

AS BUILT - DO NOT REMOVE FROM OFFICE

P.E. G.E. Wells
V.P.H.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
721	115BR-1	PIATT	22	1

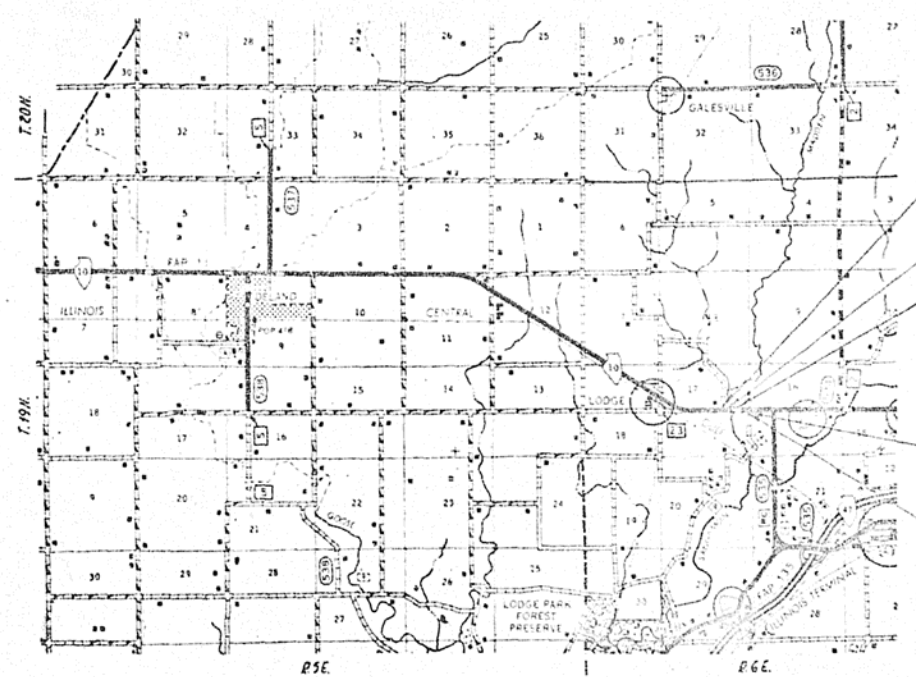
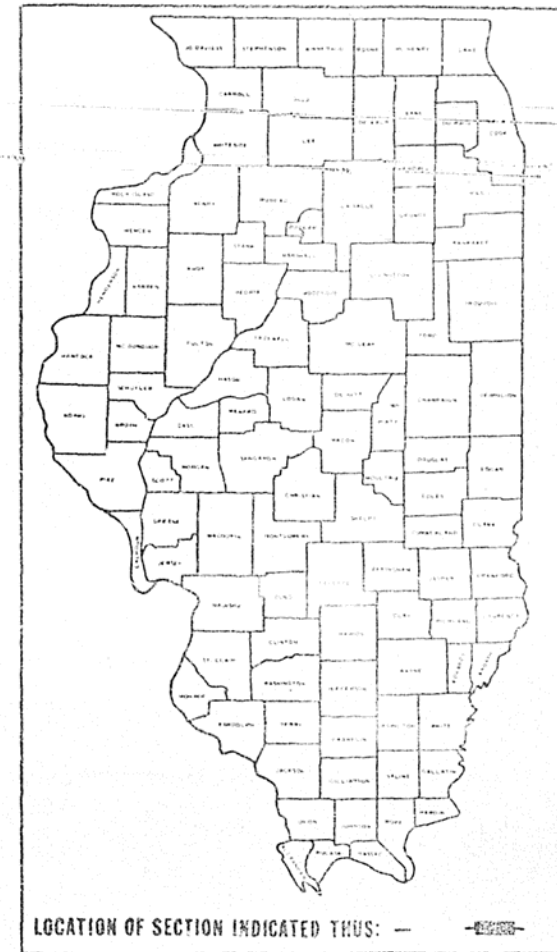
ILLINOIS PROJECT
P-95-211-69

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

F.A. ROUTE 721, SECTION 115BR-1
PROJECT BR-F-721(6)
PIATT COUNTY
C-95-208-76
BRIDGE REPLACEMENT

SCALES
PLAN 1" = 50'
PROFILE HOR. 1" = 50'
PROFILE VERT. 1" = 5'
CROSS SECTIONS 1" = 50 FT., 1" = 100'

FOR SUMMARY OF QUANTITIES &
INDEX OF SHEETS, SEE SHEET NO. 3 & 4



SECTION 115 BR-1
 BEGINS STA. 1205+00.00
 PROJ. BEGINS STA. 1208+90
 STRUCTURE 115 BR-1
 PRECAST PRESTRESSED CONCRETE DECK
 ON CONCRETE ABUTMENTS & PIERS
 3 SPANS - 1e 50'-3 1/2", 1e 49'-9", 1e 51'-1 1/2"
 43'-0" WIDTH - 0' SKEW
 STA. 1210+89.58

SECTION 115 BR-1
 ENDS STA. 1216+35.00
 PROJ. ENDS STA. 1215+00

SCALE: 1" = 1 MILE

TOTAL & NET LENGTH OF SECTION = 1,155.00 FEET = 0.215 MILE
PROJECT LENGTH = 610 FEET = 0.116 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: _____ 19__

EXAMINED: April 18, 1977 DISTRICT ENGINEER

PASSED: April 18, 1977 ENGINEER OF PLANS AND CONTRACTS

APPROVED: Thomas P. Blight ENGINEER OF DESIGN

[Signature] REGIONAL DIVISION OF HIGHWAYS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____

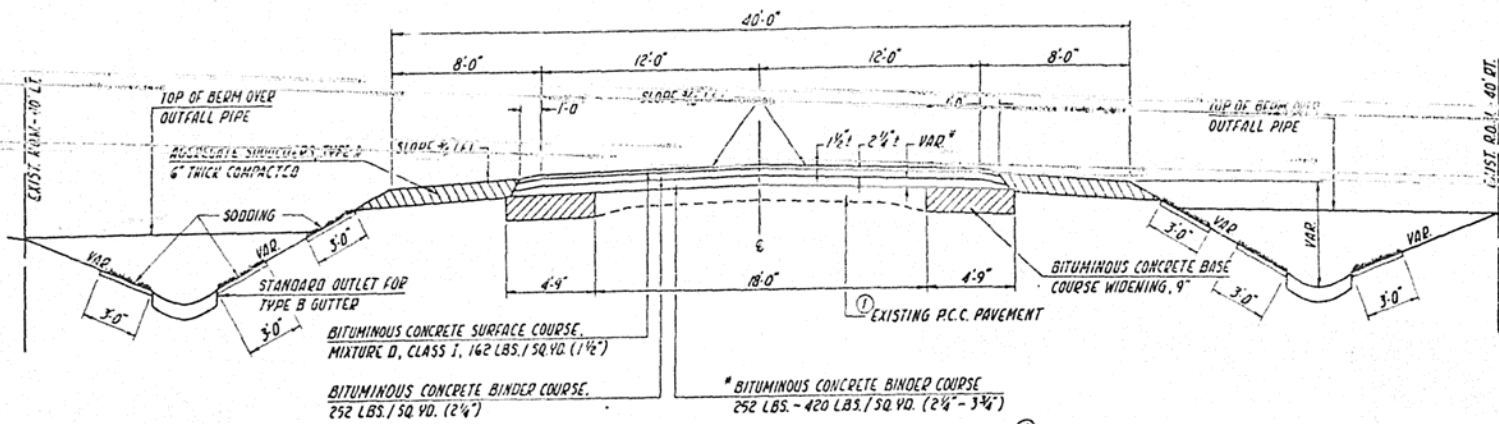
DIVISION ADMINISTRATOR DATE

CONTRACT NO. 82644

1/8
0/251
0/2

PROPOSED TYPICAL CROSS SECTION - F.A. 721 ②

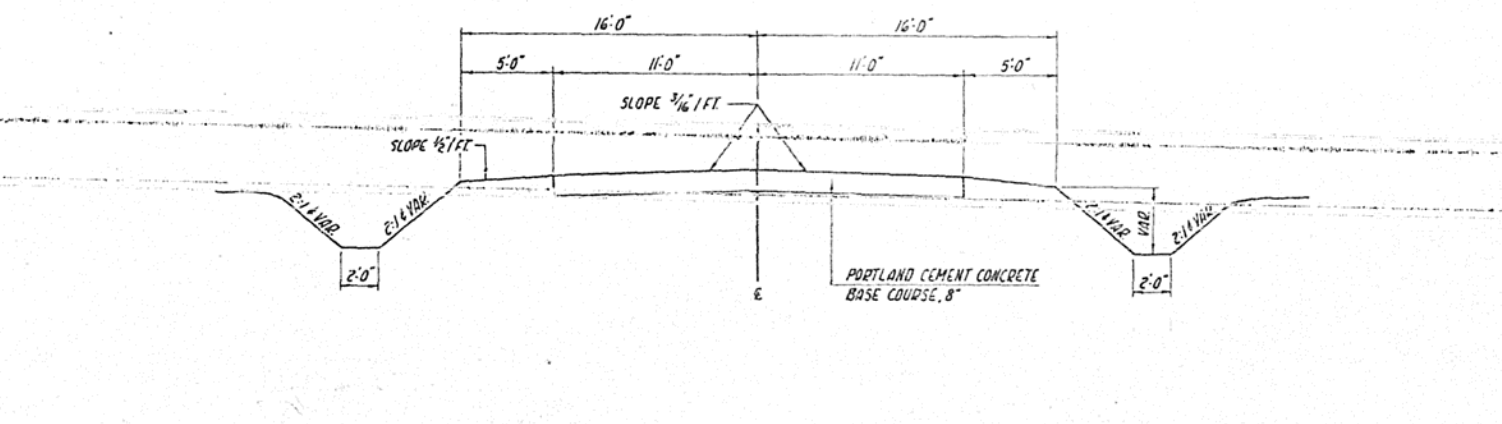
① STATION 1209+00.00 TO STATION 1210+13.86 (115 BR-1)



① P.C. CONCRETE BASE COURSE, 9" - STA. 1210+12.36 TO STA. 1210+14.36

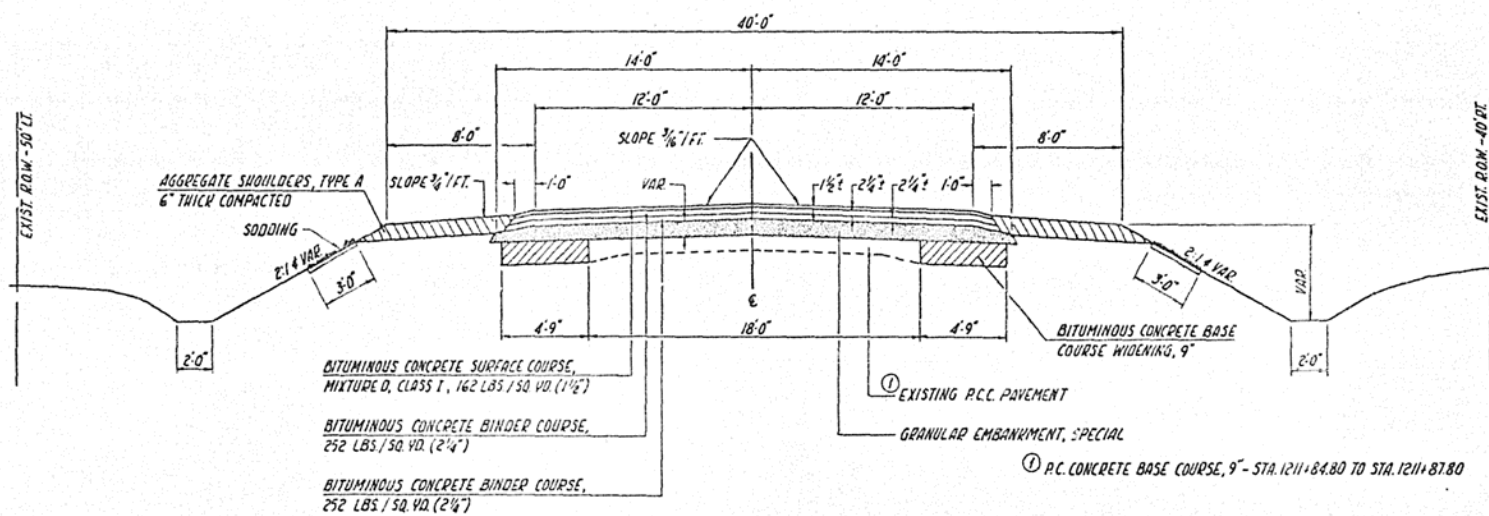
PROPOSED TYPICAL CROSS SECTION - DETOUR

ROUTE NO.	SECTION	COUNTY	TOTAL WIDTH	RIGHT OF WAY
721	115 BR-1	PIATT	22	2



PROPOSED TYPICAL CROSS SECTION - F.A. 721 ③

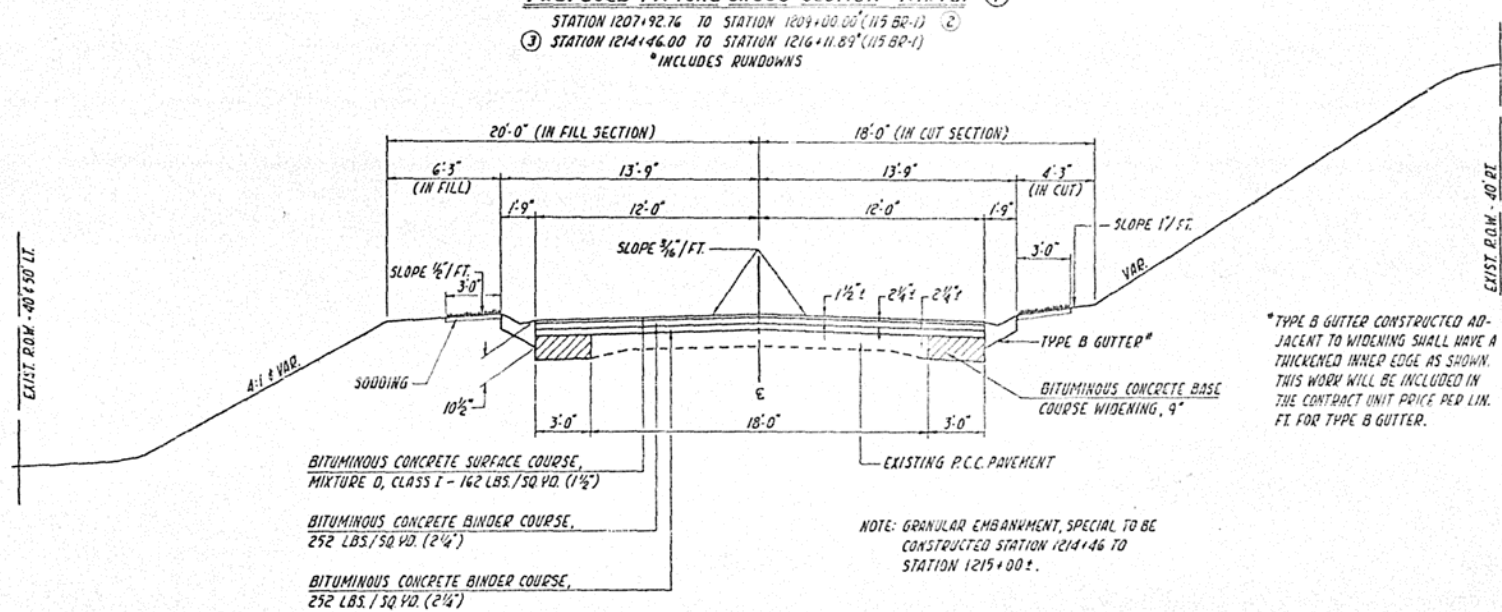
① STATION 1211+84.80 TO STATION 1214+46.00 (115 BR-1) ①



① P.C. CONCRETE BASE COURSE, 9" - STA. 1211+84.80 TO STA. 1211+87.80

PROPOSED TYPICAL CROSS SECTION - F.A. 721 ①

② STATION 1207+92.76 TO STATION 1209+00.00 (115 BR-1) ②
 ③ STATION 1214+46.00 TO STATION 1216+11.89 (115 BR-1)
 * INCLUDES RUNDOWNS

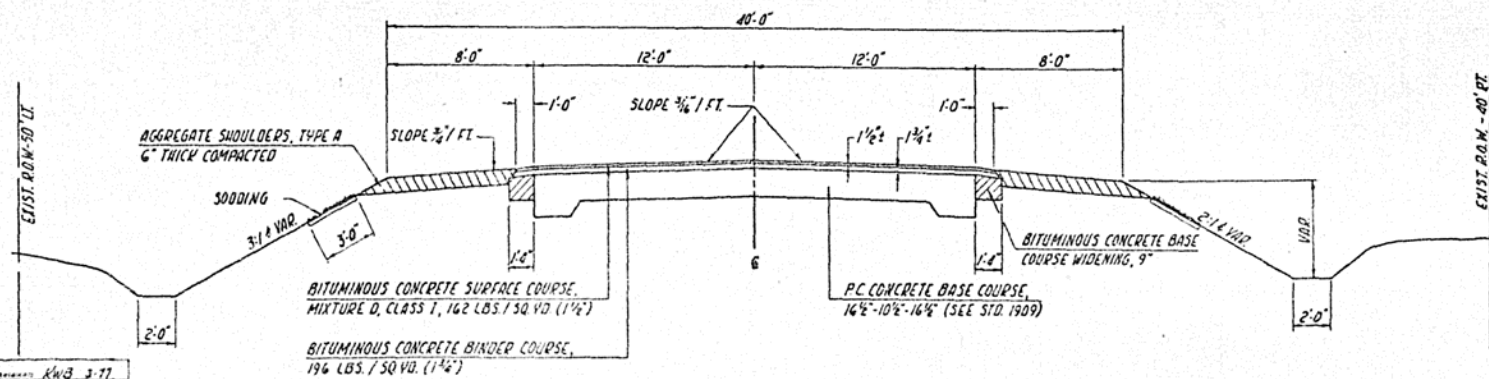


* TYPE B GUTTER CONSTRUCTED ADJACENT TO WIDENING SHALL HAVE A THICKENED INNER EDGE AS SHOWN. THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LIN. FT. FOR TYPE B GUTTER.

NOTE: GRANULAR EMBANKMENT, SPECIAL TO BE CONSTRUCTED STATION 1214+46 TO STATION 1215+00 ±.

PROPOSED TYPICAL CROSS SECTION - F.A. 721 ④

STATION 1211+64.80 TO STATION 1211+84.80 (115 BR-1) ③



NOTE: THE THICKNESS OF BITUMINOUS MIXTURE SHOWN IN THE PLANS IS NOMINAL THICKNESS. DEVIATION FROM NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATION OCCURS DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
721	115BR-1	Platt	22	3

INDEX OF SHEETS

SHEET NO.	CONTENTS
1.	COVER SHEET
2.	TYPICAL CROSS SECTIONS
3. & 4.	INDEX OF SHEETS; GENERAL NOTES; SUMMARY OF QUANTITIES
5.	PLAN & PROFILE - F.A. ROUTE 721
6.	PLAN & PROFILE - DETOUR ROAD
7.	DETAIL OF SIDEROAD RETURNS; DETAIL OF SPECIAL GUTTER CONNECTION; DETAIL OF SPECIAL CONNECTION FROM PIPE CULVERT TO GUTTER OUTLET
8.	DETAIL OF SPECIAL TILE OUTLET HEADWALL
9. - 18.	STRUCTURE PLANS - SECTION 115BR-1
19. - 22.	STATION CROSS SECTIONS
22A	DETAIL OF TRAFFIC BARRIER TERMINAL, TYPE 1
	<u>STANDARD NOS.</u>
	1909 - 10
	1914 - 5
	2113 - 1
	2169 - 6
	2230 - 10 (MOD.)
	2296 - 4
	2299 - 7
	2300 - 1
	2301 - 3
	2302 - 3
	2303 - 4
	2305 - 3
	2306 - 4
	2307 - 4
	2310 - 3
	2311 - 5

GENERAL NOTES:

EARTHWORK QUANTITIES FOR THE ENTIRE SECTION:

9,357 CU YD EARTH EXCAVATION
 176 CU YD STRUCTURE EXCAVATION
 1,997 CU YD WASTE

A GRANULAR SPALL CHARGE SHALL BE CONSTRUCTED ON A PORTION OF F.A. ROUTE 721 IN ACCORDANCE WITH THE TYPICAL CROSS SECTIONS AND AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES:

310 TONS GRANULAR EMBANKMENT, SPECIAL

PORTLAND CEMENT CONCRETE BASE COURSE, 8" SHALL BE USED TO CONSTRUCT A DETOUR ROAD IN ACCORDANCE WITH THE DETAILS IN THE PLANS AND AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES:

2,117 SQ YDS PORTLAND CEMENT CONCRETE BASE COURSE, 8"

A BITUMINOUS CONCRETE SURFACE SHALL BE CONSTRUCTED ON F.A. ROUTE 721 IN ACCORDANCE WITH THE TYPICAL CROSS SECTIONS AND AS DIRECTED BY THE ENGINEER. THE TOTAL AREA TO BE SURFACED IS 3,036 SQ. YDS. INCLUDING THE SIDEROAD RETURN.

ESTIMATED QUANTITIES:

530 GALLONS BITUMINOUS MATERIALS (PRIME COAT)
 430 TONS BITUMINOUS CONCRETE BINDER COURSE
 240 TONS BITUMINOUS CONCRETE SURFACE COURSE MIXTURE B, CLASS I

THE EXISTING SIDEROAD WHICH IS TO BE SURFACED SHALL HAVE THE BASE GRADED AND COMPACTED AS DIRECTED BY THE ENGINEER.

ESTIMATED QUANTITIES:

173 SQ YDS PREPARATION OF BASE
 15 TONS AGGREGATE BASE REPAIR

A STRIP OF SOE, 2' IN WIDTH, SHALL BE PLACED ON ALL SLOPES ALONG THE LOWER EDGE OF THE AGGREGATE SHOULDER. A 3' STRIP OF SOE SHALL ALSO BE PLACED ADJACENT TO ALL NEW GUTTER AND GUTTER STRUCTURES.

ESTIMATED QUANTITIES:

720 SQ YDS SCODING
 8 UNITS SUPPLEMENTAL WATERING

SEEDING MIXTURES FOR THE SPECIFIED CLASSES OF SEEDING SHALL BE AS STATED IN THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER, BASED ON THE SEASON IN THE YEAR WHEN THE SEEDING OPERATIONS ARE PERFORMED. SPRING SEEDING SHALL EXTEND FROM JANUARY 1 TO JUNE 30, AND FALL SEEDING FROM JULY 1 TO DECEMBER 31.

ESTIMATED QUANTITIES:

1.2 ACRE TEMPORARY SEEDING
 1.1 ACRE SEEDING, CLASS II
 1.0 ACRE SEEDING, CLASS III
 200 POUNDS NITROGEN FERTILIZER NUTRIENT @ 60 LB/ACRE
 660 POUNDS PHOSPHORUS FERTILIZER NUTRIENT @ 200 LB/ACRE
 200 POUNDS POTASSIUM FERTILIZER NUTRIENT @ 60 LB/ACRE
 7 TONS ASPHALT COATED MULCH @ 2 TONS/ACRE
 700 GALLONS EMULSIFIED ASPHALT

BEFORE ORDERING PIPE CULVERTS OR STORM SEWERS THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DISTRICT FIVE

REVIEWED BY: *J. M. Miller*
 DISTRICT ENGINEER OF DESIGN

DATE: 7/21/77
 EXAMINED BY: *Charles D. Miller*
 DISTRICT ENGINEER OF CONSTRUCTION

D. J. Johnson
 DISTRICT ENGINEER OF PLANNING

J. L. Berman 3/25/77
 DISTRICT ENGINEER OF PLANNING
W. J. ...
 DISTRICT ENGINEER OF TRAFFIC

ILLINOIS
DEPT OF
DIST 5 PAR
FEB 7 1978

12/19/78 PAGE 1
 CONTRACTORS NAME GENERAL PAVING CO INC ROUTE FA-721
 201 N. RANDOLPH ST. SECTION 115BR-1
 CHAMPAIGN IL 61820 PROJECT 0721006000
 COUNTY PIATT
 CONTRACT NO 32644
 JOB NO C9520876

CONTRACTORS APPROVAL OF FINAL QUANTITIES

NO.	ITEM DESCRIPTION	AWARDED QUANTITY	ADDED	DEDUCTED	FINAL QUANTITY
001	SPECIAL EROSION CONTR	.00	5,000.00	2,569.69	2,430.31
X001	LIQUIDATED DAMAGES	.00	.00	11.50	11.50-
1016	TRAF CONT & PROT 2310	1.00	.00	.00	1.00
1086	TRAF CONT & PROT 2311	1.00	.00	.00	1.00
1186	PREF JOINT SEAL 2 1/2	83.00	.00	.00	83.00
5941	WATERPRF MEMBRANE SYS	680.00	.00	.00	680.00
5194	PC MORTAR FAIRING CSE	1,791.00	.00	823.00	968.00
0001	TELEPHONE CHARGES	.00	1,100.00	1,357.84	1,100.00 1,357.84
0615	BIT CON SC MIX D CL I	240.00	.00	20.00	220.00
0201	STRUCTURE EXCAVATION	176.00	87.00	.00	263.00
0803	STEEL RAILING TS	299.00	.00	.00	299.00
2824	TRAF BARRIER TERM T1	4.00	4.00	4.00	4.00
2827	REM REIN TR-B TERM T1	4.00	.00	4.00	.00
4201	TEMP SEEDING	1.20	.00	.00	1.20
4701	PAVT MARKING TAPE	32.00	.00	4.00	28.00
5039	CHANNEL EXCAV	.00	410.00	.00	410.00

12/19/78 PAGE 2
 ROUTE FA-721 SECTION 115BR-1

NO.	ITEM DESCRIPTION	AWARDED QUANTITY	ADDED	DEDUCTED	FINAL QUANTITY
073	STRAW MULCH 3	.00	7.00	1.00	6.00
093	TRAF BARRIER TERM T 1	.00	4.00	.00	4.00
001	EARTH EXCAVATION	9,357.00	.00	.00	9,357.00
001	GRAN EMBANK SPEC	310.00	.00	32.00	278.00
001	AGGREGATE SHLDS A	215.00	21.00	.00	236.00
004	PCC RSE CSE 8	2,117.00	.00 80	107.80	2,000.20 2,010.00
005	PCC RSE CSE 9	10.00	8.00	.00	18.00
007	PCC RSE 16 1/2-10 1/2	53.00	.00	.00	53.00
004	PCC BASE CSE W 9	.00	72.00	.00	72.00
001	BIT CONC BC WID 9	584.00	.00	72.00	512.00
001	PREPARATION OF BASE	133.00	.00	3.00	130.00
002	AGG BASE REPAIR	15.00	8.00	.00	23.00
001	BIT MATLS PR CT	530.00	.00	142.00 200.00	500.00 330.00
007	BIT CONC BIND CSE	430.00	.00	27.00	403.00
001	REM EXIST STRUCT	1.00	.00	.00	1.00
022	CONC REM	3.00	.40	.00	3.40
026	EXPAN BOLTS 3/4	68.00	.00	.00	68.00
003	CLASS X CONC	183.40	.00	.00	183.40
005	P P CONC DK RM 21 DP	6,112.00	.00	.00	6,112.00
001	F E F STRUCT STEEL	5,820.00	.00	.00	5,820.00

NO.	ITEM DESCRIPTION	AWARDED QUANTITY	ADDED	DEDUCTED	FINAL QUANTITY
1026	P CUL 1 18	52.00	52.00	52.00	52.00
1106	P CUL 2 18	76.00	.00	.00	76.00
1873	REM & RELAY P C 18	52.00	.00	52.00	.00
2001	REINFORCEMENT BARS	16,460.00	.00	.00	16,460.00
3021	FUR CONC PILES	1,002.00	.00	86.00	916.00
3027	DRIVE CONC PILES	1,002.00	.00	315.00	687.00
3041	TEST PILE CONCRETE	2.00	.00	.00	2.00
3001	NAME PLATES	1.00	.00	.00	1.00
3002	STORM SEWER 1 6	10.00	.00	10.00	.00
3024	CONC GUTTER TB	706.00	.00	23.00	683.00
7001	PAVEMENT REM	2,318.00	.00	187.00	2,131.00
7004	GUTTER REM	892.00	.00	.00	892.00
7015	GUT OUTLET REM	4.00	.00	.00	4.00
3003	SLOPE WALL 6	224.00	.00	54.00	170.00
3001	SPBGR SINGLE RAIL	250.00	187.50	.00	437.50
3110	TEMP FENCE	835.00	.00	27.00	808.00
3003	SPBGR REM	145.00	337.50	.00	482.50
3005	REM & RE-ERECT SPBGR	187.50	.00	187.50	.00
3001	TEMP BRIDGE COMP	1.00	.00	.00	1.00
3001	F & E ROW MARKER	.00	2.00	.00	2.00

ITEM NO.	ITEM DESCRIPTION	AWARDED QUANTITY	ADDED	DEDUCTED	FINAL QUANTITY
642002	SEEDING II	1.10	.00	.00	1.10
642003	SEEDING III	1.00	.00	.00	1.00
642004	NITROGEN FERT NUTR	200.00	.00	.00	200.00
642005	PHOSPHORUS FERT NUTR	660.00	.00	.00	660.00
642006	POTASSIUM FERT NUTR	200.00	.00	.00	200.00
643002	ASPHALT COATED MULCH	7.00	.00	7.00	.00
643005	EMULSIFIED ASPHALT	700.00	.00	700.00	.00
644001	SODDING	720.00	201.00	.00	921.00
644002	SUPPLE WATERING	8.00	.00	8.00	.00
646001	ENGR FIELD OFFICE A	1.00	.00	.00	1.00

NET COST OF SECTION = \$ 442,651.77
 442,667.85

1-22-79 *APB*

GENERAL PAVING COMPANY INCORPORATED

APPROVED

H B Krueger

DATE

BY

ROUTE NO.	SECTION	COUNTY	TOTAL QUANTITY	PROJECT NO.
771	115BR-1	Platt	22	4

SUMMARY OF QUANTITIES

SAFETY CLASSIFICATION CODE - 811
 LOCATION OF WORK - PLATT COUNTY
 STA. 1205+00- STA. 1216+35
 STA. 1216+35 STA. 1216+35
 CONSTRUCTION TYPE CODE - X000
 PLATT COUNTY
 STA. 1205+00- STA. 1216+35
 Y005

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	
202001	EARTH EXCAVATION	CU YD	9.357	9.357
208001	GRANULAR EMBANKMENT, SPECIAL	TON	310	310
215001	AGGREGATE SHOULDER, TYPE A	TON	215	215
304004	PORTLAND CEMENT CONCRETE BASE COURSE, 8"	SQ YD	2,117	2,117
304005	PORTLAND CEMENT CONCRETE BASE COURSE, 9"	SQ YD	10	10
304007	PORTLAND CEMENT CONCRETE BASE COURSE, 16 1/2" - 10 1/2" - 16 1/2"	SQ YD	53	53
306001	BITUMINOUS CONCRETE BASE COURSE WIDENING, 9"	SQ YD	584	584
307001	PREPARATION OF BASE	SQ YD	433	433
307002	AGGREGATE BASE REPAIR	TON	15	15
406001	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	530	530
406007	BITUMINOUS CONCRETE BINDER COURSE	TON	430	430
X40615	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I	TON	240	240
501001	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
501022	CONCRETE REMOVAL	CU YD	3	3
501026	EXPANSION BOLTS 3/4 INCH	EACH	68	68
504003	CLASS X CONCRETE	CU YD	183.4	183.4
505005	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	6,112	6,112
507001	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	5,820	5,820
X50803	STEEL RAILING, TYPE S	LIN FT	299	299
X05194	PORTLAND CEMENT MORTAR FAIRING COURSE	LIN FT	1,791	1,791
511026	PIPE CULVERTS, TYPE 1 18"	LIN FT	52	52
51106	PIPE CULVERTS, TYPE 2 18"	LIN FT	76	76
511873	REMOVE AND RELAY PIPE CULVERTS 18"	LIN FT	52	52
512001	REINFORCEMENT BARS	POUND	16,460	16,460
513021	FURNISHING CONCRETE PILES	LIN FT	1,002	1,002
513027	DRIVING CONCRETE PILES	LIN FT	1,002	1,002
513041	TEST PILE CONCRETE	EACH	2	2
514001	NAME PLATES	EACH	1	1
603002	STORM SEWERS, TYPE 1 6"	LIN FT	10	10
616024	CONCRETE GUTTER, TYPE B	LIN FT	706	706
617001	PAVEMENT REMOVAL	SQ YD	2,318	2,318
617004	GUTTER REMOVAL	LIN FT	892	892
617015	GUTTER OUTLET REMOVAL	EACH	4	4
618003	SLOPE WALL 6 INCH	SQ YD	224	224
628001	STEEL PLATE BEAM GUARD RAIL, SINGLE RAIL	LIN FT	250	250
629110	TEMPORARY FENCE	LIN FT	835	835
633003	STEEL PLATE BEAM GUARD RAIL REMOVAL	LIN FT	145	145
633005	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL	LIN FT	187.5	187.5
X62824	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4	4
X62827	REMOVE AND RE-INSTALL TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4	4
638001	TEMPORARY BRIDGE COMPLETE	EACH	1	1
X64201	TEMPORARY SEEDING	ACRE	1.2	1.2
642002	SEEDING, CLASS II	ACRE	1.1	1.1
642003	SEEDING, CLASS III	ACRE	1.0	1.0
642004	NITROGEN FERTILIZER NUTRIENT	POUND	200	200
642005	PHOSPHORUS FERTILIZER NUTRIENT	POUND	660	660
642006	POTASSIUM FERTILIZER NUTRIENT	POUND	200	200
643002	ASPHALT COATED MULCH	TON	7	7
643005	EMULSIFIED ASPHALT	GALLON	700	700
644001	SODDING	SQ YD	720	720
644002	SUPPLEMENTAL WATERING	UNIT	8	8
646001	ENGINEER'S FIELD OFFICE, TYPE A	EACH	1	1
X04941	WATERPROOFING MEMBRANE SYSTEM	SQ YD	680	680
X50201	STRUCTURE EXCAVATION	CU YD	176	176
X64701	PAVEMENT MARKING TAPE	LIN FT	32	32

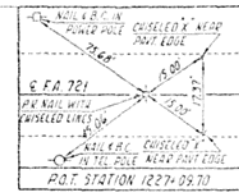
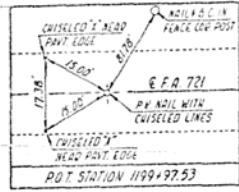
ROUTE NO.	SECTION	COUNTY	TOTAL MILES	PISTON NO.
721	1158R-1	PIATT	22	d

SUMMARY OF QUANTITIES, CONT.

SAFETY CLASSIFICATION CODE - 031
 LOCATION OF WORK - PIATT COUNTY
 STA. 1209+00-
 STA. 1236+35
 CONSTRUCTION TYPE CODE - 2050

PIATT COUNTY
 STA. 1209+00-
 STA. 1236+35
 1005

CODE NO.	ITEM	UNIT	TOTAL	
			QUANTITY	
X21016	TRAFFIC CONTROL AND PROTECTION, STANDARD 2310	EACH	1	1
X21035	TRAFFIC CONTROL AND PROTECTION, STANDARD 2311	L. SIGN	1	1
X21186	PREFORMED JOINT SEALER, 2 1/2"	LIN FT	83	83

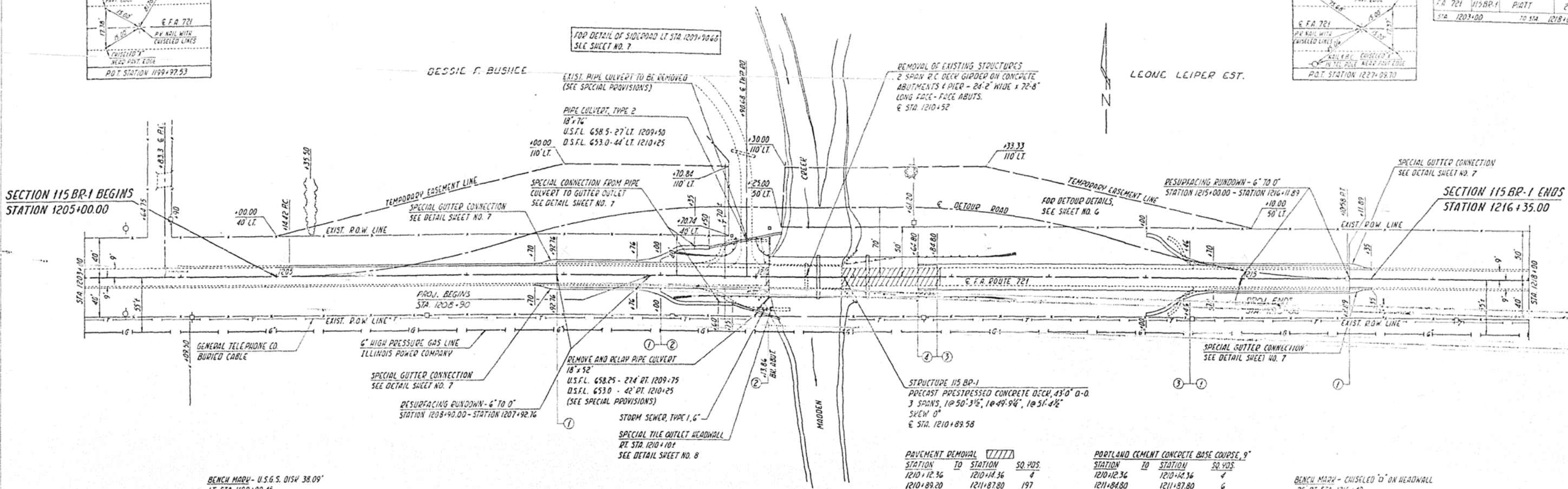


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E.A. 721	115 BR-1	PIATT	22	5
STA 1203+00		TO STA 1218+00		

SECTION 17, T.19N, R.6E, 3rd PM

SECTION 115 BR-1 BEGINS
STATION 1205+00.00

SECTION 115 BR-1 ENDS
STATION 1216+35.00



550 10M, JAC
 4/18
 10-76
 PLAN
 NOTE BOOK NO.

550 10M, JAC
 4/18
 10-76
 PROFILE
 NOTE BOOK NO.

BENCH MARK - U.S.G.S. 0154 38.0'
LT. STA 1198+90.45
ELEVATION 683.537

BENCH MARK - CHISELED 'd' ON HEADWALL
RT. STA 1216+49
ELEVATION 662.43

STATION	TO	STATION	SO. YDS.
1210+12.36		1210+14.36	4
1210+89.20		1211+87.80	197
		TOTAL	201

STATION	TO	STATION	SO. YDS.
1210+12.36		1210+14.36	4
1211+84.80		1211+87.80	6
		TOTAL	10

STATION	TO	STATION	LIN. FT.
LT 1205+14		1207+70	256
LT 1207+93		1208+76	83
LT 1207+93		1208+76	83
LT 1214+70		1216+12	142
RT 1214+70		1216+12	142
		TOTAL	706

STATION	TO	STATION	CU. YDS.
LT 1208+76		1209+55	4.1
RT 1208+76		1209+60	5.9
LT 1216+00		1216+70	5.1
RT 1216+00		1216+70	5.1
		TOTAL	20.2

STATION	TO	STATION	SO. YDS.
1211+44.00		1211+84.00	50

NO.	SIZE	LENGTH	SHAPE	LBS.
33	#5	23'-6"		809
31	#8	21'-4"		1,766
18	#8	17'-4"		833
		TOTAL		3,410

STATION	TO	STATION	LIN. FT.
LT 1205+14		1209+26	412
RT 1207+70		1209+26	156
LT 1214+73		1216+35	162
RT 1214+73		1216+35	162
		TOTAL	892

STATION	TO	STATION	SO. YDS.
LT 1209+26		1209+35	1
RT 1214+23		1214+73	1
RT 1214+23		1214+73	1
		TOTAL	3

STATION	TO	STATION	LIN. FT.
RT 1209+52.5		1210+32.5 (DET)	40
LT 1210+92.5		1211+67.5 (DET)	75
RT 1210+92.5		1211+67.5 (DET)	75
		TOTAL	190

STATION	TO	STATION	TO	STATION	EACH
RT 1209+32.5		1209+70 (DET)	RT 1209+13.86	1209+51.36	1
LT 1210+00		1210+32.5 (DET)	LT 1209+12.68	1209+50.18	1
RT 1211+55		1211+92.5 (DET)	RT 1212+26	1212+63.50	1
LT 1211+55		1211+92.5 (DET)	LT 1212+26	1212+63.50	1
		TOTAL			4

STATION	TO	STATION	CU. YDS.
LT 1209+35		1209+50	1.1
RT 1209+60		1209+75	1.1
		TOTAL	2.2

STATION	TO	STATION	CU. YDS.
LT 1207+70		1207+93	1.4
RT 1207+70		1207+93	1.4
LT 1216+12		1216+35	1.4
RT 1216+12		1216+35	1.4
		TOTAL	5.6

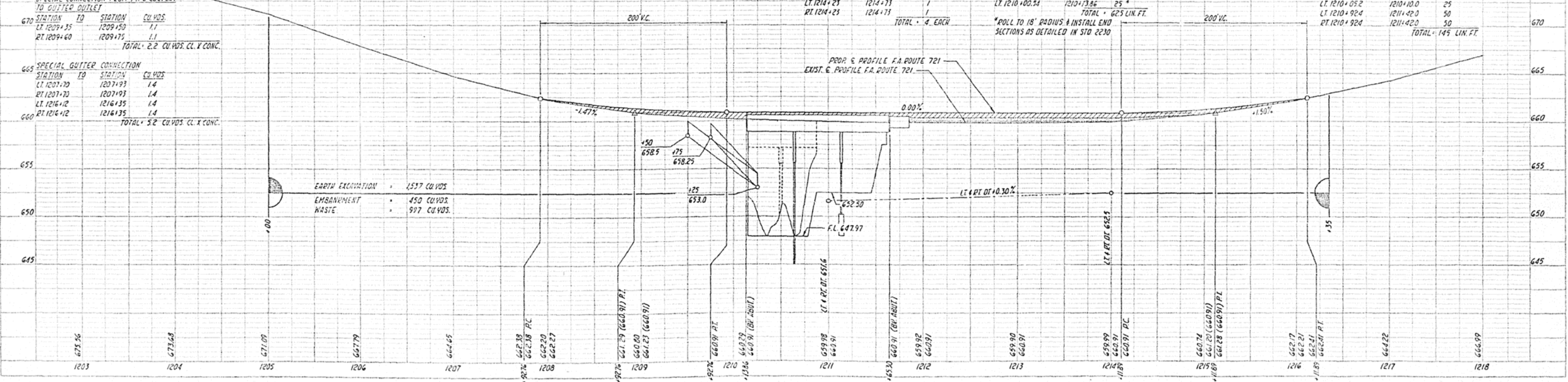
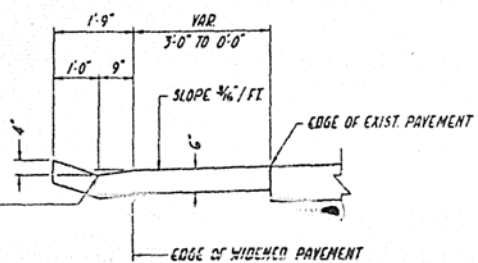
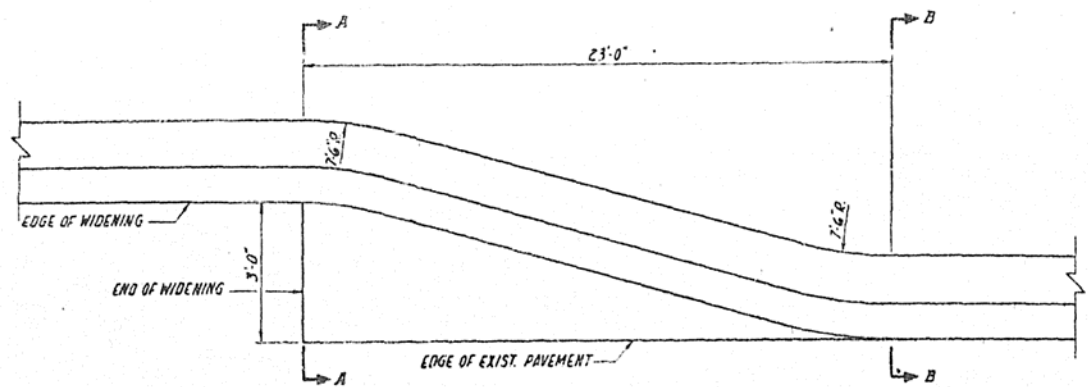
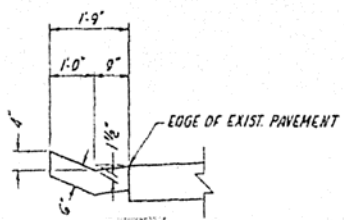


PLATE 1 - PLAN PROFILE, A & P STANDARD
THE PROFILES ARE POST 02. 4/18/76

DETAIL OF SPECIAL GUTTER CONNECTION



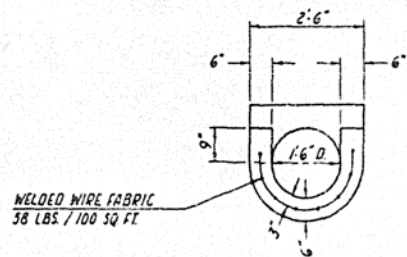
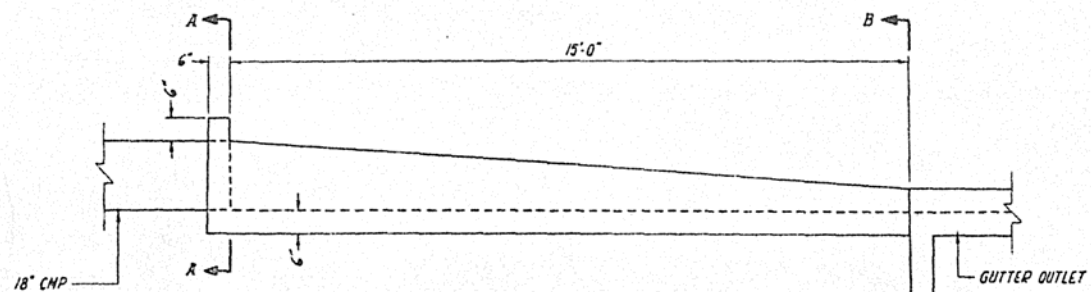
SECTION A-A



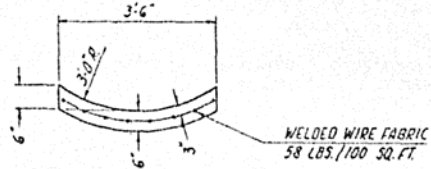
SECTION B-B

NOTE: SPECIAL GUTTER CONNECTIONS SHALL BE CONSTRUCTED OF CLASS X CONCRETE THROUGHOUT, AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE.
 QUANTITY FOR ONE CONNECTION: 1.4 CU YD. CLASS X CONCRETE

DETAIL OF SPECIAL CONNECTION FROM PIPE CULVERT TO GUTTER OUTLET



SECTION A-A

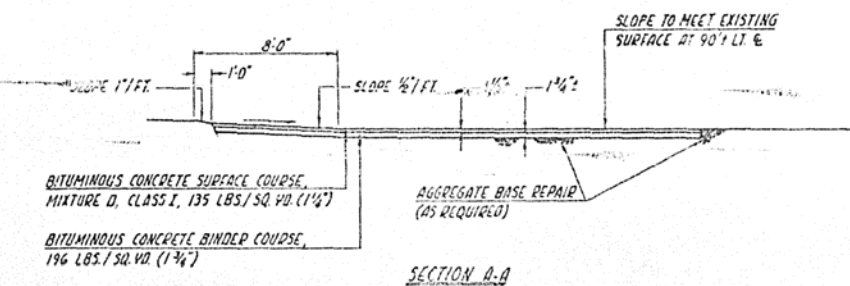
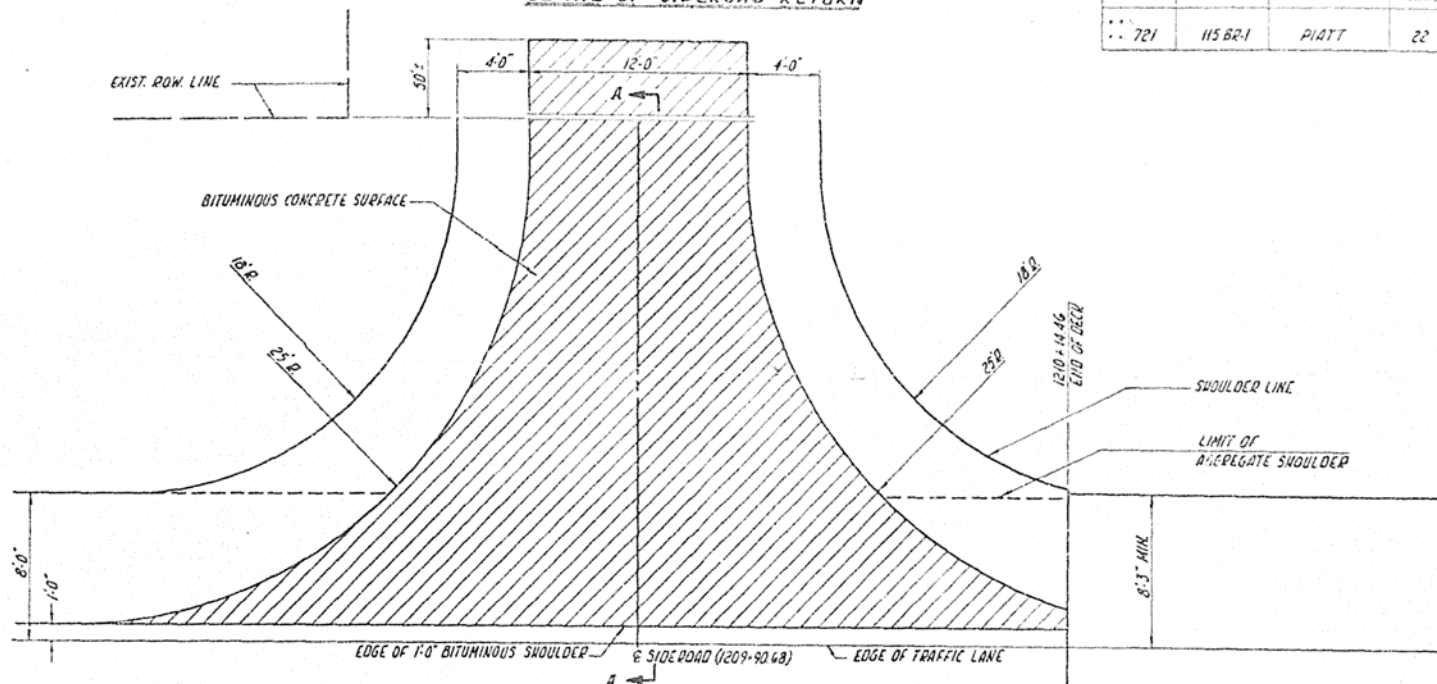


SECTION B-B

NOTE: SPECIAL CONNECTION FROM PIPE CULVERT TO GUTTER OUTLET SHALL BE CONSTRUCTED OF CLASS X CONCRETE THROUGHOUT, AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE, WHICH PRICE SHALL INCLUDE WELDED WIRE FABRIC. QUANTITY FOR ONE CONNECTION: 1.1 CU YD CLASS X CONCRETE

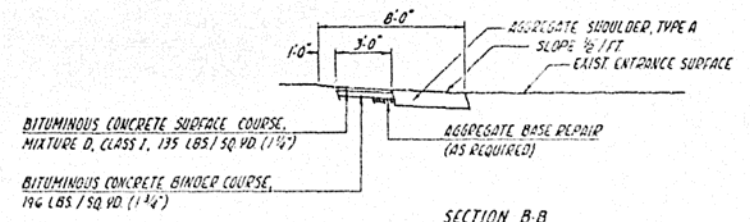
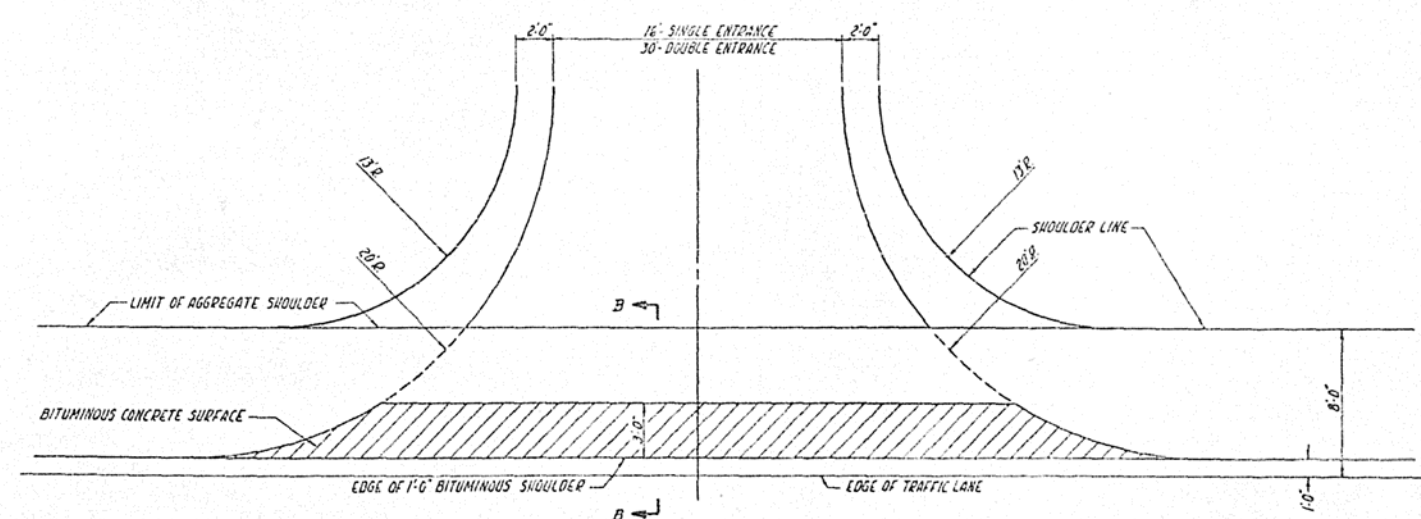
DETAIL OF SIDEROAD RETURN

PROJECT NO.	SECTION	DATE	BY	CHECKED
721	115 BR-1	PIATT	22	7



SECTION B-B

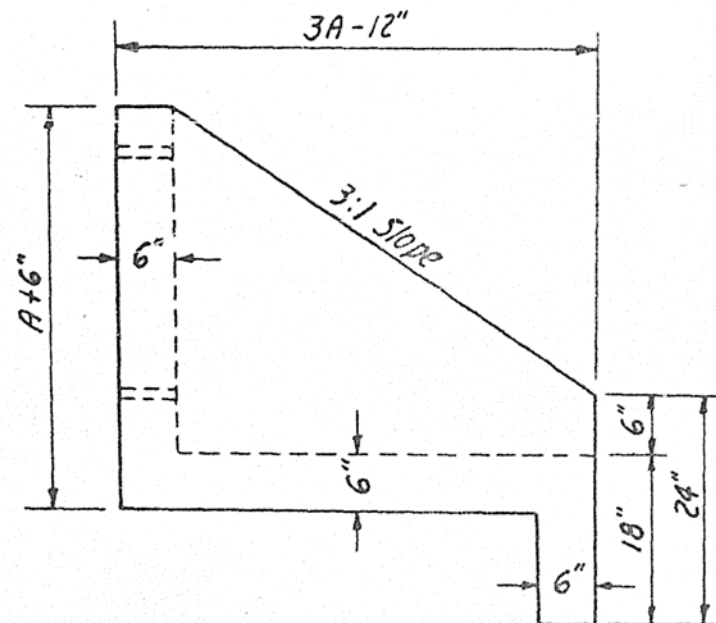
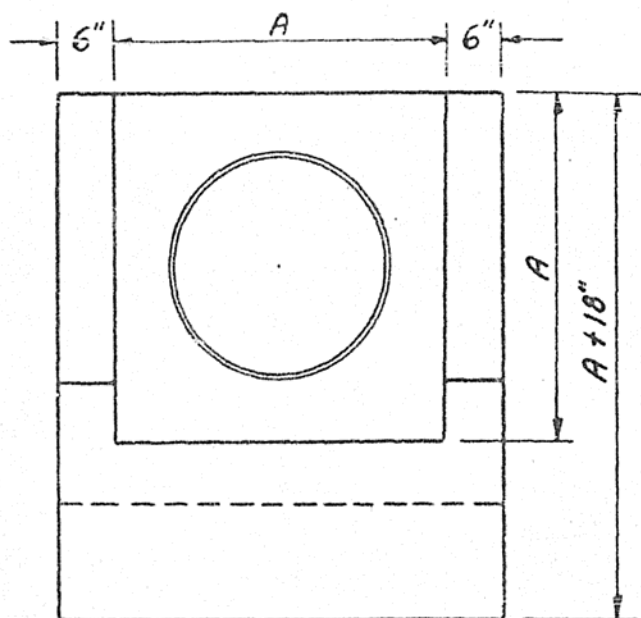
DETAIL OF FIELD ENTRANCE RETURNS



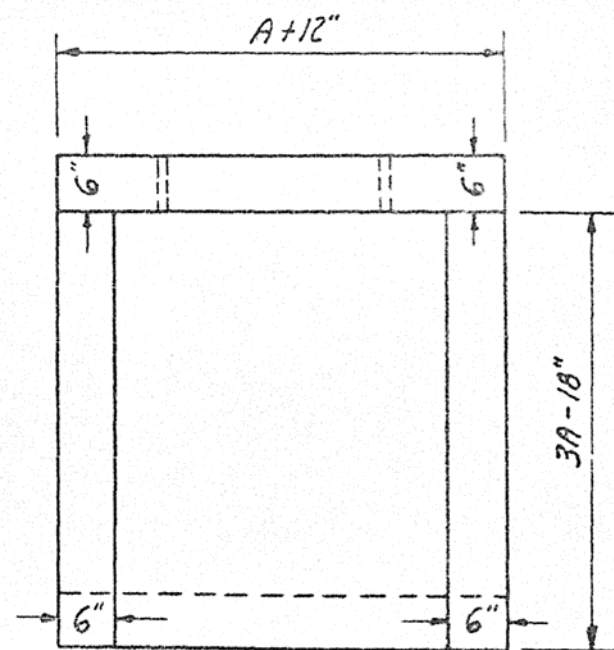
SECTION B-B

SPECIAL TILE OUTLET HEADWALL

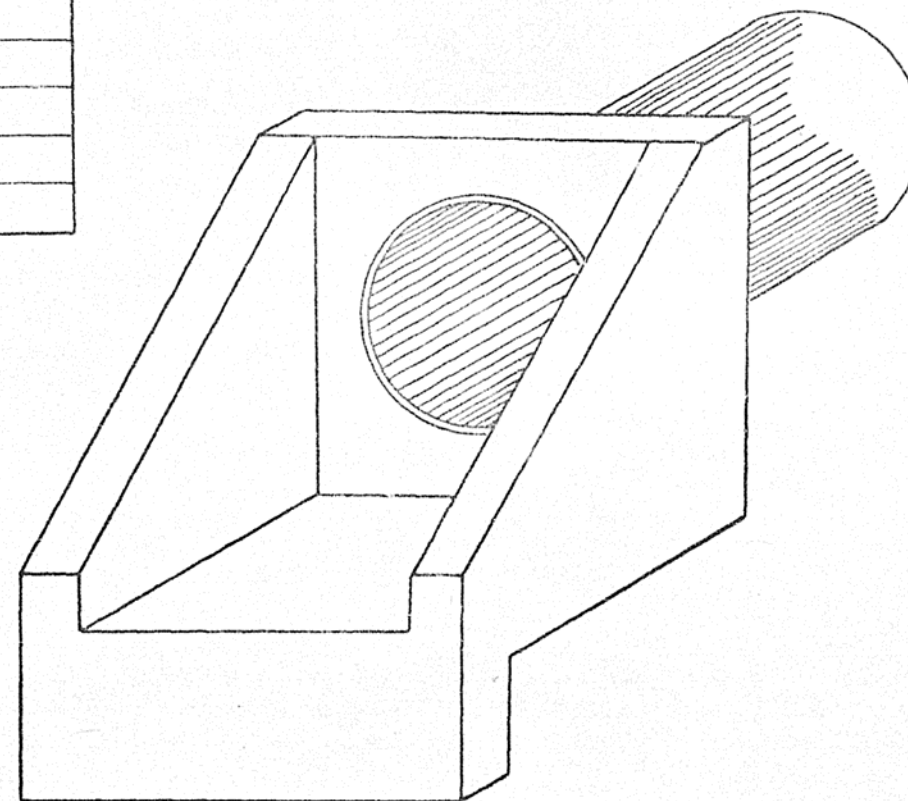
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. P. A. 721	115 BR-1	PIATT	22	8



A	CONCRETE	SIZE OF TILE
1'-0"	0.2 CU. YDS.	UP TO 6"
1'-6"	0.4 CU. YDS.	8" TO 12"
2'-0"	0.6 CU. YDS.	15" TO 18"
2'-6"	0.9 CU. YDS.	21" TO 24"
3'-4"	1.6 CU. YDS.	27" TO 30"
4'-0"	2.2 CU. YDS.	33" TO 36"



*NOTE: All Tile Outlet Headwalls shall be constructed at right angles to the slope unless otherwise directed by the Engineer.
Class X Concrete shall be used throughout.*



DESIGNED
CHECKED

P-5-41

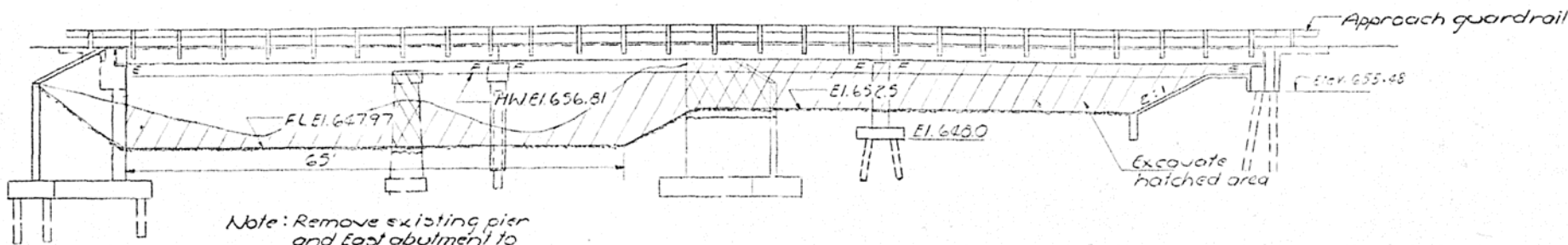
Bench Mark Chisled "C" Sta. 1210+49 25' RI on culvert headwall
 CS#1 E1662.43
 Existing structure No. 074-0995 built in 1931 as SBT Rte. 120, Section 115B
 of Sta. 1210+50.0 Two Span RC deck girders with solid conc.
 pier and RC closed abutments. Superstr. and portions of pier
 and East abutment to be removed as necessary by Bridge
 Contractor. No salvage Traffic to be maintained on a
 detour as determined by District.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
074-0995	115B	PLATT	22	9
SHEET NO. 1 10 SHEETS				

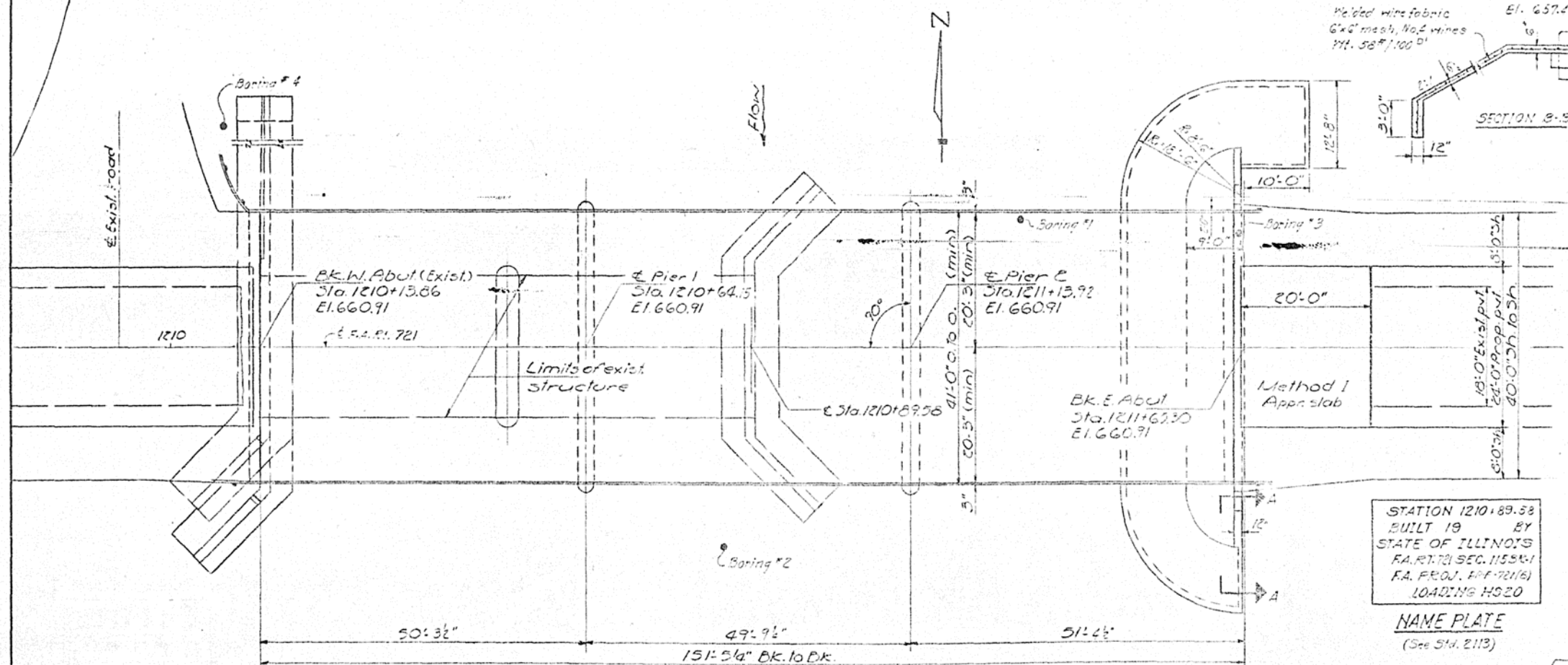
GENERAL NOTES

For Spring Data see Proposal.
 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.
 The top surface of the beams shall be finished in accordance
 with Article 503.06 of the Standard Specifications except that the
 surface shall not be roughened by brooming. The finished surface
 shall be free of depressions or high spots with sharp corners.
 Expansion bolts shall consist of self-drilling expansion anchors and
 3/4" x 12" hooked bolts.
 All structural steel shall be shop primed with two coats of basic lead silico
 chromate paint.
 Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing
 58# per 100 sq. ft.
 Layout of slope walls may be varied in the field to suit ground conditions as
 directed by the Engineer.
 The Contractor shall drive 2 concrete test piles in a permanent
 location at the pier E-4 but, as directed by the Engineer before ordering
 the remainder of piles.
 Back face of wingwalls and abutment wall shall be waterproofed
 from top of footing to 6" below top.
 Expansion guards which are not cast in the precast unit shall be fabricated
 and erected in accordance with Article 503.07(c) of the Standard Specifications
 and are included in quantity of structural steel.



Note: Remove existing pier
 and East abutment to
 1 ft. below ground line

ELEVATION

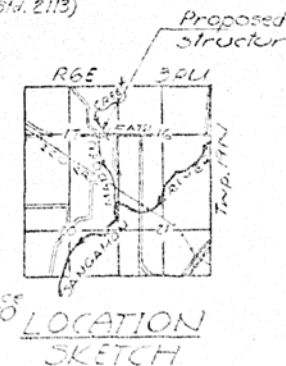


STATION 1210+89.58
 BUILT 19 BY
 STATE OF ILLINOIS
 FA. RT. 115 SEC. 115B-1
 FA. PROJ. 074-0995
 LOADING HS20

NAME PLATE
 (See Std. 2113)

DESIGN STRESSES

FIELD UNITS
 $f_c = 14000 \text{ psi}$
 $f_y = 60000 \text{ psi (Rein.)}$
 $f_s = 20,000 \text{ psi (Struct.)}$
 PRECAST PRESTRESSED UNITS
 $f_c = 5000 \text{ psi}$
 $f_t = 4000 \text{ psi}$
 $f_s = 270,000 \text{ psi (7/16" Strands)}$
 $f_s = 188,700 \text{ psi (7/8" Strands)}$
 Allow 25% for future wearing surface
 Design Specifications: 1973 ARCHITD
 1974 & 1975 interim specs.
 LOADING HS20-44 (New Construction)



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures	Each	1		1
Bifuminous Concrete Surface Course, Class 1	Sq. Yd.	72		72
Reinforcement Bars	Lbs.	260	10790	11050
Class II Concrete	Cu. Yd.	1.7	153.7	155.4
Waterproofing Membrane System	Sq. Yd.	630		630
Wedge Plates	Each	1		1
Phenolic Jt. Sealer (22')	Lbs.	83		83
Structural Steel	Lbs.	1820		1820
Precast Prestressed Conc. Deck Beams (2")	Sq. Ft.	612		612
Steel Rolling Tube S	Lbs.	299		299
Portland Cement Mortar Facing Course	Sq. Yd.	1771		1771
Expansion Bolts (3/4")	Each		63	63
Concrete Piles	Lbs.		1002	1002
Self-Healing (Concrete)	Each		2	2
Concrete Removal	Cu. Yd.		3	3
Slope Matt 6"	Sq. Yds		224	224
Structure Excavation	Cu. Yds		176	176

* Removal of West Abutment concrete shown on sheets #5 & #6
 (Billed as Concrete Removal)

PROJECT BR-F-72116
 GENERAL PLANE ELEVATION
 FA. RT. 115 (SBT) RTE. 120 OVER MADDEN CREEK
 FA. ROUTE 721
 SECTION 115B-1
 PLATT COUNTY
 STATION 1210+89.58

DESIGNED: [Signature]
 CHECKED: [Signature]
 DRAWN: [Signature]
 CHECKED: [Signature]

EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]

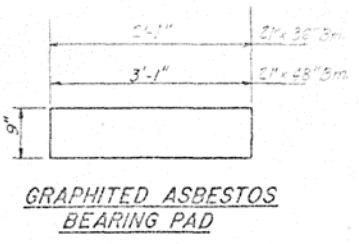
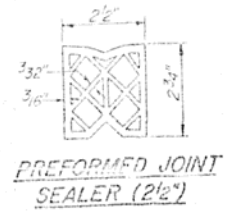
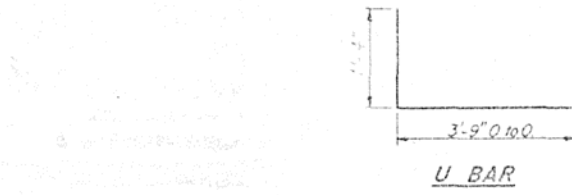
WATERWAY INFORMATION

Drainage Area - 16,300 Acres
 Discharge (50 Yr.) - 4600 cfs
 Required Opening - 870 Sq. Ft.
 Present Opening - 393 Sq. Ft.
 Proposed Opening - 870 Sq. Ft.
 Created Head (50 Yr.) - 0.75 Ft.
 Discharge (100 Yr.) - 5630 cfs
 Highwater El. (100 Yr.) - 657.55

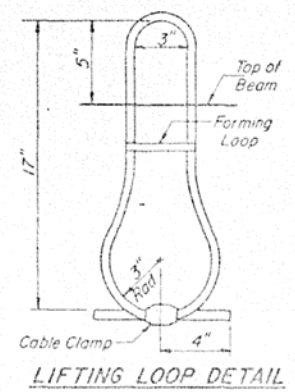
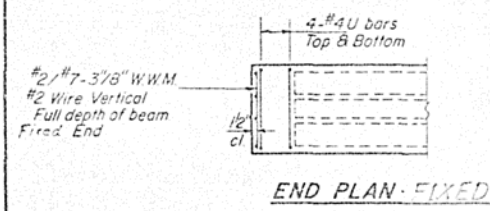
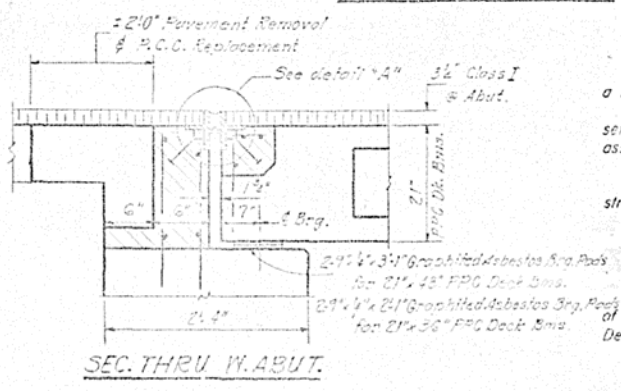
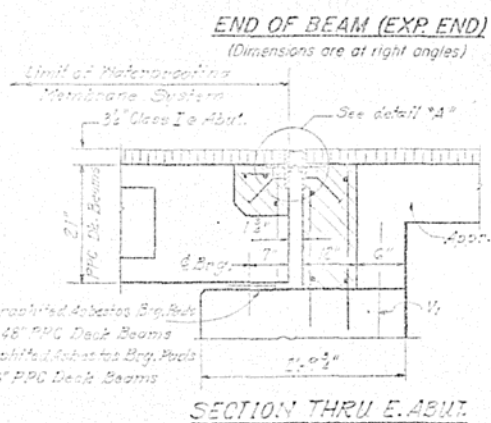
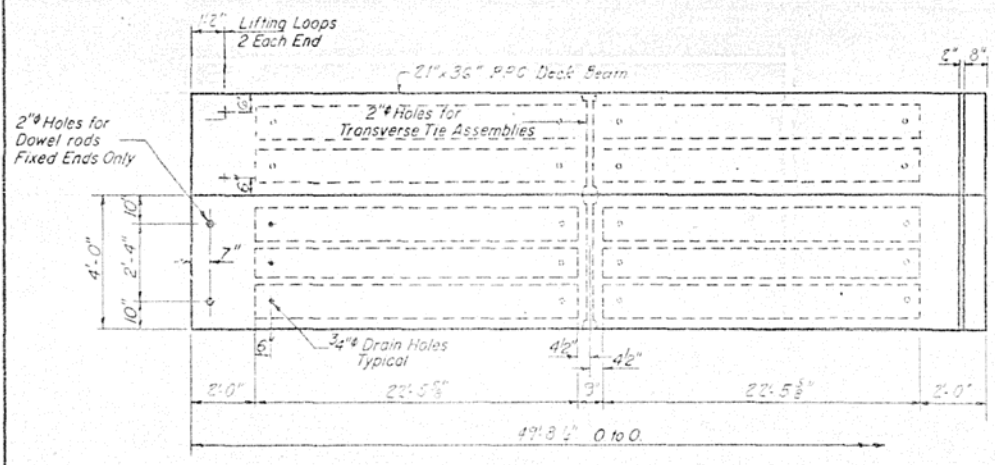
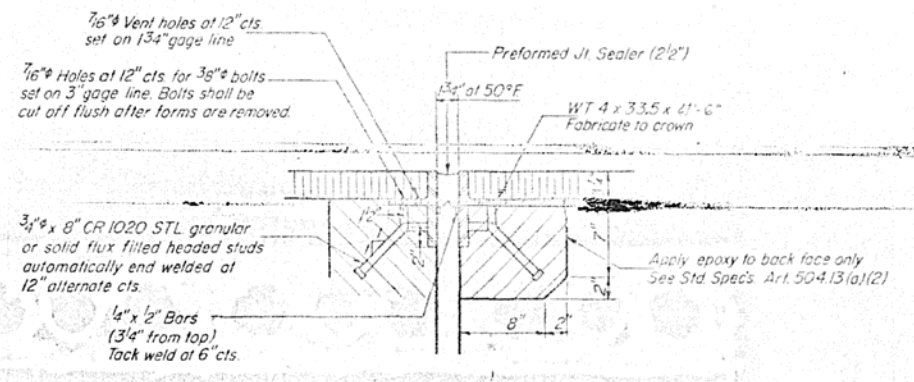
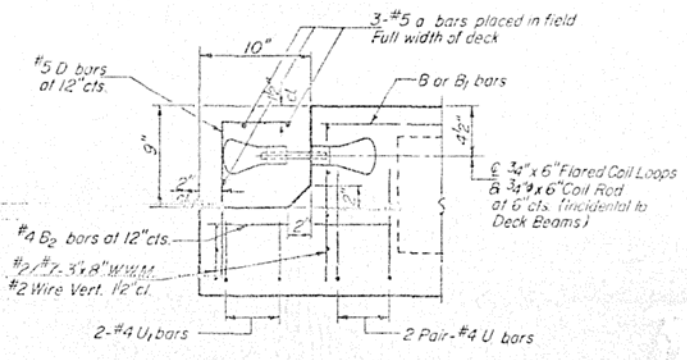
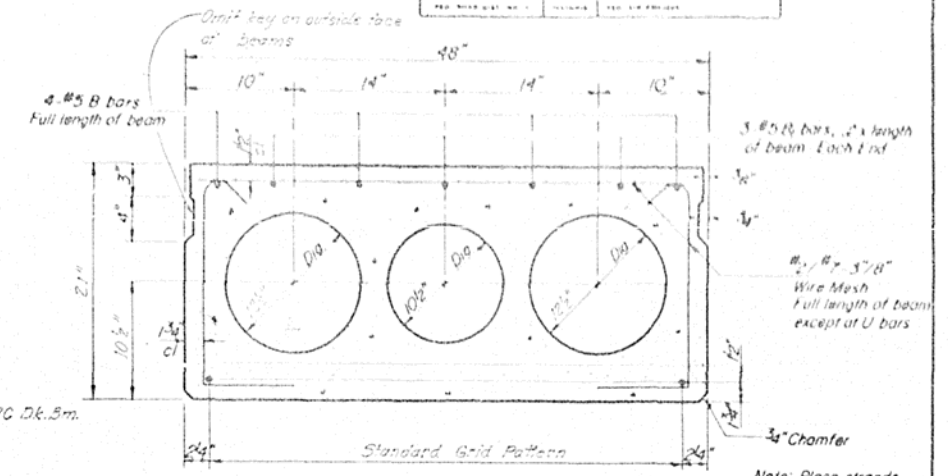
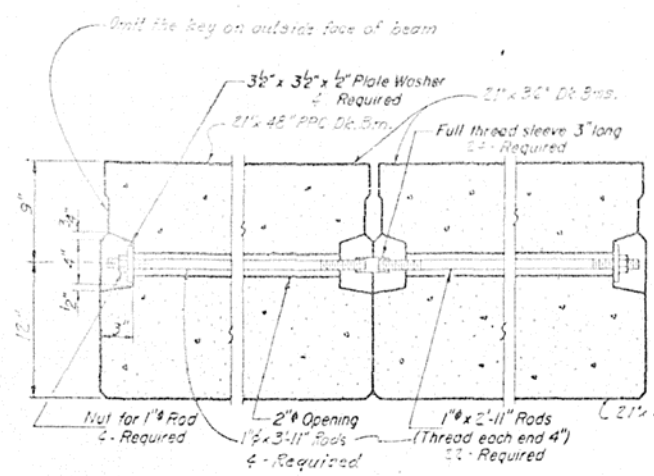


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	DATE	SCALE	SHEET NO.	SHEET TOTAL
1582-1	PIATT	3-22-58	1/2"	10	10



Note: For Fabric Bearing Pad see sheet # 3.



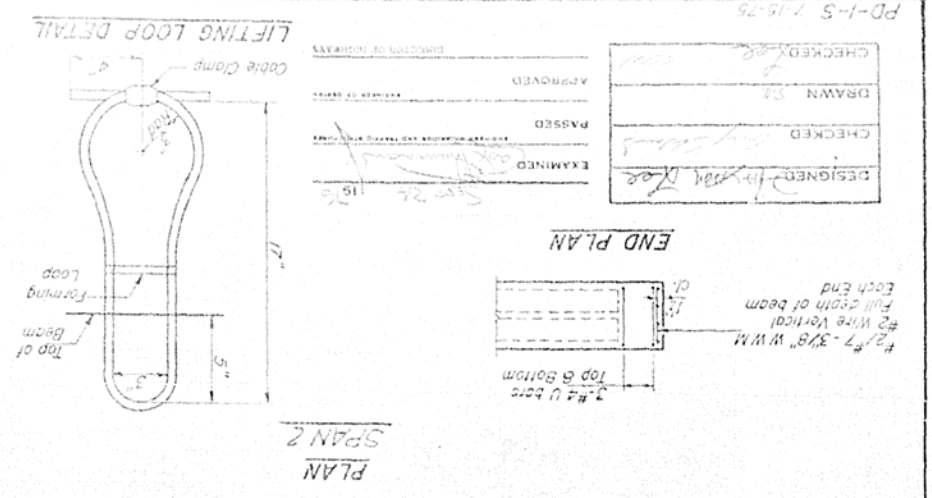
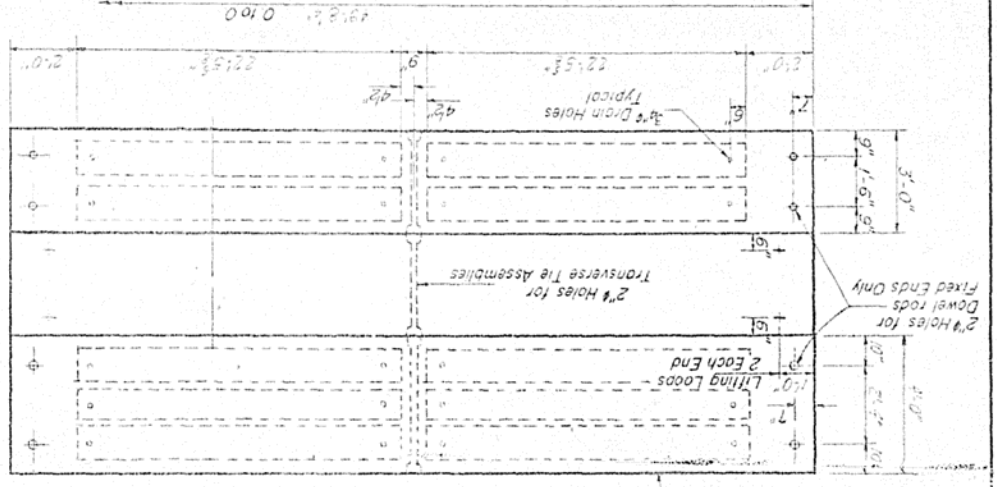
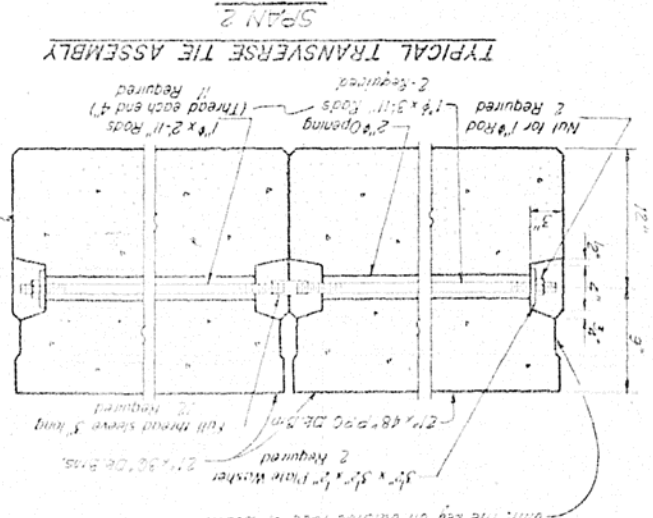
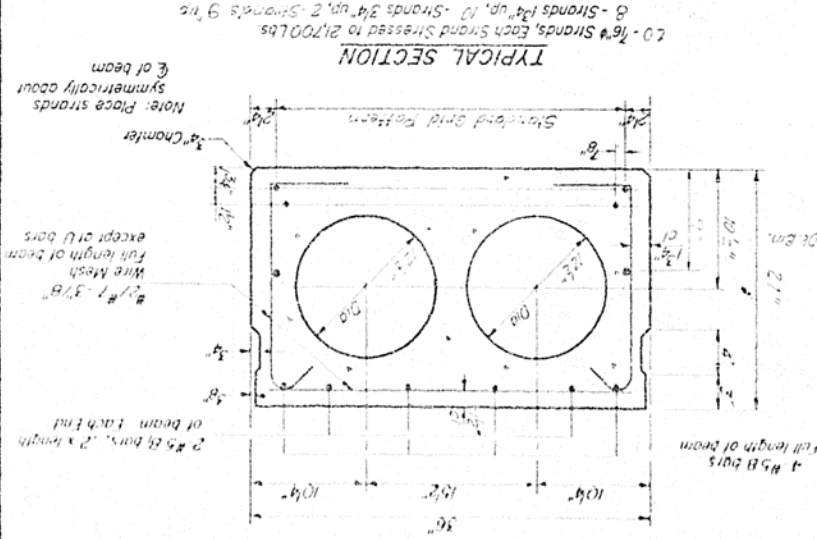
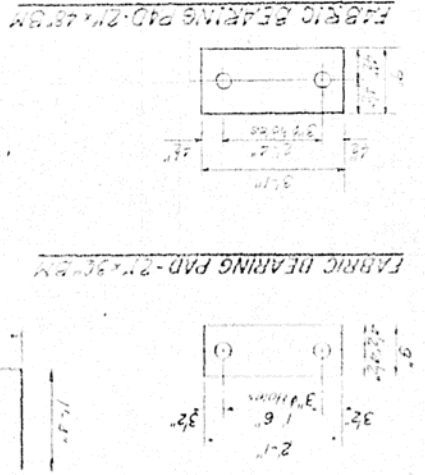
NOTE: Dimensions are at right angles. Hatched areas to be poured after beams have been erected and joints grouted. Ends of beams shall be aligned at the expansion joints. Any linear variation in the beam lengths shall be placed at the fixed joint. See End of Beam Detail for reinforcement.

NOTES
Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 7/16\"/>

Bar	No.	Size	Length	Shape
6	G	#5	41'-0"	
Precast Prestressed Concrete Deck Beams (21' x 45')			Sq Ft.	1193
Reinforcement Bars			Lbs.	260
Class 'C' Concrete			Cu Yds.	1.9

DESIGNED	SEPT 24 1958
CHECKED	
DRAWN	
CHECKED	

* Exterior Beams for all Spans.
SUPERSTRUCTURE-21'x45' BMS.
F.A.R.T.M. SEC. 115 B.R.-1
PIATT COUNTY
STA. 1210+89.58

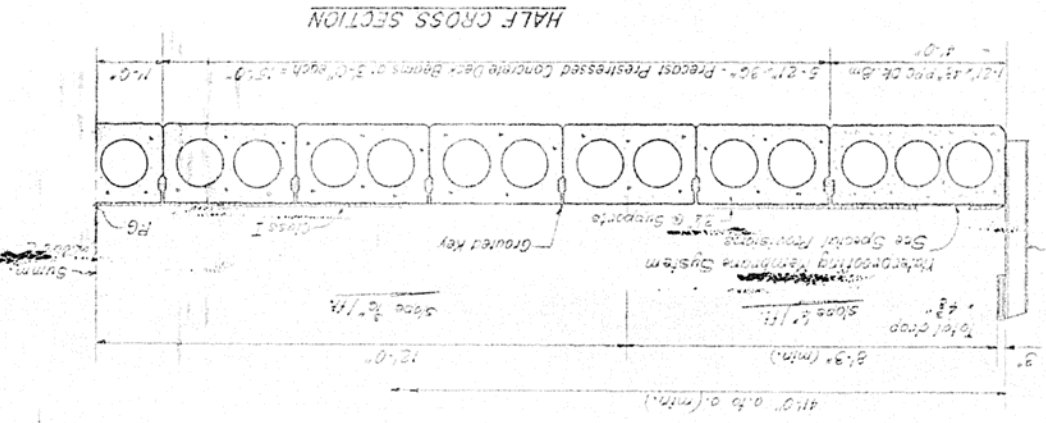


SEC. THRU PIERS
 * 1" Joint shall be packed with a very dry mix of 3:1 sand and PC mortar. This dimension may vary due to minor variations in beam lengths.
 * 2" x 2" x 21" fabric bag (21" x 45" Deck Bags)

NOTES
 Pressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.15 sq in. Lifting loops shall be a minimum ultimate tensile strength of 20,000 lbs. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets not receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
 Longitudinal shear keys that be packed with a very dry mix of 2:1 sand and PC mortar. After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.
 Cost of reinforcement and accessories cast into the beam, of bearing pads, of anchor rods, and of grouting longitudinal shear keys is included in unit price bid for Precast Prestressed Concrete Deck Beams.

BILL OF MATERIAL

Qty	Size	No.	Shape
1419	Sq Ft		Precast Prestressed Concrete Deck Beams (21" x 36")

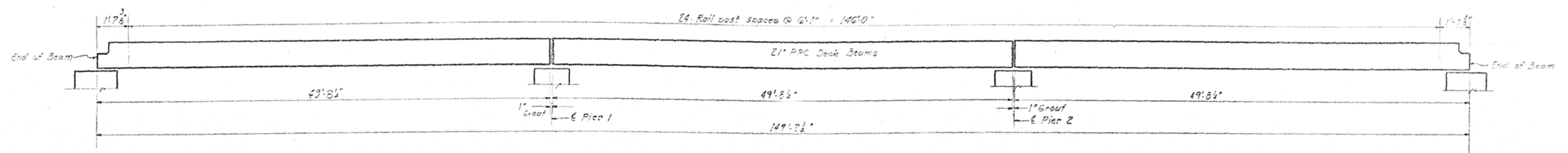


STA. 12+78.52
 PLATT COUNTY
 I.A.P.T.M. SEC. 115 BR-1
 SUPERSTRUCTURE - DECK BEAMS

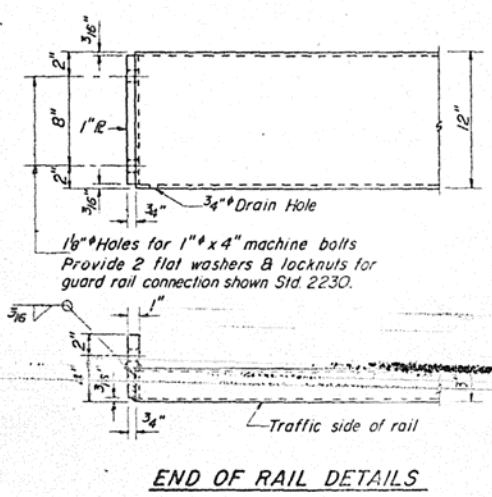
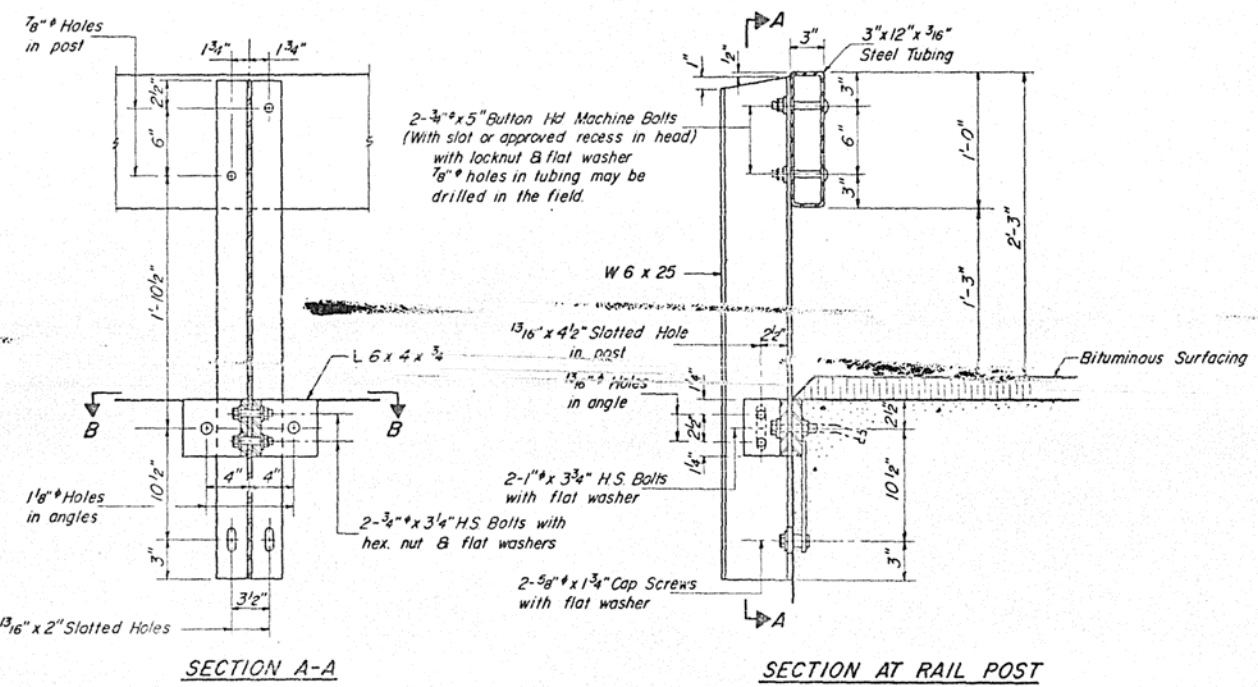
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121	15BR	PIATT	22	2
FED. PROJECT NO. 1		ILLINOIS		FED. AID PROJECT

SHEET NO. 2
10 SHEETS



RAILING ELEVATION



NOTES

Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO designation M 183 except posts shall conform to AASHTO M 188.

Bolts, cap screws, and nuts shall conform to the requirement of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO designation M 184.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with AASHTO designation M 232.

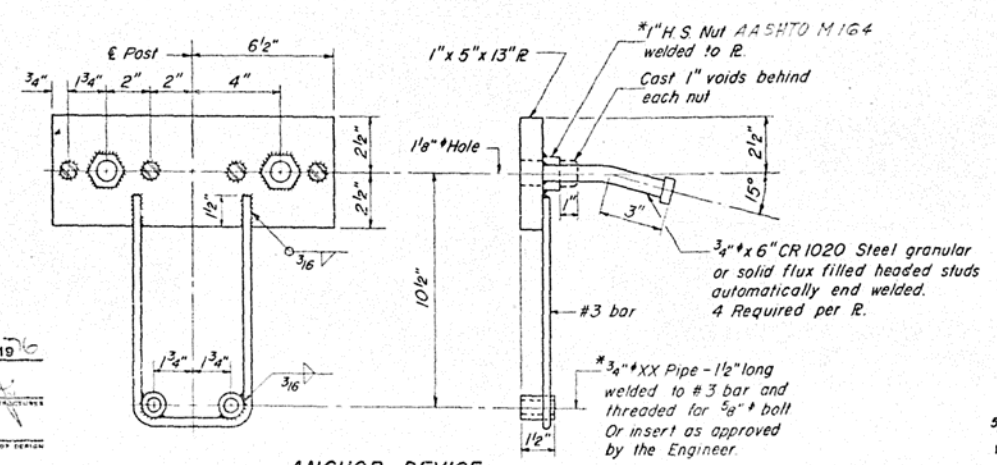
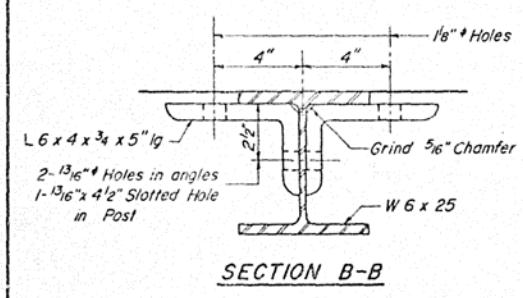
All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with AASHTO designation M 111 and A-385 ASTM Galvanized rail shall not be painted.

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted herein, and as specified for at the contract unit price per linear foot for STEEL RAILING, TYPE S.

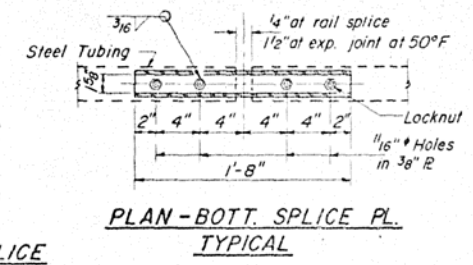
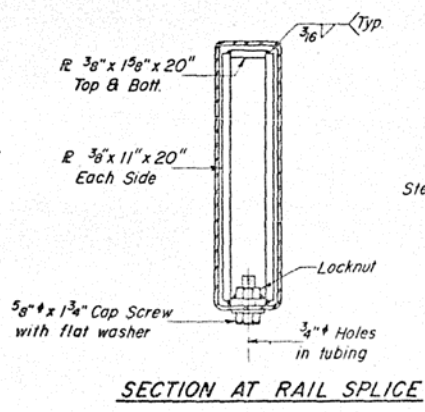
All field drilled holes shall be coated with an approved zinc rich paint before erection.

The lower portion of the post flange in contact with concrete shall have two coats of asphalt paint conforming to Section 714.08 Type B or piece 1/8" fabric bearing pad between the post and concrete.

The 3/4" high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Article 507.04(g)(3) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn.



* Threaded areas shall be plugged or blocked off during casting of beam.



BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S	Lin. Ft.	299

TYPE S
STEEL RAILING
F.A.R.T. 21 SEC. 115 BR-1
PIATT COUNTY
STA. 1210 + 83.58

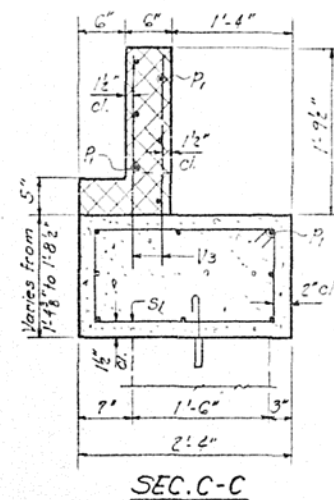
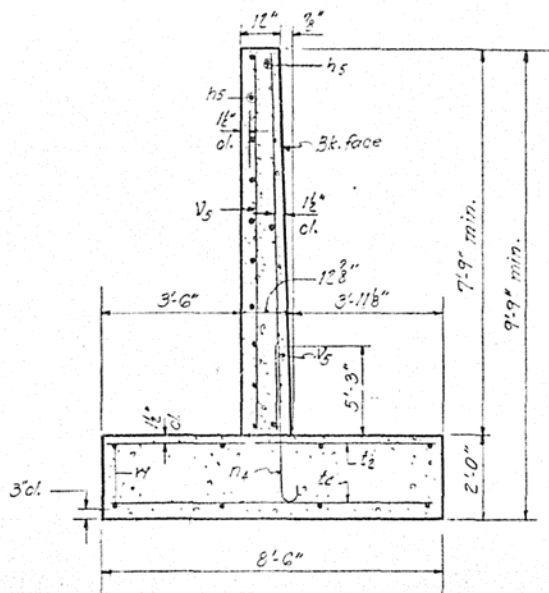
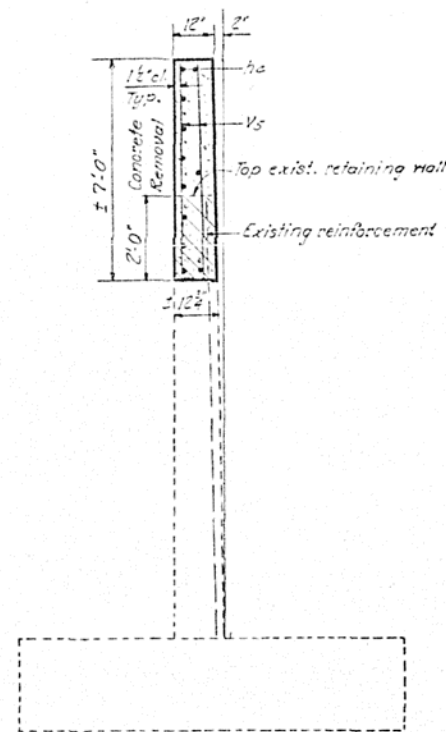
DESIGNED	Scott 24	1976
CHECKED	ASW	
DRAWN	ASW	
CHECKED	ASW	
EXAMINED	ASW	
PASSED		
APPROVED		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
115BR-1	PIATT	22	14	10 SHEETS

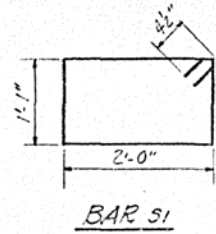
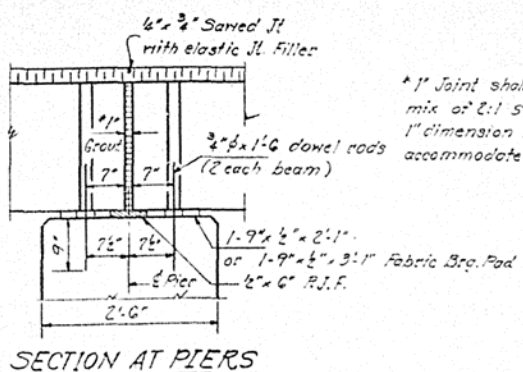
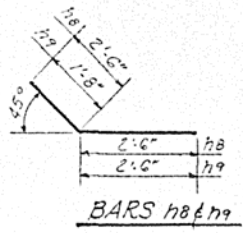
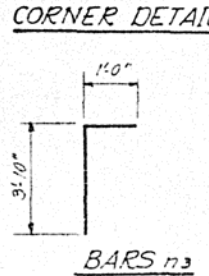
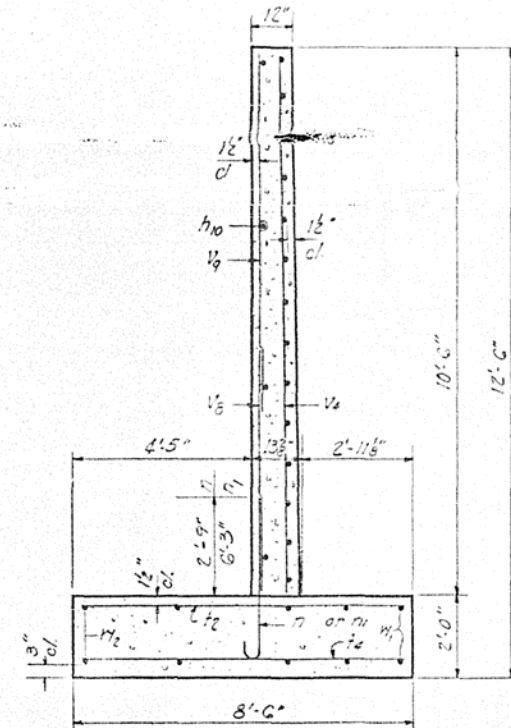
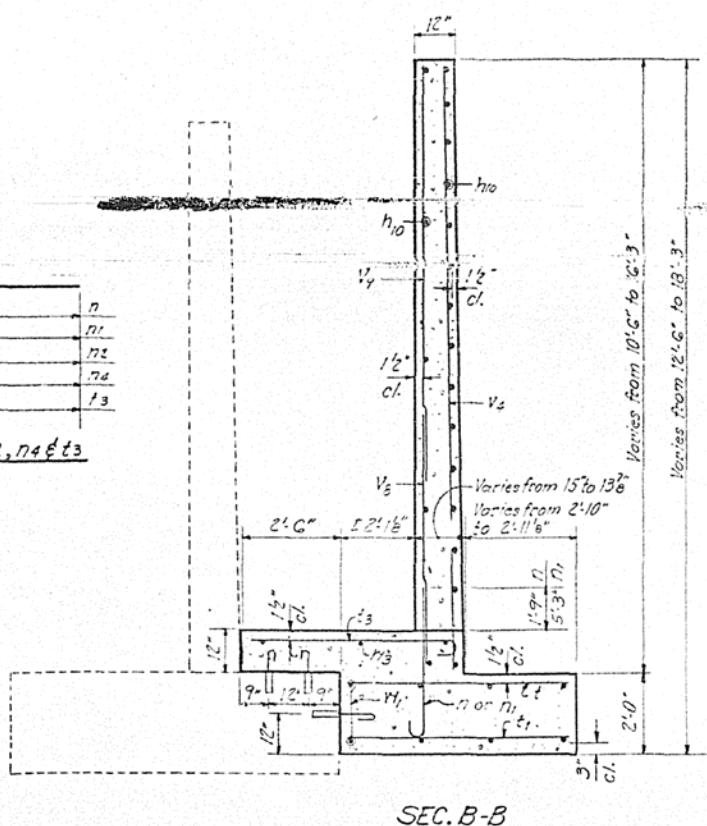
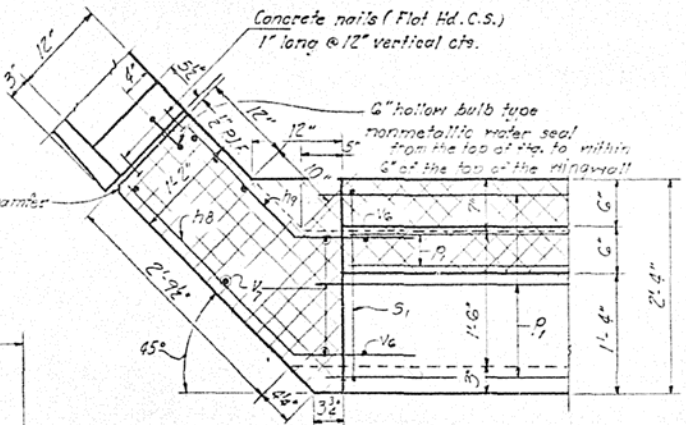
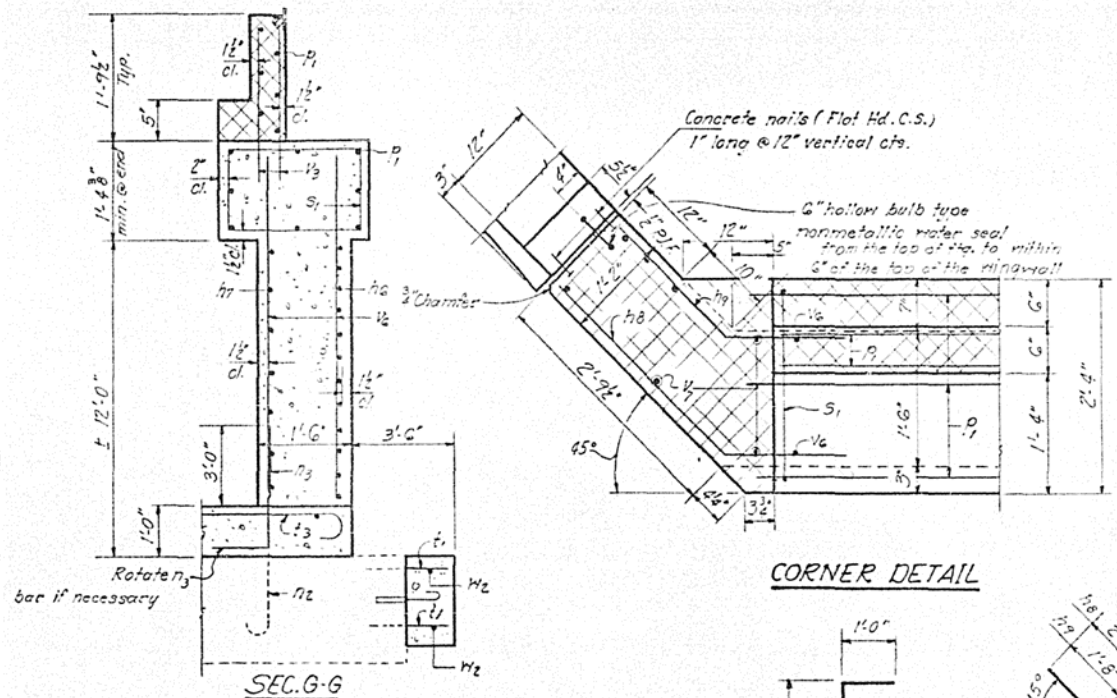
WEST ABUTMENT - BILL OF MATERIAL

Bar No.	No.	Size	Length	Shape	Bar No.	No.	Size	Length	Shape
h2	8	#2	3'-0"	—	h2	15	#6	8'-3"	—
h4	22	#2	12'-3"	—	h3	8	#4	2'-9"	—
h5	11	#2	2'-9"	—	h4	5	#4	10'-3"	—
h6	12	#5	7'-9"	—	h5	27	#2	6'-6"	—
h7	7	#4	6'-3"	—	h6	14	#3	12'-9"	—
h8	15	#5	5'-0"	—	h7	8	#6	16'-0"	—
h9	15	#5	4'-2"	—	h8	16	#5	10'-3"	—
h10	22	#2	15'-6"	—	h9	14	#4	6'-9"	—
n	16	#7	5'-2"	C	h1	8	#3	4'-9"	—
n1	15	#6	8'-8"	C	h11	8	#5	20'-3"	—
n2	10	#6	6'-5"	C	h12	8	#5	8'-3"	—
n3	6	#6	4'-10"	C	h13	3	#5	9'-0"	—
n4	6	#6	7'-8"	C	Class A Concrete	cu. ft.	66.2		
p1	14	#6	42'-9"	—	Reinforcement Bars	Lbs	4270		
s1	44	#2	6'-11"	—	Concrete Removal	cu. ft.	3		
t	12	#3	5'-10"	—	Expansion Bolts (#4)	Eq.	68		



BARS n, n1, n2, n4 & t3

10"	4'-6"	n
8"	8'-0"	n1
8"	5'-9"	n2
8"	7'-0"	n4
8"	5'-6"	t3



DESIGNED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: *[Signature]*
 CHECKED: *[Signature]*

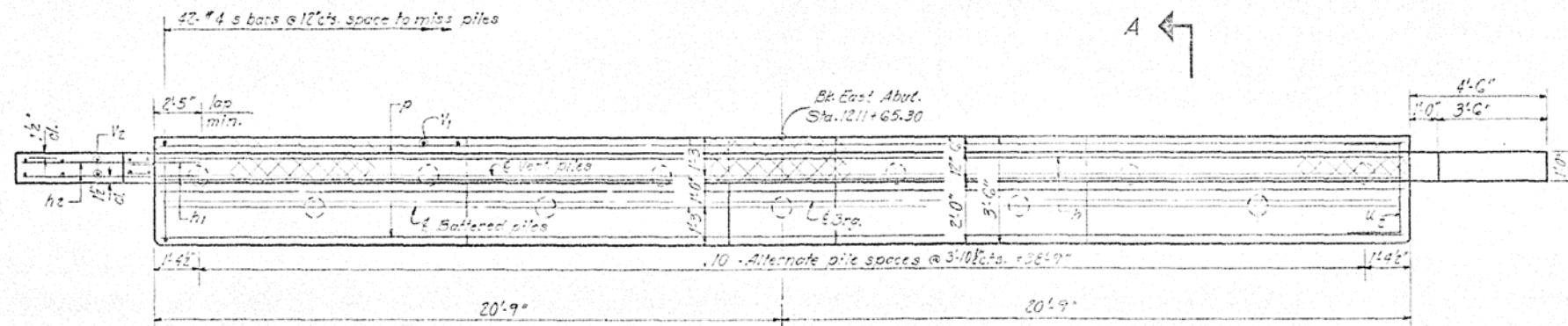
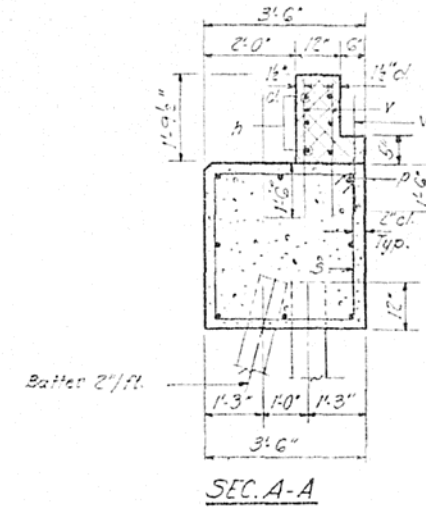
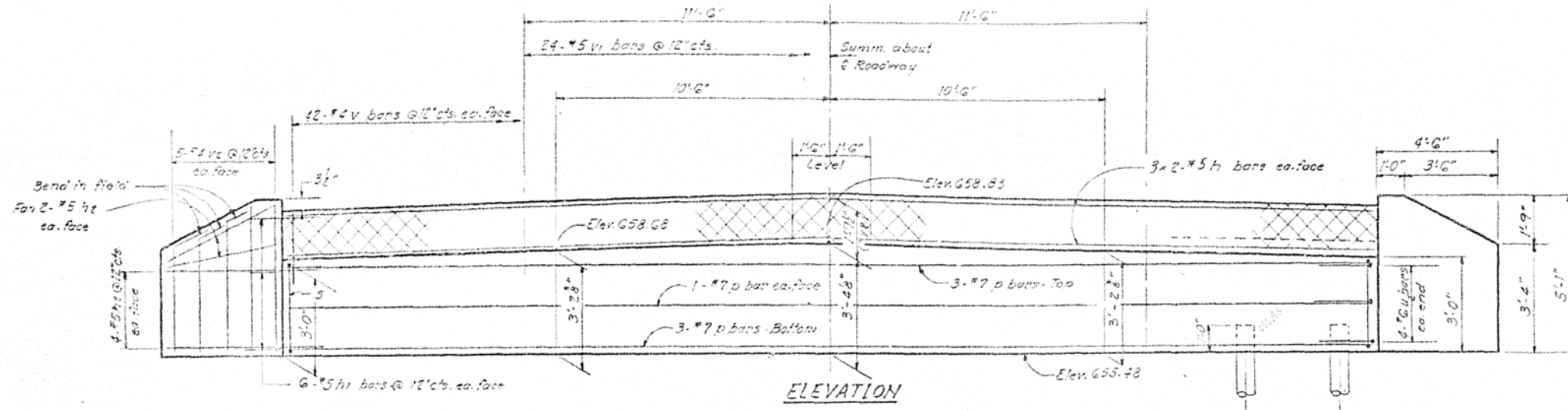
EXAMINED: *[Signature]*
 PASSED: *[Signature]*
 APPROVED: *[Signature]*

SEP 24 1976

MISCELLANEOUS DETAILS
 F.A.R.T. SEC. 115 BR-1
 PIATT COUNTY
 STA. 1210+89.58

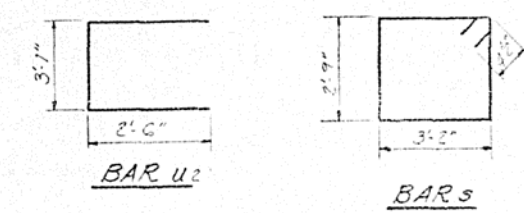
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
115 BR 1	PIATT	PIATT	22	15
SHEET NO. 7 10 SHEETS				



PLAN

PILE DATA
Type: Concrete piles
Capacity: 35 Tons
Est. Length: 25'-0"
No. Required: 10 plus 1 Test pile



**EAST ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Stave
h	12	#5	21'-9"	
h1	24	#5	4'-10"	
h2	24	#5	4'-3"	
h12	8	#4	5'-9"	
p	8	#7	4'-13"	
s	42	#4	12'-9"	2
u2	8	#6	3'-1"	
v	64	#5	3'-0"	
v1	24	#5	3'-0"	
v2	20	#4	2'-9"	
v3	14	#4	2'-9"	
Class X Concrete				
Cure				
22.0				
Reinforcement Bars				
15a				
2100				
Concrete Piles				
Civ. E.				
250				
Test Piles (Concrete)				
Each				
1				

* Includes wing extension
See Sheet # 1.

**EAST ABUTMENT
FA.R.T.21 SEC. 115 BR. 1
PIATT COUNTY
STA. 1210+89.58**

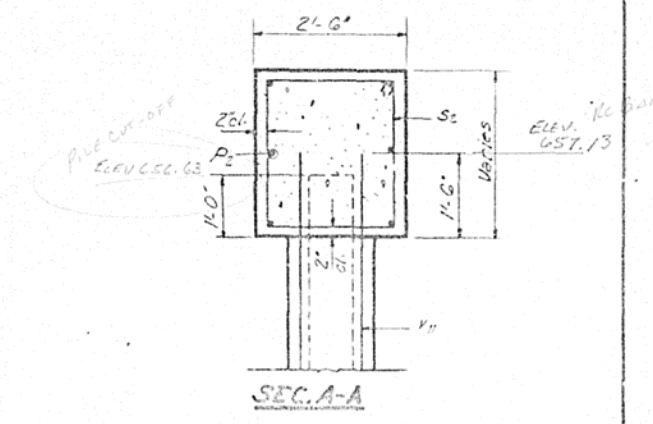
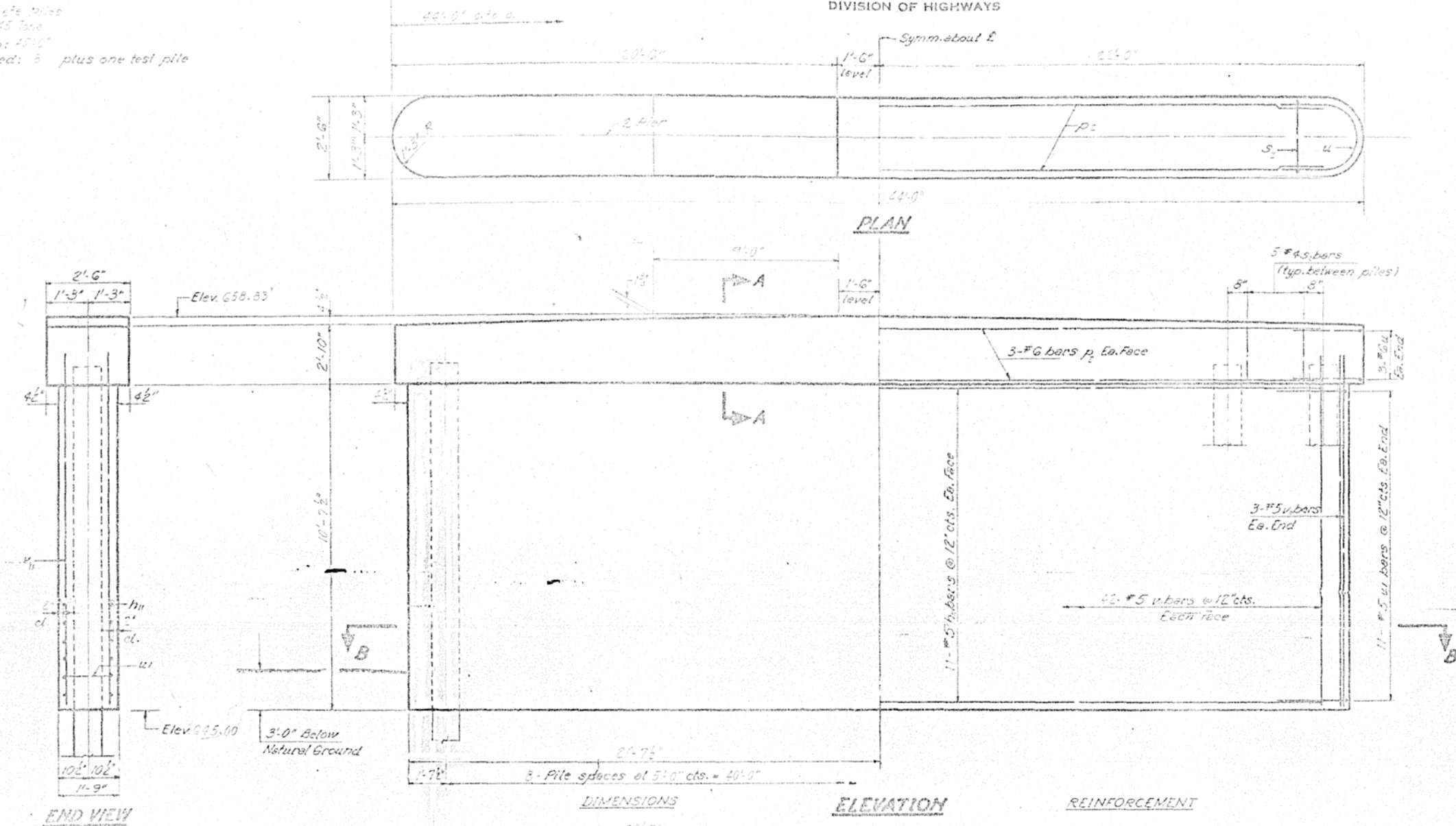
DESIGNED	SEPT. 24 1976
CHECKED	
DRAWN	
CHECKED	
EXAMINED	
PASSED	
APPROVED	

FILE DATA

Type: Concrete Pile
 Capacity: 45 Tons
 Est. length: 45'-6"
 No. Required: 3 plus one test pile

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	BRIDGE	TOTAL PILES	SHEET NO.	SHEET NO. 8 10 SHEETS
P.A. 121	155	PIATT	22	10	
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

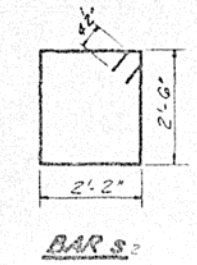
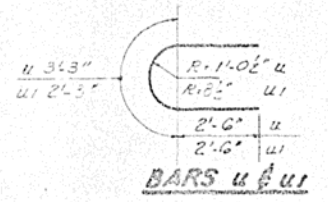


Note:
 All edges shall have Std. 3/4" chamfers.

Notes:
 At Pier 1 no splice is permitted in concrete. Metal shell piles w/in 30' of E.L.

BILL OF MATERIAL

Bar No.	Size	Length	Shape
h ₁₁	#5	21'-6"	—
p ₂	#6	21'-6"	—
s ₂	#4	10'-11"	□
u	#6	8'-3"	C
u ₁	#5	7'-3"	C
v ₁₁	#5	12'-0"	—
Class X Concrete		Cu Yds	25.6
Reinforcement Bars		Lbs.	2920
Concrete Piles		Lin. Ft.	360
Test Piles (Concrete)		Each	1



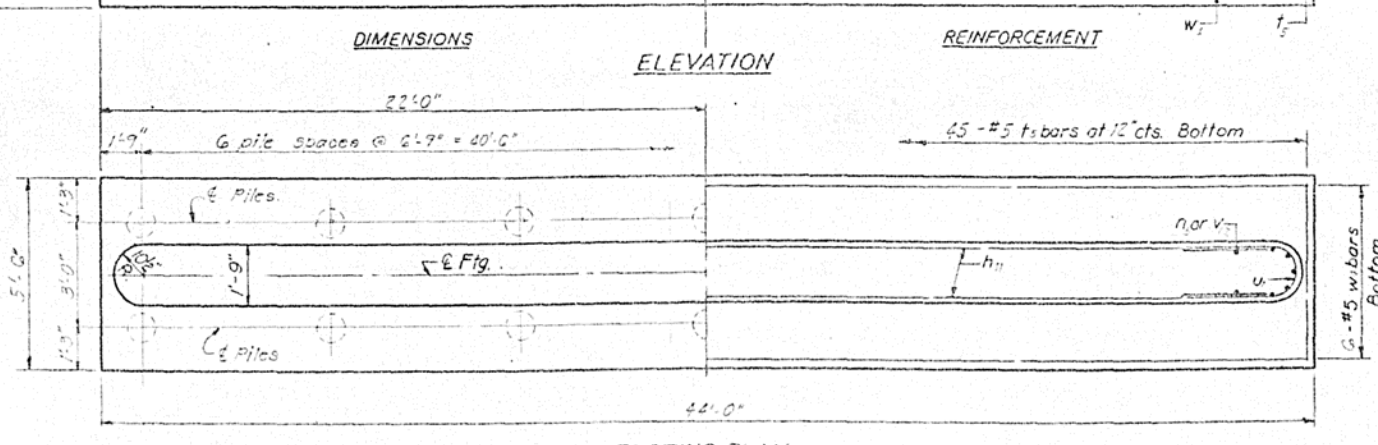
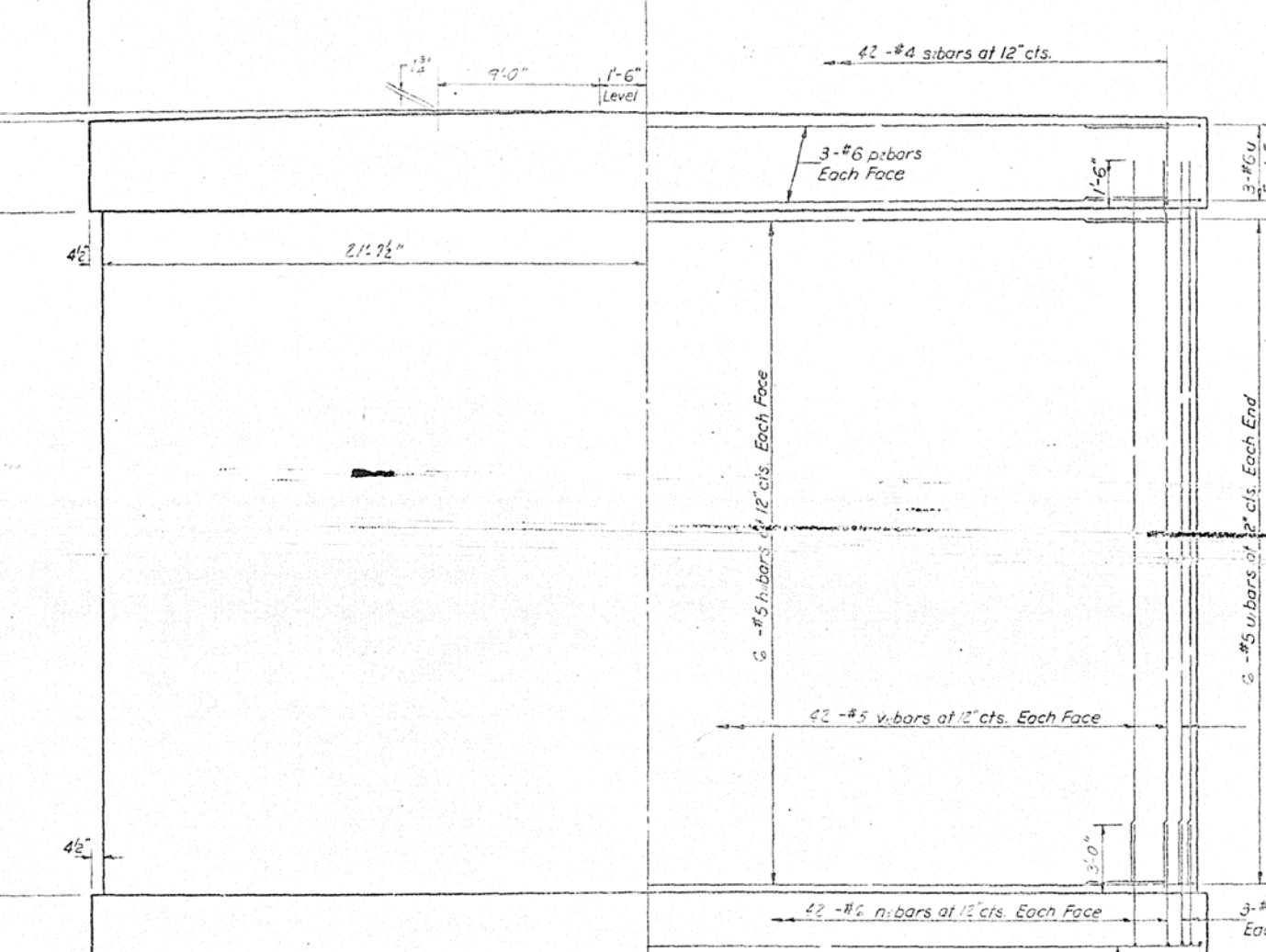
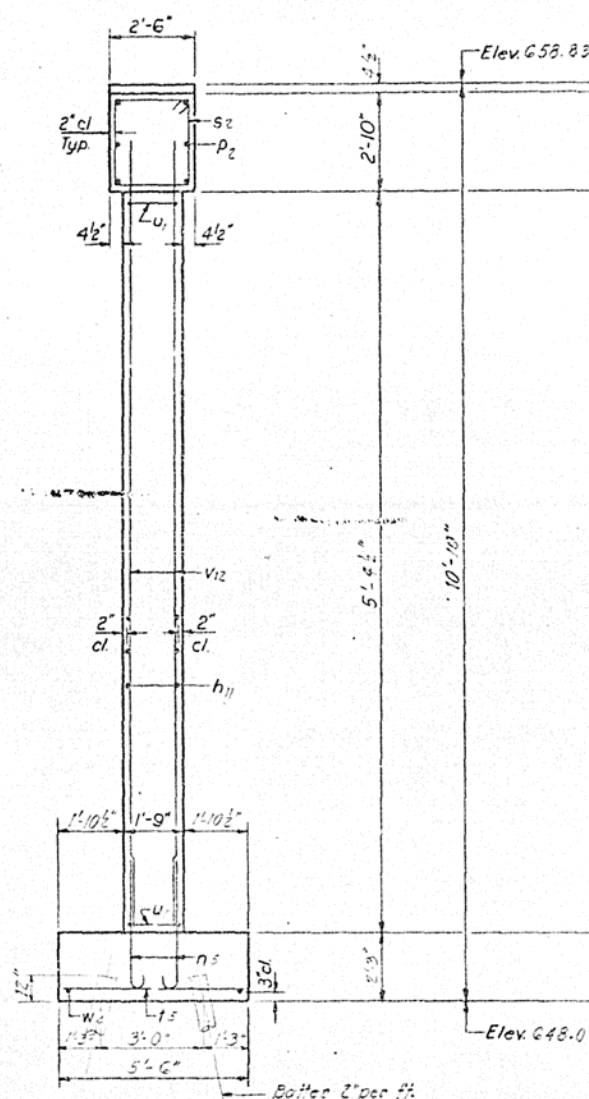
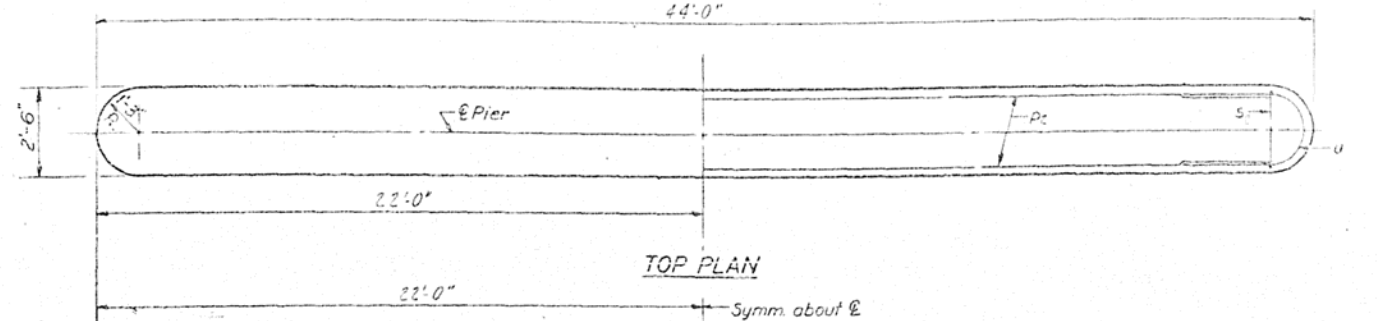
DESIGNED	SEP 24 1916
CHECKED	
DRAWN	
CHECKED	
EXAMINED	
PASSED	
APPROVED	

PIER #1
 FA. RT. 121 SEC. 15 RR-1
 PIATT COUNTY
 STA. 1210+89.58

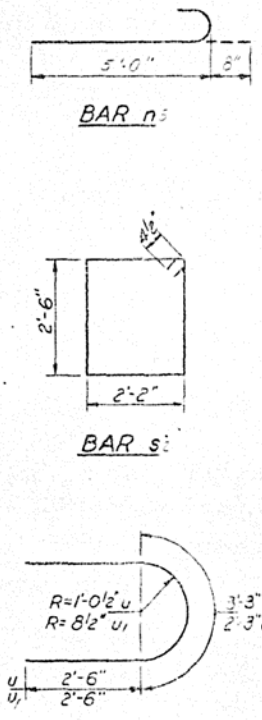
NOTE:
All edges shall have standard 3/4" chamfer.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
558-1	PIATT	22	17	10 SHEETS



PILE DATA
Type: Concrete Piles
Capacity: 38 Tons
Est. Length: 28'-0"
No. Required: 14 piles



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n5	15	#5	6'-0"	—
n5	90	#5	5'-3"	U
p1	6	#6	10'-1"	—
s1	21	#4	10'-1"	□
t5	45	#5	5'-3"	—
u	6	#6	8'-3"	U
u	12	#5	7'-3"	U
v5	90	#5	6'-7"	—
w5	6	#5	43'-9"	—
		Class X Concrete	Cu Yds.	26.9
		Reinforcement Bars	Lbs.	3300
		Concrete Piles	Lin. Ft.	372

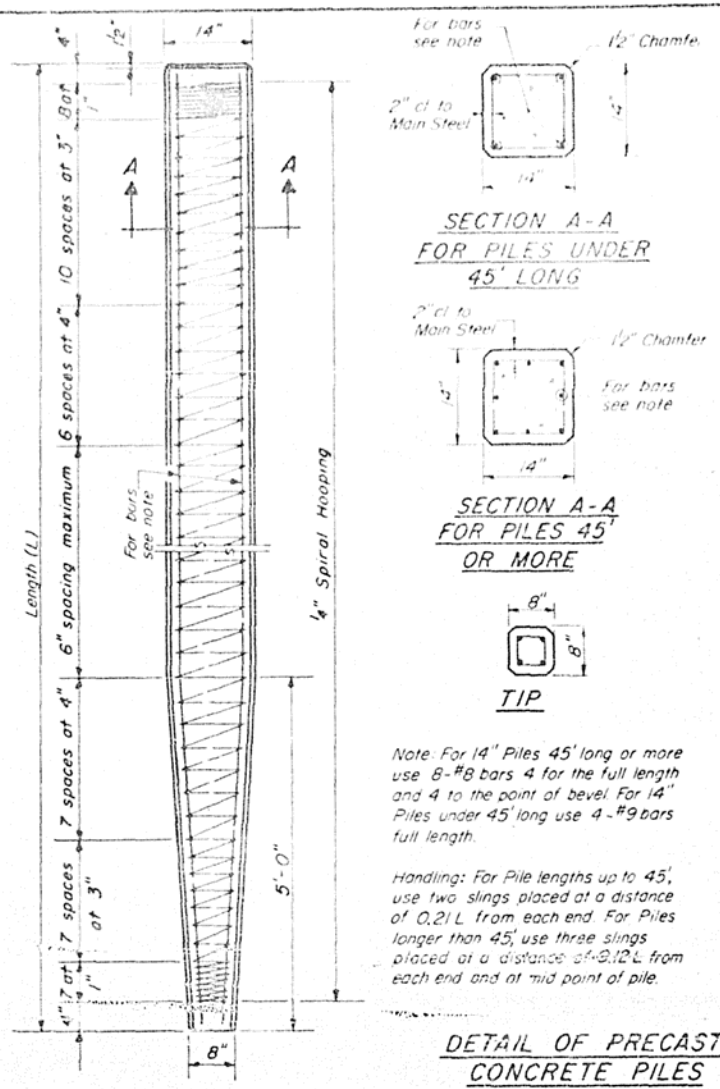
DESIGNED: *Andromeda Lee*
CHECKED: *Ray S. Wood*
DRAWN: *SU*
CHECKED: *Lal G. S. W.*

EXAMINED: *Scott Z. 1916*
PASSED:
APPROVED:

PIER # 2
F.A.R.T. SEC. 1158R-1
PIATT COUNTY
STA. 1210+59.58

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGNED	EXAMINED	DATE	SHEET NO.
PIATT	22	10	10 SHEETS



SECTION A-A
FOR PILES UNDER
45' LONG

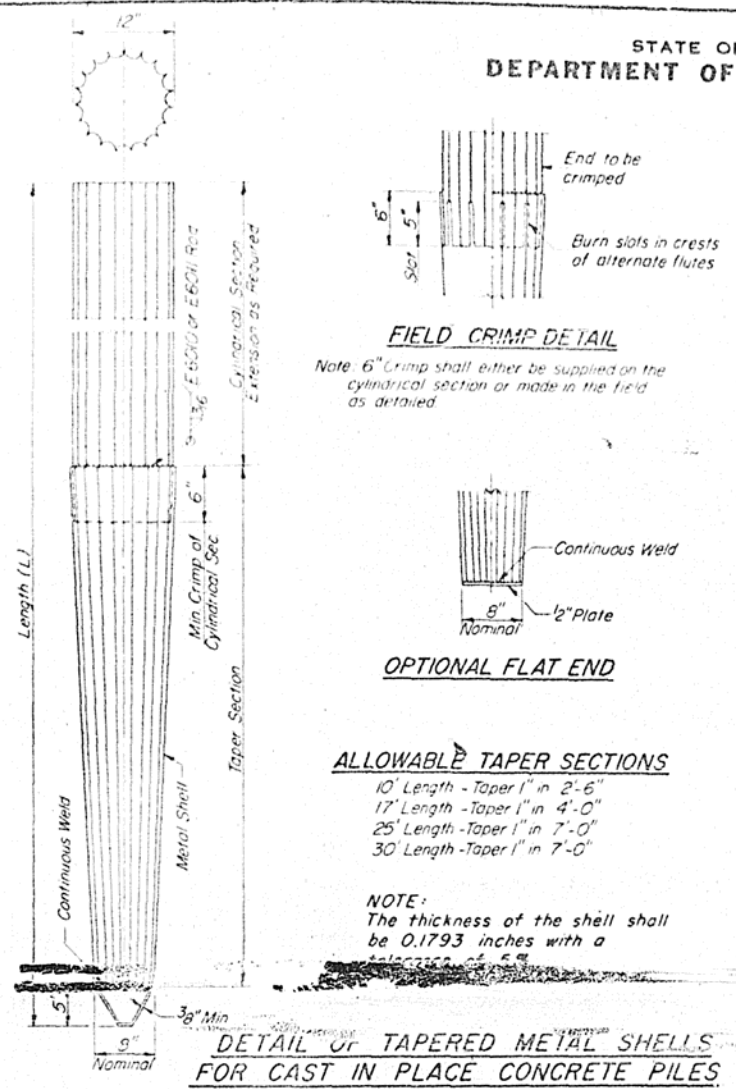
SECTION A-A
FOR PILES 45'
OR MORE

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 0.21L from each end. For Piles longer than 45', use three slings placed at a distance of 0.12L from each end and at mid point of pile.

DETAIL OF PRECAST
CONCRETE PILES



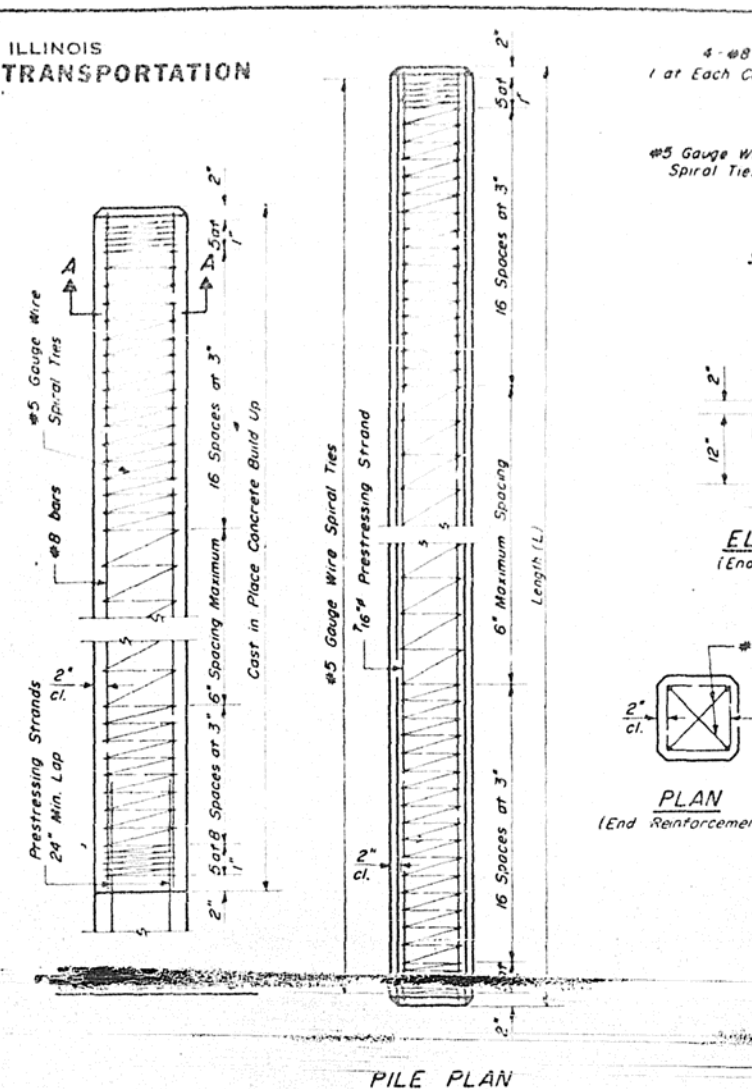
FIELD CRIMP DETAIL

OPTIONAL FLAT END

ALLOWABLE TAPER SECTIONS

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



SECTION A-A

ELEVATION
(End Reinforcement)

PLAN
(End Reinforcement)

PILE PLAN

DESIGN STRESSES

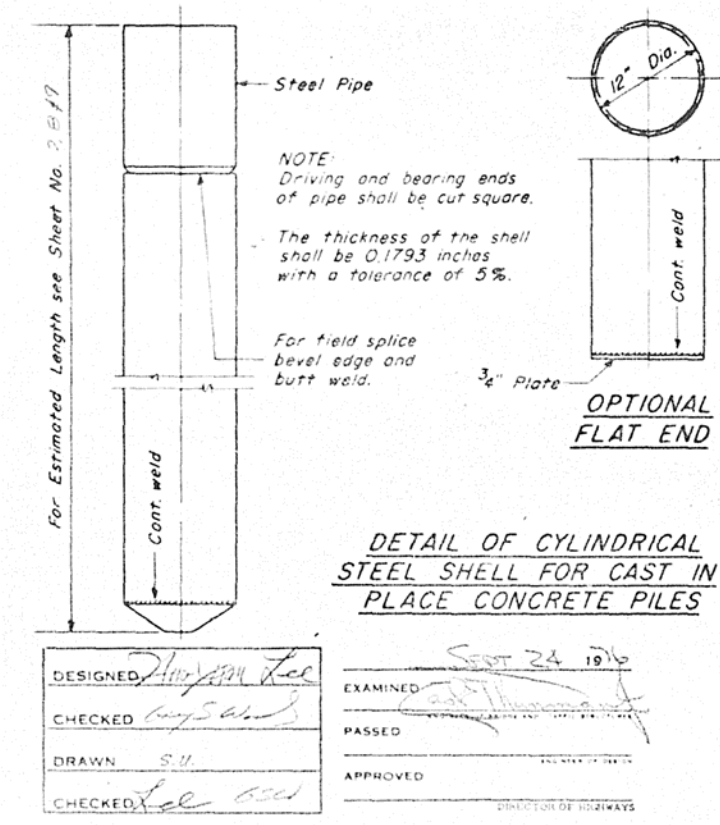
$f_c' = 5,000$ psi.
 $f_c' = 4,000$ psi.
 $f_s' = 268,000$ psi. (31,000 lbs.)
 $f_s' = 188,000$ psi. (21,700 lbs.)

NOTES

Pressing 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 PILES



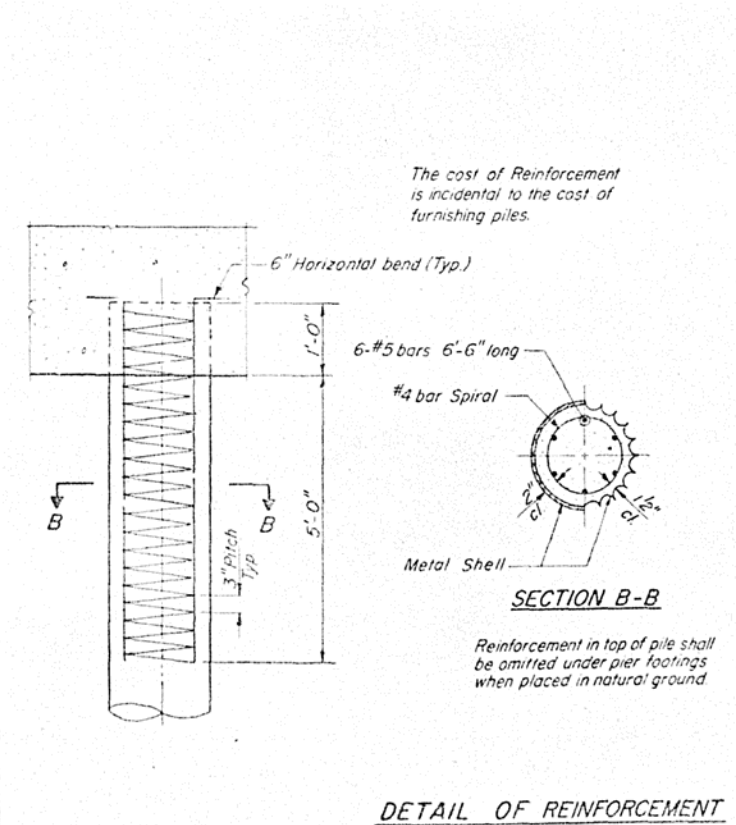
OPTIONAL
FLAT END

DETAIL OF CYLINDRICAL
STEEL SHELL FOR CAST IN
PLACE CONCRETE PILES

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

DATE: SEP 24 1976

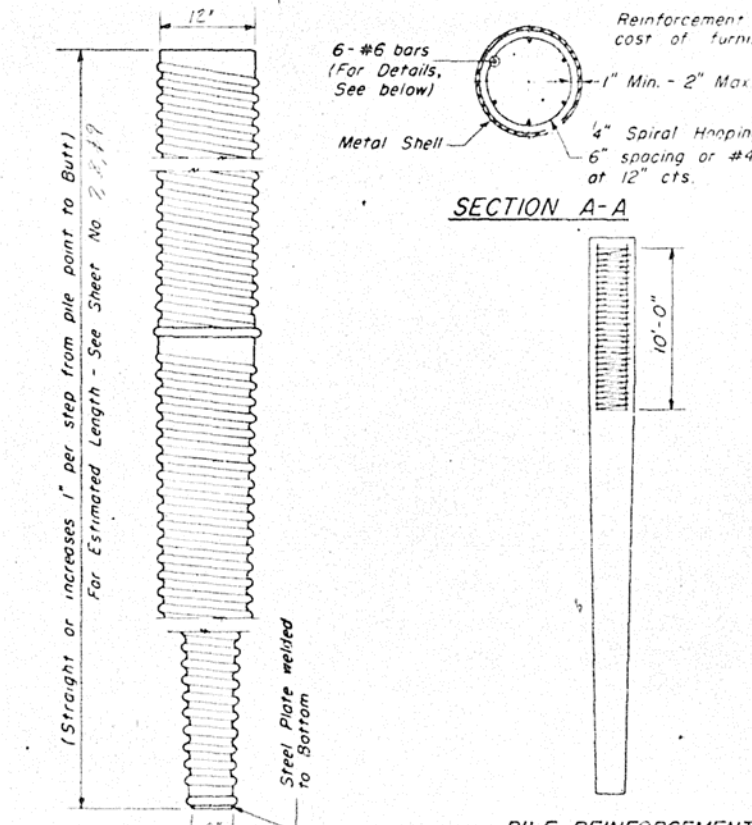
DIRECTOR OF HIGHWAYS



SECTION B-B

DETAIL OF REINFORCEMENT
FOR METAL SHELLS

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



SECTION A-A

PILE REINFORCEMENT

BUTT

POINT
(Applies only to Step Taper type pile)

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.)

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

PILE DETAILS
F.A.R.T. 215 SEC. 115 BR-1
PIATT COUNTY
STA. 1210+89.58

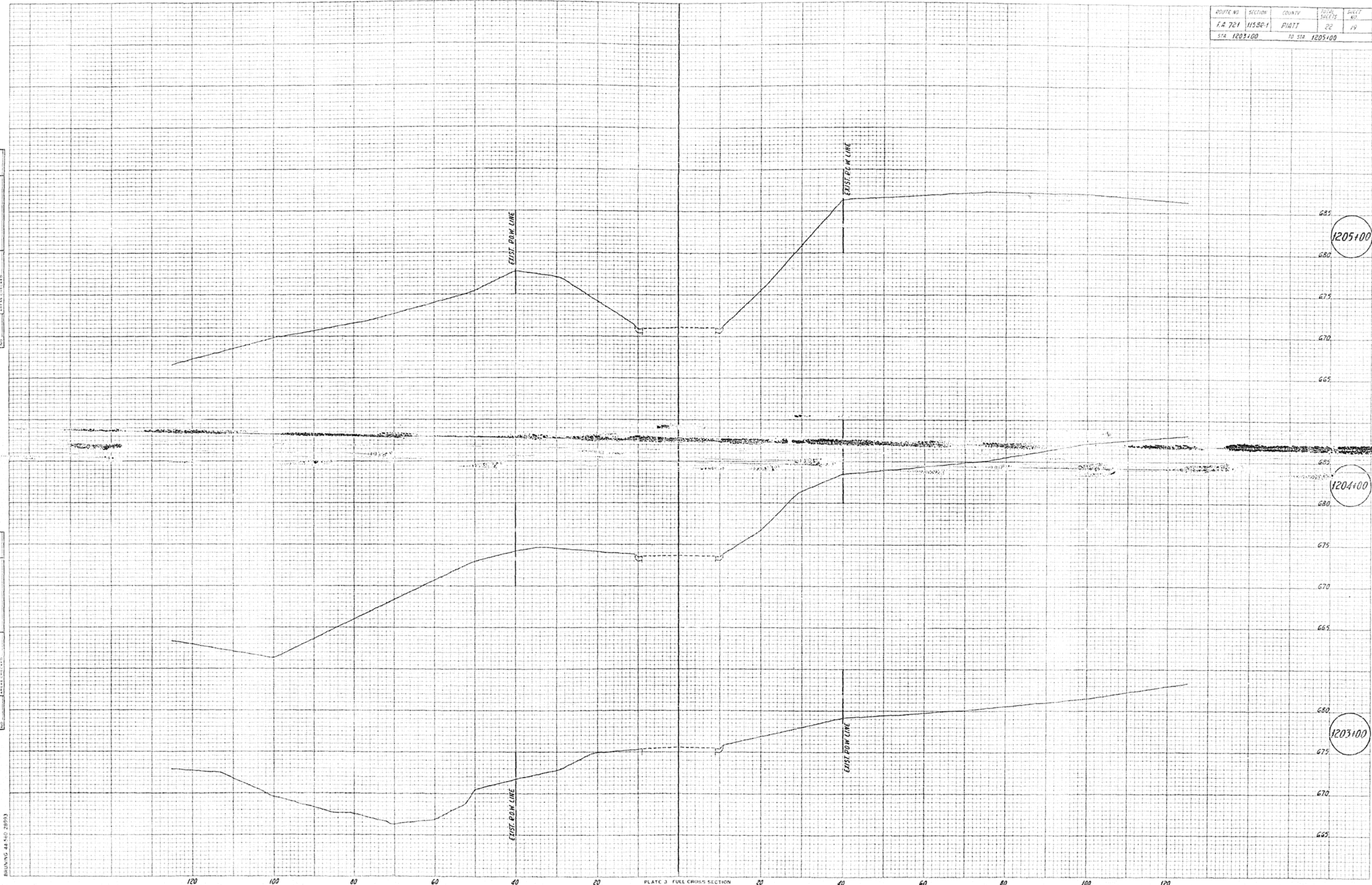
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1.A. 721	11580-1	PIATT	22	19
STA. 1203+00	TO STA. 1205+00			

DATE	BY
1-23	JMC
10-16	JMB
7-16	JMB

FINAL SURVEY	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS

DATE	BY

ORIGINAL SURVEY	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS
NOTED	REVISIONS



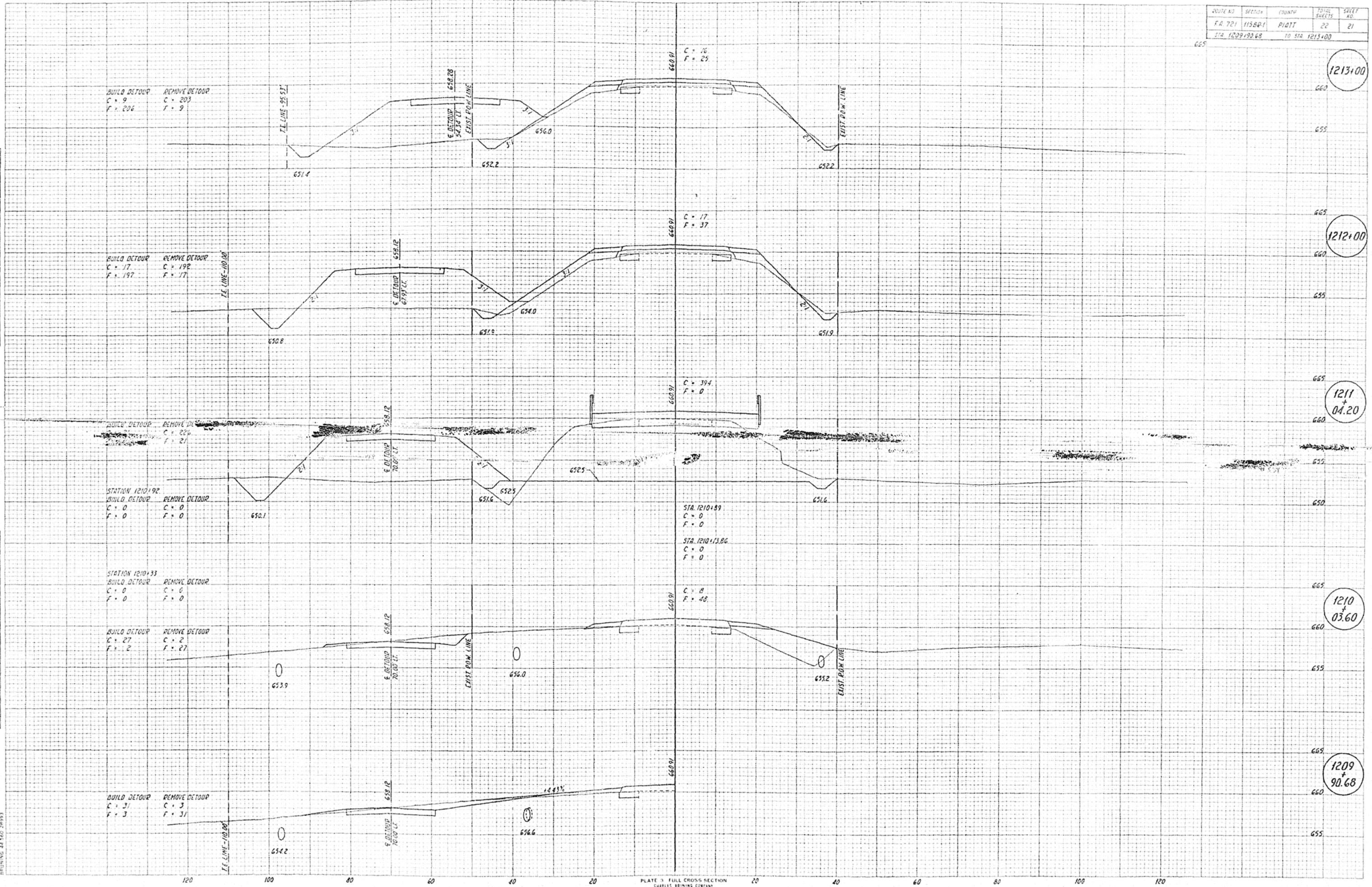
BRUNING 44-560 28593

PLATE 3 FULL CROSS SECTION
CHARLES BRUNING COMPANY
MADE IN U.S.A.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 721	115801	PLATT	22	21
STA. 1209+92.68	TO STA. 1213+00			

DATE	BY
J. 30	SSO. BDM. JHC
U. 16	AWB
U. 16	AWB
U. 16	AWB
J. 17	JVM

DATE	BY



1213+00

1212+00

1211
+ 04.20

1210
+ 03.60

1209
+ 90.68

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E.R. 721	115 BR-1	PLATT	22	22
STA. 1214+00		TO STA. 1217+00		

DATE	BY
11/16	SSD
11/16	AMG
11/16	AND
11/16	AND
11/16	AND

FINAL SURVEY

DATE	BY

ORIGINAL SURVEY

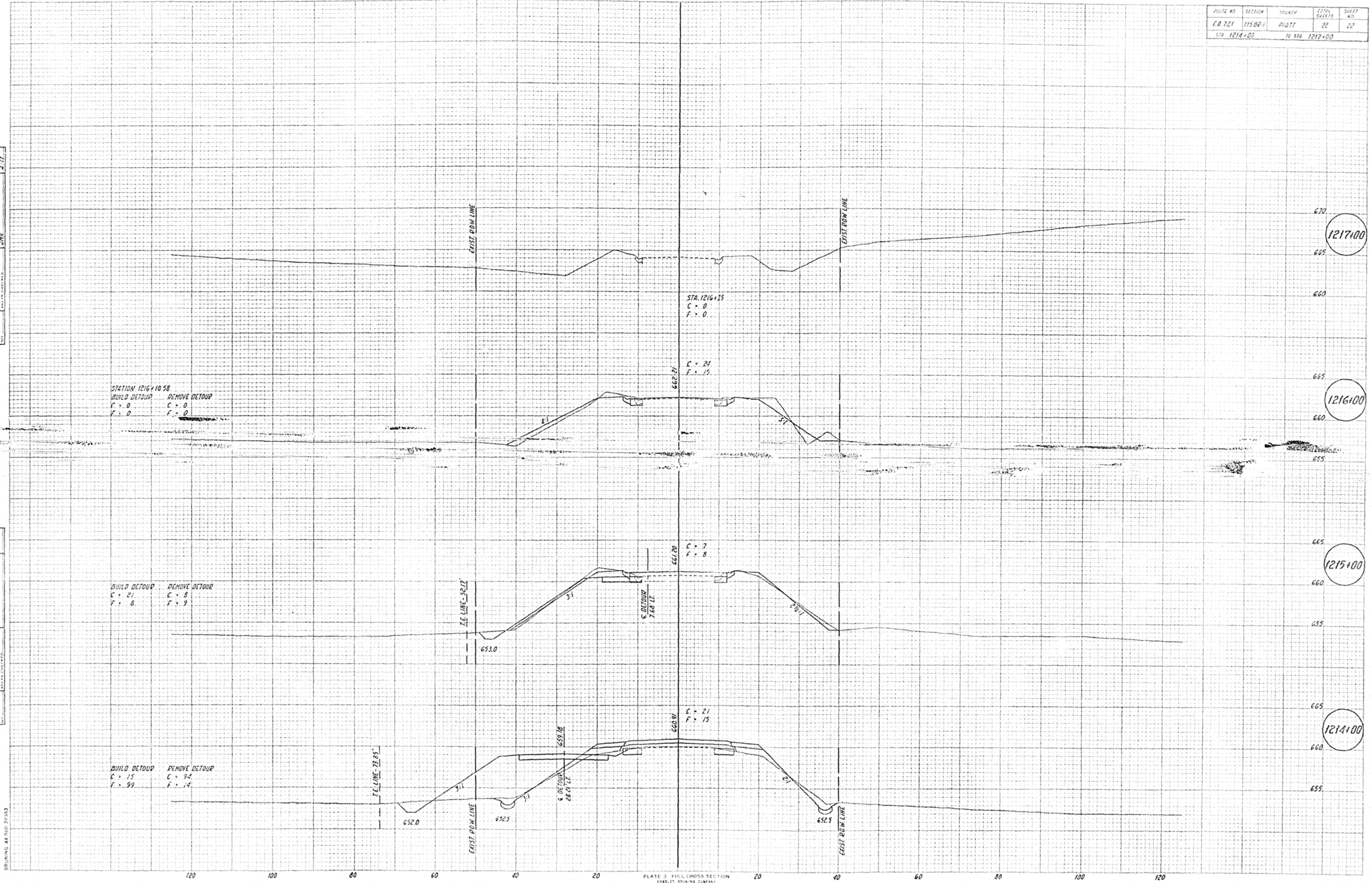
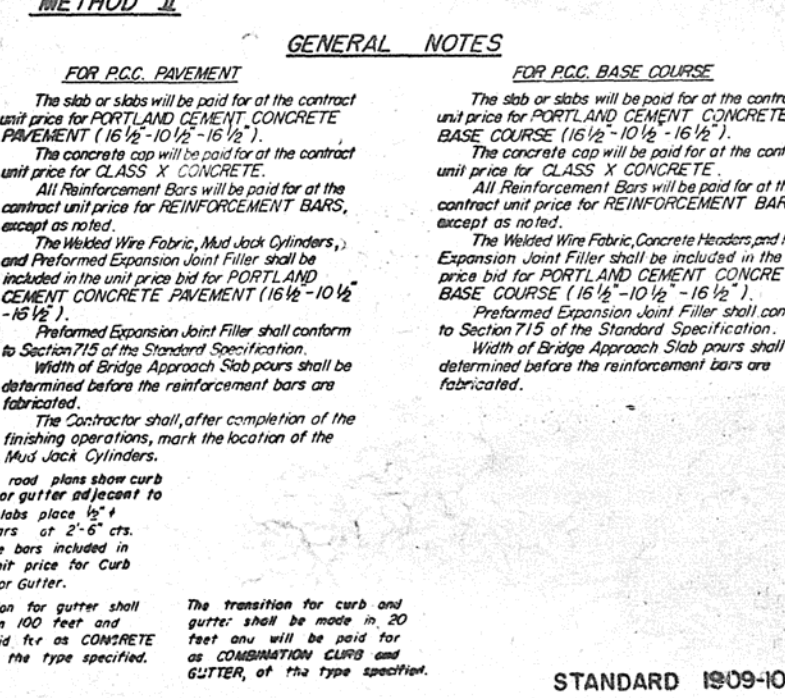
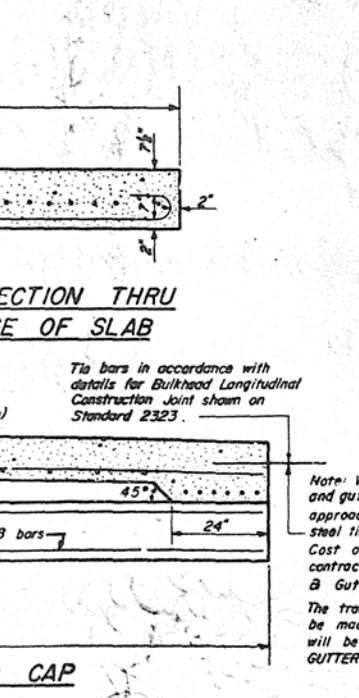
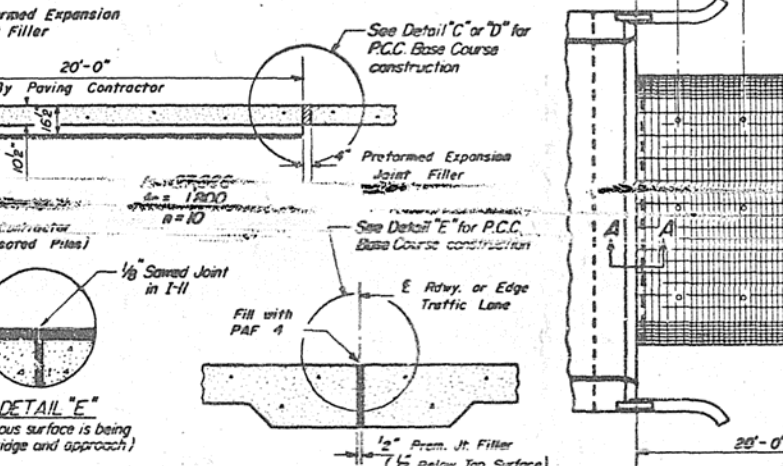
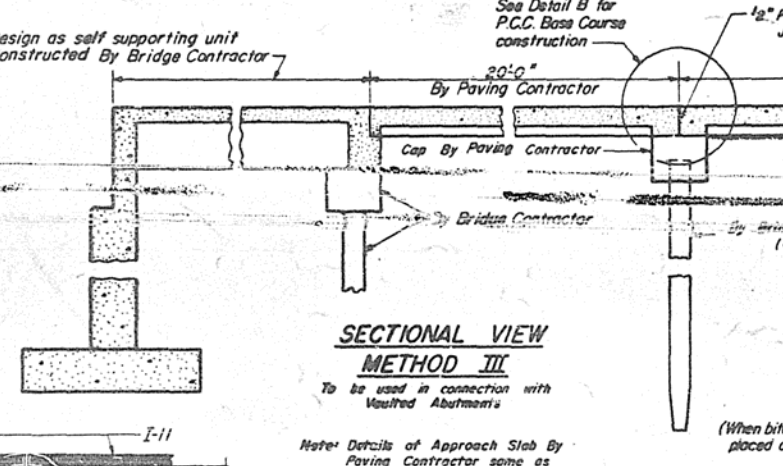
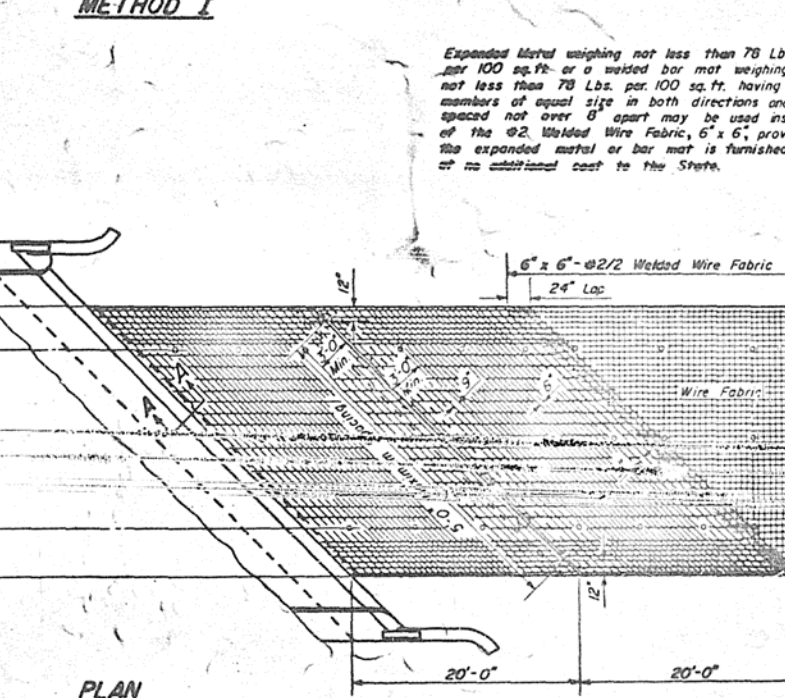
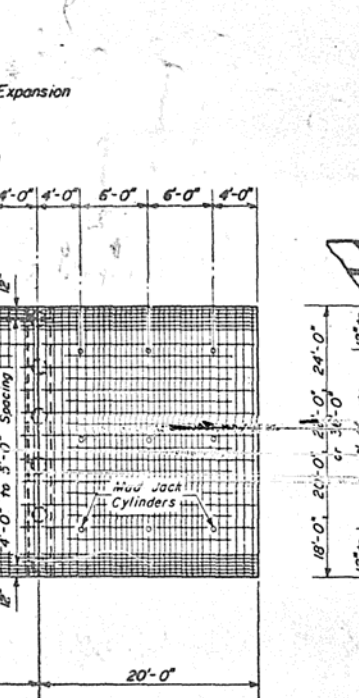
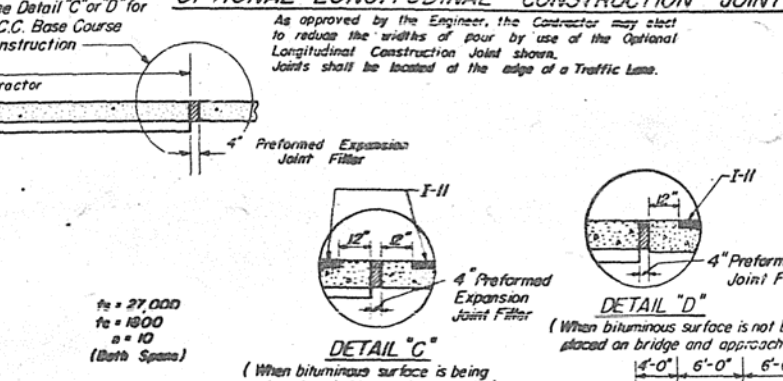
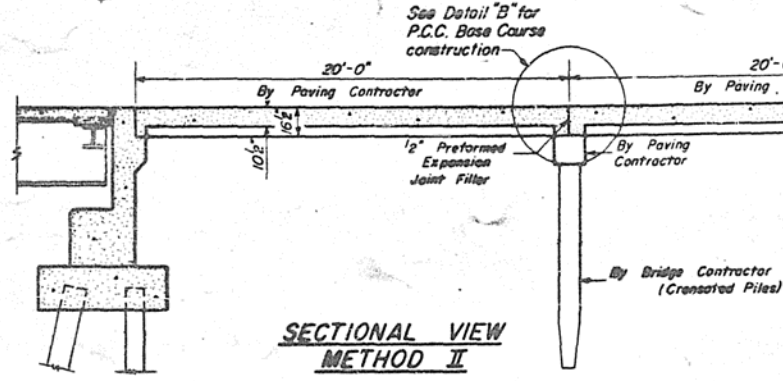
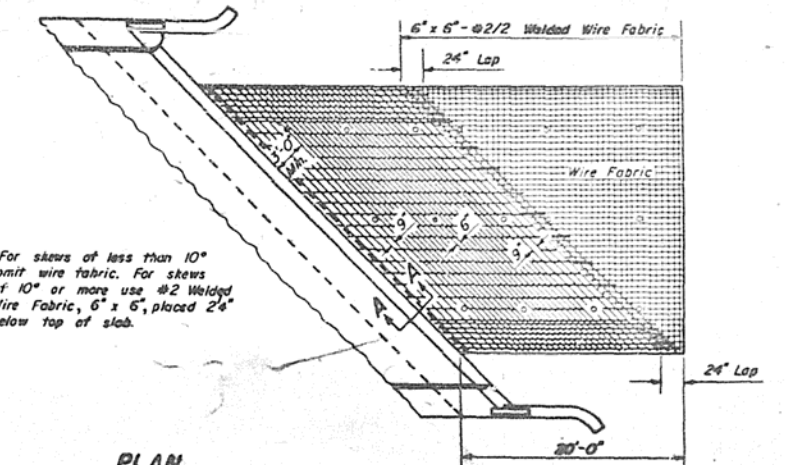
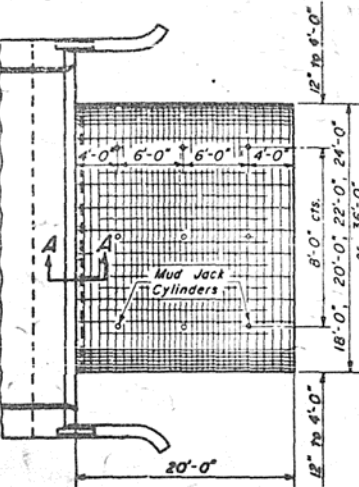
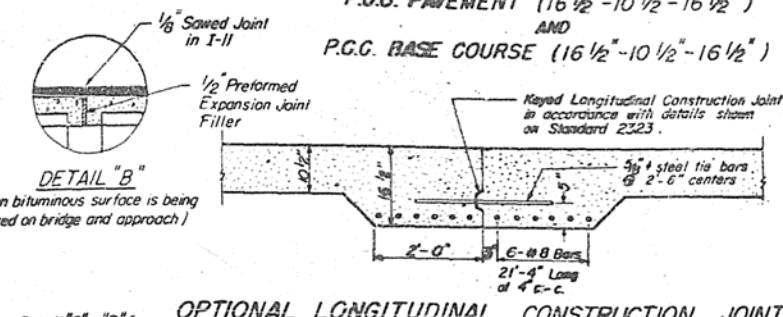
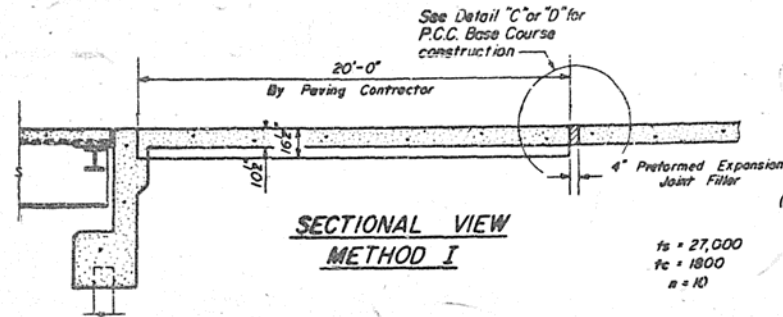


PLATE 3 FULL CROSS SECTION
CHARLES BRUNING COMPANY
MADE IN U.S.A.

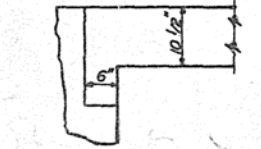
BRUNING 44 460 20-193

DETAILS OF BRIDGE APPROACHES

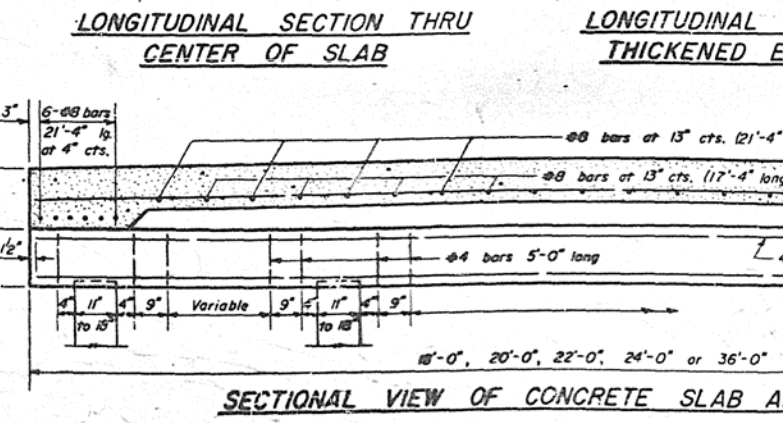
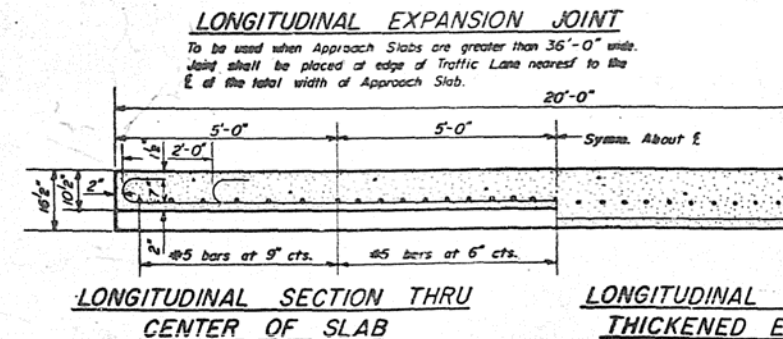
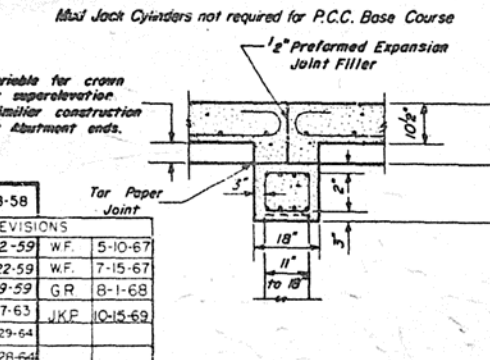
P.C.C. PAVEMENT (16 1/2" - 10 1/2" - 16 1/2")
AND
P.C.C. BASE COURSE (16 1/2" - 10 1/2" - 16 1/2")



SECTION A-A
(When bituminous surface is being placed on bridge and approach)



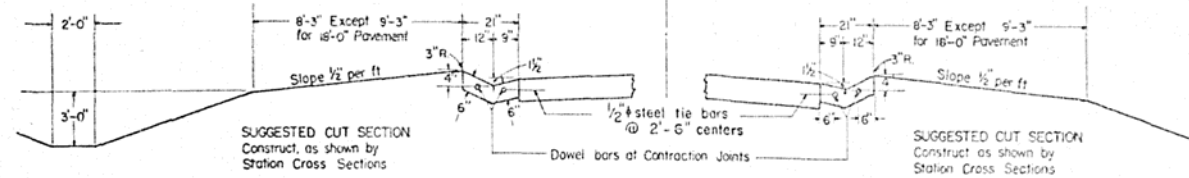
SECTION A-A
(P.C.C. Pavement construction)



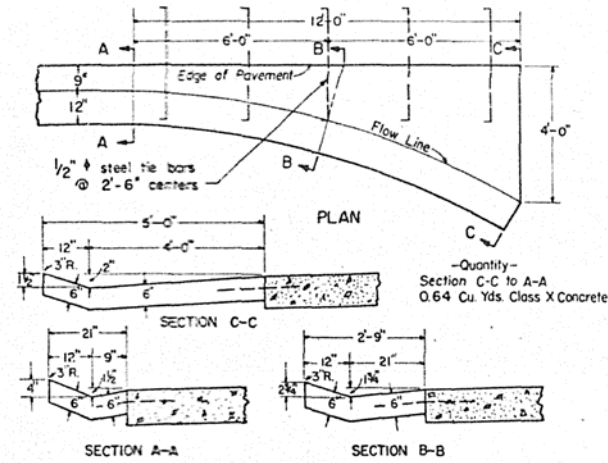
STATE OF ILLINOIS		ISSUED 12-18-58		Tar Paper Joint	
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS		REVISIONS			
DATE	BY	NO.	DATE	BY	REVISIONS
APPROVED Oct. 15 1969	W.A.S.	2-2-59	W.F.	5-10-67	
	CET	10-22-59	W.F.	7-15-67	
	W.A.S.	12-9-59	GR	8-1-68	
APPROVED Oct. 15 1969	W.H.F.	9-17-63	J.K.P.	10-15-69	
	K.H.W.	7-29-64			
	W.F.	10-28-64			

STANDARD 1909-10

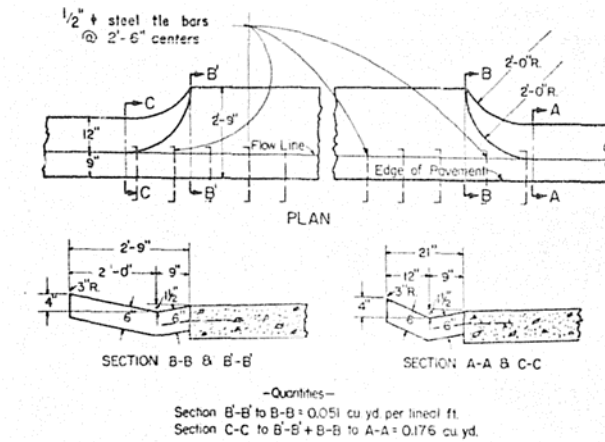
STANDARD DESIGN FOR TYPE B GUTTER



STANDARD INLET FOR TYPE B GUTTER



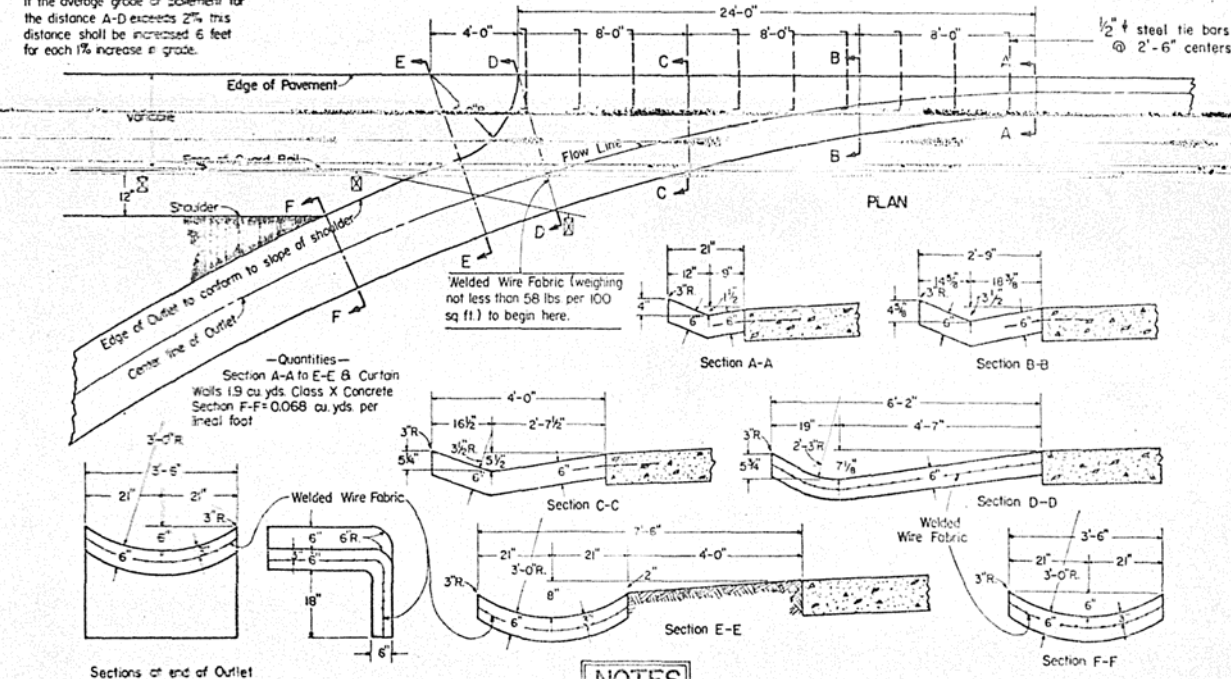
STANDARD ENTRANCE FOR TYPE B GUTTER



-NOTE-

If the average grade of pavement for the distance A-D exceeds 2% this distance shall be increased 6 feet for each 1% increase in grade.

STANDARD OUTLET FOR TYPE B GUTTER



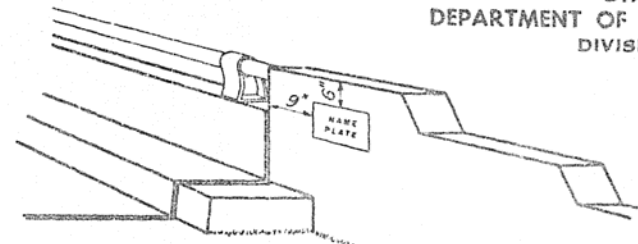
NOTES

Class X Concrete shall be used throughout.
Gutter, Gutter Inlet, Gutter Outlet and Gutter Entrance shall be tied to the pavement in accordance with details for Bulkhead Longitudinal Construction Joint shown on Standard 2323.
The gutter will be paid for at the contract unit price per lineal foot for Concrete Gutter Type B, which price shall include the cost of the tie bars. The Gutter Inlet, Gutter Outlet and Gutter Entrance will be paid for at the contract unit price per cubic yard for Class X Concrete, which price shall include the cost of the tie bars and the welded wire fabric reinforcement.
Contraction Joints of a type similar to that used in the adjacent pavement shall be installed in the Type B Gutter in prolongation with the joints in the pavement. The details of the transverse joints in the Type B Gutter shall be approved by the Engineer. If contraction joints are not provided in the pavement, contraction joints are not required in the Type B Gutter.
The cost of contraction joints, including dowel bars, shall be included in the contract unit price per lineal foot for Concrete Gutter Type B and the contract unit price per cubic yard for Class X Concrete.

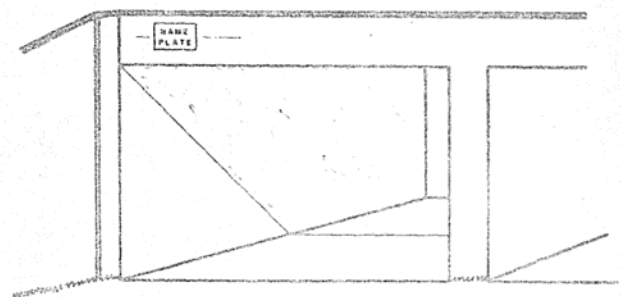
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS & BUILDINGS DIVISION OF HIGHWAYS		ISSUED 3-22-46	
PASSED Oct. 15 1969		REVISIONS	
<i>R. W. Russell</i> Engineer of Road Plans and Contracts		K H W	7-31-64
APPROVED Oct. 15 1969		J K P	10-15-69
<i>W. G. Barrman</i> Engineer of Design			

STANDARD 1914-5

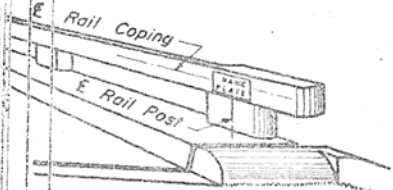
(Half Size) Redrawn 7-31-64



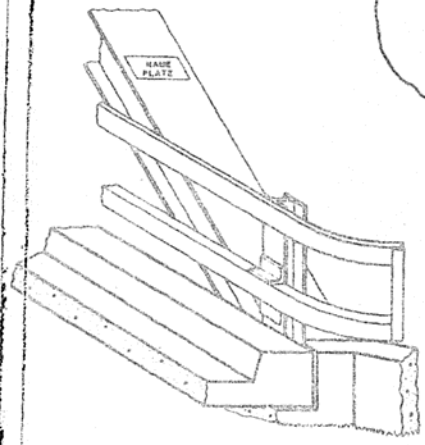
FOR END POST
MOUNTED



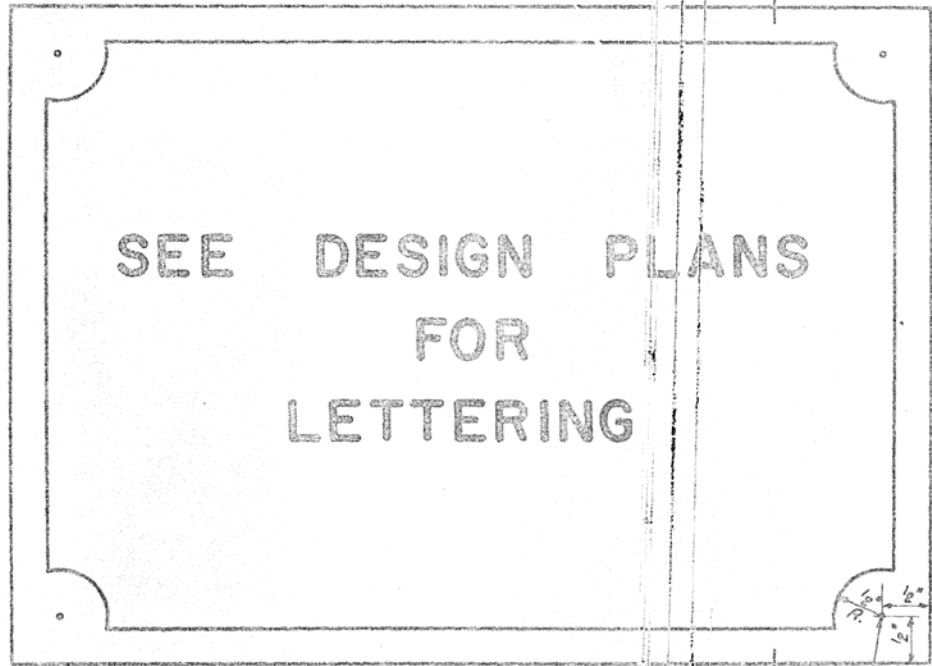
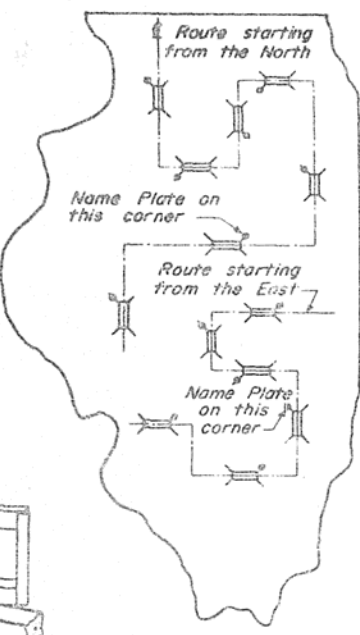
FOR MULTI-SPAN CULVERTS
Note: Unless otherwise noted on the plans,
Name Plates are not required for single
box culverts.



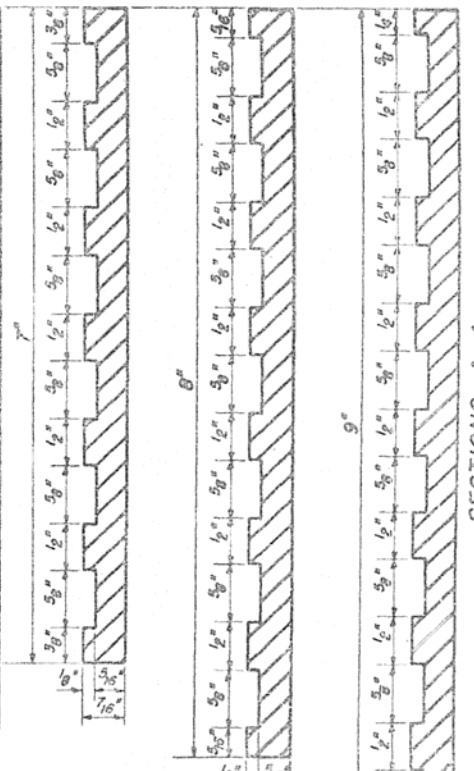
FOR CONCRETE RAILS



FOR TRUSSES



Lettering For
5 Lines 6 Lines 7 Lines



- Material: Best quality brass or bronze.
Border & Lettering: Raised 1/8 inch. Square cut and not tapered. Top surface polished.
- For Concrete Rails, Culvert, Headwalls & Subways --- Four lugs at least three inches long, cast on back of plate.
 - For Steel Truss Sign --- Plate to be fastened on steel member at fabricating shop by brazing around entire perimeter of plate.
 - For Steel Rails --- Plate to be bolted on with 4 - 5/8" brass or bronze machine bolts with countersunk head.
 - For Concrete Rails --- Plate to be centered on E of rail post and E of handrail coping.
 - For Steel Truss Sign --- Braze to end post about five feet above roadway.
 - For Steel Rails --- Place midway between horizontal rail members.
 - For Subways --- See design plans for location.

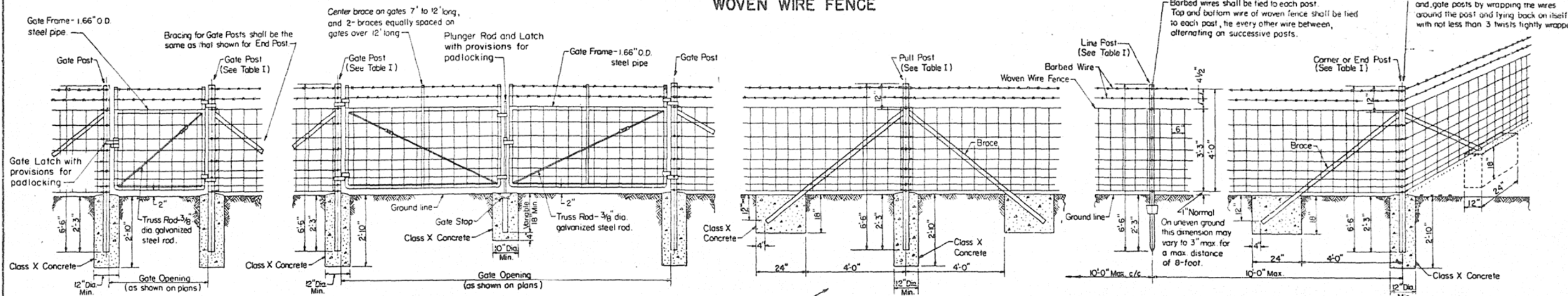
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PASSED NOVEMBER 15, 1963
A. W. Wankershall
Engineer of Road Plans and Contracts

APPROVED NOVEMBER 15, 1963
E. J. Sheehy
Engineer of Design

DETAIL OF NAME PLATE FOR BRIDGES
(Half size) STD. 2113-1

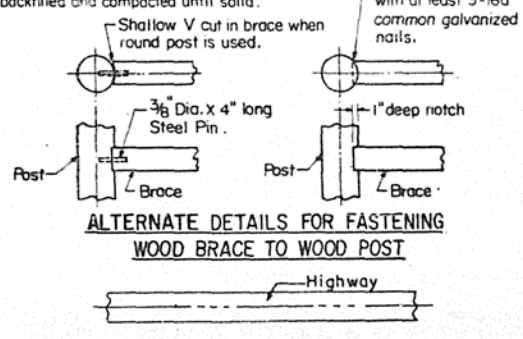
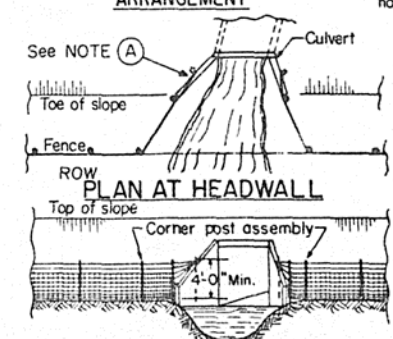
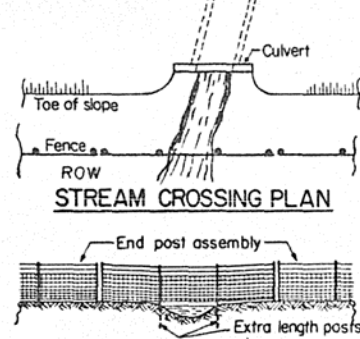
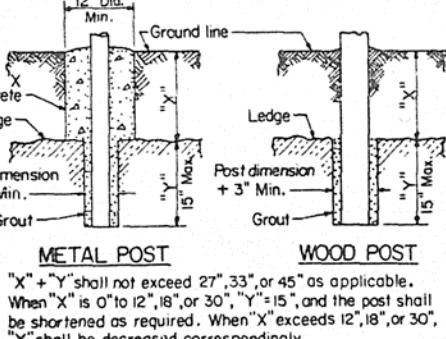
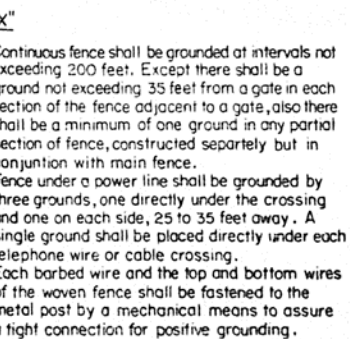
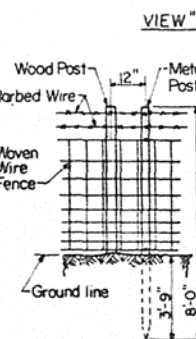
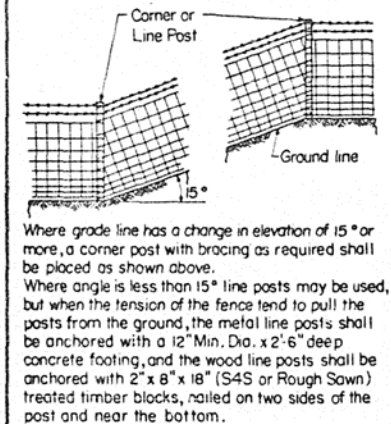
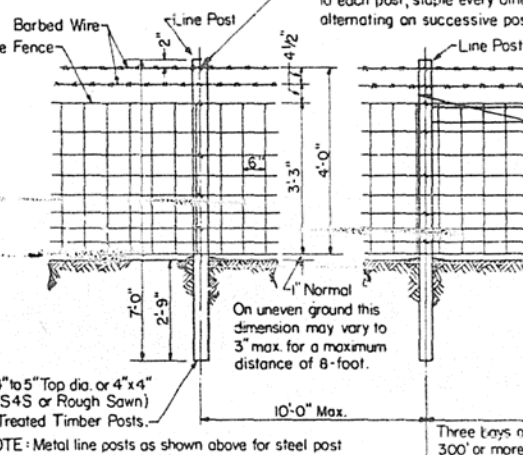
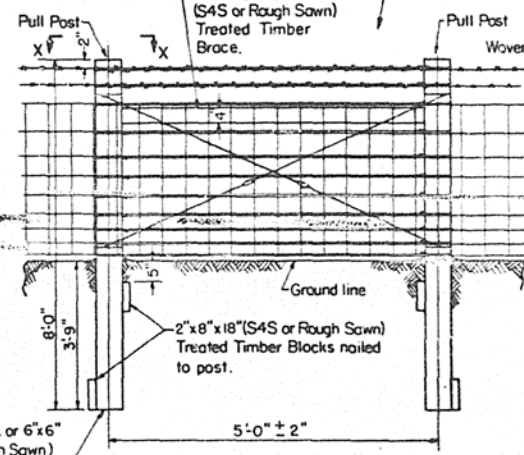
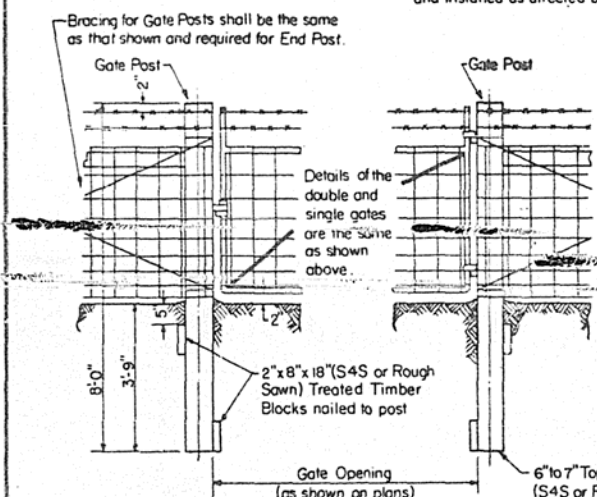
STANDARD DESIGN WOVEN WIRE FENCE



Vehicle gates to swing open 180°, and pedestrian gates to swing open 90°. Gate keepers shall be provided to hold gates in open position and they shall be located and installed as directed by the Engineer.

Pull posts shall be placed at locations determined by the Engineer. They shall be placed at 660-foot intervals between posts to which the ends of the fabric and barbed wires are fastened or midway between such posts when the distance is less than 1320' and greater than 660'.

Barbed wires shall be stapled to each post. Top and bottom wire of woven fence shall be stapled to each post, staple every other wire between, alternating on successive posts.



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISSUED 11-27-61
REVISIONS

W.F.	4-1-64
W.F.	8-6-64
W.F.	1-5-70
W.F.	10-19-70
D.W.W.	2-1-74
D.W.W.	9-14-76

PASSED *[Signature]* SEPT. 14, 1976
Engineer of Design Operations

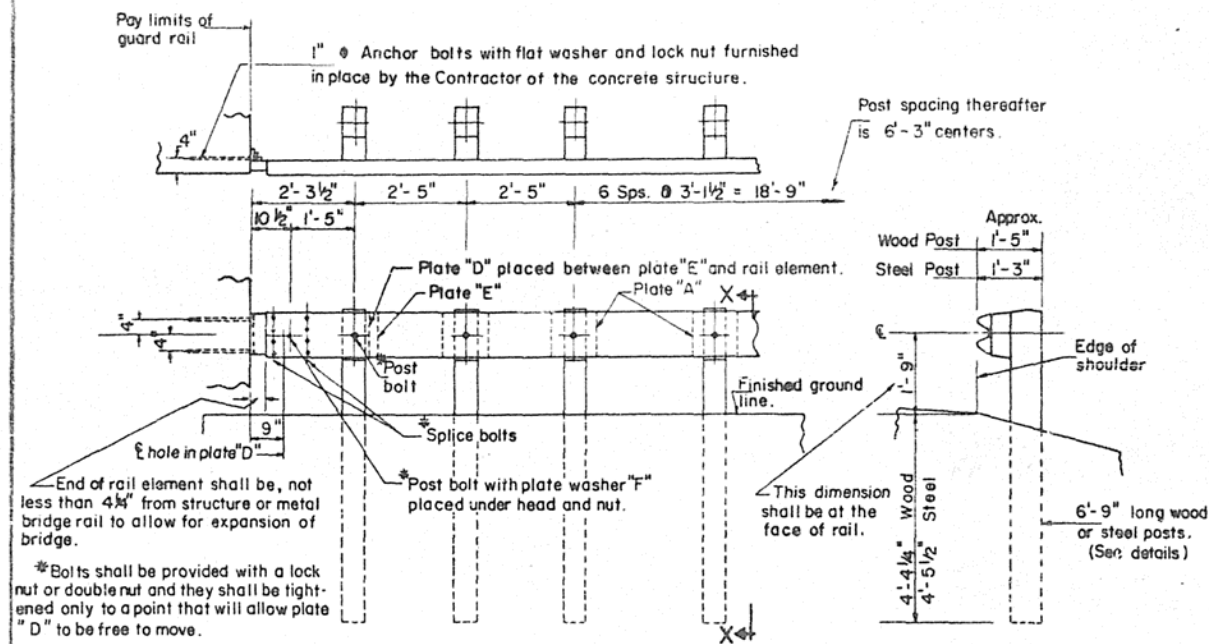
APPROVED *[Signature]* SEPT. 14, 1976
Engineer of Design

TABLE I - METAL POSTS SIZES & WEIGHTS

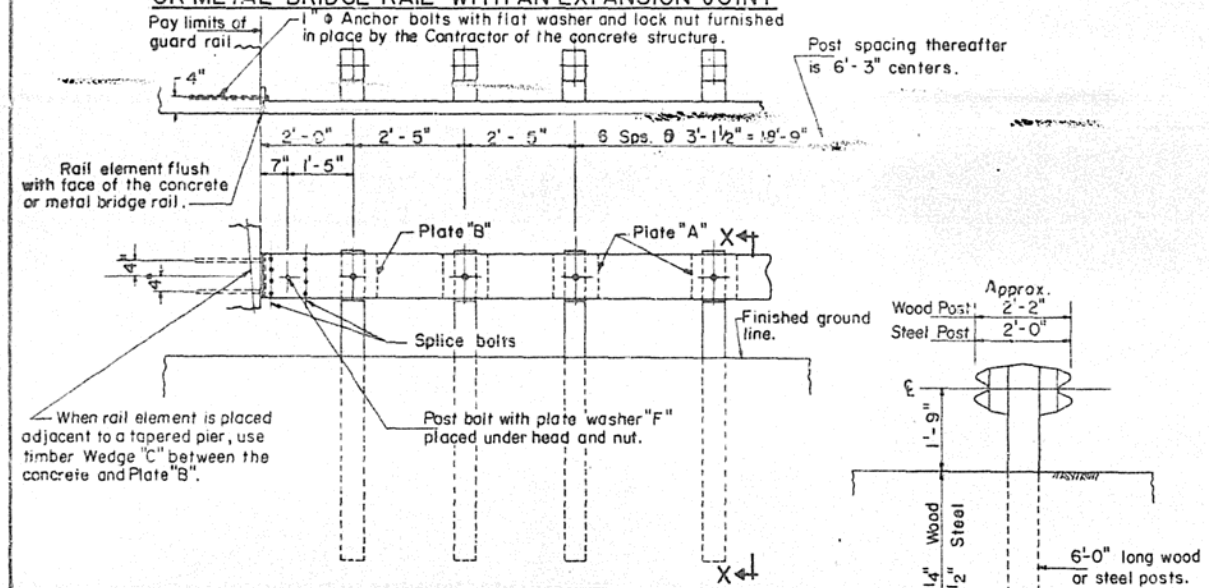
GATE POSTS			CORNER OR END or PULL POSTS		LINE POSTS		BRACES		
Section	Lbs./Lin.Ft.	Section	Lbs./Lin.Ft.	Section	Lbs./Lin.Ft.	Section	Lbs./Lin.Ft.	Section	Lbs./Lin.Ft.
Single gate up to 4 Ft.		Single gate over 4 Ft. to 8 Ft.		Single gate over 8 Ft. to 12 Ft.		Pipe 1.315" O.D.	1.68	Pipe 1.66" O.D.	2.27
Double gate up to 8 Ft.		Double gate over 8 Ft. to 16 Ft.		Double gate over 16 Ft. to 24 Ft.		Pipe 2.375" O.D.	3.11	Pipe 2.375" O.D.	3.11
Type A: Pipe 2.375" O.D.	3.65	Pipe 2.875" O.D.	5.79	Pipe 3 1/2" O.D.	7.58	Pipe 1.315" O.D.	1.34	Pipe 1.66" O.D.	1.83
Type B: Pipe 2.375" O.D.	3.11	Pipe 2.875" O.D.	4.64	Tubing 3" Sq.	8.80	Tubing 2 1/2" Sq.	4.32	Tubing 1" Sq.	1.41
Tubing 2 1/2" Sq.	4.32	Tubing 3" Sq.	5.78	Ang 2 1/2" x 2 1/2" x 1/4"	8.5	Ang 2 1/2" x 2 1/2" x 1/4"	4.1	Ang 2 1/2" x 2 1/4"	3.19
Ang 2 1/2" x 2 1/2" x 1/4"	4.1	Ang 3" x 3" x 1/4"	6.1	H, I, U, structural shapes	4.1 min.	or other approved	1.33 min.	or other approved	3.1 min.

NOTE (A)
Place a minimum of 4 strands of barbed wire, 6" maximum centers, in fan shape connected to an eye bolt on culvert headwall or set a line post when necessary to connect barbed wire.

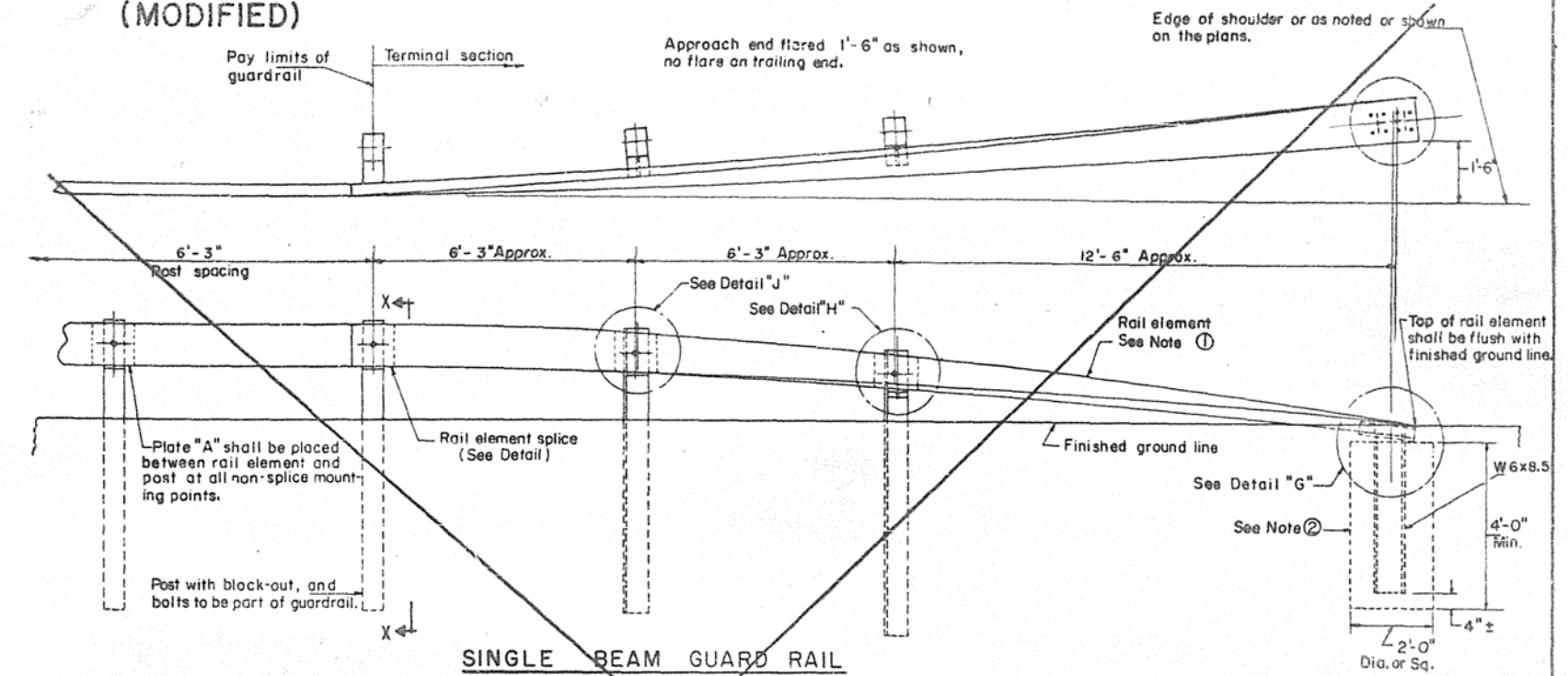
STANDARD DESIGN STEEL PLATE BEAM GUARD RAIL (MODIFIED)



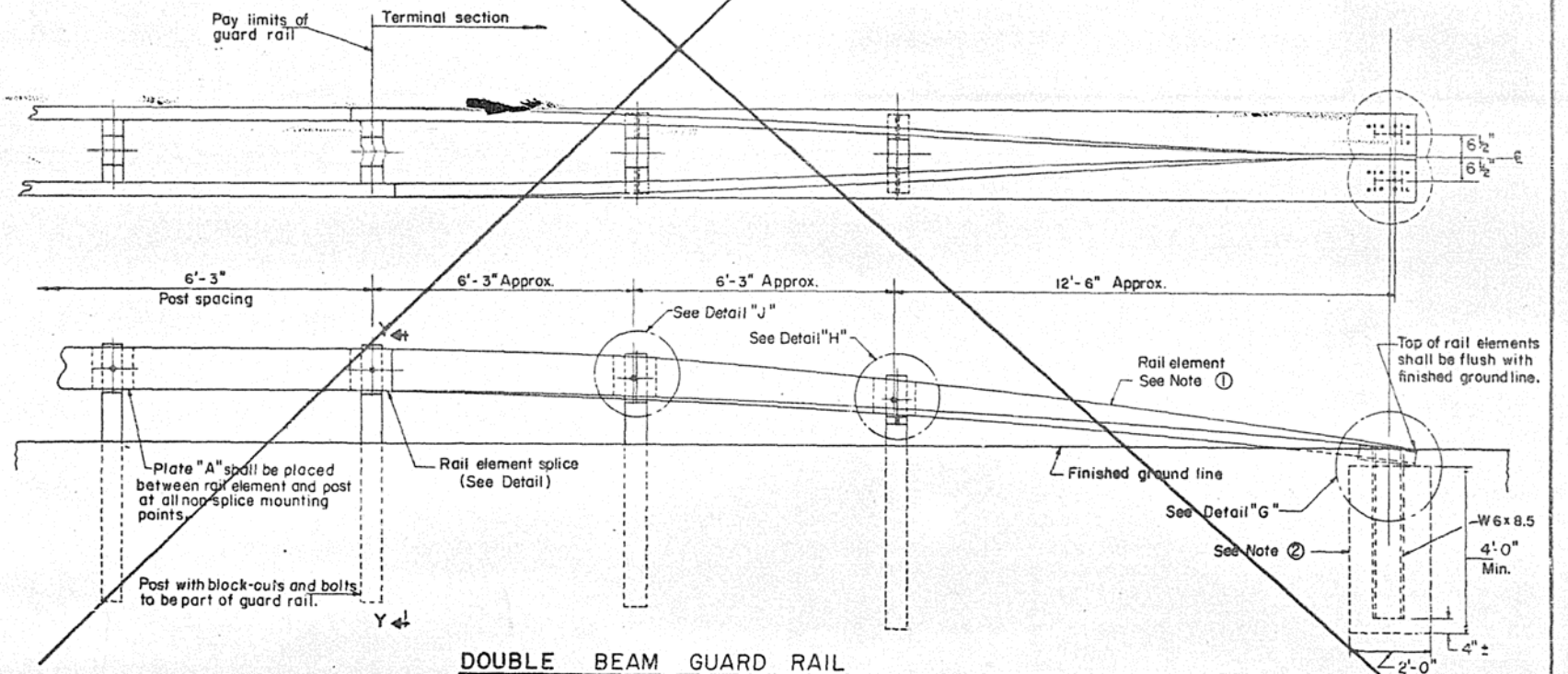
ANCHORING RAIL ELEMENT TO CONCRETE BRIDGE PARAPET OR METAL BRIDGE RAIL WITH AN EXPANSION JOINT



ANCHORING RAIL ELEMENT TO CONCRETE PIER OR CONCRETE BRIDGE PARAPET OR METAL BRIDGE RAIL WITHOUT EXPANSION JOINT



SINGLE BEAM GUARD RAIL



DOUBLE BEAM GUARD RAIL

GENERAL NOTE

- ① Rail element shall be twisted 90° in 25 feet. Care shall be exercised to provide a smooth curve with no kinks.
 - ② Rail element and post may be assembled and positioned to proper alignment prior to placing concrete around post.
- All concrete, reinforcement bars, and accessories used in the placing of the guard rail shall be incidental to the contract. At the option of the Contractor the rail elements may be furnished in either 12'-6" or 25'-0" nominal length.

Rail element, steel post, and all the steel supports, fastenings and accessories shall be galvanized.
Steel brackets Detail "I" and "J", steel block-outs, and steel posts may be provided with additional holes so that these items will not be required to be made right and left handed.
Steel brackets Detail "H" and "J" may be fabricated from W6x8.5 beam in lieu of the 3/8" plate specified, by cutting web of beam as shown dotted and welding together on both sides.

See Standard 2231 for Typical Applications of the Steel Plate Beam Guard Rail.

(Sheet 1 of 2 Sheets)
STANDARD 2230-10
Full Size DWG.

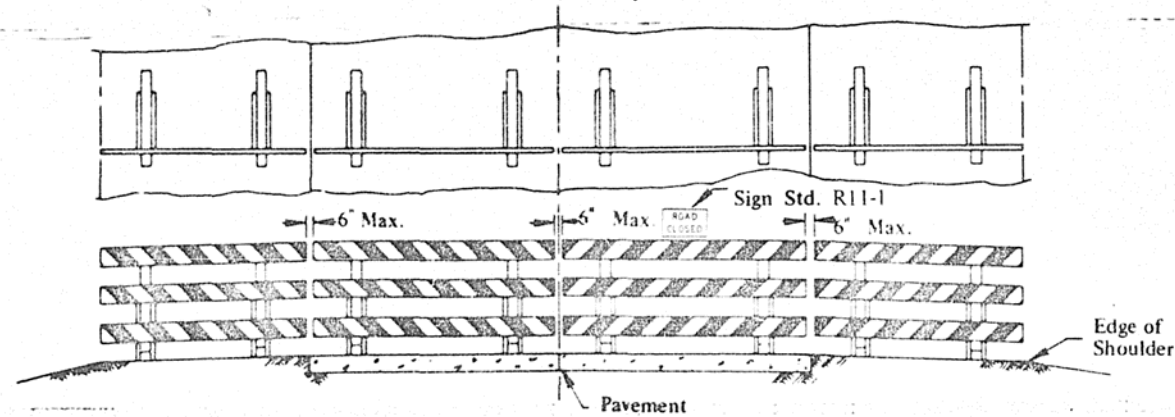
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		ISSUED 2-11-66	
PASSED August 5 1975 <i>D. E. Hamann</i> Engineer of Design Operations		D.W.W. 7-11-74	
APPROVED August 5 1975 <i>Clarence Smith</i> Engineer of Design		D.W.W. 8-5-75	
REDRAWN 7-11-74			

F-3.1 H

STANDARD DESIGN

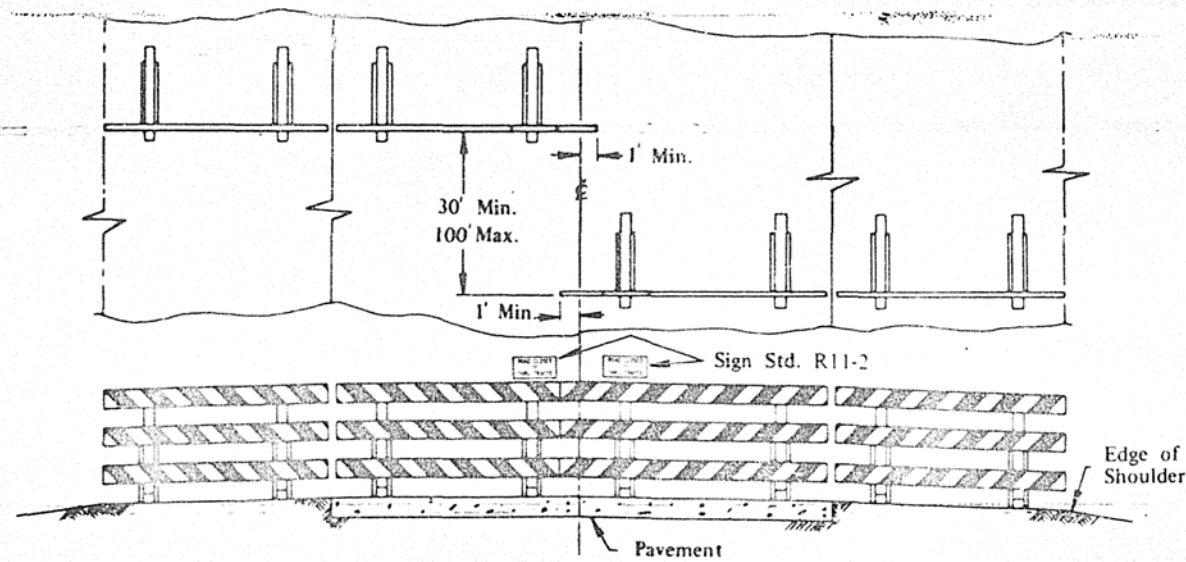
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD



ROAD CLOSED TO ALL TRAFFIC

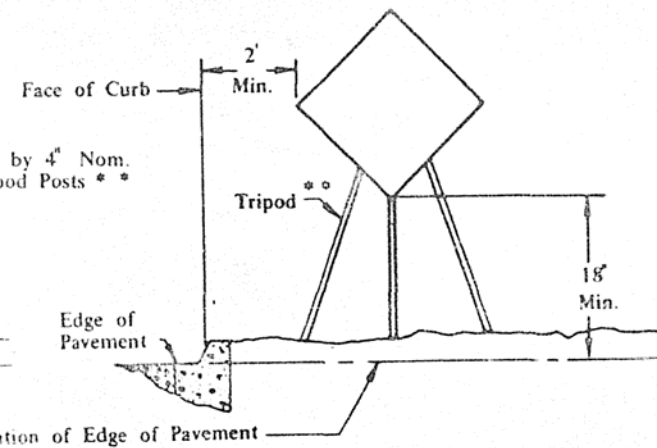
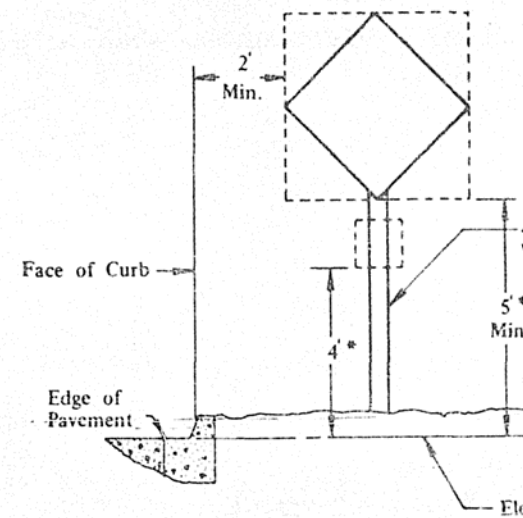
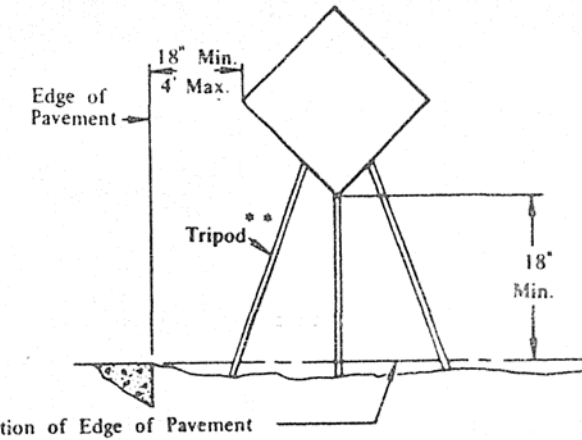
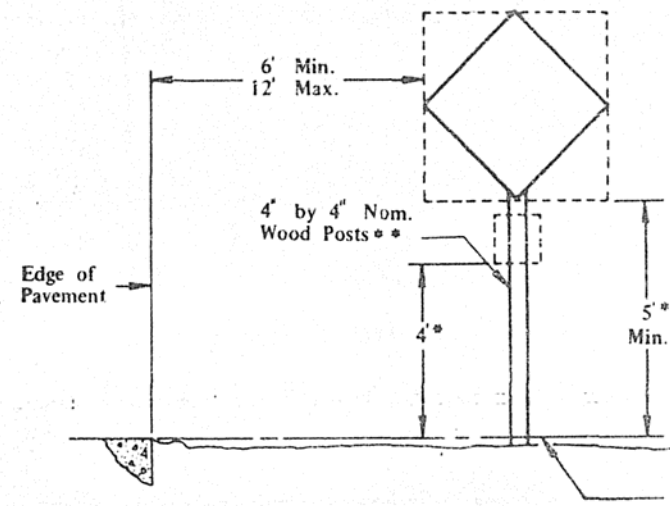
The barricades shall be to the edge of the shoulders except when otherwise directed by the Engineer or shown on the detailed construction plans.



ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of barricades. The barricades shall be to the edge of the shoulders, except when otherwise directed by the Engineer or shown on the detailed construction plans.

TYPICAL SIGN INSTALLATIONS



*Add 2 ft. if parking exists within 200 ft. in advance of the sign location at any time during the project.

**Alternate designs and/or materials may be permitted when authorized by the Engineer. All materials shall be substantial and durable.

Signs on temporary supports shall be within 20° of a vertical position.

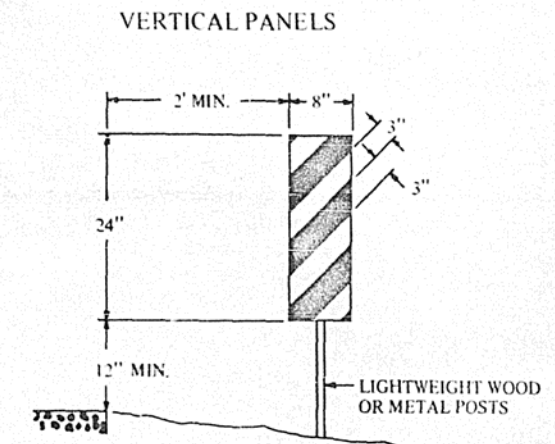
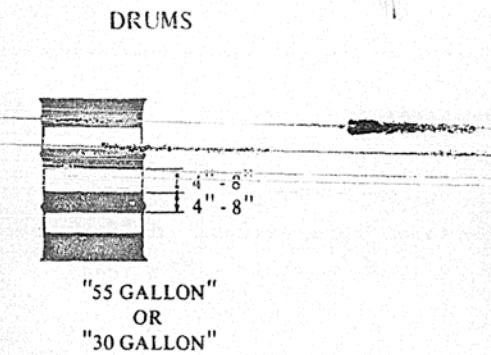
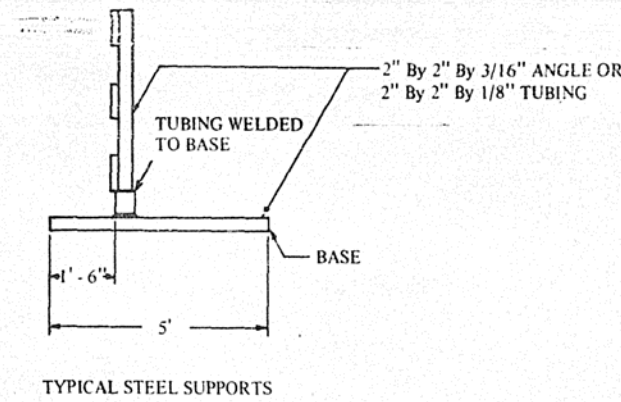
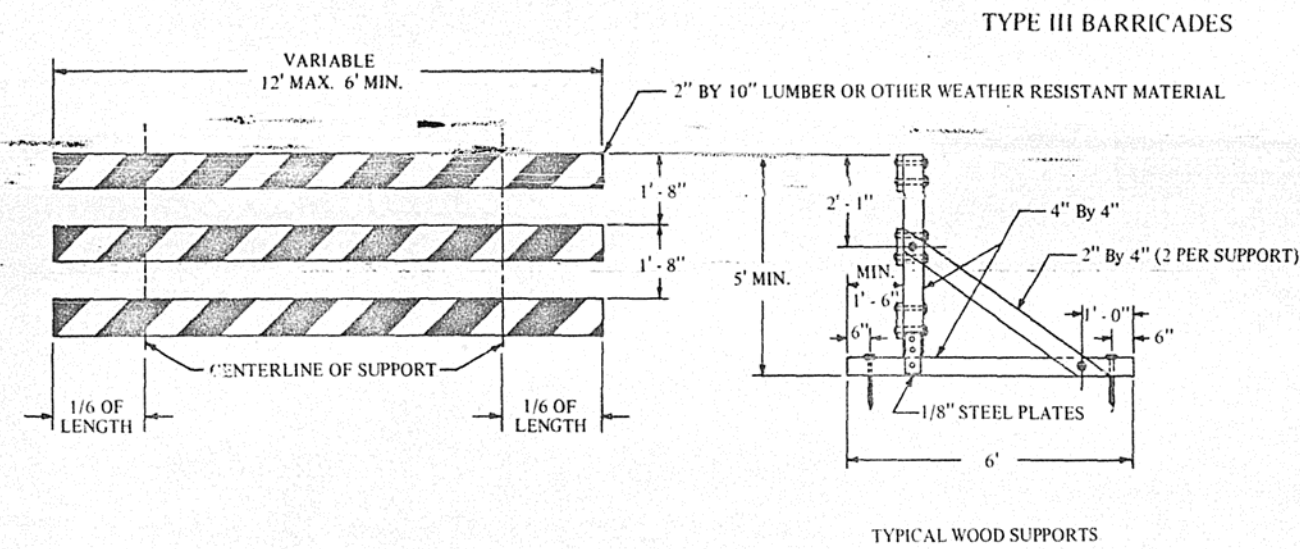
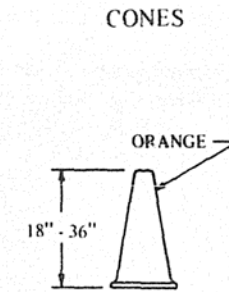
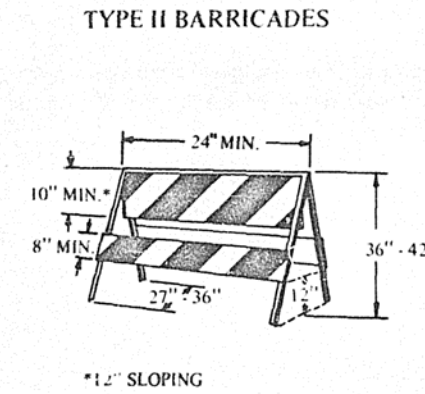
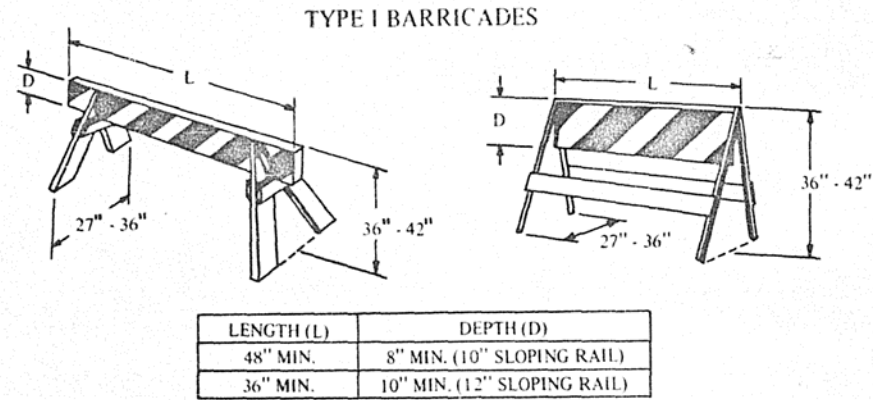
Weights of concrete, stone, or brick will not be allowed and all weights used to stabilize signs other than sandbags must be rigidly attached to the sign support as close to the ground as possible.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <i>L. E. M. Berly</i> Engineer of Traffic	REVISOR BY DATE
1973	

STANDARD 2298-4

F-601c

STANDARD DESIGN DESIGN OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



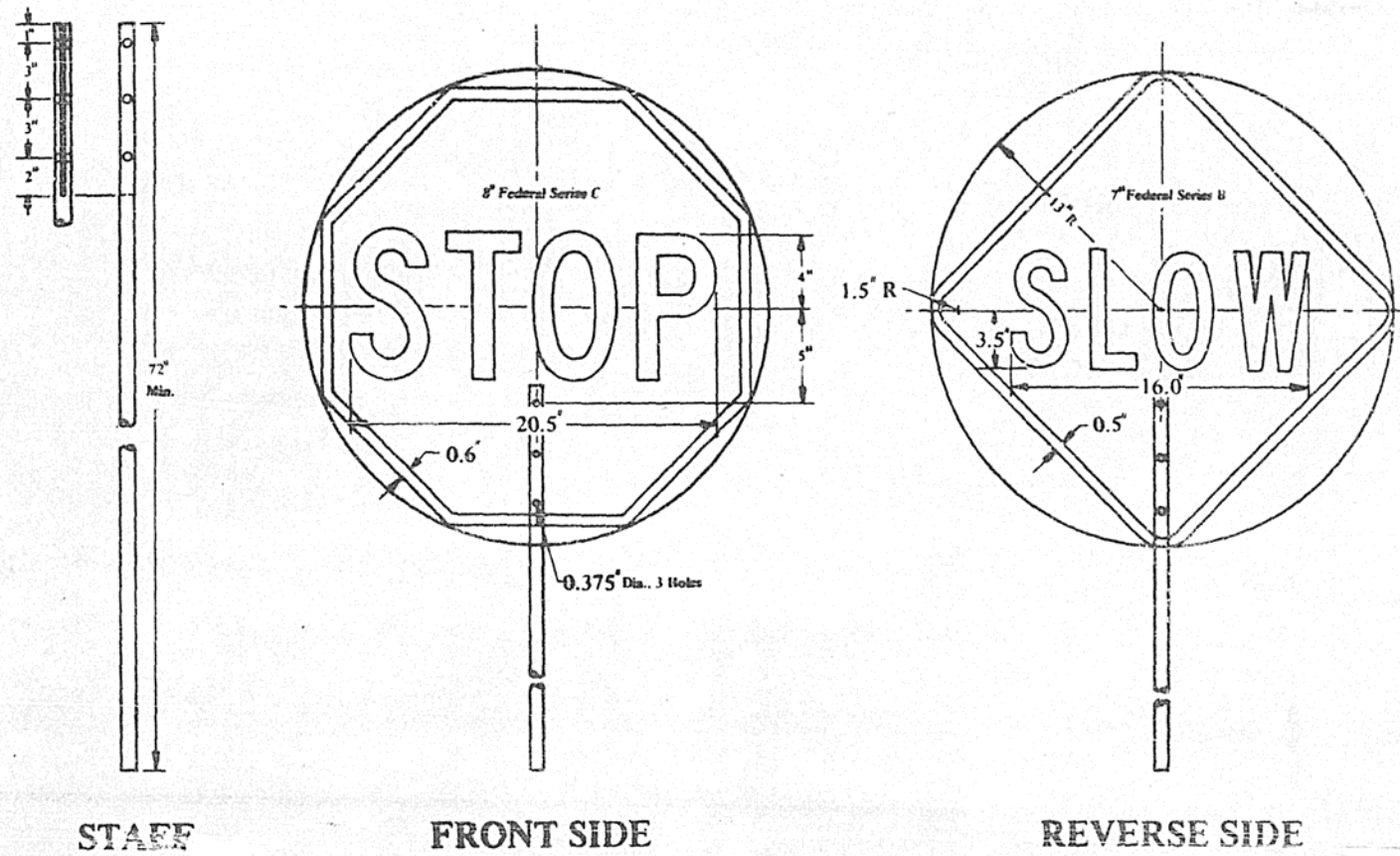
GENERAL NOTES

1. Barricade legs or supports shall be orange, white or silver in color.
2. All reflectorized material, shall meet the latest reflective sheeting requirements of the Department to be used in construction and maintenance areas.
3. All barricades and vertical panels shall have alternating reflectorized white and reflectorized orange stripes at 45° from the vertical. Barricade stripes shall be 6 inches in width on barricades 36 inches or greater in length and 4 inches in width on barricades less than 36 inches in length. Stripes on vertical panels shall be 3 inches in width.
4. Type I and Type II Barricades shall be striped on both sides. Type III Barricades shall be striped on both sides where traffic approaches from either direction.
5. Diagonal stripes shall slope downward at 45° toward the side on which traffic will pass.
6. Vertical panels placed on the outside of curves shall be reflectorized on both sides.
7. The top rail on Type I and Type II Barricades may be vertical as shown or sloping at no greater than a 30 degree angle.
8. Drums shall have alternating reflectorized orange and reflectorized white horizontal, circumferential stripes. Stripes shall be 4 inches to 8 inches in width. If non reflective spaces are left between the orange and white stripes or at the top and bottom of the drum, they shall be no more than 2 inches in width and shall be painted orange or white. Other than for these 2 inch spaces, the entire drum shall be striped.
9. Frames shown are typical. Alternate designs and/or materials may be permitted when authorized by the Engineer. All materials shall be substantial and durable. Nominal lumber sizes are acceptable to satisfy dimensions.
10. Barricades may be identified with a legend that does not exceed one inch in height at a location not visible to traffic.
11. Weights of concrete, stone, or brick will not be allowed and all weights used to stabilize barricades other than sandbags must be rigidly attached to the barricades as close to the ground as possible. No weights or sandbags will be allowed on the top rail of barricades. Drums may be weighted internally with just enough sand, water, or other material to provide stability.
12. When used, warning lights on Type I and Type II Barricades shall be mounted above the top rail to the side on which traffic will pass and shall not obscure any reflectorized portion of the rail.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69 REVISED
APPROVED <i>GE. Modaly</i> Engineer of Traffic	By DATE R.V. 6-1-76

STANDARD 2299-7

STANDARD DESIGN FOR FLAGMAN TRAFFIC CONTROL SIGN



GENERAL NOTES

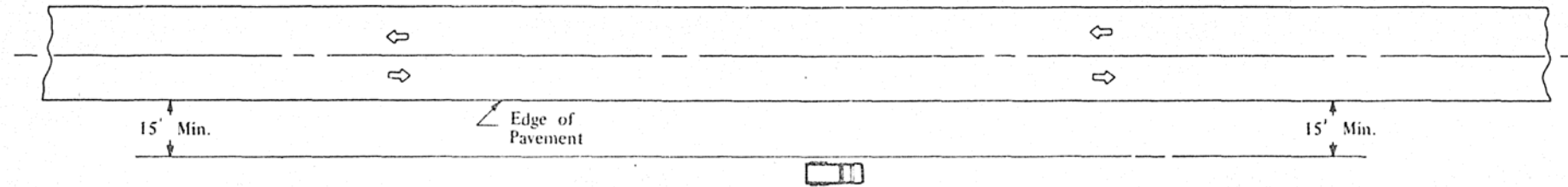
1. The "STOP" face shall consist of white letters and border on a red reflectorized background.
2. The "SLOW" face shall consist of black letters and border on an orange reflectorized background.
3. Areas outside sign borders shall be light blue.
4. The portion of the staff within the sign face shall match the sign colors.
5. All colors and letters shall meet applicable federal standards.
6. The sign shall be attached to the staff with rust resistant hardware.
7. The staff shall consist of two sections joined by a coupling located 60 in. from the bottom of the staff. Alternate designs may be used when approved by the Engineer. All materials shall be substantial and durable.
8. This sign shall be furnished by the contractor and shall be used by the flagman in lieu of flags or other signaling devices. The cost of furnishing and maintaining the sign shall be considered incidental to the contract and no additional compensation will be allowed.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <u>6-12</u> 197 <u>3</u>	REVISED BY DATE
<i>L. E. Moberly</i> Engineer of Traffic	

STANDARD 2300-1

STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



TYPICAL APPLICATIONS

- Landscaping Work
- Utility Operations
- Fencing Contracts and Maintenance
- Cleaning Culverts

GENERAL NOTES

1. No special signing is required.
2. If the work operation requires that two or more work vehicles cross the 15 ft. clear zone in any one hour, traffic control will be in conformance with Case II.

CASE I

TWO-LANE, TWO WAY TRAFFIC,
RURAL DAY OR NIGHT
OPERATIONS

Where, at all times, all vehicles,
equipment, men and their activities
are more than 15 ft. from the edge of
pavement.

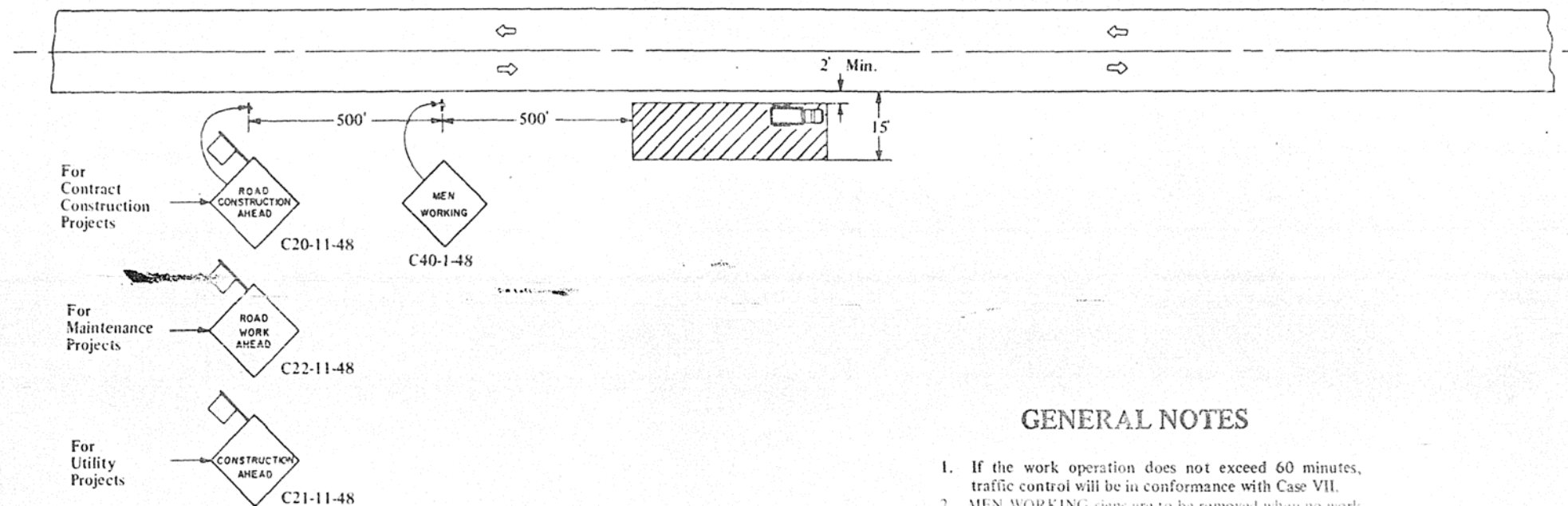
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <i>A. E. Moberly</i> 1973	REVISOR
BY	DATE

STANDARD 2301-3

F-606 b

STANDARD DESIGN




TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



TYPICAL APPLICATIONS

- Utility Operations
- Culvert Extensions
- Side Slope Changes
- Guard Rail Installation and Maintenance
- Delineator Installation and Maintenance
- Landscaping Operations
- Cleaning Ditches and Drainage Structures
- Sign Installation and Maintenance
- Shoulder Repair

SYMBOLS

-  Work Area.
-  Sign with 18 in. by 18 in. (minimum) orange flag attached.
-  Sign on portable or permanent support.

GENERAL NOTES

1. If the work operation does not exceed 60 minutes, traffic control will be in conformance with Case VII.
2. MEN WORKING signs are to be removed when no work is being performed. Any unattended obstacle or excavation in the work area, which in the opinion of the engineer constitutes a hazard, shall be protected by Type I or Type II Barricades at 50-foot centers with flashing lights or torches at night. When used, torches must be placed on the ground. If the hazard exceeds 100 feet in length, steady burning lights shall be substituted for flashing lights or torches. When the distance is greater than 250 feet, barricade spacing may be increased to 100 feet.
3. If the work operation requires that four or more work vehicles enter the through traffic lanes in a one-hour period, a flagman shall be provided and the FLAGMAN 500 FT sign shall be substituted for the MEN WORKING sign.
4. Longitudinal dimensions may be adjusted slightly to fit field conditions.
5. All warning signs shall have minimum dimensions of 48 in. by 48 in. and have black legend and border on an orange reflectorized background.
6. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.

CASE II

TWO-LANE, TWO WAY TRAFFIC,
RURAL DAY OR NIGHT
OPERATIONS

Where, at any time, any vehicle, equipment, men or their activities will encroach in the area closer than 15 ft. but not closer than 2 ft. to the edge of pavement.

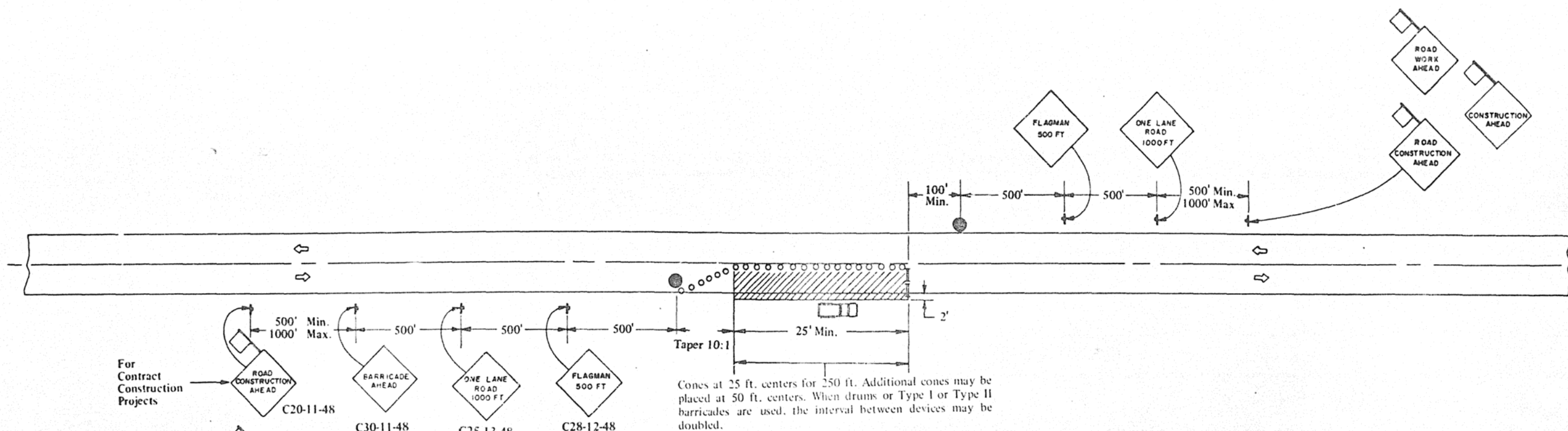
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <i>L. E. Moberly</i> Engineer of Traffic	REVISOR BY DATE
6-12-1973	

STANDARD 2302-3

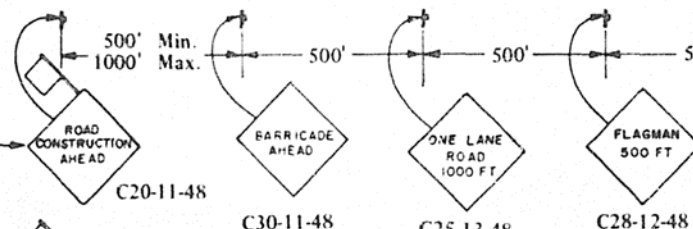
F-607b

STANDARD DESIGN

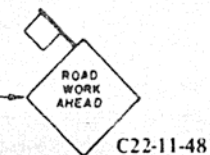
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND CONTRACT MAINTENANCE



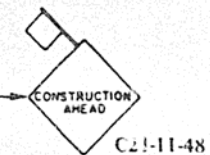
For Contract Construction Projects



For Maintenance Projects



For Utility Projects



Cones at 25 ft. centers for 250 ft. Additional cones may be placed at 50 ft. centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

GENERAL NOTES

1. The taper shall be formed by placing one cone for each foot of lane width or a drum or barricade for each two foot of lane width.
2. Construction operations shall be confined to one traffic lane, leaving the opposite lane open to traffic. At least 500 ft. of both traffic lanes shall be available for traffic movement at intervals not greater than 1,000 ft. A complete traffic control plan must be approved for any project expected to exceed 1,000 ft. in length including both taper and work areas.
3. If the work operation does not exceed 60 minutes, traffic control will be in conformance with Case VII.
4. The flagmen shall be in sight of each other or in direct communication at all times.
5. When there is no work being performed, the FLAGMAN 500 FT sign(s) and the flagmen will not be required. A ONE LANE ROAD 500 FT sign(s) shall be installed in place of the FLAGMAN 500 FT sign(s).
6. All signs, cones, barricades and drums are to be removed at completion of the day's operations and the work area opened to traffic.
7. When a side road intersects the highway on which work is being performed, additional traffic control devices shall be erected and flagmen provided as directed by the Engineer.
8. Longitudinal dimensions may be adjusted slightly to fit field conditions. The lateral placement of the flagmen may be varied from that shown.
9. All warning signs shall have minimum dimensions of 48 in. by 48 in. and have black legend and border on an orange reflectorized background.
10. All vehicles, equipment, men (except flagmen) and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Cone, Drum (55 or 30 gallon), Type I or Type II Barricade.
- Sign on portable or permanent support.
- Flagman with Traffic Control sign.
- Type I or Type II Barricade.

CASE III

TWO-LANE, TWO WAY TRAFFIC, RURAL DAY OPERATIONS ONLY

Where, at any time, any vehicle, equipment, men or their activities will encroach in the area between the center line and a line 2 ft. outside the edge of pavement.

TYPICAL APPLICATIONS

Pavement Patch
Utility Operations

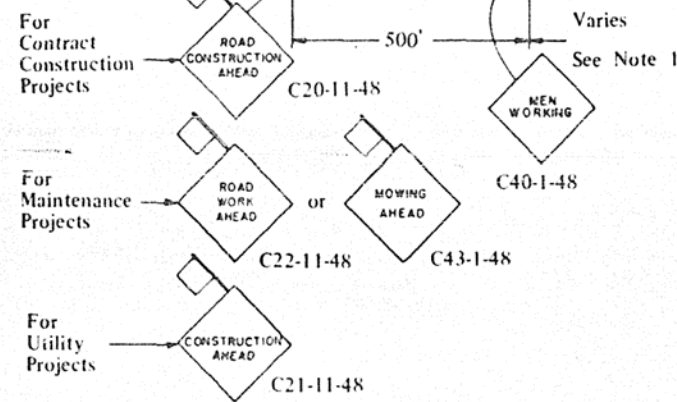
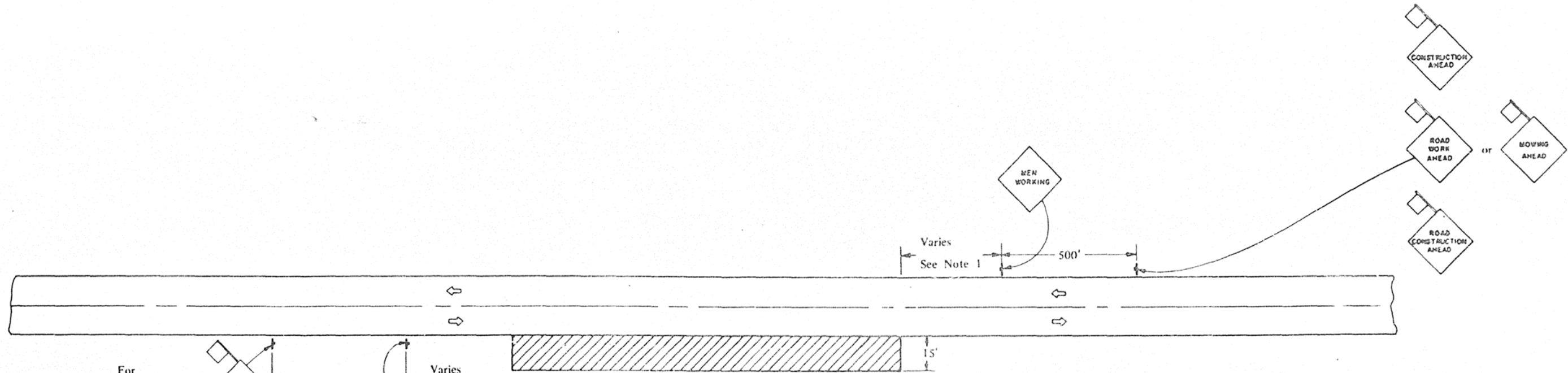
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <i>J. E. Moberly</i> Engineer of Traffic	REVISOR BY DATE
6-12-1973	

STANDARD 2303-4

F-608 b

STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



GENERAL NOTES

1. Minimum distance is 200 feet. Maximum distance is determined by the Engineer but in no case to exceed the length of 1/2 day's operation.
2. If the work operation does not exceed 60 minutes, traffic control will be in conformance with Case VII.
3. All signs are to be removed at completion of the day's operations.
4. For divided roadways the required advance warning signs shall be posted on both the right and left side of the roadway.
5. Signs mounted in the median may be omitted when the median is less than 10 feet wide.
6. For multilane roadways the advance warning signs for traffic approaching from the opposite direction will be omitted.
7. MEN WORKING signs are to be removed when no work is being performed. Any unattended obstacle or excavation in the work area, which in the opinion of the engineer constitutes a hazard, shall be protected by Type I or Type II Barricades at 50-foot centers with flashing lights or torches at night. When used, torches must be placed on the ground. If the hazard exceeds 100 feet in length, steady burning lights shall be substituted for flashing lights or torches. When the distance is greater than 250 feet, barricade spacing may be increased to 100 feet.
8. If the work operation requires that four or more work vehicles enter the through traffic lanes in a one-hour period, a flagman shall be provided and the FLAGMAN AHEAD sign shall be substituted for the MEN WORKING sign.
9. Longitudinal dimensions may be adjusted slightly to fit field conditions.
10. All warning signs shall have minimum dimensions of 48 in. by 48 in. and have black legend and border on an orange reflectorized background.
11. All vehicles, equipment, men and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.

CASE V

RURAL MOVING OPERATIONS DAY OPERATIONS ONLY

Where, at any time, any vehicle, equipment, men or their activities require an intermittent or continuous moving operation on the shoulder.

TYPICAL APPLICATIONS

Shoulder Work
Mowing
Utility Operations

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Sign on portable or permanent support.

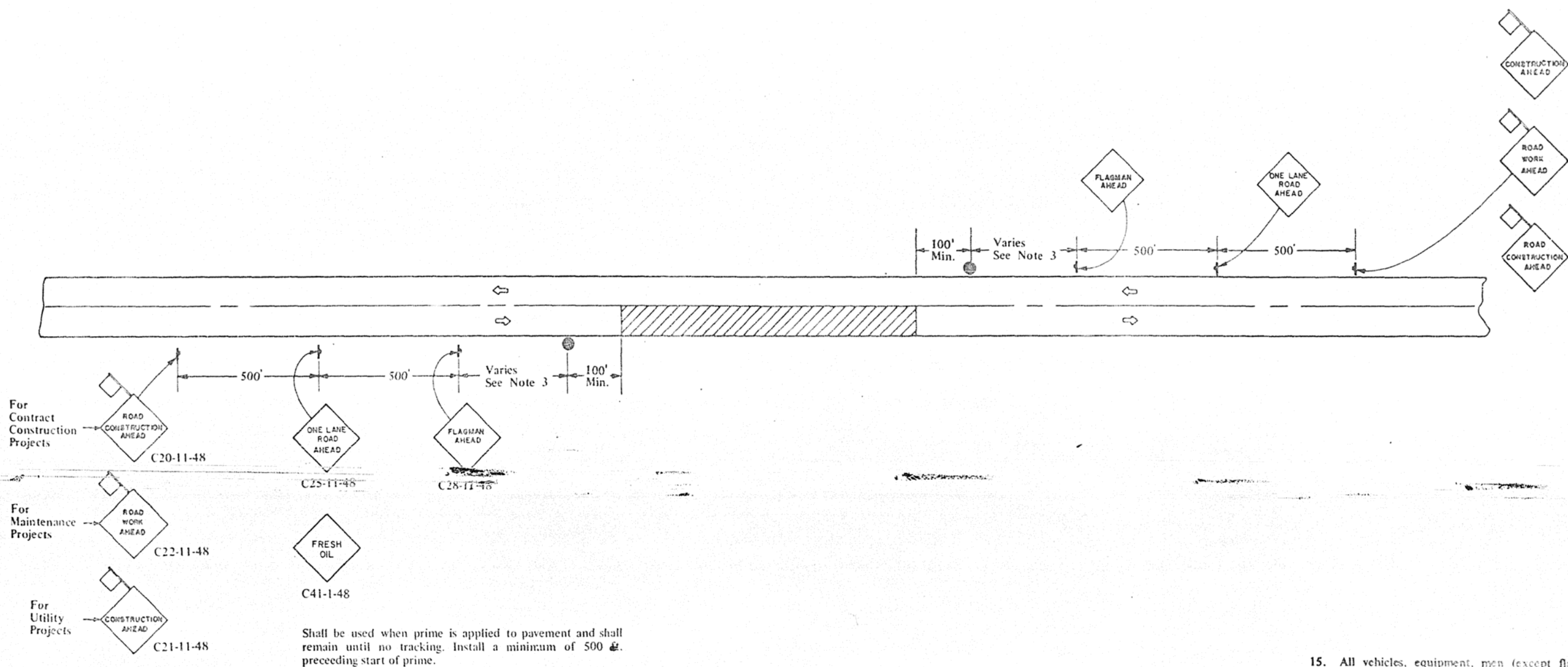
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69 REVISED BY DATE
APPROVED <i>L.E. Moberly</i> Engineer of Traffic	6-12-1975

STANDARD 2305-3

F-610 D

STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND CONTRACT MAINTENANCE



TYPICAL APPLICATIONS

Bituminous Resurfacing
Crack Pouring
Utility Operations

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Sign on portable or permanent support.
- Flagman with Traffic Control sign.

GENERAL NOTES

1. Construction operations shall be confined to one traffic lane. On two-lane roads, at least 500 ft. of both traffic lanes shall be available for traffic movement at intervals not greater than 1,000 ft. and a complete traffic control plan must be approved for any project expected to exceed 1,000 ft. in length.
2. The flagmen shall be in sight of each other or in direct communication at all times.
3. 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 or four miles, whichever is less.
4. If the work operation does not exceed 60 minutes, traffic control will be in conformance with Case VII.
5. All signs are to be removed at completion of the day's operations.
6. For divided roadways the required advance warning signs shall be posted on both the right and left side of the roadway.
7. Signs mounted in the median may be omitted when the median is less than 10 feet wide.
8. For multilane roadways the flagman shown for traffic approaching from the opposite direction will be positioned as directed by the Engineer and the advance warning signs for traffic approaching from the opposite direction omitted.
9. For multilane roadways the advance warning signs for traffic approaching from the opposite direction will be omitted and RIGHT LANE CLOSED AHEAD signs shall be substituted for the ONE LANE ROAD AHEAD signs.
10. This case also applies when work is being performed in lanes adjacent to the centerline of an undivided multilane highway or adjacent to the median on a divided highway. Under these conditions, LEFT LANE CLOSED AHEAD signs shall be substituted for RIGHT LANE CLOSED AHEAD signs.
11. This case does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans approved by the Engineer will be required.
12. ONE LANE ROAD AHEAD and FLAGMAN AHEAD signs are to be removed or covered when no work is being performed.
13. Longitudinal dimensions may be adjusted slightly to fit field conditions. The lateral placement of the flagmen may be varied from that shown.
14. All warning signs shall have minimum dimensions of 48 in. by 48 in. and have black legend and border on an orange reflectorized background.

15. All vehicles, equipment, men (except flagmen) and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.

CASE VI

RURAL MOVING OPERATIONS DAY OPERATIONS ONLY

Where, at any time, any vehicle, equipment, men or their activities require an intermittent or continuous moving operation on the pavement where the average speed of movement is less than four miles per hour.

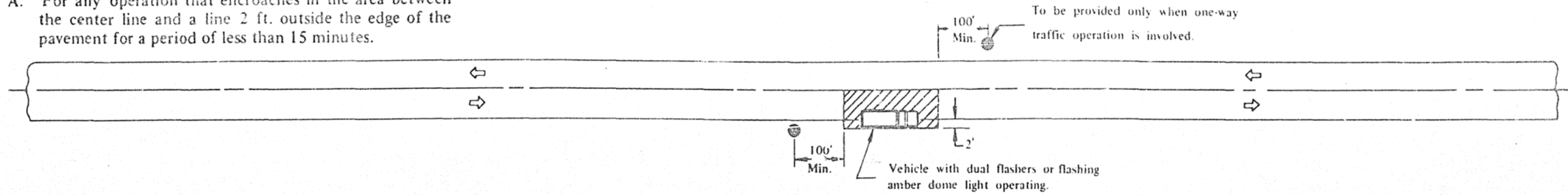
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		ISSUED 4-3-69
APPROVED <i>A. E. Moberly</i> 1973		REVISOR
		BY
		DATE

STANDARD 2306-4

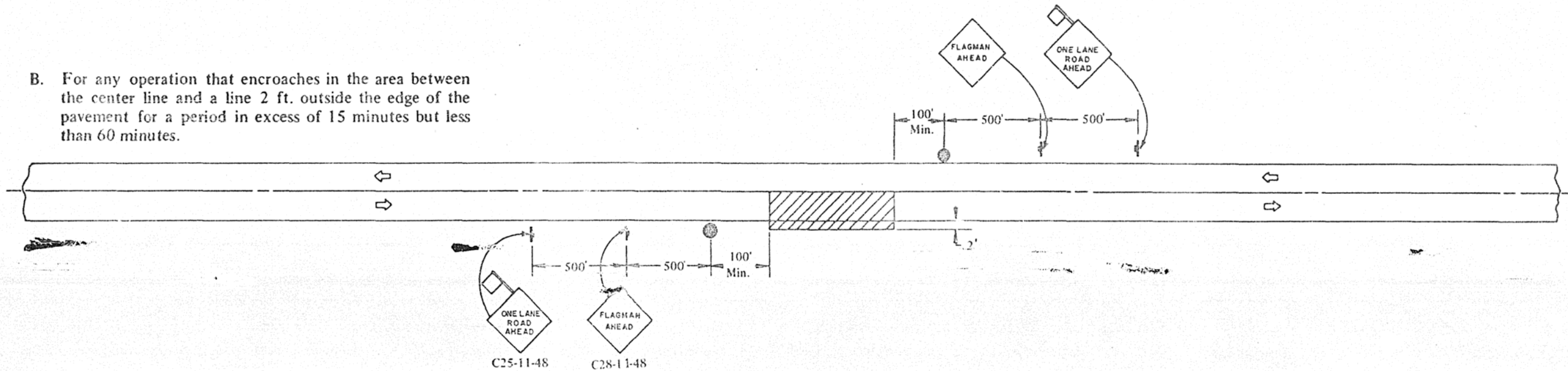
STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND CONTRACT MAINTENANCE

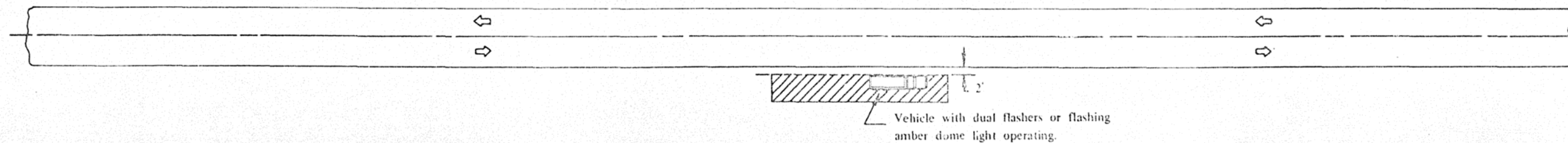
A. For any operation that encroaches in the area between the center line and a line 2 ft. outside the edge of the pavement for a period of less than 15 minutes.



B. For any operation that encroaches in the area between the center line and a line 2 ft. outside the edge of the pavement for a period in excess of 15 minutes but less than 60 minutes.



C. For any operation that is more than 2 ft. outside the edge of the pavement for a period of less than 60 minutes.



TYPICAL APPLICATIONS

Marking Patches
Field Survey
String Line
Utility Operation
Cleaning Up Debris on Pavement

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Sign on portable or permanent support.
- Flagman with Traffic Control sign.

GENERAL NOTES

1. Construction operations shall be confined to one traffic lane. On two-lane roads, at least 500 ft. of both traffic lanes shall be available for traffic movement at intervals not greater than 1,000 ft. and a complete traffic control plan must be approved for any project expected to exceed 1,000 ft. in length.
2. The flagmen shall be in sight of each other or in direct communication at all times.
3. All signs are to be removed at completion of each operation.
4. For multilane roadways the flagman shown for traffic approaching from the opposite direction will be positioned as directed by the Engineer and the advance warning signs for traffic approaching from the opposite direction omitted.
5. Longitudinal dimensions may be adjusted slightly to fit field conditions. The lateral placement of the flagmen may be varied from that shown.
6. All warning signs shall have minimum dimensions of 48 in. by 48 in. and have black legend and border on an orange reflectorized background.
7. All vehicles, equipment, men (except flagmen) and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.

CASE VII

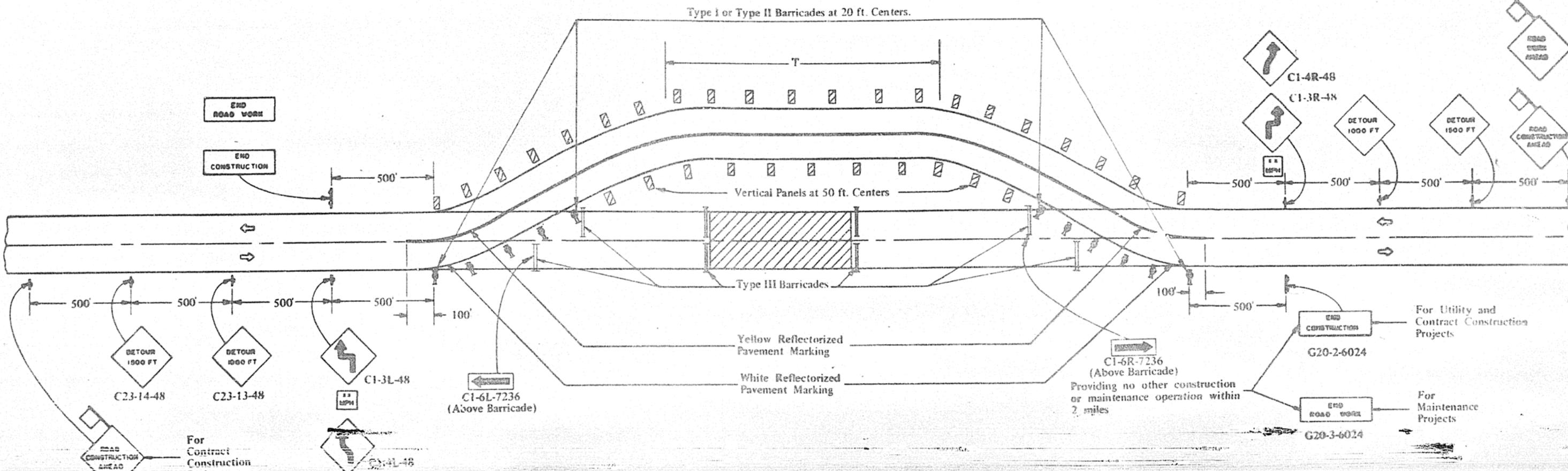
SHORTTIME OPERATIONS
DAY OR NIGHT OPERATIONS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69 REVISED BY DATE
APPROVED <i>L.E. Moberly</i> 6-12-1973 Engineer of Traffic	

STANDARD 2307-4

STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



TYPICAL APPLICATIONS

Bridge Construction
Culvert Construction

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Sign on portable or permanent support.
- Type I or Type II Barricade with steady burning light.
- Vertical Panel

GENERAL NOTES

1. On paved runarounds, reflective solid white edge lines and a solid double yellow center line shall be used when the closure time exceeds four days or when the normal posted speed outside the area of operations exceeds 50 miles per hour. All existing markings which conflict with the revised traffic pattern will be covered with black nonreflectorized pavement marking tape or painted out. Either temporary reflectorized pavement marking tape or reflectorized painted pavement marking shall be used except that temporary reflectorized pavement marking tape shall be used for marking the new center line and edge lines on the existing pavement.
2. Where the tangent distance (T) on the temporary runaround exceeds 600 ft., clear delineators at 50-foot centers may be substituted for the vertical panels or spacing between vertical panels may be increased to 100 ft. within the limits of the tangent. Within these same limits the solid double yellow reflectorized marking used to indicate the center line of the traveled way may be replaced with marking in a dashed pattern, if no passing sight distance restriction exists.
3. A curve sign will be required at exit end of the runarounds if (T) is equal to or greater than 1,000 feet.
4. The advisory safe speed to be shown below the reverse curve (turn) signs shall be determined at the site and approved by the Engineer.
5. Steady burning lights will not be required on Type I or Type II Barricades for day operations.
6. The Engineer may require drums, either 55 gallon or 30 gallon, to be used to supplement the barricades if the closure time exceeds four days.
7. All signs shall be post mounted if the closure time exceeds four days.
8. High intensity flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
9. When a side road intersects the highway on which work is being performed, additional traffic control devices shall be erected and flagmen provided as directed by the Engineer.
10. Longitudinal dimensions may be adjusted slightly to fit field conditions.
11. 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 have as a minimum the dimensions shown and shall have a black legend and border on a white reflectorized background.
12. All barricade lights shall be monodirectional.
13. Form BT 725 is required.

CASE X

**TWO-LANE, TWO WAY TRAFFIC,
RURAL TEMPORARY
RUNAROUND DAY OR NIGHT
OPERATIONS**

Where, at any time, any vehicle, equipment, men or their activities require the closure of both lanes and a temporary runaround is constructed.

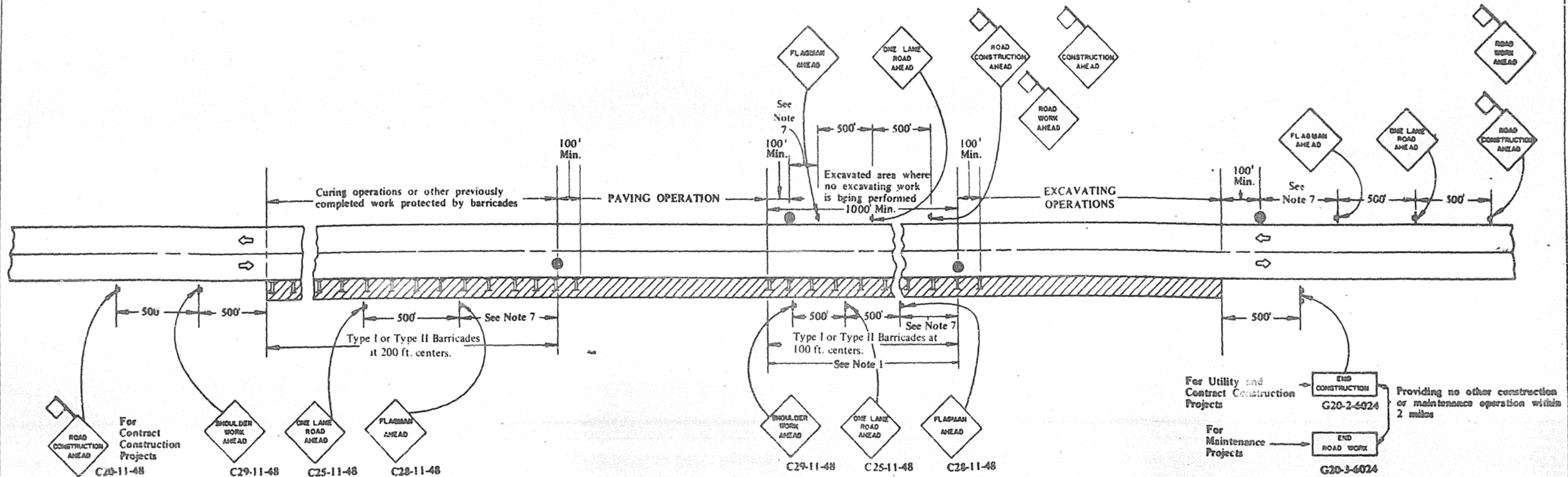
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69 REVISED BY DATE
APPROVED <i>L. E. Moberly</i> Engineer of Traffic	1973

STANDARD 2310-3

F-615 D

STANDARD DESIGN

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND MAINTENANCE



GENERAL NOTES

- Where the distance between paving and excavating operations is less than 2,000 ft., the entire operation may be considered as one work area for signing purposes. When the distance between operations exceeds 2,000 ft., additional warning signs shall be placed as shown. Under restricted sight distance conditions, such additional devices may also be required for distances less than 2,000 ft. at the discretion of the Engineer.
- Two flagmen shall be required for each separate construction operation.
- The flagmen shall be in sight of each other or in direct communication at all times.
- Construction operations shall be confined to one traffic lane leaving the opposite lane open to traffic. At least 500 feet of both traffic lanes shall be available for traffic movement at intervals not greater than 1,000 ft.
- No paving or excavating operations shall be performed at night unless authorized by the Engineer.
- When these operations are suspended, all vehicles, materials, and equipment, including traffic control and protective devices, shall be removed from the pavement in accordance with the Provisions of Article 107.14 and the excavated area shall be protected by Type I or Type II Barricades at 100 foot centers. ROAD CONSTRUCTION AHEAD or ROAD WORK AHEAD and SHOULDER WORK AHEAD signs shall be installed as shown to protect the curing operations. ROAD CONSTRUCTION AHEAD and ROAD CONSTRUCTION 500 FT or ROAD WORK 500 FT signs shall be installed for traffic in the opposite direction.
- 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.
- All signs shall be post mounted if the working time exceeds four days.
- High intensity flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series.
- When a side road intersects the highway on which work is being performed, additional traffic control devices shall be erected and flagmen provided as directed by the Engineer.
- Longitudinal dimensions may be adjusted slightly to fit field conditions. The lateral placement of the flagmen may be varied from that shown.
- All signs shall be in accordance with the Illinois Manual on Uniform Traffic Control Devices and be reflectorized. All warning signs shall be a minimum of 48 in. by 48 in.
- All vehicles, equipment, men (except flagmen) and their activities are restricted at all times to one side of the pavement unless otherwise authorized by the Engineer.
- Form ST 725 is required.

SYMBOLS

- Work Area.
- Sign with 18 in. by 18 in. (minimum) orange flag attached.
- Sign on portable or permanent support.
- Flagman with Traffic Control sign.
- Type I or Type II Barricade

CASE XI

TWO-LANE, TWO WAY TRAFFIC, RURAL WIDENING OF PAVEMENT DAY OR NIGHT OPERATIONS

Where, at any time, any vehicle, equipment, men or their activities will encroach on the pavement during pavement widening operations.

STANDARD 2311-5

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 4-3-69
APPROVED <i>[Signature]</i> 1977	REVISED BY DATE
<i>[Signature]</i> Engineer of Traffic	RTY 4/25/75