BOND ISSUE ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I.-134	101-VBR	EDGAR	21	1
FED. ROAD DIV. NO. 4	ILLINOIS	PROJECT FG-177(5)		

P-95-270-00

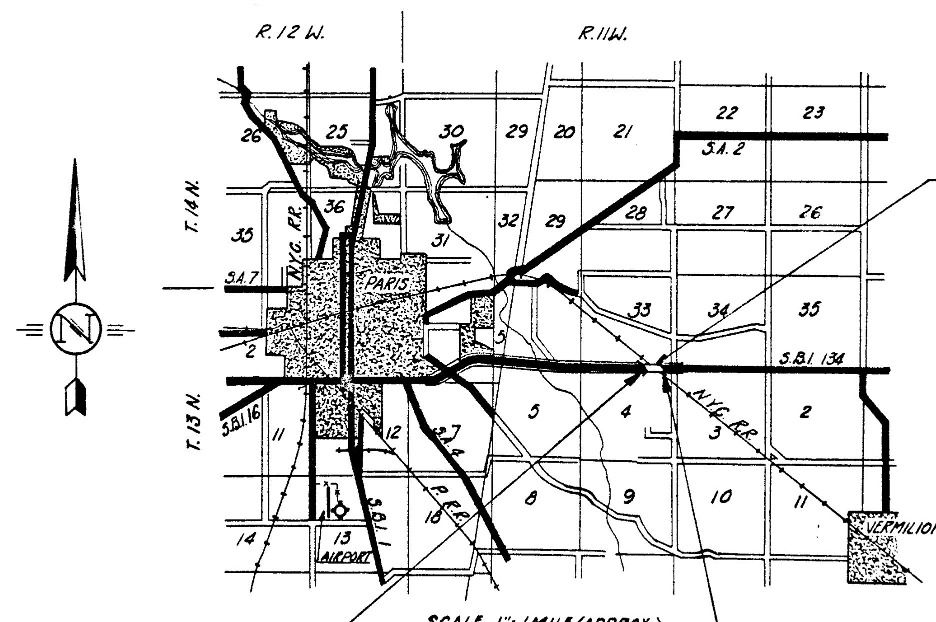
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
STATE BOND ISSUE HIGHWAY

SCALES		
PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT. VERT. 10 FT. HORZ.

S.B.I. ROUTE 134, SECTION 101-VBR, EDGAR COUNTY
PROJECT NO. FG-177 (5)

C-95-101-65

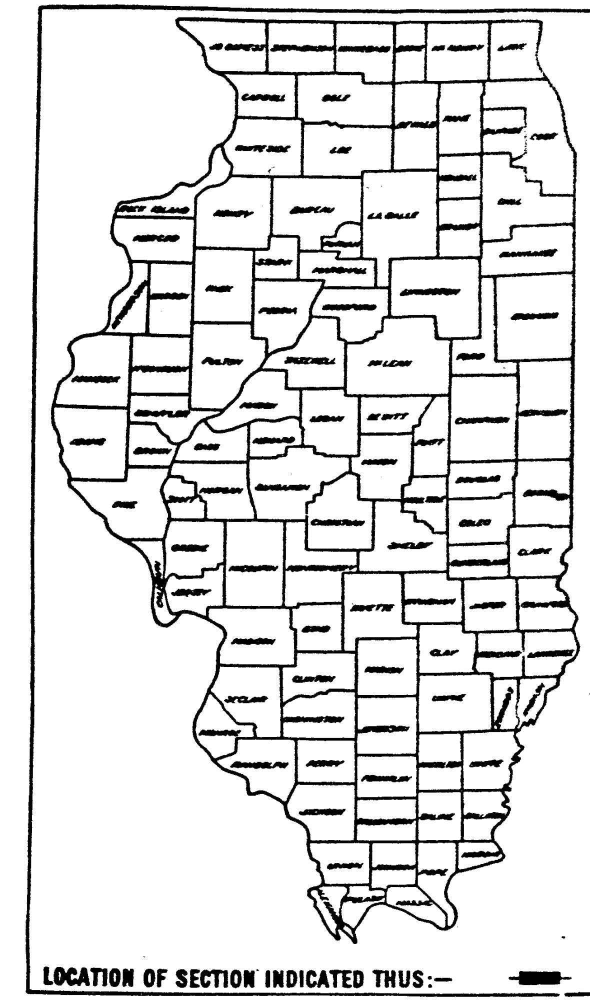
FILE COPY
11 MARCH 1966
#1 ✓



SECTION 101-VBR INCLUDES SPECIAL BRIDGE DESIGN, CONTINUOUS I-BEAM WITH R.C. DECK ON SOLID PIERS AND PILE BENT ABUTMENTS:
3 SPANS @ 63'-9", 81'-6" & 63'-9"
30' ROADWAY (SKEWED 52°04'40")
A.R. STATION 196+12.46

PROJECT FG-177(5)
BEGINS STA. 195+04.77

PROJECT FG-177(5)
ENDS STA. 197+20.15



DESIGN CLASSIFICATION
630-M-70

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

SUBMITTED January 12, 66
J. H. Keller

EXAMINED January 25, 66
C. V. Van Crandall

PASSED January 25, 66
W. J. Allen

APPROVED January 25, 66
[illegible]

APPROVED January 25, 66
Francis S. Lorenz

5-23

FOR INDEX OF SHEETS
SEE SHEET NO. 2A

FOR SUMMARY OF QUANTITIES
SEE SHEET NO. 2A

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

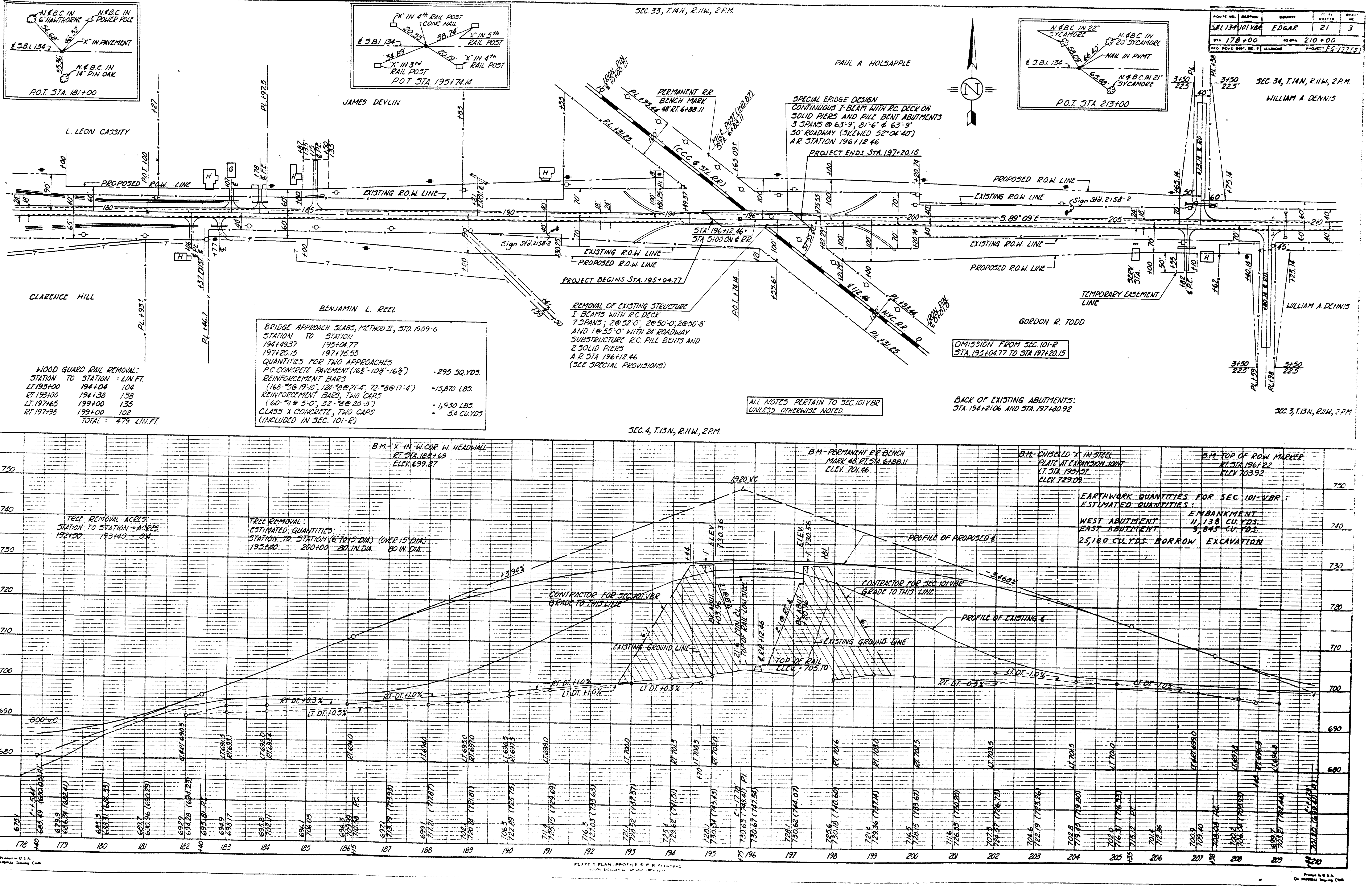
APPROVED

DISTRICT ENGINEER DATE

TOTAL LENGTH OF SECTION 101-VBR = 215.38 FEET = 0.041 MILES
NET LENGTH OF SECTION 101-VBR = 215.38 FEET = 0.041 MILES
NET LENGTH OF PROJECT FG-177(5) = 215.38 FEET = 0.041 MILES

023-0014

CONTRACT NO. 24347



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134	101 VBR	EDGAR	21	3
STA. 178+00 TO STA. 210+00
PROJECT FG-177(5)
SEC. 33, T.14N, R.11W, 2 P.M.
SEC. 34, T.14N, R.11W, 2 P.M.
SEC. 4, T.13N, R.11W, 2 P.M.
SEC. 3, T.13N, R.11W, 2 P.M.
N.&B.C. IN 6" HAWTHORNE
N.&B.C. IN POWER POLE
"X" IN PAVEMENT
N.&B.C. IN 14" PIN OAK
P.O.T. STA. 181+00
"X" IN 4th RAIL POST
CONC. NAIL
"X" IN 5th RAIL POST
"X" IN 3rd RAIL POST
"X" IN 4th RAIL POST
P.O.T. STA. 195+74.14
N.&B.C. IN 22" SYCAMORE
N.&B.C. IN 20" SYCAMORE
NAIL IN PVMT.
N.&B.C. IN 21" SYCAMORE
P.O.T. STA. 213+00
L. LEON CASSITY
JAMES DEVLIN
PAUL A. HOLSAPPLE
WILLIAM A. DENNIS
CLARENCE HILL
BENJAMIN L. REEL
GORDON R. TODD
PERMANENT R.R. BENCH MARK 48' RT. 6+88.11
MILE POST (NO. 87) STA. 6+88.11
SPECIAL BRIDGE DESIGN
CONTINUOUS I-BEAM WITH R.C. DECK ON SOLID PIERS AND PILE BENT ABUTMENTS
3 SPANS @ 63'-9", 81'-6" & 63'-9"
30' ROADWAY (SKEWED 52°04'40")
A.R. STATION 196+12.46
PROJECT ENDS STA. 197+20.15
PROJECT BEGINS STA. 195+04.77
STA. 196+12.46 = STA. 5+00 ON & R.R.
(C.C.C. & ST.L. R.R.)
N.Y.C. R.R.
PROPOSED R.O.W. LINE
EXISTING R.O.W. LINE
S. 89° 09' E.
Sign Std. 2158-2
TEMPORARY EASEMENT LINE
REMOVAL OF EXISTING STRUCTURE
I-BEAMS WITH R.C. DECK
7 SPANS; 2@52'-0", 2@50'-0", 2@50'-8" AND 1@55'-0" WITH 24' ROADWAY
SUBSTRUCTURE R.C. PILE BENTS AND 2 SOLID PIERS
A.R. STA. 196+12.46
(SEE SPECIAL PROVISIONS)
OMISSION FROM SEC. 101-R
STA. 195+04.77 TO STA. 197+20.15
ALL NOTES PERTAIN TO SEC. 101 VBR UNLESS OTHERWISE NOTED.
BACK OF EXISTING ABUTMENTS:
STA. 194+21.06 AND STA. 197+80.92
WOOD GUARD RAIL REMOVAL:
STATION	TO STATION	= LIN. FT.
LT. 193+00	194+04	104
RT. 193+00	194+38	138
LT. 197+65	199+00	135
RT. 197+98	199+00	102
	TOTAL =	479 LIN. FT.
BRIDGE APPROACH SLABS, METHOD II, STD. 1909-6
STATION TO STATION
194+49.37 195+04.77
197+20.15 197+75.55
QUANTITIES FOR TWO APPROACHES
P.C. CONCRETE PAVEMENT (16½"-10½"-16½") = 295 SQ. YDS.
REINFORCEMENT BARS (168-#5@19'-10", 126-#6@21'-4", 72-#8@17'-4") = 13,870 LBS.
REINFORCEMENT BARS, TWO CAPS (60-#4@5'-0", 32-#8@20'-3") = 1,930 LBS.
CLASS X CONCRETE, TWO CAPS (INCLUDED IN SEC. 101-R) = 5.4 CU. YDS.
B.M. - "X" IN W. COR. W. HEADWALL RT. STA. 188+69 ELEV. 699.87
B.M. - PERMANENT R.R. BENCH MARK 48' RT. STA. 6+88.11 ELEV. 701.46
B.M. - CHISELED "X" IN STEEL PLATE AT EXPANSION JOINT LT. STA. 195+57 ELEV. 729.09
B.M. - TOP OF R.O.W. MARKER RT. STA. 196+22 ELEV. 703.92
EARTHWORK QUANTITIES FOR SEC. 101-VBR:
ESTIMATED QUANTITIES:
EMBANKMENT
WEST ABUTMENT 11,138 CU. YDS.
EAST ABUTMENT 9,845 CU. YDS.
25,180 CU. YDS. BORROW EXCAVATION
TREE REMOVAL ACRES:
STATION TO STATION = ACRES
192+50 193+40 = 0.4
TREE REMOVAL:
ESTIMATED QUANTITIES:
STATION TO STATION (6" TO 15" DIA.) (OVER 15" DIA.)
193+40 200+00 80 IN. DIA. 80 IN. DIA.
1920' V.C.
800' V.C.
+3.94%
-3.46%
PROFILE OF PROPOSED ℄
PROFILE OF EXISTING ℄
CONTRACTOR FOR SEC. 101 VBR GRADE TO THIS LINE
EXISTING GROUND LINE
TOP OF RAIL ELEV. = 705.10
ELEV. 730.36
ELEV. 730.56
BK. ABUT. 703.56
BK. ABUT. 720.96
21'-6" MIN. CL. TO TOP OF RAIL LOW STEEL
℄ P.T. 12.46
RT. DT. +0.3%
LT. DT. +0.5%
RT. DT. +1.0%
LT. DT. +1.0%
LT. DT. +0.3%
RT. DT. -0.5%
LT. DT. -1.0%
750
740
730
720
710
700
690
680
178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210
PLATE 1 PLAN-PROFILE E.P.H. STANDARD

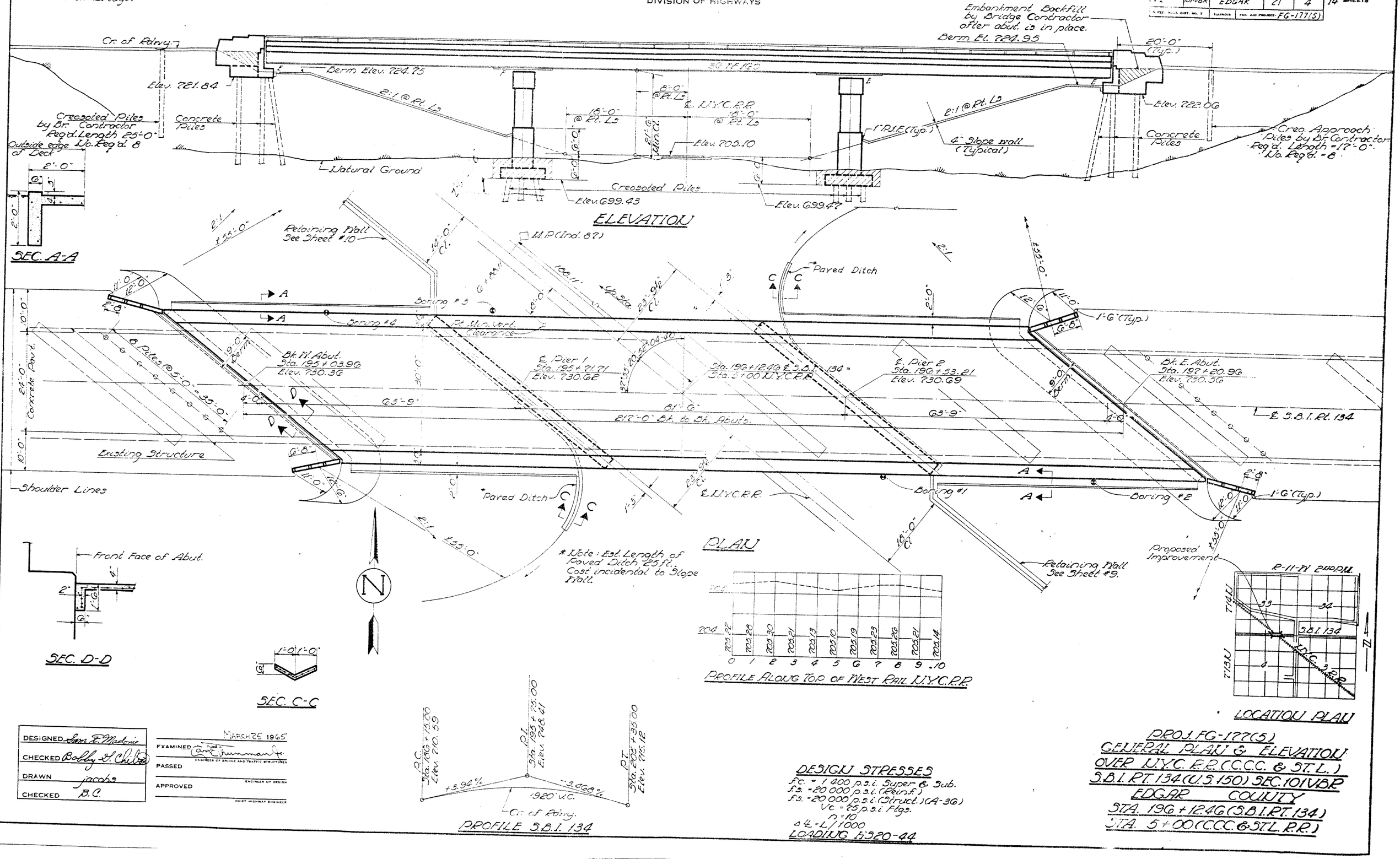
Bm: X" in Steel Exp. St. N. Edge Pvmt. Lt. Sta. 195+57 Elev. 729.09.

Existing Structure: 1-Bms-7 Simple Spans - 2@52'-2" - 2@50'-04" - 2@50'-8½" & 1@55'-0" with 23'-8" Rdwy. Substructure R.C. Pile Bents & 2 R.C. Piers. Structure to be removed by Bridge Contractor prior to Construction of New Bridge.

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

DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B. 4 / T.A.	101-VBR	EDGAR	21	4
F.A.S. RTE. NO. — DIST. NO. 7	ILLINOIS	FED. AID PROJECT: FG-177(5)		

SHEET NO. 1
14 SHEETS



DESIGNED	Sam E. Madonia	
CHECKED	Bobby J. Childs	
DRAWN	jacobs	
CHECKED	B.C.	

EXAMINED — March 25 1965
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

DESIGN STRESSES

f'c. = 1 400 p.s.i. Super & Sub.
f.s. = 20 000 p.s.i. (Reinf.)
f.s. = 20 000 p.s.i. (Struct.) (A-36)
Vc = 85 p.s.i. Ftgs.
n = 10
Δ℄ = L/1000
LOADING H-S20-44

PROJ. FG-177(5)
GENERAL PLAN & ELEVATION
OVER N.Y.C. R.R. (C.C.C. & ST. L.)
S.B.I. RT. 134 (U.S. 150) SEC. 101VBR
EDGAR COUNTY
STA. 196+12.46 (S.B.I. RT. 134)
STA. 5+00 (C.C.C. & ST. L. R.R.)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
134	101-VBR	EDGAR	21	5

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

SHEET NO. 2
14 SHEETS

GENERAL NOTES

Coarse aggregate to be used in parapet handrails and end posts must be free of chert, flint, limonite, lignite and soft sandstone.

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

Slope Wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 Sq. Ft..

All reinforcement bars shall be lapped 20 diameters unless otherwise shown.

All structural steel shall conform to A.S.T.M. Designation A-36.

Rivets ¾ φ, Open Holes 13/16 φ, unless otherwise noted.

Anchor bolts shall be set before fastening diaphragms over supports.

Exposed surfaces of the expansion devices, inaccessable after erection, shall receive two shop coats of red lead paint. All other surfaces shall be given one shop coat of red lead paint. Anchor studs shall not be painted.

Expansion devices are included in the quantity of structural steel. Est'd. Weight = 7 000 Lbs..

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.

Concrete piles at abutments shall be driven in holes precored thru the embankment in accordance with Article 60.9(c) of the Standard Specifications.

The Contractor shall drive one conc. test pile at the East Abut., in a permanent location, and one timber test pile in the vicinity of Pier 1 as directed by the Engineer before ordering the remainder of piles.

Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.

Permanent forms will not be permitted in forming the concrete deck.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Class A Excavation for Struct.	Cu. Yds.		239	239
Class X Concrete	Cu. Yds.	243.0	398.5	641.5
Structural Steel	Lbs.	246 920		246 920
Aluminum Handrail	Lin. Ft.	424		424
Reinforcement Bars	Lbs.	50 560 (50,780)	33 020	83 580
Concrete Piles	Lin. Ft.		1 302	1 302
Test Pile (Concrete)	Each		1	1
Creosoted Piles	Lin. Ft.		2 226	2 226
Test Pile (Timber)	Each		1	1
Name Plates	Each	1		1
Protective Coat	Sq. Yds.	979		979
* Bridge Seat Sealant	Lump Sum			Lump Sum
Removal of Existing Struct.	Each			1
Slope Wall 4"	Sq. Yds.		658	658

* Bridge Seat Sealant to be used on seats at Abutments only.

361.4
[illegible]04.4
83,[illegible]

N.Y.C.RR (C.C.C. & ST.L.)
BUILT 196_ BY
STATE OF ILLINOIS
S.B.I. RT. 134 ~ SEC. 101VBR
FA PROJ. FG-177(5)
STA. 196 + 12.46
LOADING HS20

NAME PLATE
See Std. 2113-1

DESIGNED Sam E. Malonia
CHECKED Bob Chilton
DRAWN Jacobs
CHECKED B.C.

March 25 1965
EXAMINED Carl [illegible]
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

GENERAL NOTES &
TOTAL BILL OF MATERIAL
S.B.I. RT. 134 ~ SEC. 101VBR
EDGAR COUNTY
STA. 196+12.46

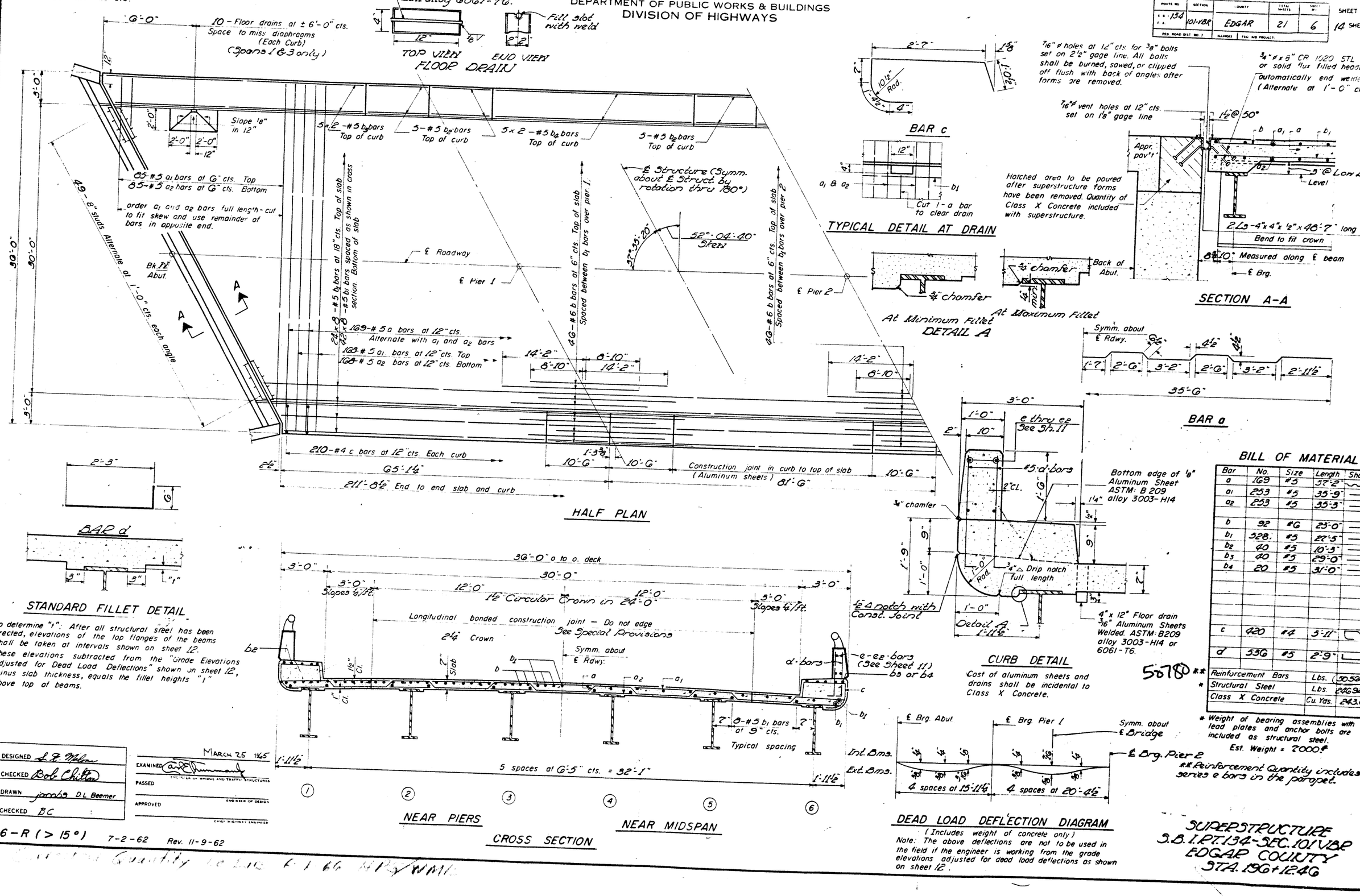
Quantities 6-1-66 [illegible] WMC

Note
Bars indicated thus 20 x 3 - #5 etc. indicates 20 lines of bars with 3 lengths per line.
Min bar laps = 20 dia.

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
S.B.I. 134	101-VBR	EDGAR	21	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3
14 SHEETS



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	169	#5	37'-2"	
a1	253	#5	35'-9"	
a2	253	#5	35'-3"	
b	92	#6	23'-0"	
b1	328	#5	27'-5"	
b2	40	#5	10'-3"	
b3	20	#5	29'-0"	
b4	20	#5	31'-0"	
c	420	#4	3'-11"	
d	336	#5	2'-9"	
Reinforcement Bars			Lbs.	30,520
* Structural Steel			Lbs.	24,630
Class X Concrete			Cu. Yds.	243.0

5078 **

* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel. Est. Weight = 2000#
** Reinforcement Quantity includes series e bars in the parapet.

DESIGNED	L. F. Malon
CHECKED	Bob Chilton
DRAWN	jacobs D.L. Beemer
CHECKED	BC

EXAMINED March 25 1965
CHIEF OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

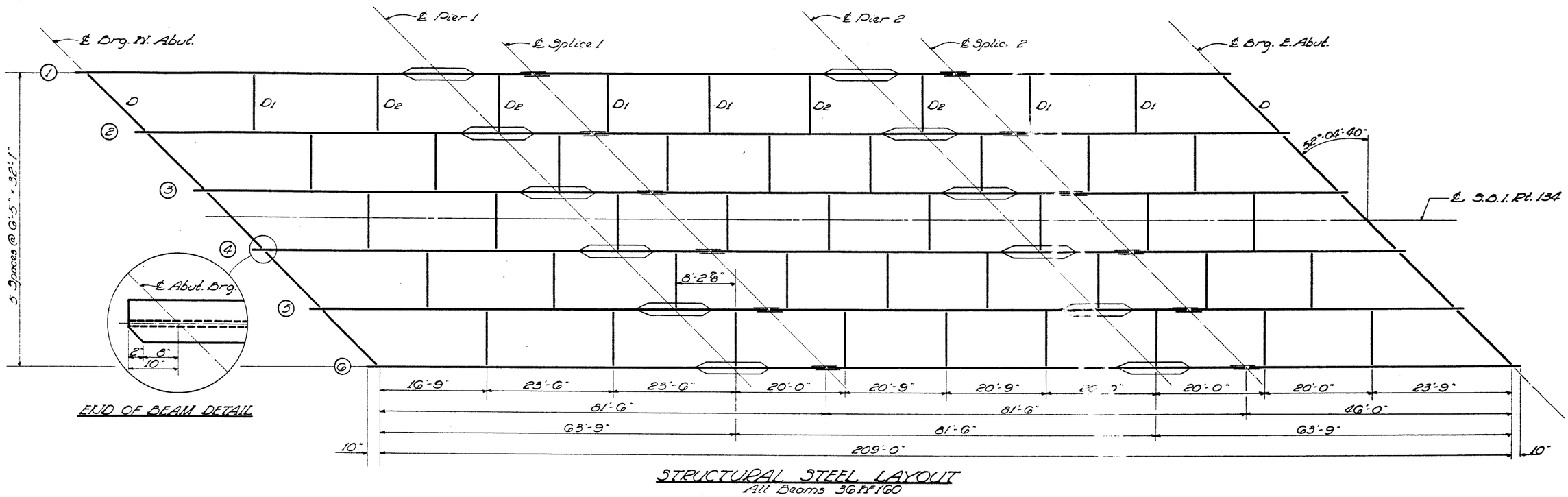
I-6-R (> 15°) 7-2-62 Rev. 11-9-62

SUPERSTRUCTURE
S.B.I. RT. 134 - SEC. 101 VBR
EDGAR COUNTY
STA. 1960 + 12.46

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134 F.A.	101-1BR	EDGAR	21	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		14 SHEETS

SHEET NO. 4

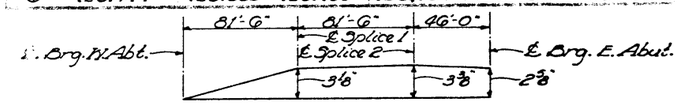


END OF BEAM DETAIL

STRUCTURAL STEEL LAYOUT
All Beams 36 WF 160

ELEVATIONS TOP OF NF

Bms.	℄ Brg. N.A.	Pier 1	Splice 1	Pier 2	Splice 2	℄ Brg. E.A.
1	729.478	729.683	729.740	729.755	729.759	729.698
2	729.626	729.831	729.888	729.903	729.907	729.846
3	729.715	729.920	729.977	729.992	729.996	729.935
4	729.717	729.922	729.979	729.994	729.998	729.937
5	729.626	729.831	729.888	729.903	729.907	729.846
6	729.477	729.682	729.739	729.754	729.758	729.697

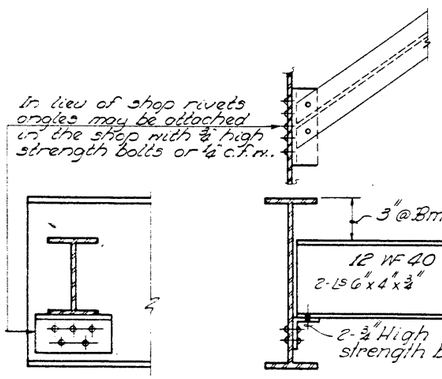


FABRICATION DIAGRAM

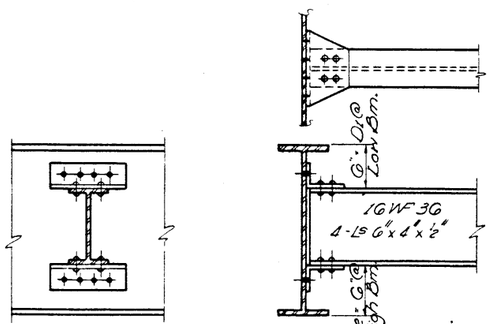
STRESS TABLE - I.W.F. BMS.

	Moments			Reactions	
	4 Span 1	Pier 1	5 Span 2	Abuts.	Pier 2
D.L.	252.43	345.97	257.30	145.32	515.23
L.L.	405.50	385.83	410.84	118.00	163.30
Imp.	107.46	98.00	100.88		
Total	765.39	1029.80	775.02	263.32	678.53

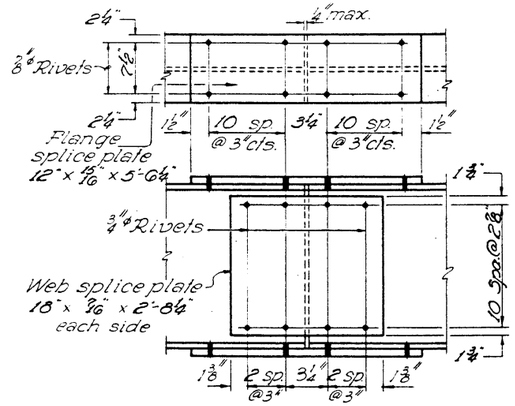
Moments - Ft. Kips Reactions - Kips



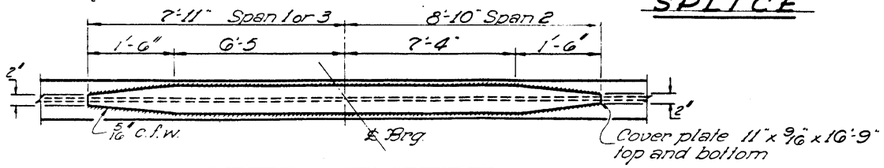
DIAPHRAGM D
10 Required



DIAPHRAGM D1 & D2
25 - D1 Required
20 - D2 Required



SPLICE



COVER PLATE

DESIGNED	L. F. Mohr
CHECKED	Bob Chilton / jacobs
DRAWN	J.C. Mullenix
CHECKED	BC

MARCH 25 1965
EXAMINED ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

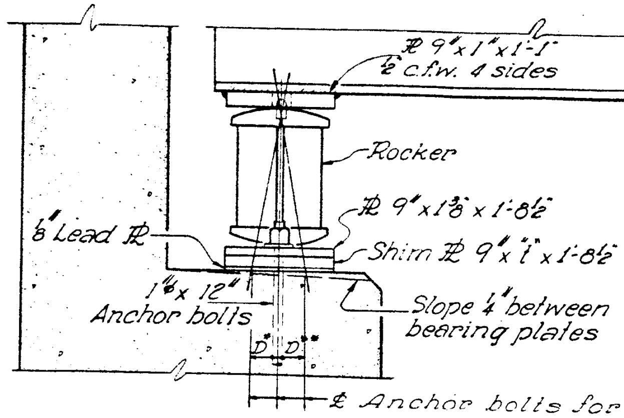
STRUCTURAL STEEL

S.B.I. RT. 134 - SEC. 101 NBR
EDGAR COUNTY
STA. 196+12.46

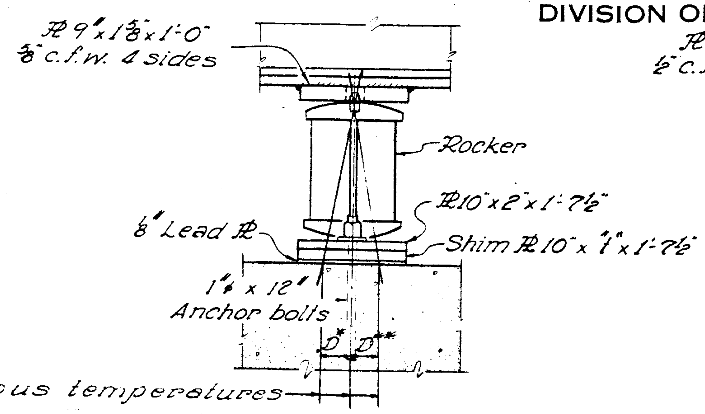
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A. 134	101-VBR	EDGAR	21	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

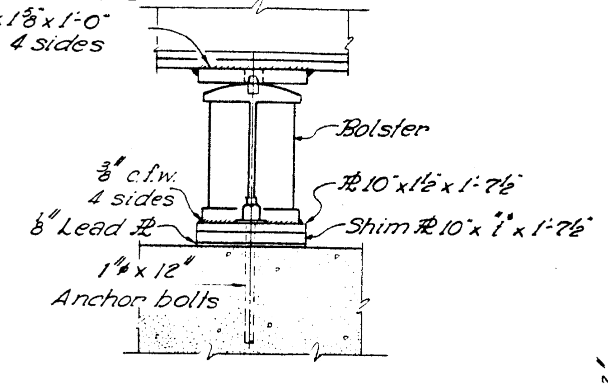
SHEET NO. 5
14 SHEETS



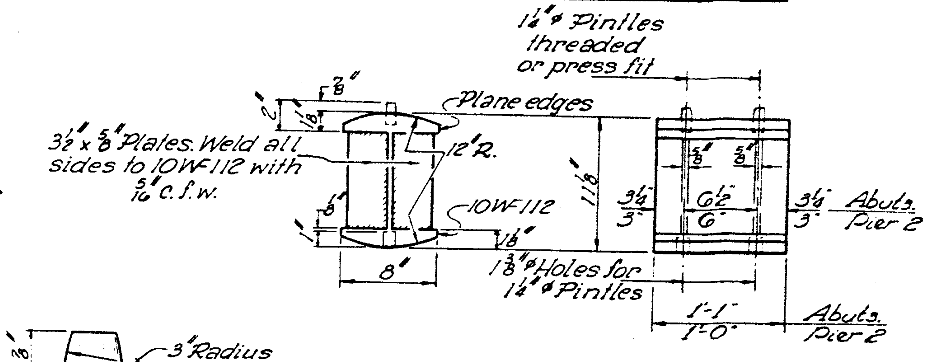
ELEVATION



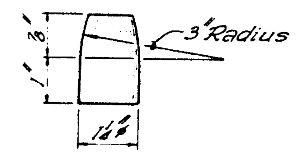
ELEVATION



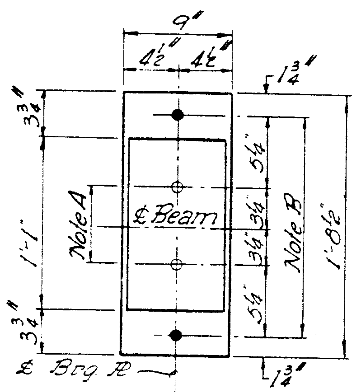
ELEVATION



ROCKER

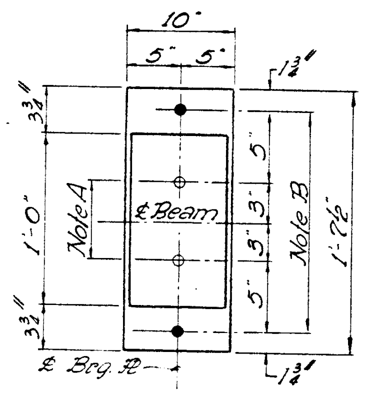


PINTLE



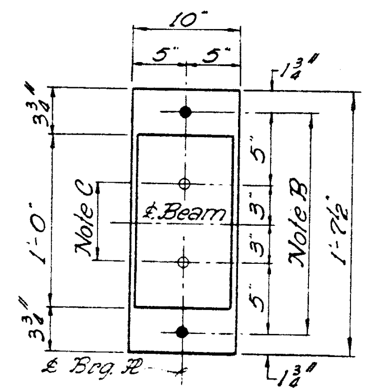
PLAN
@ ABUTMENTS

Note A
1⅜" Holes-1" deep in top ℞ for pintles. Thread or press fit pintles into bottom ℞.



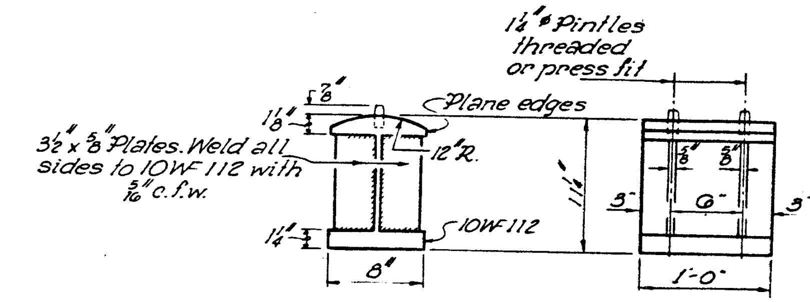
PLAN
@ PIER 2

Note B
1½" Holes for 1" anchor bolts.
2½" x 2½" x 5/16" ℞.
Washer under nut.



PLAN
@ PIER 1

Note C
1⅜" Holes-1" deep in top ℞ only for 1¼" pintles.



BOLSTER

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

a) D* (Side of brg. away from fixed brg.)

D* = ⅛" per each 100' increment of expansion for every 15° fall from temp. of 50°F.

D** (Side of brg. toward fixed brg.)

D** = ⅛" per each 100' increment of expansion for every 15° rise from temp. of 50°F.

b) After beams have been erected and dimension D* or D** determined anchor bolts shall be placed in drilled holes and grouted.

BEARING ASSEMBLY DETAILS

Note: No Shim Plates Required.

DESIGNED	[signature]
CHECKED	Bob Chilton
DRAWN	J.C. Mullenix
CHECKED	B.C.

MARCH 25 1965

EXAMINED [signature]
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

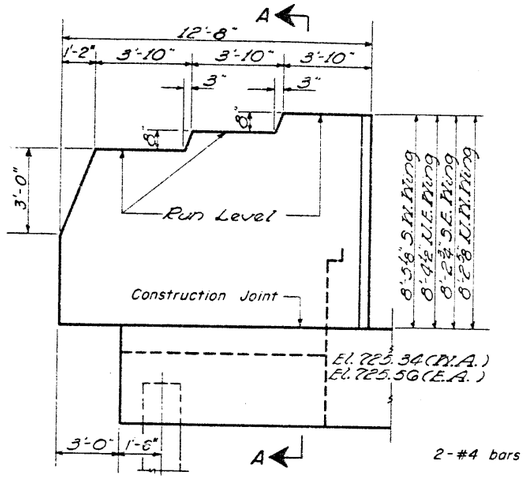
BEARING DETAILS

S.B.I. RT. 134-SEC. 101VBR
EDGAR COUNTY
STA. 196+12.46

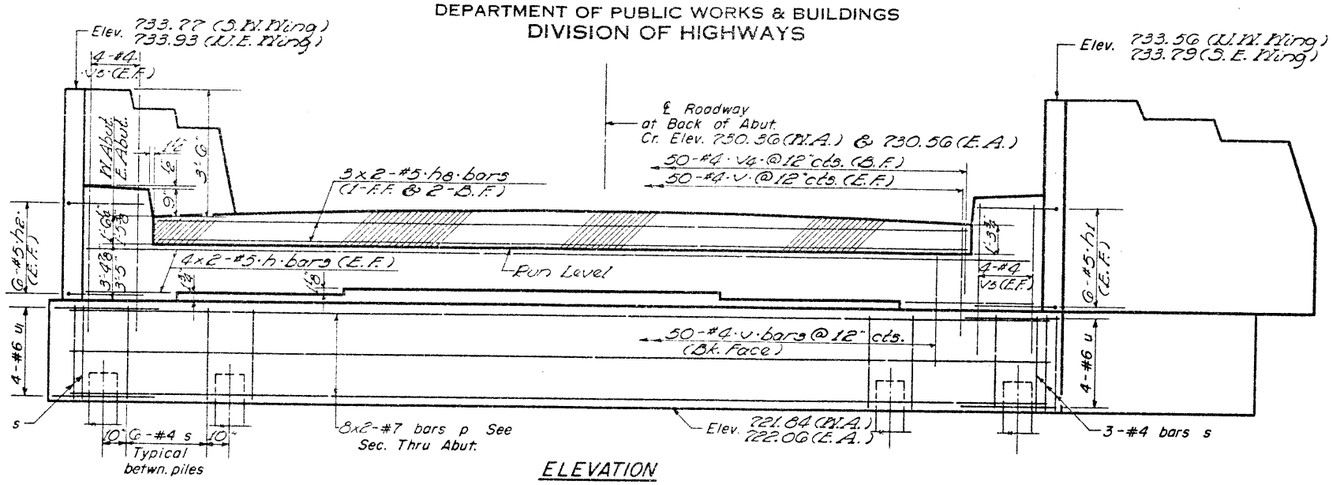
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134	10I-VBR	EDGAR	21	9
F.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

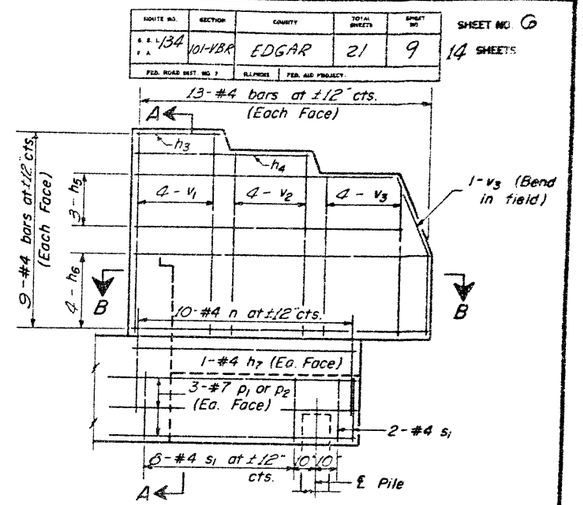
SHEET NO. 6
14 SHEETS



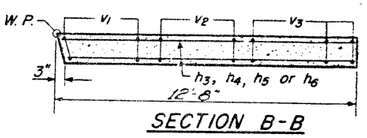
WING WALL ELEVATION
Dimensions



ELEVATION

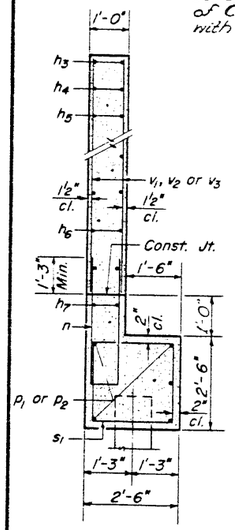


WING WALL ELEVATION
Reinforcement

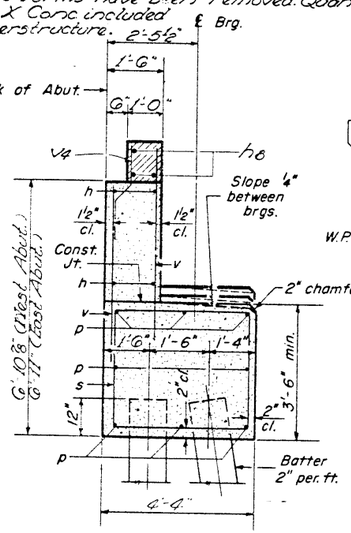


SECTION B-B

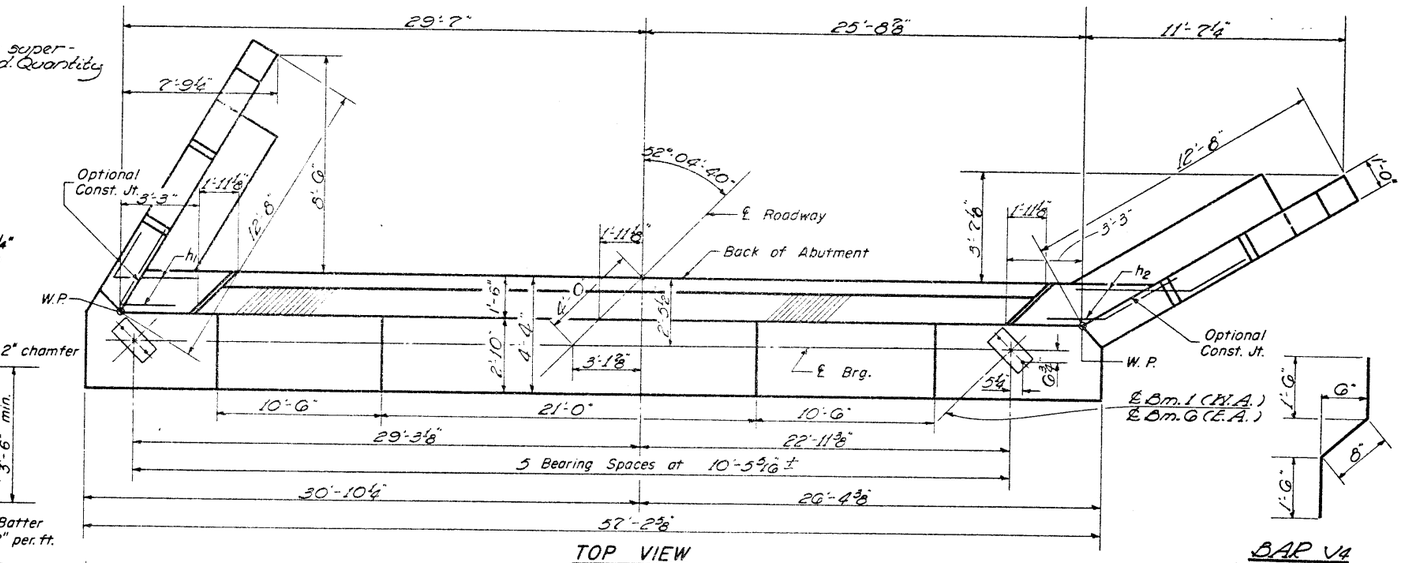
NOTE
Hatched area is to be poured after superstructure forms have been removed. Quantity of Class X Conc included with Superstructure.



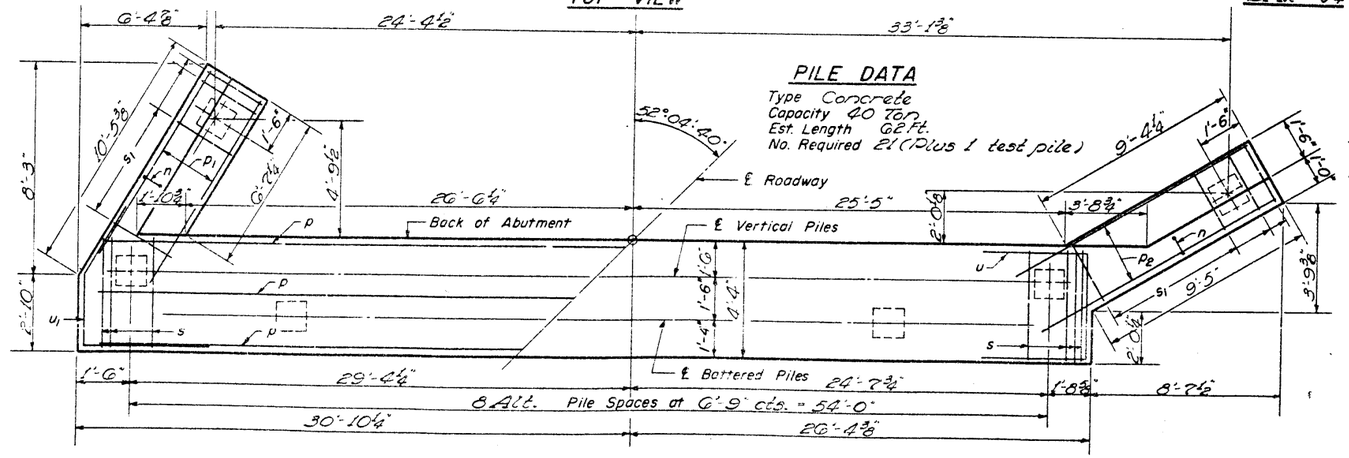
SEC. A-A



SEC. THRU ABUT.

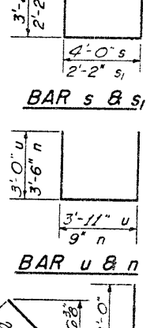


TOP VIEW



PLAN - PILE CAP

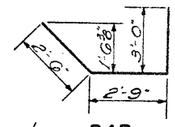
PILE DATA
Type Concrete
Capacity 40 Ton
Est. Length 62 Ft.
No. Required 21 (Plus 1 test pile)



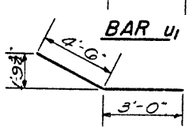
BAR s & s1

BAR V4

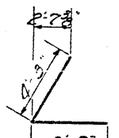
BAR u & n



BAR u1



BAR h2



BAR h1

2 ABUTMENTS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	32	#5	27'-0"	—
h1	24	#5	7'-3"	L
h2	24	#5	7'-6"	⌐
h3	8	#4	3'-3"	—
h4	8	#4	7'-0"	—
h5	24	#4	11'-0"	—
h6	32	#4	12'-2"	—
h7	8	#4	9'-0"	—
h8	12	#6	25'-0"	—
n	40	#4	7'-9"	U
p	32	#7	29'-3"	—
p1	12	#7	9'-0"	—
p2	12	#7	11'-0"	—
s	106	#4	15'-2"	□
s1	40	#4	9'-6"	□
u	8	#6	9'-11"	U
u1	8	#6	6'-3"	⌐U
v	200	#4	6'-0"	—
v1	32	#4	8'-0"	—
v2	32	#4	7'-4"	—
v3	40	#4	6'-8"	—
v4	100	#4	3'-8"	⌐
v5	32	#4	7'-0"	—
Class X Concrete		Cu.Yds.	111.3	
Reinforcement Bars		Lbs.	8120	
Concrete Piles		Lin. Ft.	1302	
Test Piles (Conc.)		Each	1	

DESIGNED	L. F. Malbon
CHECKED	Bob Chilton
	jacobs
DRAWN	J.A. Sandoval
CHECKED	B.C.

MARCH 25 1965
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

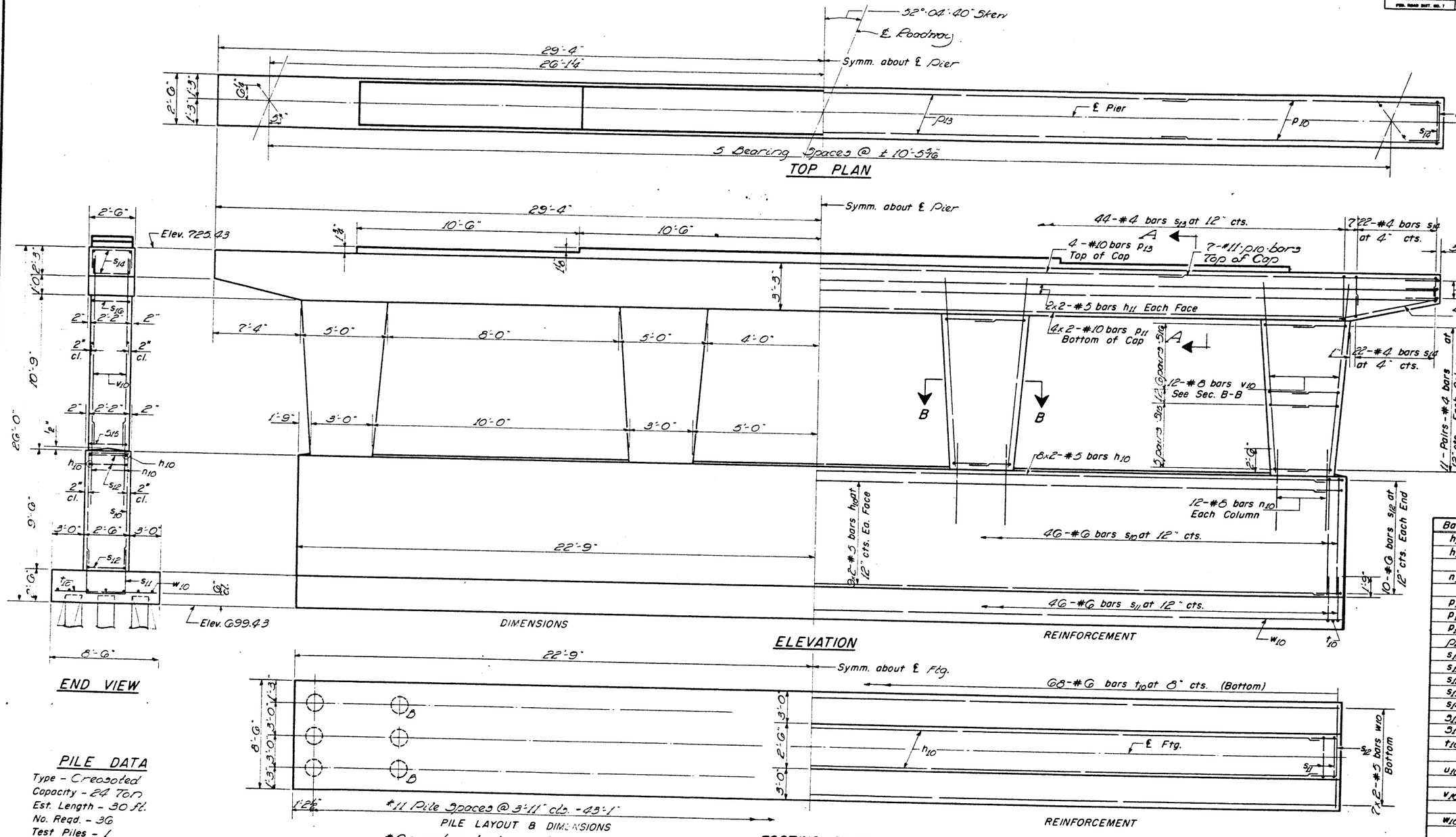
A-B-R (35°-60°) 7-18-62 Rev. 11-27-62

ABUTMENTS
S.B.I. RT. 134 - SEC. 10I VBR
EDGAR COUNTY
STA. 196+12.46

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 134	101-VBR	EDGAR	21	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

SHEET NO. 7
14 SHEETS



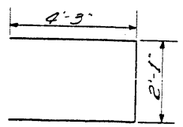
PILE DATA

Type - Creosoted
Capacity - 24 Ton
Est. Length - 30 ft.
No. Reqd. - 36
Test Piles - 1

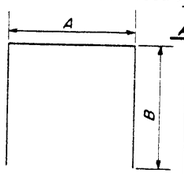
DESIGNED	A.E. Madonia	
CHECKED	Bob Chilton	
DRAWN	Jacobs W. A. Sausaman Jr.	
CHECKED	B.C.	

EXAMINED March 25 1965
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

P-6 7-2-62



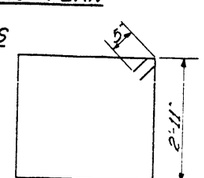
BAR u10



BARS s

A & B DIMENSIONS

Bar	A	B
s10	2'-2"	9'-3"
s11	2'-2"	3'-9"
s12	2'-2"	2'-6"
s14	2'-2"	1'-11"
s15	1'-10"	2'-3"
s16	1'-10"	3'-0"



BAR s13

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	52	#5	23'-6"	—
h11	8	#5	30'-0"	—
n10	48	#8	6'-0"	—
p10	14	#11	16'-6"	—
p11	8	#10	23'-3"	—
p12	8	#5	7'-6"	—
p13	4	#10	30'-9"	—
s10	46	#6	20'-8"	⊏
s11	46	#6	9'-8"	⊏
s12	20	#6	7'-2"	⊏
s13	44	#4	11'-0"	⊏
s14	88	#4	6'-0"	⊏
s15	40	#4	6'-4"	⊏
s16	48	#4	7'-10"	⊏
t10	68	#6	8'-3"	—
u10	6	#6	10'-7"	⊏
v10	48	#8	13'-0"	—
w10	14	#5	23'-6"	—
Class X Concrete			Cu.Yds.	121.0
Reinforcement Bars			Lbs.	11,270
Creosoted Piles			Lin. Ft.	1080
Test Pile (Timber)			Each	1

106.7

Note:
Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.

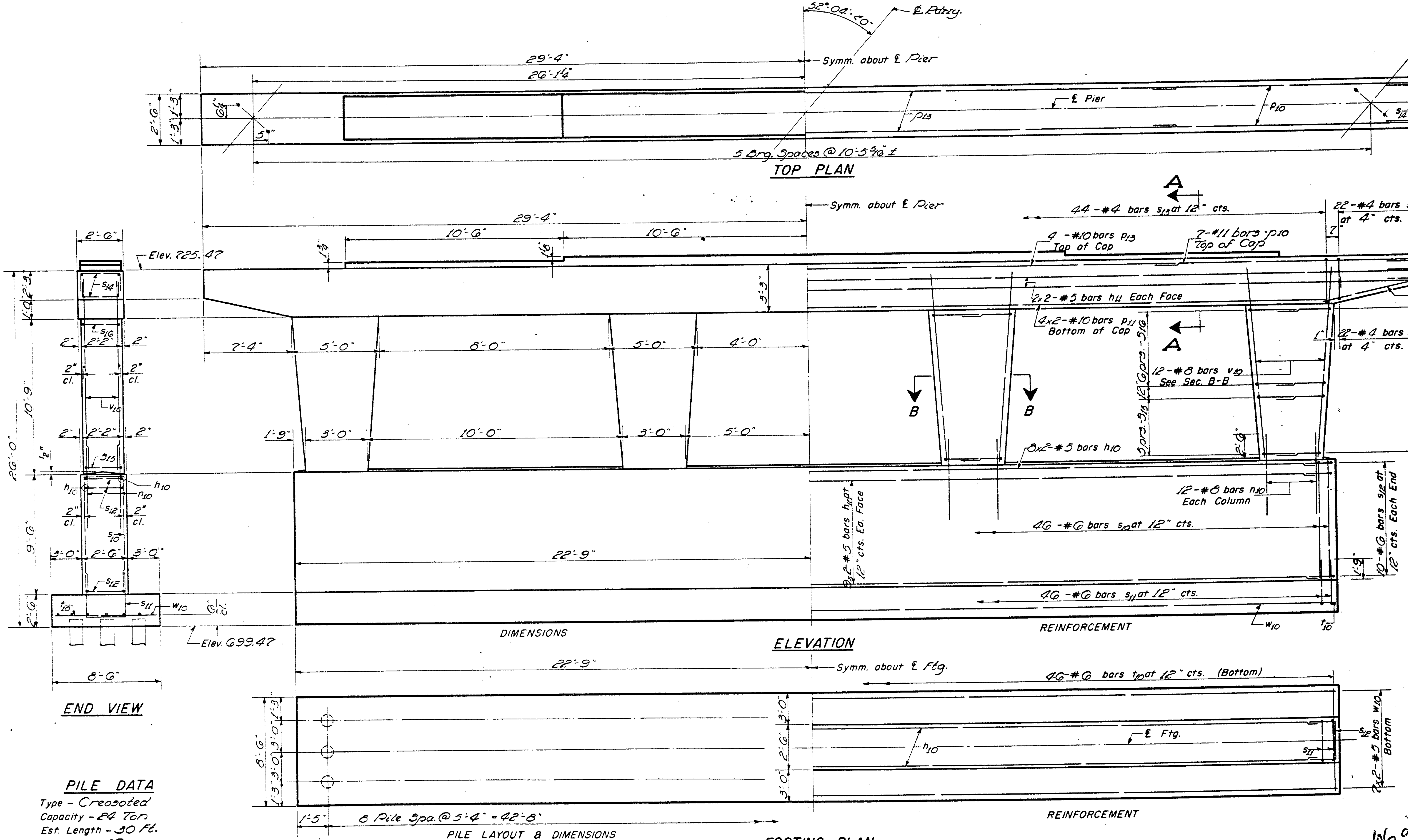
PIER 1
S.B.I. PT. 134 - SEC. 101 VBR
EDGAR COUNTY
STA. 196+12.46

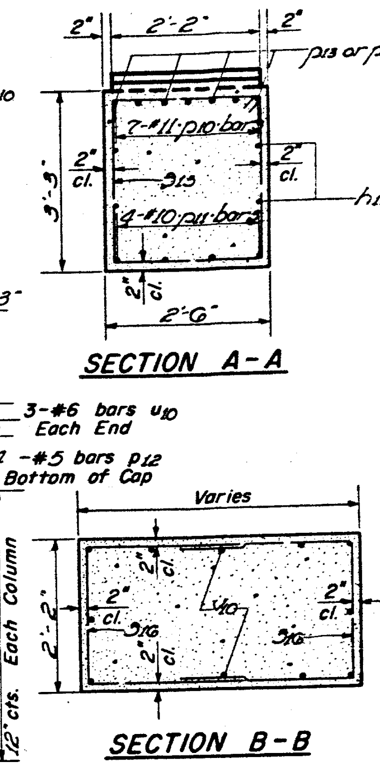
Edgar County 6-1-66 HHG/WMG

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134	101VBR	EDGAR	21	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
14 SHEETS

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





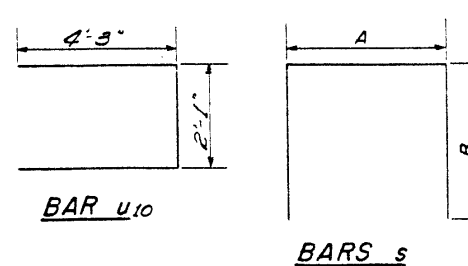
PILE DATA

Type - Creosoted
Capacity - 24 Ton
Est. Length - 30 Ft.
No. Reqd. - 27

BILL OF MATERIAL

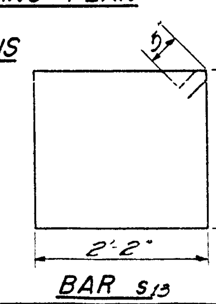
Bar	No.	Size	Length	Shape
h_{10}	52	#5	23'-6"	—
h_{11}	8	#5	30'-0"	—
n_{10}	48	#8	6'-0"	—
p_{10}	14	#11	16'-6"	—
p_{11}	8	#10	23'-3"	—
p_{12}	8	#5	7'-6"	—
p_{13}	4	#10	30'-9"	—
s_{10}	46	#6	20'-8"	⊓
s_{11}	46	#6	9'-8"	⊓
s_{12}	20	#6	7'-2"	⊓
s_{13}	44	#4	11'-0"	□
s_{14}	88	#4	6'-0"	⊓
s_{15}	40	#4	6'-4"	⊓
s_{16}	48	#4	7'-10"	⊓
t_{10}	46	#6	8'-3"	—
u_{10}	6	#6	10'-7"	⊏
v_{10}	48	#8	13'-0"	—
w_{10}	14	#5	23'-6"	—
Class X Concrete			Cu. Yds.	124.0
Reinforcement Bars			Lbs.	11000
Creosoted Piles			Lin. Ft.	810

106.9



A & B DIMENSIONS

Bar	A	B
s_{10}	2'-2"	9'-3"
s_{11}	2'-2"	3'-9"
s_{12}	2'-2"	2'-6"
s_{14}	2'-2"	1'-11"
s_{15}	1'-10"	2'-3"
s_{16}	1'-10"	3'-0"



Note:
Space reinforcement in cap to miss anchor bolts.
Min. bar laps = 20 dia. unless otherwise noted.
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.

PIER 2
S.B.I. RT. 134 - SEC. 101VBR
EDGAR COUNTY
STA. 196+12.46

DESIGNED	S. E. Molnar
CHECKED	Bob Chilton
DRAWN	Jacobs / W. A. Sousaman Jr.
CHECKED	B.C.

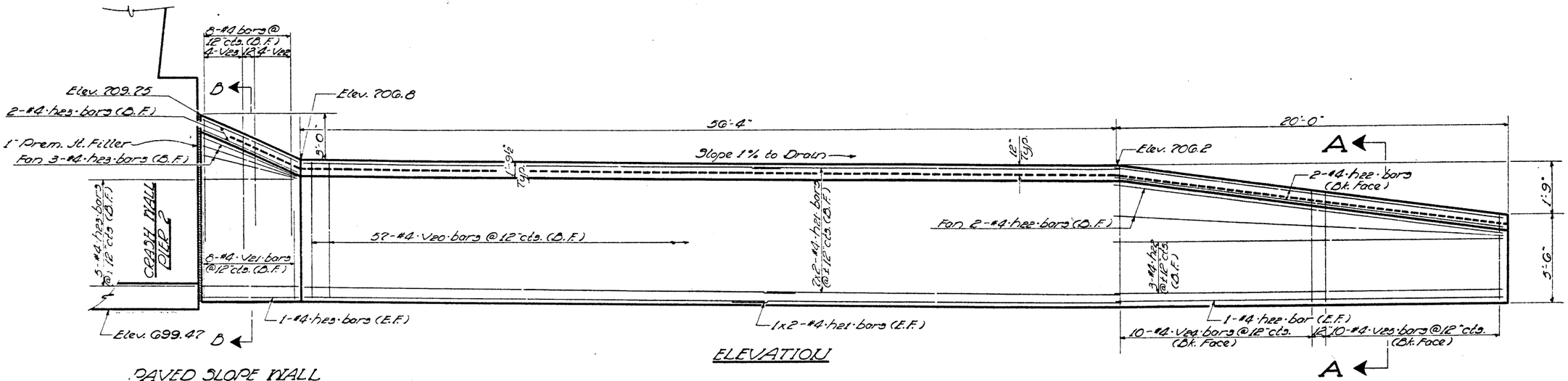
MARCH 25 1965
EXAMINED [signature] ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED ENGINEER OF DESIGN
APPROVED CHIEF HIGHWAY ENGINEER

P-6 7-2-62

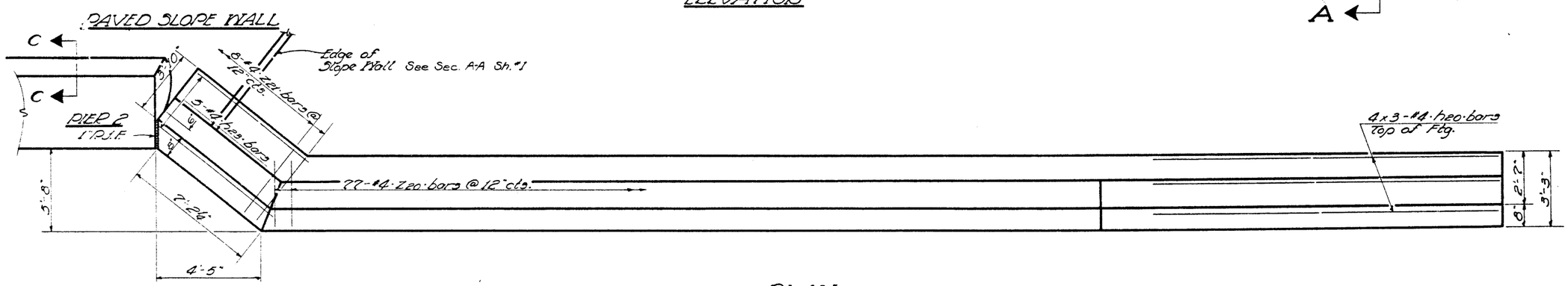
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A. 134	101-1BR	EDGAR	21	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
14 SHEETS

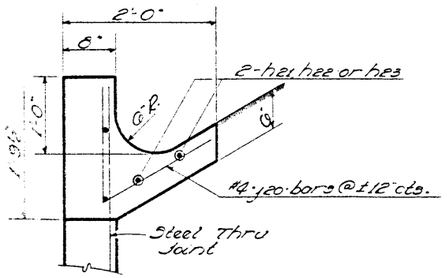


ELEVATION

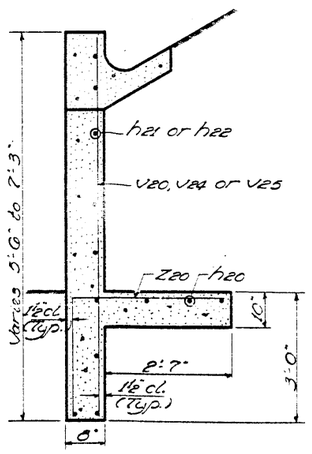


PLAN

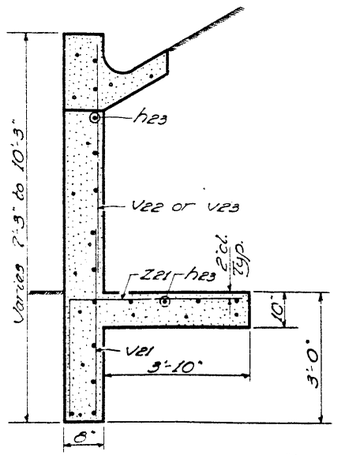
Note: For Sec. C-C see Sheet #10.



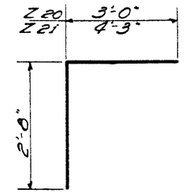
TYPICAL GUTTER DETAIL



SEC. A-A



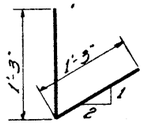
SEC. B-B



Z BARS

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20	12	#4	26'-0"	—
h21	22	#4	29'-0"	—
h22	11	#4	20'-3"	—
h23	19	#4	8'-0"	—
j20	85	#4	2'-6"	V
V20	57	#4	7'-0"	—
V21	8	#4	5'-6"	—
V22	4	#4	3'-9"	—
V23	4	#4	3'-3"	—
V24	10	#4	6'-3"	—
V25	10	#4	5'-3"	—
Z20	77	#4	5'-8"	⌐
Z21	8	#4	6'-11"	⌐
Class X Concrete		Cu Yds.	24.3	— 24.0
Reinforcement Bars		Lbs.	1750	



BAR j20

DESIGNED	L.L. Watkins	
CHECKED	Bob Chilton	
DRAWN	jacobs	
CHECKED	B.C.	

March 25 1965

EXAMINED Carl E. Trummel
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED
ENGINEER OF DESIGN

APPROVED
CHIEF HIGHWAY ENGINEER

EAST RETAINING WALL
S.B.I.R.T. 134 - SEC. 101 VBR
EDGAR COUNTY
STA. 196+12.46

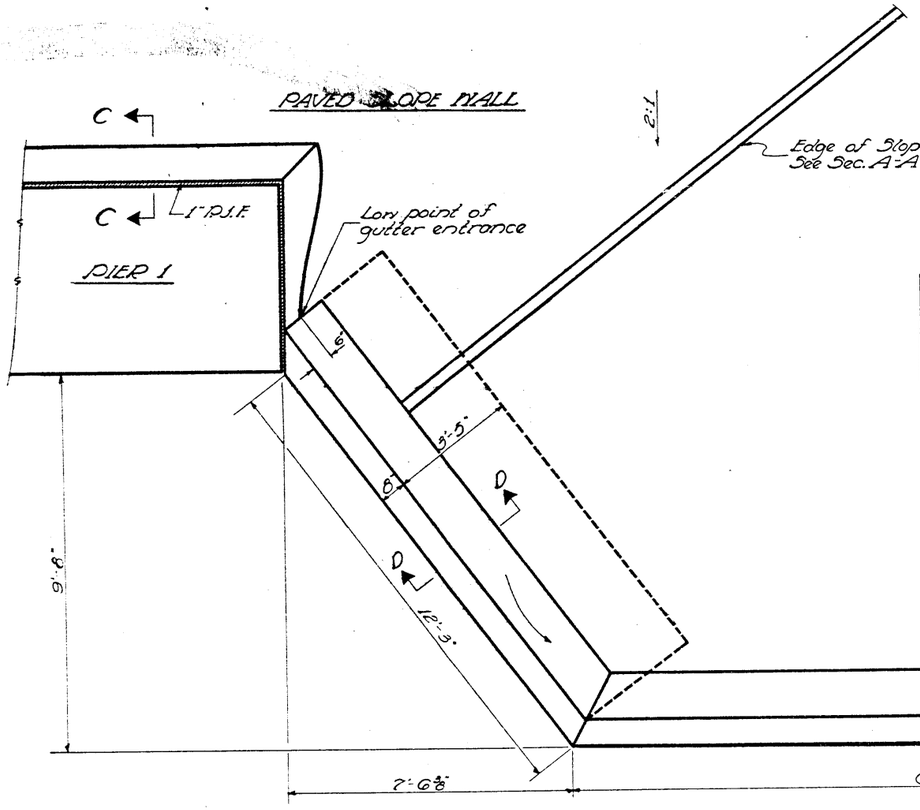
1149/WMB

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

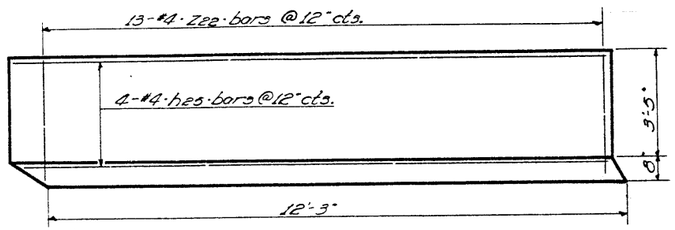
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 134	101-4BR	EDGAR	21	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
14 SHEETS

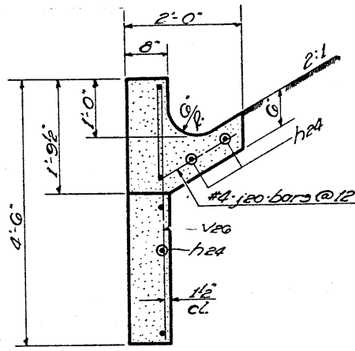
PAVED SLOPE WALL



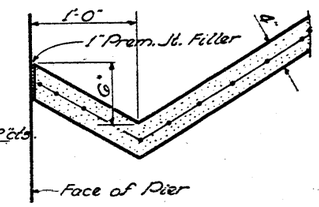
PLAN



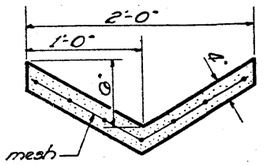
PLAN-RETAINING WALL



SEC. E-E

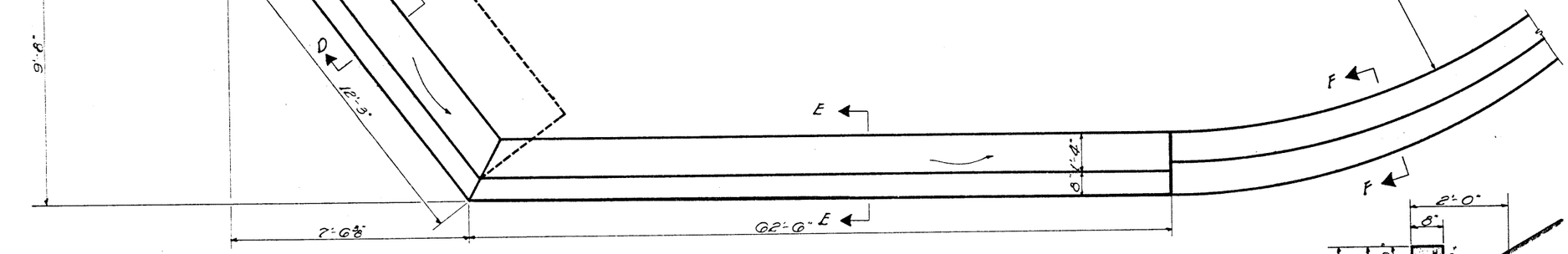


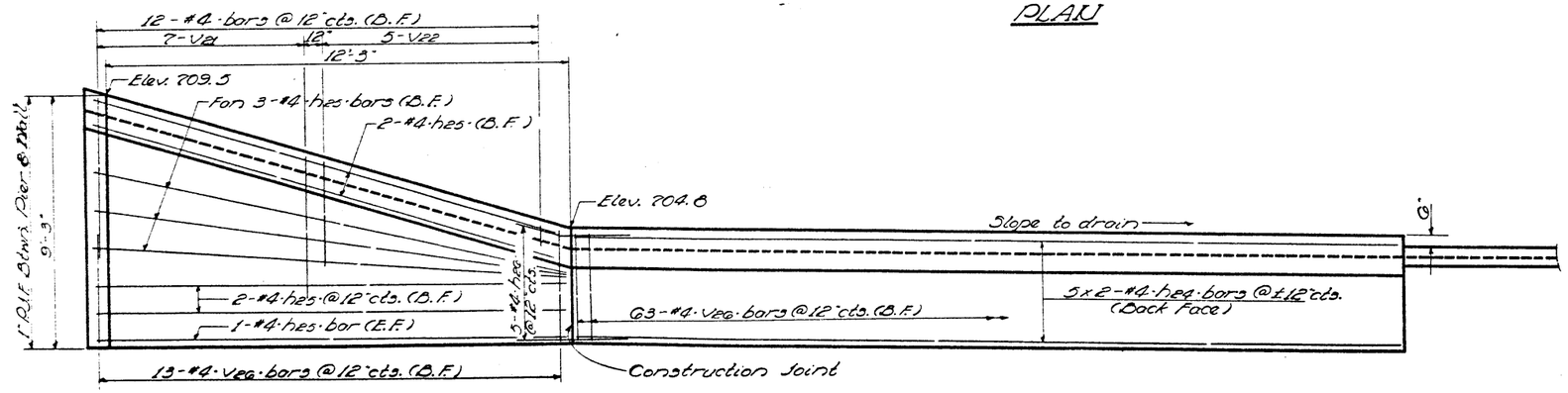
SEC.-C-C



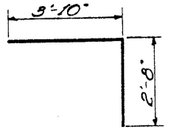
SEC. F-F
Paved Ditch incidental to Slope Wall

Estimated Length of Paved Ditch 25 ft.

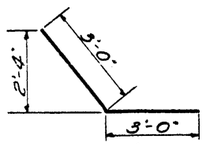




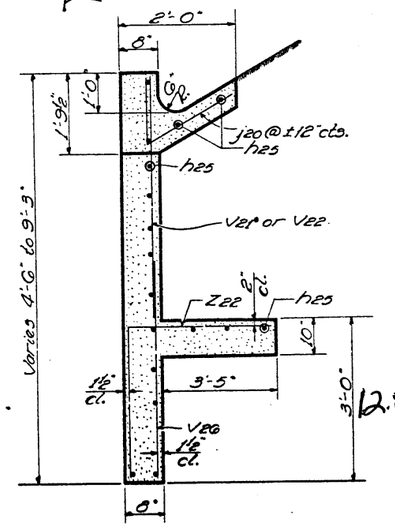
ELEVATION



BAR Zee



BAR heg



SEC. D-D

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
hea	14	#4	31'-6"	—
hes	15	#4	12'-6"	—
heg	5	#4	6'-0"	L
jeo	76	#4	2'-6"	V
V21	7	#4	5'-6"	—
V22	5	#4	3'-9"	—
Veg	76	#4	4'-3"	—
Zee	13	#4	6'-6"	⊓
Class X Concrete			Cu Yds.	14.5
Reinforcement Bars			Lbs.	680

12.5

DESIGNED	L. F. Madsen
CHECKED	Bob Clinton
DRAWN	jacobs
CHECKED	B. C.

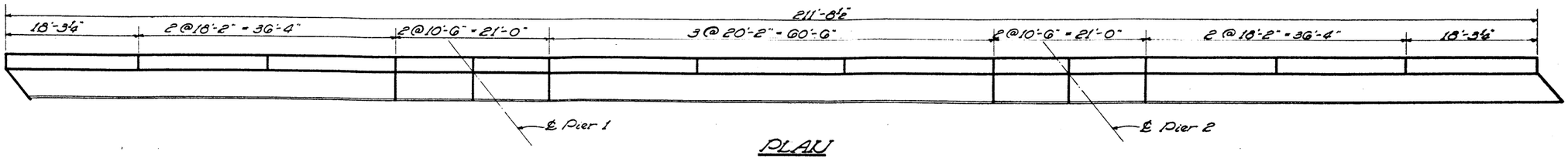
EXAMINED — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF BRIDGES
APPROVED — CHIEF HIGHWAY ENGINEER

WEST RETAINING WALL
S.B.I. PT. 134 - SEC. 101 VBR
EDGAR COUNTY
STA. 196+1246

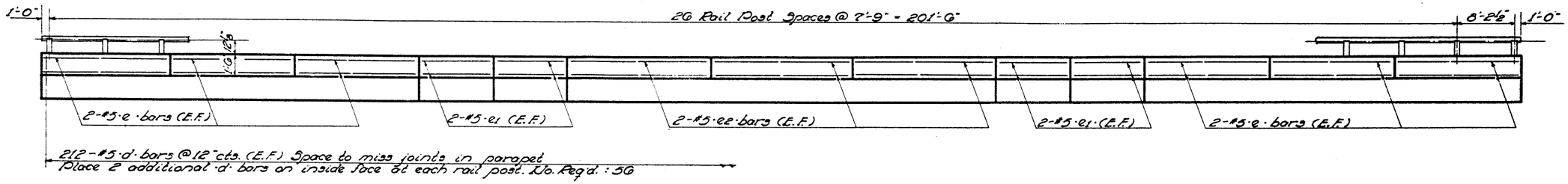
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SURVEY NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134 F.A.	14 YBR	EDGAR	21	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

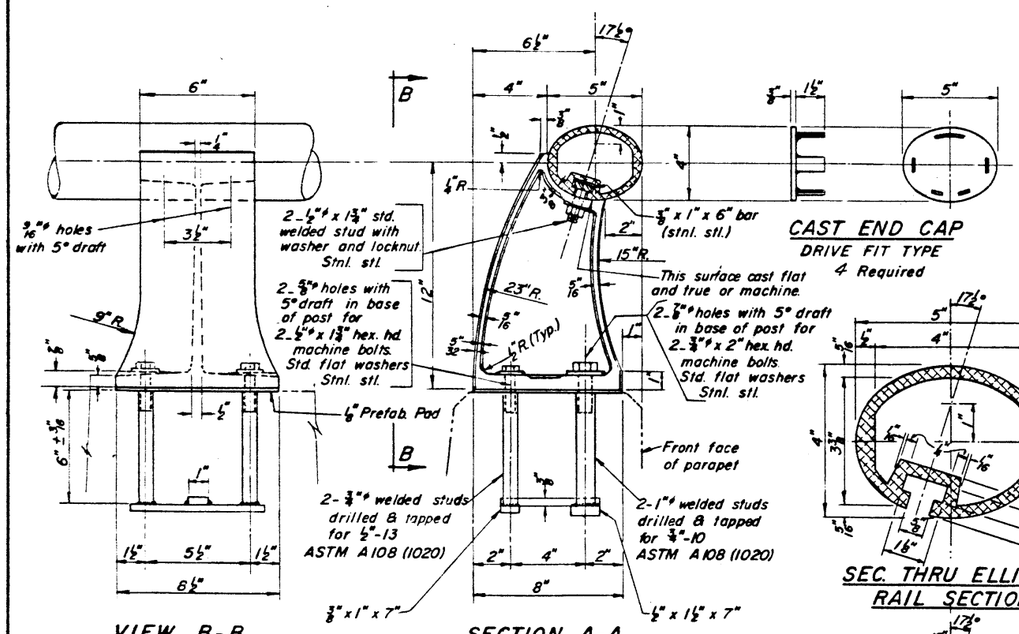
SHEET NO. 11
14 SHEETS



PLAN



ELEVATION
(Showing North Rail - South Rail Similar)

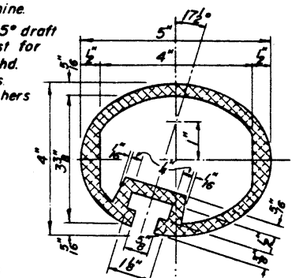


VIEW B-B

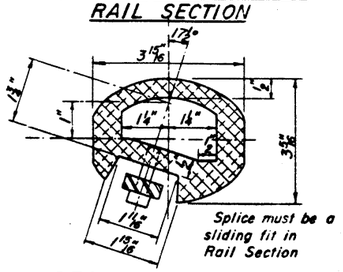
SECTION A-A

RAIL POST DETAILS

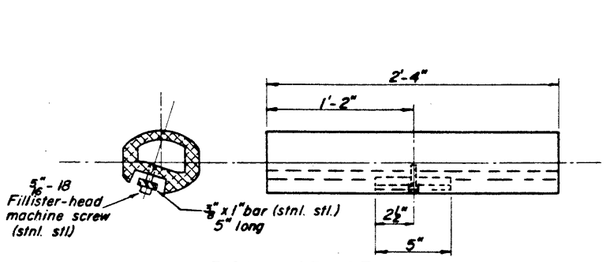
CAST END CAP
DRIVE FIT TYPE
4 Required



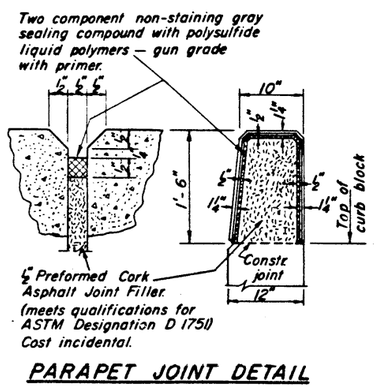
SEC. THRU ELLIPTICAL RAIL SECTION



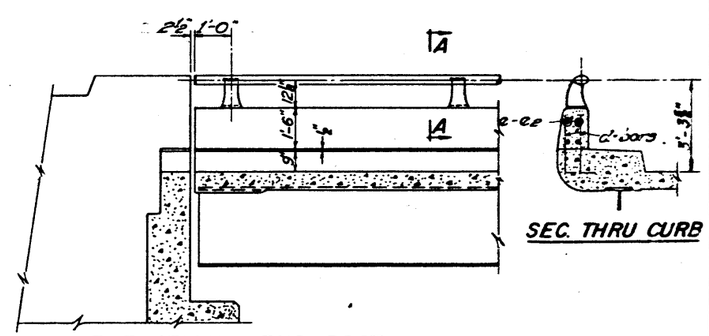
SEC. THRU SPLICE



RAIL SPLICE



PARAPET JOINT DETAIL



ELEVATION — END POST

SEC. THRU CURB

NOTES:

All Posts shall be normal to parapet.

All Aluminum Alloy Extruded Rail shall conform to ASTM specification B-235 alloy 6061-T6, or 6062-T6, and shall extend a minimum of 2 panel lengths (attached to minimum of 3 posts) except at ends or at open joints where a minimum of 1 panel length is required. All joints in railing must be spliced per detail.

See Special Provisions for following Material Specifications:

Cast Aluminum Alloy Bridge Post— Alloy A344-T4.
Stainless Steel Welded Stud Bolts, Washers, and Locknuts.

For material composition of Prefabricated Pad, see Article 54.9(1), (Bearing and Anchorage), of the Standard Specifications.

METHOD of MEASUREMENT: Aluminum handrail shall be measured in lineal feet. The length paid for shall be the over all length along the top longitudinal railing member thru all posts and gaps.

BASIS of PAYMENT: Aluminum handrail shall be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL, measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.

Cost of rail splice, end caps, and hardware to be incidental to item ALUMINUM HANDRAIL.

BILL OF MATERIAL

Item	Unit	Quantity
ALUMINUM HANDRAIL	Lin. Ft.	424

BAR LIST *

Bar	No.	Size	Length	Shape
e	48	#5	17'-11"	——
e1	32	#5	10'-3"	——
e2	24	#5	19'-11"	——

* Billed with Superstructure.

ALUMINUM HANDRAIL

S.B.I. RT. 134 - SEC. 10 I VBP
EDGAR COUNTY
STA. 196+12.46

DESIGNED	A. E. Malsi
CHECKED	Bob Chilton
DRAWN	Wm. M. Best jacobs
CHECKED	B.C.

MARCH 25 1965
EXAMINED Carl E. Truman
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

R-17 Dwn 5-28-64

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

DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 134 F.A.	16-1 BR	EDGAR	21	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		14 SHEETS

EXTERIOR BMS. 1 & G

Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E. Brg. Ft. Abut. 1 G	19487.370	16.041	730.061	730.061
	19628.550 -	16.041	730.264	730.264
	19497.370	16.041	730.116	730.136
	19638.550 -	16.041	730.304	730.324
	19507.370	16.041	730.168	730.201
	19648.550 -	16.041	730.340	730.373
	19517.370	16.041	730.216	730.250
	19658.550 -	16.041	730.372	730.406
	19527.370	16.041	730.260	730.284
	19668.550 -	16.041	730.400	730.424
	19537.370	16.041	730.300	730.312
	19678.550 -	16.041	730.424	730.436
E. Brg. Pier 1 1 G	19551.120	16.041	730.348	730.348
	19592.300 -	16.041	730.451	730.451
	19561.120	16.041	730.379	730.394
	19602.300 -	16.041	730.466	730.481
	19571.120	16.041	730.406	730.436
	19612.300 -	16.041	730.477	730.507
	19581.120	16.041	730.429	730.470
	19622.300 -	16.041	730.484	730.525
	19591.120	16.041	730.449	730.500
	19632.300 -	16.041	730.488	730.539
	19601.120	16.041	730.464	730.506
	19642.300 -	16.041	730.487	730.529
	19611.120	16.041	730.476	730.507
	19652.300 -	16.041	730.463	730.514
	19621.120	16.041	730.484	730.500
	19662.300 -	16.041	730.475	730.492
E. Brg. Pier 2 1 G	19632.620	16.041	730.488	730.488
	19673.800 -	16.041	730.461	730.461
	19642.620	16.041	730.487	730.496
	19683.800 -	16.041	730.444	730.453
	19652.620	16.041	730.483	730.502
	19693.800 -	16.041	730.424	730.443
	19662.620	16.041	730.474	730.507
	19703.800 -	16.041	730.400	730.432
	19672.620	16.041	730.462	730.496
	19713.800 -	16.041	730.372	730.405
	19682.620	16.041	730.446	730.474
	19723.800 -	16.041	730.340	730.367
E. Brg. E. Abut. 1 G	19696.370	16.041	730.418	730.418
	19737.550 -	16.041	730.290	730.290

SPAN 1

Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E. Brg. Ft. Abut. 2 3 4 5	19495.606	9.625	730.235	730.235
	19503.842	3.208	730.350	730.350
	19512.078 -	3.208	730.391	730.391
	19520.314 -	9.625	730.358	730.358
	19505.606	9.625	730.268	730.301
	19513.842	3.208	730.399	730.413
	19522.078 -	3.208	730.437	730.450
	19530.314 -	9.625	730.400	730.414
	19515.606	9.625	730.336	730.358
	19523.842	3.208	730.445	730.466
	19532.078 -	3.208	730.479	730.501
	19540.314 -	9.625	730.439	730.461
	19525.606	9.625	730.381	730.403
	19533.842	3.208	730.486	730.509
	19542.078 -	3.208	730.517	730.540
	19550.314 -	9.625	730.474	730.497
	19535.606	9.625	730.421	730.437
	19543.842	3.208	730.524	730.540
	19552.078 -	3.208	730.552	730.568
	19560.314 -	9.625	730.506	730.522
	19545.606	9.625	730.458	730.467
	19553.842	3.208	730.557	730.565
	19562.078 -	3.208	730.582	730.590
	19570.314 -	9.625	730.533	730.541
E. Brg. Pier 1 2 3 4 5	19559.356	9.625	730.503	730.503
	19567.592	3.208	730.597	730.597
	19575.828 -	3.208	730.618	730.618
	19584.064 -	9.625	730.564	730.564

INTERIOR BMS. 2-5

SPAN 2

Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
	19569.356	9.625	730.530	730.540
	19577.592	3.208	730.622	730.632
	19585.828 -	3.208	730.639	730.649
	19594.064 -	9.625	730.582	730.592
	19579.356	9.625	730.554	730.574
	19587.592	3.208	730.643	730.662
	19595.828 -	3.208	730.657	730.676
	19604.064 -	9.625	730.597	730.616
	19589.356	9.625	730.574	730.601
	19597.592	3.208	730.659	730.686
	19605.828 -	3.208	730.670	730.697
	19614.064 -	9.625	730.607	730.634
	19599.356	9.625	730.590	730.624
	19607.592	3.208	730.672	730.706
	19615.828 -	3.208	730.680	730.714
	19624.064 -	9.625	730.614	730.647
	19609.356	9.625	730.603	730.630
	19617.592	3.208	730.681	730.709
	19625.828 -	3.208	730.686	730.714
	19634.064 -	9.625	730.616	730.644
	19619.356	9.625	730.611	730.632
	19627.592	3.208	730.687	730.708
	19635.828 -	3.208	730.688	730.709
	19644.064 -	9.625	730.615	730.636
	19629.356	9.625	730.616	730.627
	19637.592	3.208	730.688	730.699
	19645.828 -	3.208	730.686	730.698
	19654.064 -	9.625	730.610	730.622
E. Brg. Pier 2 2 3 4 5	19640.856	9.625	730.616	730.616
	19649.092	3.208	730.685	730.685
	19657.328 -	3.208	730.679	730.679
	19665.564 -	9.625	730.600	730.600

SPAN 3

Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
	19650.856	9.625	730.612	730.618
	19659.092	3.208	730.678	730.684
	19667.328 -	3.208	730.669	730.675
	19675.564 -	9.625	730.587	730.593
	19660.856	9.625	730.605	730.618
	19669.092	3.208	730.667	730.680
	19677.328 -	3.208	730.655	730.668
	19685.564 -	9.625	730.569	730.582
	19670.856	9.625	730.593	730.615
	19679.092	3.208	730.652	730.674
	19687.328 -	3.208	730.638	730.659
	19695.564 -	9.625	730.548	730.570
	19680.856	9.625	730.578	730.600
	19689.092	3.208	730.634	730.656
	19697.328 -	3.208	730.616	730.638
	19705.564 -	9.625	730.524	730.546
	19690.856	9.625	730.559	730.577
	19699.092	3.208	730.612	730.630
	19707.328 -	3.208	730.590	730.609
	19715.564 -	9.625	730.495	730.513
E. Brg. E. Abut. 2 3 4 5	19704.606	9.625	730.526	730.526
	19712.842	3.208	730.575	730.575
	19721.078 -	3.208	730.549	730.549
	19729.314 -	9.625	730.449	730.449

DESIGNED	L. E. Makin
CHECKED	Bob Chilton
	jacobs
DRAWN	L. Wanless
CHECKED	B.C.

March 25 1965

EXAMINED _____ ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED _____ ENGINEER OF DESIGN

APPROVED _____ CHIEF HIGHWAY ENGINEER

ELEVATIONS
S.B.I. RT. 134 - SEC. 16 I,V & BR
EDGAR COUNTY
STA. 196 + 12.46

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. / F.A. 134	101-VBR	EDGAR	21	16
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
14 SHEETS

Boring No. 1
Station 196+60
Offset 19 ft. Rt.
Surface Water El. –
Groundwater El. at Completion 672.0
After 17 Hours 697.0
Ground Surface 703.7

Stratum	Bottom Elev.
Gravel (RR Ballast)	700.2
Stiff Brown Gray Mottled CLAY	694.7
Stiff Brown Gray Mottled CLAY LOAM	688.2
Stiff Gray CLAY LOAM Till	
Very Stiff to Stiff Gray CLAY LOAM Till	674.7
Very Stiff Gray SILTY CLAY LOAM Till	672.7
Hard Gray CLAY LOAM Till	669.7
Hard Green Gray Mottled CLAY LOAM Till	667.2
Very Stiff to Hard Brown CLAY LOAM Till (With sand lenses)	661.7
Limit of Penetration-Hit Glacial Boulder	

Depth	N	Qu (t/sf)	w (%)
-5	8	E 1.0	28
	11	B 1.3	26
-10	8	B 1.1	15
	14	B 1.9	16
-15	14	B 1.7	13
	17	B 1.8	12
-20	13	1.7	11
	16	B 3.5	11
-25	9	E 1.0	-
	14	1.0	16
-30	18	S 3.8	11
	27	S 6.5	10
-35	23	B 5.0	14
	29	B 3.6	14
-40	66	E 11.0	8
-45			

Boring No. 2
Station 197+08
Offset 20 ft. Rt.
Groundwater El. at Completion 670.0
After 18 Hours 696.0
Ground Surface 700.5

Stratum	Bottom Elev.
Medium Dark Brown CLAY Top soil	698.0
Medium Brown Gray Mottled CLAY	695.5
Medium Brown Mottled CLAY LOAM	693.5
Very Stiff Brown Mottled CLAY LOAM Till	686.0
Hard to Stiff Gray CLAY LOAM Till	
Very Stiff Gray CLAY LOAM Till (Many thin water bearing sand lenses between 20 and 25 feet)	668.5
Very Stiff Green Gray CLAY LOAM Till	666.0
Very Stiff to Hard Gray Brown Mottled CLAY LOAM Till	661.5
Hard Gray CLAY LOAM Till	657.0
Limit of boring	

Depth	N	Qu (t/sf)	w (%)
	5	B 0.6	18
	13	B 2.3	13
	13	B 2.1	13
	17	S 3.5	13
	15	B 4.2	11
	11	B 1.7	11
	*21	E 2.1	10
	11	B 2.2	11
	11	B 2.2	12
	12	B 2.1	9
-30	16	B 3.4	12
	19	B 3.5	15
	23	S 3.8	14
	55	S 8.5	11
-40	40	S 11.2	9
	47	S 8.1	10
-45			

*Hit Rock

Boring No. 3
Station 195+63
Offset 19' Lt.
Surface Water El. –
Groundwater El. at Completion 697.0
After 19 Hours 697.0
Ground Surface 703.4

Stratum	Bottom Elev.
Medium Brown Mottled CLAY LOAM	699.4
Stiff Dark Brown Mottled CLAY	697.9
Very Stiff Brown Gray Mottled CLAY	693.9
Stiff to Very Stiff Brown Mottled CLAY LOAM Till	684.9
Very Stiff Gray CLAY LOAM Till	681.9
Hard Gray CLAY Till	679.4
Stiff and Very Stiff Gray CLAY LOAM Till	667.4
Hard Brown CLAY LOAM Till (many pebbles)	663.9
Hard Gray CLAY LOAM Till	660.4
Limit of boring	

Depth	N	Qu (t/sf)	w (%)
-5	8	B 1.0	27
	8	B 2.3	25
-10	6	B 1.6	16
	11	B 1.9	13
-15	18	B 3.5	12
	20	B 2.9	12
-20	13	B 2.3	11
	24	B 6.5	11
-25	12	B 2.0	12
	16	B 1.6	14
-30	13	B 2.3	13
	16	B 1.9	15
-35	25	B 2.4	13
	46	B 8.7	11
-40	52	S 5.7	9
	50	S 5.7	9
-45			

Boring No. 4
Station 195+20
Offset 18 ft. Lt.
Surface Water El.
Groundwater El. at Completion 697.0
After 20 Hours 697.0
Ground Surface 701.7

Stratum	Bottom Elev.
Medium Brown Mottled CLAY LOAM	700.2
Stiff Dark Brown Mottled CLAY	694.7
Stiff Brown Grey Mottled CLAY LOAM	692.7
Stiff Brown Gray Mottled CLAY LOAM Till	689.7
Stiff to Very Stiff Grey CLAY LOAM Till	680.2
Very Stiff Grey CLAY Till	677.7
Very Stiff Gray CLAY LOAM Till	675.7
Dense Gray Coarse SAND and Fine GRAVEL (Water Bearing)	673.2
Hard Gray CLAY LOAM Till	671.2
Limit of boring	

Depth	N	Qu (t/sf)	w (%)
-5	10	B 1.4	26
	8	B 1.1	16
-10	10	B 1.5	14
	15	B 1.6	12
-15	20	B 2.7	12
	21	B 3.1	11
-20	18	B 3.8	11
	14	B 2.4	15
-25	13	B 2.0	
	30	5.0	
-30	28	S 7.2	10

Bridge located near the NE Cor. Sec. 4, T.13N., R.11W.

N – Standard Penetration Test – Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140# hammer falling 30".

Qu – Unconfined Compressive Strength – t/sf

w – Water Content – percentage of oven dry weight – %.

Type failure:
B – Bulge Failure
S – Shear Failure
E – Estimated Value

DESIGNED	S. F. Madonia
CHECKED	Bob Chilton
DRAWN	Jacobs
CHECKED	B.C.

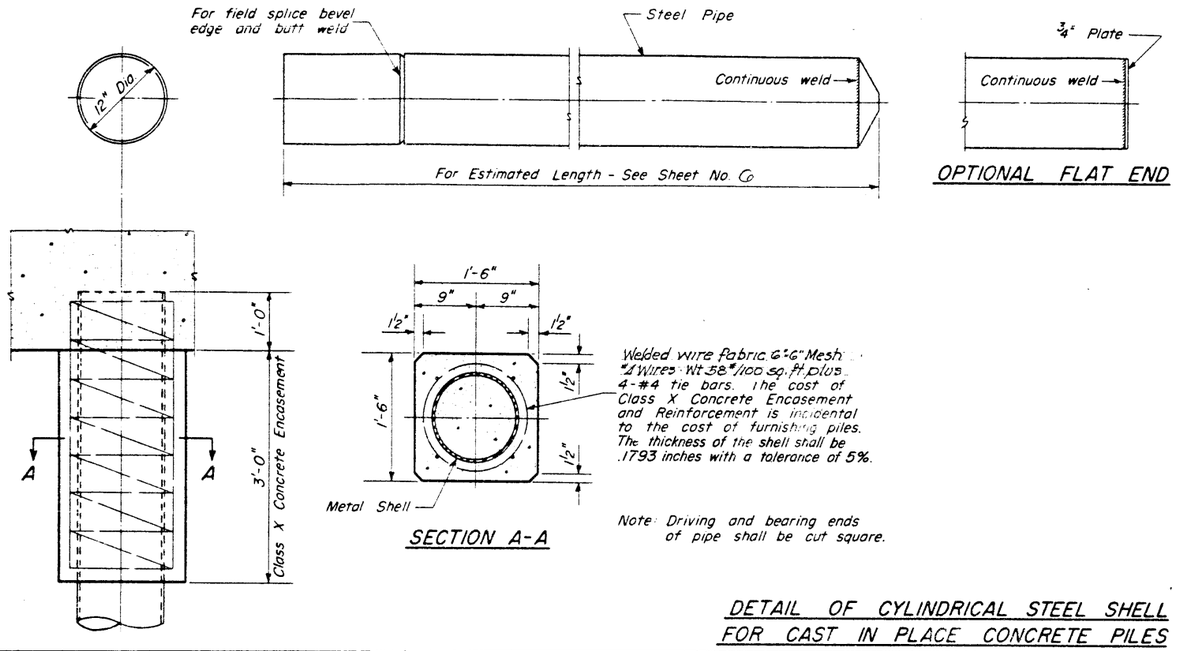
March 25 1965
EXAMINED Carl E. Thunman Jr.
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

BORINGS
S.B.I. RT. 134 – SEC. 101 VBR
EDGAR COUNTY
STA. 196+12.46

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

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.S. 134	101-1BR	EDGAR	21	17
FED ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 14
14 SHEETS

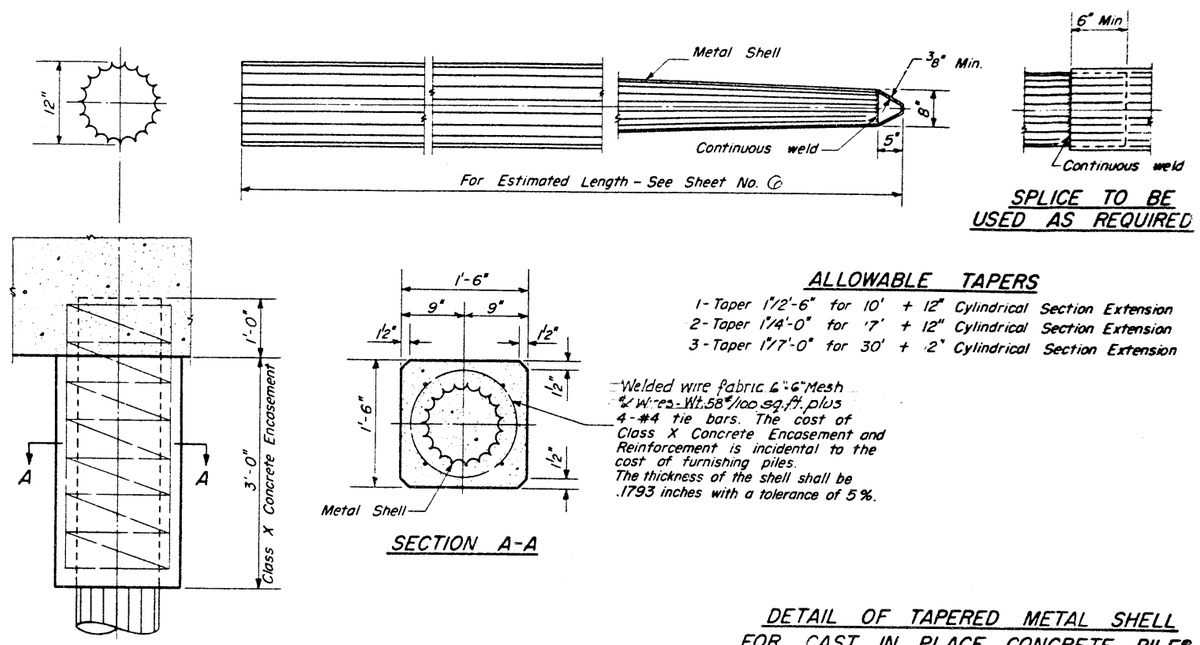


OPTIONAL FLAT END

SECTION A-A

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

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



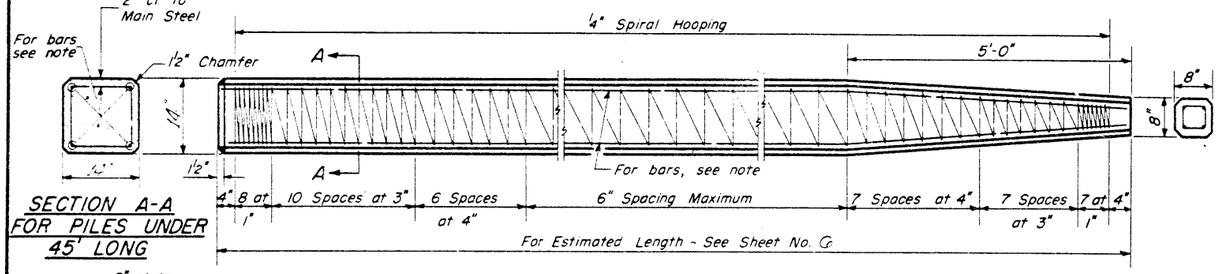
SPLICE TO BE USED AS REQUIRED

ALLOWABLE TAPERS

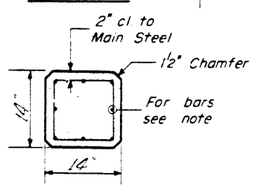
1 - Taper 1'12'-6" for 10' + 12" Cylindrical Section Extension
2 - Taper 1'14'-0" for 17' + 12" Cylindrical Section Extension
3 - Taper 1'17'-0" for 30' + 12" Cylindrical Section Extension

SECTION A-A

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.

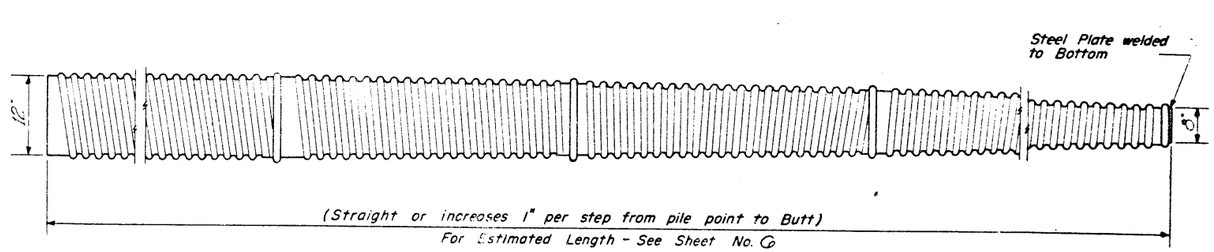
*L = Over all length of pile to be handled.

DESIGNED	L. F. Madsen
CHECKED	Bob Chilton
P.G. Barnett / DRAWN	W. A. Sausaman
CHECKED	B. C.

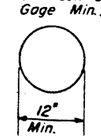
EXAMINED Carl E. Trummel — March 25 1965 — ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED — ENGINEER OF DESIGN
APPROVED — CHIEF HIGHWAY ENGINEER

X-1 Rev. 5-12-61 9-27-62 4-20-64

DETAIL OF PRECAST CONCRETE PILES

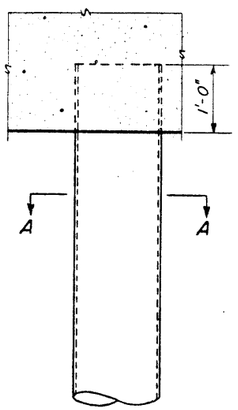


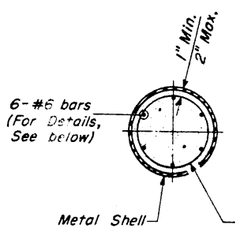
At least 1/4 of the length of pile shall have a Butt diameter equal to or greater than 12".
Gages are furnished to suit soil conditions (14 Gage Min.)



BUTT

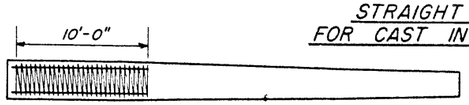
POINT
(Applies only to Step Taper type pile)





SECTION A-A

Reinforcement is incidental to the cost of furnishing piles.



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

PILES
S.B.I. PT. 134 - SEC. 101 VDB
EDGAR COUNTY
STA. 196+1246