

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAI 55/70, FAP 805 (I-55/70, IL 161)
SECTION 60-6BR-P, 125-BR-2-P

BRIDGE PAINTING
MADISON & ST. CLAIR COUNTIES

C-98-065-14

F.A.I./P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60-6BR-P, 125-BR-2-P	MADISON ST. CLAIR ILLINOIS	16	1
* FAI 55/70, FAP 805				

D-98-063-14

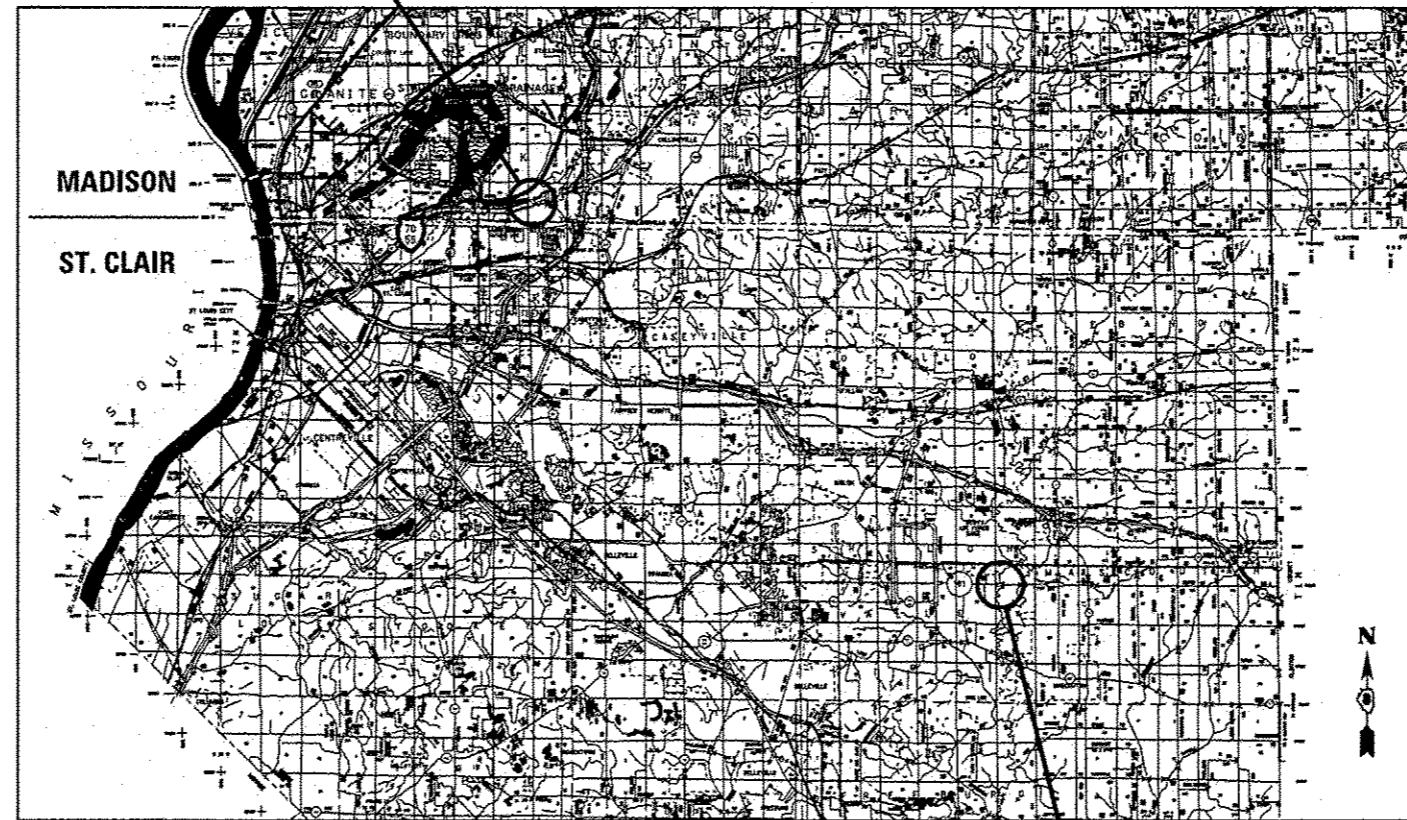


LOCATION OF SECTION INDICATED THUS: - [black box] -

FOR INDEX OF SHEETS, SEE SHEET NO. 2

ADT & LATITUDE/LONGITUDE			
	LOCATION 1	LOCATION 2	LOCATION 3
	SN 060-0010	SN 060-0011	SN 082-0095
	I-55/70 EB	I-55/70 WB	IL 161
ADT (2013)h	23,500	22,400	6,600
ADT (2015)h	23,700	22,700	6,700
ADT (2035)h	27,400	26,100	7,700
MUL	11.9%	13.8%	2.3%
SU _t	2.8%	2.7%	5.7%
LATITUDE _t	38.66521775°	38.66526094°	38.52545459°
LONGITUDE _t	90.05659303°	90.05643998°	89.82539653°
TOWNSHIP	T3N	T3N	T1N
RANGE	R9W	R9W	R7W

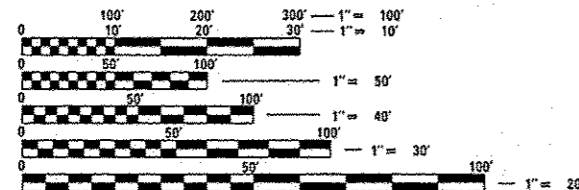
LOCATIONS 1 & 2



SCALE: NTS

LOCATION 3

GROSS LENGTH = 890 FT. = 0.168 MILE
NET LENGTH = 890 FT. = 0.168 MILE



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

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

PROJECT ENGINEER: MICHAEL PRITCHETT (618) 346-3180
DESIGNER: BO WEDMORE (618) 346-3206

CONTRACT NO. 76H38

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *December 11, 2014*

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION 5 ENGINEER

Jan 30 2015
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

Jan 30 2015
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 COVER SHEET
- 2-3 GENERAL NOTES, INDEX OF SHEETS, STANDARDS
- 4 SUMMARY OF QUANTITIES
- 5-6 LOCATION MAPS
- 7-14 LOCATIONS 1 & 2 REFERENCE SHEETS
- 15-16 LOCATION 3 REFERENCE SHEETS

STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
- 701101-04 OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701400-08 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-09 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS ≥ 45 MPH
- 701428 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
- 701901-04 TRAFFIC CONTROL DEVICES
- 701446-06 TWO LANE CLOSURE FREEWAY / EXPRESSWAY

TRAFFIC CONTROL GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER/TECHNICIAN FOURTEEN (14) DAYS PRIOR TO LANE RESTRICTIONS.
2. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT EACH END OF THE PROJECT LOCATIONS AND ALL INTERSECTING SIDE ROADS AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLUORESCENT ORANGE, 48".
3. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED TWO (2) WEEKS PRIOR TO ANY LANE RESTRICTIONS. THE DURATION OF THE CHANGEABLE MESSAGE SIGNS SHALL BE FOR THE TWO (2) WEEKS ONLY. LOCATIONS FOR THE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
4. THE USE OF CONES SHALL NOT BE PERMITTED AT LOCATIONS 1 & 2.
5. HIGHWAY STD. 701411 SHALL BE USED WITH THE NB BLACK LN. TO WB I-55/70 ON RAMP.

FILE NAME =				USER NAME = vedmore JB				DESIGNED -				REVISED -				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				GENERAL NOTES, INDEX OF SHEETS AND STANDARDS				* FAI 55/70, FAP 805							
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PLOT SCALE = 100.0000' / 1" =				CHECKED -				REVISED -				SECTION		COUNTY										TOTAL SHEETS		SHEET NO.					
PLOT DATE = 12/12/2014				DATE -				REVISED -				60-6BR-P, 125-8R-2-P		MADISON ST. CLAIR										16		2					
																CONTRACT NO. 76H38				ILLINOIS FED. AID PROJECT											
																SCALE:		SHEET		OF		SHEETS		STA.		TO STA.					

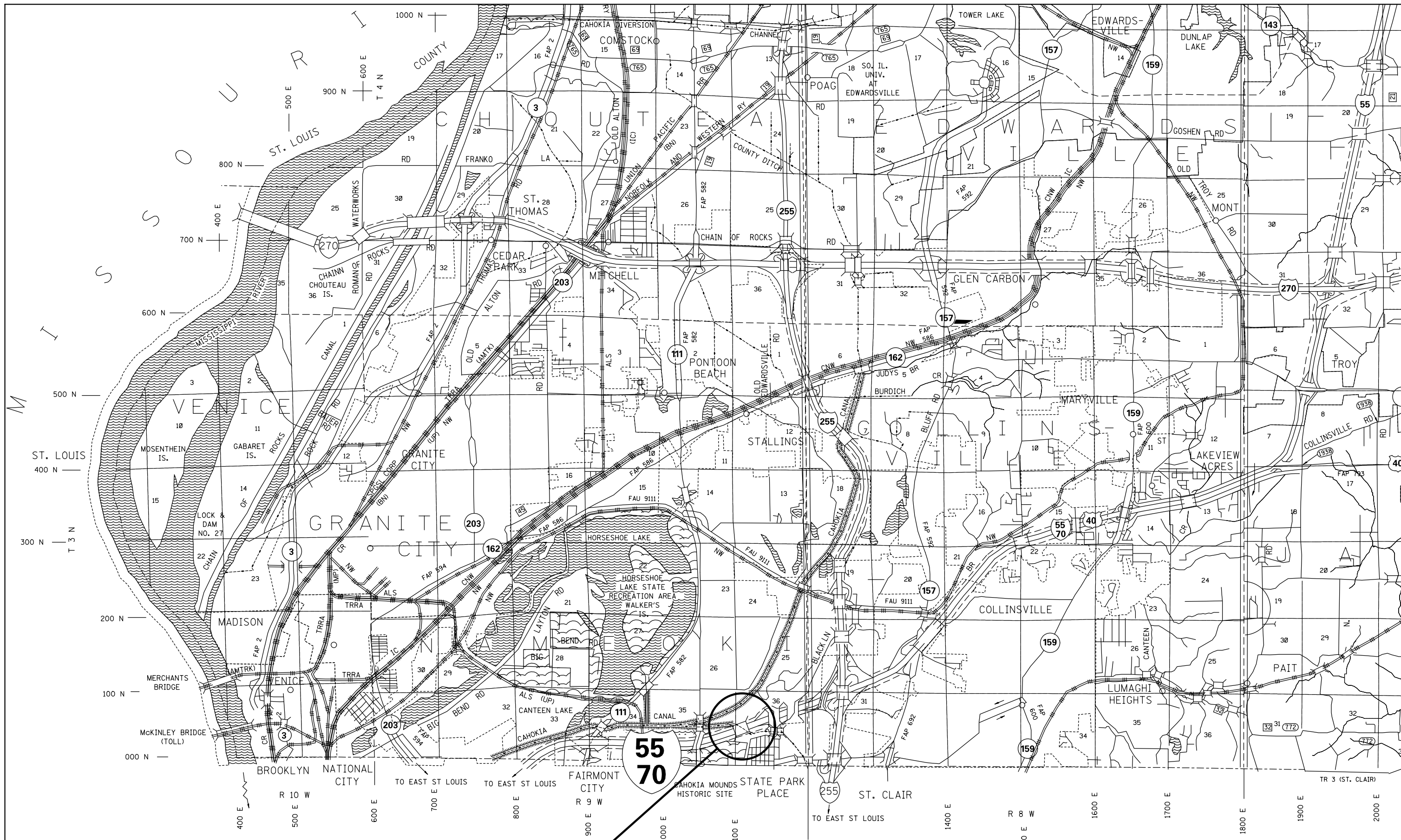
GENERAL NOTES

1. LOCATION 1: SN 060-0010: LOCATED AT I-55/70 EB OVER CANTEEN CREEK
2. LOCATION 2: SN 060-0011: LOCATED AT I-55/70 WB OVER CANTEEN CREEK
3. LOCATION 3: SN 082-0095: LOCATED AT IL 161 OVER SILVER CREEK
4. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO ALL UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING. FIELD MARKING OF FACILITIES MAY BE OBTAINED BY CONTACTING J.U.L.I.E. (1-800-892-0123 OR 811) OR FOR NON-MEMBERS, THE UTILITY COMPANY DIRECTLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
 - * AMEREN ILLINOIS (LOC. 1,2,3)
 - * AT&T ILLINOIS (LOC. 1,2,3)
 - * CHARTER COMMUNICATIONS, INC. (LOC. 3)
 - * CITY OF COLLINSVILLE (LOC. 1,2)
 - * FRONTIER NORTH, INC. (LOC. 1,2,3)
 - * MEDIACOM (LOC. 1,2)
 - * MOUND PUBLIC WATER AND SEWER DISTRICT (LOC. 1,2)
 - * McLEOD TELECOMMUNICATIONS SERVICES, INC. (LOC. 1,2)
 - * SCOTT AIR FORCE BASE (LOC. 3)
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
6. NO OVERNIGHT LANE CLOSURES SHALL BE ALLOWED ON THE PROJECT.
7. FLAGGERS SHALL BE PRESENT DURING ALL CLOSURE HOURS INCLUDING LUNCH HOUR AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
8. ANY MISCELLANEOUS EARTHWORK, SEEDING OR NUTRIENTS REQUIRED TO COMPLETE THE PROJECT SHALL BE DONE ACCORDING TO SECTION 250 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND NOT PAID FOR SEPARATELY.
9. FOR LOCATIONS 1, 2 & 3 (SN 060-0010, 060-0011, 082-0095): CLEANING AND PAINTING OF THE EXISTING STRUCTURAL STEEL SHALL BE AS SPECIFIED IN THE SPECIAL PROVISION FOR "CLEANING AND PAINTING EXISTING STEEL STRUCTURES". ALL BEAMS, BEARINGS AND OTHER STRUCTURAL STEEL WITHIN 5 FT (MEASURED ALONG THE BEAM) OF EITHER SIDE OF DECK JOINTS SHALL BE CLEANED PER NEAR WHITE BLAST CLEANING - SSPC-SP10. THE EXTERIOR SURFACES AND BOTTOM OF THE BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE CLEANED PER COMMERCIAL GRADE POWER TOOL CLEANING - SSPC-SP15.
10. THE DESIGNATED AREAS CLEANED PER NEAR WHITE BLAST CLEANING AND PER COMMERCIAL GRADE POWER TOOL CLEANING SHALL BE PAINTED ACCORDING TO THE REQUIREMENTS OF PAINT SYSTEM 1 - OZ/E/U. THE COLOR OF THE FINAL FINISH COAT FOR ALL INTERIOR STEEL SURFACES SHALL BE GRAY, MUNSELL NO 5B 7/1. THE COLOR OF THE FINAL FINISH COAT FOR THE EXTERIOR AND BOTTOM FLANGE OF THE FASCIA BEAMS SHALL BE GRAY, MUNSELL NO 5B 7/1.
11. A MINIMUM OF TWO AIR MONITORS WILL BE REQUIRED TO MONITOR ABRASIVE BLASTING OPERATIONS AT EACH SITE. SEE SPECIAL PROVISIONS FOR "CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES."
12. THE SSPC QP1 AND SSPC QP2 CERTIFICATIONS WILL BE REQUIRED FOR ALL BRIDGES.

FILE NAME :	USER NAME : wadmora, j	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS AND STANDARDS	* FAI 55/70, FAP 805		F.A.I./P	SECTION	COUNTY	TOTAL	SHEET
o:\pwork\pvidot\wadmora, j\d0400190\ad\0h30-shr-plan.dgn	DRAWN -	REVISED -	RTE.			60-6BR-P, 125-BR-2-P	MADISON	16	3			
PLOT SCALE = 100.0000' / 1" / 1/2"	CHECKED -	REVISED -										
PLOT DATE = 12/12/2014	DATE -	REVISED -	SCALE:			SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 76H3B

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				URBAN MADISON BRIDGE	URBAN MADISON BRIDGE	URBAN ST. CLAIR BRIDGE
				0014	0014	0014
				060-0010	060-0011	082-0095
			100% STATE			
67100100	MOBILIZATION	L SUM	1	0.334	0.333	0.333
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	2	1	1	
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	1		1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1			1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	0.5	0.5	1
X7010410	SPEED DISPLAY TRAILER	CAL MO	5	2.5	2.5	
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	1		
Z0007102	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1		1	
Z0007103	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 3	L SUM	1			1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1	1		
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1		1	
Z0010503	CLEANING AND PAINTING STEEL BRIDGE NO. 3	L SUM	1			1

12



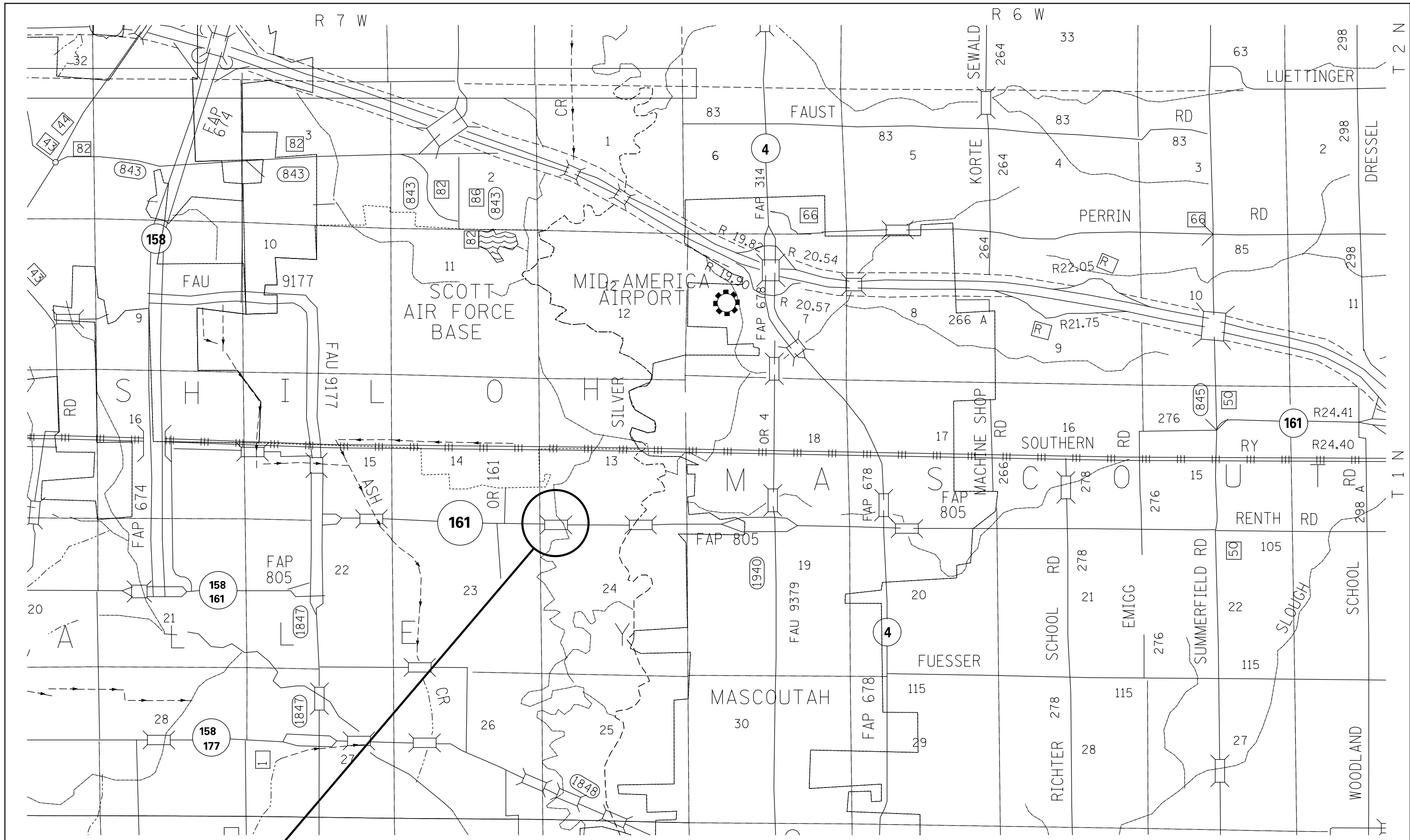
LOCATIONS 1 & 2
I-55/70 OVER CANTEEN CREEK

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NTS	SHEET NO.	OF SHEETS	STA.	TO STA.
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* FAI 55/70, FAP 805				
F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-6BR-P, 125-BR-2-P	MADISON ST. CLAIR	16	5
CONTRACT NO. 76H38				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



LOCATION 3
IL 161 OVER SILVER CREEK

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	PLOT DATE = 12/12/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

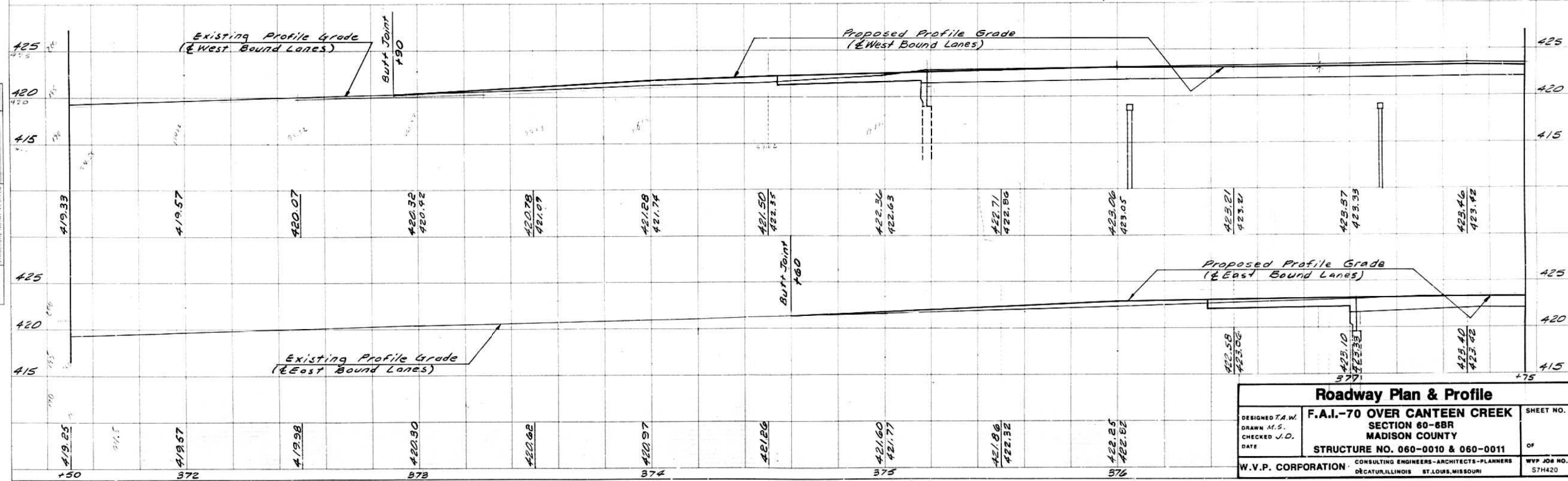
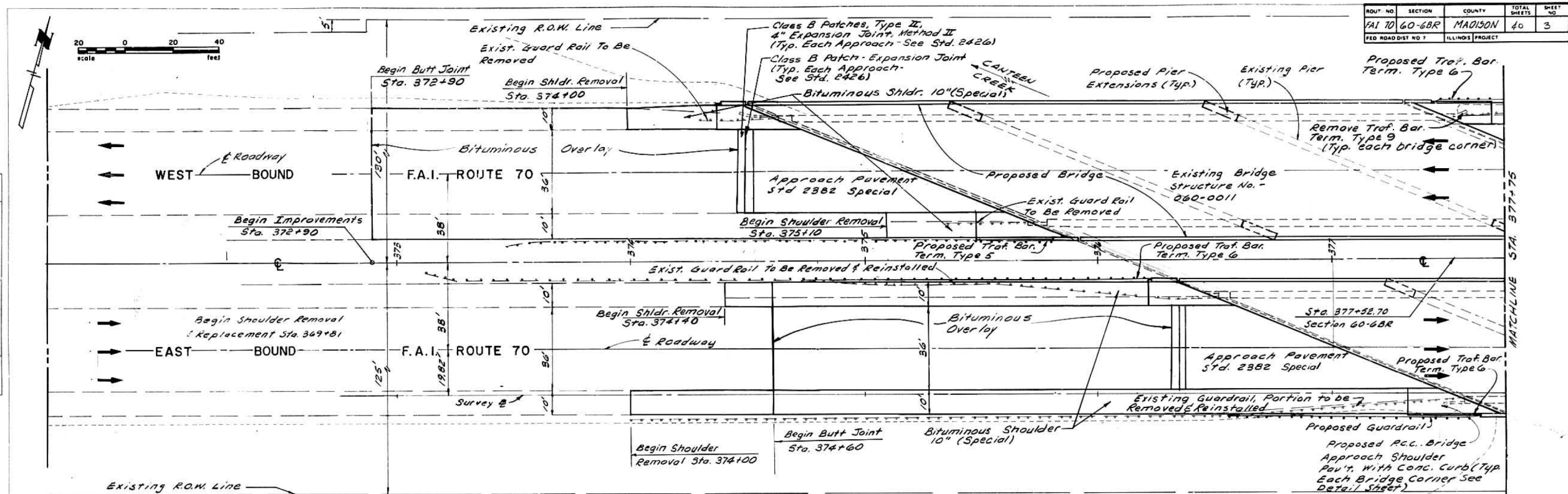
LOCATION MAP FOR
LOCATION 3

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

* FAI 55/70, FAP 805

F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60-6BR-P, 125-BR-2-P		MADISON ST. CLAIR	16	6
CONTRACT NO. 76H38				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY



Roadway Plan & Profile		SHEET NO.
F.A.I.-70 OVER CANTEEN CREEK		16
SECTION 60-6BR		
MADISON COUNTY		7
STRUCTURE NO. 060-0010 & 060-0011		
W.V.P. CORPORATION		57H420

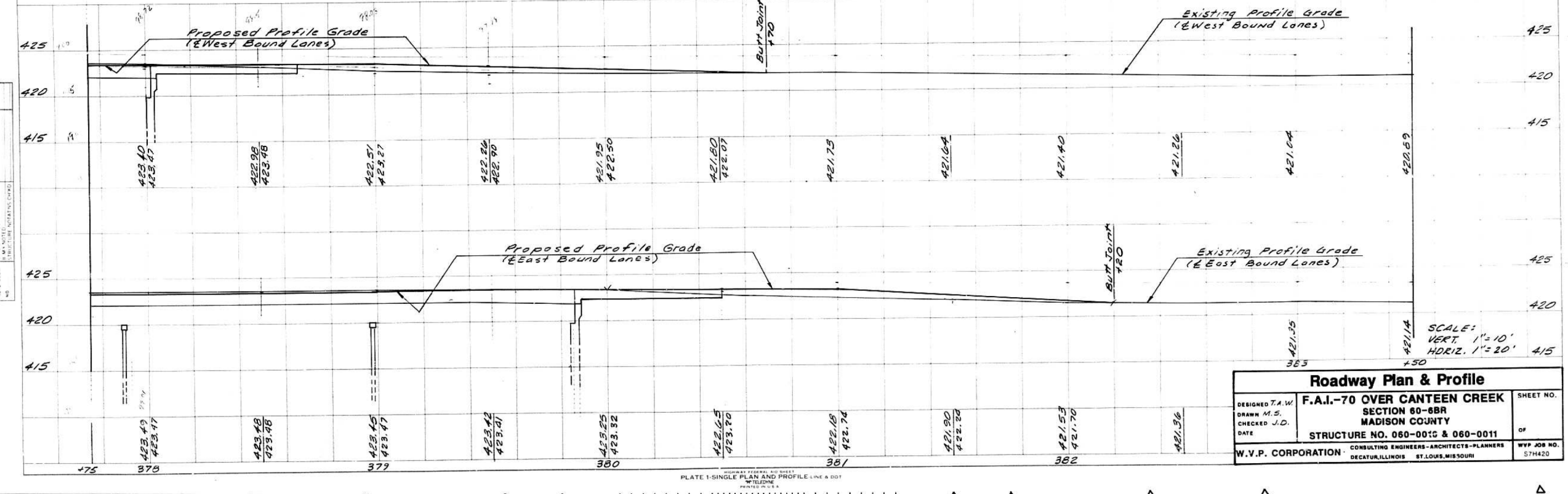
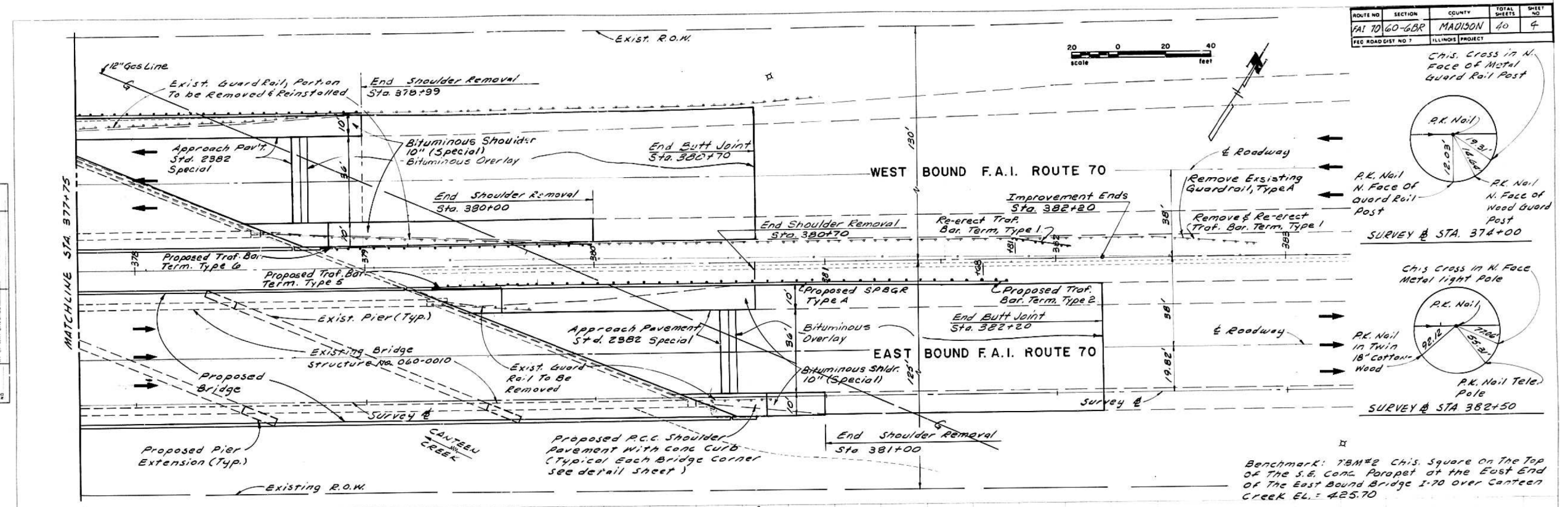
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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* FAI 55/70, FAP 805		COUNTY		TOTAL SHEETS	SHEET NO.
F.A.I./P. RTE.	SECTION	MADISON	ST. CLAIR	16	7
60-6BR-P, 125-BR-2-P		CONTRACT NO. 76H38			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



Roadway Plan & Profile			
DESIGNED T.A.W.	F.A.I.-70 OVER CANTEEN CREEK		SHEET NO.
DRAWN M.S.	SECTION 60-6BR		
CHECKED J.D.	MADISON COUNTY		
DATE	STRUCTURE NO. 060-0015 & 060-0011		OF
W.V.P. CORPORATION		CONSULTING ENGINEERS-ARCHITECTS-PLANNERS	WVP JOB NO.
		DECATUR, ILLINOIS	ST. LOUIS, MISSOURI
			574420

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		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATIONS 1 & 2 REFERENCE SHEETS				
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.

* FAI 55/70, FAP 805				
F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-6BR-P, 125-BR-2-P	MADISON ST. CLAIR	16	8
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO. 76H38

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 70	60-6BR	MADISON	40	12
NO ROAD-DIST NO		ILLINOIS PROJECT		

EXISTING STRUCTURE:

CONSTRUCTED IN 1960 AS F.A.I. ROUTE 70 SECTION 60-6B AT STA. 377 + 52.7. THE DUAL BRIDGES ARE 275' - 10" LONG AND CONSIST OF 3 SPAN (84' - 1", 107' - 8", 84' - 1") CONTINUOUS BEAMS, 40' - 8" ROADWAYS, 2'-3" - 6" CURB WITH METAL RAIL. THE SUPER-STRUCTURE IS STEEL WIDE FLANGE BEAM WITH REINFORCED CONCRETE DECK. THE SUBSTRUCTURE IS PILE BENT ABUTMENTS AND PIERS.

EXISTING BRIDGES ARE TO BE WIDENED. EXISTING DECK TO BE REMOVED AND REPLACED. EXISTING EXTERIOR BEAMS TO BE REPLACED AND ADDITIONAL EXTERIOR BEAMS TO BE ADDED. NEW ELASTOMERIC BEARINGS AT ABUTMENTS TO BE INSTALLED. EXISTING ROCKER BEARINGS AT PIERS TO BE REUSED. NEW ROCKER BEARINGS INSTALLED AT PIERS FOR NEW BEAMS. SUBSTRUCTURE TO BE WIDENED, UTILIZING NEW PILES AT PIERS AND NEW PILES IN ADDITION TO EXISTING PILES (OF EXISTING RETAINING WALLS) AT ABUTMENTS. CONSTRUCTION WILL BE STAGED AND TWO LANES OF TRAFFIC WILL BE MAINTAINED ON EACH STRUCTURE AT ALL TIMES. STRUCTURES 060-0010 (EAST BOUND) AND 060-0011 (WEST BOUND). SALVAGE ALL INTERIOR BEAMS AND ROCKER BEARINGS AT PIERS.

BENCHMARK

A CHISELED SQUARE ON THE SOUTH WEST CONCRETE WING-WALL OF THE WEST BOUND F.A.I. - 70 BRIDGE OVER CANTEN CREEK. ELEVATION = 424.48

DESIGN SPECIFICATIONS

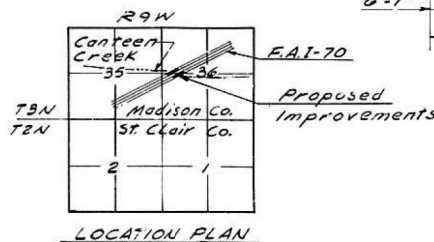
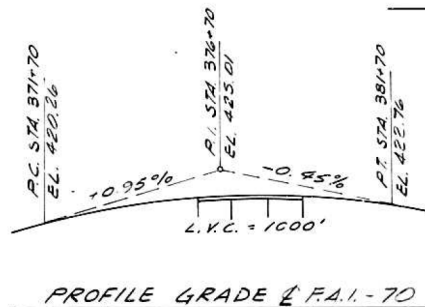
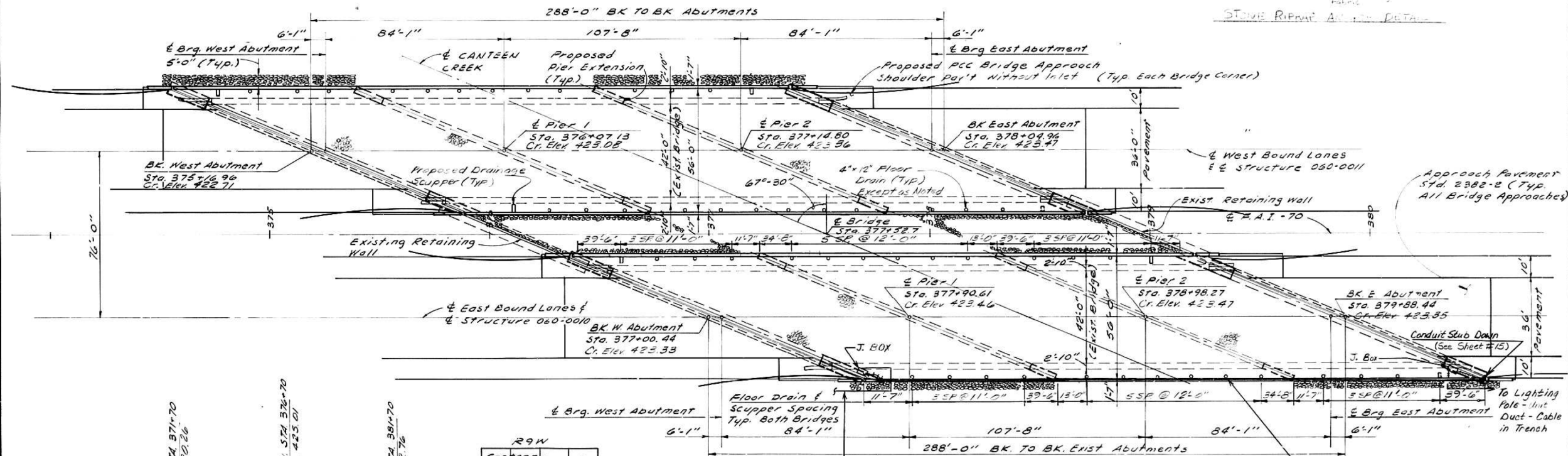
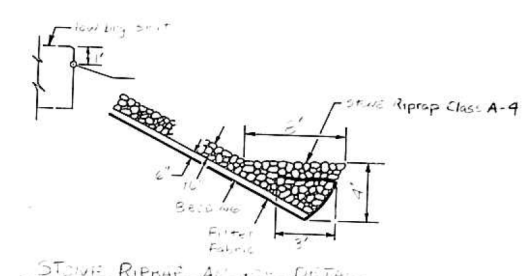
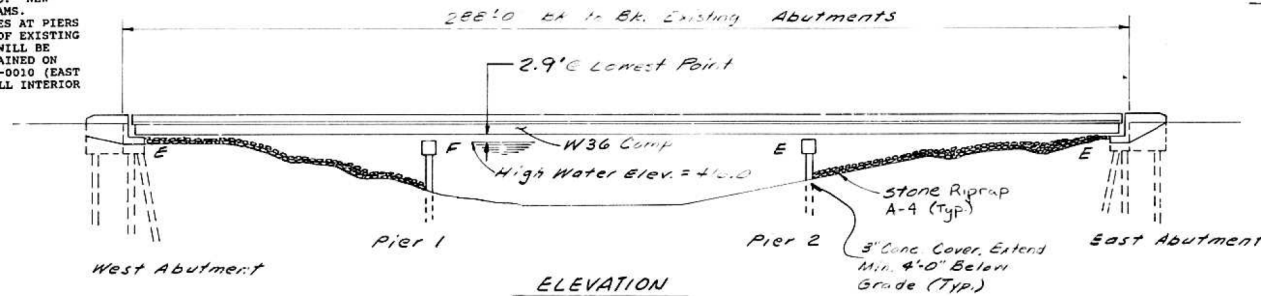
1983 AASHTO: 1984, 1985, 1986, 1987, 1988 INTERIM SPECIFICATIONS.

LOADING HS 20-44 & A.I.T. MILITARY LOADING

25#/SQ. FT. FOR FUTURE WEARING SURFACE.

DESIGN STRESSES

F₁C = 3,500 PSI
 F_y = 60,000 PSI (REINF.)
 F_y = 36,000 PSI (STRUCT.) (AASHTO M 183)
 F_y = 33,000 PSI (STRUCT. EXISTING)



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 John W. Clark
 Registered Structural Engineer



General Plan & Elevation			
DESIGNED J.D.	F.A.I.-70 OVER CANTEN CREEK		SHEET NO.
DR. J.W.	SECTION 60-6BR		1
CHECKED J.D.	MADISON COUNTY		OF 27
DATE 9-1987	STRUCTURE NO. 060-0010 & 060-0011		
W.V.P. CORPORATION		CONSULTING ENGINEERS-ARCHITECTS-PLANNERS	WVP JOB NO.
		DECATUR, ILLINOIS ST. LOUIS, MISSOURI	S7H420

Rev. 11/20/89 REV 11/22/89

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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LOCATIONS 1 & 2
 REFERENCE SHEETS

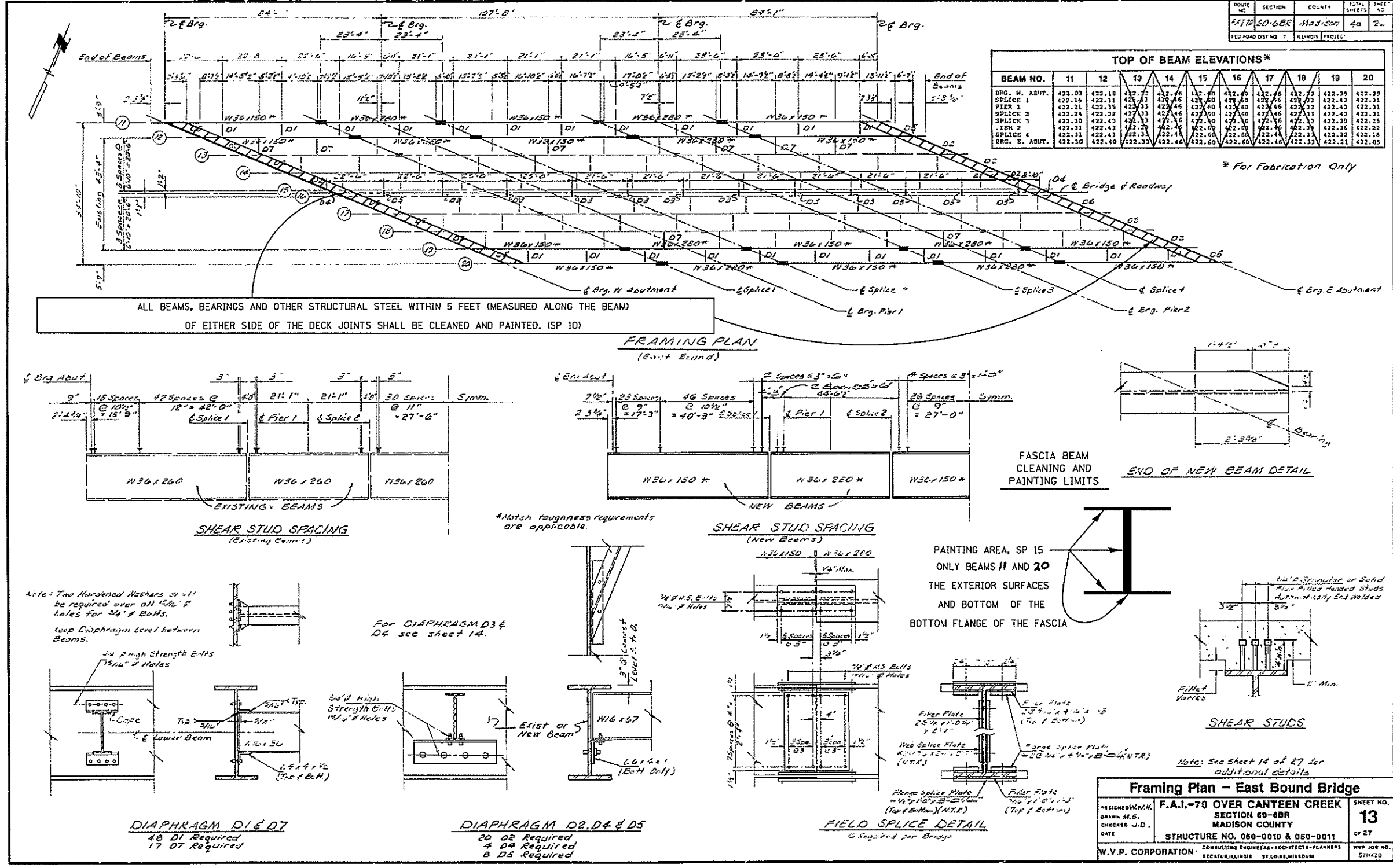
SCALE: SHEET NO. OF SHEETS STA. TO STA.

* FAI 55/70, FAP 805

F.A.I./P.R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60-6BR-P, 125-BR-2-P	MADISON	16	9	
				CONTRACT NO. 76H38
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY

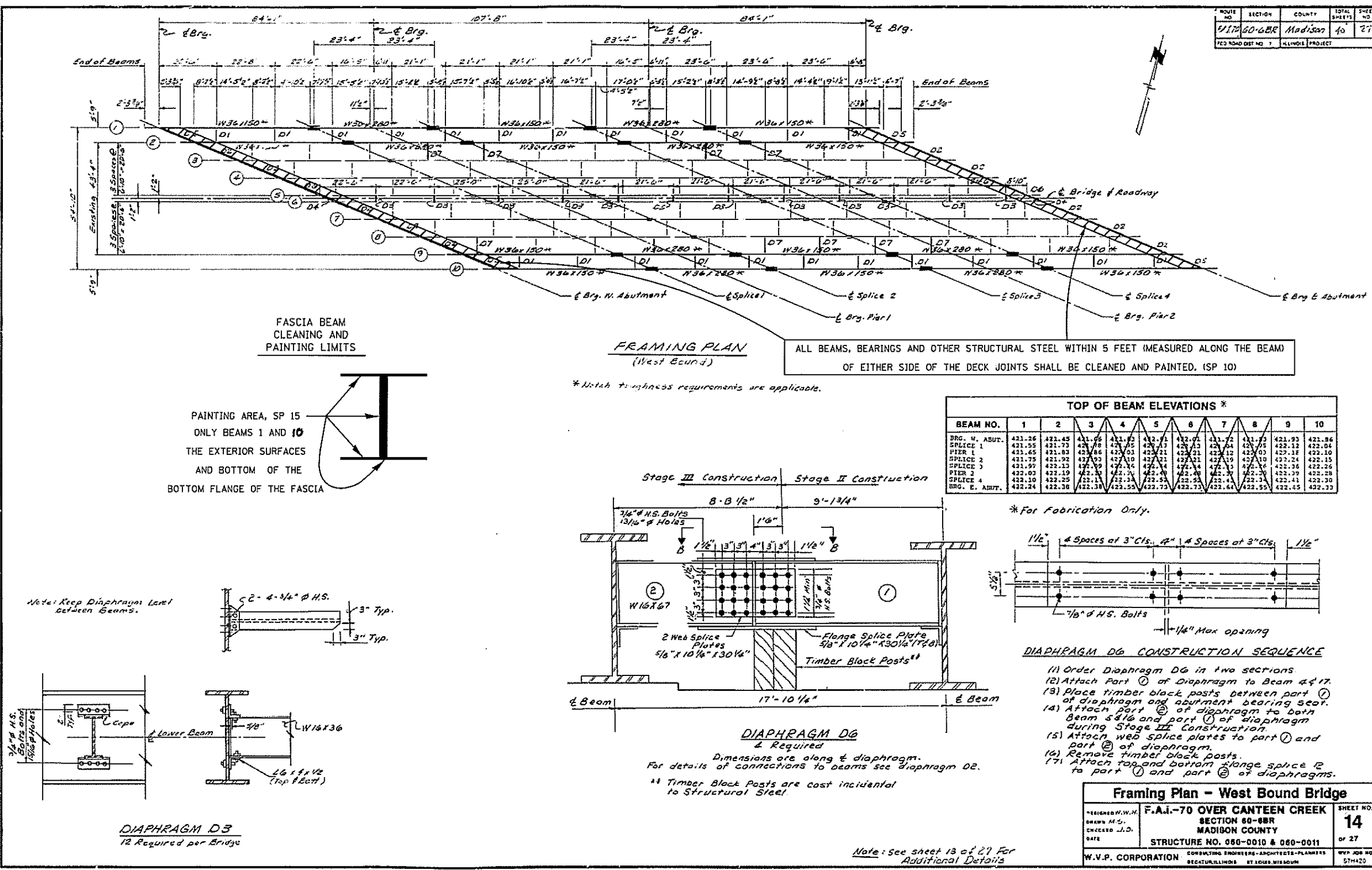
QUALITY & PERFORMANCE



FOR INFORMATION AND PROPOSED DATA

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PLOT SCALE = 1/8" = 1'-0"	DATE = 12/12/2014	DRAWN -	REVISED -			60-6BR-P, 125-BR-2-P	MADISON ST. CLAIR	16	10	
		CHECKED -	REVISED -			STRUCTURE NO. 060-0010 & 060-0011	MADISON COUNTY		CONTRACT NO. 76H38	
		DATE -	REVISED -			W.V.P. CORPORATION	CONSULTING ENGINEERS-ARCHITECTS-PLANNERS		ILLINOIS FED. AID PROJECT	

FOR INFORMATION AND PROPOSED DATA



FILE NAME =	USER NAME = wedmore_jb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATIONS 1 & 2 REFERENCE SHEETS	SCALE:	SHEET NO. OF SHEETS STA. TO STA.	F.A.I./P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
at\pvc\work\p1dot\wedmore_jb\d2409198\d9	6h38-sht-plan.dgn	DRAWN -	REVISED -					60-6BR-P, 125-BR-2-P	MADISON ST. CLAIR	16	11	
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -					CONTRACT NO. 76H38				
	PLOT DATE = 12/12/2014	DATE -	REVISED -					FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

* FAI 55/70, FAP 805

DESIGNED M.W.M.	F.A.I.-70 OVER CANTEN CREEK	SHEET NO.
DRAWN M.S.	SECTION 60-6BR	14
CHECKED J.D.	MADISON COUNTY	
DATE	STRUCTURE NO. 060-0010 & 060-0011	OF 27
W.V.P. CORPORATION	CONSULTING ENGINEERS-ARCHITECTS-PLANNERS	57H420
	DECATUR, ILLINOIS ST. LOUIS, MISSOURI	

FOR INFORMATION ONLY

DATE	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
FAI 70-6BR	Madison	40	29A	

Note: Burn off existing anchor bolts flush with existing concrete surface. Grind smooth and seal with epoxy. New anchor bolts shall be installed in accordance with SSP-11.

ELEVATION AT WEST ABUT.
Beams 2-9 / 12-17 with Steel Pedestals
Beams 1, 10, 11, 12 without Steel Pedestals

SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

BEARING ASSEMBLY

Note: Steel plates shall not be placed under Bearing Assembly.

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

AS REVISED

Beam No.	2	3	4	5	6	7	8	9	12	13	14	15	16	17	18	19
West Abut.	8 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	11 1/2"	15 1/2"	15 1/2"	15 1/2"	15 1/2"	15 1/2"	15 1/2"	15 1/2"

Existing Beams - 3 thru 8 & 13 thru 18

INTERIOR GIRDER MOMENT TABLE		Phr 102 0.5 Sp. 2		Phr 0.6 Sp.	
Is	Is (In ⁴)	24300	17300		
Ic	(In ⁴)	34910	36810		
Sc	(In ³)	954	1295	954	
Sc	(In ³)	1282	1282		
Z	(In)	1401			
W	(K/ft)	0.937	1.008	0.937	
ME	(K)	453	926	494	
ME	(K/ft)	0.253	0.293	0.253	
Mt	(K)	126	221	147	
Mt	(K)	655	522	730	
M (Imp)	(K)	156	113	127	
M (Total)	(K)	1352	1058	1478	
Mu	(K)	2510	2900	2758	
Mu	(K)	3760	4810	4760	
F ₁ (non-compl. L)		57	89	62	
F ₁ (comp)	(K.L)	42	20	44	
F ₁ (A-I)	(K.L)	12.9	38	46.1	
F ₁ (Overload)	(K.L)	79.8	267	27.7	
V _R	(K)	39.7		46.0	
V _y	(K.L)	88	33	33	

* 0.4 Sp. 1 and 0.6 Sp. 3

INTERIOR GIRDER REACTION TABLE		Abut.		Abut.	
R _R	(K)	38.0	125.1		
R _L	(K)	38.9	28.9		
Imp.	(K)	9.8	15.1		
R (Total)	(K)	86.8	207.7		

New Beams - 2, 9, 12 & 19

INTERIOR GIRDER MOMENT TABLE		Phr 102 0.5 Sp. 2		Phr 0.6 Sp.	
Is	(In ⁴)	9040	18900	9040	
Ic	(In ⁴)	22681		22681	
Sc	(In ³)	504		504	
Sc	(In ³)	726		726	
Z	(In)	1170			
W	(K/ft)	0.770	0.900	0.770	
ME	(K)	344	348	336	
ME	(K/ft)	0.279	0.239	0.279	
Mt	(K)	111	250	178	
Mt	(K)	385	554	418	
M (Imp)	(K)	139	113	134	
M (Total)	(K)	1207	1085	1253	
Mu	(K)	2161	2942	2279	
Mu	(K)	3111	3510	3111	
F ₁ (non-compl. L)		8.2	120	20	
F ₁ (comp)	(K.L)	1.8	17	2.0	
F ₁ (A-I)	(K.L)	19.9	13.6	26.7	
F ₁ (Overload)	(K.L)	24.8	26.3	32.7	
V _R	(K)	50.6		42.0	
V _y	(K.L)	86	36	36	

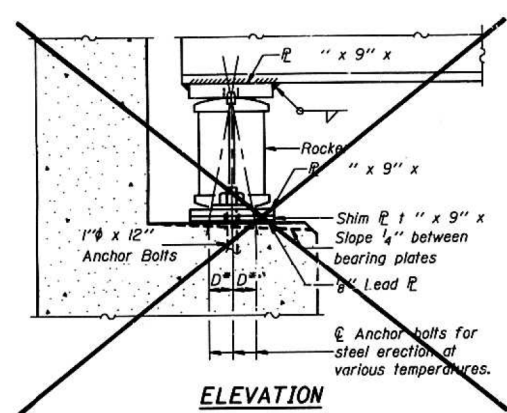
* 0.4 Sp. 1 and 0.6 Sp. 3

INTERIOR GIRDER REACTION TABLE		Abut.		Abut.	
R _R	(K)	31.9	119.6		
R _L	(K) <td>38.6</td> <td>36.3</td> <td></td> <td></td>	38.6	36.3		
Imp.	(K) <td>8.5</td> <td>12.7</td> <td></td> <td></td>	8.5	12.7		
R (Total)	(K) <td>79.0</td> <td>168.6</td> <td></td> <td></td>	79.0	168.6		

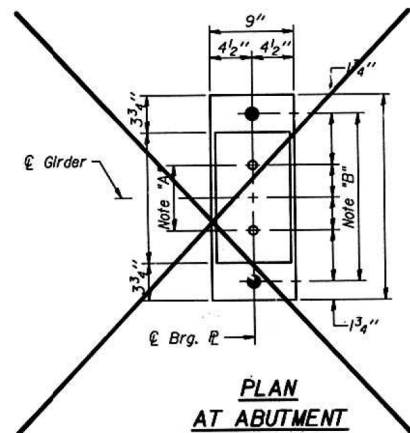
Note: New Steel Pedestals, Side Retainers, and Anchor Bolts are included in Furnishing & Grouting Structural Steel. Weight of the Structural Steel for the Pedestals = 3100 lbs.

Revised PMP 7-6-90

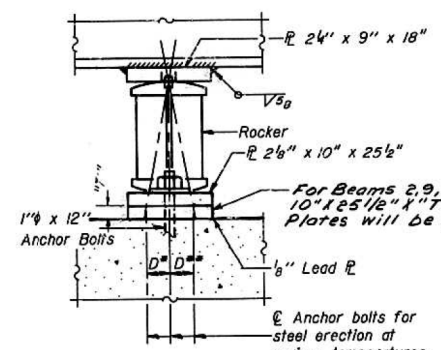
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F-170	60-6BR	Madison	40	30
FED. ROAD DIST. NO.	ILLINOIS PROJECT			



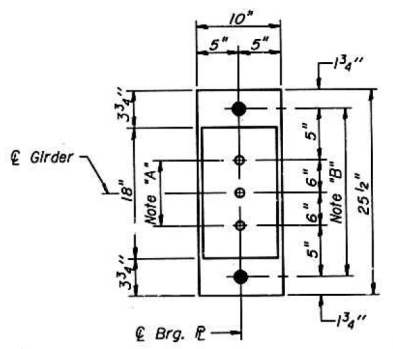
ELEVATION



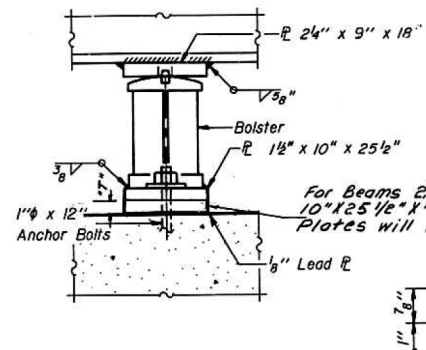
PLAN AT ABUTMENT



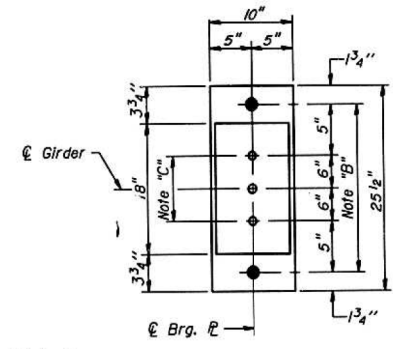
ELEVATION



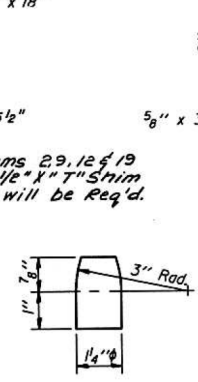
PLAN AT PIER 2



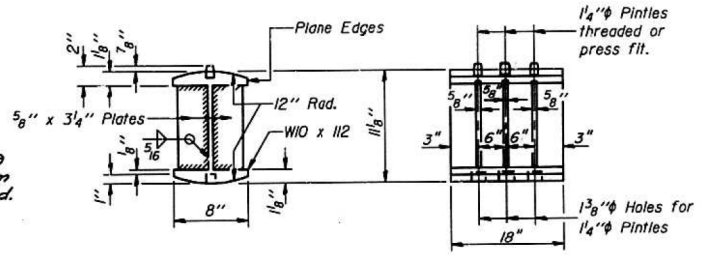
ELEVATION



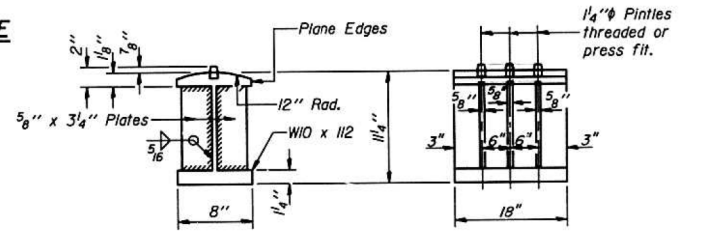
PLAN AT PIER 1



PINTE



ROCKER



BOLSTER

PIER 1	
Beam	7"
2	3"
9	4.2"
12	3.12"
19	4.08"

PIER 2	
Beam	7"
2	3"
9	3.32"
12	4.08"
19	3.24"

NOTES FOR SETTING OF ANCHOR BOLTS AT EXPANSION BEARINGS

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

BEARING ASSEMBLY DETAILS

	INTERIOR GIRDER MOMENT TABLE		
	0.4 Sp.	Pier	0.5 Sp.
Is (in ⁴)			
Ic (in ⁴)			
Ss (in ³)			
Sc (in ³)			
Z (in ³)			
VR (K/ft.)			
MR (K)			
MsE (K/ft.)			
Mt (K)			
M (Imp) (K)			
S ₃ (Mt+I) (K)			
Ma (K)			
Mu (K)			
FsE non-comp (k.s.i.)			
FsE comp (k.s.i.)			
FsS ₃ (I+I) (k.s.i.)			
Fs (Overload) (k.s.i.)			
Fs (Total) (k.s.i.)			
VR (K)			

	INTERIOR GIRDER REACTION TABLE		
	Abut.	Pier	Pier
RP (K)			
Rt (K)			
Imp. (K)			
R (Total) (K)			

Is and Ss are the moment of inertia and section modulus of the steel section used in computing Is (Total & Overload).
Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).
VR is the maximum live load + impact shear range in span.
Z is the plastic section modulus used to determine the Fully Plastic Moments in the non-composite areas.
Ma (Applied Moment) = 1.3MR + MsE + S₃(Mt + I).
Mu is the Full Plastic Moment Capacity for Compact, Braced section.
Fs (Overload) is the sum of the stresses due to MR + MsE + S₃(Mt + I).
Fs (Total) is the sum of the stresses due to 1.3MR + MsE + S₃(Mt + I).

Bearing Details - Piers 1 and 2

DESIGNED: W.M.	F.A.I.-70 OVER CANTEN CREEK SECTION 60-6BR MADISON COUNTY STRUCTURE NO. 060-0010 & 060-0011	SHEET NO.
DRAWN: M.S.		17
CHECKED: J.D.		OF 27
DATE		
W.V.P. CORPORATION		WVP JOB NO. 57H420

FILE NAME =	USER NAME = wedmore_jb
et:\pw\work\p\dtdot\wedmore_jb\d0400198\d876h38-sh-t-plan.dgn	
PLOT SCALE = 100.0000' / in.	
PLOT DATE = 12/12/2014	

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATIONS 1 & 2
REFERENCE SHEETS

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

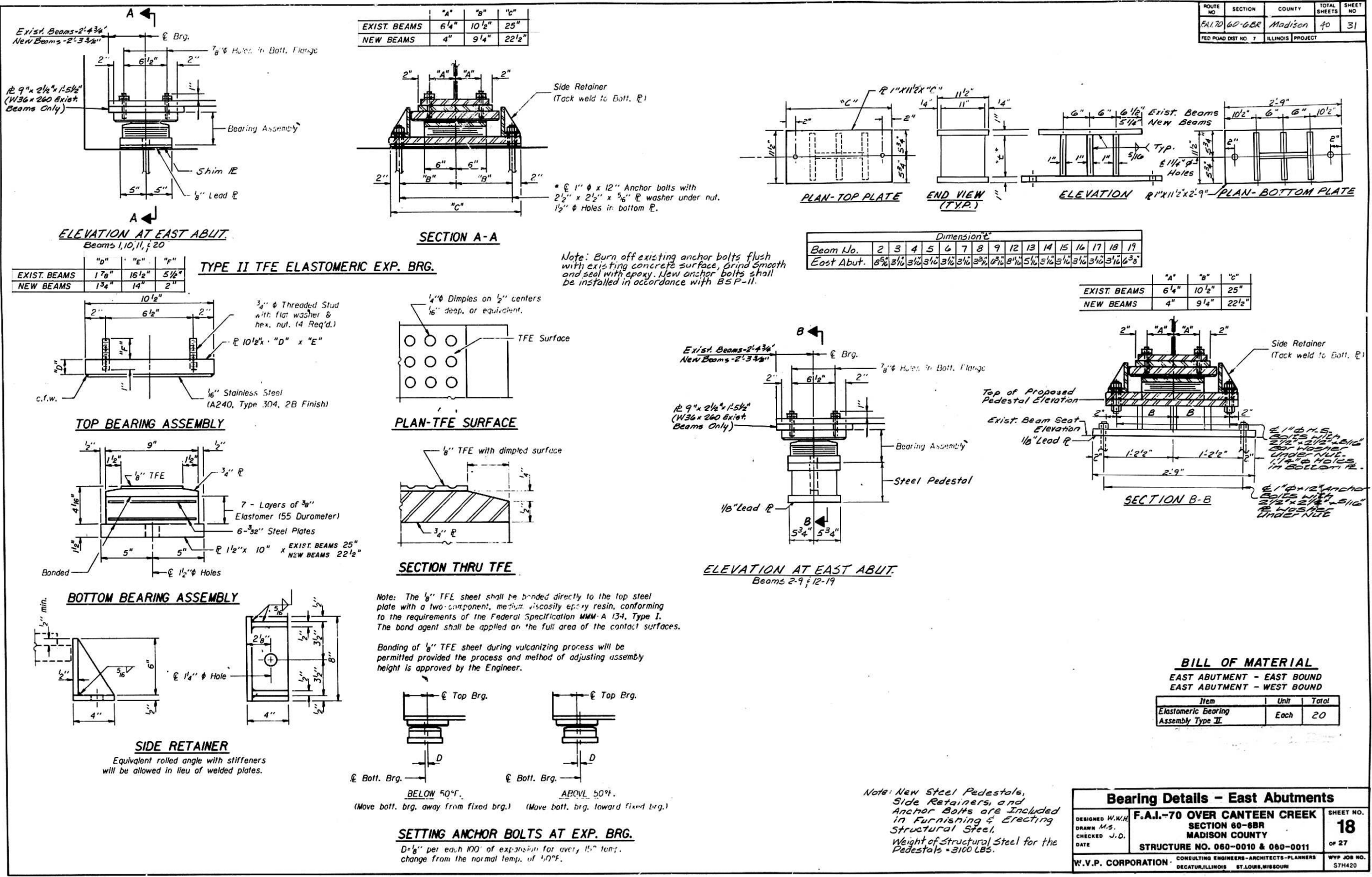
* FAI 55/70, FAP 805

F.A.I./P.RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
60-6BR-P, 125-BR-2-P	MADISON	16	13	
CONTRACT NO. 76H38				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 70	60-6BR	Madison	40	31
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	OF
F.A. 805	125BR-1	ST. CLAIR	32	15	14 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

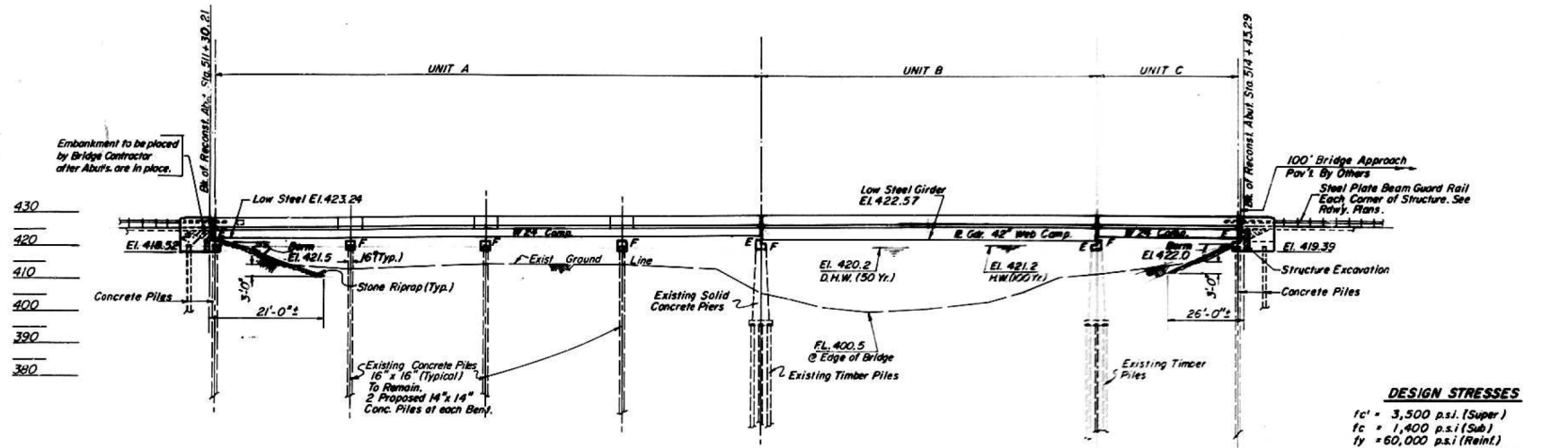
Existing Structure built in 1933 as S.B.I. Rte. 161 Sec. 125-C at Station 512+87.75. Superstructure is concrete slab on steel I-beams, 4 spans West of main 100' steel truss and one span East of truss. Substructure is reinforced concrete pile-cap construction; main piers are tapered plain concrete type. Portions of abutments and piers to be removed and reconstructed by the Bridge Contractor. See Special Provisions.

B.M. "B" - CHISELED SQ. ON S.E. COR. OF WEST ABUT. ELEV. 425.46

GENERAL NOTES

Calculated weight of Structural Steel = 124,400 lbs. (M-223, Gr. 50)
= 60,600 lbs. (M-183)

- Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " open holes $\frac{1}{8}$ " unless otherwise noted.
- The basic lead silico chromate paint shall be used for shop & field painting of Structural Steel.
- Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for the distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
- Anchor bolts shall be set before bolting diaphragms over supports.
- Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-53 Grade 60.
- Protective Coat shall be applied in accordance with Article 503.12 of the Standard Specifications.
- The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material of the steel girders or wide flange beams.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Expansion bolts shall consist of self drilling expansion anchors and $\frac{3}{4}$ " \times 12" hooked bolts.



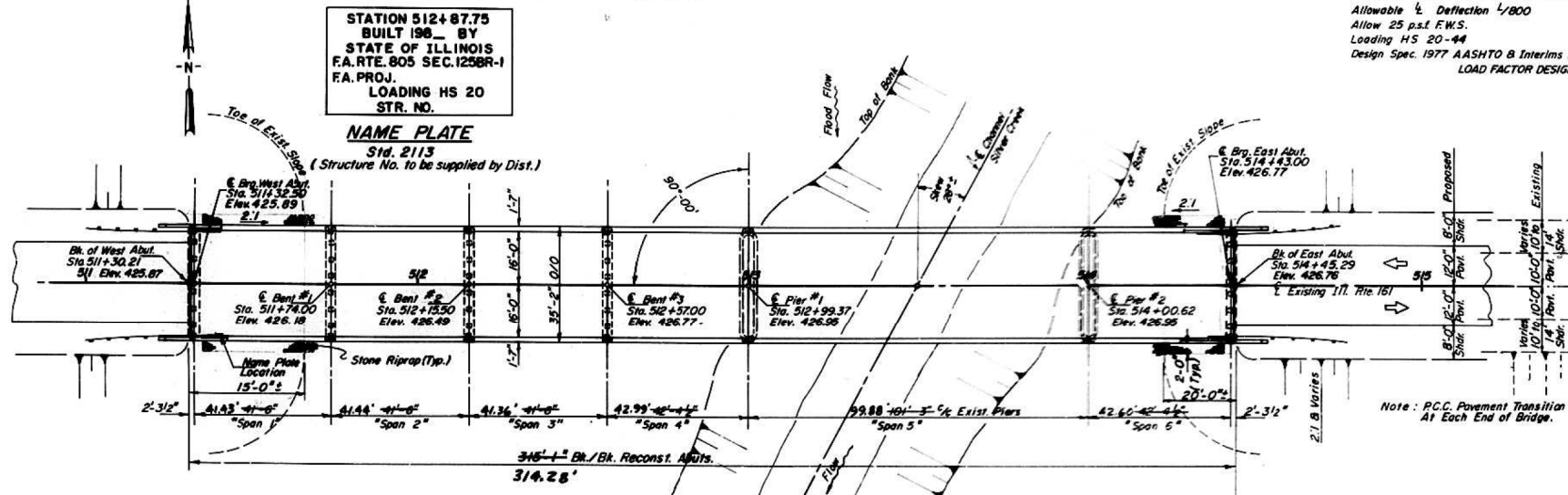
ELEVATION
(LOOKING UPSTREAM)

DESIGN STRESSES

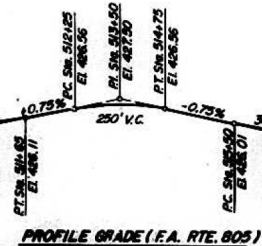
- $f_c = 3,500$ p.s.i. (Super)
- $f_c = 1,400$ p.s.i. (Sub)
- $f_y = 60,000$ p.s.i. (Reinf.)
- $f_y = 50,000$ p.s.i. (M 223 Grade 50 Structural Steel)
- $f_y = 36,000$ p.s.i. (M 183 - Structural Steel)
- $f_s = 24,000$ p.s.i. (Reinf. Sub. & Parapet)
- Allowable δ Deflection $\frac{1}{800}$
- Allow 25 p.s.f. F.W.S.
- Loading HS 20-44
- Design Spec. 1977 AASHTO & Interims 1978 & 1979 as Applicable
- LOAD FACTOR DESIGN (Except Substructure)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yds.		82	82
Class X Concrete	Cu. Yds.	307.2	119.5	426.7
Structural Steel	L.S.	1		1
Reinforcement Bars	Lbs.	36,920	12,240	49,160
Reinforcement Bars (Epoxy Coated)	Lbs.	50,840		50,840
Concrete Piles	Lin. Ft.		520	520
Name Plate	Each	1		1
Preformed Joint Sealer (2 1/2")	Lin. Ft.	105		105
Preformed Joint Sealer (4")	Lin. Ft.	35		35
Protective Coat	Sq. Yds.	1380		1380
Expansion Bolts 3/4" Dia.	Each		120	120
Stone Riprap	Sq. Yds.		219	219
Removal Of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yds.		73.0	73.0
Floordrains	Each	58		58
Stud Shear Connectors	Each	5,025		5,025



PLAN

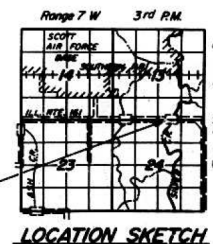


PROFILE GRADE (F.A. RTE. 805)

WATERWAY INFORMATION

- Total Drainage Area = 400 Sq. Mi.
- Design Discharge, Q90 = 26,265 c.f.s.
- Main Channel Bridge, Q50 = 18,854 c.f.s.
- Overflow Bridge, Q50 = 7,411 c.f.s.
- Design High Water El. (50 Yr. FL.) = El. 420.2
- Created Head = 1.6'
- Discharge, Q100 = 29,800 c.f.s.
- Main Channel Bridge, Q100 = 21,275 c.f.s.
- Overflow Bridge, Q100 = 8,525 c.f.s.
- High Water El. (100 Yr. FL.) = El. 421.2
- Created Head = 1.6'

Reconstructed Bridge Opening at Main Channel below El. 420.2 = 2810 Sq. Ft.
Reconstructed Bridge Opening at Overflow Channel below El. 420.2 = 1000 Sq. Ft.



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
[Signature]
Engineer of Bridge & Traffic Structures

GENERAL PLAN & ELEVATION
F.A. ROUTE 805 (S.B.I. RTE. 161) OVER
SILVER CREEK
SECTION 125 BR-1
ST. CLAIR COUNTY
STA. 512+87.75
MAIN CHANNEL CROSSING

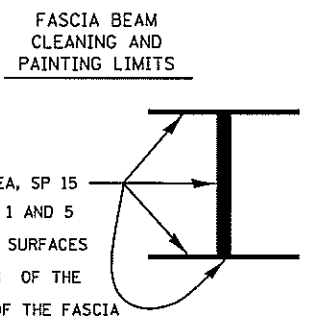
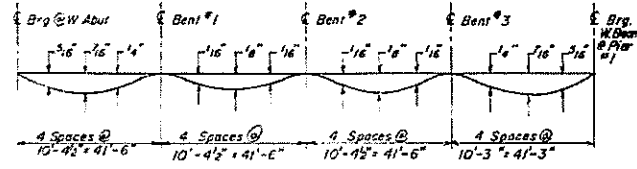
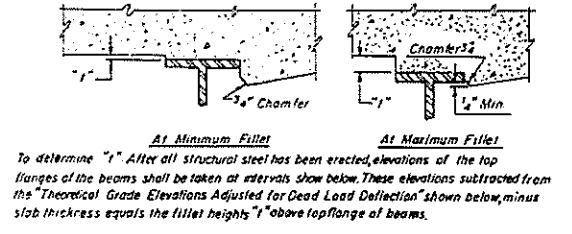
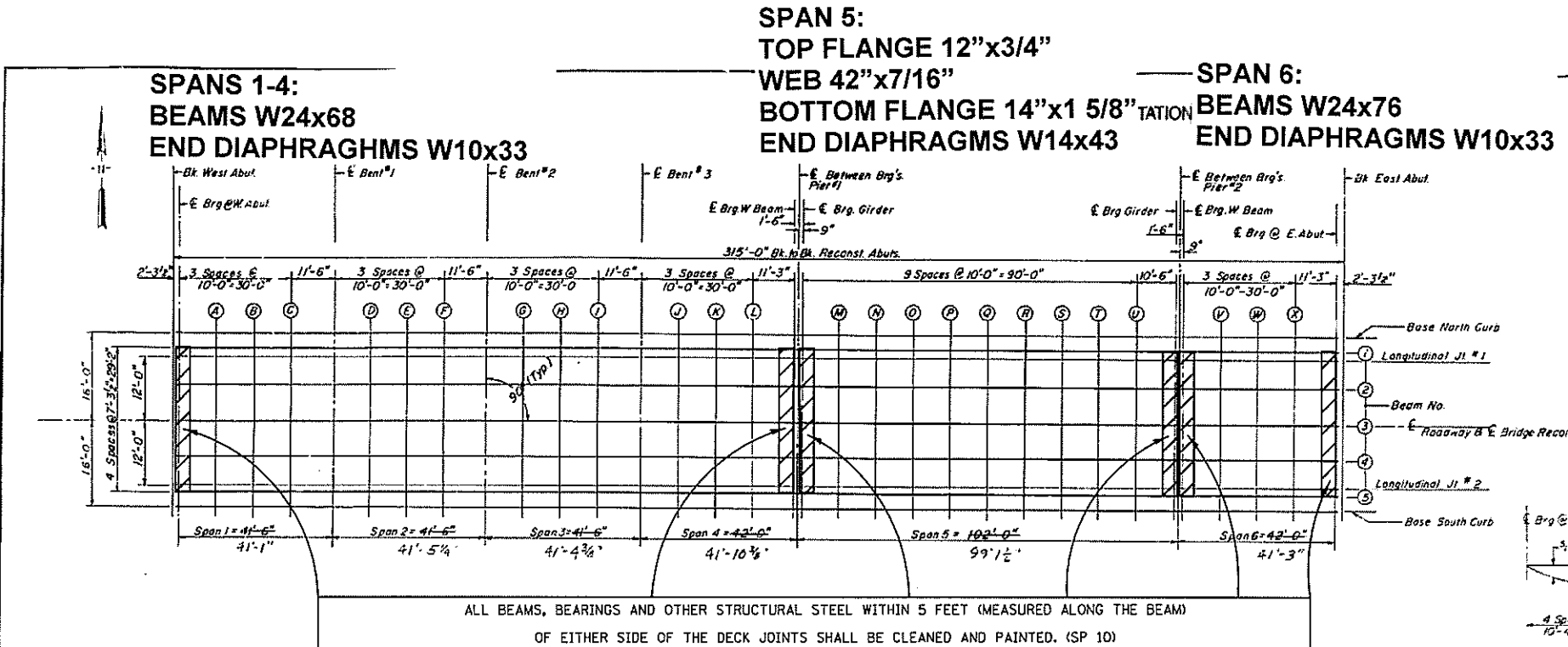
Rev 10-81

FILE NAME =	USER NAME = wedmore_jb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION 3 REFERENCE SHEETS	SCALE:	SHEET NO. OF SHEETS STA. TO STA.	* FAI 55/70, FAP 805			
et:\pw\work\p1dot\wedmore_jb\d0400198\d876h38-sh-t-plan.dgn	DRAWN -	REVISED -	F.A.I./P. RTE.					SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -	60-6BR-P, 125-BR-2-P					MADISON ST. CLAIR	16	15	
PLOT DATE = 12/12/2014	DATE -	REVISED -	CONTRACT NO. 76H38					FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

FOR INFORMATION ONLY

FOR INFORMATION AND PROPOSED DATA

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2 OF 14 SHEETS
F.A. 805	125 BR-1	ST. CLAIR	32	16	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



LINE	BEAM OR GIRDER	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
DK W ABUT	CURB	51130+21.0	14.000	425.502	425.402
	1 OR 5	51130+21.0	14.583	425.631	425.631
	JOINT	51130+21.0	12.000	425.685	425.685
	2 OR 4	51130+21.0	7.292	425.759	425.759
E BRG. W ABUT	CURB	51132+50.0	16.000	425.614	425.614
	1 OR 5	51132+50.0	14.583	425.645	425.645
	JOINT	51132+50.0	12.000	425.699	425.699
	2 OR 4	51132+50.0	7.292	425.773	425.773
A	CURB	51142+50.0	16.000	425.681	425.708
	1 OR 5	51142+50.0	14.583	425.710	425.737
	JOINT	51142+50.0	12.000	425.764	425.791
	2 OR 4	51142+50.0	7.292	425.837	425.865
B	CURB	51152+50.0	16.000	425.749	425.785
	1 OR 5	51152+50.0	14.583	425.778	425.814
	JOINT	51152+50.0	12.000	425.832	425.868
	2 OR 4	51152+50.0	7.292	425.906	425.942
C	CURB	51162+50.0	16.000	425.821	425.843
	1 OR 5	51162+50.0	14.583	425.851	425.872
	JOINT	51162+50.0	12.000	425.904	425.926
	2 OR 4	51162+50.0	7.292	425.978	425.999
BENT 1	CURB	51174+00.0	16.000	425.907	425.907
	1 OR 5	51174+00.0	14.583	425.937	425.937
	JOINT	51174+00.0	12.000	425.990	425.990
	2 OR 4	51174+00.0	7.292	426.044	426.044
D	CURB	51184+00.0	16.000	425.983	425.985
	1 OR 5	51184+00.0	14.583	426.012	426.015
	JOINT	51184+00.0	12.000	426.066	426.068
	2 OR 4	51184+00.0	7.292	426.139	426.142
BENT 2	CURB	51215+00.0	16.000	426.219	426.219
	1 OR 5	51215+00.0	14.583	426.248	426.248
	JOINT	51215+00.0	12.000	426.302	426.302
	2 OR 4	51215+00.0	7.292	426.376	426.376
G	CURB	51225+50.0	16.000	426.294	426.300
	1 OR 5	51225+50.0	14.583	426.324	426.330
	JOINT	51225+50.0	12.000	426.377	426.383
	2 OR 4	51225+50.0	7.292	426.451	426.457
H	CURB	51235+50.0	16.000	426.366	426.377
	1 OR 5	51235+50.0	14.583	426.395	426.406
	JOINT	51235+50.0	12.000	426.449	426.459
	2 OR 4	51235+50.0	7.292	426.523	426.533
I	CURB	51245+50.0	16.000	426.432	426.436
	1 OR 5	51245+50.0	14.583	426.461	426.466
	JOINT	51245+50.0	12.000	426.515	426.519
	2 OR 4	51245+50.0	7.292	426.589	426.593
BENT 3	CURB	51257+00.0	16.000	426.500	426.503
	1 OR 5	51257+00.0	14.583	426.529	426.539
	JOINT	51257+00.0	12.000	426.583	426.583
	2 OR 4	51257+00.0	7.292	426.657	426.657

Notes: CURB refers to base of North or South curb
 JOINT refers to Length Bonded Construction Joint #1 or #2
 P.G. refers to Profile Grade Elev.

DESIGNED	G.E.P.-E.R.V.
CHECKED	G.E.P.
DRAWN	R.W.M.
CHECKED	G.E.P.