

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**F.A.I. ROUTE 70
SECTION 82-3HVB-R-5
PROJECT IR-70-1(145) 0
ST. CLAIR COUNTY
C-98-050-84**

SECTION NO.	SEC.	COUNTY	SHEET NO.	TOTAL SHEETS
70	*	ST. CLAIR	4	1
F. A. I. PROJ. NO. 1 ILLINOIS PROJECT IR-70-1(145) 0				
* 82-3HVB-R-5 P-98-073-83				



INDEX

1. TITLE SHEET & SUMMARY OF QUANTITIES
2. GENERAL PLAN
3. POST-TENSIONING SYSTEM & GENERAL NOTES
4. END CONNECTION BRACKET

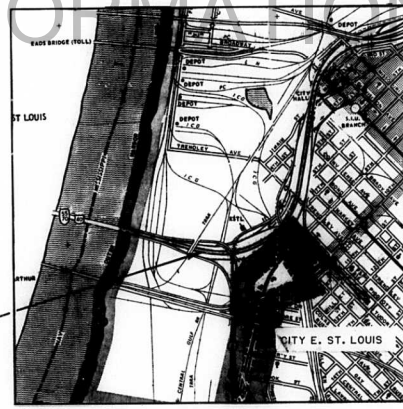
STANDARDS:

2298-7 2300-3
2299-10 2307-6

SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	QUANTITY
* X04748	MOBILIZATION/	L SUM	1
* X07723	PIER COLUMN REPAIR TYPE I	EACH	270
* X07724	PIER COLUMN REPAIR TYPE II	EACH	151
** Z10527	TRAINEES	HOURS	4,000
* CONSTRUCTION TYPE CODE Y007			
** CONSTRUCTION TYPE CODE Y080			

FOR INFORMATION ONLY



THIS PROJECT CONSISTS OF THE PIER CAP REPAIR AT VARIOUS LOCATIONS IN THE POPLAR STREET BRIDGE COMPLEX

LOCATION MAP
0' 1200 2400
SCALE: 1"=1200FT.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

QUANTITIES: 11/87 *Det. Hual*

EXAMINED: 2-20 *ST*

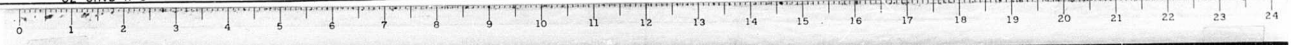
PREPARED: *[Signature]*

APPROVED: *[Signature]*
DIRECTOR OF HIGHWAYS

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

CONTRACT NO. 38649

ST. CLAIR COUNTY SECTION 82-3HVB-R-5 F.A.I. ROUTE 70



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

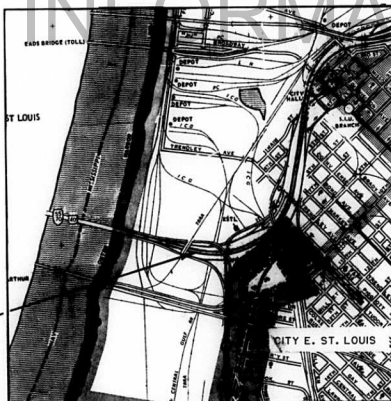
**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**F.A.I. ROUTE 70
SECTION 82-3HVB-R-5
PROJECT IR-70-1(145)0
ST. CLAIR COUNTY
C-98-050-84**

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70	*	ST. CLAIR	4	1
F.A.I. NO. & REG. NO. ILLINOIS PROJECT IR-70-1(145)0				
* 82-3HVB-R-5 P-98-073-83				



FOR INFORMATION ONLY



LOCATION MAP

0' 1200 2400
SCALE: 1"=1200FT.

THIS PROJECT CONSISTS OF THE PIER CAP REPAIR AT VARIOUS LOCATIONS IN THE POPLAR STREET BRIDGE COMPLEX

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
SUBMITTED	11/19/82 <i>D. J. Hall</i>
EXAMINED	12-30-82 <i>ST</i>
PASSED	<i>[Signature]</i>
APPROVED	<i>[Signature]</i> DIRECTOR OF HIGHWAYS

INDEX

- TITLE SHEET & SUMMARY OF QUANTITIES
- GENERAL PLAN
- POST-TENSIONING SYSTEM & GENERAL NOTES
- END CONNECTION BRACKET

STANDARDS:

2298-7 2300-3
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SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	QUANTITY
X04748	MOBILIZATION /	L SUM	1
X07723	PIER COLUMN REPAIR TYPE I	EACH	270
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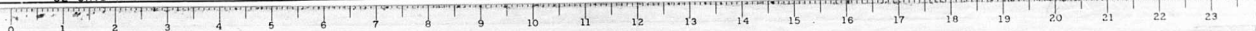
* CONSTRUCTION TYPE CODE Y007

** CONSTRUCTION TYPE CODE Y080

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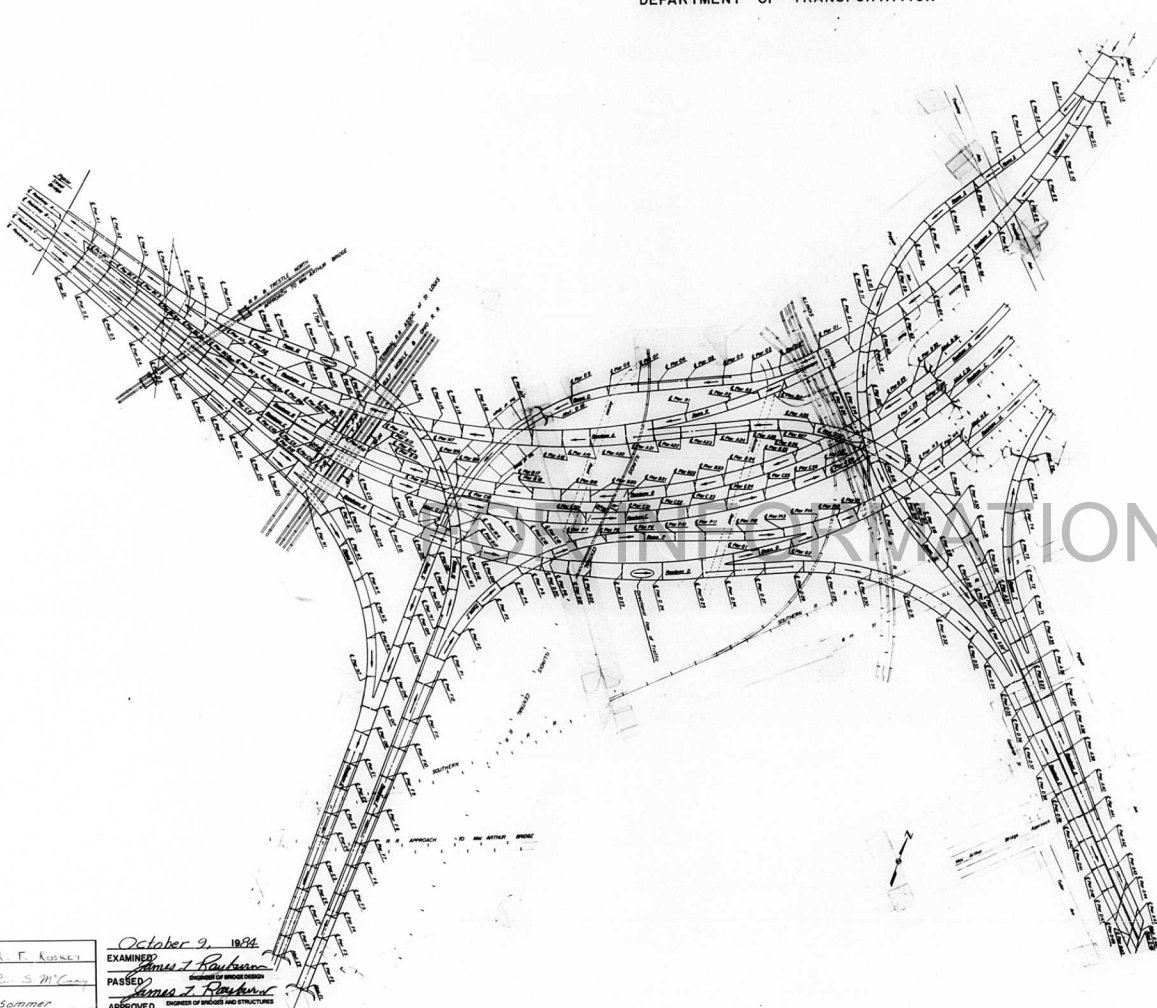
ST. CLAIR COUNTY SECTION 82-3HVB-R-5 F.A. ROUTE 70



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-3HVB	St. Clair	4	2
FED. ROAD DIST. NO. 1 ILLINOIS PROJECT:				

Sheet No. 1
3 Sheets



TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
* Pier Column Repair - Type I	Each	270
* Pier Column Repair - Type II	Each	151

* For pier locations see special provisions

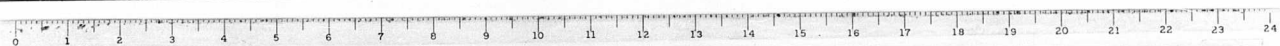
DESIGNED R. F. ROONEY
CHECKED R. S. McCarty
DRAWN A. Sommer
CHECKED R.F.R.

October 9, 1924
EXAMINED
PASSED
APPROVED

James J. Rayburn
James J. Rayburn
DIRECTOR OF BRIDGES AND STRUCTURES
DIRECTOR OF HIGHWAYS



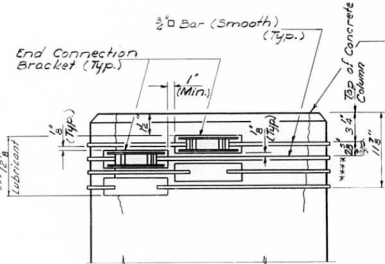
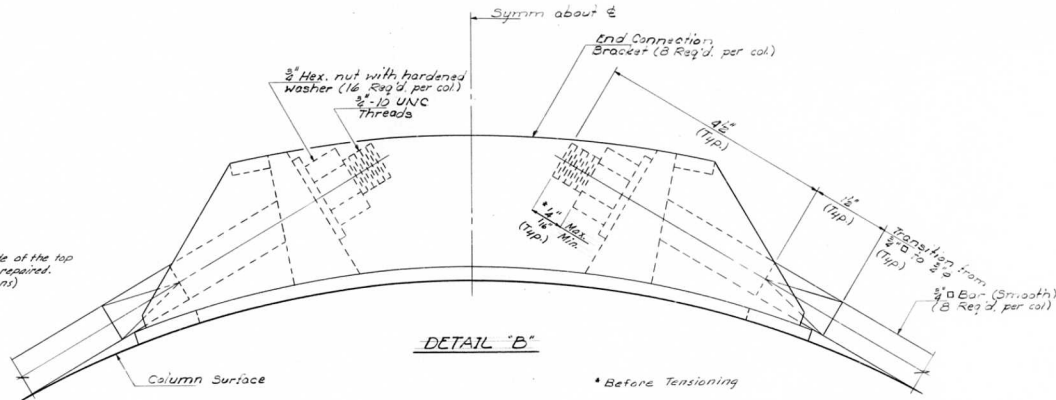
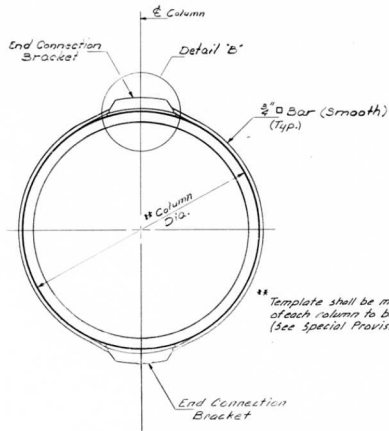
GENERAL PLAN
F.A.I. RT. 70 SEC. 82-3HVB-R-5
ST. CLAIR COUNTY



BAD COPY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

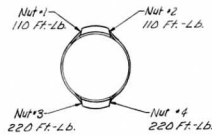
PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
A. S. T. 100-9	54 COL. P.	4	3	3 SHEETS
SHEET NO. 2				



Clean and epoxy grout cracks before bar tensioning. See Special Provisions.

BAR TENSIONING PROCEDURE

The 3/4" bars shall be tensioned in sequence from the bottom bar to the top bar. Each bar shall be tensioned by tightening the nuts to the given torques according to the following sequence:



After tightening all four nuts one bar they shall all be checked for 220 FT.-LB. Torque according to the same above sequence. The Engineer shall then verify the 220 FT.-LB. Torque on all the nuts and the threads shall be set.

GENERAL NOTES

End Connection Bracket shall conform to the requirements of A.A.S.H.T.O. M223 Grade 50.

The 3/4" bar shall conform to the requirements of AISI 4140, quenched and tempered to a minimum yield strength of 100,000 psi, and a maximum yield strength of 120,000 psi.

The hardened washer shall conform to the requirements of A.S.T.M. F-436.

The end connection brackets, 3/4" bars, nuts and washers shall receive one shop coat of red lead paint and two shop coats of aluminum paint.

The 3/4" hex. nut shall conform to the requirements of A.S.T.M. A-563, Grade D.H. Shop dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work. Concrete surfaces to receive Post-Tensioning System shall be smoothed by stoning or grinding as required to eliminate projections.

QUANTITY OF STRUCTURAL STEEL PER COLUMN IN LBS.

COL. DIA.	WASHTO M-223	AISI 4140	TOTAL
4'-0"	118	96	214
4'-6"	118	108	226
5'-0"	118	120	238
5'-6"	118	132	250
6'-0"	118	144	262
6'-6"	118	156	274
7'-0"	117	168	285

All Structural Steel is incidental to "Pier Column Repair - Type I" or "Pier Column Repair - Type II" as applicable.

DESIGNED R. F. ROBERTS
EXAMINED *James J. Kautzman*
CHECKED P. E. S. M...
DRAWN J. SCHNEIDER
APPROVED *James J. Kautzman*
DIRECTOR OF HIGHWAYS

October 9 1954

POST-TENSIONING SYSTEM
PIER COLUMNS REPAIR
F.A.T. RT. 70 SEC. 82-3HVB-R-5
ST. CLAIR COUNTY

