

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.I. ROUTE 88 (I-88)
D2 BRIDGE PAINTING 2014-5
PROJECT
TYPE of IMPROVEMENT - BRIDGE PAINTING
WHITESIDE COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR STATE STANDARDS DISTRICT STANDARDS
AND GENERAL NOTES SEE SHEET NO. 2

WHITESIDE COUNTY - HOPKINS TOWNSHIP - SECTION 34

| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------------------|-----------|--------------------|-----------|
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 1 |
| | | ILLINOIS | CONTRACT NO. 64K12 | |

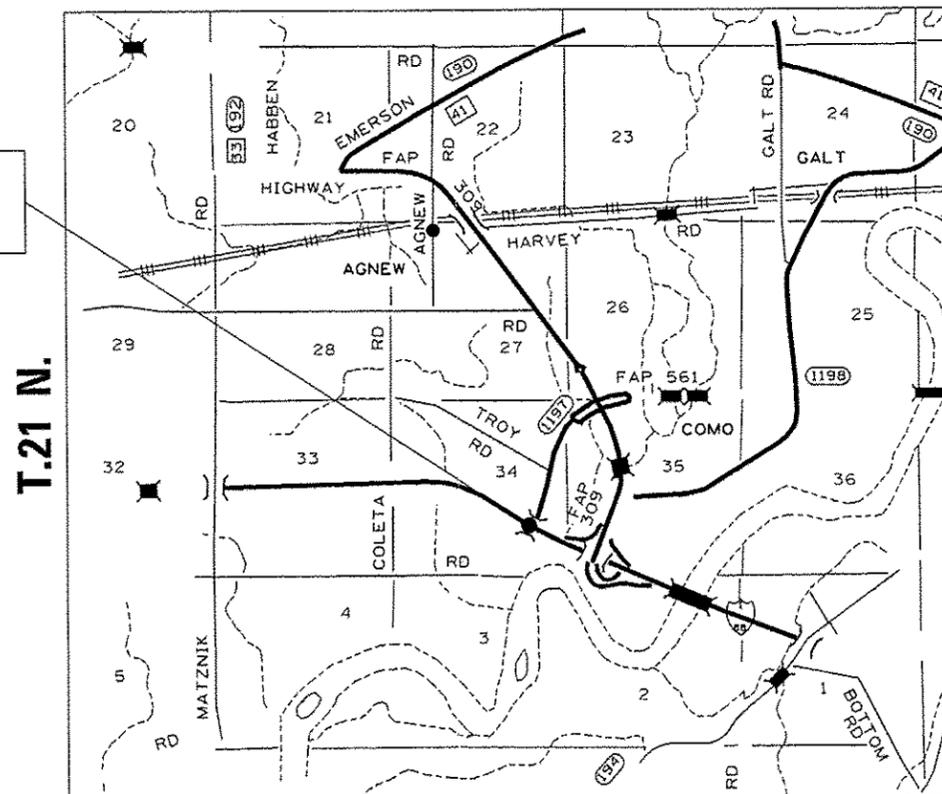
D-92-032-14



C-92-051-14

R.6

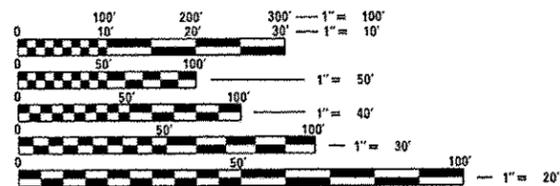
SN: 098-0073
SN: 098-0074



T.21 N.

T.21 N.

R.6



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

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

PROJECT MANAGER MAHMOUD ETEMADI (815) 284-5393

CONTRACT NO. 64K12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *March 14th 2014*

Paul E. [Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 9 2014
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 9 2014
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

INDEX OF SHEETS

- 1 COVER SHEET
- 2 INDEX OF SHEETS, STATE AND DISTRICT STANDARDS AND GENERAL NOTES
- 3 SUMMARY OF QUANTITIES
- 4-5 TRAFFIC CONTROL
- 6 DISTRICT STANDARDS
- 7-12 EXISTING BRIDGE PLANS

GENERAL NOTES

ALL BORROW/WASTE/USE SITES MUST BE APPROVED BY THE DEPARTMENT PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTHMOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. SEEDING 2A SHALL BE USED. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR CLEANING AND PAINTING STEEL BRIDGE NO.1 AND CLEANING AND PAINTING STEEL BRIDGE NO.2 RESPECTIVELY.

MULCH METHOD II SHALL BE APPLIED OVER ALL SEEDED AREAS. THIS SHALL BE INCLUDED IN THE COST OF THE CLEANING AND PAINTING STEEL BRIDGE NO.1 AND CLEANING AND PAINTING STEEL BRIDGE NO.2 RESPECTIVELY.

FERTILIZER NUTRIENTS SHALL BE APPLIED AT THE RATE SPECIFIED IN SECTIONS 250 AND 252 OF THE STANDARD SPECIFICATIONS. THIS SHALL BE INCLUDED IN THE COST OF THE CLEANING AND PAINTING STEEL BRIDGE NO.1 AND CLEANING AND PAINTING STEEL BRIDGE NO.2 RESPECTIVELY.

THE SSPC OP1 AND OP2 CONTRACT CERTIFICATIONS WILL BE REQUIRED FOR THIS CONTRACT.

NO MATERIALS, EQUIPMENT, VEHICLES OR OTHER HAZARDS SHALL BE WITHIN 3'-6" OF THE TEMPORARY CONCRETE BARRIER WALL, MEASURED FROM THE CLOSEST POINT OF THE BARRIER WALL PERPENDICULAR TO THE HAZARD. EQUIPMENT THAT IS ACTIVELY WORKING WITH 3'-6" OF THE BARRIER WALL MAY BE ALLOWED FOR A SHORT DURATION, IF APPROVED BY THE ENGINEER, REQUIRED FOR THE WORK ACTIVITY, AND THERE IS NOT ANOTHER METHOD TO COMPLETE THE WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

| Company | Type | Contact Name | Contact Information |
|-----------------------------|---------------|--------------------|--|
| Commonwealth Edison Company | Electric | Ms. Nora Fernandez | 123 Energy Ave, Rockford, IL 61109 Phone No. 815-490-2869 |
| AT&T | Telephone | Mr. David Croen | 2800 7 Street Moline, IL 61265 Phone No. 309-757-4707 |
| G4S Technology, LLC | Communication | Mr. Chance Elker | 1428 Sherman Road Romeoville, IL 60446 Phone No. 630-343-2802 |

IDOT IS NOT A MEMBER OF JULIE. IF YOU ARE NEAR ANY OVERHEAD LIGHTING, INTERSECTION LIGHTING OR TRAFFIC SIGNALS, CONTACT THE IDOT TRAFFIC OFFICE AT 815284-5469 AT LEAST 48 HOURS PRIOR TO WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE MUNICIPALITY TO DETERMINE APPROVED METHODS OF UTILITY STRUCTURE ADJUSTMENT. UTILITY STRUCTURES MAY INCLUDE, BUT ARE NOT LIMITED TO, MANHOLES, WATER VALVES, HANDHOLES, ETC. ALL MATERIALS AND WORK NECESSARY TO COMPLETE ADJUSTMENTS PER MUNICIPALITY REQUIREMENTS SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ASSOCIATED ADJUSTMENT PAY ITEM.

STATE STANDARDS

- 701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701101-04 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 701321-13 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-03 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)

DISTRICT STANDARDS

- 39.2 INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES)
- 99.4 STOP LINE SIGN FOR TEMPORARY SIGNALS

| | | | | | | | | | |
|--|------------|-----------|---|---|--------------------|---------------------------|-----------|-----------------|--------------|
| | DESIGNED - | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | INDEX OF SHEETS, STATE STANDARDS DISTRICT STANDARDS, GENERAL NOTES | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | DRAWN - | REVISED - | | | BB | D2 BRIDGE PAINTING 2014-S | WHITESIDE | 12 | 2 |
| | CHECKED - | REVISED - | | | CONTRACT NO. 64K12 | | | | |
| | DATE - | REVISED - | | | ILLINOIS | | | | |

SUMMARY OF QUANTITIES

100% State Funds

0014

| Pay Item No. | Description | Units | Total Quantity |
|--------------|--|-------|----------------|
| 67100100 | MOBILIZATION | L SUM | 1 |
| 70100405 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 | EACH | 1 |
| 70100450 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701201 | L SUM | 1 |
| 70106500 | TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 1 |
| 70300220 | TEMPORARY PAVEMENT MARKING - LINE 4" | FOOT | 1,230 |
| 70300280 | TEMPORARY PAVEMENT MARKING - LINE 24" | FOOT | 48 |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 505 |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 367.43 |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 126.70 |
| 70600250 | IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |
| 70600350 | IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |
| * 78001110 | PAINT PAVEMENT MARKING - LINE 4" | FOOT | 1,732 |
| 78300100 | PAVEMENT MARKING REMOVAL | SQ FT | 164 |
| X5067501 | BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1 | L SUM | 1 |
| X5067502 | BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 2 | L SUM | 1 |
| Z0007101 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1 | L SUM | 1 |
| Z0007102 | CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2 | L SUM | 1 |
| Z0010501 | CLEANING AND PAINTING STEEL BRIDGE NO. 1 | L SUM | 1 |
| Z0010502 | CLEANING AND PAINTING STEEL BRIDGE NO. 2 | L SUM | 1 |

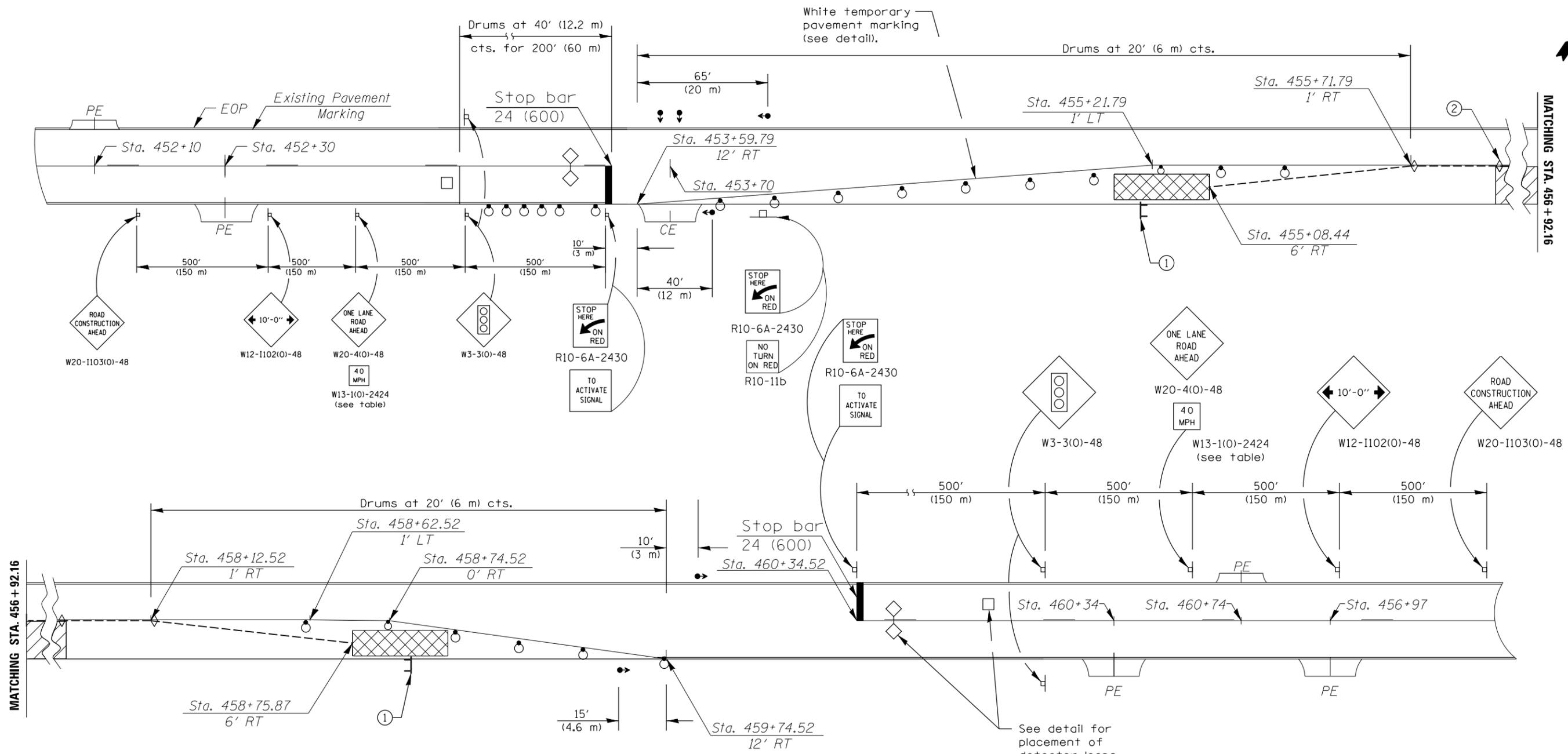
*

PA

*specialty Items

2/10/14 8:58 AM

| | | | | | | | | |
|------------------|-----------------|---|------------------------------|--------------------|---------------------------|-----------|--------------|-----------|
| DESIGNED - _____ | REVISOR - _____ | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.J. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| DRAWN - _____ | REVISOR - _____ | | | 86 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 3 |
| CHECKED - _____ | REVISOR - _____ | | | CONTRACT NO. 64K12 | | | | |
| DATE - _____ | REVISOR - _____ | | | [ILLINOIS] | | | | |



- SYMBOLS**
- Drum with steady burning bi-directional light
 - Temporary concrete barrier
 - Temporary rumble strip (when specified)
 - Double vertical panel (see detail)
 - Crystal, bidirectional barrier wall/guardrail marker
 - Work area
 - Sign
 - Type III barricade
 - Traffic signal
 - Detector loops
 - Impact attenuator

- NOTES**
- ① Type III barricade to be placed when no work is being performed.
 - ② Barrier wall/guardrail markers at 25' (7.6 m) cts. See Standards 704001 & 635011.

GENERAL NOTES

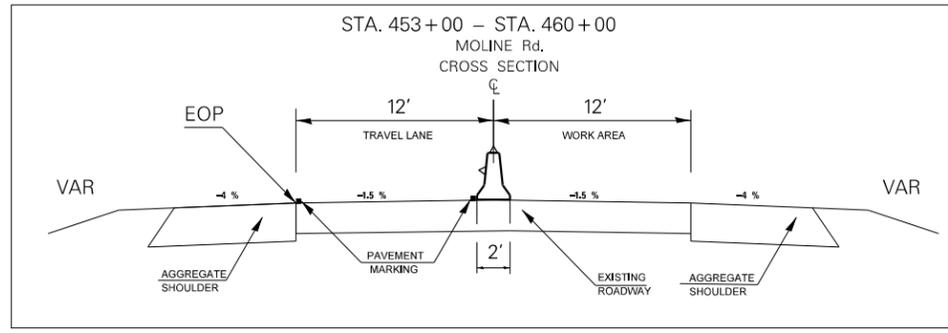
Traffic signals and a positive barrier are required. Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201.

Temporary concrete barrier shall be according to Standard 704001.

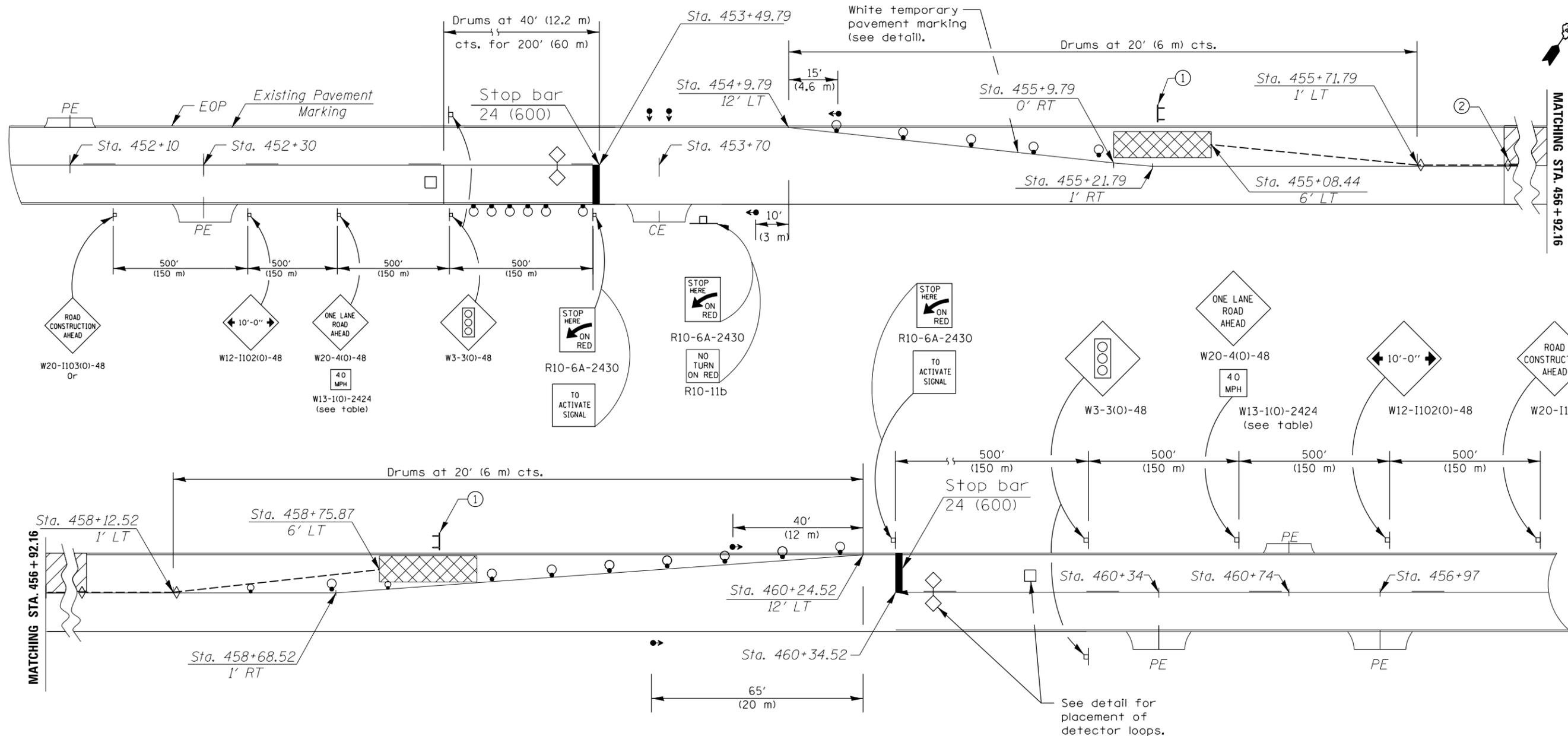
Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

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

Barrier wall offsets are to the construction side of the wall.



| | | | | | | | | | | | |
|--|------------|-----------|--|---|------------------------------------|--------------------|---------------------------|-----------|-----------------|--------------|--|
| | DESIGNED - | REVISED - | | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TRAFFIC CONTROL STAGE 1 | F.A.I RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | DRAWN - | REVISED - | | | | 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 4 | |
| | CHECKED - | REVISED - | | | | CONTRACT NO. 64K12 | | | | | |
| | DATE - | REVISED - | | | | ILLINOIS | | | | | |



GENERAL NOTES

Traffic signals and a positive barrier are required. Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201.

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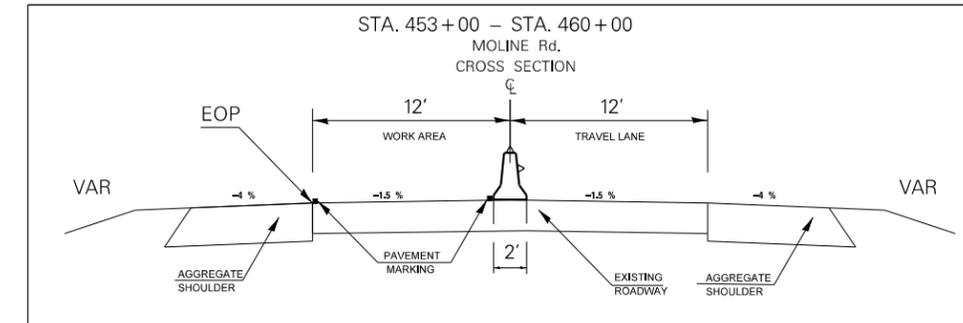
Barrier wall offsets are to the construction side of the wall.

SYMBOLS

- Drum with steady burning bi-directional light
- Temporary concrete barrier
- Temporary rumble strip (when specified)
- Double vertical panel (see detail)
- Crystal, bidirectional barrier wall/guardrail marker
- Work area
- Sign
- Type III barricade
- Traffic signal
- Detector loops
- Impact attenuator

NOTES

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- ② Barrier wall/guardrail markers at 25' (7.6 m) cts. See Standards 704001 & 635011.



| | |
|------------|------------|
| DESIGNED - | REVISIED - |
| DRAWN - | REVISIED - |
| CHECKED - | REVISIED - |
| DATE - | REVISIED - |

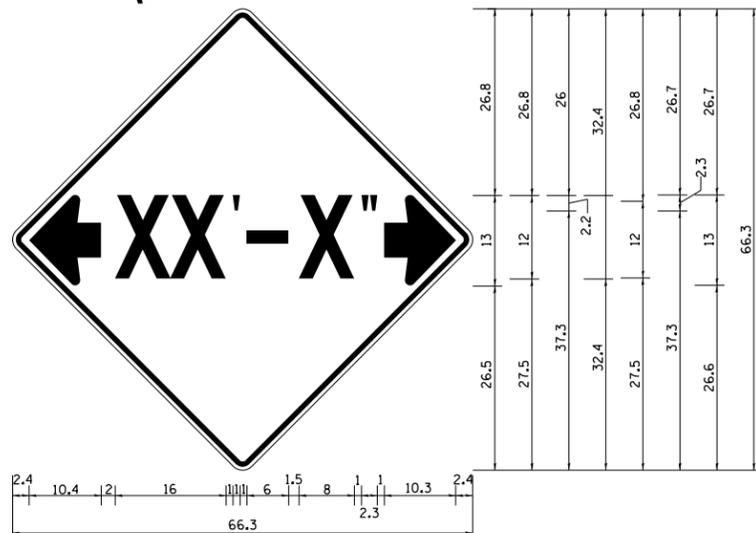
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL
STAGE 2**

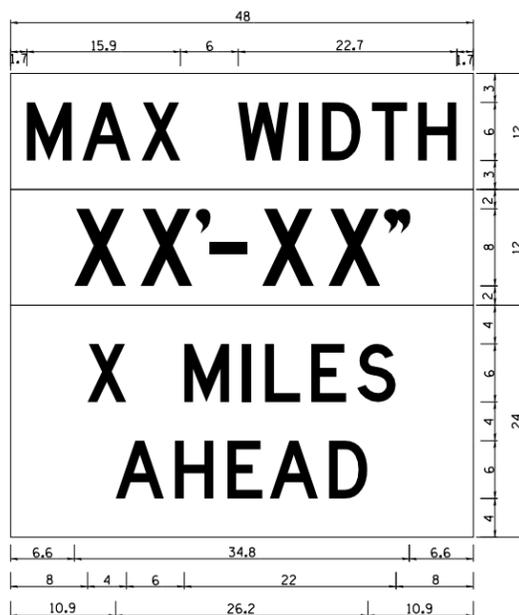
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------------------|-----------|--------------------|-----------|
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 5 |
| | | | CONTRACT NO. 64K12 | |

ILLINOIS

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
 W12-2 - Horizontal Clearance Sign
 48.0" across sides, 1.9" Radius,
 0.8" Border, 0.5" Indent, Black on
 Orange; Standard Arrow Custom
 10.4" X 8.1" 180° Black 11 Inch
 D Series Lettering; Standard Arrow
 Custom 10.4" X 8.1" 0°



W12-1103 (Width is 8D);
 No border, Black on White;
 [MAX WIDTH] D;
 No border, Black on Orange;
 [XX'-XX''] D;
 No border, Black on White;
 [X MILES] D; [AHEAD] D;

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 5-15-09

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 24 x 24
 4 CAPITAL LETTERS - BLACK
 1/2 BORDER - BLACK
 WHITE REFLECTIVE - TYPE AP
 HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:
 THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-11-11

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS

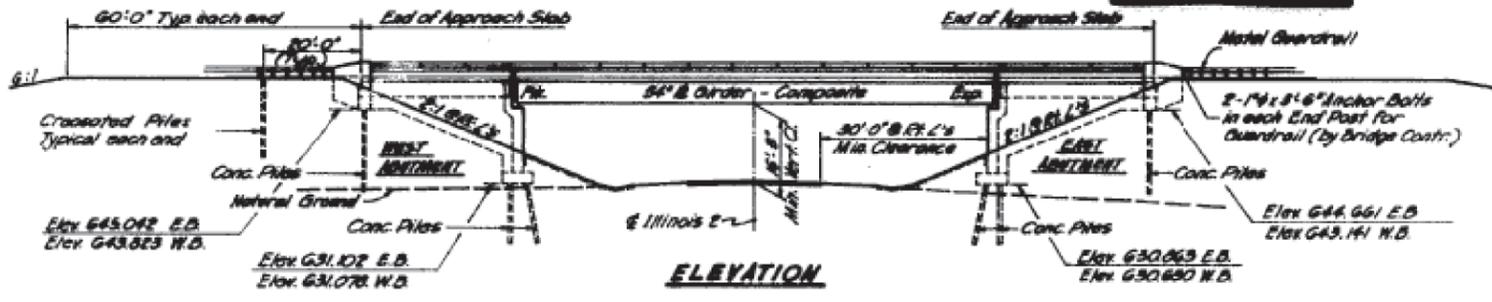
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------------------------|-----------|--------------------|-----------|
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 6 |
| | | | CONTRACT NO. 64K12 | |

ILLINOIS

048-0073 & 098-0074

| | | | | |
|--------------------|------|-----------|----------|----------------|
| ROUTE NO. | SEC. | COUNTY | SHEET | SHEET NO. / of |
| 195-2 | HB-3 | WHITESIDE | 480 / 82 | 2 / SHEETS |
| FA. 403 | | | | |
| ILLINOIS FA. PROJ. | | | | |

B.M. Spike & washer in side 30° Maple
154' Rt. of Sta. 2197+00 Elev. 618.89



STATION 2100 + 86.04
BUILT 197 BY
STATE OF ILLINOIS
F.A. RTE. 403-SEC. 195-2195-3
F.A. PROJ. EMP-889-403-1(3)
LOADING HS 20

DESIGN STRESSES
f_c = 1800 psi Deck Slab
f_c = 1400 psi Curb, Parapet, & Substructure
f_c = 75 psi Footings
n = 10
f_s = 23,000 psi Reinforcement
f_s = 20,000 psi Structural
 Allowable Deflection = $L/1800$
 Design Specifications: MPP MSRD (as applicable)
 Add 25%/ft for Future Wearing Surface

PRECAST PRESTRESSED UNITS
f_c = 5000 psi
f_{c1} = 4000 psi
f_s = 248,000 psi Strands
f_{s1} = 175,600 psi Strands

LOADING HS 20-44

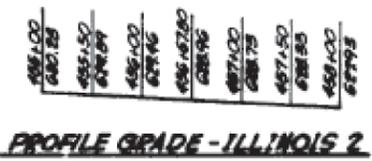
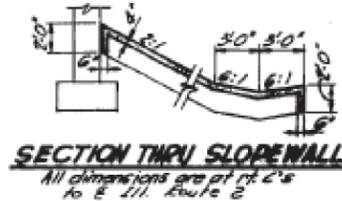
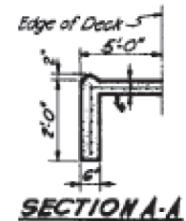
APPROACH PILE DATA
 Type - Crossed
 Length Road - W.A.-W.B. EA-WB. W.A.-EB. EA-EB.
 15' 27' 19' 29'
 No. Road. 9 10 6 6
 See Special Provisions



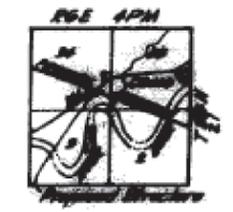
TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub. | Total |
|--|----------|---------|--------|---------|
| Structure Excavation | Cu. Yds. | | 251 | 251 |
| Class I Concrete | Cu. Yds. | 513.2 | 482.9 | 997.1 |
| Structural Steel | Lump Sum | | | 1 |
| Reinforcement Bars | Lbs. | 115,440 | 31,750 | 147,190 |
| Precast Prestressed Conc. I Beams, 36" | Lin. Ft. | 530 | | 530 |
| Concrete Piles | Lin. Ft. | | 3012 | 3012 |
| Cast in Place Concrete | Each | | 4 | 4 |
| Crossed Piles (Up to 20') | Lin. Ft. | | 276 | 276 |
| Crossed Piles (20' to 30.0) | Lin. Ft. | | 444 | 444 |
| Bit Conc. Surf. Class I | Tons | 127 | | 127 |
| Coal Tar Int. Protective Coat | Sq. Yds. | 1510 | | 1510 |
| Aluminum Siding | Lin. Ft. | 627 | | 627 |
| Preformed Joint Sealer | Lin. Ft. | 204 | | 204 |
| Steel Slicer Connectors 1/2" | Each | 2001 | | 2001 |
| Form Piles | Each | 2 | | 2 |
| Protective Coat | Sq. Yds. | 252 | 35 | 277 |
| Face Wall 4" | Sq. Yds. | | 0.15 | 0.15 |

NAME PLATE
(See Std. 2113)

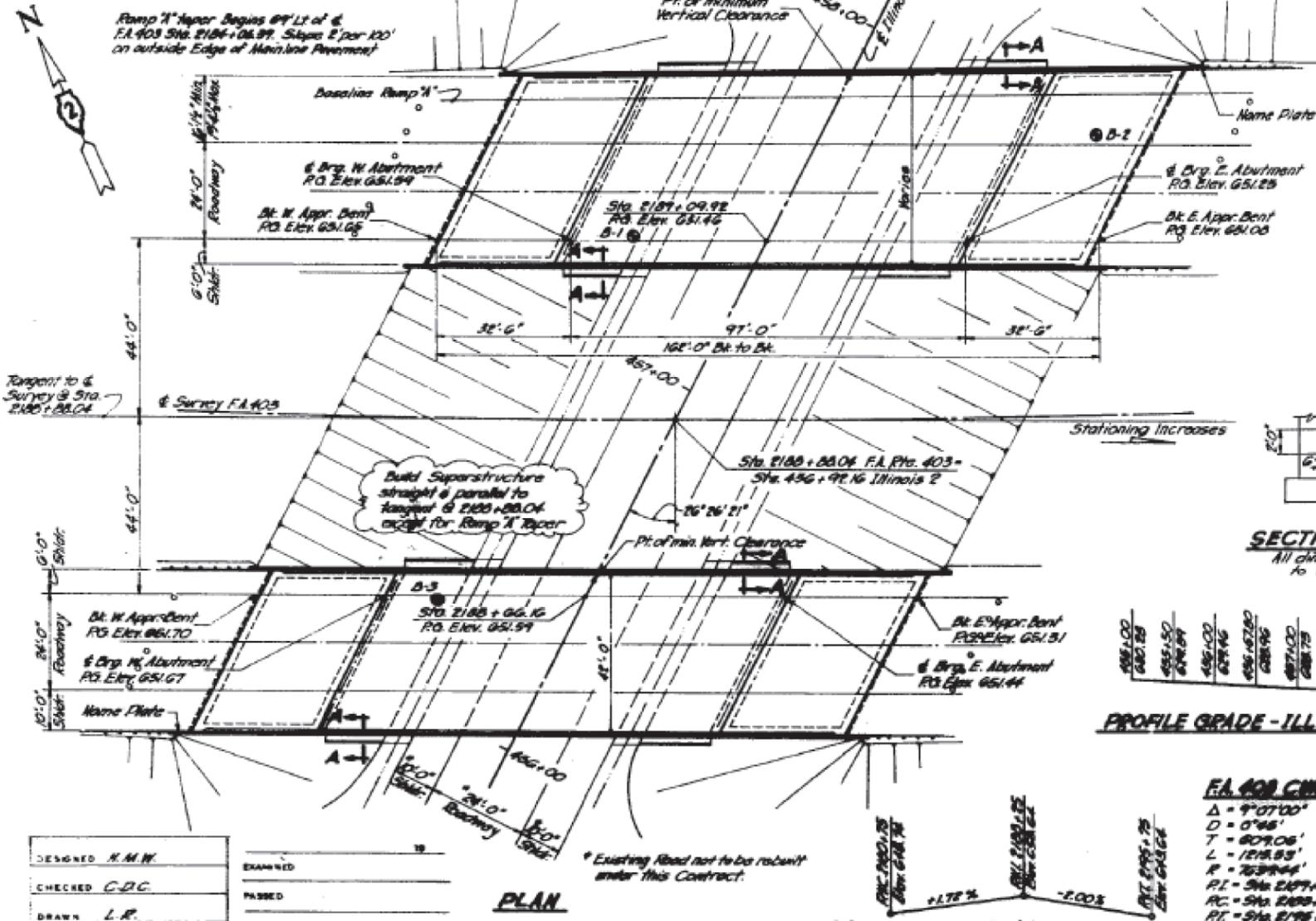


FA. 403 CURVE DATA
 $\Delta = 9^{\circ}07'00''$
 $D = 5^{\circ}45'$
 $T = 809.06'$
 $L = 1215.53'$
 $R = 7539.44'$
 $PI = Sta. 2107+07.65$
 $PC = Sta. 2099+02.98$
 $PT = Sta. 2115+15.12$
 Super = .020 1/2



GENERAL PLAN AND ELEVATION
 PROJECT FA. 403
 FA. RTE. 403 OVER ILLINOIS 2
 F.A. RTE. 403-SEC. 195-2195-3
 BRIDGE PLAN
 STATION 2100 + 86.04

PLANS PREPARED BY MACKIE ENGINEERING CO.
No. 197-78



| | | | |
|----------|--------|----------|--|
| DESIGNED | H.M.W. | DRAWN | |
| CHECKED | C.D.C. | PASSED | |
| DRAWN | L.P. | APPROVED | |
| CHECKED | H.M.W. | | |

PLAN

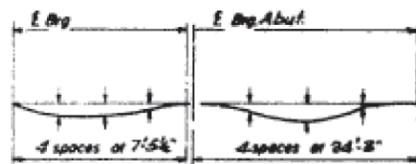


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING
BRIDGE PLANS

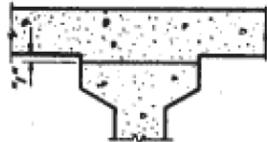
| | | | | |
|--------------|---------------------------|-----------|--------------------|-----------|
| F.A. I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 7 |
| | | | CONTRACT NO. 64K12 | |

ILLINOIS



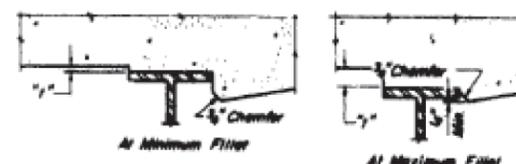
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)
 Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below.



To determine "Y": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted algebraically from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet height "Y". A positive value of "Y" equals the fillet height above the top of the beam. A negative value of "Y", not to exceed 2", equals the embedment of the beam above the theoretical bottom of slab elevation.

FILLET HEIGHTS



To determine "Y": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet height "Y" above top flange of beam.

FILLET HEIGHTS

Note: Offsets are measured from tangent to & FA 405 at Sta. 2188+88.04. Elevations are to top of concrete deck.

| | | | | |
|-------------|---------|-----------|------|-----------|
| PROJECT NO. | SECTION | COUNTY | DATE | SHEET NO. |
| FA 405 | 195-3 | WHITESIDE | 386 | 184 |
| | | | | 21 SHEETS |

| Location | Beam | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|---------------------------|----------|----------|---------|------------------------------|--|
| End of Beams W.Appr. Bent | 1 | 2188+880 | 83.444 | 650.217 | 650.217 |
| | 2 | 2188+880 | 76.047 | 650.448 | 650.448 |
| | 3 | 2188+880 | 69.250 | 650.678 | 650.678 |
| | 4 | 2188+880 | 61.750 | 650.908 | 650.908 |
| | 5 | 2188+880 | 54.250 | 651.138 | 651.138 |
| | 6 | 2188+880 | 46.750 | 651.368 | 651.368 |
| | 7 | 2188+880 | 39.250 | 651.598 | 651.598 |
| | 8 | 2188+880 | 31.750 | 651.828 | 651.828 |
| | 9 | 2188+880 | 24.250 | 652.058 | 652.058 |
| | 10 | 2188+880 | 16.750 | 652.288 | 652.288 |
| | 11 | 2188+880 | 9.250 | 652.518 | 652.518 |
| | 12 | 2188+880 | 1.750 | 652.748 | 652.748 |
| A | 13 | 2188+880 | 76.750 | 652.660 | 652.660 |
| | 1 | 2188+880 | 83.444 | 650.180 | 650.180 |
| | 2 | 2188+880 | 76.147 | 650.434 | 650.434 |
| | 3 | 2188+880 | 69.250 | 650.688 | 650.688 |
| | 4 | 2188+880 | 61.750 | 650.942 | 650.942 |
| | 5 | 2188+880 | 54.250 | 651.196 | 651.196 |
| | 6 | 2188+880 | 46.750 | 651.450 | 651.450 |
| | 7 | 2188+880 | 39.250 | 651.704 | 651.704 |
| | 8 | 2188+880 | 31.750 | 651.958 | 651.958 |
| | 9 | 2188+880 | 24.250 | 652.212 | 652.212 |
| | 10 | 2188+880 | 16.750 | 652.466 | 652.466 |
| | 11 | 2188+880 | 9.250 | 652.720 | 652.720 |
| B | 12 | 2188+880 | 1.750 | 652.974 | 652.974 |
| | 13 | 2188+880 | 76.750 | 652.665 | 652.665 |
| | 1 | 2188+880 | 83.444 | 650.187 | 650.187 |
| | 2 | 2188+880 | 76.240 | 650.398 | 650.398 |
| | 3 | 2188+880 | 69.250 | 650.609 | 650.609 |
| | 4 | 2188+880 | 61.750 | 650.820 | 650.820 |
| | 5 | 2188+880 | 54.250 | 651.031 | 651.031 |
| | 6 | 2188+880 | 46.750 | 651.242 | 651.242 |
| | 7 | 2188+880 | 39.250 | 651.453 | 651.453 |
| | 8 | 2188+880 | 31.750 | 651.664 | 651.664 |
| | 9 | 2188+880 | 24.250 | 651.875 | 651.875 |
| | 10 | 2188+880 | 16.750 | 652.086 | 652.086 |
| 11 | 2188+880 | 9.250 | 652.297 | 652.297 | |
| 12 | 2188+880 | 1.750 | 652.508 | 652.508 | |
| 13 | 2188+880 | 76.750 | 652.655 | 652.660 | |

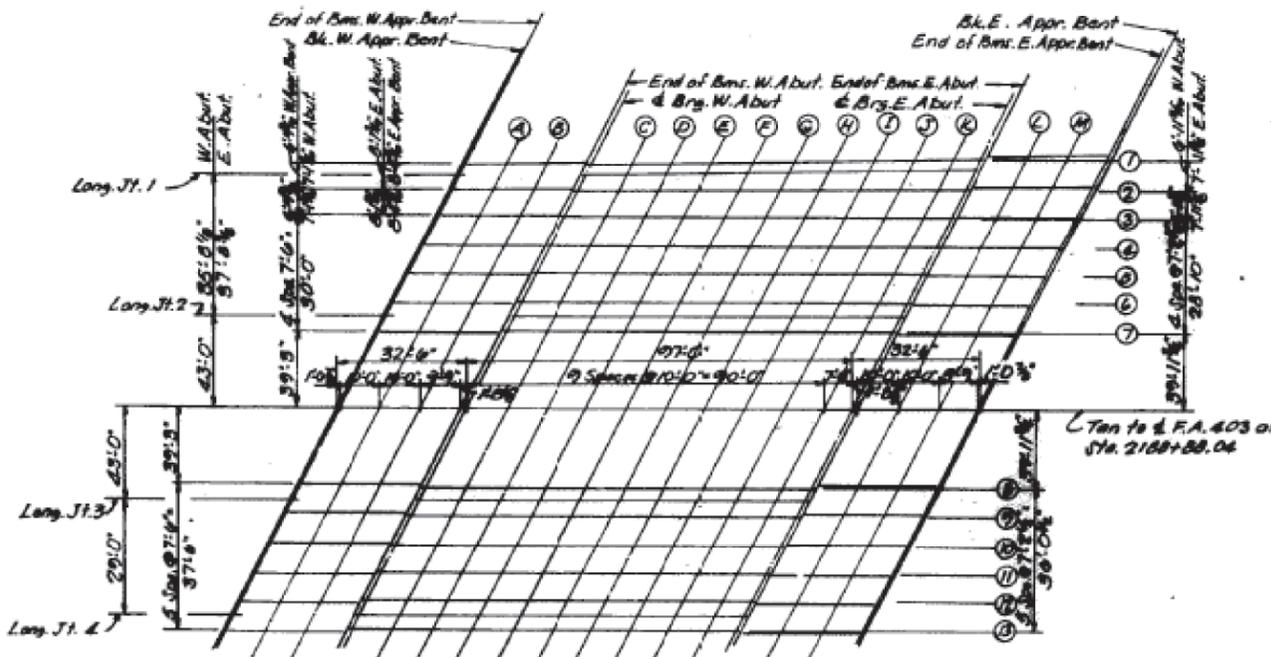
| Location | Beam | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|-----------------------|-----------|-----------|---------|------------------------------|--|
| End of Beams W. Abut. | 1 | 2188+7957 | 83.444 | 650.126 | 650.126 |
| | 2 | 2188+7957 | 76.349 | 650.369 | 650.369 |
| | 3 | 2188+7957 | 69.250 | 650.613 | 650.613 |
| | 4 | 2188+7957 | 61.750 | 650.857 | 650.857 |
| | 5 | 2188+7957 | 54.250 | 651.101 | 651.101 |
| | 6 | 2188+7957 | 46.750 | 651.345 | 651.345 |
| | 7 | 2188+7957 | 39.250 | 651.589 | 651.589 |
| | 8 | 2188+7957 | 31.750 | 651.833 | 651.833 |
| | 9 | 2188+7957 | 24.250 | 652.077 | 652.077 |
| | 10 | 2188+7957 | 16.750 | 652.321 | 652.321 |
| | 11 | 2188+7957 | 9.250 | 652.565 | 652.565 |
| | 12 | 2188+7957 | 1.750 | 652.809 | 652.809 |
| 13 | 2188+7957 | 76.750 | 652.651 | 652.651 | |

| Location | Beam | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|------------------|-----------|-----------|---------|------------------------------|--|
| d. Brg. W. Abut. | 1 | 2188+8004 | 82.628 | 650.147 | 650.147 |
| | J1.1 | 2188+7807 | 78.674 | 650.285 | 650.285 |
| | 2 | 2188+7821 | 75.854 | 650.385 | 650.385 |
| | 3 | 2188+7876 | 68.813 | 650.623 | 650.623 |
| | 4 | 2188+7971 | 61.604 | 650.871 | 650.871 |
| | 5 | 2188+8000 | 54.394 | 651.117 | 651.117 |
| | 6 | 2188+8000 | 47.185 | 651.364 | 651.364 |
| | J1.2 | 2188+8092 | 43.000 | 651.507 | 651.507 |
| | 7 | 2188+8092 | 39.979 | 651.610 | 651.610 |
| | 8 | 2188+8092 | 36.979 | 651.714 | 651.714 |
| | J1.3 | 2188+8092 | 33.000 | 651.817 | 651.817 |
| | 9 | 2188+8092 | 29.979 | 651.921 | 651.921 |
| 10 | 2188+8092 | 26.979 | 652.024 | 652.024 | |
| 11 | 2188+8092 | 23.979 | 652.128 | 652.128 | |
| 12 | 2188+8092 | 20.979 | 652.231 | 652.231 | |
| J1.4 | 2188+8092 | 17.000 | 652.335 | 652.335 | |
| 13 | 2188+8092 | 14.000 | 652.438 | 652.438 | |

| Location | Beam | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|----------|-----------|-----------|---------|------------------------------|--|
| C | 1 | 2188+8076 | 82.900 | 650.045 | 650.108 |
| | J1.1 | 2188+8076 | 78.884 | 650.249 | 650.312 |
| | 2 | 2188+8120 | 75.854 | 650.354 | 650.417 |
| | 3 | 2188+8174 | 68.813 | 650.590 | 650.653 |
| | 4 | 2188+8217 | 61.604 | 650.844 | 650.907 |
| | 5 | 2188+8259 | 54.394 | 651.098 | 651.161 |
| | 6 | 2188+8300 | 47.185 | 651.352 | 651.415 |
| | J1.2 | 2188+8300 | 43.000 | 651.505 | 651.568 |
| | 7 | 2188+8300 | 39.979 | 651.658 | 651.721 |
| | 8 | 2188+8300 | 36.979 | 651.811 | 651.874 |
| | J1.3 | 2188+8300 | 33.000 | 651.964 | 652.027 |
| | 9 | 2188+8300 | 29.979 | 652.117 | 652.180 |
| 10 | 2188+8300 | 26.979 | 652.270 | 652.333 | |
| 11 | 2188+8300 | 23.979 | 652.423 | 652.486 | |
| 12 | 2188+8300 | 20.979 | 652.576 | 652.639 | |
| J1.4 | 2188+8300 | 17.000 | 652.729 | 652.792 | |
| 13 | 2188+8300 | 14.000 | 652.882 | 652.945 | |
| D | 1 | 2188+8300 | 82.102 | 650.072 | 650.135 |
| | J1.1 | 2188+8300 | 79.093 | 650.211 | 650.274 |
| | 2 | 2188+8300 | 76.084 | 650.350 | 650.413 |
| | 3 | 2188+8300 | 73.075 | 650.489 | 650.552 |
| | 4 | 2188+8300 | 70.066 | 650.628 | 650.691 |
| | 5 | 2188+8300 | 67.057 | 650.767 | 650.830 |
| | 6 | 2188+8300 | 64.048 | 650.906 | 650.969 |
| | 7 | 2188+8300 | 61.039 | 651.045 | 651.108 |
| | 8 | 2188+8300 | 58.030 | 651.184 | 651.247 |
| | J1.2 | 2188+8300 | 55.021 | 651.323 | 651.386 |
| | 9 | 2188+8300 | 52.012 | 651.462 | 651.525 |
| | 10 | 2188+8300 | 49.003 | 651.601 | 651.664 |
| 11 | 2188+8300 | 46.000 | 651.740 | 651.803 | |
| 12 | 2188+8300 | 43.000 | 651.879 | 651.942 | |
| 13 | 2188+8300 | 40.000 | 652.018 | 652.081 | |
| E | 1 | 2188+8300 | 37.000 | 652.157 | 652.220 |
| | J1.1 | 2188+8300 | 34.000 | 652.296 | 652.359 |
| | 2 | 2188+8300 | 31.000 | 652.435 | 652.498 |
| | 3 | 2188+8300 | 28.000 | 652.574 | 652.637 |
| | 4 | 2188+8300 | 25.000 | 652.713 | 652.776 |
| | 5 | 2188+8300 | 22.000 | 652.852 | 652.915 |
| | 6 | 2188+8300 | 19.000 | 652.991 | 653.054 |
| | J1.2 | 2188+8300 | 16.000 | 653.130 | 653.193 |
| | 7 | 2188+8300 | 13.000 | 653.269 | 653.332 |
| | 8 | 2188+8300 | 10.000 | 653.408 | 653.471 |
| | 9 | 2188+8300 | 7.000 | 653.547 | 653.610 |
| | 10 | 2188+8300 | 4.000 | 653.686 | 653.749 |
| 11 | 2188+8300 | 1.000 | 653.825 | 653.888 | |
| 12 | 2188+8300 | 0.000 | 653.964 | 654.027 | |
| 13 | 2188+8300 | 0.000 | 654.103 | 654.166 | |

ELEVATIONS

FA.RTE.405-SEC.195-218-3
 WHITESIDE COUNTY
 STATION 2188+88.04



| | |
|--------------------------|----------|
| DESIGNED C.D.C. | EXAMINED |
| CHECKED N.M.W. | PASSED |
| DRAWN P.G. BIRN & C.D.C. | APPROVED |
| CHECKED L.M.W. | |

E-5 8-1-65

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

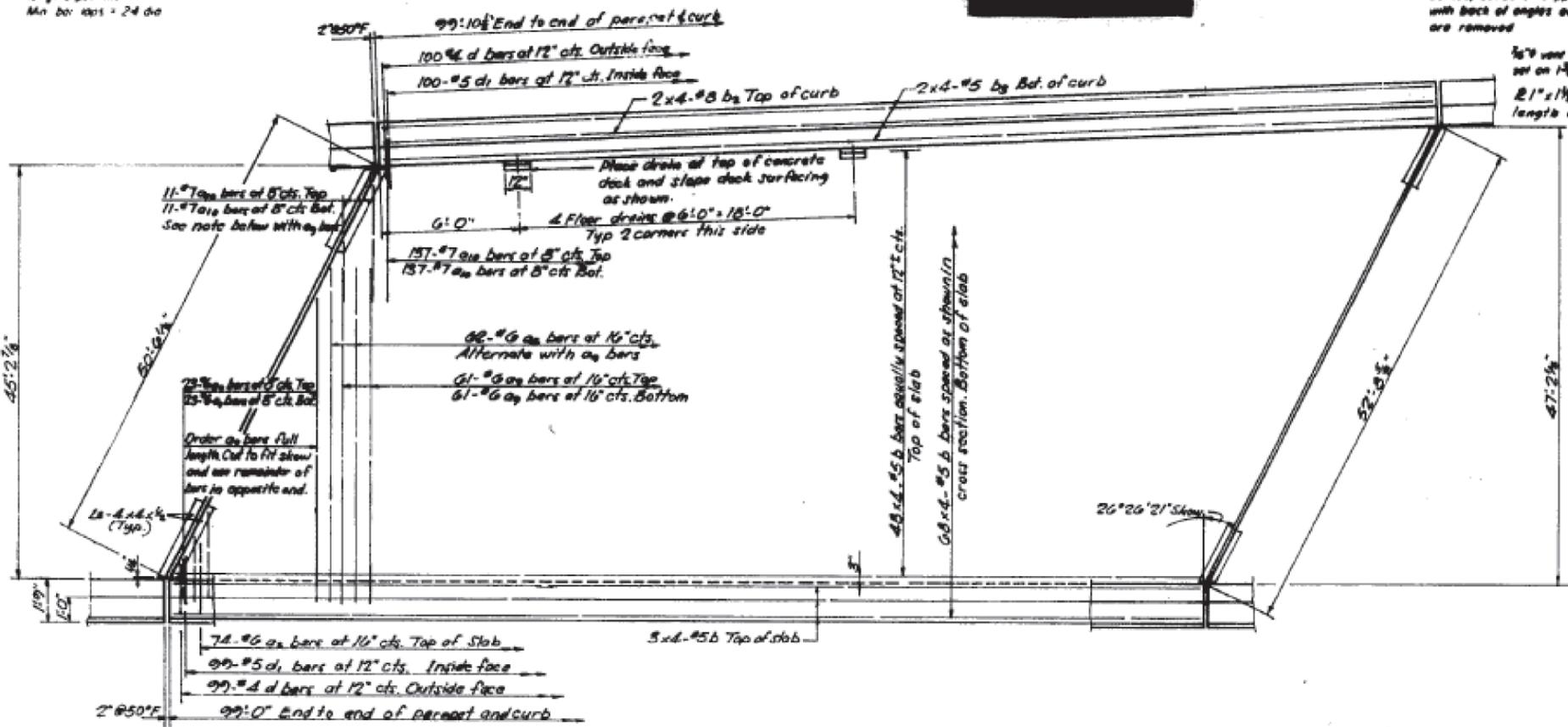
EXISTING
 BRIDGE PLANS

| | | | | |
|-------------|---------------------------|-----------|--------------------|-----------|
| F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 8 |
| | | | CONTRACT NO. 64K12 | |

NOTE
 Bars indicated thus 20 x 3 #5 etc
 indicates 20 nos. of bars with 3
 lengths per wt.
 Min. bar laps = 24 dia

STATE OF ILLINOIS

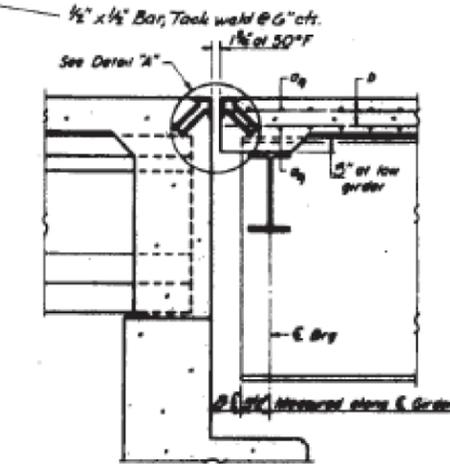
| | | | | |
|-------------|---------|-----------|--------------|-----------|
| PROJECT NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 403 | MS-2 | WHITESIDE | 486 | 187 |
| | | | | 21 SHEETS |



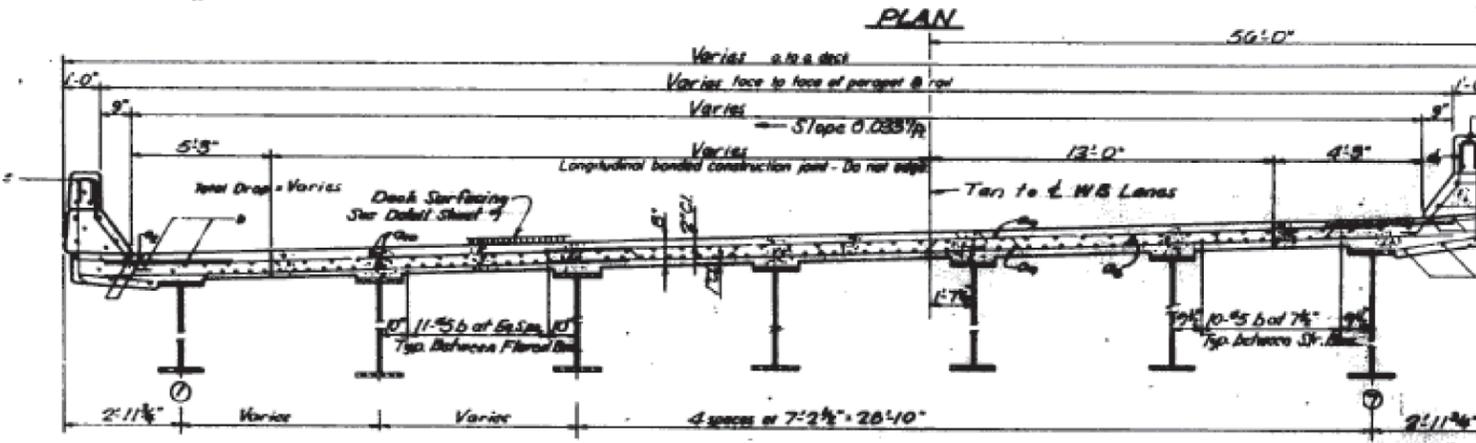
1/2" holes at 12" cts for 3/4" bars set on 20" gage line. All bars shall be burned, ground or clipped off flush with back of angles after forms are removed.

1/2" x 1/2" Full length of angle
 1/2" x 1/2" Bar, Tank weld @ 6" cts.
 1/4" at 50°F

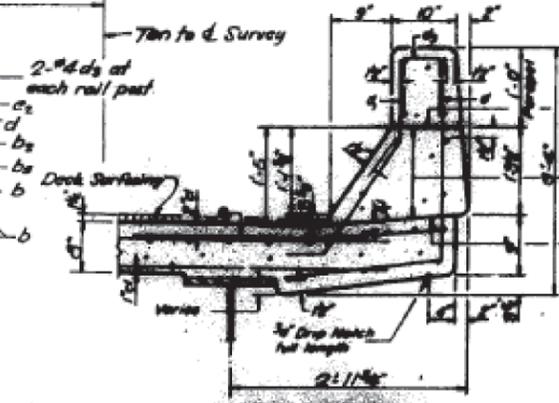
DETAIL 'A'



SECTION A-A



NOTE: For placement of bars d, and e and e, see sheet #11.



CROSS SECTION Looking East

BILL OF MATERIAL

| Bar | No. | Size | Length | Weight |
|--------------------|-----|------|--------|--------------|
| a | 22 | #6 | 22'-0" | 110 |
| b | 100 | #6 | 22'-0" | 500 |
| c | 148 | #4 | 4'-0" | 148 |
| d | 246 | #7 | 18'-5" | 1230 |
| e | 486 | #4 | 25'-8" | 1944 |
| f | 16 | #4 | 24'-5" | 64 |
| g | 16 | #4 | 25'-8" | 64 |
| h | 100 | #4 | 2'-6" | 400 |
| i | 140 | #4 | 1'-5" | 560 |
| Reinforcement Bars | | | | Lbs 3900 |
| Class II Concrete | | | | Cu Yds 720-8 |

| | |
|----------|--------|
| DESIGNED | C.D.C. |
| CHECKED | H.M.W. |
| DRAWN | C.D.C. |
| CHECKED | H.M.W. |

5-586-L-307 4-22-68, 4-2-69

SUPERSTRUCTURE N.B. BRIDGE

F.A. RTE. 405-SEC. MS-2NB-3
 WHITESIDE COUNTY
 STATION 2188+00.04

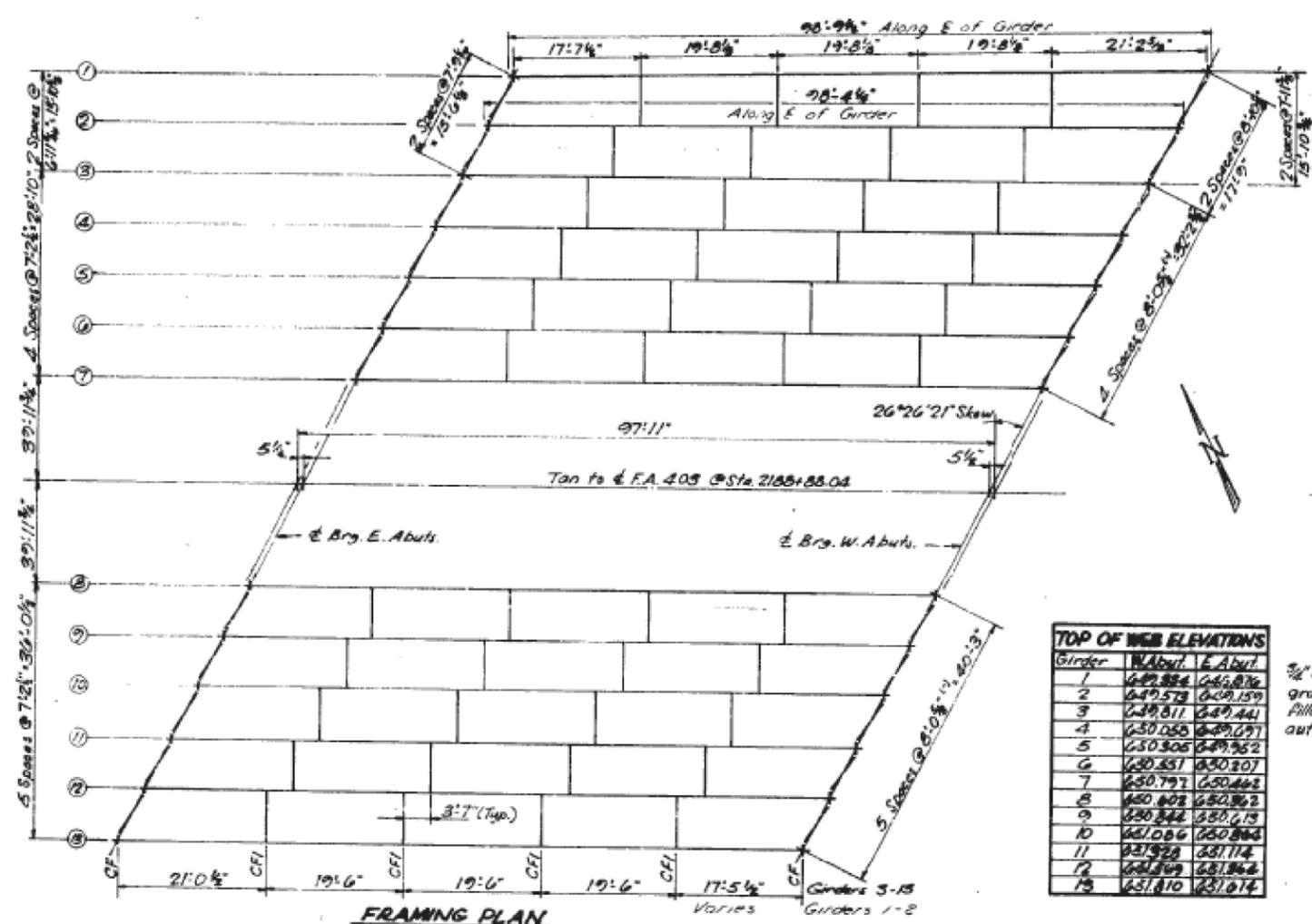
| | | | |
|----------|---|---------|---|
| DESIGNED | - | REVISED | - |
| DRAWN | - | REVISED | - |
| CHECKED | - | REVISED | - |
| DATE | - | REVISED | - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING
 BRIDGE PLANS

| | | | | |
|-----------|---------------------------|-----------|--------------|--------------------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 10 |
| | | | | CONTRACT NO. 64K12 |

ILLINOIS

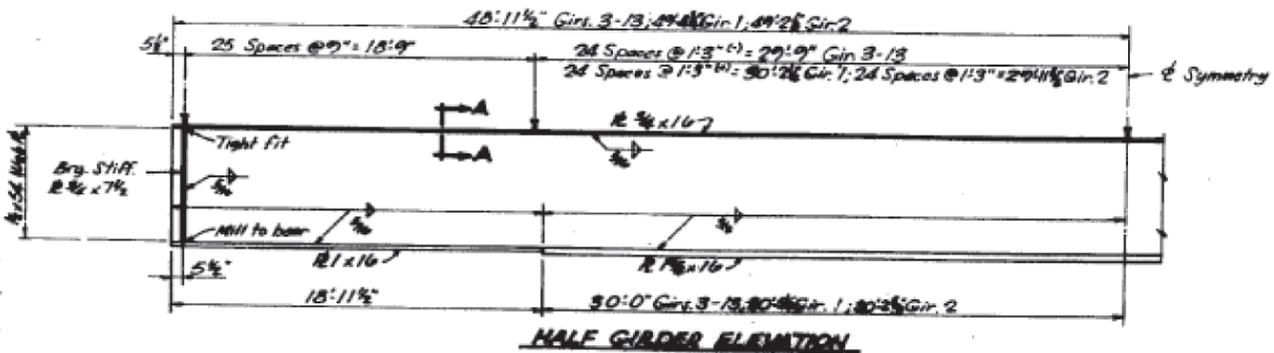
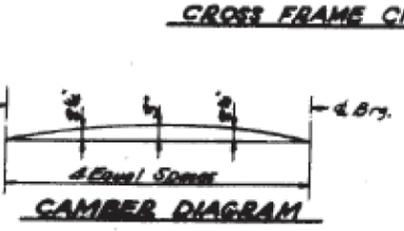
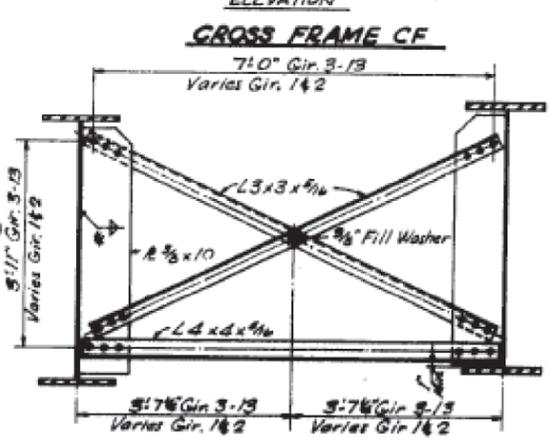
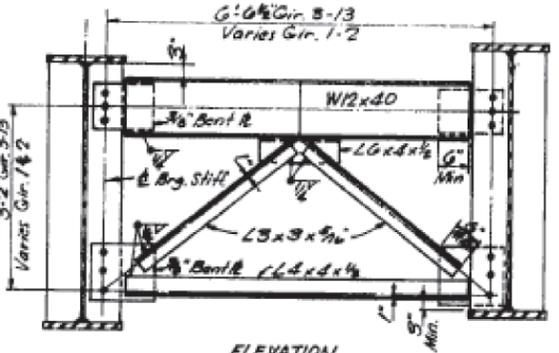
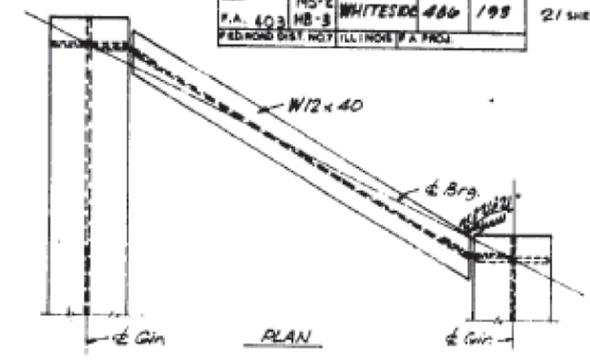
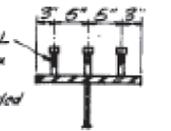


| Member | End | Moment (k-ft) |
|--------|-----|---------------|
| 1-2 | 1 | 24.389 |
| 1-2 | 2 | 1.857 |
| 2-3 | 2 | 1.078 |
| 2-3 | 3 | 13.42 |
| 3-4 | 3 | 4.37 |
| 3-4 | 4 | 22.384 |
| 4-5 | 4 | 1.928 |
| 4-5 | 5 | 0.452 |
| 5-6 | 5 | 5.92 |
| 5-6 | 6 | 3.31 |
| 6-7 | 6 | 90.249 |
| 6-7 | 7 | 2.117 |
| 7-8 | 7 | 9.77 |
| 7-8 | 8 | 2.20 |
| 8-9 | 8 | 1.97 |
| 8-9 | 9 | 6.79 |
| 9-10 | 9 | 19.67 |
| 9-10 | 10 | 5.91 |

| Reaction | Abut. |
|-------------|-------|
| Rea. (k) | 72.7 |
| Rea. (k) | 48.2 |
| Imp. (k) | 10.9 |
| R TOTAL (k) | 131.8 |

| Girder | W. Abut. | E. Abut. |
|--------|----------|----------|
| 1 | 649.884 | 646.876 |
| 2 | 649.573 | 649.159 |
| 3 | 649.811 | 649.441 |
| 4 | 650.058 | 649.727 |
| 5 | 650.305 | 649.962 |
| 6 | 650.551 | 650.207 |
| 7 | 650.797 | 650.442 |
| 8 | 650.602 | 650.262 |
| 9 | 650.342 | 650.013 |
| 10 | 650.066 | 650.003 |
| 11 | 649.928 | 649.714 |
| 12 | 649.869 | 649.462 |
| 13 | 649.810 | 649.214 |

3/4" x 4" CR 1020 STL
granular or solid flux
filled headed studs
automatically and welded



| | | | |
|----------|--------|----------|--|
| DESIGNED | A.K.C. | EXAMINED | |
| CHECKED | H.M.N. | PASSED | |
| DRAWN | C.D.C. | APPROVED | |
| CHECKED | H.M.N. | | |

STRUCTURAL STEEL
F.A. RTE. 403-SEC. 195-2 HB-3
WHITESIDE COUNTY
STATION 2188+88.04

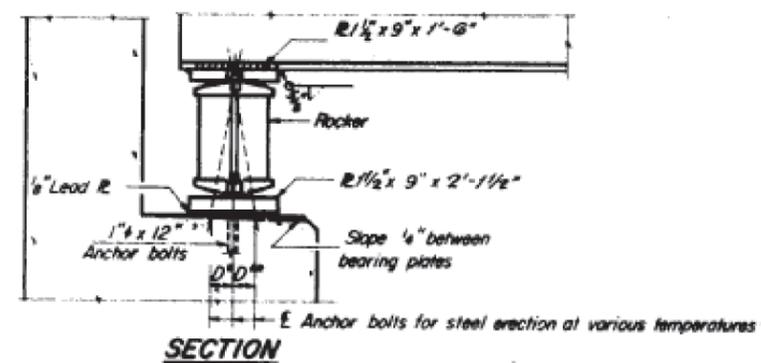
| | | | |
|----------|---|---------|---|
| DESIGNED | - | REVISED | - |
| DRAWN | - | REVISED | - |
| CHECKED | - | REVISED | - |
| DATE | - | REVISED | - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

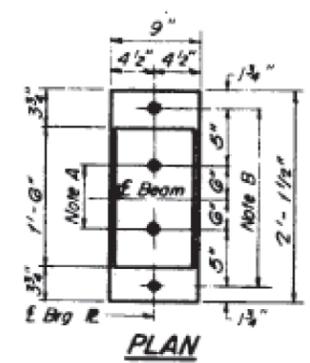
EXISTING
BRIDGE PLANS

| | | | | |
|-----------|---------------------------|-----------|--------------------|-----------|
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 11 |
| | | | CONTRACT NO. 64K12 | |

| | | | | |
|------------|-----------|--------|--------------|-----------|
| DESIGN NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 15-2 | WHITESIDE | 88 | 104 | 21 |
| 403 | NS-3 | | | |

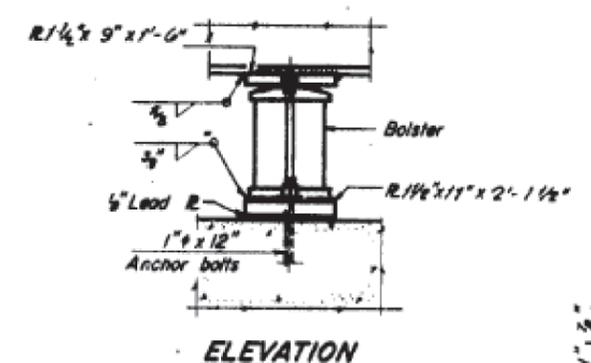


SECTION

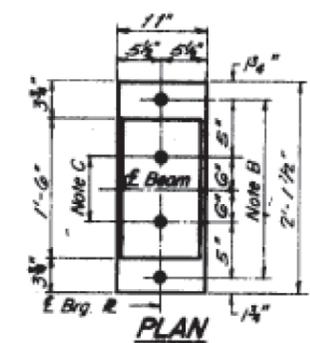


PLAN
AT E. ABUTMENT

NOTE A
1 1/2" Holes - 1" deep in top R. for pintles Thread or press fit pintles into bottom R.



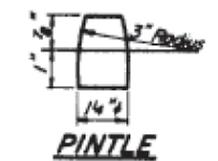
ELEVATION



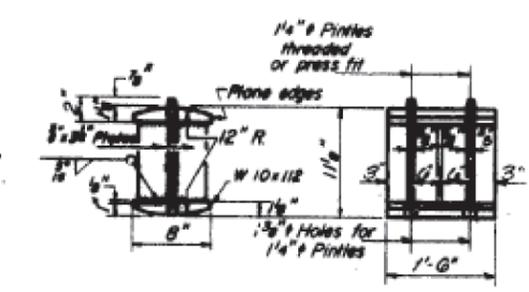
PLAN
AT W. ABUTMENT

NOTE B
1 1/2" Holes for 1" anchor bolts. 1/2 x 2 1/2 x 2 1/2 R. Washers under nut

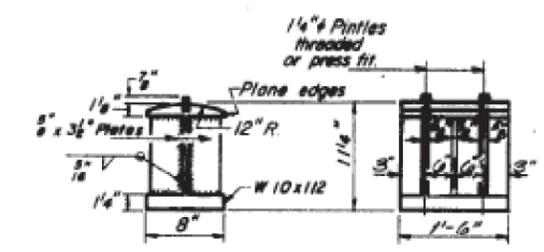
NOTE C
1 1/2" Holes 1" deep in top R. only for 1 1/4" pintles.



PINTLE



ROCKER



BOLSTER

BEARING ASSEMBLY DETAILS

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg away from fixed brg)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp of 50°F
- D** (Side of brg toward fixed brg)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp of 50°F
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

| | | | |
|----------|-----------------------|----------|--|
| DESIGNED | H.M.W. | EXAMINED | |
| CHECKED | C.D.C. | PASSED | |
| DRAWN | P.G. Barnett & C.D.C. | APPROVED | |
| CHECKED | H.M.W. | | |

I-2-B 9-1-65, 8-1-70

SHOES
F.A. RTE. 403 SEC. 105-2 NB-3
WHITESIDE COUNTY
STATION 2188+88.04

| | | | | | | | | |
|------------|-------------|---|--------------------------|--------------------|---------------------------|-----------|--------------|-----------|
| DESIGNED - | REVISIONS - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EXISTING BRIDGE PLANS | F.A.I. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| DRAWN - | REVISIONS - | | | 88 | D2 BRIDGE PAINTING 2014-5 | WHITESIDE | 12 | 12 |
| CHECKED - | REVISIONS - | | | CONTRACT NO. 64K12 | | | | |
| DATE - | REVISIONS - | | | ILLINOIS | | | | |