

01-20-2023 LETTING ITEM 077

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED SURFACE TRANSPORTATION PROGRAM - BRIDGE

FAS 565 C.H. 15 OVER SUGAR CREEK OVERFLOW SECTION 16-00123-00-BR PROJECT 9MW0(201) BRIDGE REHABILITATION LOGAN COUNTY C-96-093-21

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00023-00-BR | LOGAN | 50 | 1 |
| ILLINOIS CONTRACT NO. 93793 | | | | |

INDEX OF SHEETS

- 1 - TITLE SHEET
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- 8 - GUARDRAIL PLAN
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- 32-34 - EXISTING STRUCTURE PLANS (SN 054-3028)
- 35-36 - STRUCTURE PLANS (SN 054-3058)
- 37 - EXISTING STRUCTURE PLANS (SN 054-3058)
- 38-50 - CROSS SECTIONS

STANDARDS

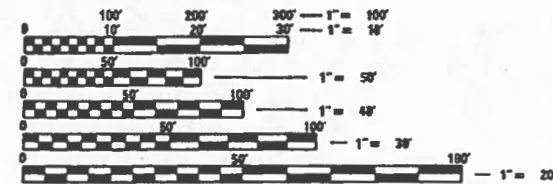
- STANDARD 515001-04
- STANDARD 630001-12
- STANDARD 630301-09
- STANDARD 701901-08
- STANDARD BLR 21-9
- STANDARD BLR 23-4
- STANDARD BLR 27-1

LIST OF UTILITIES

FRONTIER COMMUNICATIONS
117 W. JEFFERSON ST.
MT. PULASKI, IL 62548
217-792-5732
217-851-0036

AMEREN ELECTRIC
JOEL HAMMOND
309-216-7137
JHAMMOND3 AMEREN.COM

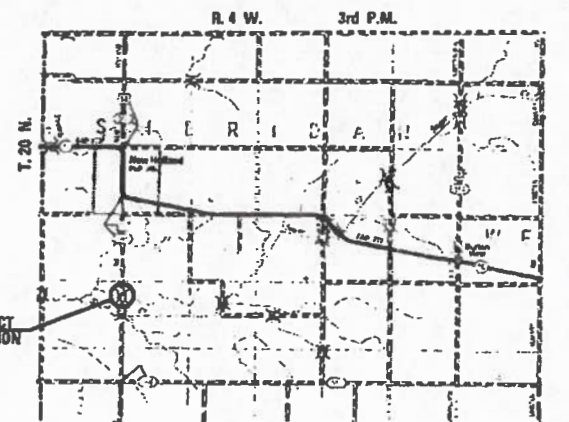
LAND SECTION - 29 & 30
LAND QUARTER SECTION - NW & NE
FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
A.D.T. - 525 (2016)
A.D.T. - 552 (2036)
55 M.P.H. DESIGN SPEED



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

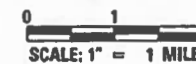
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

CONTRACT NO. 93793



LOCATION PLAN

GROSS LENGTH = 551.00 FT. = 0.104 MILES



Christopher P. Kohlman 9/29/22
Expiration Date 11/30/2023



EXISTING STRUCTURE: CENTERLINE STA. 240+57.5. 5 SPANS OF PRESTRESSED CONCRETE DECK BEAMS ON PILE BENT ABUTMENTS AND PIERS, 201'-8" BACK TO BACK OF ABUTMENTS, 26'-0" ROADWAY, 28'-0" OUT-TO DECK. EXISTING STRUCTURE NO. 054-3028.

PROPOSED STRUCTURE: THE WORK UNDER THIS CONTRACT INCLUDES THE REMOVAL AND REPLACEMENT OF ALL PRECAST PRESTRESSED CONCRETE DECK BEAMS, WIDENING OF THE SUBSTRUCTURE UNITS, PLACEMENT OF STONE RIPRAP & INSTALLATION OF BRIDGE RAIL AND APPROACH RAIL. NEW STRUCTURE WIDTH 30'-0" OUT TO OUT DECK.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED 9/29/22, 2022
Christopher P. Kohlman
COUNTY ENGINEER

PASSED 10/4/22, 2022
Christopher P. Kohlman
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

Relocating For
Out Based on
Unpaid Review 10/4/22, 2022
Christopher P. Kohlman
REGION FOUR ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|----------|--|-------|----------------|-------------------|------------------|-------------------------|
| | | | | ROADWAY | BRIDGE | LOCAL NON-PARTICIPATING |
| | | | | 0004 S.N. | 0013 054-3028 | 0013 054-3058 |
| 20200100 | EARTH EXCAVATION | CU YD | 17 | 17 | | |
| 20300100 | CHANNEL EXCAVATION | CU YD | 182 | 182 | | |
| 20400800 | FURNISHED EXCAVATION | CU YD | 190 | 190 | | |
| 28100807 | STONE DUMPED RIPRAP, CLASS A4 | TON | 454 | 454 | | |
| 28200200 | FILTER FABRIC | SQ YD | 541 | 541 | | |
| 35100100 | AGGREGATE BASE COURSE, TYPE A | TON | 12 | 12 | | |
| 40600290 | BITUMINOUS MATERIALS (TACK COAT) | POUND | 572 | 572 | | |
| 40600982 | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT | SQ YD | 297 | 297 | | |
| 40604000 | HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, MIX "C", N50 | TON | 266 | 266 | | |
| 48101500 | AGGREGATE SHOULDERS, TYPE B 6" | SQ YD | 314 | 314 | | |
| 50101700 | REMOVAL OF EXISTING SUPERSTRUCTURES NO. 1 | EACH | 1 | | 1 | |
| 50102400 | CONCRETE REMOVAL | CU YD | 3.5 | | 3.5 | |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 25 | | 25 | |
| 50300225 | CONCRETE STRUCTURES | CU YD | 14.3 | | 11.8 | 2.5 |

Δ SPECIALTY ITEMS

| | | | | | | | | | | | | |
|--------------------|------------------|-----------------|---|--|---|--|--|--------------------|----------------|--------|---------------------------|-----------|
| USER NAME = _____ | DESIGNED - _____ | REVISED - _____ |  | VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | SUMMARY OF QUANTITIES | | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLDT SCALE = _____ | DRAWN - _____ | REVISED - _____ | | | | | | 15 | 16-00123-00-BR | LOGAN | 50 | 2 |
| PLDT DATE = _____ | CHECKED - _____ | REVISED - _____ | | | SCALE: _____ SHEET NO. 1 OF 3 SHEETS STA. _____ TO STA. _____ | | | CONTRACT NO. 93793 | | | ILLINOIS FED. AID PROJECT | |

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|------------|---|-------|----------------|-------------------|------------------|-------------------------|
| | | | | ROADWAY | BRIDGE | LOCAL NON-PARTICIPATING |
| | | | | 0004 S.N. | 0013 054-3028 | 0013 054-3058 |
| 50400305 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SQ FT | 6000 | | 6000 | |
| 50800105 | REINFORCEMENT BARS | POUND | 1770 | | 1380 | 390 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 640 | | 640 | |
| Δ 50900205 | STEEL RAILING, TYPE S1 | FOOT | 404 | | 404 | |
| 51500100 | NAME PLATES | EACH | 1 | | 1 | |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 60 | | 60 | |
| 58100200 | WATERPROOFING MEMBRANE SYSTEM | SQ YD | 673 | | 673 | |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL | CU YD | 6.7 | | 6.7 | |
| Δ 63000001 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | FOOT | 200 | 200 | | |
| Δ 63100075 | TRAFFIC BARRIER TERMINAL, TYPE 5A | EACH | 4 | 4 | | |
| Δ 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 3 | 3 | | |
| 63200310 | GUARDRAIL REMOVAL | FOOT | 152 | 152 | | |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 | | |
| Δ 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 3 | 3 | | |

Δ SPECIALTY ITEMS

| | | | | | | | | | | |
|--------------|------------|-----------|--|---|--|---------------------------|----------------|--------|--------------|-----------|
| USER NAME = | DESIGNED - | REVISED - |  VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | SUMMARY OF QUANTITIES SCALE: _____ SHEET NO. 2 OF 3 SHEETS STA. _____ TO STA. _____ | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = | CHECKED - | REVISED - | | | | 15 | 16-00123-00-BR | LOGAN | 50 | 3 |
| PLOT DATE = | DRAWN - | REVISED - | | CONTRACT NO. 93793 | | ILLINOIS FED. AID PROJECT | | | | |
| | CHECKED - | REVISED - | | | | | | | | |

| CODE NO. | ITEM | UNIT | TOTAL QUANTITY | CONSTRUCTION CODE | | |
|------------|--|-------|----------------|-------------------|------------------|-------------------------|
| | | | | ROADWAY | BRIDGE | LOCAL NON-PARTICIPATING |
| | | | | 0004 S.N. | 0013 054-3028 | 0013 054-3058 |
| * X2501000 | SEEDING, CLASS 2 (SPECIAL) | ACRE | 0.5 | 0.5 | | |
| * X7011800 | TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 | L SUM | 1 | 1 | | |
| * Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 56 | | 56 | |
| * Z0010400 | CLEANING BRIDGE SEATS | SQ FT | 440 | | 440 | |
| # Z0076600 | TRAINEES | Hour | 1,000 | 1,000 | | |
| * Z0012754 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 91 | | 91 | |
| # Z0076604 | TRAINEES TRAINING PROGRAM GRADUATE | Hour | 1,000 | 1,000 | | |
| * Z0049790 | RELOCATING NAME PLATES | EACH | 1 | | 1 | |

Δ SPECIALTY ITEMS
 * SEE SPECIAL PROVISIONS
 # 0042

| EARTHWORK | | | | |
|--|---------------------------------|---|------------|---|
| LOCATION | 20200100 EARTH EXCAVATION | EARTH EXCAVATION ADJUSTED FOR SHRINKAGE | EMBANKMENT | EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) |
| | CU. YD. | CU. YD. | CU. YD. | CU. YD. |
| STA. 237+80 TO STA. 239+56.67 | 7 | 5 | 90 | 85 |
| BRIDGE OMISSION - STA. 239+56.67 TO STA. 241+58.33 | | | | |
| STA. 241+58.33 TO STA. 243+31 | 10 | 8 | 113 | 105 |
| TOTAL | 17 | 13 | 203 | 190 |

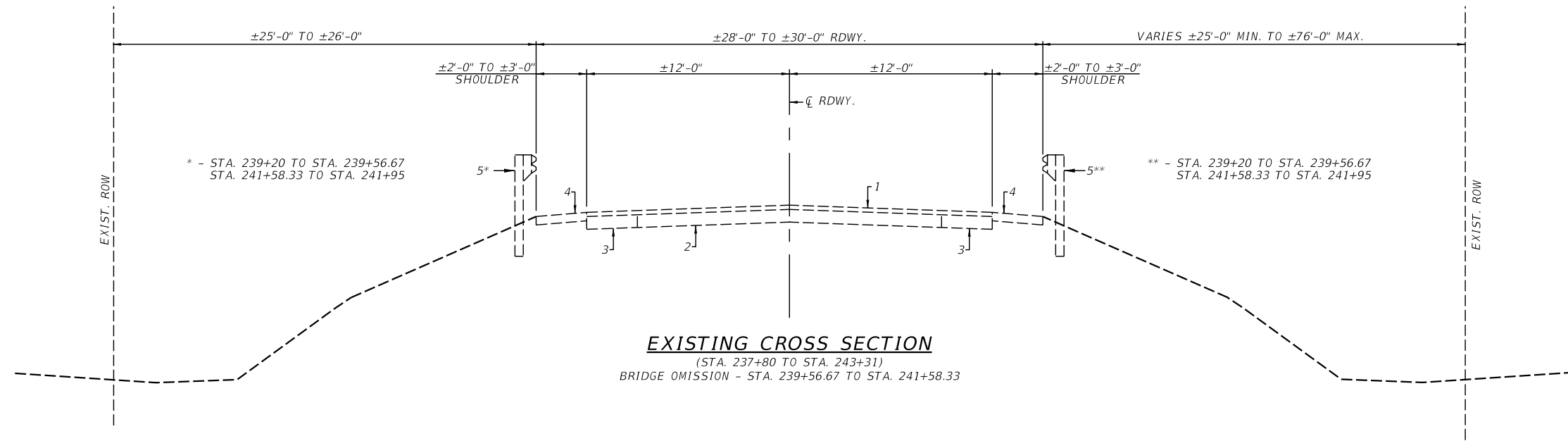
| 48101500 AGGREGATE SHOULDERS, TYPE B 6" | |
|---|---------------------------------------|
| LOCATION | AGGREGATE SHOULDERS, TYPE B, 6" |
| | SQ. YD. |
| STA. 237+80 TO STA. 239+56.67 LT. & RT. | 118 |
| STA. 241+58.33 TO STA. 243+31 LT. & RT. | 115 |
| F.E. STA. 242+11 RT. | 81 |
| TOTAL | 314 |

| HOT MIX ASPHALT | | | |
|----------------------------------|---|--|---|
| LOCATION | 40600985 HMA SURFACE REMOVAL BUTT JOINT | 40604000 HMA SURFACE COURSE IL-9.5 FG, MIX "C" N50 | 40600290 BITUMINOUS MATERIALS (TACK COAT) |
| | SQ. YD. | TON | POUND |
| STA. 237+80 TO STA. 238+50 | 187 | | |
| STA. 242+90 TO STA. 243+31 | 110 | | |
| STA. 237+80 TO STA. 239+56.67 | | 64 | 212 |
| STA. 239+56.67 TO STA. 241+58.33 | | 116 | 152 |
| STA. 239+58.33 TO STA. 243+31 | | 86 | 208 |
| TOTAL | 297 | 266 | 572 |

| X2501000 SEEDING, CLASS 2 (SPECIAL) | |
|--|---------------------------------|
| LOCATION | SEEDING CLASS 2 (SPECIAL) |
| | ACRE |
| STA. 237+80 TO STA. 239+56.67 LT. & RT. | 0.2 |
| STA. 239+56.67 TO STA. 241+58.33 LT. & RT. | 0.12 |
| STA. 241+58.33 TO STA. 243+31 LT. & RT. | 0.2 |
| TOTAL | 0.52 |

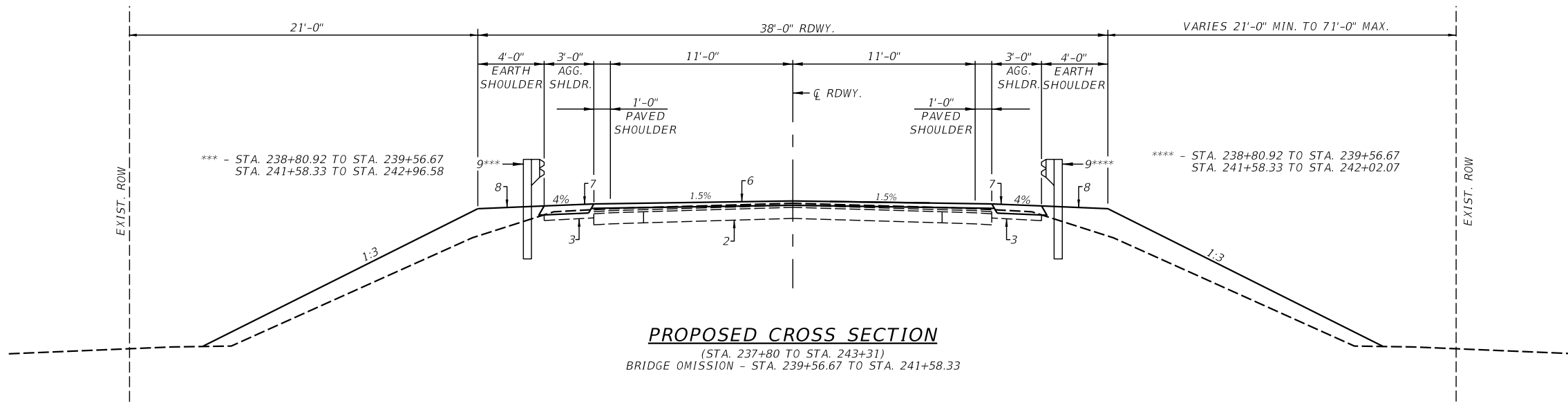
USE 0.5 ACRE PER BDE

| GUARDRAIL SCHEDULE | | | | | |
|--------------------------------------|--|---|--|---|----------------------------------|
| LOCATION | 63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | 63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A 6 FOOT POSTS | 63100075 TRAFFIC BARRIER TERMINAL, TYPE 5A | 72501000 TERMINAL MARKER DIRECT APPLIED | 63200310 GUARDRAIL REMOVAL |
| | EACH | FOOT | EACH | EACH | FOOT |
| STA. 238+18.42 TO STA. 238+68.42 RT. | 1 | | | 1 | |
| STA. 238+68.42 TO STA. 239+43.42 RT. | | 75 | | | |
| STA. 239+43.42 TO STA. 239+56.67 RT. | | | 1 | | |
| STA. 238+80.92 TO STA. 239+30.92 LT. | 1 | | | 1 | |
| STA. 239+30.92 TO STA. 239+43.42 LT. | | 12.5 | | | |
| STA. 239+43.42 TO STA. 239+56.67 LT. | | | 1 | | |
| STA. 241+58.33 TO STA. 241+71.58 LT. | | | 1 | | |
| STA. 241+71.58 TO STA. 242+46.58 LT. | | 75 | | | |
| STA. 242+46.58 TO STA. 246+96.58 LT. | 1 | | | 1 | |
| STA. 241+58.33 TO STA. 241+71.58 RT. | | | 1 | | |
| STA. 241+71.58 TO STA. 242+01 RT. | | 37.5 | | | |
| STA. 239+20 TO STA. 239+56.67 LT. | | | | | 38 |
| STA. 239+20 TO STA. 239+56.67 RT. | | | | | 38 |
| STA. 241+58.33 TO STA. 241+95 LT. | | | | | 38 |
| STA. 241+58.33 TO STA. 241+95 RT. | | | | | 38 |
| TOTAL | 3 | 200 | 4 | 3 | 152 |



EXISTING CROSS SECTION

(STA. 237+80 TO STA. 243+31)
BRIDGE OMISSION - STA. 239+56.67 TO STA. 241+58.33



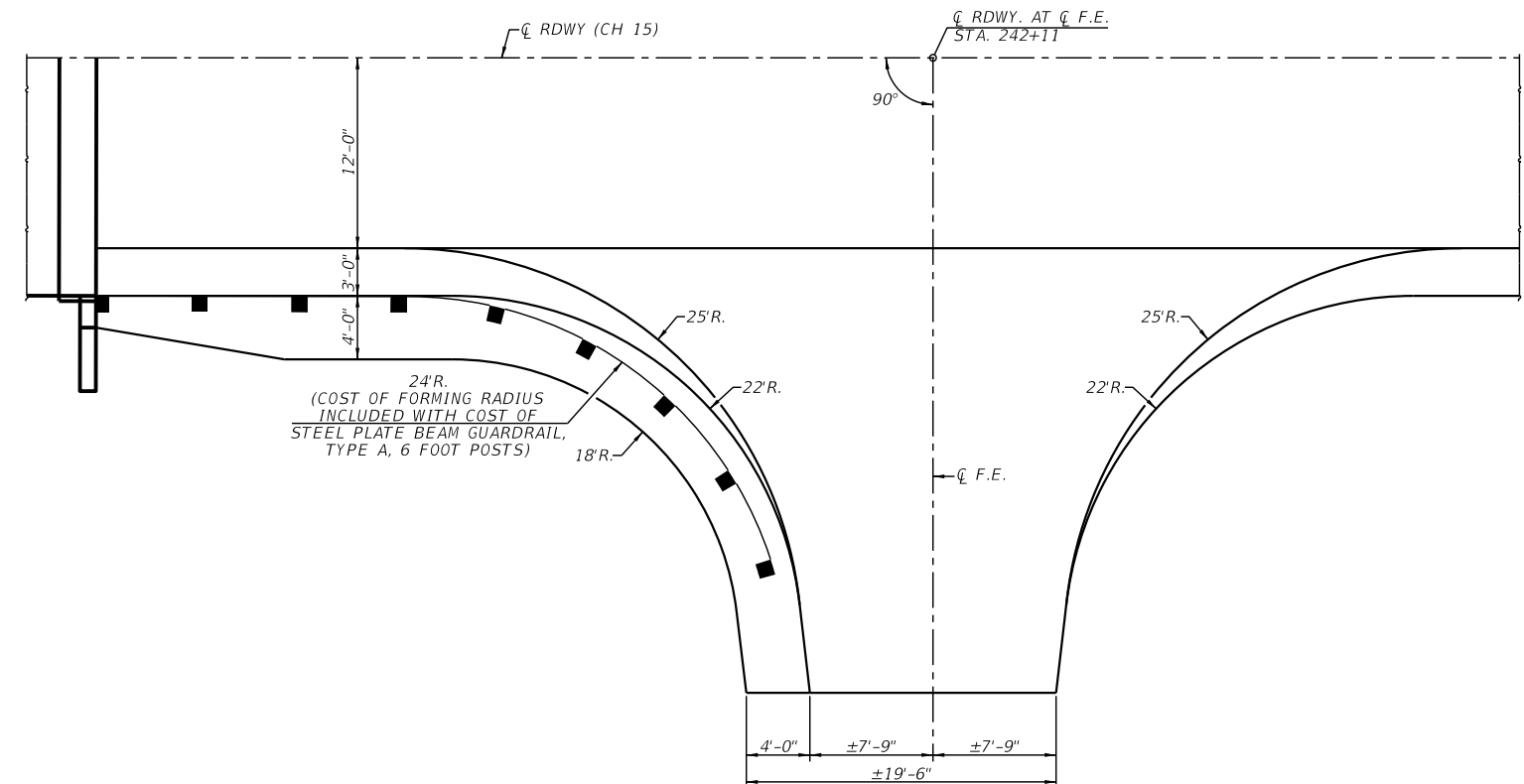
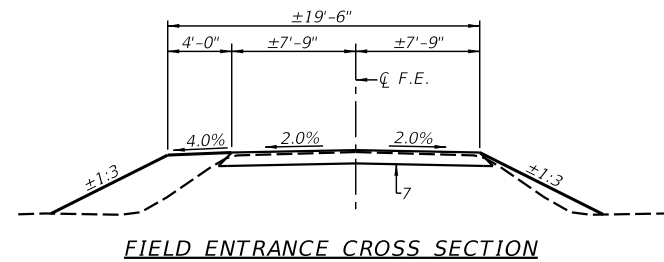
PROPOSED CROSS SECTION

(STA. 237+80 TO STA. 243+31)
BRIDGE OMISSION - STA. 239+56.67 TO STA. 241+58.33

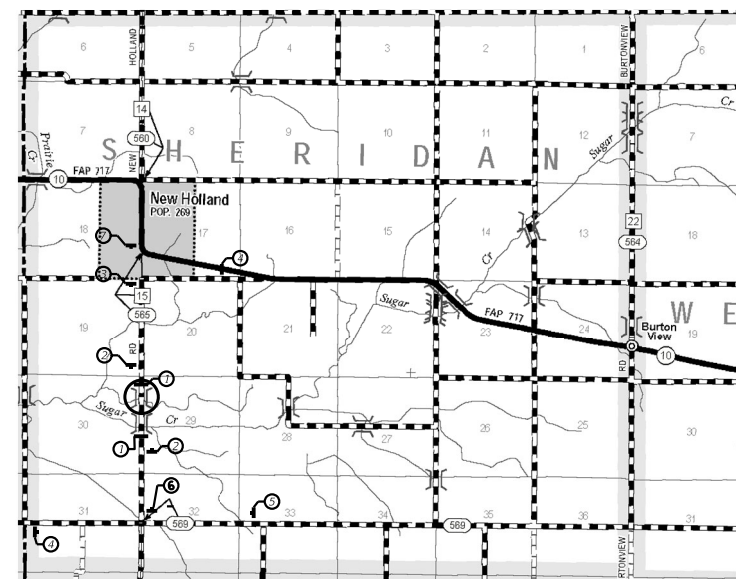
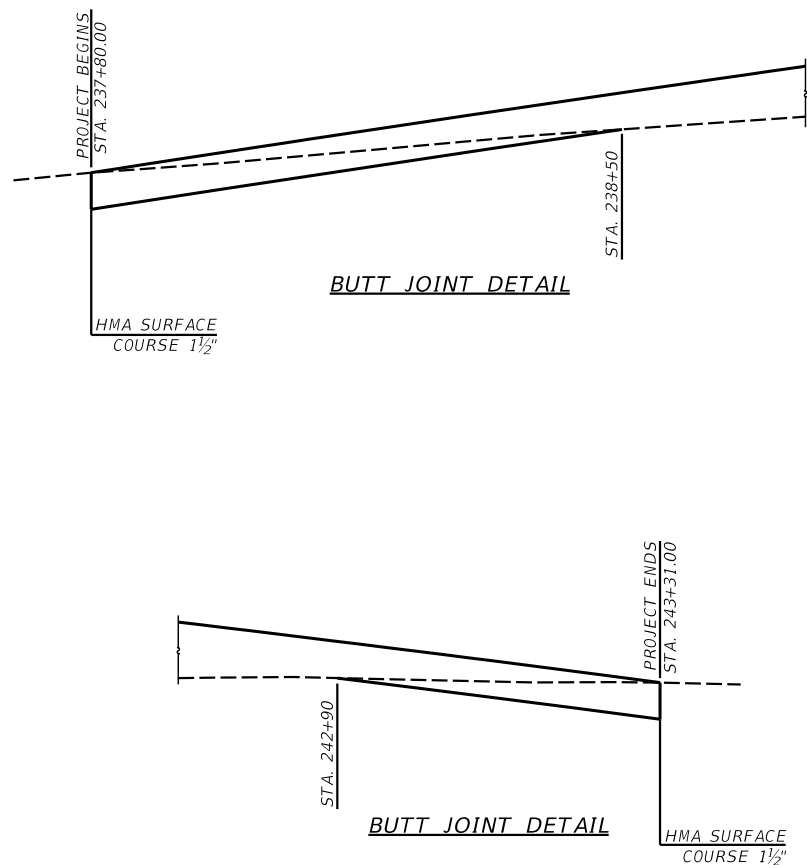
PAVEMENT LEGEND

- ① EXISTING HMA OVERLAYS (±5")
- ② EXISTING AGGREGATE BASE
- ③ EXISTING BASE COURSE WIDENING
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING GUARDRAIL
- ⑥ PROPOSED HMA SURFACE COURSE, IL-9.5FG, MIX "C", N50, (1-1/2" MIN.)
- ⑦ PROPOSED AGGREGATE SHOULDER
- ⑧ PROPOSED EARTH SHOULDER
- ⑨ PROPOSED GUARDRAIL

| | | | | | | | | | | | | |
|--------------|------------|-----------|-----------|--|---------------------------|----------------|-------|-----------|---------------------------|--------|--------------|-----------|
| USER NAME = | DESIGNED - | REVISED - | VK | VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | TYPICAL SECTIONS | | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = | CHECKED - | REVISED - | | | 15 | 16-00123-00-BR | LOGAN | 50 | 6 | | | |
| PLOT DATE = | DRAWN - | REVISED - | | | CONTRACT NO. 93793 | | | | ILLINOIS FED. AID PROJECT | | | |



PLAN
(FE STA. 242+11)



SIGN & BARRICADE LOCATION PLAN

LEGEND

- ① TYPE III BARRICADE WITH "ROAD CLOSED" R11-2-4830
- ② ROAD CLOSED 500 FT
- ③ ROAD CLOSED 1 MILE AHEAD
- ④ ROAD CLOSED 2 MILES AHEAD WITH W1-6L
- ⑤ ROAD CLOSED 2 MILES AHEAD WITH W1-6R
- ⑥ ROAD CLOSED 0.75 MILES AHEAD
- ⑦ ROAD CLOSED 1.25 MILES AHEAD

GENERAL NOTES

WHERE SECTION OR SUBSECTION STONES ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH STONES ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR REFERENCED THEIR LOCATION.
SEEDING: FERTILIZER NUTRIENTS SHALL BE APPLIED AT A RATIO OF 1:1:1 AND AT A RATE OF 90 POUNDS PER ACRE FOR EACH NUTRIENT.
MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE.
AREAS TO BE SEEDDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER. ALL DISTURBED EARTH SURFACES BEYOND ROW IS THE RESPONSIBILITY OF AND COST TO THE CONTRACTOR.
NO COMMITMENTS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES.

| | |
|----------------------------------|-----------------------|
| BITUMINOUS MATERIALS (TACK COAT) | 0.05 LB./SQ. FT. |
| AGGREGATE MATERIAL | 1.9 TON/CU. YD. |
| RIPRAP | 1.5 TON/CU. YD. |
| NITROGEN FERTILIZER NUTRIENT | 90 LBS./ACRE |
| PHOSPHORUS FERTILIZER NUTRIENT | 90 LBS./ACRE |
| POTASSIUM FERTILIZER NUTRIENT | 90 LBS./ACRE |
| HMA BINDER & SURFACE | 0.056 TON/SQ. YD./IN. |

| | |
|---------------------|------------|
| MIXTURE USE(S): | SURFACE |
| PG: | PG 64-22 |
| DESIGN AIR VOIDS | 4.0% @ N50 |
| MIXTURE COMPOSITION | 1L-9.5FG |
| FRICTION AGGREGATE | MIX "C" |
| QUALITY MANAGEMENT | QC/QA |

| | | |
|--------------|------------|-----------|
| USER NAME = | DESIGNED - | REVISED - |
| CHECKED - | CHECKED - | REVISED - |
| PLOT SCALE = | DRAWN - | REVISED - |
| PLOT DATE = | CHECKED - | REVISED - |

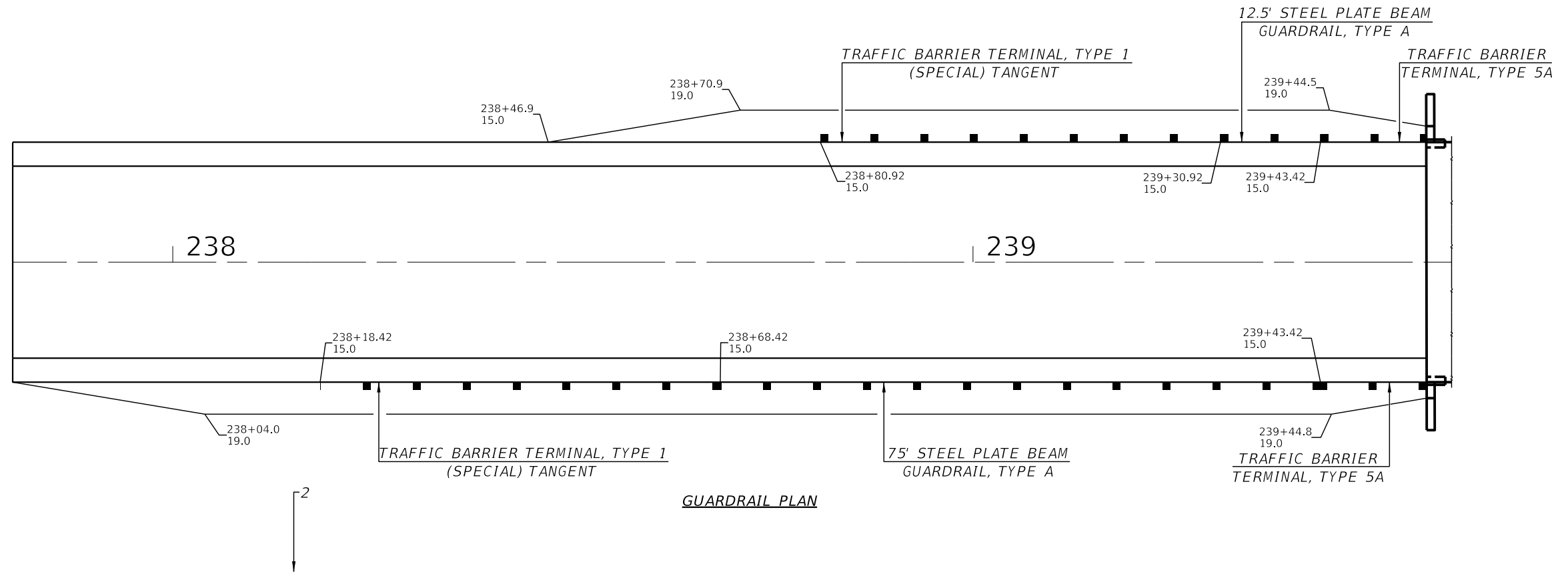


VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

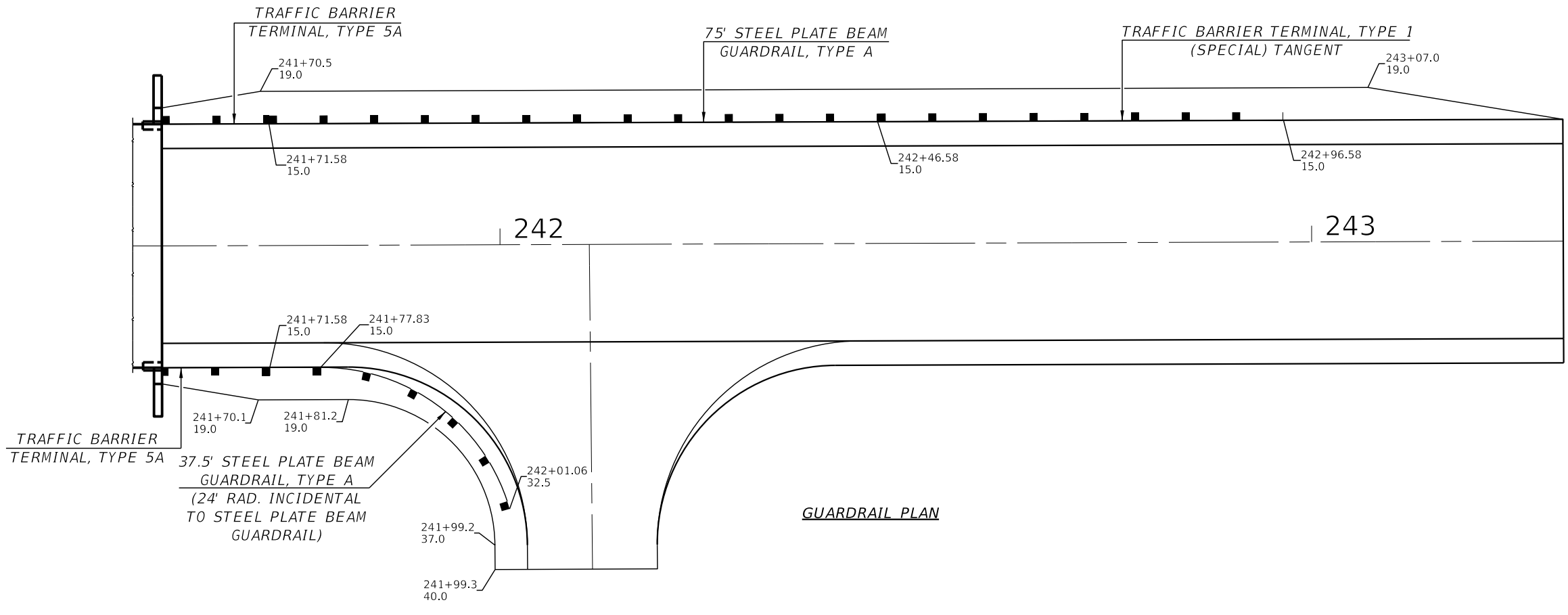
GENERAL NOTES AND DETAILS

SCALE: _____ SHEET NO. 1 OF 2 SHEETS STA. _____ TO STA. _____

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 7 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



GUARDRAIL PLAN



GUARDRAIL PLAN

| | | | | | | | | | | |
|--------------|------------|-----------|--|---|--|---------------------------|----------------|---------------------------|--------------|-----------|
| USER NAME = | DESIGNED - | REVISED - |  VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | GUARDRAIL PLAN | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = | CHECKED - | REVISED - | | | | 15 | 16-00123-00-BR | LOGAN | 50 | 8 |
| PLOT DATE = | DRAWN - | REVISED - | | SCALE: _____ SHEET NO. 2 OF 2 SHEETS STA. _____ TO STA. _____ | | CONTRACT NO. 93793 | | ILLINOIS FED. AID PROJECT | | |

| | | |
|------|---------------|------|
| PLAN | SURVEYED | DATE |
| | PLOTTED | BY |
| | ALIGNED | |
| | CHECKED | |
| | FILED | |
| | CAD FILE NAME | |
| | NO. | |

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

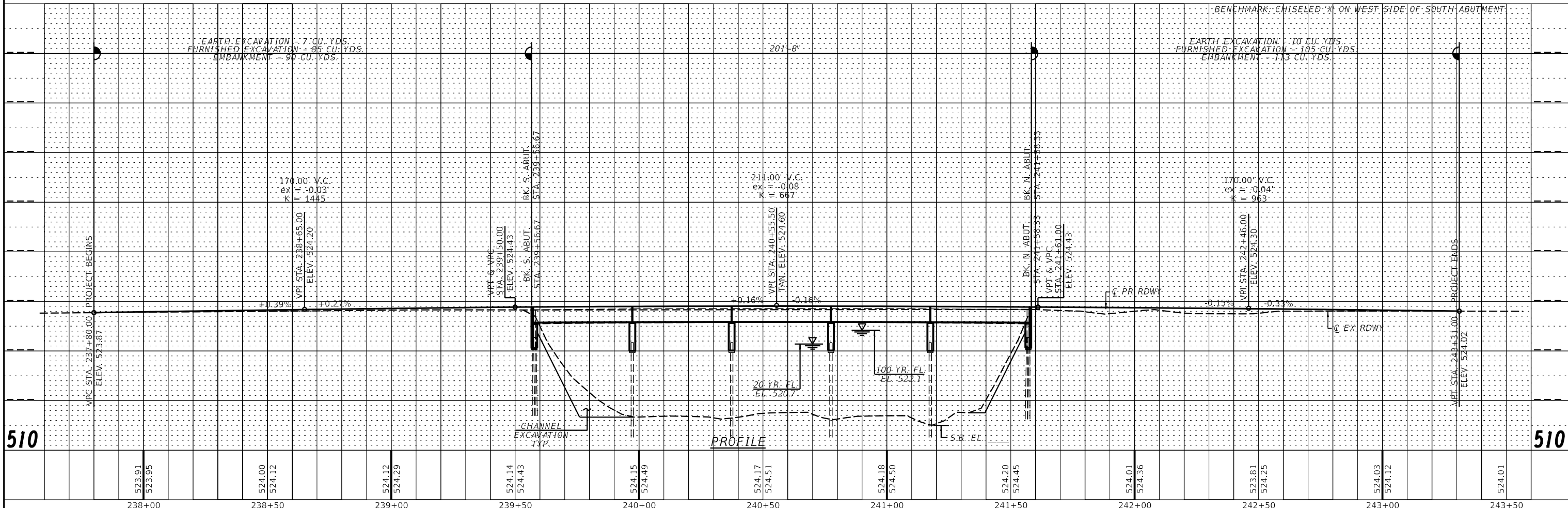
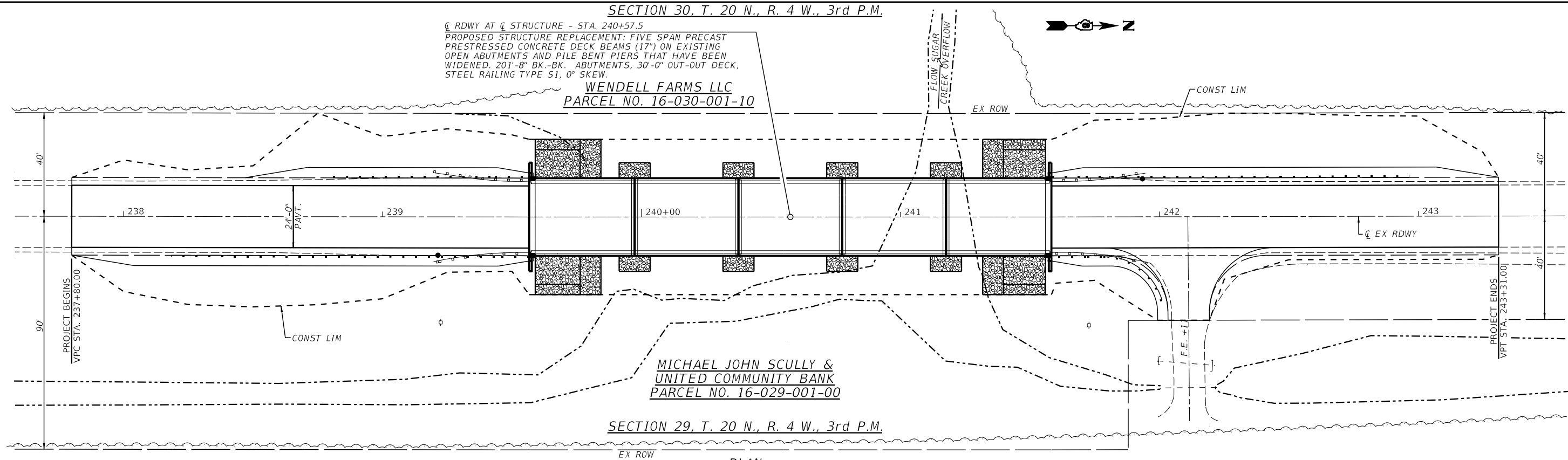
SECTION 30, T. 20 N., R. 4 W., 3rd P.M.

CL RDWY AT CL STRUCTURE - STA. 240+57.5
 PROPOSED STRUCTURE REPLACEMENT: FIVE SPAN PRECAST
 PRESTRESSED CONCRETE DECK BEAMS (17") ON EXISTING
 OPEN ABUTMENTS AND PILE BENT PIERS THAT HAVE BEEN
 WIDENED. 201'-8" BK.-BK. ABUTMENTS, 30'-0" OUT-OUT DECK,
 STEEL RAILING TYPE S1, 0° SKEW.

WENDELL FARMS LLC
 PARCEL NO. 16-030-001-10

MICHAEL JOHN SCULLY &
 UNITED COMMUNITY BANK
 PARCEL NO. 16-029-001-00

SECTION 29, T. 20 N., R. 4 W., 3rd P.M.



510

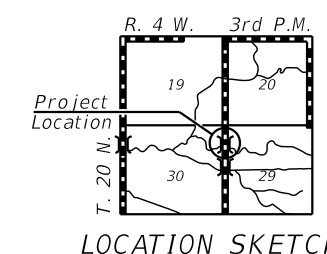
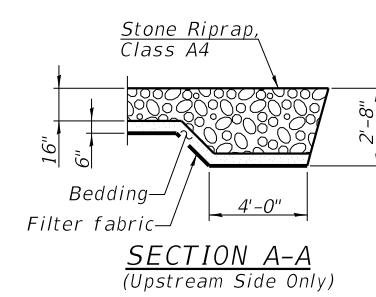
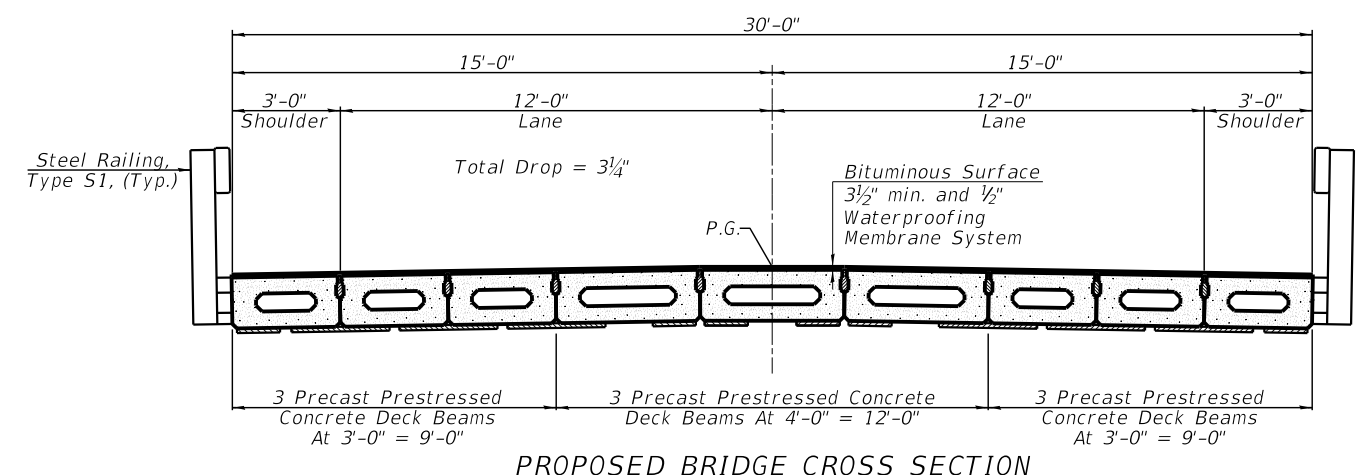
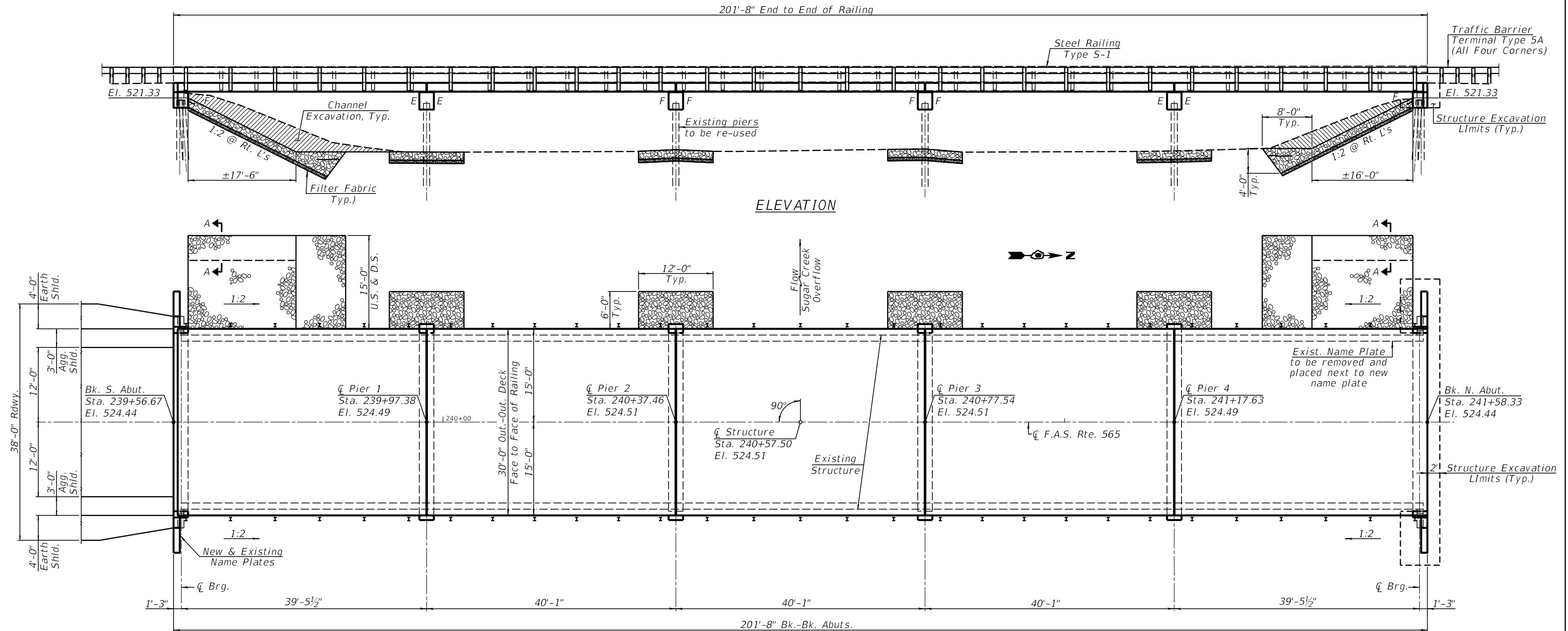
510

| | | | | | | | | | | | | |
|-------------|--------------------|------------|-----------|--|-----------------|-------------------------|--------------------------|---|----------------|--------------|-----------|---|
| FILE NAME = | USER NAME = *USER* | DESIGNED - | REVISED - | VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | PLAN & PROFILE | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| *FILEL* | | CHECKED - | REVISED - | | SCALE: 1" = 20' | SHEET NO. _ OF _ SHEETS | STA. _____ TO STA. _____ | 15 | 16-00123-00-BR | LOGAN | 50 | 9 |
| | | DRAWN - | REVISED - | | | | | CONTRACT NO. 93793 | | | | |
| | | CHECKED - | REVISED - | | | | | FED. ROAD DIST. NO. _ [ILLINOIS] FED. AID PROJECT | | | | |

Benchmark: Chiseled 'X' on west side of south abutment. EL. 526.37

Existing Structure: 5 Span Precast Prestressed Concrete Deck Beam Structure having a clear deck width of 26'-0" and out-out width of 28'-0" and a Bk.-Bk. abutment length of 201'-8". 0° Skew.
Existing SN 054-3028, built in 1963 under Section 63-2CA.

No Salvage.



GENERAL PLAN & ELEVATION
F.A.S. 565 (C.H.15) OVER
SUGAR CREEK OVERFLOW
SECTION 16-00123-00-BR
LOGAN COUNTY
STA. 240+57.00
STRUCTURE NO. 054-3028

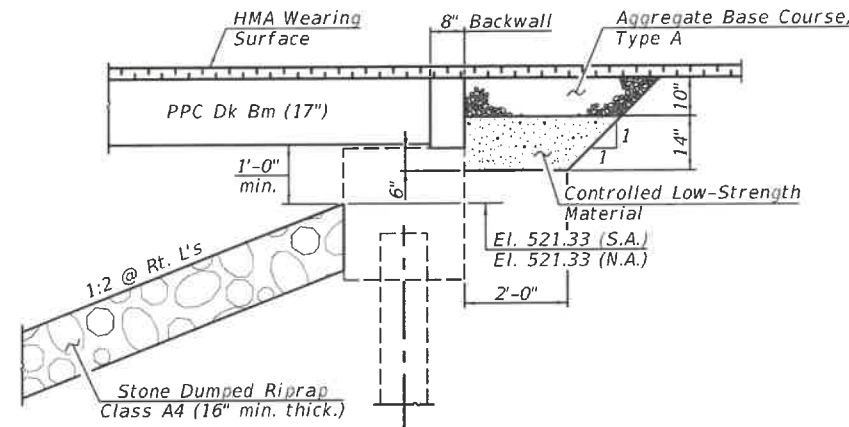
| | | | | | | | | | | | | |
|---------------|----------------|-----------|--|--|--|---------------------------|--|--------------------|---------|--------|--------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - | | VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | GENERAL PLAN & ELEVATION STRUCTURE NO. 054-3028 | | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CHECKED - TRC | REVISOR - | 15 | | | | | | 16-00123-00-BR | LOGAN | 50 | 10 | |
| PLOT SCALE = | DRAWN - JRP | REVISOR - | | | SCALE: SHEET NO. 1 OF 25 SHEETS STA. TO STA. | | | CONTRACT NO. 93793 | | | | |
| PLOT DATE = | CHECKED - TRC | REVISOR - | | | | ILLINOIS FED. AID PROJECT | | | | | | |

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|------|-------|
| Channel Excavation | Cu. Yd. | | 182 | 182 |
| Stone Dumped Riprap, Class A4 | Ton | | 454 | 454 |
| Filter Fabric | Sq. Yd. | | 541 | 541 |
| Aggregate Base Course, Type A | Ton | 12 | | 12 |
| Bituminous Materials (Tack Coat) | Pound | 152 | | 152 |
| Hot-Mix Asphalt Surface Course, IL-9.5FG, Mix "C", N50 | Ton | 116 | | 116 |
| Removal of Existing Superstructures | Each | 1 | | 1 |
| Concrete Removal | Cu. Yd. | 2.9 | 0.6 | 3.5 |
| Structure Excavation | Cu. Yd. | 25 | | 25 |
| Concrete Structures | Cu. Yd. | 9.0 | 2.8 | 11.8 |
| Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 6000 | | 6000 |
| Reinforcement Bars | Pound | | 1380 | 1380 |
| Reinforcement Bars, Epoxy Coated | Pound | 640 | | 640 |
| Steel Railing, Type S-1 | Foot | 404 | | 404 |
| Name Plates | Each | 1 | | 1 |
| Preformed Strip Seal | Foot | 60 | | 60 |
| Waterproofing Membrane System | Sq. Yd. | 673 | | 673 |
| Controlled Low-Strength Material | Cu. Yd. | 6.7 | | 6.7 |
| Asbestos Bearing Pad Removal | Each | 56 | | 56 |
| Cleaning Bridge Seats | Sq. Ft. | | 440 | 440 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5 inches) | Sq. Ft. | | 91 | 91 |
| Relocating Name Plates | Each | 1 | | 1 |

INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. 17" x 36" PPC Deck Beam - Spans 1,2,4,&5
4. 17" x 36" PPC Deck Beam Details - Spans 1,2,4,&5
5. 17" x 48" PPC Deck Beam - Spans 1,2,4,&5
6. 17" x 48" PPC Deck Beam Details - Spans 1,2,4,&5
7. 17" x 36" PPC Deck Beam - Span 3
8. 17" x 36" PPC Deck Beam Details - Span 3
9. 17" x 48" PPC Deck Beam - Span 3
10. 17" x 48" PPC Deck Beam Details - Span 3
11. Superstructure Details
12. Steel Railing, Type S-1
13. Concrete Removal & Repair Details - Abutments
14. Concrete Removal & Repair Details - Pier 1
15. Concrete Removal & Repair Details - Pier 2
16. Concrete Removal & Repair Details - Pier 3
17. Concrete Removal & Repair Details - Pier 4
18. Abutments
19. Pier 1
20. Pier 2
21. Pier 3
22. Pier 4
- 23-25. Existing Structure Plans



SECTION THRU ABUTMENT

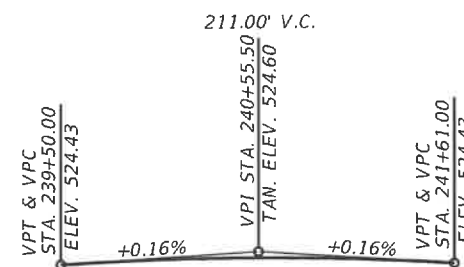
WATERWAY INFORMATION

Drainage Area = 382.5 Sq. Mi. Exist. Low Grade Elev. 524.4 @ Sta. 222+52
 Prop. Low Grade Elev. 524.4 @ Sta. 222+52

| Flood | Freq. Yr. | Q C.F.S. | Opening Ft ² | | Nat. H.W.E. | | Head - Ft. | | Headwater El. | |
|-------------|-----------|----------|-------------------------|-------|-------------|-------|------------|-------|---------------|-------|
| | | | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. | Exist. | Prop. |
| Ten Year | 10 | 13000 | 896 | 896 | 520.0 | 0.9 | 0.9 | 520.9 | 520.9 | |
| Design | 20 | 16000 | 1067 | 1067 | 520.7 | 1.1 | 1.1 | 521.8 | 521.8 | |
| Base | 100 | 23500 | 1879 | 1879 | 522.1 | 1.5 | 1.5 | 523.6 | 521.8 | |
| Overtopping | 200 | 26700 | 2701 | 2701 | 522.5 | 1.6 | 1.6 | 524.1 | 524.1 | |
| Max. Calc. | 500 | 31100 | 3422 | 3422 | 523.1 | 1.3 | 1.3 | 524.4 | 524.4 | |

Existing 10 Year Average Velocity - 4.1 fps
 Proposed 10 Year Average Velocity - 4.1 fps

| Event/Limit | Design Scour Elevations (ft.) | | | | | | Item 113 |
|-------------|-------------------------------|--------|--------|--------|--------|----------|----------|
| | S. Abut. | Pier 1 | Pier 2 | Pier 3 | Pier 4 | N. Abut. | |
| Q100 | 520.1 | 510.8 | 510.7 | 510.5 | 510.0 | 520.1 | 8 |
| Q200 | 520.1 | 510.8 | 510.7 | 510.5 | 510.0 | 520.1 | |
| Design | 520.1 | 510.8 | 510.7 | 510.5 | 510.0 | 520.1 | |
| Check | 520.1 | 510.8 | 510.7 | 510.5 | 510.0 | 520.1 | |

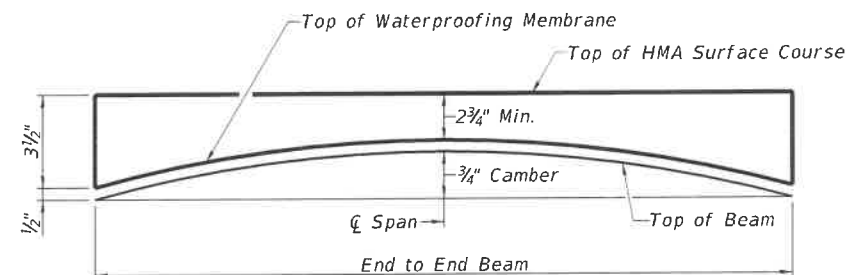


PROFILE GRADE
(Along Centerline Roadway)

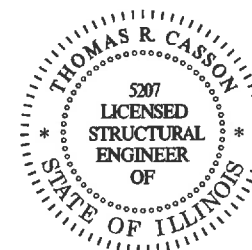
SUGAR CREEK OVERFLOW
 RE-BUILT 20 BY
 LOGAN COUNTY
 SEC. 16-00123-00-BR
 C.H. 15 - STA. 240+57.50
 LOADING HL93
 STR. NO. 054-3028

NAME PLATE
(Standard. 515001)

Existing name plate to be placed near new name plate as directed by the Engineer.



HMA SURFACE COURSE PROFILE & ANTICIPATED CAMBER DIAGRAM SPANS 1-5
(Method of obtaining minimum thickness to be determined in the field.)



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 "A.A.S.H.T.O. LRFD Bridge Design Specifications.

Thomas R. Casson 9/29/22
 Expiration Date 11/30/2022

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Contractor shall be responsible for the protection and prevention of any longitudinal movement of all substructure units during the removal and replacement of the precast, prestressed concrete deck beams during construction. Cost of prevention and protection will be included in the unit cost of Removal of Existing Superstructures.
 Contractor is responsible for the removal and disposal of any excess channel excavation not incorporated back into the project. The disposal of any excess material shall be in accordance with Article 202.03. Cost to dispose of excess excavation will be included in the unit cost of Channel Excavation.

LOADING HL 93

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

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition.

DESIGN STRESSES

FIELD UNITS (EXISTING CONSTRUCTION)

f'c = 2,500 psi (Substructure)
 fy = 40,000 psi (Reinforcement)

FIELD UNITS (NEW CONSTRUCTION)

f'c = 3,500 psi (Substructure)
 fy = 60,000 psi (Reinforcement)

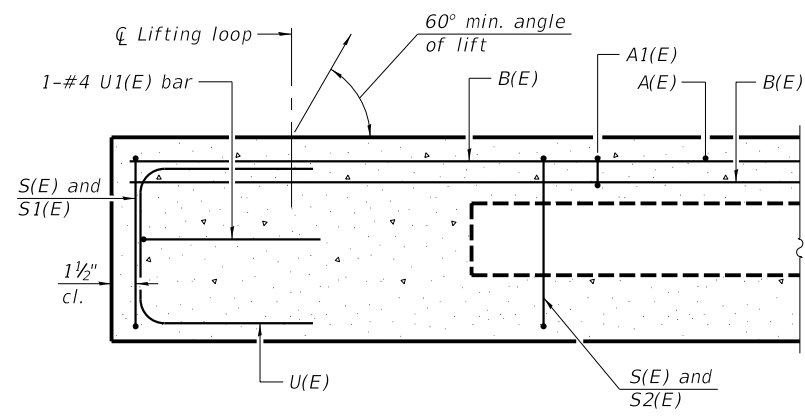
PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'ci = 5,000 psi
 fpu = 270,000 psi (1/2"Ø low lax strands)
 fpbt = 201,960 psi (1/2"Ø low lax strands)

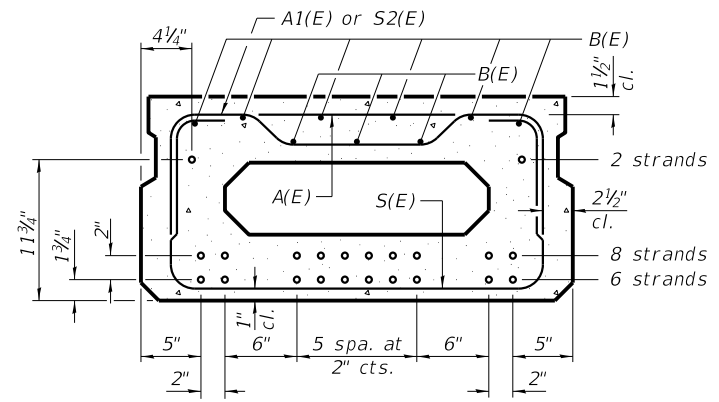
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.132 g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.224 g
 Soil Site Class = D

| USER NAME | DESIGNED | REVISIONS | VEENSTRA & KIMM INC. | GENERAL DATA | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|------------|----------|-----------|---------------------------------------|--|--|----------------|--------|--------------|-----------|
| --- | KES | --- | Springfield, IL. Phone: (217)544-8033 | STRUCTURE NO. 054-3028 | 15 | 16-00123-00-BR | LOGAN | 50 | 11 |
| PLOT SCALE | TRC | --- | IL. Design Firm No. 184-001939 | SCALE: SHEET NO. 2 OF 25 SHEETS STA. TO STA. | ILLINOIS FED. AID PROJECT CONTRACT NO. 93793 | | | | |
| PLOT DATE | JRP | --- | | | | | | | |
| | TRC | --- | | | | | | | |

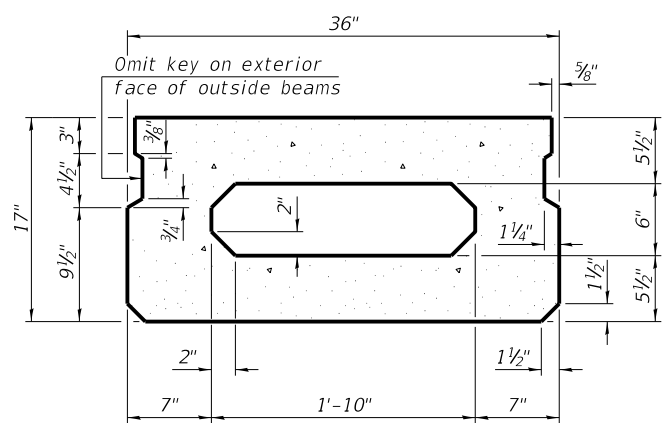


SECTION A-A

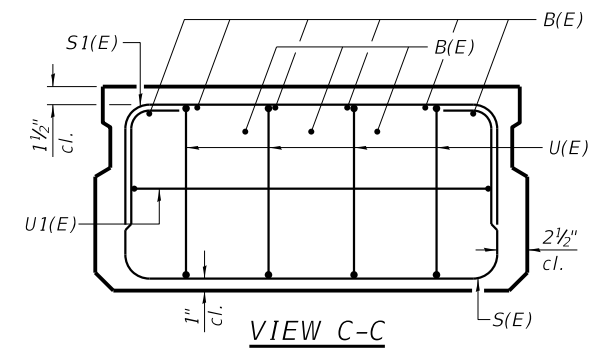


SECTION B-B
(Showing reinforcement and permissible strand locations)

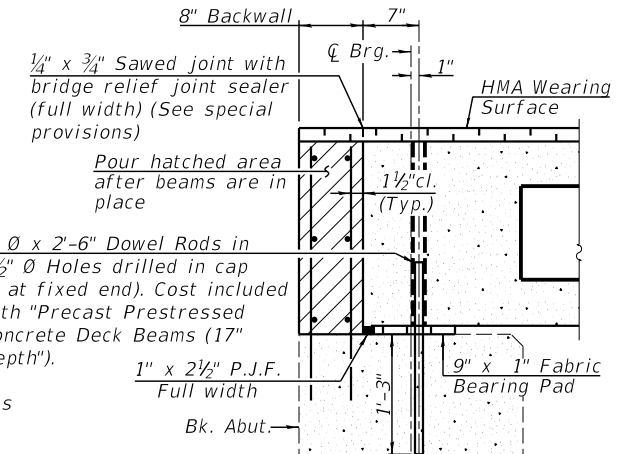
Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



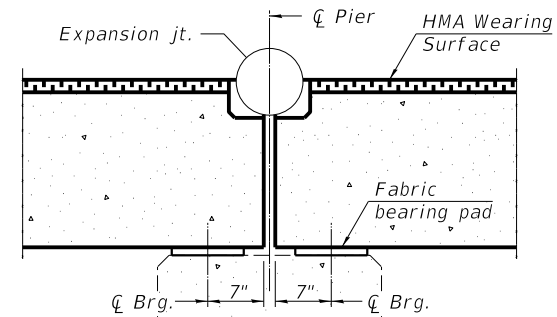
SECTION B-B
(Showing dimensions)



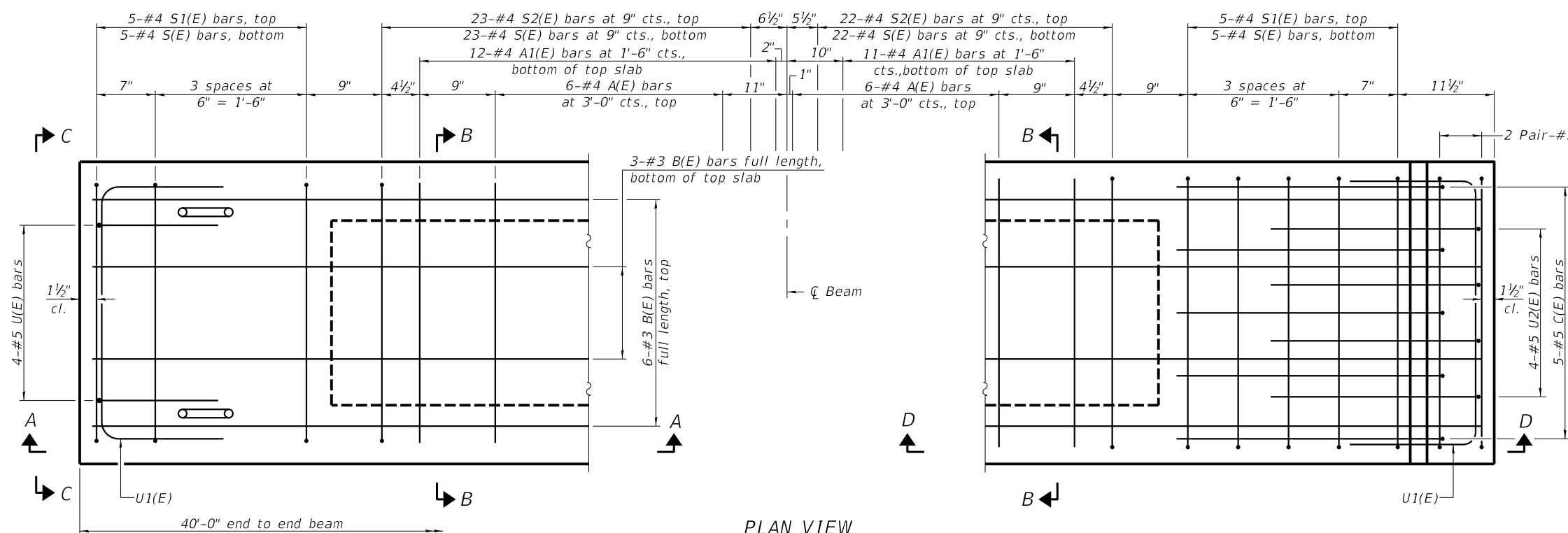
VIEW C-C



SECTION THRU ABUTMENT
(At Right Angles)

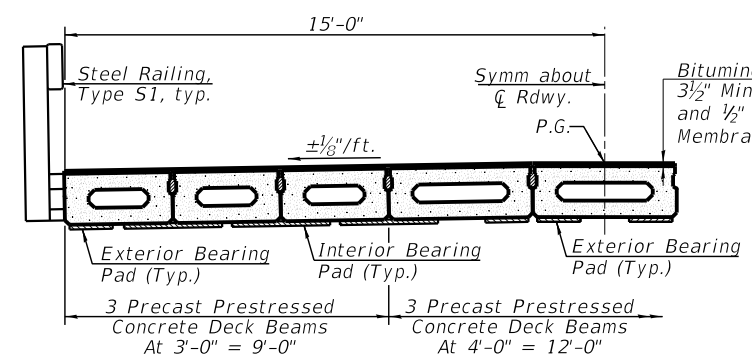


SECTION THRU PIERS 1 & 4
(Dimensions are at Rt. L's)

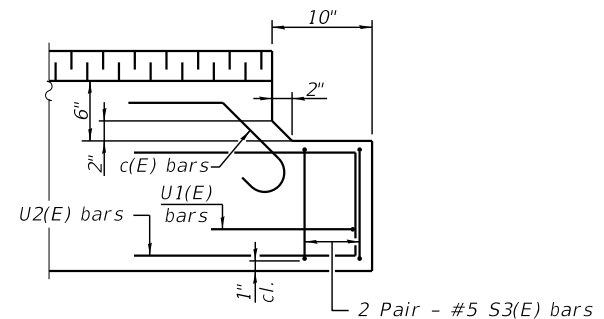


PLAN VIEW

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.



PROPOSED BRIDGE CROSS SECTION



SECTION D-D
(Dimensions are at right angles)

Notes:
1/2" cl. for reinforcement bars unless otherwise noted.
Typical reinforcement not shown for clarity. See Deck Beam Base Sheets for additional reinforcement details.
Cost of Inserts & Coil Rods included with Precast Prestressed Concrete Deck Beams. See sheet 11 of 25.

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| A(E) | 12 | #4 | 2'-7" | — |
| A1(E) | 23 | #4 | 2'-10" | — |
| B(E) | 9 | #3 | 38'-11" | — |
| C(E) | 5 | #5 | 3'-8" | ⌋ |
| S(E) | 55 | #4 | 5'-9" | ⌋ |
| S1(E) | 10 | #4 | 4'-3" | ⌋ |
| S2(E) | 45 | #4 | 4'-6" | ⌋ |
| S3(E) | 4 | #4 | 5'-9" | ⌋ |
| U(E) | 4 | #5 | 3'-8" | ⌋ |
| U1(E) | 2 | #4 | 5'-0" | ⌋ |
| U2(E) | 4 | #5 | 4'-10" | ⌋ |

Note:
See sheet 4 of 25 for additional details and Bill of Material.

PD-1736-0

1-1-2020

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |

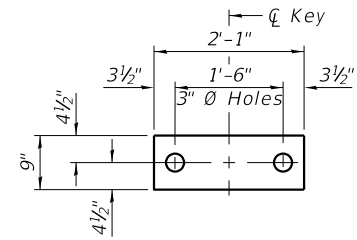


VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

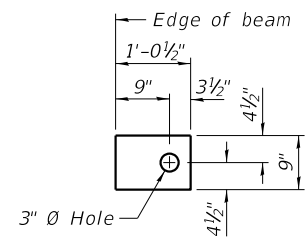
17" x 36" PPC DECK BEAM - SPANS 1, 2, 4, & 5
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 3 OF 25 SHEETS STA. TO STA.

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 12 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



FABRIC BEARING PAD
(Interior)

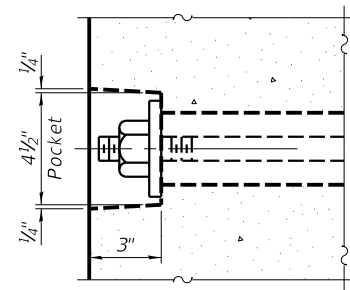


FABRIC BEARING PAD
(Exterior)

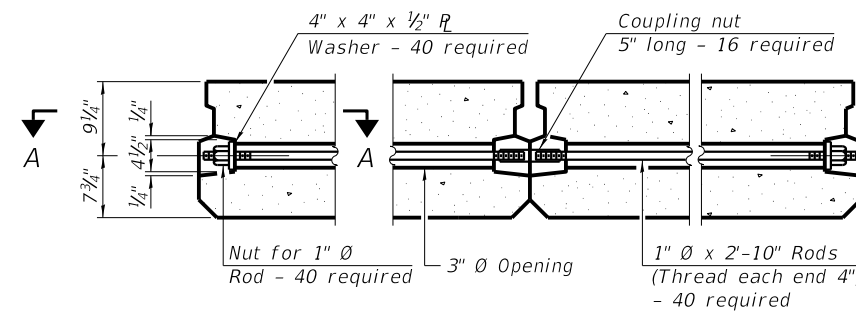
FIXED

Notes:

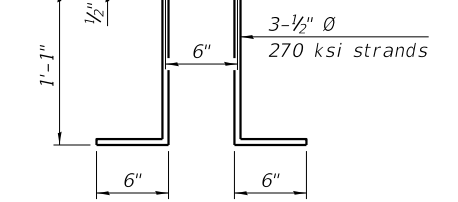
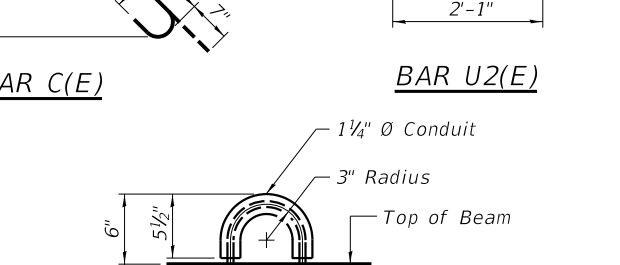
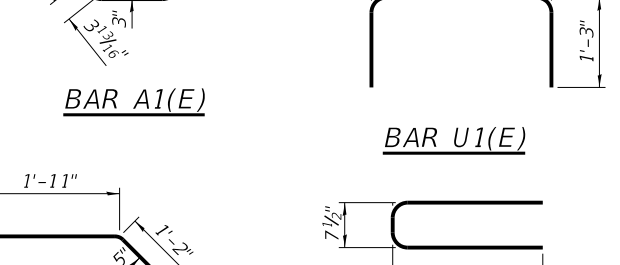
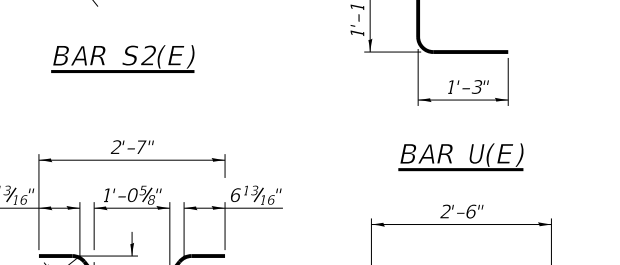
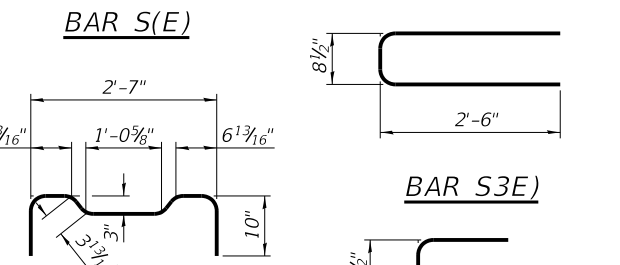
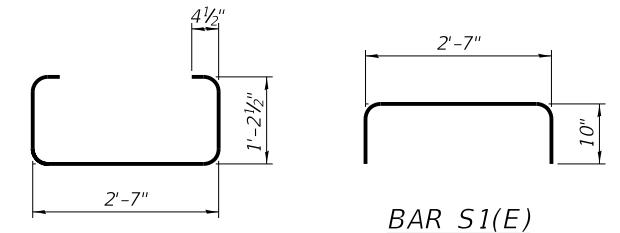
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pads shall be bonded to the substructure.



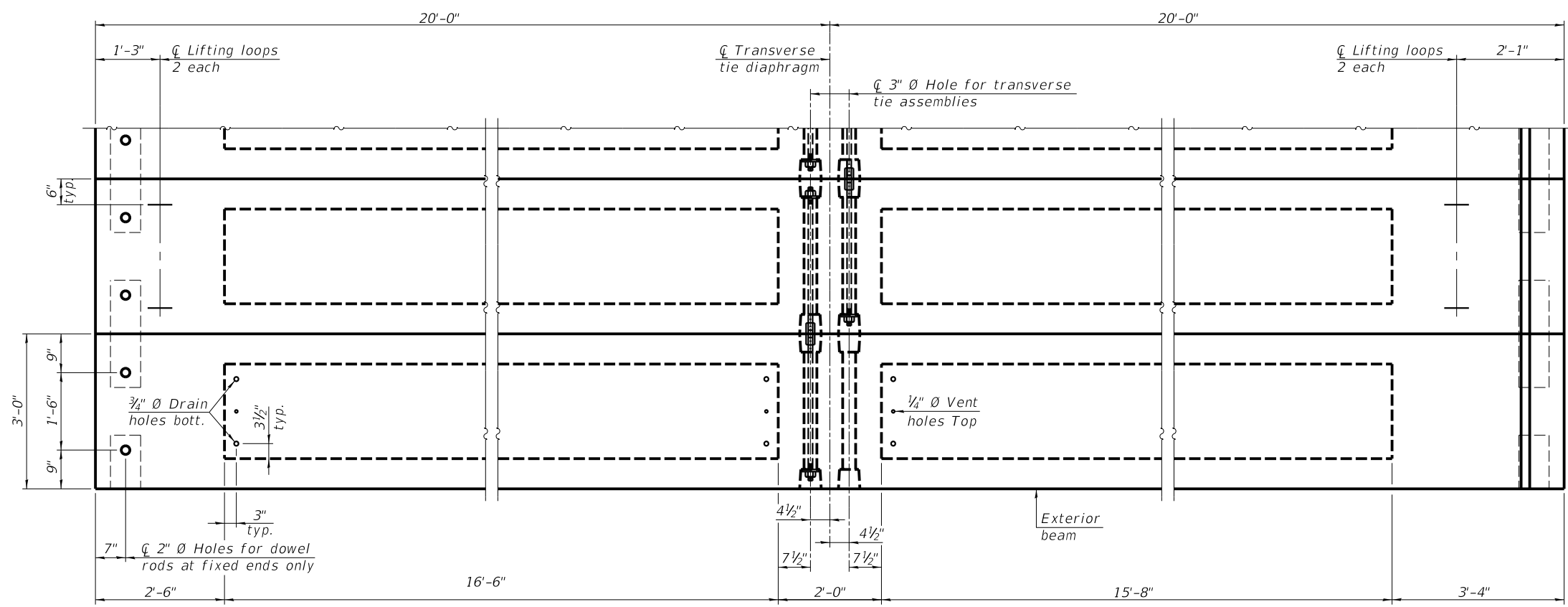
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY



LIFTING LOOP DETAIL



PLAN VIEW

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" diameter 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" diameter 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.

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

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Conc. Deck Bms. (17" depth) | Sq. Ft. | 2880 |
|---|---------|------|

PDD-1736-0

1-1-2020

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |

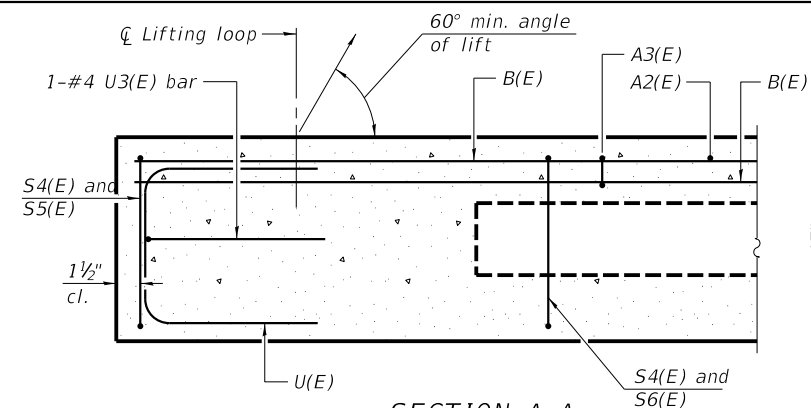


VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

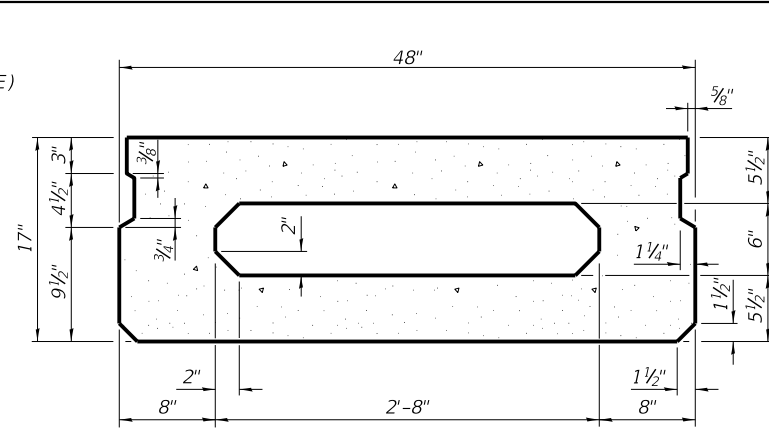
17" x 36" PPC DECK BEAM DETAILS - SPANS 1, 2, 4, & 5
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 4 OF 25 SHEETS STA. TO STA.

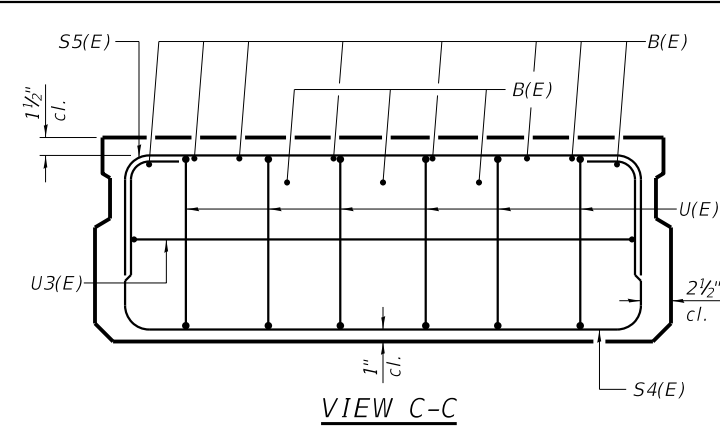
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|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 13 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



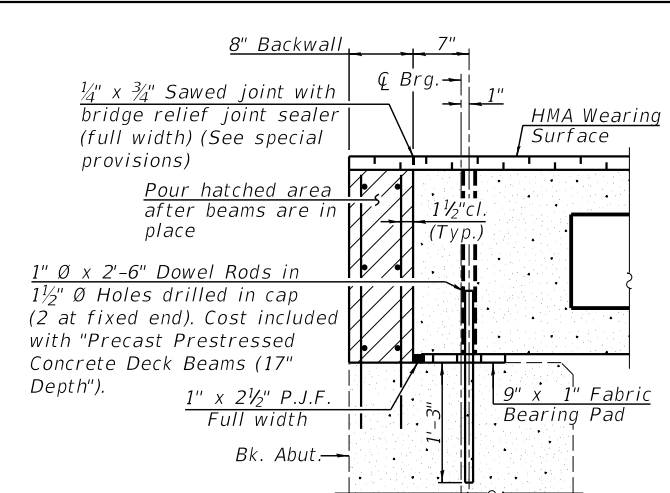
SECTION A-A



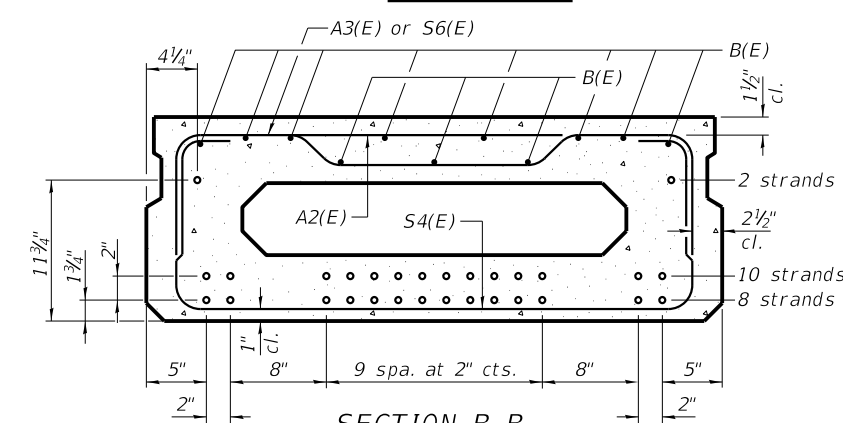
SECTION B-B
(Showing dimensions)



VIEW C-C



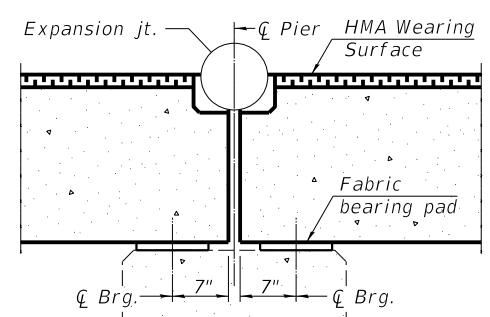
SECTION THRU ABUTMENT
(At Right Angles)



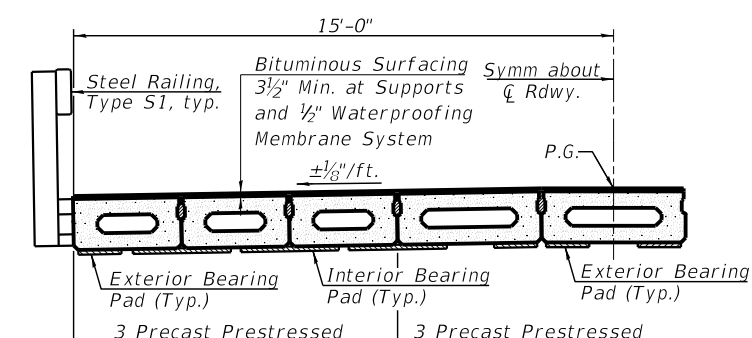
SECTION B-B

(Showing reinforcement and permissible strand locations)

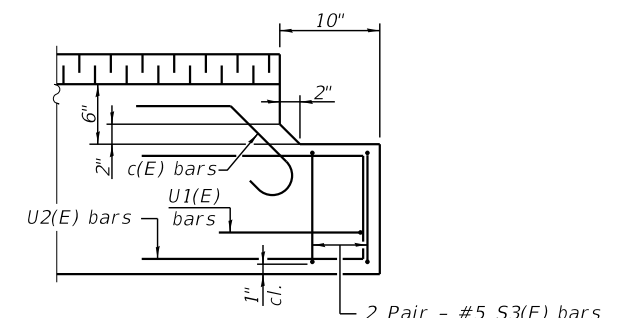
Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



SECTION THRU PIERS 1 & 4
(Dimensions are at Rt. L's)

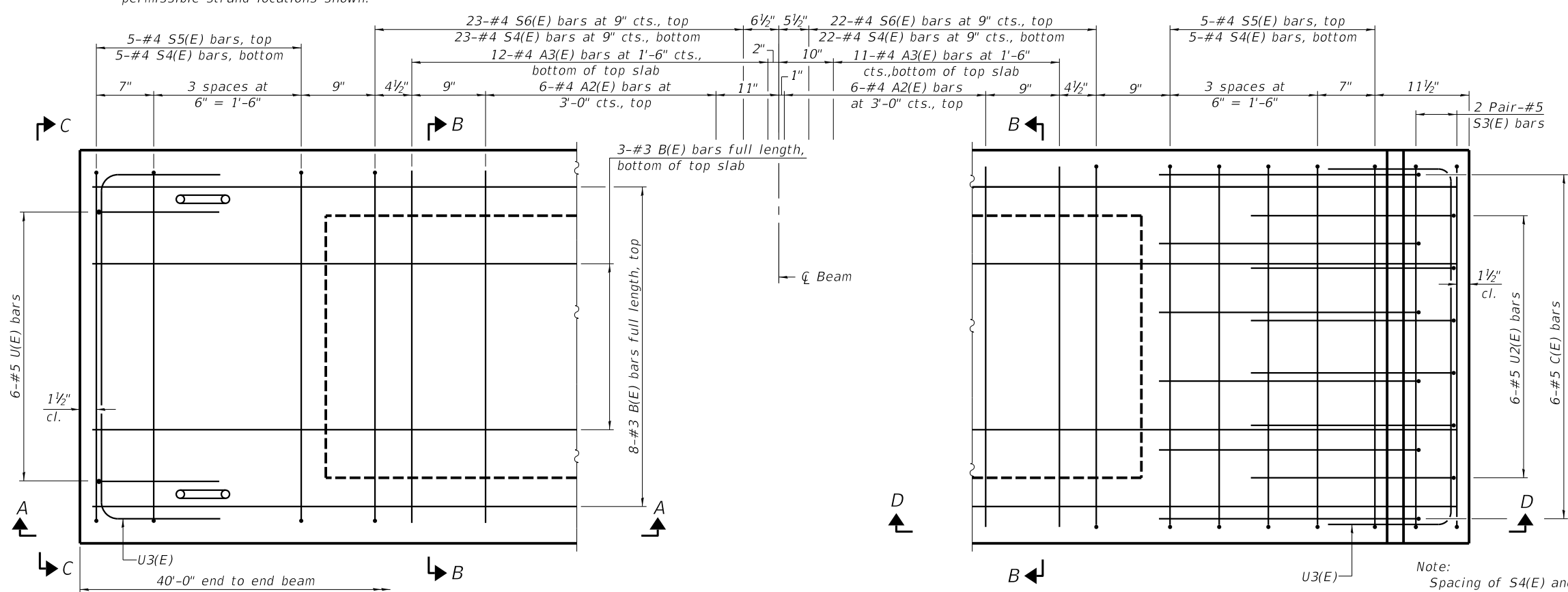


PROPOSED BRIDGE CROSS SECTION



SECTION D-D
(Dimensions are at right angles)

Notes:
1 1/2 inch cl. for reinforcement bars unless otherwise noted.
Typical reinforcement not shown for clarity. See Deck Beam Base Sheets for additional reinforcement details.
Cost of Inserts & Coil Rods included with Precast Prestressed Concrete Deck Beams. See sheet 11 of 25.



PLAN VIEW

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

Note:
Spacing of S4(E) and S6(E) bars may be adjusted up to 4 inch in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| A2(E) | 12 | #4 | 3'-7" | — |
| A3(E) | 23 | #4 | 3'-10" | ~ |
| B(E) | 11 | #3 | 38'-11" | — |
| C(E) | 6 | #5 | 3'-8" | ⤵ |
| S3(E) | 4 | #4 | 5'-9" | ⌌ |
| S4(E) | 55 | #4 | 6'-9" | ⌌ |
| S5(E) | 10 | #4 | 5'-3" | ⌌ |
| S6(E) | 45 | #4 | 5'-6" | ⌌ |
| U(E) | 6 | #5 | 3'-8" | ⌌ |
| U2(E) | 6 | #5 | 4'-10" | ⌌ |
| U3(E) | 2 | #4 | 6'-0" | ⌌ |

Note:
See sheet 6 of 25 for additional details and Bill of Material.

PD-1748-0

1-1-2020

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |

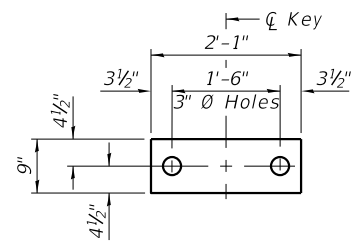


VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

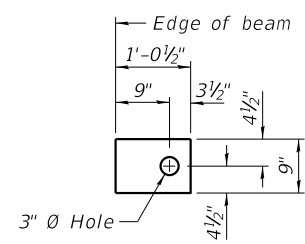
17" x 48" PPC DECK BEAM - SPAN 1, 2, 4, & 5
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 5 OF 25 SHEETS STA. TO STA.

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 14 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



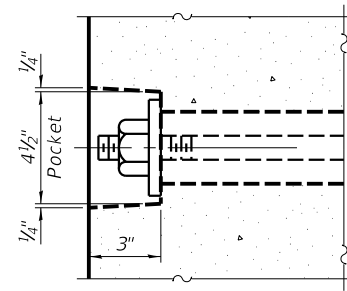
FABRIC BEARING PAD
(Interior)



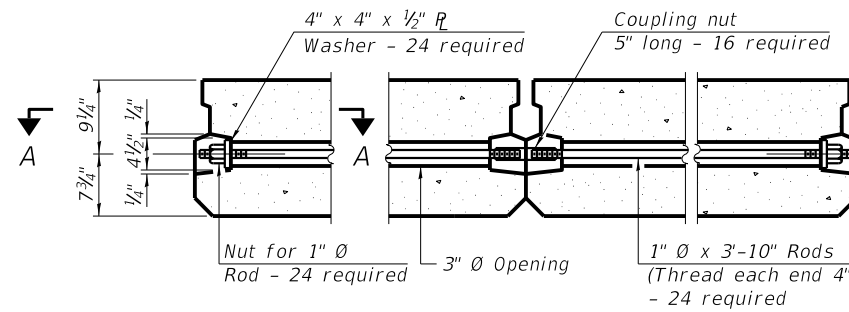
FABRIC BEARING PAD
(Exterior)

FIXED

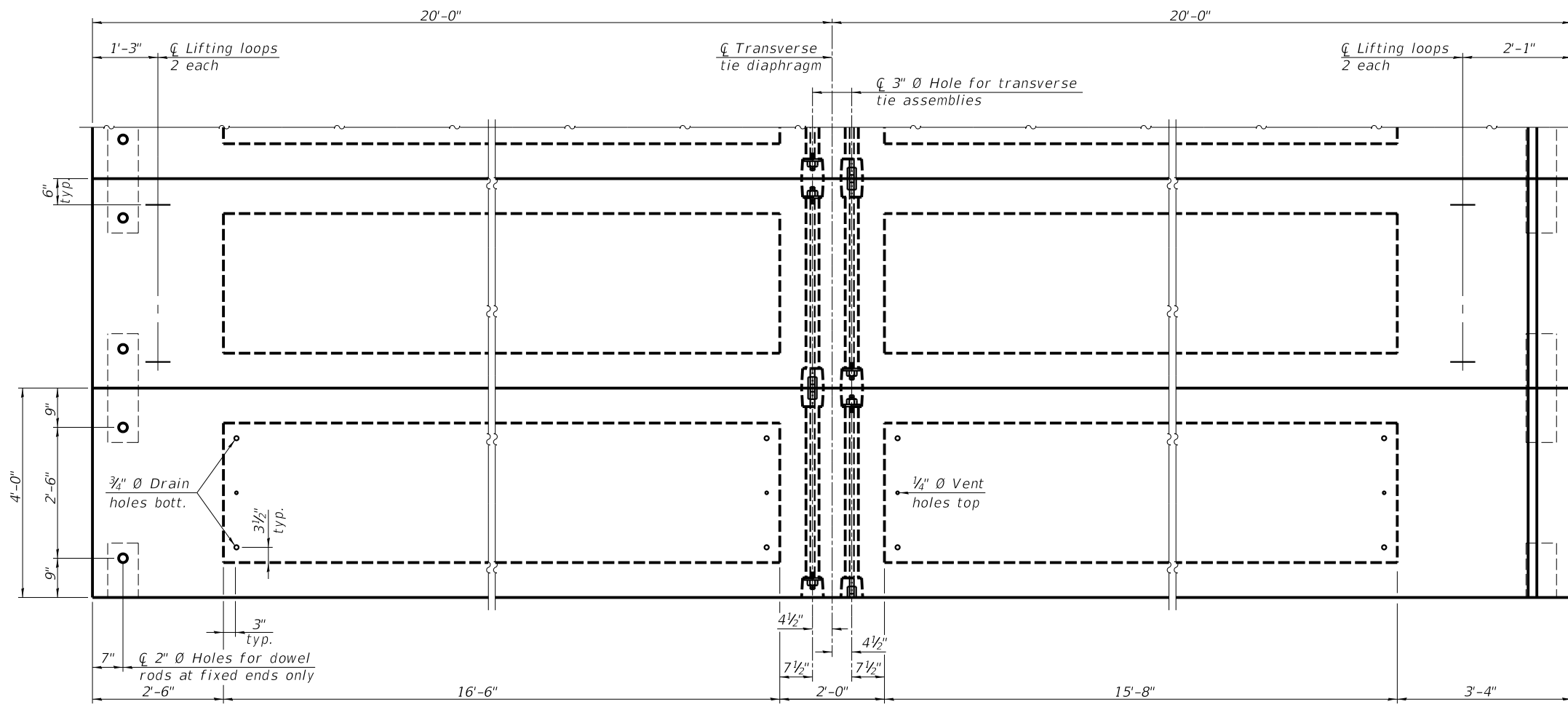
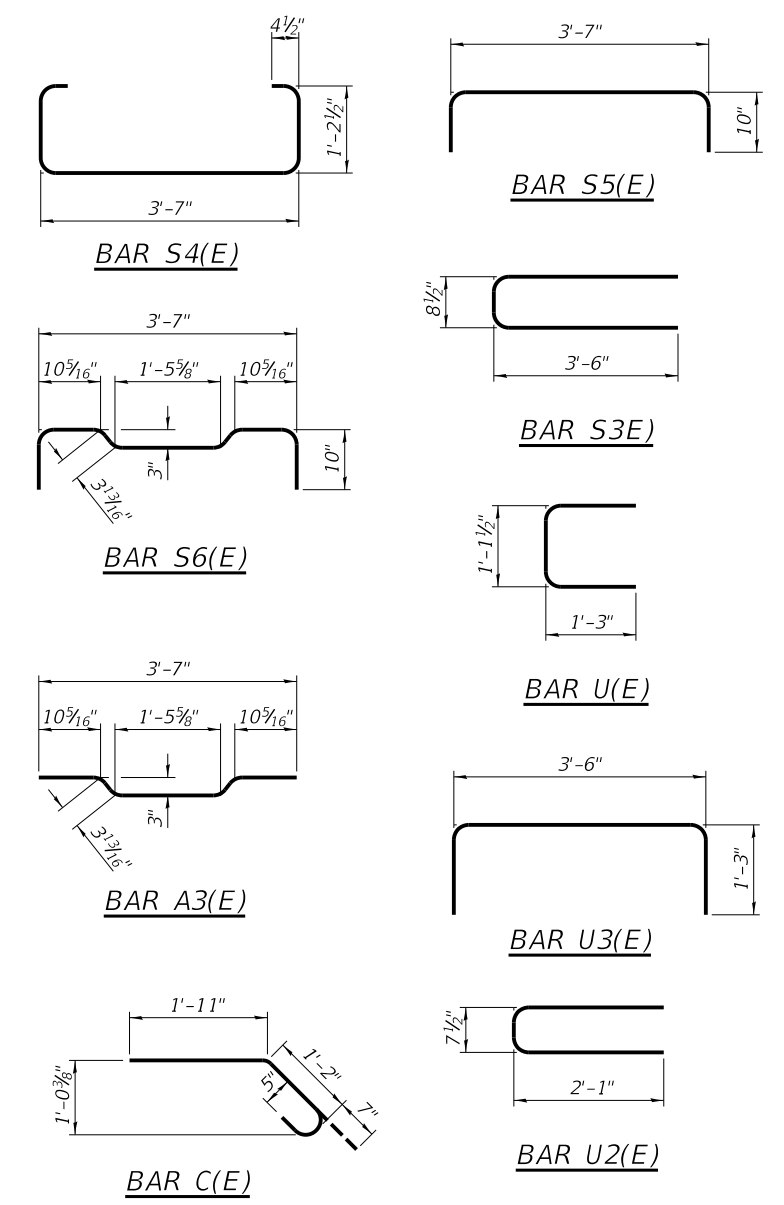
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

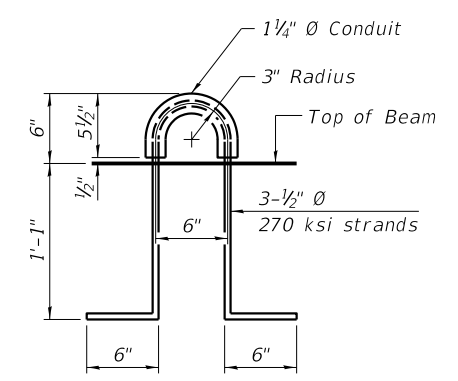


PLAN VIEW

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" diameter 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" diameter 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.

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



LIFTING LOOP DETAIL

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Conc. Deck Bms. (17" Depth) | Sq. Ft. | 1920 |
|---|---------|------|

PDD-1748-0

1-1-2020

| | | |
|---------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| CHECKED - TRC | REVISOR - | |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

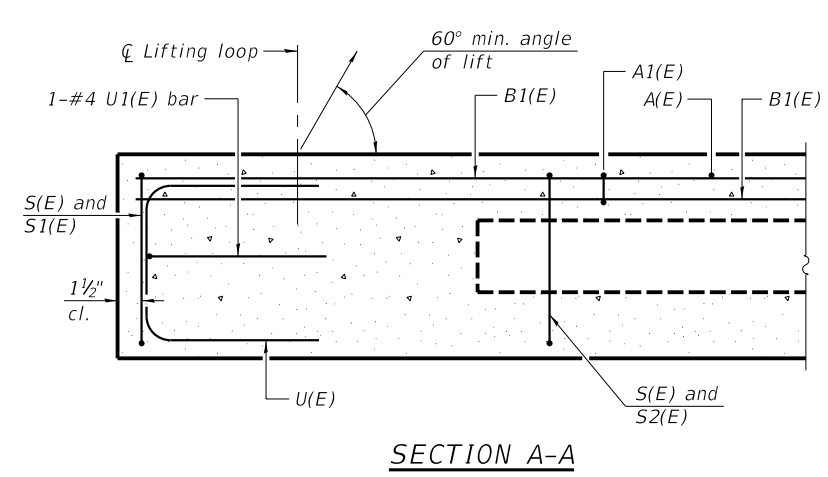


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IL. Design Firm No. 184-001939

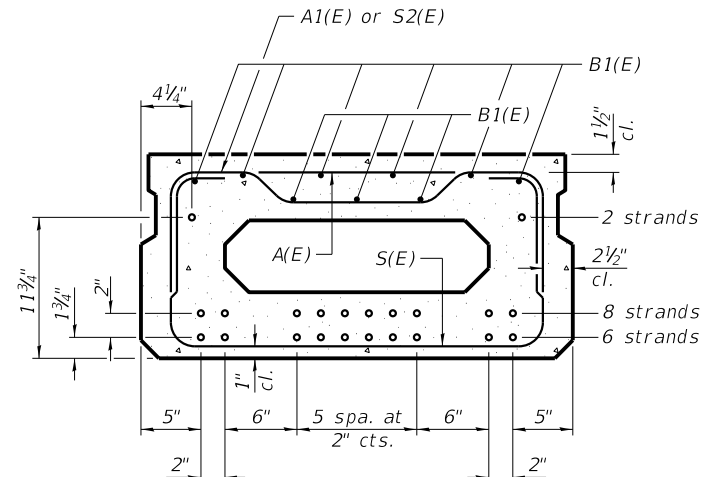
17" x 48" PPC DECK BEAM DETAILS - SPANS 1, 2, 4, & 5
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 6 OF 25 SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 15 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



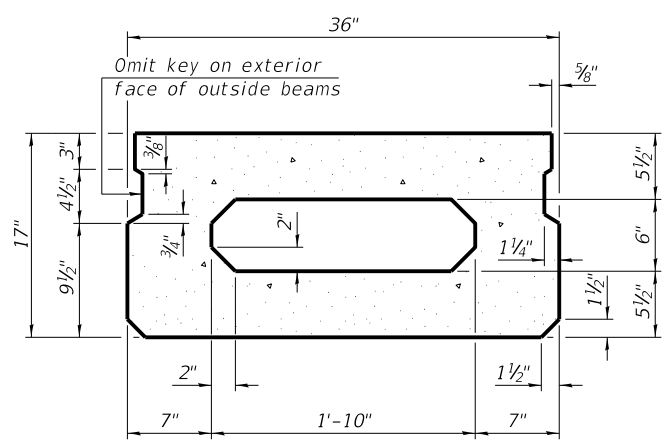
SECTION A-A



SECTION B-B

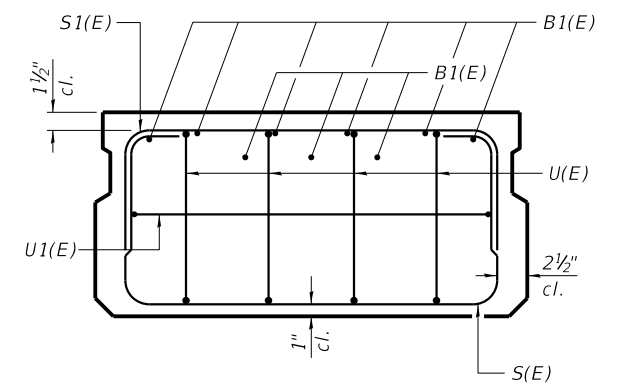
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

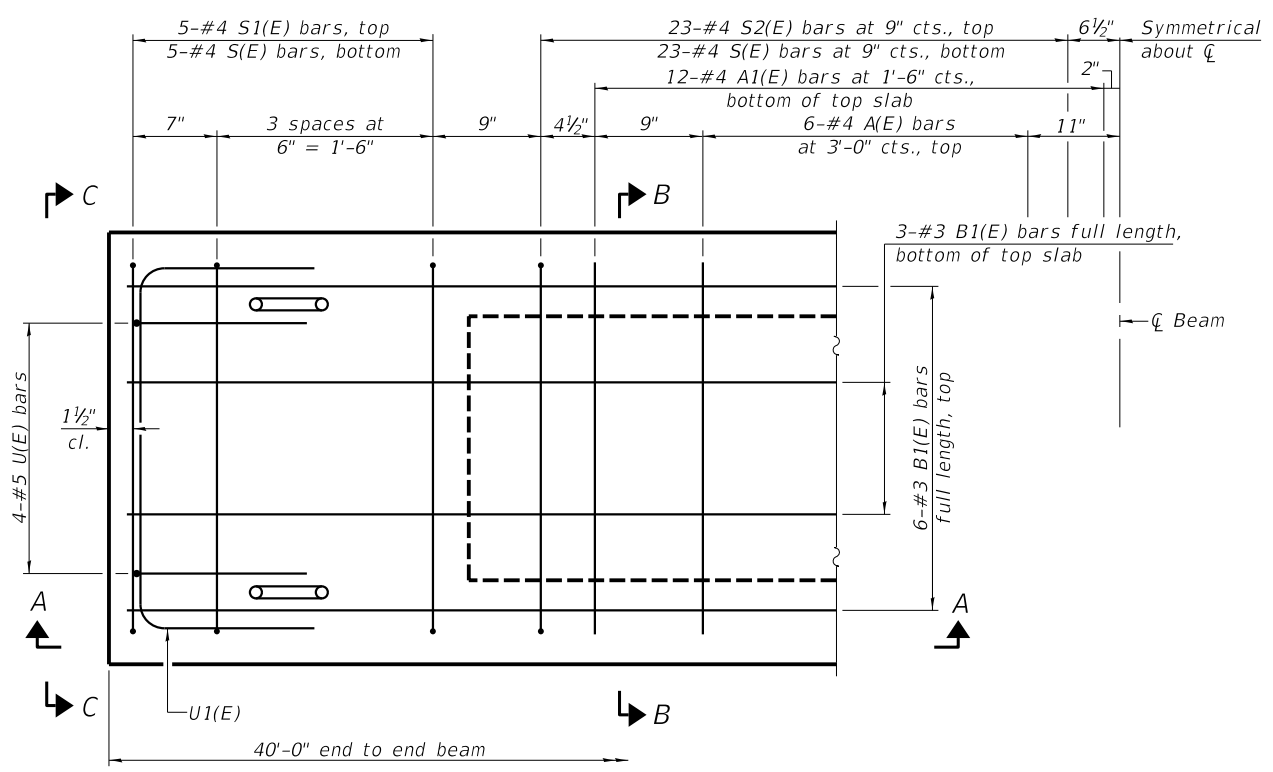


SECTION B-B

(Showing dimensions)

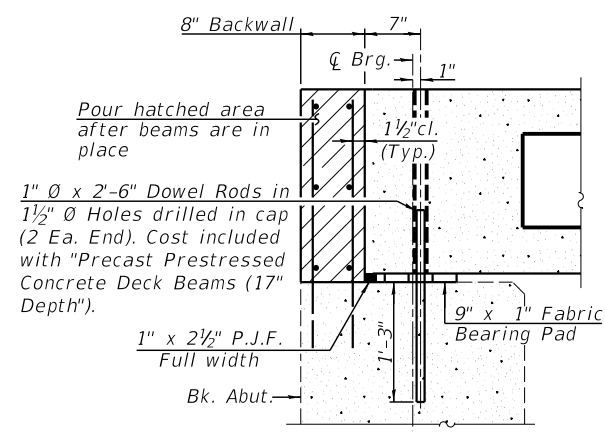


VIEW C-C



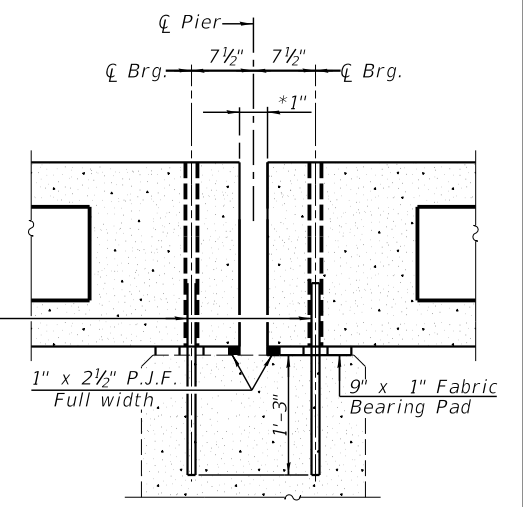
PLAN VIEW

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 THRU ABUTMENT

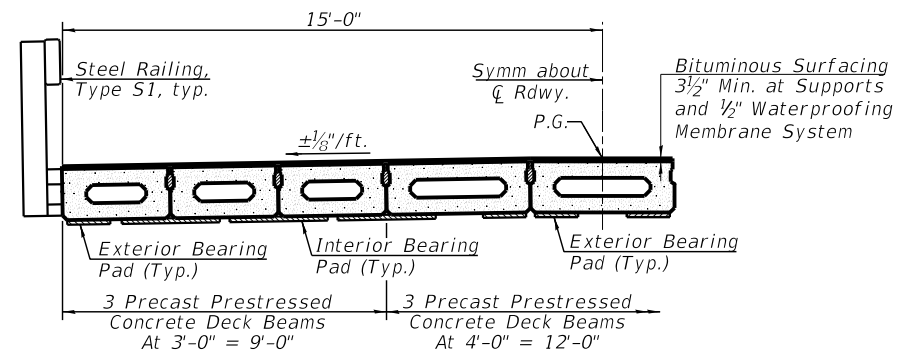
(At Right Angles)



SECTION THRU PIERS 2 & 3

(At Right Angles)

* 1" joint shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam length



PROPOSED BRIDGE CROSS SECTION

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" | — |
| B1(E) | 9 | #3 | 39'-9" | — |
| S(E) | 56 | #4 | 5'-9" | U |
| S1(E) | 10 | #4 | 4'-3" | U |
| S2(E) | 46 | #4 | 4'-6" | U |
| U(E) | 8 | #5 | 3'-8" | C |
| U1(E) | 2 | #4 | 5'-0" | U |

Note:
See sheet 8 of 25 for additional details and Bill of Material.

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

PD-1736-0

1-1-2020

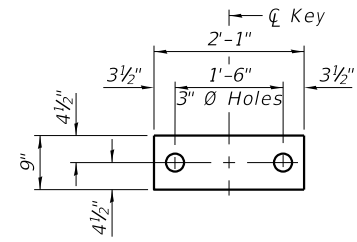
| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |



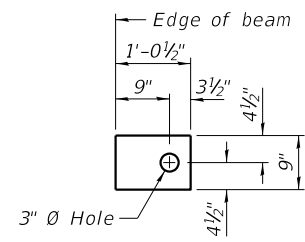
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

17" x 36" PPC DECK BEAM - SPAN 3
STRUCTURE NO. 054-3028
SCALE: SHEET NO. 7 OF 25 SHEETS STA. TO STA.

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 16 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



FABRIC BEARING PAD
(Interior)

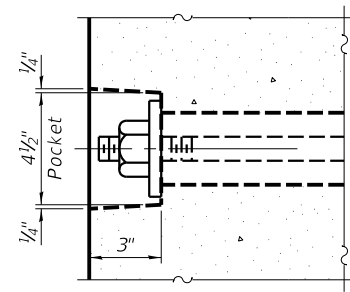


FABRIC BEARING PAD
(Exterior)

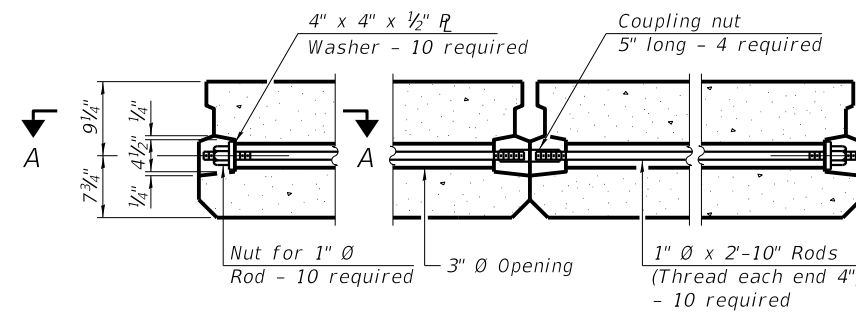
FIXED

Notes:

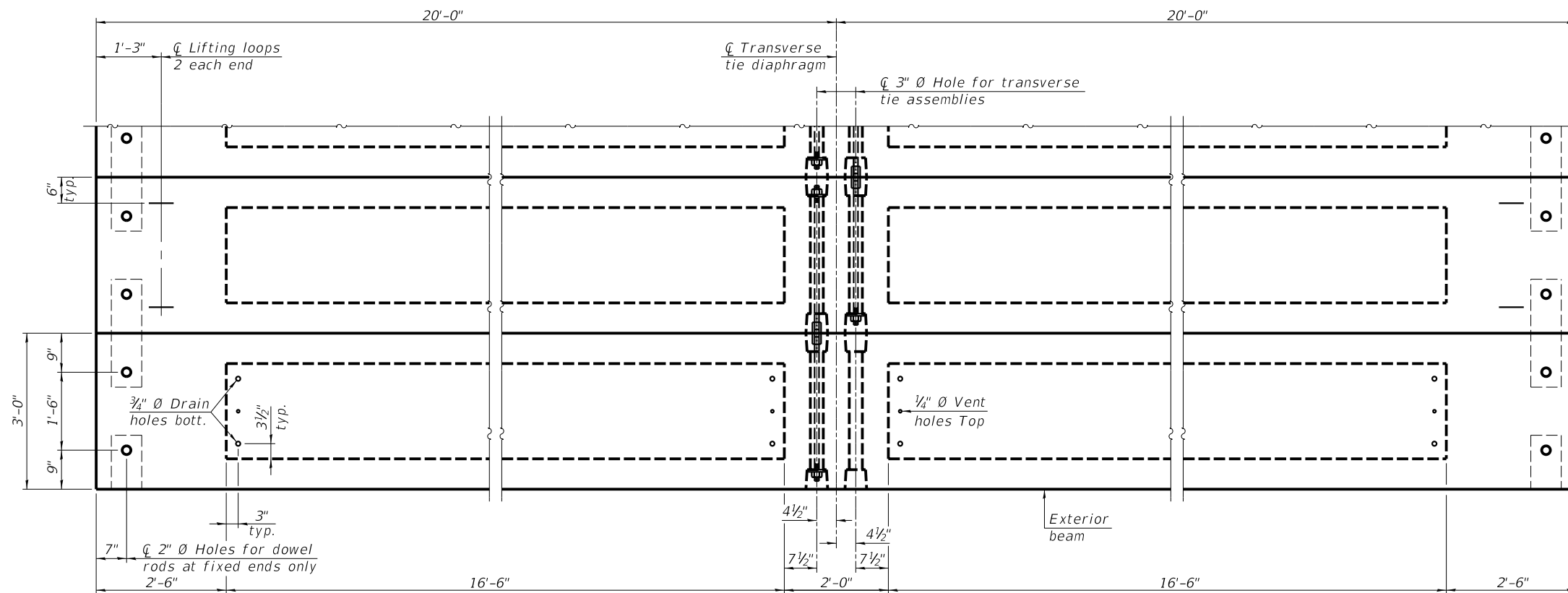
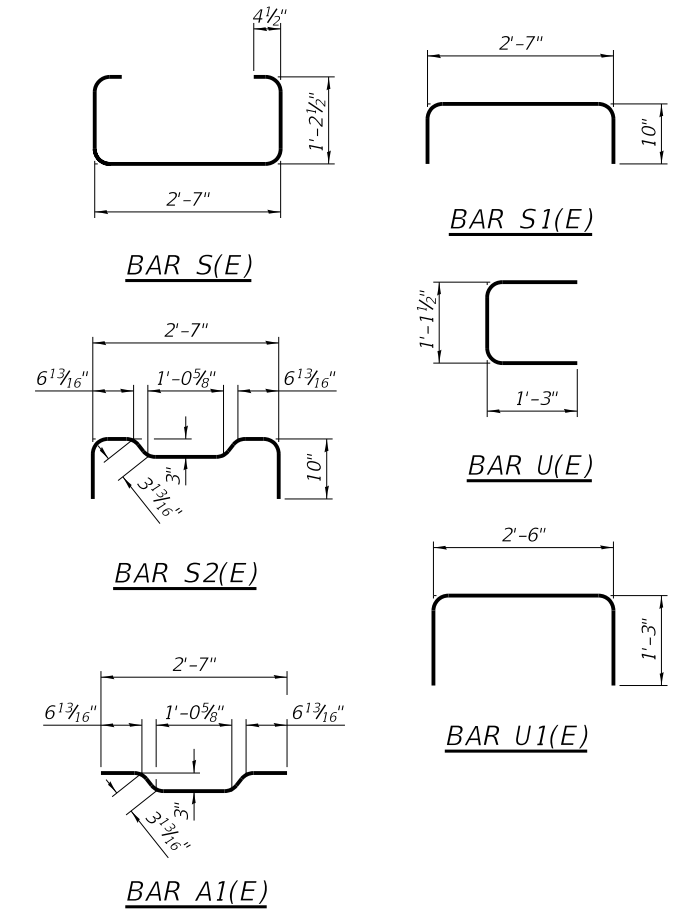
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pads shall be bonded to the substructure.



SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

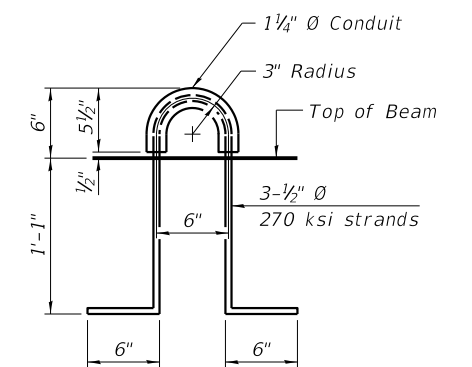


PLAN VIEW

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" 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" diameter 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.



LIFTING LOOP DETAIL

BILL OF MATERIAL

| | | |
|---|---------|-----|
| Precast Prestressed Conc. Deck Bms. (17" depth) | Sq. Ft. | 720 |
|---|---------|-----|

PDD-1736-0 1-1-2020

| | | |
|---------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| CHECKED - TRC | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

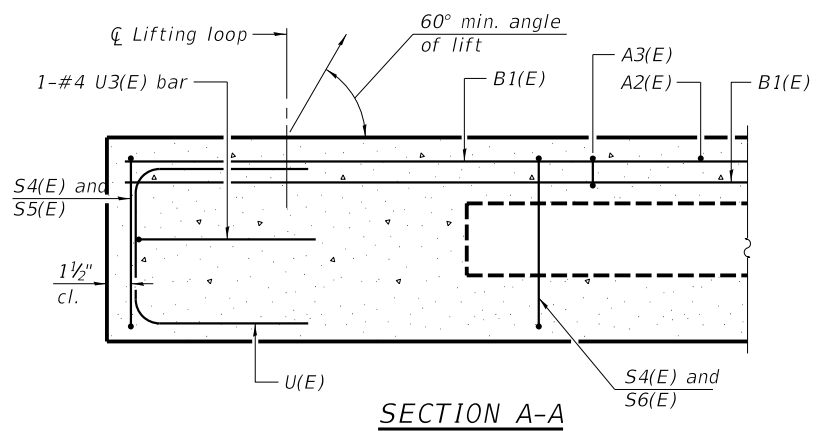


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IL. Design Firm No. 184-001939

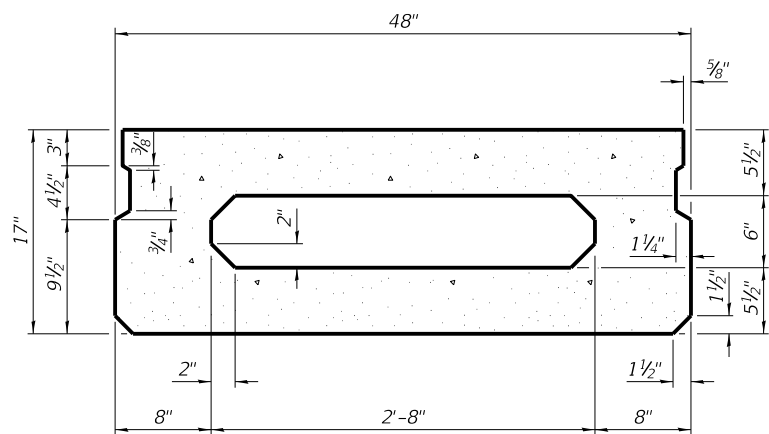
17" x 36" PPC DECK BEAM DETAILS - SPAN 3
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 8 OF 25 SHEETS STA. TO STA.

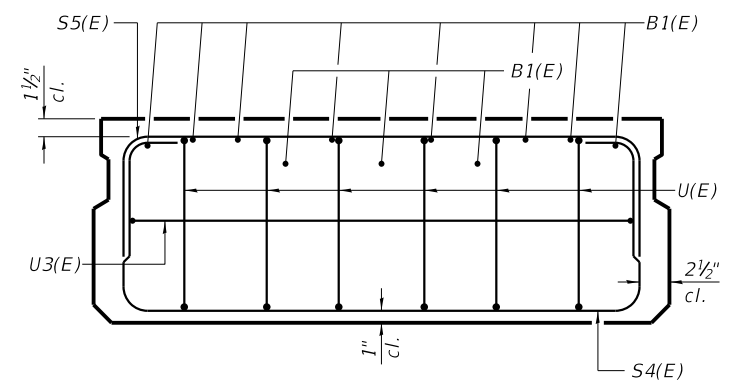
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 17 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



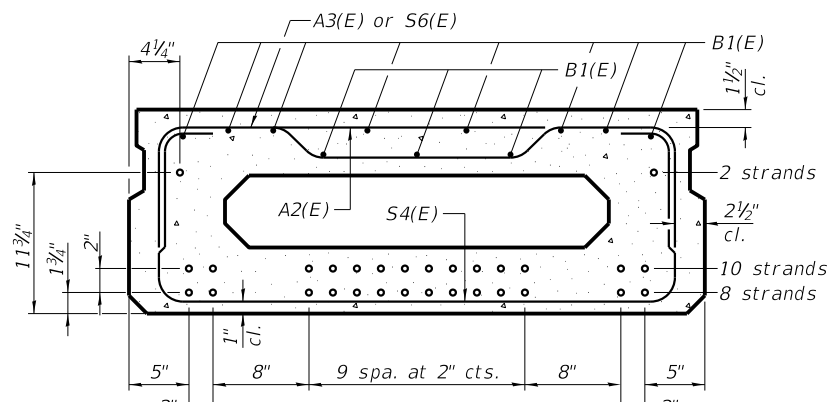
SECTION A-A



SECTION B-B
(Showing dimensions)

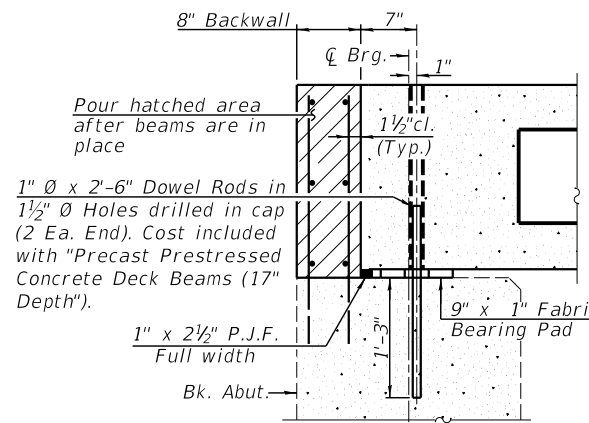


VIEW C-C

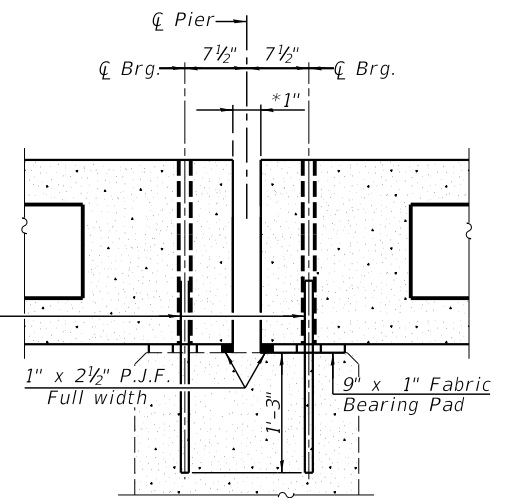


SECTION B-B
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

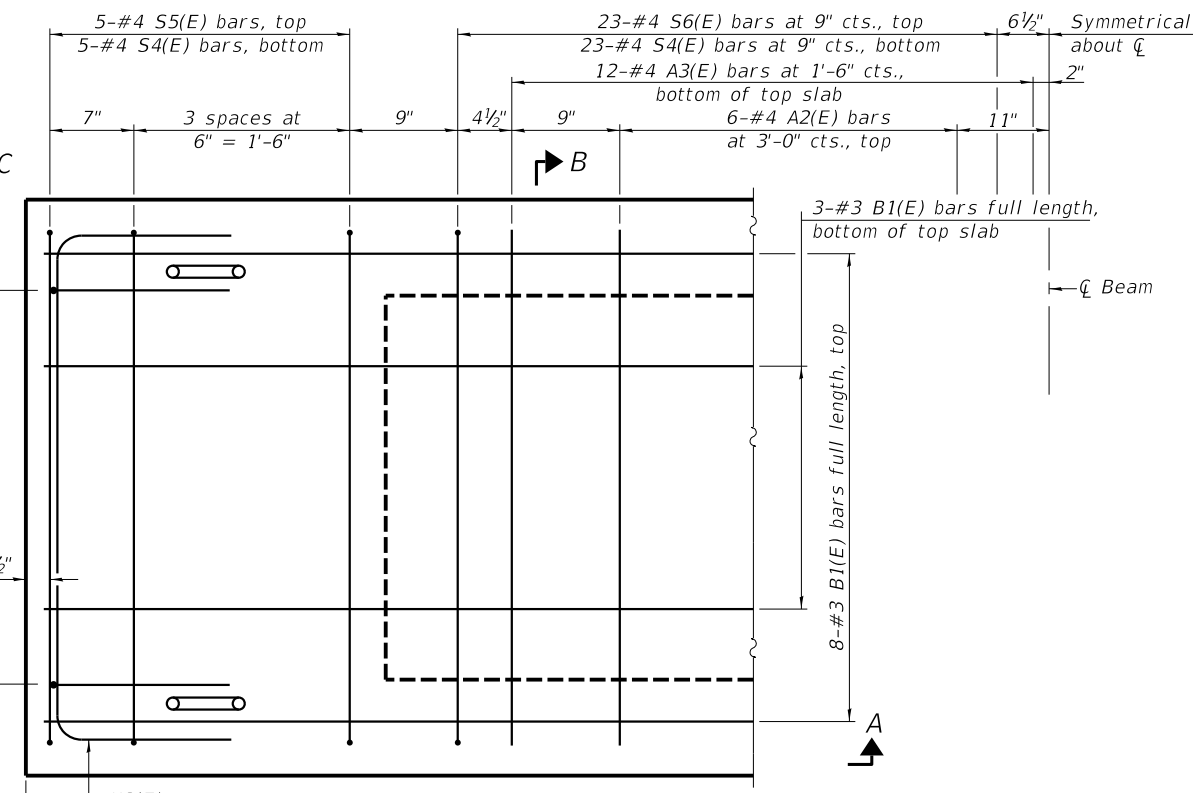


SECTION THRU ABUTMENT
(At Right Angles)

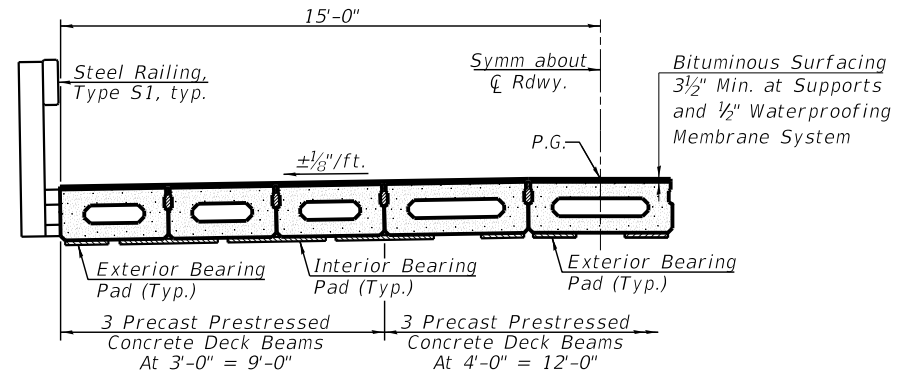


SECTION THRU PIERS 2 & 3
(At Right Angles)

* 1" joint shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam length



PLAN VIEW



PROPOSED BRIDGE CROSS SECTION

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

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| A2(E) | 12 | #4 | 3'-7" | — |
| A3(E) | 24 | #4 | 3'-10" | — |
| B1(E) | 11 | #3 | 39'-9" | — |
| S4(E) | 56 | #4 | 6'-9" | □ |
| S5(E) | 10 | #4 | 5'-3" | □ |
| S6(E) | 46 | #4 | 5'-6" | □ |
| U(E) | 12 | #5 | 3'-8" | □ |
| U3(E) | 2 | #4 | 6'-0" | □ |

Note:
See sheet 10 of 25 for additional details and Bill of Material.

PD-1748-0

1-1-2020

| | | |
|---------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| CHECKED - TRC | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

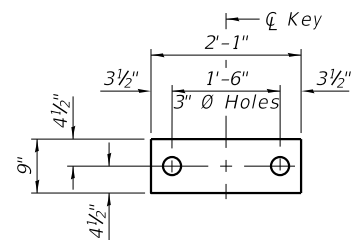


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Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

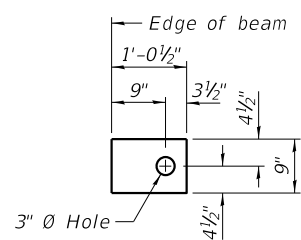
17" x 48" PPC DECK BEAM - SPAN 3
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 9 OF 25 SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 18 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



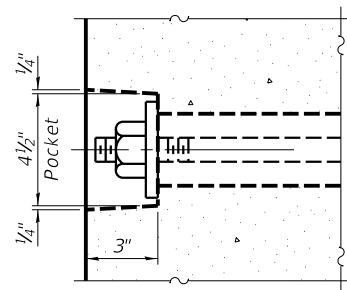
FABRIC BEARING PAD
(Interior)



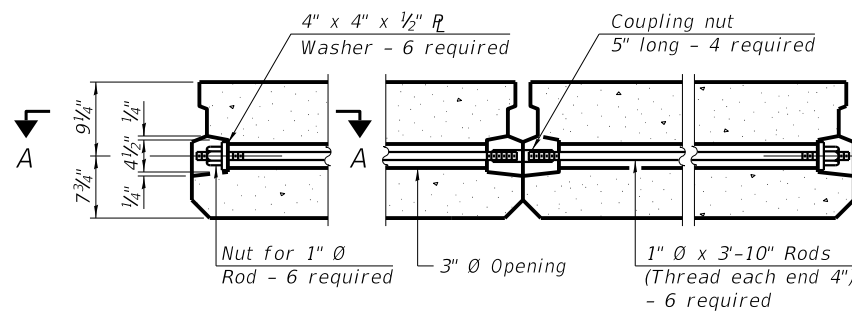
FABRIC BEARING PAD
(Exterior)

FIXED

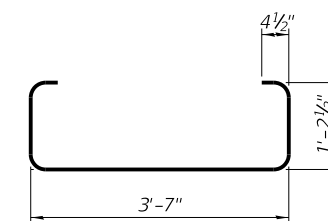
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



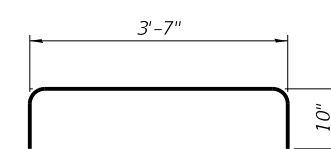
SECTION A-A



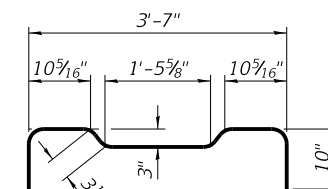
TYPICAL TRANSVERSE TIE ASSEMBLY



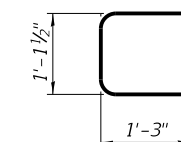
BAR S4(E)



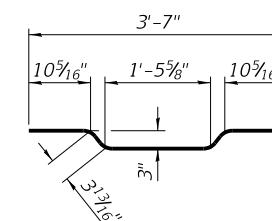
BAR S5(E)



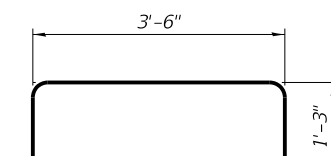
BAR S6(E)



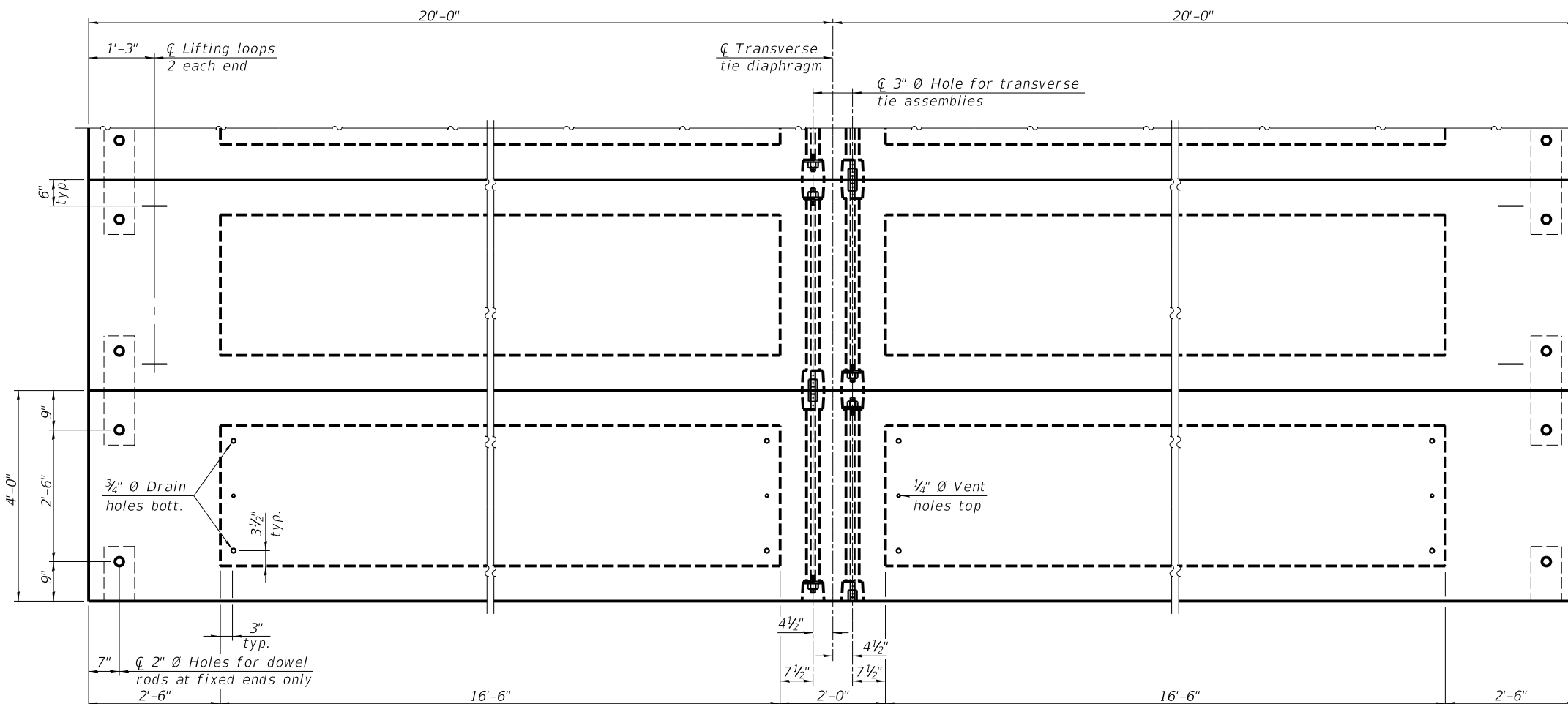
BAR U(E)



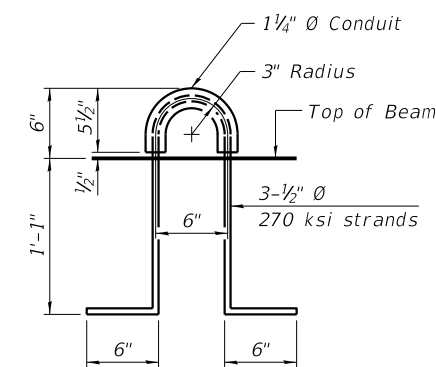
BAR A3(E)



BAR U3(E)



PLAN VIEW



LIFTING LOOP DETAIL

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" diameter 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" diameter 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.

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

BILL OF MATERIAL

| | | |
|---|---------|-----|
| Precast Prestressed Conc. Deck Bms. (17" depth) | Sq. Ft. | 480 |
|---|---------|-----|

PDD-1748-0 1-1-2020

| | | |
|---------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| CHECKED - TRC | REVISOR - | |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

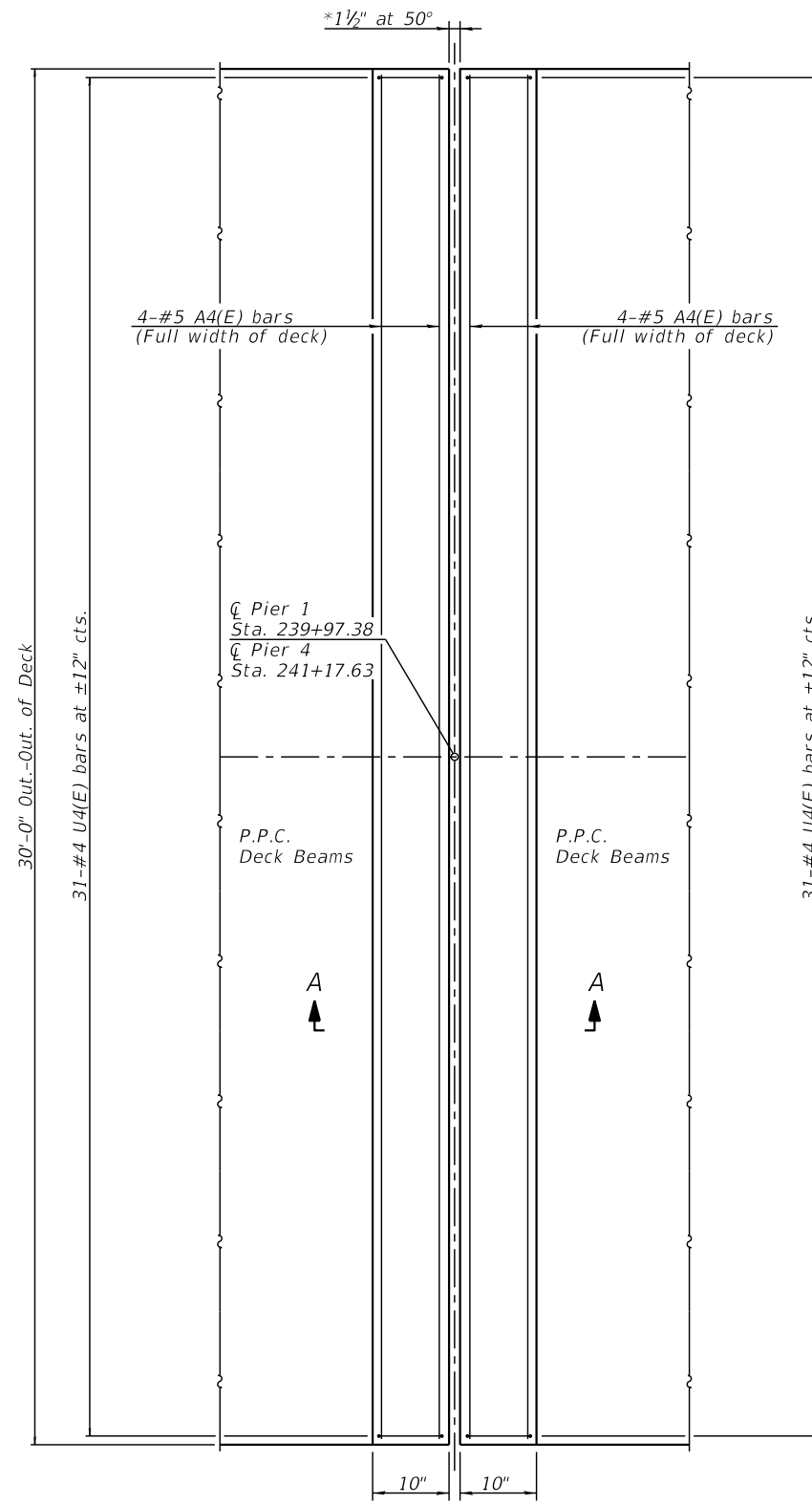


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Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

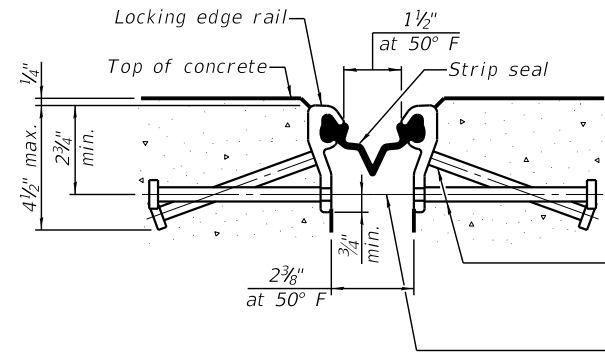
17" x 48" PPC DECK BEAM DETAILS - SPAN 3
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 10 OF 25 SHEETS STA. TO STA.

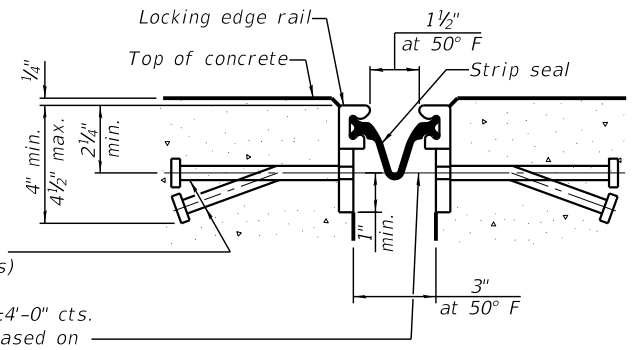
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 19 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



PIER 1 AND PIER 4
PLAN
(Showing Reinforcement)



SHOWING ROLLED RAIL JOINT

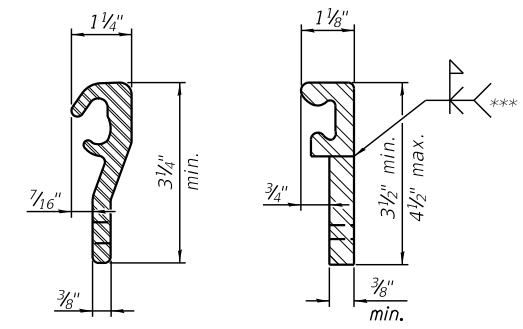


SHOWING WELDED RAIL JOINT

** 5/8" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
3/8" Ø threaded rods in 7/16" Ø holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

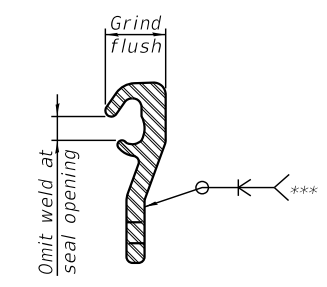
PREFORMED JOINT STRIP SEAL

** Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



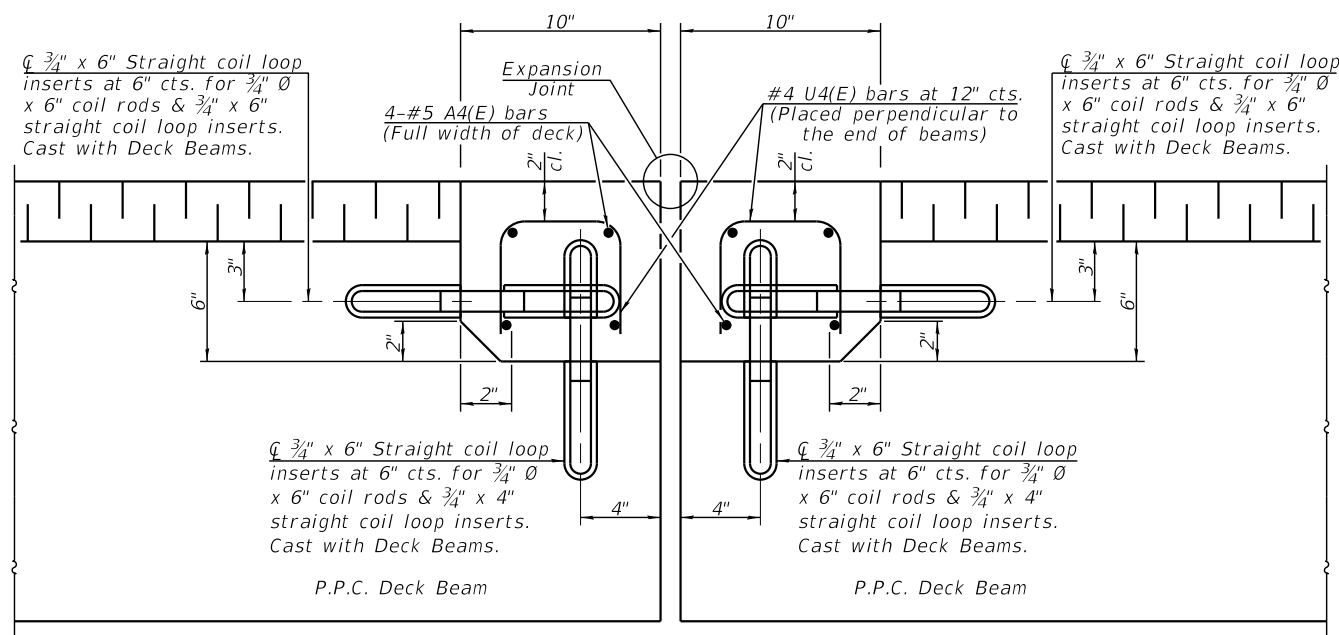
LOCKING EDGE RAILS

*** Back gouge not required if complete joint penetration is verified by mock-up.

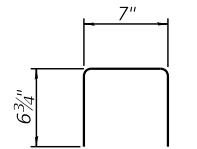


LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



SECTION A-A



BAR U4(E)

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|----------------------------------|-----|------|--------|---------|-----|
| A4(E) | 16 | #5 | 29'-9" | — | |
| U4(E) | 124 | #4 | 1'-8" | U | |
| Concrete Structures | | | | Cu. Yd. | 3.0 |
| Reinforcement Bars, Epoxy Coated | | | | Pound | 640 |
| Preformed Joint Strip Seal | | | | Foot | 120 |

| | | |
|---------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| CHECKED - TRC | REVISIONS - | |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

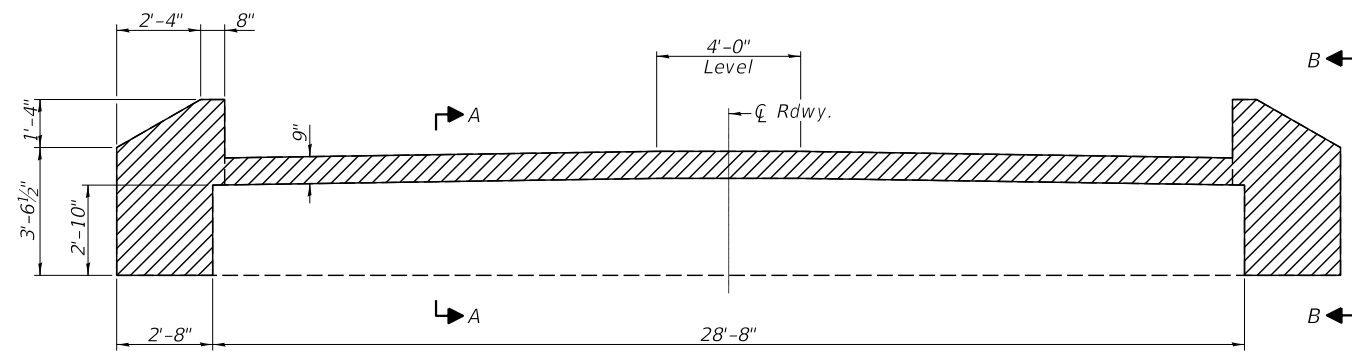


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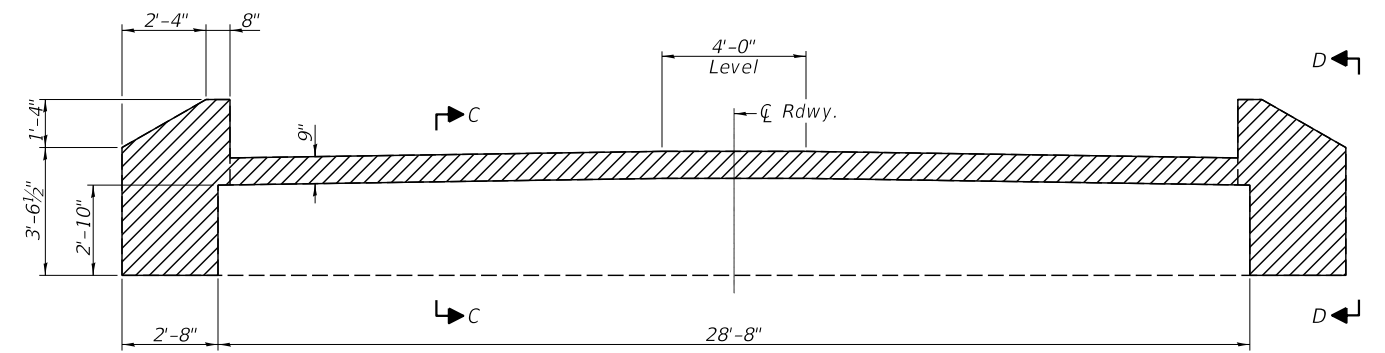
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 11 OF 25 SHEETS STA. TO STA.

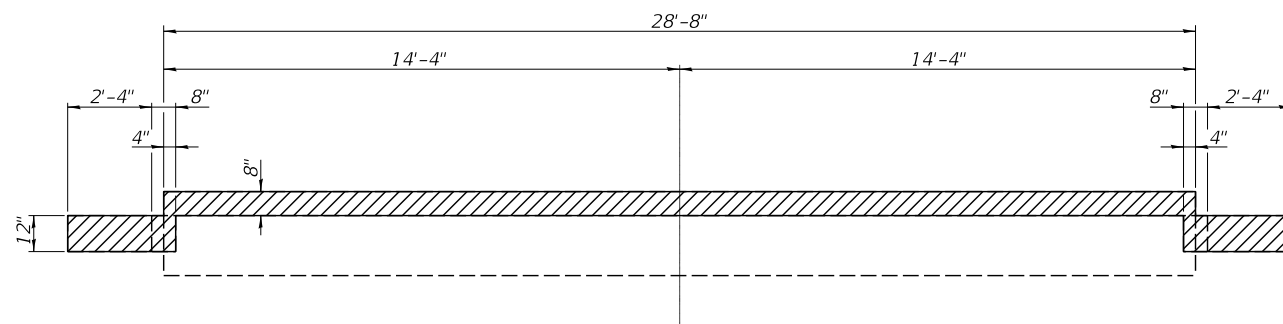
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|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 20 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



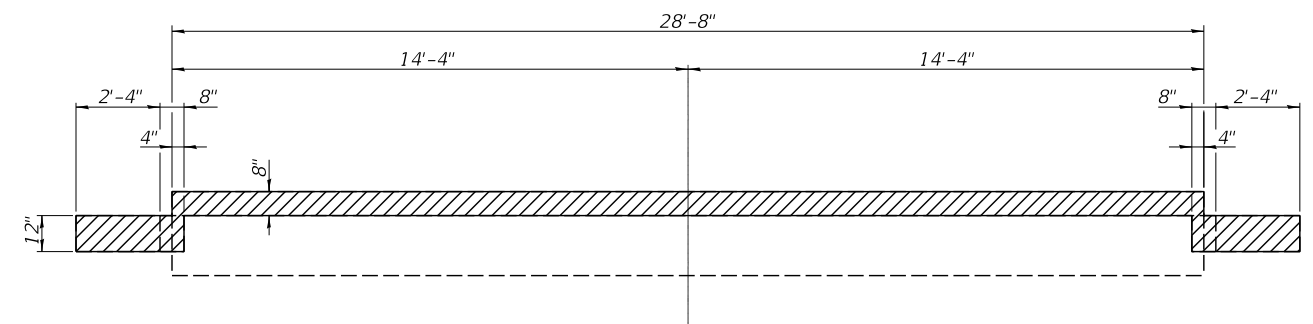
REMOVAL ELEVATION
(North Abutment - Looking North)



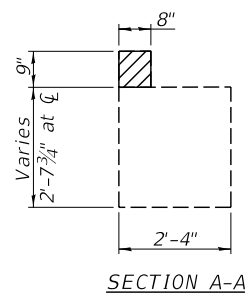
REMOVAL ELEVATION
(South Abutment - Looking South)



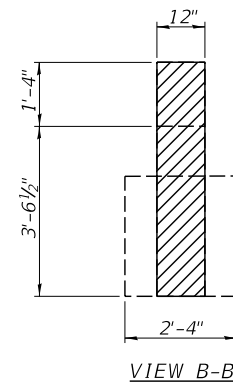
REMOVAL PLAN
(North Abutment)



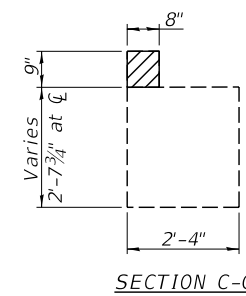
REMOVAL PLAN
(South Abutment)



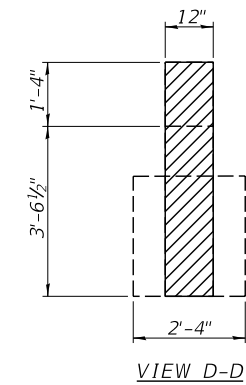
SECTION A-A



VIEW B-B



SECTION C-C



VIEW D-D

- Denotes concrete removal

Notes:
Existing wingwall reinforcement extending from abutment cap to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included with Concrete Removal.

BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------|---------|----------|
| Concrete Removal | Cu. Yd. | 2.9 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

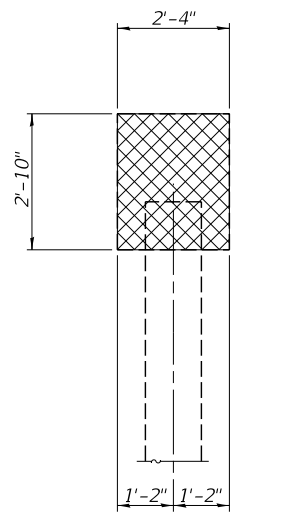


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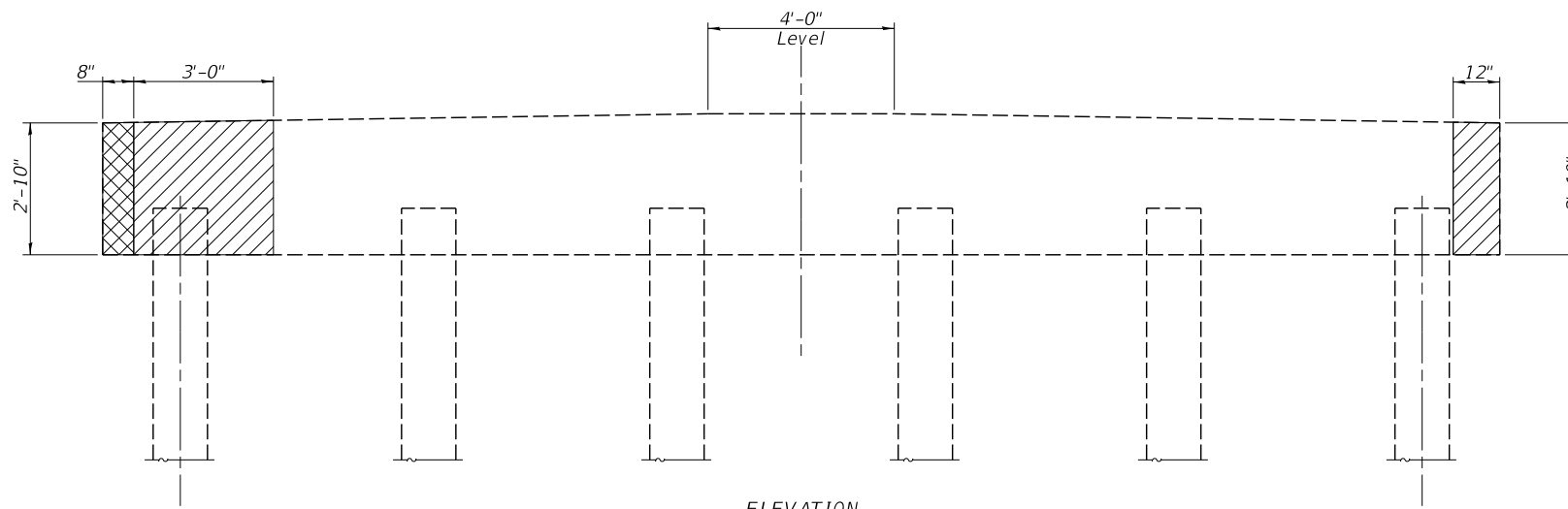
CONCRETE REMOVAL - ABUTMENTS
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 13 OF 25 SHEETS STA. TO STA.

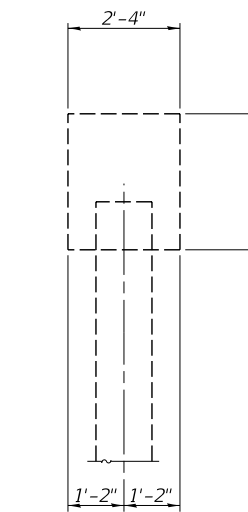
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 22 |
| CONTRACT NO. 93793 | | | | |
| <small>ILLINOIS FED. AID PROJECT</small> | | | | |



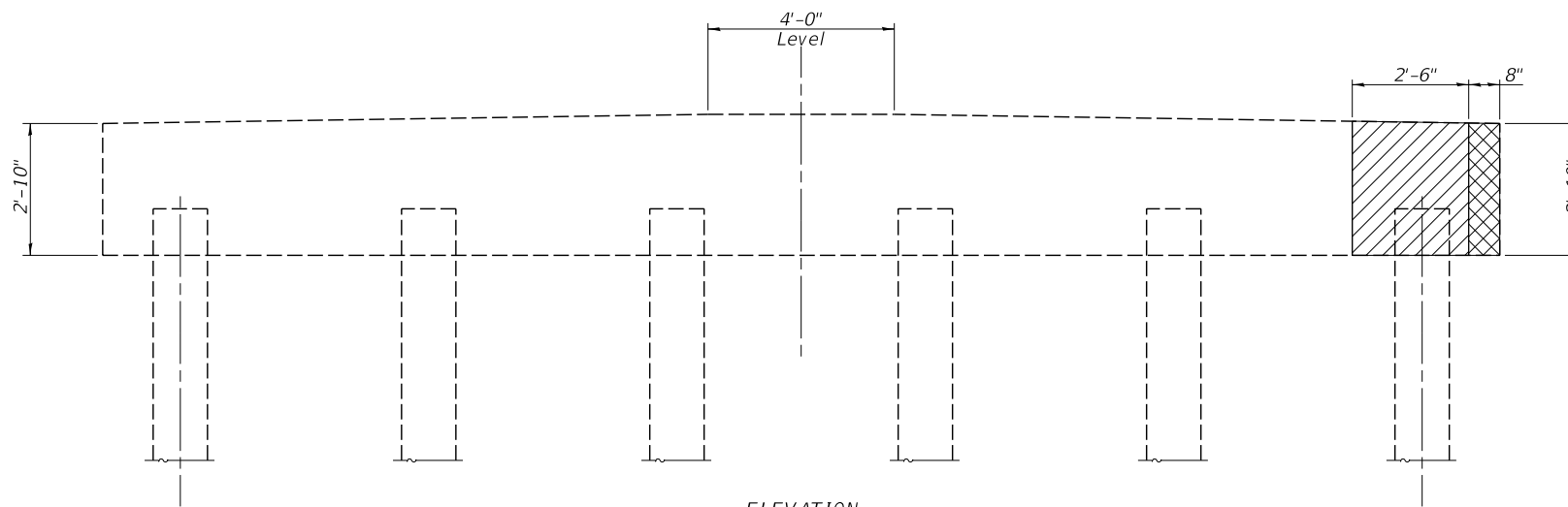
WEST END OF PIER



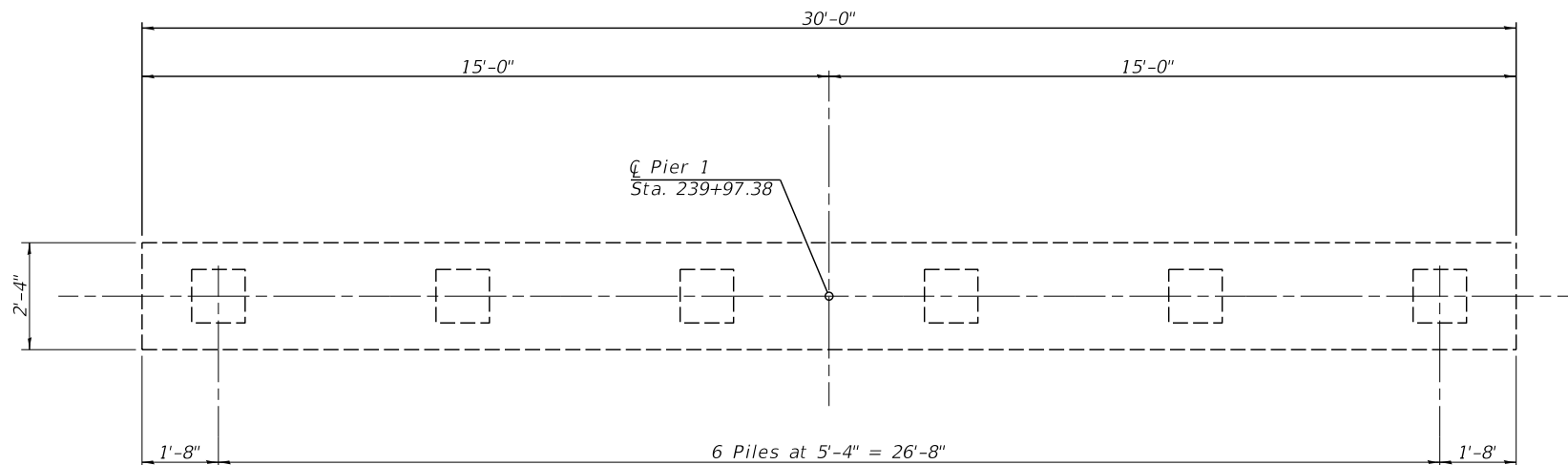
ELEVATION
Looking North



EAST END OF PIER



ELEVATION
Looking South



PLAN

- Structural Repair of Concrete (Depth Equal to or Less Than 5")
- Concrete Removal

Notes:
 Dimensions shown for Concrete Removal and Structural Repair of Concrete are minimums. Concrete shall be removed until solid concrete is encountered.
 Existing reinforcing extending from existing pier cap to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included with Concrete Removal.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Concrete Removal | Cu. Yd. | 0.2 |
| Structural Repair of Concrete (Depth Equal to or Less than 5") | Sq. Ft. | 19 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

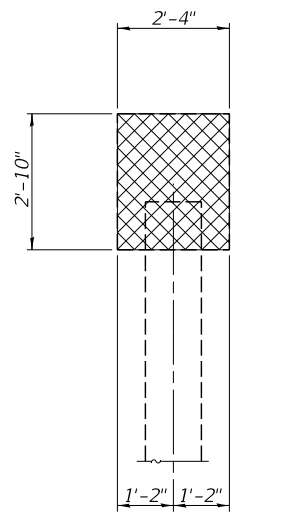


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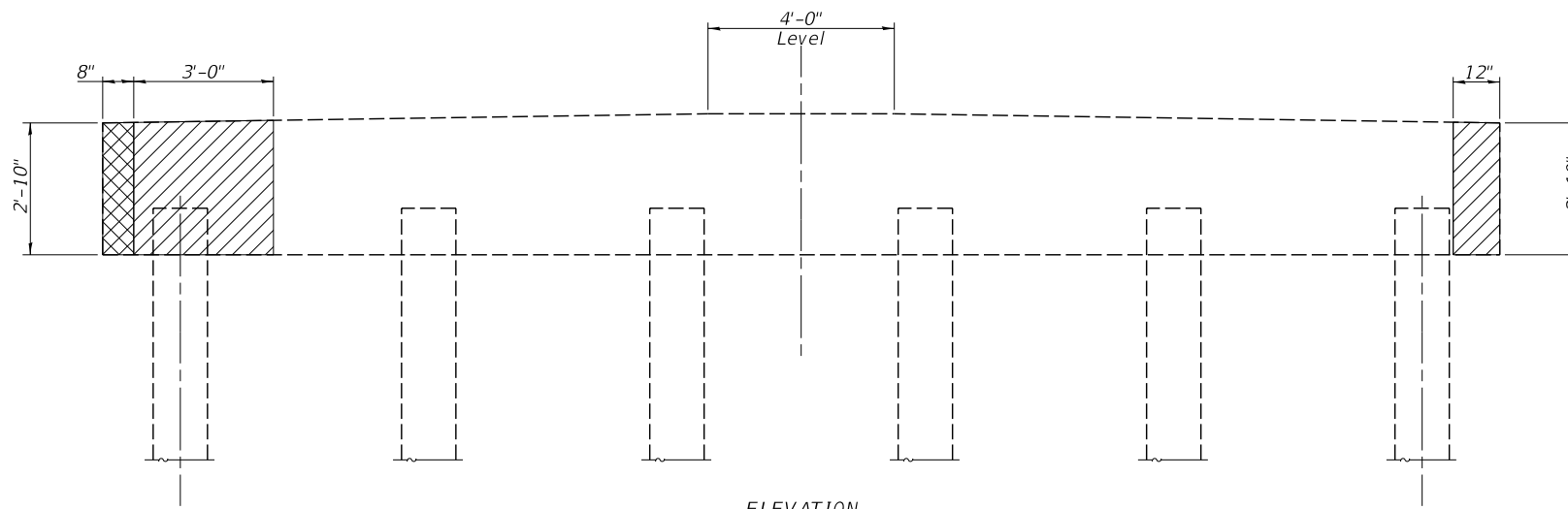
CONCRETE REMOVAL & REPAIR DETAILS - PIER 1
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 14 OF 25 SHEETS STA. TO STA.

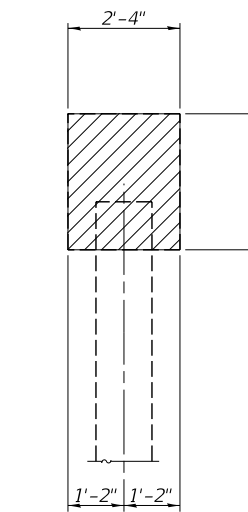
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|--|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 23 |
| CONTRACT NO. 93793 | | | | |
| <small>ILLINOIS FED. AID PROJECT</small> | | | | |



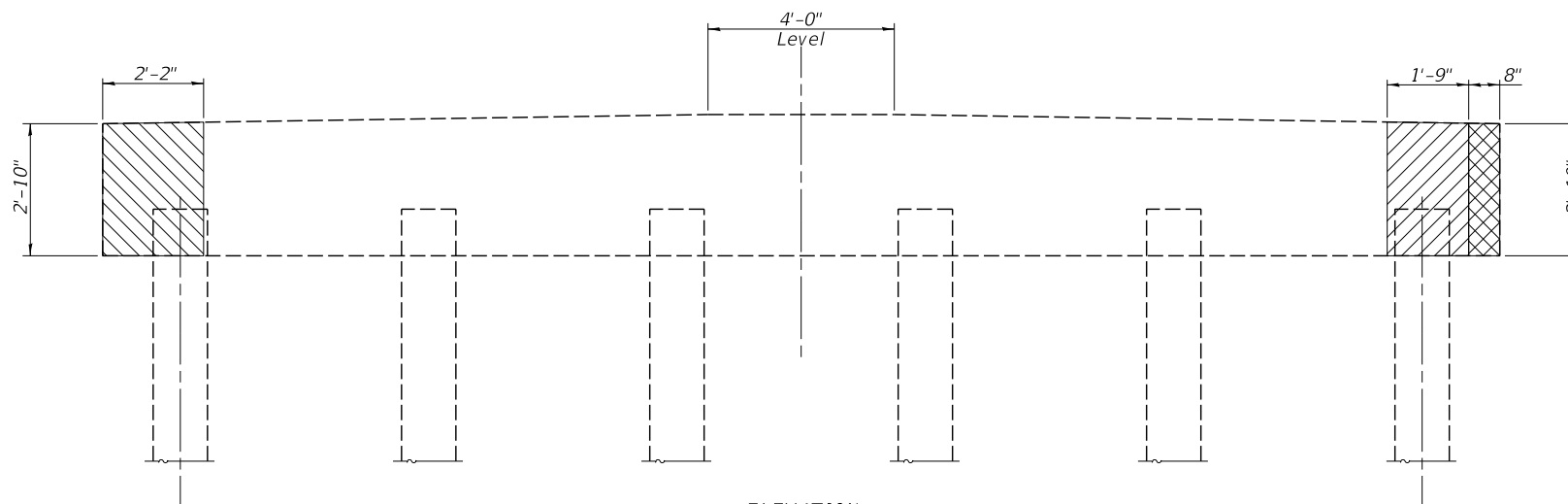
WEST END OF PIER



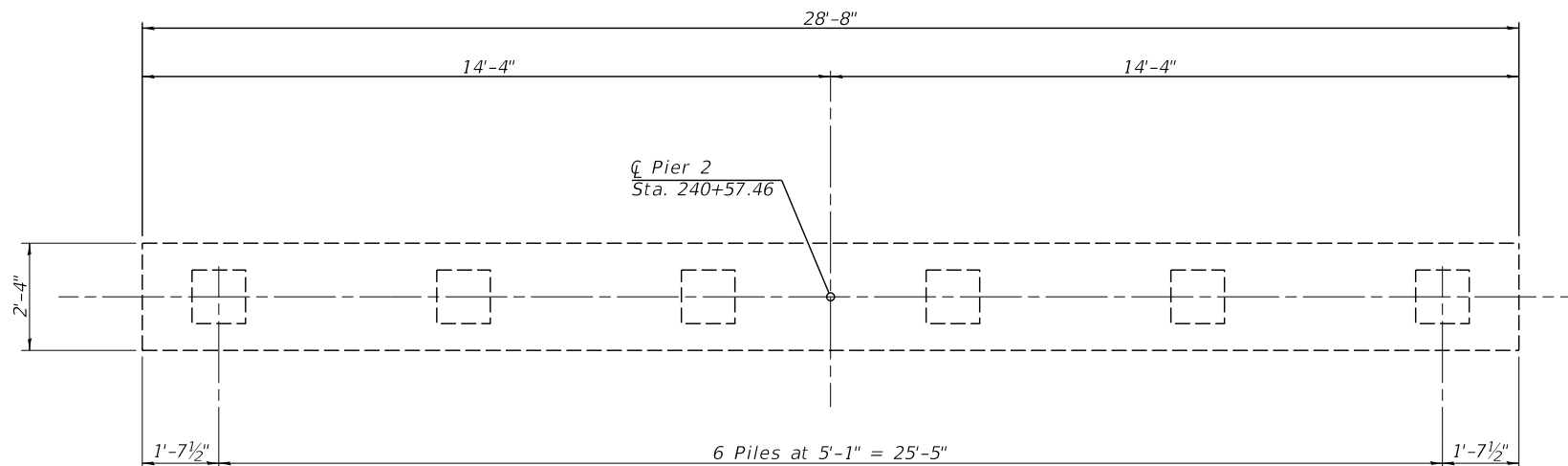
ELEVATION
Looking North



EAST END OF PIER



ELEVATION
Looking South



PLAN

- Structural Repair of Concrete (Depth Equal to or Less Than 5")
- Concrete Removal

Notes:
 Dimensions shown for Concrete Removal and Structural Repair of Concrete are minimums. Concrete shall be removed until solid concrete is encountered.
 Existing reinforcing extending from existing pier cap to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included with Concrete Removal.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Concrete Removal | Cu. Yd. | 0.2 |
| Structural Repair of Concrete (Depth Equal to or Less than 5") | Sq. Ft. | 28 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

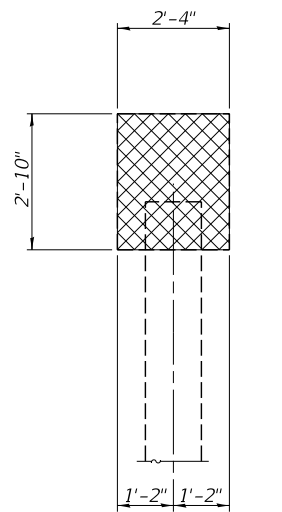


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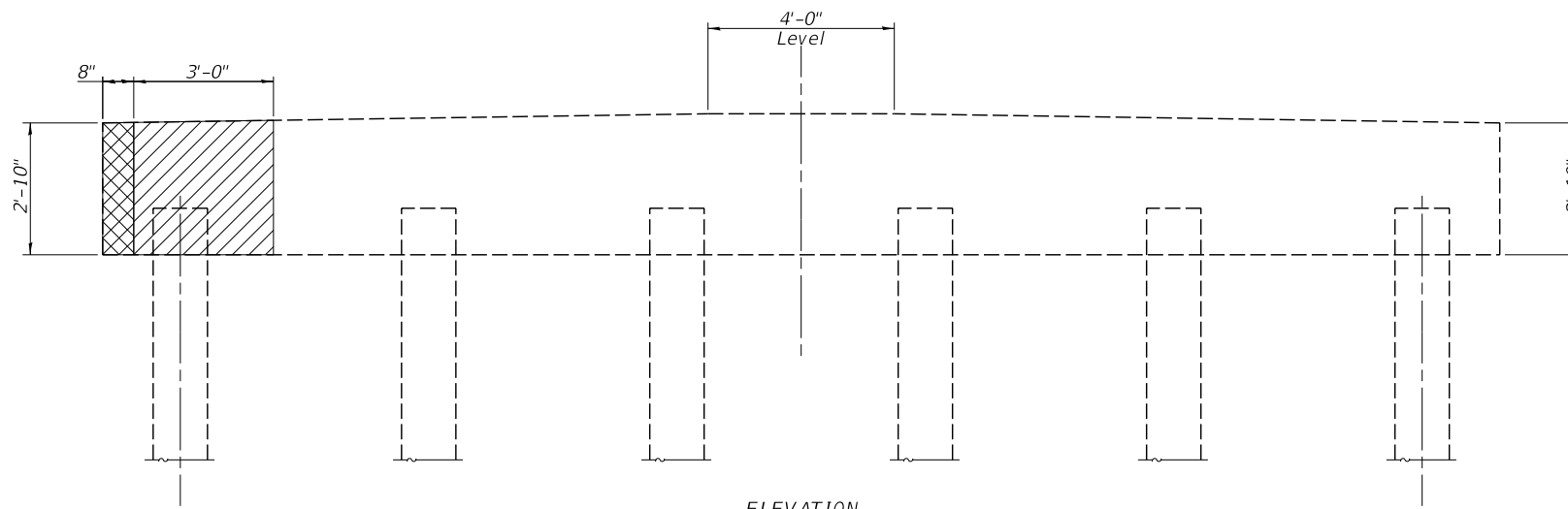
CONCRETE REMOVAL & REPAIR DETAILS - PIER 2
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 15 OF 25 SHEETS STA. TO STA.

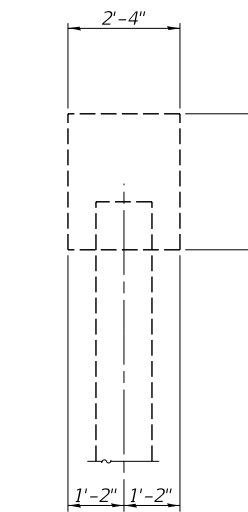
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|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 24 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



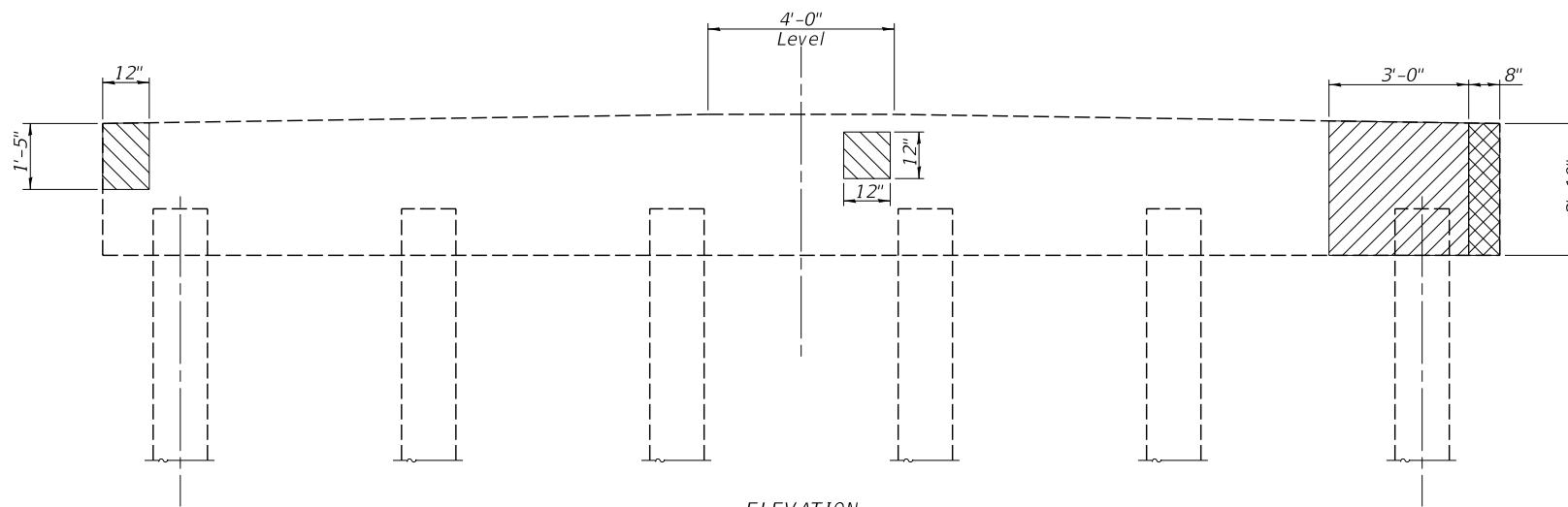
WEST END OF PIER



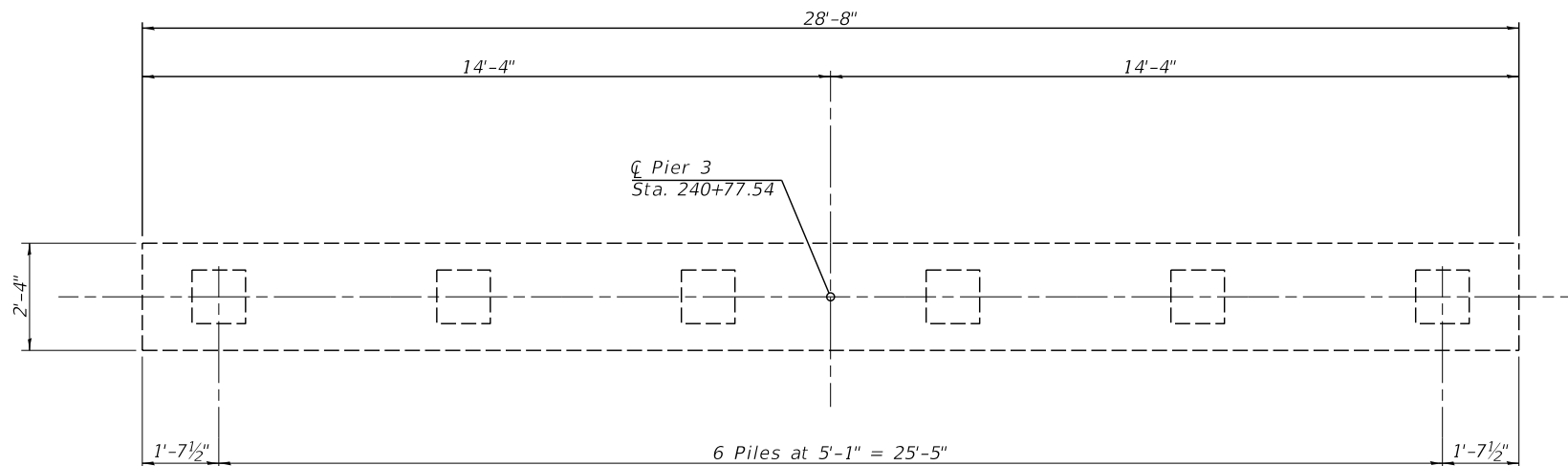
ELEVATION
Looking North



EAST END OF PIER



ELEVATION
Looking South



PLAN

- Structural Repair of Concrete (Depth Equal to or Less Than 5")
- Concrete Removal

Notes:
 Dimensions shown for Concrete Removal and Structural Repair of Concrete are minimums. Concrete shall be removed until solid concrete is encountered.
 Existing reinforcing extending from existing pier cap to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included with Concrete Removal.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Concrete Removal | Cu. Yd. | 0.2 |
| Structural Repair of Concrete (Depth Equal to or Less than 5") | Sq. Ft. | 20 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

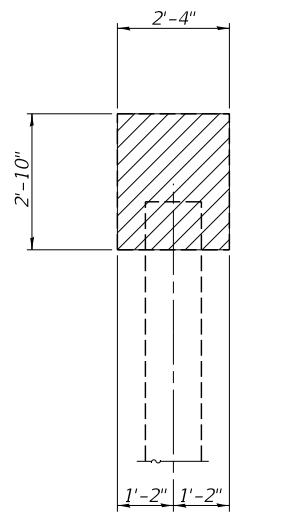


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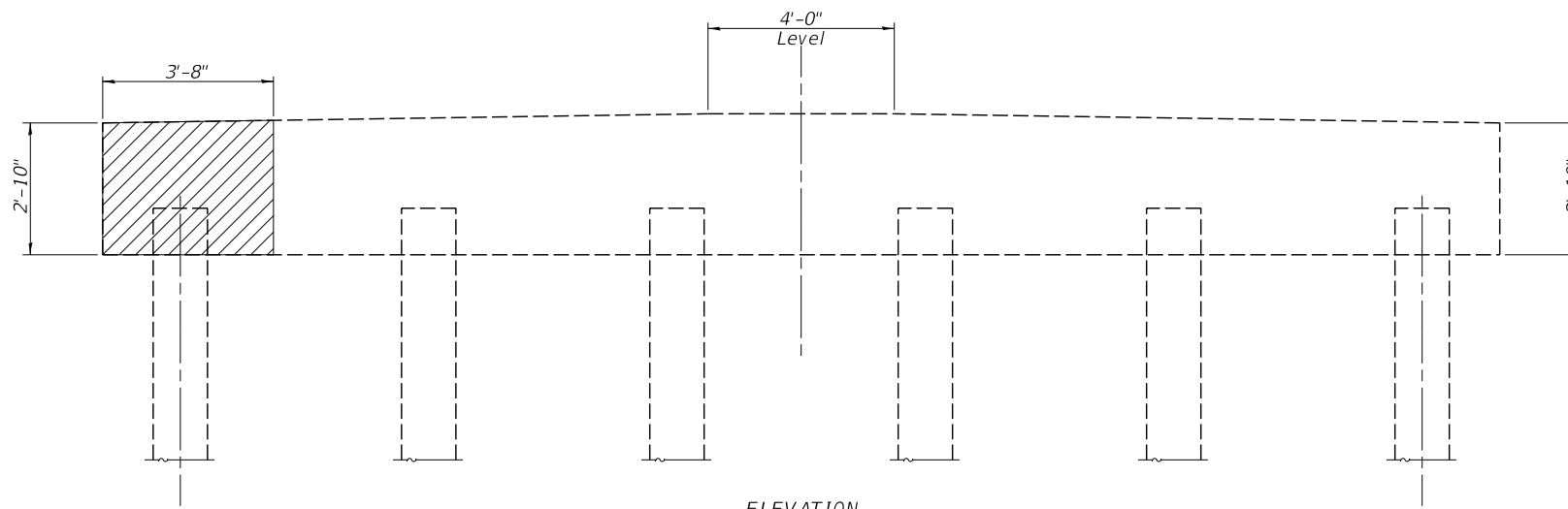
CONCRETE REMOVAL & REPAIR DETAILS - PIER 3
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 16 OF 25 SHEETS STA. TO STA.

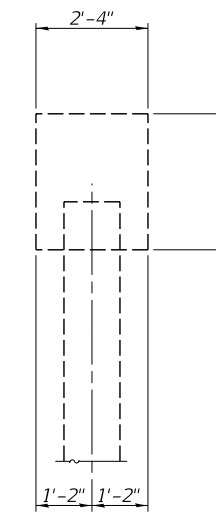
| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 25 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



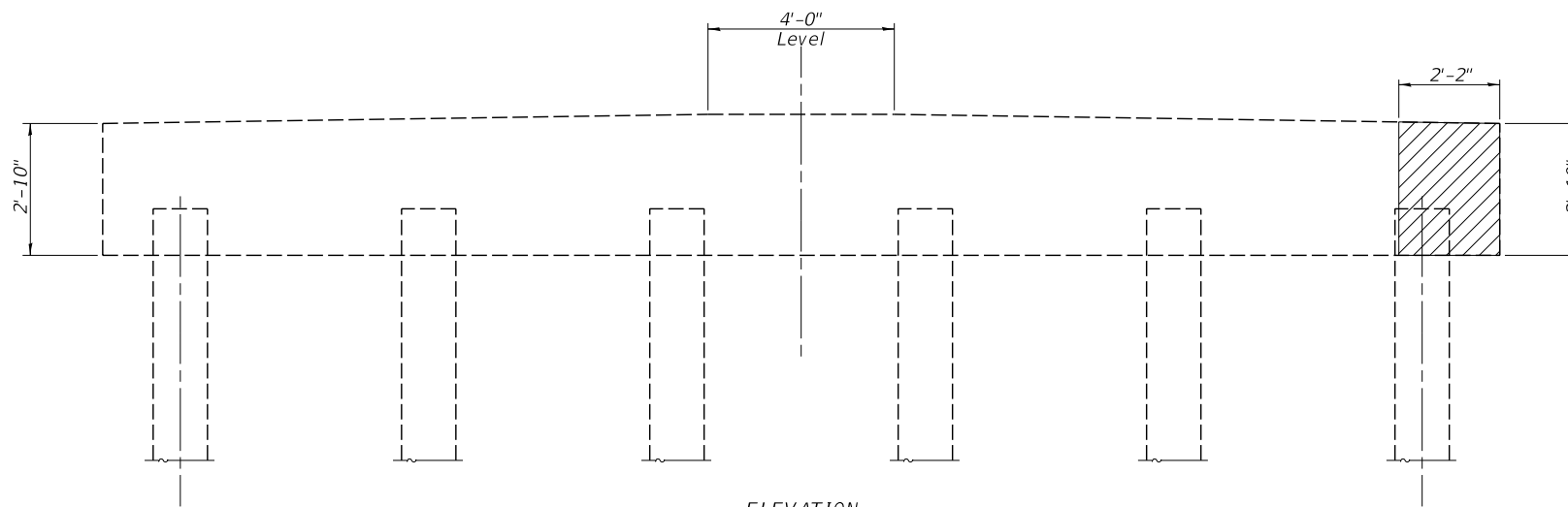
WEST END OF PIER



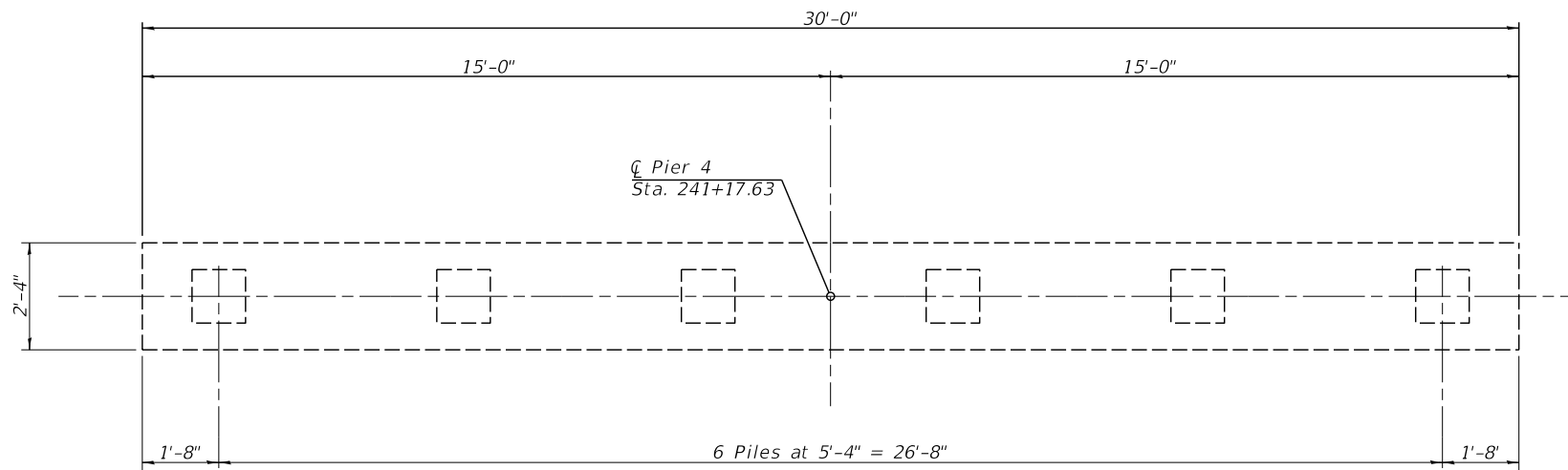
ELEVATION
Looking North



EAST END OF PIER



ELEVATION
Looking South



PLAN

- Structural Repair of Concrete
(Depth Equal to or Less Than 5")

Notes:
Dimensions shown for Concrete Removal and Structural Repair of Concrete are minimums. Concrete shall be removed until solid concrete is encountered.
Existing reinforcing extending from existing pier cap to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included with Concrete Removal.

BILL OF MATERIAL

| Item | Unit | Quantity |
|--|---------|----------|
| Structural Repair of Concrete (Depth Equal to or Less than 5") | Sq. Ft. | 24 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

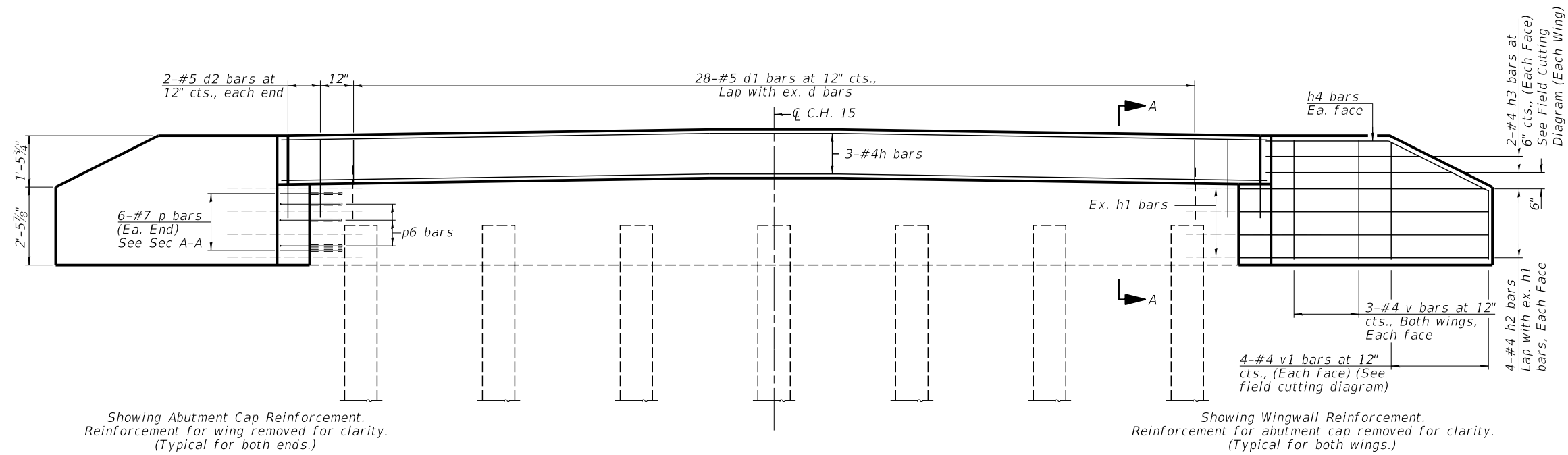


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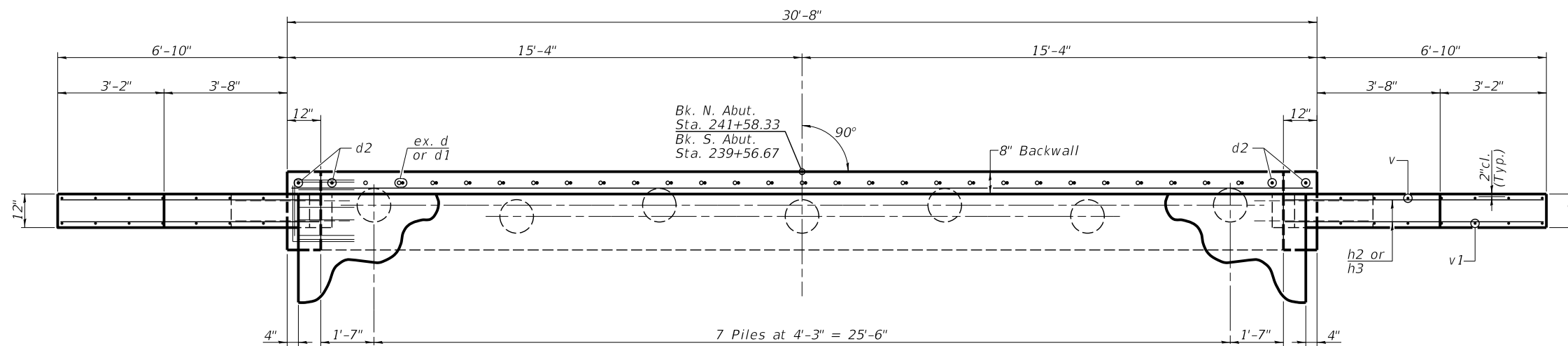
CONCRETE REMOVAL & REPAIR DETAILS - PIER 4
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 17 OF 25 SHEETS STA. TO STA.

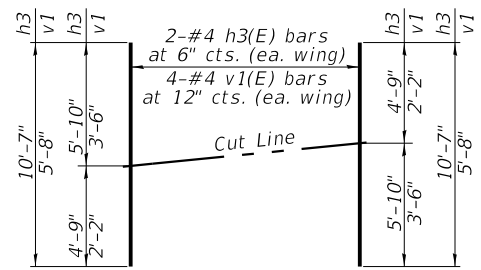
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| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 26 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



ELEVATION

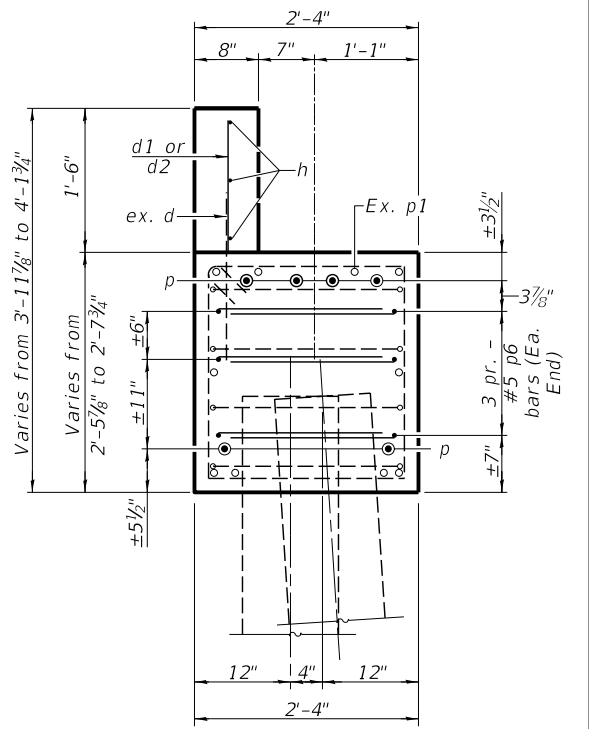
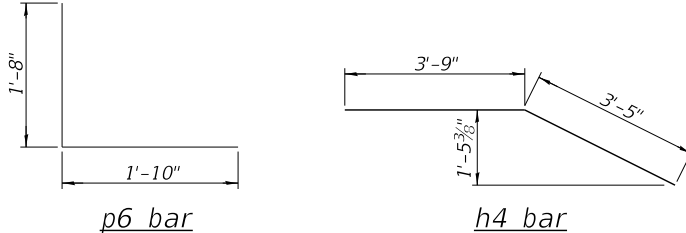


PLAN



FIELD CUTTING DIAGRAM

Order h3 and v1 bars full length. Cut as shown and use remainder of bars in opposite face.



SECTION A-A

BILL OF MATERIAL
2 ABUTMENTS

| Bar | No. | Size | Length | Shape |
|-----------------------|-----|------|---------|-------|
| d1 | 56 | #5 | 1'-4" | — |
| d2 | 8 | #5 | 2'-5" | — |
| h | 6 | #4 | 29'-8" | — |
| h2 | 32 | #4 | 7'-8" | — |
| h3 | 16 | #4 | 10'-7" | — |
| h4 | 8 | #4 | 7'-2" | — |
| p | 24 | #7 | 1'-10" | — |
| p6 | 24 | #5 | 3'-6" | └ |
| v | 24 | #4 | 3'-8" | — |
| v1 | 16 | #4 | 5'-8" | — |
| Structure Excavation | | | Cu. Yd. | 25.1 |
| Concrete Structures | | | Cu. Yd. | 6.9 |
| Reinforcement Bars | | | Pound | 830 |
| Cleaning Bridge Seats | | | Sq. Ft. | 144 |

Notes:

Epoxy grout d2, p & p6 bars into top of existing abutment pile cap per manufacturer's recommendation according to Section 584 of the Standard Specifications. Cost included in unit price for Reinforcement Bars.

Minimum embedment depth for d2, p & p6 bars is 12".

Existing h1 bars extending from existing abutment to be incorporated into new construction. Reinforcement shall be cleaned and straightened. Cost included in unit price for Concrete Removal.

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |

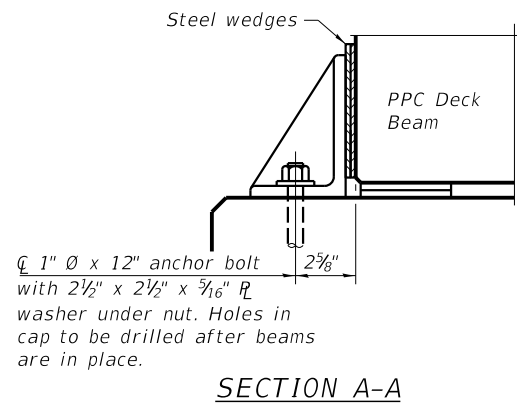
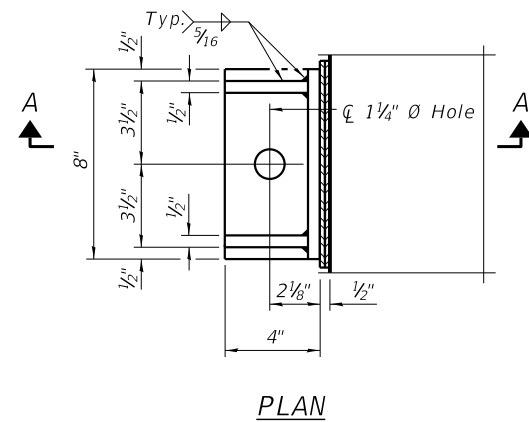
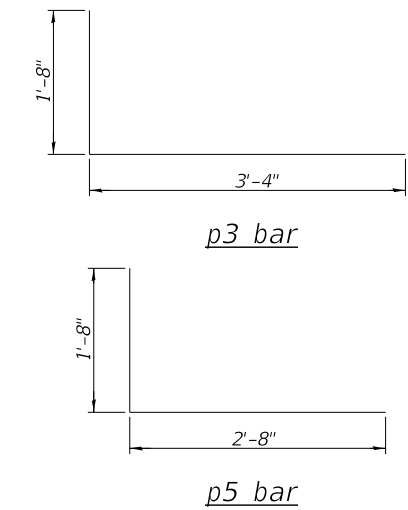
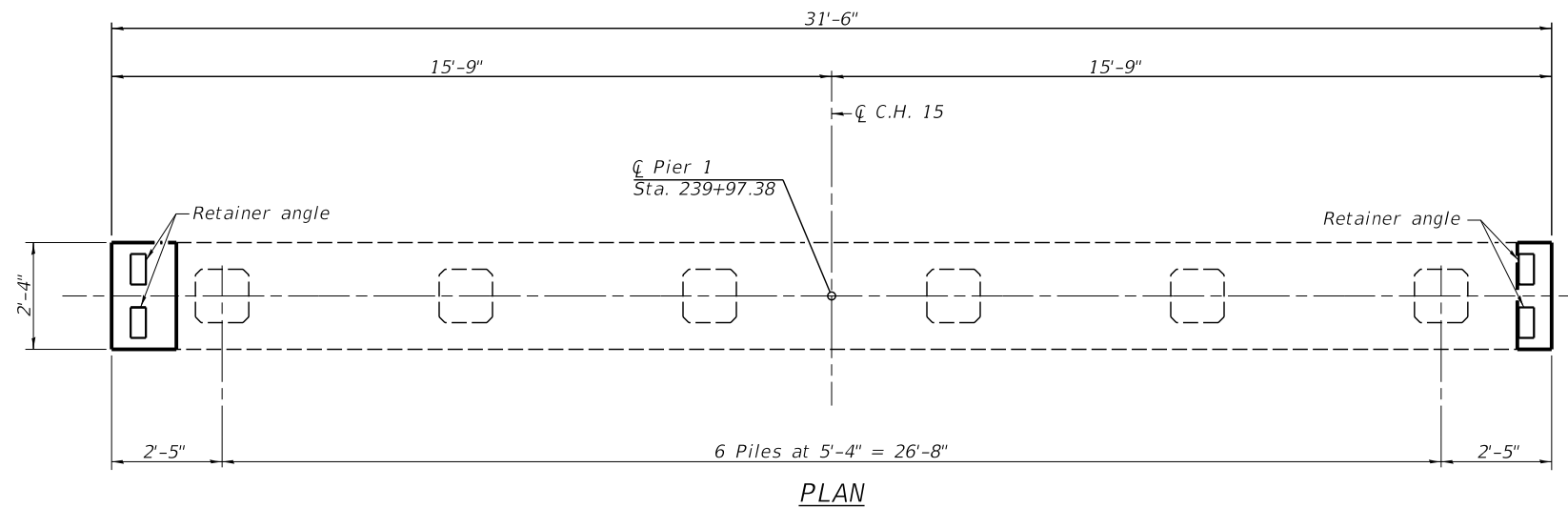
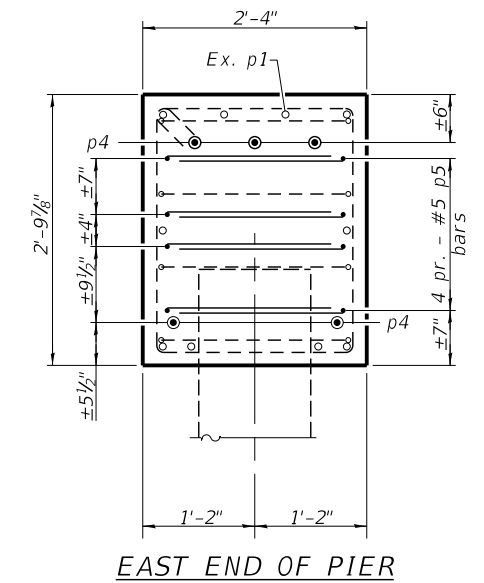
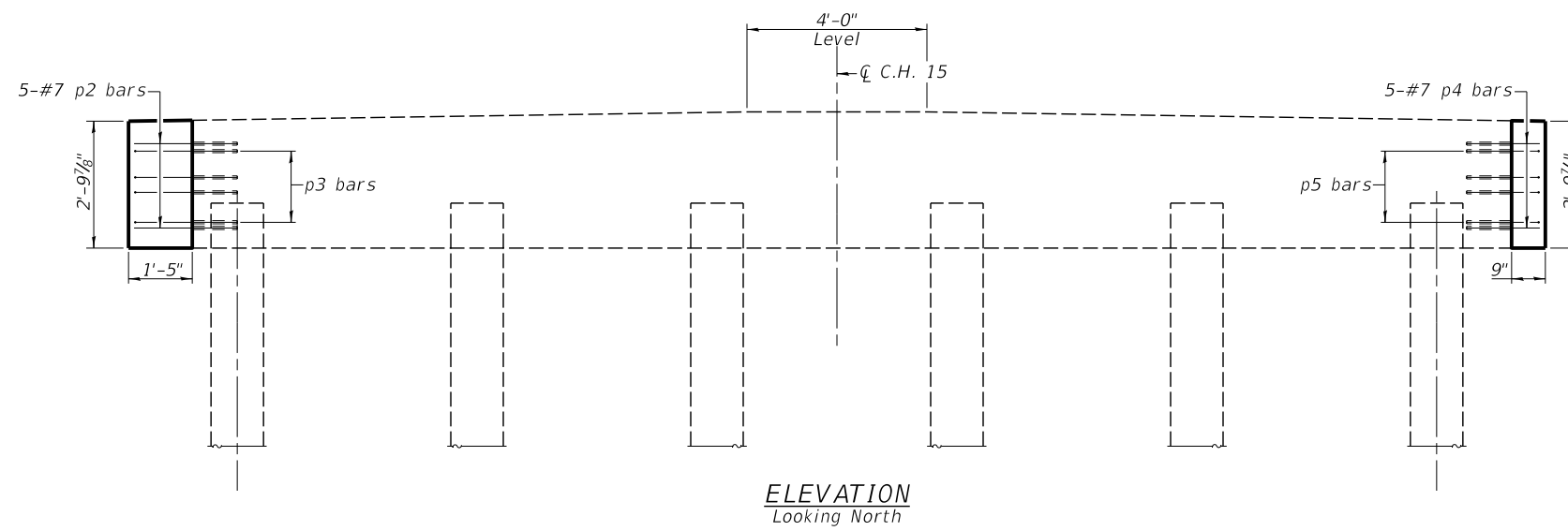
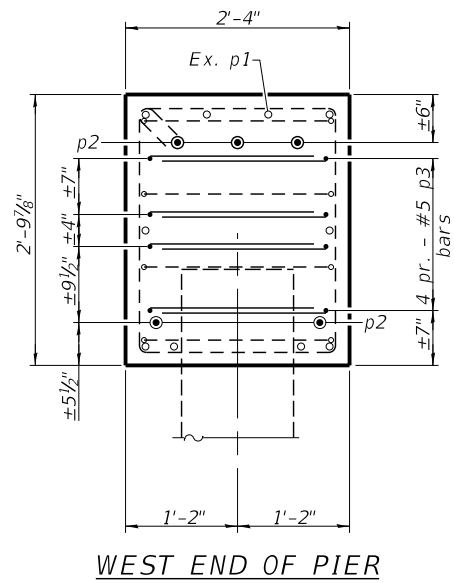


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IL. Design Firm No. 184-001939

ABUTMENTS
STRUCTURE NO. 054-3028

SCALE: SHEET NO. 18 OF 25 SHEETS STA. TO STA.

| | | | | |
|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 27 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



Notes:

- Epoxy grout p2, p3, p4, and p5 bars into top of existing pier pile cap per manufacturer's recommendation according to Section 584 of the Standard Specifications. Cost included in unit price for Reinforcement Bars.
- Minimum embedment depth for p2, p3, p4, and p5 bars is 12".
- An additional 12" has been added to the embedment length of the reinforcement bars to account for the need to remove more concrete than is shown on the plans.
- Field cut reinforcement to meet embedment depth and clear cover.
- Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.
- Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
- The side retainers shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM 385.
- Anchor bolts and plate washers shall be galvanized according to AASHTO M 232.
- After the notch or concrete overlay are poured and cured, the steel wedges shall be removed.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|------------------------------|-----|------|--------|---------|-----|
| p2 | 5 | #7 | 3'-4" | — | |
| p3 | 8 | #5 | 5'-0" | L | |
| p4 | 5 | #7 | 2'-8" | — | |
| p5 | 8 | #5 | 4'-4" | L | |
| Concrete Structures | | | | Cu. Yd. | 0.5 |
| Reinforcement Bars | | | | Pound | 140 |
| Asbestos Bearing Pad Removal | | | | Each | 28 |
| Cleaning Bridge Seats | | | | Sq. Ft. | 74 |

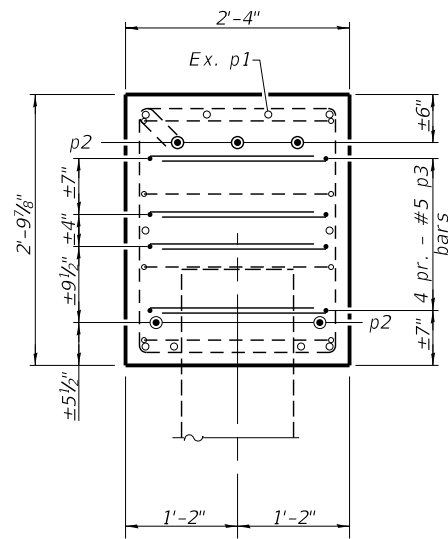
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|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |



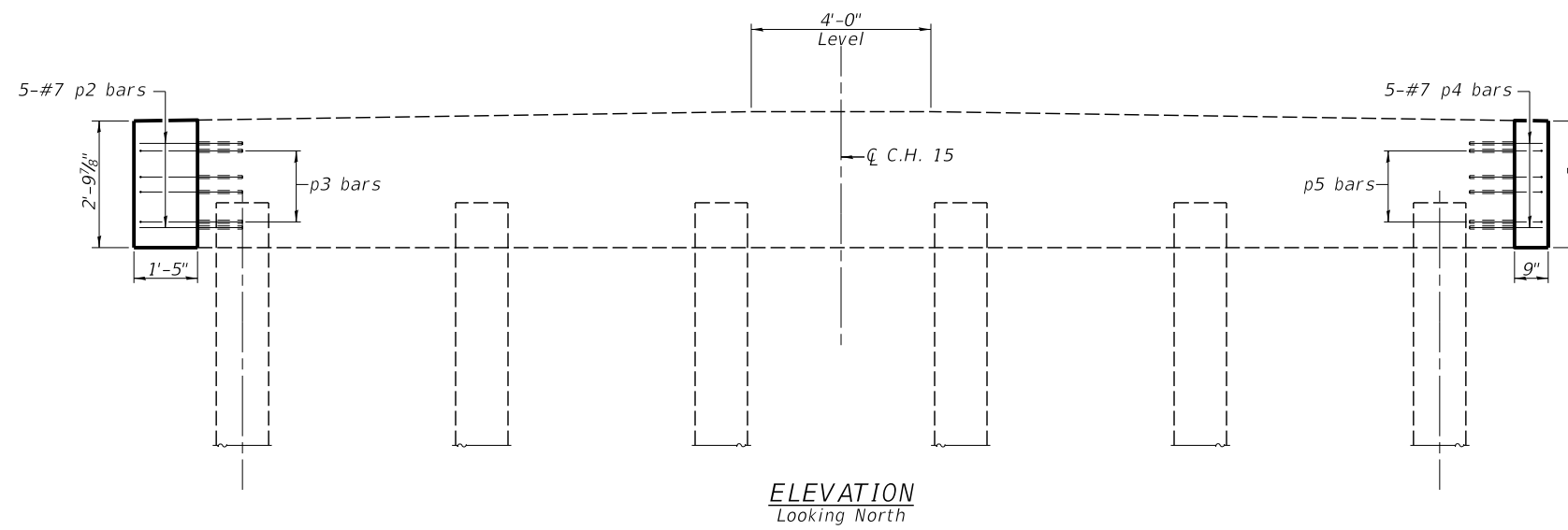
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IL. Design Firm No. 184-001939

PIER 1
STRUCTURE NO. 054-3028
SCALE: SHEET NO. 19 OF 25 SHEETS STA. TO STA.

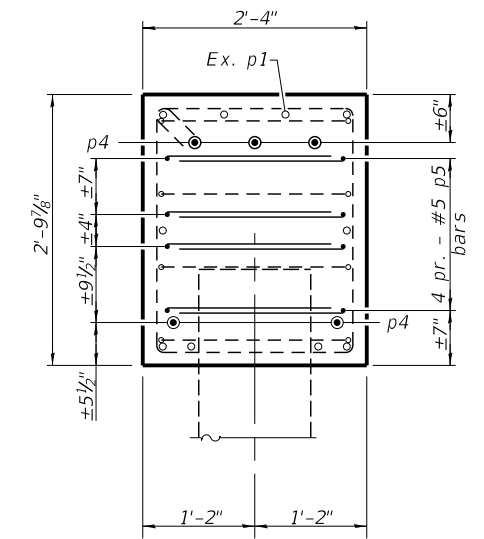
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|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 28 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



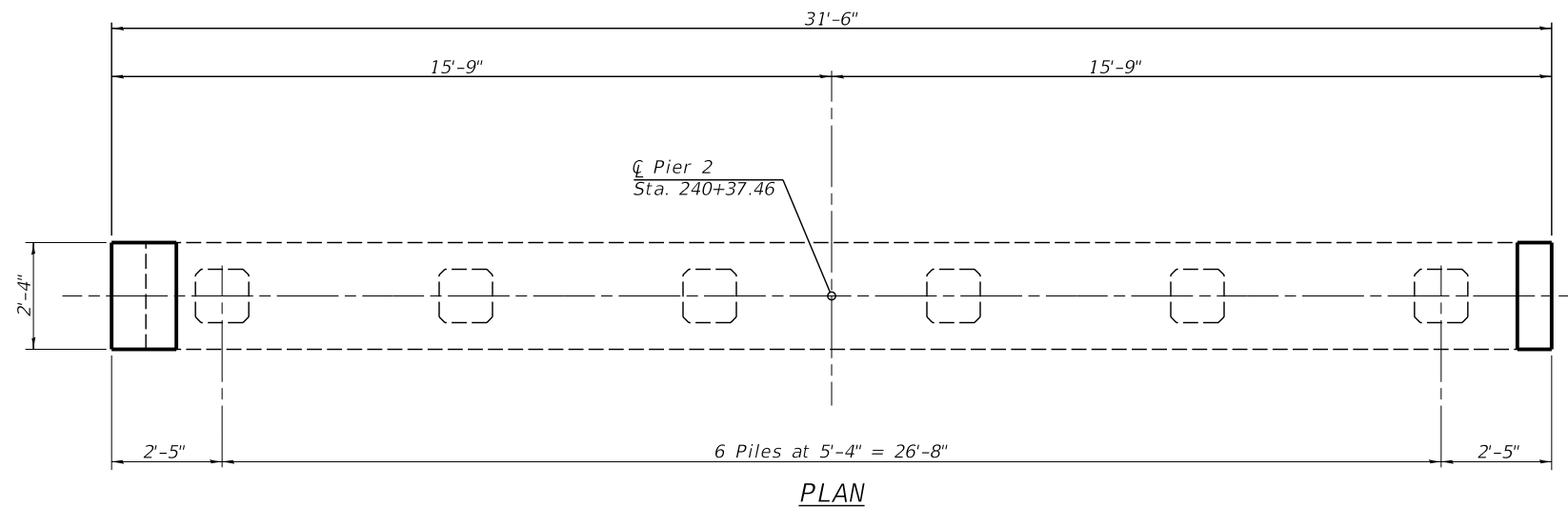
WEST END OF PIER



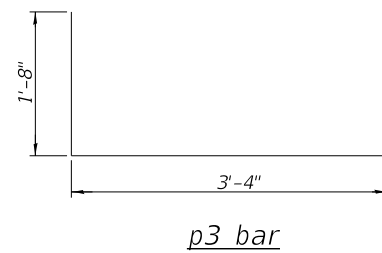
ELEVATION
Looking North



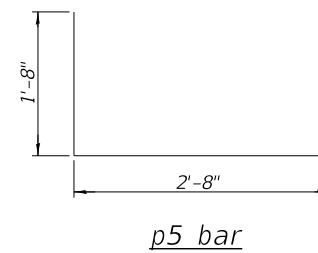
EAST END OF PIER



PLAN



p3 bar



p5 bar

Notes:

Epoxy grout p2, p3, p4, and p5 bars into top of existing pier pile cap per manufacturer's recommendation according to Section 584 of the Standard Specifications. Cost included in unit price for Reinforcement Bars.
Minimum embedment depth for p2, p3, p4, and p5 bars is 12".
An additional 12" has been added to the embedment length of the reinforcement bars to account for the need to remove more concrete than is shown on the plans. Field cut reinforcement to meet embedment depth and clear cover.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape | |
|-----------------------|-----|------|--------|---------|-----|
| p2 | 5 | #7 | 3'-4" | — | |
| p3 | 8 | #5 | 5'-0" | L | |
| p4 | 5 | #7 | 2'-8" | — | |
| p5 | 8 | #5 | 4'-4" | L | |
| Concrete Structures | | | | Cu. Yd. | 0.5 |
| Reinforcement Bars | | | | Pound | 140 |
| Cleaning Bridge Seats | | | | Sq. Ft. | 74 |

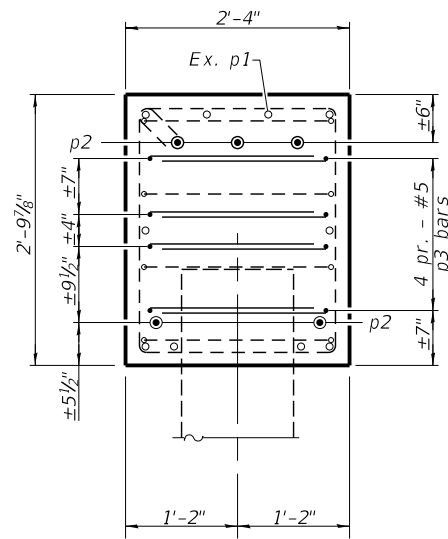
| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |



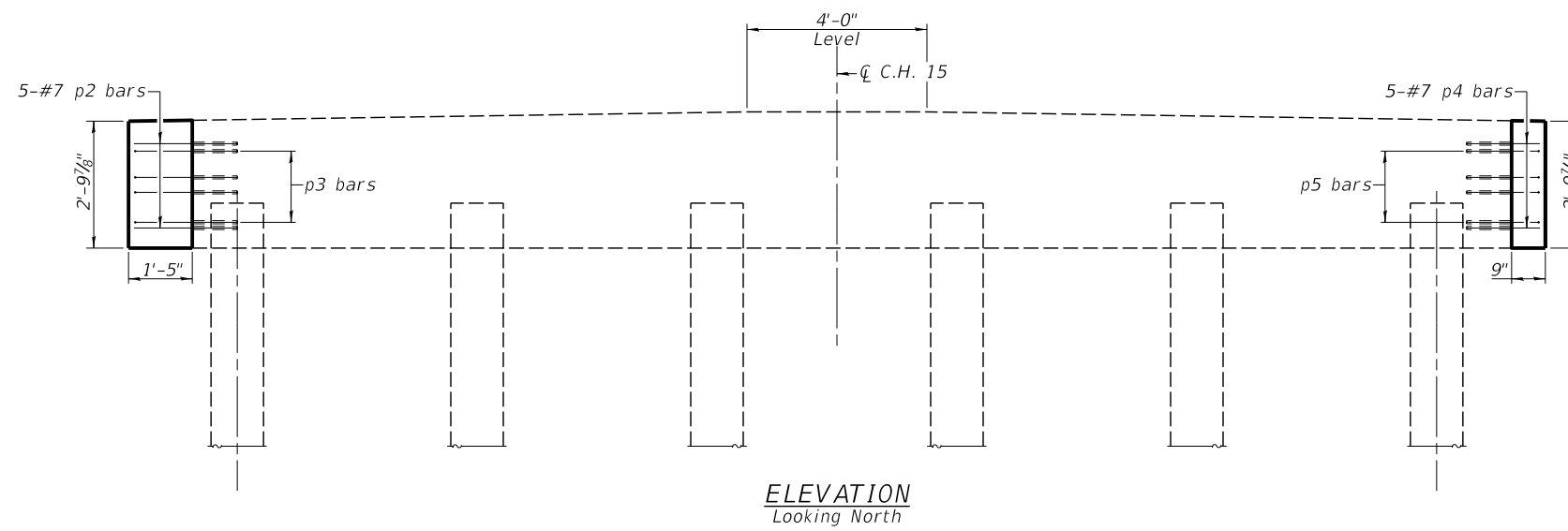
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

PIER 2
STRUCTURE NO. 054-3028
SCALE: SHEET NO. 20 OF 25 SHEETS STA. TO STA.

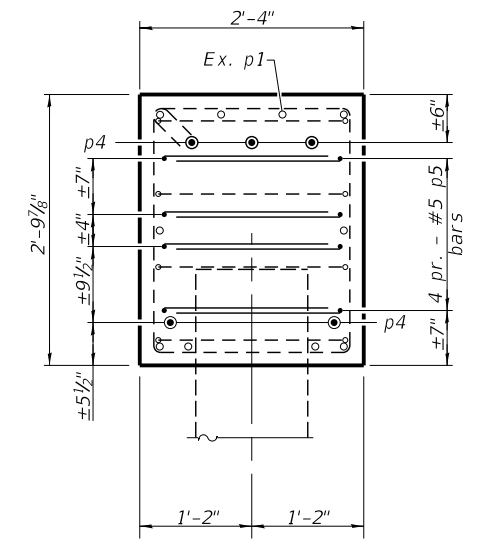
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 29 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



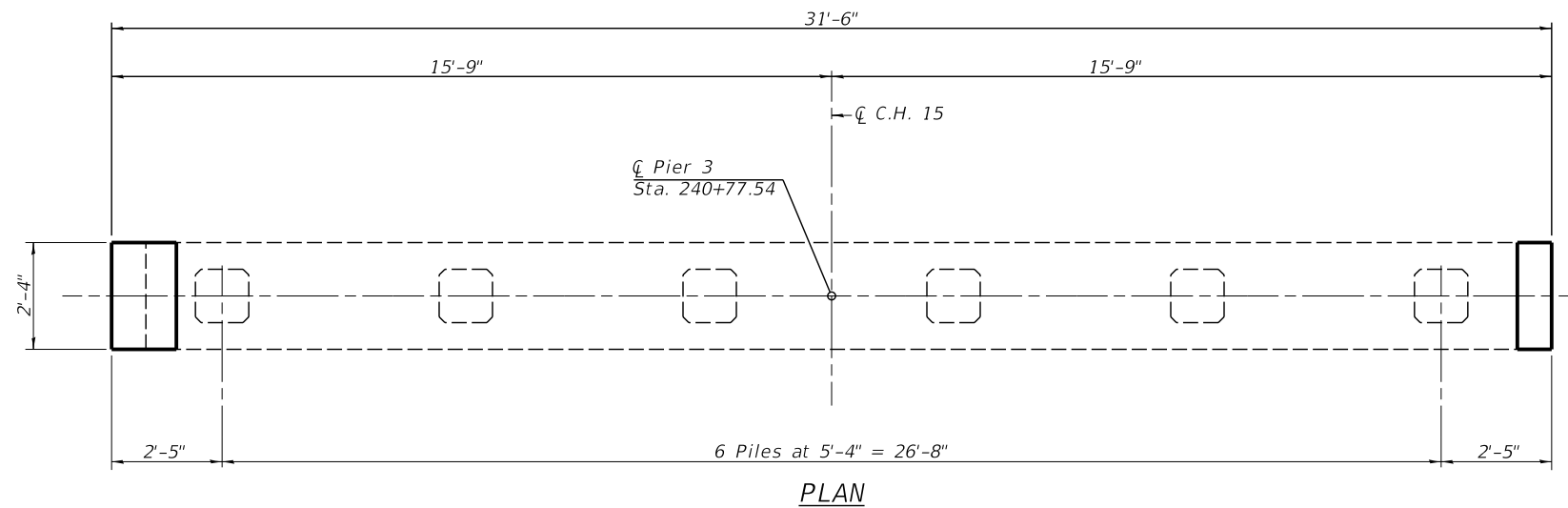
WEST END OF PIER



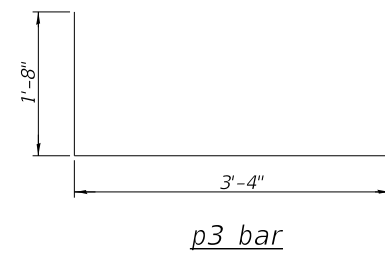
ELEVATION
Looking North



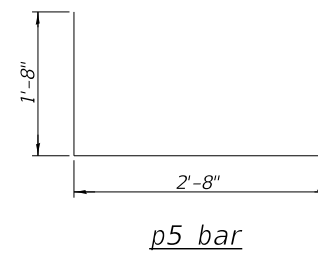
EAST END OF PIER



PLAN



p3 bar



p5 bar

Notes:
Epoxy grout p2, p3, p4, and p5 bars into top of existing pier pile cap per manufacturer's recommendation according to Section 584 of the Standard Specifications. Cost included in unit price for Reinforcement Bars.
Minimum embedment depth for p2, p3, p4, and p5 bars is 12".
An additional 12" has been added to the embedment length of the reinforcement bars to account for the need to remove more concrete than is shown on the plans.
Field cut reinforcement to meet embedment depth and clear cover.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-----------------------|-----|------|---------|-------|
| p2 | 5 | #7 | 3'-4" | — |
| p3 | 8 | #5 | 5'-0" | L |
| p4 | 5 | #7 | 2'-8" | — |
| p5 | 8 | #5 | 4'-4" | L |
| Concrete Structures | | | Cu. Yd. | 0.5 |
| Reinforcement Bars | | | Pound | 140 |
| Cleaning Bridge Seats | | | Sq. Ft. | 74 |

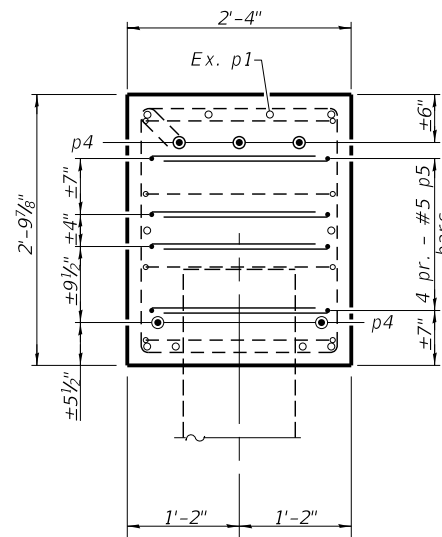
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|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |



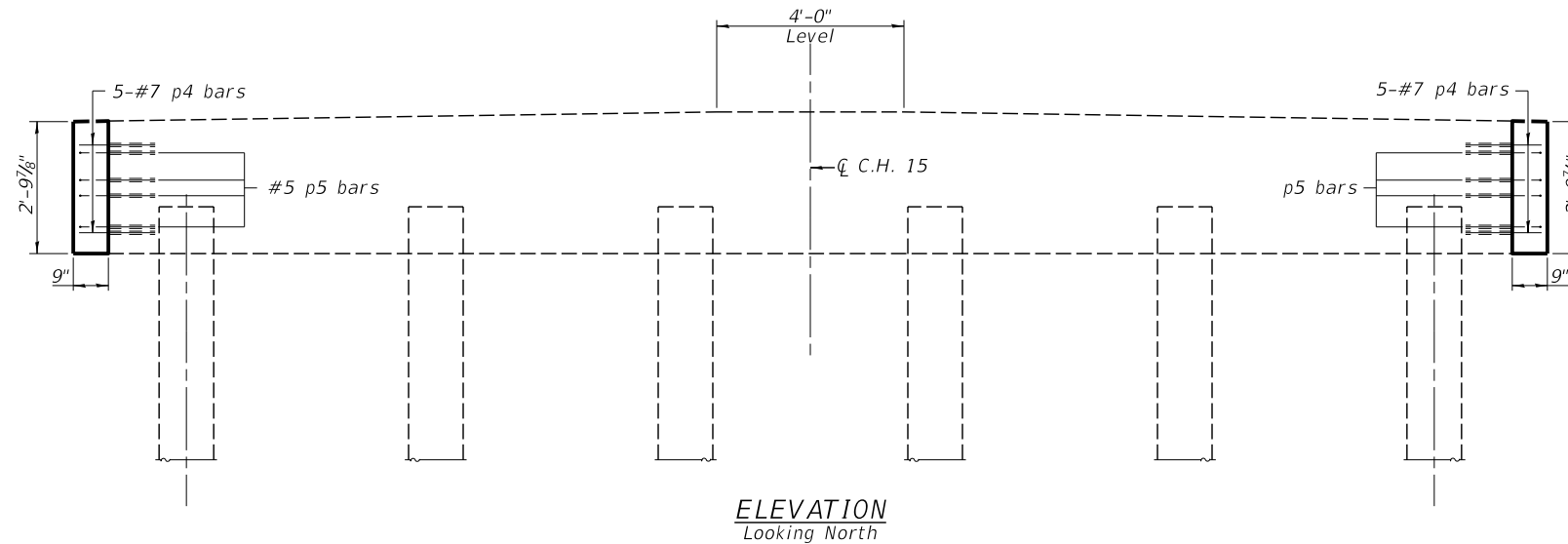
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

PIER 3
STRUCTURE NO. 054-3028
SCALE: SHEET NO. 21 OF 25 SHEETS STA. TO STA.

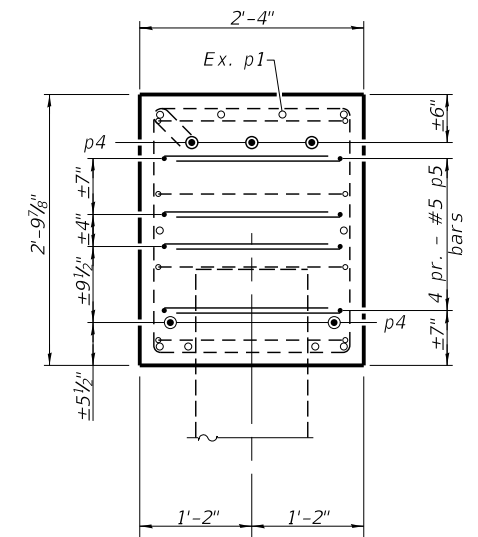
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 30 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |



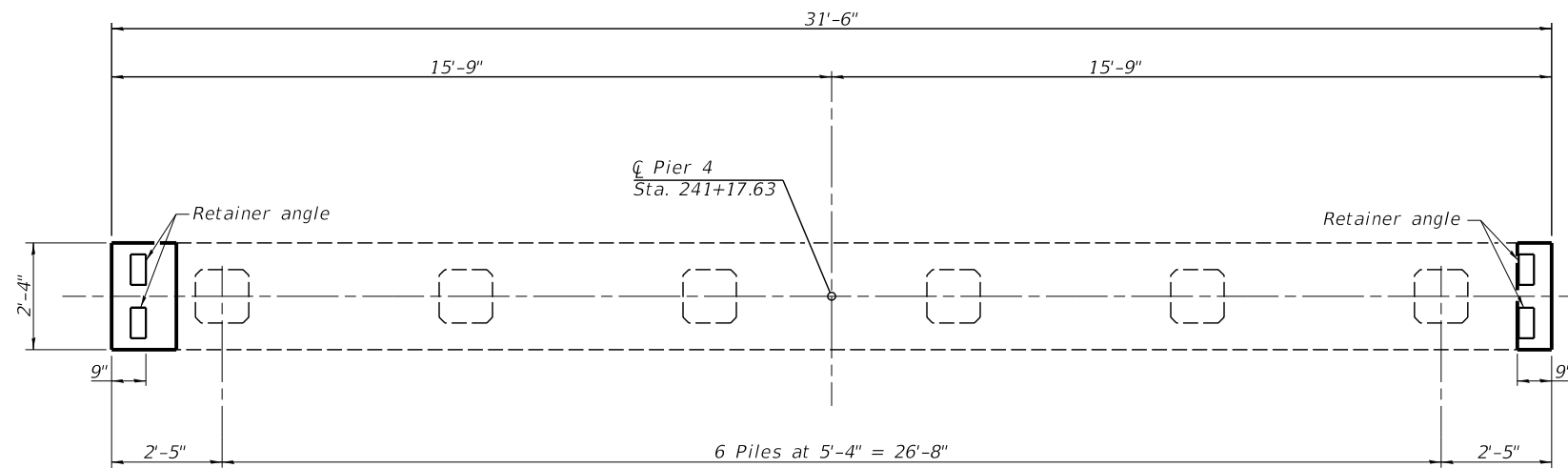
EAST END OF PIER



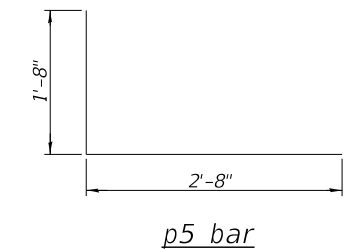
ELEVATION
Looking North



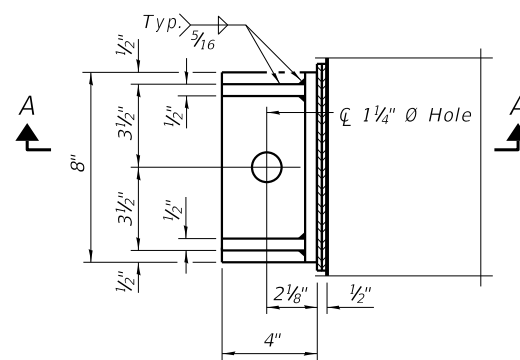
EAST END OF PIER



PLAN

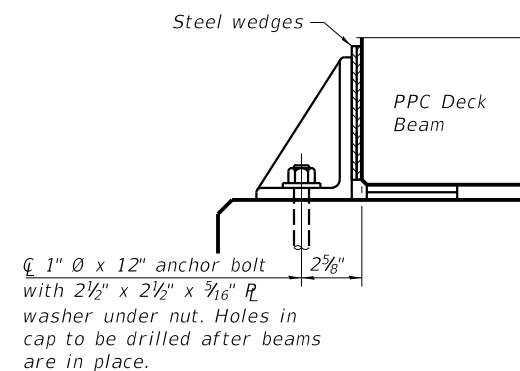


p5 bar



PLAN

RETAINER ANGLE AT EXPANSION JOINT



SECTION A-A

Notes:

- Epoxy grout p4 and p5 bars into top of existing pier pile cap per manufacturer's recommendation according to Section 584 of the Standard Specifications. Cost included in unit price for Reinforcement Bars.
- Minimum embedment depth for p4 and p5 bars is 12".
- An additional 12" has been added to the embedment length of the reinforcement bars to account for the need to remove more concrete than is shown on the plans.
- Field cut reinforcement to meet embedment depth and clear cover.
- Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams.
- Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
- The side retainers shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM 385.
- Anchor bolts and plate washers shall be galvanized according to AASHTO M 232.
- After the notch or concrete overlay are poured and cured, the steel wedges shall be removed.

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|------------------------------|-----|------|---------|-------|
| p4 | 10 | #7 | 2'-8" | — |
| p5 | 16 | #5 | 4'-4" | L |
| Concrete Structures | | | Cu. Yd. | 0.4 |
| Reinforcement Bars | | | Pound | 130 |
| Asbestos Bearing Pad Removal | | | Each | 28 |
| Cleaning Bridge Seats | | | Sq. Ft. | 74 |

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| | CHECKED - TRC | REVISED - |
| PLOT SCALE = | DRAWN - JRP | REVISED - |
| PLOT DATE = | CHECKED - TRC | REVISED - |

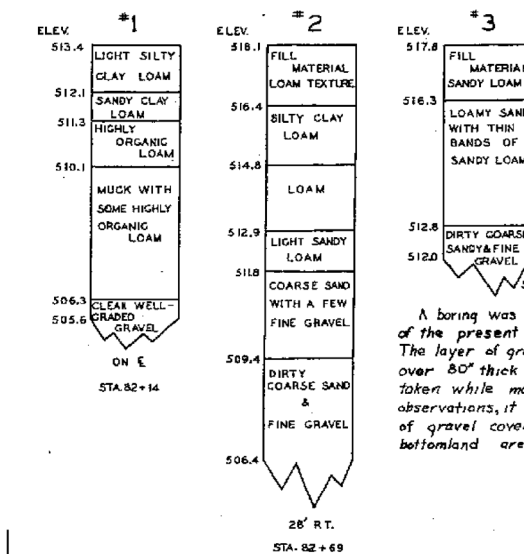


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IL. Design Firm No. 184-001939

PIER 4
STRUCTURE NO. 054-3028
SCALE: SHEET NO. 22 OF 25 SHEETS STA. TO STA.

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 31 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

TEST BORINGS



Tests by:
Norville E. Barnes
Soil Scientist
S.C. Service

A boring was taken at the water level of the present channel of Sugar Creek. The layer of gravel was determined to be over 80" thick at this point. From borings taken while mapping this area and other observations, it is believed that this depth of gravel covers the full width of the bottomland area.

GENERAL NOTES

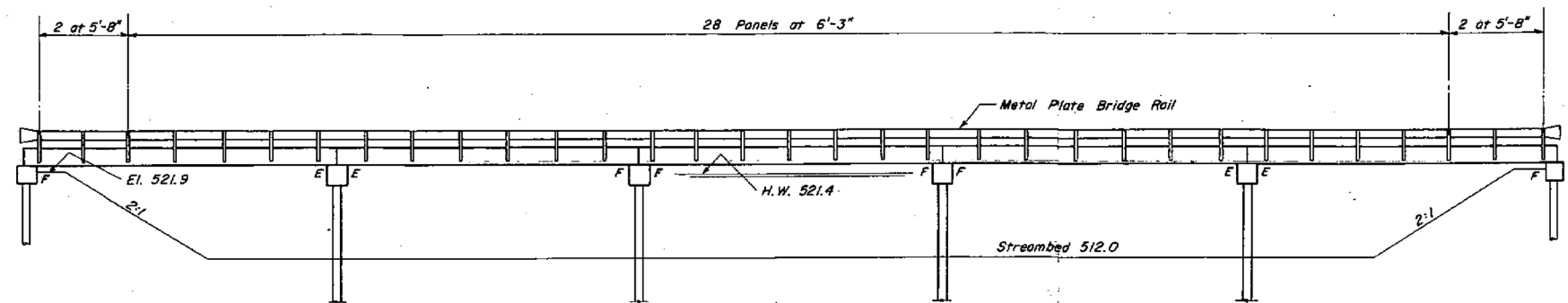
Use Class X Concrete throughout except in Precast Prestressed Beams.
For "Precast Prestressed Concrete Bridge Deck" and "Metal Plate Bridge Rail" see special provisions.
The 1" rods in transverse tie assembly shall be tightened to a snug fit and the threads set.
Pockets that receive transverse tie rods on outside beams shall be filled with grout after assembly is in place.
The Contractor shall drive one precast concrete test pile in a permanent location as directed by the Engineer before ordering the remainder of the piles.

SUGAR CREEK
BUILT 1963 BY
LOGAN COUNTY
SEC. 63-2CA
LOADING H20-S16

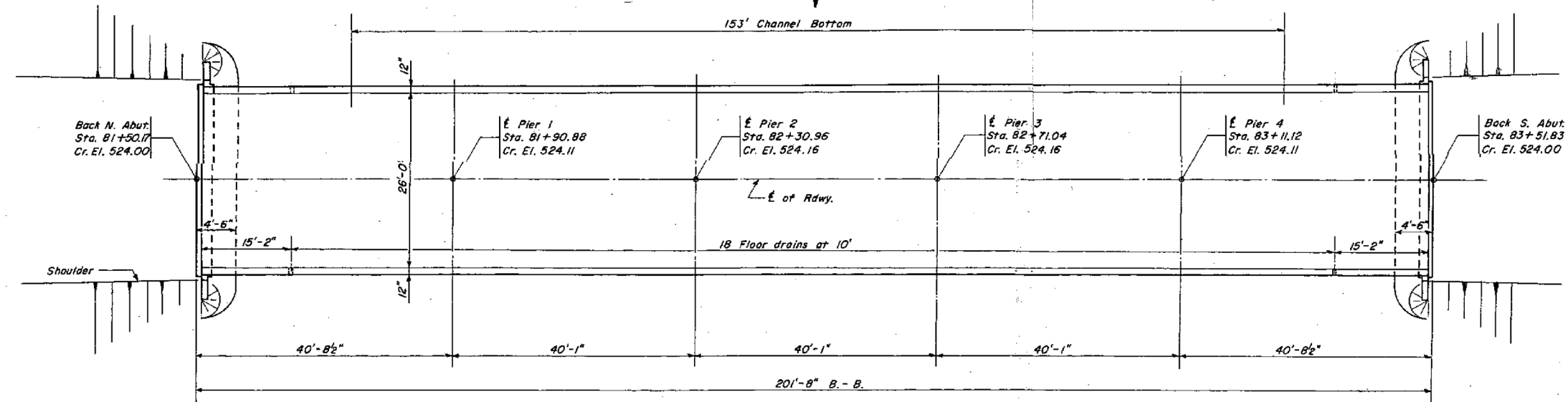
NAME PLATE

TOTAL BILL OF MATERIAL

| Item | Quantity |
|--|-----------|
| Class X Concrete | C.Y. 55.3 |
| Precast Prestressed Concrete Bridge Deck | S.F. 5600 |
| Reinforcement Bars | Lbs. 5970 |
| Treated Timber | FBM 516 |
| Metal Plate Bridge Rail | L.F. 395 |
| Creosoted Piles | L.F. 294 |
| Precast Concrete Piles, 14" | L.F. 690 |
| Test Piles, Precast Concrete | Each 1 |
| Name Plates | Each 1 |



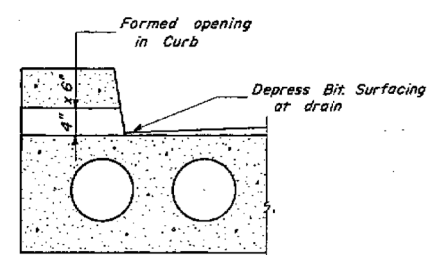
ELEVATION



PLAN

WATERWAY INFORMATION

| | |
|---------------------------|------------------------------|
| Drainage Area | 232,000 Acres |
| Character | Level to rolling, Cultivated |
| Required Opening (25 Yr.) | 3630 S.F. |
| Opening Provided | 1570 S.F. |
| Main Channel | 2063 S.F. |
| Total | 3633 S.F. |



DRAIN DETAIL

DESIGN STRESSES

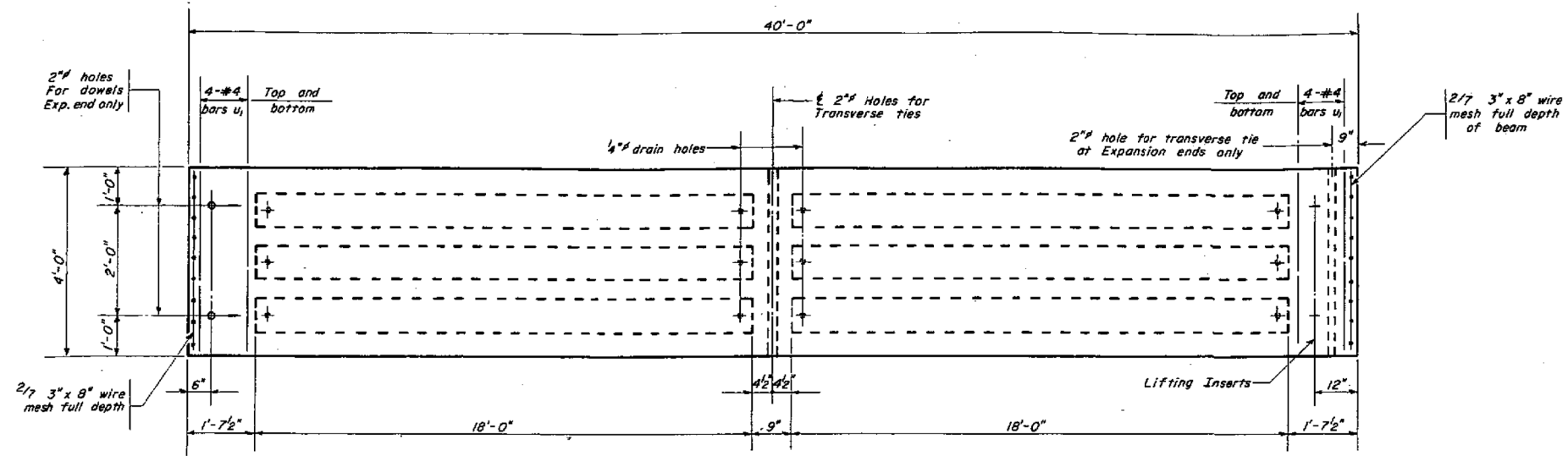
$f_c = 2000$ psi. (Super.)
 $f_c = 1000$ psi. (Sub.)
 $f_s = 20,000$ psi. (Reinf.)
 $f_s = 173,600$ psi. (Prestress Strands)
 $n = 10$

LOADING H20-S16

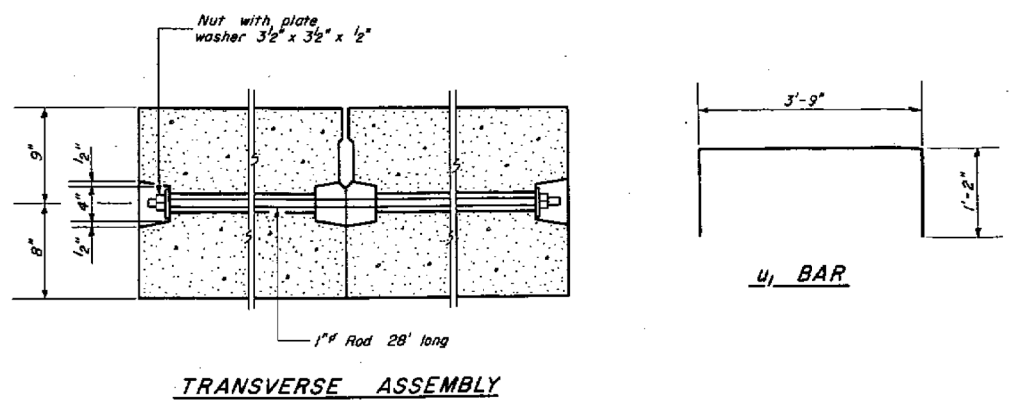
SUGAR CREEK
C.H. 15 SEC. 63-2CA
LOGAN COUNTY
STA 82+51

054-3028

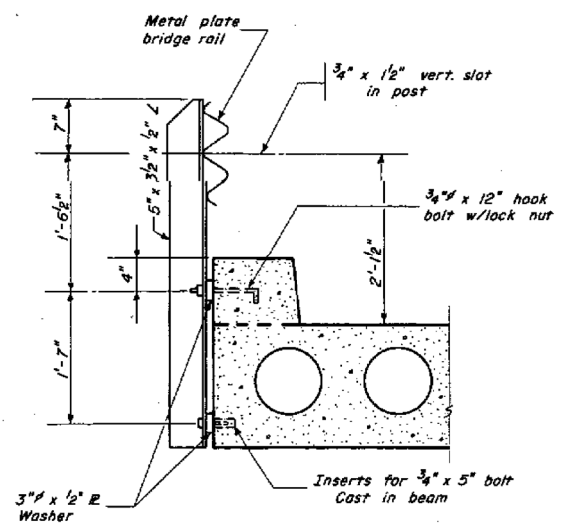
| C.H. ROUTE NO. | REC. | COUNTY | TOTAL SHEETS | SHEET NO. |
|--|--------|--------|--------------|-----------|
| 15 | 63-2CA | LOGAN | 50 | 33 |
| FED. ROAD DIST. NO. 7 ILLINOIS PROJECT | | | | |



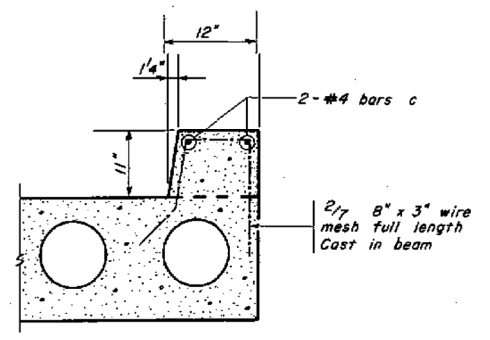
PLAN OF BEAM



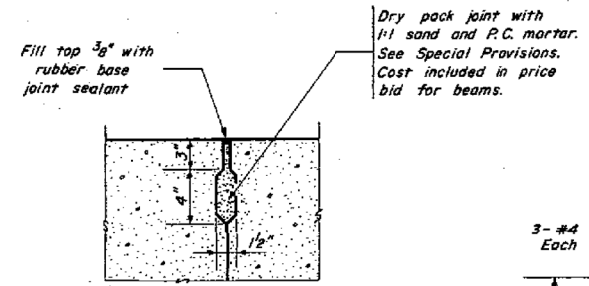
TRANSVERSE ASSEMBLY



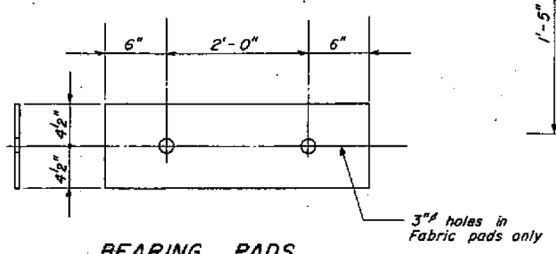
RAIL POST



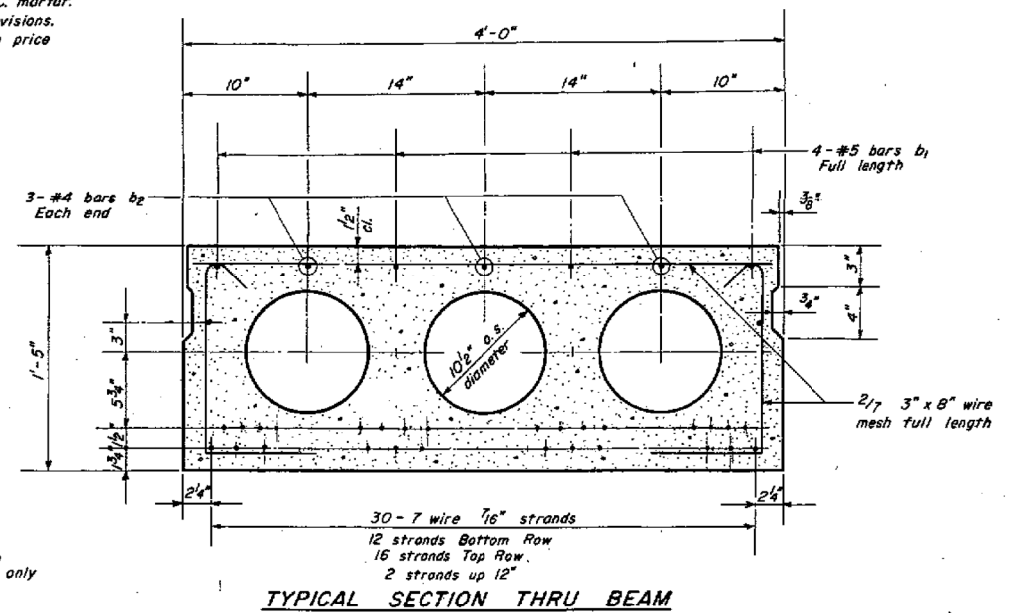
CURB DETAIL



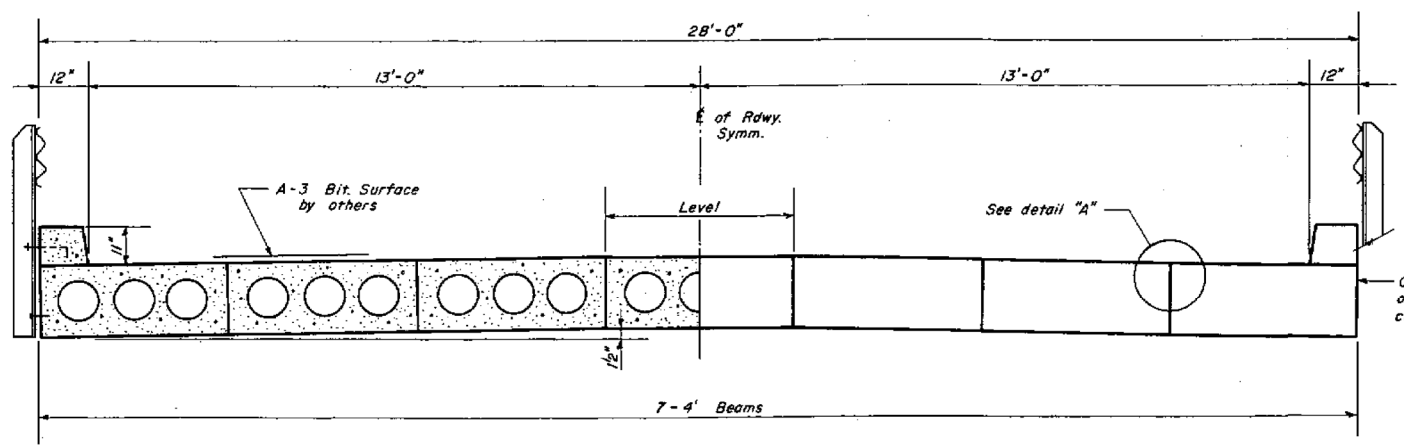
DETAIL "A"



BEARING PADS



TYPICAL SECTION THRU BEAM



HALF SECTION

HALF END ELEVATION

BILL OF MATERIAL - SUPER

| Bar | No. | Size | Length | Shape |
|--|-----|------|--------|-------|
| * b1 | 140 | #5 | 39'-8" | — |
| * b2 | 210 | 5 | 8'-0" | — |
| c | 40 | 4 | 20'-6" | — |
| * u1 | 560 | 4 | 4'-1" | □ |
| Class X Concrete | | C.Y. | 13.0 | |
| Reinforcement Bars | | Lbs. | 550 | |
| Metal Plate Bridge Rail | | L.F. | 395 | |
| Precast Prestressed Concrete Bridge Deck | | S.F. | 5600 | |

NOTES
 Prestressing Strands shall be stressed to 173,600 psi. or 18,900# per strand.
 Bars marked with asterisk and wire mesh shall be included in price bid for beams.
 Curbs shall be constructed of Class X Concrete and shall not be poured until beams have been grouted in place.

SUGAR CREEK
 C.H. 15 SEC. 63-2CA
 LOGAN COUNTY
 STA. 82+51

054 - 3028

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |



VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

EXISTING STRUCTURE PLANS
 STRUCTURE NO. 054-3028

SCALE: SHEET NO. 24 OF 25 SHEETS STA. TO STA.

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 33 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

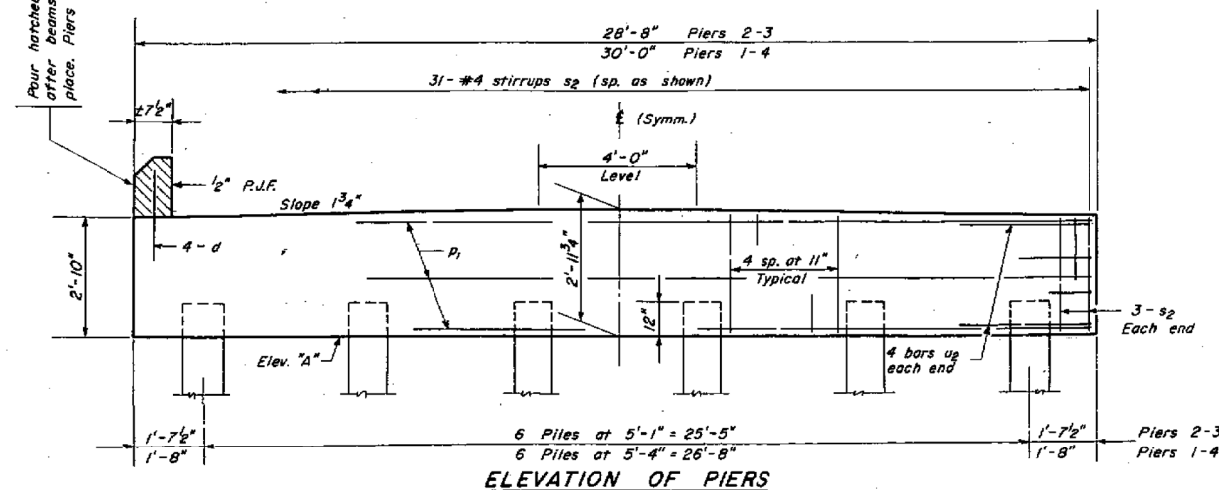
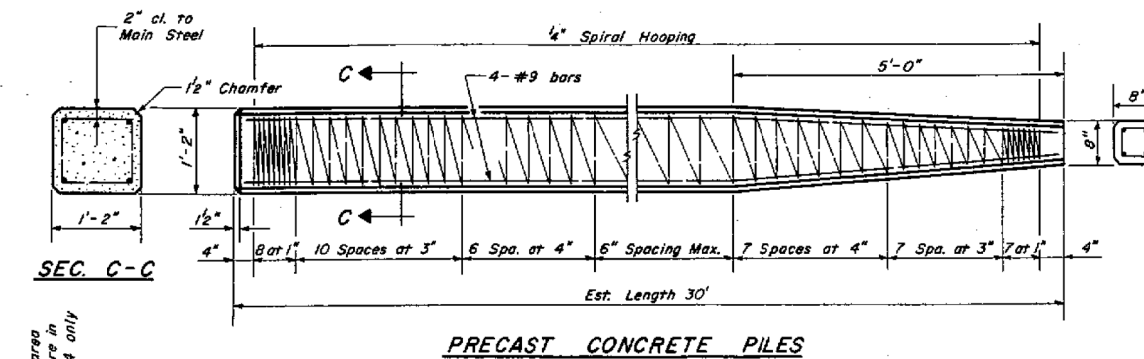
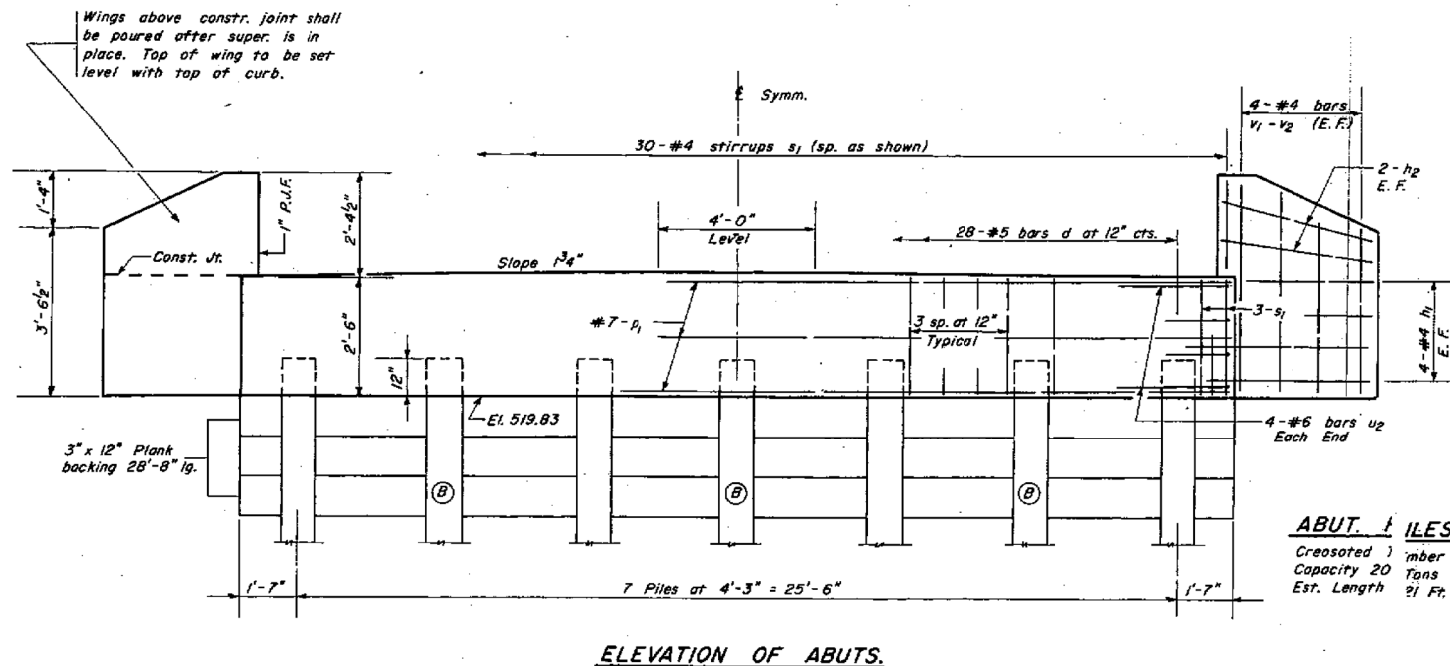
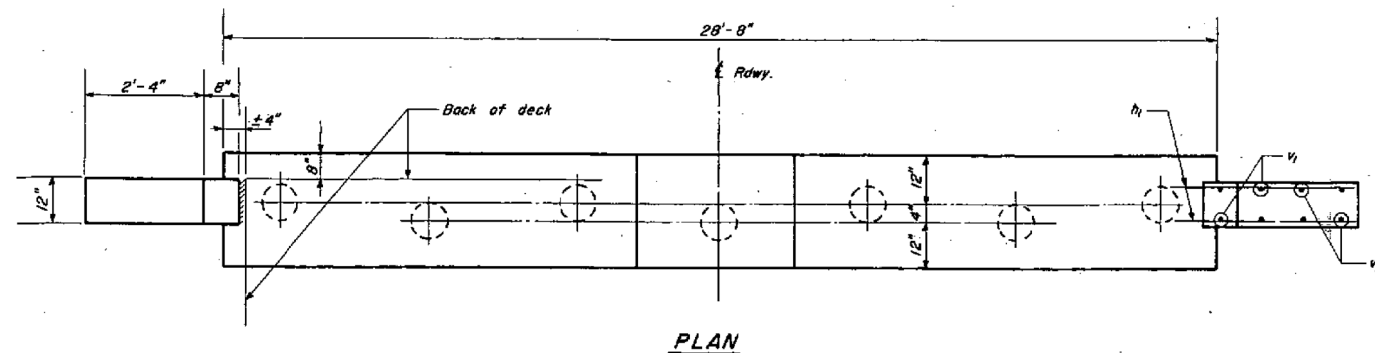
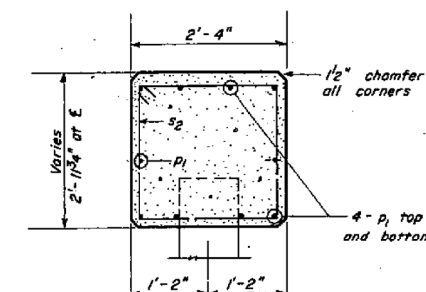
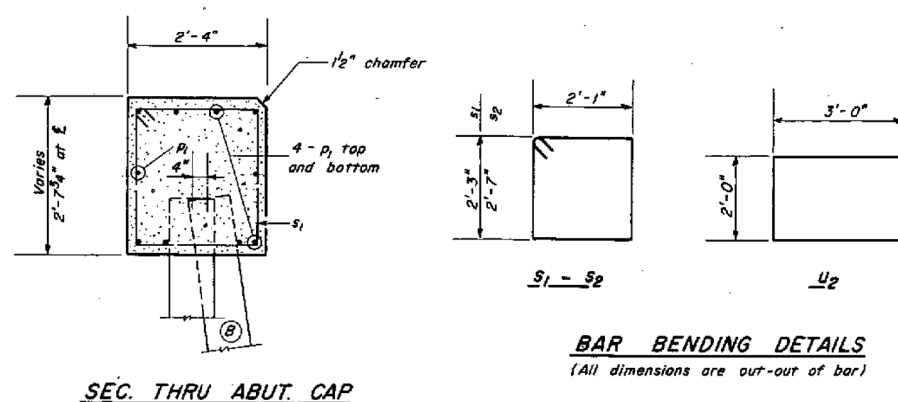


TABLE OF ELEVATIONS

| Pier | A |
|------|--------|
| 1 | 519.61 |
| 2 | 519.66 |
| 3 | 519.66 |
| 4 | 519.61 |

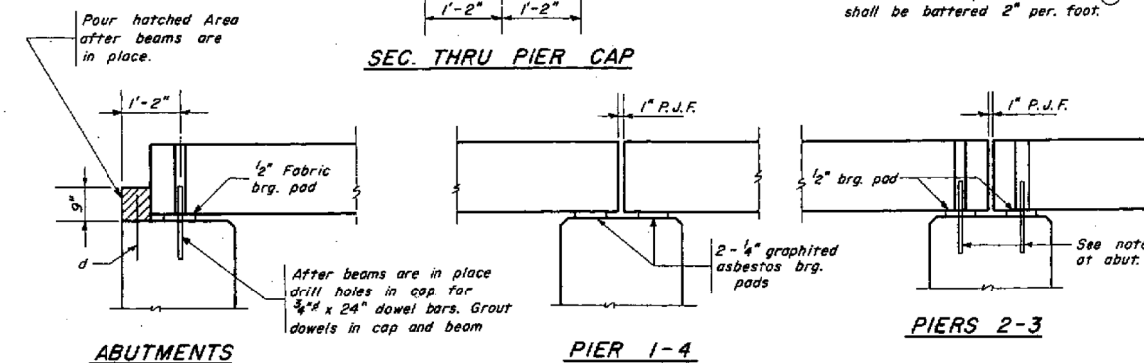


NOTES
 Backing plank shall be FSR and creosoted.
 Fasten backing to vertical piles with 3-7" spikes. Cost of spikes incidental to Contract.
 Minimum concrete cover over reinforcement bars 1/2".
 Abutment piles marked (B) shall be battered 2" per foot.



BILL OF MATERIAL
 2-ABUTS. 4-PIERS

| Bar | No. | Size | Length | Shape |
|------------------------|-----|------|--------|-------|
| v1 | 16 | #4 | 4'-3" | |
| v2 | 16 | 4 | 3'-3" | |
| h1 | 32 | 4 | 4'-2" | |
| h2 | 16 | 4 | 2'-10" | |
| p1 | 60 | 7 | 28'-4" | |
| s1 | 60 | 4 | 9'-5" | |
| s2 | 124 | 4 | 10'-1" | |
| u2 | 48 | 5 | 8'-0" | |
| d | 72 | 5 | 1'-9" | |
| Glass X Concrete | | C.Y. | 42.3 | |
| Reinforcement Bars | | Lbs. | 5420 | |
| Treated Timber | | FBM | 516 | |
| Creosoted Piles | | L.F. | 294 | |
| Precast Concrete Piles | | L.F. | 680 | |



SUGAR CREEK
 C.H. 15 SEC. 63-2CA
 LOGAN COUNTY
 STA. 82+51

054-3028

| | | |
|--------------|----------------|-----------|
| USER NAME = | DESIGNED - KES | REVISED - |
| PLOT SCALE = | CHECKED - TRC | REVISED - |
| PLOT DATE = | DRAWN - JRP | REVISED - |
| | CHECKED - TRC | REVISED - |



VEENSTRA & KIMM INC.
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 IL. Design Firm No. 184-001939

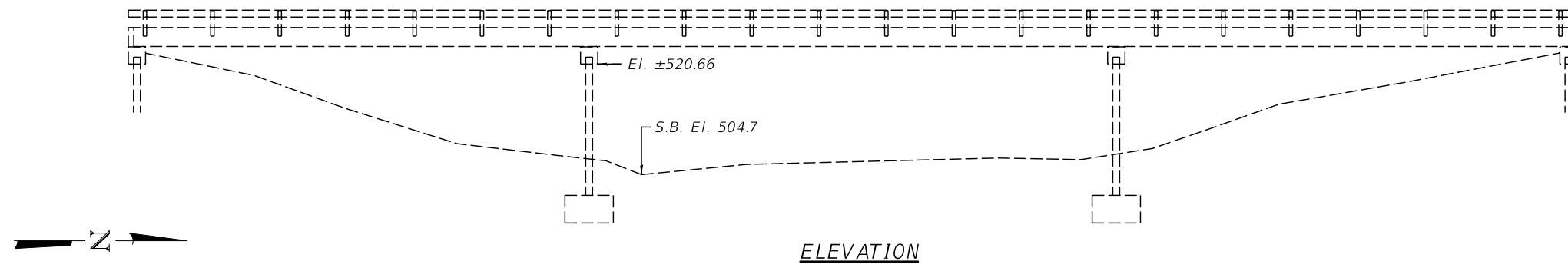
EXISTING STRUCTURE PLANS
 STRUCTURE NO. 054-3028

SCALE: SHEET NO. 25 OF 25 SHEETS STA. TO STA.

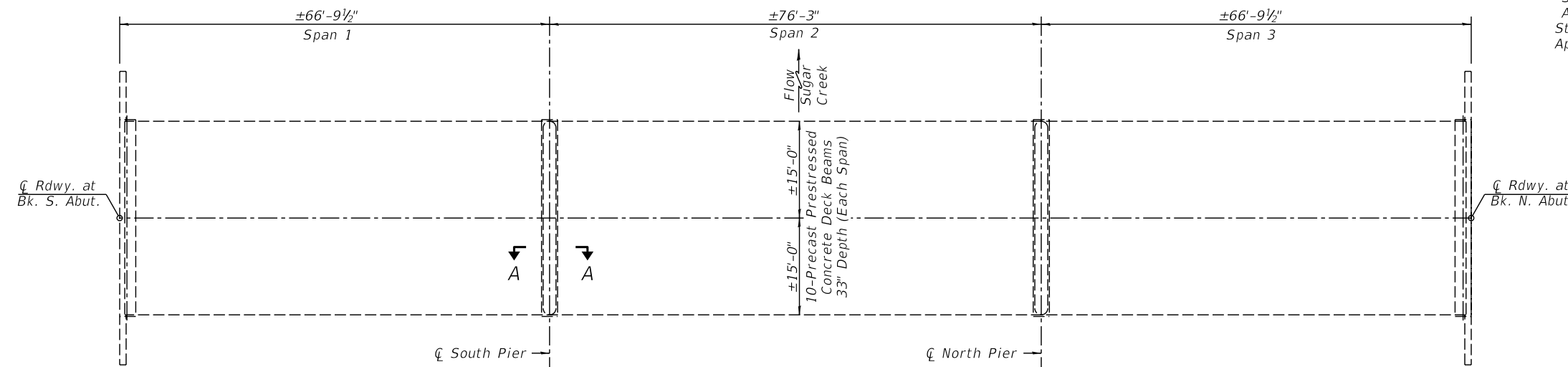
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|---------------------------|----------------|--------|--------------|-----------|
| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15 | 16-00123-00-BR | LOGAN | 50 | 34 |
| CONTRACT NO. 93793 | | | | |
| ILLINOIS FED. AID PROJECT | | | | |

GENERAL NOTES

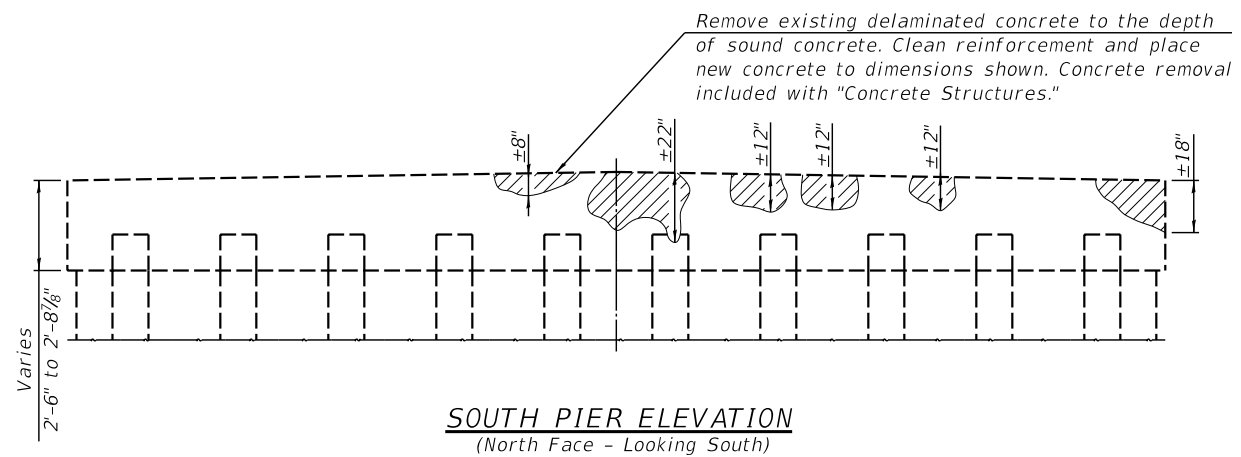
Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60.
 The contractor shall use extreme care during concrete removal as not to damage the PPC Deck Beams.
 The Contractor shall not remove more than 50% of the bearing area under any individual beam while removing concrete from the existing pier cap. If more than 50% of the bearing area under an individual beam requires removal, the Contractor shall provide temporary shoring while the pier is repaired.
 Existing exposed reinforcement shall be cleaned, straightened and incorporated into the new construction.
 Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included with Concrete Structures.
 Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
 Self consolidating concrete shall be used throughout.
 All construction shall conform to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction adopted April 1, 2016.



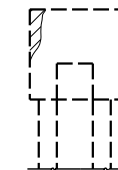
ELEVATION



PLAN



SOUTH PIER ELEVATION
(North Face - Looking South)

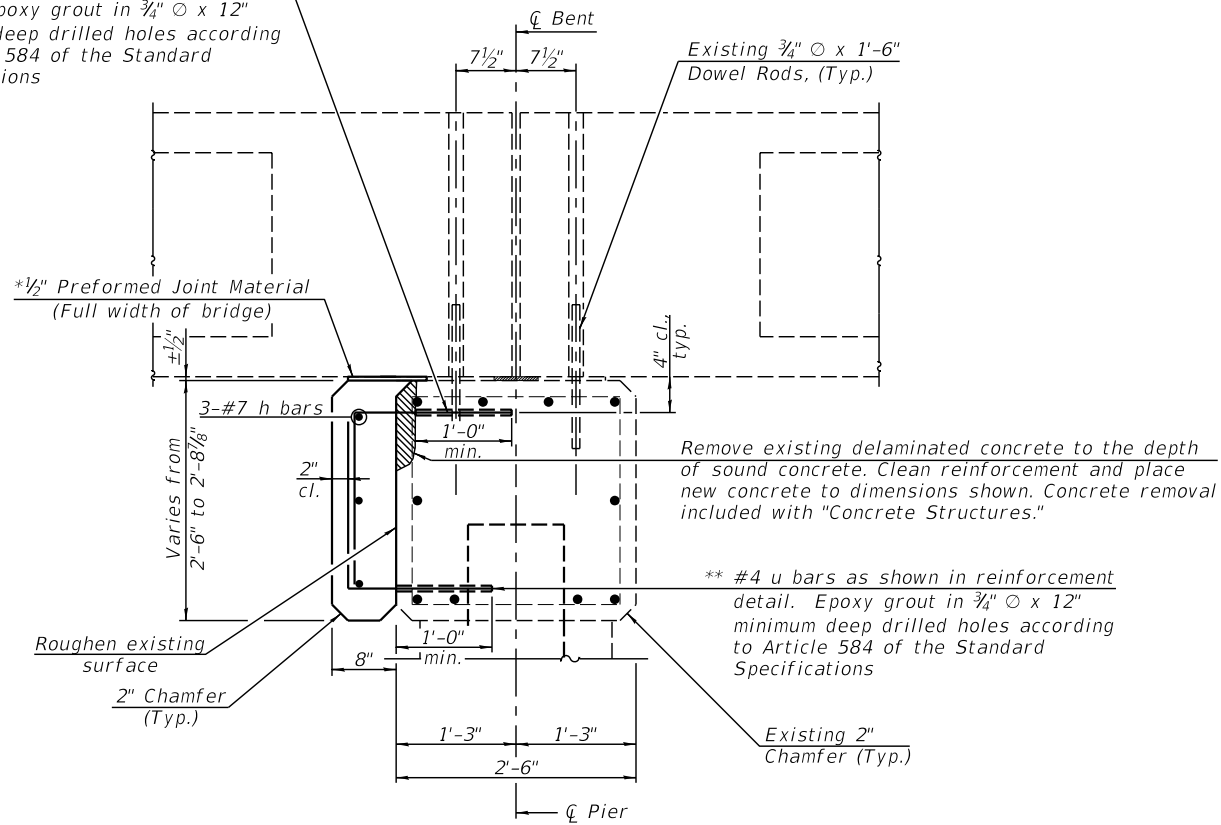


SECTION A-A
(Looking East)

GENERAL PLAN & ELEVATION
C.H. 15 OVER SUGAR CREEK
LOGAN COUNTY
STRUCTURE NO. 054-3058

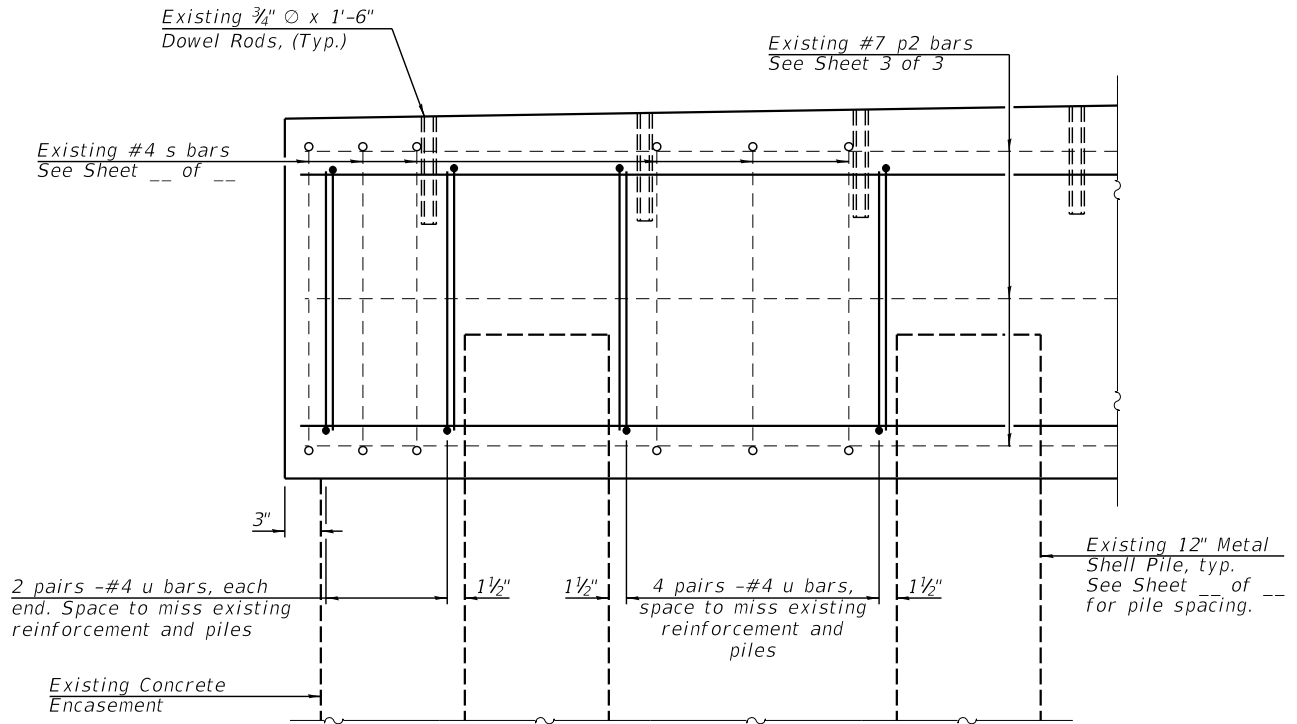
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|------------------------|--------------------|------------|-----------|--------------|---|-------------------------|--|--|--|--|---|----------------|--------|--------------|-----------|
| FILE NAME = *FILEL* | USER NAME = *USER* | DESIGNED - | REVISED - | | Veenstra & Kimm, Inc. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | | | GENERAL PLAN & ELEVATION STRUCTURE NO. 054-3058 | | | F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | DRAWN - | REVISED - | | | | | | | | 565 | 16-00123-00-BR | LOGAN | 50 | 35 |
| | | CHECKED - | REVISED - | | | | | | | | CONTRACT NO. 93793 | | | | |
| | | DATE - | REVISED - | | | | | | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |
| | | | | SCALE: _____ | | SHEET NO. 1 OF 3 SHEETS | | STA. _____ TO STA. _____ | | | | | | | |

** #4 u bars as shown in reinforcement detail. Epoxy grout in 3/4" Ø x 12" minimum deep drilled holes according to Article 584 of the Standard Specifications



SECTION A-A

* Cost included with Concrete Structures.
 ** Space bars to miss existing reinforcement, dowel bars, and piles.

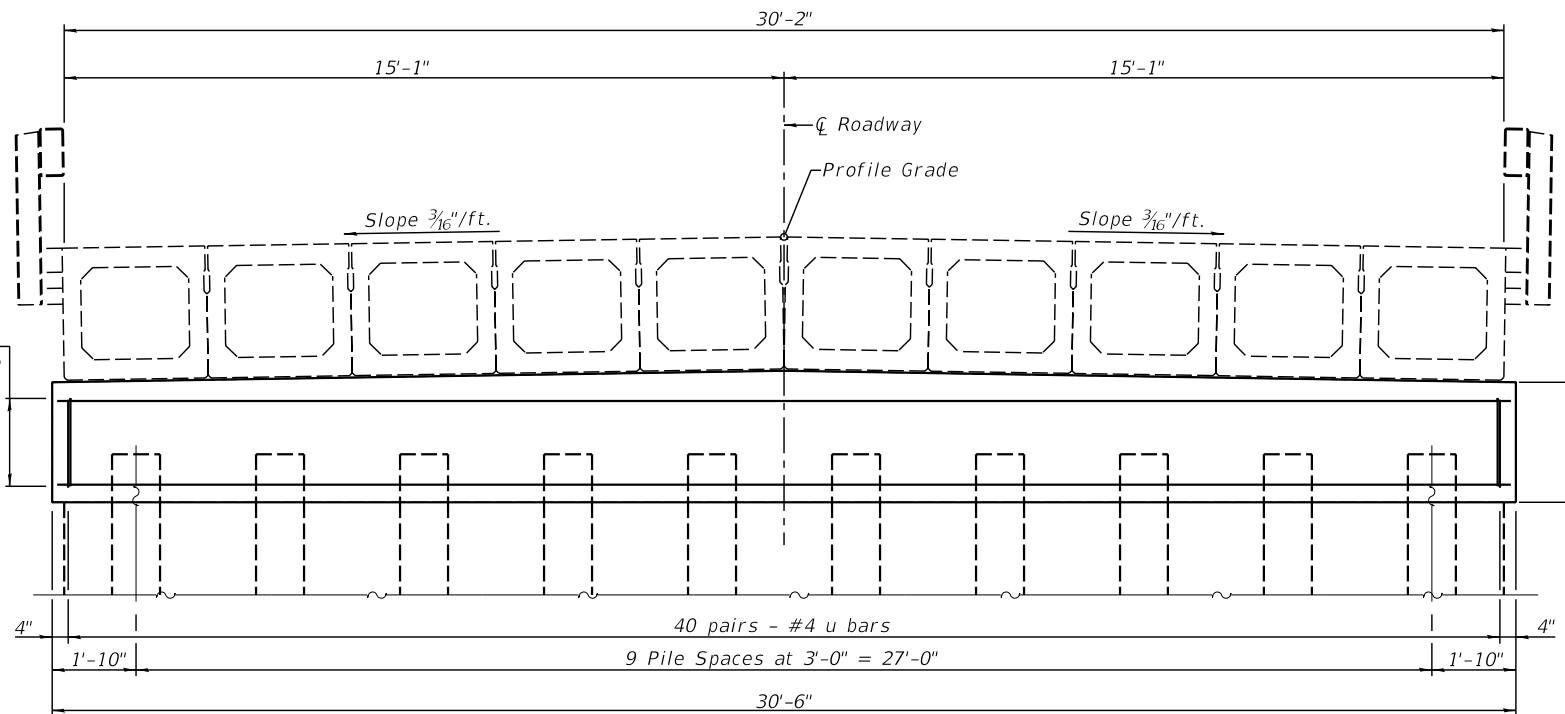


REINFORCEMENT DETAIL

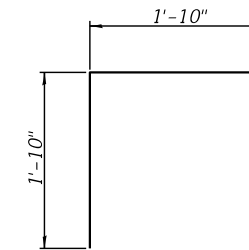
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)



SECTION AT PIER



BAR u

BILL OF MATERIAL

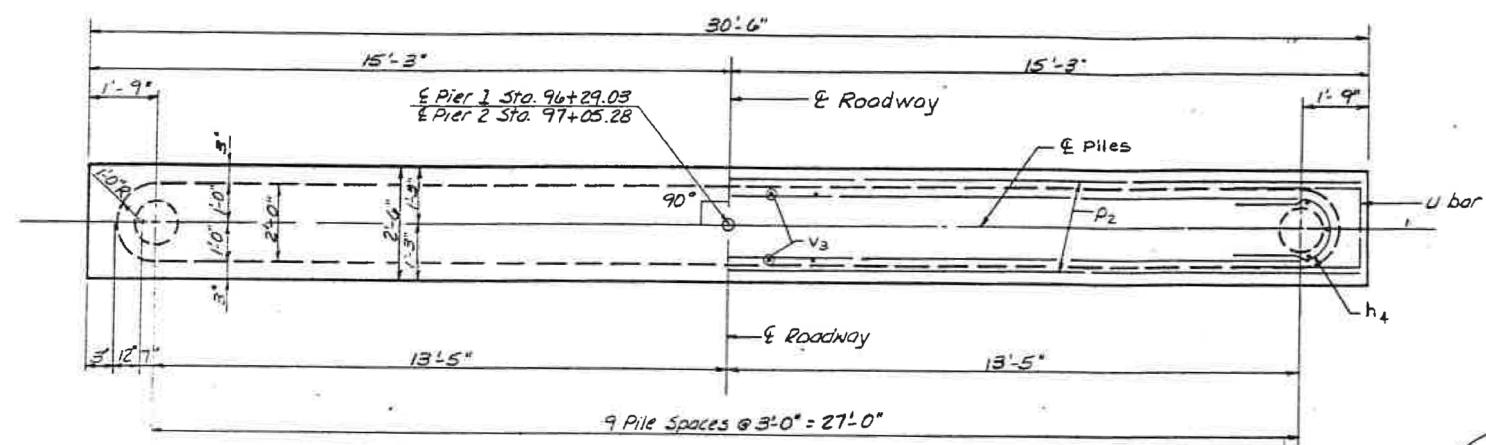
| Bar | No. | Size | Length | Shape |
|-----|-----|------|---------|-------|
| h | 3 | #7 | 30'-2" | — |
| u | 80 | #4 | 3'-8" | L |
| | | | Cu. Yd. | 2.5 |
| | | | Pound | 390 |

Notes:
 Horizontal leg of the u bar shall be trimmed to maintain the 2" clearance from the proposed vertical pier face while insuring a 12" minimum embedment depth into the existing pier cap.

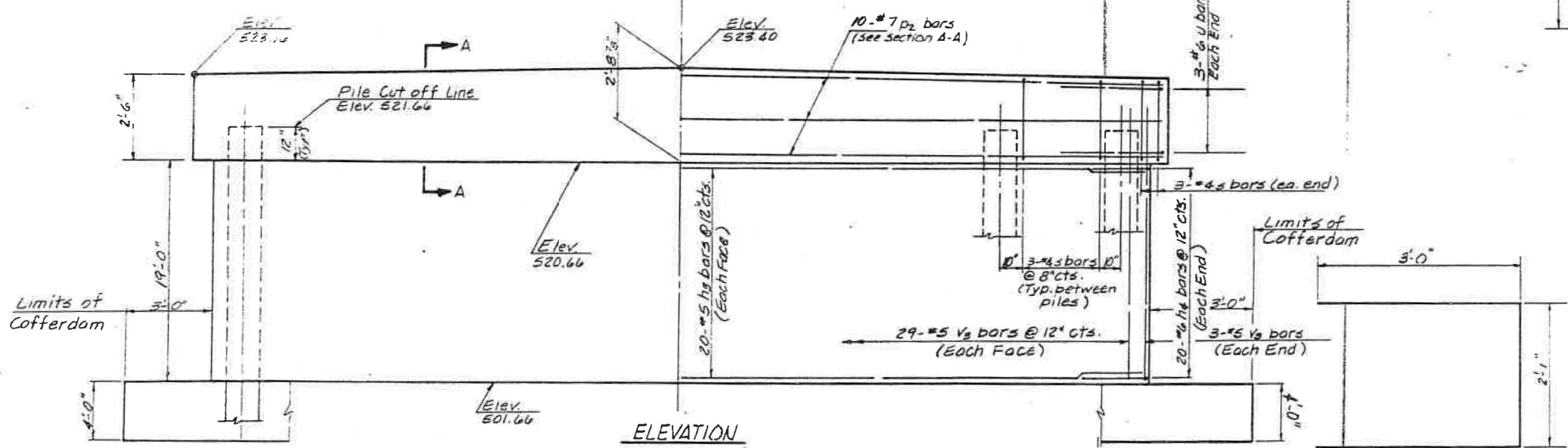
CONCRETE REPAIR DETAILS
C.H. 15 OVER SUGAR CREEK
LOGAN COUNTY
STRUCTURE NO. 054-3058

| | | | | |
|---------------------|--------------------------------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| C.H. 15 | 85-00105-00-BR | LOGAN | 14 | 13 |
| FED. ROAD DIST. NO. | ILLINOIS - PROJECT BR-5-56(10) | | | |

Note: Seal Coat designed for H.W. Elevation of 515.5



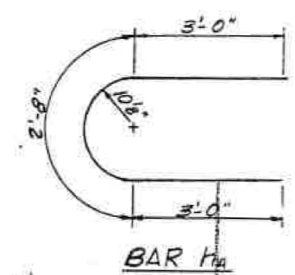
PLAN



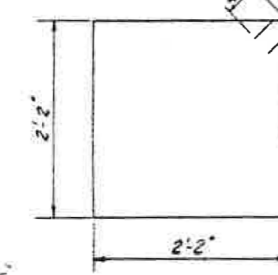
ELEVATION

PILE DATA
 Type: Concrete
 Capacity: 44 Tons
 Estimated Length:
 Pier 1 - 42'
 Pier 2 - 44'
 No. Required: Pier 1 - 10
 Pier 2 - 9 plus one permanent test pile Pier

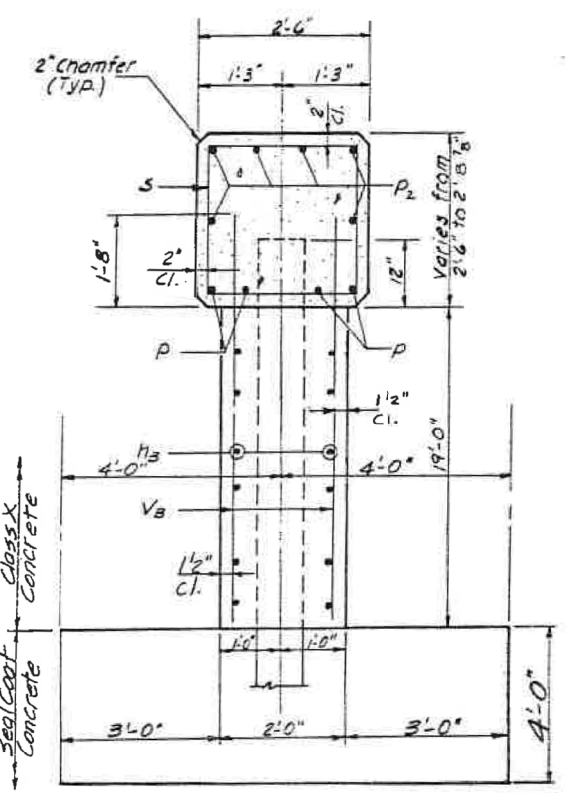
Note: See Sht. #3 of 7 For Section Thru Pier



BAR h4



BAR s



Seal Coat Concrete

BILL OF MATERIAL - TWO PIERS

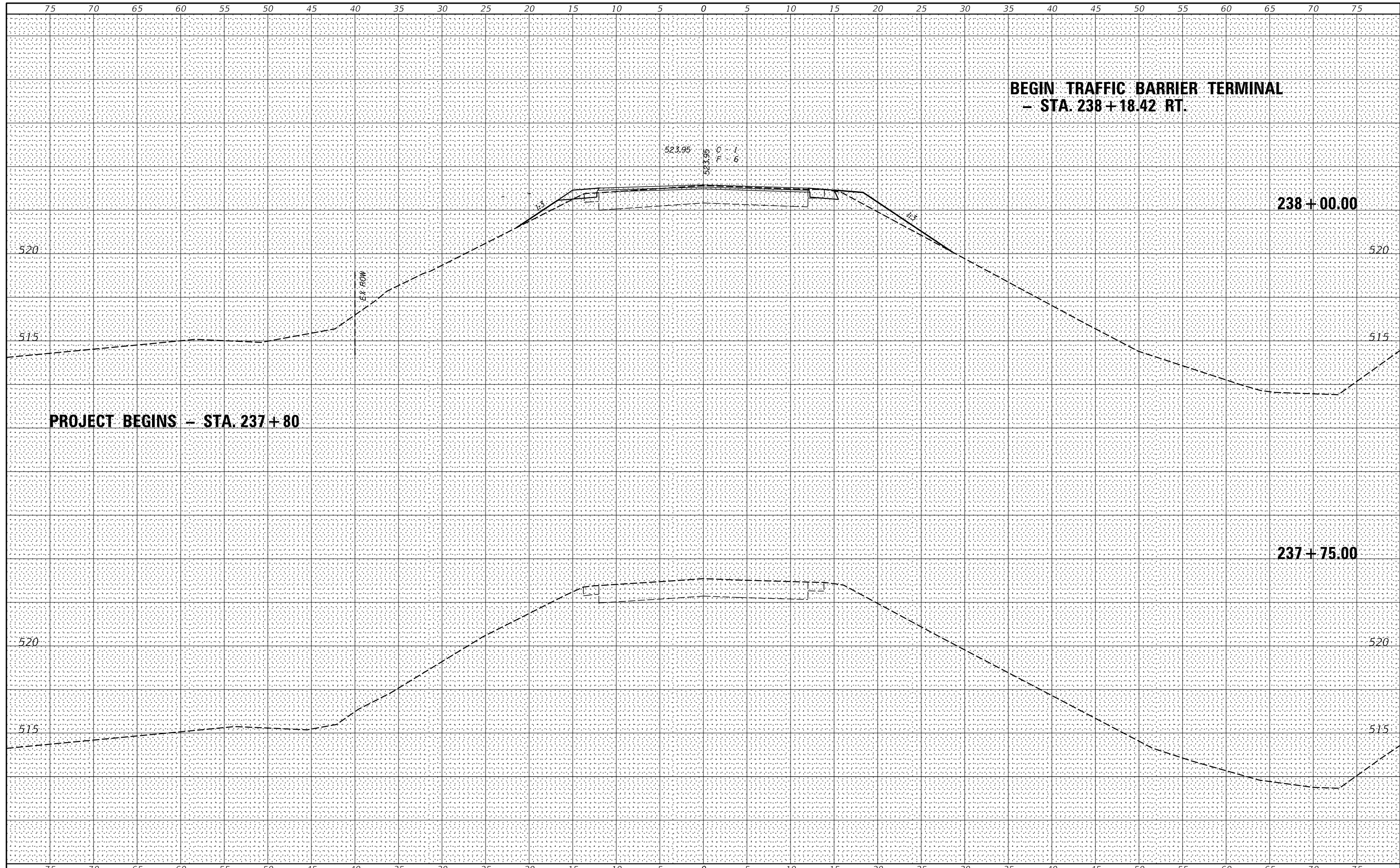
| Bar | No | Size | Length | Shape |
|---------------------|-----|----------|--------|-------|
| h3 | 80 | #5 | 28'-0" | — |
| h4 | 80 | #6 | 8'-8" | U |
| p2 | 20 | #7 | 30'-2" | — |
| s | 66 | #4 | 9'-5" | □ |
| u | 12 | #6 | 8'-1" | □ |
| v3 | 128 | #5 | 20'-6" | — |
| Class X Concrete | | Cu. Yds. | 86.4 | |
| Reinforcement Bars | | Pound | 7910 | |
| Concrete Piles | | Lin. Ft. | 816 | |
| Test Piles Concrete | | Each | 1 | |
| Cofferdams Pier 1 | | Each | 1 | |
| Cofferdams Pier 2 | | Each | 1 | |
| Seal Coat Concrete | | Cu. Yds. | 83.0 | |

PIERS 1 & 2

| | | | | |
|------------------------------|----------|--------|--|---|
| Date | Surveyed | S.A.M. | C.H. 15 OVER SUGAR CREEK SECTION 85-00105-00-BR LOGAN COUNTY STA. 96+67.15 | 6 of 7 WVP Job # D7H05 |
| Revisions | Designed | D.L.C. | | |
| | Drawn | R.E.Z. | | |
| | Checked | D.L.C. | | |
| | Approved | D.L.C. | | |
| Prepared by: WVP CORPORATION | | | Engineers - Architects - Planners Decatur, Illinois - St. Louis, Missouri | |

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

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



**BEGIN TRAFFIC BARRIER TERMINAL
- STA. 238 + 18.42 RT.**

PROJECT BEGINS - STA. 237 + 80

238 + 00.00

237 + 75.00

| | | |
|----------------------|------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISED - |
| | DRAWN - | REVISED - |
| PLOT SCALE = *SCALE* | CHECKED - | REVISED - |
| PLOT DATE = *DATE* | DATE - | REVISED - |



VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

CROSS SECTIONS

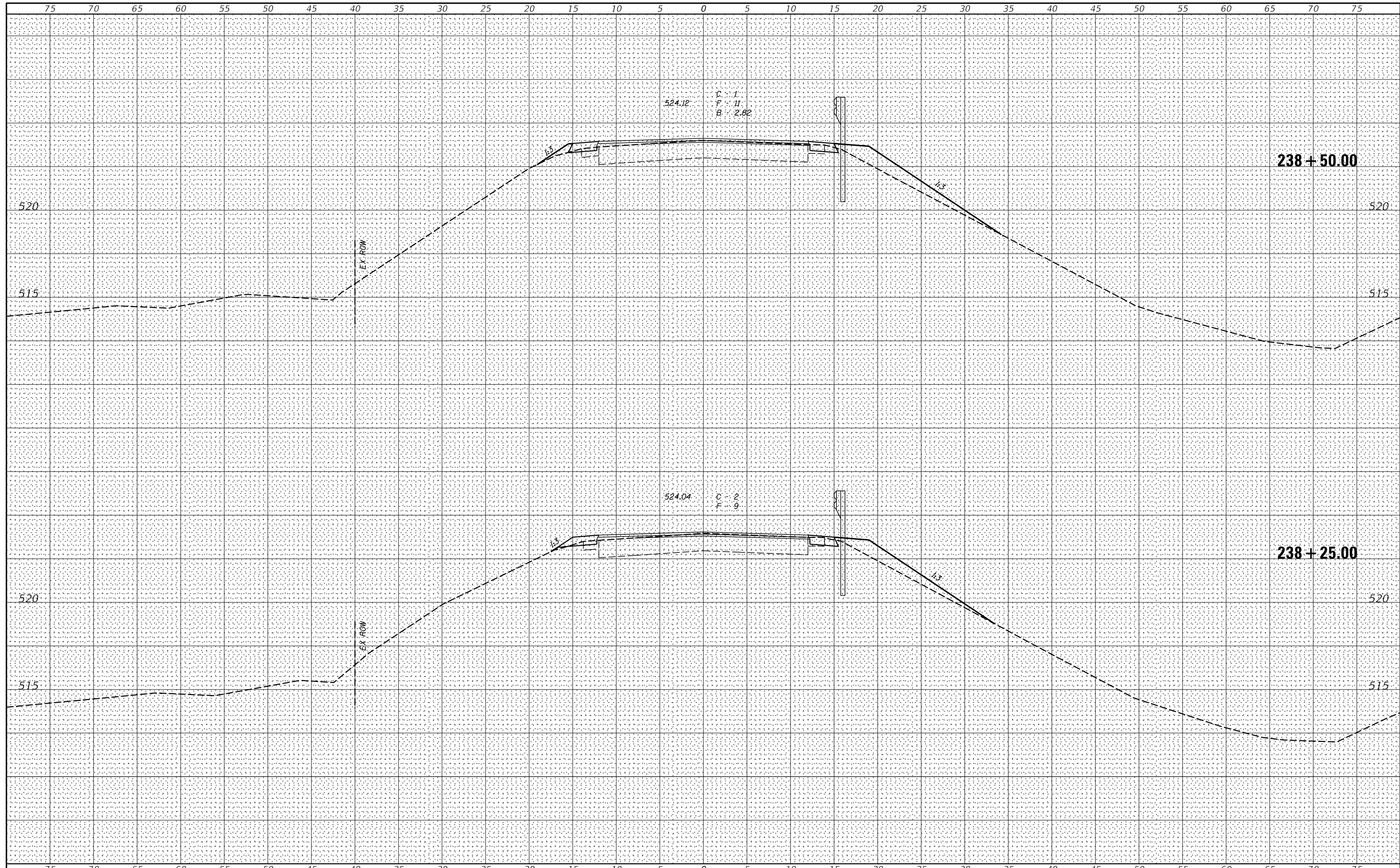
SCALE: 1" = 5' SHEET NO. 1 OF 13 SHEETS STA. 237+75.00 TO STA. 237+75.00

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 38 |
| CONTRACT NO. 93793 | | | | |

FED. ROAD DIST. NO. [] ILLINOIS FED. AID PROJECT

BY: _____ DATE: _____
 ORIGINAL SURVEY NO. _____
 SURVEYED PLOTTED AREAS CHECKED
 FINAL SURVEY NO. _____
 SURVEYED PLOTTED AREAS CHECKED

BY: _____ DATE: _____
 ORIGINAL SURVEY NO. _____
 SURVEYED PLOTTED AREAS CHECKED
 FINAL SURVEY NO. _____
 SURVEYED PLOTTED AREAS CHECKED



| | | |
|----------------------|------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISED - |
| PLOT SCALE = *SCALE* | DRAWN - | REVISED - |
| PLOT DATE = *DATE* | CHECKED - | REVISED - |
| | DATE - | REVISED - |



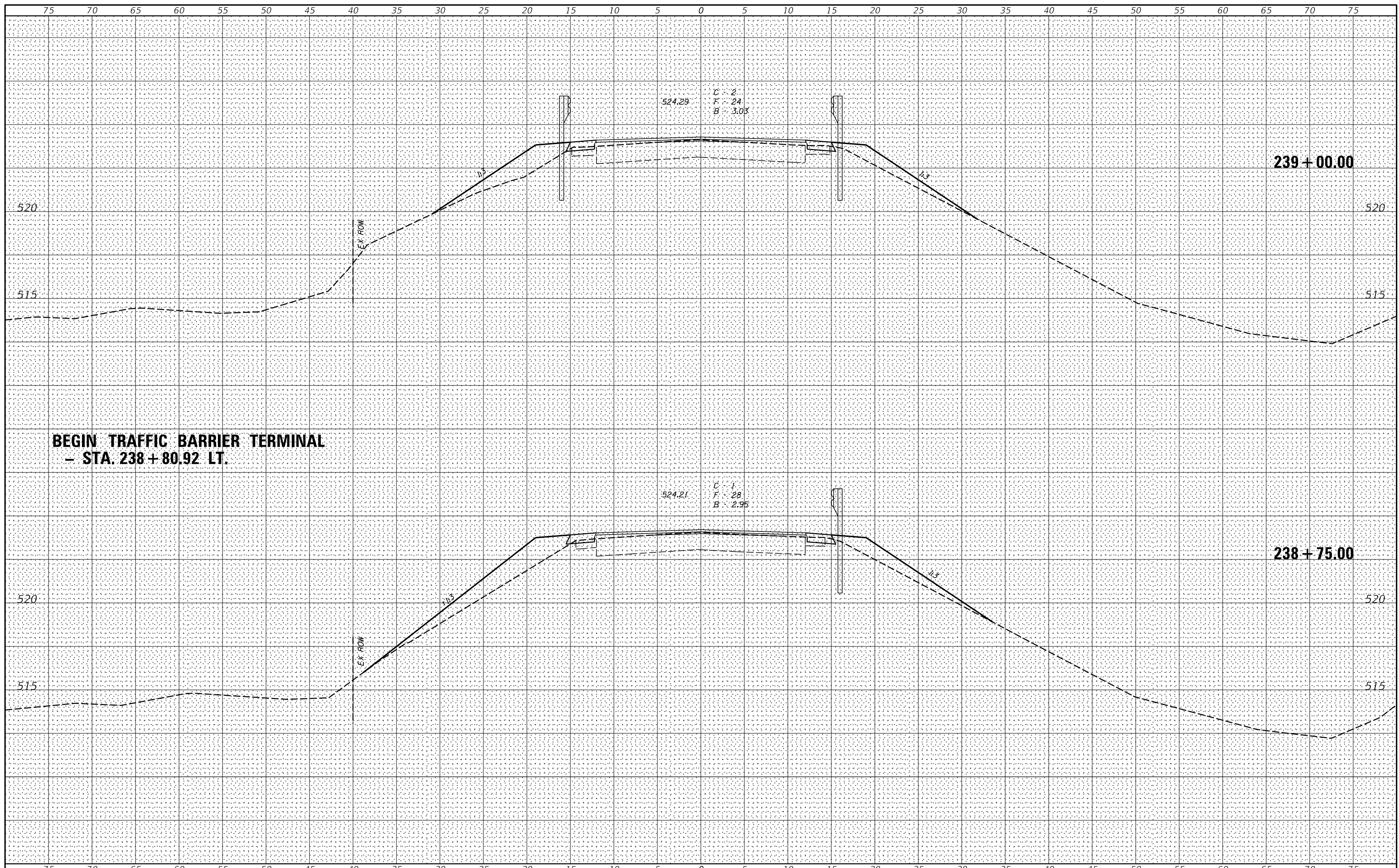
VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

CROSS SECTIONS
 SCALE: 1" = 5'
 SHEET NO. 2 OF 13 SHEETS
 STA. 238+25.00 TO STA. 238+25.00

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 39 |
| CONTRACT NO. 93793 | | | | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

| | |
|--------------|--|
| DATE | |
| BY | |
| FINAL SURVEY | |
| NOTED | |
| PLOTTED | |
| TEMPLATE | |
| AREAS | |
| CHECKED | |

| | |
|-----------------|--|
| DATE | |
| BY | |
| ORIGINAL SURVEY | |
| NOTED | |
| PLOTTED | |
| TEMPLATE | |
| AREAS | |
| CHECKED | |



**BEGIN TRAFFIC BARRIER TERMINAL
- STA. 238 + 80.92 LT.**

| | | |
|----------------------|------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISED - |
| PLOT SCALE = *SCALE* | DRAWN - | REVISED - |
| PLOT DATE = *DATE* | CHECKED - | REVISED - |
| | DATE - | REVISED - |



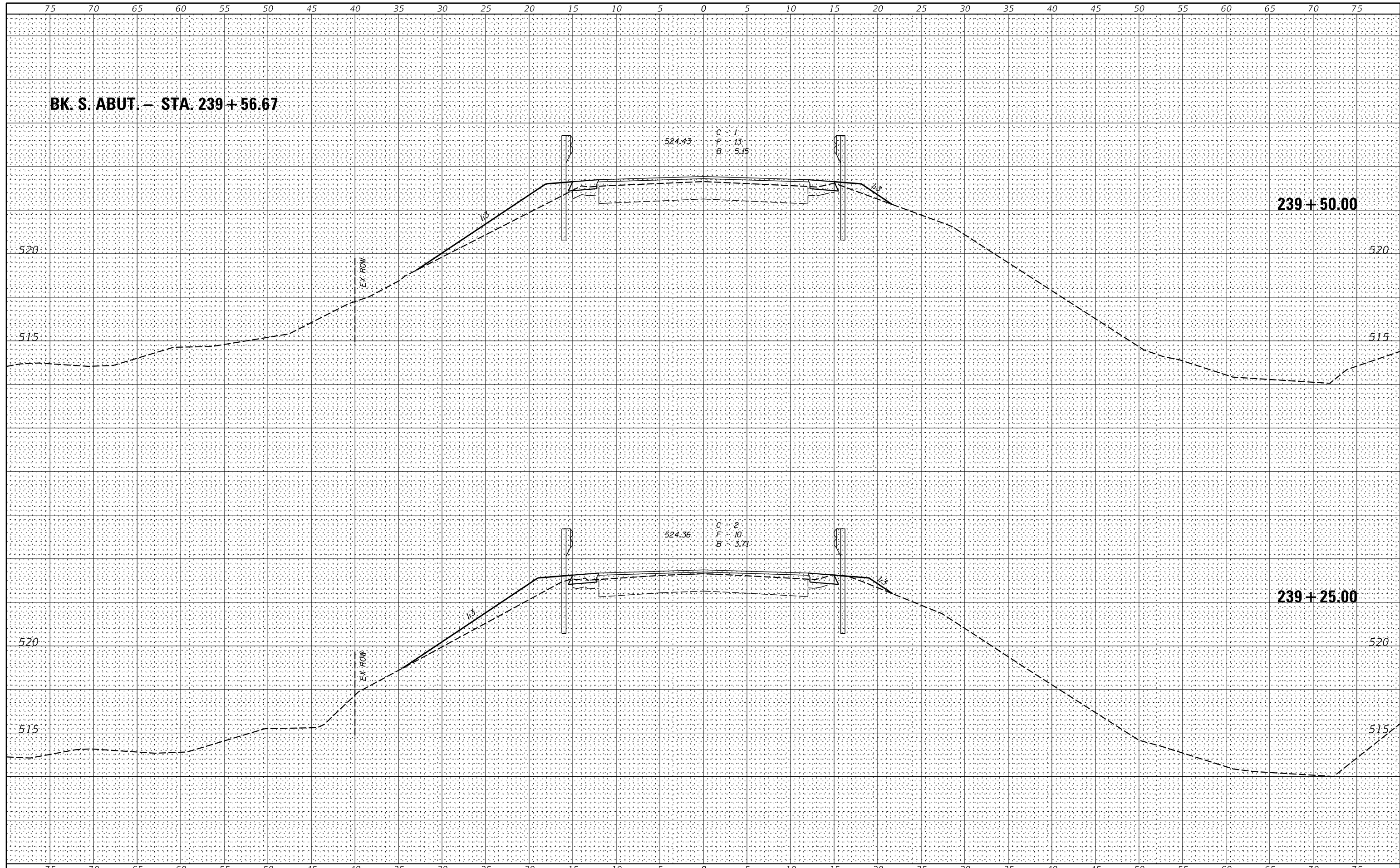
VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

| | |
|----------------------------------|--------------------------|
| CROSS SECTIONS | |
| SCALE: 1" = 5' | SHEET NO. 3 OF 13 SHEETS |
| STA. 238+75.00 TO STA. 238+75.00 | |

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 40 |
| CONTRACT NO. 93793 | | | | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

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

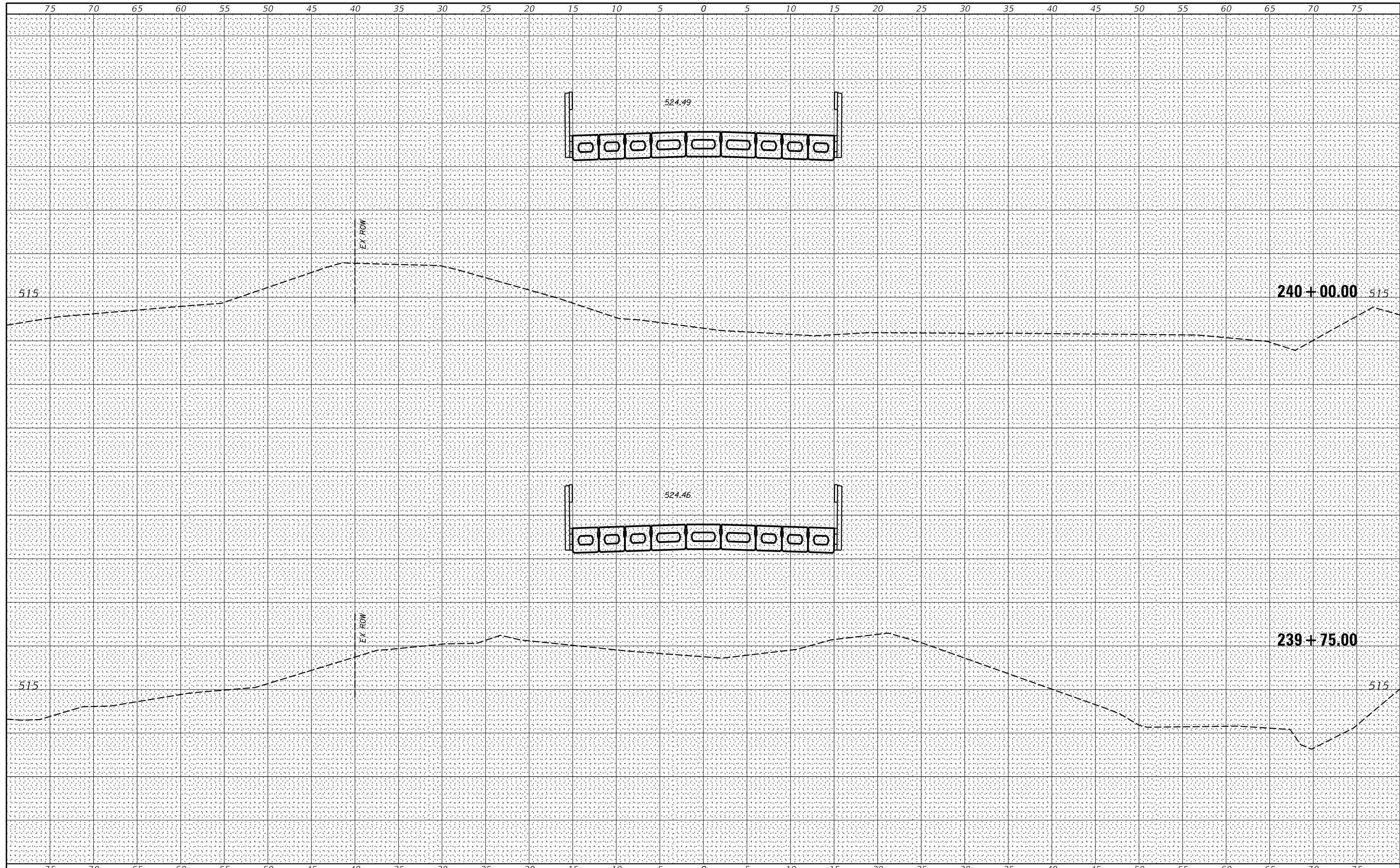
| | |
|-------------------------|--|
| DATE | |
| BY | |
| ORIGINAL SURVEY NO. | |
| SURVEYED PLOTTED | |
| TEMPLATE AREAS CHECKED | |
| NOTE BOOK AREAS CHECKED | |



| | | | | | | | | | | |
|----------------------|------------|----------|--|---|--|-----------|----------------|--------|--------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISÉ - |  VEENSTRA & KIMM INC. Springfield, IL. Phone: (217)544-8033 IL. Design Firm No. 184-001939 | CROSS SECTIONS SCALE: 1" = 5' SHEET NO. 4 OF 13 SHEETS STA. 239+25.00 TO STA. 239+25.00 | | C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| PLOT SCALE = *SCALE* | DRAWN - | REVISÉ - | | | | 15 | 16-00123-00-BR | LOGAN | 50 | 41 |
| PLOT DATE = *DATE* | CHECKED - | REVISÉ - | | CONTRACT NO. 93793 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | | | |
| | DATE - | REVISÉ - | | | | | | | | |

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS _____
 AREAS CHECKED _____
 NO. _____

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS _____
 AREAS CHECKED _____
 NO. _____



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

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -



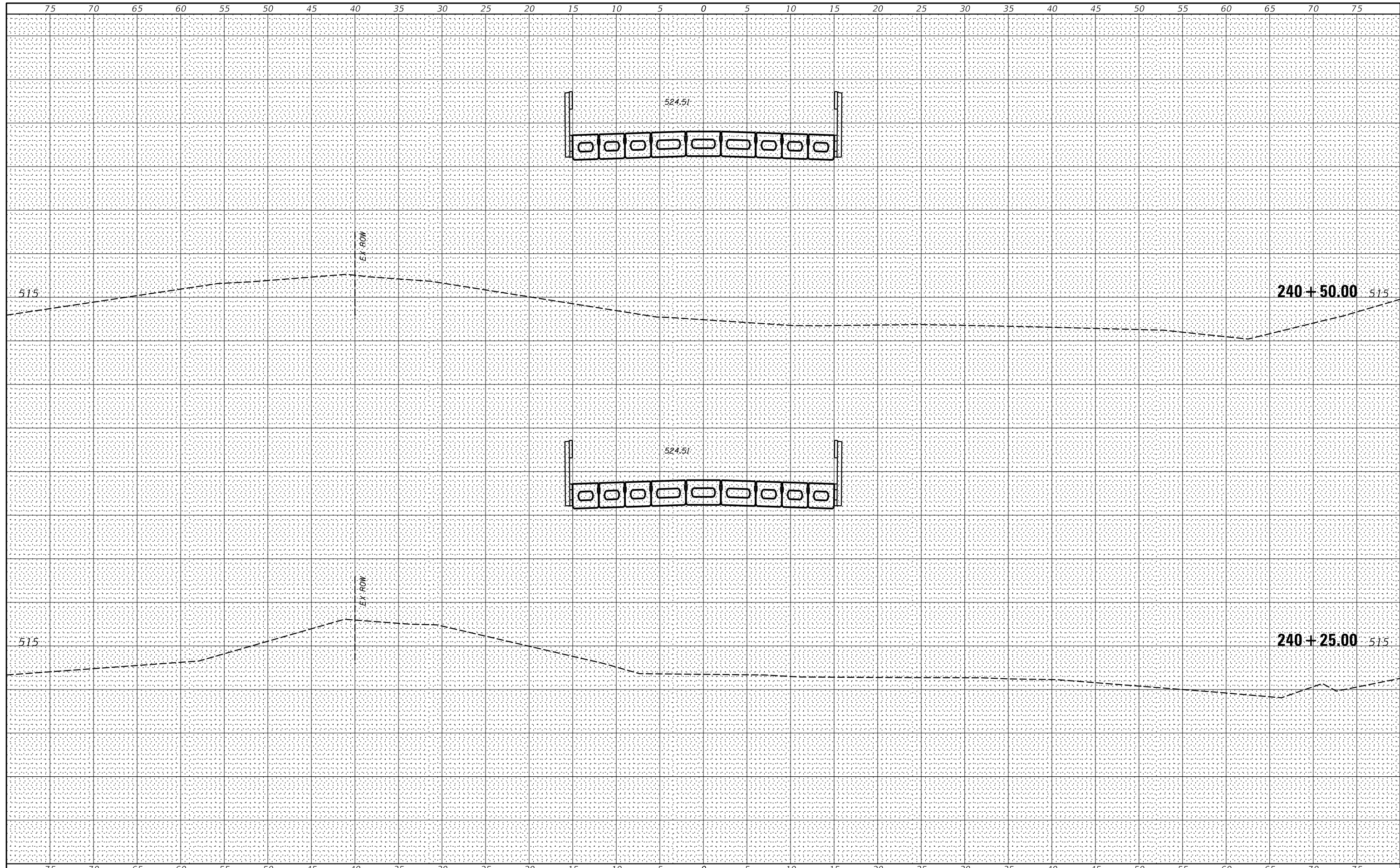
VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

CROSS SECTIONS
 SCALE: 1" = 5'
 SHEET NO. 5 OF 13 SHEETS
 STA. 239+50.00 TO STA. 239+75.00

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 42 |
| CONTRACT NO. 93793 | | | | |
| FED. ROAD DIST. NO. [] ILLINOIS FED. AID PROJECT | | | | |

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____



| | | |
|----------------------|------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISED - |
| PLOT SCALE = *SCALE* | DRAWN - | REVISED - |
| PLOT DATE = *DATE* | CHECKED - | REVISED - |
| | DATE - | REVISED - |



VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

CROSS SECTIONS

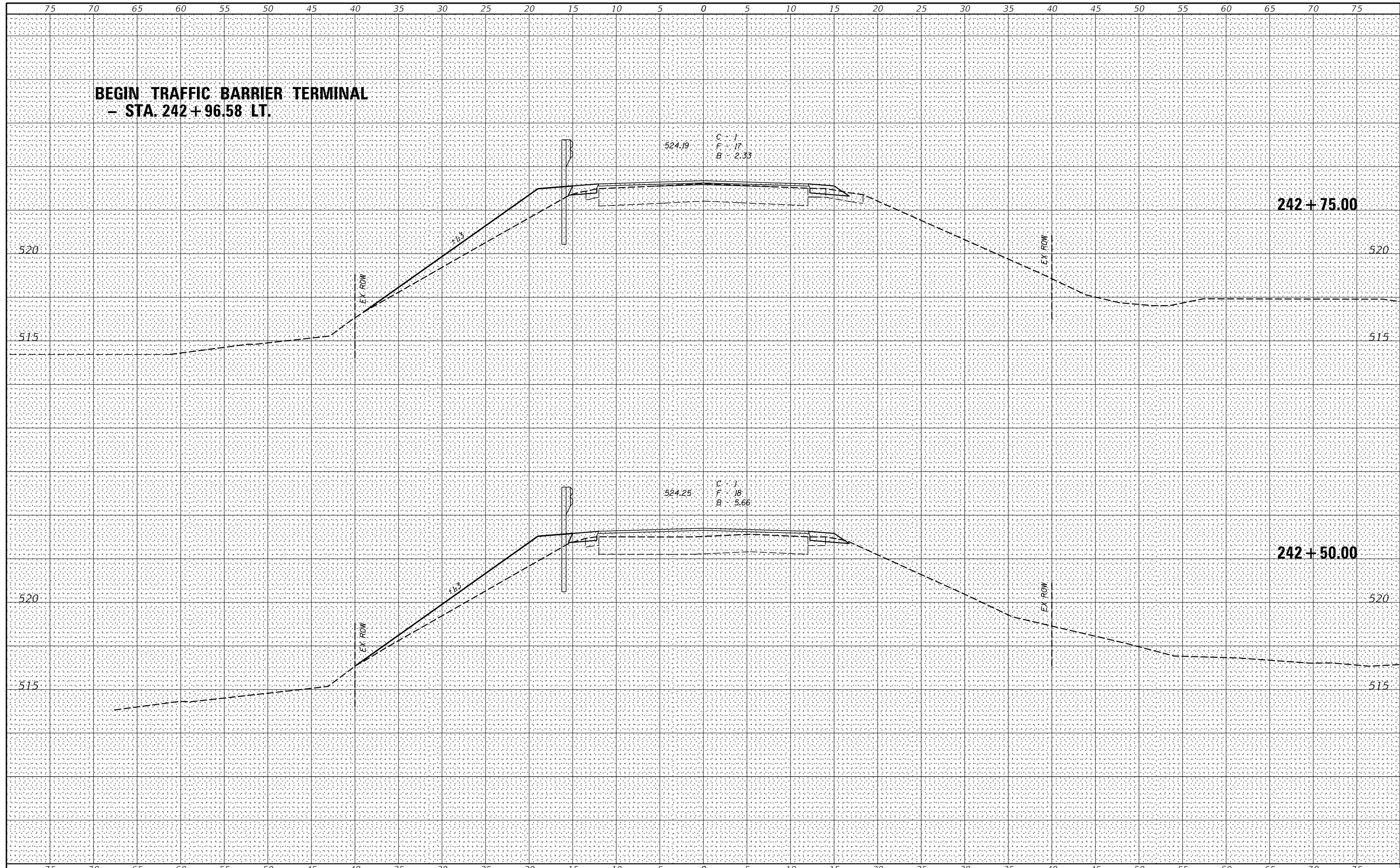
SCALE: 1" = 5' SHEET NO. 6 OF 13 SHEETS STA. 240+00.00 TO STA. 240+50.00

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 43 |
| CONTRACT NO. 93793 | | | | |
| FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT | | | | |

**BEGIN TRAFFIC BARRIER TERMINAL
- STA. 242+96.58 LT.**

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

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



| | | |
|----------------------|------------|-----------|
| USER NAME = *USER* | DESIGNED - | REVISED - |
| PLOT SCALE = *SCALE* | DRAWN - | REVISED - |
| PLOT DATE = *DATE* | CHECKED - | REVISED - |
| | DATE - | REVISED - |



VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

CROSS SECTIONS
SCALE: 1" = 5'
SHEET NO. 11 OF 13 SHEETS
STA. 242+50.00 TO STA. 242+75.00

| C.H. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 15 | 16-00123-00-BR | LOGAN | 50 | 48 |
| CONTRACT NO. 93793 | | | | |

FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT

