

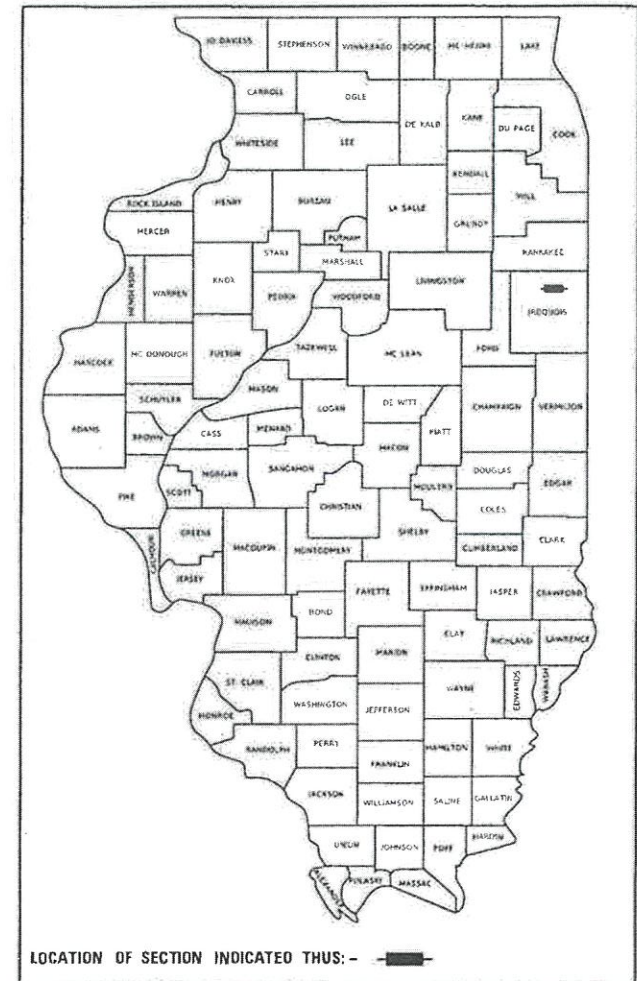
PLANS FOR PROPOSED SURFACE TRANSPORTATION PROGRAM-BRIDGE

SECTION 11-00047-01-BR F.A.S. 321 (C.H. 4) OVER PIKE CREEK

PROJECT NO. F3SF(323) JOB NUMBER C-93-014-20

Table with 2 columns: SHEET NO. and DESCRIPTION. Includes items like COVER SHEET, GENERAL NOTES, SUMMARY OF QUANTITIES, etc.

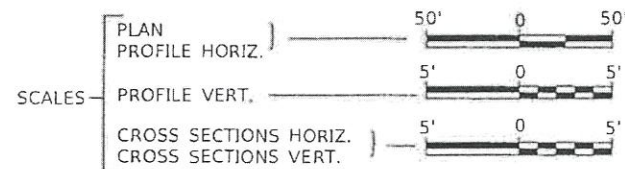
Table with 5 columns: F.A.S. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Includes project details like 321, 11-00047-01-BR, IROQUOIS, 27, 1.



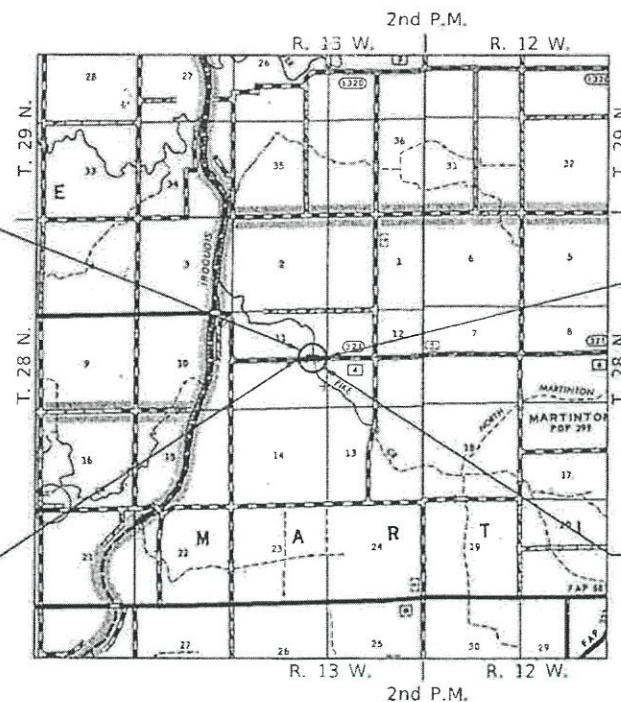
LOCATION OF SECTION INDICATED THUS: - [Symbol] - PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07 TEMPORARY EROSION CONTROL SYSTEMS
515001-04 NAME PLATE FOR BRIDGES
630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-09 TRAFFIC BARRIER TERMINAL, TYPE 6A
701901-08 TRAFFIC CONTROL DEVICES
725001-01 OBJECT AND TERMINAL MARKERS
780001-05 TYPICAL PAVEMENT MARKINGS
BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 26-3 STEEL PLATE BEAM GUARDRAIL 29" (731mm) HEIGHT



PROPOSED STRUCTURE SN 038-4509 THREE SPAN 21" PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE ENCASED PILE BENT PIERS AND CONCRETE SPILL-THRU PILE BENT ABUTMENTS, 131'-0" BK TO BK, 30'-0" O TO O DECK, NO SKEW.



SECTION 11-00047-01-BR ENDS STATION 22+25.00

SECTION 11-00047-01-BR BEGINS STATION 17+75.00

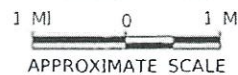
EXISTING STRUCTURE SN 038-4500 THREE SPAN PPC DECK BEAM SUPERSTRUCTURE ON REINFORCED CONCRETE PILE BENT ABUTMENTS AND PILE BENT PIERS WITH EXPOSED CONCRETE PILES, 121'-2" BK TO BK, 26'-0" O TO O DECK, NO SKEW. (TO BE REMOVED)

UTILITY COMPANIES

- EASTERN ILLINI ELECTRIC COOPERATIVE PAXTON, ILLINOIS
FRONTIER COMMUNICATIONS BLOOMINGTON, ILLINOIS

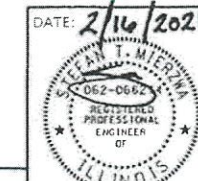
J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

LOCATION MAP



NET LENGTH OF PROJECT = 450.00 FEET = 0.085 MILES
DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN ADT = 1,070 (2041)
DESIGN SPEED = 50 MPH

Hutchison Engineering, Inc. JACKSONVILLE-SHOREWOOD PEORIA-QUAD CITIES



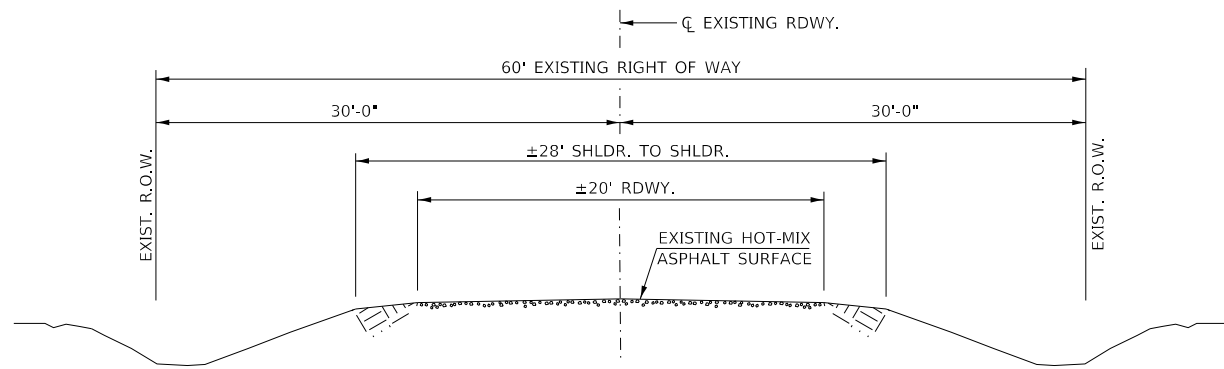
DATE: 2/16/2021 EXP: 11/30/2021 SIGNATURE ENGINEERS SEAL

PLANS DESIGNED IN ACCORDANCE WITH BUREAU OF LOCAL ROADS AND STREETS MANUAL GUIDELINES FOR TWO LANE RURAL LOCAL ROADS - RECONSTRUCTION

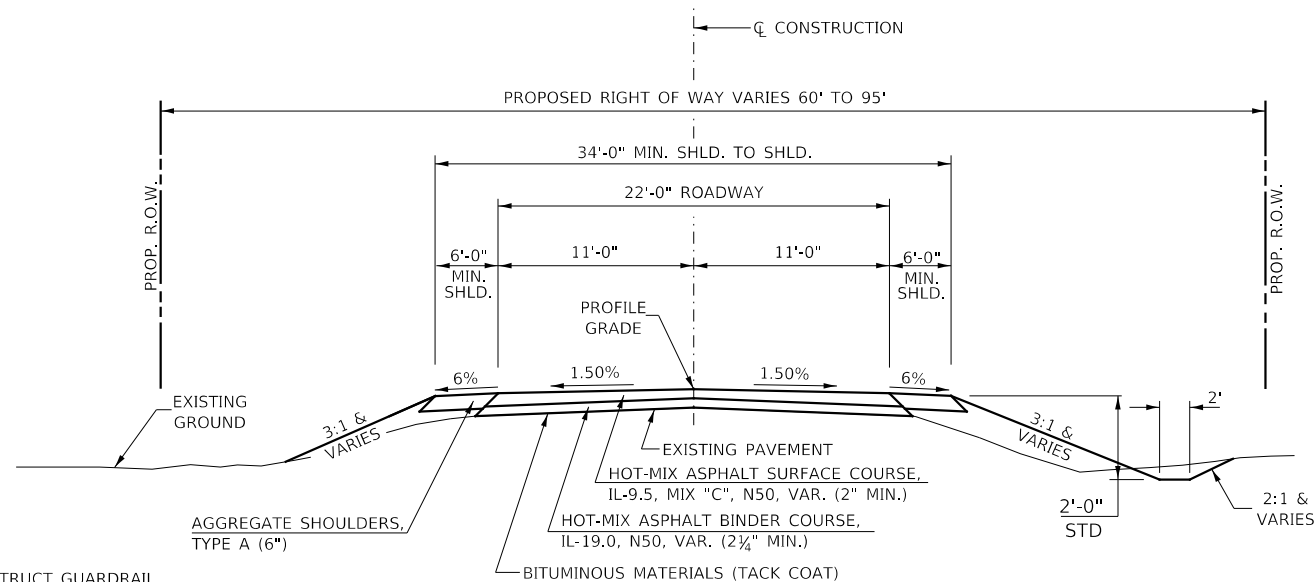
APPROVED Feb 22 2021 IROQUOIS COUNTY ENGINEER

PASSED APRIL 9, 2021 DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS

Released For Bid Based on Limited Review APRIL 9, 2021 REGION TWO ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



EXISTING TYPICAL SECTION



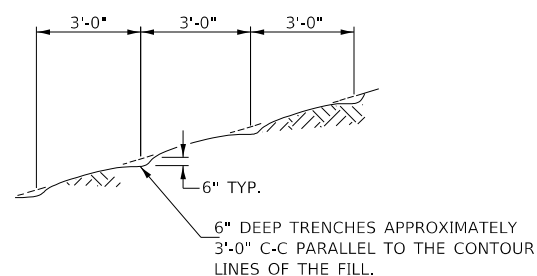
PROPOSED TYPICAL SECTION

STA. 17+75.00 TO STA. 19+34.50
STA. 20+65.50 TO STA. 22+25.00

EXCEPT TRANSITIONS

BRIDGE OMISSION
STA. 19+34.50 TO STA. 20+65.50

CONSTRUCT GUARDRAIL
SHOULDER WIDENING IN
ACCORDANCE WITH STD 630301



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

DETAIL OF CONTOUR PLOWING

COMMITMENTS

SEE SPECIAL PROVISIONS FOR IDNR CONSERVATIVE MITIGATION PLAN REQUIREMENTS.
SEE SPECIAL PROVISIONS FOR TREE REMOVAL RESTRICTIONS.

GENERAL NOTES

PLAN QUANTITIES FOR TREE REMOVAL HAVE BEEN BASED ON ALL TREES WITHIN THE PROPOSED RIGHT OF WAY. THIS QUANTITY MAY BE REVISED DURING CONSTRUCTION, AT THE DIRECTION OF THE ENGINEER, BY DELETING FROM THE TREE REMOVAL QUANTITIES, SUCH TREES THAT DO NOT INTERFERE WITH THE PROPOSED CONSTRUCTION.

ANY ADDITIONAL REMOVAL OF EXISTING HOT-MIX ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE NEW BRIDGE SHALL BE REMOVED AS STRUCTURE EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED OR ADJUSTED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

IF THE CONTRACTOR UTILIZES ORANGE TRAFFIC CONTROL SIGNS, THEY ARE REQUIRED TO BE FLUORESCENT ORANGE AND SHALL MEET RETRO REFLECTIVITY STANDARDS PER ARTICLE 1091.03 OF THE STANDARD SPECIFICATIONS.

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

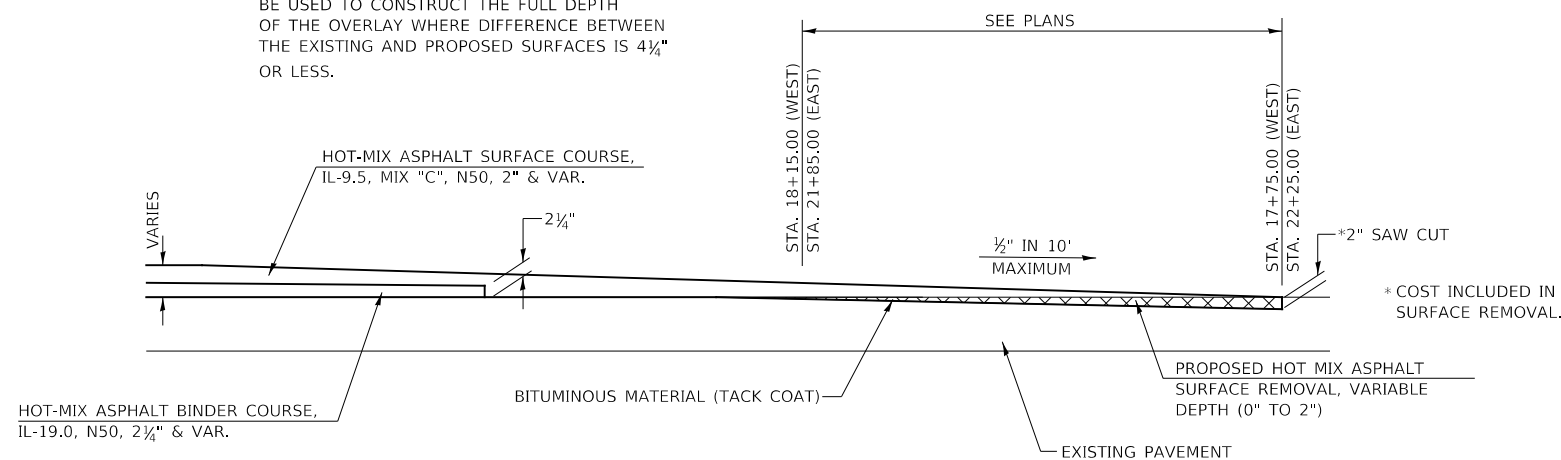
WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| | HMA BINDER | HMA SURFACE |
|-----------------------------|----------------|----------------|
| PG GRADE: | PG 64-22 | PG 64-22 |
| DESIGN AIR VOIDS: | 4% @ N50 | 4% @ N50 |
| MIXTURE COMPOSITION: | IL-19.0 | IL-9.5 |
| FRICTION AGGREGATE: | | MIXTURE C |
| DENSITY TEST METHOD: | CORES | CORES |
| MIXTURE WEIGHT: | 112#/SQ YD/IN | 112#/SQ YD/IN |
| QUALITY MANAGEMENT PROGRAM: | QC/QA | QC/QA |
| SUBLOT SIZE: | N/A | N/A |
| LOCATION(S): | ENTIRE PROJECT | ENTIRE PROJECT |

- NOTES:
- HOT MIX ASPHALT SURFACE REMOVAL LIMITS/DEPTHS DETERMINED BY PROVIDING 2" BELOW PROPOSED PROFILE GRADE.
 - HOT-MIX ASPHALT SURFACE COURSE SHALL BE USED TO CONSTRUCT THE FULL DEPTH OF THE OVERLAY WHERE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED SURFACES IS 4 1/4" OR LESS.



PAVEMENT REMOVAL DETAIL

MODEL: I:\MODELS\I11615\11-4 Over Pike Creek (I11615)\CADD\CADD Sheets\A45.11001.dgn
FILE NAME: 11-4 Over Pike Creek (I11615)\CADD\CADD Sheets\A45.11001.dgn

| | | |
|---------------------------|------------------|-----------|
| USER NAME = SMierzwa | DESIGNED - MMO | REVISED - |
| PLOT SCALE = 2,000' / in. | DRAWN - MMO | REVISED - |
| PLOT DATE = 2/18/2021 | CHECKED - STM | REVISED - |
| | DATE - 2/15/2021 | REVISED - |

**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

**GENERAL NOTES, TYPICAL SECTIONS,
PAVEMENT DESIGN INFORMATION, DETAILS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. 17+75.00 TO STA. 22+25.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------------------|----------------|--------------------------------|--------------|-----------|
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 2 |
| CONTRACT NO. 87725 | | | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | FED. AID PROJECT NO. F35F(323) | | |

| SUMMARY OF QUANTITIES | | | |
|-----------------------|--|-------|----------|
| CODE NO. | ITEM | UNIT | QUANTITY |
| 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 168 |
| 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 16 |
| 20200100 | EARTH EXCAVATION | CU YD | 165 |
| 20300100 | CHANNEL EXCAVATION | CU YD | 415 |
| 20400800 | FURNISHED EXCAVATION | CU YD | 930 |
| 28000305 | TEMPORARY DITCH CHECKS | FOOT | 48 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 365 |
| 28100209 | STONE RIPRAP, CLASS A5 | TON | 730 |
| 28200200 | FILTER FABRIC | SQ YD | 545 |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT) | POUND | 1,091 |
| 40603080 | HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N50 | TON | 37 |
| 40604050 | HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "C", N50 | TON | 177 |
| 48100100 | AGGREGATE SHOULDERS, TYPE A | TON | 174 |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50105220 | PIPE CULVERT REMOVAL | FOOT | 89 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 70 |
| 50200300 | COFFERDAM EXCAVATION | CU YD | 115 |
| 50201101 | COFFERDAM (TYPE 1) (LOCATION-1) | EACH | 1 |
| 50201102 | COFFERDAM (TYPE 1) (LOCATION-2) | EACH | 1 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 116.8 |
| 50300280 | CONCRETE ENCASEMENT | CU YD | 3.5 |
| 50400405 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) | SQ FT | 3,870 |
| 50800105 | REINFORCEMENT BARS | POUND | 9,610 |
| 50901050 | STEEL RAILING, TYPE SM | FOOT | 262 |
| 51201400 | FURNISHING STEEL PILES HP10x42 | FOOT | 900 |
| 51202305 | DRIVING PILES | FOOT | 900 |
| 51203400 | TEST PILE STEEL HP10x42 | EACH | 4 |
| 51204650 | PILE SHOES | EACH | 24 |
| 51500100 | NAME PLATES | EACH | 1 |
| 58100200 | WATERPROOFING MEMBRANE SYSTEM | SQ YD | 437 |
| 58300100 | PORTLAND CEMENT MORTAR FAIRING COURSE | FOOT | 290 |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL | CU YD | 18.6 |
| 63100087 | TRAFFIC BARRIER TERMINAL, TYPE 6A | EACH | 4 |
| 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 4 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |
| 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 1,015 |
| X1200247 | TURBIDITY CURTAIN | SQ YD | 55 |
| X2501000 | SEEDING, CLASS 2 (SPECIAL) | ACRE | 0.4 |
| X4401198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 188 |
| Z0033700 | LONGITUDINAL JOINT SEALANT | FOOT | 319 |

SEE SPECIAL PROVISIONS
 CONSTRUCTION CODE TYPE: 0010
 BRIDGE CODE TYPE: X080

SPECIALTY ITEMS

| TREE REMOVAL | | | | |
|--------------|--------|------|---------------|---------------|
| STATION | OFFSET | SIDE | 6 TO 15 UNITS | OVER 15 UNITS |
| 19+53 | 34' | LEFT | 8 | |
| 19+53 | 35' | LEFT | 9 | |
| 19+59 | 36' | LEFT | 12 | |
| 19+59 | 39' | LEFT | 11 | |
| 19+59 | 44' | LEFT | 11 | |
| 19+75 | 43' | LEFT | | 16 |
| 19+77 | 36' | LEFT | 15 | |
| 19+78 | 45' | LEFT | 6 | |
| 19+80 | 36' | LEFT | 11 | |
| 19+82 | 36' | LEFT | 12 | |
| 20+43 | 38' | LEFT | 6 | |
| 20+43 | 38' | LEFT | 10 | |
| 20+43 | 37' | LEFT | 7 | |
| 20+54 | 38' | LEFT | 6 | |
| 20+73 | 33' | LEFT | 8 | |
| 20+77 | 34' | LEFT | 6 | |
| 20+77 | 34' | LEFT | 6 | |
| 20+77 | 34' | LEFT | 6 | |
| 21+22 | 31' | LEFT | 7 | |
| 21+79 | 38' | LEFT | 11 | |
| TOTAL | | | 168 | 16 |

| TEMPORARY DITCH CHECKS | | |
|------------------------|-------|------|
| STATION | SIDE | FOOT |
| 18+65 | RIGHT | 12 |
| 19+55 | RIGHT | 12 |
| 20+48 | RIGHT | 12 |
| 21+25 | RIGHT | 12 |
| TOTAL | | 48 |

| PERIMETER EROSION BARRIER | | | |
|---------------------------|----------|------|-----|
| STATION TO STATION | SIDE | FOOT | |
| 17+75.00 | 19+34.50 | LEFT | 185 |
| 20+65.50 | 22+25.00 | LEFT | 180 |
| TOTAL | | | 365 |

| PIPE CULVERT REMOVAL | | | |
|----------------------|------|-------|------|
| STATION | SIZE | SIDE | FOOT |
| 19+44 | 24" | RIGHT | 40 |
| 20+63 | 24" | RIGHT | 49 |
| TOTAL | | | 89 |

| TURBIDITY CURTAIN | | |
|-------------------|---------|-------|
| LOCATION | LENGTH | SQ YD |
| CHANNEL | 45.00' | 15 |
| COFFERDAM | 120.00' | 40 |
| TOTAL | | 55 |

| EARTHWORK SUMMARY | | | | | | |
|--------------------------|------------------|--------------------|----------------------|----------------------|-------|------------------|
| STATION TO STATION | EARTH EXCAVATION | CHANNEL EXCAVATION | STRUCTURE EXCAVATION | COFFERDAM EXCAVATION | FILL | WASTE (SHORTAGE) |
| | | | | | | |
| RDWY 17+75.00 - 19+34.50 | 96 | | | | 556 | (484) |
| RDWY 20+65.50 - 22+25.00 | 71 | | | | 501 | (448) |
| CHANNEL | | 415 | | | | |
| STRUCTURE | | | 70 | | | |
| COFFERDAM | | | | 115 | | |
| TOTAL | 167 | 415 | 70 | 115 | 1,057 | (932) |
| USE | 165 | 415 | 70 | 115 | - | (930) |

(@ 25% SHRINKAGE)

| PAVEMENT SCHEDULE | | | | | | | |
|--------------------|----------|------------|----------------------------------|----------------------------------|----------------------------|-----------------------------|----------------------------|
| STATION TO STATION | WIDTH | LENGTH | BITUMINOUS MATERIALS (TACK COAT) | BITUMINOUS MATERIALS (TACK COAT) | HOT-MIX ASPHALT BINDER CSE | HOT-MIX ASPHALT SURFACE CSE | LONGITUDINAL JOINT SEALANT |
| | | | 0.05LBS/SQ FT | 0.25LBS/SQ FT | 112#/SQ YD/IN | 112#/SQ YD/IN | |
| 17+75.00 | 18+25.00 | 22.01' AVG | 50.00' | 55 | | | |
| 18+25.00 | 19+34.50 | 23.12' AVG | 109.50' | 127 | | | |
| BRIDGE DECK | | 30.00' | 131.00' | 197 | | | |
| 20+65.50 | 21+75.00 | 23.35' AVG | 109.50' | 128 | | | |
| 21+75.00 | 22+25.00 | 22.19' AVG | 50.00' | 56 | | | |
| 20+65.50 | 21+60.00 | 22.34' AVG | 94.50' | | 528 | | |
| 20+65.50 | 21+60.00 | 22.57' AVG | 94.50' | | | 37 | |
| 17+75.00 | 18+25.00 | 21.55' AVG | 50.00' | | | | 18 |
| 18+25.00 | 19+34.50 | 22.55' AVG | 109.50' | | | | 55 |
| BRIDGE DECK | | 30.00' | 131.00' | | | | 47 |
| 20+65.50 | 21+75.00 | 22.25' AVG | 109.50' | | | | 37 |
| 21+75.00 | 22+25.00 | 21.70' AVG | 50.00' | | | | 20 |
| TOTAL | | | | 563 | 528 | 37 | 177 |

TO BE APPLIED TO THE EXISTING PAVEMENT SURFACE AND/OR BINDER COURSE JOINT AS SCHEDULED AND SHOWN ON THE PLANS AND AT THE DISCRETION OF THE ENGINEER.

| TRAFFIC BARRIER TERMINAL, TYPE 6A | | | |
|-----------------------------------|----------|------|---|
| STATION TO STATION | SIDE | EACH | |
| 18+97.00 | 19+34.50 | LT | 1 |
| 18+97.00 | 19+34.50 | RT | 1 |
| 20+65.50 | 21+03.00 | LT | 1 |
| 20+65.50 | 21+03.00 | RT | 1 |
| TOTAL | | | 4 |

| AGGREGATE SHOULDERS, TYPE A 140#/CF | | | | | |
|-------------------------------------|----------|-------|-----------|--------|-----|
| STATION TO STATION | SIDE | WIDTH | LENGTH | TON | |
| 17+75.00 | 18+37.00 | LT | 6.73' AVG | 62.00' | 15 |
| 17+75.00 | 18+37.00 | RT | 6.31' AVG | 62.00' | 14 |
| 18+37.00 | 18+72.00 | LT | 9.00' | 35.00' | 11 |
| 18+37.00 | 18+72.00 | RT | 9.00' | 35.00' | 11 |
| 18+72.00 | 19+12.00 | LT | 8.88' AVG | 40.00' | 12 |
| 18+72.00 | 19+12.00 | RT | 8.88' AVG | 40.00' | 12 |
| 19+12.00 | 19+34.50 | LT | 6.88' AVG | 22.50' | 6 |
| 19+12.00 | 19+34.50 | RT | 6.88' AVG | 22.50' | 6 |
| 20+65.50 | 20+88.00 | LT | 6.88' AVG | 22.50' | 6 |
| 20+65.50 | 20+88.00 | RT | 6.88' AVG | 22.50' | 6 |
| 20+88.00 | 21+28.00 | LT | 8.88' AVG | 40.00' | 12 |
| 20+88.00 | 21+28.00 | RT | 8.88' AVG | 40.00' | 12 |
| 21+28.00 | 21+63.00 | LT | 9.00' | 35.00' | 11 |
| 21+28.00 | 21+63.00 | RT | 9.00' | 35.00' | 11 |
| 21+63.00 | 22+25.00 | LT | 6.87' AVG | 62.00' | 15 |
| 21+63.00 | 22+25.00 | RT | 6.56' AVG | 62.00' | 14 |
| TOTAL | | | | | 174 |

| TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | | | |
|--|----------|------|---|
| STATION TO STATION | SIDE | EACH | |
| 18+47.00 | 18+97.00 | LT | 1 |
| 18+47.00 | 18+97.00 | RT | 1 |
| 21+03.00 | 21+53.00 | LT | 1 |
| 21+03.00 | 21+53.00 | RT | 1 |
| TOTAL | | | 4 |

| PAINT PAVEMENT MARKING - LINE 4" | | | |
|----------------------------------|----------|-------------------------|-------|
| STATION TO STATION | SIDE | DESCRIPTION | FOOT |
| 17+75.00 | 22+25.00 | LEFT WHITE SOLID | 450 |
| 17+75.00 | 22+25.00 | CENTER YELLOW SKIP DASH | 115 |
| 17+75.00 | 22+25.00 | RIGHT WHITE SOLID | 450 |
| TOTAL | | | 1,015 |

| HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | | | | |
|---|----------|------------|--------|-----|
| STATION TO STATION | WIDTH | LENGTH | SQ YD | |
| 17+75.00 | 18+15.00 | 21.03' AVG | 40.00' | 94 |
| 21+85.00 | 22+25.00 | 21.11' AVG | 40.00' | 94 |
| TOTAL | | | | 188 |

USFR: SMURFITM004, TITLE: 110001-01-01, DATE: 01/15/2021, USER: SMMORZWA, CHECKED: STM, DATE: 02/15/2021

| | | | | | |
|------------|------------|----------|-----------|---------|---|
| USFR NAME | SMORZWA | DESIGNED | MMO | REVISED | - |
| PLOT SCALE | 1/25,000 | DRAWN | MMO | REVISED | - |
| PLOT DATE | 02/15/2021 | CHECKED | STM | REVISED | - |
| | | DATE | 2/15/2021 | REVISED | - |

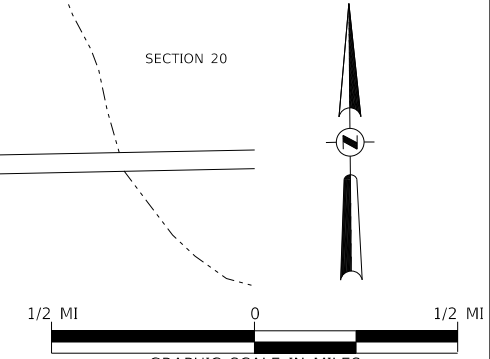
IROQUOIS COUNTY COUNTY HIGHWAY 4 OVER PIKE CREEK

| | | | | | | |
|--|--|----------------------------------|----------------|--------------------|--------------|-----------|
| SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES | | F.A.S. NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| SCALE: NONE | | 321 | 11-00047-01-BR | IROQUOIS | 27 | 3 |
| SHEET 1 OF 1 SHEETS STA. 17+75.00 TO STA. 22+25.00 | | FED. ROAD DIST. NO. 7 (ILLINOIS) | | CONTRACT NO. 87725 | | |

MODEL: I:\MODELS\MHMF5
 FILE NAME: 022121 - C1-4 over Pike Creek (Iroquois) CADDD\CADD Sheets\A5.1\001.dgn

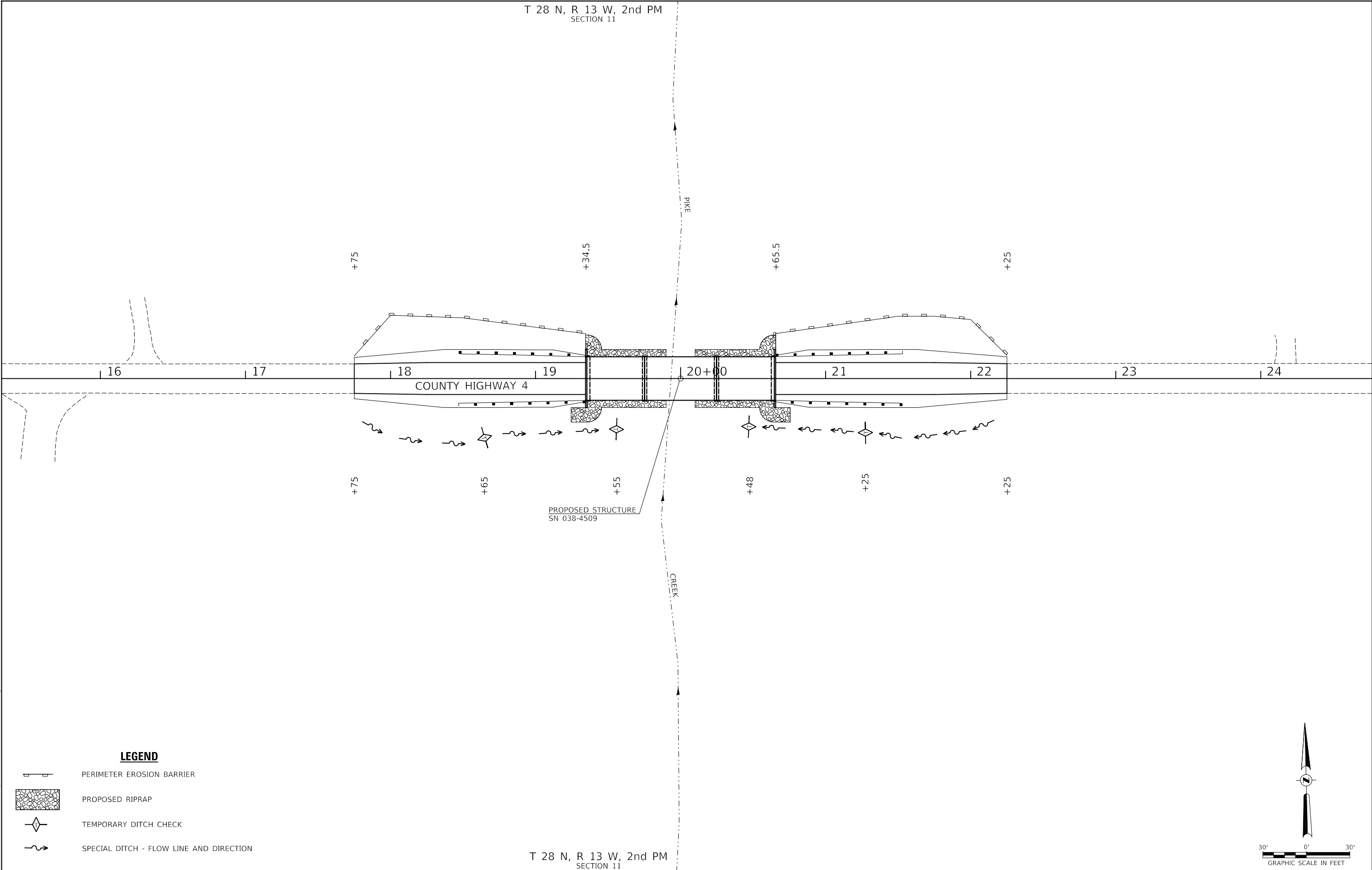


- 1 ROAD CLOSED 3/4 MILES AHEAD LOCAL TRAFFIC ONLY R11-3
 - 2 ROAD CLOSED 2 1/4 MILES AHEAD LOCAL TRAFFIC ONLY R11-3
 - 3 ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY R11-3
 - 4 ROAD CLOSED 4 1/2 MILES AHEAD LOCAL TRAFFIC ONLY R11-3
 - 5 ROAD CLOSED AHEAD W20-3
 - 6 ROAD CLOSED 500 FT W20-3
 - 7 TYPE III BARRICADES
- SEE STANDARD BLR 21 AND SPECIAL PROVISIONS




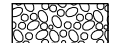


| | | | | | | | | | | | | | |
|--|---------------------------|------------------|-----------------|---|---|---------|------|--------|-----------------|------------------------|--------------------|-----------------|-------------|
| | USER NAME = SMierzwa | DESIGNED - MMO | REVISED - _____ | IROQUOIS COUNTY COUNTY HIGHWAY 4 OVER PIKE CREEK | TRAFFIC CONTROL PLAN | | | | F.A.S. RTE. 321 | SECTION 11-00047-01-BR | COUNTY IROQUOIS | TOTAL SHEETS 27 | SHEET NO. 4 |
| | PLOT SCALE = 2,000' / in. | CHECKED - STM | REVISED - _____ | | SCALE: NONE | SHEET 1 | OF 1 | SHEETS | STA. 17+75.00 | TO STA. 22+25.00 | CONTRACT NO. 87725 | | |
| | PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ | | FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT NO. F35F(323) | | | | | | | | |
| | | | | | | | | | | | | | |

T 28 N, R 13 W, 2nd PM
SECTION 11

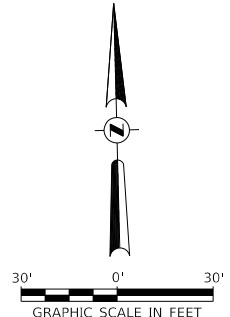


PROPOSED STRUCTURE
SN 038-4509

LEGEND

-  PERIMETER EROSION BARRIER
-  PROPOSED RIPRAP
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION

T 28 N, R 13 W, 2nd PM
SECTION 11



MODEL: s:\MODELS\MMEs
 FILE NAME: 11-00047-01-01-01.ctb
 PROJECT: 11-00047-01-01-01.ctb
 SHEET: 11-00047-01-01-01.ctb

| | | |
|------------------------------|------------------|-----------------|
| USER NAME = SMierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 60,0000 ' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

EROSION CONTROL PLAN

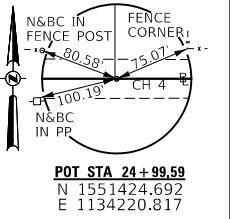
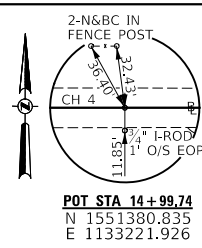
SCALE: 1"=30' SHEET 1 OF 1 SHEETS STA. 17+75.00 TO STA. 22+25.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------------|----------|--------------|--------------------------------|
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 5 |
| CONTRACT NO. 87725 | | | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT NO. F35F(323) |

T 28 N, R 13 W, 2nd PM
SECTION 11

ARTHUR & SANDRA BALTHAZOR, TRUSTEES

ARTHUR & SANDRA BALTHAZOR, TRUSTEES

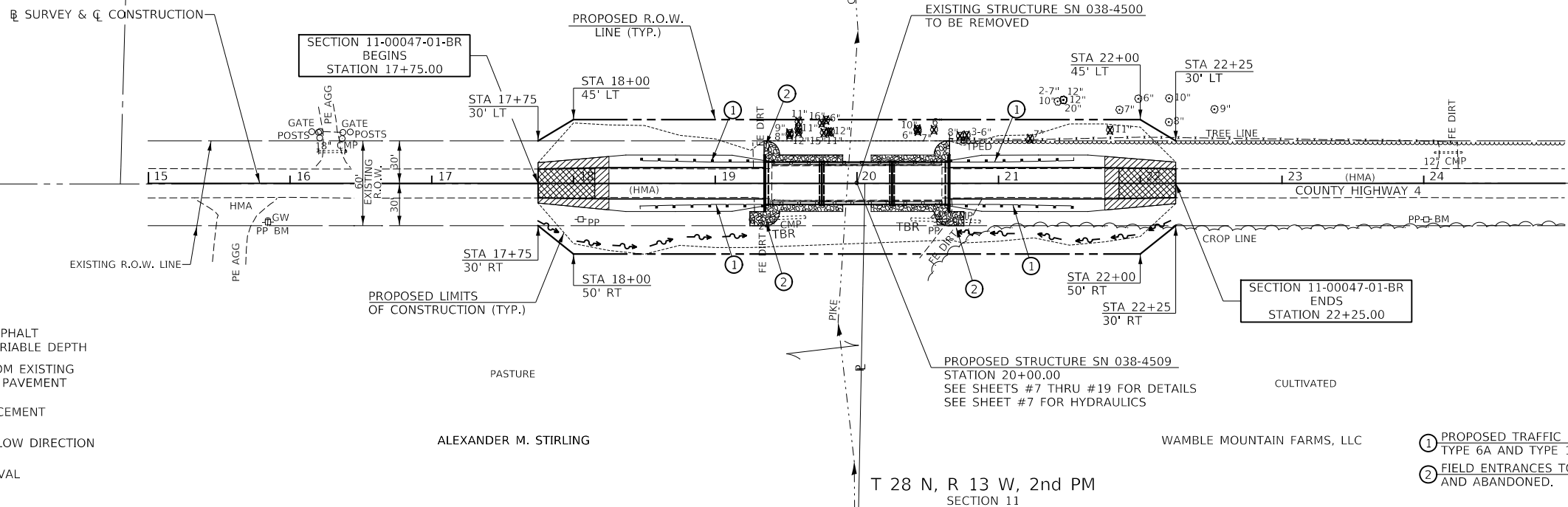


| | | |
|------|-------------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | |
| | ALIGNMENT CHECKED | |
| | NOTE BOOK NO. | |
| | CADD FILE NAME | |

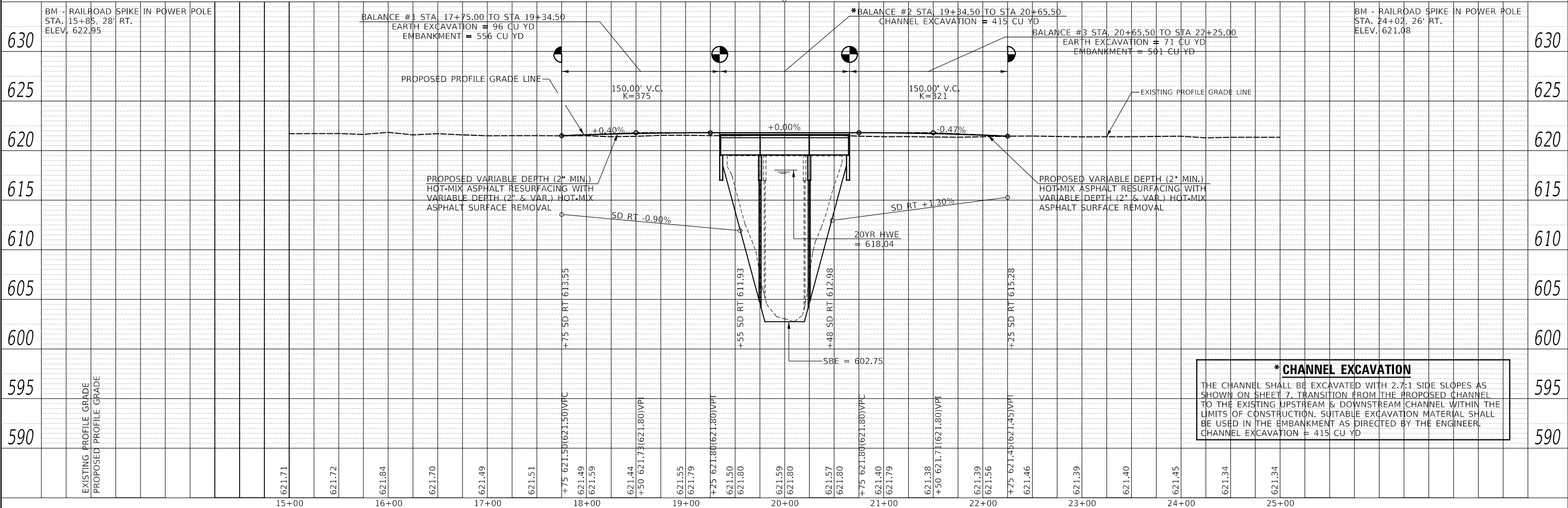
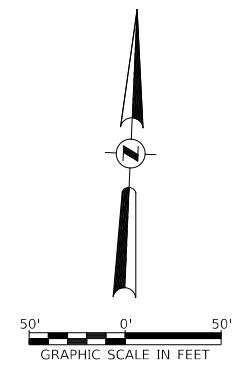
| | | |
|---------|--------------------------|------|
| PROFILE | SURVEYED | DATE |
| | PLOTTED | |
| | GRADES CHECKED | |
| | NOTE BOOK NO. | |
| | STRUCTURE NOTATIONS CHWD | |

LEGEND

- PROPOSED HOT MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
- PROPOSED RIPRAP PLACEMENT
- SPECIAL DITCH WITH FLOW DIRECTION
- PROPOSED TREE REMOVAL



- ① PROPOSED TRAFFIC BARRIER TERMINALS, TYPE 6A AND TYPE 1 (SPECIAL) TANGENT
- ② FIELD ENTRANCES TO BE REMOVED AND ABANDONED.



*** CHANNEL EXCAVATION**
THE CHANNEL SHALL BE EXCAVATED WITH 2.7:1 SIDE SLOPES AS SHOWN ON SHEET 7. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL SHALL BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.
CHANNEL EXCAVATION = 415 CU YD

MODEL: SPODEL\MAMES
FILE NAME: W35311 - Ch 4 over Pike Creek (Iroquois)\CADD\CADD Sheets\43 (4600).dgn

| | | |
|------------------------------|------------------|-----------|
| USER NAME = SMierzwa | DESIGNED - BAN | REVISED - |
| | DRAWN - MMO | REVISED - |
| PLOT SCALE = 100,0000' / in. | CHECKED - STM | REVISED - |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - |

**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

| | |
|-------------------------|-------------------------|
| PLAN AND PROFILE | |
| SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS |
| STA. 17+75.00 | TO STA. 22+25.00 |

| | | | | |
|--------------------------------|------------------------|-----------------|--------------------------------|-------------|
| F.A.S. RTE. 321 | SECTION 11-00047-01-BR | COUNTY IROQUOIS | TOTAL SHEETS 27 | SHEET NO. 6 |
| CONTRACT NO. 87725 | | | FED. ROAD DIST. NO. 7 ILLINOIS | |
| FED. AID PROJECT NO. F35F(323) | | | | |

B.M.: RR Spike in Power Pole
Sta. 15+BS, 28' RT.
Elev. 622.95

RR Spike in Power Pole
Sta. 24+02, 26' RT.
Elev. 621.0B

PIKE CREEK
BUILT 202 BY
IROQUOIS COUNTY
SEC. 11-00047-01-BR
C.H. 4 STATION 20+00.00
F.A. PROJ. NO. F35F(323)
STR. NO. 03B-4509 LOADING HL-93

NAME PLATE

Locate Name Plate at S.W. Wingwall
Corner of Bridge (See Std. S15001)

Existing Structure:
Three span precast prestressed concrete deck beam superstructure on reinforced concrete pile bent abutments and pile bent piers with exposed concrete piles. The structure is 121'-2" back to back of abutments, 26'-0" out to out of deck, and is not skewed. Str. No. 03B-4500

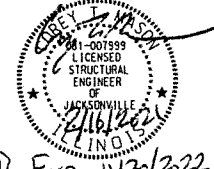
Salvage: None
Road to be closed to traffic during construction.

GENERAL NOTES
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.
For Soil Boring Logs, See Sheets No. 11 thru 13.
A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(10) and 1021.07 of the Standard Specifications.
Reinforcement Bars designated (E) shall be epoxy coated.
Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|-------|-------|-------|-------|
| Channel Excavation | CU YD | | 415 | 415 |
| Stone Riprap, Class A5 | TON | | 730 | 730 |
| Filter Fabric | SO YD | | 545 | 545 |
| Hot-Mix Asphalt Surface Course, 1L-9.5, Mix "C", NSO | TON | 47 | | 47 |
| Removal of Existing Structures | EACH | | | 1 |
| Structure Excavation | CU YD | | 70 | 70 |
| Cofferdam Excavation | CU YD | | 115 | 115 |
| Cofferdam (Type 1) (Location-1) | EACH | | 1 | 1 |
| Cofferdam (Type 1) (Location-2) | EACH | | 1 | 1 |
| Concrete Structures | CU YD | | 116.8 | 116.8 |
| Concrete Encasement | CU YD | | 3.5 | 3.5 |
| Precast Prestressed Concrete Deck Beams (21" Depth) | SO FT | 3,870 | | 3,870 |
| Reinforcement Bars | POUND | | 9,610 | 9,610 |
| Steel Railing, Type SM | FOOT | 262 | | 262 |
| Furnishing Steel Piles HP10x42 | FOOT | | 900 | 900 |
| Driving Piles | FOOT | | 900 | 900 |
| Test Pile Steel HP10x42 | EACH | | 4 | 4 |
| Name Plates | EACH | | 1 | 1 |
| Piles Shoes | EACH | | 24 | 24 |
| Waterproofing Membrane System | SO YD | 437 | | 437 |
| Portland Cement Mortar Fairing Course | FOOT | 290 | | 290 |
| Controlled Low-Strength Material | CU YD | | 18.6 | 18.6 |

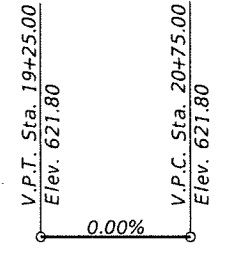
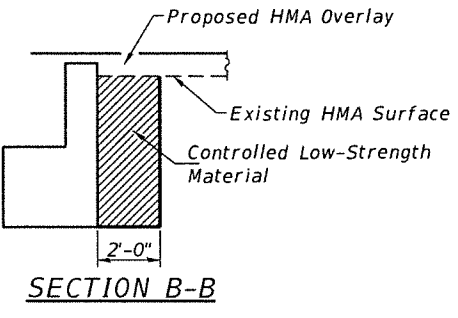
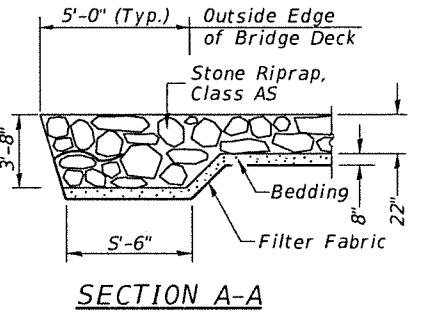
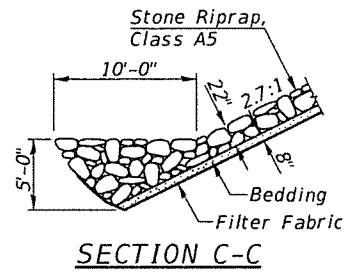
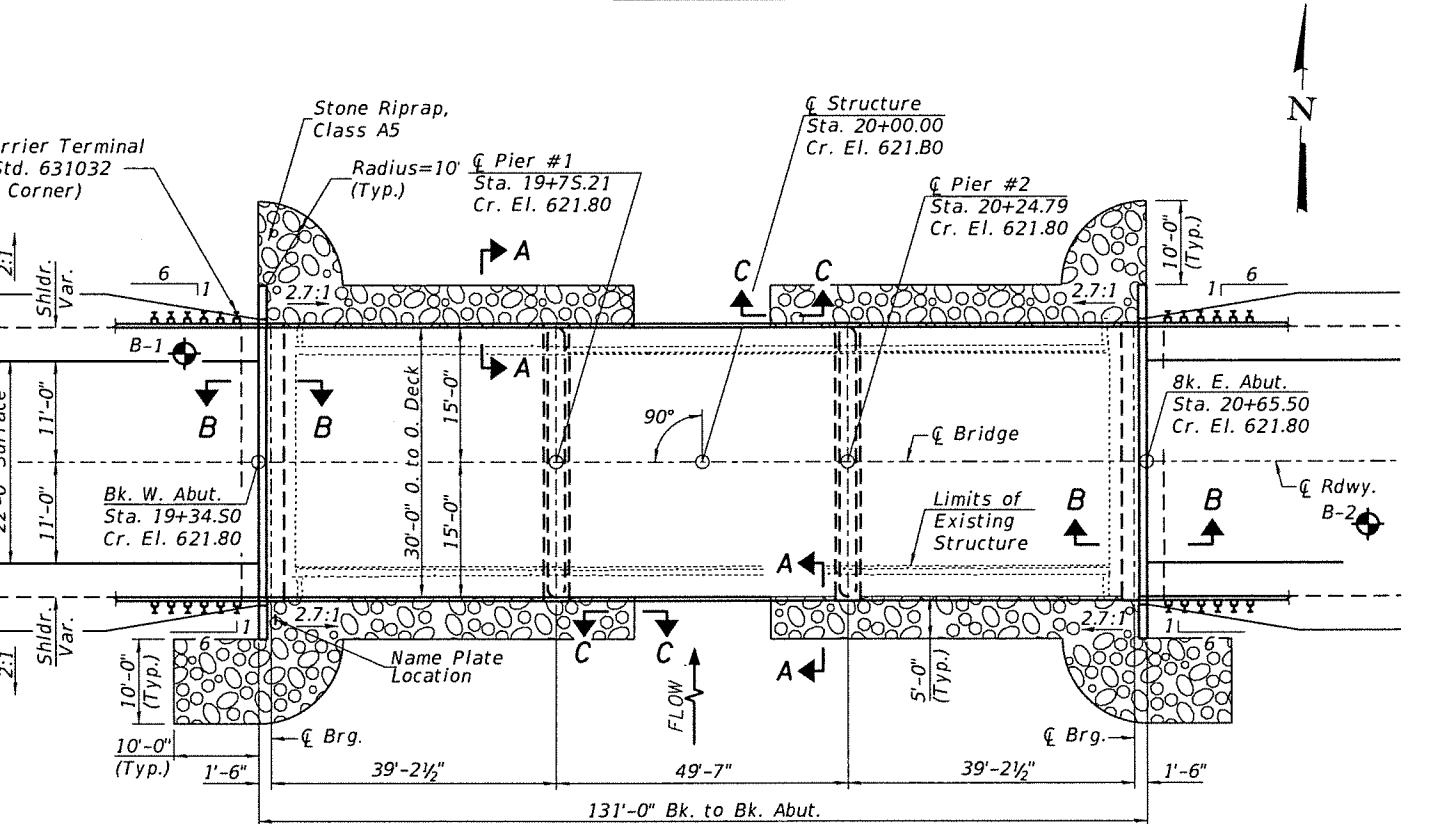
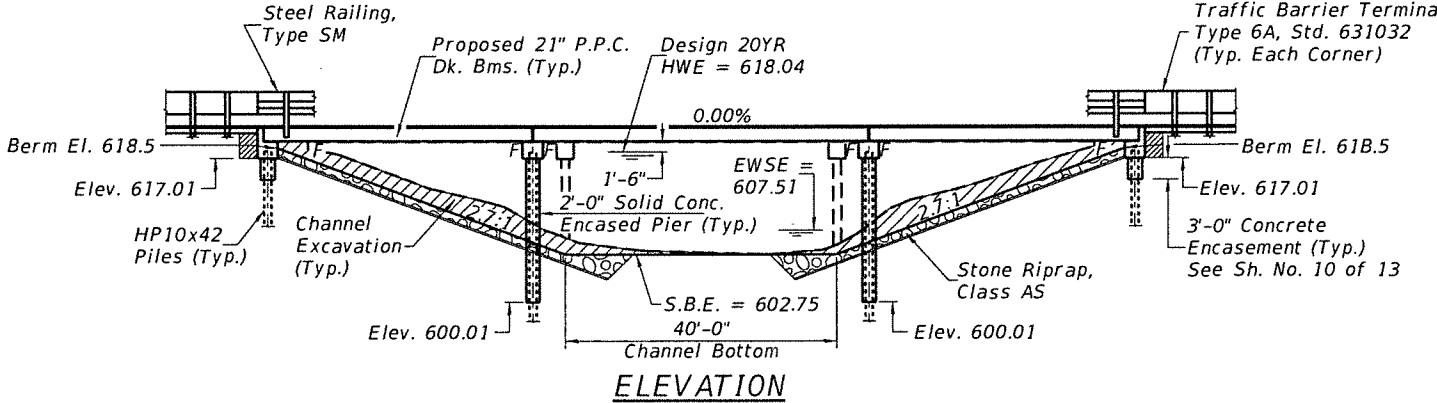
① See Special Provisions



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 Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

[Signature]
Illinois Structural No. 7999
Expires 11/30/2022

GENERAL PLAN & ELEVATION
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK



DESIGN SCOUR ELEVATION TABLE

| | Design Scour Elevations (ft.) | | | | Item 113 |
|--------|-------------------------------|---------|---------|----------|----------|
| | W. Abut. | Pier #1 | Pier #2 | E. Abut. | |
| 0100 | 617.0 | 600.4 | 600.4 | 617.0 | 8 |
| 0200 | 617.0 | 600.2 | 600.2 | 617.0 | |
| Design | 617.0 | 600.4 | 600.4 | 617.0 | |
| Check | 617.0 | 600.2 | 600.2 | 617.0 | |

WATERWAY INFORMATION

Drainage Area = 69.56 Sq. Mi. Low Grade Elev. = 621.34 @ Sta. 24+50.00

| Flood | Freq. Yr. | 0 C.F.S. | Opening Sq. Ft. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|--------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|--------|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| Design | 20 | 2,890 | 972 | 1,210 | 618.04 | 0.26 | 0.13 | 618.30 | 618.17 |
| Base | 100 | 4,190 | 1,129 | 1,393 | 620.71 | 0.27 | 0.16 | 620.98 | 620.87 |

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

PLAN

DESIGN SPECIFICATIONS

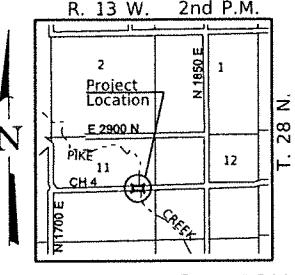
2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

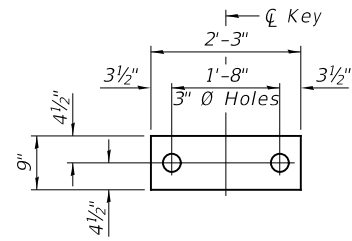
(FIELD UNITS) (PRECAST PRESTRESSED UNITS)
 $f'_c = 3,500$ p.s.i. $f'_c = 6,000$ p.s.i.
 $f_y = 60,000$ p.s.i. (Rein.) $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($1/2$ " Strands)
 $f'_{si} = 201,960$ p.s.i. ($1/2$ " Strands)

LOADING HL-93

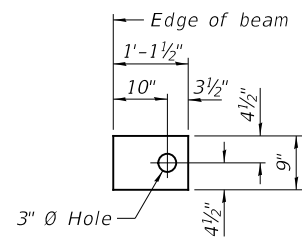
Allow 50#/sq. ft. for future wearing surface.



| SHEET NO. 1 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------------------|--------------|----------------|--------------------------------|--------------|-----------|
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 7 |
| S.N. 03B-4509 | | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |

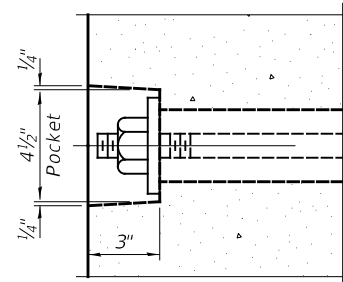


1/2" FABRIC BEARING PAD
(Interior) 36 Required

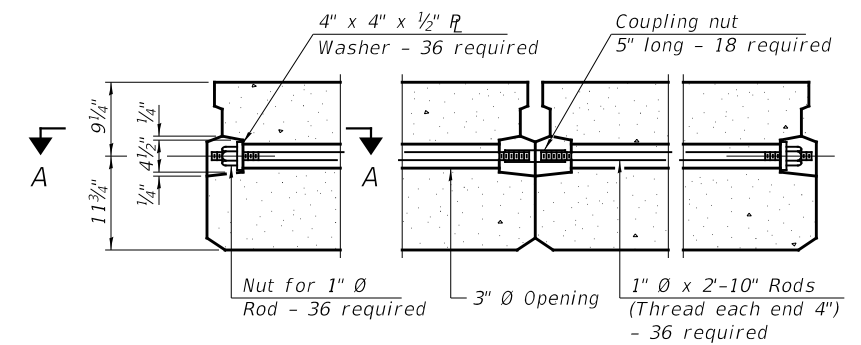


1/2" FABRIC BEARING PAD
(Exterior) 8 Required

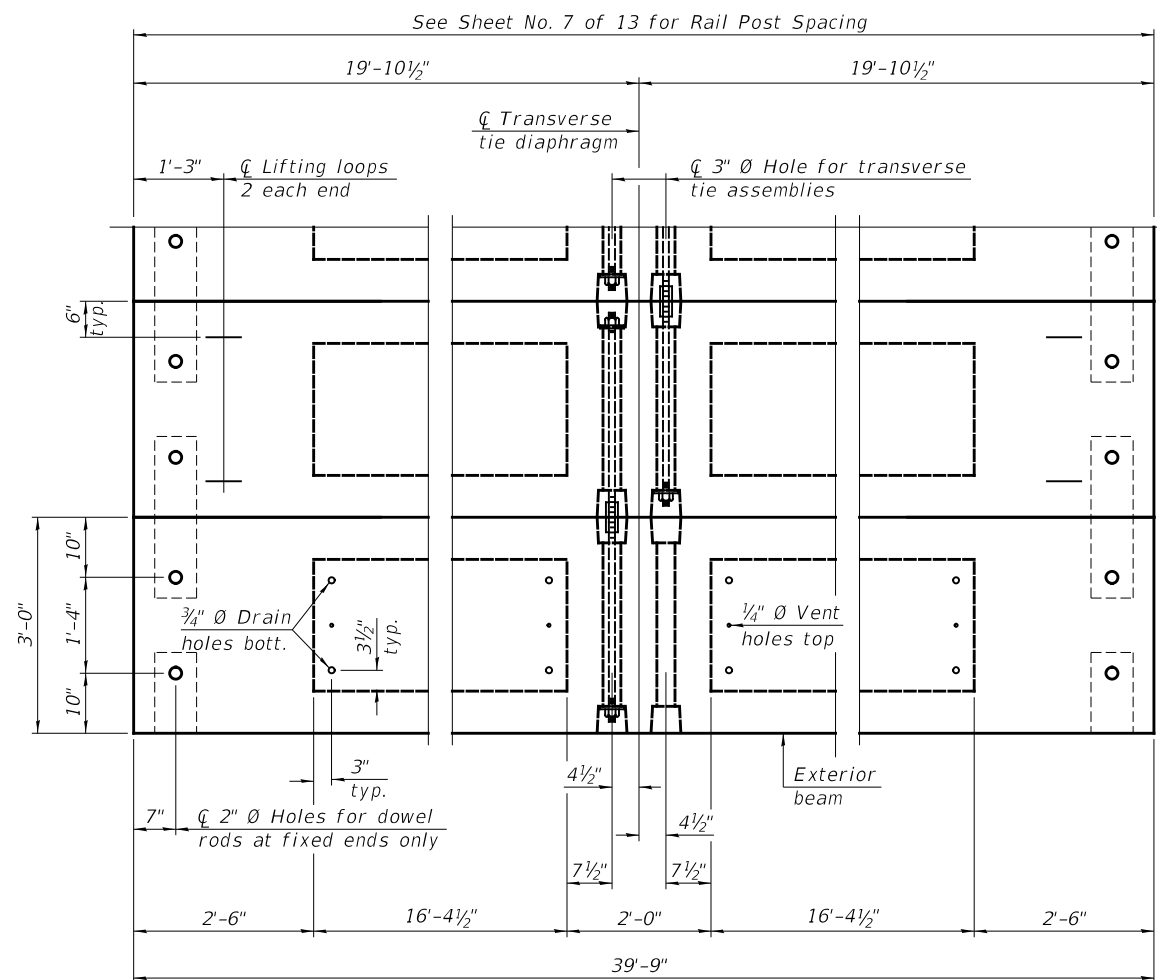
FIXED



SECTION A-A

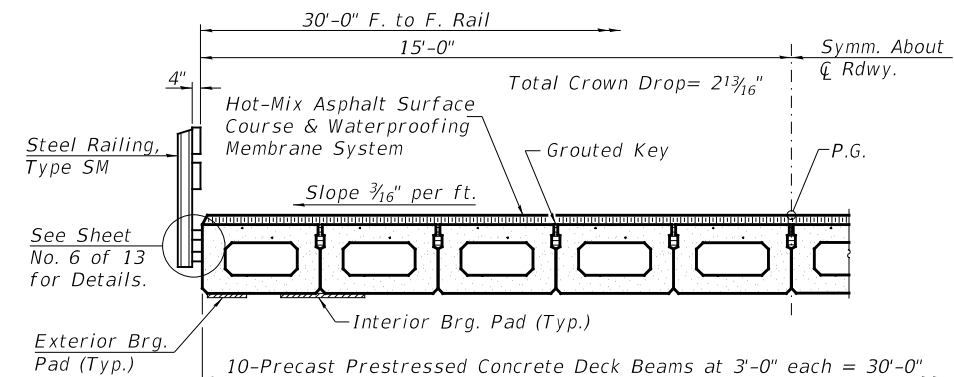


TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.



HALF CROSS SECTION

BILL OF MATERIAL

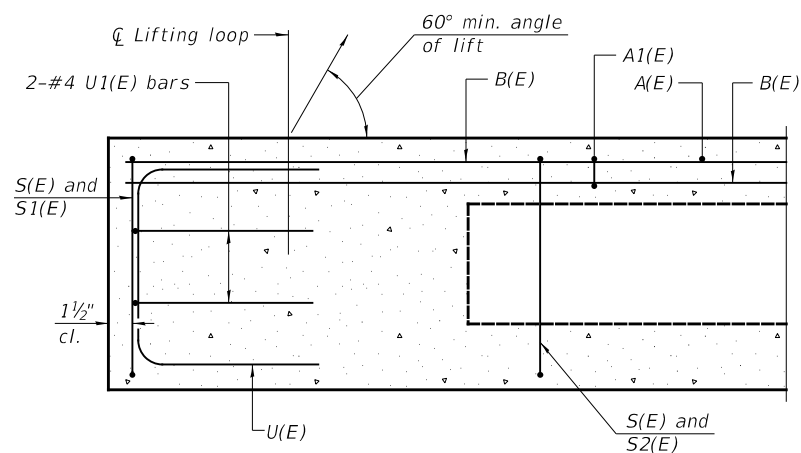
| ITEM | UNIT | QUANTITY |
|---|-------|----------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | SQ FT | 2,385 |

NOTES

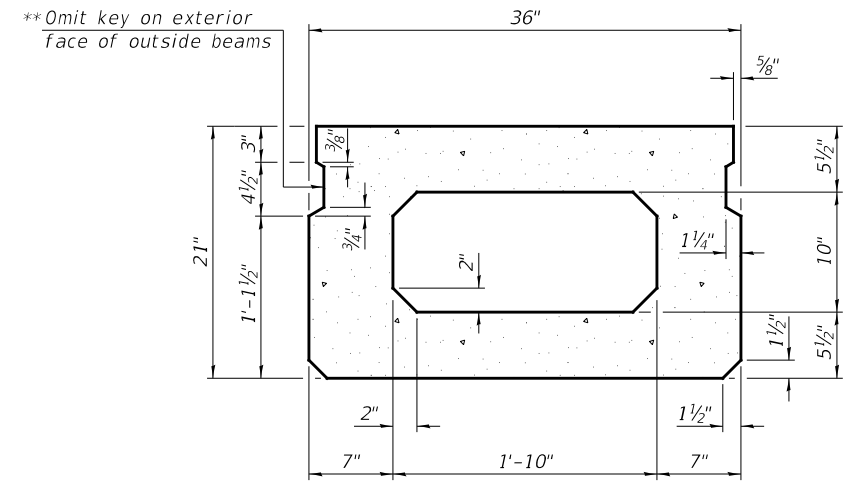
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" Ø rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" Ø lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

SUPERSTRUCTURE - SPANS 1 & 3
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

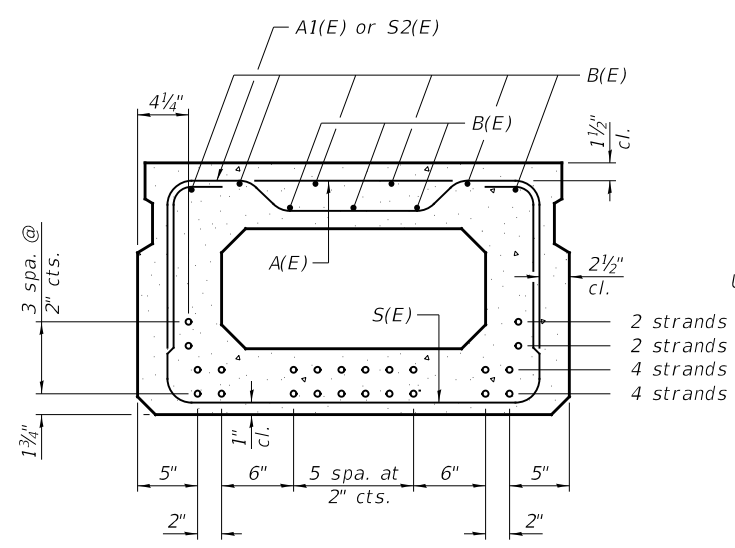
| SHEET NO. 2 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 8 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



SECTION A-A

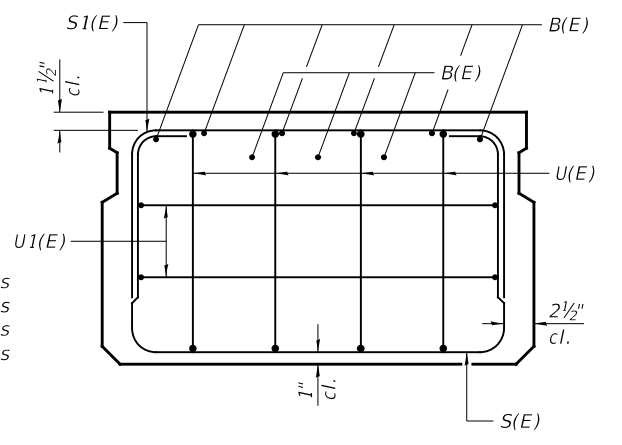


SECTION B-B
(Showing dimensions)



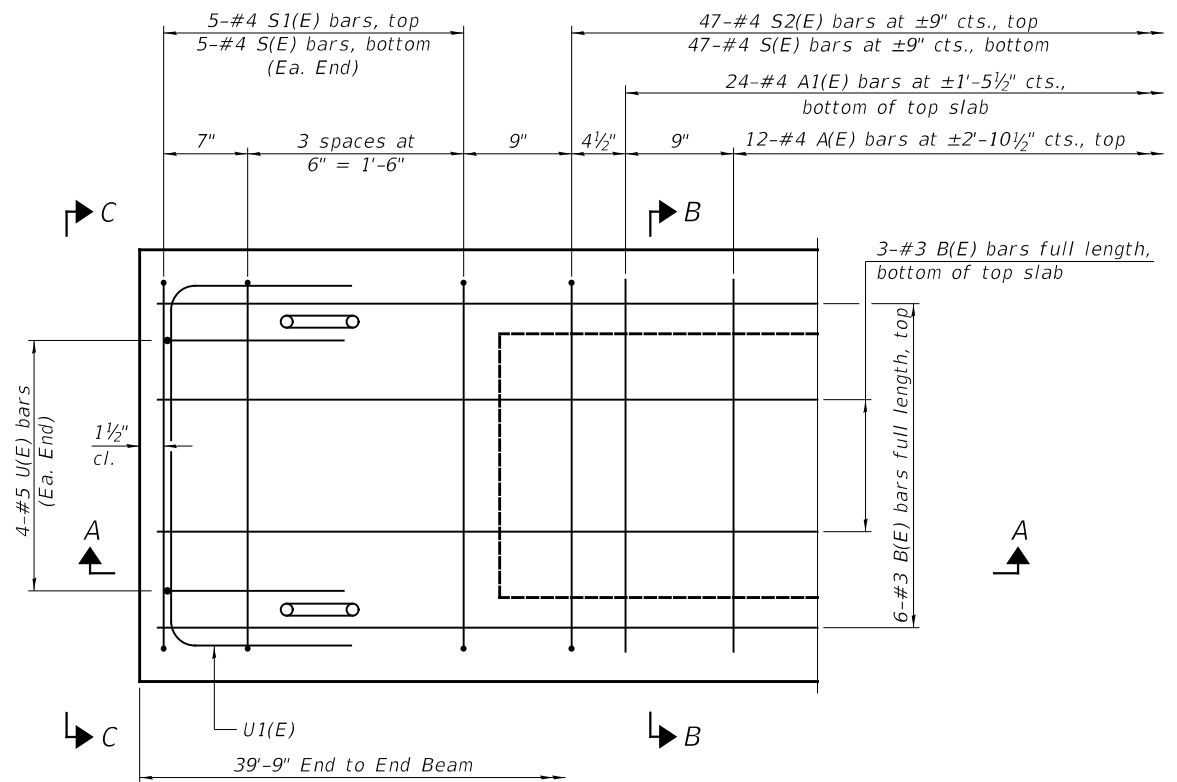
SECTION B-B

12-1/2"Ø Strands Each Strand Stressed to 30,900 Lbs.
 4-Strands 1 3/4" up, 4-Strands 3 3/4" up,
 2-Strands 5 3/4" up, 2-Strands 7 3/4" up
 Note: Place the number of strands specified in each row
 symmetrically about the centerline of beam in the
 permissible strand locations shown.

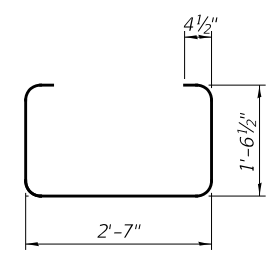


VIEW C-C

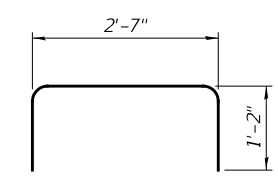
**Rail post anchor devices (Sheet No. 6 of 13)
 to be cast into exterior face of outside beams.



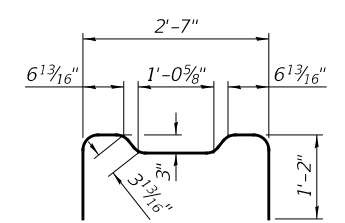
PLAN VIEW



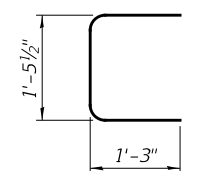
BAR S(E)



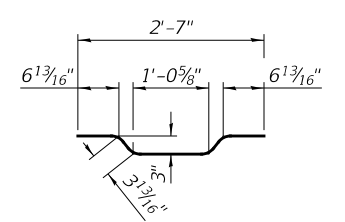
BAR S1(E)



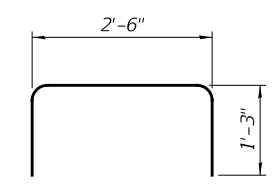
BAR S2(E)



BAR U(E)



BAR A1(E)



BAR U1(E)

BAR LIST

ONE BEAM ONLY

(For information only)

| BAR | NO. | SIZE | LENGTH | SHAPE |
|-------|-----|------|---------|-------|
| A(E) | 12 | #4 | 2'-7" | — |
| A1(E) | 24 | #4 | 2'-10" | ~ |
| B(E) | 9 | #3 | *39'-6" | — |
| S(E) | 57 | #4 | 6'-5" | ⌋ |
| S1(E) | 10 | #4 | 4'-11" | ⌋ |
| S2(E) | 47 | #4 | 5'-2" | ⌋ |
| U(E) | 8 | #5 | 4'-0" | ⌋ |
| U1(E) | 4 | #4 | 5'-0" | ⌋ |

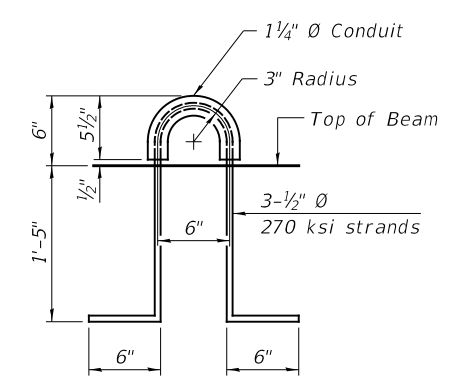
Note:
 See Sheet No. 2 of 13 for additional
 details and Bill of Material.

*Total length, lap as necessary.

MINIMUM BAR LAP

#3 bar = 1'-6"

Note: Spacing of S(E) and S2(E) bars may be adjusted
 up to 4" in the immediate area of the transverse
 tie diaphragms to miss the block outs for the
 transverse ties.



LIFTING LOOP DETAIL

SUPERSTRUCTURE DETAILS - SPANS 1 & 3

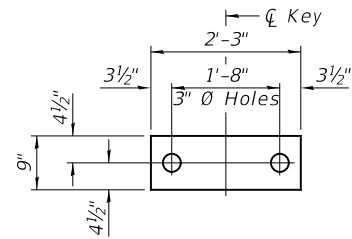
IROQUOIS COUNTY

SECTION 11-00047-01-BR

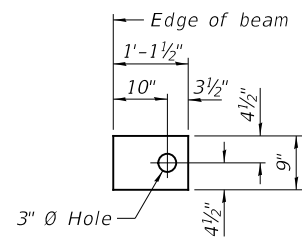
COUNTY HIGHWAY 4

OVER PIKE CREEK

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 3 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 9 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |

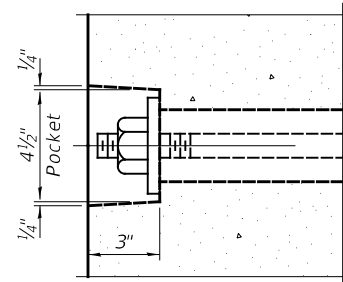


1/2" FABRIC BEARING PAD
(Interior) 18 Required

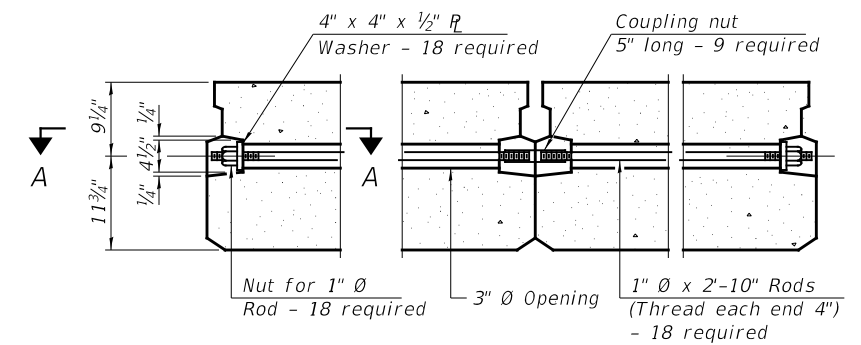


1/2" FABRIC BEARING PAD
(Exterior) 4 Required

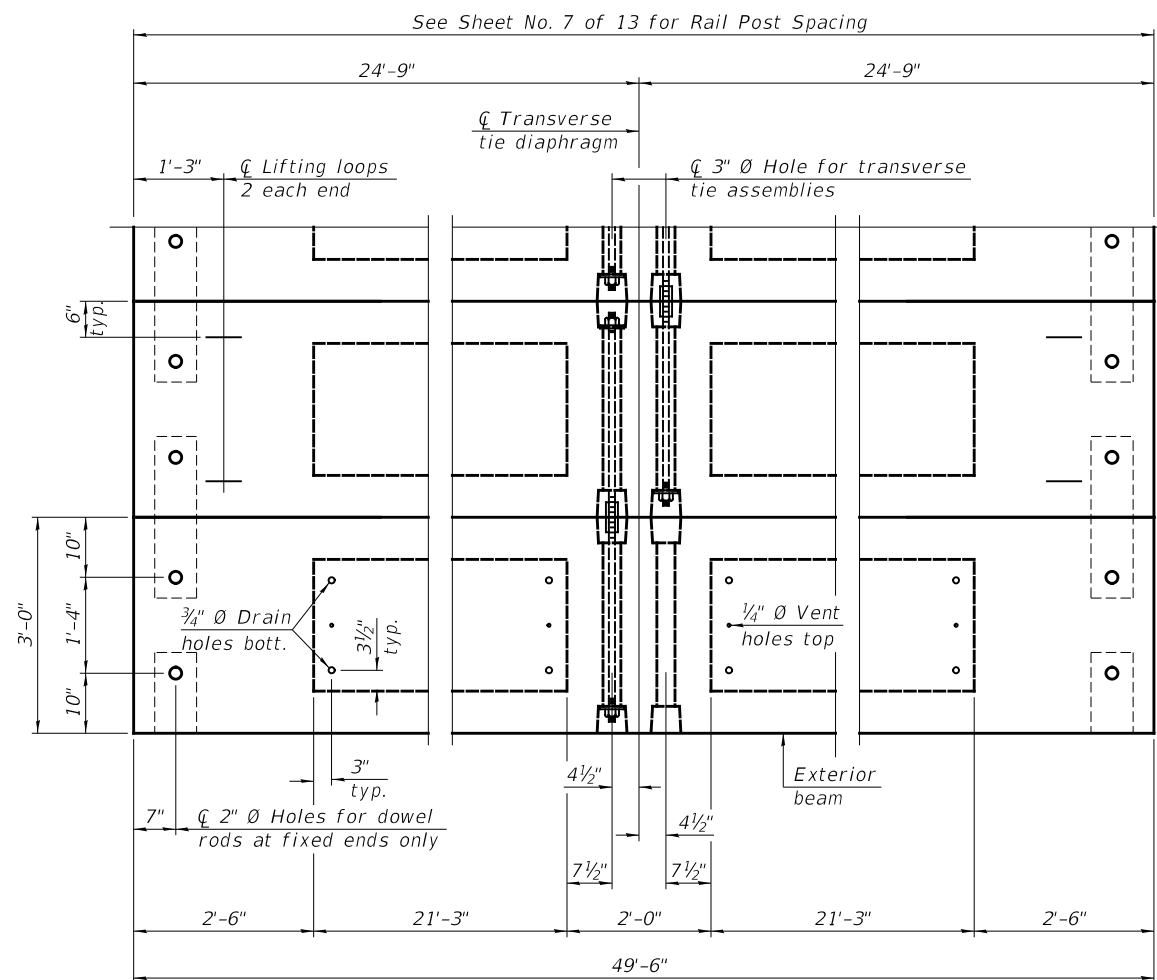
FIXED



SECTION A-A

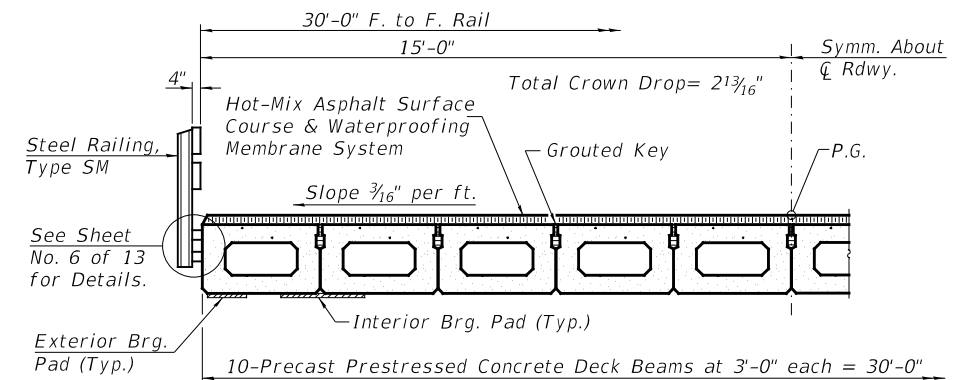


TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.



HALF CROSS SECTION

BILL OF MATERIAL

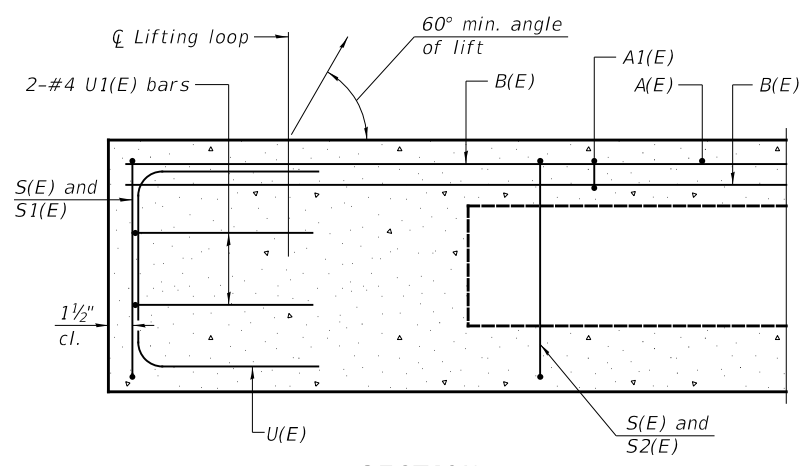
| ITEM | UNIT | QUANTITY |
|---|-------|----------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | SQ FT | 1,485 |

NOTES

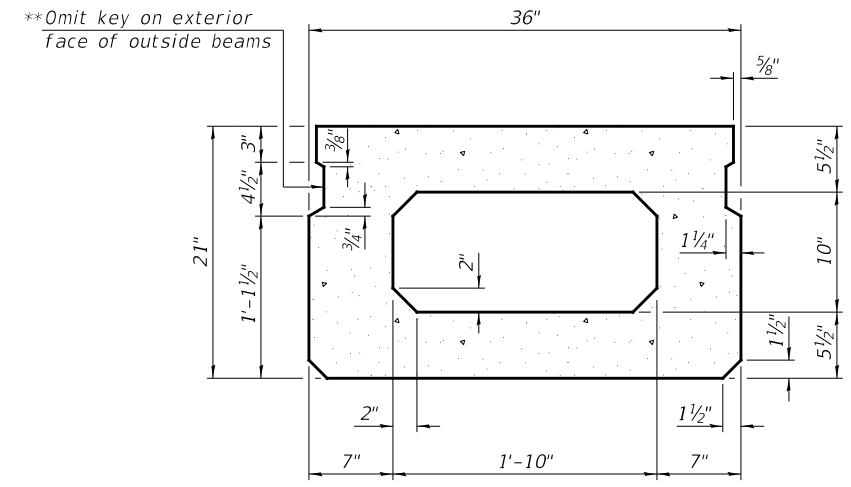
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" \emptyset rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" \emptyset lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

SUPERSTRUCTURE - SPAN 2
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

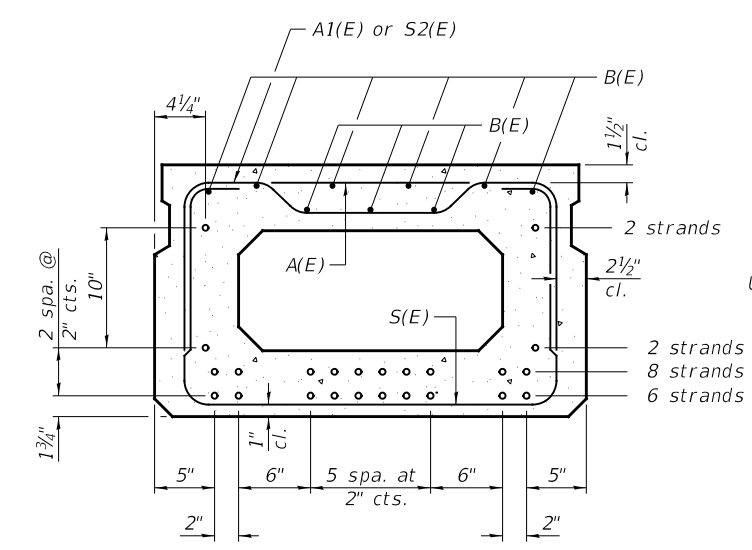
| SHEET NO. 4 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 10 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



SECTION A-A

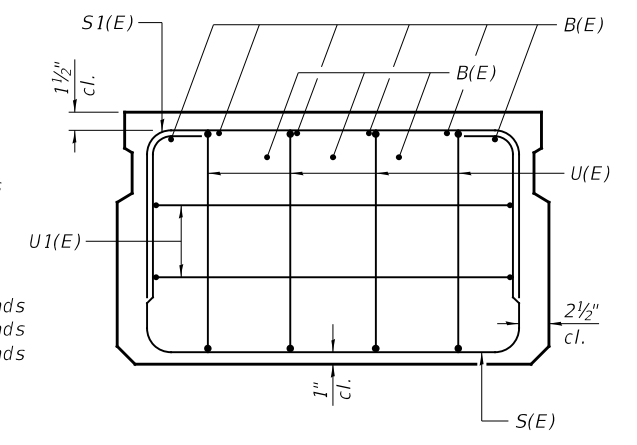


SECTION B-B
(Showing dimensions)



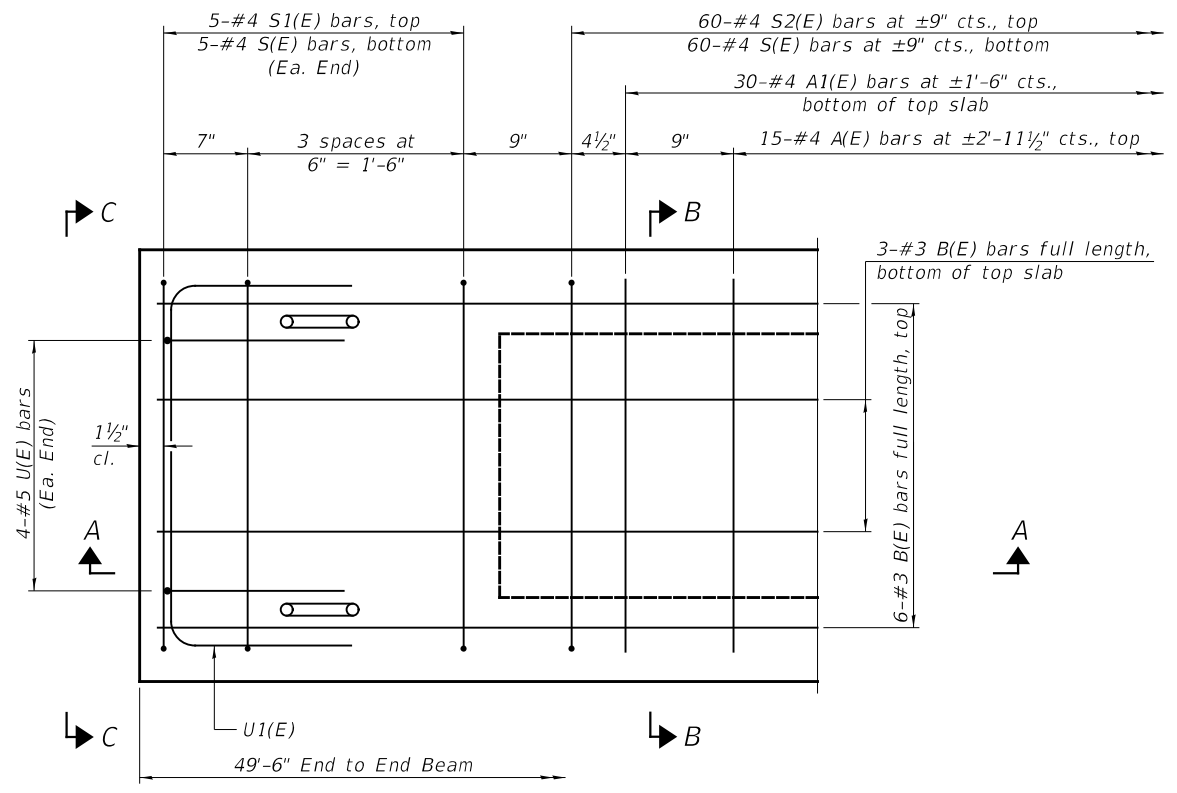
SECTION B-B

18-1/2"Ø Strands Each Strand Stressed to 30,900 Lbs.
 6-Strands 1 3/4" up, 8-Strands 3 3/4" up,
 2-Strands 5 3/4" up, 2-Strands 15 3/4" up
 Note: Place the number of strands specified in each row
 symmetrically about the centerline of beam in the
 permissible strand locations shown.

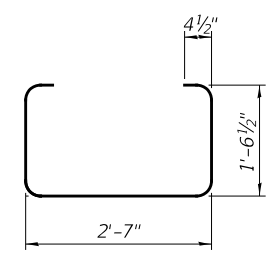


VIEW C-C

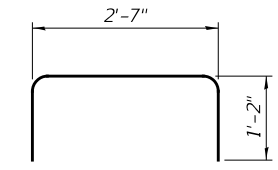
**Rail post anchor devices (Sheet No. 6 of 13)
 to be cast into exterior face of outside beams.



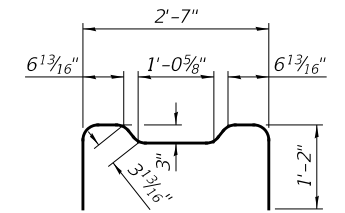
PLAN VIEW



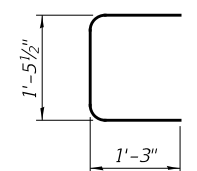
BAR S(E)



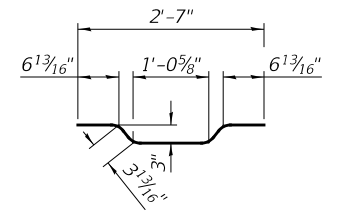
BAR S1(E)



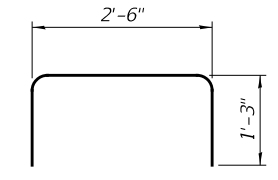
BAR S2(E)



BAR U(E)



BAR A1(E)



BAR U1(E)

BAR LIST

ONE BEAM ONLY
(For information only)

| BAR | NO. | SIZE | LENGTH | SHAPE |
|-------|-----|------|---------|-------|
| A(E) | 15 | #4 | 2'-7" | — |
| A1(E) | 30 | #4 | 2'-10" | ~ |
| B(E) | 9 | #3 | *49'-3" | — |
| S(E) | 70 | #4 | 6'-5" | ⌋ |
| S1(E) | 10 | #4 | 4'-11" | ⌋ |
| S2(E) | 60 | #4 | 5'-2" | ⌋ |
| U(E) | 8 | #5 | 4'-0" | ⌋ |
| U1(E) | 4 | #4 | 5'-0" | ⌋ |

Note:
 See Sheet No. 4 of 13 for additional
 details and Bill of Material.

*Total length, lap as necessary.

MINIMUM BAR LAP

#3 bar = 1'-6"

SUPERSTRUCTURE DETAILS -SPAN 2

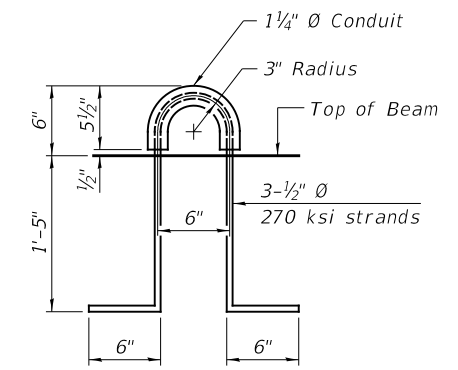
IROQUOIS COUNTY

SECTION 11-00047-01-BR

COUNTY HIGHWAY 4

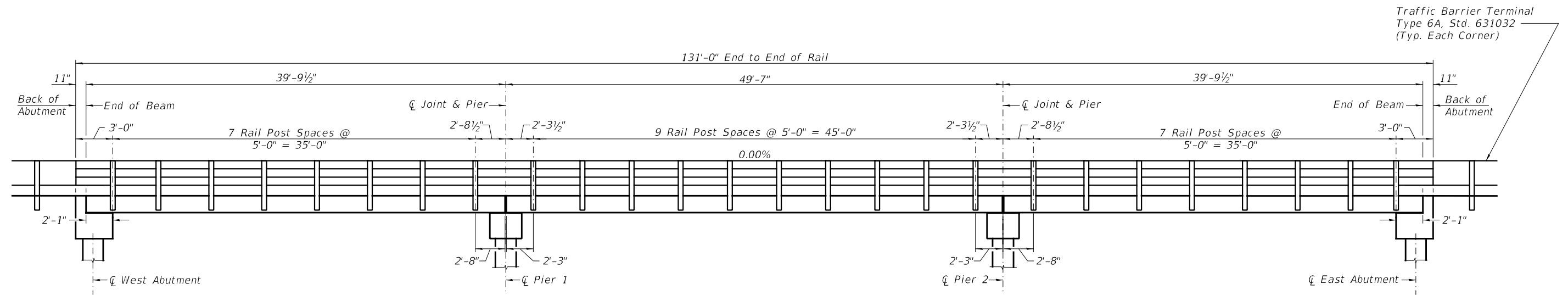
OVER PIKE CREEK

Note: Spacing of S(E) and S2(E) bars may be adjusted
 up to 4" in the immediate area of the transverse
 tie diaphragms to miss the block outs for the
 transverse ties.

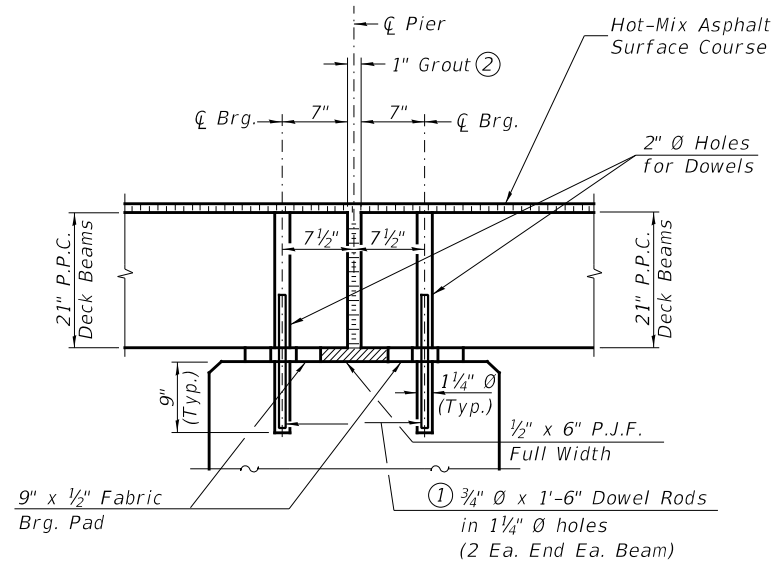


LIFTING LOOP DETAIL

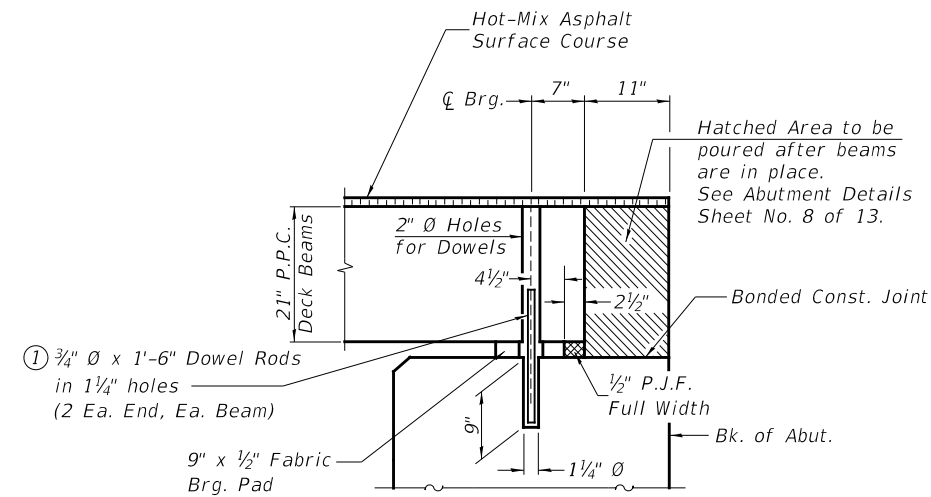
| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 5 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 11 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



RAIL POST SPACING

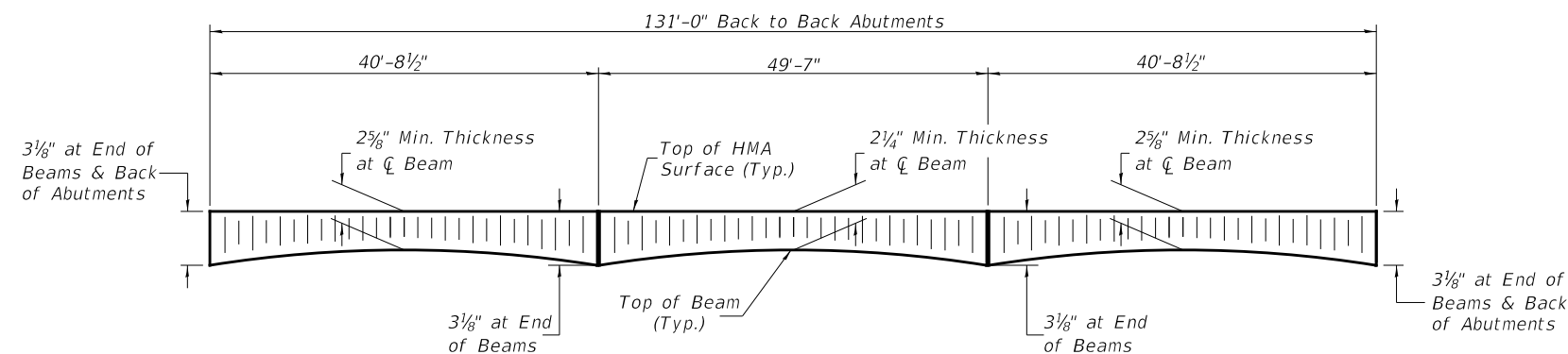


SECTION THRU PIERS



SECTION THRU ABUTMENTS

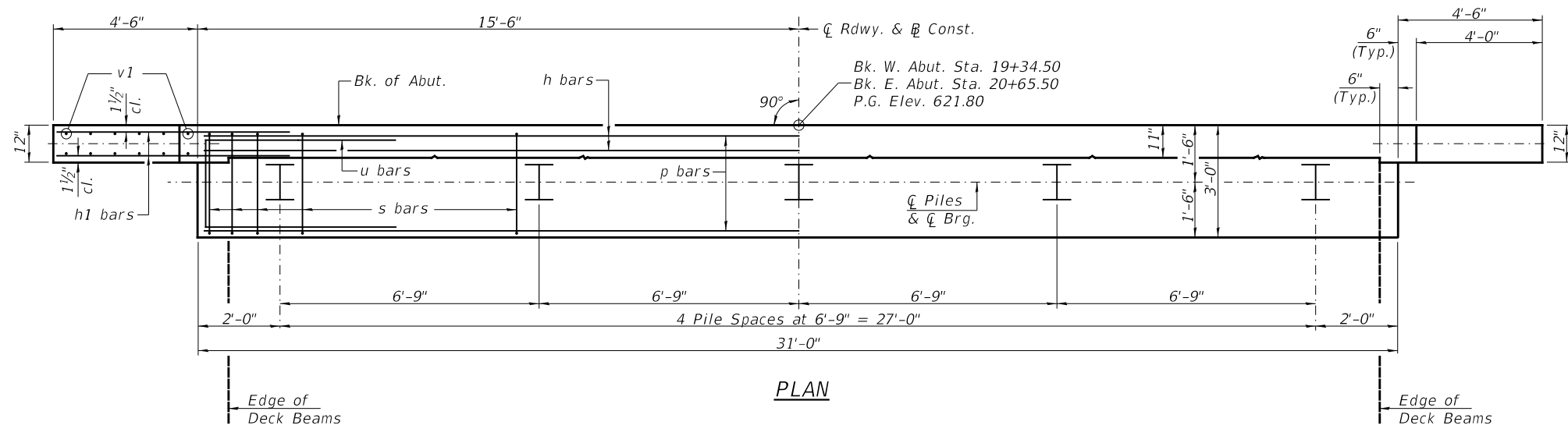
- ① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.
- ② 1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. 1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.



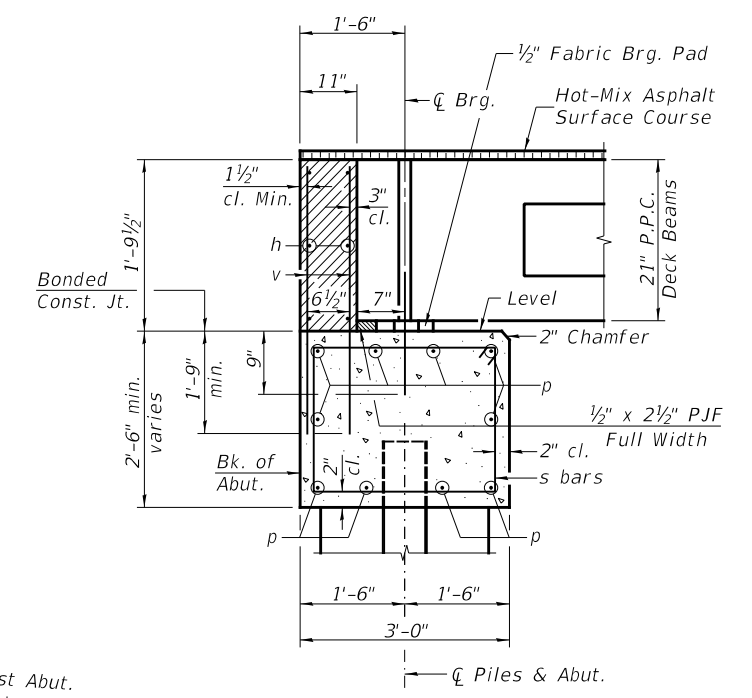
ANTICIPATED HMA SURFACE PROFILE
Includes Waterproofing Membrane System ($\pm 3/4$)

**RAIL POST SPACING AND
SUPERSTRUCTURE DETAILS**
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

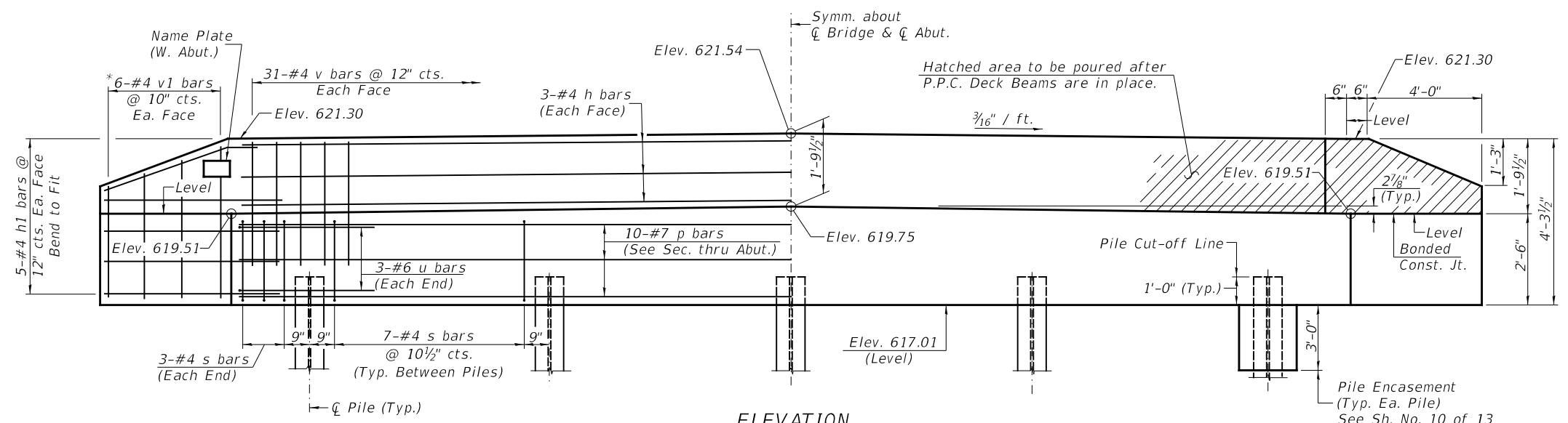
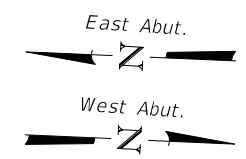
| | | | | | |
|----------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 7 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 13 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



PLAN



SECTION THRU ABUT.

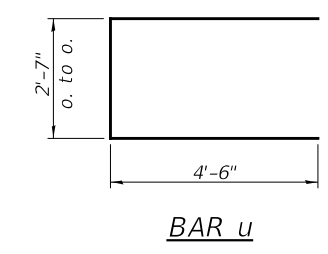
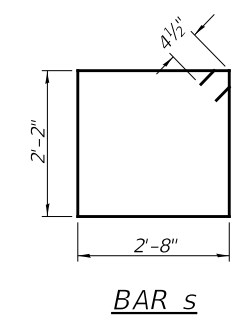
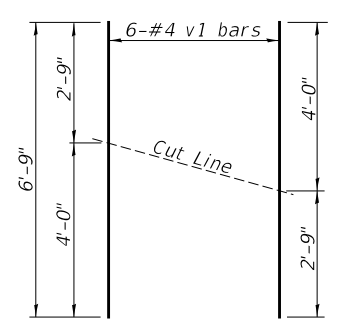


ELEVATION
(Front View of Abutment)

TWO ABUTMENTS
BILL OF MATERIAL

| BAR | NO. | SIZE | LENGTH | SHAPE |
|--------------------------------|-----|-------|--------|-------|
| h | 12 | #4 | 30'-9" | — |
| h1 | 40 | #4 | 6'-6" | — |
| p | 20 | #7 | 30'-9" | — |
| s | 68 | #4 | 10'-5" | □ |
| u | 12 | #6 | 11'-7" | □ |
| v | 124 | #4 | 3'-6" | — |
| v1 | 24 | #4 | 6'-9" | — |
| Structure Excavation | | CU YD | 70 | |
| Concrete Structures | | CU YD | 24.4 | |
| Concrete Encasement | | CU YD | 3.5 | |
| Reinforcement Bars | | POUND | 2,760 | |
| Furnishing Steel Piles HP10x42 | | FOOT | 360 | |
| Driving Piles | | FOOT | 360 | |
| Test Pile Steel HP10x42 | | EACH | 2 | |
| Pile Shoes | | EACH | 10 | |
| Name Plates | | EACH | 1 | |

PILE DATA
 Type & Size: Steel HP10x42 w/ pile shoes
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Est. Length: 45' W. Abut.
 45' E. Abut.
 No. Req'd: 10 (Includes 1 Test Pile at Each Abut.)



NOTES

1. The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.

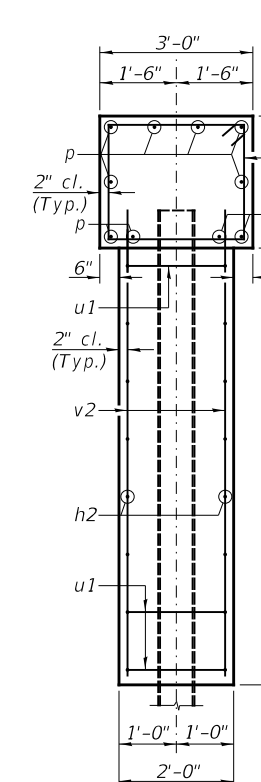
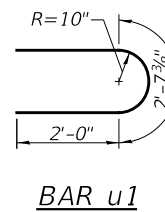
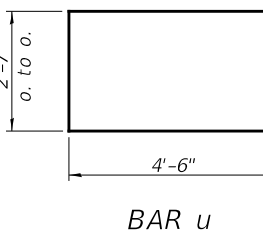
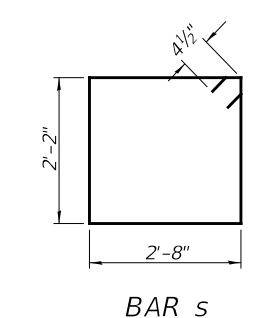
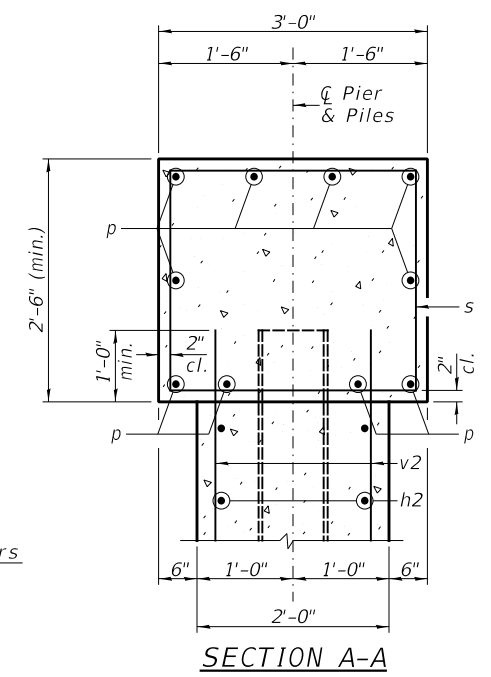
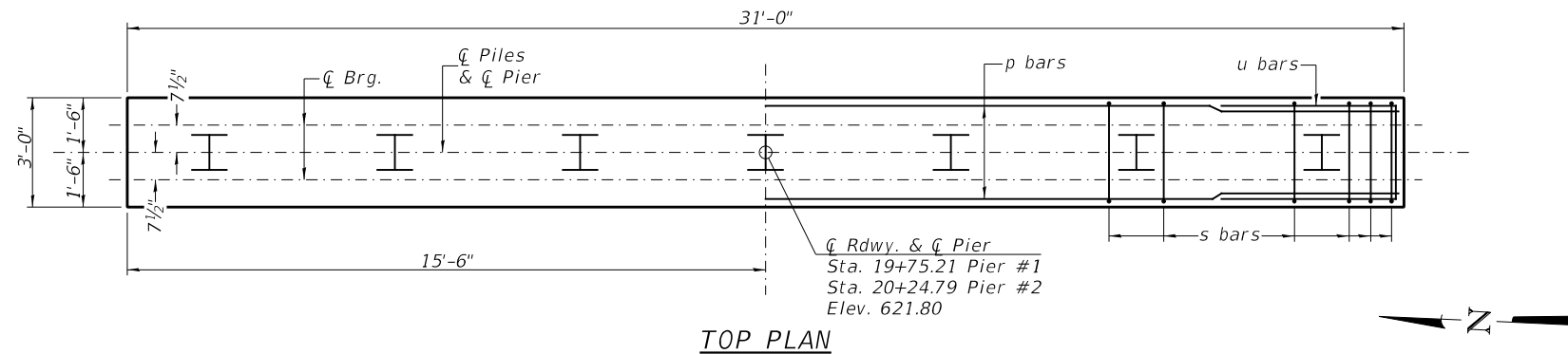
BAR CUTTING DIAGRAM
 *Order v1 bars full length. Cut as shown and use remainder of bars in opposite face.

ABUTMENTS
 IROQUOIS COUNTY
 SECTION 11-00047-01-BR
 COUNTY HIGHWAY 4
 OVER PIKE CREEK

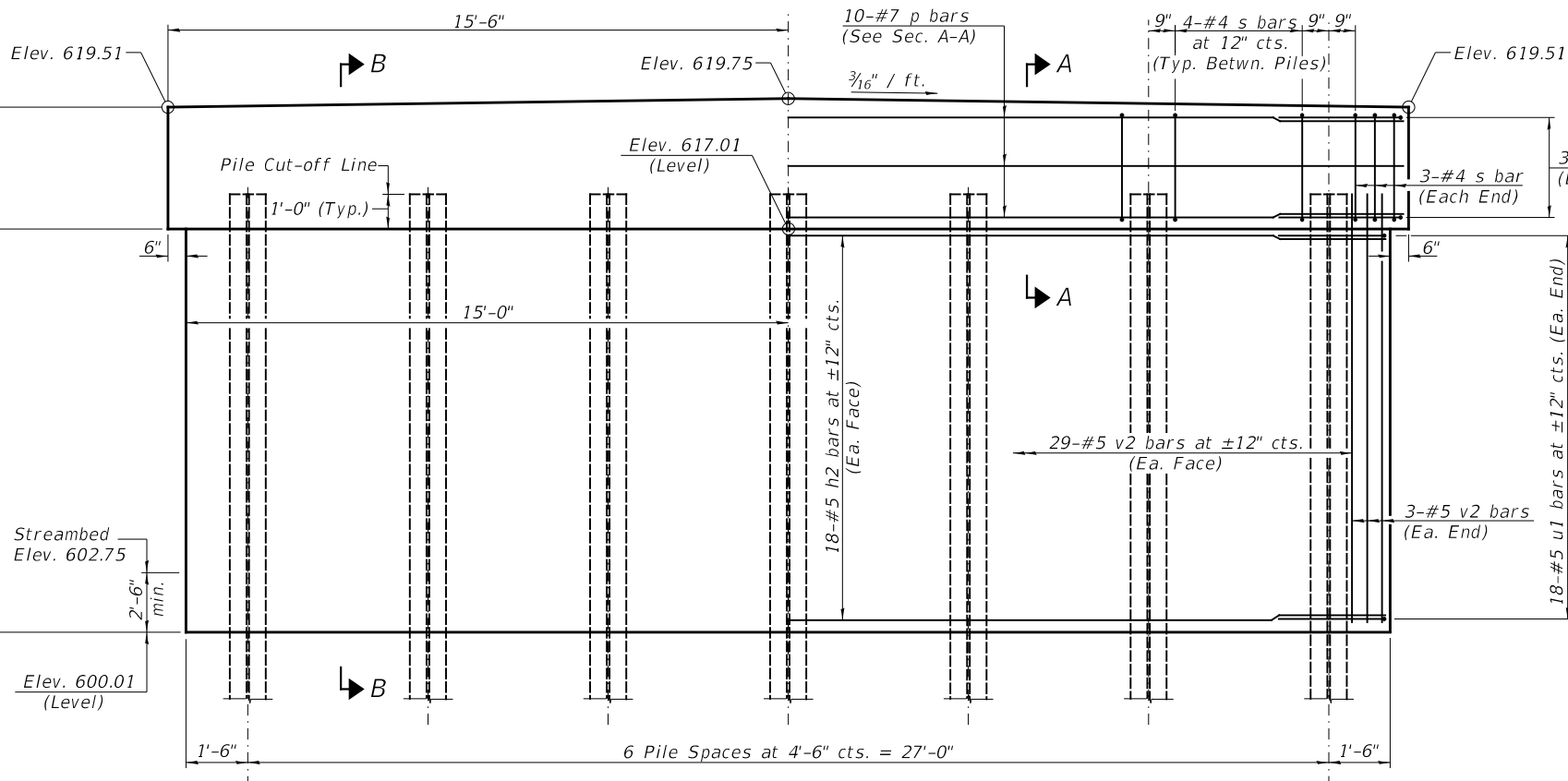
| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 8 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 14 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |

NOTES

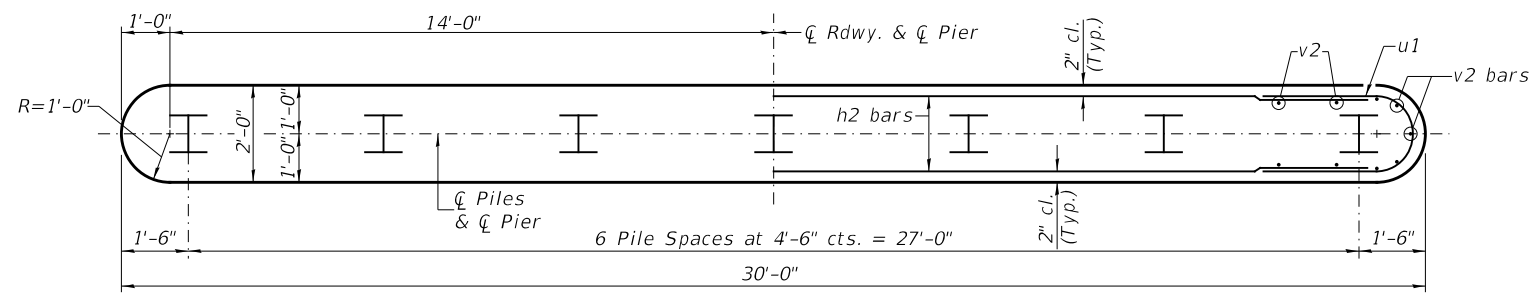
All edges shall have standard 3/4" chamfer.
 If a portion of the pier wall is underwater, concrete shall be tremied under water into forms according to Article 503.08 of the Standard Specifications. Concrete shall be tremied to an Elevation 1'-0" above the water level at the time of construction. See Sheet No. 10 of 13 for Pile Details.
 The Pier Stem shall be constructed in a single continuous concrete pour.



SECTION B-B



ELEVATION
(Looking Upstation)



FOOTING PLAN

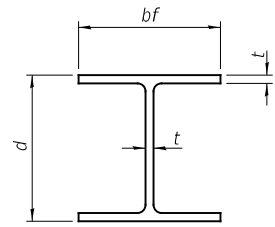
**TWO PIERS
BILL OF MATERIAL**

| BAR | NO. | SIZE | LENGTH | SHAPE |
|---------------------------------|-----|-------|---------|-------|
| h2 | 72 | #5 | 27'-9" | — |
| p | 20 | #7 | 30'-9" | — |
| s | 60 | #4 | 10'-5" | □ |
| u | 12 | #6 | 11'-7" | □ |
| u1 | 72 | #5 | 6'-8" | □ |
| v2 | 128 | #5 | 17'-10" | — |
| Cofferdam Excavation | | CU YD | 115 | |
| Cofferdam (Type 1) (Location-1) | | EACH | 1 | |
| Cofferdam (Type 1) (Location-2) | | EACH | 1 | |
| Concrete Structures | | CU YD | 92.4 | |
| Reinforcement Bars | | POUND | 6,850 | |
| Furnishing Steel Piles HP10x42 | | FOOT | 540 | |
| Driving Piles | | FOOT | 540 | |
| Test Pile Steel HP10x42 | | EACH | 2 | |
| Pile Shoes | | EACH | 14 | |

PILE DATA
 Type & Size: Steel HP10x42 w/ pile shoes
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 184 kips
 Est. Length: 45' Pier #1
 45' Pier #2
 No. Req'd.: 14 (Includes 1 Test Pile at Each Pier)

**PIERS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK**

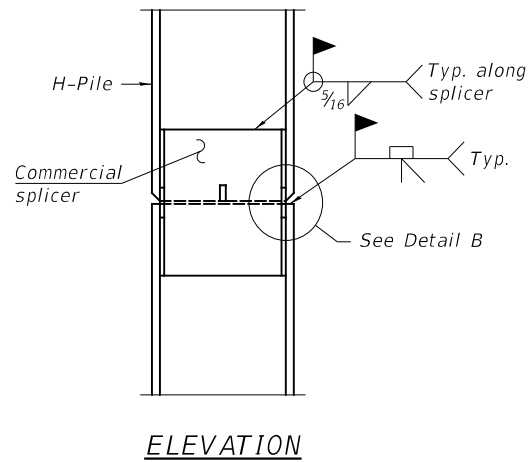
| | | | | | |
|----------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 9 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 15 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



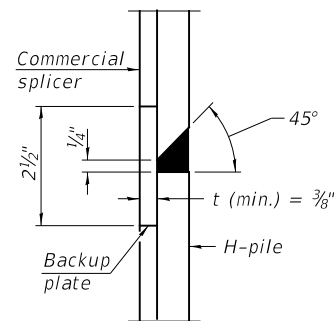
STEEL PILE TABLE

| Designation | Depth d | Flange width bf | Web and Flange thickness t | Encasement diameter |
|-------------|---------|-----------------|----------------------------|---------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 1 3/16" | 30" |
| x102 | 14" | 14 3/4" | 1 1/16" | 30" |
| x89 | 13 7/8" | 14 3/4" | 5/8" | 30" |
| x73 | 13 3/8" | 14 3/8" | 1/2" | 30" |
| HP 12x84 | 12 1/4" | 12 1/2" | 1 1/16" | 24" |
| x74 | 12 1/8" | 12 1/2" | 5/8" | 24" |
| x63 | 12" | 12 1/8" | 1/2" | 24" |
| x53 | 11 3/4" | 12" | 7/16" | 24" |
| HP 10x57 | 10" | 10 1/4" | 9/16" | 24" |
| x42 | 9 3/4" | 10 1/8" | 7/16" | 24" |
| HP 8x36 | 8" | 8 1/8" | 7/16" | 18" |

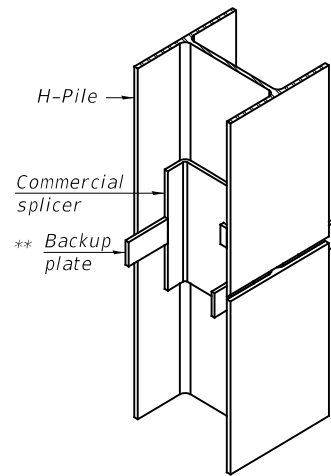
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



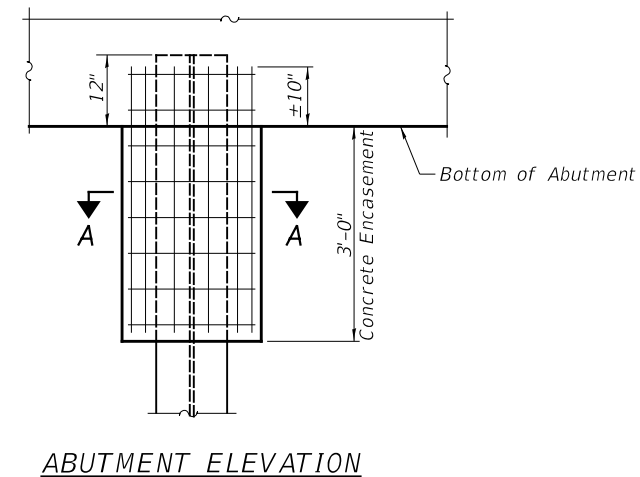
ELEVATION



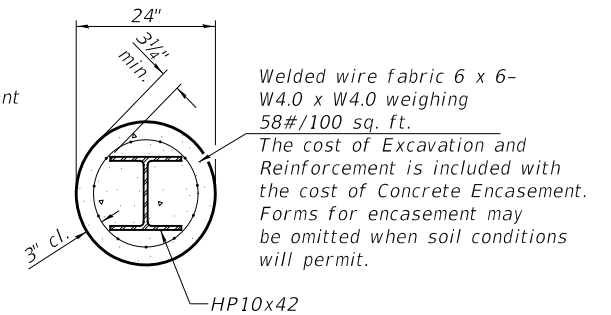
DETAIL "B"



ISOMETRIC VIEW

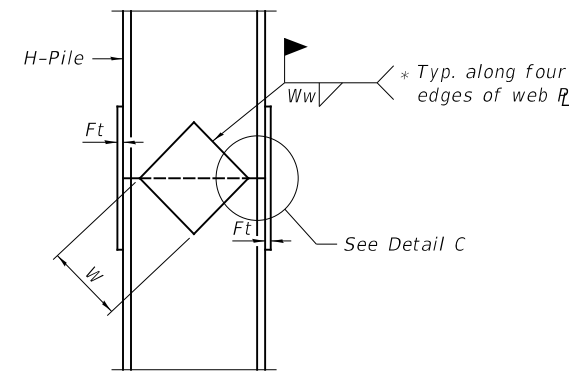


ABUTMENT ELEVATION

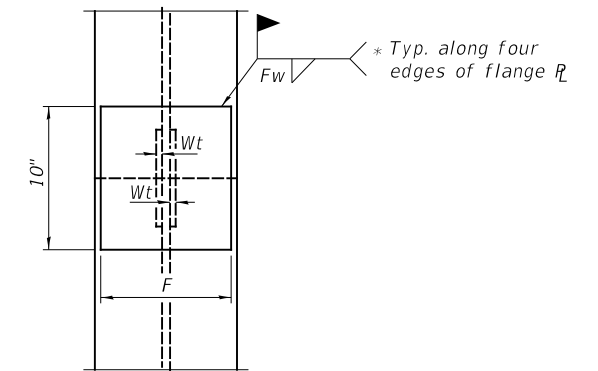


SECTION A-A

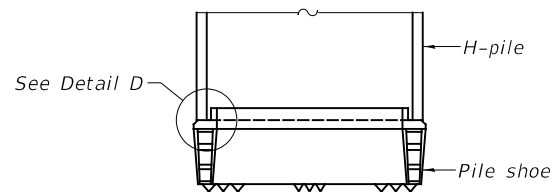
PILE ENCASEMENT



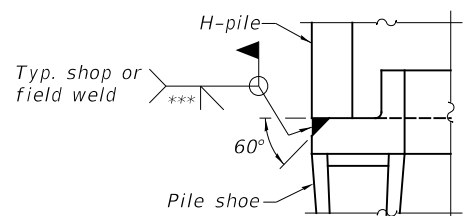
ELEVATION



END VIEW

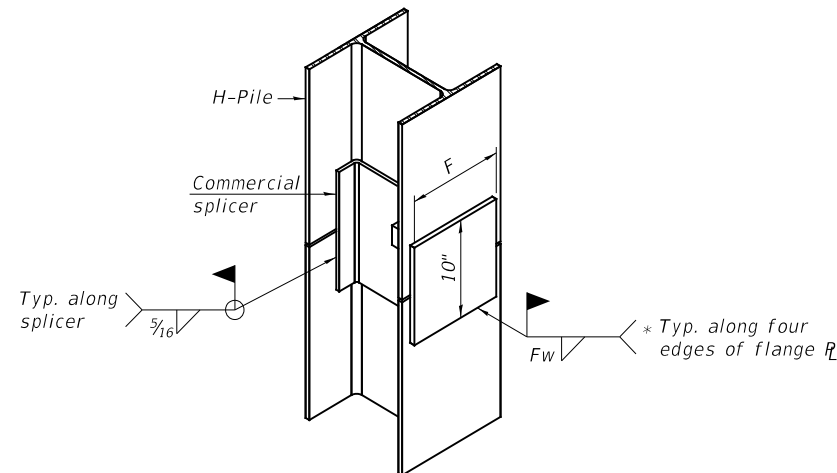


ELEVATION

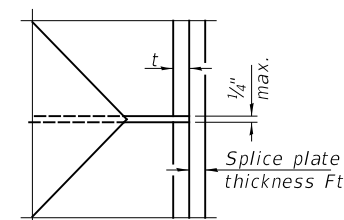


DETAIL D

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW



DETAIL C

WELDED COMMERCIAL SPLICE ALTERNATE

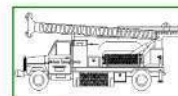
* Interrupt welds 1/4" from end of web and/or each flange.
** Remove portions of backup plates that extend outside the flanges.
*** Weld size per pile shoe manufacturer (5/16" min.).

| Designation | F | Ft | Fw | W | Wt | Ww |
|-------------|---------|------|---------|--------|------|------|
| HP 14x117 | 12 1/2" | 1" | 7/8" | 7 3/4" | 5/8" | 1/2" |
| x102 | 12 1/2" | 7/8" | 3/4" | 7 3/4" | 5/8" | 1/2" |
| x89 | 12 1/2" | 3/4" | 1 1/16" | 7 3/4" | 5/8" | 1/2" |
| x73 | 12 1/2" | 5/8" | 9/16" | 7 3/4" | 5/8" | 1/2" |
| HP 12x84 | 10" | 7/8" | 1 1/16" | 6 1/2" | 5/8" | 1/2" |
| x74 | 10" | 7/8" | 1 1/16" | 6 1/2" | 5/8" | 1/2" |
| x63 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| x53 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| HP 10x57 | 8" | 3/4" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| x42 | 8" | 5/8" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| HP 8x36 | 7" | 5/8" | 7/16" | 4 1/4" | 1/2" | 3/8" |

WELDED PLATE FIELD SPLICE

**HP PILE DETAILS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK**

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 10 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 16 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

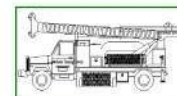
Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-1
Surface Elev. 621.50
Auger Depth 49.00 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

Location: Iroquois County, Martinton Twp. IL
Station: 19+20 12' LT

| (DEPTH) *ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | REMARKS |
|-------------------|--------------------------------------|-------------|---------------|------------|-------------|----------|-----------------|---------------|--------------|-----------------------------------|---------|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | | |
| 621.50 | | | | | | | | | | Randy Safranski Diedrich D-120 | |
| 620.50 | | | 1 | | | | | | | | |
| 619.50 | | | 2 | | | | | | | | |
| 618.50 | Stiff Brown/Black Silty Clay Fill | | 3 | 1 | SS | 1.7 | 11 | B | 19 | | |
| 617.50 | | | 4 | | | | | | | | |
| 616.50 | | | 5 | 2 | SS | 1.5 | 9 | B | 21 | | |
| 615.50 | | | 6 | | | | | | | | |
| 614.50 | | | 7 | | | | | | | | |
| 613.50 | | | 8 | 3 | SS | 2.0 | 8 | B | 19 | | |
| 612.50 | | | 9 | | | | | | | | |
| 611.50 | | | 10 | 4 | SS | 1.8 | 8 | B | 21 | | |
| 610.50 | | | 11 | | | | | | | | |
| 609.50 | | | 12 | | | | | | | | |
| 608.50 | Stiff Brown Clay | | 13 | 5 | SS | 1.5 | 7 | B | 29 | | |
| 607.50 | | | 14 | | | | | | | | |
| 606.50 | | | 15 | 6 | SS | 1.7 | 10 | B | 29 | | |
| 605.50 | | | 16 | | | | | | | | |
| 604.50 | | | 17 | | | | | | | | |
| 603.50 | | | 18 | 7 | SS | 1.6 | 10 | B | 28 | | |
| 602.50 | | | 19 | | | | | | | | |
| 601.50 | Very Stiff Brown/Gray Clay | | 20 | 8 | SS | 2.6 | 16 | B | 26 | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-1
Surface Elev. 621.50
Auger Depth 49.00 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

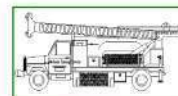
Location: Iroquois County, Martinton Twp. IL
Station: 19+20 12' LT

| (DEPTH) ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | REMARKS |
|------------------|-----------------------------------|-------------|---------------|------------|-------------|----------|-----------------|---------------|--------------|-----------------------------------|---------|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | | |
| 600.50 | | | | | | | | | | Randy Safranski Diedrich D-120 | |
| 599.50 | | | 22 | | | | | | | | |
| 598.50 | | | 23 | 8 | SS | 1.2 | 8 | B | 19 | | |
| 597.50 | Stiff Gray Clay | | 24 | | | | | | | | |
| 596.50 | | | 25 | 9 | SS | 1.4 | 9 | B | 18 | | |
| 595.50 | | | 26 | | | | | | | | |
| 594.50 | | | 27 | | | | | | | | |
| 593.50 | | | 28 | 10 | SS | 1.8 | 10 | B | 18 | | |
| 592.50 | | | 29 | | | | | | | | |
| 591.50 | | | 30 | 11 | SS | 2.5 | 11 | B | 18 | | |
| 590.50 | | | 31 | | | | | | | | |
| 589.50 | | | 32 | | | | | | | | |
| 588.50 | Very Stiff Gray Clay Till | | 33 | 12 | SS | 2.9 | 16 | B | 18 | | |
| 587.50 | | | 34 | | | | | | | | |
| 586.50 | | | 35 | | | | | | | | |
| 585.50 | | | 36 | 13 | SS | 3.6 | 22 | B | 17 | | |
| 584.50 | | | 37 | | | | | | | | |
| 583.50 | | | 38 | | | | | | | | |
| 582.50 | | | 39 | | | | | | | | |
| 581.50 | Hard Gray Silty Clay Loam Till | | 40 | 12 | SS | 4.0 | 64 | S | 12 | | |
| 580.50 | | | 41 | | | | | | | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:

SOIL BORINGS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

| | | | | | |
|---------------------------|----------------------------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 11 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 17 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| | FED. ROAD DIST. NO. 7 ILLINOIS | | FED. AID PROJECT NO. F35F(323) | | |



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

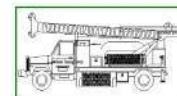
Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-1
Surface Elev. 621.50
Auger Depth 49.00 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

Location: Iroquois County, Martinton Twp. IL
Station: 19+20 12' LT

| (DEPTH) ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | | |
|---------------|--|-------------|---------------|------------|-------------|----------|-----------------|---------------|--------------|-------------------|---------|--|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | Dry Density (PCF) | REMARKS | |
| 579.50 | | | | | | | | | | | | |
| 578.50 | Hard Gray Silty Clay Loam Till with Sand Seams | | 43 | | | | | | | | | |
| 577.50 | | | 44 | | | | | | | | | |
| 576.50 | | | 45 | | | | | | | | | |
| 575.50 | | | 46 | 13 | SS | 4.0 | 61 | S | 12 | | | |
| 574.50 | | | 47 | | | | | | | | | |
| 573.50 | | | 48 | 14 | SS | --- | 100 | 1" | --- | | | |
| 572.50 | Boulder Pavement or Limestone | | 49 | | | | | | | | | |
| 571.50 | Boring Terminated Auger Refusal | | 50 | | | | | | | | | |
| 570.50 | | | 51 | | | | | | | | | |
| 569.50 | | | 52 | | | | | | | | | |
| 568.50 | | | 53 | | | | | | | | | |
| 567.50 | | | 54 | | | | | | | | | |
| 566.50 | | | 55 | | | | | | | | | |
| 565.50 | | | 56 | | | | | | | | | |
| 564.50 | | | 57 | | | | | | | | | |
| 563.50 | | | 58 | | | | | | | | | |
| 562.50 | | | 59 | | | | | | | | | |
| 561.50 | | | 60 | | | | | | | | | |
| 560.50 | | | 61 | | | | | | | | | |
| 559.50 | | | 62 | | | | | | | | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-2
Surface Elev. 621.30
Auger Depth 48.50 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

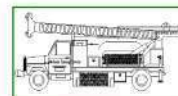
Location: Iroquois County, Martinton Twp. IL
Station: 20+90 7' RT

| (DEPTH) ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | |
|---------------|-----------------------------------|-------------|---------------|------------|-------------|----------|-----------------|---------------|--------------|-------------------|---------|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | Dry Density (PCF) | REMARKS |
| 621.30 | | | | | | | | | | | |
| 620.30 | Asphalt over Aggregate | | 1 | | | | | | | | |
| 619.30 | | | 2 | | | | | | | | |
| 618.30 | | | 3 | 1 | SS | 1.6 | 11 | B | 20 | | |
| 617.30 | | | 4 | | | | | | | | |
| 616.30 | Stiff Brown/Black Silty Clay Fill | | 5 | 2 | SS | 1.5 | 8 | B | 22 | | |
| 615.30 | | | 6 | | | | | | | | |
| 614.30 | | | 7 | | | | | | | | |
| 613.30 | | | 8 | 3 | SS | 1.3 | 8 | B | 23 | | |
| 612.30 | | | 9 | | | | | | | | |
| 611.30 | | | 10 | 4 | SS | 1.5 | 8 | B | 21 | | |
| 610.30 | | | 11 | | | | | | | | |
| 609.30 | | | 12 | | | | | | | | |
| 608.30 | | | 13 | 5 | SS | 2.0 | 10 | B | 29 | | |
| 607.30 | | | 14 | | | | | | | | |
| 606.30 | Stiff Brown Clay | | 15 | 6 | SS | 1.8 | 9 | B | 32 | | |
| 605.30 | | | 16 | | | | | | | | |
| 604.30 | | | 17 | | | | | | | | |
| 603.30 | | | 18 | 7 | SS | 2.1 | 11 | B | 29 | | |
| 602.30 | | | 19 | | | | | | | | |
| 601.30 | Very Stiff Brown/Gray Clay | | 20 | 8 | SS | 2.7 | 17 | B | 26 | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:

SOIL BORINGS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

| | | | | | |
|----------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 12 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 18 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

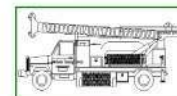
Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-2
Surface Elev. 621.30
Auger Depth 48.50 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

Location: Iroquois County, Martinton Twp. IL
Station: 20+90 7' RT

| (DEPTH) ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | REMARKS | | |
|------------------|-----------------------------------|----------------|------------------|------------|-------------|----------|-----------------|---------------|--------------|------------|---------|-------------------|--|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | | | Dry Density (PCF) | |
| 600.30 | | | | | | | | | | | | | |
| 599.30 | Stiff to Very Stiff Gray Clay | | 22 | | | | | | | | | | |
| 598.30 | | | 23 | 8 | SS | 2.5 | 12 | B | 18 | | | | |
| 597.30 | Stiff Gray Clay | | 25 | 9 | SS | 1.5 | 8 | B | 20 | | | | |
| 596.30 | | | 26 | | | | | | | | | | |
| 595.30 | | | 27 | | | | | | | | | | |
| 594.30 | | | 28 | 10 | SS | 1.9 | 9 | B | 19 | | | | |
| 593.30 | Very Stiff Gray Clay Till | | 29 | | | | | | | | | | |
| 592.30 | | | 30 | 11 | SS | 2.7 | 13 | B | 18 | | | | |
| 591.30 | | | 31 | | | | | | | | | | |
| 590.30 | | | 32 | | | | | | | | | | |
| 589.30 | | | 33 | 12 | SS | 2.5 | 13 | B | 19 | | | | |
| 588.30 | Hard Gray Silty Clay Loam Till | | 34 | | | | | | | | | | |
| 587.30 | | | 35 | | | | | | | | | | |
| 586.30 | | | 36 | 13 | SS | 2.5 | 13 | B | 19 | | | | |
| 585.30 | | | 37 | | | | | | | | | | |
| 584.30 | | | 38 | | | | | | | | | | |
| 583.30 | | | 39 | | | | | | | | | | |
| 582.30 | | | 40 | 12 | SS | 4.0 | 58 | S | 12 | | | | |
| 581.30 | | | 41 | | | | | | | | | | |
| 580.30 | | | | | | | | | | | | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 3

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.
Project Name Section No.: 11-00047-01-BR
Project Site: County Highway 4 over Pike Creek

Boring No. B-2
Surface Elev. 621.30
Auger Depth 48.50 Rotary Depth NA
Start Date 11/16/19 Finish Date 11/16/19

Location: Iroquois County, Martinton Twp. IL
Station: 20+90 7' RT

| (DEPTH) ELEV. | DESCRIPTION OF MATERIALS | Graphic Log | Depth in feet | SAMPLES | | | | | | DRILLED BY | REMARKS | | |
|------------------|---|----------------|------------------|------------|-------------|----------|-----------------|---------------|--------------|------------|---------|-------------------|--|
| | | | | Sample No. | Sample Type | Qu (TSF) | N Value (Blows) | Bulge / Shear | Moisture (%) | | | Dry Density (PCF) | |
| 579.30 | | | | | | | | | | | | | |
| 578.30 | Hard Gray Silty Clay Loam Till with Sand Seams | | 43 | | | | | | | | | | |
| 577.30 | | | 44 | | | | | | | | | | |
| 576.30 | Boulder Pavement or Limestone | | 45 | 13 | SS | 4.0 | 61 | S | 12 | | | | |
| 575.30 | | | 46 | | | | | | | | | | |
| 574.30 | | | 47 | | | | | | | | | | |
| 573.30 | Boring Terminated Auger Refusal | | 48 | 14 | SS | --- | 100 1" | --- | --- | | | | |
| 572.30 | | | 49 | | | | | | | | | | |
| 571.30 | | | 50 | | | | | | | | | | |
| 570.30 | | | 51 | | | | | | | | | | |
| 569.30 | | | 52 | | | | | | | | | | |
| 568.30 | | | 53 | | | | | | | | | | |
| 567.30 | | | 54 | | | | | | | | | | |
| 566.30 | | | 55 | | | | | | | | | | |
| 565.30 | | | 56 | | | | | | | | | | |
| 564.30 | | | 57 | | | | | | | | | | |
| 563.30 | | | 58 | | | | | | | | | | |
| 562.30 | | | 59 | | | | | | | | | | |
| 561.30 | | | 60 | | | | | | | | | | |
| 560.30 | | | 61 | | | | | | | | | | |
| 559.30 | | | 62 | | | | | | | | | | |

Groundwater Data: Water after auger removal 18-feet below top of ground elevation
Comments:

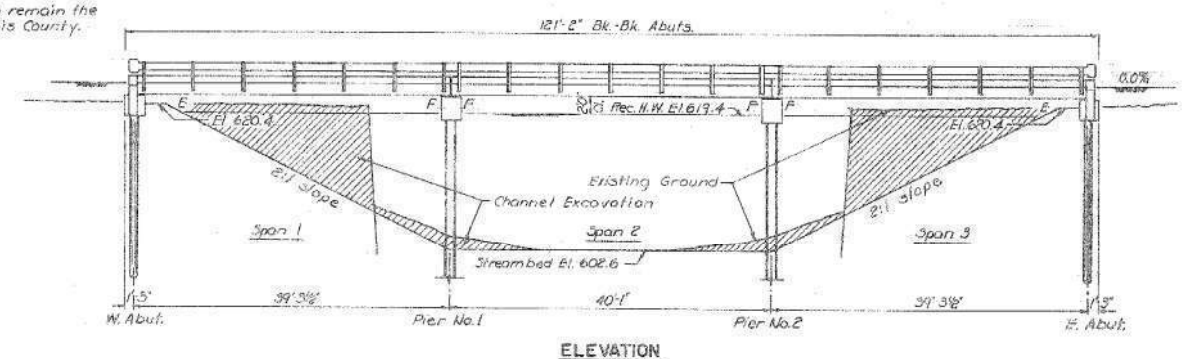
SOIL BORINGS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 13 13 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 19 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |

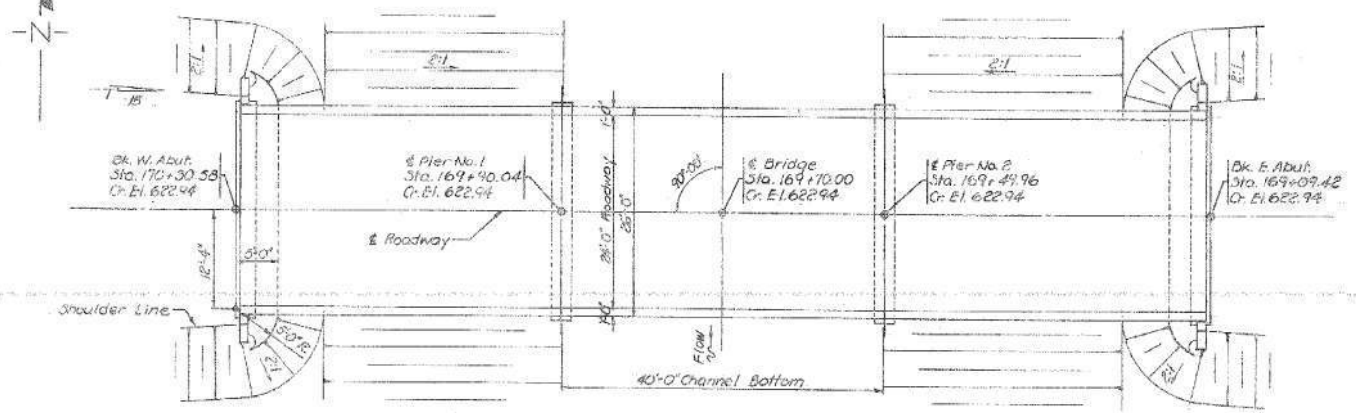
B.M. #34 - S.W. corner of N.E. wing.
 E. Abut. of existing bridge, El. 621.01.
 Existing Structure: Steel pony truss,
 one span @ 60', 16' rdwy, Conc. floor.
 Substructure: Conc. abuts. w/ wings.
 Contractor shall remove existing
 structure prior to construction
 of new bridge.
 Salvable materials to remain the
 property of Iroquois County.

| | | | | | |
|-------------|-----------|----------|--------------------|-------|---|
| PROJECT NO. | 47B | COUNTY | Iroquois | SHEET | 2 |
| DATE | 3-22-1961 | DESIGNER | W. E. Hanson & Co. | | |

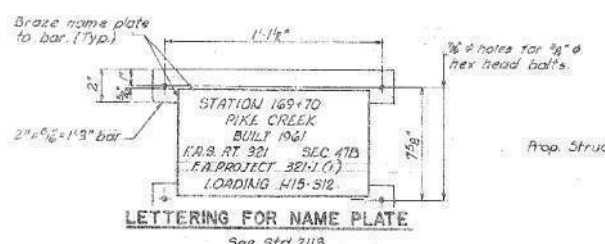
SHEET 1 OF 3



ELEVATION



PLAN



LETTERING FOR NAME PLATE

See Std. 2113
 Note: 2" x 3/4" x 1/8" bars are incidental to the cast of Name Plates, and will not be paid for separately.



LOCATION PLAN

Note: Channel to be excavated as shown within the limits of the Bridge. Provide transitions, each side, to meet existing channel at R.O.W. lines. 450 Cu Yds Est. Channel Excavation.

WATERWAY DATA

Drainage Area 46,400 ac.
 Required Opening (15 yr) 870 sq. ft.
 Present Opening 637 sq. ft.
 Proposed Opening 870 sq. ft.
 * Below El. 616.0±

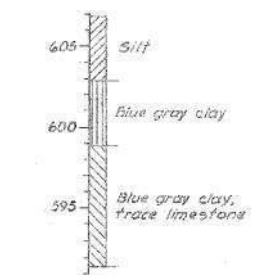
DESIGN STRESSES

$f_c = 2000$ psi (Super)
 $f_c = 1400$ psi (Sub)
 $f_s = 20,000$ psi (Reinf.)
 $f_s = 160,000$ psi (Presh. Strand)
 $n = 10$

Loading 1115-31P-44

GENERAL NOTES

For items Metal Plate Bridge Rail, Bituminous Surface Treatment & Bearing Pads see Special Provisions. Class X Concrete shall be used in curbs, pile caps & wingwalls. The Contractor shall drive two (2) test piles. One Timber test pile shall be driven as directed by the Engineer before ordering the remainder of the timber piles. One Concrete test pile shall be driven in a permanent location before casting the remainder of the piles. Pier piles shall have a minimum penetration of 15 ft below streambed. Metal straps for name plates shall receive one shop coat of red lead paint & two field coats of aluminum paint.



BORING DATA

TOTAL BILL OF MATERIAL

| ITEM | SUPER | SUB | TOTAL |
|--|--------------|------|-------|
| Precast Prestressed Concrete Bridge Deck | Sq. Ft. 3120 | - | 3120 |
| Class X Concrete | Cu Yds 7.7 | 28.0 | 35.7 |
| Reinforcement Bars | Lbs. - | 2570 | 2570 |
| Metal Plate Bridge Rail | Lin. Ft. 235 | - | 235 |
| Crossed Piles | Lin. Ft. - | 280 | 280 |
| Test Piles (Timber) | Each - | 1 | 1 |
| Precast Concrete Piles, 12" | Lin. Ft. - | 360 | 360 |
| Test Piles (Concrete) | Each - | 1 | 1 |
| Bituminous Surface Treatment, Subclass A-3 | Sq. Yds 320 | - | 320 |
| Name Plates | Each - | 1 | 1 |
| Removal of Existing Structures | Each - | 1 | 1 |
| Channel Excavation | Cu Yds - | 450 | 450 |

GENERAL PLAN & ELEVATION
 TREISCHER BRIDGE
 F.A.S. RT. 321 (C.H. RT. 4) SEC. 47B
 IROQUOIS COUNTY
 STATION 169+7000
 WALTER E. HANSON & COMPANY
 ENGINEERS - CONSULTANTS

W. E. Hanson
 Illinois Struct. #2529

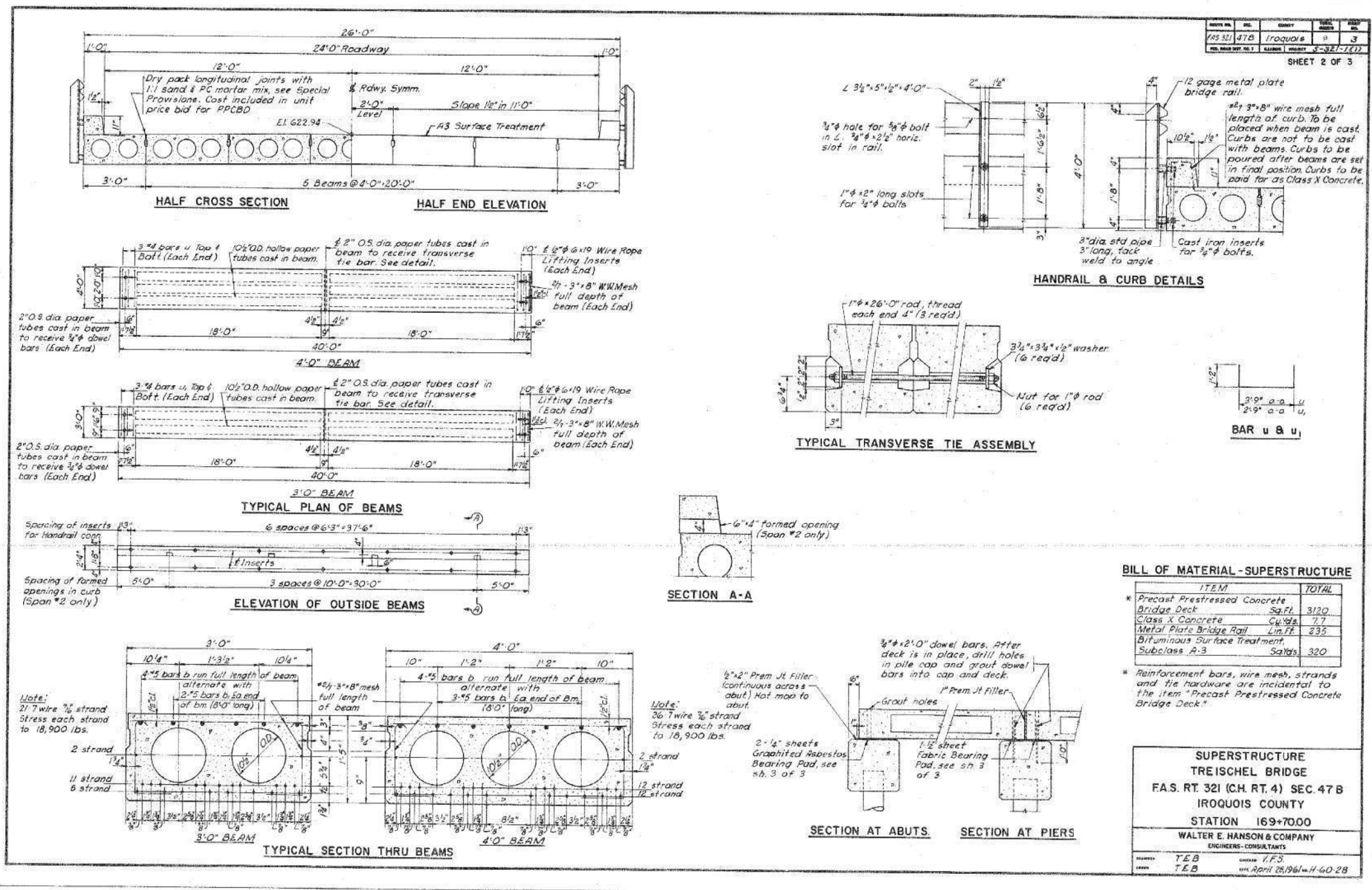
APR 20 1961

SCALE 1/8" = 1'-0"

DATE April 20, 1961 No. H-60-25

EXISTING PLANS
 IROQUOIS COUNTY
 SECTION 11-00047-01-BR
 COUNTY HIGHWAY 4
 OVER PIKE CREEK

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 1 3 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 20 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



| | | | | |
|-----------------------|----------|----------|-----------|--------------|
| ROUTE NO. | SEC. | COUNTY | SHEET NO. | TOTAL SHEETS |
| FAS 321 | 47B | Iroquois | 3 | 3 |
| FED. ROAD DIST. NO. 7 | ILLINOIS | PROJECT | S-32-1(1) | |

BILL OF MATERIAL - SUPERSTRUCTURE

| ITEM | TOTAL |
|--|--------------|
| * Precast Prestressed Concrete Bridge Deck | Sq. Ft. 3120 |
| Class X Concrete | Cu. Yds. 7.7 |
| Metal Plate Bridge Rail | Ln. Ft. 335 |
| Bituminous Surface Treatment, Subclass A-3 | Sq. Yds. 320 |

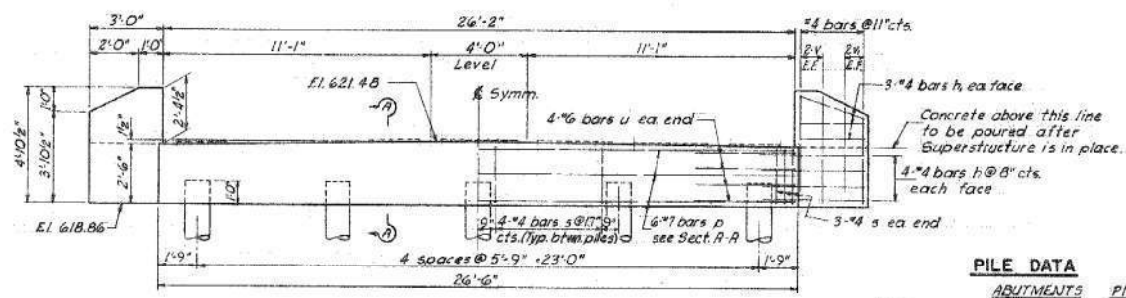
* Reinforcement bars, wire mesh, strands and tie hardware are incidental to the item "Precast Prestressed Concrete Bridge Deck."

SUPERSTRUCTURE
TREISCHEL BRIDGE
 F.A.S. RT. 321 (CH. RT. 4) SEC. 47 B
 IROQUOIS COUNTY
 STATION 169+7000
 WALTER E. HANSON & COMPANY
 ENGINEERS - CONSULTANTS

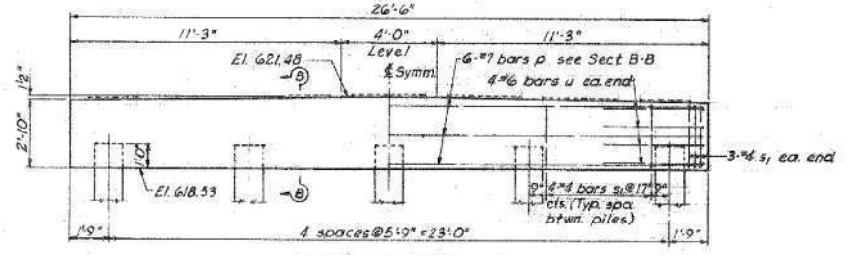
DESIGNED BY: T.E.B. CHECKED BY: T.F.S.
 DRAWN BY: T.E.B. DATE: April 28, 1961 H-40-28

EXISTING PLANS
 IROQUOIS COUNTY
 SECTION 11-00047-01-BR
 COUNTY HIGHWAY 4
 OVER PIKE CREEK

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 2 3 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 21 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |



ELEVATION-ABUTMENT

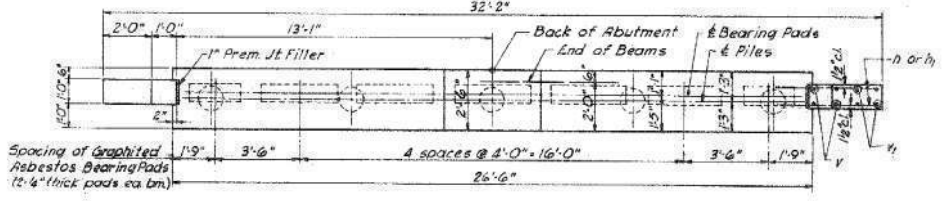


ELEVATION-PIER

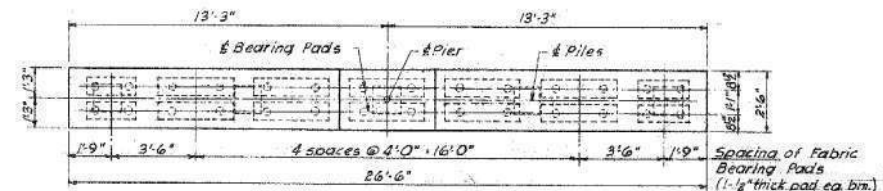
PILE DATA

| | ABUTMENTS | PIERS |
|--------------|-----------|----------|
| Type | Crescoted | Concrete |
| No Required | 10 | 10* |
| Min Capacity | 20 ton | 30 ton |
| Est Length | 28 ft | 40 ft |

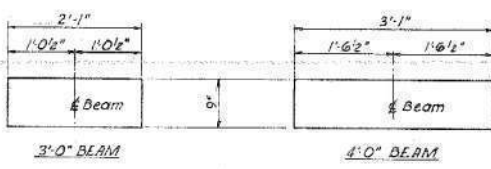
* Includes one test pile



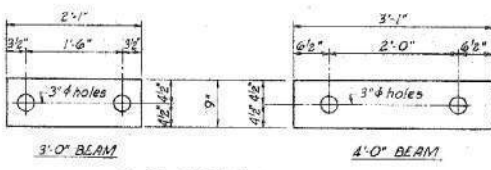
PLAN-ABUTMENT



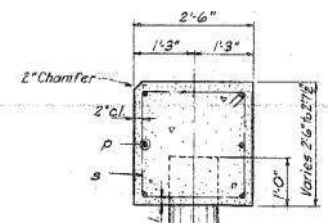
PLAN-PIER



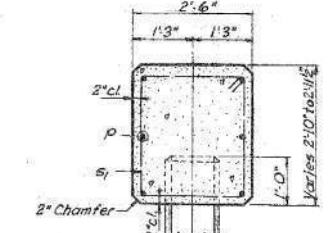
PLAN-GRAPHITED ASBESTOS BEARING PAD
See Special Provisions



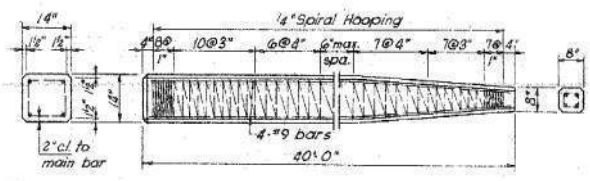
PLAN-FABRIC BEARING PAD
See Special Provisions



SECTION A-A

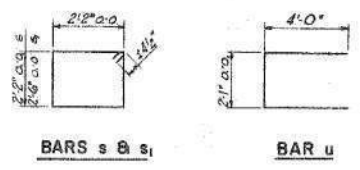


SECTION B-B



PRECAST CONCRETE PILE DETAILS

Note to Contractor:
For pile lengths up to 45 ft use two slings placed at a distance of 0.21L from each end. On piles longer than 45 ft use three slings placed at 0.21L from each end and at mid point of pile.



BILL OF MATERIAL
2 ABUTS. & 2 PIERS

| BAR | NO | SIZE | LENGTH | SHAPE |
|-----|----|------|--------|-------|
| h | 32 | #4 | 4'-6" | — |
| hi | 24 | #4 | 2'-9" | — |
| p | 24 | #7 | 26'-2" | — |
| s | 44 | #4 | 9'-5" | □ |
| si | 44 | #4 | 10'-7" | □ |
| u | 32 | #6 | 10'-7" | □ |
| v | 16 | #4 | 4'-2" | — |
| w | 16 | #4 | 3'-7" | — |

Class X Concrete cu yds 280
Reinforcement Bars Lbs 2570
Crescoted Piles LinFE 280
Test Piles (timber) Each 1
Precast Concrete Piles LinFE 360
Test Piles (concrete) Each 1

ABUTMENTS & PIERS
TREISCHER BRIDGE
F.A.S. RT. 321 (CH. RT. 4) SEC. 47B
IROQUOIS COUNTY
STATION 169+70.00
WALTER E. HANSON & COMPANY
ENGINEERS - CONSULTANTS
DRAWN R.E.O. CHECKED V.F.S.
DATE 2-27-78 11-60-28

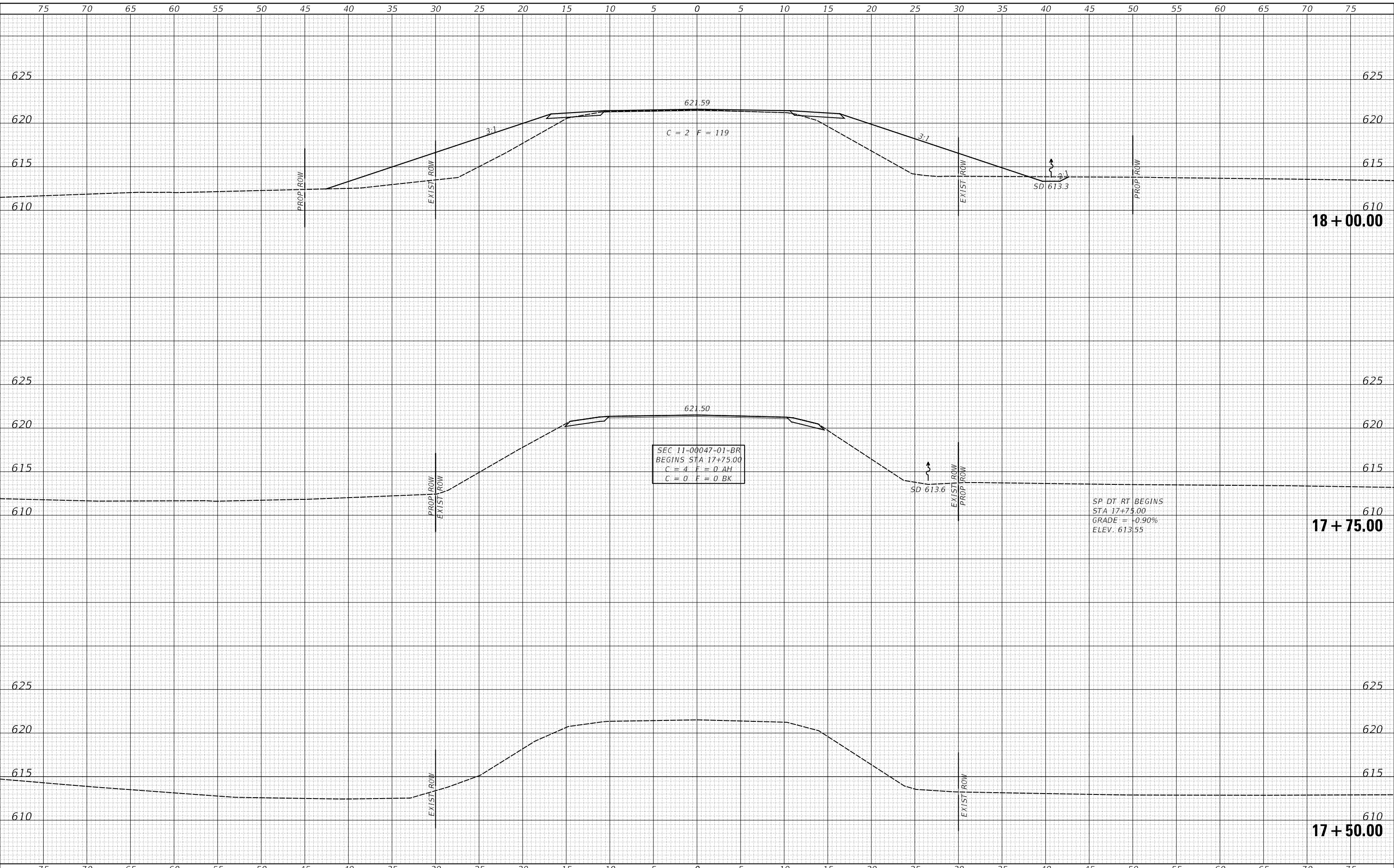
EXISTING PLANS
IROQUOIS COUNTY
SECTION 11-00047-01-BR
COUNTY HIGHWAY 4
OVER PIKE CREEK

| | | | | | |
|--------------------------------|---------------|----------------|--------------------------------|--------------|-----------|
| SHEET NO. 3 3 SHEETS | F.A.S. ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 321 | 11-00047-01-BR | IROQUOIS | 27 | 22 |
| | S.N. 038-4509 | | CONTRACT NO. 87725 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | FED. AID PROJECT NO. F35F(323) | | |

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

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

MODEL: S:\MODEL\MEMES
FILE NAME: V:\311 - CH 4 Over Pike Creek (Iroquois)\CADD\CADD Sheets\43 Iroquois.dgn



| | | |
|-----------------------------|------------------|-----------------|
| USER NAME = smierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

CROSS SECTIONS

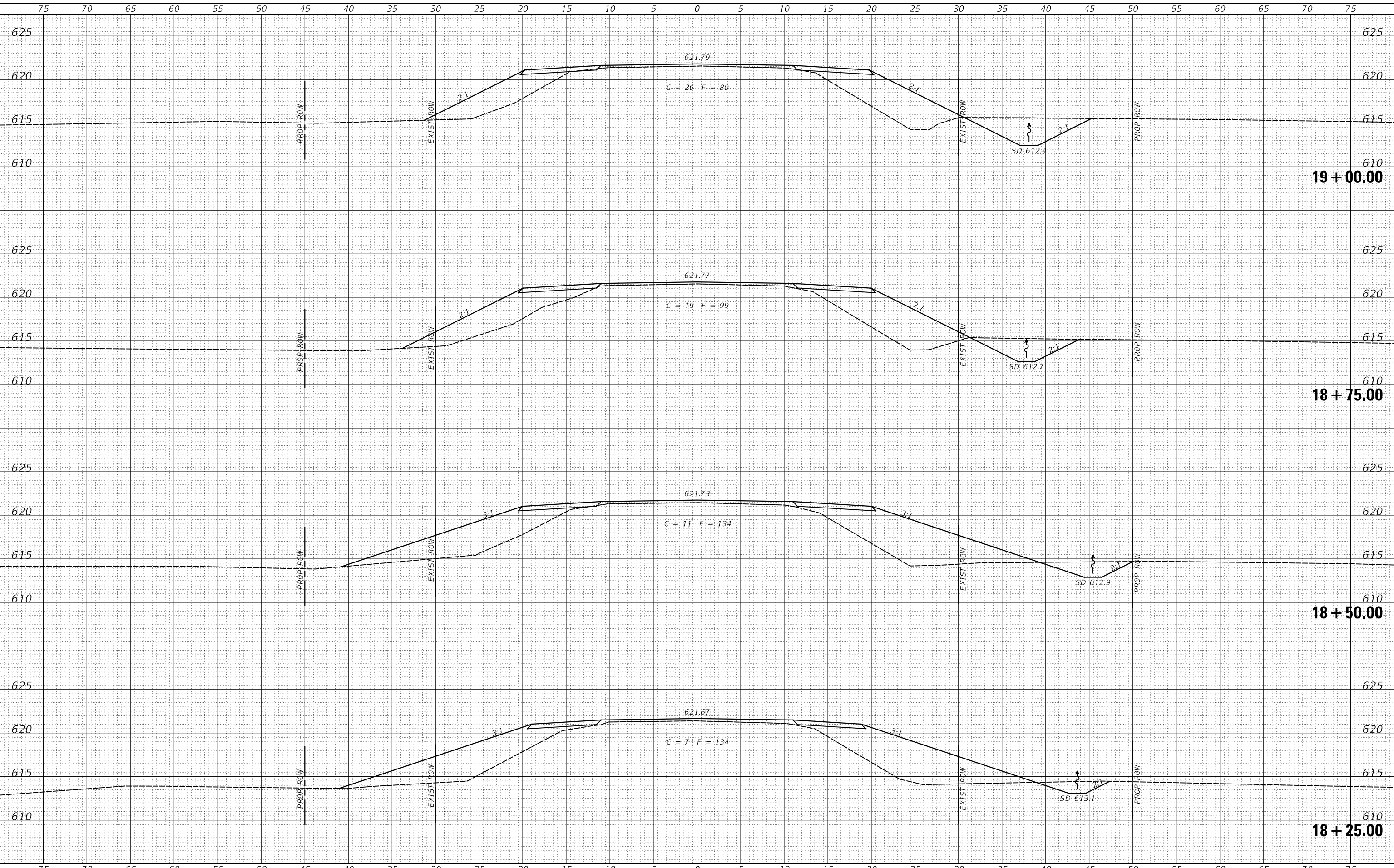
SCALE: 1"=5' SHEET 1 OF 5 SHEETS STA. 17+50.00 TO STA. 18+00.00

| | | | | |
|--------------------------------|----------------|----------|--------------------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 23 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | CONTRACT NO. 87725 | |
| | | | FED. AID PROJECT NO. F35F(323) | |

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

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

MODEL: SPODELINAMES
 FILE NAME: V:\311 - Ch 4 Over Pike Creek - Iroquois\CADD\CADD Sheets\43 Ixvscrs18.dgn



| | | |
|-----------------------------|------------------|-----------------|
| USER NAME = smierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

**IROQUOIS COUNTY
 COUNTY HIGHWAY 4
 OVER PIKE CREEK**

CROSS SECTIONS

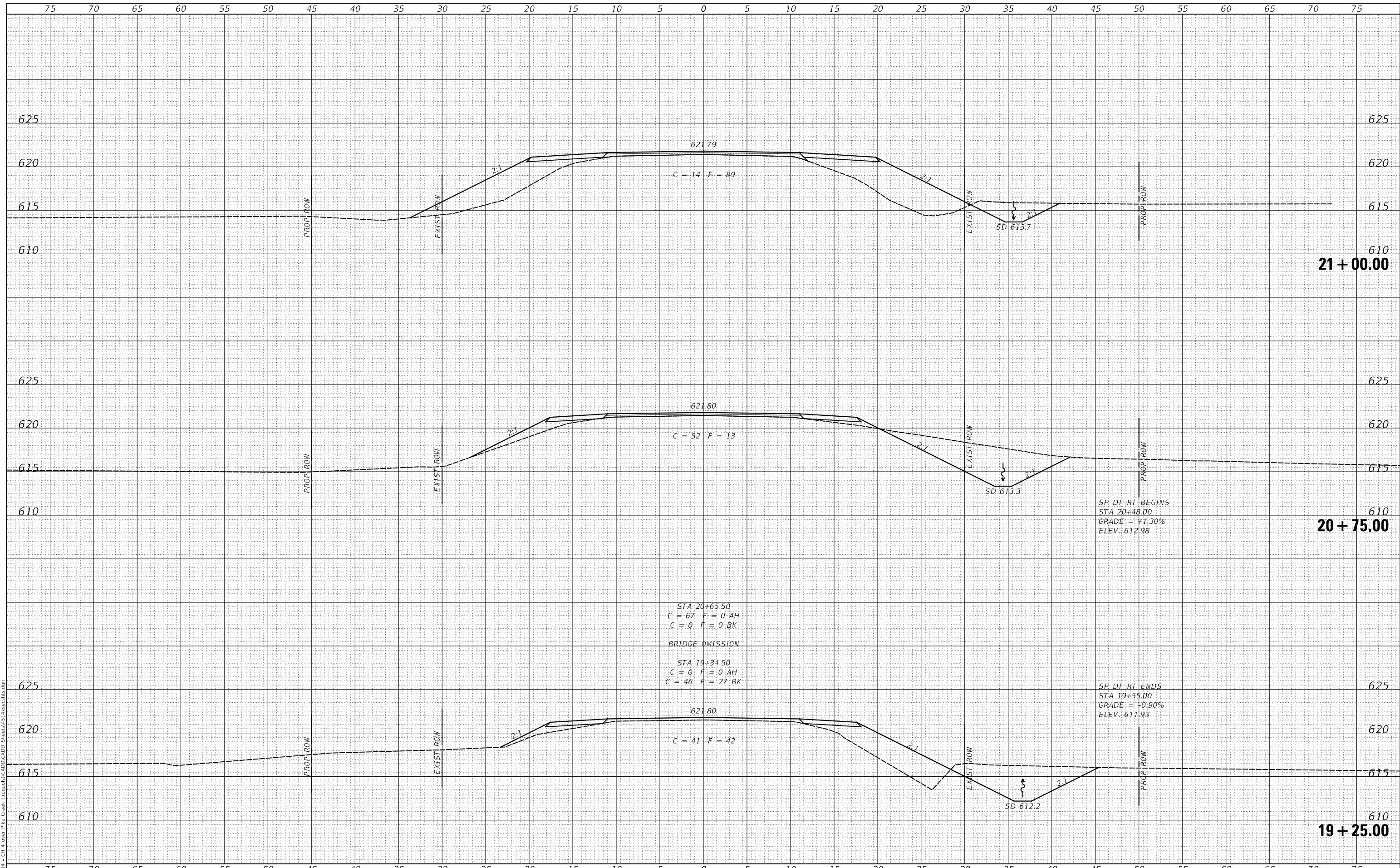
SCALE: 1"=5' SHEET 2 OF 5 SHEETS STA. 18+25.00 TO STA. 19+00.00

| | | | | |
|--------------------------------|------------------------|--------------------|-----------------|--------------|
| F.A.S. RTE. 321 | SECTION 11-00047-01-BR | COUNTY IROQUOIS | TOTAL SHEETS 27 | SHEET NO. 24 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | CONTRACT NO. 87725 | | |
| FED. AID PROJECT NO. F35F(323) | | | | |

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

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

MODEL: SPODELINAMES
FILE NAME: V:\311 - Ch 4 Over Pike Creek (Iroquois)CAD\CADD Sheets\431\431.rvt



**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

CROSS SECTIONS

| | | |
|-----------------------------|------------------|-----------------|
| USER NAME = smierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

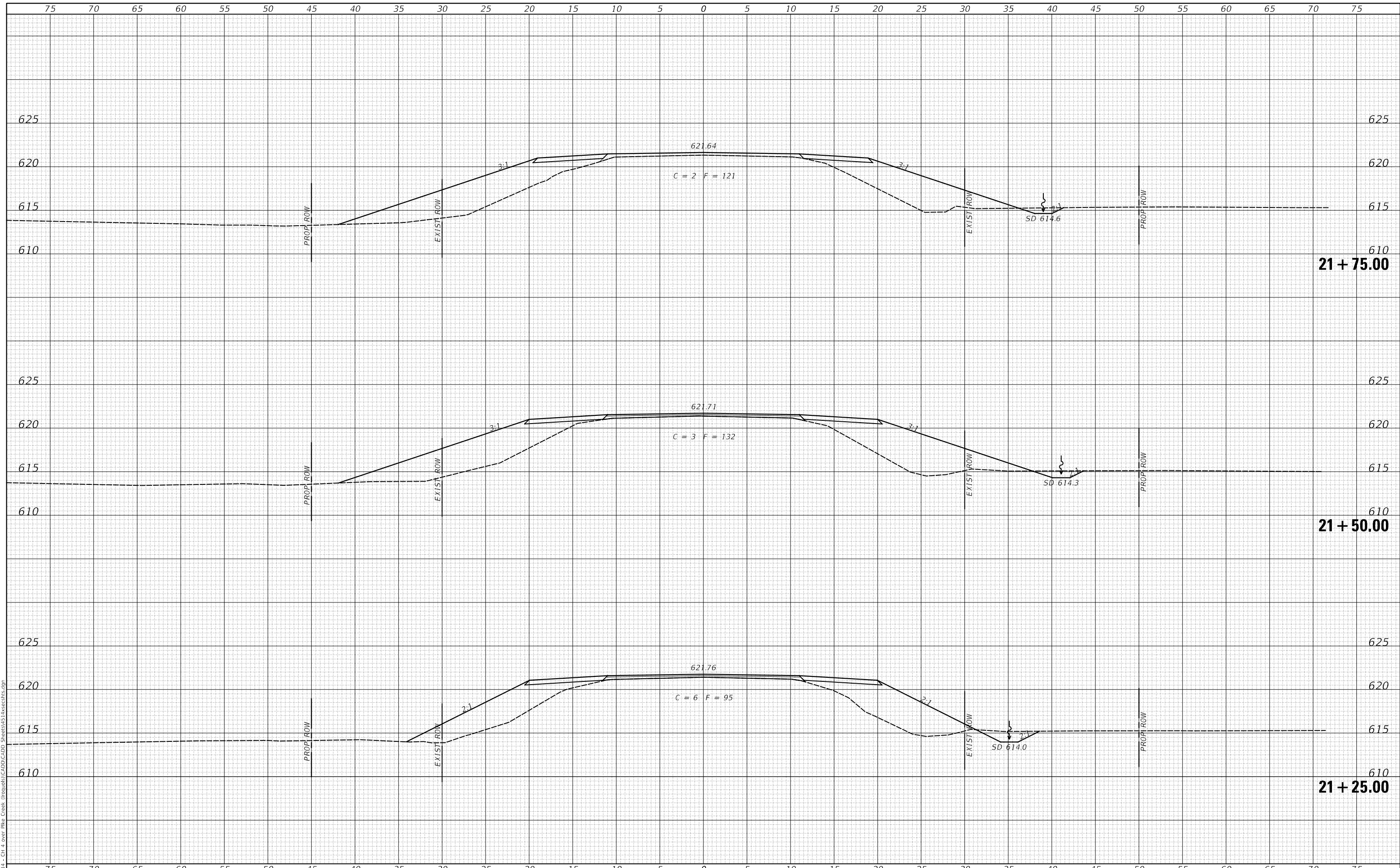
SCALE: 1"=5' SHEET 3 OF 5 SHEETS STA. 19+25.00 TO STA. 21+00.00

| | | | | |
|--------------------------------|----------------|----------|--------------------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 25 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | CONTRACT NO. 87725 | |
| | | | FED. AID PROJECT NO. F35F(323) | |

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

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

MODEL: S:\MODEL\MMS
 FILE NAME: V:\311 - Ch 4 Over Pike Creek (Iroquois County) - Sheets\431\431.rvt



| | | |
|-----------------------------|------------------|-----------------|
| USER NAME = smierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

**IROQUOIS COUNTY
 COUNTY HIGHWAY 4
 OVER PIKE CREEK**

CROSS SECTIONS

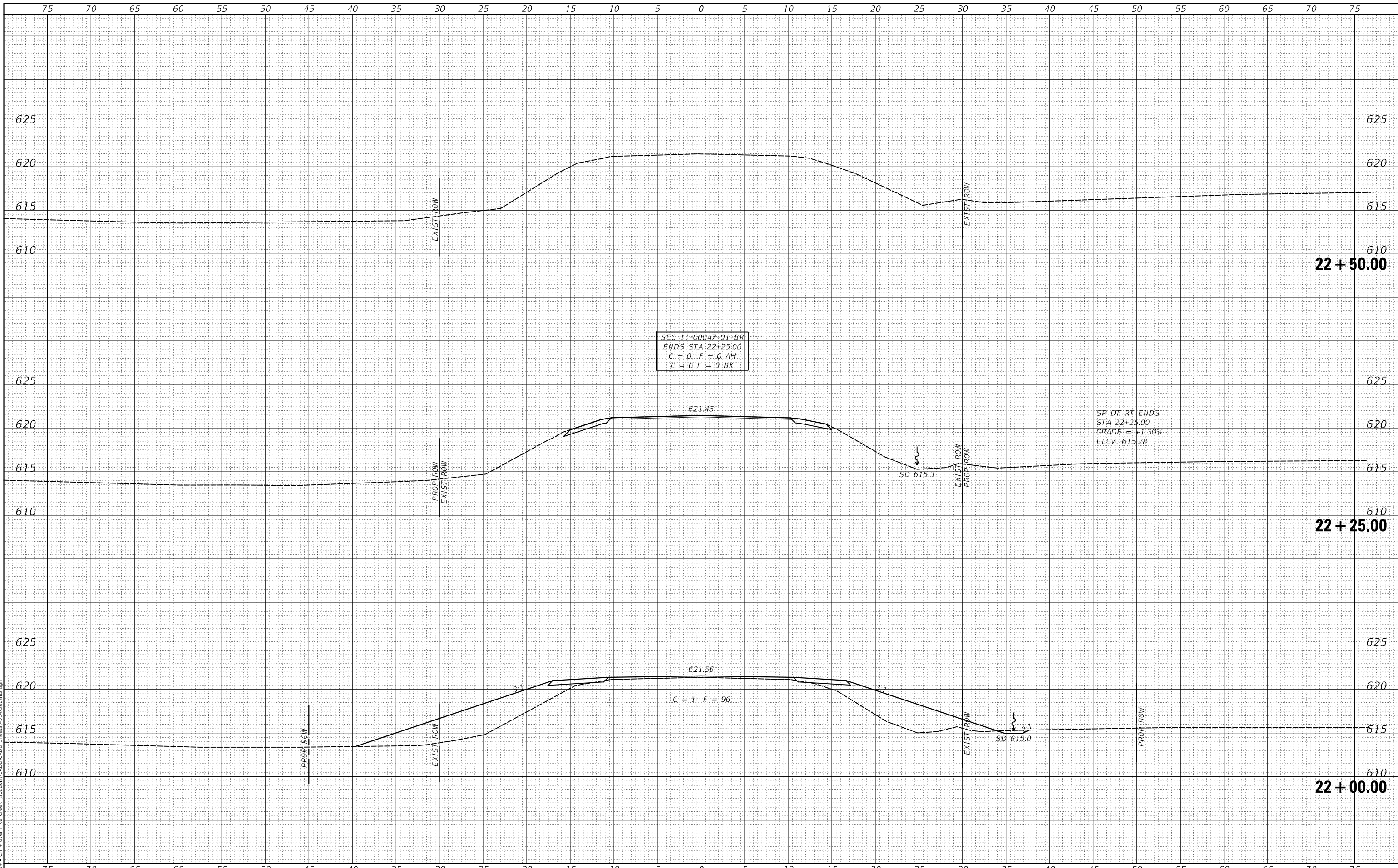
SCALE: 1"=5' SHEET 4 OF 5 SHEETS STA. 21+25.00 TO STA. 21+75.00

| | | | | |
|-----------------------|----------------|----------|--------------------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 26 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | CONTRACT NO. 87725 | |
| | | | FED. AID PROJECT NO. F35F(323) | |

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

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

MODEL: S:\MODEL\MMS
FILE NAME: V:\311 - Ch 4 Over Pike Creek (Iroquois) - CAD\CADD Sheets\311\311sht5.dgn



SEC 11-00047-01-BR
ENDS STA: 22+25.00
C = 0 F = 0 AH
C = 6 F = 0 BK

SP DT RT ENDS
STA 22+25.00
GRADE = +1.30%
ELEV. 615.28

C = 7 F = 96

**IROQUOIS COUNTY
COUNTY HIGHWAY 4
OVER PIKE CREEK**

CROSS SECTIONS

| | | |
|-----------------------------|------------------|-----------------|
| USER NAME = smierzwa | DESIGNED - MMO | REVISED - _____ |
| | DRAWN - MMO | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - STM | REVISED - _____ |
| PLOT DATE = 2/15/2021 | DATE - 2/15/2021 | REVISED - _____ |

SCALE: 1"=5' SHEET 5 OF 5 SHEETS STA. 22+00.00 TO STA. 22+50.00

| | | | | |
|--------------------------------|----------------|----------|--------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 321 | 11-00047-01-BR | IROQUOIS | 27 | 27 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | CONTRACT NO. 87725 | |
| FED. AID PROJECT NO. F35F(323) | | | | |