FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69HB-2	PIATT	20	1
U. S. R. REG. NO. 4	ILLINOIS	PROJECT F-18(52)		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES

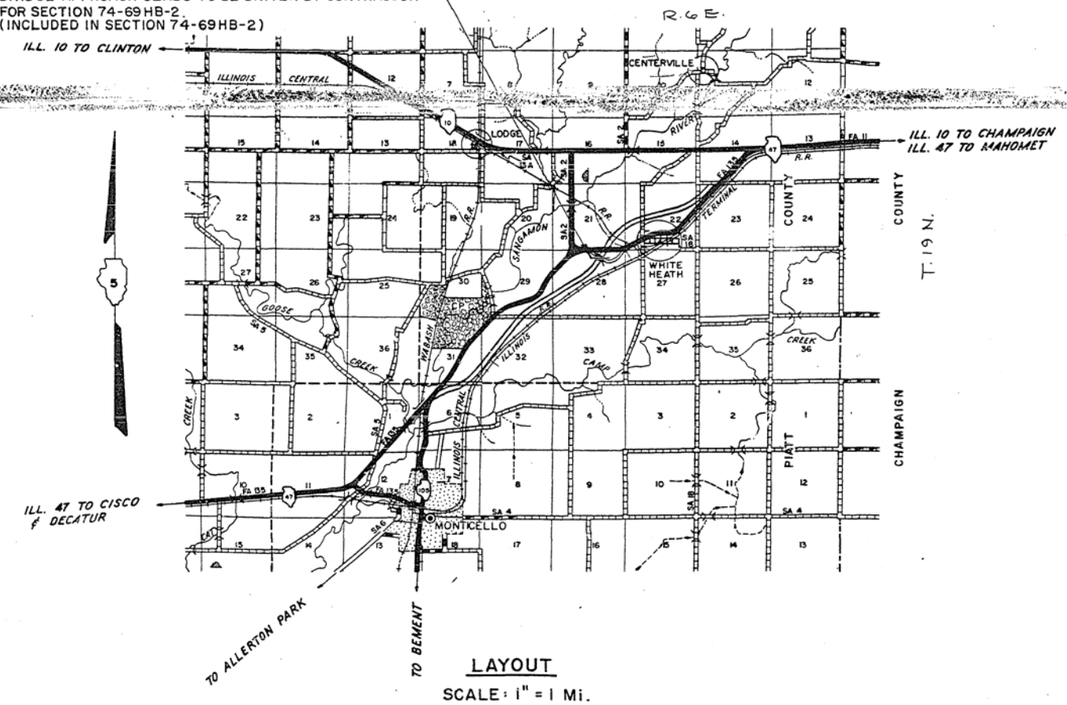
PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	10 FT.

F. A. ROUTE 135—SEC. 74-69HB-2—PIATT COUNTY
PROJECT F-18 (52)

FOR INDEX OF SHEETS—SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES—SEE SHEET NO. 2

LOCATION OF SECTION INDICATED THUS:—

SPECIAL BRIDGE (STA. 1286+39.70, F.A.-135)
A FOUR SPAN SEPARATION STRUCTURE (CARRYING RELOCATED ILL. 47 OVER F.A. 135) AT STA. 1286+39.70 CONSISTING OF: CONTINUOUS WF BEAM GIRDERS AND REINFORCED CONCRETE DECK ON REINFORCED CONCRETE PIERS AND PILE BENT ABUTMENTS, SPANS ON C.L., 2 AT 51'-4½" AND 2 AT 87'-0", 28'-0" ROADWAY AND 2 AT 2'-10" SAFETY WALKS. NOTE: PILING FOR BRIDGE APPROACH SLABS TO BE DRIVEN BY CONTRACTOR FOR SECTION 74-69HB-2.
(INCLUDED IN SECTION 74-69HB-2)



LAYOUT
SCALE: 1" = 1 Mi.
NET LENGTH OF PROJECT = 0.00 FT. = 0.00 MILES

ROAD CLASSIFICATION
840-T-70

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED September 12 1960 — J. J. Cybel — DISTRICT ENGINEER
EXAMINED September 22 1960 — H. W. Rudolph — ENGINEER OF BRIDGE PLANS AND CONTRACTS
PASSED September 22 1960 — ENGINEER OF DESIGN
APPROVED September 22 1960 — R. W. Hasselberger — CHIEF ENGINEER
APPROVED September 22 1960 — DIRECTOR

PLANS FOR STRUCTURES EXAMINED Sept 16 1960
N. E. Baumann
ENGINEER OF BRIDGE & TRAFFIC STRUCTURES

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER — DATE

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR ILLINOIS

Job No. 20591

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69HB-2	PIATT	20	2

INDEX OF SHEETS

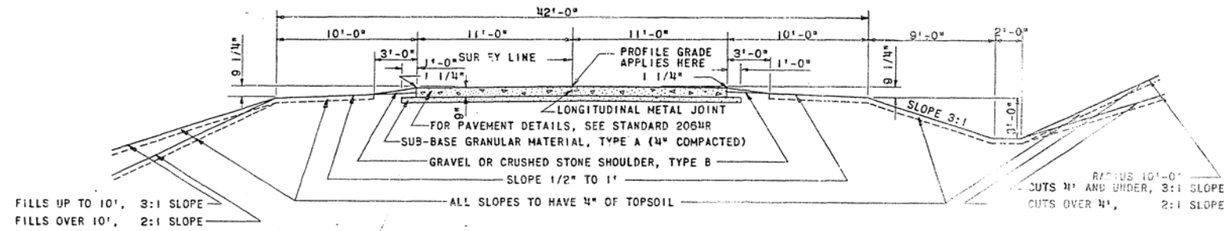
SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM	CODE NUMBER
11,681	CU. YDS.	EARTH EXCAVATION	011001
160	CU. YDS.	CLASS A EXCAVATION FOR STRUCTURES	050001
534	CU. YDS.	CLASS X CONCRETE	052003
3.5	CU. YDS.	CLASS X CONCRETE (HEADWALL)	052016
329,000	POUNDS	FURNISHING AND ERECTING STRUCTURAL STEEL	054001
557	LIN. FT.	FURNISHING AND ERECTING METAL HANDRAIL	055001
114	LIN. FT.	PIPE CULVERTS, TYPE 2A (R.C.P. CLASS III) 36"	058103
384	LIN. FT.	FURNISHING CREOSOTED PILES, 20.1'-38'	060005
384	LIN. FT.	DRIVING TIMBER PILES	060008
1,533	LIN. FT.	FURNISHING CONCRETE PILES,	060044
2	EACH	TEST PILES (CONCRETE)	060047
1,533	LIN. FT.	DRIVING CONCRETE PILES	060043
2	EACH	NAME PLATES	061001
470	SQ. YDS.	SLOPE WALL	08300:

GENERAL NOTE

TWO SIGNS CONFORMING TO STANDARD 2136 SHALL BE PLACED AT LOCATIONS DESIGNATED BY THE ENGINEER.

TYPICAL SECTION OF APPROACH PAVEMENT ADJACENT TO BRIDGES



INDEX OF SHEETS. SUMMARY OF QUANTITIES. TYPICAL

REVISIONS		
No.	DATE	INITIALS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

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

F.A.-135 SECTION 74-69HB-2

PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DATE 2-60

PROJECT NO.

SHEET NO.

Revised: 10-19-60 Reinf. LDW

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69HB-2	PIATT	20	9
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

RELOCATED ROUTE 47

CURVE DATA
P.I. STA. 42+80.51
Δ=9°57'00" D=1°30'00"
R=3,819.72' T=332.50'
S.E.= 0.020 FT. PER FT.
S.E. ATTAINED STA. 38+98.01 TO 39+98.01
S.E. REMOVED STA. 45+81.34 TO 46+81.34

HAIL IN S.C. STH P. EAST OF CORNER
HAIL IN B.C.

ALL NOTES SHOWN IN THIS MANNER PERTAIN TO STRUCTURE UNLESS OTHERWISE NOTED

SPECIAL BRIDGE (STA. 1286+39.70, F.A.-135)
A FOUR SPAN SEPARATION STRUCTURE (CARRYING RELOC. RT. 47 OVER F.A.-135)
CONTINUOUS STEEL GIRDERS AND REINFORCED CONCRETE DECK ON REINFORCED CONCRETE PIERS AND PILE BENT ABUTMENTS; SPANS ON C.L., 2 @ 51'-4 1/2" AND 2 @ 67'-0", 28'-0" ROADWAY, AND 2 @ 2'-10" SAFETY WALKS.
NOTE: PILING FOR BRIDGE APPROACH SLABS TO BE DRIVEN BY CONTRACTOR FOR SECTION 74-69HB-2.
INCLUDED IN SECTION 74-69HB-2

CURVE DATA
P.I. STA. 59+66.91
Δ=41°56'30" D=3°18'00"
R=1,737.09' L=1,212.37'
S.E.= 0.038 FT. PER FT.
S.E. ATTAINED STA. 51+97.58 TO 53+97.58
S.E. REMOVED STA. 64+76.41 TO 66+76.41

NOTES ON CHANNEL CHANGE
CHANNEL SHALL HAVE 16'-0" BOTTOM WIDTH WITH 2:1 SIDE SLOPES. CHANNEL EXCAVATION (SEE SHEET NO. FOR CROSS SECTIONS)

33.84'
24.81'

RELOCATED ROUTE 47
END STATION 68+25

RELOCATED ROUTE 47
BEGIN STATION 37+48

NOTE: SEE STD. 2143 FOR WIDTH TRANSITION FROM STA. 37+48 LT. TO STA. 38+98 LT. 25 SQ. YDS. P.C.C. PAVEMENT (9") INCLUDED WITH QUANTITIES LISTED IN GENERAL NOTES.

NOTE: FOR DIMENSIONS OF PROPOSED R.O.W. LINES (SEE SHEET NO. 23)

OMISSION FROM PAVING
STA. 48+66.50 TO STA. 51+97.50

ILLINOIS POWER CO.
DECATUR, ILLINOIS

P.I. STA. 42+80.51
HAIL IN PAVEMENT

C.L. PROPOSED McCARTNEY FRONTAGE ROAD
SEE SHEET NO.

2, STD. OUTLET FOR TYPE 6 CURB AND GUTTER TO BE BUILT
2, 50' CURB AND GUTTER TRANSITION TO BE BUILT
TRANSITIONS (SEE SHT. NO. 35) = 10.4 CU. YDS. CL. X CONC.
OUTLET (SEE STANDARD 1897T-9" = 13.3 CU. YDS. CL. X CONC.
SEC. F-F OF OUTLET = 65'

C.L. OF PROPOSED F.A.-135
SEE SHEET NO. 4

EX. 2'-8"X4'-3"X30' CONC. BOX CULV.

MAILBOX TURNOUT
TO BE BUILT
LT. STA. 63+20
(SEE STD. 1776R)

PROP. PVT. ENT.
STA. 63+00
(SEE CROSS SEC. FOR PROFILE)

P.T. STA. 65+76.41
4" IN PAVEMENT

NOTE: SEE STD. 2143 FOR WIDTH TRANSITION FROM STA. 66+75 RT. TO STA. 68+25 RT. 25 SQ. YDS. P.C.C. PAVEMENT (9") INCLUDED WITH QUANTITIES LISTED IN GENERAL NOTES.

1' STUB
STA. 3+00 (CHANNEL CHANGE)
= STA. 65+40 (RELOC. RT. 47)
STA. 2+00 CHANNEL CHANGE
ELEV. 674.94
SPECIAL BOX CULVERT
DOUBLE 8'X5', A.R. STA. 65+60
LIMITS OF CHANNEL CHANGE AGREEMENT
68+00 67+00 65+85 65+15

EXISTING ROUTE 47
P.C. STA. 52+97.58
PROPOSED R.O.W. LINES
66°44'40"
WELL
PAVED DITCHES
B.L. RAMP B
SEE SHEET NO.
B.L. RAMP A
SEE SHEET NO.
P.T. STA. 46+11.34
P.L. +09.7
C.L. PROPOSED RELOCATED ROUTE 47
STA. 1286+39.70 (F.A.-135)
= STA. 50+00.00 (RELOC. RT. 47)
B.L. RAMP C
SEE SHEET NO.
B.L. RAMP D
SEE SHEET NO.
P.L.+25.0
C.L. PROPOSED BARKER FRONTAGE ROAD
SEE SHEET NO.
P.I. STA. 59+66.91
EXISTING STRUCTURE CONSISTING OF R.C. DECK ON R.C. ABUTMENTS SPAN 10'-0" CLEAR HEIGHT 4.5'± LENGTH 28'-0" TO BE REMOVED
EXISTING STRUCTURE CONSISTING OF R.C. DECK ON R.C. ABUTMENTS SPAN 16'-0" CLEAR HEIGHT 5'± LENGTH 26'-0" TO BE REMOVED
PIPE CULVERT, TYPE 2A (R.C.P. CLASS III)
42"X108' WITH STD. 1997 D42-2
U.S.F.L. 54.0' RT. ELEV. 683.50
D.S.F.L. 54.0' LT. ELEV. 682.90
A.R. STA. 59+00

ENTRANCES TO BE BUILT
LT. STA. 63+00, 22.0' ROADBED

4" GR. OR CR. STONE BASE CSE., TYPE B = 42 TONS *
BITUMINOUS MATERIALS (PRIME COAT) = 24 GALLONS *
INCIDENTAL BITUMINOUS SURFACING = 6 TONS *

DELINEATORS TO BE INSTALLED (STD. 2149)
LT. & RT. STA. 46+00 TO 48+00 = 10 EACH (50' C-C) *
LT. STA. 52+10 TO 62+00 = 34 EACH (30' C-C) *
RT. STA. 52+10 TO 53+90 = 7 EACH (30' C-C) *
RT. STA. 56+30 TO 62+00 = 20 EACH (30' C-C) *

FURNISHING AND ERECTING R.O.W. MARKERS
18 EACH
* INCLUDED WITH QUANTITIES LISTED IN GENERAL NOTES

REMOVAL OF EXISTING STRUCTURES
RT. STA. 65+30± 1 EACH
LT. STA. 65+40± 1 EACH
TOTAL = 2 EACH

PAVEMENT REMOVAL
STA. 38+98 TO LT. STA. 42+00 = 604 SQ. YDS.
LT. STA. 44+50 TO LT. STA. 52+35 = 1,570 SQ. YDS.
LT. STA. 63+00 TO LT. STA. 66+76 = 706 SQ. YDS.
TOTAL = 2,880 SQ. YDS. *

STEEL PLATE BEAM GUARD RAIL (STD. 1687-2)
50.0 LIN. FT. AT EACH CORNER OF STR. 74-69HB-2 = 200 LIN. FT.

METAL PLATE GUARD RAIL REMOVAL
RT. STA. 65+19 TO 66+16 = 97 LIN. FT.

BRIDGE APPROACH SLABS INCLUDED IN SECTION 74-69
STANDARD 1909-3, METHOD II
STA. 46+21.77 TO STA. 48+66.50
STA. 51+97.50 TO STA. 51+92.23
219.0 SQ. YDS. P.C.C. PAVEMENT (16 1/2"-10 1/2"-16 1/2")
R.C. CAPS, 3.3 CU. YDS., CLASS X CONCRETE

REINFORCEMENT BAR LIST (2 SLABS)

LOCATION	NO.	SIZE	LENGTH	WEIGHT
SLAB	116	#8	21'-4"	6,606.3
SLAB	64	#8	17'-4"	2,961.4
SLAB	132	#5	22'-11"	3,155.5
CAP	44	#4	5'-0"	147.0
CAP	16	#5	23'-8"	1,011.2
TOTAL WEIGHT (POUNDS)				13,881

B.M. 921, 41' LT. STA. 1288+00 (F.A.-135)
B.M. 922, 720' RT. STA. 1293+50 (F.A.-135)

KEY MAP

SPECIAL DITCHES TO BE BUILT
LT. STA. 42+00 TO 48+00
LT. STA. 48+00 TO 58+00
RT. STA. 43+00 TO 48+70
RT. STA. 50+70 TO 54+00
RT. STA. 57+00 TO 63+00
GRADES AS SHOWN, SEE STA. CROSS SECTIONS
INCLUDED IN SECTION 74-69HB-2

PAVED DITCH-6 FEET TO BE BUILT
RT. STA. 43+00 TO 48+70 = 570 LIN. FT.
LT. STA. 42+00 TO 49+00 = 700 LIN. FT.
TOTAL = 1,270 LIN. FT.

P.V.I. 48+00
ELEV. 728.06
L.V.C. 600'
+0.68%
+1.52%
P.V.I. 42+00
ELEV. 723.88
L.V.C. 500'
RT. DITCH -3.60%
ELEV. 719.9
LT. DITCH +2.60%
PROFILE OF EXISTING GROUND LINE ALONG CENTER LINE OF PROPOSED IMPROVEMENT
+70 RT. 700.06
701.80
RT. DITCH -2.00%
STR. 74-69HB-2
ELEV. 715.5
CROWN GRADE OF PROPOSED IMPROVEMENT
-2.00%
P.V.I. 59+00
ELEV. 706.06
L.V.C. 500'
-4.50%
LT. DITCH -1.96%
RT. DITCH -1.25%
RT. DITCH +0.43%
P.V.I. 64+50
ELEV. 681.31
L.V.C. 500'
-0.20%
LT. 720.00
RT. 720.58

EARTH EXCAVATION = 2,098 CU. YDS.
EARTH EMBANKMENT = 9,342 CU. YDS.
(OBTAIN 9,585 CU. YDS. EARTH EXC. FROM F.A.-135 STA. 1284+00 TO 1292+00, SEE SHEET NO. 4)
INCLUDED IN SECTION 74-69HB-2

EARTH EXCAVATION = 2,319 CU. YDS.
EARTH EMBANKMENT = 1,785 CU. YDS.
EARTH EXCAVATION = 730 CU. YDS
EARTH EMBANKMENT = 13,544 CU. YDS.
(OBTAIN 15,384 CU. YDS. EARTH EXCAVATION FROM RAMP A, SEE SHEET NO.)
EARTH EMBANKMENT = 54,124 CU. YDS. (OBTAIN 796 CU. YDS. EARTH EXC. FROM RAMP A, SEE SHEET NO.) (OBTAIN 30,253 CU. YDS. EARTH EXC. FROM RAMP B, SEE SHEET NO.) (OBTAIN 14,182 CU. YDS. EARTH EXC. FROM RAMP C, SEE SHEET NO.)
EARTH EXCAVATION = 1,675 CU. YDS. (OBTAIN 16,159 CU. YDS. EARTH EXC. FROM F.A.-135 STA. 1217+77.6 TO 1300+76.3, SEE SHEET NO.)

PLAN	DATE	BY
SURVEYED	7-21-65	C.E.S.
PLOTTED	8-10-66	R.W.
ROUTE BOOK	8-17-66	E.W.
GRADES CHECKED	8-25-66	E.W.
R/W STAKED	4-14-66	E.W.
R/W OF WAY CHECKED		
NO. 16-2-5		

PROFILE	DATE	BY
SURVEYED	7-21-65	C.E.S.
PLOTTED	8-10-66	R.W.
ROUTE BOOK	8-25-66	E.W.
GRADES CHECKED	8-25-66	E.W.
R/W STAKED	8-17-66	
STRUCTURE NOTES (STD)	8-22-66	
NO. 16-2-5		

HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

PLAT: 1 PLAN PROFILE B P R STANDARD

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	CORRECT NO
FA-135	74-69HB-2	PIATT	20	6
STA. 1276+00		TO STA. 1305+00		
FED. ROAD DIST. NO. 7	ILLINOIS		PROJECT	

ALL NOTES SHOWN IN THIS MANNER PERTAIN TO SECTION 74-69HB-2

NAIL IN F.P. POSTS FENCE 69.55' 60.97' NAIL IN F.P.

BRENT L. BARKER ESTATE
NELLIE BARKER, ET AL

SIEVERS

EDWARD ALLEN

DEAN M. McCARTNEY

TACK IN HEDGE TREE 121.00' 14.9' 22.15' NAIL IN CORNER F.P.

PIPE CULVERT, TYPE 2A (R.C.P. CLASS III)
36"X118' WITH STD. 1976 D36-2
U.S.F.L. 84.0' LT. STA. 1286+45 ELEV. 698.42
D.S.F.L. 84.0' LT. STA. 1286+45 ELEV. 698.42
INCLUDED IN SECTION 74-69HB-2

GENERAL TEL. AND TELEGRAPH
BLOOMINGTON, ILLINOIS

SPECIAL BRIDGES
DUAL THREE SPAN SEPARATION STRUCTURES (CARRYING F.A.-135 OVER I.C.R.R.) AT STA. 1301+51.39, CONSISTING OF: CONTINUOUS I-BEAM GIRDERS AND REINFORCED CONCRETE DECK, PIERS ON CLL. 90°-4-39" AND 90°-4-1", 30'-0" ROADWAY, AND 2@2'-10" SAFETY WALKS.
NOTE: PILING FOR BRIDGE APPROACH SLABS TO BE DRIVEN BY CONTRACTOR FOR SECTION 74-69YB.
INCLUDED IN SECTION 74-69YB

CURVE DATA
P.I. STA. 1316+96.76
Δ=49°29'56" Dc=1°16'00"
R=4,523.35' Tc=2,085.24'
S.E. ATTAINED STA. 1295+49.50 TO 1296+69.50

PIPE CULVERT, TYPE I (C.M.C.P.)
24"X60'
U.S.F.L. 64.0' LT. ELEV. 714.74
D.S.F.L. 121.0' LT. ELEV. 691.80
0.24 CU. YDS. CL. X CONC.
24"X6' WITH STD. 1976 D24-2
U.S.F.L. 121.0' LT. ELEV. 691.80
D.S.F.L. 127.0' LT. ELEV. 691.70
A.R. STA. 1303+00

1276+50 A.C. FOR B.L. RAMP A SEE SHEET NO.

C.L. OF WESTBOUND LANES
C.L. OF PROPOSED IMPROVEMENT AND SURVEY LINE
C.L. OF EASTBOUND LANES

P.O.T. STA. 1279+32.11 IRON PIN FLUSH/GROUND

BRIDGE 74-69HB-2 SEE SHEET NO. 3

FOR B.L. RAMP B SEE SHEET NO. 24

ALL NOTES SHOWN IN THIS MANNER PERTAIN TO SECTION 74-69YB UNLESS OTHERWISE NOTED

PIPE CULVERT, TYPE 1A (R.C.P. CLASS III)
24"X62' WITH STD. 1976 D24-2
U.S.F.L. 22.0' LT. ELEV. 697.70
D.S.F.L. 70.0' LT. ELEV. 697.45
A.R. STA. 1289+00

1294+81.2

50' CURB AND GUTTER TRANSITION TO BE BUILT
STD. OUTLET FOR TYPE 6 CURB AND GUTTER TO BE BUILT
TRANSITION (SEE SHT. NO.35) = 5.6 CU. YDS. CL. X CONC.
OUTLET (SEE STANDARD 1897T) = 4.2 CU. YDS. CL. X CONC.
SECTION F-F OF OUTLET = 25'

P.C. STA. 1296+09.50

PROPOSED R.O.W. LINE

84°29'16" TO LOCAL TANGENT

STA. 1301+51.39 (F.A.-135)
=STA. 45+67.8 (C.L. I.C.R.R.)

R.R. R.O.W. LINE I.C.R.R. 30' 30'

1275 44' 64' 24' 33°04' 1280 1285 66°44'40" 56°30'10" 1290 55°03'16" 1300 1305

1276+58.5 1276+96.9 FOR B.L. RAMP D SEE SHEET NO.

FOR B.L. RAMP C SEE SHEET NO.

PAVED DITCH

PIPE CULVERT, TYPE 1A (R.C.P. CLASS III)
24"X64' WITH STD. 1976 D24-2
U.S.F.L. 23.0' RT. ELEV. 699.80
D.S.F.L. 87.0' RT. ELEV. 698.16
A.R. STA. 1286+00

STA. 1286+10 DITCH PLUG TO BE BUILT

SPECIAL BOX CULVERT
DOUBLE 7'X6', A.R. STA. 1294+92
ILLINOIS POWER CO.
DECATUR, ILLINOIS

STORM SEWER, TYPE I
12"X40' WITH STD. 1973 D12-2
U.S.F.L. 59.5' RT. ELEV. 710.90
D.S.F.L. 19.5' RT. ELEV. 710.10
A.R. STA. (SEE STD. 1897T)

1295+49.8 1295+28.1

50' CURB AND GUTTER TRANSITION TO BE BUILT
TYPE I OUTLET FOR TYPE 6 C. AND G. TO BE BUILT
VARY DEPTH OF OUTLET TO MEET FLOW LINE OF PIPE CULVERT
TRANSITION (SEE SHT. NO.35) = 5.6 CU. YDS. CL. X CONC.
OUTLET (SEE STANDARD 1897T) = 2.1 CU. YDS. CL. X CONC.
CAST IRON GRATES = 78 POUNDS

EX. FARM LINE

ILL. CENTRAL RAILROAD
CHAMPAIGN, ILLINOIS

PIPE CULVERT, TYPE 1A (R.C.P. CLASS III)
24"X42' WITH STD. 1976 D24-2
U.S.F.L. 22.0' LT. ELEV. 714.96
D.S.F.L. 64.0' LT. ELEV. 714.74
A.R. STA. 1303+00

FURNISHING AND ERECTING R.O.W. MARKERS
14 EACH

STEEL PLATE BEAM GUARD RAIL (STD. 1687-2)
WEST END, EASTBOUND STR. 74-69YB = 100 LIN. FT.
EAST END, WESTBOUND STR. 74-69YB = 100 LIN. FT.
TOTAL = 200 LIN. FT.

STA. 1286+39.70 (F.A.-135)
= STA. 50+00.00 (RELOC. RTE. 47)

C.L. OF PROPOSED RELOC. RT. 47
SEE SHEET NO. 3

C.L. E. ILL. RT. 47 SEC. 21-19-6 SEC. 28-19-6

NOTE:
EARTHWORK SHOWN BELOW FOR SECTION 74-69HB-2 DOES NOT INCLUDE EXCAVATION ACROSS EXISTING ROUTE 47. EXISTING ROUTE 47 SHALL BE KEPT OPEN TO TRAFFIC UNTIL CONSTRUCTION BEGINS ON SECTION 74-69. SEE CROSS SECTIONS

OMISSION FROM SECTION 74-69
STA. 1300+78.30 TO 1302+29.98

EDWARD ALLEN WEAVER DEAN M. McCARTNEY

B.M. #20, 161' RT. STA. 1283+00
R.R. SPIKE IN 8" TREE; ELEV. 715.11

B.M. #21, 41' LT. STA. 1288+00
R.R. SPIKE IN POWER POLE; ELEV. 707.54

B.M. #22, 720' RT. STA. 1293+50
"X" ON NORTH HDWL. BOX CULV.; ELEV. 684.61

B.M. #23, 549' RT. STA. 1302+22
R.R. SPIKE IN POWER POLE; ELEV. 700.58

SPECIAL DITCHES TO BE BUILT
RT. STA. 1287+00 TO 1295+25
LT. STA. 1287+00 TO 1294+00
GRADES AS SHOWN, SEE STA. CROSS SECTIONS

SPECIAL PAVED DITCH INLETS TO BE BUILT
LT. STA. 1289+35 TO 1289+50 = 2.8 CU. YDS.
RT. STA. 1289+85 TO 1290+00 = 2.8 CU. YDS.
TOTAL = 5.6 CU. YDS.

PAVED DITCH - FEET TO BE BUILT
LT. STA. 1289+50 TO 1294+40 = 490 LIN. FT.
RT. STA. 1290+00 TO 1295+10 = 510 LIN. FT.
TOTAL =1,000 LIN. FT.

BRIDGE APPROACH SLABS INCLUDED IN SECTION 74-69
STANDARD 2138-1, METHOD II
STA. 1300+37.14 TO STA. 1300+78.30
STA. 1302+29.98 TO STA. 1302+71.14
439.0 SQ. YDS. P.C.C. PAVEMENT (16 1/2"-12"-16 1/2")
R.C. CAPS, 6.7 CU. YDS., CLASS X CONCRETE
QUANTITIES INCLUDES 4 SLABS

REINFORCEMENT BAR LIST (4 SLABS)

LOCATION	NO.	SIZE	LENGTH	WEIGHT
SLAB	224	#9	21'-6"	16,374.4
SLAB	136	#9	17'-6"	8,092.0
CAP	28	#4	5'-0"	293.9
CAP	32	#8	23'-10"	2,036.0
TOTAL WEIGHT (POUNDS)				33,289

PLAN
SURVEYED 12-30-64
PLOTTED 4-14-65
ALIGNMENT CHECKED 4-14-65
R.O.W. CHECKED 5-7-65
STRUCTURE NOTATIONS CHKD. 5-7-65
BY R.E.S. J.W.C. J.W.C. J.W.C. J.W.C.
NOTE BOOK NO. D-2

PROFILE
SURVEYED 12-30-64
PLOTTED 4-14-65
GRADES CHECKED 4-14-65
B.M. & R.W. CHECKED 5-7-65
STRUCTURE NOTATIONS CHKD. 5-7-65
BY R.E.S. J.W.C. J.W.C. J.W.C. J.W.C.
NOTE BOOK NO. E-1

P.V.I. 1277+00
ELEV. 710.48
L.V.C. 800'
+0.36%

CROWN GRADE OF PROPOSED IMPROVEMENT

C.L. EXISTING RT. 47

-0.80%

LIMITS OF SUB-BASE COMPACTION (SEE CROSS SECTIONS)

LT. & RT. DITCH -0.80%

P.V.I. 1290+27
ELEV. 699.86
L.V.C. 600'

RT. DITCH -6.80%
LT. DITCH -7.00%

PROFILE OF EXISTING GROUND LINE ALONG CENTER LINE OF PROPOSED IMPROVEMENT

5' AT C.L. MEDIAN
PARALLEL TO SHOULDER
20' 20'
STR. 74-69YB
+1.48%
STANDARD MEDIAN DITCH
ELEV. 712.0
STANDARD MEDIAN DITCH
ELEV. 710.0
6:1 2:1 1:10 2:1 6:1

LT. 698.60 RT. 698.60 LT. 696.20 RT. 695.80 LT. 671.70 LT. 671.35 RT. 672.00 +25 RT. 670.75

EARTH EXCAVATION 9,585 CU. YDS.
EARTH EMBANKMENT 0 CU. YDS.
PLACE 9,585 CU. YDS. EARTH EXCAVATION ON ABUTMENT CONES (SEE SHEET 3)
INCLUDED IN SECTION 74-69HB-2

EARTH EXCAVATION = 0 CU. YDS.
BORROW EXCAVATION=35,888 CU. YDS.
EARTH EMBANKMENT = 29,416 CU. YDS.
INCLUDED IN SECTION 74-69YB

RT. DITCH -1.00%

LT. DITCH -0.70%

+78.3 +29.98

FOR EARTHWORK SEE SHEET

TO STA. 1217+77.8

TO STA. 1312+65.9

716.2 709.47 719.0 709.32 711.8 709.03 718.8 708.59 718.7 708.01 726.8 P.V.T. 707.28 726.8 706.48 715.9 705.68 710.9 704.88 705.9 704.08 702.5 703.28 701.3 702.48 P.V.C. 702.28 706.2 701.78 706.6 701.45 706.5 701.50 701.57 696.8 701.02 688.1 702.73 680.9 703.91 P.V.T. 704.30 677.9 705.38 666.8 706.88 677.6 708.34 679.9 709.82 682.8 711.30 685.0 712.78 687.6 714.26 690.7 716.74 694.4 717.22 698.8 718.70 701.7 720.18 P.V.C. 720.62 703.4 721.84 703.2 723.01

6 7 8 9 1280 1 2 3 4 1285 6 7 +27 8 9 1290 +27 1 2 3 +27 4 1295 6 7 8 9 1300 1 2 3 4 +30 1305 6

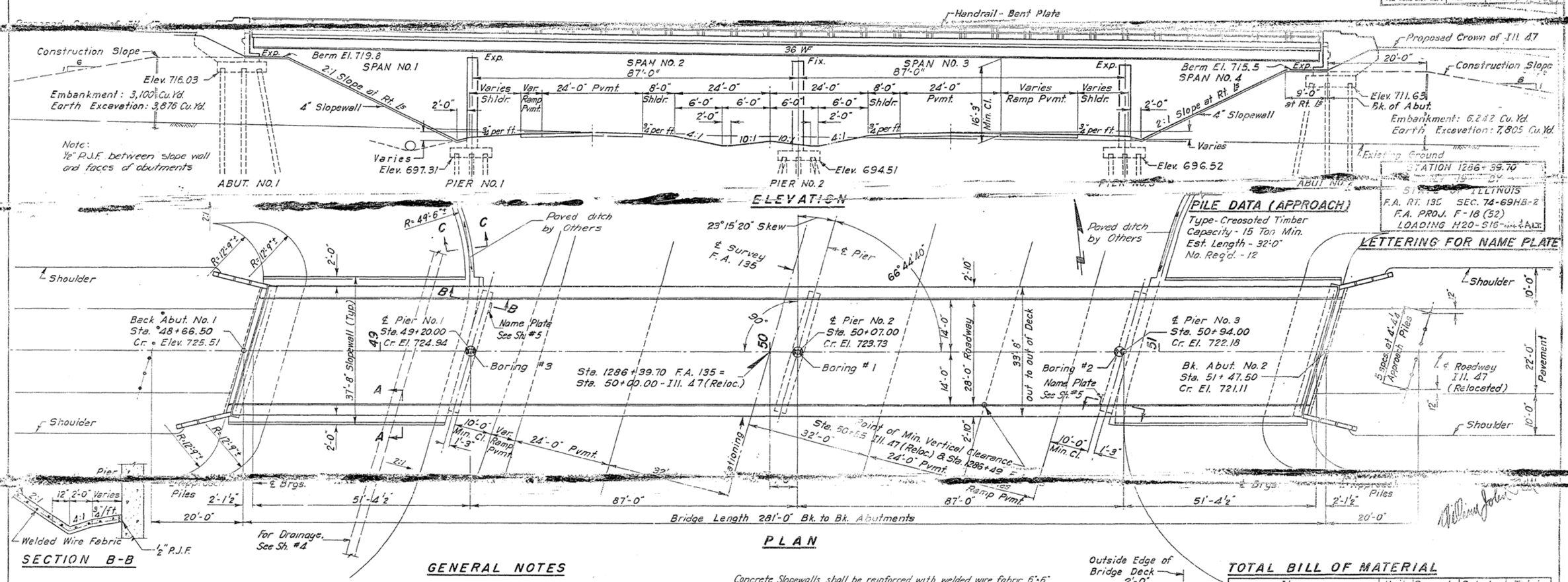
HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

PLATE 1 PLAN - PROFILE B P R STANDARD

B.M. #21 - Railroad Spike in Power Pole
41' Lt. Sta. 1286+00 Elev. 707.54

SHEET NO. 8 OF 8 SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
FA-135	74-69 HB-2	PIATT	20	5
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT F-18(52)		



GENERAL NOTES

Class X Concrete shall be used throughout.

The concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.

Rivets 7/8" ϕ, Open holes 15/16" ϕ, unless noted.

Field connections shall be riveted or, at the option of the Contractor, high strength bolts of the same nominal diameter may be substituted. See Article 54.9 (i) of the Standard Specifications.

All cover plates and beams to which cover plates are welded shall conform to A.S.T.M. A-373 structural steel.

All rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included in the quantity of Structural Steel.

Expansion guards shall be fabricated and erected in accordance with Article 51.13 (d) of the Standard Specifications and are included in the quantity of Structural Steel.

Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.

Anchor bolts shall be set before installing diaphragms over supports.

Boring data is shown on the plans only as a guide to bidders estimating soil conditions which may be encountered in the field.

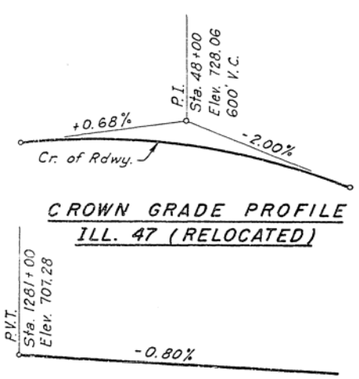
Concrete Slopewalls shall be reinforced with welded wire fabric 6"x6" mesh, #4 wires, weighing 58# per 100 sq. ft.

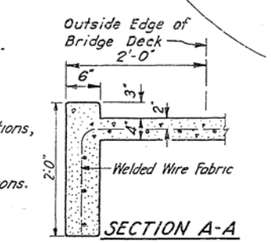
The contractor shall drive one Concrete test pile in a permanent location at Abutment #1 and, one in a permanent location at Pier #2, in accordance with Article 60.15 of the Standard Specifications, before ordering the remainder of the piles.

Abutment piles shall be driven through holes that have been precored in accordance with Article 60.9 (c) of the Standard Specifications.

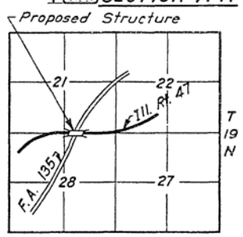
DESIGN STRESSES:
- fs = 18,000 p.s.i. for structural steel.
- fs = 20,000 p.s.i. for reinforcing steel.
- fc = 1,400 p.s.i. for concrete in superstructure and substructure.
- Vc = 75 p.s.i. for shear in concrete footings.
- n = 10

DESIGN SPECIFICATIONS:
AASHO 1957
Live Loading: H20-S16-44 & ALT.





SECTION A-A



LOCATION PLAN

TOTAL BILL OF MATERIAL

Item	Unit	Superstr.	Substr.	Total
		57,300.		130,000.
Class X Concrete	Cu.Yds.	266.	268.	534.
Reinforcement Bars	Lbs.	46,550.	26,155.	72,705.
Structural Steel	Lbs.	329,000.		329,000.
Metal Handrail	Lin.Ft.	557.		557.
Creosoted Timber Piles	Lin. Ft.		354.	354.
Concrete Piles	Lin. Ft.		1,533.	1,533.
Test Piles (Concrete)	Each		2.	2
Slopewall	Sq.Yds.			470.
Class A Excav. for Str.	Cu.Yds.		160.	160.
Earth Excav. for Str.	Cu.Yds.			11,681.
Name Plates	Each		2.	2.

GENERAL PLAN & ELEVATION

REVISIONS		
No.	DATE	INITIALS
1		
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

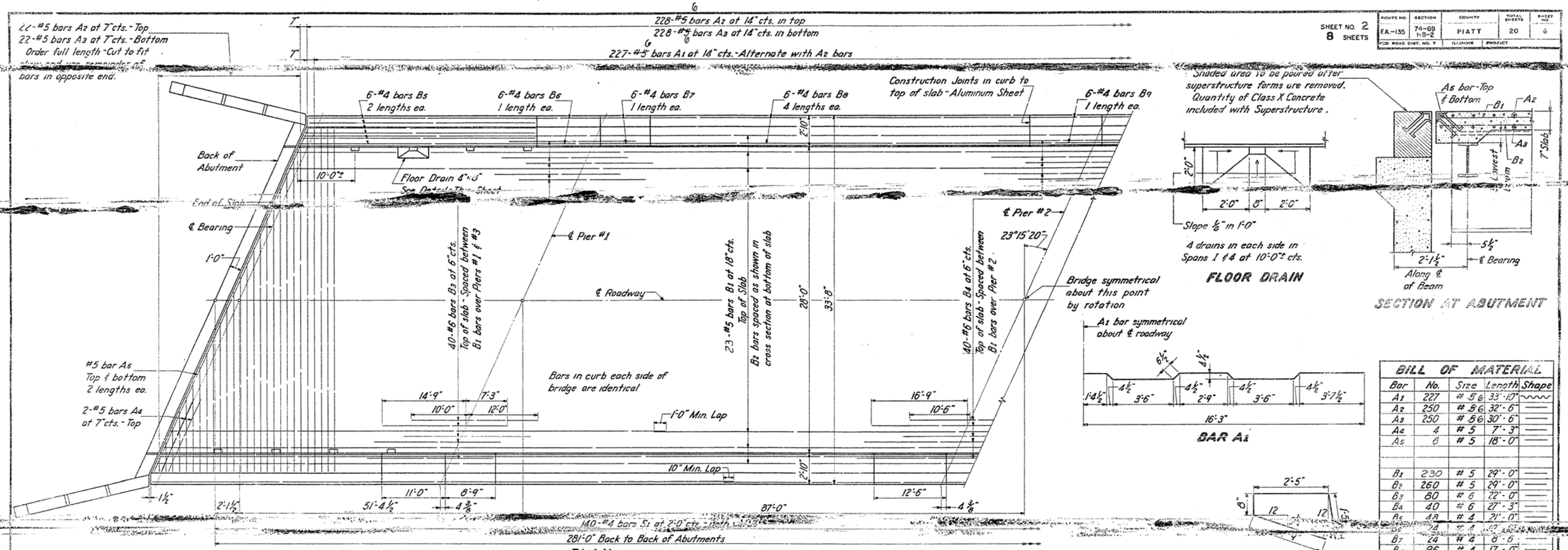
ILLINOIS ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69HB-2 PROJ. F-18(52)
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

Revised 10-19-60 Reinf. L.D.W.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA.-135	74-69 HB-2	PIATT	20	6
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 2 OF 8 SHEETS



PLAN

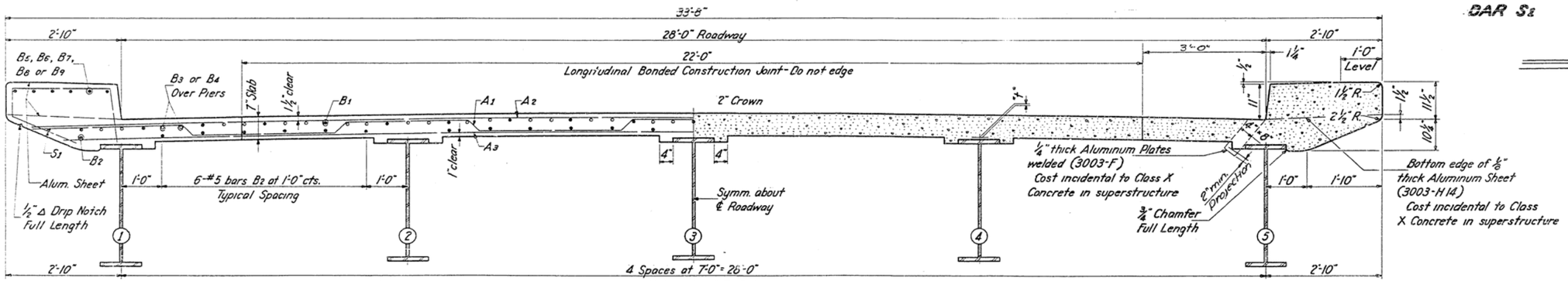
FLOOR DRAIN

SECTION AT ABUTMENT

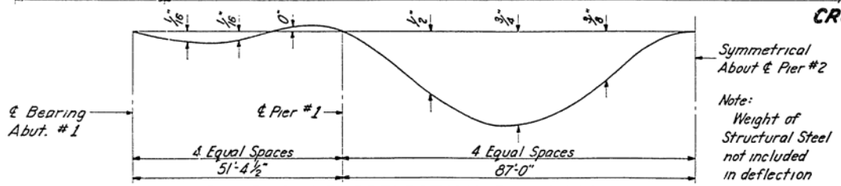
BAR A1

BAR S2

BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
A1	227	#5	33'-10"	
A2	250	#5	32'-6"	
A3	250	#5	30'-6"	
A4	4	#5	7'-3"	
A5	8	#5	18'-0"	
B1	230	#5	29'-0"	
B2	260	#5	29'-0"	
B3	80	#6	22'-0"	
B4	40	#6	27'-3"	
B5	48	#4	21'-0"	
B6	4	#4	10'-6"	
B7	24	#4	8'-6"	
B8	96	#4	17'-0"	
B9	24	#4	12'-3"	
S1	280	#4	6'-3"	
Reinforcement Bars			Lb.	46,550
Structural Steel			Lb.	329,000
Class X Concrete			Cu.Yd.	266
Metal Handrail			Lin. Ft.	557



CROSS SECTION



Note:
Weight of
Structural Steel
not included
in deflection

DEAD LOAD DEFLECTION DIAGRAM

METHOD OF DETERMINING FILLET HEIGHT "f"

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflections for these points, determined from the D.L. Deflection Diagram. The elevations so attained subtracted from the theoretical grade elevations, minus floor thickness equals fillet heights above top of beam.

REVISED- 10-19-60 Reinf. L.D.W.

CONCRETE DECK

REVISIONS		
No.	DATE	INITIALS
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

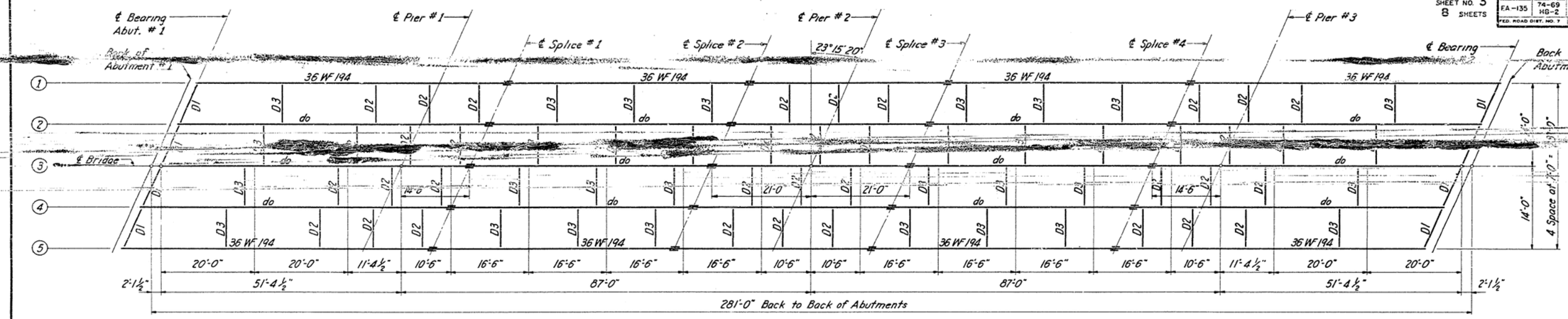
RELOCATED ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69HB-2 PROJECT FC-13(55)
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

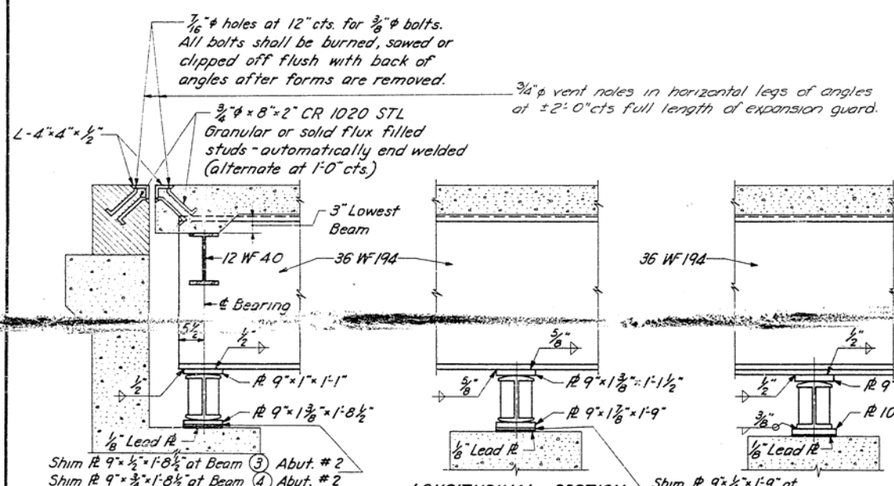
SCALE: NONE
PROJECT NO.
SHEET NO.

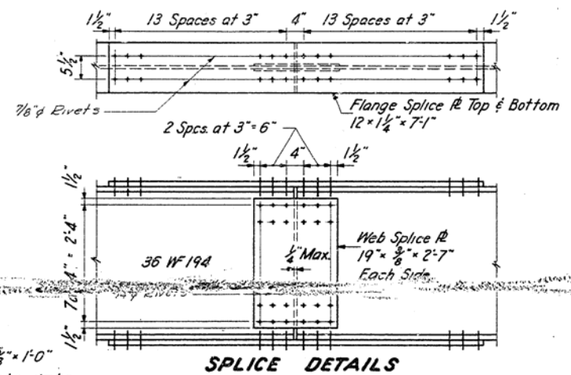
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69 HB-2	PIATT	20	7
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 3
8 SHEETS

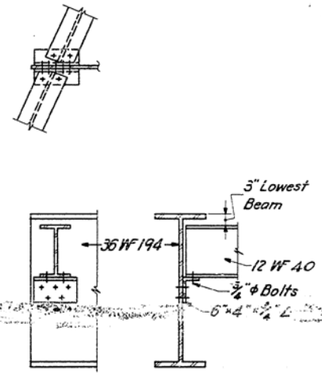


PLAN-STRUCTURAL STEEL LAYOUT

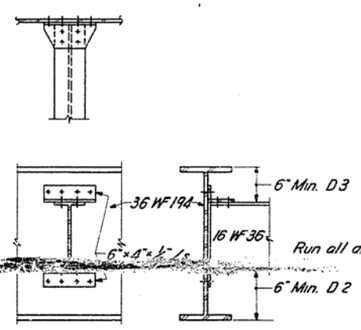




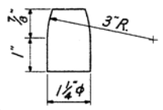
SPLICE DETAILS



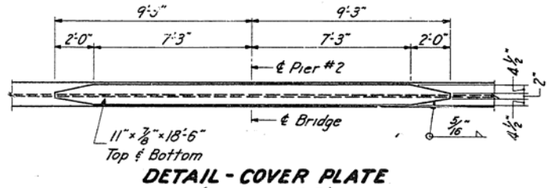
DIAPHRAGM D1



DIAPHRAGMS D2 & D3



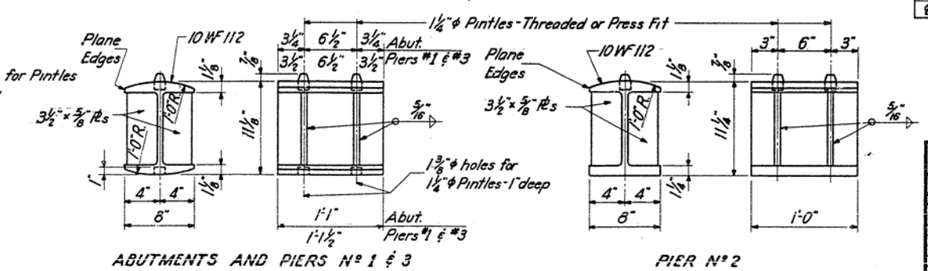
PINTLE



DETAIL - COVER PLATE
(At Pier Nº 2)

ELEVATION-TOP OF BEAMS

LOCATION	BEAMS 1	2	3	4	5
℄ Bearing Abut. #1	724.71	724.86	724.92	724.92	724.83
Pier #1	724.06	724.21	724.29	724.29	724.21
Splice #1	723.88	724.03	724.11	724.11	724.03
Splice #2	723.16	723.32	723.41	723.41	723.34
Pier #2	722.83	722.99	723.08	723.08	723.02
Splice #3	722.48	722.65	722.74	722.74	722.68
Splice #4	721.54	721.72	721.81	721.83	721.77
Pier #3	721.27	721.45	721.54	721.56	721.50
℄ Bearing Abut. #2	720.31	720.49	720.59	720.61	720.55



ABUTMENTS AND PIERS Nº 1 & 3

BEARING DETAILS

REVISIONS			
No.	DATE	INITIALS	
1			
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STRUCTURAL STEEL

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

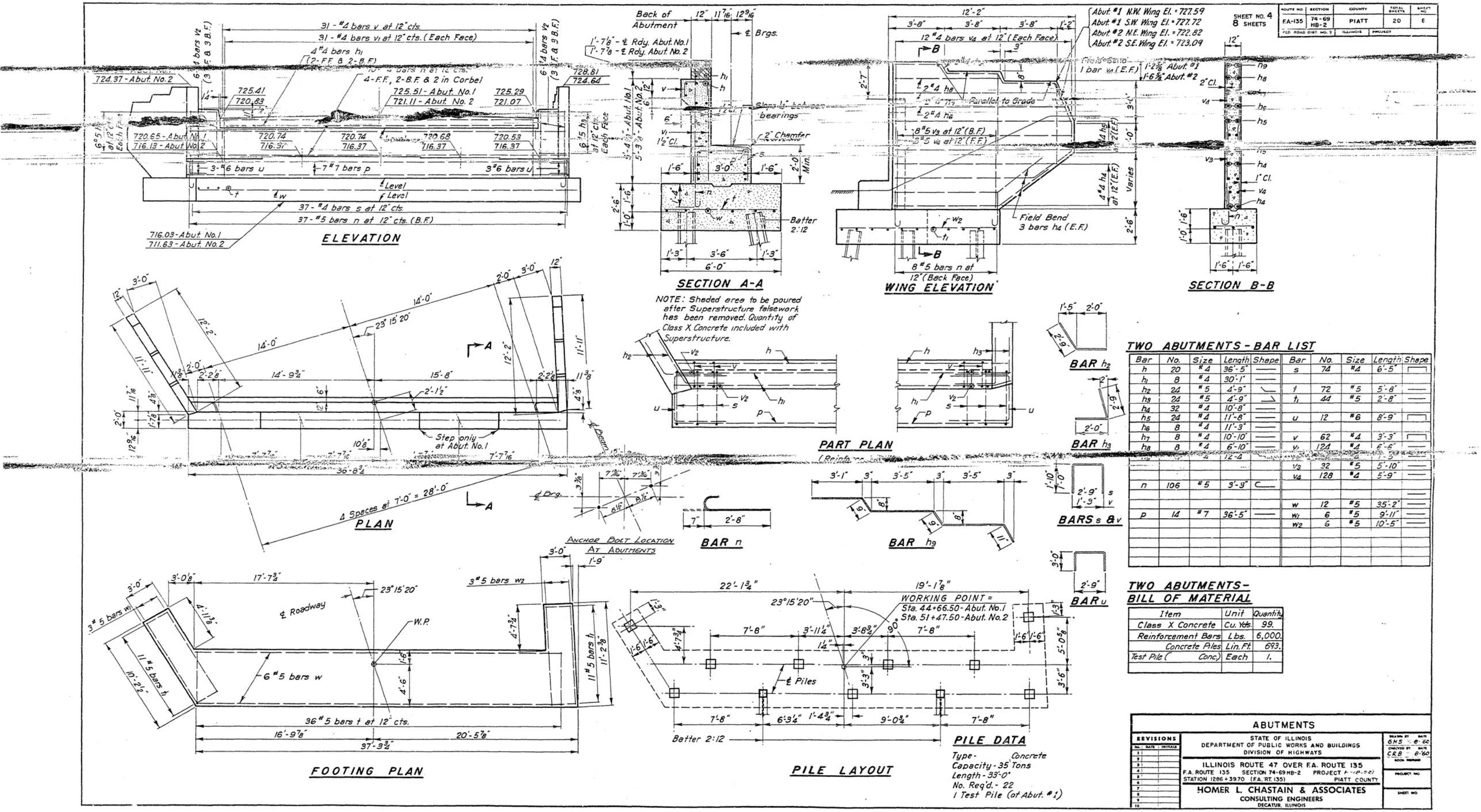
RELOCATED ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69HB-2 PROJECT F-18 (52)
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DRAWN BY R.C.M. DATE
CHECKED BY W.L.C. DATE
BOOK NUMBER
PROJECT NO.
SHEET NO.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-135	74-69 HB-2	PIATT	20	6
F.E.D. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET NO. 4 OF 8 SHEETS



TWO ABUTMENTS - BAR LIST

Bar	No.	Size	Length	Shape	Bar	No.	Size	Length	Shape
h	20	#4	36'-5"		s	74	#4	6'-5"	
h1	8	#4	30'-1"						
h2	24	#5	4'-9"		t	72	#5	5'-8"	
h3	24	#5	4'-9"		t1	44	#5	2'-8"	
h4	32	#4	10'-8"						
h5	24	#4	11'-8"		u	12	#6	8'-9"	
h6	8	#4	11'-3"						
h7	8	#4	10'-10"		v	62	#4	3'-3"	
h8	8	#4	6'-10"		v1	124	#4	6'-6"	
			12'-4					1'-5"	
					v3	32	#5	5'-10"	
					v4	128	#4	5'-9"	
n	106	#5	9'-9"						
					w	12	#5	35'-2"	
p	14	#7	36'-5"		w1	6	#5	9'-11"	
					w2	6	#5	10'-5"	

TWO ABUTMENTS - BILL OF MATERIAL

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	99.
Reinforcement Bars	Lbs.	6,000.
Concrete Piles	Lin. Ft.	693.
Test Pile (Conc.)	Each	1.

PILE DATA

Type - Concrete
Capacity - 35 Tons
Length - 33'-0"
No. Req'd. - 22
1 Test Pile (at Abut. #1)

REVISIONS		
No.	DATE	INITIALS
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ABUTMENTS

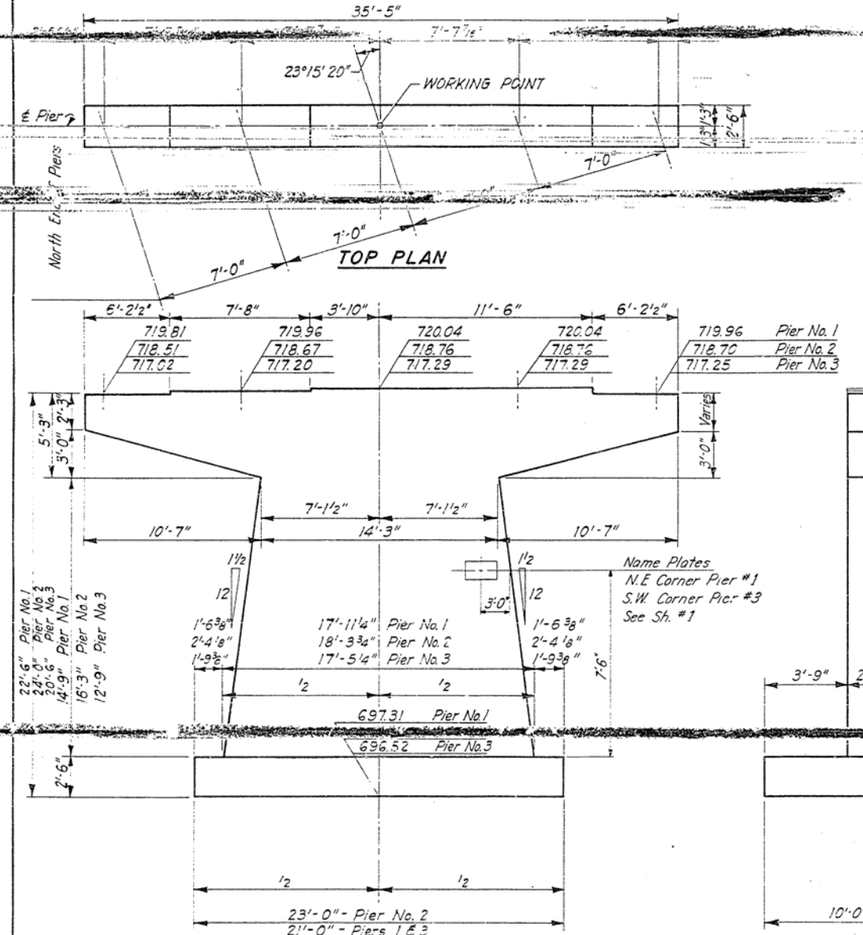
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

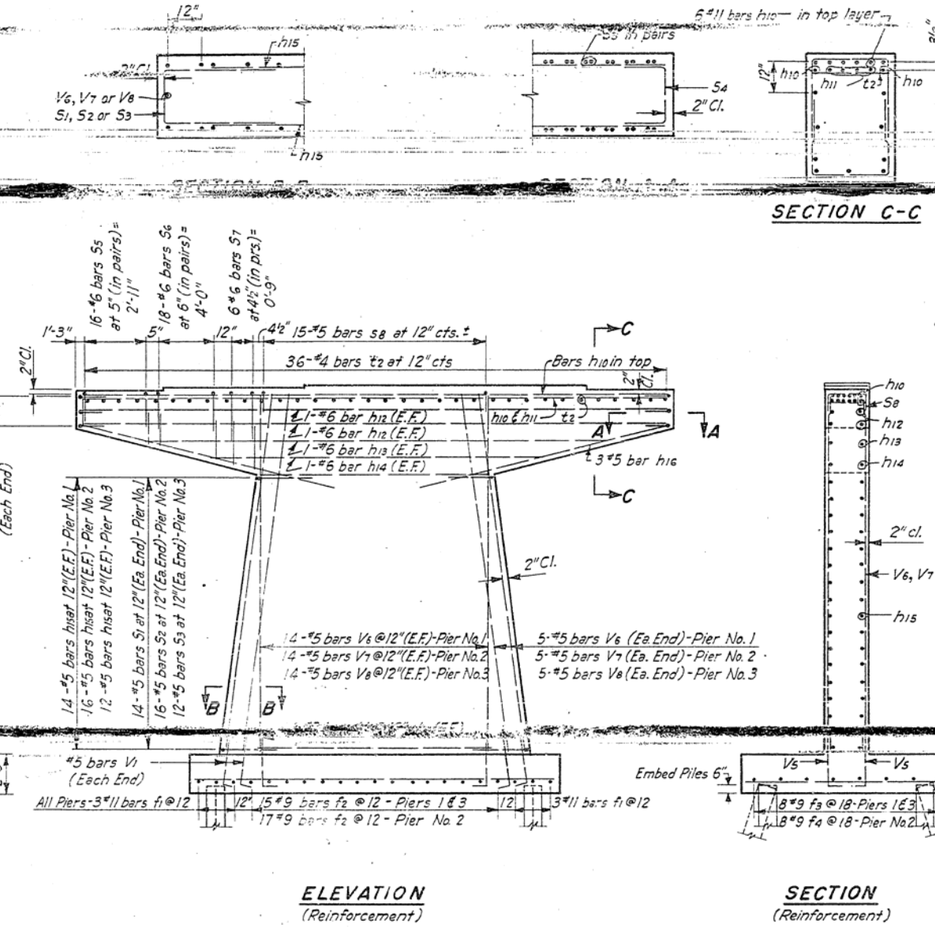
ILLINOIS ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69 HB-2 PROJECT
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DRAWN BY GHS DATE 8-60
CHECKED BY CRB DATE 8-60
BOOK NUMBER
PROJECT NO.
SHEET NO.

SHEET NO. 5 OF 8 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FA-135	74-69 HB-2	PIATT	20	9



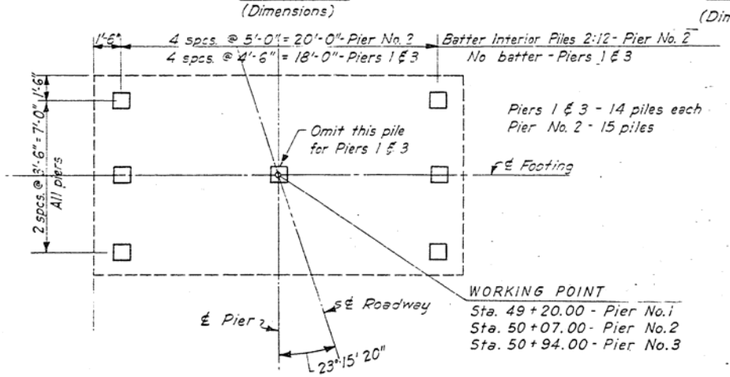


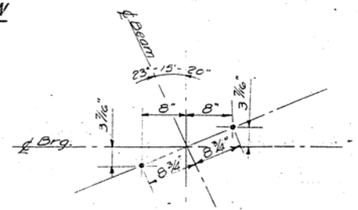
3 PIERS - BAR LIST

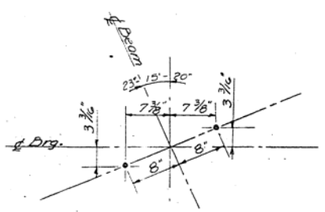
Bar	No.	Size	Length	Shape
f1	18	#11	9'-6"	
f2	47	#9	9'-6"	
f3	16	#9	20'-6"	
f4	8	#9	22'-6"	
h10	24	#11	35'-1"	
h11	12	#10	35'-1"	
h12	12	#6	35'-1"	
h13	6	#6	28'-1"	
h14	6	#6	21'-1"	
h15	84	#6	13'-11"	
h16	18	#5	13'-0"	
S1	28	#5	7'-10"	
S2	32	#5	8'-2"	
S3	24	#5	7'-4"	
S4	18	#6	4'-6"	
S5	96	#6	6'-6"	
S6	108	#6	7'-10"	
S7	36	#6	8'-2"	
S8	45	#5	5'-2"	
t2	108	#4	2'-2"	
V5	114	#5	3'-11"	
V6	38	#5	19'-8"	
V7	38	#5	21'-2"	
V8	38	#5	17'-8"	

3 PIERS
BILL OF MATERIAL

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	165.
Reinforcement Bars	Lbs.	22,155.
Concrete Piles	Lin. Ft.	840.
Test Piles (Conc.)	Each	1
Class A Exc. for Str.	Cu. Yds.	60.







PILE DATA

Type - Concrete
Capacity - 35 Tons
Est. Length - 20'-0"
No. Req'd. - 43
1 Test Pile - Pier No. 2

PIERS

REVISIONS	
No.	DATE	INITIALS
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

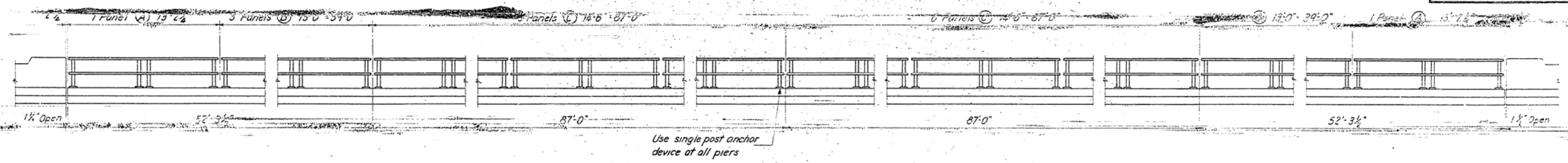
ILLINOIS ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69 HB-2 PROJECT
STATION 1286 + 39.70 (F.A. RT 135) PIATT COUNTY

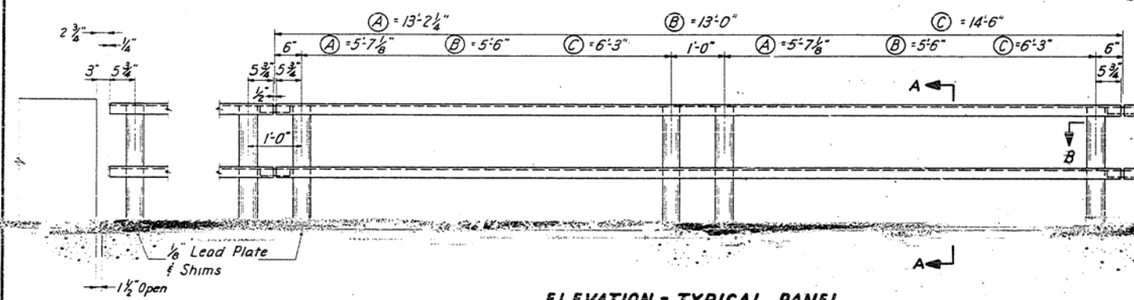
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DESIGNED BY E.S.V. DATE 5-60
CHECKED BY T.R.E. DATE 5-60
WORK NUMBER
PROJECT NO.
SHEET NO.

SHEET NO. 6
8 SHEETS

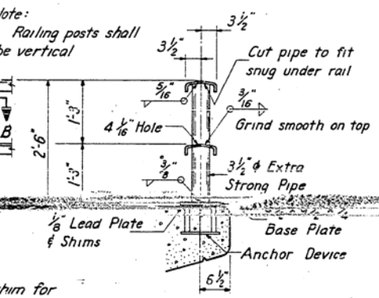
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69 HB-2	PIATT	20	
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT	



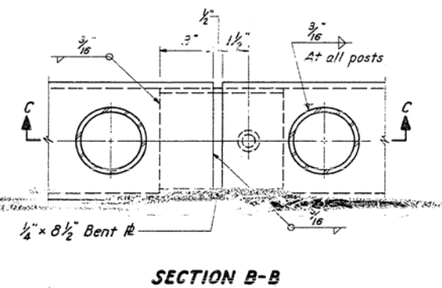


ELEVATION - TYPICAL PANEL

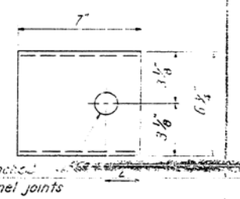
Note:
Railing posts shall be vertical



SECTION A-A



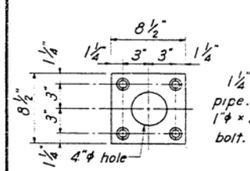
SECTION B-B



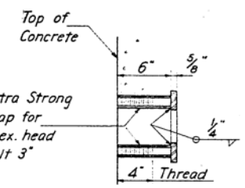
Use 1¼" ϕ punched hole at all panel joints

PLAN - ¼" BENT PLATE

Provide two 1/16" shims and one ⅛" shim for 50% of all handrail posts.

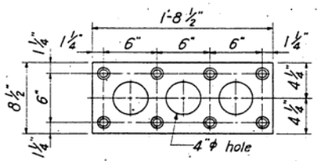


AT SINGLE POST

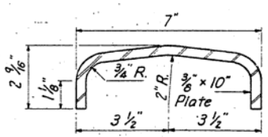


SECTION

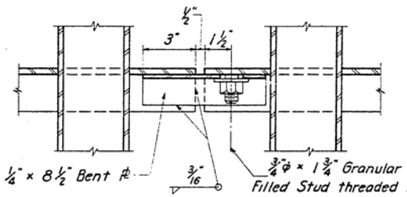
ANCHOR DEVICE



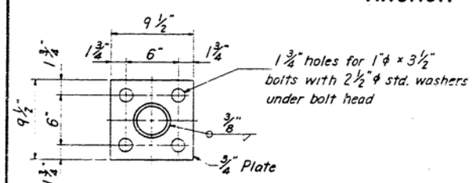
AT DOUBLE POST



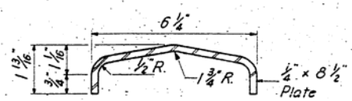
DETAIL OF RAIL



SECTION C-C



BASE PLATE
ALL POSTS - SUPERSTRUCTURE



DETAIL - ¼" BENT Pl

HANDRAIL

REVISIONS	
No.	DATE - INITIALS
1	
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

RELOCATED ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69HB-2 PROJECT [illegible]
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

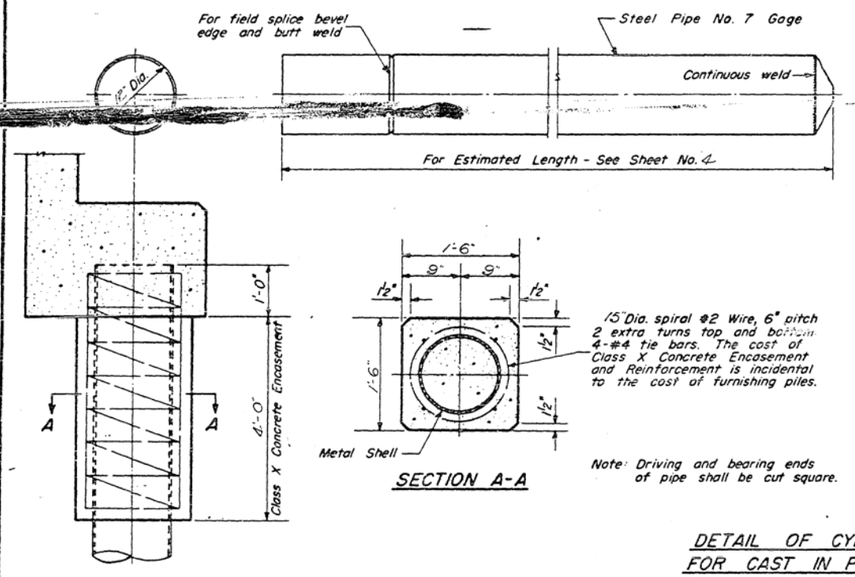
HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DRAWN BY [illegible] DATE [illegible]
CHECKED BY [illegible] DATE [illegible]
BOOK NUMBER
PROJECT NO
SHEET NO

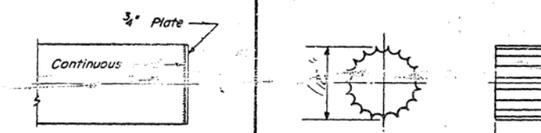
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
135	74-69 HB-2	PIATT	20	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
6 SHEETS

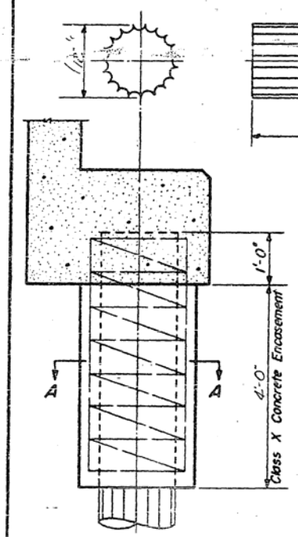


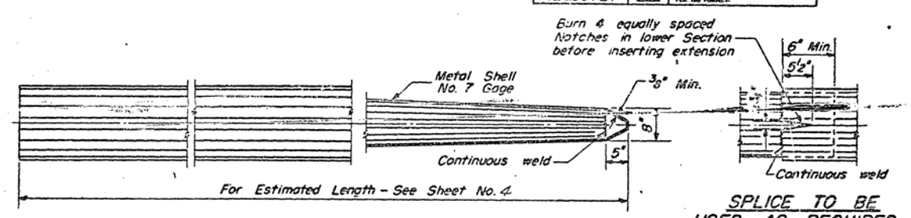
Note: Driving and bearing ends of pipe shall be cut square.



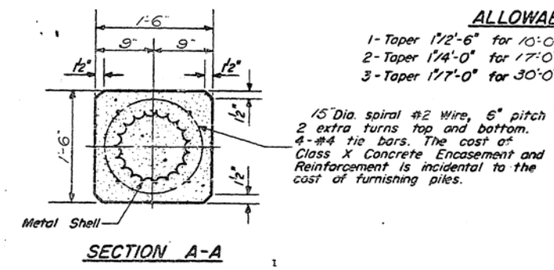
OPTIONAL FLAT END

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES





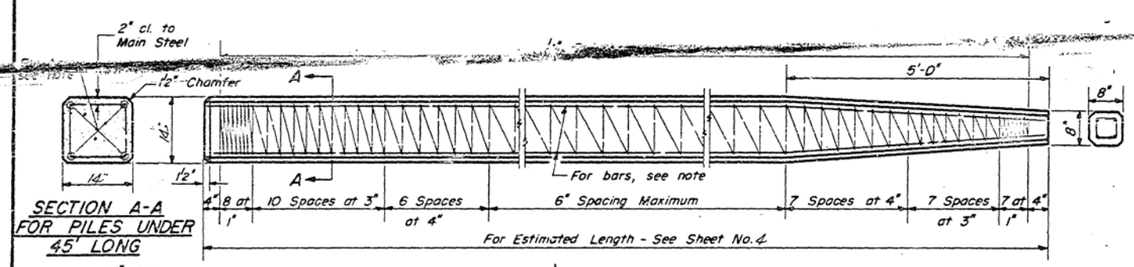
SPLICE TO BE USED AS REQUIRED



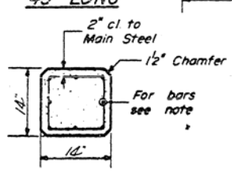
ALLOWABLE TAPERS

1-Taper 1"/2'-6" for 10'-0" + 12" Cylindrical Section Extension
2-Taper 1"/4'-0" for 17'-0" + 12" Cylindrical Section Extension
3-Taper 1"/7'-0" for 30'-0" + 12" Cylindrical Section Extension

DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG



SECTION A-A FOR PILES 45' OR MORE

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 the full length.

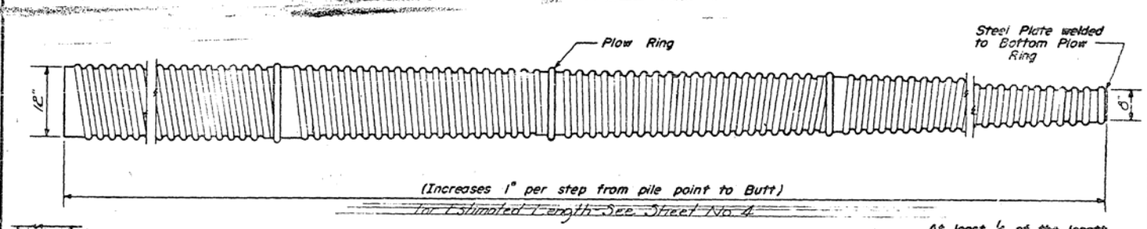
Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L* from each end.
For Piles longer than 45', use three slings placed at a distance of 0.12 L* from each end and at mid-point of pile.
*L = Over all length of pile to be handled.

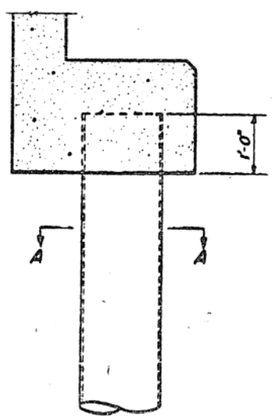
DESIGNED	
CHECKED	
DRAWN	W A Sousamon
CHECKED	

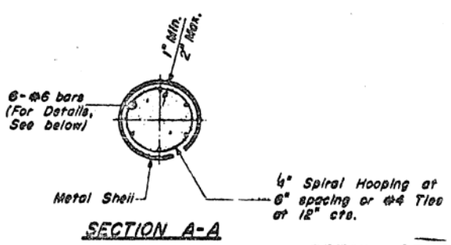
19
EXAMINED — ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF BRIDGES
APPROVED — CHIEF HIGHWAY ENGINEER

X-1 Re-drawn 9-24-59 Rev 9-23-60

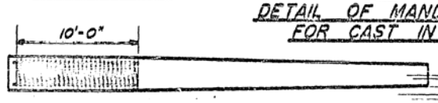
DETAIL OF PRECAST CONCRETE PILES





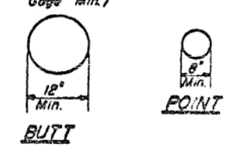


SECTION A-A



Reinforcement is incidental to the cost of furnishing piles.

At least ¼ of the length of pile shall have a Butt diameter equal to or greater than 12".
Gages are furnished to suit soil conditions (14 Gage Min.)



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

PILE DETAILS
F.A.R.T. 135 - SEC. 74-69 HB-2
PIATT COUNTY
STA. 1286+39.70

SHEET NO. 8 OF 8 SHEETS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69 HB-2	PIATT	20	12

FED. ROAD DIST. NO. 5 ILLINOIS PROJECT

705 700 695 690 685 680 675 670 665 660 655 650 645

BORING Nº 1
STATION 50 + 07
ON CENTERLINE

	N	Qu
Surface Of Ground		
Medium Dark Brown Silty Clay		
Stiff to Very Stiff Brown Mottled Silty Clay	10	2.45
	6	1.02
Brown Mottled Clay Loam	5	1.02
Stiff to Very Stiff Brown Mottled Clay Till	11	2.45
	14	2.86
Stiff to Hard Gray Clay Till	15	4.69
	11	1.84
Stiff to Hard Gray Clay Till	11	
Medium Brown Sand	17	
Hard Gray Silty Clay Loam Till	29	4.49
	31	8.57
Hard Gray Clay Till	28	8.28

BORING Nº 2
STATION 50 + 93
ON CENTERLINE

	N	Qu
Surface Of Ground		
Medium Dark Brown Silty Clay		
Stiff to Very Stiff Brown Mottled Silty Clay	10	2.45
	7	1.22
Medium Brown Mottled Clay Loam	7	.61
Very Stiff Brown Mottled Clay Till	12	3.26
	12	3.06
Very Stiff Gray Clay Till	11	3.06
Very Stiff Brown Gravelly Clay Till	22	2.86
Medium Brown Sand	20	2.04
	22	2.04
Stiff to Very Stiff Gray Silty Clay Loam Till	17	1.22
Hard Gray Clay Till	37	6.53

BORING Nº 3
STATION 49 + 20
ON CENTERLINE

	N	Qu
Surface Of Ground		
Medium Dark Brown Silty Clay		
Very Stiff Brown Mottled Silty Clay	10	2.04
	4	1.02
Stiff Brown Mottled Clay Loam	4	1.02
Very Stiff Brown Mottled Clay Till	9	2.24
Brown Sand		
Very Stiff Brown Gray Mottled Clay Till	11	3.06
Gray Clay Till	16	
Medium Brown Sand		
Medium Brown Sand	15	
	11	3.47
Very Stiff Gray Clay Till	19	3.26
Hard Brown Mottled Clay Till		
Loose Brown Sand	4	
Hard Gray Clay Till	31	7.34

N = Standard Penetration Test-Blows per foot to drive 2" o.d. Split Spoon Sampler 12" with 140 lb. hammer falling 30"

Qu = Unconfined Compressive Strength in tons per square foot.

BORING DATA

REVISIONS	
NO.	DATE	INITIALS
1	
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STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

RELOCATED ROUTE 47 OVER F.A. ROUTE 135
F.A. ROUTE 135 SECTION 74-69HB-2 PROJECT (F-1(8)22)
STATION 1286+39.70 (F.A. RT. 135) PIATT COUNTY

HOMER L. CHASTAIN & ASSOCIATES
CONSULTING ENGINEERS
DECATUR, ILLINOIS

DRAWN BY	DATE
R.C.M.	
CHECKED BY	DATE
W.L.C.	
BOOK NUMBER	
PROJECT NO.	
SHEET NO.	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69 HB-2	PIATT	20	13

STA. 46+00 TO STA. 53+00

FED. ROAD DIST. NO. 7 | ILLINOIS | PROJECT

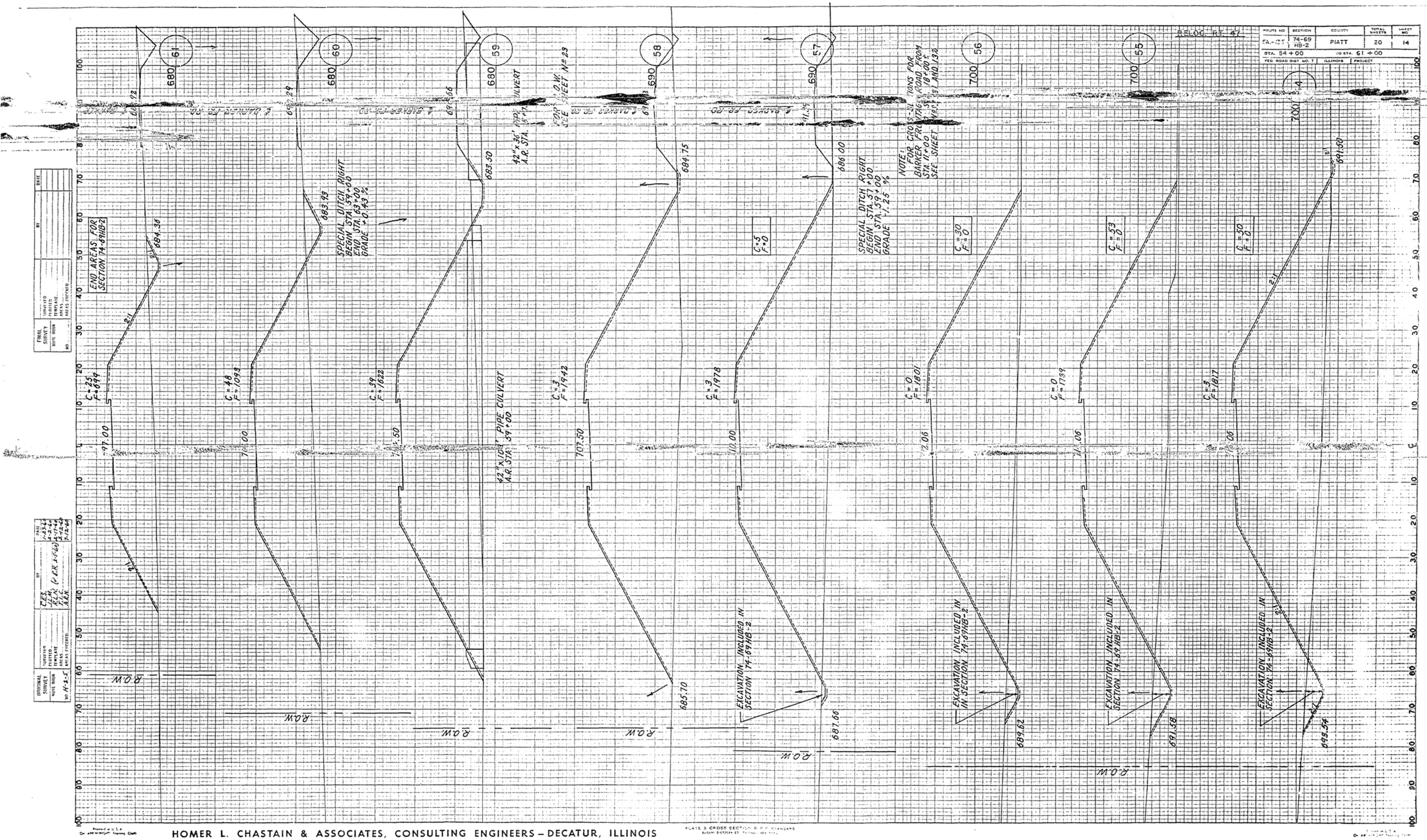
FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TOPOGRAPHY		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	C.E.S.	2-27-69
	PLOTTED	J.L.H.	2-27-69
	TOPOGRAPHY	J.L.H.	2-27-69
	AREAS	J.L.H.	2-27-69
NO. N-2-S	AREAS CHECKED	A.R.H.	2-27-69

Printed in U.S.A. Co. ARCHWRIGHT Drafting Cloth

HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

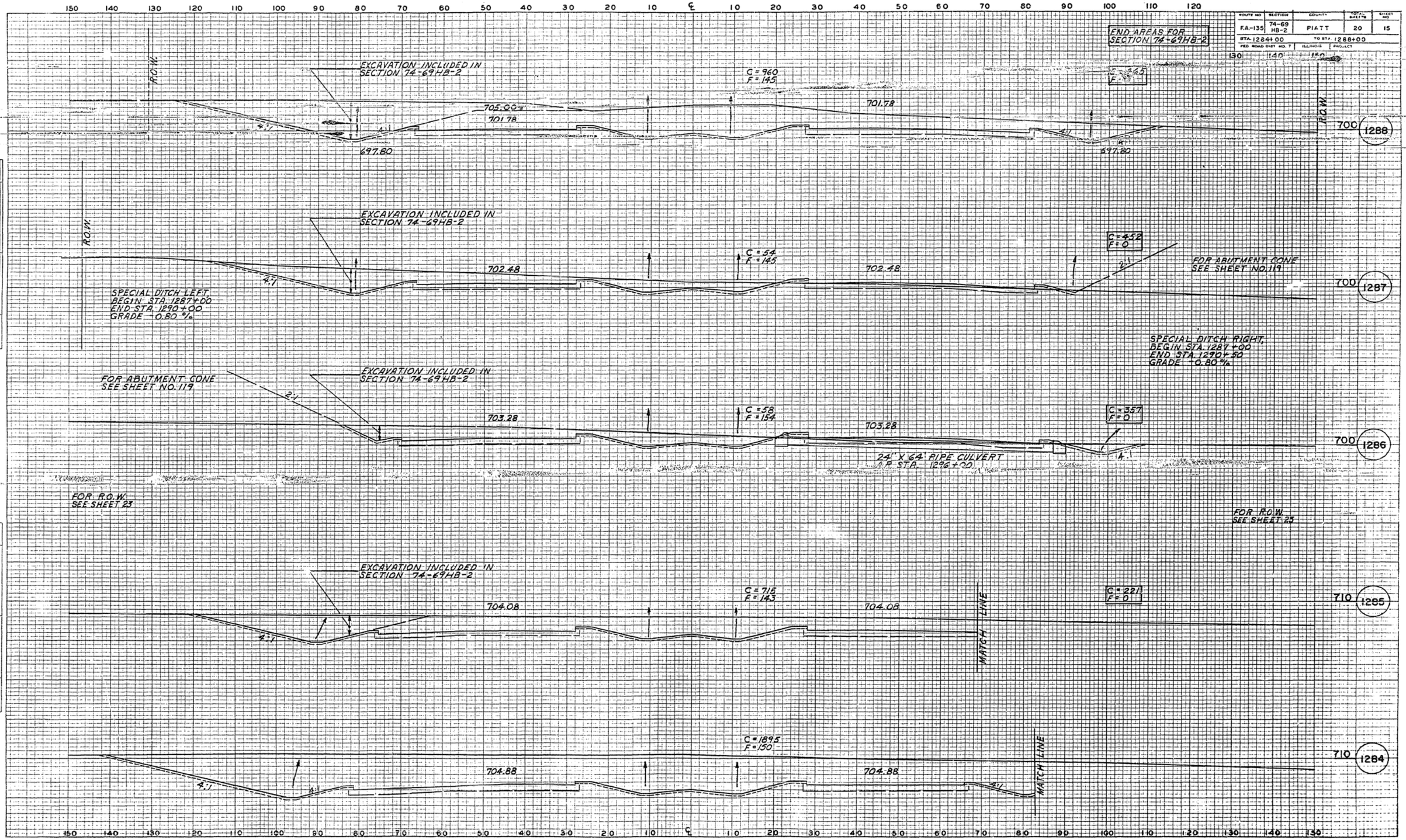
PLATE 3 IRDAS SECTION B P M STANDARD



HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

PLATE 3 CROSS SECTION

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.-135	74-69 HB-2	PIATT	20	15
STA. 1284+00		TO STA. 1288+00		
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



FINAL SURVEY	
NOTE BOOK	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
NO.	AREAS CHECKED

BY	DATE
C.E.S.	10-23-59
E.K.W. (K.W.R. IN FIELD)	11-6-59
E.O.L.	11-23-59
J.J.C.	7-11-60
A.R.K.	7-13-60

ORIGINAL SURVEY	
NOTE BOOK	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
NO. 54	AREAS CHECKED

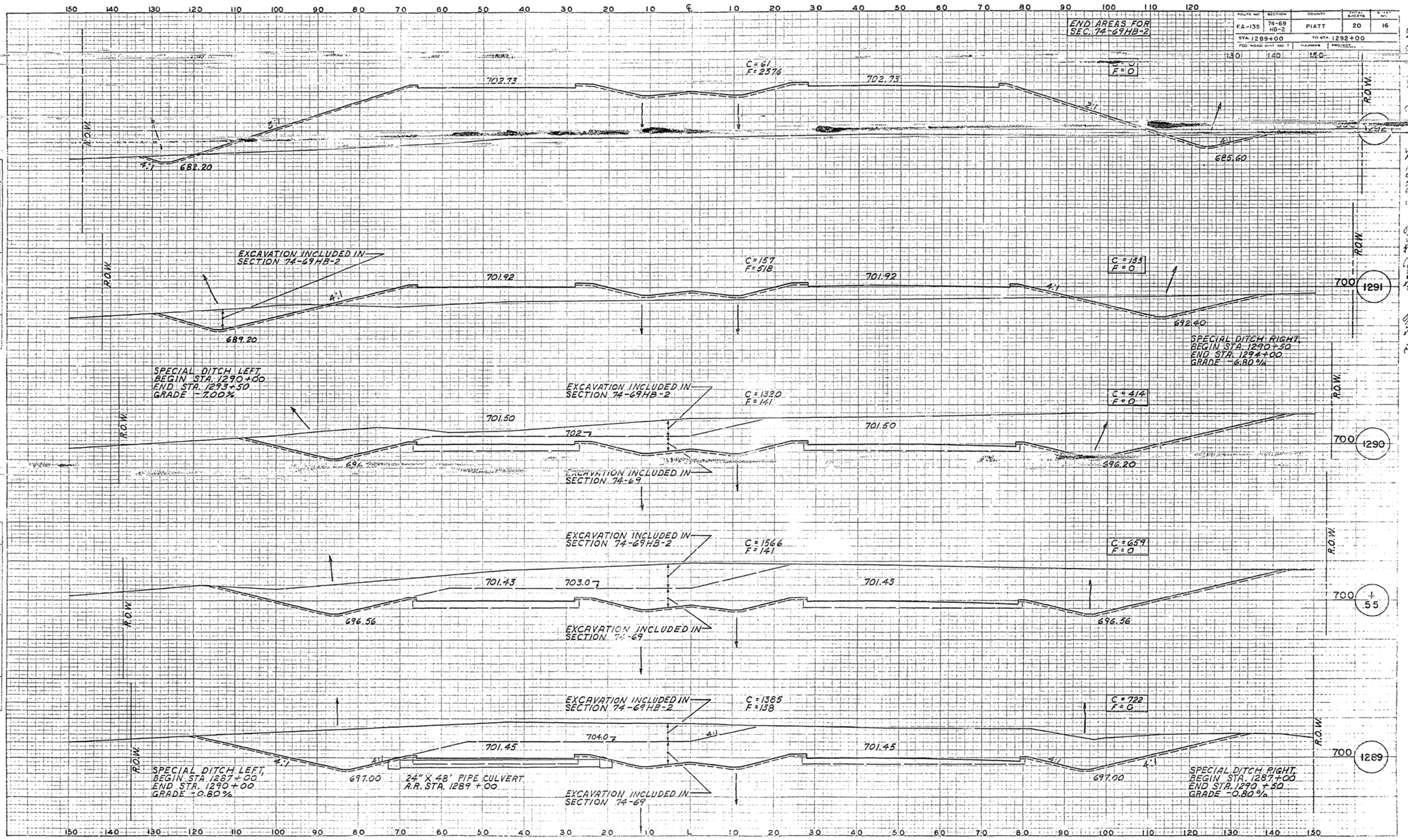
Printed in U.S.A. On ARENWRIGHT Tracing Cloth

HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

PLATE 3 CROSS SECTION S.P.R. STANDARD
EUGENE DIETZGEN CO. CHICAGO - NEW YORK

Printed in U.S.A. On ARENWRIGHT Tracing Cloth

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-135	74-69 HB-2	PIATT	20	16
STA. 1289+00		TO STA. 1292+00		
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		



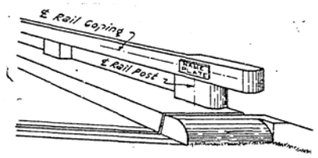
FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED	C.E.S.	10-29-39
	PLOTTED	E.K. (-L.W.R.	11-1-39) 11-3-39
	TEMPLATE	T.V.C.	11-21-39
	AREAS	T.V.C.	11-24-39
NO. 61	AREAS CHECKED	A.R.H.	7-19-40

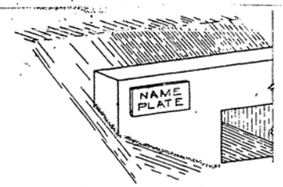
HOMER L. CHASTAIN & ASSOCIATES, CONSULTING ENGINEERS – DECATUR, ILLINOIS

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

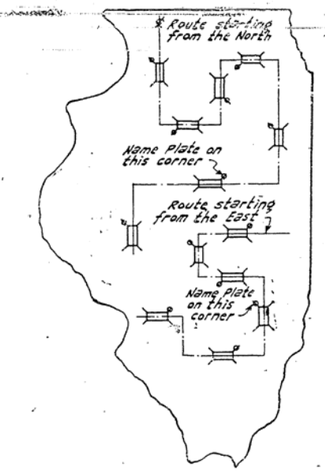
Sheet 1 of 1

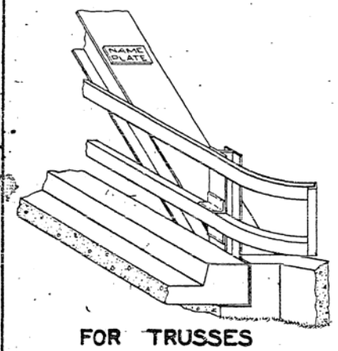


FOR CONCRETE RAILS

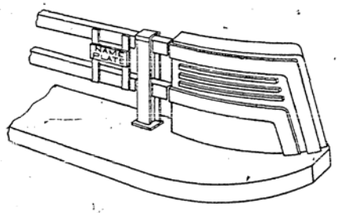


FOR CULVERT HEADWALLS

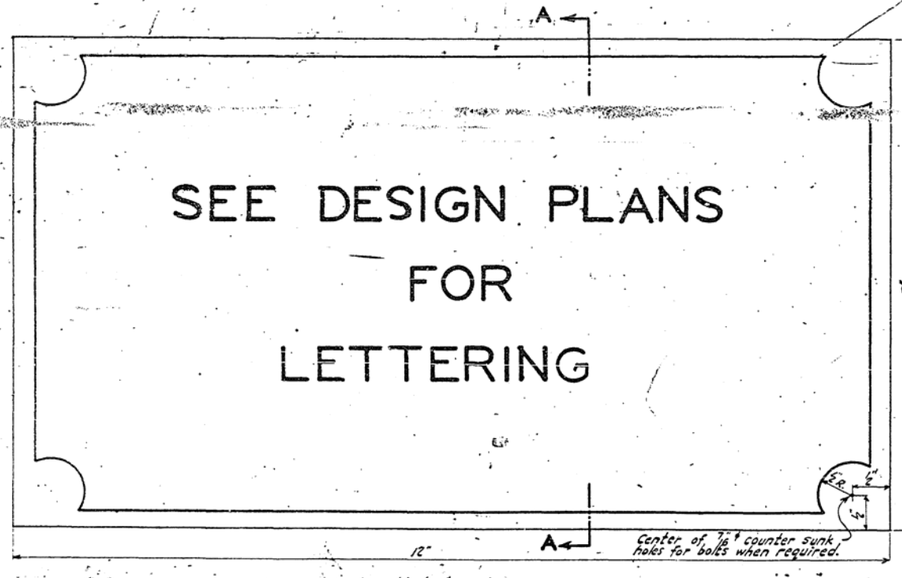




FOR TRUSSES



FOR STEEL RAILS



SEC. A-A

Material - Best quality brass or bronze.
Border & Lettering: Raised 1/8 inch. Square cut and not tapered. Top surface polished.

Fastenings -
- For Concrete Rails, Culverts, Vert. Headwalls & Subways. Four lugs of least three inches long, cast on back of plate.
- For Steel Truss Span. 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 4-3/4" brass or bronze hex head bolts.
- For Concrete Rails. Plate to be centered on ℄ of rail post and ℄ of handrail coping.

Placing -
- For Steel Truss Span. 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.

EXAMINED OCT. 5 1959
ENGINEER OF BRIDGE & TRAFFIC STRUCTS
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

DETAIL OF
NAME PLATE FOR BRIDGES

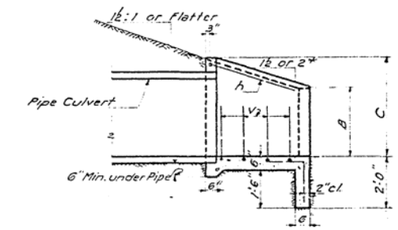
2-27-53 - J.S.M. Sign's. Rev. Nov. '58

23d

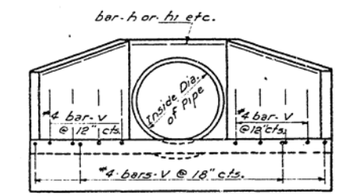
STD. No. 2113

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

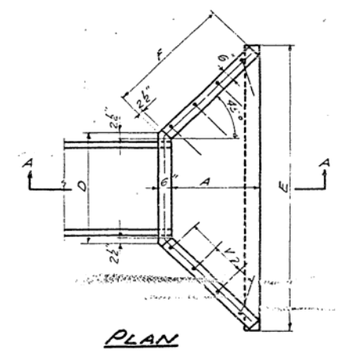
SHEET 1 OF 1



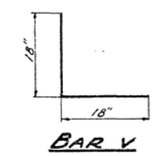
SECTION A-A



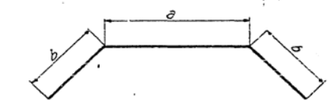
END VIEW



PLAN



BAR V



BARS h TO h9
Bend in field
One req'd. in each headwall

Mark	a	b
h	1'-10"	2'-5½"
h1	1'-10"	3'-2½"
h2	2'-1"	3'-5½"
h3	2'-1"	3'-2½"
h4	2'-9"	3'-9"
h5	2'-9"	4'-1½"
h6	3'-9"	3'-10½"
h7	3'-9"	4'-10½"
h8	3'-11"	4'-8"
h9	3'-11"	5'-9½"

TABLE OF DIMENSIONS

Design No.	Inside dia. of Pipe	Slope of Fill	Dimensions A	B	C	D	E	F	Cl. X Conc. 2 Hdwls. Cu. Yds.	Reinforcement Bars h-Bars Mark	Length	V-Bars No.	Total Wt. 2 Hdwls.
D15-1½	15"	1½:1	1'-7"	10"	1'-11"	2'-0"	5'-5½"	2'-5½"	0.9	h	6'-9"	16	40
D15-2	15"	2:1	2'-2"	10"	1'-11"	2'-0"	6'-7½"	3'-9½"	[illegible]	h1	8'-9"	22	60
D18-1½	18"	1½:1	1'-7"	1'-1"	2'-2"	2'-3"	5'-8½"	2'-5½"	[illegible]	h2	7'-0"	16	40
D18-2	18"	2:1	2'-2"	1'-1"	2'-2"	2'-3"	6'-10½"	3'-9½"	1.3	h3	8'-6"	22	60
D24-1½	24"	1½:1	2'-1"	1'-4"	2'-9"	2'-11"	7'-4½"	3'-2"	1.5	h4	9'-3"	22	60
D24-2	24"	2:1	2'-10"	1'-4"	2'-9"	2'-11"	8'-10½"	4'-2½"	2.0	h5	11'-0"	28	70
D30-1½	30"	1½:1	2'-6"	1'-7"	3'-3"	3'-5"	8'-8½"	3'-9"	2.0	h6	11'-0"	28	70
D30-2	30"	2:1	3'-4"	1'-7"	3'-3"	3'-5"	10'-4½"	4'-11"	2.6	h7	13'-0"	34	80
D36-1½	36"	1½:1	3'-0"	1'-10"	3'-10"	4'-1"	10'-4½"	4'-5½"	2.6	h8	13'-3"	30	80
D36-2	36"	2:1	4'-0"	1'-10"	3'-10"	4'-1"	12'-4½"	5'-10½"	3.5	h9	15'-6"	40	100

Note:
Class-X Concrete shall be used throughout.

* If embankment slope above headwall is flatter than 2:1, provide wings for 2:1 slope.

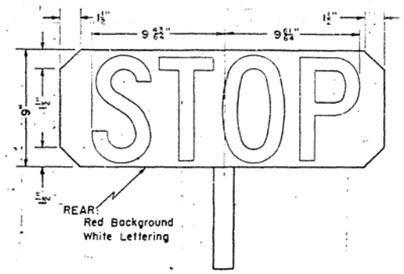
OCT. 5 1959
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

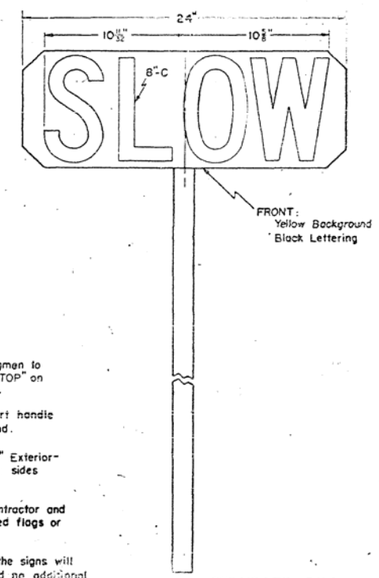
M. Miller Sign's. Rev. Nov. 58

REINFORCED CONCRETE HEADWALLS
FOR
15"-18"-24"-30" & 36" DIAMETER
PIPE CULVERTS
AT RIGHT ANGLES WITH ROADWAY

STANDARD 1976

STANDARD DESIGN FOR FLAGMAN TRAFFIC CONTROL SIGN





—NOTE—

The paddle type sign used by the flagmen to direct traffic shall be constructed with "STOP" on one side and "SLOW" on the reverse side.

Signs may be constructed with a short handle or a long staff which rests on the ground.

The material for the sign shall be 1/4" Exterior-Grade A-A Plywood or Exterior D.F.P.A.-2 sides sound.

These signs shall be furnished by the Contractor and shall be used by the flagmen in lieu of red flags or other signaling devices.

The cost of furnishing and maintaining the signs will be considered incidental to the contract and no additional compensation will be allowed.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BLDGS.
DIVISION OF HIGHWAYS

PASSED April 10 1954
ENGINEER OF ROAD PLANS AND CONTRACTS
APPROVED April 12 1954
ENGINEER OF DESIGN

REVISIONS	
BY	DATE

STANDARD 2114

STANDARD DESIGN FOR ROAD UNDER CONSTRUCTION SIGN

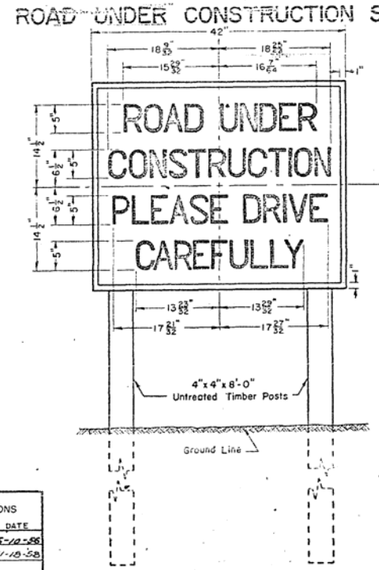
GENERAL NOTES

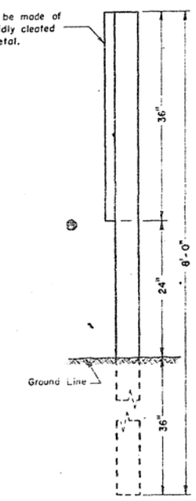
The border and letters shall be printed black on a white background.

The letters shall have a stroke 2" wide and a width in proportion to the dimensions shown.

The Contractor shall furnish all materials and labor for constructing and erecting this sign at each end of the construction section, or as directed by the Engineer. The signs shall be placed prior to the actual starting of construction operations.

Furnishing and erecting these signs will be considered incidental to the contract and no additional compensation will be allowed.





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

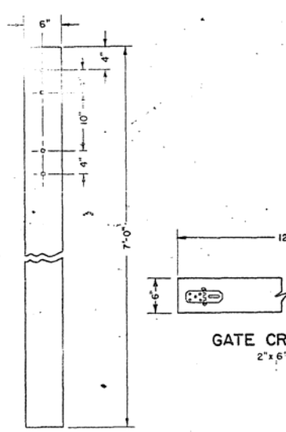
PASSED Nov. 28 1951
ENGINEER OF ROAD PLANS AND CONTRACTS
APPROVED Nov. 29 1951
ENGINEER OF DESIGN

REVISIONS	
BY	DATE
Jed Redman	5-10-56
J.F.L.	11-18-58

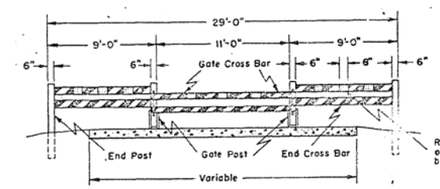
STANDARD 1971-2

1:8 5-10-56

STANDARD DESIGN FOR BARRICADE

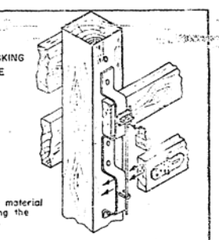


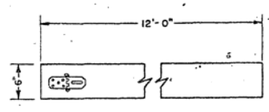
END POST
6"x6"x7'-0"



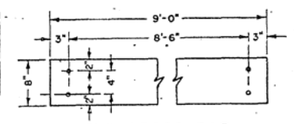
BARRICADE ASSEMBLY

SUGGESTED LOCKING DETAIL OF GATE CROSS BARS

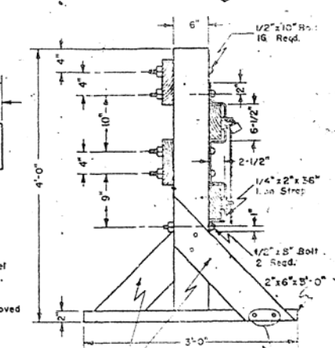




GATE CROSS BAR
2"x6"x12'-0"



END CROSS BAR
2"x8"x9'-0"



GATE POST
6"x6"x3'-10"

NOTES

Barricades wider than 29'-0" shall be constructed with a gate panel as shown, and with two or more side panels similar to those shown. The length of side panels shall not exceed 12'-0", between posts.

All bolt holes are 5/8" in diameter.

All lumber shall be substantial and durable and shall be approved by the Engineer.

All cross bars shall be painted on one side with alternate black and yellow stripes 6" wide at an angle of 45°. The paint shall be furnished by the Contractor.

This work shall be incidental to the contract and no additional compensation will be allowed.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BLDGS.
DIVISION OF HIGHWAYS

PASSED August 18 1954
ENGINEER OF ROAD PLANS AND CONTRACTS
APPROVED August 18 1954
ENGINEER OF DESIGN

REVISIONS	
BY	DATE
J.F.L.	11-18-58

STANDARD 1972-1

STANDARD DESIGN
FOR
SIGN
FOR HIGHWAY IMPROVEMENT

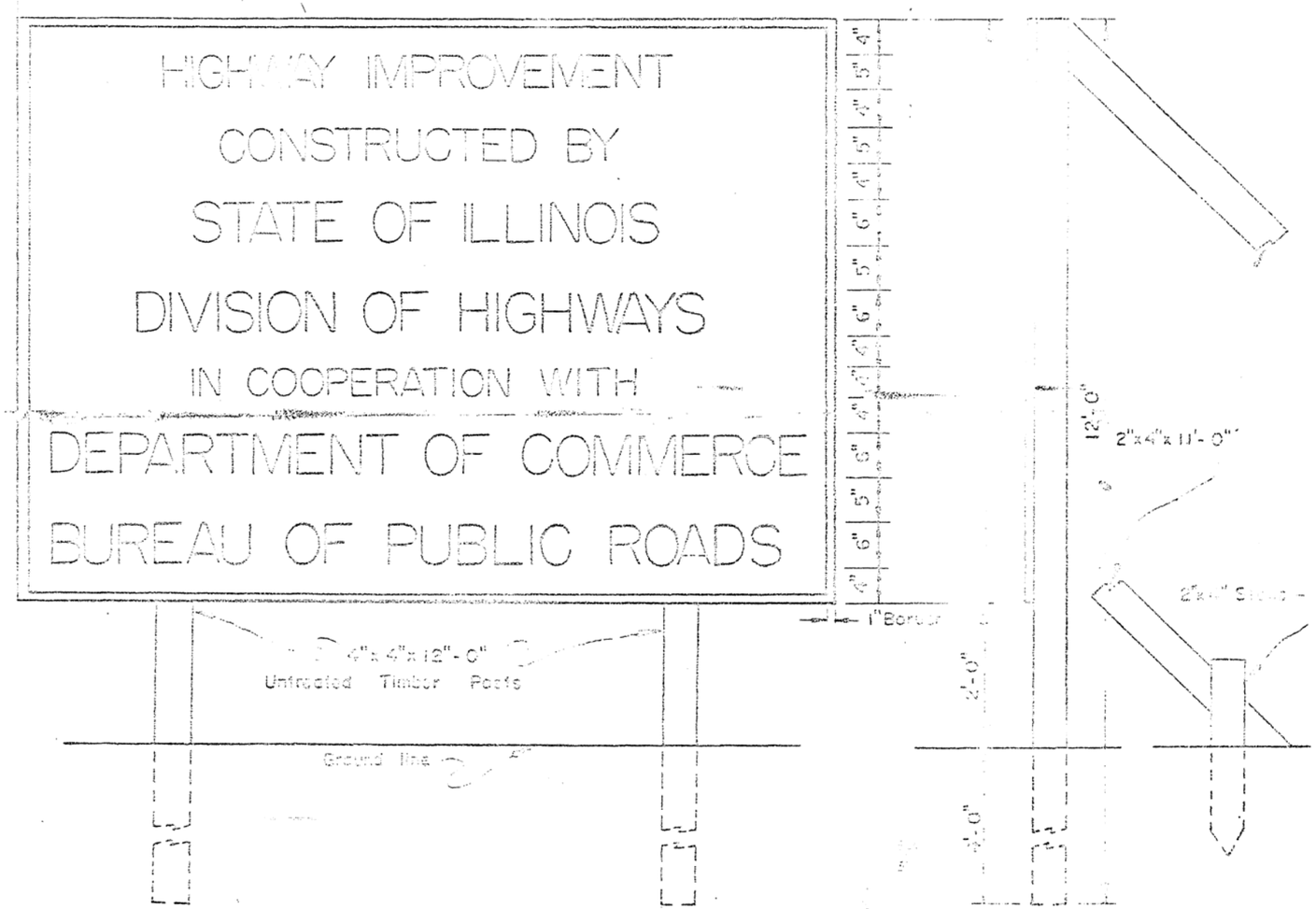
GENERAL NOTES

Signs shall be made of wood (4" lumber stability glued, planed (5/8" thick), or of metal, (as specified on specification).

The Contractor shall furnish all material and labor for constructing and erecting the signs. The sign shall be placed prior to the starting of actual construction operations. Unless any signs be erected he shall be approved by the Engineer up to approximate time of construction. The sign shall remain in place and shall be maintained in a satisfactory condition until the project is accepted by the Department. The Contractor will then remove the signs and the material will become his.

The legend shall be black and the letters printed black on a white background. The letters, width of stroke, width of letters and steps shall be Series C of the "Standard Alphabets for Highway Signs, Public Roads Administration, Federal Works Agency, 1945."

[illegible] the exact sign location will be shown on the plans. The cost of sign, post, erection and later removal of the signs shall be included in the cost of the construction.

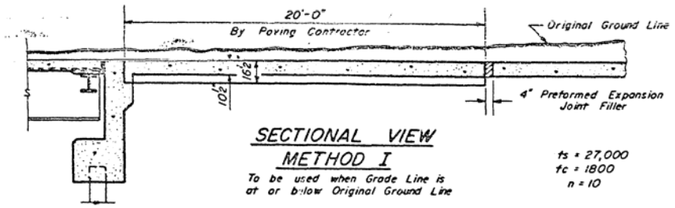


STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
[illegible]		
[illegible]		
[illegible]		
[illegible]		
[illegible]		

STANDARD 2156

DRAWN BY MZ 6/6/56

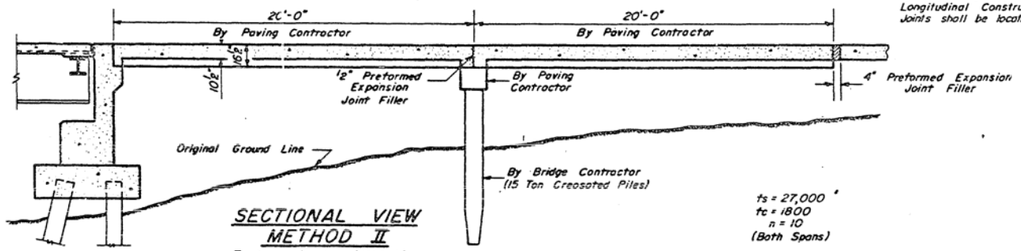
DETAILS OF BRIDGE APPROACHES



SECTIONAL VIEW METHOD I

To be used when Grade Line is at or below Original Ground Line

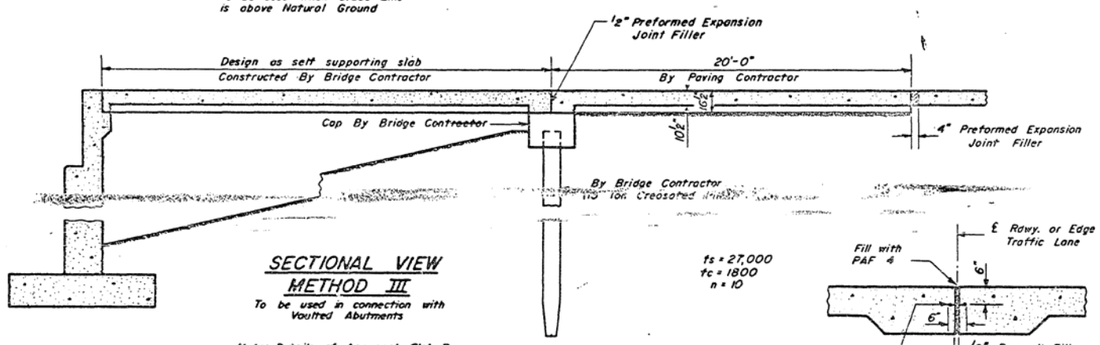
ts = 27,000
tc = 1800
n = 10



SECTIONAL VIEW METHOD II

To be used when Grade Line is above Natural Ground

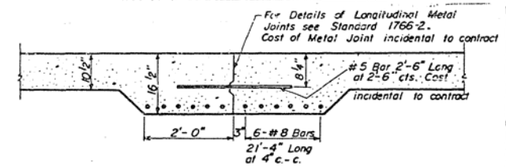
ts = 27,000
tc = 1800
n = 10
(Both Spans)



SECTIONAL VIEW METHOD III

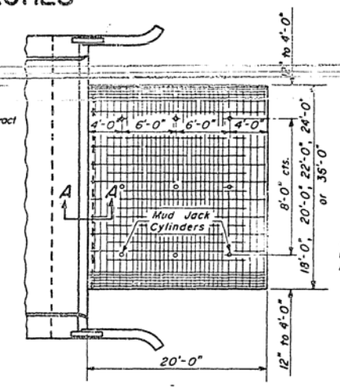
To be used in connection with Vaulted Abutments

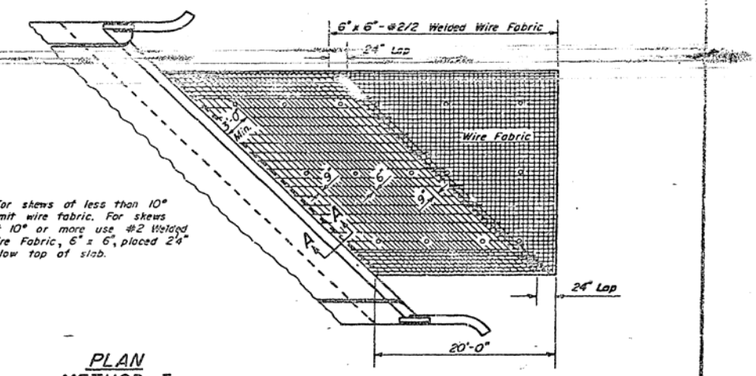
Note: Details of Approach Slab By Paving Contractor same as shown for Method I



OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a Traffic Lane.

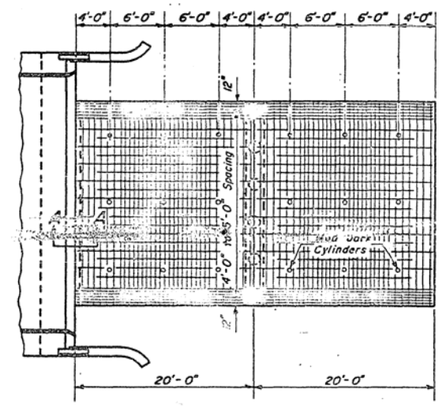


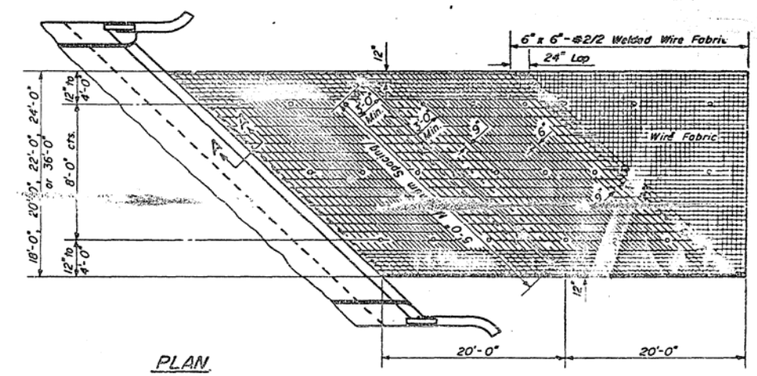


For shews of less than 10° omit wire fabric. For shews of 10° or more use #2 Welded Wire Fabric, 6" x 6", placed 2" below top of slab.

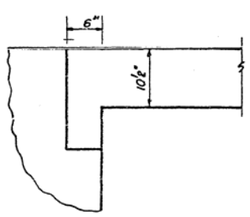
PLAN METHOD I

Expanded Metal weighing not less than 78 Lbs. per 100 sq. ft. or a welded bar mat weighing not less than 78 Lbs. per 100 sq. ft. having members of equal size in both directions and spaced not over 9" apart may be used instead of the #2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.

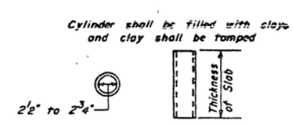




PLAN METHOD II

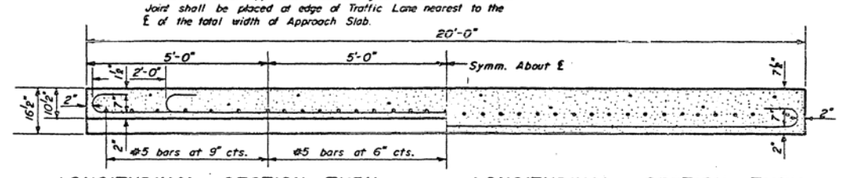


SECTION A-A



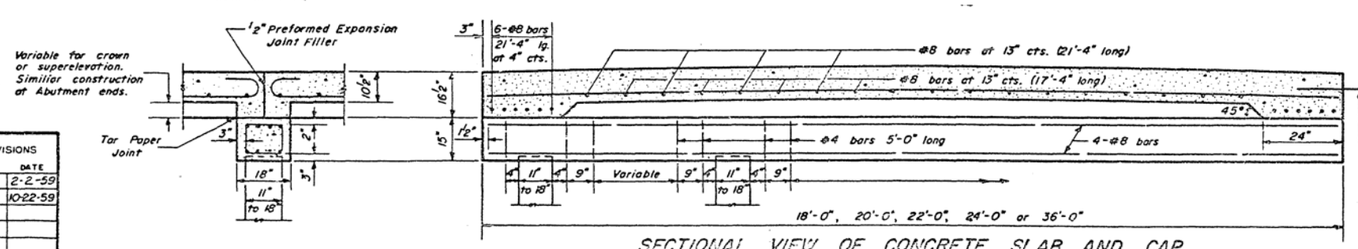
DETAIL OF MUD JACK CYLINDER

Cylinders shall be Standard Weight Black Steel Pipe

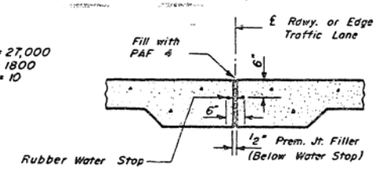


LONGITUDINAL SECTION THRU CENTER OF SLAB

LONGITUDINAL SECTION THRU THICKENED EDGE OF SLAB



SECTIONAL VIEW OF CONCRETE SLAB AND CAP



LONGITUDINAL EXPANSION JOINT

To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the ℄ of the total width of Approach Slab.

ts = 27,000
tc = 1800
n = 10

GENERAL NOTES

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½")

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars, except tie bars for curb and gutter or gutter, will be paid for at the contract unit price for REINFORCEMENT BARS.

The Welded Wire Fabric, Mud Jack Cylinders and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-10½"-16½")

Preformed Expansion Joint Filler shall conform to Section 129 of the Standard Specifications.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

Quantities shown for Reinforcement Bars are for two (2) thickened edges only.

Note: When road plans show curb and gutter or gutter adjacent to approach slabs place #4 Tie bar 2'-6" long at 2'-6" cts. Cost of the bars included in contract unit price for Curb B Gutter or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for as CONCRETE GUTTER, of the type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for as COMBINATION CURB and GUTTER, of the type specified.

STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	REVISIONS BY	DATE
PASSED Dec. 18 1958	WAS	2-2-59
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES	CET	10-22-59
APPROVED Dec. 18 1958		
ENGINEER OF DESIGN		

STANDARD 1909 — 3