

PROJECT	DESIGNATION
ST-9945 (00V)	0300924
CONTRACT	BRIDGE FILE
B-27416	152-45-1031G

INDEX				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
152-45-1031G	STEEL TRUSS & PRESTR. CONC. I-BEAM	SPANS K THRU P SKEW 19°25' RIGHT	INDIANA HARBOR BELT RAILROAD (GIBSON YARD)	
SHEET NO.	SUBJECT			
1	TITLE SHEET			
2	GENERAL PLAN			
3	PORTAL FRAME P1			
4	SWAY FRAME F3			
5	SWAY FRAME F5			
6	SWAY FRAME F6			
7	VERTICALS FOR SPAN "K" - WEST DELETED			
8	VERTICALS FOR SPAN "K" - EAST DELETED			
9	MISCELLANEOUS DETAILS - PIER NO. 10 & BENT NO. 14			
7A	VERTICALS FOR SPAN "K" - WEST			
8A	VERTICALS FOR SPAN "K" - EAST			

INDIANA
DEPARTMENT OF
TRANSPORTATION

BRIDGE PLANS
FOR SPANS OVER 20 FEET
ON

S.R. 152

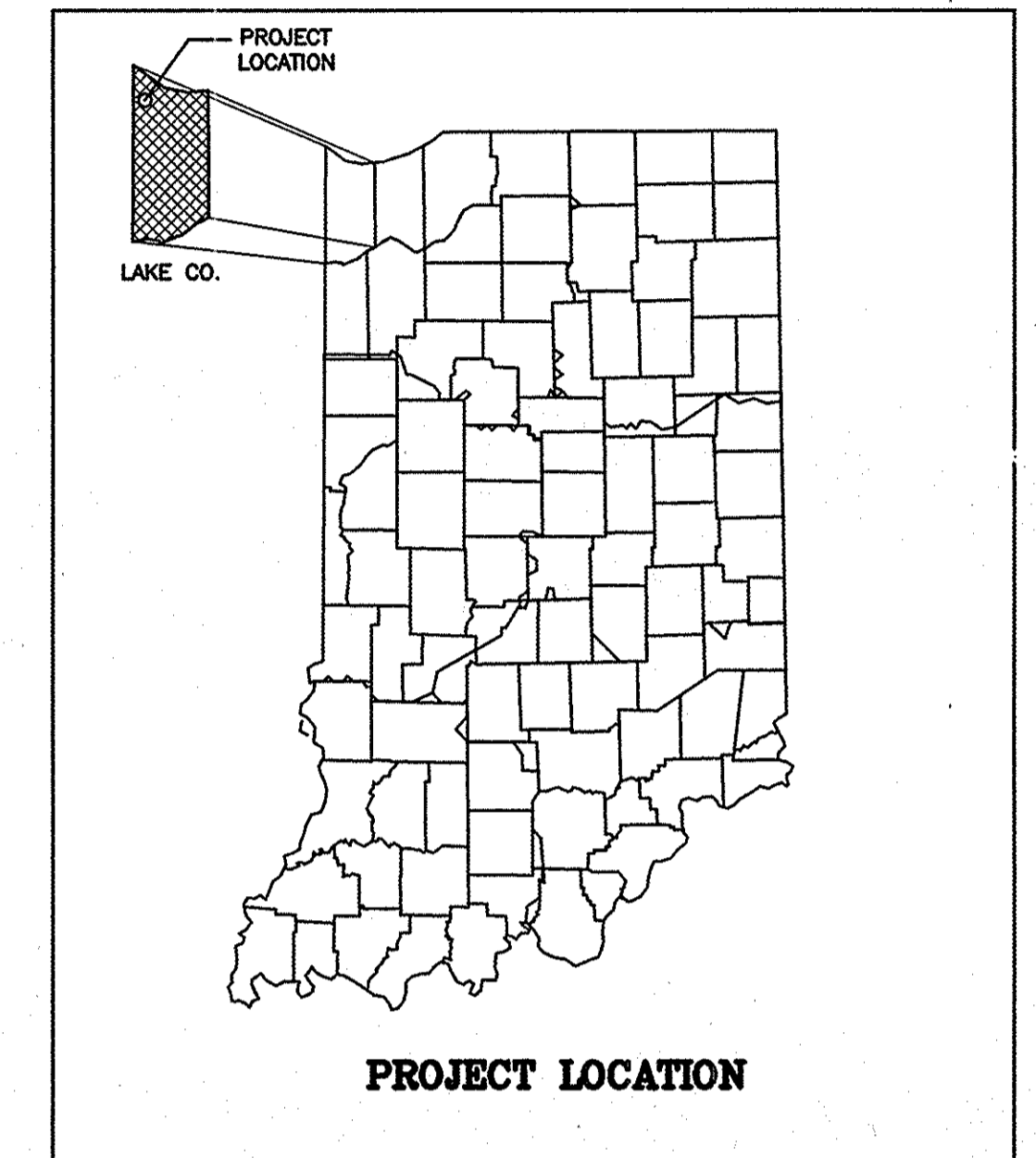
OVER IHB RAILROAD

PROJECT NO. ST-9945 (00V) P.E.
(00V) R/W
CONST.
UTIL.

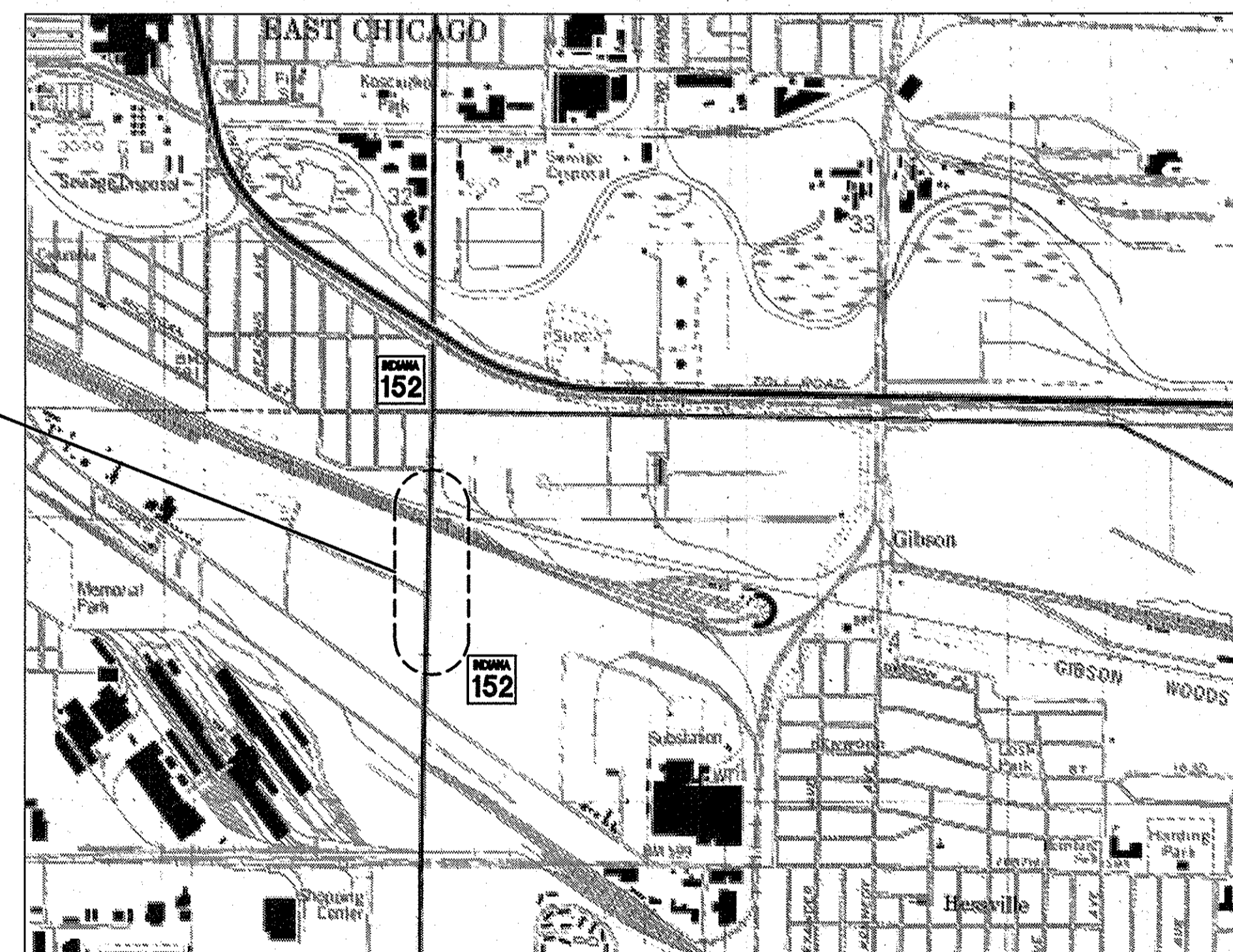
REFERENCE PT.: 2 + 18

TRUSS AND SUBSTRUCTURE REPAIRS TO STRUCTURE 152-45-1031F ON S.R. 152 OVER IHB RAILROAD, APPROX. 84 FT. NORTH OF ϵ PAVEMENT SUMMER ST. AND EXTENDING NORTH APPROX. 3375 FT., ALL IN LAKE COUNTY

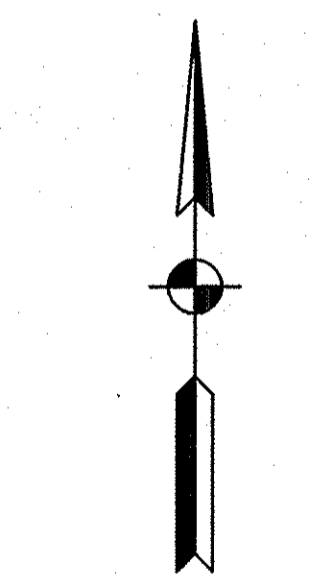
TRAFFIC DATA	
A.A.D.T. 2000	V.P.D.
A.A.D.T.	V.P.D.
D.H.V.	%
DIRECTIONAL DISTRIBUTION	%
TRUCKS	% D.H.V.
ESAL	% A.A.D.T.
DESIGN DATA	
DESIGN SPEED	35 M.P.H.
PROJECT DESIGN CRITERIA	
FUNCTIONAL CLASSIFICATION	
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LENGTH	
BRIDGE LENGTH :	0.34 MI.
ROADWAY LENGTH :	MI.
TOTAL LENGTH :	0.34 MI.
MAX. GRADE :	5.0 %



BRIDGE REHABILITATION TO STR. 152-45-1031F



SCALE: 1:24000

APPROX. 2 MI TO I-80

LAKE COUNTY

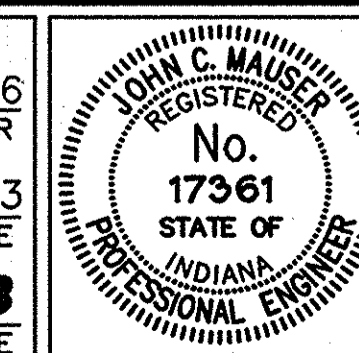
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 1999
TO BE USED WITH THESE PLANS

JSE
JANSSEN & SPAANS ENGINEERING
9155 HARRISON PARK COURT
INDIANAPOLIS, INDIANA 46216
Business (317) 254-9686 Fax (317) 259-8262

REVISIONS	
DATE	SHEET NO.
12-03-03	DELETED SHEETS 7 & 8. ADDED SHEETS 7A & 8A.

FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPT. OF TRANSPORTATION
APPROVED: _____
DATE _____
DIVISION ADMINISTRATOR

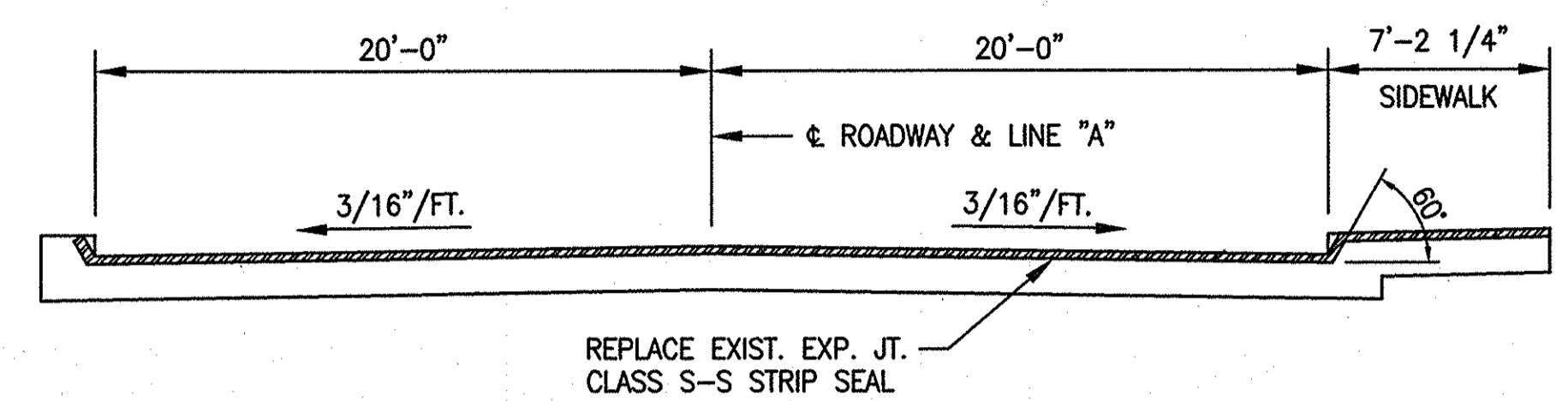
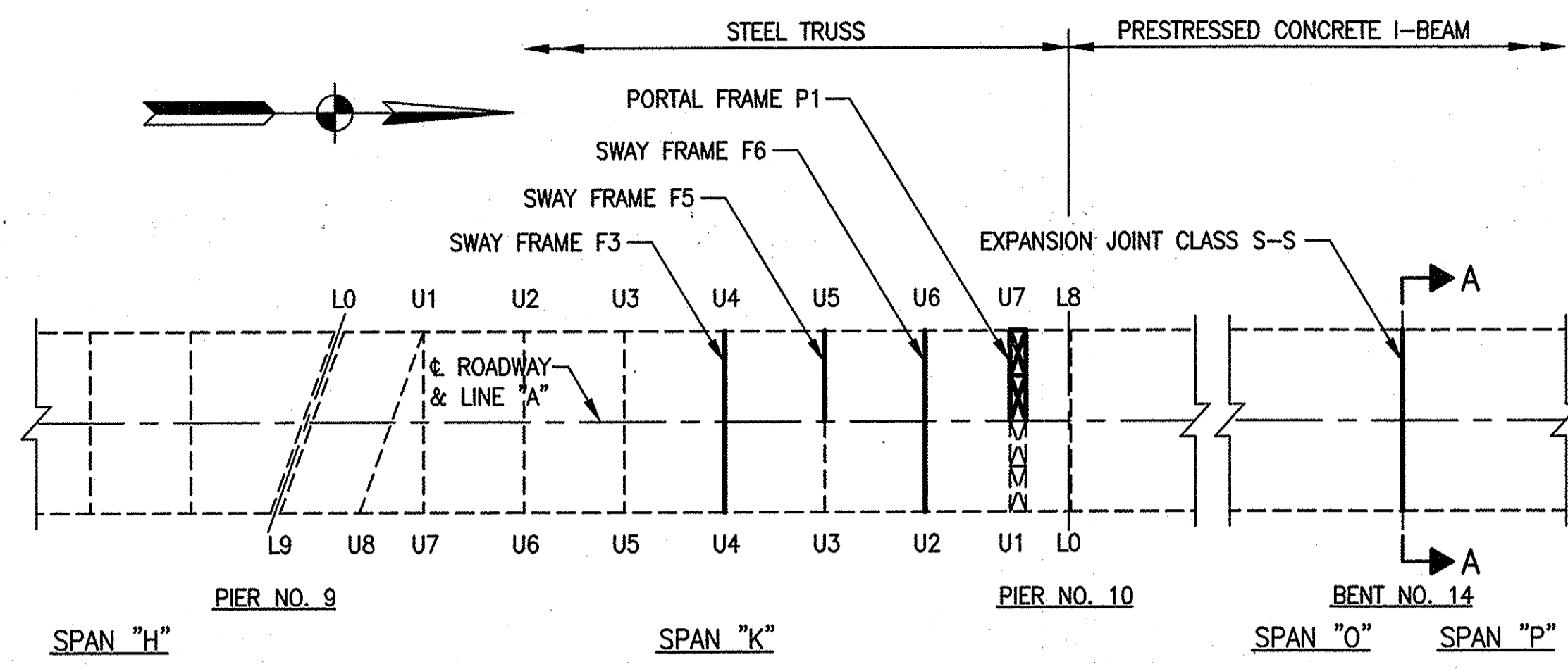
PLANS PREPARED BY: JANSSEN & SPAANS ENGINEERING, INC. (317) 254-9686
PHONE NUMBER
CERTIFIED BY: *John C. Mauser* 11/17/2003
DATE
APPROVED: *John C. Mauser, P.E.*
FOR LETTING: *John C. Mauser* 11/18/03
DATE
CHIEF, DIVISION OF DESIGN



BRIDGE FILE	152-45-1031G
DESIGNATION	0300924
SHEETS	1 of 9
CONTRACT	B-27416
PROJECT	ST-9945 (00V)

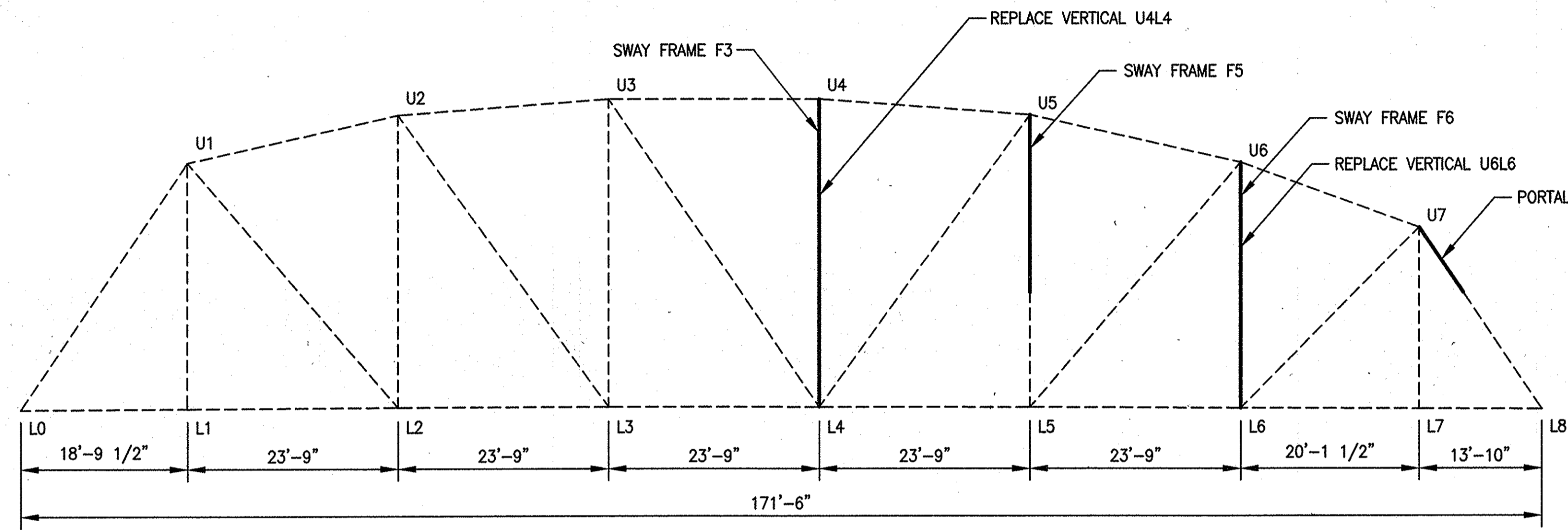
B.27416

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Date: 11/17/2003
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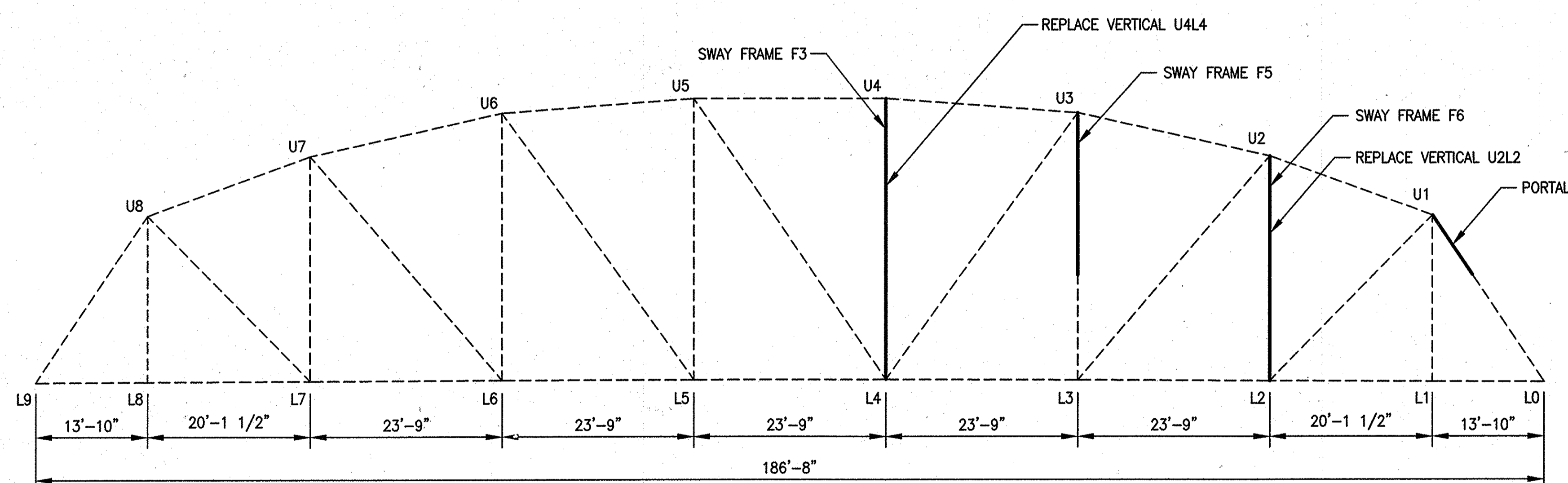


PLAN LOCATION KEY
SPAN "K"
NO SCALE

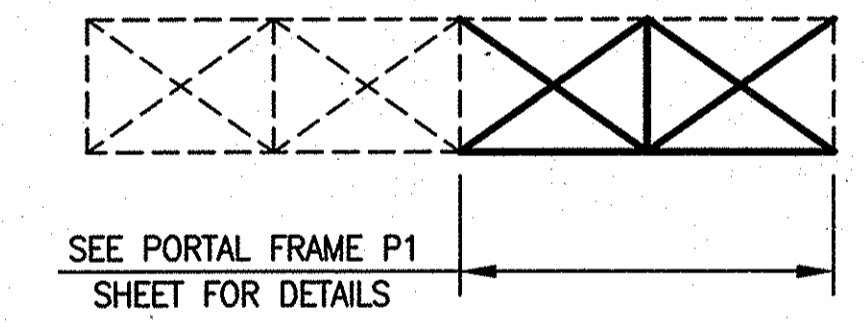
SECTION "A-A"
NO SCALE



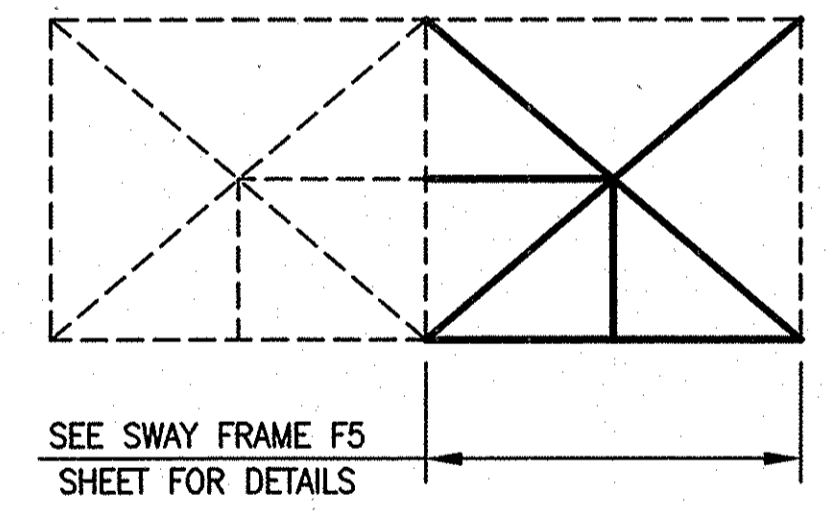
INSIDE ELEVATION OF WEST TRUSS
SPAN "K" (LOOKING WEST)
SCALE: 3/32" = 1'-0"



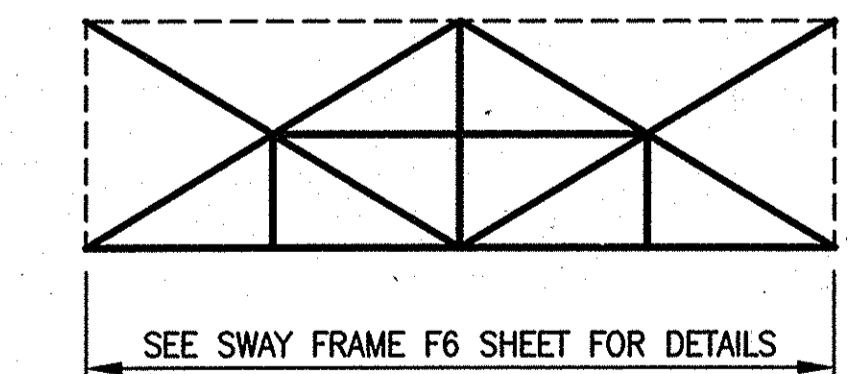
OUTSIDE ELEVATION OF EAST TRUSS
SPAN "K" (LOOKING WEST)
SCALE: 3/32" = 1'-0"



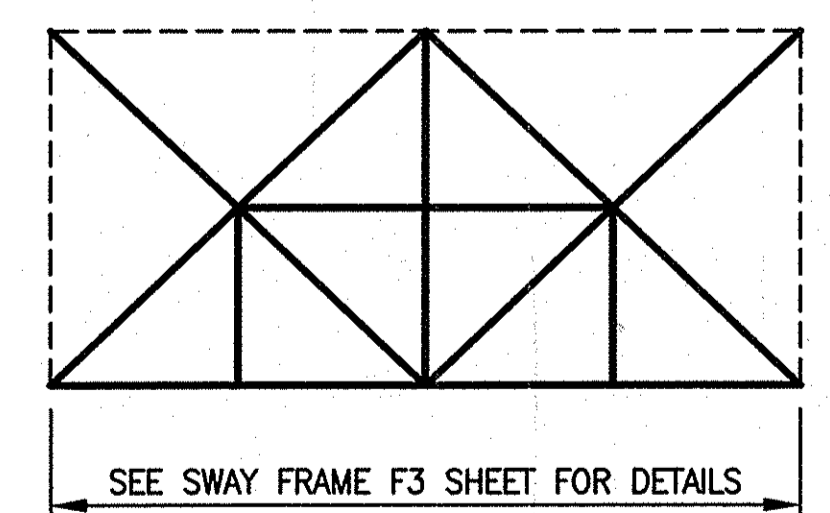
PARTIAL PORTAL FRAME P1 REPLACEMENT
(LOOKING SOUTH)
NO SCALE



PARTIAL SWAY FRAME F5 REPLACEMENT
(LOOKING SOUTH)
NO SCALE



FULL SWAY FRAME F6 REPLACEMENT
(LOOKING SOUTH)
NO SCALE



FULL SWAY FRAME F3 REPLACEMENT
(LOOKING SOUTH)
NO SCALE

MATERIAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS INCLUDING CURRENT SUPPLEMENTAL SPECIFICATIONS.
2. ALL STRUCTURAL STEEL TO BE ASTM A709 GRADE 36 OR 50. CHARPY V-NOTCH TESTS WILL NOT BE REQUIRED.
3. BOLTS SHALL BE 7/8 INCH DIAMETER HIGH STRENGTH CONFORMING TO ASTM A325 UNLESS NOTED. OPEN HOLES FOR NEW BOLTS SHALL BE 1/16 INCH LARGER THAN THE NOMINAL BOLT SIZE. SHORT SLOTTED HOLES MAY BE USED TO FACILITATE FIELD ERECTION. FOR FIELD CONNECTIONS HOLES MAY BE SUBPUNCHED AND REAMED OR HOLES MAY BE FIELD DRILLED AT NO ADDITIONAL COST.
4. WELDS SHALL BE E70 ELECTRODES.
5. ALL PAINTING OF NEW STEEL SHALL BE DONE IN THE SHOP. COLOR TO MATCH EXISTING BRIDGE.

GENERAL NOTES

1. THE STRUCTURE IS A FRACTURE CRITICAL BRIDGE. THE CONTRACTOR SHALL CONTINUALLY INSPECT THE CONDITION OF THE WORK AND IMMEDIATELY NOTIFY THE ENGINEER OF ANY UNSAFE OR DANGEROUS CONDITION.
2. EXISTING RIVETS SHALL BE REMOVED WHERE SHOWN AND WHERE THEY WOULD OTHERWISE INTERFERE WITH THE PLACEMENT OF NEW STEEL. RIVETS SHALL BE REMOVED IN SUCH A WAY THAT THERE IS NO DAMAGE TO EXISTING STEEL SURFACES OR HOLES TO BE REUSED.
3. LACING BARS OR STAY PLATES TO REMAIN MAY BE TEMPORARILY REMOVED WHERE NECESSARY TO INSTALL NEW STEEL AND THEN REPLACED TO THE SATISFACTION OF THE ENGINEER. SUCH REMOVALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
4. NO WELDS SHALL BE MADE UNLESS OTHERWISE SHOWN ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT FOR THE TRUSS PRIOR TO REMOVING ANY PORTION OF A MEMBER WHICH MAY BE LOAD BEARING. SEE THE SPECIAL PROVISIONS.
6. THE CONTRACTOR SHALL TAKE ACCURATE MEASUREMENTS TO VERIFY THE FIT OF NEW TRUSS MEMBERS PRIOR TO FABRICATION. SEE THE SPECIAL PROVISIONS.

ESTIMATED WEIGHT OF STRUCTURAL STEEL

ROLLED SHAPES AND PLATES FOR TRUSS REPAIR = 13,960 LBS.
(TOTAL DOES NOT INCLUDE BOLTS)

Title: 1624/28
 Date: 11/17/2003
 Scale: 1/8"=1'-0"
 Drawing File: R:\Draw\16001-488\17A\16-31-03\DRW\ST-9945-00V.dwg (Printed)

STATE ROAD 152 OVER CONRAIL
 STEEL TRUSS AND PRESTRESSED CONC. I-BEAM BRIDGE
 17 TOTAL SPANS WITH ONE 6'-0" SIDEWALK
 & 40'-0" CLEAR ROADWAY SKEW: 19°25' RT.
 IN LAKE COUNTY

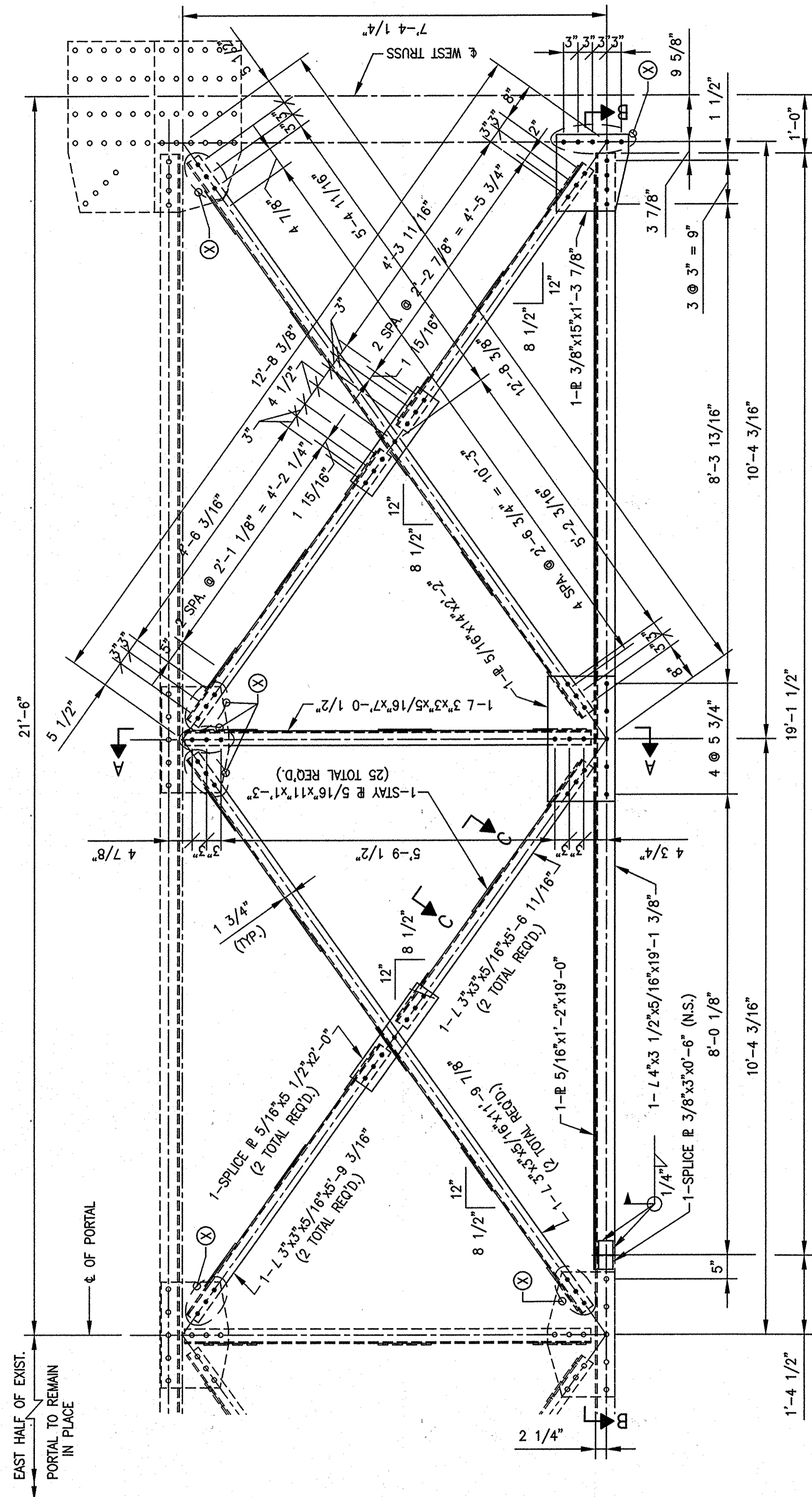


RECOMMENDED FOR APPROVAL	<i>John C. Mauer</i>	11/17/2003
DESIGNED: JCM	DRAWN: DRF	DATE
CHECKED: RCR	CHECKED: JCM	

INDIANA
 DEPARTMENT OF TRANSPORTATION
 EXISTING TRUSS REPAIRS
 GENERAL PLAN

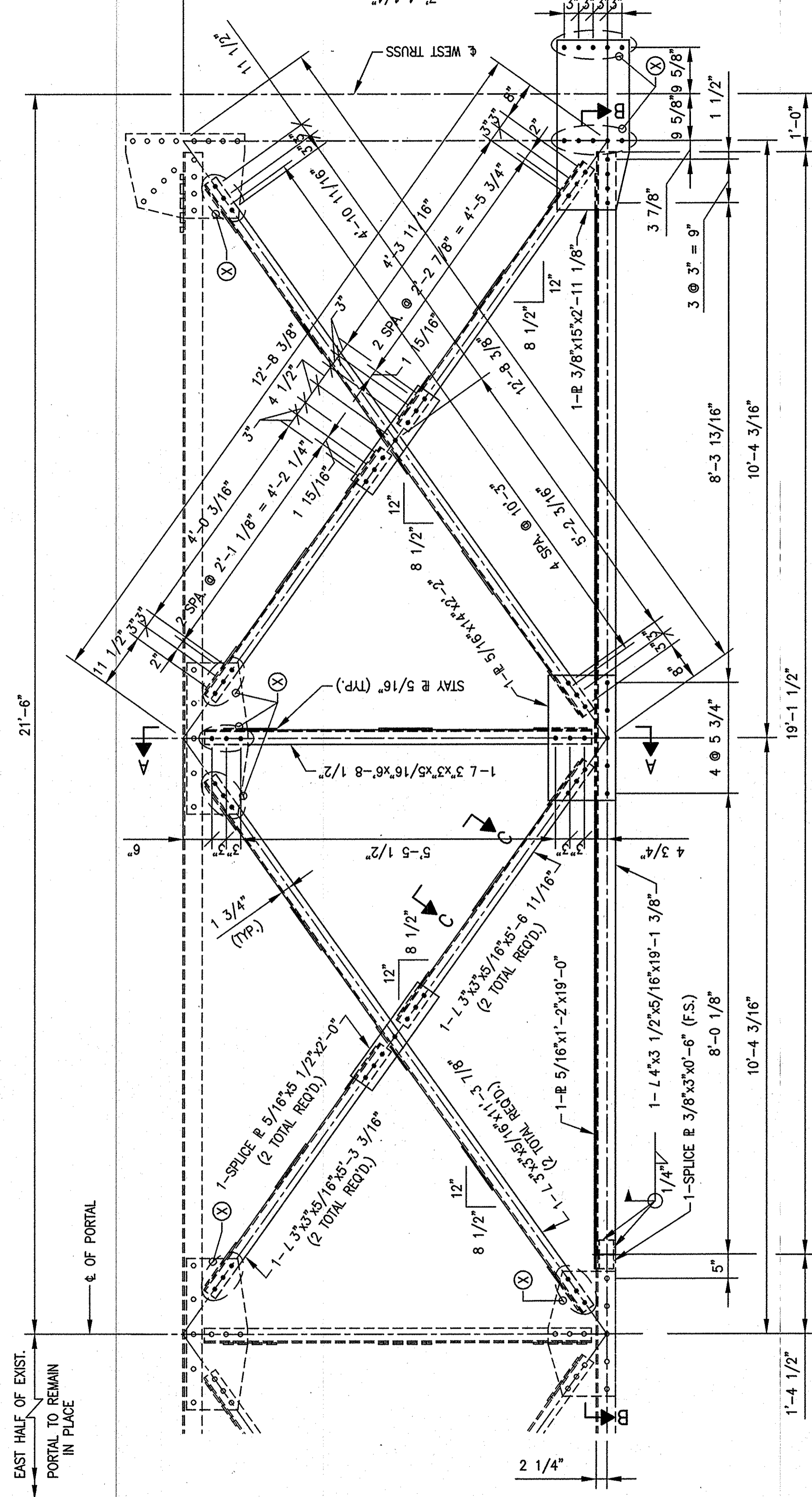
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AS NOTED	152-45-1031G
VERTICAL SCALE	DESIGNATION
AS NOTED	0300924
SURVEY BOOK	SHEETS
	2 of 9
CONTRACT	PROJECT
B27416	ST-9945(00V)

Time: 17:29:2003
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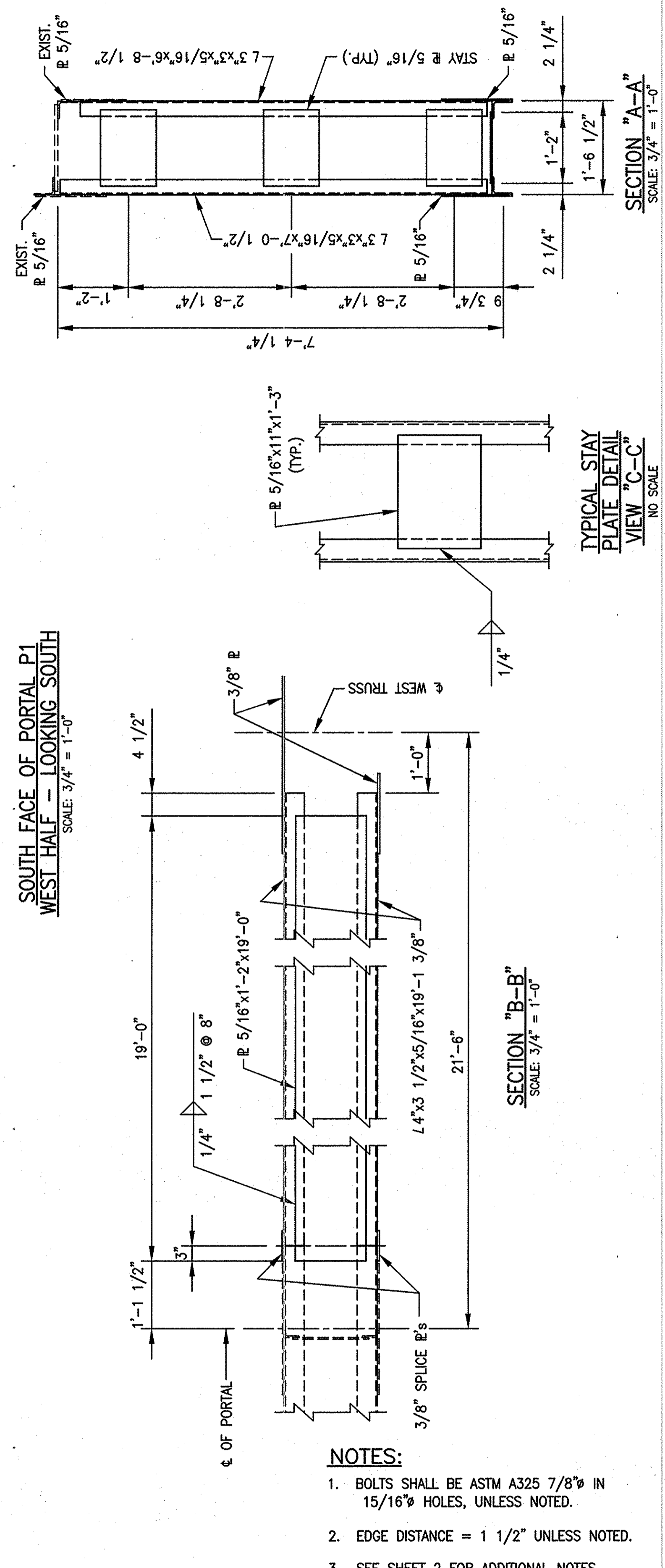


**NORTH FACE OF PORTAL P1
 WEST HALF - LOOKING SOUTH**
 SCALE: 3/4" = 1'-0"

⊗ - REMOVE EXISTING RIVETS
 WHERE INDICATED THIS AND
 INSTALL NEW STEEL USING
 HIGH STRENGTH BOLTS.



**SOUTH FACE OF PORTAL P1
 WEST HALF - LOOKING SOUTH**
 SCALE: 3/4" = 1'-0"



- NOTES:**
1. BOLTS SHALL BE ASTM A325 7/8" IN 15/16" HOLES, UNLESS NOTED.
 2. EDGE DISTANCE = 1 1/2" UNLESS NOTED.
 3. SEE SHEET 2 FOR ADDITIONAL NOTES.

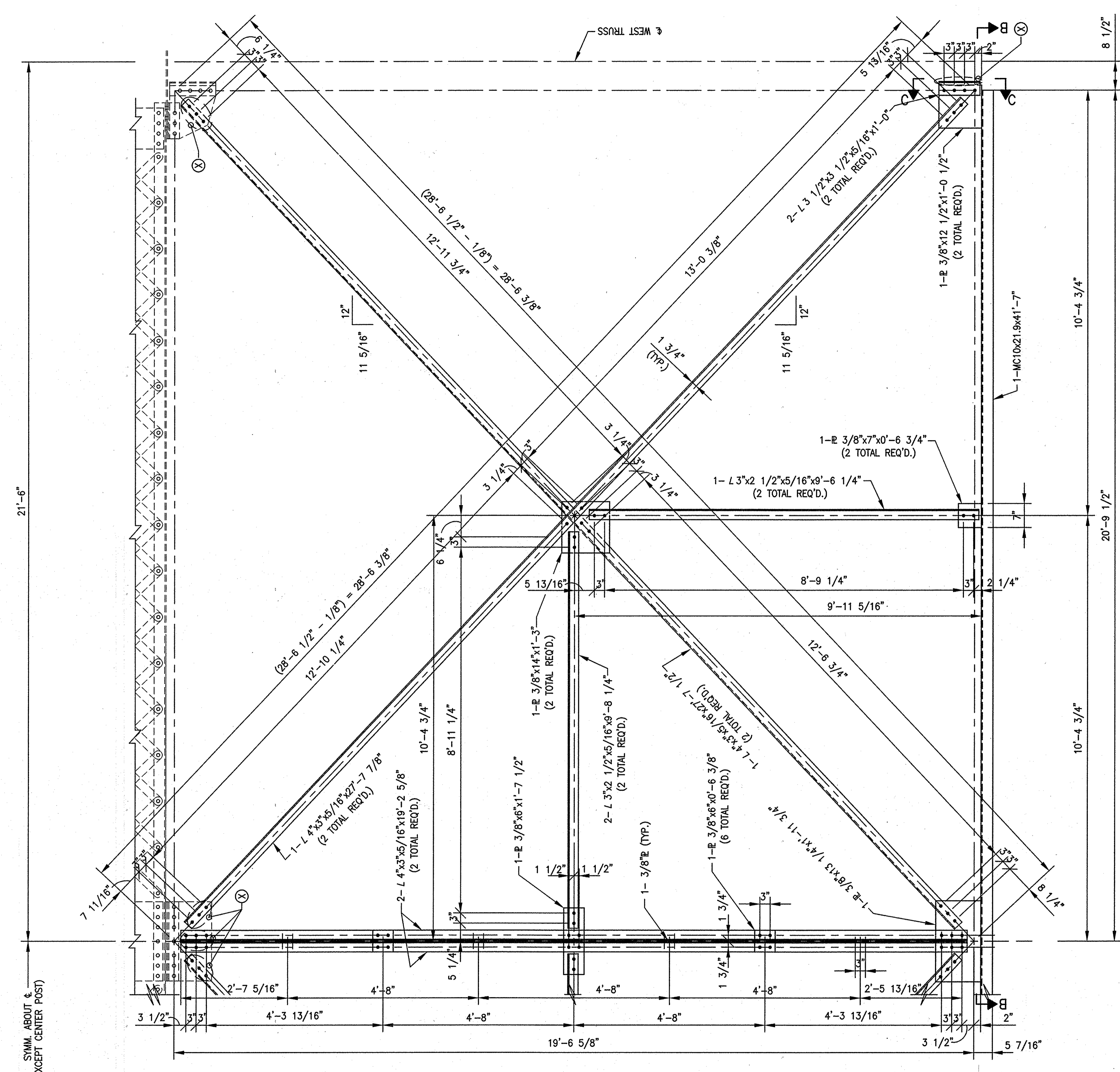


RECOMMENDED FOR APPROVAL *John C. Mauser* 11/17/2003
 DESIGN ENGINEER DATE
 DESIGNED: JCM DRAWN: DRF
 CHECKED: RCR CHECKED: JCM

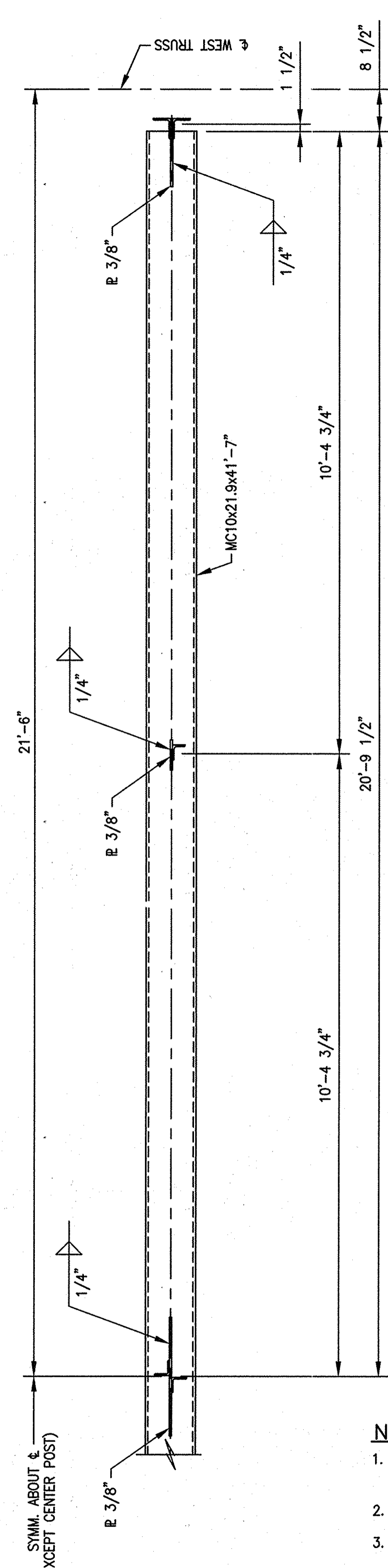
**INDIANA
 DEPARTMENT OF TRANSPORTATION**
 EXISTING TRUSS REPAIRS
 PORTAL FRAME P1

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-1031G
VERTICAL SCALE	DESIGNATION
AS NOTED	0300924
SURVEY BOOK	SHEETS
	3 of 9
CONTRACT	PROJECT
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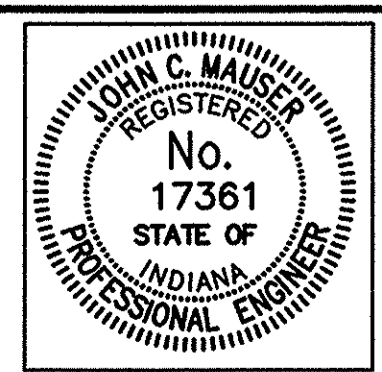
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NORTH FACE OF SWAY FRAME F3
 WEST HALF - LOOKING SOUTH
 SCALE: 3/4" = 1'-0"



- NOTES:**
- BOLTS SHALL BE ASTM A325 7/8" IN 15/16" HOLES, UNLESS NOTED.
 - EDGE DISTANCE = 1 1/2" UNLESS NOTED.
 - SEE SHEET 2 FOR ADDITIONAL NOTES.

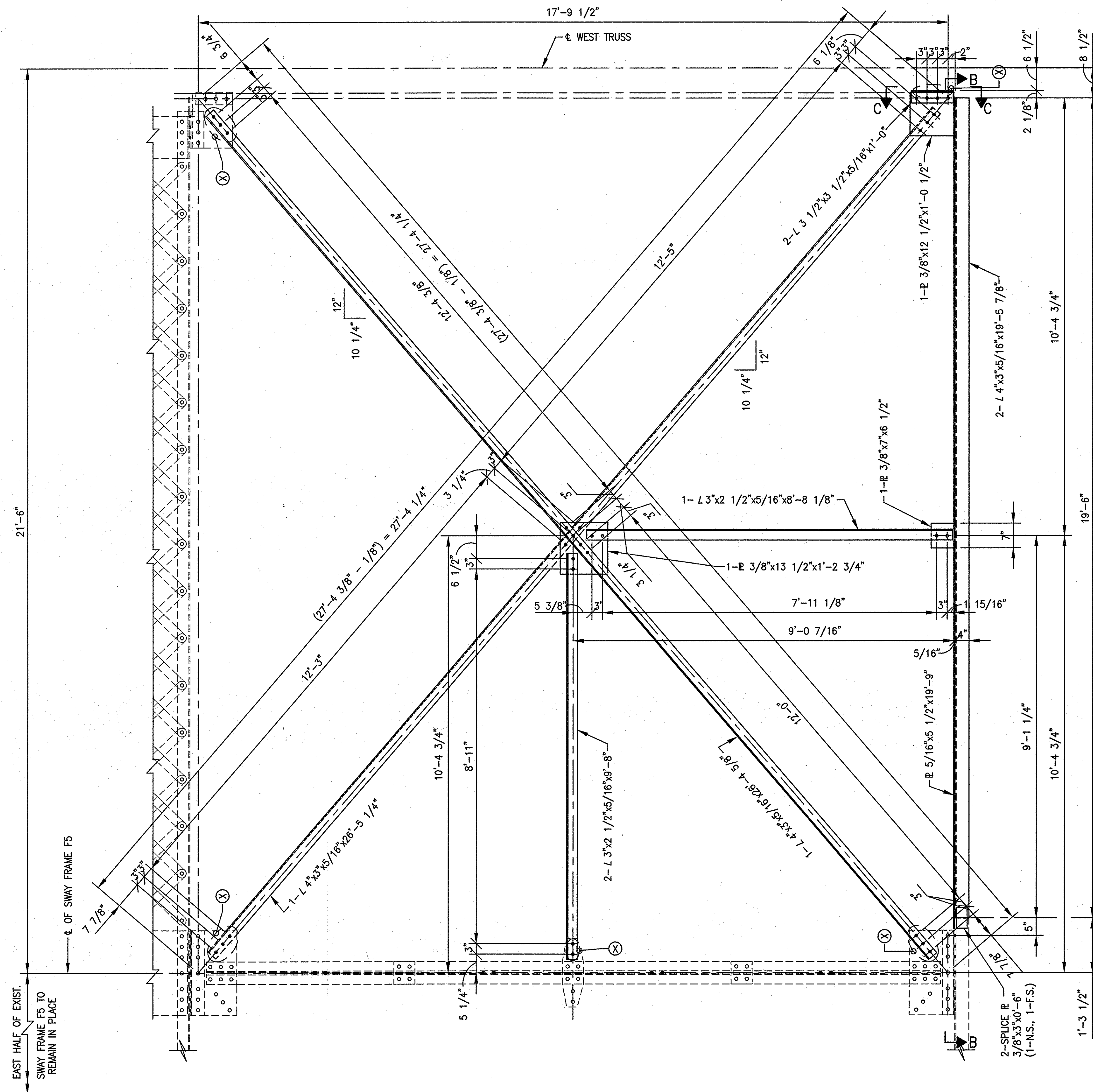


RECOMMENDED FOR APPROVAL *John C. Mauser* 11/17/2003
 DESIGN ENGINEER DATE
 DESIGNED: JCM DRAWN: DRF
 CHECKED: RCR CHECKED: JCM

INDIANA DEPARTMENT OF TRANSPORTATION
 EXISTING TRUSS REPAIRS
 SWAY FRAME F3

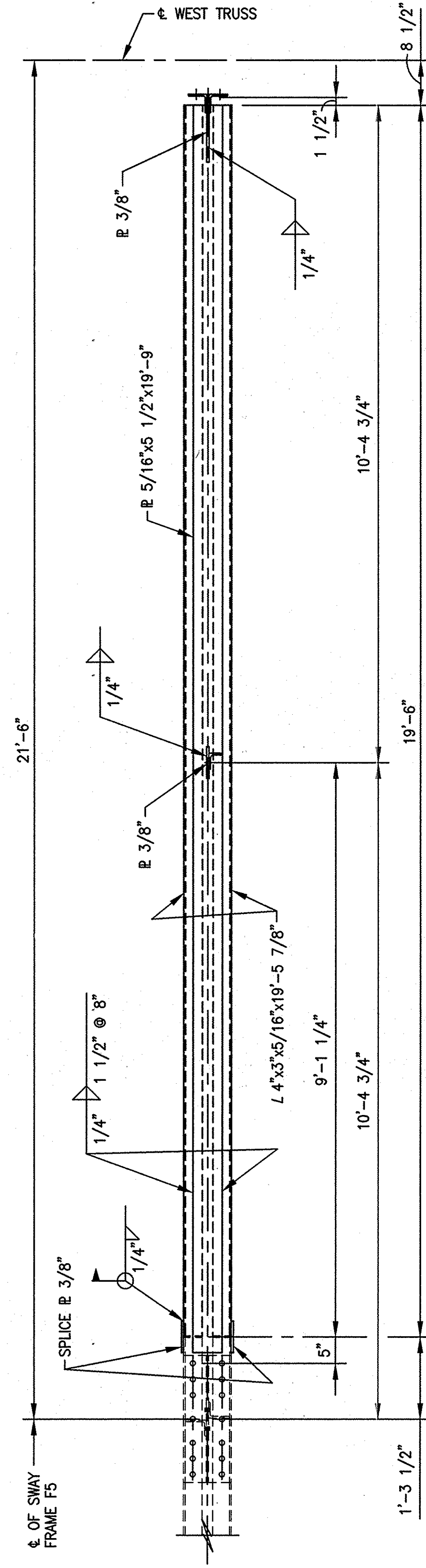
HORIZONTAL SCALE AS NOTED	BRIDGE FILE 152-45-1031G
VERTICAL SCALE AS NOTED	DESIGNATION 0300924
SURVEY BOOK	SHEETS 4 of 9
CONTRACT B27416	PROJECT ST-9945(00V)

Time: 17:55
 Date: 11/17/2003
 Scale: 1/8"=1'-0"
 Drawing File: R:\Draw\WOOD-FRB\B274\10-31-03\Draw\US-55_SWK.dwg (Print)



**NORTH HALF OF SWAY FRAME F5
 WEST HALF - LOOKING SOUTH**
 SCALE: 3/4" = 1'-0"

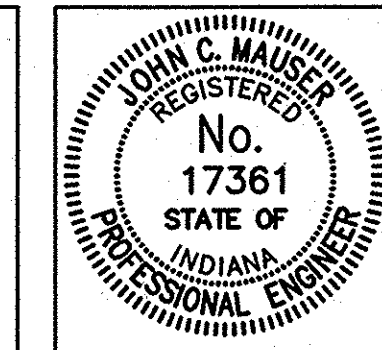
⊗ - REMOVE EXISTING RIVETS WHERE INDICATED THUS, AND INSTALL NEW MEMBERS WITH HIGH STRENGTH BOLTS.



SECTION "B-B"
 SCALE: 3/4" = 1'-0"

SECTION "C-C"
 SCALE: 1 1/2" = 1'-0"

- NOTES:**
1. BOLTS SHALL BE ASTM A325 7/8" IN 15/16" HOLES, UNLESS NOTED.
 2. EDGE DISTANCE = 1 1/2" UNLESS NOTED.
 3. SEE SHEET NO. 2 FOR ADDITIONAL NOTES.



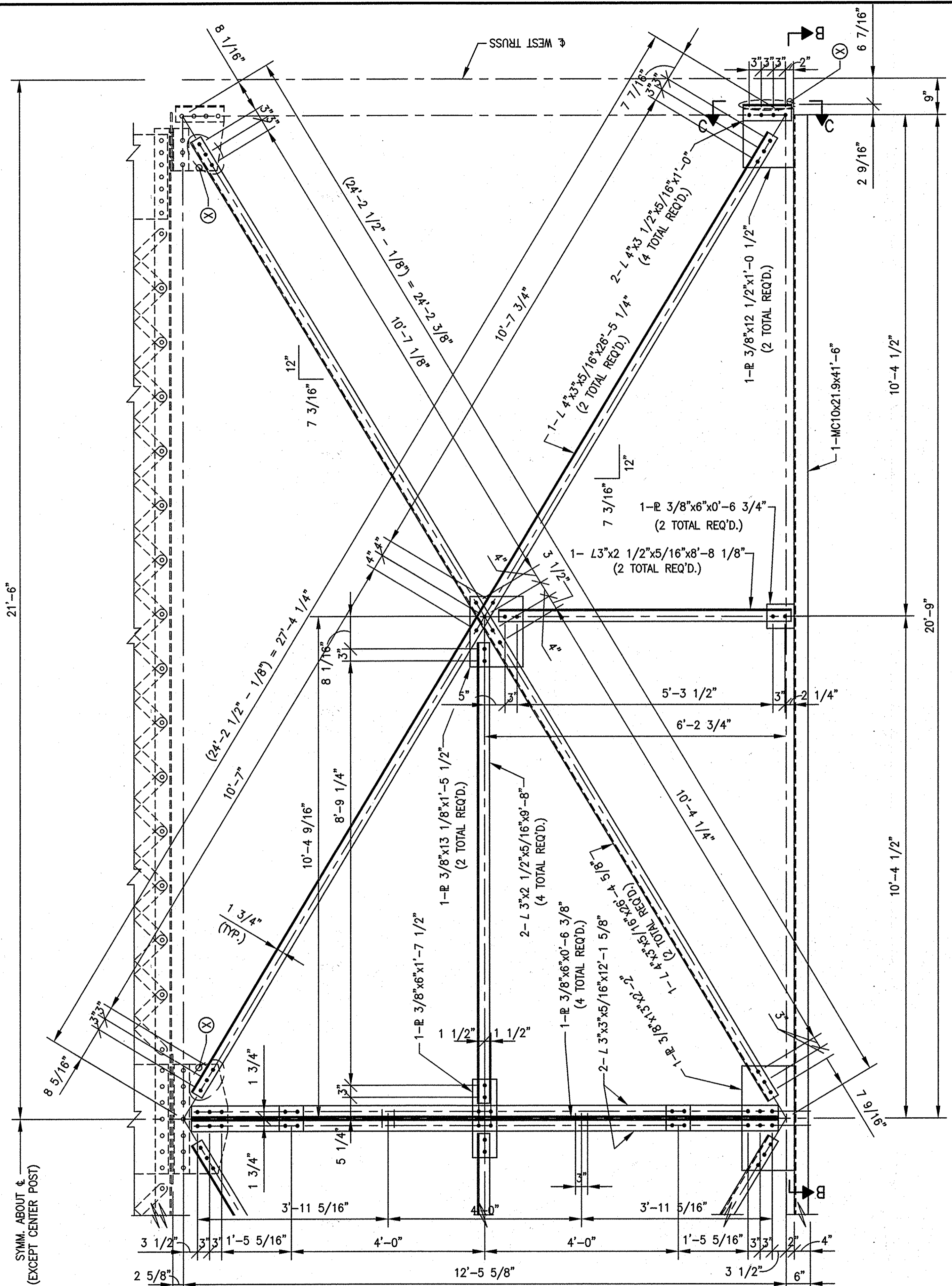
RECOMMENDED FOR APPROVAL	<i>John C. Mauer</i>	11/17/2003
DESIGNED:	JCM	DRAWN: DRF/CLF
CHECKED:	RCR	CHECKED: JCM

INDIANA DEPARTMENT OF TRANSPORTATION

**EXISTING TRUSS REPAIRS
 SWAY FRAME F5**

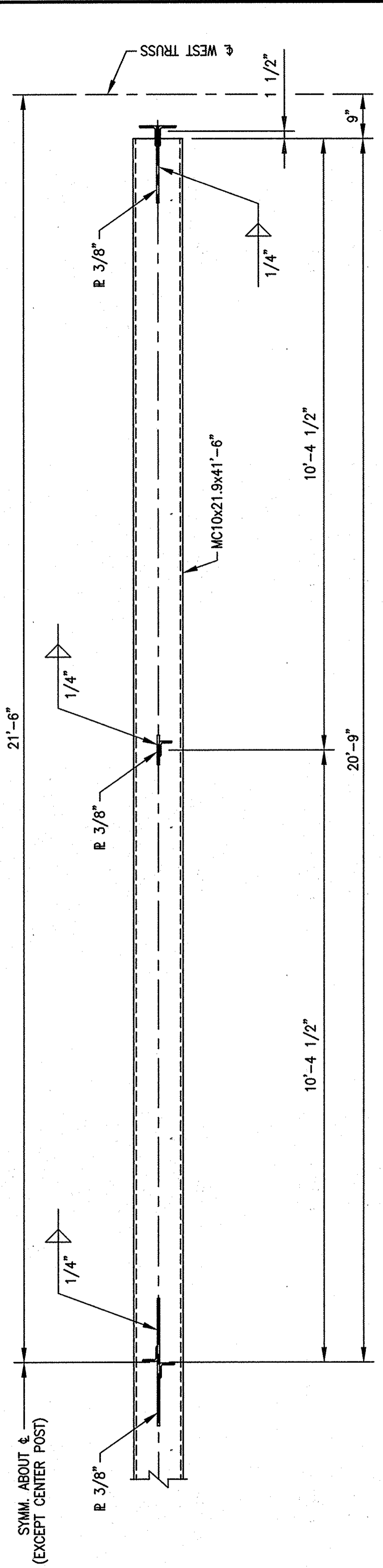
HORIZONTAL SCALE	AS NOTED	BRIDGE FILE	152-45-1031G
VERTICAL SCALE	AS NOTED	DESIGNATION	0300924
SURVEY BOOK		SHEETS	5 of 9
CONTRACT	B27416	PROJECT	ST-9945(00V)

Title: 17361-4
 Date: 11/17/2003
 Scale: 1/4" = 1'-0"
 Drawing File: I:\Draw\INDOT-RIB\B27416-31-03\DWG\17361-4-5_SWF.dwg (Print)



(X) - REMOVE EXISTING BRIVETS WHERE INDICATED THUS.

NORTH FACE OF SWAY FRAME F6
WEST HALF - LOOKING SOUTH
 SCALE: 3/4" = 1'-0"

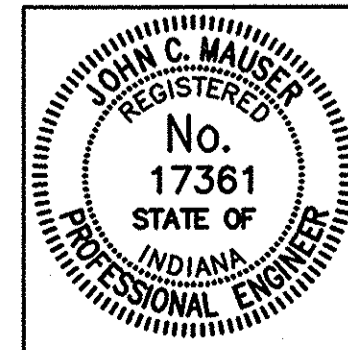


SECTION "B-B"
 SCALE: 3/4" = 1'-0"

SECTION "C-C"
 SCALE: 1 1/2" = 1'-0"

NOTES:

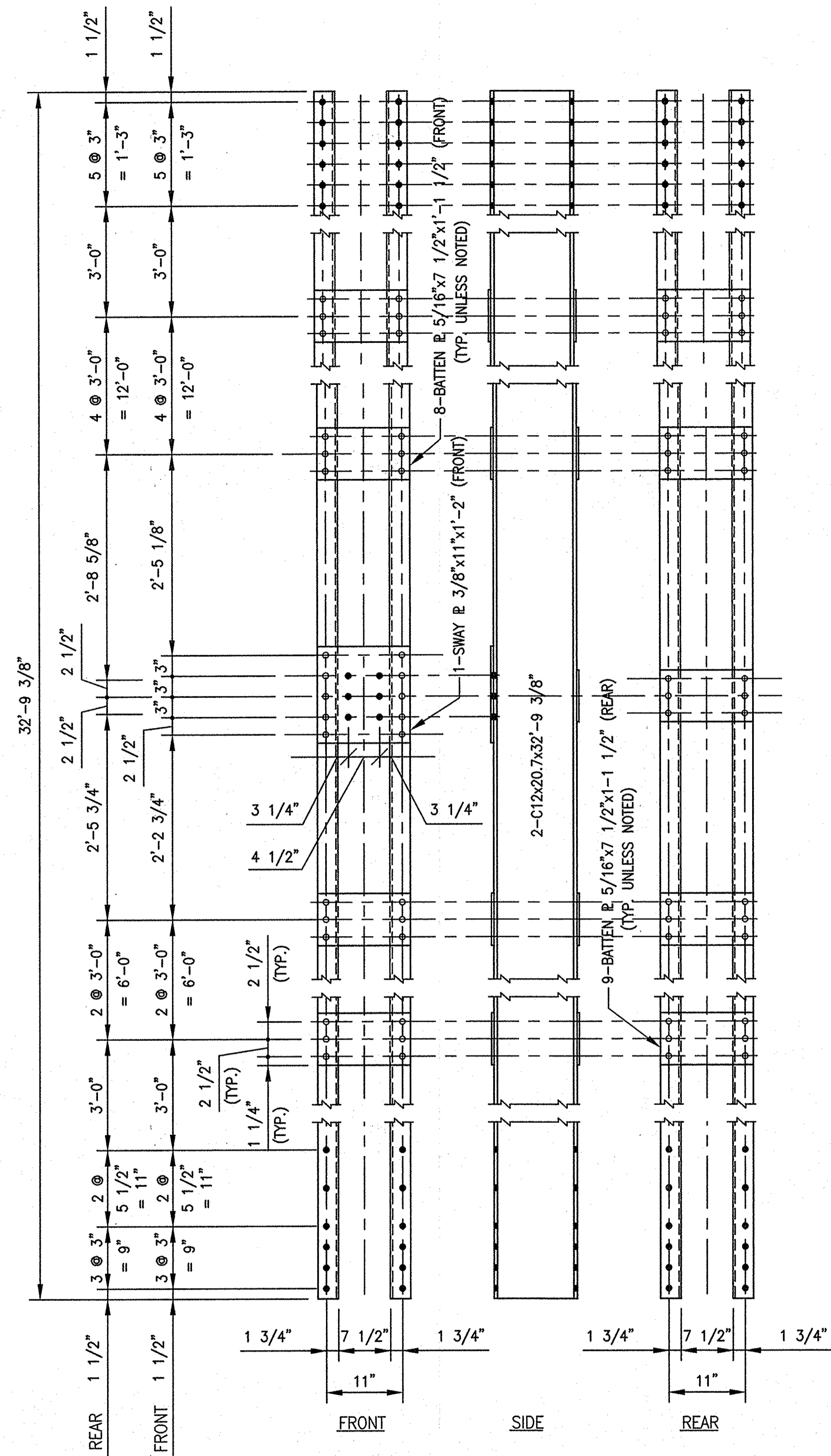
- BOLTS SHALL BE ASTM A325 7/8" IN 15/16" HOLES, UNLESS NOTED.
- EDGE DISTANCE = 1 1/2" UNLESS NOTED.
- SEE SHEET 2 FOR ADDITIONAL NOTES.



RECOMMENDED FOR APPROVAL	<i>John C. Mauer</i>	11/17/2003
DESIGNED: JCM	DRAWN: DRF	DATE
CHECKED: RCR	CHECKED: JCM	

INDIANA DEPARTMENT OF TRANSPORTATION
 EXISTING TRUSS REPAIRS
 SWAY FRAME F6

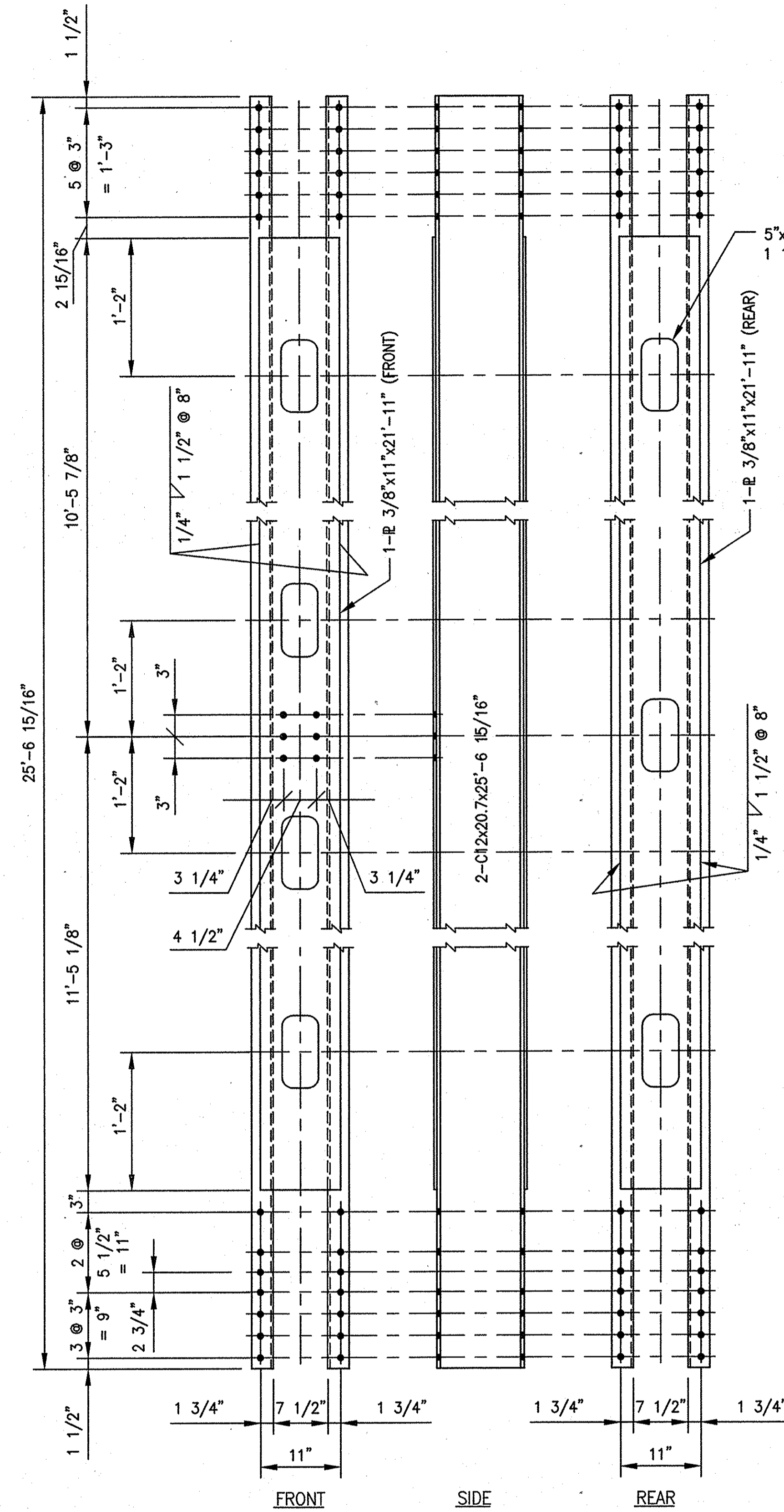
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-1031G
VERTICAL SCALE	DESIGNATION
AS NOTED	0300924
SURVEY BOOK	SHEETS
	6 of 9
CONTRACT	PROJECT
B27416	ST-9945(00V)



U4L4

U4L4 BOLTING NOTE:

ALL HOLES TO BE 15/16" Ø FOR 7/8" Ø BOLTS EXCEPT 13/16" Ø HOLES FOR 3/4" Ø BOLTS TO BE USED FOR FASTENING BATTEN AND SWAY PLATES TO CHANNEL FLANGE.



U2L2

NOTES:

- SEE SHEET 2 FOR ADDITIONAL DETAILS AND NOTES.
- VIEW DESIGNATED AS "FRONT" IN THE ABOVE DETAILS, TO BE INTERPRETED AS MEANING ALSO "ROADWAY SIDE".

Time: 7:40:21
 Date: 12/17/2003
 Drawing File: C:\drive\WOODT-RIB\372\10-31-03\DWG\VERTICALS-REPAIR.dwg (Dfautz)

SHEET ADDED 12/3/03.

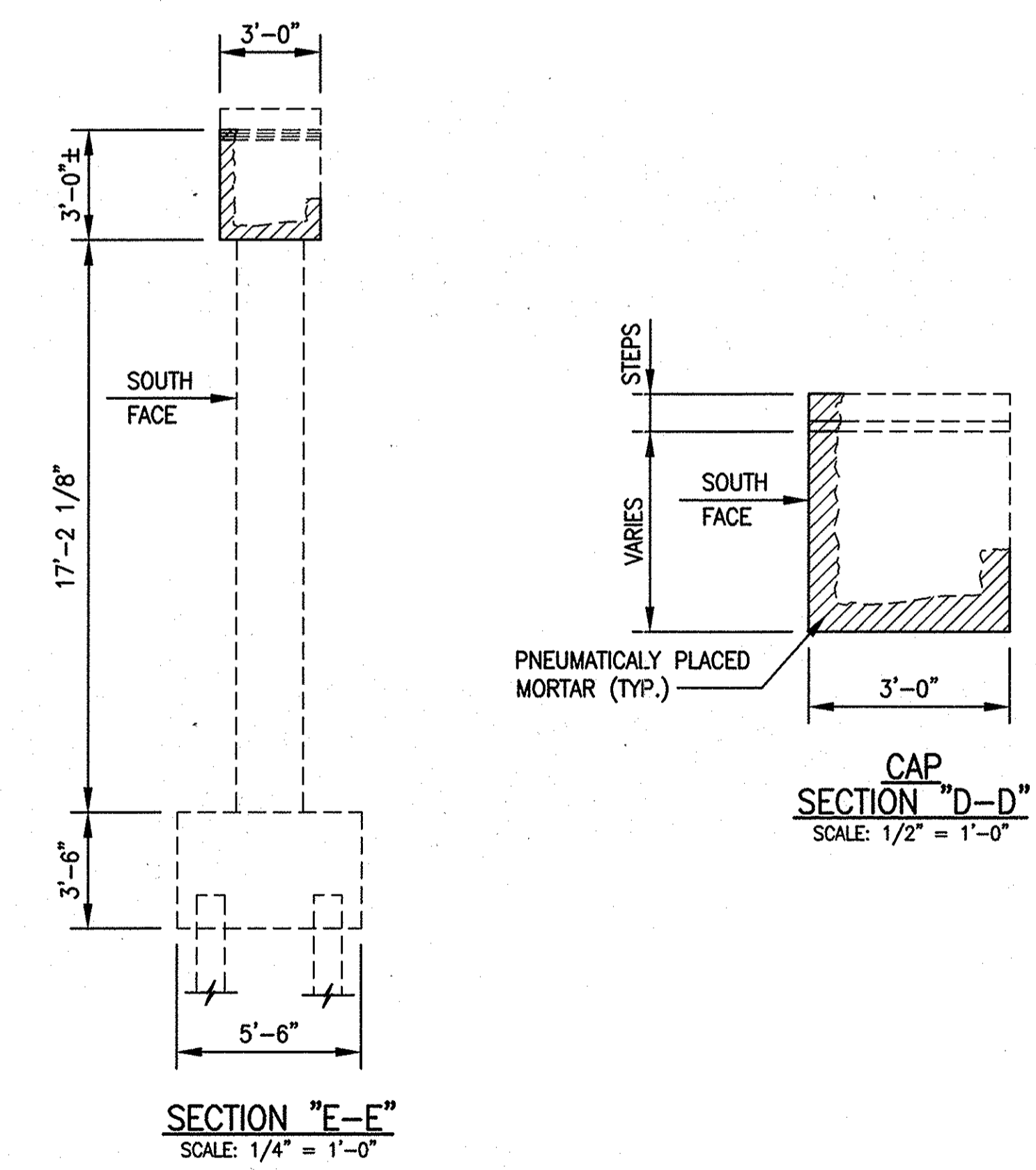
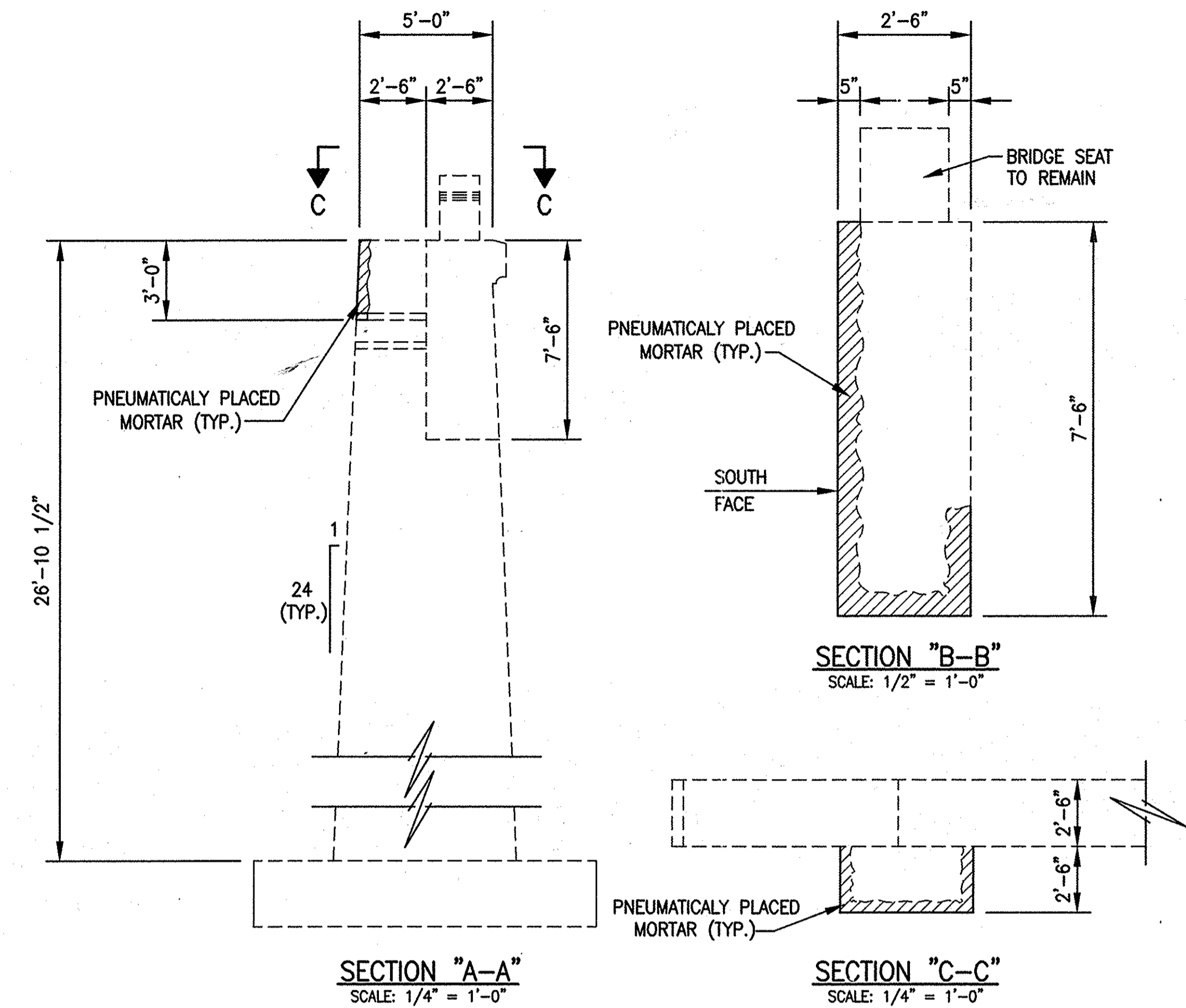
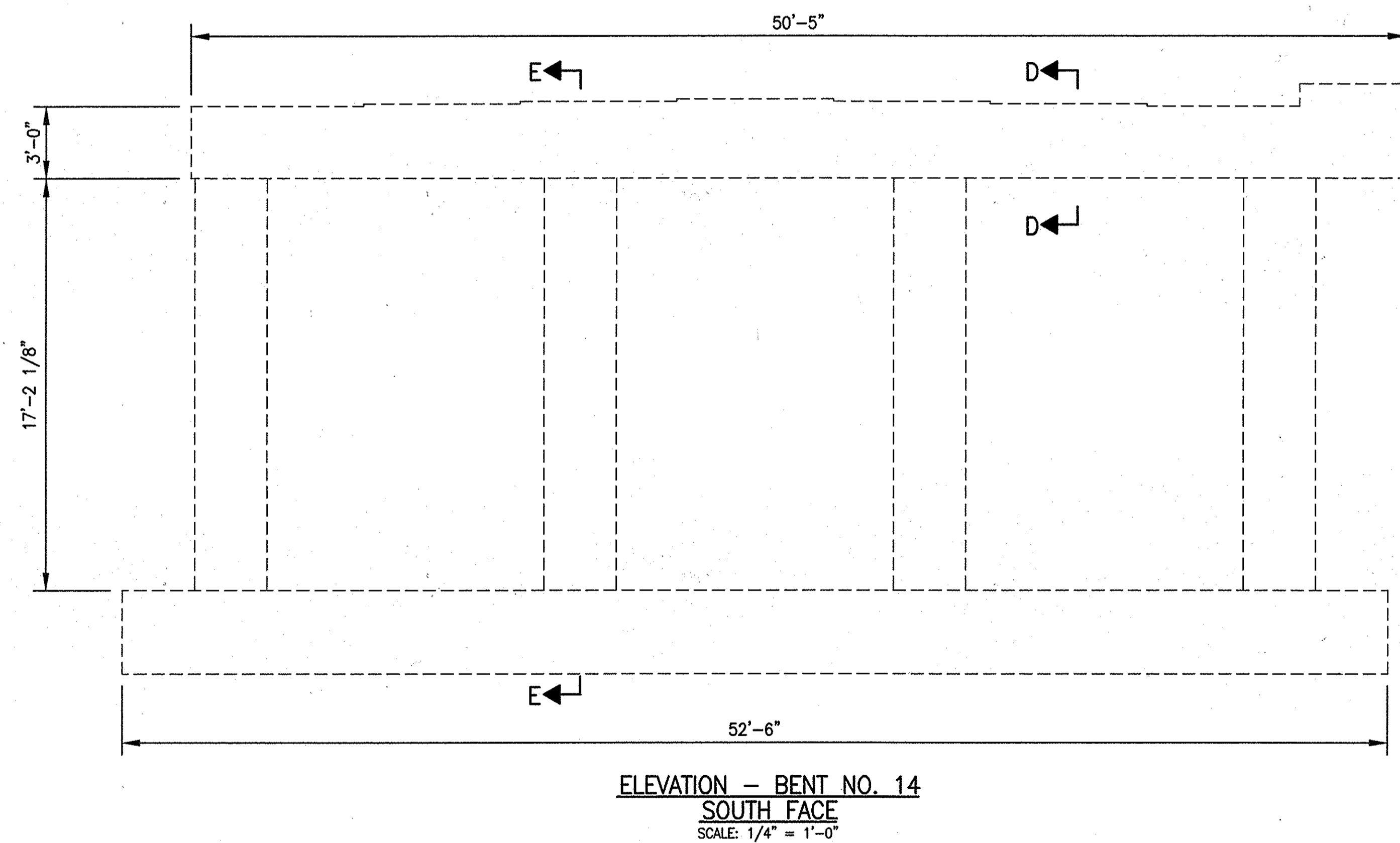
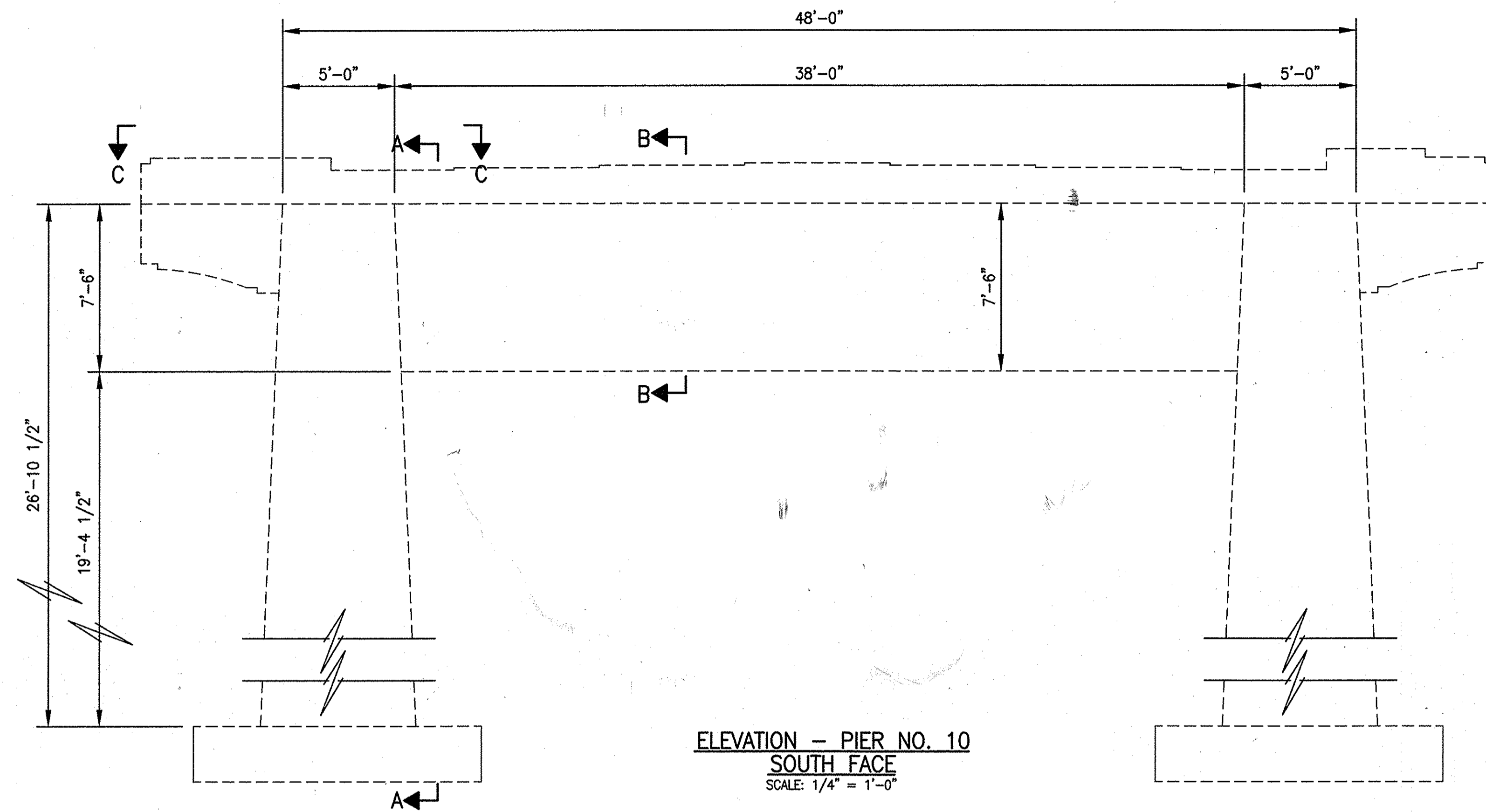


RECOMMENDED FOR APPROVAL *John C. Mauser* 12/03/2003
 DESIGN ENGINEER DATE
 DESIGNED: JCM DRAWN: DRF
 CHECKED: RCR CHECKED: JCM

INDIANA DEPARTMENT OF TRANSPORTATION

EXISTING TRUSS REPAIRS
 VERTICALS FOR SPAN "K" - EAST

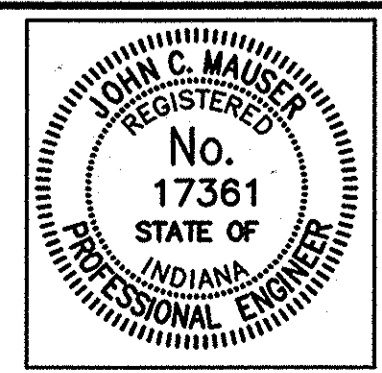
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1"=1'-0", U.N.	152-45-1031G
VERTICAL SCALE	DESIGNATION
1"=1'-0", U.N.	0300924
SURVEY BOOK	SHEETS
	8A of 9
CONTRACT	PROJECT
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ESTIMATED QUANTITIES

	PNEUMATIC MORTAR, (ft ²)	WELDED WIRE FABRIC, (ft ²)
PIER NO. 10		
CAP	200	50
COLUMNS	-	-
PIER NO. 14		
CAP	800	200
COLUMNS	-	-
TOTAL	1000	250

Date: 11/17/2003
 Scale: 1/4" = 1'-0"
 Drawing Title: K-Division\INDOT-RIB\372\10-31-03\DWG\PIERS.dwg (RFeutz)



RECOMMENDED FOR APPROVAL *John C. Mauser* 11/17/2003
 DESIGN ENGINEER DATE

DESIGNED: JCM DRAWN: DRF
 CHECKED: RCR CHECKED: JCM

INDIANA DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
 PIER NO. 10 & BENT NO. 14

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	152-45-1031G
VERTICAL SCALE	DESIGNATION
AS NOTED	0300924
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
B27416	ST-9945(00V)