

OTES

1.0 GENERAL

- 1.1 THE CONTRACTOR MUST VERIFY ALL DIMENSIONS PRIOR TO FABRICATION TO ENSURE ACCURACY OF THE EXPANSION JOINT.
- 1.2 ALL WORK SHALL COMPLY WITH THE STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ADOPTED 1-1-07) AND REVISED BY SUPPLEMENT SPECIFICATIONS DATED 1-1-10.
- 1.3 THE EXPANSION JOINTS SHALL BE FABRICATED IN ACCORDANCE WITH SECTION 520 "BRIDGE EXPANSION JOINTS" OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS "MODULAR EXPANSION JOINT".
- 1.4 IN CASE OF DISCREPANCY, THE FOLLOWING HIERARCHY OF CONTRACT DOCUMENTS SHALL BE FOLLOWED PER SECTION 105.05 "COORDINATION OF THE CONTRACT DOCUMENTS" OF THE STANDARD SPECIFICATIONS:

SPECIAL PROVISIONS
PLANS
RECURRING SPECIAL PROVISIONS
SUPPLEMENTAL SPECIFICATIONS
AND STANDARD SPECIFICATIONS

DETAIL PLANS HOLD OVER HIGHWAY STANDARDS

CALCULATED DIMENSIONS HOLD OVER SCALED DIMENSIONS

THE HIGHWAY STANDARD INDICATED BY THE REVISION NUMBER LISTED IN THE INDEX OF HIGHWAY STANDARDS ON THE PLANS SHALL HOLD OVER HIGHWAY STANDARDS LISTED ANYWHERE ELSE.

2.0 STANDARD SPECIFICATION CRITERIA

3.0 SPECIAL PROVISION CRITERIA

- 3.1 WATSON BOWMAN ACME IS AISC CERTIFIED ACCORDING TO CATEGORY Sbr (SIMPLE STEEL BRIDGES).
- 3.2 A QUALIFIED TECHNICAL SERVICE REPRESENTATIVE SHALL BE PRESENT TO SUPERVISE INSTALLATION.
 - 3.2.1 CONTACT JOHN MANNING AT (716) 817-5453 FOR FIELD SERVICE PRICING AND SCHEDULING.
 - 3.2.2 TWO (2) WEEKS PRIOR NOTICE OF REQUIREMENTS FOR FIELD SERVICE PERSONNEL IS RECOMMENDED.

4.0 MATERIALS

- 4.1 ALL STRUCTURAL AND PERMANENT MATERIALS SHALL BE OF DOMESTIC ORIGIN, AND MATERIAL CERTIFICATION STATING ALL SUCH MATERIALS ARE "MELTED AND MANUFACTURED" IN THE UNITED STATES OF AMERICA SHALL BE SUBMITTED.
- 4.2 ALL STEEL EXTRUSIONS AND PLATES USED FOR THE EXPANSION JOINTS SHALL BE IN ACCORDANCE WITH ASTM A 36 (AASHTO M270, GRADE 36) OR ASTM A 588 (AASHTO M270, GRADE 50W). ALL STEEL PLATES USED FOR THE BARRIER PLATE ASSEMBLIES WILL BE IN ACCORDANCE WITH ASTM A 588 (AASHTO M270, GRADE 50W).
- 4.3 THE STRIP SEAL GLAND SHALL BE POLYCHLOROPRENE (NEOPRENE) SHALL BE AS NOTED BELOW:

REQUIRED PHYSICAL PROPERTIES	ASTM PROCEDURE	PHYSICAL REQUIREMENTS
TENSILE STRENGTH, MIN. psi (kPa)	D-412	1500 (10,300)
ULTIMATE ELONGATION, MIN.	D-412	200 %
DUROMETER - SHORE A	D-2240	50 MIN.
OVEN AGING 70 hrs. @ 212°F	D-573	
TENSILE STRENGTH, LOSS, MAX.		20%
ELONGATION, LOSS, MAX.		20%
HARDNESS, TYPE A DURO (POINTS CHANGE)		0 TO 10
OIL SWELL, ASTM #3 OIL, 70 hrs. @ 212°F		
WEIGHT CHANGE, MAX.	D-471	45%
OZONE RESISTANCE, 20% STRAIN 300 ppm		
IN AIR 70 hrs. @ 100°F (WIPE WITH		
TOLUENE TO REMOVE SURFACE CONTAMINANTS	D-1149	NO CRACKS
LOW TEMPERATURE STIFFENING 7 DAYS @ 14°F		
HARDNESS TYPE A DURO, POINTS CHANGE	D-2240	0 TO +15
COMPRESSION SET, 70 h AT 212°F		
(100°C), max. %	D 395 METHOD B	35
(TEST EXCEEDS THE PROJECT REQUIREMENTS OF A 22 HOUR TEST AT 212°F UNDER ASTM D 395 METHOD B)		

- 4.4 BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-325, A-563 AND F-436 RESPECTIVELY. ALL HARDWARE SHALL BE GALVANIZED UNLESS NOTED OTHERWISE. COUNTERSUNK BOLTS FOR BARRIER PLATE ASSEMBLIES SHALL BE IN ACCORDANCE WITH ASTM A 307, GRADE A AND SHALL BE GALVANIZED.

- 4.5 THE STRIP SEAL GLAND SHALL BE ADHERED IN PLACE USING PRIMA-LUB ADHESIVE AND LUBRICANT. PRIMA-LUB IS A ONE-COMPONENT BLEND OF URETHANE AND AROMATIC SOLVENTS FOR USE IN LUBRICATING PREFORMED BRIDGE SEALS FOR INSERTION AND ADHESION TO METAL AND CONCRETE SURFACES. PRIMA-LUB SHALL BE IN ACCORDANCE ASTM D-4070 AND WITH THE FOLLOWING REQUIREMENTS:

REQUIRED PHYSICAL PROPERTIES

RESIN TYPE:	MOISTURE CURE URETHANE
SOLVENT:	AROMATIC NAPHTHA
WEIGHT SOLIDS:	72 - 3%
VOLUME SOLIDS:	66 - 8%
WEIGHT/GALLON:	8.4 - 3.6 lbs/gal
PRACTICAL COVERAGE:	400 - 500 ft./GALLON - SMALL SEALS (STRIP SEALS)
	100 - 200 ft./GALLON - LARGE SEALS (COMPRESSION SEALS)
FLASHPOINT:	106°F (40.5°C)
SHELF LIFE:	ONE YEAR FROM DATE OF MANUFACTURE
MEETS OR EXCEEDS ASTM D-4070	
FILM STRENGTH ASTM D-412	2000 si (MIN.)
% ELONGATION (BEFORE BREAK)	350 (MIN.)
WORKABLE TEMPERATURE RANGE	5 - 120°F (-15 - 49°C)

- 4.6 ALL STUDS SHALL CONFORM TO ASTM A 108 (AASHTO M169) GRADES 1015, 1018 OR 1020.
- 4.7 THE STAINLESS STEEL IS USED ON THE SLIDING SURFACES OF THE SUPPORT BAR THAT CONTACT THE TEFLON SURFACE OF THE BEARING AND COMPRESSION SPRING. THE STAINLESS STEEL SHALL BE ASTM A 240, TYPE 304, NO. 4 FINISH OR NO. 8 FINISH AS NOTED HERE IN.
- 4.8 THE UPPER AND LOWER YOKE BEARINGS ARE COMPOSED OF URETHANE, EPOXY AND 3/64" THICK TEFLON SHEET ON WHICH THE SUPPORT BAR SLIDES. THE PHYSICAL PROPERTIES OF THE URETHANE ARE:

REQUIRED PHYSICAL PROPERTIES	ASTM PROCEDURE	PHYSICAL REQUIREMENTS
SHORE DUROMETER	D-2240	90A
ELONGATION AT BREAK (%)	D-412	425
TENSILE STRENGTH (psi)	D-412	6500
199% MODULES (psi)	D-412	1200
300% MODULES (psi)	D-412	2400
TEAR STRENGTH (pli)	D-470	110
REBOUND RESILIENCE (%)	D-2632	40

- 4.9 BEARING IS COMPOSED OF URETHANE, AASHTO 620.
- 4.10 DU BEARINGS AND WASHERS ARE CONTAINED WITHIN THE EQUIDISTANCE MECHANISM. THE DU BEARINGS SHALL HAVE THE FOLLOWING PHYSICAL PROPERTIES:

CONSTRUCTION	STEEL
BACKING	POROUS COPPER-TIN BRONZE
INNERSTRUCTURE	PTFE / LEAD
BEARING SURFACE	
LUBRICATION	NOT REQUIRED
LOAD CAPACITY	
COMPRESSIVE STRENGTH	44,000 psi
STATIC LOAD CAPACITY	36,000 psi
DYNAMIC LOAD CAPACITY	20,000 psi
SPEED	1,000 fpm, DRY
PV LIMIT	
CONTINUOUS	50,000 psi-fpm
INTERMITTENT	100,000 psi-fpm
TEMPERATURE RANGE	-328 TO +563°F
COEFFICIENT OF FRICTION	
STATIC (FIRST MOVEMENT MAY BE GREATER FOR A	
LONG DWELL PERIOD UNDER LOAD)	0.02 - 0.20
DYNAMIC	0.02 - 0.20

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Materials Only

Ralph C. Anderson
Engineer of Bridges and Traffic Structures

5.0 INSPECTION REQUIREMENTS

- 5.1 IN HOUSE INSPECTION BY AN INDEPENDENT (THIRD PARTY) IS REQUIRED. WELDING SHALL BE OBSERVED BY A CERTIFIED WELDING INSPECTOR (CWI) IN ADDITION TO WATSON BOWMAN ACME'S OWN WELDING INSPECTION. THIRD PARTY NON DESTRUCTIVE EXAMINATION (NDE) SHALL BE PERFORMED BY INSPECTOR(S) CERTIFIED AS LEVEL II IN APPLICABLE METHODS, AND ALL COMPLETE PENETRATION BEAM-TO-BAR WELDS AND BUTT JOINTS IN BEAMS SHALL BE UT INSPECTED AND 10% OF FILLETS AND PARTIAL PENETRATION WELDS SHALL BE MT INSPECTED PER SPECIAL PROVISIONS "MODULAR EXPANSION JOINT".

DRAWING ACTION:

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12/17/10

5.2 QUALITY CONTROL INSPECTION

- 5.2.1 DURING FABRICATION OF THE EXPANSION JOINT, WATSON BOWMAN ACME SHALL PROVIDE FULL TIME QUALITY CONTROL INSPECTION TO INSURE THAT THE MATERIALS AND WORKMANSHIP MEET OR EXCEED THE MINIMUM REQUIREMENTS OF THE CONTRACT.
- 5.2.2 QUALITY CONTROL INSPECTION SHALL BE THE RESPONSIBILITY OF A QUALITY CONTROL GROUP, WHICH SHALL BE INDEPENDENT OF THE FABRICATION GROUP.

6.0 FABRICATION

- 6.1 FABRICATION SHALL BE IN ACCORDANCE WITH WATSON BOWMAN ACME'S QUALITY CONTROL MANUAL AND MANUFACTURING TOLERANCES.
- 6.2 THE EXPANSION JOINT OPENING SHALL BE PRESET BY WATSON BOWMAN ACME TO THE JOINT OPENING NOTED AT 50°F (SEE JOINT INFORMATION CHART, SHEET 3) FINAL ADJUSTMENTS SHALL BE MADE IN THE FIELD BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER IN CHARGE, PRIOR TO FINAL CONCRETE PLACEMENT.
- 6.3 THE NEOPRENE SEALS SHALL BE SHOP INSTALLED BY WATSON BOWMAN ACME USING INSTALLATION TOOLS AND BONDED IN PLACE WITH PRIMA-LUB ADHESIVE. THE ADHESIVE SHALL BE APPLIED TO ALL NEOPRENE/STEEL CONTACT SURFACES. THE NEOPRENE SEAL SHALL BE SUPPLIED IN ONE CONTINUOUS PIECE.
- 6.4 EXPANSION JOINT ASSEMBLIES SHALL BE WELDED IN ACCORDANCE WITH ANSI/AWS/AASHTO BRIDGE WELDING CODE D1.5.
- 6.5 WATSON BOWMAN ACME SHALL PREPARE THE ENDS OF THE STEEL SHAPES FOR FIELD WELDING.
- 6.6 STUDS MAY BE BENT TO AN ANGLE OF 30° TO AVOID INTERFERENCE WITH DECK REINFORCEMENT, OR TO PROVIDE PROPER CONCRETE COVER.
- 6.7 DISTORTED MEMBERS SHALL BE STRAIGHTENED BY MECHANICAL MEANS OR, IF APPROVED BY THE ENGINEER, BY CAREFULLY PLANNED PROCEDURE AND SUPERVISED APPLICATION OF A LIMITED AMOUNT OF LOCALIZED HEAT.
- 6.8 ALL BOLTS FOR EQUIDISTANCE SYSTEM SHALL BE SNUG TIGHT UNLESS OTHERWISE NOTED HEREIN.
- 6.9 ALL WELDING OF THE EXPANSION JOINT ASSEMBLIES SHALL BE EXECUTED USING THE GMAW OR FCAW PROCESSES. ALL WELDING OF THE COVER PLATE ASSEMBLIES SHALL BE EXECUTED USING THE FCAW PROCESS.

7.0 COATINGS

- 7.1 THE EXPANSION JOINT ASSEMBLY SHALL BE PAINTED IN ACCORDANCE WITH SECTION 506 "CLEANING AND PAINTING METAL STRUCTURES" AND SECTION 1008 "STRUCTURAL STEEL COATINGS" OF THE STANDARD SPECIFICATIONS.
- 7.2 AREAS TO BE PAINTED SHALL BE BLAST CLEANED ACCORDING TO THE REQUIREMENTS OF SSPC SURFACE PREPARATION SPECIFICATION SP 10 FOR NEAR WHITE CLEANING.
 - 7.2.1 SURFACES SHALL HAVE AN ANCHOR PROFILE OF 1 TO 2.5 mils (25 TO 65 um).
 - 7.2.2 THE BLAST CLEANED SURFACES TO BE PAINTED SHALL BE PRIME COAT WITHIN 24 HOURS AFTER CLEANING.
- 7.3 ALL SURFACES OF THE EXPANSION JOINT ASSEMBLY SHALL BE SHOP PAINTED WITH ONE SHOP COAT OF INORGANIC ZINC RICH PRIMER, EXCEPT AREAS IN DIRECT CONTACT WITH THE SEALS AND STAINLESS STEEL SURFACES.
 - 7.3.1 THE INORGANIC ZINC-RICH PRIMER SHALL BE A SOLVENT-BASED, MULTIPLE COMPONENT, SELF CURING ALKYL SILICATE ZINC-RICH PAINT WHICH CURES WITHOUT USE OF A SEPARATE CURING SOLUTION AND IS FOR USE ONLY ON BLAST-CLEANED STEEL. THE PRIMER SHALL BE APPLIED BY SPRAY WITH ONLY LIMITED APPLICATION BY BRUSH.
- THE INORGANIC ZINC-RICH PRIMER SHALL BE ACCORDING TO AASHTO M300 TYPE I. THE VOLATILE ORGANIC COMPOUNDS (VOC) SHALL NOT EXCEED 2.8 lb/gal (340 g/L) FOR SHOP PAINTING AS APPLIED WHEN TESTING ACCORDING TO ASTM D 3980.
- 7.4 PARAPET COVER PLATE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123 (AASHTO M111)



MARK SYSTEM

STATE:	ILLINOIS
COUNTY:	ST. CLAIR
CONTRACT NO.:	76C44
SECTION:	82-2-1HVB
PROJECT:	PNRS-0998(001)
STRUCTURE NO.:	SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.:	SE1134532AC
JOINT TYPE:	SEISMIC MODULAR

DESIGNED BY:	SRN	DATE:	10/29/10
CHECKED BY:	JFW	DATE:	11/10/10
SCALE:	NTS	WBA JOB NO.:	134532
SHEET NO.:	1 of 25	DRAWING NO.:	B-28249

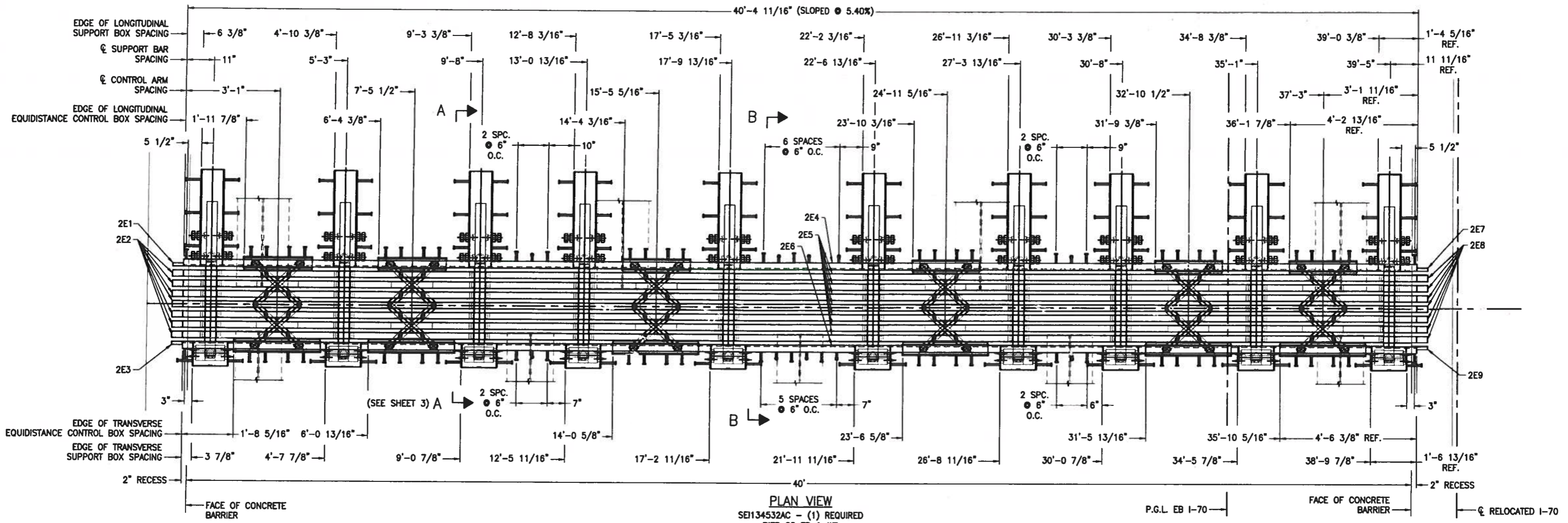
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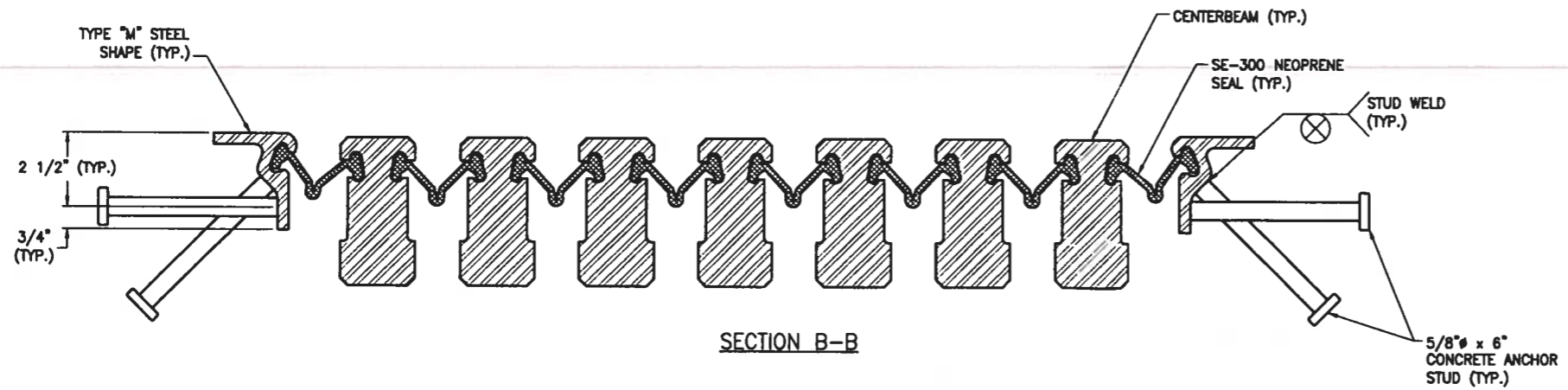
BASF
The Chemical Company

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

REVISION	DATE	DESCRIPTION
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100		REVISION



EXPANSION JOINTS DRAWN AND FABRICATED AT DIM "A" = 29 1/2"



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DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures

SHEET NUMBER
ITEM DESIGNATION
ITEM NUMBER
2e1
MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNR8-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:

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12/17/10

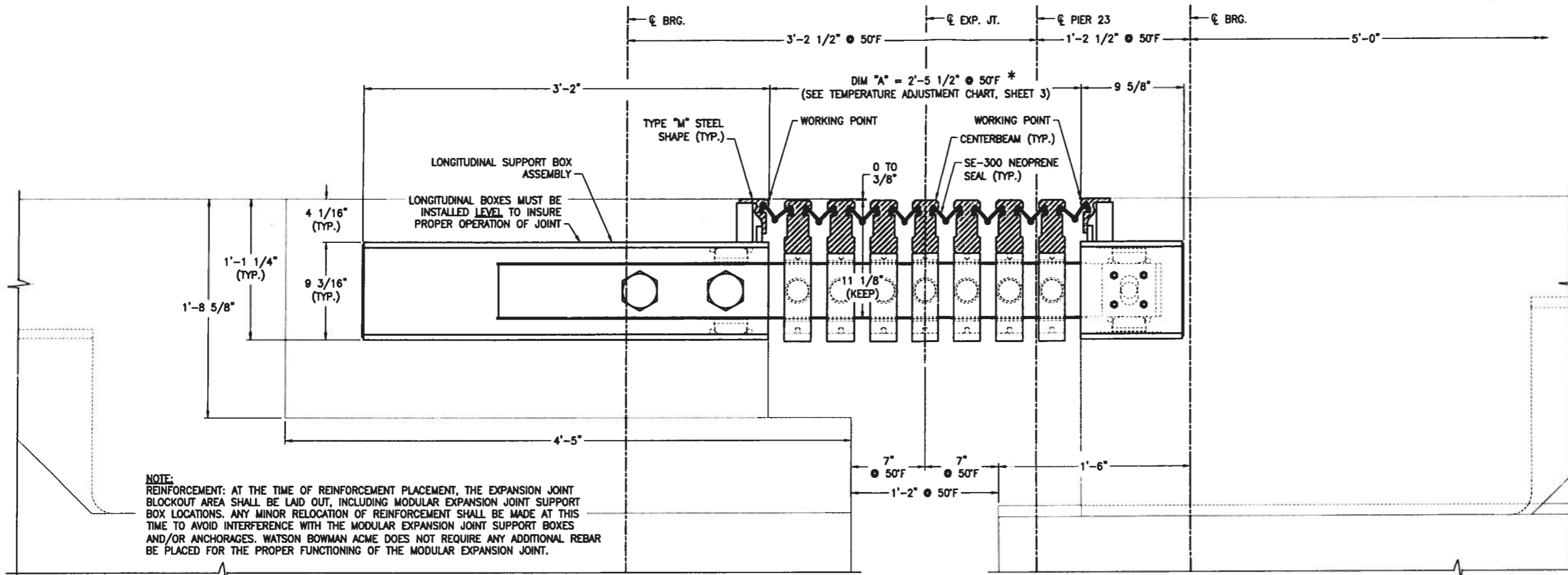
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PROJECT: I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

DETAILED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 2 of 25	DRAWING NO.: B-28249



* EXACT WIDTH TO BE DETERMINED BY ENGINEER AT TIME OF SETTING. MIN. WIDTH "A" TO INSTALL SEAL IN THE FIELD IS 25 1/2" (29 1/2" OR GREATER IS RECOMMENDED)
 MINIMUM OPENING (DIM "A") = 17 1/2"
 MAXIMUM OPENING (DIM "A") = 41 1/2"

NOTE: REINFORCEMENT: AT THE TIME OF REINFORCEMENT PLACEMENT, THE EXPANSION JOINT BLOCKOUT AREA SHALL BE LAID OUT, INCLUDING MODULAR EXPANSION JOINT SUPPORT BOX LOCATIONS. ANY MINOR RELOCATION OF REINFORCEMENT SHALL BE MADE AT THIS TIME TO AVOID INTERFERENCE WITH THE MODULAR EXPANSION JOINT SUPPORT BOXES AND/OR ANCHORAGES. WATSON BOWMAN ACME DOES NOT REQUIRE ANY ADDITIONAL REBAR BE PLACED FOR THE PROPER FUNCTIONING OF THE MODULAR EXPANSION JOINT.

SECTION A-A

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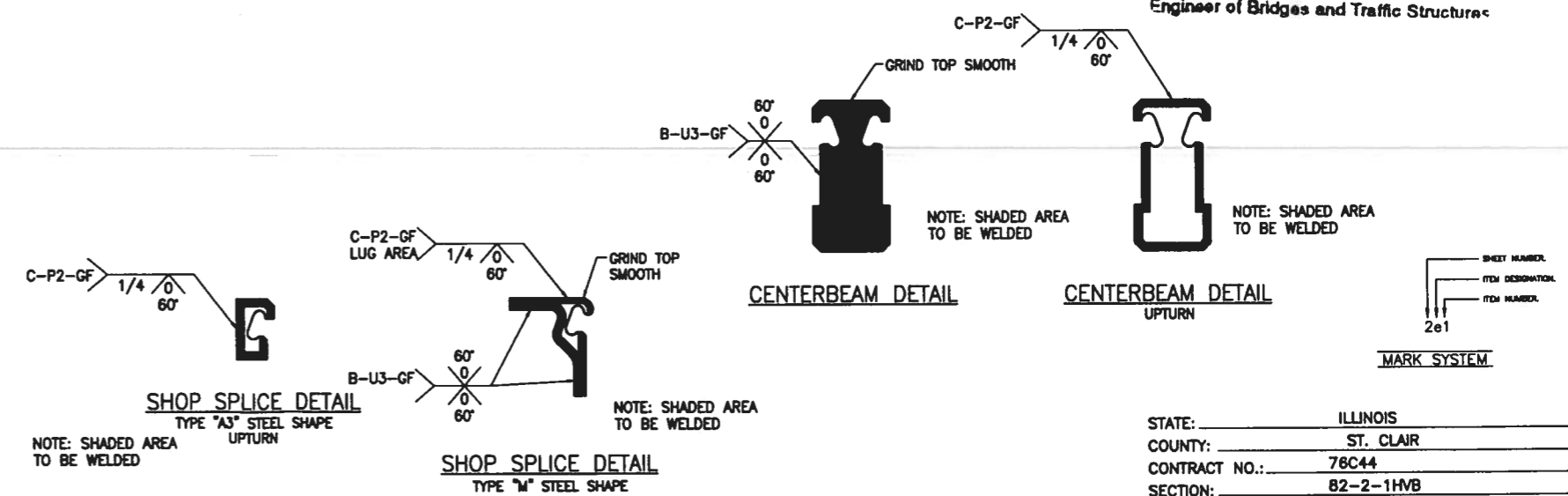
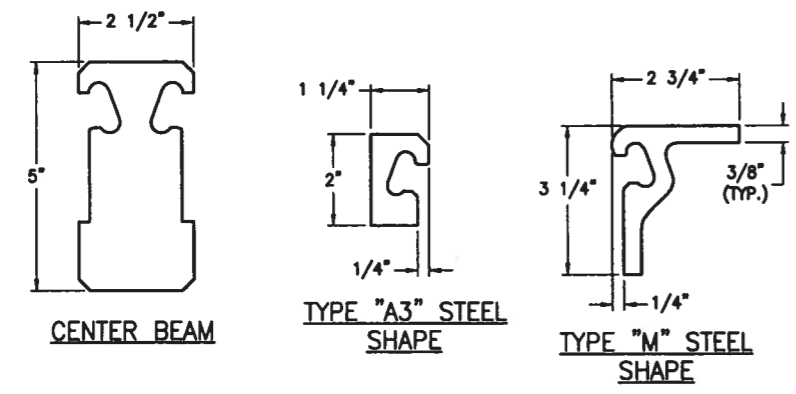
DEC 22 2010

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 Engineer of Bridges and Traffic Structures

"A" DIMENSIONS	
TEMPERATURE AT TIME OF SETTING EXP. JOINT	EAST ABUTMENT
-10°F	36 5/8"
5°F	34 13/16"
20°F	33 1/16"
35°F	31 1/4"
50°F	29 1/2"
65°F	27 3/4"
80°F	25 15/16"
95°F	24 3/16"
110°F	22 3/8"

Pier 23
BA

THE CHANGE PER 15°F IS MEASURED PERPENDICULAR TO THE JOINT FOR BOTH NORMAL AND SKEWED JOINTS.



STATE: ILLINOIS
 COUNTY: ST. CLAIR
 CONTRACT NO.: 78C44
 SECTION: B2-2-1HVB
 PROJECT: PNR8-0998(001)
 STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
 WBA PRODUCT NO.: SEI134532AC
 JOINT TYPE: SEISMIC MODULAR

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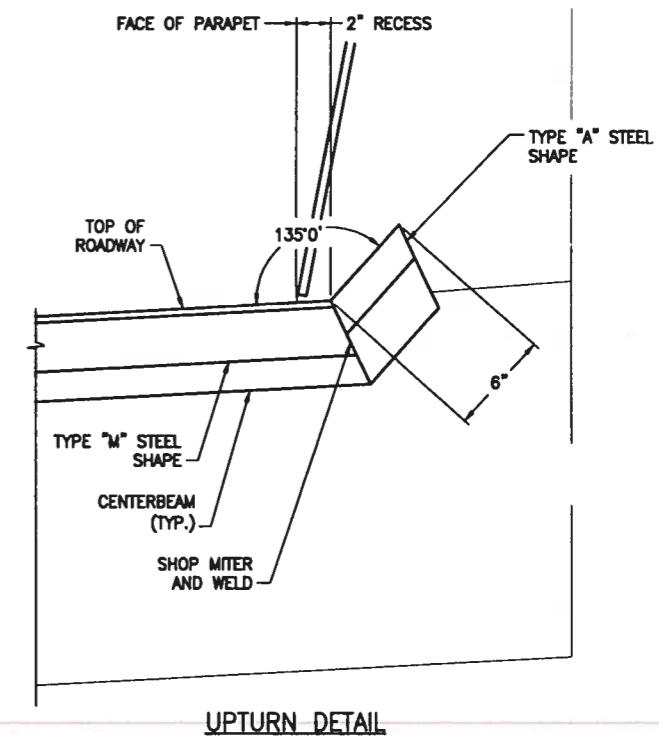
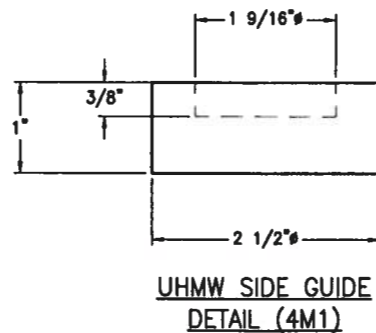
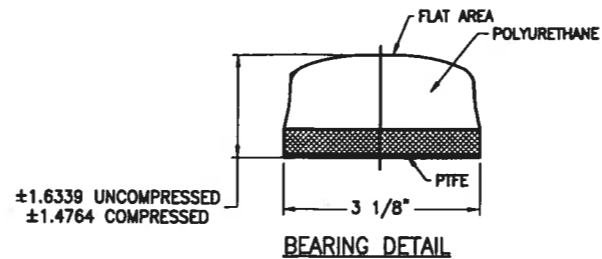
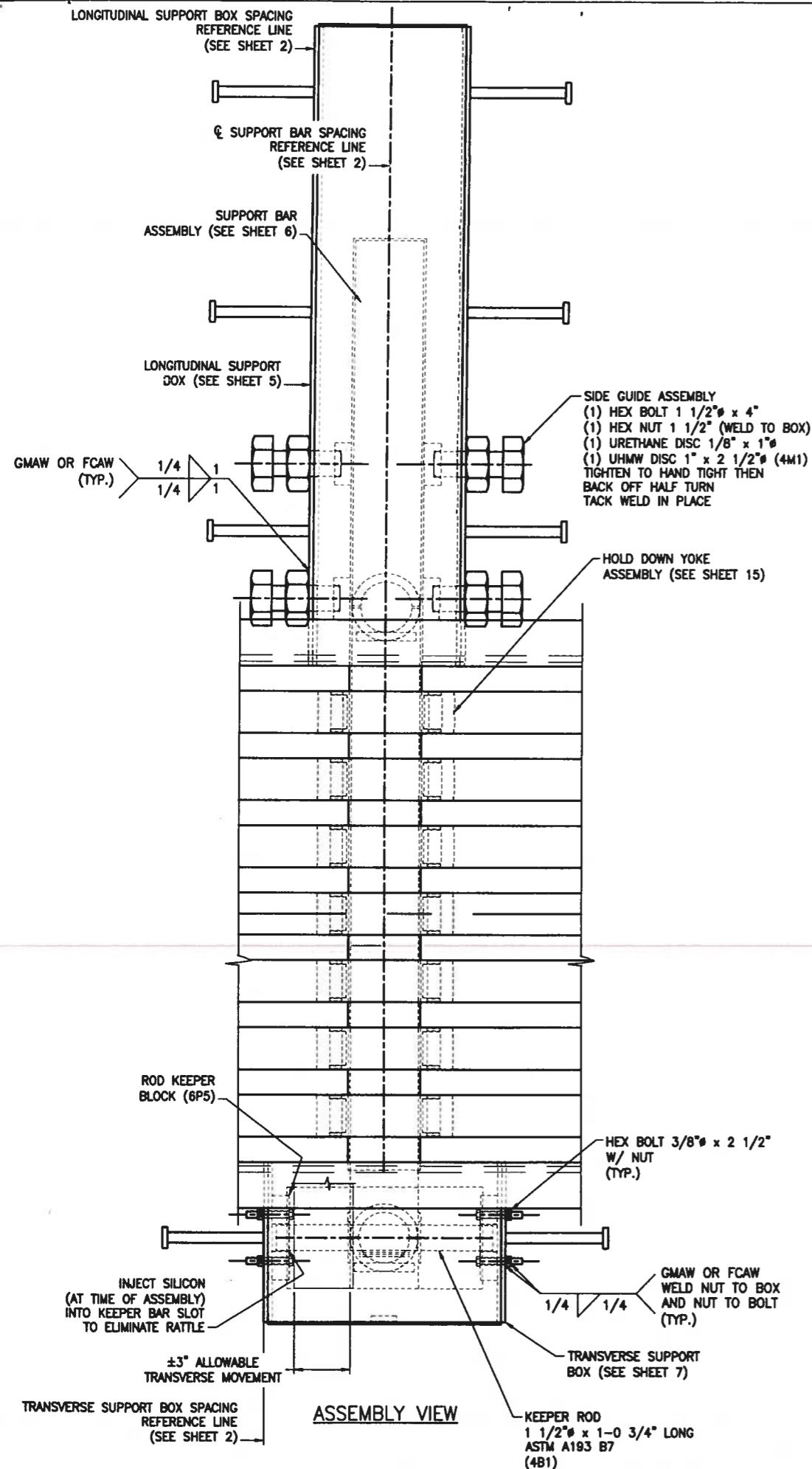
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 The Chemical Company

DESIGNED BY: SRN	DATE: 10/29/10
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SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 3 of 25	DRAWING NO.: B-28249

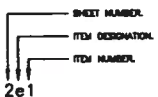
PROJECT: FAP ROUTE 998 (RELOCATED I-70) PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



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10/29/10

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:
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12/17/10

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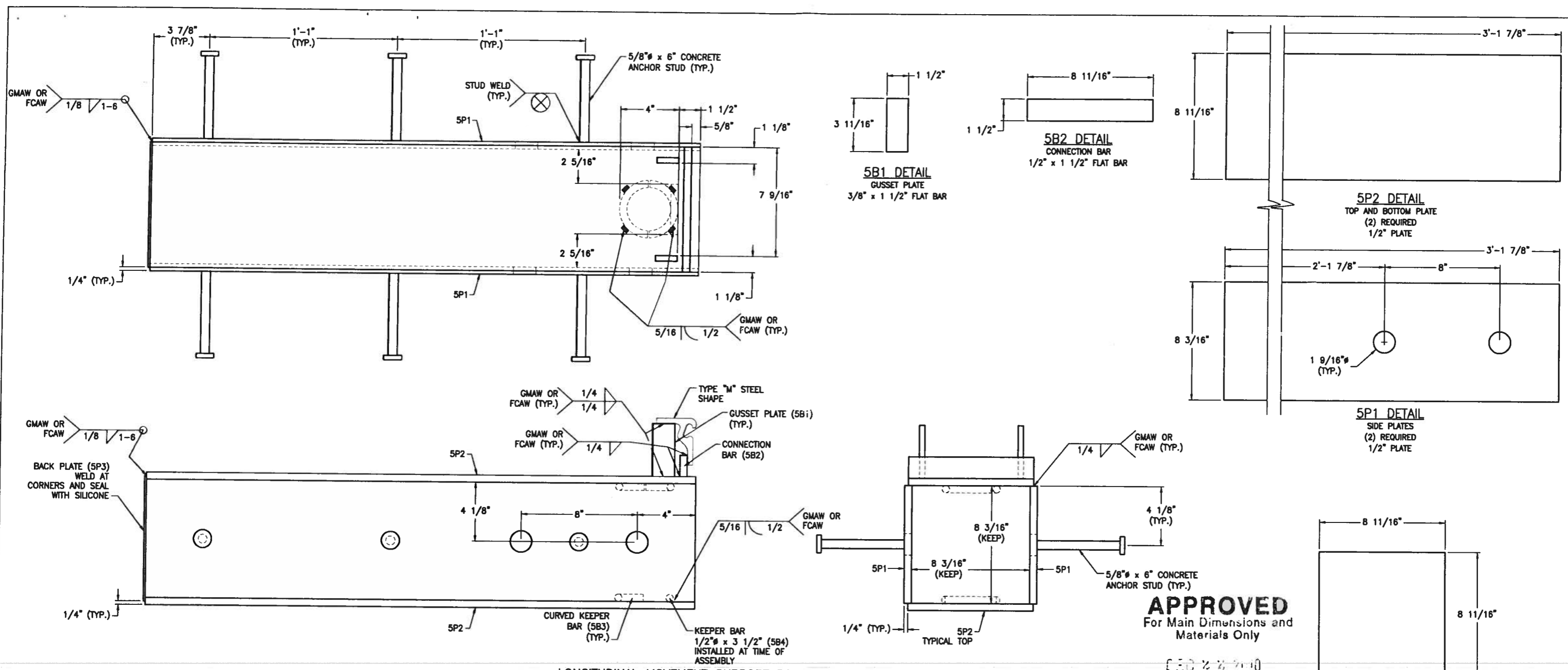
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Bowman
Acme**

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Fax: (716) 991-0229
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BASF
The Chemical Company

DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.:
SHEET NO.:	134532
4 of 25	B-28249

PROJECT: FAP ROUTE 098 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



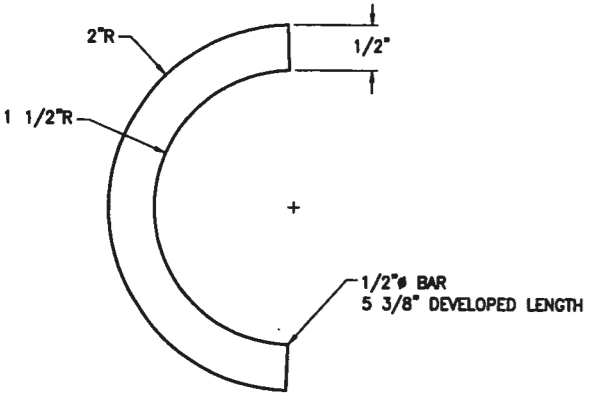
LONGITUDINAL MOVEMENT SUPPORT BOX ASSEMBLY

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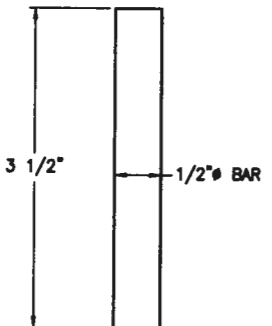
Ralph E. Anderson
Engineer of Bridges and Traffic Structures

SEI134532AC04 QTY: 1 REQ'D. **STRUCTURED BILL OF MATERIALS** DWG: B-28249

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC04	1	EA	LONGITUDINAL BOX ASSEMBLY X-CEL 2400 (W)		
						APPROX FINISHED WEIGHT = 190 lb
1	3560	181.5	LB	PLATE 1/2 A36	ASTM A 36	
1	SEI134532AA04A	2	EA	GUSSET PLATE (W)	(5B1)	
2	5901	0.35	FT	FLAT BAR 3/8 x 1-1/2 A36	ASTM A 36	
1	5970	0.73	FT	FLAT BAR 1/2 x 1-1/2 A36	(5B2) ASTM A 36	
1	4289	3	EA	CURVED KEEPER BAR A36 A28044 W	(5B3) ASTM A 36	
1	4620	6	EA	CON ANC ST 5/8 x 6 AW 108-"	ASTM A 108	



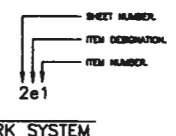
5B3 - CURVED KEEPER BAR



5B4 - KEEPER BAR

DRAWING ACTION:
APPROVED
12/17/10

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MARK SYSTEM

5P3 DETAIL
BACK PLATE
(1) REQUIRED
12 GAUGE PLATE

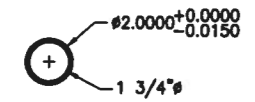
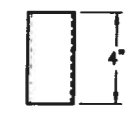
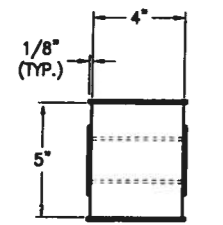
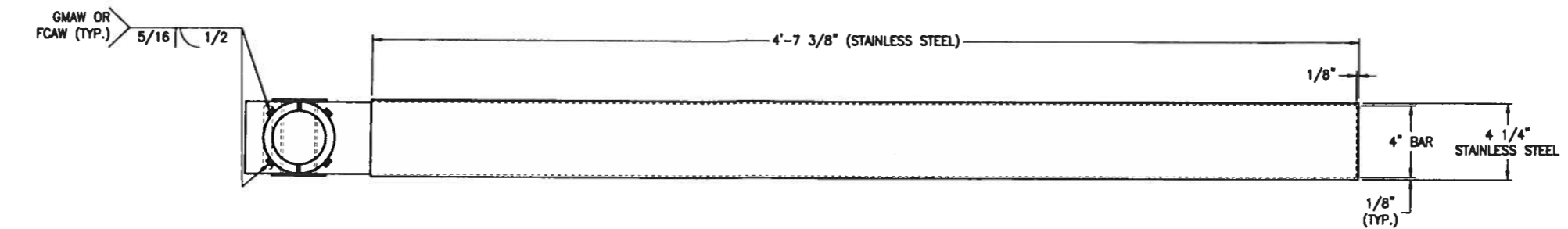
STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNR5-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR

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Auburn, NY 14228
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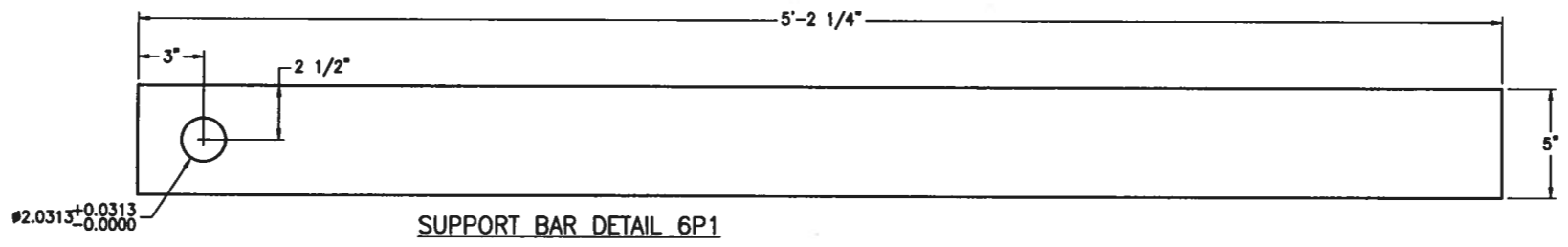
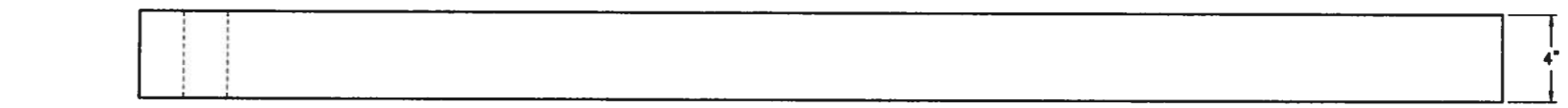
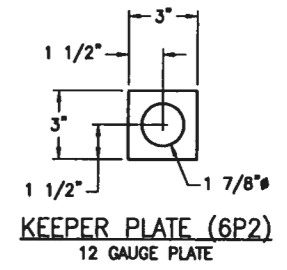
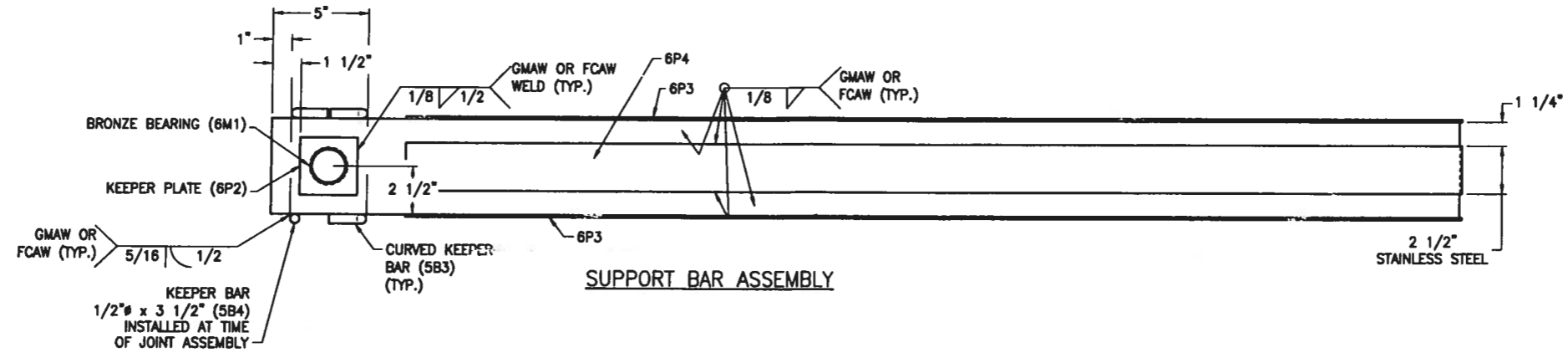
BASF
The Chemical Company

DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 5 of 25	DWGNO. NO.: B-28249

PROJECT: FAP ROUTE 99B (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



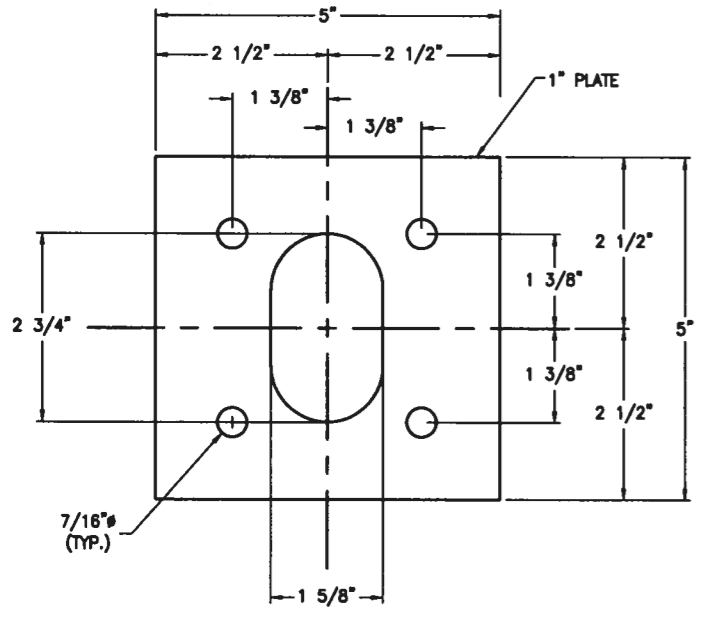
BRONZE BEARING
(6M1)
GENERAL PURPOSE
GRADE BRONZE (ALLOY 932)
ASTM B505
McMASTER 6381K27



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For Main Dimensions and
Materials Only

DEC 28 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



ROD KEEPER BLOCK - 6P5

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC05	1	EA	SUPPORT BAR ASSEMBLY X-CEL 2400 (U)	PAINTED	
					APPROX FINISHED WEIGHT = 385	
1	3744	353.25	LB	PLATE 5\"/>		
1	4289	3	EA	CURVED KEEPER BAR A36 A28044 W (5B3)	ASTM A 36	
1	SEI134532AC05A	2	EA	STAINLESS STEEL SHEETS 12 GAGE (X) (6P3)		
2	8569	8.50	LB	STNLS STL 11GA TYP304 #4FIN(A)	ASTM A 240, TYPE 304 NO 4 FINISH	
1	SEI134532AC05B	2	EA	STAINLESS STEEL SHEETS 12 GAGE (X) (6P4)		
2	8569	5	LB	STNLS STL 11GA TYP304 #4FIN(A)	ASTM A 240, TYPE 304 NO 4 FINISH	

DRAWING ACTION:
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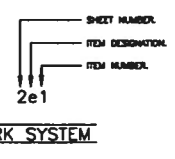


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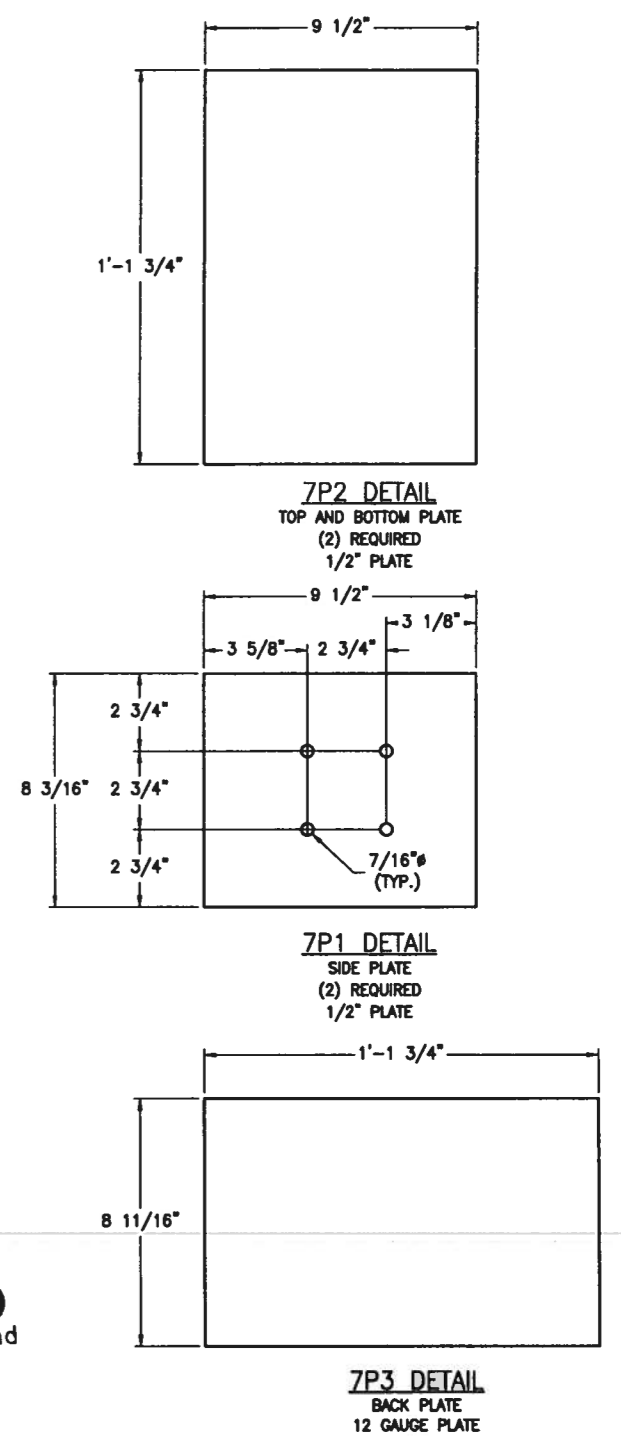
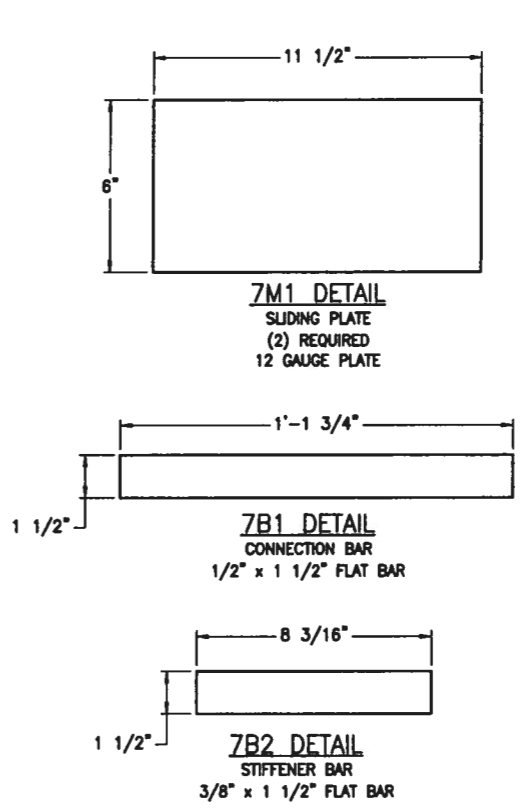
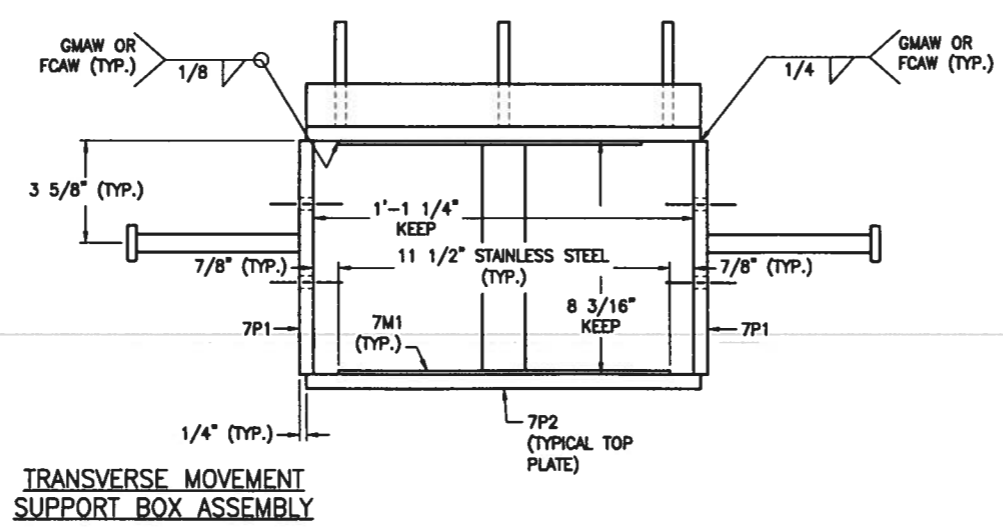
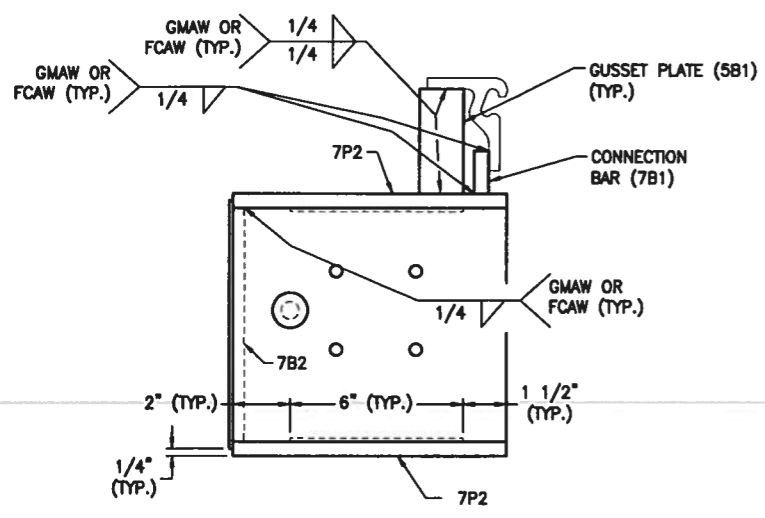
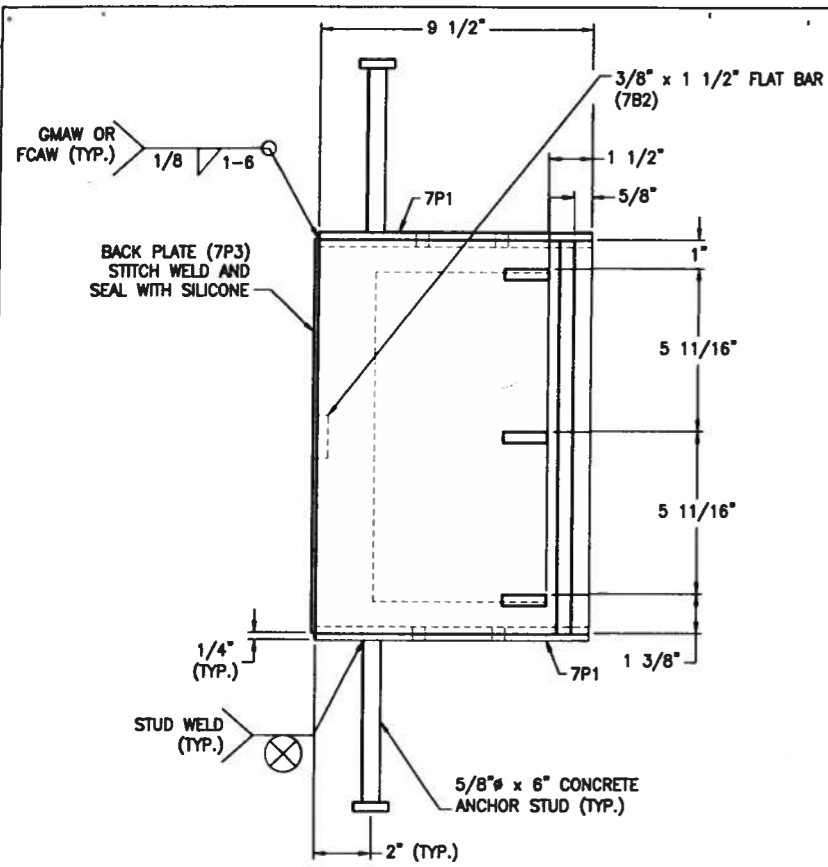


DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 6 of 25	DRAWING NO.: B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNR8-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR



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Materials Only

Ralph E. Anderson
Engineer of Bridges and Traffic Structures

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC06	1	EA	TRANSVERSE BOX ASSEMBLY X-CEL 2400 (W)	PAINTED	
					APPROX. FINISHED WEIGHT = 75 lb	
1	3580	59.25	LB	PLATE 1/2 A36	ASTM A 36	
1	SEI134532AA04A	3	EA	GUSSET PLATE (W)	(5B1)	
2	5901	0.35	FT	FLAT BAR 3/8 x 1-1/2 A36	ASTM A 36	
1	5970	1.15	FT	FLAT BAR 1/2 x 1-1/2 A36	(7B1) ASTM A 36	
1	5901	0.7	FT	FLAT BAR 3/8 x 1-1/2 A36	(7B2) ASTM A 36	
1	SEI134532AC06A	2	EA	SLIDING PLATE (X)	(7M1)	
2	8576	2.5	LB	STNLS STL 12GA TYP304 #8FIN(A)	ASTM A 240; TYPE 304 NO 8 FINISH	
1	4620	2	EA	CON ANC ST 5/8 x 6 AW 108-		

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12/17/10

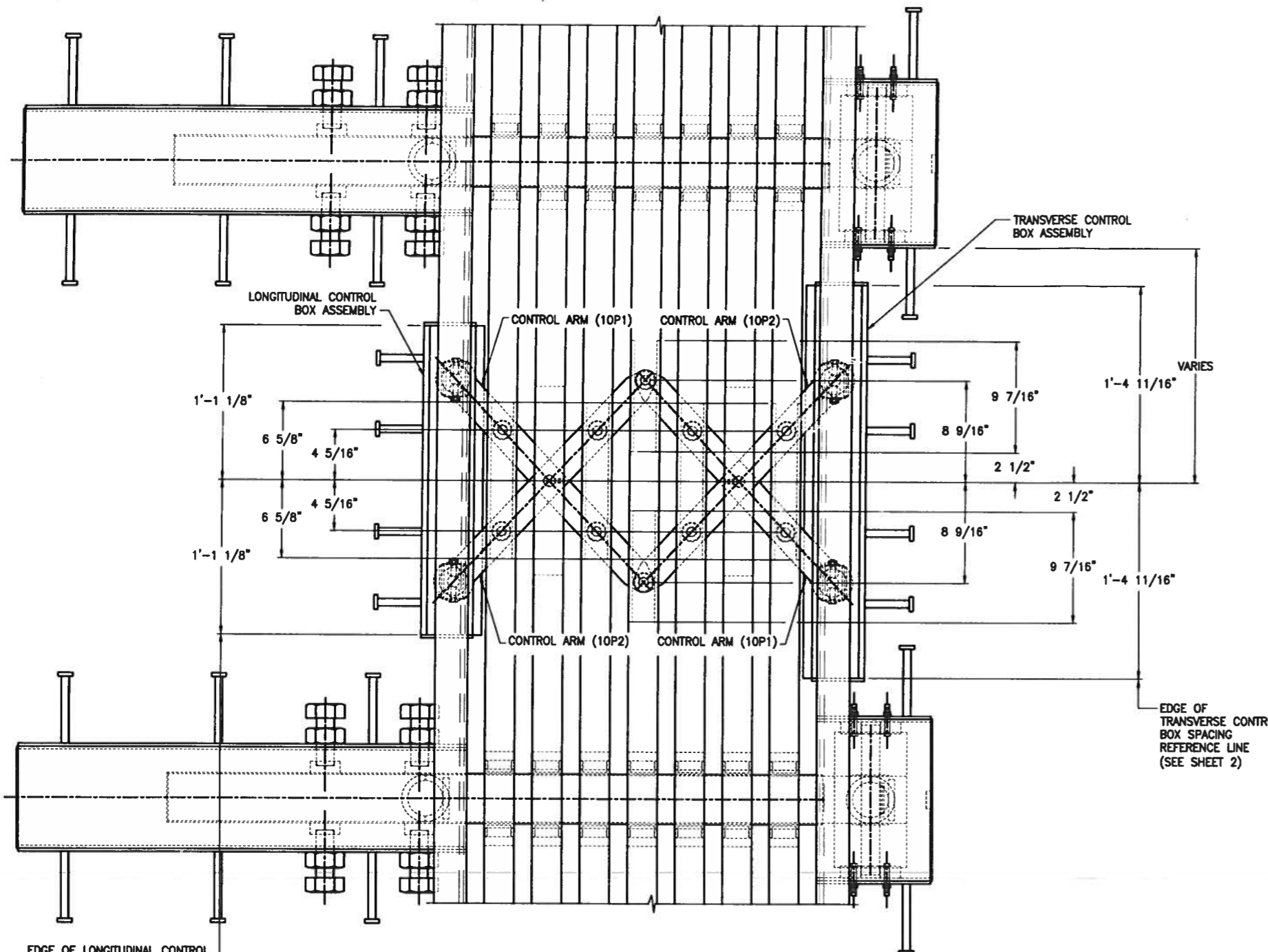
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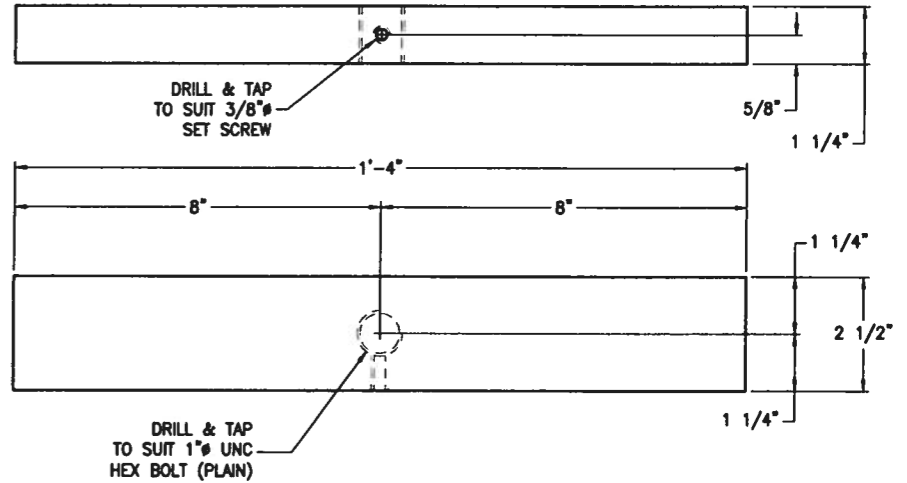
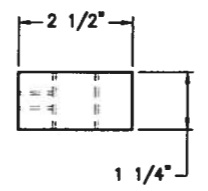
BASF
The Chemical Company

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

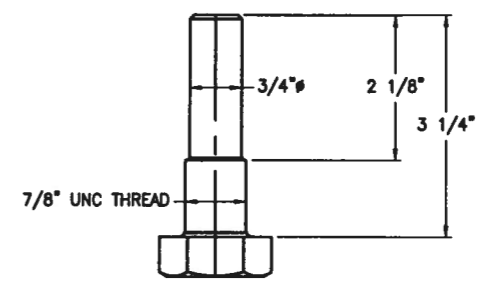
DATE: 10/29/10	DATE: 11/10/10
WBA JOB NO.: 134532	DRAWING NO.: B-28249
SHEET NO.: 7 of 25	



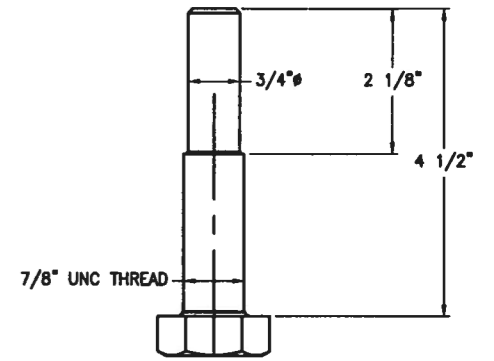
**EQUIDISTANT CONTROL ASSEMBLY
LAYOUT DETAIL
PLAN VIEW**



CONNECTION PLATE DETAIL 8B1



ROLLER BOLT DETAIL (8M1)
MACHINED FROM A
7/8" x 3 1/4" LONG HEX BOLT
ASTM A490
FULLY THREADED

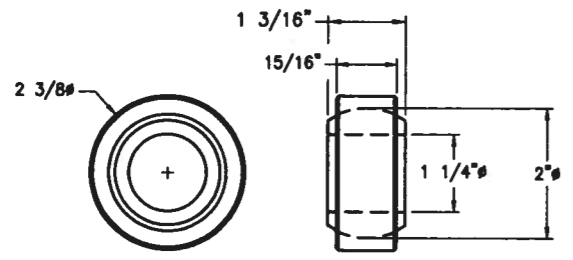


ROLLER BOLT DETAIL (8M2)
MACHINED FROM A
7/8" x 4 1/2" LONG HEX BOLT
ASTM A490
FULLY THREADED

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Materials Only

10/22/10

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



BALL JOINT SWIVEL BEARING (8M3)
McMASTER-CARR ITEM# 63195K52

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

SHEET NUMBER: 2e1
ITEM DESCRIPTION:
ITEM NUMBER:
MARK SYSTEM

DRAWING ACTION:
APPROVED
12/17/10

NO.	DESCRIPTION	DATE

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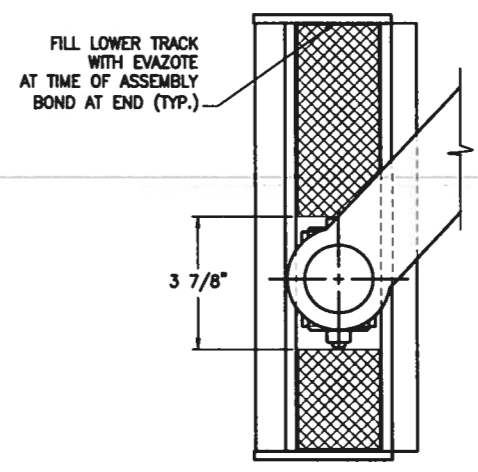
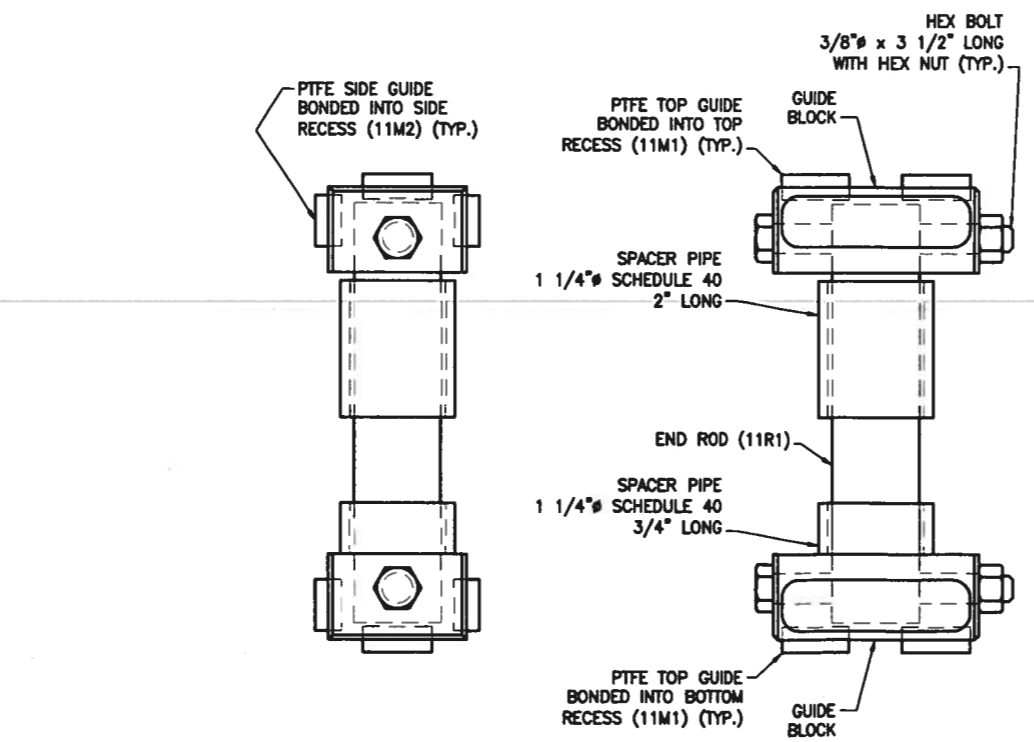
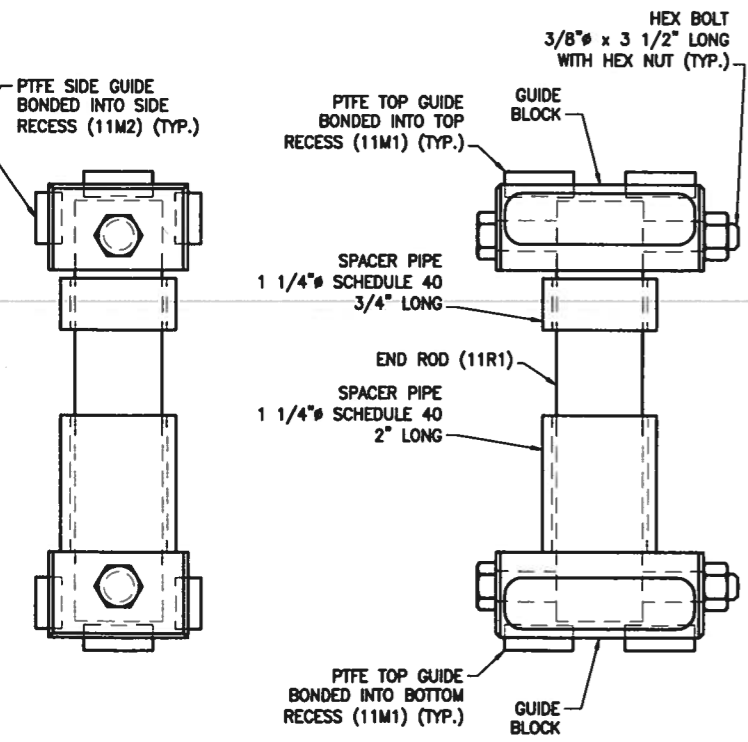
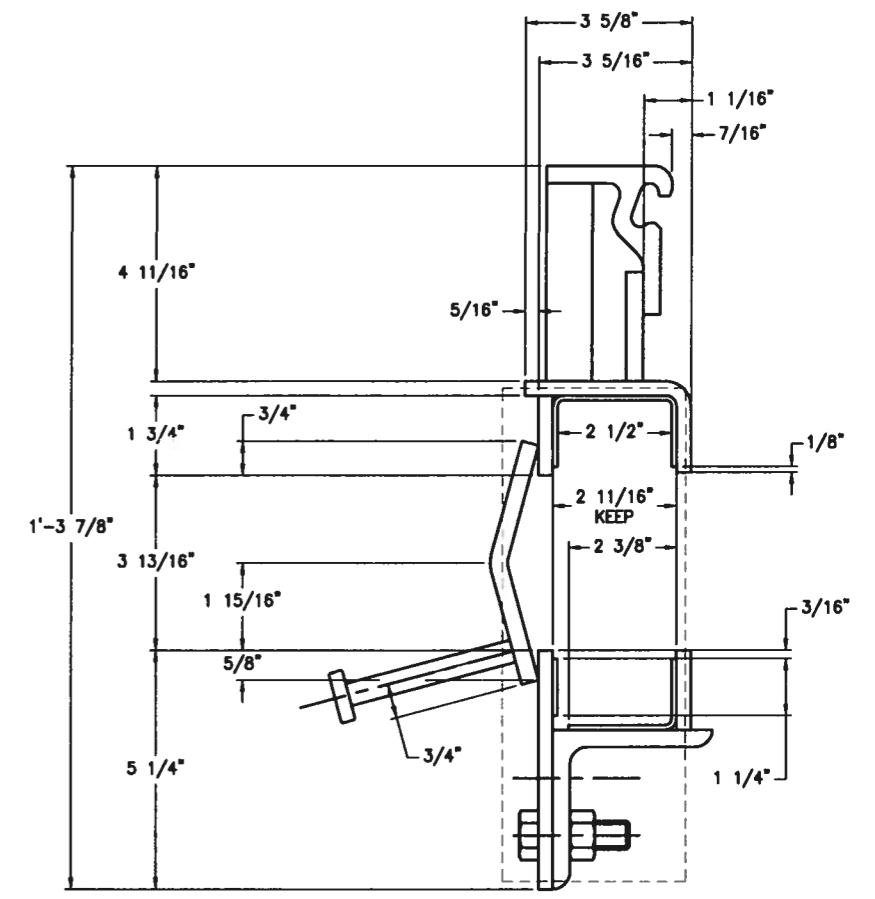
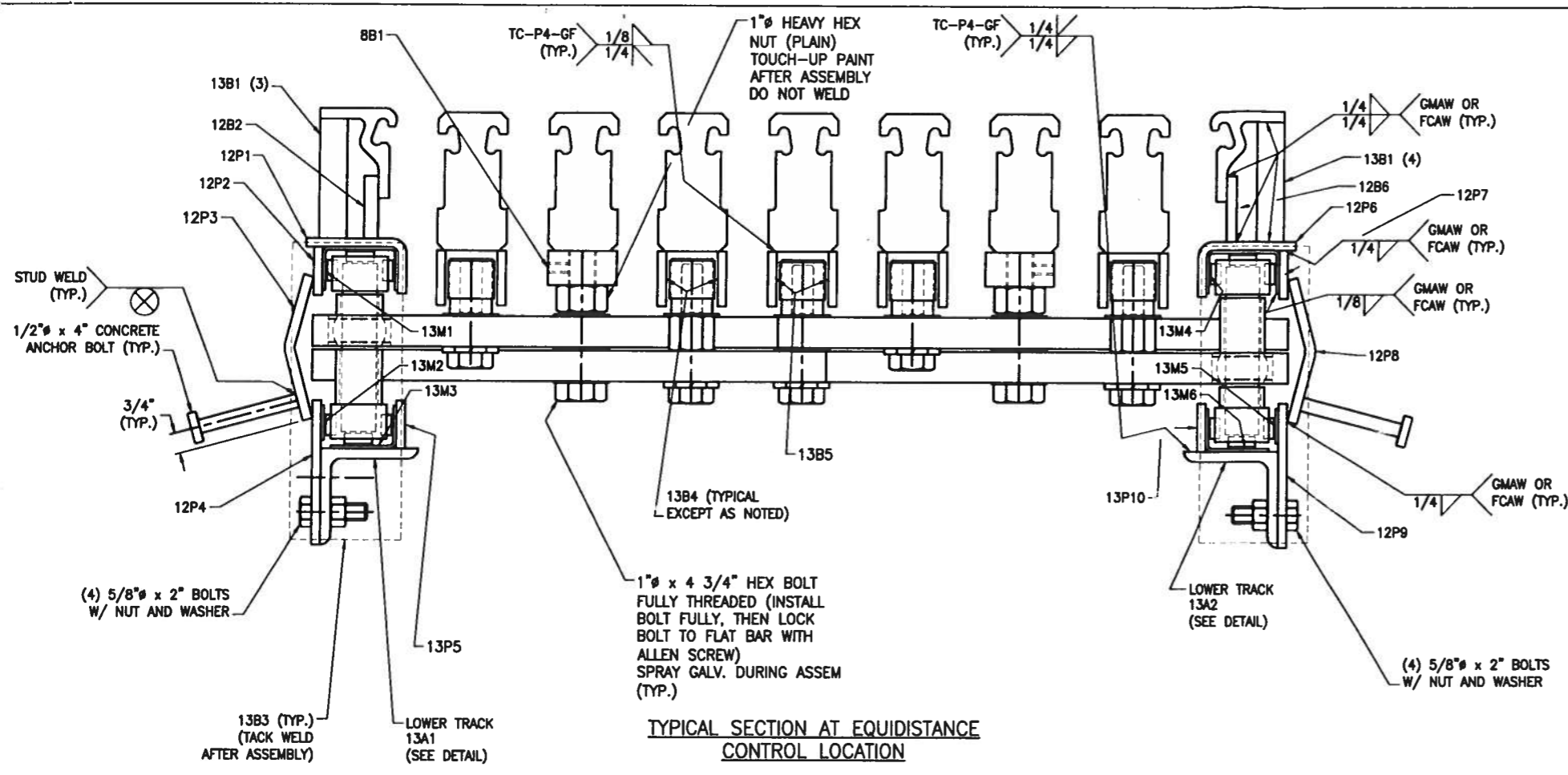


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DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 8 of 25	DRAWING NO.: B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



TYPICAL EQUIDISTANCE CONTROL BOX DETAIL

END SLIDE ASSEMBLY (9A1)

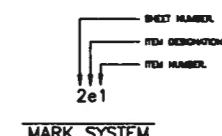
END SLIDE ASSEMBLY (9A2)

LOWER TRACK DETAIL

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DEC 22 2010
Ralph E. Anderson
Engineer of Bridges and Traffic Structures

STATE:	ILLINOIS
COUNTY:	ST. CLAIR
CONTRACT NO.:	78C44
SECTION:	82-2-1HVB
PROJECT:	PNRS-0998(001)
STRUCTURE NO.:	SN 082-031B (EB) & 0319 (WB)
WBA PRODUCT NO.:	SEI134532AC
JOINT TYPE:	SEISMIC MODULAR



DRAWING ACTION:

APPROVED

12/17/10

NO.	DESCRIPTION	DATE

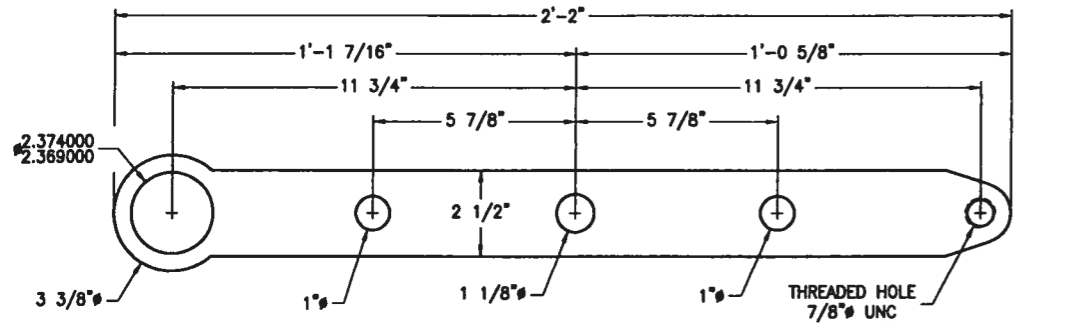
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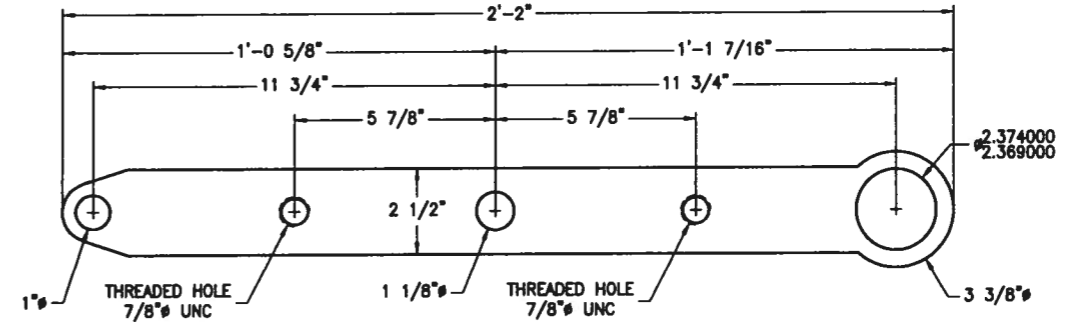
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The Chemical Company

DETAILED BY:	SRN	DATE:	10/29/10
CHECKED BY:	JFW	DATE:	11/10/10
SCALE:	NTS	WBA JOB NO.:	134532
SHEET NO.:	9 of 25	DRAWING NO.:	B-28249

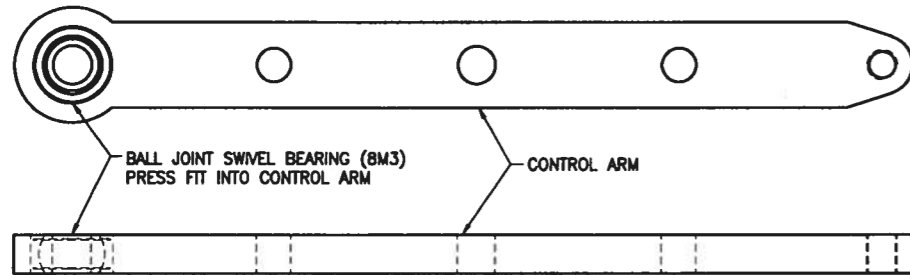
PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



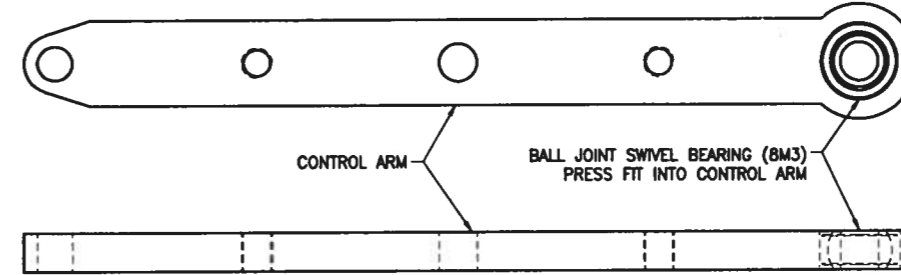
CONTROL ARM DETAIL (10P1)
ASTM A 36 PLATE 1 1/8" THICK



CONTROL ARM DETAIL (10P2)
ASTM A 36 PLATE 1 1/8" THICK



CONTROL ARM ASSEMBLY

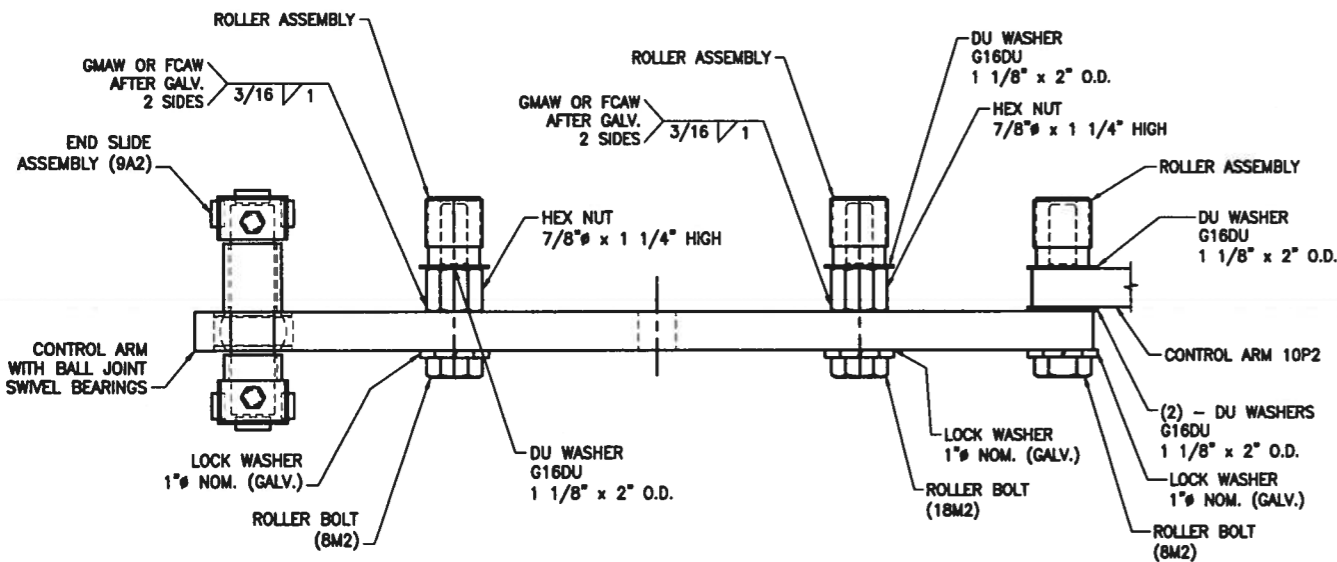


CONTROL ARM ASSEMBLY

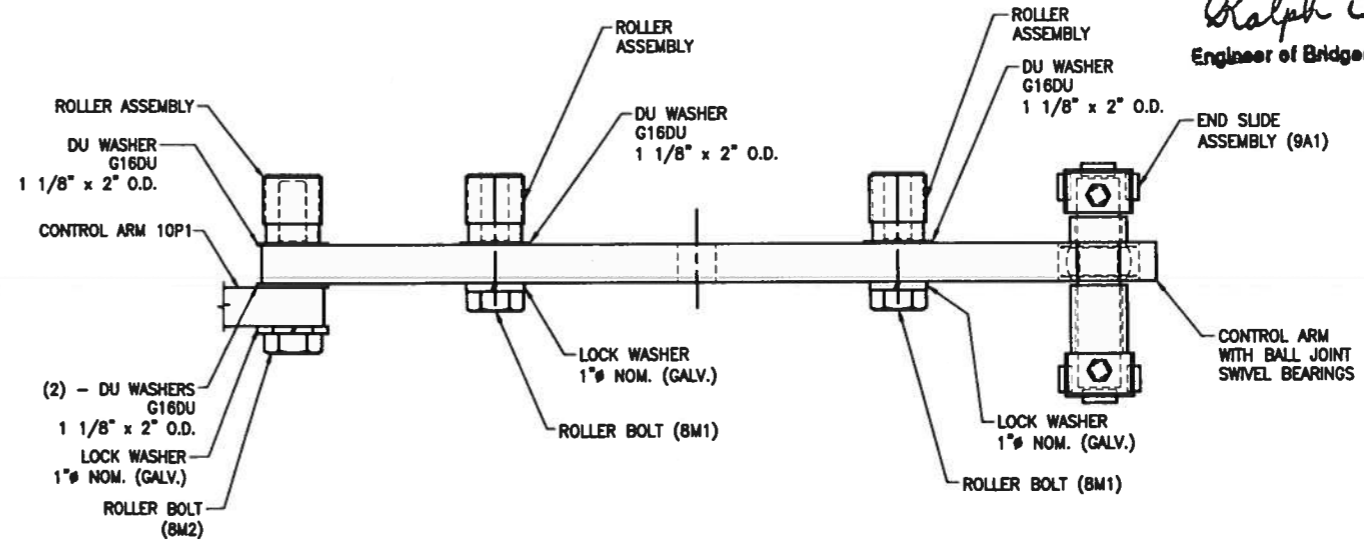
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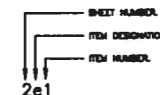
Ralph C. Anderson
Engineer of Bridges and Traffic Structures



EQUIDISTANT CONTROL ARM (10P1) ASSEMBLY AND CONNECTION DETAILS



EQUIDISTANT CONTROL ARM (10P2) ASSEMBLY AND CONNECTION DETAILS



MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 76C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:

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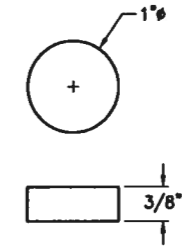
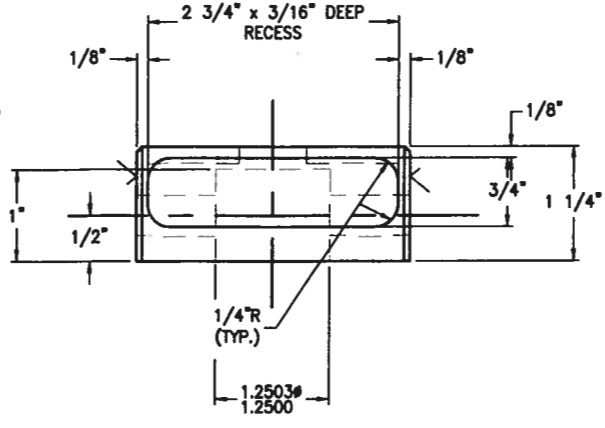
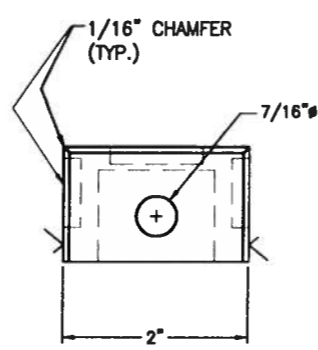


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Fax: (716) 951-8528
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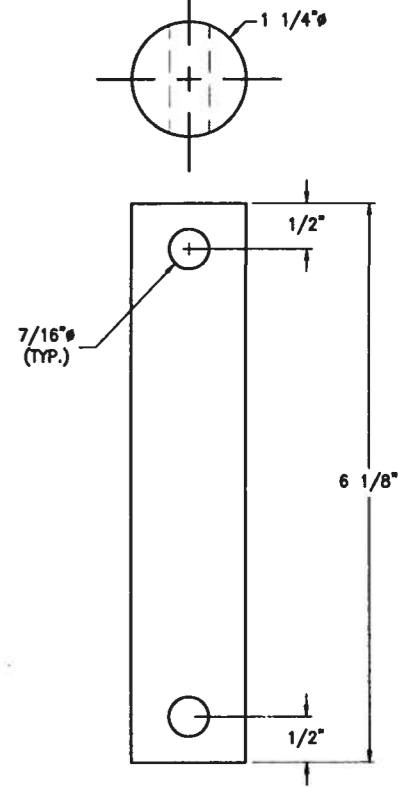


DETAILED BY:	SRN	DATE:	10/29/10
CHECKED BY:	JFW	DATE:	11/10/10
SCALE:	NTS	WBA JOB NO.:	134532
SHEET NO.:	10 of 25	DRAWING NO.:	B-28249

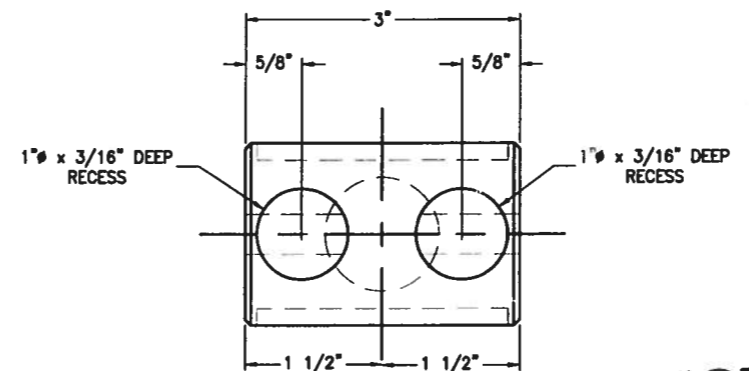
PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



PTFE TOP GUIDE - 11M1
15% GLASS FILLED BY MASS
ETCHED ONE SIDE



END ROD DETAIL - 11R1
CUT FROM HARDENED PRECISION
SHAFTS BY McMASTER-CARR
ITEM 6061K217
AISI 1566 STEEL

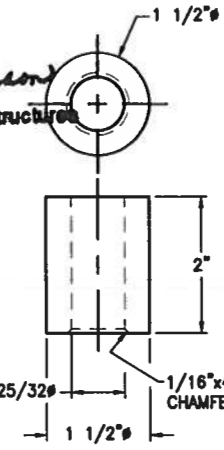


GUIDE BLOCK 11B1 DETAILS
CUT FROM 1 1/4" A 588 PLATE
BURN 1/8" OVERSIZE ALL AROUND
MACHINE SIDES

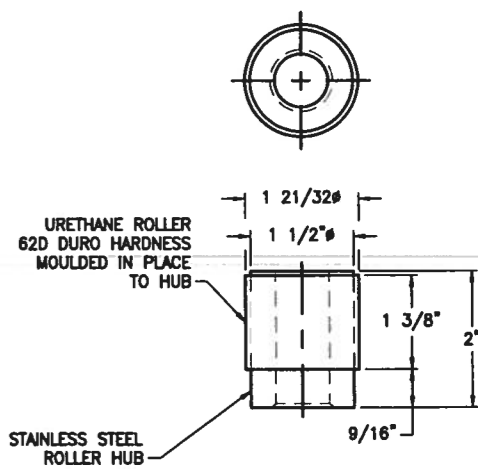
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DEC 22 2010

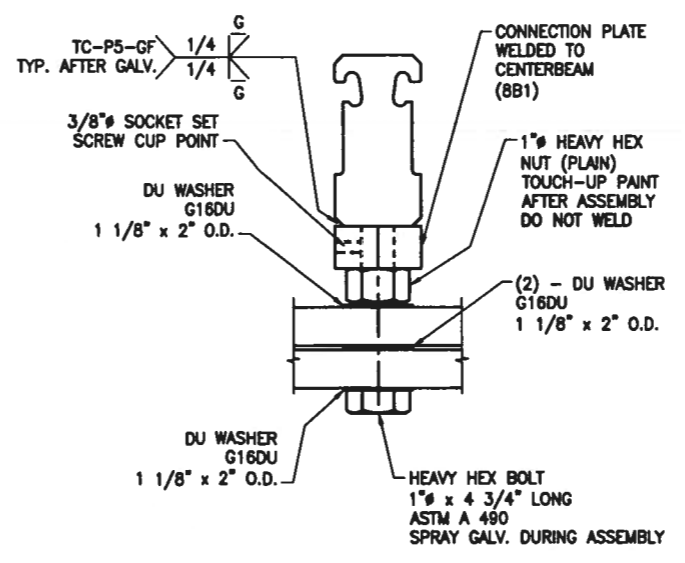
Ralph E. Anderson
- Engineer of Bridges and Traffic Structures



STAINLESS STEEL
ROLLER HUB
TYPE 304 STAINLESS STEEL



ROLLER ASSEMBLY (11M1)



STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: B2-2-11HB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR

MARK SYSTEM
2e1

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC07A	1	EA	END SLIDE ASSEMBLY (U)	UNCOATED	
						APPROX FINISHED WEIGHT = 10 lb
1	SEI134532AC07B	1	EA	GUIDE BLOCK END ROD	(11R1)	
2	NTS134532B	0.55	FT	HARDENED PREC. STEEL SHAFT 1 1/4" O.D. (McMASTER 6061K217)	AISI 1566 STEEL	
1	SEI134532AC07C	2	EA	GUIDE BLOCK ASSEMBLY (U)		
2	SEI134532AC07D	1	EA	GUIDE BLOCK (SEISMIC) 2" WIDE (X)	(11B1)	
3	3670	2.6	LB	PLATE 1-1/4 A588	ASTM A 588	
2	4308	2	EA	GUIDE BLOCK PTFE TOP GUIDE 1"	(11M1)	
2	4330	2	EA	GUIDE BLOCK PTFE 2-3/4X3/4"	(11M2)	
1	SEI134532AC07E	1	EA	1 1/4" DIA x 2" LONG PIPE SPACER FOR END BLOCK (W)		
2	NTS134532C	0.2	FT	1 1/4" DIA SCHEDULE 40 PIPE	SCHEDULE 40	
1	SEI134532AC07F	1	EA	1 1/4" DIA x 2" LONG PIPE SPACER FOR END BLOCK (W)		
2	NTS134532C	0.1	FT	1 1/4" DIA SCHEDULE 40 PIPE	SCHEDULE 40	
1	5192	2	EA	BOLT 3/8 x 3-1/2 GR5 D (A)	SAE GRADE 5	
1	7965	2	EA	NUT 3/8 GALV A563 (A)	ASTM A 563	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC07G	1	EA	END SLIDE ASSEMBLY (U)	UNCOATED	
						APPROX FINISHED WEIGHT = 10 lb
1	SEI134532AC07B	1	EA	GUIDE BLOCK END ROD	(11R1)	
2	NTS134532B	0.55	FT	HARDENED PREC. STEEL SHAFT 1 1/4" O.D. (McMASTER 6061K217)	AISI 1566 STEEL	
1	SEI134532AC07C	2	EA	GUIDE BLOCK ASSEMBLY (U)		
2	SEI134532AC07D	1	EA	GUIDE BLOCK (SEISMIC) 2" WIDE (X)	(11B1)	
3	3670	2.6	LB	PLATE 1-1/4 A588	ASTM A 588	
2	4308	2	EA	GUIDE BLOCK PTFE TOP GUIDE 1"	(11M1)	
2	4330	2	EA	GUIDE BLOCK PTFE 2-3/4X3/4"	(11M2)	
1	SEI134532AC07E	1	EA	1 1/4" DIA x 2" LONG PIPE SPACER FOR END BLOCK (W)		
2	NTS134532C	0.2	FT	1 1/4" DIA SCHEDULE 40 PIPE	SCHEDULE 40	
1	SEI134532AC07F	1	EA	1 1/4" DIA x 2" LONG PIPE SPACER FOR END BLOCK (W)		
2	NTS134532C	0.1	FT	1 1/4" DIA SCHEDULE 40 PIPE	SCHEDULE 40	
1	5192	2	EA	BOLT 3/8 x 3-1/2 GR5 D (A)	SAE GRADE 5	
1	7965	2	EA	NUT 3/8 GALV A563 (A)	ASTM A 563	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC07	1	EA	CONTROL ARM ASSEMBLY (U)	UNCOATED EXCEPT AS NOTED BELOW	
						APPROX FINISHED WEIGHT = 150 lb
1	SEI134532AC07H	2	EA	CONTROL ARM (X)	(10P1)	
2	3650	28	LB	PLATE 1-1/8 A36	ASTM A 36, PAINTED	
1	SEI134532AC07J	2	EA	CONTROL ARM (X)	(10P2)	
2	3650	28	LB	PLATE 1-1/8 A36	ASTM A 36, PAINTED	
1	SEI134532AC07A	2	EA	END SLIDE ASSEMBLY (U)		
1	SEI134532AC07G	2	EA	END SLIDE ASSEMBLY (U)		
1	5193	4	EA	ROLLER BOLT 7/8 X 3-1/4 (A)	(8M1)	
1	NTS134532D	6	EA	ROLLER BOLT 7/8 X 4 1/2, ASTM A 490, UNCOATED (A) (8M2)	ASTM A 490	
1	18801	10	EA	ROLLER HUB ASSEMBLY S.S. A28053	(11M1)	
1	7821	10	EA	LOCKWASHER 1 (A) HOTDIPGALV		
1	18804	14	EA	DU WASHER DU16 1-1/8ID X 2 OD		
1	NTS134532K	4	EA	7/8" DIA. x MUST BE 1 1/4" HIGH NUT, GALV. (A)		
1	NTS134532E	4	EA	BALL JOINT SWIVEL BEARING (1 3/8" O.D.) McMASTER 63195K52 (8M3)		

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12/17/10

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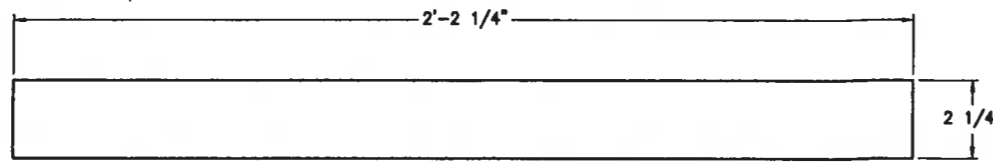
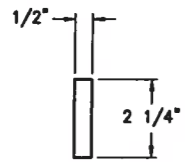
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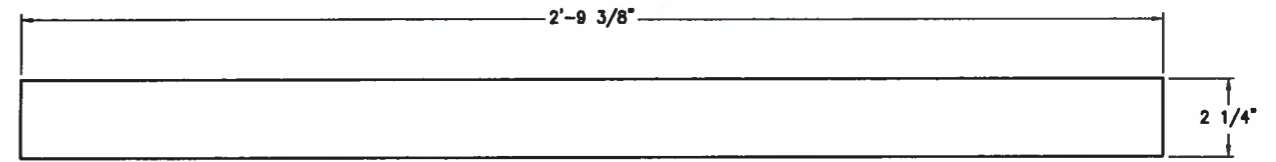
BASF
The Chemical Company

DESIGNED BY:	SRN	DATE:	10/29/10
CHECKED BY:	JFW	DATE:	11/10/10
SCALE:	NTS	WBA JOB NO.:	134532
SHEET NO.:	11 of 25	DRAWING NO.:	B-28249

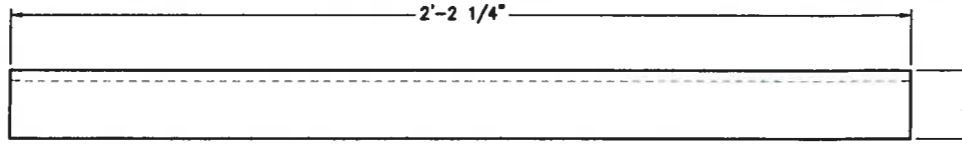
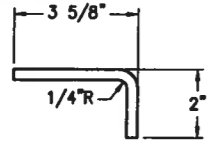
PROJECT: FAP ROUTE 988 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



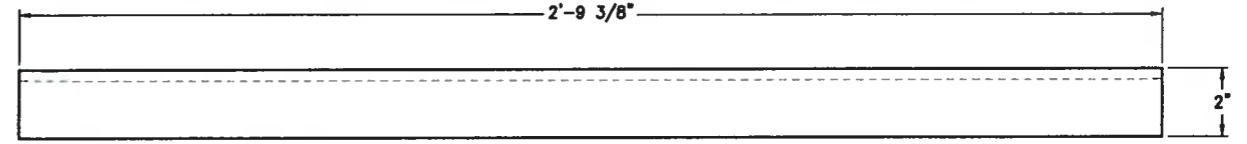
12B2 DETAIL
1/2" x 2 1/4" FLAT BAR



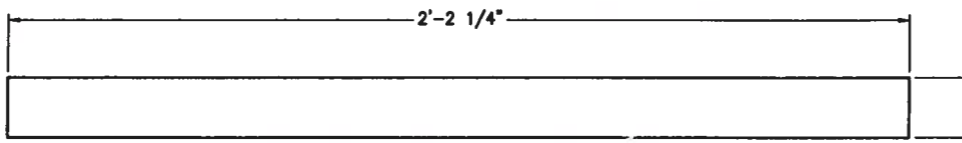
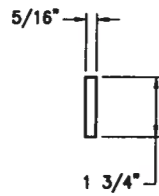
12B6 DETAIL
1/2" x 2 1/4" FLAT BAR



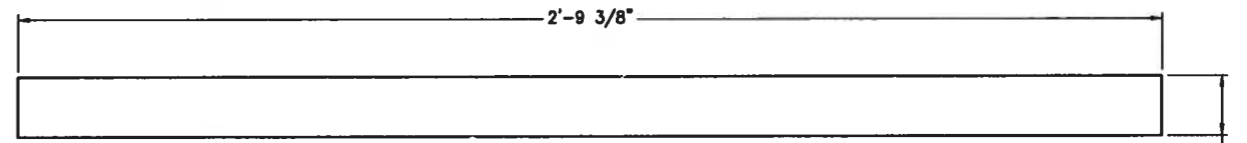
12P1 DETAIL
5/16" PLATE, 5 1/8" DEVELOPED LENGTH



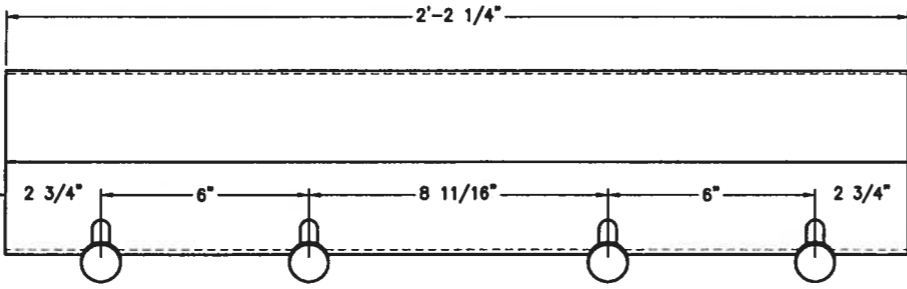
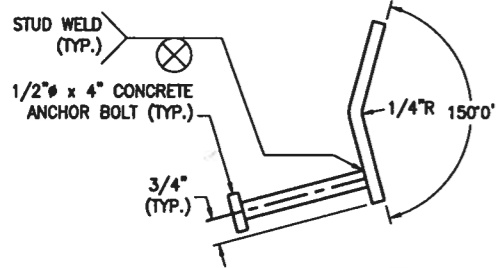
12P6 DETAIL
5/16" PLATE, 5 1/8" DEVELOPED LENGTH



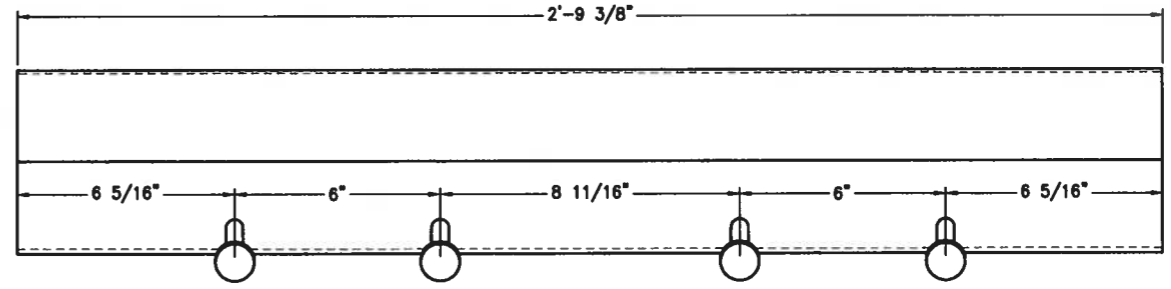
12P2 DETAIL
5/16" PLATE



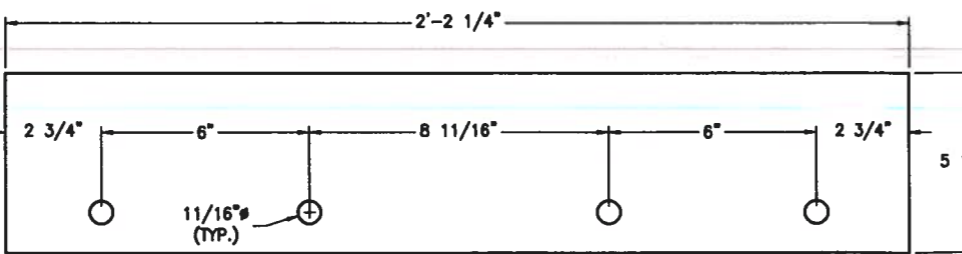
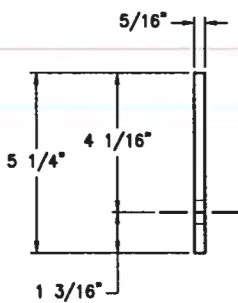
12P7 DETAIL
5/16" PLATE



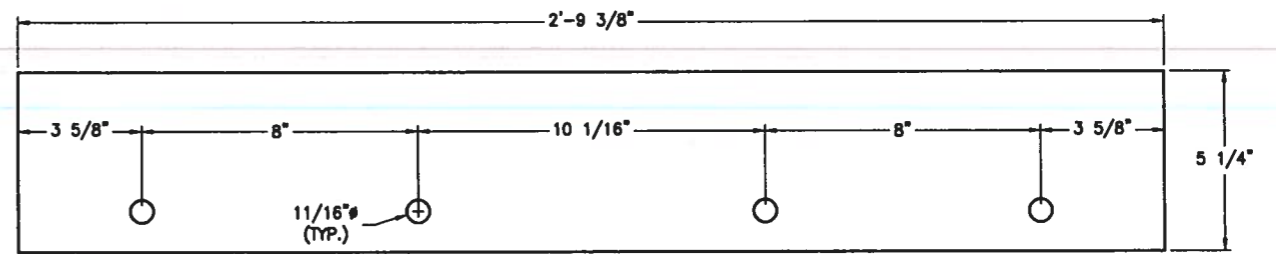
12P3 DETAIL
3/8" PLATE, 5 7/16" DEVELOPED LENGTH



12P8 DETAIL
3/8" PLATE, 5 7/16" DEVELOPED LENGTH



12P4 DETAIL
5/16" PLATE

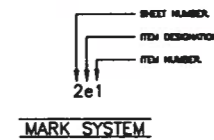


12P9 DETAIL
5/16" PLATE

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DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE1134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:
APPROVED
12/17/10

NO.	DESCRIPTION	DATE

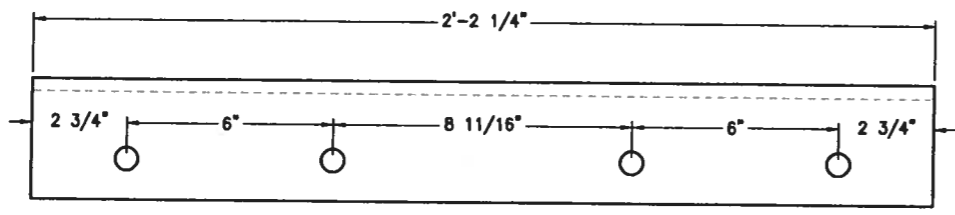
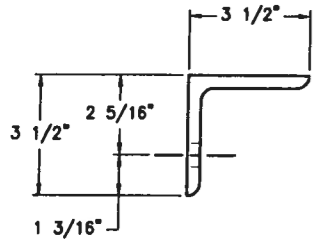
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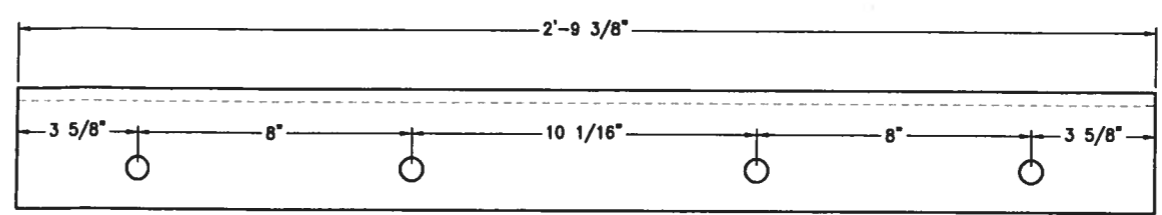
BASF
The Chemical Company

DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 12 of 25	DRAWING NO.: B-28249

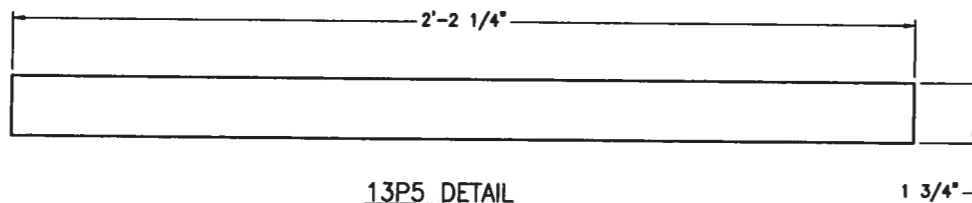
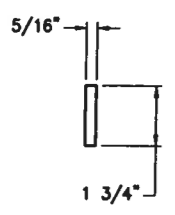
PROJECT: FAP ROUTE 988 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



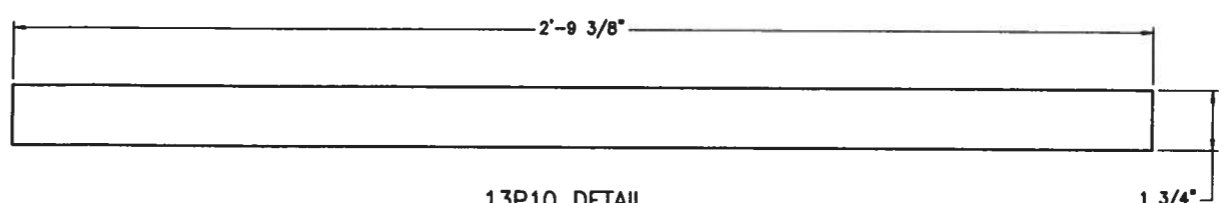
13A1 DETAIL
3 1/2" x 3 1/2" x 3/8" ANGLE



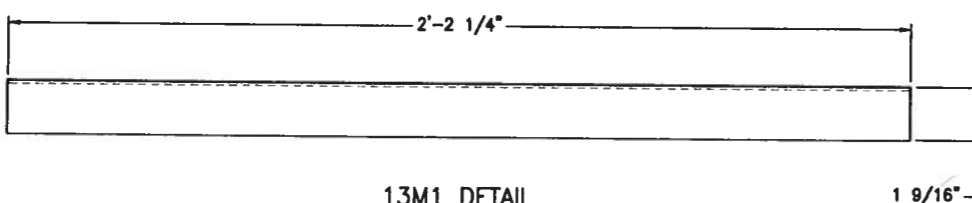
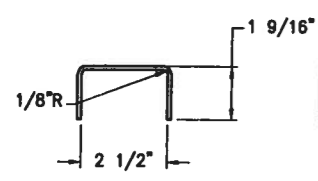
13A2 DETAIL
3 1/2" x 3 1/2" x 3/8" ANGLE



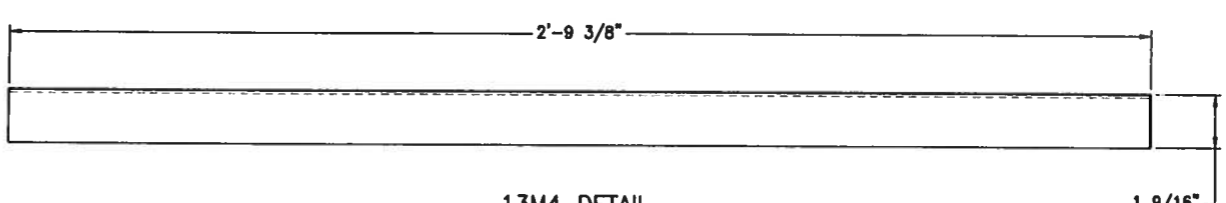
13P5 DETAIL
5/16" PLATE



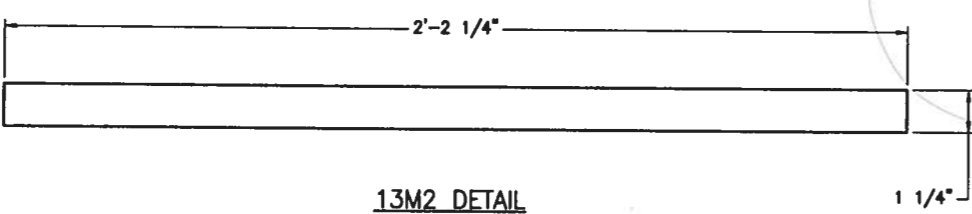
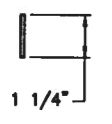
13P10 DETAIL
5/16" PLATE



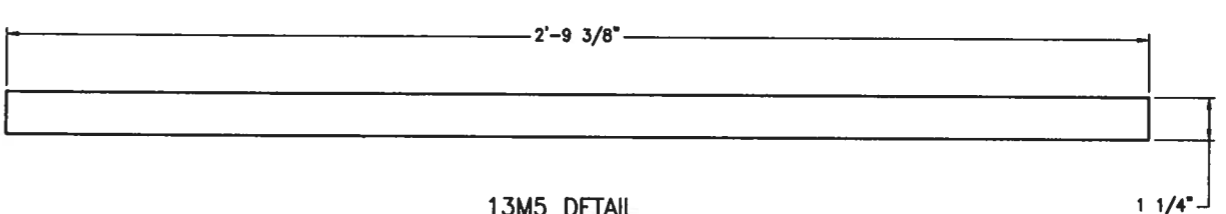
13M1 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH
5 1/2" DEVELOPED LENGTH



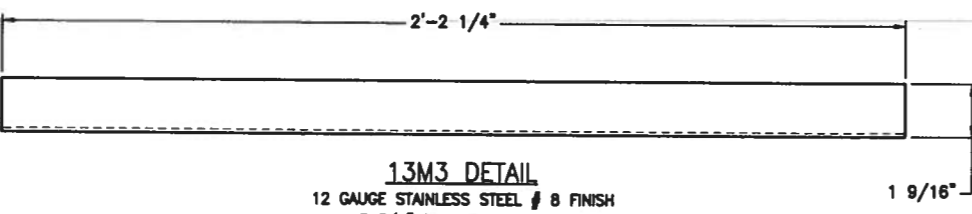
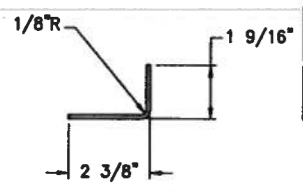
13M4 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH
5 1/2" DEVELOPED LENGTH



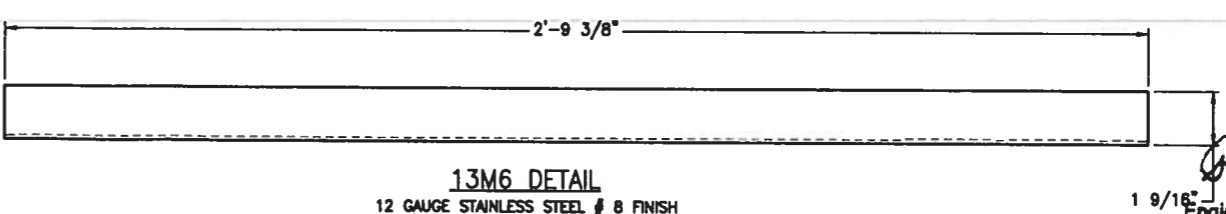
13M2 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH



13M5 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH



13M3 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH
3 3/4" DEVELOPED LENGTH

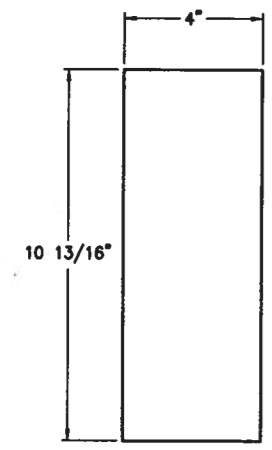


13M6 DETAIL
12 GAUGE STAINLESS STEEL # 8 FINISH
3 3/4" DEVELOPED LENGTH

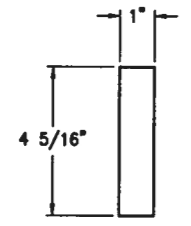
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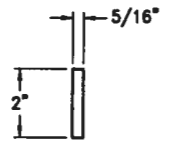
Ralph E. Anderson
Engineer of Bridges and Traffic Structures



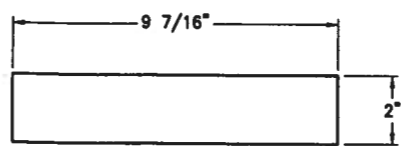
13B3 DETAIL
1/4" x 4" FLAT BAR



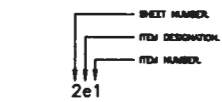
13B1 DETAIL
1/4" x 1" FLAT BAR



13B4 DETAIL
5/16" x 2" FLAT BAR



13B5 DETAIL
5/16" x 2" FLAT BAR



MARK SYSTEM

STATE:	ILLINOIS
COUNTY:	ST. CLAIR
CONTRACT NO.:	76C44
SECTION:	82-2-1HVB
PROJECT:	PNRS-0998(001)
STRUCTURE NO.:	SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.:	SEI134532AC
JOINT TYPE:	SEISMIC MODULAR

DRAWING ACTION:

APPROVED

12/17/10

NO.	DESCRIPTION	NAME	DATE

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DETAILED BY:	SRN	DATE:	10/29/10
CHECKED BY:	JFW	DATE:	11/10/10

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

SCALE:	NTS	WBA JOB NO.:	134532
SHEET NO.:	13 of 25	DRAWING NO.:	B-28249

SEI134532AC08 QTY: 1 REQ'D STRUCTURED BILL OF MATERIALS DWG# B-28249						
LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC08	1	EA	TRANSVERSE CONTROL BOX ASSEMBLY X-CEL 2400 (W)	PAINTED	
					APPROX. FINISHED WEIGHT = 75 lb	
1	SEI134532A08A	4	EA	STIFFENER PLATE (W) (13B1)	ASTM A 36	
2	5820	0.4	FT	FLAT BAR 1/4 x 1 A36		
1	SEI134532AC08B	1	EA	STIFFENER PLATE (W) (12B6)	ASTM A 36	
2	6004	2.8	FT	FLAT BAR 1/2 x 2-1/4 A36		
1	SEI134532AC08C	1	EA	TRACK ANGLE (X) (12P6)	ASTM A 36	
2	3516	15.25	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI134532AC08D	1	EA	TRACK SIDE BAR (X) (12P7)	ASTM A 36	
2	3516	5.25	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI133532AC08E	1	EA	TRACK CONNECTOR (U) (12P8)	ASTM A 36	
2	3540	19.5	LB	PLATE 3/8 A36 (6 FT WIDE)		
2	4500	4	EA	CON ANC ST 1/2 x 4 AW 108		
1	SEI133532AC08F	1	EA	LOWER TRACK SIDE BAR (X) (12P9)		
2	3516	15.75	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI133532AC08G	1	EA	UPPER TRACK STAINLESS (X) (13M4)	ASTM A 240, TYPE 304, NO. 8 FINISH	
2	8576	6.75	LB	STNLS STL 12GA TYP304 #8FIN(A)		
1	SEI133532AC08H	1	EA	LOWER TRACK SIDE STAINLESS (X) (13M5)	ASTM A 240, TYPE 304, NO. 8 FINISH	
2	8576	1.5	LB	STNLS STL 12GA TYP304 #8FIN(A)		

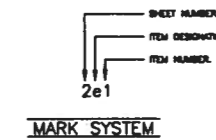
SEI134532AC09 QTY: 1 REQ'D STRUCTURED BILL OF MATERIALS DWG# B-28249						
LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC09	1	EA	LONGITUDINAL CONTROL BOX ASSEMBLY X-CEL 2400 (W)	PAINTED	
					APPROX. FINISHED WEIGHT = 70 lb	
1	SEI134532A08A	3	EA	STIFFENER PLATE (W) (13B1)	ASTM A 36	
2	5820	0.4	FT	FLAT BAR 1/4 x 1 A36		
1	SEI134532AC09B	1	EA	STIFFENER PLATE (W) (12B2)	ASTM A 36	
2	6004	2.25	FT	FLAT BAR 1/2 x 2-1/4 A36		
1	SEI134532AC09C	1	EA	TRACK ANGLE (X) (12P1)	ASTM A 36	
2	3516	12	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI134532AC09D	1	EA	TRACK SIDE BAR (X) (12P2)	ASTM A 36	
2	3516	4.5	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI133532AC09E	1	EA	TRACK CONNECTOR (U) (12P3)	ASTM A 36	
2	3540	15.25	LB	PLATE 3/8 A36 (6 FT WIDE)		
2	4500	4	EA	CON ANC ST 1/2 x 4 AW 108		
1	SEI133532AC09F	1	EA	LOWER TRACK SIDE BAR (X) (12P4)		
2	3516	12.25	LB	PLATE 5/16 A36 (6 FT WIDE)		
1	SEI133532AC09G	1	EA	UPPER TRACK STAINLESS (X) (13M1)	ASTM A 240, TYPE 304, NO. 8 FINISH	
2	8576	5.25	LB	STNLS STL 12GA TYP304 #8FIN(A)		
1	SEI133532AC09H	1	EA	LOWER TRACK SIDE STAINLESS (X) (13M2)	ASTM A 240, TYPE 304, NO. 8 FINISH	
2	8576	1.25	LB	STNLS STL 12GA TYP304 #8FIN(A)		

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Materials Only

11/10/10

Ralph C. Anderson
Engineer of Bridges and Traffic Structures

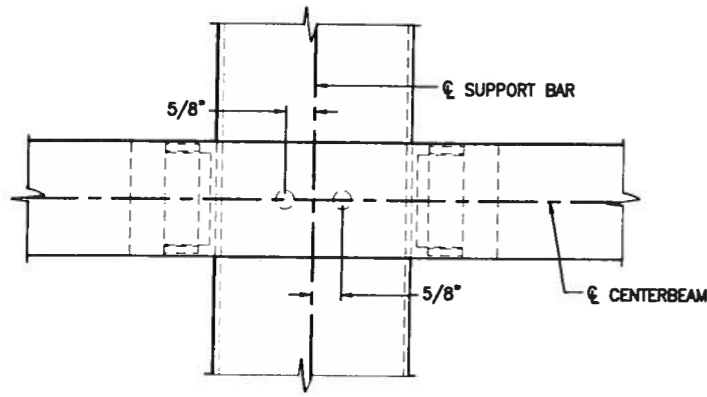
STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR



DRAWING ACTION:
APPROVED
12/17/10

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Watson Bowman Acme	88 Pleasant Drive Amherst, NY 14228 phone: (716) 891-7888 fax: (716) 891-6229 www.watsoncorp.com	BASF The Chemical Company	DESIGNED BY: SRN	DATE: 10/29/10
	CHECKED BY: JFW		DATE: 11/10/10	
PROJECT: FAP ROUTE 99B (RELOCATED I-70) PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS			SCALE: NTS	WBA JOB NO.: 134532
			SHEET NO.: 14 of 25	DRAWING NO.: B-28249

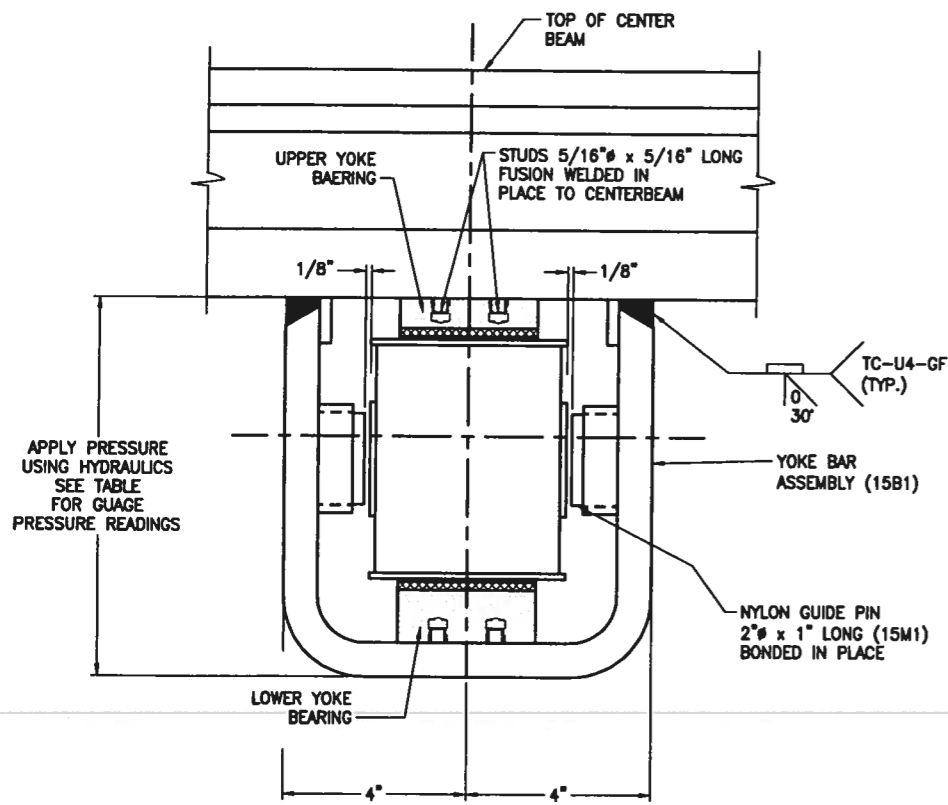
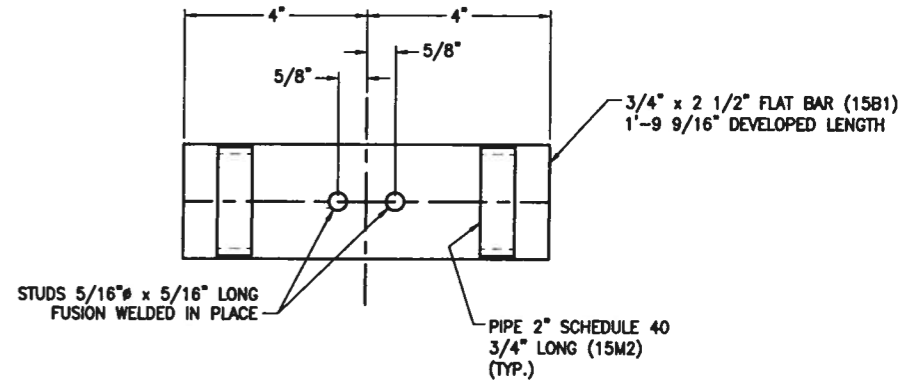


THE FOLLOWING ARE THE GAGE READINGS THAT MUST BE HELD BY FABRICATION STAFF WHEN ASSEMBLING THE YOKES

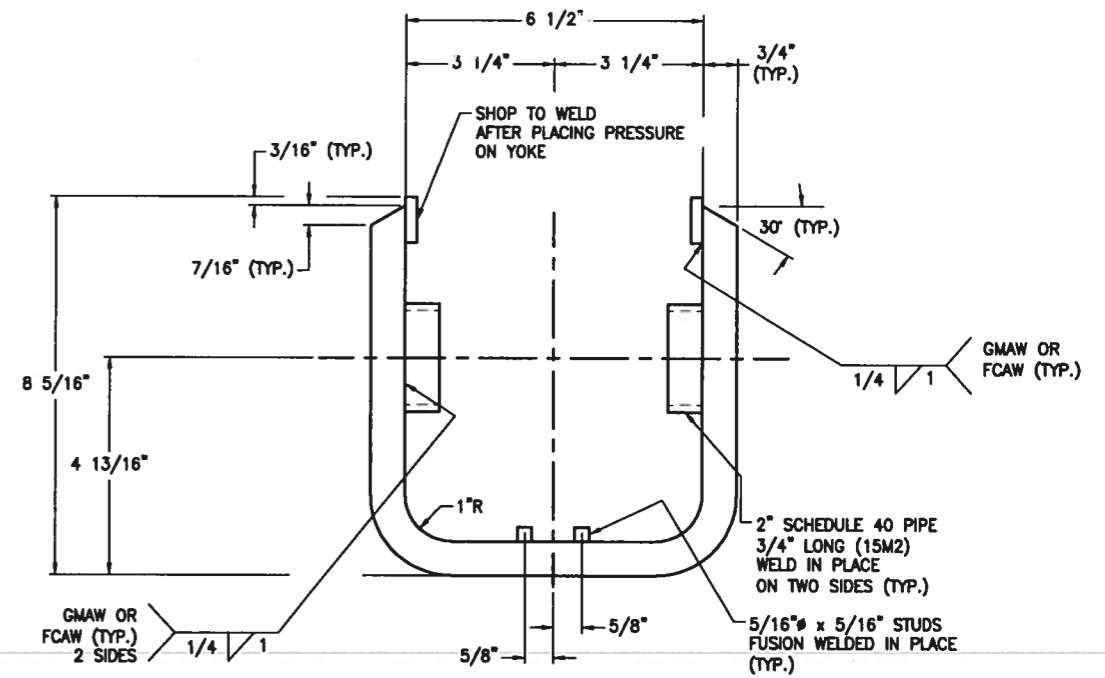
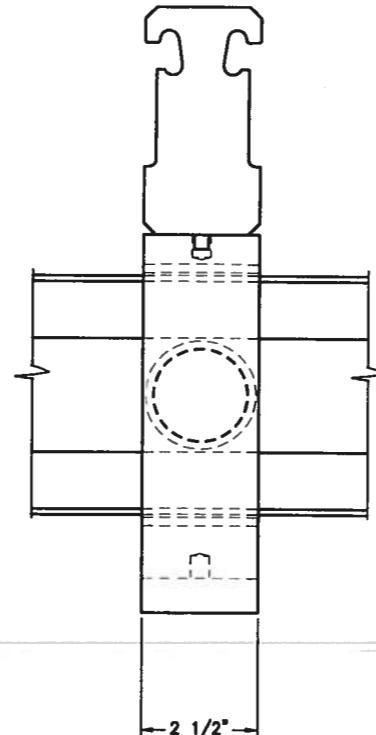
CYLINDER MODEL NUMBER	MINIMUM GAGE PRESSURE (psi)	DESIRED GAGE PRESSURE (psi)	MAXIMUM GAGE PRESSURE (psi)
RC106	650	1000	1330
RC256	300	450	580

IF OTHER CYLINDER MODEL NUMBERS ARE USED OTHER THAN THOSE ABOVE, PLEASE SEE THE WBA ENGINEERING DEPARTMENT TO OBTAIN THE CORRECT JACKING PRESSURE RANGE FOR THE SPECIFIC MODEL NUMBER

YOKE JACK GAGE TABLE



YOKE HOLD DOWN ASSEMBLY DETAILS



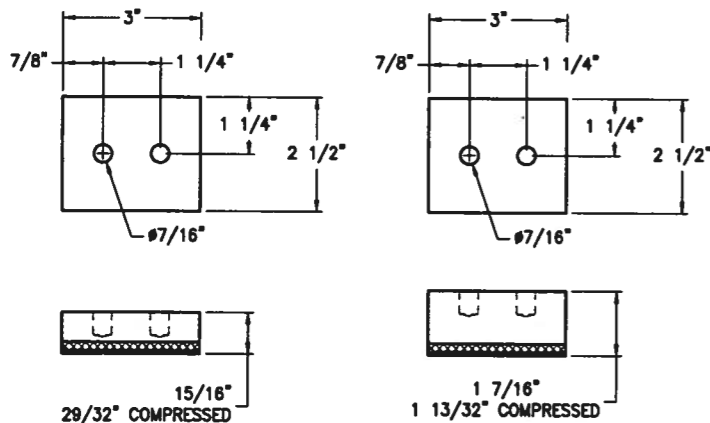
YOKE BAR DETAIL

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11/10/10

SHEET NUMBER
ITEM DESIGNATION
ITEM NUMBER
2e1

MARK SYSTEM



UPPER YOKE BEARING DETAIL

LOWER YOKE BEARING DETAIL

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC10	1	EA	HOLD DOWN YOKE ASSEMBLY (W)	PAINTED	
1	6078	1.8	FT	FLAT BAR 3/4 x 2-1/2 A36 (15B1)	ASTMA 36	
1	7245	2	EA	YOKE ASSY PIPE GUIDE 2"A28060W (15M2)		
1	5584	2	EA	UHMW DISC 2"DIA X 1" LG		
1	6932	2	EA	NO THREAD STUD 5/16" DIA x 5/16" KO (A)		

DRAWING ACTION:
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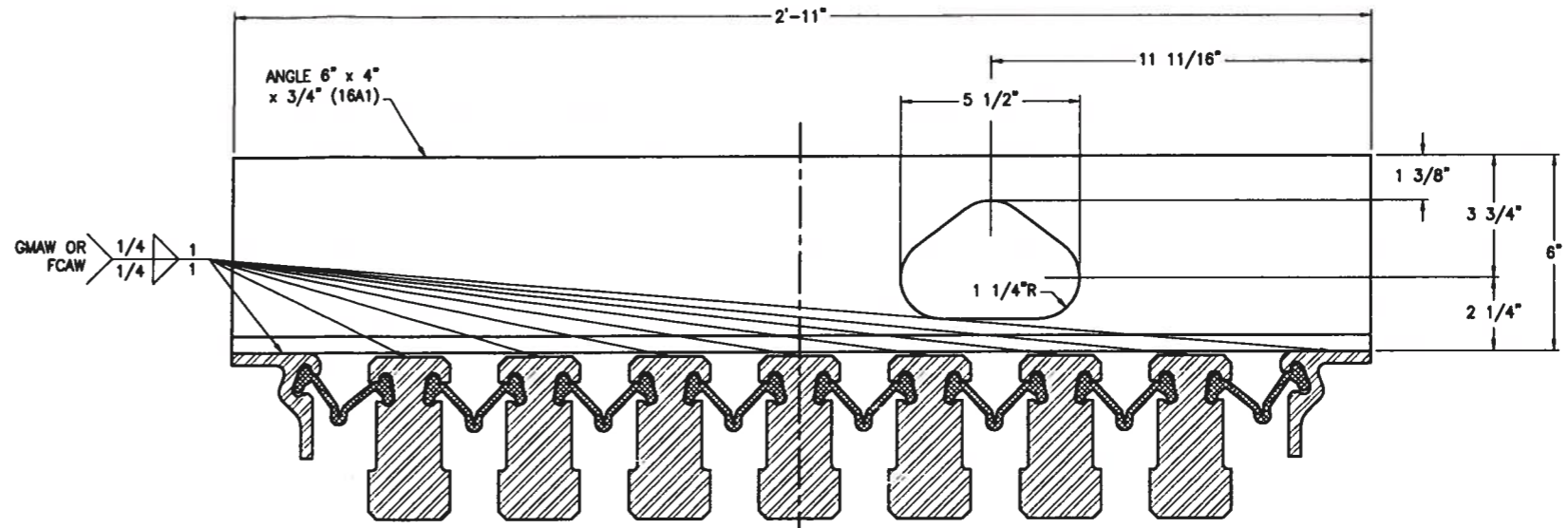
BASF
The Chemical Company

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 15 of 25	DRAWING NO.: B-28249

INSTALLATION PROCEDURE

- STEP 1. VERIFY THE DIMENSIONS OF THE BLOCKOUT IN SECTION A-A ON SHEET 3. CORRECT AS NECESSARY.
- STEP 2. LOOSEN BOLTS AT SHIPPING CLAMPS IF REQUIRED TO ADJUST THE JOINT SEAL ASSEMBLY. PRESET THE THE EXPANSION JOINT SEAL ASSEMBLY OPENING AS DIRECTED BY THE FIELD ENGINEER. TIGHTEN BOLTS ON THE SHIPPING CLAMPS. (STEP 2 MAY BE PERFORMED BEFORE OR AFTER THE EXPANSION JOINT HAS BEEN LIFTED INTO THE BLOCKOUT. PERFORMING STEP 2 BEFORE SETTING THE JOINT INTO THE BLOCKOUT MAY EASE CONSTRUCTION.)
- STEP 3. LIFT AND PLACE EXPANSION JOINT SEAL ASSEMBLY INTO BLOCKOUT. WHILE JOINT SEAL ASSEMBLY IS SUSPENDED, INSTALL LEVELING DEVICES AND ADJUST TO PROPER GRADE AND ELEVATION.
- STEP 4. CHECK JOINT SEAL ASSEMBLY FOR ALIGNMENT WITH CURBS. REMOVE LIFTING ANGLES AND GRIND WELDS SMOOTH.
- STEP 5. PRIOR TO PLACEMENT OF CONCRETE, ALL PRESTRESS DEVICES SHALL BE REMOVED. DEVICES ON TOP OF THE JOINT SHALL REMAIN IF THEIR LOCATION WILL NOT INTERFERE WITH CONCRETE PLACEMENT OR EXPANSION JOINT PERFORMANCE.
- STEP 6. TEMPERATURE AND JOINT OPENING SHOULD BE CHECKED FOR ANY DISCREPENCIES FROM INITIAL ADJUSTMENT.
- STEP 7. CONTRACTOR SHALL AT THIS TIME HAVE REQUIRED FORM WORK IN PLACE.
- STEP 8. ALL CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.
- STEP 9. UPON COMPLETING CONCRETE PLACEMENT OPERATIONS, LOOSEN NUTS AT SHIPPING CLAMPS. THE ENGINEER SHALL DETERMINE WHEN REMOVAL OF THE LEVELING DEVICES WILL BE PERMITTED.
- STEP 10. CONTRACTOR SHALL REMOVE ALL TEMPORARY DEVICES FROM TOP OF JOINT SEAL ASSEMBLY, GRIND WELDS SMOOTH, AND TOUCH UP ALL AREAS OF DAMAGED PAINT.



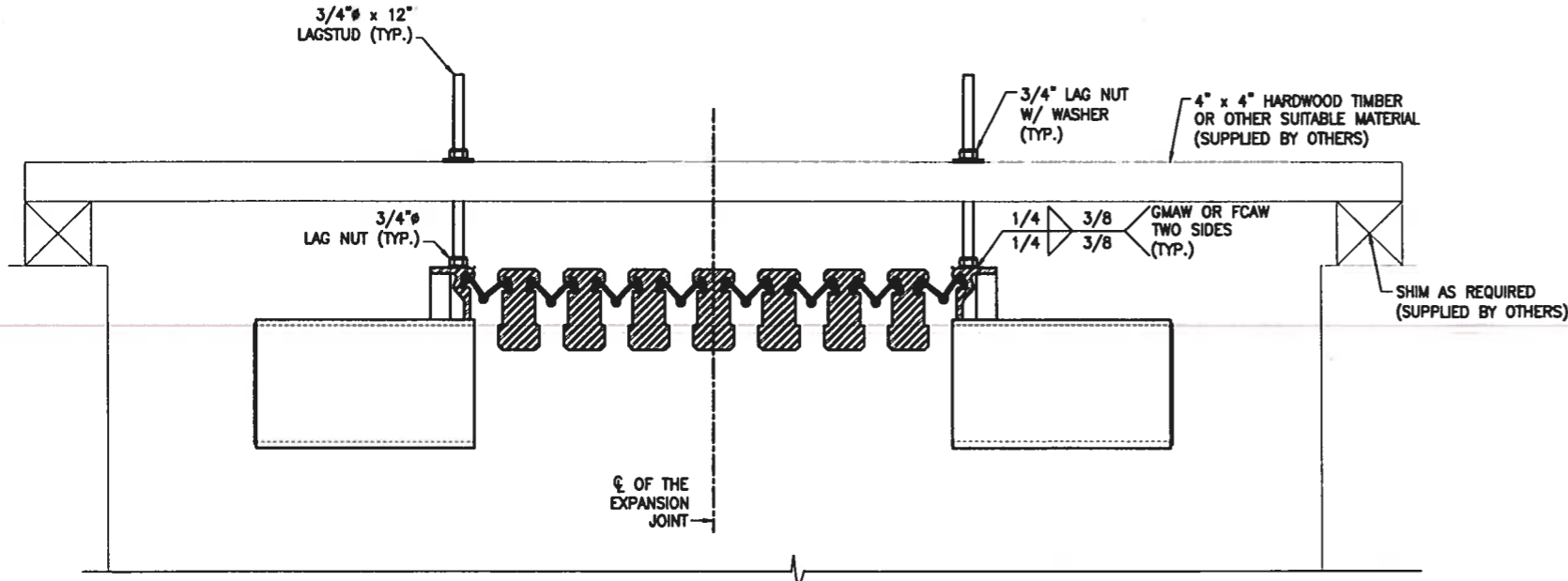
LIFTING DEVICE ASSEMBLY
(THIS IS A TEMPORARY DEVICE)

- NOTE:**
- 1. LIFTING ANGLES SHALL BE PLACED BY THE FABRICATOR TO ACHIEVE A LEVEL LIFT FOR PLACEMENT (2 PER JOINT SECTION).
 - 2. THE CONTRACTOR SHALL REMOVE AFTER THE JOINT IS SET IN THE BLOCKOUT, PRIOR TO PRESETTING OF THE JOINT.
 - 3. THE CONTRACTOR SHALL REMOVE BY GRINDING WELDS SMOOTH.
 - 4. CONTRACTOR SHALL TOUCH UP ANY DAMAGED PAINT.

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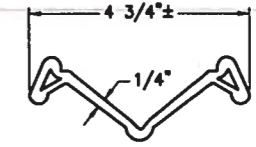
DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



LEVELING ASSEMBLY
(THIS IS A TEMPORARY DEVICE)

- NOTE:**
- 1. LEVELING NUTS SHALL BE LOCATED AT EVERY OTHER SUPPORT BOX.
 - 2. LEVELING NUTS SHALL BE SHOP INSTALLED PARALLEL TO THE EXPANSION JOINT SUPPORT BARS.
 - 3. CONTRACTOR SHALL REMOVE LEVELING NUTS WHEN THE JOINT IS SET AND GRIND WELDS SMOOTH.
 - 4. CONTRACTOR SHALL MATCH DRILL THE TIMBER WITH THE 3/4" LAG NUTS PRIOR TO SETTING THE EXPANSION DAM IN ITS FINAL POSITION.
 - 5. CONTRACTOR SHALL TOUCH UP DAMAGED PAINT.



SE-300 SEAL

SHEET NUMBER:
ITEM DESCRIPTION:
ITEM NUMBER:
2e1

MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:
APPROVED
12/17/10

NO.	DESCRIPTION	DATE	BY

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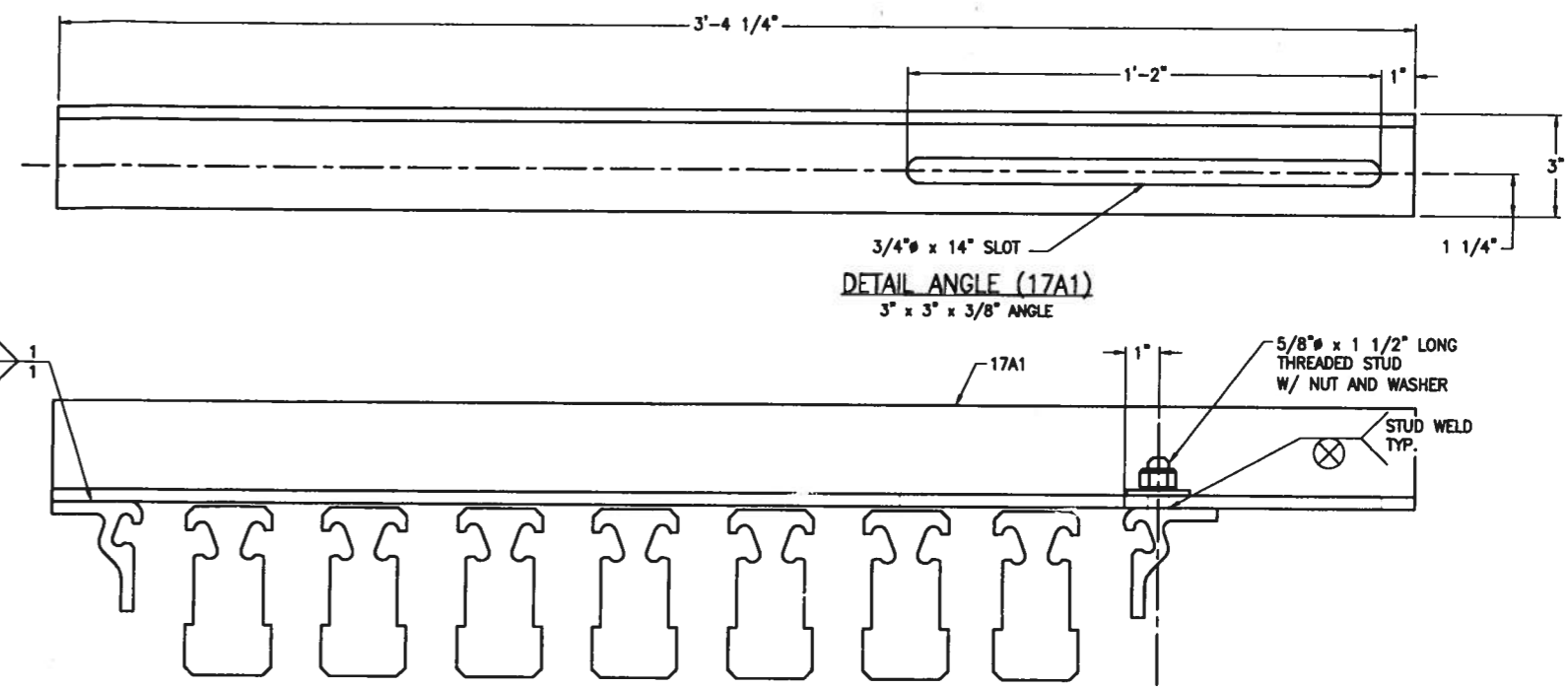


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DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.:
SHEET NO.:	134532
16 of 25	DRAWING NO.:
	B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



DETAIL ANGLE (17A1)
3" x 3" x 3/8" ANGLE

SHIPPING CLAMP ASSEMBLY
(THIS IS A TEMPORARY DEVICE)

- NOTES:**
1. SHIPPING CLAMPS SHALL BE SPACED DIRECTLY BETWEEN SUPPORT BOXES AND BETWEEN THE END OF THE JOINT AND LAST BOXES. SHIPPING CLAMPS SHALL BE ORIENTED PARALLEL TO SUPPORT BARS.
 2. THE CONTRACTOR IS TO REMOVE THE SHIPPING CLAMPS AND STUDS, WHEN THE JOINT IS SET. WELDS ARE TO BE GROUND SMOOTH AND DAMAGED PAINT IS TO BE TOUCHED UP.
 3. EACH SHIPPING CLAMP ASSEMBLY SHALL INCLUDE:
 - 1 - ANGLE (17A1) - 3" x 3" x 3/8"
 - 1 - 5/8" x 1 1/2" LONG THREADED STUD
 - 1 - 5/8" WASHER
 - 1 - 5/8" NUT

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Materials Only

FEB 23 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



MARK SYSTEM

STATE: ILLINOIS
 COUNTY: ST. CLAIR
 CONTRACT NO.: 76C44
 SECTION: 82-2-1HVB
 PROJECT: PNRS-0998(001)
 STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
 WBA PRODUCT NO.: SE134532AC
 JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:

APPROVED

12/17/10

NO.	DESCRIPTION	DATE

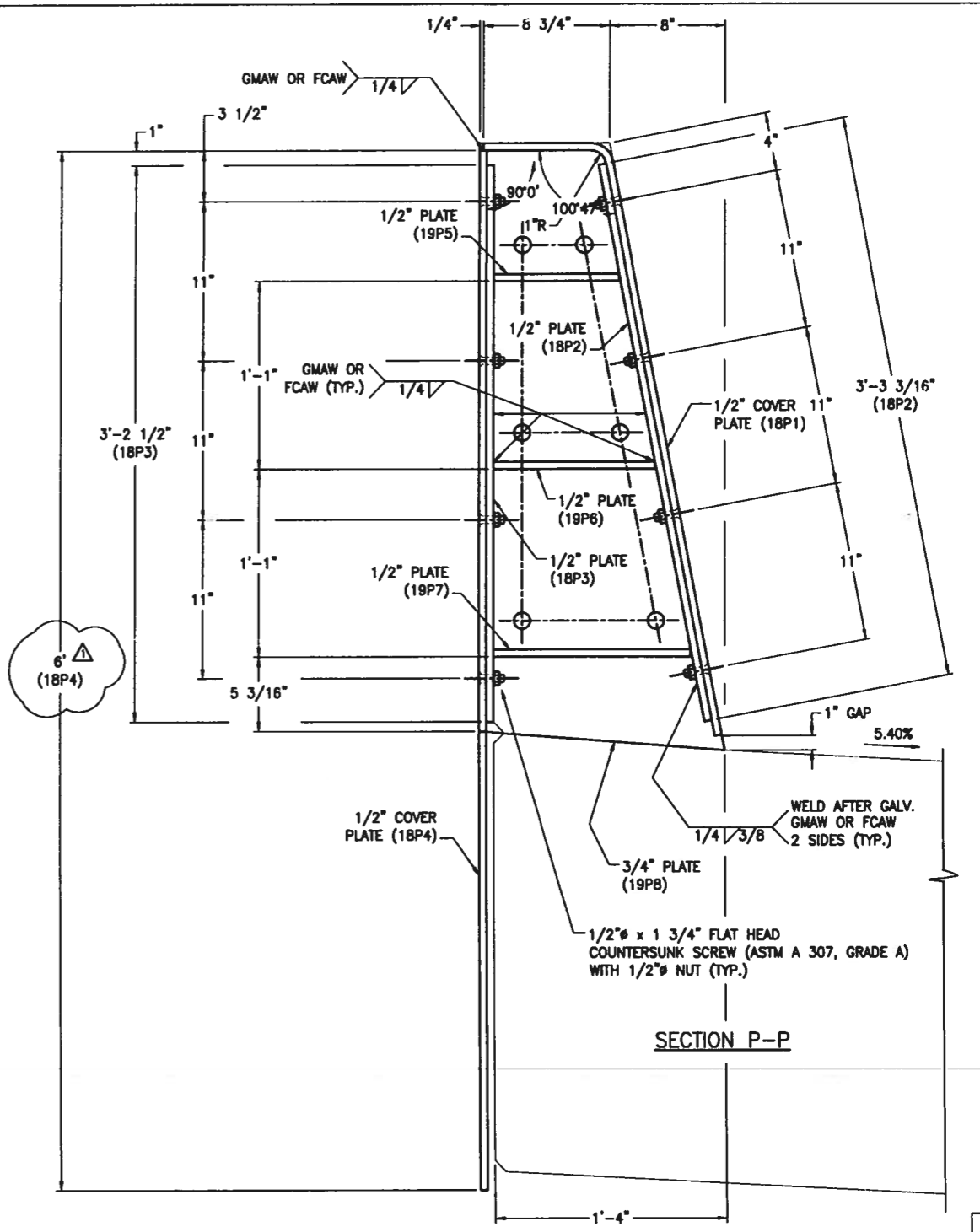
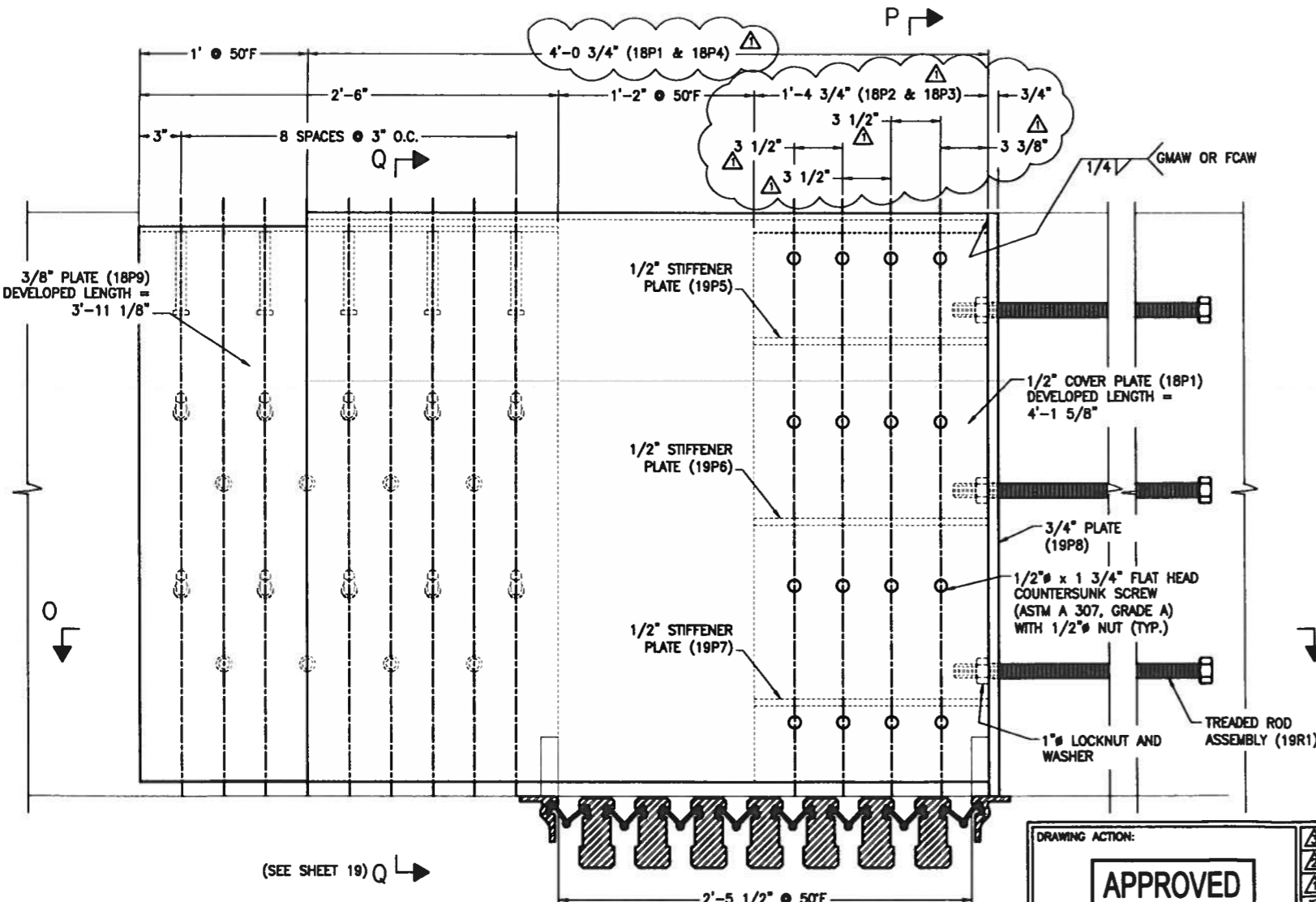
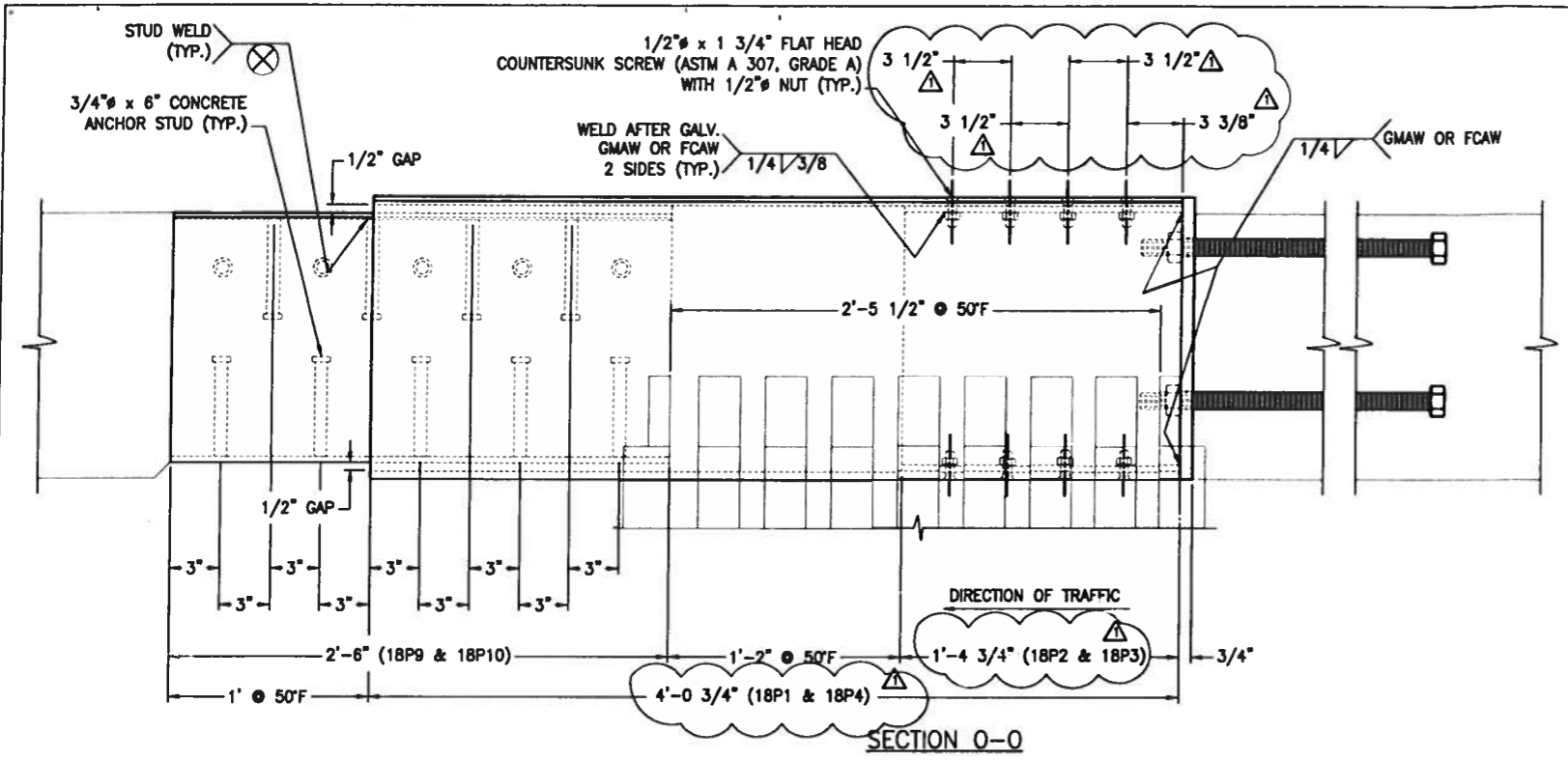
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Amherst, NY 14228
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www.wbcorp.com

The Chemical Company

DETAILED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 17 of 25	DRAWING NO.: B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
 PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
 WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



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Ralph E. Anderson
Engineer of Bridges and Traffic Structures

STATE: ILLINOIS
 COUNTY: ST. CLAIR
 CONTRACT NO.: 78C44
 SECTION: 82-2-1HV8
 PROJECT: PNR8-0998(001)
 STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
 WBA PRODUCT NO.: SEI134532AC
 JOINT TYPE: SEISMIC MODULAR

(SEE SHEET 19) Q

ELEVATION VIEW
 SL134532AD - (1) REQUIRED
 PIER 23 (NORTH BARRIER)

DRAWING ACTION:
APPROVED
 12/17/10

REVISION	DATE	DESCRIPTION
1		REVISED PER REVIEW COMMENTS

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Bowman
Acme**

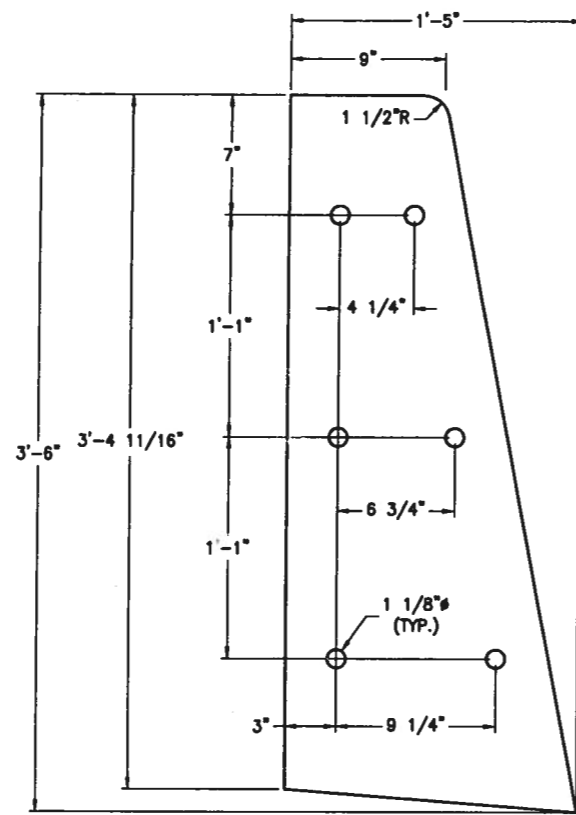
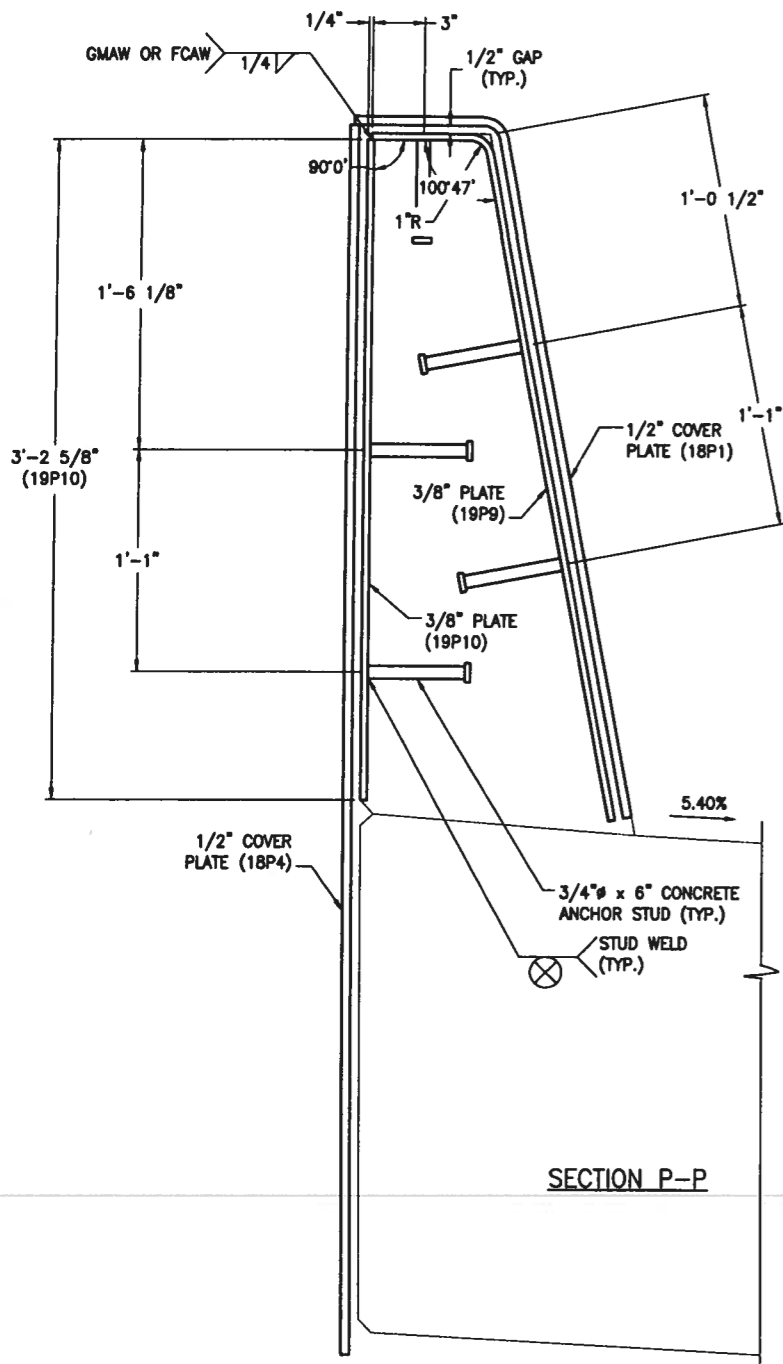
Watson Bowman Acme Corp.
 88 Pleasant Drive
 Purchase, NY 14528
 Phone: (716) 941-7200
 Fax: (716) 941-0228
 www.wbawacme.com

BASF
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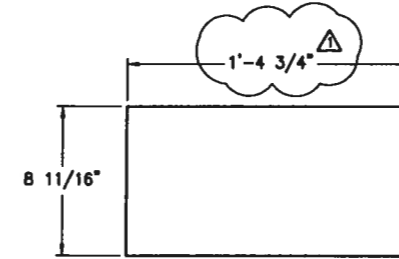
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DATE	11/10/10
DATE	11/10/10
DATE	11/10/10

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
 PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
 & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
 WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

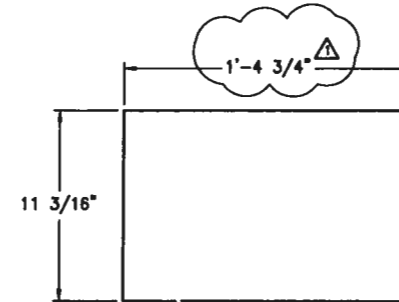
SCALE: NTS
 SHEET NO.: 18 of 25
 DRAWING NO.: B-28249



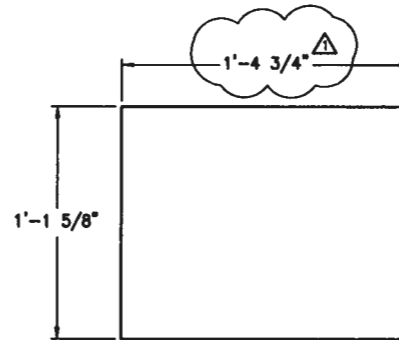
19P8 DETAIL
3/4" PLATE



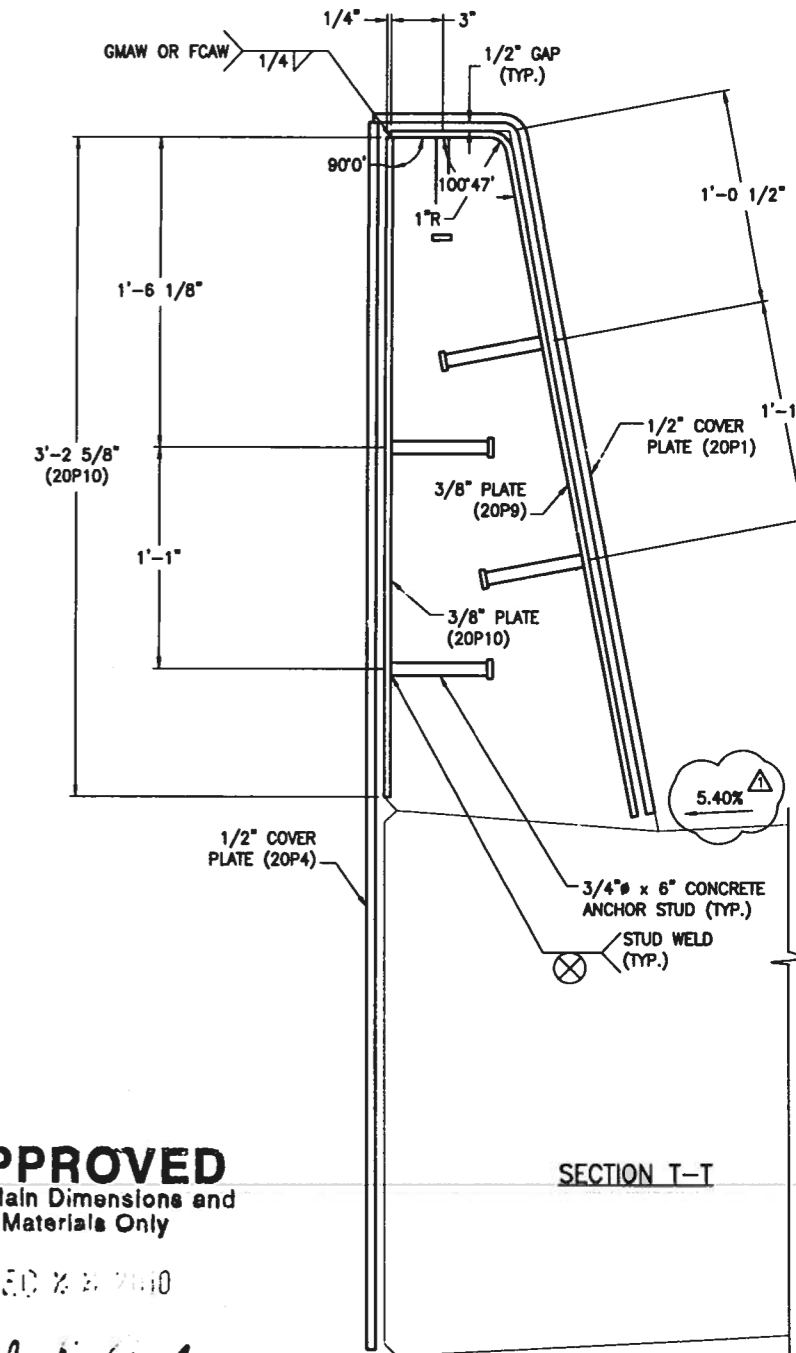
19P5 DETAIL
1/2" PLATE



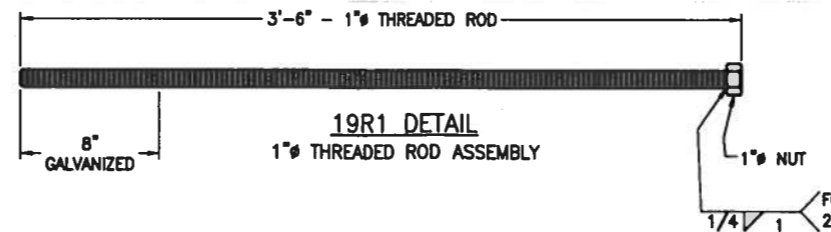
19P6 DETAIL
1/2" PLATE



19P7 DETAIL
1/2" PLATE



SECTION T-T



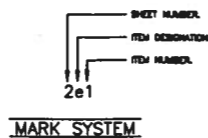
19R1 DETAIL
1" THREADED ROD ASSEMBLY

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Ralph E. Anderson
Engineer of Bridges and Traffic Structures

STATE: ILLINOIS
 COUNTY: ST. CLAIR
 CONTRACT NO.: 76C44
 SECTION: 82-2-1HVB
 PROJECT: PNR5-0998(001)
 STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
 WBA PRODUCT NO.: SE1134532AC
 JOINT TYPE: SEISMIC MODULAR



DRAWING ACTION:
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 12/17/10

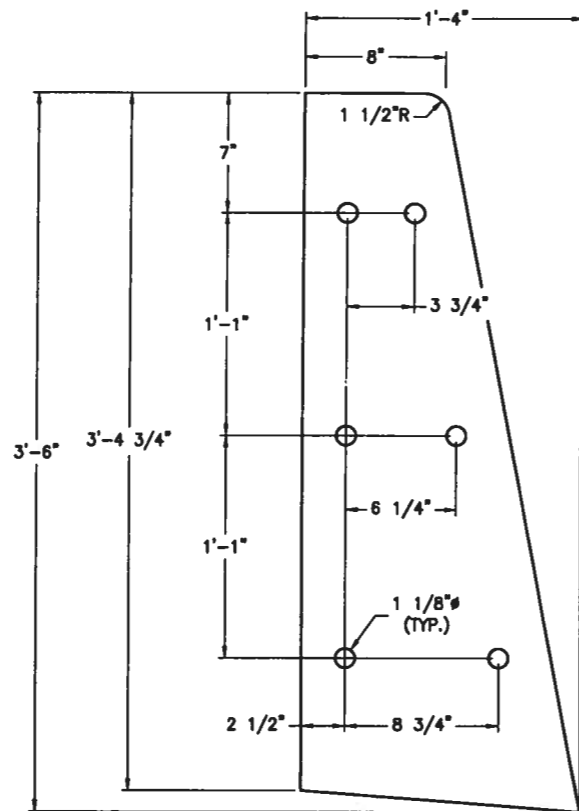
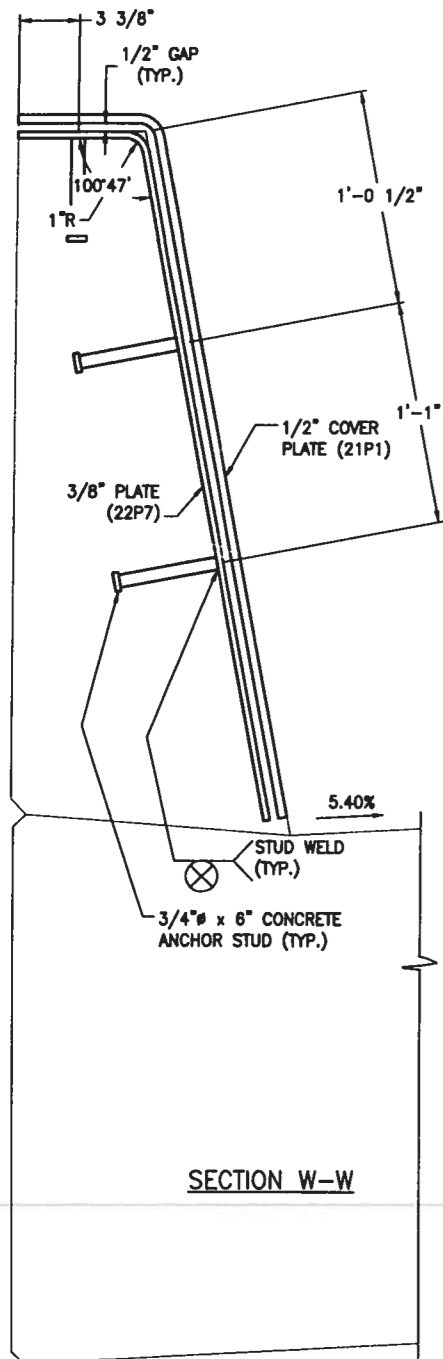
REVISION	DATE	DESCRIPTION
1		REVISED PER REVIEW COMMENTS
2		
3		



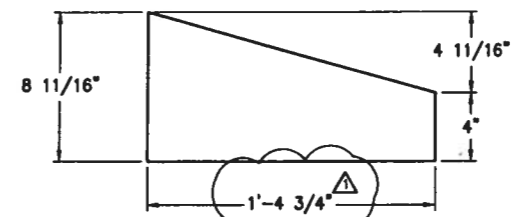
DESIGNED BY:	DATE:
SRN	10/29/10
CHECKED BY:	DATE:
JFW	11/10/10
SCALE:	WBA JOB NO.:
NTS	134532
SHEET NO.:	DRAWING NO.:
19 of 25	B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
 PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
 & INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
 WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

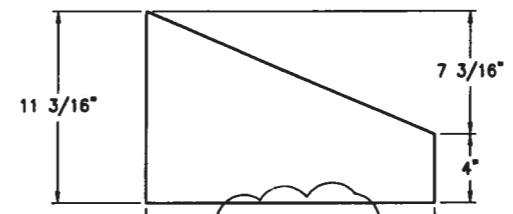
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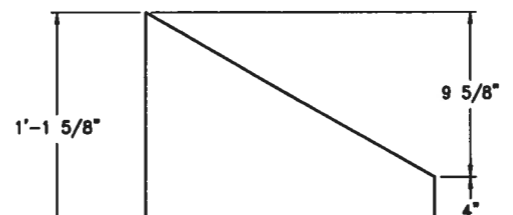
22P6 DETAIL
3/4" PLATE



22P3 DETAIL
1/2" PLATE



22P4 DETAIL
1/2" PLATE



22P5 DETAIL
1/2" PLATE

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DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures



MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNR8-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:
APPROVED
12/17/10

REVISION	DATE	BY	DESCRIPTION
1		SRN	REVISED PER REVIEW COMMENTS
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Fax: (716) 891-6200
www.wbcorp.com



DESIGNED BY:	DATE:
SRN	10/29/10
CHECKED BY:	DATE:
JFW	11/10/10
SCALE:	WBA JOB NO.:
NTS	134532
SHEET NO.:	DRAWING NO.:
22 of 25	B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SEI134532AC	1	EA	ITEM Z0034824, X-CEL 2400, PIER 23, PAY LENGTH = 40.06'	PAINTED	
				SHIPPING LENGTH = ±45'		
				APPROX SHIPPING WEIGHT = 24,500 LB		
				BIN ITEMS		
1	7010	11	EA	THD STUD 5/8x1-1/2AW L NP108*	ASTMA 108, SHIPPING CLAMP	
1	7549	11	EA	WASHER 5/8(A) B695C50T1 F436*	ASTMF 436, SHIPPING CLAMP	
1	7960	11	EA	NUT 5/8 ZINC PLATED A307*	ASTMA 563, SHIPPING CLAMP	
1	8084	12	EA	NUT 3/4 RICHMOND 2/45 LAG*	LEVELING DEVICE	
1	SEI134532SA	8	EA	SEAL FOR SHOP INSTALLATION (U)		
2	90	43	FT	SE STRIP SEAL 300 IL C1735-2		
1	SEI134532EVC	1	EA	EVAZONTE FOR SHOP INSTALLATION (U)		
2	30622	22 25	FT	WABO EVAZOTE380 2 50" X 2"		
1	SEI134532AC01	1	EA	EXTRUSION ASSEMBLY (U)		
2	4620	30	EA	CON ANC ST 5/8 x 6 AW 108*	ASTMA 108	
2	6932	140	EA	NO THD STUD 5/16 X 5/16 KO(A)	ASTMA 108	
2	18803	10	EA	BRONZE BEARING 4" LONG		
2	SEI134532AA03	20	EA	KEEPER PLATE (X)	(6P2)	
3	3545	0.35	LB	PLATE GAUGE 12 GALV(10'LONG)		
2	SEI134532AC02	1	EA	PROFILE (W)		
3	1918	3	FT	SS A3 FM 1.250x2 A36 C11810(W)	ASTMA 36	
3	1953	82	FT	SS MFM 2.75x3.2 A36 C11869(W)	ASTMA 36	
3	1890	291	FT	MOD CB FMSS 2.5x5 A36C13824(W)	ASTMA 36	
2	SEI134532AC04	10	EA	LONGITUDINAL BOX ASSEMBLY X-CEL 2400 (W)		
2	SEI134532AC05	10	EA	SUPPORT BAR ASSEMBLY X-CEL 2400 (U)	PAINTED	
2	SEI134532AC06	10	EA	TRANSVERSE BOX ASSEMBLY X-CEL 2400 (W)		
2	SEI134532AC07	6	EA	CONTROL ARM ASSEMBLY (U)		
2	SEI134532AC08	6	EA	TRANSVERSE CONTROL BOX ASSEMBLY X-CEL 2400 (W)		
2	SEI134532AC09	6	EA	LONGITUDINAL CONTROL BOX ASSEMBLY X-CEL 2400 (W)		
2	SEI134532AC10	70	EA	HOLD DOWN YOKE ASSEMBLY (W)	PAINTED	
2	SEI134532AC11	10	EA	KEEPER ROD 1 1/2" DIA (U)	(4B1)	
3	9703	1.1	FT	ROUND BAR 1-1/2"DIAHR4140 QT	ASTMA 193 B7	
2	SEI134532AC12	6	EA	TRANSVERSE CONTROL BOX BOTTOM ASSEMBLY (W)	PAINTED	
3	3516	5.2	LB	PLATE 5/16 A36 (6 FT WIDE)	(13P10) ASTMA 36	
3	3912	2.8	FT	ANGLE 3-1/2x3-1/2x3/8 A36	(13A2) ASTMA 36	
3	8576	4.5	LB	STNLS STL 12GA TYP304 #8FIN(A)	(13M6) ASTMA 240, TYPE 304 NO. 8 FINISH	
2	SEI134532AC13	6	EA	LONGITUDINAL CONTROL BOX BOTTOM ASSEMBLY (W)	PAINTED	
3	3516	4.1	LB	PLATE 5/16 A36 (6 FT WIDE)	(13P5) ASTMA 36	
3	3912	2.25	FT	ANGLE 3-1/2x3-1/2x3/8 A36	(13A1) ASTMA 36	
3	8576	3.5	LB	STNLS STL 12GA TYP304 #8FIN(A)	(13M3) ASTMA 240, TYPE 304 NO. 8 FINISH	
2	SEI134532AC14	48	EA	ROLLER GUIDE RAIL (W)	(13B4) PAINTED	
3	NTS134532A	1.2	FT	FLAT BAR 5/16" x 2" ASTMA 36		
2	SEI134532AC15	24	EA	ROLLER GUIDE RAIL (W)	(13B5) PAINTED	
3	NTS134532A	0.8	FT	FLAT BAR 5/16" x 2" ASTMA 36		
2	SEI134532AC16	2	EA	LIFTING DEVICE	(16A1) (TEMPORARY)	
3	4091	2.95	FT	ANGLE 6x4x3/4 A36	ASTMA 36	
2	SEI134532AC17	11	EA	SHIPPING CLAMP	(17A1) (TEMPORARY)	
3	3880	3.4	FT	ANGLE 3x3x3/8 A36	ASTMA 36	
2	SEI134532AC18	1	EA	PARTS FOR ASSEMBLY (U)		
3	4272	40	EA	MOD BEARING ROUND A23290X		
3	4288	70	EA	MOD YOKE BEARING UPPER		
3	4287	70	EA	MOD YOKE BEARING LOWER		
3	NTS134532J	12	EA	BOLT 1 x 4 3/4" A 490 VL (A)	ASTMA 490, CONTROL ARM	
3	7967	12	EA	NUT 1" GALV A563 HWY HEX (A)	ASTMA 563, CONTROL ARM	
3	18804	48	EA	DU WASHER DU16 1-1/8ID X 2 OD	CONTROL ARM	
3	5838	12	EA	SCREW 3/8 x 1/2 K ALLEN CUP PT	CONTROL ARM	
3	18806	40	EA	UHMW SIDE GUIDE A28050	(4M1) LONGITUDINAL SUPPORT BOX	
3	5188	40	EA	BOLT 1-1/2 x 4 A325 DL (A)	ASTMA 325, LONGITUDINAL SUPPORT BOX	
3	7966	40	EA	NUT 1-1/2 GALV A563 (A)	ASTMA 563, LONGITUDINAL SUPPORT BOX	
3	5187	80	EA	BOLT 3/8 x 2-1/2 GALV GR5 (A)	SAE GRADE 5, TRANSVERSE SUPPORT BOX	
3	7965	80	EA	NUT 3/8 GALV A563 (A)	ASTMA 563, TRANSVERSE SUPPORT BOX	
3	7567	80	EA	WASHER 3/8 (A) GALV GR 8	SAE GRADE 8, TRANSVERSE SUPPORT BOX	
3	5186	48	EA	BOLT 5/8 x 2 GALV A325	ASTMA 325, CONTROL BOX ASSEMBLIES	
3	7964	48	EA	NUT 5/8 GALV A563 (A)	ASTMA 563, CONTROL BOX ASSEMBLIES	
3	7565	48	EA	WASHER 5/8 (A) GALV F436	ASTMF 436, CONTROL BOX ASSEMBLIES	
3	5583	40	EA	URETHANE DISC 1" DIA X 1/8 THK 85A		
3	4298	6	EA	CONTROL ARM CONNec PLT A28059X	(8B1) ASTMA 588	
3	4295	20	EA	KEEPER BAR (SEISMIC) A36 A28051U	(5B4) PAINTED	
3	4297	20	EA	ROD KEEPER BLOCK A36 A28052X	(6P5) PAINTED	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
2	SEI134532AC19	10	EA	LONGITUDINAL SUPPORT BOX BACK PLATE (X)	(5P3)	
3	3545	2.70	LB	PLATE GAUGE 12 GALV(10'LONG)		
2	SEI134532AC20	10	EA	TRANSVERSE SUPPORT BOX BACK PLATE (X)	(7P3)	
3	3545	4.25	LB	PLATE GAUGE 12 GALV(10'LONG)		
2	SEI134532AC21	24	EA	CONTROL BOX ASSEMBLY END PLATE (X)	(13B3)	
3	5854	0.95	FT	FLAT BAR 1/4 x 4 A36		

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SLI134532AD	1	EA	NORTH BARRIER COVER PLATE, PIER 23 (U)	GALVANIZED	
						APPROXIMATE FINISHED WIEGHT = 1,700 LB
1	3570	1105	LB	PLATE 1/2 A588	(18P1 - 18P4, 19P5 - 19P7) ASTMA 588	△
1	3610	152	LB	PLATE 3/4 A588	(19P8) ASTMA 588	
1	3550	274	LB	PLATE 3/8 A588	(19P9 & 19P10) ASTMA 588	
1	4720	23	EA	CON ANC ST3/4 x 6-1/16" AW108	ASTMA 108	
1	7903	32	EA	NUT 1/2 (A) GALVANIZED A325	ASTMA 325	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SLI134532AE	1	EA	SOUTH BARRIER COVER PLATE, PIER 23 (U)	GALVANIZED	
						APPROXIMATE FINISHED WIEGHT = 1,750 LB
1	3570	1105	LB	PLATE 1/2 A588	(20P1 - 20P4, 19P5 - 19P7) ASTMA 588	△
1	3610	152	LB	PLATE 3/4 A588	(19P8) ASTMA 588	
1	3550	274	LB	PLATE 3/8 A588	(20P9 & 20P10) ASTMA 588	
1	4720	23	EA	CON ANC ST3/4 x 6-1/16" AW108	ASTMA 108	
1	7903	32	EA	NUT 1/2 (A) GALVANIZED A325	ASTMA 325	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SLI134532AF	1	EA	NORTH & SOUTH MEDIAN BARRIER COVER PLATE, PIER 23 (U)	GALVANIZED	
						APPROXIMATE FINISHED WIEGHT = 900 LB
1	3570	511	LB	PLATE 1/2 A588	(21P1 & 21P2, 22P3 - 22P5) ASTMA 588	△
1	3610	143	LB	PLATE 3/4 A588	(22P6) ASTMA 588	
1	3550	152	LB	PLATE 3/8 A588	(22P7) ASTMA 588	
1	4720	15	EA	CON ANC ST3/4 x 6-1/16" AW108	ASTMA 108	
1	7903	16	EA	NUT 1/2 (A) GALVANIZED A325	ASTMA 325	

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REVISION
0	SLI134532TR	1	EA	THREADED ROD ASSEMBLY (U)	(19R1) GALVANIZED	
1	SLI134532TR01	1.0	EA	1" DIA THREADED ROD		
2	7170	6	FT	THD ROD 1" DIA		
1	7967	1	EA	NUT 1" GALV A563 (A)	ASTMA 563	

SEE DRAWINGS NO. B-27248 FOR PARTS FOR SHIPPING BILL OF MATERIALS

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For Main Dimensions and
Materials Only

130 2 2 2 10

Ralph E. Anderson
Engineer of Bridge Structures

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR

DRAWING ACTION:

APPROVED

12/17/10



REV. QTY. OF 1/2" PLATE PER REVIEW COMM. & REV. DISC. PER MATERIALS DEP.

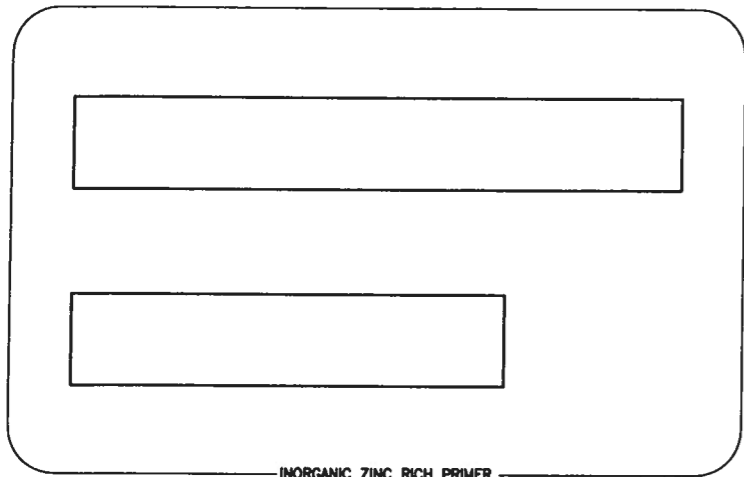
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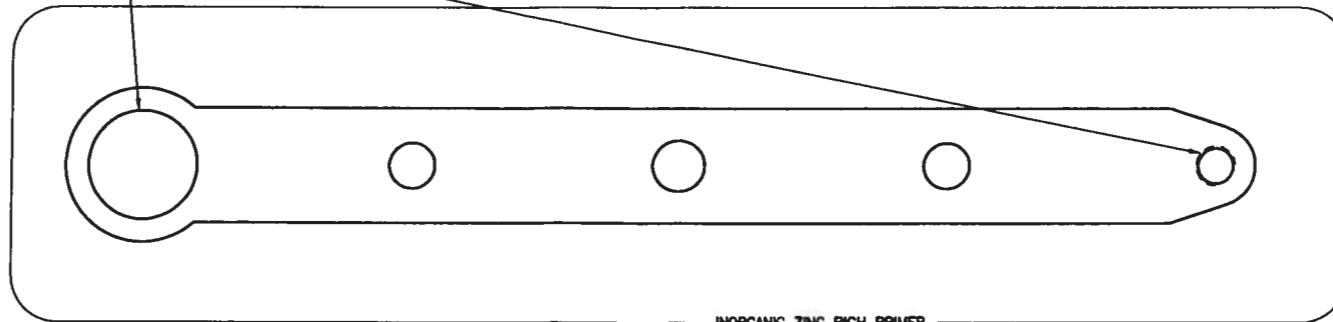
DESIGNED BY: SRN	DATE: 10/29/10
CHECKED BY: JFW	DATE: 11/10/10
SCALE: NTS	WBA JOB NO.: 134532
SHEET NO.: 23 of 25	DWG NO.: B-28249



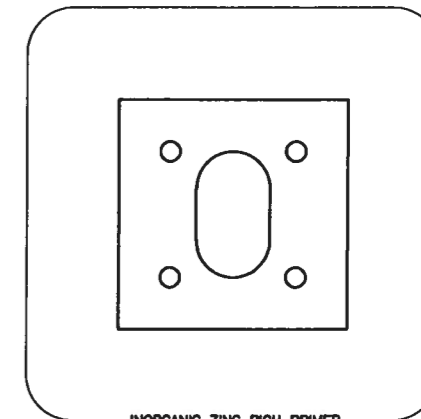
INORGANIC ZINC RICH PRIMER

ROLLER GUIDE RAIL PAINT DETAIL

PAINTER TO PROTECT
THREADS AND HOLE
FROM PAINT

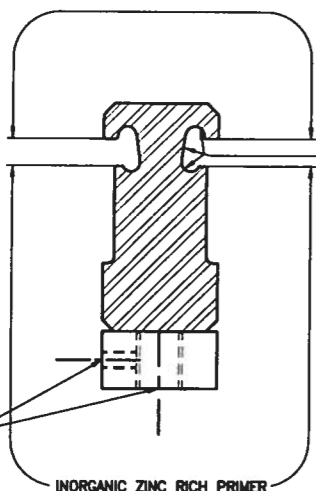


INORGANIC ZINC RICH PRIMER
CONTROL ARM PAINT DETAIL



INORGANIC ZINC RICH PRIMER

ROD KEEPER BLOCK PAINT DETAIL

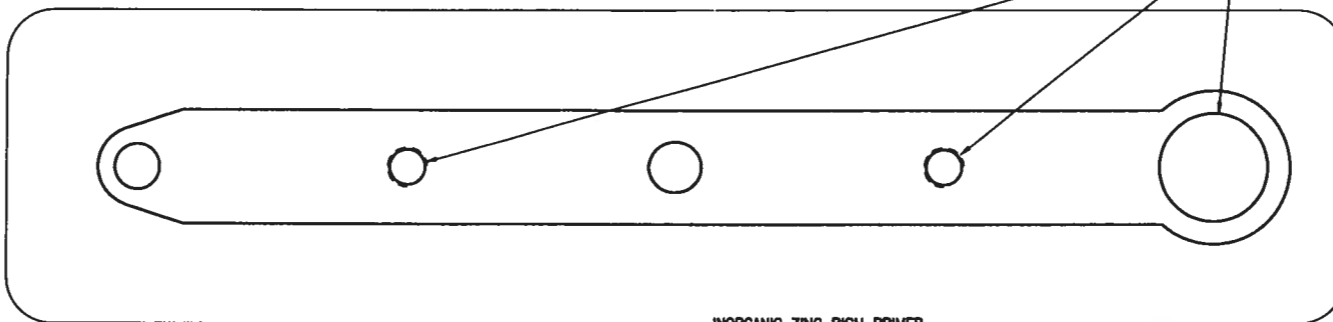


STRIP SEAL CAVITY SHALL BE PROTECTED
FROM INORGANIC ZINC RICH PRIMER (TYP.).
PAINTER SHALL COAT THE SEAL CAVITY
WITH KRYLON INDUSTRIAL ACRYLIC CRYSTAL
CLEAR LACQUER SPRAY (TYP.).

PAINTER TO PROTECT
THREADS FROM PAINT

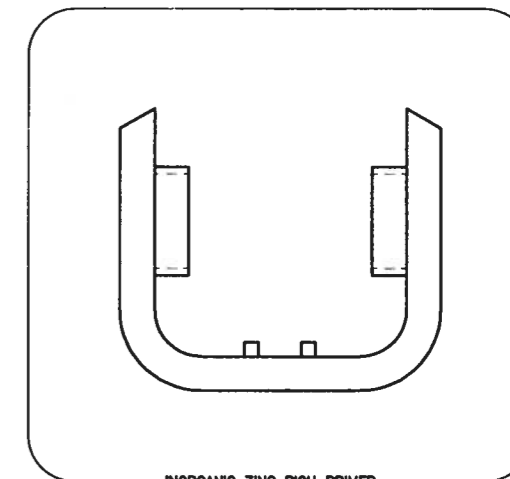
INORGANIC ZINC RICH PRIMER

CENTERBEAM AT CONNECTION PLATE
PAINT DETAIL



INORGANIC ZINC RICH PRIMER
CONTROL ARM PAINT DETAIL

PAINTER TO PROTECT
THREADS AND HOLE
FROM PAINT



INORGANIC ZINC RICH PRIMER

YOKE ASSEMBLY PAINT DETAIL

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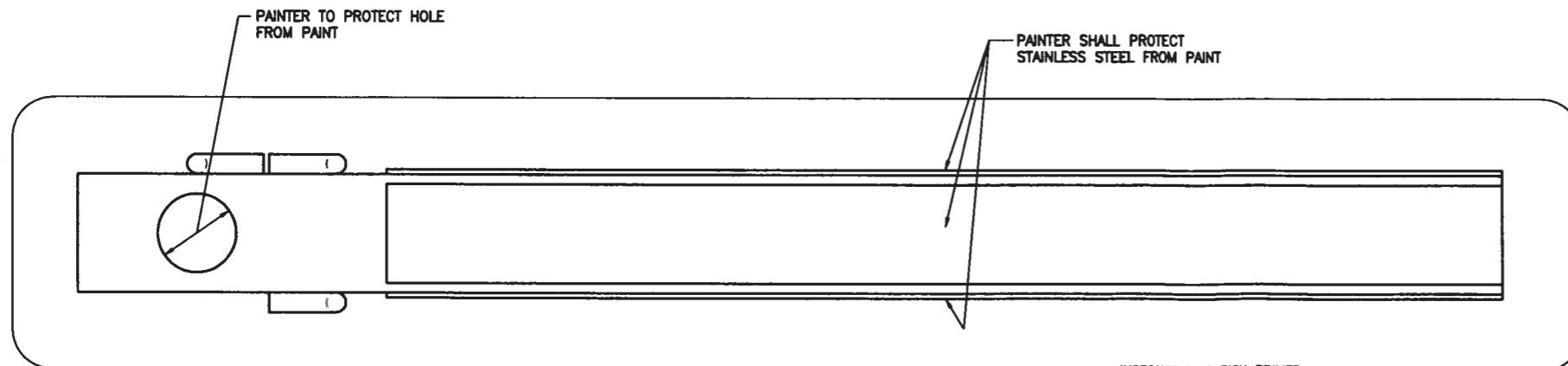
DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structure*

SHEET NUMBER
ITEM DESIGNATION
ITEM NUMBER
2e1

MARK SYSTEM

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 78C44
SECTION: 82-2-1HVB
PROJECT: PNRS-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SEI134532AC
JOINT TYPE: SEISMIC MODULAR

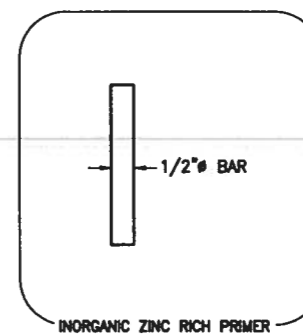


PAINTER TO PROTECT HOLE
FROM PAINT

PAINTER SHALL PROTECT
STAINLESS STEEL FROM PAINT

INORGANIC ZINC RICH PRIMER

SUPPORT BAR PAINT DETAIL



INORGANIC ZINC RICH PRIMER

KEEPER BAR PAINT DETAIL

DRAWING ACTION:

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12/17/10

NO	DESCRIPTION	NAME	DATE

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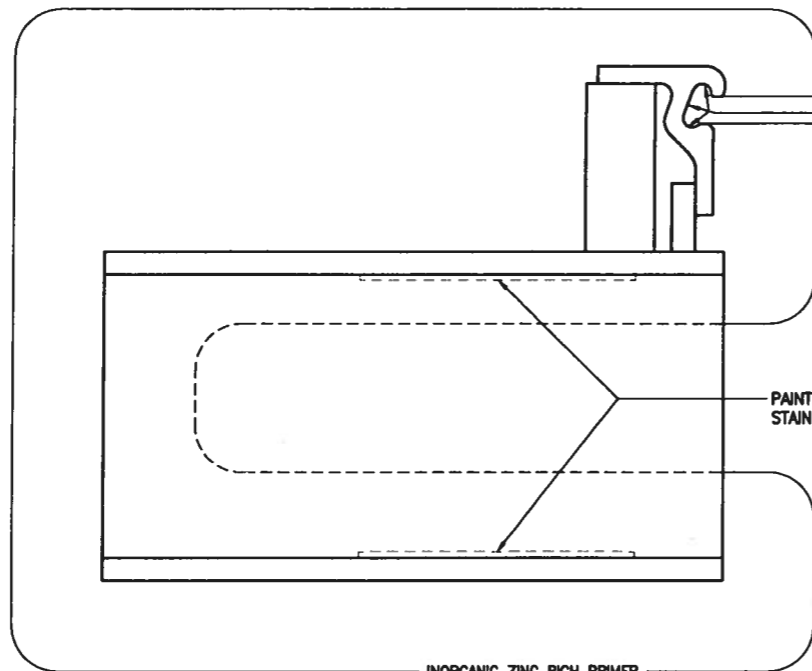
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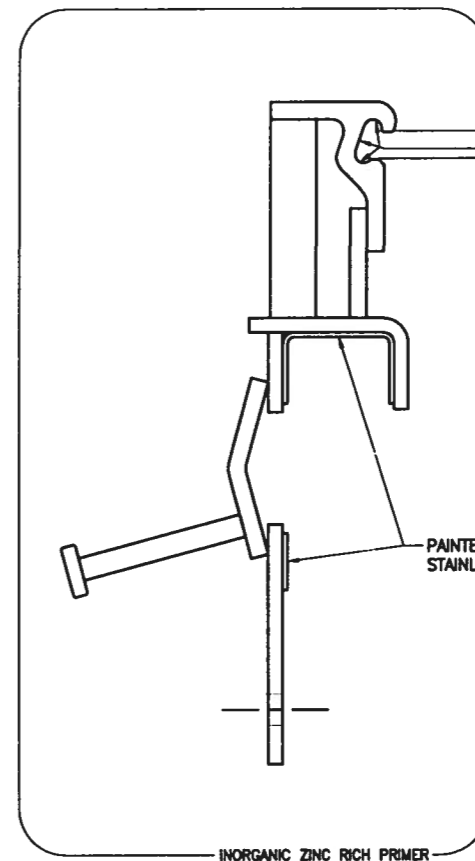
B-BASF
The Chemical Company

DETAILED BY:	DATE:
SRN	10/29/10
CHECKED BY:	DATE:
JFW	11/10/10
SCALE:	WBA JOB NO.:
NTS	134532
SHEET NO.:	DRAWING NO.:
24 of 25	B-28249

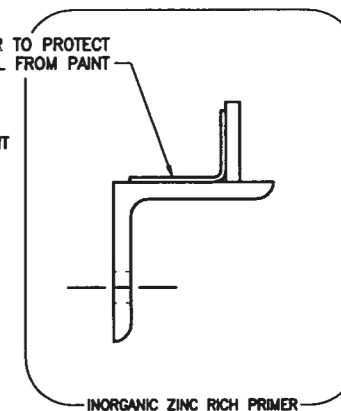
PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS



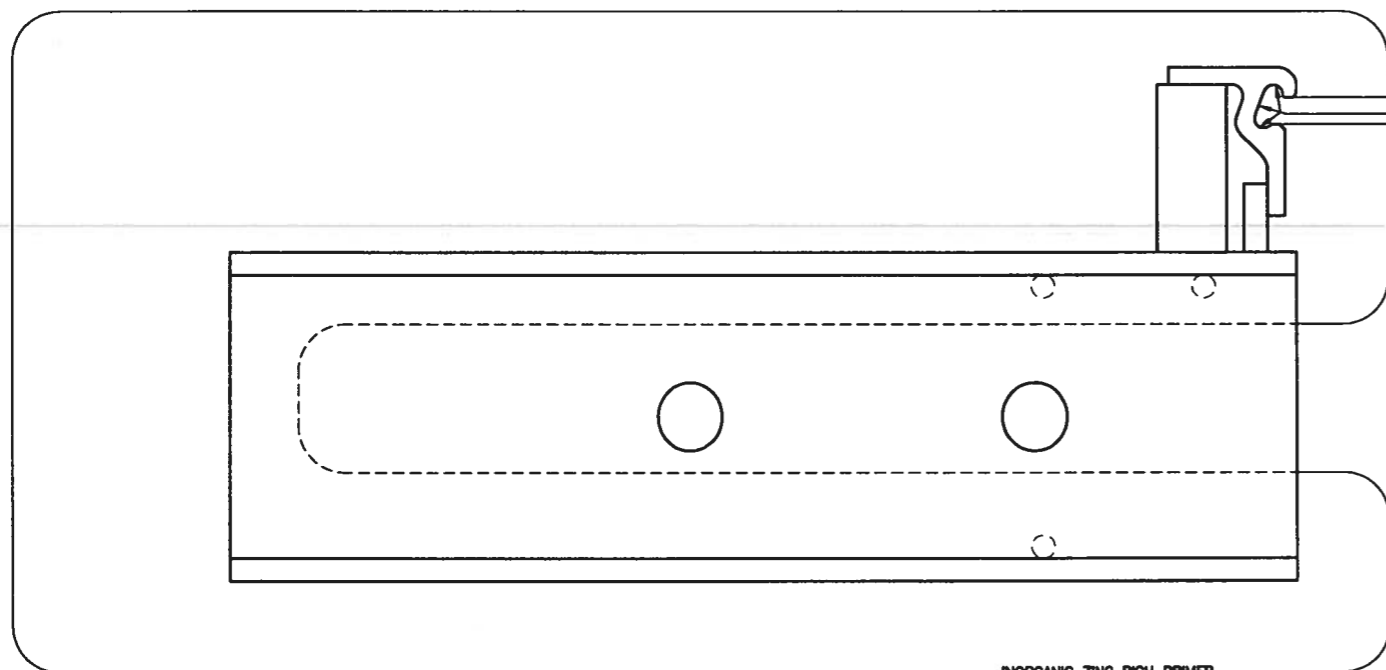
EDGE BEAM AT TRANSVERSE SUPPORT BOX
PAINT DETAIL



EDGE BEAM AT CONTROL BOX ASSEMBLY
PAINT DETAIL



CONTROL BOX ASSEMBLY BASE PLATE
PAINT DETAIL



EDGE BEAM AT LONGITUDINAL SUPPORT BOX
PAINT DETAIL

APPROVED
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Materials Only

DEC 22 2010

Ralph E. Anderson
Engineer of Bridges and Traffic Structures

STATE: ILLINOIS
COUNTY: ST. CLAIR
CONTRACT NO.: 76C44
SECTION: 82-2-1HVB
PROJECT: PNR5-0998(001)
STRUCTURE NO.: SN 082-0318 (EB) & 0319 (WB)
WBA PRODUCT NO.: SE134532AC
JOINT TYPE: SEISMIC MODULAR

SHEET NUMBER:
ITEM DESIGNATION:
ITEM NUMBER:
2e1
MARK SYSTEM

DRAWING ACTION:
APPROVED
12/17/10

NO.	DESCRIPTION	DATE

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55 Riverside Drive
Andover, NY 14220
Phone: (716) 941-7000
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www.wbcorp.com

BASIF
The Chemical Company

DETAILED BY:	DATE:
SRN	10/29/10
CHECKED BY:	DATE:
JFW	11/10/10
SCALE:	WBA JOB NO.:
NTS	134532
SHEET NO.:	DRAWING NO.:
25 of 25	B-28249

PROJECT: FAP ROUTE 998 (RELOCATED I-70)
PROPOSED I-70 CURVED BRIDGE OVER NS, TRRA, MCT
& INDUSTRIAL DRIVE AND PROPOSED MSE RETAINING WALL
WBA SEISMIC MODULAR 2400 EXPANSION JOINT DETAILS