

| | | | | |
|-----------------------|----------|--------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 1 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | CONTRACT NO. 60C23 | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

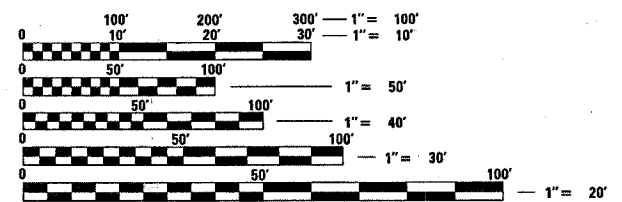
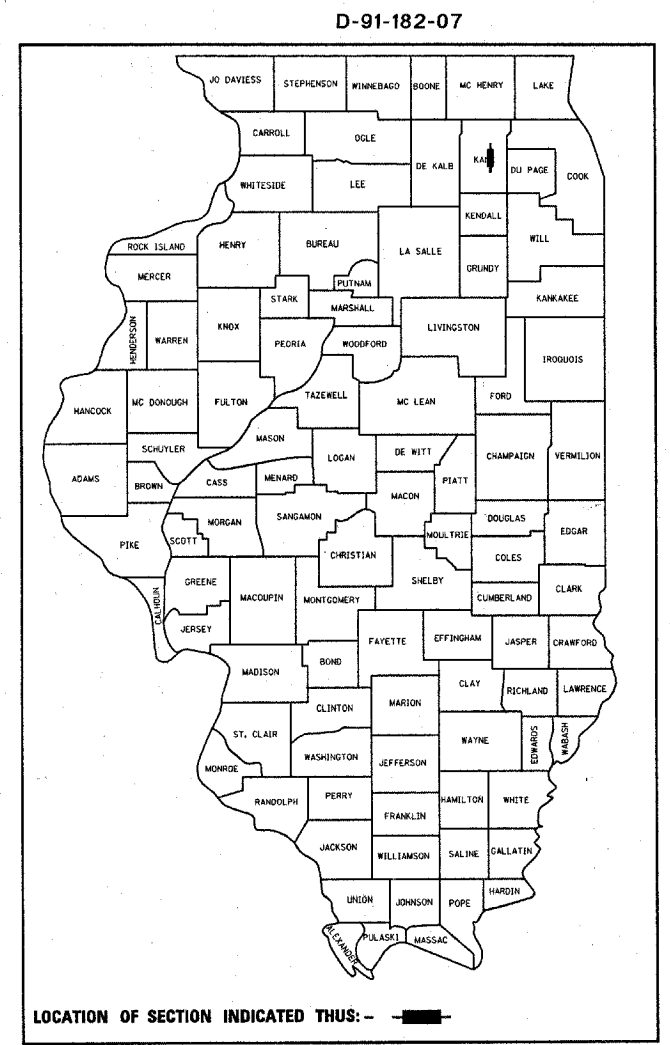
**FAU ROUTE 3887: ILLINOIS 31 (LINCOLN HIGHWAY)
OVER MILL CREEK
SECTION: AR-B
BRIDGE BEAM REPLACEMENT, NEW DECK
PROJECT NO.: *BHM-3887(002)*
SN: 045-0020
KANE COUNTY
C-91-182-07**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED
IN THE CITY OF BATAVIA & THE
VILLAGE OF NORTH AURORA

AVERAGE DAILY TRAFFIC
2005 ADT = 14,300

POSTED SPEED LIMIT
35 MPH

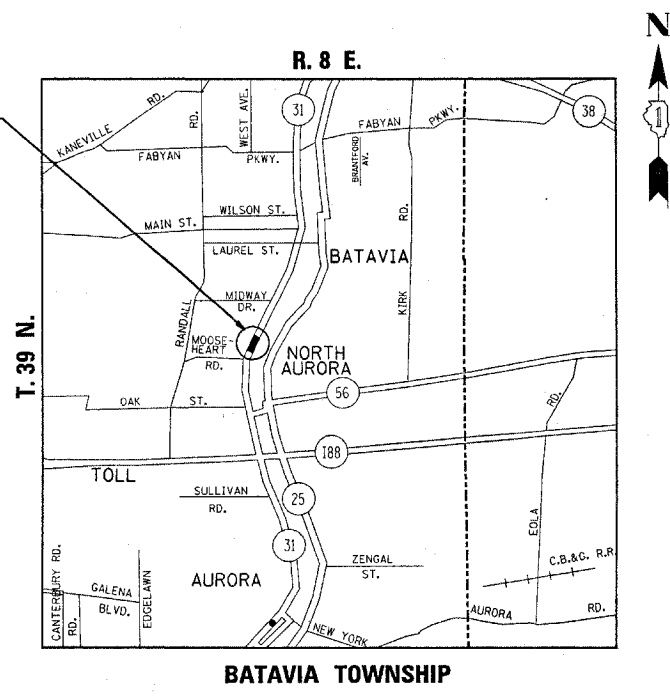


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

IMPROVEMENT
LOCATION
SN: 045-0020

BRIDGE
STA. 66+23 TO STA. 66+66



PROJECT ENGINEER: JENPAI P. CHANG 847 705 4432
PROJECT MANAGER: KEN ENG

CONTRACT NO. 60C23

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Nov. 6 2007
Diane O'Keefe/cd
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 7, 2007
Eric E. Harn/ed
ENGINEER OF DESIGN AND ENVIRONMENT

December 7, 2007
Christine M. Reed/rd
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

CONTRACT NO. 60C23

| SUMMARY OF QUANTITIES | | | CONSTRUCTION TYPE CODE | | | | | |
|-----------------------|---|-------|-------------------------------------|-----------------|----------------|--|--|--|
| CODE NO | ITEM | UNIT | 80% FED./20% STATE TOTAL QUANTITIES | ROADWAY 1000-2A | BRIDGE X080-2A | | | |
| 20101100 | TREE TRUNK PROTECTION | EACH | 3 | 3 | | | | |
| 20101300 | TREE PRUNING (1 TO 10 INCH DIAMETER) | EACH | 9 | 9 | | | | |
| 20200100 | EARTH EXCAVATION | CU YD | 22 | 22 | | | | |
| 31101200 | SUB-BASE GRANULAR MATERIAL, TYPE B 4" | SQ YD | 167 | 167 | | | | |
| 40600200 | BITUMINOUS MATERIALS (PRIME COAT) | TON | 0.2 | 0.2 | | | | |
| 40600300 | AGGREGATE (PRIME COAT) | TON | 0.7 | 0.7 | | | | |
| 40600982 | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT | SQ YD | 45 | 45 | | | | |
| 42001165 | BRIDGE APPROACH PAVEMENT | SQ YD | 434 | 434 | | | | |
| 42001300 | PROTECTIVE COAT | SQ YD | 608 | 608 | | | | |
| 42001430 | BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) | SQ YD | 317 | 317 | | | | |
| 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 785 | 785 | | | | |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 280 | 280 | | | | |
| 44000500 | COMBINATION CURB AND GUTTER REMOVAL | FOOT | 467 | 467 | | | | |
| 44000700 | APPROACH SLAB REMOVAL | SQ YD | 350 | 350 | | | | |
| 44004250 | PAVED SHOULDER REMOVAL | SQ YD | 30 | 30 | | | | |
| 50101500 | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 | | 1 | | | |
| 50102400 | CONCRETE REMOVAL | CU YD | 13 | 13 | | | | |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 26.5 | | 26.5 | | | |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 190 | | 190 | | | |
| 50300300 | PROTECTIVE COAT | SQ YD | 295 | | 295 | | | |
| 50400405 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) | SQ FT | 2313 | | 2313 | | | |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 6230 | | 6230 | | | |
| 50800515 | BAR SPLICERS | EACH | 98 | | 98 | | | |
| 50900905 | REMOVING AND RE-ERECTING EXISTING RAILING | FOOT | 59 | | 59 | | | |
| 51500100 | NAME PLATES | EACH | 1 | | 1 | | | |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 55 | | 55 | | | |
| 59000200 | EPOXY CRACK INJECTION | FOOT | 26 | | 26 | | | |
| 60250200 | CATCH BASINS TO BE ADJUSTED | EACH | 1 | 1 | | | | |

| SUMMARY OF QUANTITIES | | | CONSTRUCTION TYPE CODE | | | | | |
|-----------------------|--|--------|-------------------------------------|-----------------|----------------|--|--|--|
| CODE NO | ITEM | UNIT | 80% FED./20% STATE TOTAL QUANTITIES | ROADWAY 1000-2A | BRIDGE X080-2A | | | |
| 60255500 | MANHOLES TO BE ADJUSTED | EACH | 2 | 2 | | | | |
| 60300105 | FRAMES AND GRATES TO BE ADJUSTED | EACH | 1 | 1 | | | | |
| 60300305 | FRAMES AND LIDS TO BE ADJUSTED | EACH | 2 | 2 | | | | |
| 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT | 84 | 84 | | | | |
| 63000000 | STEEL PLATE BEAM GUARD RAIL, TYPE A | FOOT | 150 | 150 | | | | |
| 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 2 | 2 | | | | |
| 63100070 | TRAFFIC BARRIER TERMINAL, TYPE 5 | EACH | 2 | 2 | | | | |
| 63100085 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 2 | 2 | | | | |
| 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 2 | 2 | | | | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 7 | 2 | 5 | | | |
| 67100100 | MOBILIZATION | L SUM | 1 | 0.5 | 0.5 | | | |
| 70101800 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | 0.5 | 0.5 | | | |
| 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 43 | 9 | 34 | | | |
| 70300100 | SHORT-TERM PAVEMENT MARKING | FOOT | 483 | 452 | 31 | | | |
| 70300220 | TEMPORARY PAVEMENT MARKING - LINE 4" | FOOT | 1604 | 1498 | 106 | | | |
| 70300520 | PAVEMENT MARKING TAPE, TYPE III 4" | FOOT | 5446 | 5102 | 344 | | | |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 691 | 645 | 46 | | | |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 337.5 | | 337.5 | | | |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 337.5 | | 337.5 | | | |
| 78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 1384 | 1384 | | | | |
| 78008210 | POLYUREA PAVEMENT MARKING TYPE I - LINE 4" | FOOT | 220 | 114 | 106 | | | |
| 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 56 | 56 | | | | |
| 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 8 | | 8 | | | |
| 78200420 | GUARDRAIL MARKERS, TYPE B | EACH | 10 | 10 | | | | |
| 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 2 | 2 | | | | |
| 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 503 | 467 | 36 | | | |

* SPECIALTY ITEMS

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAU 3887: IL. RTE. 31 (LINCOLN HIGHWAY)
OVER MILL CREEK**
SUMMARY OF QUANTITIES

11/5/2007 10:00:00 AM

| SUMMARY OF QUANTITIES | | | CONSTRUCTION TYPE CODE | | | | | | |
|-----------------------|--|-------|------------------------|------------------------|----------------|--|--|--|--|
| CODE NO | ITEM | UNIT | TOTAL QUANTITIES | CONSTRUCTION TYPE CODE | | | | | |
| | | | | ROADWAY I000-2A | BRIDGE X000-2A | | | | |
| 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 64 | 56 | 8 | | | | |
| X0322256 | TEMPORARY INFORMATION SIGNING | SQ FT | 51.4 | 51.4 | | | | | |
| X0325303 | STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES) | SQ FT | 50 | | 50 | | | | |
| X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 2 | | 2 | | | | |
| X5030305 | CONCRETE WEARING SURFACE, 5" | SQ YD | 257 | | 257 | | | | |
| X6063401 | COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.12 | FOOT | 317 | 317 | | | | | |
| Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 38 | | 38 | | | | |
| Z0013796 | CONSTRUCTION LAYOUT | L SUM | 1 | | 1 | | | | |
| Z0030240 | IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2 | EACH | 2 | | 2 | | | | |
| Z0030340 | IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2 | EACH | 4 | | 4 | | | | |

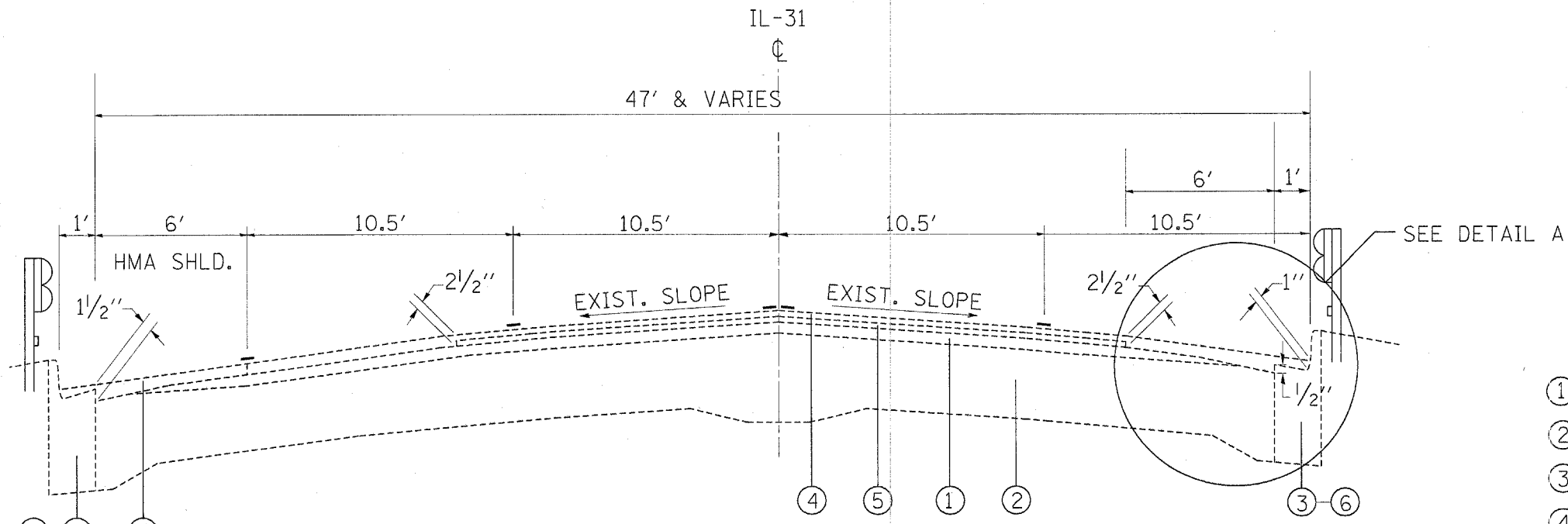
| SUMMARY OF QUANTITIES | | | CONSTRUCTION TYPE CODE | | | | | | |
|-----------------------|------|------|------------------------|------------------------|--|--|--|--|--|
| CODE NO | ITEM | UNIT | TOTAL QUANTITIES | CONSTRUCTION TYPE CODE | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

• SPECIALTY ITEMS

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FAU 3887: IL RTE. 31 (LINCOLN HIGHWAY)
 OVER MILL CREEK**
SUMMARY OF QUANTITIES

11/5/2007 10:00:00 AM



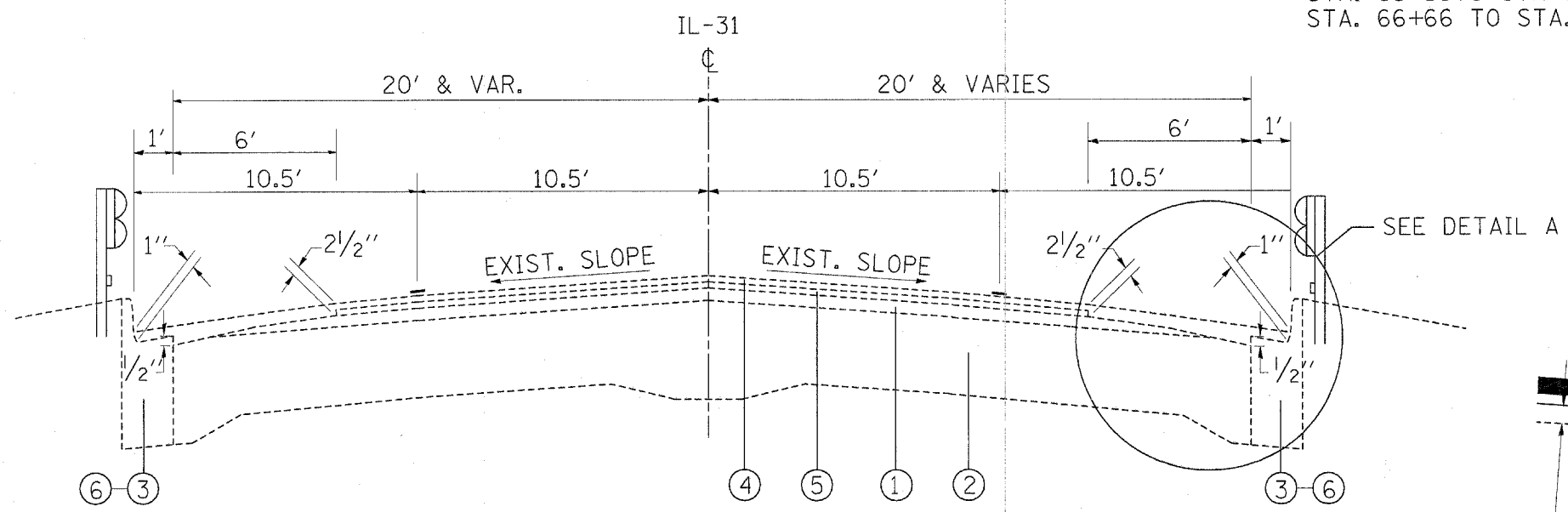
IL. RTE. 31
EXISTING TYPICAL CROSS SECTION
STA. 51+10 TO STA. 66+23

LEGEND

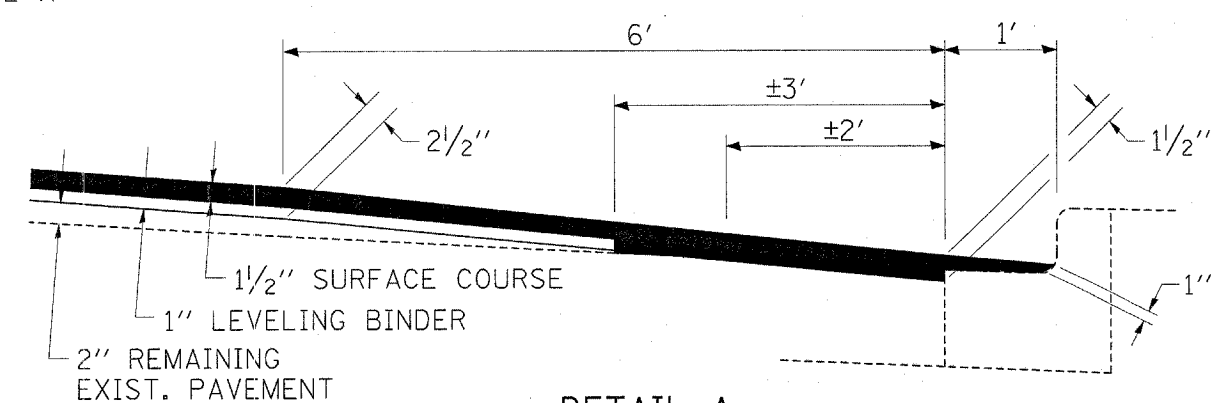
- ① EXISTING HMA SURFACING, 4-1/2" (±)
- ② EXISTING P.C. PAVEMENT
- ③ EXISTING COMBINATION CONCRETE CURB & GUTTER, B-6.12
- ④ EXISTING HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
- ⑤ EXISTING LEVELING BINDER (MACHINE METHOD), N70, 1"
- ⑥ EXISTING GUTTER FLAG OVELAYED WITH HMA SURFACE, 1"

PROPOSED GUARDRAIL :
 STA. 65+62 TO STA 66+23
 STA. 66+66 TO STA. 67+87
 PROP. COMB. C & G TY M-4.12:
 STA. 66+84 TO STA 68+41
 PROP. PCC SIDEWALK:
 STA. 65+74 TO STA 66+23
 STA. 66+66 TO STA. 67+04

PROPOSED GUARDRAIL:
 STA. 65+02 TO STA 66+23
 STA. 66+66 TO STA. 67+26
 PROP. COMB. C & G TY M-4.12 :
 STA. 64+53 TO STA 66+13
 PROP. PCC SIDEWALK:
 STA. 65+86 TO STA 66+23
 STA. 66+66 TO STA. 67+04



IL. RTE. 31
EXISTING TYPICAL CROSS SECTION
STA. 66+66 TO STA. 163+65



DETAIL A
NOT TO SCALE

| | | | |
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| | | DATE - | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | | |
|-------------------------------|---------------------|----------------|---|-------------|-----------------|-------------|
| ILLINOIS 31 (LINCOLN HIGHWAY) | | F.A. RTE. 3887 | SECTION AR-B | COUNTY KANE | TOTAL SHEETS 43 | SHEET NO. 5 |
| SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | |

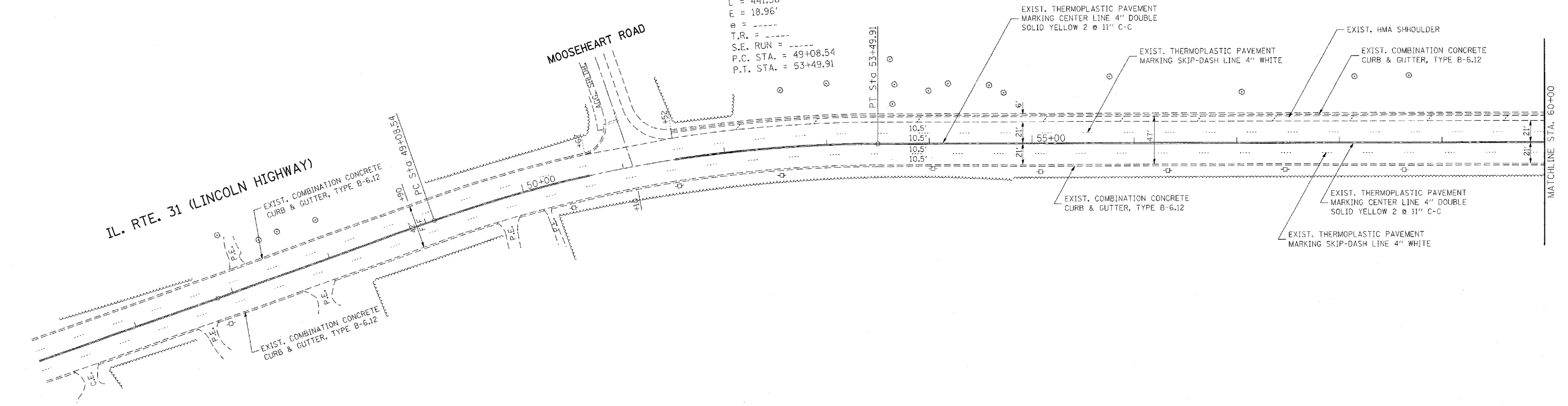
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|--------------------|--------------|-------------|-----------------|-------------|
| F.A. RTE. 3887 | SECTION AR-B | COUNTY KANE | TOTAL SHEETS 43 | SHEET NO. 5 |
| CONTRACT NO. 60C23 | | | | |

EXIST. CURVE E-31-3
 PI STA. = 51+31.37
 $\Delta = 19^\circ 27' 09''$ (RT)
 $D = 4^\circ 24' 27''$
 $R = 1,300.00'$
 $T = 222.83'$
 $L = 441.36'$
 $E = 18.96'$
 $e = \text{---}$
 $T.R. = \text{---}$
 $S.E. \text{ RUN} = \text{---}$
 $P.C. \text{ STA.} = 49+08.54$
 $P.T. \text{ STA.} = 53+49.91$



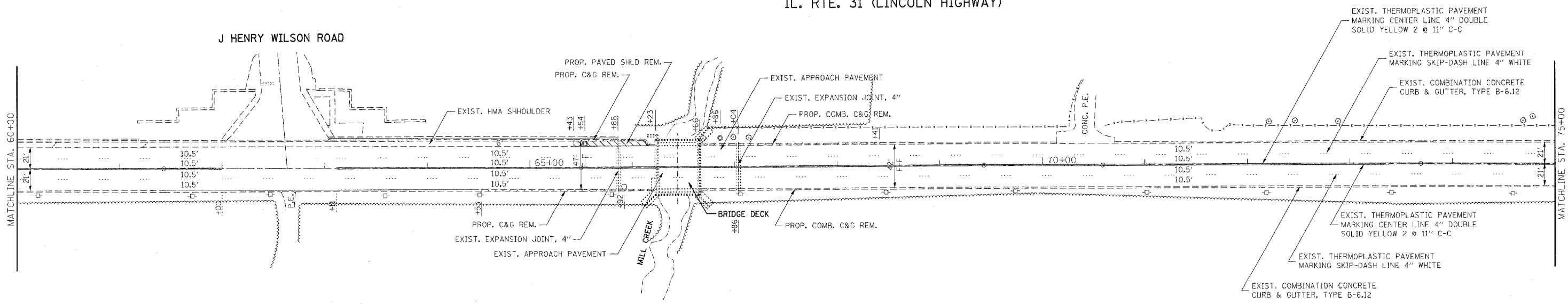
IL. RTE. 31 (LINCOLN HIGHWAY)

MOOSEHEART ROAD



IL. RTE. 31 (LINCOLN HIGHWAY)

J HENRY WILSON ROAD



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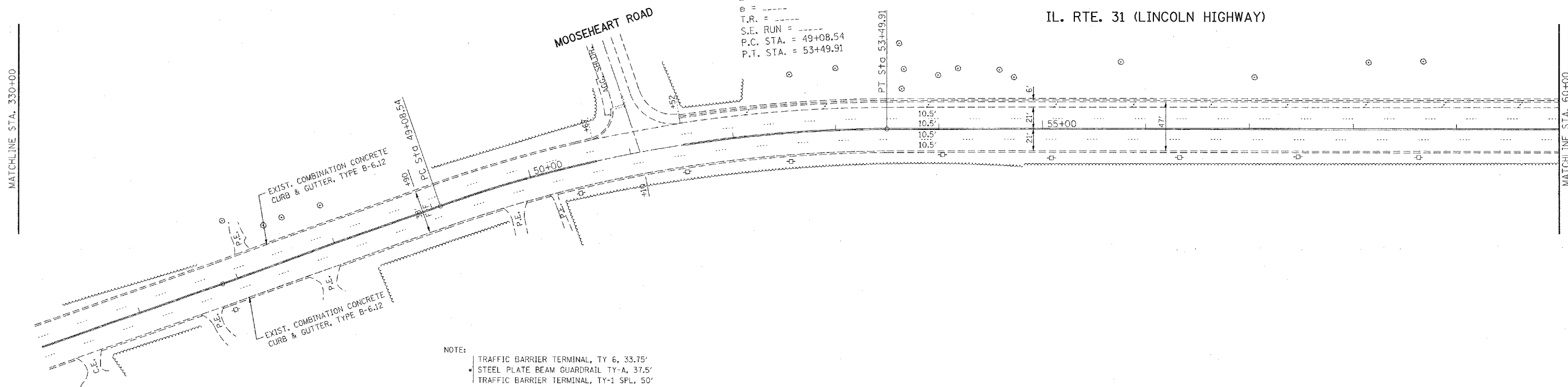
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAU 887: ILL. RTE 31 (LINCOLN HIGHWAY OVER MILL CREEK)
 EXISTING ROADWAY AND PAVEMENT MARKING PLAN

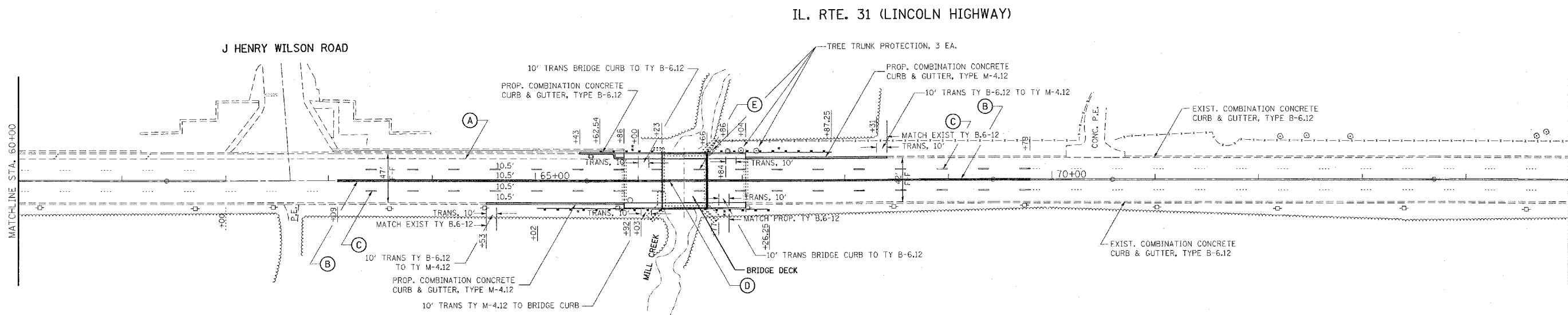
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| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|--------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 6 |
| CONTRACT NO. 60C23 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

EXIST. CURVE E-31-3
 PI STA. = 51+31.37
 $\Delta = 19^{\circ} 27' 09''$ (RT)
 $D = 4^{\circ} 24' 27''$
 $R = 1,300.00'$
 $T = 222.83'$
 $L = 441.36'$
 $E = 18.96'$
 $e = \dots$
 $T.R. = \dots$
 $S.E. RUN = \dots$
 $P.C. STA. = 49+08.54$
 $P.T. STA. = 53+49.91$



- NOTE:
- TRAFFIC BARRIER TERMINAL, TY 6, 33.75'
 - STEEL PLATE BEAM GUARDRAIL TY-A, 37.5'
 - TRAFFIC BARRIER TERMINAL, TY-1 SPL, 50'
 - TRAFFIC BARRIER TERMINAL, TY 5, 10.25'
 - STEEL PLATE BEAM GUARDRAIL TY-A, 37.5'
 - TRAFFIC BARRIER TERMINAL, TY-2, 12.5'



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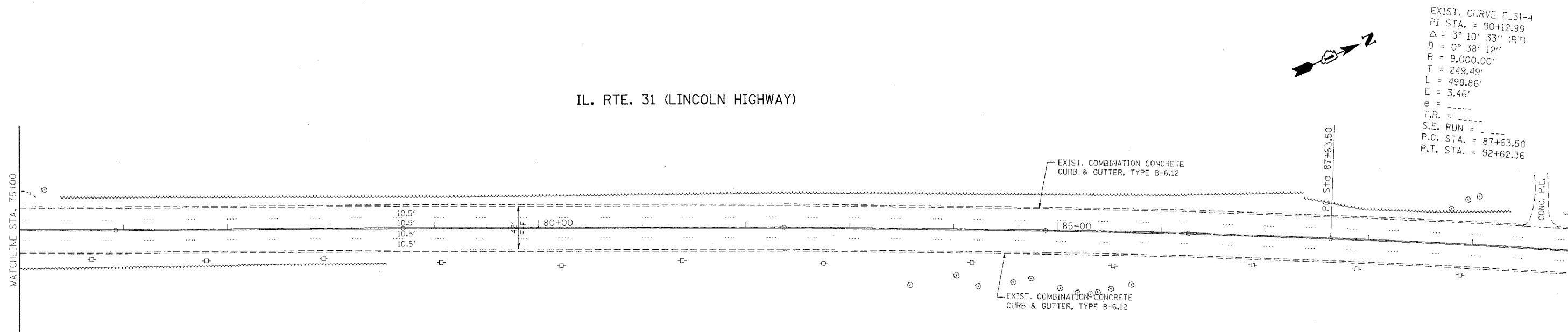
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAU 3887: ILL. RTE 31 (LINCOLN HIGHWAY) OVER MILLCREEK
 PROPOSED ROADWAY AND PAVEMENT MARKING PLAN
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|---------|--------|--------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 8 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60C23 | |

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IL. RTE. 31 (LINCOLN HIGHWAY)



LEGEND

- | | |
|---|---|
| <ul style="list-style-type: none"> (A) THERMOPLASTIC PAVEMENT MARKING EDGE LINE, 4" SOLID WHITE (B) THERMOPLASTIC PAVEMENT MARKING CENTER LINE, 4" DOUBLE SOLID YELLOW 2 @ 11" C-C (C) THERMOPLASTIC PAVEMENT MARKING SKIP-DASH LINE, 4" WHITE (D) POLYUREA PAVEMENT MARKING CENTER LINE, 4" DOUBLE SOLID YELLOW 2 @ 11" C-C (E) POLYUREA PAVEMENT MARKING SKIP-DASH LINE 4" WHITE (F) PAVEMENT MARKING TAPE, TYPE III EDGE LINE, 4" WHITE (G) PAVEMENT MARKING TAPE, TYPE III CENTER LINE, 4" DOUBLE SOLID YELLOW 2 @ 11" C-C (H) PAVEMENT MARKING TAPE, TYPE III SKIP-DASH LINE, 4" WHITE | <ul style="list-style-type: none"> WORK ZONE REMOVAL IMPACT ATTENUATOR TRAFFIC FLOW ARROW TEMPORARY BARRIER WALL (STATE OWNED) BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C TYPE III BARRICADE WITH STEADY BURNING LIGHTS TO ADEQUATELY PROTECT THE AREA SHOWN. CONSTRUCTION SIGN AND REFERENCE NUMBER (REFER TO SIGN DETAIL LEGEND SHEET) |
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 PLOT DATE = 11/5/2007

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| CHECKED - | REVISED - |
| DATE - | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAU 3887: ILL RTE 31 (LINCOLN HIGHWAY) OVER MILL CREEK
 PROPOSED ROADWAY AND PAVEMENT MARKING PLAN

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

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---------|--------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 9 |
| CONTRACT NO. 60C23 | | | | |
| FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT | | | | |

GENERAL NOTES FOR TRAFFIC CONTROL AND PROTECTION

ONE 11 FEET (AVE.) LANE SHALL BE KEPT OPEN TO THROUGH TRAFFIC AT ALL TIMES ON BOTH DIRECTIONS ON ILL. 31 (LINCOLN HIGHWAY FOR STAGING BRIDGE CONSTRUCTION).

STAGING OPERATIONS FOR THE BEAMS REPLACEMENT AND NEW DECK CONSTRUCTION SHALL BE COORDINATED IN SEQUENCE TO FACILITATE PROGRESS OF WORK AND ENHANCE SAFETY AND TRAFFIC FLOW DURING CONSTRUCTION.

SIDEWALK CLOSURE PER STANDARD 701801

PAYMENT FOR BRIDGE RECONSTRUCTION STAGING WILL BE PAID FOR AS PART OF THE ENTIRE PROJECT STAGING UNDER PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL)" ON A LUMP SUM BASIS

**SEQUENCE OF CONSTRUCTION STAGING
BRIDGE CONSTRUCTION**

STAGE I:

MAINTAIN TWO LANES OF TRAFFIC ON THE BRIDGE OVER MILL CREEK (ONE EACH DIRECTION).

REMOVE EXISTING PAVEMENT MARKINGS ON THE NORTHBOUND SECTION OF THE BRIDGE OVER MILL CREEK.

ERECT THE TRAFFIC CONTROL DEVICES, PAVEMENT MARKINGS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER PRIOR TO STARTING OF ANY WORK ON THE BRIDGE OVER MILL CREEK.

BEFORE START OF ANY EXCAVATION AND REMOVAL, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND LOCAL MUNICIPALITIES FOR UTILITIES RELOCATION OR ADJUSTMENTS.

INSTALL TEMPORARY CONCRETE BARRIER (STATE OWNED)

REMOVE EXISTING PCC SIDEWALK, CURB & GUTTER AND PARAPET ON THE EAST EDGE OF THE BRIDGE OVER MILL CREEK ON ILLINOIS 31 AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

REMOVE AND STORE EXISTING ALUMINUM RAILS.

REMOVE AND REPLACE THE BEAMS ON THE EAST HALF OF THE BRIDGE AS SHOWN IN STAGE I (REMOVAL AND CONSTRUCTION).

CONSTRUCT PCC PARAPET AND INSTALL SALVAGE ALUMINUM RAILS

CONSTRUCT PCC SIDEWALK, COMBINATION CURB AND GUTTER, AND CONCRETE WEARING SURFACE

INSTALL SPECIFIED TYPE OF GUARD RAIL AND ATTACHED ON BOTH ENDS OF THE PARAPET.

STAGE II:

ERECT ALL TRAFFIC CONTROL DEVICES AND RELOCATE TEMPORARY CONCRETE BARRIER FOR STAGE II TRAFFIC CONTROL AND PROTECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

CLOSE THE TWO INSIDE LANES OF ILLINOIS 31 OVER MILL CREEK. ONE ON THE NORTHBOUND LANE AND ONE ON THE SOUTH BOUND LANE.

RELOCATE TEMPORARY CONCRETE BARRIER TO MAINTAIN TRAFFIC IN EACH DIRECTION, ONE FOR NORTHBOUND AND ONE FOR SOUTH BOUND TRAFFIC. INSTALL ADDITIONAL TEMPORARY CONCRETE BARRIER AS IT MAY DEEM NECESSARY.

REMOVE TEMPORARY PAVEMENT MARKING TAPE FROM STAGE I AND INSTALL NEW TEMPORARY PAVEMENT MARKING TAPE AS SHOWN IN STAGE II.

REMOVE THE DECK SURFACE AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER

REMOVE AND REPLACE THE BEAMS ON THE MIDDLE SECTION OF THE BRIDGE AS SHOWN ON THE PLANS.

CONSTRUCT THE CONCRETE WEARING SURFACE ON THE BRIDGE DECK OF ILLINOIS 31 OVER MILL CREEK.

STAGE III:

ERECT ALL TRAFFIC CONTROL DEVICES AND RELOCATE TEMPORARY CONCRETE BARRIER FOR STAGE III TRAFFIC CONTROL AND PROTECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

TRAFFIC ON BOTH NORTHBOUND AND SOUTHBOUND ILLINOIS 31 WILL BE MAINTAINED UTILIZING THE NEWLY CONSTRUCTED PORTION OF THE BRIDGE ON THE EAST SIDE.

REMOVE TEMPORARY PAVEMENT MARKING TAPE FROM STAGE II AND INSTALL NEW TEMPORARY PAVEMENT MARKINGS FOR STAGE III.

REMOVE EXISTING CURB AND GUTTER, PCC SIDEWALK, AND PARAPET ON THE WEST SIDE OF THE BRIDGE.

REMOVE AND STORE EXISTING ALUMINUM RAILS.

REMOVE AND REPLACE THE BEAMS ON THE WEST SIDE OF THE BRIDGE AS SHOWN ON THE PLANS.

CONSTRUCT PCC PARAPET AND INSTALL SALVAGE ALUMINUM RAILS AND NAME PLATE.

CONSTRUCT PCC SIDEWALK, COMBINATION CURB AND GUTTER, AND CONCRETE WEARING SURFACE.

ATTACHED SPECIFIED OF GUARD RAIL AND ATTACHED ON BOTH ENDS OF THE PARAPET.

COMPLETE ROADWAY IMPROVEMENT INCLUDING PERMANENT PAVEMENT MARKINGS, SIGNING, ETC. AS SHOWN AND AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL SIGNS



W20-1101-48

1



W20-5L(0)-48

5



W20-5R(0)-48

2



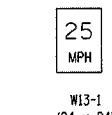
W4-2L(0)-48

6



W4-2R(0)-48

3



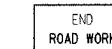
W13-1 (24 x 24)

7



W6-3(0)-48

4



G20-2 (36 x 18)

8

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

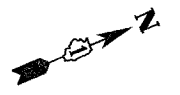
**FAU 3887: ILL RTE 31 (LINCOLN HIGHWAY) OVER MILL CREEK
STAGE CONSTRUCTION AND TRAFFIC CONTROL GENERAL NOTES**

| | | | | |
|---|-----------------|----------------|--------------------|-----------------|
| F.A.U. RTE. 3887 | SECTION AR-B | COUNTY KANE | TOTAL SHEETS 43 | SHEET NO. 10 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60C23 | |

| | | | |
|--|-----------------------------|------------|-----------|
| FILE NAME = c:\projects\dl18207\design\ee.dgn | USER NAME = galbarrb | DESIGNED - | REVISED - |
| | | DRAWN - | REVISED - |
| | PLOT SCALE = 50.0000' / IN. | CHECKED - | REVISED - |
| | PLOT DATE = 11/5/2007 | DATE - | REVISED - |

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

EXIST. CURVE E_31-3
 PI STA. = 51+31.37
 $\Delta = 19^\circ 27' 09''$ (RT)
 $D = 4^\circ 24' 27''$
 $R = 1,300.00'$
 $T = 222.83'$
 $L = 441.36'$
 $E = 18.96'$
 $e = \dots$
 T.R. = \dots
 S.E. RUN = \dots
 P.C. STA. = 49+08.54
 P.T. STA. = 53+49.91



IL. RTE. 31 (LINCOLN HIGHWAY)

MOOSEHEART ROAD

EXIST. HMA SHOULDER
 EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

SIGNING, BARRICADING AND LANE CLOSURE ACCORDING TO STANDARD 701606

STAGE I
 (REMOVAL AND CONSTRUCTION)

IL. RTE. 31 (LINCOLN HIGHWAY)

J HENRY WILSON ROAD

EXIST. HMA SHOULDER
 EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

EXIST. COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12

NOTE:

TAPER RATE FOR TEMPORARY CONCRETE BARRIER SHALL BE NO LESS THAN 8:1 FOR 35 MPH POSTED SPEED LIMIT

BRIDGE STA. 187+32.52 =
 ROADWAY STA. 66+44.06

STAGE I
 (REMOVAL AND CONSTRUCTION)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAU 3887: ILL. RTE. 31 (LINCOLN HIGHWAY) OVER MILL CREEK
 SUGGESTED STAGES OF TRAFFIC CONSTRUCTION AND TRAFFIC CONTROL

| | | | | |
|---|--------------|-------------|--------------------|--------------|
| F.A.U. RTE. 3887 | SECTION AR-B | COUNTY KANE | TOTAL SHEETS 43 | SHEET NO. 11 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60C23 | |

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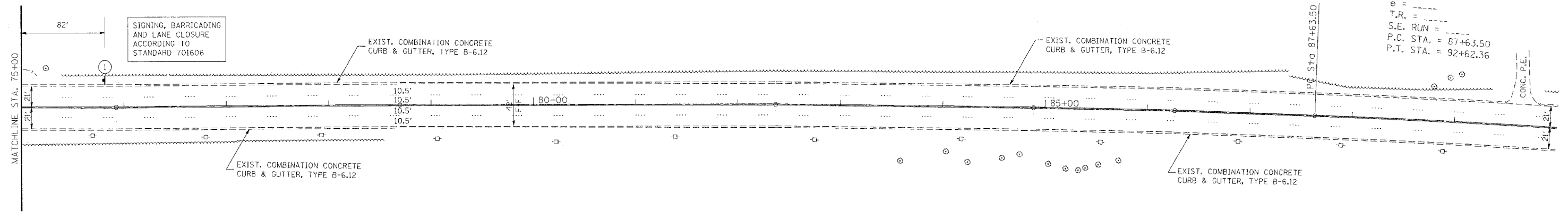
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 PLOT DATE = 12/1/2007

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|------------|-----------|
| DESIGNED - | REVISED - |
| DRAWN - | REVISED - |
| CHECKED - | REVISED - |
| DATE - | REVISED - |

SCALE: 1:50 SHEET NO. OF SHEETS STA. TO STA.

10/1/2007 10:27:30 AM

IL. RTE. 31 (LINCOLN HIGHWAY)



EXIST. CURVE E_31-4
 PI STA. = 90+12.99
 $\Delta = 3^\circ 10' 33''$ (RT)
 $D = 0^\circ 38' 12''$
 $R = 9,000.00'$
 $T = 249.49'$
 $L = 498.86'$
 $E = 3.46'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 87+63.50$
 $P.T. STA. = 92+62.36$

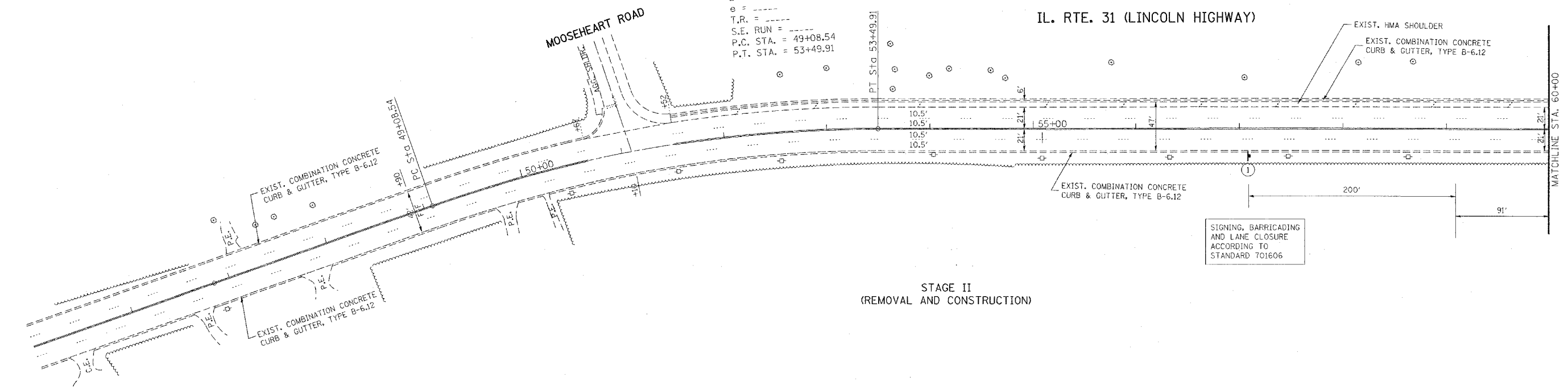
STAGE I
 (REMOVAL AND CONSTRUCTION)

LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (G) PAVEMENT MARKING TAPE, TYPE III
4" SOLID WHITE EDGE LINE
 - (H) PAVEMENT MARKING TAPE, TYPE III
4" SOLID DOUBLE YELLOW
 - (I) PAVEMENT MARKING TAPE, TYPE III
4" WHITE SKIP-DASH LINE
- WORK ZONE
 - REMOVAL
 - IMPACT ATTENUATOR
 - TRAFFIC FLOW ARROW
 - TEMPORARY BARRIER WALL (STATE OWNED)
 - BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C
 - TYPE III BARRICADE WITH STEADY BURNING LIGHTS TO ADEQUATELY PROTECT THE AREA SHOWN.
 - CONSTRUCTION SIGN AND REFERENCE NUMBER (REFER TO SIGN DETAIL LEGEND SHEET)

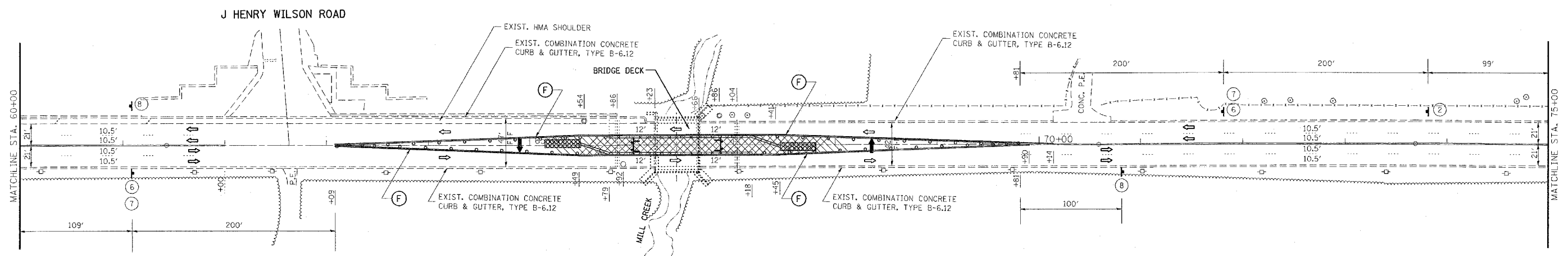
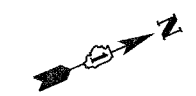
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|-----------------------------------|-----------------------------|------------|-----------|---|---|--------------|------------------|--------------|---|-----------------|--------------|--|
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| | PLOT DATE = 11/5/2007 | CHECKED - | REVISED - | | | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | |
| | | DATE - | REVISED - | | | | | | | | | |

EXIST. CURVE E.31-3
 PI STA. = 51+31.37
 $\Delta = 19^\circ 27' 09''$ (RT)
 $D = 4^\circ 24' 27''$
 $R = 1,300.00'$
 $T = 222.83'$
 $L = 441.36'$
 $E = 18.96'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 49+08.54
 P.T. STA. = 53+49.91



STAGE II
 (REMOVAL AND CONSTRUCTION)

IL. RTE. 31 (LINCOLN HIGHWAY)

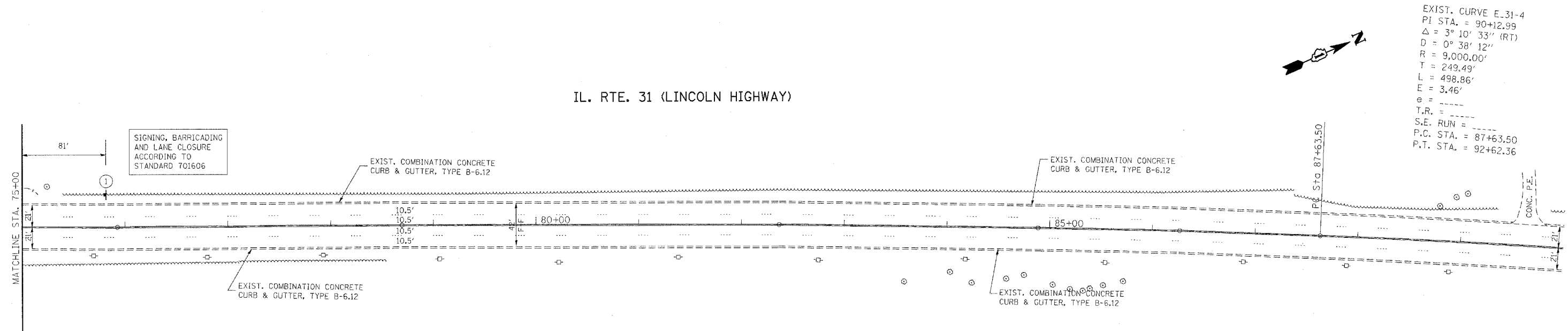


STAGE II
 (REMOVAL AND CONSTRUCTION)

NOTE:
 TAPER RATE FOR TEMPORARY CONCRETE BARRIER SHALL BE NO LESS THAN 8:1 FOR 35 MPH POSTED SPEED LIMIT
 BRIDGE STA. 187+32.52 =
 ROADWAY STA. 66+44.06

| | | | | | | | | | | | |
|--|----------------------|------------|-----------|---|--|---------------------|-----------------|---|--------------------|-----------------|--|
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| PLOT SCALE = 52.9397' / IN. | CHECKED - | REVISED - | SCALE: | | | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | |
| PLOT DATE = 12/11/2007 | DATE - | REVISED - | | | | | | CONTRACT NO. 60C23 | | | |
| | | | | | | | | | | | |

IL. RTE. 31 (LINCOLN HIGHWAY)



STAGE II
(REMOVAL AND CONSTRUCTION)

LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (G) PAVEMENT MARKING TAPE, TYPE III
4" SOLID WHITE EDGE LINE
 - (H) PAVEMENT MARKING TAPE, TYPE III
4" SOLID DOUBLE YELLOW
 - (I) PAVEMENT MARKING TAPE, TYPE III
4" WHITE SKIP-DASH LINE
- WORK ZONE
 - REMOVAL
 - IMPACT ATTENUATOR
 - TRAFFIC FLOW ARROW
 - TEMPORARY BARRIER WALL (STATE OWNED)
 - BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C
 - TYPE III BARRICADE WITH STEADY BURNING LIGHTS TO ADEQUATELY PROTECT THE AREA SHOWN.
 - CONSTRUCTION SIGN AND REFERENCE NUMBER (REFER TO SIGN DETAIL LEGEND SHEET)

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PLOT SCALE = 50.0000 / 1/4"
PLOT DATE = 11/5/2007

DESIGNED -
DRAWN -
CHECKED -
DATE -

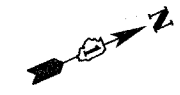
REVISED -
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAU 3887: ILL. RTE. 31 (LINCOLN HIGHWAY) OVER MILL CREEK
SUGGESTED STAGES OF TRAFFIC CONSTRUCTION AND TRAFFIC CONTROL
SCALE: SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|---------|--------|--------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 14 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60C23 | |

EXIST. CURVE E-31-3
 PI STA. = 51+31.37
 $\Delta = 19^\circ 27' 09''$ (RT)
 $D = 4^\circ 24' 27''$
 $R = 1,300.00'$
 $T = 222.83'$
 $L = 441.36'$
 $E = 18.96'$
 $e =$
 T.R. =
 S.E. RUN =
 P.C. STA. = 49+08.54
 P.T. STA. = 53+49.91



IL. RTE. 31 (LINCOLN HIGHWAY)

MOOSEHEART ROAD

STAGE III
 (REMOVAL AND CONSTRUCTION)

SIGNING, BARRICADING
 AND LANE CLOSURE
 ACCORDING TO
 STANDARD 701606

IL. RTE. 31 (LINCOLN HIGHWAY)

J HENRY WILSON ROAD

STAGE III
 (REMOVAL AND CONSTRUCTION)

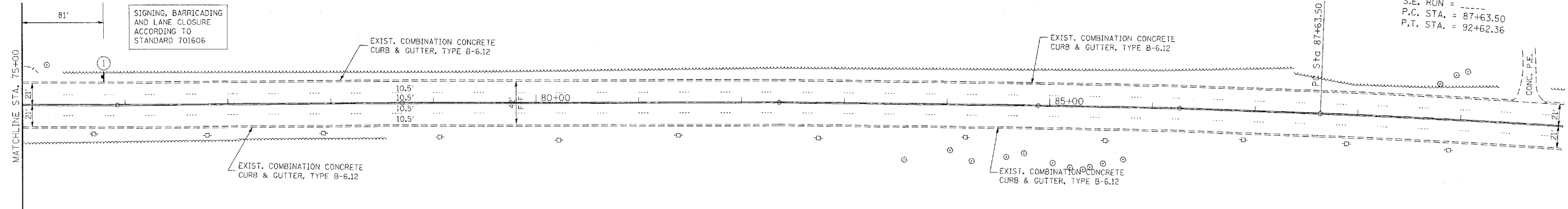
NOTE:
 TAPER RATE FOR TEMPORARY CONCRETE BARRIER
 SHALL BE NO LESS THAN 8:1 FOR 35 MPH POSTED
 SPEED LIMIT

 BRIDGE STA. 187+32.52 =
 ROADWAY STA. 66+44.06

| | | | | | | | | | | | |
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| PLOT SCALE = 52.9397' / IN. | CHECKED - | REVISED - | SCALE: 1:50 | | | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | CONTRACT NO. 60C23 | |
| PLOT DATE = 12/1/2007 | DATE - | REVISED - | | | | | | | | | |

IL. RTE. 31 (LINCOLN HIGHWAY)

EXIST. CURVE E.31-4
 PI STA. = 90+12.99
 $\Delta = 3^\circ 10' 33''$ (RT)
 $D = 0^\circ 38' 12''$
 $R = 9,000.00'$
 $T = 249.49'$
 $L = 498.86'$
 $E = 3.46'$
 $e =$
 $T.R. =$
 $S.E. RUN =$
 $P.C. STA. = 87+63.50$
 $P.T. STA. = 92+62.36$



STAGE III
 (REMOVAL AND CONSTRUCTION)

LEGEND

- (A) THERMOPLASTIC PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (B) THERMOPLASTIC PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (C) THERMOPLASTIC PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (D) POLYUREA PAVEMENT MARKING
4" SOLID WHITE EDGE LINE
 - (E) POLYUREA PAVEMENT MARKING
4" WHITE SKIP-DASH LINE
 - (F) POLYUREA PAVEMENT MARKING
4" SOLID YELLOW EDGE LINE
 - (G) PAVEMENT MARKING TAPE, TYPE III
4" SOLID WHITE EDGE LINE
 - (H) PAVEMENT MARKING TAPE, TYPE III
4" SOLID DOUBLE YELLOW
 - (I) PAVEMENT MARKING TAPE, TYPE III
4" WHITE SKIP-DASH LINE
- WORK ZONE
 - REMOVAL
 - IMPACT ATTENUATOR
 - TRAFFIC FLOW ARROW
 - TEMPORARY BARRIER WALL (STATE OWNED)
 - BARRICADE TYPE I OR TYPE II OR REFLECTORIZED DRUM
OR VERTICAL PANEL WITH STEADY BURNING LIGHTS AT 50' C-C
 - TYPE III BARRICADE WITH STEADY BURNING LIGHTS
TO ADEQUATELY PROTECT THE AREA SHOWN.
 - CONSTRUCTION SIGN AND REFERENCE NUMBER
(REFER TO SIGN DETAIL LEGEND SHEET)

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USER NAME = galbannb
 DESIGNED -
 DRAWN -
 PLOT SCALE = 50.0000' / IN.
 CHECKED -
 PLOT DATE = 11/5/2007

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FAU 3887: ILL. RTE. 31 (LINCOLN HIGHWAY) OVER MILL CREEK
 SUGGESTED STAGES OF TRAFFIC CONSTRUCTION AND TRAFFIC CONTROL
 SCALE: 1:50 SHEET NO. OF SHEETS STA. TO STA.

| | | | | |
|---|---------|--------|--------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 16 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 60C23 | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

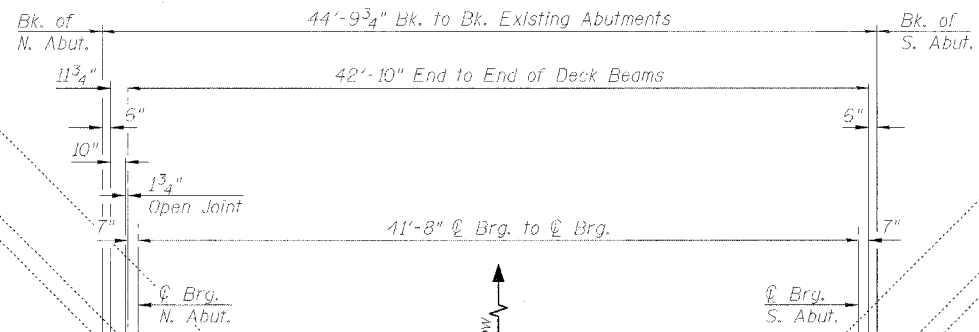
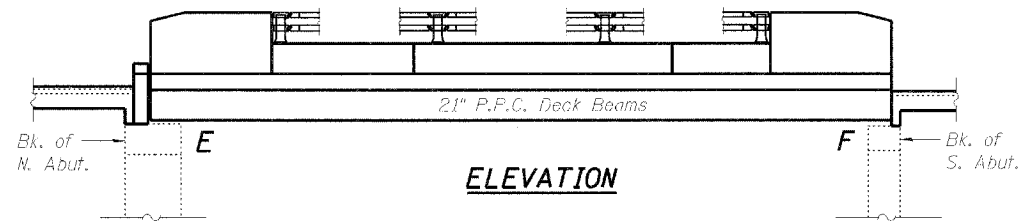
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|-----------------------|-----------------------|------------------|-------|-------|--------------------------|
| ROUTE NO. | SECTION | COUNTY | SHEET | SHEET | SHEET NO. 1 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 17 | |
| FED. ROAD DIST. NO. 7 | ILL. ROAD DIST. NO. 7 | FED. AID PROJECT | | | |

Contract #60C23

Benchmark:
Existing benchmark could not be found on N.E. wingwall. Top of N.E. wingwall was assumed at El. 661.84 (original benchmark elevation). Elevation was transferred to temporary benchmark which is railroad spike in west side of power pole, El. 662.23.

Existing Structure:
Original Bridge S.N. 045-0020 was built as R.C. Deck Girder with Closed Abutments next to thru steel girder Railroad Bridge in early 1900's. Railroad Bridge was removed and Highway Bridge was widened in kind, abutments modified, in 1935. This structure was rebuilt in 1978. Superstructure was removed and replaced with PPC Deck Beams. Abutments were modified for deck beams and repaired as required. The existing PPC Deck Beams, Sidewalk, and Parapets shall be removed and replaced utilizing stage construction. Existing brass name plate has SN 025-0020 imprinted rather than SN 045-0020.

Salvage:
Remove and re-erect existing aluminum railing. Relocate existing name plate.



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

INDEX OF SHEETS

1. General Plan & Elevation
2. General Notes and Total Bill of Material
3. Stage I Construction
4. Stage II Construction
5. Stage III Construction
6. Temporary Concrete Barrier
7. Superstructure Details
8. Sections and Bearing Details
9. Strip Seal Joint Details
10. Concrete Wearing Surface
11. Sidewalk & Parapet Details
12. Parapet Details
13. Bar Splicer Assembly Details
14. Re-erected Aluminum Railing
15. North Abutment Details
16. Substructure Repairs

LOADING HS20-44

No Allowance for future wearing surface

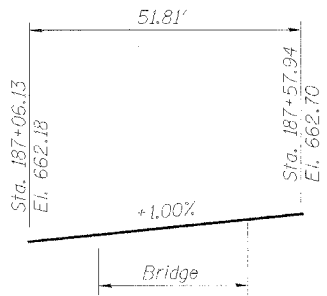
DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications

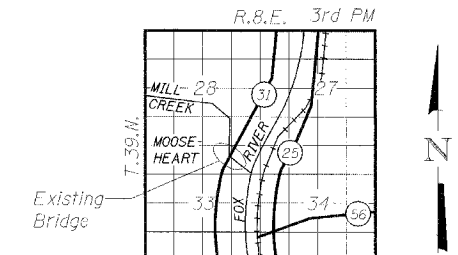
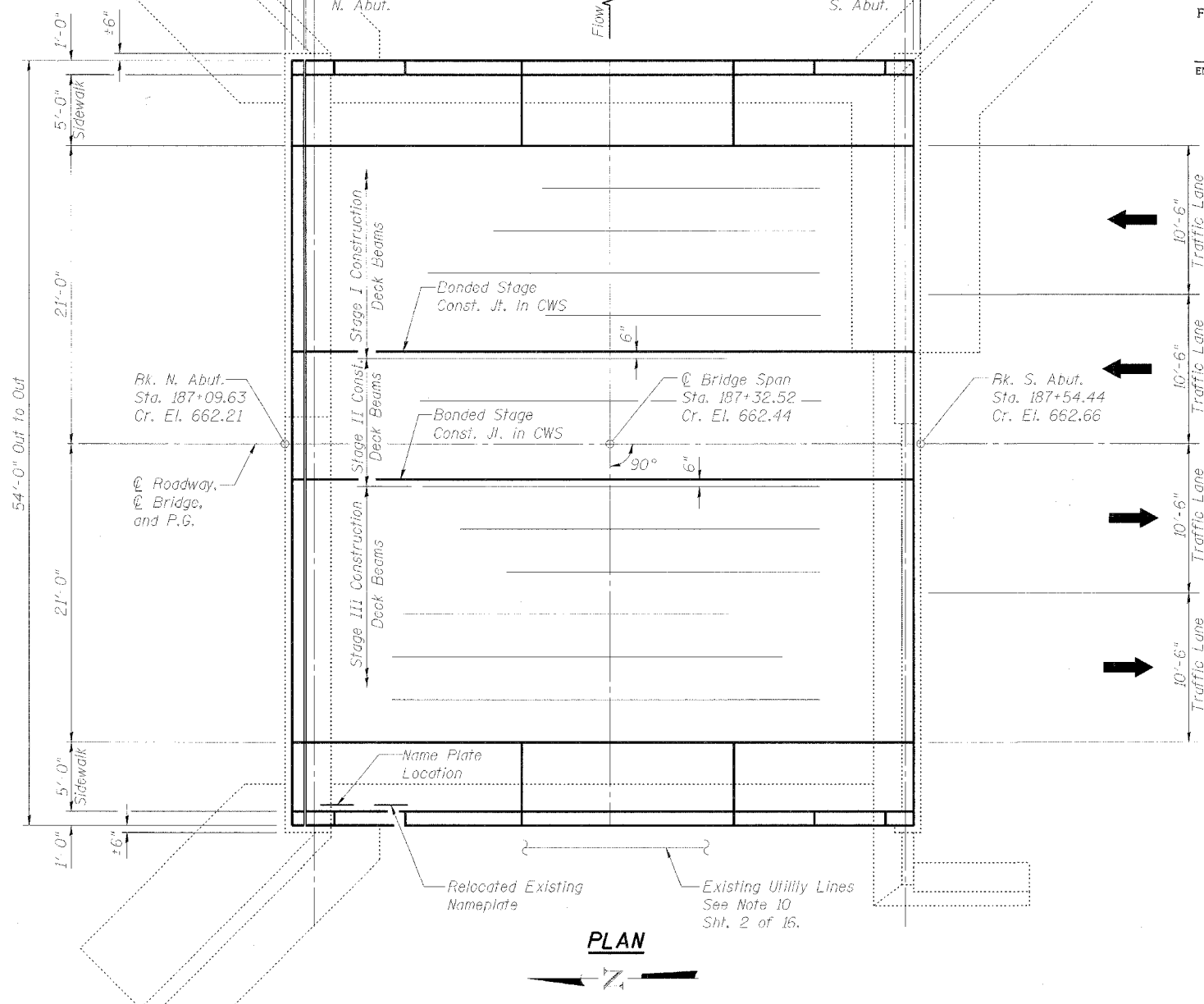
DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS
 $f'_c = 5,000$ psi
 $f_{si} = 4,000$ psi
 $f'_s = 270,000$ psi (1/2" ϕ low lax strands)
 $f_{si} = 201,960$ psi (1/2" ϕ low lax strands)



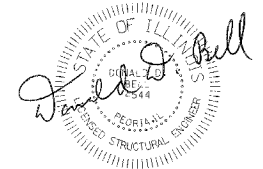
PROFILE GRADE
at \odot Roadway
(For Bridge Only)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |



License Expires: 11/30/08
Date Signed: 11-2-07

STS CONSULTANTS
 111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph(309)676-8464
 FAX(309)676-5445
 IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------|-----------|--------------------------|
| ROUTE NO. | DIVISION | COUNTY | ISIN | SHEET NO. | SHEET NO. 2 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 18 | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |

Contract #60C23

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions
- Reinforcement bars designated (E) shall be epoxy coated.
- 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.
- The minimum thickness of the Concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam camber.
- No instream work will be allowed on this project.
- Repair of the abutments shall be completed prior to placement of the new deck beams.
- The contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.
- If the Contractor's procedure for existing beam removal or placement of new beams involves placement of heavy equipment on the new deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost Included with Removal of Existing Superstructure.
- Four utility pipes and/or conduits are supported on the west side of the bridge. Contractor shall temporarily support utilities during stage construction. Reattach with existing hangers and new hardware as required. Cost included in Removal of Existing Superstructures.

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

STATION 187+31.80
REBUILT 200... BY
STATE OF ILLINOIS
F.A.U. RTE. 3887
LOADING HS20
STR. NO. 045-0020

NAME PLATE

See Std. 515001

Relocate existing name plate next to rebuilt name plate, cost included in Name Plates.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|-----|-------|
| Removal of Existing Superstructures | Each | 1 | | 1 |
| Concrete Superstructure | Cu. Yd. | 26.5 | | 26.5 |
| Bridge Deck Grooving | Sq. Yd. | 190 | | 190 |
| Protective Coat | Sq. Yd. | 295 | | 295 |
| Concrete Wearing Surface, 5" | Sq. Yd. | 257 | | 257 |
| Precast Prestressed Concrete Deck Beams (21" Depth) | Sq. Ft. | 2,313 | | 2,313 |
| Reinforcement Bars, Epoxy Coated | Pound | 6230 | | 6230 |
| Bar Splicers | Each | 98 | | 98 |
| Removing and Re-erecting Existing Railing | Foot | 59 | | 59 |
| Name Plates | Each | 1 | | 1 |
| Preformed Joint Strip Seal | Foot | 55 | | 55 |
| Epoxy Crack Injection | Foot | | 26 | 26 |
| Structural Repair of Concrete (Depth Greater Than 5") | Sq. Ft. | | 50 | 50 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5") | Sq. Ft. | | 2 | 2 |
| Asbestos Bearing Pad Removal | Each | | 38 | 38 |

**GENERAL NOTES AND
TOTAL BILL OF MATERIAL
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020**

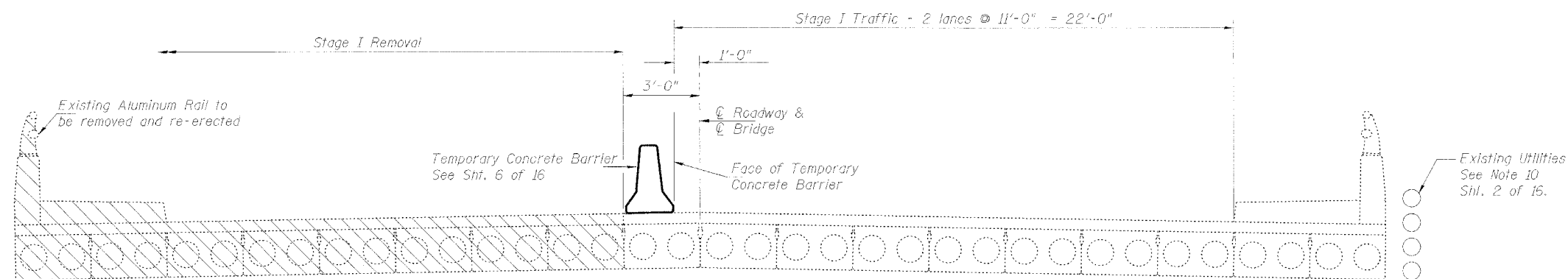
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-6445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS

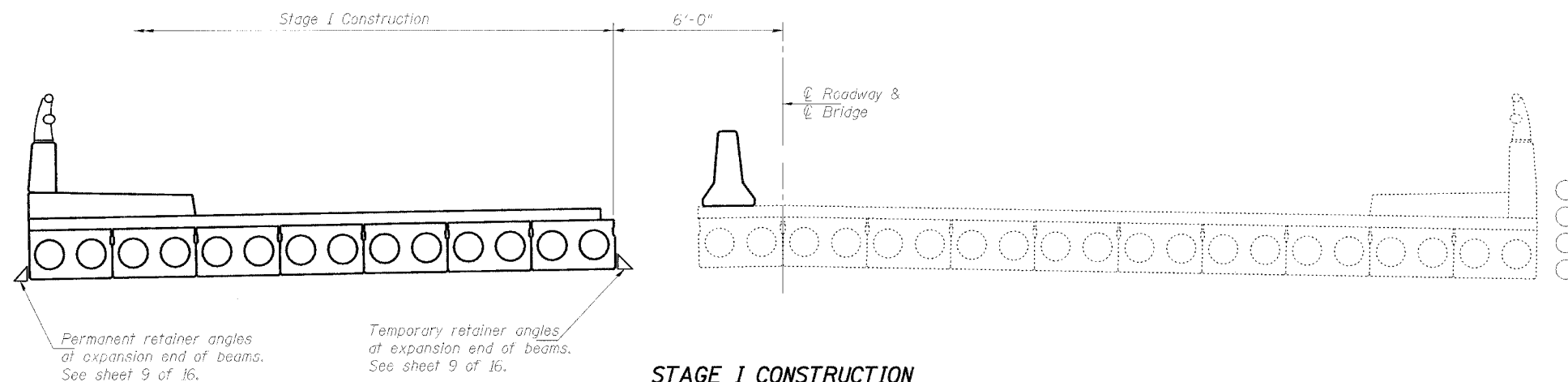
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| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 3 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 19 | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |

Contract #60C23

Notes:
 All staging cross sections are looking south.
 For quantity of Temporary Concrete Barrier see roadway plans.
 Hatched area indicates Removal of Existing Superstructures.



STAGE I REMOVAL



STAGE I CONSTRUCTION

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

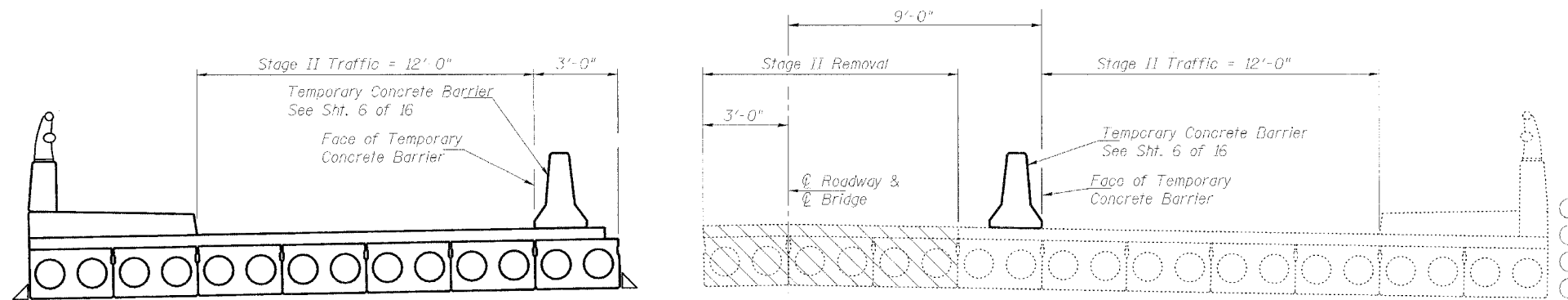
STAGE I CONSTRUCTION
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
 111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph(309)676-8464
 FAX(309)676-5445
 IL Design Firm Reg. No. 184-001518

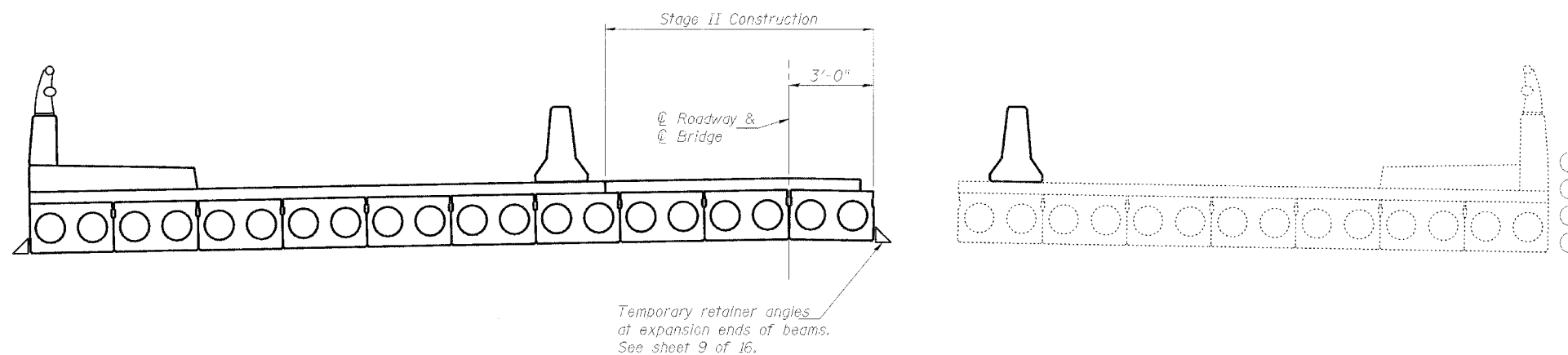
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|---------------------|----------|------------------|--------------|-----------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 20 | 16 SHEETS |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | | |

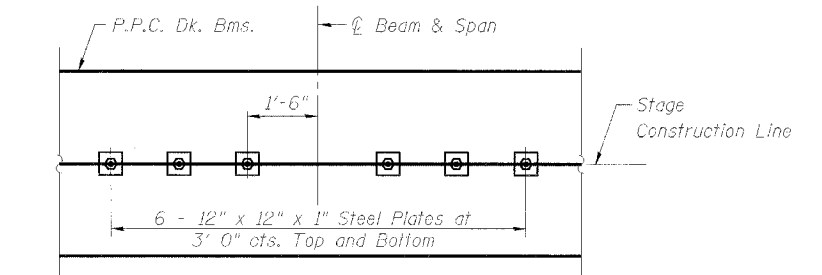
Contract # 60C23



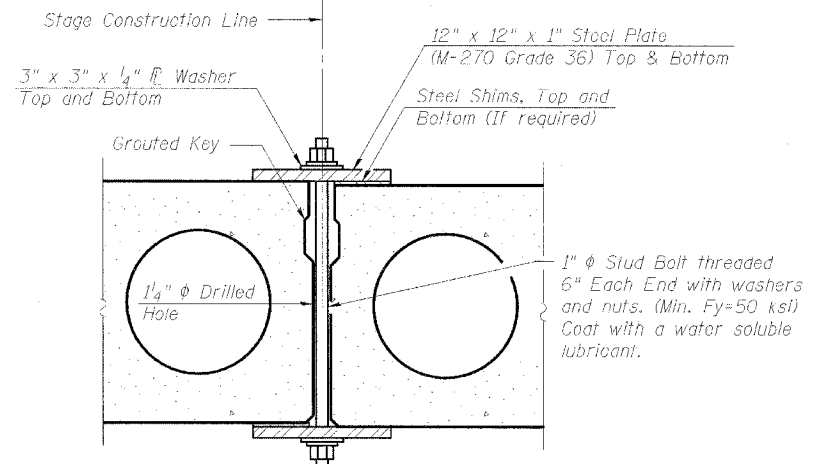
STAGE II REMOVAL



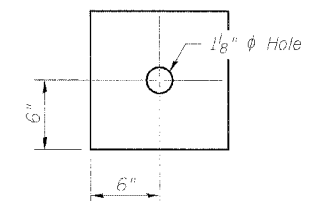
STAGE II CONSTRUCTION



PLAN



SECTION



CLAMPING PLATE

**SHEAR KEY CLAMPING DETAILS
AT STAGE CONST. JT.**

1. See Standard Specifications for Stage Construction of P.P.C. Deck Beams.
2. Cost Included with "Precast Prestressed Concrete Deck Beams".
3. See Stage Construction Details on Roadway Plans for traffic lanes.

Notes:
All staging cross sections are looking south.
For quantity of Temporary Concrete Barrier see roadway plans.
Hatched area indicates Removal of Existing Superstructures.

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MCM |
| CHECKED | LLV |

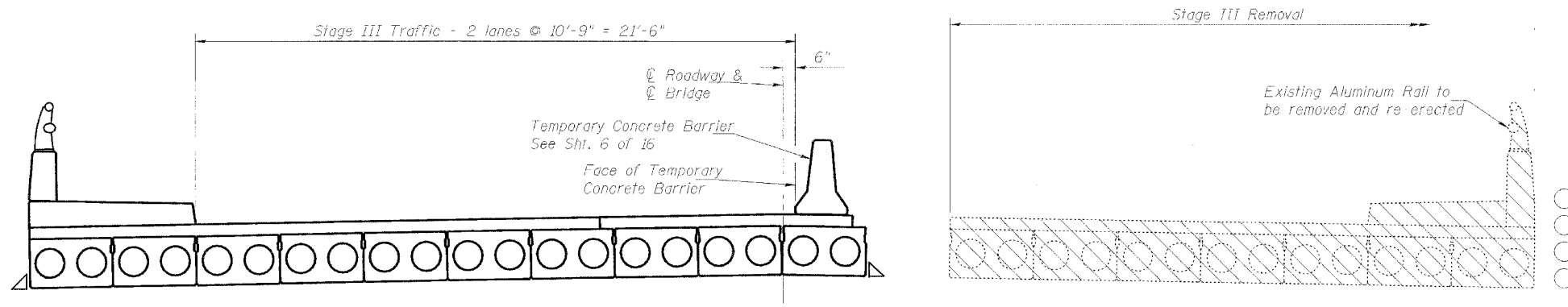
STAGE II CONSTRUCTION
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
II, Design Firm Reg. No. 184-001518

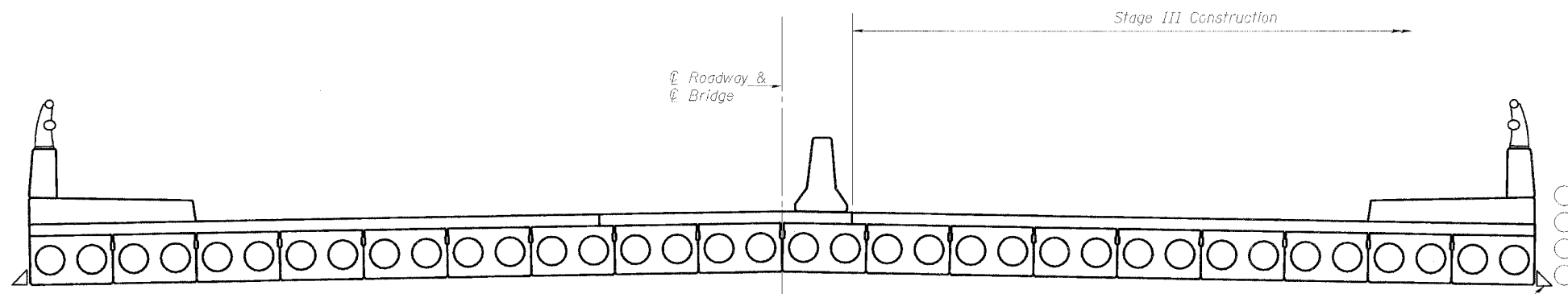
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|--------------|------------------|--------------------------|
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| 3887 | AR-B | KANE | 43 | 21 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT | |

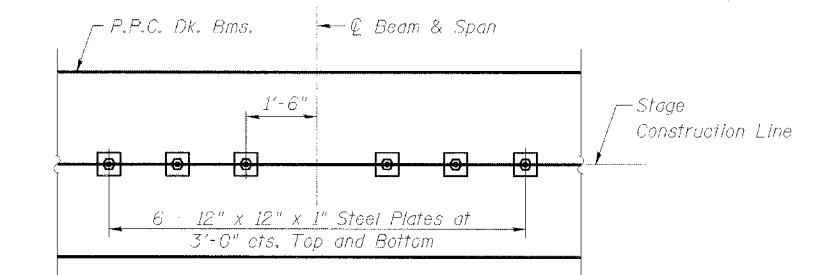
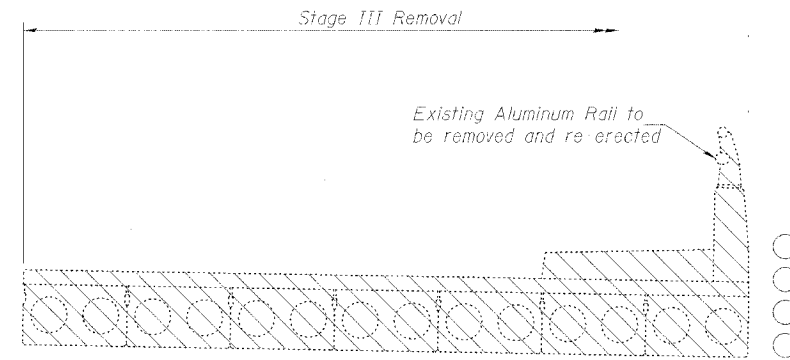
Contract #60C23



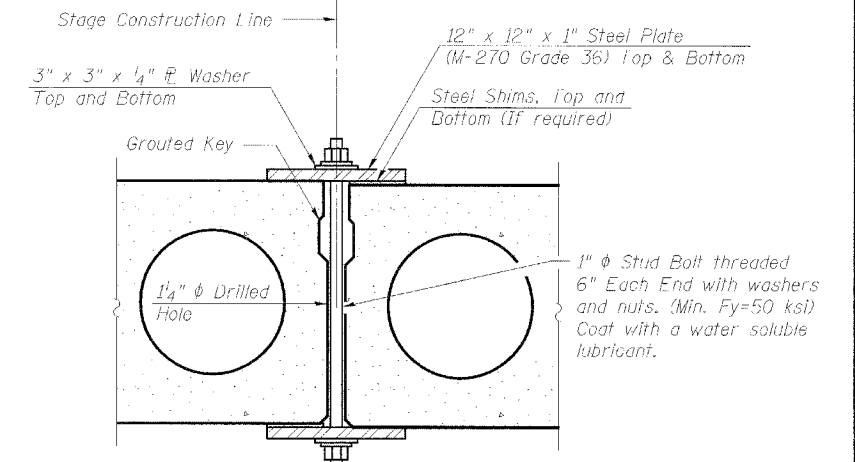
STAGE III REMOVAL



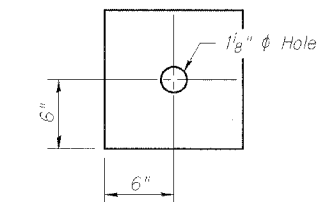
STAGE III CONSTRUCTION



PLAN



SECTION



CLAMPING PLATE

**SHEAR KEY CLAMPING DETAILS
AT STAGE CONST. JT.**

1. See Standard Specifications for Stage Construction of P.P.C. Deck Beams.
2. Cost Included with "Precast Prestressed Concrete Deck Beams".
3. See Stage Construction Details on Roadway Plans for traffic lanes.

Notes:
All staging cross sections are looking south.
For quantity of Temporary Concrete Barrier see roadway plans.
Hatched area indicates Removal of Existing Superstructures.

STAGE III CONSTRUCTION
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

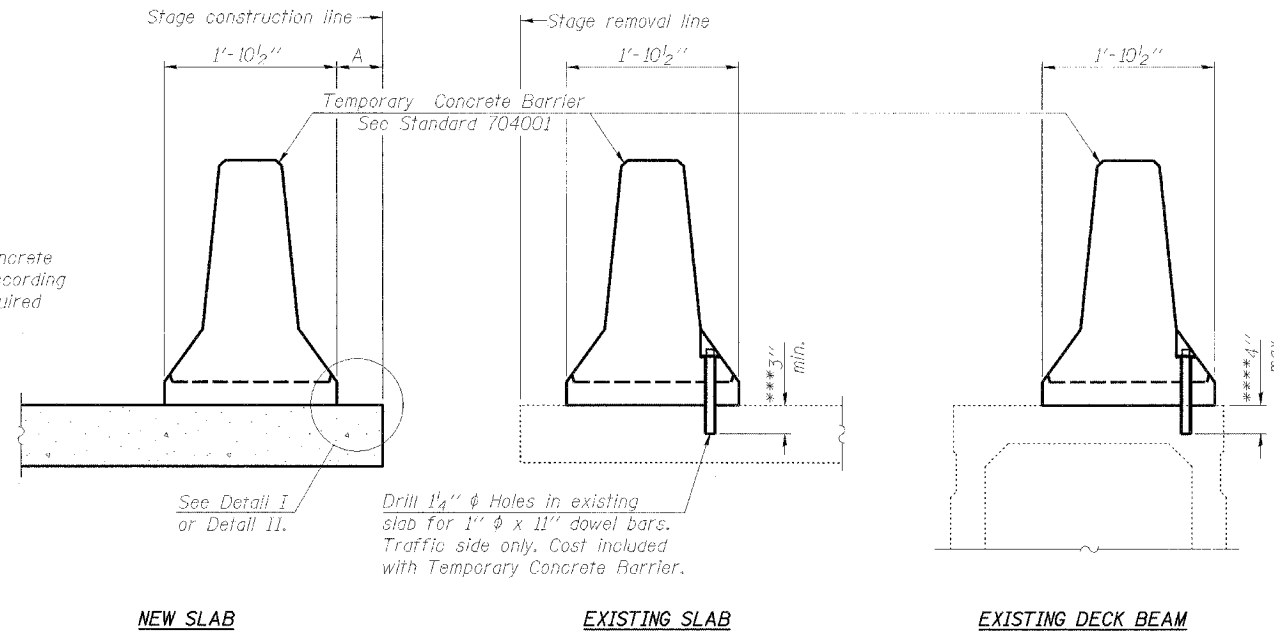
STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001516

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 22 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

Contract #60C23

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB

EXISTING SLAB

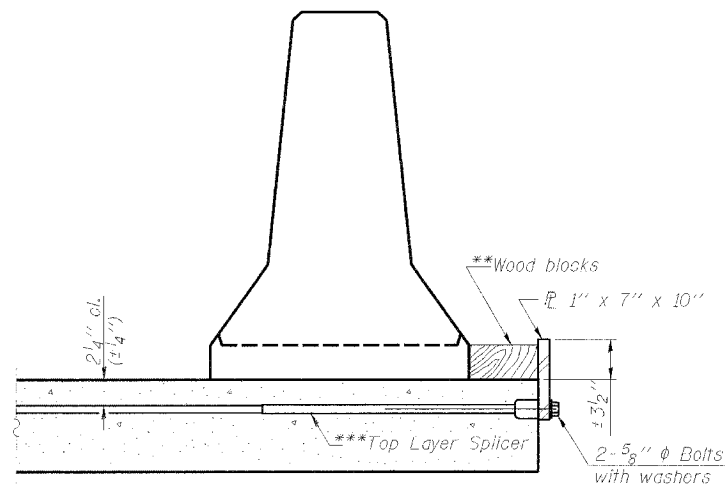
EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

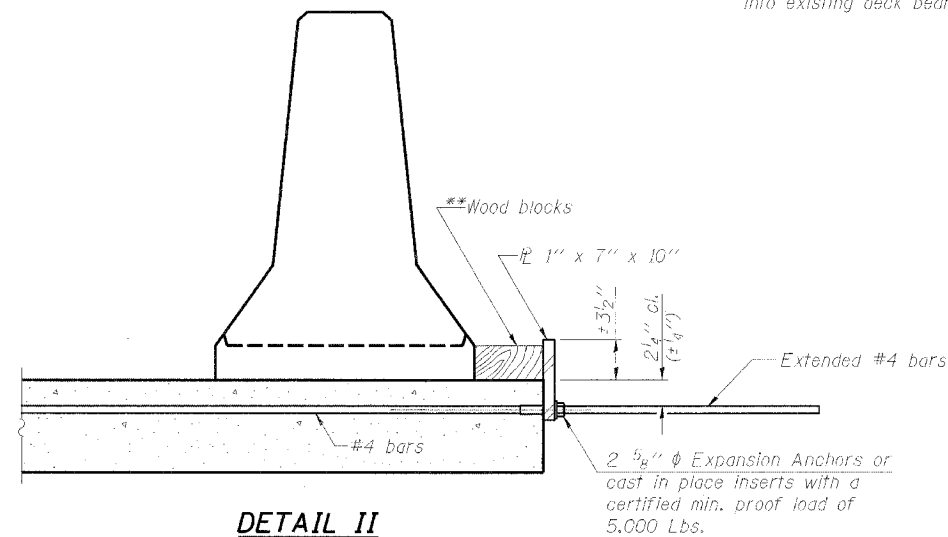
NOTES

- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate CL of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate CL of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

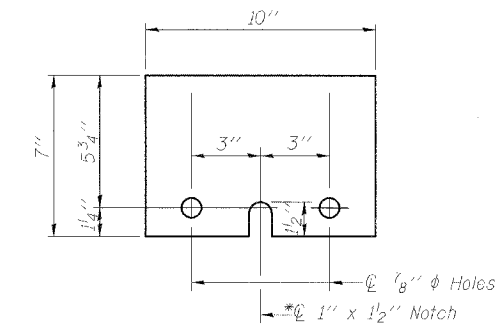
- ***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- ****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x 10"

* Required only with Detail II

Note: Provide 2-#5 (E) Bar Splicer pairs in lieu of #1 (E) Bar Splicers, with pairs spaced at ±12'-6" O.C. Cost included in Temporary Concrete Barrier.

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

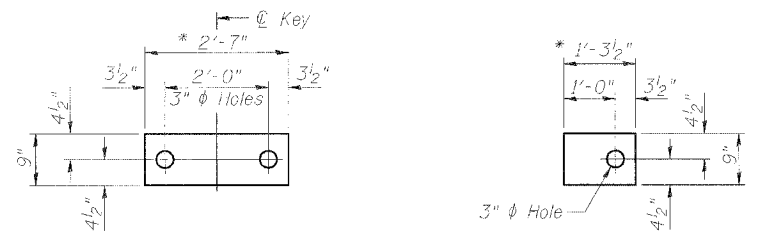
TEMPORARY CONCRETE BARRIER
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------------------|---------|-----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | SHEET NO. | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 23 |
| FED. ROAD DIST. NO. 7 | | BLDG. NO. | FED. AID PROJECT | |

16 SHEETS



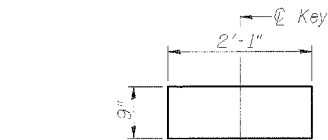
FABRIC BEARING PAD

Interior
(17 Required)

FIXED

FABRIC BEARING PAD

Exterior
(2 Required)



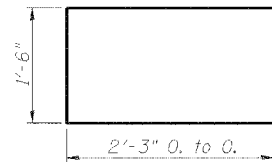
FABRIC BEARING PAD

Interior
(34 Required)

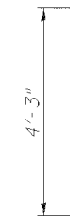
EXPANSION

FABRIC BEARING PAD

Exterior
(4 Required)



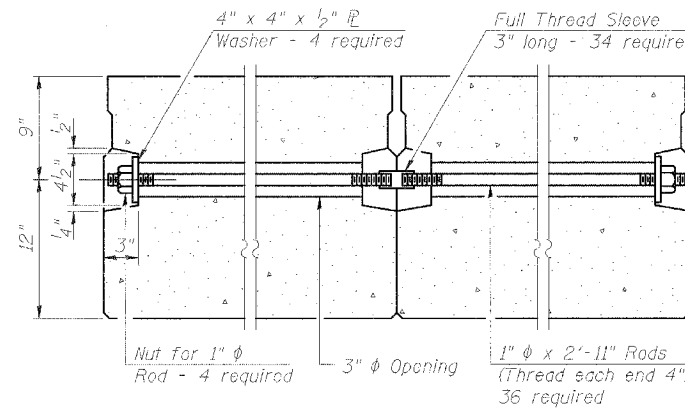
BAR U



BAR D(E)
(86 Required)
#4 (E) Bar

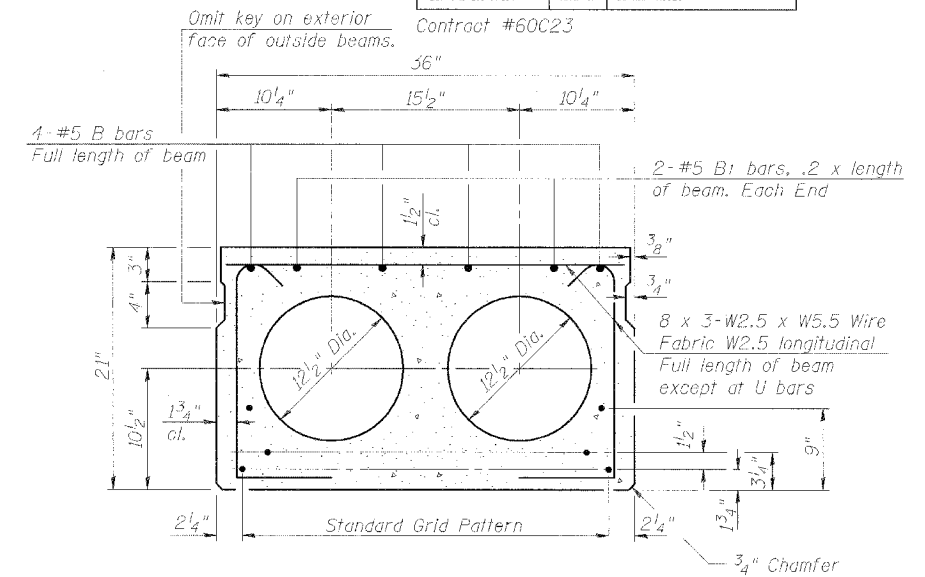


BAR C1(E)
(86 Required)
#5 (E) Bar



TYPICAL TRANSVERSE TIE ASSEMBLY
(2 Locations Required)

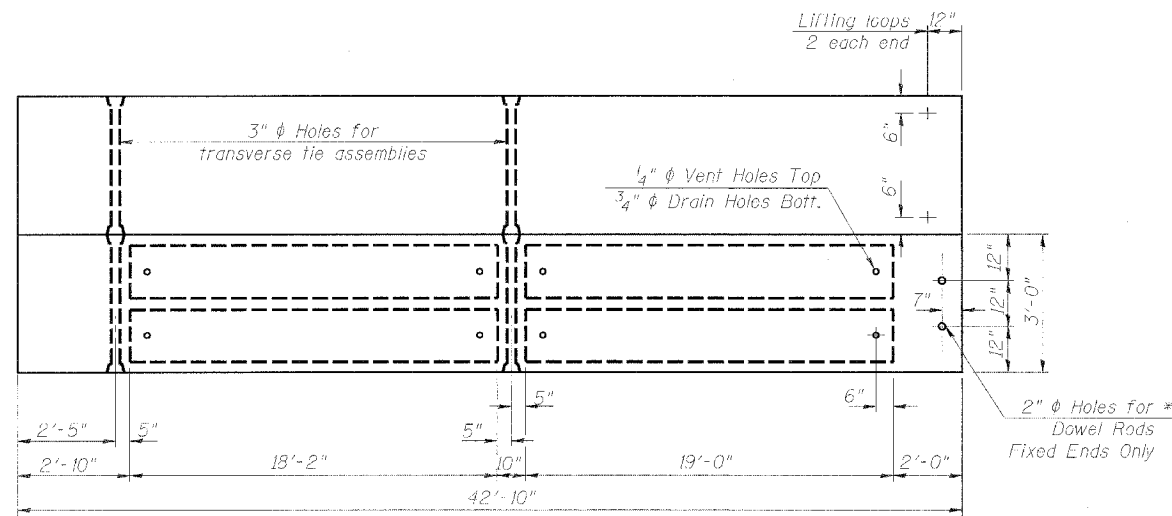
* Dowel hole spacing is non-standard to miss existing dowel rods in existing abutment.



TYPICAL SECTION

14 - 1/2" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8 - Strands 1 3/4" up, 4 - Strands 3/4" up, 2 - Strands 9" up

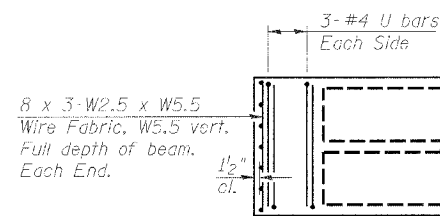
- Notes:
1. Place strands symmetrically about ϕ of beam.
 2. Space strands to miss dowel rod holes.



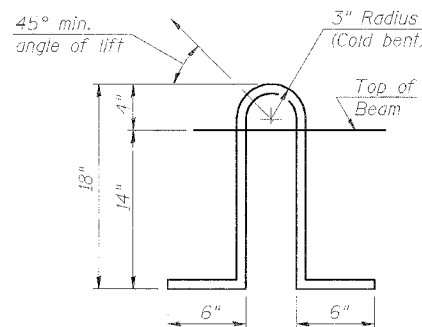
PLAN
(18 Required)

EXPANSION END

FIXED END



END PLAN



LIFTING LOOP DETAIL

| | |
|----------|-----|
| DESIGNED | IVV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---------|----------|
| Precast Prestressed Concrete Deck Beams (21" Depth) | Sq. Ft. | 2,315 |

SUPERSTRUCTURE DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph: (309) 676-8464
FAX: (309) 676-5445
IL Design Firm Reg. No. 184-001518

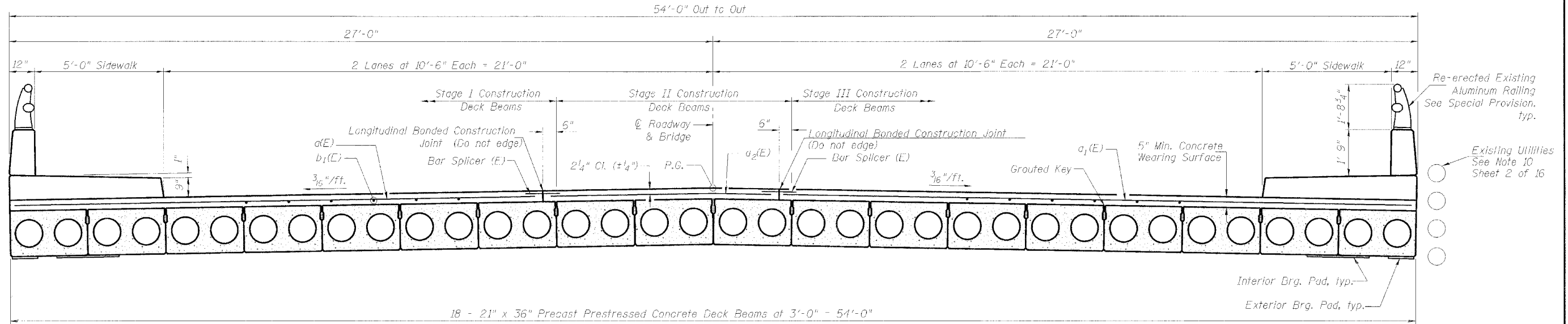
NOTES

1. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
2. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
3. Lifting loops shall be 2 - 1/2" ϕ -270 ksi strands, as shown.
4. Non prestressing steel shall conform to ASTM A706 (IL MOD), Grade 60. See Special Provisions.
5. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
6. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
7. Corrosion inhibitor, as covered in the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
8. Required Release Strength, f'_{ci} , shall be 4,000 p.s.i.
9. See Sht. 11 of 16 for location of D(E) and C1(E) bars cast into Exterior Deck Beams.

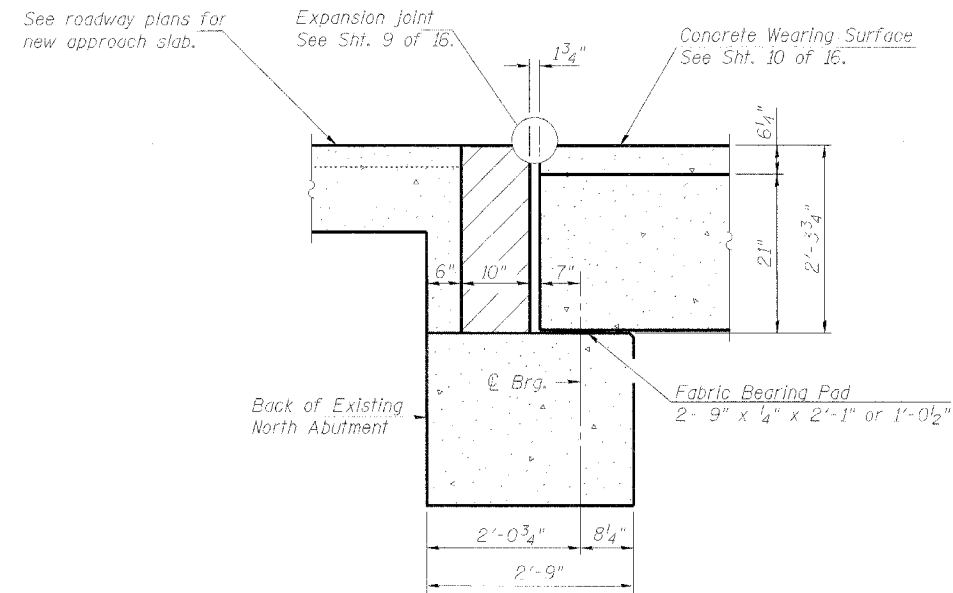
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|-----------|---------|------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 24 |
| ILLINOIS | | FED. AID PROJECT | | |

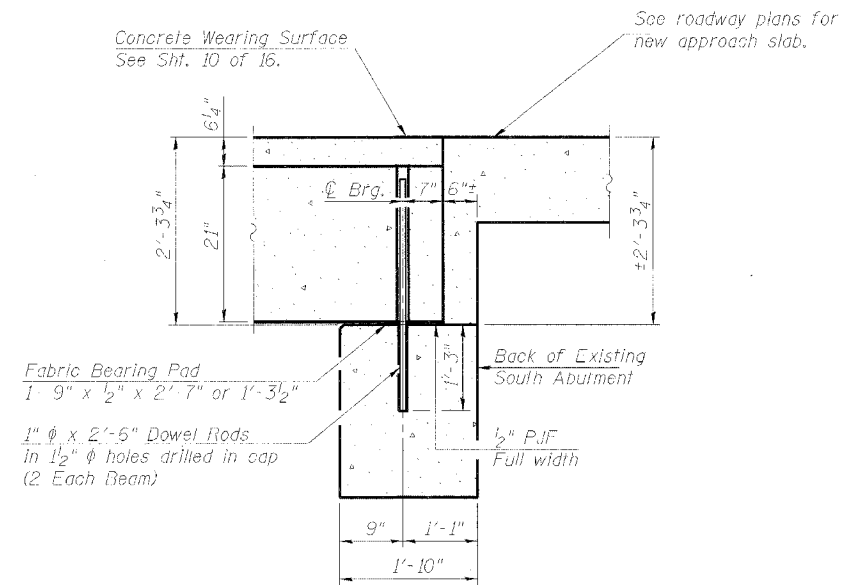
Contract #60C23



CROSS SECTION
(Looking South)



SECTION THRU NORTH ABUTMENT



SECTION THRU SOUTH ABUTMENT

SECTIONS AND BEARING DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

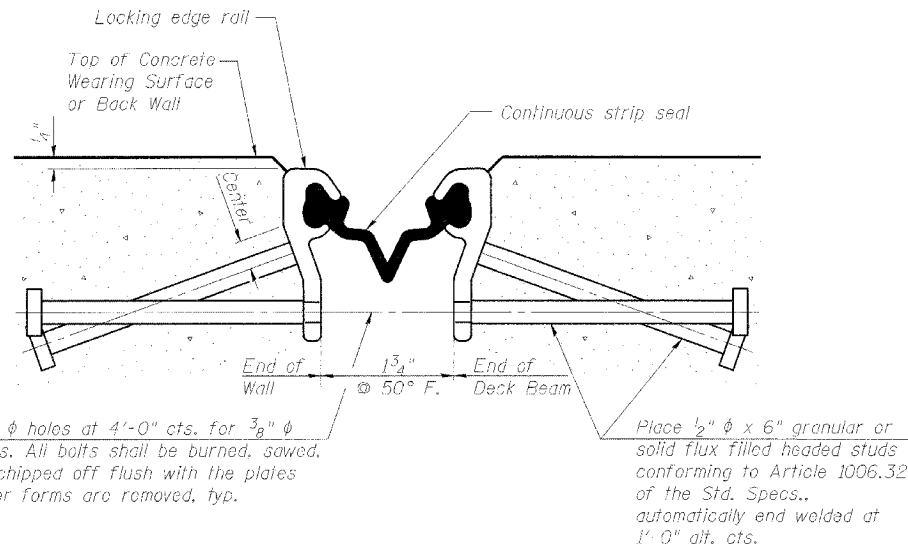
| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

- Notes:
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
 - All horizontal dimensions are at right angles to beam ends.
 - See Sht. 7 of 16 for Bearing Pad Details.
 - Existing dowel rods shall be burned off flush with the top of the abutment.

STS CONSULTANTS
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Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

RETAINER ANGLE NOTES

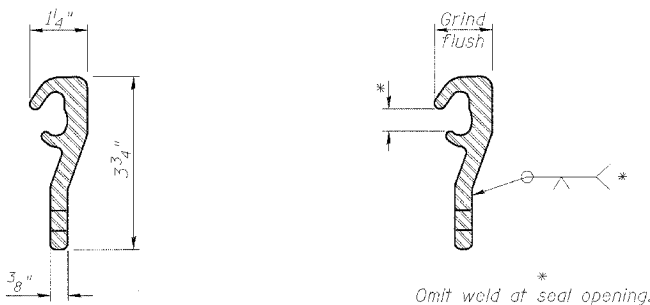
- Permanent side retainers shall be provided outside the fascia beams of the expansion ends of all spans.
- Temporary side retainers shall be provided outside the fascia beams of the expansion ends of all spans at the stage construction line.
- All retainers and anchor bolts are included in the cost of Precast Prestressed Concrete Deck Beams of the applicable depth.
- After the Concrete Wearing Surface has been poured and cured the temporary retainer angles and anchor bolts shall be removed. Anchor bolts shall be cut off flush, ground smooth, and sealed with epoxy.
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36 ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- Retainers shall be shimmed tight until the concrete wearing is poured and cured. The shims shall then be removed from the permanent retainers and the retainers left in place.



1/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

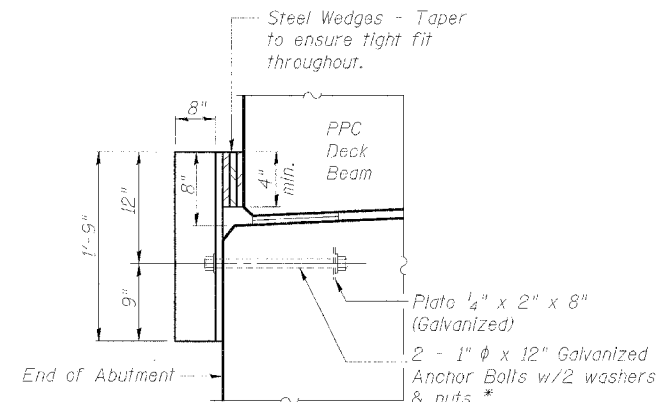
Place 1/2" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" aft. cts.

SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS

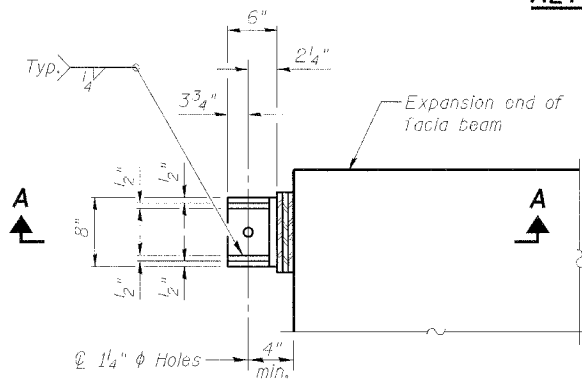


LOCKING EDGE RAIL

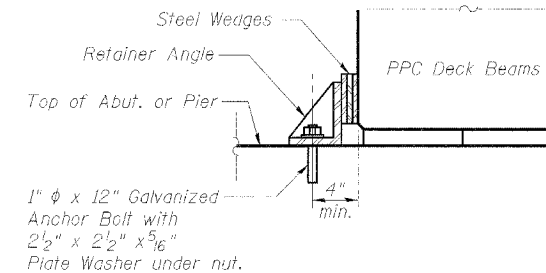
LOCKING EDGE RAIL SPLICE



ALTERNATE RETAINER

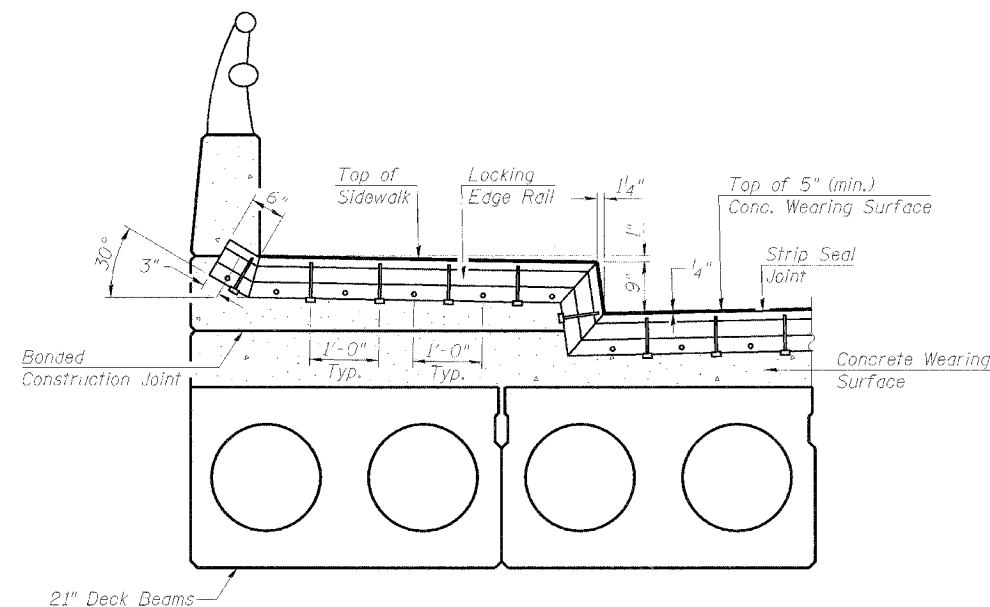


PLAN

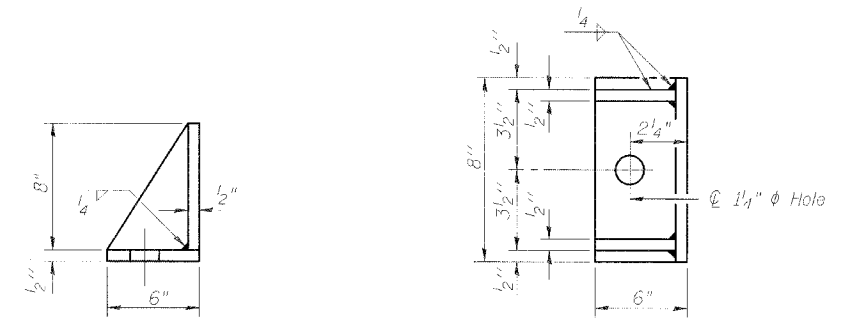


SECTION AA

PERMANENT AND TEMPORARY RETAINER ANGLES



STRIP SEAL DETAIL AT SIDEWALK



RETAINER ANGLE

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

NOTES

- The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
- The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
- The inside of the Locking Edge Rail groove shall be free of weld residuo.
- Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
- The manufacturer's recommended installation methods shall be followed.
- Fabricate in sections to fit Stage Construction.

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

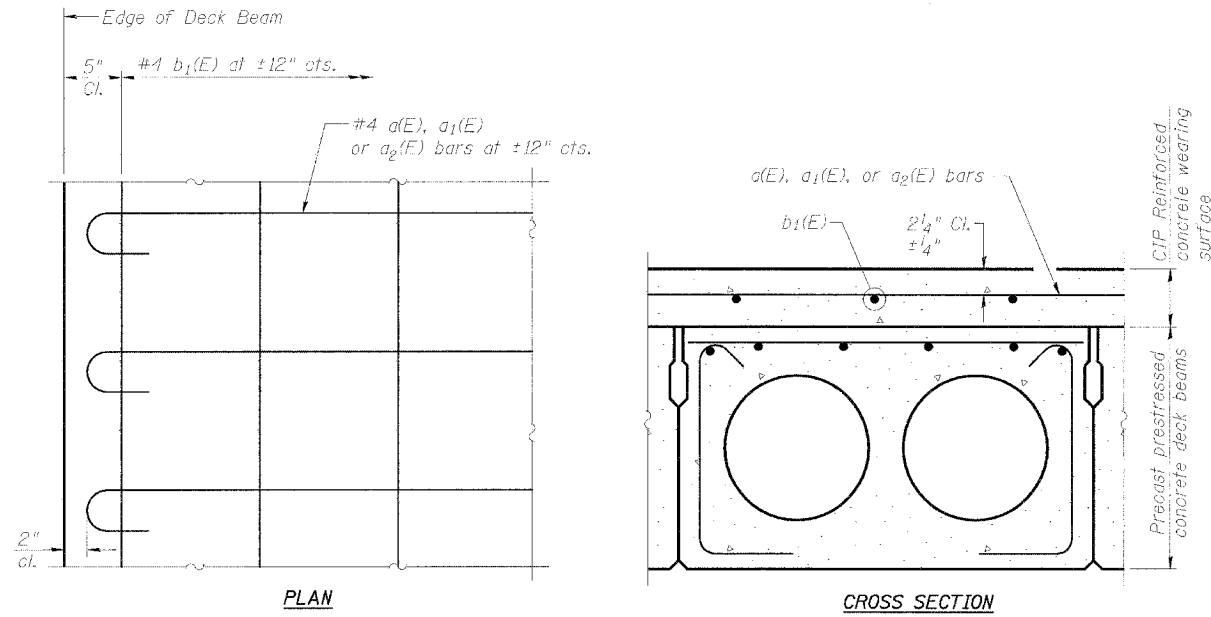
STRIP SEAL JOINT DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
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 FAX(309)678-5445
 IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|---------------------|------------|------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | SIGN. SHEETS | SHEET NO. | SHEET NO. 10 |
| 3887 | AR-B | KANE | 43 | 26 | 16 SHEETS |
| FED. ROAD DIST. NO. | ILL. DIST. | FED. AID PROJECT | | | |

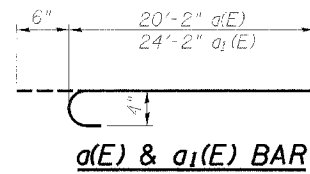
Contract #60C23



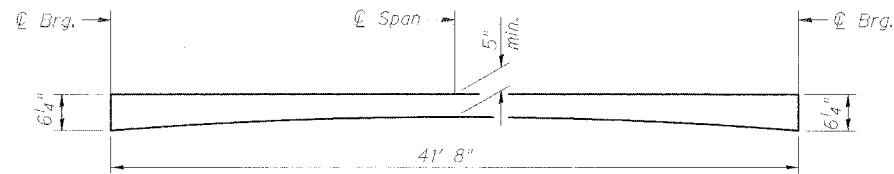
PLAN

CROSS SECTION

REINFORCED CONCRETE WEARING SURFACE



a1(E) & a2(E) BAR



REINFORCED CONCRETE WEARING SURFACE PROFILE

BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| a1(E) | 43 | #4 | 20'-8" | U |
| a2(E) | 43 | #4 | 24'-8" | U |
| a3(E) | 43 | #4 | 8'-8" | U |
| b1(E) | 112 | #4 | 22'-0" | — |

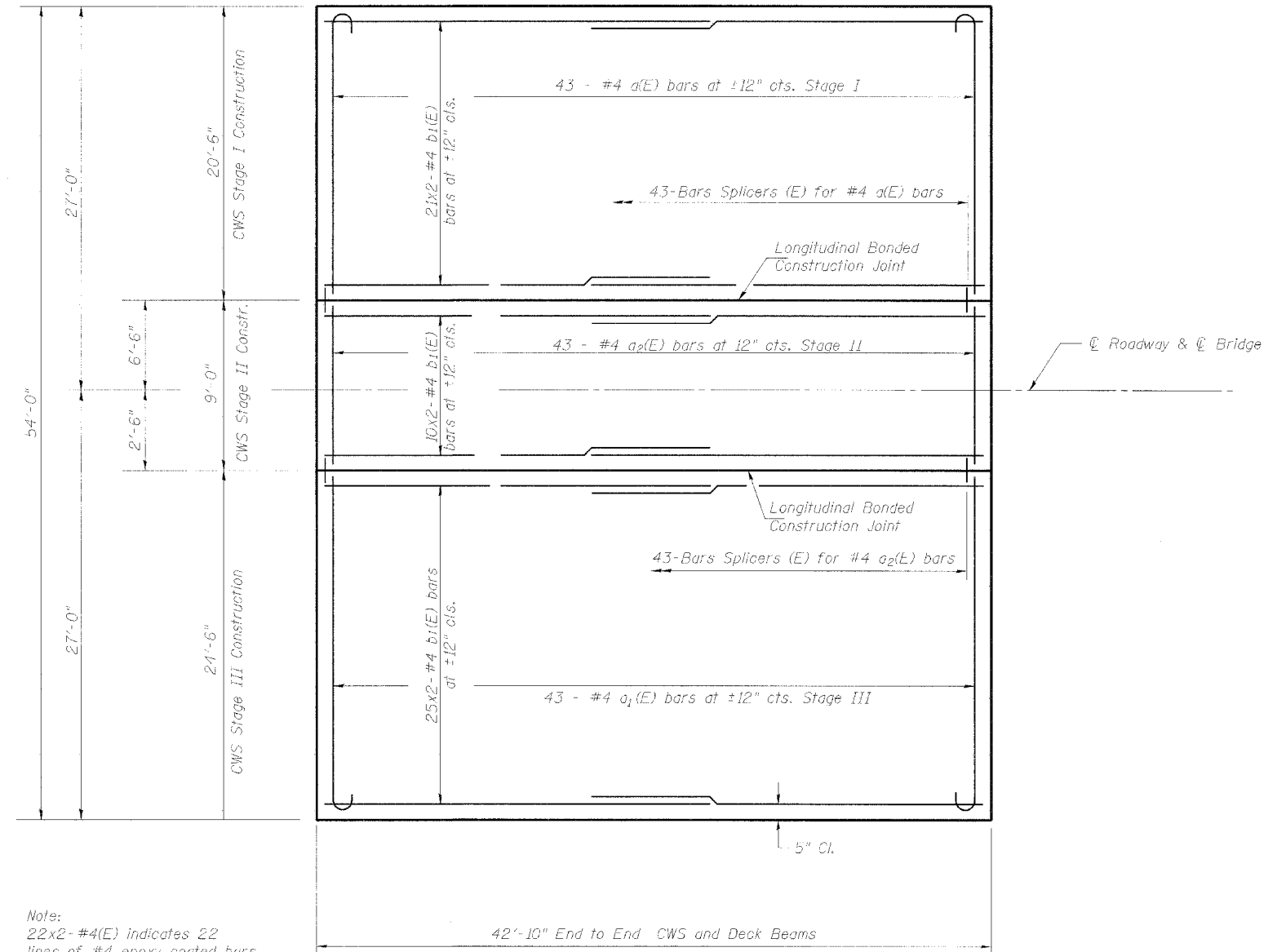
BAR LAPS

#4 bars 1'-4"

BILL OF MATERIAL

| ITEM | UNIT | TOTAL |
|----------------------------------|---------|-------|
| Reinforcement Bars, Epoxy Coated | Pound | 3200 |
| Concrete Wearing Surface, 5" | Sq. Yd. | 257 |

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |



CONCRETE WEARING SURFACE PLAN

Note:
22x2-#4(E) indicates 22 lines of #4 epoxy coated bars with 2 lengths per line.



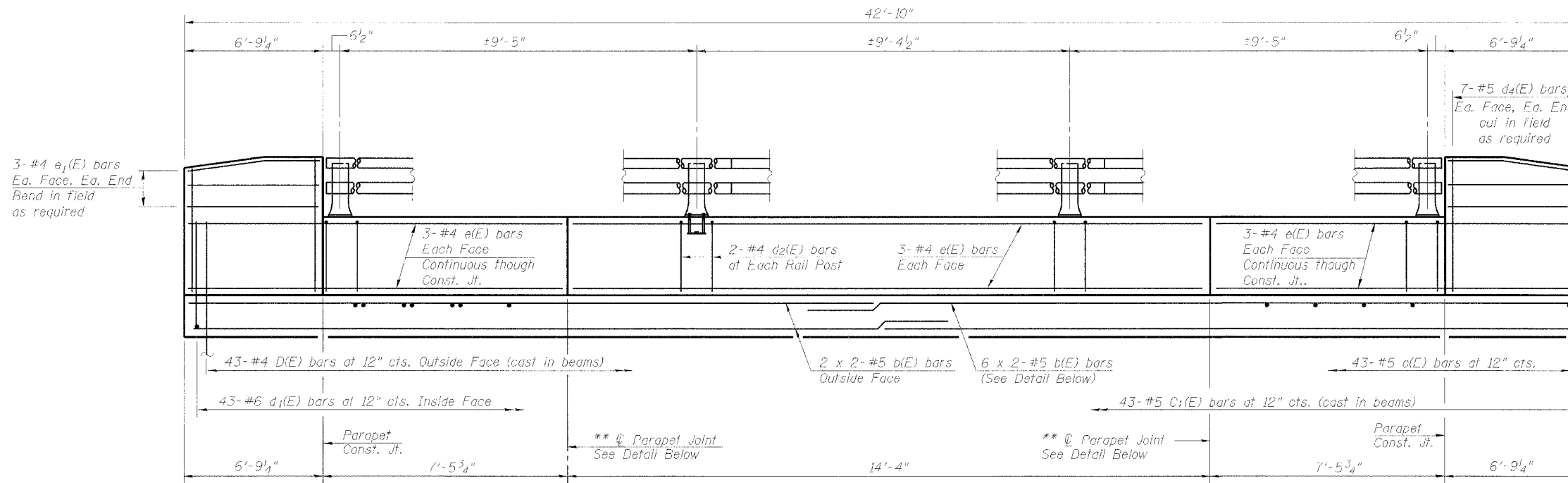
CONCRETE WEARING SURFACE
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|------|------------------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | CITY | SHEET NO. | SHEET NO. 11 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 27 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | | FED. AID PROJECT | |

Contract #60C23



Note: For D(E) and C₁(E) bar details, See Sht. 7 of 16.

ELEVATION OF PARAPETS
(Inside Face)

** 1/4" x 3/4" Formed joint in top of sidewalk at Parapet Joint location, (typ) with Concrete Sealer (full width along joint, backer rod not required.)

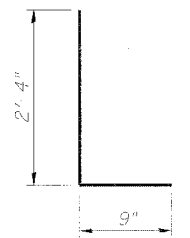
BILL OF MATERIAL

Two Parapets and Sidewalks and North Abutment (Sht. 15 of 16)

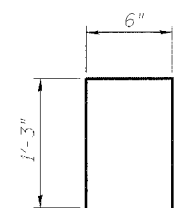
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| b(E) | 32 | #5 | 22'-2" | — |
| c(E) | 86 | #5 | 5'-8" | — |
| d ₁ (E) | 86 | #6 | 3'-0" | L |
| d ₂ (E) | 16 | #4 | 3'-0" | □ |
| d ₃ (E) | 2 | #5 | 9'-9" | □ |
| d ₄ (E) | 56 | #5 | 3'-3" | — |
| e(E) | 36 | #4 | 13'-11" | — |
| e ₁ (E) | 24 | #4 | 6'-5" | — |
| h(E) | 6 | #6 | 24'-8" | — |
| h ₁ (E) | 6 | #6 | 20'-8" | — |
| h ₂ (E) | 6 | #6 | 8'-9" | — |
| u(E) | 72 | #4 | 4'-8" | — |
| Reinforcement Bars, Epoxy Coated | | | Pound | 3030 |
| Concrete Superstructure | | | Cu. Yd. | 26.5 |

NOTES

1. Provide all cast in inserts, drilled in place anchors as required to remount existing aluminum railing. Provide new gaskets and mounting pads. Straighten railing as required. Cost of all material and labor to remove, store, remount railing shall be included in cost of "Removing and Re-erecting Existing Railing". Field verify all post and rail dimensions. Concrete Superstructure shall include all sidewalks, parapets, and back wall on north abutment.
2. See Sht. 14 of 16 for Rail Details.
3. 6x2 #5(E) indicates 6 lines of #5 epoxy coated bars with 2 lengths per line.



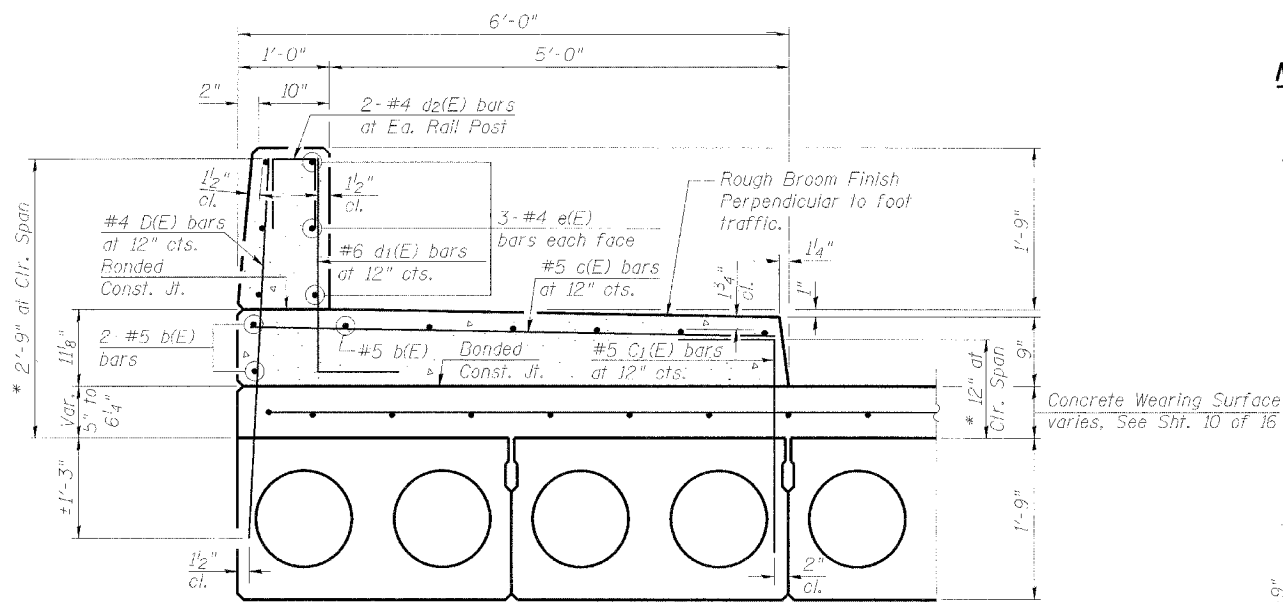
BAR d₁(E)



BAR d₂(E)

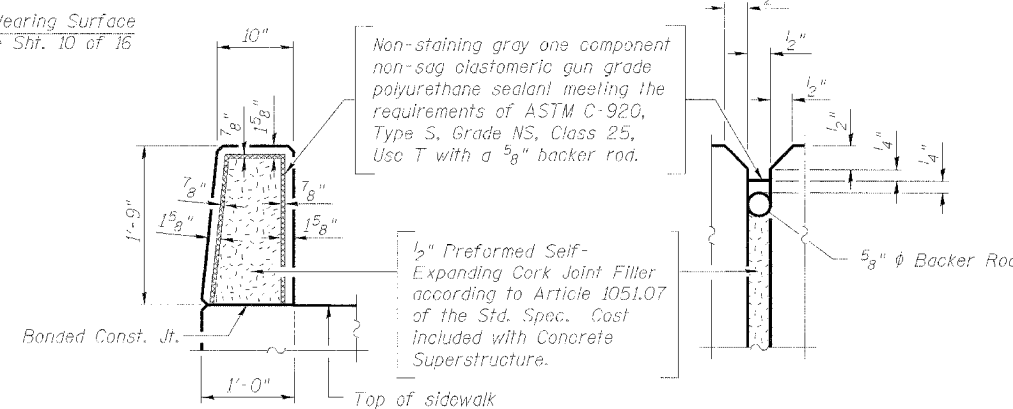
MIN. BAR LAPS
#5 bars = 1'-8"

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |



SECTION THRU PARAPET & SIDEWALK

* D(E) and C₁(E) bar projection linearly varies from center span of beam to 1" greater at bearing ends.



PARAPET JOINT DETAILS

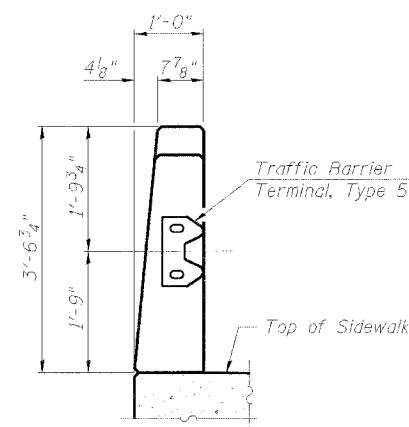
SIDEWALK & PARAPET DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

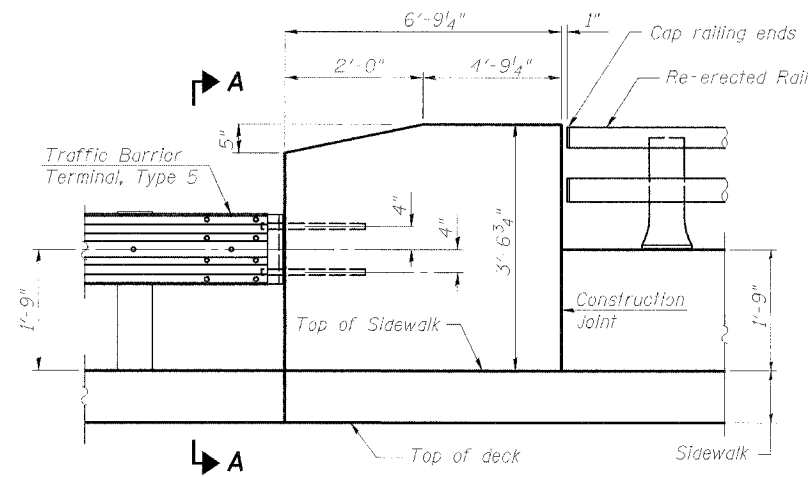
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|---------------------|----------|------------------|--------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 12 |
| 3887 | AR-B | KANE | 43 | 28 | 16 SHEETS |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | | |

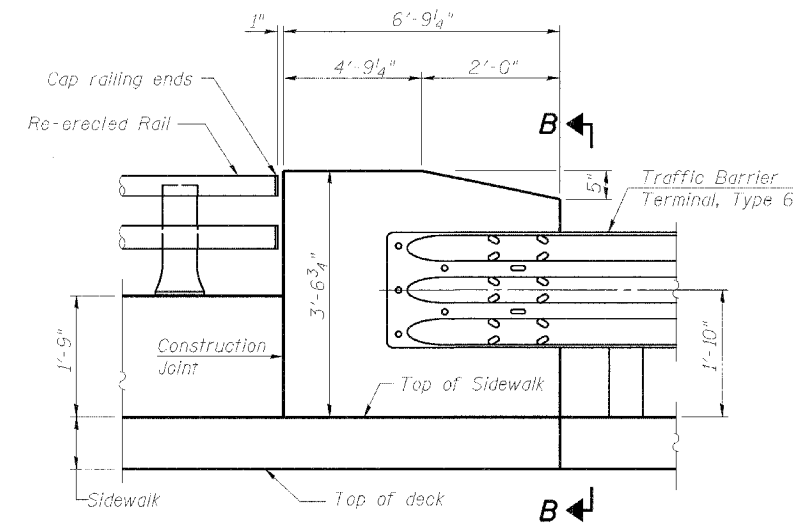
Contract #60C23



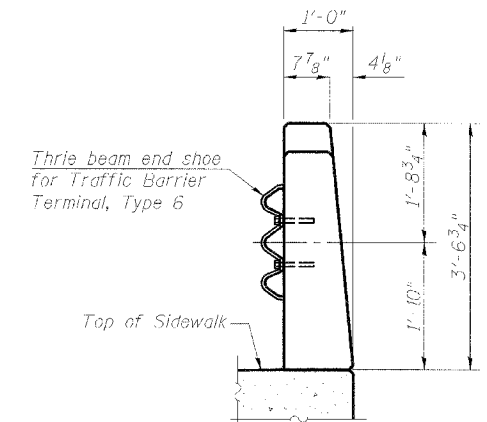
SECTION A-A



INSIDE ELEVATION OF PARAPET AT NE AND SW CORNERS



INSIDE ELEVATION OF PARAPET AT NW AND SE CORNERS



SECTION B-B

| | |
|----------|-----|
| DESIGNED | DDB |
| CHECKED | LLV |
| DRAWN | MGM |
| CHECKED | DDB |

PARAPET DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|------------------|--------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 15 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 29 | |
| FED. ROAD DIST. NO. 7 | BALANCE | FED. AID PROJECT | | | |

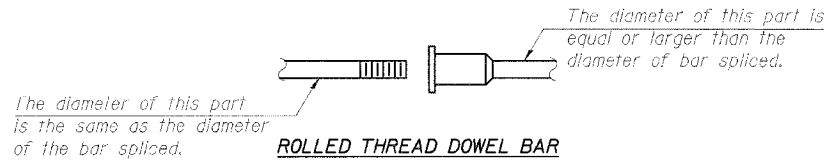
Contract #60C23

NOTES

1. Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
2. Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
3. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
4. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
5. Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

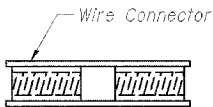
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete



ROLLED THREAD DOWEL BAR



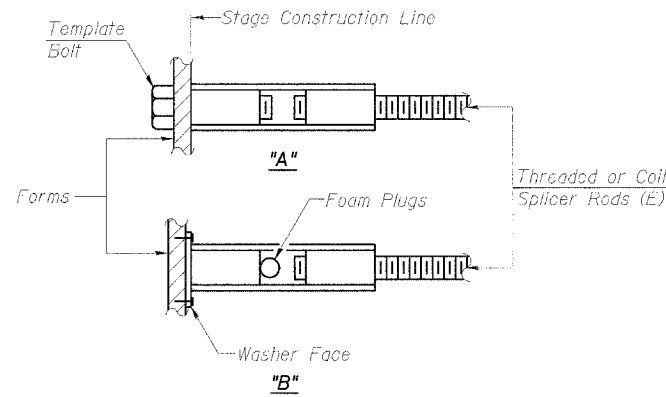
**** ONE PIECE**



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

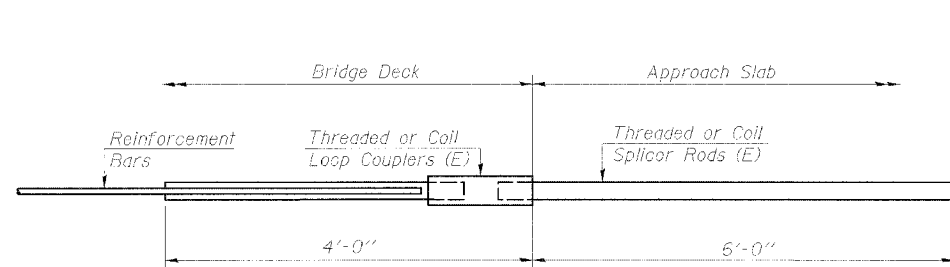
**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

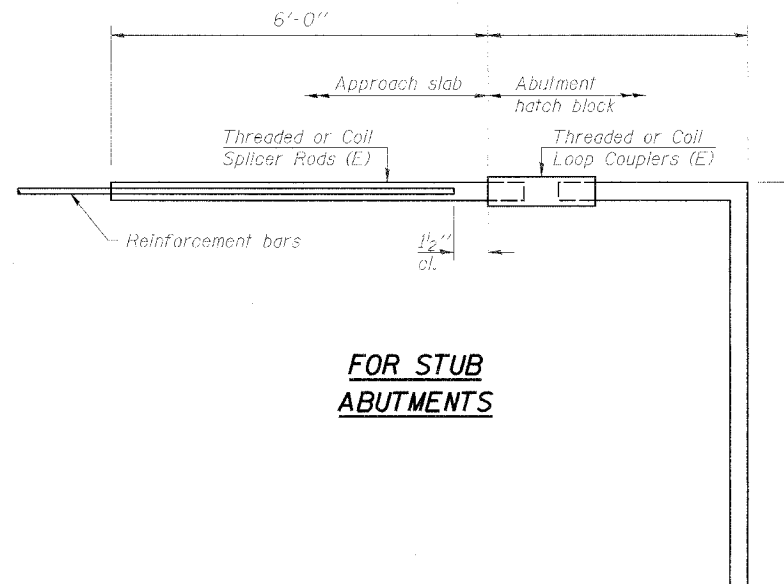
"A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.

| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| | | Min. Capacity kips - tension | Min. Pull-Out Strength kips - tension |
| #4 | 1'-8" | 14.7 | 7.9 |
| #5 | 2'-0" | 23.0 | 12.3 |
| #6 | 2'-7" | 33.1 | 17.4 |
| #7 | 3'-5" | 45.1 | 23.8 |
| #8 | 4'-6" | 58.9 | 31.3 |
| #9 | 5'-9" | 75.0 | 39.6 |
| #10 | 7'-3" | 95.0 | 50.3 |
| #11 | 9'-0" | 117.4 | 61.8 |



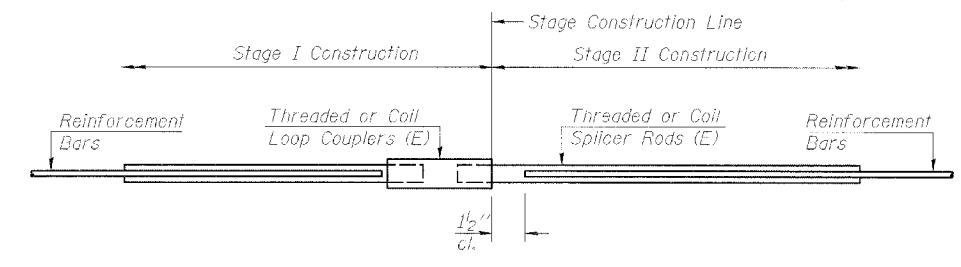
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = 0 |



FOR STUB ABUTMENTS

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull out Strength = 12.3 kips - tension |
| No. Required = 0 |



STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|-----------------|
| #4 | 86 | Wearing Surface |
| #6 | 12 | North Abut. |
| Total | 98 | |

BAR SPLICER ASSEMBLY DETAILS

F.A.U. 3887 (IL 31)
 OVER MILL CREEK
 SECTION AR-B
 KANE COUNTY STA. 187+31.80
 STRUCTURE NO. 045-0020

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

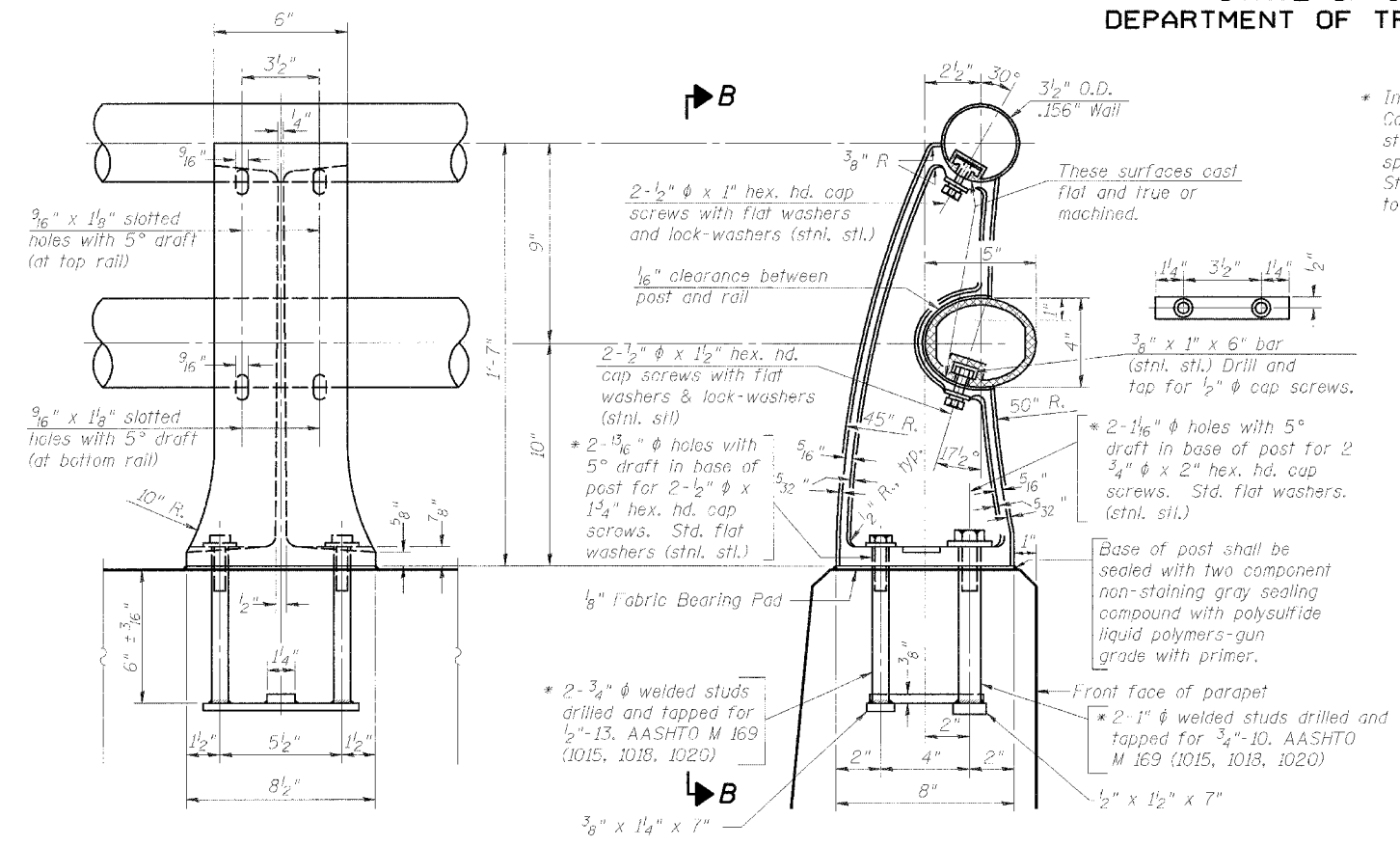
STS CONSULTANTS
 111 NE Jefferson Ave.
 Peoria, Illinois 61602
 Ph(309)876-8464
 FAX(309)876-5445
 IL Design Firm Reg. No. 184-001518

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

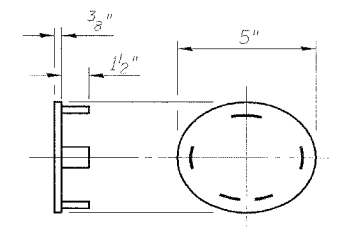
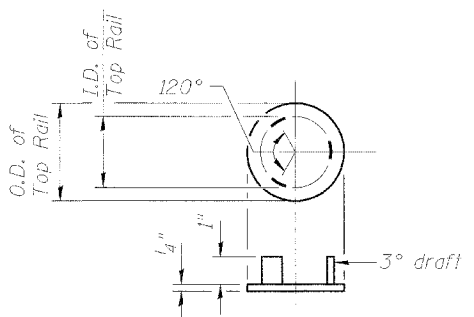
| | | | | |
|-----------------------|-----------|-------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 30 |
| FED. ROAD DIST. NO. 7 | T.A. NAME | ESTIMATED PROJECT | | |

SHEET NO. 14
16 SHEETS

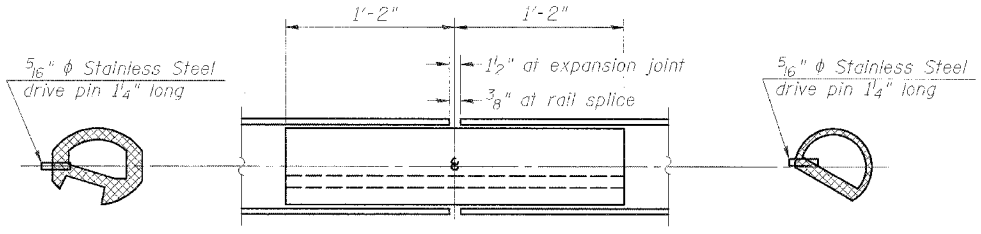
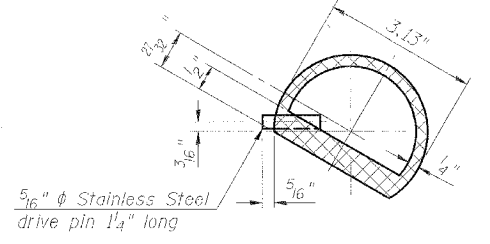
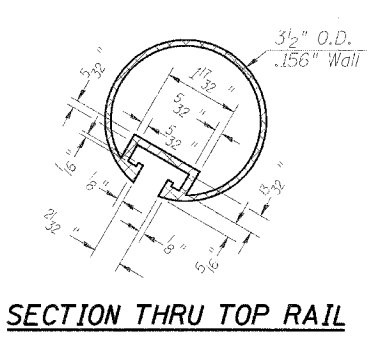
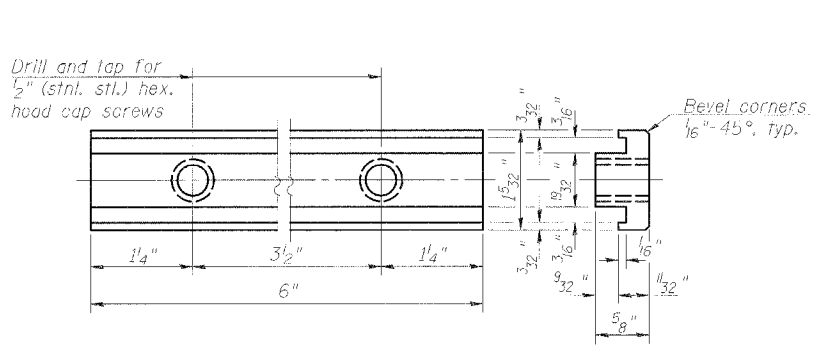
Contract #60C23



* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



RAIL POST DETAILS

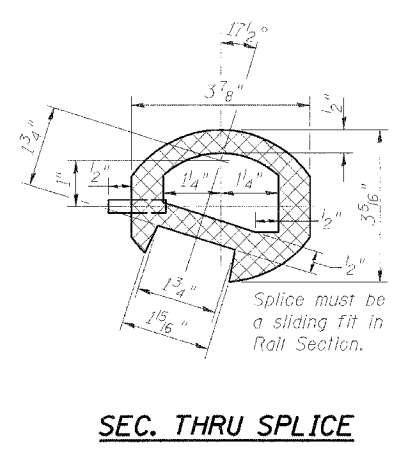
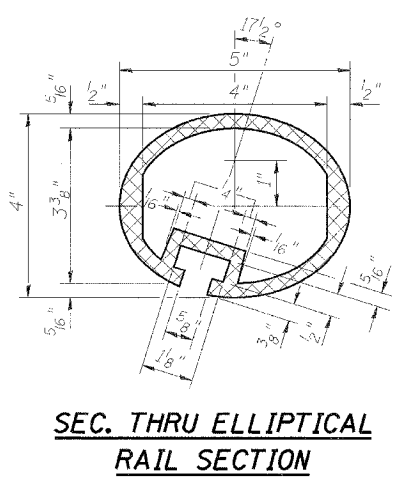


BILL OF MATERIAL

| Item | Unit | Quantity |
|---|------|----------|
| Removing and Re-erecting Existing Railing | Foot | 59 |

**RE-ERECTED ALUMINUM RAILING
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020**

- Notes:
- All Posts shall be normal to parapet.
 - All joints in rail shall be spliced per detail.
 - Provide 1- 1/8" and 2- 1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
 - Details shown here are for replacement component information and remounting existing railing. Provide any unserviceable existing component to the material and dimension specifications as indicated on this sheet.
 - See Sht. 11 of 16 for Rail Post Spacing.



| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

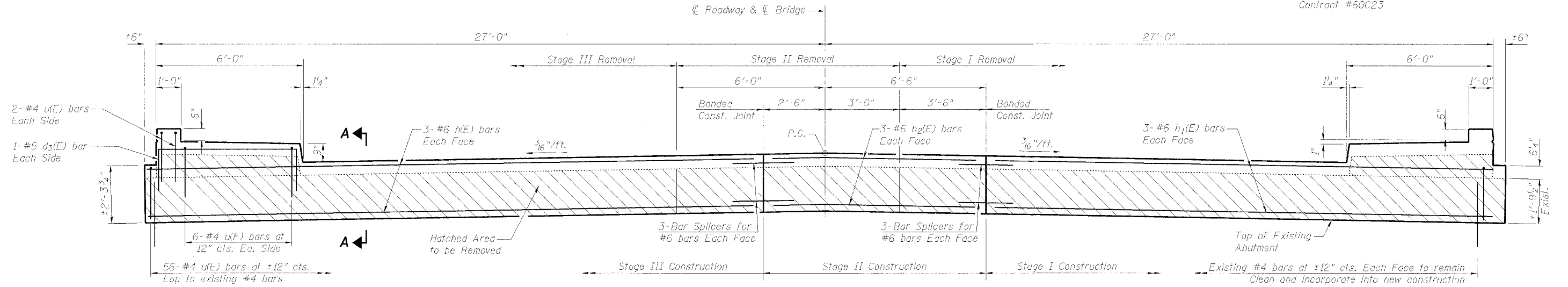
(7'-0" to 10'-0" Post spacing)

STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

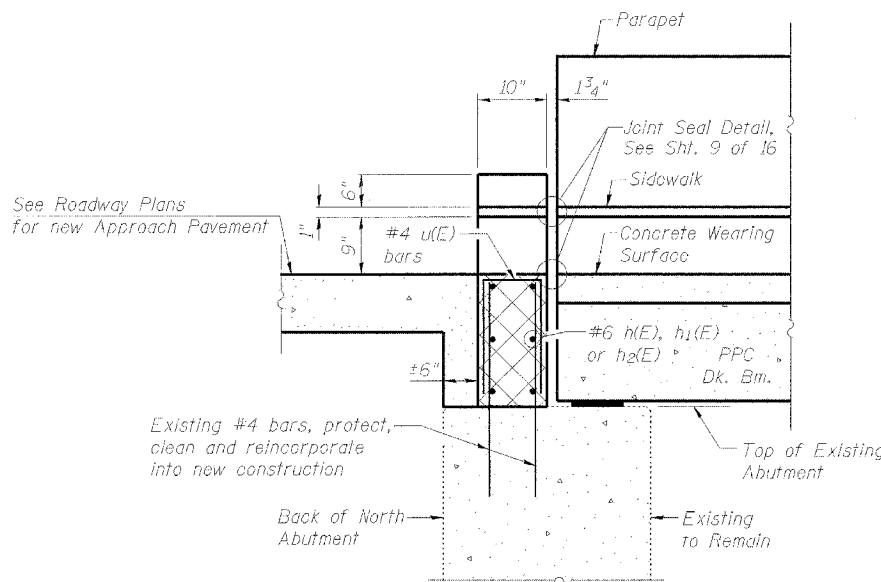
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|----------|------------------|------------|-----------|--------------|
| ROUTE NO. | SECTION | COUNTY | STATIONING | SHEET NO. | SHEET NO. 15 |
| 3887 | AR-B | KANE | 43 | 31 | 16 SHEETS |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |

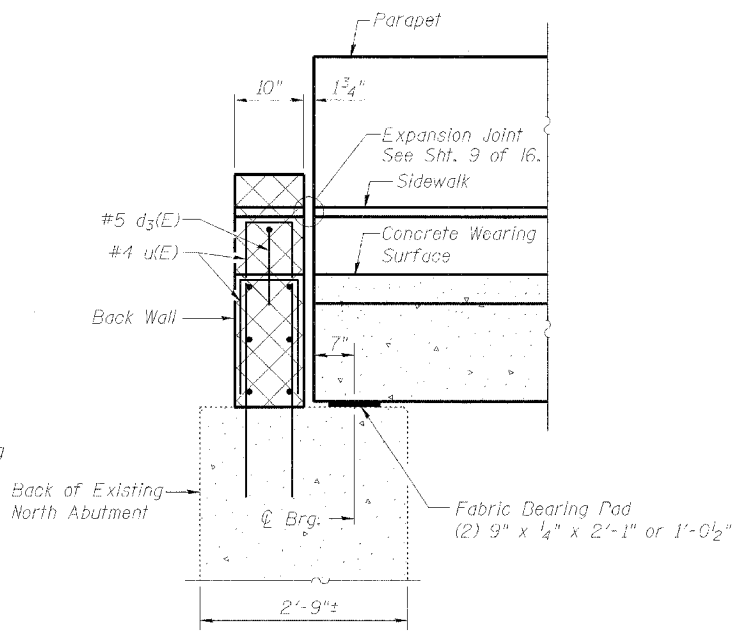
Contract #60C23



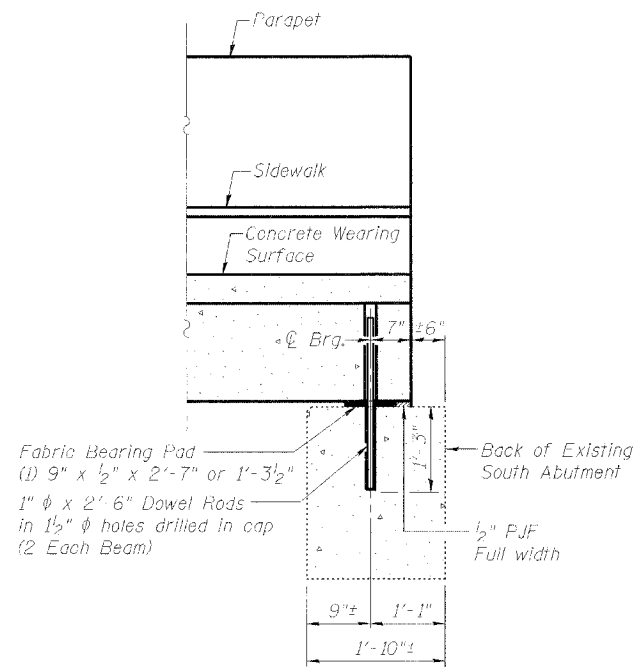
ELEVATION NORTH ABUTMENT
Looking North



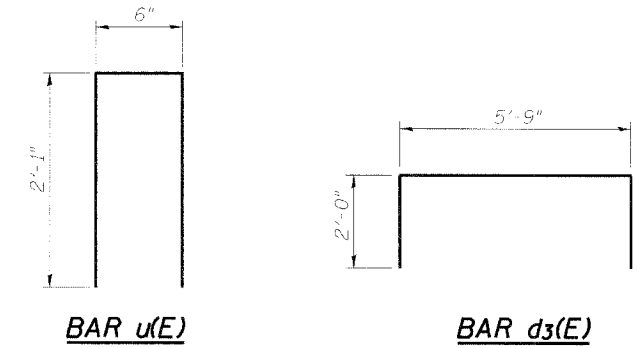
SECTION A-A



SECTION THRU NORTH ABUTMENT AT SIDEWALK



SECTION THRU SOUTH ABUTMENT AT SIDEWALK



NOTES

- Concrete shall be placed after PPC Deck Beams have been set and anchored and deck wearing surface has been placed. New concrete is indicated as cross hatched in section cuts.
- Concrete and reinforcement quantities are included in Bill of Material on Sht. 11 of 16.
- Cost of Concrete Removal is included in Removal of Existing Superstructures.

* Cut approach Pavement but do not cut reinforcement. Protect, clean, and incorporate into new construction.

NORTH ABUTMENT DETAILS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |




STS CONSULTANTS
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

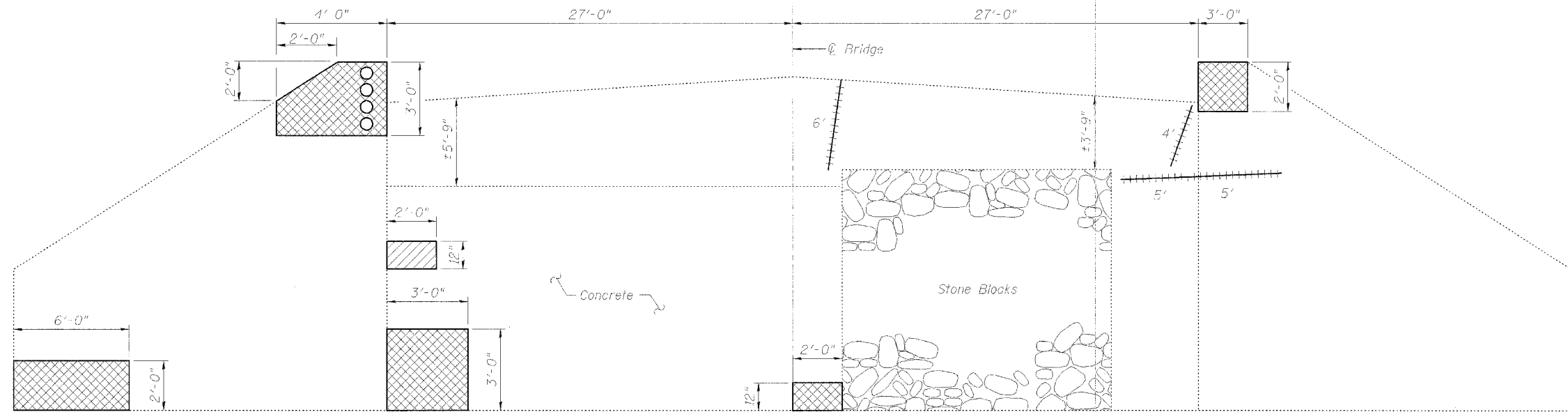
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | | |
|-----------------------|---------|----------|------------------|-----------|---------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 16 16 SHEETS |
| 3887 | AR-B | KANE | 43 | 32 | |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | | |

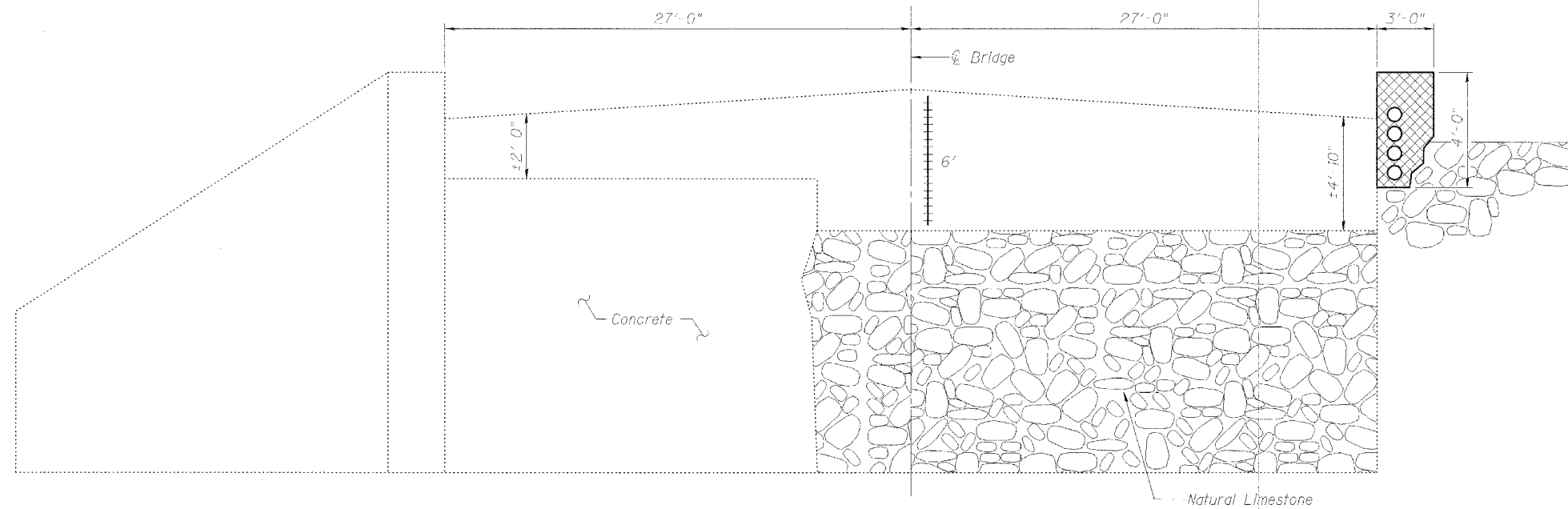
Contract #60C23

LEGEND

-  Structural Repair of Concrete (Depth Equal to or Less than 5")
-  Structural Repair of Concrete (Depth Greater than 5")
-  Epoxy Crack Injection



NORTH ABUTMENT
(Looking North)



SOUTH ABUTMENT
(Looking South)

BILL OF MATERIAL

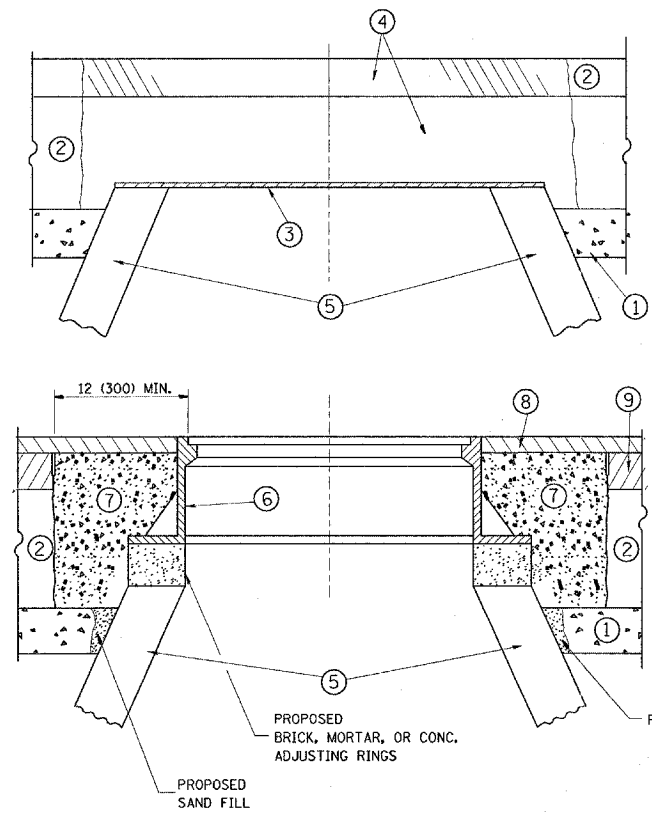
| Item | Unit | Quantity |
|--|---------|----------|
| Structural Repair of Concrete (Depth Greater Than 5") | Sq. Ft. | 50 |
| Structural Repair of Concrete (Depth Equal to or Less Than 5") | Sq. Ft. | 2 |
| Epoxy Crack Injection | Foot | 26 |

| | |
|----------|-----|
| DESIGNED | LLV |
| CHECKED | DDB |
| DRAWN | MGM |
| CHECKED | LLV |

SUBSTRUCTURE REPAIRS
F.A.U. 3887 (IL 31)
OVER MILL CREEK
SECTION AR-B
KANE COUNTY STA. 187+31.80
STRUCTURE NO. 045-0020

 **STS CONSULTANTS**
111 NE Jefferson Ave.
Peoria, Illinois 61602
Ph(309)676-8464
FAX(309)676-5445
IL Design Firm Reg. No. 184-001518

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|---------------------------|--------------|-----------|
| 3887 | AR-B | AR-B | 43 | 33 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 108.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

| REVISIONS | |
|-------------|----------|
| NAME | DATE |
| R. SHAH | 10/25/94 |
| R. SHAH | 01/30/95 |
| R. SHAH | 03/10/95 |
| A. ABBAS | 03/21/97 |
| R. WIEDEMAN | 05/14/04 |
| R. BORO | 01/01/07 |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DETAILS FOR
FRAMES AND LIDS ADJUSTMENT
WITH MILLING**

SCALE: VERT. NONE
HORIZ.

DRAWN BY

CHECKED BY

BD600-03 (BD-8)

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|---------------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 34 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001

18" (450) MAX.

EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SALT TOLERANT SOD AND TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

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

| REVISIONS | |
|-----------|----------|
| NAME | DATE |
| A. HOUSEH | 03/11/94 |
| R. SHAH | 02/24/95 |
| R. SHAH | 03/02/95 |
| R. SHAH | 08/19/96 |
| R. SHAH | 09/12/96 |
| R. SHAH | 09/19/96 |
| R. SHAH | 10/03/96 |
| A. ABBAS | 03/21/97 |
| M. GOMEZ | 01/22/01 |
| R. BORO | 01/01/07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

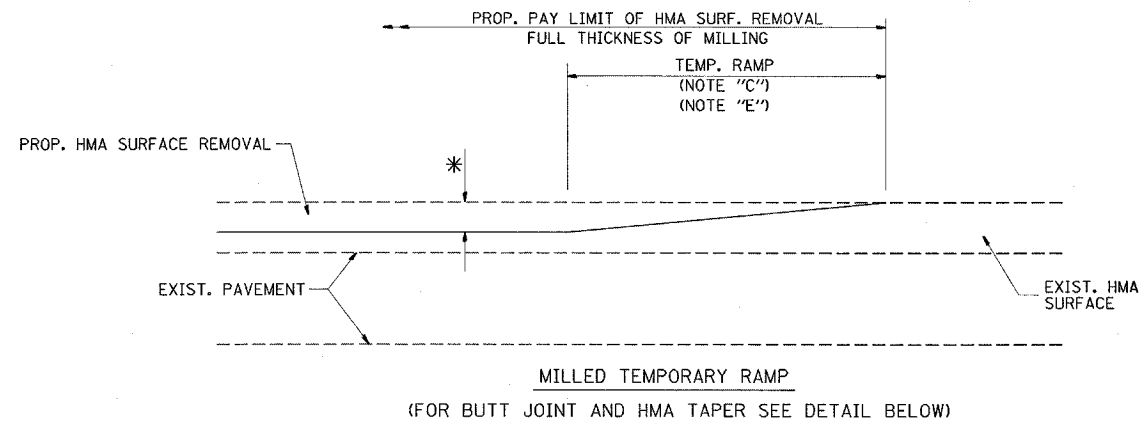
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE
HORIZ.

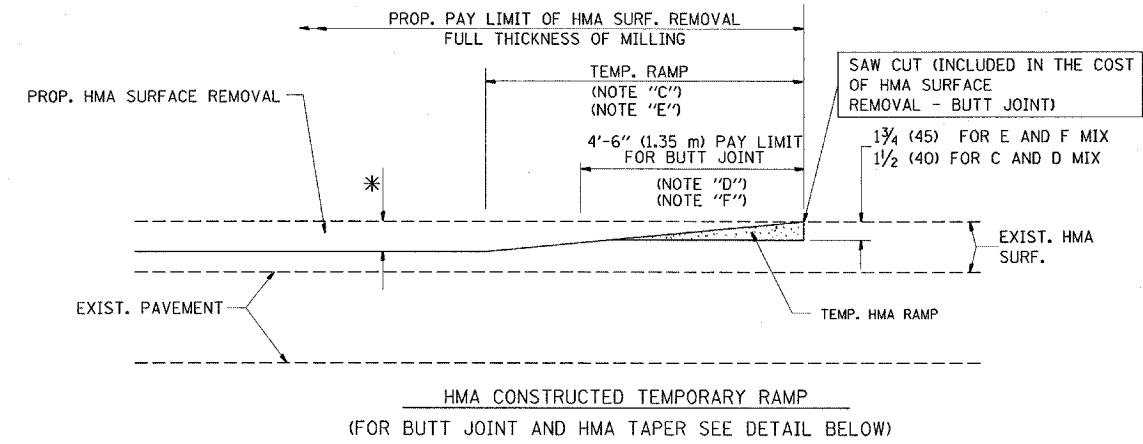
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CHECKED BY
BD600-06 (BD-24)

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

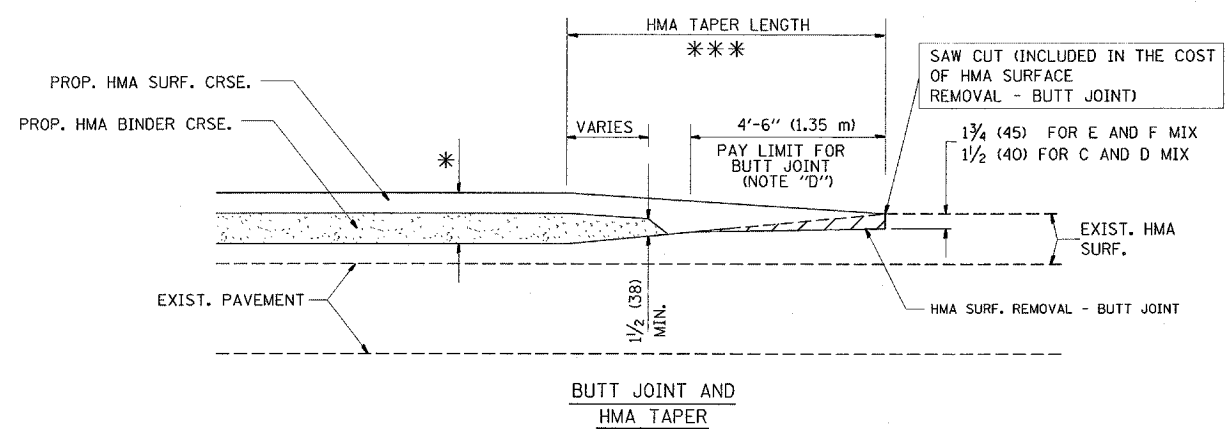
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|---------------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 35 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS FED. AID PROJECT | | |



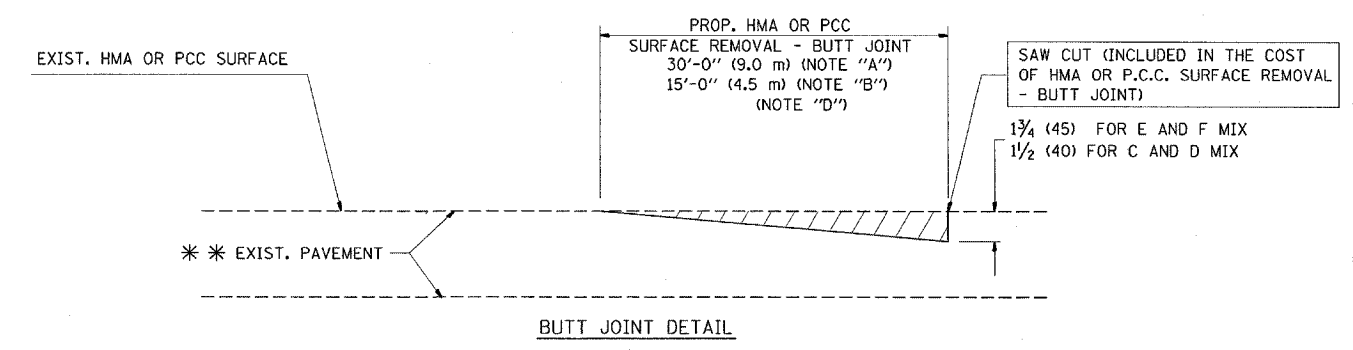
OPTION 1



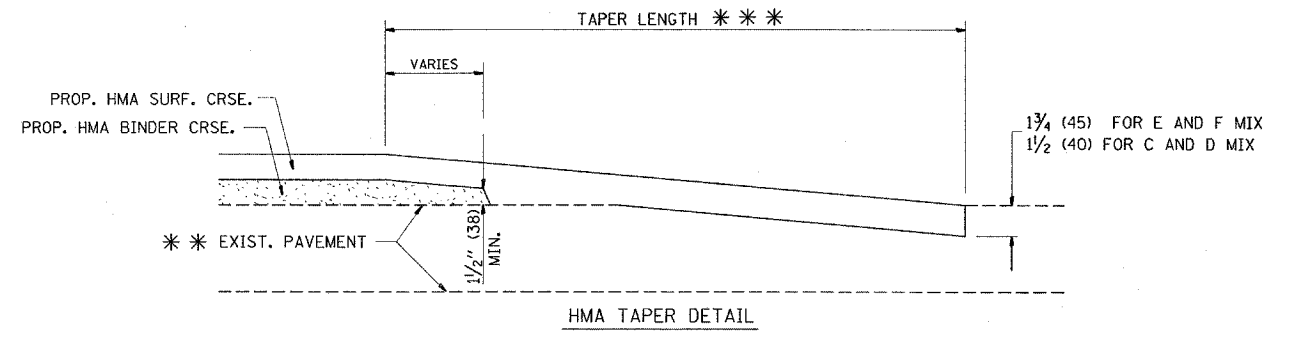
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

| REVISIONS | |
|------------|----------|
| NAME | DATE |
| M. DE YONG | 6-13-90 |
| M. DE YONG | 7-3-90 |
| M. DE YONG | 3-27-92 |
| R. SHAH | 09/09/94 |
| R. SHAH | 10/25/94 |
| A. ABBAS | 03/21/97 |
| M. GOMEZ | 04/06/01 |
| R. BORO | 01/01/07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION

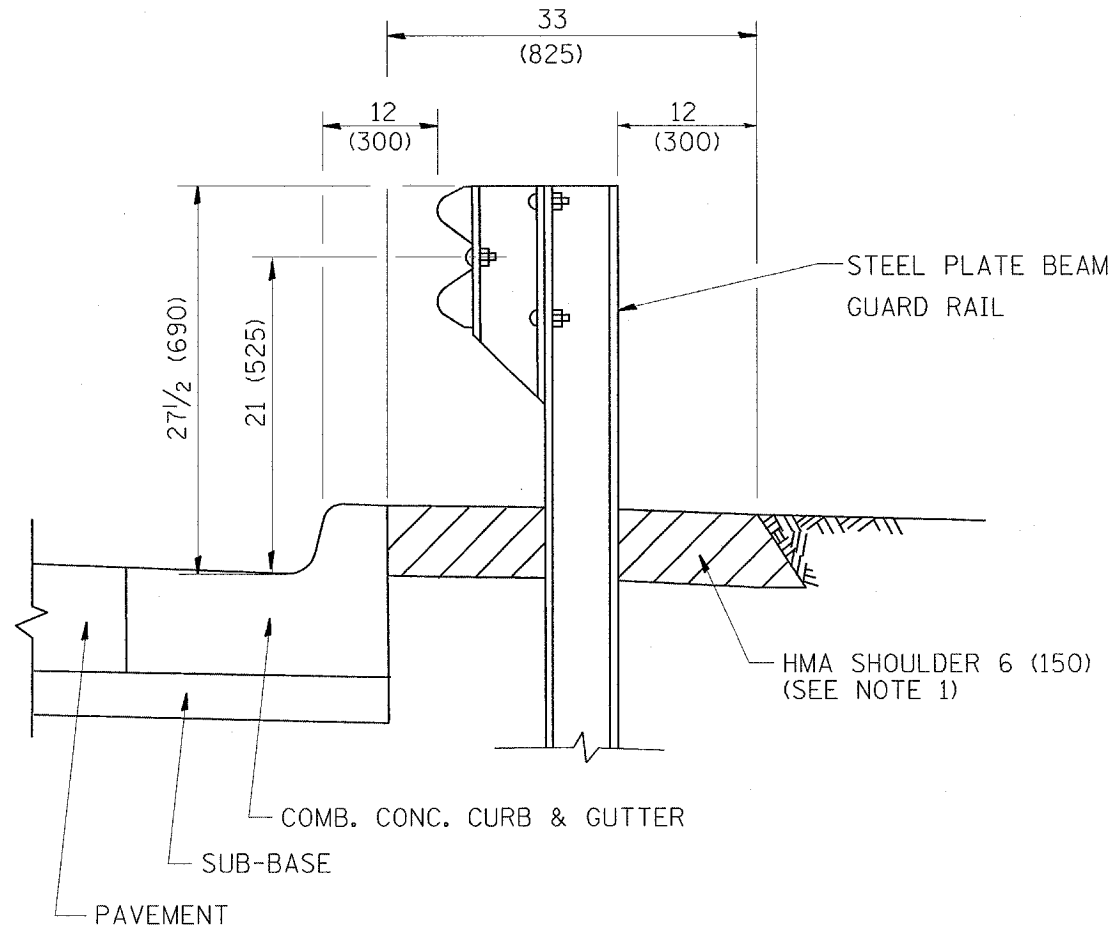
BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

PLOT DATE = 11/6/2007
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 PLOT SCALE = 52.9411 / IN.
 USER NAME = gelbennb

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|---------|----------|------------------|-----------|
| 3887 | AR-B | KANE | 43 | 36 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT | |

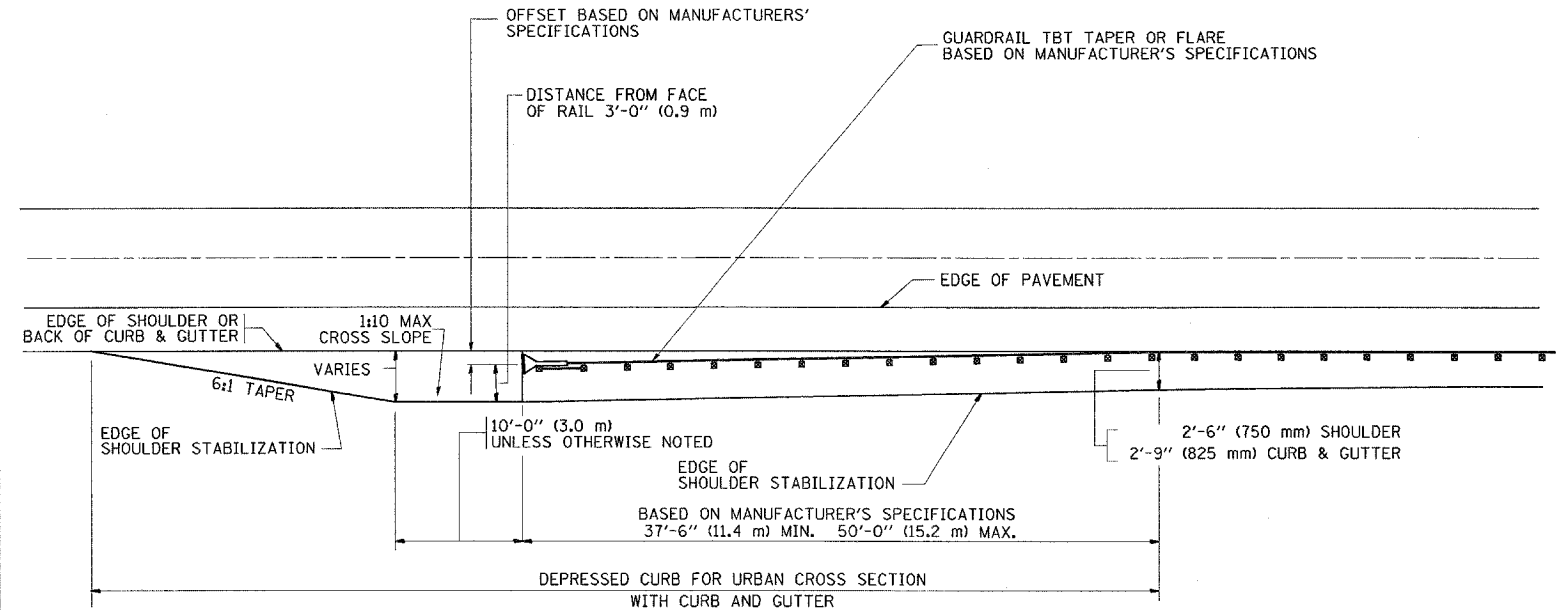


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL
 ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| REVISIONS | |
|------------|----------|
| NAME | DATE |
| M. DE YONG | 09-22-90 |
| M. DE YONG | 07-14-92 |
| R. SHAH | 09/09/94 |
| R. SHAH | 10/25/94 |
| R. SHAH | 02/23/95 |
| A. ABBAS | 03/21/97 |
| E. GOMEZ | 08/28/00 |
| R. BORO | 01/01/07 |

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.

SCALE: VERT. NONE
 HORIZ. NONE
 DRAWN BY Jjs
 CHECKED BY

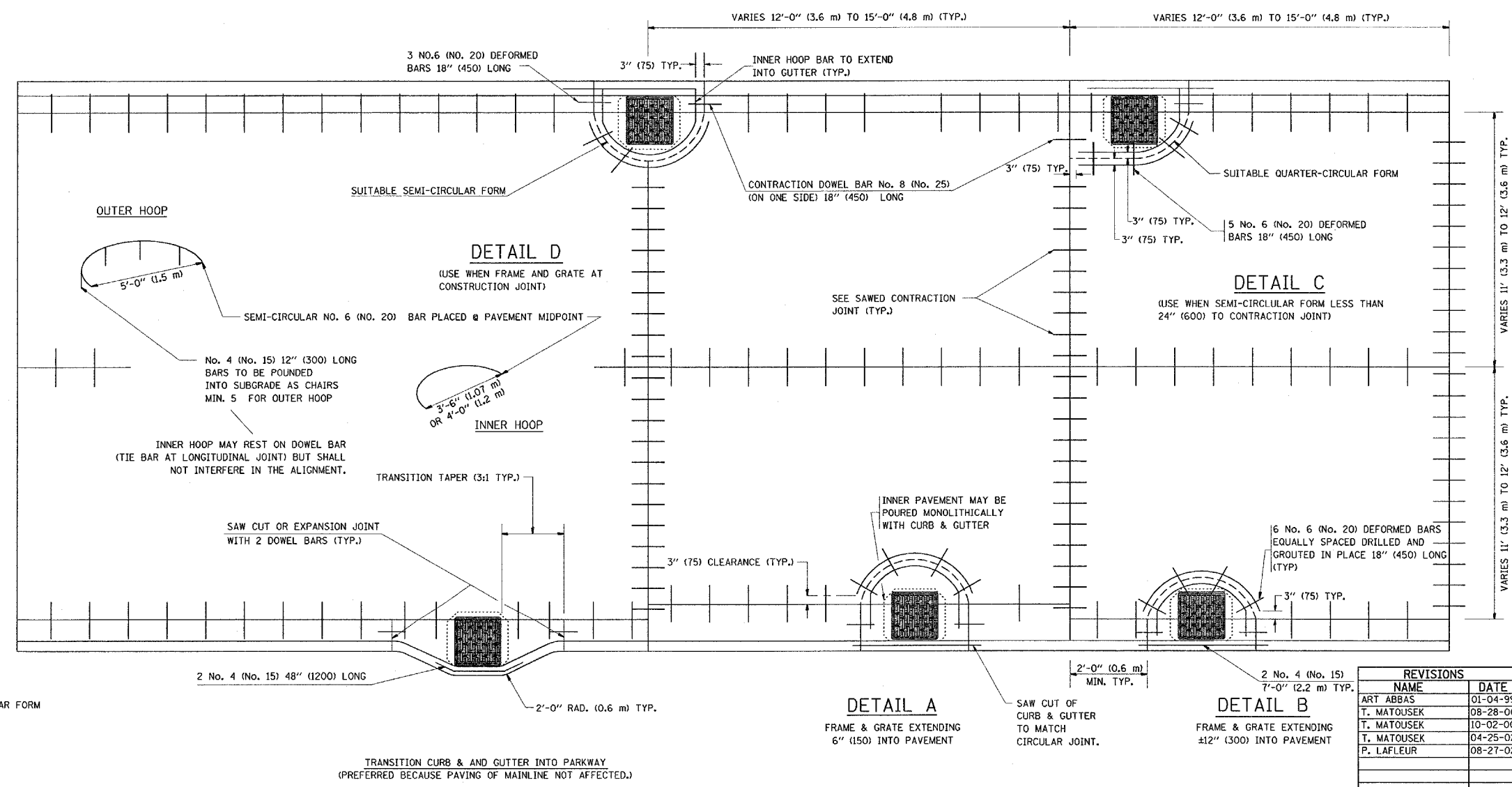
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|---------|----------|------------------|-----------|
| 3887 | AR-B | KANE | 43 | 37 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS | FED. AID PROJECT | |

| FRAME EXTENSION INTO PAVEMENT | INNER HOOP REINFORCEMENT DIAMETER | SEMI CIRCULAR FORM DIAMETER | OUTER HOOP REINFORCEMENT DIAMETER |
|-------------------------------|-----------------------------------|-----------------------------|-----------------------------------|
| UP TO 8" (200) | 3'-6" (1.1 m) | 4'-0" (1.2 m) | 5'-0" (1.5 m) |
| > 8" (200) TO 14" (360) | 4'-0" (1.2 m) | 4'-6" (1.4 m) | 5'-0" (1.5 m) |

NOTES :

- THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
- TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT, EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
- SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
- ALL REINFORCED BARS SHALL BE EPOXY COATED.
- DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
- WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
- HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
- CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
- CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.

DESIGNER NOTE:
THIS DETAIL IS TO BE USED WHEN THE GUTTER FLAG IS LESS THAN 24"



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

LEGEND:
..... CASTING
- - - - - SUITABLE SEMI-CIRCULAR FORM

| REVISIONS | |
|-------------|----------|
| NAME | DATE |
| ART ABBAS | 01-04-99 |
| T. MATOUSEK | 08-28-00 |
| T. MATOUSEK | 10-02-00 |
| T. MATOUSEK | 04-25-02 |
| P. LAFLEUR | 08-27-02 |
| | |
| | |
| | |
| | |

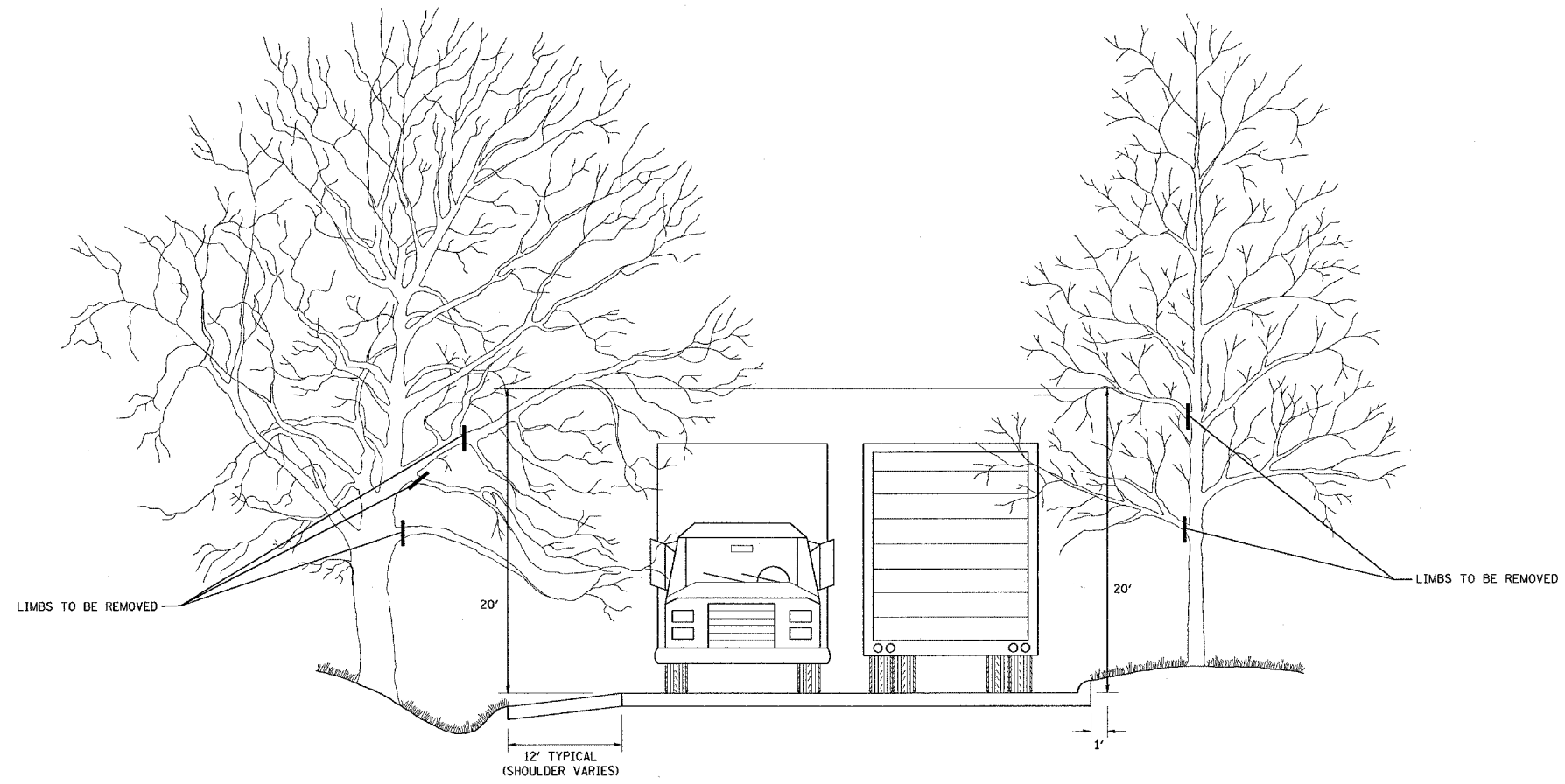
ILLINOIS DEPARTMENT OF TRANSPORTATION
PCC PAVEMENT ROUNDOUTS AT CURB AND GUTTER

SCALE: VERT. NONE
HORIZ. DRAWN BY: TOM MATOUSEK
CHECKED BY: A. ABBAS

PLOT DATE = 11/25/2007
 PLOT SCALE = 1/8" = 1'-0"
 PLOT USER = golibomb
 USER NAME = golibomb

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|--------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 38 |

| | |
|-----------------------|---------------------------|
| STA. | TO STA. |
| FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT |



| REVISIONS | |
|-----------|----------|
| NAME | DATE |
| R. BORO | 10/31/06 |
| | |
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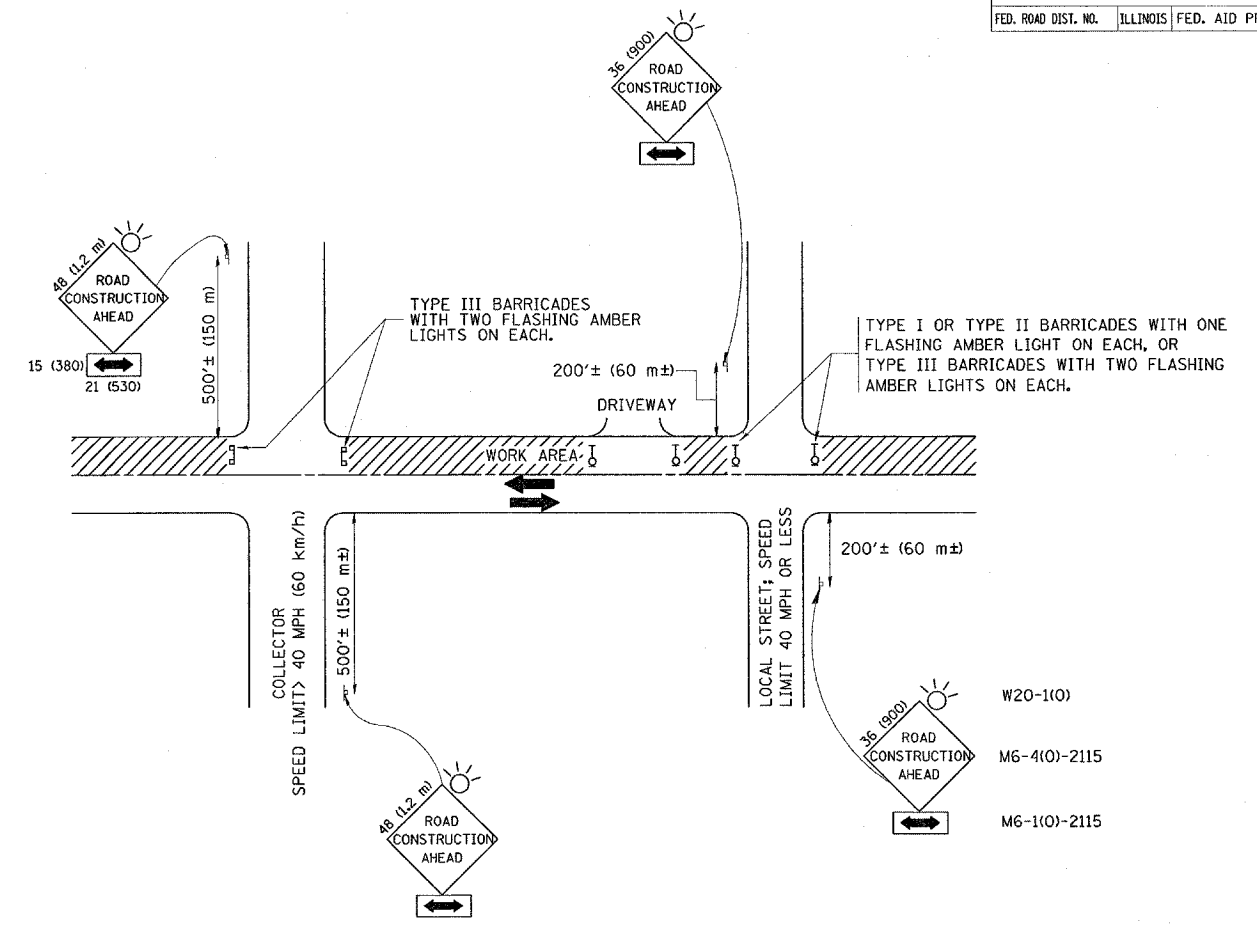
ILLINOIS DEPARTMENT OF TRANSPORTATION

PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE

SCALE: NONE

DRAWN BY CADD
CHECKED BY
BM-20

| | | | | |
|---------------------|----------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3887 | AR-B | KANE | 43 | 39 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

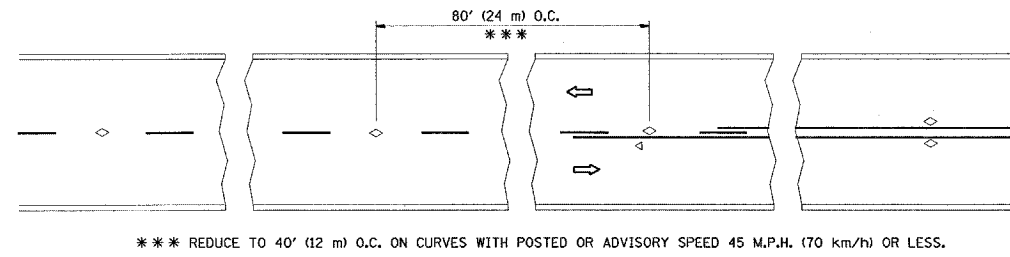
| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| LHA | 6/89 |
| T. RAMMACHER | 09/08/94 |
| J. OBERLE | 10/18/95 |
| A. HOUSEH | 03/06/96 |
| A. HOUSEH | 10/15/96 |
| T. RAMMACHER | 01/06/00 |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: NONE
 DRAWN BY
 CHECKED BY
 TC-10

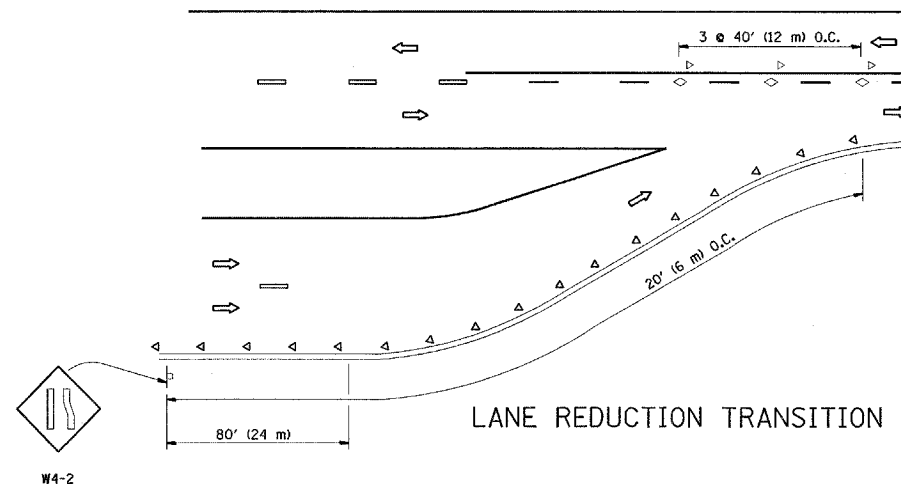
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 USER NAME = galbarr

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|---------|---------------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 40 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

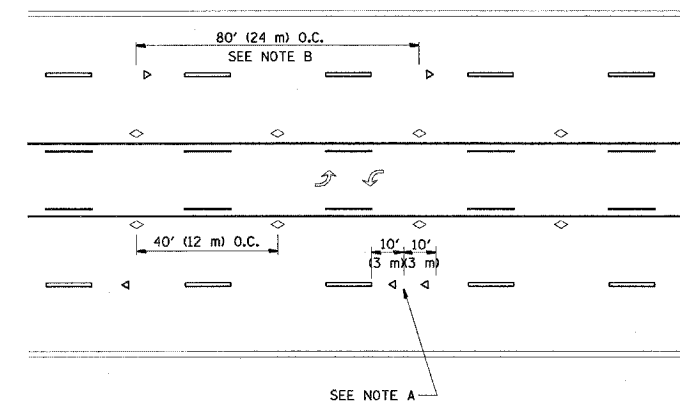


TWO-LANE/TWO-WAY

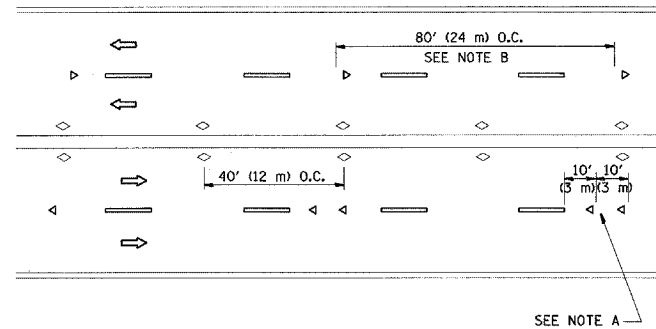
*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.



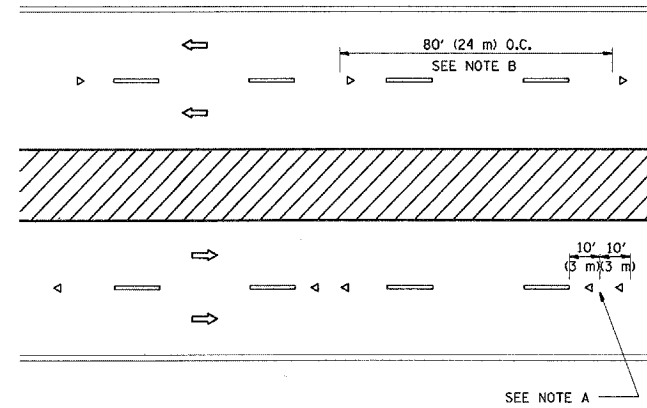
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

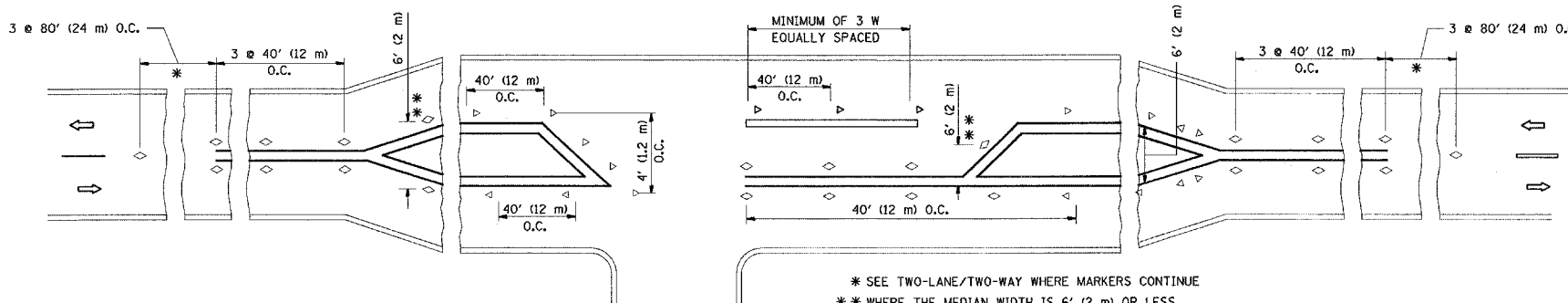
SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◇ TWO-WAY AMBER MARKER

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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



LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

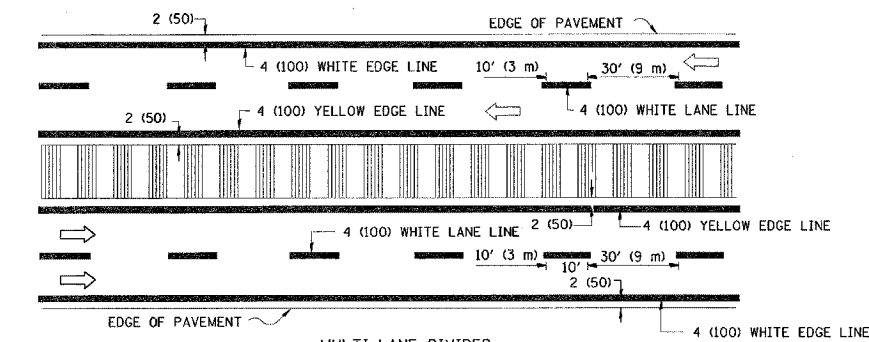
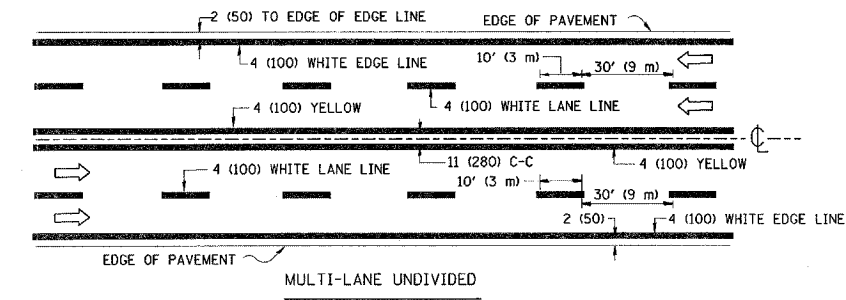
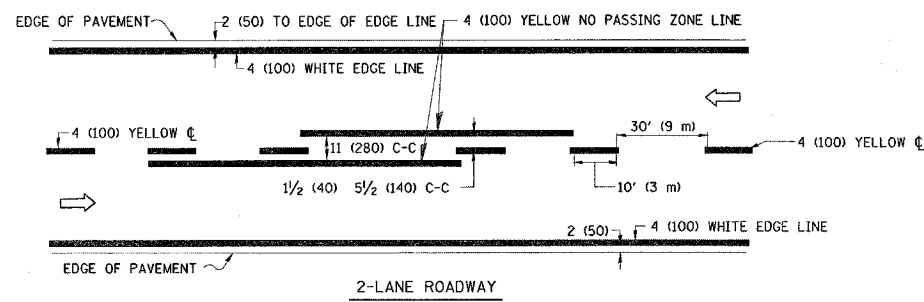
| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| T. RAMMACHER | 09-19-94 |
| T. RAMMACHER | 03-12-99 |
| T. RAMMACHER | 01-06-00 |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT
MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE

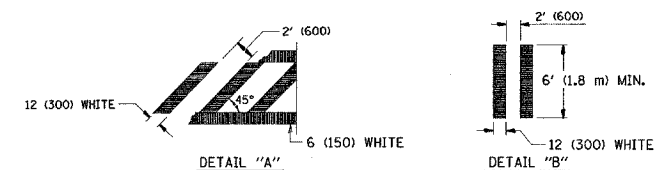
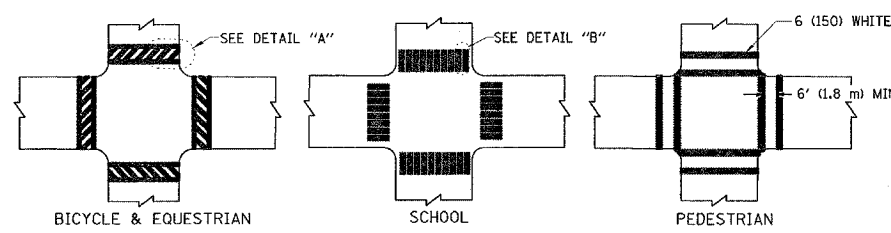
DRAWN BY CADD
CHECKED BY
TC-11

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|---------|---------------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 41 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

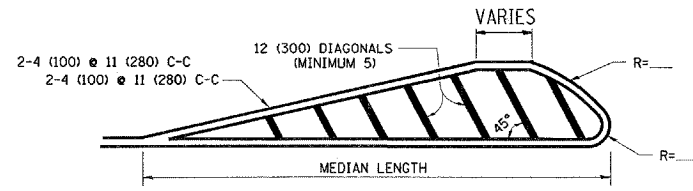
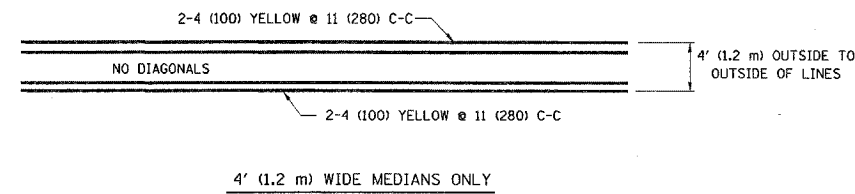


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



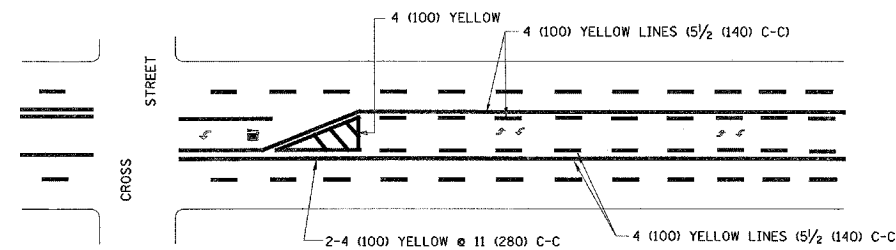
TYPICAL CROSSWALK MARKING



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

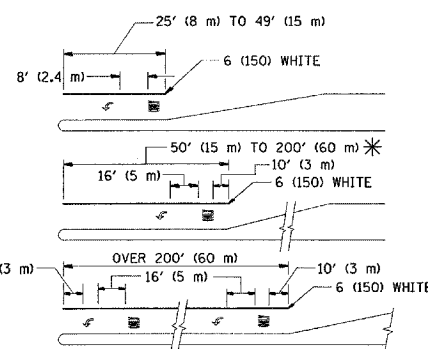


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

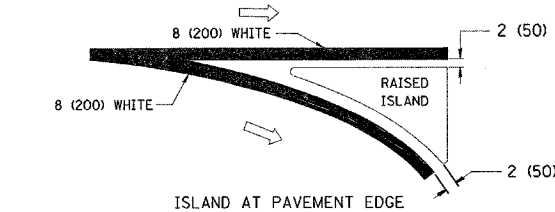
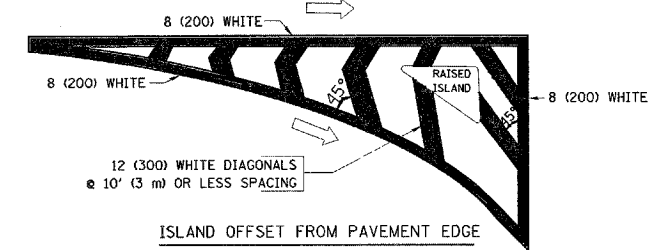


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|---------------------------------|---|--|
| CENTERLINE ON 2 LANE PAVEMENT | 4 (100) | SKIP-DASH | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 (100) 2 @ 4 (100) | SOLID SOLID | YELLOW YELLOW | 5 1/2' (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) 5 (125) ON FREEWAYS | SKIP-DASH SKIP-DASH | WHITE WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2' (600) LINE WITH 6' (1.8 m) SPACE |
| EDGE LINES | 4 (100) | SOLID | YELLOW-LEFT WHITE-RIGHT | OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB |
| TURN LANE MARKINGS | 6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID IN PAIRS | YELLOW WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2' (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL) | 2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90° | SOLID SOLID SOLID | WHITE WHITE WHITE | NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS @ 45° | SOLID | WHITE | DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²) |
| SHOULDER DIAGONALS | 12 (300) @ 45° | SOLID | WHITE - RIGHT YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h)) |

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

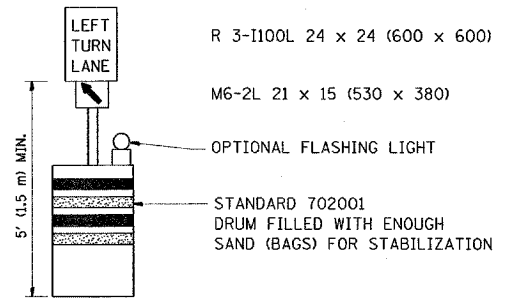
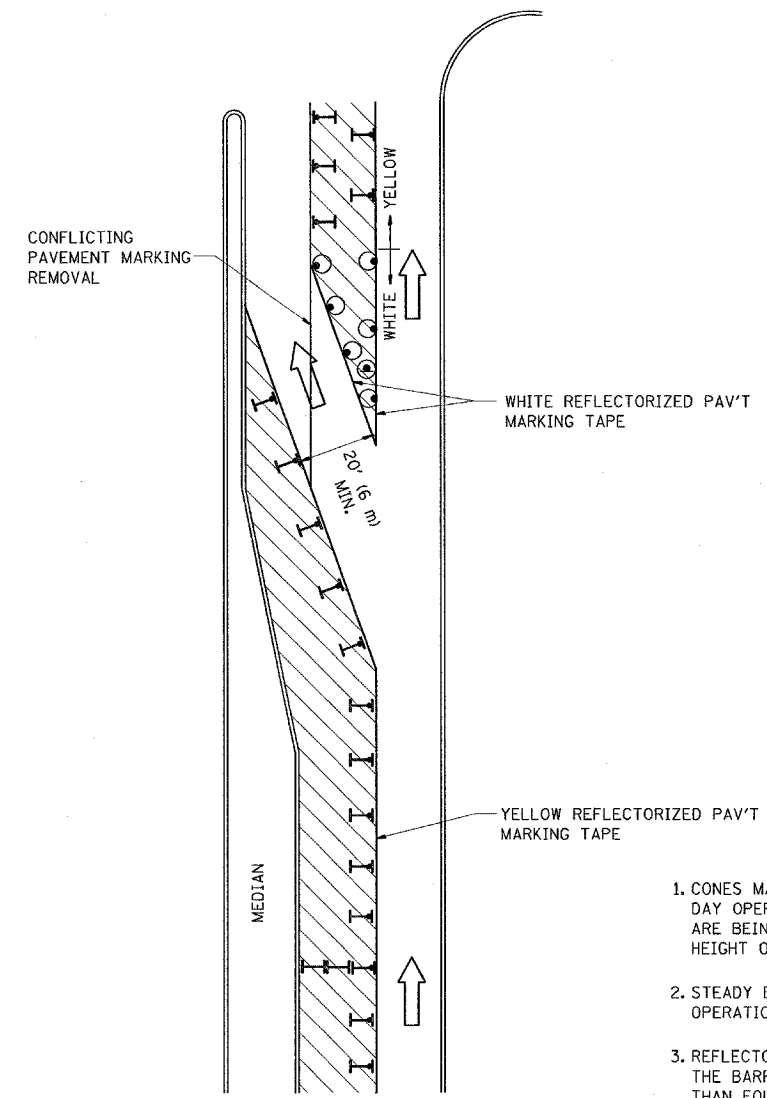
| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| EVERS | 03-19-90 |
| T. RAMMACHER | 10-27-94 |
| ALEX HOUSEH | 10-09-96 |
| ALEX HOUSEH | 10-17-96 |
| T. RAMMACHER | 01-06-00 |
| | |
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ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE
DRAWN BY CADD
CHECKED BY

PLOT DATE = 11/5/2007
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = galbamba

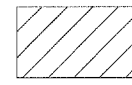





| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 42 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

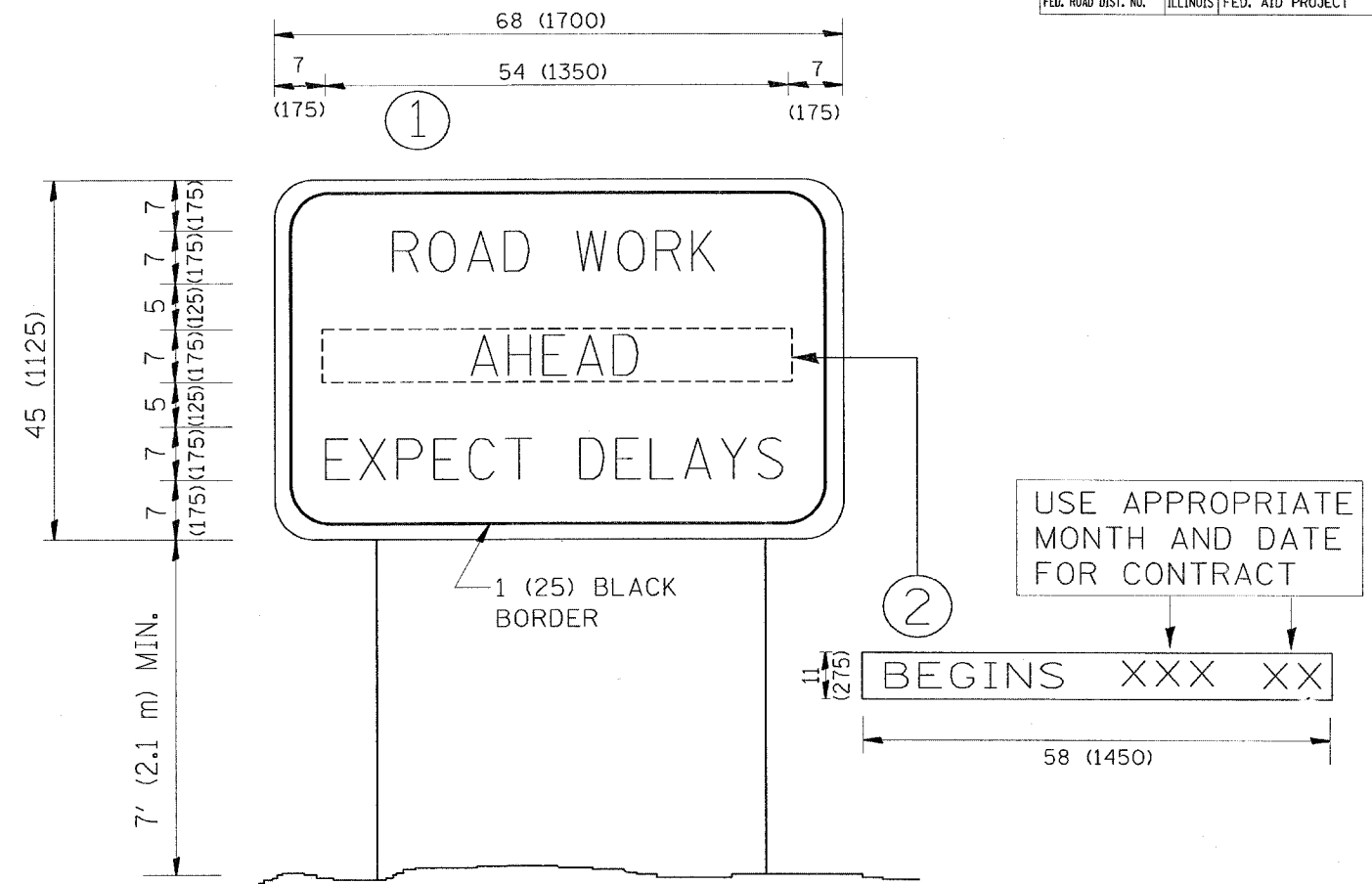
| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| T. RAMMACHER | 09/08/94 |
| A. HOUSEH | 11/07/95 |
| A. HOUSEH | 10/12/96 |
| T. RAMMACHER | 01/06/00 |
| | |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL AND PROTECTION
 AT TURN BAYS
 (TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE
 DRAWN BY
 CHECKED BY LHA
 TC-14

PLOT DATE = 11/25/2007
 FILE NAME = \\das\ntf2\users\gelbennb\Desktop\tdc14.dgn
 PLOT SCALE = 0.25" = 1' / IN.
 USER NAME = gelbennb

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------|------------------|--------------|-----------|
| 3887 | AR-B | KANE | 43 | 43 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

| REVISIONS | |
|--------------|----------|
| NAME | DATE |
| R. MIRS | 9-15-97 |
| R. MIRS | 12-31-97 |
| T. RAMMACHER | 2-2-99 |
| C. JUCIUS | 1-31-07 |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE

DRAWN BY DESIGN

CHECKED BY

TC22