ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 49	15 B-2	PEORIA	56	1
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT C-49(22)		

P-94-156-69

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A. ROUTE 49 (F.A. RTE. 31)
SECTION 15 B-2
PROJECT F-49(22)
PEORIA COUNTY

C-94-121-76

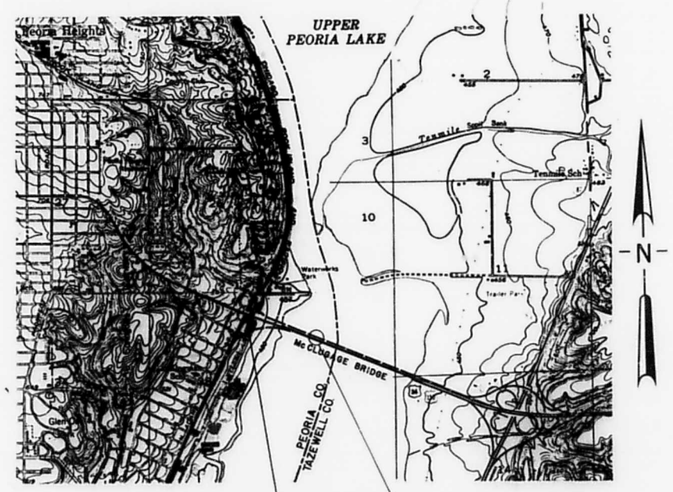
INDEX OF SHEETS

STANDARDS:

1683-4	2214-4	2302-3
1686-4	2217-3	2303-4
2130-5	2230-11	2305-3
2168-8	2298-4	2323-3
2169-6	2299-7	2337
2176-1	2300-1	

DESIGN DESIGNATION
3996 (94) MAJOR (PCC-20)

CONTRACT NO. 32837



PROPOSED PROJECT BEGINS STA. 199+00.77

PROPOSED PROJECT ENDS STA. 213+37.77

NET LENGTH OF PROPOSED IMPROVEMENT & PROJECT
1437 LIN. FT. = 0.272 MI.

LAYOUT
SCALE = 1" = 2000'

PROPOSED IMPROVEMENT INCLUDES COMPLETE CONSTRUCTION OF PIERS 2 THRU 9 INCLUSIVE, PIER 2F, PIERS 2E THRU 9E INCLUSIVE, WEST ABUTMENT, NORTH ABUTMENT AND SOUTH ABUTMENT. THESE PIERS WILL EVENTUALLY SUPPORT A TWO LANE CANTILEVER TRUSS WITH PLATE GIRDER APPROACHES, AN EXIT RAMP FROM THE NEW STRUCTURE AND AN ENTRANCE RAMP TO THE EXISTING STRUCTURE. THE IMPROVEMENT WILL CARRY F.A. ROUTE 31 (U.S. RT. 24) OVER THE ILLINOIS RIVER AT PEORIA. ALSO INCLUDED ARE PAVEMENT REMOVAL, WIDENING, AND RESURFACING OF RAMP A AND WIDENING ON ADAMS ST.

REVISED SET
12-20-77

SUBMITTED July 27, 1977 — DIST. CONST. ENGR.
EXAMINED June 30, 1977 — DIST. CONST. ENGR.
EXAMINED June 24, 1977 — DIST. MAINT. ENGR.
EXAMINED July 7, 1977 — DIST. TRAFFIC ENGR.
Entire section inspected and approved as to policy.
DATE 2-27-77 — DISTRICT ENGINEER

LOCATION OF SECTION INDICATED THUS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 7-27 1977 — DISTRICT ENGINEER
EXAMINED 9-6 1977 — ENGINEER OF PLANS AND CONTRACTS
PASSED 9-6 1977 — ENGINEER OF DESIGN
APPROVED 9-6 1977 — DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR — DATE

Revised 10-12-77

Rev. 12-20-77
Rev. 9-20-77

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-2	PEORIA	56	2
STA.		TO STA.		
FHWA REG. No. 4		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CONSTR. TYPE CODE

CODE NO	ITEM	UNIT	TOTAL QUANTITY
201001	TREE REMOVAL (6 TO 15 INCH DIAMETER)	IN.DIA.	584
201002	TREE REMOVAL (OVER 15 INCH DIAMETER)	IN.DIA.	580
202001	EARTH EXCAVATION	CU.YD.	1508
308007	BITUMINOUS BASE COURSE 10 INCHES	SQ.YD.	424
306005	BITUMINOUS CONCRETE BASE COURSE WIDENING 10 INCHES	SQ.YD.	467
406006	LEVELING BINDER (HAND METHOD)	TON	22
406013	BITUMINOUS CONCRETE SURFACE COURSE, CLASS I, MIX D	TON	156
501015	REMOVAL OF EXISTING SUPERSTRUCTURE	EACH	1
501024	CONCRETE REMOVAL	CU.YD.	9.6
501038	EXPANSION BOLTS 7/8"	EACH	347
502001	STRUCTURE EXCAVATION	CU.YD.	2,391
502003	COFFERDAM EXCAVATION	CU.YD.	2,046
502014	COFFERDAM PIER 9	EACH	1
502013	COFFERDAM PIER 8	EACH	1
502012	COFFERDAM PIER 7	EACH	1
502011	COFFERDAM PIER 6	EACH	1
X06188	COFFERDAM PIER 9 E	EACH	1
X06186	COFFERDAM PIER 8 E	EACH	1
X06184	COFFERDAM PIER 7 E	EACH	1
X06182	COFFERDAM PIER 6 E	EACH	1
502009	COFFERDAM PIER 4	EACH	1
504002	CLASS A CONCRETE	CU.YD.	4452.9
504003	CLASS X CONCRETE	CU.YD.	165.2
504004	SEAL COAT CONCRETE	CU.YD.	519.1
504008	CLASS X CONCRETE (OUTLET)	CU.YD.	1.0
512001	REINFORCEMENT BARS	LBS.	457,860
513014	FURNISHING STEEL PILES HP 10 X 42	LIN.FT.	2,538
513015	FURNISHING STEEL PILES HP 10 X 57	LIN.FT.	1,326
513016	FURNISHING STEEL PILES HP 12 X 53	LIN.FT.	8,047
513018	FURNISHING STEEL PILES HP 14 X 73	LIN.FT.	905
513022	FURNISHING CONCRETE PILES (12" DIA.)	LIN.FT.	10,213
513027	DRIVING STEEL PILES	LIN.FT.	13,058
513028	DRIVING CONCRETE PILES	LIN.FT.	10,213
513034	TEST PILE - STEEL HP 10 X 42	EACH	2
513035	TEST PILE - STEEL HP 10 X 57	EACH	1
513036	TEST PILE - STEEL HP 12 X 53	EACH	4
513038	TEST PILE - STEEL HP 14 X 73	EACH	2
513042	TEST PILE - 12" CONCRETE	EACH	11
513049	STEEL SHEET PILING	SQ.FT.	4,017
513052	TEMPORARY STEEL SHEET PILING	SQ.FT.	1,950
612357	INLETS, TYPE A, TYPE 3 FRAME & GRATE	EACH	2
612362	INLETS, TYPE A, TYPE 8 GRATE	EACH	1
615003	FILLING EXISTING INLETS	EACH	4
616038	COMBINATION CONCRETE CURB & GUTTER, TYPE B-612	LIN.FT.	140
616050	COMBINATION CONCRETE CURB & GUTTER, TYPE B-624	LIN.FT.	356
616086	COMBINATION CONCRETE CURB & GUTTER, TYPE M-606	LIN.FT.	27
616104	COMBINATION CONCRETE CURB & GUTTER, TYPE M-624	LIN.FT.	160
616035	COMBINATION CONCRETE CURB & GUTTER, TYPE B-606	LIN.FT.	200
617001	PAVEMENT REMOVAL	SQ.YD.	702
617005	COMB. CURB & GUTTER REMOVAL	LIN.FT.	1,945
617010	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ.YD.	187
617031	MEDIAN REMOVAL	SQ.FT.	150
620062	PAVEMENT REMOVAL & PORTLAND CEMENT CONCRETE REPLACEMENT SPECIAL 9"	SQ.YD.	29
X62837	STEEL PLATE BEAM GUARD RAIL, TYPE A	LIN.FT.	320
628006	STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL (SPECIAL)	LIN.FT.	299
629003	CHAIN LINK FENCE, 6'	LIN.FT.	150
629119	TEMPORARY FENCE	LIN.FT.	209
633001	METAL PLATE GUARD RAIL REMOVAL	LIN.FT.	214
633004	CABLE ROAD GUARD REMOVAL	LIN.FT.	400
642002	SEEDING, CLASS II	ACRE	0.7
646004	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	20
L03200	* HANDHOLE	EACH	1
L04300	* TRENCH & BACKFILL	LIN.FT.	65
L05678	* POLE, METAL 30 FT. NH 10 FT. MAST ARM	EACH	1
L02200	* POLE FOUNDATION	EACH	1

SUMMARY OF QUANTITIES

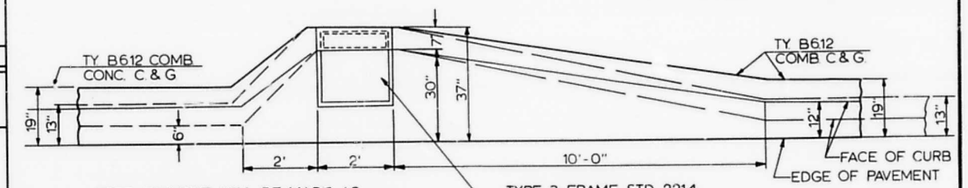
CONSTR. TYPE CODE

CODE NO	ITEM	UNIT	TOTAL QUANTITY
L02781	*ELECTRIC CABLE, UNIT DUCT, 2-600 VXLP #6; 1 INCH POLYETHYLENE	LIN.FT.	65
L05180	*ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) NO.6	LIN.FT.	65
L05675	*LAMP, 250 WATT HPS	EACH	1
L05508	*LUMINAIRE, SODIUM VAPOR, W/BUILT IN REGULATOR BALLAST 250 WATT	EACH	1
Z10019	BARRICADES (TYPE III)	LIN.FT.	85
T50101	*THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS	SQ.FT.	78
T50102	*THERMOPLASTIC PAVEMENT MARKING - LINE 4"	LIN.FT.	4,447
T50105	*THERMOPLASTIC PAVEMENT MARKING - LINE 8"	LIN.FT.	155
T50106	*THERMOPLASTIC PAVEMENT MARKING - LINE 12"	LIN.FT.	246
X06258	DISMANTLE MONITORING SYSTEM	L.SUM	1
G48018	TRAFFIC CONTROL & PROTECTION SPECIAL	L.SUM	1
G28031	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	2
G28032	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
T50202	PAINT PAVEMENT MARKING - LINE 4"	LIN.FT.	1320
X06239	WELLS 6"	LIN.FT.	311
X06240	WELLS 12"	LIN.FT.	69
X06241	PUMPS	L.SUM	1
X06242	MONITORING EQUIPMENT	L.SUM	1
X06243	SETTLEMENT MONUMENT	LIN.FT.	47
X10527	TRAINEES	HOUR	3,000

* SPECIALTY ITEMS

OUTLET - STATION 61+10± 30' RT.

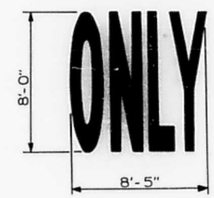
QUANTITIES
CLASS X CONCRETE = 10 C.Y.



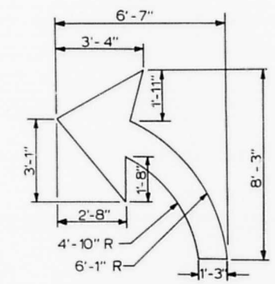
NOTE: PAYMENT WILL BE MADE AS CLASS X (OUTLET) AND PER EACH INLET TYPE A WITH TYPE 3 FRAME & GRATE SEE STDS. 2214 & 1683-1
USE 1/2 Φ STEEL TIE BARS @ 2'-6" CTRS. (INCIDENTAL TO CLASS X (OUTLET))

ARROW DETAILS

22.4 SQ. FT.



16.6 SQ. FT.



LEFT ARROW

EARTH EXCAVATION		EARTH EMBANKMENT
N. ABUT.	869 CU YD	—
S. ABUT.	465 CU YD	—
ADAMS ST.	50 CU YD	95 CU YD
RAMP 'A' EXT.	124 CU YD	17 CU YD

METAL PLATE BEAM GUARD RAIL REMOVAL

W. ABUT.	44 L.F.
N. ABUT.	170 L.F.

SEEDING CLASS II

W. ABUT.	0 ACRE
N. ABUT.	0 ACRE
S. ABUT.	0 ACRE
RAMP A EXT.	0.1 ACRE

RESURFACING AND WIDENING QUANTITIES

LOCATION	LENGTH (FT.)	WIDTH (FT.)	BIT. CONC. SURF. CSE. CLASS I, MIX D 112 LB/SQ.YD/IN (TONS)	BASE CSE. WIDENING 10" SQ.YD.	BIT. BASE CSE. 10" SQ.YD.	PRIME COAT * (GAL.) .075 GAL/YD.	LEVELING BINDER HAND METHOD 112 LB/SQ.YD/IN (TONS)	AGGREGATE * PRIME COAT 4 LBS/SQ.YD. (LBS.)
ADAMS STREET								
STA. 56+15.00-57+65	150.00	0 TO 7.05	3.20	30.1	-	-	-	-
STA. 57+65-58+27.8	62.80	7.05 TO 10.0	5.31	54.4	-	.66	-	35
STA. 58+27.8-59+90.7	162.90	10	15.21	67.9	-	8.49	-	453
STA. 59+90.7-427+12	349.30	10	30.73	261.4	-	7.83	-	418
RAMP 'A'								
STA. 0+00 - 1+00 LT.	100	VAR.	9.66	-	115	86.25	10.0	-
STA. 1+00 - 2+00 LT.	100	VAR.	2.77	33	-	24.25	-	-
STA. 0+00 - 0+35	35.00	18'	13.34	-	18.0	11.90	-	-
STA. 0+35 - 1+54	119.00	19	20.00	-	-	17.85	-	-
STA. 1+54 - 3+27.08	173.08	12	30.69	-	-	27.40	-	-
STA. 3+27.08 - 5+36.8	209.72	VAR.	23.49	-	291.4	-	12.0	-
STA. 5+90± - 6+30±	40.0		.99	11.81	-	-	-	-
TOTAL			155.4	466.6	424.4	184.6	22.0	900

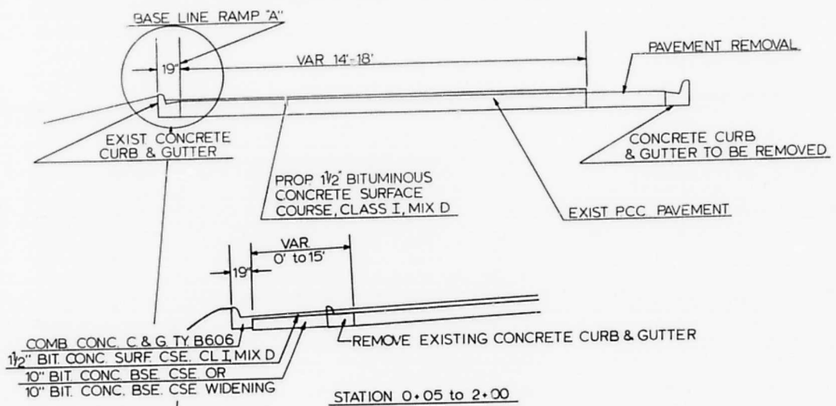
* FOR INFORMATION ONLY

FA 31 - SECTION 15B-2
SUMMARY OF QUANTITIES
RESURFACING AND WIDENING QUANTITIES
ARROW DETAILS
OUTLET DETAIL

REVISED 9-20-77

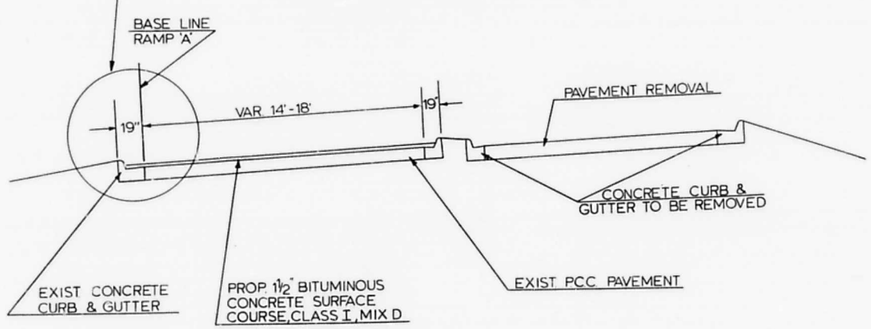
BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-2	PEORIA	56	
STA.		TO STA.		
FHWA REG. No. 4	ILLINOIS	FED. AID PROJECT		

RAMP "A"
TYPICAL SECTION 0+5000 to 0+964

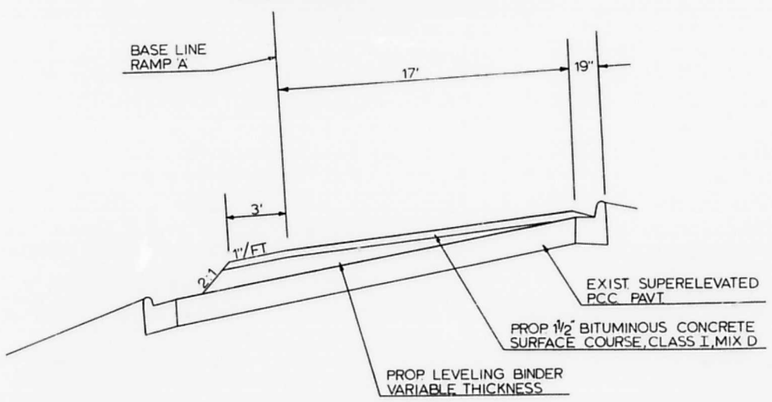


STATION 0+05 to 2+00

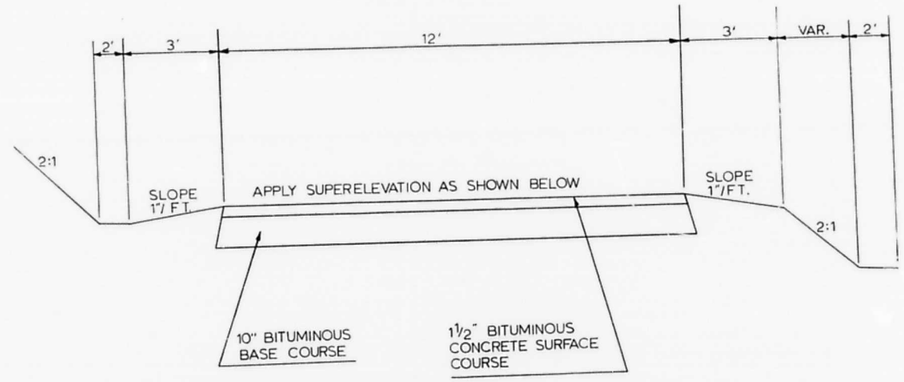
RAMP "A"
TYPICAL SECTION 0+964 to 3+3256



RAMP "A"
TYPICAL SECTION 3+3256 to 3+75±



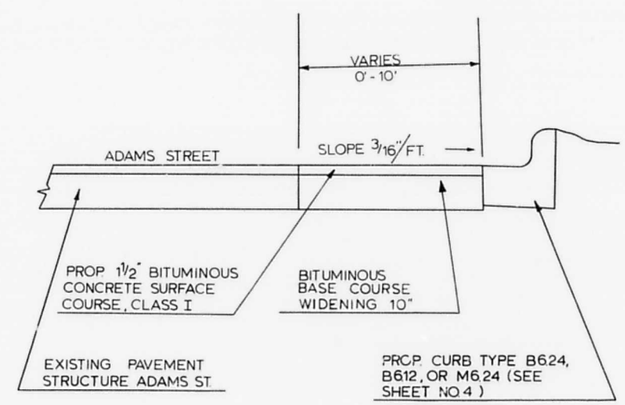
RAMP "A" EXT.
TEMPORARY RAMP TYPICAL SECTION
STA. 3+75± TO 5+30±



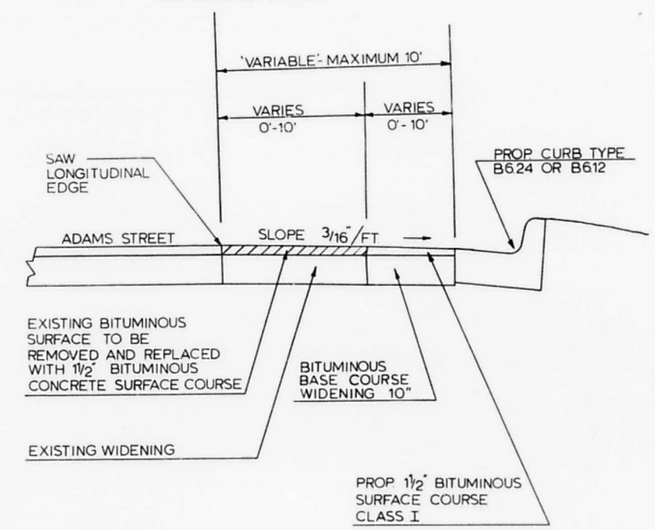
SUPER ATTAINMENT

CURVE TO THE LEFT	CURVE TO THE RIGHT
STA. 3+00 TO 3+60± — .04'/FT	STA. 4+32 TO 4+80± — .03'/FT
STA. 3+72 TO 4+32± — .04'/FT	STA. 4+80 TO 5+30± — .03'/FT

WIDENING ADJACENT TO EXISTING PAVEMENT
AT ADAMS STREET



WIDENING ADJACENT TO EXISTING PAVEMENT
AT ADAMS STREET



FA 31
15B-2
PEORIA
TEMPORARY RAMP AND
WIDENING TYPICAL SECTIONS

NOT TO SCALE

BRIDGE CODE	SECTION	COUNTY	TOTAL SHTS	SHT. NO.
FA49	15B-2	PEORIA	56	4

FHWA REG. No. 4 — INDEXED RID PROJECT

SEEDING, CLASS II THIS SHEET = 0.3 ACRES

CABLE ROAD GUARD REMOVAL
STA. - 0+20 TO STA. 4+20 RT RAMP 'B' = 400 LIN. FT.

PAVEMENT REMOVAL AND PORTLAND CEMENT CONCRETE REPLACEMENT, SPECIAL, 9"
STA. 5+30 - 5+45 RAMP 'A' EXT. @ LORENTZ = 29.1 SQ. YD.
INCLUDES FILLING EXISTING INLET.

BITUMINOUS CONCRETE SURFACE REMOVAL
VARIOUS LOCATIONS = 187.2 SQ. YD.

MEDIAN REMOVAL
RAMP 'A' 3+19± to 3+60± = 150 SQ. FT.
DEPTH = 6"±
WIDTH = 2'-5'

LIGHT STANDARD AND FOUNDATION REMOVAL (INCIDENTAL TO CONTRACT)
STA. 60+50± = 1 EACH & STA. 3+10, LT RAMP 'A' = 1 EACH
HANDHOLE STA. 61+00±, 34' RT. = 1 EACH

STA. 4+75± RAMP 'A', EXT. 2' RT
FILLING EXISTING INLETS - 1 EACH
SALVAGE TYPE 8 GRATE TO BE USED AT STA. 4+80±

STA. 4+80± RAMP 'A', EXT. 8' LT.
INLETS, TYPE A, TYPE 8 GRATE = 1 EACH
USE SALVAGED TYPE 8 GRATE FROM 4+75±.
BREAK INTO EXISTING 12" STORM SEWER.
H = 7'±

BARRICADES (TYPE III)

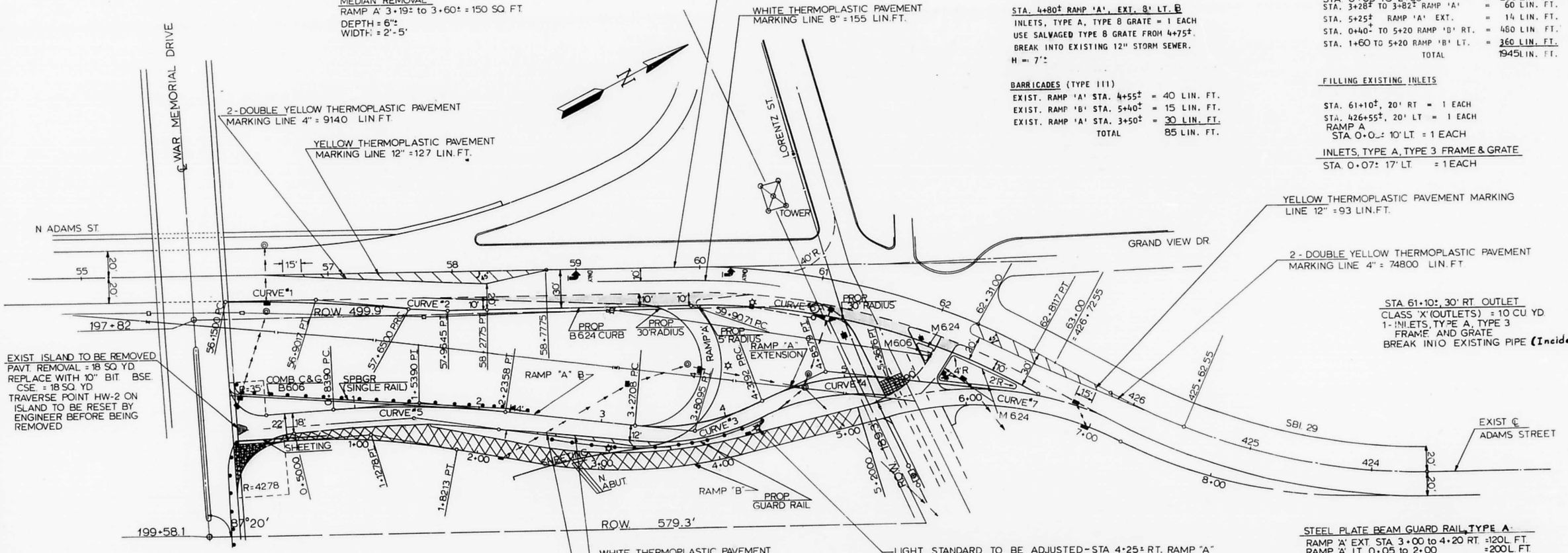
EXIST. RAMP 'A' STA. 4+55±	=	40 LIN. FT.
EXIST. RAMP 'B' STA. 5+40±	=	15 LIN. FT.
EXIST. RAMP 'A' STA. 3+50±	=	30 LIN. FT.
TOTAL		85 LIN. FT.

COMBINATION CURB AND GUTTER REMOVAL

STA. 62+29.17 TO 426+72.55	=	230 LIN. FT.
STA. 0+00 TO 0+34 RAMP 'A'	=	76 LIN. FT.
STA. 56+15 TO 61+20	=	443 LIN. FT.
STA. 61+75 TO 62+10	=	82 LIN. FT.
STA. 0+05 TO 2+00	=	200 LIN. FT.
STA. 3+28± TO 3+82± RAMP 'A'	=	60 LIN. FT.
STA. 5+25± RAMP 'A' EXT.	=	14 LIN. FT.
STA. 0+40± TO 5+20 RAMP 'B' RT.	=	480 LIN. FT.
STA. 1+60 TO 5+20 RAMP 'B' LT.	=	360 LIN. FT.
TOTAL		1945 LIN. FT.

FILLING EXISTING INLETS
STA. 61+10±, 20' RT = 1 EACH
STA. 426+55±, 20' LT = 1 EACH
RAMP A
STA. 0+0_± 10' LT = 1 EACH

INLETS, TYPE A, TYPE 3 FRAME & GRATE
STA. 0+07± 17' LT = 1 EACH



STEEL PLATE BEAM GUARD RAIL, TYPE A
RAMP 'A' EXT. STA. 3+00 to 4+20 RT. = 120 L. FT.
RAMP 'A' LT. 0+05 to 2+00 = 200 L. FT.
TOTAL = 320 L. FT.

TRAFFIC BARRIER TERMINAL TYPE I
RAMP 'A' EXT. STA. 2+625 to 3+00 = 1 EACH
RAMP 'A' LT. STA. 2+00 to 2+375 = 1 EACH

TRAFFIC BARRIER TERMINAL TYPE II
RAMP 'A' EXT. STA. 4+20 to 4+32.5 = 1 EACH

PAVEMENT REMOVAL = 684.4 SQ. YD.
RAMP 'B' STA. 0+10 to 5+20

EXISTING WIDENING & BIT. CONC. SURF. REMOVAL

STRUCTURE REMOVAL

CURVE NO.	1	2	3	4	5	6	7
P.I.	56+90.17	57+96.45	3+80.95	4+85.79	1+53.90	61+39.16	6+35.81
Δ	5° 23'	5° 23'	32° 30'	32° 30'	9° 41'	29° 23'	42° 08'
D	3° 35'	8° 33' 58"	31°	31°	6° 56'	10° 08'	22° 04'
T	75.17'	31.45	53.87'	53.87'	70.0'	148.45'	100.0'
R	1598.95'	668.91'	184.83'	184.83'	826.45'	566.16'	259.60'
L	150.22'	62.84'	104.84'	104.84'	139.68'	290.46'	190.90'
P.C.	56+15.00	57+65.00	3+27.08	4+31.92	0+83.90	59+90.71	7+26.1
P.T.	57+65.0	58+27.75	4+31.92	5+36.76	2+25.58	62+81.17	5+42.00

COMBINATION CONCRETE CURB AND GUTTER
TYPE B-6.24 (ALONG WIDENING ON ADAMS ST. RT.)

STA. 56+15.0 to 57+65.0	=	150 L. FT.
STA. 57+65 to 58+27.75	=	63 L. FT.
STA. 58+27.75 to 59+50	=	123 L. FT.
STA. 59+50 to 59+70	=	20 L. FT.
TOTAL	=	356 L. FT.

COMBINATION CONCRETE CURB AND GUTTER
TYPE B-6.12 (ALONG WIDENING ON ADAMS ST. RT.)
STA. 59+98 to 61+35 = 140 L. FT.

COMBINATION CONCRETE CURB & GUTTER
TYPE B-606
LT. STA. 0+05 TO 2+00 = 200 LIN. FT.

THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS

2 LEFT TURN ARROWS	=	33.2 SQ. FT.
2 'ONLY'	=	44.8 SQ. FT.
TOTAL		78.0 SQ. FT.

COMBINATION CONCRETE CURB AND GUTTER
TYPE M-606 - SMALL ISLAND STA. 62+00± RT. = 27 L. FT.

COMBINATION CONCRETE CURB AND GUTTER
TYPE M-6.24 - LARGE ISLAND 62+30 - 62+82 RT. = 145 LIN. FT.
SMALL ISLAND 62+00± RT. = 15 LIN. FT.
TOTAL 160 LIN. FT.

EDGE LINE - 4 INCH
RAMP 'A' AND RAMP 'A' EXT.
RT. & LT. EDGE STA. 0+00 to 6+60 = 1320 LIN. FT.

THERMOPLASTIC PAVEMENT MARKING - LINE 4"
EDGE STRIPING LINES

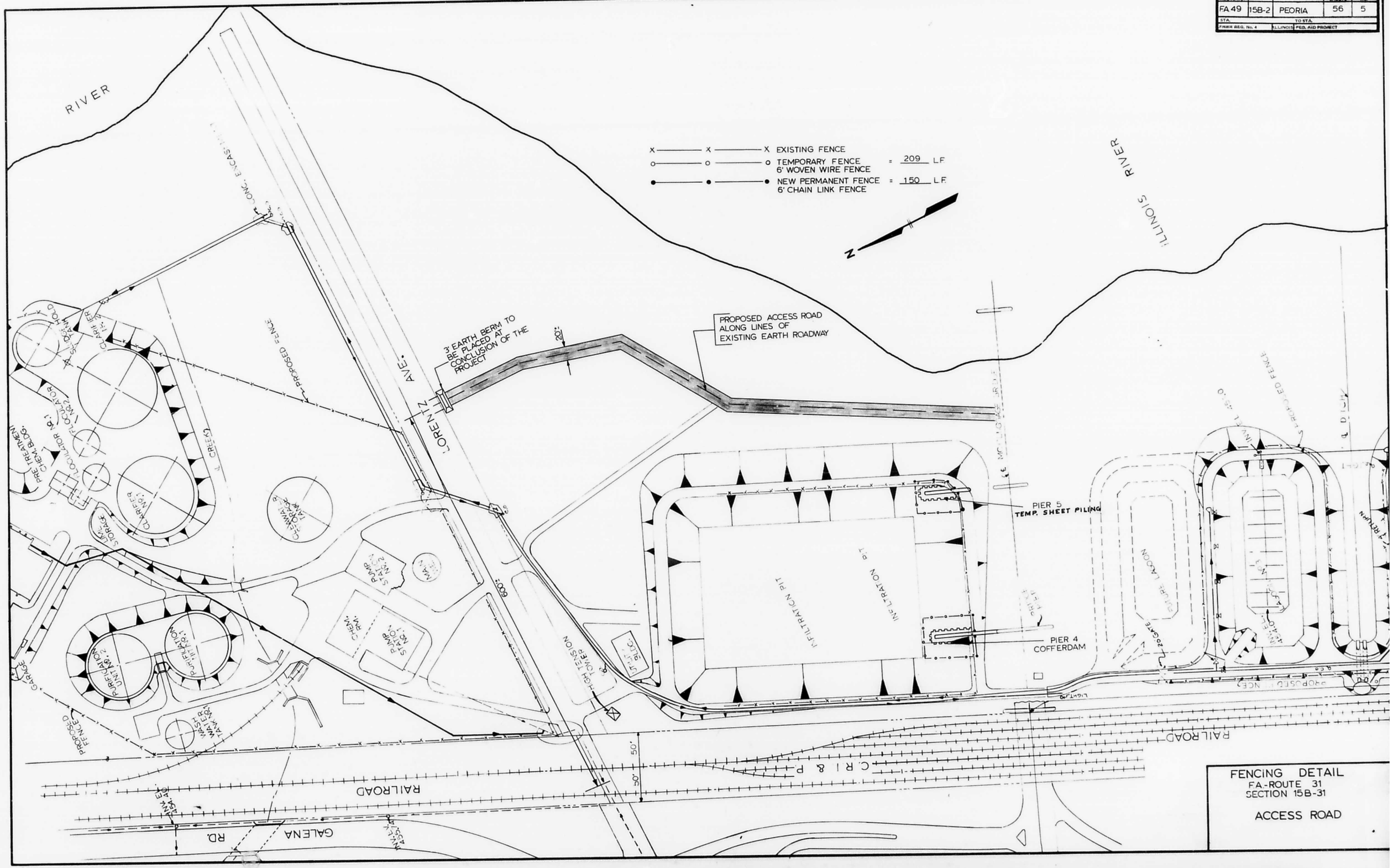
ADAMS STREET
WHITE - RT. EDGE STA. 56+15 TO 426+73 = 685 LIN. FT.
LANE LINE
WHITE STA 56+15 TO 425+50 = 300 LIN. FT.
(25 FT. SKIP - 15 FT. STRIPE)
TOTAL 2305 LIN. FT.

STA. 61+00, 34' RT
TRENCH AND BACKFILL = 65 LIN. FT.
POLE, METAL, 30 FT. MH 10 FT. MAST ARM = 1 EACH
POLE FOUNDATION = 1 EACH (TYPE A)
ELECTRIC CABLE, UNIT DUCT, 2-600 VXLP#6; 1 INCH POLYETHYLENE = 65 LIN. FT.
ELECTRIC CONDUCTOR (BARE ANNEALED COPPER) NO. 6 = 65 LIN. FT.
LAMP, 250 WATTS APS = 1 EACH
LUMINAIRE, SODIUM VAPOR, WITH BUILT-IN REGULATOR BALLAST, 250 WATTS = 1 EACH

FA 31 15B-2
PLAN RAMP 'A'
SCALE 1" = 40'

Rev. 9-20-77

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-2	PEORIA	56	5
STA.		TO STA.		
FHWA REG. No. 4	ILLINOIS	FED. AID PROJECT		



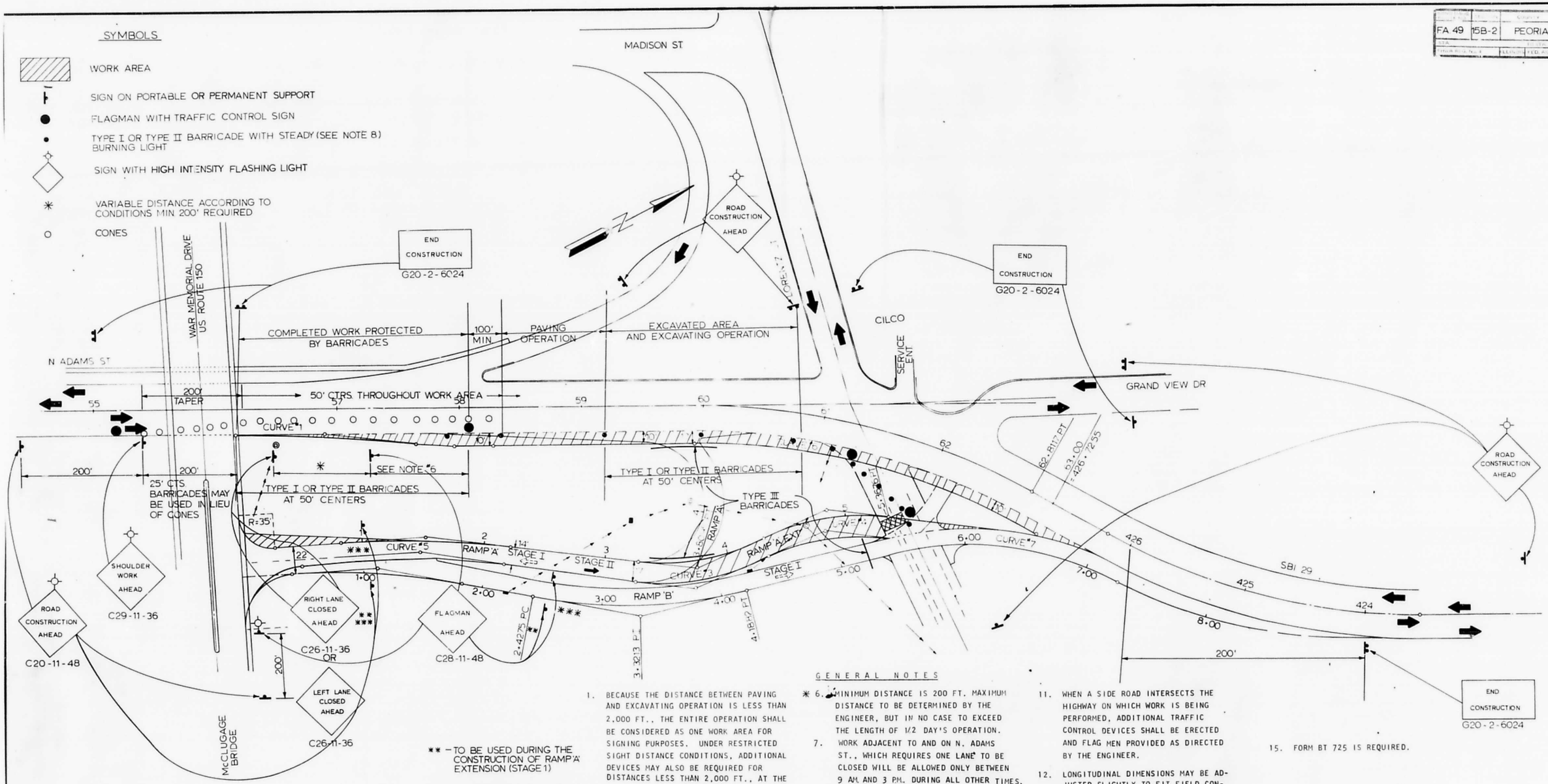
FENCING DETAIL
FA-ROUTE 31
SECTION 15B-31

ACCESS ROAD

FA 49	15B-2	PEORIA	56	6

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGMAN WITH TRAFFIC CONTROL SIGN
- TYPE I OR TYPE II BARRICADE WITH STEADY (SEE NOTE 8) BURNING LIGHT
- SIGN WITH HIGH INTENSITY FLASHING LIGHT
- VARIABLE DISTANCE ACCORDING TO CONDITIONS MIN 200' REQUIRED
- CONES



** - TO BE USED DURING THE CONSTRUCTION OF RAMP 'A' EXTENSION (STAGE 1)

*** - TO BE USED DURING RAMP 'B' PAVEMENT REMOVAL AND RELATED GRATING AND BRIDGE ABUTMENT CONSTRUCTION

CURVE NO	1	2	3	4	5	6	7
PI	56+9017	57+9645	3+8095	4+8579	1+5390	61+3916	6+3581
Δ	5° 23'	5° 23'	32° 30'	32° 30'	9° 41'	29° 23'	42° 08'
D	3° 35'	8° 33' 58"	31°	31°	6° 56'	10° 08'	22° 04'
T	75.17'	31.45	53.87'	53.87'	70.0'	148.45'	100.0'
R	1598.95'	668.91'	184.83'	184.83'	826.45'	566.16'	259.60'
L	150.22'	62.84'	104.84'	104.84'	139.68'	290.46'	190.90'
PC	56+1500	57+6500	3+2708	4+3192	0+8390	59+9071	7+261
PT	57+650	58+2775	4+3192	5+3676	2+2558	62+8117	5+4200

GENERAL NOTES

1. BECAUSE THE DISTANCE BETWEEN PAVING AND EXCAVATING OPERATION IS LESS THAN 2,000 FT., THE ENTIRE OPERATION SHALL BE CONSIDERED AS ONE WORK AREA FOR SIGNING PURPOSES. UNDER RESTRICTED SIGHT DISTANCE CONDITIONS, ADDITIONAL DEVICES MAY ALSO BE REQUIRED FOR DISTANCES LESS THAN 2,000 FT., AT THE DISCRETION OF THE DISTRICT ENGINEER.
2. TWO FLAG MEN SHALL BE REQUIRED FOR EACH SEPARATE CONSTRUCTION OPERATION 1,000 FT. OR LESS IN LENGTH.
3. THE FLAG MEN SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
4. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE OF ADAMS ST. LEAVING THE OTHER LANES OPEN TO TRAFFIC.
5. NO PAVING OR EXCAVATING OPERATIONS SHALL BE PERFORMED AT NIGHT UNLESS AUTHORIZED BY THE ENGINEER.

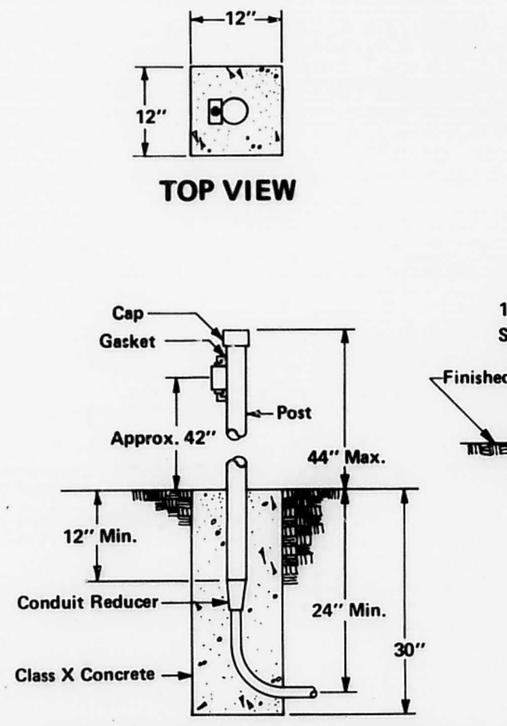
5A. WHEN THESE OPERATIONS ALONG N. ADAMS ST. ARE SUSPENDED, ALL VEHICLES, MATERIALS, AND EQUIPMENT, INCLUDING TRAFFIC CONTROL AND PROTECTIVE DEVICES, SHALL BE REMOVED FROM THE PAVEMENT AND THE EXCAVATED AREA SHALL BE PROTECTED BY TYPE I OR TYPE II BARRICADES AT 50' CENTERS.

* 6. MINIMUM DISTANCE IS 200 FT. MAXIMUM DISTANCE TO BE DETERMINED BY THE ENGINEER, BUT IN NO CASE TO EXCEED THE LENGTH OF 1/2 DAY'S OPERATION.
7. WORK ADJACENT TO AND ON N. ADAMS ST., WHICH REQUIRES ONE LANE TO BE CLOSED WILL BE ALLOWED ONLY BETWEEN 9 AM. AND 3 PM. DURING ALL OTHER TIMES, 2 LANES OF TRAFFIC, EACH DIRECTION, SHALL BE MAINTAINED.
8. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON TYPE I OR TYPE II BARRICADES FOR DAY OPERATIONS, BUT SHALL BE REQUIRED FOR NIGHT OPERATION.
9. ALL SIGNS SHALL BE POST MOUNTED IF THE WORKING TIME EXCEEDS FOUR DAYS.
10. HIGH INTENSITY FLASHING LIGHTS SHALL BE USED ON EACH APPROACH IN ADVANCE OF THE WORK AREA AND INSTALLED ABOVE THE FIRST TWO SIGNS IN EACH SERIES. NO RED FLAG IS NECESSARY ON THESE SIGNS.
11. WHEN A SIDE ROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL DEVICES SHALL BE ERECTED AND FLAG MEN PROVIDED AS DIRECTED BY THE ENGINEER.
12. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS. THE LATERAL PLACEMENT OF THE FLAG MEN MAY BE VARIED FROM THAT SHOWN.
13. ALL WARNING SIGNS SHALL HAVE MINIMUM DIMENSIONS OF 48 IN. BY 48 IN. AND HAVE BLACK LEGEND AND BORDER ON AN ORANGE REFLECTORIZED BACKGROUND. ALL SIGNS OTHER THAN WARNING SIGNS SHALL WAVE AS A MINIMUM THE DIMENSIONS SHOWN AND SHALL HAVE A BLACK LEGEND AND BORDER ON A WHITE REFLECTORIZED BACKGROUND.
14. ADDITIONAL SIGNING AND FLAGMEN WILL BE REQUIRED DURING THE CONSTRUCTION OF THE WEST AND NORTH ABUTMENTS. THE ACTUAL NEEDS WILL BE DETERMINED BY THE ENGINEER DEPENDING UPON THE CONTRACTORS EQUIPMENT AND OPERATIONS.
15. FORM BT 725 IS REQUIRED.

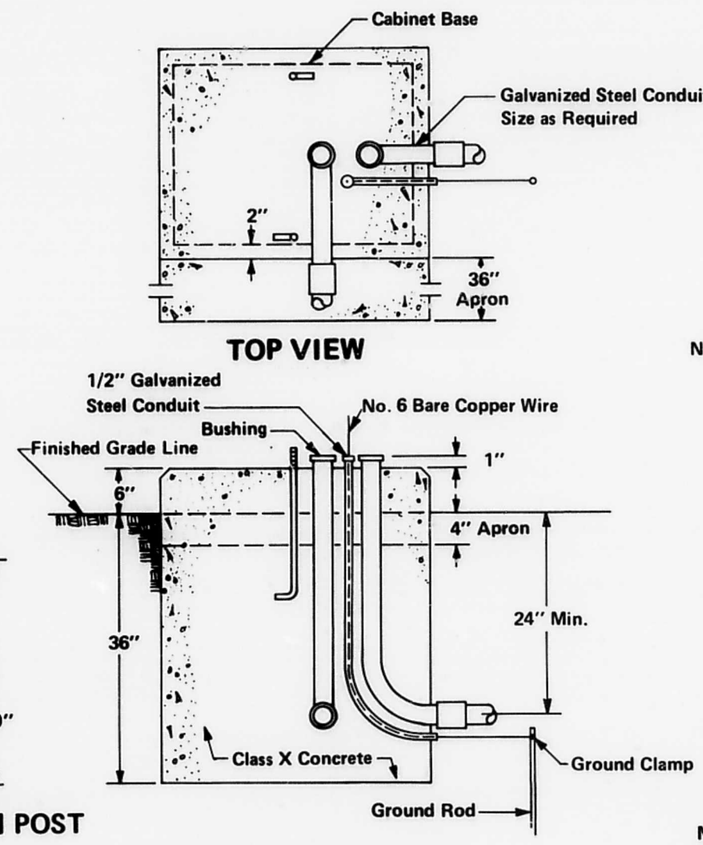
TRAFFIC CONTROL AND PROTECTION SPECIAL

NOT TO SCALE

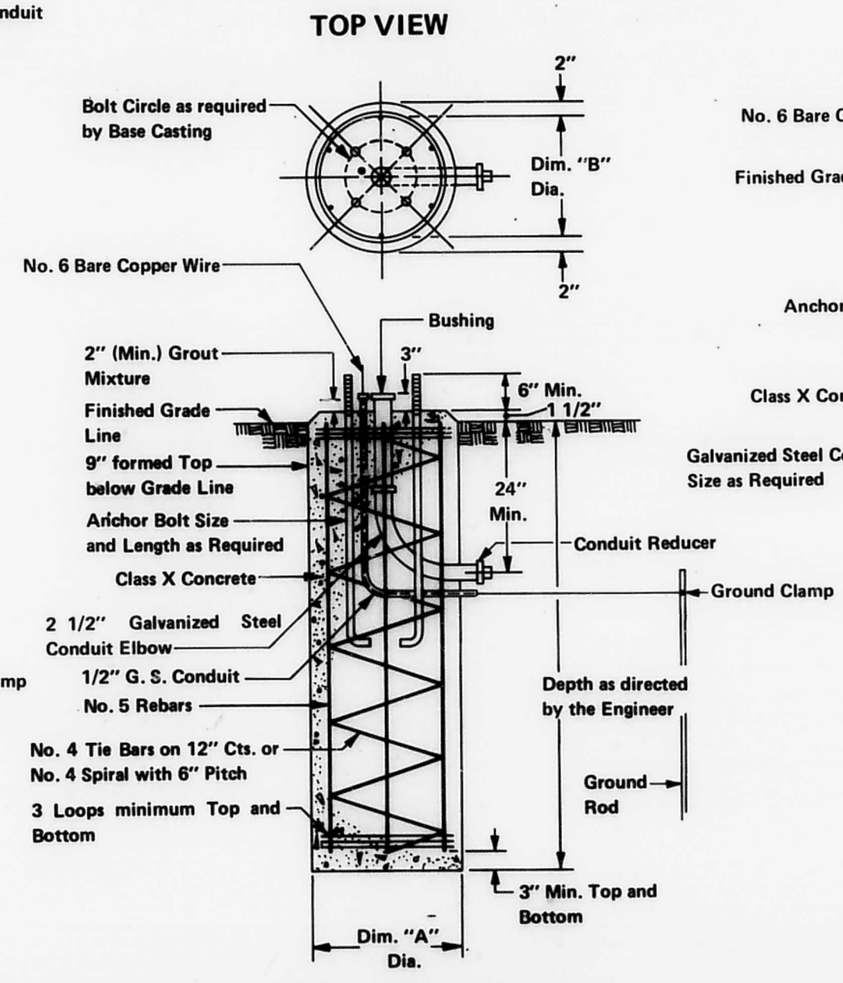
Mast Arm Length	Dim. "A"	Dim. "B"	Number of No. 5 Rebars
Less Than 30'	24"	20"	6
30' and Longer	30"	26"	8



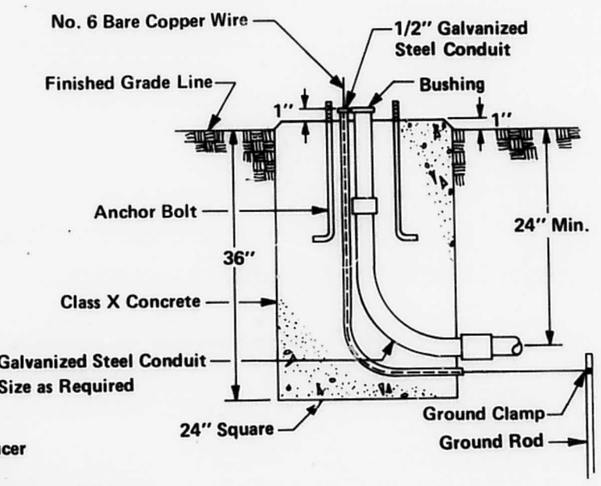
PEDESTRIAN PUSHBUTTON POST INSTALLATION



TYPE "D" FOUNDATION FOR GROUND MOUNTED CONTROLLER CABINET



TYPE "E" FOUNDATION



TYPE "A" FOUNDATION

NOTES

1. The dimensions of the type "D" foundation shall be 4" wider and longer than the base dimensions of the controller cabinet.
2. The ground rod shall be installed in the bottom of conduit trench.

Illinois Department of Transportation

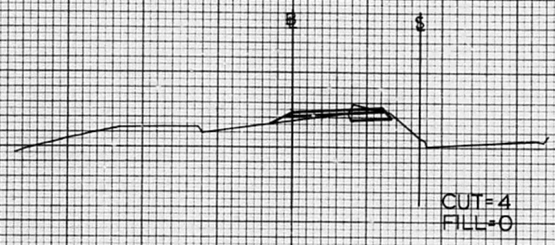
APPROVED 3-18 1977
Engineer of Bridge and Traffic Structures

APPROVED 3-18 1977
G. E. Moberly
Engineer of Traffic

ISSUED 1-1-77 REVISED	
BY	DATE

DETAILS OF CONCRETE FOUNDATIONS

Added 9-30-77

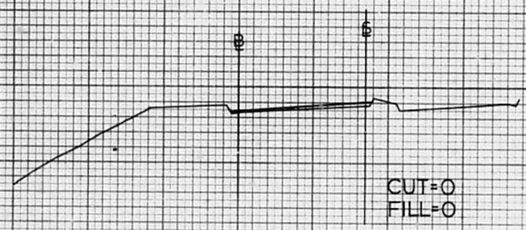


485

3 + 75

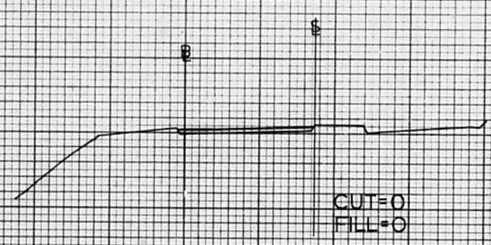
3 + 50

485



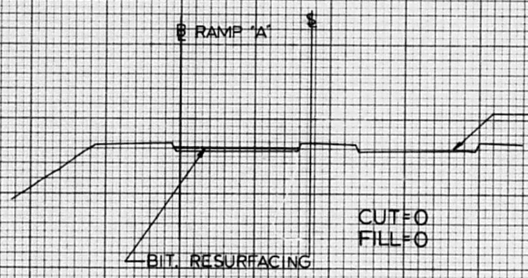
490

3 + 27.08



490

3 + 00



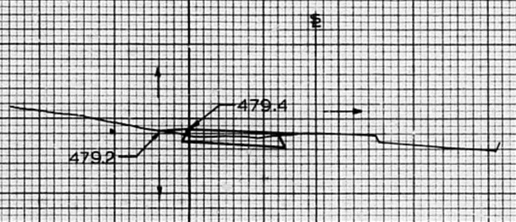
2 + 50

490

SCALE: H. 1"=10'
V. 1"=5'

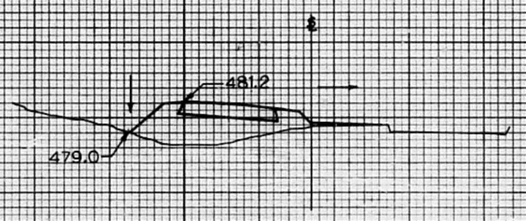
FA49	15B2	PEORIA	56
2+50		3+75	7

RAMP "A"



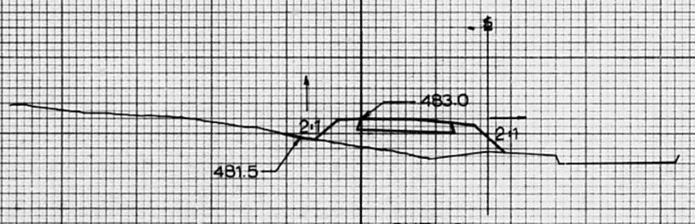
480 5 + 00

CUT = 8
FILL = 2



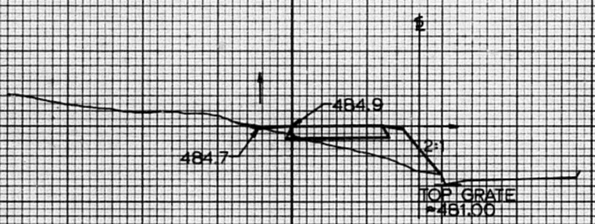
480 4 + 75

CUT = 0
FILL = 40



480 4 + 50

CUT = 0
FILL = 29



485 4 + 25

CUT = 3
FILL = 19

485 4 + 00

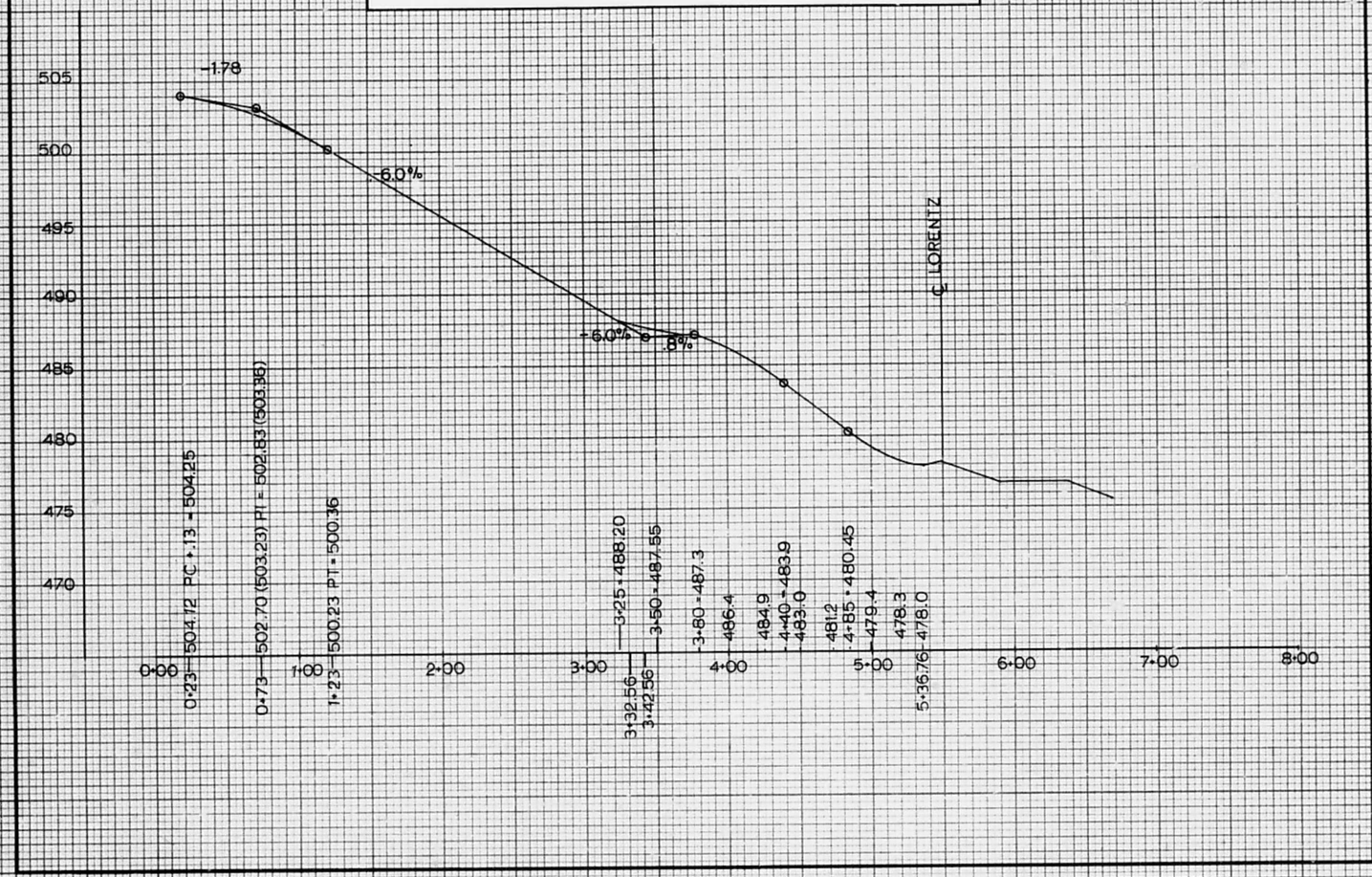
CUT = 18
FILL = 10

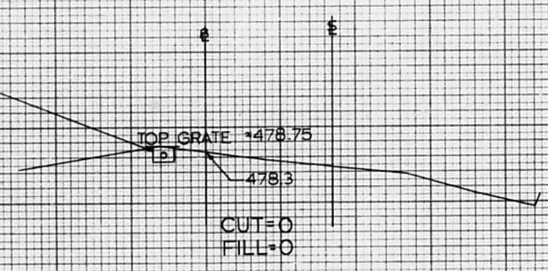
SCALE: H. 1" = 10'
V. 1" = 5'

FA 49	15B2	PEORIA	56	8
4+00		5+00		

RAMP "A"

PROPOSED RAMP "A" PROFILE

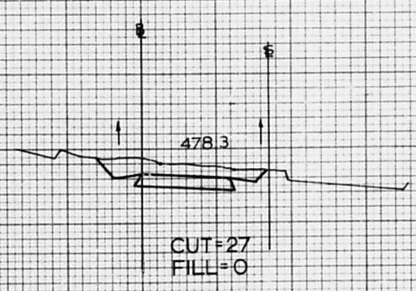




SKEWED CROSS SECTION OF LORENTZ AVENUE

5 + 50

475



5 + 25

480

SCALE: H. 1"=10'
V. 1"=5'

RAMP "A"

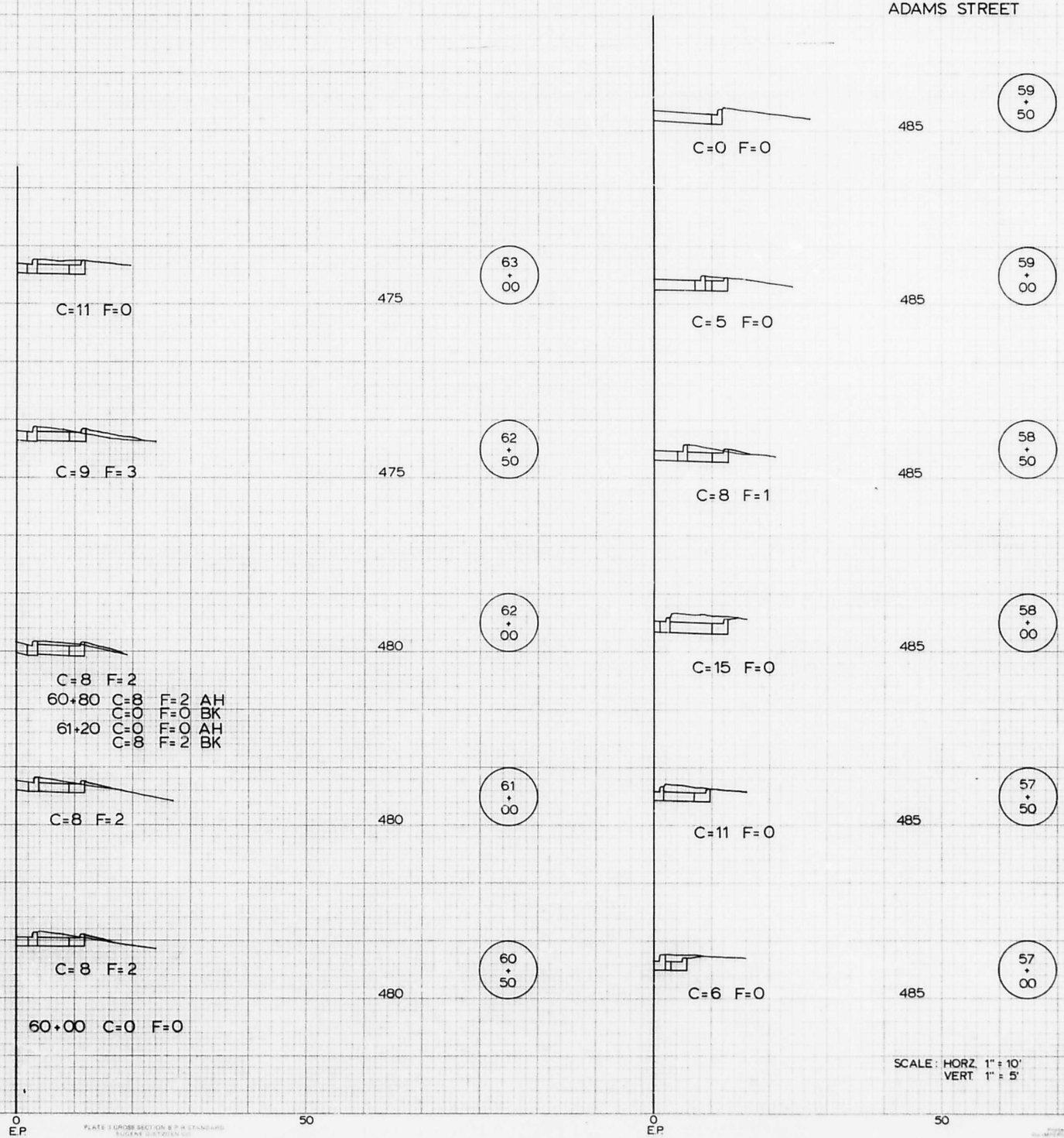
FA49	15B2	PEORIA	56	9
5+25			5+50	

BOND ISSUE ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 49	15B-2	PEORIA	56	10
STA.		TO STA.		
FHWA REG. No. 4	ILLINOIS	FED. AID PROJECT		

TREE REMOVAL

STA.±		IN DIA. (6"-15")	IN DIA. (OVER 15")	STA.±		IN DIA. (6"-15")	IN DIA. (OVER 15")
204+19	35' LT.	6"		206+67	49' LT.	13"	
204+34	35' LT.	8"		206+67	51' LT.	13"	
204+44	53' RT.	12"		206+67	61' LT.	14"	
204+45	53' RT.	8"		206+72	75' LT.	10"	
204+45	63' RT.		27"	206+73	59' LT.	10"	
204+50	53' RT.	9"		206+74	69' LT.	12"	
204+51	53' RT.		16"	206+84	49' LT.	11",13",11"	
204+54	35' LT.	9"				14",11",11"	
204+55	53' RT.	11"				12",11"	
204+64	57' RT.		25"	206+88	59' LT.	12",11",6"	19",19",18"
206+07	47' RT.		23"			6",6"	
206+11	50' RT.		18"	206+89	52' RT.	13"	
206+13	47' RT.		17"	206+89	42' RT.		22",18"
206+23	42' RT.	13"		206+89	52' RT.		17",19"
206+23	44' RT.		17"	206+98	59' LT.	10"	
206+35	92' LT.		35"	207+03	109' LT.	10",13",15"	16",16"
206+39	99' LT.		32"			15",15",15"	
206+41	37' RT.		24"			9",10",6"	
206+41	43' RT.		23"			12",11",15"	
206+49	99' LT.	10",11"		207+14	47' LT.		20"
206+49	37' RT.		18"	207+34	57' LT.	11",12",10"	17"
206+51	109' LT.	10",12"					
206+54	91' LT.	11"	15"		TOTAL	584	580
206+56	101' LT.		34"				
206+57	82' LT.		21"				
206+59	47' LT.	11"					
206+59	49' LT.	13"					
206+59	56' LT.	9",12"					
206+64	97' LT.		34"				

ADAMS STREET



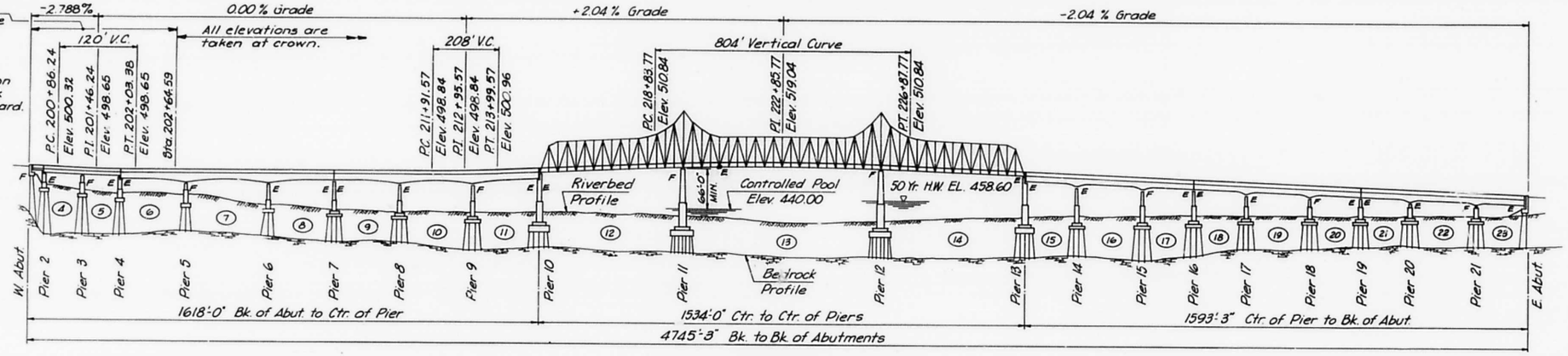
SCALE: HORZ. 1" = 10'
VERT. 1" = 5'

PLATE 3 CROSS SECTION B.P.R. STANDARD

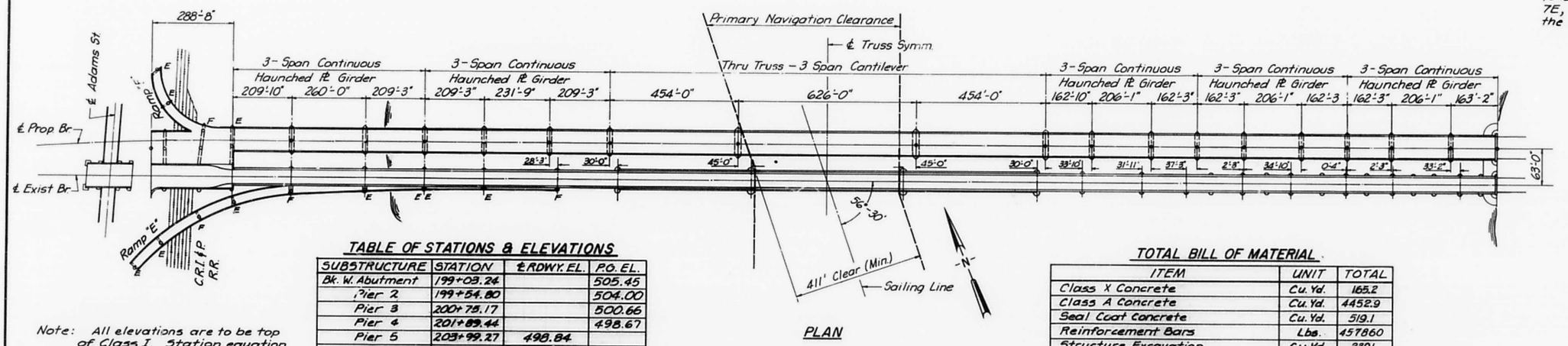
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	PEORIA AND TAZEWELL	5[illegible]	11
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

Profile Grade Elevations are taken @ I.S. edge of median.

Note: Station Equation 201+67.45 Back = 201+64.59 Forward.



ELEVATION



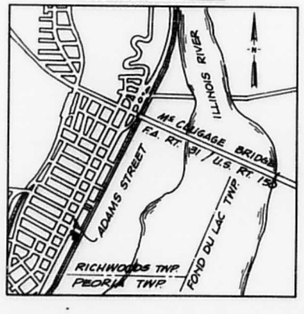
PLAN

Note: All elevations are to be top of Class I. Station equation at Sta. 201+67.45 Back = Sta. 201+64.59 Forward at ℄ W.B. Lane.

TABLE OF STATIONS & ELEVATIONS

SUBSTRUCTURE	STATION	℄ RDWY. EL.	PG. EL.
Bk. W. Abutment	199+03.24		505.45
Pier 2	199+54.80		504.00
Pier 3	200+75.17		500.66
Pier 4	201+89.44		498.67
Pier 5	203+99.27	498.84	
Pier 6	206+59.27	498.84	
Pier 7	208+68.52	498.84	
Pier 8	210+77.77	498.84	
Pier 9	213+09.52	499.52	
Pier 10	215+18.77	503.39	
Pier 11	219+72.77	512.45	
Pier 12	225+98.77	512.45	
Pier 13	230+52.77	503.39	
Pier 14	232+15.60	500.07	
Pier 15	234+21.69	495.87	
Pier 16	235+83.94	492.56	
Pier 17	237+46.19	489.25	
Pier 18	239+52.27	485.04	
Pier 19	241+14.52	481.73	
Pier 20	242+76.77	478.42	
Pier 21	244+82.85	474.22	
Bk. E. Abutment	246+46.02	470.89	
Bk. S. Abutment	8+58.5		499.59
Pier 2E	9+93		502.31
Pier 3E	11+60		501.22
Pier 4E	12+92.875		498.37
Pier 5E	14+96.68		497.67
Pier 6E	17+56.74		498.41
Pier 7E	19+66.04		498.48
Pier 8E	21+75.33		498.55
Pier 9E	24+35.39		498.64
Bk. N. Abutment	9+65.54		495.71
Pier 2F	8+55.80		499.81

LOCATION MAP



WATERWAY INFORMATION

Discharge (50 Yr. H.W. Frequency) 77,000 c.f.s.
Opening Provided Below Elev. 458.6 98,300 Sq. Ft.

DESIGN STRESSES

f_c = 1,400 p.s.i.
f_s = 20,000 p.s.i. Gr. 40 - 24,000 p.s.i. Gr. 60 (Reinf. Bars)
V_c = 56 p.s.i.
n = 10
Loading HS 20-44
Design Specs. (1973) (1974 Interim Specs.) AASHTO

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Class X Concrete	Cu. Yd.	165.2
Class A Concrete	Cu. Yd.	4452.9
Seal Coat Concrete	Cu. Yd.	519.1
Reinforcement Bars	Lbs.	457860
Structure Excavation	Cu. Yd.	2391
Cofferdam Excavation	Cu. Yd.	2046
Earth Excavation	Cu. Yd.	
Concrete Piles	Lin. Ft.	10213
Test Pile Concrete	Each	11
Steel Piles HP 10 x 42	Lin. Ft.	2538
Steel Piles HP 10 x 57	Lin. Ft.	1568
Steel Piles HP 12 x 53	Lin. Ft.	8047
Steel Piles HP 14 x 73	Lin. Ft.	905
Test Pile - Steel HP 10 x 42	Each	2
Test Pile - Steel HP 10 x 57	Each	One
Test Pile - Steel HP 12 x 53	Each	4
Test Pile - Steel HP 14 x 73	Each	2
Steel Sheet Piling	Sq. Ft.	4017
Temporary Steel Sheet Piling	Sq. Ft.	1950
Cofferdam Pier 4	Each	One
Cofferdam Pier 6	Each	One
Cofferdam Pier 7	Each	One
Cofferdam Pier 8	Each	One
Cofferdam Pier 9	Each	One
Cofferdam Pier 6E	Each	One
Cofferdam Pier 7E	Each	One
Cofferdam Pier 8E	Each	One
Cofferdam Pier 9E	Each	One
Concrete Removal	Cu. Yd.	9.6
Removal of Existing Superstructure	Each	One
Metal Plate Guard Rail Removal	Lin. Ft.	214
Sth. R. Bm. Guard Rail, Single Rail (Special)	Lin. Ft.	299
Expansion Bolts - 7/8" ϕ	Each	347

GENERAL NOTES

Reinforcement bars designated on the plans as 20 x 2 - #6 shall be interpreted as 20 lines of bars with 2 bars per line of #6 size bars.

Reinforcement bars in pier caps shall be spaced to miss anchor bolt locations.

The bearing seat steps on pier and abutment elements shall be poured monolithically with caps.

All concrete edges shall have a 3/4" chamfer unless otherwise shown on the plans.

Reinforcement bars indicated with ⊕ on Bills of Materials shall conform to AASHTO M 31 (ASTM A-615) Grade 60 steel.

See Special Provisions concerning boring data.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made by grinding the surface.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.

Expansion Bolts 7/8" ϕ shall be self drilling type with hooked bolt and embedded in new concrete of minimum depth 1'-4".

In order to avoid undermining or otherwise damaging the existing piers the Contractor shall take extreme caution in excavating for Piers 6E, 7E, 8E & 9E. No excavation shall be made below the seal coat elevations shown on the plans.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Bureau of Bridge & Traffic Structures

EUGENE R. WILKINSON 2969 REGISTERED STRUCTURAL ENGINEER OF ILLINOIS

GENERAL PLAN & ELEVATION

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED C.R.N.
CHECKED R.A.H.
DRAWN D.A.N.
CHECKED C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

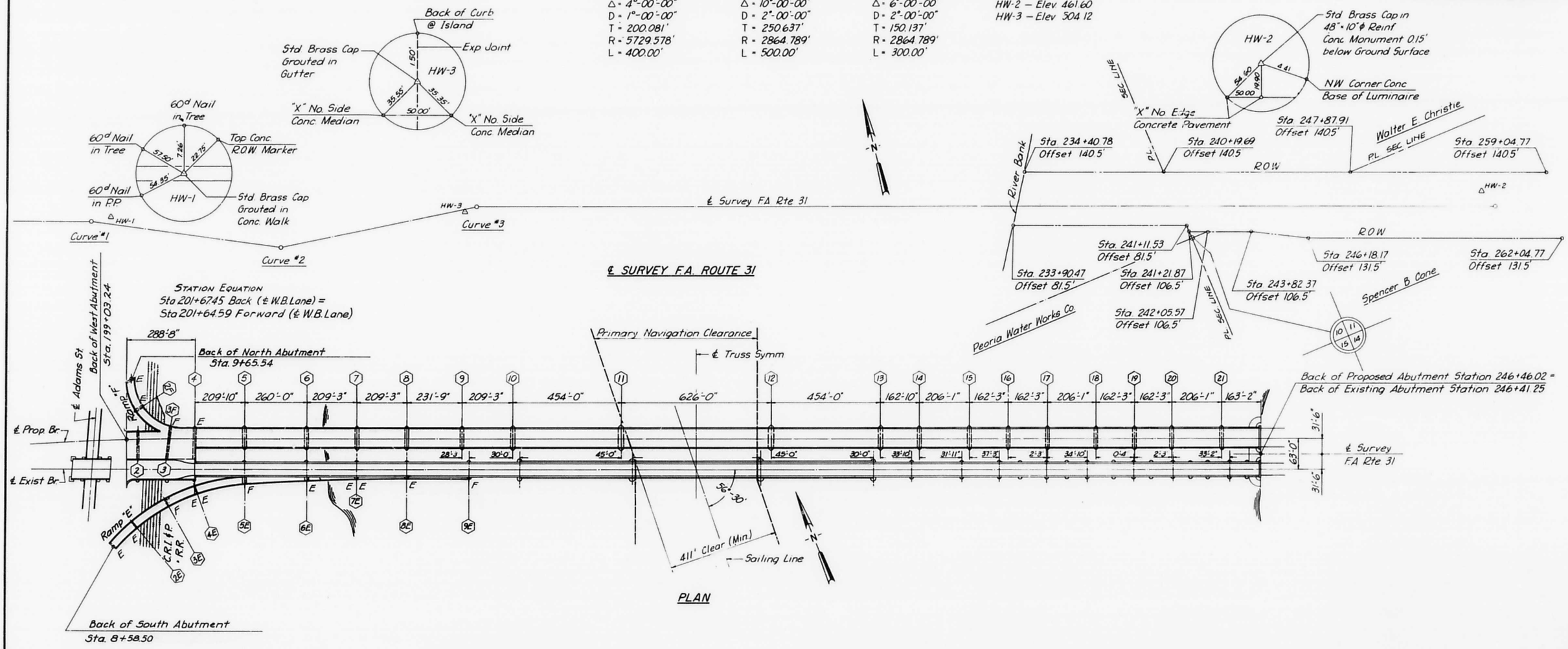
FILE NO. 74001
DATE 6-22-76

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 31	158-2	PEORIA AND TAZEWELL	56	12
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

Curve #1	Curve #2	Curve #3
PI = 183+00.081	PI = 191+00.637	PI = 199+35.06
Δ = 4°-00'-00"	Δ = 10°-00'-00"	Δ = 6°-00'-00"
D = 1°-00'-00"	D = 2°-00'-00"	D = 2°-00'-00"
T = 200.081'	T = 250.637'	T = 150.137'
R = 5729.578'	R = 2864.789'	R = 2864.789'
L = 400.00'	L = 500.00'	L = 300.00'

Bench Mark Data

HW-1 – Elev 562.11
HW-2 – Elev 461.60
HW-3 – Elev 504.12



PLAN

RAMP F CURVE DATA

P.I. = 8+74.623
Δ = 91°-59'-00.68"
D = 27°-56'-56.98"
T = 212.223
R = 205.0'
L = 329.110'

RAMP E CURVE DATA

P.I. = 9+3.15	P.I. = 13+6.99
Δ = 53°-30'-58.01"	Δ = 29°-08'-50.90"
D = 12°-00'-00.00"	D = 7°-30'-00.0"
T = 240.746'	T = 198.619'
R = 477.465'	R = 763.944'
L = 445.968'	L = 388.633'

HORIZONTAL CONTROL, BENCH MARKS & R.O.W.

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 158-2
PEORIA & TAZEWELL COUNTIES

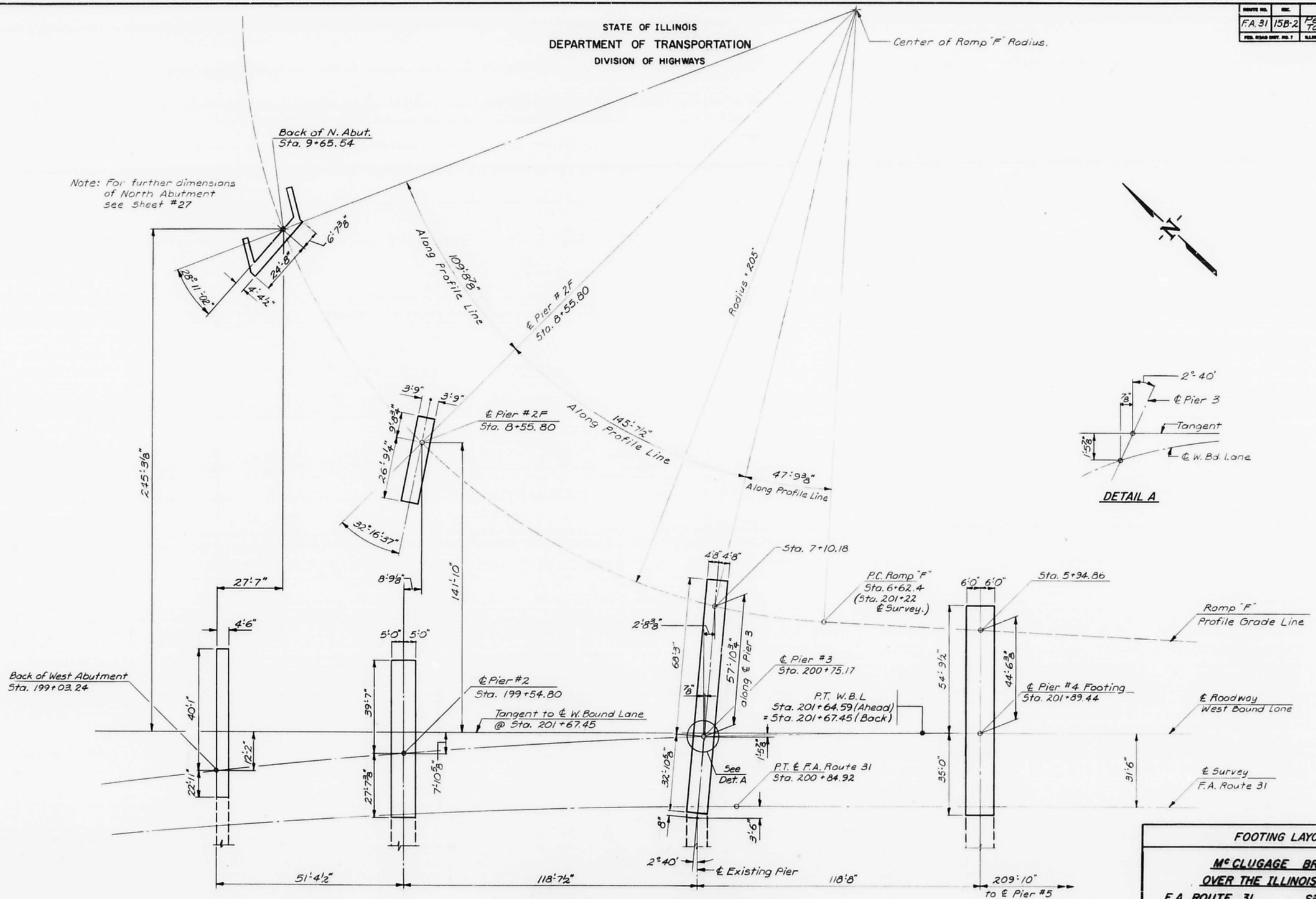
DESIGNED CRN
CHECKED DLB
DRAWN RAH
CHECKED CRN

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell.	56	13
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



FOOTING PLAN - PIERS 2F, 2, 3, 4, N. & W. ABUTS.

DETAIL A

FOOTING LAYOUT

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

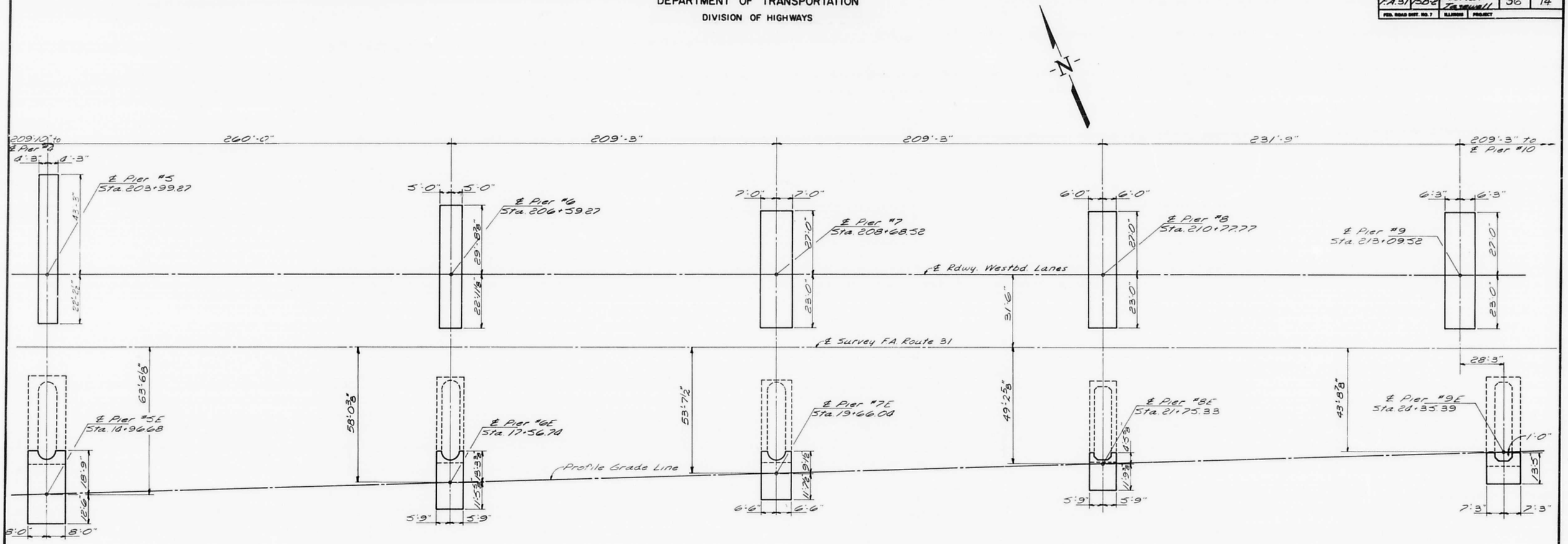
DESIGNED S.C.O.
CHECKED C.R.N.
DRAWN D.A.N.
CHECKED C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	14
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



FOOTING PLAN - PIERS 5,5E,6,6E,7,7E,8,8E,9,9E

FOOTING LAYOUT

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

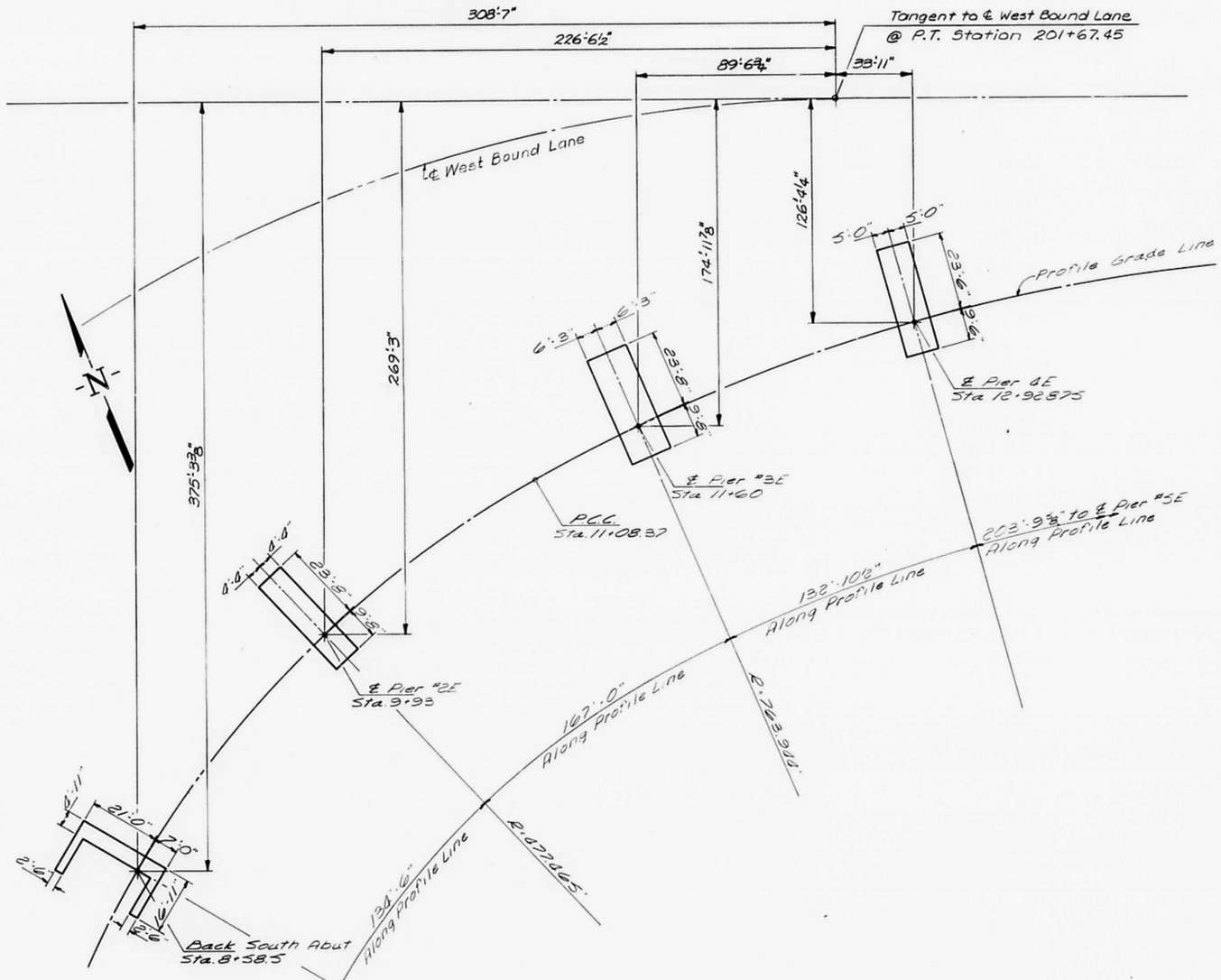
DESIGNED CRN
CHECKED WDL
DRAWN CRC
CHECKED CRN

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	158-2	Peoria & Tazewell	56	15
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



FOOTING PLAN - PIERS 2E, 3E, 4E, SOUTH ABUT.
(Not to Scale)

FOOTING LAYOUT

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 158-2
PEORIA & TAZEWELL COUNTIES

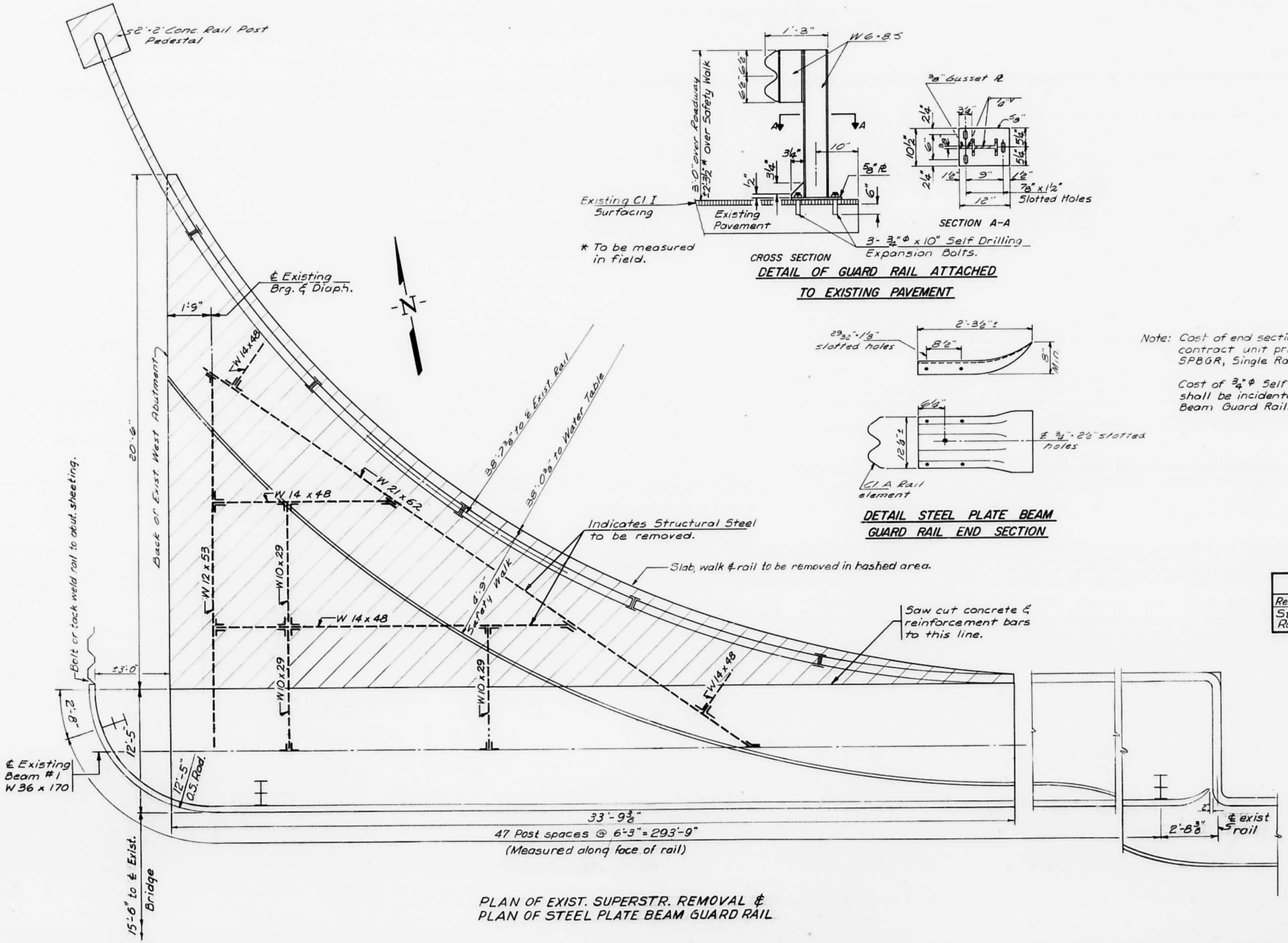
DESIGNED S.C.Q.
CHECKED C.R.N.
DRAWN C.R.C.
CHECKED C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 31	158-2	Peoria & Tazewell	56	16
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



* To be measured in field.

DETAIL OF GUARD RAIL ATTACHED TO EXISTING PAVEMENT

DETAIL STEEL PLATE BEAM GUARD RAIL END SECTION

Note: Cost of end section incidental to contract unit price per lin. ft. of SPBGR, Single Rail (Special) - 1 req'd.

Cost of 3/4" Φ Self Drilling Expansion Bolts shall be incidental to cost of Steel Plate Beam Guard Rail. 144 req'd.

BILL OF MATERIAL

Item	Unit	Total
Removal Exist. Superstructure	Each	One
Steel Plate Beam Guard Rail - Single Rail (Special)	Lin. Ft.	299

PLAN OF EXIST. SUPERSTR. REMOVAL & PLAN OF STEEL PLATE BEAM GUARD RAIL

STEEL PLATE BEAM GUARD RAIL & REMOVAL LIMITS OF EXIST. SUPERSTRUCTURE

Mc CLUGAGE BRIDGE OVER THE ILLINOIS RIVER

F.A. ROUTE 31 SEC. 158-2

PEORIA & TAZEWELL COUNTIES

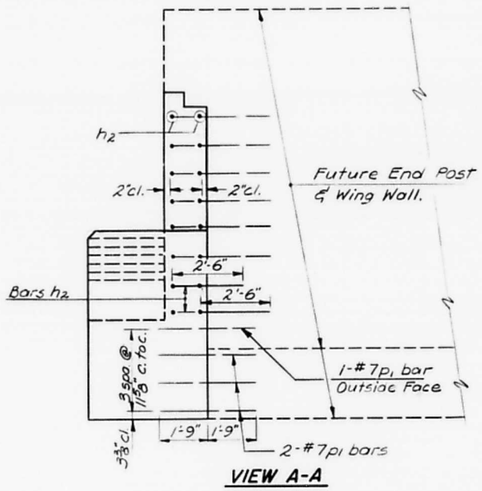
DESIGNED CRN
CHECKED WDL
DRAWN CRC
CHECKED CRN

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

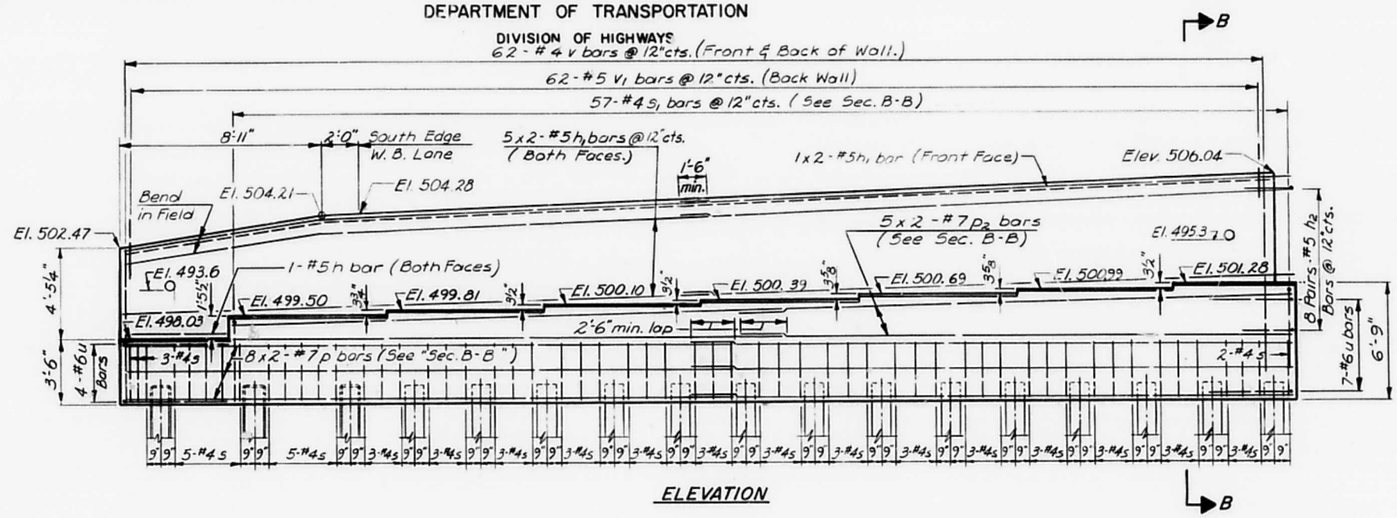
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

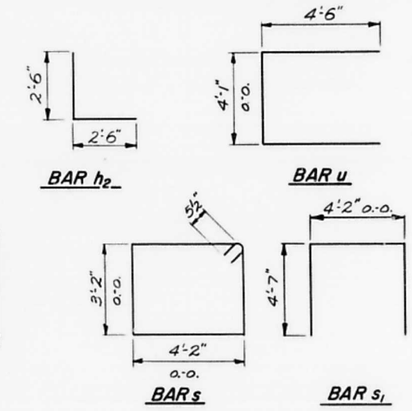
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	17
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



VIEW A-A

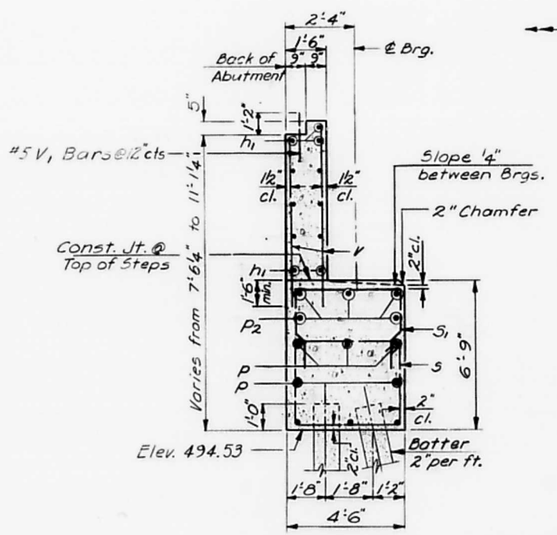


ELEVATION

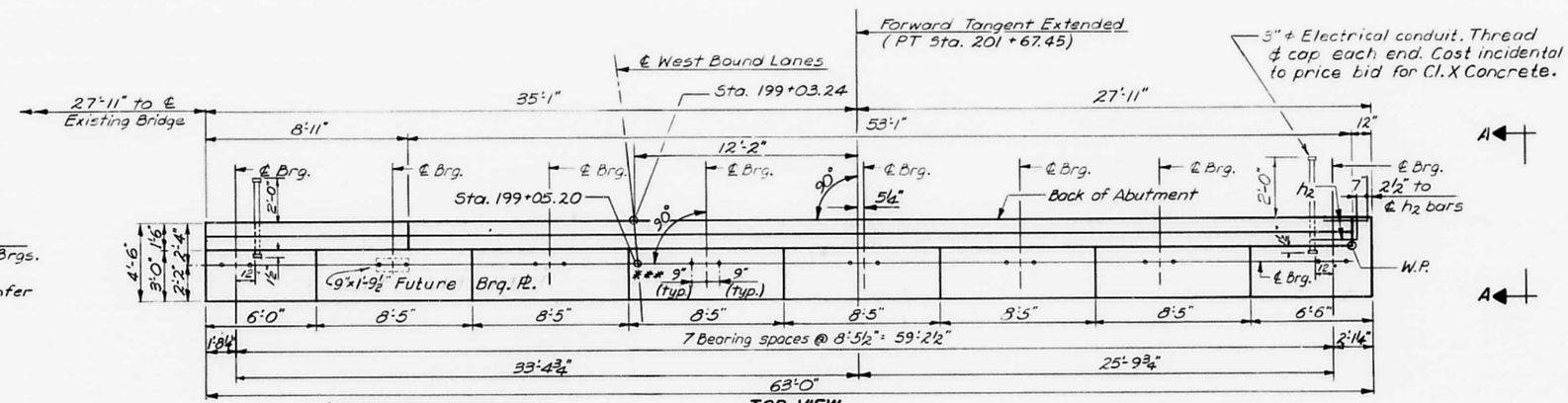


WEST ABUTMENT BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h	2	#5	5'-6"	
h1	22	#5	32'-0"	
h2	16	#5	5'-0"	L
p	16	#7	32'-6"	
p1	7	#7	3'-6"	
p2	10	#7	29'-6"	
s	57	#4	15'-7"	
s1	57	#4	13'-4"	
u	11	#6	13'-1"	
v	124	#4	6'-0"	
v1	62	#5	2'-8"	
Test Pile 12" Conc.		Each	1	
Class X Concrete		Cu. Yds.	74.4	
Reinforcement Bars		Lbs.	4,530	
Concrete Piles 12"		Lin. Ft.	420	
Structure Excavation		Cu. Yds.	152	
Concrete Removal		Cu. Yds.	9.6	
Steel Sheet Piling		Sq. Ft.	1,482	



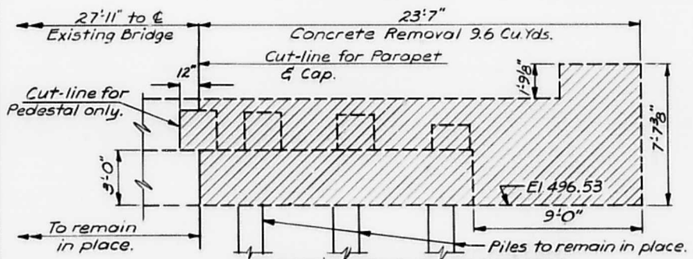
SECTION B-B



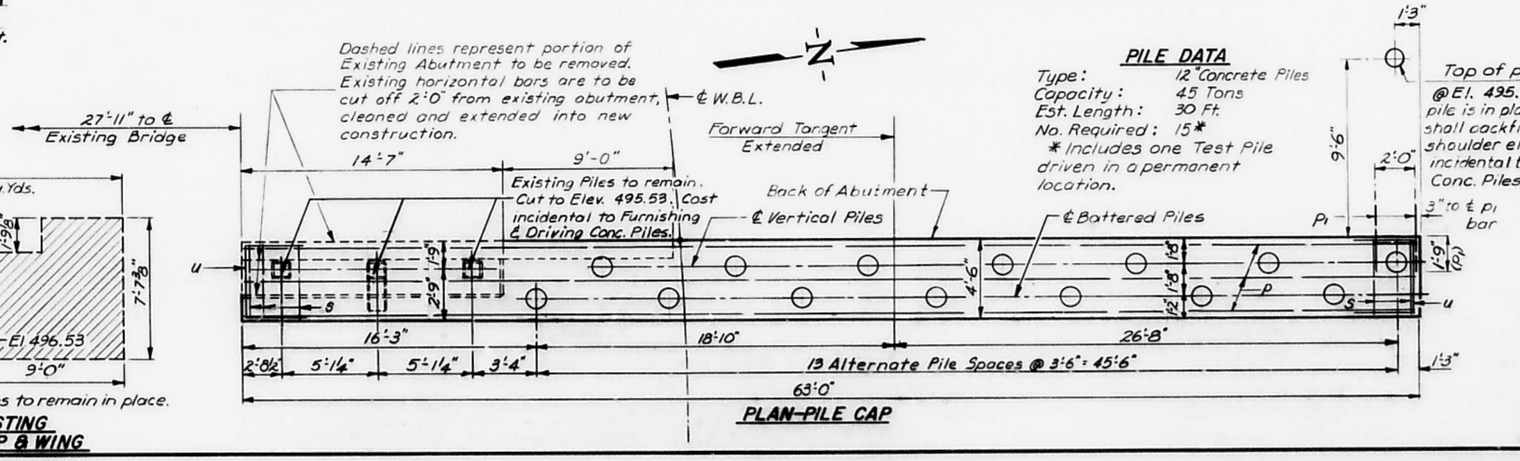
TOP VIEW

3" ϕ Electrical conduit. Thread & cap each end. Cost incidental to price bid for Cl. X Concrete.

Note: See Sheet 18 for Steel Sheet Piling.



CONCRETE REMOVAL OF EXISTING WEST ABUTMENT PARAPET, CAP & WING



PLAN-PILE CAP

PILE DATA

Type: 12" Concrete Piles
Capacity: 45 Tons
Est. Length: 30 Ft.
No. Required: 15*
* Includes one Test Pile driven in a permanent location.

Top of pile @ El. 495.53. After pile is in place, Contractor shall backfill to existing shoulder elevation. Cost incidental to Fur. & Driving Conc. Piles.

3" to ℄ p1 bar

WEST ABUTMENT

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

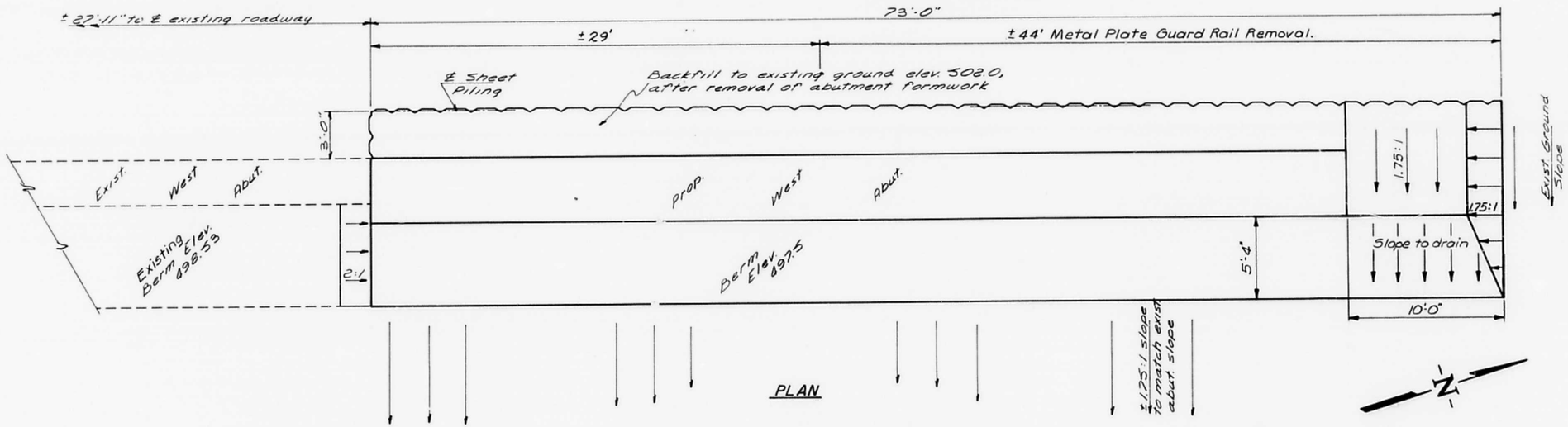
DESIGNED C.R.N. CHECKED S.C.Q. DRAWN DAN REVIEWED C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

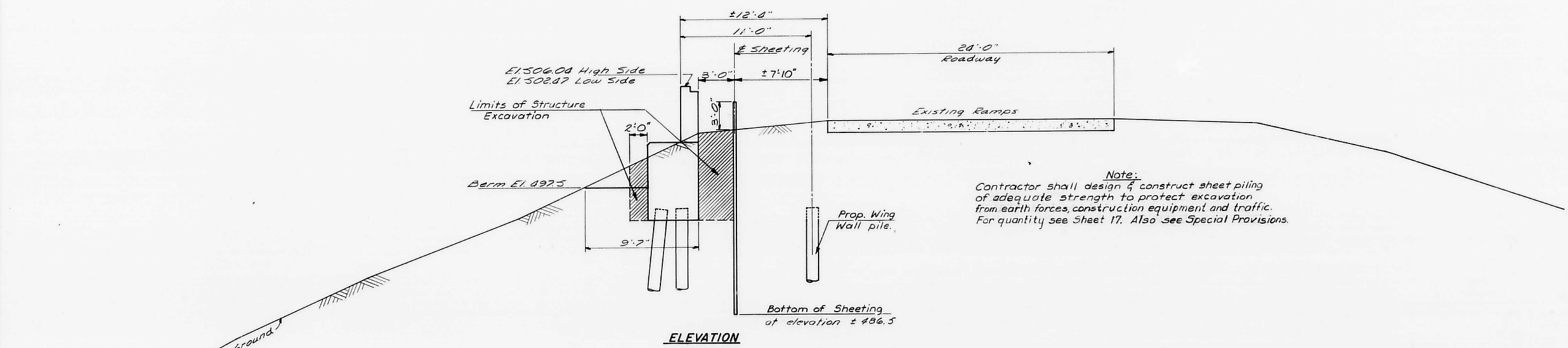
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	158-2	Peoria & Tazewell	56	18
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



PLAN



ELEVATION

Note:
Contractor shall design & construct sheet piling of adequate strength to protect excavation from earth forces, construction equipment and traffic. For quantity see Sheet 17. Also see Special Provisions.

SHEET PILING & EMBANKMENT-WEST ABUT.

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 158-2
PEORIA & TAZEWELL COUNTIES

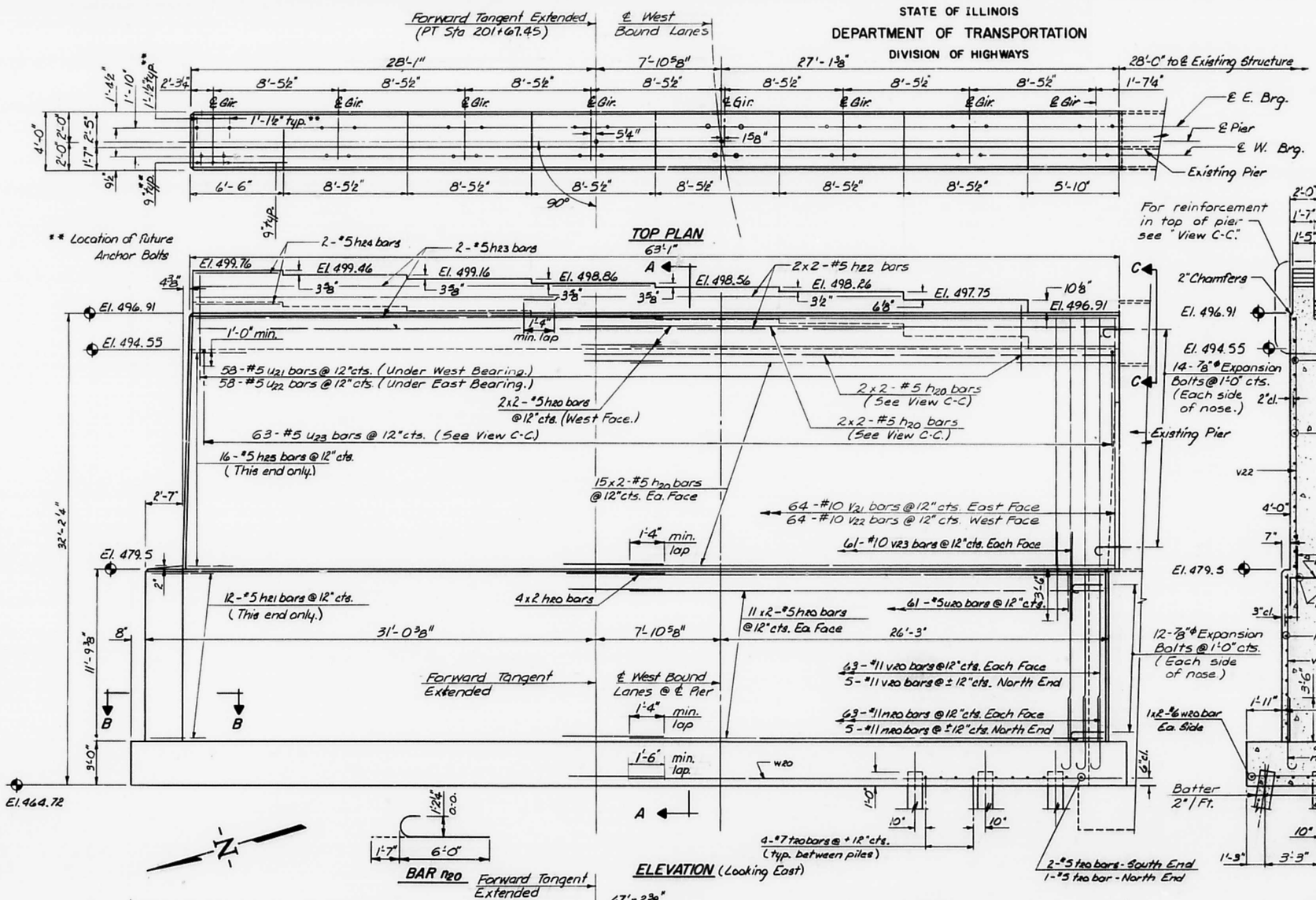
S.C.O.
C.R.N.
C.R.C.
W.D.L.

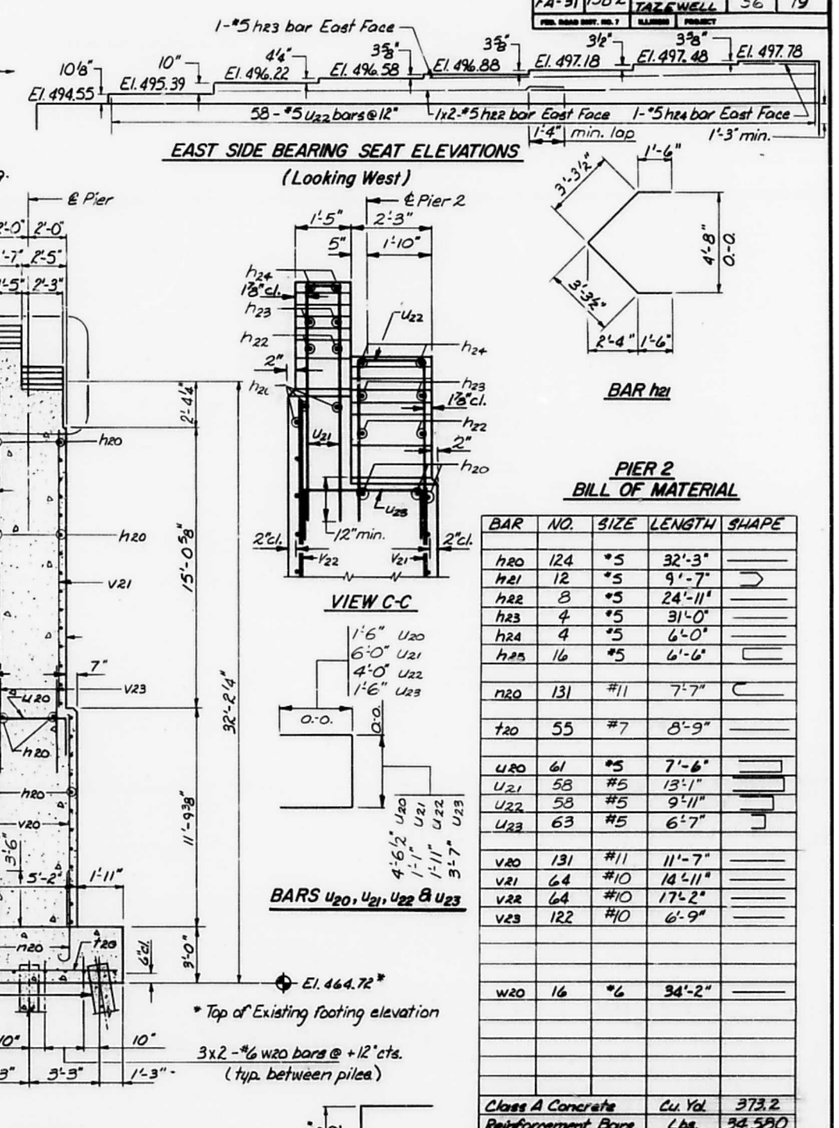
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

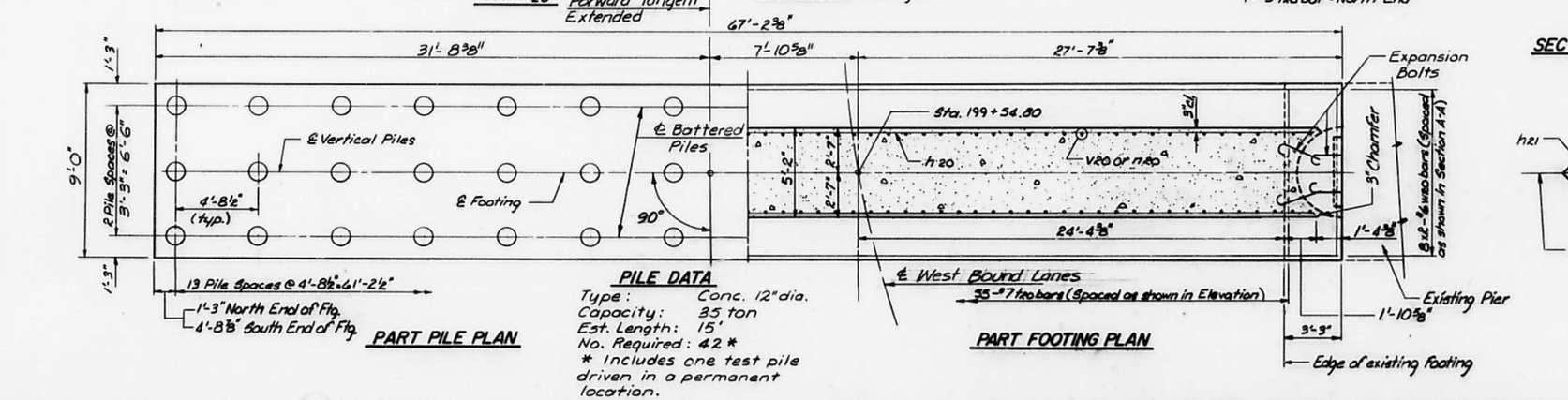
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	19
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		





PIER 2 BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20	124	#5	32'-3"	
h21	12	#5	9'-7"	
h22	8	#5	24'-11"	
h23	4	#5	31'-0"	
h24	4	#5	6'-0"	
h25	16	#5	6'-6"	
n20	131	#11	7'-7"	
t20	55	#7	8'-9"	
u20	61	#5	7'-6"	
u21	58	#5	13'-1"	
u22	58	#5	9'-11"	
u23	63	#5	6'-7"	
v20	131	#11	11'-7"	
v21	64	#10	14'-11"	
v22	64	#10	17'-2"	
v23	122	#10	6'-9"	
w20	16	#6	34'-2"	
Class A Concrete			Cu. Yd.	373.2
Reinforcement Bars			Lbs.	34,580
Conc. Piles 12" Dia.			Lin. Ft.	615
Test Pile 12" Conc.			Each	1
Struc. Excavation			Cu. Yd.	369
Expansion Bolts ⅞"ϕ			Each	52



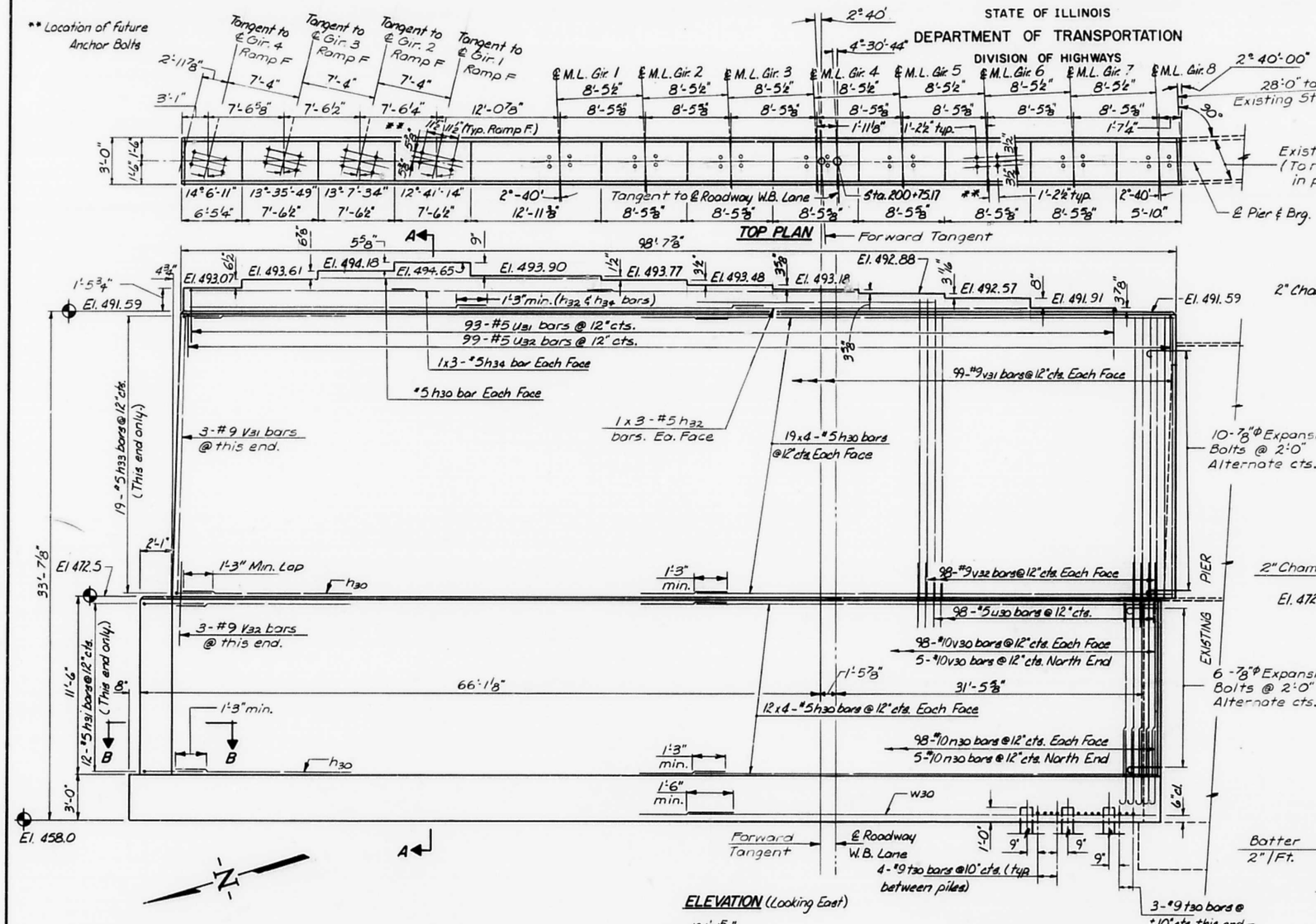
PIER 2

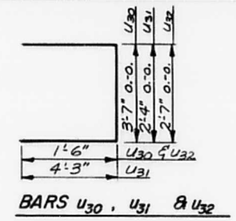
McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

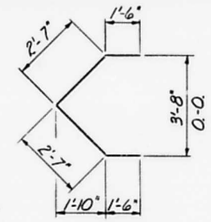
DESIGNED C.R.M.	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED S.C.O.		
DRAWN R.J.E.		DATE 6-22-76
CHECKED S.C.O.	SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS	

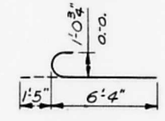
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	20
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

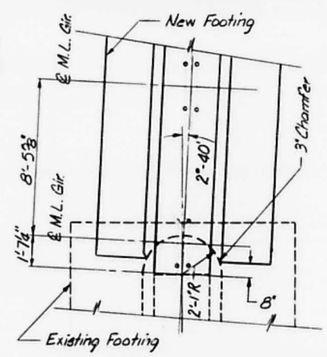
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

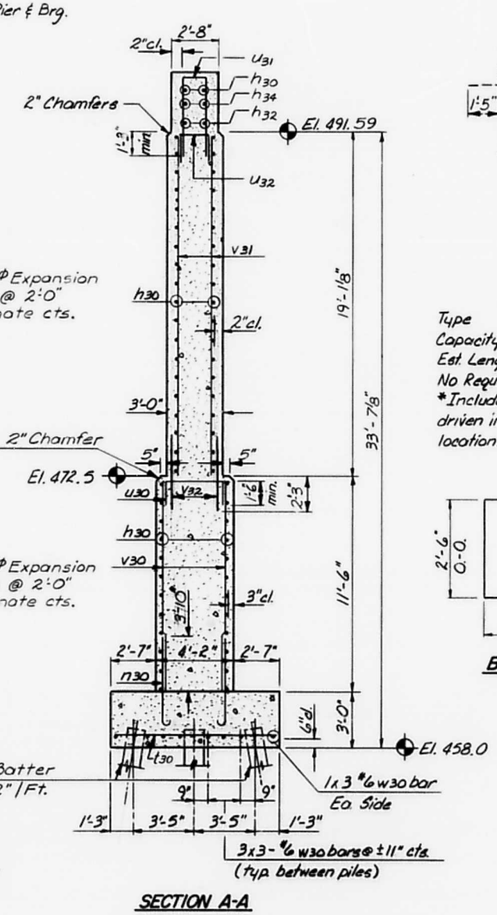


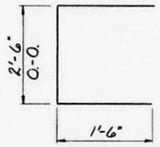












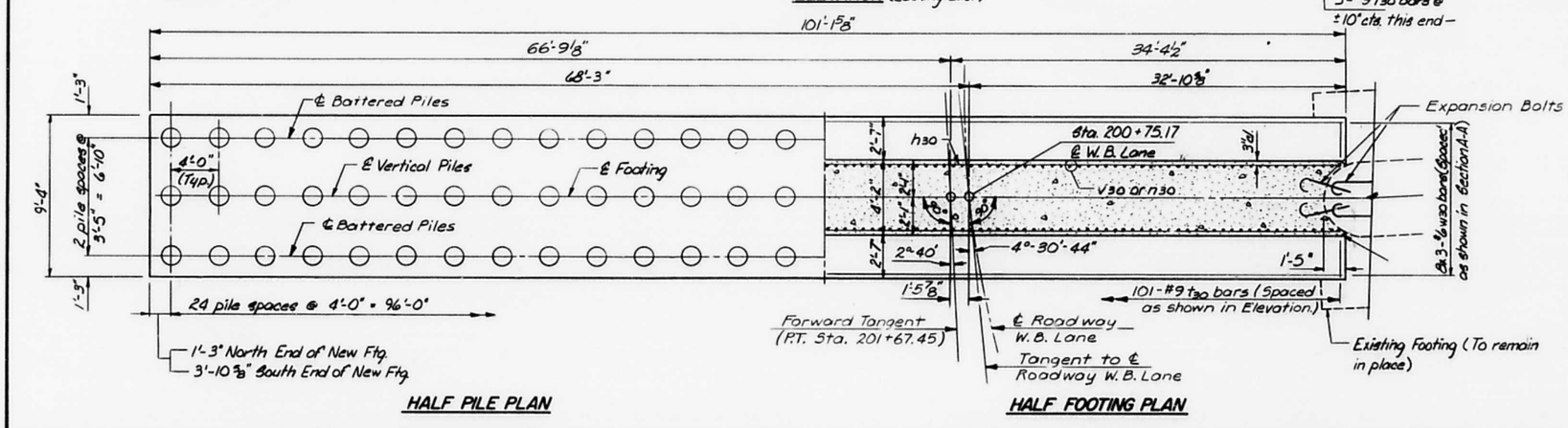
PILE DATA

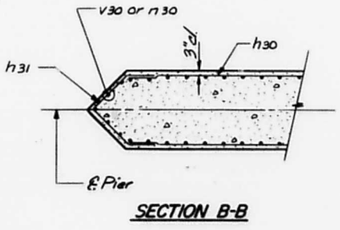
Type	Conc. 12" dia.
Capacity	45 ton
Est. Length	25'
No. Required	75 *

*Includes one test pile driven in a permanent location.

PIER 3
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h30	250	#5	25'-10"	
h31	12	#5	8'-2"	
h32	6	#5	29'-0"	
h33	19	#5	5'-6"	
h34	6	#5	23'-4"	
n30	201	#10	7'-9"	
t30	101	#9	8'-10"	
u30	98	#5	6'-7"	
u31	93	#5	10'-10"	
u32	99	#5	5'-7"	
v30	201	#10	11'-3"	
v31	201	#9	19'-0"	
v32	199	#9	5'-3"	
w30	24	#6	34'-9"	
Class A Concrete			Cu. Yd.	504.9
Reinforcement Bars			Lbs.	46,830
Conc. Piles 12" Dia.			Lin. Ft.	1850
Test Pile 12" Conc.			Each	1
Struc. Excavation			Cu. Yd.	400
Expansion Bolts 7/8" Φ			Each	16





PIER 3

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

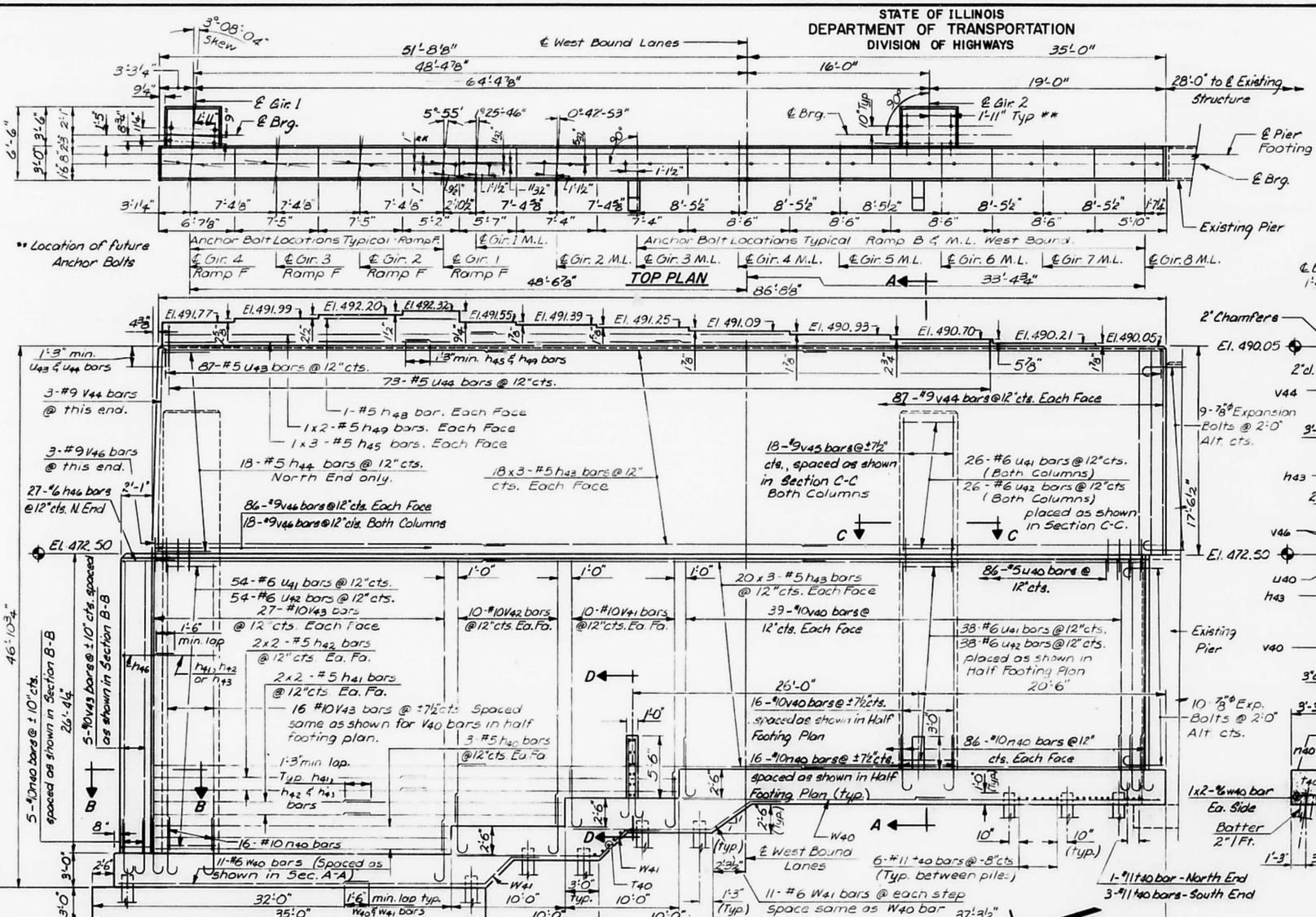
DESIGNED S.C.D.
CHECKED C.R.N.
DRAWN R.J.F.
CHECKED C.R.N.

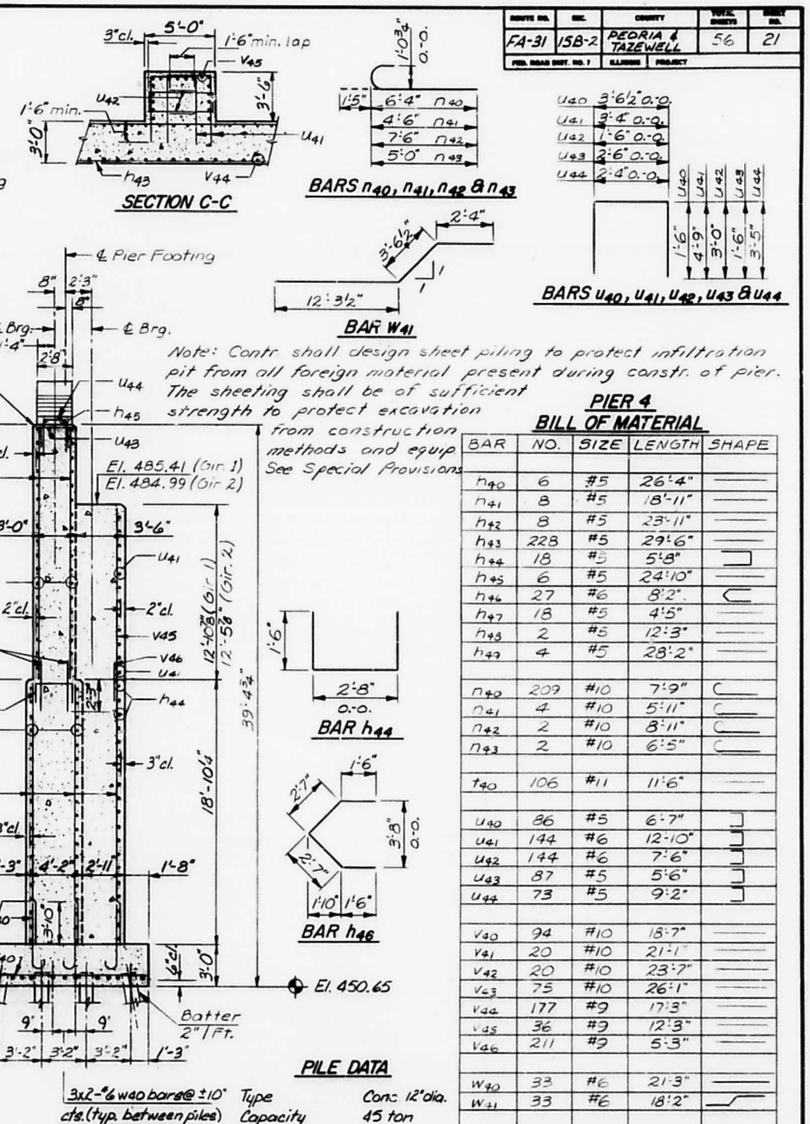
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	21
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



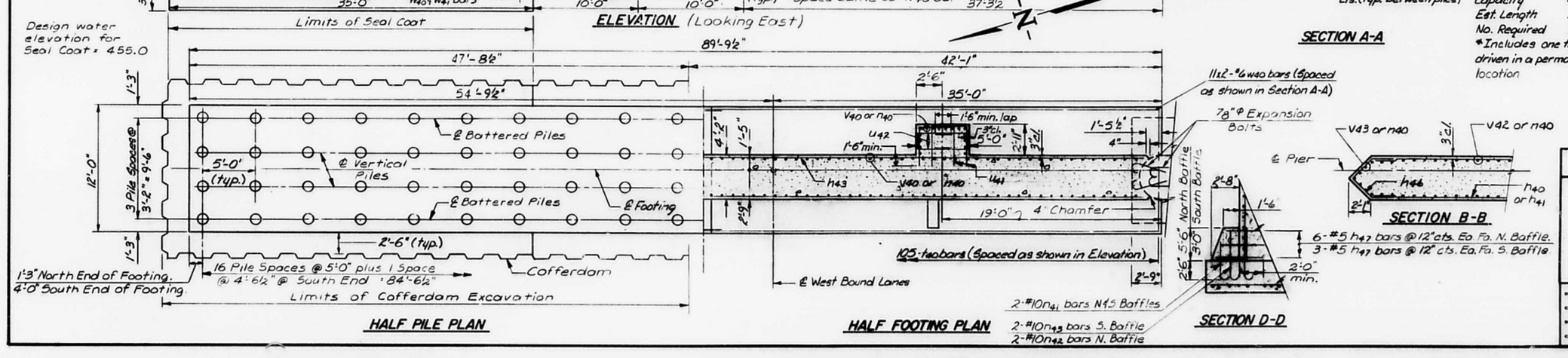


Note: Contr. shall design sheet piling to protect infiltration pit from all foreign material present during constr. of pier. The sheeting shall be of sufficient strength to protect excavation from construction methods and equip. See Special Provisions.

PIER 4
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
n40	6	#5	26'-4"	
n41	8	#5	18'-11"	
n42	8	#5	23'-11"	
n43	228	#5	29'-6"	
h44	18	#5	5'-8"	
h45	6	#5	24'-10"	
h46	27	#6	8'-2"	
h47	18	#5	4'-5"	
h48	2	#5	12'-3"	
h49	4	#5	28'-2"	
u40	209	#10	7'-9"	
u41	4	#10	5'-11"	
u42	2	#10	8'-11"	
u43	2	#10	6'-5"	
t40	106	#11	11'-6"	
u40	86	#5	6'-7"	
u41	144	#6	12'-10"	
u42	144	#6	7'-6"	
u43	87	#5	5'-6"	
u44	73	#5	9'-2"	
v40	94	#10	18'-7"	
v41	20	#10	21'-1"	
v42	20	#10	23'-7"	
v43	75	#10	26'-1"	
v44	177	#9	17'-3"	
v45	36	#9	12'-3"	
v46	211	#9	5'-3"	
w40	33	#6	21'-3"	
w41	33	#6	18'-2"	

Class A Concrete	Cu. Yds.	647.1
Reinforcement Bars	Lbs.	65,600
Seal Coat Concrete	Cu. Yds.	66.1
Conc. Piles 12" Dia.	Lin. Ft.	2,485
Test Pile Conc. 12" Dia.	Each	1
Struct. Excavation	Cu. Yds.	202
Cofferdam	Each	1
Expansion Bolts 7/8" Φ	Each	19
Cofferdam Excav.	Cu. Yds.	338.



PIER 4

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

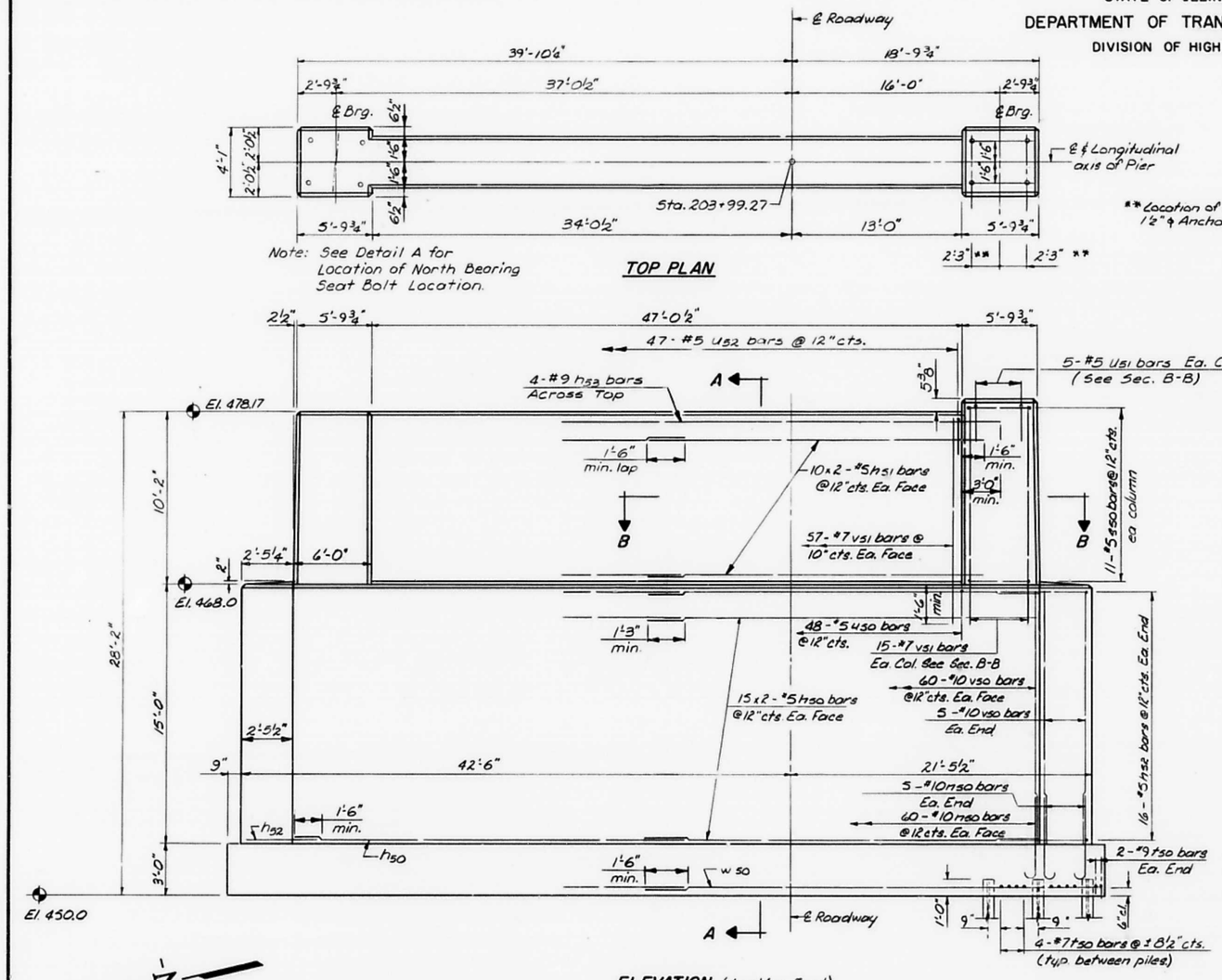
DESIGNED S.C.O.
CHECKED W.E.B.
DRAWN R.J.E.
CHECKED W.E.B.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

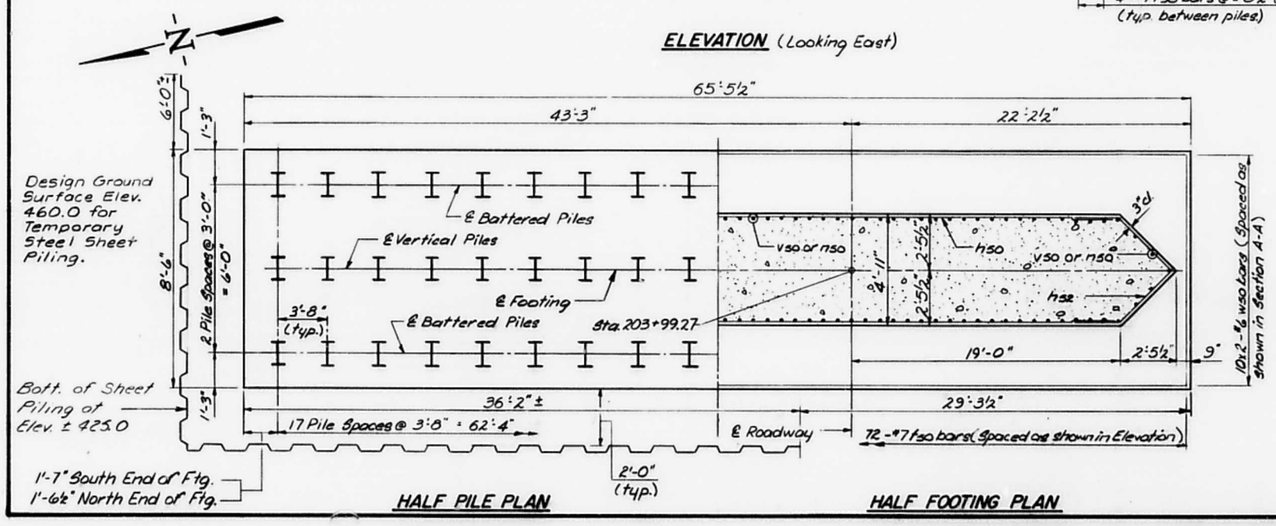
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 31	15B-2	PEORIA & TAZEWELL	56	22
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



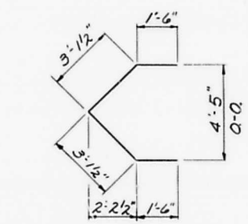
TOP PLAN

ELEVATION (Looking East)

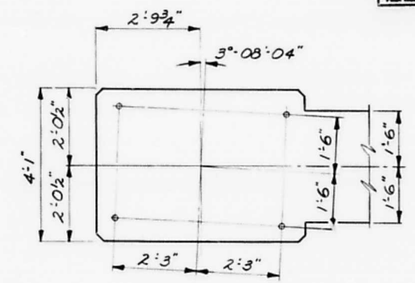


HALF PILE PLAN

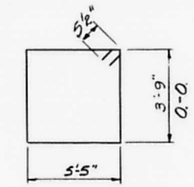
HALF FOOTING PLAN



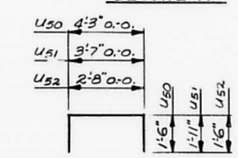
BAR h52



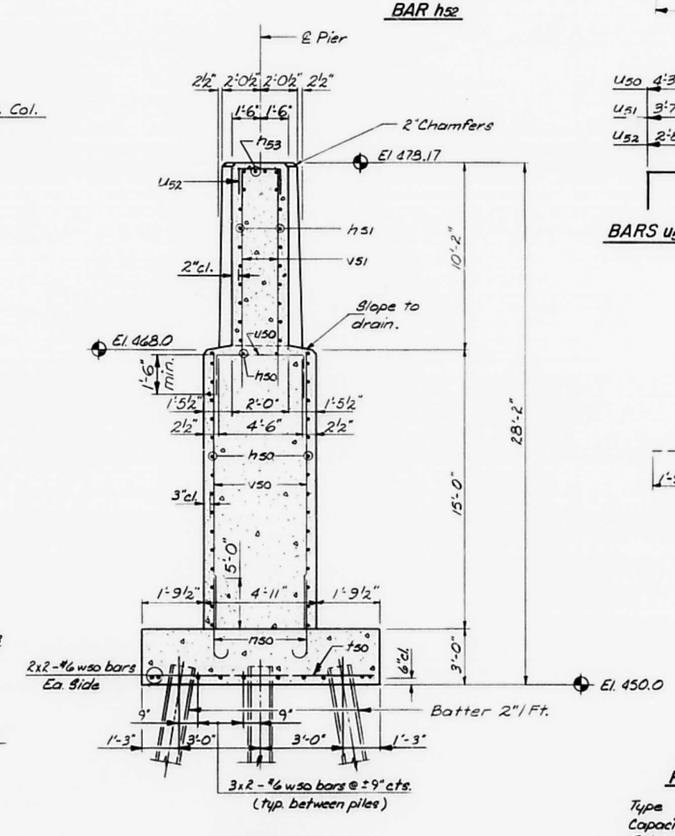
DETAIL A



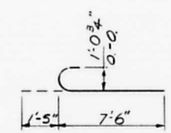
BAR s50



BARS u50, u51 & u52



SECTION A-A



BAR n50

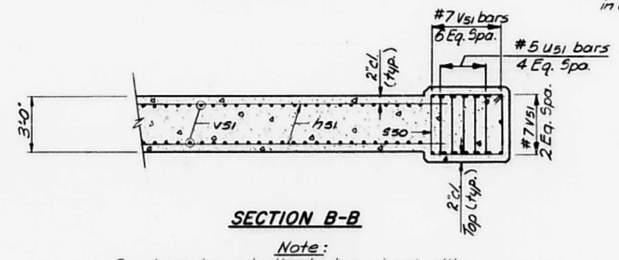
PIER 5
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h50	68	#5	30'-2"	
h51	40	#5	25'-9"	
h52	32	#5	9'-3"	
h53	4	#9	53'-0"	
n50	130	#10	8'-11"	
s50	22	#5	19'-3"	
t50	72	#7	8'-0"	
u50	48	#5	7'-3"	
u51	10	#5	7'-5"	
u52	47	#5	5'-8"	
v50	130	#10	14'-9"	
v51	144	#7	12'-0"	
w50	20	#6	33'-5"	
Class A Concrete			Cu. Yds.	302.6
Reinforcement Bars			Lbs.	24,360
Steel Piles HP12x53			Lin. Ft.	3,074
Test Pile HP12x53			Each	1
Struct. Exc.			Cu. Yds.	273
Temporary Steel Sheet Piling.			Sq. Ft.	1,950

PILE DATA

Type	HP 12 x 53
Capacity	Drive to Refusal
Est. Length	58'
No. Required	54*

* Includes one test pile driven in a permanent location.



SECTION B-B

Note:
Contractor shall design sheet piling to protect infiltration pit from all foreign material present during construction of pier. The sheeting shall be of sufficient strength to protect excavation from construction methods and equipment. See Special Provisions.

PIER 5

McCLUGAGE BRIDGE OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

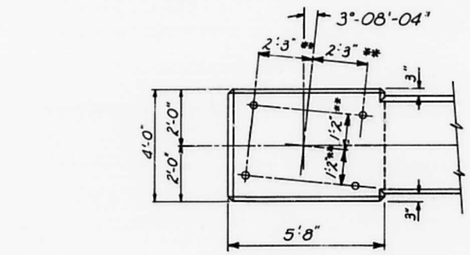
DESIGNED S.C.O.
CHECKED W.E.B.
DRAWN R.J.K.
CHECKED S.C.O.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

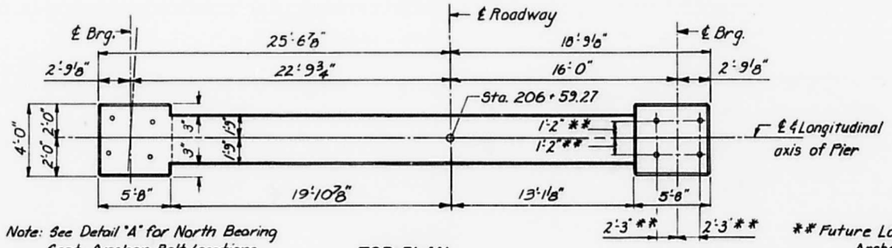
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	158-2	Peoria & Tazewell	56	23
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



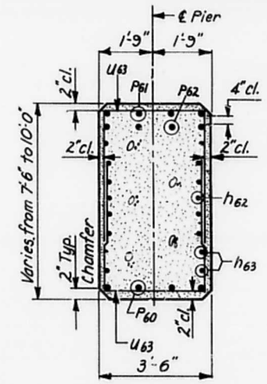
DETAIL "A"



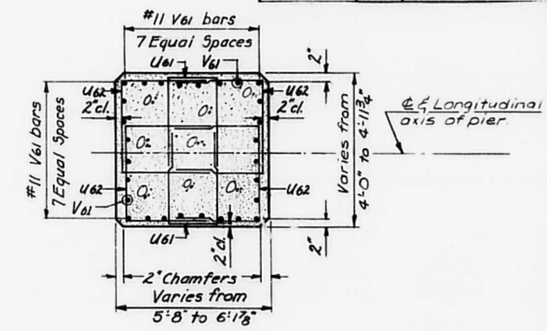
Note: See Detail "A" for North Bearing Seat Anchor Bolt Locations.

TOP PLAN

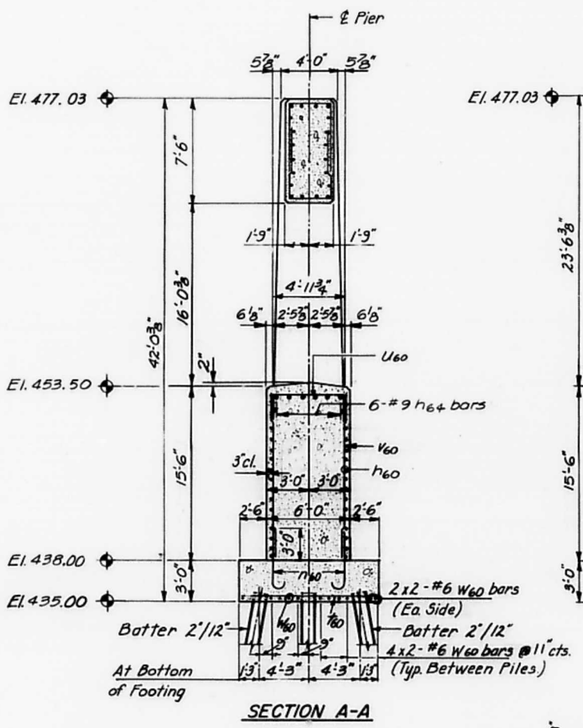
** Future Location of Anchor Bolts.



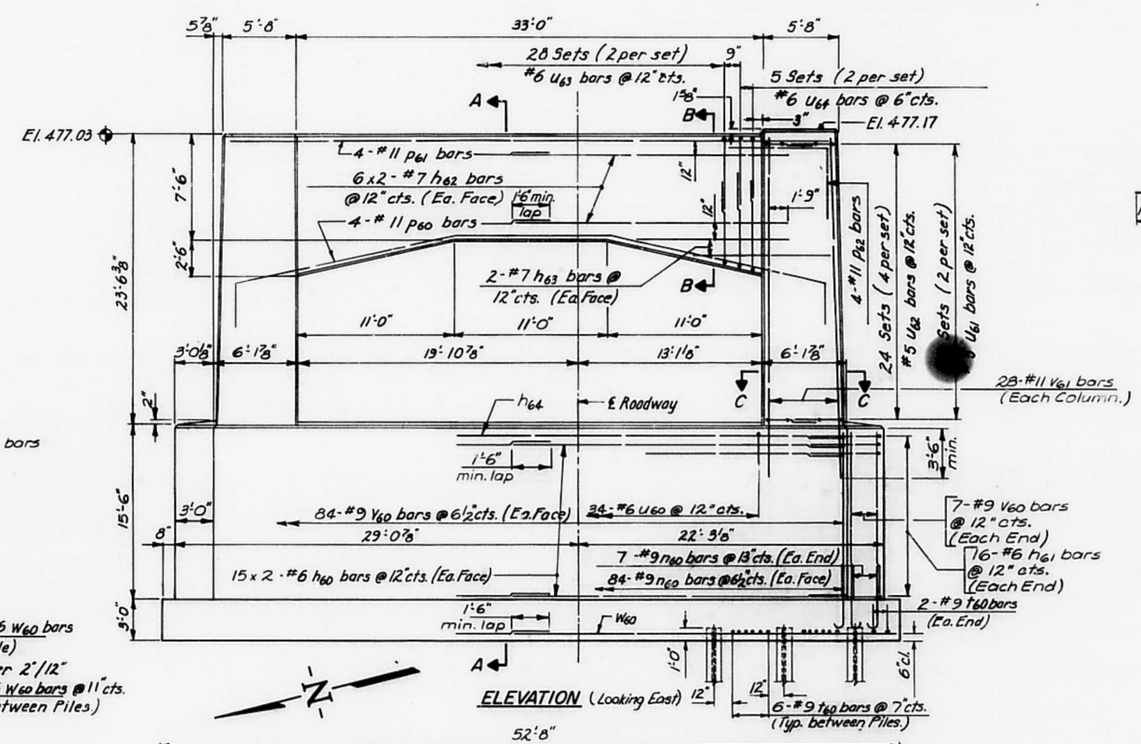
SECTION B-B



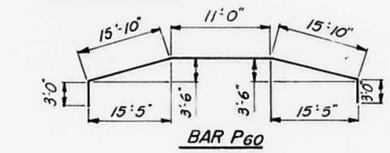
SECTION C-C



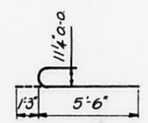
SECTION A-A



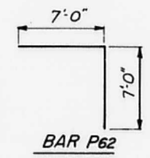
ELEVATION (Looking East)



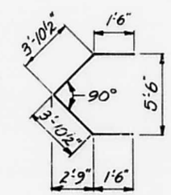
BAR P60



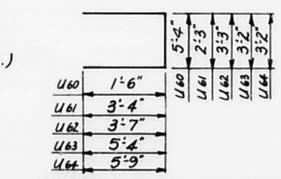
BAR n60



BAR P62



BAR h61

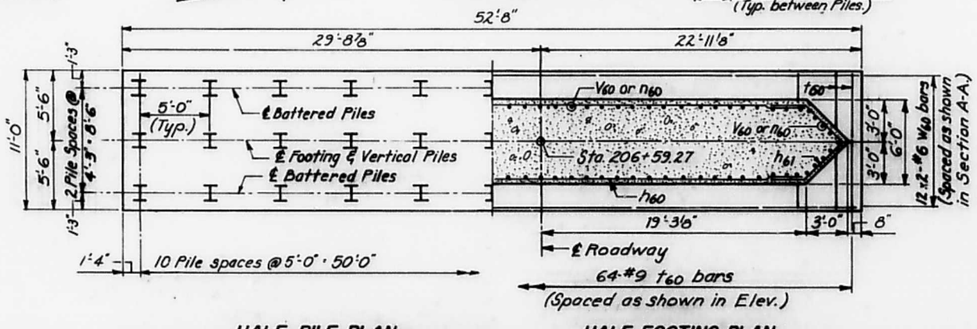


BARS U60, U61, U62, U63 & U64

PIER 6
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h60	60	#6	28'-5"	
n61	32	#6	10'-9"	
h62	24	#7	19'-0"	
h63	8	#7	11'-0"	
h64	6	#9	45'-4"	
n60	182	#9	6'-9"	
P60	4	#11	48'-8"	
P61	4	#11	43'-4"	
P62	8	#11	14'-0"	
t60	64	#9	10'-6"	
U60	34	#6	8'-4"	
U61	96	#5	8'-11"	
U62	192	#5	10'-5"	
U63	56	#6	13'-10"	
U64	20	#6	14'-8"	
V60	182	#9	15'-3"	
V61	56	#11	27'-0"	
W60	24	#6	27'-0"	

Class A Concrete	Cu. Yds.	313.1
Reinforcement Bars	Lbs.	37,130
Steel Piles HP 10x57	Lin. Ft.	1,568
Test Pile HP 10x57	Each	1
Cofferdam Excav.	Cu. Yds.	189
Cofferdam	Each	One



HALF PILE PLAN

HALF FOOTING PLAN

PILE DATA

Type	Steel HP 10 x 57
Capacity	Drive to refusal.
Est. Length	49'-0"
No. Required	33 *

* Includes one test pile driven in a permanent position.

PIER 6

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 158-2
PEORIA & TAZEWELL COUNTIES

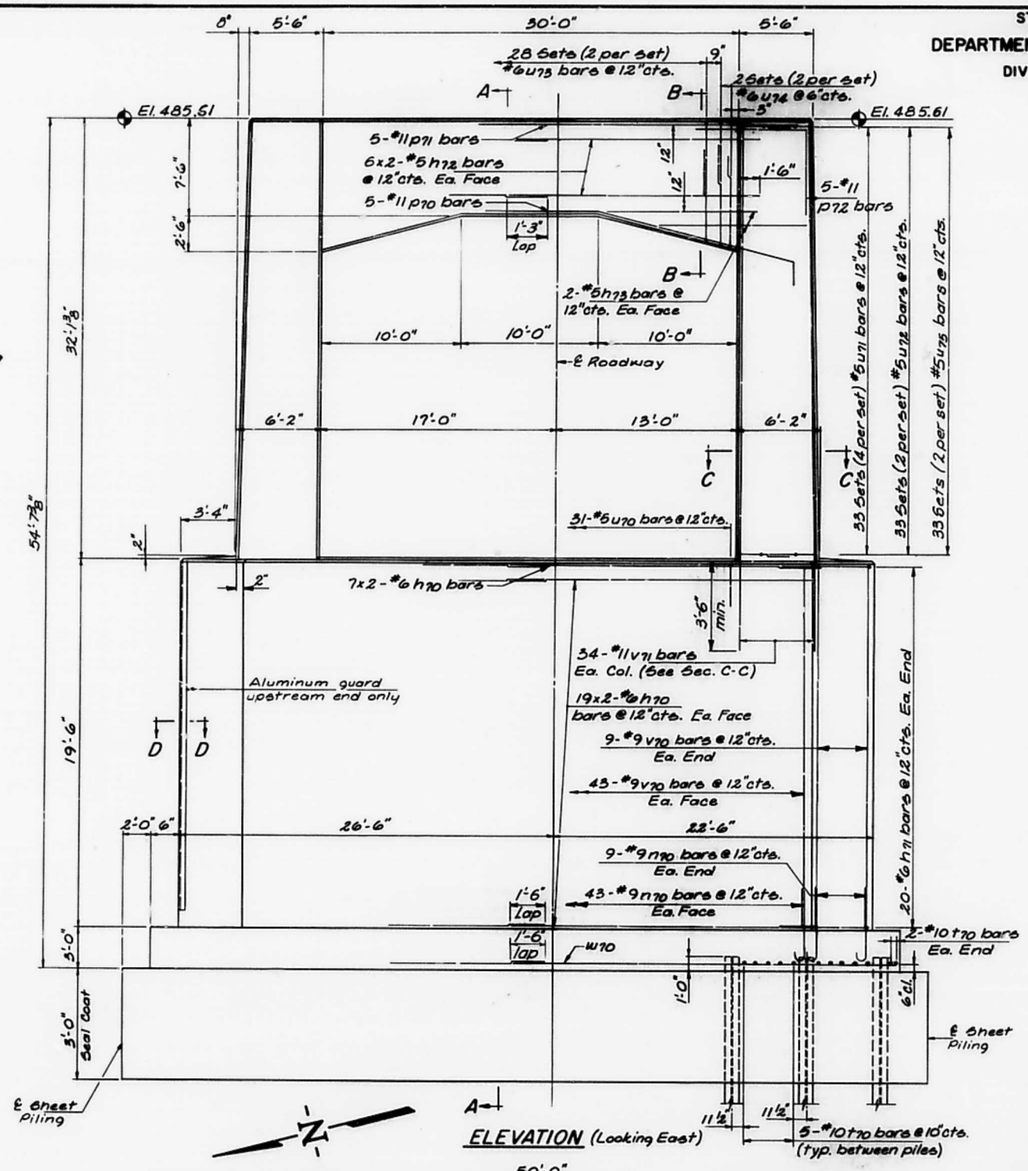
DESIGNED SCO
CHECKED WEB
DRAWN DAN
CHECKED CRN

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

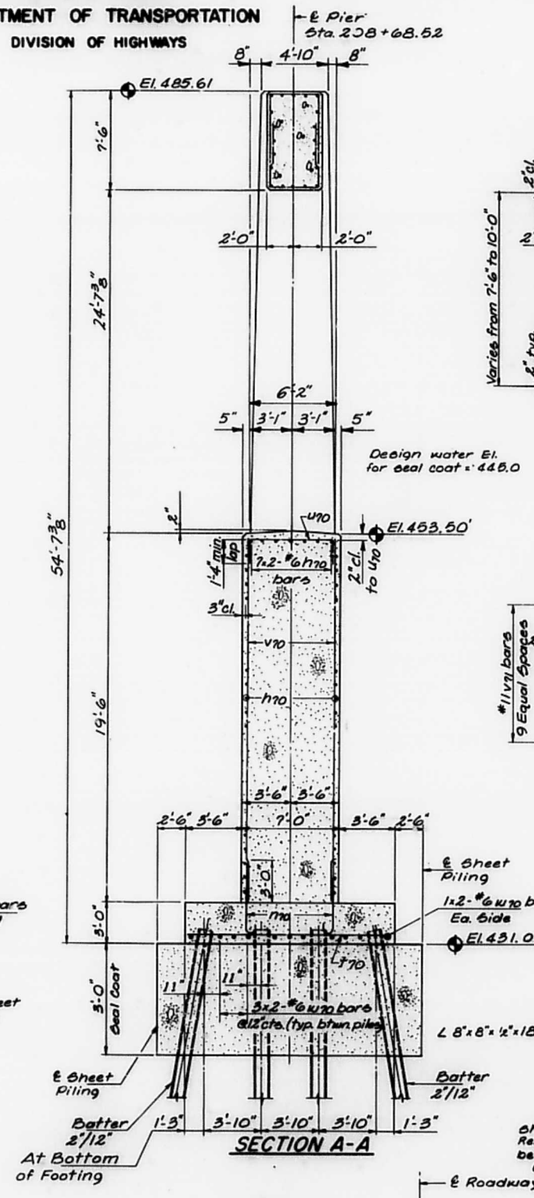
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

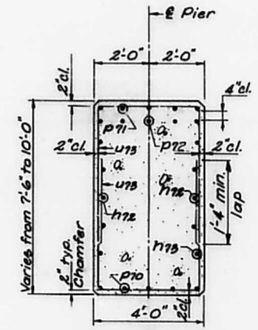
DRAWING NO.	REV.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.31	158-2	Peoria & Tazewell	50	24
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



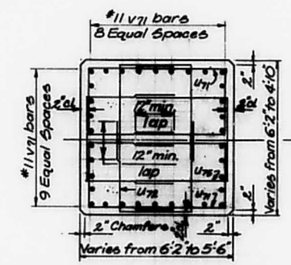
ELEVATION (Looking East)



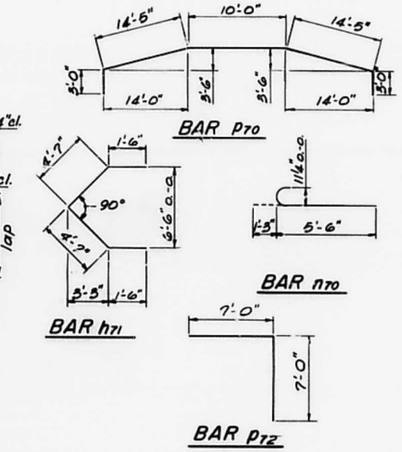
SECTION A-A



SECTION B-B

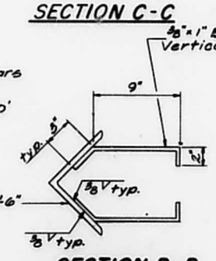


SECTION C-C



u70	1'-6"
u71	3'-5½"
u72	3'-5"
u73	5'-4"
u74	5'-9"
u75	3'-5"

BARS u70, u71, u72, u73, u74 & u75



SECTION D-D

Aluminum bars and shapes shall be 6061-T6 alloy. Reinforcement bars shall not be in contact with the aluminum. Cost incidental to Class A Concrete.

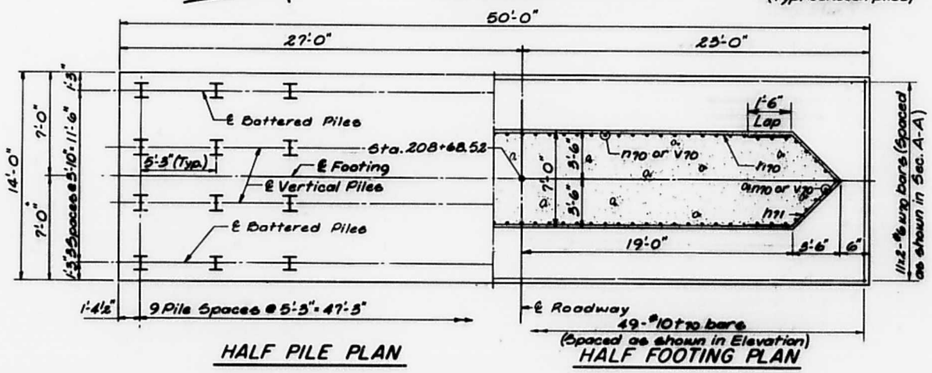
PIER 7
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h70	90	#6	21'-9"	
h71	40	#6	12'-2"	C
h72	24	#5	17'-2"	
h73	8	#5	10'-0"	
n70	104	#9	6'-9"	
p70	5	#11	44'-10"	
p71	5	#11	40'-0"	
p72	10	#11	14'-0"	
t70	49	#10	13'-6"	
u70	31	#5	9'-4"	
u71	264	#5	9'-7"	
u72	132	#5	9'-10"	
u73	56	#6	14'-4"	
u74	8	#6	15'-2"	
u75	132	#5	10'-1"	
v70	104	#9	19'-5"	
v71	68	#11	35'-6"	
w70	22	#6	25'-6"	
Class A Concrete			Cu. Yds.	422.6
Reinforcement Bars			Lbs.	36,500
Seal Coat Concrete			Cu. Yds.	114.0
Steel Piles HP 10x42			Lin. Ft.	1885
Test Pile HP 10x42			Each	1
Cofferdam Excavation			Cu. Yds.	388
Cofferdam			Each	1

PILE DATA

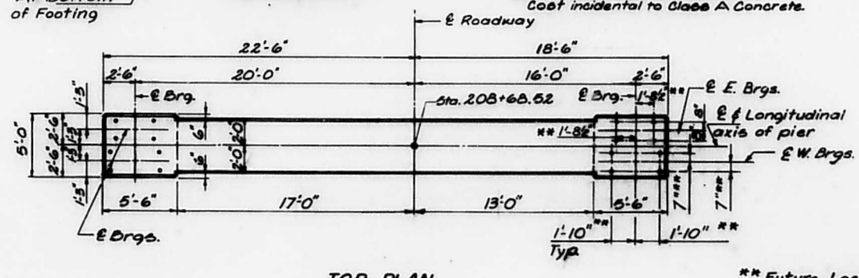
Type	Steel HP 10x42
Capacity	Drive to refusal
Est. Length	47'
No. Required	40*

*Includes one test pile driven in a permanent location.



HALF PILE PLAN

HALF FOOTING PLAN



TOP PLAN

PIER 7

McCLUGAGE BRIDGE OVER THE ILLINOIS RIVER

F.A. ROUTE 31 SEC. 15 B-2

PEORIA & TAZEWELL COUNTIES

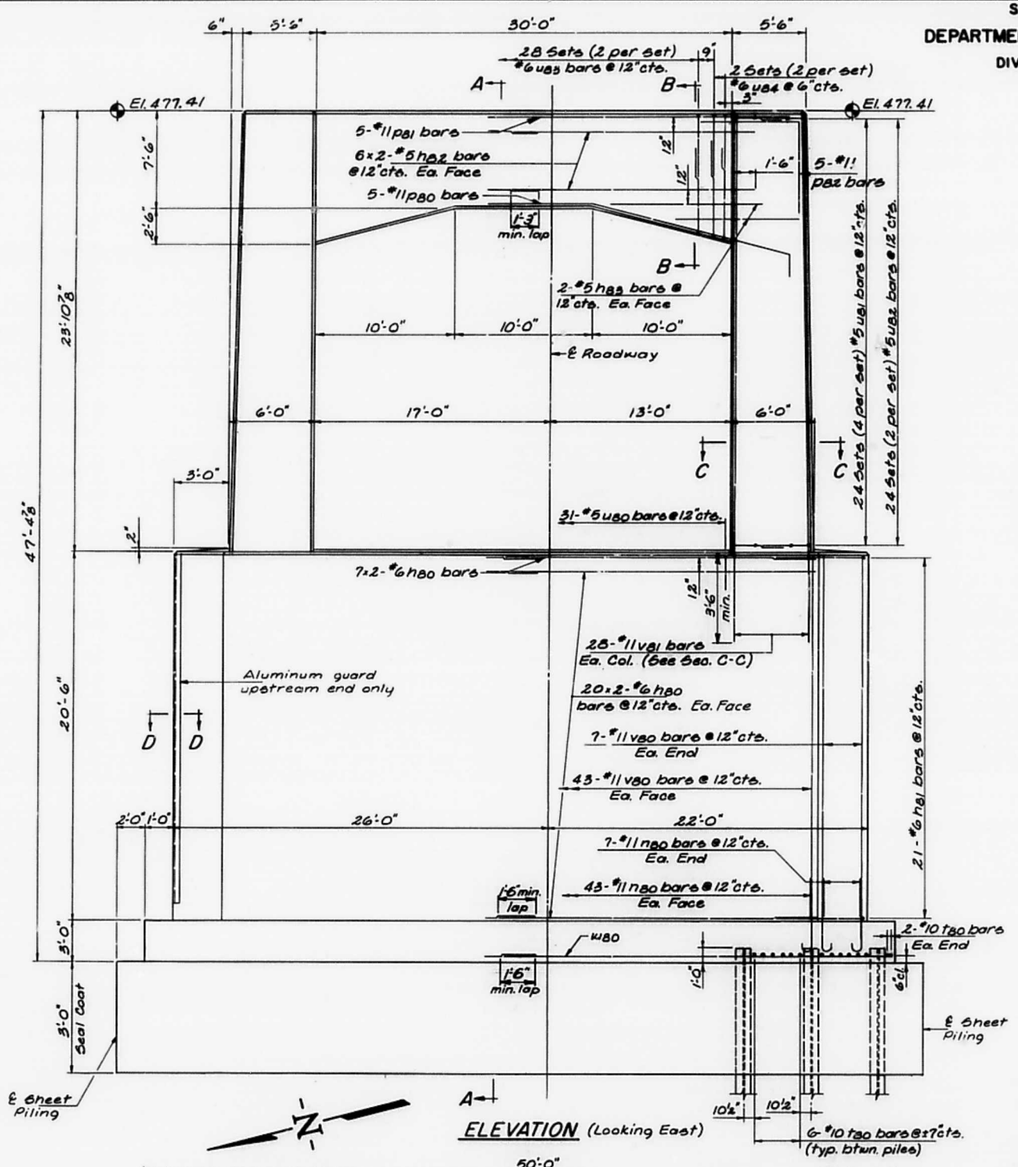
C.R.N. — M.E.B. — D.A.B. — C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS

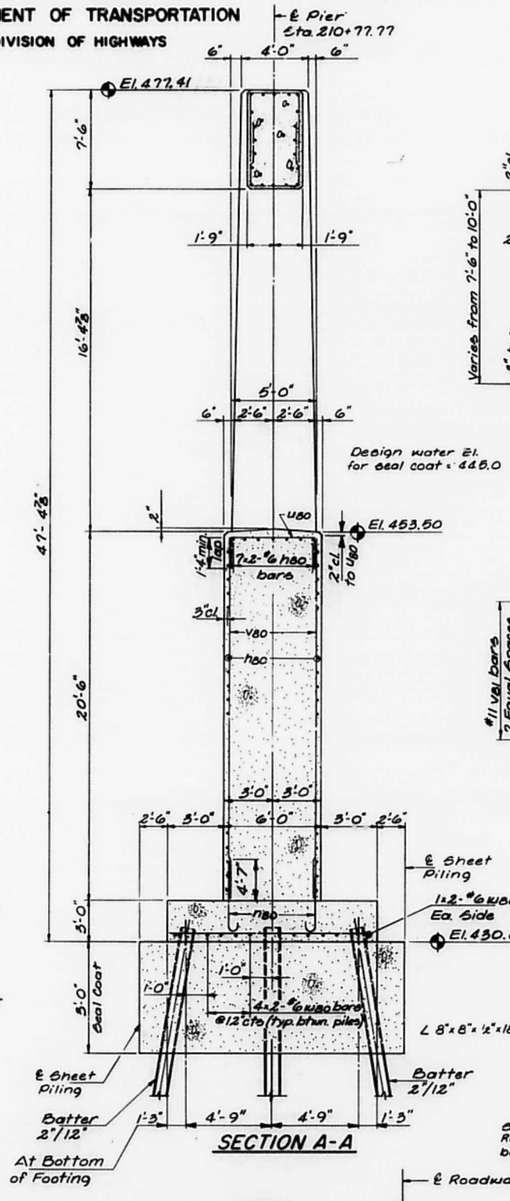
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

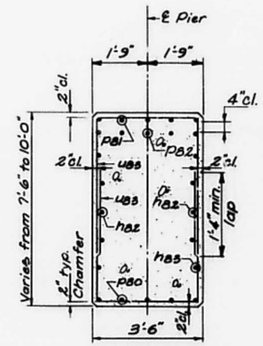
DRAWING NO.	FED.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.31	158-2	Peoria & Tazewell	54	25
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



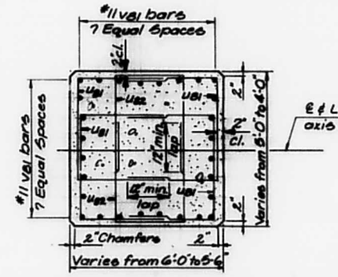
ELEVATION (Looking East)



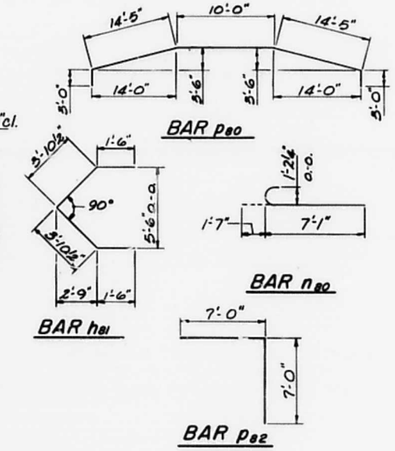
SECTION A-A



SECTION B-B

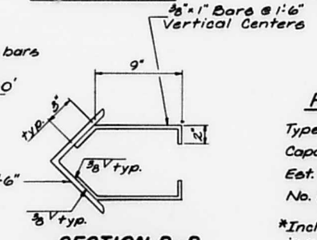


SECTION C-C



U80	1'-6"
U81	3'-4"
U82	2'-10½"
U83	5'-4"
U84	5'-9"

BARS U80, U81, U82, U83 & U84



SECTION D-D

Aluminum bars and shapes shall be 6061-T6 alloy. Reinforcement bars shall not be in contact with the aluminum. Cost incidental to Class A Concrete.

PILE DATA

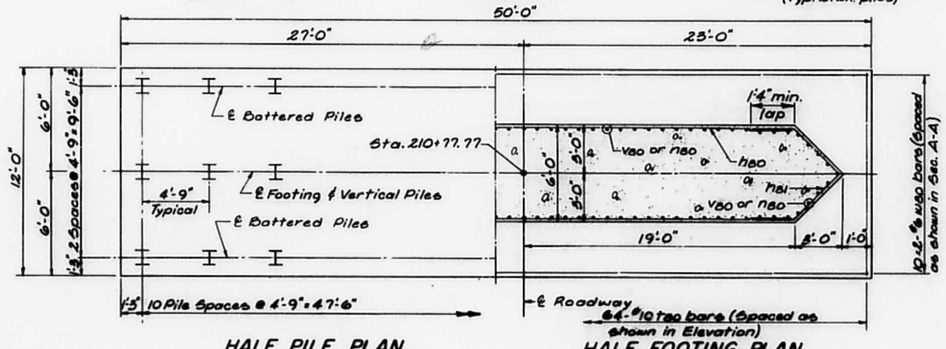
Type	Steel HP12x53
Capacity	Drive to refusal
Est. Length	55'
No. Required	33*

*Includes one test pile driven in a permanent location.

PIER 8
BILL OF MATERIAL

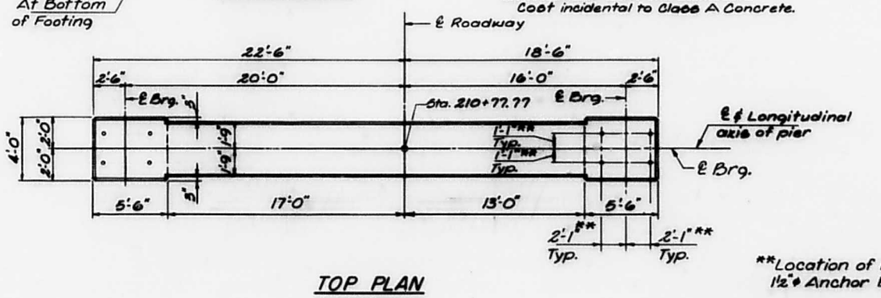
BAR	NO.	SIZE	LENGTH	SHAPE
H80	94	#6	21'-9"	
H81	42	#6	10'-9"	
H82	24	#5	17'-2"	
H83	8	#6	10'-0"	
N80	100	#11	8'-8"	
P80	5	#11	44'-10"	
P81	5	#11	40'-0"	
P82	10	#11	14'-0"	
T80	64	#10	11'-6"	
U80	31	#5	8'-4"	
U81	192	#5	10'-1"	
U82	96	#5	8'-3"	
U83	56	#6	14'-8"	
U84	8	#6	17'-2"	
V80	100	#11	20'-3"	
V81	56	#11	27'-3"	
W80	20	#6	28'-6"	

Class A Concrete	Cu. Yds.	353.7
Reinforcement Bars	Lbs.	39,220
Seal Coat Concrete	Cu. Yds.	102.0
Steel Piles HP12x53	Lin. Ft.	1,760
Test Pile HP12x53	Each	1
Cofferdam Excavation	Cu. Yds.	313
Cofferdam	Each	1



HALF PILE PLAN

HALF FOOTING PLAN



TOP PLAN

**Location of Future 1½"ϕ Anchor Bolts.

PIER 8

Mc CLUGAGE BRIDGE OVER THE ILLINOIS RIVER

F.A. ROUTE 31 SEC. 15 B-2

PEORIA & TAZEWELL COUNTIES

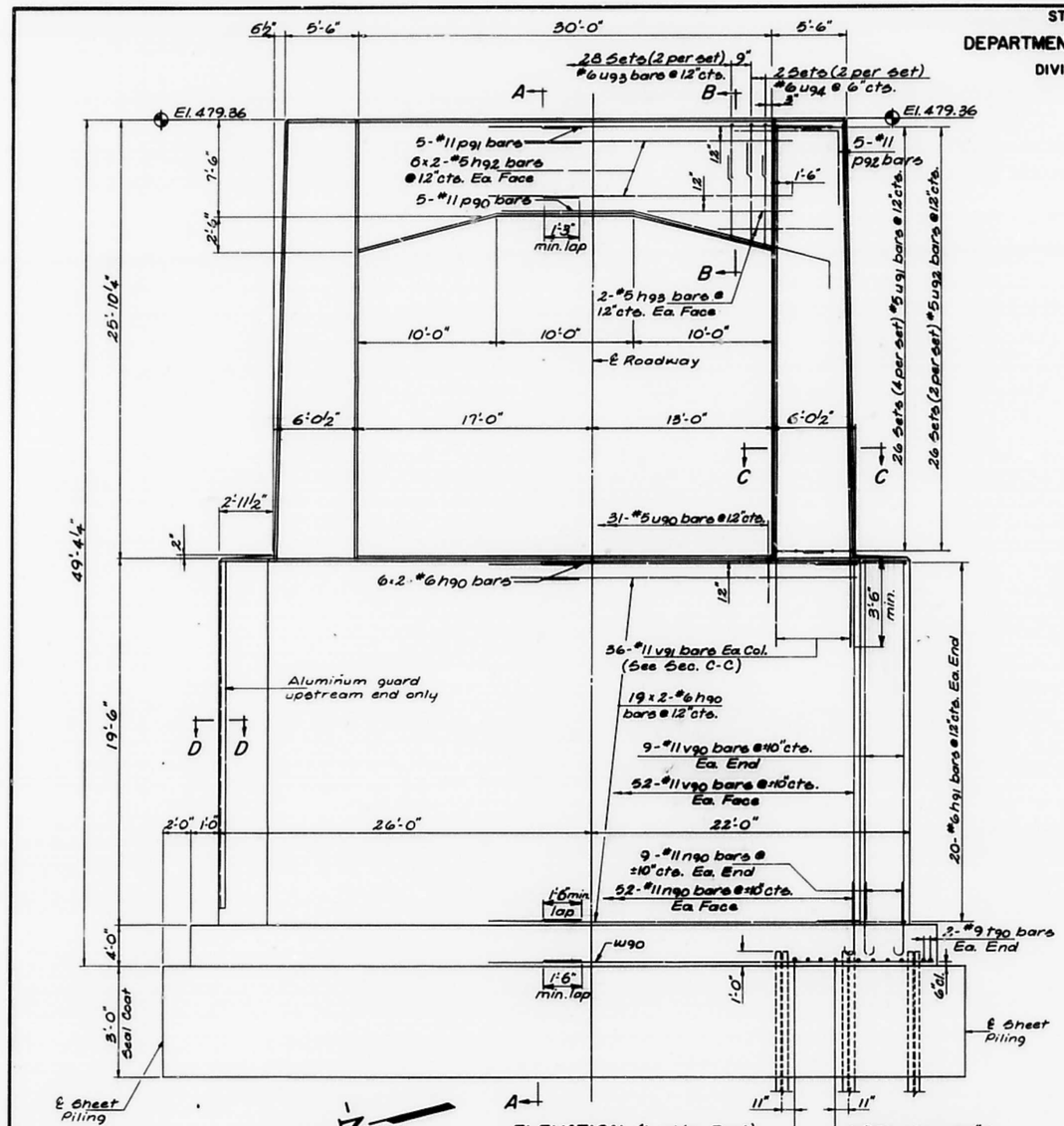
DESIGNED CRN
CHECKED WEB
DRAWN DAB
TRACED CRN

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

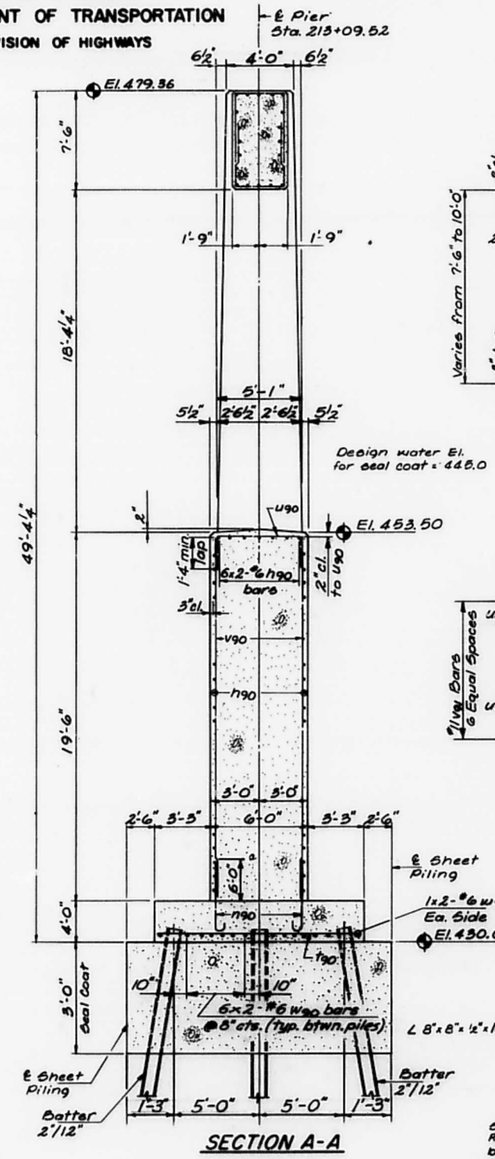
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

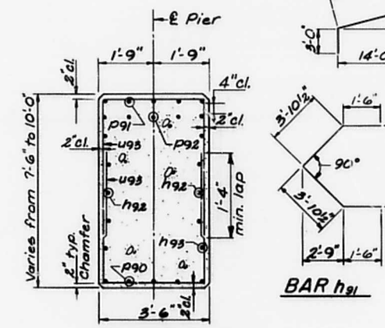
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.31	15B-2	Peoria & Tazewell	52	26



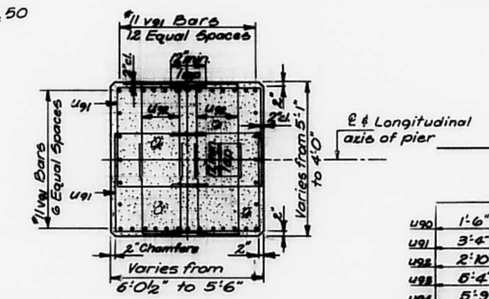
ELEVATION (Looking East)



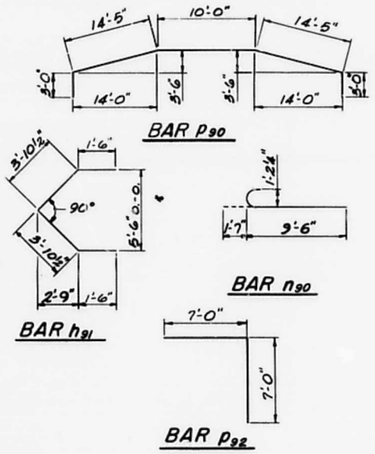
SECTION A-A

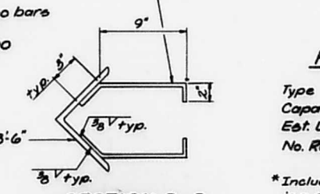


SECTION B-B



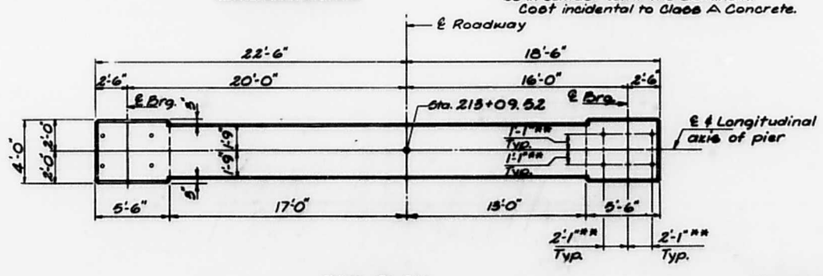
SECTION C-C





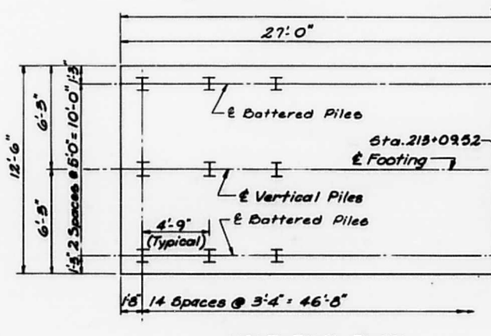
SECTION D-D

Aluminum bars and shapes shall be 6061-T6 alloy. Reinforcement bars shall not be in contact with the aluminum. Cost incidental to Class A Concrete.

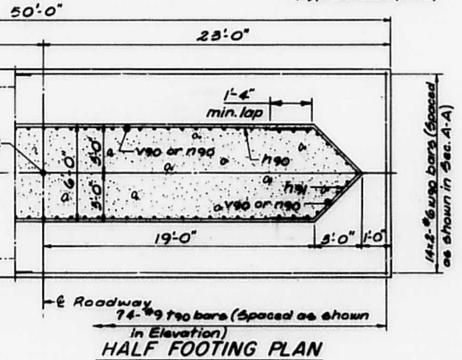


TOP PLAN

** Future Location of 1½" ø Anchor Bolts.



HALF PILE PLAN



HALF FOOTING PLAN

PIER 9
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h90	88	#6	21'-9"	
h91	40	#6	10'-9"	
h92	24	#5	17'-2"	
h93	8	#5	10'-0"	
n90	122	#11	11'-1"	
p90	5	#11	44'-10"	
p91	5	#11	40'-0"	
p92	10	#11	14'-0"	
t90	74	#9	12'-0"	
u90	31	#5	8'-4"	
u91	208	#5	10'-8"	
u92	104	#5	7'-3"	
u93	56	#6	19'-10"	
u94	8	#6	14'-8"	
v90	122	#11	19'-2"	
v91	72	#11	29'-5"	
w90	28	#6	25'-6"	
Class A Concrete			Cu. Yds.	370.4
Reinforcement Bars			Lbs.	46,610
Seal Coat Concrete			Cu. Yds.	105.0
Steel Piles HP 12x53			Lin. Ft.	2,508
Test Pile HP 12x53			Each	1
Cofferdam Excavation			Cu. Yds.	555
Cofferdam			Each	1

BARS	
u90	1'-6"
u91	3'-4"
u92	2'-10"
u93	6'-4"
u94	5'-9"

u90 6'-4" a.o.
u91 4'-0" a.o.
u92 1'-7" a.o.
u93 8'-2" a.o.
u94 8'-2" a.o.

PILE DATA

Type	Steel HP 12 x 53
Capacity	Drive to refusal
Est. Length	57'
No. Required	45 *

* Includes one test pile driven in a permanent location.

PIER 9

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

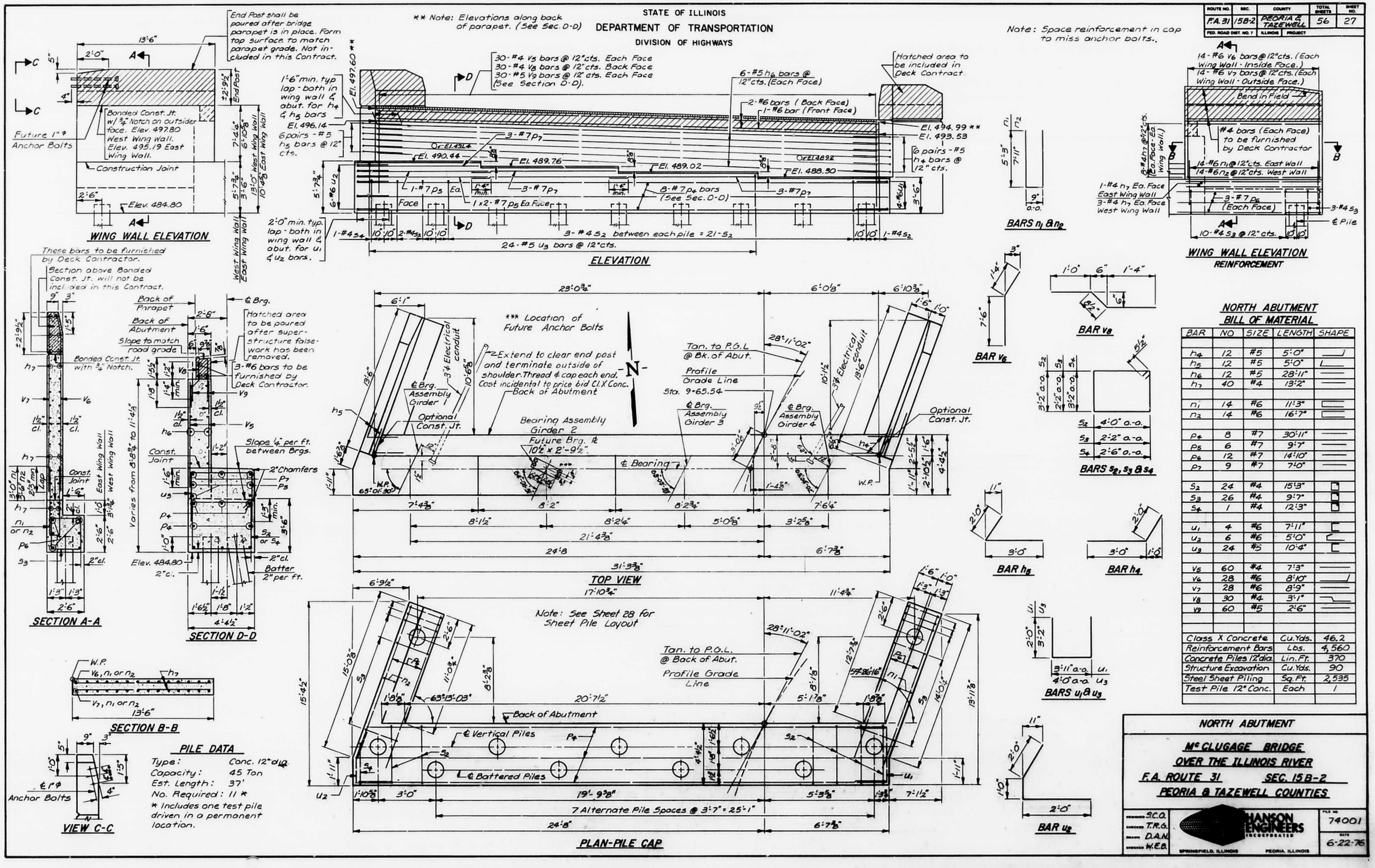
DESIGNED C.R.N.
CHECKED W.E.B.
DRAWN D.A.B.
CHECKED C.R.N.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	158-2	PEORIA & TAZEWELL	56	27
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



PILE DATA

Type: Conc. 12" dia.
Capacity: 45 Ton
Est. Length: 37'
No. Required: 11 *
* Includes one test pile driven in a permanent location.

NORTH ABUTMENT BILL OF MATERIAL

BAR	NO	SIZE	LENGTH	SHAPE
h4	12	#5	5'-0"	
h5	12	#5	5'-0"	
h6	12	#5	28'-11"	
h7	40	#4	13'-2"	
n1	14	#6	11'-3"	
n2	14	#6	16'-7"	
p4	8	#7	30'-11"	
p5	6	#7	9'-7"	
p6	12	#7	14'-10"	
p7	9	#7	7'-0"	
s2	24	#4	15'-3"	
s3	26	#4	9'-7"	
s4	1	#4	12'-3"	
u1	4	#6	7'-11"	
u2	6	#6	5'-0"	
u3	24	#5	10'-4"	
v5	60	#4	7'-3"	
v6	28	#6	8'-10"	
v7	28	#6	8'-9"	
v8	30	#4	3'-1"	
v9	60	#5	2'-6"	
Class X Concrete			Cu. Yds.	46.2
Reinforcement Bars			Lbs.	4,560
Concrete Piles 12" dia.			Lin. Ft.	370
Structure Excavation			Cu. Yds.	90
Steel Sheet Piling			Sq. Ft.	2,535
Test Pile 12" Conc.			Each	1

NORTH ABUTMENT

McCLUGAGE BRIDGE OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

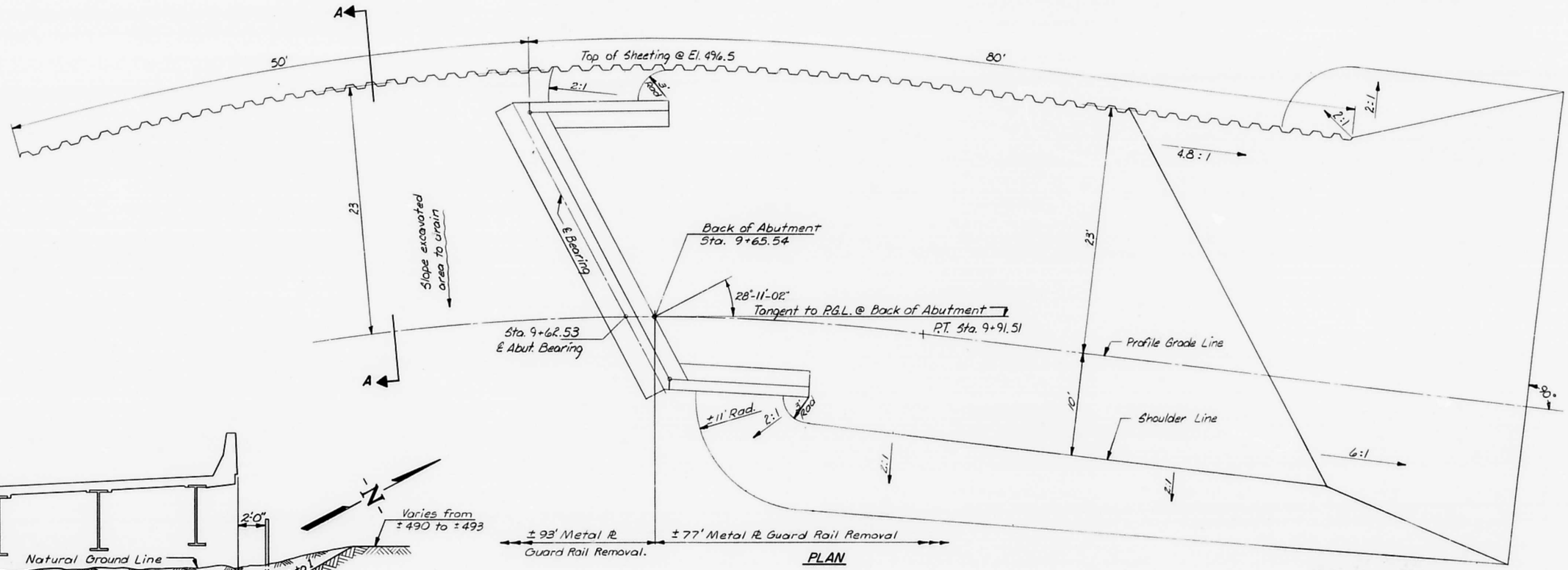
DESIGNED S.C.O.
CHECKED T.R.G.
DRAWN D.A.N.
CHECKED W.E.B.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

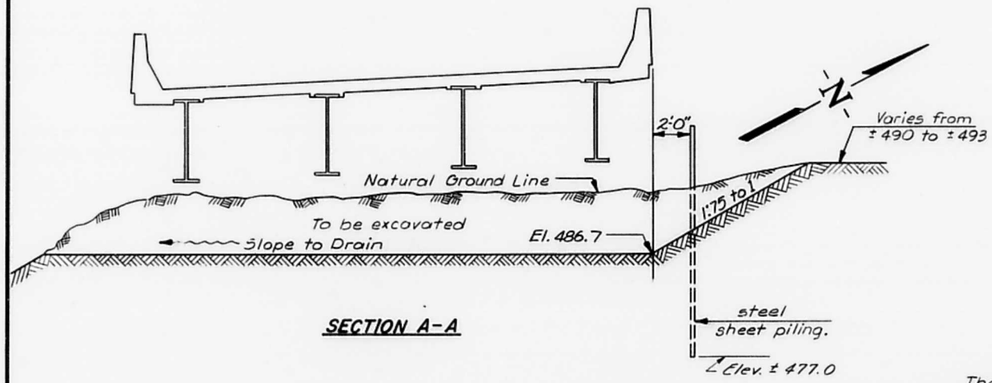
FILE NO. 74001
DATE 6-22-76

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 31	15B-2	PEORIA & TAZEWELL	56	28
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

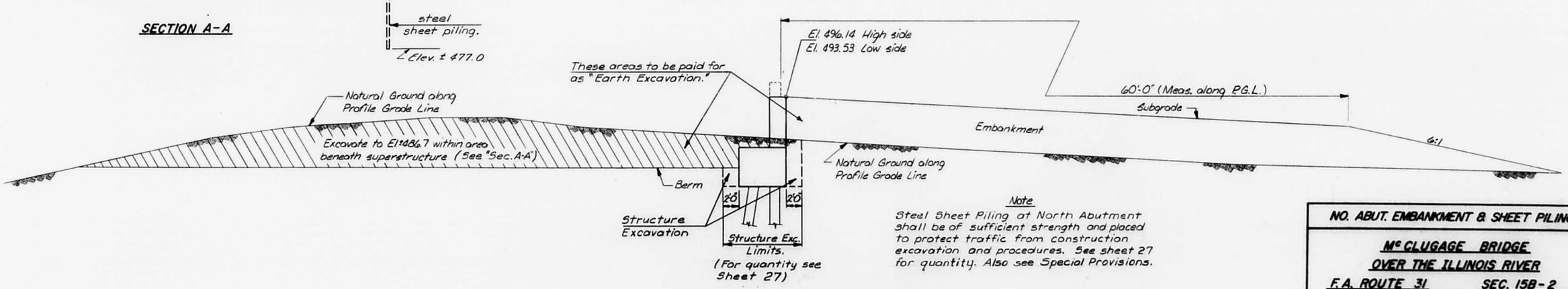
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS



PLAN



SECTION A-A



ELEVATION

Note

Steel Sheet Piling at North Abutment shall be of sufficient strength and placed to protect traffic from construction excavation and procedures. See sheet 27 for quantity. Also see Special Provisions.

NO. ABUT. EMBANKMENT & SHEET PILING

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED C.R.M.
CHECKED WDL
DRAWN R.J.F.
CHECKED WDL

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

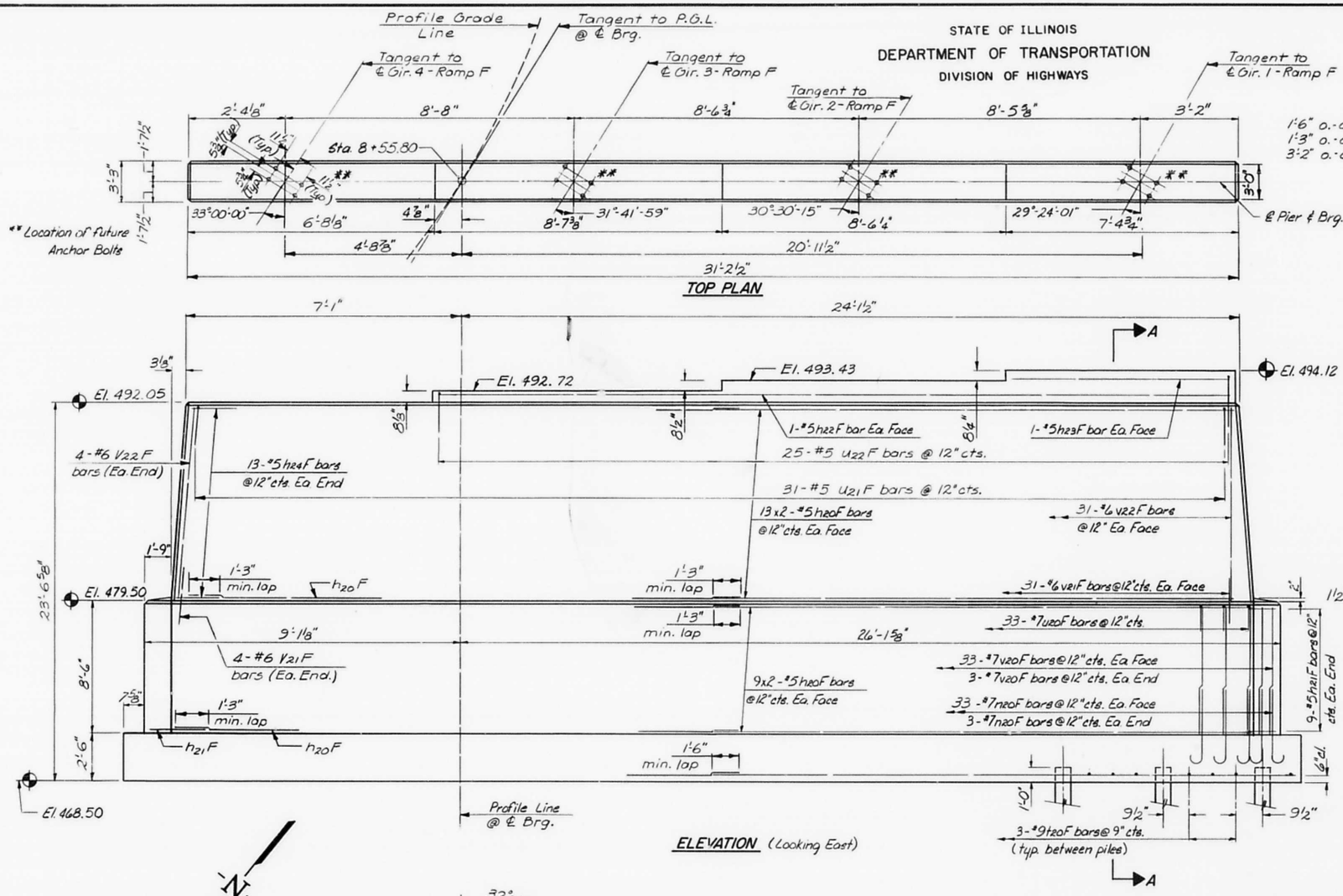
PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.31	158-2	Peoria Tazewell	56	29

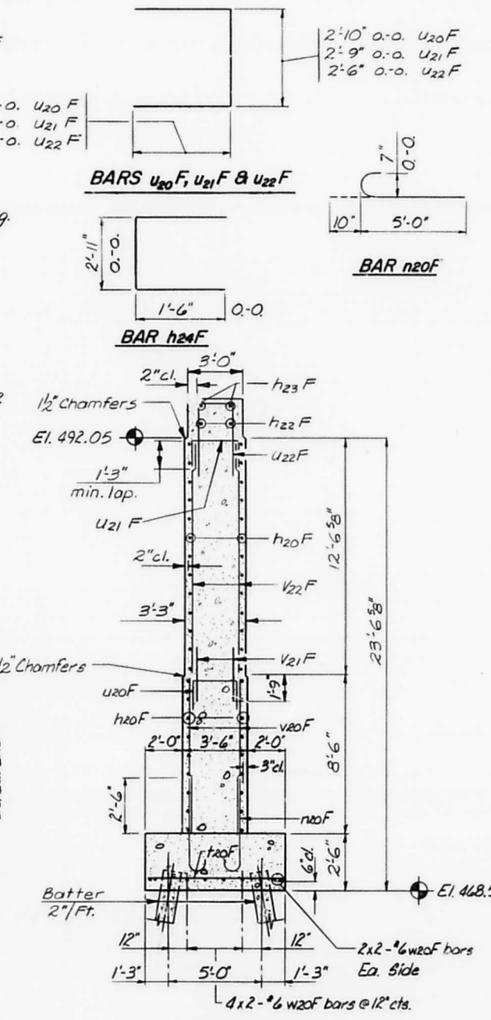
PLATE 3 FULL CROSS SECTION FULL LINE

RAMP F

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	30
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



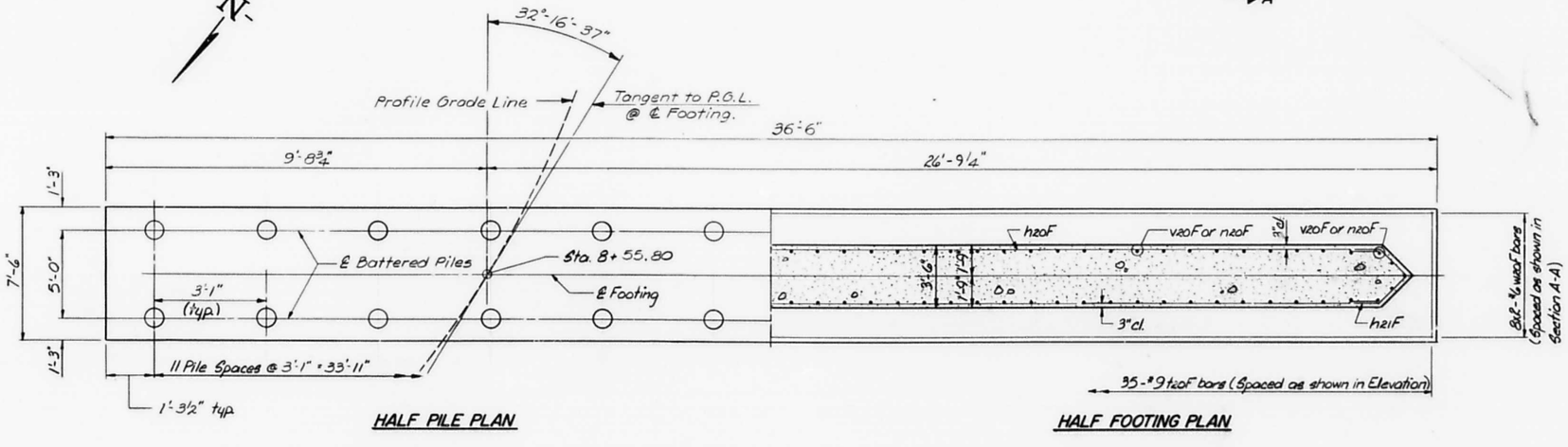


BAR	NO.	SIZE	LENGTH	SHAPE
h20F	88	#5	16'-3"	
h21F	18	#5	7'-3"	
h22F	2	#5	24'-0"	
h23F	2	#5	6'-11"	
h24F	26	#5	5'-11"	
n20F	72	#7	5'-10"	
t20F	35	#9	7'-0"	
U20F	33	#7	5'-10"	
U21F	31	#5	5'-3"	
U22F	25	#5	8'-10"	
V20F	72	#7	8'-3"	
V21F	70	#6	3'-6"	
V22F	70	#6	12'-4"	
W20F	16	#6	18'-10"	
Class A Concrete			Cu. Yd.	113.3
Reinforcement Bars			Lbs.	7,670
Conc. Piles 12" Dia.			Lin. Ft.	575
Test Pile 12" Dia. Conc.			Each	1
Struct. Exc.			Cu. Yd.	143

PILE DATA

Type	Conc. 12" dia.
Capacity	45 ton
Est. Length	25'
No. Required	24 *

* Includes one test pile driven in a permanent location.



PIER 2F

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

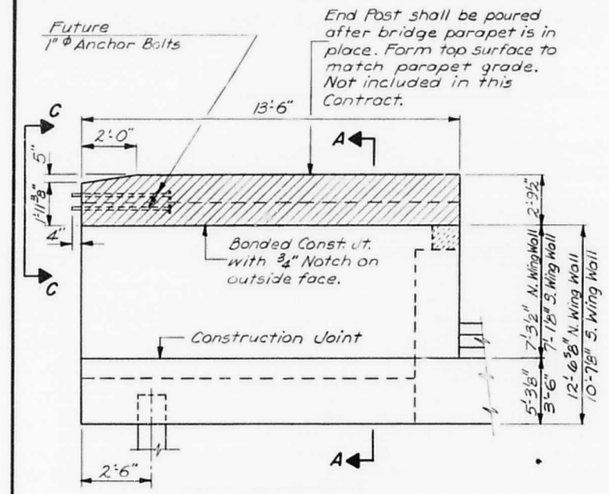
DESIGNED S.C.O.
CHECKED W.E.B.
DRAWN R.L.F.
CHECKED W.E.B.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

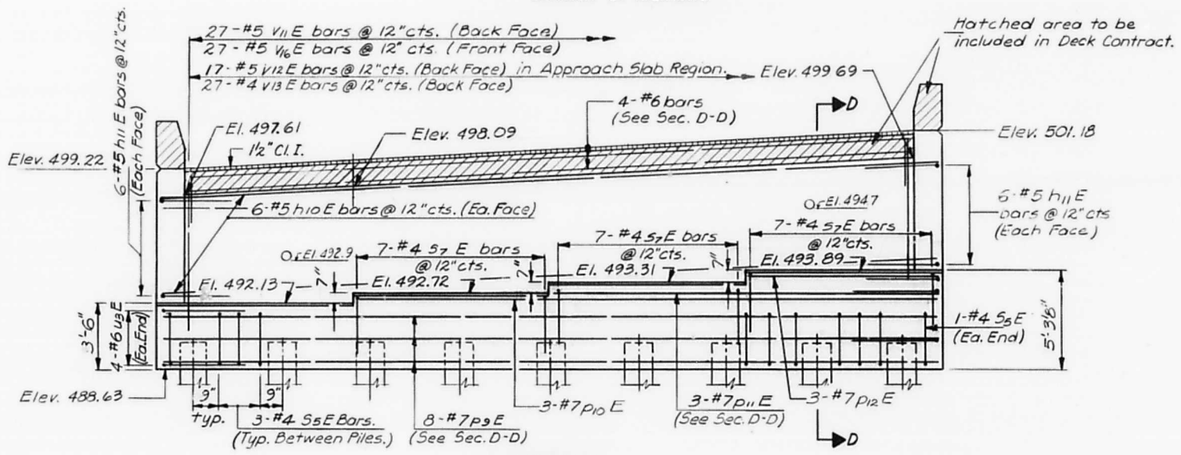
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

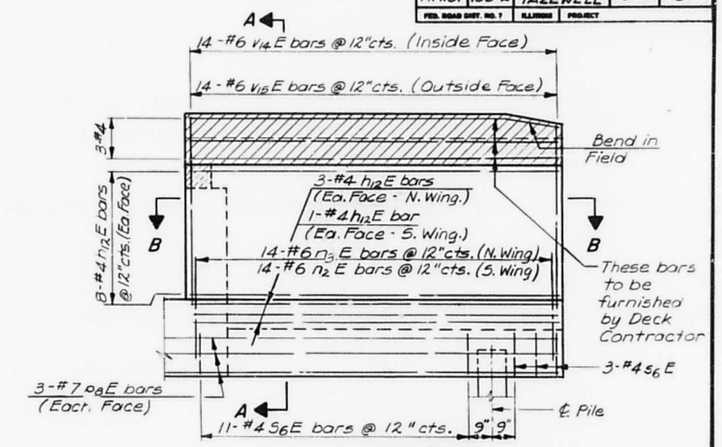
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	PEORIA & TAZEWELL	56	31
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



WING WALL ELEVATION
(S. Wing Wall)



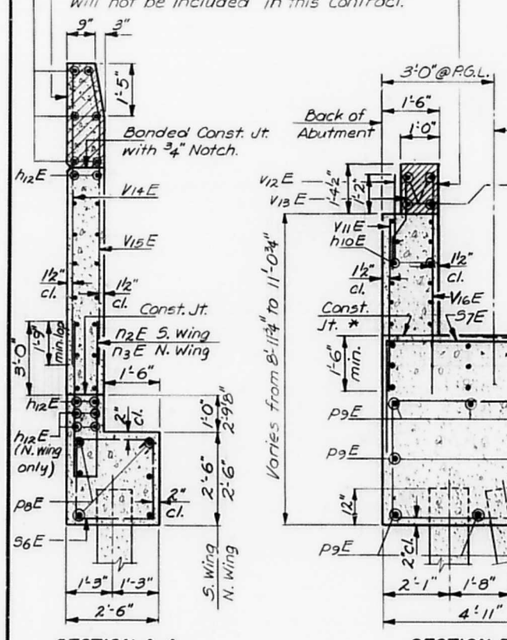
ELEVATION



WING WALL ELEVATION
Reinforcement
(N. Wing Shown)

These bars to be furnished by Deck Contractor.

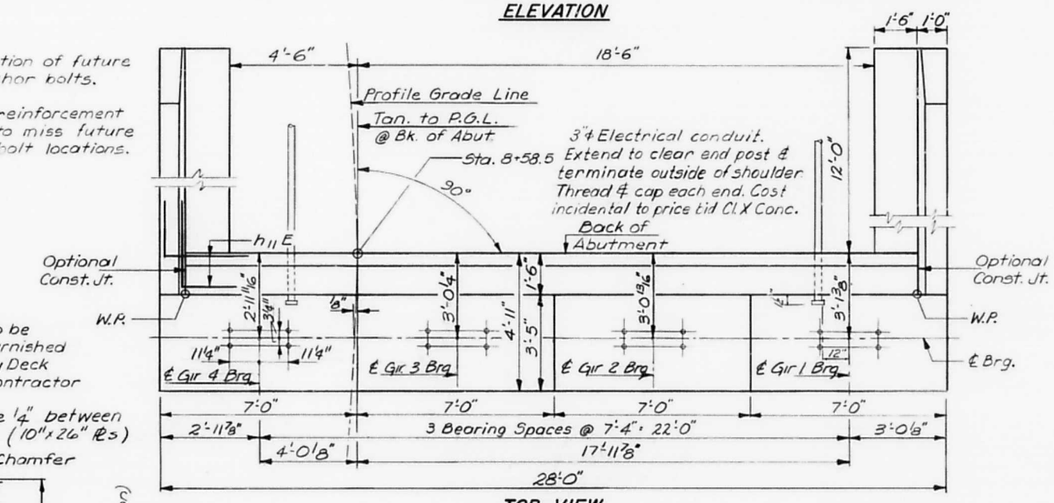
Cross Hatched Areas will not be included in this Contract.



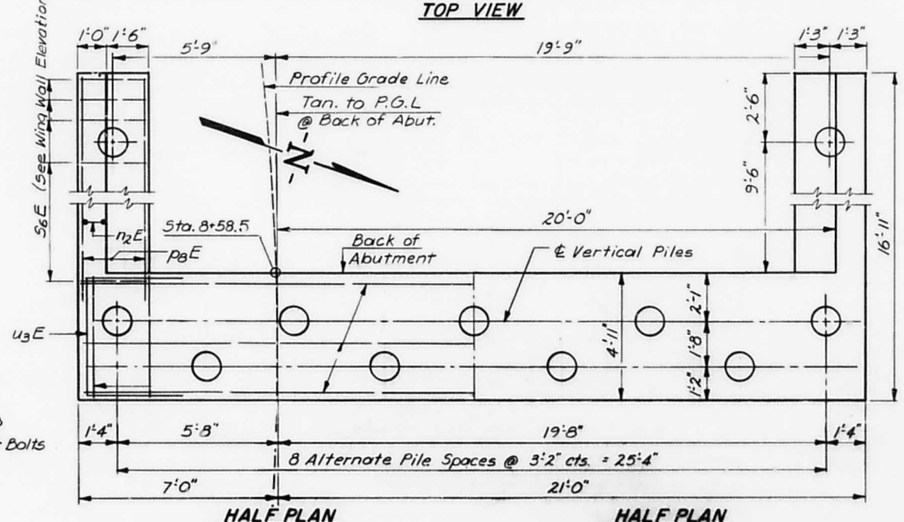
SECTION A-A

** Location of future anchor bolts.

Space reinforcement in cap to miss future anchor bolt locations.

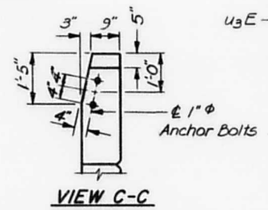


TOP VIEW

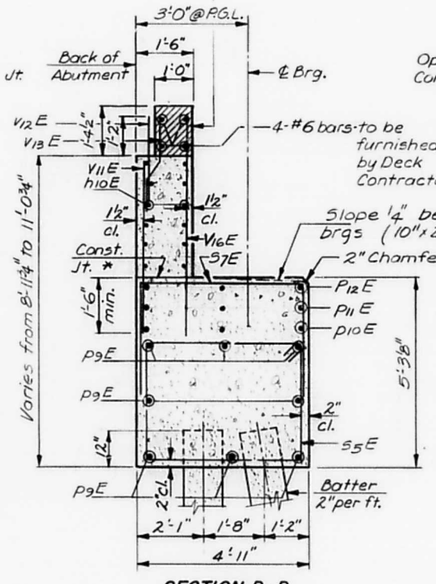


HALF PLAN
Reinforcement

HALF PLAN
Dimensions

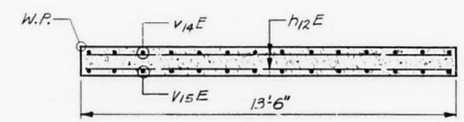


VIEW C-C

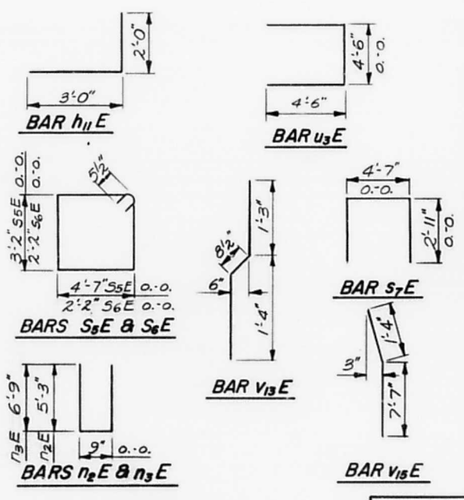


SECTION D-D

* Construction Joints @ same elevations as top of steps.



SECTION B-B



PILE DATA

Type:	12" Conc. Piles
Capacity:	45 Ton.
Est. Length:	18'
No Required:	11***

*** Includes one test pile driven in a permanent location.

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10E	12	#5	27'-6"	
h11E	24	#5	5'-0"	
h12E	40	#4	13'-3"	
n2E	28	#6	11'-3"	
n3E	28	#6	14'-3"	
p8E	12	#7	14'-0"	
p9E	8	#7	27'-6"	
p10E	3	#7	20'-8"	
p11E	3	#7	13'-8"	
p12E	3	#7	6'-8"	
s5E	26	#4	16'-3"	
s6E	28	#4	9'-5"	
s7E	21	#4	10'-5"	
u3E	8	#6	13'-6"	
v11E	27	#4	7'-4"	
v12E	17	#5	2'-7"	
v13E	27	#4	2'-10"	
v14E	28	#6	8'-11"	
v15E	28	#6	8'-11"	
v16E	27	#4	8'-8"	
Class X Concrete			Cu. Yds.	44.6
Reinforcement Bars			Lbs.	4,840
Conc. Piles 12" Dia.			Lin. Ft.	180
Test Piles 12" Conc.			Ea.	1
Struct. Excavation			Cu. Yds.	137

SOUTH ABUTMENT

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

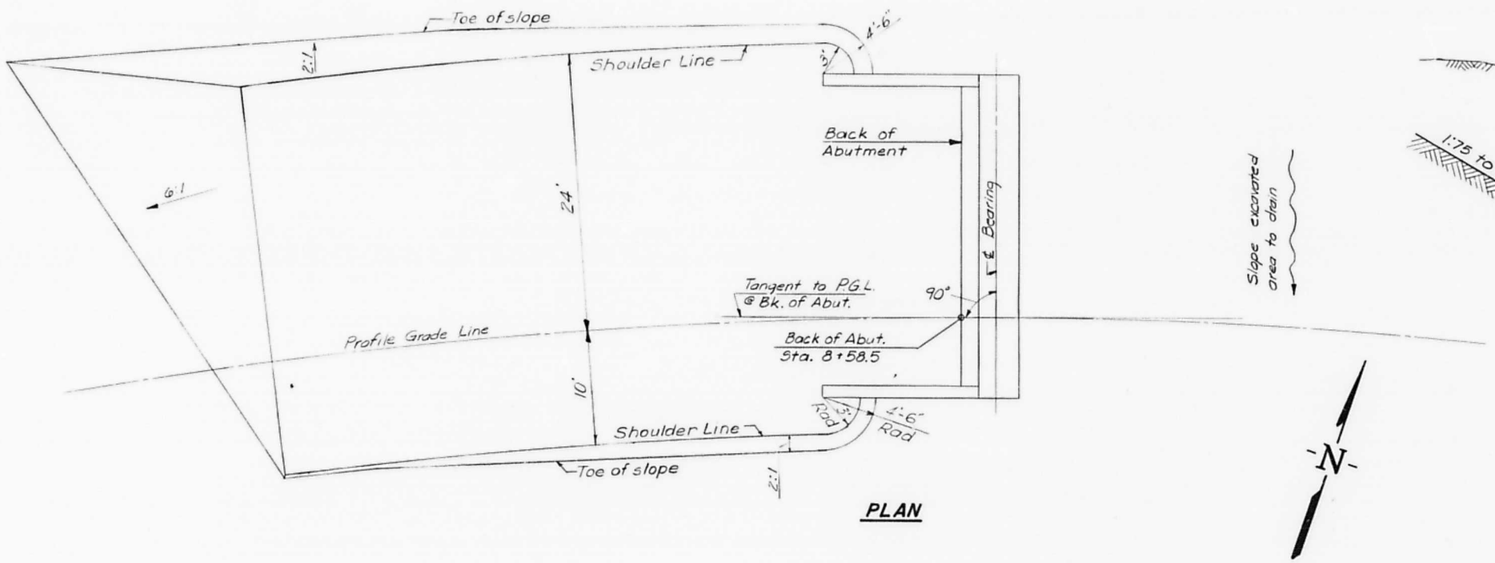
DESIGNED W.D.L.
CHECKED S.C.Q.
DRAWN D.A.N.
CHECKED S.C.Q.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

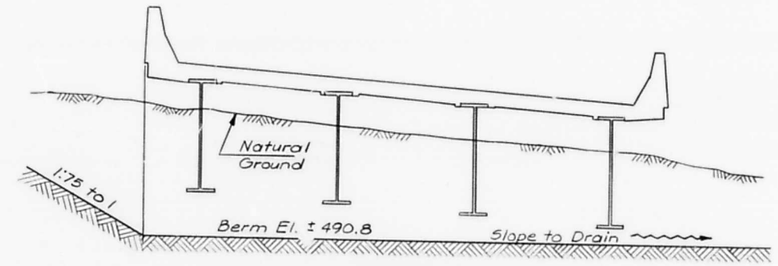
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

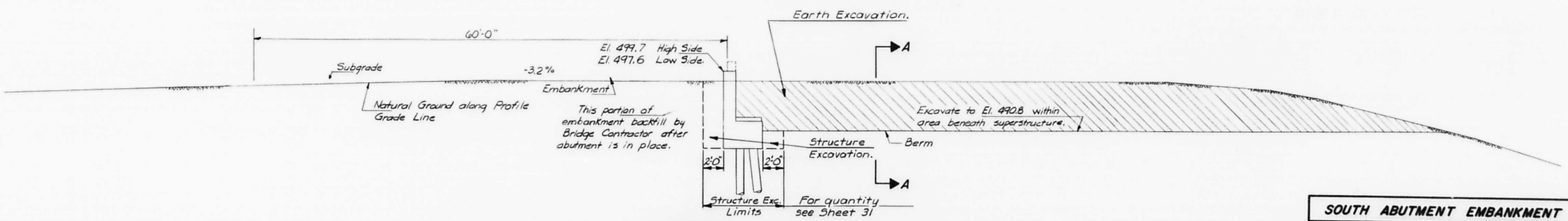
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-31	15 B-2	Peoria, Tazewell	58	32
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



PLAN



SECTION A-A



ELEVATION

SOUTH ABUTMENT EMBANKMENT

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

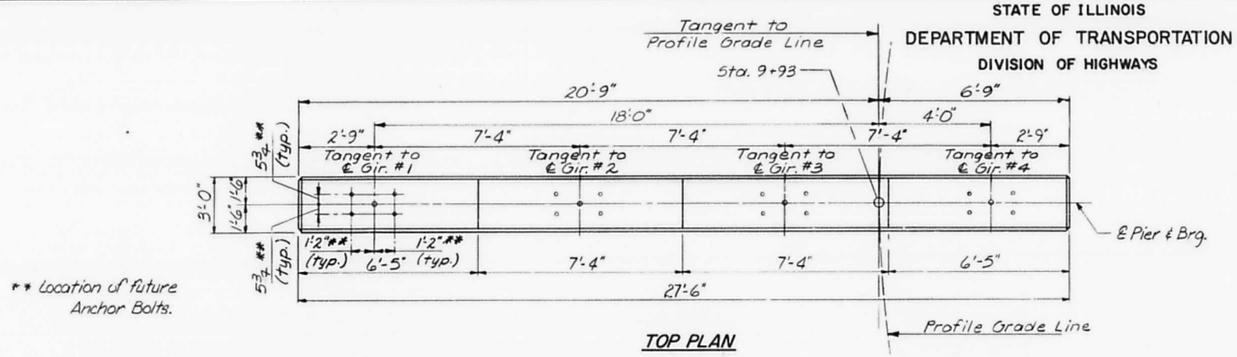
DESIGNED C.R.N.	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED W.D.L.		
DRAWN P.A.C.		DATE 6-22-76
CHECKED W.D.L.	SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS	

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.31	15B-2	Peoria Tazewell	56	33

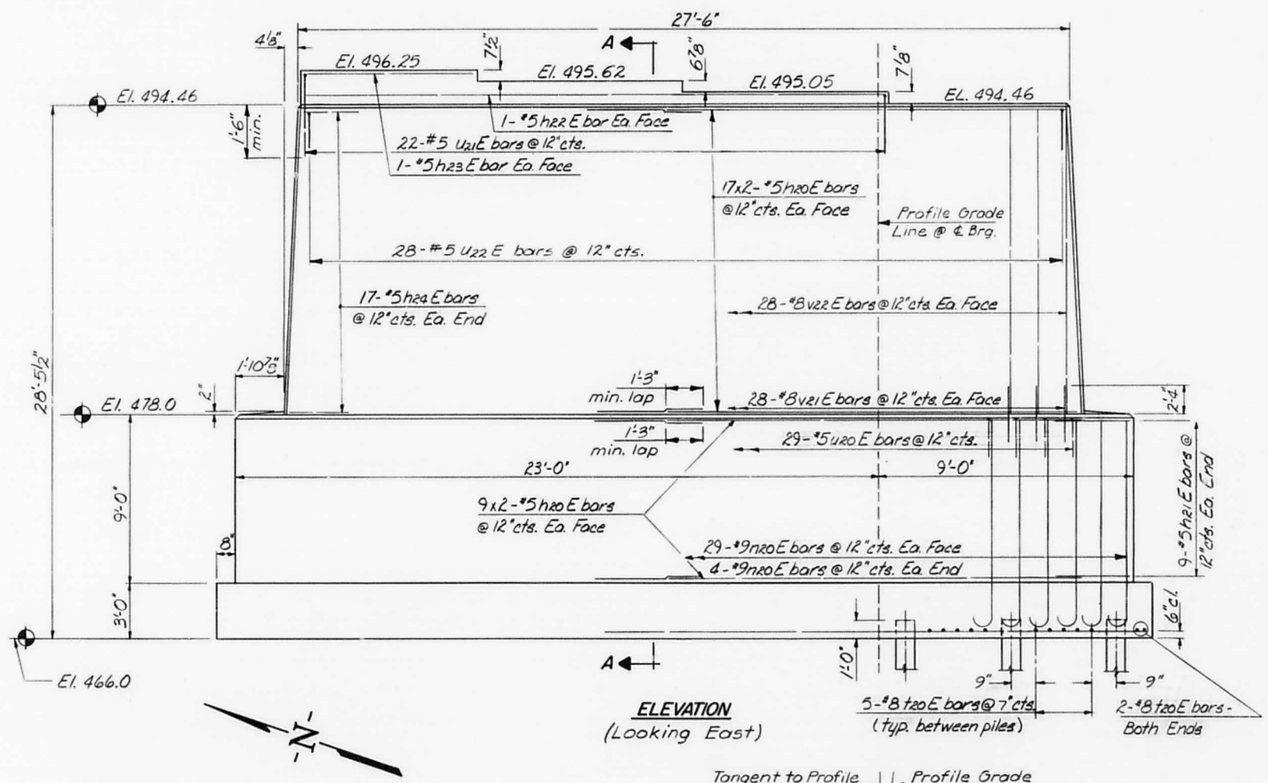
RAMP E

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

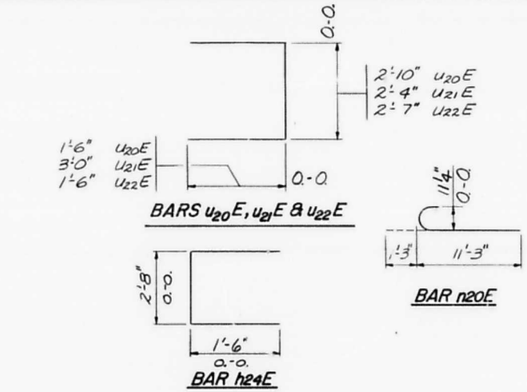
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	34
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

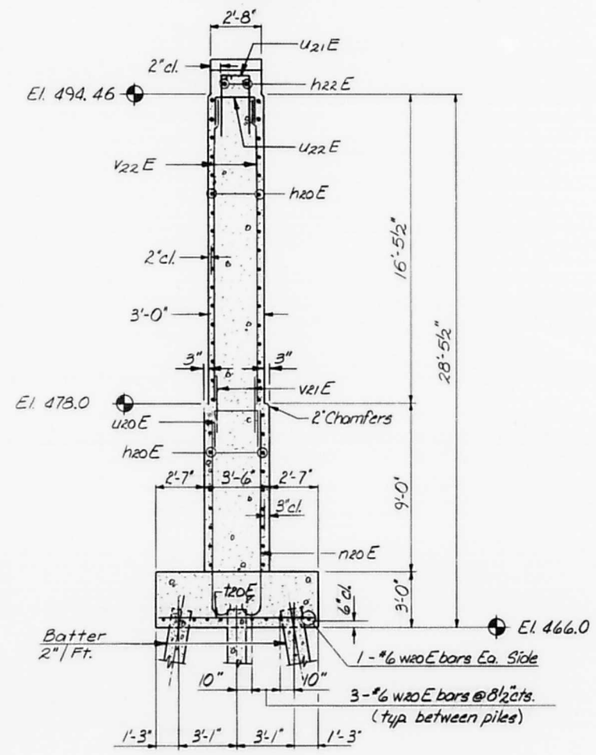


TOP PLAN



ELEVATION
(Looking East)

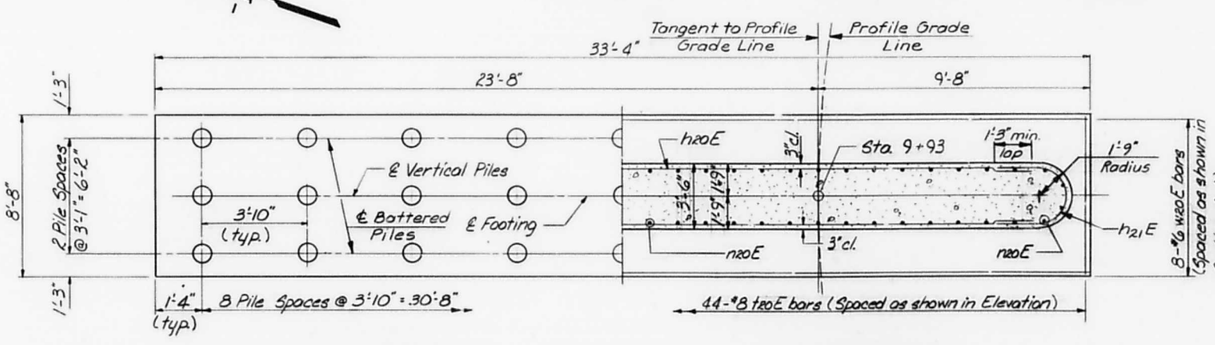




SECTION A-A

PIER 2E
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h20E	104	#5	14'-6"	
h21E	18	#5	8'-1"	
h22E	2	#5	20'-8"	
h23E	2	#5	6'-0"	
h24E	34	#5	5'-8"	
n20E	66	#9	12'-6"	
t20E	44	#8	8'-2"	
u20E	29	#5	5'-10"	
u21E	22	#5	8'-4"	
u22E	28	#5	5'-7"	
v21E	56	#8	4'-8"	
v22E	56	#8	16'-2"	
w20E	8	#6	32'-10"	
Class A Concrete			Cu. Yd.	121.1
Reinforcement Bars			Lbs.	9,780
Conc. Piles 12" Dia.			Lin. Ft.	650
Test Pile 12" Conc.			Each	1
Struct. Exc.			Cu. Yd.	263



HALF PILE PLAN

HALF FOOTING PLAN

PILE DATA

Type	Conc. 12" dia.
Capacity	45 ton
Est. Length	25'
No. Required	27*

* Includes one test pile driven in a permanent location.

PIER 2E

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

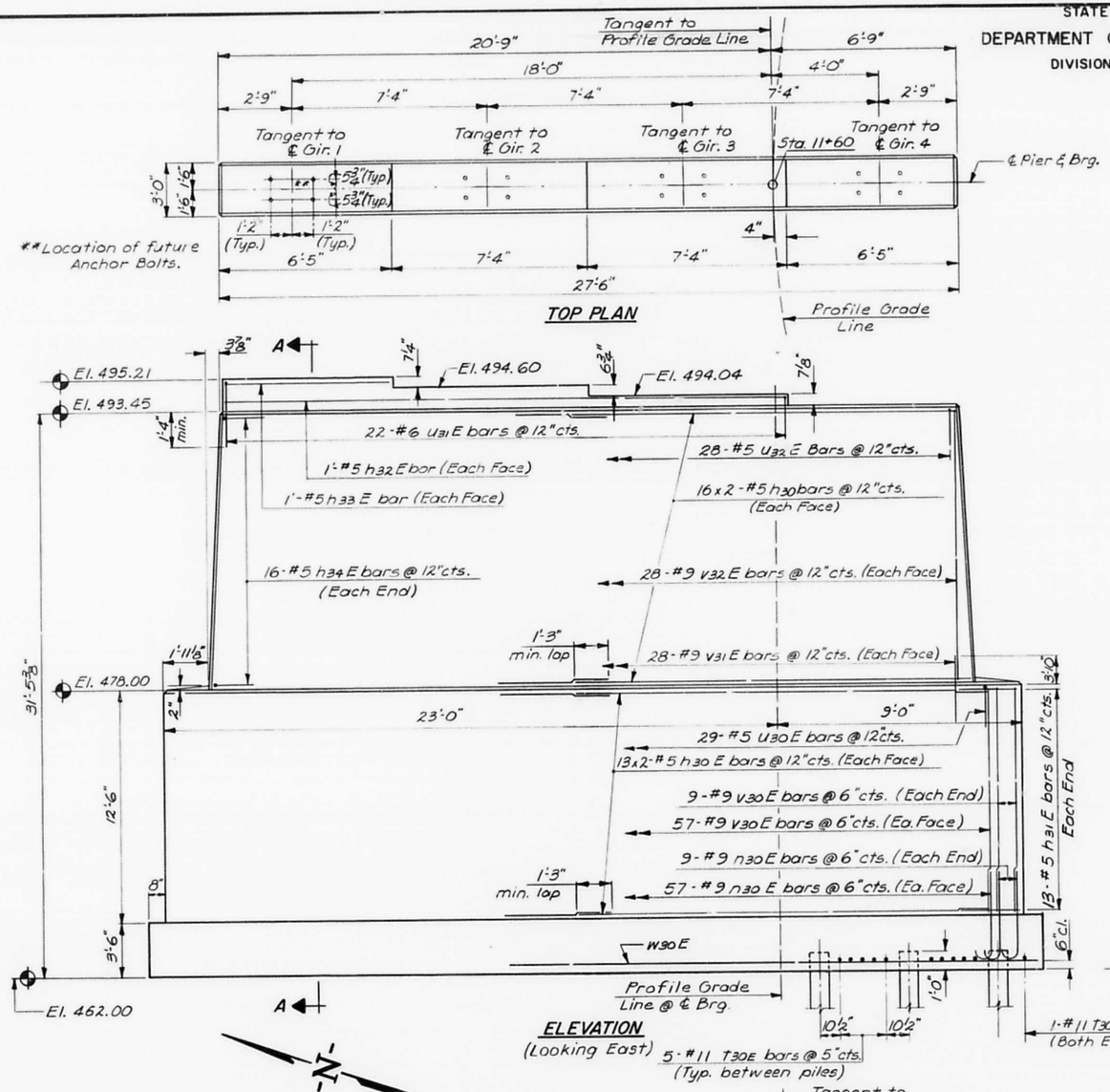
DESIGNED W.O.C.
CHECKED S.C.O.
DRAWN R.J.F.
CHECKED S.C.O.

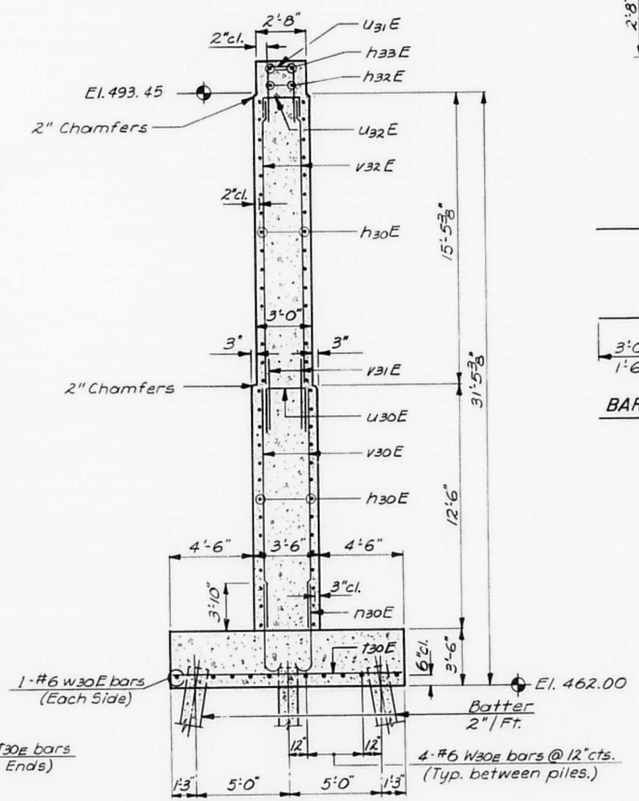
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

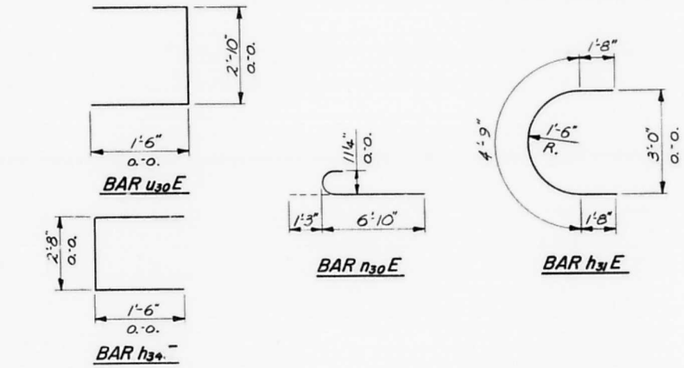
FILE NO. 74001
DATE 6-22-76

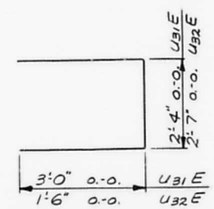
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	PEORIA & TAZEWELL	56	35
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



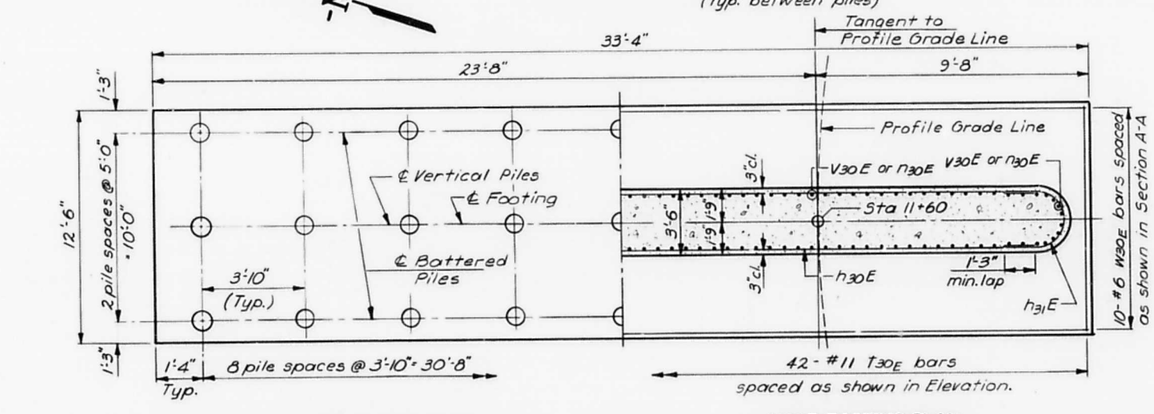






PIER 3E
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h30E	116	#5	14'-6"	
h31E	26	#5	8'-1"	
h32E	2	#5	20'-8"	
h33E	2	#5	6'-0"	
h34E	32	#5	5'-8"	
n30E	132	#9	8'-1"	
t30E	42	#11	12'-0"	
u30E	29	#5	5'-10"	
u31E	22	#5	8'-4"	
u32E	28	#5	5'-7"	
v30E	132	#9	12'-3"	
v31E	56	#9	7'-8"	
v32E	56	#9	15'-2"	
w30E	10	#6	32'-10"	
Class A Concrete			Cu. Yd.	154.0
Reinforcement Bars			Lbs.	19,390
Conc. Piles 12" Dia.			Lin. Ft.	936
Test Pile 12" Conc.			Each	1
Struct. Exc.			Cu. Yd.	91



PILE DATA

Type: Conc. 12" dia
Capacity: 45 Ton
Est. Length: 36'
No. Required: 27*
* Includes one test pile driven in a permanent location.

PIER 3E

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

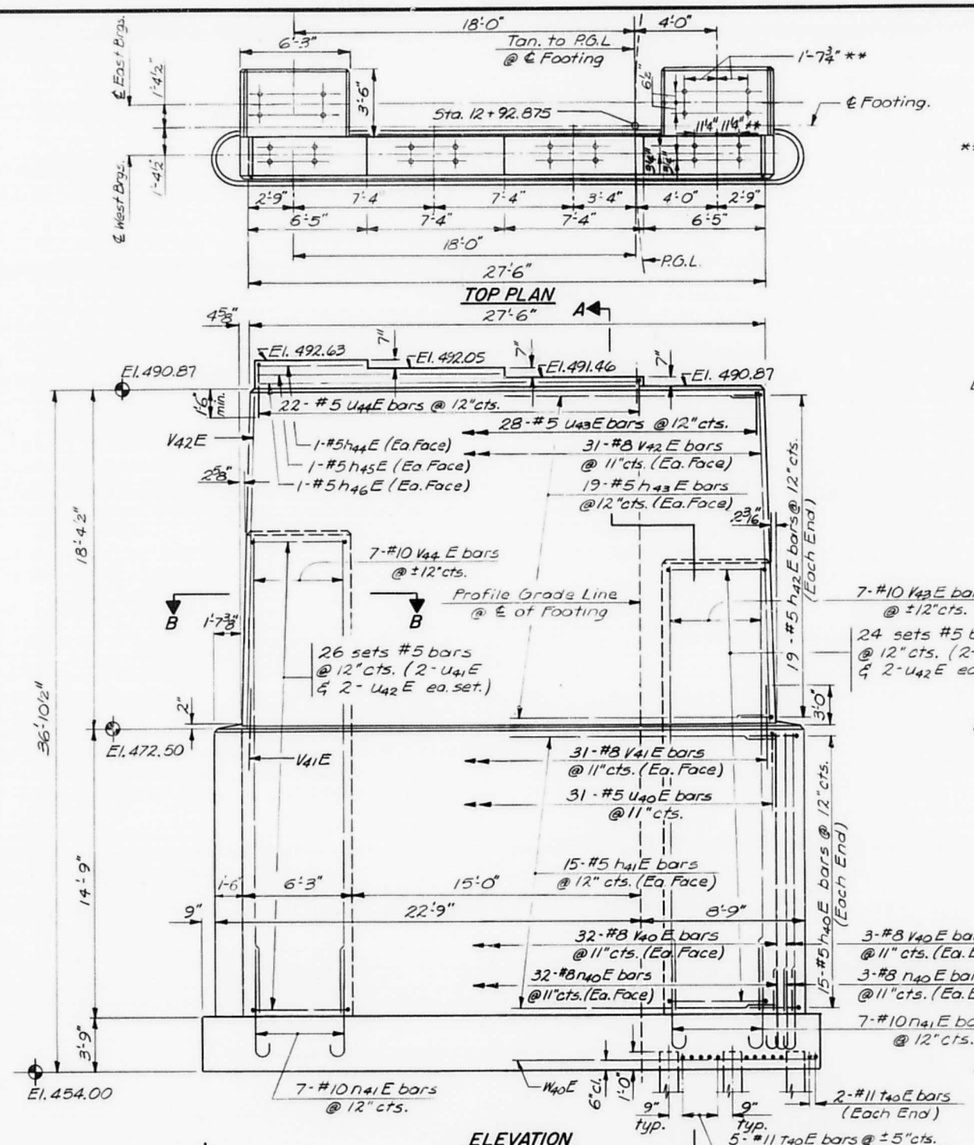
DESIGNED W.D.L.
CHECKED S.C.O.
DRAWN D.A.N.
CHECKED S.C.O.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

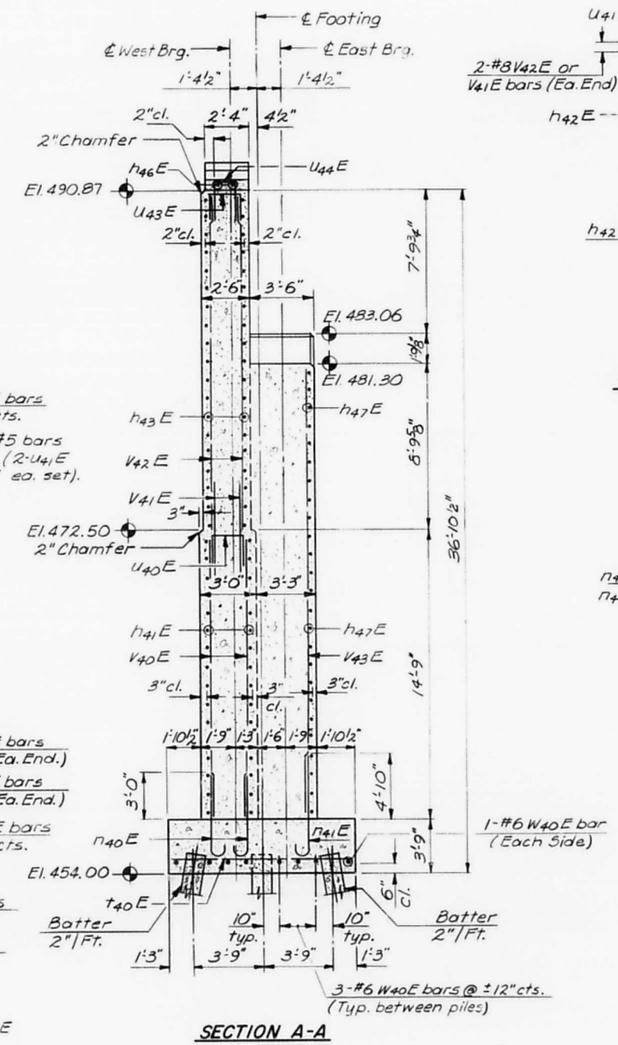
FILE NO. 74001
DATE 6-22-76

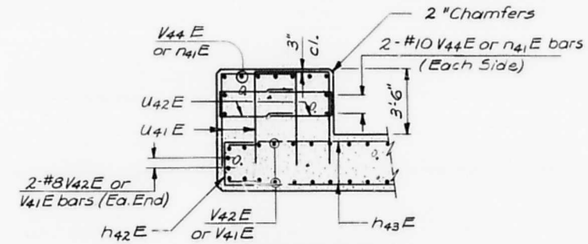
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-31	15B-2	PEORIA & TAZEWELL	56	36
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

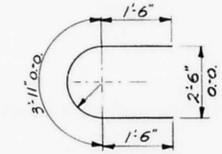
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

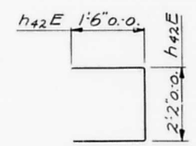


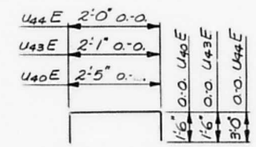
**Location of future Anchor Bolts.

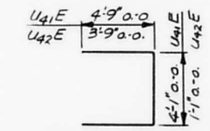


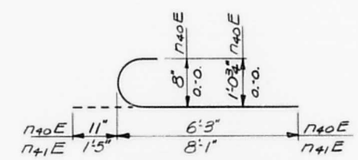






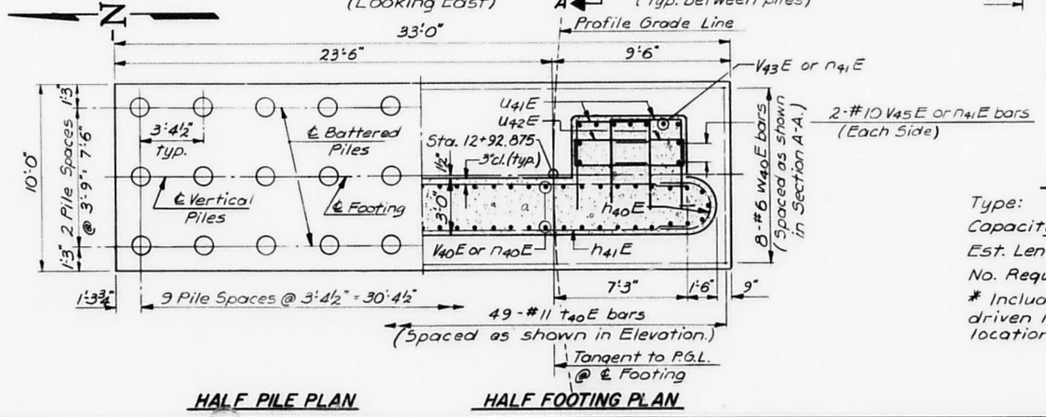






PIER 4E
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h40E	30	#5	6'-11"	
h41E	30	#5	28'-6"	
h42E	38	#5	5'-2"	
h43E	38	#5	27'-2"	
h44E	2	#5	5'-11"	
h45E	2	#5	13'-3"	
h46E	2	#5	20'-7"	
n40E	70	#8	7'-2"	
n41E	22	#10	9'-6"	
t40E	49	#11	9'-6"	
u40E	31	#5	5'-5"	
u41E	100	#5	13'-7"	
u42E	100	#5	8'-7"	
u43E	28	#5	5'-1"	
u44E	22	#5	8'-0"	
v40E	70	#8	14'-6"	
v41E	66	#8	6'-0"	
v42E	66	#8	17'-11"	
v43E	11	#10	23'-3"	
v44E	11	#10	25'-0"	
w40E	8	#6	32'-6"	
Class A Concrete			Cu. Yds.	182.7
Reinforcement Bars			Lbs.	19,600
Conc. Piles 12"ϕ			Lin. Ft.	1044
Test Pile 12" Conc.			Each	1
Structure Excavation			Cu. Yds.	96



PILE DATA

Type: Concrete. 12" dia.
Capacity: 45 Ton
Est. Length: 36'
No. Required: 30 *
* Includes one Test Pile driven in a permanent location.

PIER 4E

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

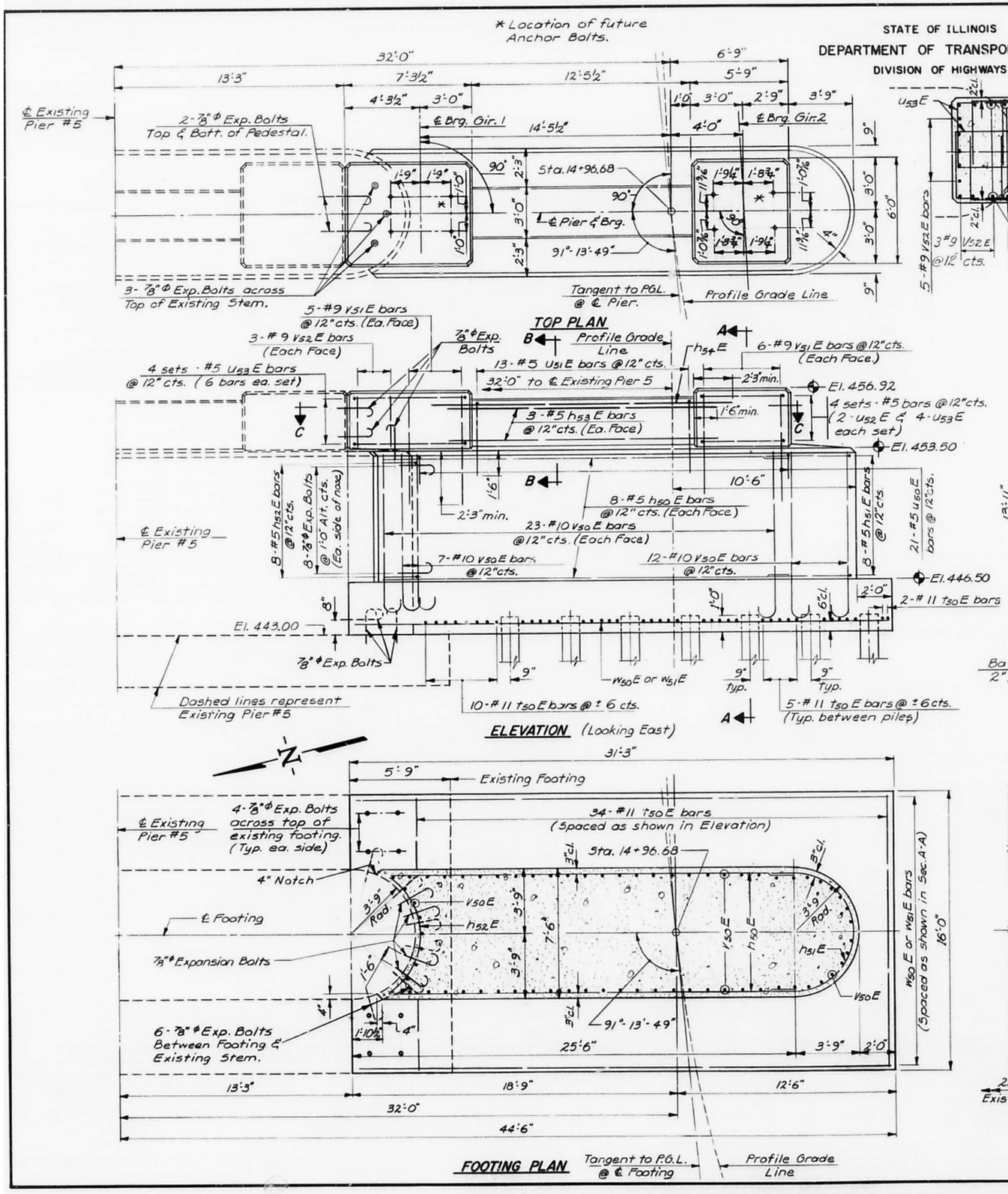
DESIGNED WDL
CHECKED C.R.N.
DRAWN D.A.M.
CHECKED WDL

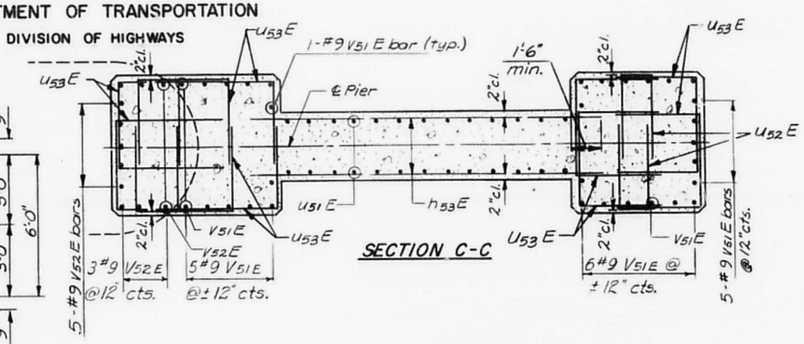
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

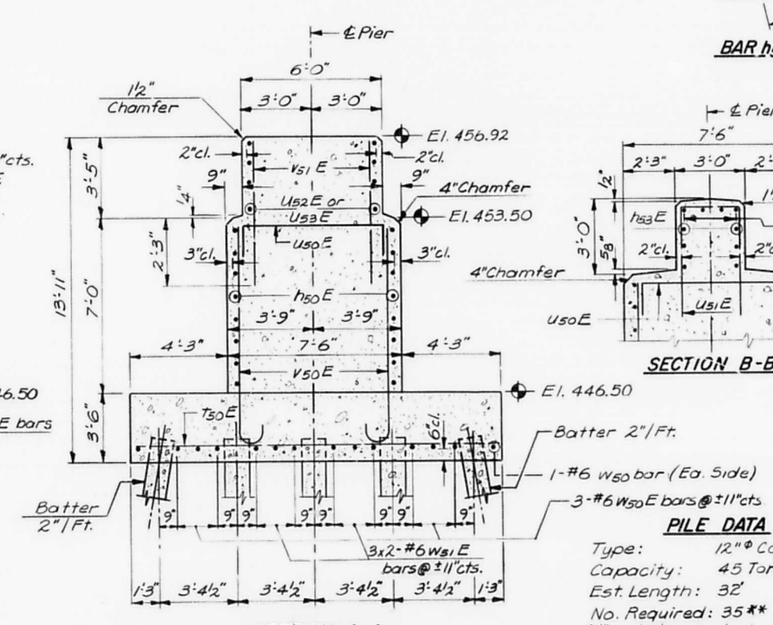
FILE NO. 74001
DATE 6-22-76

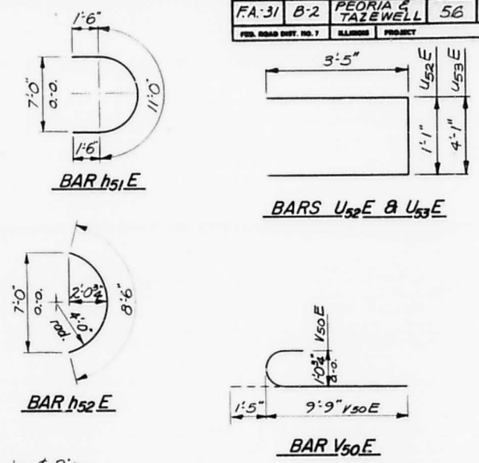
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	8-2	PEORIA & TAZEWELL	56	37
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		









PILE DATA

Type: 12" Φ Concrete
Capacity: 45 Ton
Est. Length: 32'
No. Required: 35**
** Includes one test pile driven in a permanent location.

PIER 5E BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h50E	16	#5	23'-3"	
h51E	8	#5	14'-0"	
h52E	8	#5	8'-6"	
h53E	6	#5	15'-5"	
h54E	4	#9	17'-0"	
t50E	42	#11	15'-6"	
U50E	21	#5	9'-10"	
U51E	13	#5	11'-4"	
U52E	8	#5	7'-11"	
U53E	40	#5	10'-11"	
V50E	65	#10	11'-2"	
V51E	31	#9	5'-6"	
V52E	11	#9	3'-3"	
W50E	8	#6	30'-9"	
W51E	12	#6	14'-11"	
Class A Concrete			Cu.Yd.	124.5
Reinforcement Bars			Lbs.	9,720
Conc. Piles - 12" Φ			Lin.Ft.	1,088
Test Pile 12" Conc.			Each	1
Structure Excavation			Cu.Yd.	173
Expansion Bolts - ⅞" Φ			Each	37

PIER 5E

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

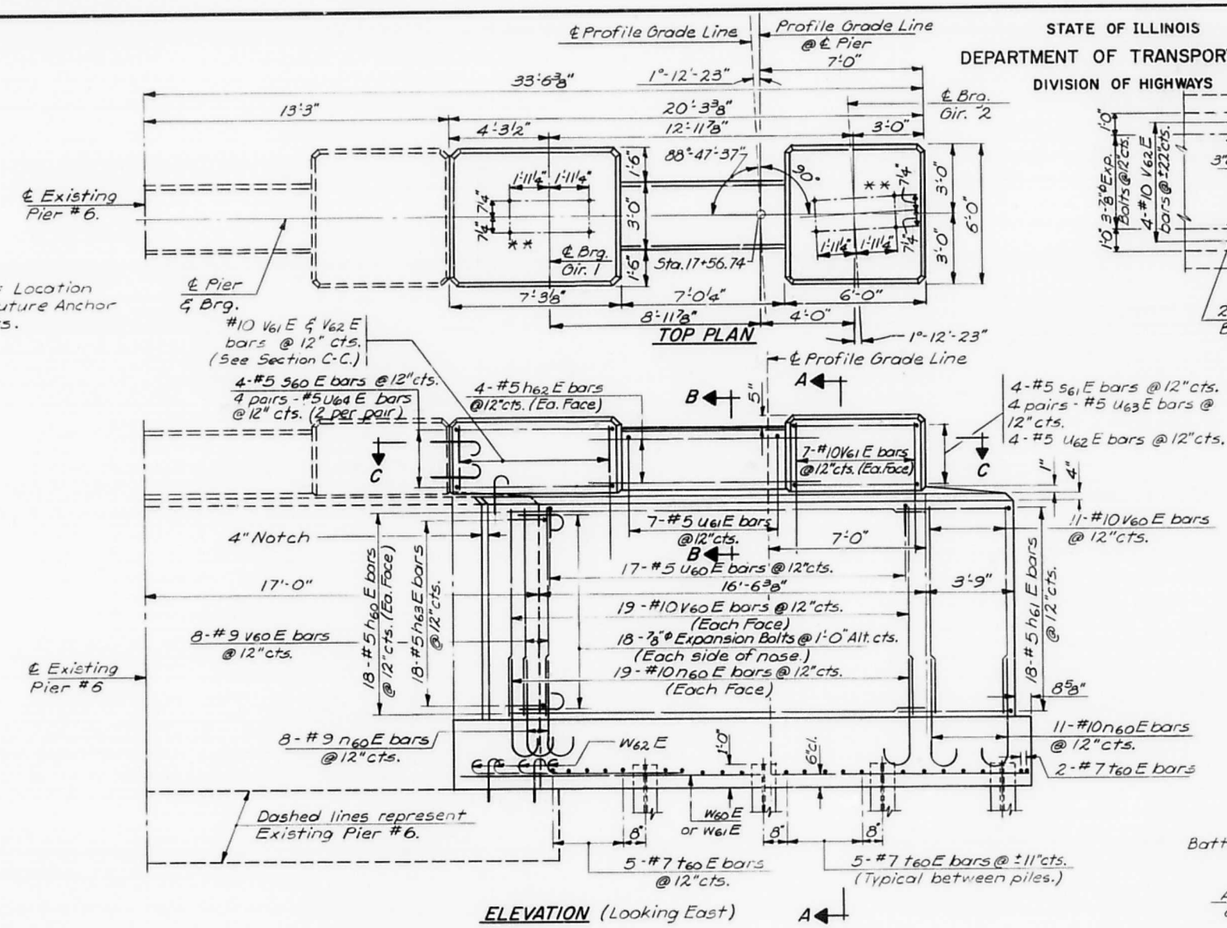
DESIGNED W.D.L.
CHECKED S.C.O.
DRAWN D.A.N.
CHECKED S.C.O.

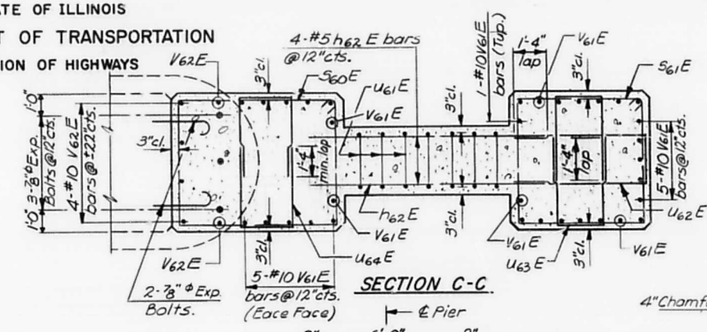
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

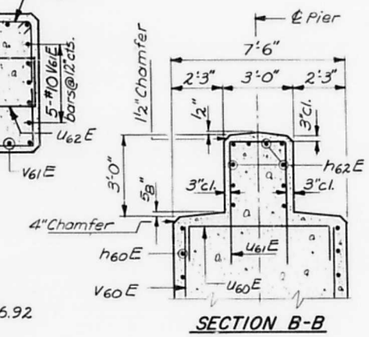
FILE NO. 74001
DATE 6-22-76

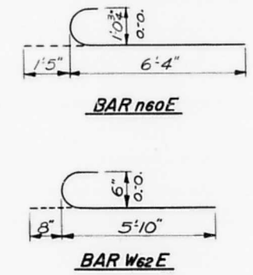
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

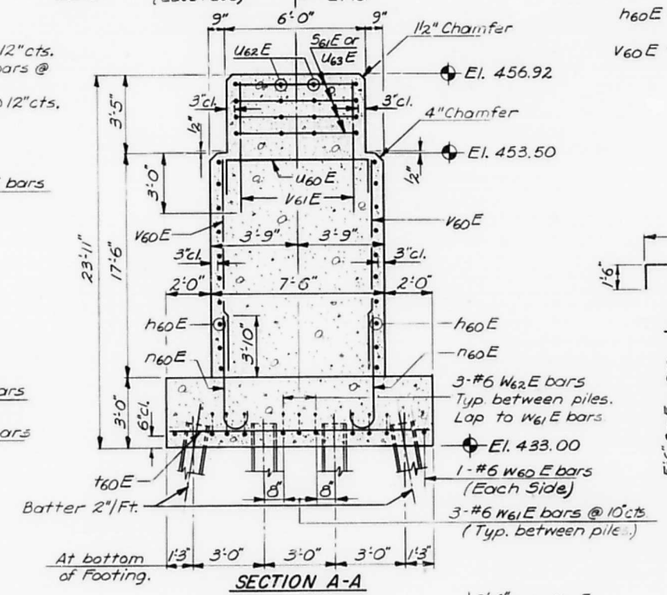
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	PEORIA & TAZEWELL	56	38
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

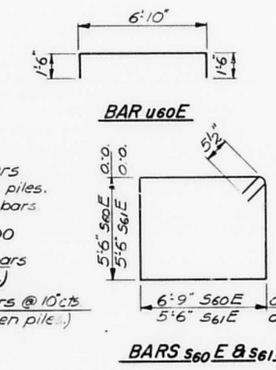


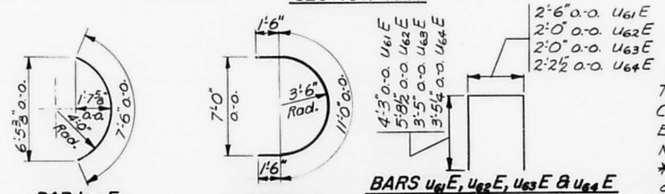










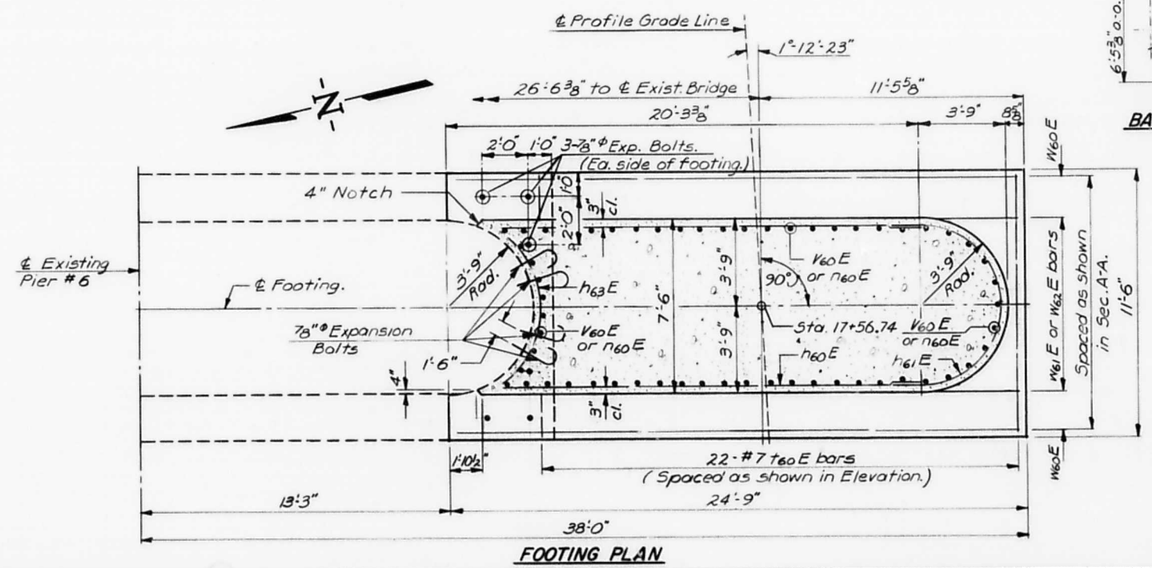


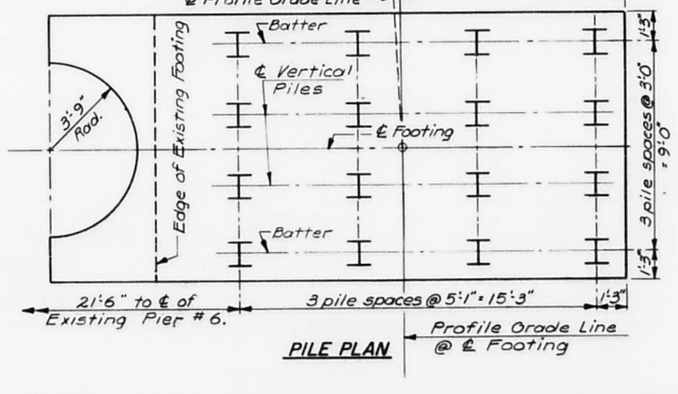
PIER 6E
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h60 E	36	#5	18'-0"	
h61 E	18	#5	14'-0"	
h62 E	10	#5	10'-1"	
h63 E	18	#5	7'-6"	
n60 E	57	#10	7'-9"	
S60 E	4	#5	25'-5"	
S61 E	4	#5	22'-11"	
t60 E	22	#7	11'-0"	
U60 E	17	#5	9'-10"	
U61 E	7	#5	11'-0"	
U62 E	4	#5	13'-5"	
U63 E	8	#5	8'-10"	
U64 E	8	#5	9'-1"	
V60 E	57	#10	17'-3"	
V61 E	33	#10	6'-2"	
V62 E	6	#10	3'-3"	
W60 E	2	#6	24'-3"	
W61 E	9	#6	19'-0"	
W62 E	9	#6	6'-6"	
Class A Concrete			Cu.Yd.	140.2
Reinforcement Bars			Lbs.	9860
Steel Piles HP12x53			Lin.Ft.	705
Test Pile HP12x53			Each	1
Cofferdam Excavation			Cu.Yd.	121
Cofferdam			Each	1
Expansion Bolts 7/8"Φ			Each	49

PILE DATA

Type: HP 12 x 53
Capacity: Drive to refusal.
Est. Length: 47'
No. Required: 16 *
* Includes one test pile driven in a permanent location.





PIER 6E

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

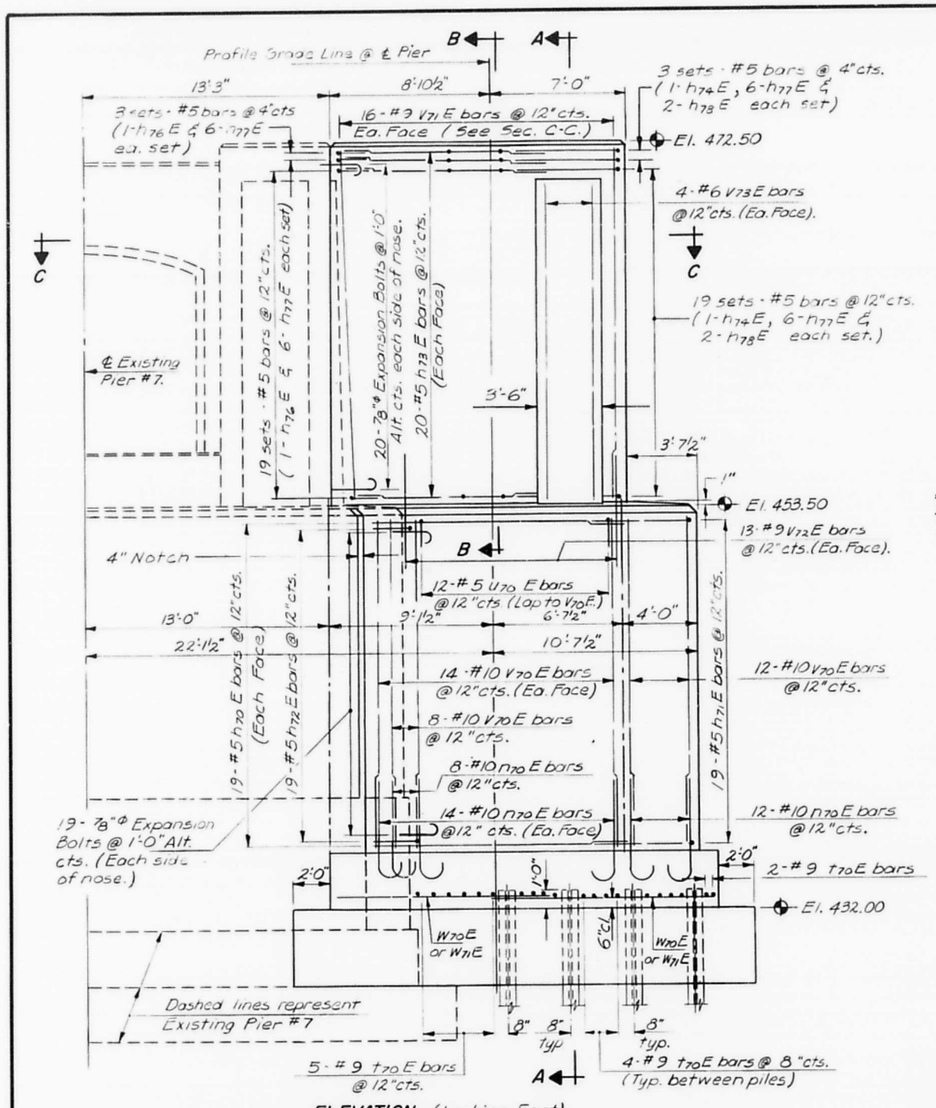
DESIGNED C.R.N.
CHECKED S.C.O.
DRAWN D.A.N.
CHECKED S.C.O.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

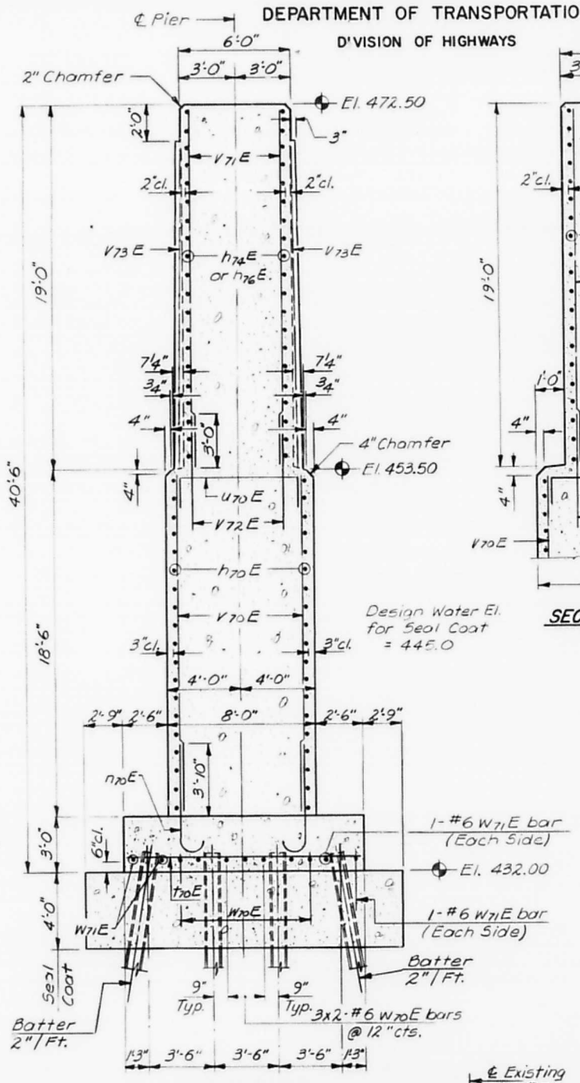
FILE NO. 74001
DATE 6-22-76

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

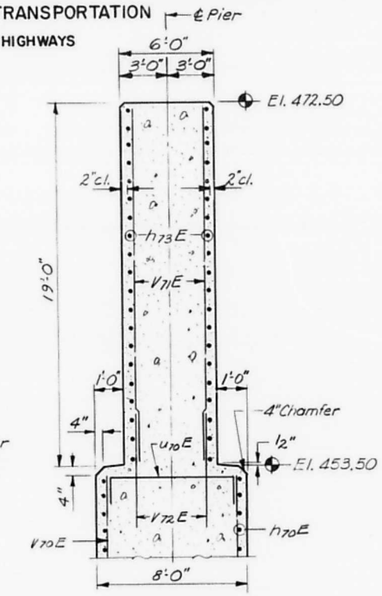
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	PEORIA & TAZEWELL	56	39
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



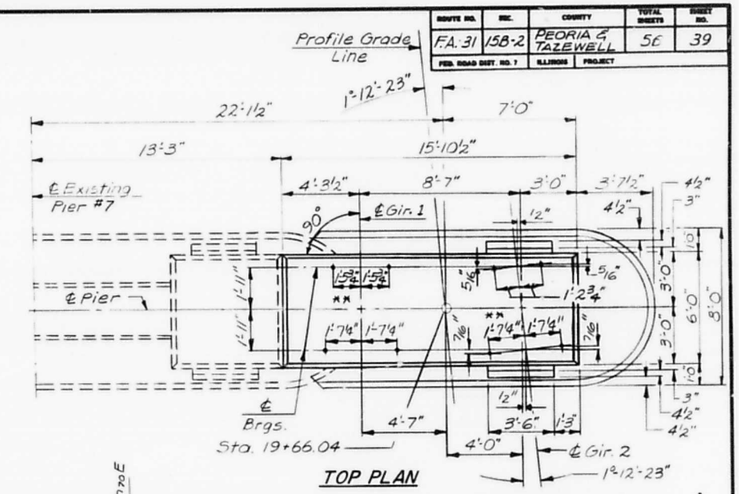
ELEVATION (Looking East)



SECTION A-A

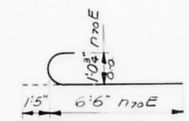


SECTION B-B

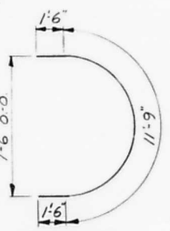


TOP PLAN

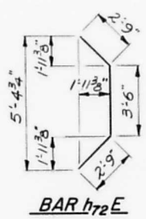
** Locations of future Anchor Bolts.



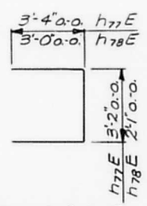
BAR n70E



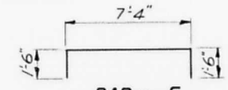
BAR h71E



BAR h72E



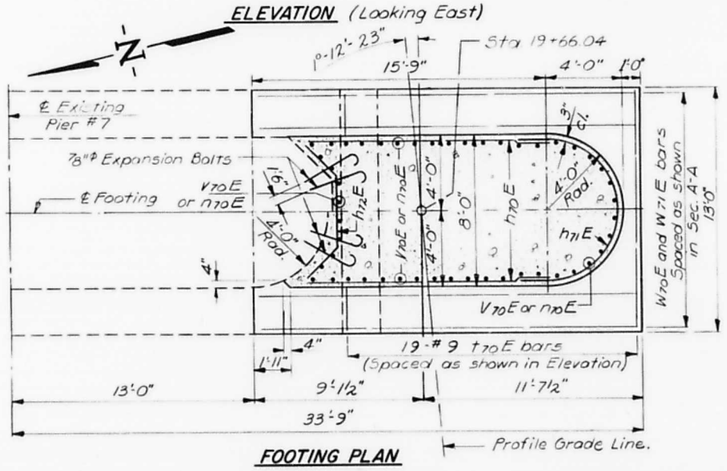
BARS h77E & h78E



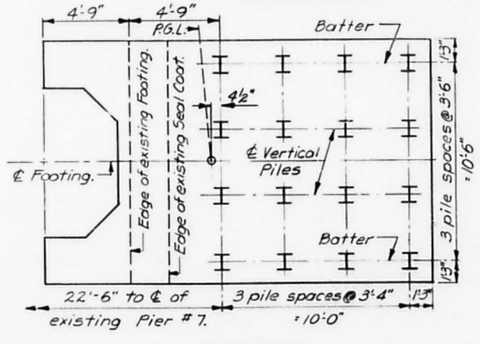
BAR u70E

PIER 7E
BILL OF MATERIAL

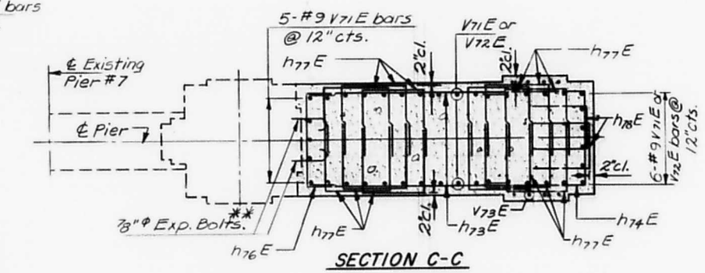
BAR	NO.	SIZE	LENGTH	SHAPE
h70E	38	#5	13'-7"	
h71E	19	#5	14'-9"	
h72E	19	#5	9'-0"	
h73E	40	#5	11'-1"	
h74E	22	#5	17'-0"	
h76E	22	#5	8'-8"	
h77E	264	#5	9'-10"	
h78E	44	#5	8'-1"	
n70E	48	#10	7'-11"	
t70E	19	#9	12'-6"	
u70E	12	#5	10'-4"	
V70E	48	#10	18'-0"	
V71E	39	#9	18'-8"	
V72E	30	#9	6'-0"	
V73E	8	#6	16'-8"	
W70E	14	#6	9'-6"	
W71E	4	#6	20'-3"	
Class A Concrete			Cu.Yd.	180.7
Reinforcement Bars			Lbs.	15,040
Seal Coat Concrete			Cu.Yd.	56
Steel Piles HP10x42			Lin. Ft.	705
Test Pile HP10x42			Each	1
Cofferdam Excavation			Cu.Yd.	151
Cofferdam			Each	1
Expansion Bolts 7/8" Φ			Each	78



FOOTING PLAN



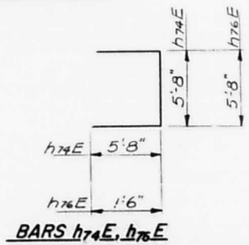
PILE PLAN



SECTION C-C

PILE DATA

Type: HP 10 x 42
Capacity: Drive to refusal.
Est. Length: 47'
No. Required: 16*
* Includes one test pile driven in a permanent location.



BARS h74E, h76E

PIER 7E

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

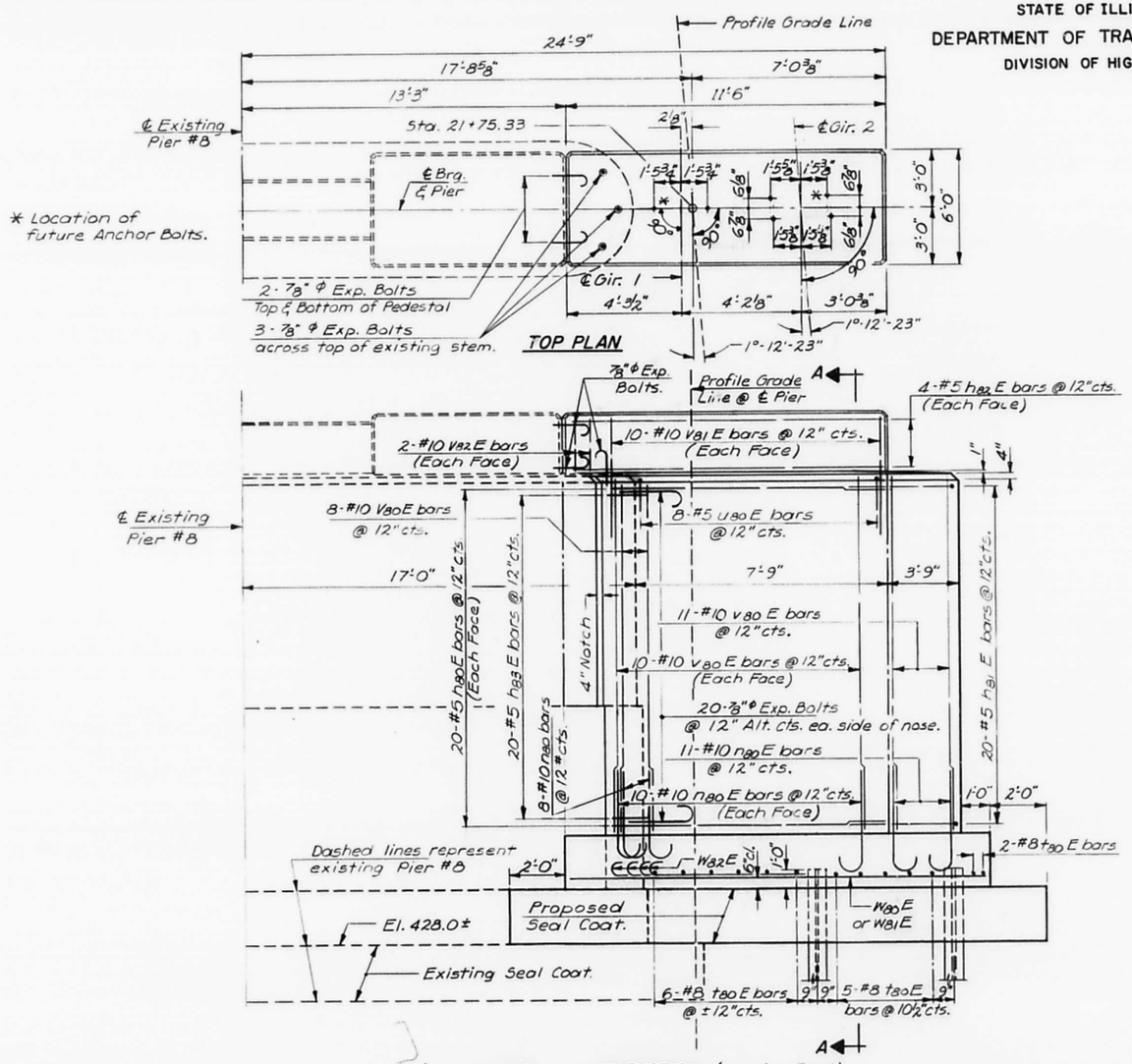
DESIGNED W.D.L.
CHECKED C.R.N.
DRAWN D.A.N.
CHECKED C.R.N.

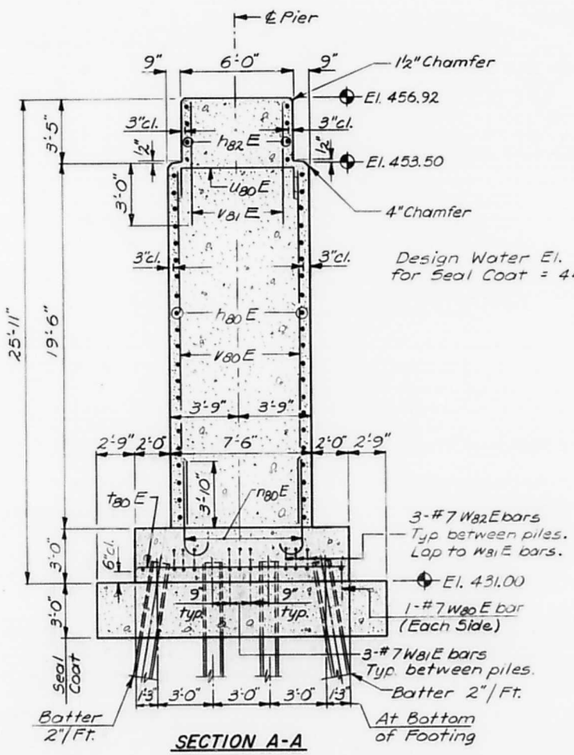
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

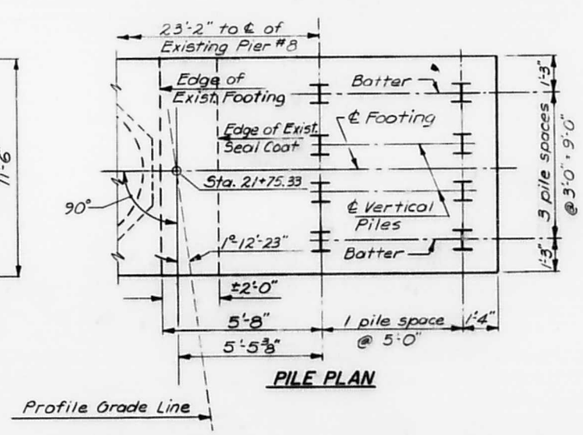
FILE NO. 74001
DATE 6-22-76

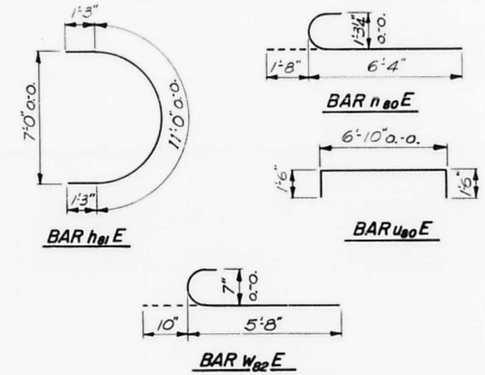
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA.-31	15B-2	PEORIA & TAZEWELL	56	40
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		









PIER 8E
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h80E	40	#5	9'-5"	
h81E	20	#5	13'-6"	
h82E	8	#5	11'-3"	
h83E	20	#5	8'-10"	
n80E	39	#10	8'-0"	
t80E	13	#8	11'-0"	
u80E	8	#5	9'-10"	
v80E	39	#10	19'-2"	
v81E	20	#10	6'-4"	
v82E	4	#10	2'-11"	
W80E	2	#7	15'-9"	
W81E	9	#7	10'-0"	
W82E	9	#7	6'-6"	
Class A Concrete			Cu. Yds.	88.2
Reinforcement Bars			Lbs.	6,950
Seal Coat Concrete			Cu. Yds.	30.3
Steel Piles HP14x73			Lin. Ft.	392
Test Pile HP14x73			Each	1
Cofferdam Excavation			Cu. Yds.	99
Cofferdam			Each	1
Expansion Bolts ⅞"φ			Each	47

PILE DATA

Type: HP 14 x 73
Capacity: Drive to refusal.
Est. Length: 56'
No. Required: 8**
** Includes one test pile driven in a permanent location.

PIER 8E

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

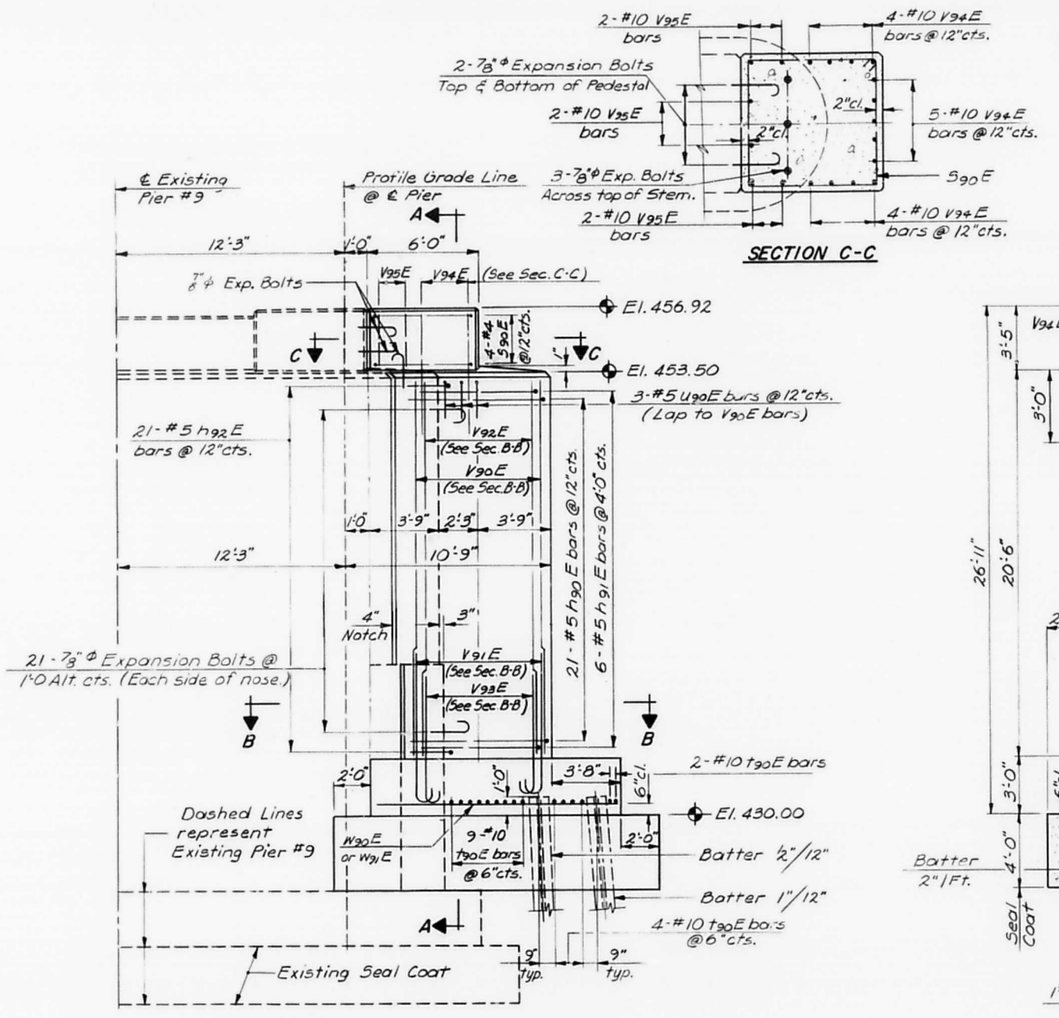
DESIGNED W.D.L.
CHECKED C.R.N.
DRAWN D.A.N.
CHECKED C.R.N.

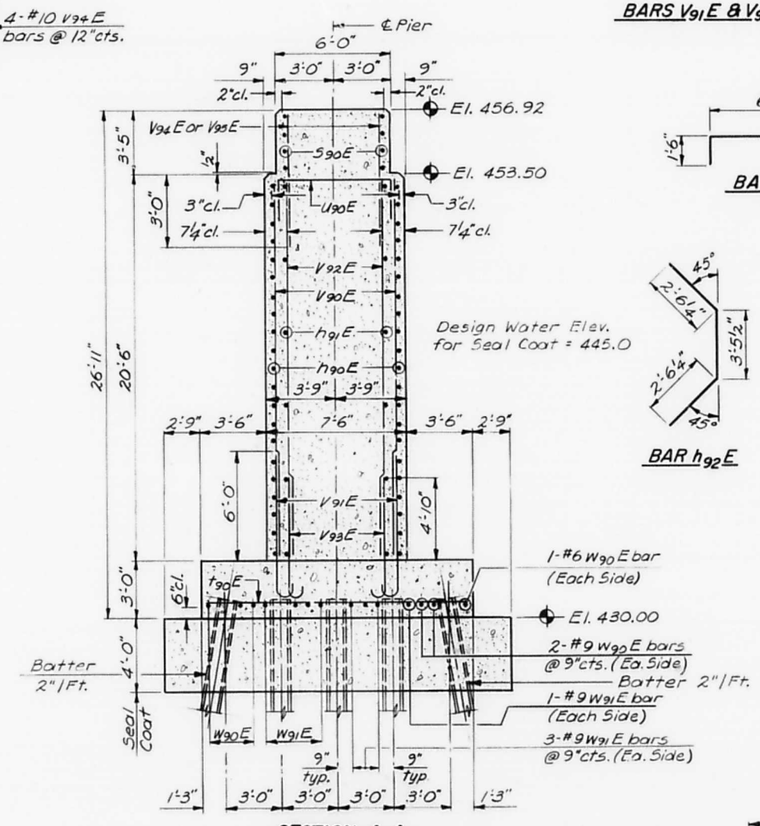
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

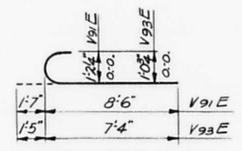
FILE NO. 74001
DATE 6-22-76

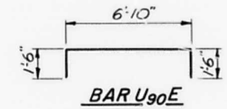
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-31	15B-2	PEORIA & TAZEWELL	56	41
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

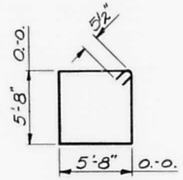
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

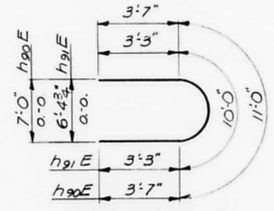


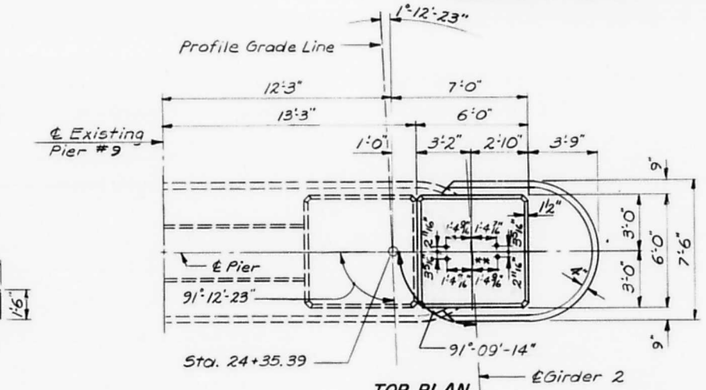








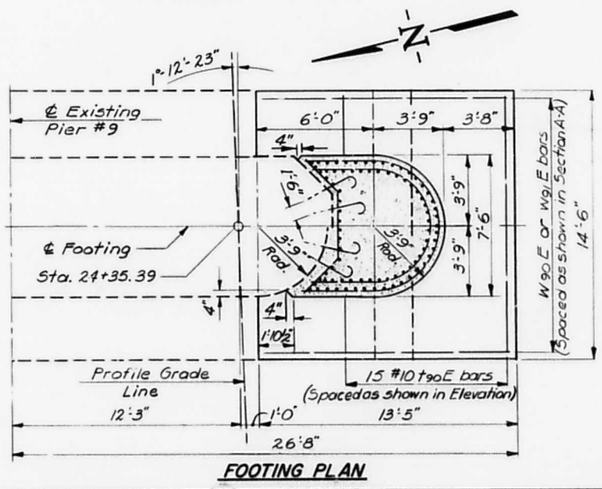


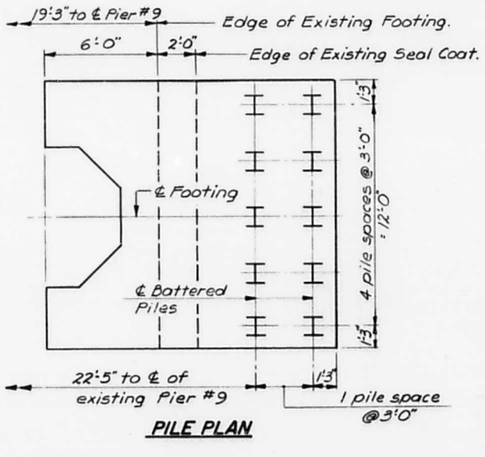


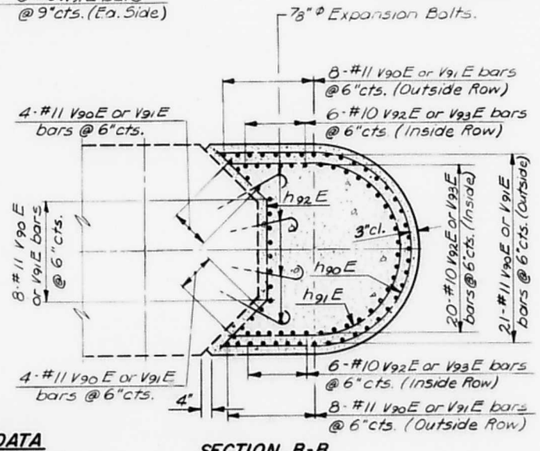
** Location of future Anchor Bolts.

PIER 9E BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h90E	21	#5	18'-2"	
h91E	6	#5	16'-6"	
h92E	21	#5	8'-6"	
S90E	4	#4	23'-7"	
t90E ®	15	#10	14'-0"	
U90E	3	#5	9'-10"	
V90E	53	#11	20'-0"	
V91E	53	#11	10'-1"	
V92E	32	#10	20'-0"	
V93E	32	#10	8'-9"	
V94E	13	#10	6'-3"	
V95E	6	#10	3'-3"	
W90E	6	#9	12'-11"	
W91E	8	#9	8'-11"	
Class A Concrete			Cu.Yd.	56.9
Reinforcement Bars			Lbs.	15,060
Seal Coat Concrete			Cu.Yd.	45.7
Steel Piles HP14x73			Lin.Ft.	513
Test Pile HP14x73			Each	1
Cofferdam Excavation			Cu.Yd.	114
Cofferdam			Each	1
Expansion Bolts 7/8"Φ			Each	49







PILE DATA

Type: HP 14 x 73
Capacity: Drive to refusal.
Est. Length: 57'
No. Required: 10*
* Includes one Test Pile driven in a permanent location.

® Bars t90E shall be Grade 60 Steel Reinforcement Bars.

PIER 9E

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

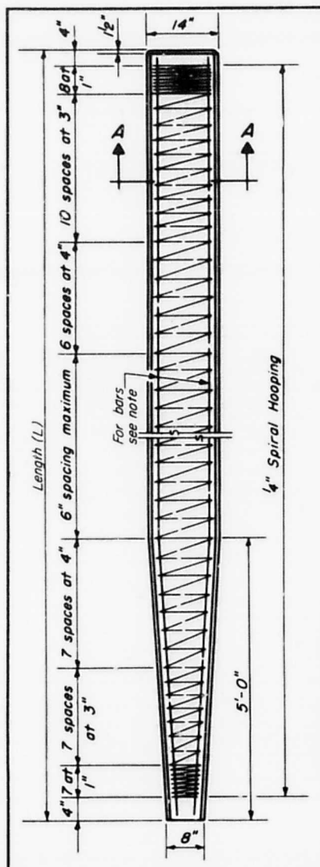
DESIGNED C.R.N.
CHECKED S.C.Q.
DRAWN D.A.N.
CHECKED M.R.L.

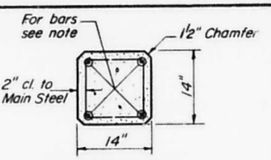
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 6-22-76

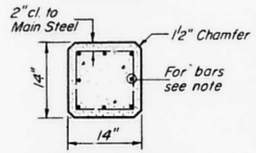
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-31	15B-2	Peoria & Tazewell	56	42
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





SECTION A-A FOR PILES UNDER 45' LONG



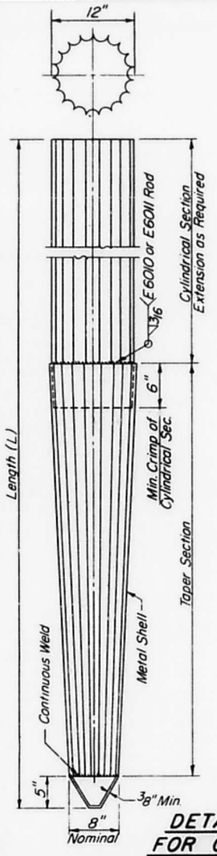
SECTION A-A FOR PILES 45' OR MORE

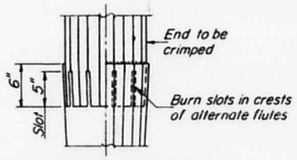
TIP

Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4-#9 bars full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at mid point of pile.

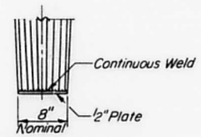
DETAIL OF PRECAST CONCRETE PILES





FIELD CRIMP DETAIL

Note: 6" Crimp shall either be supplied on the cylindrical section or made in the field as detailed.



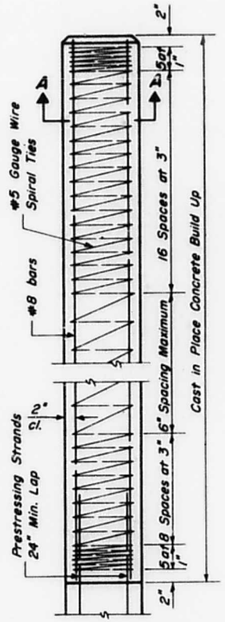
OPTIONAL FLAT END

ALLOWABLE TAPER SECTIONS

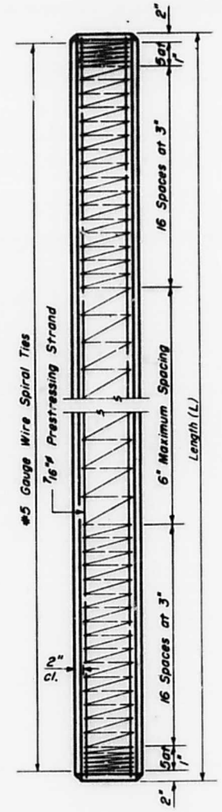
10' Length - Taper 1" in 2'-6"
17' Length - Taper 1" in 4'-0"
25' Length - Taper 1" in 7'-0"
30' Length - Taper 1" in 7'-0"

NOTE:
The thickness of the shell shall be 0.1793 inches with a tolerance of 5%.

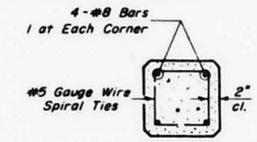
DETAIL OF TAPERED METAL SHELLS FOR CAST IN PLACE CONCRETE PILES



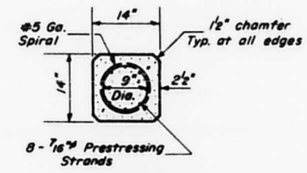
PILE BUILD UP



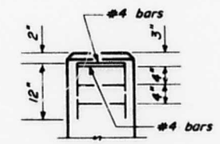
PILE PLAN



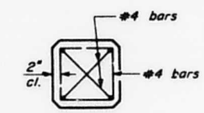
SECTION A-A



SECTION THRU PILE



ELEVATION
(End Reinforcement)



PLAN
(End Reinforcement)

DESIGN STRESSES

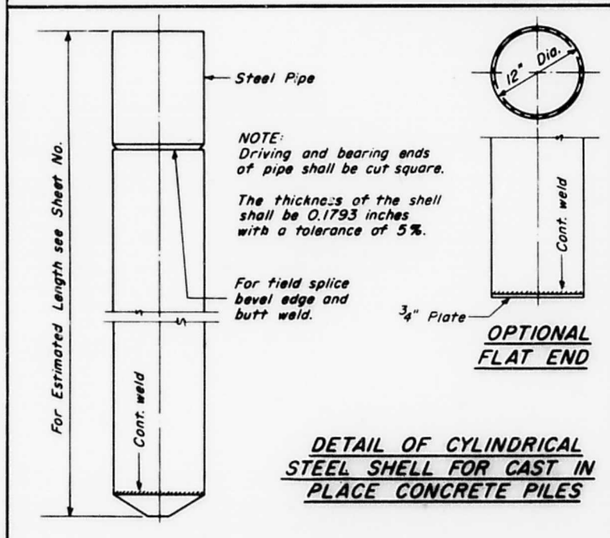
fc' = 5,000 psi.
fc'i = 4,000 psi.
fs' = 268,000 psi. (31,000 lbs.)
fs'i = 188,000 psi. (21,700 lbs.)

NOTES

Prestressing steel shall be non-galvanized extra high strength stress-relieved 7-wire strand. The nominal diameter shall be 7/16" and the minimum nominal cross-sectional area shall be 0.1155 square inch.

For Pile lengths up to 65', use two slings placed at a distance of 0.21 L * from each end. For Piles longer than 65', use three slings placed at a distance of 0.12 L * from each end and at mid-point of pile. * L = Over all length of pile to be handled.

PRECAST PRESTRESSED CONCRETE PILE



NOTE:
Driving and bearing ends of pipe shall be cut square.

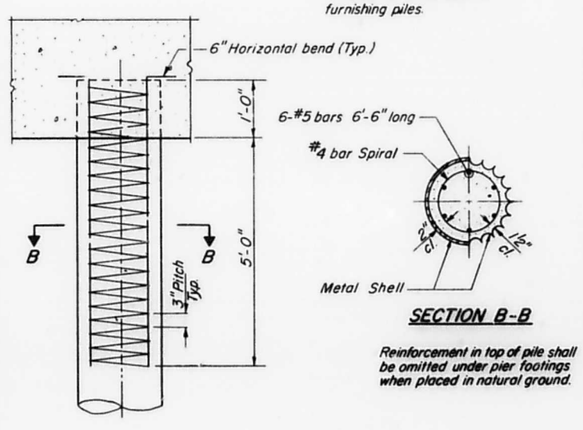
The thickness of the shell shall be 0.1793 inches with a tolerance of 5%.

For field splice bevel edge and butt weld.

OPTIONAL FLAT END

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

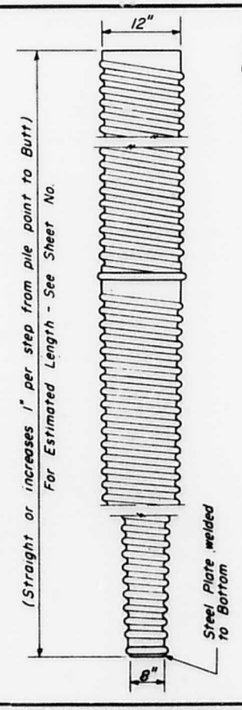
The cost of Reinforcement is incidental to the cost of furnishing piles.

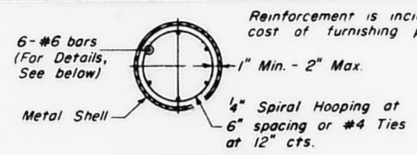


SECTION B-B

Reinforcement in top of pile shall be omitted under pier footings when placed in natural ground.

DETAIL OF REINFORCEMENT FOR METAL SHELLS





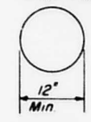
SECTION A-A

Reinforcement is incidental to the cost of furnishing piles.

At least 10% of the length of pile shall have a Butt diameter equal to or greater than 12".

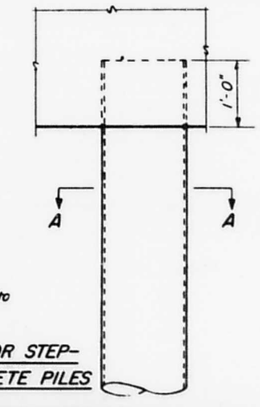
Gauges are furnished to suit soil conditions (16 Gauge avg. min.)

PILE REINFORCEMENT



BUTT

POINT
(Applies only to Step Taper type pile)



DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

ALTERNATE CONCRETE PILES 12"

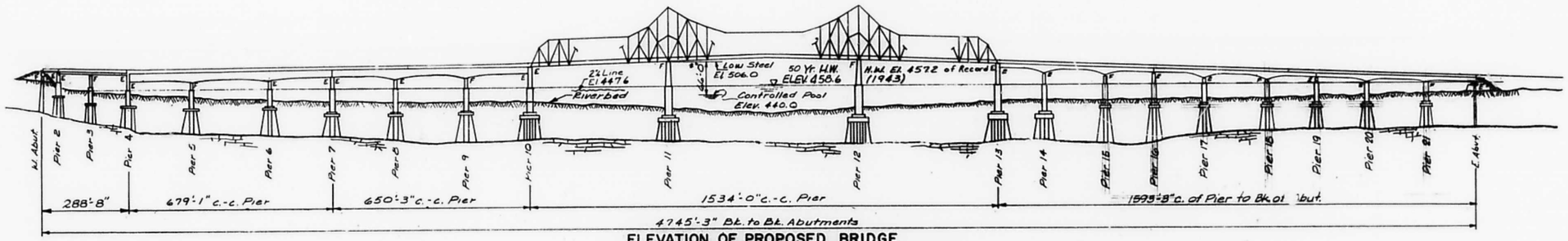
Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED
CHECKED
DRAWN C.R.C.
CHECKED C.R.M.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

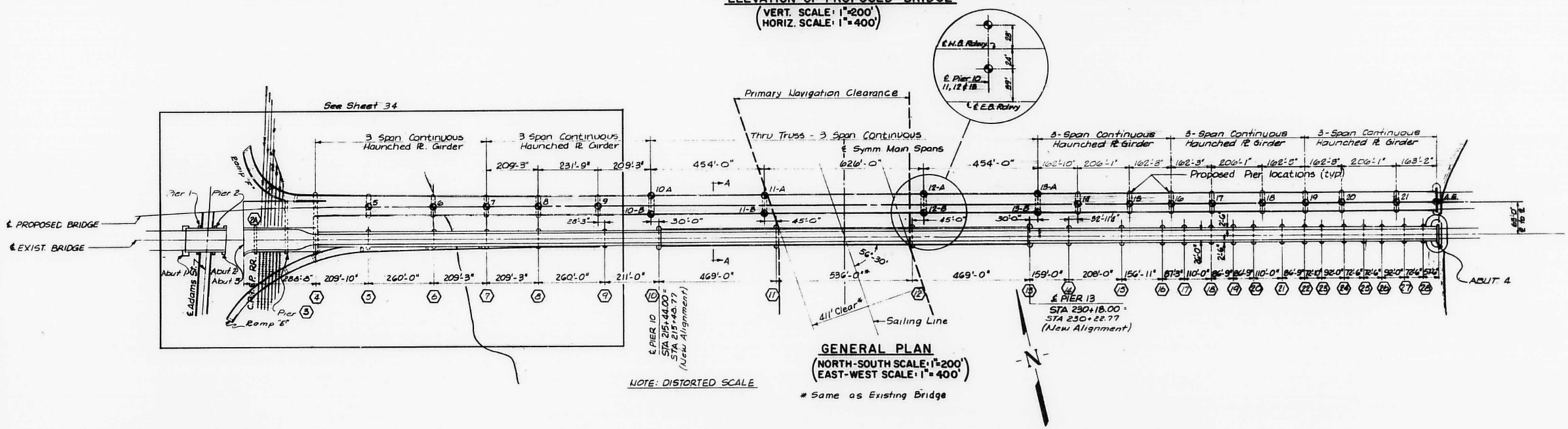
FILE NO. 74001
DATE 6-22-76

F.A. 31	18B-2	Peoria & Tazewell	56	43



ELEVATION OF PROPOSED BRIDGE

(VERT. SCALE: 1"=200')
(HORIZ. SCALE: 1"=400')



GENERAL PLAN

(NORTH-SOUTH SCALE: 1"=200')
(EAST-WEST SCALE: 1"=400')

* Same as Existing Bridge

NOTE: DISTORTED SCALE

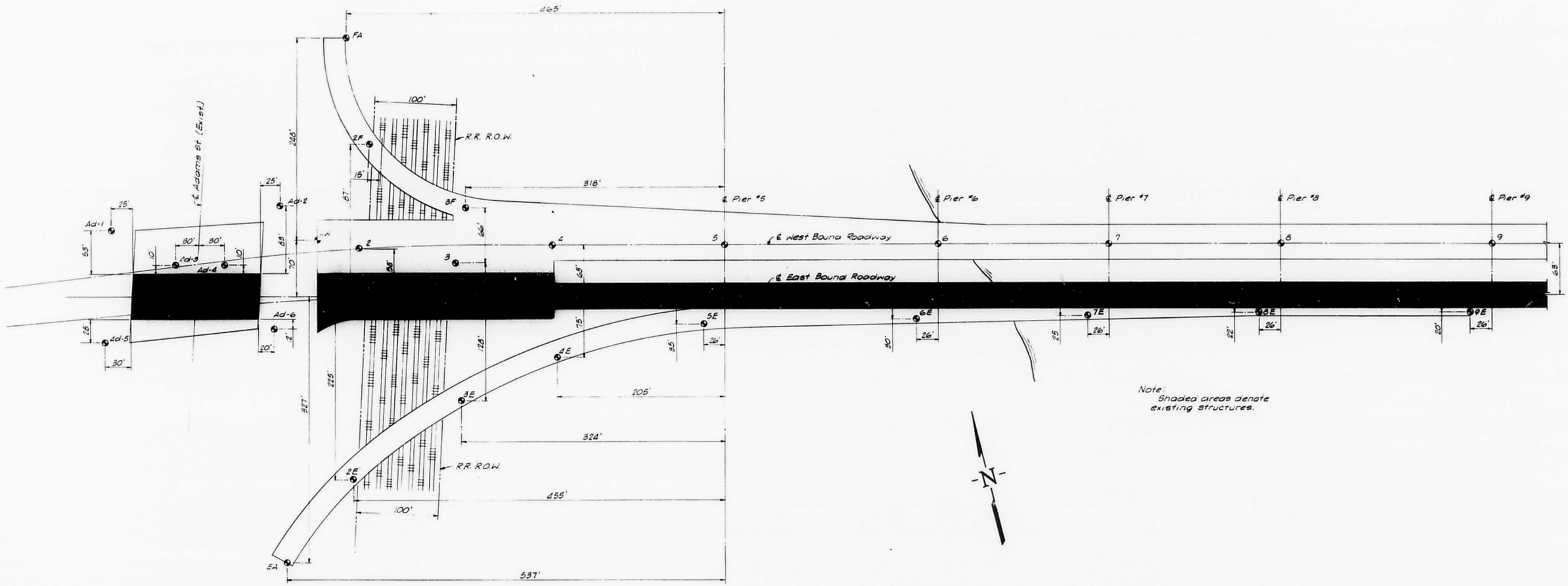
(Z) Indicates Pier Number of Existing Bridge

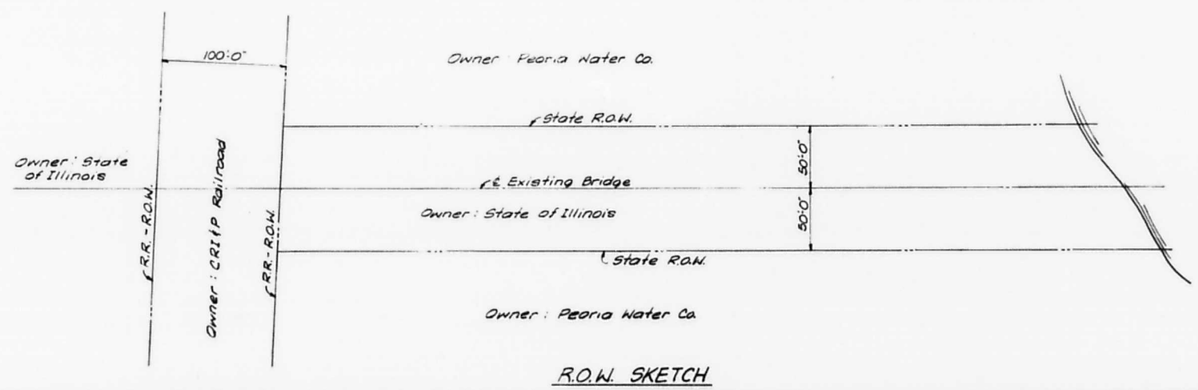
LOCATION MAP

BORING PLAN
Mc CLUGAGE BRIDGE
F.A. ROUTE 31
OVER
ILLINOIS RIVER
SEC 15 B-2

DESIGNED UMH	HANSON ENGINEERS INCORPORATED	FILE NO. 74001	
CHECKED CRN			
DRAWN RAH		DATE 12-31-74	
CHECKED UMH	SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS		

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	86	44
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		





R.O.W. SKETCH

BORING PLAN
Mc CLUGAGE BRIDGE
F.A. ROUTE 31
OVER
ILLINOIS RIVER
SEC 15 B-2

DESIGNED UMH CHECKED CRN DRAWN RAH CHECKED UMH	HANSON ENGINEERS INCORPORATED SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS	FILE NO. 74001 DATE 12-31-74

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	45
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING # AD1

Ground Surface Elev. 505.8

Elev.	N	Qu	W	Description
505	29	4.5	9	Brown med. fine sand.
	12	2.62	15	
500	15	4.5	13	Black & brown med. fine sand w/some small gravel.
	9		8	
495	9		11	
	9		14	
490	5		17	
	6		21	Reddish brown loose fine sand w/some small gravel.
485	21		8	
	28		7	Med. fine to coarse sand w/small to large gravel w/occasional silt seams.
480	20		9	
	23		9	
475	19		10	
	22		6	
470	28		8	Med. med. to coarse sand w/small gravel tr silt & occasional large gravel.
	25		10	
465	37		6	
	31		5	
460	38		6	
	43		8	
455	33		7	
	31		11	Dense - fine to med. sand w/small gravel tr silt.
450	37		9	
	35		7	
445	36		5	
	31		6	
440	30		9	
	32		10	
435	35		6	
	36		9	
430	32		7	
	30		9	
425	34		9	
	39		8	Dense med. to coarse sand w/small to large gravel tr. silt.
420				

Elev.	N	Qu	W	Description
	31		19	Dense sandy silt tr small gravel.
	26		8	Med. - med. to coarse sand w/small to large gravel.
415	50		16	
	46		17	
410	47		16	
	46		18	
405	30		16	
	37		20	
400	38		18	
	45		17	
395	54		16	Dense - fine brown & gray sand tr silt & large gravel.
	100/.5		13	Dense shale
390				
385	80			Rock

BORING # AD2

Ground Surface Elev. 502.8

Elev.	N	Qu	W	Description
500	14		11	Brown med. - fine sand tr silt & small gravel.
495	22		7	
490	19		13	Grey & brown med. - fine sand tr silt & small gravel
485	10	2.3	16	Grey stiff sandy silt w/ some clay tr small gravel.
480	8		20	Brown loose fine sand tr small gravel.
475	16		15	
470	22		15	Med. - fine to med. sand w/small gravel.
465	46		8	
460	56		13	
455	39		16	Dense - med. to coarse sand w/small to large gravel.
450	35		11	
445	40		10	
440	36		10	
435	38		9	

Note: Installed piezometer @ 434.3'; flushed with clear water & fastbreak & packed with clean sand to 472.8'.

BORING # AD3

Ground Surface Elev. 489.6

Elev.	N	Qu	W	Description
485	7		5	Brown loose fine sand w/some large gravel.
480	26		2	
475	20		11	
470	19		7	
465	20		10	
460	26		8	Med. - med. to coarse sand w/small to large gravel.
455	39		6	
450	45		7	Boulder @ 451.1' - 450.1'.
445	44		9	Dense - med. to coarse sand w/small to large gravel.
440	46		5	

BORING # AD4

Ground Surface Elev. 489.7

Elev.	N	Qu	W	Description
				Brown loose fine sand.
485	13		2	
480	13		3	
475			8	
470	28		9	
465	25		7	
460	23		8	
455	26		7	
450	29		9	Med. - med. to coarse sand w/small to large gravel.
445	44		9	
440	45		10	Dense - med. to coarse sand w/small to large gravel
435	63		5	Very dense - med. to coarse sand w/small to large gravel tr. limestone fragments.
430	83		8	

LEGEND:

Indicates Shelby Tube

Indicates Rock Core

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED		
DRAWN R.T.F.		DATE 12-31-74
CHECKED G.F.U.	SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS	

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	46
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING # AD5

Ground Surface Elev. 508.0

Elev.	N	Qu	W	Description
505	11		2	
	14		5	
	16		9	Brown med.-fine to med. sand w/small gravel.
500	7		9	
495	6		24	Reddish brown loose fine sand tr. small gravel.
490	20		16	Brown med. fine sand tr. small gravel.
485	38		9	Dense med. to coarse sand w/small to large gravel tr. silt.
480	31		17	Brown dense fine sand tr. small gravel.
475	18		36	Brown very stiff silty clay tr. small gravel.
470	10	3.2	31	Grey stiff silty clay tr. small gravel.
465	41		11	
460	50		10	Brown dense fine to med. sand w/small gravel.
455	48		7	
450	38		7	Dense - med. to coarse sand w/small to large gravel.

BORING # AD6

Ground Surface Elev. 504.6

Elev.	N	Qu	W	Description
				Med. - med. to coarse sand w/small to large gravel & cobbles.
500	22		11	
				Brown med. fine to med. sand w/some small gravel.
495	21	4.5*	11	Batt. Ftg. Pier AE
490	12	2.3	15	Grey & black med. - fine sand w/some small gravel tr. large gravel & silt.
485	5	1.6	15	Brown med. sandy silt w/some small gravel.
480	16		8	
475	19		10	
470	28		6	Med. - med. to coarse sand w/small to large gravel tr. silt.
465	36		5	
460	34		4	Dense med. to coarse sand w/small to large gravel.
				Med. - med. to coarse sand w/small to large gravel.
455	23		8	
450	50		3	Dense med. to coarse sand w/small to large gravel tr. limestone fragments.
445	30		9	

BORING # AE

Ground Surface Elev. 467.6

Elev.	N	Qu	W	Description
465	19	4.5*	6	
	17	4.5*	10	Brown med. - fine to coarse silty sand some small to large gravel.
460	8	3.09	14	
455	5		13	
				Brown med. silty clay tr. sand & small gravel.
450	16	4.5*	16	Grey med. silt some organic silt, sand & small to large gravel.
445	6	1.86	18	
440	7	1.94	9	Brown & grey med. clayey silt tr. sand.
435	2	3.2	26	
430	7	3.88	19	
425	9		16	
420	7		23	Grey loose fine silty sand tr. layers of small gravel.
415	5	2.47	67	
410	6	1.94	37	
405				Grey organic silt.
	31		19	Grey dense fine to coarse sand some silt & small gravel.
400	4	1.32	27	
395				Grey organic silt.
	65		*	Grey dense fine to coarse sand w/small to large gravel.
	99/6		*	
390	119/6		13	
385	151/6	4.27	15	Grey hard shale.

* - Lost sample pushing gravel.

BORING # AW

Ground Surface Elev. 503.8

Elev.	N	Qu	W	Description
500	10		9	
				Brown loose fine sand w/some small gravel.
495	33	3.0	12	
490	41		14	
				Dense - fine to med. sand w/some large gravel.
485	20		17	
480	17		15	
475	11		18	Brown med. - fine sand w/occasional large gravel.
470	34		10	
465	52		* 9	Dense - med. to coarse sand w/small to large gravel.
460	69		7	
455	60		7	
450	60		8	Very dense - med. to coarse sand w/small to large gravel tr. limestone fragments.
445	41		9	Dense - med. to coarse sand w/small to large gravel.
440	41		15	
435	42		10	

* Note: piece of large gravel in tip of spoon.

BORING # EA

Ground Surface Elev. 496.0

Elev.	N	Qu	W	Description
495	15		7	
490				Brown med. fine sand w/some small gravel.
	39		6	6" boulder @ 486.5'.
485				
480	50		10	
475	35		9	
470	55		9	Dense-fine to med. sand w/small to large gravel.
465	18		10	Med-med. to coarse sand w/small to large gravel.
460	47		9	
455	31		10	
450	34		8	Dense-med. to coarse sand w/small to large gravel tr. silt.
445	30		7	
440	32		9	
	34		10	

BORING # FA

Ground Surface Elev. 490.5

Elev.	N	Qu	W	Description
490				
	23		3	Brown med. fine-med sand to silt & small to large gravel & small boulders.
485				
	23		9	2" layer of clay @ 481.5'.
480				Brown med. sand tr. silt.
	11	0.6	21	Brown med. - fine to coarse sand w/small gravel tr. silt.
475				
470	16		14	
465	12		13	Brown med. sand tr. silt.
	50/2"		9	
460				
455	18		8	Brown med. - med. to coarse sand w/small to large gravel.
	44	1.2	13	6" boulder @ 451.0'-450.3' 3" layer of clayey silt @ 450.5'.
450				
445	27		15	Brown med. - med. to coarse sand tr. silt & small gravel.
440	39		11	
435	49		12	Brown dense med. to coarse sand to sand & small gravel.
430	51		13	
425	56		11	
	54		13	

* Note: moved boring to West side of ramp 18' West of staked location.

LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core (C)

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED
CHECKED
DRAWN R.Z.F.
CHECKED G.F.J.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 12-31-74

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	47
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING #2E

Ground Surface Elev. 481.1

Elev.	N	Qu	W	Description
480	12		4	Black med. fine sandy silt - top soil.
	10		9	
475	9		6	
	20		3	
470	21		2	
	23		7	
465	22		10	Brown med. fine - coarse sand w/small to med. gravel tr. silt.
	100/14		6	
460	47		14	
	45		11	Brown dense coarse sand & small to large gravel tr. silt.
455	43		7	Brown med. - coarse sand & small to large gravel tr. silt.
	24		9	
450	27		10	
	22		10	
445	26		11	
	21		9	
440	23		11	
	21		10	
435	31		7	
	20		9	
430	26		8	
	23		9	
425	21		10	
	36		12	
420	35		9	Brown dense coarse sand & small to large gravel tr. silt.
	38		15	
415	47		9	
	49		15	
410	49		16	
	44		16	Brown dense coarse sand tr. silt & small gravel.
405	43		16	
	55		16	

BORING #2

Ground Surface Elev. 475.7

Elev.	N	Qu	W	Description
475	11		2	Brown med. fine - coarse sand.
	10		2	
470				
	28		1	Small boulder @ 465.8.
465				
	39		8	
460				
	27		8	
455				
	26		8	
450				
	23		7	
445				
	28		7	
440				
	43		9	Pushing large gravel.
435				Brown med. - coarse sand & small gravel tr. silt.
	36		16	Thin layer of clay @ 431.2.
430				
	34		10	
425				
	52		8	
420				
	79		11	
415				
	33		15	
410				Brown dense coarse sand w/ small to large gravel tr. silt.
	48		19	
405				Grey dense silt.
	100/5		20	
400				8" boulder @ 400.9.
				Grey med. - fine to med. sand w/layers of silty clay.
	166		21	Dark green very dense coarse sand, & small gravel.

BORING #2F

Ground Surface Elev. 471.8

Elev.	N	Qu	W	Description
470	10		3	
	11		5	
465				
	13		3	Brown med. fine silty sand tr. gravel.
460				
	14		5	
455				
	37		8	
450				
	38		9	
445				
	31		9	
440				
	28		9	
435				
	29		8	
430				
	27		9	
425				
	29		11	Brown med. - coarse sand & small to large gravel tr. silt.
420				
	23		9	
415				
	23		9	
410				
	44		7	

BORING #3E

Ground Surface Elev. 465.7

Elev.	N	Qu	W	Description
465	12		10	
	15	4.5*	13	
460				
	18	7.42	14	Brown med. - fine to med. very silty sand tr. small gravel clay binder.
	26	9.70	16	
455				Brown med. clayey silt.
	16		6	
450	13		3	
	12		3	
445	17		12	
	21		11	
440				Brown med. fine - coarse sand w/small to med. gravel tr. silt.
435	31		9	
	35		15	
430				
	34		17	
425				
	35		15	
420				
	33	5.42	14	
415				Brown dense coarse sand w/small gravel tr. silt.
	33		22	Brown hard silty clay some sand tr. small gravel & thin layers of sand & gravel.
410				
	34		15	
405				Brown dense coarse sand & small gravel tr. silt.
400	30	2.9	21	
	17	4.27	24	Layers of grey fine sand, silt, and silty clay.
395				
	45/6	7.18	14	Grey hard shale.

BORING #3

Ground Surface Elev. 464.4

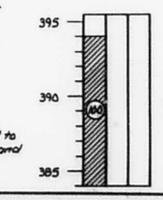
Elev.	N	Qu	W	Description
	10		6	Brown loose fine to med. sand w/small to large gravel tr. cobbles.
460	15	4.5*	8	Brown med. fine to med. sand w/ small gravel tr. cobbles & clay.
	30		10	
455	50		3	Dense - med. to coarse sand w/small to large gravel & boulders.
	17		7	
450	15		4	
	16		5	
445	24		4	
	19		6	
440	22		5	
	24		5	
435	18		5	
	23		5	
430	23		6	
	26		8	
425	36		10	
	35		8	
420	35		8	
	24		7	
415	27		10	
	24		9	
410	31		5	
	25		7	
405	21		7	Brown med. fine to coarse sand w/small to large gravel tr. silt.
	42		10	Brown dense coarse sand & small to large gravel tr. silt.
400	46		12	
	115/6		*	
	150/6		26	Pushing gravel.
395	150/4		17	
	100			
390				Grey hard shale.
385				

* - Sample lost pushing large gravel.
Note: Average rate of coring - 2 min 35 sec./ft.

BORING #3F

Ground Surface Elev. 467.0

Elev.	N	Qu	W	Description
465	17	4.5*	2	
	34		5	Brown med. fine - coarse silty sand, w/small to large gravel.
460	18	3.0/1.0	16	Brown med. silt.
	24		4	
455	25	3.4	6	
	23		10	
450	25		8	
	24		8	
445	23		9	
	22		11	
440	17		8	
	21		9	
435	20		8	
	27		7	
430	11		7	
	17		10	
425	26		7	
	23		7	
420	18		5	
	24		7	
415	18		9	
	19		7	
410	20		6	
	19		6	Brown med. fine - coarse sand & small to large gravel tr. silt.
405	17		9	
	100/13		18	
400	100/6		7	
	100/16		13	Very dense small to large gravel w/sand tr. silt.
	100/6		14	



LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core (C)

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED		FILE NO. 74001
CHECKED		
DRAWN	R.J.F.	DATE 12-31-74
CHECKED	G.F.U.	

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	48
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING # 4E

Ground Surface
Elev. 459.0

Elev.	N	Qu	W	Description
	30	4.36	14	Brown dense fine to coarse sand & small gravel tr. silt fill.
455	17	9.50	13	Brown med. fine to coarse sand some small gravel clay binder.
	10	5.67	14	Brown med. silt tr. sand.
450	38		3	
	22		4	
445	18		3	
	17		3	
440	15		5	
	22		4	
435	22		9	
	23		9	
430	27		8	
	19		7	
425	13		9	
	17		16	
420	13		10	
	17		9	
415	19		20	
	15		*	
410	19		16	Brown med. - coarse sand w/small to large gravel tr. silt.
	82		8	Brown very dense coarse sand & sm. to large gravel tr. silt.
405	136	5.62	19	
	102		26	
400	136		27	Green very dense med. sand tr. silt & small gravel.
	42	4.5*	23	
395	172		22	Grey hard silt & clay tr. sand lenses.
	163	4.0	22	Brown very dense coarse sand & sm. gravel tr. silt. Green very dense med. coarse sand tr. small gravel & silt.
390	119/5"	4.5*	18	
				Grey hard shale
385	98			
380				

* — Indicates lost sample.

BORING # 4

Ground Surface
Elev. 459.5

Elev.	N	Qu	W	Description
	36	4.5*	5	Brown dense med. to coarse sand w/gravel & cobbles.
455	11		11	Brown med. fine to med. sand w/some small gravel.
	12	3.8	17	
450	15	1.16	18	Brown med. sandy silt w/some small gravel.
	26		8	
445	27		4	
	23		5	
440	12		4	
	13		5	
435	11		6	
	11		4	
430	26		5	Small boulder @ 431.5'
	27		7	
425	12		12	
	14		14	
420	13		14	
	15		8	
415	14		9	
	16		16	
410	15		15	Brown med. coarse sand w/small to large gravel tr. silt.
	20		12	
405	43		6	
	35		9	
400	32		7	Brown dense coarse sand & small to large gravel tr. silt.
	26		6	
395	27		7	Brown med. coarse sand & small to large gravel tr. silt.
	119/6"	4.5*	20	Green very hard sandy silt w/ small gravel tr. cobbles & clay.
390	109/6"	6.98	11	
				Very hard shale.
385	100			
380				

BORING # 5E

Ground Surface
Elev. 450.3

Elev.	N	Qu	W	Description
	11		11	Med. sand, gravel, some silt & clay fill.
445	23		11	
	21		4	
440	20		6	
	17		8	
435	21		6	
	16		8	
430	19		6	
	19		7	
425	13		11	
	18		8	Brown med. - fine to coarse sand & small gravel tr. silt & clay seams.
420	9		14	
	18		14	Boulders @ 417.8' - 416.8'
415	24		12	
	27		19	Brown med. sand tr. silt & layers of coarse sand & small gravel.
410	98		13	Boulders @ 410.5' - 409.7'.
	49	2.91	10	
405	35		19	
	32		21	
400	47		20	
	43		18	Brown dense med. to coarse sand some small gravel tr. silt.
395	62		25	Green very dense med. sand tr. silt. ← Silty
	50	2.5	24	
390	139/6"	6.55	17	Grey hard shale

BORING # 5

Ground Surface
Elev. 459.0

Elev.	N	Qu	W	Description
	29		2	Brown dense med. to coarse sand & gravel w/ boulders.
455	10		8	Brown loose fine sand w/small gravel tr. cobbles.
	5	1.0	15	Brown soft moist sandy silt tr. small gravel clay binder.
450	9	1.7	17	
	11	2.76	17	Brown med. silty clay w/some sand & small gravel.
445	31		11	
	28		16	
440	22		8	Dense - med. to coarse sand & gravel w/ silt & cobbles.
	9		12	Brown stiff silt w/ large gravel & cobbles tr. clay.
435	22		13	
	37		18	Brown med. - med. to coarse sand w/ gravel & cobbles tr. silt.
430	18		6	Grey hard silt w/ some sm. gravel.
	20		9	
425	20		11	
	27		10	
420	17		13	
	16		8	
415	14		8	
	15		8	Med. - med to coarse sand & gravel w/ cobbles & some silt.
410	17		9	
	27			6" boulder @ 409.0' - 408.5' ← Lost sample pushing cobble.
405	35		18	
	149/6"		11	
400	123		21	
	113	4.5*	15	Green very hard silt w/some sand, gravel, tr. silt, stone, & cobbles.
395	149/6"	6.18	16	Very hard shale
390	100			
385	100			

BORING # 6E

Ground Surface
Elev. 441.0

Elev.	N	Qu	W	Description
440	9	3.7	44	
	9	3.7	23	Black stiff clayey silt.
435	18	7.37	22	Brown & black very stiff clayey silt.
	5	4.27	21	Brown & black med. clayey silt.
430	2		23	Brown very loose fine silty sand. — (water noted)
	8	1.0	17	
425	2		13	
	5		5	
420	11		6	
	11		9	Brown loose fine to coarse sand & small to med. gravel some silt.
415	15		19	
	10		22	
410	18		23	Gray & brown loose inorganic silt.
	19		10	
405	24	9.12	14	Brown med. coarse sand & small to med. gravel tr. silt.
	20	3.5	14	
400	17		14	
	14		21	
395	23		14	Med. - coarse sand & small to med. gravel w/ layers of very sandy clay.
	12		14	
390	149/6"	4.5*	15	
				Grey hard shale.
385	100			
380				

BORING # 6

Ground Surface
Elev. 441.0

Elev.	N	Qu	W	Description
440	15		8	Brown med. silt w/ small gravel.
	7	4.95	27	
435	9	4.46	22	Black med. clay, silt tr. gravel (small).
	9	3.45	24	
430	6	3.30	19	Brown & black med. silty clay tr. sand & small gravel & roots.
	1/18"		20	
425	3		17	Brown wet very loose fine sand w/silt binder (est. water level)
	3		27	Loose - sand w/med. gravel & soft clay.
420	10		18	
	14		9	
415	16		8	
	17		8	Med. - med. to coarse gravel w/ some sand & silt tr. cobbles.
410	16		10	
				Seam of soft clay.
	19		13	
405	19	4.5*	16	Red & brown med. - sandy silt w/ small gravel some clay tr. cobbles.
	32	18.4	18	
400	34	3.92	16	Gray hard silt & clay (shale) tr. thin layers of black coal & thin layers of brown silt.
	36	2.3	15	
395	17		27	Med. gray silt / sm. gravel seams of coal (tr. sand)
	20		15	Med. - silt, w/ large gravel, coal tr. clay.
390	109/6"	10.0	13	Gray very hard shale
	50			
385	43			
380				
375	50			
370	50			Soft shale
				Hard shale

LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core (C)

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED		
DRAWN R.I.R.		DATE 12-31-74
CHECKED G.F.J.	SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS	

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	49
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING # 7E

Mudline Elev. 438.2

Elev.	N	Qu	W	Description
	1/18	1.84	42	Black & grey very soft organic silt & clay.
435	4	2.48	19	
	2	1.92	26	
	W 0	0.93	32	
	0.42	0.42	25	
430	0.3	0.3	20	Bottom end of S-4 is loose - medium grey silty sand tr small gravel.
	1/5"		23	
425	4	0.7	15	
	2		22	Grey & brown med. silt & clay tr sand & layers of sand.
420	13		22	Brown med. fine sand tr. silt.
	48		10	
415				Small boulders @ 414.2 to 415.2.
	46		11	
	24		14	Brown med.-coarse sand & small to large gravel tr. silt.
410				Brown dense silt.
	45	10.0	16	
	33	4.5+	19	
405	33	3.88	16	
	28	4.5+	18	
	40	1.57	13	
400	74	4.5	12	Very hard.
	25		15	Very stiff.
395	47	2.91	20	
	58		16	Grey hard clay & silt tr. small to large gravel.
390	159/6"	10.0	15	
	159/6"	4.5+	17	
385	179/6"	4.5+	14	Grey very hard silt & clay (shale).
380	100/2"		16	

BORING # 7

Mudline Elev. 438.2

Elev.	N	Qu	W	Description
435	5		20	
	W 0	0.59	15	
	0.68	0.68	21	
	30	1.42	18	
430	3		19	
	4	3.49	26	
425	5	3.30	26	Grey soft organic silt & clay tr thin layers of sand (large gravel @ 423.4').
	7		9	
420	5		13	Grey loose coarse sand & small to med. gravel tr. silt.
	16		13	
415	26		9	
	27		6	
410	20		8	Brown med.-coarse sand w/small to large gravel tr silt.
	27		13	
405	44	0.7	26	Brown & grey hard clay & silt tr. small gravel & thin layers of sand.
	26		17	
400	45	4.5+	14	
				Boulder @ 398.4 to 399.2.
	33	4.5+	19	
395	36	4.5+	15	Grey hard clay & silt.
	139/6"	4.5+	18	
	100			Black hard igneous boulder.
390	73			
385	72			Grey hard silt & clay.
380				Black hard shale.
	95			
375				

Note: Average rate of coring - 2 min. 50 sec/ft.

BORING #8E

Mudline Elev. 437.2

Elev.	N	Qu	W	Description
	1/18"		31	Black very soft organic silt.
435	4	1.47	36	
	5	0.8	34	
430	5	1.16	35	
				Grey med. silt & clay
	7		20	Brown loose med. sand tr. silt.
425	5		9	
				Brown loose fine to coarse sand tr. silt, small to large gravel.
	19		9	
420	18		19	
	14		8	
415	12		18	
	15		19	Pushing gravel @ 410.2.
410	23		19	
	20		21	Brown very dense coarse sand w/small to large gravel tr. silt.
405	94		8	
	69		7	
400	41		7	Brown very dense coarse sand w/small to large gravel tr. silt.
	62		6	Dense large gravel w/sand.
395	64	5.77	15	
	58	4.27	16	
390	36		13	
	32		15	
385	77	4.5+	17	
	43		9	Grey hard shale tr. layers sand w/small gravel & layers of black shale.
380	79	4.12	10	
	159	3.72	14	
375	180	5.26	14	Grey very hard shale.
370	95			
365				Black very hard shale.

Note: Average rate of coring - 2 min. 45 sec/ft.

BORING #8

Mudline Elev. 436.2

Elev.	N	Qu	W	Description
435	1/18"		9	
	1/18"		60	
430	4	2.30	29	Black very soft organic silt tr sand & marine shell.
	5	3.09	8	
425	4	1.3	23	Grey & brown soft clayey silt.
	6		22	Grey loose fine sand tr. silt.
420	41		7	Brown med.-coarse sand w/small gravel tr. silt.
	21		19	
415	10		21	
	11		21	
410	17		19	
	25		19	
405	30		18	Brown med. - fine to med sand tr. silt & small gravel.
	192		7	
400	73		8	Brown very dense coarse sand & small to large gravel tr. silt.
	42		10	
395	52		9	
	37		7	
390	39	4.0	7	Brown dense med. to coarse sand w/small gravel tr. silt.
	58	3.9	20	
385	32	4.5+	16	
	52	3.92	17	
380	32	2.6	12	
	43		15	Grey hard shale tr. thin layers of sand & layer of black shale.
375	100/2"	4.36	14	
370	98			Black very hard shale.
365				

BORING #9E

Mudline Elev. 435.7

Elev.	N	Qu	W	Description
435	3	1.09	44	Black soft organic silt & clay.
430	4	1.65	25	Grey & brown soft very silty clay.
	3		22	
425	4		21	Brown loose sandy silt.
	3	2.06	48	
420	1/18"	0.97	52	Grey soft organic silt & clay.
	15		16	Grey med.-fine to med. silty sand tr. small gravel.
415	45		7	
	43		9	
410	42		6	Brown dense coarse sand & small to large gravel tr. silt.
	66		8	
405	64		6	
	66		7	
400	69		9	
	130		7	
395	121		6	
	112		4	
390	104		1	Brown very dense coarse sand w/small to large gravel tr. silt.
	35		12	
385	35		13	
	35		10	Brown dense coarse sand w/small gravel tr. silt.
380	155	3.93	15	Grey hard shale.
	159/6"		19	

BORING #9

Mudline Elev. 436.5

Elev.	N	Qu	W	Description
	1/6"		56	
435	1/18"		51	Black very soft organic silt.
	2		15	
430	1/18"		16	Brown very loose fine to coarse silty sand tr. small gravel.
	2	2.42	16	
425	2	2.72	25	
	2		30	Grey soft organic silt & clay.
420	41		6	
	40		6	Brown dense coarse sand & small gravel tr. silt.
415	90		11	
	87		4	
410	97		5	
	98		7	
405	123		8	
	118		7	
400	76		6	Brown very dense coarse sand & small to large gravel tr. silt.
	50		7	
395	48		7	Small gravel only from 392.0.
	41		7	
390	38		9	
	36		10	
385	41		8	
	43		8	
380	53		10	Brown dense coarse sand & small to large gravel tr silt.
375	100			
370				Grey hard black shale, well bedded.
365				

Note: Average rate of coring - 2 min. 40 sec/ft.

LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core (C)

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED
CHECKED
DRAWN RJF
CHECKED G.F.J.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 12-31-74

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	50
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING #10A

Mudline Elev. 437.0

Elev.	N	Qu	W	Description
	1/18"		102	
	1/18"		37	
	1/18"		33	
430	1/18"		55	Black very soft organic silt.
	4		15	Loose fine-med. silty sand (tr. small gravel.).
425	5	1.7	16	
	2	2.18	36	
420	2	2.18	35	
	2	1.44	43	
Bott. Ftg. Pier 10 — 415	2	1.84	42	
	2	1.65	47	
410	2	1.05	49	
	2	1.27	52	Grey soft organic silt & clay tr. marine shell.
405	19		8	
	28		9	
400	27		13	
	25		8	Grey med. coarse sand and small-large gravel tr. silt.
395	104		6	Grey very dense coarse sand and sm.-large gravel (tr. silt).
	67		8	
390	43		7	Dense.
	9		9	Brown med.-coarse sand and small-gravel (tr. silt).
385	28	2/0.15	11	
380	100			
375				Grey soft shale.
				Grey hard shale.

Note: Average rate of coring - 2 min. 30 sec./ft.

BORING #10B

Mudline Elev. 437.0

Elev.	N	Qu	W	Description
	1/18"		116	
435	1/18"		65	
	1/18"		91	Black very soft organic silt.
430	2		15	
	3	0.7	21	Grey loose medium sand (tr. silt & sm. gravel).
425	3	2.33	26	
	30 / 30	0.45 / 0.89 / 0.54	34 / 34 / 20	
420	2	0.82	57	
	2	1.5	45	
Bott. Ftg. Pier 10 — 415	2	1.94	44	
	30 / 18"	1/0.44 / 0.67	32 / 42	
410	2	0.97	50	Grey soft organic clay-silt. tr. marine shell.
	2	0.97	63	
405	18		11	
	28		7	
400	34		8	
	54		10	Grey dense coarse sand and small-large gravel tr. silt.
395	82		6	(Very dense from 390.0 to 395.5)
	80		4	
390	65		5	
	30		6	
385	35		7	
	10.0 / 3	10.0 / 8	13	
380	100			
375				Grey hard shale.
370				Black very hard shale.

Note: Average rate of coring - 2 min. 15 sec./ft.

BORING #11A

Mudline Elev. 432.0

Elev.	N	Qu	W	Description
430	1/26"		76	
	1/26"		67	
425	1/18"		86	
	1/18"		72	
420	1/18"		73	
	1/18"		69	
415	1/18"		88	Grey very soft organic silt, tr. marine shell.
	4		21	Grey loose fine silty sand.
Bott. Ftg. Pier 11 — 410	3	0.65	49	
	2	0.58	45	
405	2	0.65	37	Grey soft organic silt, tr. marine shell.
	11		15	
400	21		17	Grey med. coarse sand, tr. small gravel & silt.
	1/12"	0.65	51	(Thin layer of sand @ 398.3)
395	1/9"	0.45	60	
	1/9"	0.46	58	
390	2	1.03	59	
	1/9"	0.97	59	
385	2	0.62	65	
	2	1.16	43	
380	2	0.97	41	
	30 / 30	0.46 / 0.36	25 / 18 / 21	Grey soft organic silt and clay.
375	45		7	Grey dense coarse sand. Some small to large gravel, tr. silt on top of shale.
370	100			
365				Grey hard shale.

Note: Average rate of coring - 2 min. 30 sec./ft.

BORING #11B

Mudline Elev. 432.5

Elev.	N	Qu	W	Description
430	1/18"		30	
	1/18"		76	
425	1/18"		94	
	1/18"		76	Black very soft organic silt. (Bottom end of tube - loose fine grey silty sand, marine shells noted).
420	30 / 18"	0.27 / 0.22	67 / 70 / 55	
	2		29	(tr. thin layers of silt).
	1/18"		29	
	1/18"	0.41	54	
Bott. Ftg. Pier 11 — 410	1/18"		29	
	30 / 30	0.44 / 0.50 / 0.50	30 / 32 / 33	Very soft black organic silt, trace marine shell noted.
405	2	0.9	42	Grey loose fine-medium sand, tr. silt & small gravel & marine shell.
	4		20	
400	16		13	Medium dense.
	1/9"	0.93	62	
395	30 / 24	0.53 / 0.58 / 0.58	41 / 45 / 46	
	2	0.58	56	
390	2	0.5	65	
	30 / 30	0.71 / 0.80 / 0.82	44 / 49 / 48	
385	1/9"	1.2	37	Grey soft organic silt & clay, trace marine shell noted.
380	4		19	
	4		40	Grey loose fine very silty sand tr. sm. gravel.
375	31		12	Grey dense coarse sand & small to large gravel, tr. silt.
370	100			
365				Grey hard shale, well bedded.

Note: Average rate of coring - 2 min. 15 sec./ft.

BORING #12A

Mudline Elev. 425.2

Elev.	N	Qu	W	Description
	3		24	
420	3		23	
	3		23	Grey loose f.-co. sand, trace silt, small gravel & marine shell.
415	5		21	
	7		17	
Bott. Ftg. Pier 12 — 410	6		17	
	5		20	Grey loose med.-coarse sand, tr. silt and sm. gravel.
405	3		25	
	1/18"	0.6	33	
400	30 / 12"	0.27	52	
	2		50	
395	1/9"	0.51	56	
	30 / 12"	0.27	26	
390	2	0.4	37	Grey very soft organic clay, silt - tr. sand partings.
	2	1.44	32	
385	1/9"	0.74	37	
	30 / 30	0.53 / 0.58	24 / 22 / 25	
380	2	0.6	23	Grey very loose fine silty sand - trace sand partings.
	2	0.7	41	
375	2	0.7	42	
	2	1.6	34	Grey soft organic silty clay.
370	43		6	Grey dense coarse sand & sm.-large gravel, tr. silt.
	100			Grey hard limestone.
				Black hard shale.
365				Grey hard limestone.
360				Grey hard shale, well-bedded.

Note: Average rate of coring - 2 min. 20 sec./ft.

BORING #12B

Mudline Elev. 425.0

Elev.	N	Qu	W	Description
	2		15	
420	3		18	
	2		20	
415	3		18	
	6		13	
Bott. Ftg. Pier 12 — 410	6		15	
	7		19	Grey very loose coarse sand - tr. silt & small gravel, tr. marine shell.
405	3		16	
	1/9"	0.5	35	
400	1/9"	0.6	53	
	1/12"		55	
395	1/12"	0.5	55	Grey organic silt, tr. marine shell.
	2	0.2	38	
390	1/6"	0.99	32	
	2		20	Grey organic silt, trace thin layers of sand, tr. marine shells.
385	2	0.5	34	
	2		20	
380	2	0.97	26	Grey very loose fine sand & silt.
	2	0.7	40	
375	2	1.5	31	Grey organic silt.
	58		7	
370	36		5	Grey dense coarse sand and small-large gravel (tr. silt). Grey hard limestone or boulder. * *

* - Lost Shelby tube sample
** - Lost roller bit at 369.0 Unable to retrieve. Moved off hole.

LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core (C)

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED
CHECKED
DRAWN RIE
CHECKED G.F.J.

HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 12-31-74

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	51
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING #13A

Mudline Elev. 434.0

Elev.	N	Qu	W	Description
430	1/18"		71	
	1/18"		81	
	1/18"		78	
425	1/18"		59	
	1/18"		73	
	1/19"		69	
420	1/18"		76	
	1/18"		60	Grey very soft organic silt.
Bott. Ftg. Pier 13 — 415	30 / 30	0.7 / 0.58 / 0.44	29 / 27 / 25	
410	5		17	
	4		17	
405	10		13	Grey wet loose fine sand, tr. silt.
	3	0.85	24	Grey soft sand, silt, tr. small gravel.
400	55		7	
	71		7	Very dense med. to large gravel / so. sand, tr. cobbles.
395	30		7	
	2*	0.7	44	
390	2	0.6	44	
	2*	1.2	36	
385	2		46	
	2*	0.7	48	
380	2		40	
	2*		37	
375	2	1.0	40	Grey soft silty clay, tr. sand.
	89		5	Grey very dense coarse sand & sm. - large gravel, tr. silt.
370	184		7	Grey hard limestone
365	100/0			Grey hard well-bedded shale.
360				

*-Indicates lost Shelby tube sample.
Note: Average rate of coring — 3 min. 25 sec./ft.

BORING #13B

Mudline Elev. 433.0

Elev.	N	Qu	W	Description
430	1/24"		53	Very soft organic silt.
	2		33	
425	1/18"		59	
	1/18"		74	Brown very loose fine sand with some organic silt.
420	1/19"		70	
	2		65	
Bott. Ftg. Pier 13 — 415	2		72	
	1/19"		63	
410	2		86	
	1/19"		26	
405	1/16"		37	Grey very soft organic silt & tr. sand, sea shells.
	35		4	
400	37		5	
	60		13	Dense med. to large gravel with sand, tr. silt.
395	82		15	Very dense med. to large gravel / sand, tr. cobbles.
	36		10	Dense med. to large gravel with sand, tr. cobbles.
390	4	2.47	39	
	5	2.06	40	
385	5	1.03	49	
	4	1.40	42	
380	6	1.09	44	Grey med. silty clay / tr. sand & small gravel.
	2		38	
375	2		34	Grey very soft silty clay, tr. sand and small gravel.
	107		5	
370	103		9	Very dense med. to large gravel / so. sand, tr. cobbles.
				Shale - drilled to 367.0
365	100/0			Shale

Note: Average rate of coring — 2 min. 30 sec./ft.

BORING #14

Mudline Elev. 436.7

Elev.	N	Qu	W	Description
435	1/24"		85	
	1/24"		80	
	1/24"		86	Black very soft organic silt.
430	3		29	
425	2	0.5	36	
	2	1.5	28	
Bott. Ftg. Pier 14 — 420	*			
	2			
	1/12"	0.4	61	
415	1/12"	0.5	35	
	30 / 30 / 30	0.41 / 0.46 / 0.51	40 / 34 / 40	Very soft sandy silt, with organic material.
410	2	0.2	40	
	1/24"		35	Grey loose fine sand with silt & organic material.
405	1/9"		39	Grey very soft silty clay tr/ organic matter.
	*			Boulder.
	71		3	Very dense med. - large gravel with sand, trace cobbles.
400	4	0.6	51	
	30 / 9			
395	1/12"	0.5	52	
	6		50	
390	30 / 0			
	1/9"	0.82	53	
385	2	0.9	45	
	2	0.74	53	
380	*			
	109/6"		8	Grey soft silty clay tr. sm. gravel.
375	118		6	Very dense med. to large gravel / sand, tr. cobbles. **
	100/3"			
370	100/3"			
	200/3"		12	
365	100/3"		9	
				Very dense shale.

*-Indicates lost Shelby tube sample.
**-Very hard 3" cobble at 375.2. Took 1/2 hr. to drill through.

BORING #15

Mudline Elev. 436.5

Elev.	N	Qu	W	Description
435	1/24"		91	
	1/16"		73	Black very soft organic silt.
430	30 / 16			
	5/18"	0.5	43	Grey soft organic clay tr. sand.
425	30 / 13			
	21/18"	0.6	52	Grey soft silty clay / so. small gravel & sea shells & organic matter.
Bott. Ftg. Pier 15 — 420	30 / 30			
	5/18"	0.3	43	
415	1/18"	0.58	44	Grey soft organic silt with tr. sand & clay.
	4		24	
410	9		21	Grey loose fine silty sand tr. org. matter. (Note A)
	2	0.78	35	Grey soft silt with so sand & clay.
405	2	0.58	35	Grey soft silty clay tr. sand & org. matter.
				Boulder.
	2	1.0	31	
400	2	0.6	40	
	2	0.62	47	
395	2	0.7	43	
	1/9"	0.7	50	
390	1/9"	0.5	46	
	2	0.5	39	(Small sand seam.)
385	1/9"	0.6	65	
	2	0.5	49	
380	4		35	
	3	0.3	39	Grey soft silty clay trace small gravel & sand.
375	115		5	
	75		6	
370	62		6	
	100/6"		12	Very dense small to large gravel with some sand trace cobbles.
365	100/5"	6.11	14	
				Dense shale.
360	100/0			
355				

Note A: Lost return water while drilling from 412.0 to 409.5. Average rate of coring — 2 min. 40 sec./ft.

BORING #16

Mudline Elev. 437.0

Elev.	N	Qu	W	Description
435	1/24"		89	Black very soft organic silt.
	4	0.78	46	
430	2	0.8	43	
Bott. Ftg. Pier 16 — 425	1/18"		57	
	1/19"		51	
420	1/9"	0.6	44	Dark grey soft organic clay.
	3/18"	0.6	30	Gray loose inorganic silt - with thin layers of sand, tr. of marine shell.
415	8		19	
	6			Grey loose medium - coarse sand, tr. of silt & small gravel.
410	10		23	
	9		28	Grey loose medium sand tr. silt & small gravel.
405	1/18"	0.58	52	
	1/9"	0.6	42	Grey organic clay
400	70		16	Grey dense, fine sand tr. silt & thin layers of small gravel.
	35		7	
395	30		9	Grey dense coarse sand with small - large gravel, tr. silt.
	61		6	
390	63		8	
	59		5	
385	68		13	Brown very dense sand and large gravel tr. cobbles & silt.
	20		7	Med. - med. to coarse gravel / sand, tr. large gravel.
380	86		6	
	72		7	Very dense large gravel with cobbles & sand.
375	16		13	Med. - lge. gvl. / so. sand & cobbles.
	100/5"	4.5	12	
	*			
370				Very dense shale
365	100/0			
360				

Notes: Losing a tub of bentonite (50 gals) every 5' below 398.5.
* - Roller - bitted to 371.5 in shale.
Average rate of coring — 2 min. 30 sec./ft.

BORING #17

Mudline Elev. 436.5

Elev.	N	Qu	W	Description
435	9/18"		88	Grey very loose organic silt.
	5	0.89	41	
430	4	0.97	38	Dark grey med. very silty clay - organic material & tr. sm. gravel noted.
Bott. Ftg. Pier 17	4		33	Grey loose med. silty sand, tr. sm. gravel, silt & marine shell.
425	*			
	1/18"	0.47	51	
420	2	0.58	31	
	2	0.8	34	Grey organic silt.
415	9		17	Grey medium - medium sand, tr. silt & small gravel.
	15		31	
410	2		26	Very loose, fine silty sand.
	1/9"	0.62	60	
405	1/9"	0.58	43	Grey organic silt, tr. marine shell.
	76		7	
400	51		6	
	55		7	
395	99		7	
	95		6	
390	104		7	
	122		3	Brown very dense coarse sand with small - large gravel, tr. silt.
385	160		9	Grey hard, well - bedded shale.
				Grey hard silt stone.
380	100/0			Grey hard, well-bedded shale.
				Grey hard silt stone.
375				Grey hard, well-bedded shale.

* - Indicates lost sample
Average rate of coring — 2 min. 15 sec./ft.

LEGEND:

Indicates Shelby Tube (A / B)

Indicates Rock Core

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED		
DRAWN RTF		DATE 12-31-74
CHECKED G.F.J.	SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS	

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 31	15B-2	Peoria & Tazewell	56	52
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BORING DATA

BORING #18

Mudline Elev. 436.5

Elev.	N	Qu	W	Description
	2/6"		72	Dark grey very soft organic silt.
435	4	.5	43	
	3	.7	40	
430	3	1.03	35	Dark grey & brown soft clayey silt. (Bott. Ftg. Pier 18)
	2/16"		31	
425	1/9"		22	
	6		22	
420	5		22	
	8		24	
415	9	0.6	48	
	13		28	Grey very loose fine-med silty sand - tr of small gravel & marine shell - Note: 6" layer of sandy silt at 417.0 - 416.5.
410	6		25	
	1/6"	.58	36	
405	1/9"	.62	41	Grey very soft organic silt - tr marine shell.
	1/6"	.89	45	
400	1/18"	0.6	33	Grey very soft clayey silt.
	85		6	
395	142		6	
	146		5	
390	80		7	Brown very dense coarse sand with small to medium gravel, tr silt.
	88		8	
385	50/6"	4.5	15	
	100			Gray very hard shale well-bedded. 1½" layer of limestone @ 379.8, 375.5, 375.0.
380				
375				

Note: Average rate of coring — 2 min. 20 sec./ft.

BORING #19

Mudline Elev. 437.8

Elev.	N	Qu	W	Description
				Very loose fine organic sand.
435	4	0.78	69/53	
	4	0.58	40	Dark grey soft organic clay.
	2	0.39	24	
430	4		20	Brown loose fine sand, tr. silt. (Bott. Ftg. Pier 19)
	1/9"	0.35	43	
425	1/9"	0.41	42	Dark grey organic silt, tr. shell.
	10		11	Grey med-med. coarse sand, so. sm. gravel, tr. silt & marine shell.
420	2	0.2	53	
	2	0.82	31	
415	2	0.70	32	
	10		19	Grey soft clayey silt.
410	3		41	Grey med. med coarse sand, some small gravel. Grey very loose fine organic sand.
	2	0.33	33	
405	2	0.85	63	
	1/9"	0.78	60	Grey organic silt.
400	2	0.42	33	
	1/9"	0.39	39	Grey very soft clayey silt.
395	35		10	Grey dense coarse sand & small to medium gravel, tr. silt.
	36		13	
390	30		16	Grey dense medium sand, trace silt & sm. gravel.
	289	10*	13	
385	100			Grey hard shale, well-bedded.
380				

Note: Average rate of coring — 2 min. 20 sec./ft.

BORING #20

Mudline Elev. 438.5

Elev.	N	Qu	W	Description
	2		48	Black very loose fine silty sand.
435	5	0.78	40	
	4	0.82	41	
430	4	1.16	35	Dark grey & brown medium silty sand. (Bott. Ftg. Pier 20)
	1/6"		33	
425	1/16"	0.70	34	Grey very loose inorganic silt, tr. sand partings.
	2	1.55	35	
420	3	0.82	37	
	1/9"	0.78	38	Grey very soft clayey silt, tr. thin layers of fine sand. 6" layer of sand & small gravel @ 416.2.
415	2	0.39	27	
	1/9"	0.4	33	
410	1/9"	0.4	31	Grey very loose fine sandy silt.
	1/6"	0.78	64	
405	1/6"	0.87	73	Grey very soft organic silt.
	18		12	Grey medium medium-coarse sand/some small gravel, tr. silt & silt partings.
400	9		22	
	1/18"	0.41	46	
395	1/18"	0.58	36	Grey very soft clayey silt, tr. sand.
	65		9	Brn. dense coarse sand/sm.-med gravel, tr. silt.
390	34		19	Grey dense medium sand, tr. silt, tr. sm. gravel.
	207	4.5*	11/13	
385	100			Grey hard shale well-bedded.
380				

Note: Average rate of coring — 2 min. 15 sec./ft.

BORING #21

Mudline Elev. 438.9

Elev.	N	Qu	W	Description
	5	0.7	24/14	Grey very loose fine silty sand
435	7	1.44	24	Dark grey medium silty clay & brn, tr. sand.
	4	1.47	30	Grey loose medium to coarse sand s. sm. gravel, tr. silt & veg.
430	7		18	
	2	0.89	31	
425	6	0.87	33	
	3		23	Grey soft clayey silt. Grey loose medium-coarse sand, tr. silt, sm. gravel & silt partings.
420	3	0.58	23	Grey loose clayey silt, tr. thin layers of sand.
	2		21	Grey loose medium to coarse sand, tr. silt.
415	4	0.78	48	
	4	0.74	51	
410	2	0.78	42	Grey soft organic silt. Gr. medium fine-medium sand, tr. silt, sm. gravel & thin layers of organic silt.
	16		19	Grey medium inorganic silt, tr. thin layers of sand.
405	15		25	
	13		22	Grey medium fine-coarse sand, tr. silt & small gravel.
400	16		22	
	1/9"	0.46	39	
	1/9"	0.39	35	
395	1/6"	0.5	33	Grey very soft clayey silt, tr. organic silt partings.
	8	0.2	34	Brown dense coarse sand, s. sm. gravel tr. silt.
390	142		10	
	50/6"	4.5*	12	
385	100			Grey hard shale well-bedded. Brn. hard limestone. Grey hard shale well-bedded. Brn. hard limestone. Grey hard shale well-bedded.
380				

LEGEND:

Indicates Shelby Tube — A / B

Indicates Rock Core — C

A - amount of penetration (in inches).
B - amount recovered (in inches).
C - percent of core recovered.

BORING DATA

Mc CLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15 B-2
PEORIA & TAZEWELL COUNTIES

DESIGNED
CHECKED
DRAWN R.J.F.
CHECKED G.F.U.

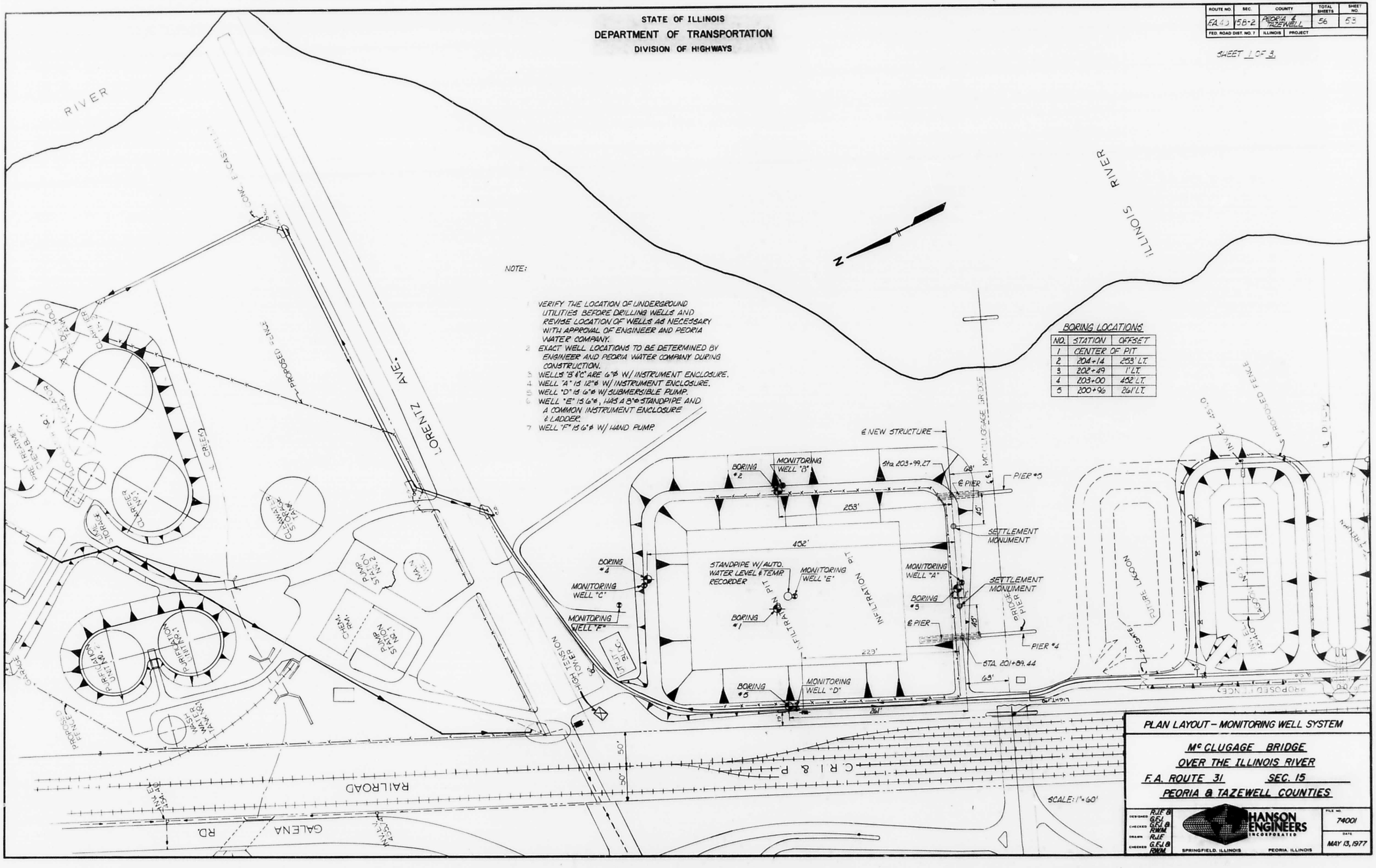
HANSON ENGINEERS INCORPORATED
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

FILE NO. 74001
DATE 12-31-74

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 31	58-2	PEORIA & TAZEWELL	56	53
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

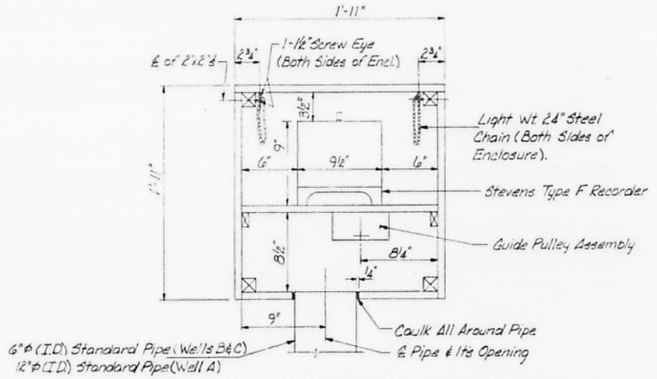
SHEET 1 OF 3.



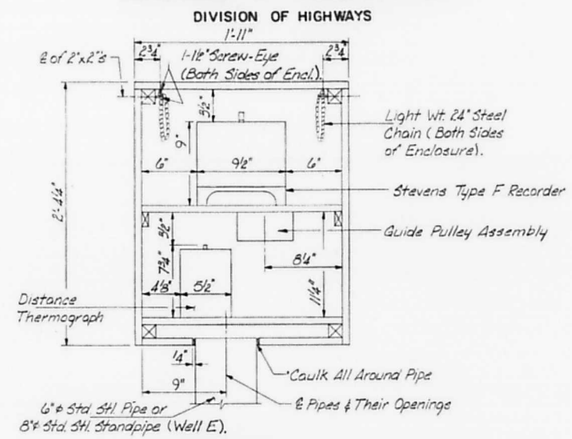
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA 43	15B-2	PEORIA & TAZEWELL	55	54
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

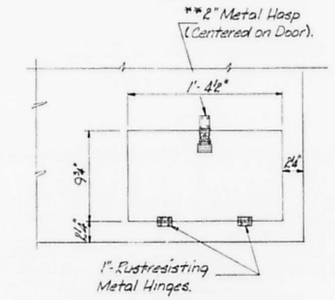
SHEET 2 OF 3.



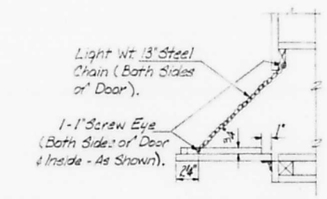
SECTION A-A
Scale: 1½" = 1'-0"



SECTION B-B
Scale: 1½" = 1'-0"

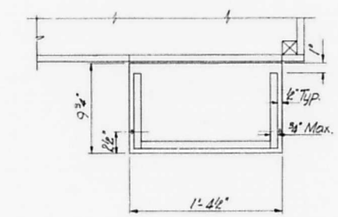


ELEVATION
Scale: 1½" = 1'-0"



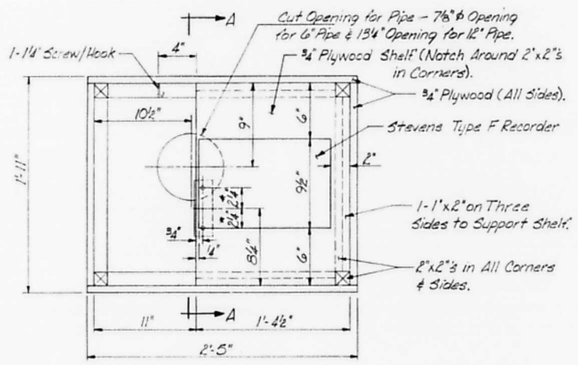
SECTION
Scale: 1½" = 1'-0"

Note:
Door to be on Long Face of Enclosure at Ladder Location.

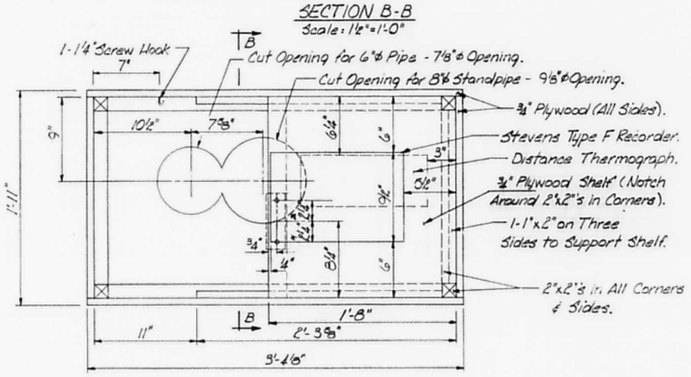


PLAN
Scale: 1½" = 1'-0"

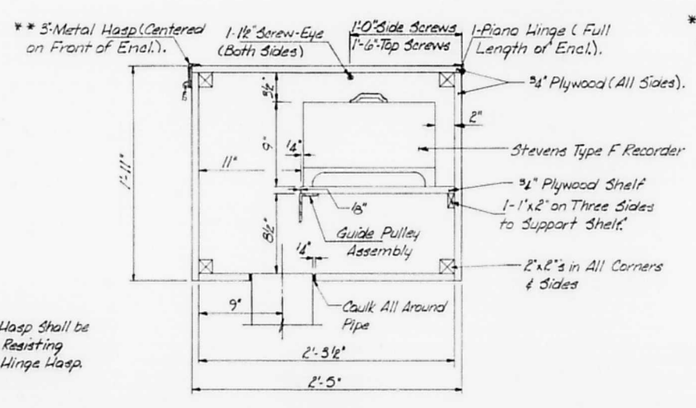
SIDE ACCESS DOOR
ENCLOSEURE FOR WELL "E"



PLAN
Scale: 1½" = 1'-0"

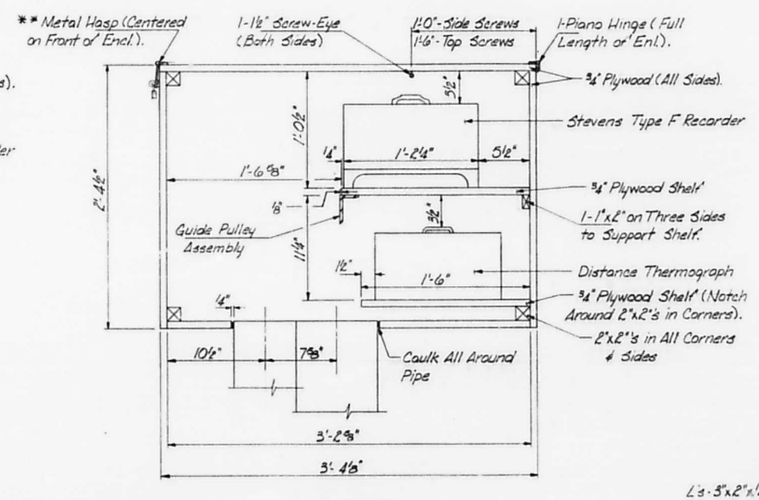


PLAN
Scale: 1½" = 1'-0"



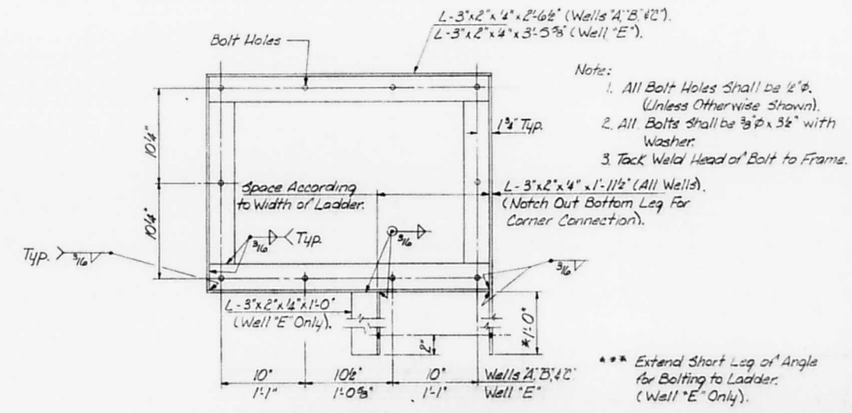
ELEVATION
Scale: 1½" = 1'-0"

ENCLOSURE FOR WELLS "A", "B", & "C"



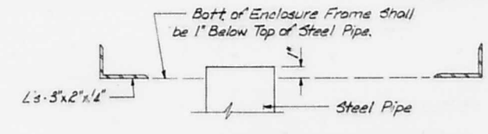
ELEVATION
Scale: 1½" = 1'-0"

ENCLOSEURE FOR WELL "E"



Note:
1. All Bolt Holes Shall be ½" ϕ. (Unless Otherwise Shown).
2. All Bolts Shall be ⅜" ϕ x 3½" with Washer.
3. Tack Weld Head of Bolt to Frame.

PLAN - ENCL. FRAME
Scale: 1½" = 1'-0"
WELLS "A", "B", "C", & "E"



PARTIAL ELEVATION - ENCL. FRAME
No Scale
WELLS "A", "B", "C", & "E"

Note for All Enclosures:
1. Plywood is to be an Exterior Grade.
2. All 2"x2"'s are to be Fastened with Water-resistant Glue & 2½"-#8 Galvanized Wood Screws.
3. The Shelves Rest Freely on Their Supporting 1"x2"'s or 2"x2"'s.
4. All 1"x2"'s are to be Fastened with 1½"-#8 Galvanized Wood Screws.
5. Provide Keyed Padlock on All Enclosures (Keys Shall be Given to Engineer).
6. All Enclosures Shall be Painted w/ White Exterior Paint & Their Well Letter Stenciled on Each Side w/ Red Exterior Paint.

ENCLOSURES — MONITORING WELL SYSTEM

McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15
PEORIA & TAZEWELL COUNTIES

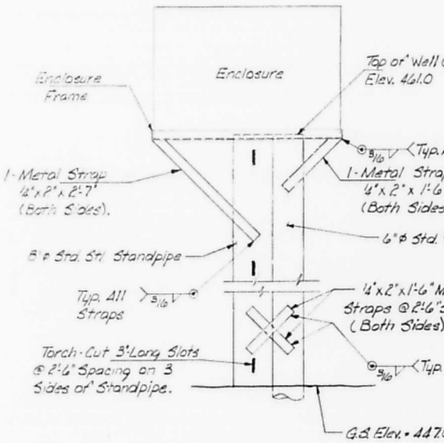
DESIGNED R.J.F. & G.F.J.	HANSON ENGINEERS INCORPORATED	FILE NO. 74001
CHECKED G.F.J. & R.W.M.		
DRAWN R.J.F.		DATE MAY 13, 1977
CHECKED G.F.J. & R.W.M.	SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

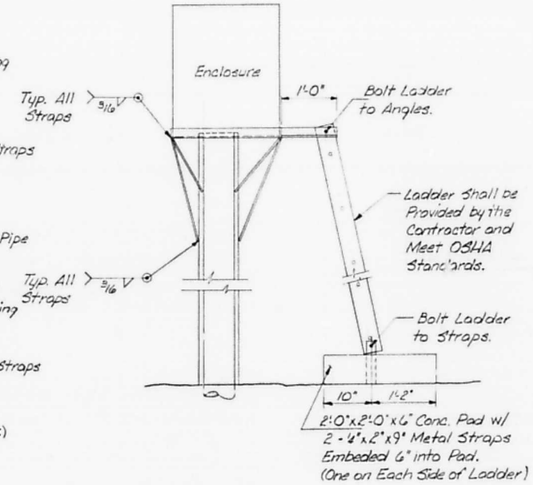
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 43	158-2	PEORIA & TAZEWELL	56	55
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 3 OF 3.

Note:
1. All Bolt Holes Shall be 1/2" ϕ.
2. All Bolts Shall be 3/8" ϕ x 3 1/2" Long.

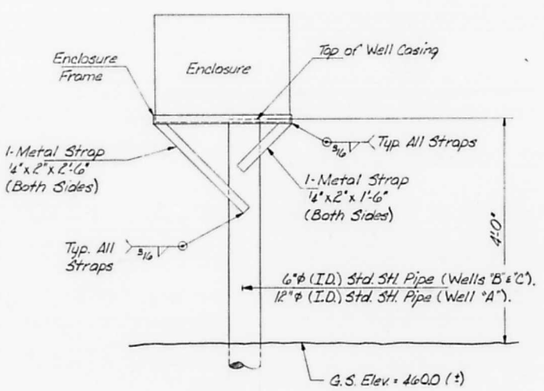


SIDE ELEVATION
Scale: 3/8" = 1'-0"



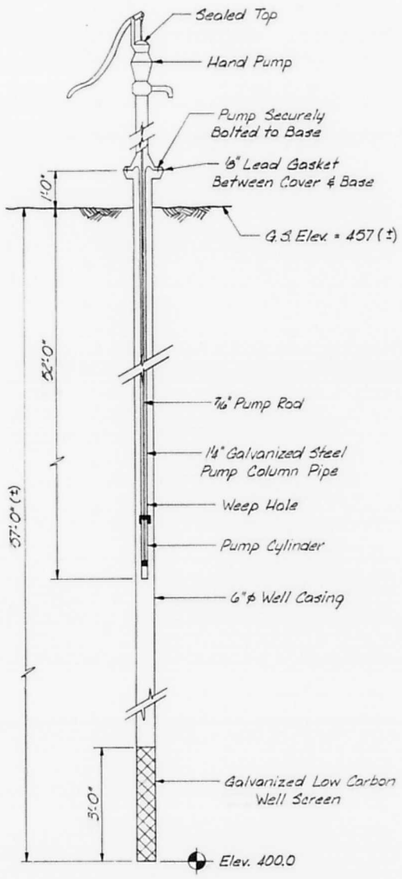
END ELEVATION
Scale: 3/8" = 1'-0"

FRAME BRACING - WELL "E"

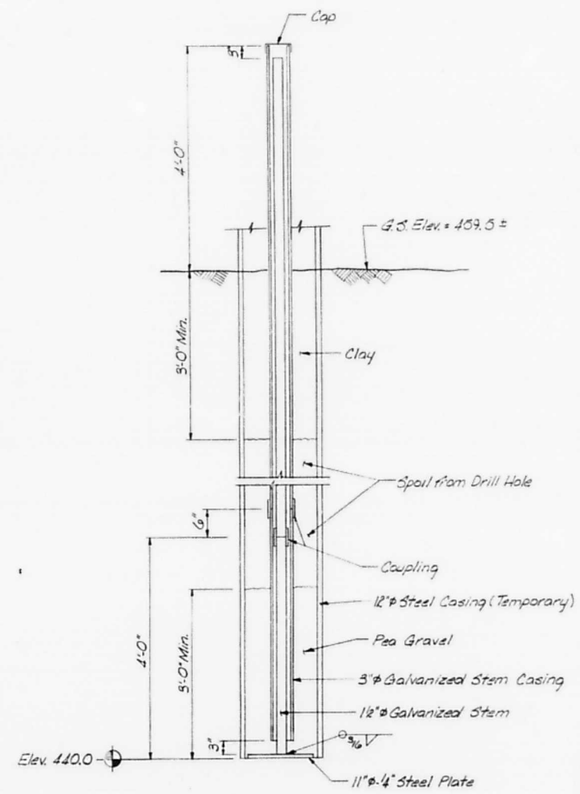


SIDE ELEVATION
Scale: 3/8" = 1'-0"

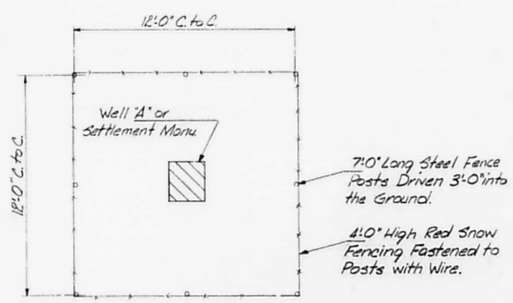
FRAME BRACING - WELLS "A", "B", & "C".



HAND PUMP DETAIL
Scale: 3/8" = 1'-0"



SETTLEMENT MONUMENT
No Scale



PLAN - PROTECTIVE FENCE (COST INCIDENTAL)
No Scale

WELL "A" & SETTLEMENT MONUMENTS

ENCLOSURES, HAND PUMP & SETTLEMENT MONUMENTS

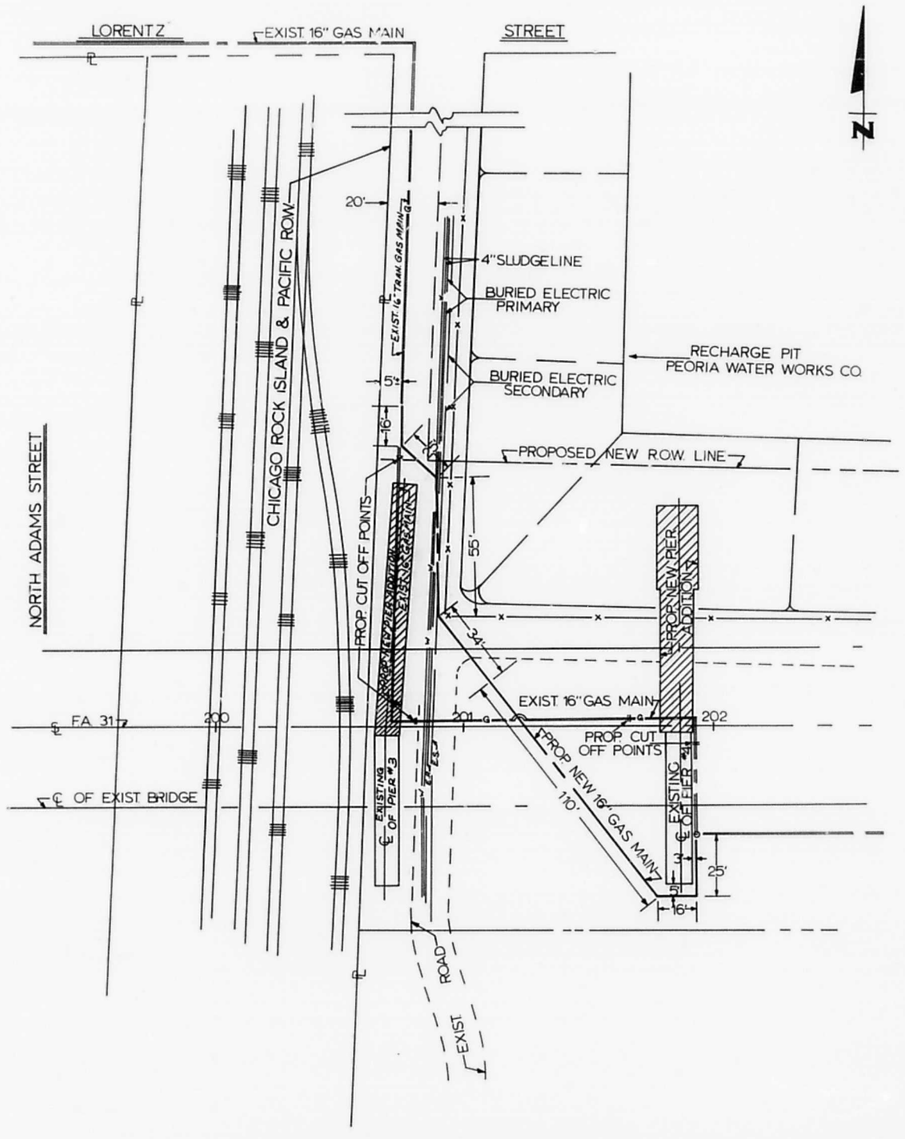
MONITORING WELL SYSTEM

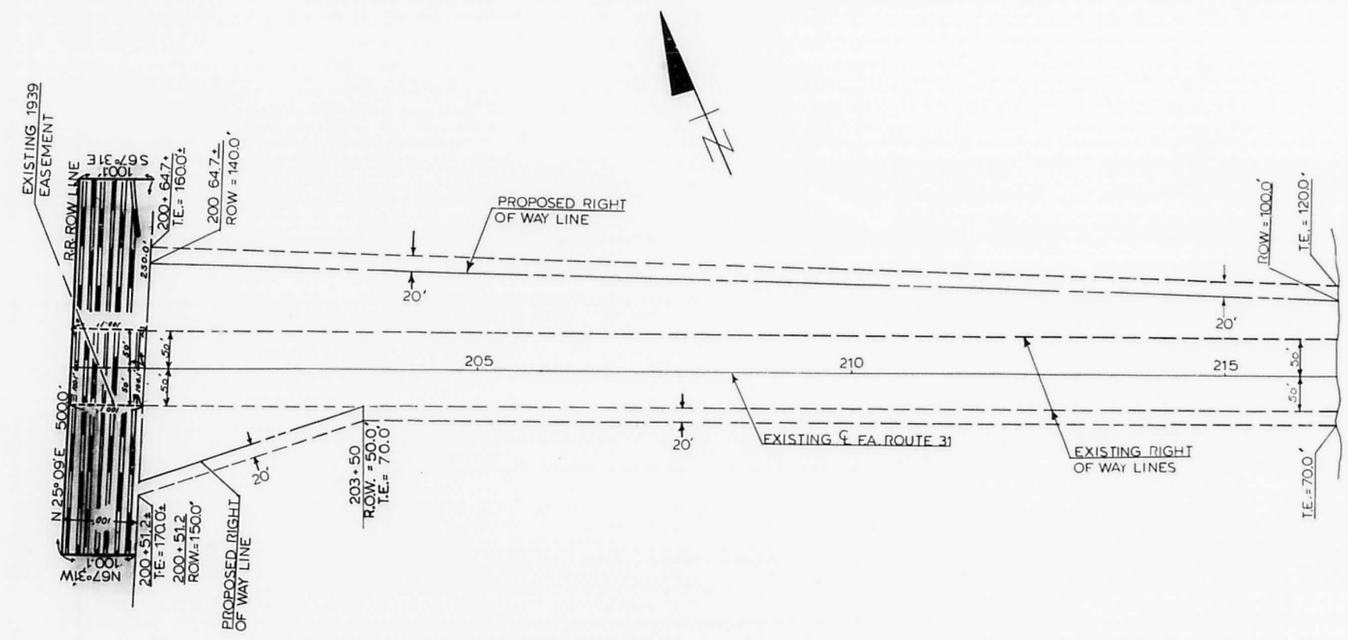
McCLUGAGE BRIDGE
OVER THE ILLINOIS RIVER
F.A. ROUTE 31 SEC. 15
PEORIA & TAZEWELL COUNTIES

DESIGNED	R.J.F. & G.F.J.	HANSON ENGINEERS INCORPORATED — SPRINGFIELD, ILLINOIS — PEORIA, ILLINOIS
CHECKED	G.F.J. & R.W.M.	FILE NO. 74001
DRAWN	R.J.F.	DATE MAY 13, 1977
CHECKED	G.F.J. & R.W.M.	

TYPE	SECTION	COUNTY	SHEET TOTAL	SHEET No.
FA 49	15B-2	PEORIA	56	56
MKD.				
PROJ.	STA.	TO STA.		

APPROXIMATE LOCATION OF UTILITIES

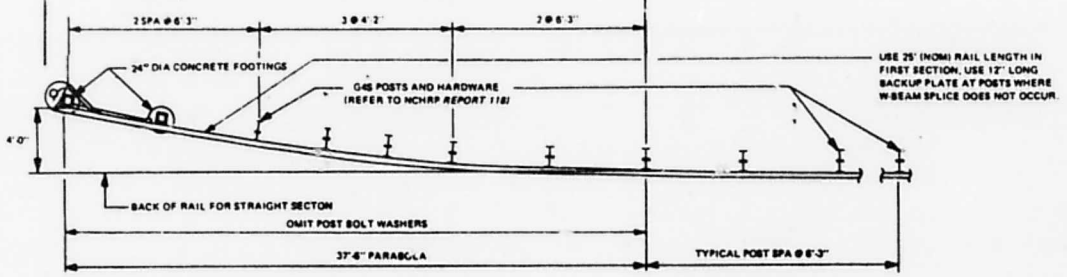




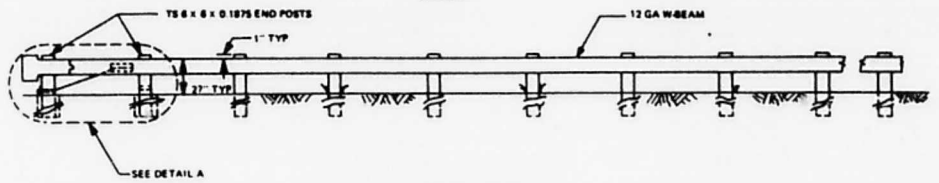
RIGHT OF WAY LIMITS

Traffic Barrier Terminal Type I (1 Each)

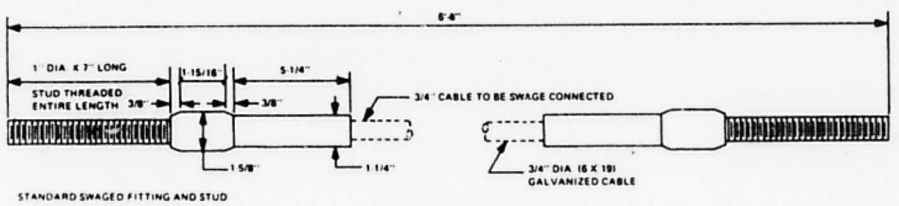
Pay limits of guardrail



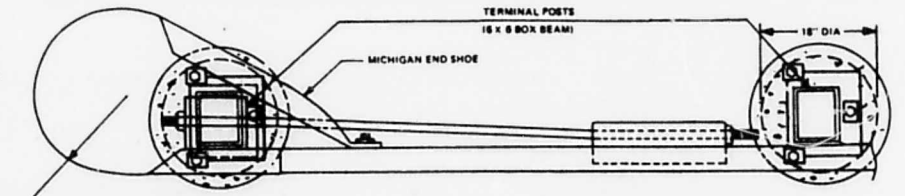
PLAN

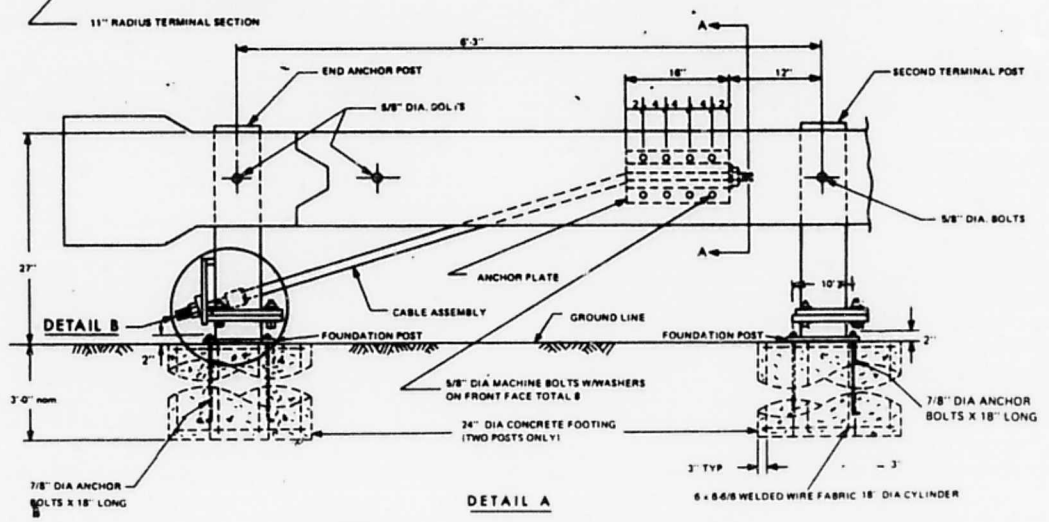


ELEVATION

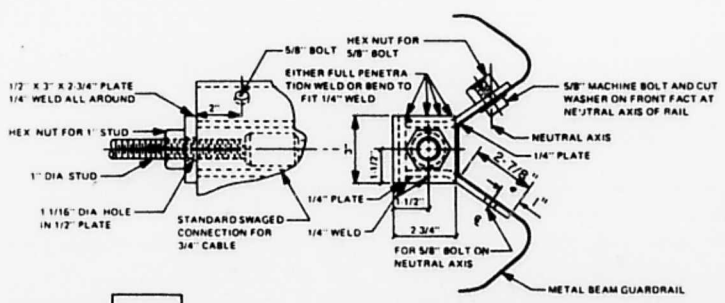


CABLE ASSEMBLY

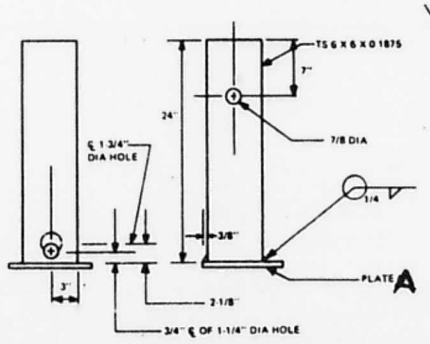


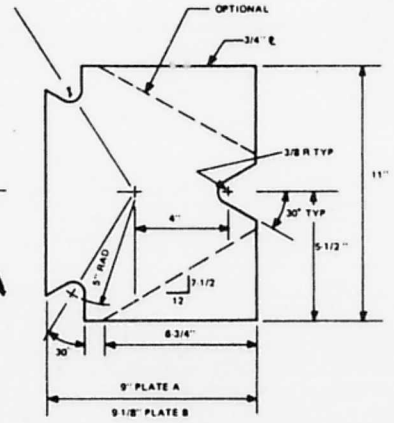


DETAIL A

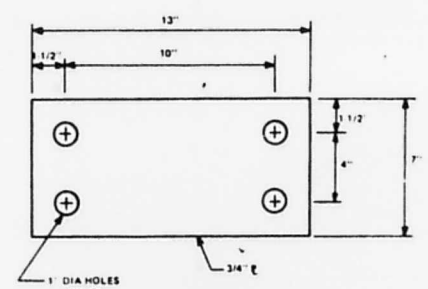


SECTION A—A

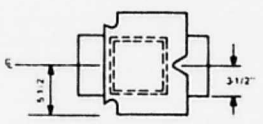




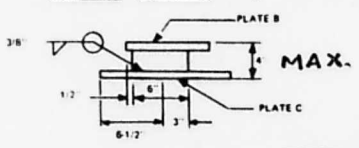
BASE PLATES A & B



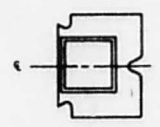
BASE PLATE C



ANCHOR PLATE DETAILS

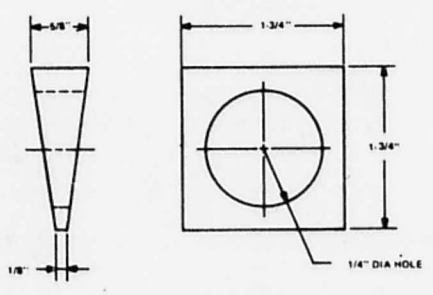


FOUNDATION POST

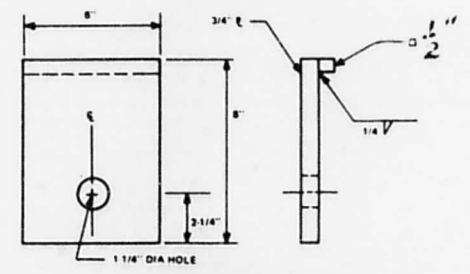


TERMINAL POST

NOTE SECOND TERMINAL POST DOES NOT REQUIRE HOLES TO ACCOMMODATE ANCHOR CABLE



TAPERED WASHER

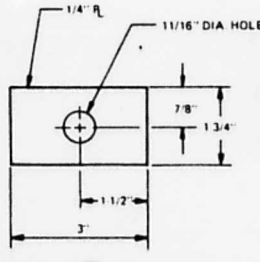


BEARING PLATE

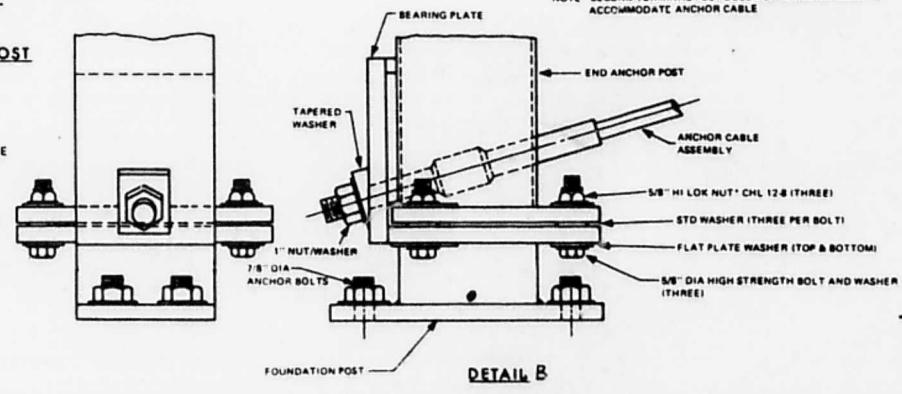
Notes:

1. Other anchor cable assemblies may be used. Minimum breaking strength of assembly should be 40,000 lbs.
2. Concrete footings are Class X In sandy fill areas, conderation to increasing size of end footing is suggested.
3. Hi Lok nuts are product of Hi-Shear Corporation Torrance, California.

Slip base load may also be controlled with a calibrated torque wrench—Torque 155–170 ft-lbs



FLAT PLATE WASHER



DETAIL B

TRAFFIC BARRIER TERMINAL TYPE I

STEEL POST