

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**

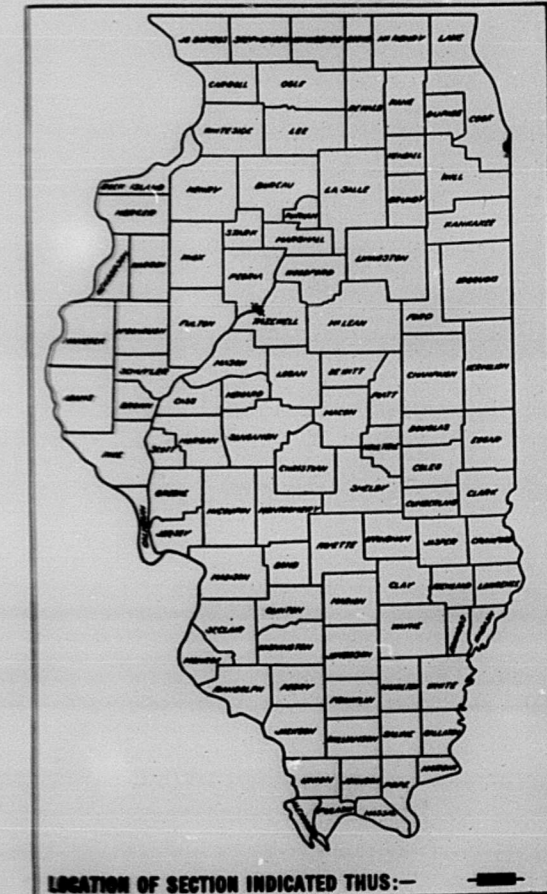
ROUTE	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
693	12L	PEORIA-TAZEWELL	9	1

P-94-114-71

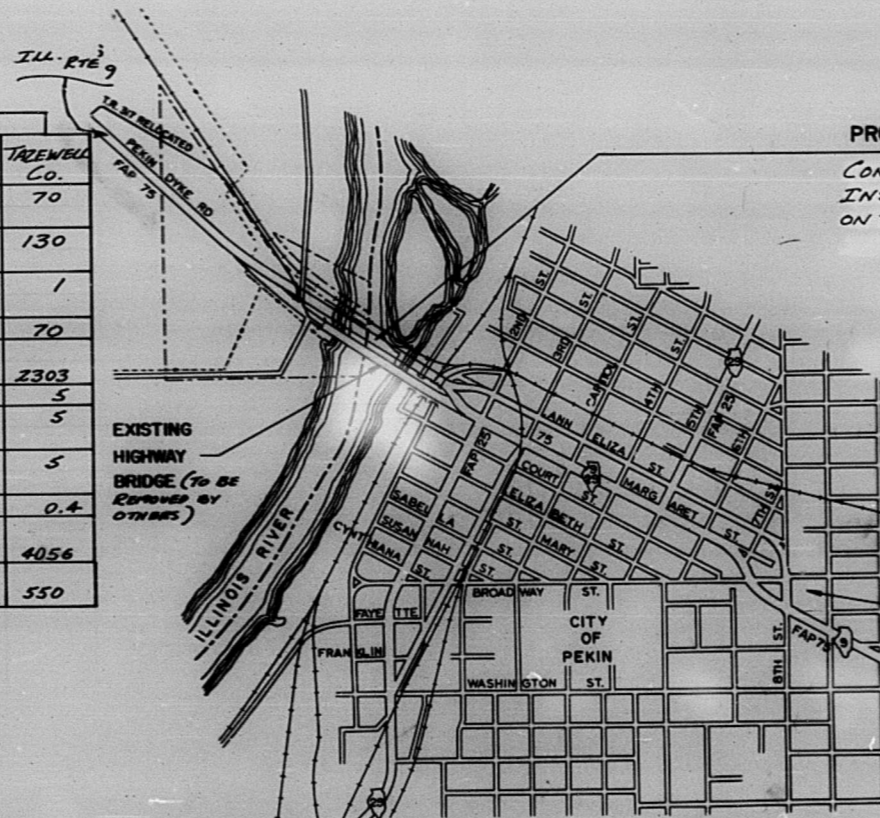
SHEET No.	INDEX OF SHEETS
1	COVER SHEET
2	GENERAL PLAN & ELEVATION
3-5	SUPERSTRUCTURE DETAILS
6-7	CONDUIT DETAILS @ EAST ABUTMENT
8	CONTROL INSTALLATION & CONDUIT DETAILS
9	POLE STANDARDS

F.A. ROUTE 693  
SECTION 12L  
PEORIA - TAZEWELL COUNTIES  
PROJECT BR-F-693(19)

C-94-113-81



SUMMARY OF QUANTITIES					
CODE No.	ITEM	UNIT	TOTALS	PEORIA Co.	TAZEWELL Co.
L00006	CONDUIT IN TRENCH 2" DIA, GALVANIZED STEEL	LIN FT	70	-	70
L00056	CONDUIT ATTACHED TO STRUCTURE, 2" DIA, GALVANIZED STEEL	LIN FT	130	-	130
L05493	CONTROL INSTALLATION, TYPE CR-RCS-60-240	EACH	1	-	1
L04300	TRENCH AND BACKFILL	LIN FT	70	-	70
L05180	ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) No. 6	LIN FT	5978	3675	2303
X04849	LAMP 400 WATT HPS	EACH	13	8	5
L06169	LUMINAIRE, RECTILINEAR, TYPE: 400 WATT HPS	EACH	13	8	5
L05728	POLE, METAL 50 FT. MH, 6 FT. FIRST ARM	EACH	13	8	5
X04743	MOBILIZATION	LUMP SUM	1	0.6	0.4
L05666	ELECTRIC CABLE IN CONDUIT, 600V(XLP-TYPE USE) 1/2" #6	LIN FT	10526	6470	4056
X04846	ELECTRIC CABLE IN CONDUIT 600V(XLP-USE) 1/2" #12	LIN FT	1430	880	550



**PROPOSED IMPROVEMENT**

CONSISTS OF FURNISHING AND INSTALLING A LIGHTING SYSTEM ON THE PEKIN RIVER BRIDGE

EXISTING HIGHWAY BRIDGE (TO BE REMOVED BY OTHERS)

JAMES PARK

LAYOUT  
SCALE 1" = 800'

ALL REFERENCES TO F.A.P. ROUTE 75  
REVISED TO F.A. ROUTE 693.

LIST OF STANDARDS  
1686-4 SYMBOLS AND ABBREVIATIONS

2298-5 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES  
2299-8 DESIGN OF TRAFFIC CONTROL DEVICES  
2300-2 FLAGMAN TRAFFIC CONTROL SIGN

NOTE:  
Wherever in these plans reference is made to F.A. Route 75, it shall be interpreted to mean F.A. Route 693.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
SUBMITTED	6-5-91
EXAMINED	7/23/91
DESIGNED	7/23/91
APPROVED	7/23/91

Bench Mark Location  
Top of NE. Abutment of  
Railroad Bridge Over  
Illinois River - Elev. 459.24

**CURVE DATA**

P.I. Sta.	85+41.51
P.C. Sta.	82+00.12
P.T. Sta.	88+21.52
Δ	9°-49'-28.1"
D	1°-45'
M	3274.04'
T	281.39'
L	361.40'
S.E.	.05'/ft.

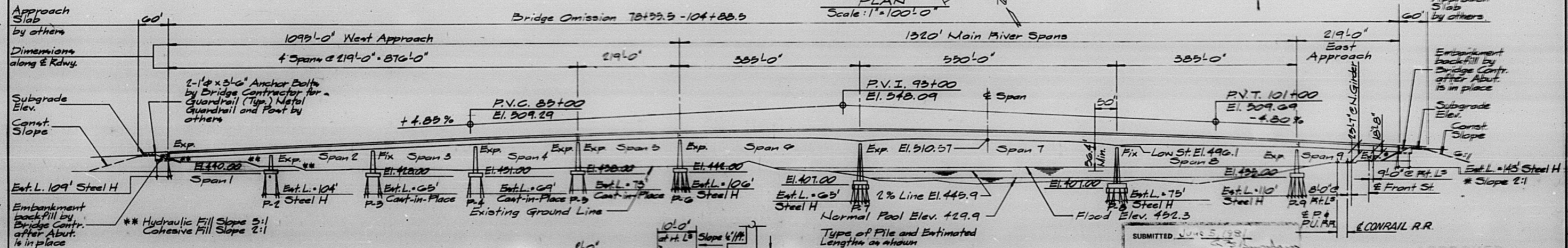
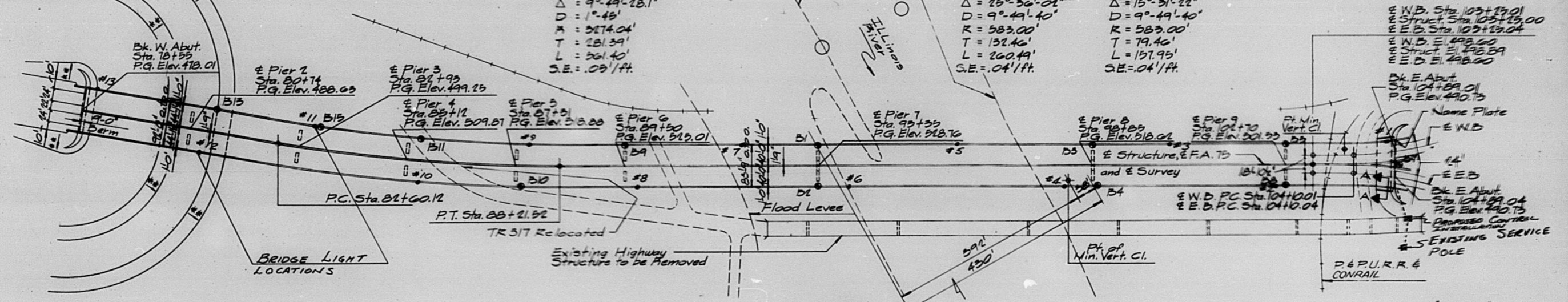
**WESTBOUND CURVE DATA**

P.I. Sta.	109+42.47
P.C. Sta.	104+10.01
P.T. Sta.	106+10.50
Δ	25°-36'-01"
D	9°-49'-40'
R	583.00'
T	132.46'
L	260.49'
S.E.	.04'/ft.

**EASTBOUND CURVE DATA**

P.I. Sta.	104+89.50
P.C. Sta.	104+10.04
P.T. Sta.	109+67.99
Δ	15°-31'-22"
D	9°-49'-40'
R	583.00'
T	79.46'
L	157.95'
S.E.	.04'/ft.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 693	12L	PEORIA-TAZEWELL	9	2
FED. ROAD DIV. NO.	ILLINOIS PROJECT			

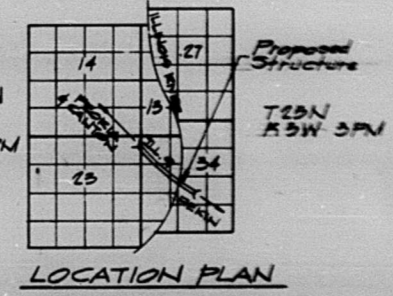


SUBMITTED June 5, 1981  
 EXAMINED \_\_\_\_\_  
 EXAMINED \_\_\_\_\_  
 EXAMINED \_\_\_\_\_  
 DATE 6-5-81 J. H. Hurd  
 APPROVED  
 STATE OF ILLINOIS  
 REGISTERED PROFESSIONAL ENGINEER  
 1959  
 JOHN E. THURMAN

**DESIGN LOADS**  
 Live Load HS20-44  
 Future W.S. .25 psf

**DESIGN STRESSES**  
 f<sub>y</sub> = 60,000 psi (Reinforcement - Substructure, Deck, Curbs, Parapet & Median)  
 Load Factor Design  
 f<sub>s</sub> = 27,000 psi (Structural Steel A-222 - Unpainted) up to 4" Thickness Inclusive: (Except for Bearings and Pins)  
 f<sub>c</sub> = 5500 psi (Substructure, Deck, Curbs, Parapet & Median)

**Waterway Information**  
 Drainage Area 14,000 sq. miles TTN  
 Q(100) 87,000 cfs ATE 4PN  
 Opening (Prop'd.) 22,300 sq. ft.  
 Opening (Proposed) 27,510 sq. ft.\*  
 Q(50) 78,000 cfs +  
 \* Controlled by other than hydraulic considerations.  
 + Below HW Elev. 452.2



STATION 96+50  
 BUILT BY  
 STATE OF ILLINOIS  
 FA 171 693 SEC. 12B  
 F.A. PROJ. BR-F-693(15)  
 LOADING HS20  
 STR. NO. 090-0114  
 NAME PLATE  
 (See Sp. 2113)

**PROFILE - P. & P.U. RAILROAD**

150.75	150.81	150.87	150.93	150.99	151.05	151.11	151.17	151.23	151.29	151.35
150.75	150.81	150.87	150.93	150.99	151.05	151.11	151.17	151.23	151.29	151.35

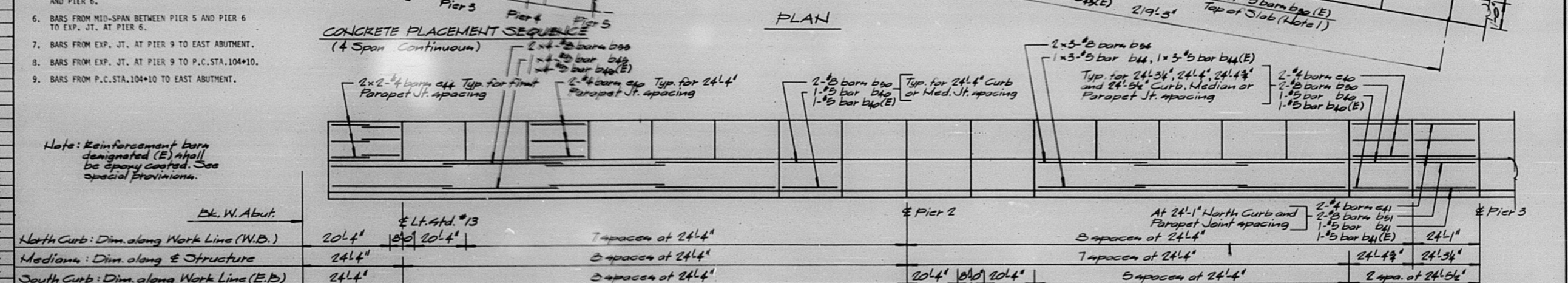
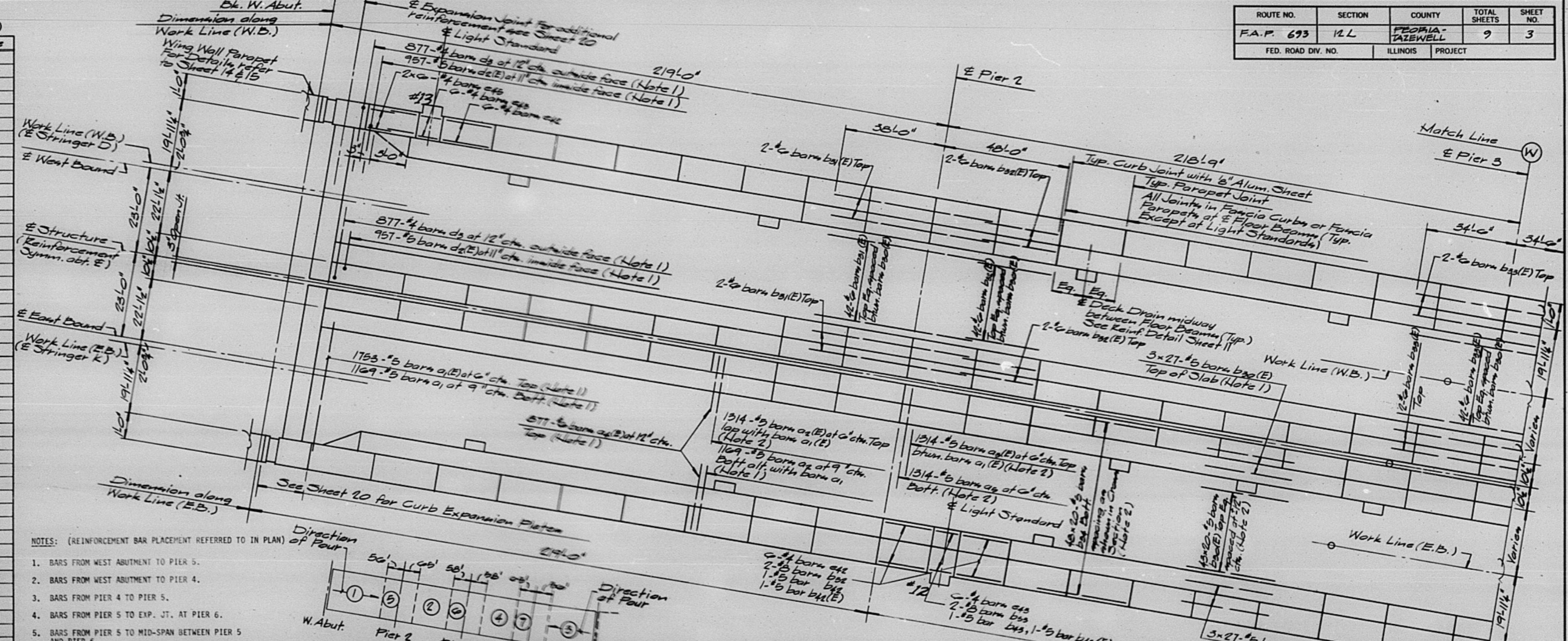
**PROFILE - CONRAIL RAILROAD**

150.75	150.81	150.87	150.93	150.99	151.05	151.11	151.17	151.23	151.29	151.35
150.75	150.81	150.87	150.93	150.99	151.05	151.11	151.17	151.23	151.29	151.35

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 GENERAL PLAN & ELEVATION  
 PROJECT: F-156  
 ILL. 9 over ILLINOIS RIVER  
 F.A.P. 75 SECTION 12D  
 PEORIA-TAZEWELL COUNTIES  
 STA. 96+50  
 THE ENGINEERS COLLABORATIVE CHICAGO ILLINOIS SHEET OF

**BILL OF MATERIAL**  
(West & East Approach Spans)

Bar No.	Size	Length	Shops
a1	347B #5	40'0"	
a2	4124 #5	6'8"	
a3	202B #5	10'10"	
a4	047 #5	8'10"	
a7	1000 #5	4'8"	
a8	204 #5	7'5"	
a9	200 #5	6'0"	
a10	132 #5	5'2"	
a11	12 #5	9'4"	
a12	12 #5	4'8"	
b1(E)	112 #5	3'0"	
b2(E)	201B #5	35'0"	
b3(E)	124 #5	20'0"	
b4(E)	124 #5	29'0"	
b5(E)	92 #5	27'0"	
b6	2530 #5	33'0"	
b7(E)	1400 #5	29'0"	
b8	1590 #5	29'0"	
b9	57 #5	24'0"	
b10	5 #5	23'8"	
b11	4 #5	19'8"	
b12	3 #5	7'8"	
b13	24 #5	42'5"	
b14	72 #5	44'5"	
b15	2 #5	20'4"	
b16	74 #5	24'0"	
b17	10 #5	23'8"	
b18	8 #5	19'8"	
b19	9 #5	7'8"	
b20	48 #5	44'5"	
b21	144 #5	40'9"	
b22	4 #5	20'4"	
d1(E)	500B #5	3'11"	J
d2	5212 #4	5'0"	J
d3	30 #5	9'5"	J
d4	1030 #5	3'8"	J
d7(E)	518 #5	3'5"	J
d8(E)	518 #5	3'9"	J
d9	18 #5	4'5"	J
c10	900 #4	24'0"	
c11	130 #4	23'8"	
c12	42 #4	19'8"	
c13	30 #4	7'8"	
c14	100 #4	12'5"	
c15	30 #4	10'0"	
c16	48 #4	13'2"	
c17	24 #4	21'1"	
c18	24 #4	22'2"	
c19	12 #4	20'4"	
b16(E)	57 #5	24'0"	
b17(E)	5 #5	23'8"	
b18(E)	4 #5	19'8"	
b19(E)	3 #5	7'8"	
b20(E)	24 #5	42'5"	
b21(E)	72 #5	44'5"	
b22(E)	2 #5	20'4"	



Bar No.	Size	Length	Shops
a1(E)	521B #5	40'0"	
a2(E)	202B #5	6'8"	
a3(E)	202B #5	7'8"	
a4(E)	5220 #5	4'0"	
a7(E)	1229 #5	4'8"	
a8(E)	300 #5	7'5"	

Reinforcement Bars Lbs. 452,723  
 Reinf. Bars (Epoxy Coated) Lbs. 444,190  
 Clean X Concrete Cu. Yds. 3,764.0

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 693	12L	PEORIA-TAZEWELL	9	3
FED. ROAD DIV. NO.		ILLINOIS	PROJECT	

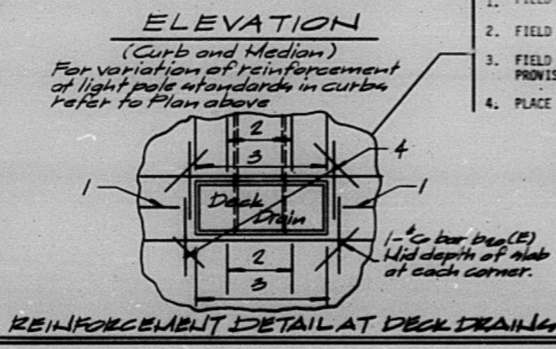
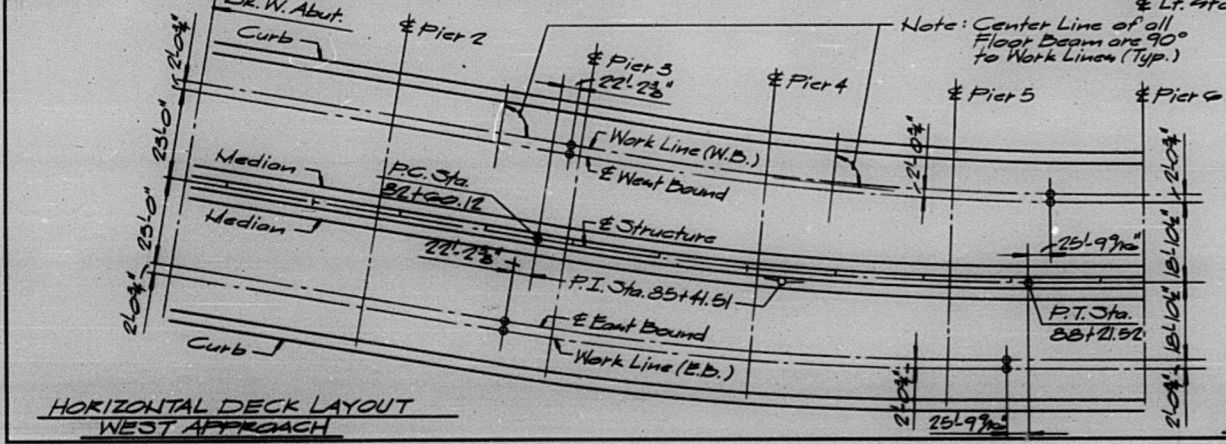
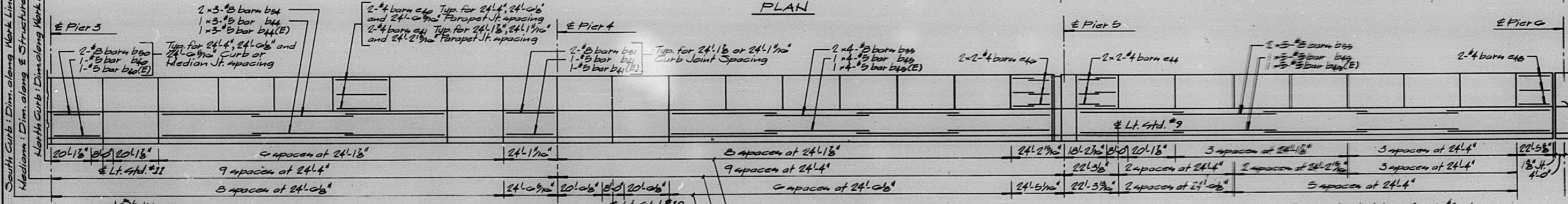
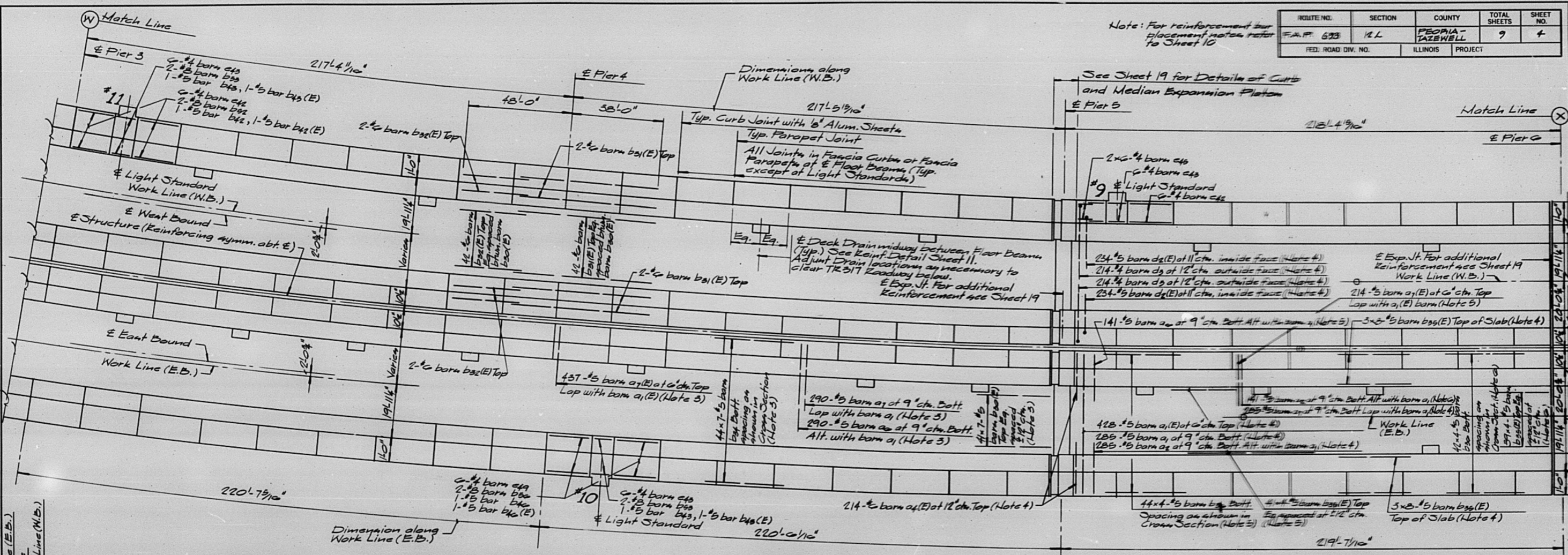
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 SUPERSTRUCTURE  
 WEST APPROACH  
 PROJECT: F-150  
 ILL. 9 over ILLINOIS FINER  
 F.A.P. 75 SECTION 12D  
 PEORIA-TAZEWELL COUNTIES  
 STA. 90+00

THE ENGINEERS COLLABORATIVE  
 CHICAGO ILLINOIS

SHEET OF

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 693	12L	PEORIA-TAZEWELL	9	4
FED. ROAD DIV. NO.	ILLINOIS	PROJECT		

Note: For reinforcement bar placement, notes refer to Sheet 10



1. FIELD CUT TOP AND BOTTOM LONGITUDINAL BARS TO CLEAR DECK DRAIN.
2. FIELD CUT BOTTOM TRANSVERSE BARS TO CLEAR DECK DRAIN.
3. FIELD CUT TOP TRANSVERSE BARS TO CLEAR DECK DRAIN. SEE SPECIAL PROVISIONS FOR PROCEDURE FOR EPOXY COATING OF REINFORCEMENT BARS.
4. PLACE TOP AND BOTTOM CUT BARS ON EACH SIDE OF DECK DRAIN.

**LAYOUT CURVE DATA**

Work Line (W.B.)	Work Line (E.B.)
Δ = 9°-49'-28.1"	Δ = 9°-49'-28.1"
D = 1°-45'	D = 1°-44'-56"
F = 5274.04'	F = 5271.98'
T = 281.59'	T = 281.21'
L = 561.40'	L = 561.05'

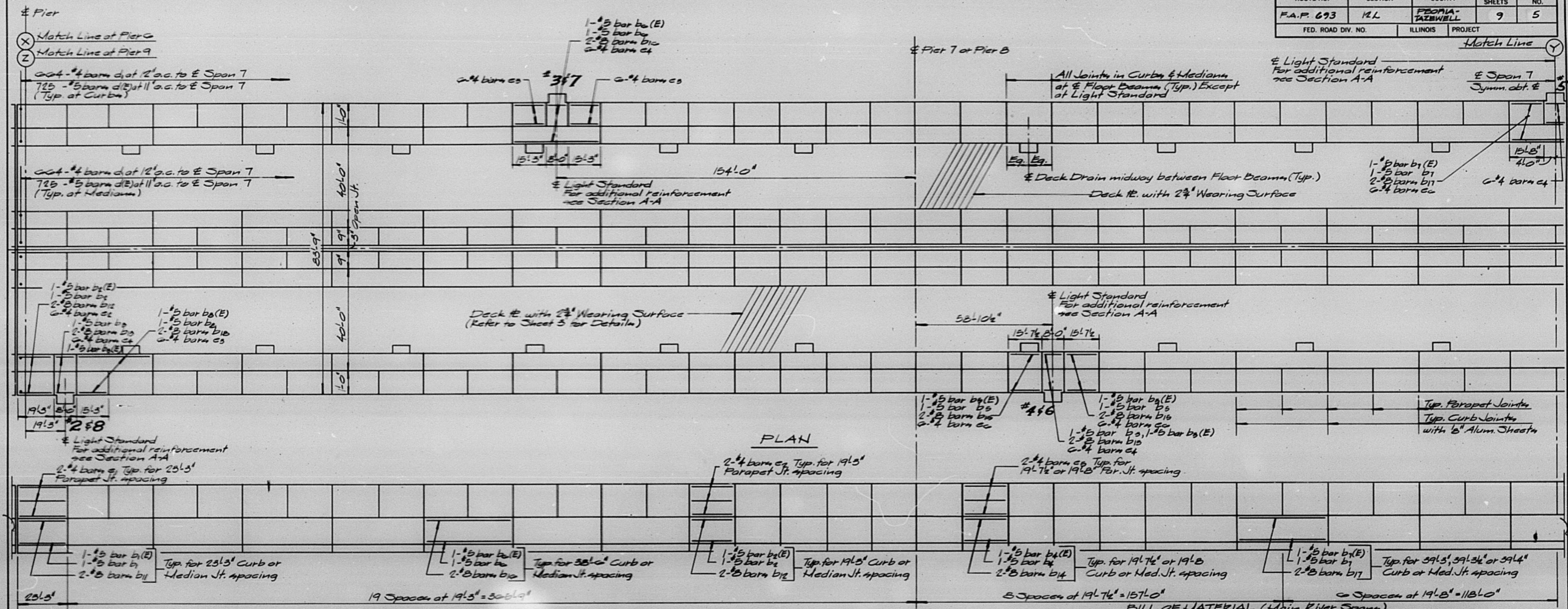
Bars indicated thru 20x5-#5 etc. indicates 20 lines of bars with 5 lengths per line.

For BILL of Material refer to Sheet 10  
For Details refer to Sheet 13

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**SUPERSTRUCTURE**  
**WEST APPROACH**  
**PROJECT: F-186**  
 ILL. 9 over ILLINOIS RIVER  
 F.A.P. 75 SECTION 12D  
 PEORIA-TAZEWELL COUNTIES  
 STA. 96+50

THE ENGINEERS COLLABORATIVE  
 CHICAGO ILLINOIS  
 SHEET OF

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 693	M.L.	PEORIA-TAZEWELL	9	5
FED. ROAD DIV. NO.	ILLINOIS	PROJECT		



PLAN

BILL OF MATERIAL (Main River Spans)

Bar No.	Size	Length	Shape
b1	#5	22'-11"	---
b2	#5	18'-11"	---
b3	#5	7'-8"	---
b4	#5	19'-4"	---
b5	#5	15'-4"	---
b6	#5	38'-2"	---
b7	#5	39'-0"	---
b8	#5	34'-2"	---
b11	#5	22'-11"	---
b12	#5	18'-11"	---
b13	#5	7'-8"	---
b14	#5	19'-4"	---
b15	#5	15'-4"	---
b16	#5	38'-2"	---
b17	#5	39'-0"	---
b18	#5	34'-2"	---
b19	#5	22'-11"	---
b20	#5	18'-11"	---
b21	#5	7'-8"	---
b22	#5	19'-4"	---
b23	#5	15'-4"	---
b24	#5	38'-2"	---
b25	#5	39'-0"	---
b26	#5	34'-2"	---

Bar No.	Size	Length	Shape
d(E)	#5	3'-9"	---
d1	#4	3'-9"	---
d4	#4	9'-5"	---
d5	#4	4'-10"	---
c1	#4	22'-11"	---
c2	#4	18'-11"	---
c3	#4	14'-11"	---
c4	#4	7'-8"	---
c5	#4	19'-4"	---
c6	#4	15'-4"	---

Reinforcement Bars Lbs. 28,487  
Kaint. Bars (Epoxy Coated) Lbs. 25,164  
Clean X Concrete Cu.Yds. 509.8

Note: Reinforcement bars designated (E) shall be epoxy coated. See special provisions.

For Bar Bending Diagrams, See Sheet 10

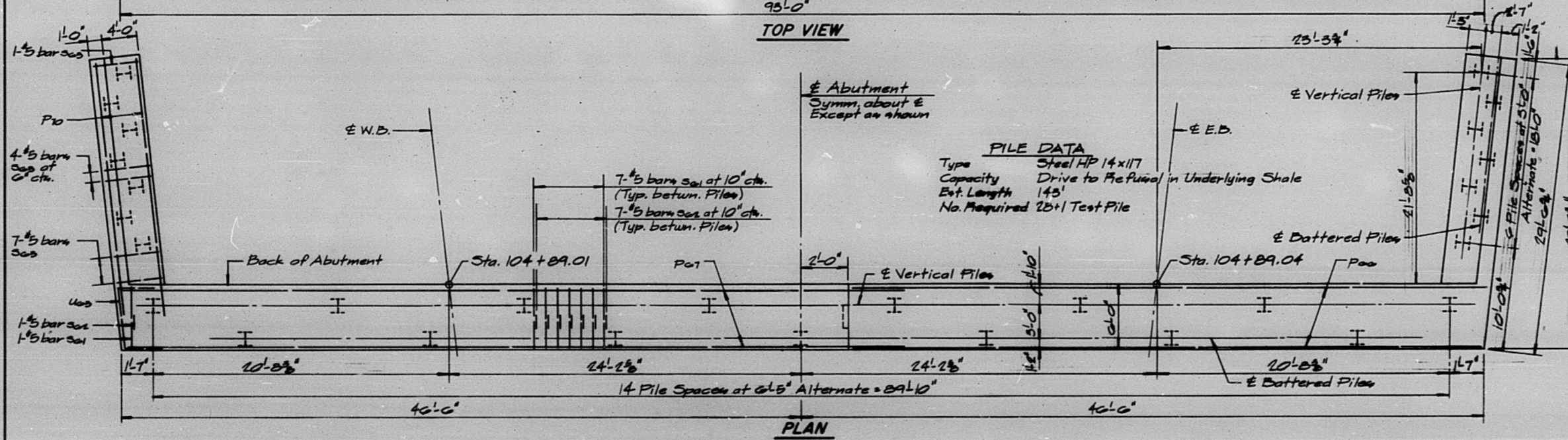
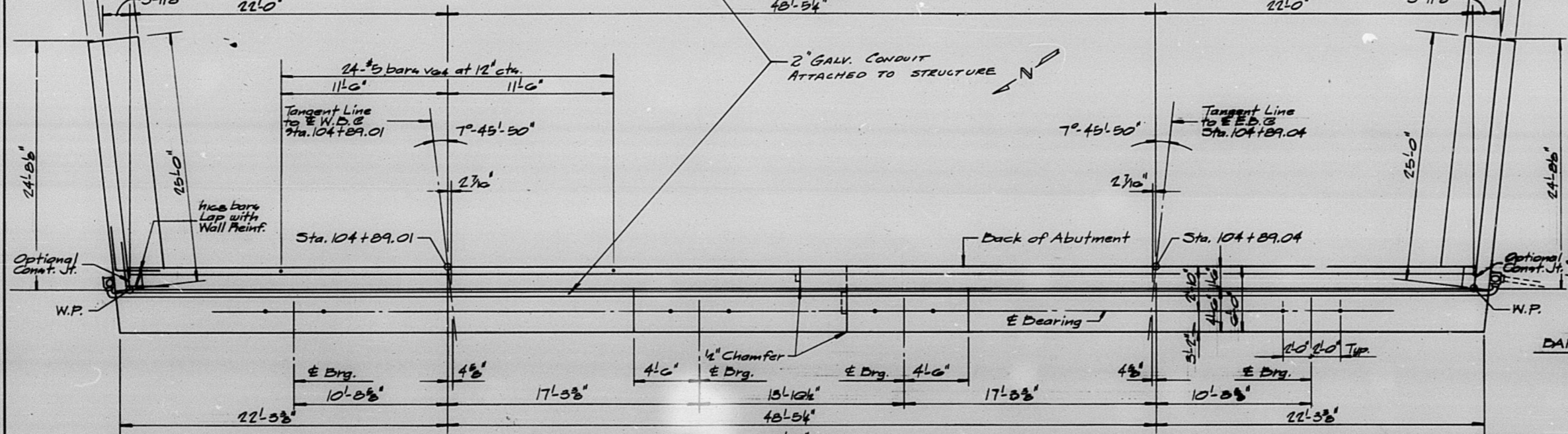
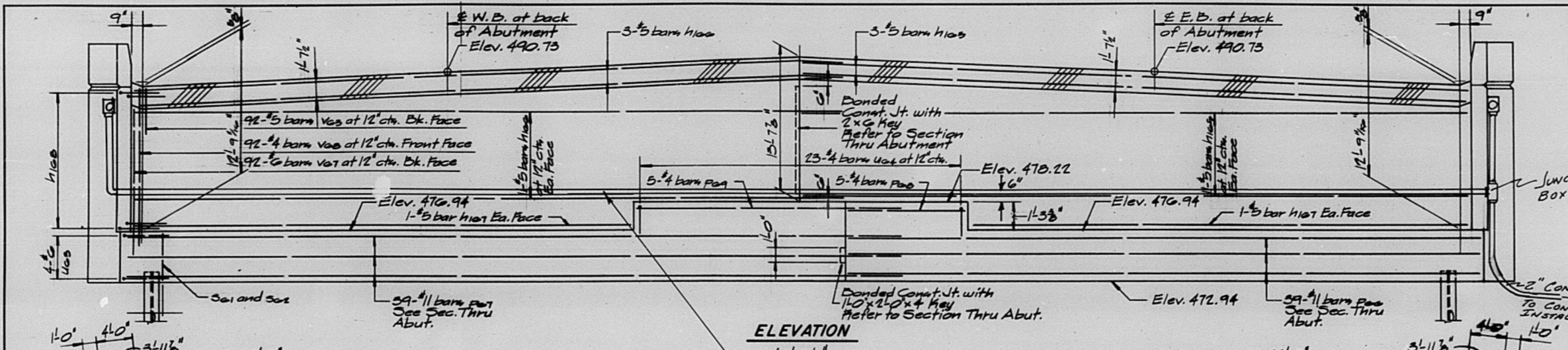
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
SUPERSTRUCTURE  
MAIN PIER SPANS  
PROJECT: F-150  
ILL. 9 over ILLINOIS PIER  
F.A.P. 75 SECTION 12D  
PEORIA-TAZEWELL COUNTIES  
STA. 96+50



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 693	12L	PEORIA-TAZEWELL	9	7
FED. ROAD DIV. NO.	ILLINOIS	PROJECT		

Notes: Space reinforcement in cap to mix anchor bolts.  
Four steps monolithically with cap.

THIS SHEET FOR INFORMATION ONLY



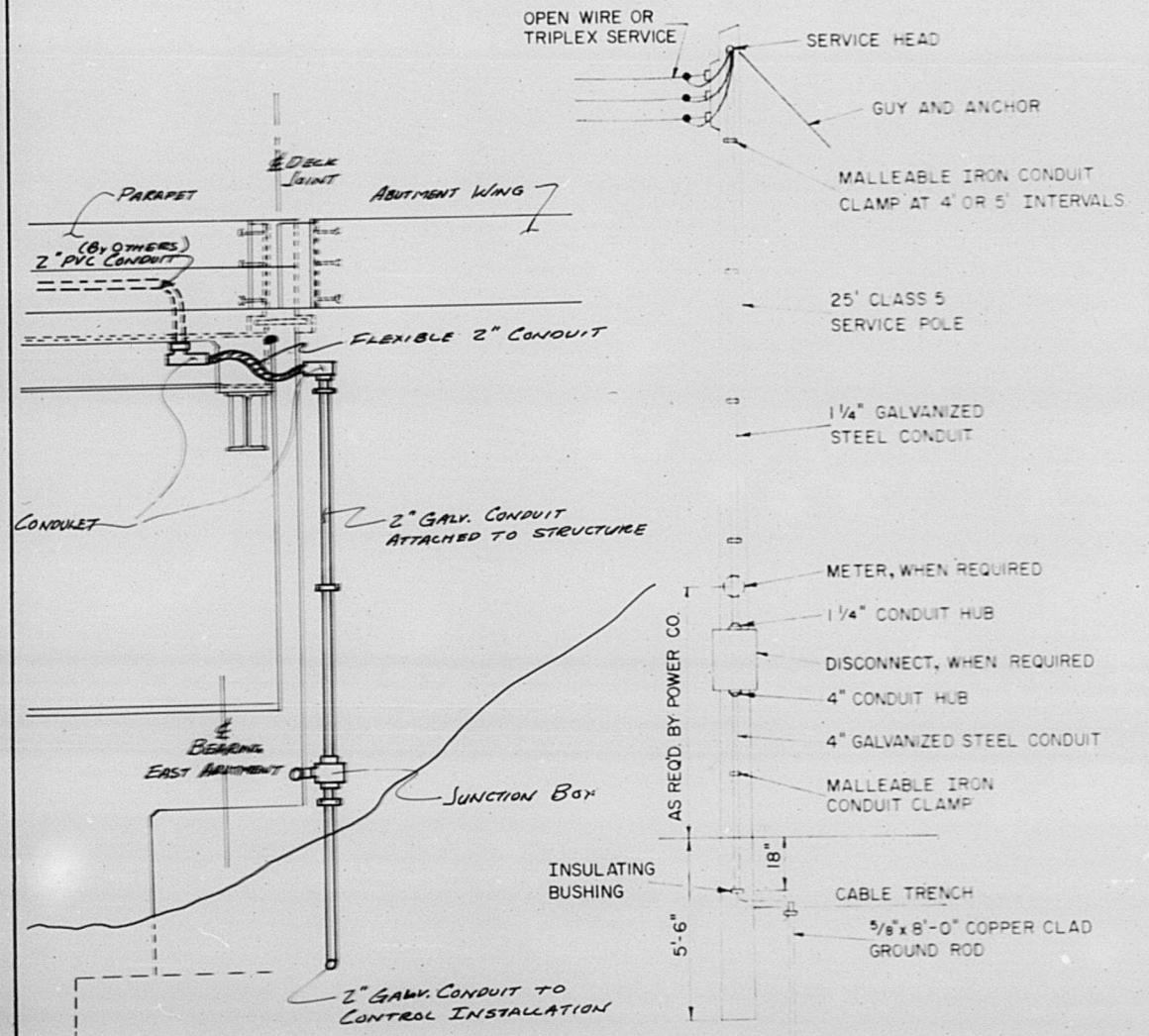
(BY OTHERS)  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h/ce	25	#5	45'9"	
h/ce	25	#5	48'6"	
h/ce	4	#5	34'5"	
h/ce	54	#5	8'0"	
h/ce	72	#4	24'6"	
h/ce	100	#7	10'9"	
h/ce	20	#6	8'2"	
h/ce	39	#11	44'0"	
h/ce	39	#11	62'0"	
h/ce	5	#4	8'11"	
h/ce	5	#4	15'4"	
h/ce	20	#7	25'4"	
h/ce	100	#5	19'5"	
h/ce	100	#5	11'5"	
h/ce	64	#5	14'7"	
h/ce	8	#6	12'4"	
h/ce	25	#4	10'0"	
h/ce	92	#5	5'4"	
h/ce	48	#5	2'0"	
h/ce	92	#5	14'10"	
h/ce	92	#4	15'7"	
h/ce	20	#6	15'11"	
h/ce	20	#6	15'11"	

**FILE DATA**  
 Type: Steel HP 14x117  
 Capacity: Drive to Refusal in Underlying Shale  
 Est. Length: 145'  
 No. Required: 28+1 Test Pile

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
**EAST ABUTMENT**  
 PROJECT F-156  
 ILL. 9 OVER ILLINOIS RIVER  
 F.A.P. 75 SECTION 12D  
 PEORIA-TAZEWELL COUNTIES  
 STA. 96+50

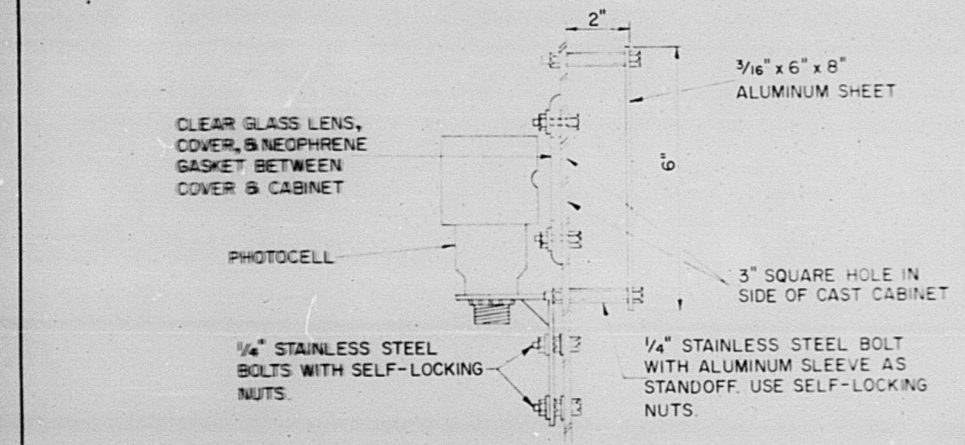
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FA 693	12L	PEORIA & TAZEWELL	9	8	



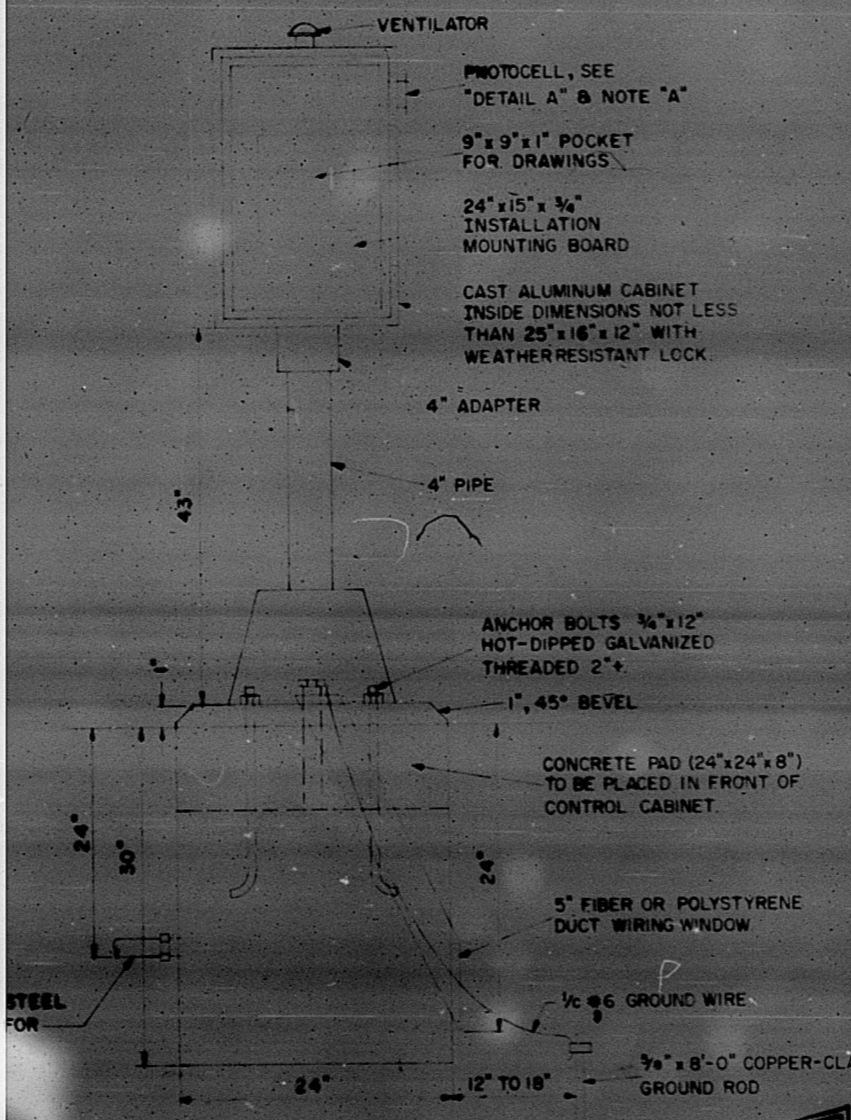
**SERVICE POLE (WHEN REQ.)**  
LOCATE ADJACENT TO R.O.W. LINE

DETAIL SHOWING CONDUIT AND FITTINGS AT EAST ABUTMENT

2" GALV CONDUIT SERVICE



**DETAIL "A"**



**CONTROL INSTALLATION**

**TOP OF FOUNDATION**

600 VOLT, 10 AMP FUSE

NEUTRAL GROUND BAR

TO 5/8" x 8'-0" GROUND ROD

2" (MIN.) GALVANIZED STEEL CONDUIT

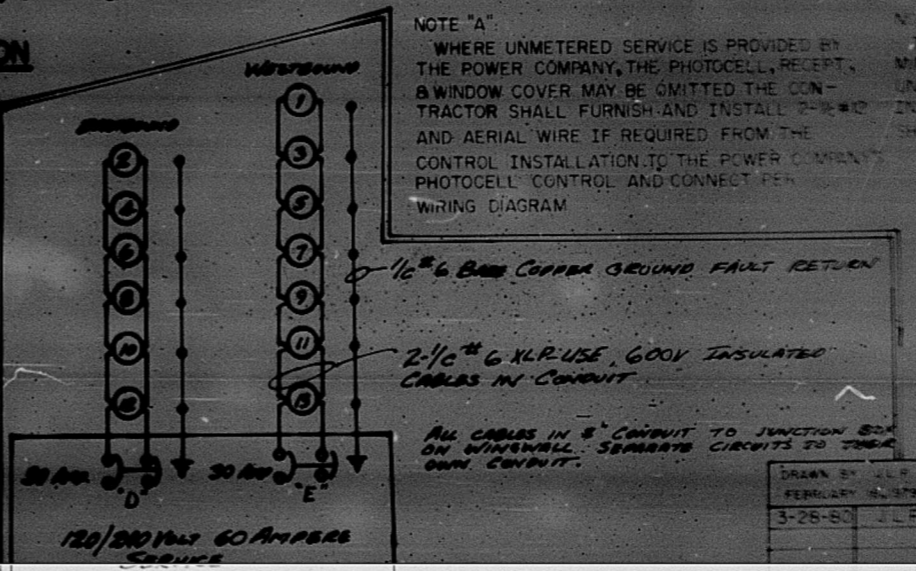
UNDERGROUND SERVICE (SEE NOTE "B") 3-1/2 #6 COPPER CONDUCTORS WITH 600 V. TYPE USE INSULATION. MAY ALSO INCLUDE PHOTOCELL CONTROL WIRE (SEE NOTE "A")

NOTE: WIRING SHALL BE PANEL BOARD FASHION. ALL BENDS SHALL BE RIGHT ANGLES. ALL RUNS SHALL BE VERTICAL OR PARALLEL TO PANEL BOARD. WIRES SHALL BE GROUPED OR LACED.

**WIRING DIAGRAM**

NOTE "A": WHERE UNMETERED SERVICE IS PROVIDED BY THE POWER COMPANY, THE PHOTOCELL, RECEPT, & WINDOW COVER MAY BE OMITTED. THE CONTRACTOR SHALL FURNISH AND INSTALL 2-1/2 #12 AND AERIAL WIRE IF REQUIRED FROM THE CONTROL INSTALLATION TO THE POWER COMPANY. PHOTOCELL CONTROL AND CONNECT PER WIRING DIAGRAM.

NOTE "B": THE UNDERGROUND SERVICE SHALL BE 30 FT. MINIMUM AND 150 FT. MAXIMUM. TOTAL AERIAL & UNDERGROUND SERVICE BETWEEN THE CONTROL INSTALLATION AND PRIMARY TRANSFORMER SHALL BE 250 FT.

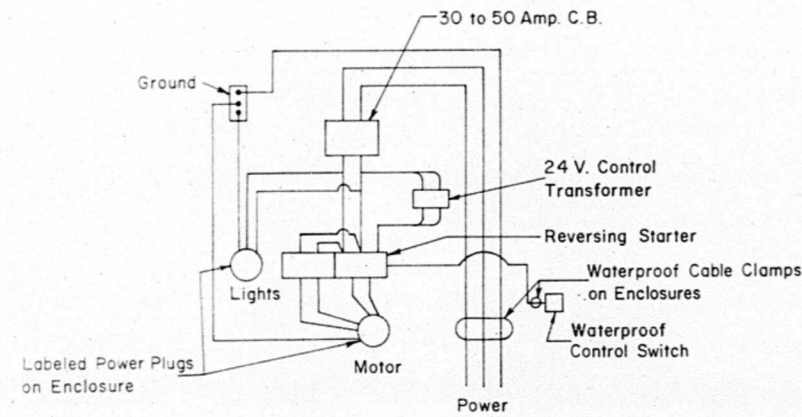


4. CONTROL INSTALLATION  
TYPE CB-RCS-60-240  
5. WIRING DIAGRAM  
6. CONDUIT DETAILS @ E. ABUT.

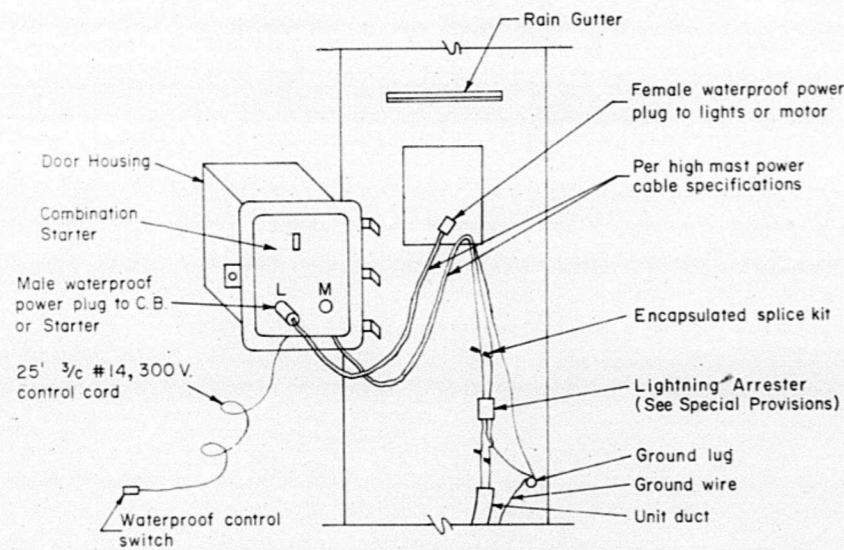
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FEBRUARY 1979  
3-28-80 JLP



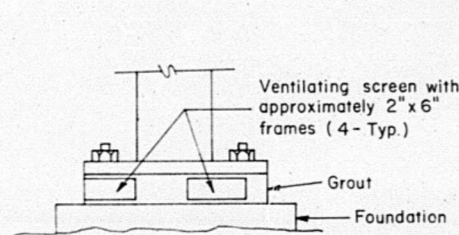
ROUTE	SECTION	COUNTY	Total Shts.	SHEET #	SHEET #
FA 693	121	Peoria Tazewell	9	9	
Fed. Rd. Dist. #7 ILLINOIS Fed. Aid Proj.					



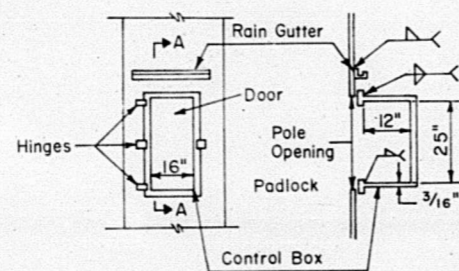
**NOTE**  
 Manufacturer of lowering device shall factory wire the winch drive electrical control system. Cable attachment to plugs and polarity must be observed to prevent faults to ground when plugs are changed between lights and motor circuits. Alternate control schemes shall be approved by the Engineer.



**HIGH MAST POLE WIRING DETAILS**

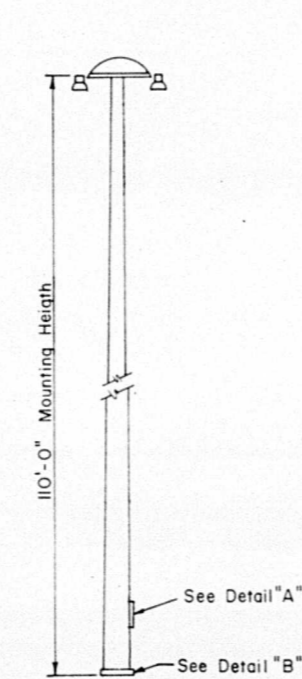


**DETAIL "B"**

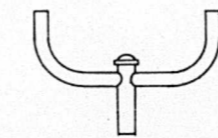


Dimensions are approximate - (See Special Provisions)

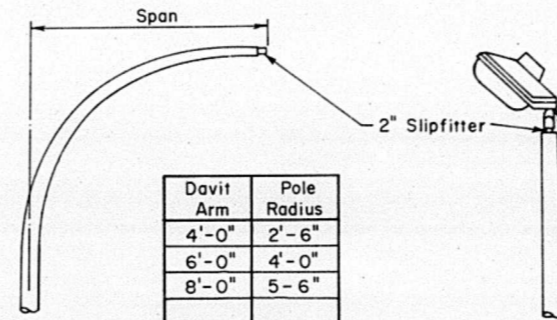
**DETAIL "A"**



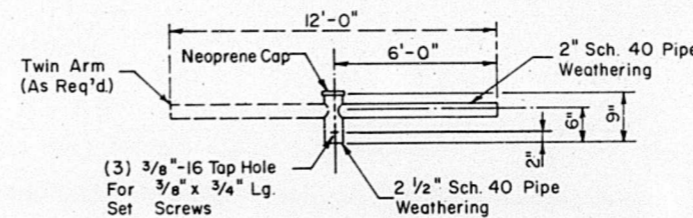
**HIGH MAST POLE**



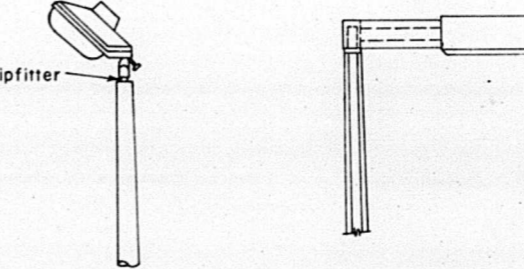
**TWIN TENON**



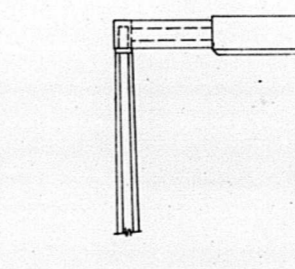
**DAVIT ARM**



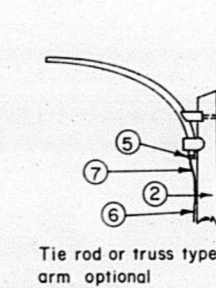
**TENON MOUNTED BRACKET ARM**



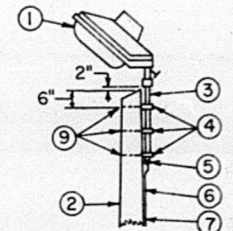
**TENON**



**SHORT BRACKET**

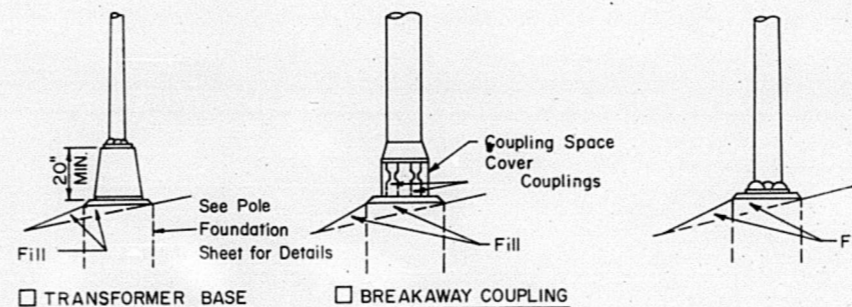


**MAST ARM**



**TENON**

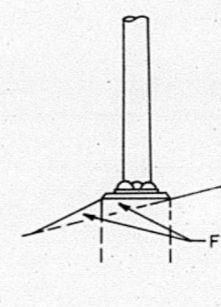
- ① Luminaire
- ② Wood pole, class 3 or better
- ③ 2 1/2" Galv. steel conduit
- ④ Single offset pole band
- ⑤ Conduit bushing
- ⑥ Cable clamps on 2'-0" centers
- ⑦ 2/c # 12 type USE cable
- ⑧ 1" Galv. steel conduit 10'-0" in length
- ⑨ 5/8" hot dipped galvanized bolt with flat washer and locknut (3 Req'd.)
- ⑩ Conduit clamps on 3'-0" centers
- ⑪ Unit duct
- ⑫ Threaded reducer
- ⑬ "C" Condulet, threaded
- ⑭ 1 1/2" Galv. steel conduit for 1 unit duct or 3" Galv. steel conduit for 2 or 3 unit ducts



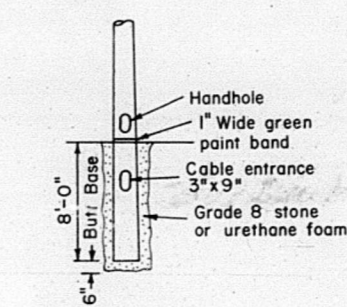
**TRANSFORMER BASE**

**BREAKAWAY COUPLING**

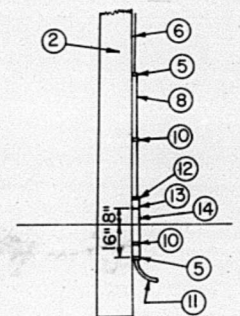
**FRANGIBLE**



**ANCHOR**



**BUTT BASE**



**POLE, WOOD**

POLE LENGTH	DEPTH IN GROUND
65'	12'
60'	10'
55'	9'
50'	8'
45'	7'
40'	6.5'
35'	6'
30'	5.5'

**METAL** OR  **CONCRETE**

Drn. By: J.L.P.  
 March 20, 1980

**POLE STANDARDS**