

INDEX OF SHEETS

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SHEET NO. —	RIGHT OF WAY PLAT
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SHEET NO. 12-18	DRAINAGE STRUCTURES
SHEET NO. 19-31	CROSS SECTIONS



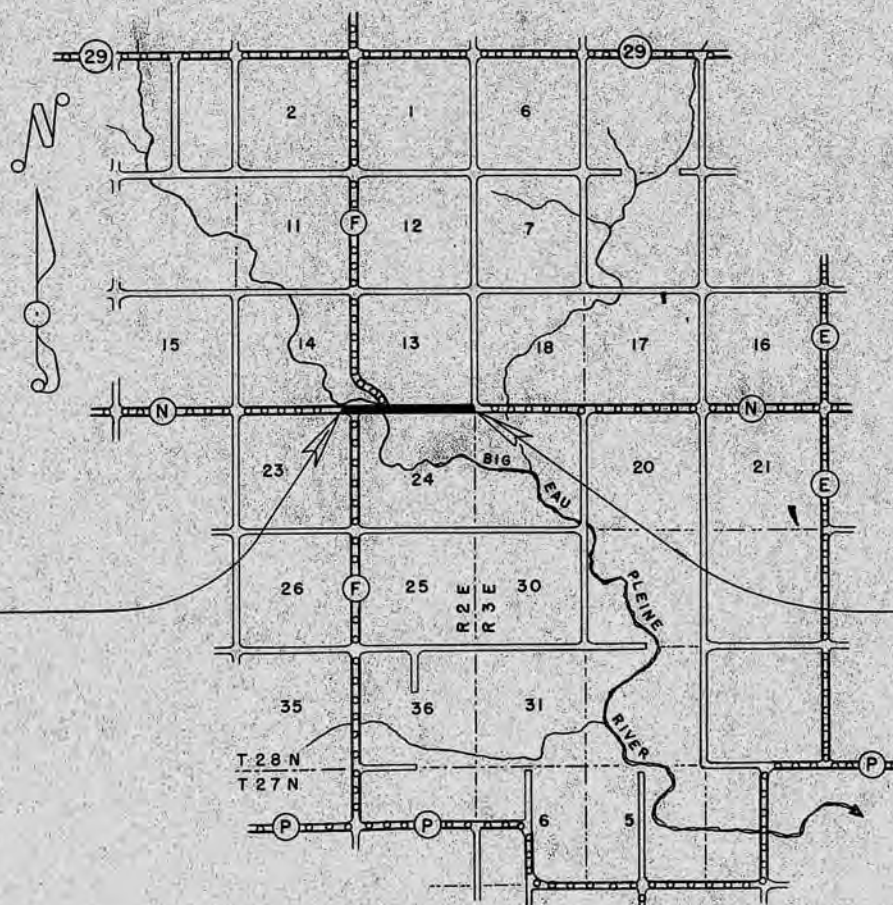
STATE OF WISCONSIN
STATE HIGHWAY COMMISSION OF WISCONSIN

COUNTY AND HIGHWAY	ROUTE AND SECTION	CLASS AND AGREEMENT		FEDERAL DIVISION OFFICE	SHEET NUMBER	TOTAL SHEETS
		STATE	FEDERAL			
37.6	21.0		11.11	WIS. 4	1	31

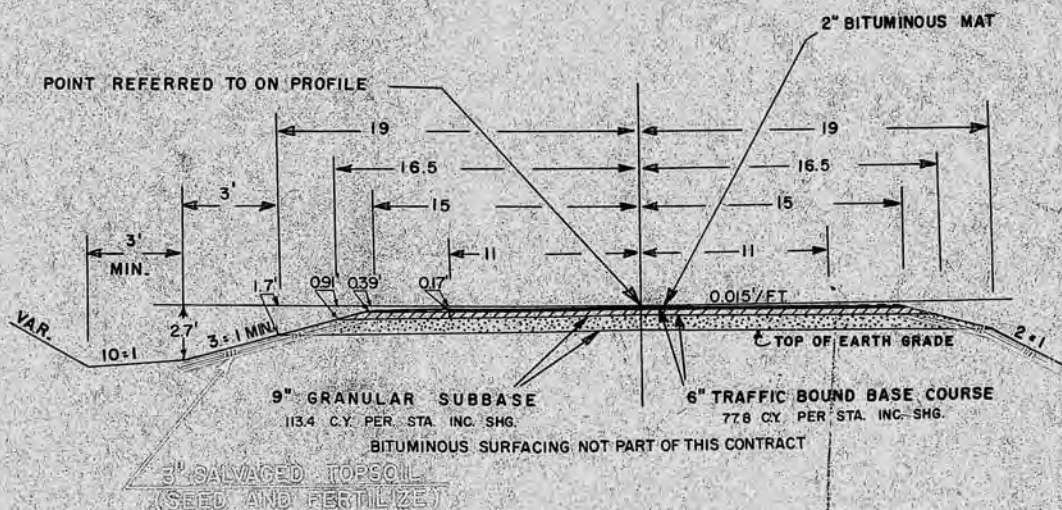
PLAN AND PROFILE OF PROPOSED
CHEROKEE — C.T.H. "E" ROAD

C.T.H. "N"
MARATHON COUNTY
PROJECT S021(II)

SCALES PLAN 1 IN. = 100 FT.
PROFILE HOR. 1 IN. = 100 FT. VERT. 1 IN. = 10 FT.
CROSS SECTIONS HOR. 1 IN. = 5 FT. VERT. 1 IN. = 5 FT.



BEGINNING OF PROJECT S021(II)
STA. 7+00.0 = 300' W. OF NW COR. SEC. 24



END OF PROJECT S021(II)
STA. 62+16.4 = NE COR. OF SEC. 24 =
STA. 0+00 BEGINNING OF PROJECT S 021 (3)(6)

CONVENTIONAL SIGNS

STATE LINE	— — — — —	CULVERTS IN PLACE	— — — — —
COUNTY LINE	— — — — —	CULVERTS REQUIRED	— — — — —
TOWNSHIP OR RANGE LINE	— — — — —	DROP INLET	□
SECTION LINE	— — — — —	POWER POLE	— — — — —
NEW RIGHT OF WAY LINE	— — — — —	TELEPHONE OR TELEGRAPH POLE	— — — — —
PRESENT RIGHT OF WAY LINE	— — — — —	RIGHT OF WAY MARKERS	— — — — —
WIRE FENCE	WOVEN	REFERENCE STAKE FOR HUBS ONLY	— — — — —
	BARBED	MARSH	— — — — —
LOT LINE	— — — — —	HEDGE	— — — — —
CORPORATE OR CITY LIMITS	— — — — —	TREES	— — — — —
PROPERTY LINE	— — — — —	GROUND ELEVATION	DATUM LINE 73.9
TRAVELED WAY OR P.E.	— — — — —	GRADE ELEVATION	DATUM LINE 75.6
RAILROADS	— — — — —		
BASE OR SURVEY LINE	— — — — —		

LAYOUT

SCALE ONE MILE

TOTAL NET LENGTH OF CENTERLINE = 1.045 MI.

STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WIS.

SURVEYOR: C. E. C. NOTE BOOK: M 89
DIVISION COMPUTER: L. R. T. M. O. CHECKER:
DISTRICT CHECKER: CORRECT

CORRECT:
DATE: _____ DISTRICT ENGINEER: _____

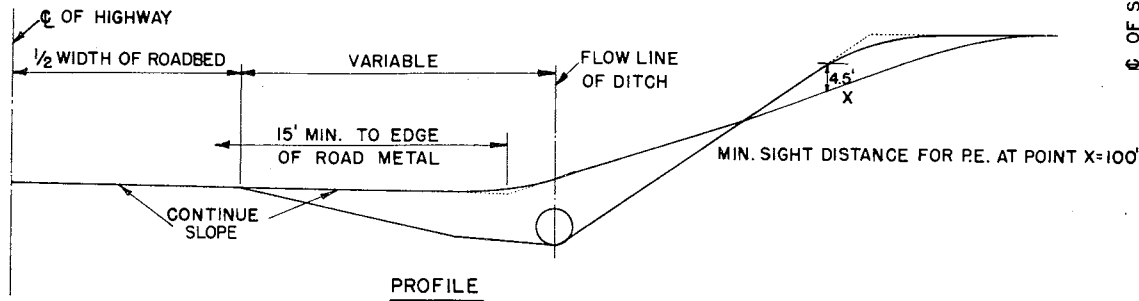
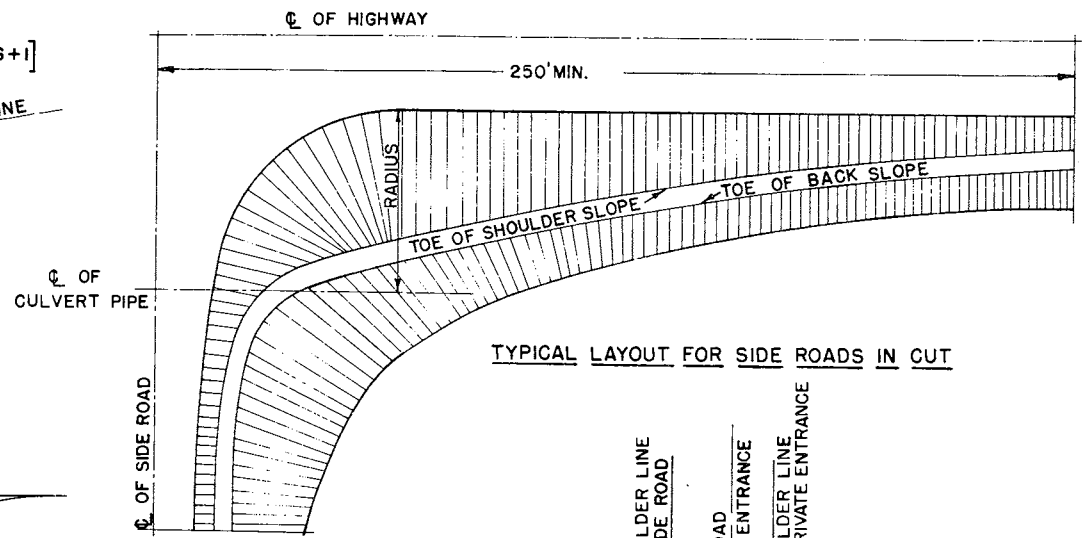
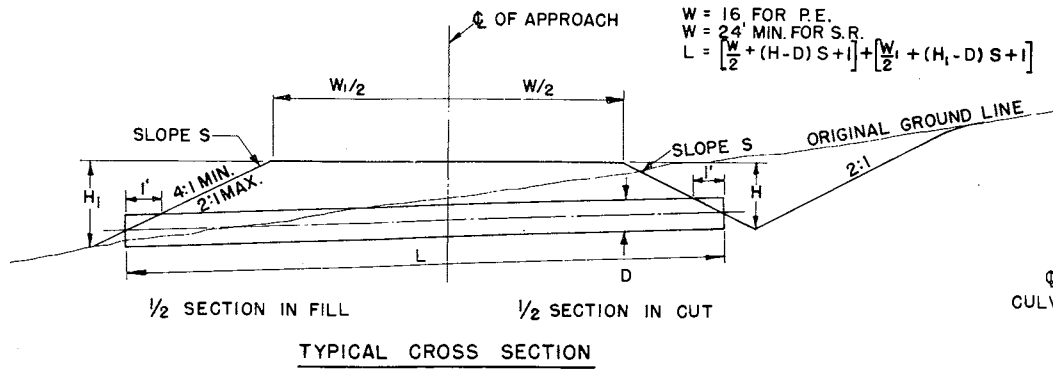
RECOMMENDED FOR APPROVAL:
DATE: 5/4/60 J. S. Pelt ENGINEER OF DESIGN
APPROVED: _____

DATE: 5/9/60 E. C. Rostrom STATE HIGHWAY ENGINEER

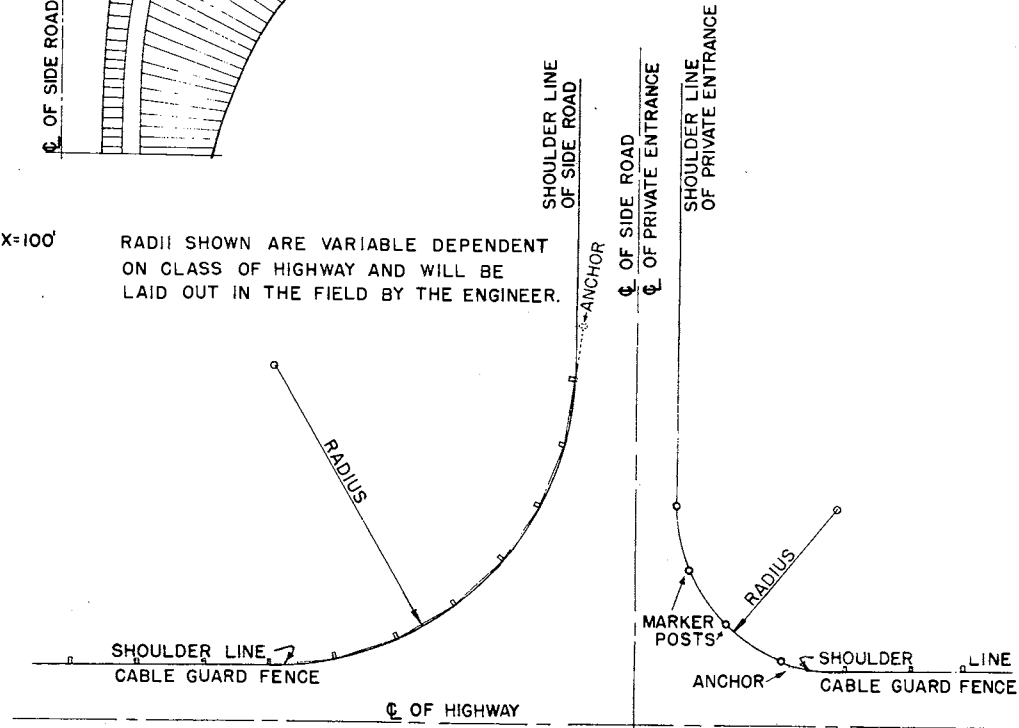
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____ DATE: _____

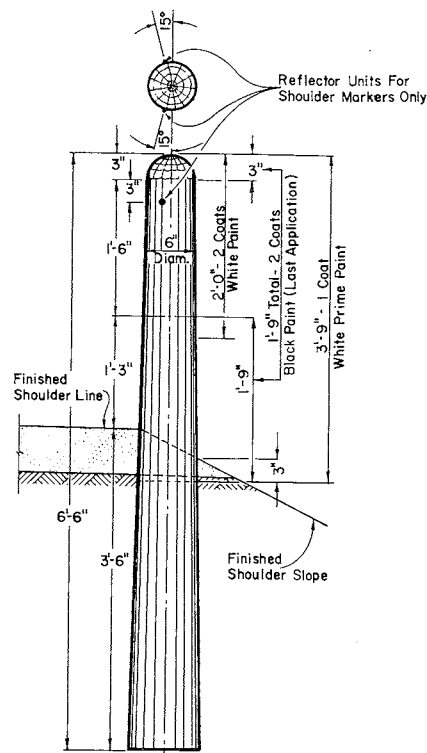
S021(II)



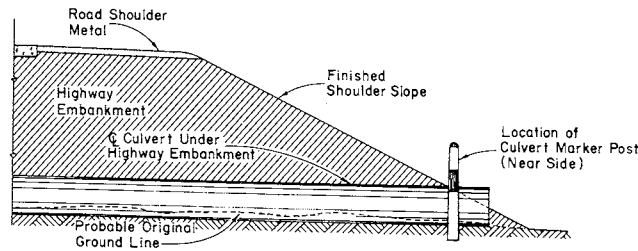
RADIi SHOWN ARE VARIABLE DEPENDENT ON CLASS OF HIGHWAY AND WILL BE LAID OUT IN THE FIELD BY THE ENGINEER.



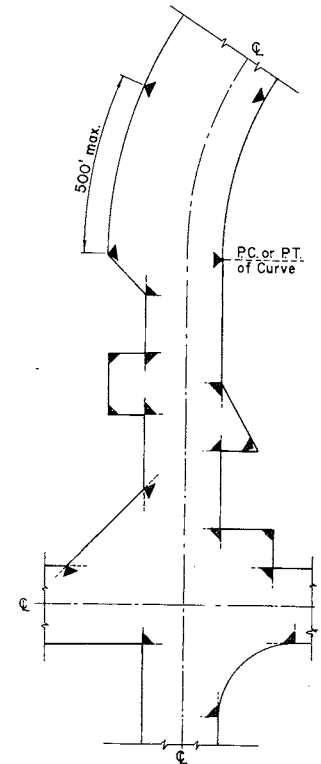
DETAILS OF PRIVATE ENTRANCE AND SIDE ROAD APPROACHES
 STATE HIGHWAY COMMISSION OF WISC.
 RECOMMENDED FOR APPROVAL:
 Frank Crave
 DESIGN ENGINEER
 M. Bluh
 CONSTRUCTION ENGINEER
 DATE _____
 APPROVED:- OCT. 1, 1945
 DRAWN _____
 CHECKED _____ DATE _____ STATE HIGHWAY ENGINEER



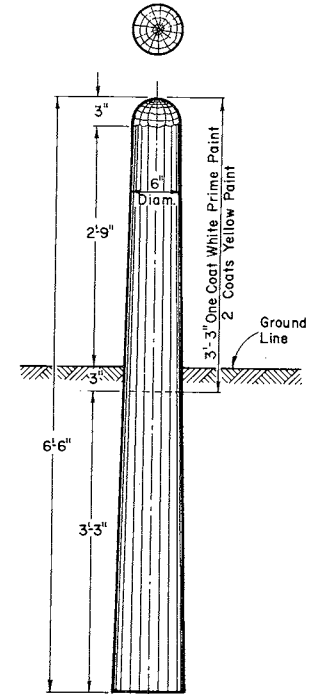
MARKER POST FOR ROAD SHOULDERS AND CULVERTS



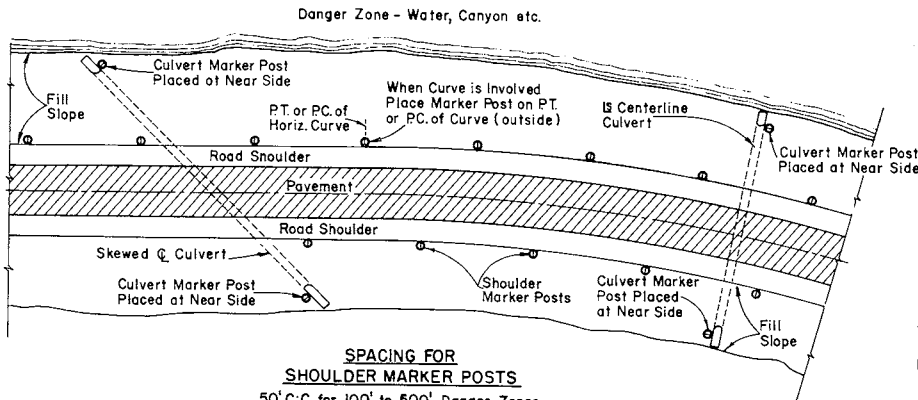
SECTION SHOWING RELATIVE LOCATION OF MARKER POST FOR CULVERTS



LOCATION DIAGRAM SHOWING TYPICAL LOCATIONS OF MARKER POSTS FOR RIGHT OF WAY



MARKER POST FOR RIGHT OF WAY



SPACING FOR SHOULDER MARKER POSTS
50' C:C for 100' to 500' Danger Zones
100' C:C for Over 500' Danger Zones

LOCATION DIAGRAM SHOWING RELATIVE LOCATIONS OF SHOULDER MARKER POSTS AND CULVERT MARKER POSTS

MARKER POSTS FOR ROAD SHOULDERS AND CULVERTS

MARKER POST FOR RIGHT OF WAY

GENERAL NOTES:

Details of Construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications Sections 2523, 4124 and 4125 and the applicable Special Provisions.

All posts for Road Shoulder Markers, Culvert Markers and Right of Way Markers are identical except for Painting and Reflector Units. All Posts shall be round and untreated and shall be either Northern White Cedar, Southern Yellow Pine, Norway Pine, White Pine or Jack Pine.

MARKER POSTS FOR RIGHT OF WAY

Right of Way Marker Posts shall be erected in advance of Grading Operations. Posts may be shaped and pointed prior to erection. Any damaged areas occurring to paint surface during erection or other subsequent operations must be repainted prior to acceptance.

Posts shall be placed at the outer limits of the Highway Right of Way, but entirely within the Right of Way, and shall be so placed that the outer edge of the posts shall be tangent to the Right of Way line or lines extended. The exact location of all Right of Way Posts shall be staked in the field by the Engineer.

Reflector Units for Right of Way Marker Posts will not be required.

REFLECTOR UNITS

Reflector Units shall have plastic crystal lens 7/8" in diameter. Unit assembly shall be a minimum of 7/8" in length. Reflector Units shall be furnished with flared expanding metal clips for wood mounting. Units shall be mounted in tightest fit possible and securely stayed in posts. Reflector Units shall be installed in Road Shoulder Marker Posts only.

BID ITEMS

No. 2523-5 Marker Posts.....Each
No. 2523-6 Marker Posts for Right of Way.....Each

MARKER POSTS & MARKER POSTS FOR RIGHT OF WAY

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL

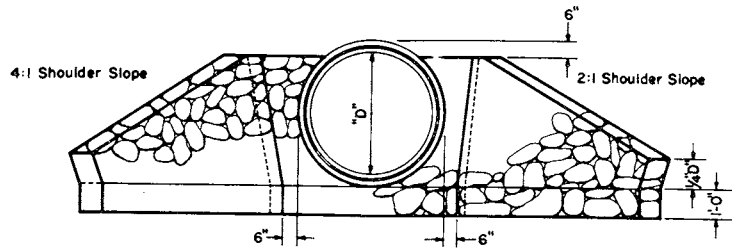
5/16/57
DATE

J. P. Pitt
ENGINEER OF DESIGN

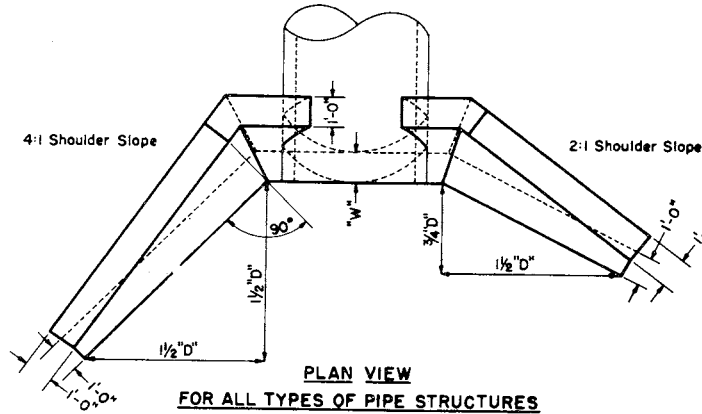
APPROVED:

5/16/57
DATE

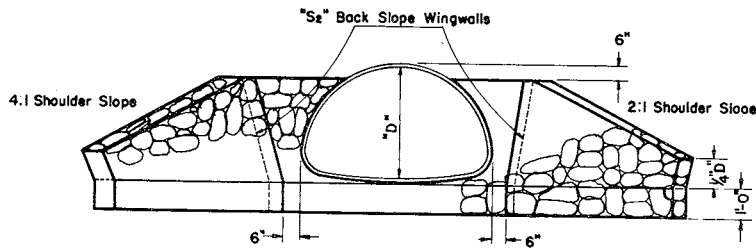
E. C. Rottiers
STATE HIGHWAY ENGINEER



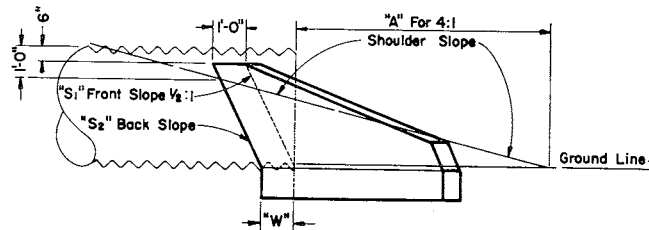
END ELEVATION
SHOWING CONCRETE CIRCULAR PIPE INCL. CATTLE PASS



PLAN VIEW
FOR ALL TYPES OF PIPE STRUCTURES



END ELEVATION
SHOWING CORRUGATED METAL PIPE ARCH



SIDE ELEVATION

CIRCULAR PIPE	Cu. Yds. Mortar or Rubble Masonry or Riprap per Endwall	"A" (Feet)		"B" (Feet)		Front Slope "S ₁ "	Back Slope "S ₂ "	Width of Footing of "W" (Feet)
		4:1 Slope	2:1 Slope	4:1 Slope	2:1 Slope			
24"	R.C.C.P.	1.2	1.0	3.4	0.8	1/2:1	1/2:1	1.0
	C.M.C.P.	1.0	0.8	2.8	0.6	"	"	"
30"	R.C.C.P.	1.5	1.3	5.1	1.5	"	"	"
	C.M.C.P.	1.3	1.0	4.6	1.3	"	"	"
36"	R.C.C.P.	2.0	1.6	6.9	2.3	"	"	"
	C.M.C.P.	1.7	1.3	6.3	2.1	"	"	"
42"	R.C.C.P.	2.6	2.1	8.9	3.1	"	"	"
	C.M.C.P.	2.2	1.7	8.1	2.9	"	"	"
48"	R.C.C.P.	3.2	2.6	10.7	3.9	"	"	"
	C.M.C.P.	2.8	2.2	9.8	3.6	"	"	"
60"	R.C.C.P.	8.4	6.9	14.5	5.5	"	1/4:1	2.38
	C.M.C.P.	6.9	5.9	13.3	5.2	"	"	2.20
72"	R.C.C.P.	12.4	9.9	18.3	7.1	"	"	2.68
	C.M.C.P.	10.0	8.0	16.8	6.2	"	"	2.40

PIPE ARCH

29" x 18"	C.M.C.P.	1.0	0.8	1.1	0.3	1/2:1	1/2:1	1.0
36" x 22"	"	1.3	1.0	2.2	0.5	"	"	"
43" x 27"	"	1.7	1.2	3.7	1.0	"	"	"
50" x 31"	"	1.9	1.4	4.9	1.5	"	"	"
58" x 36"	"	2.1	1.7	6.3	2.1	"	"	"
65" x 40"	"	2.5	2.0	7.5	2.6	"	"	"
72" x 44"	"	2.9	2.4	8.6	3.1	"	"	"

CATTLE PASS

72"	ALTERNATE	12.4	9.9	18.3	7.1	"	"	2.68
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GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications, Sections 2409, 2512 and 4106 and the applicable Special Provisions.

CONCRETE MASONRY SUBSTITUTE

All items shown hereon may be constructed of Class "A" Concrete in which case all sizes and dimensions shown shall obtain. Concrete masonry substitute work shall conform to the pertinent requirements of the Standard Specifications, Section 2405.

BID ITEMS

No. 2409-2 Mortar Rubble Masonry... Cu. Yds
No. 2512-1 Riprap..... Cu. Yds

**MORTAR RUBBLE MASONRY
OR RIPRAP
FOR
CULVERT & CATTLE PASS ENDWALLS**

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

5/16/57
DATE

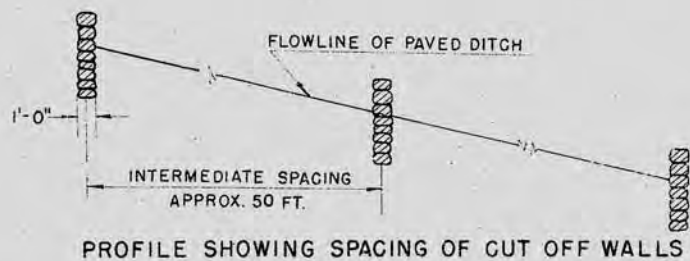
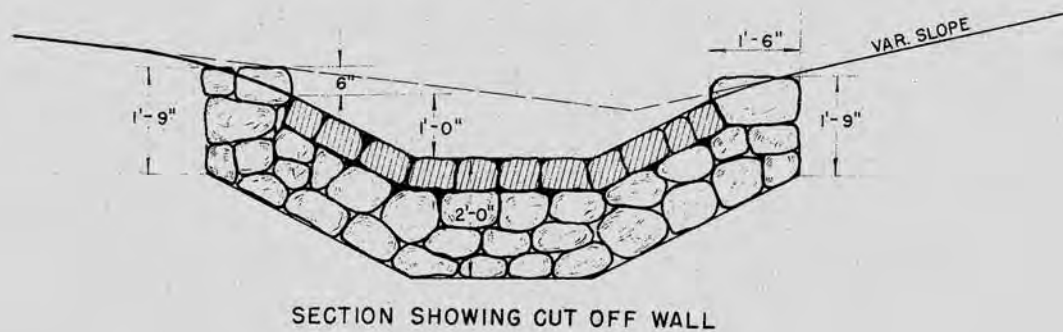
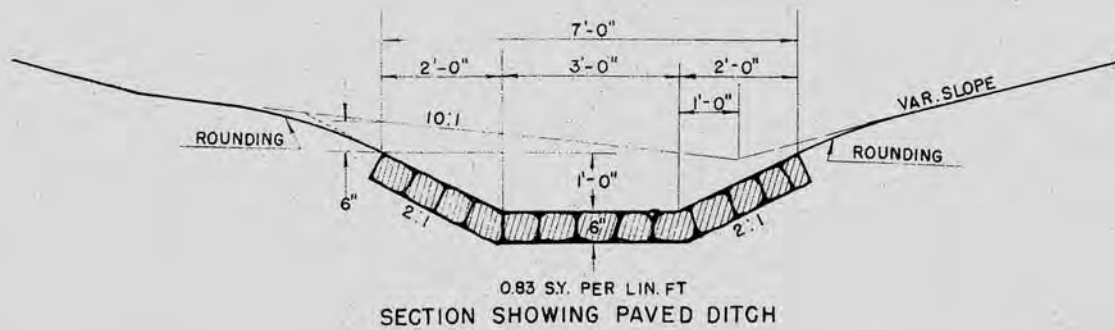
J. J. Pitt
ENGINEER OF DESIGN

APPROVED:

5/16/57
DATE

E. L. Rostetter
STATE HIGHWAY ENGINEER

PLATE NO. 6-2.4.2



CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS

PAVED DITCH GROUTED RUBBLE PAVING

STATE HIGHWAY COMMISSION OF WISCONSIN

RECOMMENDED FOR APPROVAL:

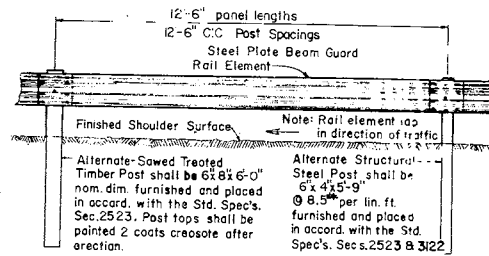
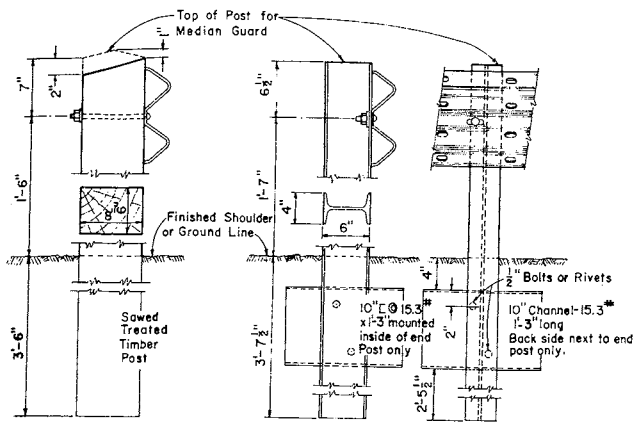
Frank Crav
DESIGN ENGINEER

W. B. Blue
CONSTRUCTION ENGINEER

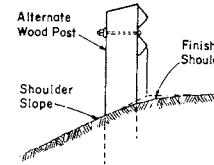
APPROVED: OCT 1951

DRAWN DIV 6
CHECKED NFC

W. B. Blue
ENGINEER

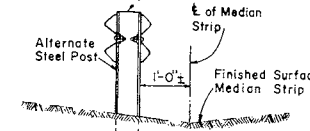


FRONT (Traffic Side) ELEVATION
STEEL PLATE BEAM GUARD OR
STEEL PLATE BEAM (MEDIAN) GUARD



End Elevation Showing Position of STEEL PLATE BEAM GUARD

Note: Elevation for tops of median posts shall approximate that of adjacent pavement grades.



End Elevation Showing Position of STEEL PLATE BEAM (MEDIAN) GUARD

GENERAL NOTES

Details of construction not shown on this drawing shall conform to the pertinent requirements of the Standard Specifications and the applicable Special Provisions.

The Steel Plate Beam Guard or (Median) Guard shall consist of steel plate made of open hearth or electric furnace steel. Plates shall be blanked to proper shape, fabricated and ready for assembly when received in the field. The plates shall be true to plan dimensions and of uniform section. Warped or deformed plates will be rejected. The edges of the plates shall be rolled or rounded so that they present no sharp edges. All connections and splices shall be formed with flat round headed bolts, or similar detail so that no appreciable projection will be presented on the road side of the guard. The rail element shall be spliced by lapping in the direction of traffic or by butt joint with splice plate. Plate ends in lap splices or plate ends and splice plate in butt splices shall make contact throughout the entire area of the splice.

TESTS

The elongation of a 2 inch specimen of the steel plate used in the rail element shall be not less than 12 percent tested in tension. The minimum tensile strength of the rail element shall, when tested in conjunction with splices and connections, be 80,000 lbs. The rail element when loaded as a simple beam, freely supported at each end on 12'-0" centers shall support a concentrated load of 1,500 lbs. applied at the center point, with a maximum deflection of 2 1/2 inches and shall support a concentrated load of 2,000 lbs. when tested in like manner with a maximum deflection of 5 1/2 inches.

PAINING (When not furnished galvanized)

SHOP COAT - Promptly following fabrication, the plates for steel rail element and steel posts shall be thoroughly cleaned and painted with red lead primer or, upon the Engineers approval, an alternate of rust inhibitive primer may be used. All ports, hardware and appurtenant fittings for the complete beam guard assembly shall likewise be painted.

FIELD COAT - Following erection the steel rail elements, ports, hardware appurtenant fittings and steel posts shall be painted in accord with Standard Specifications with aluminum paint as provided in Section 3125.

Any damaged areas occurring to shop coat during transportation or erection shall be cleaned and painted with red lead or an approved rust inhibitive primer prior to any field coat painting.

Where the steel plate elements make contact with the post mountings ect. all such areas which are inaccessible to paint after erection shall be painted prior to erection.

All threaded portions of fittings, fasteners and cut ends of bolts shall be painted as specified immediately following erection.

CIRCULAR STEEL PLATE ELEMENT

Steel plate beam elements for beam guard or (median) guard for radii of 20 ft to 150 ft shall be shop-curved prior to shop coat painting. Steel plate beam elements shall be bent to true circular curvature, void of kinks. Kinks shall be cause for rejection.

Steel plate beam elements shall have a minimum bending radius of 20 feet.

ALTERNATE POSTS

One type of post shall be used for Steel Plate Beam Guard and/or Steel Plate Beam (Median) Guard throughout the length of each project unless specific authorization is obtained from the Engineer to use alternate types.

GALVANIZED-ALTERNATE

Steel rail elements may be furnished galvanized. Spelter coating shall be the hot dip process in accord with AASHTO designation M36. Only one type surface treatment (either painted or galvanized) may be used throughout the length of each project unless specific authorization is obtained from the Engineer to do otherwise.

MEASUREMENT & PAYMENT

The items of "Class B" Steel Plate Beam Guard and "Class B Steel Plate Beam (Median) Guard shall be measured and paid for at the contract unit price per linear foot, measured in place by length in linear feet from end to end - cut to out of steel plate terminal sections, which price shall be full compensation for furnishing and placing all materials and performing all work to completion in accord with the plans and the Standard Specifications Section 2523 and the applicable Special Provisions.

BID ITEMS

No. 2523-3 Steel Plate Beam Guard.....	Lin Ft
No. 2523-4 Steel Plate Beam (Median) Guard.....	Lin Ft

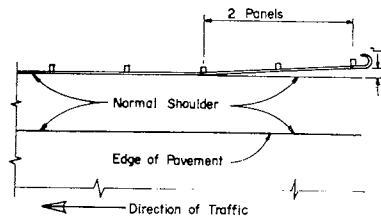
STEEL PLATE BEAM GUARD & STEEL PLATE BEAM (MEDIAN) GUARD

STATE HIGHWAY COMMISSION OF WISCONSIN

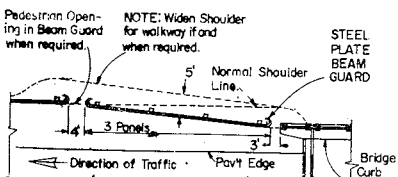
RECOMMENDED FOR APPROVAL:

7/16/59 *J. J. Pitt*
ENGINEER OF DESIGN

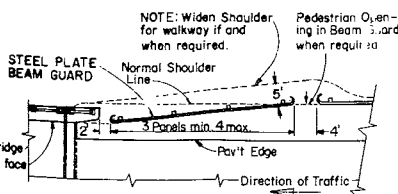
7/16/59 *E. C. Rothman*
STATE HIGHWAY ENGINEER



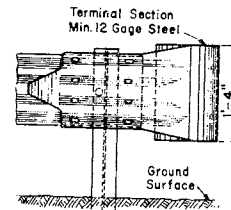
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD INTERMEDIATE SECTIONS



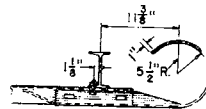
LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE EXITS



LOCATION DIAGRAM FOR STEEL PLATE BEAM GUARD AT BRIDGE APPROACHES

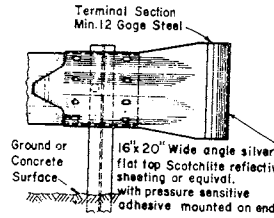


FRONT (Traffic Side) VIEW



PLAN VIEW

TERMINAL SECTION DETAILS FOR STEEL PLATE BEAM GUARD

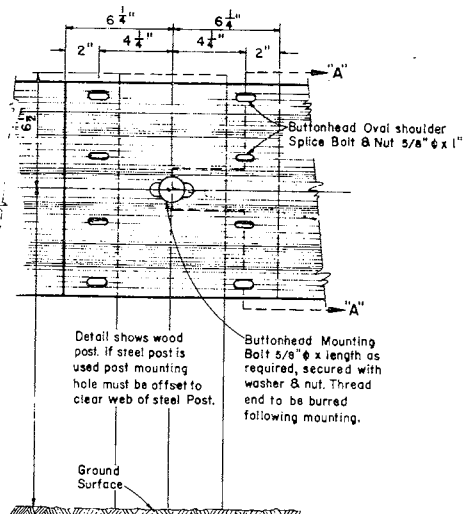


FRONT VIEW

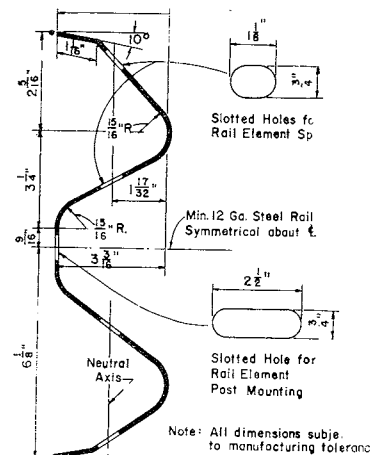


PLAN VIEW

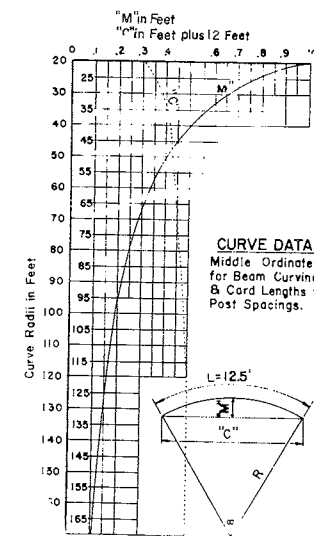
TERMINAL SECTION DETAILS FOR STEEL PLATE BEAM (MEDIAN) GUARD

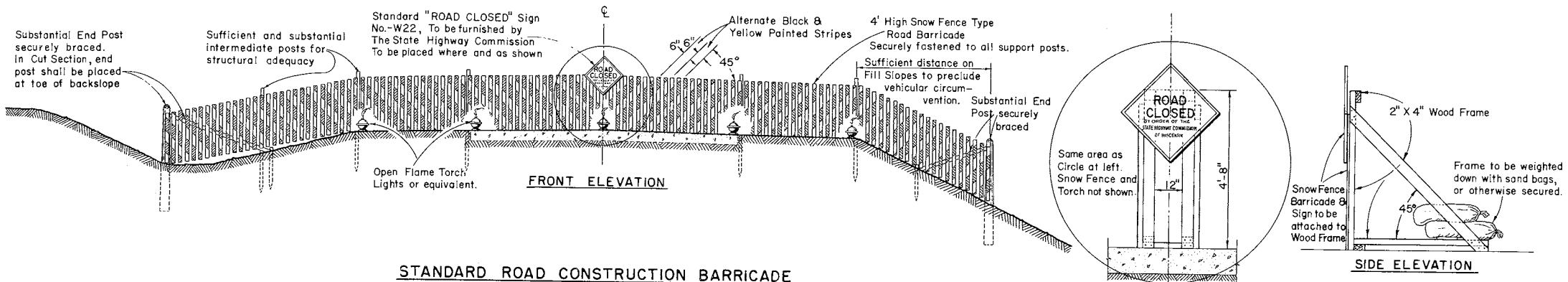


RAIL ELEMENT SPLICING & POST MOUNTING DETAILS



SECTION "A-A" RAIL ELEMENT SECTION (Min. 12 GAGE STEEL)





STANDARD ROAD CONSTRUCTION BARRICADE
SNOW FENCE TYPE-"A"

WOOD FRAME SUPPORT AT C
FOR SNOWFENCE TYPE BARRICADE
When Barricade is Erected on Rigid Type Surfacing

GENERAL NOTES

The Contractor shall construct, place and maintain barricades as shown on this drawing and as required by the Standard Specifications Section 1107 for the duration of the project. Barricades shall be painted and structurally maintained for maximum visibility at all times.
 Provision shall be made in the construction of barricades to provide for ingress and egress for local access as may be required.

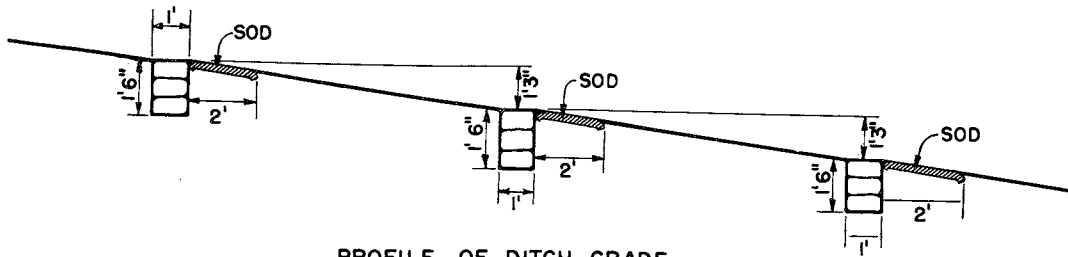
ALTERNATE DESIGNS

Contractors may submit to the Engineer for approval, designs for Barricades other than shown on this drawing, and upon the Engineer's approval may be used as alternates.

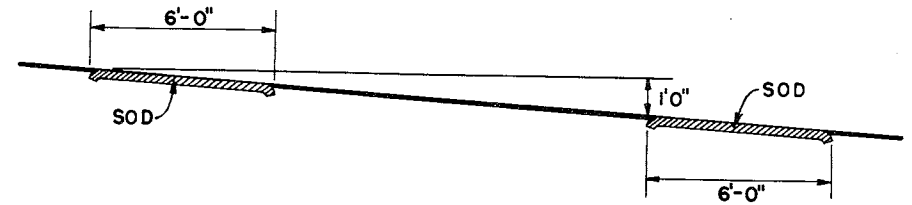
MEASUREMENT & PAYMENT

All Barricades, unless otherwise provided for in the Plans and/or Special Provisions shall be furnished, placed, and maintained as noted above, and no additional compensation will be allowed but shall be construed to be included in the price bid for other items.

CONSTRUCTION BARRICADE	
STATE HIGHWAY COMMISSION OF WISCONSIN	
RECOMMENDED FOR APPROVAL:	
DATE 6/2/55	<i>J. S. Pelt</i> ENGINEER OF DESIGN
APPROVED:	
DATE 6/2/55	<i>E. C. Rustigen</i> STATE HIGHWAY ENGINEER

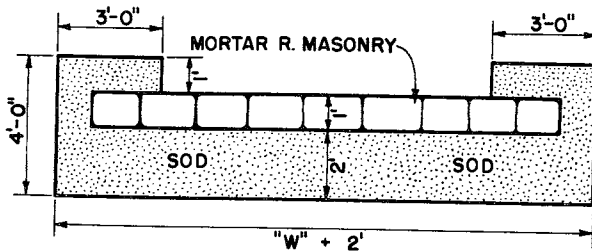


PROFILE OF DITCH GRADE

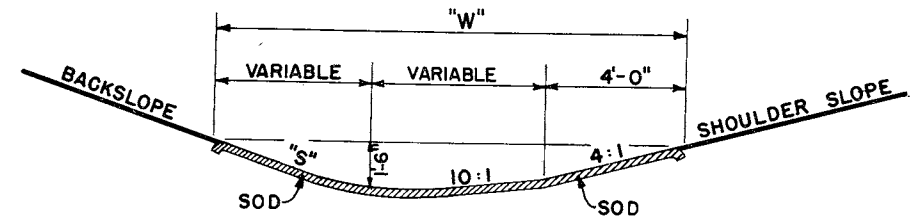


PROFILE OF DITCH GRADE

NOTE: NUMBER REQUIRED WILL BE DETERMINED BY VERTICAL SPACING.



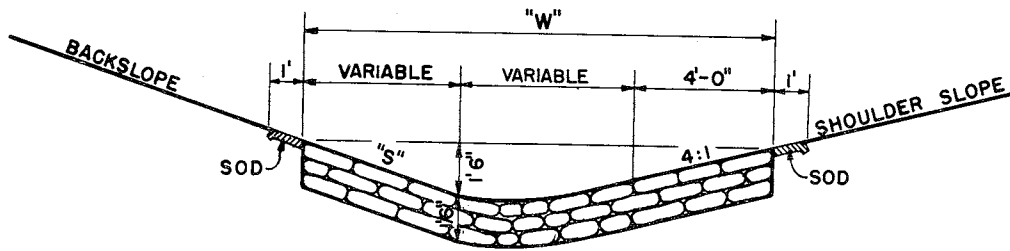
PLAN VIEW SHOWING SOD



SECTION

SOD DITCH CHECKS

QUANTITIES		
"S"	"W"	EACH SQ. YD.
2:1	12'	8
3:1	13.5'	9
4:1	15'	10



SECTION

MORTAR RUBBLE MASONRY

QUANTITIES			
"S"	"W"	SOD SQ. YD.	EACH CU. YD.
2:1	12'	4.0	0.67
3:1	13.5'	4.33	0.75
4:1	15'	4.67	0.83

CONSTRUCTION NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DITCH CHECKS
MORTAR RUBBLE MASONRY & SOD

STATE HIGHWAY COMMISSION OF WISC.
RECOMMENDED FOR APPROVAL:

Frank Crase
DESIGN ENGINEER

[Signature]
CONSTRUCTION ENGINEER

DATE: _____
APPROVED: _____
DRAWN DIV 9
CHECKED N.F.C.

E. L. Rostky
STATE HIGHWAY ENGINEER

MAIL SUMMARY SHEET OF MISCELLANEOUS QUANTITIES

NG & GRUBBING

TO STA	NO. STATIONS	
	CLEARING	GRUBBING
- 8+00	1	1
- 13+00	1	1
- 18+00	1	1
- 22+00	1	1
- 27+00	2	2
- 37+00	7	7

STEEL PLATE BEAM GUARD		
STA TO STA	SIDE	LIN. FT.
19+12 - 21+12	LT.	204
20+59 - 21+34	RT.	79
*23+07 - 23+57	LT.	54
23+29 - 23+54	RT.	29

EROSION CONTROL				
STA TO STA	SIDE	LOC.	TYPE	SQ. YD.
50+00 - 61+50	LT.	DITCH CHECKS	SOD	192
50+00 - 61+50	RT.	DITCH CHECKS	SOD	192

TRAFFIC BOUND BASE COURSE			
STA. TO STA.	LOC.	C.Y.	
7+00 - 21+27.5	RD'WY.	1111	
23+12.5 - 62+16.4		3037	
7+00 - 62+16.4	PE'S & S.R.'S	510	

GRANULAR SUBBASE COURSE			
STA. TO STA.	LOC.	C.Y.	
7+00 - 21+27.5	RD'WY.	1619	
23+12.5 - 62+16.4		4427	
7+00 - 62+16.4	PE'S & S.R.'S	570	

PIPE CULVERTS

SEC. NO.	STATION	DIAMETER INCHES	LENGTH LIN. FT.	TYPE	C. ROY	P.E. & S.R.		RIP RAP	MARKS
						L	R		
	9+38	24	46	C.P.	✓			2.0	2
	10+08	24	72	C.P.	✓			2.0	2
	11+00	18	46	C.P.	✓			1.4	2
	23+93	24	72	C.P.	✓			2.0	2
	27+60	30	52	C.P.	✓			2.6	2
	43+48	24	66	C.P.	✓			2.0	2

-12+10 SAVE TREES ON LT.

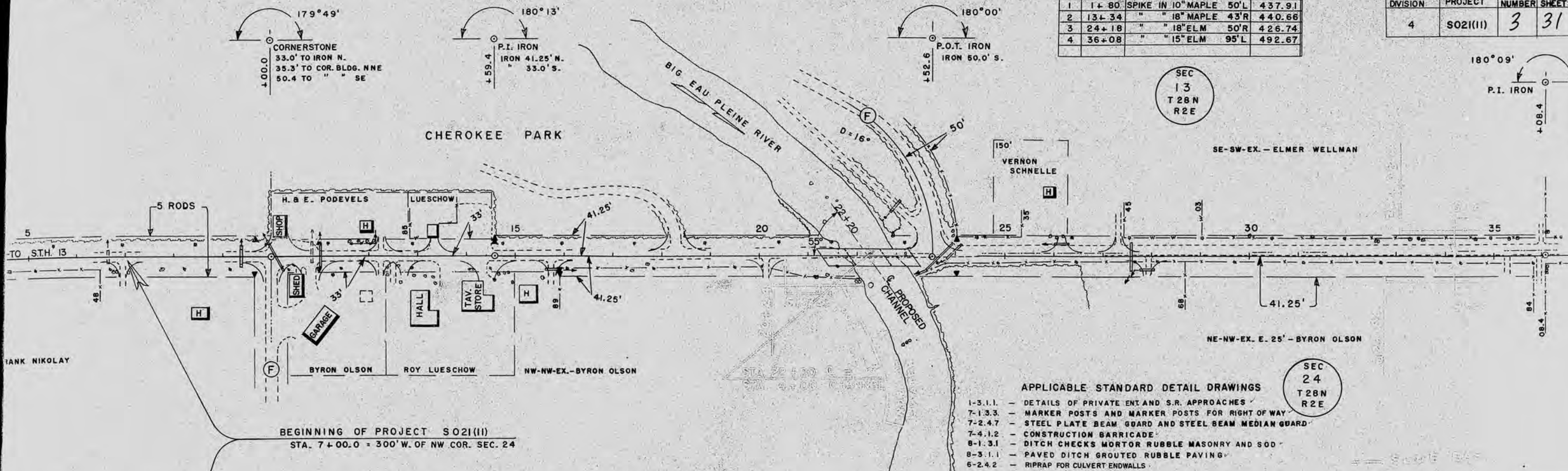
8 END SECTIONS
* BEND TO FIT 20' RADIUS

GROUTED RUBBLE PAVING				
STA TO STA	SIDE	LOC.		SQ YDS
23+93 - 24+93	LT.	DITCH		83
27+60 - 30+60	LT.	✓		249

STATION	DIAMETER INCHES	LENGTH LIN. FT.	TYPE	C. ROY	P.E.	S.R.	RIP RAP	MARKS
7+00	-	-	-		PE	20	15	
10+00	-	-	-		SR	40	50	
10+19	-	-	-		PE	30	30	
10+81	-	-	-		PE	30	30	
12+23	-	-	-		PE	20	15	
12+26	-	-	-		PE	20	15	
12+51	-	-	-		PE	40	40	
13+33	-	-	-		PE	20	15	
14+40	-	-	-		PE	40	50	
15+77	24	28	C.P.		PE	20	15	
18+31	-	-	-		SR	40	30	
20+17	-	-	-		PE	20	15	
23+35	18	30	C.P.		PE	20	20	
23+53	-	-	-		SR	70	60	
26+15	18	28	C.P.		PE	20	15	
27+30	DITCH BLOCK				PE	20	15	
27+92	24	30	C.P.		PE	20	20	
38+24	18	26	C.P.		PE	20	15	
38+24	18	26	C.P.		PE	20	15	
51+71	18	26	C.P.		PE	20	15	
51+71	18	26	C.P.		PE	20	15	

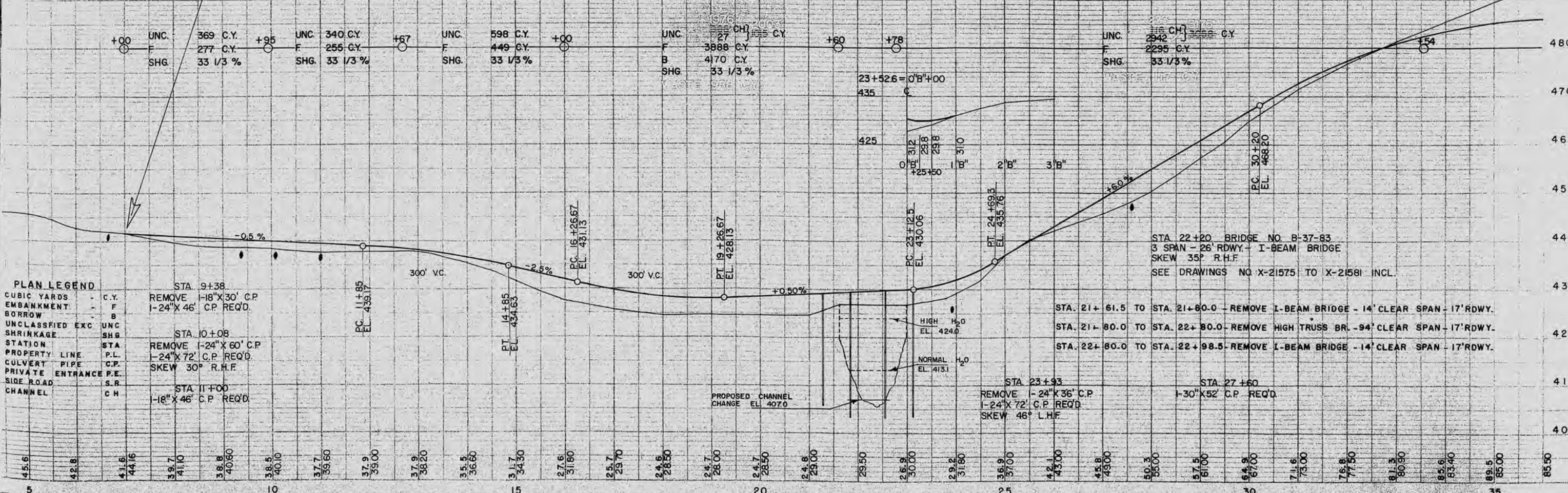
BENCH MARKS				
1	1+80	SPIKE IN 10" MAPLE	50'L	437.91
2	13+34	" 18" MAPLE	43'R	440.66
3	24+18	" 18" ELM	50'R	426.74
4	36+08	" 15" ELM	95'L	492.67

B.P.R. DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4	SO2I(II)	3	31



- APPLICABLE STANDARD DETAIL DRAWINGS**
- 1-3.1.1 - DETAILS OF PRIVATE ENT AND S.R. APPROACHES
 - 7-1.3.3 - MARKER POSTS AND MARKER POSTS FOR RIGHT OF WAY
 - 7-2.4.7 - STEEL PLATE BEAM GUARD AND STEEL BEAM MEDIAN GUARD
 - 7-4.1.2 - CONSTRUCTION BARRICADE
 - 8-1.3.1 - DITCH CHECKS MORTOR RUBBLE MASONRY AND SOD
 - 8-3.1.1 - PAVED DITCH GROUTED RUBBLE PAVING
 - 6-2.4.2 - RIPRAP FOR CULVERT ENDWALLS

NET LENGTH OF C STA. 7+00.0 TO STA. 35+00.0 = 2,800.0 LINEAR FT.



PLAN LEGEND

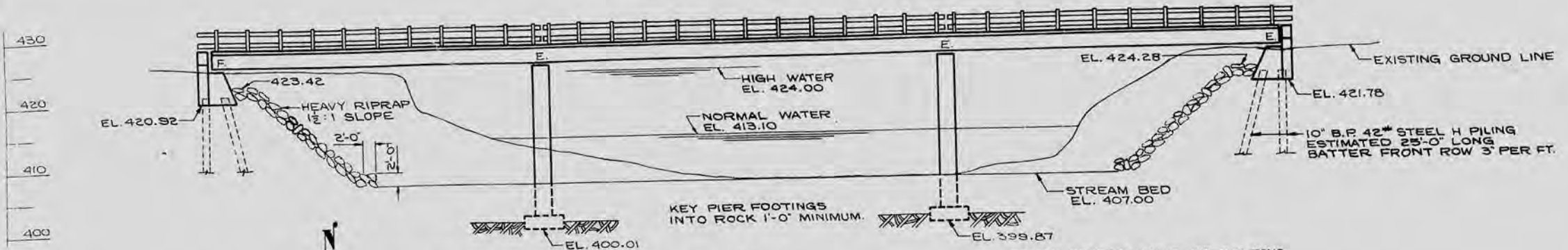
Symbol	Description
C.Y.	CUBIC YARDS
F	EMBANKMENT
B	BORROW
UNC	UNCLASSIFIED EXC
SHG	SHRINKAGE
STA	STATION
P.L.	PROPERTY LINE
C.P.	CULVERT PIPE
P.E.	PRIVATE ENTRANCE
S.R.	SIDE ROAD
CH	CHANNEL

BENCH MARK

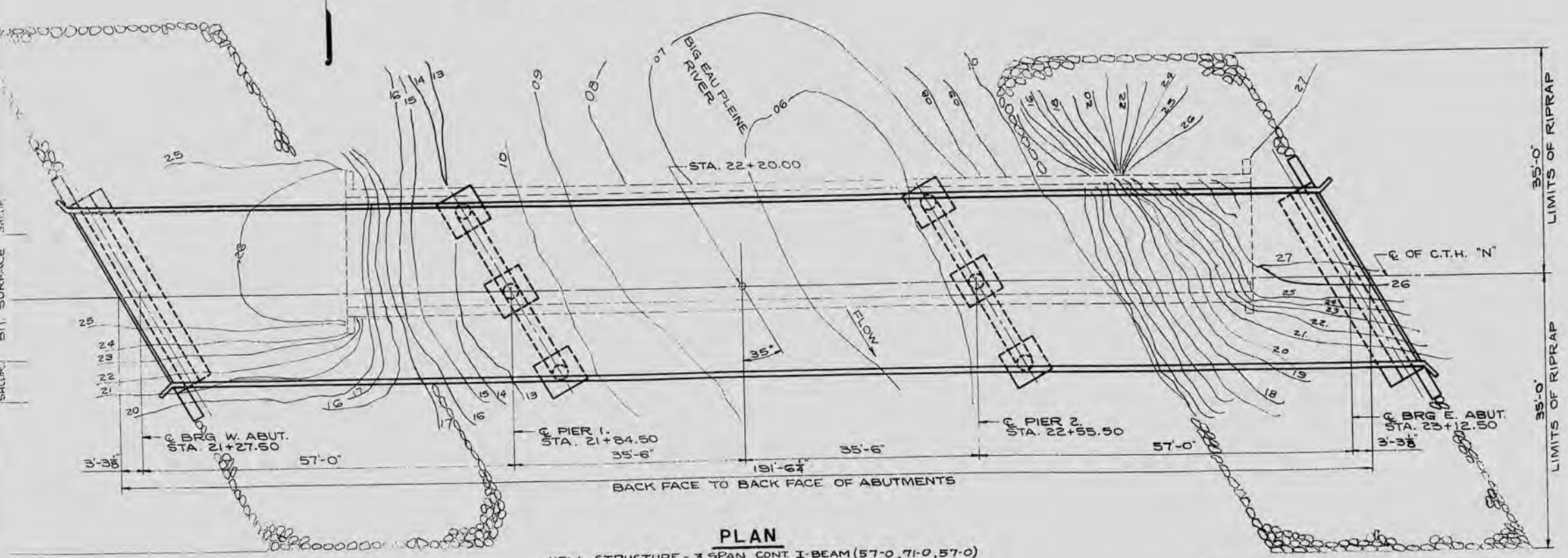
NO.	STATION	DESCRIPTION	ELEV.
3	24+18.00	SPIKE IN 18" ELM 50' RT.	426.74

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BEVEL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.
 ALL CONCRETE MASONRY SHALL BE GRADE "AA".
 BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 THE USE OF STRUCTURAL GRADE BAR STEEL REINFORCEMENT IS PROHIBITED.
 PILING AT ABUTMENTS SHALL BE 10" B.P. 42* STEEL PILES ESTIMATED 25'-0" LONG AND DRIVEN TO REFUSAL. DESIGN BEARING VALUE OF 20 TONS.
 THE SLOPE IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO A MINIMUM THICKNESS OF 2'-0" AS SHOWN ON THIS SHEET AND ON X21578.
 ALL FIELD CONNECTIONS SHALL BE 3/4" RIVETS UNLESS OTHERWISE SHOWN OR NOTED. IN LIEU OF RIVETS 3/4" HIGH TENSILE STRENGTH BOLTS MAY BE USED.



ELEVATION



PLAN

NEW STRUCTURE - 3 SPAN CONT. I-BEAM (57'-0" 71'-0" 57'-0") WITH A 26'-0" CLEAR RDWY. SUBSTRUCTURES ARE R.C. SILL ABUTMENTS ON STEEL PILES & R.C. PEDESTAL PIERS ON ROCK.

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 1.	PIER 2.	EAST ABUT.	TOTAL
REMOVING OLD BRIDGE	L.S.						1
EXCAVATION FOR STRUCTURE	C.Y.		30	60	60	25	175
CONCRETE MASONRY	C.Y.	112.7	44.5	28.5	28.6	43.3	257.6
BAR STEEL REINFORCEMENT	LBS	25,620	1,190	3,240	3,280	1,190	34,520
STRUCTURAL CARBON STEEL	LBS	113,500					113,500
*STEEL TEST PILING (2 @ 35'-0")	L.S.						1
STEEL PILING DELIVERED	L.F.		225			225	450
STEEL PILING DRIVEN	L.F.		225			225	450
STEEL RAILING	L.F.	389.5					389.5
HEAVY RIPRAP	C.Y.		200			210	410
BEARING PADS	S.F.	16					16
LUBRICATED BRONZE PLATES	LBS.	122					122
NON-BID ITEMS							
FILLER	SIZE	1"					1"

* DRIVE ONE TEST PILE AT EACH ABUTMENT.

LIST OF DRAWINGS

- 1. GENERAL PLAN X21575
- 2. SUPERSTRUCTURE X21576
- 3. SUPERSTRUCTURE X21577
- 4. LONG. SECTION & BEARINGS X21578
- 5. EXP. JOINT & RAILING X21579
- 6. ABUTMENT X21580
- 7. PIERS 1 & 2 X21581

GRADE LINE ON C. RDWY. C.T.H. "N"

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

COR. MARATHON HULL STA. 22+20.00

SECTION 13 & 14 TOWN 28N RANGE 2E

DESIGN SPEC. A.A.S.H.O. 57 LOADING HIS CON. SPEC. 1957

DATE 4-7-60 DESIGN B.A. DRAWN A.W.B. CKD. D.S.

SUBMITTED: *V.B. Schmitz* ENGINEER OF BRIDGES

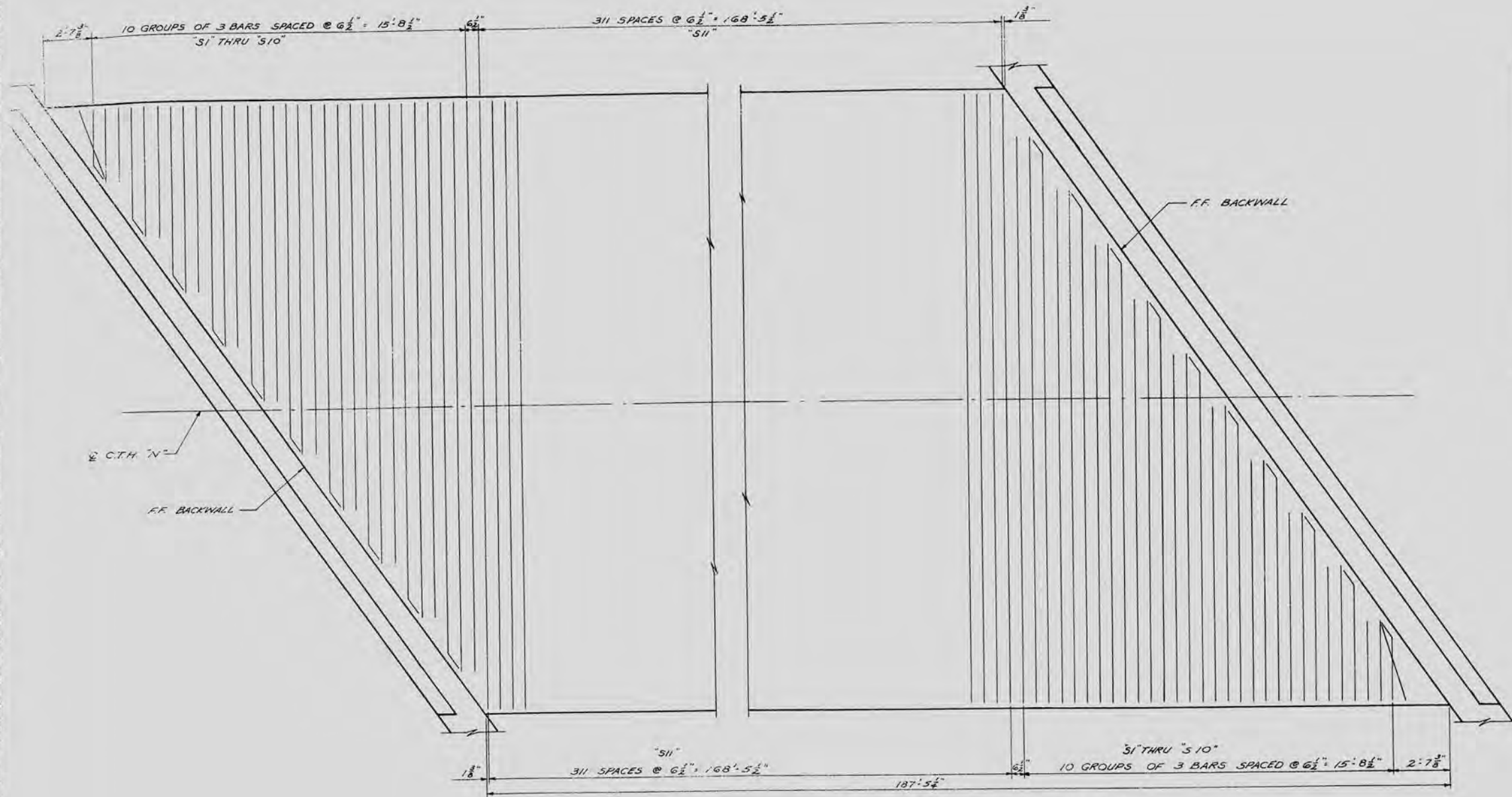
APPROVED: *E.C. Rostk* STATE HIGHWAY ENGINEER

STRUCTURE B - 37 - 83 SHEET 1 OF 7

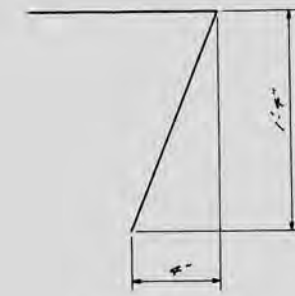
BILL OF BARS 25,620#

ALL DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

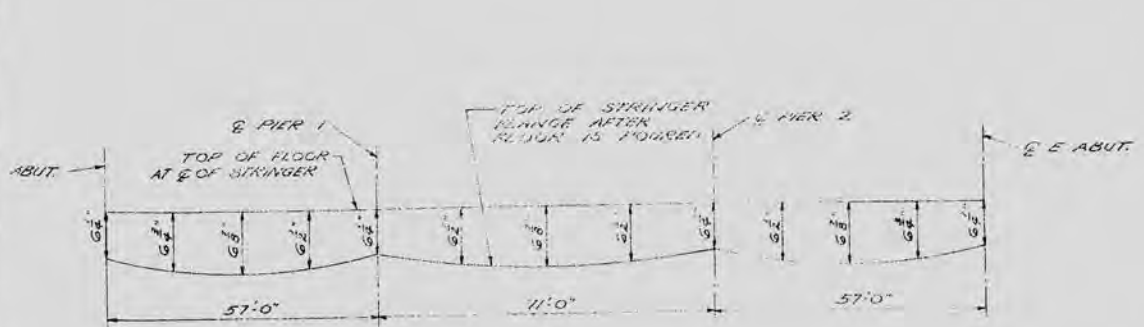
POUR	MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
	S1	16	5	3.6	6 1/2	FLOOR - TRANS. - TOP & BOTTOM	
	S2	12	5	6.0	6 1/2	" " " " " "	
	S3	12	5	8.3	6 1/2	" " " " " "	
	S4	12	5	10.6	6 1/2	" " " " " "	
	S5	12	5	13.0	6 1/2	" " " " " "	
	S6	12	5	15.3	6 1/2	" " " " " "	
	S7	12	5	17.6	6 1/2	" " " " " "	
	S8	12	5	20.0	6 1/2	" " " " " "	
	S9	12	5	22.3	6 1/2	" " " " " "	
	S10	12	5	24.6	6 1/2	" " " " " "	
	S11	623	5	26.0	6 1/2	" " " " " "	
	S12	198	5	31.9	1.6	LONG.	
	S13	16	5	15.0	7	" - SYM ABOUT PIER	
	S14	38	5	2.9	1.6	CONC. DIAPHRAGM AT ABUTS.	A
	S15	6	*	9.0	SHOWN	" " " " " "	



PLAN

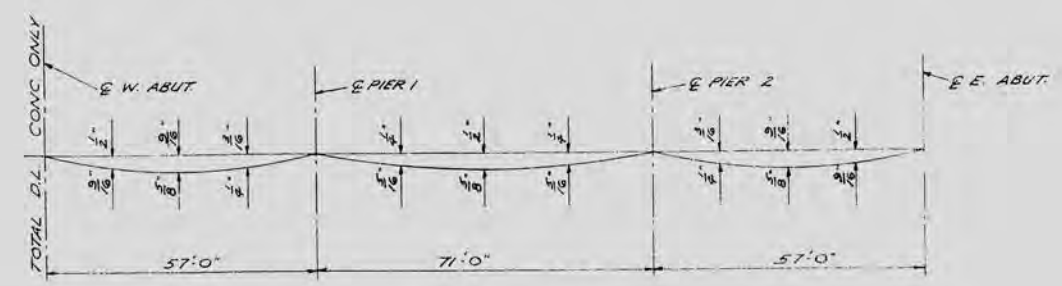


DETAIL A



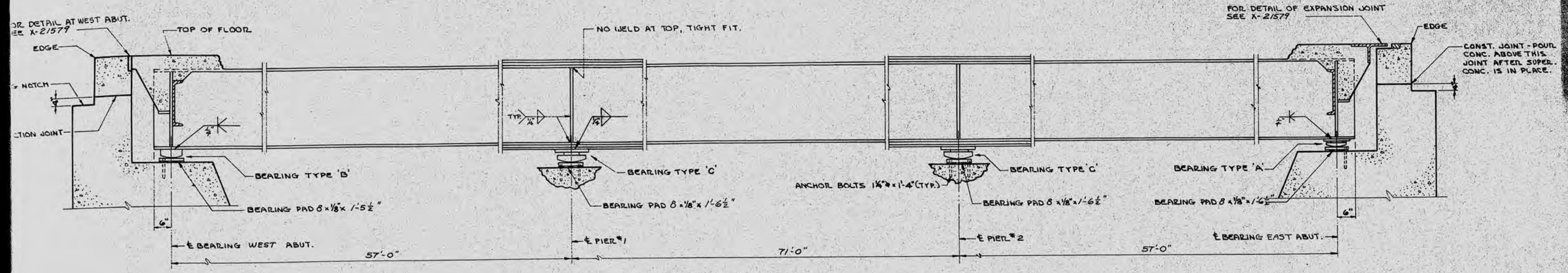
FORMING DIAGRAM

NOTE: SLAB THICKNESSES SHOWN ARE THEORETICAL AND MAY NEED TO BE CHANGED TO COMPENSATE FOR CONSTRUCTION DISCREPANCIES. THE SLAB MAY BE REDUCED TO LESS THAN THE NOMINAL BY DECREASING THE CONCRETE COVER ON THE TOP REINFORCEMENT BARS FROM 2" TO 1 1/2" TO COMPENSATE FOR VARIOUS FIELD CONDITIONS WHERE NECESSARY.



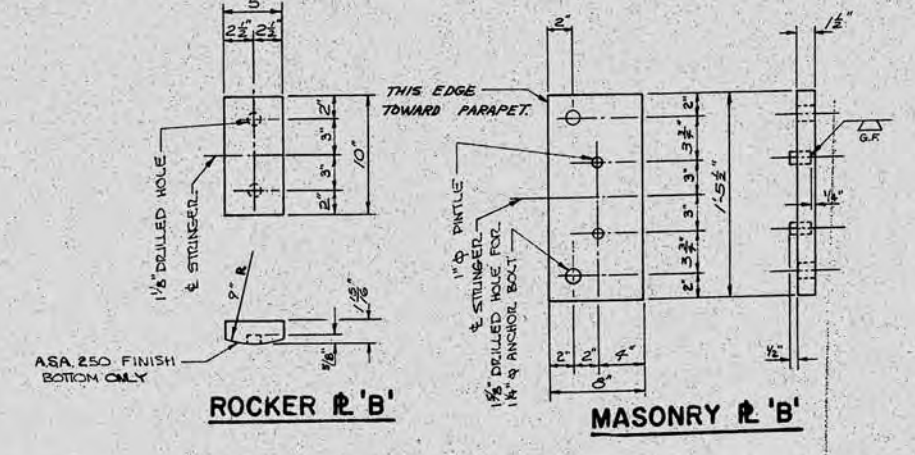
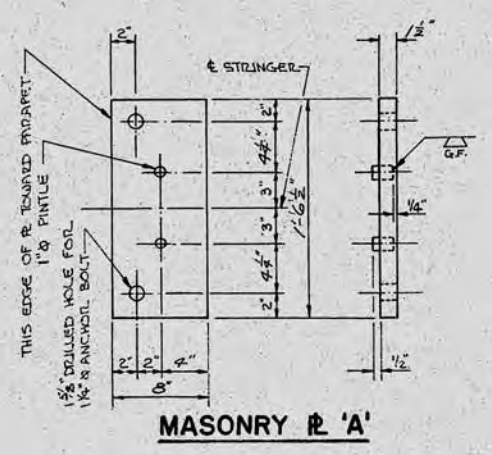
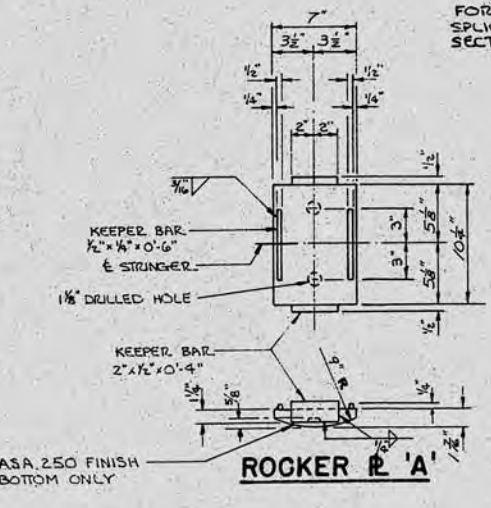
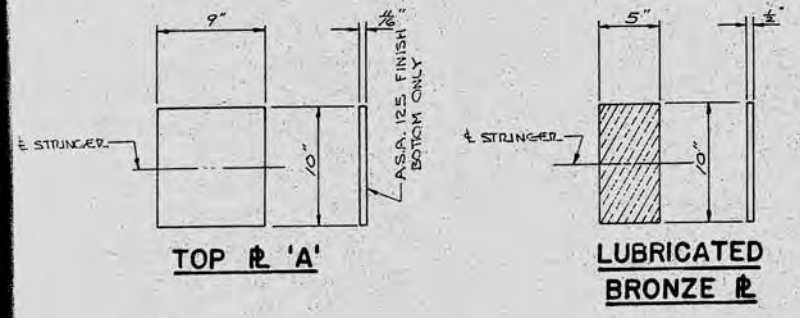
DEFLECTION DIAGRAM

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN			
	SUPERSTRUCTURE			
	DESIGN SPEC. A.A.S.H.O.'57	LOADING H 15	CONST. SPEC. 1957	
	DATE 9-7-60	DESIGN UFG	DRAWN R	CKD B.S.
STRUCTURE B - 37 - 83		SHEET 3 OF 7		



LONGITUDINAL SECTION

FOR LOCATION & DETAILS OF STRINGER SPLICE & COVER PLATES SEE X-21576 SECTION IS PARALLEL TO STRINGER.



BEARING TYPE 'A'

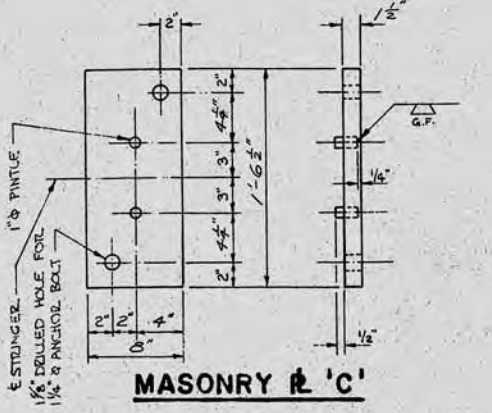
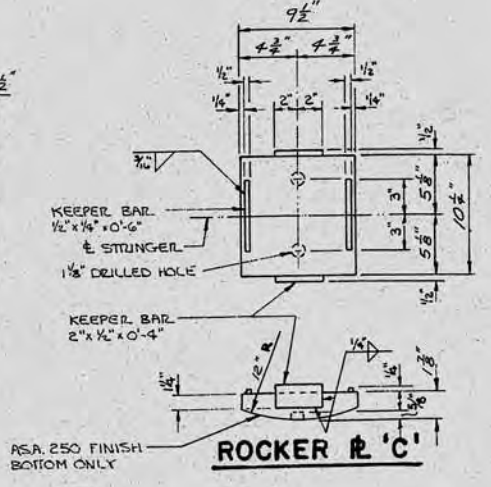
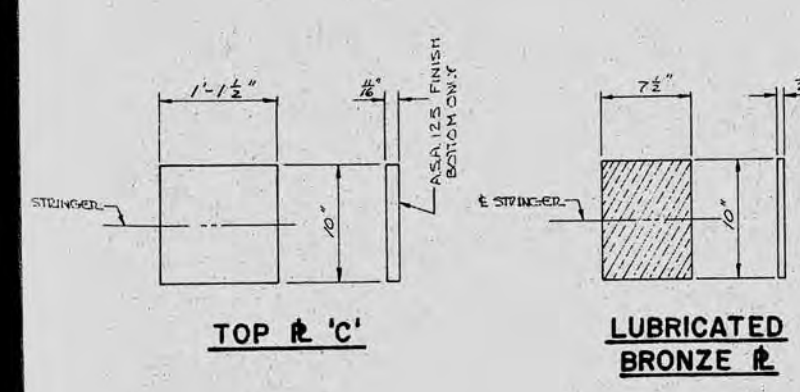
7 REQ'D.

BEARING TYPE 'B'

7 REQ'D.

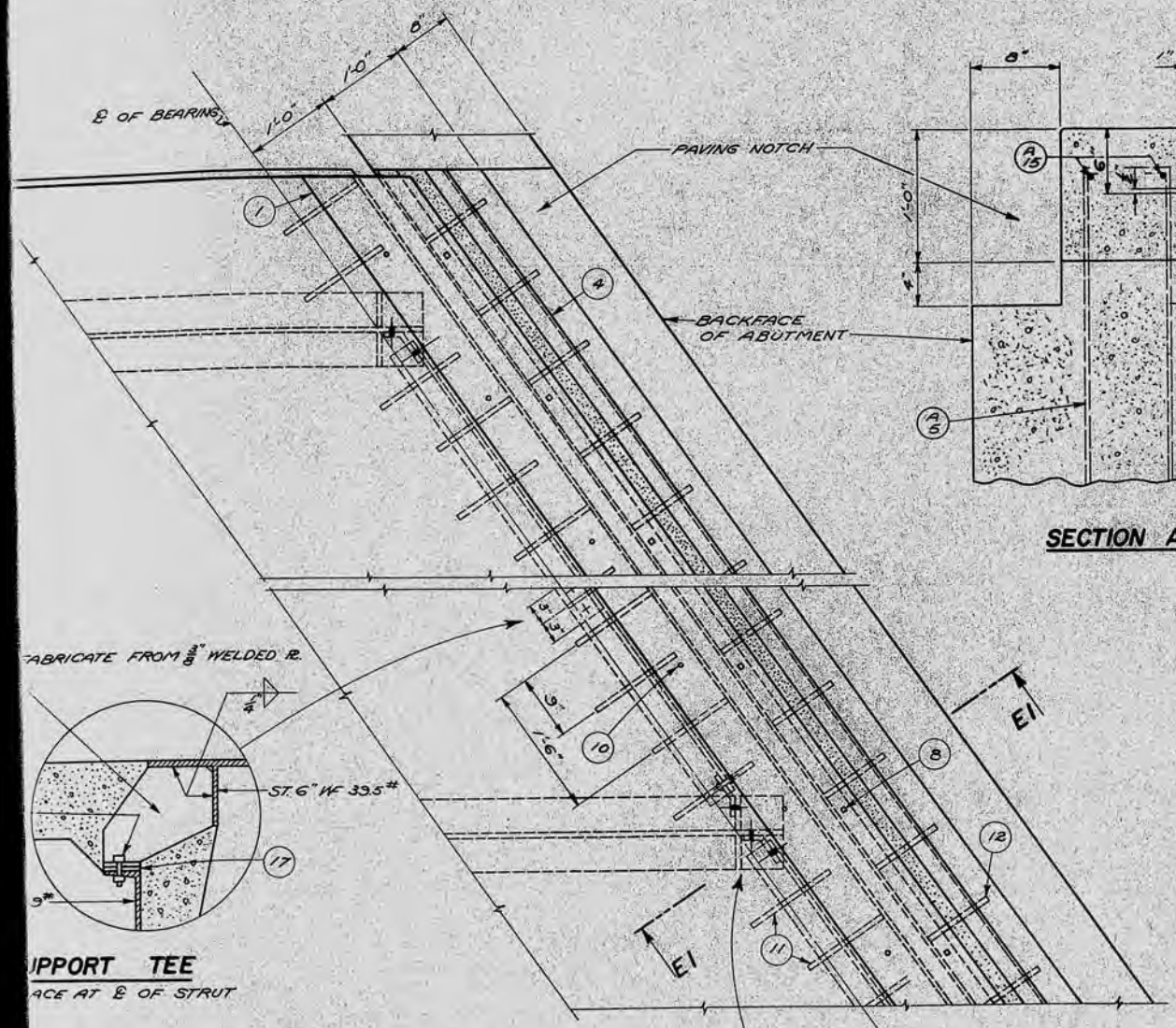
BEARING NOTES

- ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH & FREE FROM WARP & ALL EDGES SMOOTH, STRAIGHT, & VERTICAL.
- ALL PLATE CUTS SHALL BE MACHINE FLAME CUTS OR MACHINE CUTS.
- PINTLES SHALL BE MACHINED TO A DRIVING FIT. CHAMFER TOP OF PINTLE 1/8".
- LUBRICATE TOP SURFACES ONLY OF BRONZE PLATES.
- ANCHOR BOLTS TO BE 1 1/4" x 1-4" LONG WITH 3" MIN. PROJECTION ABOVE TOP OF CONCRETE. PROVIDE ONE 1 1/2" STANDARD WROUGHT IRON WASHER & ONE HEX NUT PER BOLT. THREAD BACK 3".

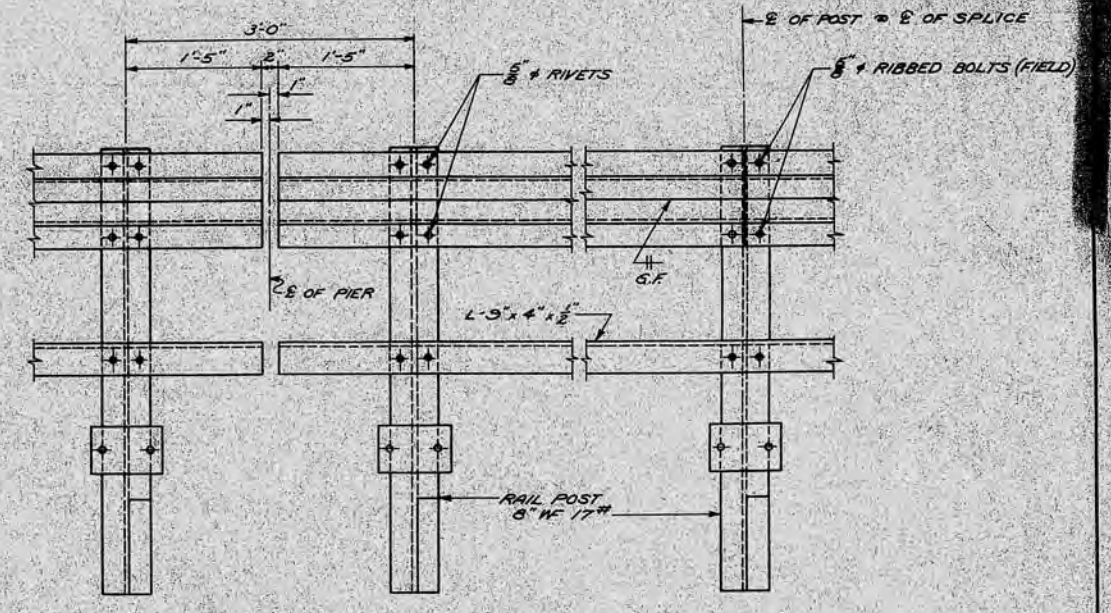


BEARING TYPE 'C'

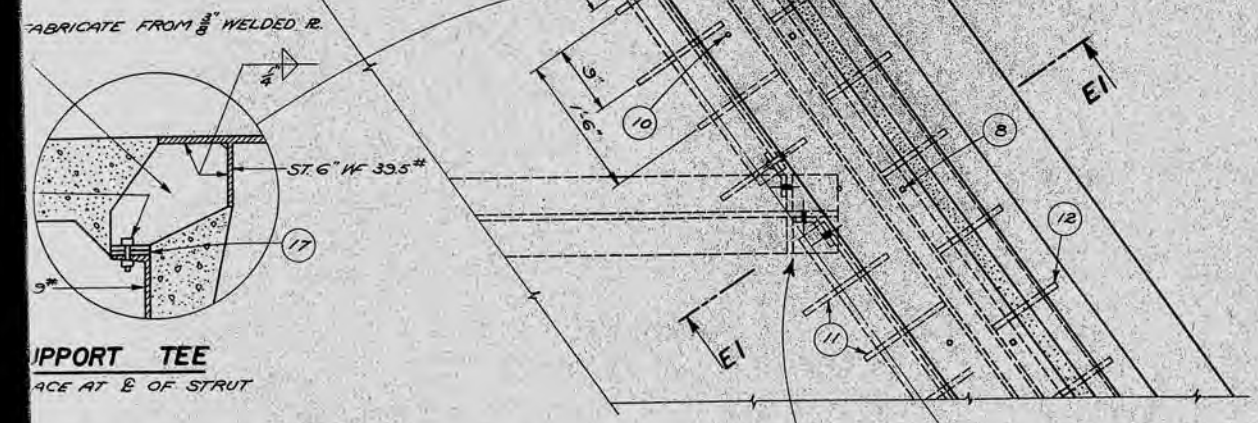
8 REQ'D.



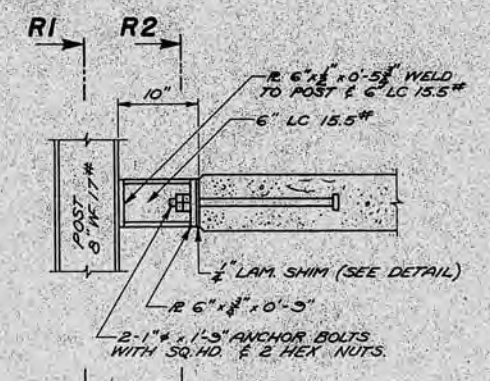
SECTION AT WEST ABUTMENT



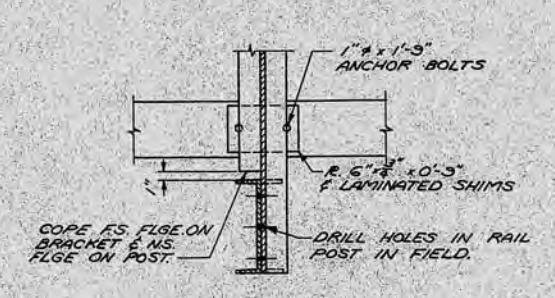
PART ELEVATION OF RAILING



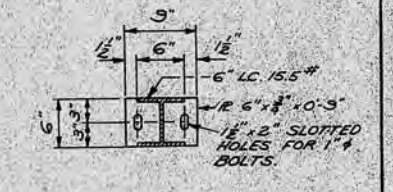
PART PLAN



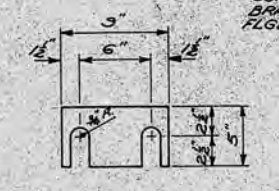
POST CONNECTION



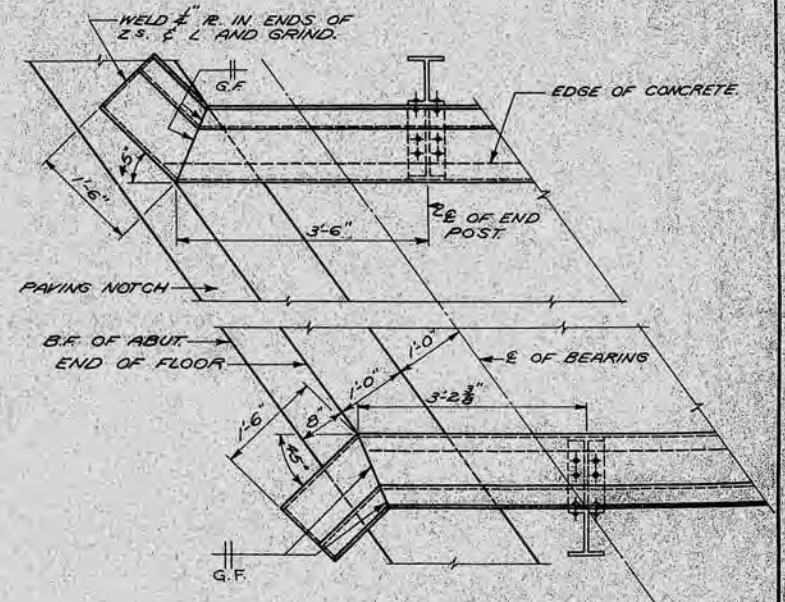
SECTION R1



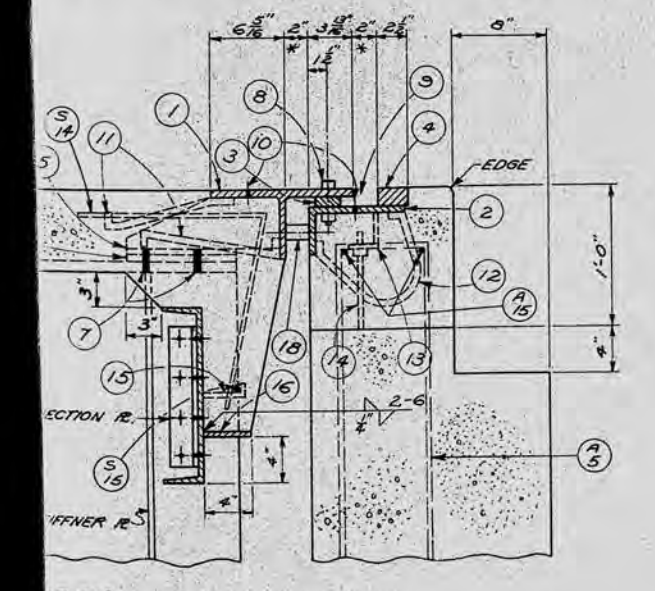
SECTION R2



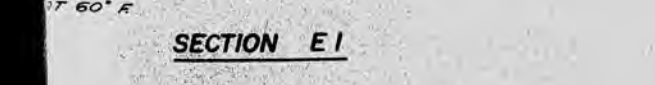
LAMINATED SHIM



PART PLAN AT ABUTMENTS



STRUT CONNECTION



SECTION E1

LEGEND

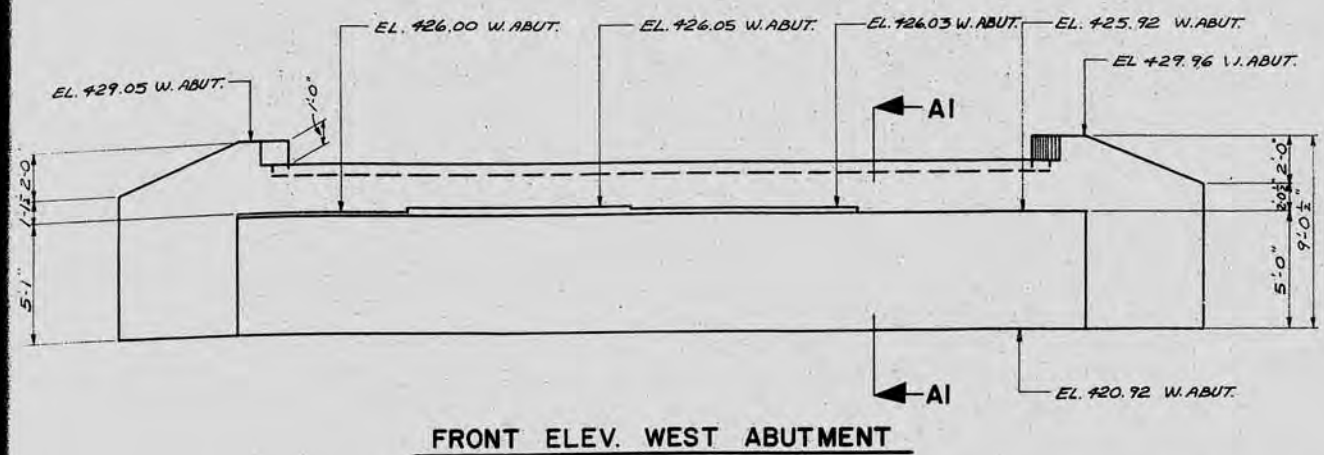
1. ST 6" WF 33.5# x SLAB WIDTH - 1 1/2"
2. 2# 2" x 2" x 1/4" SLAB WIDTH
3. BAR 2" x 2" x 1/4" SLAB WIDTH - WELD TO L#2 WITH 2 LINES 1/4" FILLET WELD @ 6" CTRS - STAGGER
4. BAR - 2" x 1 1/2" x 1/4" SLAB WIDTH - WELD TO L#2 WITH 2 LINES 1/4" FILLET WELD @ 6" CTRS - STAGGER
5. ST 5" WF 22.5# WELD TO STEM & FLG. OF ST #1
6. 1/2" MIN. LAMINATED SHIM
7. 5/8" DRILL HOLES FOR 3/4" ERECTION BOLTS IN STRINGER AND CHANNEL FLG. IN FIELD
8. 3/4" BOLT WITH SQ. NUT @ 2'-0" CTRS. TACK WELD NUT TO L#2. GREASE FOR EASY REMOVAL. 1 1/2" x 1 1/2" SLOTTED HOLE IN ST #1. LONGITUDINAL DIMENSION OF SLOTTED HOLE TO BE PARALLEL TO E RDWK.
9. APPLY 1/4" COAT OF BITUMASTIC TO THIS SURFACE. AFTER CONCRETE HAS SET, FILL JOINT WITH HOT POURED ELASTIC TYPE JOINT FILLER.
10. 1/2" VENT HOLES AT 2'-0" CTRS.
11. 5/8" BENT BAR @ 3' ALT CTRS. BETWEEN STRINGERS. WELD TO ST #1
12. 3/4" BENT BAR @ 1'-0" CTRS. WELD TO L#2
13. L 3" x 2 1/2" x 1/2" x 0-3" WELD TO L#2 @ 3'-0" CTRS.
14. 1/2" BOLT & NUT TACK WELD NUT TO L#13
15. 1/2" BENT BAR - WELD TO 15" C 33.5# STRUTS. 3 PER C
16. 1/2" x 1/2" - WELD TO 15" C 33.5# STRUTS.
17. 1/2" MIN. LAMINATED SHIM
18. BLOCK & BOLT FOR SHIPMENT WITH PIPE SLEEVE.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN
EXP JOINT & RAILING	
DESIGN SPEC. AASHO 57	LOADING 4/15
DATE 4-7-60	DESIGN STDS. DRAWING NO. 15-27
STRUCTURE	B-37-83
SHEET	5

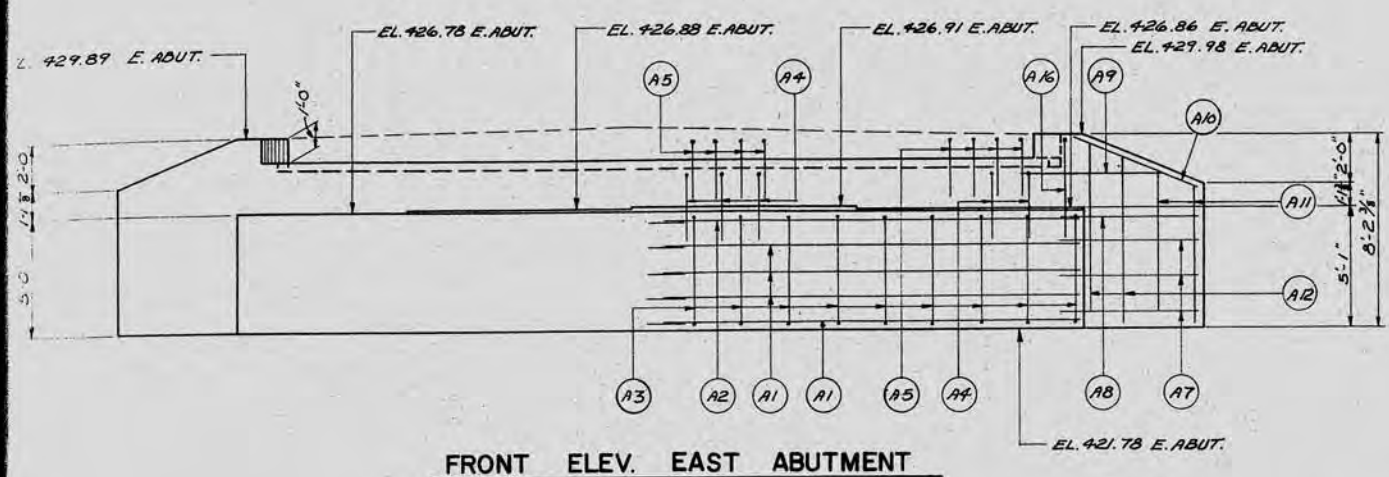
BILL OF BARS 2,380 #

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

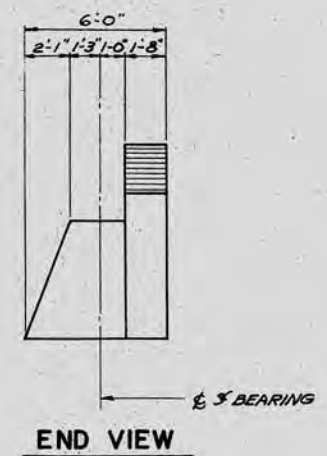
FOUR MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
A1	28	4	18-0	1-0	BODY	
A2	6	6	35-0	SHOWN	"	
A3	36	4	12-9	2-0	STIRRUPS	C
A4	76	5	8-0	1-6	BACK WALL	A
A5	64	4	4-3	1-0	"	A
A6	12	4	18-0	SHOWN	"	
A7	24	5	6-9	1-6	WINGS	
A8	8	6	6-9	SHOWN	"	
A9	8	4	6-0	"	"	
A10	8	4	5-6	"	"	
A11	16	4	6-0	1-6	"	
A12	16	4	7-0	1-6	"	
A13	32	4	2-0	SHOWN	GRID	
A14	32	4	3-9	"	GRID	B
A15	20	4	8-0	"	BACK WALL	
A16	4	4	11-0	"	"	A



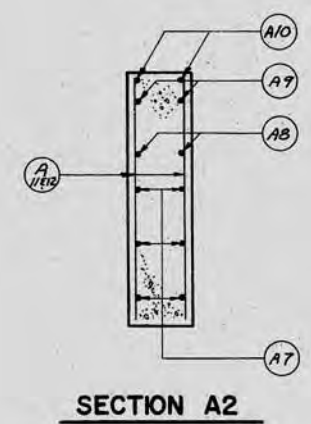
FRONT ELEV. WEST ABUTMENT



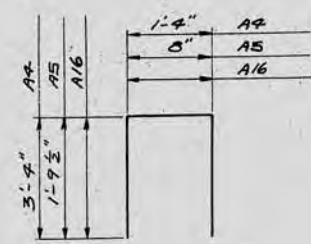
FRONT ELEV. EAST ABUTMENT



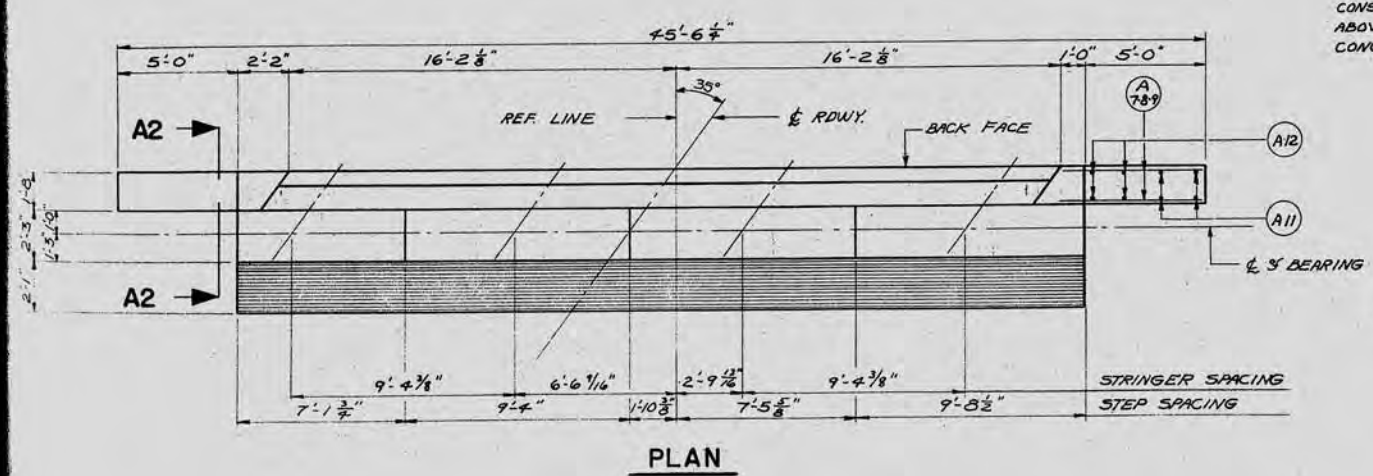
END VIEW



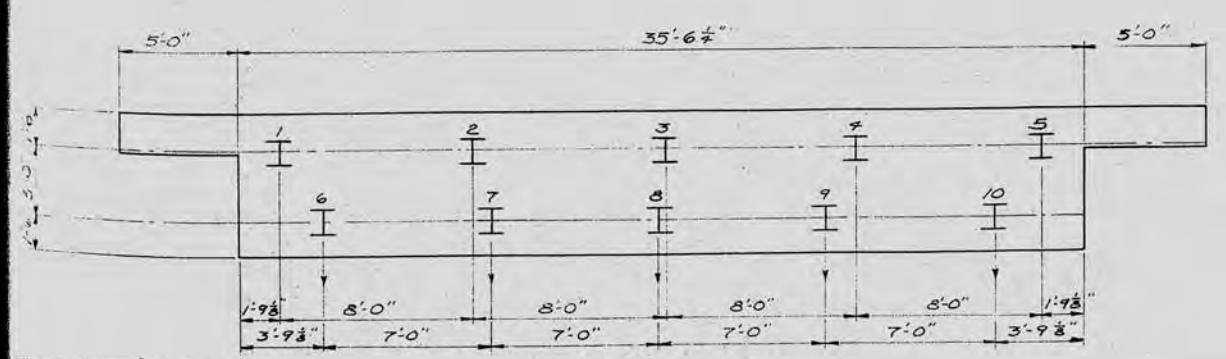
SECTION A2



DETAIL "A"

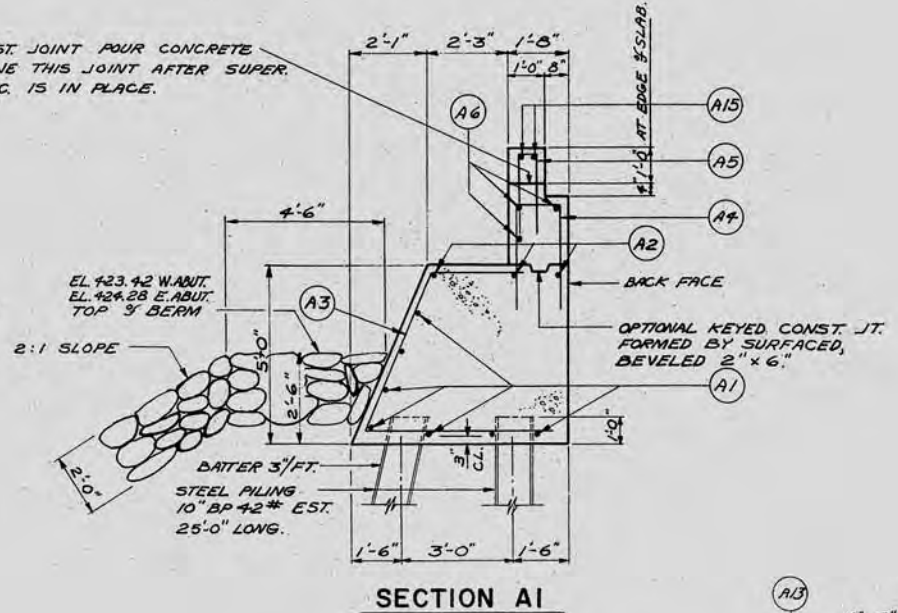


PLAN

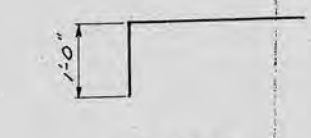


PILE PLAN

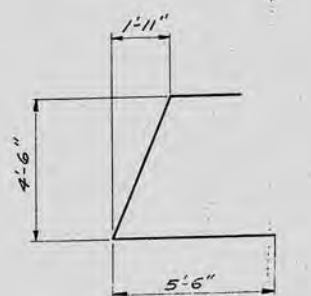
CONST. JOINT FOUR CONCRETE ABOVE THIS JOINT AFTER SUPER. CONC. IS IN PLACE.



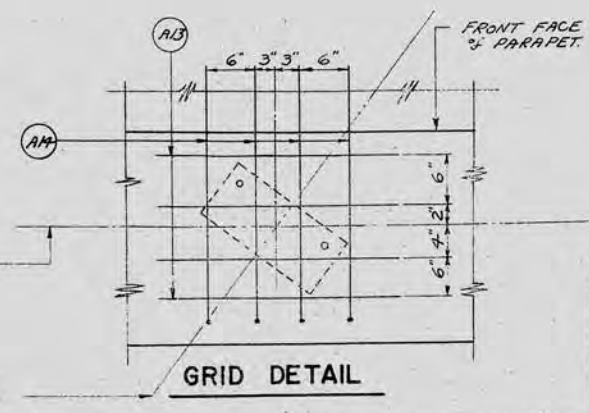
SECTION A1



DETAIL "B"



DETAIL "C"

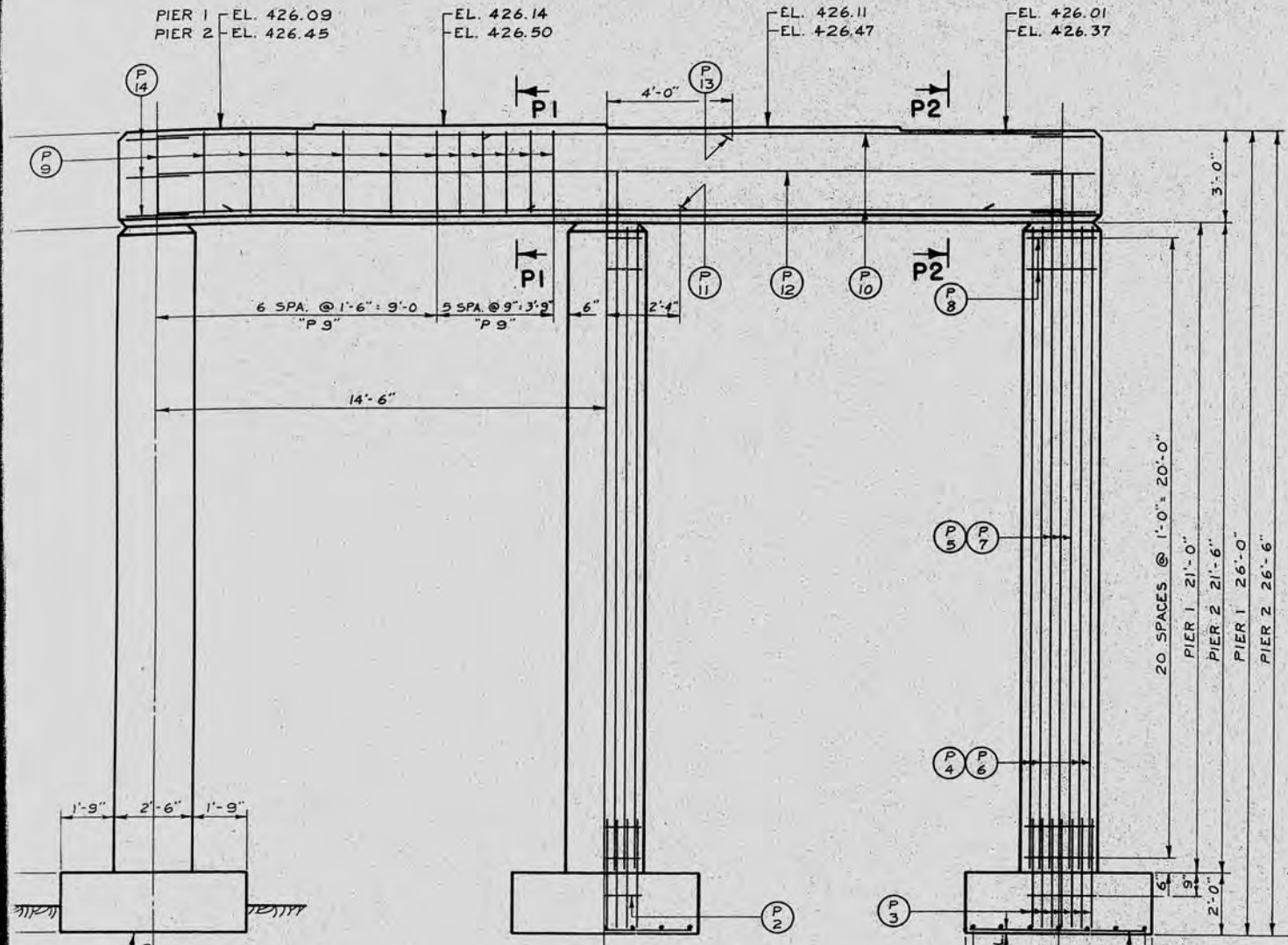


GRID DETAIL

NOTES BATTERED PILES PER 3"/FT.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	ABUTMENTS		
DESIGN SPEC. A.A.S.H.O. 57	LOADING	A15	CONST. SPEC. 1157
DATE 4-7-60	DESIGN	J.A.G.	DRAWN BY
			CKD. D.S.
STRUCTURE	B-37-83	SHEET	6 OF 7

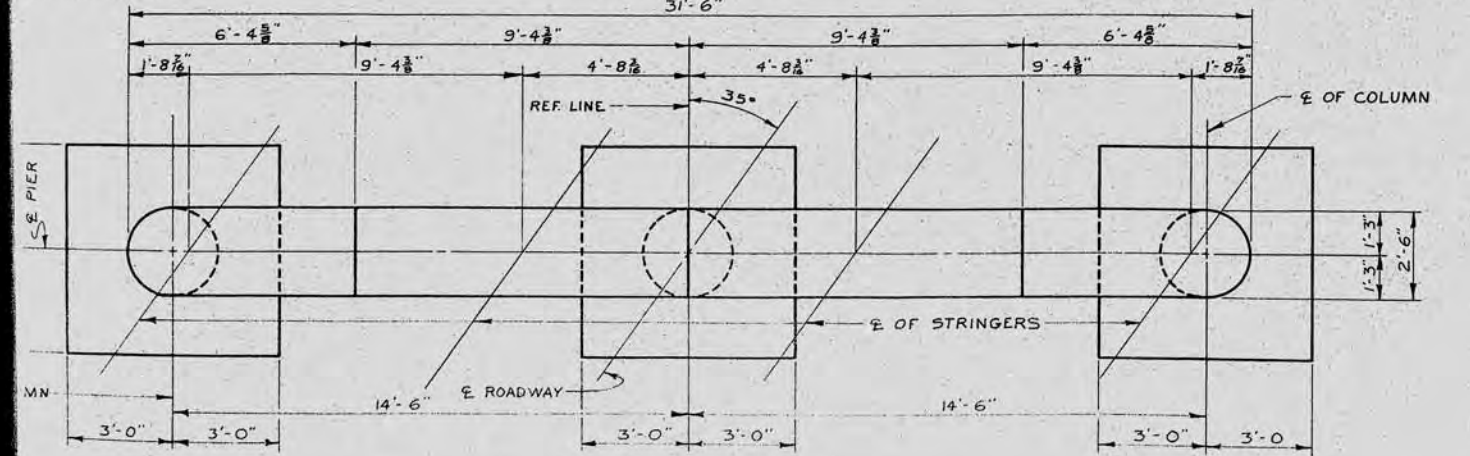
DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
4	502(11)	18	31



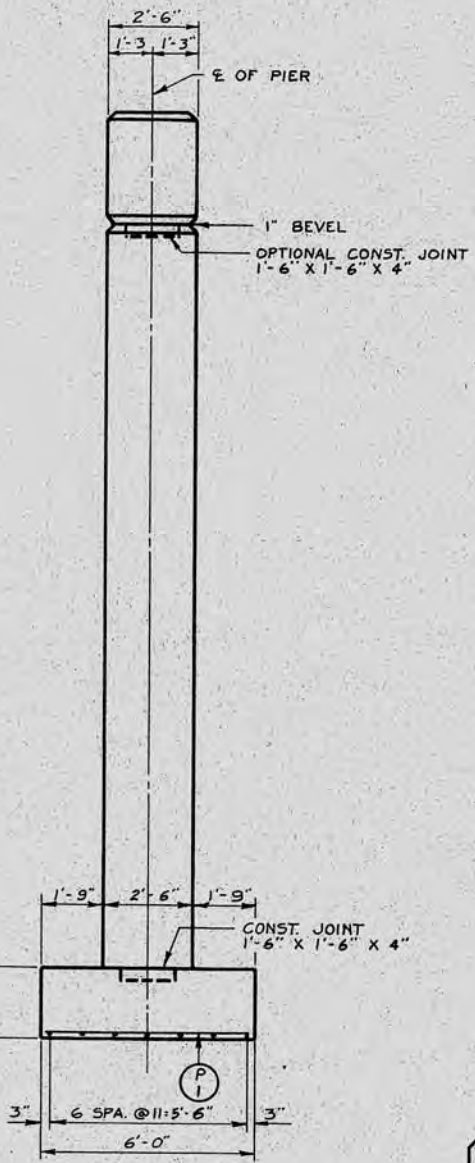
ELEVATION
LOOKING WEST

FOOTINGS SHALL BE 1'-0" MINIMUM ROCK RING VALUE PER SQ. FOOT.

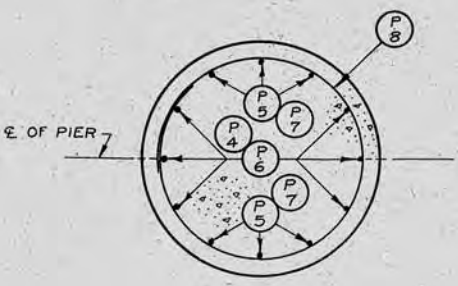
PIER 1 EL. 400.01
PIER 2 EL. 399.87



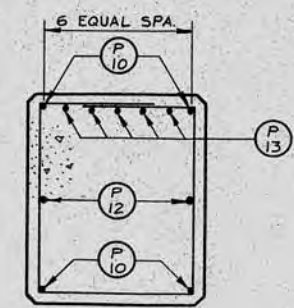
PLAN



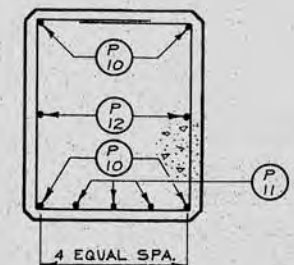
END VIEW



SECTION THRU COLUMN



SECTION P1



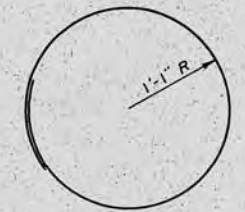
SECTION P2

BILL OF BARS

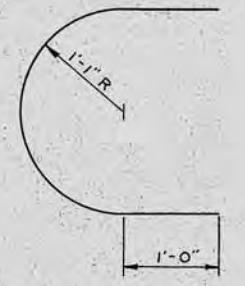
6,520 #

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

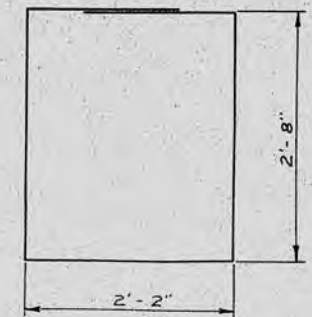
FOUR MARK	NO.	SIZE	LENGTH	SPACING	LOCATION	DET.
FOOTING	P1	84	5	5-6	11	FOOTING
	P2	6	4	7-9	SHOWN	- TIE BAR
	P3	72	7	3-6	SHOWN	€ COLUMN
	P4	18	7	20-9	SHOWN	COLUMNS - PIER 1
	P5	18	7	22-6	SHOWN	" " 1
	P6	18	7	21-3	SHOWN	" " 2
	P7	18	7	23-0	SHOWN	" " 2
	P8	126	4	7-9	1-0	- HOOPS
	P9	48	4	10-9	SHOWN	GIRDER - STIRRUPS
	P10	8	8	29-0	SHOWN	"
	P11	12	8	10-0	SHOWN	"
	P12	4	4	29-0	SHOWN	"
	P13	10	8	8-0	SHOWN	"
	P14	12	4	5-6	SHOWN	"



DETAIL A



DETAIL C

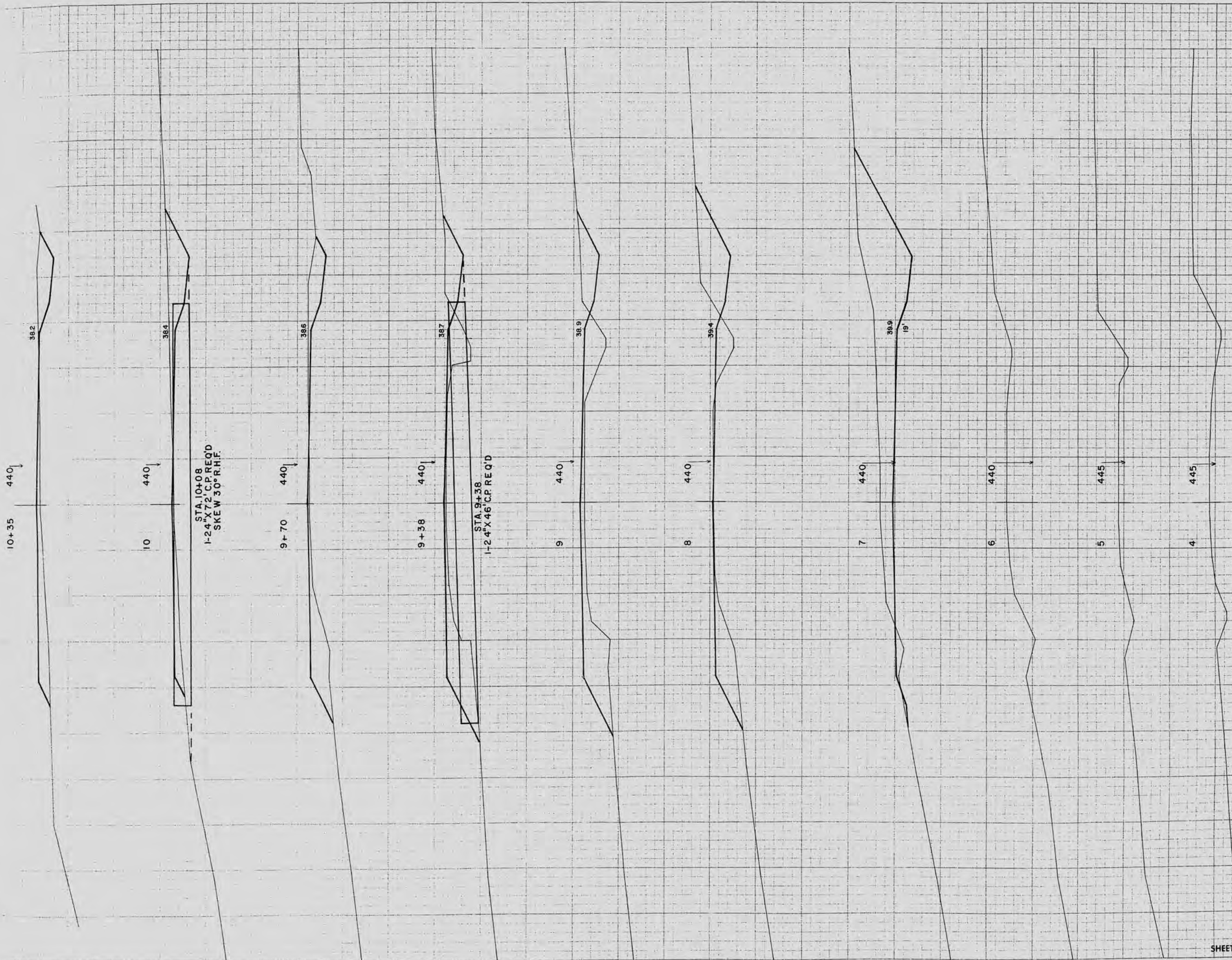


DETAIL B

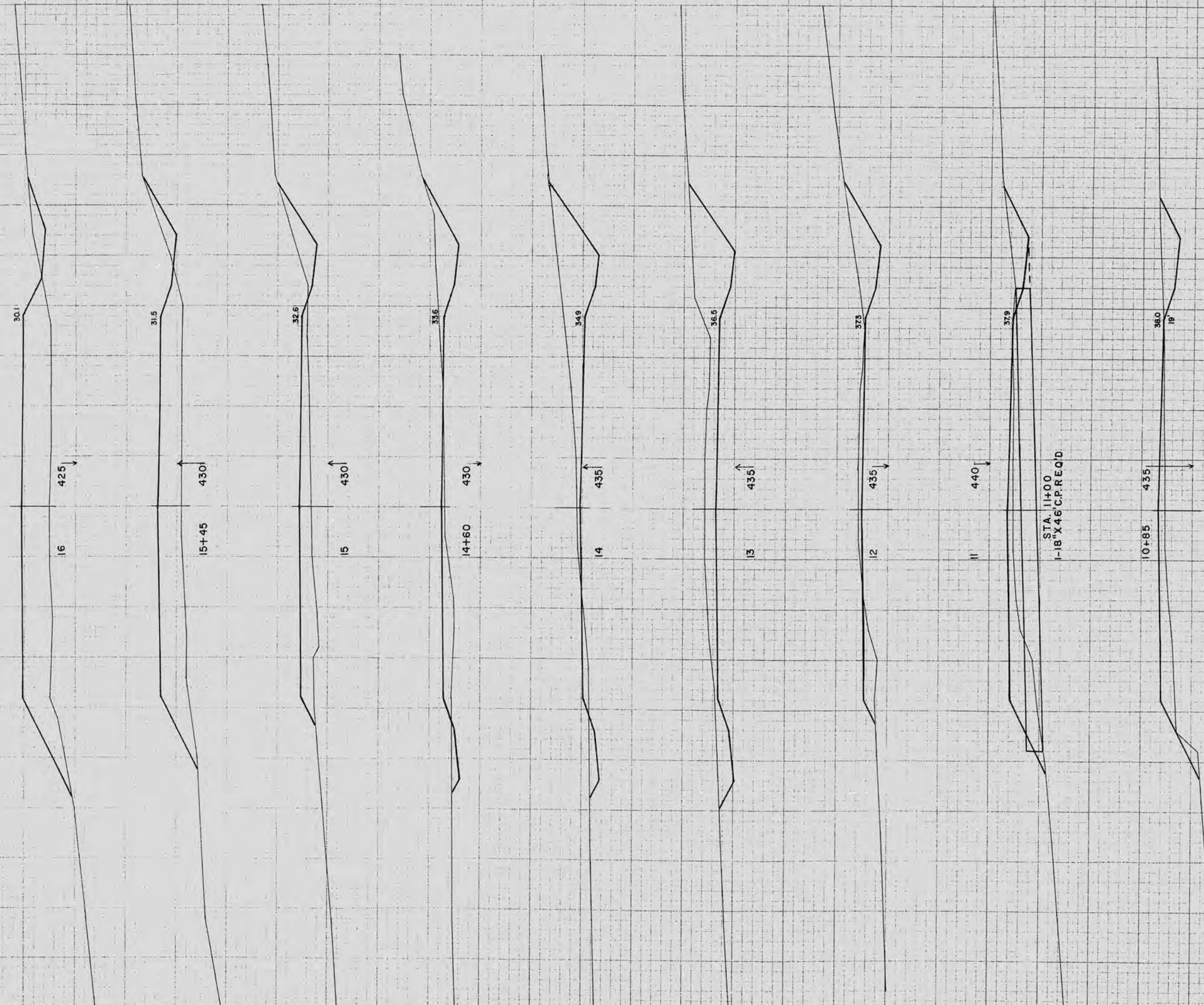
CONCRETE MASONRY

	PIER 1	PIER 2
COLUMNS & GIRDER	20.5 C. Y.	20.6 C. Y.
FOOTINGS	8.0 C. Y.	8.0 C. Y.

REVISED	STATE HIGHWAY COMMISSION OF WISCONSIN		
	PIERS 1 & 2		
	DESIGN SPEC. AASHO 57	LOADING H 15	CONSTR. SPEC. 1957
	DATE 4-7-60	DESIGN B. A.	DRAWN J. K. G. CKD. B. S.
STRUCTURE	B - 37 - 83	SHEET	7 OF 7



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
7			
	270		67
8			
	80		150
9			
	20		63
+38			
	17		37
+70			
	22		19
10			
	24		22
+35			
	20		41
+80			
SHEET TOTAL		453	399



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		U	C
+80			
		2	6
+85			
		7	20
11			
		83	94
12			
		246	20
13			
		331	6
14			
		120	26
+60			
		37	48
15			
		22	126
+45			
		6	235
16			
		0	500
17			
SHEET TOTAL		854	1081

24 430
 C
 30.1
 19
 STA. 23+93
 1-24"X72"CP REQ'D
 SKEW 46° L.H.F.

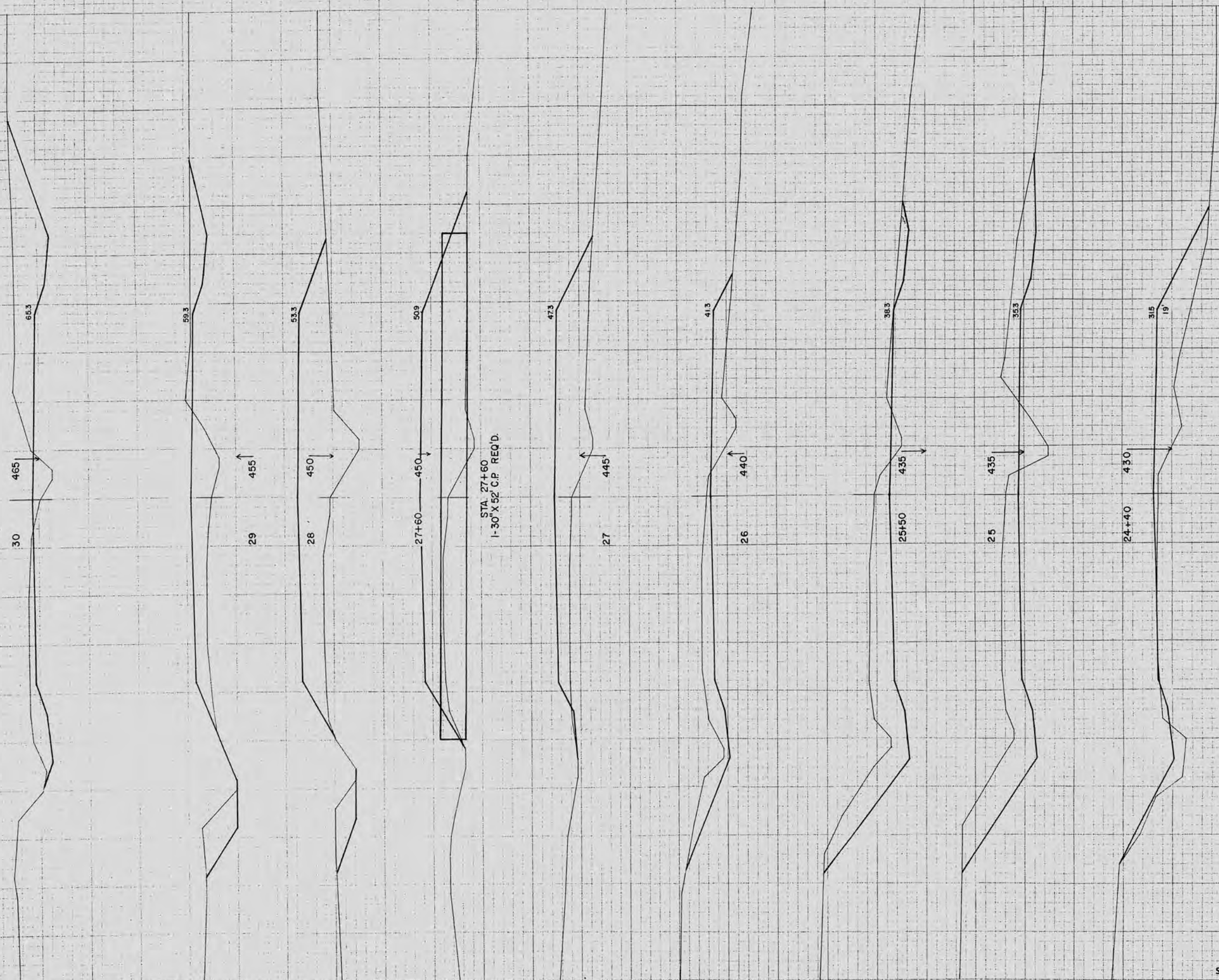
23+80 430
 79.6

23+30 430
 28.5

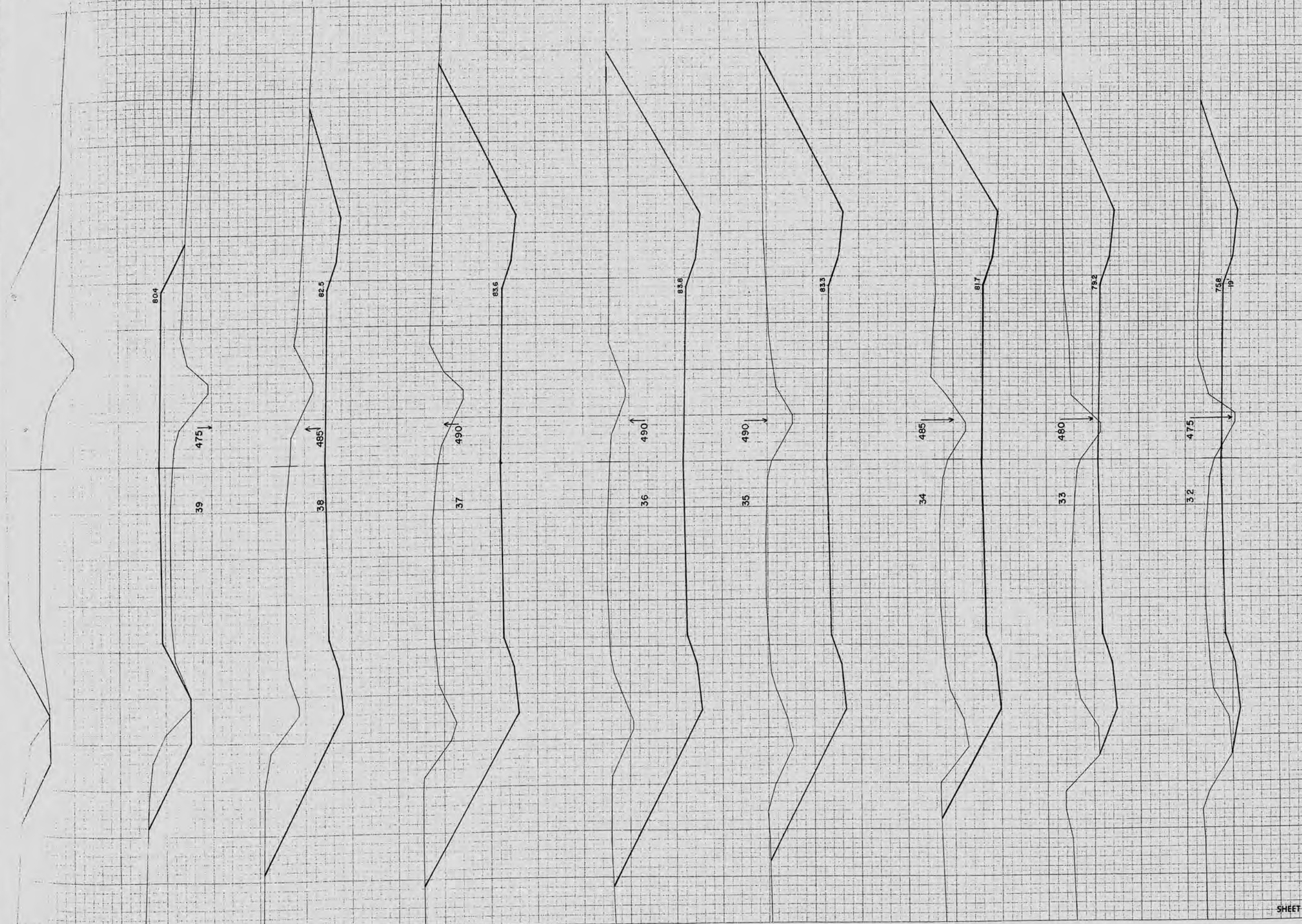
23 425

22+85 420

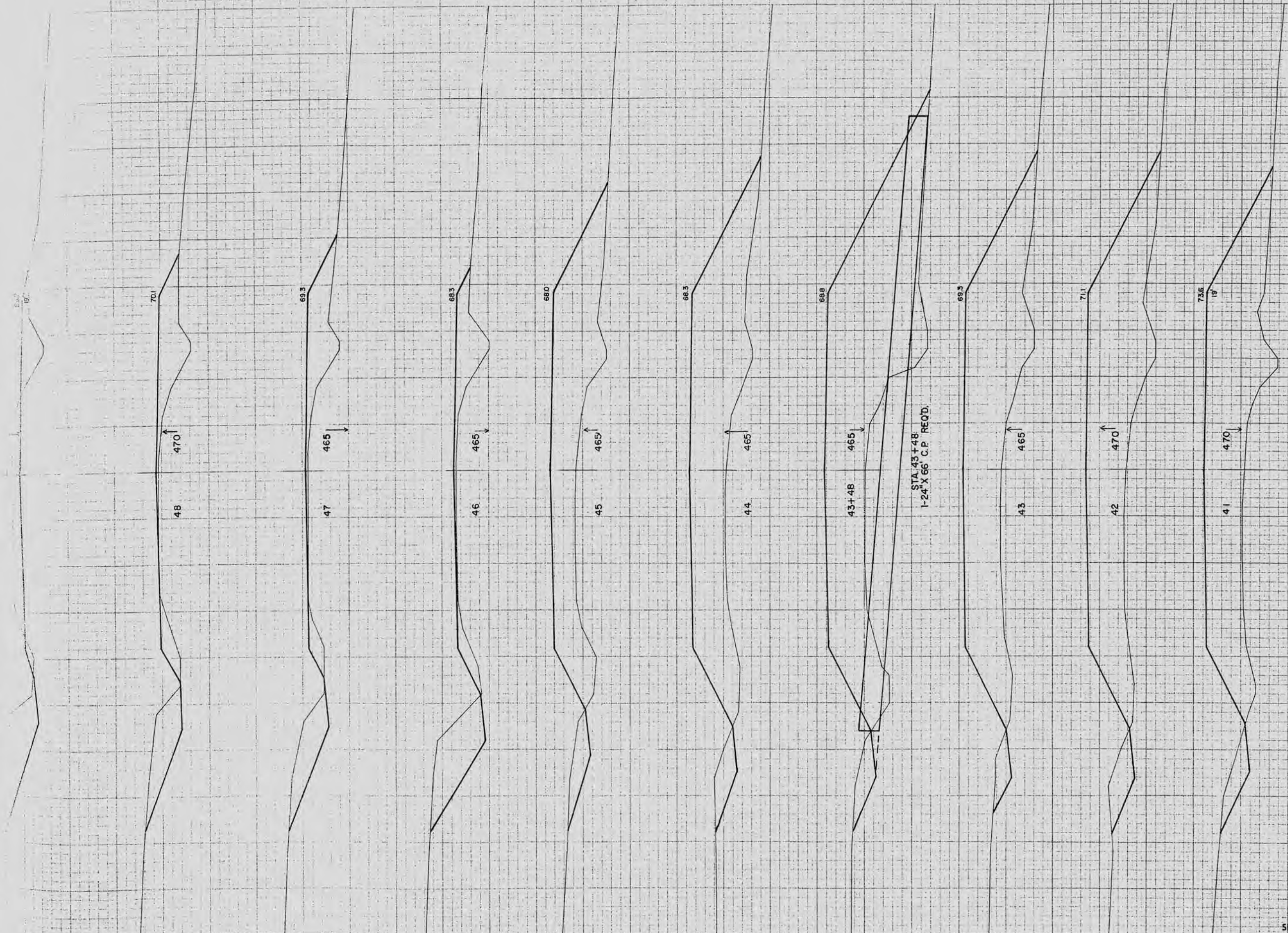
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
22+7.8			
23+12.5		CH 116 2	157
+30		2	159
+80		S.R. 156 6	S.R. 87 330
24		2	70
SHEET TOTAL		284	803



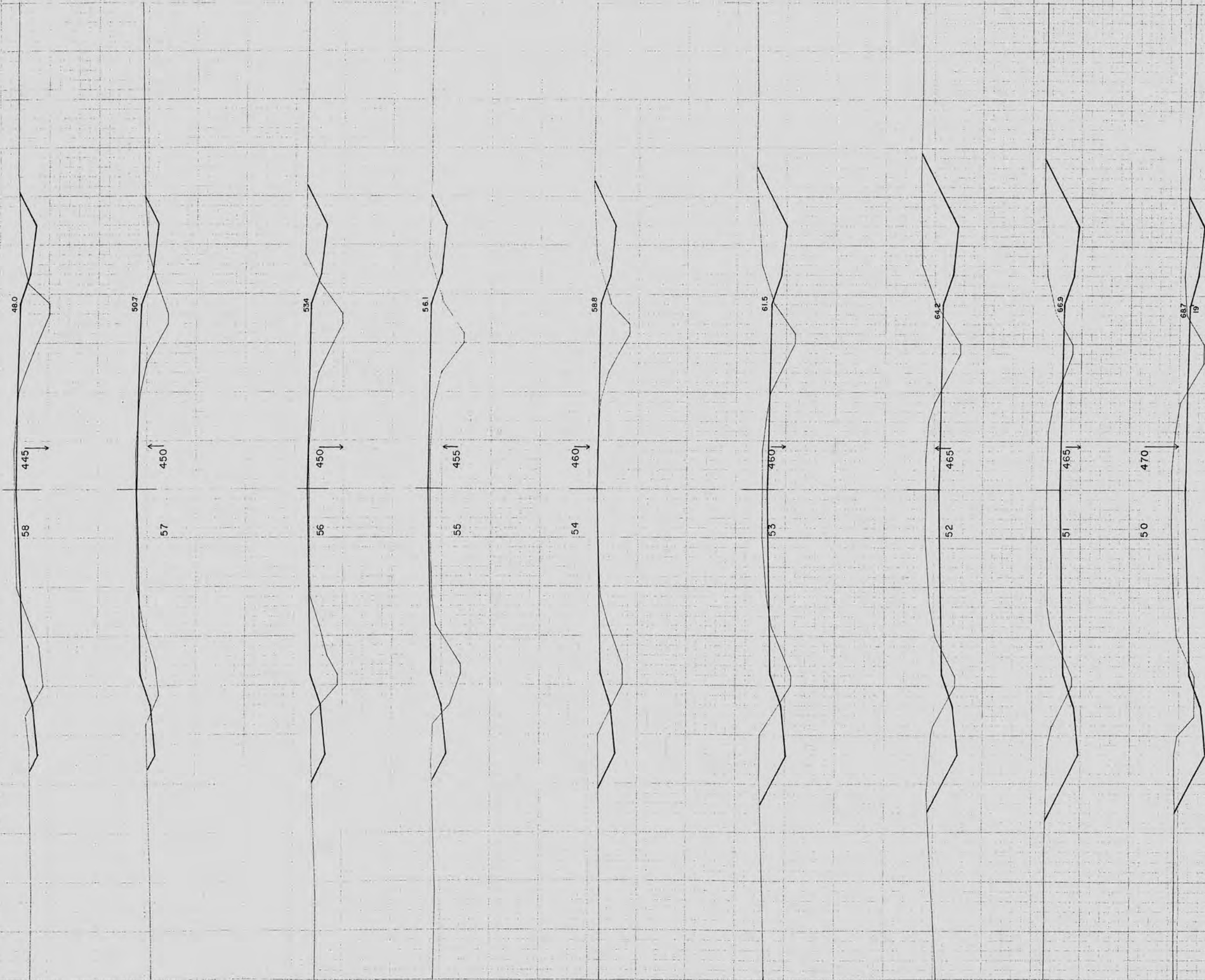
STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
24			
	20		81
+40			
	170		52
25			
	228		15
+50			
	146		28
26			
	69		231
27			
	2		291
+60			
	0		226
28			
	30		361
29			
	189		109
30			
	335		43
31			
SHEET TOTAL		1189	437



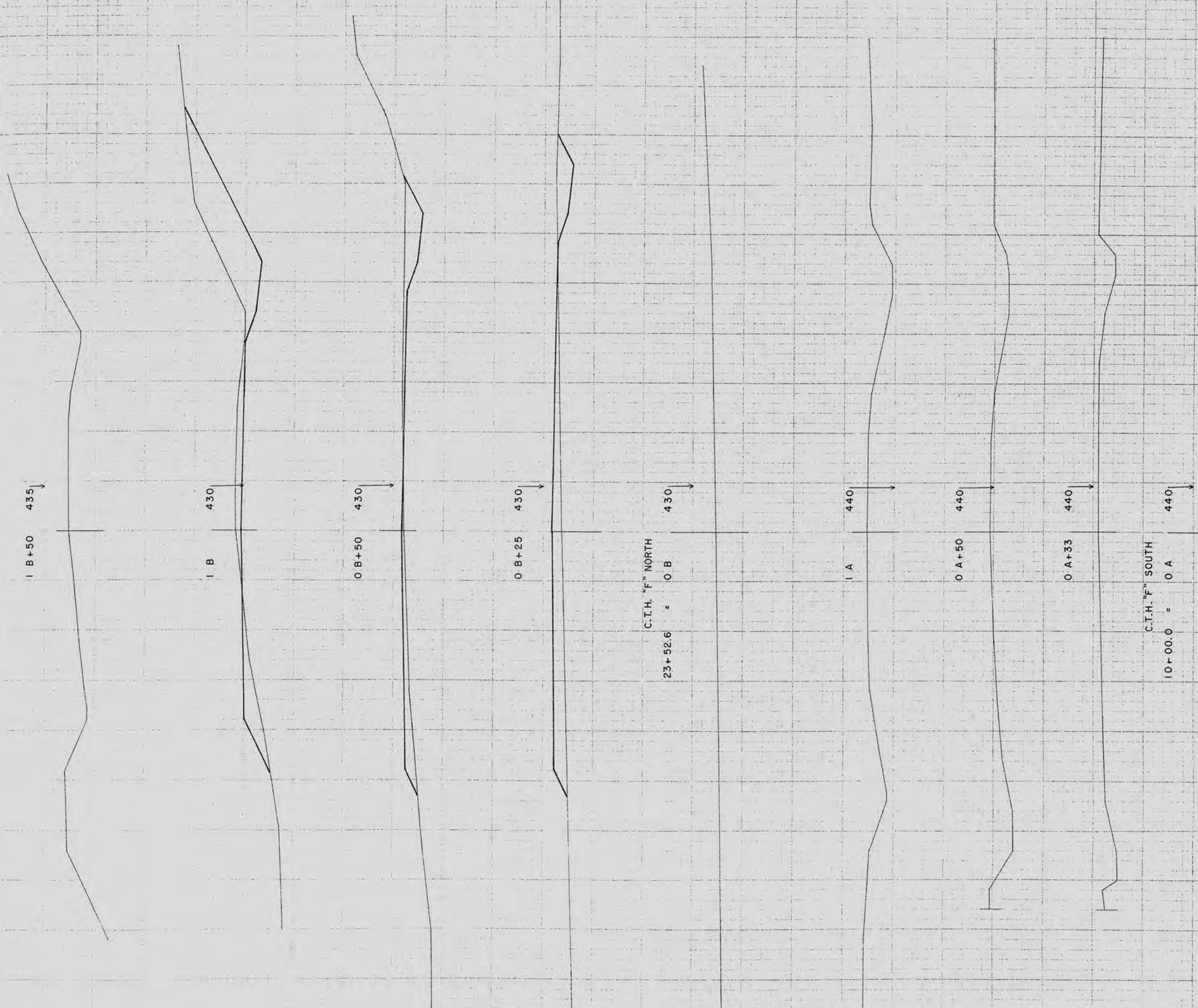
STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNC	FILL
31			
	409		39
32	628		15
33	1024		2
34	1481		0
35	2000		0
36	2167		0
37	1508		0
38	488		174
39	2		609
40			
SHEET TOTAL		9708	839



STATION	DISTANCE	YARDAGE	
		EXCAVATION	FILL
		UNC	
40			
	22		893
41			
	50		930
42			
	46		946
43			
	19		543
+48			PE. 75
	20		572
44			
	39		778
45			
	102		407
46			
	19		157
47			
	35		178
48			
	83		128
49			
SHEET TOTAL		535	5607



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		U N C	FILL
49		213	48
50		302	26
51		330	35
52		246	63
53		130	94
54		70	139
55		67	161
56		59	133
57		41	111
58		70	117
59			
SHEET TOTAL		1528	927



STATION	DISTANCE	YARDAGE	
		EXCAVATION	
		UNC	FILL
0"B"	6		20
+25	13		26
+50	76		28
1"B"	61		13
+50			

