

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|----------|--------------------|-----------|
| 2678 | 163 HB-1-1 | DuPage | 31 | 1 |
| FED. ROAD DIST. NO. | | ILLINOIS | CONTRACT NO. 60J85 | |

D-91-275-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**(F.A.U. ROUTE 2678) YORK ROAD
OVER (IL ROUTE 38) (1.5 MI EAST OF ILL 83)
SECTION: 163 HB-1-1
DUPAGE COUNTY
C-91-275-10
BRIDGE REHABILITATION PROJECT: NHF-0347(024)
SN 022-0067**

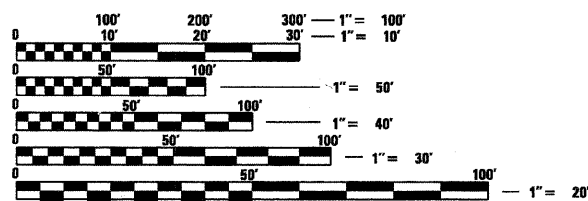


PROJECT LOCATED IN THE CITY OF
ELMHURST, DUPAGE COUNTY, ILLINOIS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

DESIGN DESIGNATION
OTHER PRINCIPAL ARTERIAL

ADT 19500 (2005)
POSTED SPEED LIMIT 45 MPH

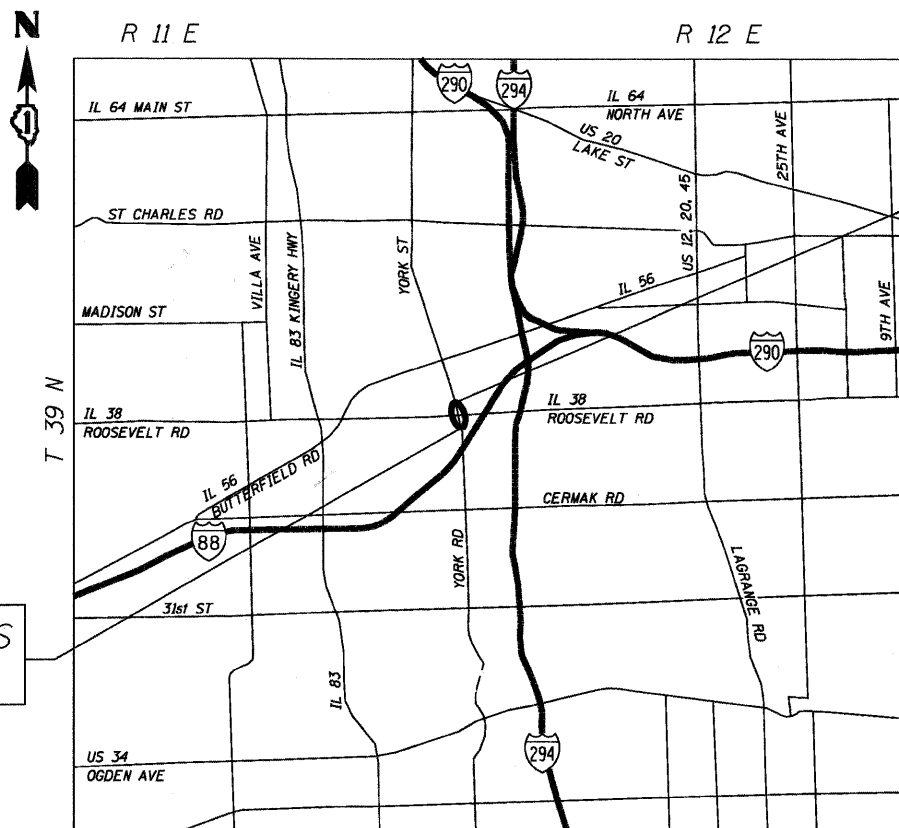


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT MANAGER: KIM HARVEY (847) 705-4055
PROJECT ENGINEER: ERSKINE W. KLYCE (847) 705-4594

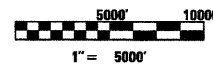
CONTRACT NO. 60J85



PROJECT BEGINS
STA. 58+35

PROJECT ENDS
STA. 61+67

LOCATION MAP



NET AND GROSS LENGTH OF PROJECT = 332' = 0.063 MI

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 28, 2010

Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 9, 2010
Scott E. Still, P.E.
ACTING ENGINEER OF DESIGN AND ENVIRONMENT

March 9, 2010
Christine M. Road
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LONGO, INC.
CONSULTING ENGINEERS
1560 WALL ST., SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

Walt
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS
Exp. 11/30/11

STATE STANDARDS

SHEET NO. TITLE

| | |
|-------|---|
| 1 | TITLE SHEET |
| 2 | GENERAL NOTES, STATE STANDARDS AND INDEX OF SHEETS |
| 3-4 | SUMMARY OF QUANTITIES |
| 5 | TYPICAL SECTIONS |
| 6 | STAGING TYPICAL SECTIONS |
| 7 | CONSTRUCTION STAGING PLAN - STAGE 1 |
| 8 | CONSTRUCTION STAGING PLAN - STAGE 2 |
| 9 | ROADWAY RESURFACING AND APPROACH OVERLAY PLAN |
| 10 | PAVEMENT MARKING PLAN |
| 11-26 | STRUCTURAL PLANS |
| 27 | BUTT JOINT AND HMA TAPER DETAILS |
| 28 | RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) |
| 29 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS |
| 30 | TRAFFIC CONTROL FOR SHOULDER CLOSURE AND PARTIAL RAMP CLOSURE |
| 31 | ARTERIAL ROAD INFORMATION SIGN |
| | HIGHWAY STANDARDS |

SHEET NO. TITLE

| | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT REBARS |
| 701411-06 | LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH |
| 701501-05 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED |
| 701602-04 | URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 704001-06 | TEMPORARY CONCRETE BARRIER |

GENERAL NOTES

ALL ELEVATIONS ARE BASED ON UNITED STATES COAST AND GEODETIC SURVEY DATUM.

DIMENSIONS ARE IN ENGLISH UNITS UNLESS OTHERWISE NOTED.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION IS REQUIRED).

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT LISTED IN THE PLANS WITH THE LATEST NUMBERS.

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING PROPERTIES.

THE RESIDENT ENGINEER SHALL CONTACT ~~MS. DEBBIE HANLON~~ **MR. DON CHIARUGI**, AREA TRAFFIC ENGINEER, AT ~~(847) 438-2300~~ **(847) 741-9857** AT A MINIMUM OF 2 WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

ALL WORK IS TO BE COMPLETED BY THE COMPLETION DATE. THE COMPLETION DATE FOR THIS CONTRACT IS SEPTEMBER 24, 2010

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORDED FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE DIRECTED BY THE ENGINEER.

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|---------------------------|--------------------|-----------|
| 2678 | 163 HB-I-1 | DUPAGE | 31 | 2 |
| D-91-275-10 | | | CONTRACT NO. 60J85 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

| SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | | SUMMARY OF QUANTITIES | | | 80% FED. 20% STATE | | |
|-----------------------|---|--------|-----------------------|-----------------|-------------------|-----------------------|--|-----------------|-----------------------|-----------------|-------------------|
| CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY 1000 | BRIDGE X281-2A | CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY 1000 | BRIDGE X281-2A |
| 40600200 | BITUMINOUS MATERIALS (PRIME COAT) | TON | 1 | 1 | | 70101800 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | 1 | |
| 40600635 | LEVELING BINDER (MACHINE METHOD), N70 | TON | 52 | 52 | | 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 20 | 20 | |
| 40603340 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 | TON | 103 | 103 | | 70106800 | CHANGEABLE MESSAGE SIGN | CAL MO | 6 | 6 | |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 129 | 129 | | 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 1240 | 1240 | |
| 44000156 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4" | SQ YD | 427 | | 427 | 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 1240 | 1240 | |
| 44000198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SQ YD | 778 | 778 | | * 78000200 | THERMOPLASTIC PAVEMENT MARKING-LINE 4" | FOOT | 5027 | 3841 | 1186 |
| 50102400 | CONCRETE REMOVAL | CU YD | 153.3 | | 153.3 | * 78000650 | THERMOPLASTIC PAVEMENT MARKING-LINE 24" | FOOT | 66 | 66 | |
| 50104650 | SLOPE WALL REMOVAL | SQ YD | 139 | | 139 | 78008210 | POLYUREA PAVEMENT MARKING TYPE 1-LINE 4" | FOOT | 1186 | | 1186 |
| 50157300 | PROTECTIVE SHIELD | SQ YD | 1451 | | 1451 | * 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 4 | 4 | |
| 50300100 | FLOOR DRAINS | EACH | 12 | | 12 | * 78100105 | RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) | EACH | 12 | | 12 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 168.4 | | 168.4 | * 78200530 | BARRIER WALL MARKERS, TYPE C | EACH | 51 | 51 | |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 1995 | | 1995 | 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 1305 | 1305 | |
| 50300300 | PROTECTIVE COAT | SQ YD | 2247 | | 2247 | 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 16 | 4 | 12 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 27,060 | | 27,060 | X0322185 | BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES | SQ YD | 1938 | | 1938 |
| 50800515 | BAR SPLICERS | EACH | 160 | | 160 | X0322256 | TEMPORARY INFORMATION SIGNING | SQ FT | 52 | 52 | |
| 51100100 | SLOPE WALL, 4 INCH | SQ YD | 175 | | 175 | X0325305 | STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES) | SQ FT | 20 | | 20 |
| 52000110 | PREFORMED JOINT STRIP SEAL | FOOT | 505 | | 505 | X0325775 | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH | FOOT | 10097 | 10097 | |
| 59300100 | CONTROLLED LOW-STRENGTH MATERIAL | CU YD | 59 | | 59 | X0325841 | WET REFLECTIVE TEMPORARY TAPE, TYPE III, 24 INCH | FOOT | 32 | 32 | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 6 | 6 | | X0712400 | TEMPORARY PAVEMENT | SQ YD | 129 | 129 | |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 | | *5000600 | MECHANICAL SPLICERS | EACH | 312 | | 312 |

* SPECIALTY ITEMS

LONCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**

SCALE: NONE SHEET NO. 3 OF 31 SHEETS STA. 58+35 TO STA. 61+67

| | | | | |
|---------------------|------------|---------------------------|-----------------|--------------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2678 | 163 HB-1-1 | DUPAGE | 31 | 3 |
| D-91-275-10 | | CONTRACT NO. 60J85 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

| SUMMARY OF QUANTITIES | | | 80% FED- 20% STATE | | | SUMMARY OF QUANTITIES | | | 100% STATE | | |
|-----------------------|---|-------|-----------------------|-----------------|-------------------|-----------------------|------|------|----------------|-----------------|-------------------|
| CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY 1000 | BRIDGE X281-2A | CODE NO. | ITEM | UNIT | URBAN TOTAL | ROADWAY 1000 | BRIDGE X281-2A |
| Z0006204 | BRIDGE DECK HYDRO-SCARIFICATION 1/2" | SQ YD | 2092 | | 2092 | | | | | | |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 1 | | | | | | | |
| Z0016002 | DECK SLAB REPAIR (FULL DEPTH, TYPE II) | SQ YD | 202 | | 202 | | | | | | |
| Z0030250 | IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 | 2 | | | | | | | |
| Z0030350 | IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 | 2 | | | | | | | |
| Ⓞ Z0076600 | TRAINEES | HOUR | 500 | 500 | | | | | | | |

Ⓞ Y080
* SPECIALTY ITEMS

LOCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH 1630/ 577-9100

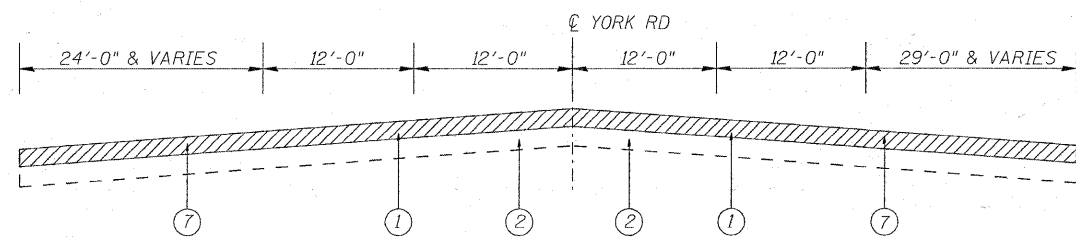
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|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

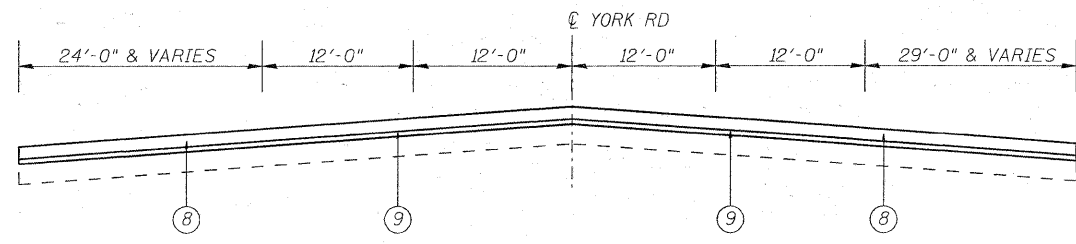
**SUMMARY OF QUANTITIES
YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**

SCALE: NONE SHEET NO. 4 OF 31 SHEETS STA. 58+35 TO STA. 61+67

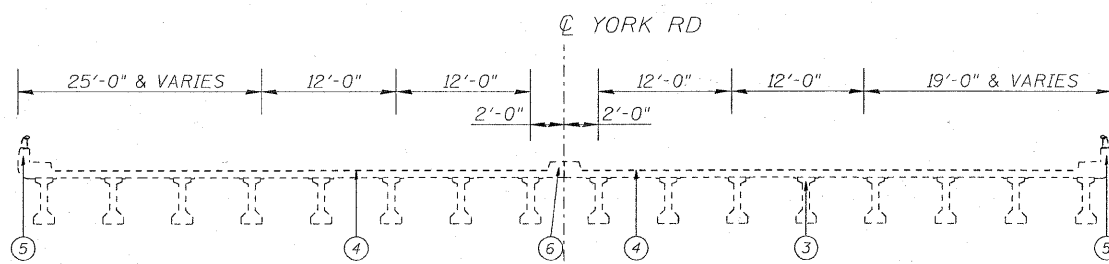
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|---------------------------|-----------------|--------------|
| 2678 | 163 HB-1-1 | DUPAGE | 31 | 4 |
| D-91-275-10 | | CONTRACT NO. 60J85 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



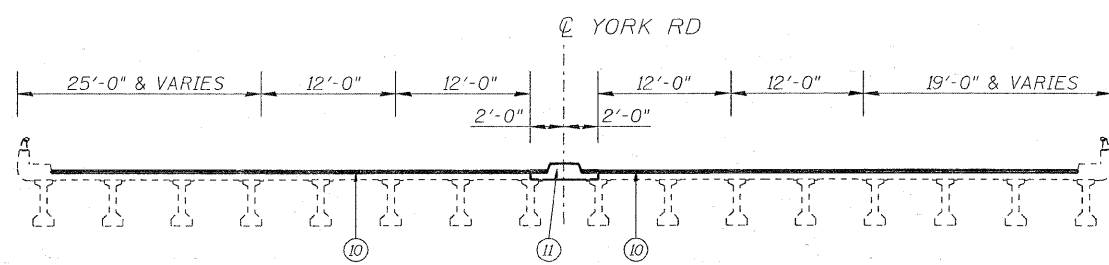
EXISTING TYPICAL SECTION
STA. 58+35 TO STA. 58+90
STA. 61+11.29 TO STA 61+67



PROPOSED TYPICAL SECTION
STA. 58+35 TO STA. 58+90
STA. 61+11.29 TO STA 61+67



EXISTING TYPICAL SECTION
STA. 58+90 TO STA. 61+11.29



PROPOSED TYPICAL SECTION
STA. 58+90 TO STA. 61+11.29

LEGEND

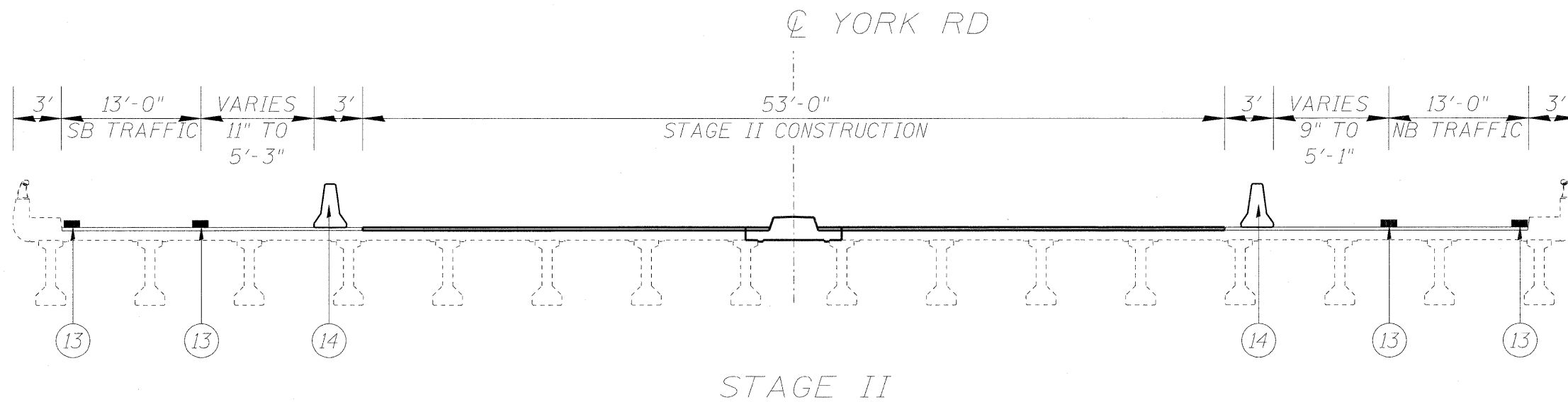
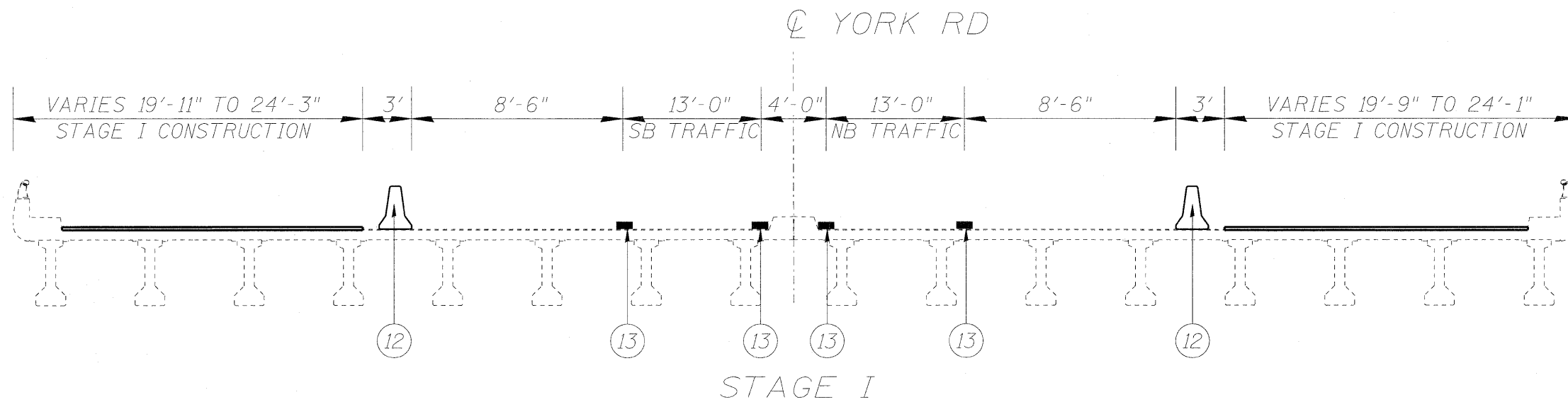
- ① EXISTING HMA SURFACE COURSE
- ② EXISTING BASE COURSE
- ③ EXISTING CONCRETE BEAMS
- ④ EXISTING BRIDGE DECK HYDRO-SCARIFICATION, 1/2"
- ⑤ EXISTING PARAPET WALLS
- ⑥ EXISTING CONCRETE MEDIAN, 4'
- ⑦ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- ⑧ PROPOSED HMA SURFACE CSE., MIX "D", N70, 1 1/2"
- ⑨ PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 3/4"
- ⑩ PROPOSED BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4"
- ⑪ PROPOSED CONCRETE MEDIAN, 4' (PAID AS CONCRETE SUPERSTRUCTURE)

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | | |
|--------------------------------------|--|------------------|
| OPERATION | MIXTURE TYPE | DESIGN AIR VOIDS |
| ROADWAY | HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm) | 4% @ 70 GYR |
| | LEVELING MACHINE (MACHINE METHOD), N70 (IL 9.5 mm) | 4% @ 70 GYR |
| SHOULDER | HMA SURFACE COURSE, MIX "D", N70 (IL 9.5 mm) | 4% @ 70 GYR |
| | LEVELING MACHINE (MACHINE METHOD), N70 (IL 9.5 mm) | 4% @ 70 GYR |

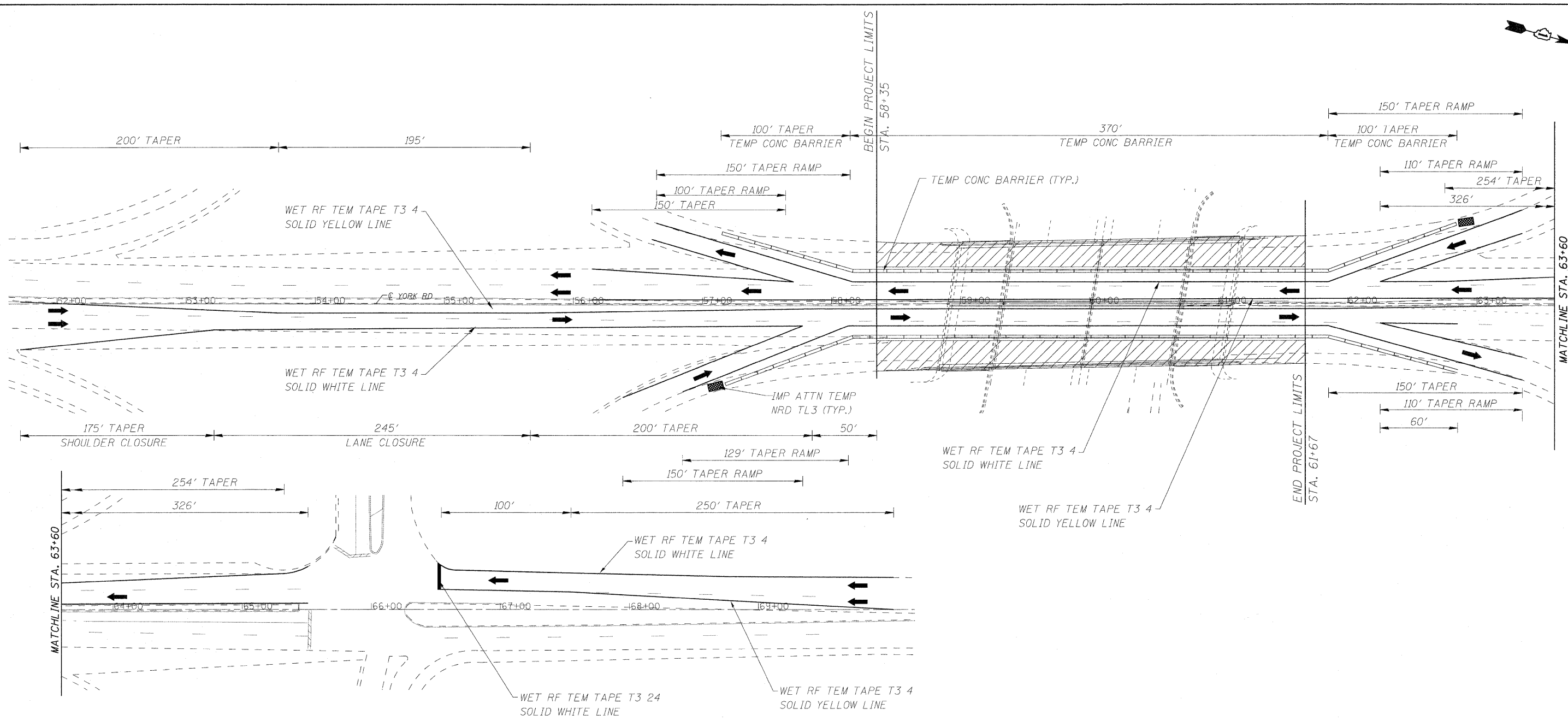
NOTES:

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQ-YD/IN.

FOR "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70 -22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



- ⑫ TEMPORARY CONCRETE BARRIER
- ⑬ WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4"
- ⑭ RELOCATE TEMPORARY CONCRETE BARRIER



LEGEND

- WORK ZONE
- BARRICADE W/ STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- IMPACT ATTENUATORS
- CONCRETE BARRIER
- DOUBLE VERTICAL PANEL

NOTES:

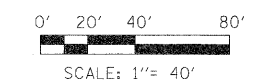
BARRICADE SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN BARRICADES CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, SPECIAL." TEMPORARY AND PERMANENT PAVEMENT STRIPING WILL BE PAID FOR SEPARATELY.

STAGE 1

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 1 MAINTENANCE OF TRAFFIC, STANDARD 701602 AND DISTRICT DETAIL TC-17.
2. COMPLETE REMOVAL OF 1/2" OF TOP OF DECK, EAST PORTION OF EXISTING SOUTHBOUND OUTSIDE LANES, AND WEST PART OF EXISTING NORTHBOUND LANES DECK SURFACE AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4".
4. CONSTRUCT ROADWAY ON EAST AND WEST SIDE, OUTSIDE LANES OF YORK RD IN ACCORDANCE WITH SHEET 9.



LOWCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

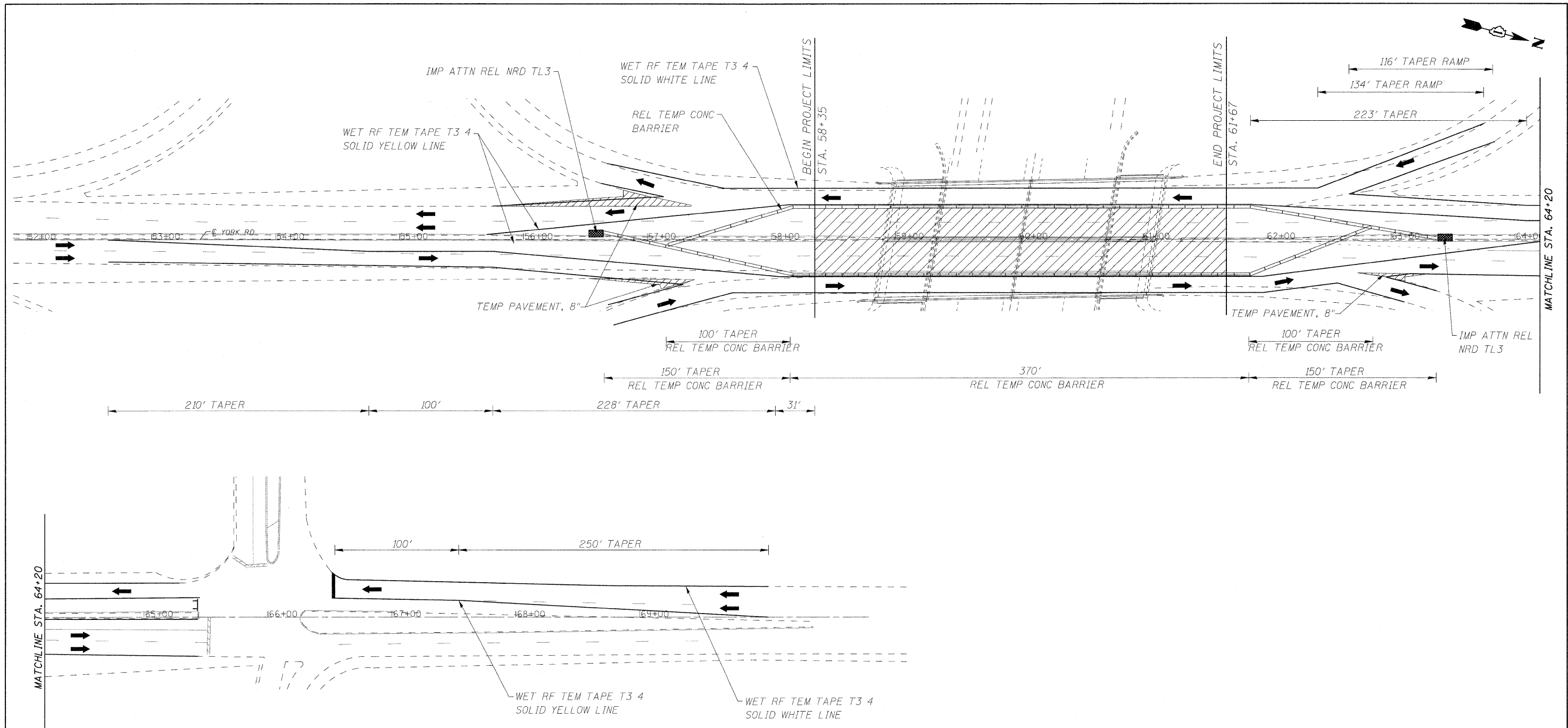
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|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 1
YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**

SCALE: 1" = 40' SHEET NO. 7 OF 31 SHEETS STA. 58+35 TO STA. 61+67

| | | | | |
|--|--------------------|--------------------|-----------------|-------------|
| F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 7 |
| D-91-275-10 | | CONTRACT NO. 60J85 | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



LEGEND

- WORK ZONE
- BARRICADE W/ STEADY BURN LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- IMPACT ATTENUATORS
- CONCRETE BARRIER
- DOUBLE VERTICAL PANEL

NOTES:

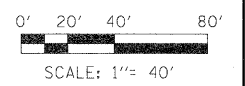
BARRICADE SPACING SHALL BE 25' CENTERS IN TAPER SECTIONS AND 50' CENTERS IN TANGENT SECTIONS.

VERTICAL PANELS SHALL BE USED WHEN BARRICADES CANNOT BE PLACED ON THE EXISTING PAVEMENT OR PAVED SHOULDER.

ALL SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE ACCORDING TO SECTION 701 OF THE STANDARD SPECIFICATIONS AND SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "TRAFFIC CONTROL AND PROTECTION, SPECIAL." TEMPORARY AND PERMANENT PAVEMENT STRIPING WILL BE PAID FOR SEPARATELY.

STAGE 2

1. INSTALL TRAFFIC CONTROL AND TEMPORARY CONCRETE BARRIER IN ACCORDANCE WITH STAGE 2 MAINTENANCE OF TRAFFIC, STANDARD 701602 AND DISTRICT DETAIL TC-17.
2. COMPLETE REMOVAL OF 1/2" OF TOP OF DECK, EAST PORTION OF EXISTING SOUTHBOUND INSIDE LANES, AND WEST PART OF EXISTING NORTHBOUND LANES DECK SURFACE AND EXISTING APPROACH PAVEMENT.
3. INSTALL NEW BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4".
4. CONSTRUCT ROADWAY ON EAST AND WEST SIDE, INSIDE LANES OF YORK RD IN ACCORDANCE WITH SHEET 9.



LOWCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

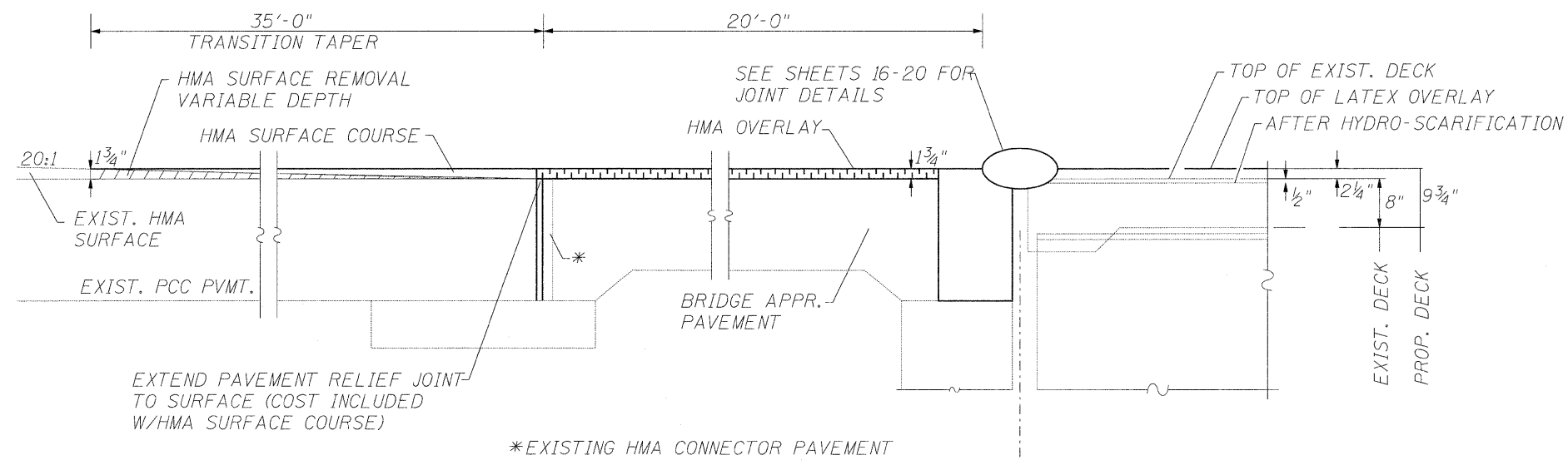
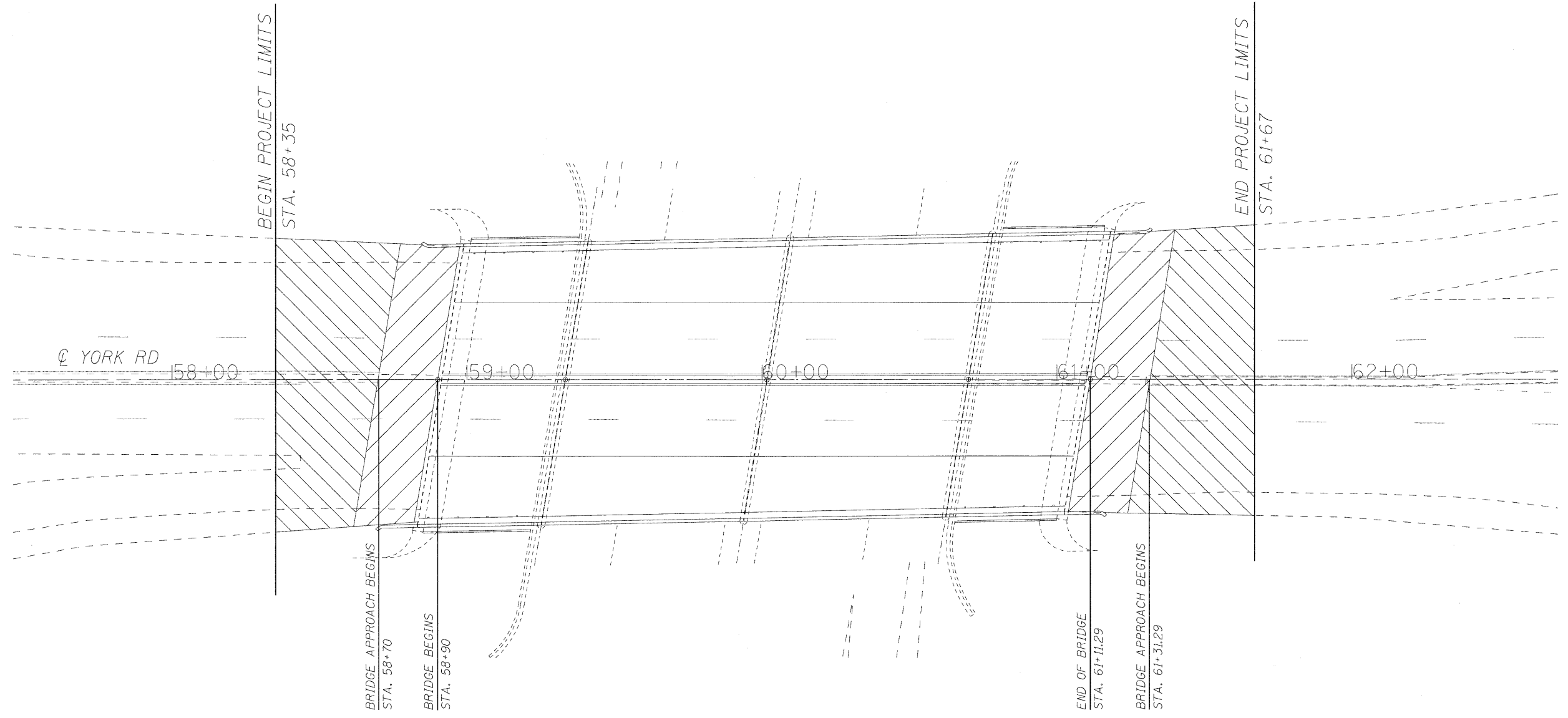
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|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING PLAN - STAGE 2
 YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**

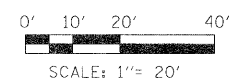
SCALE: 1" = 40' SHEET NO. 8 OF 31 SHEETS STA. 58+35 TO STA. 61+67

| | | | | |
|---------------------|------------|---------------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2678 | 163 HB-1-1 | DUPAGE | 31 | 8 |
| D-91-275-10 | | CONTRACT NO. 60J85 | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



LEGEND

| | |
|--|---|
| | - HMA OVERLAY 1 3/4" |
| | - HMA SURF REM VAR DP & HMA OVERLAY VARIABLE DEPTH (AT BRIDGE APPROACH) |



LOXCO, INC.
CONSULTING ENGINEERS
1560 WALL ST, SUITE 222
NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

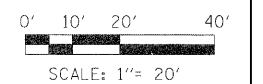
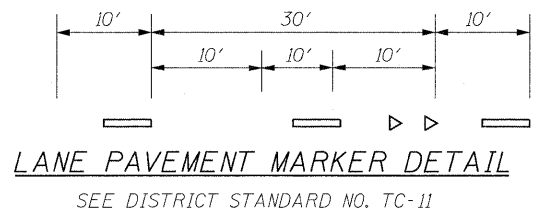
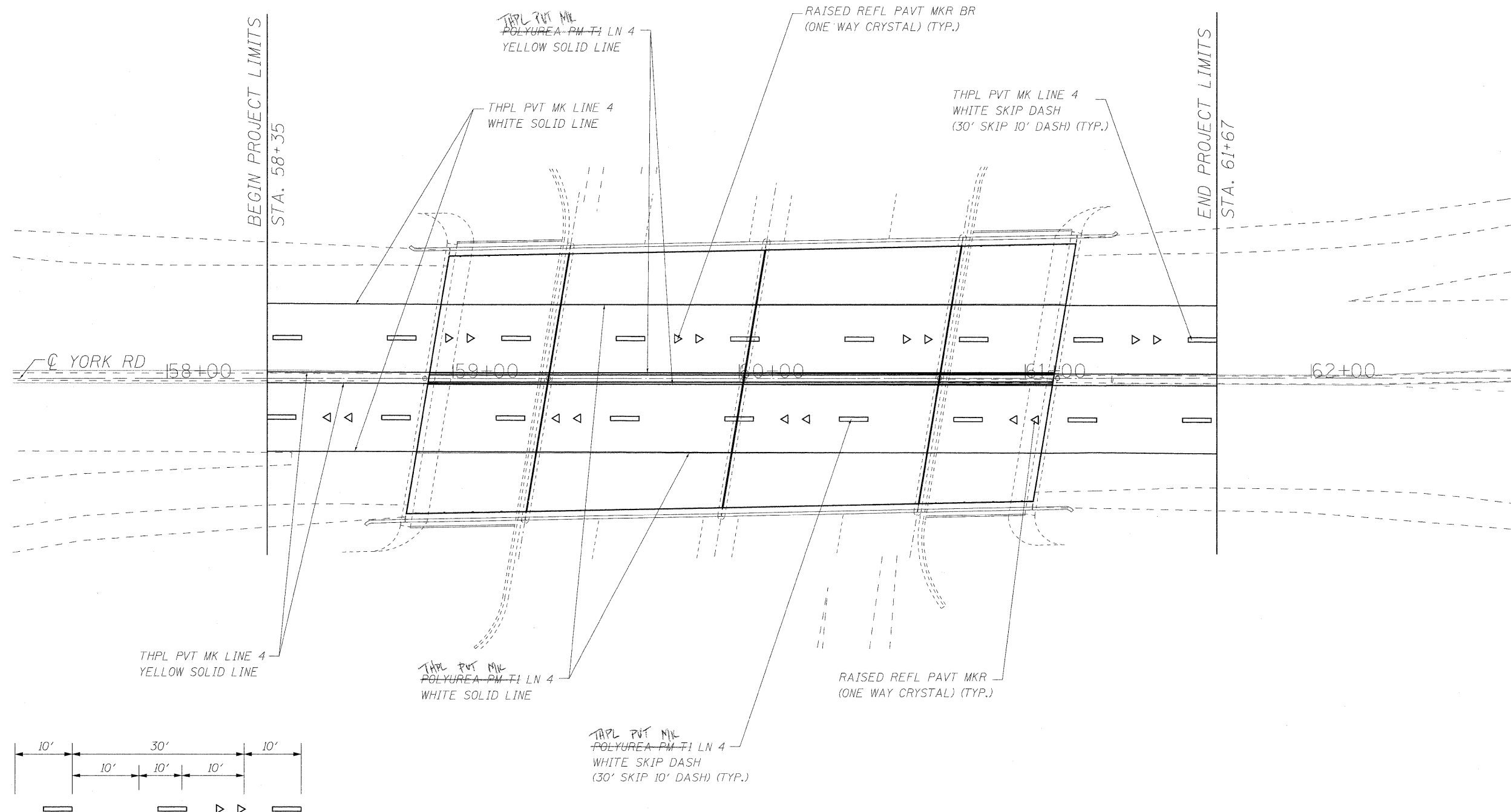
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| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROADWAY RESURFACING PLAN
YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**

SCALE: 1" = 20' SHEET NO. 9 OF 31 SHEETS STA. 58+35 TO STA. 61+67

| | | | | |
|------------------|--------------------|------------------|--------------------|-------------|
| F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 9 |
| D-91-275-10 | | | CONTRACT NO. 60J85 | |
| ILLINOIS | | FED. AID PROJECT | | |



LOVCO, INC.
 CONSULTING ENGINEERS
 1560 WALL ST., SUITE 222
 NAPERVILLE, ILLINOIS 60563 PH: (630) 577-9100

| | |
|-------------------|-----------|
| DESIGNED - MJY | REVISED - |
| DRAWN - ST, TSC | REVISED - |
| CHECKED - MJY, DC | REVISED - |
| DATE - 01/29/2010 | REVISED - |

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
 YORK ROAD AT IL ROUTE 38 (1.5 MI EAST OF IL ROUTE 83)**
 SCALE: 1" = 20' SHEET NO. 10 OF 31 SHEETS STA. 58+35 TO STA. 61+67

| | | | | |
|---------------------|--------------------|---------------------------|--------------------|--------------|
| F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 10 |
| D-91-275-10 | | | CONTRACT NO. 60J85 | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

Existing Structure: Existing Structure No. 022-0067 was built in 1960 as FAS Rte. 1135, Section 163 HB MFT. Existing Structure is a 4 span PCI beam bridge on pile supported abutments and piers, with 7 1/2" deck. Traffic to be maintained using stage construction.

Salvage: None

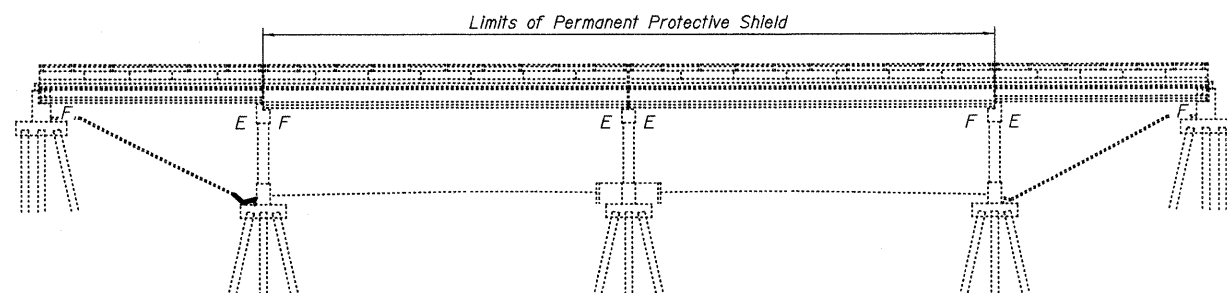
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

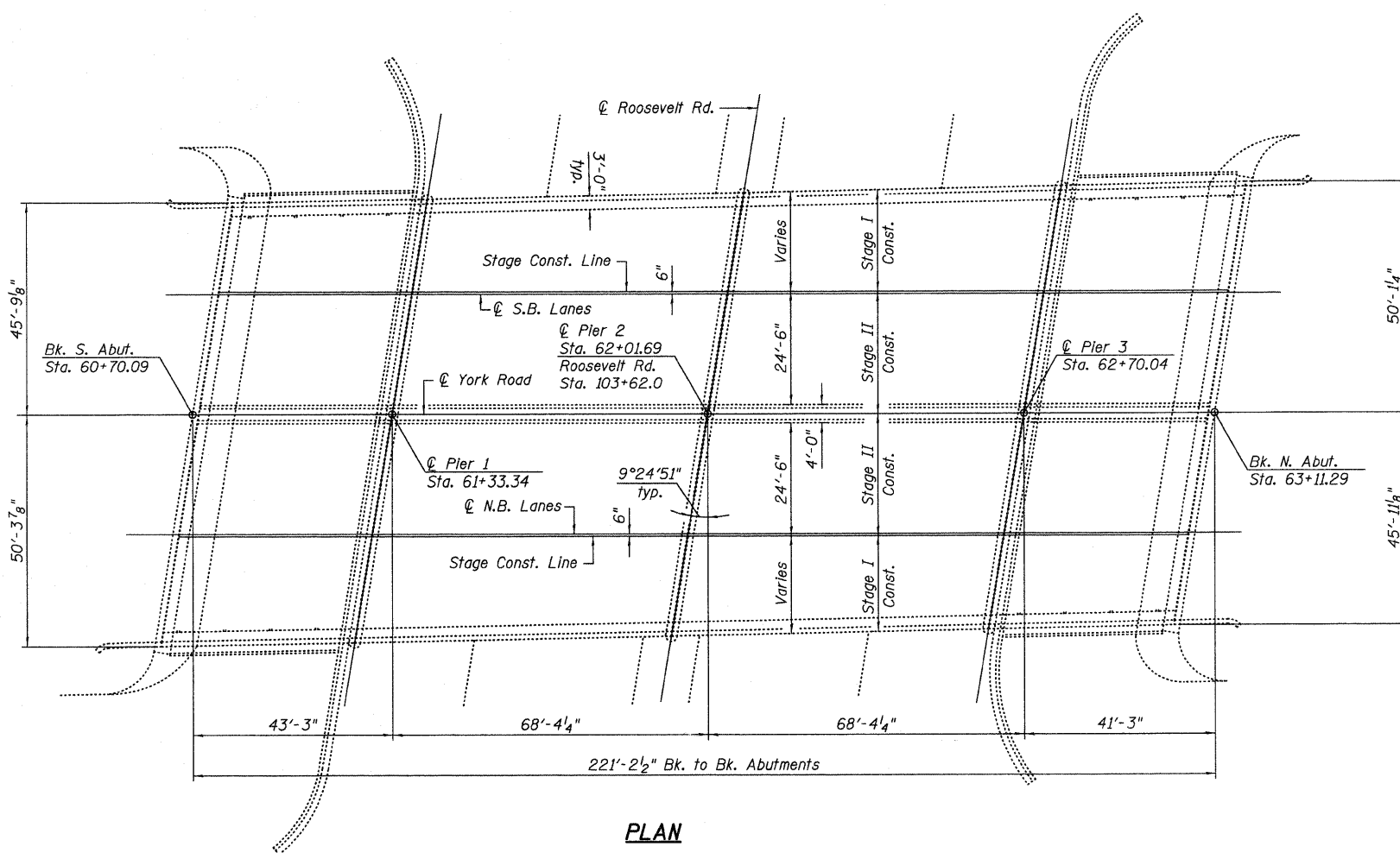
SCOPE OF WORK

1. General Plan and Elevation
2. General Notes and Bill of Material
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
5. Deck Slab Repair Details
- 6.-10. Joint Replacement Details
11. Diaphragm Details
12. Preformed Joint Strip Seal Details
13. Longitudinal Joint Closure Details
14. Slope Wall Repair
15. Floor Drain Details
16. Bar Splicer Assembly and Mechanical Splicer Details

1. Remove concrete deck and parapet adjacent to expansion joints.
2. Provide Preformed Joint Strip Seal expansion joints at abutments.
3. Replace concrete deck and parapet adjacent to expansion joints.
4. Apply 1/2" hydro-scarification to deck slab.
5. Repair deck slab.
6. Place 2 1/4" latex concrete overlay on bridge deck.
7. Place HMA overlay on approaches.
8. Apply protective coat and bridge deck grooving to top of bridge deck overlay and new concrete at joints.
9. Remove and replace median, thus eliminating the longitudinal joint.
10. Repair deteriorated concrete at slope wall.
11. Replace existing deck drains.



ELEVATION



PLAN

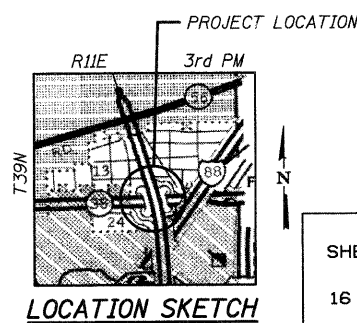
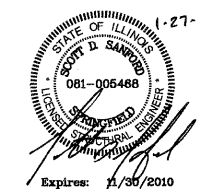
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| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

LOADING HS20-44
(Existing Construction)
DESIGN SPECIFICATIONS
2002 Standard Specifications for
Highway Bridges 17th Edition

DESIGN STRESSES
FIELD UNITS
(NEW CONSTRUCTION)

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



GENERAL PLAN AND ELEVATION
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

| SHEET NO. 1 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------|------------|--------|--------------------|-----------|
| 16 SHEETS | 2678 | 163 HB-I-1 | DUPAGE | 31 | 11 |
| | C-91-275-10 | | | CONTRACT NO. 60J85 | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

The Contractor shall be responsible for maintaining the stability and structural integrity of the existing structure, in accordance with the project specifications.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications, when the deck is poured at an ambient temperature other than 50°F.

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|--------|-----|--------|
| Concrete Removal | Cu. Yd. | 153.3 | | 153.3 |
| Slope Wall Removal | Sq. Yd. | | 139 | 139 |
| Protective Shield | Sq. Yd. | 1,451 | | 1,451 |
| Floor Drains | Each | 12 | | 12 |
| Concrete Superstructure | Cu. Yd. | 168.4 | | 168.4 |
| Bridge Deck Grooving | Sq. Yd. | 1,995 | | 1,995 |
| Protective Coat | Sq. Yd. | 2,247 | | 2,247 |
| Reinforcement Bars, Epoxy Coated | Pound | 27,060 | | 27,060 |
| Bar Splicers | Each | 160 | | 160 |
| Slope Wall 4 inch | Sq. Yd. | | 175 | 175 |
| Preformed Joint Strip Seal | Foot | 505 | | 505 |
| Controlled Low-Strength Material | Cu. Yd. | | 59 | 59 |
| Bridge Deck Latex Concrete Overlay, 2 1/4 inches | Sq. Yd. | 1,938 | | 1,938 |
| * Structural Repair of Concrete (Depth = < 5 inches) | Sq. Ft. | 20 | | 20 |
| * Bridge Deck Hydro-Scarification 1/2" | Sq. Yd. | 2,092 | | 2,092 |
| * Deck Slab Repair (Full Depth, Type II) | Sq. Yd. | 202 | | 202 |
| ** Deck Slab Repair (Partial) | Sq. Yd. | 12 | | 12 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

* Special Provision

**Quantity of Deck Slab Repair (Partial) is for information only.

① Repair areas are estimated. The actual area to be repaired will be determined by the Engineer at the time of construction.

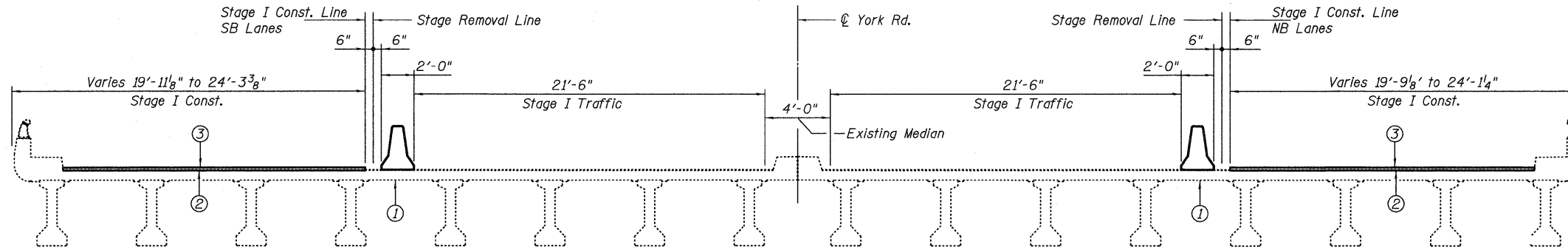
**GENERAL NOTES AND BILL OF MATERIAL
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067**

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| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

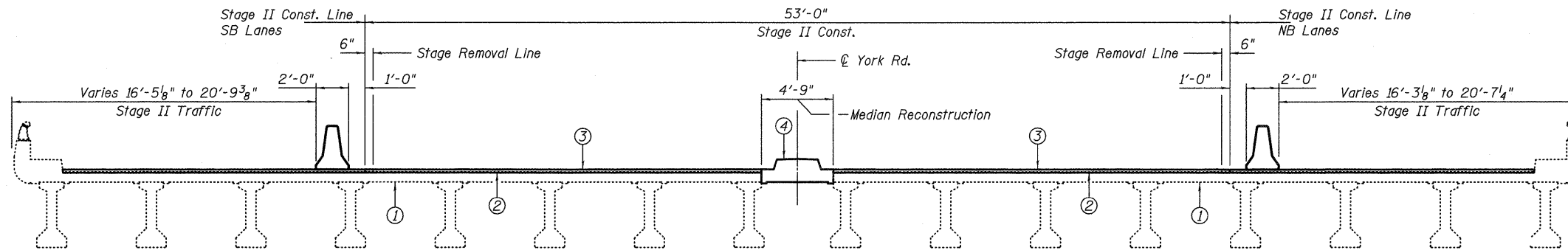
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|---|--|
| WHKS & CO. ENGINEERING | 7018 KINGSMILL CT., SPRINGFIELD, IL (217) 483-9457 |
| | DESIGN FIRM #184001036 |

| | | | | | |
|---------------------------|---------------------|-----------------------|------------------|--------------------|-----------------|
| SHEET NO. 2 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 12 |
| | C-91-275-10 | | | CONTRACT NO. 60J85 | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STAGE I CONSTRUCTION
(Looking North)



STAGE II CONSTRUCTION
(Looking North)

LEGEND

- ① Existing 7 1/2" slab
- ② Proposed 1/2" Bridge Deck Hydro-Scarification
- ③ Proposed 2 1/4" Bridge Deck Latex Concrete overlay
- ④ Existing 4' median to be reconstructed for longitudinal joint closure

STAGE CONSTRUCTION DETAILS
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 -ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

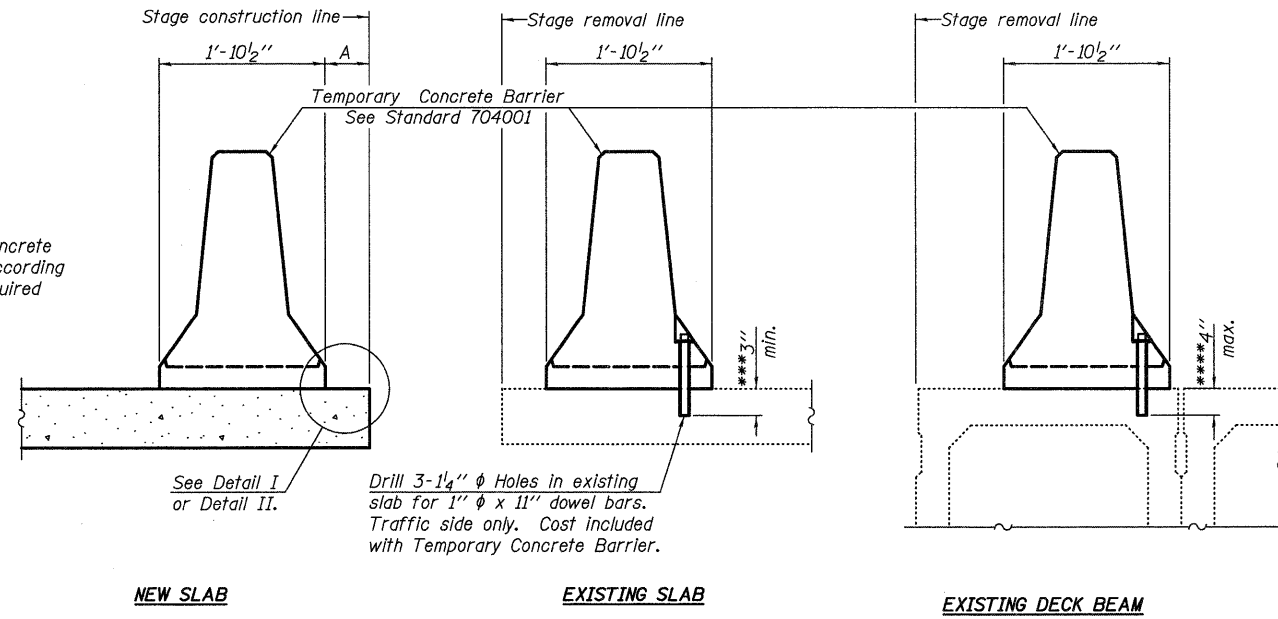
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| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

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DESIGN FIRM #184001036

| | | | | | |
|---------------------------|------------------|--------------------|--------------------|-----------------|--------------|
| SHEET NO. 3 | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 13 |
| 16 SHEETS | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

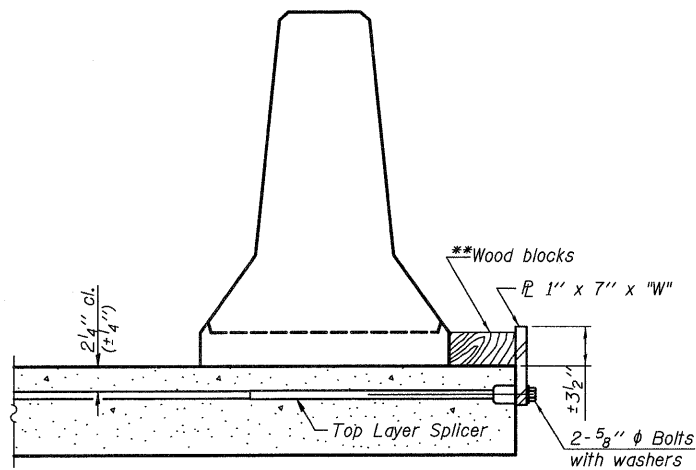
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel \bar{P} 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 \bar{C} of each barrier panel.

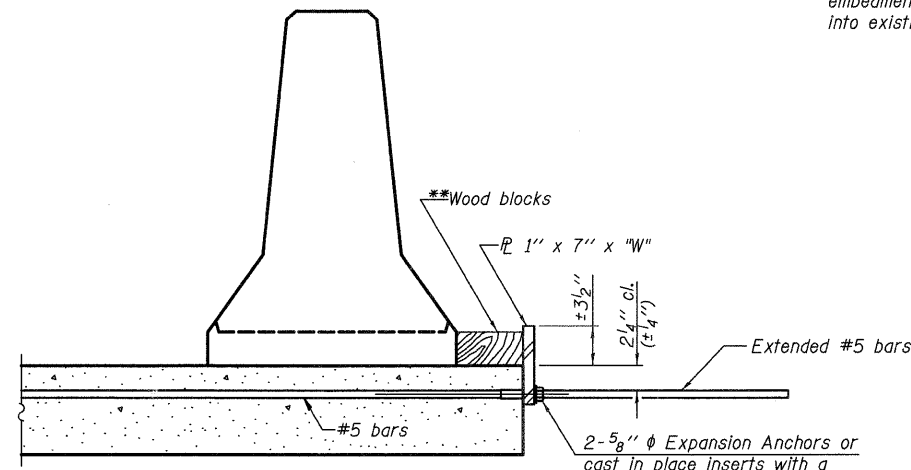
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.



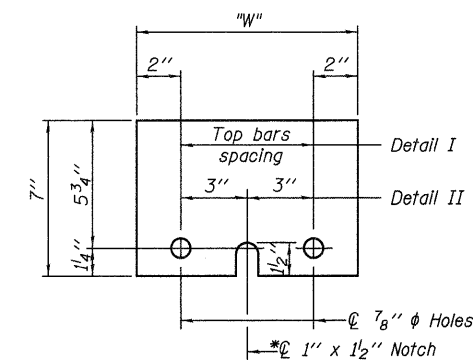
DETAIL I



DETAIL II

** 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.

"W" = Top bars spacing + 4"



STEEL RETAINER \bar{P} 1" x 7" x 10"

* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 -ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

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| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

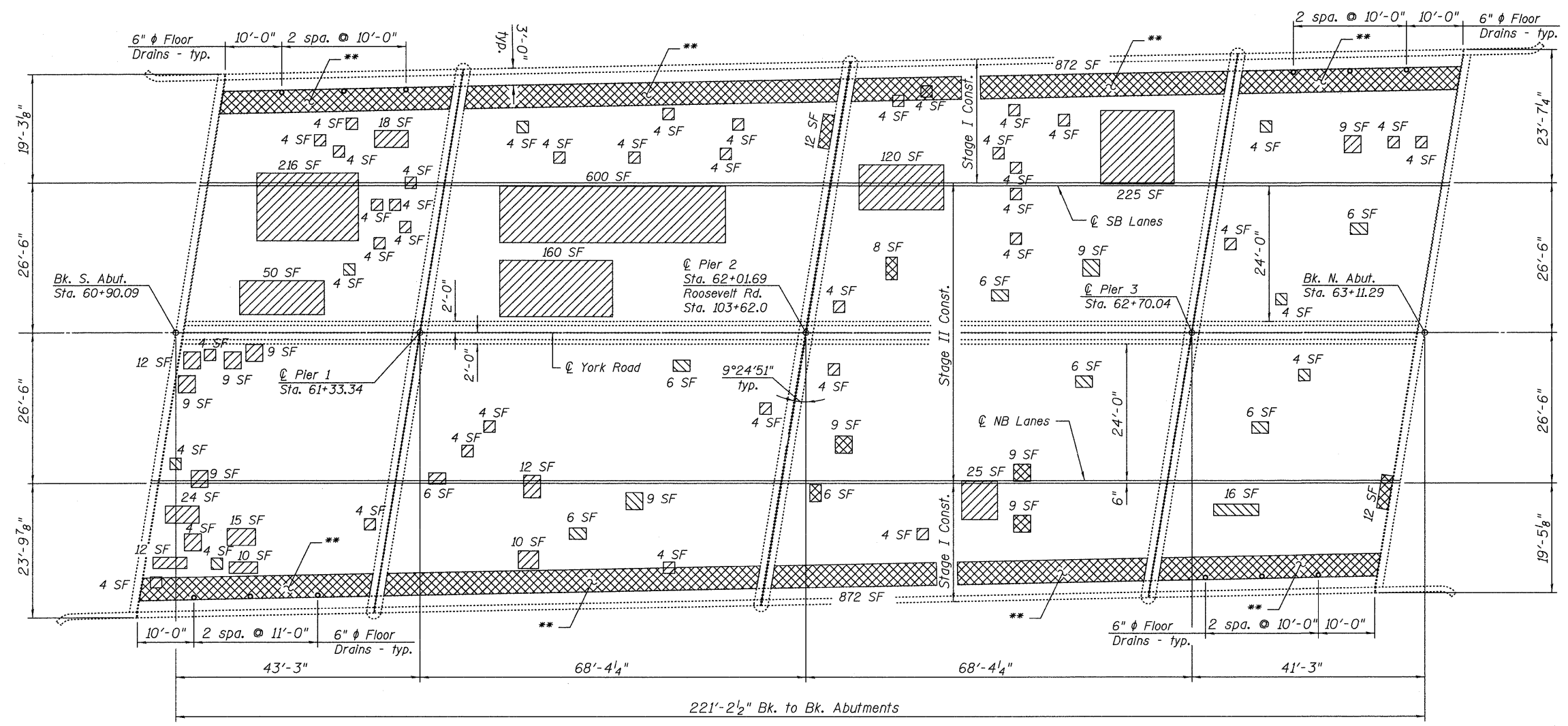
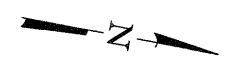
WHKS & co.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

R-27

11-1-09

| | | | | | |
|---------------------------|-------------|------------|--------------------|--------------|-----------|
| SHEET NO. 4 16 SHEETS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 2678 | 163 HB-I-1 | DUPAGE | 31 | 14 |
| C-91-275-10 | | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DECK SLAB REPAIR PLAN

LEGEND

- Existing Deck Slab Repair (Partial) = 190 SY*
- Proposed Deck Slab Repair (Partial) = 12 SY*
- Deck Slab Repair (Full Depth) = 202 SY
- Proposed 6" ϕ Floor Drain = 12 Each (See detail sheet 15 of 16).

Notes:

Date of Survey, October 2009.

The Engineer shall record the actual Deck Slab Repair areas in the plans. Patches shown are taken from existing inspection reports. Full depth patches shall only be used in areas where Hydro-Scarification reveals or produces unsound concrete as determined by the Engineer. See Special Provisions for Deck Slab Repair. Items marked with an asterisk (*) are for information only. Proposed Deck Slab Repair (Partial) shall be included in the cost of Bridge Deck Hydro-Scarification 1/2 inch.

**Contractor must exercise extreme care as to not damage the PPC I-Beams that may be near the curb face during Deck Slab Repair (Full Depth). Full depth patches in these areas shall be done in stages. Patches should be 10 ft. maximum parallel to the ϕ Roadway with a minimum of 10 ft. of existing concrete between patches. After new concrete is poured, work cannot begin in an adjacent section until both of the following requirements are met:

- At least 72 hours shall have elapsed from the end of the previous pour on either end.
- The new concrete on either end shall have obtained a modulus of rupture of 650 psi or a minimum compressive strength of 3,500psi.

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| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
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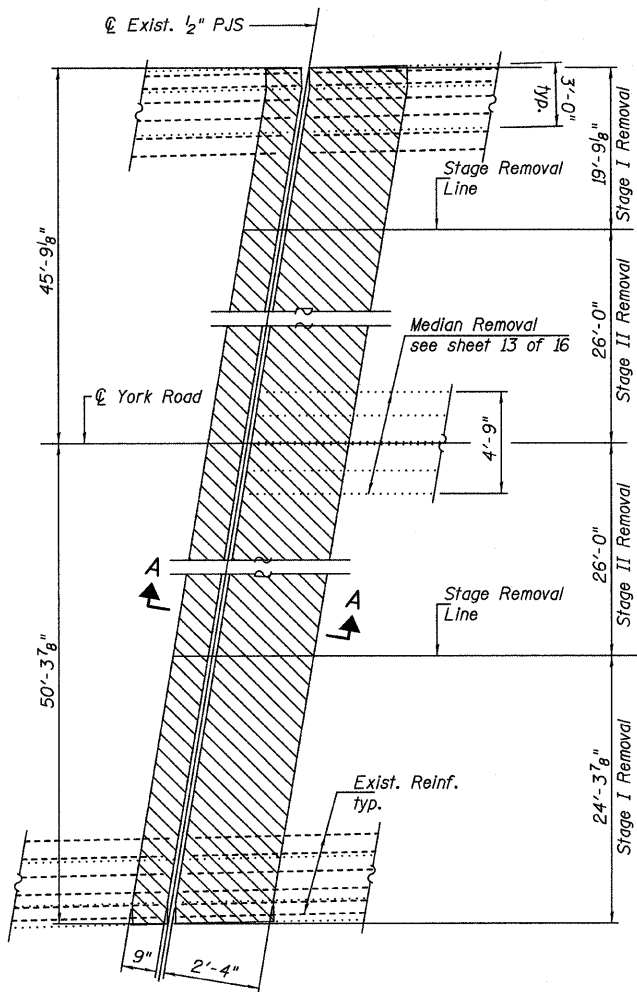
WHKS & CO.
ENGINEERING

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DESIGN FIRM #184001036

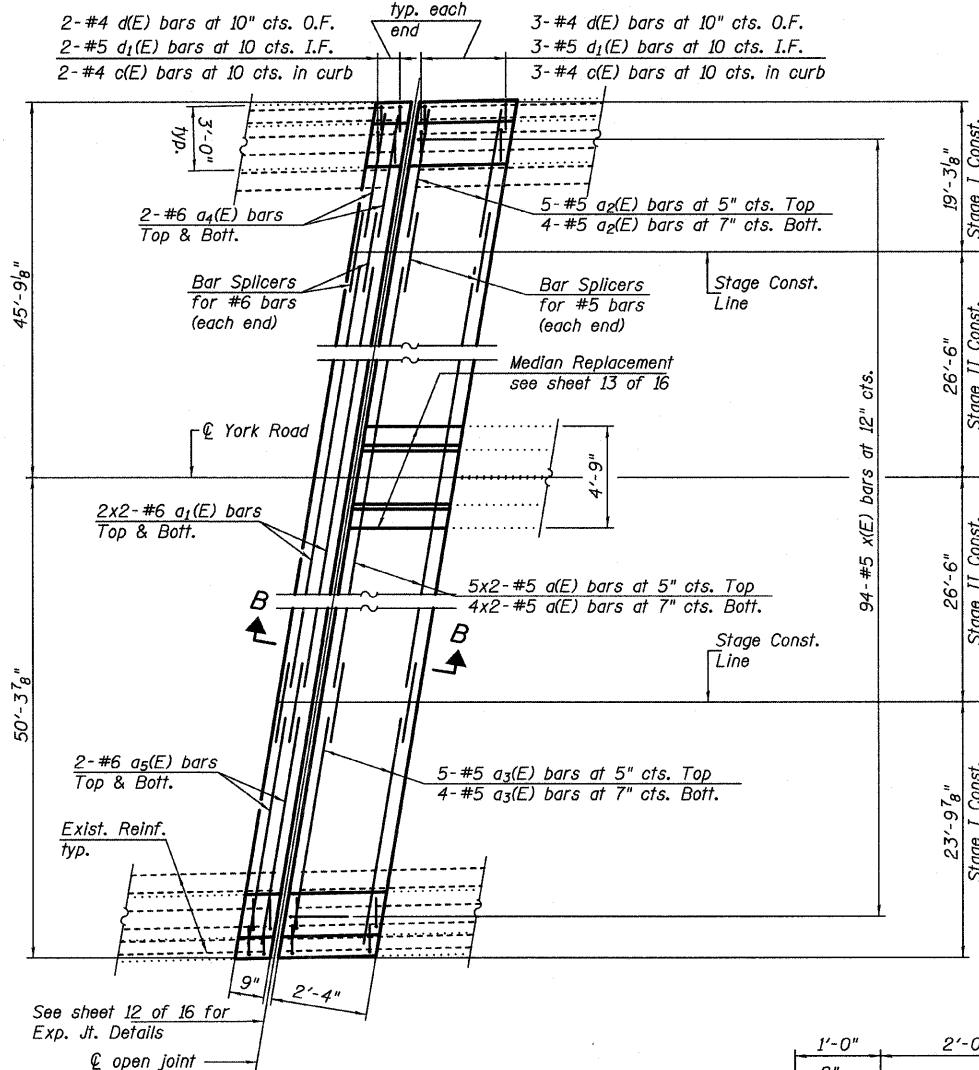
DECK SLAB REPAIR PLAN
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 5 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 15 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PARTIAL PLAN SHOWING CONCRETE REMOVAL AT SOUTH ABUTMENT

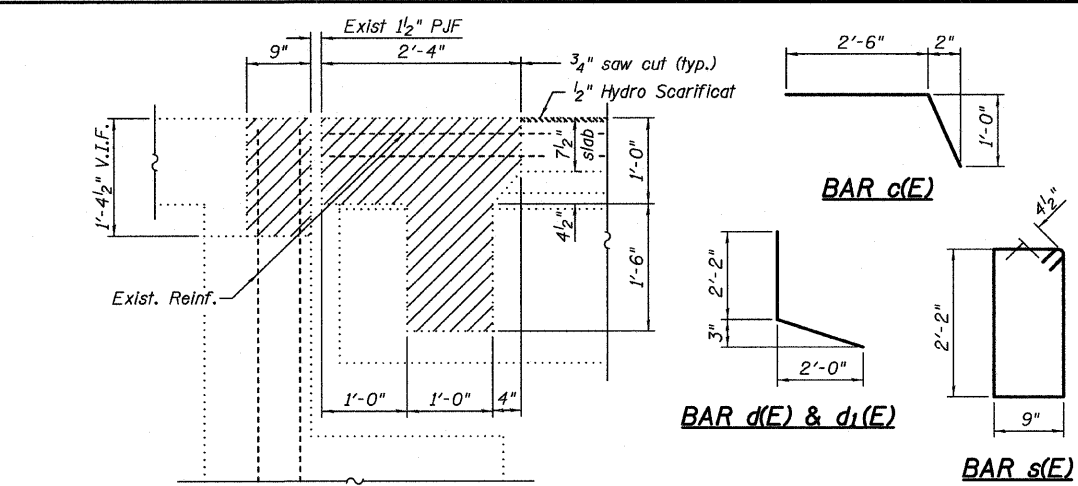


PARTIAL PLAN SHOWING CONCRETE REPLACEMENT AT SOUTH ABUTMENT

Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters at concrete removal areas shall be saw cut 3/4\"/>

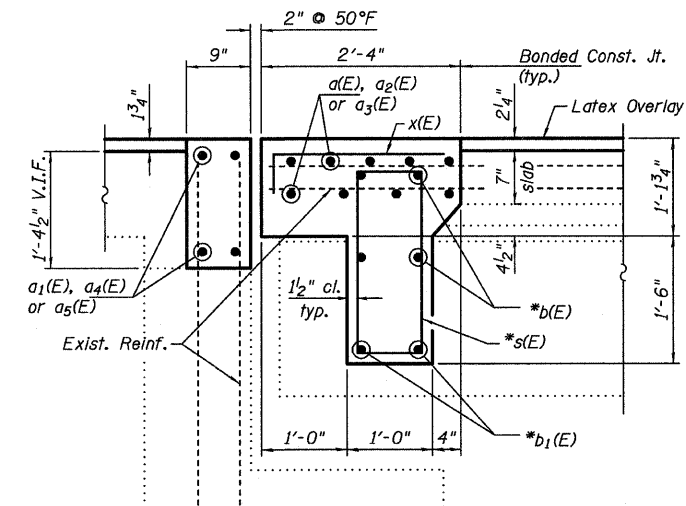
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DESIGN FIRM #184001036



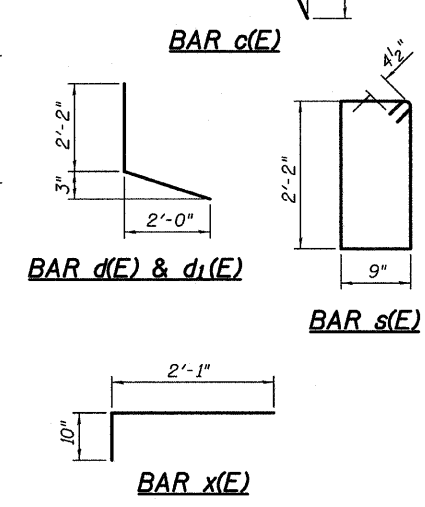
SECTION A-A

Note: Contractor must exercise extreme care while doing concrete removal in this area as to not damage the PPC I-Beams. Any damage is to be repaired at the Contractor's expense.



SECTION B-B

* (See sheet 11 of 16 for diaphragm details)



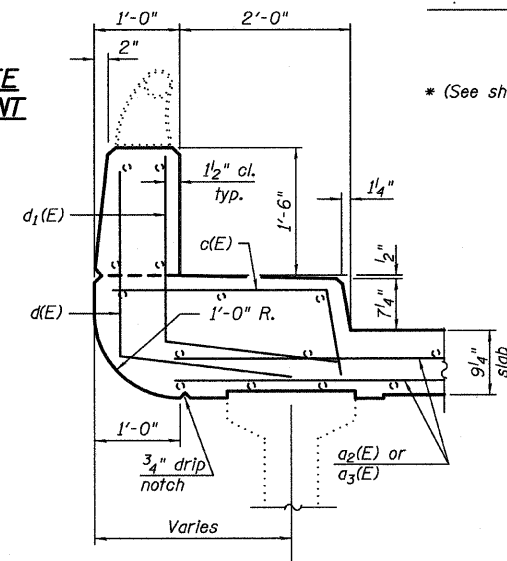
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|---------|-------|
| a(E) | 18 | #5 | 29'-9" | — |
| a1(E) | 8 | #6 | 30'-3" | — |
| a2(E) | 9 | #5 | 18'-4" | — |
| a3(E) | 9 | #5 | 23'-0" | — |
| a4(E) | 4 | #6 | 19'-3" | — |
| a5(E) | 4 | #6 | 23'-10" | — |
| b(E) | 60 | #4 | 4'-6" | — |
| b1(E) | 30 | #6 | 4'-6" | — |
| c(E) | 10 | #4 | 3'-6" | ┘ |
| d(E) | 10 | #4 | 4'-2" | ┘ |
| d1(E) | 10 | #5 | 4'-2" | ┘ |
| s(E) | 75 | #4 | 6'-7" | □ |
| x(E) | 94 | #5 | 2'-11" | ┘ |
| Concrete Removal | | Cu. Yd. | 17.9 | |
| Concrete Superstructure | | Cu. Yd. | 19.5 | |
| Bar Splicers | | Each | 26 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 2,670 | |

Bars labeled thus 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.

(Sheet 1 of 5)

SOUTH ABUTMENT JOINT REPLACEMENT
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

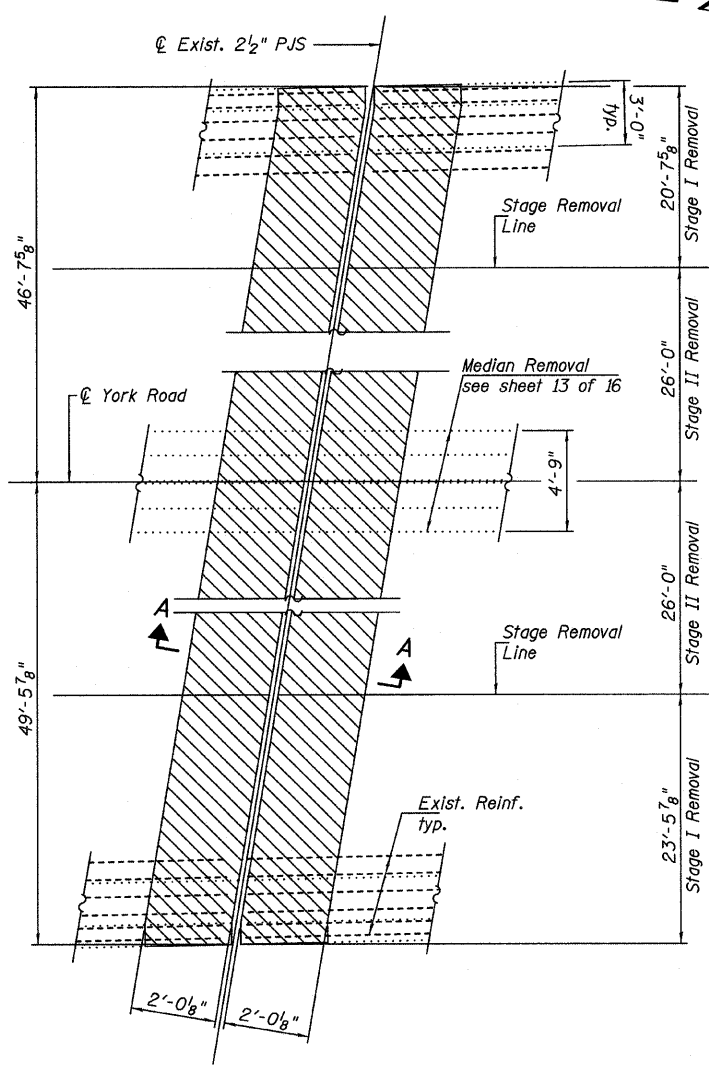


PARAPET SECTION

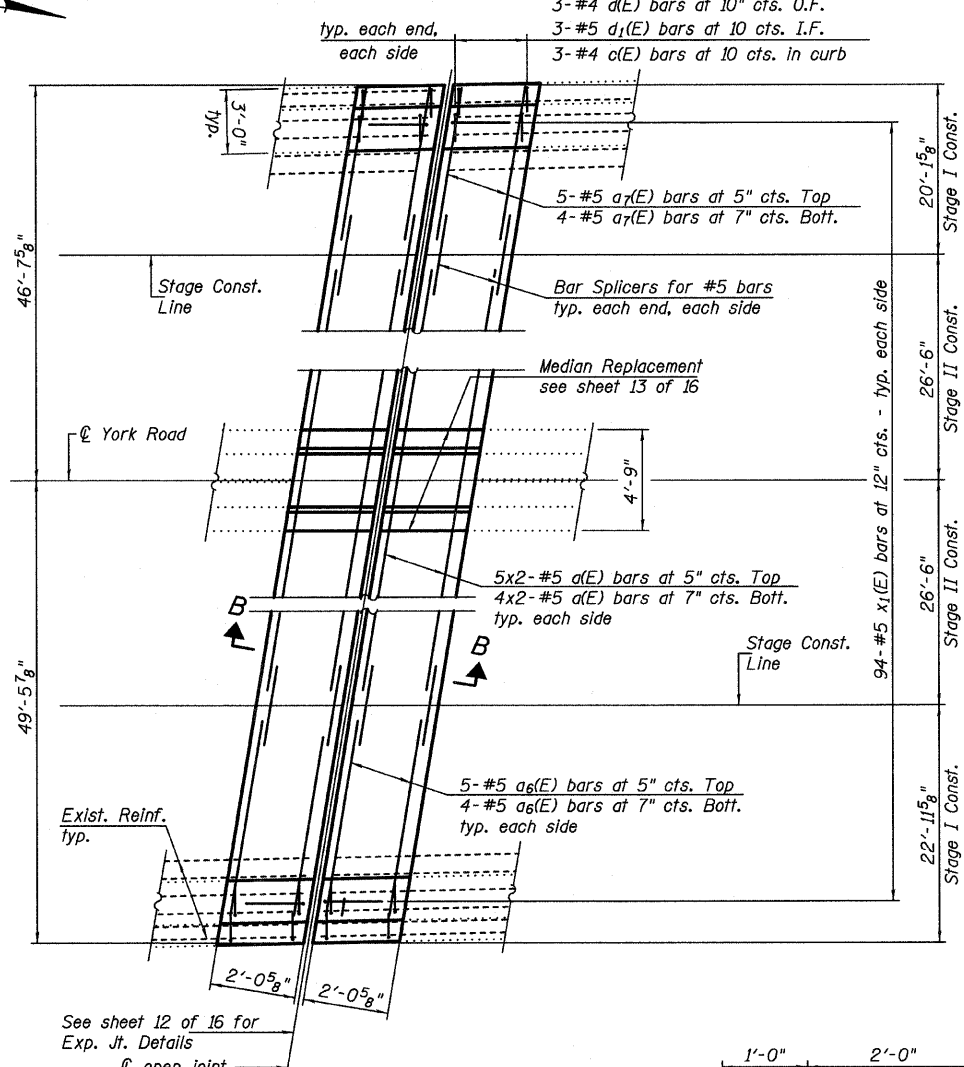
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|--------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 6 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 16 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |

ILLINOIS FED. AID PROJECT

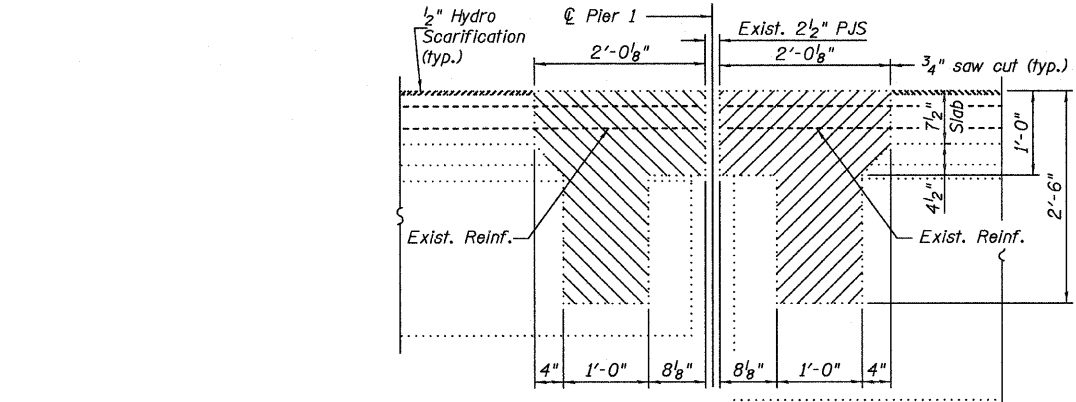
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



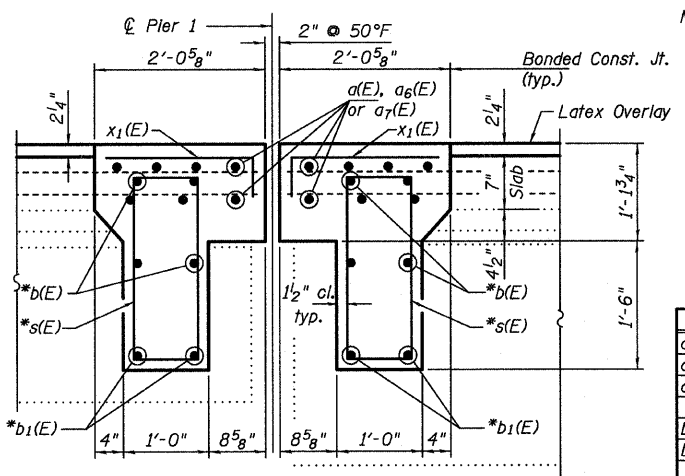
**PARTIAL PLAN SHOWING CONCRETE
REMOVAL AT PIER 1**



**PARTIAL PLAN SHOWING CONCRETE
REPLACEMENT AT PIER 1**



SECTION A-A



SECTION B-B

* (See sheet 11 of 16 for diaphragm details)

Note: Contractor must exercise extreme care while doing concrete removal in this area as to not damage the PPC I-Beams. Any damage is to be repaired at the Contractor's expense.

BILL OF MATERIAL

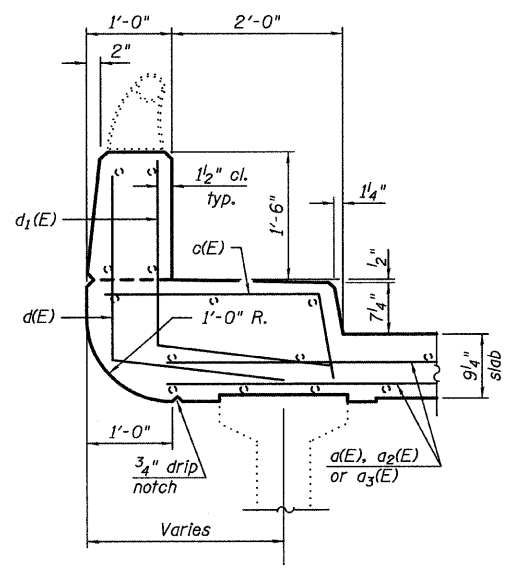
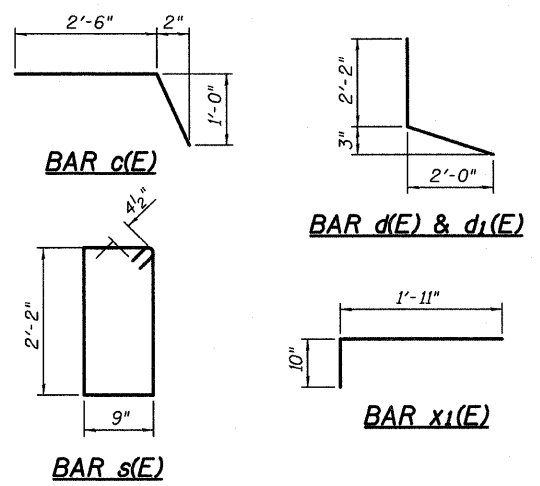
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 36 | #5 | 29'-9" | — |
| a6(E) | 18 | #5 | 22'-0" | — |
| a7(E) | 18 | #5 | 19'-2" | — |
| b(E) | 120 | #4 | 4'-6" | — |
| b1(E) | 60 | #6 | 4'-6" | — |
| c(E) | 12 | #4 | 3'-6" | ┘ |
| d(E) | 12 | #4 | 4'-2" | ┘ |
| d1(E) | 12 | #5 | 4'-2" | ┘ |
| s(E) | 150 | #4 | 6'-7" | □ |
| x1(E) | 188 | #5 | 2'-9" | ┘ |
| Concrete Removal | | Cu. Yd. | 26.1 | |
| Concrete Superstructure | | Cu. Yd. | 28.3 | |
| Bar Splicers | | Each | 36 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 3,970 | |

Bars labeled thus 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.

Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters at concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.
Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
Existing rail and rail posts to be removed and re-erected to reconstruct joints. 5/8" threaded inserts, 1 - alclad washer and 1 - 5/8" diameter by 2 1/2" stainless steel bolt (4 req'd. for each rail post) Cost to be included with Concrete Superstructure.

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
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7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036



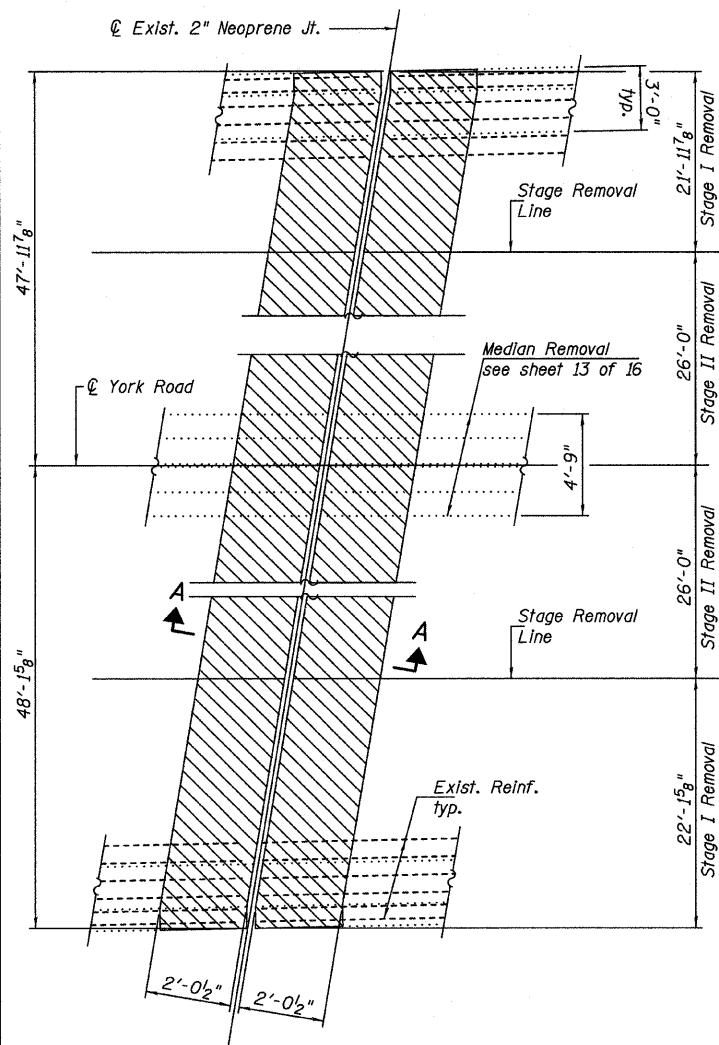
PARAPET SECTION

(Sheet 2 of 5)
PIER 1 JOINT REPLACEMENT
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-1-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

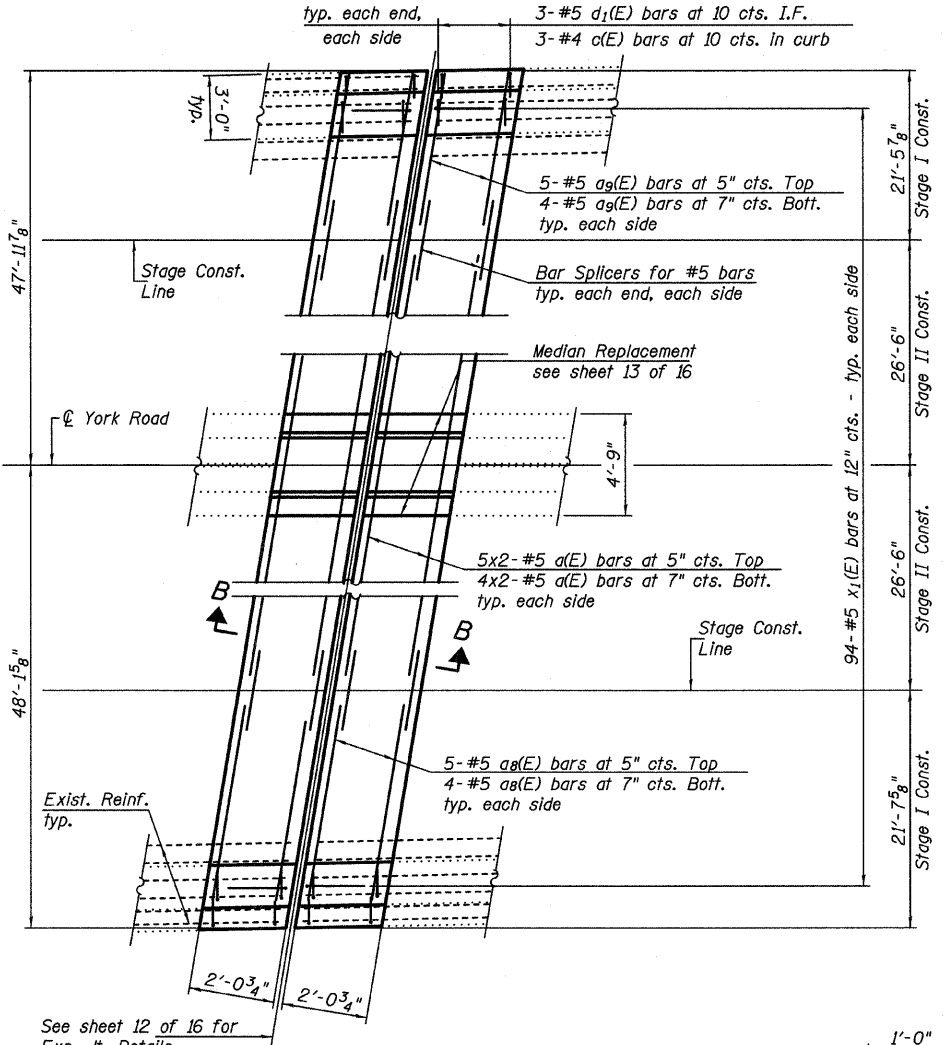
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|--------------------------|---------------------|-----------------------|------------------|--------------------|-----------------|
| SHEET NO. 7 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 17 |
| | C-91-275-10 | | | CONTRACT NO. 60J85 | |

ILLINOIS FED. AID PROJECT

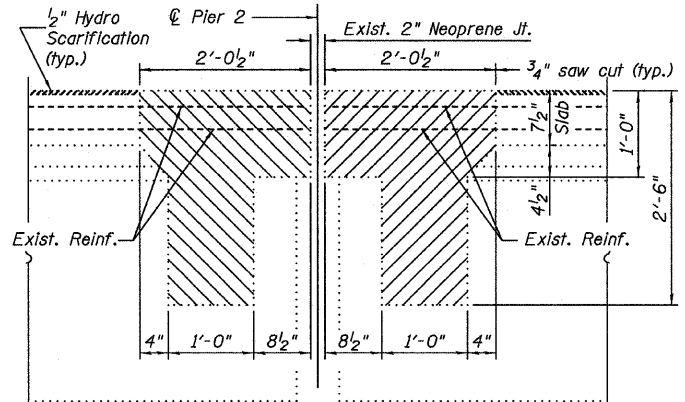
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PARTIAL PLAN SHOWING CONCRETE REMOVAL AT PIER 2

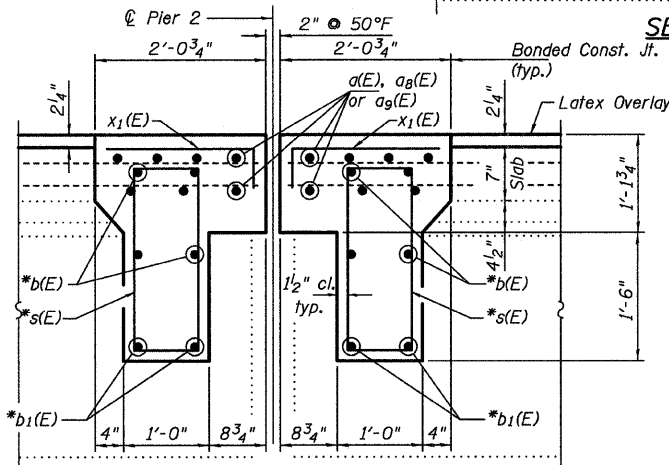


PARTIAL PLAN SHOWING CONCRETE REPLACEMENT AT PIER 2



SECTION A-A

Note: Contractor must exercise extreme care while doing concrete removal in this area as to not damage the PPC I-Beams. Any damage is to be repaired at the Contractor's expense.



SECTION B-B

* (See sheet 11 of 16 for diaphragm details)

BILL OF MATERIAL

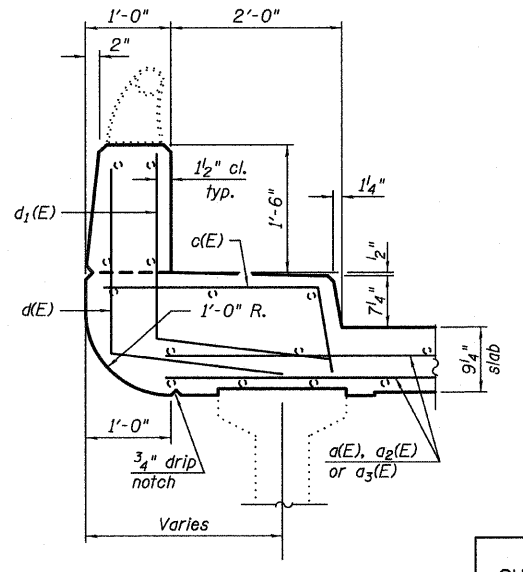
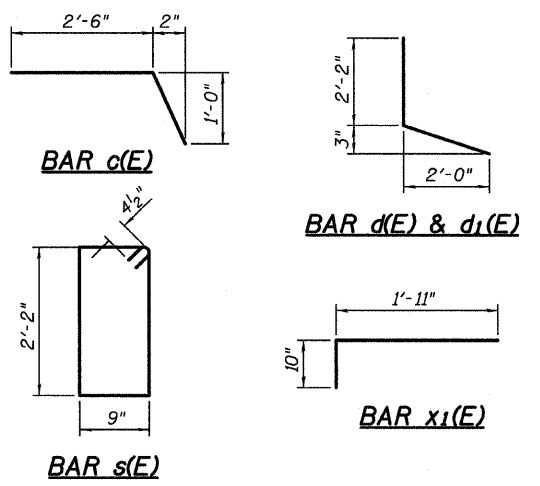
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 36 | #5 | 29'-9" | — |
| a9(E) | 18 | #5 | 20'-8" | — |
| a9(E) | 18 | #5 | 20'-6" | — |
| b(E) | 120 | #4 | 4'-6" | — |
| b1(E) | 60 | #6 | 4'-6" | — |
| c(E) | 12 | #4 | 3'-6" | ┘ |
| d(E) | 12 | #4 | 4'-2" | L |
| d1(E) | 12 | #5 | 4'-2" | L |
| s(E) | 150 | #4 | 6'-7" | □ |
| x1(E) | 188 | #5 | 2'-9" | ┘ |
| Concrete Removal | | Cu. Yd. | 26.0 | |
| Concrete Superstructure | | Cu. Yd. | 28.5 | |
| Bar Splicers | | Each | 36 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 3,970 | |

Bars labeled thus 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.

Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters at concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.
Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
Existing rail and rail posts to be removed and re-erected to reconstruct joints. 5/8" threaded inserts, 1 - alclad washer and 1 - 5/8" diameter by 2 1/2" stainless steel bolt (4 req'd. for each rail post) Cost to be included with Concrete Superstructure.

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
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(217) 483-9457
DESIGN FIRM #184001036



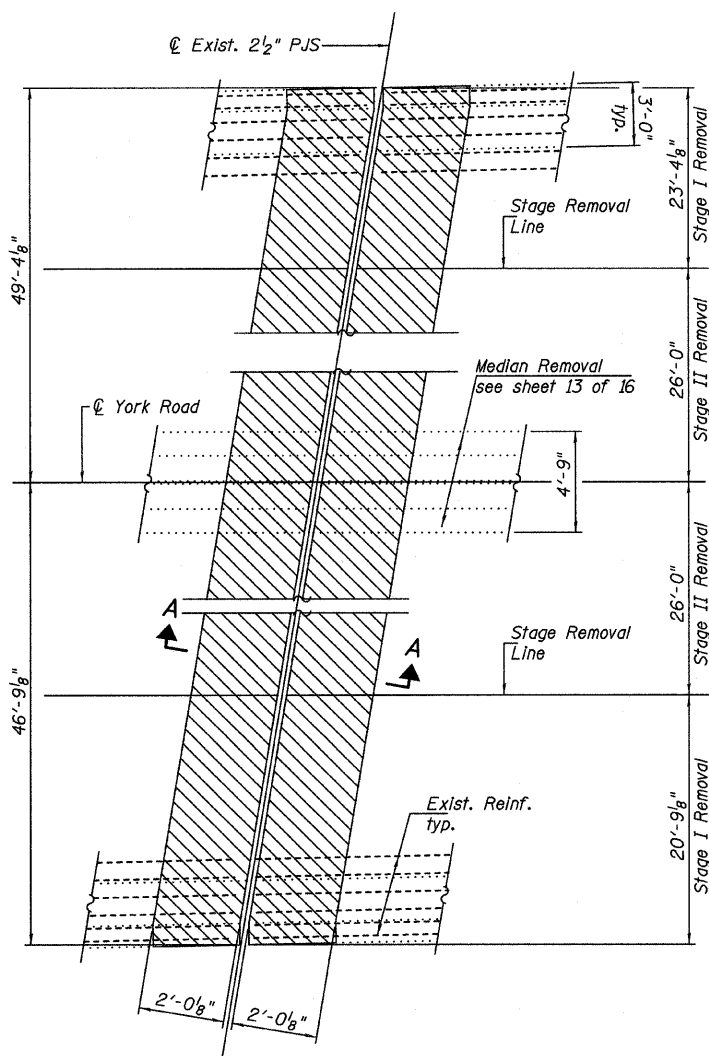
PARAPET SECTION

(Sheet 3 of 5)
PIER 2 JOINT REPLACEMENT
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

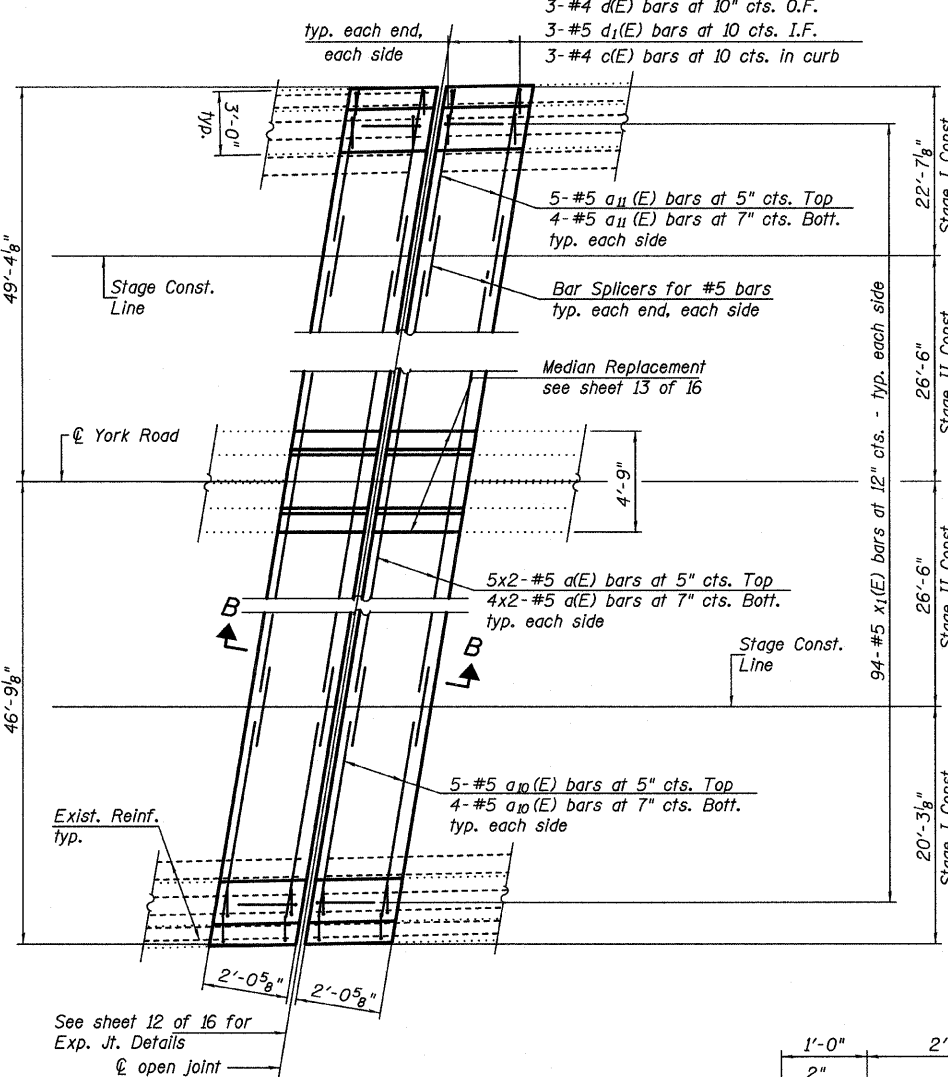
| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 8 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 18 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

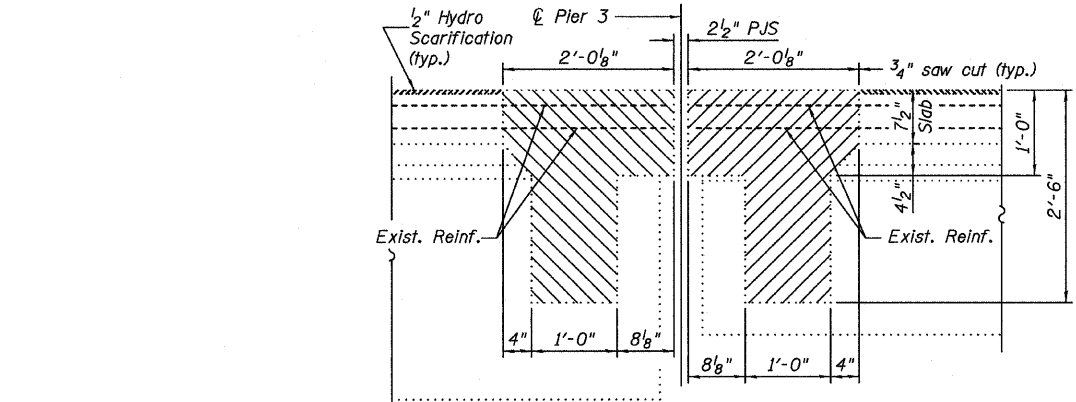
3-#4 d(E) bars at 10" cts. O.F.
3-#5 d₁(E) bars at 10 cts. I.F.
3-#4 c(E) bars at 10 cts. in curb



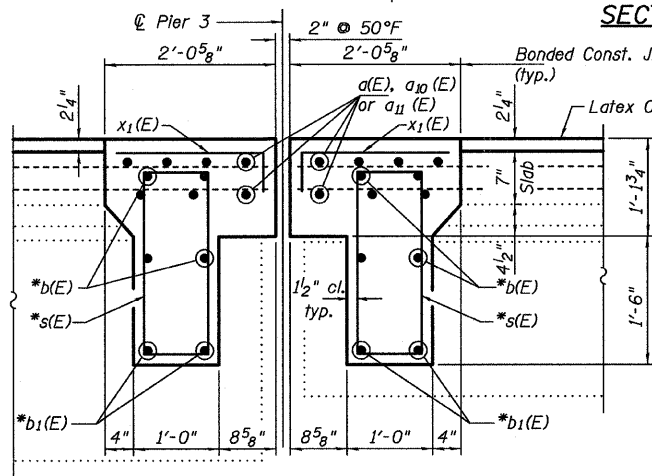
PARTIAL PLAN SHOWING CONCRETE REMOVAL AT PIER 3



PARTIAL PLAN SHOWING CONCRETE REPLACEMENT AT PIER 3



SECTION A-A



SECTION B-B

Note: Contractor must exercise extreme care while doing concrete removal in this area as to not damage the PPC I-Beams. Any damage is to be repaired at the Contractor's expense.

BILL OF MATERIAL

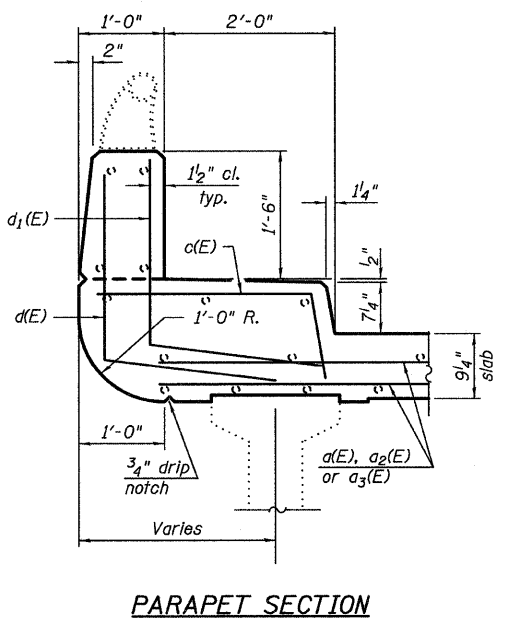
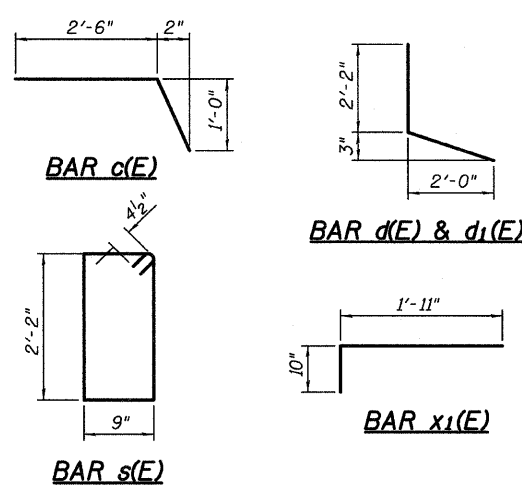
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 36 | #5 | 29'-9" | — |
| a ₁₀ (E) | 18 | #5 | 19'-3" | — |
| a ₁₁ (E) | 18 | #5 | 21'-8" | — |
| b(E) | 120 | #4 | 4'-6" | — |
| b ₁ (E) | 60 | #6 | 4'-6" | — |
| c(E) | 12 | #4 | 3'-6" | ┘ |
| d(E) | 12 | #4 | 4'-2" | ┘ |
| d ₁ (E) | 12 | #5 | 4'-2" | ┘ |
| s(E) | 150 | #4 | 6'-7" | □ |
| x ₁ (E) | 188 | #5 | 2'-9" | — |
| Concrete Removal | | Cu. Yd. | 26.0 | |
| Concrete Superstructure | | Cu. Yd. | 28.3 | |
| Bar Splicers | | Each | 36 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 3,970 | |

Bars labeled thus 4x2-#5 etc. Indicate 4 lines of bars with 2 lengths per line.

Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters at concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.
Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
Existing rail and rail posts to be removed and re-erected to reconstruct joints. 5/8" threaded inserts, 1 - alclad washer and 1 - 5/8" diameter by 2 1/2" stainless steel bolt (4 req'd. for each rail post) Cost to be included with Concrete Superstructure.

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

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SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

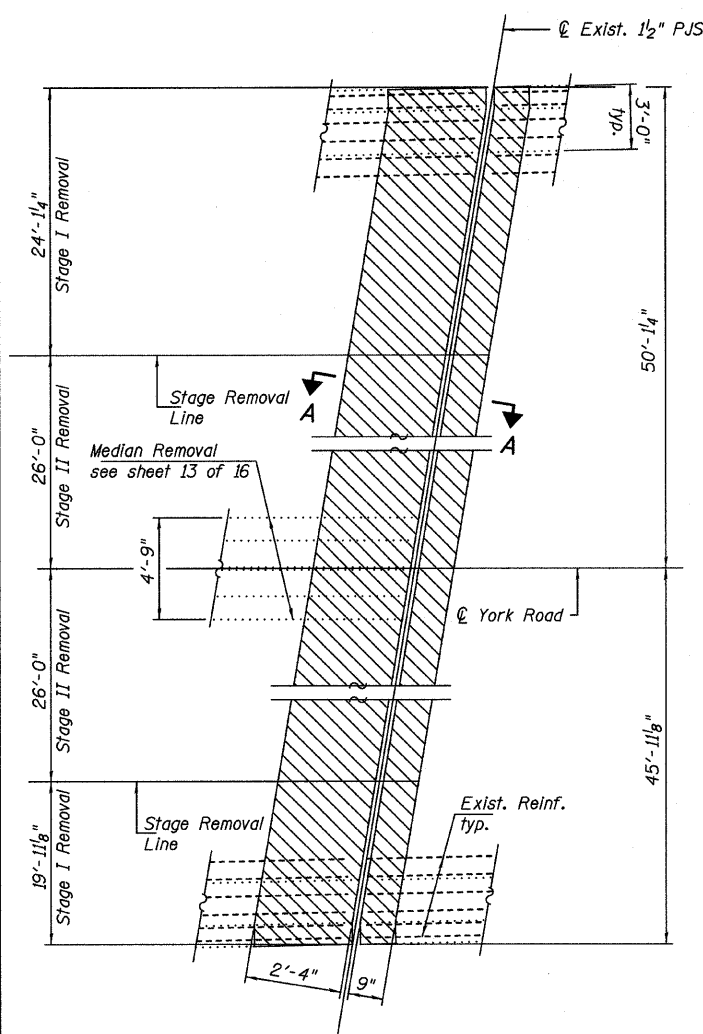


PARAPET SECTION

(Sheet 4 of 5)
PIER 3 JOINT REPLACEMENT
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 9 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 19 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

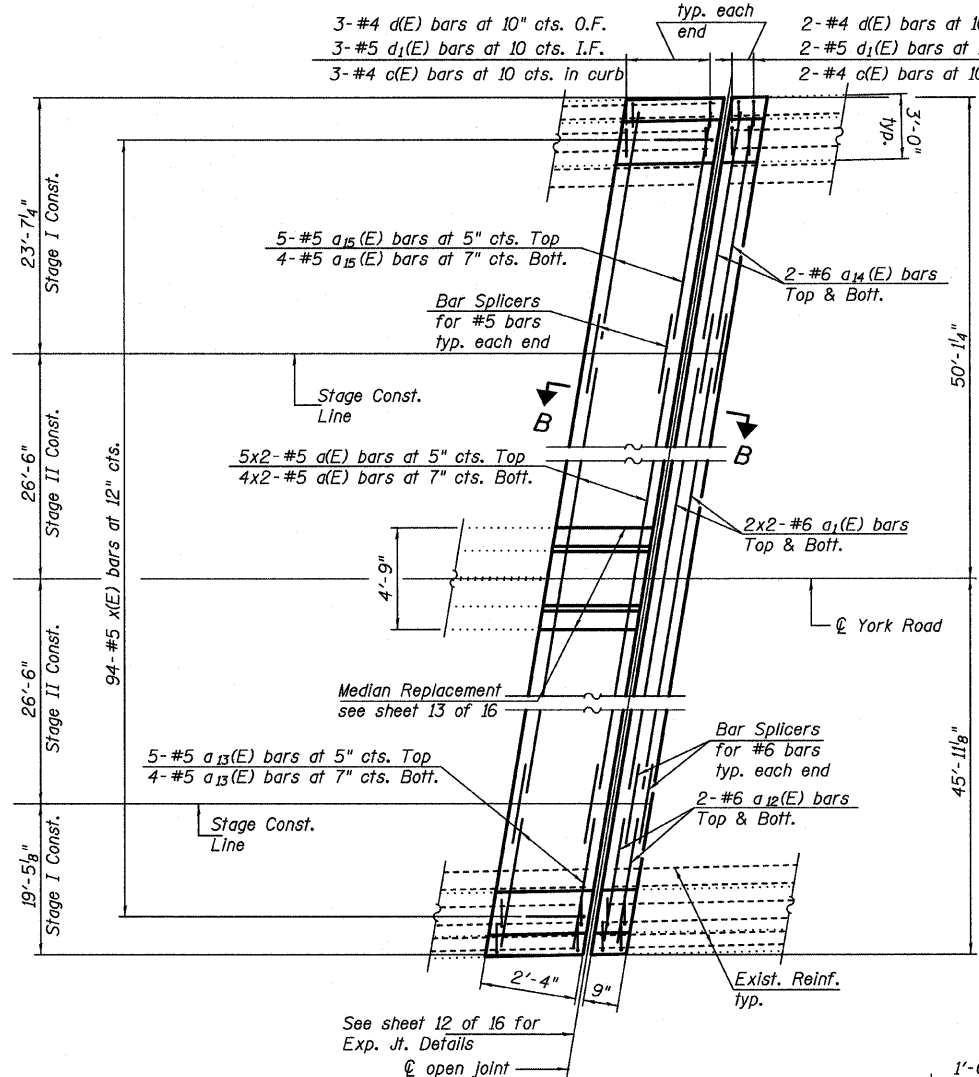


PARTIAL PLAN SHOWING CONCRETE REMOVAL AT NORTH ABUTMENT

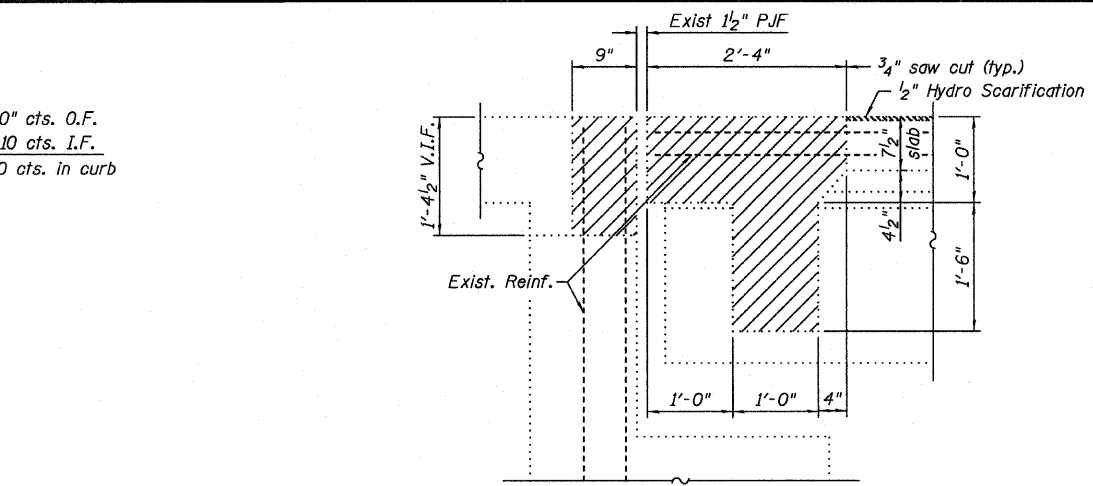
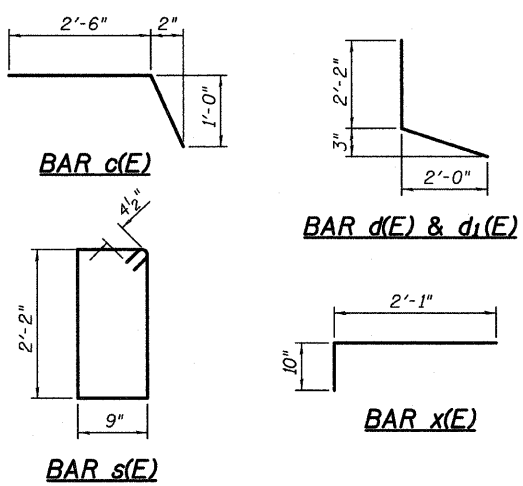
Notes:
Hatched areas indicate concrete sections to be removed and replaced. Perimeters at concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.
Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.
Existing rail and rail posts to be removed and re-erected to reconstruct joints. 5/8" threaded inserts, 1 - alclad washer and 1 - 5/8" diameter by 2 1/2" stainless steel bolt (4 req'd. for each rail post) Cost to be included with Concrete Superstructure.

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

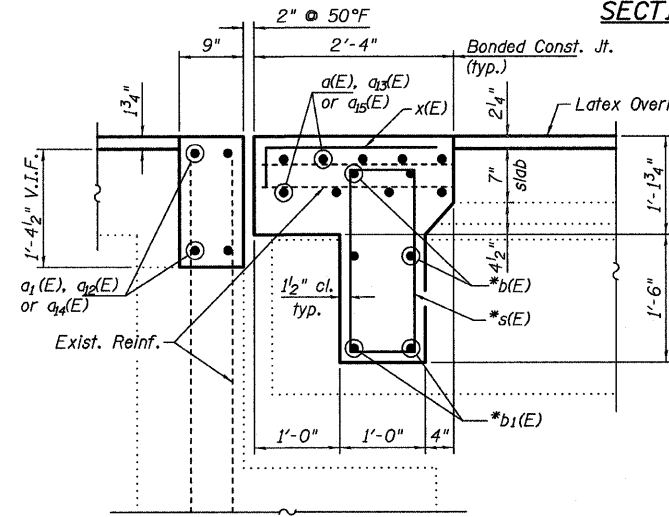
WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036



PARTIAL PLAN SHOWING CONCRETE REPLACEMENT AT NORTH ABUTMENT



SECTION A-A



SECTION B-B

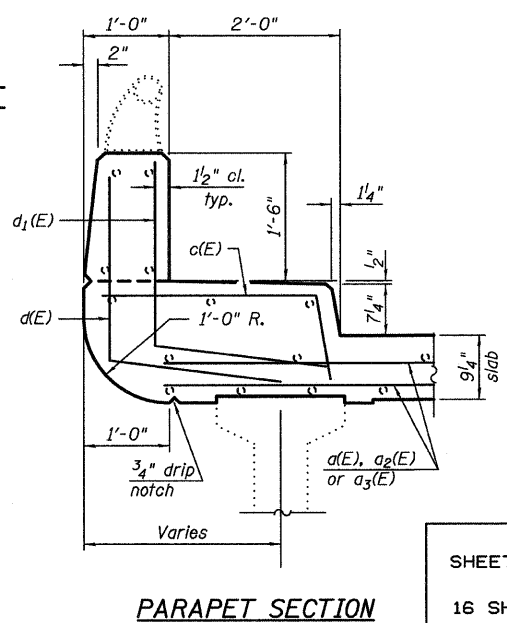
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a(E) | 18 | #5 | 29'-9" | — |
| a1(E) | 8 | #6 | 30'-3" | — |
| a2(E) | 4 | #6 | 19'-5" | — |
| a3(E) | 9 | #5 | 18'-5" | — |
| a4(E) | 4 | #6 | 23'-8" | — |
| a5(E) | 9 | #5 | 22'-8" | — |
| b(E) | 60 | #4 | 4'-6" | — |
| b1(E) | 30 | #6 | 4'-6" | — |
| c(E) | 10 | #4 | 3'-6" | ┘ |
| d(E) | 10 | #4 | 4'-2" | ┘ |
| d1(E) | 10 | #5 | 4'-2" | ┘ |
| s(E) | 75 | #4 | 6'-7" | □ |
| x(E) | 94 | #5 | 2'-11" | ┘ |
| Concrete Removal | | Cu. Yd. | 17.9 | |
| Concrete Superstructure | | Cu. Yd. | 19.5 | |
| Bar Splicers | | Each | 26 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 2,670 | |

Bars labeled thus 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.

(Sheet 5 of 5)

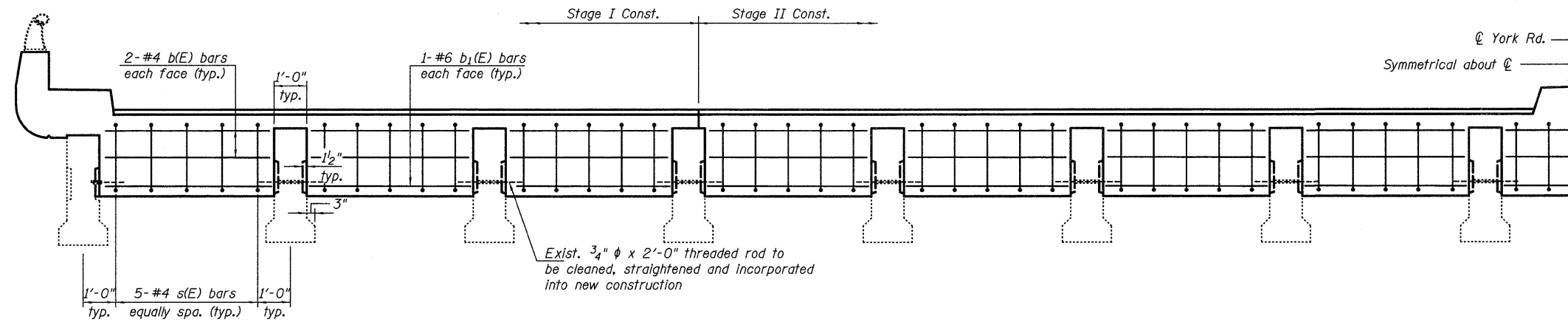
NORTH ABUTMENT JOINT REPLACEMENT
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-1-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067



PARAPET SECTION

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 10 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 20 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPICAL ELEVATION AT END DIAPHRAMS

Notes:

Cut bars to fit where required.

See joint replacement details for section thru diaphragm and Bill of Materials.

DIAPHRAM DETAILS
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 -ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

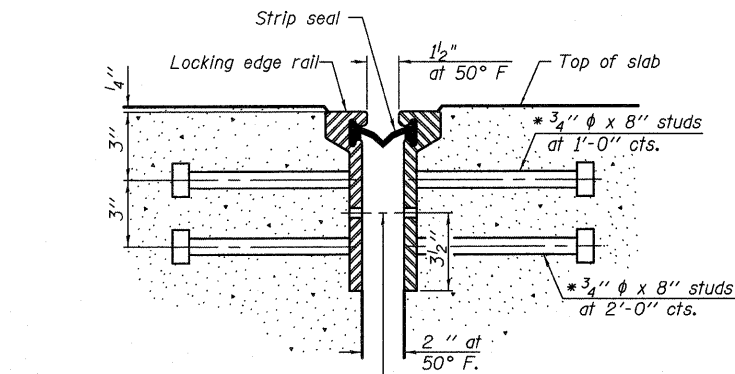
| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

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 7018 KINGSMILL CT.,
 SPRINGFIELD, IL
 (217) 483-9457
 DESIGN FIRM #184001036

| SHEET NO. | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------|------------|--------------------|--------------|-----------|
| 11 | 2678 | 163 HB-I-1 | DUPAGE | 31 | 21 |
| 16 SHEETS | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

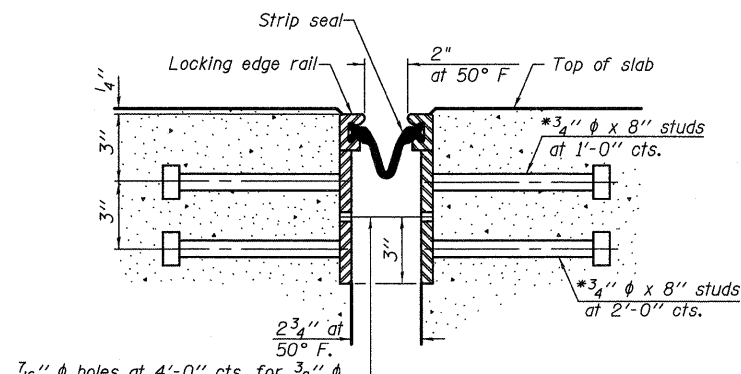
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



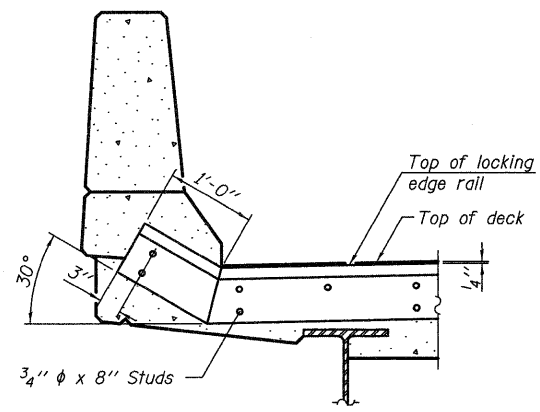
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
ROLLED RAIL JOINT



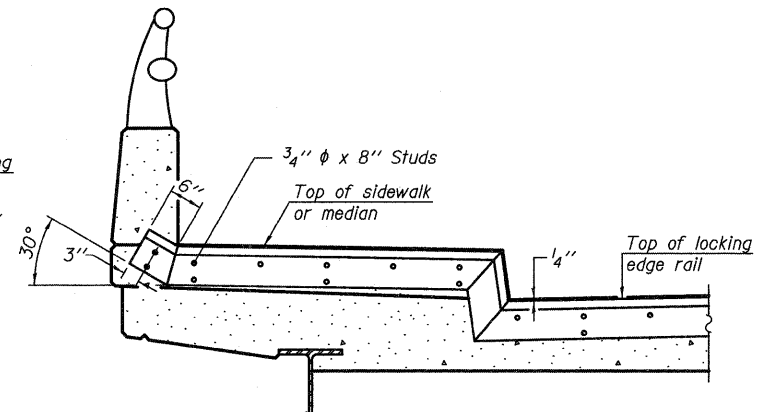
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU
WELDED RAIL JOINT



AT PARAPET

See Section A-A for end treatment of skews > 30°.



AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

TYPICAL END TREATMENTS

Notes:

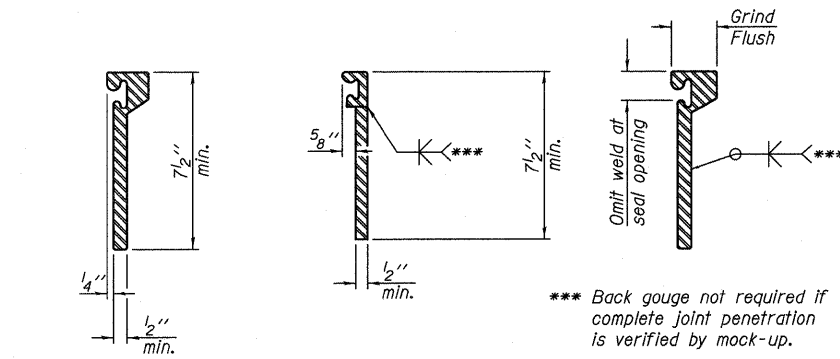
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed. The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

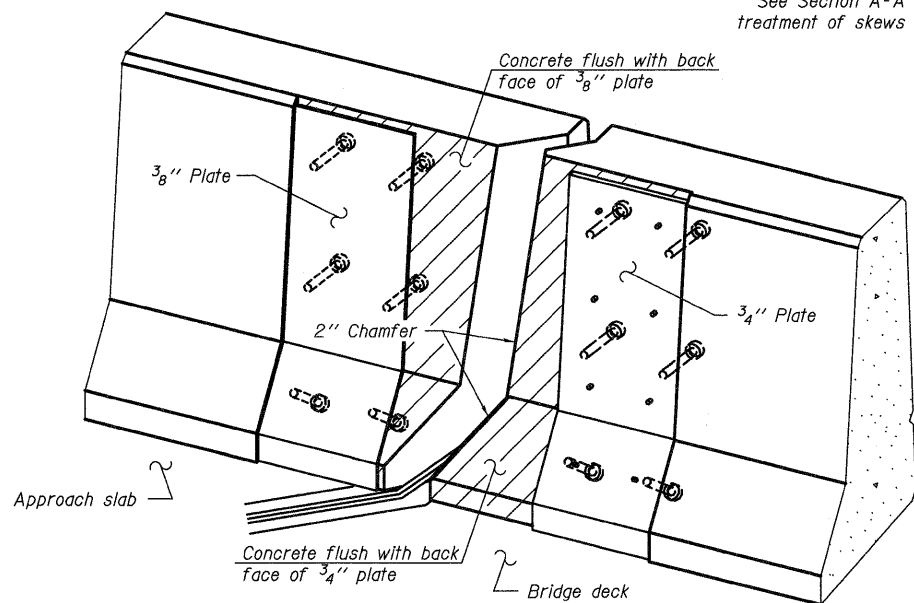


ROLLED
EXTRUDED RAIL

WELDED RAIL

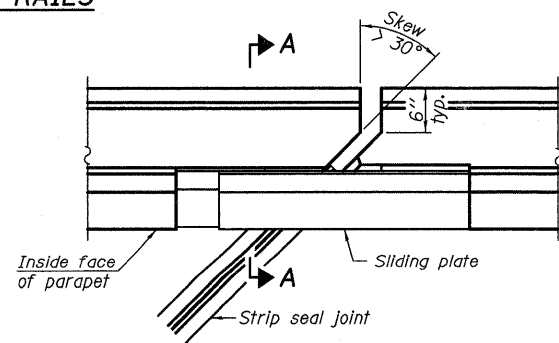
LOCKING EDGE
RAIL SPLICE

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

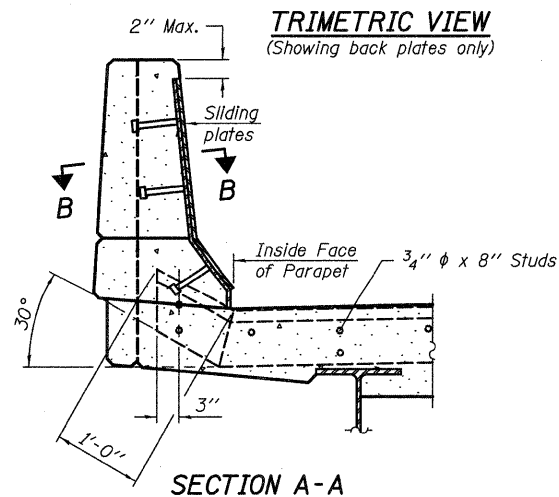


TRIMETRIC VIEW
(Showing back plates only)

LOCKING EDGE RAILS

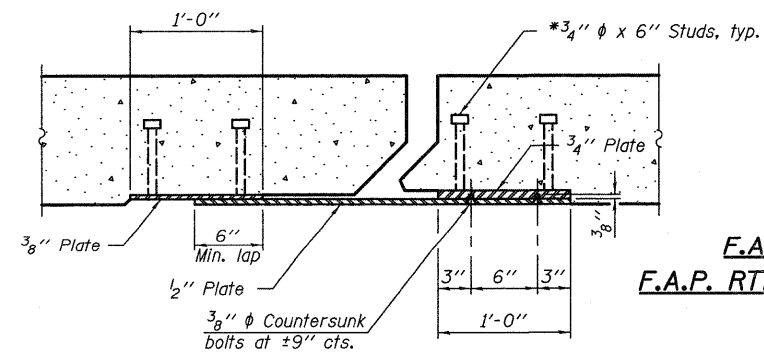


PLAN



SECTION A-A

POINT BLOCK DETAILS
(for skews > 30°)



SECTION B-B

BILL OF MATERIAL

| Item | Unit | Total |
|----------------------------|------|-------|
| Preformed Joint Strip Seal | Foot | 505 |

EXPANSION JOINT DETAILS

F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

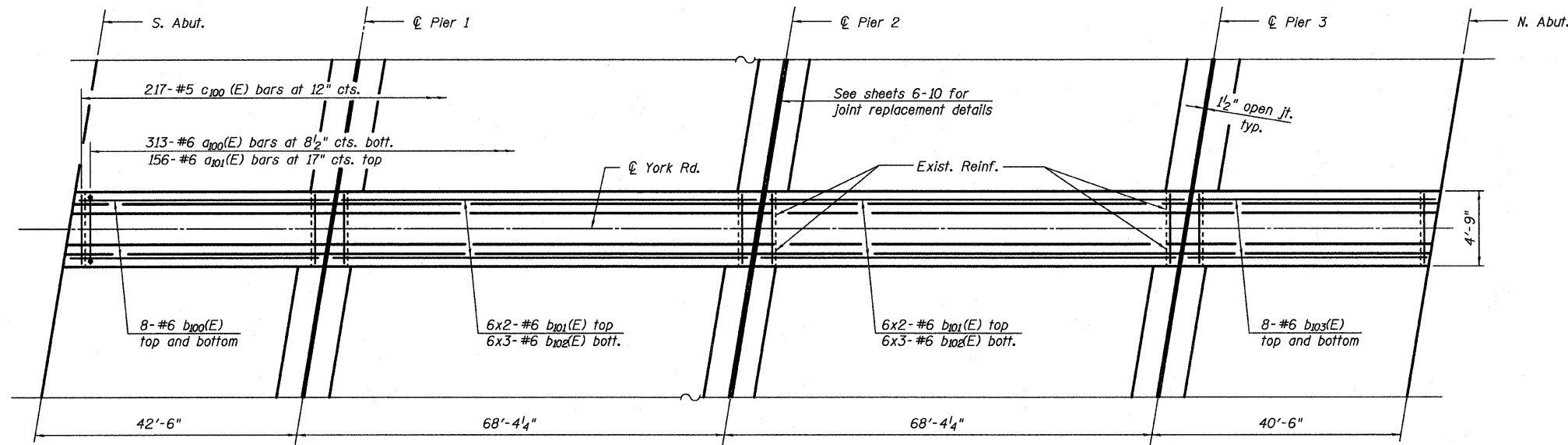
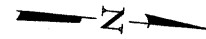
WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

EJ-SSJ

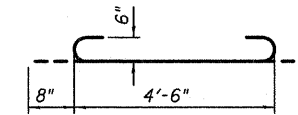
11-1-09

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 12 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 22 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

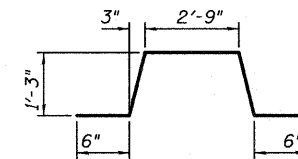
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PARTIAL PLAN SHOWING MEDIAN REPLACEMENT



BAR a100(E)



BAR c100(E)

**BILL OF MATERIAL
(MEDIAN ONLY)**

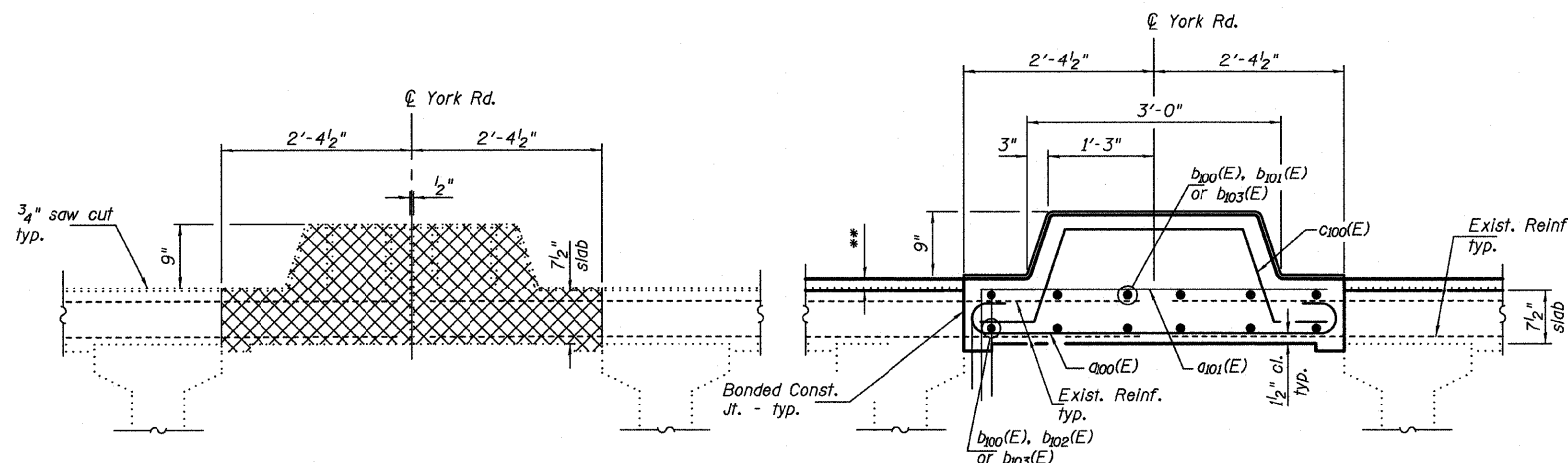
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|--------|-------|
| a100(E) | 313 | #6 | 5'-10" | |
| a101(E) | 156 | #6 | 4'-6" | |
| b100(E) | 16 | #6 | 42'-1" | |
| b101(E) | 24 | #6 | 35'-6" | |
| b102(E) | 36 | #6 | 24'-9" | |
| b103(E) | 16 | #6 | 40'-1" | |
| c100(E) | 217 | #5 | 6'-3" | |
| Protective Coat | | Sq. Yd. | 134 | |
| Concrete Removal | | Cu. Yd. | 39.6 | |
| Concrete Superstructure | | Cu. Yd. | 44.6 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 9,810 | |

Bars labeled thus 4x2-#5 etc. indicate 4 lines of bars with 2 lengths per line.

Notes:

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to removal of the concrete.

Existing reinforcement shall be cleaned, straightened (if required) and incorporated into the new construction. Cost included with Concrete Removal.



SECTION THRU MEDIAN REMOVAL

SECTION THRU MEDIAN REPLACEMENT

** Concrete to be 1 3/4" higher than exist. since exist. deck will get 1/2" hydroscarification, and 2 1/4" Latex concrete overlay, for an increase of 1 3/4".

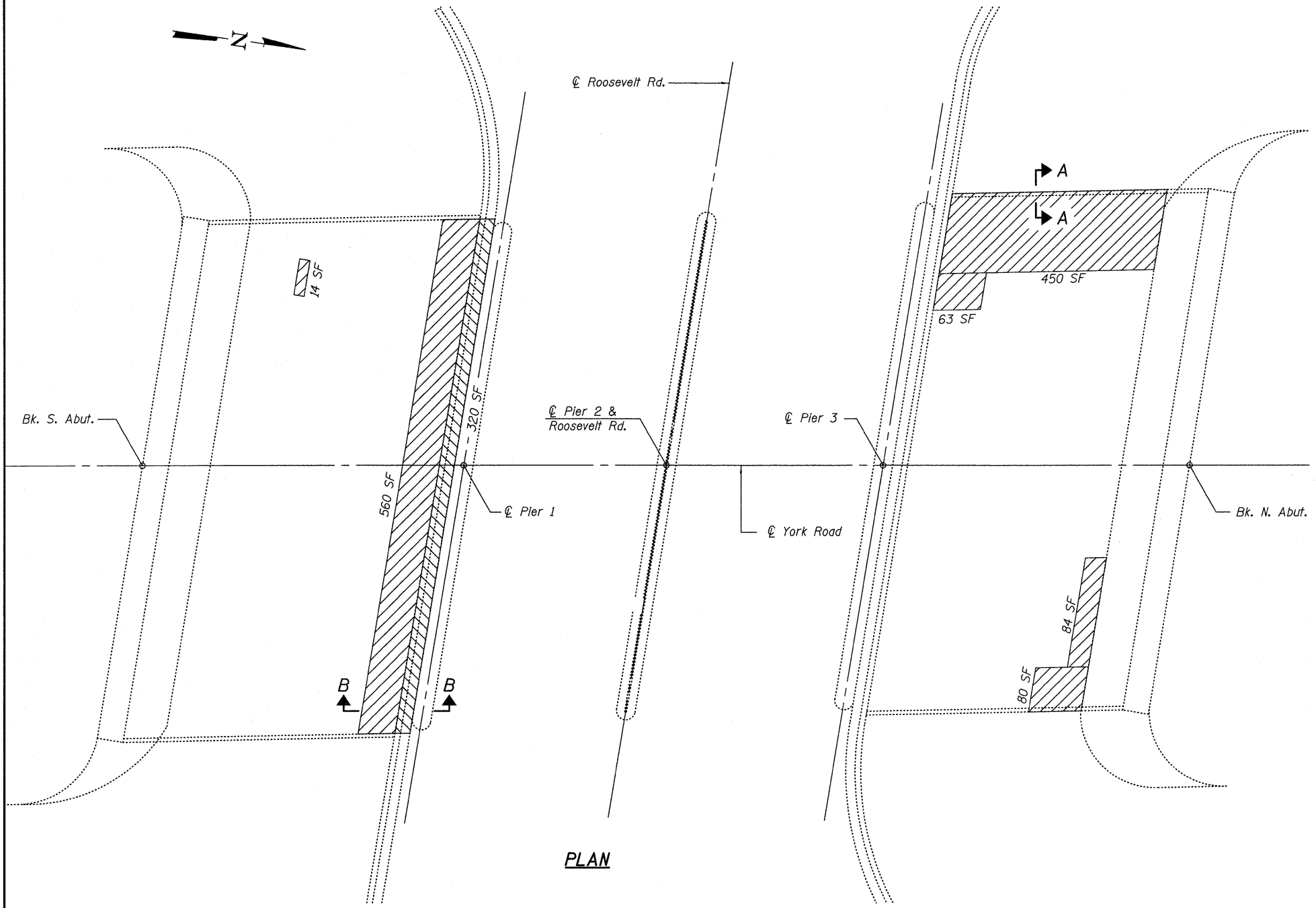
| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
ENGINEERING
7018 KINGSMILL CT.,
SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

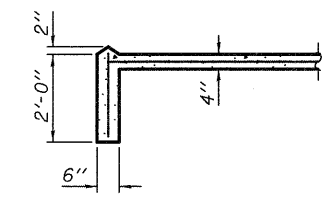
**LONGITUDINAL JOINT CLOSURE DETAILS
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067**

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 13 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 23 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

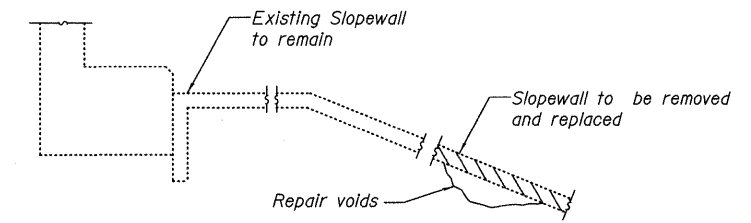
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



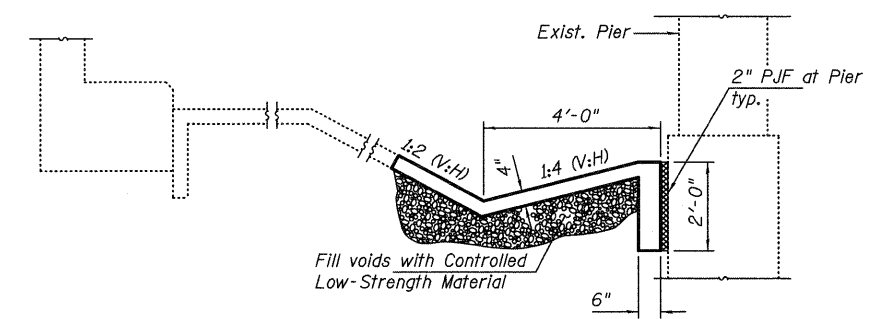
PLAN



SECTION A-A



SLOPEWALL REMOVAL AND REPLACEMENT DETAIL



SECTION B-B

BILL OF MATERIAL
(TWO SLOPEWALLS)

| Item | Unit | Quantity |
|----------------------------------|---------|----------|
| Slopewall Removal | Sq. Yd. | 139 |
| Slopewall, 4 Inch | Sq. Yd. | 175 |
| Controlled Low-Strength Material | Cu. Yd. | 59 |

SLOPEWALL REPAIR
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 -ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

Notes:
Voids under existing slopewall shall be fill with Controlled Low-Strength Material.
Existing wire fabric extending into removal areas shall be cleaned, straightened and incorporated into the new construction. Cost included with Slopewall, 4 inch.
Slopewall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58lbs per 100 sq. ft.
Existing and new reinforcement shall be lapped a minimum of 6".

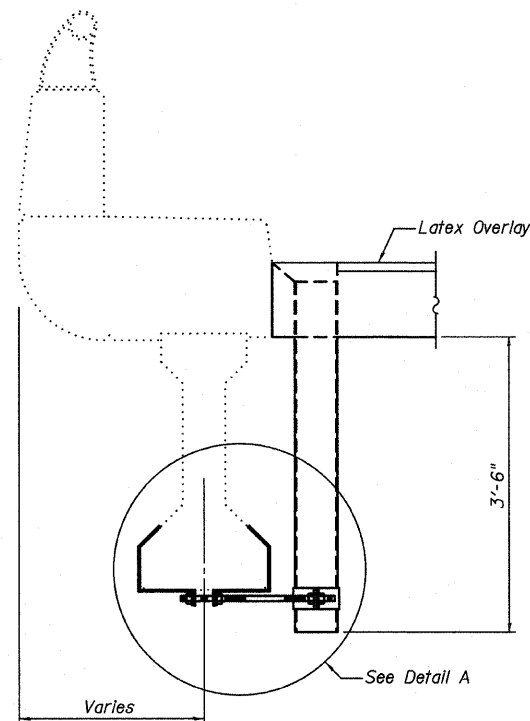
| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
ENGINEERING
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SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

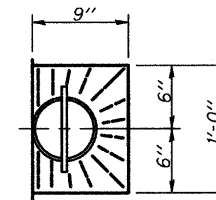
LEGEND
 Slopewall repair areas

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 14 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 24 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

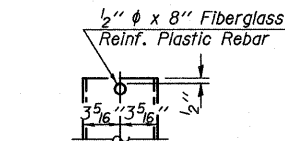


DECK DRAIN SECTION

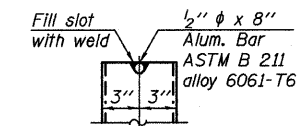


TOP PLAN

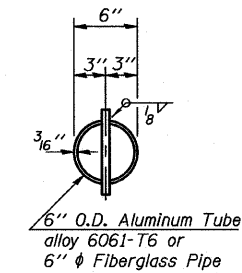
Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device and galvanizing included with Floor Drains.



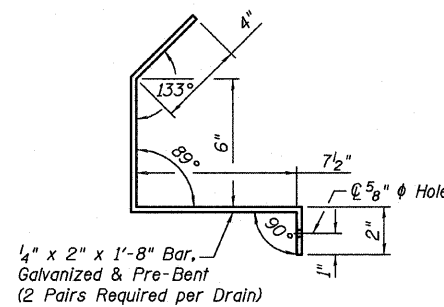
FIBERGLASS PIPE



ALUMINUM TUBE

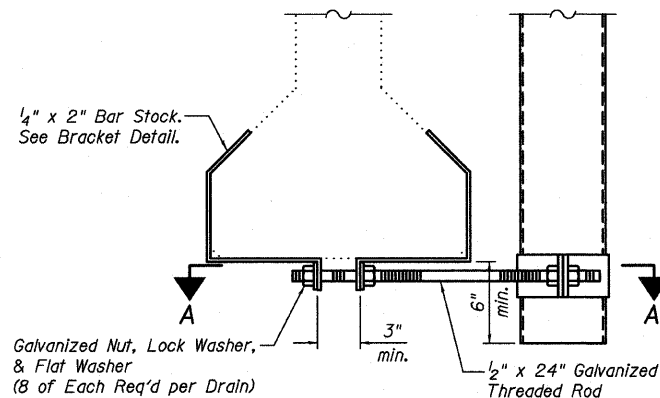


TOP PLAN
(Showing Aluminum Tube)

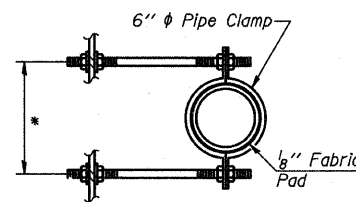


1/4" x 2" x 1'-8" Bar,
Galvanized & Pre-Bent
(2 Pairs Required per Drain)

BRACKET DETAIL



DETAIL A



SECTION A-A

*Dimension as required by Pipe Clamp

FLOOR DRAIN DETAILS
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

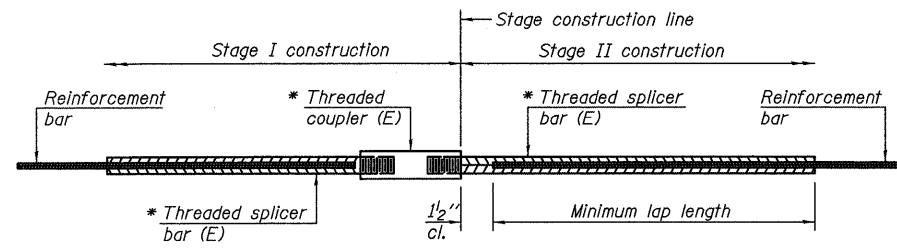
| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

WHKS & CO.
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SPRINGFIELD, IL
(217) 483-9457
DESIGN FIRM #184001036

| SHEET NO. | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|-------------|------------|--------------------|--------------|-----------|
| 16 SHEETS | 2678 | 163 HB-I-1 | DUPAGE | 31 | 25 |
| C-91-275-10 | | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

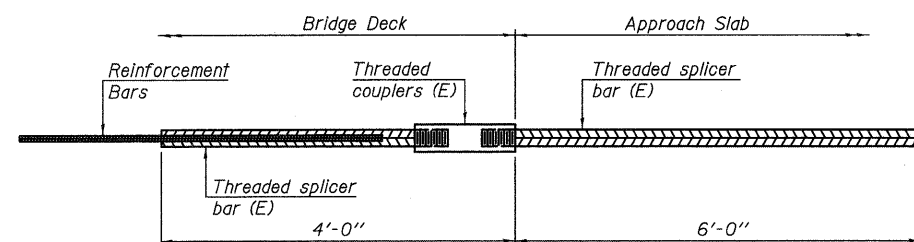
| Bar size to be spliced | Minimum Lap Lengths | | | |
|------------------------|---------------------|---------|---------|---------|
| | Table 1 | Table 2 | Table 3 | Table 4 |
| 3, 4 | 1'-5" | 1'-11" | 2'-1" | 2'-4" |
| 5 | 1'-9" | 2'-5" | 2'-7" | 2'-11" |
| 6 | 2'-1" | 2'-11" | 3'-1" | 3'-6" |
| 7 | 2'-9" | 3'-10" | 4'-2" | 4'-8" |
| 8 | 3'-8" | 5'-1" | 5'-5" | 6'-2" |
| 9 | 4'-7" | 6'-5" | 6'-10" | 7'-9" |

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1/2" + thread length

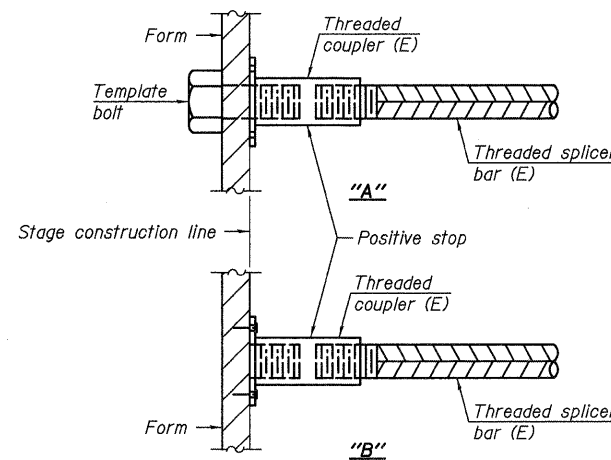
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Table for minimum lap length |
|----------|----------|-------------------------|------------------------------|
| S. Abut. | #5 | 18 | 3 |
| S. Abut. | #6 | 8 | 3 |
| Pier 1 | #5 | 36 | 3 |
| Pier 2 | #5 | 36 | 3 |
| Pier 3 | #5 | 36 | 3 |
| N. Abut. | #5 | 18 | 3 |
| N. Abut. | #6 | 8 | 3 |



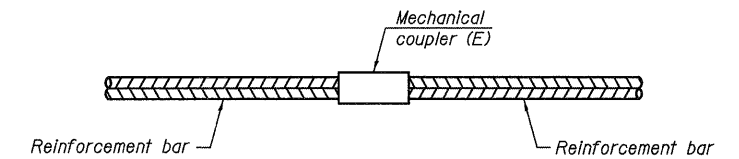
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



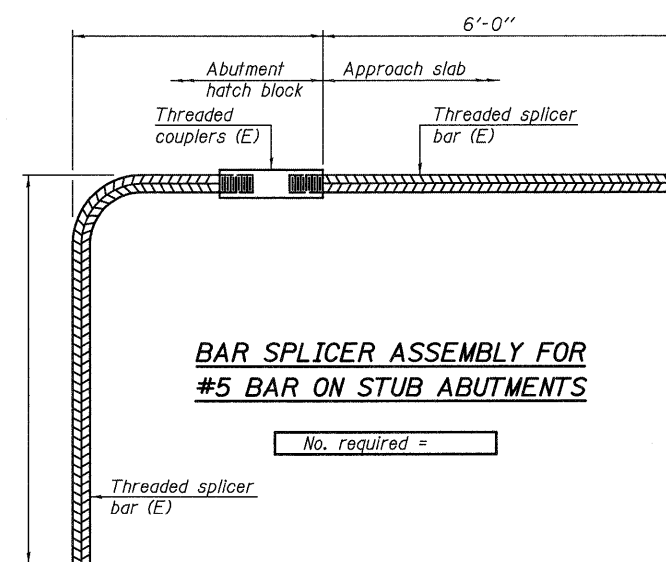
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

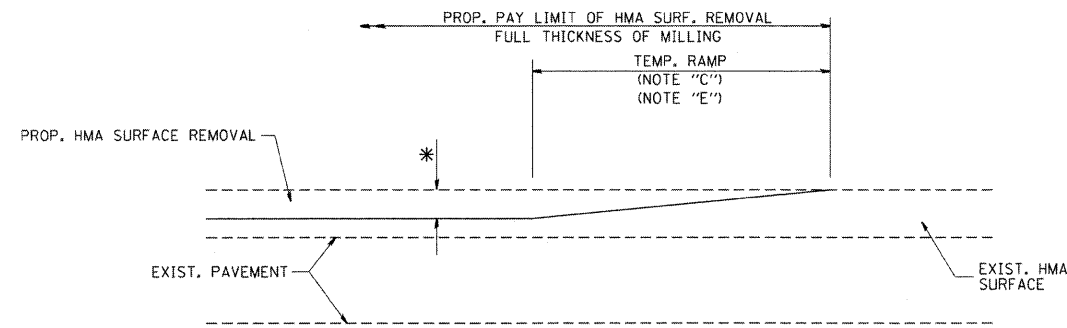
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
F.A.U. RTE. 2678 (YORK ROAD) OVER
F.A.P. RTE. 347 (IL RTE. 38 - ROOSEVELT ROAD)
SECTION 163 HB-I-1
DUPAGE COUNTY
STATION 621+01.69
STRUCTURE NO. 022-0067

| |
|----------------|
| DESIGNED - CMV |
| CHECKED - SDS |
| DRAWN - DLH |
| CHECKED - CMV |

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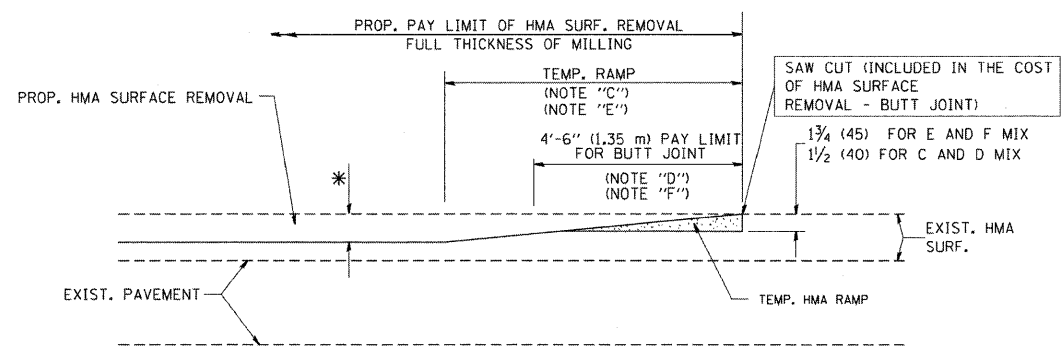
BSD-1 11-1-09

| | | | | | |
|---------------------------|---------------------|-----------------------|--------------------|--------------------|-----------------|
| SHEET NO. 16 16 SHEETS | F.A.U. RTE. 2678 | SECTION 163 HB-I-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 26 |
| | C-91-275-10 | | CONTRACT NO. 60J85 | | |
| ILLINOIS FED. AID PROJECT | | | | | |



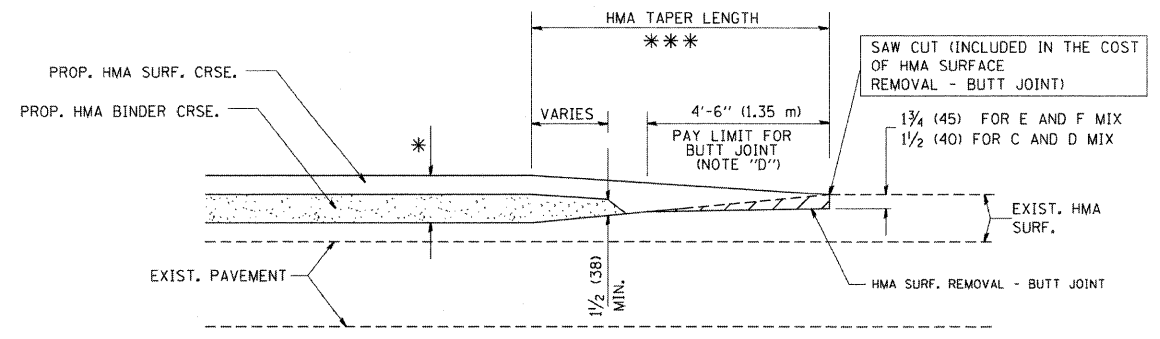
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1



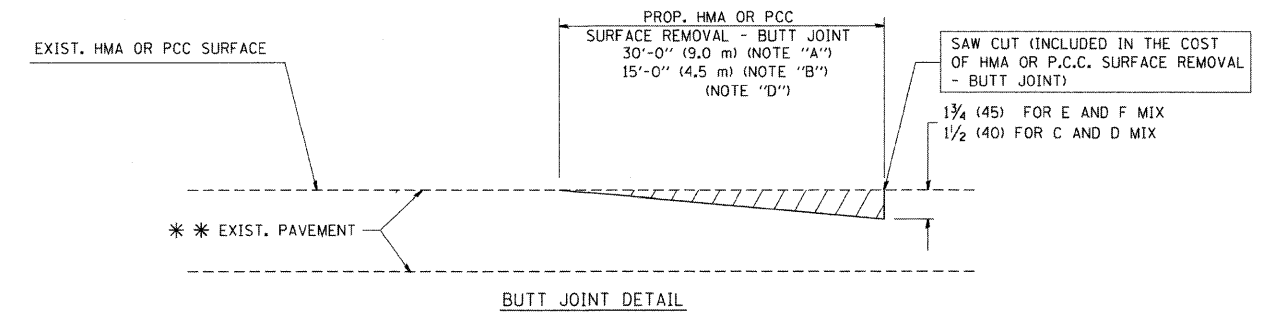
HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2
TYPICAL TEMPORARY RAMP

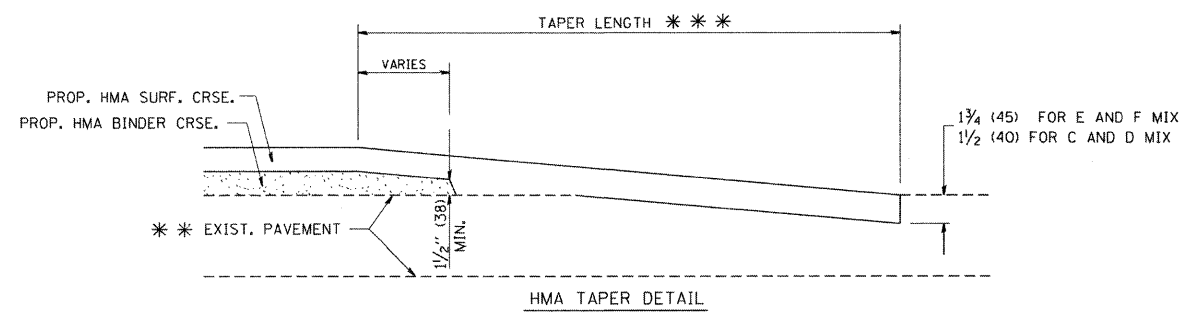


TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING

| | | | |
|---------|---|----------|----------|
| REVISED | - | R. SHAH | 10-25-94 |
| REVISED | - | A. ABBAS | 03-21-97 |
| REVISED | - | M. GOMEZ | 04-06-01 |
| REVISED | - | R. BORO | 01-01-07 |



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")

BASIS OF PAYMENT:

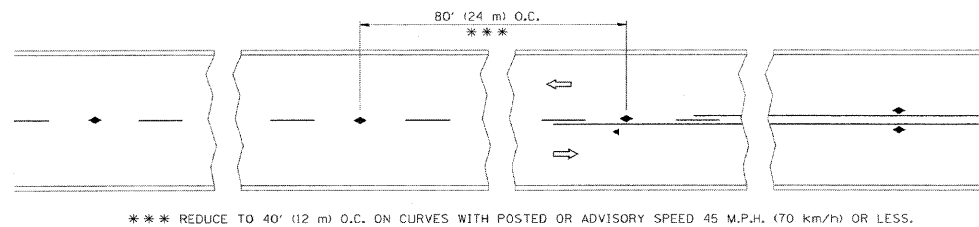
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

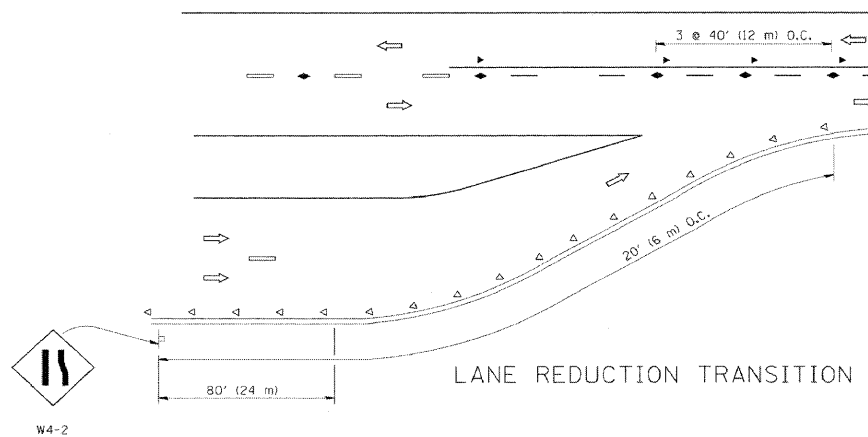
BUTT JOINT AND HMA TAPER DETAILS

| | | |
|----------------------|-------------------|-----------|
| USER NAME = #USER# | DESIGNED - MJY | REVISIONS |
| PLOT SCALE = #SCALE# | DRAWN - ST. TSC | REVISED - |
| PLOT DATE = #DATE# | CHECKED - MJY | REVISED - |
| | DATE - 01/29/2010 | REVISED - |

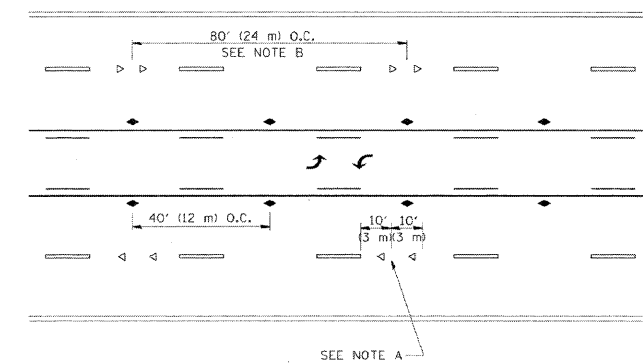
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|---|------------|--------|--------------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 2678 | 163 HB-1-1 | DUPAGE | 31 | 27 |
| D-91-275-10 | | | CONTRACT NO. 60J85 | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |



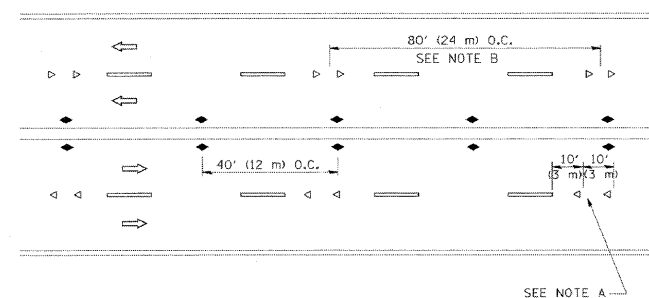
TWO-LANE/TWO-WAY



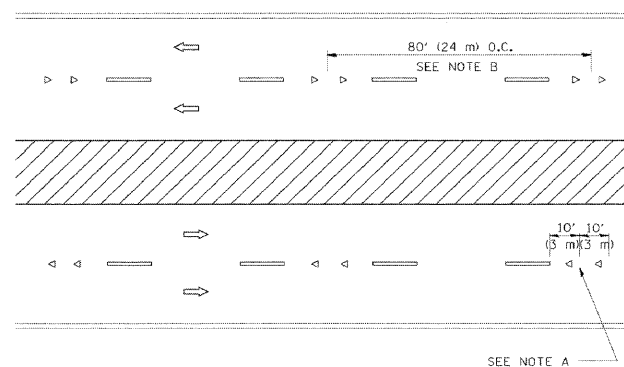
LANE REDUCTION TRANSITION



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.

SYMBOLS

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

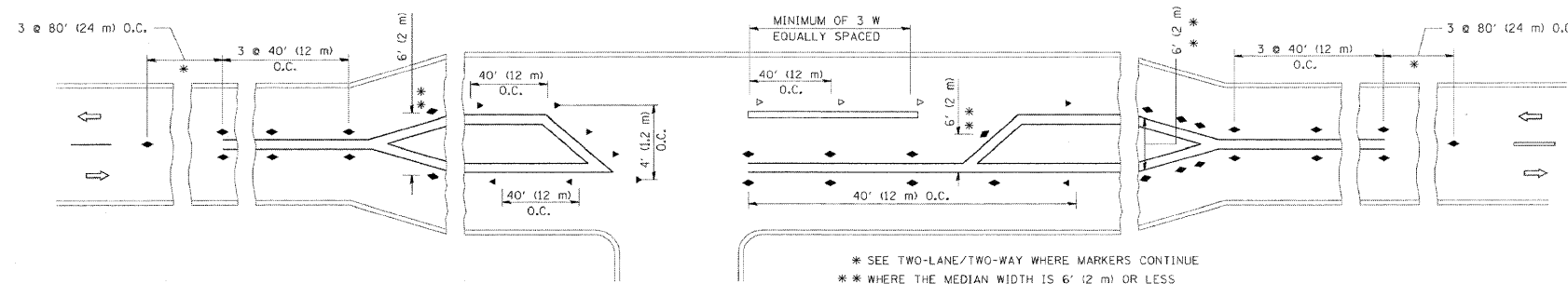
LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

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.

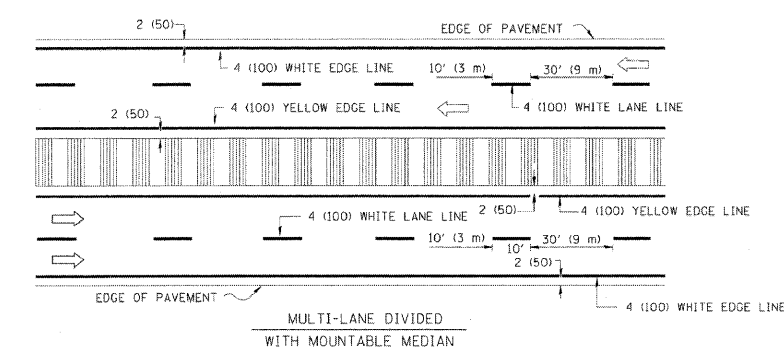
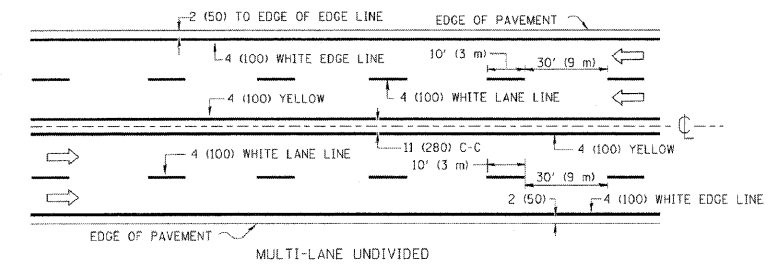
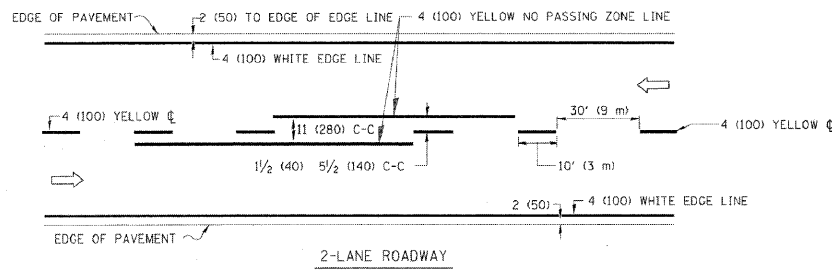
| | | |
|---------|----------------|----------|
| REVISED | - T. RAMMACHER | 09-19-94 |
| REVISED | - T. RAMMACHER | 03-12-99 |
| REVISED | - T. RAMMACHER | 01-06-00 |
| REVISED | - C. JUCIUS | 09-09-09 |



LEFT TURN

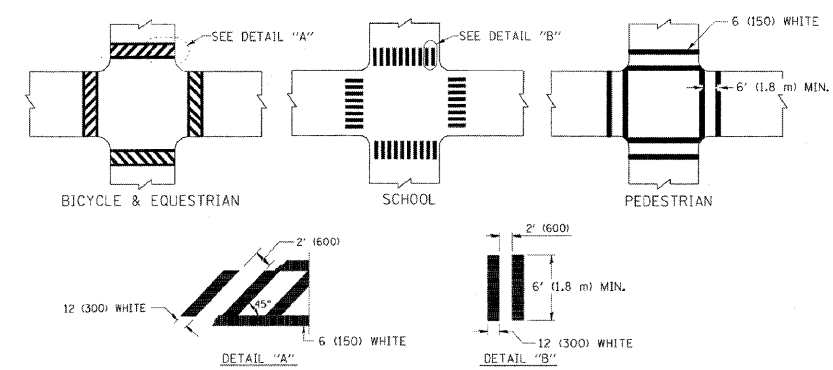
TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

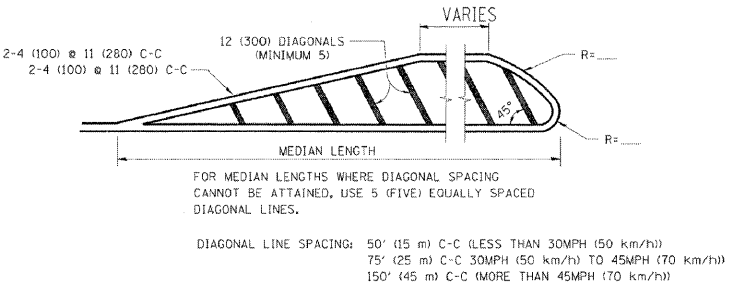
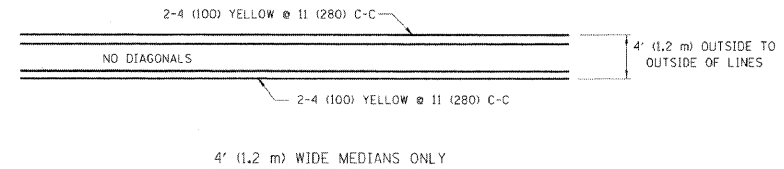


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

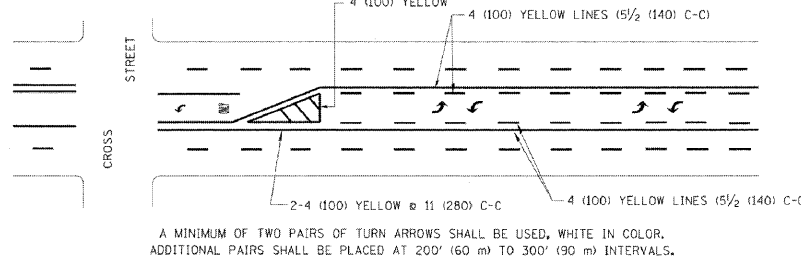
TYPICAL LANE AND EDGE LINE MARKING



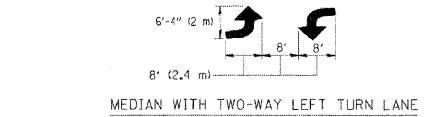
TYPICAL CROSSWALK MARKING



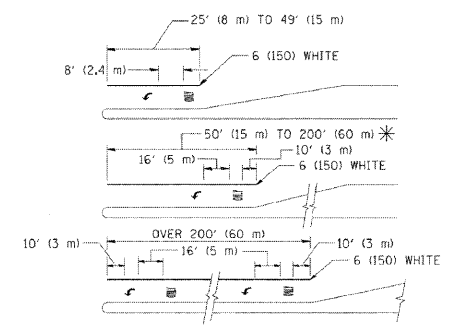
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



TYPICAL TURN LANE MARKING

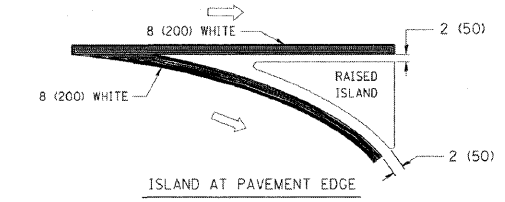
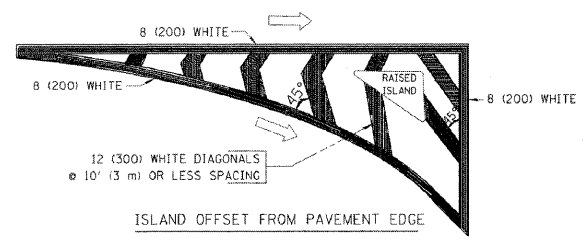


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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 | 4 (100) | SOLID | YELLOW | 5/2 (140) C-C FROM SKIP-DASH CENTERLINE |
| NO PASSING ZONE LINES: FOR BOTH DIRECTIONS | 2 @ 4 (100) | SOLID | YELLOW | 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100) | SKIP-DASH | WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| LANE LINES | 5 (125) ON FREEWAYS | SKIP-DASH | WHITE | |
| 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' (2.4 m)) | SOLID | WHITE | SEE TYPICAL TURN LANE MARKING DETAIL |
| TWO WAY LEFT TURN MARKING | 2 @ 4 (100) EACH DIRECTION | SKIP-DASH AND SOLID | YELLOW | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE |
| TWO WAY LEFT TURN MARKING | 8' (2.4 m) LEFT ARROW | IN PAIRS | WHITE | SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN) | 2 @ 6 (150) | SOLID | WHITE | NOT LESS THAN 6' (1.8 m) APART |
| CROSSWALK LINES (BIKE & EQUESTRIAN) | 12 (300) @ 45° | SOLID | WHITE | 2' (600) APART |
| CROSSWALK LINES (LONGITUDINAL BARS (SCHOOL)) | 12 (300) @ 90° | SOLID | WHITE | 2' (600) APART |
| 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° | SOLID | YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC | 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" 15 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)) |

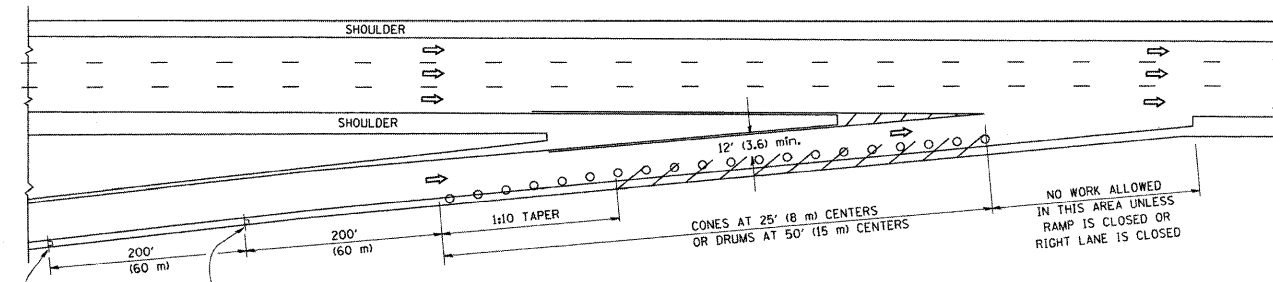
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

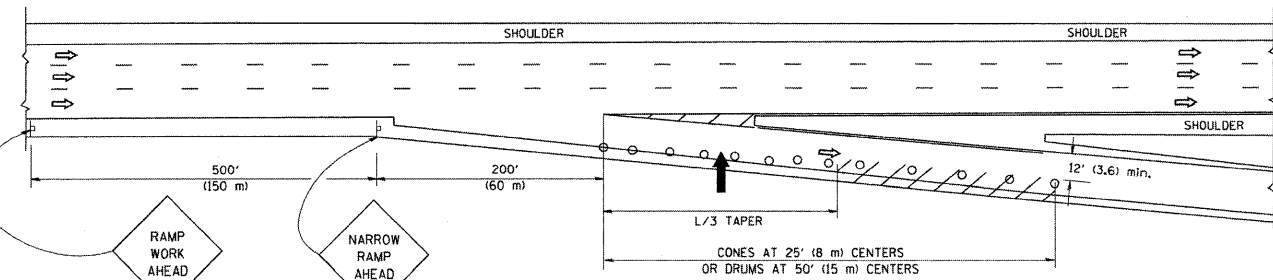
| | |
|---------|------------------------|
| REVISED | -T. RAMMACHER 10-27-94 |
| REVISED | -C. JUCIUS 09-09-09 |
| REVISED | - |
| REVISED | - |

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

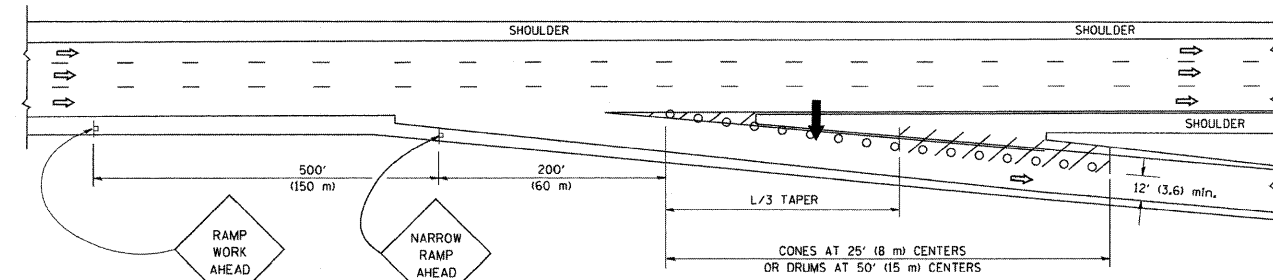
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

SYMBOLS

- ➔ ARROWBOARD
- ▨ WORK AREA
- ┌ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ⊕ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

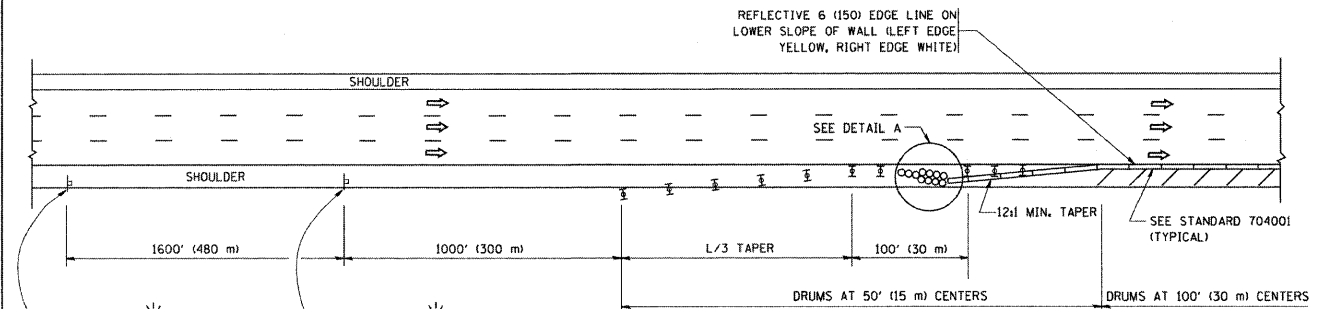
| | | |
|---------|---|--------------|
| REVISED | - | J.A.F. 12-02 |
| REVISED | - | 04-03 |
| REVISED | - | J.A.F. 12-06 |
| REVISED | - | S.P.B. 01-07 |

GENERAL NOTES

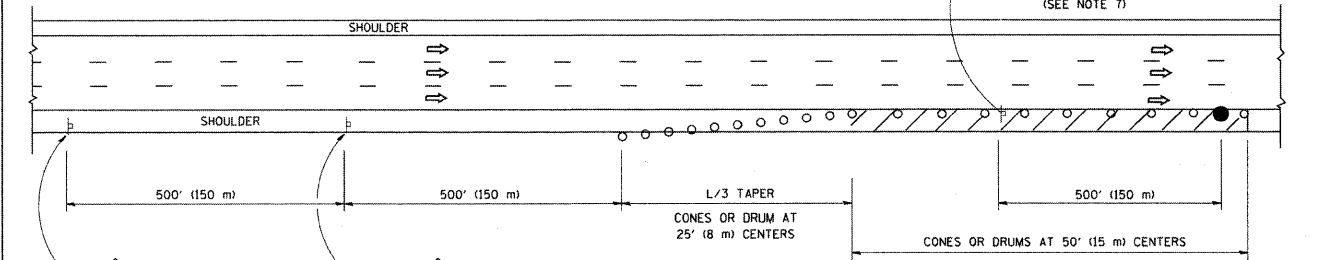
- THE "L" DISTANCE EQUALS:

| | |
|--------------------------------------|---------------------------------------|
| SPEED LIMIT | FORMULAS |
| 45 mph (80 km/h) OR GREATER | METRIC ENGLISH L=0.65(W/S) L=(W/S) |
| W = WIDTH OF OFFSET IN FEET (METERS) | |
| S = NORMAL POSTED SPEED MPH (KM/H) | |
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS



PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

REFLECTIVE 6 (150) EDGE LINE ON LOWER SLOPE OF WALL (LEFT EDGE YELLOW, RIGHT EDGE WHITE)

OR WHEN SPECIFIED INSTALL TEMPORARY CONCRETE BARRIER WALL WITH BARRIER WALL REFLECTORS PER TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)

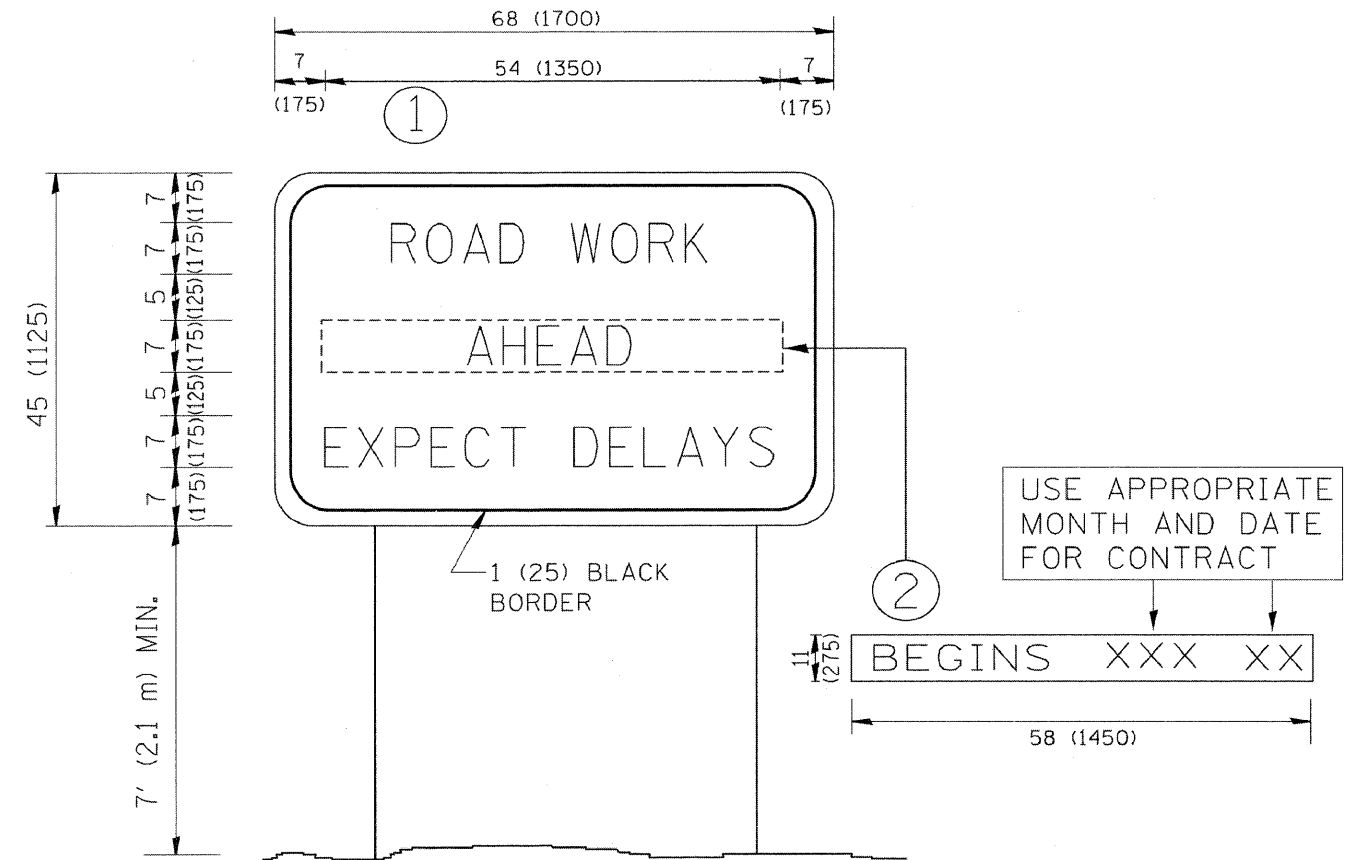
THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRUSH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.

DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

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

TRAFFIC CONTROL FOR SHOULDER CLOSURE AND PARTIAL RAMP CLOSURE



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.

| | | | |
|---------|---|--------------|----------|
| REVISED | - | R. MIRS | 09-15-97 |
| REVISED | - | R. MIRS | 12-11-97 |
| REVISED | - | T. RAMMACHER | 02-02-99 |
| REVISED | - | C. JUCIUS | 01-31-07 |

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

ARTERIAL ROAD INFORMATION SIGN

| | | |
|----------------------|-------------------|-----------|
| USER NAME = #USER# | DESIGNED - MJY | REVISED - |
| PLOT SCALE = #SCALE# | DRAWN - ST, TSC | REVISED - |
| PLOT DATE = #DATE# | CHECKED - MJY | REVISED - |
| | DATE - 01/29/2010 | REVISED - |

| | | | | |
|---|-----------------------|------------------|--------------------|-----------------|
| F.A.U. RTE. 2678 | SECTION 163 HB-1-1 | COUNTY DUPAGE | TOTAL SHEETS 31 | SHEET NO. 31 |
| D-91-275-10 | | | CONTRACT NO. 60J85 | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |