Missouri Department of Transportation
State Bridge Inspection Report

January 08, 2026
1:48:27PM

COUNTY: ST. FRANCOIS **DISTRICT: SE** **CLASS: STATBR** **FED-ID: 123** **BRIDGE: A0144**

GENERAL STRUCTURE INFORMATION

ROUTE:	MO32W	**# SPANS:**	4
FEATURE:	US 67	**LANES ON:**	2
STATUS:	A-OPEN	**LANES UNDER:**	4
LOG MILE:	32.724	**COMPASS DIRECTION:**	WEST to EAST
DETOUR:	10.00 MILES	**DIRECTION OF TRAFFIC:**	2-WAY TRAF
NHS:	YES	**FUNCTIONAL CLASS:**	UR-PRINCIPAL ARTERIAI
BUILT:	1957	**NBI OWNER:**	MODOT
REHAB:	1987	**NBI MAINTAINED:**	MODOT
LOCATION:	S 9 T 36 R 5 E	**MAINTENANCE DISTRICT:**	SE
LATITUDE:	37 50 20.31 (DMS)	**MAINTENANCE COUNTY:**	ST. FRANCOIS
LONGITUDE:	90 29 4.07 (DMS)	**SUB AREA:**	7H34

PLACE CODE:	22636 ESTHER CITY
LENGTH:	207 FT 0 IN
MAXIMUM SPAN:	56 FT 0 IN
APPROACH ROADWAY:	48 FT 0 IN
CURB TO CURB:	52 FT 11 IN
OUT TO OUT:	55 FT 7 IN
AADT:	17288
AADT YEAR:	2024
AADT TRUCK:	5.0%
FUTURE AADT:	30254
FUTURE AADT YEAR:	2044

BRIDGE INSPECTION INFORMATION

DATE: 10/17/2024 **RESPONSIBILITY:** DISTRICT
FREQUENCY: 24 **CALCULATED INTERVAL**:** 24
TEAM LEADER: ETHAN PINKLEY **ELEMENT:** YES
INSPECTOR 2: **INSPECTOR 4:**
INSPECTOR 3:

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

GENERAL INSPECTION COMMENTS

FRACTURE CRITICAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

FRACTURE CRITICAL INSPECTION COMMENTS

INDEPTH INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

INDEPTH INSPECTION COMMENTS

SPECIAL INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

SPECIAL INSPECTION COMMENTS

UNDERWATER INSPECTION INFORMATION

DATE: **RESPONSIBILITY:** **CATEGORY:**
FREQUENCY: **CALCULATED INTERVAL**:** **NBI:**
TEAM LEADER: **INSPECTOR 3:** **METHOD:**
INSPECTOR 2: **INSPECTOR 4:**

** When calculated interval exceeds the frequency, a justification comment per BIRM is required.

UNDERWATER INSPECTION COMMENTS

OTHER SPECIAL INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

OTHER UNDERWATER INSPECTIONS

DATE	FREQUENCY	CATEGORY	NBI	CALCULATED INTERVAL	RESPONSIBILITY	METHOD

COUNTY: ST. FRANCOIS **DISTRICT: SE** **CLASS: STATBR** **FED-ID: 123** **BRIDGE: A0144**

STRUCTURE POSTING

APPROVED CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:**
COMMENTS:

FIELD CATEGORY: S-1 NO POSTING REQUIRED
Ton 1: **Ton 2:** **Ton 3:** **PROBLEM:** **PROBLEM DIRECTION:**
COMMENTS:

GENERAL COMMENTS/MAJOR RATED ITEMS

GENERAL COMMENTS: (BOWDEJ1, 09/04/2008)--(46'-56'-56'-46') CONT VOIDED CONC SLAB SPANS

[ITEM 58] DECK: 6-SATISFACTORY CONDITION **COMMENTS:** (DENNIB1, 08/19/2014)--L-CRACKS & EFFOURESENCE
RATING : 08/09/2016

[ITEM 59] SUPER: 6-SATISFACTORY CONDITION **COMMENTS:** (DENNIB1, 08/19/2014)--SAME AS DECK
RATING : 08/09/2016

[ITEM 60] SUB: 7-GOOD CONDITION **COMMENTS:** (DENNIB1, 08/19/2014)--DIAGONAL CRACKS
RATING : 05/18/2001

[ITEM 61] BANK/CHANNEL: N-NOT APPLIC NO WATRWAY **COMMENTS:**
RATING : 05/18/2001

[ITEM 113] SCOUR: N-NOT APPLIC NOT WATERW **COMMENTS:**
RATING : 05/18/2001
EVALUATION TYPE :

[ITEM 71] WATERWAY ADEQUACY: NOT APPLICABLE **COMMENTS:**
RATING : 05/18/2001

[ITEM 72] APPRRDWY ALIGNMENT: 8-VERYGOOD **COMMENTS:**
RATING : 05/18/2001

RAILING AND APPROACH PAVEMENT COMPONENTS AND RATINGS

[ITEM 36A] BRIDGE RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
REINFORCED CONCRETE	SAFETY BARRIER CURB	BOTH	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	COMMENT
VERTICAL CRACKS	RANDOM		MINOR	

[ITEM 36B] TRANSITION RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	THRIE BEAM TO W-BEAM	ALL	

[ITEM 36C] APPROACH RAILING RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	W-BEAM	ALL	

[ITEM 36D] RAIL END TREATMENT RATING: *MEETS CURRENT STANDARDS-1* ***RATING :*** *05/18/2001* ***COMMENTS:***

Design_No = a0144

MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
GALVANIZED STEEL	BREKAWAY SYSTEM	ALL	

APPROACH PAVEMENT: *Overall condition assigned for each approach pavemenet component is shown below.

MATERIAL	CONSTRUCTION	DIRECTION	CONDITION*	COMMENTS
REINFORCED CONCRETE	SLAB	BOTH	FAIR	(REHAGM, 01/21/2004)--ASPHALT OVERLAY

DRAINAGE, EXPANSION DEVICES, BANK/SLOPE, AND DECK PROTECTIVE COMPONENTS

DECK PROTECTIVE COMPONENTS:

SERIES TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	THICKNESS	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION
MAIN SERIES-1	*WEARING SURFACE*	*ASPHALT*	*BITUMINOUS SEAL COAT*	*.4 IN*	*2008*		*FAIR*
COMMENT:							
	DECK PROTECTION	*NOTAPPLICABLE*	*NONE*				
COMMENT:							
	MEMBRANE	*LIQUID SEALANT*	*BUILT-UP*				
COMMENT:							

DRAINAGE COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS

EXPANSION DEVICE COMPONENTS:

SUB UNIT-#	SUB LABEL	COMPONENT	MATERIAL	CONSTRUCTION	GAP	YEAR APPLIED	MANUFACTURE	OVERALL CONDITION

COMMENT:

BANK/SLOPE PROTECTION COMPONENTS:

COMPONENT	MATERIAL	CONSTRUCTION	DIRECTION	COMMENTS
BANK PROTECTION	*ROCK*	*BLANKET*	*BOTH*	

DECK COMPONENTS

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-1	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		SEVERE		
LONGITUDINAL CRACKS	THROUGHOUT		MEDIUM		
PATCHES	THROUGHOUT		FEW		
SPALLS	THROUGHOUT		MEDIUM		

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-2	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
COLLISION DAMAGE	EDGE		MINOR		
DELAMINATION	OVERHANGS		MODERATE		

SPAN TYPE-#	COMPONENT	MATERIAL	CONSTRUCTION	COMMENTS
MAIN SPANS-3	*DECK*	*REINFORCED CONCRETE*	*CAST-IN-PLACE*	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DETERIORATION	EDGE		MODERATE		
EFFLORESCENCE	EDGE		MODERATE		

MAIN SPANS-4 DECK REINFORCED CONCRETE CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
LONGITUDINAL CRACKS	THROUGHOUT		MEDIUM		
PATCHES	THROUGHOUT		FEW		
SPALLS	THROUGHOUT		MEDIUM		

SUPERSTRUCTURE COMPONENTS

SERIES TYPE-#	SPAN TYPE	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
MAIN SERIES-1	*CONTINUOUS SPAN*	*REINFORCED CONCRETE*	*VOIDED SLAB*		

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-1	NON-COMPOSITE	46 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-2	NON-COMPOSITE	56 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-3	NON-COMPOSITE	56 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SPAN	COMPOSITE INDICATOR	LENGTH	WEATHERING STEEL	COMMENTS
MAIN SPANS-4	NON-COMPOSITE	46 FT 0 IN	NO	

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

SUBSTRUCTURE COMPONENTS

SUBSTRUCTURE	SKEW	LENGTH	MATERIAL	CONSTRUCTION	LABEL	COMMENTS
ABUTMENT-1		*57 FT 3 IN*	*REINFORCED CONCRETE*	*NON-INTEGRAL*		

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DIAGONAL CRACKS	RANDOM		FEW		
LEACHING	THROUGHOUT		MINOR		

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
FOOTING	REINFORCED CONCRETE	SPREAD

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
EXPOSED	BOTTOM		MINOR		

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT

BENT-2 REINFORCED CONCRETE MULTIPLE COLUMN

CONDITION	LOCATION 1	LOCATION 2	SEVERITY	MEASUREMENT	COMMENT
DELAMINATION	BEAM CAP		MINOR		
LEACHING	BEAM CAP		MINOR		

ASSOCIATED COMPONENT	MATERIAL	CONSTRUCTION

COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-3 *REINFORCED CONCRETE* *MULTIPLE COLUMN*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DELAMINATION	BEAM CAP		MINOR		
LEACHING	BEAM CAP		MINOR		
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

BENT-4 *REINFORCED CONCRETE* *MULTIPLE COLUMN*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
COLUMN	REINFORCED CONCRETE	INTEGRAL CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

ABUTMENT-5 *57 FT 3 IN* *REINFORCED CONCRETE* *NON-INTEGRAL*

CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
ASSOCIATED COMPONENT	***MATERIAL***	***CONSTRUCTION***			
BEAM CAP	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
DIAGONAL CRACKS	RANDOM		FEW		
COLUMN	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
FOOTING	REINFORCED CONCRETE	SPREAD			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***
EXPOSED	BOTTOM		MINOR		
STRAIGHT WINGS	REINFORCED CONCRETE	CAST-IN-PLACE			
CONDITION	***LOCATION 1***	***LOCATION 2***	***SEVERITY***	***MEASUREMENT***	***COMMENT***

OVER/UNDER ROUTES CLEARANCE INFORMATION

CLEARANCES OVER DECK

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT

COUNTY: ST. FRANCOIS **DISTRICT: SE** **CLASS: STATBR** **FED-ID: 123** **BRIDGE: A0144**

CLEARANCES UNDER BRIDGE

**NOTE: Vertical clearances for permitting purposes are taken as 2 inches less than the actual field measured clearance.

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
1	US 67 S	2	1-WAY TRAF	10 FT 10 IN	16 FT 0 IN	308

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
PLANNED	15 FT 7 IN			
ACTUAL	15 FT 3 IN	SOUTH	02/02/2017	

RECORD #	ROUTE	# LANES	DIRECTION OF TRAFFIC	RIGHT LATERAL CLEARANCE	LEFT LATERAL CLEARANCE	UR-ID
2	US 67 N	2	1-WAY TRAF	10 FT 10 IN	16 FT 0 IN	309

VERTICAL CLEARANCE TYPE**	VALUE	DIRECTION	DATE	COMMENT
PLANNED	15 FT 8 IN			
ACTUAL	15 FT 10 IN	NORTH	02/02/2017	

STRUCTURE PAINT INFORMATION

CONDITION: **RUST AMOUNT :** **STEEL TONS :**

ORIGINAL PAINT	CONTRACT REPAINT	DEPARTMENT REPAINT	
PAINT TYPE :	**PAINT TYPE :**	**PAINT TYPE :**	**MANUFACTURE :**
NAME :	**NAME :**	**NAME :**	**SURFACE PREP :**
PAINT COLOR :	**PAINT COLOR :**	**PAINT COLOR :**	
PAINT YEAR :	**PAINT YEAR :**	**PAINT YEAR :**	
MILS :	**MILS :**	**MILS :**	

REQUESTED WORK ITEMS

GENERAL WORK COMMENTS:

RESPONSIBILITY	*LOCATION*	*ITEM*	*CATEGORY*	*PRIORITY*	*DATE*	*WORK ITEM COMMENT*

UTILITY ATTACHMENTS

UTILITY	*OWNER*	*METHOD*	*MEASUREMENT TYPE*	*VALUE*	*NUMBER*	*UTILITY ATTACHMENT COMMENT*
ELECTRIC	MODOT	CONDUIT			1	

PROGRAM NOTES INFORMATION

YEAR	PROJECT #	MONTH LET	YEAR LET	ITEMS	COMMENT

COMPUTER GENERATED RATINGS AND DEFICIENCY ITEMS

NOTE: The items listed in this section are updated whenever computer edits are ran on a structure after the inspection updates have been entered in to TMS.

Rated Item	Rating	Rating Date
[Item 67] Structure Evaluation Rating:	6-EQ TO PRESENT MIN CRITR	1/4/2017
[Item 68] Deck Geometry Rating:	9-SUPR TO PRES DESIRABLE	3/26/2002
[Item 69] Underclearance:	4-MEETS MINIMUM TOLERABLE	1/4/2022
Sufficiency Rating:	84.4%	7/16/2025
Deficiency:	NOT DEFICIENT	7/16/2025
Funding Eligibility:		----
Estimated New Structure Length:		----
Estimated Structure Cost:		----
Estimated Total Project Cost:		----
Year of Cost Estimate:		----

NOTE: The above structure length and cost estimates are computer generated using algorithims in the TMS system. These algorthims are generalized to use NBI items to come up with a new structure length and width to calculate a new area which is taken times a representative cost per square foot. The actual structure size and cost may vary significantly from these numbers once site specific engineering is done.

ADVANCED SIGN INFORMATION

SIGN #	SIGN TYPE	PROBLEM	PROBLEM DIRECTION
1			

OUTFALL INSPECTION INFORMATION

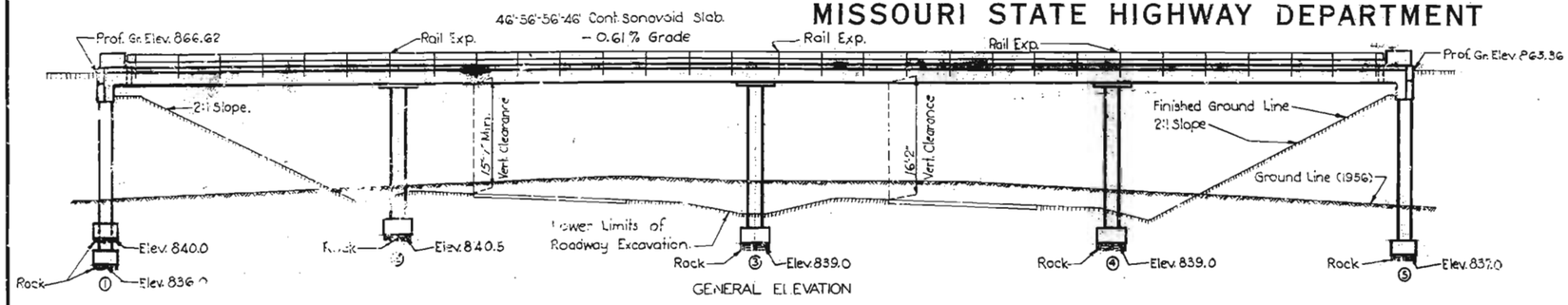
 # OUTFALLS: 0 **INSPECTOR:** CHRIS CROCKER

STATUS: NONE **DATE:** 10/12/2018

NOTES:

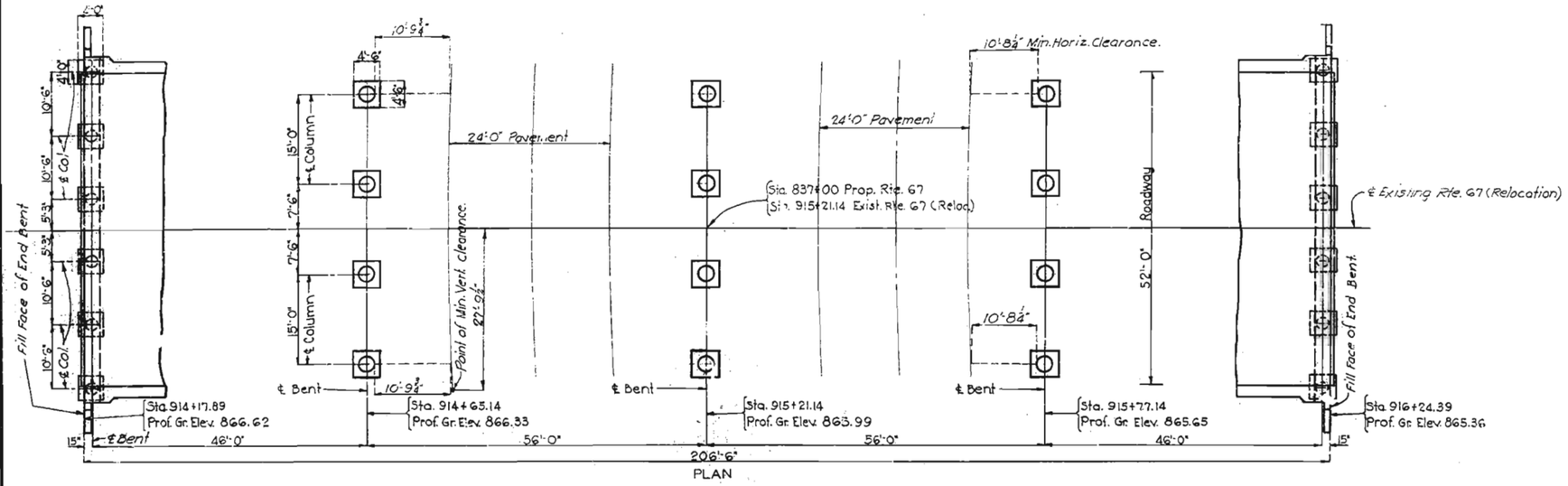
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		



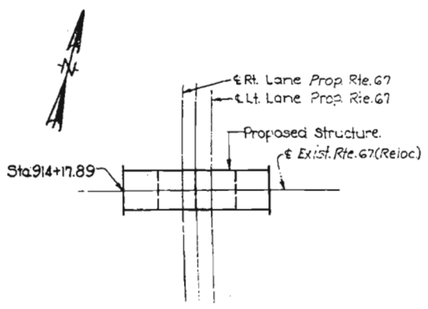
GENERAL ELEVATION

Note: All loose, shelly or disintegrated rock shall be removed and the footings placed on hard, solid, undisturbed rock. If soft rock or shale is encountered, the footings shall be carried at least 18" into and cast against vertical faces of same. In no case shall footings for Bents No. 2, 3 and 4 be placed higher than Elevations shown on plans.



PLAN

384



LOCATION SKETCH

GENERAL NOTES:

Design Specifications: A.A.S.H.O. 1953.
Loading H20-S16-44 (Future wearing surface 15"/"').
Reinforcing Steel Stress: 20,000 #/□"
Concrete Stress: 1400 #/□"

Concrete for superstructure shall be Class "B-1" air entrained. (See Special Provisions.)

Concrete for substructure shall be Class "B" air entrained. If the Contractor desires, he may use Class "B-1" in lieu of Class "B" for concrete in substructure with payment on the basis of Class "B" concrete.

Where Joint filler is specified on the plans it shall conform with the requirements for Gray Rubber Compound Joints as given in Section 59-22 B of the Standard Specifications.

A rubbed surface finish will be required on all exposed surfaces of concrete end posts above top of curbs.

Paint: Shop, none. Field, contact surfaces of bolted field connections (steel to steel) one coat of red lead and surfaces of rail posts in contact with concrete three coats of red lead. No other paint to be applied by Contractor. Red lead required shall be furnished by Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for Fabricated Structural Steel.

False work shall remain in place until the entire superstructure slab has been poured and attained the design strength as specified in the Standard Specifications.

Before any falsework is removed the middle half of slab in each span shall be relieved of any support from falsework. Removal of falsework may then proceed in any span starting near middle of span and proceeding toward the substructure units.

ESTIMATED QUANTITIES

ITEM		SUBSTR.	SUPERSTR.	TOTAL
Class 1 Excavation for Structures.	Cu. Yds.	300		300
Class "B" Concrete.	Cu. Yds.	40.3		40.3
Class "B-1" Concrete.	Cu. Yds.		808.5	808.5
Reinforcing Steel.	Lbs.	4560	197000	201,560
Fabricated Structural Steel.	Lbs.		13,950	13,950

Note: All excavation for bridge shall be paid for as Class 1 Excavation for Structures. Estimated quantities of Class 1 Excavation for structures includes only amount of excavation below limits of Roadway Excavation. (See Special Provisions.)

All concrete and reinforcing steel above footings is included in Superstructure quantities.

B.M. #104 Elev. 833.09 N & W in root of 20" W. Oak 100' Rt. Sta. 833+50 (U.S.G.S. Datum)

BRIDGE RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON
ABOUT 2.0 MILES S.E. OF FLAT RIVER
PROJECT NO. F-254(11)(RTE. 67) **STA.** 837+00

ST. FRANCOIS **COUNTY**

SUBMITTED BY J. A. Williams, BRIDGE ENGINEER DATE 8-15-1957
APPROVED BY Roy M. Whitton, CHIEF ENGINEER DATE 8-15-1957

STD C-110 R4
A-144

Drawn APRIL 1957 by K.R.W.
Checked Aug. 1957 by D.B.

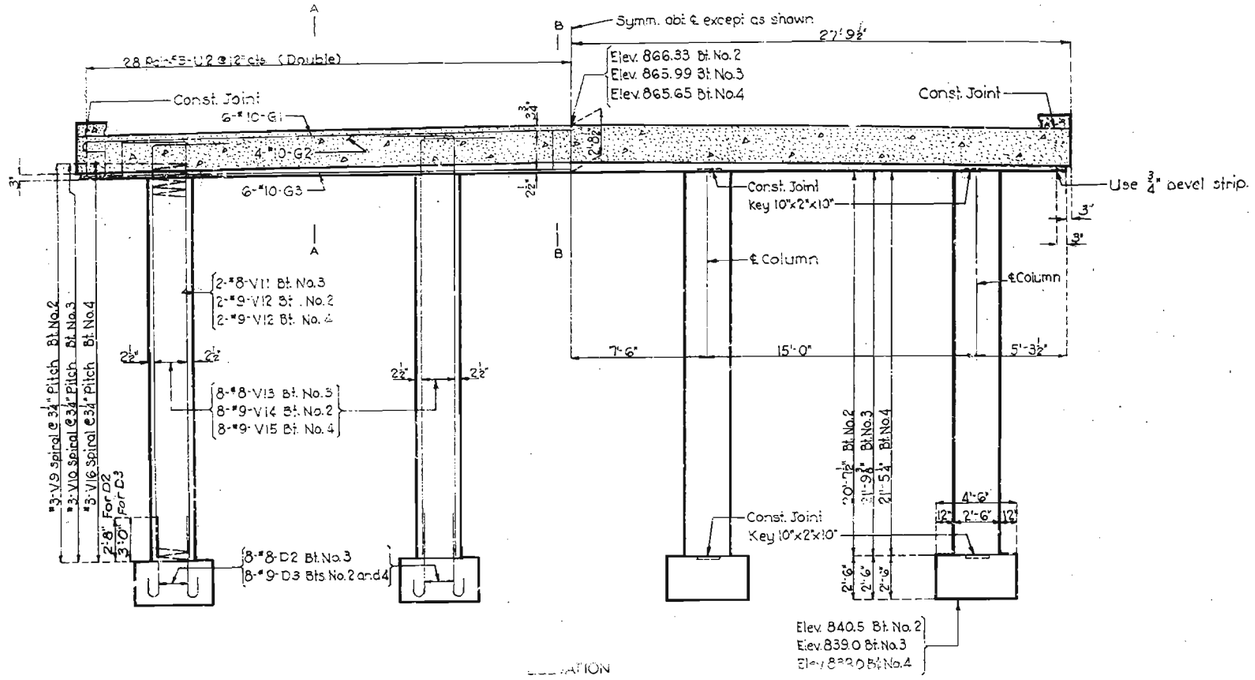
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 6.

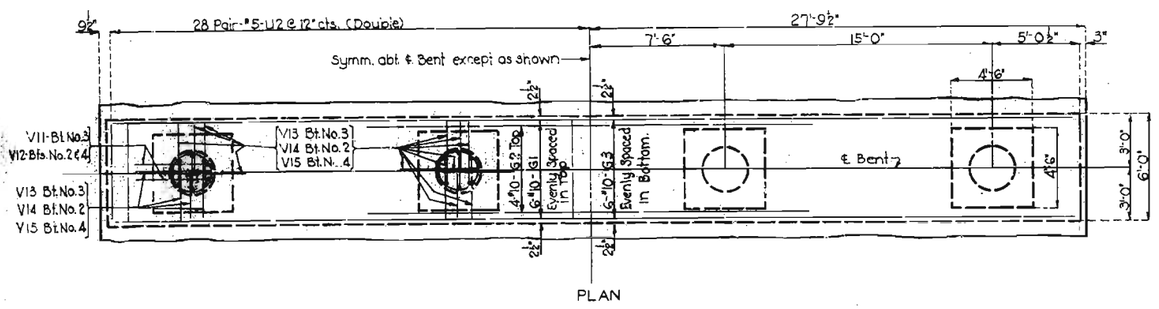
SEE FINAL PLANS BROWN-LINES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

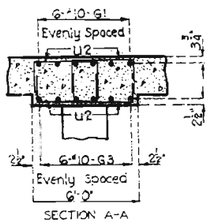


ELEVATION

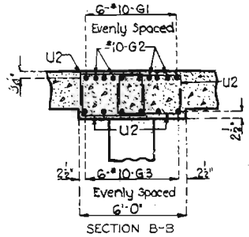


PLAN

DETAILS OF INT. BENTS NO. 2, 3 & 4



SECTION A-A

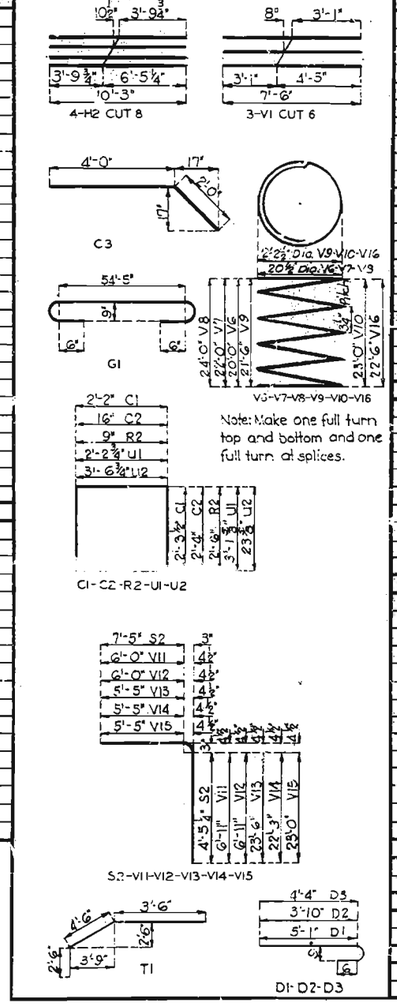


SECTION B-B

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
20	#5	6'-9"	C1	Fl. Curb
396	#5	6'-0"	C2	Curb
4	#5	6'-0"	C3	Fl. Curb
24	#5	24'-6"	C4	Curb
24	#5	29'-0"	C5	Curb
24	#4	3'-9"	R1	End Post
20	#4	5'-9"	R2	End Post
424	#5	27'-6"	S1	Slab
76	#6	25'-6"	S3	Slab
114	#11	35'-0"	S4	Slab
108	#11	24'-0"	S5	Slab
72	#11	12'-0"	S6	Slab
76	#6	25'-0"	S7	Slab
36	#11	14'-0"	S8	Slab
72	#10	35'-0"	S9	Slab
72	#10	25'-0"	S10	Slab
76	#10	49'-0"	S11	Slab
72	#10	37'-0"	S12	Slab
72	#10	21'-0"	S13	Slab
76	#10	53'-3"	S14	Slab
424	#5	29'-6"	S15	Slab
SUPERSTRUCTURE END BENT NO. 1				
10	#6	7'-0"	H1	Wing
1	#6	10'-3"	H2	Wing
74	#6	12'-3"	S2	Beam
8	#8	30'-9"	S16	Beam
8	#8	28'-8"	S17	Beam
4	#6	30'-6"	S18	Beam
114	#5	8'-6"	U1	Beam
4	#6	28'-6"	S19	Beam
3	#4	7'-8"	V1	Wing
4	#4	5'-0"	V2	Wing
40	#10	23'-6"	V3	Column
8	#10	27'-9"	V5	Column
5	#3	407'-6"	V6	Column
1	#3	486'-9"	V8	Column
4	#6	10'-6"	T1	Wing

BENDING SKETCHES & CUTTING DIAGRAMS



NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE INT. BENT NO. 2				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#3	564'-0"	V9	Column
4	#9	13'-6"	V12	Column
32	#9	28'-3"	V14	Column
SUPERSTRUCTURE INT. BENT NO. 3				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#3	602'-6"	V10	Column
4	#8	13'-6"	V11	Column
32	#8	29'-6"	V13	Column
SUPERSTRUCTURE INT. BENT NO. 4				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#9	13'-6"	V12	Column
32	#9	29'-0"	V15	Column
4	#3	589'-5"	V16	Column
SUPERSTRUCTURE END BENT NO. 5				
10	#6	7'-0"	H1	Wing
4	#6	10'-3"	H2	Wing
74	#6	12'-3"	S2	Beam
8	#8	30'-9"	S16	Beam
8	#8	28'-8"	S17	Beam
114	#5	8'-6"	U1	Beam
3	#4	7'-8"	V1	Wing
4	#4	5'-0"	V2	Wing
48	#10	25'-0"	V4	Column
6	#3	447'-3"	V7	Column
4	#6	30'-6"	S18	Beam
4	#6	28'-6"	S19	Beam
4	#6	10'-6"	T1	Wing
SUBSTRUCTURE END BENTS NO 1&5				
96	#10	6'-9"	D1	Footing
SUBSTRUCTURE, INT. BENTS. 2 & 4				
64	#9	6'-0"	D3	Footing
SUBSTRUCTURE INT. BENT NO. 3				
32	#8	5'-6"	D2	Footing

BRIDGE: RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S. E. OF FLAT RIVER

PROJECT NO. F-254(1)D(RTE.67) **STA.** 837+00

ST. FRANCOIS **COUNTY**

385

Drawn MAY 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

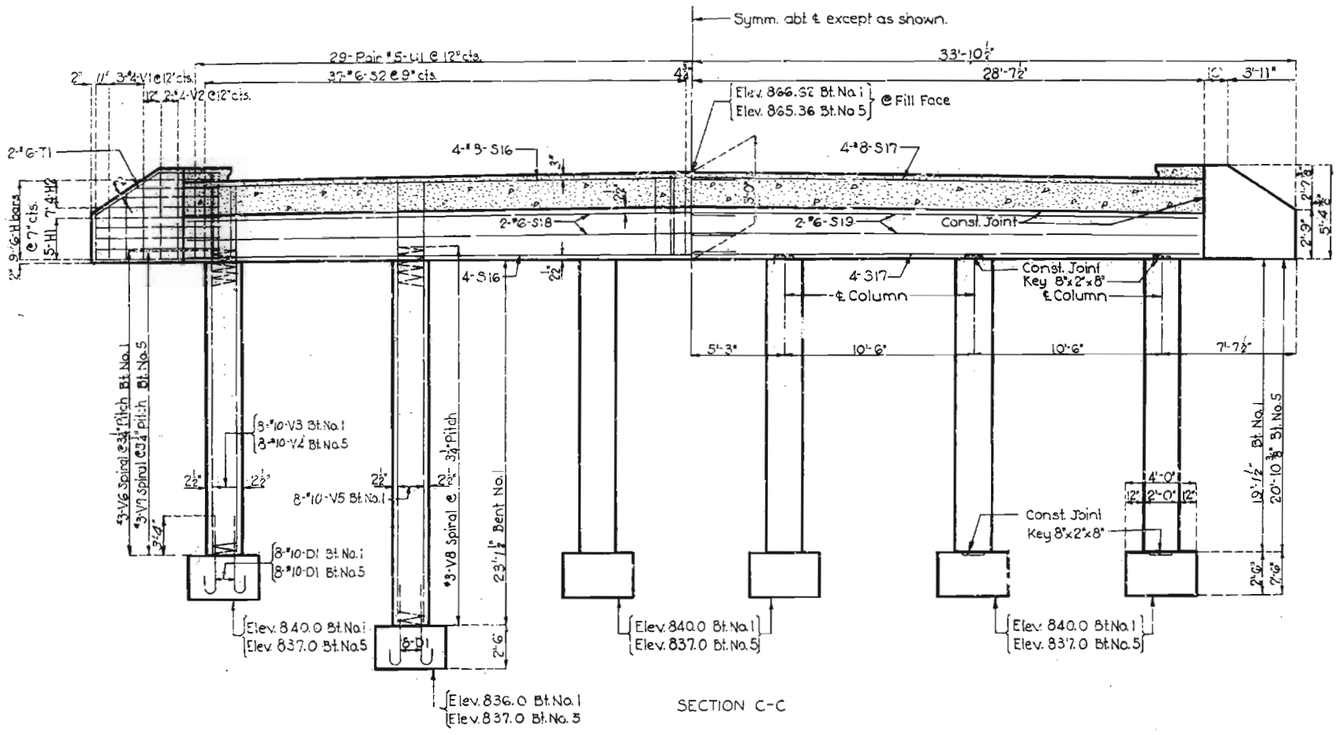
Sheet No. 2 *of* 6

A-144

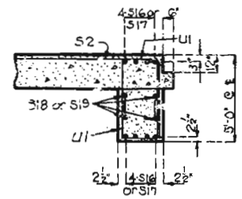
SEE FINAL PLANS BROWN LINES

MISSOURI STATE HIGHWAY DEPARTMENT

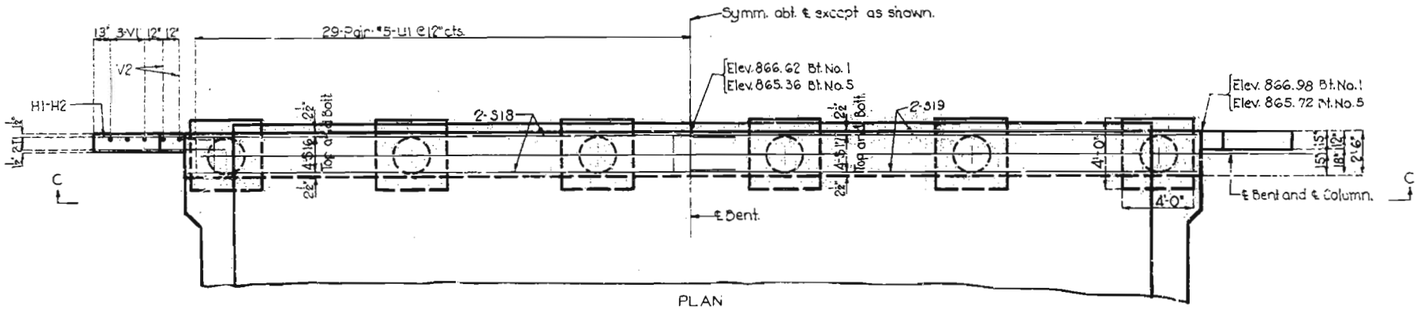
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	MO.		19		



SECTION C-C



SECTION NEAR ℄



PLAN

DETAILS OF END BENTS NO. 1&5

386

BRIDGE RELOCATED RTE.67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FLAT RIVER

PROJECT NO. F-254(11)(RTE.67) **STA.** 837 F00

ST. FRANCOIS **COUNTY**

Drawn APRIL 1957 by K.R.V.

Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

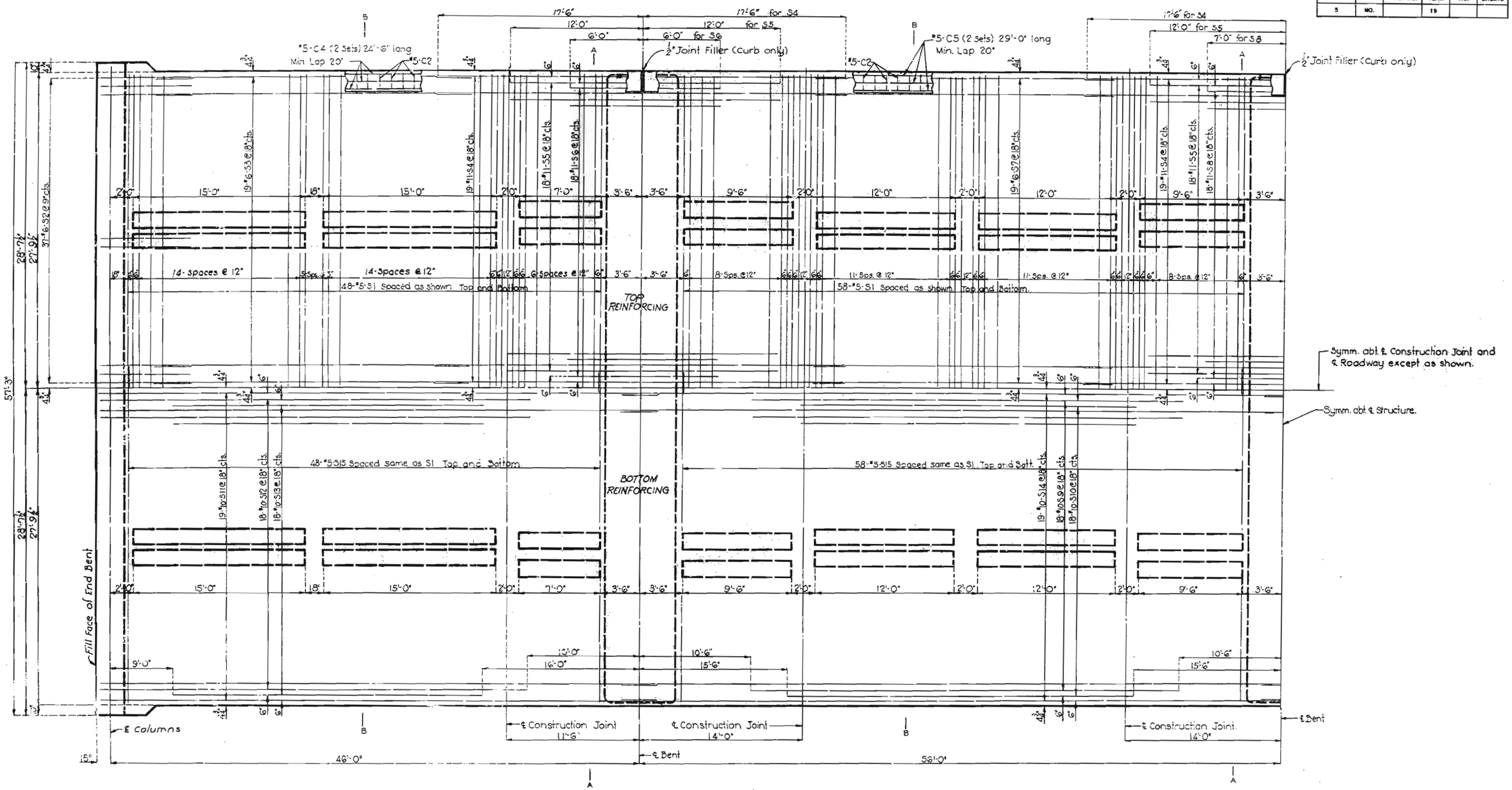
Sheet No. 3 of 6.

A-144

SEE FINAL PLANS BROWN-LINES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		



PLAN OF SLAB SHOWING REINFORCEMENT

BRIDGE: RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FLAT RIVER

PROJECT NO. F-254(1)(RTE.67) **STA.** 837+00

ST. FRANCOIS **COUNTY**

Drawn APRIL 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This Drawing is not to scale. Follow dimensions.

Sheet No. 4 of 6.

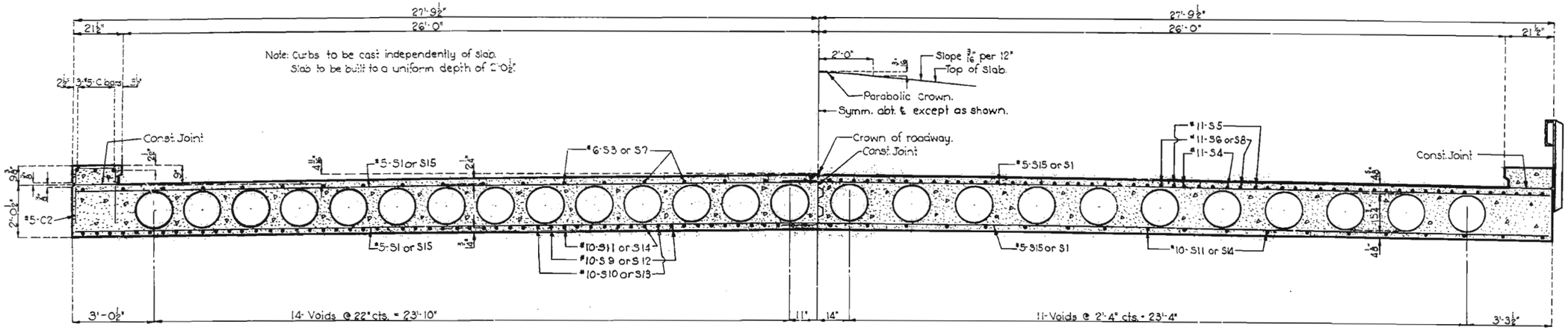
A-144

387

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

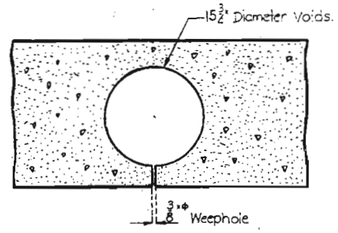
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		



HALF SECTION B-B
(From Sheet No. 4)

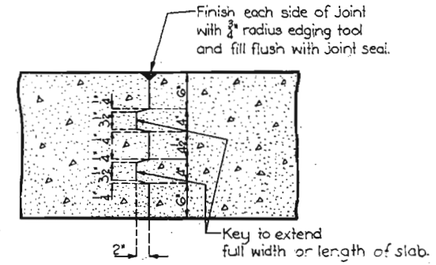
Note: See Special Provisions for Fiber tubes for producing voids.

HALF SECTION A-A
(From Sheet No. 4)

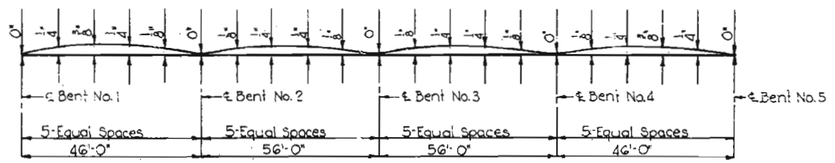


Note: One ¾"ϕ weephole shall be provided near each end of each void. Weepholes shall be placed in straight lines parallel to bents and shall be kept positively open down to and through the bottom forms for breather holes during the casting and through the period of curing of the concrete slabs.

DETAIL OF WEEPHOLES IN VOIDS



DETAIL OF SLAB CONSTRUCTION JOINT KEY



CAMBER DIAGRAM

388

BRIDGE: RELOCATED RTE. 67 UNDERPASS
STATE ROAD FROM BONNE TERRE TO FARMINGTON
ABOUT 2.0 MILES S.E. OF FLAT RIVER
PROJECT NO. F-254(11)(RTE.67) **STA.** 837+00
ST. FRANCOIS **COUNTY**

Drawn APRIL 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

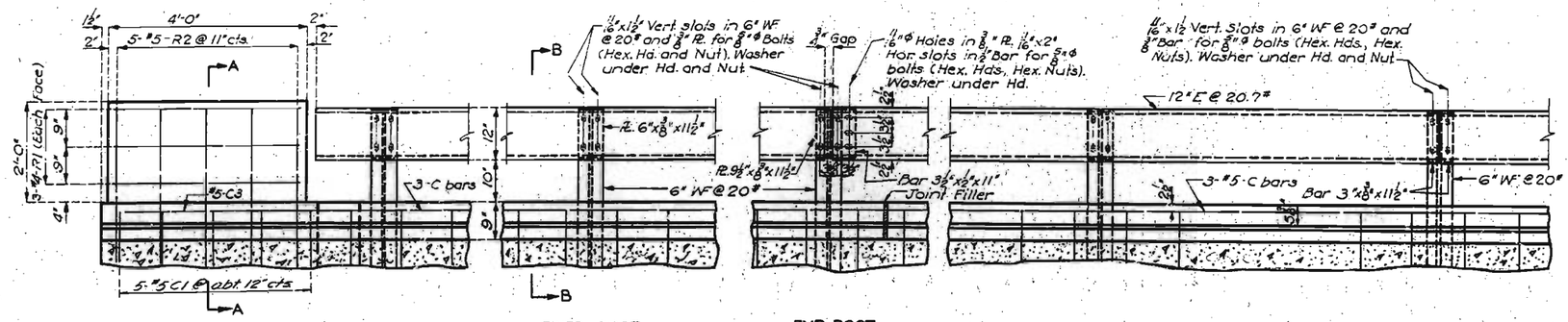
Sheet No. 5 *of* 6.

A-144

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

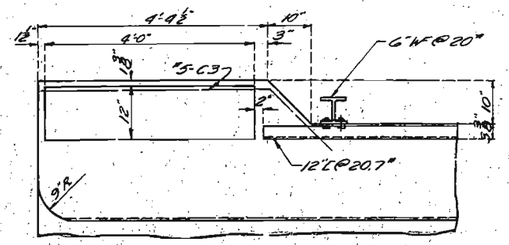


FIXED POST — EXP. POST

TYPICAL RAIL ELEVATIONS

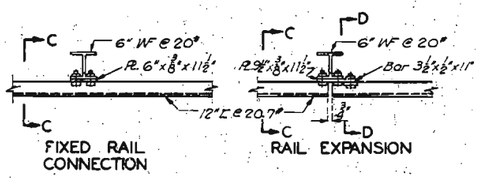
FIXED POST — SPLICE POST

Note: Outlets to be centered between railpost. For location of outlets if any, see Sheet No.) of design plans. C2 bars in curb to be spaced at abt. 12" cts. from end post to end post on bridges having no outlets.



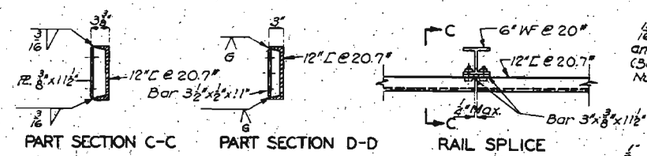
PLAN OF END POST

Note: Omit 9" radius curve on curb at ends of bridge where drain basin is provided on approach pavement



FIXED RAIL CONNECTION

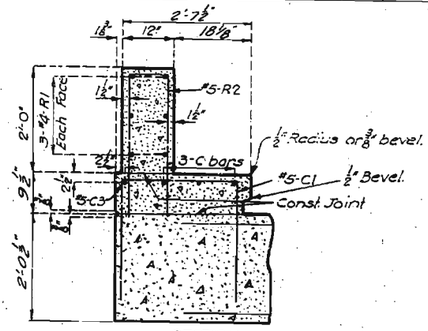
RAIL EXPANSION



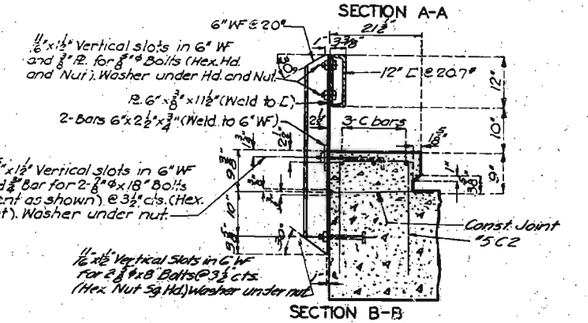
PART SECTION C-C

PART SECTION D-D

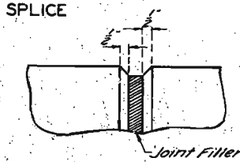
RAIL SPLICE



SECTION A-A



SECTION B-B



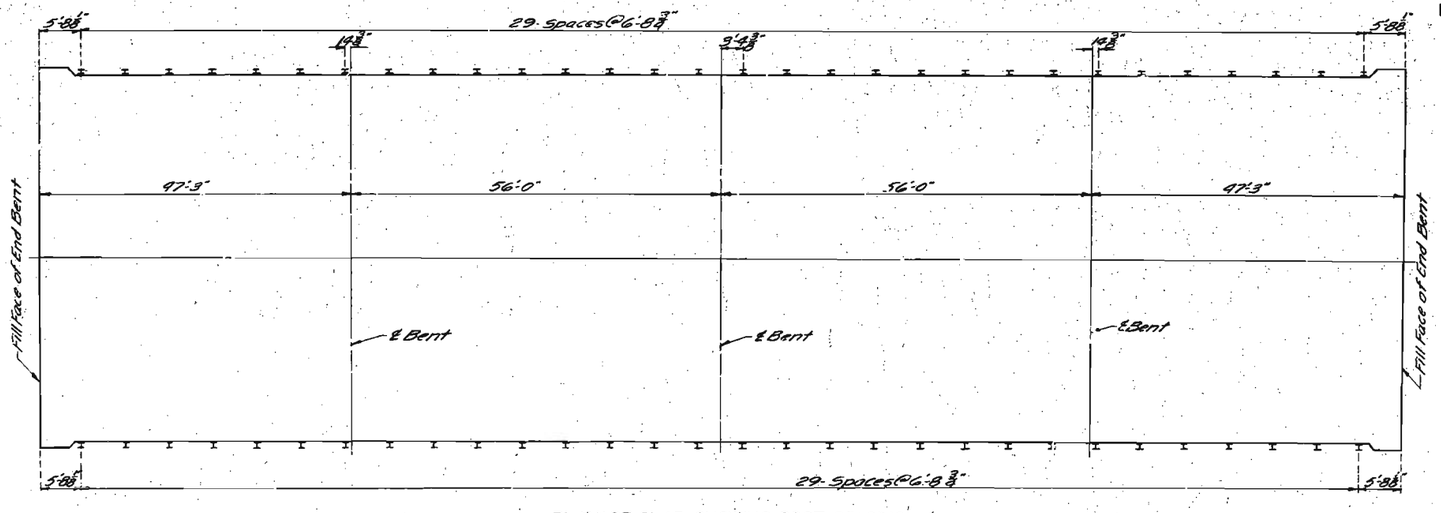
Note: Use bevel as shown for exposed faces of all filled Joints

DETAIL OF BEVEL FOR ALL FILLED JOINTS

Note: Channel rail to be adjusted for horizontal alignment by use of full size metal shims placed between 6" WF and connection Rd. Shims of 1/8" & 3/16" thickness to be furnished with structural steel. Cost of shims to be included in price bid for other items.

GENERAL NOTES:

Top of curbs and end posts to be built parallel to grade. Vertical faces of end posts to be vertical
All exposed edges of end posts to be beveled 1/2"
6" WF posts to be set normal to grade
12" L Rails shall be fabricated to conform to horizontal and vertical alignment to curb



PLAN OF SLAB SHOWING POST SPACING

389

FINISHED

BRIDGE: RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON
ABOUT 2.0 MILES S.E. OF FLAT RIVER
PROJECT NO. F-254 (11) (RTE. 67) STA. 837+00
ST. FRANCOIS COUNTY

Assembled April 1957 by K.R.W. & J.C.F.
Checked August 1957 by D.B.

Note: This drawing is not to scale Follow dimensions

Sheet No. 6 of 6.

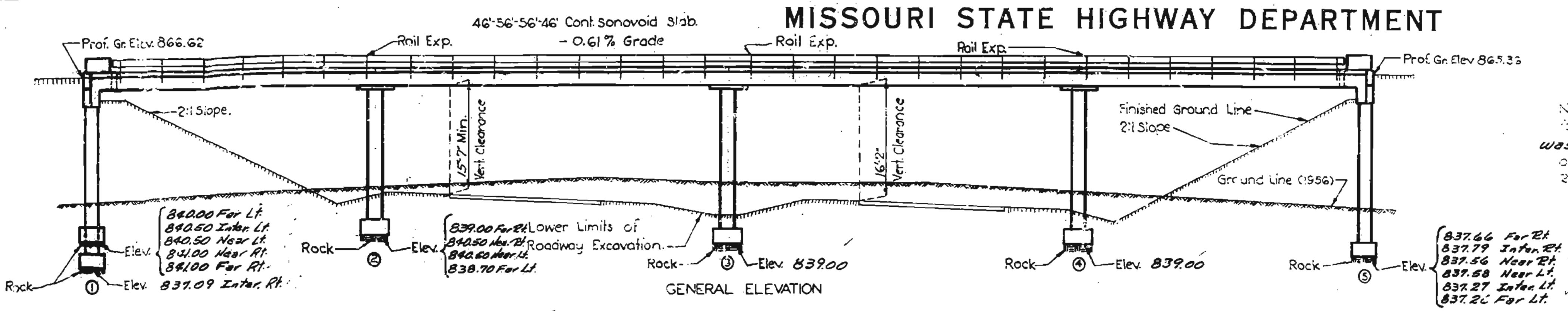
A-144

NO CONSTRUCTION CHANGES

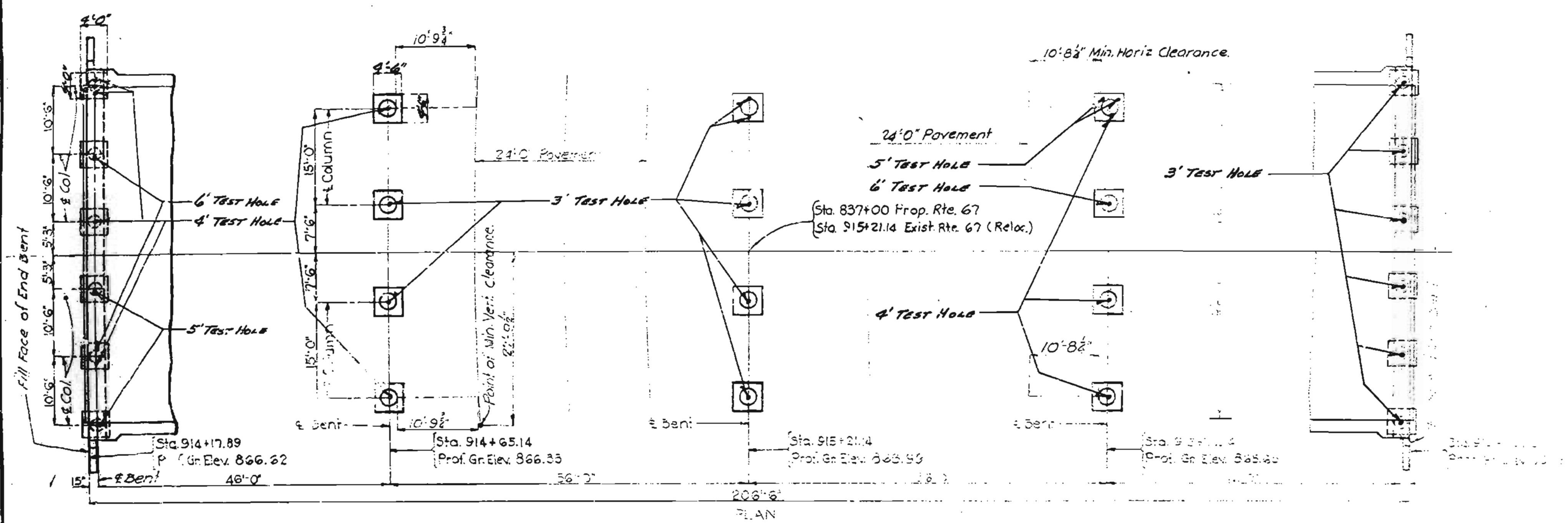
MISSOURI STATE HIGHWAY DEPARTMENT

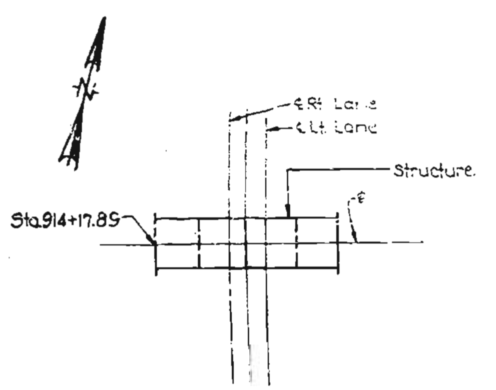
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5			19		

FINAL PLANS



Note: All loose, shaly or disintegrated rock **was** removed ... footings placed on hard sound ... **was** encountered ... **were** ... against ... **were** ... **of** Bents No. 2, 3 and 4 ... **orig. plans.**





390

GENERAL NOTES:

Design Specifications: A.A.S.H.O. 1953.

Loading H20-S16-44 (Future wearing surface ...)

Reinforcing Steel Stress: 20,000 #/□"

Concrete Stress: 1400 #/□"

Concrete for superstructure **was** Class "B-1" air entrained. (See Special Provisions.)

Concrete for substructure shall be Class "B" air entrained. If the Contractor desires, he may use Class "B-1" in lieu of Class "B" for concrete in substructure with payment on the basis of Class "B" concrete.

Where Joint filler is specified on the plans it shall conform with the requirements for ... Rubber Compound Joints as given in Section 59-22 B of the Standard Specifications.

A rubbed surface finish **was given to** all exposed surfaces of concrete end posts above top of curbs.

Paint: Sh... none. Field, contact surfaces of bolted field connections (Steel to Steel) one coat of red lead and surfaces of rail posts in contact with concrete three coats of red lead. No other pain **was used** by Contractor. Red lead required shall be furnished by Contractor. Payment for cleaning and painting such surfaces will be included in unit price bid for Fabricated Structural Steel.

Falsework **was left** in place until the entire superstructure slab **was** poured and attained ... strength as specified in the Standard Specifications.

Before any falsework **was** removed, the middle half of slab in each span **was** relieved of any support from falsework. Removal of falsework ... then proceeded in **each** span starting near middle of span and proceed**ed** toward the substructure units.

FINAL QUANTITIES

ITEM		SUBSTR	SUPERSTR	TOTAL
Class 1 Excavation for Structures	Cu. Yds.	2605		2605
Class B Concrete	Cu. Yds.	40.4		40.4
Class "B-1" Concrete	Cu. Yds.		808.3	808.3
Reinforcing Steel	Lbs.	4,560	197,000	201,560
Fabricated Structural Steel	Lbs.		13,910	13,910
Class 1+25% Exc. for Struct.	*Cu. Yds.*	*5.5*		*5.5*
Test Holes	*Lin. Ft.*	*113*		*113*

Note: All excavation for bridge **was paid** for as Class 1 Excavation ... Quantities of Class 1 Excavation for structures includes ... amount of excavation below limits of Roadway Excavation. (See Special Provisions.)

All concrete and reinforcing steel above footings is included in Superstructure quantities.

FINISHED

B.M. #104A Elev. 847.26 - Nail in side of 28" W. Oak 150' Rt. Sta. 834+75 (U.S.G.S. Datum)

BRIDGE ...

STATE ROAD ...

ABOUT ...

PROJECT NO. ... STA. ...

... COUNTY

SUBMITTED BY *J. A. Williams* BRIDGE ENGINEER DATE 8-15-1957

APPROVED BY *Rex M. Whitton* CHIEF ENGINEER DATE 8-15-1957

Drawn APRIL 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1A of 3

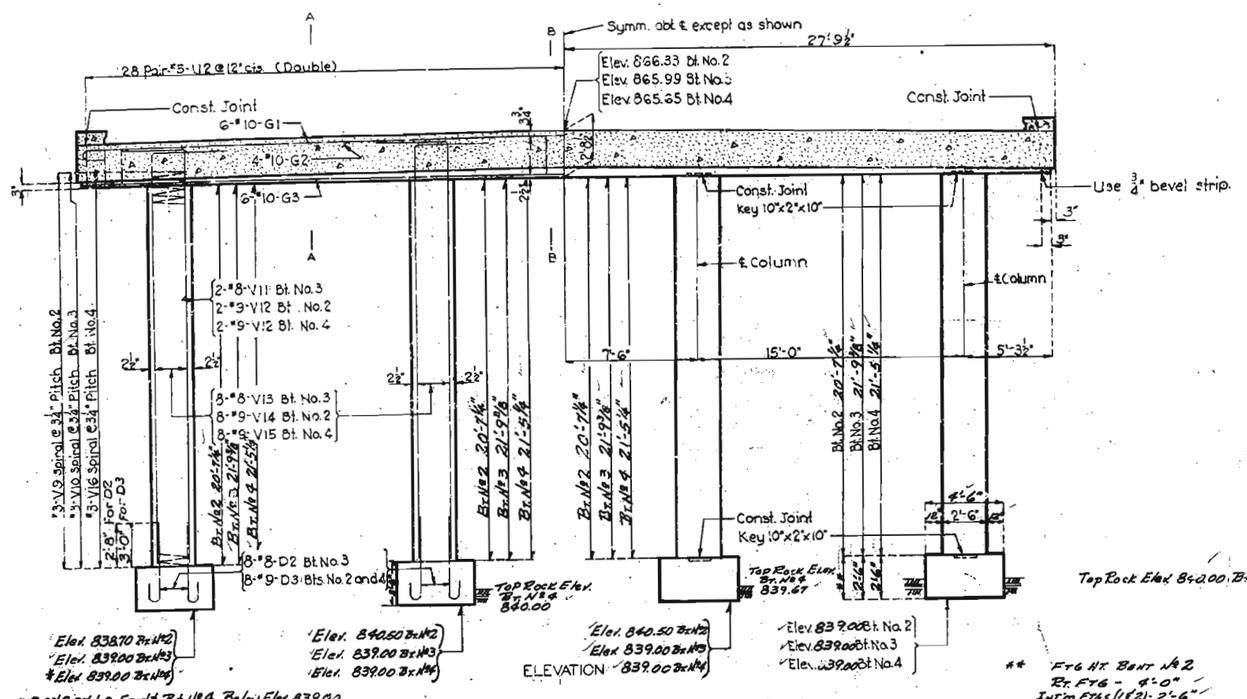
A-144

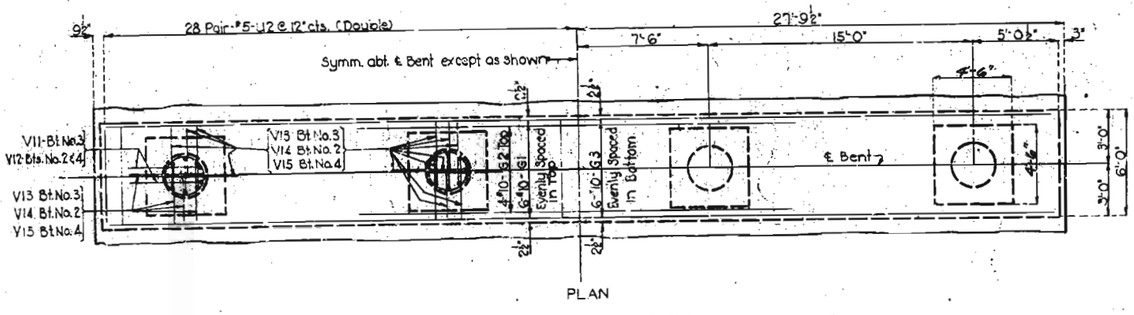
FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

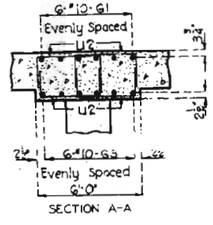
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

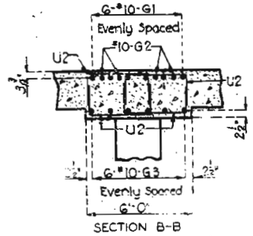
FINAL PLANS





DETAILS OF INT. BENTS NO. 2, 3 & 4



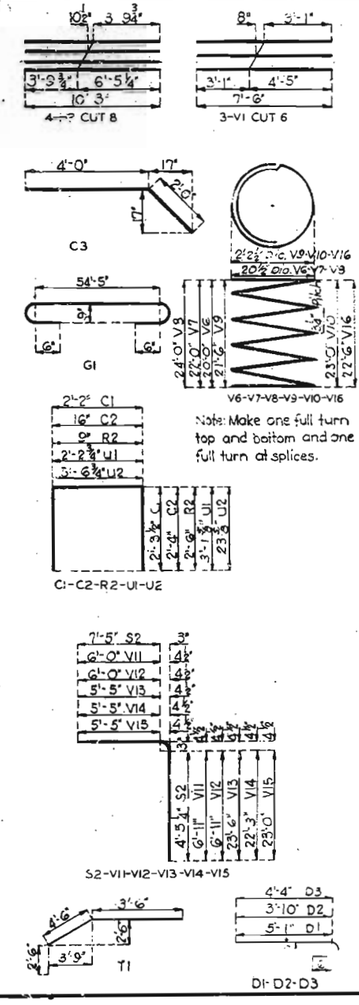


391

COMPLETE BILL OF REINFORCING STEEL

NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE				
20	#5	6'-9"	C1	Fl. Curb
396	#5	9'-0"	C2	Curb
4	#5	6'-0"	C3	Fl. Curb
24	#5	24'-6"	C4	Curb
24	#5	29'-0"	C5	Curb
24	#4	3'-9"	R1	End Post
20	#4	5'-9"	R2	End Post
42½	#5	27'-6"	S1	Slab
76	#6	25'-6"	S3	Slab
114	#11	55'-0"	S4	Slab
108	#11	24'-0"	S5	Slab
72	#11	12'-0"	S6	Slab
76	#6	25'-0"	S7	Slab
36	#11	14'-0"	S8	Slab
72	#10	35'-0"	S9	Slab
72	#10	25'-0"	S10	Slab
76	#11	49'-0"	S11	Slab
72	#10	37'-0"	S12	Slab
72	#10	21'-0"	S13	Slab
76	#10	59'-3"	S14	Slab
424	#5	29'-6"	S15	Slab
SUPERSTRUCTURE END BENT NO. 1				
10	#6	7'-0"	H1	Wing
4	#6	10'-3"	H2	Wing
74	#6	12'-3"	S2	Beam
8	#6	30'-9"	S16	Beam
8	#8	28'-6"	S17	Beam
4	#6	30'-6"	S18	Beam
114	#5	8'-6"	U1	Beam
4	#6	28'-6"	S19	Beam
3	#4	7'-6"	V1	Wing
4	#4	5'-0"	V2	Wing
40	#10	23'-6"	V3	Column
8	#10	2'-9"	V5	Column
5	#3	407'-6"	V6	Column
1	#3	486'-9"	V8	Column
4	#6	10'-6"	T1	Wing

BENDING SKETCHES & CUTTING DIAGRAMS



Note: Make one full turn top and bottom and one full turn at splices.

NO.	SIZE	LENGTH	MARK	LOCATION
SUPERSTRUCTURE INT. BENT NO. 2				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#9	564'-0"	V9	Column
4	#6	13'-6"	V12	Column
32	#9	28'-3"	V14	Column
SUPERSTRUCTURE INT. BENT NO. 3				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#8	602'-6"	V10	Column
4	#8	13'-6"	V11	Column
32	#8	29'-6"	V13	Column
SUPERSTRUCTURE INT. BENT NO. 4				
6	#10	57'-9"	G1	Slab
4	#10	25'-0"	G2	Slab
6	#10	54'-9"	G3	Slab
220	#5	7'-6"	U2	Slab
4	#8	13'-6"	V12	Column
32	#9	29'-0"	V15	Column
4	#8	589'-9"	V16	Column
SUPERSTRUCTURE END BENT NO. 5				
10	#6	7'-0"	H1	Wing
4	#6	10'-3"	H2	Wing
74	#6	12'-3"	S2	Beam
8	#8	30'-9"	S16	Beam
8	#8	28'-6"	S17	Beam
114	#5	8'-6"	U1	Beam
3	#4	7'-6"	V1	Wing
4	#4	5'-0"	V2	Wing
48	#10	25'-0"	V4	Column
6	#3	447'-3"	V7	Column
4	#6	30'-6"	S18	Beam
4	#6	28'-6"	S19	Beam
4	#6	10'-6"	T1	Wing
SUBSTRUCTURE END BENTS NO 1 & 5				
96	#10	6'-5"	D1	Footing
SUBSTRUCTURE INT. BENTS. 2 & 4				
64	#9	6'-0"	D1	Footing
SUBSTRUCTURE INT. BENT NO. 3				
36	#8	5'-6"	D1	Footing

BRIDGE: RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FARMINGTON

PROJECT NO. F-254(11)(RTE. 67) **STA.** 937+00

ST. FRANCOIS **COUNTY**

FINISHED

Drawn MAY 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2A of 3

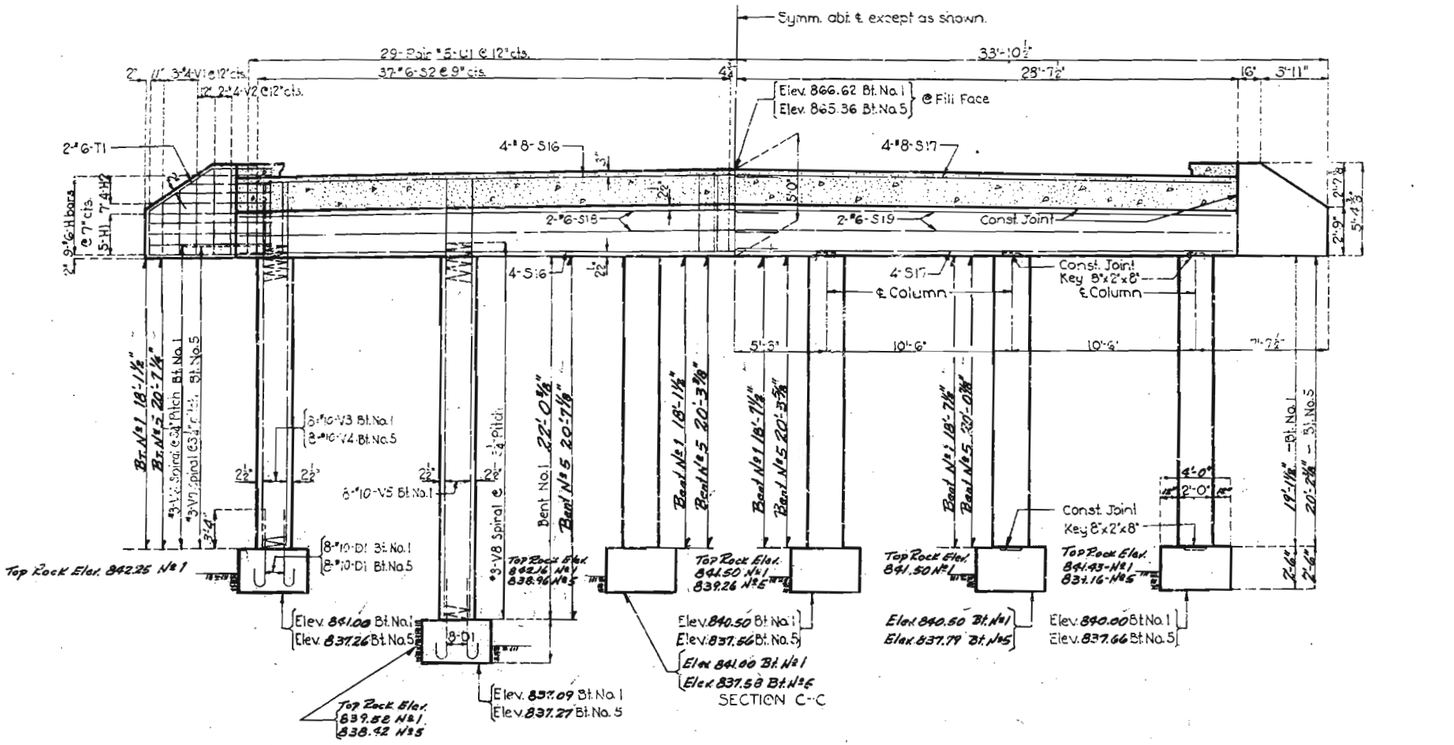
A-144

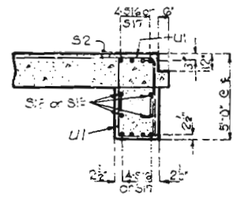
FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

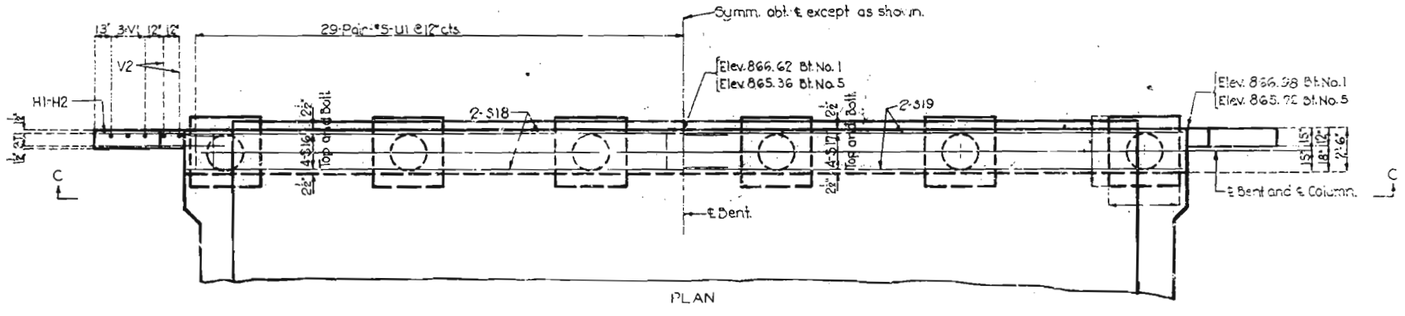
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

FINAL PLANS





SECTION NEAR ℄



PLAN

DETAILS OF END BENTS NO. 1&5

BRIDGE RELOCATED RTE. 67 UNDERPASS

STATE ROAD FROM PONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FLAT RIVER

PROJECT NO. F-254(11)(RTE.67) STA. 837+00

ST. FRANCOIS COUNTY

FINISHED

Drawn APRIL 1957 by K.R.W.
Checked Aug. 1957 by D.B.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3A of 3

A-144

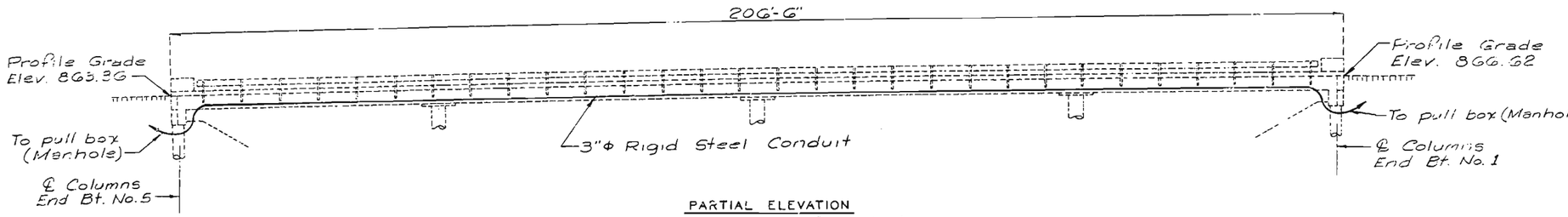
392

FINAL PLANS

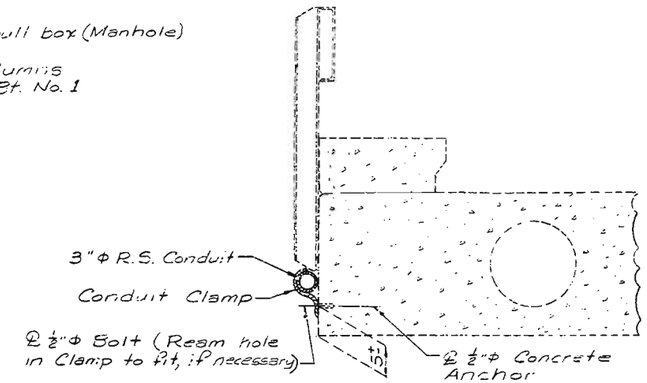
JOB NO. 6-P-67-122

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	20	

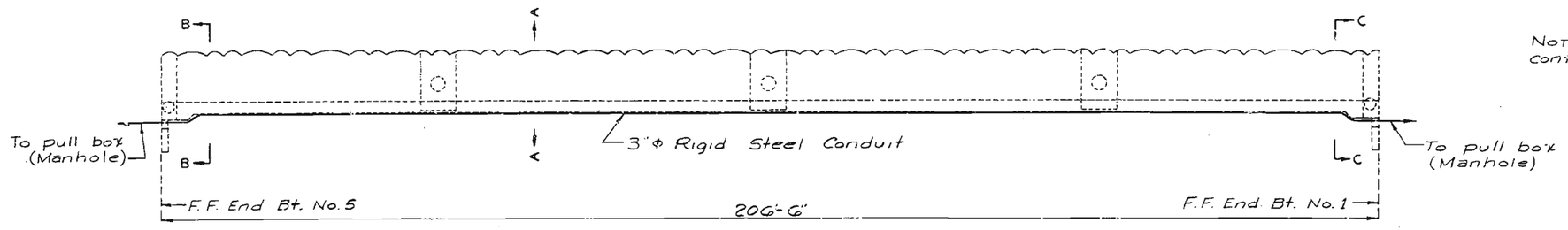


PARTIAL ELEVATION
(North Side of Bridge)

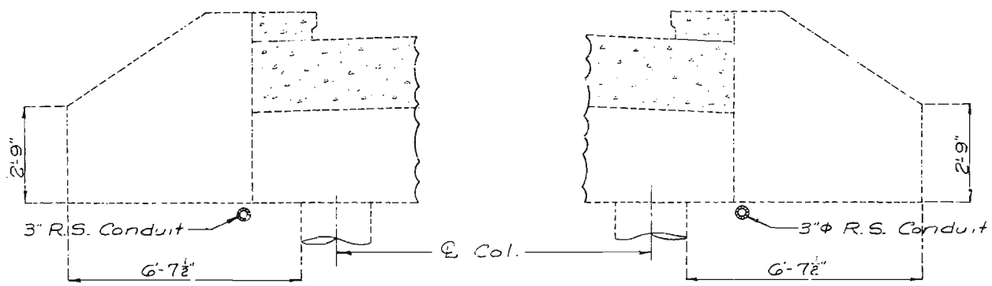


NOTE: Conduit or Clamps shall not come in contact with handrail post.

SECTION A-A



PARTIAL PLAN
(North Side of Bridge)



SECTION B-B SECTION C-C

GENERAL NOTES

Conduit shall be 3"Φ Rigid Steel, Galvanized.
Conduit shall be secured to the Concrete with clamps at about 5'-0" centers.
Conduit clamps shall be the One Hole Malleable Iron type, Thomas and Both or equivalent.
All Conduit clamps shall be Galvanized.
Concrete Anchors shall be the non-drilling expansion type, equal to Red Head (Phillips Drill Co.). The hole shall be pre-drilled to a depth of 2 1/16" with a conventional Carbide Masonry bit.
The cost of furnishing and erecting the Conduit, Conduit Clamps, Bolts and Concrete Anchors complete in place shall be paid for as Conduit on Bridge.

440

DETAILED SEPT. 1975
CHECKED SEPT. 1975

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 1.

BRIDGE: CONDUIT SYSTEM

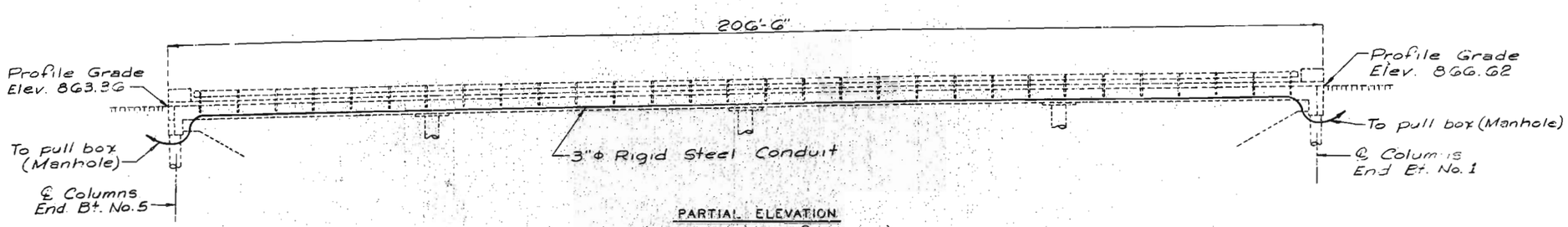
JOB NO. 6-P-67-122

ST. FRANCOIS **COUNTY**

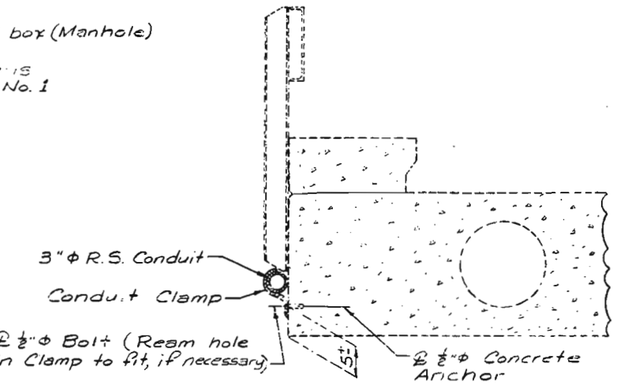
A-144A

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19		

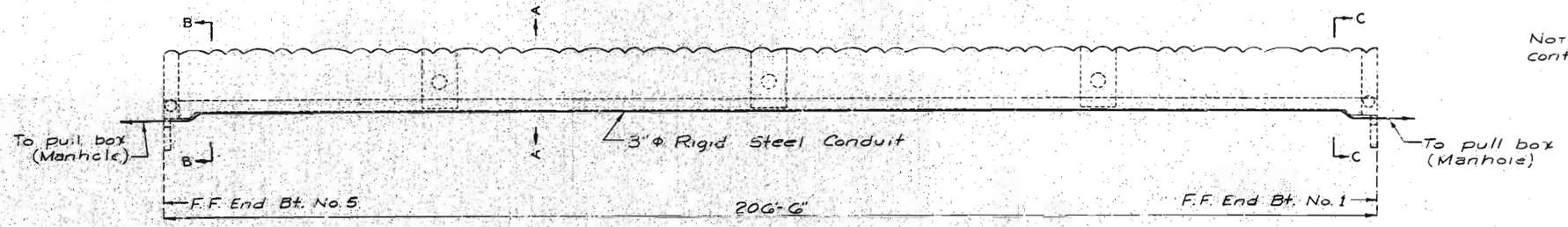


PARTIAL ELEVATION
(North Side of Bridge)

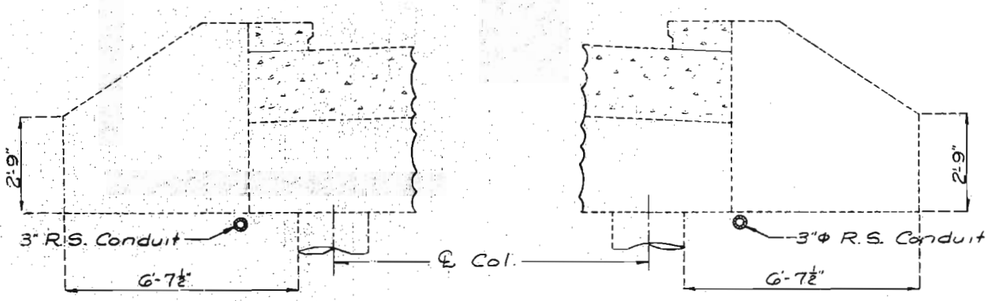


NOTE: Conduit or Clamps shall not come in contact with handrail post.

SECTION A-A



PARTIAL PLAN
(North Side of Bridge)



SECTION B-B

SECTION C-C

GENERAL NOTES

Conduit shall be 3"ϕ Rigid Steel, Galvanized.
Conduit shall be secured to the Concrete with clamps at about 5'-0" centers.
Conduit clamps shall be the One Hole Malleable Iron type, Thomas and Beth or equivalent.
All Conduit Clamps shall be Galvanized.
Concrete Anchors shall be the non-drilling expansion type, equal to Red Head (Phillips Drill Co.). The hole shall be pre-drilled to a depth of 2 1/16" with a conventional Carbide Masonry bit.
The cost of furnishing and erecting the Conduit, Conduit Clamps, Bolts and Concrete Anchors complete in place shall be paid for as Conduit System on Bridge, Lump Sum.

506

BRIDGE: CONDUIT SYSTEM

JOB NO. 6-P-67-122

ST. FRANCOIS **COUNTY**

A-144A

DETAILED SEPT. 1975
CHECKED SEPT. 1975

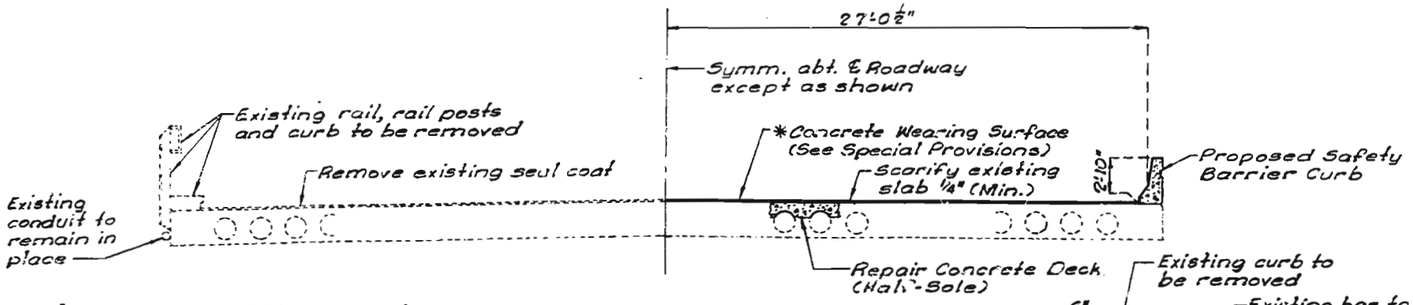
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 1.

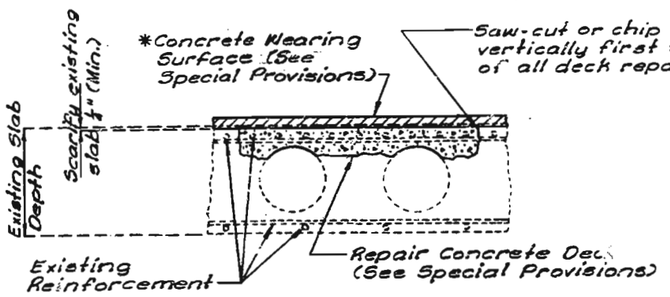
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FINAL PLANS

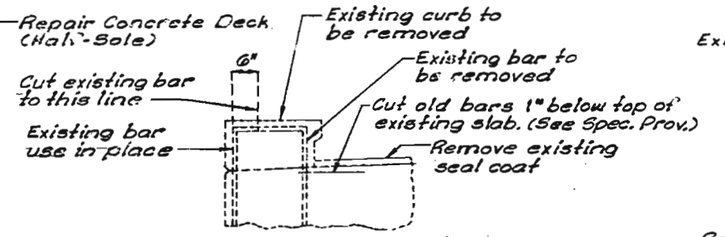
STATE	PROJ. NO	SHEET NO
MO.		11
SEC./SUR 9	TWP. 36N RGE. 5E	



SECTION THRU SLAB



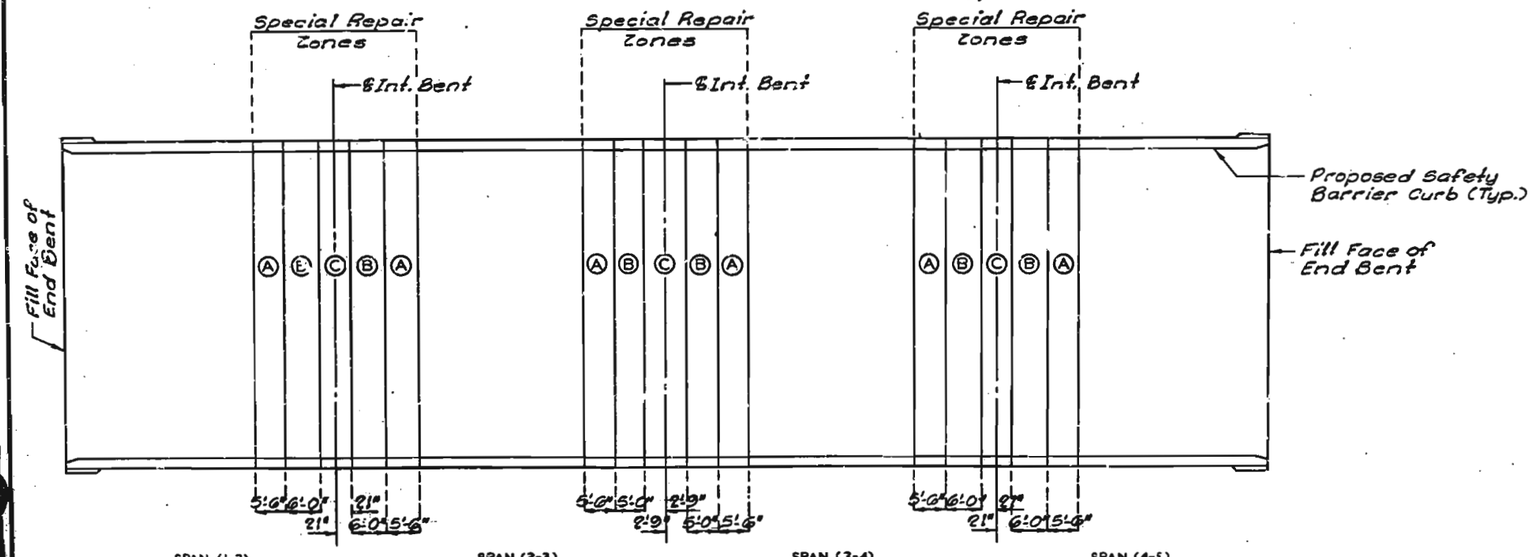
HALF-SOLED AREA



Note: All existing longitudinal curb reinforcement to be removed.

DETAILS OF EXISTING CURB REMOVAL

Note: All existing curb reinforcement outside the limits of the proposed safety barrier curb shall be cut 1" below top of existing slab. Areas of existing slab outside the limits of the proposed safety barrier curb shall be covered with either 1¾" latex modified concrete or 2¼" low slump concrete. See Special Provisions.



PLAN OF SLAB SHOWING SPECIAL REPAIR ZONES

Note: Sequence of repairs shall be in alphabetical order. Zones with the same letter designation may be repaired at the same time.

Any repair in the remainder of the bridge that is within 4'-6" of Zone A shall be completed before removing old concrete in Zones A.

GENERAL NOTES:

Design Specifications: A.A.S.H.T.O. - 1977 and Interims thru 1985. Load Factor Design.

Design Unit Stresses:
Class BI Concrete f'_c = 4,000 psi
Reinforcing Steel (Grade 60) f_y = 60,000 psi

Traffic Maintained:
One lane of traffic in each direction to be maintained during construction.

Existing Work:
Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars, unless otherwise noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1½" unless otherwise shown.

Joint Filler:
All joint filler shall meet the requirements of Std. Spec. 1057.2.4, except as noted.

Roadway Surface:
Roadway surfacing adjacent to bridge ends to match existing concrete deck plus 1½"± or 2"±.

ESTIMATED QUANTITIES

ITEM		TOTAL
Curb Removal (Bridges)	Lin. Ft.	413
Seal Coat Removal (Bridges)	Sq. Ft.	10,738±
Safety Barrier Curb	Lin. Ft.	413
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	1,003
*Concrete Wearing Surface (Low Slump), See Special Provisions	Sq. Yd	1,214
Removal and Storage of Existing Bridge Rail	Lin. Ft.	405

BRIDGE OVER ROUTE 67

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FLAT RIVER

PROJECT NO. F-FG-32-3(4) STA. 914+17.89±

JOB NO. 6-P032-755 RTE. 32

ST. FRANCOIS **COUNTY**

DATE 10/30/86

STD.
STD. 706-35
A-144R

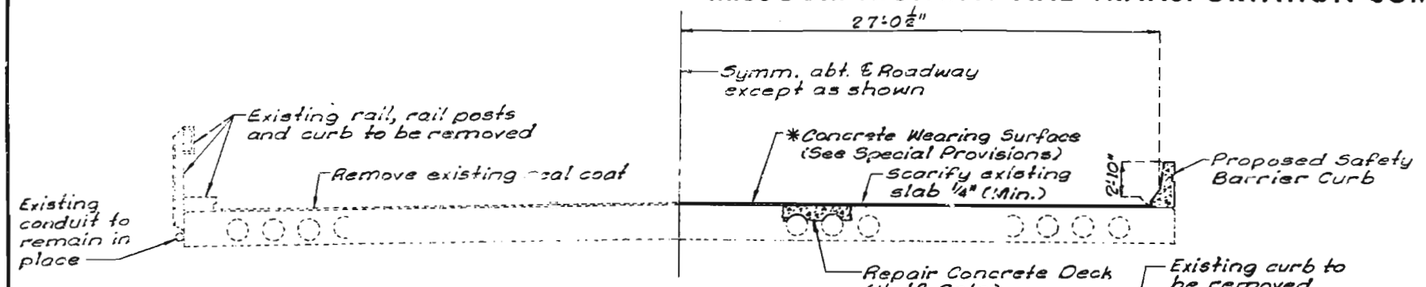
105-118

DESIGNED JUNE 1986
DETAILED JUNE 1986
CHECKED June 1986

Note: This drawing is not to scale Follow dimensions.

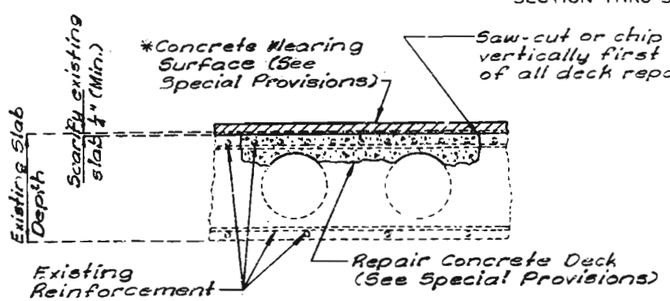
MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STATE	PROJ. NO.	SHEET NO.
MO.		11
SEC./SUR 9	TWP. 36N RGE. 5E	

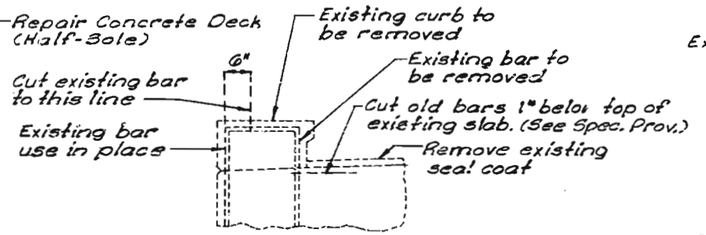


*1 3/4"(Min.) latex modified concrete or 2 1/4" (Min.) low slump concrete

SECTION THRU SLAB



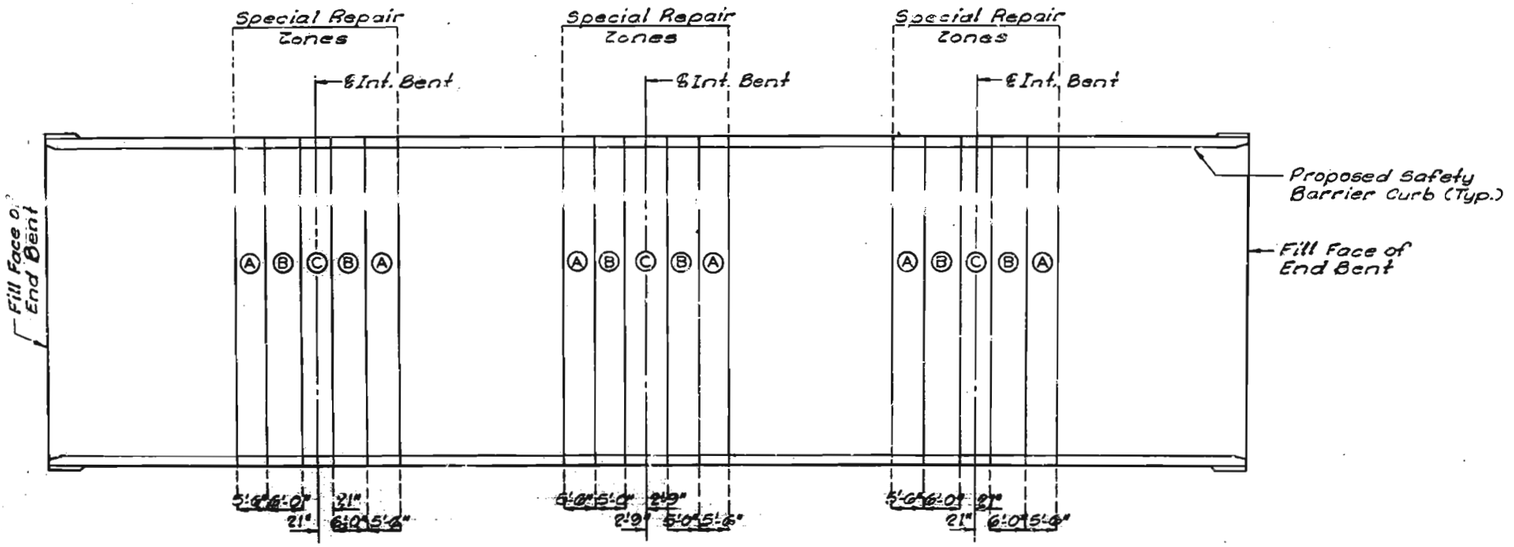
HALF-SOLED AREA



Note: All existing longitudinal curb reinforcement to be removed.

DETAILS OF EXISTING CURB REMOVAL

Note: All existing curb reinforcement outside the limits of the proposed safety barrier curb shall be cut 1" below top of existing slab. Areas of existing slab outside the limits of the proposed safety barrier curb shall be covered with either 1 3/4" latex modified concrete or 2 1/4" low slump concrete. See Special Provisions.



PLAN OF SLAB SHOWING SPECIAL REPAIR ZONES

Note: Sequence of repairs shall be in alphabetical order. Zones with the same letter designation may be repaired at the same time.

Any repair in the remainder of the bridge that is within 4'-6" of Zone A shall be completed before removing old concrete in Zones A.

GENERAL NOTES:

Design Specifications: A.A.S.H.T.O. - 1977 and Interims thru 1985. Load Factor Design.

Design Unit Stresses:
Class B1 Concrete $f'_c = 4{,}000$ psi
Reinforcing Steel (Grade 60) $f_y = 60{,}000$ psi

Traffic Maintained:
One lane of traffic in each direction to be maintained during construction.

Existing Work:
Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars, unless otherwise noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1 1/2" unless otherwise shown.

Joint Filler:
All joint filler shall meet the requirements of Std. Spec. 1057.2.4, except as noted.

Roadway Surface:
Roadway surfacing adjacent to bridge ends to match existing concrete deck plus 1 1/2" ± or 2" ±.

ESTIMATED QUANTITIES

ITEM		TOTAL
Curb Removal (Bridges)	Lin. Ft.	413
Seal Coat Removal (Bridges)	Sq. Ft.	10,738
Safety Barrier Curb	Lin. Ft.	413
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	918
*Concrete Wearing Surface ( ), See Special Provisions	Sq. Yd	1,214
Removal and Storage of Existing Bridge Rail	Lin. Ft.	405

BRIDGE OVER ROUTE 67

STATE ROAD FROM BONNE TERRE TO FARMINGTON

ABOUT 2.0 MILES S.E. OF FLAT RIVER

PROJECT NO. F-FG-32-3(6) **STA.** 914+17.89±

JOB NO. 6-P032 735 **RTE.** 32

ST. FRANCOIS **COUNTY**

DATE 10/30/86

STD.
STD. 706.35
A-144R

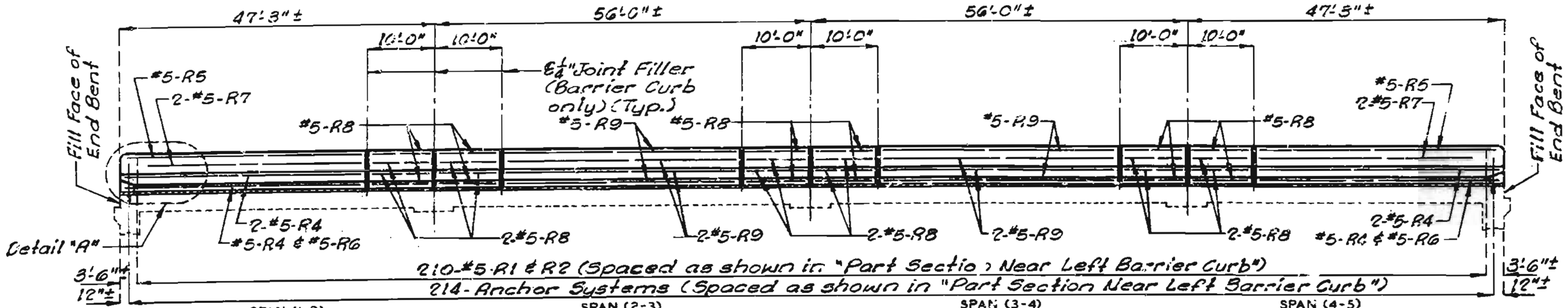
DESIGNED JUNE 1986
DETAILED JUNE 1986
CHECKED June 1986

Note: This drawing is not to scale. Follow dimensions.

SEE FINAL PLANS
Sheet No. 1 of 2.

106

STATE	PROJ NO	SHEET NO.
MO		12



SECTION NEAR LEFT BARRIER CURB

BARRIER CURB NOTES:

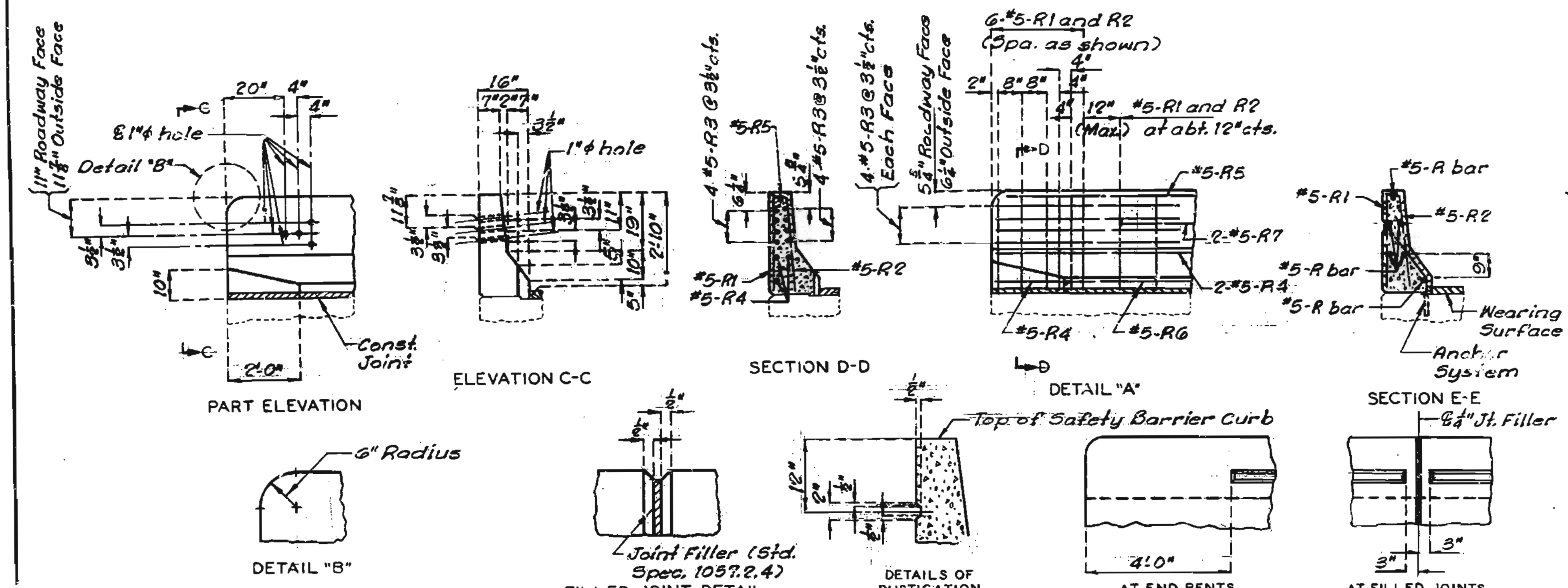
Top of barrier curb to be built parallel to grade with barrier curb joints (except at end bents) normal to grade.

All exposed edges of barrier curb shall have ½" radius or ⅝" bevel unless otherwise noted.

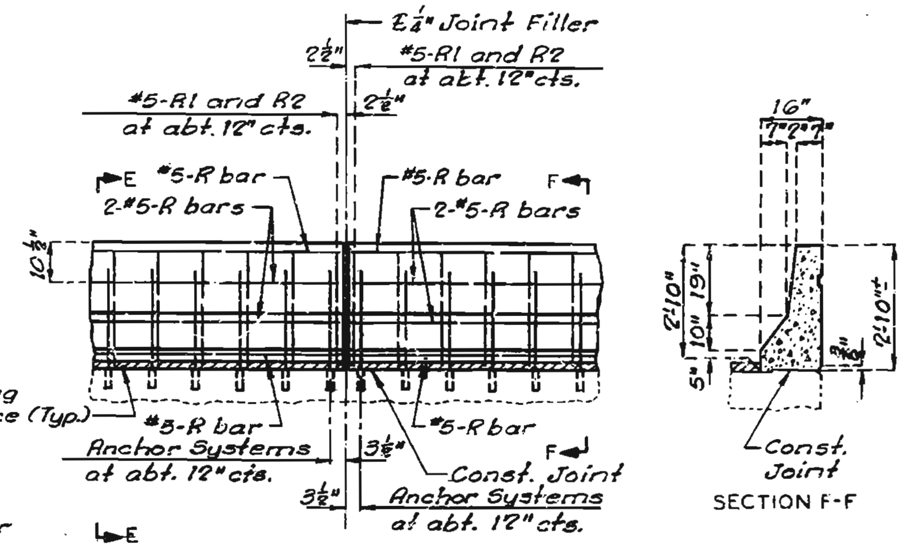
When the barrier curb is bid by linear feet, the contract unit price shall include the cost of all concrete and reinforcement, complete in place.

Concrete in the safety barrier curb shall be Class B1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top face of the curb from fill face to fill face.



PART ELEVATION — ELEVATION C-C — SECTION D-D — DETAIL "A" — SECTION E-E — DETAIL "B" — FILLED JOINT DETAIL — DETAILS OF RUSTICATION — RUSTICATION DETAILS



PART SECTION NEAR LEFT BARRIER CURB — SECTION F-F

Note: Use a minimum lap of 17" for #5 horizontal barrier curb bars.

The cross-sectional area above the slab= 2.43 sq.ft.

COMPLETE BILL OF REINFORCING STEEL							
BENDING DIAGRAMS	NO. REQ'D.	SIZE MARK	LOCATION	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT (LBS.)
R1: 3½", 2'7"	444	5 R1	Barrier Curb	2'10"	2'9"	1274
	444	5 R2	Barrier Curb	2'10"	2'9"	1274
	32	5 R3	Barrier Curb	5'0"	5'0"	167
	12	5 R4	Barrier Curb	37'0"	37'0"	463
	4	5 R5	Barrier Curb	36'8"	36'8"	153
	4	5 R6	Barrier Curb	35'2"	35'2"	147
	8	5 R7	Barrier Curb	33'3"	33'6"	281
R2: 3¼", 3½", 2'7"	74	5 R8	Barrier Curb	9'9"	9'9"	753
	24	5 R9	Barrier Curb	35'0"	35'9"	895

Note: All bars shall be epoxy coated.

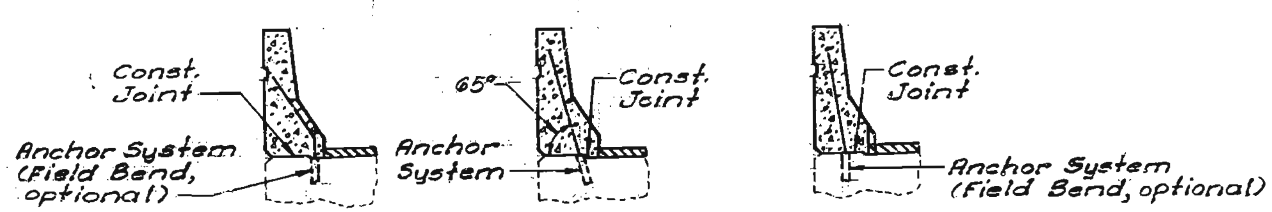
2-additional R8 bars are included for testing purposes.

Note: Inside diameter of all bends shown for R1 & R2 bars shall be 2½". All other bars are straight.

Nominal Lengths - are based on out to out dimensions shown in bending diagrams and are listed for fabricator's use (nearest inch).

Actual Lengths - are measured along centerline bar to the nearest inch.

Payweights are based on actual lengths.



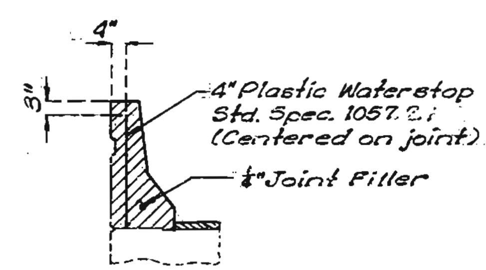
SECTION E-E — SECTION E-E (OPTIONAL ANCHORING SYSTEM) — SECTION D-D

DETAILS OF ANCHOR SYSTEMS

Note: The contractor shall use one of the anchor systems listed in the Job Special Provisions for the Safety Barrier Curb.

These anchor systems shall be installed according to the manufacturer's specifications, except that an epoxy coated ⅝"φ, Grade 60 reinforcing bar 2'-6" long shall be substituted for the threaded rod stud and if the Kelibond/Keligroutin resin bonding anchor system is used the minimum embedment in old concrete shall be 6½".

Cost of furnishing and installing the anchor system complete in place shall be included in the price bid per linear foot of safety barrier curb.



DETAILS OF PLASTIC WATERSTOP

Note: Plastic waterstop shall be placed in all safety barrier curb filled joints.

Cost of plastic waterstop complete in place to be included in contract unit price for safety barrier curb.

DETAILED JUNE 1986
CHECKED June 1986

Note: This drawing is not to scale. Follow dimensions.

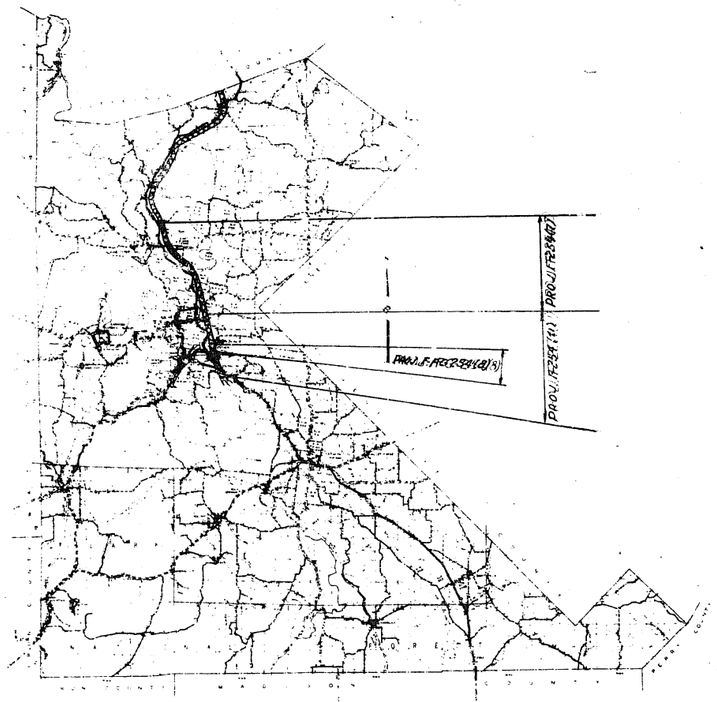
Sheet No. 2 of 2

ST. FRANCOIS COUNTY

A-144R

107

LOCATION MAP



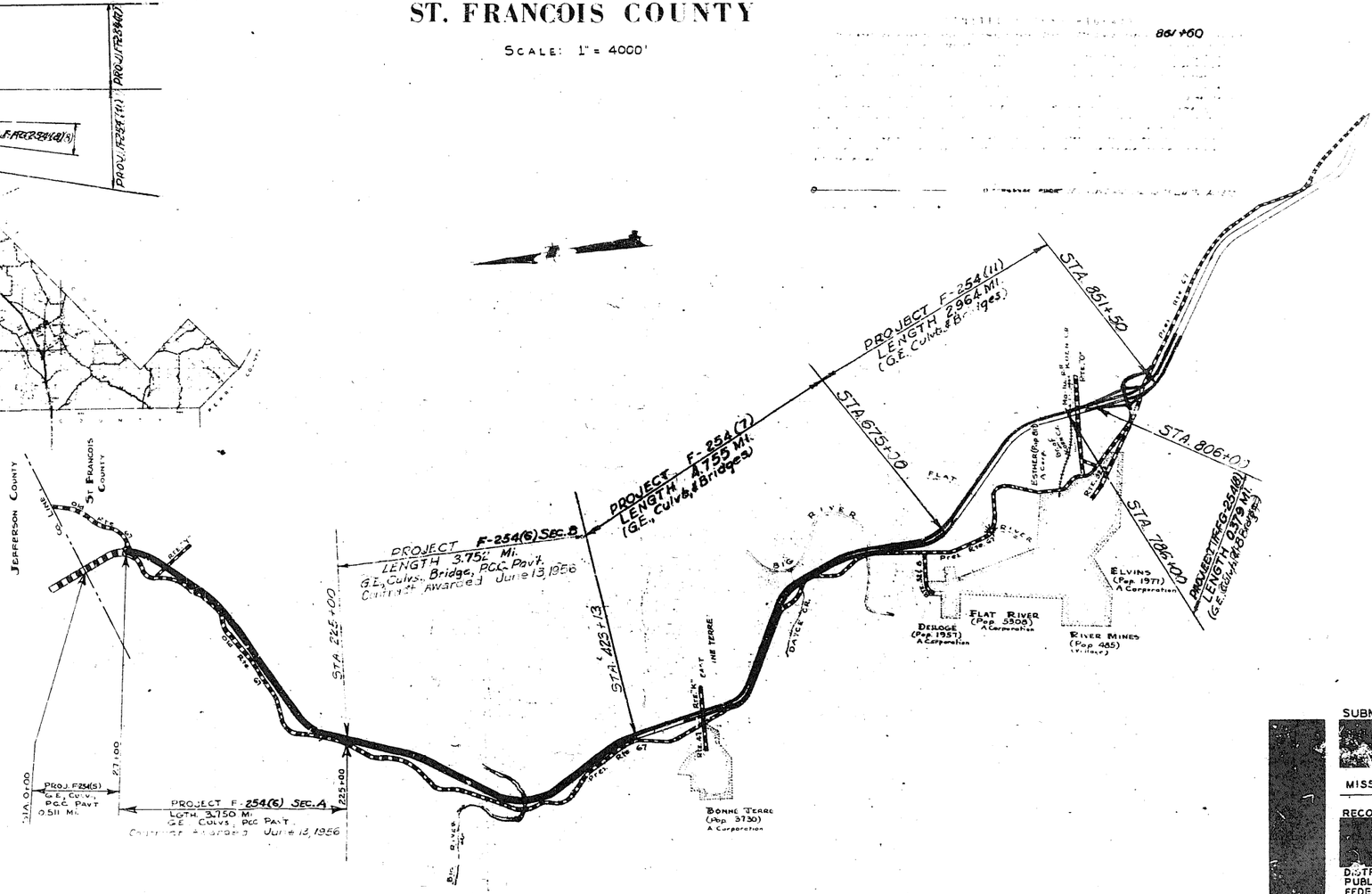
MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT

ST. FRANCOIS COUNTY

SCALE: 1" = 4000'

COUNTY
ST FRANCOIS
STATE ROUTE NO.
67
PROJECT NO.
F-254(11)



CONVENTIONAL SIGNS

STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	
RIGHT OF WAY LINE	GROUND ELEVATION
TRAVELED WAY	
RAILROADS	GRADE ELEVATION
RETAINING WALL	SURFACE LINE
BASE OR SURVEY LINE	GRADE LINE

SUBMITTED BY [redacted] DATE [redacted]

CHIEF ENGINEER
MISSOURI STATE HIGHWAY COMMISSION

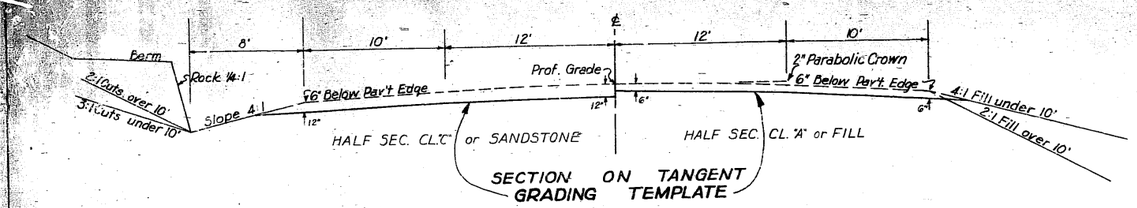
RECOMMENDED FOR APPROVAL [redacted]

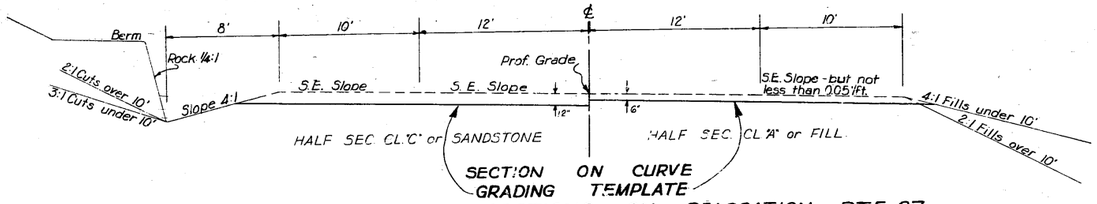
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

APPROVED BY [redacted]

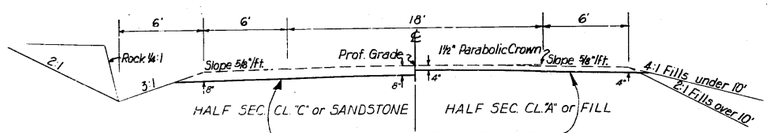
DIVISION ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

REG. NO. OF DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FIG. NO.	SHEET NO.
5	MO.	F-254		
DIST. NO.	COUNTY		ROUTE	SEC.
6	ST. FRANCOIS		67	

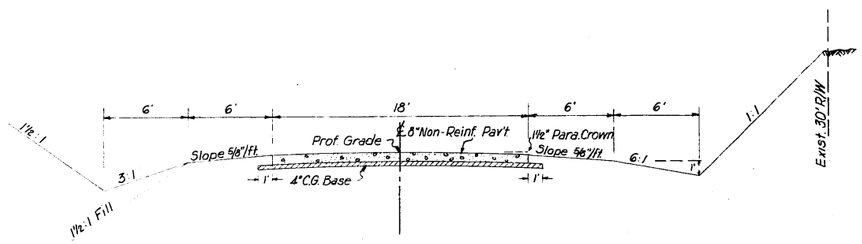




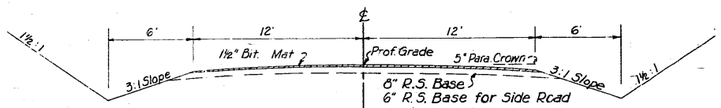
TYPICAL SECTIONS ON RELOCATION RTE. 67



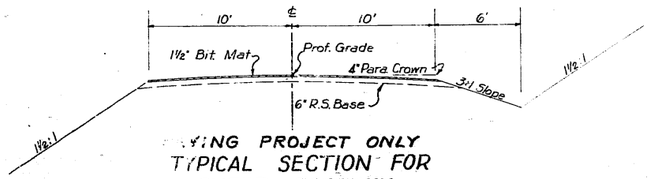
TYPICAL SECTION ON RAMP



TYPICAL SECTION FOR REGRADING RTE. 67
STA. 905+50 TO 910+50
PAVING PROJECT ONLY



TYPICAL SECTION FOR TEMPORARY BY-PASS
(STA. 905+00 TO 911+00)
AND SIDE ROAD APPROACHES
PAVING PROJECT ONLY

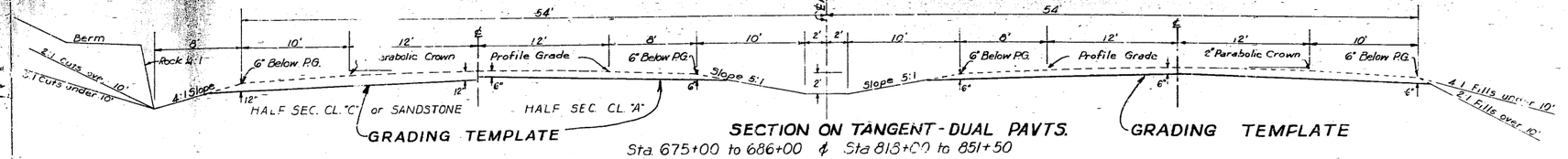


PAVING PROJECT ONLY
TYPICAL SECTION FOR
OUTER ROADWAY
STA. 842 + TO 844+

Sheet 2 of 2

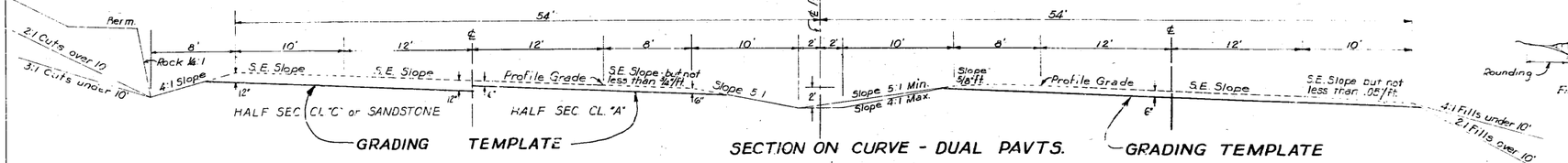
TYPICAL SECTIONS
ROUTE 67 PROJECT -- F.A. 254(3) F.A. 254(11)
ST. FRANCOIS COUNTY

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	F-254		
DIST. No.	COUNTY		ROUTE	SEC.
6	ST. FRANCOIS		67	



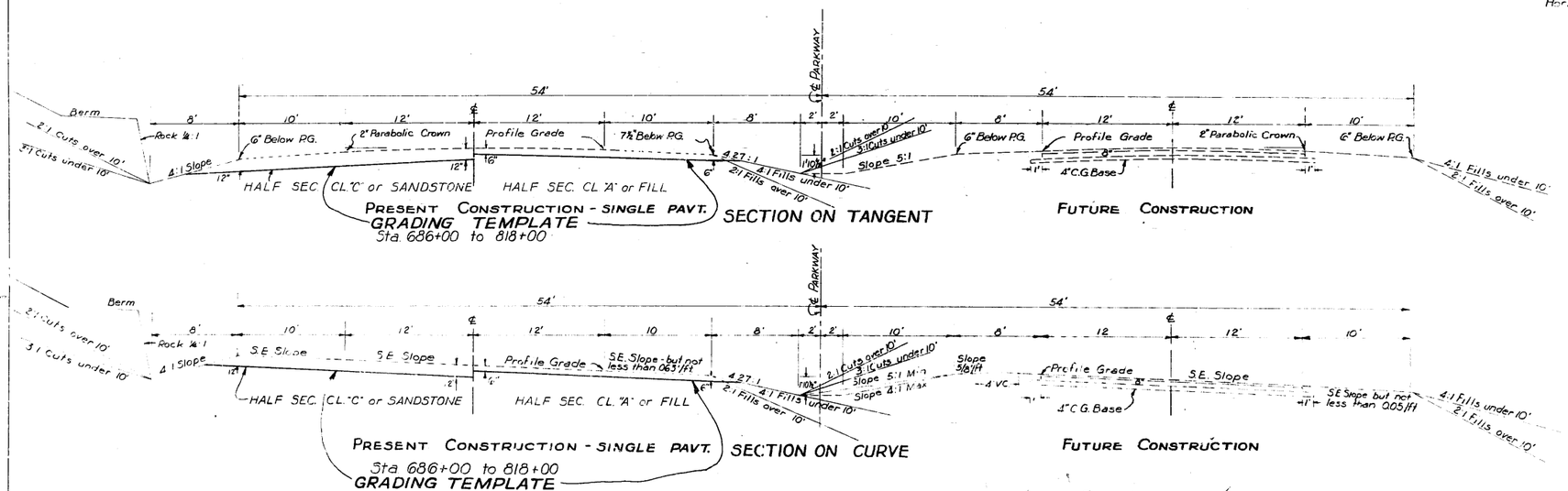
SECTION ON TANGENT - DUAL PAVTS.

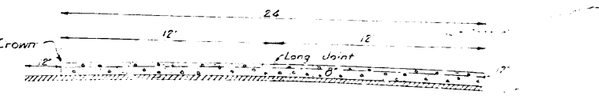
Sta. 675+00 to 686+00 & Sta. 818+00 to 851+50



SECTION ON CURVE - DUAL PAVTS.

Sta. 675+00 to 686+00 & Sta. 818+00 to 851+50

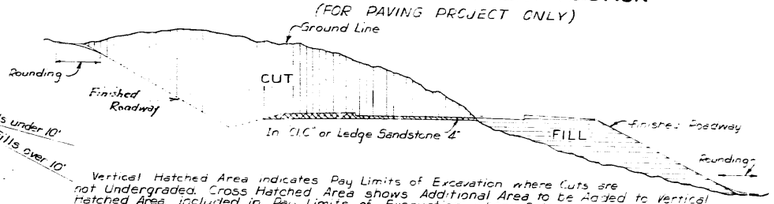




Note: Crown to be eliminated on all super-elevated curves

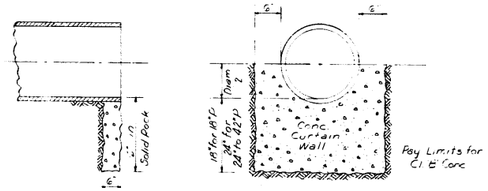
DETAILS OF TYPICAL PAVEMENT SECTION

(FOR PAVING PROJECT ONLY)



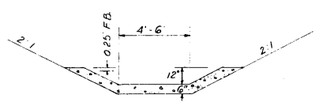
Vertical Hatched Area indicates Pay Limits of Excavation where Cuts are not Undergraded. Cross Hatched Area shows Additional Area to be Added to Vertical Hatched Area, included in Pay Limits of Excavation where Cuts are under-graded. For Pay Limits of Over-Break & Backfill, see Specifications. Horizontal Hatched Area indicates limits to which embankment can be constructed.

SKETCH SHOWING EXCAVATION PAY LIMITS

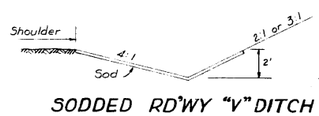


DETAILS OF CURTAIN WALL

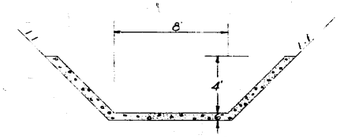
(Not to be formed)



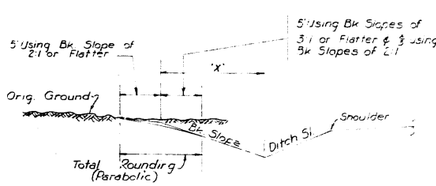
SECTION A-A

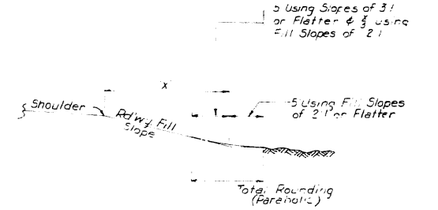


SODDED RD'WY "V" DITCH

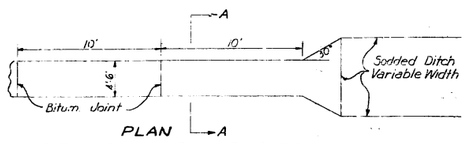


8' PAVED DITCH (CHG. CHANGE)





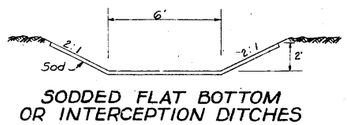
PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOE OF ROADWAY FILL SLOPES



PLAN

DETAILS OF PAVED DITCH

Note: Cost of Bituminous Joints to be included in Bid Price on Paved Ditch.



SODDED FLAT BOTTOM OR INTERCEPTION DITCHES

GENERAL NOTES

For details of superelevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc, see other drawings.

In transitioning from one cut or fill slope to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.

All information shown on these Typical Sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths and type of ditches, undergraded cuts, and other features, shall conform to the details shown on Cross Sections and Plan-Profile sheets or as directed by the Engineer.

Sheet 1 of 2

TYPICAL SECTIONS

44' & 108' GRADED EARTH

FG-254(8)

ROUTE 67 - PROJ. F-254(11) ST. FRANCOIS CO.

MISSOURI STATE HIGHWAY COMMISSION
SUMMARY OF QUANTITIES

LOCATION: BONNE TERRE TO LEADINGTON
TYPE: GRADED EARTH, CULVERTS & BRIDGES

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	F-254 (11)		2-A	
DIST. No.	COUNTY			ROUTE	SEC. No.
	ST. FRANCOIS			67	

EXCAVATION

STA.	Cl. A	Cl. C	OBC	Borr. A	Comp. in Cuts	Comp. Emb.	Overhaul	Remarks
675+00								
707+20	16,911	6557	1381	792	896		18732	
717+18	4,812	8275	739					
739+28	5943	17830	2150				2560	
751+63	2676	447	501					
757+70	1512	2564	230					
760+23	759	511	24					
780+00	12829	9128	1054	29				
786+00	8895	10785	1230	990				
806+00	EXCEPTION							
826+42	*23126	34554	1125			*244	64402	*Add 245 C.Y. Cl.A & 244 C.Y. Comp. Emb. (Plan Revision)
837+00	*15609	49814	2216					*Add 4 C.Y. Cl A (Plan Revision)
851+50	*39032	401	219			*260		*Add 1315 C.Y. Cl.A & 260 C.Y. Comp. Emb. (Plan Revision)
908+00								
911+16	650	6						
917+52	1264							
927+36	1654	143	56					
932+00	1479							
Subtotal	137151	147,015	10,924	1811	896	504	85694	
Borr. A	1811							
OBC		10924						
						294306 (Plan)		
TOTALS	138,962	151,939			896	294810	85694	

LENGTH OF PROJECT

End Station 851+50
Beginning of Project Station 675+00
Apparent Length 17650 Feet
Equations and Exceptions:
STA. 786+00 To STA. 806+00 (−2000')

Total Corrections −2000.0 Feet
Net Length of Project 15650.0 Feet
State Length 2.964 Miles
Federal Length 2.964 Miles

CONCRETE BOX CULVERTS

STA.	Loc.	Standard	Size	Skew	Length	Cl. B	Reinf. Steel	Cl. 3	Remarks
737+70	℄	C-529	6x5	45° L.A.	243'	176.0	18590	460.0	Built in sections & modified
834+06	℄	C-529	8x4	33° L.A.	288'	252.4	28730	744.0	Built in sections & modified ~ Rt. Hdwl. on 25° skew
912+60	℄ Reloc. 67	C-529	5x4	~	136'	78.7	8270	135.5	Built in sections & modified
917+00	℄ Reloc. 67	C-529	8x4	35° R.A.	190'	157.3	22930	477.0	Built in sections & modified ~ Rt. Hdwl. 90° to ℄ of box; Lt. Hdwl. skewed 55° from a line 90° to ℄ of box
924+60	℄ Reloc. 67	C-529	8x4	25° L.A.	101'	96.0	10300	123.5	Built in sections & modified
933+99±	Lt. of Reloc. 67	C-529	8x4	32°47' R.A.	19'	[illegible]	2230	34.0	Built in sections & modified ~ Extension Lt.
TOTALS						[illegible]	91050	1974.0	

ENTRANCES & SIDE ROADS (C.M.P.)

STA.	Type	Loc.	12"	15"	18"	24"	Aggr. Surf.	C-230 Hdwl.	Cl. B	Reinf. Steel	Cl. 3	Remarks
697+05	Dbl. P.E.	Lt.		32			46					
697+40 / 699+00	P.E.	Rt.					16					Crown
731+70	S.R.	Lt.		74			60					
737+70	S.R.	Rt.				76	28					
742+00	P.E.	Lt.		28			8					
756+00	S.R.	Rt.				30	60	2-RB	1.98	196	6.5	
756+00	S.R.	Lt.			44		33					
769+83±	S.R.	Lt.	28				21					
842+00 / 834+00	S.R.	Rt.					33					See R.C.P. (X-Rd)
918+50	P.E.	Lt.				46	17					
923+00	P.E.	Lt.					10					Crown
928+[illegible]	P.E.	Lt.										Crown
TOTALS			28	134	44	152	332		1.98	196	6.5	

X-ROAD PIPE CULVERTS

STA.	Skew	12"	15"	18"	24"	30"	36"	42"	X-Str. 24"	Cl. 3	C-230 Hdwl.	Cl. B	Reinf. Steel	Remarks
684+50				64						11.0	1-RC-Lt.	0.83	63	℄ D.I.
686+52	25° L.A.					125				30.0	1-RC-Lt.	2.35	184	curtain wall Rt.
692+45	45° L.A.			4		113				28.5	1-RC-Lt.	3.15	241	curtain wall Rt. ~ 18"x30" T Joint - 7' Rt. ℄
731+10	25° R.A.			8	111					*75.0	1-RC-Lt.	1.70	150	curtain wall Rt. ~ 18" x 24" T Joint - 8' Lt. ℄ - *Computed
737+70				20										For Future D.I. - Conn. 6x5 Box Culv. - upper end plugged
746+00				61						5.0	1-RC-Lt.	0.83	63	For Future D.I. - Rt. end plugged
753+90					79					66.0	1-RC-Lt.	1.41	124	curtain wall Rt.
756+90	30° L.A.		4				114			*81.5	1-RC-Lt.	3.19	241	curtain wall Rt. ~ 15" x 36" T Joint - 10' Rt. ℄ *Computed
806+00			64							22.0	1-RC-Lt.	0.64	52	For Future D.I. ~ Rt. end plugged
820+25		64								11.0	1-RC-Rt.	0.50	42	℄ D.I.
823+35	45° L.A.							213		**274.0	*2-RC	9.98	732	*C-231 Headwalls; **Computed [illegible]
823+70				22						6.0				℄ D.I. ~ conn. to 42" Pipe
828+00	45° L.A.	42								16.5	1-RC-Rt.	0.87	70	D.I. in Rt. Dit. Line
828+80	45° R.A.	49								16.5	1-RC-Lt.	0.87	70	D.I. in Lt. Dit. Line
833+60			20							3.0	1-RC	0.64	52	Pipe & Hdwl. in Rt. Dit. Line ~ Conn. to 8'x4' Box Culv. - 70' Rt. ℄
834+25			12							6.0				Conn. to 8'x4' Box Culv. ~ 7' Lt.
840+00	30° RA		66							25.0	1-RC-Lt.	0.86	69	℄ D.I.
842+40			38							*9.0				100'± Rt. of ℄ under Co. Rd. - *computed (Added pipe)
846+00	30° RA		74							25.0	1-RC-Lt.	0.86	69	℄ D.I.
909+50		66								21.0				100' Rt. of Reloc. Rte. 67
930+00		56								13.5				30' Rt. of Reloc. Rte. 67
1+00	10° L.A.								110	13.5	2-RB	2.12	224	Sta. on N.E. Ramp
TOTALS		277	278	179	190	238	114	213	110	759.0		30.80	2446	

MISCELLANEOUS ITEMS
(TABULATED ON P.& P. SHEETS)

Sheet No.	Clearing	Grubbing	R/W markers	Fert. & mulch	Sodding
3	74	50	11	0.87	
4	558	531	9	0.71	217
5	814	643	9	0.55	
6	244	178	8	1.83	496
7	28	22	3	0.32	
8	718	494	9	1.88	
9	216	123	16	1.20	
10	384	373	4	0.84	
TOTALS	3036	2414		8.00	
Sq. Yds.					713
No.			69		
Acres	34.8	27.7		8.0	

DROP INLETS

STA.	Loc.	St'd	Size	"D"	Cl. B	Reinf. Steel	Type Cover	Spillway	Pipe Opening	Cl. 3	Remarks
684+50	℄	EE	5'x2'	2'-6"	1.11	109	A	2	1-18"	4	
820+25	℄	E	3'x2'	2'-0"	0.83	67	A	1	1-12"	4	
823+70	℄	E	3'x2'	2'-6"	0.93	79	A	1	1-18"	4	Conn. to 42" Pipe
828+00	Rt. Dit.	E	3'x2'	2'-0"	0.83	67	A	1	1-12"	2.5	Drains under N.W. Ramp
828+80	Lt. Dit.	E	3'x2'	2'-0"	0.83	67	A	1	1-12"	2.5	Drains under N.E. Ramp
834+25	℄	E	3'x2'	2'-3"	0.88	69	A	1	1-15"	4	Conn. to 8'x4' Box Culv.
840+00	℄	E	3'x2'	2'-3"	0.88	69	A	1	1-15"	5	
846+00	℄	E	3'x2'	2'-3"	0.88	69	A	1	1-15"	5	
TOTALS					7.17	596				31.0	

PAVED DITCH (FIELD MEASUREMENT)

STA. TO STA.	Loc.	S.Y.	REMARKS
775+76 - 776+35	Lt.	69.4	[illegible]
778+03 - 779+12	Lt.	127.8	
924+60	Rt.	8.1	Downstr. end of box culv.
926+00 - 928+00	Rt.	232.6	
		437.9	

GUARD RAIL (TYPE A)

STA.	LOC.	LIN. FT.	REMARKS
698+20	Rt.	25	County Road
717+20	Rt.	25	County Road
720+10	Lt.	25	County Road
735+50	Lt.	25	County Road
TOTAL		100 LIN. FT.	

PERMANENT BARRICADES

STA.	LOC.	NO.	REMARKS
769+80	Rt.	1	County Road
769+80	Lt.	1	County Road
TOTAL		2	

GENERAL SUMMARY — FINAL PLANS

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS
1-A	CLEARING	ACRE	34.8	
1-B	GRUBBING	ACRE	27.7	
1-D	CLASS A EXCAVATION	C.Y.	138962	
1-E	CLASS C EXCAVATION	C.Y.	157939	
1-I	CLASS 3 EXCAVATION	C.Y.	[illegible]	
1-K	COMPACTING EMBANKMENTS	C.Y.	294,810	
1-L	COMPACTING IN CUTS	C.Y.	896	
1-M	OVERHAUL	STA. YD.	85,694	
1-Z	REMOVING ( ) MISC. ITEMS	L. SUM	1	
13-D	CRUSHED STONE (B) SURFACE	C.Y.	332	
16-B	CLASS B CONC. BOX CULV.	C.Y.		
16-B	CL. B CONC. (OTHER THAN BOX CULV.	C.Y.	40.0	
18-B	12" CORR METAL PIPE	L.F.	28	
18-B	15" CORR METAL PIPE	L.F.	134	
18-B	18" CORR METAL PIPE	L.F.	44	
18-B	24" CORR METAL PIPE	L.F.	152	
18-C	12" REINF. CONC. PIPE	L.F.	277	
18-C	15" REINF. CONC. PIPE	L.F.	278	
18-C	18" REINF. CONC. PIPE	L.F.	179	
18-C	24" REINF. CONC. PIPE	L.F.	190	
18-C	30" REINF. CONC. PIPE	L.F.	238	
18-C	36" REINF. CONC. PIPE	L.F.	114	
18-C	42" REINF. CONC. PIPE	L.F.	213	
18-CE	24" REINF. CONC. PIPE (EXTRA STR.)	L.F.	110	
19-A	REINFORCING STEEL	LB	94790	
25-DD	PAVED DITCH	S.Y.		
27-A	GUARD RAIL (TYPE A)	L.F.	100	
28-C	STANDARD SIGNS, FLAGS, & FLAGGING	L. SUM	1	
28-D	PERMANENT BARRICADES	EACH	2	
29-C	RIGHT OF WAY MARKERS	EACH	69	
33-A	REMOVAL OF ( ) EXIST. STRUCTS.	L. SUM	1	
37-A	FERTILIZING & MULCHING	ACRE	8.0	
37-B	SODDING	S.Y.	713	
60-A	RELOCATING GAS TRANSMISSION PIPE LINE	L. SUM	1	

BRIDGE @ STA. 707+80.0 (DWG. No. L-664)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1-G	CLASS 1 EXCAVATION	C.Y.	281.5
1-H	CLASS 2 EXCAVATION	C.Y.	523.5
16B-I	CL. B-1 CONCRETE (SUPER-STRUCT.)	C.Y.	280.8
16-B	CL. B CONC. (SUB-STRUCT.)	C.Y.	483.4
17-B	FAB. STRUCT. STEEL (BEARINGS)	LB.	8030
17-B	FAB. STRUCT. S[illegible] (HANDRAIL)	LB.	17760
19-A	REINFORCING STEEL	LB.	156490
33-A	REMOVAL OF EXIST. STRUCT.	L. SUM	1

CONTINGENT ITEMS

DESCRIPTION	UNIT	TOTAL UNITS
CLASS D CONCRETE	C.Y.	53.0
CL. 2 EXCAV. + 50%	C.Y.	67.5
TEST HOLES	L.F.	142

BRIDGE @ STA. 776+35.17 (DWG. No. L-665)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1-I	CLASS 3 EXCAVATION	C.Y.	206.5
16-B	CLASS B CONCRETE	C.Y.	283.5
19-A	REINFORCING STEEL	LB.	36590

BRIDGE @ STA. 837+00 (DWG. No. A-144)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1-G	CLASS 1 EXCAVATION	C.Y.	260.5
16-B-I	CL. B-1 CONCRETE (SUPER-STRUCT.)	C.Y.	808.3
16-B	CL. B CONCRETE (SUB-STRUCT.)	C.Y.	40.4
17-B	FAB. STRUCT. STEEL	LB.	13910
19-A	REINFORCING STEEL	LB.	201560

CONTINGENT ITEMS

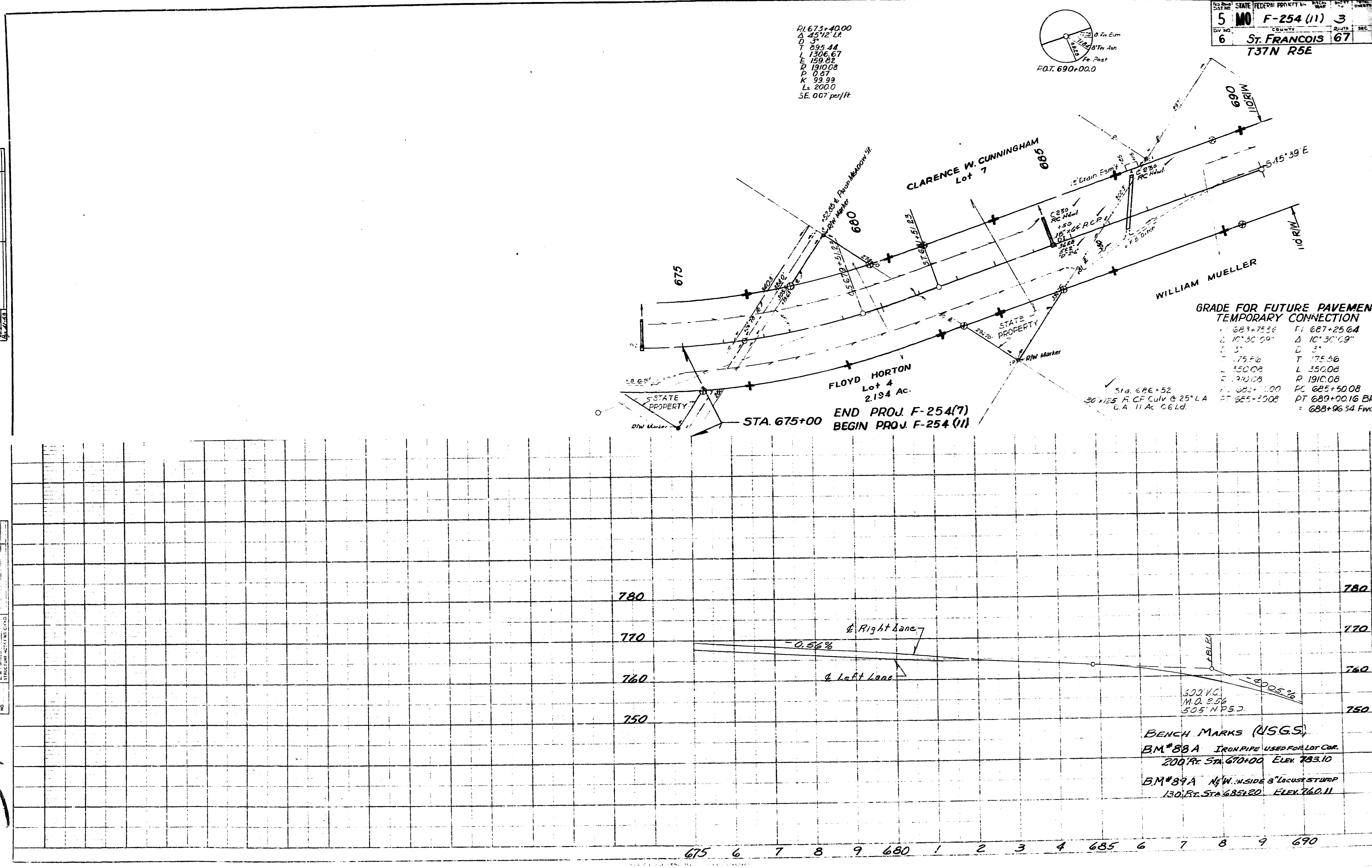
DESCRIPTION	UNIT	TOTAL UNITS
CLASS 1 EXCAV. + 25%	C.Y.	5.5
TEST HOLES	L.F.	13

Proj. Acc. 10/18/59 Prepared By RUDY RAUH Date JAN. 1960 Checked in Dist. Office By R. Tanschel Date 25 January 1960 Checked in Central Office By ______ Date ______ 19__ Revised By ______ Date ______ 19__

FINAL PLANS

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	F-254 (11)		3	
DIV. NO.	COUNTY			ROUTE	SEC.
6	ST. FRANCOIS			67	

T37N R5E



P.I. 673+40.00
Δ 45°12' Lt.
D 3°
T 695.44
L 1306.67
E 159.82
R 1910.08
P 0.87
K 99.99
Ls 200.0
SE .007' per/ft.
P.O.T. 690+00.0
CLARENCE W. CUNNINGHAM
Lot 7
WILLIAM MUELLER
FLOYD HORTON
Lot 4
2.194 Ac.
STATE PROPERTY
R/W Marker
STA. 675+00
END PROJ. F-254(7)
BEGIN PROJ. F-254 (11)
S45°39'E
GRADE FOR FUTURE PAVEMENT
TEMPORARY CONNECTION
PI 687+25.64
Δ 10°30'09"
D 3°
T 175.56
L 350.08
R 1910.08
PC 685+50.08
PT 689+00.16 Bk.
= 688+96.54 Fwd.
Sta. 686+52
30"x125' R.C.P. Culv. @ 25° L.A.
¢ Right Lane
¢ Left Lane
-0.56%
-4.005%
300' V.C.
M.O. 2.56
505' N.P.S.D.
780
770
760
750
BENCH MARKS (U.S.G.S.)
B.M.#88A Iron pipe used for lot cor.
200' Rt. Sta. 670+00 Elev. 783.10
B.M.#89A N.W. inside 8" Locust stump
130' Rt. Sta. 685+20 Elev. 760.11
675 6 7 8 9 680 1 2 3 4 685 6 7 8 9 690

FINAL PLANS

F-254(11) 4

ST. FRANCOIS 67

T37N R5E

W. M. MUELLER
Lot 13

Lot 14
8th Add to town of Cantwell

CLINTON CROSS
Lot 9

W. M. GLORE

690 110' R/W

695

700

105

710

715

720 110' R/W

105 Dr. RE 15" Pipe Lgth. 32'

25' Alley

9 10 11

C230 RC Hdwl.

C.R. Dist'd D.B. W.W.

345°39'E

345°39'E

Flat River is R

300' to ℄

190' Drain Esm't

Guard Rail - 25' L.F.

Guard Rail - 25 Lin. Ft.

110' R/W

TOM MANNINGS

IRWIN SMITH

8th Add to town of Cantwell Block 46

Exist. 8" Water Main

BURNS CHILTON
Lot 15
of State Street Add.

Lot 14

R/W at Sta. 697+40 Bgn.
Sta. 699+00 End
P.E. Rt.

Approximate relocation of 1" Water Main by Utility Owner.

Lot 8
6th Add. to town of Cantwell

HERBERT HULSEY

Low Water

190' Drain Esm't

Co. Rd.

190' R/W

ST. JOSEPH LEAD CO.

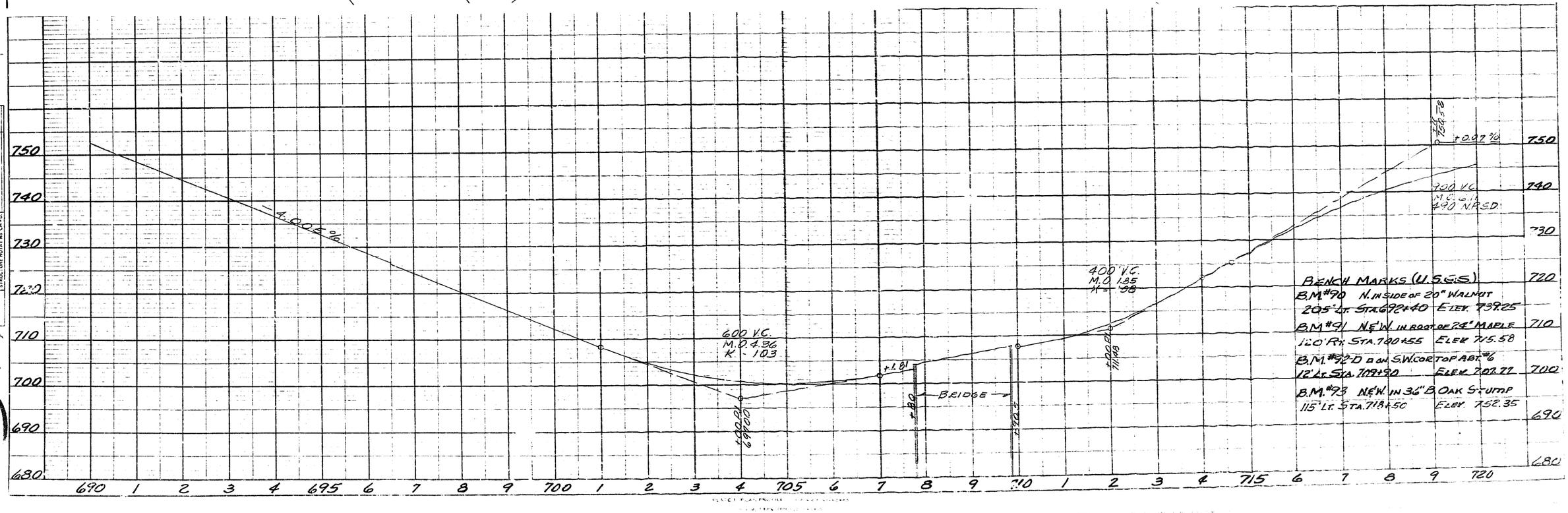
SW Cor Lot #3
Large Conc. Monument

Sta. 692+45
18" X 41' 30" X 113' } R.C. Pipe Culv 45° Sk LA
D.A. 12 Ac. 0.6 Ld.

Flat River is R/R

Sta. 707+80-(℄ Lt. Lane) 5 Span Bridge
I.E. 5-40' D.G. Skew 10° L.A. (Abutments)
Rd'wy Width 28' Pvt Exception 707+80-709+905
D.A. 435 Sq. Mi. Site Brid Cwv L-664

STRUCTURE NOTATING CH=10



BENCH MARKS (U.S.G.S.)

B.M. #90 N. inside of 20" Walnut
205' Lt. Sta. 692+40 Elev. 739.25

B.M. #91 N℄W in root of 24" Maple
120' Rt. Sta. 700+55 Elev. 715.58

B.M. #92-D ⊡ on S.W. cor top abt. #6
12' Lt. Sta. 719+90 Elev. 707.77

B.M. #93 N℄W in 36" B. Oak Stump
115' Lt. Sta. 718+50 Elev. 752.35

FINAL PLANS

F-254(11) 5

ST. FRANCOIS 67

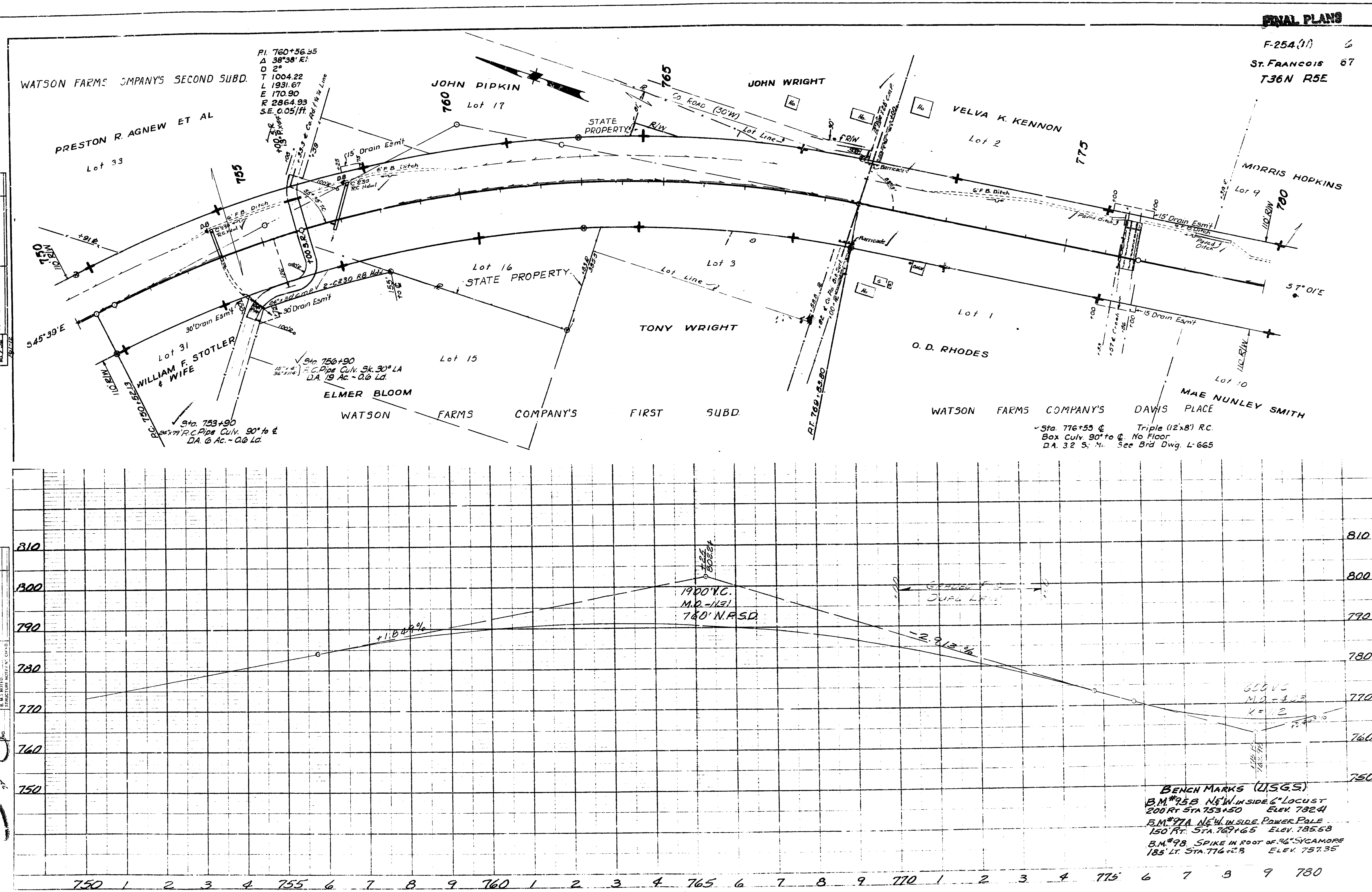
T37N R5E
T36N R5E

BENCH MARKS (U.S.G.S.)

B.M. #93A N&W IN ROOT OF 24" W. OAK
125' LT. STA. 723+30 ELEV. 761.20

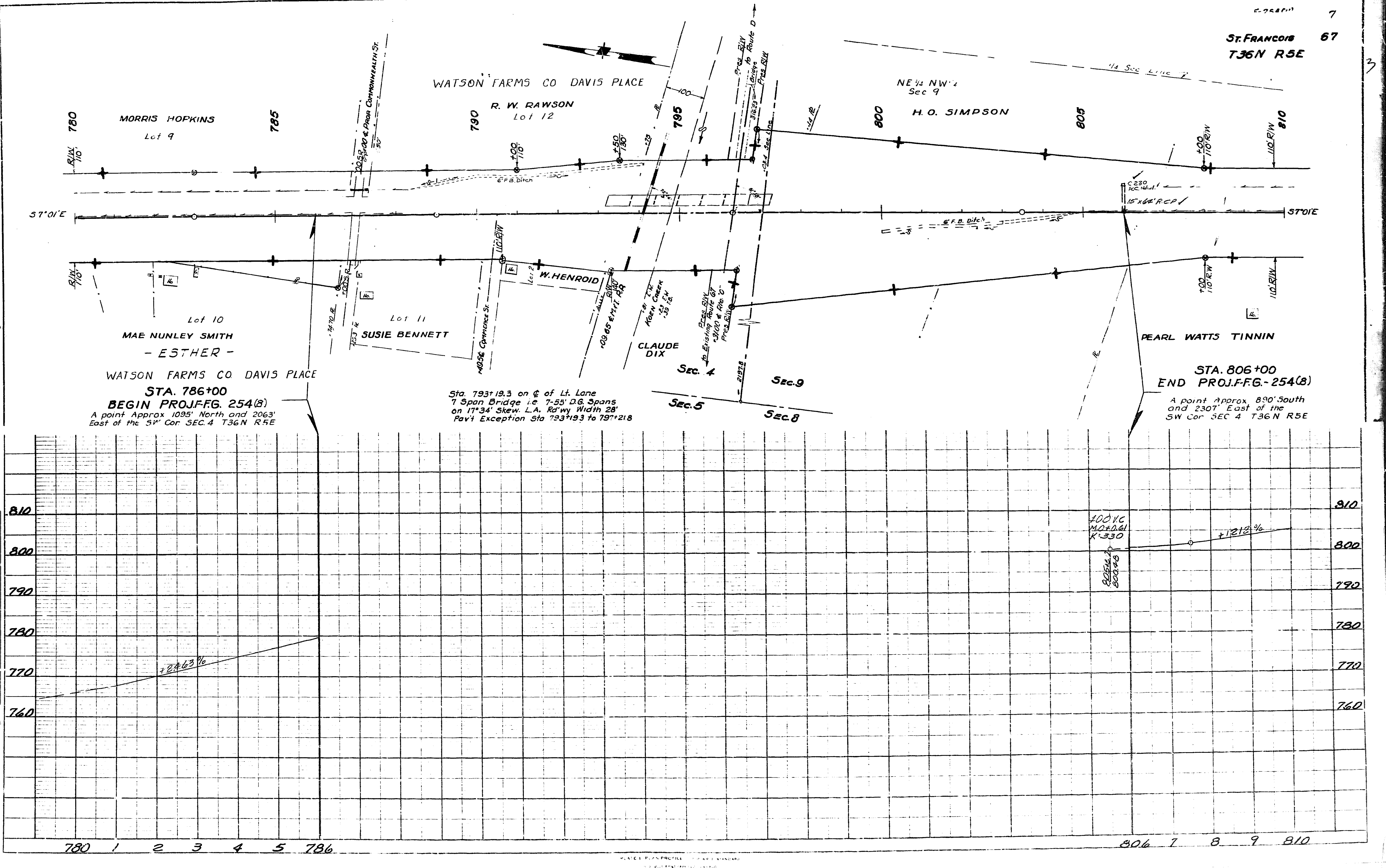
B.M. #94A N&W IN SIDE 12" WALNUT
120' LT. STA. 734+00 ELEV. 755.9?

B.M. #94B N&W IN ROOT TWIN B. OAK
110' LT. STA. 741+00 ELEV. 753.

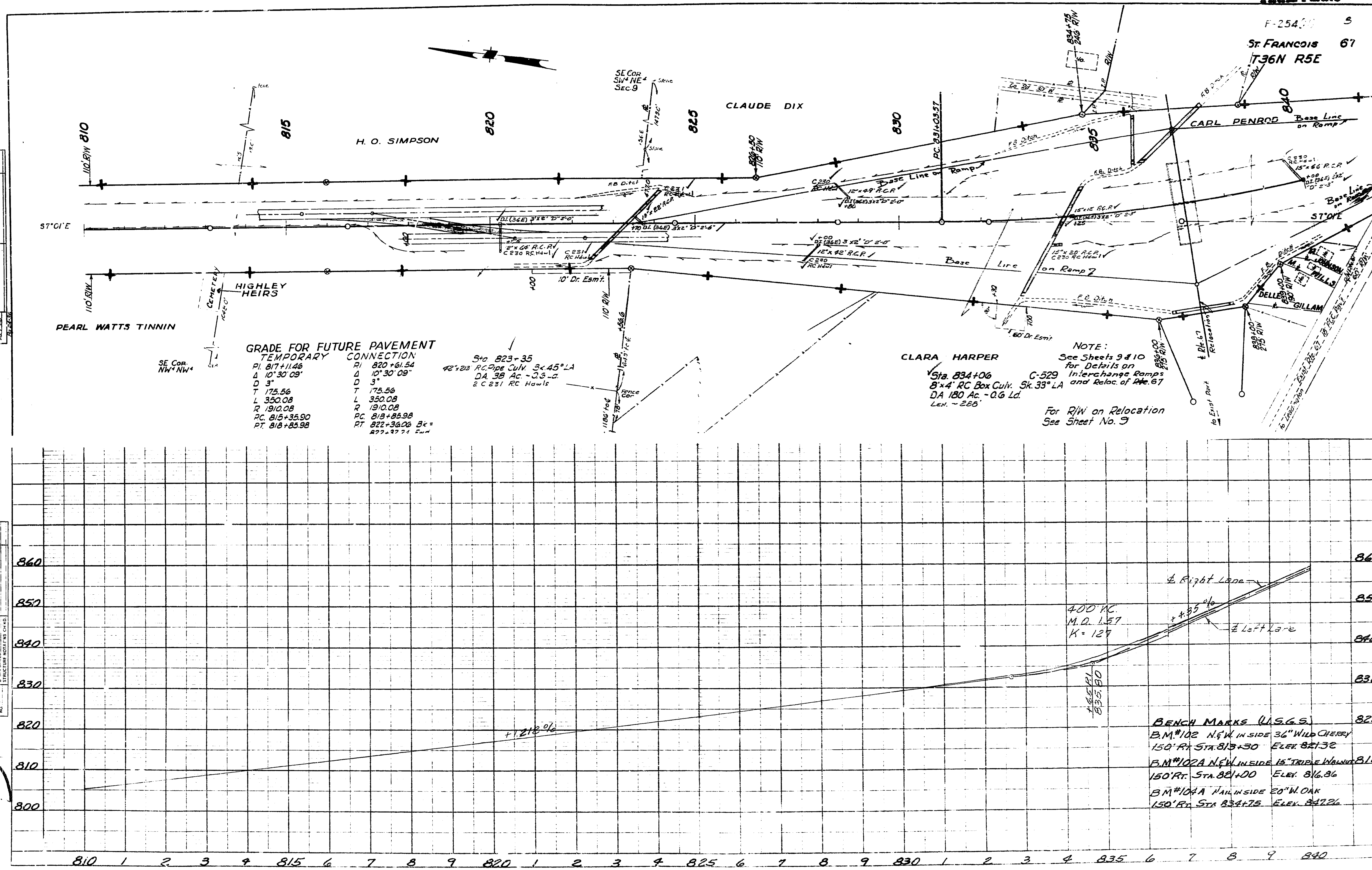


FINAL PLANS
F-254 (11) 6
St. Francois 67
T36N R5E
WATSON FARMS COMPANY'S SECOND SUBD.
P.I. 760+56.35
Δ 38°38' Rt.
D 2°
T 1004.22
L 1931.67
E 170.90
R 2864.93
S.E. 0.05'/ft.
JOHN PIPKIN
Lot 17
JOHN WRIGHT
VELVA K. KENNON
Lot 2
PRESTON R. AGNEW ET AL
Lot 33
STATE PROPERTY
Co. ROAD (30'W)
Lot Line
15' Drain Esm't
6' F.B. Ditch
MORRIS HOPKINS
Lot 9
110' R/W
S 57°01' E
Lot 16
STATE PROPERTY
Lot 3
Lot Line
Lot 1
TONY WRIGHT
O. D. RHODES
S 45°39' E
30' Drain Esm't
Lot 31
WILLIAM F. STOTLER & WIFE
Sta. 756+90
R.C. Pipe Culv. Sk. 30° LA
D.A. 19 Ac. ~ 0.6 Ld.
Lot 15
ELMER BLOOM
WATSON FARMS COMPANY'S FIRST SUBD.
Sta. 753+90
R.C. Pipe Culv. 90° to ¢
D.A. 6 Ac. ~ 0.6 Ld.
P.C. 750+52.13
P.T. 769+83.80
Lot 10
MAE NUNLEY SMITH
WATSON FARMS COMPANY'S DAVIS PLACE
Sta. 776+55 ¢ Triple (12'x8') R.C.
Box Culv. 90° to ¢. No Floor
D.A. 3.2 Sq. Mi. See Brd. Dwg. L-665
810
800
790
780
770
760
750
1900' V.C.
M.O. -11.31
760' N.P.S.D.
+1.644%
-2.913%
800 V.C.
K = 112
BENCH MARKS (U.S.G.S.)
B.M. #95B N&W. inside 6" Locust 200' Rt. Sta. 753+50 Elev. 782.41
B.M. #97A N&W. inside Power Pole 150' Rt. Sta. 769+65 Elev. 785.58
B.M. #98 Spike in root of 36" Sycamore 185' Lt. Sta. 776+08 Elev. 757.35
750 1 2 3 4 755 6 7 8 9 760 1 2 3 4 765 6 7 8 9 770 1 2 3 4 775 6 7 8 9 780

FINAL PLANS

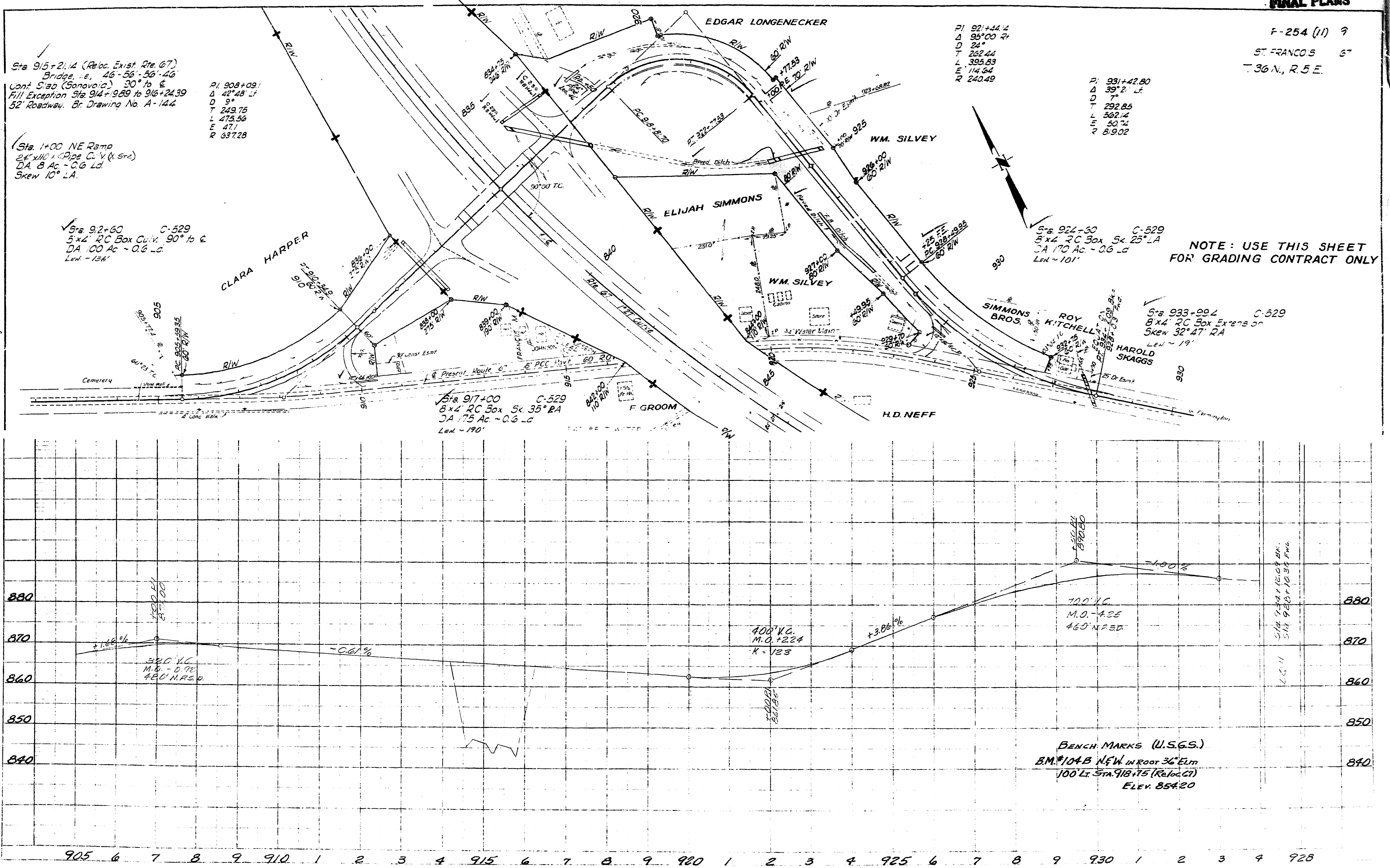

St. Francois 67
T36N R5E
7
WATSON FARMS CO DAVIS PLACE
R. W. RAWSON
Lot 12
MORRIS HOPKINS
Lot 9
NE 1/4 NW 1/4
Sec 9
H. O. SIMPSON
1/4 Sec Line
Lot 10
MAE NUNLEY SMITH
- ESTHER -
WATSON FARMS CO. DAVIS PLACE
Lot 11
SUSIE BENNETT
W. HENROID
CLAUDE DIX
PEARL WATTS TINNIN
Sec. 4
Sec. 9
Sec. 5
Sec. 8
S7°01'E
STA. 786+00
BEGIN PROJ.F.F.G. 254(8)
A point Approx 1095' North and 2063' East of the SW Cor. SEC. 4 T36N R5E
Sta. 793+19.3 on ℄ of Lt. Lane
7 Span Bridge i.e. 7-55' D.G. Spans
on 17°34' Skew. L.A. Rd'wy Width 28'
Pav't Exception Sta 793+19.3 to 797+21.8
STA. 806+00
END PROJ.F.F.G.-254(8)
A point Approx. 890' South and 2307' East of the SW Cor. SEC 4 T36N R5E
15"x64' R.C.P.
6' F.B. Ditch
+24.63%
+1.213%
400 V.C
K=330
780 1 2 3 4 5 786
806 7 8 9 810
810
800
790
780
770
760

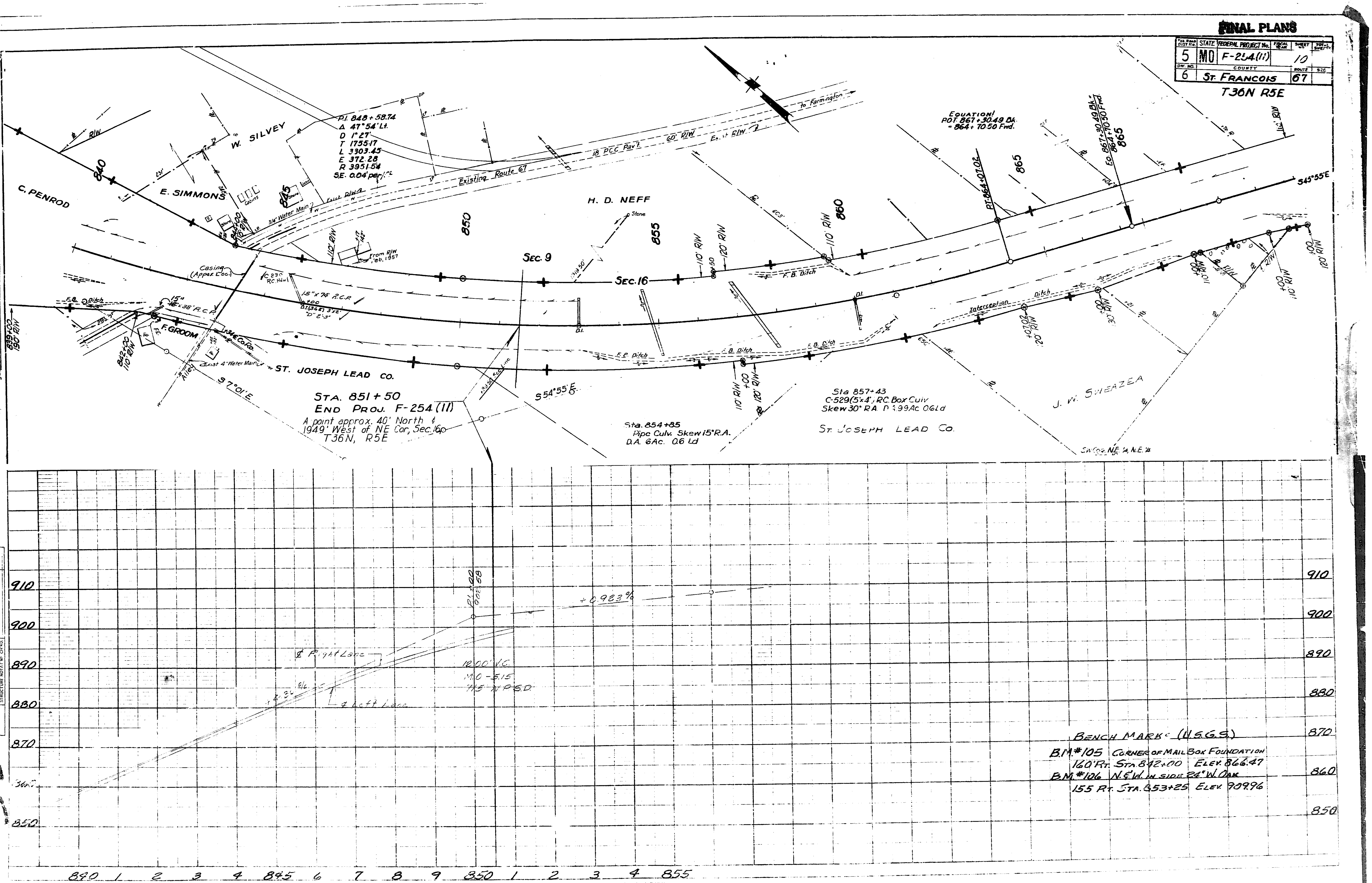
FINAL PLANS

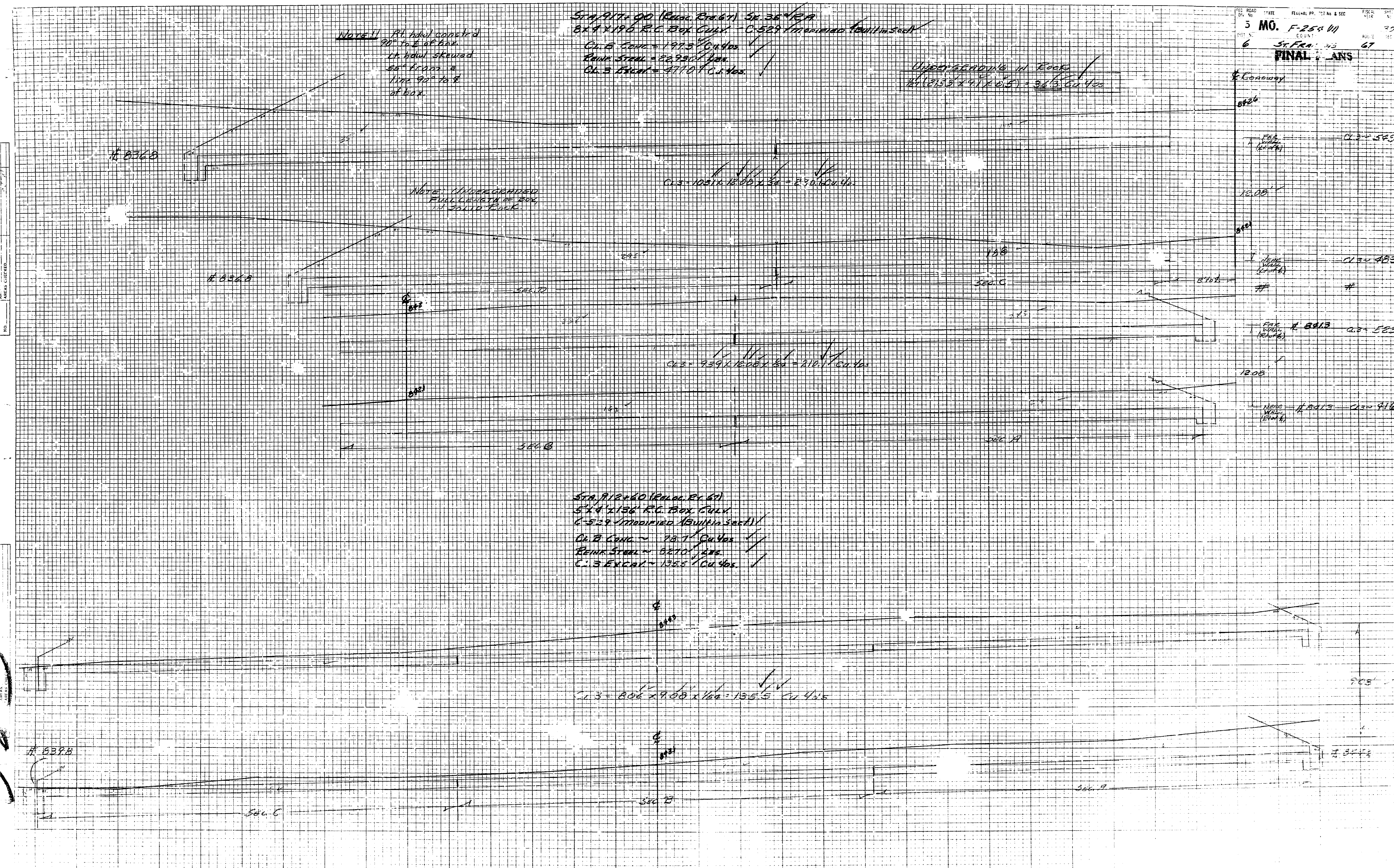


F-254
St. Francois 67
T36N R5E
CLAUDE DIX
H. O. SIMPSON
CARL PENROD
HIGHLEY HEIRS
PEARL WATTS TINNIN
CLARA HARPER
GILLAM
CEMETERY
SE Cor. SW¼ NE¼ Sec. 9
SE Cor. NW¼ NW¼
S7°01'E
Base Line on Ramp
810
815
820
825
830
835
840
GRADE FOR FUTURE PAVEMENT
TEMPORARY
P.I. 817+11.46
Δ 10°30'09"
D 3°
T 175.56
L 350.08
R 1910.08
P.C. 815+35.90
P.T. 818+85.98
CONNECTION
P.I. 820+61.54
Δ 10°30'09"
D 3°
T 175.56
L 350.08
R 1910.08
P.C. 818+85.98
P.T. 822+36.06 Bk=
Sta. 823+35
42"x213' R.C. Pipe Culv. Sk. 45° LA
DA 38 Ac. - 3.3 - G.
2 C 231 RC Hdwls
Sta. 834+06
C-529
8'x4' RC Box Culv. Sk. 33° LA
DA 180 Ac. - 0.6 Ld.
Len. - 288'
NOTE:
See Sheets 9 & 10 for Details on Interchange Ramps and Reloc. of Rte. 67
For R/W on Relocation See Sheet No. 9
10' Dr. Esm't.
60' Dr. Esm't.
110' R/W
400' V.C.
M.O. 1.57
K = 127
+1.218%
+4.35%
℄ Right Lane
℄ Left Lane
BENCH MARKS (U.S.G.S.)
B.M. #102 N.E.W. in side 36" Wild Cherry 150' Rt. Sta. 813+30 Elev. 821.32
B.M. #102A N.E.W. in side 15" Triple Walnut 150' Rt. Sta. 821+00 Elev. 816.86
B.M. #104A Nail in side 20" W. Oak 150' Rt. Sta. 834+75 Elev. 847.26
860
850
840
830
820
810
800
810 1 2 3 4 815 6 7 8 9 820 1 2 3 4 825 6 7 8 9 830 1 2 3 4 835 6 7 8 9 840

FINAL PLANS


F-254 (11) 9
ST. FRANCOIS 67
T. 36 N., R. 5 E.
Sta. 915+21.14 (Reloc. Exist. Rte. 67)
Bridge, i.e., 46'-56'-56'-46'
Cont. Slab (Sonovoid) 30° to ℄
Fill Exception Sta. 914+19.89 to 916+24.39
52' Roadway. Br. Drawing No. A-144
P.I. 908+09.1
Δ 42°48' Lt
D 9°
T 249.75
L 475.56
E 47.1
R 637.28
Sta. 1+00 NE Ramp
24"x110' ℞ Pipe Culv. (X Str.)
DA. 8 Ac. ~ 0.6 Ld.
Skew 10° LA.
Sta. 912+60 C-529
5'x4' RC Box Culv. 90° to ℄
DA. 100 Ac. ~ 0.6 Ld.
Len. ~ 136'
CLARA HARPER
Cemetery
EDGAR LONGENECKER
ELIJAH SIMMONS
WM. SILVEY
WM. SILVEY
P.I. 921+44.14
Δ 95°00' Rt
D 24°
T 262.44
L 395.83
E 114.54
R 240.49
P.I. 931+42.80
Δ 39°21' Lt
D 7°
T 292.85
L 562.14
E 50.74
R 819.02
Sta. 924+30 C-529
8'x4' RC Box Sk. 25° LA
DA 170 Ac. ~ 0.6 Ld
Len. ~ 101'
NOTE: USE THIS SHEET FOR GRADING CONTRACT ONLY
SIMMONS BROS.
ROY KITCHELL
HAROLD SKAGGS
Sta. 933+99.4 C-529
8'x4' RC Box Extension
Skew 32°47' RA
Len. ~ 19'
Sta. 917+00 C-529
8'x4' RC Box Sk. 35° RA
DA 175 Ac. ~ 0.6 Ld
Len. ~ 190'
F. GROOM
H.D. NEFF
Rte. 67 1°27' Curve
℄ Present Route 67
℄ PCC Pavt. 60' 20'
Armco Ditch
Paved Ditch
Water Main
R/W
+1.66%
7+00 P.I. 871.00
320' V.C.
M.O. -0.78
420' N.P.S.D.
-0.61%
400' V.C.
M.O. +2.24
K = 123
+3.86%
70.0' V.C.
M.O. -4.25
460' N.P.S.D.
-1.00%
880
870
860
850
840
Bench Marks (U.S.G.S.)
B.M. #104 B N.E.W. in Root 36" Elm
100' Lt. Sta. 918+75 (Reloc 67)
Elev. 854.20
905 6 7 8 9 910 1 2 3 4 915 6 7 8 9 920 1 2 3 4 925 6 7 8 9 930 1 2 3 4 928


FINAL PLANS
5 MO F-254(11) 10
6 ST. FRANCOIS 67
T36N R5E
P.I. 848+58.74
Δ 47°54' Lt.
D 1°27'
T 1755.17
L 3303.45
E 372.28
R 3951.54
S.E. 0.04' per 1'
W. SILVEY
E. SIMMONS
C. PENROD
H. D. NEFF
Existing Route 67
to Farmington
Equation!
P.O.T. 867+30.49 Bk.
= 864+70.50 Fwd.
Sec. 9
Sec. 16
F. GROOM
ST. JOSEPH LEAD CO.
STA. 851+50
END PROJ. F-254(11)
A point approx. 40' North &
1949' West of NE Cor. Sec. 16
T36N, R5E
S 54°55' E
S 7°01' E
S45°55'E
Sta. 854+85
Pipe Culv. Skew 15° R.A.
D.A. 6Ac. 0.6 Ld
Sta 857+43
C-529(5'x4') R.C. Box Culv
Skew 30° R.A. D.A. 99Ac. 0.6 Ld
ST. JOSEPH LEAD CO.
J. W. SWEAZEA
Interception Ditch
F.B. Ditch
+0.983%
12.00' V.C.
℄ Right Lane
℄ Left Lane
BENCH MARKS (U.S.G.S.)
B.M.#105 CORNER OF MAIL BOX FOUNDATION
160' Rt. STA. 842+00 ELEV. 866.47
B.M.#106 N.E.W. IN SIDE 24" W. OAK
155 Rt. STA. 853+25 ELEV. 909.96
910
900
890
880
870
860
850
840 1 2 3 4 845 6 7 8 9 850 1 2 3 4 855



FED. ROAD DIV. No. 5
STATE MO.
FEDERAL PROJECT No. & SEC F-254 (11)
SHEET No. 39
DIST. No. 6
COUNTY ST. FRA[...]
ROUTE 67
FINAL [...]ANS
STA. 917+90 (Reloc. Rte. 67) Sk. 35° RA
8×4×190 R.C. Box Culv. - C-529 Modified (Built in Sect.)
Cl. B Conc. = 197.3 Cu. Yds.
Reinf. Steel = 22,930 Lbs.
Cl. 3 Excav. = 4770 Cu. Yds.
NOTE!! Rt. hdwl constr'd 90° to ℄ of box. Lt. hdwl skewed 55° from a line 90° to ℄ of box.
UNDERGRADING IN ROCK
1/27 (215.3 × 9.1 × 0.5) = 36.3 Cu. Yds.
℄ Roadway
#8368
NOTE: UNDERGRADED FULL LENGTH OF BOX, IN SOLID ROCK
Cl. 3 = 1051 × 12.08 × 1/36 = 230.6 Cu. Yds.
Cl. 3 = 939 × 12.08 × 1/54 = 210.1 Cu. Yds.
Sec. D
Sec. C
Sec. B
Sec. A
12.08
#8413
Cl. 3 ~ 545
Cl. 3 ~ 483
Cl. 3 ~ 523
Cl. 3 ~ 416
STA. 912+60 (Reloc. Rt. 67)
5×4×136 R.C. Box Culv.
C-529 Modified (Built in Sect.)
Cl. B Conc. ~ 78.7 Cu. Yds.
Reinf. Steel ~ 6270 Lbs.
C. 3 Excav. ~ 135.5 Cu. Yds.
Cl. 3 = 806 × 9.08 × 1/54 = 135.5 Cu. Yds.
#8398
#8444

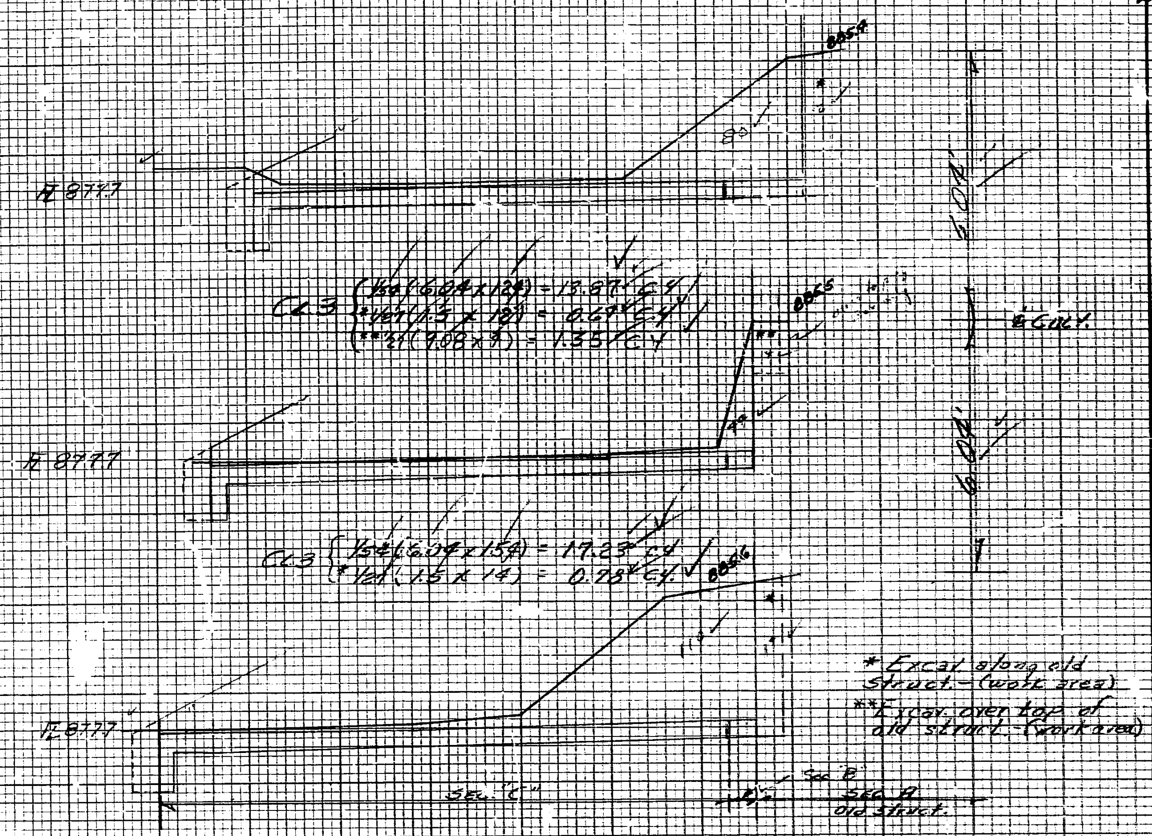
FINAL PLANS

5 MO. F-254 (1) 3
6 St. Francois 67
FINAL PLANS

STA. 933+99± ~ 32°47' R.A.
(Reloc. Rte 67)
8 x 4 x 19 R.C. Conc. Extension
C-529 - Modified - (Built in Sect.)

Cl. B Conc. - 30.6* Cu. Yds ✓
Reinf. Steel - 2230± Lbs ✓
Cl. 3 Excav. - 340± Cu. Yds ✓

*Additional Cl. B Conc.
Note!! Required to square box.
Wall (2.92 x 0.5417 x 4.0 x 1/27) = 0.2343
Top Slab 0.5(0.7917 x 2.92 x 5.54 x 1/27) = 0.2372
0.4715 C.Y.
Note!! Bott. slab cut off square @ Sec. A-B.
Note!! No additional reinf. steel required

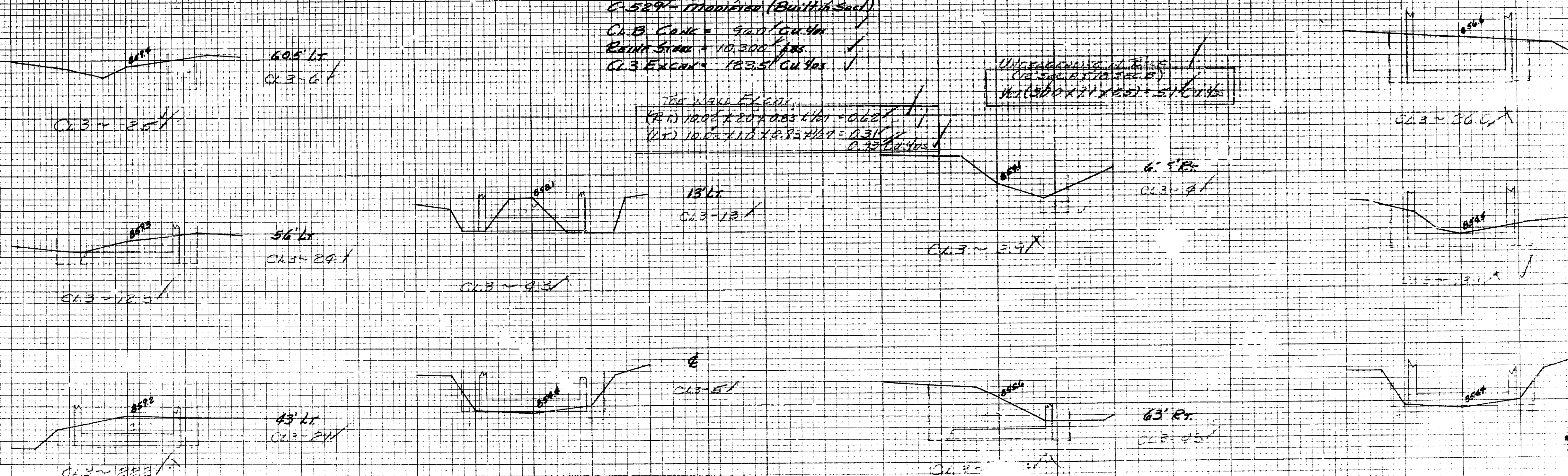


STA. 924+60 ~ Sk. 25° L.A. (Reloc. Rte 67)
8 x 4 x 101 R.C. Box Culv.
C-529 - Modified (Built in Sect.)

Cl. B Conc. = 96.0± Cu. Yds ✓
Reinf. Steel = 10,300± Lbs. ✓
Cl. 3 Excav. = 123.5± Cu. Yds ✓

Toe Wall Excav.
(Rt.) 10.0 x 8.0 x 0.83 x 1/27 = 0.62
(Lt.) 10.0 x 1.0 x 0.83 x 1/27 = 0.31
0.93 Cu. Yds

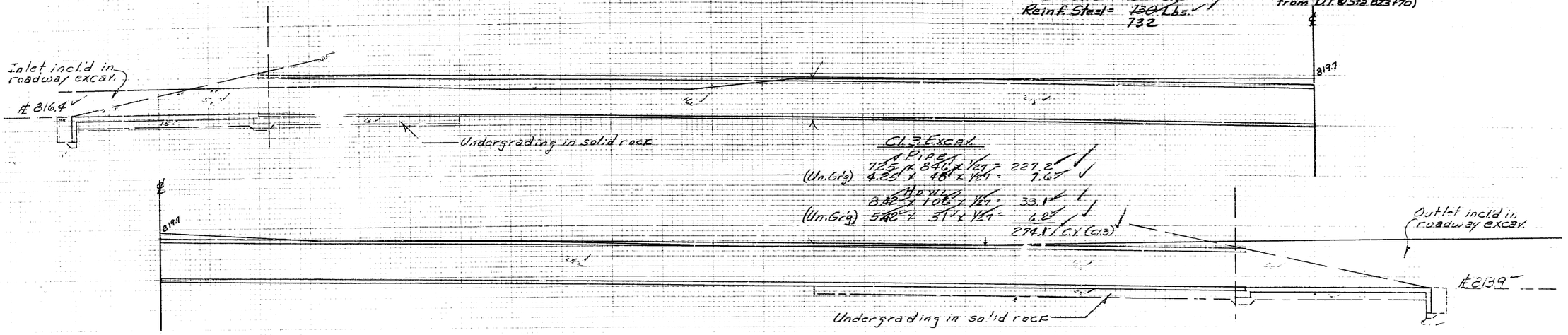
Unclassified Excav.
(To Sec. B to Sec. B)
1/27(30.0 x 7.1 x 2.5) = 5.1 Cu. Yds



FINAL PLANS

Sta. 823+35 ~ 45° L.A.
42" x 213' R.C.P. Culv. *
C-231 RC Hdwl (Lt & Rt)
Cl. 3 Excav. = 274.0 C.Y.
Cl. B Conc. = 4.8 C.Y.
Reinf. Steel = 1301 Lbs.
732

* 18" x 42" Tee Joint (connects with pipe from D.I. @ Sta. 823+70)

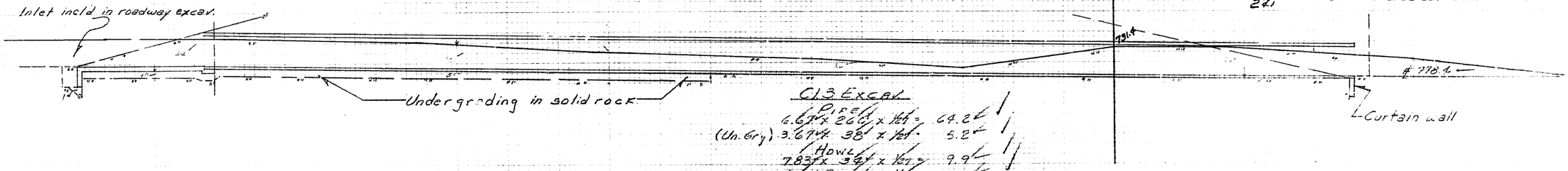


Cl. 3 Excav.

	Pipes		
	725 x 846 x 1/27	=	227.2
(Un. Grg)	4.25 x 48 x 1/27	=	7.6
	Hdwl		
	8.42 x 106 x 1/27	=	33.1
(Un. Grg)	5.42 x 31 x 1/27	=	6.2
			274.1 C.Y. (Cl. 3)

Sta. 756+80 ~ 30° L.A.
36" x 114' R.C.P. Culv. *
C-230 RC Hdwl. (Lt.)
Cl. 3 Excav. = 81.5 C.Y.
Cl. B Conc. = 3.9 C.Y.
Reinf. Steel = 241 Lbs.

* 15" x 36" Tee Joint (for future D.I.)
15" x 4' R.C.P. Culv. (Plugged)
** Incld's curtain wall (Ft.)

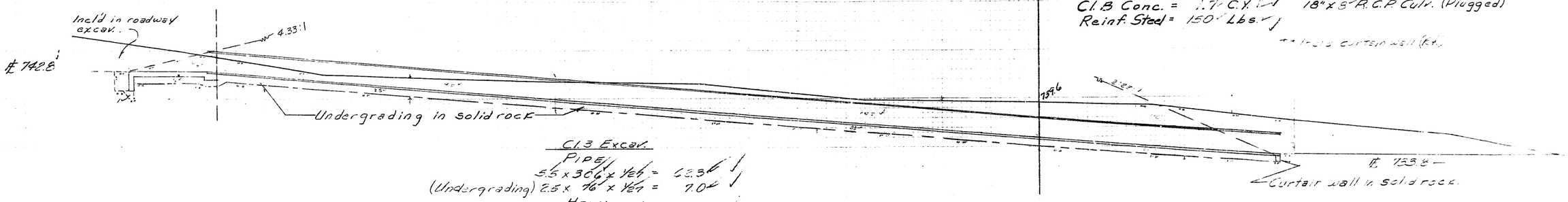


Cl. 3 Excav.

	Pipes		
	6.67 x 266 x 1/27	=	64.2
(Un. Grg)	3.67 x 38 x 1/27	=	5.2
	Hdwl		
	7.83 x 34 x 1/27	=	9.9
	1.83 x 11 x 1/27	=	2.0
			81.3 C.Y. (Cl. 3)

Sta. 731+10 ~ 25° R.A.
24" x 111' R.C.P. Culv. *
C-230 R.C. Hdwl. (Lt.)
Cl. 3 Excav. = 75.0 C.Y.
Cl. B Conc. = 1.7 C.Y.
Reinf. Steel = 150 Lbs.

* 24" x 18" Tee Joint (for future D.I.)
18" x 8' R.C.P. Culv. (Plugged)
** Incld's curtain wall (Rt.)



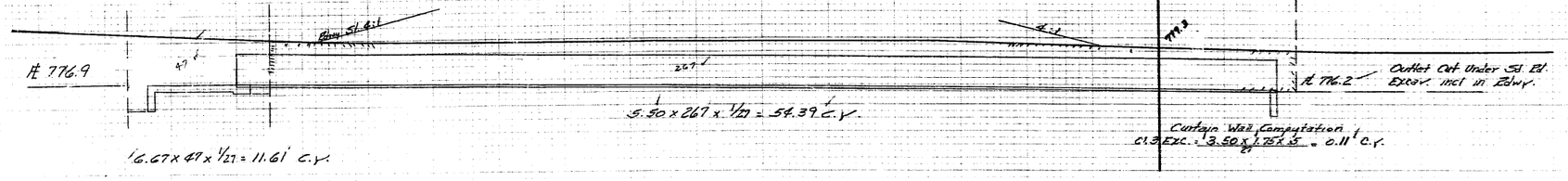
Cl. 3 Excav.

	Pipes		
	5.5 x 306 x 1/27	=	62.3
(Undergrading)	2.5 x 16 x 1/27	=	7.0
	Hdwl		
	6.67 x 26 x 1/27	=	4.9
(" ")	3.67 x 7 x 1/27	=	1.0
			75.2 C.Y. (Cl. 3)

FINAL PLANS

Sta. 753+90
24"x 79' RCP
C-230(RC) Hdwl Lt.
Conc. Curt Wall Rt.

Cl. 3 Exc. = 66.0 C.Y. (meas.)
C. [illegible] = 1.11 C.Y. (Plan)
Reinf. Steel = 124 Lb. (Plan)

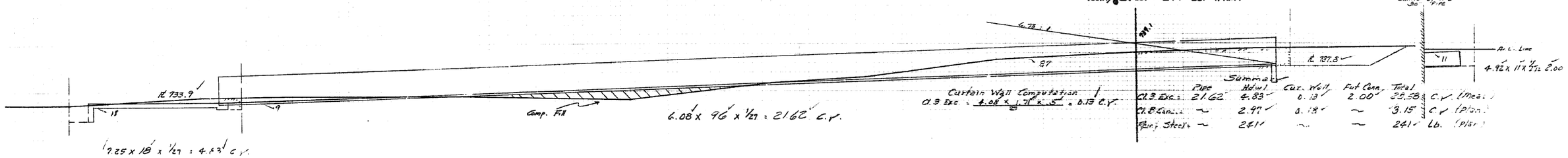


Summary

	Pipe	Hdwl. Cur. Wall	Total	
Cl. 3 Exc. =	54.39	11.61	66.11	C.Y. (Meas.)
Cl. B Conc. =	~	1.26	0.15 1.41	" (Plan)
Reinf. Steel =	~	124	~ 124	Lb. (Plan)

Sta. 692+45 Sk. 45° LA.
30"x 113' RCP w/ 18"x 30" T-Jt fut. DI
18" x 4' RCP (7' Rt. ℄)
C-230(RC) Lt. ~ Conc. Curt Wall Rt.

Cl. 3 Exc. = 28.5 C.Y. (Meas.)
Cl. B Conc. = 3.15 C.Y. (Plan)
Reinf. Steel = 241 Lb. (Plan)

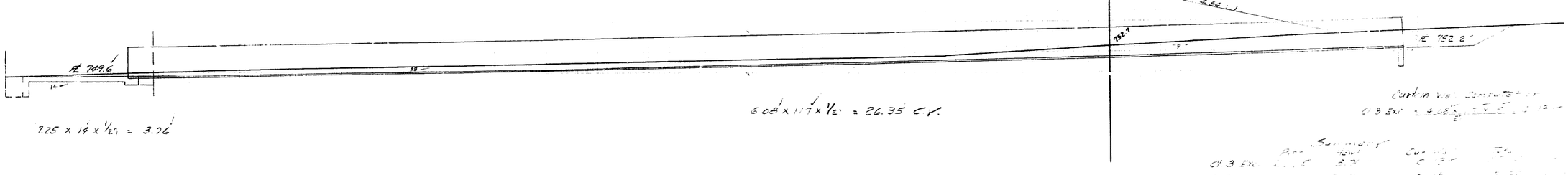


Summary

	Pipe	Hdwl.	Cur. Wall	Fut Conn.	Total	
Cl. 3 Exc. =	21.62	4.83	0.13	2.00	28.58	C.Y. (Meas.)
Cl. B Conc. =	~	2.97	0.18	~	3.15	C.Y. (Plan)
Reinf. Steel =	~	241	~	~	241	Lb. (Plan)

Sta. 686+52 Sk 25° LA
30" x 125' RCP C-230(RC) Lt.
Conc. Curtain Wall Right

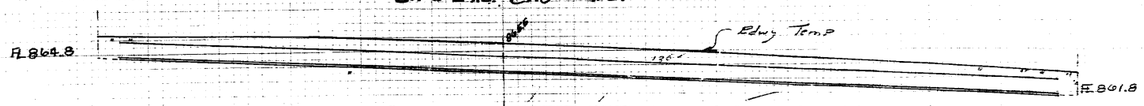
Cl. 3 Exc. = 30.0 C.Y. (Meas.)
Cl. B Conc. = 2.35 C.Y. (Plan)
Reinf. Steel = 184 Lb. (Plan)



Summary

	Pipe	Hdwl.	Cur. Wall	Total	
Cl. 3 Exc. =	[illegible]	[illegible]	[illegible]	[illegible]	C.Y. (Meas.)
Cl. B Conc. =	~	[illegible]	[illegible]	[illegible]	C.Y. (Plan)
Reinf. Steel =	~	[illegible]	~	[illegible]	Lb. (Plan)

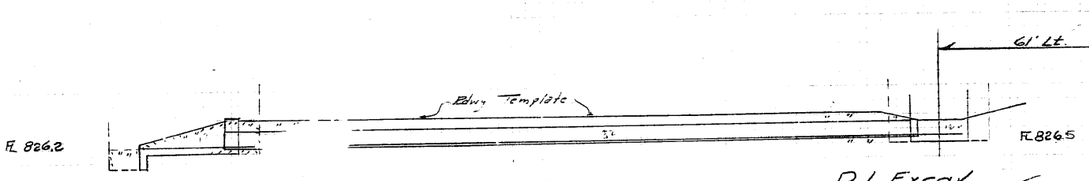
Sta. 909+50 - Relocated 67
12"X 66 RC Pipe Culv.
Loop Conn - Located in Lt. ditch Old 67
Cl. 3 Exc. 21.0 Cu.Yd.



Cl 3 Exc. 130 X 4.33 X 1/27 = 20.85 C.Y.

Sta. 828+80 - Sk. 45° RA
12"X 48' RC Pipe Culv.
C230 RC Hdwl. Lt.
36E-3X2 DI - D=2'0" - 1 Spillway
Type A Cover - 1-12" Opg.

	Pipe & Hdwl.	DI
Cl. 3 Exc.	16.5 Cu.Yd.	2.5 Cu.Yd.
Cl. B Conc.	0.87 Cu.Yd.	0.83 Cu.Yd.
Reinf. Steel	70 Lbs.	67 Lbs.



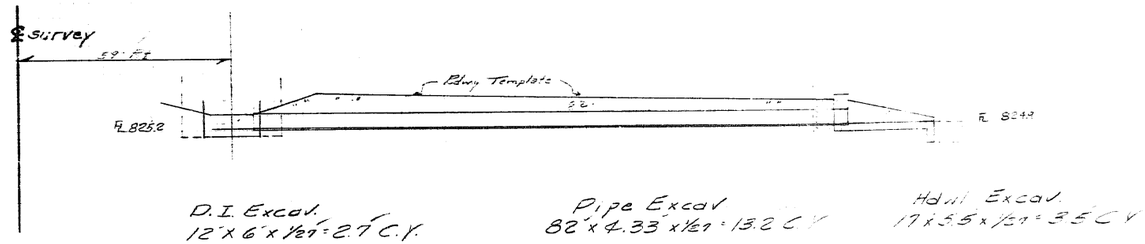
Hdwl. Excav.
17' x 5.5' x 1/27' = 3.5 C.Y.

Pipe Excav.
82' x 4.33' x 1/27 = 13.2 C.Y.

D.I. Excav.
12' x 6' x 1/27' = 2.7 C.Y.

Sta. 828+00 - Sk. 45° LA.
12"X 42' RC Pipe Culv.
C230 RC Hdwl. Rt.
36E-3X2 DI - D=2'0" - 1 Spillway
Type A Cover - 1-12" Opg.

	Pipe & Hdwl.	DI
Cl. 3 Exc.	16.5 C.Y.	2.5 Cu.Yd.
Cl. B Conc.	0.87 C.Y.	0.83 Cu.Yd.
Reinf. Steel	70 Lbs.	67 Lbs.



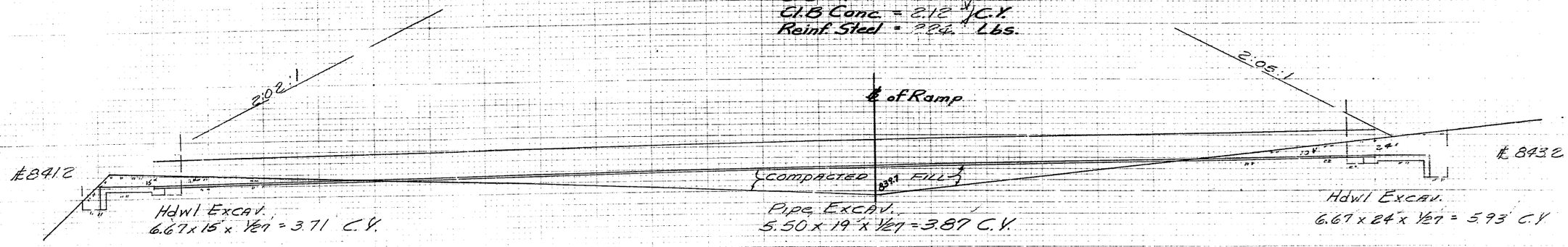
D.I. Excav.
12' x 6' x 1/27' = 2.7 C.Y.

Pipe Excav
82' x 4.33' x 1/27 = 13.2 C.Y.

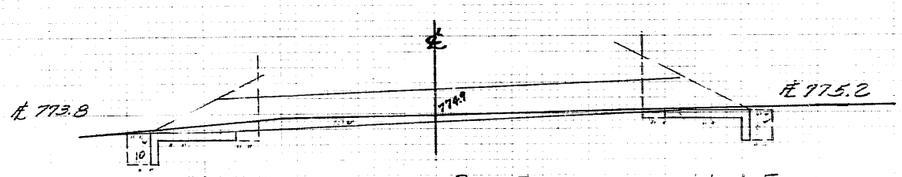
Hdwl. Excav.
17' x 5.5' x 1/27' = 3.5 C.Y.

5 MO. F-254 (11)
6 ST. FRANCOIS 67

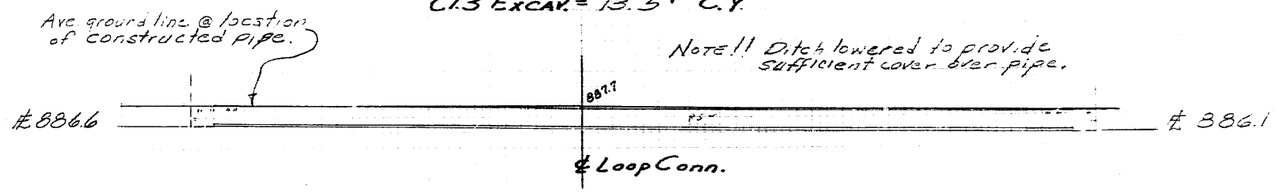
STA 1+00 NE RAMP ~ SK 10° L.A.
24" x 110' R.C.P. Culv. (X-STR)
C-230 (RB) Hdwls Rt & Lt.
Cl.3 Excav. = 13.5 C.Y.
Cl.B Conc. = 2.12 C.Y.
Reinf. Steel = 224 Lbs.



STA. 756+00 (Side Road Rt.)
24" x 30' C.M.P. ~ C-230 (RB) Hdwls Rt & Lt.
Cl.3 Excav. = 6.5 C.Y.
Cl.B Conc. = 1.98 C.Y.
Reinf. Steel = 196 Lbs.



STA. 930+00 (RELOC. 67)
12" x 56' R.C.P. Culv.
Located in rt. ditch line under Loop Connection.
Cl.3 Excav. = 13.5 C.Y.



Cl.3 Excav. = 4.33 x [illegible] x 1/27 = .963 C.Y.

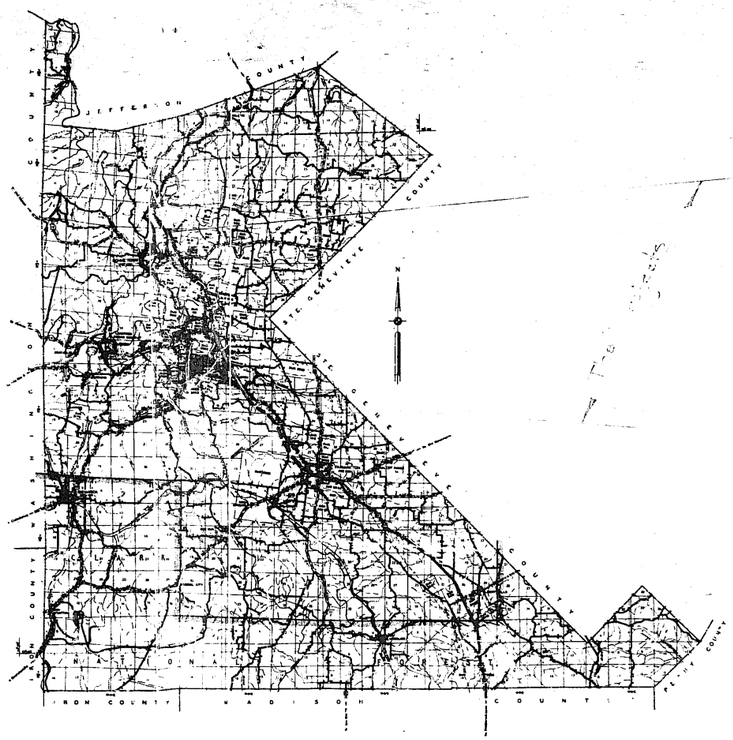
LIST OF STANDARD PLANS

PROJ.	SHEET
F-254(11)	33
CO. ST FRANCOIS	RTE. 67

1 BA-4		(6-9-54)
1 TR-2		(8-20-52)
1 TRD-1		(1-55)
27A-17		(2-56)
28B-2		(1-54)
36 E-11		(2-26-57)
36 EE-3		(2-26-57)
C-230R2		(3-56)
C-231R		(3-16-56)
C-529	1 OF 2	
C-529	2 OF 2	
C-27		
C110R4		
C112R1		

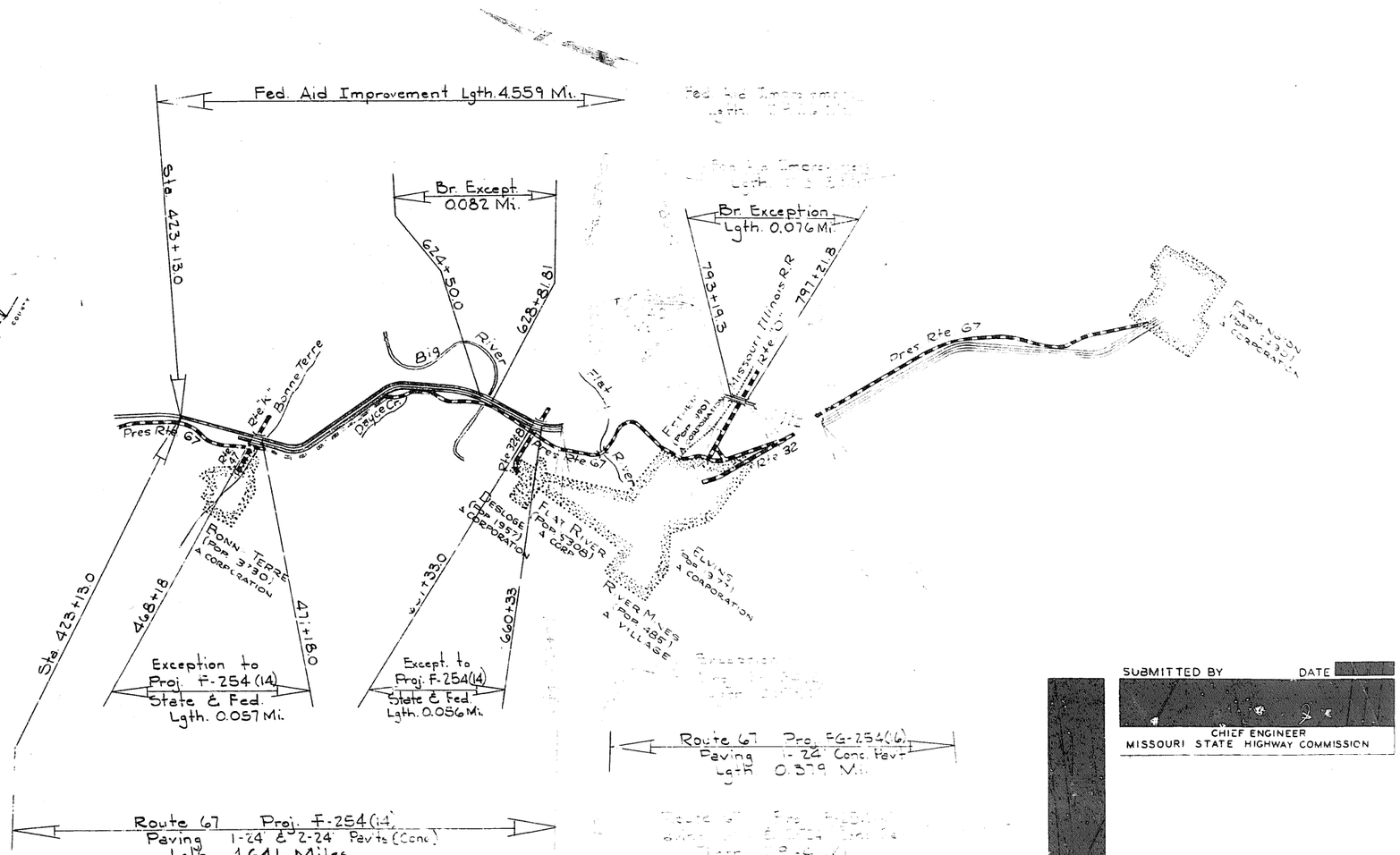
COUNTY
ST. FRANCOIS
STATE ROUTE NO.
67
PROJECT NO.
F-254(14)
FG-254(16)
B-25-15

LOCATION MAP



MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT
ST. FRANCOIS COUNTY



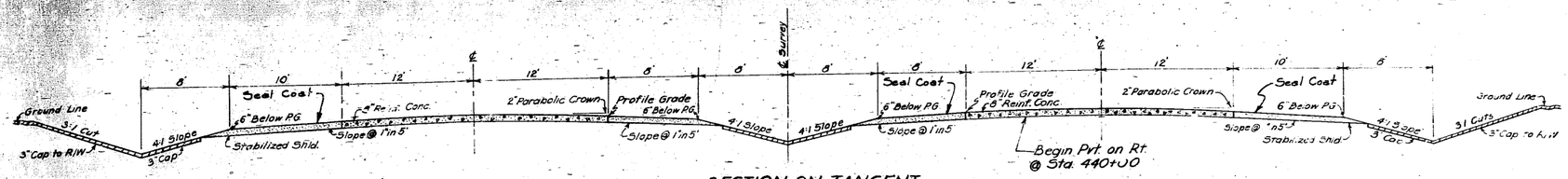
CONVENTIONAL SIGNS

STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	
RIGHT OF WAY LINE	GROUND ELEVATION
TRAVELED WAY	
RAILROADS	GRADE ELEVATION
RETAINING WALL	SURFACE LINE
BASE OR SURVEY LINE	GRADE LINE

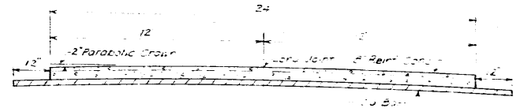
SUBMITTED BY [redacted] DATE [redacted]

CHIEF ENGINEER
MISSOURI STATE HIGHWAY COMMISSION

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	F254(14) F254(15) FG254(16)		
DIST. NO.	COUNTY		ROUTE	SEC.
6	ST. FRANCOIS		67	

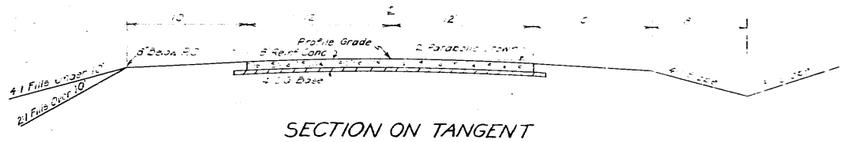


SECTION ON TANGENT
STA. 423+13 to 465+00

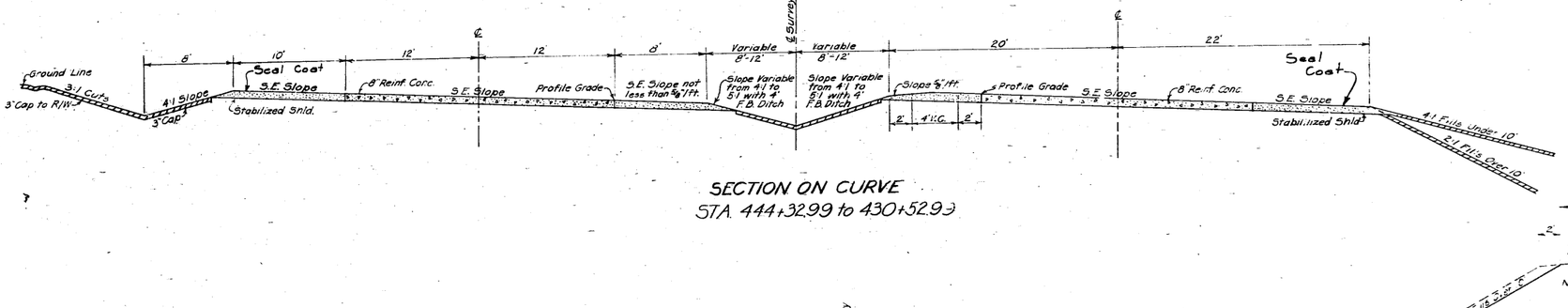


Note: Crown to be eliminated on all super-elevated curves.

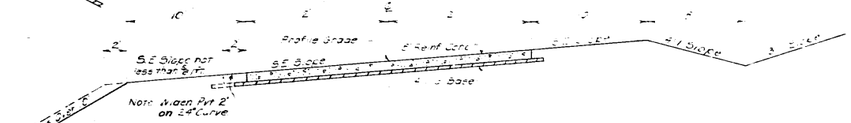
DETAILS OF TYPICAL PAVEMENT SECTION



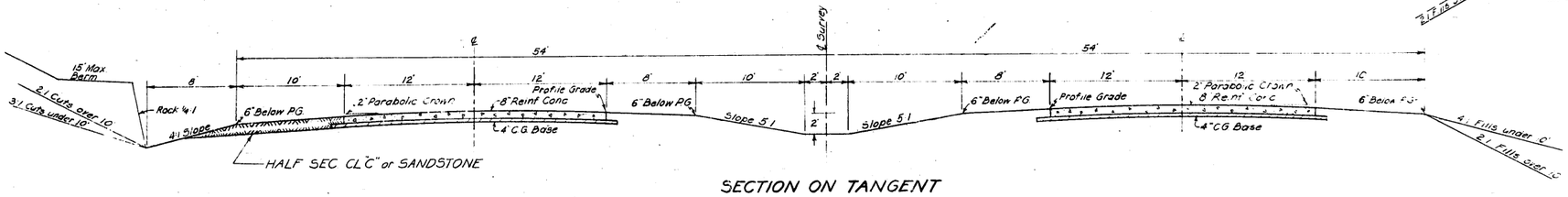
SECTION ON TANGENT
RTE. 67 RELOCATION



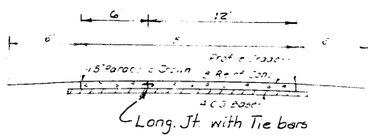
SECTION ON CURVE
STA. 444+32.99 to 430+52.93



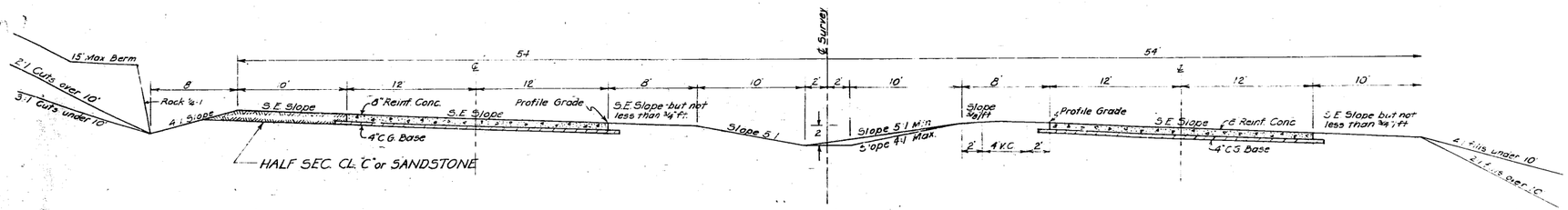
SECTION ON CURVE
RTE 67 RELOCATION



SECTION ON TANGENT



SECTION ON RAMPS



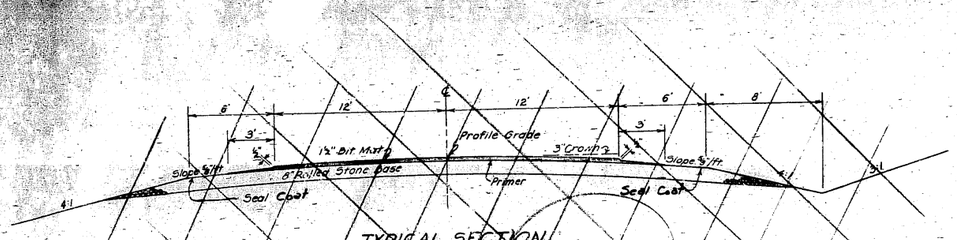
SECTION ON CURVE

TYPICAL SECTIONS

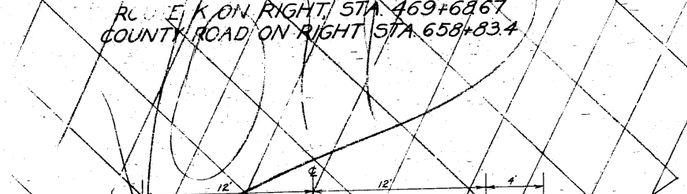
1-24' & 2-24' CONC. PAVT'S

ROUTE 67 ST. FRANCOIS CO.

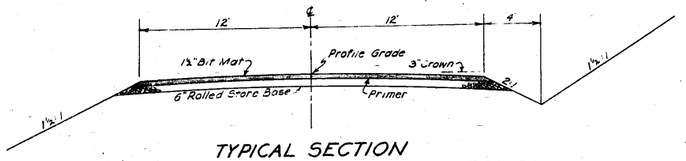
FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	F 254(14) F 254(15) FG 254(16)		
DIST. No.	COUNTY		ROUTE	SEC.
6	ST. FRANCOIS		67	



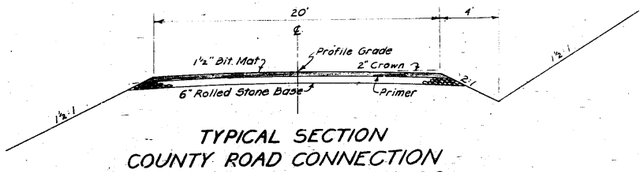
TYPICAL SECTION
RTE. K ON RIGHT STA. 469+68.67
COUNTY ROAD ON RIGHT STA. 658+83.4



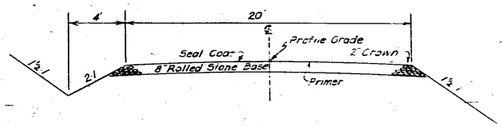
TYPICAL SECTION
ROUTE K ON LEFT, STA. 4
COUNTY ROAD ON LEFT, ST.
BY-PASS STA. 905+00 TO



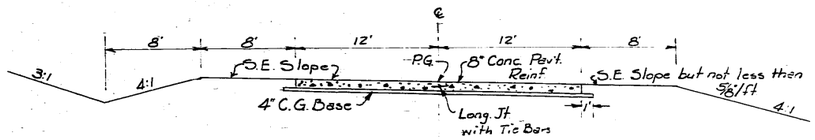
TYPICAL SECTION
SIDE ROAD STA. 737+70, 756+00 & 787+00



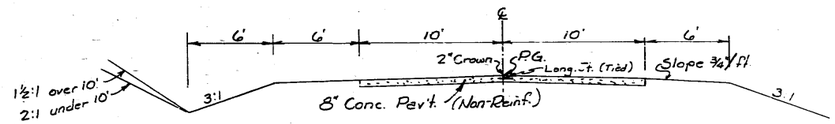
TYPICAL SECTION
COUNTY ROAD CONNECTION
STA. 842+00 TO STA. 844+00



TYPICAL SECTION
TEMPORARY BY-PASS RTE. 32



TYPICAL SECTION
RTE 32 AND RTE. 67 CONN.



TYPICAL SECTION
RTE 67 REPLACEMENT
(See plan sheet #8)

TYPICAL SECTIONS

ROLLED STONE BASE & BITUMINUS MAT

ROUTE 67 ST. FRANCOIS CO.

LOCATION BONNE TERRE TO LEADINGTON

TYPE 2 24' Conc. Pvmts. on Part & 1-24' Conc. Pvmt. on Part

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	F254(15)		2A	41
DIST. No.	COUNTY			ROUTE	SEC. No.
6	ST. FRANCOIS			67	

EXCAVATION

Sta.	Cl. A	Cl. A Borr.	Cl. C	C.E.	C.C	Remarks
675+00						
67_+_0		507				
694+00						Exception
702+00		986				
709+92.5						Exception
733+00		2631				
745+00						Exception
751+00		760				
755+00		593				
760+00		641				
772+00		1409				
778+00						Exception
786+00		801				
806+00						Except. (Proj. FG254(16))
834+00		7377	9			Incl. NE Ramp-Interchange 837+00
843+70						Exception
843+60	927		107	578		
851+50		849	12			Lt. Lane Only
905+00						
911+40	1273		60	319		Temp. By-Pass
905+60						
910+50	945		359	22		Reloc. Exist. Rte. 67
917+50			4			In S.E.S. Section
Subtotal	3645	16574	551	919		
Add'l.	139					12.30/52.80 X600 (Rounding)
Total	3784	16,574	551	919		

PAVEMENT REMOVAL

Sta.	Sta.	Width	Sq.Ft.	Remarks
905+65.6	910+50.7	18	8737.2	Old Rte 67 See Sh. #32
916+34.7	919+90.7	18	6411.6	Old Rte 67 See Sh. #32
Total			15148.8 Sq.Ft.	
Pay			1683.0 Sq.Yd.	

SUBGRADING & SHOULDERING

Sta.	Sta.	Loc.	No. Sta.
677+00	686+00	Rt. Lane	9.0
677+00	694+00	Lt. Lane	17.0
702+00	707+80	Lt. Lane	5.8
733+00	745+00	Lt. Lane	12.0
772+00	778+00	Lt. Lane	6.0
834+00	842+70	Lt. Lane	8.7
834+00	842+70	Rt. Lane	8.7
843+60	851+50	Rt. Lane	7.9
5+50	16+50	N.W. Ramp	11.0
3+00	8+30	S.E. Ramp	5.3
0+35	7+36.09	S.W. Ramp	7.0
844+00	851+50	Decel. Lane	7.5
908+00	913+97.9	Reloc. 67	6.0
916+44.4	934+12.09	Reloc. 67	17.7
Total			129.6

8" REINF. CONC. PVMT.

Sta.	Sta.	Total Sq.Ft.	Remarks
675+00	851+50	514 821.46	See Sh. #30 for Calc.
Total		514821.46 Sq.Ft.	
Pay		57202.4 Sq.Yd.	

8" NON-REINF. CONC. PVMT.

Sta.	Sta.	Total Sq.Ft.	Remarks
905+00±	934+00±	153,243.58	See Sh. #30 for Comp.
Total		153243.58 Sq.Ft.	
Pay		17027.1 Sq.Yd.	

CULVERT PIPE - LOOP CONN.

Sta.	Loc.	12" R.C.P.	Cl. 3	Hd. wall	Cl. B Conc.	Reinf.	Remarks
909+50	100' Rt.	*	5.5	2 RC	1.0	84	* Pipe Laid Under Previous Contract
Total			5.5			84	
Pay			5.5		1.0	80	

ENTRANCES & SIDE ROADS

Sta.	Type	Loc.	12" C.M.P.	Cl. 3 Exc.	State Furn.	Remarks
906+00	By Pass Temp.	℄	32	5		
910+50	By Pass Temp.	℄	36	5		
920+30	P.E.	Lt.			36'	15" C.M.P. = Contingent Item
Total			68	10	36	

SURFACE DRAINS & DRAIN BASINS

Sta.	Sta.	Loc.	Std.	No. Basin	L.Ft. Drain	Remarks
916+24±	916+39±	Lt	25K	1	40	S.D. Field Meas.
916+24±	916+39±	Rt	25K	1	34	S.D. Field Meas.
Total				2	74 Lin.Ft.	

APPR. SLABS FOR BRIDGES

Sta.	Sta.	Loc.	Sq.Yd.	Remarks
707+80		Lt. Lane	66.87	Sk. 10° L.A.
709+92.5		Rt. Lane	66.87	Sk. 10° L.A.
913+97.9	914+17.9	℄	113.30	Reloc. 67
916+24.4	916+44.4	℄	113.30	Reloc. 67
Total			360.34	
Pay			360.3 Sq.Yd.	

MISC. ITEMS ON P. & P. SHEETS

Sheet No.	Cl. A U. Drain	Dr. Markers
3	193	4
4	298	5
5	96	2
6	202	3
7	0	0
8	200	4
9	275	4
10	0	0
11	0	0
12	198	4
Total	1462	26

GUARD RAIL

Sta.	Sta.	Side	Type	Lin.Ft.	Remarks
706+62	707+74	Rt.	A	112	Bridge End
707+54	707+79	Lt.	A	25	Bridge End
709+93.5	710+18.5	Rt.	A	25	Bridge End
709+98	711+11	Lt.	A	112	Bridge End
11+00 Ramp	911+00	Rt.	A	762	N.W. Ramp & 67 Reloc. (Incl. Radius)
11+50 Ramp	914+14	Lt.	A	550	N.W. Ramp & 67 Reloc. (Incl. Radius)
3+25 Ramp	916+28	Lt.	A	350	N.E. Ramp & 67 Reloc. (Incl. Radius)
2+65 Ramp	919+00	Rt.	A	362	N.E. Ramp & 67 Reloc. (Incl. Radius)
912+70	2+00 Ramp	Rt.	A	225	67 Reloc. & S.W. Ramp (Incl. Radius)
914+14	2+10 Ramp	Lt.	A	212	67 Reloc. & S.W. Ramp (Incl. Radius)
7+50 Ramp	916+28	Lt.	A	225	S.E. Ramp & 67 Reloc. (Incl. Radius)
7+30 Ramp	917+75	Rt.	A	262	S.E. Ramp & 67 Reloc. (Incl. Radius)
916+80		℄	A	38	Old Rte. 67
919+80		℄	A	25	Old Rte. 67
Total				3,285 Lin.Ft.	

BARRICADES

Sta. / Loc.	Perm.	Movable
686+00 End Rt. Lane		2
828+00 Rt. & Lt. Lane	2	
0+60 S.W. Ramp		2
8+00 S.E. Ramp		2
Total	2	6

LENGTH OF PROJECT

End of Project	Station	851+50	
Beginning of Project	Station	675+00±	
Apparent Length		17650±	Feet
Equations and Exceptions:			
Proj. FG 254(16) Sta. 786+00 - Sta. 806+00			
Total Corrections		-2000	Feet
Net Length of Project		15,650	Feet
State Length =		2.964	Miles
Federal Length =		2.924	Miles

FEDERAL LENGTH

End Federal Aid Improvement	Sta.	851+50	
Begin Federal Aid Improvement	Sta.	675+00	
Apparent Length		17650±	Feet
Exceptions			
Proj. FG 254(16)		-2000	
Bridge Excpt. Sta. 707+80 - 709+92.5		-212.5	
Total Corrections		-2212.5	Feet
Net Federal Length		2.924	Miles

PROCESSING

1½" Bit. Mat

Sta.	Sta.	Loc.	Length
737+70		S.R. Rt. & Lt.	.10
756+00		S.R. Rt. & Lt.	.08
842+00	844+00	Co. Rd. Rt.	.04
905+00	911+40	Temp. By Pass	.12
Total			0.34 Mi.

2" RIGID STEEL CONDUIT

Sta.	Loc.	Lin.Ft.
821+40	Rt. Lane	47
821+40	Lt. Lane	54
836+20	Rt. Lane	42
836+20	Lt. Lane	42
837+80	Rt. Lane	42
837+80	Lt. Lane	42
851+20	Rt. Lane	54
851+20	Lt. Lane	42
912+65	Reloc. 67	56
917+80	Reloc. 67	56
6+60	N.W. Ramp	30
15+90	N.W. Ramp	30
1+05	N.E. Ramp	30
8+60	N.E. Ramp	30
0+80	S.W. Ramp	30
5+45	S.W. Ramp	30
3+00	S.E. Ramp	30
7+75	S.E. Ramp	30
Total		717 Lin.Ft.

DEFICIENT PAVEMENT THICKNESS

Deduct $433.08

GENERAL SUMMARY — FINAL PLANS

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS FED. AID ONLY
1D	Class A Excavation	Cu. Yd.	3,784	
1D	Class A Excavation (Borrow)	Cu. Yd.	16,574	
1I	Class 3 Excavation (for Structures)	Cu. Yd.	15.5	
1K	Compacting Embankments	Cu. Yd.	919	
1L	Compacting in Cuts	Cu. Yd.	0	
1Q	Removing Pavement	Sq. Yd.	1683.0	
1B-D	Subgrading & Shouldering	Sta.	129.6	
13V	Salvaged Surface	Cu. Yd.	414	
15A	Concrete Pavement (8" Reinf.)	Sq. Yd.	57,202.4	
15A	Concrete Pavement (8" Non-Reinf.)	Sq. Yd.	17,027.1	
15B	Approach Slabs for Bridge	Sq. Yd.	360.3	
16B	Class B Concrete (other than Box Culvs.)	Cu. Yd.	1.0	
18B	12" Corrugated Metal Culv. Pipe	Lin. Ft.	68	
18C	12" Reinf. Conc. Culv. Pipe	Lin. Ft.	0	
19A	Reinforcing Steel	Lb.	80	
24A	Class A, Type 1 Underdrains	Lin. Ft.	1462	
25H	Surface Drains	Each	2	
25I	Surface Drains	Lin. Ft.	74	
27A	Guard Rail (Type A)	Lin. Ft.	3285	
28A	Barricades	Each	2	
28C	Standard Signs, Flags & Flagging	L. Sum	1	
28E	Movable Barricades	Each	6	
29D	Drain Markers	Each	26	
33A	Removal of (2) Existing Structs.	L. Sum	1	

ROLLED STONE BASE (Side Roads & By Pass)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1-BA	Water	100/Gal.	105
2A	Aggregate	Ton	1954
2B	Spread, Shape & Compact (6")	Sq. Yd.	3682
2B	Spread, Shape & Compact (8")	Sq. Yd.	1750

4" COMPACTED GRANULAR BASE (for Concrete Pavement)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1BA	Water	100/Gal.	150
3C-A	Granular Base Material	Ton	20,071
3C-B	Spread, Shape & Compact	Mile	4.93

BITUMINOUS MAT (Side Roads & By-Pass)

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
9A	Hauling & Windrowing Aggr. (51-11E-F)	Ton	351
9B	Processing	Mile	0.34
9C	Primer (MC-0)	Gal.	1890
9D	Binder (MC-4)	Gal.	4260

CONTINGENT ITEMS

DESCRIPTION	UNIT	TOTAL UNITS
2" Rigid Steel Conduit	Lin. Ft.	717
Furnish & Install Long. Joint Mat'l.	L. Sum	1
Concrete Slope Protection	F.A.	$1917.99
Class C Excavation	Cu. Yd.	551
Lay State Furnished Pipe	Lin. Ft.	36
Deduction for Thin Pavement	L. Sum	$433.08

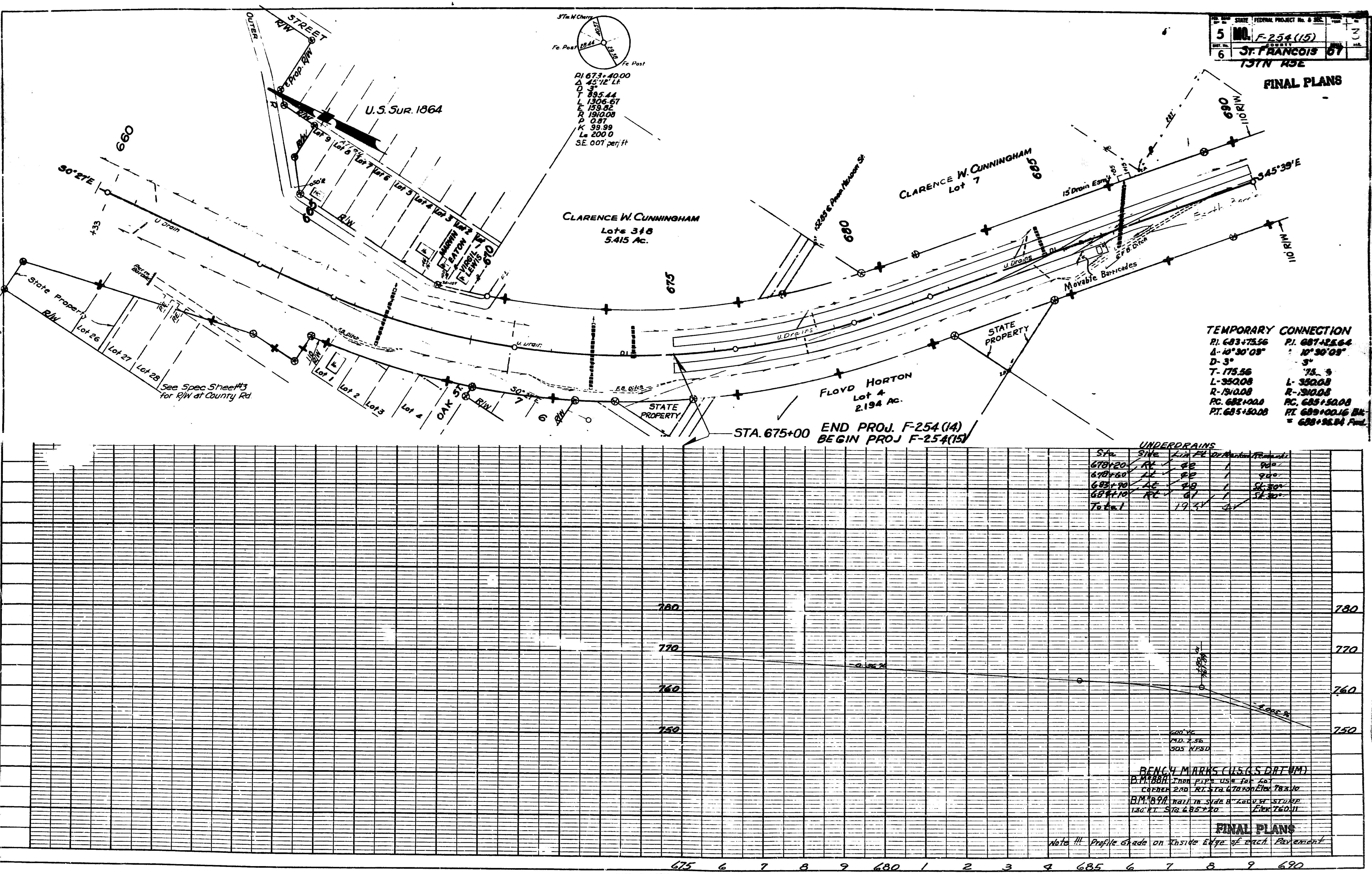
FINAL PLANS

Prepared By R.J. Mullins Date Oct. 27 1960 Checked in Dist. Office By R. Tauschel Date 10 November 1960 Checked in Central Office By ____ Date ____ 19__ Revised By ____ Date ____

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.		
5	MO.	F-254 (15)		3
DIST. No.	COUNTY			
6	ST. FRANCOIS	67		

T37N R5E

FINAL PLANS



OUTER
STREET
R/W
Prop. R/W
U.S. SUR. 1864
P.I. 673+40.00
Δ 45°12' Lt.
D 3°
T 895.44
L 1306.67
E 159.82
R 1910.08
P 0.87
K 99.99
Ls 200.0
S.E. 0.07' per ft
Fe. Post
Fe. Post
660
30°27'E
+33
U Drain
Lot 9
Lot 8
Lot 7
Lot 6
Lot 5
Lot 4
Lot 3
Lot 2
MARVIN EATON
VIRGIL LEWIS
670
CLARENCE W. CUNNINGHAM
Lots 3 & 8
5.415 Ac.
675
680
685
690
110' R/W
CLARENCE W. CUNNINGHAM
Lot 7
15' Drain Esmt.
S45°39'E
U Drains
F.B. Ditch
Movable Barricades
State Property
R/W
Lot 26
Lot 27
Lot 28
See Spec Sheet #3 for R/W at County Rd
Lot 1
Lot 2
Lot 3
Lot 4
OAK ST.
R/W
30°27'E
7
6
F.B. Ditch
U Drain
U Drains
STATE PROPERTY
STATE PROPERTY
FLOYD HORTON
Lot 4
2.194 Ac.
STA. 675+00
END PROJ. F-254 (14)
BEGIN PROJ F-254 (15)
TEMPORARY CONNECTION
P.I. 683+75.56
Δ- 10°30'09"
D- 3°
T- 175.56
L- 350.08
R- 1910.08
P.C. 682+00.0
P.T. 685+50.08
P.I. 687+25.64
10°30'09"
3°
L- 350.08
R- 1910.08
P.C. 685+50.08
P.T. 689+00.16 Bk.
= 688+95.84 Fwd.
780
770
760
750
600' V.C.
M.O. 2.56
505 NPSD
BENCH MARKS (U.S.G.S DATUM)
B.M. # 88A Iron pipe use for Lot corner 230' Rt. Sta 670+00 Elev. 783.10
B.M. # 89A nail in side 8" Locust stump 130' Rt. Sta 685+20 Elev. 760.11
FINAL PLANS
Note !!! Profile Grade on Inside Edge of each Pavement
675 6 7 8 9 680 1 2 3 4 685 6 7 8 9 690

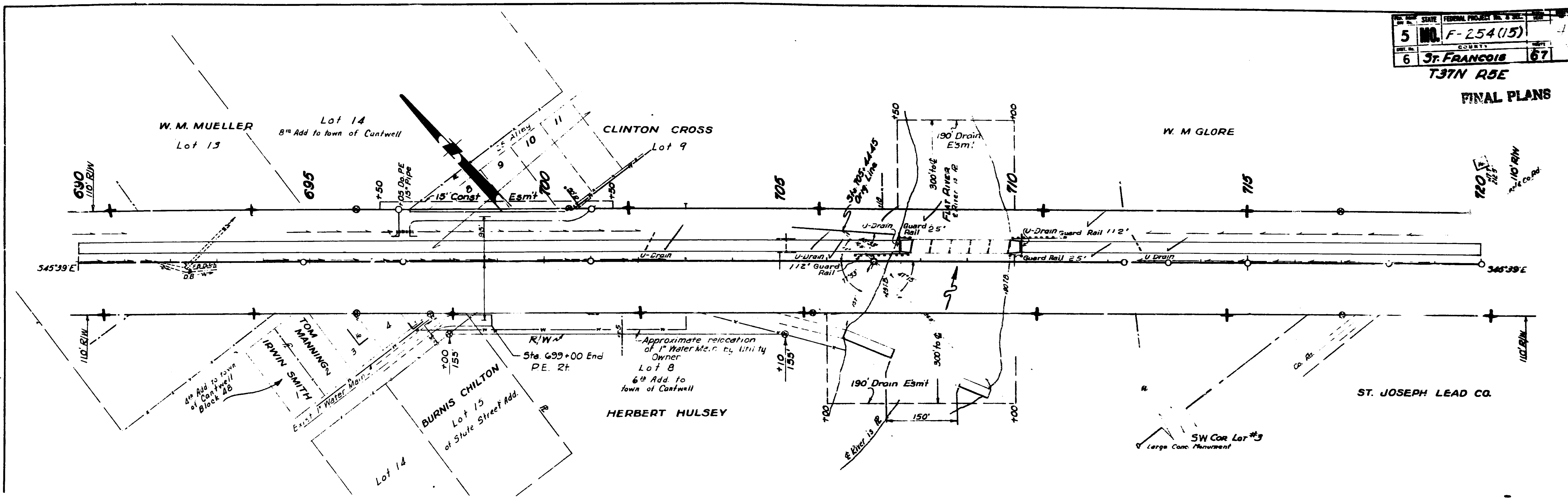
UNDERDRAINS

Sta	Side	Lin Ft	Dr Markers	Remarks
678+20	Rt	42	1	90°
678+60	Lt	42	1	90°
683+90	Lt	48	1	Sk. 30°
684+10	Rt	61	1	Sk. 30°
Total		193	4	

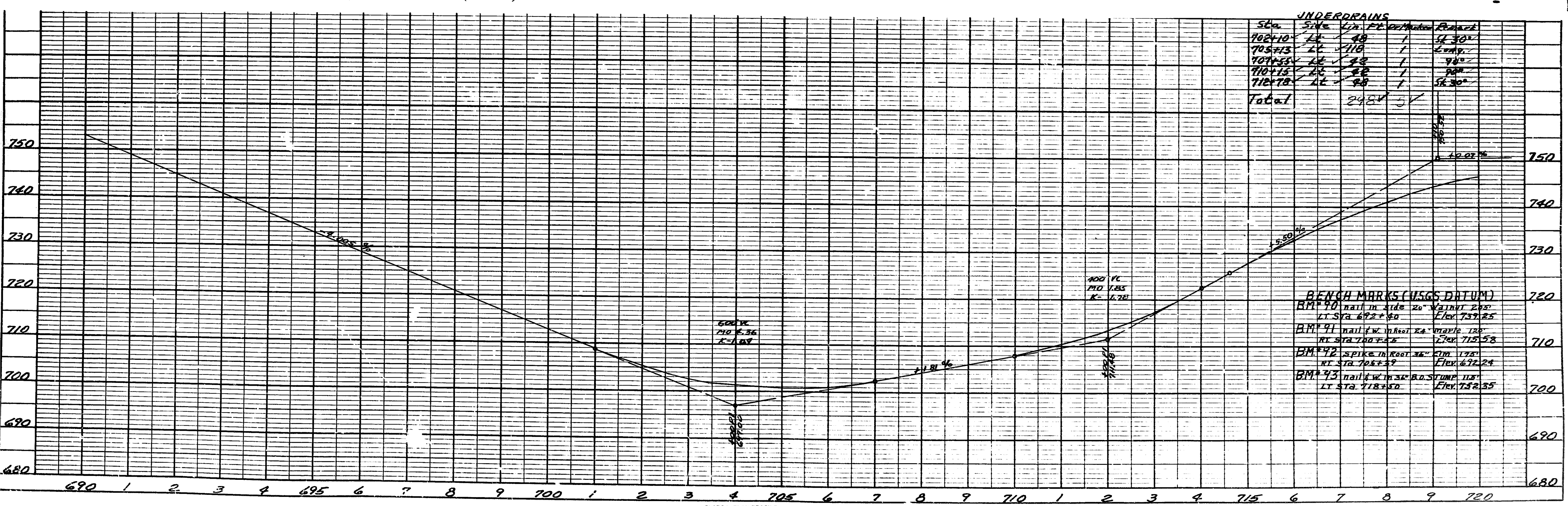
STATE	FEDERAL PROJECT No.	SHEET
5 MO.	F-254(15)	
6	ST. FRANCOIS	67

T37N R5E

FINAL PLANS



W. M. MUELLER
Lot 13
Lot 14
8th Add to town of Cantwell
CLINTON CROSS
Lot 9
W. M GLORE
690
110' R/W
695
700
705
710
715
720
110' R/W
15' Const Esm't
190' Drain Esm't
300' to ℄
Flat River
U-Drain
Guard Rail 25'
Guard Rail 112'
112' Guard Rail
S45°39'E
TOM MANNING
IRWIN SMITH
4th Add to town of Cantwell Block 48
Exist 1" Water Main
BURNIS CHILTON
Lot 15 of State Street Add.
Lot 14
Sta. 699+00 End P.E. Rt.
Approximate relocation of 1" Water Main by Utility Owner
Lot 8
6th Add. to town of Cantwell
HERBERT HULSEY
190' Drain Esm't
150'
℄ River is ℄
ST. JOSEPH LEAD CO.
Co. Rd.
SW Cor Lot #3
Large Conc. Monument



UNDERDRAINS

Sta.	Side	Lin. Ft.	Dr. Markers	Remark
702+10	Lt	48	1	Sk 30°
705+13	Lt	118	1	Long.
707+55	Lt	42	1	90°
710+15	Lt	42	1	90°
712+78	Lt	48	1	Sk 30°
Total		298	5	

BENCH MARKS (U.S.G.S. DATUM)

B.M. #90 nail in side 20" Walnut 205' LT Sta 692+40 Elev. 739.25

B.M. #91 nail & w. in Root 24" Maple 120' RT. Sta 700+56 Elev. 715.58

B.M. #92 Spike in Root 36" Elm 175' RT. Sta 705+39 Elev. 692.24

B.M. #93 nail & w. in 36" B.O. Stump 115' LT Sta. 718+50 Elev. 752.35

PLATE 1—PLAN-PROFILE O.P.R.&R.E. STANDARD

U.S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

STATE	FEDERAL PROJECT No. & SEC.	SHEET NO.
MO.	F-254 (15)	
COUNTY		COUNTY NO.
St. FRANCOIS		67

T37N R5E
T36N R5E

FINAL PLANS

T37N R5E

N.E. Cor. Sec. 5
T36N R5E

Section Line

Canal

670 to Section Line

Stone

Lot 22

Lot 21

Lot 30

SEC. 4

ADDIE M. WATSON

W. F. STOTLER & WIFE

Lot 31

R/W 2

20' Dr. Esm't.

150'

397.56
104.2

PE
19+00

6' F.B. Ditch

U. Drain

345°39'E

110' R/W

150'

100' E. of S.W. Cor. Lot 19

Lot 19

ADDIE M. WATSON

Lot 29

WILLARD L. ROPER

Lot 31

Lot 18

Lot 17

BENOIST SUB'D.

ST. JOSEPH LEAD CO.

WATSON FARMS COMPANY'S SECOND SUBD.

720 725 730 735 740 745 750

780 770 760 750 740 730

±0.07 ft

100' VC
PVI 0+69
K 2.5

UNDERDRAINS

Sta.	Side	Lin. Ft.	No. Manholes	Remarks
720+25	Lt.	98	1	St. 5+30'
747+55	Lt.	98	1	St. 5+30'
Total		196	2	

BENCH MARKS (U.S.G.S. DATUM)

B.M. 73R nail & W. in Root 24" W. Oak 12"
Lt. Sta. 736+20 Elev. 761.20

B.M. 74R nail & W. in Side 12" Walnut 120'
Lt. Sta. 734+60 Elev. 755.88

B.M. 75R Spike in Root 28" Beech 103'
Rt. Sta. 746+23 Elev. 769.74

720 1 2 3 4 725 6 7 8 9 730 1 2 3 4 735 6 7 8 9 740 1 2 3 4 745 6 7 8 9 750

PLATE I—PLAN PROFILE O.P.R. & N.E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

5	30	F-254(15)	6
SEC. NO.		COUNTY	SHEET NO.
6		ST. FRANCOIS	67

T.36N R5E

FINAL PLANS

WATSON FARMS COMPANY'S SECOND SUBD.

PI 760+56.35
Δ 38°38' Rt
D 2°
T 1004.22
L 1931.67
E 170.90
R 2864.93
S.E. 0.05'/ft

PRESTON R. AGNEW ET AL
Lot 33

JOHN PIPKIN
Lot 17

JOHN WRIGHT

VELVA K. KENNON
Lot 2

MORRIS HOPKINS
Lot 9

STATE PROPERTY

Lot 16
STATE PROPERTY

Lot 3

TONY WRIGHT

Lot 1

O. D. RHODES

Lot 15

Lot 31
WILLIAM F. STOTLER & WIFE

ELMER BLOOM

Lot 10
MAE NUNLEY SMITH

WATSON FARMS COMPANY'S FIRST SUBD.

WATSON FARMS COMPANY'S DAVIS PLACE

Co Road (30'W)
Lot Line
R/W
15' Drain Esm't
C.F.B. Ditch
U-Drain
30' Drain Esm't
Gas Line & Water Line To be adjusted by Utility Owner
Barricade
S45°39'E
S1°01'E
110.0' RW
100.0' RW
+91.8
+88.5
+00 S.R.
+18.8 P.
+38.8 P.
+55.4 P.
+00 E.R.
+00 C.R.
+00 P.C.
+00 P.T.
+00 P.R.C.
+00 C.C.
+00 P.C.C.
+00 P.T.C.
+00 P.R.C.C.
+00 C.R.
+00 E.C.
+00 P.C. Bk. Slope
+00 P.T. Bk. Slope
+00 Creek
+00 Ditch
+00 Bridge
+00 Culvert
+00 Gas Barricade
+00 Gas Line
+00 Water Line
+00 Utility Owner
+00 Utility Line
+00 Utility Pole
+00 Utility Box
+00 Utility Vault
+00 Utility Manhole
+00 Utility Valve
+00 Utility Meter
+00 Utility Transformer
+00 Utility Switch
+00 Utility Fuse
+00 Utility Capacitor
+00 Utility Resistor
+00 Utility Inductor
+00 Utility Diode
+00 Utility Transistor
+00 Utility Integrated Circuit
+00 Utility Microprocessor
+00 Utility Memory
+00 Utility Input
+00 Utility Output
+00 Utility Control
+00 Utility Power
+00 Utility Ground
+00 Utility Signal
+00 Utility Data
+00 Utility Address
+00 Utility Clock
+00 Utility Reset
+00 Utility Interrupt
+00 Utility Bus
+00 Utility Port
+00 Utility Connector
+00 Utility Cable
+00 Utility Wire
+00 Utility Trace
+00 Utility Pad
+00 Utility Via
+00 Utility Hole
+00 Utility Mask
+00 Utility Layer
+00 Utility Substrate
+00 Utility Package
+00 Utility Lead
+00 Utility Pin
+00 Utility Socket
+00 Utility Plug
+00 Utility Jack
+00 Utility Adapter
+00 Utility Converter
+00 Utility Inverter
+00 Utility Rectifier
+00 Utility Amplifier
+00 Utility Oscillator
+00 Utility Filter
+00 Utility Regulator
+00 Utility Sensor
+00 Utility Actuator
+00 Utility Motor
+00 Utility Generator
+00 Utility Battery
+00 Utility Fuel Cell
+00 Utility Solar Panel
+00 Utility Wind Turbine
+00 Utility Hydroelectric
+00 Utility Nuclear
+00 Utility Geothermal
+00 Utility Biomass
+00 Utility Tidal
+00 Utility Wave
+00 Utility Ocean Thermal
+00 Utility Osmotic
+00 Utility Salinity Gradient
+00 Utility Hydrogen
+00 Utility Ammonia
+00 Utility Methanol
+00 Utility Ethanol
+00 Utility Biodiesel
+00 Utility Biogas
+00 Utility Landfill Gas
+00 Utility Sewage Gas
+00 Utility Coal Bed Methane
+00 Utility Shale Gas
+00 Utility Tight Gas
+00 Utility Coal
+00 Utility Oil
+00 Utility Gas
+00 Utility Nuclear
+00 Utility Geothermal
+00 Utility Biomass
+00 Utility Tidal
+00 Utility Wave
+00 Utility Ocean Thermal
+00 Utility Osmotic
+00 Utility Salinity Gradient
+00 Utility Hydrogen
+00 Utility Ammonia
+00 Utility Methanol
+00 Utility Ethanol
+00 Utility Biodiesel
+00 Utility Biogas
+00 Utility Landfill Gas
+00 Utility Sewage Gas
+00 Utility Coal Bed Methane
+00 Utility Shale Gas
+00 Utility Tight Gas
+00 Utility Coal
+00 Utility Oil
+00 Utility Gas

UNDERDRAINS

Sta.	Side	Lin. Ft.	No. Outlets	Remarks
753+60	Lt.	72	1	90°
770+65	Lt.	68	1	90°
779+05	Lt.	118	1	Long
Total		202	3	

BENCHMARKS (U.S.G.S. DATUM)

B.M. 96 76 spike in root 48'20± Elm 1.4E Lt. Sta 758+70 Elev. 787.70

B.M. 97 K.S.W. in Root of 36" Ash 14'0" Rt. Sta 765+90 Elev. 770.93

B.M. 98 Spike in root of 36" Distance Elev. 757.53 Lt. Sta 776+28

1900 Yr. M.O. 11.31 760.11 Ft.

600 Yr. M.O. 4.03 K=112

+1.69%

-2.86%

+2.82%

750 1 2 3 4 755 6 7 8 9 760 1 2 3 4 765 6 7 8 9 770 1 2 3 4 775 6 7 8 9 780

810 800 790 780 770 760 750

PLATE 1—PLAN-PROFILE O P R & R E STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	F-254(15) FG-254(16)		
DIST. No. 6	COUNTY: ST. FRANCOIS		JUNE 67	

T36N R5E

FINAL PLANS

MORRIS HOPKINS
Lot 9

WATSON FARMS CO DAVIS PLACE

R. W. RAWSON
Lot 12

NE¼ NW¼ Sec 9

H. O. SIMPSON

¼ Sec Line

Fd Cor

200.0 ft. Prop. Commonwealth St.

Prop. ℄ Route D

Prop. ℄ Existing Route D

Prop. Bridge

Old Sec. Line

110' R/W

STATE

Guard Rail

U-Drain

6" F.B. Ditch

W. HENROID

Lot 10
MAE NUNLEY SMITH
- ESTHER -
WATSON FARMS CO. DAVIS PLACE

Lot 11
SUSIE BENNETT

Lot 12

Storm Cellar

Alley

Prop. Commerce St.

Lot 1

CLAUDE DIX

Horn Creek

Sec. 4

Sec. 9

Sec. 5

Sec. 8

PEARL WATTS TINNIN

STA. 786+00
BEGIN PROJ. FG-254(16)
A point Approx 1095' North and 2063' East of the SW Cor SEC 4 T36N R5E

STA. 806+00
END PROJ. FG-254(16)
A point Approx 890' South and 2307' East of the SW Cor SEC 4 T36N R5E

1200' V.C.
M.O. 3.67
845' to P.S.O.

+2.46% grade

400' V.C.
M.O. 0.61
K 330

-5.11% grade

BENCHMARKS (U.S.C.&G.S. DATUM)

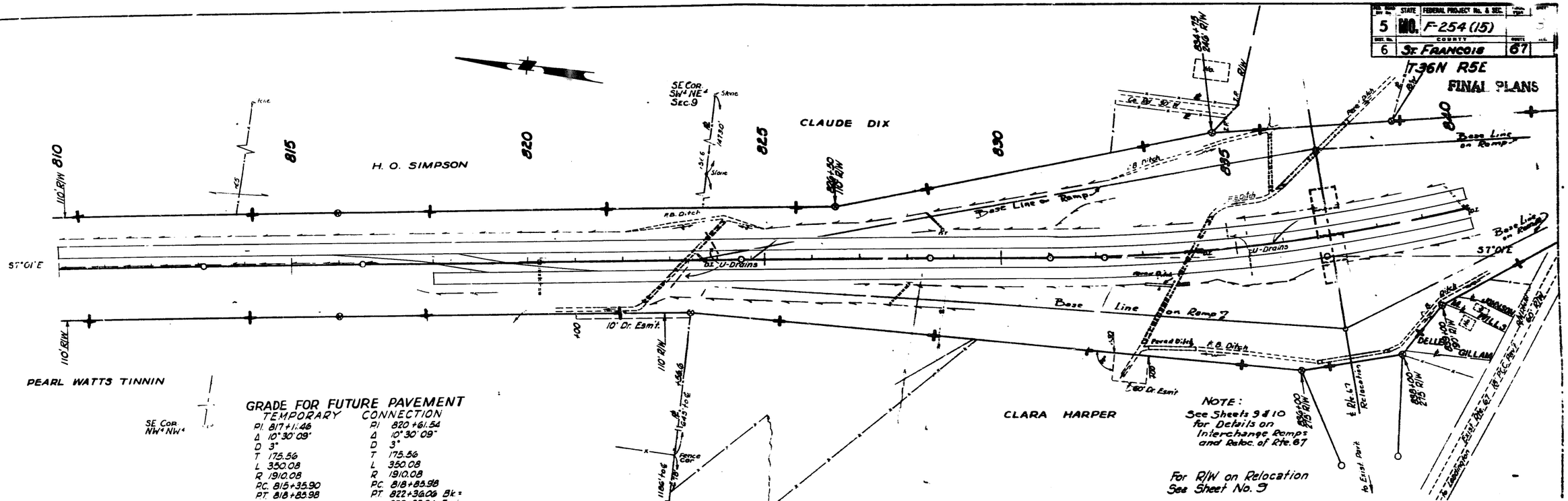
B.M. 897 N.E.W. in side 6" elm 130' Rt.
Sta 786+70 Elev. 776.30

B.M. 901A N.E.W. in side 10" locust 140' Lt.
Sta 805+50 Elev. 775.46

780 1 2 3 4 785 6 806 7 8 9 810

PLATE 1—PLAN-PROFILE O P R & B E STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS



FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.
5	MO.	F-254 (15)
DIST. No.	COUNTY	ROUTE
6	St. Francois	67

T36N R5E

FINAL PLANS

GRADE FOR FUTURE PAVEMENT

TEMPORARY		CONNECTION	
P.I.	817+11.46	P.I	820+61.54
Δ	10°30'09"	Δ	10°30'09"
D	3°	D	3°
T	175.56	T	175.56
L	350.08	L	350.08
R	1910.08	R	1910.08
P.C.	815+35.90	P.C.	818+85.98
P.T.	818+85.98	P.T.	822+36.06 Bk. = 822+32.24 Fwd

NOTE:
See Sheets 9 & 10
for Details on
Interchange Ramps
and Reloc. of Rte. 67

For R/W on Relocation
See Sheet No. 9

UNDERDRAINS

Sta.	Side	Lin. Ft.	Dr. Marker	Remarks
823+30	Rt.	58	1	Sk. 30°
824+05	Lt.	58	1	Sk. 30°
834+89	Lt.	42	1	90°
835+25	Rt.	42	1	90°
Total		200	4	

BENCH MARKS (U.S.G.S. DATUM)

B.M. #102 In 36" Wild Cherry 130' Rt. Sta. 813+30 Elev. 821.32

B.M. #103 N. & W. inside 20" Elm 135' Lt. Sta. 824+30 Elev. 826.85

B.M. #104 N. & W. in Root of 20" W.O. 100' Rt. Sta. 833+50 Elev. 833.09

PLATE 1—PLAN-PROFILE

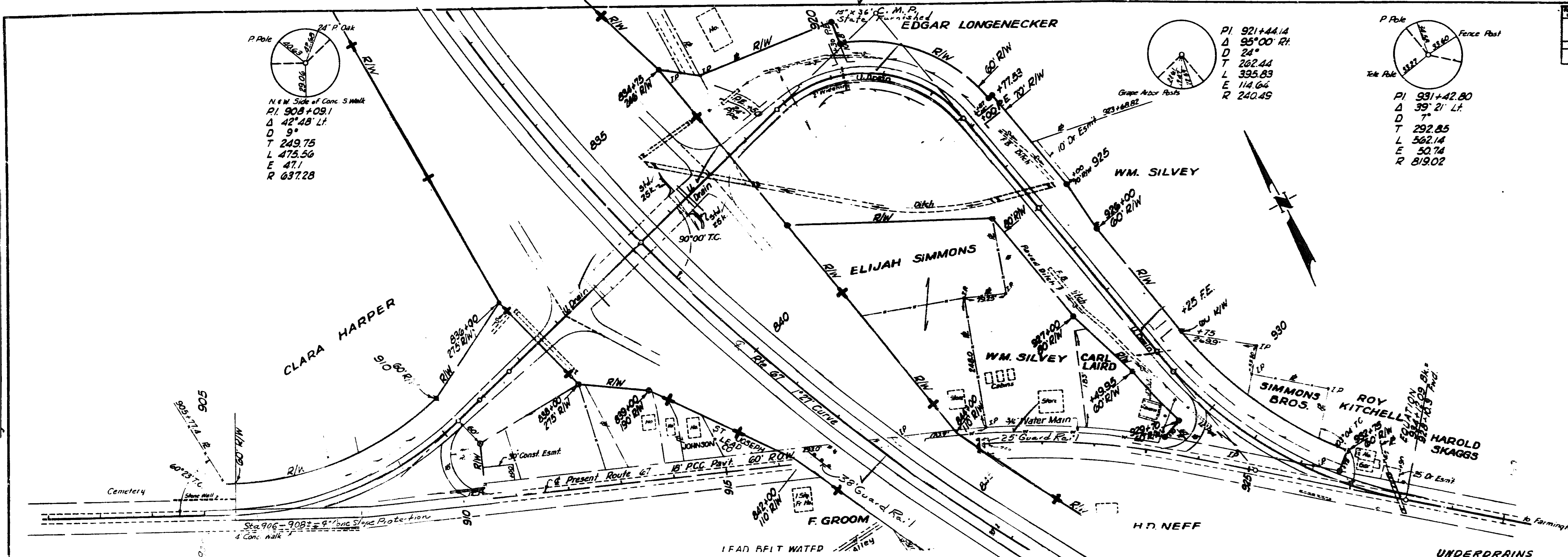
U.S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

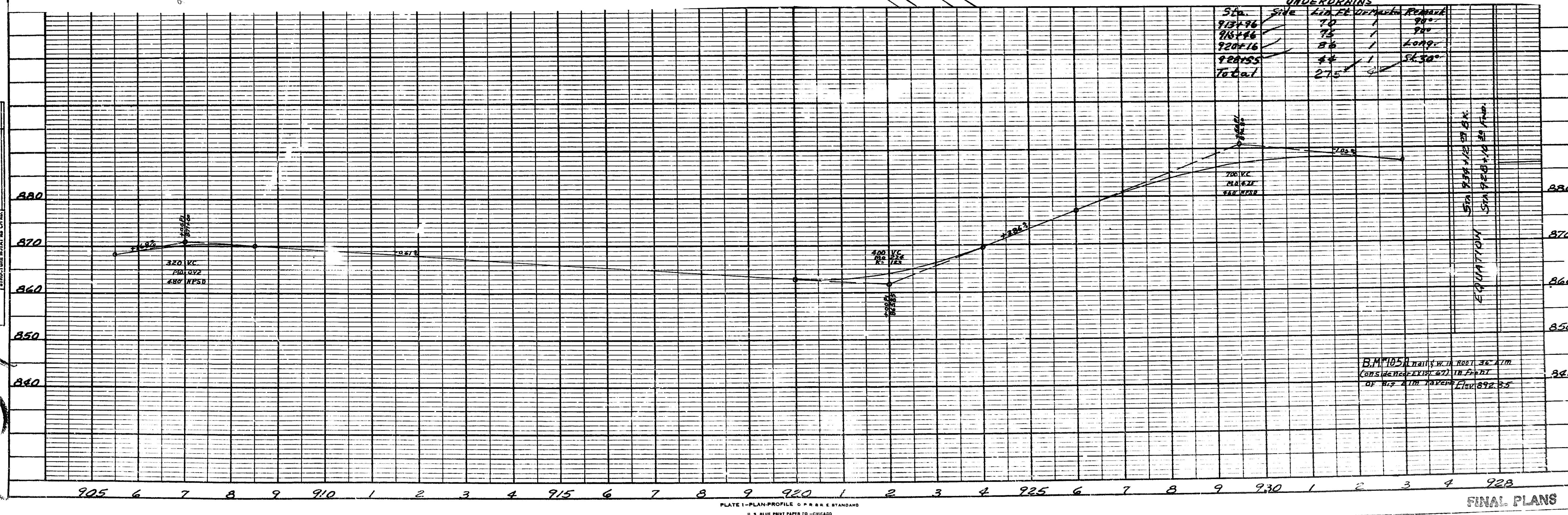
	STATE	FEDERAL PROJECT No. & SEC.		
5	MO.	F-254 (15)		
6	ST. FRANCOIS		67	

T. 36 N., R. 5 E.

FINAL PLANS



EDGAR LONGENECKER
WM. SILVEY
ELIJAH SIMMONS
CLARA HARPER
WM. SILVEY
CARL LAIRD
SIMMONS BROS.
ROY KITCHELL
HAROLD SKAGGS
JOHNSON
F. GROOM
H.D. NEFF
LEAD BELT WATER
Cemetery
P Pole
24" P. Oak
N.W. Side of Conc. S Walk
P.I. 908+09.1
Δ 42°48' Lt.
D 9°
T 249.75
L 475.56
E 47.1
R 637.28
P.I. 921+44.14
Δ 95°00' Rt.
D 24°
T 262.44
L 395.83
E 114.64
R 240.49
Grape Arbor Posts
P Pole
Fence Post
Tele Pole
P.I. 931+42.80
Δ 39°21' Lt.
D 7°
T 292.85
L 562.14
E 50.74
R 819.02
15" x 36' C.M.P. State Furnished
Ditch
Drain
90°00' T.C.
Rte 67 1°21' Curve
℄ Present Route 67 18' P.C.C. Pavt.
60' ROW
38' Guard Rail
25' Guard Rail
3/4" Water Main
30' Const. Esmt.
10' Dr. Esmt.
15' Dr. Esmt.
Sta. 906-908± 9" Conc. Slope Protection & Conc. Walk
60°25' T.C.
to Farmington
905
910
915
920
925
930
835
840
R/W
60' R/W



UNDERDRAINS

Sta.	Side	Lin. Ft.	Dr. Marker	Remark
913+96		70	1	90°
916+46		75	1	90°
920+16		86	1	Long.
928+55		44	1	Sk. 30°
Total		275	4	

PLATE 1—PLAN-PROFILE O.P.R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

STATE	FEDERAL PROJECT No. & SEC.	SHEET NO.	SHEETS
5	MO. F-254(15)		
DIST. NO.	COUNTY	ROUTE	SH. NO.
6	ST. FRANCOIS	67	

FINAL PLANS

PI 921+44.14
Δ 95°00' Rt
D 24°00'
T 262.44
L 395.83
R 240.49
SE 0.08/ft.

PI 931+42.80
Δ 39°21' Lt.
D 7°00'
T 292.85
L 562.14
R 819.02
SE .06/ft.

PI 10+10.21
Δ 9°47'34"
D 3°30'
T 140.26'
L 279.79'
R 1637.28'

PI 1+52.01
Δ 18°04'50"
D 6°00'
T 152.01'
L 301.34'
R 955.37'
SE 0.04'/ft

PI 5+63.81
Δ 1°17'18"
D 0°38'
T 101.75
L 203.42
R 9046.73

PI 6+35.30
Δ 7°16'
D 5°36'
T 101.06
L 201.85
R 1591.83

PI 848+58.74
Δ 47°54' Lt.
D 1°27'
T 1759.17
L 3303.45
E 372.28
R 3951.54
S.E. 0.04'/ft.

P.I. 908+09.1
Δ 42°48' Lt
D 9°00'
T 249.75
L 475.56
R 637.28
S.E. 0.08/ft.

Std. 837+00 Prop. Rte. 67 =
Sta 915+21.14 Exist. Rte. 67 (Reloc.)

S 7°01' E

GENERAL PLAN
INTERCHANGE
PROP. RTE. 67 & EXIST. RTE. 67 RELOC
ST. FRANCOIS COUNTY
Scale: 1" = 100'

FINAL PLANS

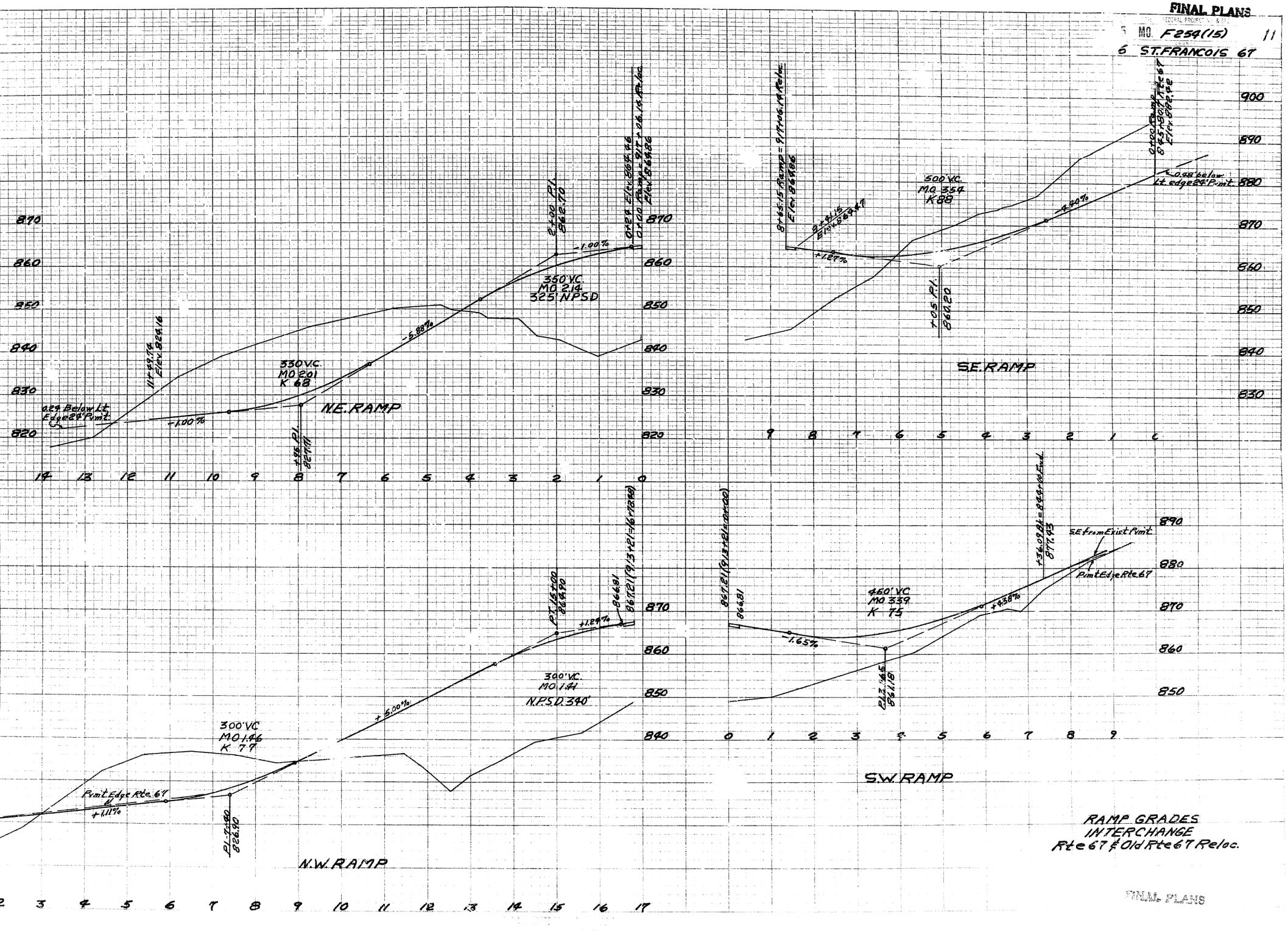
2" RIGID STEEL CONDUIT FOR FUTURE LIGHTING

Sta.	Location	Length	
821+40 ✓	Rt. & Lt. ✓	41'Rt.	54'Lt.
836+20 ✓	Rt. & Lt. ✓	42'Rt.	42'Lt.
837+80 ✓	Rt. & Lt. ✓	42'Rt.	42'Lt.
851+20 ✓	Rt. & Lt. ✓	54'Rt.	42'Lt.
912+65 ✓	Reloc 67 ✓	56'	
917+80 ✓	Reloc 67 ✓	56'	
6+60 ✓	N.W. Ramp ✓	30'	
15+90 ✓	N.W. Ramp ✓	30'	
1+05 ✓	N.E. Ramp ✓	30'	
8+60 ✓	N.E. Ramp ✓	30'	
0+80 ✓	S.W. Ramp ✓	30'	
5+85 ✓	S.W. Ramp ✓	30'	
3+00 ✓	S.E. Ramp ✓	30'	
7+75 ✓	S.E. Ramp ✓	30'	
	Total	717' ✓	Lin.Ft.

432

FINAL PLANS

FEDERAL PROJECT NO.
MO. F259(15) 11
6 ST. FRANCOIS 67



RAMP GRADES
INTERCHANGE
Rte 67 & Old Rte 67 Reloc.

FINAL PLANS

FINAL PLANS

Fed. Road Dist. No.	STATE	FEDERAL PROJECT No.			SHEET No.
5	MO	F-254(15)			12
DIV. NO.	COUNTY			ROUTE	SEC.
6	St. Francois			67	

T36N R5E

UNDERDRAINS

Sta.	Side	Lin. Ft	Dr. Marks	Remarks
840+80	Lt	42	1	90°
840+80	Rt	42	1	90°
844+15	Lt	60	1	90°
845+10	Rt	54	1	90°
Total		198	4	

BENCH MARKS (U.S.G.S. DATUM)

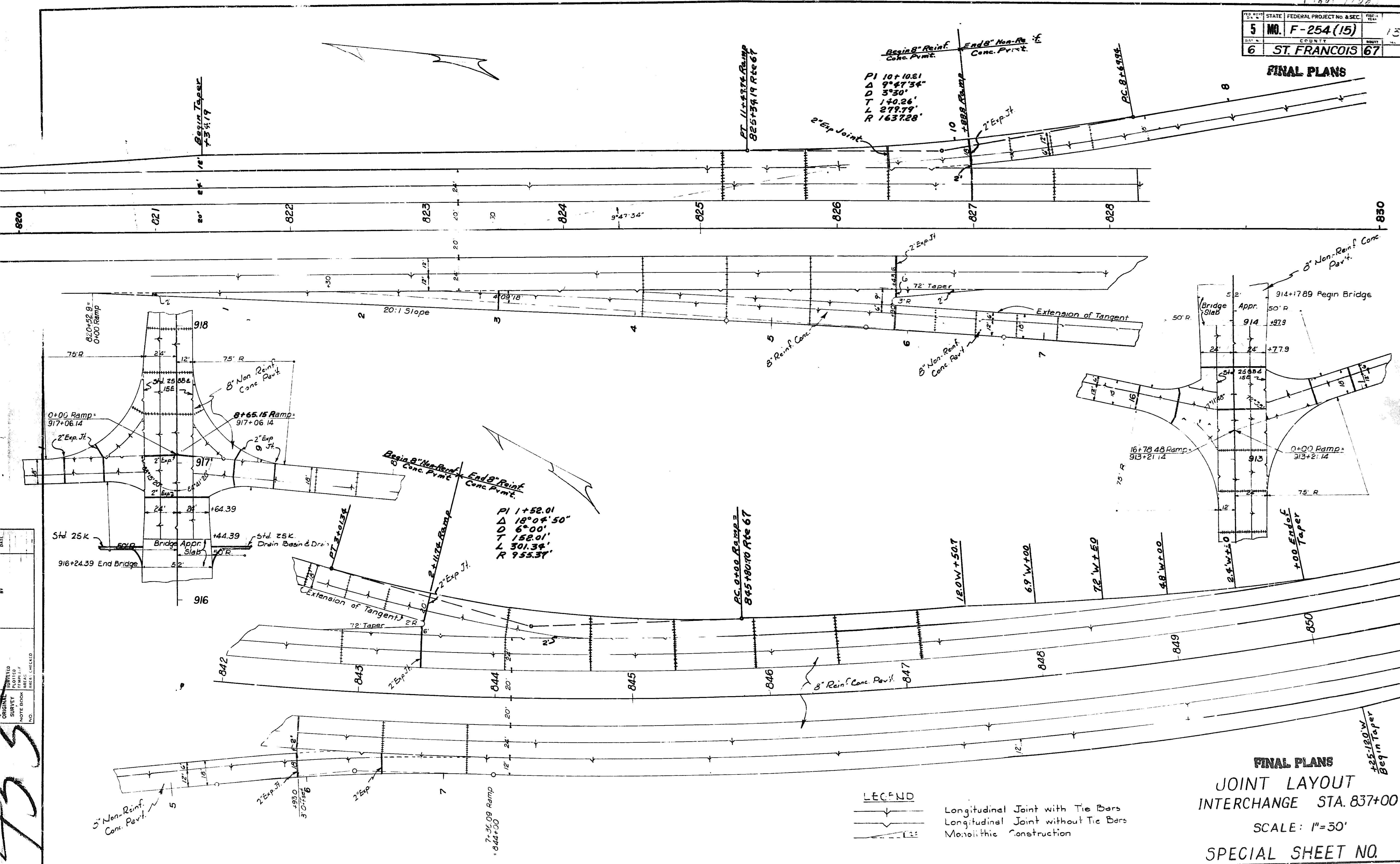
B.M. #105 corner of mail box foundation 160' Rt. Sta. 842+00 Elev. 866.47

B.M. #106 N. & W. in side 24" W. oak 155' Rt. Sta. 833+25 Elev. 909.96

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS



FED. ROAD DIV. No. 5 | STATE MO. | FEDERAL PROJECT No. & SEC. F-254(15)
DIST. No. 6 | COUNTY ST. FRANCOIS | ROUTE 67
FINAL PLANS
Begin Taper +39.19
PT 11+59.74 Ramp
825+34.19 Rte 67
Begin 8" Reinf. Conc. Pvmt.
End 8" Non-Reinf. Conc. Pvmt.
PI 10+10.81
Δ 9°47'34"
D 3°30'
T 140.26'
L 279.79'
R 1637.28'
2" Exp. Joint
2" Exp. Jt.
+88.8 Ramp
PC 8+69.94
820
821
822
823
824
825
826
827
828
830
9°47'34"
72' Taper
20:1 Slope
Extension of Tangent
8" Reinf. Conc.
8" Non-Reinf. Conc. Pav't.
8" Non-Reinf. Conc. Pav't.
914+17.89 Begin Bridge
Bridge Slab
Appr.
914
+97.9
+77.9
16+78.48 Ramp = 913+21.14
0+00 Ramp = 913+21.14
913
8+00.52.9 = 0+00 Ramp
918
75' R
8" Non Reinf. Conc. Pav't.
Std. 25 BB & 15E
0+00 Ramp = 917+06.14
8+65.15 Ramp = 917+06.14
917
+64.39
+44.39
Std. 25K
Std. 25K Drain Basin & Drs.
Bridge Appr. Slab
916+24.39 End Bridge
916
Begin 8" Non-Reinf. Conc. Pvmt.
End 8" Reinf. Conc. Pvmt.
PI 1+52.01
Δ 18°04'50"
D 6°00'
T 152.01'
L 301.34'
R 955.37'
PT 3+01.34
2+11.74 Ramp
PC 0+00 Ramp = 845+80.10 Rte 67
12.0'W +50.7
6.9'W +00
7.2'W +50
4.8'W +00
2.4'W +00
+00 End of Taper
Extension of Tangent
72' Taper
842
843
844
845
846
847
848
849
850
8" Reinf. Conc. Pav't.
8" Non-Reinf. Conc. Pav't.
+93.0 3' Offset
7+35.09 Ramp = 844+00
+25-12.0'W Begin Taper
LEGEND
Longitudinal Joint with Tie Bars
Longitudinal Joint without Tie Bars
Monolithic Construction
FINAL PLANS
JOINT LAYOUT
INTERCHANGE STA. 837+00
SCALE: 1"=30'
SPECIAL SHEET NO.

LIST OF STANDARD PLANS

PROJ.	SHEET
F-254(15)	14
CO. ST FRANCOIS	RTE. 67

1 BA-4	(6-9-54)		
1 BB-3	(6-1-54)		
1 TR-2	(8-20-52)		
1 TRD-1	(1-55)		
15 AB-9	(4-56)		
15 CN-2	(3-57)		
15 CR-3	(10-58)		
15 DE-9			
15 E-19	(5-55)		
24A-5	(4-22-55)		
25K-11			
27A-20			
28A-2			
28B-2	(1-54)		
C-230R2	(3-56)		

PROJECT SUMMARY REPORT FOR SE0068 AS OF Jan 8, 2026

Work District	SOUTHEAST	**Status**	ONEDOT APPROVED	**Version**	APPROVED STIP	**Project Manager**	CHRISTOPHER CROCKER	**Payment Project**	N
Award Month/Award Year		**Letting Date**		**Estimated Submittal Date**	Feb 27, 2024	**Let by**	CENTRAL OFFICE	**Letting Exclusion**	N

Primary Route	US 67 S	**County**	ST. FRANCOIS
Description / Location	Interchange improvements and bridge replacement at Rte. 32 in Leadington.		
Reason / Remarks	Project involves bridge A0144.		
District Comments			

Project Amounts	**Total Estimated Cost for the Project**									
Typical Bridge	**Major Bridge**	**Pavement**	**Safety**	**Mobility**	**Capital Improvement**	**Contingency**	**Other Non-Contractual**	**Right of Way Acquisition**	**Preliminary Engineering**	**Construction Engineering**
7,784			3,892			234		60	2,001	817
Total Bridge	**7,784**			**Total Contract Estimate**	**11,676**	**Total Construction**	**11,910**		**Total Engineering**	**2,818**
						Total Right of Way and Construction		**11,970**	**Total Project**	**14,788**

Yearly Program Amounts	**Amount Programmed by SFY**									
	Prior to 2026	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**Future**	**Program Total**	**Project Total**
Preliminary Engineering	751	500	500	150	100				1,250	2,001
Construction Engineering		0	0	0	817				817	817
Right of Way Acquisition	0	0	0	60					60	60
Construction		0	0	0	11,910				11,910	11,910
Total	**751**	**500**	**500**	**210**	**12,827**				**14,037**	**14,788**

How the District is Funding the Project										
Funding Category										
System Improvements - CN	0	0	0	0	11,910	0	0	0	11,910	11,910
System Improvements - RW	0	0	0	60	0	0	0	0	60	60
Total	**0**	**0**	**0**	**60**	**11,910**	**0**	**0**	**0**	**11,970**	**11,970**
Funding From Other Sources										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Funds Transfer										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Right of Way and Construction	**0**	**0**	**0**	**60**	**11,910**	**0**	**0**	**0**	**11,970**	**11,970**
Engineering	751	500	500	150	917	0	0	0	2,067	2,818
Funding From Other Sources - Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Funds Transer - Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total Engineering	**751**	**500**	**500**	**150**	**917**	**0**	**0**	**0**	**2,067**	**2,818**
Total Project	**751**	**500**	**500**	**210**	**12,827**	**0**	**0**	**0**	**14,037**	**14,788**

Bridge Count	1	**Railroads Impacted**	0	**Improvement**	**Action**	**Detailed Work**	**Federal Funds Category**	**Initiatives**
				BRIDGE		BRIDGE REHAB	NHPP	
				SAFETY	UPGRADE	INTERCHANGE RAMPS		
Bridges								
A0144 ,								

Route	**Begin Log**	**End Log**	**Begin County**	**TMA**	**Travelway ID**	**System**	**Functional Class**	**NHS**	**AADT**	**Conflict of Interest**
US 67 S	91.546	91.946	ST.	N	15	PRIMARY	FREEWAY	Y	23,439	N

PROJECT SUMMARY REPORT FOR SE0068 AS OF Jan 8, 2026

Route	Begin Log	End Log	Begin County	TMA	Travelway ID	System	Functional Class	NHS	AADT	Conflict of Interest
US 67 N	105.793	106.189	ST.	N	14	PRIMARY	FREEWAY	Y	22,084	N

Lane Miles	1.615	Centerline Miles	0.4

TIP Number	

Planning Organization	Federal District	Senate District	House District
SE REG PLAN & ECON DEV COMM	8	3	117