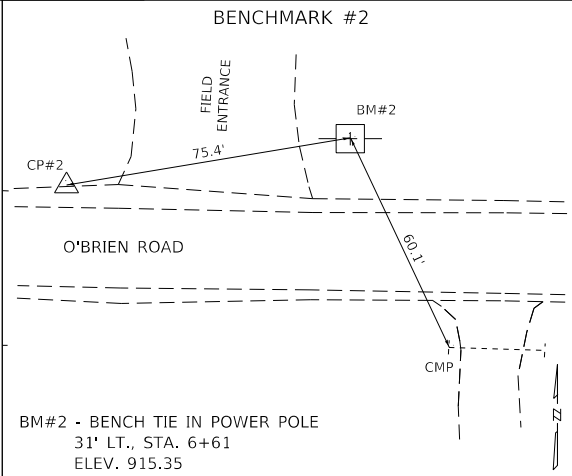
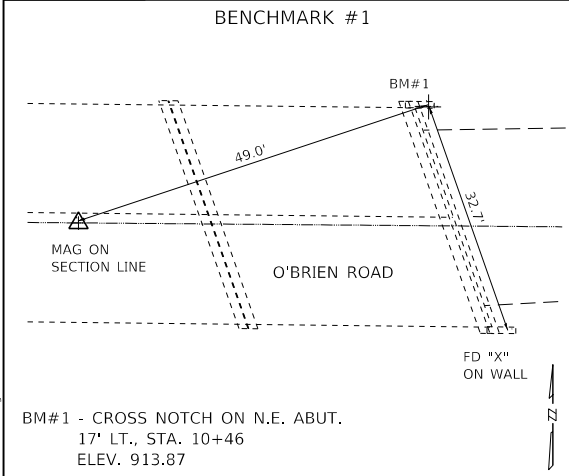
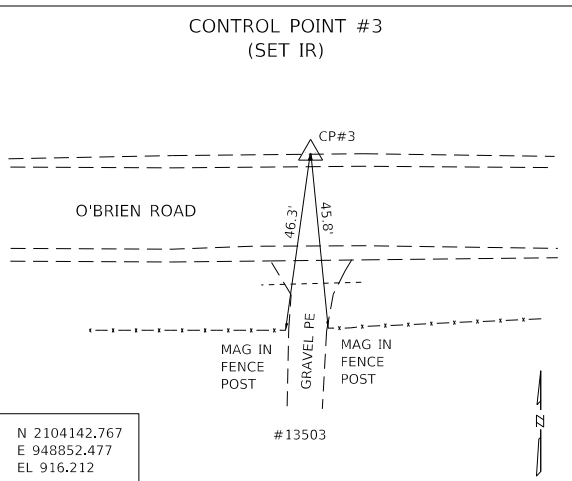
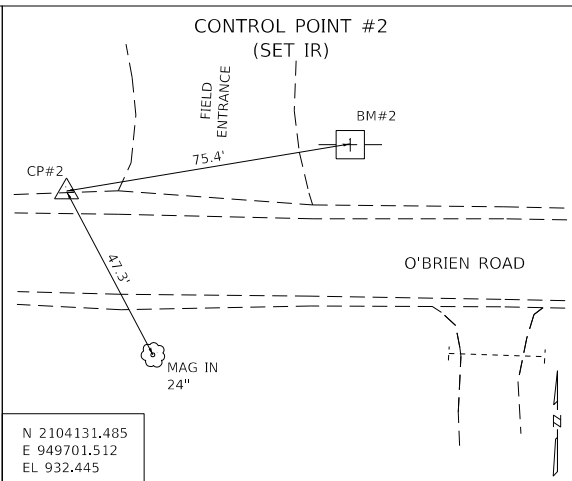
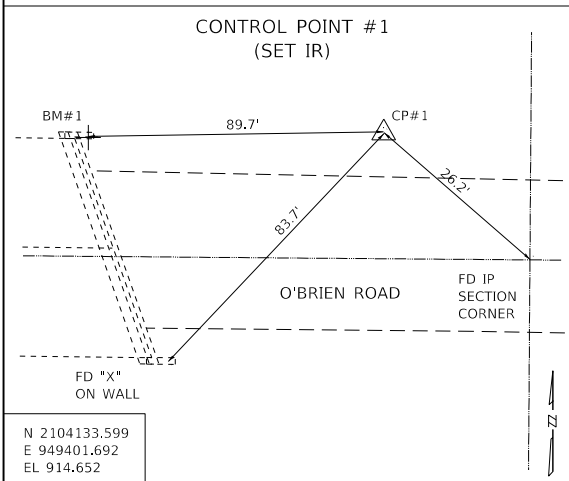
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| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 6 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |



PROJECT BEGINS
STA. 8+00

PROJECT ENDS
STA. 12+25

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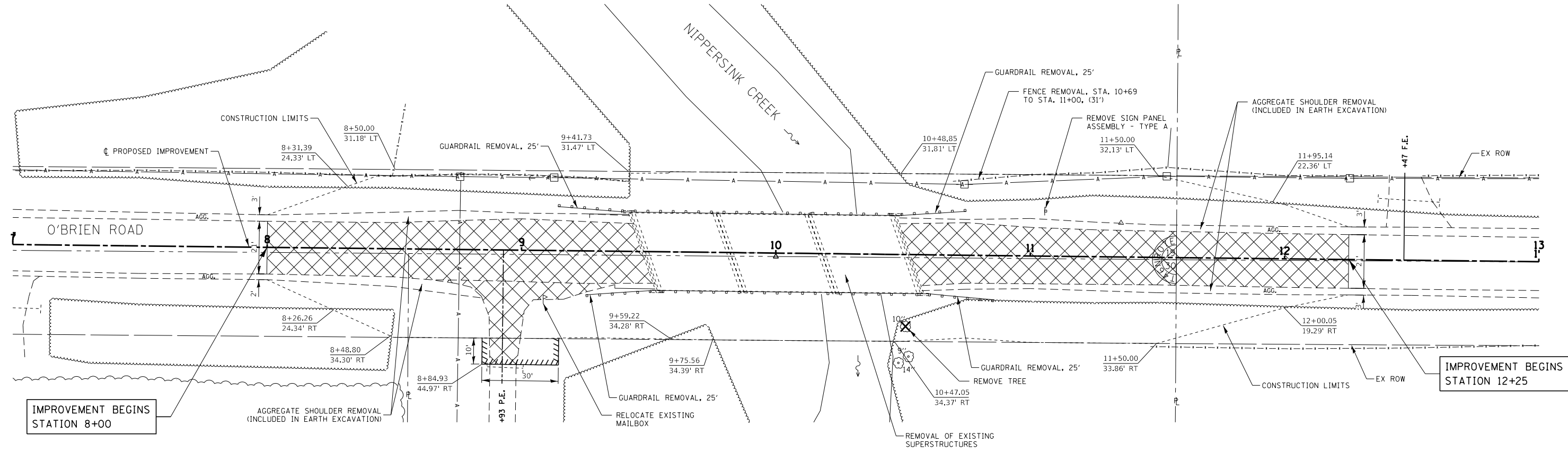
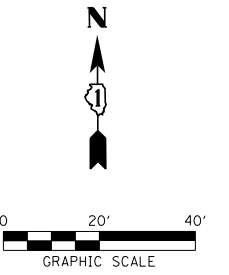
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| PLOT SCALE = \$SCALE\$ | DRAWN - JAM | REVISED - |
| PLOT DATE = 11/13/2018 | CHECKED - RGN | REVISED - |
| | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | |
|---|---------------------|
| O'BRIEN ROAD OVER NIPPERSINK CREEK | |
| ALIGNMENT, TIES AND BENCHMARKS | |
| SCALE: N.T.S. | SHEET 1 OF 1 SHEETS |
| STA. 4+74.71 | TO STA. 15+24.71 |

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 7 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |



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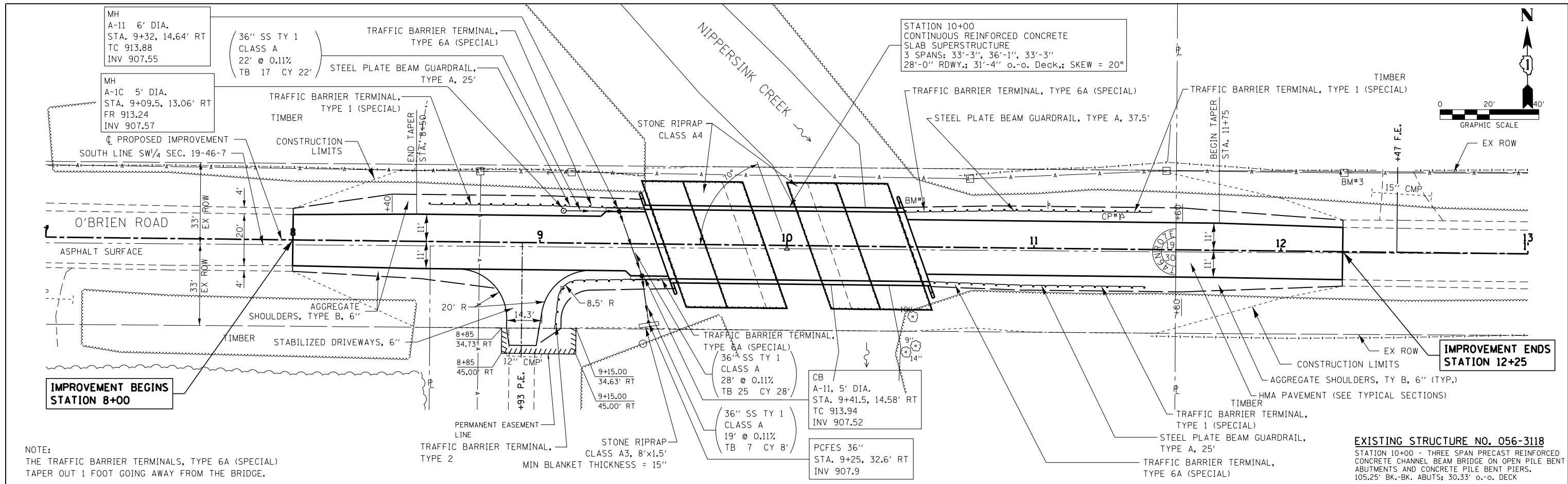
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| | DRAWN - | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**O'BRIEN ROAD OVER NIPPERSINK CREEK
 REMOVAL PLAN**

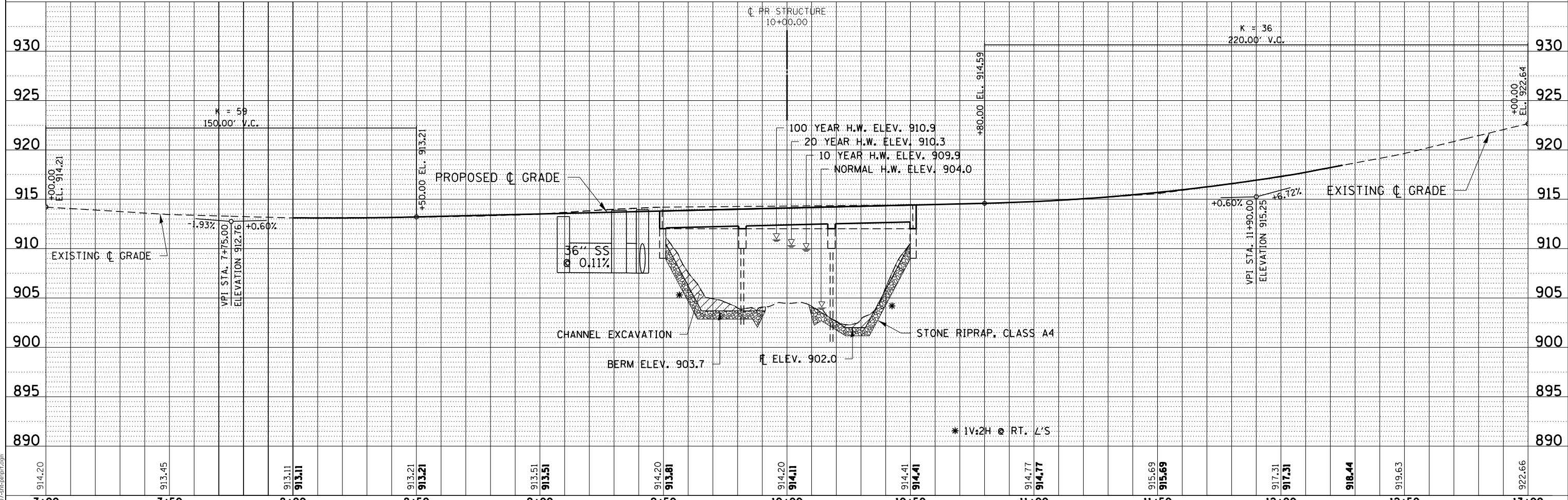
SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. 8+00 TO STA. 12+25

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|----------------------|----------------|---------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 8 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| | | ILLINOIS FED. AID PROJECT | | |



NOTE:
 THE TRAFFIC BARRIER TERMINALS, TYPE 6A (SPECIAL)
 TAPER OUT 1 FOOT GOING AWAY FROM THE BRIDGE.

EXISTING STRUCTURE NO. 056-3118
 STATION 10+00 - THREE SPAN PRECAST REINFORCED
 CONCRETE CHANNEL BEAM BRIDGE ON OPEN PILE BENT
 ABUTMENTS AND CONCRETE PILE BENT PIERS.
 105.25' BK.-BK. ABUTS; 30.33' o.-o. DECK



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
PLAN AND PROFILE
 SCALE: 1"=20'
 SHEET 1 OF 1 SHEETS
 STA. 8+00 TO STA. 12+25

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 9 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |

MODEL: SMODELNAMES
 FILE NAME: 150107-stp1plan1.dgn

Hampton, Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 380 SHEPARD DRIVE
 ELGIN, ILLINOIS 60120
 184.000959 ILLINOIS PROFESSIONAL DESIGN FIRMS / PE / SE CORPORATION





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 DRAWN -
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 PLOT DATE = 11/13/2018

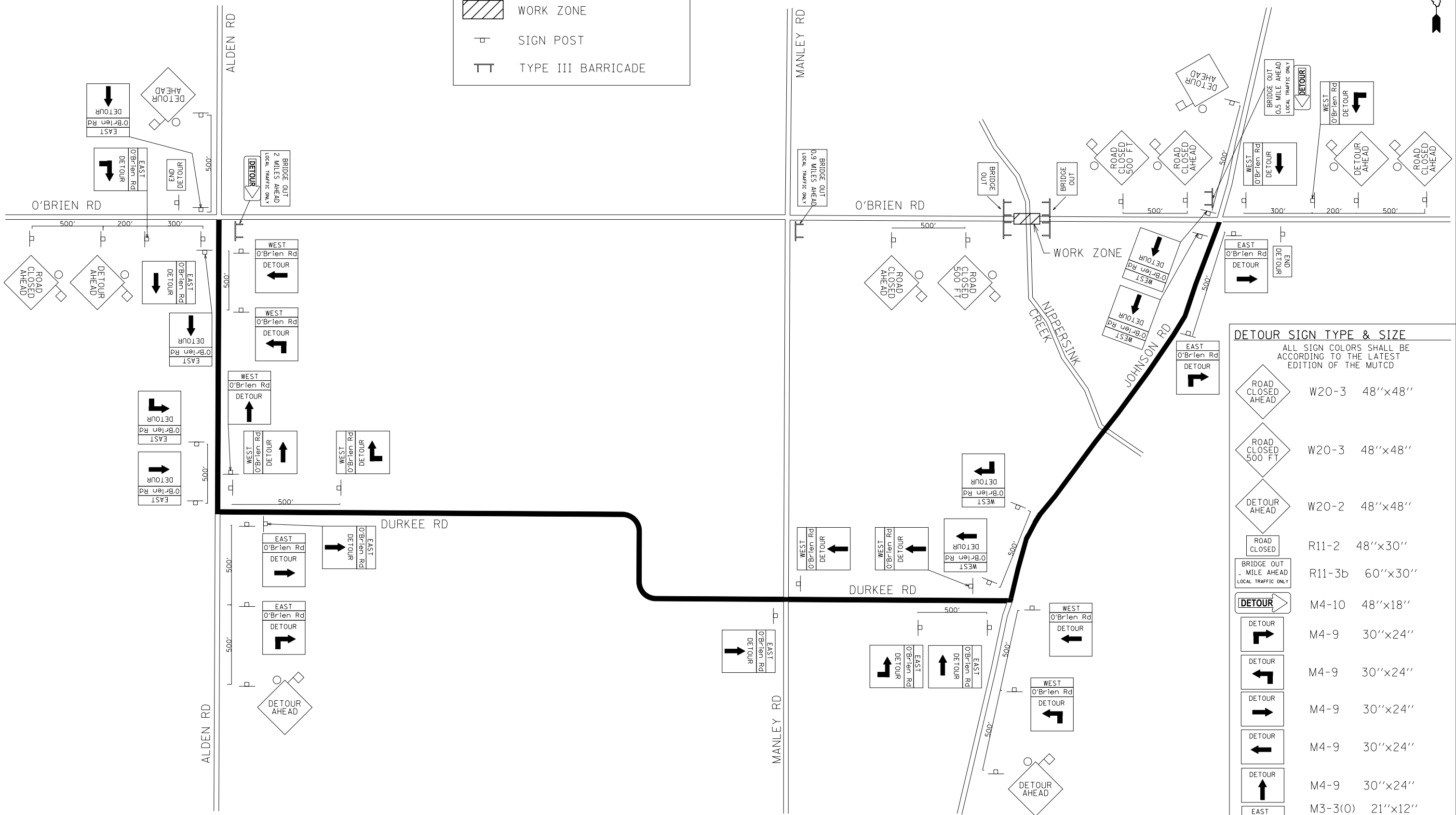
REVISIONS:
 DESIGNED - DSS
 DRAWN -
 CHECKED -
 DATE - 11/13/2018

REVISIONS:
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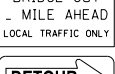



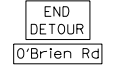

| STATION | ELEVATION |
|---------|-----------|
| 7+00 | 914.20 |
| 7+50 | 913.45 |
| 8+00 | 913.11 |
| 8+50 | 913.21 |
| 9+00 | 913.51 |
| 9+50 | 914.20 |
| 10+00 | 914.20 |
| 10+50 | 914.41 |
| 11+00 | 914.77 |
| 11+50 | 915.69 |
| 12+00 | 917.31 |
| 12+50 | 918.44 |
| 13+00 | 922.66 |

LEGEND

-  PROPOSED DETOUR ROUTE
-  WORK ZONE
-  SIGN POST
-  TYPE III BARRICADE



DETOUR SIGN TYPE & SIZE
 ALL SIGN COLORS SHALL BE ACCORDING TO THE LATEST EDITION OF THE MUTCD

| | | |
|---|-----------|---------|
|  | W20-3 | 48"x48" |
|  | W20-3 | 48"x48" |
|  | W20-2 | 48"x48" |
|  | R11-2 | 48"x30" |
|  | R11-3b | 60"x30" |
|  | M4-10 | 48"x18" |
|  | M4-9 | 30"x24" |
|  | M4-9 | 30"x24" |
|  | M4-9 | 30"x24" |
| | M4-9 | 30"x24" |
| | M3-3(0) | 21"x12" |
| | M3-3(0) | 21"x12" |
| | M4-8a | 24"x18" |
| | W16-8P(0) | 24"x8" |

| | | |
|------------------------|----------------|-----------|
| USER NAME = steves | DESIGNED - JAM | REVISED - |
| PLOT SCALE = \$SCALE\$ | DRAWN - JAM | REVISED - |
| PLOT DATE = 11/13/2018 | CHECKED - RGN | REVISED - |
| | DATE - | REVISED - |

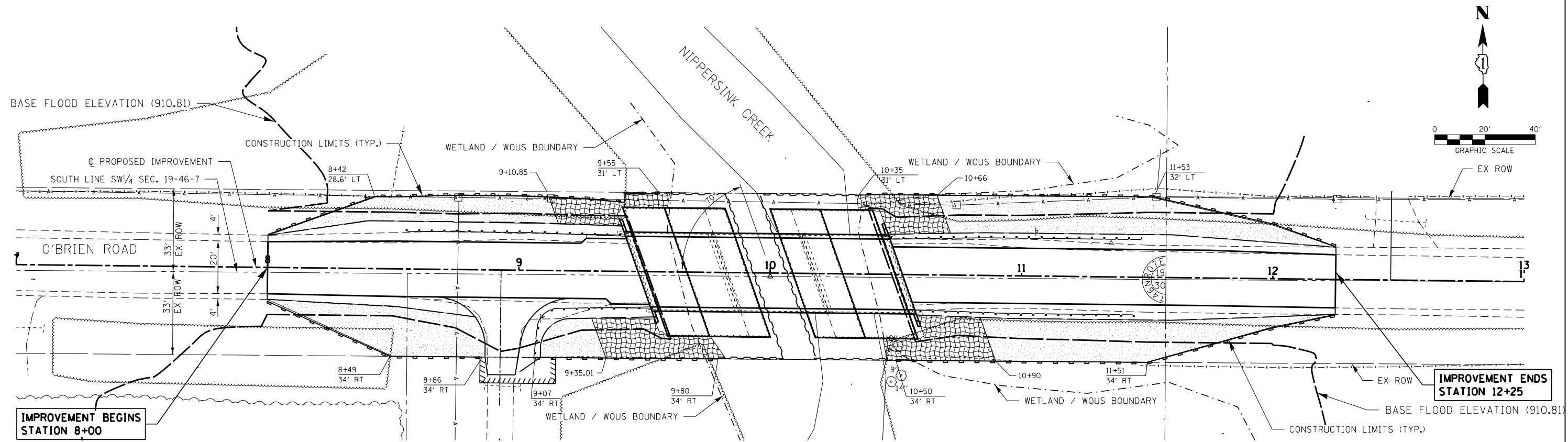
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**O'BRIEN ROAD OVER NIPPERSINK CREEK
 DETOUR PLAN**

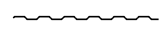




SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

| | | | | |
|----------------------|----------------|---------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | MCHENRY | 44 | 10 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| | | ILLINOIS FED. AID PROJECT | | |

THIS PROJECT DISTURBS 0.44 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS ONLY NECESSARY IF A PROJECT DISTURBS 1 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES PERMIT IS NOT REQUIRED FOR THIS PROJECT.



LEGEND

-  TEMPORARY COFFERDAMS
-  BASE FLOOD ELEVATION (910.81)
-  PERIMETER EROSION BARRIER
-  TOPSOIL EXCAVATE AND PLACE, 6" WITH SEEDING CLASS 4A AND EROSION CONTROL BLANKET (SPECIAL)
-  TOPSOIL EXCAVATE AND PLACE, 6" WITH SEEDING CLASS 2A, NITROGEN AND POTASSIUM FERTILIZER NUTRIENTS AND EROSION CONTROL BLANKET (SPECIAL)

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MODEL: STORMWATER
 FILE NAME: 131010-211-erosion.dgn

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|------------------------|---------------|-----------|
| USER NAME = steves | DESIGNED - JF | REVISED - |
| | DRAWN - JM | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - RN | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**O'BRIEN ROAD OVER NIPPERSINK CREEK
LANDSCAPING AND SOIL EROSION & SEDIMENT CONTROL PLAN**

SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. 8+00 TO STA. 12+25

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|---------------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 11 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| | | ILLINOIS FED. AID PROJECT | | |

GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED ACCORDING TO THE STANDARDS AND SPECIFICATIONS IN THE 2013 ILLINOIS URBAN MANUAL (IUM), THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED APRIL 1, 2016 AND THE PLAN DETAILS.
2. THE McHENRY-LAKE SOIL AND WATER CONSERVATION DISTRICT (MLSWCD) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON SITE AT ALL TIMES. IT SHALL BE PRESENTED UPON REQUEST FROM ANY AUTHORIZED AGENT.
4. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER AND MLSWCD.
5. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA.
6. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
7. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE MLSWCD.
8. THE CONTRACTOR SHALL CLEAN UP AND GRADE THE WORK AREA AS THE PROJECT PROGRESSES TO ELIMINATE THE CONCENTRATION OF RUNOFF. THE PAVEMENT SHALL BE CLEANED DAILY TO REMOVE EARTH MATERIAL TO THE SATISFACTION OF THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
9. ALL TEMPORARY EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTION AND REPAIR. THE CONTRACTOR SHALL INSPECT AND COMPLETE MAINTENANCE OF ALL ITEMS A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A ONE-HALF INCH RAINFALL. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SEEDING IS ACHIEVED. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
10. REMOVAL OF TRAPPED SEDIMENT SHALL BE PAID FOR AS EARTH EXCAVATION. SEDIMENT SHALL BE REMOVED WHEN SILTATION REACHES 50% OF THE HEIGHT OF THE BARRIER.
11. TEMPORARY STOCKPILES OF MATERIALS MAY NOT BE LOCATED IN WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES. THE LOCATION OF ANY TEMPORARY STOCKPILE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. STOCKPILES TO REMAIN IN PLACE MORE THAN THREE DAYS SHALL BE FURNISHED WITH EROSION & SEDIMENT CONTROL (I.E. PERIMETER EROSION BARRIER). STOCKPILES TO REMAIN IN PLACE FOR THIRTY DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
12. THE CONTRACTOR SHALL MAINTAIN AND PRESERVE ANY EXISTING SUB SURFACE DRAINAGE SYSTEMS (I.E. FIELD TILES) ACCORDING TO SECTION 611 OF THE IDOT STANDARD SPECIFICATIONS.
13. CLEANING OF VEHICLES AND EQUIPMENT SHALL BE PERFORMED IN A MANNER TO AVOID POLLUTANT DISCHARGE TO OPEN WATERS TO THE MAXIMUM EXTENT POSSIBLE. IF THE CONTRACTOR PROPOSES TO USE AN ON-SITE WASHOUT LOCATION, THE CONTRACTOR SHALL SUBMIT A LOCATION AND DESIGN OF THE PROPOSED TEMPORARY CONCRETE WASHOUT FACILITY TO THE ENGINEER FOR APPROVAL AT LEAST 10 DAYS PRIOR TO THE FIRST POUR. THE PLAN SHALL CONFORM TO THE IUM STANDARD 654. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.
14. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. LEAKY EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
15. THE CONTRACTOR SHALL EXCAVATE AND PLACE TOPSOIL AND SHALL LAYER EROSION CONTROL BLANKET (IUM STANDARD 530) ON ALL DISTURBED EARTH SLOPES. EROSION CONTROL BLANKET WITH GREEN DYE IS NOT PERMITTED.
16. TEMPORARY SEEDING SHALL BE COMPLETED ON ALL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH CONSTRUCTION WILL BE STOPPED FOR A PERIOD OF MORE THAN 14 CALENDAR DAYS. WINTER SHUT DOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL.

IN-STREAM WORK NOTES

1. WORK IN THE WATERWAY SHALL BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS. LOW FLOW CONDITIONS ARE FLOW AT OR BELOW THE NORMAL WATER ELEVATION.
2. THE CONTRACTOR SHALL DESIGN AN IN-STREAM WORK PLAN TO ALLOW FOR THE CONVEYANCE OF THE 2-YEAR PEAK FLOW PAST THE WORK AREA WITHOUT OVERTOPPING THE COFFERDAM. THE 2-YEAR PEAK FLOW RATE IS ESTIMATED AS 560 CFS. THE CONTRACTOR SHALL SUBMIT PLANS OF THE PROPOSED COFFERDAM TO THE ENGINEER FOR APPROVAL PRIOR TO WORK.
3. WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A COFFERDAM CONSTRUCTED OF NON-ERODIBLE MATERIALS (STEEL SHEETS, AQUA BARRIERS, RIP RAP AND GEOTEXTILE LINER, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
4. THE COFFERDAM SHALL BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER FLOWING WATER AT ANY TIME. IF THE INSTALLATION OF THE COFFERDAM CANNOT BE COMPLETED FROM SHORE AND ACCESS IS NEEDED TO REACH THE AREA TO BE COFFERED, OTHER MEASURES, SUCH AS THE CONSTRUCTION OF A CAUSEWAY, WILL BE NECESSARY TO ENSURE THAT EQUIPMENT DOES NOT ENTER THE WATER. ONCE THE COFFERDAM IS IN PLACE AND THE AREAS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE WORK.
5. IF BYPASS PUMPING IS NECESSARY, THE INTAKE HOSE SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM ENTERING THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION. FILTERING OF BYPASS WATER IS NOT NECESSARY UNLESS THE BYPASS WATER HAS BECOME SEDIMENT-LADEN AS A RESULT OF THE CURRENT CONSTRUCTION ACTIVITIES.
6. DURING DEWATERING OF THE COFFERED AREA THE HOSE INTAKE SHALL BE PLACED IN A SUMP PIT (IUM STANDARD 650) AND THE OUTLET DISCHARGED ON A NON-ERODIBLE ENERGY DISSIPATING SURFACE. ALL SEDIMENT-LADEN WATER MUST BE FILTERED. POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDE BAFFLE SYSTEMS, ANIONIC POLYMER SYSTEMS, DEWATERING BAGS, OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING RE-INTRODUCED TO THE DOWNSTREAM WATERWAY. A STABILIZED CONVEYANCE FROM THE DEWATERING DEVICE TO THE WATERWAY MUST BE IDENTIFIED IN THE PLAN. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY. THE EXACT MEANS, METHODS, AND LOCATIONS OF DEWATERING SHALL BE APPROVED BY THE ENGINEER AND MLSWCD BEFORE COMMENCEMENT OF WORK.
7. THE AREA FROM THE TOE TO THE TOP OF THE SIDE SLOPE SHALL BE TEMPORARILY STABILIZED DURING CONSTRUCTION TO REDUCE THE POTENTIAL FOR EROSION. ALL AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO PROPOSED CONDITIONS AND FULLY STABILIZED PRIOR TO ACCEPTING FLOWS.

STANDARD DRAIN TILE NOTES

1. DRAIN TILES DISTURBED DURING REGULATED DEVELOPMENT SHALL BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE, UNLESS THE DEVELOPMENT PLANS SPECIFY ABANDONMENT OF THE DRAIN TILES.
2. ALL ABANDONED DRAIN TILES WITHIN DISTURBED AREAS SHALL BE REMOVED IN THEIR ENTIRETY.
3. DRAIN TILES WITHIN THE DISTURBED AREA OF A DEVELOPMENT SITE SHALL BE REPLACED, BYPASSED AROUND THE DEVELOPMENT SITE OR INTERCEPTED AND CONNECTED TO THE STORMWATER MANAGEMENT SYSTEM FOR THE DEVELOPMENT SITE. THE SIZE OF THE REPLACED OR BYPASSED DRAIN TILE SHALL BE EQUIVALENT TO THE EXISTING DRAIN TILE.

SUPPLEMENTAL EROSION CONTROL NOTES

1. STOCKPILED SOIL AND MATERIALS SHALL BE REMOVED FROM FLOOD HAZARD AREAS AT THE END OF EACH WORK DAY. SOIL AND MATERIALS STOCKPILED IN ISOLATED WETLANDS OF McHENRY COUNTY SHALL BE PLACED ON TIMBER MATS OR AN EQUIVALENT CONTROL MEASURE.
2. A TURBIDITY BARRIER SHALL BE UTILIZED AS PART OF THE IN-STREAM BRIDGE WORK.
3. TEMPORARY EROSION CONTROL BLANKET SHALL BE 100% BIODEGRADABLE WITH PROPERTIES APPROPRIATE FOR THE SLOPES ON WHICH IT IS USED. SEE PROJECT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
4. LAND DISTURBANCE BELOW THE ORDINARY HIGH WATER MARK SHALL BE AVOIDED. WHEN NECESSARY, EQUIPMENT SHALL CROSS CHANNELS ONLY AT PERMANENT BRIDGES OR CULVERTS.

| STABILIZATION TYPE | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|--------------------|-----|-----|-------|-----|-----|------|------|-----|------|-----|-----|-----|
| PERMANENT SEEDING | | | + A | | | * | * | | | | | |
| DORMANT SEEDING | - B | | | | | | | | | | + B | |
| TEMPORARY SEEDING | | | + C | | | | + D | | | | | |
| SODDING | | | + E** | | | | | | | | | |
| MULCHING | - F | | | | | | | | | | | |

- A SEE STANDARD ROAD SPECIFICATIONS FOR SEEDING MIXTURE. C SPRING OATS 100 LBS/ACRE * IRRIGATION NEEDED DURING JUNE AND JULY.
- B SEE STANDARD ROAD SPECIFICATIONS FOR SEEDING MIXTURE. D WHEAT OR CEREAL RYE 150 LBS/ACRE. ** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD.
- E SOD
- F STRAW MULCH 2 TONS/ACRE.

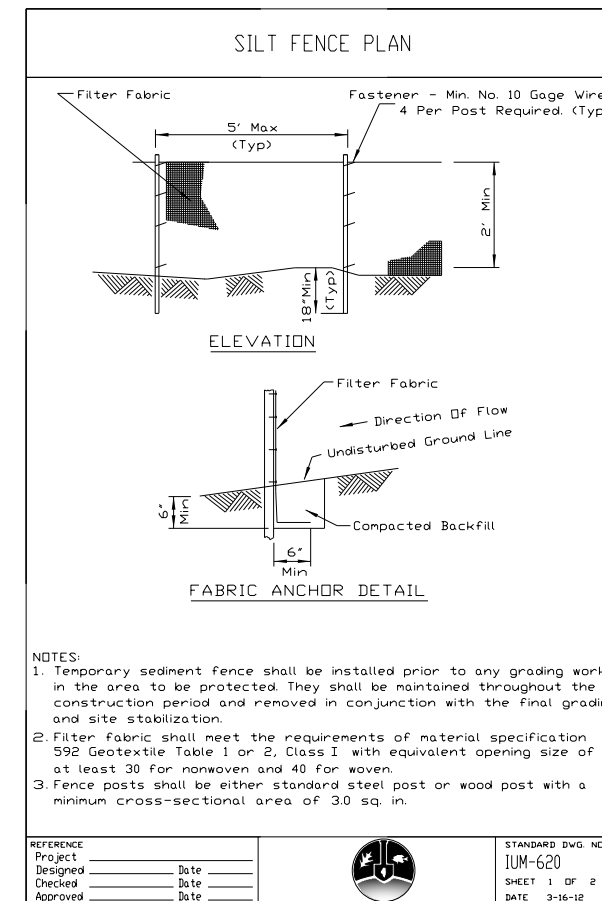
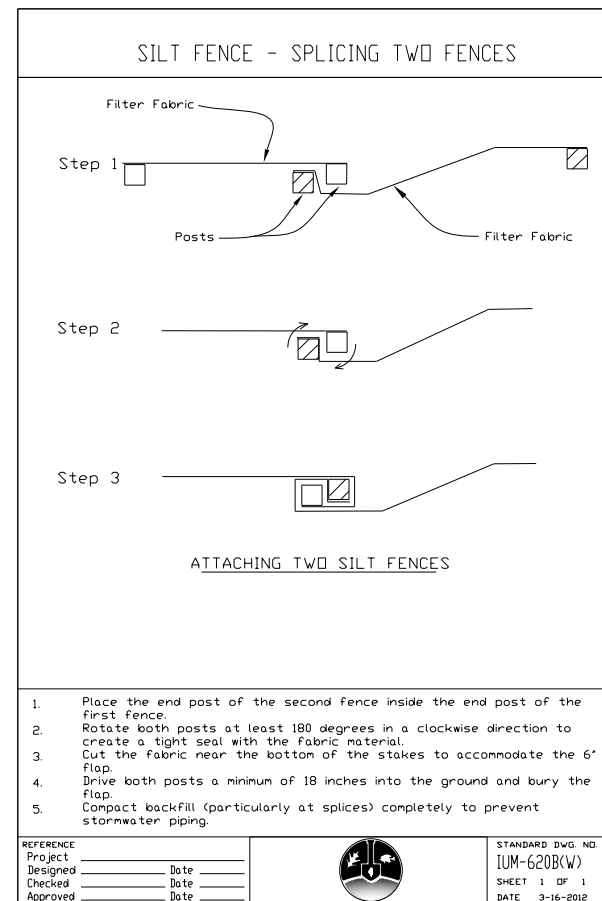
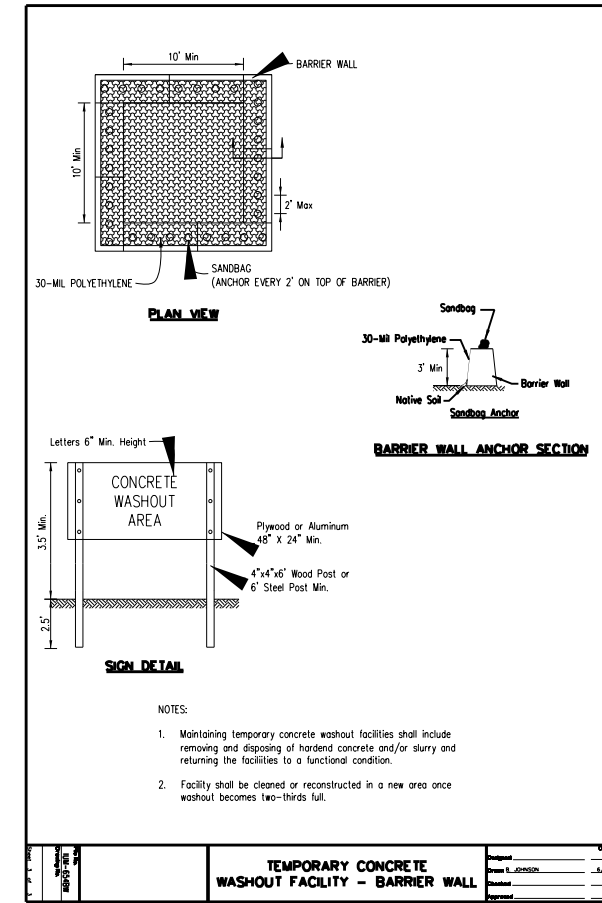
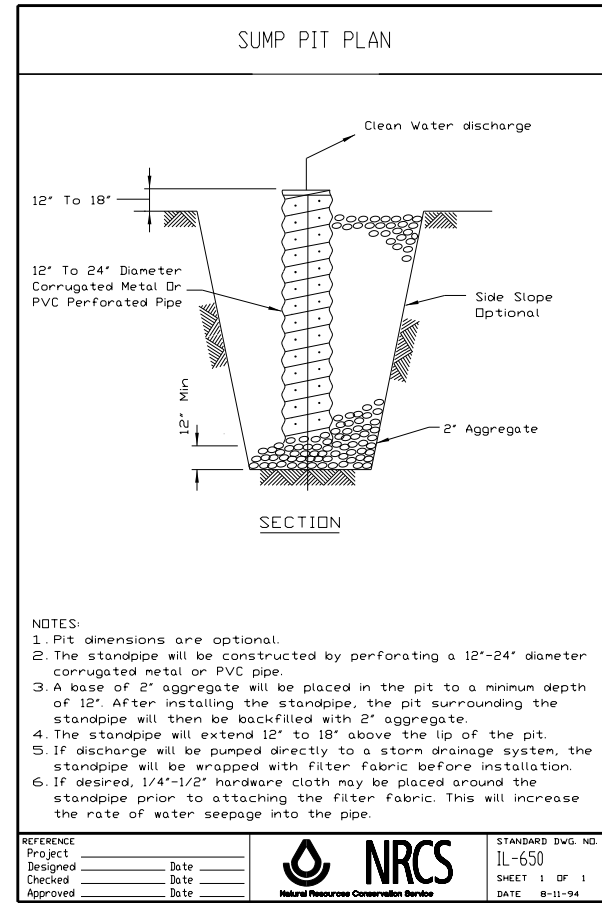
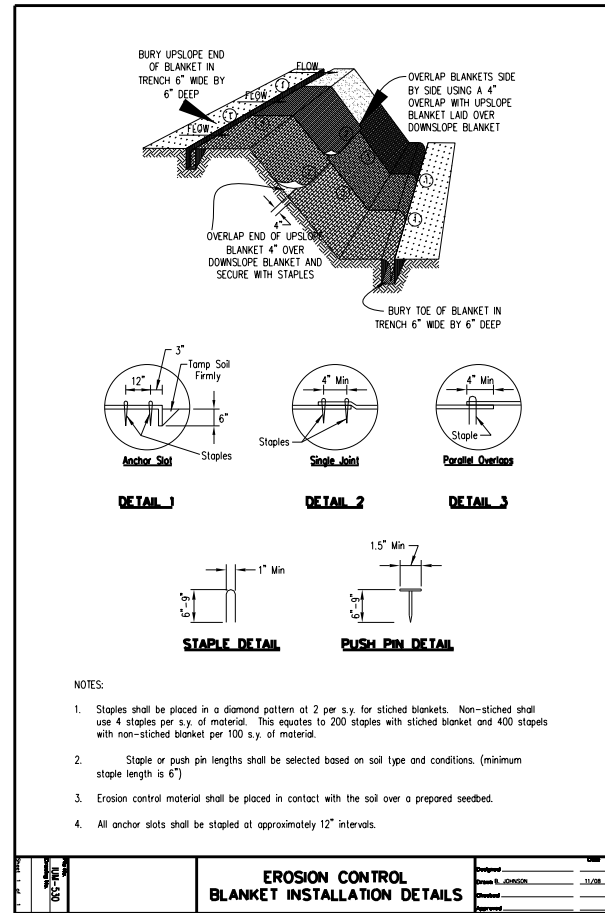
SOIL STABILIZATION CHART

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**O'BRIEN ROAD OVER NIPPERSINK CREEK
EROSION CONTROL NOTES**

| | | | | |
|----------------------|----------------|------------------|--------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 12 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS | | FED. AID PROJECT | | |

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



MODEL: s:\MODELNAME
 FILE NAME: 151010211-erosion3.dgn

| | | |
|------------------------|------------|-----------|
| USER NAME = steves | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

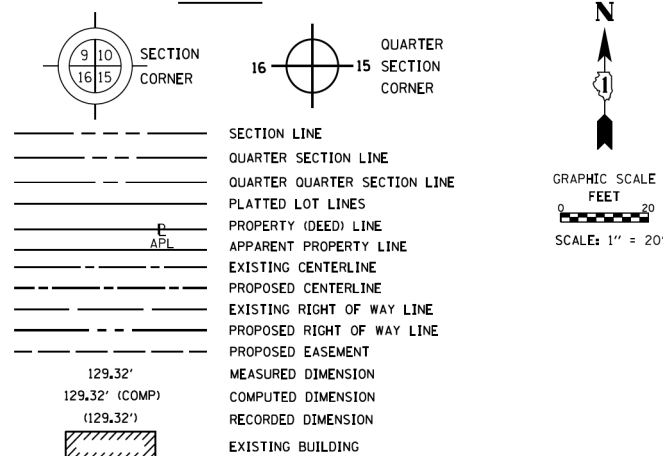
O'BRIEN ROAD OVER NIPPERSINK CREEK
 EROSION CONTROL STANDARD DETAILS

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

| | | | | |
|---------------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | MCHENRY | 44 | 13 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |

PART OF THE NW 1/4 OF SECTION 30, TWP. 46 N., R. 7 E. OF THE 3RD. P.M., IN MCHENRY COUNTY, ILLINOIS.

LEGEND



Bearings and Coordinates are referenced to the Illinois Coordinate System, NAD83 (2011), East Zone.

- IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.
T2 SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
T3
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.
BT2 BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
BT3
- STAKING OF PROPOSED RIGHT OF WAY.
SET DIVISION OF HIGHWAYS 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.
BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, IDOT STANDARD 667101-02 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET

STATE OF ILLINOIS)
) SSS
COUNTY OF KANE)

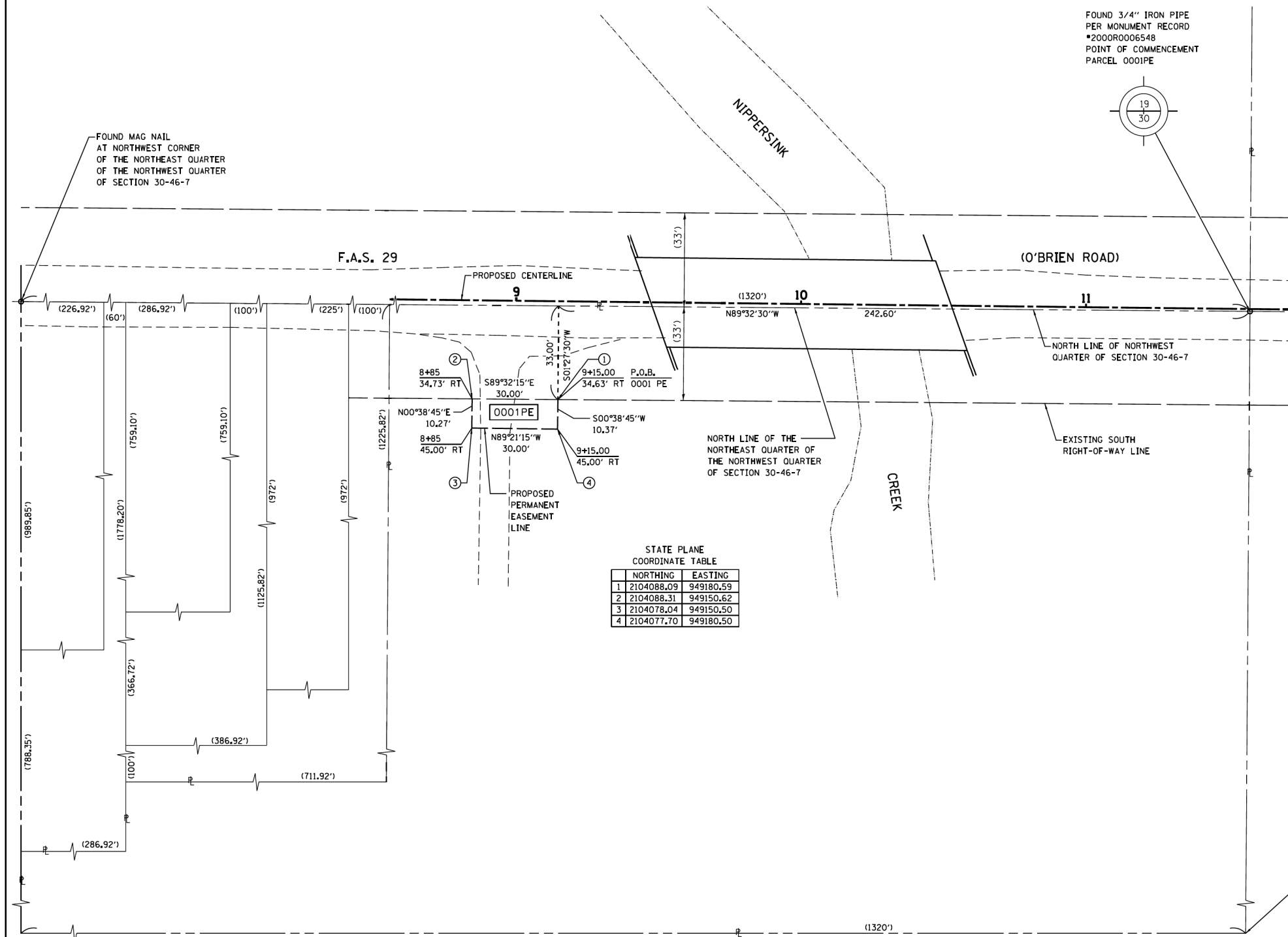
THIS IS TO CERTIFY THAT WE, HAMPTON, LENZINI & RENWICK, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-000959, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 30, TOWNSHIP 46 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, LAKE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE LAKE COUNTY DIVISION OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT ELGIN, ILLINOIS THIS ____ DAY OF _____ 20__ A.D.

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-003158
LICENSE EXPIRATION DATE: 11/30/2018



Hampton, Lenzini and Renwick, Inc.
Civil Engineers - Structural Engineers
Land Surveyors - Environmental Services
HLR
380 SHEPARD DRIVE
ELGIN, ILLINOIS 60123
847.697.6700 www.hlrengr.com
184.000959
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION
JOB: 15.0107.130



STATE PLANE COORDINATE TABLE

| | NORTHING | EASTING |
|---|------------|-----------|
| 1 | 2104088.09 | 949180.59 |
| 2 | 2104088.31 | 949150.62 |
| 3 | 2104078.04 | 949150.50 |
| 4 | 2104077.70 | 949180.50 |

NOTE:

- THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY FOR THAT PORTION SHOWN AS PROPOSED RIGHT-OF-WAY.
- ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED. ALL BEARINGS AND DISTANCES SHOWN HEREON REFERENCE THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTHAMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID".
- ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES SHOWN BY THE COMBINATION FACTOR OF 0.9999380313.

| PARCEL NUMBER | OWNER | TOTAL HOLDINGS ACRES | PART TAKEN ACRES | AREA IN EXISTING R.O.W. ACRES | REMAINDER AREA ACRES | EASEMENT AREA | | EASEMENT PURPOSE | PERMANENT INDEX NUMBER | PROPERTY ACQUIRED BY |
|---------------|--|----------------------|------------------|-------------------------------|----------------------|---------------|-------------|--------------------------------------|------------------------|----------------------|
| | | | | | | ACRES | SQUARE FEET | | | |
| 0001PE | JOHN KOPYSTYNSKY AND HELEN KOPYSTYNSKY | 47.56 Ac± | N/A | N/A | N/A | 0.007 | 310 | GUARDRAIL INSTALLATION & MAINTENANCE | 03-30-100-012 | |

REVISION DATE: REVISION DRAWN BY:

PLAT OF HIGHWAYS
MCHENRY COUNTY
DIVISION OF TRANSPORTATION
COUNTY HIGHWAY NO. XX
JOB NO: R-55-001-97
SECTION: 14-00432-00-BR SCALE: 1"=20'
PROJECT: F.A.S. 29 (O'BRIEN ROAD)
STATION 8+85 TO STATION 9+15
File: 150107-exh-poh.dgn SHEET 1 OF 1
MCHENRY COUNTY DIVISION OF TRANSPORTATION
16111 NELSON ROAD
WOODSTOCK, ILLINOIS 60098

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
PLAT OF HIGHWAYS

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

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 14 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |

| USER NAME = steves | DESIGNED - | REVISED - |
|------------------------|------------|-----------|
| | DRAWN - | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

MODEL: \$MODELNAME\$
FILE NAME: 150107-exh-poh.dgn

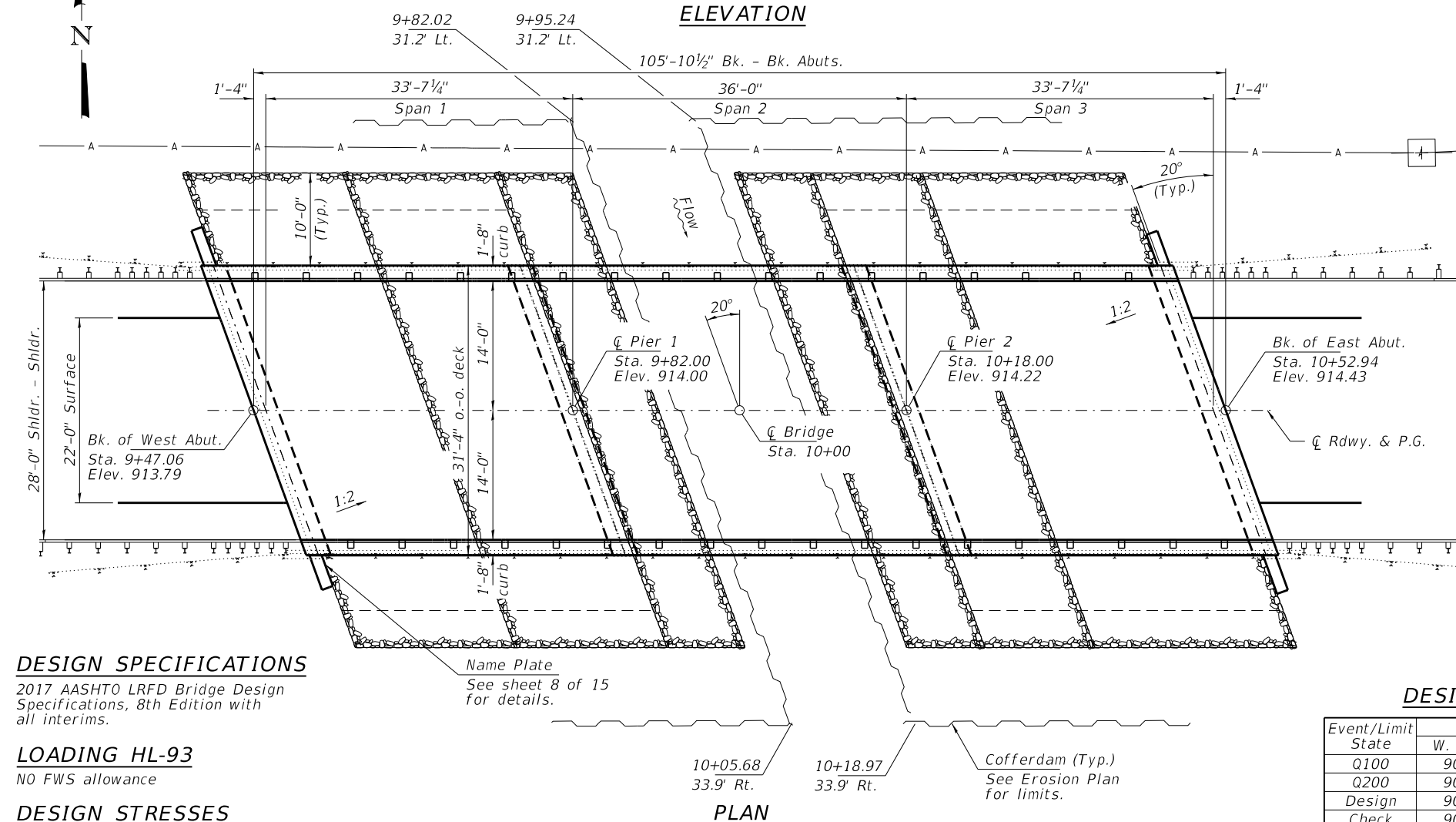
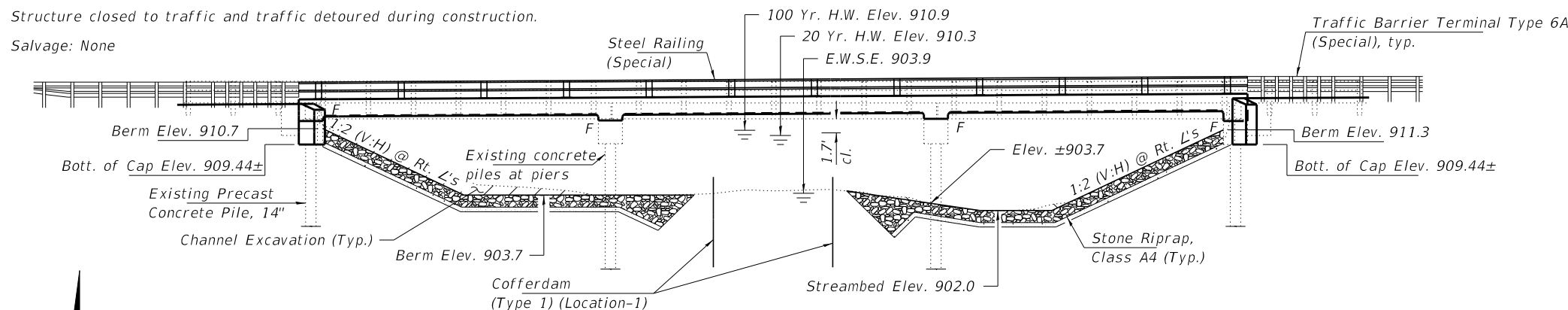
Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers - Land Surveyors - Environmental Services
ELGIN - SPRINGFIELD - WOODRIDGE - MT CARMEL
www.hlrengr.com
184.000959 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

BENCHMARK: Cross notch on N.E. abutment. 17' Lt., Sta. 10+46, Elev. 913.87.

EXISTING STRUCTURE: SN 056-3118 Sta. 10+00. Three span precast channel beam bridge on open pile bent abutments and concrete pile bent piers. 105.875' bk.-bk. abuts., 30.0' o.-o. deck.

Structure closed to traffic and traffic detoured during construction.

Salvage: None



DESIGN SPECIFICATIONS
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition with all interims.

LOADING HL-93
NO FWS allowance

DESIGN STRESSES
NEW CONSTRUCTION

$f'_c = 4,000$ psi
 $f_y = 60,000$ psi (Reinf.)

EXISTING CONSTRUCTION

$f'_c = 3,500$ psi
 $f_y = 40,000$ psi

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.076g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.126g
Soil Site Class = D

WATERWAY INFORMATION

Drainage Area = 21.1 Mi² Existing Low Grade Elev. 913.1 @ Sta. 8+00
Proposed Low Grade Elev. 913.1 @ Sta. 8+00

| Flood | Freq. Yr. | Q C.F.S. | Opening Ft ² | | Nat. H.W.E. | | Head - Ft. | | Headwater El. | |
|------------|-----------|----------|-------------------------|-------|-------------|-------|------------|--------|---------------|-------|
| | | | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. |
| Design | 10 | 1880 | 430 | 430 | 909.89 | 0.46 | 0.46 | 910.35 | 910.35 | |
| Base | 20 | 2217 | 470 | 470 | 910.31 | 0.54 | 0.54 | 910.85 | 910.85 | |
| Max. Calc. | 100 | 2758 | 520 | 520 | 910.89 | 0.65 | 0.65 | 911.54 | 911.54 | |
| | 200 | 3080 | 560 | 560 | 911.22 | 0.71 | 0.71 | 911.93 | 911.93 | |

10 Year Velocity through Existing Bridge = 4.4 fps 10 Year Velocity through Proposed Bridge = 4.4 fps

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

Andrew E. Underwager 11/13/2018
ILLINOIS STRUCTURAL NO. 081-006218 Expires 11-30-2020



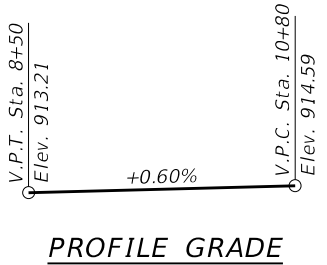
GENERAL NOTES

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The Contractor shall make allowance for the deflection of forms, shrinkage, and settlement of falsework, in addition to allowance for dead load deflection.
Protective Coat shall be applied to the top surface and the sides of the concrete deck and wingwalls.
Reinforcement bars designated (E) shall be epoxy coated.
Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.
Existing Asbestos Bearing Pads shall be removed. See Special Provisions.

INDEX OF SHEETS

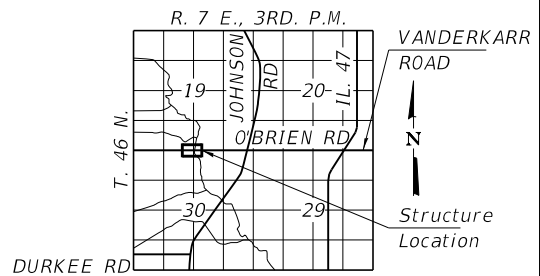
1. General Plan & Elevation
2. General Details
3. Top of Slab Elevations
4. Superstructure
5. Superstructure Details
- 6-7. Wyoming 2-Tube Bridge Railing Details
8. West Abutment
9. East Abutment
10. Piers
- 11-15. Existing Plans

NIPPERSINK CREEK
RE-BUILT 201_ BY
McHENRY COUNTY
SEC. 14-00432-00-BR
F.A.S. RTE. 0029 STA. 10+00
STR. NO. 056-3118 LOADING HL-93



PROFILE GRADE

NAME PLATE
See Std. 515001



LOCATION SKETCH

DESIGN SCOUR ELEVATION TABLE

| Event/Limit State | Design Scour Elevations (ft.) | | | | Item 113 |
|-------------------|-------------------------------|--------|--------|----------|----------|
| | W. Abut. | Pier 1 | Pier 2 | E. Abut. | |
| Q100 | 908.5 | 898.3 | 896.3 | 908.5 | 7 |
| Q200 | 908.5 | 896.1 | 895.1 | 908.5 | |
| Design | 908.5 | 898.1 | 896.1 | 908.5 | |
| Check | 908.5 | 896.1 | 895.1 | 908.5 | |

GENERAL PLAN & ELEVATION
O'BRIEN ROAD OVER
OVER NIPPERSINK CREEK
F.A.S. 29 / SECTION 14-00432-00-BR
HEBRON TOWNSHIP
McHENRY COUNTY
STATION 10+00
STRUCTURE NO. 056-3118
LOADING HL-93

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 056-3118

SHEET NO. 1 OF 15 SHEETS

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 15 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |

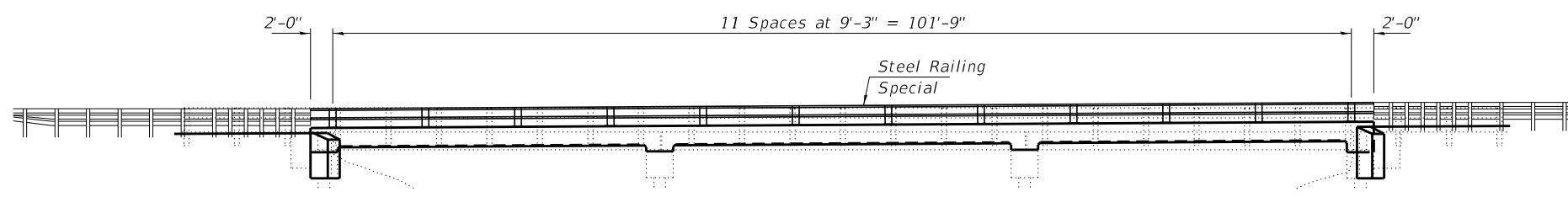
ILLINOIS FED. AID PROJECT

Hampton, Lenzini and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL
www.hlrengineering.com
184.000959 ILLINOIS PROFESSIONAL DESIGN FIRMS / PE / SE CORPORATION

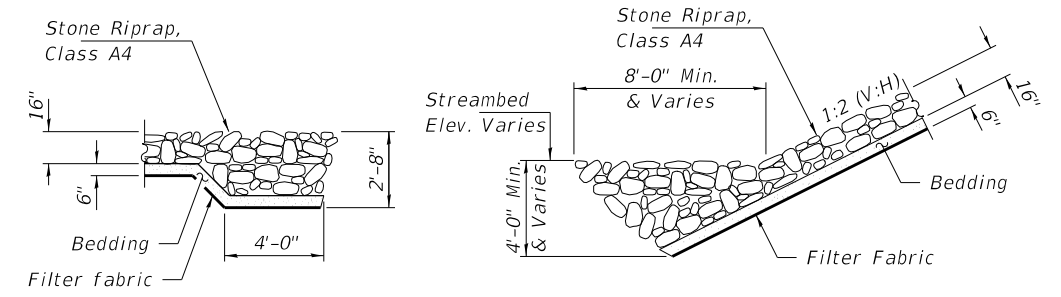
MODEL: 140821NAME: ELEV: 10/13/2018

HAMPTON, LENZINI AND RENWICK, INC.
ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

| | | |
|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| PLOT SCALE = | CHECKED - J.L.A. | REVISED - |
| PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISED - |
| | CHECKED - A.E.U. | REVISED - |

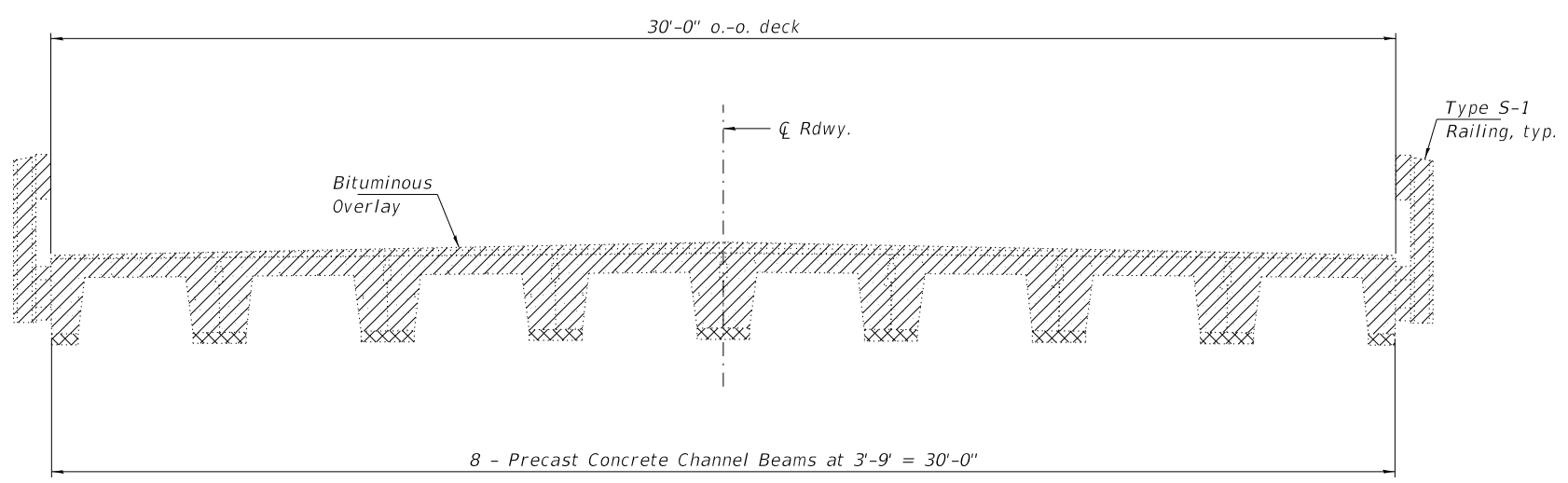


RAILING ELEVATION



FLANK STONE RIPRAP TREATMENT

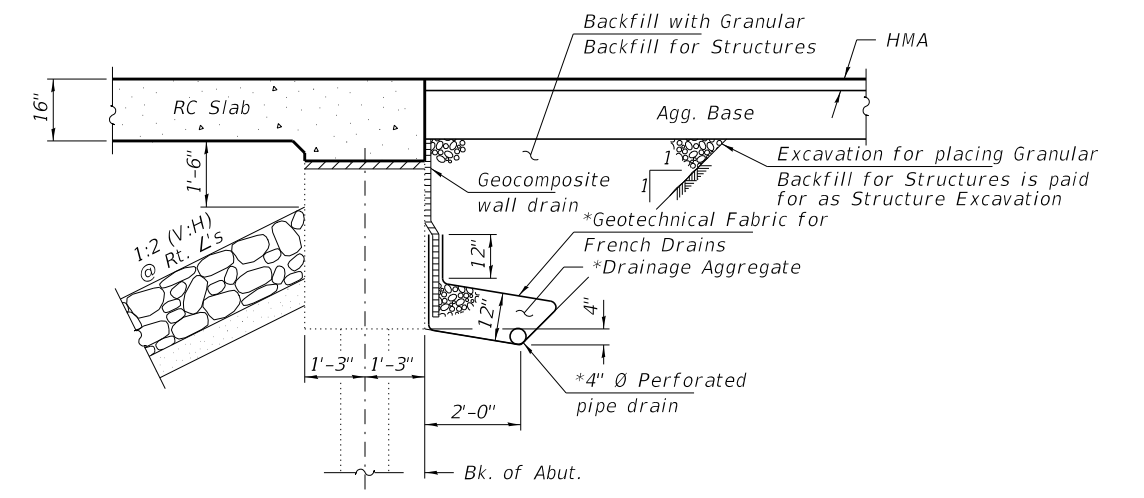
TOE STONE RIPRAP TREATMENT



EXISTING CROSS SECTION

Indicates Removal Items
 Asbestos Bearing Pad Removal

Note: Removal of existing channel beams, railing & bituminous overlay included in the pay item Removal of Existing Superstructures



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

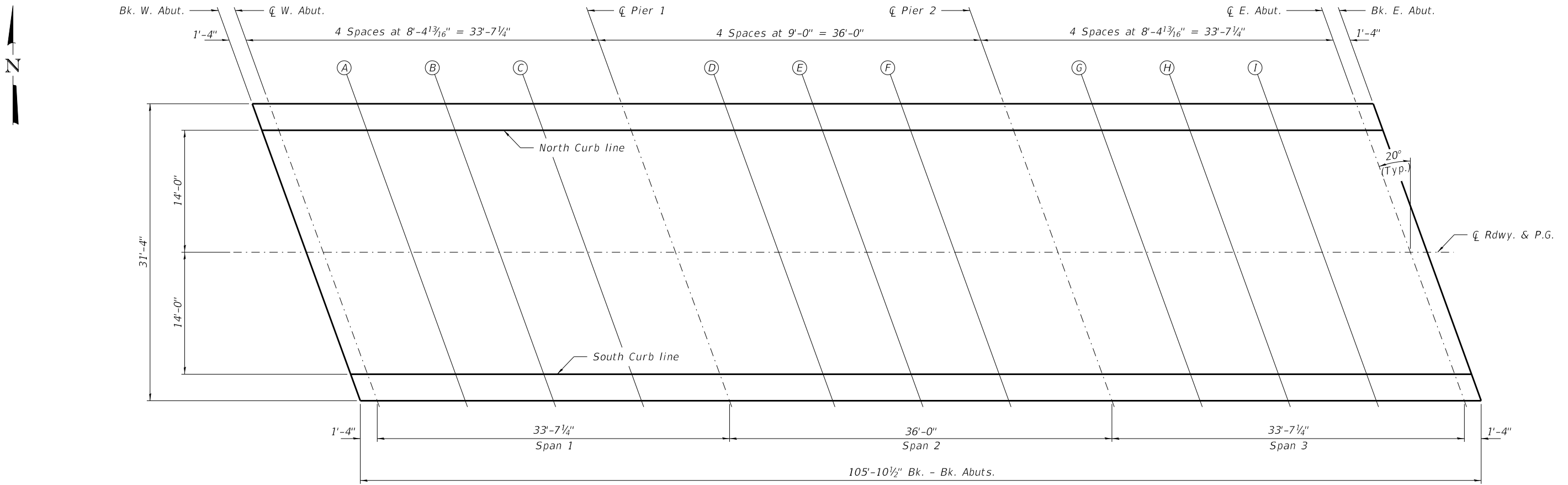
*Included with cost of Pipe Underdrains for Structures, 4"

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).

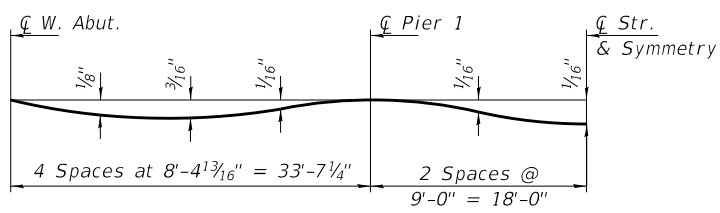
TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|-------------------------------------|---------|--------|-------|--------|
| Channel Excavation | Cu. Yd. | | 320 | 320 |
| Stone Riprap, Class A4 | Sq. Yd. | | 465 | 465 |
| Filter Fabric | Sq. Yd. | | 465 | 465 |
| Removal of Existing Superstructures | Each | 1 | | 1 |
| Concrete Removal | Cu. Yd. | | 2.6 | 2.6 |
| Structure Excavation | Cu. Yd. | | 43 | 43 |
| Cofferdam (Type 1) (Location-1) | Each | | 2 | 2 |
| Concrete Structures | Cu. Yd. | | 2.9 | 2.9 |
| Concrete Superstructure | Cu. Yd. | 168.6 | | 168.6 |
| Bridge Deck Grooving | Sq. Yd. | 306 | | 306 |
| Protective Coat | Sq. Yd. | 427 | 11 | 438 |
| Reinforcement Bars, Epoxy Coated | Pound | 65,170 | 1,120 | 66,290 |
| Name Plates | Each | 1 | | 1 |
| Geocomposite Wall Drain | Sq. Yd. | | 29 | 29 |
| Granular Backfill for Structures | Cu. Yd. | | 43 | 43 |
| Steel Railing (Special) | Foot | 212 | | 212 |
| Asbestos Bearing Pad Removal | Each | | 36 | 36 |
| Pipe Underdrains for Structures, 4" | Foot | | 77 | 77 |

MODEL: 1408ELNAMES
 FILE NAME: 1510107-215-bridge.dwg



PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of Concrete Slab & Superimposed Dead Load.)

Notes:
 The deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown.
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework in addition to allowance for dead load deflection.

NORTH CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|------------------|----------|--------|------------------------------|--|
| Back of W. Abut. | 9+41.96 | -14.00 | 913.47 | 913.47 |
| ☐ of W. Abut. | 9+43.29 | -14.00 | 913.48 | 913.48 |
| A | 9+51.70 | -14.00 | 913.53 | 913.54 |
| B | 9+60+10 | -14.00 | 913.58 | 913.60 |
| C | 9+68.50 | -14.00 | 913.63 | 913.64 |
| ☐ Pier 1 | 9+76.90 | -14.00 | 913.68 | 913.68 |
| D | 9+85.90 | -14.00 | 913.73 | 913.74 |
| E | 9+94.90 | -14.00 | 913.79 | 913.79 |
| F | 10+03.90 | -14.00 | 913.84 | 913.84 |
| ☐ Pier 2 | 10+12.90 | -14.00 | 913.90 | 913.90 |
| G | 10+21.31 | -14.00 | 913.95 | 913.96 |
| H | 10+29.71 | -14.00 | 914.00 | 914.01 |
| I | 10+38.11 | -14.00 | 914.05 | 914.06 |
| ☐ of E. Abut. | 10+46.51 | -14.00 | 914.10 | 914.10 |
| Back of E. Abut. | 10+47.84 | -14.00 | 914.11 | 914.11 |

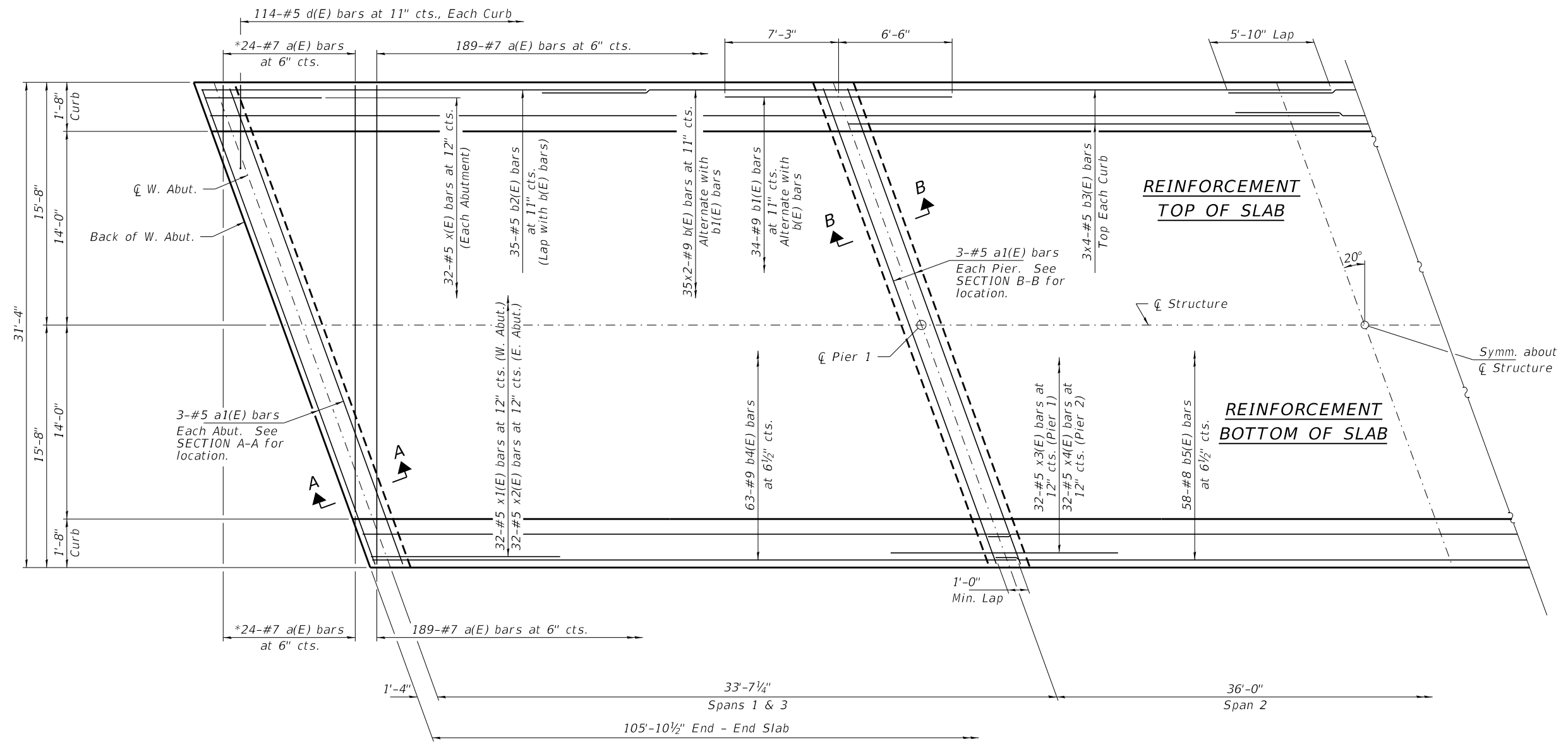
☐ RDWY. & P.G.

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|------------------|----------|--------|------------------------------|--|
| Back of W. Abut. | 9+47.06 | 0.00 | 913.79 | 913.79 |
| ☐ of W. Abut. | 9+48.39 | 0.00 | 913.80 | 913.80 |
| A | 9+56.79 | 0.00 | 913.85 | 913.86 |
| B | 9+65.19 | 0.00 | 913.90 | 913.92 |
| C | 9+73.59 | 0.00 | 913.95 | 913.96 |
| ☐ Pier 1 | 9+82.00 | 0.00 | 914.00 | 914.00 |
| D | 9+91.00 | 0.00 | 914.06 | 914.06 |
| E | 10+00.00 | 0.00 | 914.11 | 914.12 |
| F | 10+09.00 | 0.00 | 914.16 | 914.17 |
| ☐ Pier 2 | 10+18.00 | 0.00 | 914.22 | 914.22 |
| G | 10+26.40 | 0.00 | 914.27 | 914.28 |
| H | 10+34.80 | 0.00 | 914.32 | 914.34 |
| I | 10+43.20 | 0.00 | 914.37 | 914.38 |
| ☐ of E. Abut. | 10+51.61 | 0.00 | 914.42 | 914.42 |
| Back of E. Abut. | 10+52.94 | 0.00 | 914.43 | 914.43 |

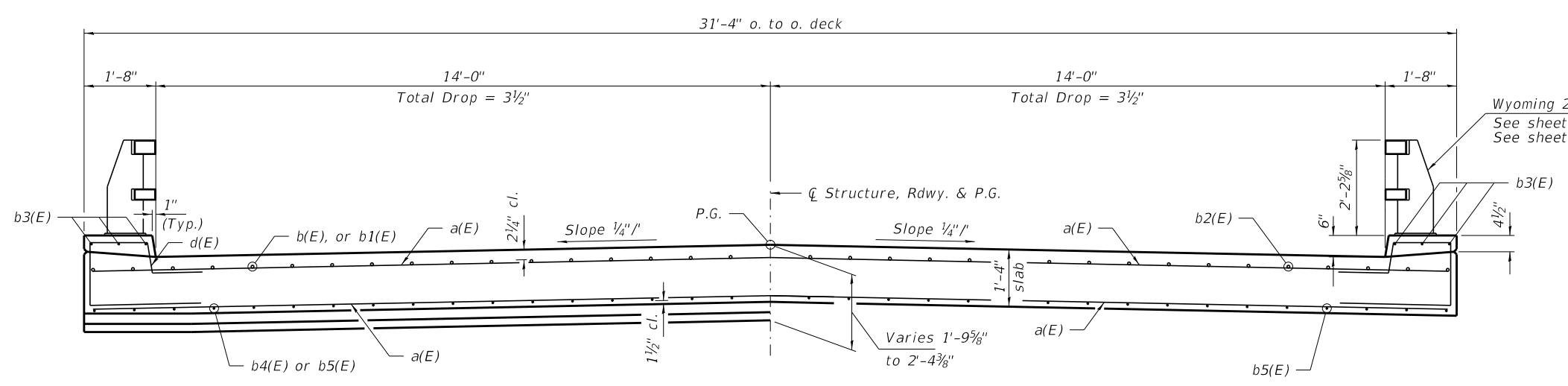
SOUTH CURB LINE

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|------------------|----------|--------|------------------------------|--|
| Back of W. Abut. | 9+52.16 | 14.00 | 913.53 | 913.53 |
| ☐ of W. Abut. | 9+53.49 | 14.00 | 913.54 | 913.54 |
| A | 9+61.89 | 14.00 | 913.59 | 913.60 |
| B | 9+70.29 | 14.00 | 913.64 | 913.66 |
| C | 9+78.69 | 14.00 | 913.69 | 913.70 |
| ☐ Pier 1 | 9+87.10 | 14.00 | 913.74 | 913.74 |
| D | 9+96.10 | 14.00 | 913.79 | 913.80 |
| E | 10+05.10 | 14.00 | 913.85 | 913.85 |
| F | 10+14.10 | 14.00 | 913.90 | 913.91 |
| ☐ Pier 2 | 10+23.10 | 14.00 | 913.96 | 913.96 |
| G | 10+31.50 | 14.00 | 914.01 | 914.02 |
| H | 10+39.90 | 14.00 | 914.06 | 914.08 |
| I | 10+48.30 | 14.00 | 914.11 | 914.12 |
| ☐ of E. Abut. | 10+56.71 | 14.00 | 914.16 | 914.16 |
| Back of E. Abut. | 10+58.04 | 14.00 | 914.17 | 914.17 |

MODEL: 4 MODEL NAME: FILE: 13107-215-bldg.dgn



HALF PLAN



CROSS SECTION
(Looking East)

Notes:
 See sheets 5 of 10 for Superstructure
 Details and Bill of Material.
 * Order a(E) bars full length.
 Cut to fit skew and use remainder of bars
 in opposite end.
 Bars indicated thus 3x4 - #5 etc. indicates
 3 lines of bars with 4 lengths per line.
 Dimensions to be nominally adjusted in
 field to match Substructure units.

MIN. BAR LAP
 #5 = 3'-0"
 #9 = 5'-10"

MODEL: 14082L.MXD
 FILE: 131010-215-bridge.dwg

| | |
|---|-----------------------------------|
| HAMPTON, LENZINI AND RENWICK, INC. | |
| ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL | ILLINOIS PROFESSIONAL DESIGN FIRM |
| LS / PE / SE CORP. | 184.000959 |

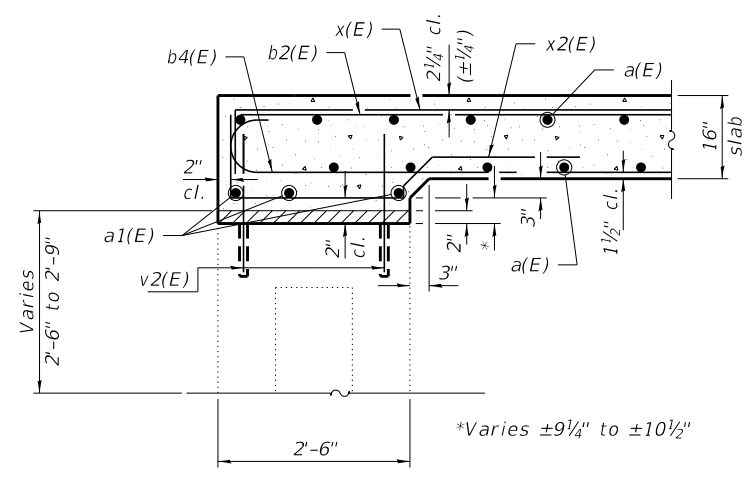
| | | |
|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| PLOT SCALE = | CHECKED - J.L.A. | REVISED - |
| PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISED - |
| | CHECKED - A.E.U. | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 056-3118
 SHEET NO. 4 OF 15 SHEETS

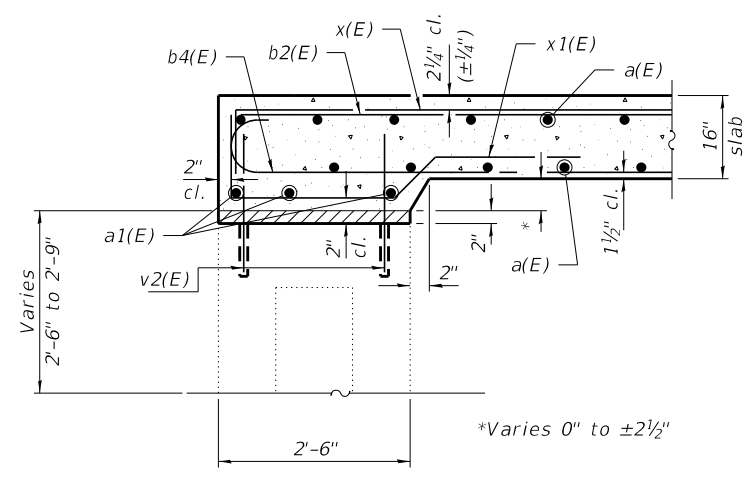
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 18 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |

ILLINOIS FED. AID PROJECT



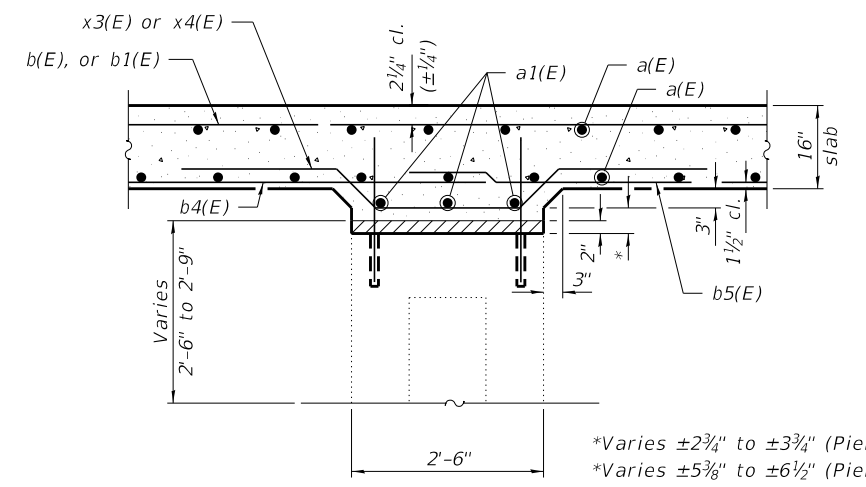
SECTION C-C
(East Abut.)

*Varies ±9¼" to ±10½"



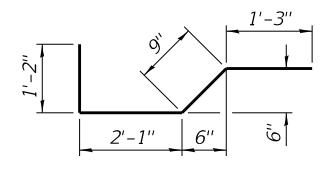
SECTION A-A
(West Abut.)

*Varies 0" to ±2½"

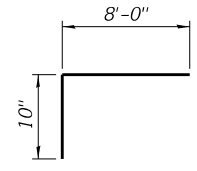


SECTION B-B

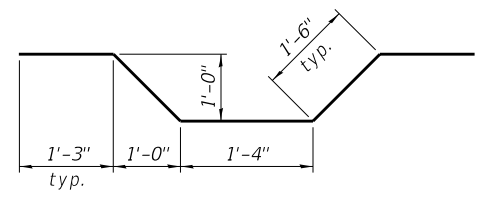
*Varies ±2¾" to ±3¾" (Pier 1)
 *Varies ±5⅜" to ±6½" (Pier 2)



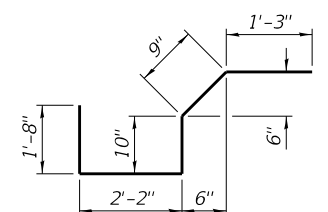
BAR x1(E)



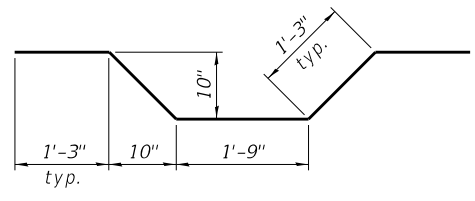
BAR x(E)



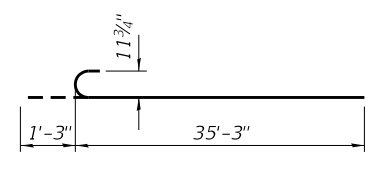
BAR x4(E)



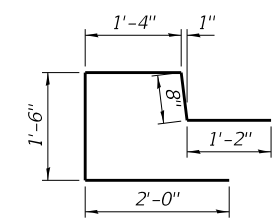
BAR x2(E)



BAR x3(E)



BAR b4(E)

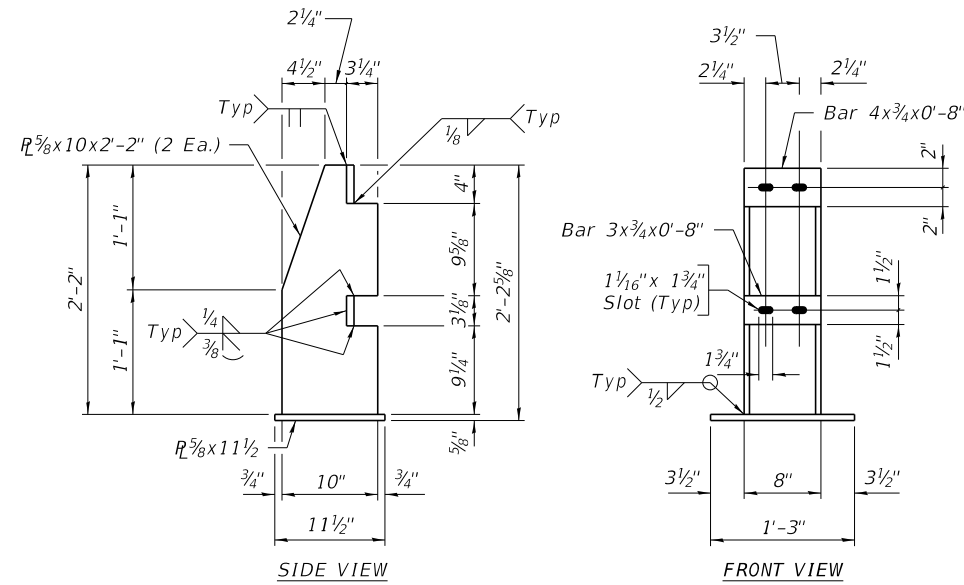


BAR d(E)

**SUPERSTRUCTURE
 BILL OF MATERIAL**

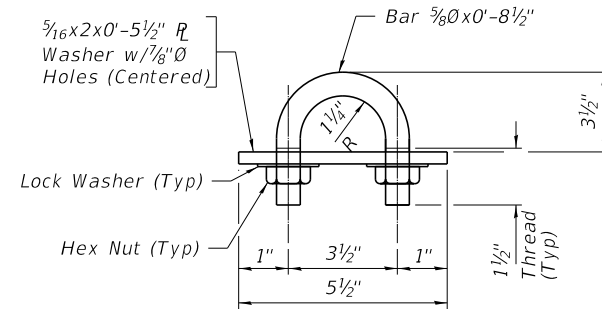
| BAR | NO. | SIZE | LENGTH | SHAPE |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 426 | #7 | 31'-0" | — |
| a1(E) | 12 | #5 | 33'-0" | — |
| b(E) | 70 | #9 | 37'-7" | — |
| b1(E) | 68 | #9 | 13'-9" | — |
| b2(E) | 70 | #5 | 24'-0" | — |
| b3(E) | 24 | #5 | 28'-8" | — |
| b4(E) | 116 | #9 | 36'-6" | — |
| b5(E) | 58 | #8 | 37'-1" | — |
| d(E) | 228 | #5 | 6'-8" | — |
| x(E) | 64 | #5 | 8'-10" | — |
| x1(E) | 32 | #5 | 5'-3" | — |
| x2(E) | 32 | #5 | 6'-8" | — |
| x3(E) | 32 | #5 | 6'-9" | — |
| x4(E) | 32 | #5 | 6'-10" | — |
| Protective Coat | | Sq. Yd. | 427 | |
| Concrete Superstructure | | Cu. Yd. | 168.6 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 65,170 | |

MODEL: 1408ELNAMES
 FILE NAME: 1510107-215-bridge.dgn

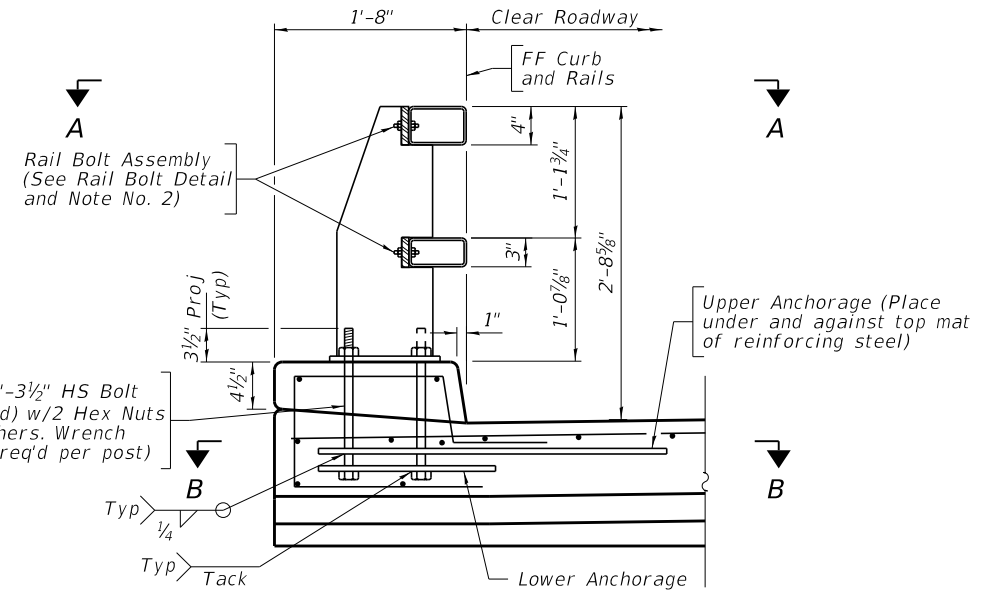


POST DETAILS

(See View A-A for anchor bolt hole spacing)



RAIL BOLT DETAIL

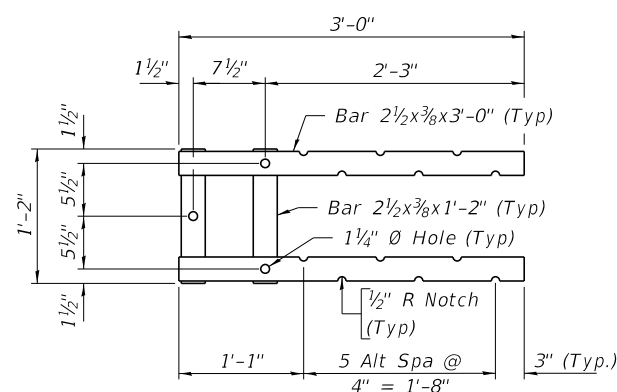


ASSEMBLY DETAIL

(Shown near \bar{C} Post)

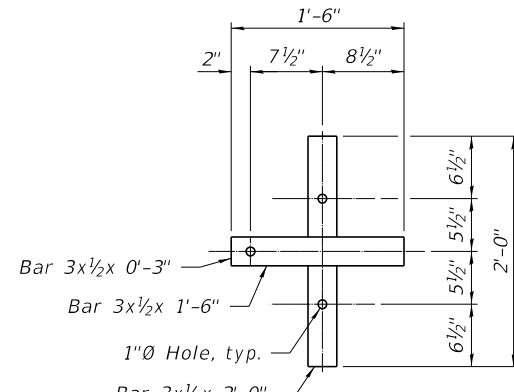
NOTES:

- 1) Anchor bolts may be tack welded to lower anchorage (Shop or field).
- 2) At post locations, drill two 1 1/16" Ø holes in the rails to receive rails bolts (Shop or field). See Post Details for hole spacing
- 3) Before installing rails, paint all cut, drilled or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780
- 4) After installing the rails, paint all exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
- 5) Steel components shall be galvanized according to AASHTO M111, unless noted otherwise.
- 6) Shim Plates shall be provided in accordance with Article 509.05(a) of the Standard Specifications.



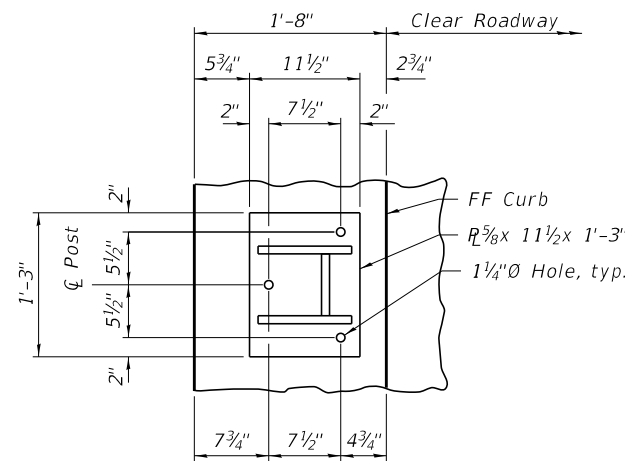
SECTION B-B

(Showing upper anchorage)
(Anchor Bolts and slab not shown)



SECTION B-B

(Showing lower anchorage)
(Anchor Bolts and slab not shown)

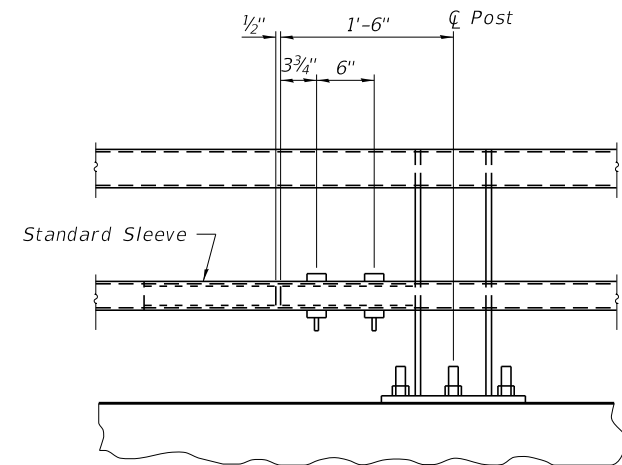


VIEW A-A

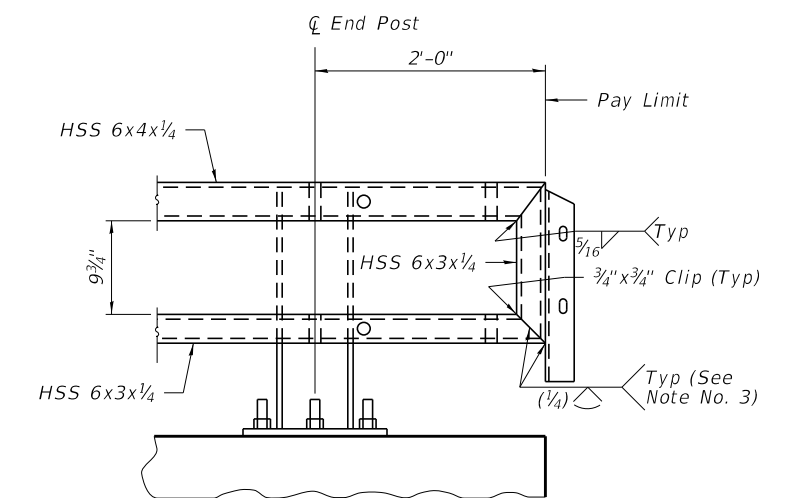
(anchor bolts, rails and rail bolts not shown)

BILL OF MATERIAL

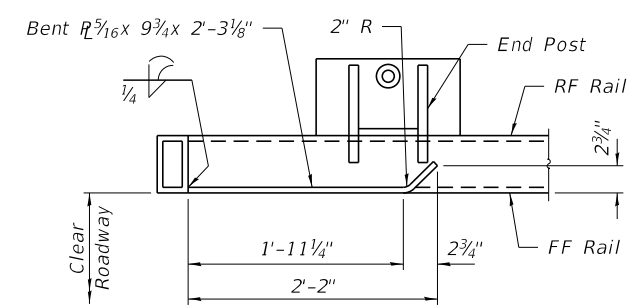
| Item | Unit | Total |
|-------------------------|------|-------|
| Steel Railing (Special) | Foot | 212 |



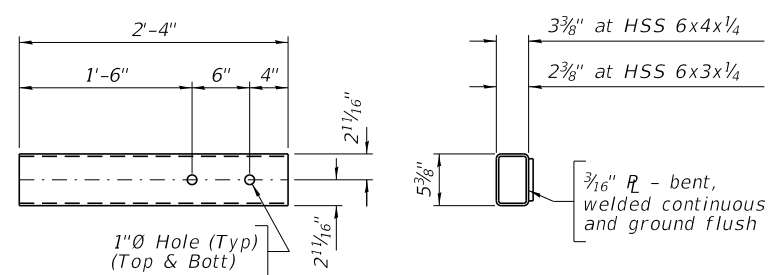
STANDARD SPLICE
 (Top or bottom rail)



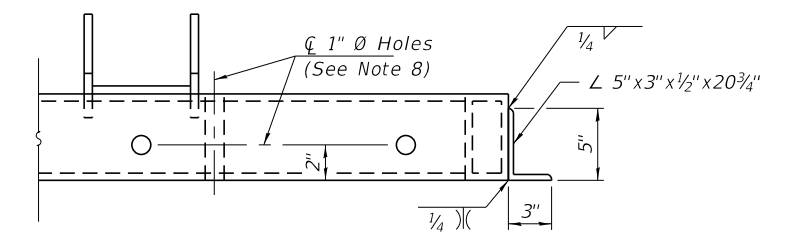
ELEVATION AT TERMINAL
TYPE 6A (SPECIAL)



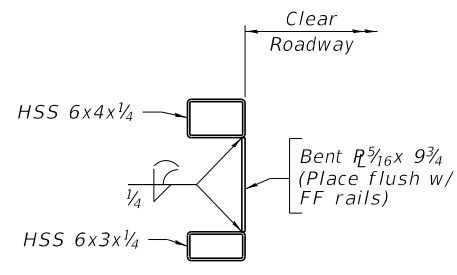
BENT PLATE SECTION
 (Top rail not shown)



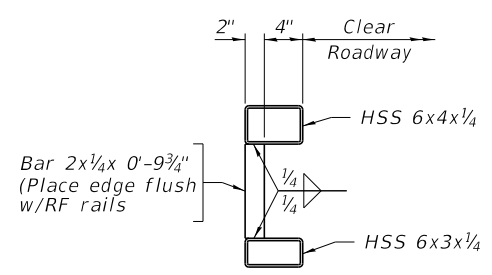
TOP VIEW **END VIEW**
STANDARD SLEEVE DETAILS



TOP VIEW



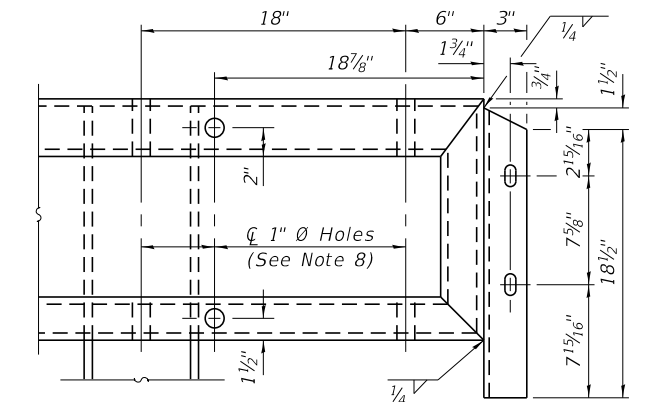
SECTION C-C



BRACE BAR DETAIL
 (See Note No. 4)

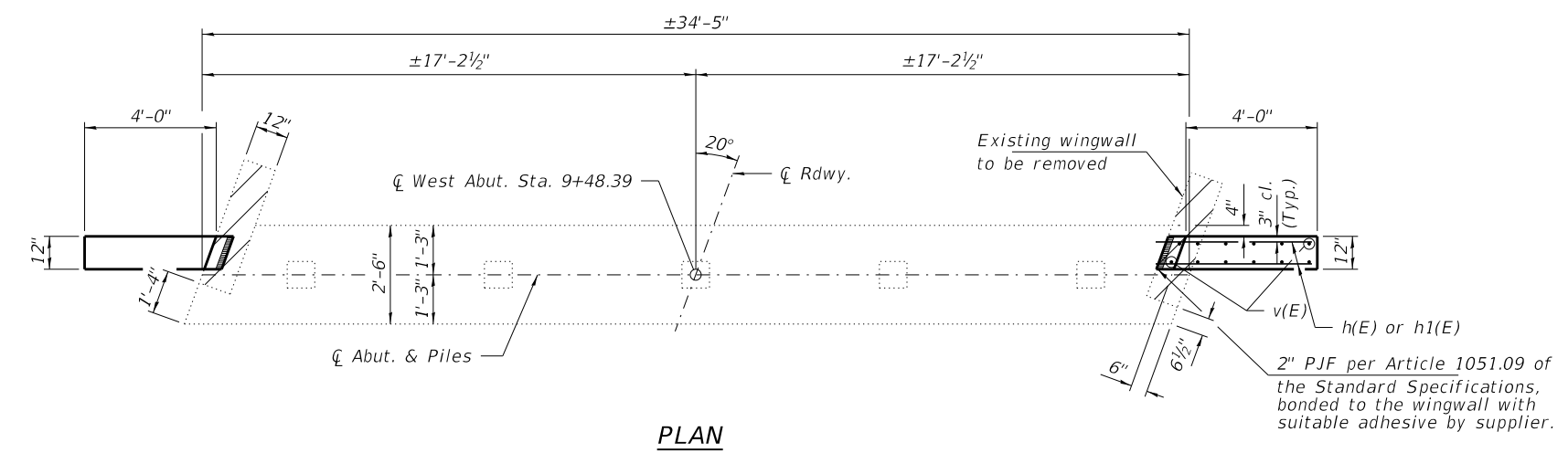
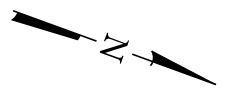
NOTES

- 1) Either top or bottom rail in terminal section may be the longer rail.
- 2) Ensure each rail length is continuous over a minimum of two posts. Railing that is part of a Traffic Barrier Terminal is continuous if either the top or bottom rail in the terminal is continuous over a minimum of two posts.
- 3) Ensure the fabricator prepares a sample of the indicated joint and it is macro etched to demonstrate that the required effective throat is achieved.
- 4) Ensure a Brace Bar is placed 2'-0" from the splice end of the shorter tube at Traffic Barrier Terminals.
- 5) Splices may be located on either side of post.
- 6) Not more than one splice is permitted per side of post.
- 7) Do not shop splice rails.
- 8) Holes in steel railing may be field drilled for connection to Traffic Barrier Terminals. Any galvanized steel exposed or damaged by drilling operation shall be painted with two coats of a zinc-rich paint conforming to ASTM A 780.



FRONT VIEW
END CONNECTION ANGLES

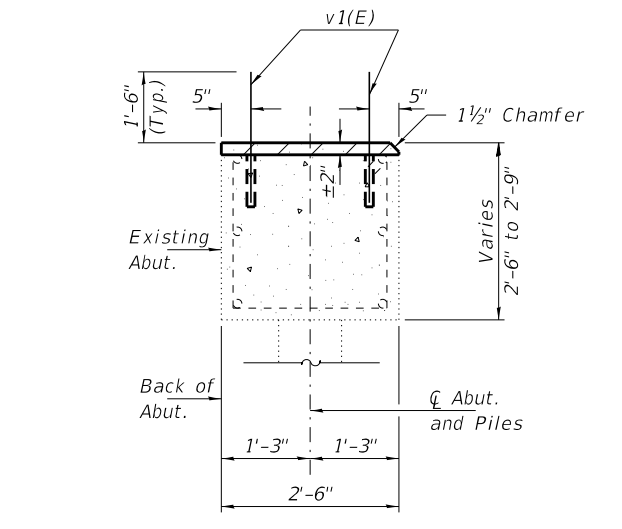
MODEL: 1408ELNAMES
 FILE NAME: 153107-215-hdfigs.dgn



PLAN

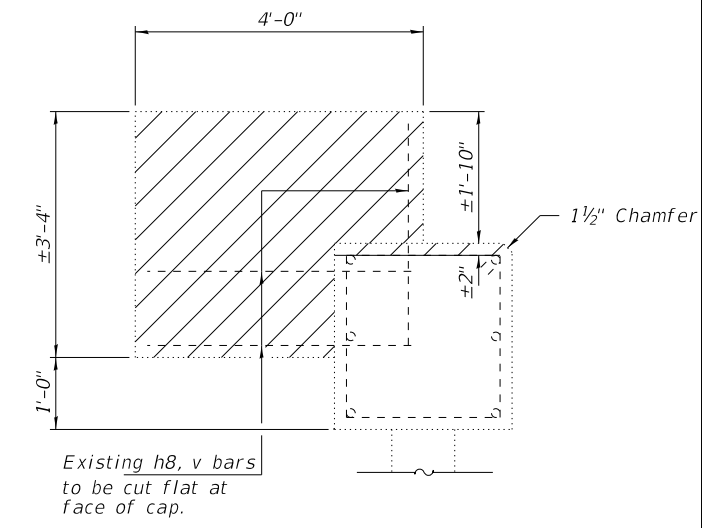
NOTES

1. Modifications to the abutments requires the removal of the existing wingwalls at each abutment and construction of new wingwalls. New construction will also require drilling and epoxy grouting reinforcement into the existing abutments.
2. Epoxy grout reinforcement bars according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5,000 lb. A depth of embedment of 8" for the #5 bars has been assumed to determine bar lengths and quantities. The actual depth will be dependent on the selected chemical adhesive and approval of the Engineer. Cost for drilling and grouting reinforcement bars included in the pay item Reinforcement Bars, Epoxy Coated.
3. For drainage detail behind the abutments, see Section Thru Abutment on Sheet 2 of 10.

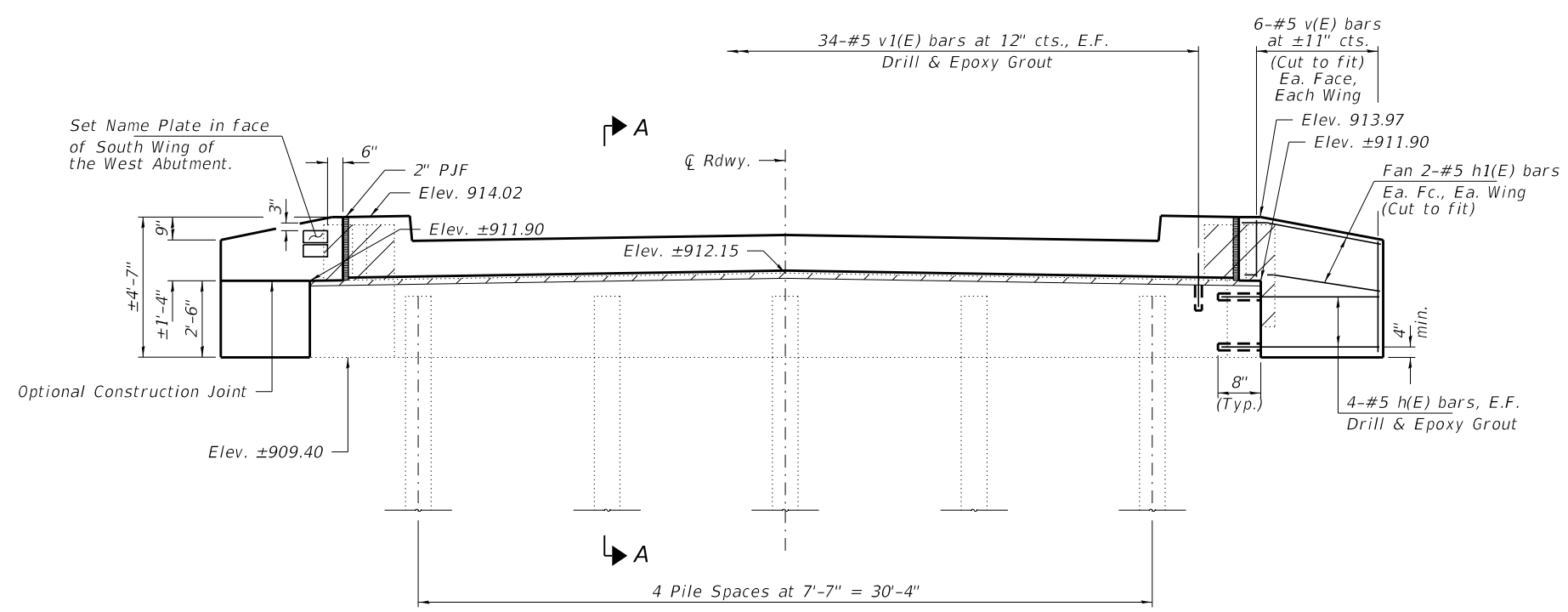


SECTION A-A

Dimensions at right angles to abutment.



EXISTING WING ELEVATION
 Showing existing wingwall dimensions



ELEVATION
 (Looking West)

Indicates Concrete Removal

BILL OF MATERIAL - W. ABUT.

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---------------------------|-----|------|---------|-------|
| h(E) | 16 | #5 | 4'-6" | ———— |
| h1(E) | 8 | #5 | 4'-9" | ———— |
| v(E) | 24 | #5 | 4'-5" | ———— |
| v1(E) | 68 | #5 | 2'-4" | ———— |
| Concrete Removal | | | Cu. Yd. | 1.1 |
| Protective Coat | | | Sq. Yd. | 5.0 |
| Concrete Structures | | | Cu. Yd. | 1.3 |
| Reinf. Bars, Epoxy Coated | | | Pound | 390 |

MODEL: 140821.MXD
 FILE: 140821.dwg
 DATE: 11/13/2018 10:25:43 AM

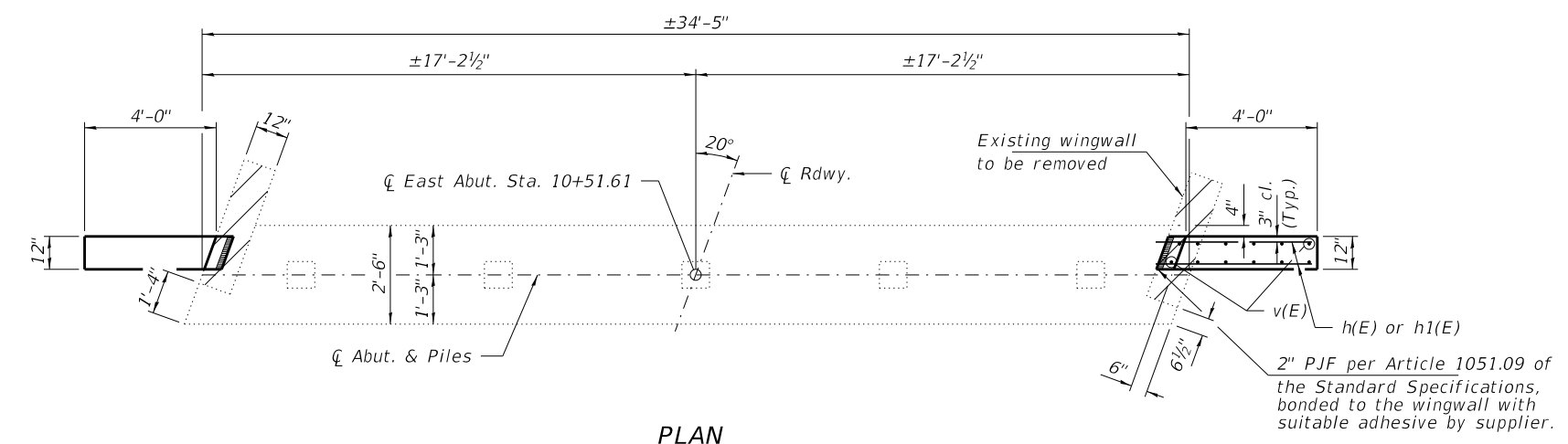
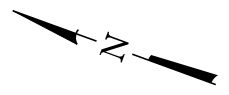
HAMPTON, LENZINI AND RENWICK, INC.
 ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184.000959

| | | |
|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| | CHECKED - J.L.A. | REVISED - |
| PLOT SCALE = | DRAWN - R.D.H. | REVISED - |
| PLOT DATE = 11/13/2018 | CHECKED - A.E.U. | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
STRUCTURE NO. 056-3118
 SHEET NO. 8 OF 15 SHEETS

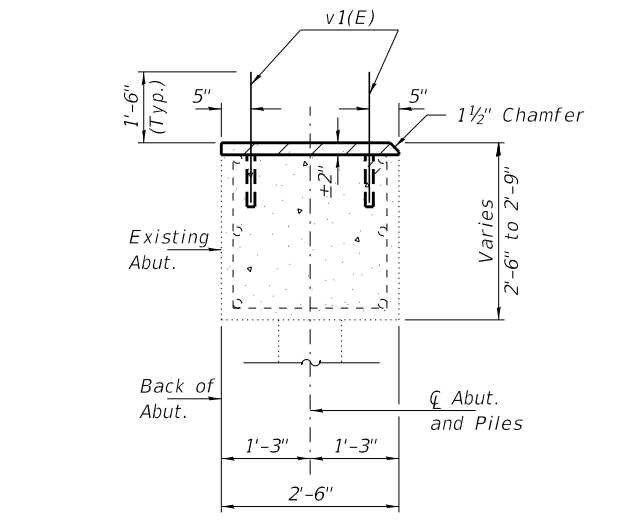
| | | | | |
|----------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 22 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |



PLAN

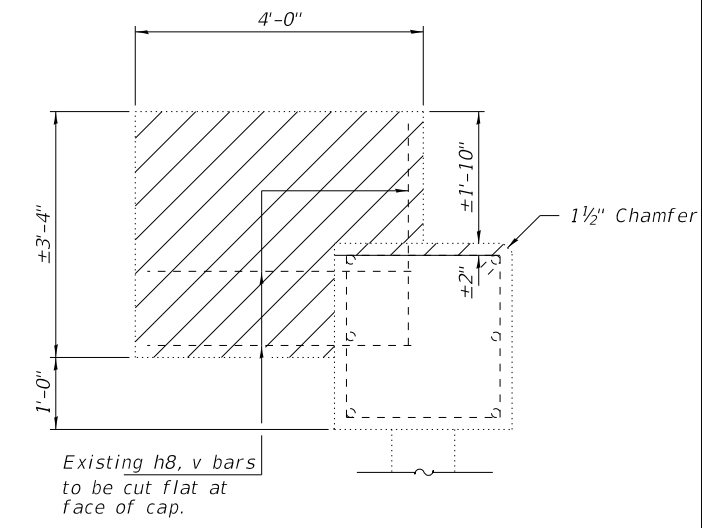
NOTES

1. Modifications to the abutments requires the removal of the existing wingwalls at each abutment and construction of new wingwalls. New construction will also require drilling and epoxy grouting reinforcement into the existing abutments.
2. Epoxy grout reinforcement bars according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5,000 lb. A depth of embedment of 8" for the #5 bars has been assumed to determine bar lengths and quantities. The actual depth will be dependent on the selected chemical adhesive and approval of the Engineer. Cost for drilling and grouting reinforcement bars included in the pay item Reinforcement Bars, Epoxy Coated.
3. For drainage detail behind the abutments, see Section Thru Abutment on Sheet 2 of 10.

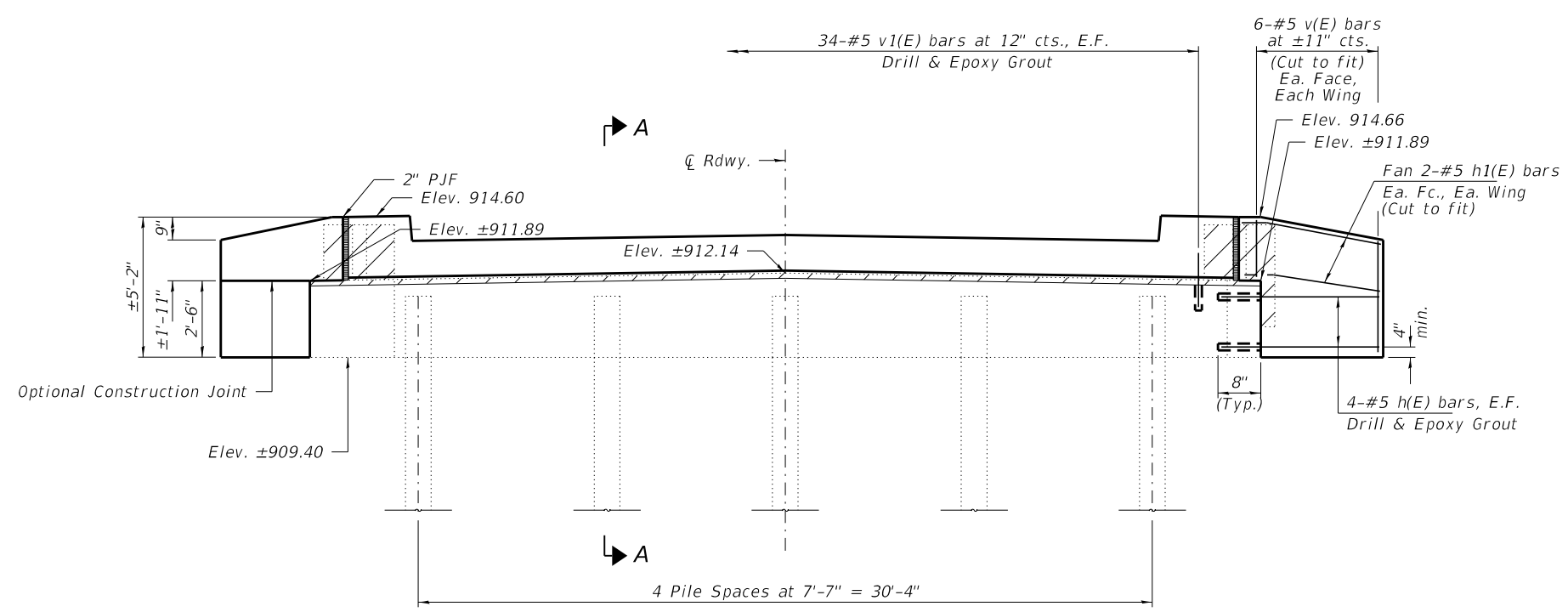


SECTION A-A

Dimensions at right angles to abutment.



EXISTING WING ELEVATION
Showing existing wingwall dimensions



ELEVATION
(Looking East)

Indicates Concrete Removal

BILL OF MATERIAL - E. ABUT.

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---------------------------|-----|------|---------|-------|
| h(E) | 16 | #5 | 4'-6" | — |
| h1(E) | 8 | #5 | 4'-9" | — |
| v1(E) | 68 | #5 | 2'-4" | — |
| v2(E) | 24 | #5 | 4'-10" | — |
| Concrete Removal | | | Cu. Yd. | 1.1 |
| Protective Coat | | | Sq. Yd. | 6.0 |
| Concrete Structures | | | Cu. Yd. | 1.5 |
| Reinf. Bars, Epoxy Coated | | | Pound | 400 |

MODEL: 140821.MXD
FILE: 140821.DWG
DATE: 11/13/2018

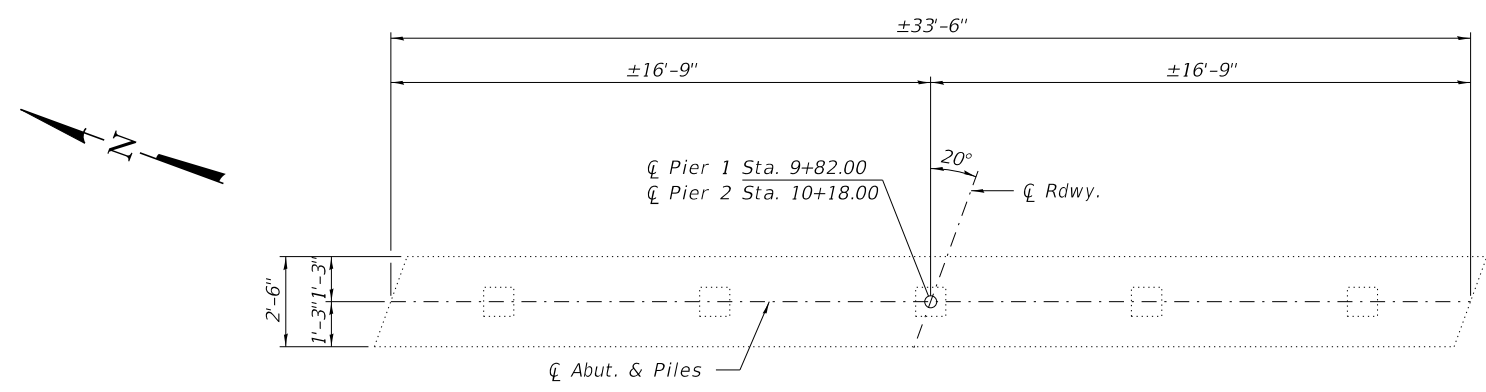
HAMPTON, LENZINI AND RENWICK, INC.
 ELGIN · SPRINGFIELD · WOODRIDGE · MT CARMEL
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184.000959

| | | |
|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| PLOT SCALE = | CHECKED - J.L.A. | REVISED - |
| PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISED - |
| | CHECKED - A.E.U. | REVISED - |

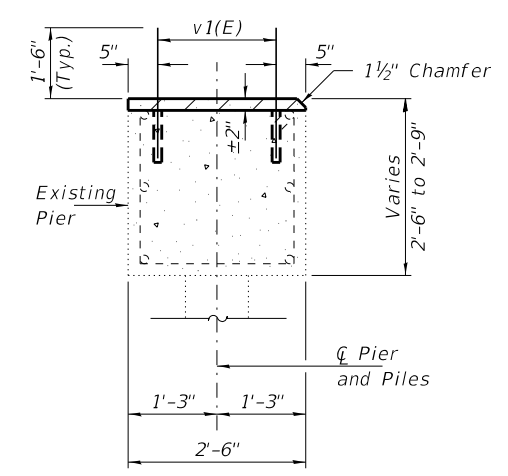
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT
STRUCTURE NO. 056-3118
SHEET NO. 9 OF 15 SHEETS

| | | | | |
|----------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 23 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |

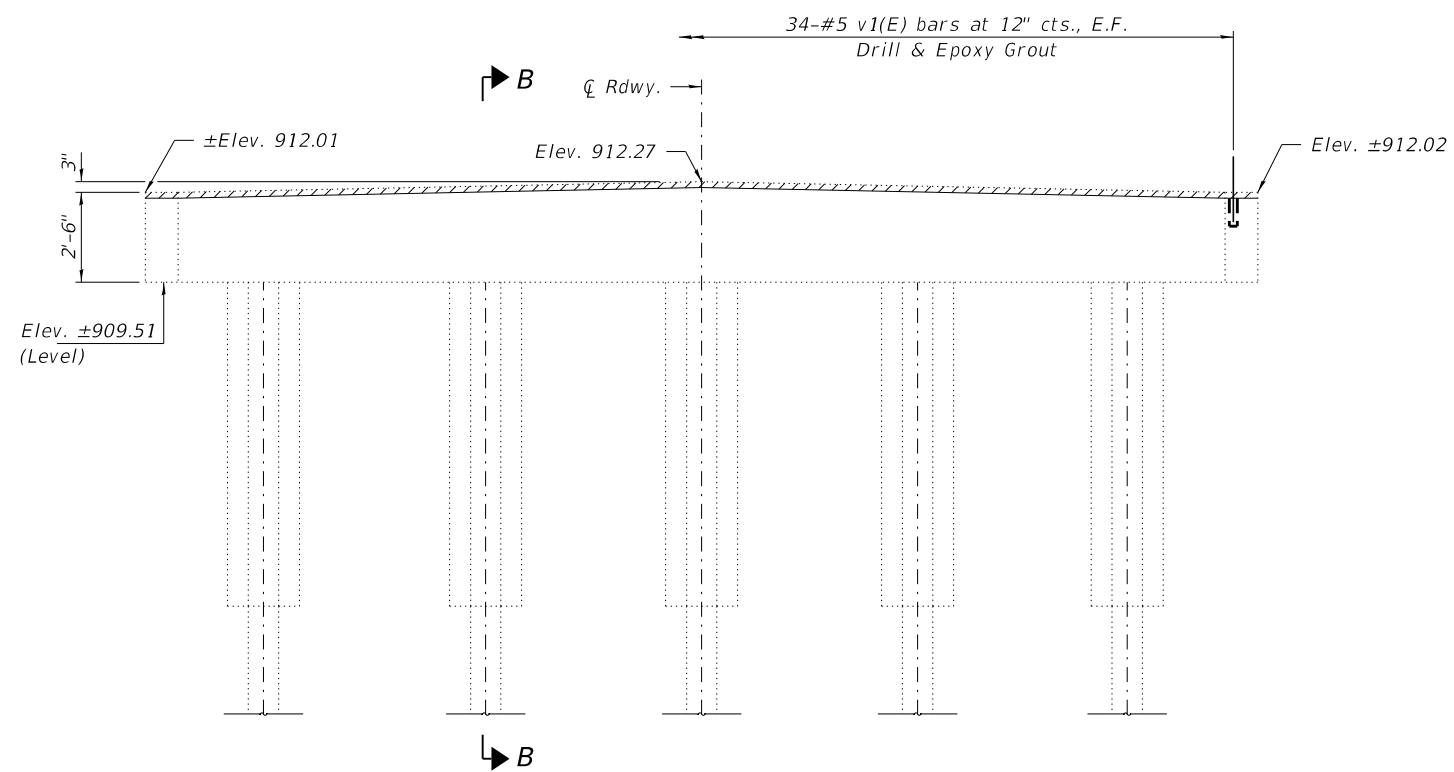


PLAN



SECTION B-B

Dimensions at right L's to Pier.



ELEVATION
(Looking East)

Indicates Concrete Removal

NOTE:

Epoxy grout reinforcement bars according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5,000 lb. A depth of embedment of 8" for the #5 bars has been assumed to determine bar lengths and quantities. The actual depth will be dependent on the selected chemical adhesive and approval of the Engineer. Cost for drilling and grouting reinforcement bars included in the pay item Reinforcement Bars, Epoxy Coated.

BILL OF MATERIAL - 2 PIERS

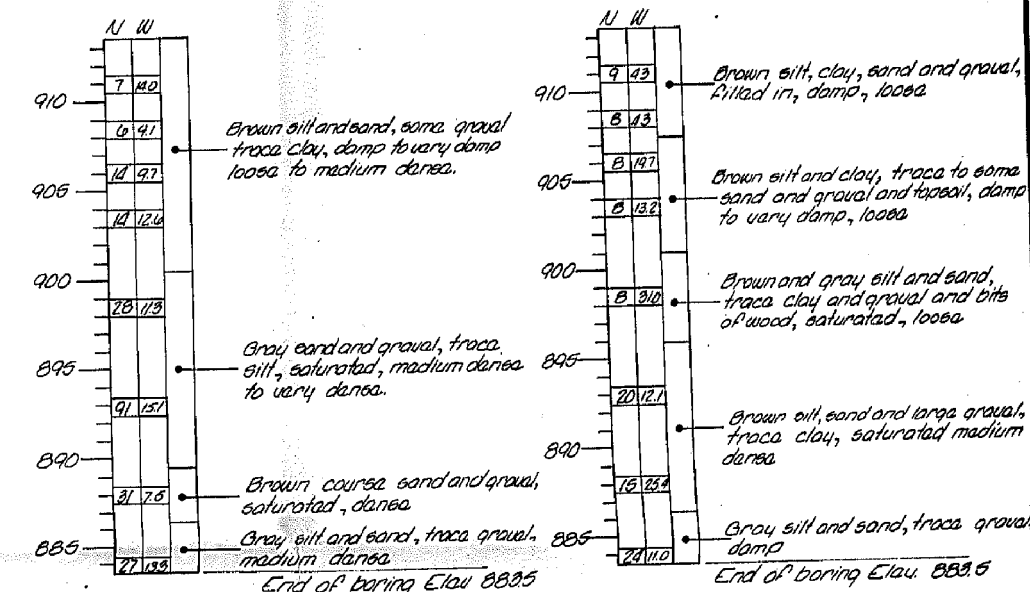
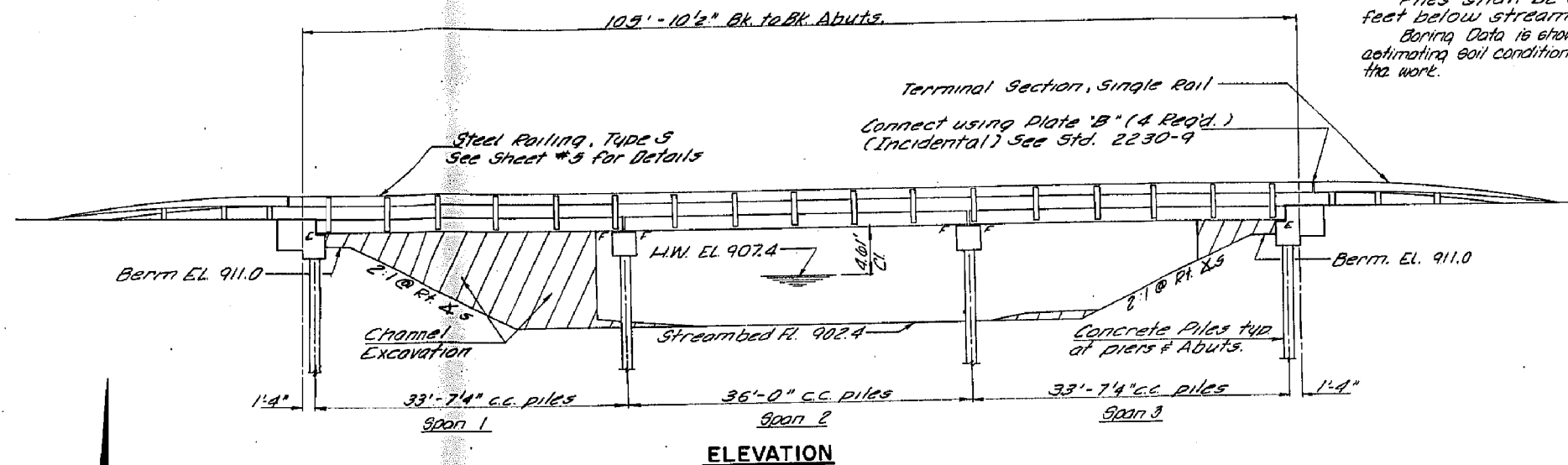
| BAR | NO. | SIZE | LENGTH | SHAPE |
|---------------------------|-----|------|---------|-------|
| v1(E) | 136 | #5 | 2'-4" | — |
| Concrete Removal | | | Cu. Yd. | 0.4 |
| Reinf. Bars, Epoxy Coated | | | Pound | 330 |

MODEL: 140821.MXD
 FILE: 140821-01.dwg

| | | | | |
|-------------------------|------|---------|-----------|-----------|
| ROUTE NO. | SEC. | COUNTY | POST MILE | SHEET NO. |
| O'BRIEN ROAD | 200 | McHenry | 7 | 9 |
| ROAD DISTRICT HEBRON | | | | |

GENERAL NOTES

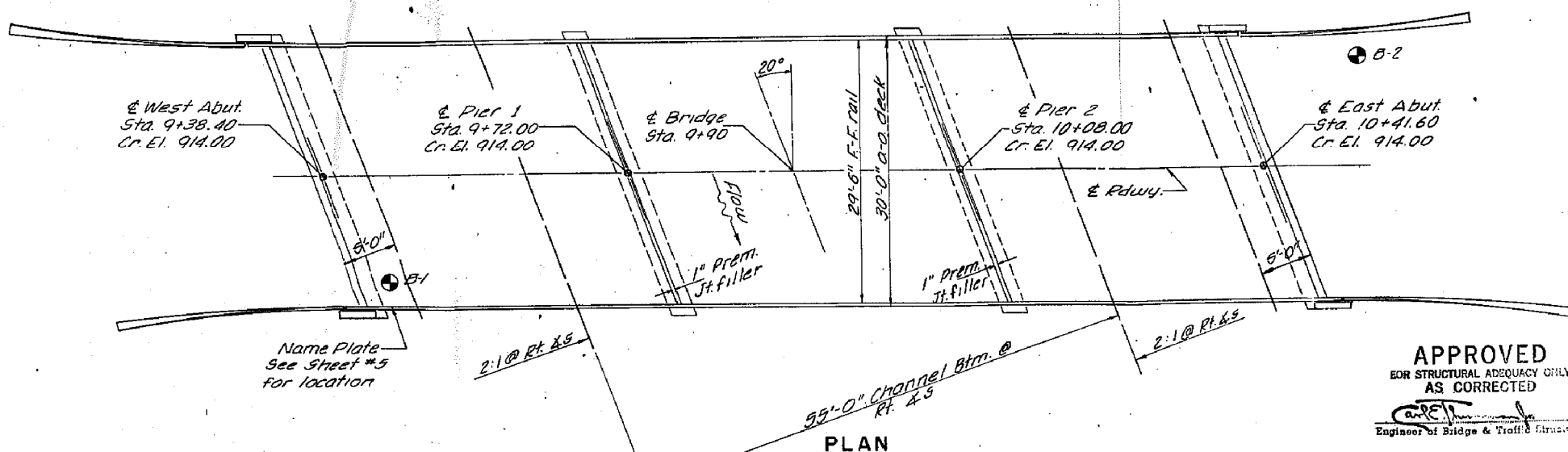
Class X Concrete shall be used in the pier caps and in the abutments.
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 The Contractor shall drive one concrete test pile in a permanent location at pier #1 as directed by the Engineer before ordering the remainder of the piles.
 Piles shall be driven a minimum of 15 feet below streambed.
 Boring Data is shown only as a guide for bidders in estimating soil conditions which may be encountered in the work.



BORING DATA
 N = Standard Penetration Test - Blows/ft to drive 2" O.D. split spoon sampler 12" with 140# hammer falling 30"
 W = Water Content - Percentage of oven dry weight

TOTAL BILL OF MATERIAL

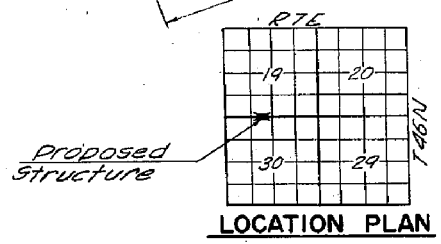
| ITEM | UNIT | SUPER | SUB | TOTAL |
|-------------------------------|----------|-------|-------|-------|
| Precast Concrete Bridge Slab | Sq. Ft. | 3,113 | | 3,113 |
| Class X Concrete | Cu. Yd. | | 34.0 | 34.0 |
| Reinforcement Bars | Pound | | 3,940 | 3,940 |
| Concrete Piles | Lin. Ft. | | 520 | 520 |
| Test Piles Concrete | Each | | 1 | 1 |
| Steel Railing, Type 3 | Lin. Ft. | 217 | | 217 |
| Terminal Section, Single Rail | Each | | | 4 |
| Name Plates | Each | | | 1 |



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 AS CORRECTED
 [Signature]
 Engineer of Bridge & Traffic Structures

WATERWAY DATA

| | |
|--------------------------|--------------|
| Drainage Area | 15,280 Acres |
| Req'd. Opening (15 Yrs.) | 315 Sq. Ft. |
| Present Opening | 270 Sq. Ft. |
| Proposed Opening | 315 Sq. Ft. |
| Computed Discharge | 1,500 C.F.S. |



STRUCTURE NO. 056-3056
 NIPPEBINK CREEK
 O'BRIEN ROAD BUILT 197
 HEBRON RD. DISTRICT
 MCHENRY COUNTY
 LOADING HS 20

LETTERING FOR NAMEPLATE
 See Std. 2113-1

DESIGN STRESSES
 f_c = 4,500 psi. (Precast Slab)
 f_c = 1,400 psi. (Class X Concrete)
 f_s = 20,000 psi. (Reinforcement)
 n = 8 (Precast Slab)
 n = 10 (Class X Concrete)
 Loading HS 20-44
 Fred J. Stone Jr.
 Illinois Structural No. 2934

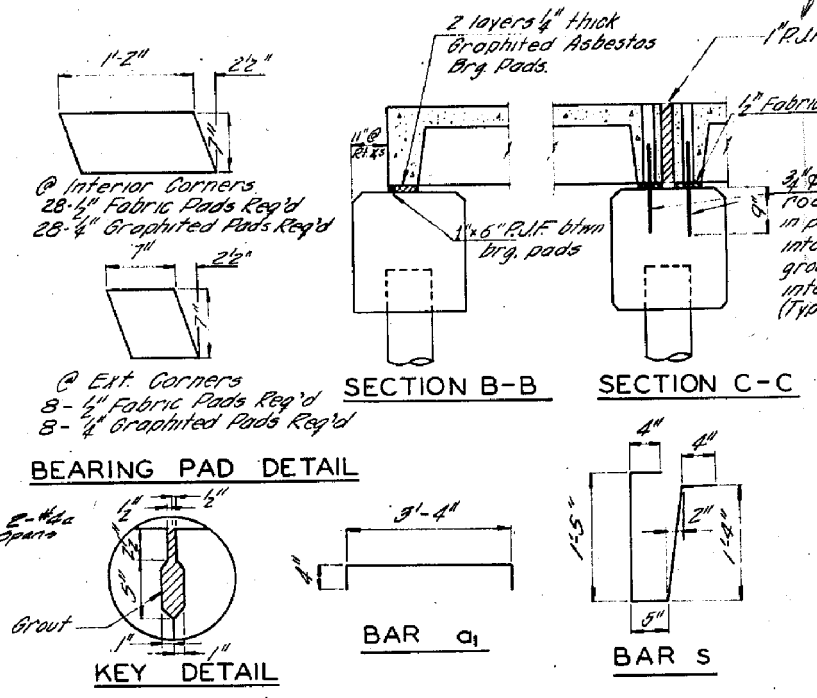
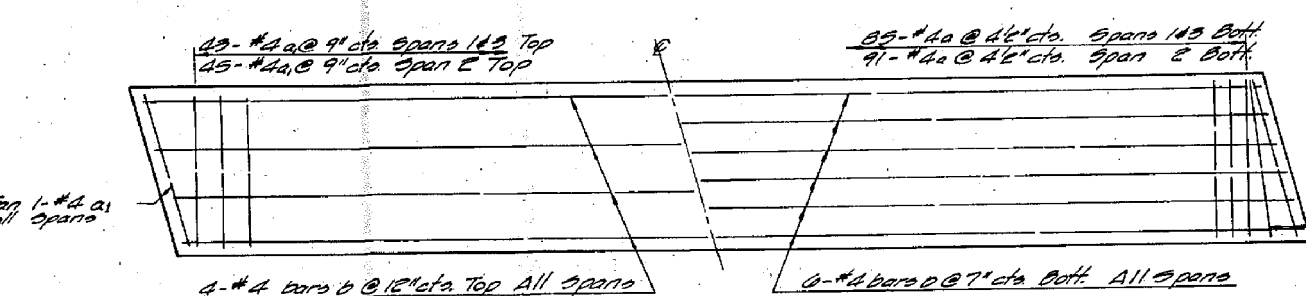
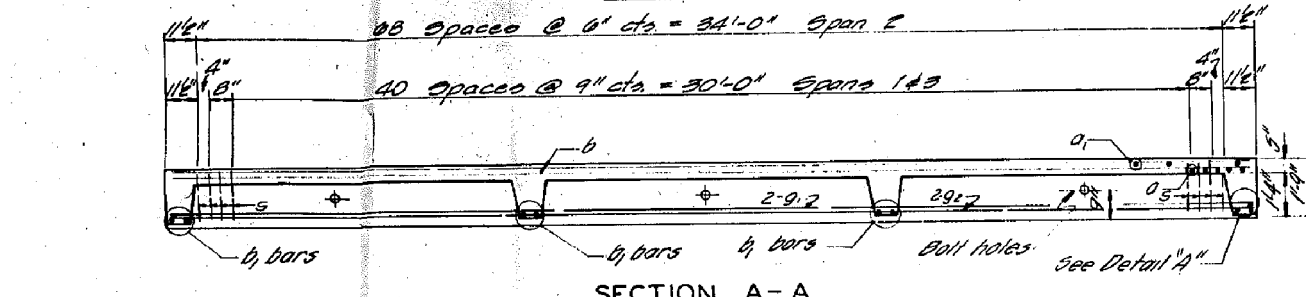
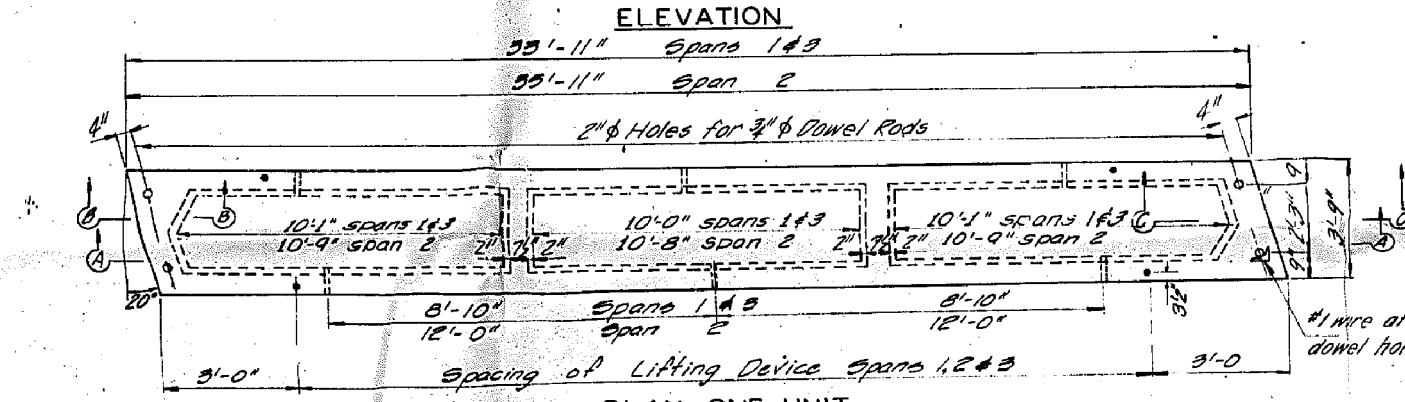
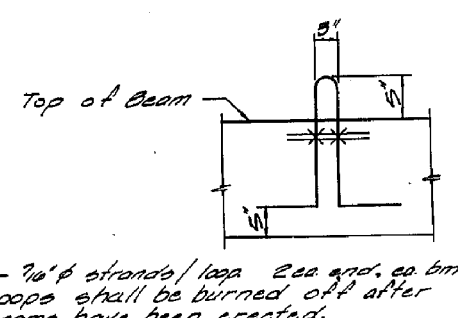
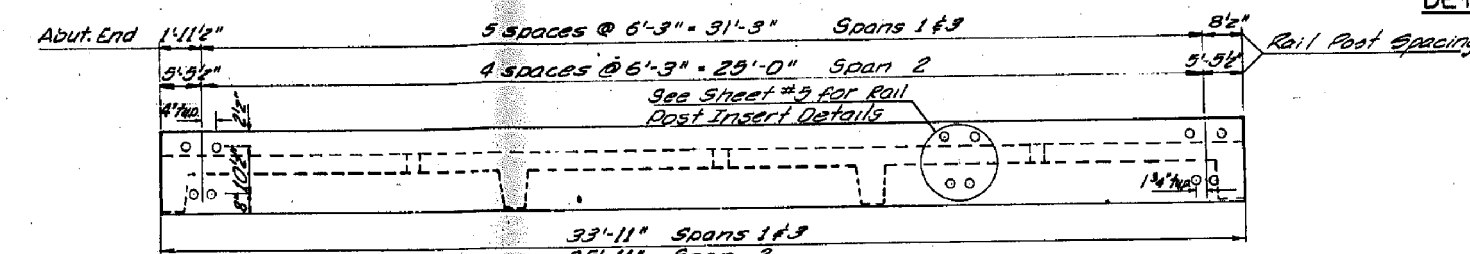
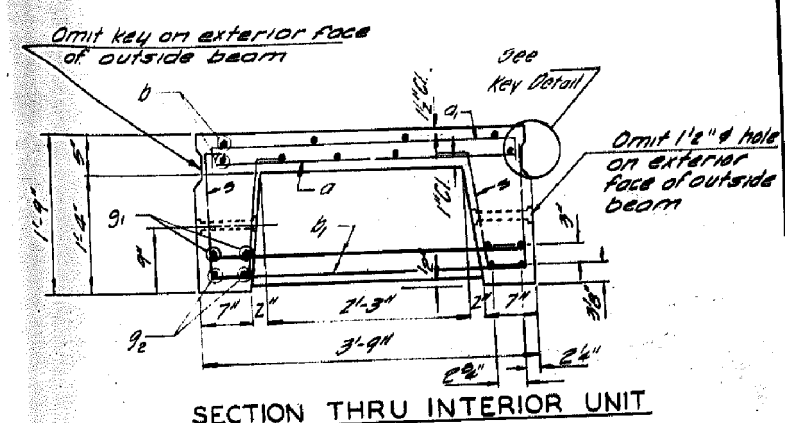
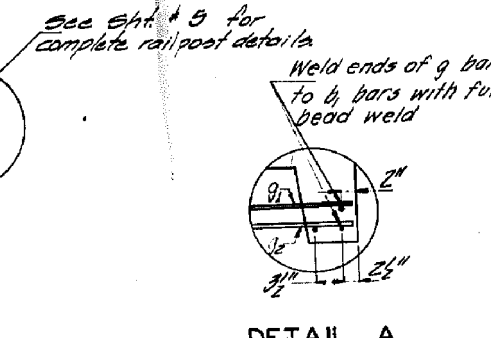
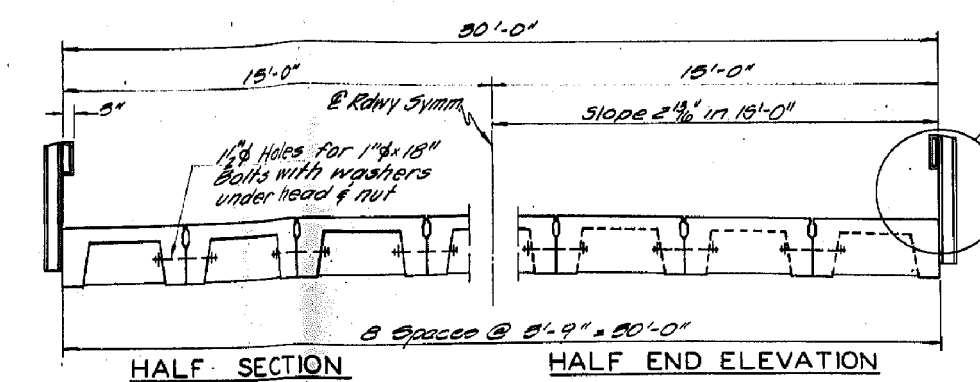


GENERAL PLAN & ELEVATION
 O'BRIEN ROAD
 HEBRON ROAD DISTRICT
 McHENRY COUNTY
 STATION 9+90

COLLINS AND RICE
 CONSULTING ENGINEERS

DESIGNED: F.S. CHECKED: M.B.
 DRAWN: G.M.B. DATE: 2-5-75 NO. 1004

Hampton, Lenzini and Renwick, Inc.
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BILL OF MATERIAL - SUPERSTRUCTURE

| | | |
|------------------------------|--------|-------|
| Precast Concrete Bridge Slab | 59 FT. | 3,113 |
|------------------------------|--------|-------|

***ESTIMATED QUANTITIES**

| | Concrete | Reinf. Cu. Yds. | Bars Lbs. |
|------------------------|----------|-----------------|-----------|
| One Unit (Spans 1 & 3) | 4.6 | 1,980 | |
| One Unit (Span 2) | 4.9 | 2,312 | |

*For information of suppliers of Precast Slab Units only.

BILL OF REINFORCEMENT BARS

| ONE UNIT SPANS 1 & 3 | SPAN 2 | | | | |
|----------------------|--------|--------|--------|--------|--------|
| BAR SIZE | NO. | LENGTH | NO. | LENGTH | |
| a ₁ | #4 | 25 | 4'-0" | 27 | 2'-0" |
| a | #4 | 39 | 3'-5" | 45 | 3'-3" |
| b | #4 | 10 | 35'-6" | 20 | 15'-4" |
| b ₁ | #4 | 10 | 3'-0" | 10 | 3'-6" |
| * g ₁ | #10 | 4 | 35'-6" | 4 | 35'-7" |
| * g ₂ | #11 | 4 | 35'-6" | 2 | 35'-7" |
| s | #3 | 90 | 3'-10" | 138 | 3'-10" |

* Note: g bar in Span 2 is size # 11.

SUPERSTRUCTURE
 O'BRIEN ROAD
 HEBRON ROAD DISTRICT
 McHENRY COUNTY
 STATION 9+90

COLLINS AND RICE
 CONSULTING ENGINEERS

PREPARED: F.S.
 DRAWN: L.J.E.

CHECKED: M.B.
 DATE: 2-5-75

NO. 1004

Hampton, Lenzini and Renwick, Inc.
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MODEL: STORE NAMES
 FILE NAME: 151017-015-bridge.dwg

HAMPTON, LENZINI AND RENWICK, INC.
 ELGIN, SPRINGFIELD
 WOODRIDGE, MT CARMEL
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184-00959

USER NAME = steves
 PLOT SCALE =
 PLOT DATE = 11/13/2018

DESIGNED - A.E.U.
 CHECKED - J.L.A.
 DRAWN - R.D.H.
 CHECKED - A.E.U.

REVISED -
 REVISED -
 REVISED -
 REVISED -

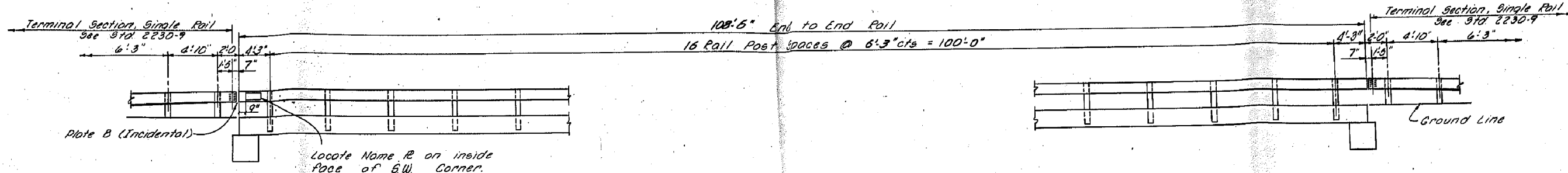
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 056-3056
 SHEET NO. 12 OF 15 SHEETS

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 26 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |

ILLINOIS FED. AID PROJECT

| | | | | |
|-------------------|------|---------|--------------|-----------|
| ROUTE NO. | SEC. | COUNTY | TOTAL SHEETS | SHEET NO. |
| 01 | 200 | McHENRY | 7 | 5 |
| ROAD DIST. HEBRON | | | | |



ELEVATION
Showing inside face of rail

NOTES

1. Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

2. All other steel shapes and plates shall conform to the requirements of AASHTO designation M-183 except posts shall conform to AASHTO M-183.

3. Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to ASTM designation A-325.

4. All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO designation M-292.

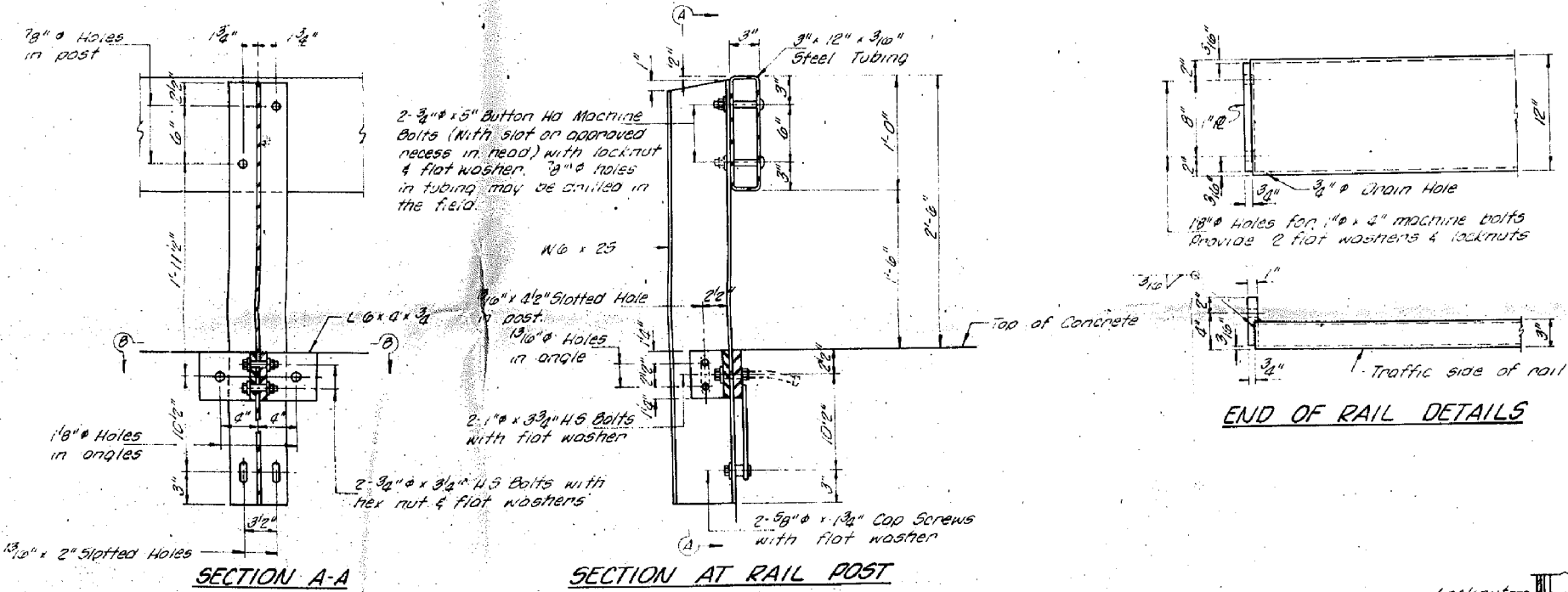
5. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation A-333 (AASHTO M-111). Galvanized rail shall not be painted.

6. Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE 5.

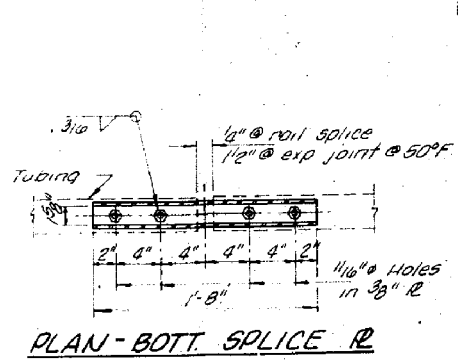
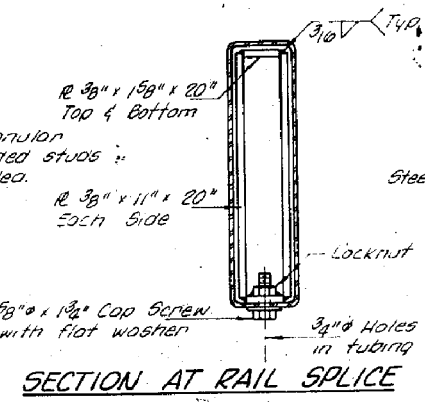
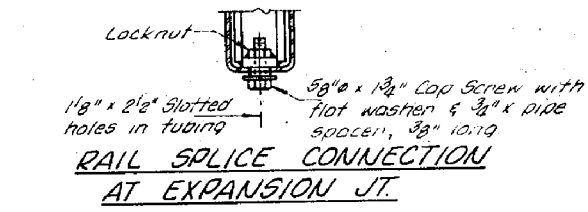
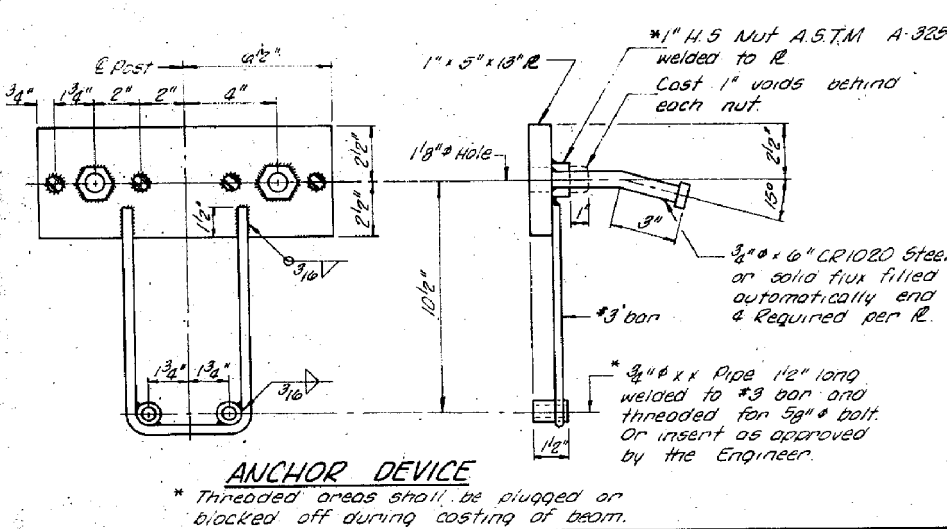
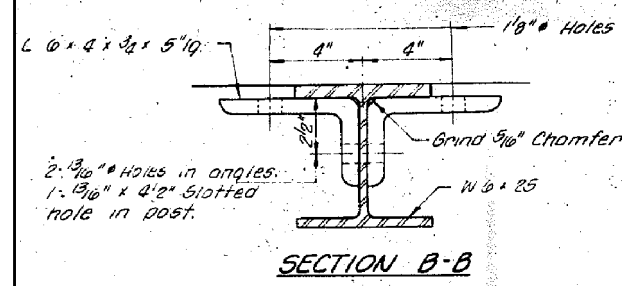
7. All field drilled holes shall be coated with an approved zinc rich paint before erection.

8. The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B on place 1/8" fabric bearing pad between the post and concrete.

9. The 3/8" high strength bolts used to connect the 4x3/8 angles to the post shall be tightened in accordance with Article 710.11 of the Standard Specifications. The 1" high strength bolts connecting the angle to the concrete shall be tightened to a snug fit and given an additional 1/8 turn.



END OF RAIL DETAILS



BILL OF MATERIAL

| Item | Unit | Quantity |
|-----------------------|--------|----------|
| Steel Railing, Type 5 | Lin Ft | 217 |

STEEL RAILING, TYPE 5
O'BRIEN ROAD
HEBRON ROAD DISTRICT
Mc HENRY COUNTY
STATION 9+90

COLLINS AND RICE
CONSULTING ENGINEERS

DESIGNED: F.B. CHECKED: M.B.
DATE: 2-5-76 NO. 1004

Hampton, Lenzi and Renwick, Inc.
Civil & Structural Engineers, Land Surveyors, Environmental Services
ELGIN, SPRINGFIELD, WOODRIDGE, MT CARMEL
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MODEL: ST06ELNAMES
FILE: NAME: 150107-215-bridge.dwg

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|--|------------------------|-------------------|-----------|
| HAMPTON, LENZINI AND RENWICK, INC. ELGIN, SPRINGFIELD, WOODRIDGE, MT CARMEL ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959 | USER NAME = steves | DESIGNED - A.E.U. | REVISIONS |
| | PLOT SCALE = | CHECKED - J.L.A. | REVISIONS |
| | PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISIONS |
| | | CHECKED - A.E.U. | REVISIONS |

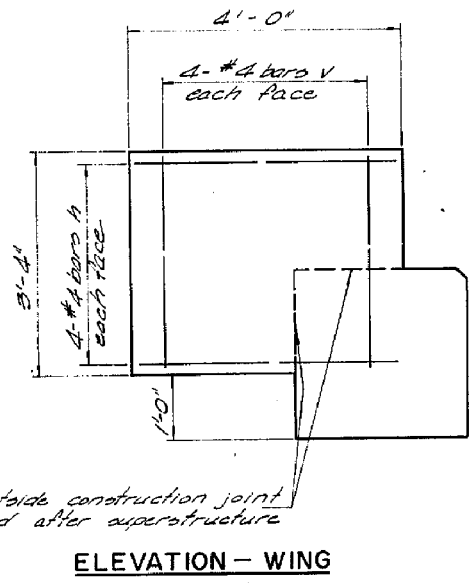
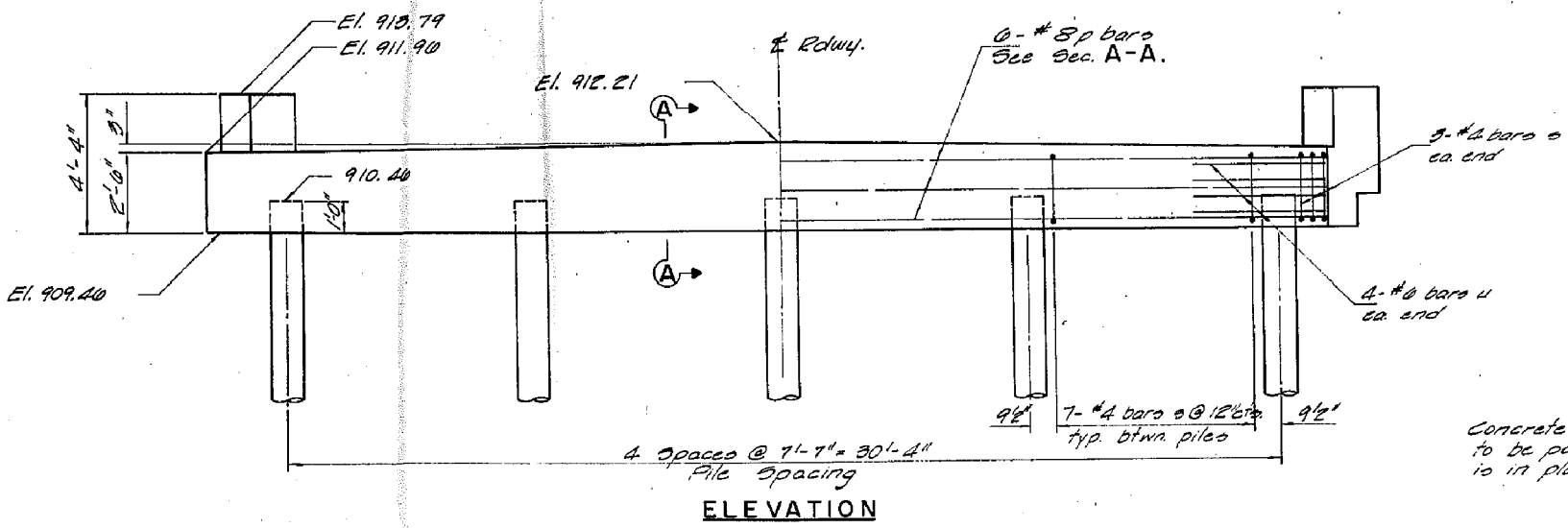
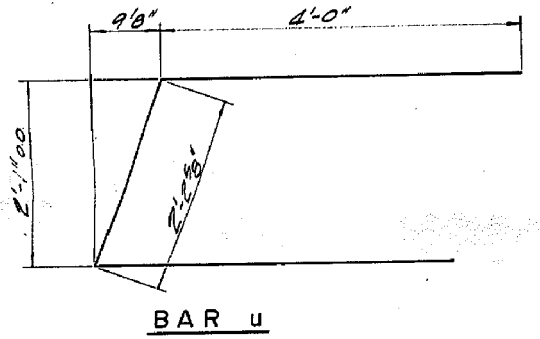
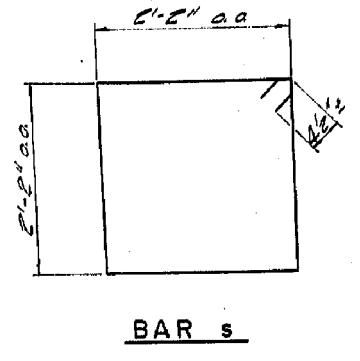
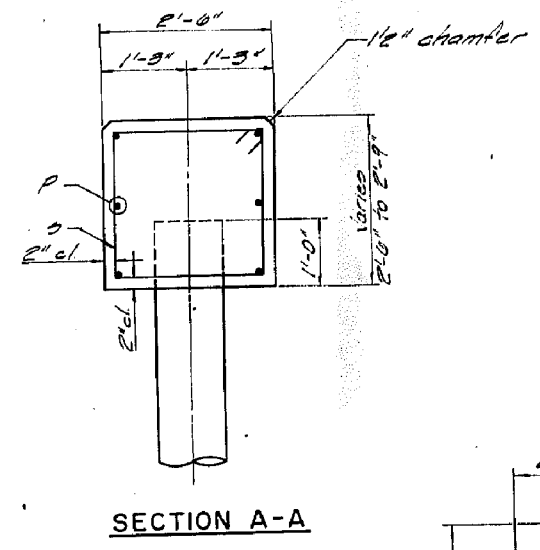
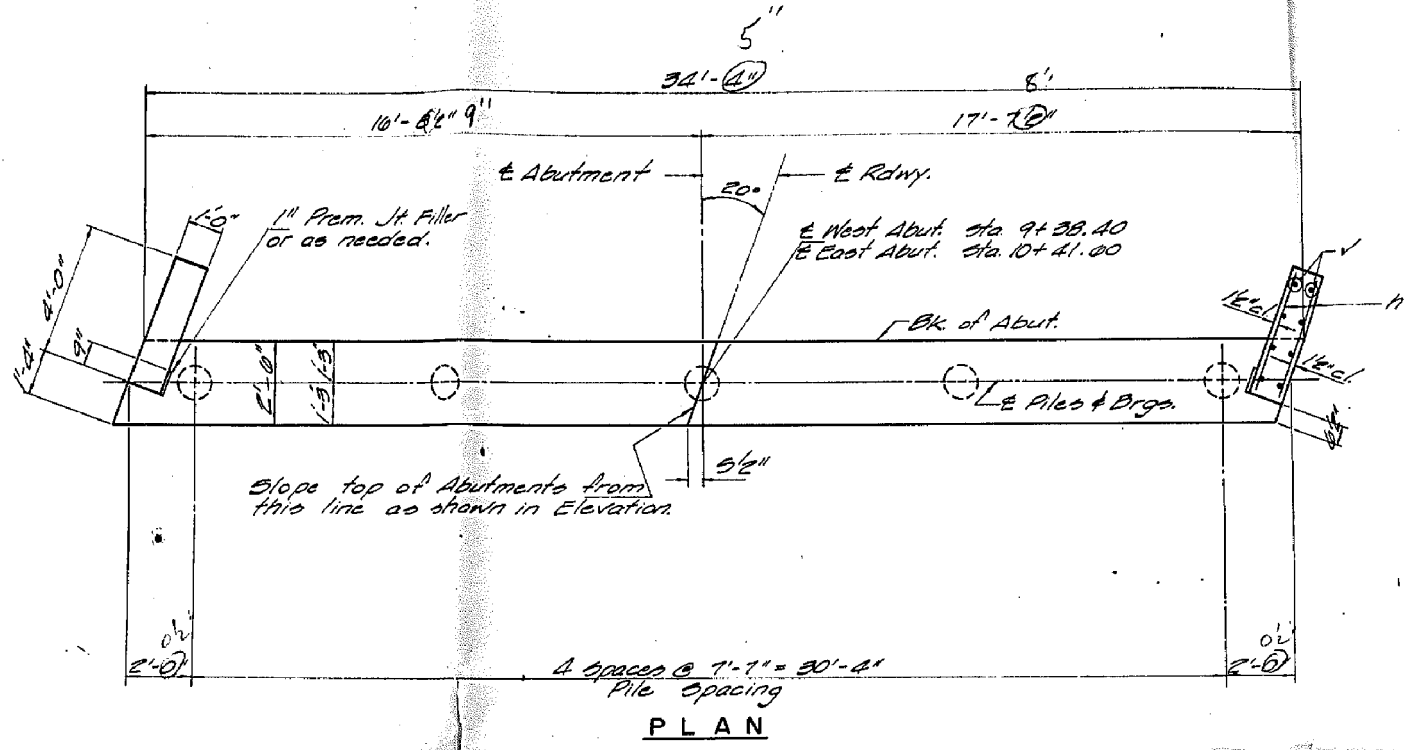
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 056-3056
SHEET NO. 13 OF 15 SHEETS

| | | | | |
|---------------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 27 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |

| | | | | |
|-------------------|------|---------|--------------|-----------|
| ROUTE NO. | DIS. | COUNTY | TOTAL SHEETS | SHEET NO. |
| 0' BRIEN ROAD | 2000 | McHENRY | 7 | 6 |
| ROAD DIST. HEBRON | | | | |

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BILL OF MATERIAL -- 2 ABUTS

| BAR | NO. | SIZE | LENGTH | SHAPE | |
|--------------------------|-----|------|--------|--------|-------|
| P | 12 | #8 | 34'-0" | | |
| h | 32 | #4 | 5'-9" | | |
| v | 32 | #4 | 5'-1" | | |
| u | 10 | #8 | 10'-5" | | |
| s | 08 | #4 | 9'-5" | | |
| Class X Concrete | | | | Cu Yd | 18.0 |
| Reinforcement Bars Paint | | | | | 1.910 |
| Concrete Piles | | | | Lin Ft | 250 |

PILE DATA

| | |
|--------------------|----------------|
| Type | Concrete |
| No. Reqd (2 Abuts) | 10 |
| Min. Capacity | 23 tons / Pile |
| Est. Length | 25 Feet / Pile |

ABUTMENTS
 O'BRIEN ROAD
 HEBRON ROAD DISTRICT
 McHENRY COUNTY
 STATION 9+90

COLLINS AND RICE
 CONSULTING ENGINEERS

DESIGNED: F.B. L.J.E. CHECKED: M.B. DATE: 2-5-75 NO. 1004

HAMPTON, LENZINI AND RENWICK, INC.
 ELGIN, SPRINGFIELD, WOODRIDGE, MT CARMEL
 ILLINOIS PROFESSIONAL DESIGN FIRM
 LS / PE / SE CORP. 184.000959

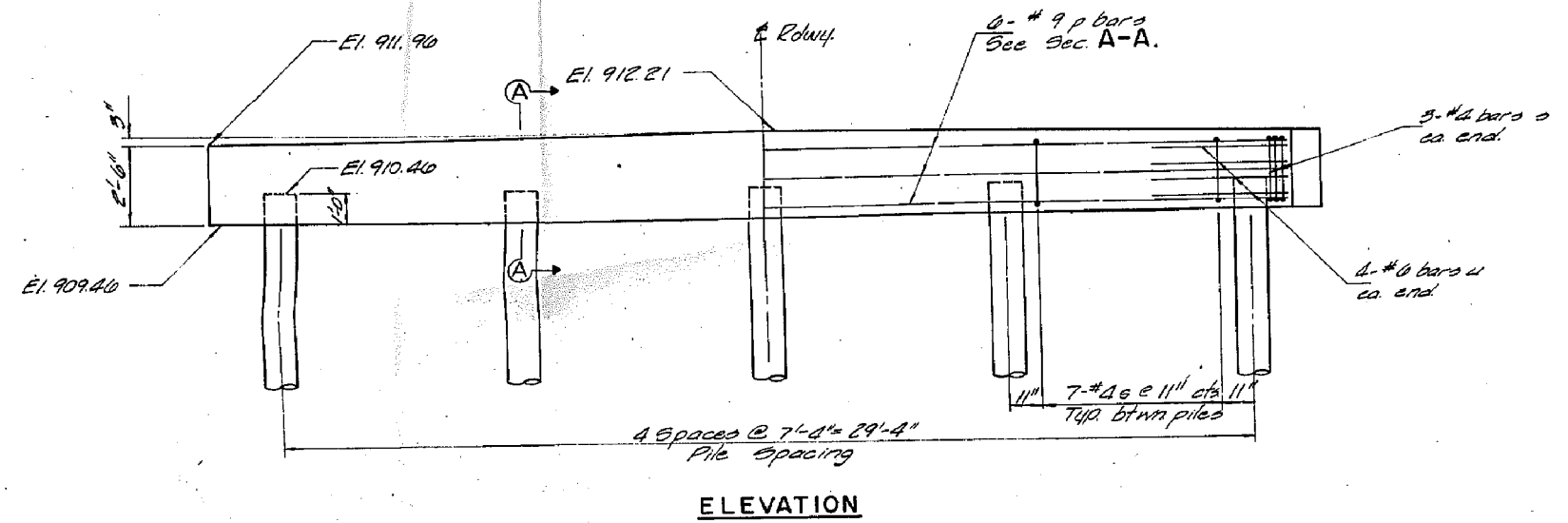
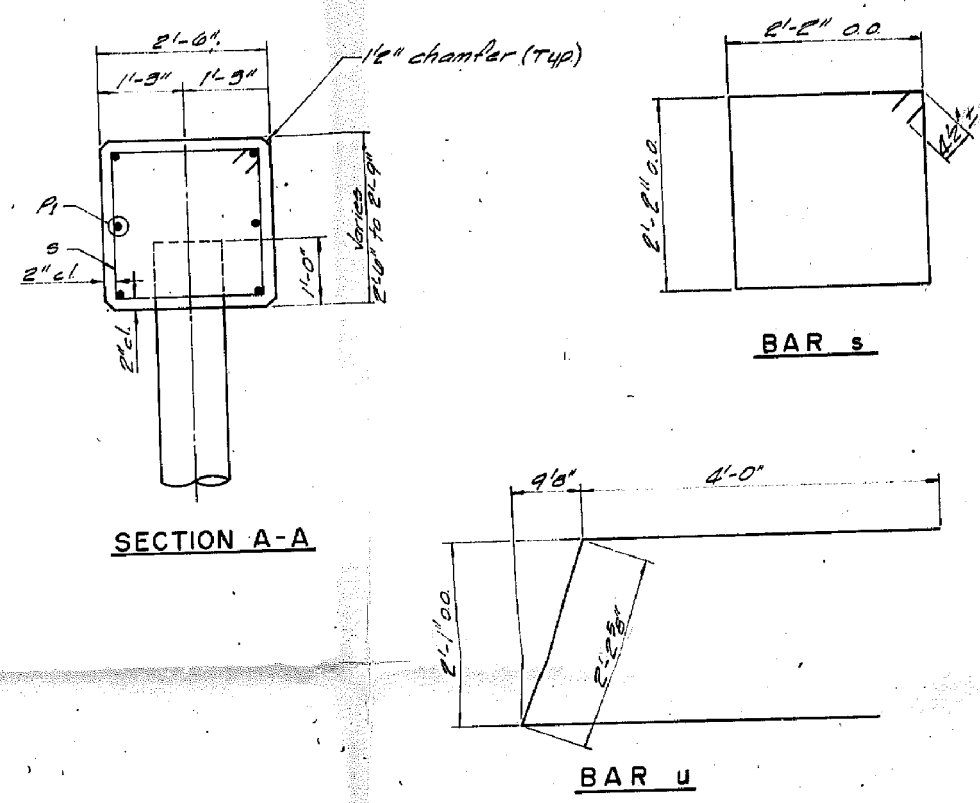
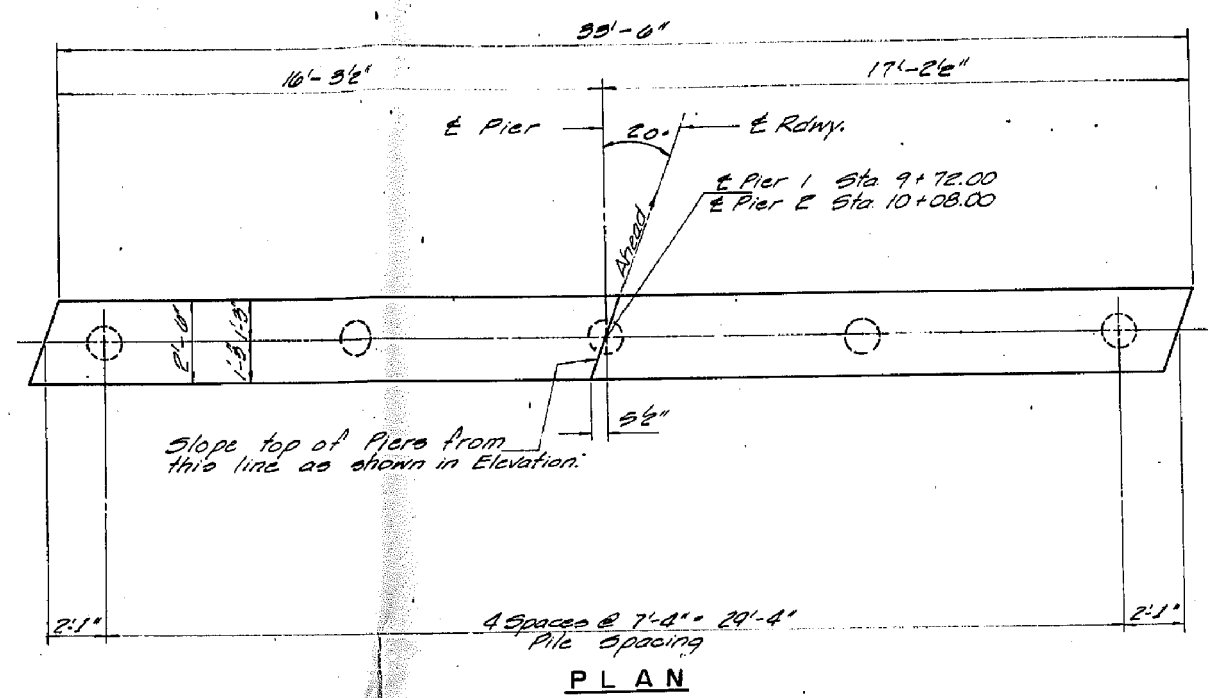
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| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| PLOT SCALE = | CHECKED - J.L.A. | REVISED - |
| PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISED - |
| | CHECKED - A.E.U. | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
 STRUCTURE NO. 056-3056

SHEET NO. 14 OF 15 SHEETS

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 28 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |



PILE DATA

| | |
|----------------------|---|
| Type | Concrete |
| No. Req'd. (2 Abut.) | 10 * |
| Min. Capacity | 33 Tons / Pile |
| Est. Length | 30 Feet / Pile pier 1 37' " " pier 2 |

* Includes one concrete test pile to be driven in a permanent location in pier #1.

BILL OF MATERIAL -- 2 PIERS.

| BAR | NO. | SIZE | LENGTH | SHAPE | |
|---------------------|-----|------|--------|----------|-------|
| P | 12 | #9 | 35'-2" | | |
| u | 10 | #10 | 10'-5" | □ | |
| s | 08 | #4 | 9'-5" | □ | |
| Class R Concrete | | | | Cu. Yd. | 16.0 |
| Reinforcement Bars | | | | Pounds | 2,080 |
| Concrete Piles | | | | Lin. Ft. | 210 |
| Test Piles Concrete | | | | Each | 1 |

PIERS
O'BRIEN ROAD
HEBRON ROAD DISTRICT
Mc HENRY COUNTY
STATION 9+90

COLLINS AND RICE
CONSULTING ENGINEERS

DRAWN: F.A. CHECKED: M.B.
DATE: 2-5-75 NO. 1000

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FILE: NAME: 150107.ctb
DATE: 11/13/2018

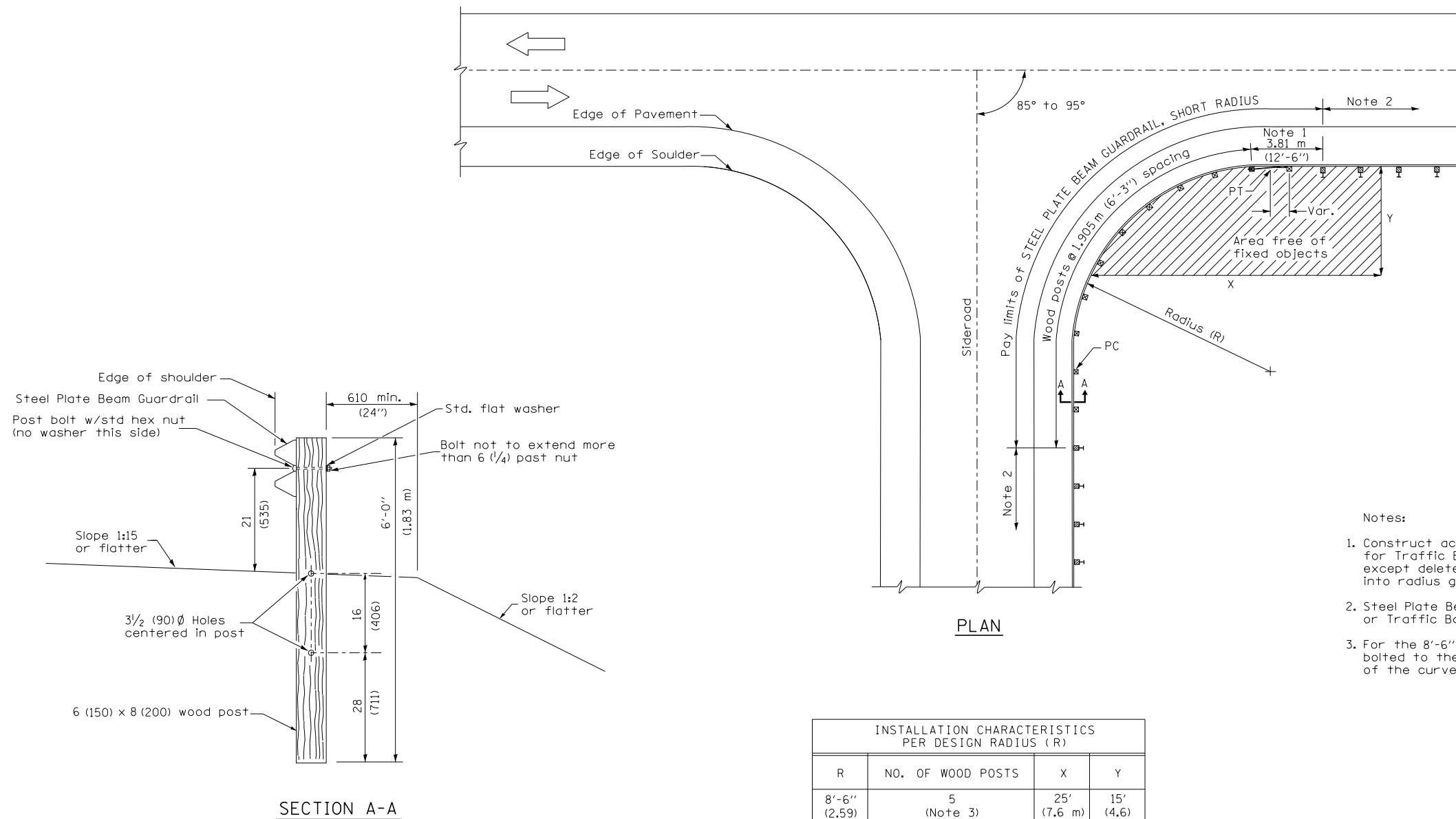
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WOODRIDGE · MT CARMEL
ILLINOIS PROFESSIONAL DESIGN FIRM
LS / PE / SE CORP. 184.000959

| | | |
|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - A.E.U. | REVISED - |
| PLOT SCALE = | CHECKED - J.L.A. | REVISED - |
| PLOT DATE = 11/13/2018 | DRAWN - R.D.H. | REVISED - |
| | CHECKED - A.E.U. | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLANS
STRUCTURE NO. 056-3056
SHEET NO. 15 OF 15 SHEETS

| | | | | |
|---------------------------|----------------|--------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 29 | 14-00432-00-BR | McHENRY | 44 | 29 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |



- Notes:
1. Construct according to Standard 631011 for Traffic Barrier Terminal Type 2, except delete end section and splice into radius guardrail.
 2. Steel Plate Beam Guardrail Type A, Type B, or Traffic Barrier Terminal as specified.
 3. For the 8'-6" (2.59 m) radius, the rail is not bolted to the post located at the midpoint of the curve.

| INSTALLATION CHARACTERISTICS PER DESIGN RADIUS (R) | | | |
|--|-------------------|--------------|-----------|
| R | NO. OF WOOD POSTS | X | Y |
| 8'-6" (2.59) | 5 (Note 3) | 25' (7.6 m) | 15' (4.6) |
| 17'-0" (5.18) | 6 | 30' (9.1 m) | 15' (4.6) |
| 25'-6" (7.77) | 8 | 40' (12.2 m) | 20' (6.1) |
| 35'-0" (10.67) | 11 | 50' (15.2 m) | 20' (6.1) |

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
 All dimensions are in inches (millimeters) unless otherwise shown.

MODEL: ST00ELNAMES
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|------------------------|------------|-----------|
| USER NAME = steves | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

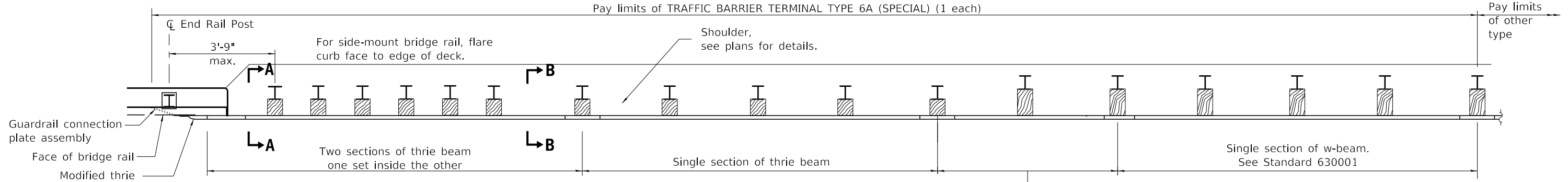
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

| | | | |
|---|---------|-------------|--------------|
| STEEL PLATE BEAM GUARDRAIL, SHORT RADIUS | | | |
| SCALE: N.T.S. | SHEET 1 | OF 1 SHEETS | STA. TO STA. |

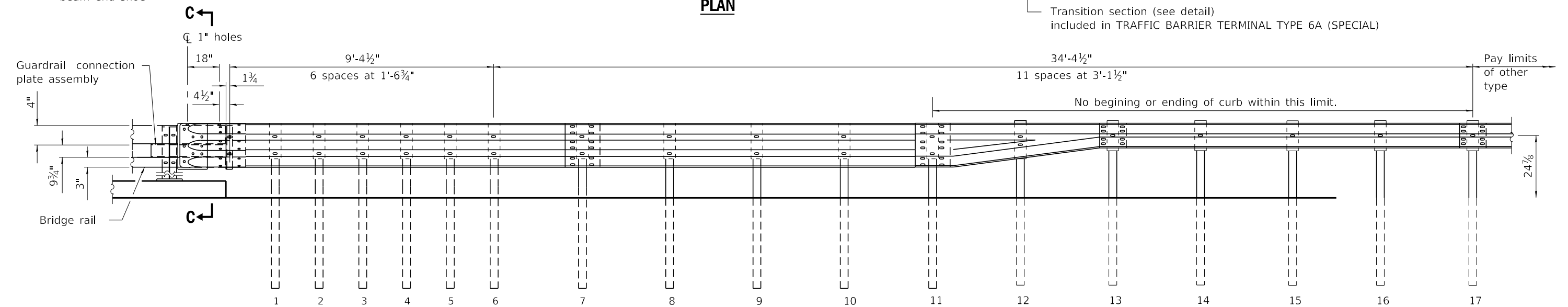
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 30 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |

MCHENRY COUNTY
DIVISION OF TRANSPORTATION

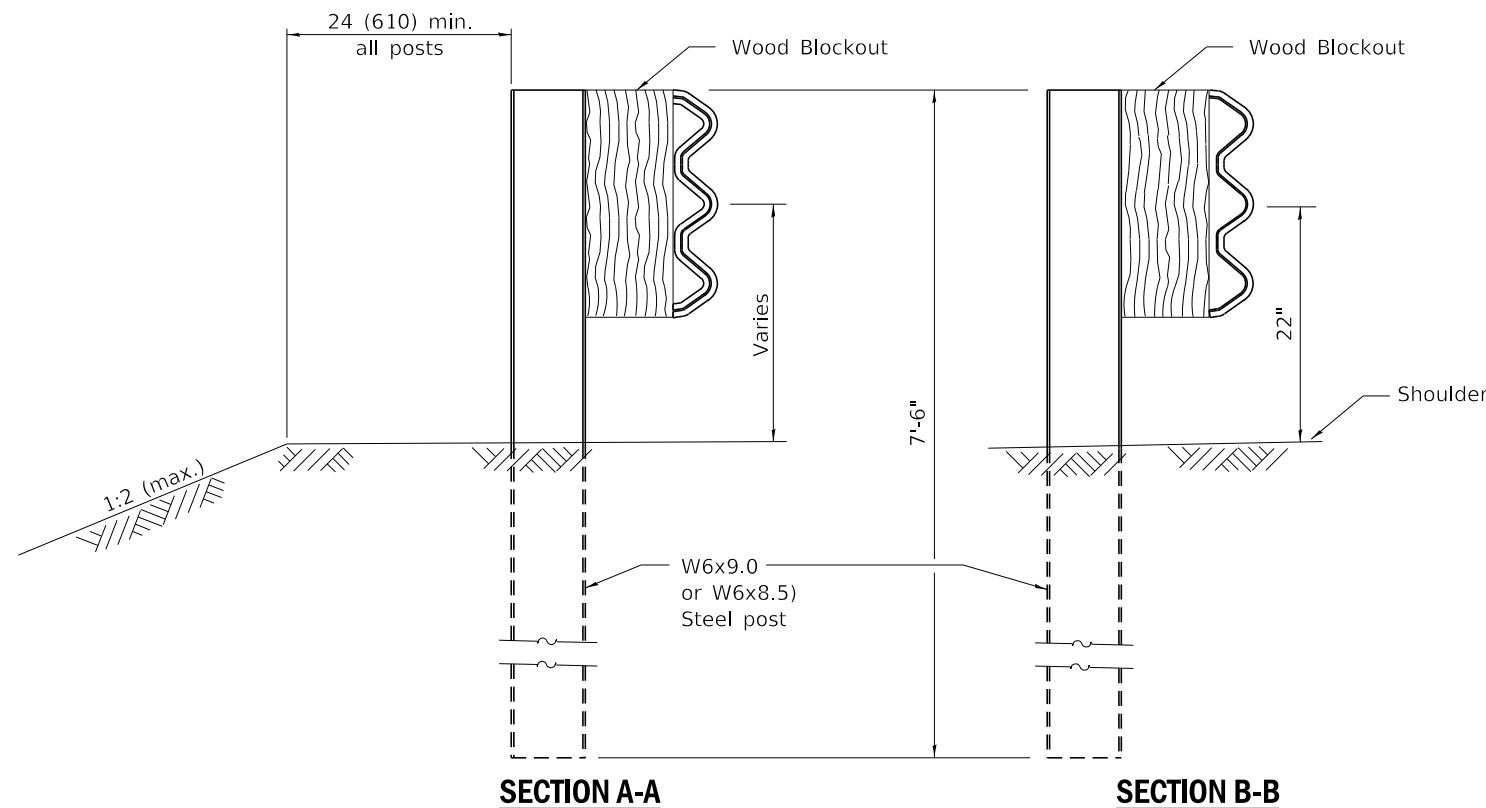
Pay limits of TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL) (1 each)



PLAN



ELEVATION



SECTION A-A

SECTION B-B

GENERAL NOTES

- See Standard 630001 for details of guardrail not shown.
- Thrie beam rail shall be bolted to block-out at all posts.
- All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
- All dimensions are in inches (millimeters) unless otherwise shown.

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MODEL: 440061.NAMES
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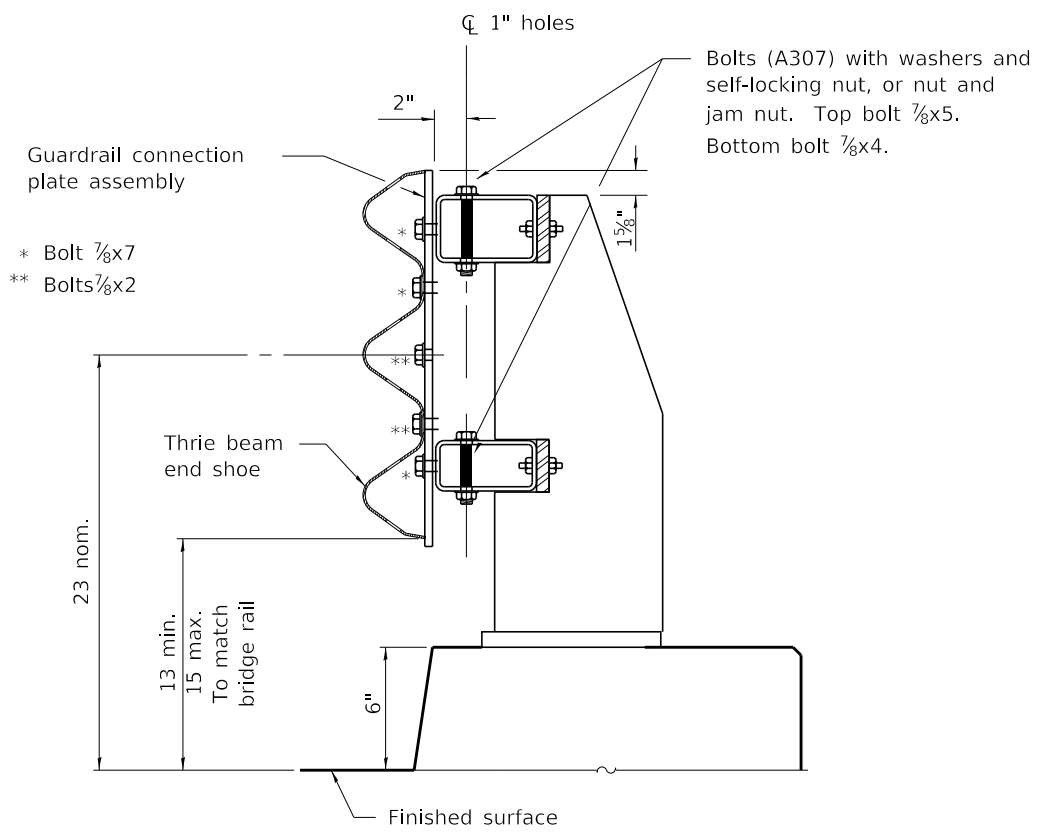
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|------------------------|------------|-----------|
| USER NAME = steves | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

O'BRIEN ROAD OVER NIPPERSINK CREEK
TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL)

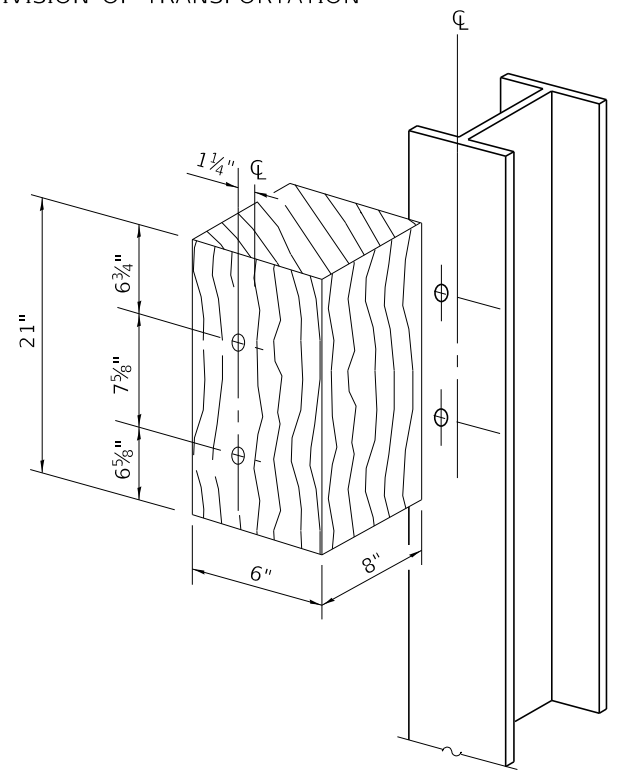
SCALE: N.T.S. SHEET 1 OF 3 SHEETS STA. TO STA.

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|---------------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 31 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| | | ILLINOIS FED. AID PROJECT | | |

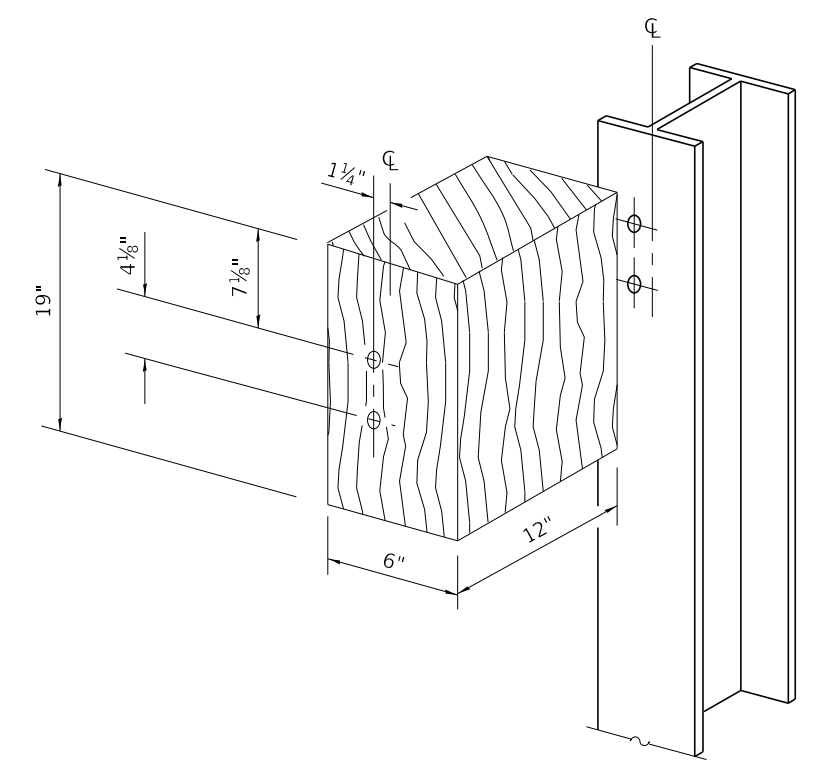


SECTION C-C

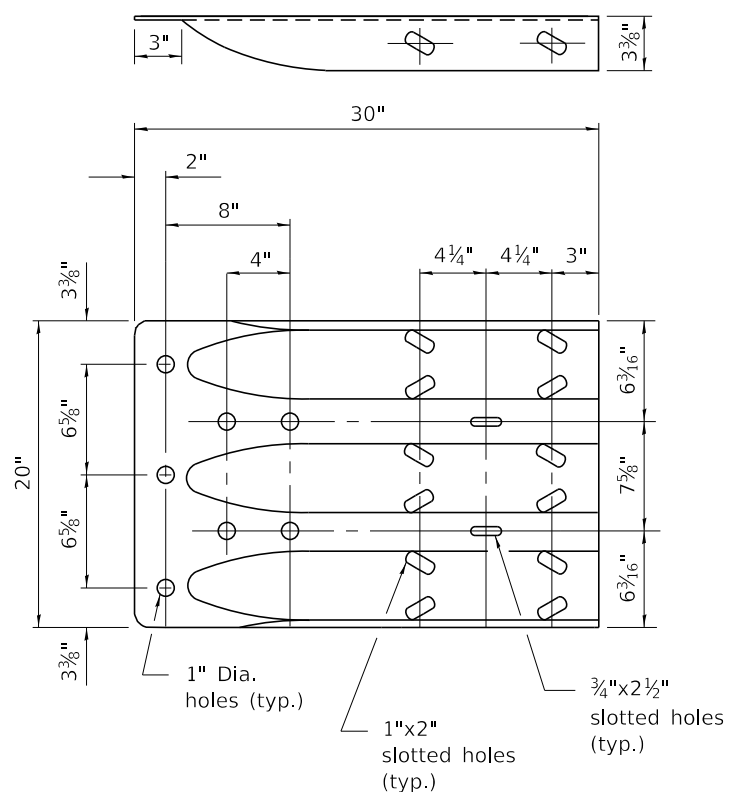
MCHENRY COUNTY
 DIVISION OF TRANSPORTATION



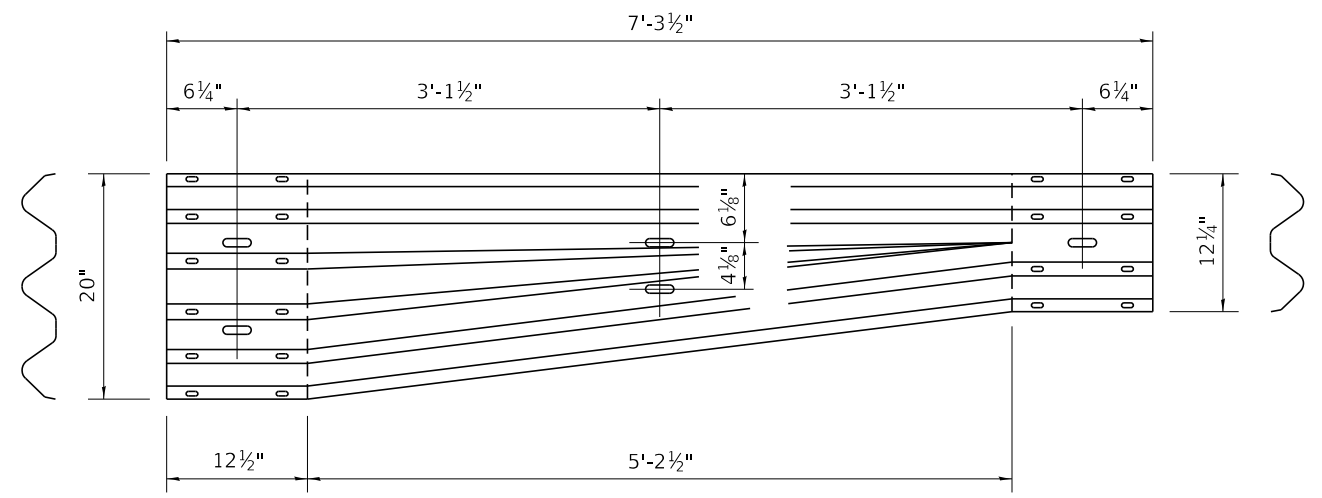
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL
 (See Standard 630001 for post 13-17 blockouts.)



MODIFIED THRIE BEAM END SHOE DETAIL



TRANSITION SECTION
 (10 gauge (3.4) rail element)

| | | |
|------------------------|------------|-----------|
| USER NAME = steves | DESIGNED - | REVISED - |
| PLOT SCALE = \$SCALE\$ | DRAWN - | REVISED - |
| PLOT DATE = 11/13/2018 | CHECKED - | REVISED - |
| | DATE - | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

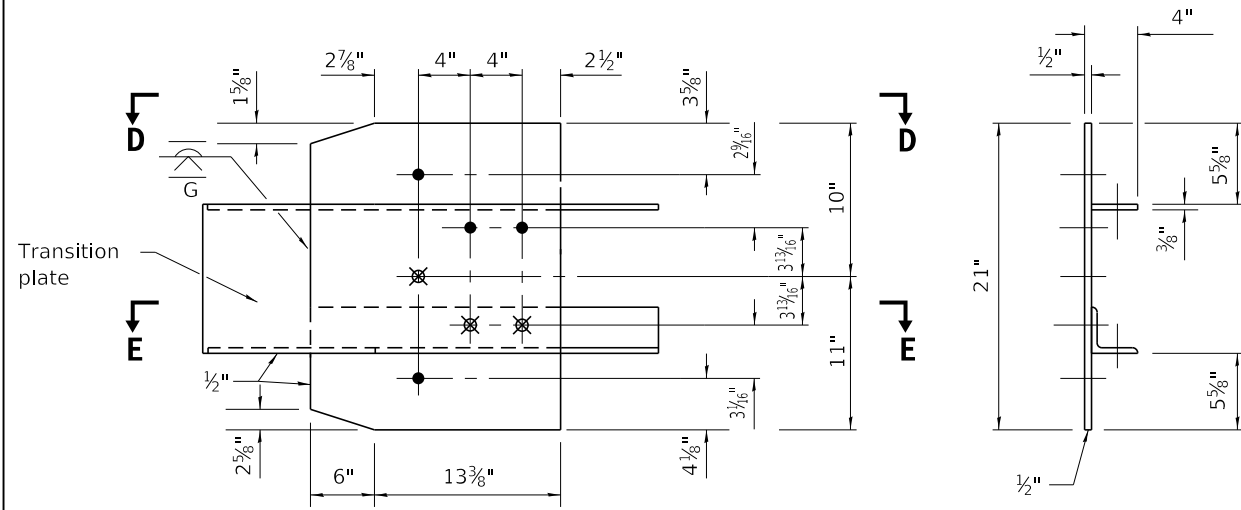
O'BRIEN ROAD OVER NIPPERSINK CREEK
 TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL)

SCALE: N.T.S. SHEET 2 OF 3 SHEETS STA. TO STA.

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 32 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |

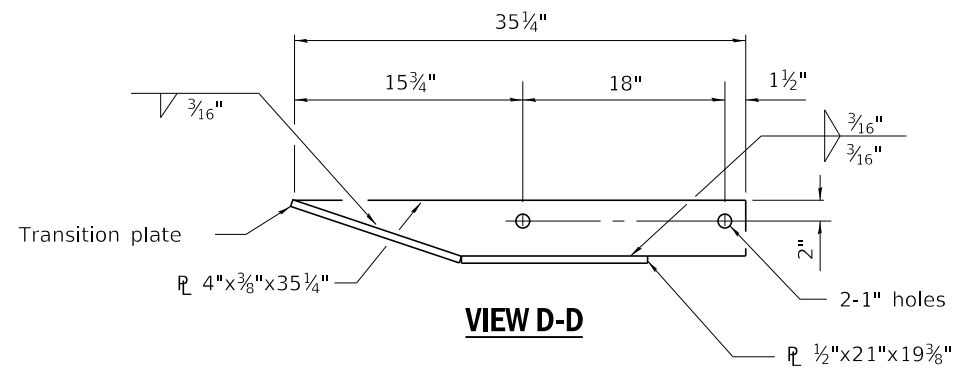
LEGEND

- 4-1" holes for 7/8" H.S. bolts and nuts
- ⊗ Drill and tap 3 holes for 7/8" H.S. bolts.

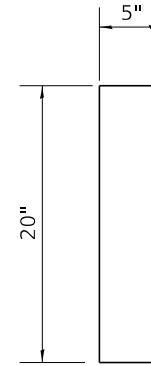


GUARDRAIL CONNECTION PLATE ASSEMBLY DETAILS

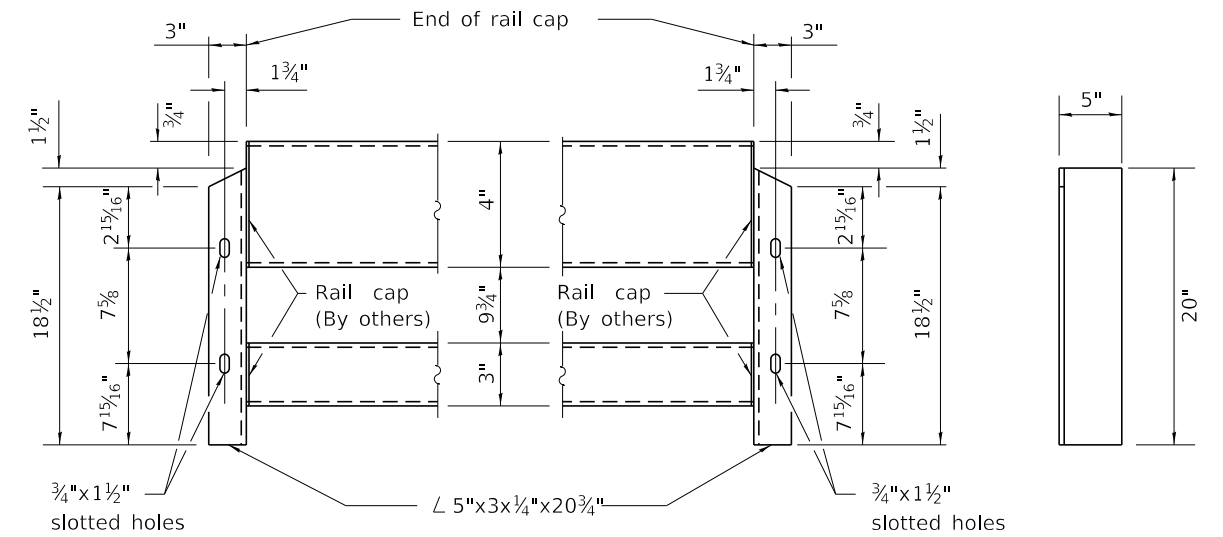
(Mirror for opposite end)



VIEW D-D

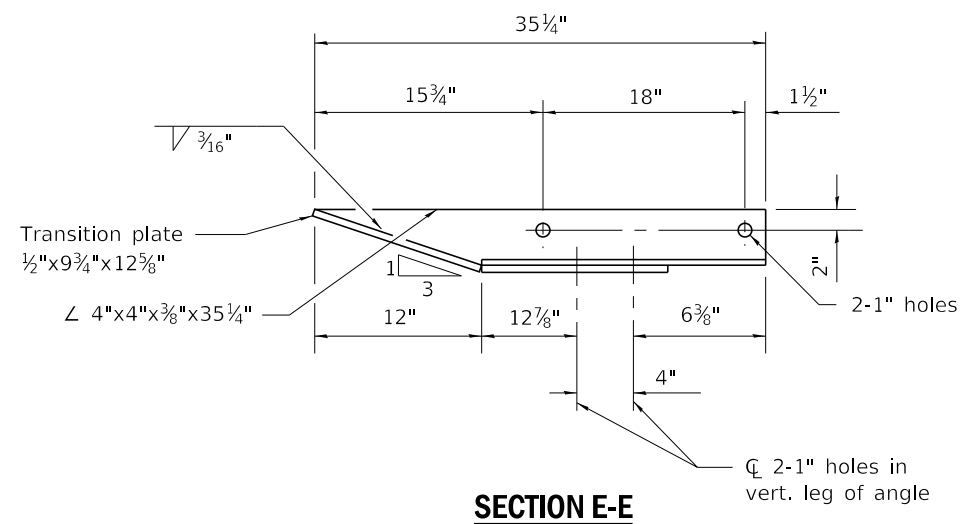


DEPARTURE END VIEW



CONNECTION ANGLES

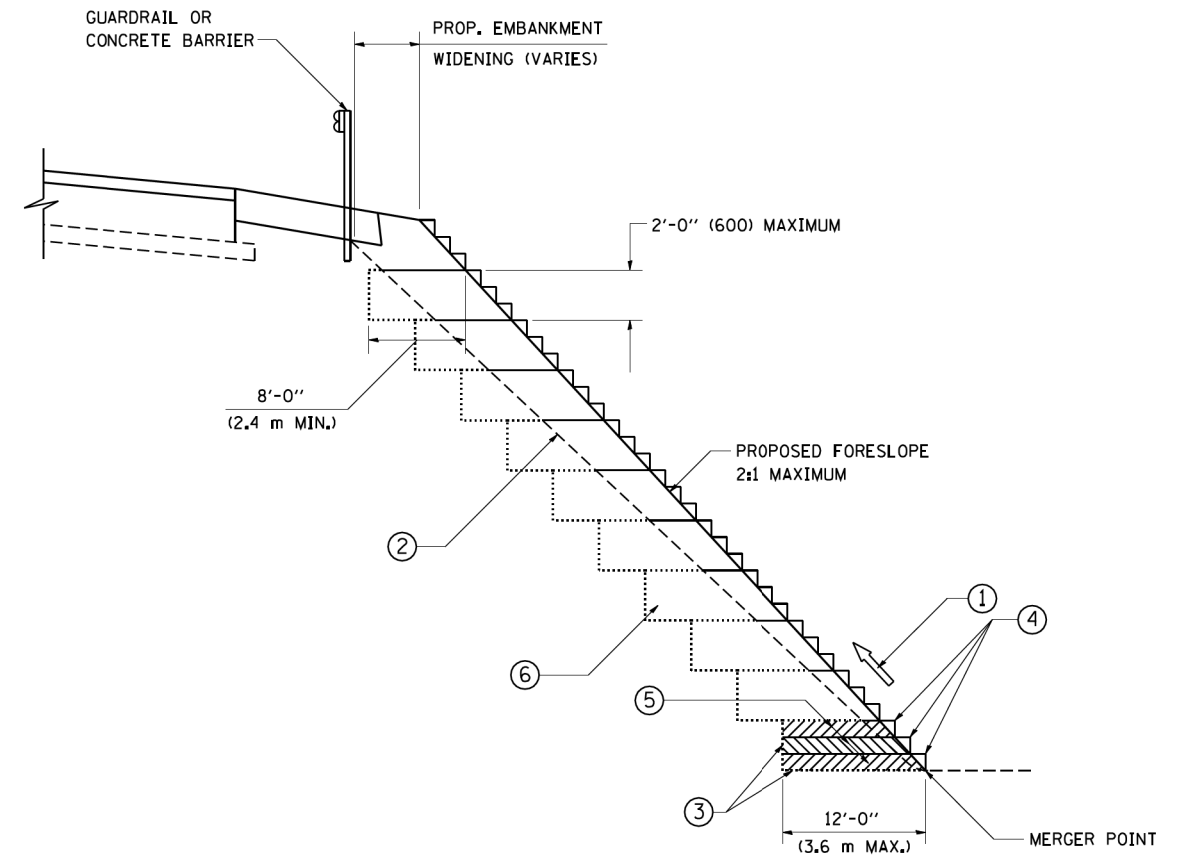
APPROACH END VIEW



SECTION E-E

| | | |
|------------------------|------------|-----------|
| USER NAME = steves | DESIGNED - | REVISED - |
| PLOT SCALE = \$SCALE\$ | DRAWN - | REVISED - |
| PLOT DATE = 11/13/2018 | CHECKED - | REVISED - |
| | DATE - | REVISED - |

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 33 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |



**TYPICAL BENCHING DETAIL
FOR EMBANKMENT**

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

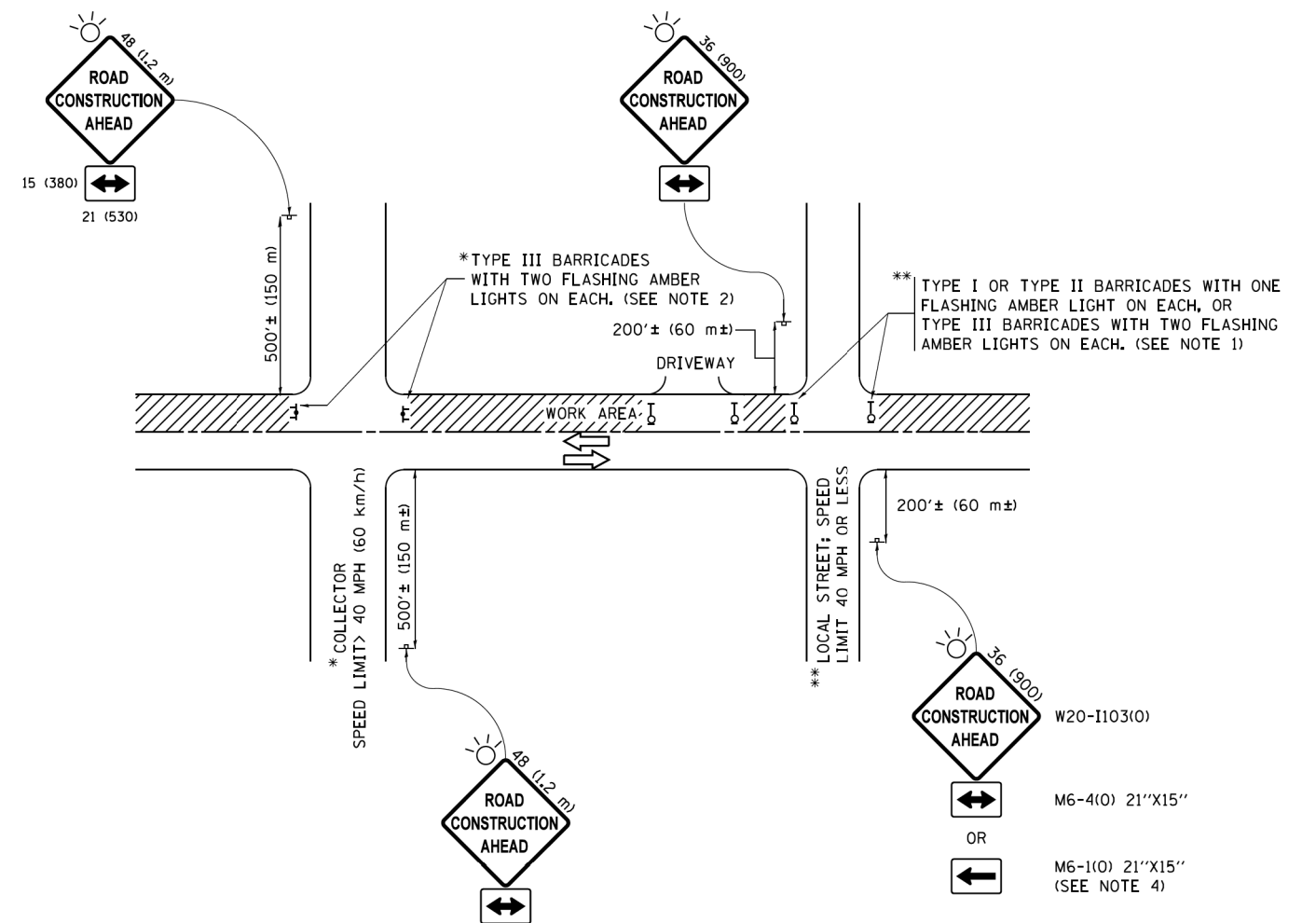
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

| | | | |
|--|-----------------------------|------------------|-----------|
| FILE NAME = W:\diststd\22x34\bd51.dgn | USER NAME = gegl1enobt | DESIGNED - | REVISED - |
| | | DRAWN - CADD | REVISED - |
| | PLOT SCALE = 50.0000' / IN. | CHECKED - S.E.B. | REVISED - |
| | PLOT DATE = 1/4/2008 | DATE - 06-16-04 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|--|-------------------------|------|---------|
| BENCHING DETAIL FOR EMBANKMENT WIDENING | | | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA. |

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|---------|---------------------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 34 |
| BD-51 | | | CONTRACT NO. 61F27 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

| | | | |
|--|-----------------------------|-------------------|---------------------------------|
| FILE NAME = | USER NAME = footemj | DESIGNED - L.H.A. | REVISED - A. HOUSEH 10-15-96 |
| pw\1\084EBID\INTEG\illinois.gov\FWIDOT\Documents\IDOT Offices\District 1\Projects\Dist1\084EBID\CADD\cadd\CADsheets\tc10.dgn | | DRAWN | REVISED - T. RAMMACHER 01-06-00 |
| Default | PLOT SCALE = 50,000' / 1" = | CHECKED - | REVISED - A. SCHUETZE 07-01-13 |
| | PLOT DATE = 9/15/2016 | DATE - 06-89 | REVISED - A. SCHUETZE 09-15-16 |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

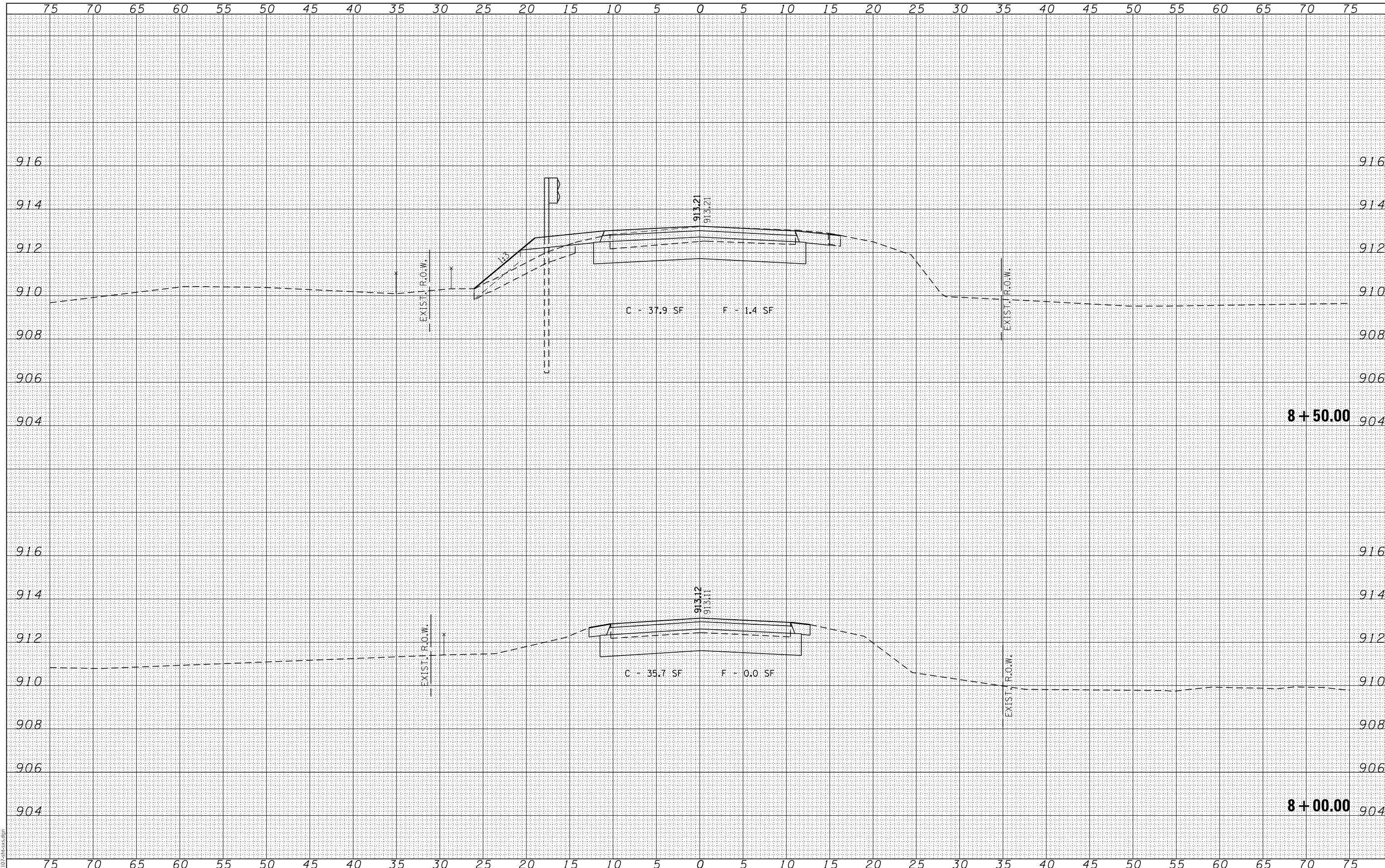
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------|-----------|
| 29 | 14-00432-00-BR | McHENRY | 44 | 35 |
| TC-10 | | | CONTRACT NO. | 61F27 |
| ILLINOIS FED. AID PROJECT | | | | |

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

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| BY | |
| ORIGINAL SURVEY | SURVEYED |
| NOTE BOOK | PLOTTED |
| NO. | TEMPLATE |
| | AREAS |
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MODEL: SP02ELNAMES
 FILE NAME: 150101-01-sec.dgn



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|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = 5SCALES | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 8+00.00 TO STA. 8+50.00

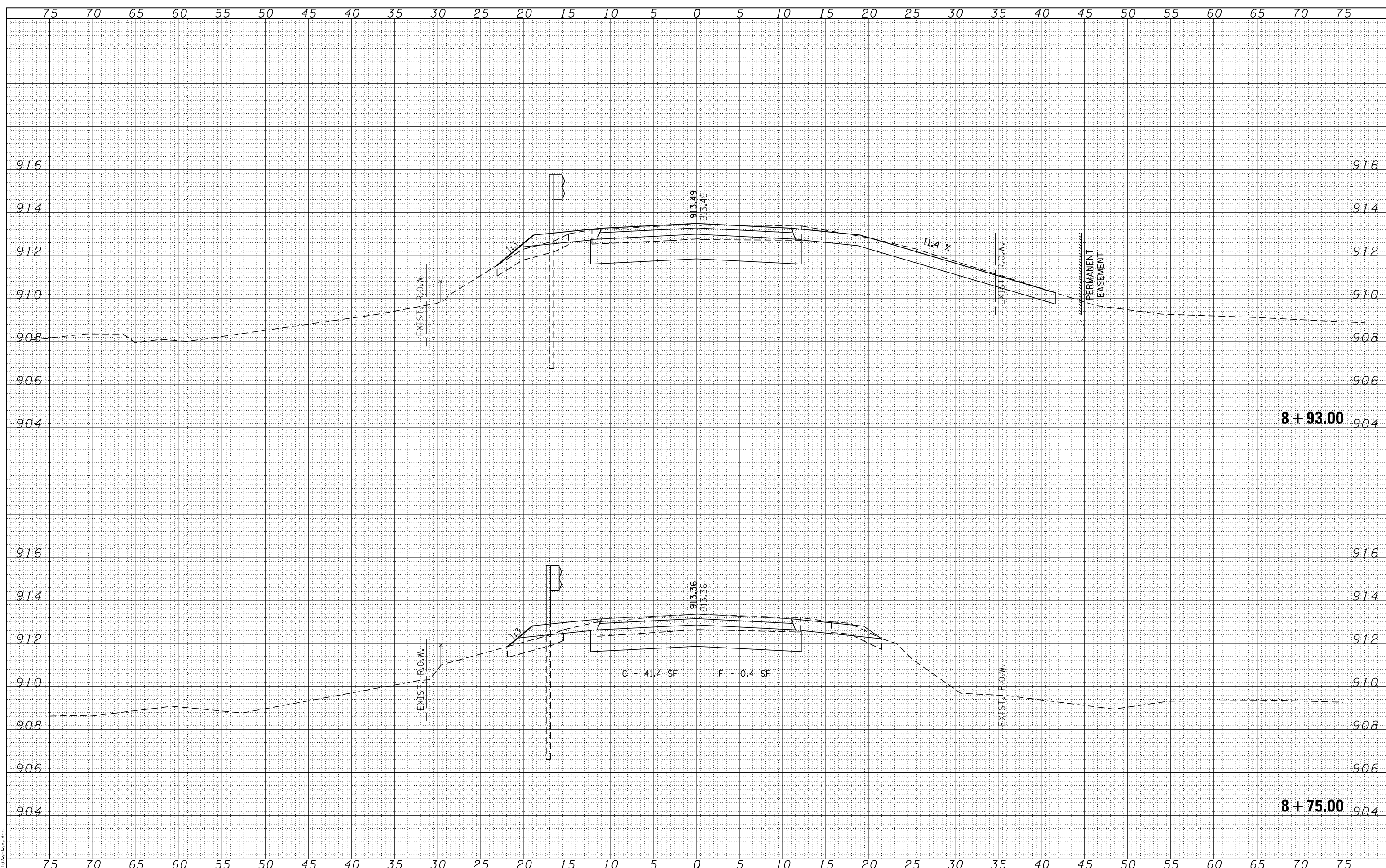
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 36 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |

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MODEL: SPODELNAME\$
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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 8+75.00 TO STA. 8+93.00

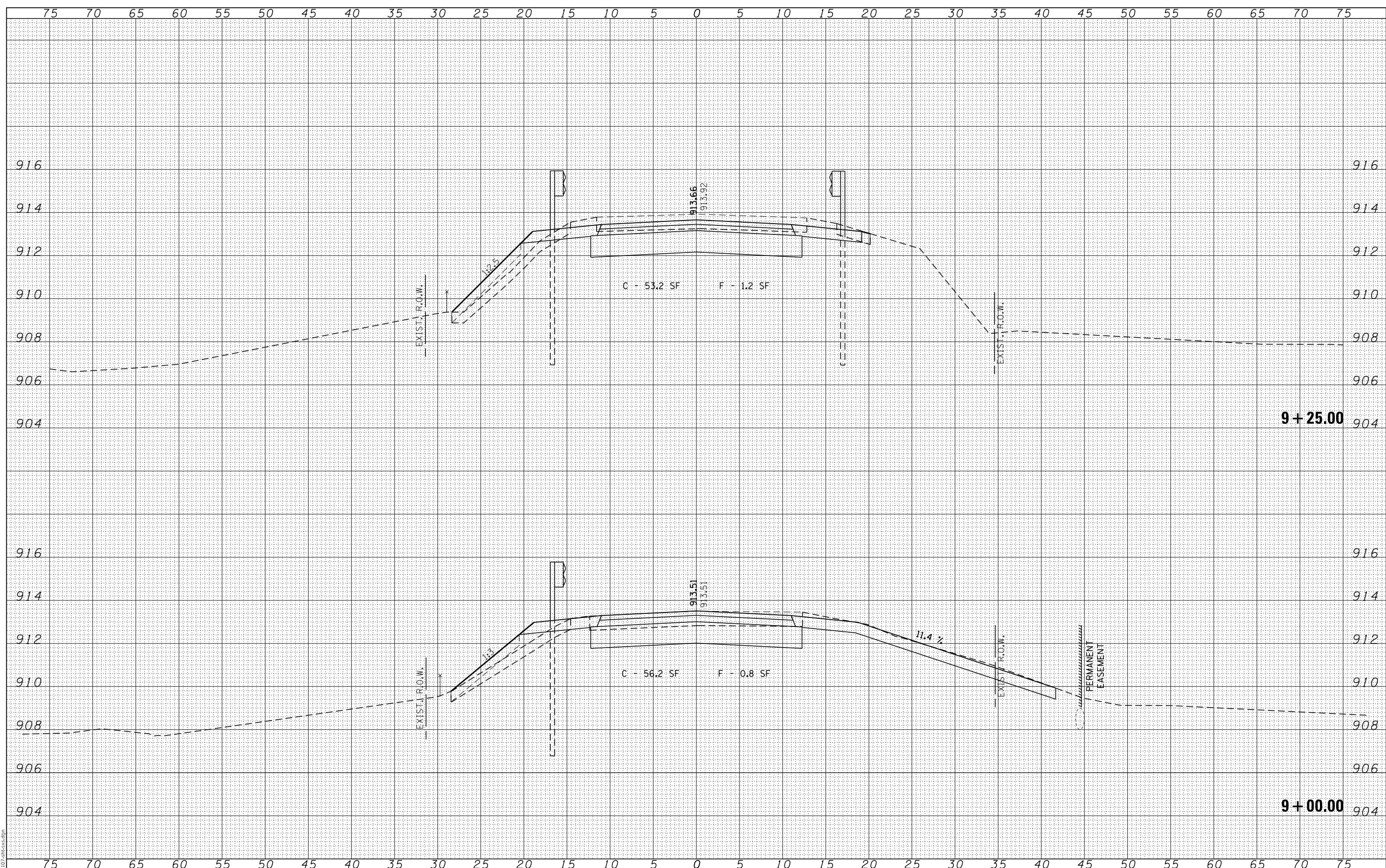
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 37 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |

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MODEL: SPODELNAME\$
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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 9+00.00 TO STA. 9+25.00

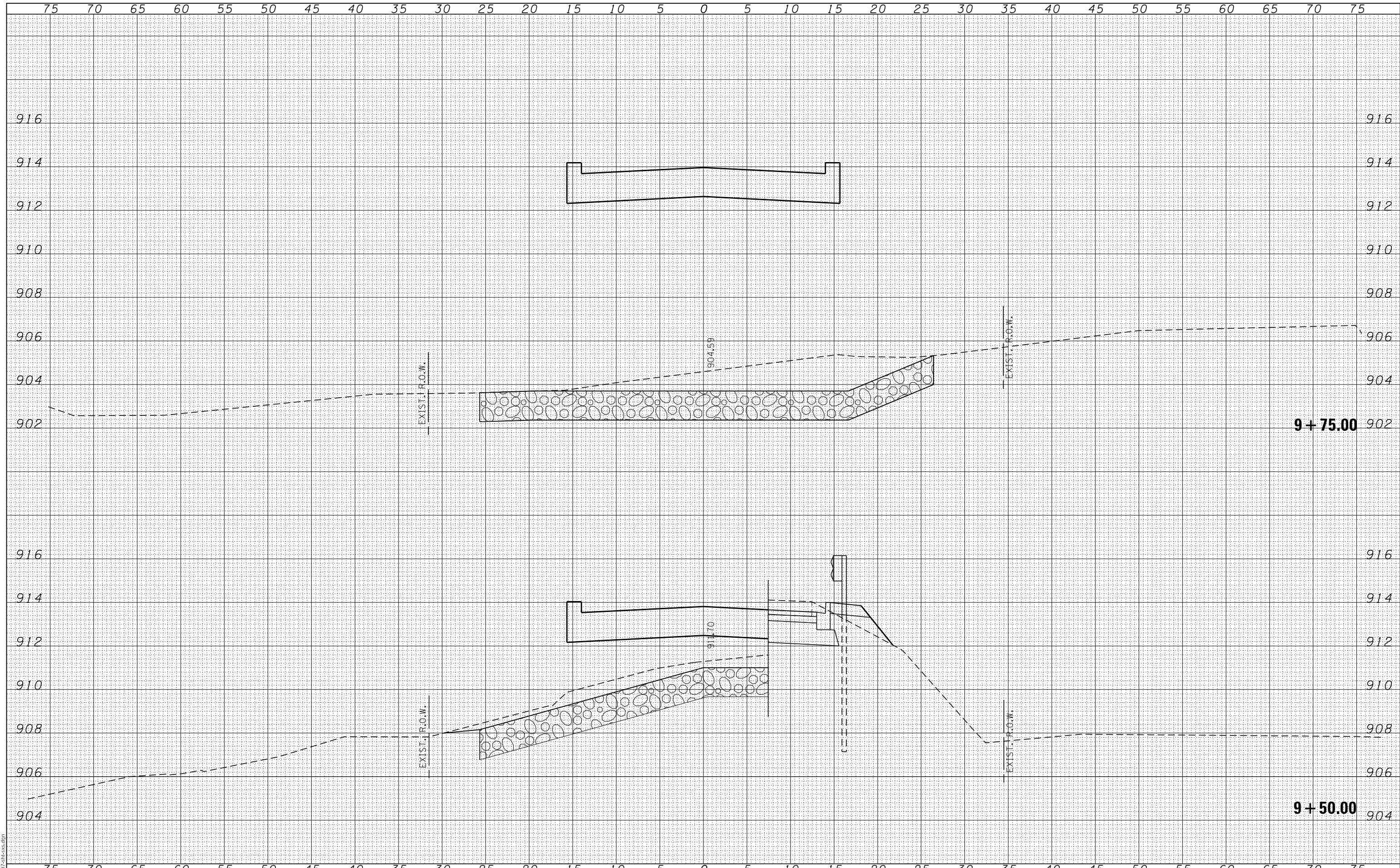
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 38 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |

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

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

MODEL: SPODELIMATES
 FILE NAME: 150101-01-sec.dgn



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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

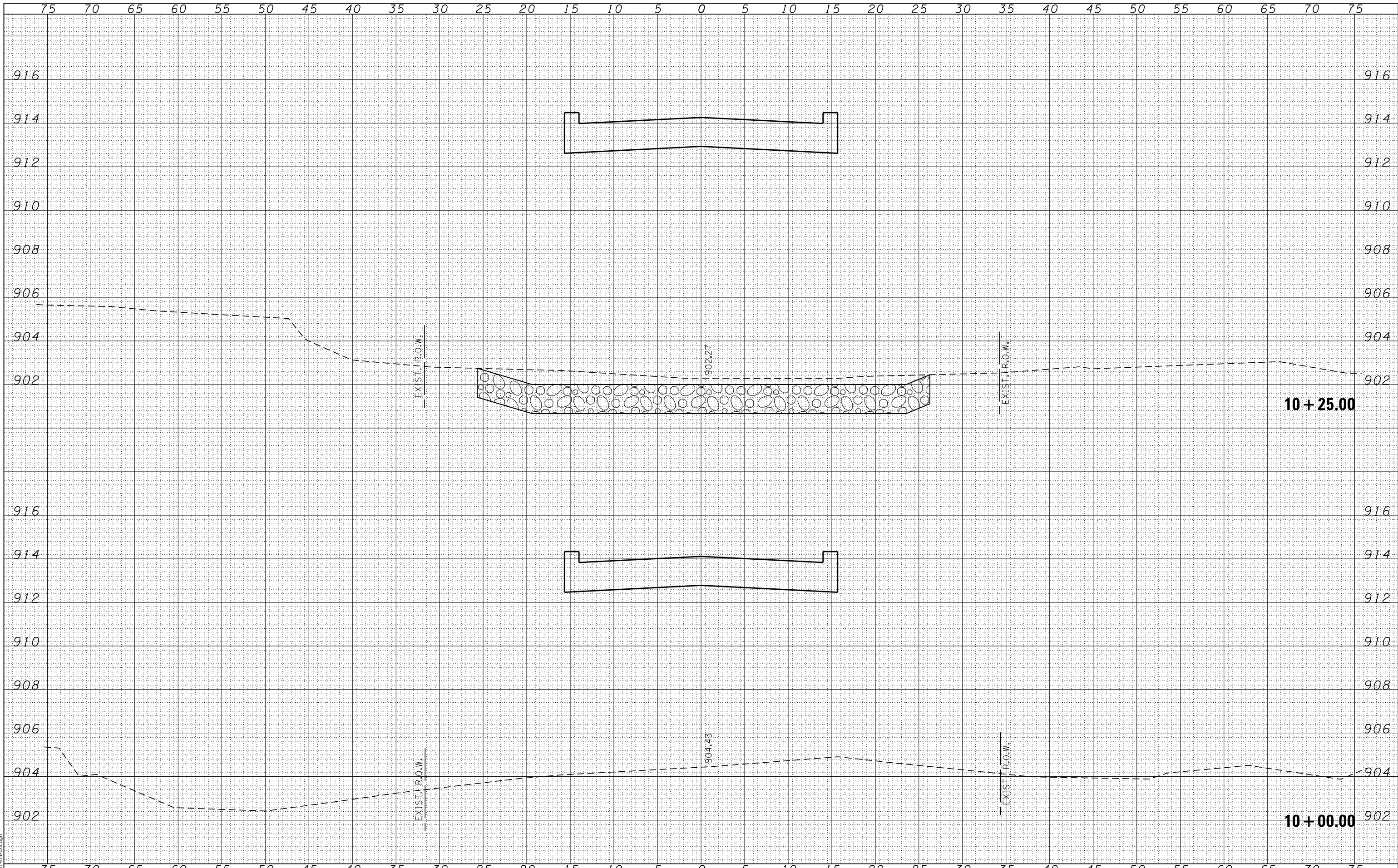
SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 9+50.00 TO STA. 9+75.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 39 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS | | | FED. AID PROJECT | |

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| FINAL SURVEY NO. | SURVEYED | DATE |
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| ORIGINAL SURVEY NO. | SURVEYED | DATE |
| NOTE BOOK | PLOTTED | BY |
| NO. | TEMPLATE | |
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MODEL: SPODELNAME\$
 FILE NAME: 15010101-sec.dgn



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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 10+00.00 TO STA. 10+25.00

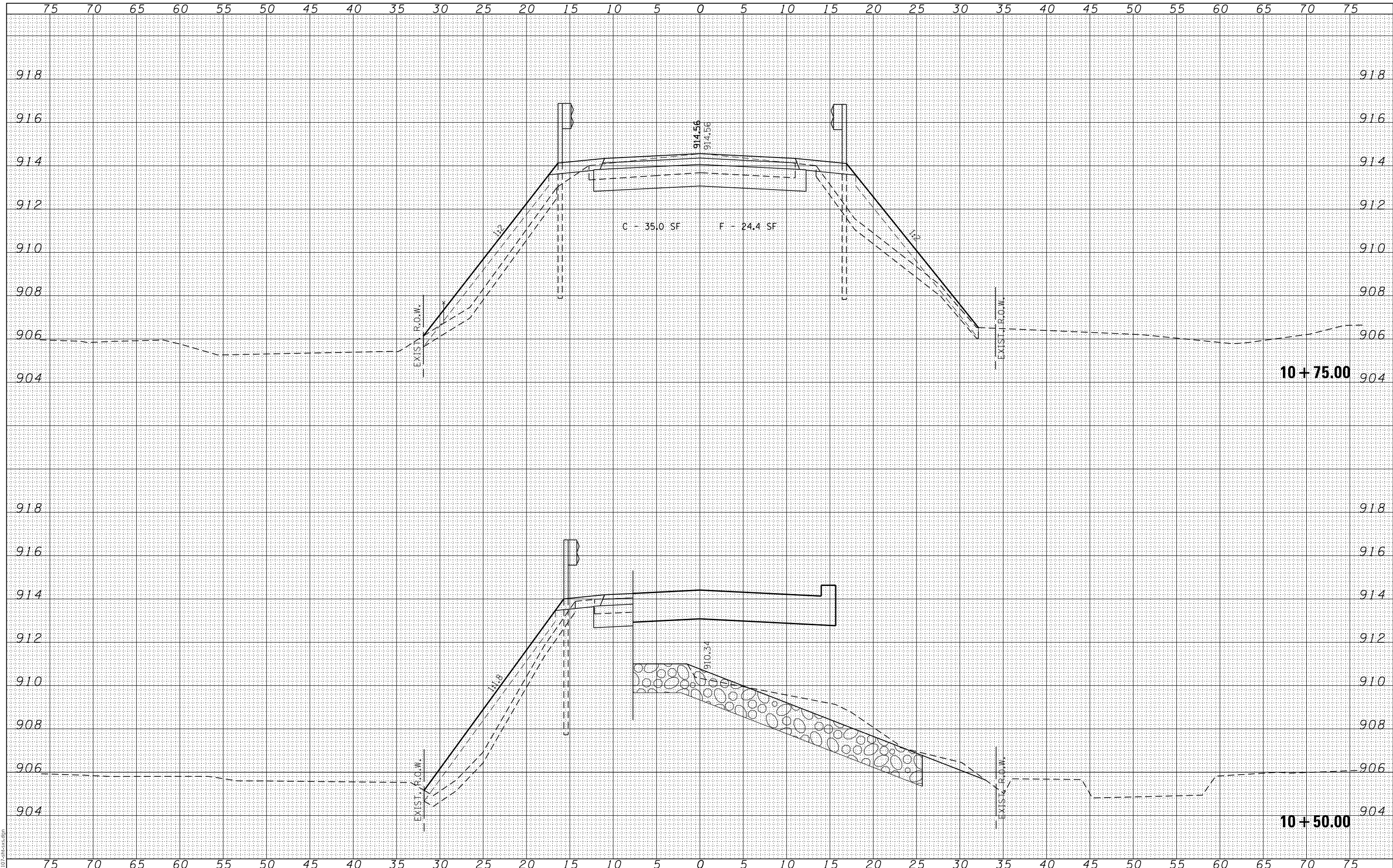
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENNY | 44 | 40 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS | | FED. AID PROJECT | | |

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| DATE | |
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| DATE | |
| BY | |
| SURVEYED | |
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MODEL: SP0DELNAME\$
 FILE NAME: 150101-01-sec.dgn



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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 10+50.00 TO STA. 10+75.00

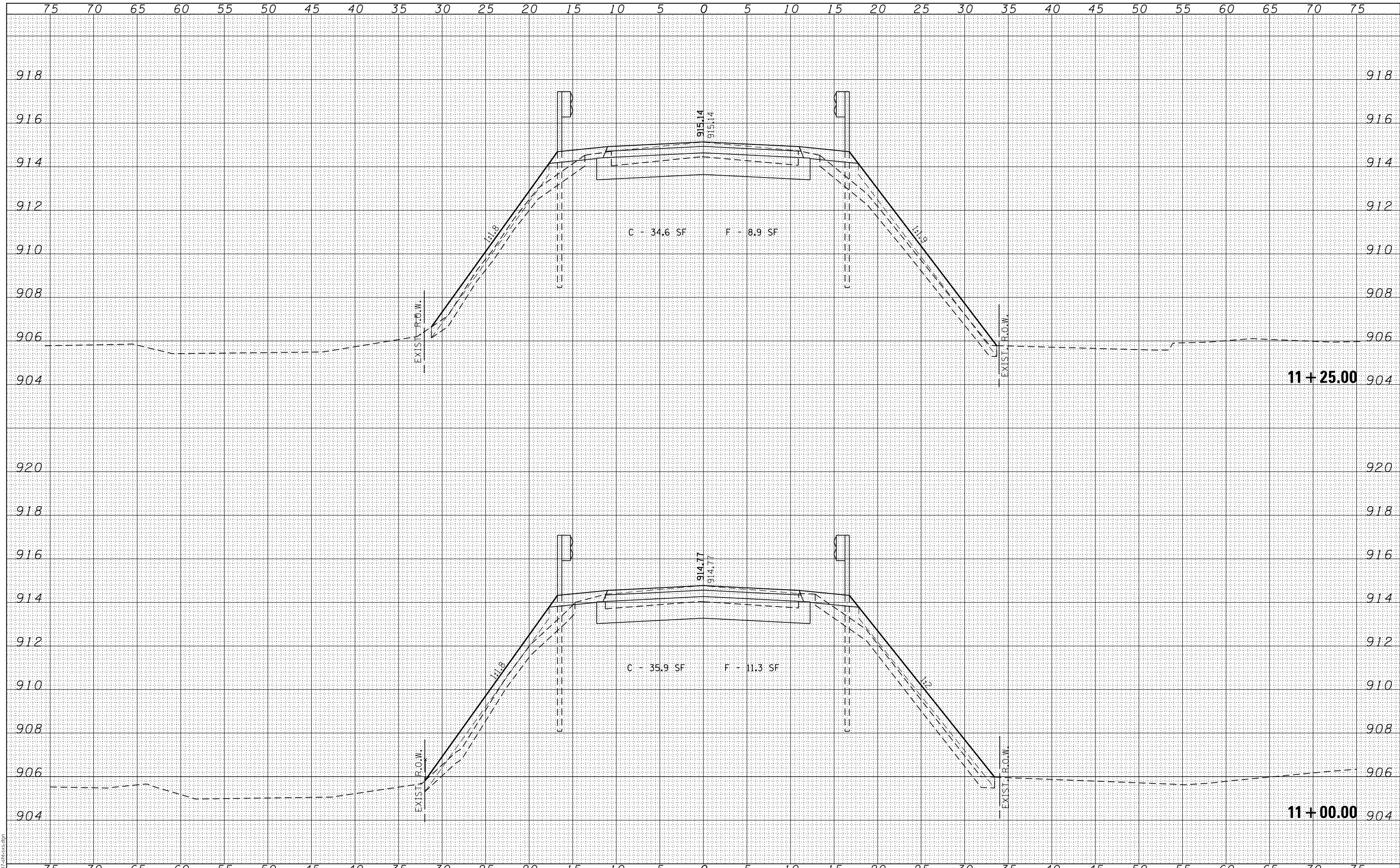
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHEMRY | 44 | 41 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |
| ILLINOIS FED. AID PROJECT | | | | |

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| DATE | |
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| | AREAS |
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| DATE | |
| BY | |
| ORIGINAL SURVEY | SURVEYED |
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| NO. | TEMPLATE |
| | AREAS |
| | CHECKED |

MODEL: SPODELNAME\$
 FILE NAME: 150101-01-sec.dgn



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|------------------------|-------------------|-----------|
| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 11+00.00 TO STA. 11+25.00

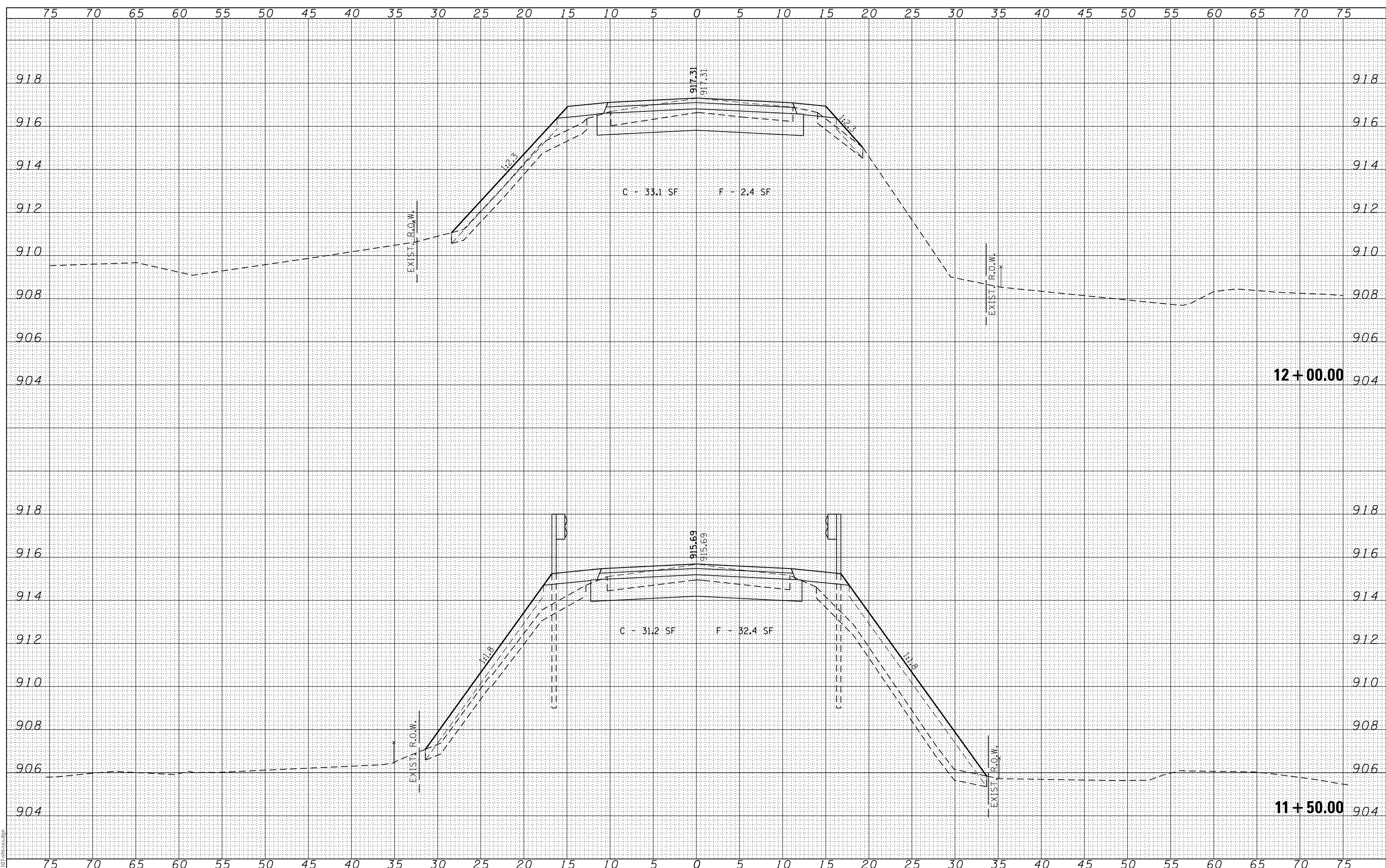
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 42 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |

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| DATE | |
| BY | |
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| DATE | |
| BY | |
| ORIGINAL SURVEY | SURVEYED |
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| | AREAS |
| | CHECKED |

MODEL: SP02ELNAMES
 FILE NAME: 150101-01-sec.dgn



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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = 5SCALES | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

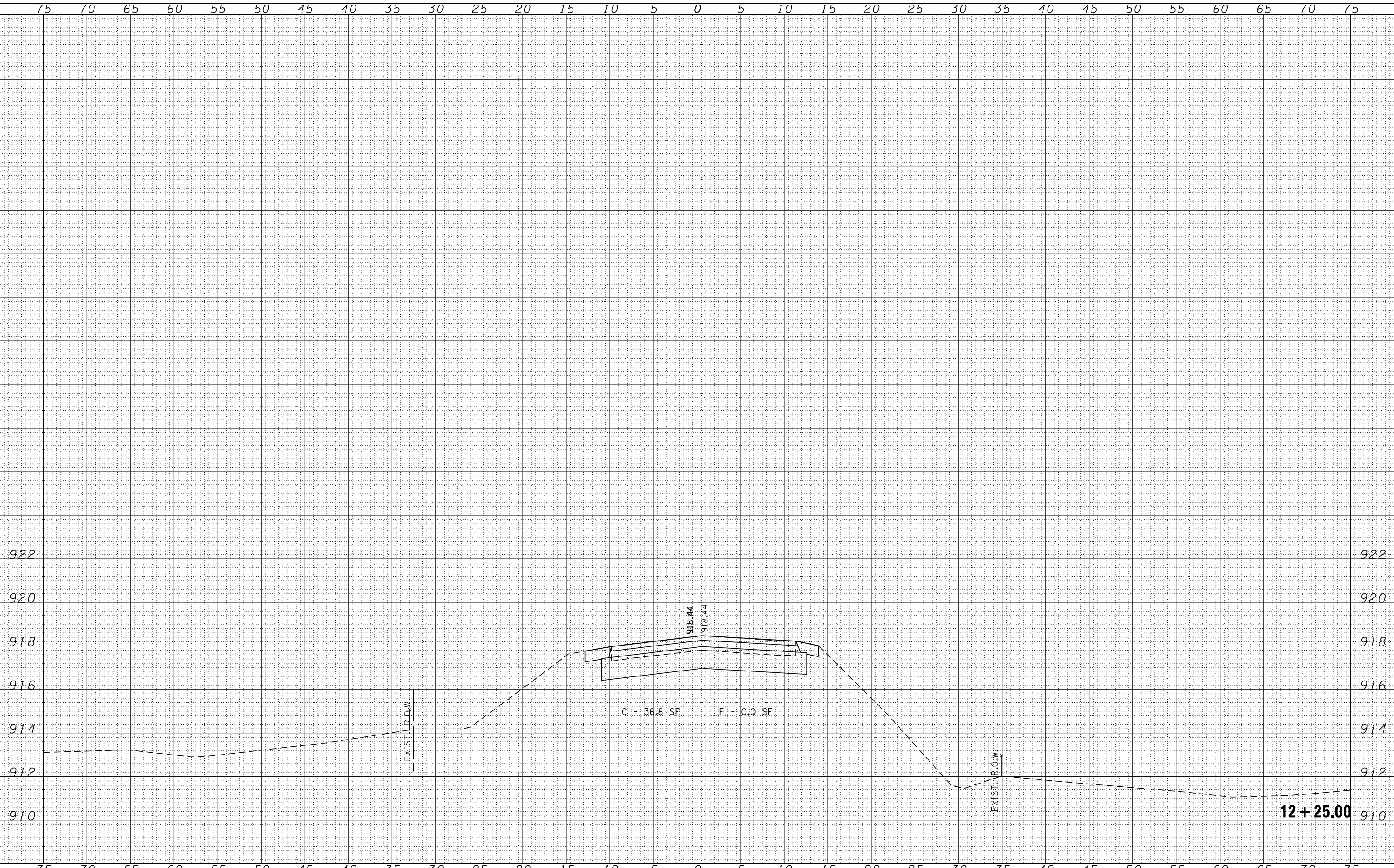
SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 11+50.00 TO STA. 12+00.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|---------|--------------------|-----------|
| 29 | 14-00432-00-BR | MCHEMRY | 44 | 43 |
| HEBRON ROAD DISTRICT | | | CONTRACT NO. 61F27 | |
| ILLINOIS FED. AID PROJECT | | | | |

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| FINAL SURVEY NO. | SURVEYED | BY | DATE |
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| USER NAME = steves | DESIGNED - L.A.P. | REVISED - |
| | DRAWN - L.G.C. | REVISED - |
| PLOT SCALE = \$SCALE\$ | CHECKED - S.W.M. | REVISED - |
| PLOT DATE = 11/13/2018 | DATE - 11/13/2018 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS - O'BRIEN ROAD

SCALE: 5H:2V SHEET 1 OF 9 SHEETS STA. 12+25.00 TO STA. 12+25.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------|----------------|--------------------|--------------|-----------|
| 29 | 14-00432-00-BR | MCHENRY | 44 | 44 |
| HEBRON ROAD DISTRICT | | CONTRACT NO. 61F27 | | |

ILLINOIS FED. AID PROJECT