

INDEX OF SHEETS

03-08-2024 LETTING ITEM 093

| SHEET NO. | DESCRIPTION |
|-----------|--|
| 1 | COVER SHEET |
| 2 | GENERAL NOTES, TYPICAL SECTIONS, DETAILS |
| 3-4 | SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES |
| 5 | TRAFFIC CONTROL PLAN |
| 6 | EROSION CONTROL PLAN |
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| 16-20 | CROSS SECTIONS |

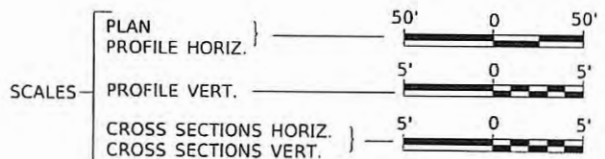
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
LOCAL BRIDGE FORMULA PROGRAM
HENRY COUNTY
SECTION 22-00168-00-BR
F.A.S. 240A (CH 19)
OVER HILLERY CREEK
PROJECT NO. KUXB(253)
JOB NUMBER C-92-047-23

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------------|-------------------------------|--------------|-----------|
| 240A | 22-00168-00-BR | HENRY | 20 | 1 |
| FED. ROAD DIST. NO. 7 | | CONTRACT NO. 85753 | | |
| ILLINOIS | | FED AID PROJECT NO. KUXB(253) | | |



HIGHWAY STANDARDS (INCLUDED IN PROPOSAL)

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 406201-01 MAILBOX TURNOUT
- 515001-04 NAME PLATE FOR BRIDGES
- 630301-09 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631032-10 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 701901-09 TRAFFIC CONTROL DEVICES
- 725001-01 OBJECT AND TERMINAL MARKERS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS



PROPOSED STRUCTURE SN 037-3385
 SINGLE SPAN 33" PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE SPILL-THRU ABUTMENTS, 80'-0" BK TO BK, AND 30'-0" O TO O DECK, SKEWED 45° RT. AHEAD.

SECTION 22-00168-00-BR BEGINS STATION 16+00.00



SECTION 22-00168-00-BR ENDS STATION 24+00.00

EXISTING STRUCTURE SN 037-3006
 SINGLE SPAN PPC DECK BEAM SUPERSTRUCTURE ON CONCRETE ABUTMENT CAPS WITH TIMBER PILING, 58'-0" BK TO BK, AND 28'-0" O TO O DECK, SKEWED 44° RT. AHEAD.



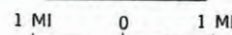
UTILITY COMPANIES

CORN BELT ENERGY
 DOWNS, ILLINOIS

CAMBRIDGE TELEPHONE
 GENESEO, ILLINOIS

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

LOCATION MAP



APPROXIMATE SCALE

NET LENGTH OF PROJECT = 800.00 FEET = 0.152 MILES

DESIGN CLASSIFICATION: COLLECTOR (NON-URBAN)
 DESIGN ADT = 350 (2024)
 DESIGN SPEED = 40

CONTRACT NO. 85753

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

2023

JOB#5112

DATE: 12/12/2023



ENGINEERS SEAL

| | | |
|--|----------------------------|--|
| APPROVED | December 13, 2023 | |
| | <i>Scott A. Stephenson</i> | HENRY COUNTY ENGINEER |
| PASSED | January 3, 2024 | |
| | <i>Sha...</i> | DISTRICT TWO ENGINEER OF LOCAL ROADS & STREETS |
| Released For Bid Based on Limited Review | January 3, 2024 | |
| | <i>Stephen M. Travinis</i> | REGION TWO ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION |

FILE NAME: V15112 - CH 19 OVER HILLERY CREEK, HENRY CO., ILLINOIS - CADD - SHEET 01 OF 20 (11/15/2023)

GENERAL NOTES

THE REMOVAL OF EXISTING HOT-MIX ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PRODUCT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED (EXCEPT FOR SCHEDULED VARIABLE SURFACE REMOVAL).

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 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.

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 CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

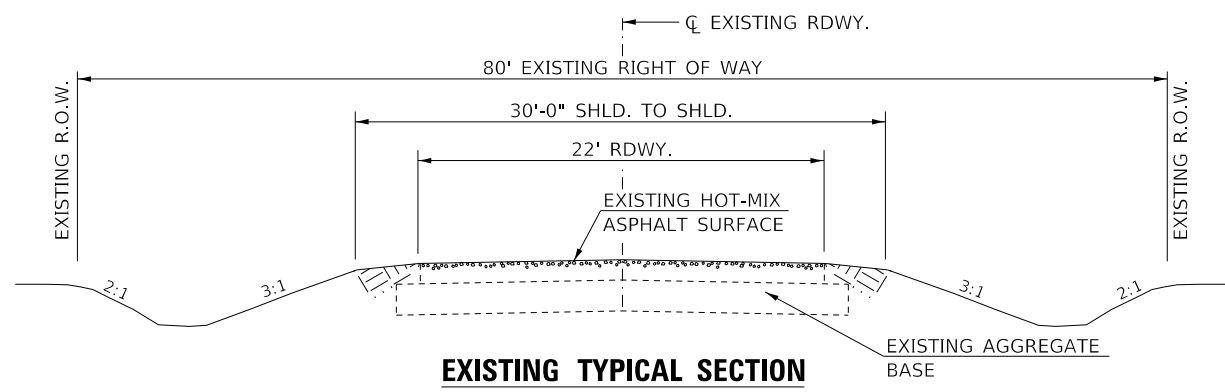
THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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.

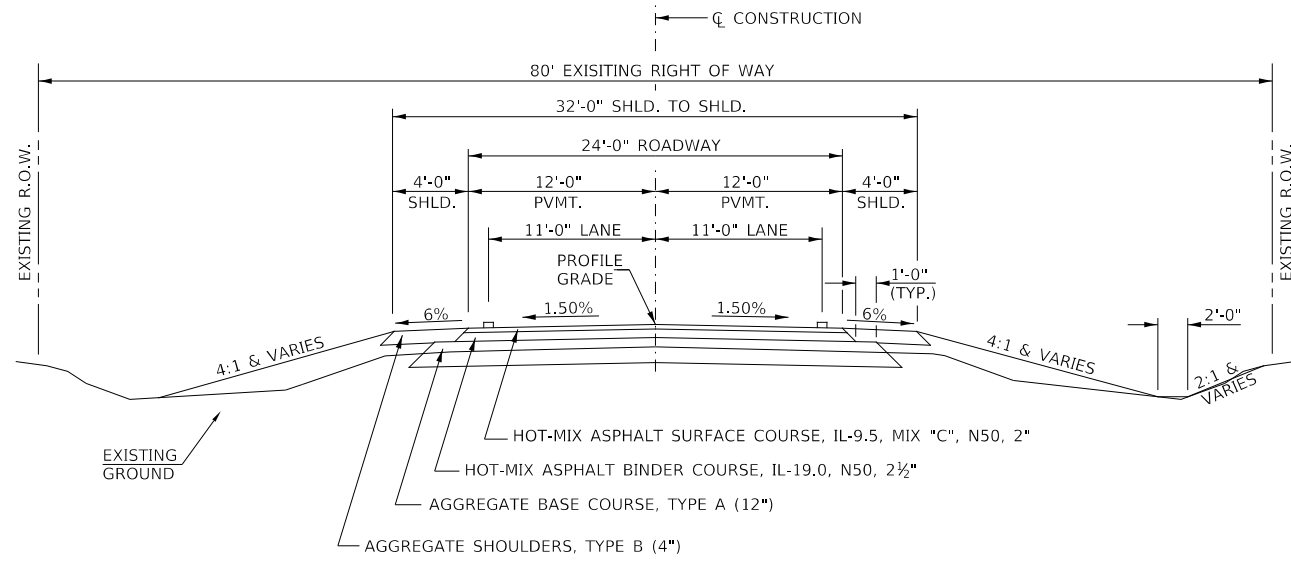
ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL NOTIFY THE HENRY COUNTY HIGHWAY DEPARTMENT RESIDENT ENGINEER 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.

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



EXISTING TYPICAL SECTION

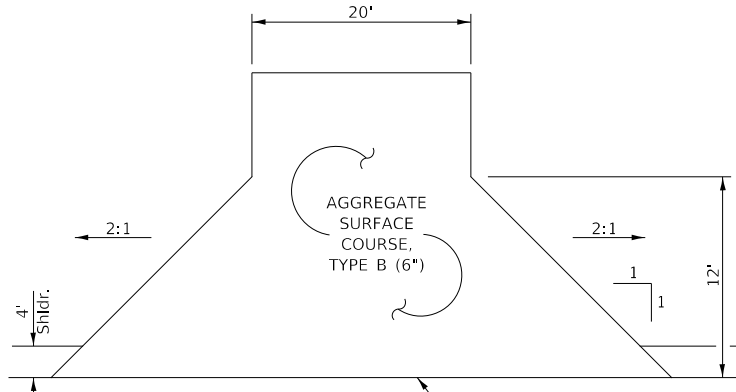


PROPOSED TYPICAL SECTION

STA. 16+38.00 TO STA. 19+53.00
STA. 20+33.00 TO STA. 23+66.00

EXCEPT TRANSITIONS

BRIDGE OMISSION
STA. 19+53.00 TO STA. 20+33.00



PROPOSED PRIVATE ENTRANCES

STA 16+39 RT

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

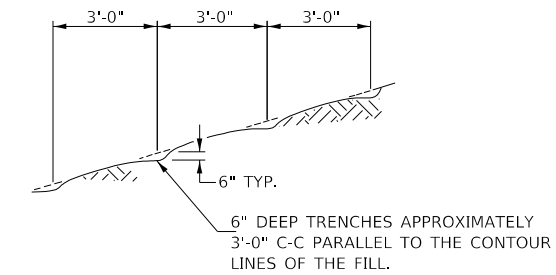
| | HMA BINDER | HMA SURFACE |
|-----------------------------|-----------------------|-----------------------|
| PG GRADE: | PG 64-22 | PG 64-22 |
| DESIGN AIR VOIDS: | 4% @ N50 | 4% @ N50 |
| MIXTURE COMPOSITION: | IL-19.0 | IL-9.5 |
| FRICTION AGGREGATE: | | MIXTURE C |
| DENSITY TEST METHOD: | NUCLEAR DENSITY GAUGE | NUCLEAR DENSITY GAUGE |
| 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): | STA. 16+38-23+66 | ENTIRE PROJECT |

If RAP option is selected, the asphalt cement grade may need to be adjusted. This will be determined by the Engineer.

STRUCTURAL DESIGN INFORMATION

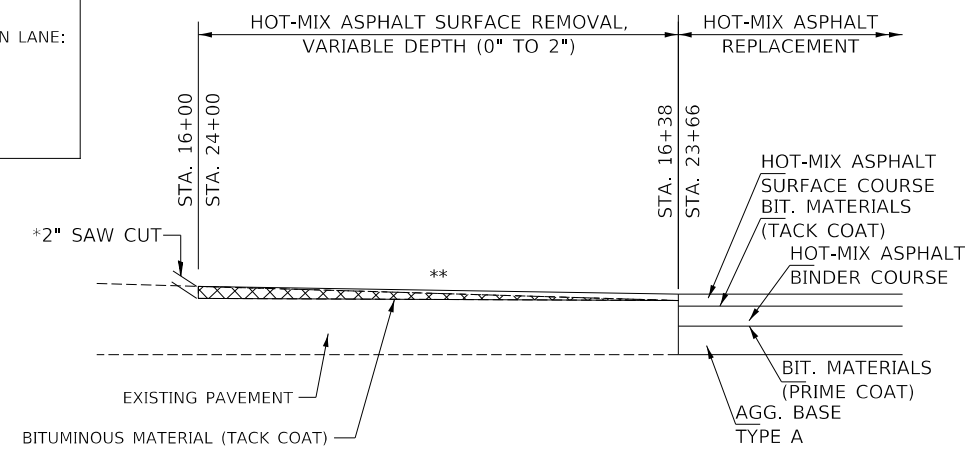
COUNTY HIGHWAY 19

ROAD CLASSIFICATION: CLASS IV 80,000 LB./20 YEAR DESIGN
STRUCTURAL DESIGN TRAFFIC:
PV = 308 SU = 32 MU = 11
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P = 88% S = 9% M = 3%
MINIMUM SUBGRADE SUPPORT RATING: FAIR
FLEXIBLE PAVEMENT DESIGN: MINIMUM TF = N/A
ASPHALT PAVEMENT THICKNESS: 4 1/2"
AGGREGATE BASE COURSE, TYPE A: 12"



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



HOT-MIX ASPHALT RESURFACING DETAIL

*COST INCLUDED IN HOT-MIX ASPHALT SURFACE REMOVAL

**CONSTRUCT THE VARIABLE DEPTH RESURFACING WITH A CONSTANT GRADE FROM 2" MIN. AT STATIONS SHOWN

MODEL: 1408161.MXD FILE NAME: 031117 - C1_19 over Hillery Creek (Henry)18 - CADD3 - CADD Sheets112-001.dgn

| | | |
|---------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| | DRAWN - CRN | REVISED - |
| PLOT SCALE = 2,000' / in. | CHECKED - JPS/BAN | REVISED - |
| PLOT DATE = 12/28/2023 | DATE - 11/13/2023 | REVISED - |

HENRY COUNTY COUNTY HIGHWAY 19 (F.A.S. 240A) OVER HILLERY CREEK

| | | | |
|---|-------------------------|--------------------------------|--|
| GENERAL NOTES, TYPICAL SECTIONS, DETAILS | | | |
| SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 16+00.00 TO STA. 24+00.00 | |

| | | | | |
|--------------------------------|------------------------|--------------------------------|-----------------|-------------|
| F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 2 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | CONTRACT NO. 85753 | | |
| | | FED. AID PROJECT NO. KUXB(253) | | |

| SUMMARY OF QUANTITIES | | | | |
|-----------------------|--|-------|----------|--|
| CODE NO. | ITEM | UNIT | QUANTITY | |
| 20200100 | EARTH EXCAVATION | CU YD | 360 | |
| 20300100 | CHANNEL EXCAVATION | CU YD | 640 | |
| 20400800 | FURNISHED EXCAVATION | CU YD | 700 | |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 850 | |
| 28000305 | TEMPORARY DITCH CHECKS | FOOT | 60 | |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 1,185 | |
| 28000500 | INLET AND PIPE PROTECTION | EACH | 1 | |
| 28100209 | STONE RIPRAP, CLASS A5 | TON | 400 | |
| 28200200 | FILTER FABRIC | SQ YD | 390 | |
| 35100100 | AGGREGATE BASE COURSE, TYPE A | TON | 1,259 | |
| 40200800 | AGGREGATE SURFACE COURSE, TYPE B | TON | 22 | |
| 40600275 | BITUMINOUS MATERIALS (PRIME COAT) | POUND | 4,009 | |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT) | POUND | 497 | |
| 40603080 | HOT-MIX ASPHALT BINDER COURSE, 1L-19.0, N50 | TON | 248 | |
| 40604050 | HOT-MIX ASPHALT SURFACE COURSE, 1L-9.5, MIX "C", N50 | TON | 263 | |
| 48101200 | AGGREGATE SHOULDERS, TYPE B | TON | 144 | |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 | |
| 50105220 | PIPE CULVERT REMOVAL | FOOT | 31 | |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 115 | |
| 50300225 | CONCRETE STRUCTURES | CU YD | 37.2 | |
| 50300280 | CONCRETE ENCASEMENT | CU YD | 4.2 | |
| 50400605 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH) | SQ FT | 2,323 | |
| 50800105 | REINFORCEMENT BARS | POUND | 4,020 | |
| 51201400 | FURNISHING STEEL PILES HP10x42 | FOOT | 305 | |
| 51202305 | DRIVING PILES | FOOT | 305 | |
| 51203400 | TEST PILE STEEL HP10x42 | EACH | 2 | |
| 51500100 | NAME PLATES | EACH | 1 | |
| 542D0223 | PIPE CULVERTS, CLASS D, TYPE 1 18" | FOOT | 32 | |
| 58100200 | WATERPROOFING MEMBRANE SYSTEM | SQ YD | 267 | |

| SUMMARY OF QUANTITIES | | | | |
|-----------------------|--|-------|----------|--|
| CODE NO. | ITEM | UNIT | QUANTITY | |
| 58300100 | PORTLAND CEMENT MORTAR FAIRING COURSE | FOOT | 175 | |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL | CU YD | 27.7 | |
| * 63100087 | TRAFFIC BARRIER TERMINAL TYPE 6A | EACH | 2 | |
| * 63100167 | TRAFFIC BARRIER TERMINAL TYPE 1, (SPECIAL) TANGENT | EACH | 2 | |
| 67100100 | MOBILIZATION | L SUM | 1 | |
| * 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 2 | |
| * 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 2,051 | |
| * X2300017 | STEEL RAILING, TYPE SM (SPECIAL) | FOOT | 160 | |
| X2501000 | SEEDING, CLASS 2 (SPECIAL) | ACRE | 1.0 | |
| X4401198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 192 | |
| X7010216 | TRAFFIC CONTROL AND PROTECTION (SPECIAL) | L SUM | 1 | |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | |

* SPECIALTY ITEMS

MODEL: MODEL\PLANES
FILE NAME: VHS112 - CH 19 over Hillery Creek Hillyery06 - CADD32 - CADD Sheets\112-0001.dwg

| | | | | | | | | | | | | |
|------------------------------|-------------------|-----------------|--|---|------------------|------|-----------------------|----------|--------------------|-----------------|--------------|---|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - _____ | HENRY COUNTY COUNTY HIGHWAY 19 (F.A.S. 240A) OVER HILLERY CREEK | SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES | | | F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| PLOT SCALE = 100.0000' / in. | DRAWN - CRN | REVISED - _____ | | SCALE: NONE | SHEET 1 | OF 2 | SHEETS | 240A | 22-00168-00-BR | HENRY | 20 | 3 |
| PLOT DATE = 12/13/2023 | CHECKED - JPS/BAN | REVISED - _____ | | STA. 16+00.00 | TO STA. 24+00.00 | | FED. ROAD DIST. NO. 7 | ILLINOIS | CONTRACT NO. 85753 | | | |
| | DATE - 11/28/2023 | REVISED - _____ | | FED. AID PROJECT NO. KUX8(253) | | | | | | | | |

| EARTHWORK SUMMARY | | | | | |
|--------------------------|------------------|--------------------|----------------------|------|------------------|
| STATION TO STATION | EARTH EXCAVATION | CHANNEL EXCAVATION | STRUCTURE EXCAVATION | FILL | WASTE (SHORTAGE) |
| | | | | | |
| RDWY 16+00.00 - 19+53.00 | 208 | | | 567 | (411) |
| RDWY 20+33.00 - 24+00.00 | 148 | | | 400 | (289) |
| CHANNEL | | 640 | | | |
| STRUCTURE | | | 115 | | |
| TOTAL | 356 | 640 | 115 | 967 | (700) |
| USE | 360 | 640 | 115 | - | (700) |

(@ 25% SHRINKAGE)

| PAVEMENT SCHEDULE | | | | | | | |
|---------------------|-------------|---------|------------------------------------|---|--|---|---|
| STATION TO STATION | WIDTH | LENGTH | AGGREGATE BASE CSE, TYPE A 140#/CF | BITUMINOUS MATERIALS (PRIME COAT) 0.25LBS/SQ FT | HOT-MIX ASPHALT BINDER CSE 112#/SQ YD/IN | BITUMINOUS MATERIALS (TACK COAT) 0.025LBS/SQ FT | HOT-MIX ASPHALT SURFACE CSE 112#/SQ YD/IN |
| | | | TON | POUND | TON | POUND | TON |
| 16+38.00 - 16+50.00 | 27.71' AVG. | 12.00' | 23 | | | | |
| 16+50.00 - 19+53.00 | 27.75' | 303.00' | 589 | | | | |
| 20+33.00 - 23+50.00 | 27.75' | 317.00' | 616 | | | | |
| 23+50.00 - 23+66.00 | 27.75' AVG. | 16.00' | 31 | | | | |
| 16+38.00 - 16+50.00 | 24.71' AVG. | 12.00' | | 74 | | | |
| 16+50.00 - 19+53.00 | 24.75' | 303.00' | | 1,875 | | | |
| 20+33.00 - 23+50.00 | 24.75' | 317.00' | | 1,961 | | | |
| 23+50.00 - 23+66.00 | 24.75' AVG. | 16.00' | | 99 | | | |
| 16+38.00 - 16+50.00 | 24.50' AVG. | 12.00' | | | 5 | | |
| 16+50.00 - 19+53.00 | 24.54' | 303.00' | | | 116 | | |
| 20+33.00 - 23+50.00 | 24.54' | 317.00' | | | 121 | | |
| 23+50.00 - 23+66.00 | 24.54' AVG. | 16.00' | | | 6 | | |
| 16+00.00 - 16+38.00 | 24.44' | 38.00' | | | | 23 | |
| 16+38.00 - 16+50.00 | 24.38' AVG. | 12.00' | | | | 7 | |
| 16+50.00 - 19+53.00 | 24.33' | 303.00' | | | | 184 | |
| BRIDGE DECK | 30.00' | 80.00' | | | | 60 | |
| 20+33.00 - 23+50.00 | 24.33' | 317.00' | | | | 193 | |
| 23+50.00 - 23+66.00 | 24.00' AVG. | 16.00' | | | | 10 | |
| 23+66.00 - 24+00.00 | 23.05' AVG. | 34.00' | | | | 20 | |
| 16+00.00 - 16+38.00 | 24.33' AVG. | 38.00' | | | | | 12 |
| 16+38.00 - 16+50.00 | 24.25' AVG. | 12.00' | | | | | 4 |
| 16+50.00 - 19+53.00 | 24.17' | 303.00' | | | | | 91 |
| BRIDGE DECK | 30.00' | 80.00' | | | | | 46 |
| 20+33.00 - 23+50.00 | 24.17' | 317.00' | | | | | 95 |
| 23+50.00 - 23+66.00 | 23.86' AVG. | 16.00' | | | | | 5 |
| 23+66.00 - 24+00.00 | 22.88' AVG. | 34.00' | | | | | 10 |
| TOTAL | | | 1,259 | 4,009 | 248 | 497 | 263 |

| PERIMETER EROSION BARRIER | | | |
|---------------------------|-------|-------|-------|
| STATION TO STATION | SIDE | FOOT | |
| 16+00 | 16+25 | RIGHT | 35 |
| 16+00 | 19+34 | LEFT | 360 |
| 20+52 | 24+00 | RIGHT | 380 |
| 20+14 | 24+00 | LEFT | 410 |
| TOTAL | | | 1,185 |

| TEMPORARY DITCH CHECKS | | |
|------------------------|-------|------|
| STATION | SIDE | FOOT |
| 16+98 | RIGHT | 12 |
| 17+73 | RIGHT | 12 |
| 18+48 | RIGHT | 12 |
| 19+48 | RIGHT | 12 |
| 19+75 | RIGHT | 12 |
| TOTAL | | 60 |

| INLET AND PIPE PROTECTION | | |
|---------------------------|-------|------|
| STATION | SIDE | EACH |
| 16+23 | RIGHT | 1 |
| TOTAL | | 1 |

| PIPE CULVERTS, CLASS D, TYPE 1 18" | | |
|------------------------------------|-------|------|
| STATION | SIDE | FOOT |
| 16+39 | RIGHT | 32 |
| TOTAL | | 32 |

| PIPE CULVERT REMOVAL | | | |
|----------------------|------|------|------|
| STATION | SIZE | SIDE | FOOT |
| 16+39 | 18" | RT | 31 |
| TOTAL | | | 31 |

| AGGREGATE SHOULDERS, TYPE B 140#/CF | | | | |
|-------------------------------------|------|------------|---------|-----|
| STATION TO STATION | SIDE | WIDTH | LENGTH | TON |
| 16+00.00 - 16+18.00 | RT | 5.57' AVG. | 18.00' | 2 |
| 16+00.00 - 16+50.00 | LT | 3.91' AVG. | 50.00' | 5 |
| 16+50.00 - 19+30.28 | LT | 4.00' | 280.28' | 26 |
| 16+61.00 - 18+52.50 | RT | 4.00' | 191.50' | 18 |
| 19+30.28 - 19+39.00 | LT | 3.78' AVG. | 280.28' | 1 |
| 18+52.50 - 18+70.50 | RT | 5.50' AVG. | 18.00' | 2 |
| 18+70.50 - 19+05.50 | RT | 7.00' | 35.00' | 6 |
| 19+05.50 - 19+54.30 | RT | 6.88' AVG. | 48.80' | 8 |
| 19+54.30 - 19+67.13 | RT | 4.88' AVG. | 12.83' | 1 |
| 20+18.87 - 20+31.68 | LT | 4.48' AVG. | 12.81' | 1 |
| 20+31.68 - 20+80.50 | LT | 6.68' AVG. | 48.82' | 8 |
| 20+80.50 - 21+15.50 | LT | 7.00' | 35.00' | 6 |
| 21+15.50 - 21+33.50 | LT | 5.50' AVG. | 18.00' | 2 |
| 20+46.75 - 20+55.72 | RT | 3.78' AVG. | 8.97' | 1 |
| 20+55.72 - 23+50.00 | RT | 4.00' | 294.28' | 27 |
| 21+33.50 - 23+50.00 | LT | 4.00' | 216.50' | 20 |
| 23+50.00 - 24+00.00 | RT | 4.00' | 50.00' | 5 |
| 23+50.00 - 24+00.00 | LT | 4.00' | 50.00' | 5 |
| TOTAL | | | | 144 |

| AGGREGATE SURFACE COURSE, TYPE B 140#/CF | | | | |
|--|------|------------|--------|-----|
| STATION | SIDE | WIDTH | LENGTH | TON |
| ENTR. - 16+39.00 | RT | 20' & VAR. | 21.50' | 22 |
| TOTAL | | | | 22 |

| HOT-MIX ASPHALT REMOVAL, VARIABLE DEPTH | | | |
|---|-------|--------|-------|
| STATION TO STATION | WIDTH | LENGTH | SQ YD |
| 16+00.00 - 16+38.00 | 24' | 38.00' | 101 |
| 23+66.00 - 24+00.00 | 24' | 34.00' | 91 |
| TOTAL | | | 192 |

| TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | | | |
|--|------|------|---|
| STATION TO STATION | SIDE | EACH | |
| 18+80.50 - 19+30.50 | RT | 1 | |
| 20+55.50 - 21+05.50 | LT | 1 | |
| TOTAL | | | 2 |

| TRAFFIC BARRIER TERMINAL, TYPE 6A | | | |
|-----------------------------------|------|------|---|
| STATION TO STATION | SIDE | EACH | |
| 19+30.50 - 19+68.00 | RT | 1 | |
| 20+18.00 - 20+55.50 | LT | 1 | |
| TOTAL | | | 2 |

| PAINT PAVEMENT MARKING - LINE 4" | | | |
|----------------------------------|-------|---------------------|-------|
| STATION TO STATION | SIDE | DESCRIPTION | FOOT |
| 16+00.00 - 24+00.00 | LEFT | SOLID WHITE | 800 |
| 16+00.00 - 18+50.00 | CL | LT YELLOW SOLID | 250 |
| 16+00.00 - 18+50.00 | CL | RT YELLOW SKIP-DASH | 63 |
| 18+50.00 - 24+00.00 | CL | YELLOW SKIP-DASH | 138 |
| 16+00.00 - 24+00.00 | RIGHT | SOLID WHITE | 800 |
| TOTAL | | | 2,051 |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

**SUMMARY OF QUANTITIES,
SCHEDULES OF QUANTITIES**

| | | |
|------------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 100.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/28/2023 | DATE - 11/28/2023 | REVISED - _____ |

SCALE: NONE SHEET 2 OF 2 SHEETS STA. 16+00.00 TO STA. 24+00.00

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------------|----------|--------------|--------------------------------|
| 240A | 22-00168-00-BR | HENRY | 20 | 4 |
| CONTRACT NO. 85753 | | | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT NO. KUXB(253) |

R 2 E | R 3 E, 4th PM



1 ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY R11-3
ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY

2 ROAD CLOSED AHEAD W20-3
ROAD CLOSED AHEAD

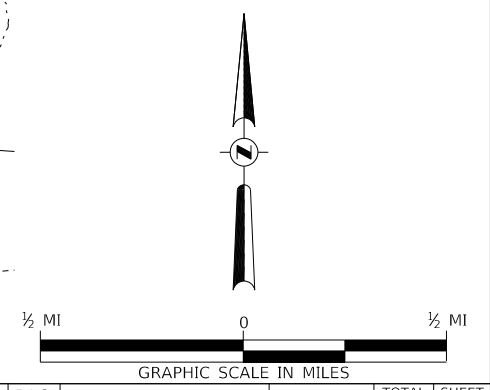
3 ROAD CLOSED 500 FT W20-3
ROAD CLOSED 500 FT

4 ONE DIRECTION ARROW (LEFT) W1-6L

5 ONE DIRECTION ARROW (RIGHT) W1-6R

6 TYPE III BARRICADES

SEE STANDARD BLR 21 AND SPECIAL PROVISIONS



MODEL: STD06LNAME
FILE NAME: 03112 - CH 19 over Hillery Creek (Henry)8 - CADD3 - CADD Sheets(112-001.dgn)

| | | |
|---------------------------|-------------------|-------------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| DRAWN - CRN | REVISIONS - | |
| PLOT SCALE = 2,000' / in. | CHECKED - JPS/BAN | REVISIONS - |
| PLOT DATE = 12/28/2023 | DATE - 11/28/2023 | REVISIONS - |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

TRAFFIC CONTROL PLAN

SCALE: NONE SHEET 1 OF 1 SHEETS STA. 16+00.00 TO STA. 24+00.00

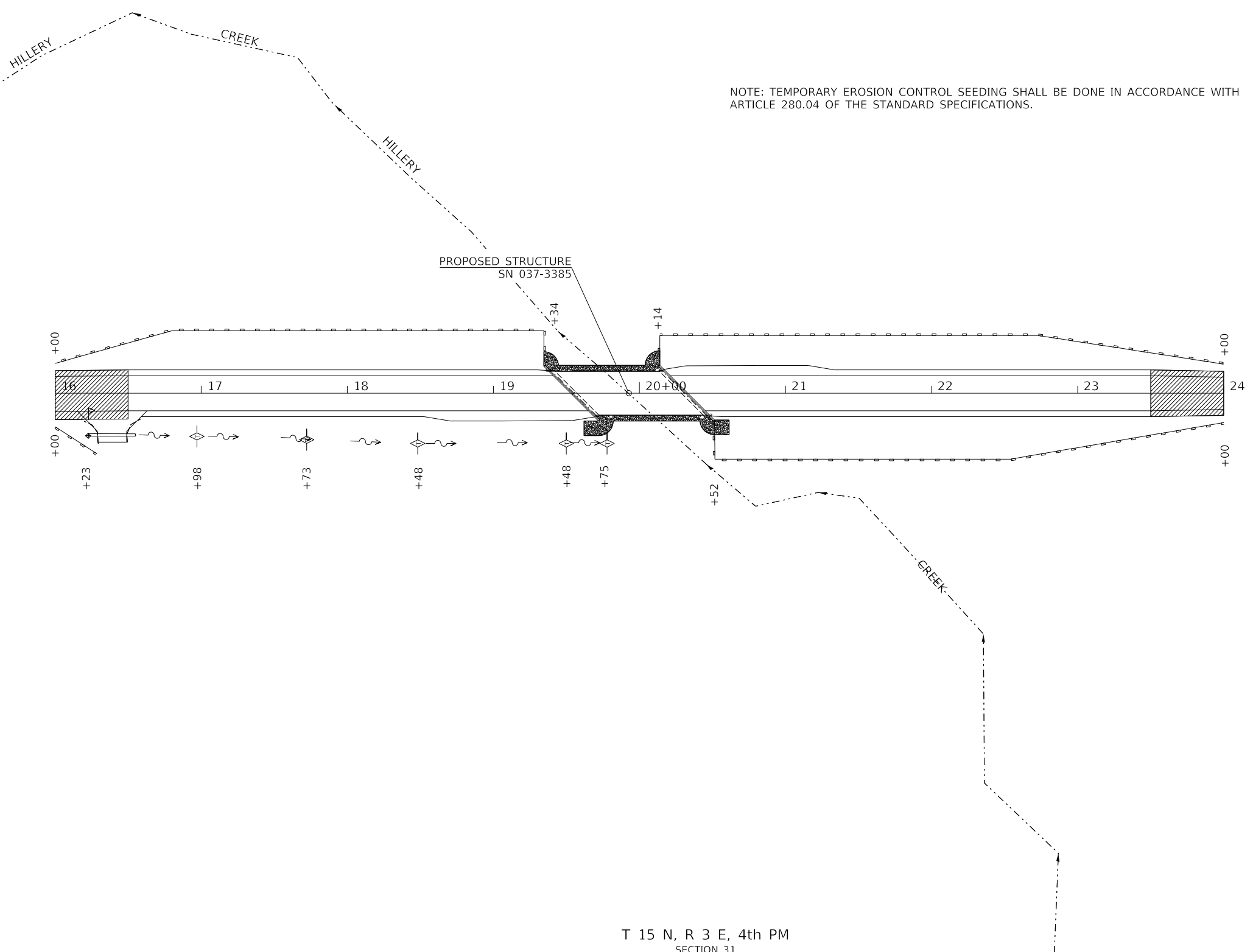
| | | | | |
|--------------------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 5 |
| SN 037-3385 | | CONTRACT NO. 85753 | | |
| FED. ROAD DIST. NO. 7 ILLINOIS | | FED. AID PROJECT NO. KUXB(253) | | |

T 15 N, R 3 E, 4th PM
SECTION 30

| | | |
|---------------|-----------|---------|
| PLAN | SURVEYED | DATE |
| | BY | |
| NOTE BOOK NO. | ALIGNED | CHECKED |
| | FILE NAME | |





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

MODEL: S:\MODEL\NAMES
FILE NAME: V03112 - Ch 19 over Hillery Creek (Henry)18 - CADD2 - CADD Sheets\112-d001.dgn

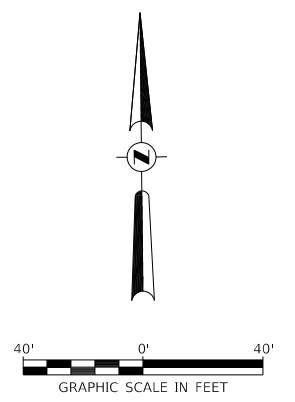


NOTE: TEMPORARY EROSION CONTROL SEEDING SHALL BE DONE IN ACCORDANCE WITH ARTICLE 280.04 OF THE STANDARD SPECIFICATIONS.

LEGEND

-  PERIMETER EROSION BARRIER
-  INLET PIPE PROTECTION
-  INLET PIPE PROTECTION
-  INLET PIPE PROTECTION

T 15 N, R 3 E, 4th PM
SECTION 31



| | | |
|------------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| | DRAWN - CRN | REVISED - |
| PLOT SCALE = 80.0000 ' / in. | CHECKED - JPS/BAN | REVISED - |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

EROSION CONTROL PLAN

SCALE: 1"=40' SHEET 1 OF 1 SHEETS STA. 16+00.00 TO STA. 24+00.00

| | | | | |
|-----------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 6 |
| CONTRACT NO. 85753 | | | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |

B.M.: Mag Spike in Southside of Power Pole Sta. 16+97, 38' LT. Elev. 720.76
 Mag Spike in Southside of Power Pole Sta. 19+19, 39' LT. Elev. 719.11
 Mag Spike in Southside of Power Pole Sta. 21+97, 40' LT. Elev. 720.93

HILLERY CREEK
 BUILT 202 BY
 HENRY COUNTY
 SEC. 22-00168-00-BR
 F.A.S. RT. 240A STA. 19+93.00
 F.A. PROJ. NO. KUXB(253)
 STR. NO. 037-3385 LOADING HL-93

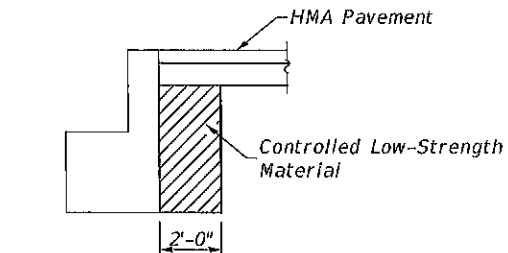
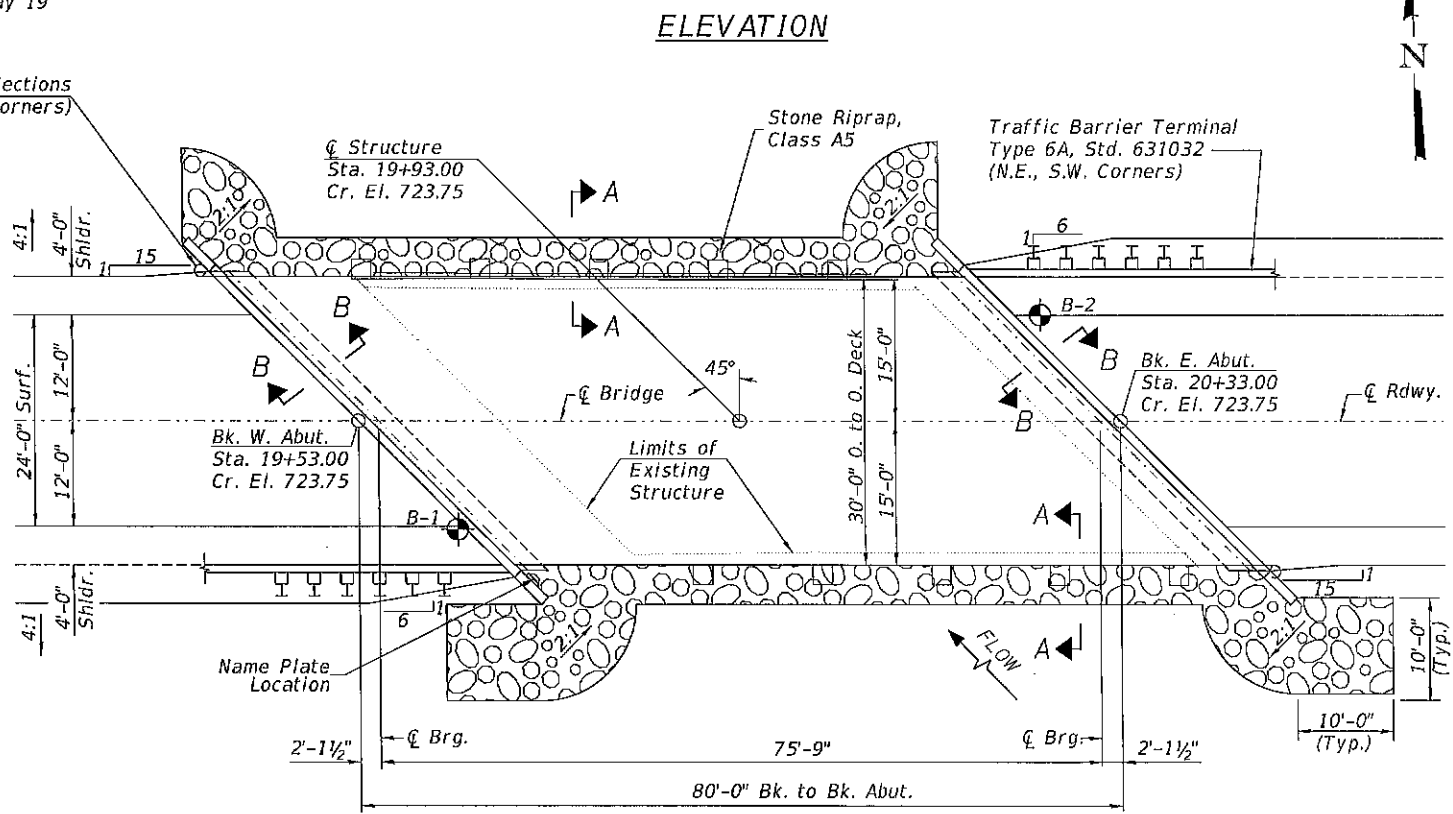
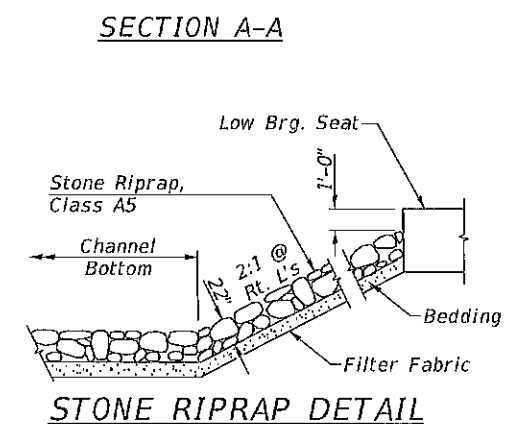
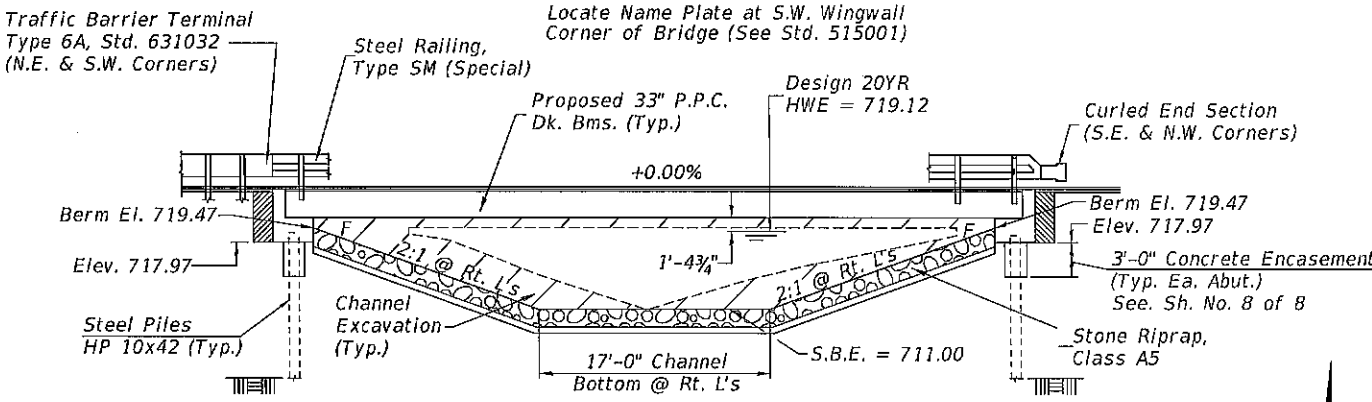
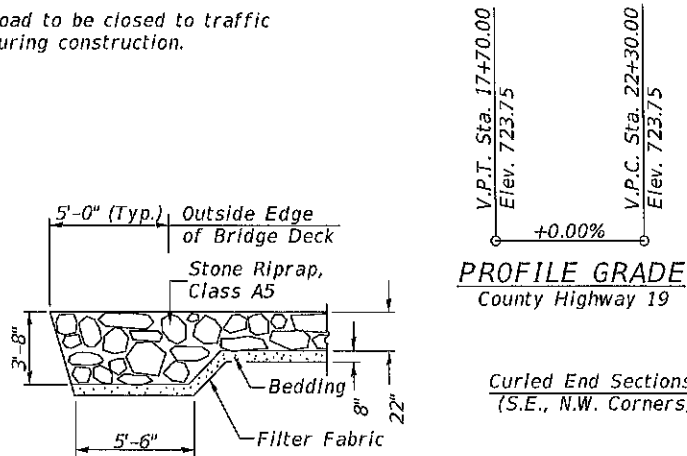
NAME PLATE

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

Existing Structure:
 Single span precast prestressed concrete deck beam superstructure on open concrete abutments. The structure is 58'-0" back to back of abutments, 28'-0" out to out of deck and is skewed 44° right ahead. The structure was constructed in 1959. Str. No. 037-3006

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

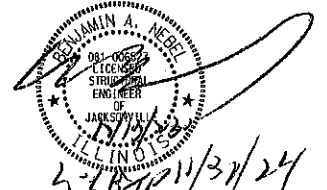
GENERAL NOTES
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Articles 1020.05(b)(10) and 1021.07 of the Standard Specifications.
 Reinforcement Bars designated (E) shall be epoxy coated.
 Layout of the slope protection system may be varied 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 | | 640 | 640 |
| Stone Riprap, Class A5 | TON | | 400 | 400 |
| Filter Fabric | SQ YD | | 390 | 390 |
| ① Hot-Mix Asphalt Surface Course, IL-9.5, Mix "C", N50 | TON | 46 | | 46 |
| Bituminous Materials (Tack Coat) | POUND | 60 | | 60 |
| ① Removal of Existing Structures | EACH | | | 1 |
| Structure Excavation | CU YD | | 115 | 115 |
| Concrete Structures | CU YD | | 37.2 | 37.2 |
| Concrete Encasement | CU YD | | 4.2 | 4.2 |
| Precast Prestressed Concrete Deck Beams (33" Depth) | SQ FT | 2,323 | | 2,323 |
| Reinforcement Bars | POUND | | 4,020 | 4,020 |
| ① Steel Railing, Type SM (Special) | FOOT | 160 | | 160 |
| Furnishing Steel Piles HP10x42 | FOOT | | 305 | 305 |
| Driving Piles | FOOT | | 305 | 305 |
| Test Pile Steel HP10x42 | EACH | | 2 | 2 |
| Name Plates | EACH | | 1 | 1 |
| ① Terminal Marker - Direct Applied | EACH | 2 | | 2 |
| ① Waterproofing Membrane System | SQ YD | 267 | | 267 |
| ① Portland Cement Mortar Fairing Course | FOOT | 175 | | 175 |
| ① Controlled Low-Strength Material | CU YD | | 27.7 | 27.7 |

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.

Illinois Structural No. 6527
 Expires 11/30/2024

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

(FIELD UNITS)
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (Rein.)

(PRECAST PRESTRESSED UNITS)
 $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 5,000$ p.s.i.
 $f'_s = 270,000$ p.s.i. ($\frac{1}{2}$ " Strands)
 $f'_{si} = 201,960$ p.s.i. ($\frac{1}{2}$ " Strands)

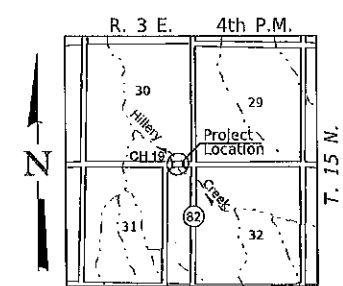
LOADING HL-93

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

WATERWAY INFORMATION

Drainage Area = 3.48 Sq. Mi. Low Grade Elev. = 722.92 @ Sta. 17+70.29

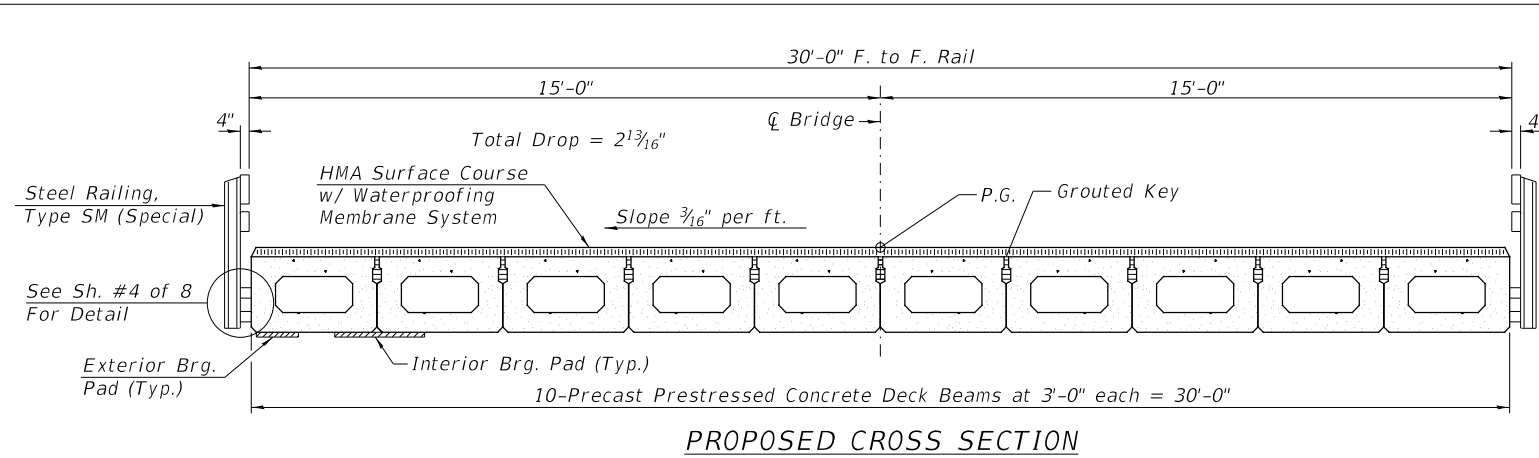
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. H.W.E. | Head - Ft. | | Headwater El. | |
|--------|-----------|----------|-----------------|-------|-------------|------------|-------|---------------|--------|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| Design | 20 | 1,235 | 155 | 270 | 719.12 | 1.66 | 0.21 | 720.78 | 719.33 |
| Base | 100 | 1,820 | 175 | 303 | 719.77 | 2.81 | 0.54 | 722.58 | 720.31 |



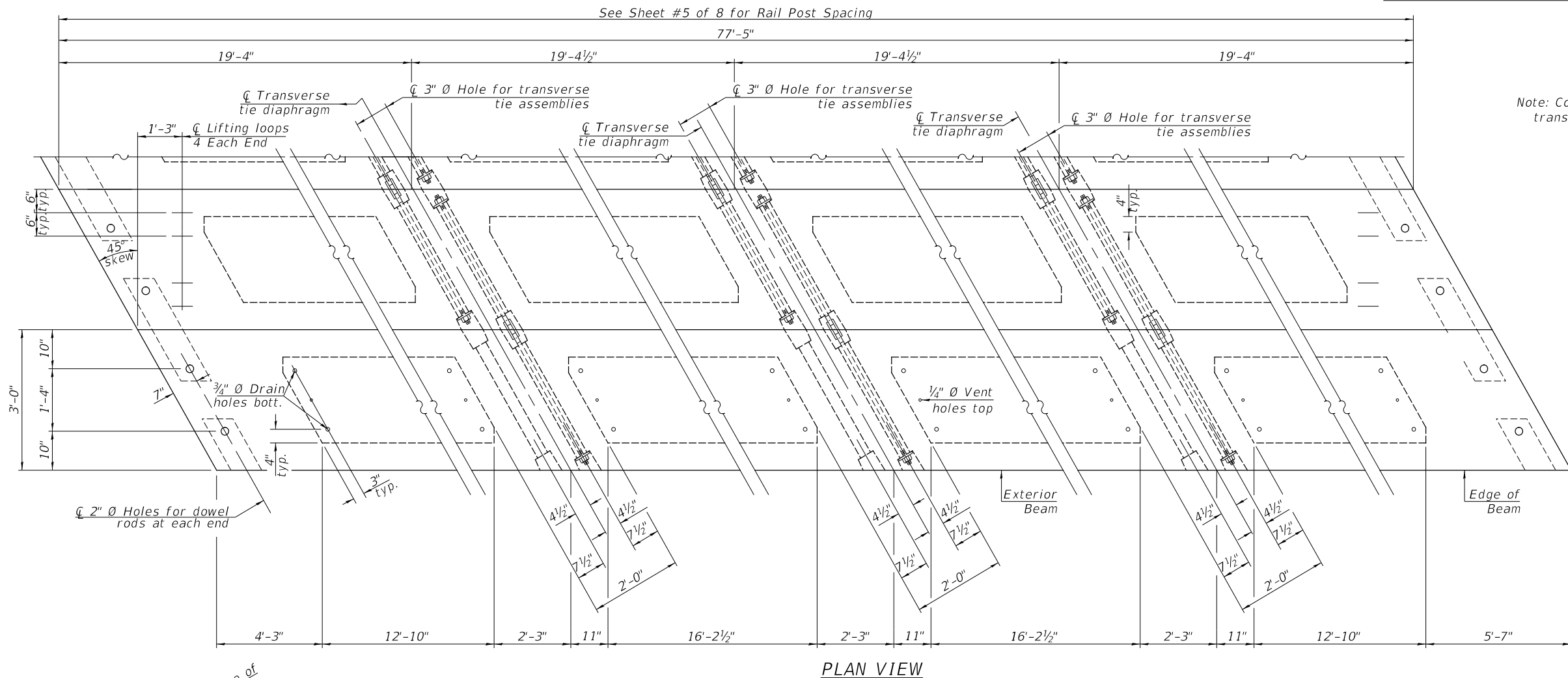
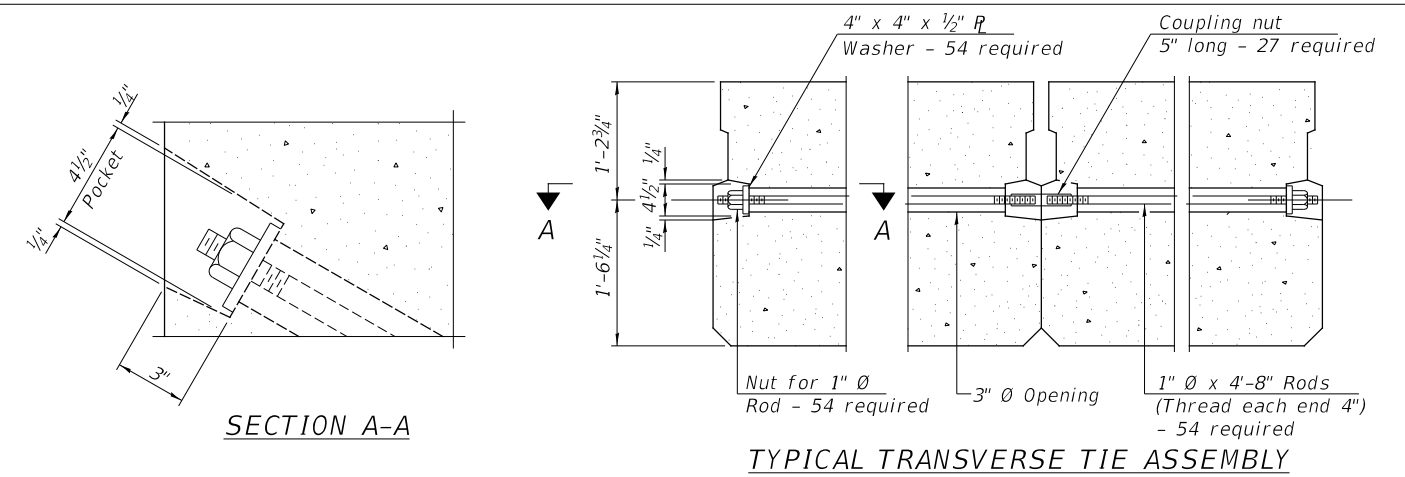
LOCATION SKETCH

MODEL: SMODELMANES FILE NAME: V15112 - Ch. 19 over Hillery Creek (Henry) IS - CADD - CADD Sheets 1112-901.dgn

| | | | | | | | | | | |
|------------------------------|-------------------|-----------|--|-------------------------------------|---------------------|--------------------------------|------------------------|--------------|--------------------------------|-------------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - | HENRY COUNTY COUNTY HIGHWAY 19 (F.A.S. 240A) OVER HILLERY CREEK | GENERAL PLAN & ELEVATION | | F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 8 |
| PLOT SCALE = 100.0000' / in. | CHECKED - JPS/BAN | REVISED - | | SCALE: NONE | SHEET 1 OF 8 SHEETS | SN 037-3385 | CONTRACT NO. 85753 | | FED. ROAD DIST. NO. 7 ILLINOIS | |
| PLOT DATE = 12/13/2023 | DATE = 10/17/2023 | REVISED - | | | | FED. AID PROJECT NO. KUXB(253) | | | | |
| | | | | | | | | | | |

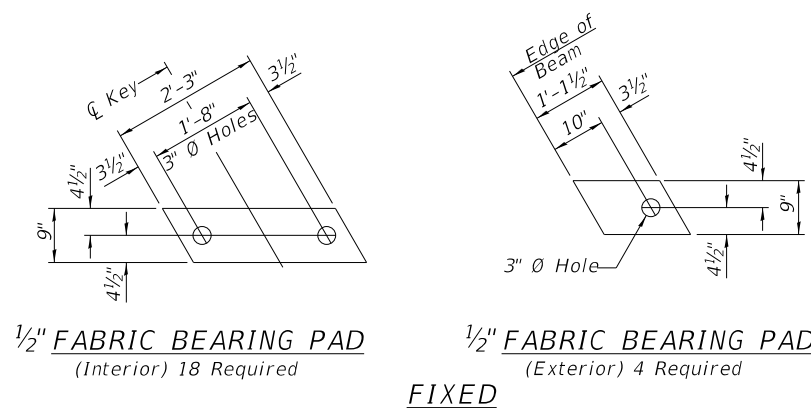


PROPOSED CROSS SECTION



PLAN VIEW

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



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.

BILL OF MATERIAL

| ITEM | UNIT | QUANTITY |
|---|-------|----------|
| Precast Prestressed Concrete Deck Beams (33" Depth) | SQ FT | 2,323 |

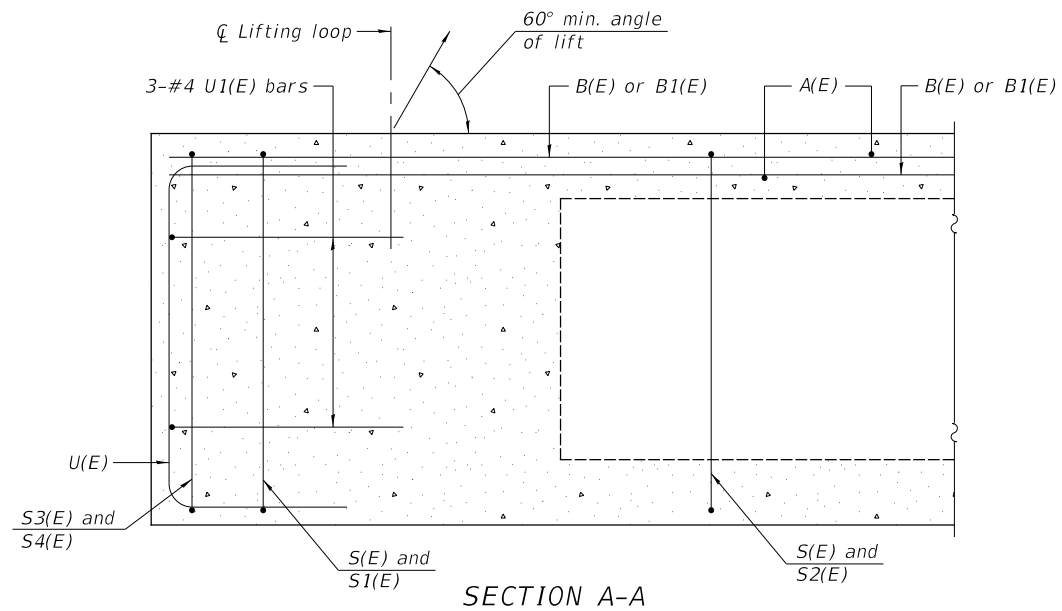
MODEL: 140821.MXMTS
FILE NAME: 03112 - C1 19 over Hillery Creek (Henry)18 - CADD3 - CADD Sheets112-002.dgn

| | | |
|------------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| PLOT SCALE = 100.0000' / in. | DRAWN - CRN | REVISED - |
| PLOT DATE = 12/13/2023 | CHECKED - JPS/BAN | REVISED - |
| | DATE - 10/02/2023 | REVISED - |

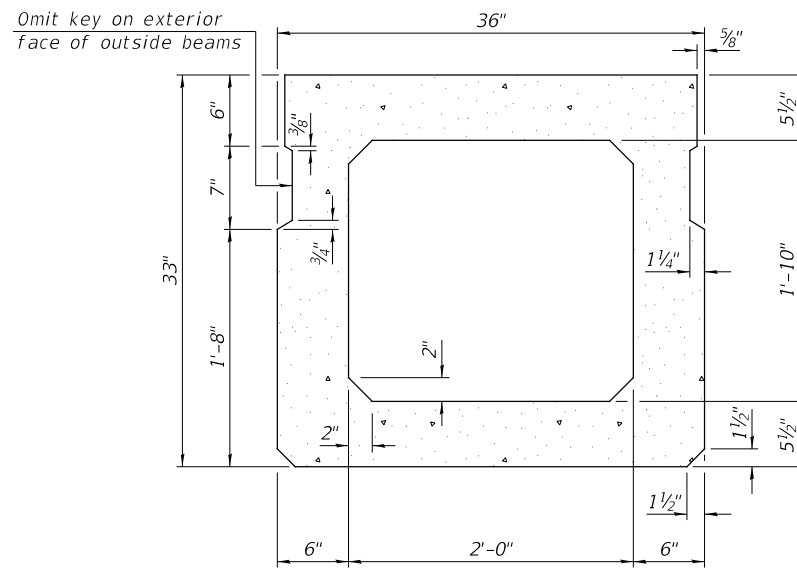
HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK

SCALE: NONE SHEET 2 OF 8 SHEETS

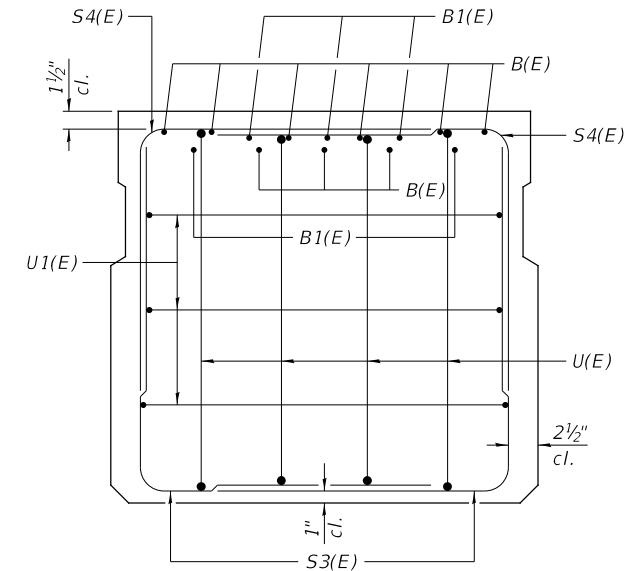
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|-----------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 9 |
| SN 037-3385 | | CONTRACT NO. | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |



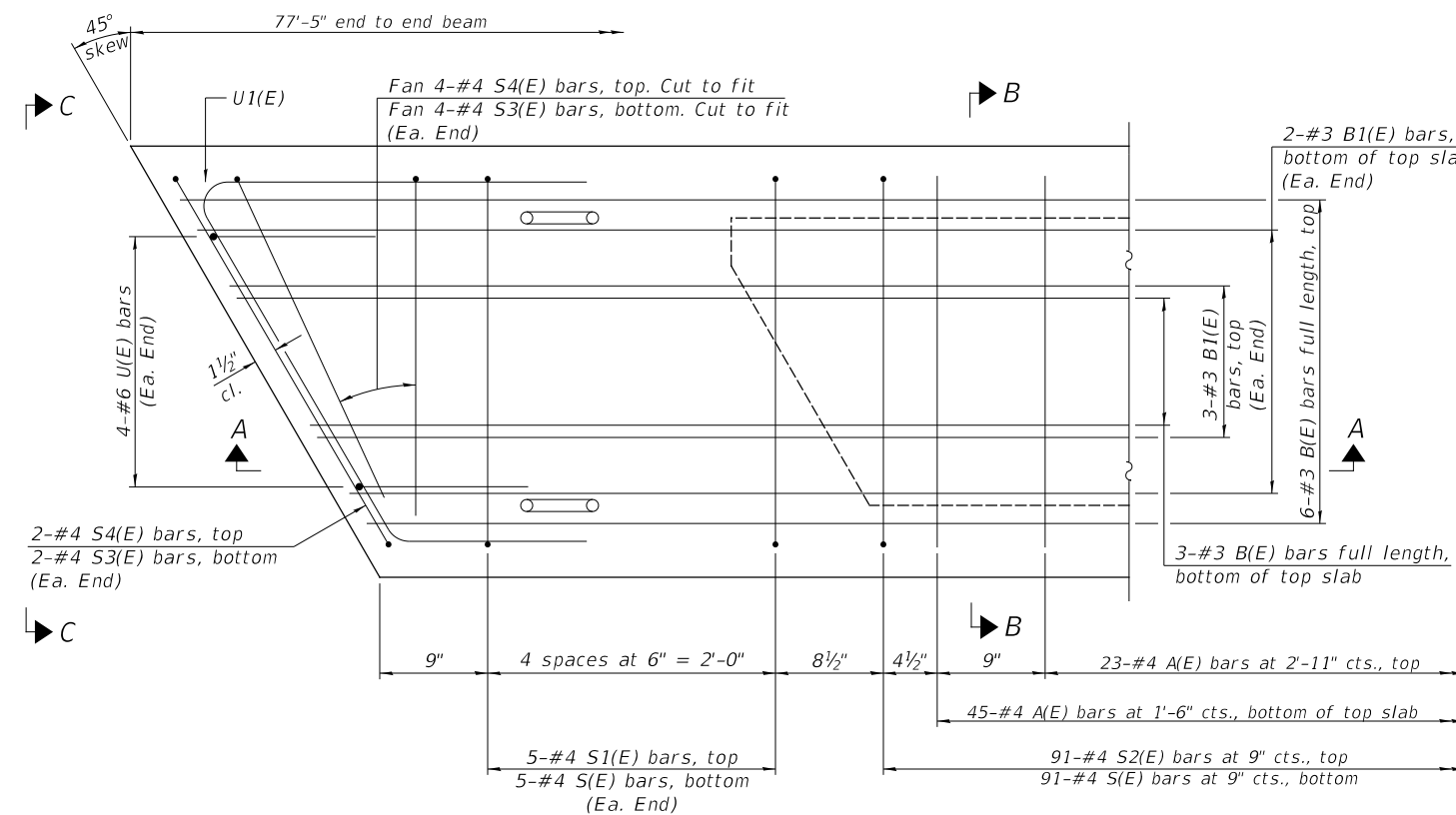
SECTION A-A



SECTION B-B
(Showing dimensions)

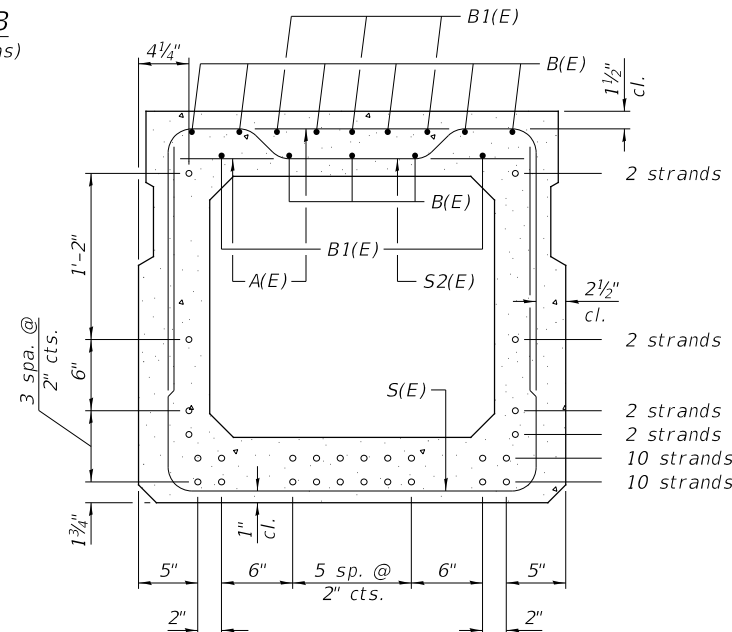


VIEW C-C



PLAN VIEW

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.



SECTION B-B

(Showing reinforcement and permissible strand locations)
28-1/2"Ø Strands Each Strand Stressed to 30,900 Lbs.
10-Strands 1 3/4" up, 10-Strands 3 3/4" up,
2-Strands 5 3/4" up, 2-Strands 7 3/4" up,
2-Strands 13 3/4" up, 2-Strands 27 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.

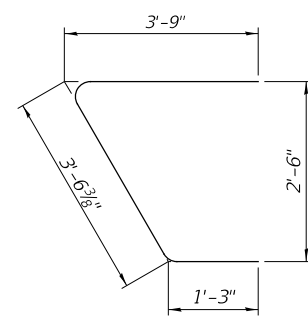
BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| A(E) | 68 | #4 | 2'-7" | — |
| B(E) | 11 | #3 | *77"-2" | — |
| B1(E) | 10 | #3 | 10'-0" | — |
| S(E) | 100 | #4 | 7'-8" | ┌ |
| S1(E) | 10 | #4 | 6'-5" | ┌ |
| S2(E) | 90 | #4 | 6'-8" | ┌ |
| S3(E) | 16 | #4 | 6'-3" | ┌ |
| S4(E) | 16 | #4 | 5'-7" | ┌ |
| U(E) | 8 | #6 | 5'-0" | ┌ |
| U1(E) | 6 | #4 | 8'-6" | ┌ |

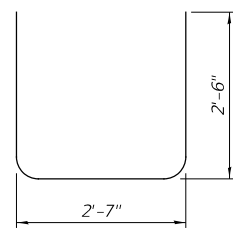
Note:
See sheet 2 of 8 for additional details and Bill of Material.

*Total length, lap as necessary

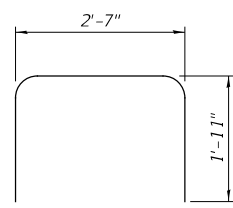
MINIMUM BAR LAP
#3 bar = 1'-6"



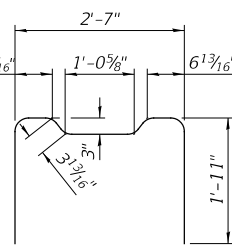
BAR U1(E)



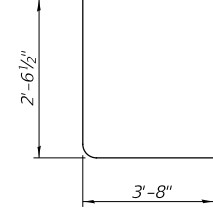
BAR S(E)



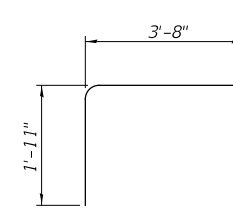
BAR S1(E)



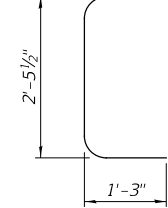
BAR S2(E)



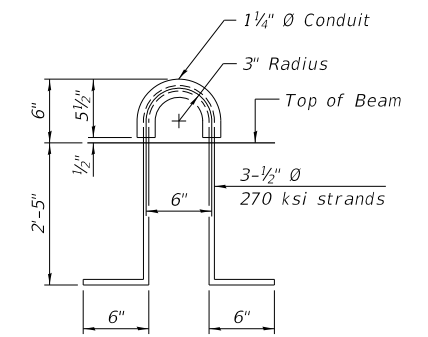
BAR S3(E)



BAR S4(E)



BAR U(E)



LIFTING LOOP DETAIL

MODEL: 1400BELNAMES
FILE NAME: 03112 - C1 19 over Hillery Creek (Henry)18 - CADD3 - CADD Sheets112-0003.dgn

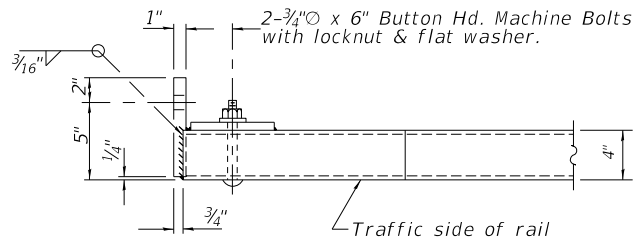
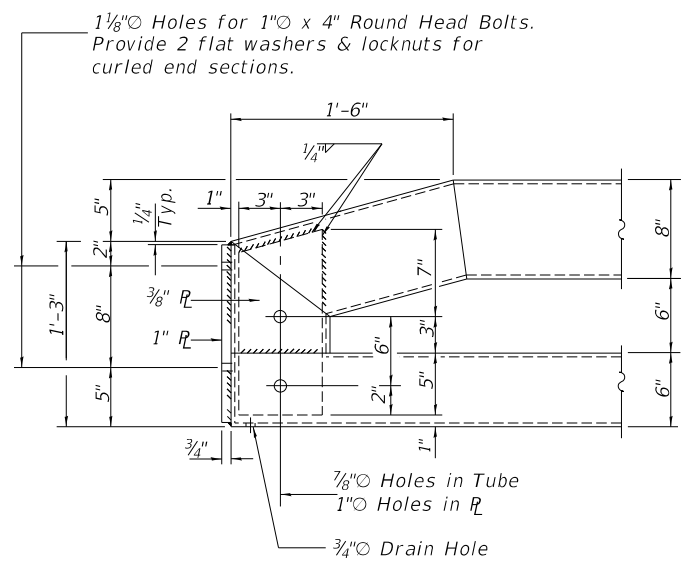
| | | |
|------------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| DRAWN - CRN | REVISED - | |
| PLOT SCALE = 100.0000' / in. | CHECKED - JPS/BAN | REVISED - |
| PLOT DATE = 12/13/2023 | DATE - 10/02/2023 | REVISED - |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

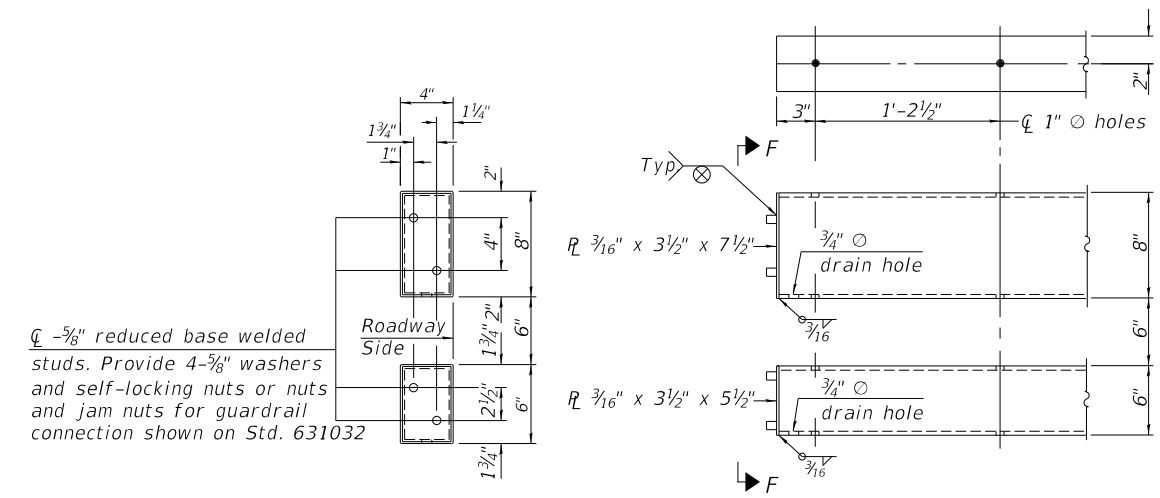
SUPERSTRUCTURE DETAILS

SCALE: NONE SHEET 3 OF 8 SHEETS

| | | | | |
|-----------------------|----------------|--------------------------------|--------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 10 |
| | SN 037-3385 | | CONTRACT NO. 85753 | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |

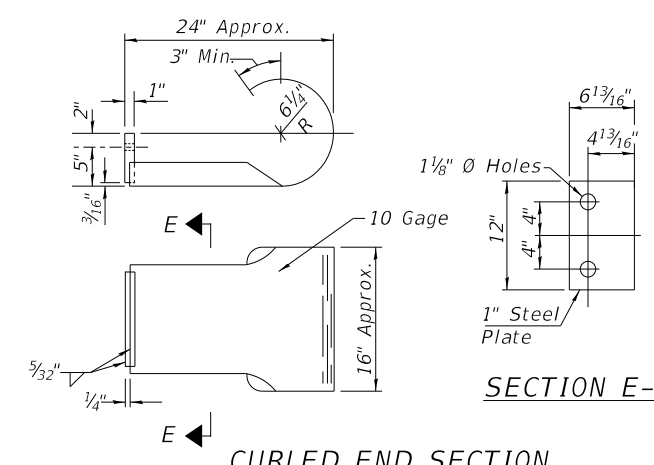


**END OF RAIL DETAILS
N.E. & S.W. CORNER**



VIEW E-E

**END OF RAIL DETAILS
S.E. & N.W. CORNER**



(2 Req'd) Cost Included with Steel Railing, Type SM (Special).
Terminal Markers - Direct Applied shall be placed on
end of each Curled End Section. (Typ. S.E. & N.W. Corners)

(Sheet 2 of 2)

MODEL: 1408161.MXD
FILE NAME: 031117 - C1_19 over Hillery Creek (Henry)18 - CADD2 - CADD Sheets112-0095.dgn

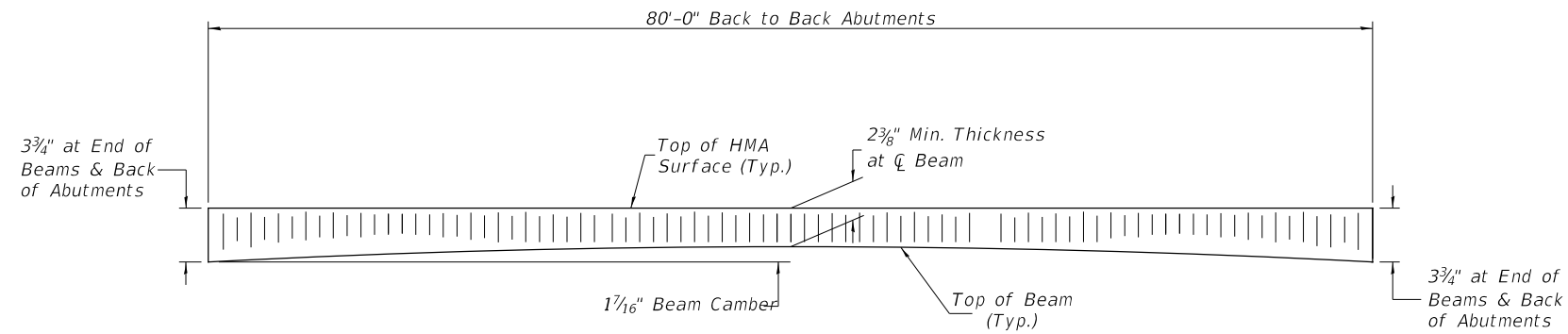
| | | |
|------------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| DRAWN - CRN | REVISIONS - | |
| PLOT SCALE = 100.0000' / in. | CHECKED - JPS/BAN | REVISED - |
| PLOT DATE = 12/13/2023 | DATE - 10/02/2023 | REVISED - |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

STEEL RAILING, TYPE SM (SPECIAL)

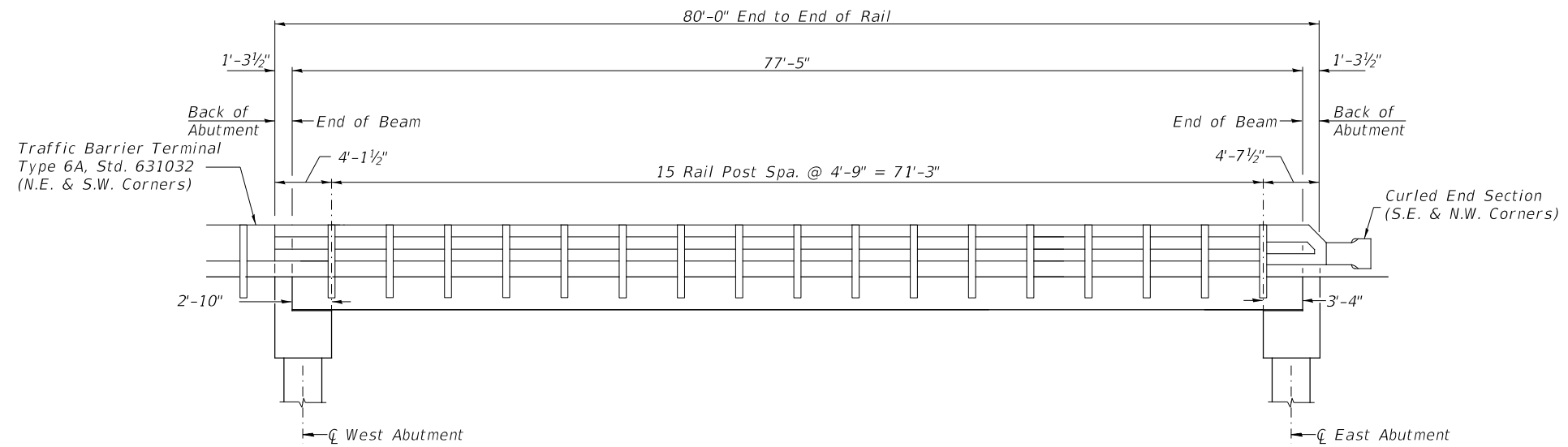
SCALE: NONE SHEET 5 OF 8 SHEETS

| | | | | |
|-----------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 12 |
| SN 037-3385 | | CONTRACT NO. 85753 | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |



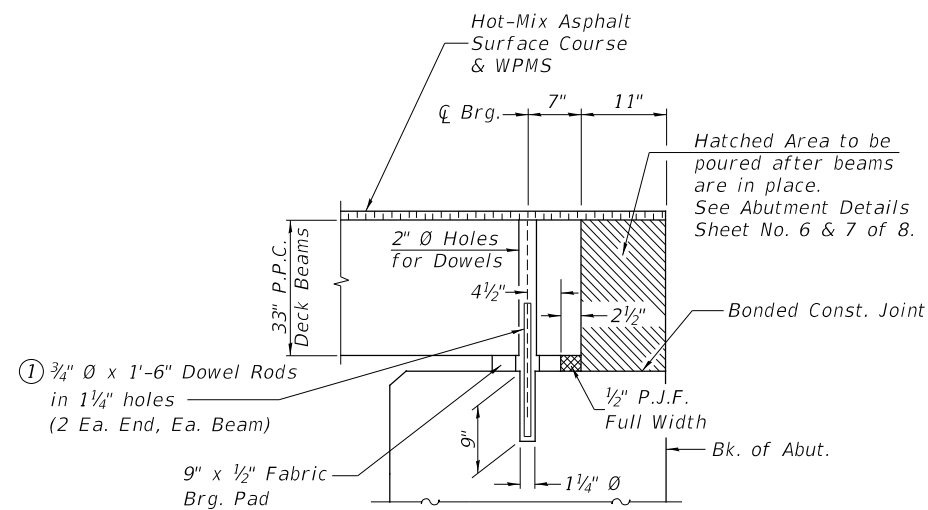
ANTICIPATED HMA SURFACE PROFILE

Includes Waterproofing Membrane System ($\pm 3/4$)



RAIL POST SPACING

*Contractor to move posts as necessary to avoid deck beam ties



SECTION THRU ABUTMENT

(@ RT Angle)

① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

MODEL: 1400BELNAMES
 FILE NAME: 031117 - C1 19 overTIMES Creek (Henry)18 - CADD2 - CADD Sheets112-006.dgn

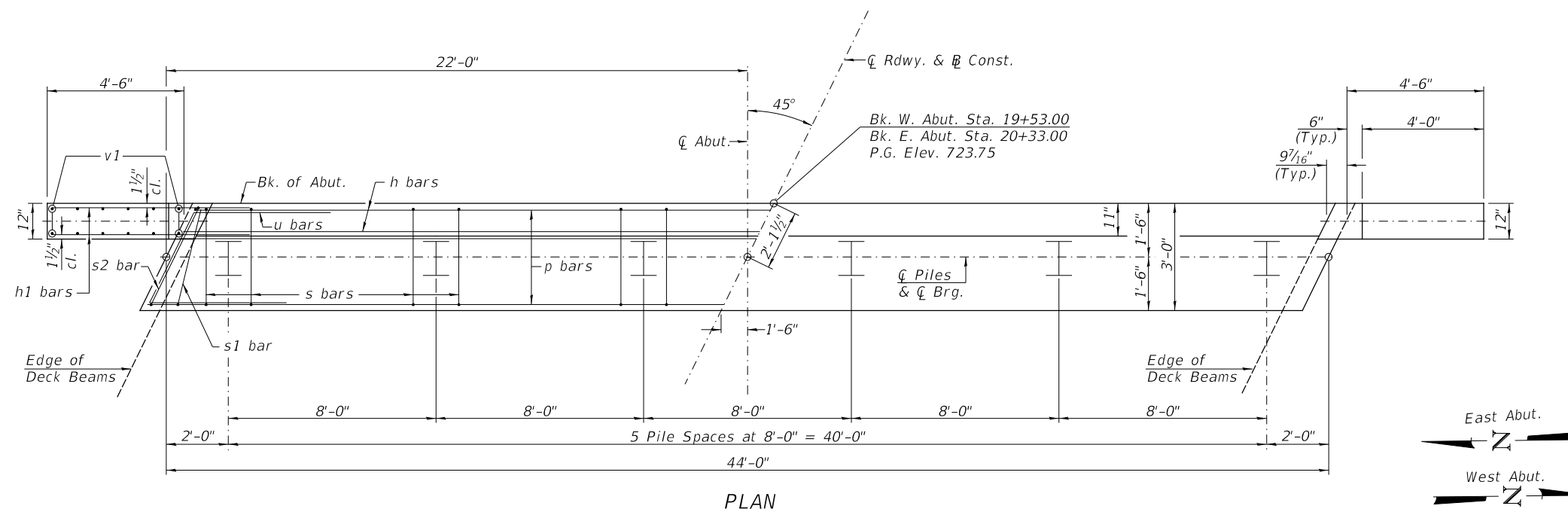
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|------------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 100.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 10/02/2023 | REVISED - _____ |

**HENRY COUNTY
 COUNTY HIGHWAY 19 (F.A.S. 240A)
 OVER HILLERY CREEK**

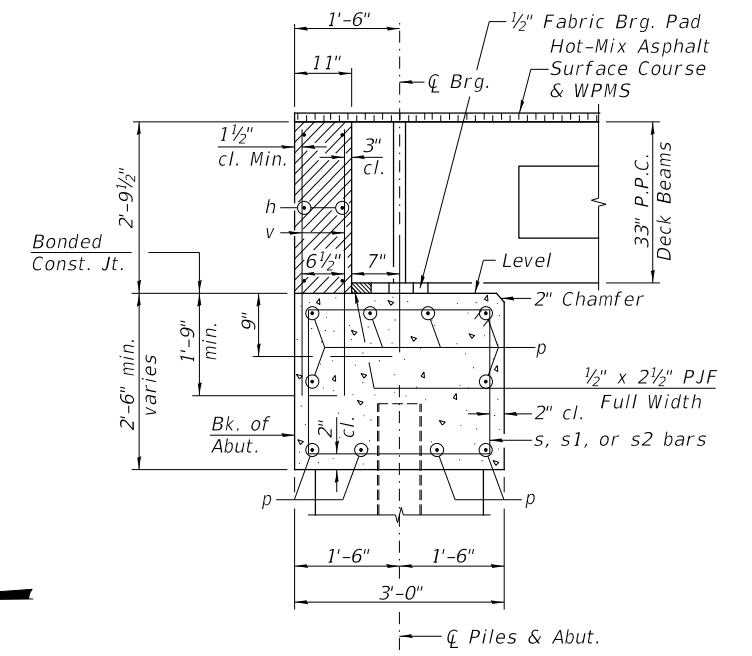
SUPERSTRUCTURE DETAILS

SCALE: NONE SHEET 6 OF 8 SHEETS

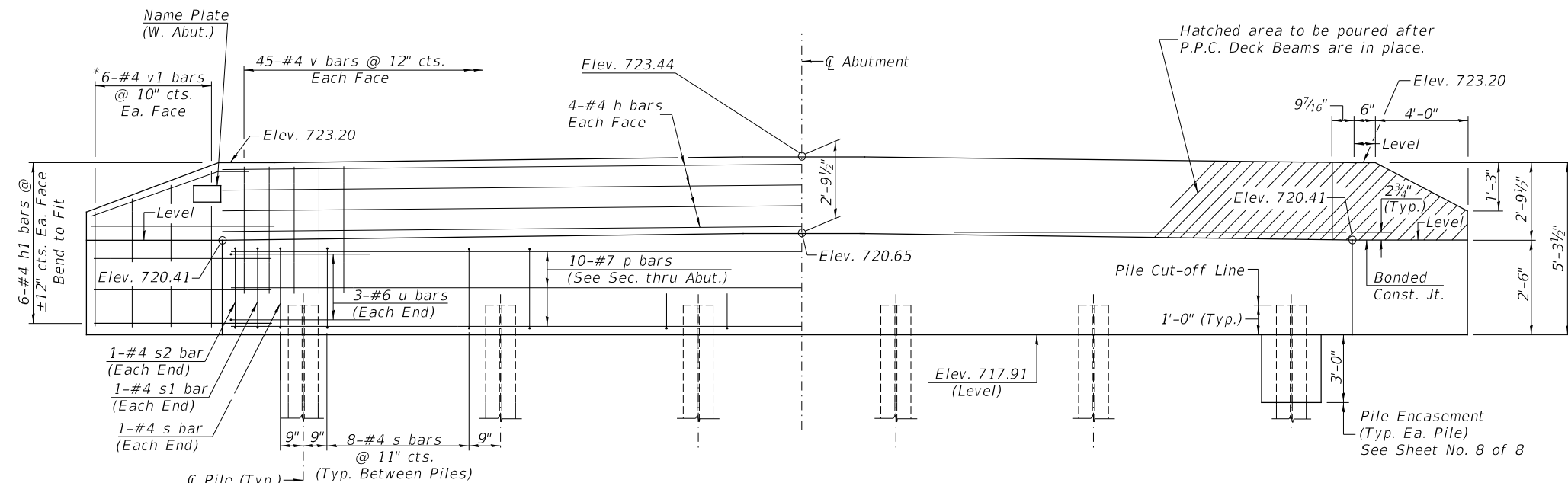
| | | | | |
|-----------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 13 |
| SN 037-3385 | | CONTRACT NO. 85753 | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |



PLAN



SECTION THRU ABUT.
(At Right Angles)



ELEVATION
(Front View of Abutment)

TWO ABUTMENTS
BILL OF MATERIAL

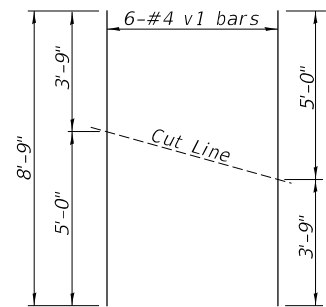
| BAR | NO. | SIZE | LENGTH | SHAPE |
|-----------------------------------|-----|-------|--------|-------|
| h | 16 | #4 | 43'-9" | — |
| h1 | 48 | #4 | 6'-6" | — |
| p | 20 | #7 | 43'-9" | — |
| s | 84 | #4 | 10'-5" | □ |
| s1 | 4 | #4 | 11'-5" | □ |
| s2 | 4 | #4 | 9'-8" | □ |
| u | 12 | #6 | 12'-8" | □ |
| v | 180 | #4 | 4'-6" | — |
| v1 | 24 | #4 | 8'-9" | — |
| Structure Excavation | | CU YD | 115 | |
| Concrete Structures | | CU YD | 37.2 | |
| Concrete Encasement | | CU YD | 4.2 | |
| Reinforcement Bars | | POUND | 4,020 | |
| Furnishing Steel Piles HP10x42 | | FOOT | 305 | |
| Driving Piles | | FOOT | 305 | |
| Test Pile Steel HP10x42 | | EACH | 2 | |
| Name Plates | | EACH | 1 | |

PILE DATA

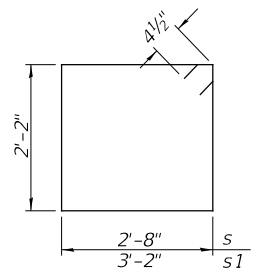
Type & Size: Steel HP10x42
 Nominal Required Bearing: 335 kips
 Factored Resistance Available: 174 kips
 Est. Length: 30' West Abutment
 31' East Abutment
 No. Req'd.: 12 (Includes 1 Test Pile at Each Abut.)

NOTES

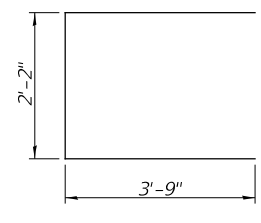
- The backwall and the portion of the wingwalls above the bonded construction joint shall be cast against the in-place beam.
- All edges shall have standard 3/4" chamfer.



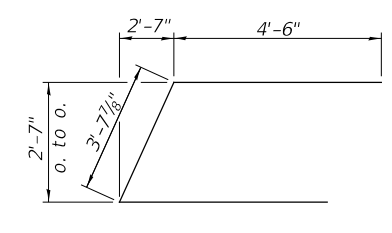
BAR CUTTING DIAGRAM



BAR s & s1



BAR s2



BAR u

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

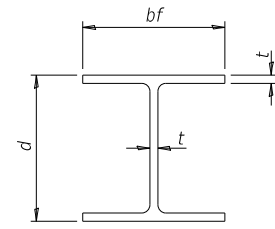
MODEL: 140821.MXD
FILE NAME: 03112 - C1 19 over Hillery Creek (Henry)18 - CADD3 - CADD Sheets112-0007.dgn

| | | |
|------------------------------|-------------------|-----------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - |
| PLOT SCALE = 100.0000' / in. | DRAWN - CRN | REVISED - |
| PLOT DATE = 12/13/2023 | CHECKED - JPS/BAN | REVISED - |
| | DATE - 10/18/2023 | REVISED - |

HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK

| | | | |
|-------------|------|--------|--|
| SCALE: NONE | | | |
| SHEET 7 | OF 8 | SHEETS | |

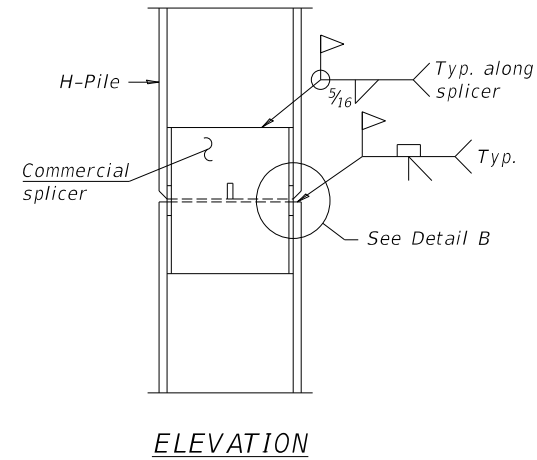
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|-----------------------|----------------|--------------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 14 |
| SN 037-3385 | | CONTRACT NO. 85753 | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | | |



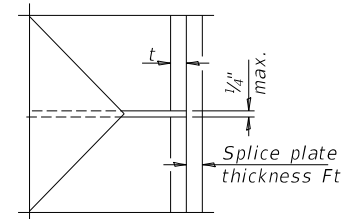
STEEL PILE TABLE

| Designation | Depth <i>d</i> | Flange width <i>bf</i> | Web and Flange thickness <i>t</i> | 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 5/8" | 14 5/8" | 1/2" | 30" |
| HP 12x84 | 12 1/4" | 12 1/4" | 1 1/16" | 24" |
| x74 | 12 1/8" | 12 1/4" | 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" |

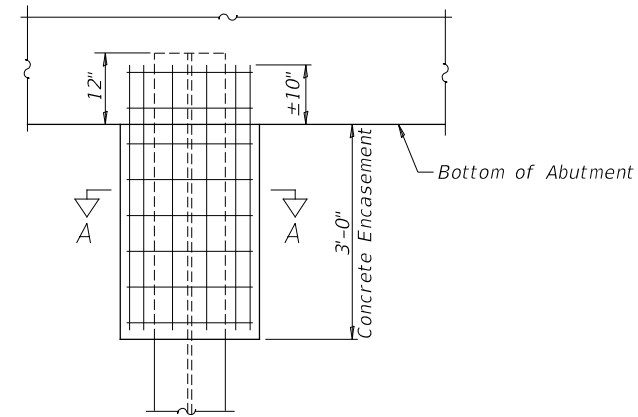
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



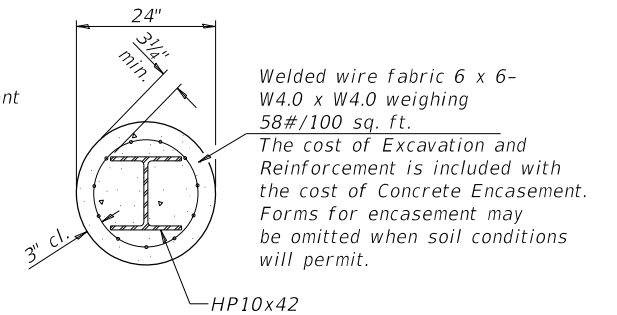
ELEVATION



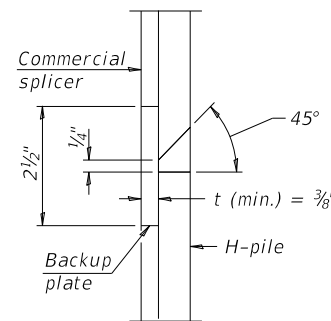
DETAIL C



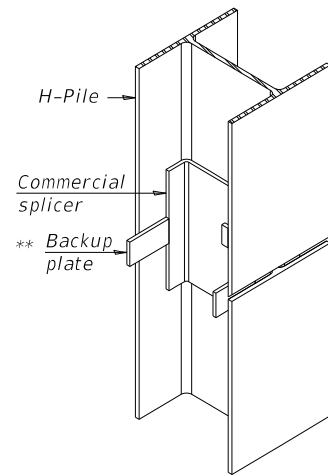
ABUTMENT ELEVATION



SECTION A-A

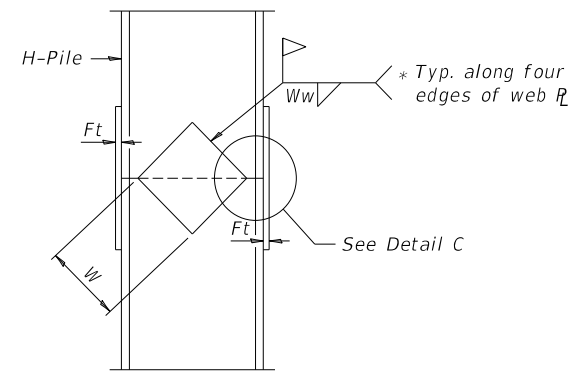


DETAIL "B"

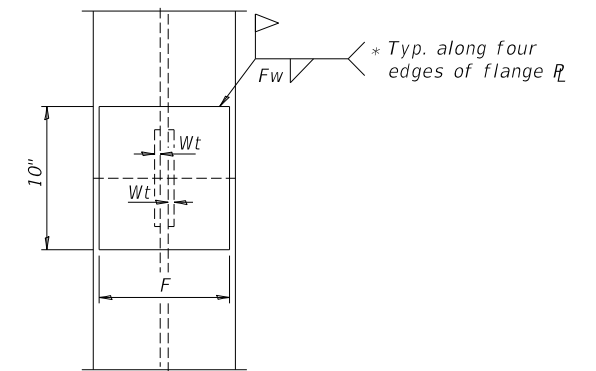


ISOMETRIC VIEW

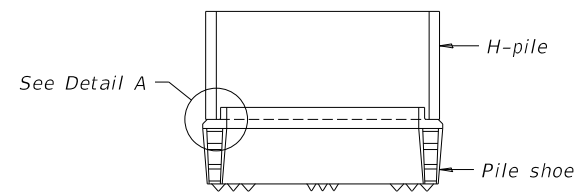
PILE ENCASEMENT



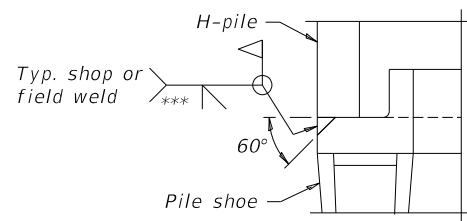
ELEVATION



END VIEW

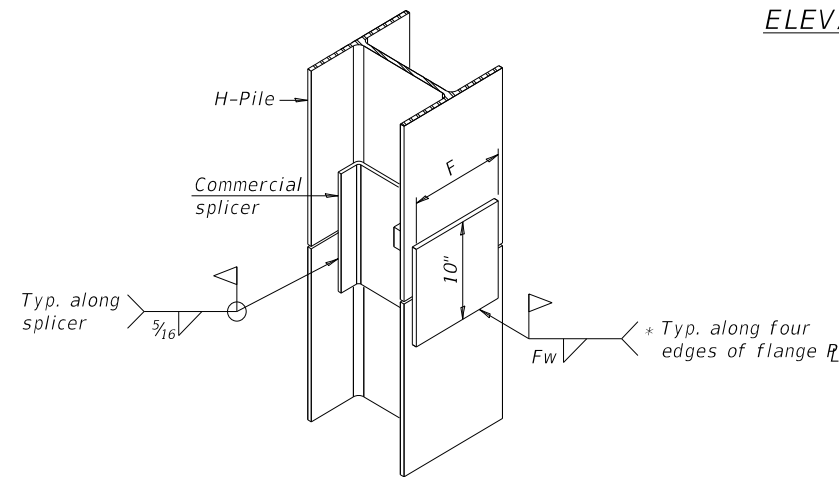


ELEVATION



DETAIL A

SHOE ATTACHMENT



ISOMETRIC VIEW

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.).

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

| 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

MODEL: 14081614M1E FILE NAME: 031117 - C1 19 over Hillery Creek (Henry)18 - CADD3 - CADD Sheets112-008.dgn

| | | |
|------------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - CRN | REVISED - _____ |
| PLOT SCALE = 100.0000' / in. | DRAWN - CRN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | CHECKED - JPS/BAN | REVISED - _____ |
| | DATE - 10/18/2023 | REVISED - _____ |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

SCALE: NONE SHEET 8 OF 8 SHEETS

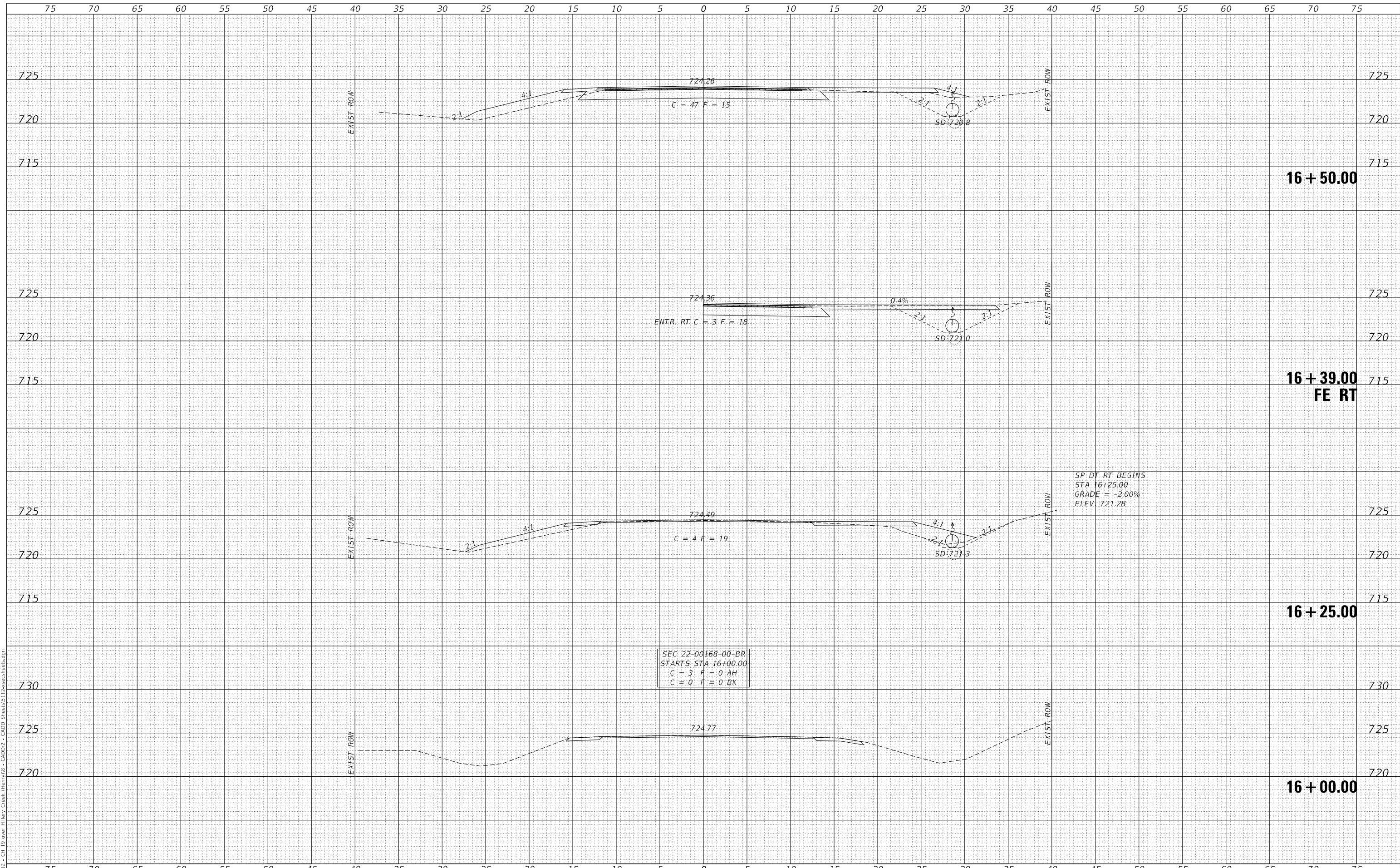
SUPERSTRUCTURE DETAILS

| | | | | |
|-----------------------|----------------|----------|--------------|--------------------------------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 240A | 22-00168-00-BR | HENRY | 20 | 15 |
| SN 037-3385 | | | CONTRACT NO. | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT NO. KUXB(253) |

| | |
|--------------|---------------|
| 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: \$MODELNAME\$
 FILE NAME: W3117 - Ch 19 over Hillery Creek (Henry) 18 - CADD12 - CADD Sheets 112.xdxcSheets.dgn



| | | |
|-----------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - SPB | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - _____ |

**HENRY COUNTY
 COUNTY HIGHWAY 19 (F.A.S. 240A)
 OVER HILLERY CREEK**

SCALE: 1" = 5' SHEET 1 OF 5 SHEETS STA. 16+00.00 TO STA. 16+50.00

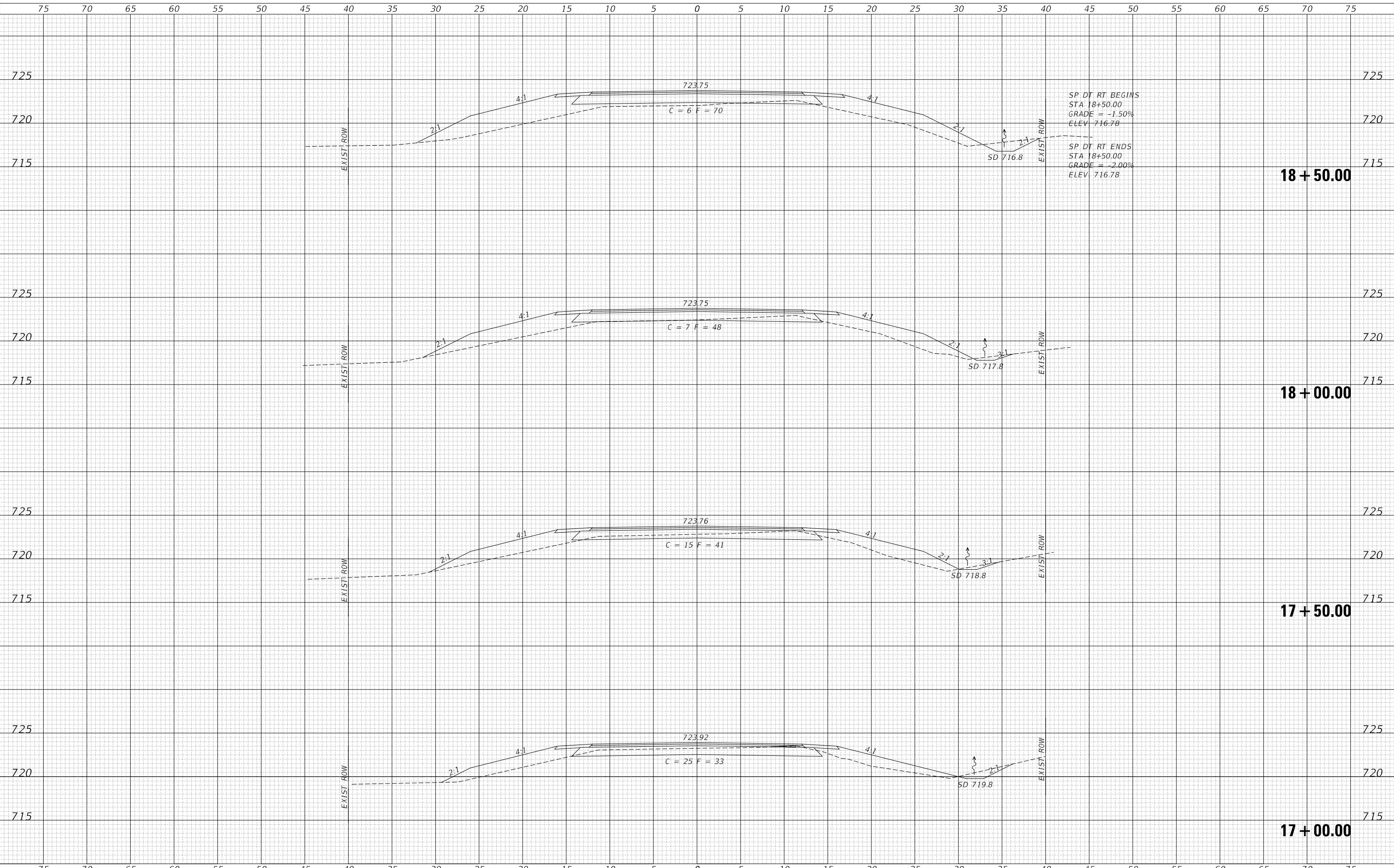
CROSS SECTIONS

| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|----------------|----------|--------------------------------|-----------|
| 240A | 22-00168-00-BR | HENRY | 20 | 16 |
| CONTRACT NO. 85753 | | | | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT NO. KUXB(253) | |

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

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

MODEL: \$PDELNAME\$
FILE NAME: W3117 - Ch 19 over Hillery Creek (Henry) 18 - CADD02 - CADD SHEETS 17-xx-xx sheets.dgn



SP. DT. RT. BEGINS
STA 18+50.00
GRADE = -1.50%
ELEV. 716.78

SP. DT. RT. ENDS
STA 18+50.00
GRADE = -2.00%
ELEV. 716.78

18 + 50.00

18 + 00.00

17 + 50.00

17 + 00.00

| | | |
|-----------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - SPB | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - _____ |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

CROSS SECTIONS

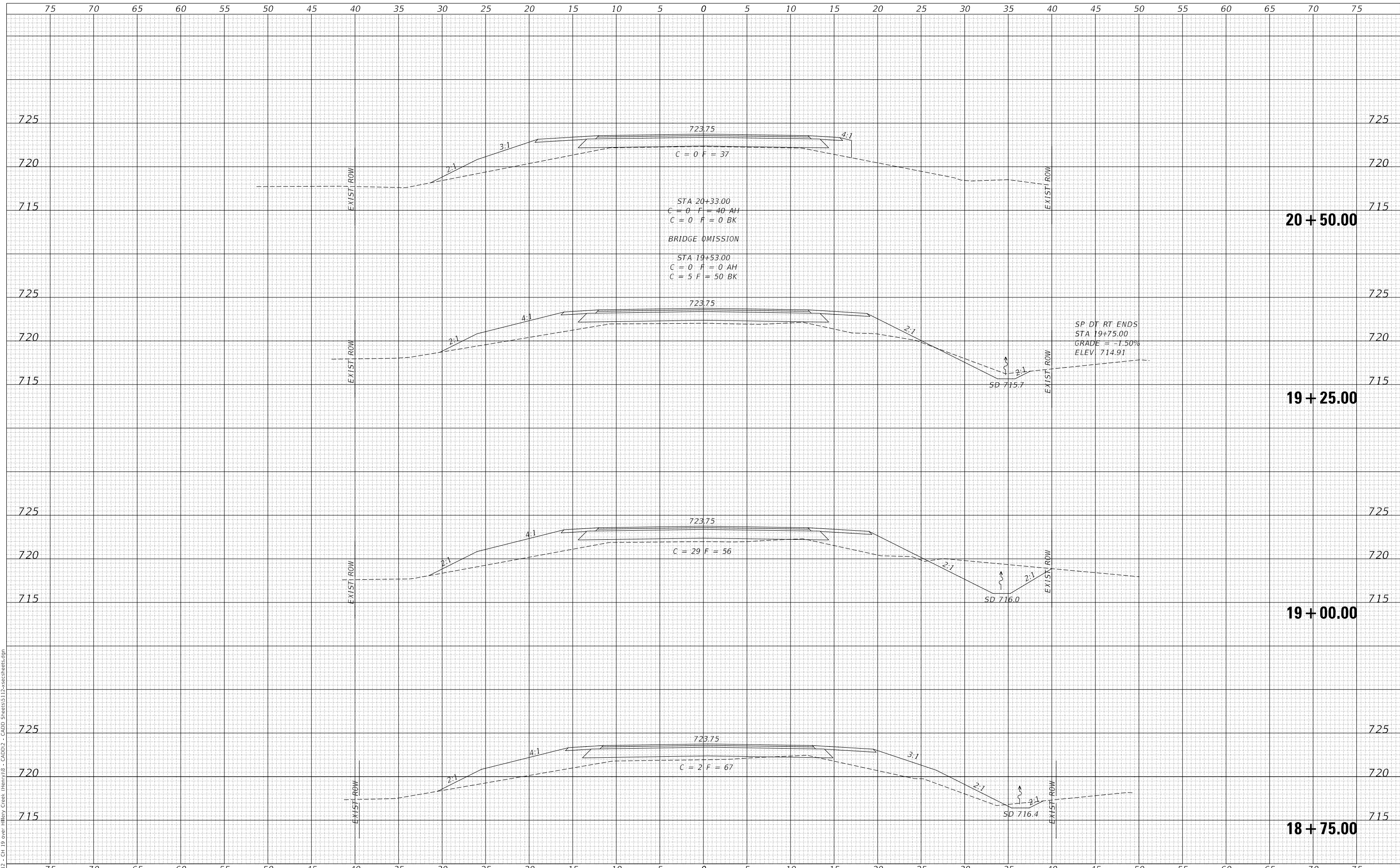
SCALE: 1" = 5' SHEET 2 OF 5 SHEETS STA. 17+00.00 TO STA. 18+50.00

| | | | | |
|--------------------------------|------------------------|--------------|--------------------|--------------|
| F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 17 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | CONTRACT NO. 85753 | |
| FED. AID PROJECT NO. KUXB(253) | | | | |

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

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

MODEL: SPODELNAME\$
FILE NAME: W3117 - Ch 19 over Hillery Creek (Henry) - CADD2 - CADD SHEETS112.xpcSheets.dgn



| | | |
|-----------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - SPB | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - _____ |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

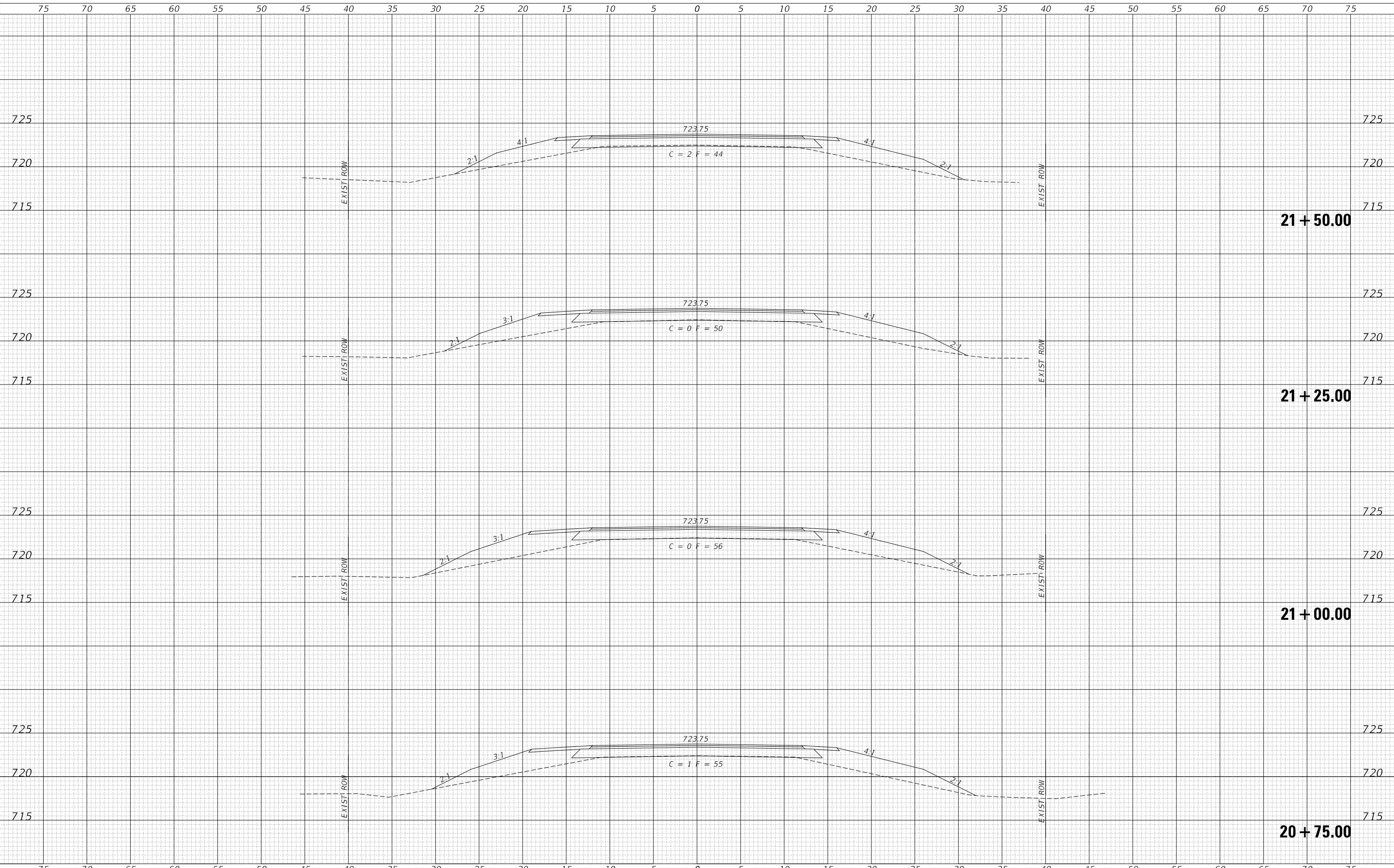
CROSS SECTIONS
SCALE: 1" = 5' SHEET 3 OF 5 SHEETS STA. 18+75.00 TO STA. 20+50.00

| | | | | |
|--------------------------------|------------------------|--------------------|-----------------|--------------|
| F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 18 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | CONTRACT NO. 85753 | | |
| FED. AID PROJECT NO. KUXB(253) | | | | |

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

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

MODEL: \$MODELNAME\$
FILE NAME: W3117 - Ch 19 over Hillery Creek (Henry) 18 - CADD12 - CADD SHEETS 112-xx-xx-sheets.dgn



| | | |
|-----------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - SPB | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - _____ |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

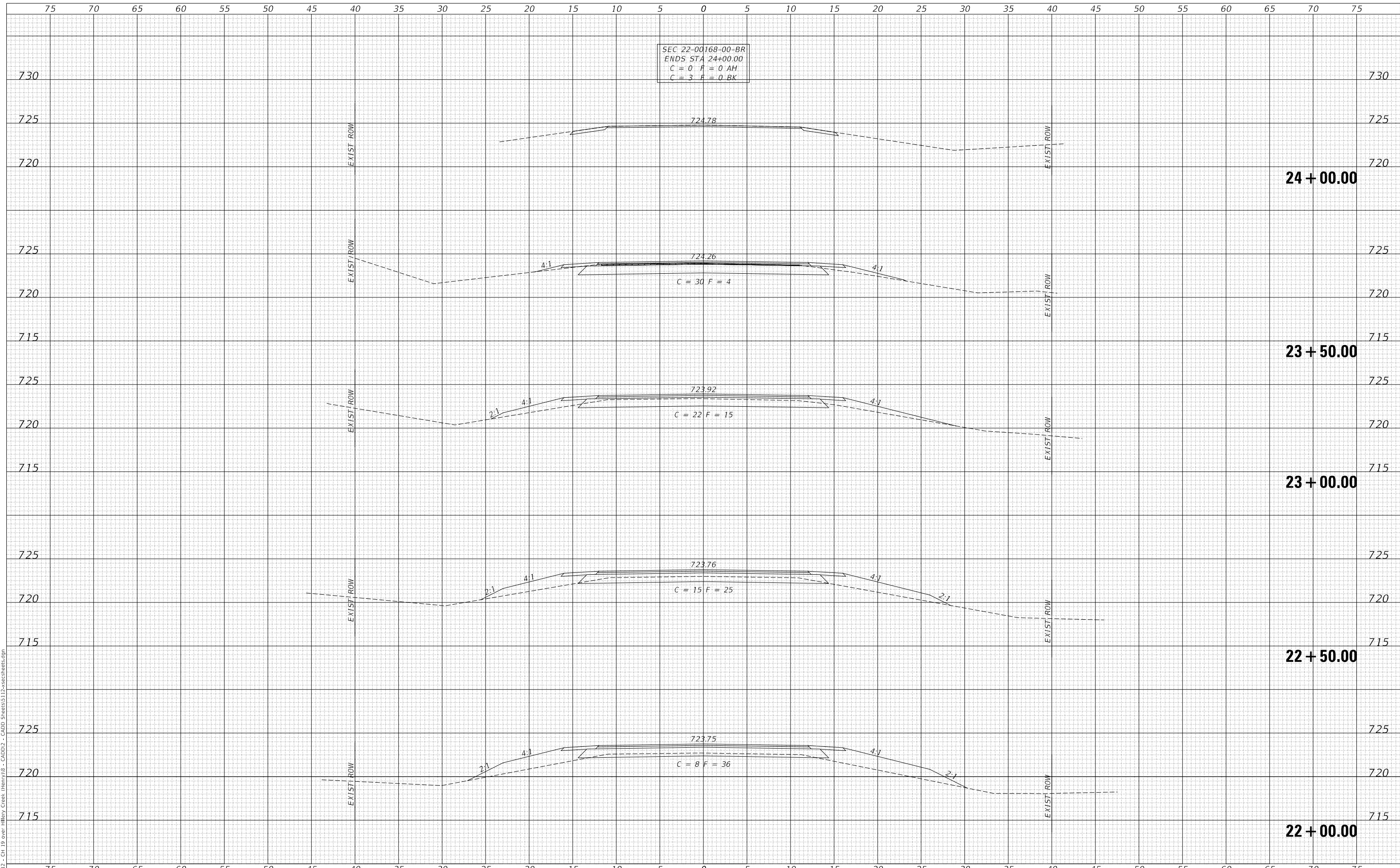
CROSS SECTIONS
SCALE: 1" = 5' SHEET 4 OF 5 SHEETS STA. 20+75.00 TO STA. 21+50.00

| | | | | |
|--------------------------------|------------------------|--------------|--------------------|--------------|
| F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 19 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | | CONTRACT NO. 85753 | |
| FED. AID PROJECT NO. KUXB(253) | | | | |

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

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

MODEL: \$MODELNAME\$
FILE NAME: W3117 - Ch 19 over Hillery Creek (Henry) 18 - CADD12 - CADD SHEETS 112-xxsecSheets.dgn



| | | |
|-----------------------------|-------------------|-----------------|
| USER NAME = JSavage | DESIGNED - SPB | REVISED - _____ |
| | DRAWN - CRN | REVISED - _____ |
| PLOT SCALE = 10.0000' / in. | CHECKED - JPS/BAN | REVISED - _____ |
| PLOT DATE = 12/13/2023 | DATE - 11/28/2023 | REVISED - _____ |

**HENRY COUNTY
COUNTY HIGHWAY 19 (F.A.S. 240A)
OVER HILLERY CREEK**

CROSS SECTIONS

SCALE: 1" = 5' SHEET 5 OF 5 SHEETS STA. 22+00.00 TO STA. 24+00.00

| | | | | |
|--------------------------------|------------------------|--------------------|-----------------|--------------|
| F.A.S. RTE. 240A | SECTION 22-00168-00-BR | COUNTY HENRY | TOTAL SHEETS 20 | SHEET NO. 20 |
| FED. ROAD DIST. NO. 7 ILLINOIS | | CONTRACT NO. 85753 | | |
| FED. AID PROJECT NO. KUXB(253) | | | | |