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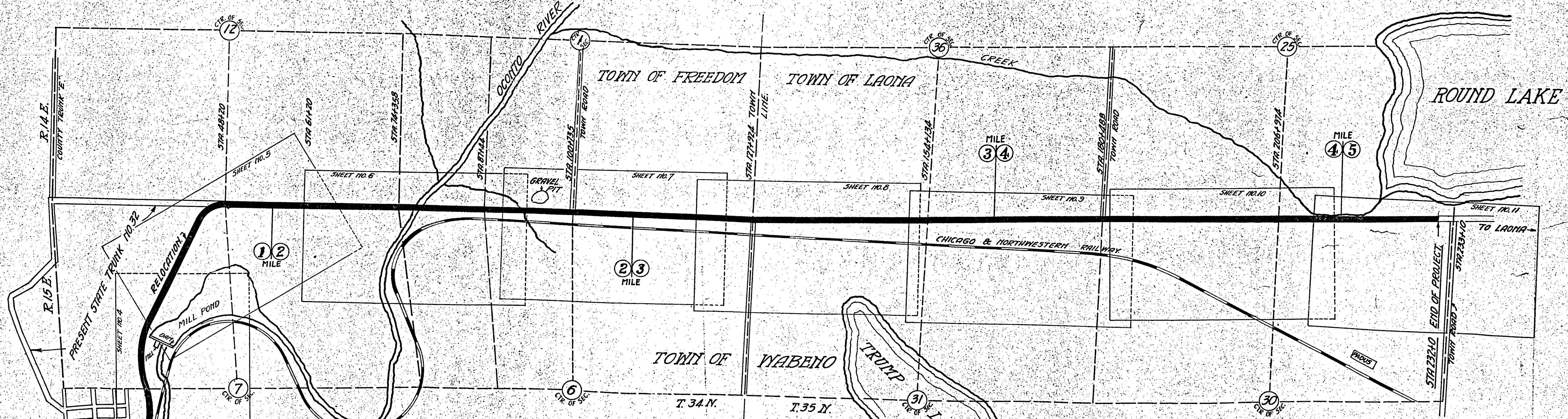
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	WISC.	413A	1925	1	40

WISCONSIN PROJECT NO. 413A  
DIV. JOB NO. 7550

STATE OF WISCONSIN  
**WISCONSIN HIGHWAY COMMISSION**  
 PLAN AND PROFILE OF PROPOSED  
**GILLETT-MOUNTAIN-LAONA-ROAD**  
WABENO-LAONA-PROJECT  
**FOREST COUNTY**  
 FEDERAL AID PROJECT

COMMENCING AT THE LIBRARY IN WABENO, EXTENDING 0.9 MILE WESTERLY, THENCE NORTH 35 MILES ON THE SECTION LINE.

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.



CONVENTIONAL SIGNS: STA. 3+47.4 BEGINNING OF PROJECT.

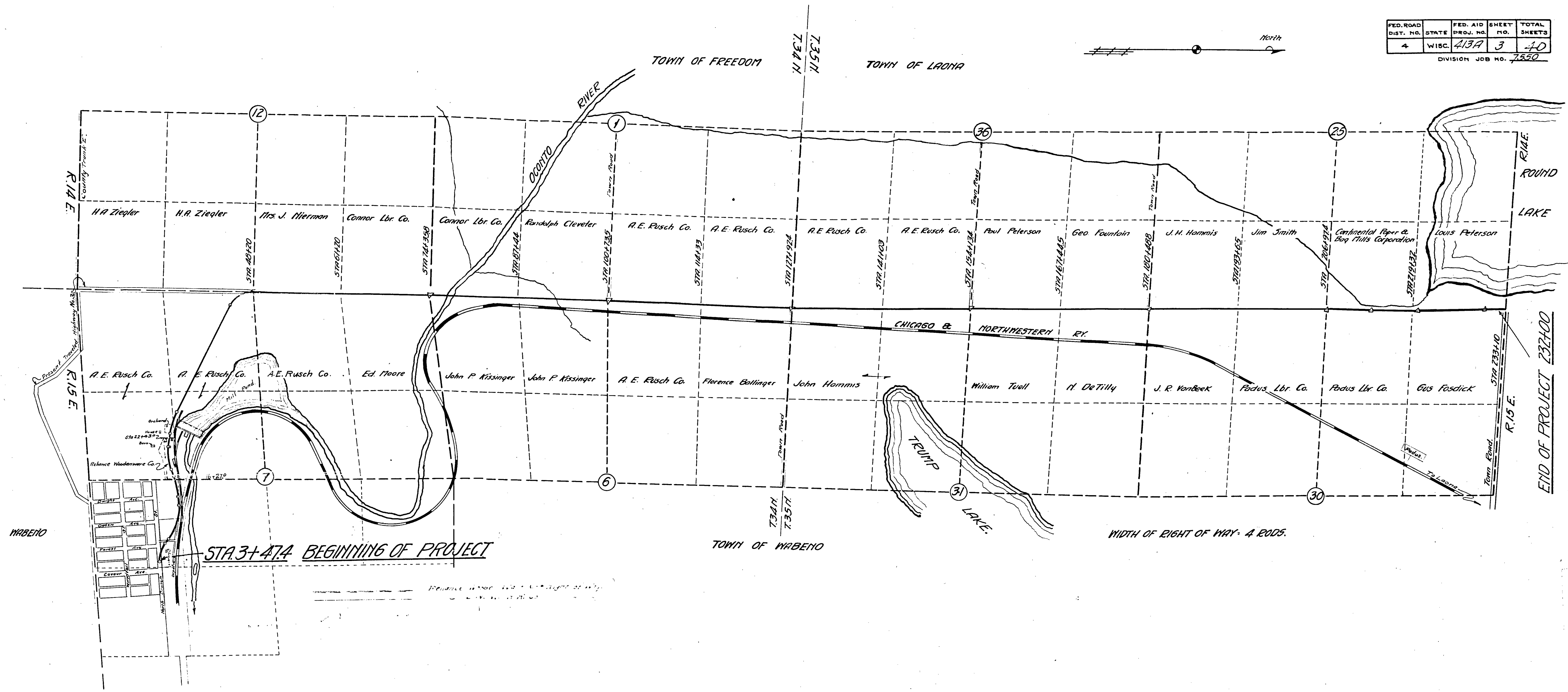
Symbol	Description
---+---	STATE AND NATIONAL LINE
---	COUNTY LINE
- - - - -	CITY, VILLAGE, OR TOWN
- - - - -	TOWNSHIP LINE
- - - - -	SECTION LINE
- - - - -	FENCE LINE
- - - - -	GUARD RAIL
- - - - -	UNFENCED PROPERTY
- - - - -	RIGHT OF WAY LINE
- - - - -	TRAVELED WAY
- - - - -	RAILROADS
- - - - -	RETAINING WALL
- - - - -	LEVEE
- - - - -	BASE OR SURVEY LINE
○	CULVERTS
□	DRAINLET
⊥	TROLLEY POLE
⊥	POWER POLE
⊥	TELEPHONE OR TELEGRAPH POLES
⊥	MAIL BOX
⊥	REFERENCE STAKES
⊥	MARSH
⊥	HEDGE
⊥	TREES
—	GROUND ELEVATION
—	GRADE ELEVATION

**LAYOUT**  
 SCALE 6 IN. = 1 MI.  
 TOTAL NET LENGTH OF CENTERLINE = 4.33 MI.

<p><b>WISCONSIN HIGHWAY COMMISSION</b> MADISON, WIS.</p> <p>Surveyor: G.C. Miles - Note Book 2355-2356-2620                  Div. Computer: J.P. M. O. Checker: L.P. J.P.                  Div. Checker: E.B. G. Correct</p> <p>CORRECT:</p> <p>RECOMMENDED FOR APPROVAL: <i>F.M. Sergeant</i>                  DIVISION ENGINEER</p> <p>APPROVED: <i>H.J. Trullinger</i>                  DESIGN ENGINEER</p> <p>APPROVED: <i>J.J. Donaghy</i>                  STATE HIGHWAY ENGINEER</p> <p>DATE: _____ 19__</p>	<p><b>U.S. DEPARTMENT OF AGRICULTURE</b> BUREAU OF PUBLIC ROADS</p> <p>RECOMMENDED FOR APPROVAL:</p> <p>DISTRICT ENGINEER:</p> <p>CHIEF ENGINEER:</p> <p>APPROVED:</p> <p>DIRECTOR:</p> <p>DATE: _____</p>
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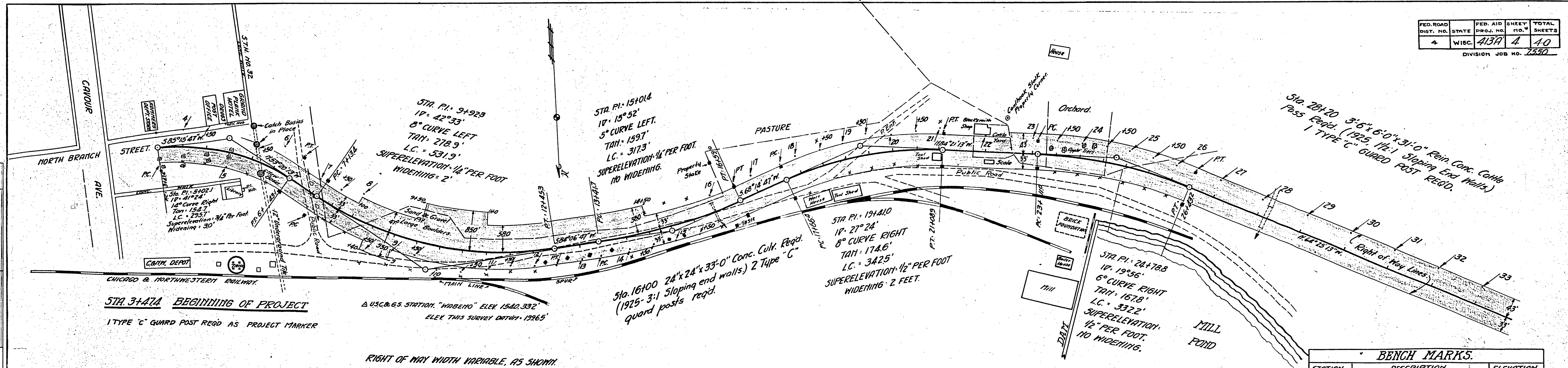
**LIST OF ABUTTING PROPERTY OWNERS WITH AREAS OF ENCROACHMENT, AND AMOUNT OF NEW RIGHT OF WAY REQUIRED OF EACH.**

NAME OF OWNER	PARCEL OF LAND T34N T35N	NEW R.O.W. ACRES	ENCROACHMENT ACRES
C.B. & N.W. EX. RELIANCE HARDWARE CO.	SW 1/4 OF SEC. 7	± 0.93	0.0
A.E. RUSCH CO.	SW 1/4 OF SEC. 7	± 380	0.0
A.E. RUSCH CO.	SW 1/4 OF NW 1/4 SEC. 7	± 0.02	0.0
"	SW 1/4 OF NW 1/4 SEC. 6	0.0	0.0
ED. MOORE	NW 1/4 OF NW 1/4 SEC. 7	± 0.08	± 0.17
JOHN P. KISSINGER	NW 1/4 OF SW 1/4 OF SEC. 6	0.0	0.0
FLORENCE BALLINGER	NW 1/4 OF NW 1/4 SEC. 6	0.0	0.0
JOHN HARRIS	T35N R15E	0.0	± 0.24
WILLIAM TUELL	NW 1/4 OF SW 1/4 SEC. 31	0.0	± 0.17
N. DE TILLY	NW 1/4 OF NW 1/4 SEC. 31	0.0	± 0.22
J.R. VANBEEK	SW 1/4 OF SW 1/4 SEC. 30	0.0	± 0.21
PAULUS LBR. CO.	NW 1/4 OF SW 1/4 SEC. 30	0.0	0.0
"	SW 1/4 OF NW 1/4 SEC. 30	0.0	0.0
GUS FOSDICK	NW 1/4 OF NW 1/4 SEC. 30	± 0.04	± 0.13
H.A. ZIEGLER	T34N R14E	0.0	0.0
MRS. J. MERRIAM	E 1/2 OF SE 1/4 SEC. 12	± 0.09	± 0.09
CONNOR LBR. CO.	SE 1/4 OF NE 1/4 SEC. 12	0.0	0.0
CONNOR LBR. CO.	SE 1/4 OF SE 1/4 SEC. 1	0.0	0.0
RANDOLPH CLEVELER	NE 1/4 OF SE 1/4 SEC. 1	0.0	0.0
A.E. RUSCH CO.	E 1/2 OF NE 1/4 SEC. 1	0.0	± 0.30
A.E. RUSCH CO.	T35N R14E	0.0	0.0
A.E. RUSCH CO.	E 1/2 OF SE 1/4 SEC. 36	± 0.21	± 0.28
PAUL PETERSON	SE 1/4 OF NE 1/4 SEC. 36	0.0	± 0.23
GEO. FOUNTAIN	NE 1/4 OF NE 1/4 SEC. 36	0.0	0.0
J.H. HARRIS	SE 1/4 OF SE 1/4 SEC. 25	0.0	0.0
JIM SMITH	NE 1/4 OF SE 1/4 SEC. 25	0.0	0.0
CONTINENTAL PAPER & BAG MILLS CORP.	SE 1/4 OF NE 1/4 SEC. 25	± 0.06	0.0
LOUIS PETERSON	NE 1/4 OF NE 1/4 SEC. 25	± 0.06	± 0.24
<b>TOTALS</b>		<b>± 517</b>	<b>± 2.28</b>

**PLAT**  
 OF  
**RIGHT OF WAY**  
**REQUIRED**  
 WISCONSIN HIGHWAY COMMISSION  
 MADISON WIS.  
 SCALE 1"=800'



DATE: 10/25/25  
 BY: C.C. Miller  
 SURVEYED: [ ]  
 PLOTTED: [ ]  
 NOTE BOOK NO. 3622  
 STRUCTURE NOTATIONS CHKD: [ ]  
 RT. OF WAY CHECKED: [ ]  
 NO. 3622



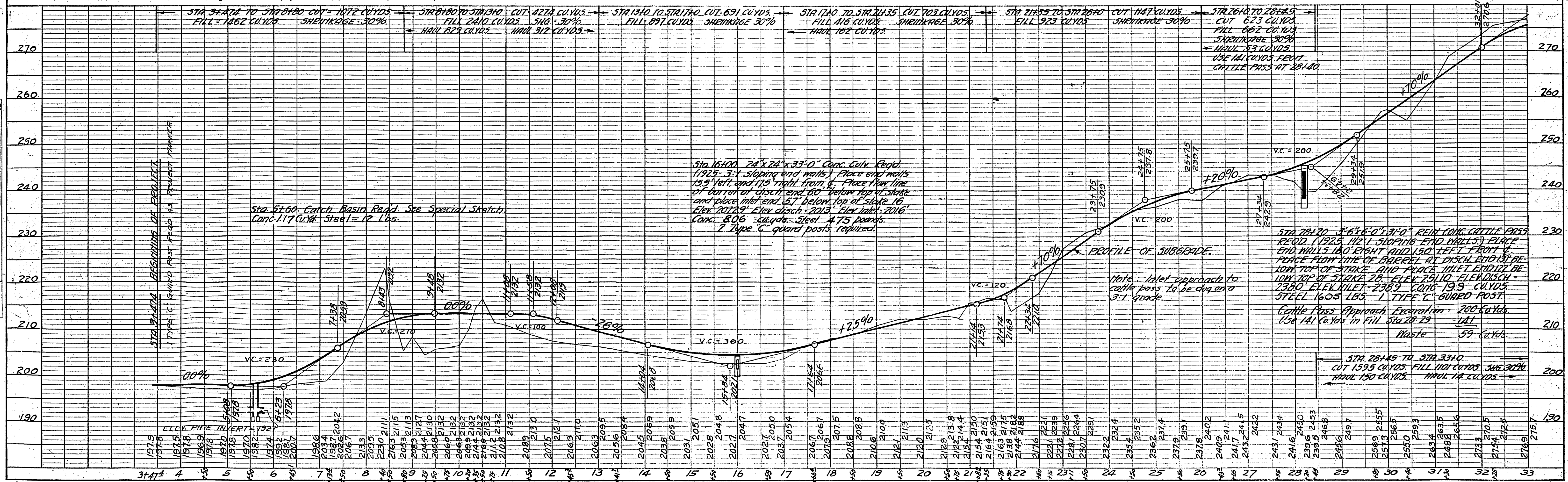
STA 3+47.4 BEGINNING OF PROJECT  
 1 TYPE 'C' GUARD POST REQD AS PROJECT MARKER

Sta 5+60. Catch Basin Req'd. See Special Sketch.

MILE NO.	STA. TO STA.	CLEARING ACRES	GRUBBING ACRES	GUARD RAIL, TYPE 'A' SIDE	LIQ. FEET
1	3+47.4-33	223	194		
1	8+40-16			RIGHT	760.0'
1	21+30-3234			"	1104.0
SHEET TOTALS		223	194		1864.0

STATION	DESCRIPTION	ELEVATION
3+00	U.S.C. & G.S. STATION NORTH OF RAILROAD TRACK	199.65'
20+75	RAIL SPIKE IN TELEPHONE POLE 140' LEFT OF Q.	237.94'
32+90	RAIL SPIKE IN ROOT OF 12" MAPLE TREE 45.0' RIGHT OF Q.	268.77'

NET CENTER LINE LENGTH, STA 3+47.4 TO STA 33+0 = 29526'



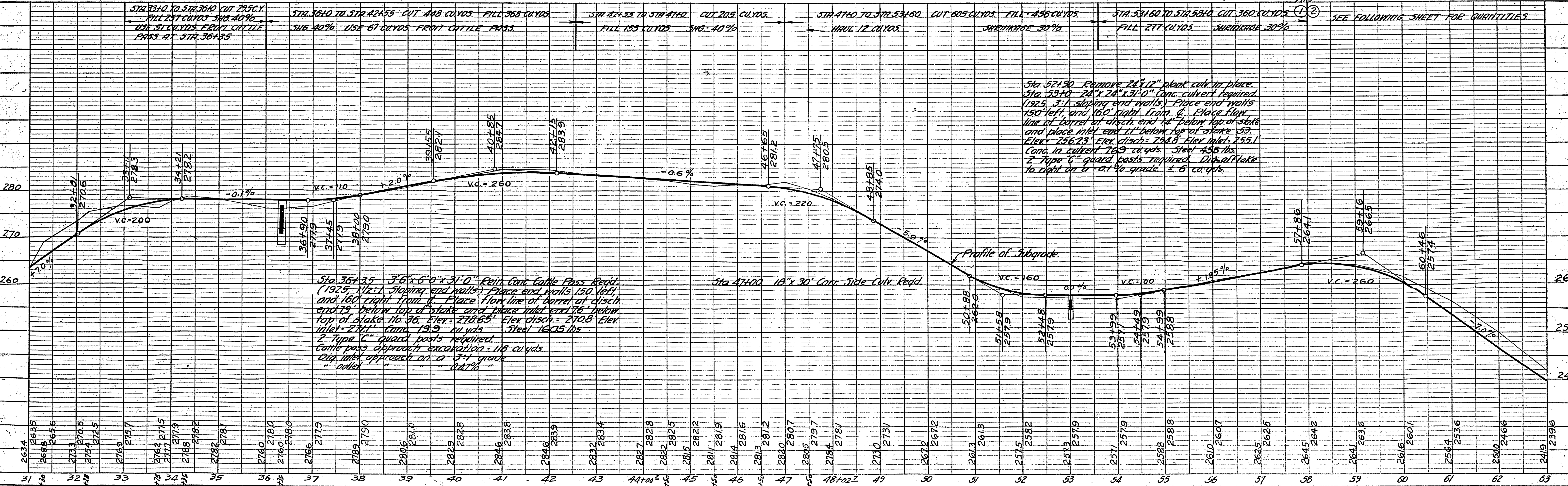
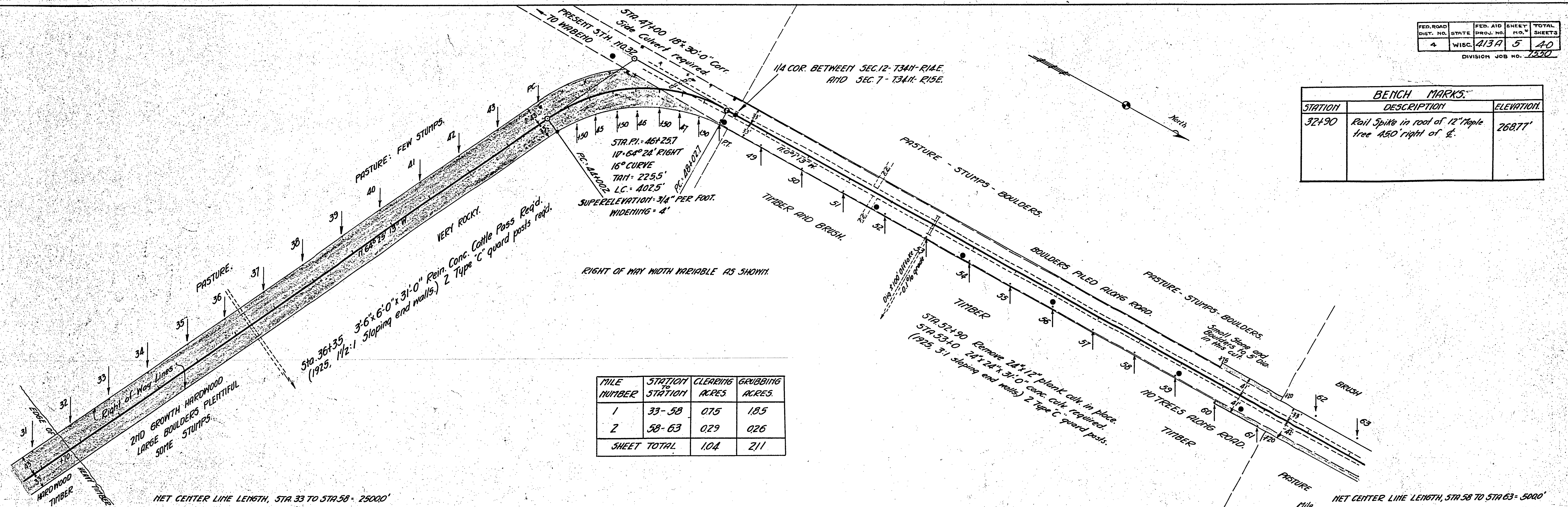
DATE: 10/25/25  
 BY: Carl Olson  
 SURVEYED: [ ]  
 PLOTTED: [ ]  
 NOTE BOOK NO. 3622  
 STRUCTURE NOTATIONS CHKD: [ ]  
 RT. OF WAY CHECKED: [ ]  
 NO. 3622



BENCH MARKS		
STATION	DESCRIPTION	ELEVATION
32+90	Rail Spike in root of 12" Maple tree 450' right of E.	268.77'

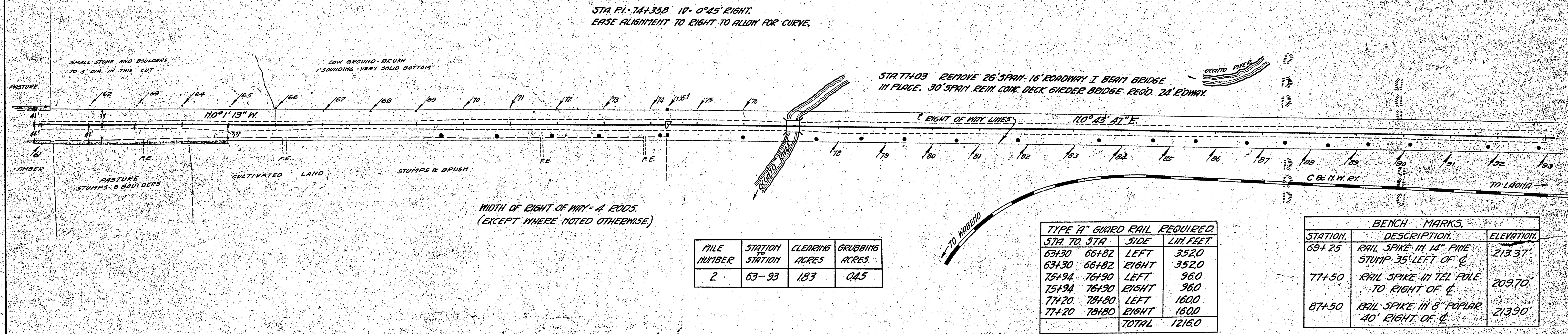
DATE: May 23, 1925  
 BY: G. C. Dillies  
 SURVEYED: G. C. Dillies  
 PLOTTED: G. C. Dillies  
 CHECKED: G. C. Dillies  
 NO. OF WAY CHECKED: 25  
 NO. 3620

DATE: May 23, 1925  
 BY: Capt. Olson  
 SURVEYED: G. C. Dillies  
 CHECKED: G. C. Dillies  
 STRUCTURE NOTATIONS CHECKED: G. C. Dillies  
 NO. 3620





STA PI. 74+35.8 10° 0'45" RIGHT.  
EASE ALIGNMENT TO RIGHT TO ALLOW FOR CURVE.



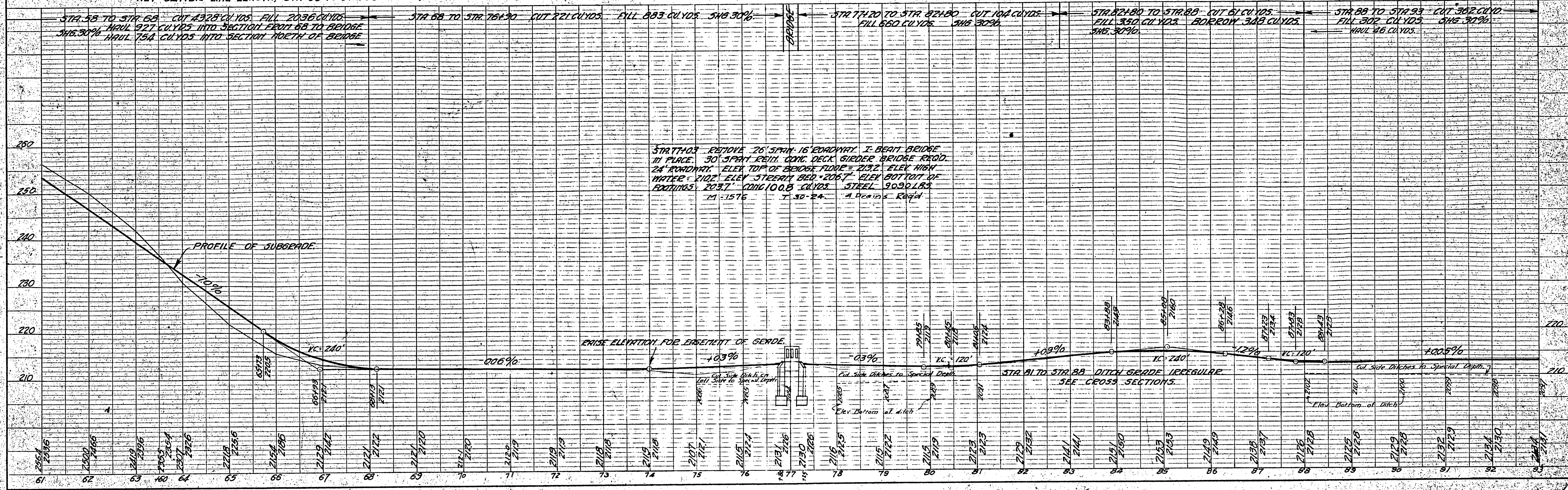
MILE NUMBER	STATION	CLEARING ACRES	GRUBBING ACRES
2	63-93	183	0.45

STA TO STA	SIDE	LINE FEET
63+30	LEFT	352.0
63+30	RIGHT	352.0
75+94	LEFT	96.0
75+94	RIGHT	96.0
77+20	LEFT	160.0
77+20	RIGHT	160.0
TOTAL		1216.0

STATION	DESCRIPTION	ELEVATION
69+25	RAIL SPIKE IN 14\" PINE STUMP 35' LEFT OF C.	213.37'
77+50	RAIL SPIKE IN TEL POLE TO RIGHT OF C.	209.70'
87+50	RAIL SPIKE IN 8\" POPLAR 40' RIGHT OF C.	213.90'

WIDTH OF RIGHT OF WAY - 4 RODS.  
(EXCEPT WHERE NOTED OTHERWISE)

NET CENTER LINE LENGTH, STA 63 TO STA 93 = 3000'



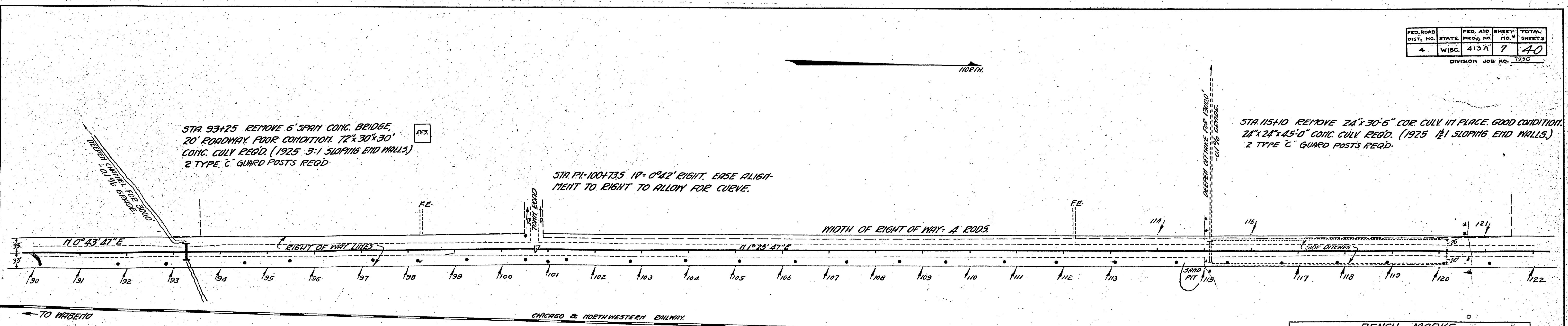
DATE: 10/22/22  
BY: J. J. ROBERTS  
CHECKED: G. J. ROBERTS  
PLANNED: G. J. ROBERTS  
DESIGNED: G. J. ROBERTS  
NOTED: G. J. ROBERTS  
PROJECT NO. 413A  
SHEET NO. 6

DATE: 10/22/22  
BY: J. J. ROBERTS  
CHECKED: G. J. ROBERTS  
PLANNED: G. J. ROBERTS  
DESIGNED: G. J. ROBERTS  
NOTED: G. J. ROBERTS  
PROJECT NO. 413A  
SHEET NO. 6



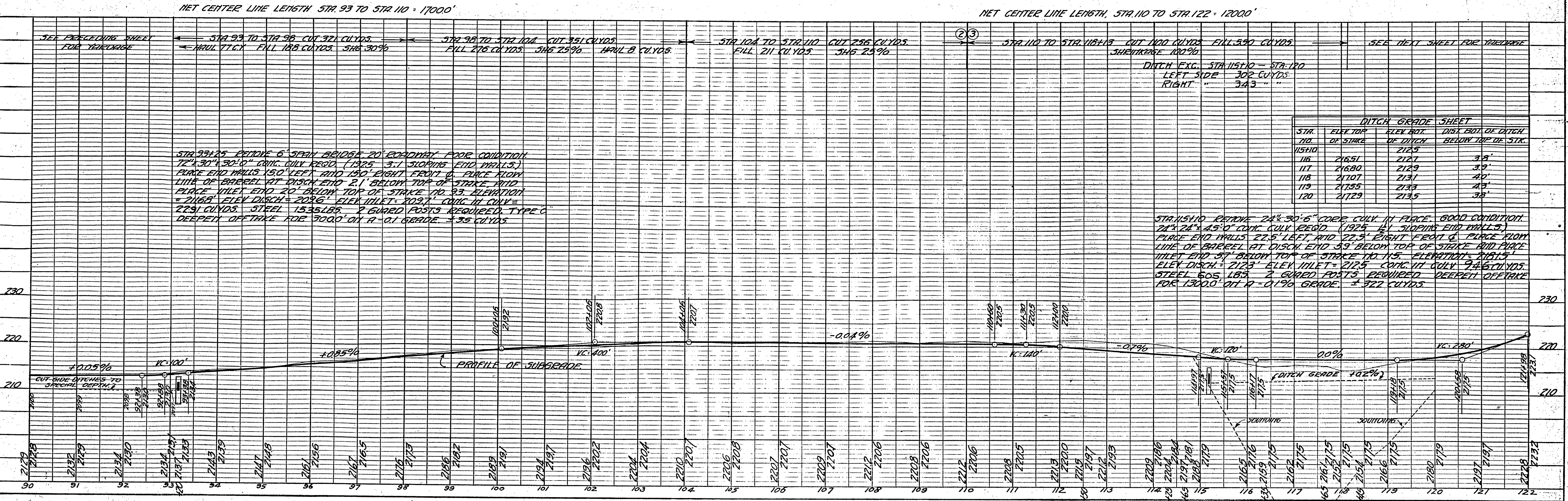
DATE: 12-23-25  
 BY: C. F. KROGG  
 SURVEYED: 12-23-25  
 PLOTTED: 1-1-26  
 ALIGNED: 1-1-26  
 RT. OF WAY CHECKED: 1-1-26  
 NO. 2555

DATE: 12-23-25  
 BY: C. F. KROGG  
 SURVEYED: 12-23-25  
 PLOTTED: 1-1-26  
 ALIGNED: 1-1-26  
 RT. OF WAY CHECKED: 1-1-26  
 NO. 2555



MILE NUMBER	STATION TO STATION	CLEARING ACRES.	GRUBBING ACRES.
2	93-110	0.36	0.16
3	110-122	0.42	0.36
SHEET TOTALS		0.78	0.52

BENCH MARKS		
STATION	DESCRIPTION	ELEVATION
102+50	RAIL SPIKE IN 8" POPLAR 300' TO RIGHT OF C.	219.55'
121+25	RAIL SPIKE IN 2' TAM. STUMP 400' RIGHT OF C.	218.34'

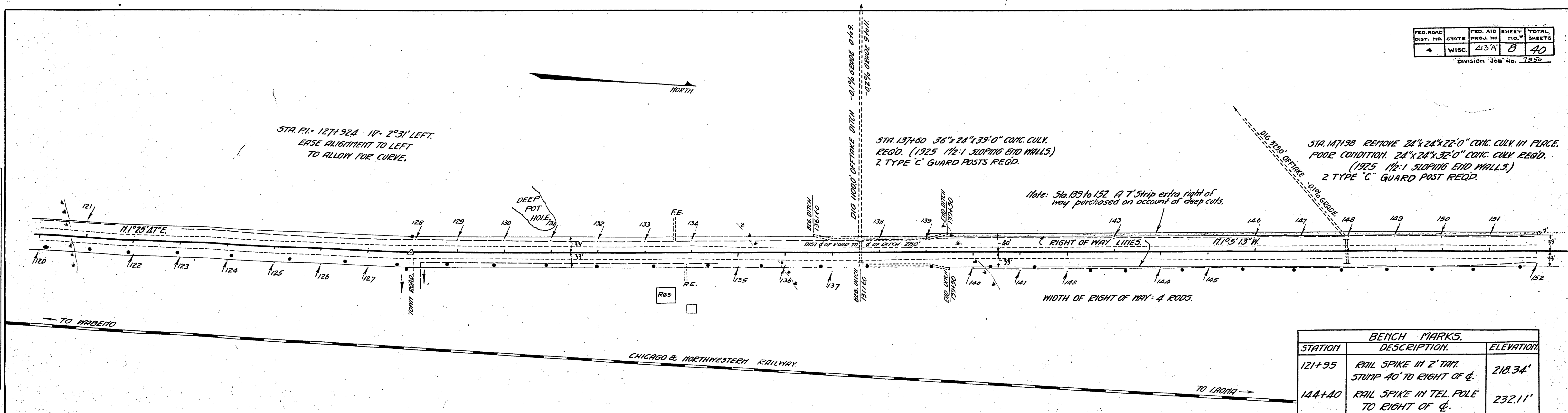


DITCH GRADE SHEET			
STA. NO. OF STAKE	ELEV. TOP OF STAKE	ELEV. BOT. OF DITCH	DISK BOT. OF DITCH BELOW TOP OF STK.
115+10		2125	
116	21651	2121	3.8'
117	21680	2129	3.9'
118	21707	2131	4.0'
119	21755	2133	4.2'
120	21729	2135	3.8'



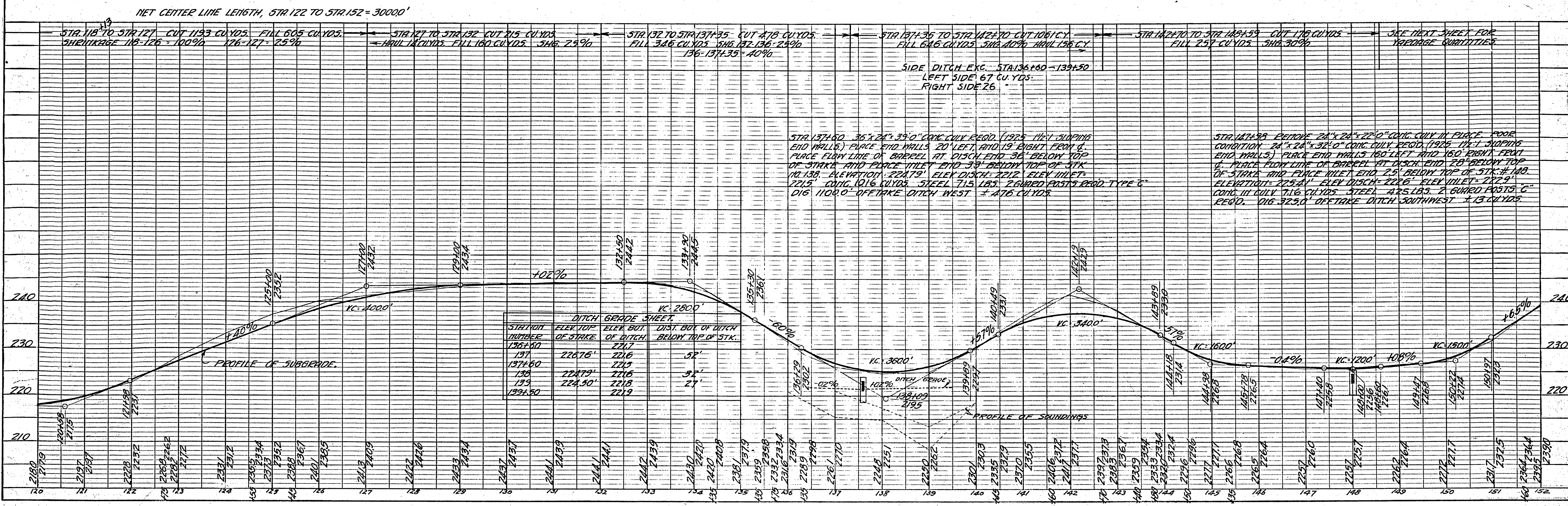
DATE: 07/27/22  
 BY: G.F. Mank  
 SURVEYED: 07/27/22  
 PLOTTED: 07/27/22  
 ALIGNED: 07/27/22  
 CHECKED: 07/27/22  
 NO. 2355

DATE: 07/27/22  
 BY: G.F. Mank  
 SURVEYED: 07/27/22  
 PLOTTED: 07/27/22  
 ALIGNED: 07/27/22  
 CHECKED: 07/27/22  
 NO. 2355



MILE NUMBER	STATION TO STATION	CLEARING ACRES.	GRUBBING ACRES.
3	122-152	0.40	0.44

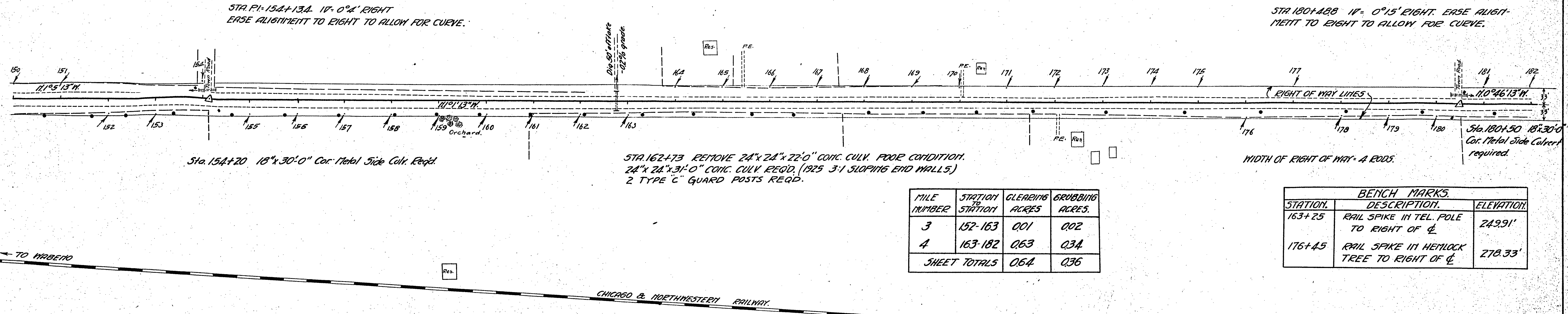
BENCH MARKS.		
STATION	DESCRIPTION	ELEVATION
121+95	RAIL SPIKE IN 2" TARI. STUMP 40' TO RIGHT OF C.	218.34'
144+40	RAIL SPIKE IN TEL. POLE TO RIGHT OF C.	232.11'





DATE: 10/25/25  
 BY: C. J. VANDERKAM  
 SURVEYED: C. J. VANDERKAM  
 CHECKED: C. J. VANDERKAM  
 PLAN: NO. 2355

DATE: 10/25/25  
 BY: C. J. VANDERKAM  
 SURVEYED: C. J. VANDERKAM  
 CHECKED: C. J. VANDERKAM  
 PROFILE: NO. 2620



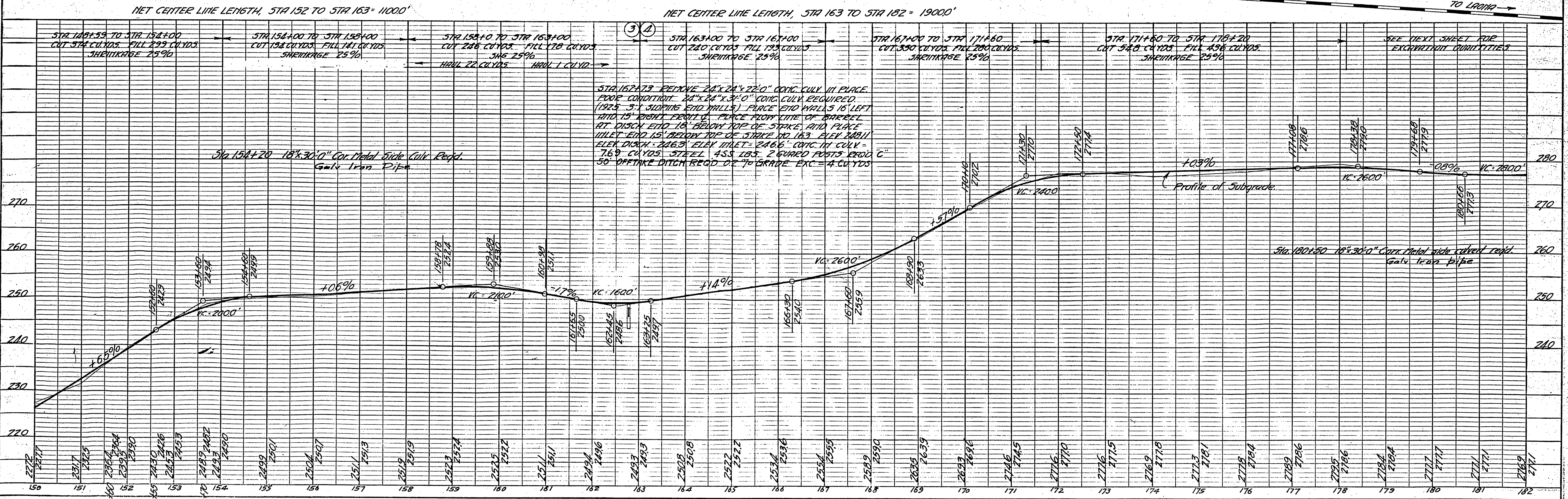
Sta 154+20 18"x30'-0" Cor. Metal Side Culk. Reqd.

STA 162+73 REMOVE 24"x24"x22'-0" CONC. CULV. POOR CONDITION. 24"x24"x31'-0" CONC. CULV. REQ'D. (1925 3:1 SLOPING END WALLS) 2 TYPE 'C' GUARD POSTS REQ'D.

Sta 180+50 18"x30'-0" Cor. Metal Side Culk. Reqd.

FILE NUMBER	STATION TO STATION	CLEANING ACRES	GRUBBING ACRES
3	152-163	001	002
4	163-182	063	034
SHEET TOTALS		064	036

BENCH MARKS		
STATION	DESCRIPTION	ELEVATION
163+25	RAIL SPIKE IN TEL. POLE TO RIGHT OF C	249.91'
176+45	RAIL SPIKE IN HEMLOCK TREE TO RIGHT OF C	278.33'





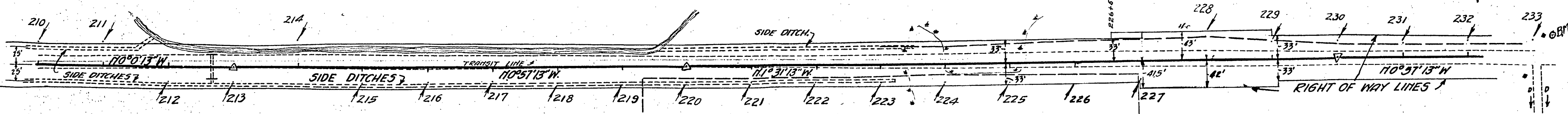




DATE: 12/12/22  
 BY: C. J. Wierzbicki  
 SURVEYED: C. J. Wierzbicki  
 ALIGNED: C. J. Wierzbicki  
 CHECKED: C. J. Wierzbicki  
 RT. OF WAY CHECKED: C. J. Wierzbicki  
 PLAN NO. 2335

STA. 212+66 REMOVE 4' SPAN CONC. BRIDGE, 16' ROADWAY POOR CONDITION. 36" x 24" x 34'-0" CONC. CULV. REQ'D. (1925, 3:1 SLOPING END WALLS.) 2 TYPE 'C' GUARD POSTS REQ'D

STA. 232+10 END OF PROJECT. 1 TYPE 'C' GUARD POST REQ'D AS PER MANUAL



STA. P.I. 213+00 17'-0°57' LEFT. EASE ALIGNMENT TO LEFT TO ALLOW FOR CURVE.

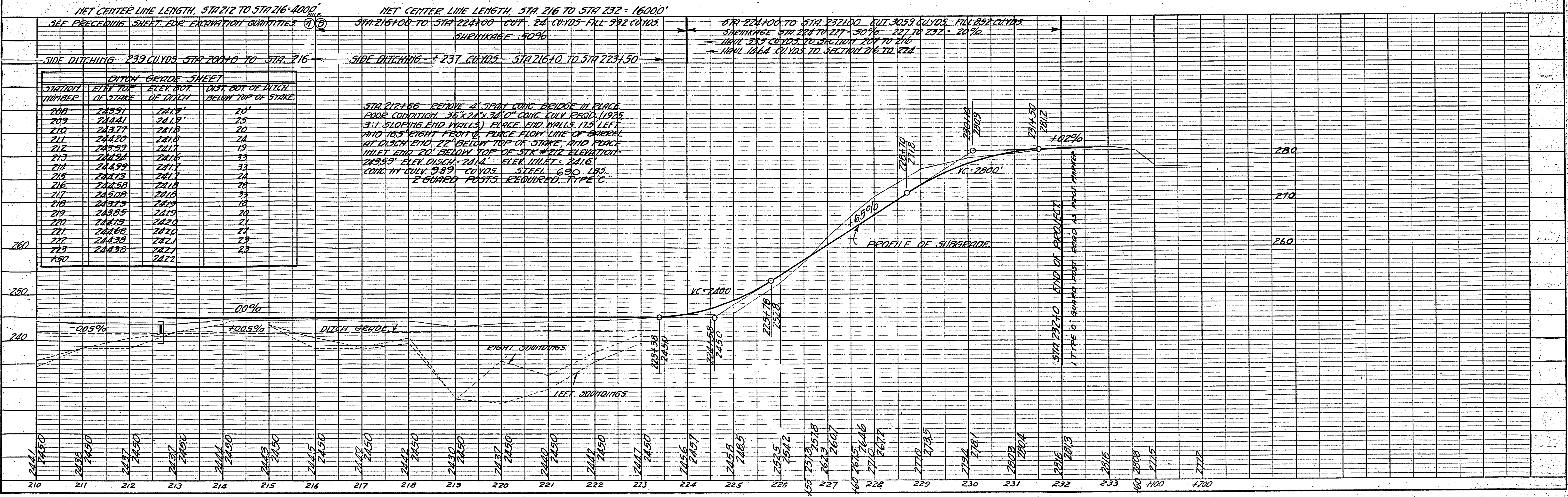
STA. 220+00 P.I. 17'-0°34' LEFT. EASE ALIGNMENT TO LEFT TO ALLOW FOR CURVE.

STA. P.I. 230+00 17'-0°31' RIGHT. EASE ALIGNMENT TO RIGHT TO ALLOW FOR CURVE.

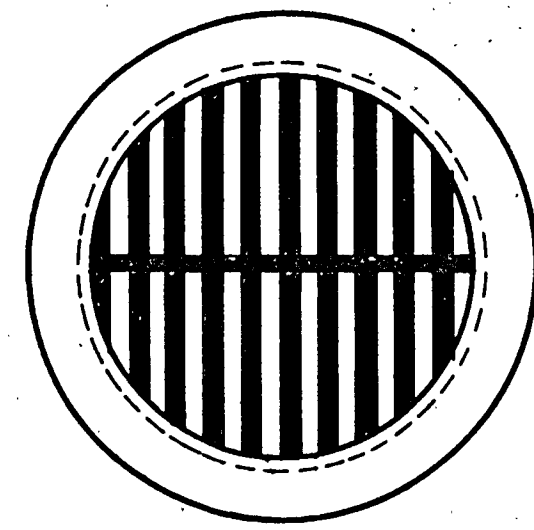
MILE NUMBER	STATION	CLEARING ACRES	GRUBBING ACRES
4	212-216	0.32	0.10
5	216-232	0.65	0.53
SHEET TOTALS:		0.97	0.63

STATION	BENCH MARKS DESCRIPTION	ELEVATION
215+05	RAIL SPIKE IN 18" BIRCH TO RIGHT OF C	244.61'
224+40	RAIL SPIKE IN 10" POPLAR TO RIGHT OF C	245.33'
233+	5 SPIKE IN 15" RED OAK STUMP 11' W. OF ROAD INTERSECTION.	283.25'

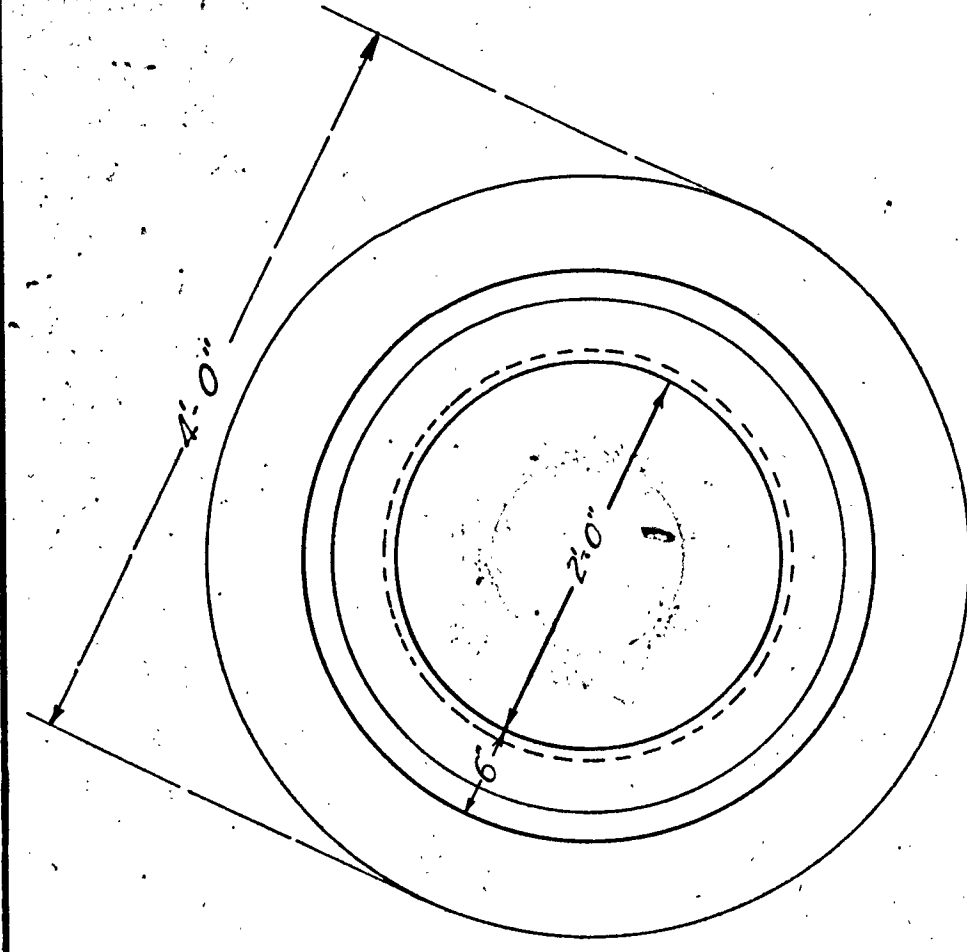
DATE: 12/12/22  
 BY: C. J. Wierzbicki  
 SURVEYED: C. J. Wierzbicki  
 GRADES CHECKED: C. J. Wierzbicki  
 B. M. NOTED: C. J. Wierzbicki  
 STRUCTURE NOTATION CHECKED: C. J. Wierzbicki  
 PROFILE NO. 2335



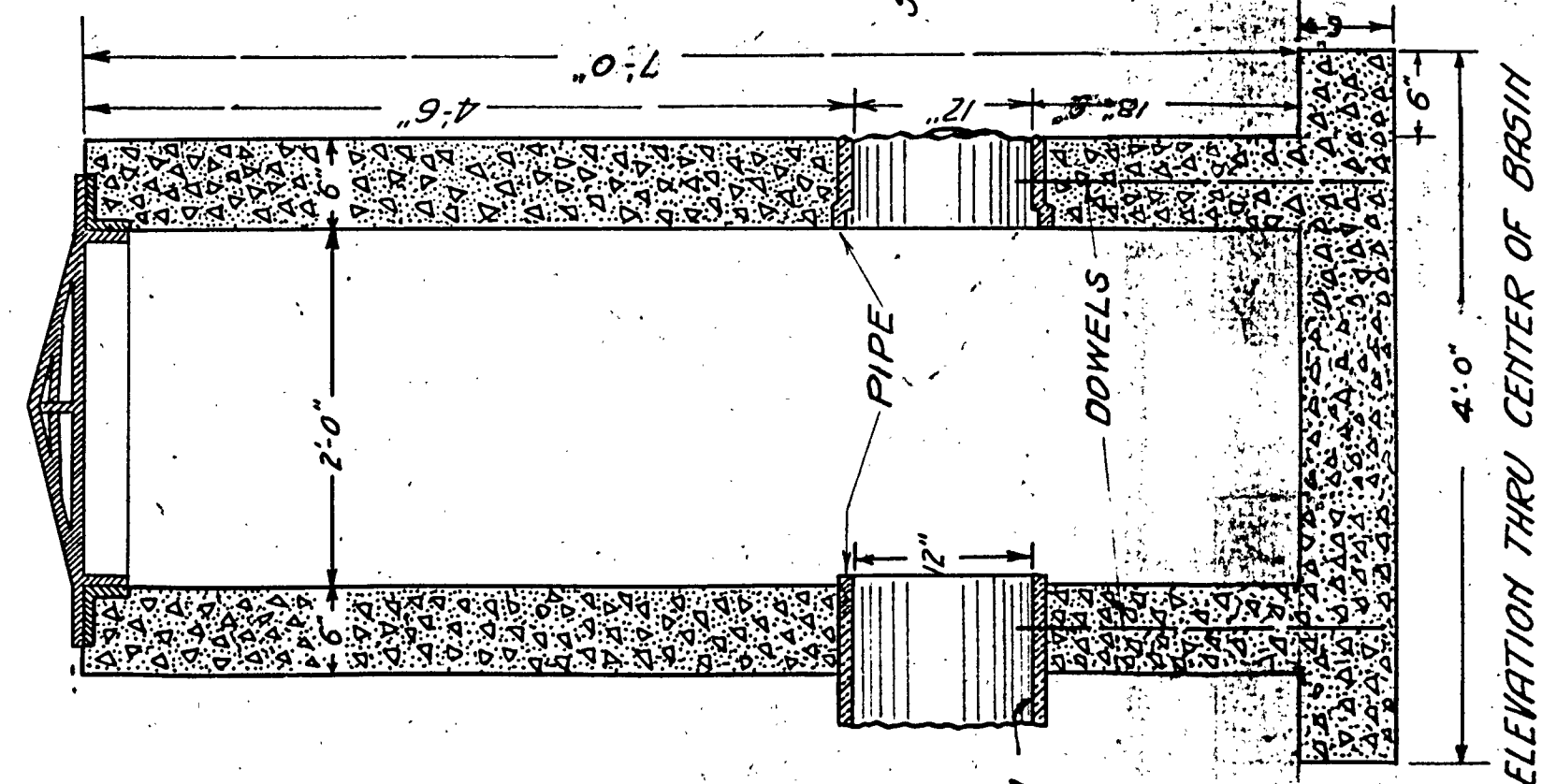




PLAN OF CATCH BASIN COVER



PLAN OF CATCH BASIN.  
SHOWING METAL RING



ELEVATION 192.1

**BILL OF MATERIAL.**

- 1 LOW CONE CATCH BASIN COVER.
- 1 COVER RING
- CONCRETE CLASS "A" 1.17 CU YDS
- 7- 1/2" Ø BARS, 2 LONG 12 LBS

Sta 5+60

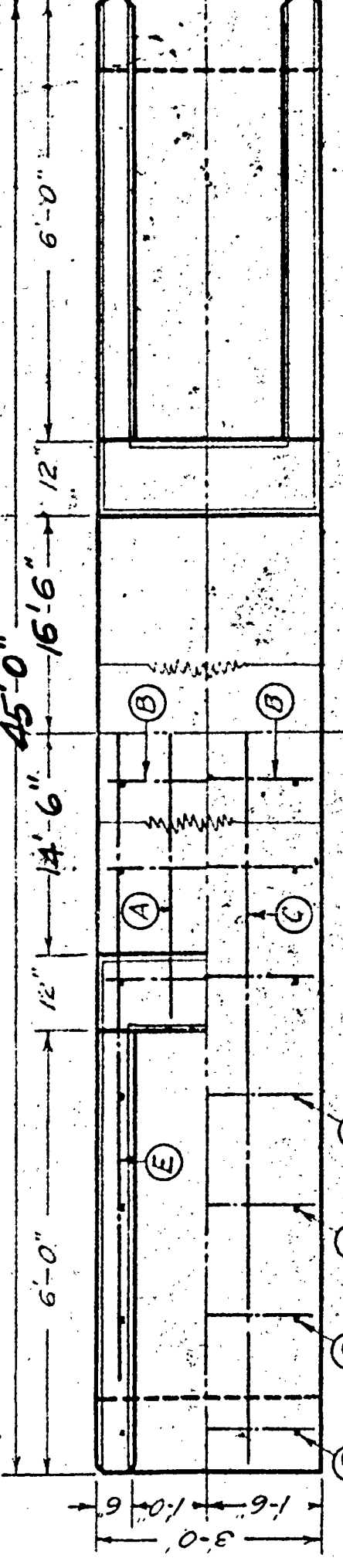
CATCH BASIN AT 5+60  
FEDERAL AID PROJECT NO. 413 A

WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.

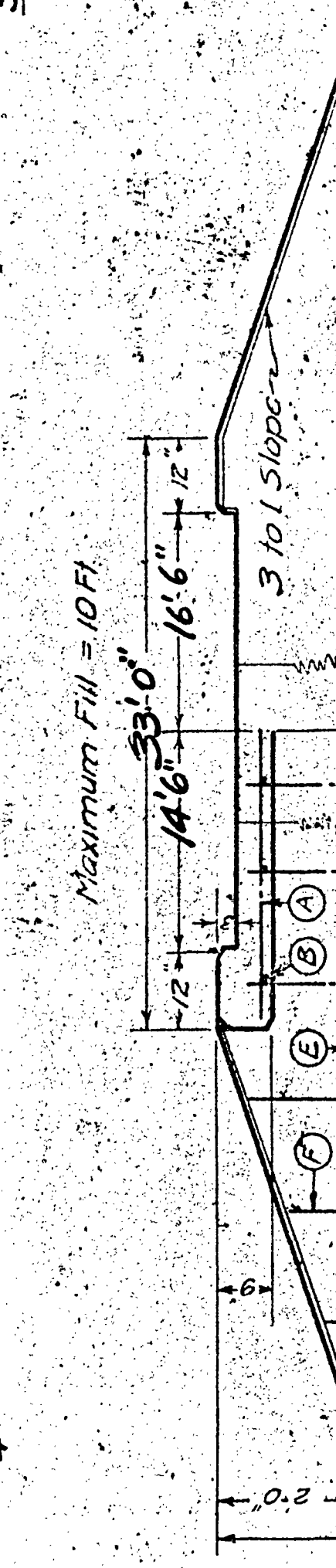
Approved: *J. J. Drossel*  
Design Engineer  
State Highway Engineer

Proj 413A-A

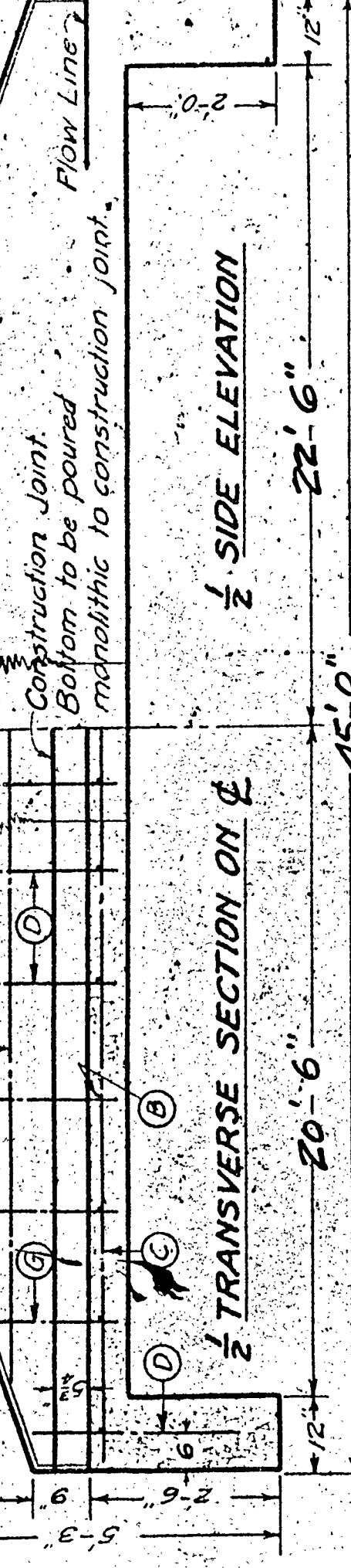
1/4 PLAN OF TOP REINFORCEMENT



1/4 PLAN OF BOTTOM REINFORCEMENT

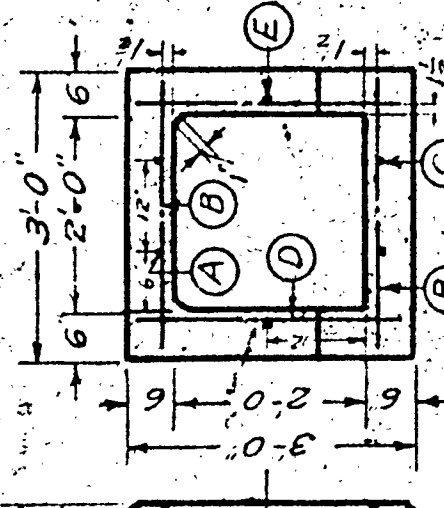


Maximum Fill = 10 FT

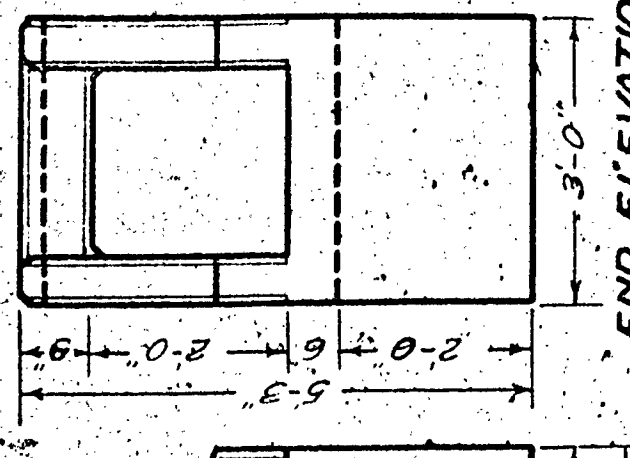


1/2 TRANSVERSE SECTION ON CL

1/2 PLAN OF FINISHED CULVERT



SECTION AA  
SHOWING REINFORCEMENT



END ELEVATION

Reinforcement to be properly supported with approved metallic bar.

Mark	Number	Length	Spacing	Location of Bar
A	4	17'-3"	1'-0"	Top, Longitudinal
B	52	2'-9"	1'-6"	Top & Floor, Transverse
C	6	16'-0"	1'-0"	Floor, Longitudinal
D	52	2'-9"	1'-6"	Walls, Vertical
E	6	15'-6"	1'-0"	Walls, Longitudinal
F	4	2'-3"	1'-6"	Wraps, Vertical
G	4	1'-9"	1'-6"	Wraps, Vertical
Total Steel Required				475 pounds

**QUANTITIES FOR ONE CULVERT**

Concrete	Co. Yd	Sand	Co. Yd	Stone	Co. Yd
8.06	122	34	68		

**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc Above or Below Top of Slope	Elev. Top of Disc	Distance of Disc Below Slope	Station No.
16+0	201.3	20.16	60	16	2022.35

3/ Roadway DESIGN  
STANDARD DESIGN  
**2' X 2' CONCRETE BOX CULVERT**  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.

Approved: *J. J. Drossel*  
Design Engineer  
State Highway Engineer  
Feb. 1925

Proj 413A-B

Sta. 16 + 00

- GENERAL NOTES:**
- Do not scale this drawing.
  - All concrete shall be Class A 1:2:4 proportions.
  - Bevel all exposed edges with a triangular strip cut from a 1/4 x 3/4 piece.
  - All reinforcement shall be 1/2" square deformed mechanical bond bars.
  - Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire.
  - Depth of cut off wall to vary with soil conditions.
  - Slope barrel 1/4 inch per foot toward discharge end unless otherwise specified.
  - Standard specifications of Wisconsin Highway Commission.



**CUT OUT AND MAIL WITH YOUR ORDER FOR STEEL**

A-Bars	B-Bars	C-Bars	D-Bars	E-Bars	F-Bars	G-Bars	H-Bars	I-Bars	J-Bars	K-Bars	L-Bars	M-Bars	N-Bars	O-Bars	P-Bars	Q-Bars	R-Bars	S-Bars	T-Bars	U-Bars	V-Bars	W-Bars	X-Bars	Y-Bars	Z-Bars
14'-4"	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'	10'

**STEEL REINFORCEMENT**

Station Number	A-Bars	B-Bars	C-Bars	D-Bars	E-Bars	F-Bars	G-Bars	H-Bars	I-Bars	J-Bars	K-Bars	L-Bars	M-Bars	N-Bars	O-Bars	P-Bars	Q-Bars	R-Bars	S-Bars	T-Bars	U-Bars	V-Bars	W-Bars	X-Bars	Y-Bars	Z-Bars
28+70	8	92	20	62	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
36+35	8	92	20	62	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

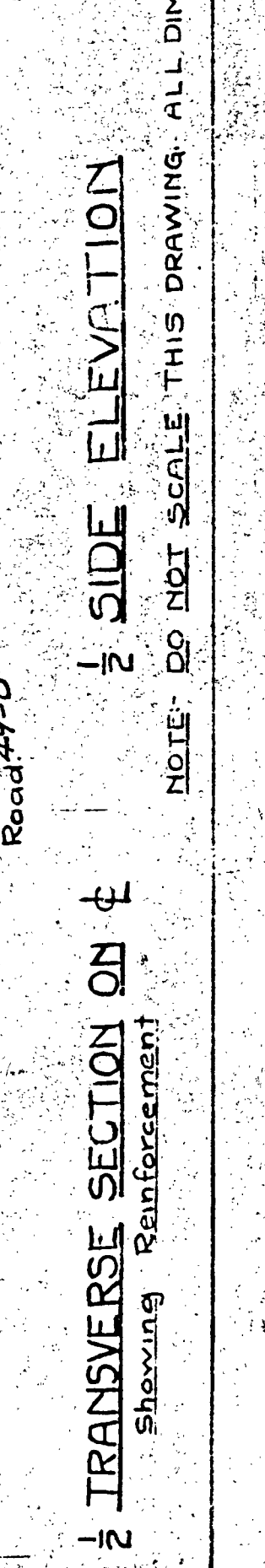
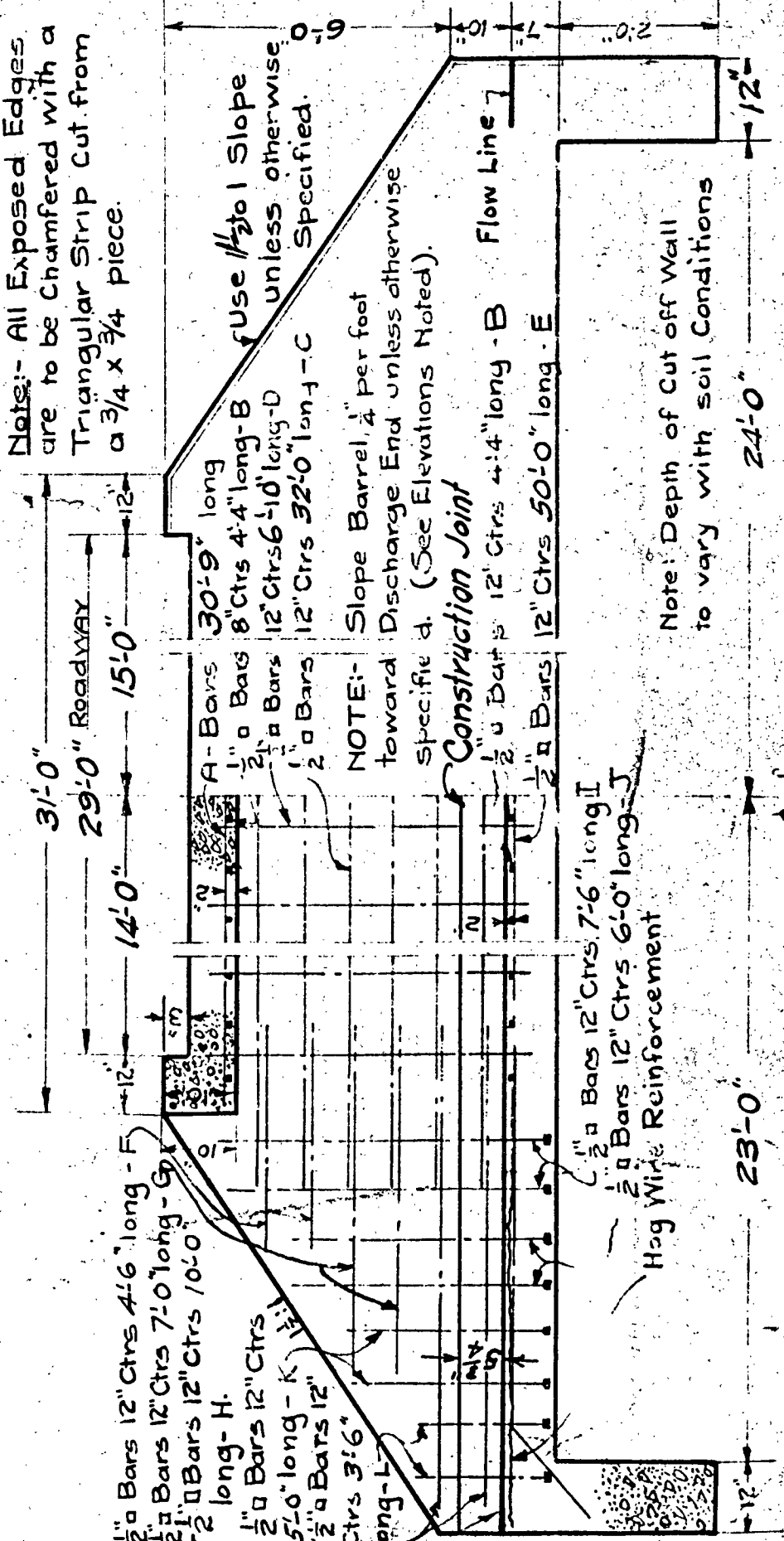
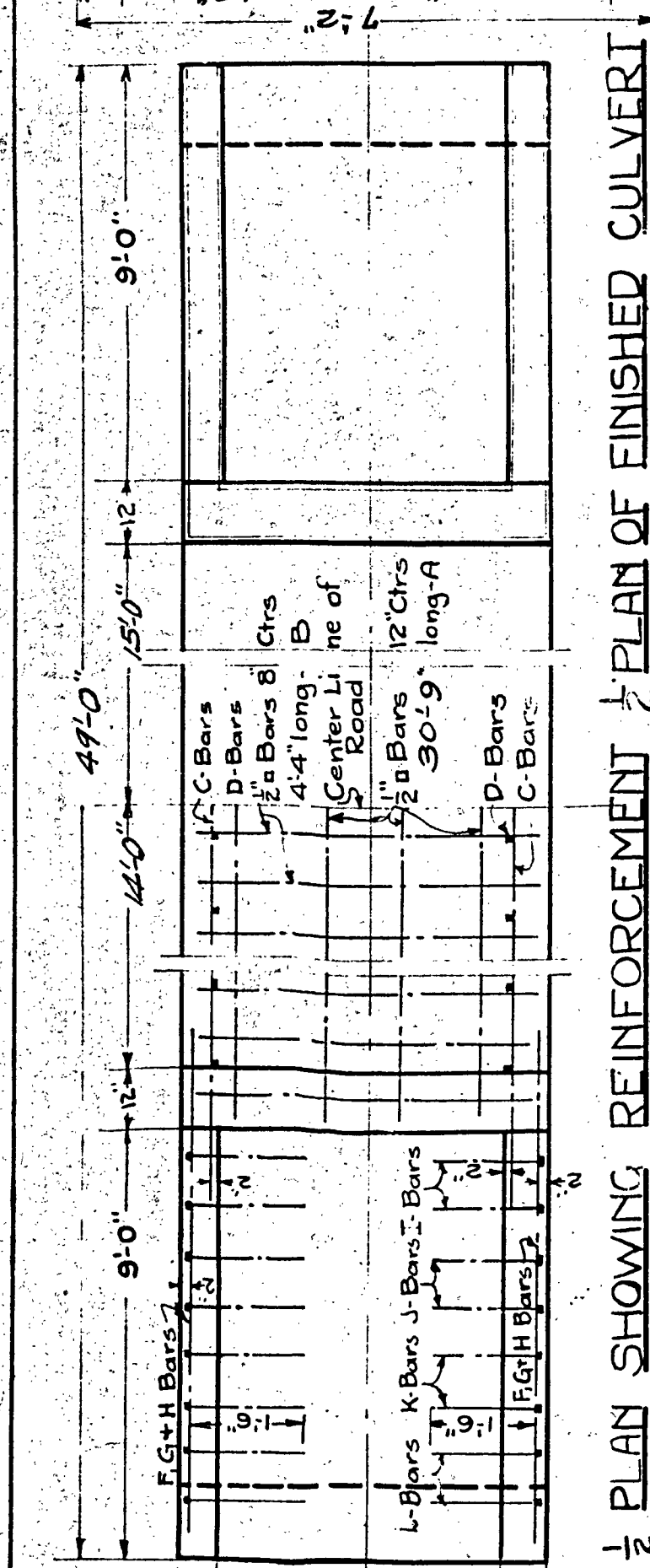
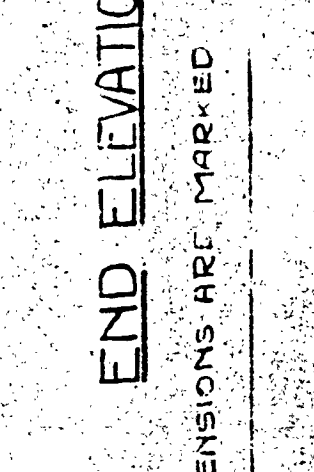
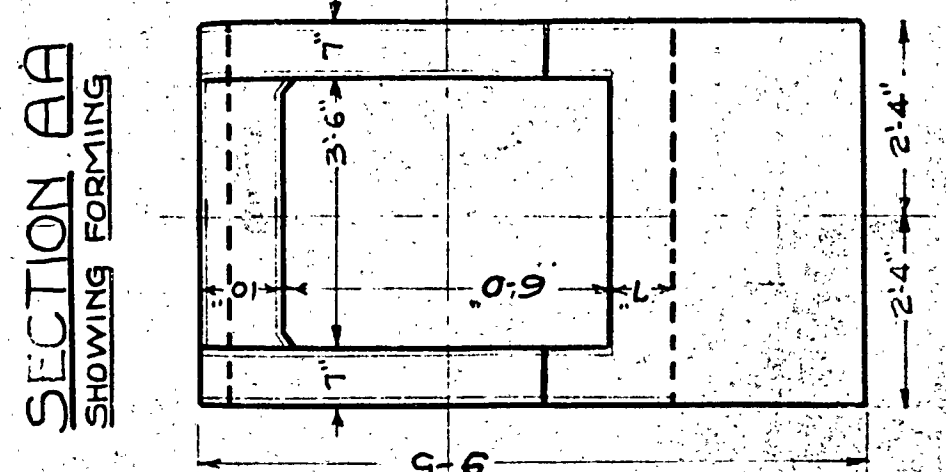
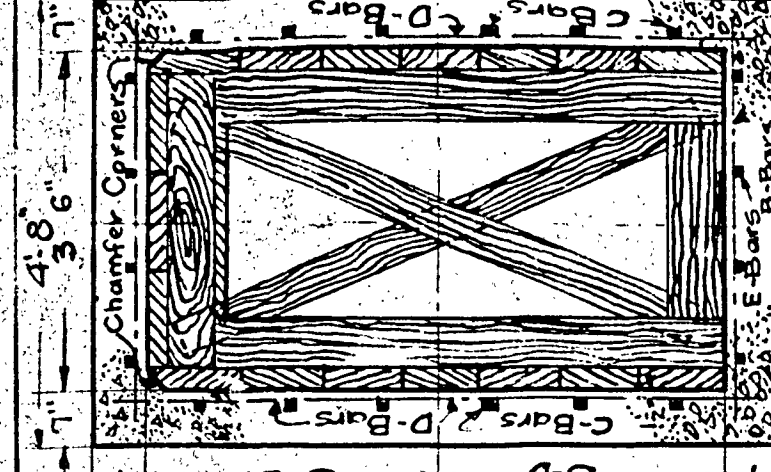
**CONCRETE 1:2:4 MIX**

Station Number	A-Bars	B-Bars	C-Bars	D-Bars	E-Bars	F-Bars	G-Bars	H-Bars	I-Bars	J-Bars	K-Bars	L-Bars	M-Bars	N-Bars	O-Bars	P-Bars	Q-Bars	R-Bars	S-Bars	T-Bars	U-Bars	V-Bars	W-Bars	X-Bars	Y-Bars	Z-Bars
28+70	8	92	20	62	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
36+35	8	92	20	62	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

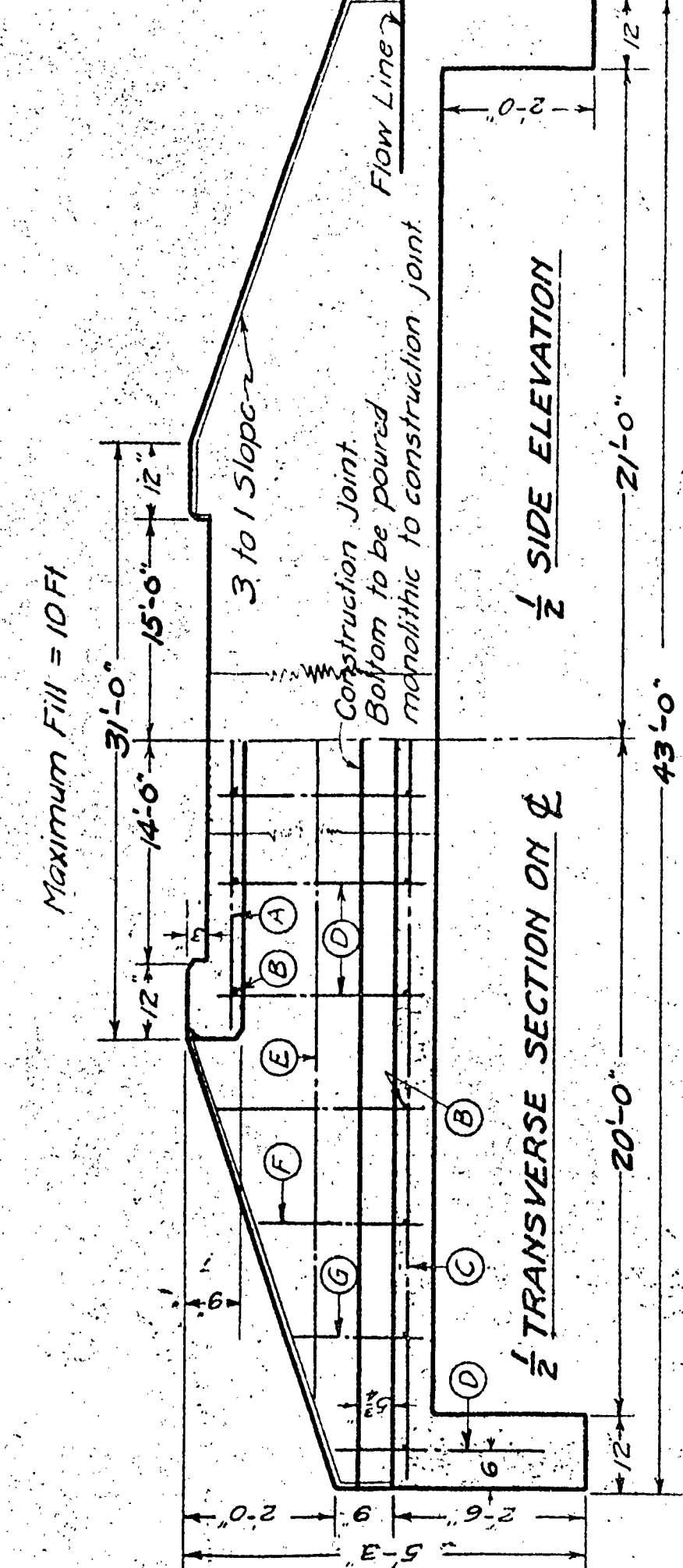
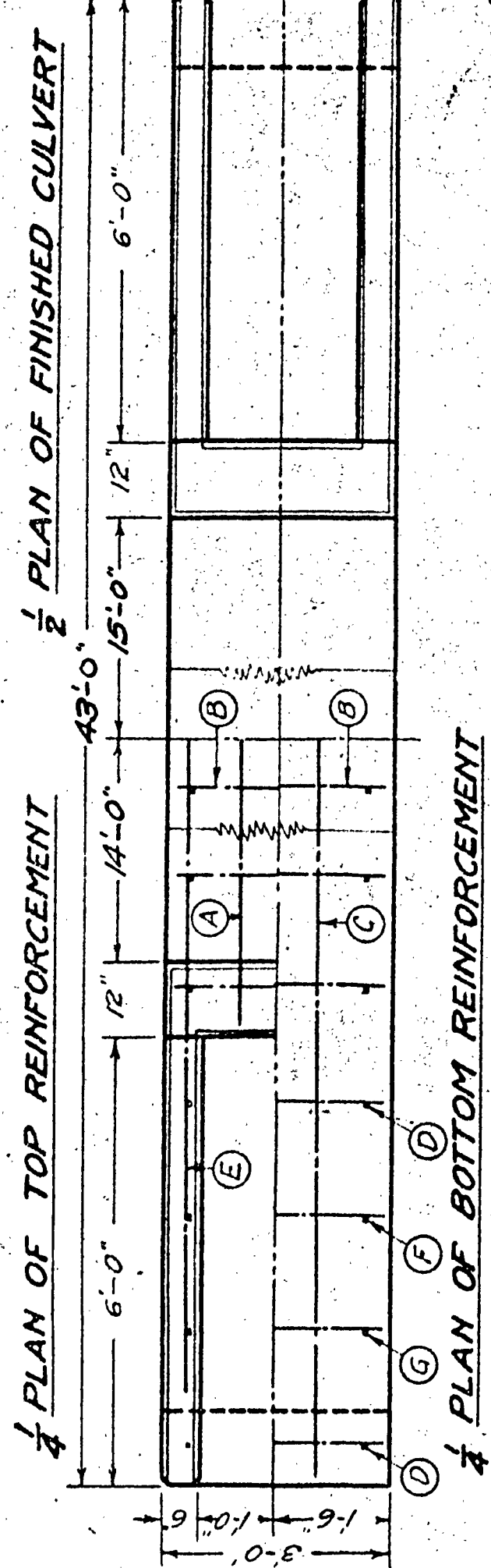
**INFORMATION READ TO STAKE OUT CULVERTS**

Station	Elev. of Inlet	Distance of Point 'D'	Elev. of Top of Stake
28+70	238.0	238.9	13.1
36+35	270.8	271.1	7.9
			56
			278.5

29' ROADWAY  
 SPECIAL 3'-6" x 6'-0" R.C. CATTLE PASS  
 1922 STANDARD  
 WISCONSIN HIGHWAY COMMISSION  
 Madison, Wis.  
 Oct. 1922  
 Approved: J. V. Donaghey  
 STATE HIGHWAY ENGINEER  
 PROJ. 413 A-C



Notes: All Exposed Edges are to be Chamfered with a Triangular Strip Cut from a 3/4 x 3/4 piece.  
 Use 1/2 to 1 Slope unless otherwise Specified.  
 Slope Barrel 1/2 per foot toward Discharge End unless otherwise specified.  
 Construction Joint: 1/2 Bars 12' Ctrs 4'-4" long - B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z.  
 Note: Depth of Cut off Wall to vary with soil conditions.  
 Note: DO NOT SCALE THIS DRAWING. ALL DIMENSIONS ARE MARKED.



Maximum Fill = 10 Ft.  
 Construction Joint Bottom to be poured monolithic to construction joint.

Reinforcement to be properly supported with approved metallic bar spacers.

**BILL OF REINFORCING**

Mark	Number	Length	Spacing	Location of Bar
A	4	16'-3"	1'-0"	Top Longitudinal
B	58	2'-9"	1'-6"	Top & Floor Transverse
C	4	20'-9"	1'-0"	Floor Longitudinal
D	56	2'-9"	1'-6"	Walls Vertical
E	4	20'-3"	1'-0"	Walls Longitudinal
F	4	2'-3"	1'-6"	Wings Vertical
G	4	1'-9"	1'-6"	Wings Vertical
Total Steel Required				455 pounds

**QUANTITIES FOR ONE CULVERT**

Concrete Cu. Yd.	Gravel Cu. Yd.	Stone Cu. Yd.
7.69	11.6	3.2
		6.4

**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc. Above or Below Stake	Top of Stake	Bottom of Stake	Distance of Disc. Below Stake
53+0	234.8	255.1	17.4	53	256.23
182+0	274.0	274.3	2.6	182	276.57

29' Roadway  
 STANDARD DESIGN  
 2'X2' CONCRETE BOX CULVERT  
 SLOPING ENDWALLS  
 WISCONSIN HIGHWAY COMMISSION  
 MADISON, WISC.  
 Approved: J. V. Donaghey  
 Design Engineer  
 State Highway Engineer  
 Feb. 1925  
 PROJ. 413 A-D

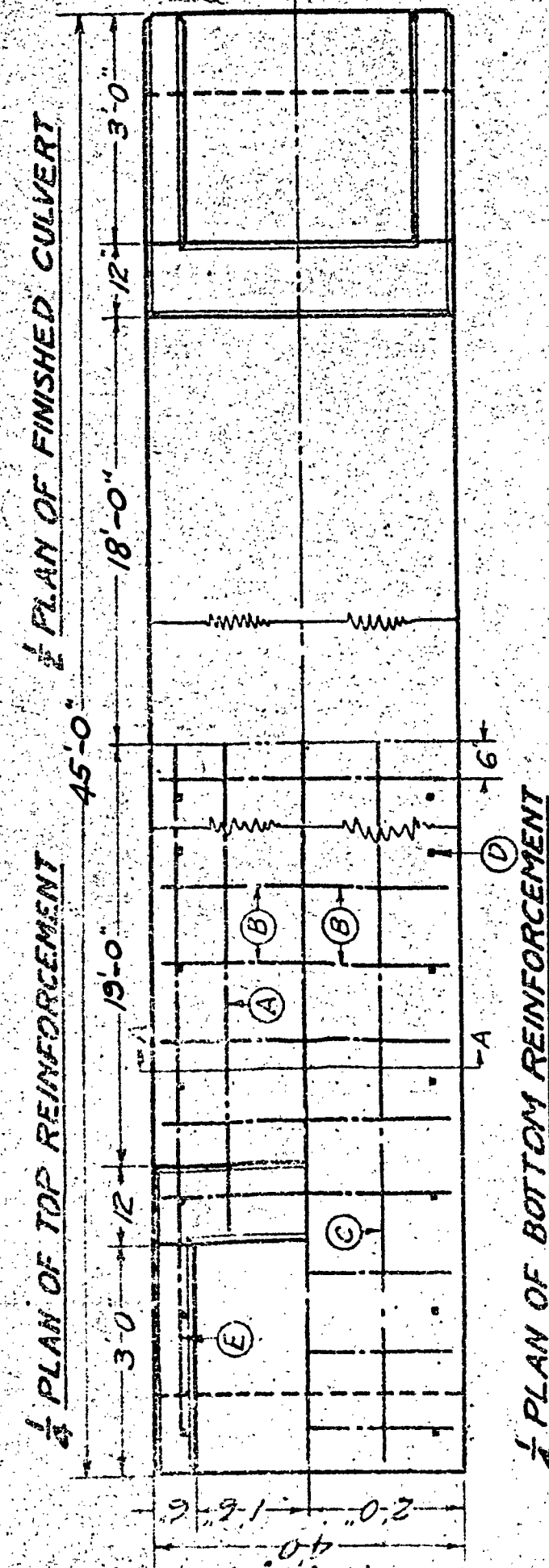
GENERAL NOTES:  
 Do not scale this drawing.  
 All concrete shall be Class A 1:2:4.  
 Bevel all exposed edges with a triangular strip cut from a 3/4 x 3/4 piece.  
 Slope barrel 1/2 inch per foot toward discharge end unless otherwise specified.  
 Standard specifications of Wisconsin Highway Commission.

5/2 (28+70 36+35)  
 5/2 (53+0 182+0)



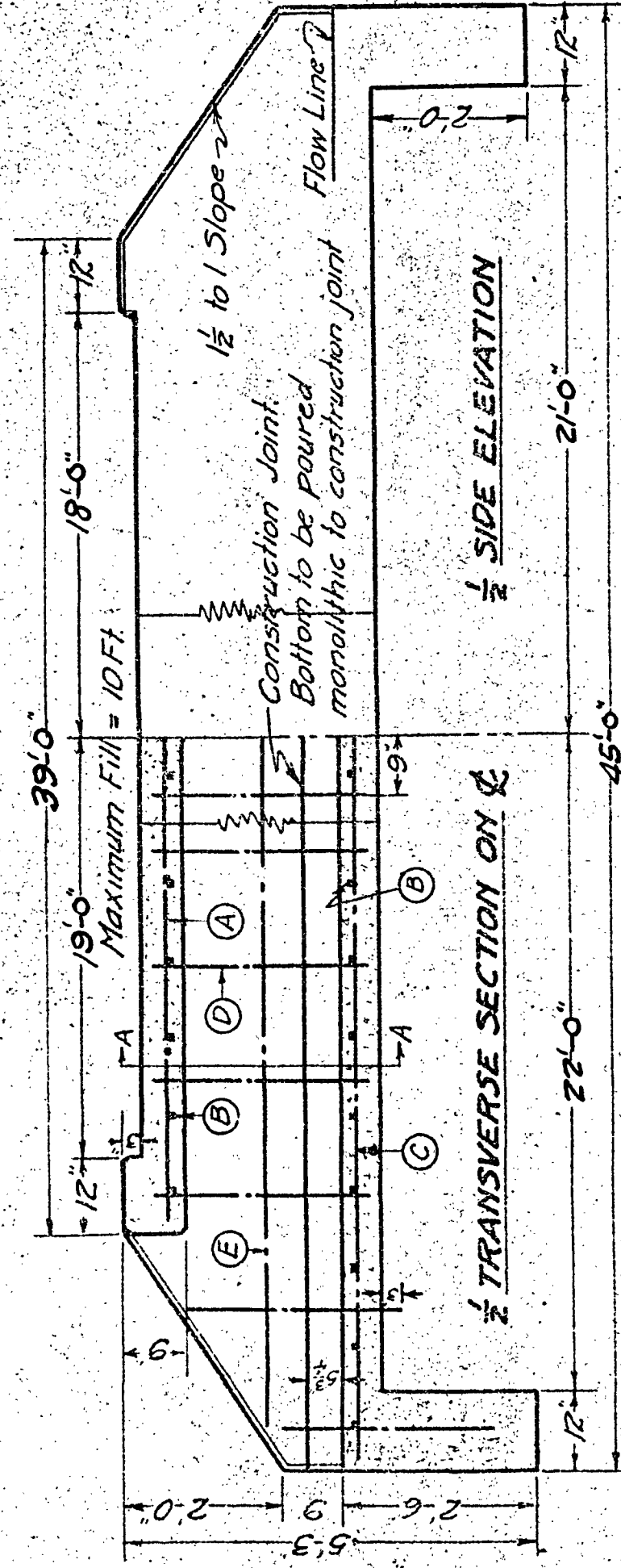




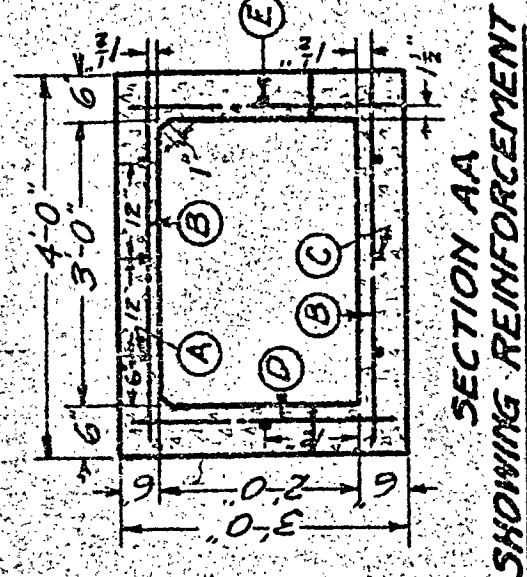


1/4 PLAN OF TOP REINFORCEMENT

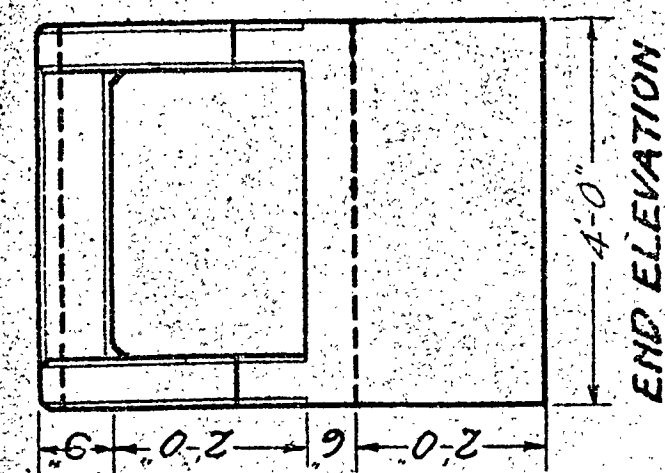
1/4 PLAN OF BOTTOM REINFORCEMENT



1/2 TRANSVERSE SECTION ON C-C



SECTION AA SHOWING REINFORCEMENT



END ELEVATION

Reinforcement to be properly supported with approved metallic bar chairs.

**BILL OF REINFORCING**

Mark	Number	Length	Spacing	Location of Bar
A	6	20'-3"	1'-0"	Top, Longitudinal
B	82	3'-9"	1'-0"	Top & Floor, Transverse
C	9	16'-0"	1'-0"	Floor, Longitudinal
D	60	2'-9"	1'-6"	Walls, Vertical
E	6	15'-9"	1'-0"	Walls, Longitudinal
Total Steel Required:				71.9 pounds

**QUANTITIES FOR ONE CULVERT**

Concrete Cu Yds	Cement Bbls	Sand Cu Yds	String Cu Yds
10.16	15.3	4.3	8.6

**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc Above or Below Top of Stake	Distance of Disc Above or Below Stake	Top of Disc	Disc	Foot of Stake
137+60	221.2	22.5	3.6	198	224.2	23.1

37' Roadway  
STANDARD DESIGN  
**3 X 2 CONCRETE BOX CULVERT**  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.  
Feb. 1925

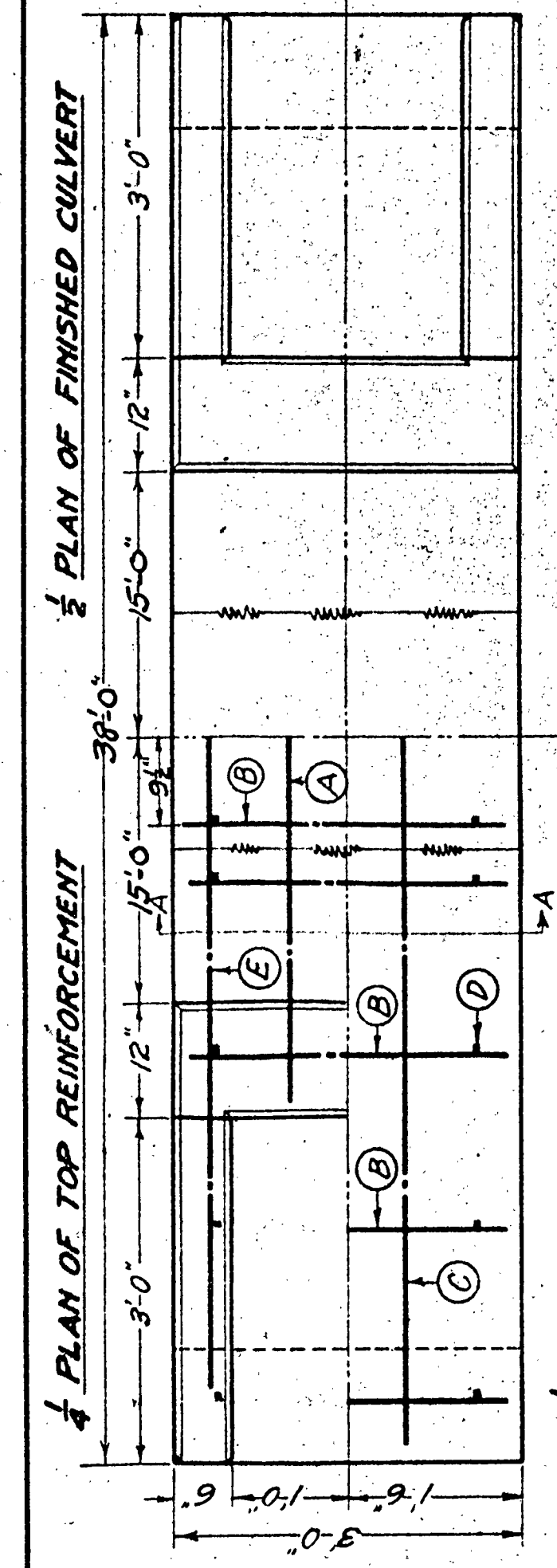
Approved: *H. J. Luehling*  
Design Engineer  
J. J. Drzewalsky  
State Highway Engineer  
PROJ. 413A-5

Slope barrel 1/2 inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.

All reinforcement shall be 1/2" square deformed mechanical bond bars. Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire. Depth of cut off wall to vary with soil conditions.

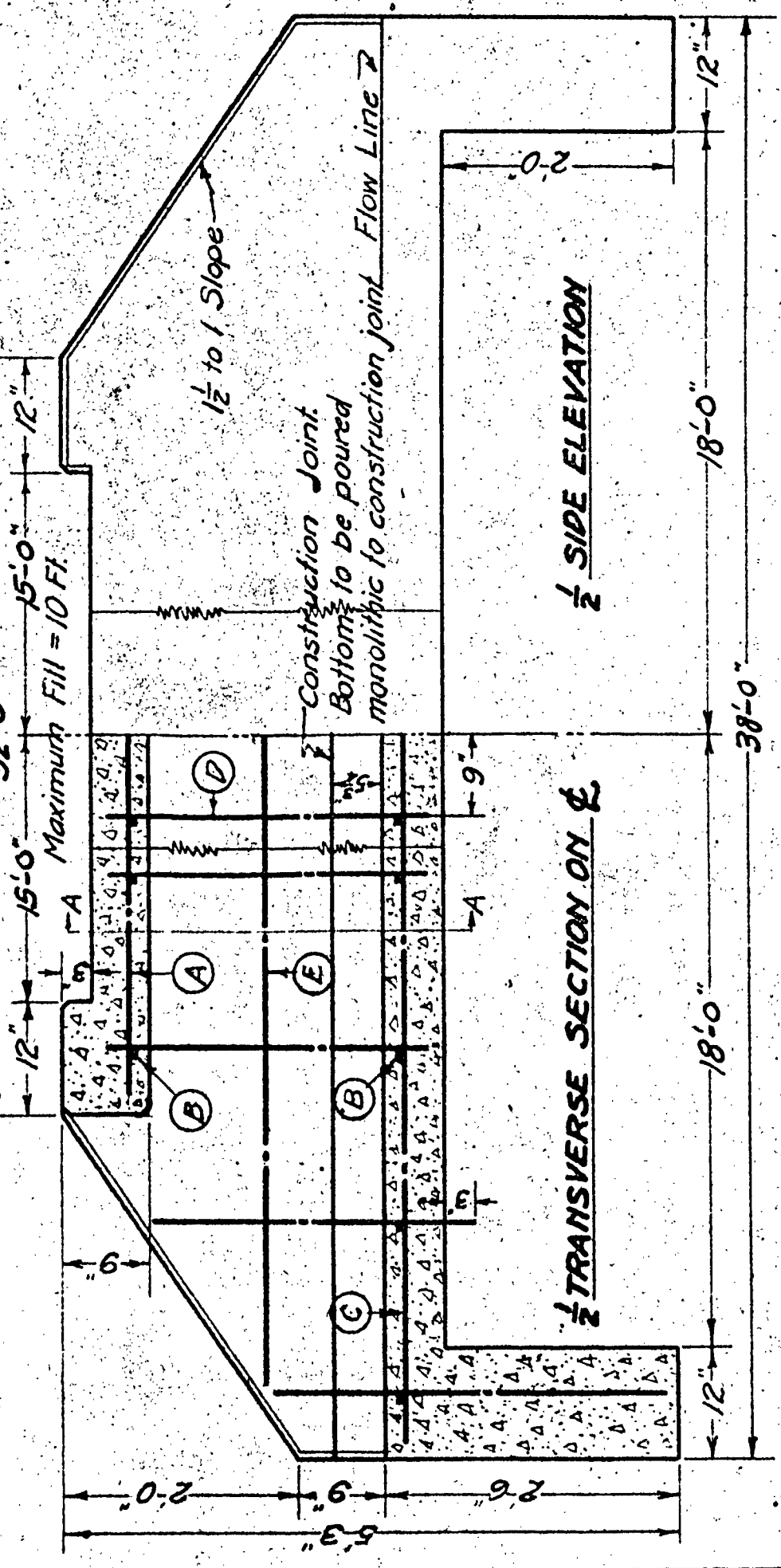
**GENERAL NOTES:**  
Do not scale this drawing.  
All concrete shall be Class A-1-2.4 proportions.  
Barrel all exposed edges with a triangular strip from a 3/4" x 3/4" piece.

Sta. 137+60

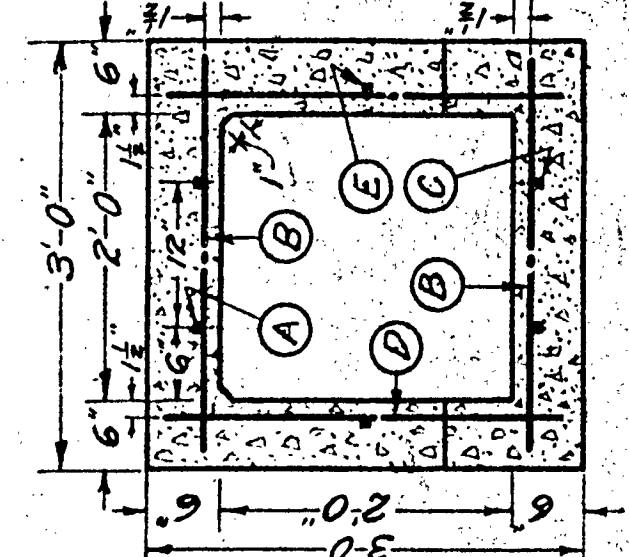


1/4 PLAN OF TOP REINFORCEMENT

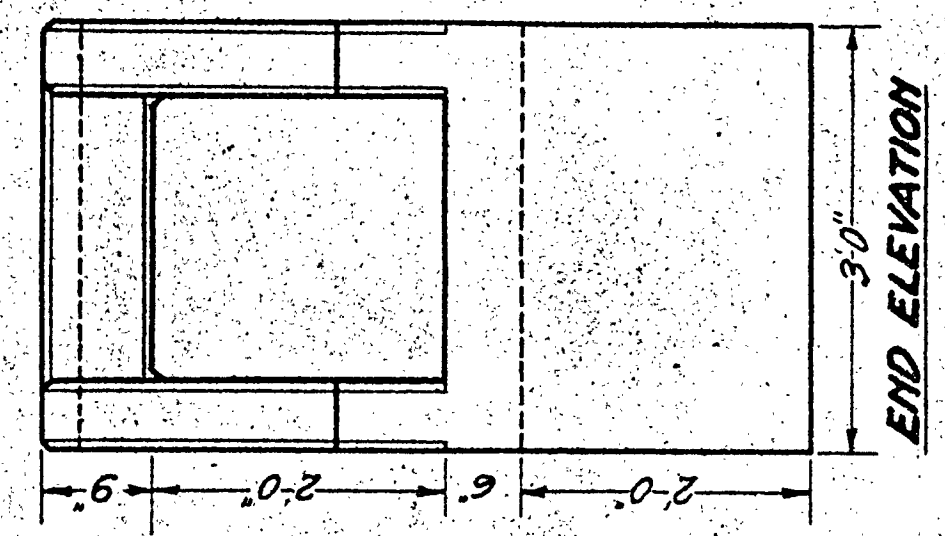
1/4 PLAN OF BOTTOM REINFORCEMENT



1/2 TRANSVERSE SECTION ON C-C



SECTION AA SHOWING REINFORCEMENT



END ELEVATION

Reinforcement to be properly supported with approved metallic bar spacers.

**BILL OF REINFORCING**

Mark	Number	Length	Spacing	Location of Bar
A	4	16'-9"	1'-0"	Top, Longitudinal
B	48	2'-9"	1'-6"	Top & Floor, Transverse
C	4	15'-9"	1'-0"	Floor, Longitudinal
D	52	2'-9"	1'-6"	Walls, Vertical
E	4	15'-3"	1'-0"	Walls, Longitudinal
Total Steel Required:				42.5 pounds

**QUANTITIES FOR ONE CULVERT**

Concrete Cu Yds	Cement Bbls	Stone Cu Yds	String Cu Yds
7.16	10.8	3.0	6.0

**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc Above or Below Top of Stake	Distance of Disc Above or Below Stake	Top of Disc	Disc	Foot of Stake
147+98	222.6	22.9	2.8	198	225.4	19.0

30' Roadway  
STANDARD DESIGN  
**2 X 2 CONCRETE BOX CULVERT**  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.  
Jan. 1925

Approved: *H. J. Luehling*  
Design Engineer  
J. J. Drzewalsky  
State Highway Engineer  
PROJ. 413A-F

Slope barrel 1/2 inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.

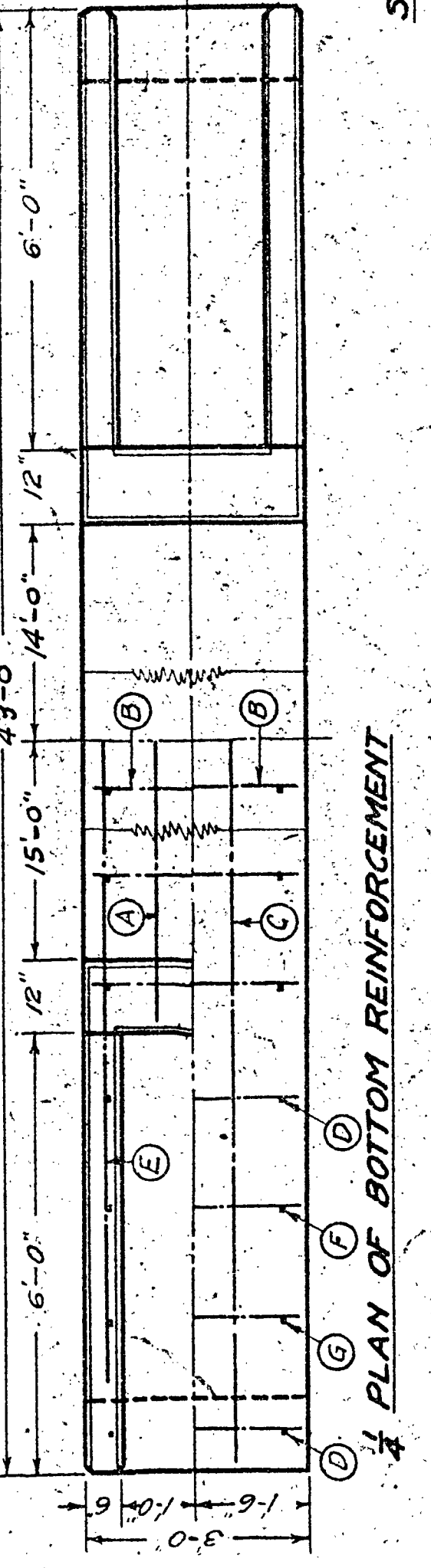
All reinforcement shall be 1/2" square deformed mechanical bond bars. Bars shall lap 40 diameters where spliced and shall be securely wired with #16 wire. Depth of cut off wall to vary with soil conditions.

**GENERAL NOTES:**  
Do not scale this drawing.  
All concrete shall be Class A-1-2.4 proportions.  
Barrel all exposed edges with a triangular strip from a 3/4" x 3/4" piece.

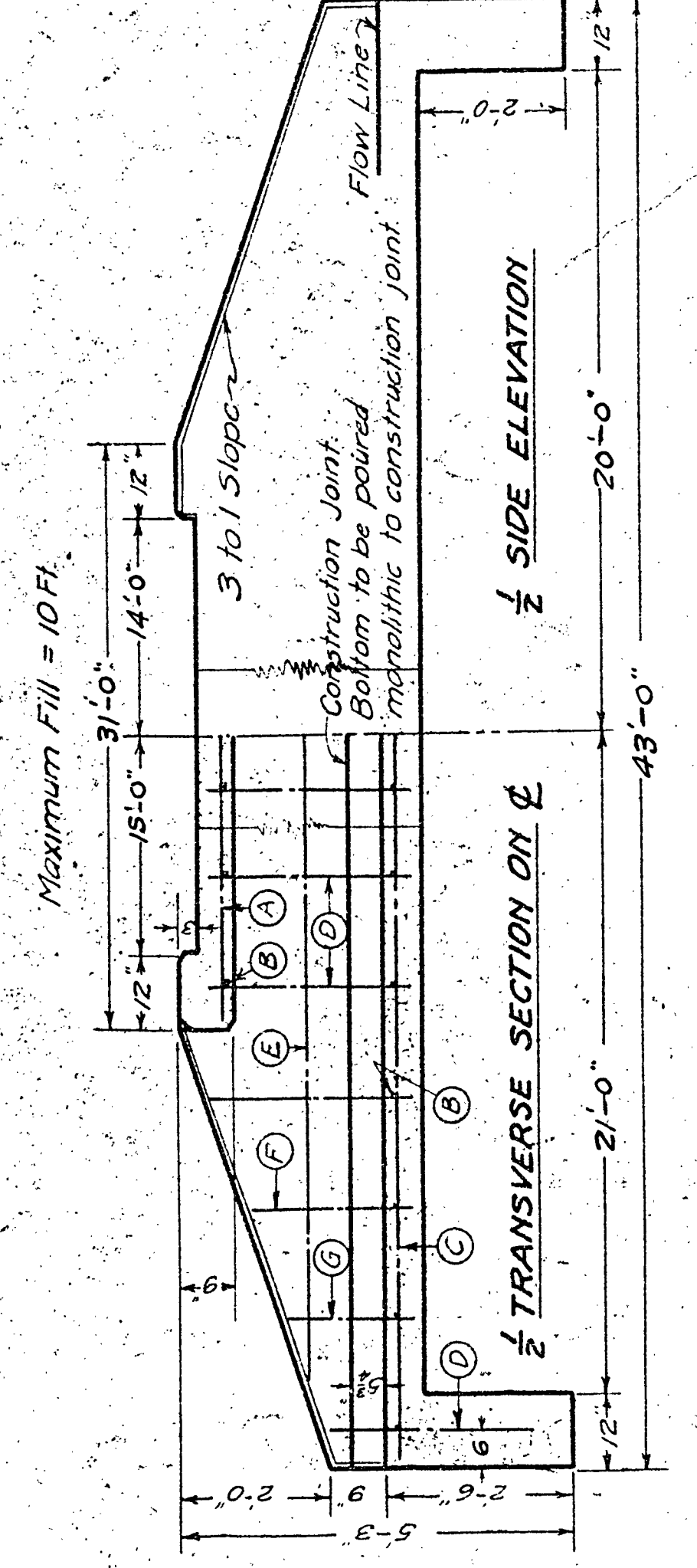
Sta. 147+98



**1/4 PLAN OF TOP REINFORCEMENT**



**1/4 PLAN OF BOTTOM REINFORCEMENT**

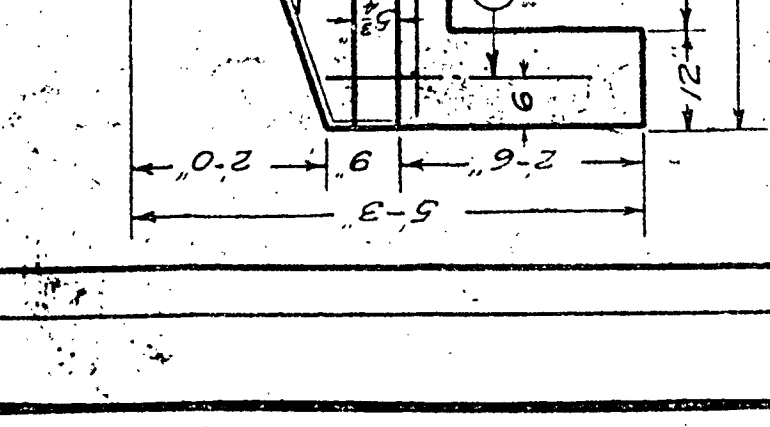
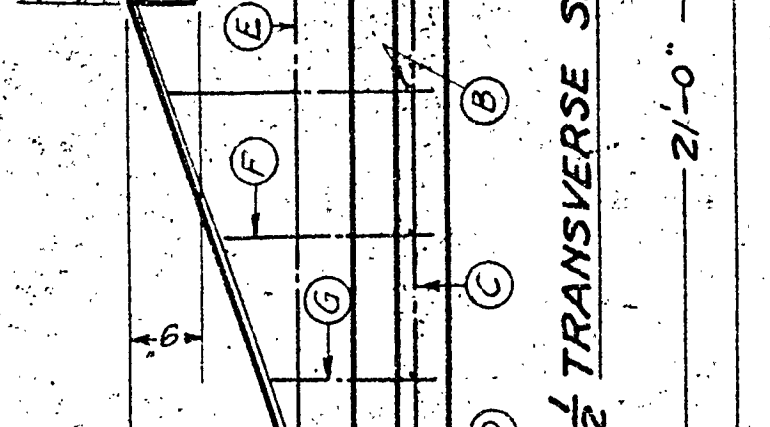
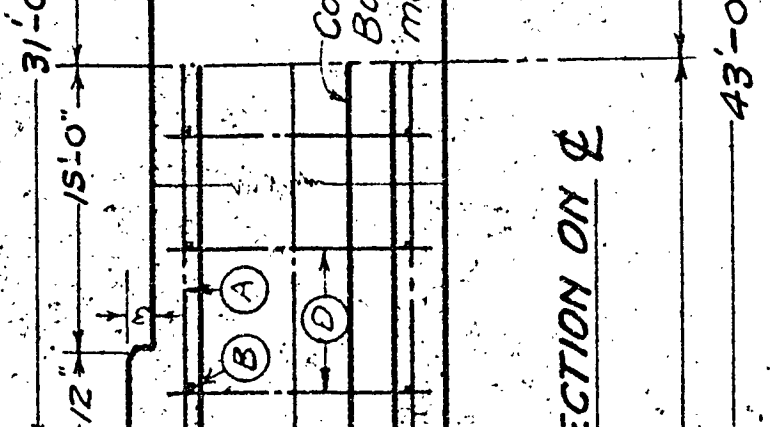
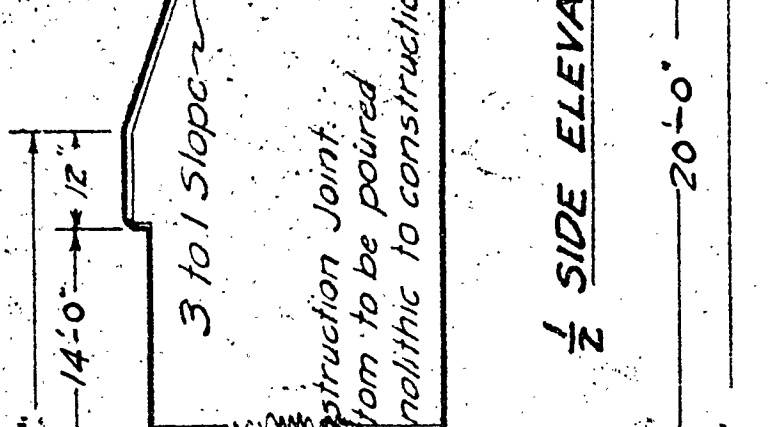
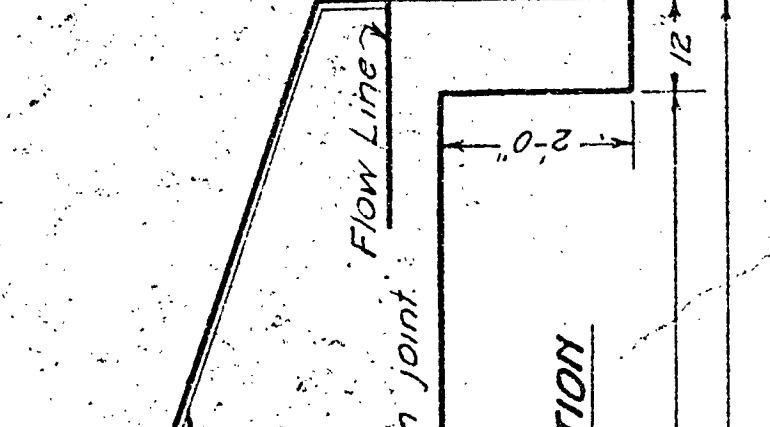
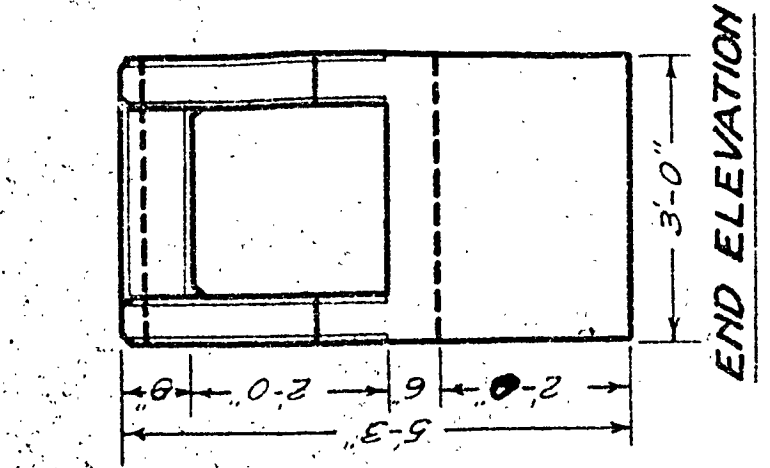


Reinforcement to be properly supported with approved metallic bar spacers.

**BILL OF REINFORCING**

Mark	Number	Length	Spec.	Location of Bar
A	4	16'-3"	1'-0"	Top, Longitudinal
B	50	2'-9"	1'-6"	Top & Floor Transverse
C	6	15'-6"	1'-0"	Floor Longitudinal
D	50	2'-9"	1'-6"	Walls, Vertical
E	4	21'-3"	1'-0"	Walls, Longitudinal
F	4	2'-3"	1'-6"	Wings, Vertical
G	4	1'-9"	1'-6"	Wings, Vertical

Total Steel Required 455 pounds



**QUANTITIES FOR ONE CULVERT**

Concrete Cu. Yd.	7.69	Cement Bbl.	11.6	Sand Cu. Yd.	3.2	Stone Cu. Yd.	6.4
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**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc. Inlet Above	Distance of Disc. Top of Disc. Above	Distance of Disc. Top of Disc. Below	Station Part of R.L.
162+73	246.3	246.6	18'	163	248.1
					22-0.7

**29' Roadway  
STANDARD DESIGN  
2'X2' CONCRETE BOX CULVERT  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.**

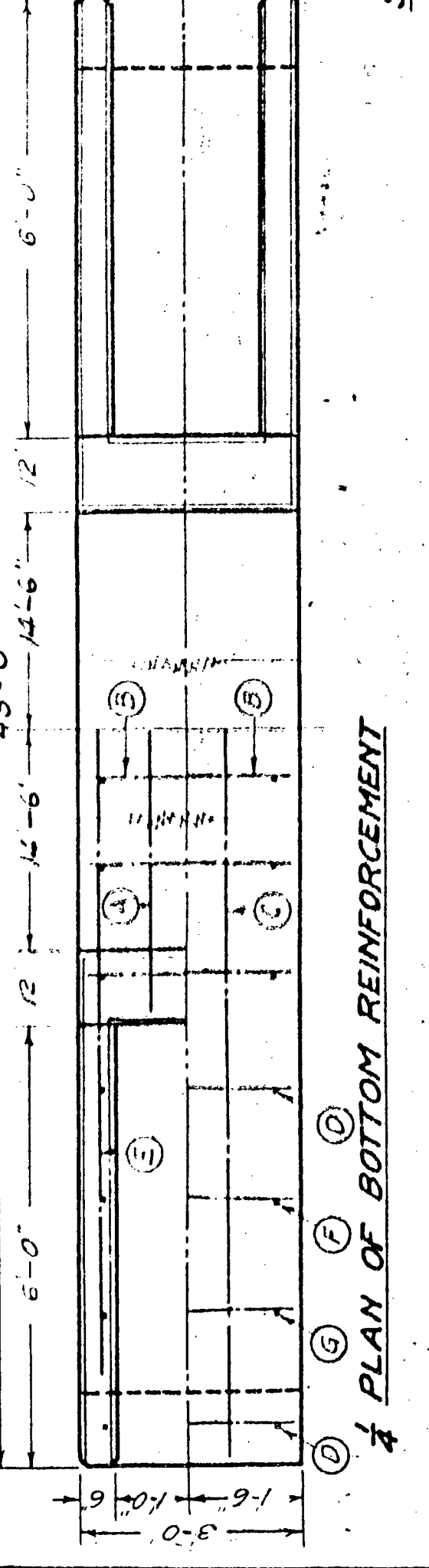
Slope barrel 1/4 inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.

**GENERAL NOTES:**  
Do not scale this drawing.  
All reinforcement shall be 1/2" square deformed mechanical bond bars.  
Bars shall lap 40 diameters where spliced and shall be securely wired with #6 wire.  
Depth of cut off wall to vary with soil conditions.

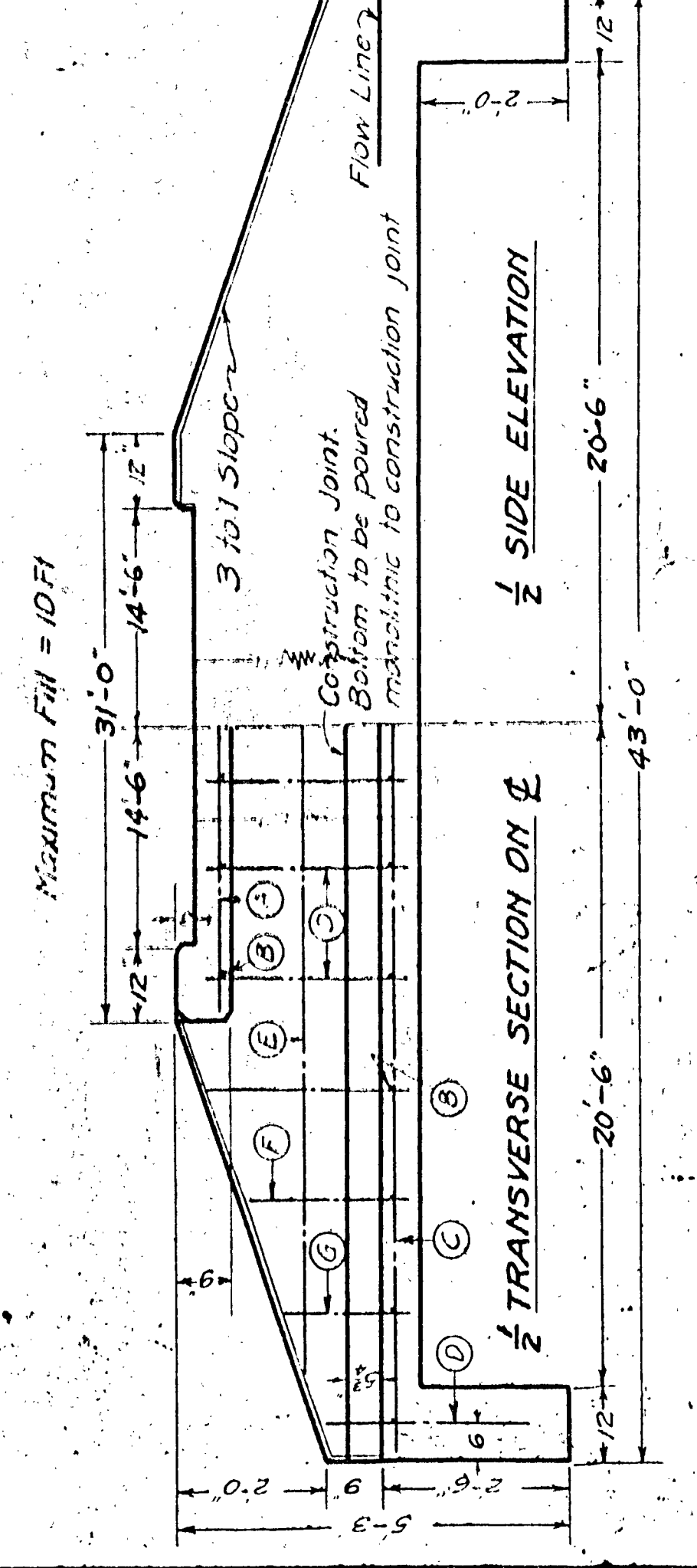
Approved: *H. J. Tuelling* *J. J. Tuelling*  
Design Engineer State Highway Engineer  
Feb. 1925  
PROJ. A13A-1

Sta. 162+73

**1/4 PLAN OF TOP REINFORCEMENT**



**1/4 PLAN OF BOTTOM REINFORCEMENT**

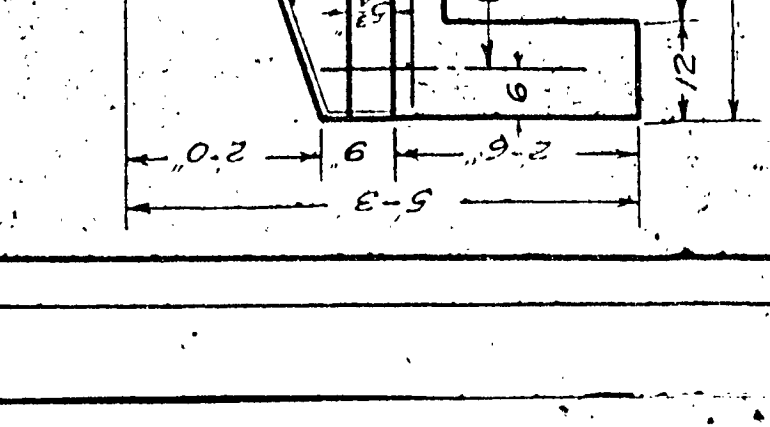
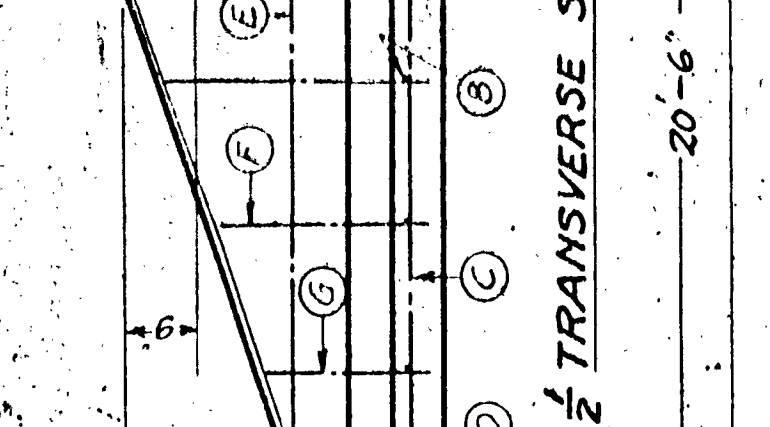
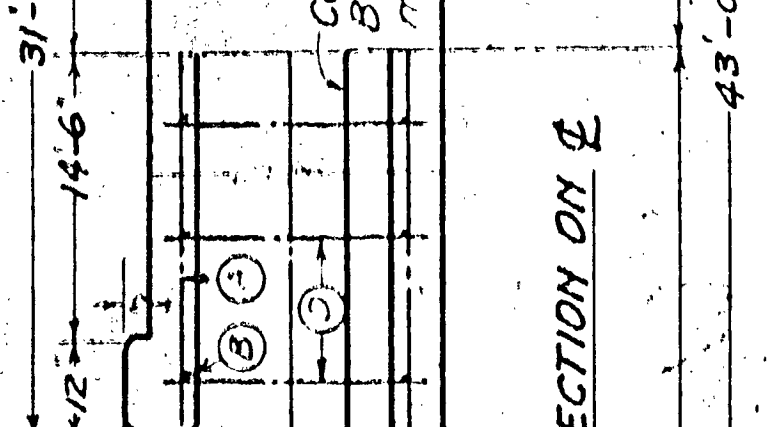
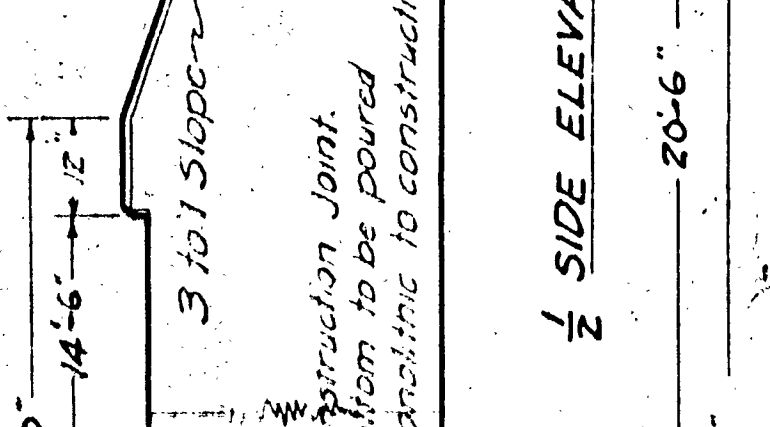
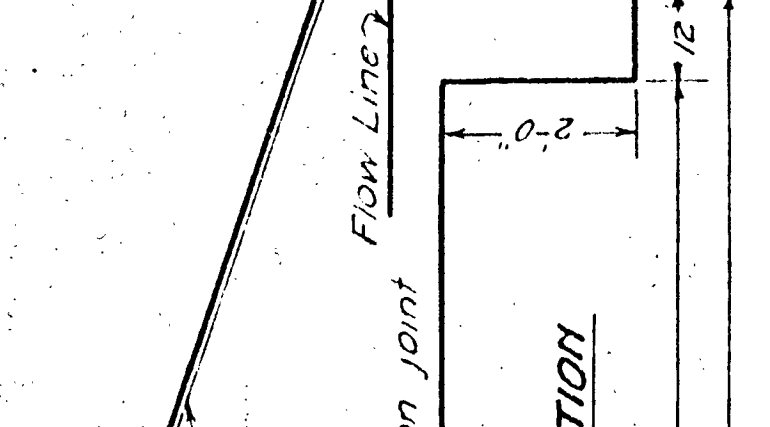
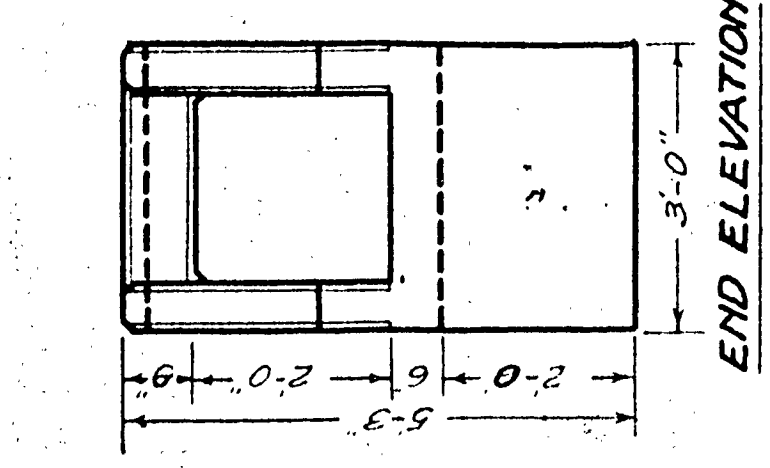


Reinforcement to be properly supported with approved metallic bar spacers.

**BILL OF REINFORCING**

Mark	Number	Length	Spec.	Location of Bar
A	4	16'-3"	1'-0"	Top, Longitudinal
B	58	2'-9"	1'-6"	Top & Floor Transverse
C	6	20'-9"	1'-0"	Floor Longitudinal
D	50	2'-9"	1'-6"	Walls, Vertical
E	4	26'-3"	1'-0"	Walls, Longitudinal
F	4	2'-3"	1'-6"	Wings, Vertical
G	4	1'-9"	1'-6"	Wings, Vertical

Total Steel Required 455 pounds



**QUANTITIES FOR ONE CULVERT**

Concrete Cu. Yd.	7.69	Cement Bbl.	11.6	Sand Cu. Yd.	3.2	Stone Cu. Yd.	6.4
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**INFORMATION FOR LOCATION**

Station No.	Elevation of Flow Line	Distance of Disc. Inlet Above	Distance of Disc. Top of Disc. Above	Distance of Disc. Top of Disc. Below	Station Part of R.L.
197+27	249.3	249.6	1.7	197	249.3
					21'-6.7

**29' Roadway  
STANDARD DESIGN  
2'X2' CONCRETE BOX CULVERT  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WISC.**

Slope barrel 1/4 inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.

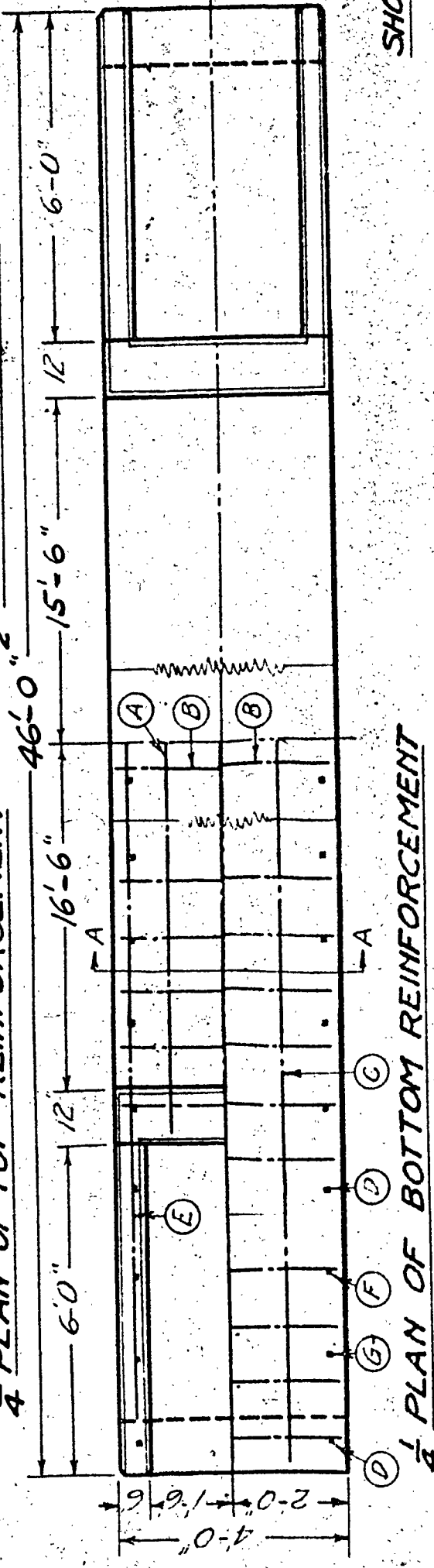
**GENERAL NOTES:**  
Do not scale this drawing.  
All reinforcement shall be 1/2" square deformed mechanical bond bars.  
Bars shall lap 40 diameters where spliced and shall be securely wired with #6 wire.  
Depth of cut off wall to vary with soil conditions.

Approved: *H. J. Tuelling* *J. J. Tuelling*  
Design Engineer State Highway Engineer  
Feb. 1925  
PROJ. A13A-7

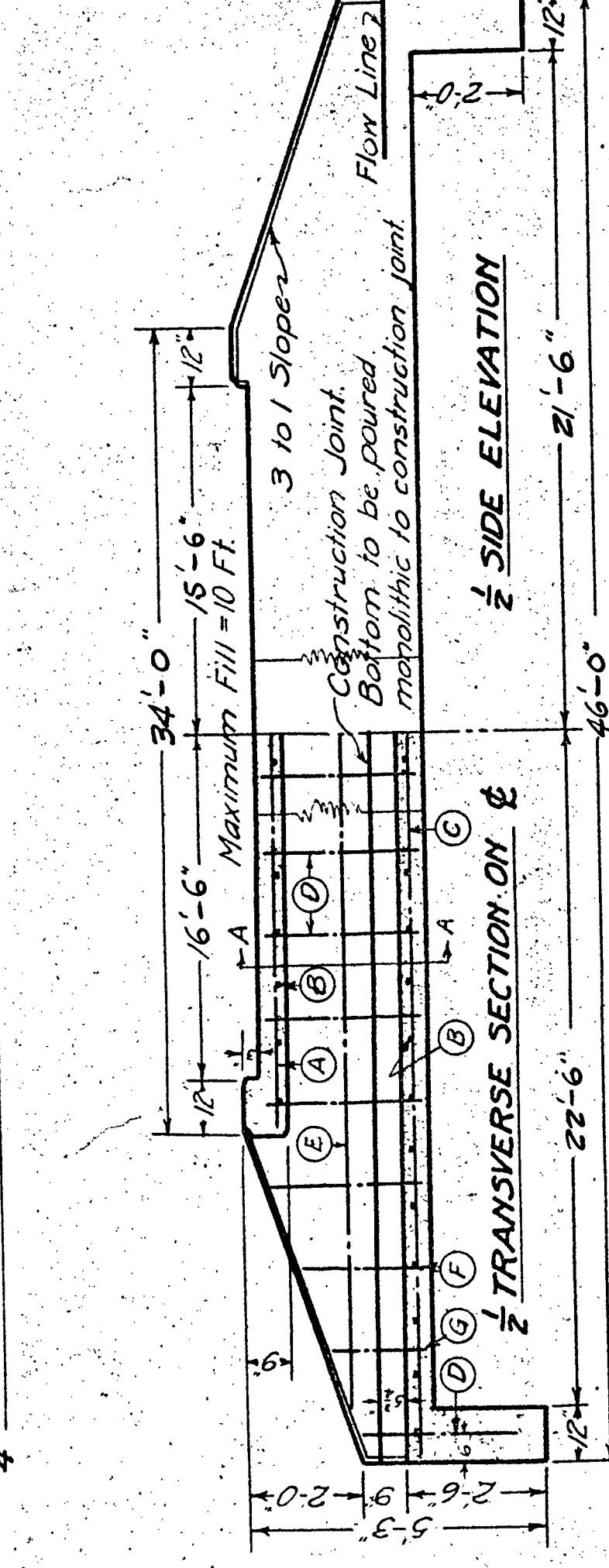
Sta. 197+27



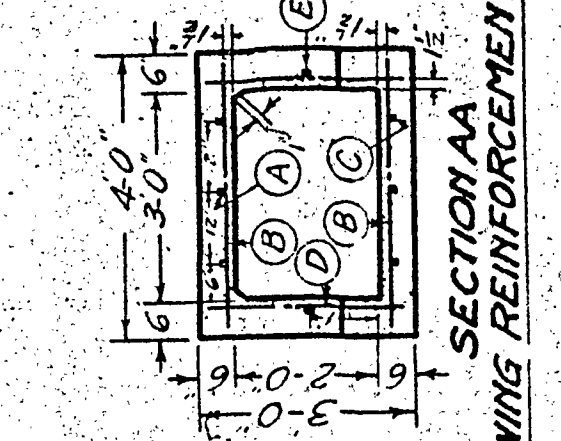
1/4 PLAN OF TOP REINFORCEMENT



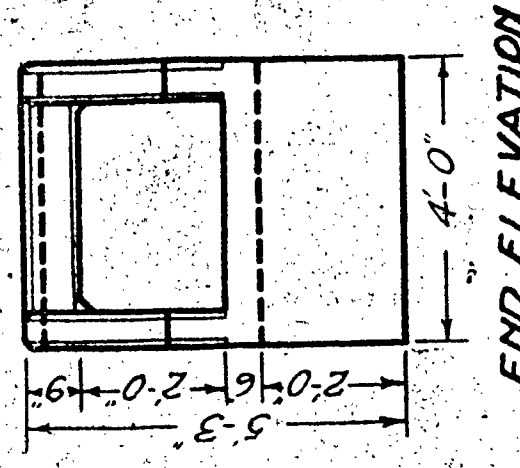
1/4 PLAN OF BOTTOM REINFORCEMENT



1/2 PLAN OF FINISHED CULVERT



SECTION AA SHOWING REINFORCEMENT



END ELEVATION

INFORMATION FOR LOCATION

Station No.	Flow Line Disc. Incl.	Distance Above Below Station	Distance of Disc. above Elev. Disc. or below Top of Stake	Top of Disc. or Below Stake	Stake	Remarks
218466	241.4	241.6	2.2'	2/12	248.5'	23'-6"

QUANTITIES FOR ONE CULVERT

Concrete Cu. Yd.	Cement Bbl.	Sand Cu. Yd.	Stone Cu. Yd.
9.89	14.9	4.2	8.4

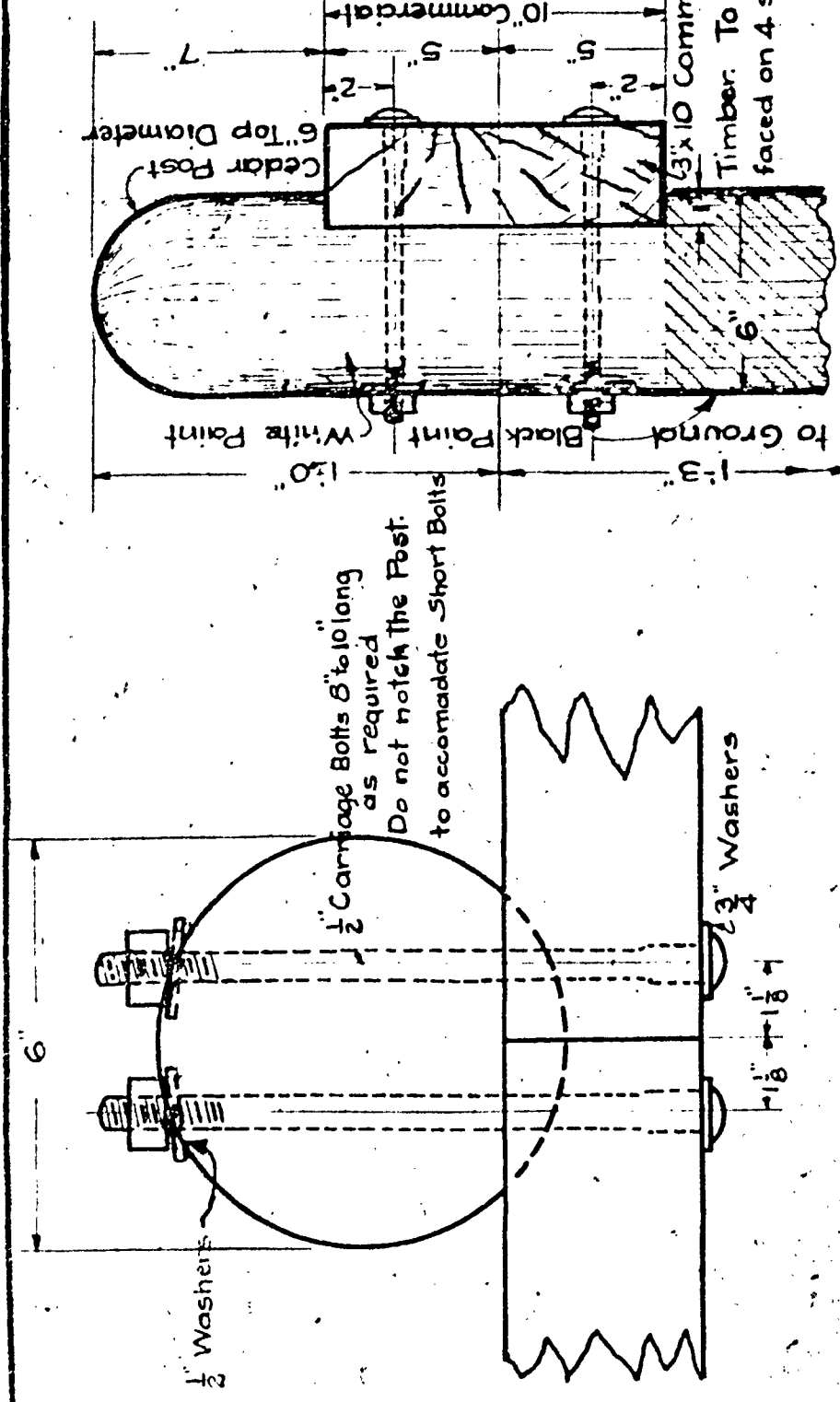
32' Roadway  
STANDARD DESIGN  
3X2 CONCRETE BOX CULVERT  
SLOPING ENDWALLS  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WIS.

Approved: *J. J. Donoghue*  
Design Engineer  
State Highway Engineer  
PROJ. 4139-K  
Feb. 1925

Slope barrel 1/2 inch per foot toward discharge end unless otherwise specified. Standard specifications of Wisconsin Highway Commission.

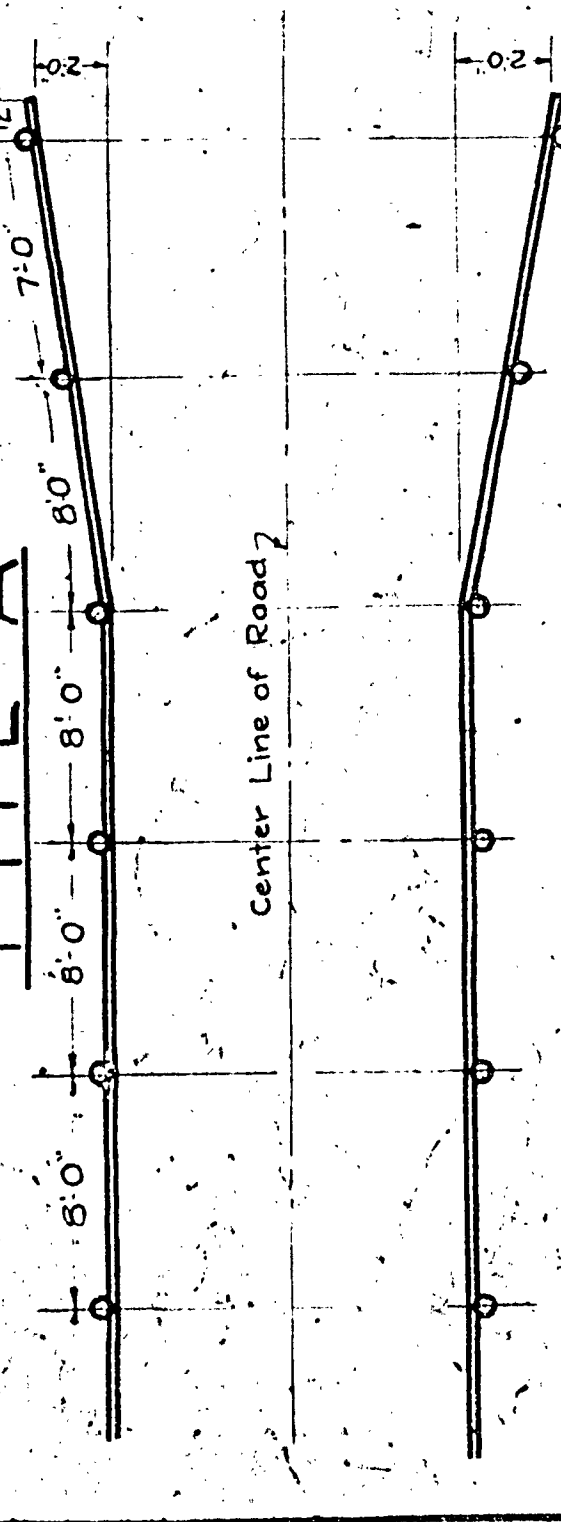
GENERAL NOTES:  
Do not scale this drawing.  
All concrete shall be Class A-1:2:4 proportions.  
Berd all exposed edges with a triangular strip cut from a 3/4 x 3/4 piece.

512.212+66



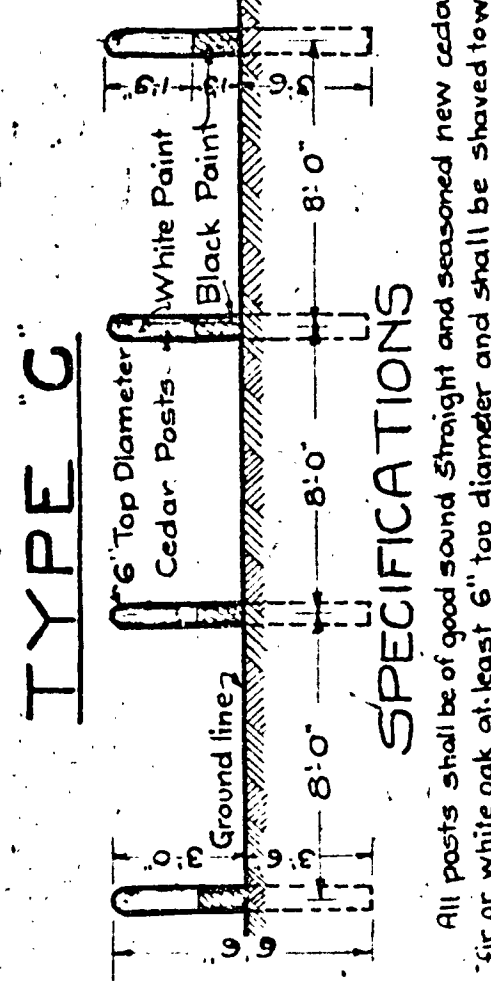
TOP VIEW

TYPE A

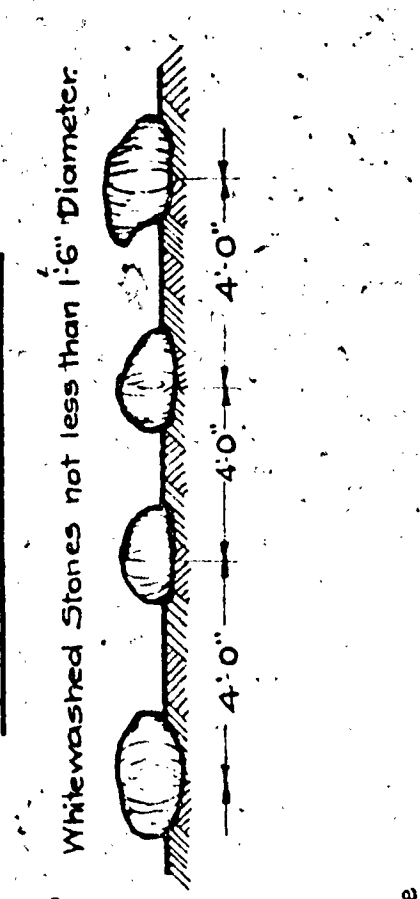


DETAIL OF END VIEW

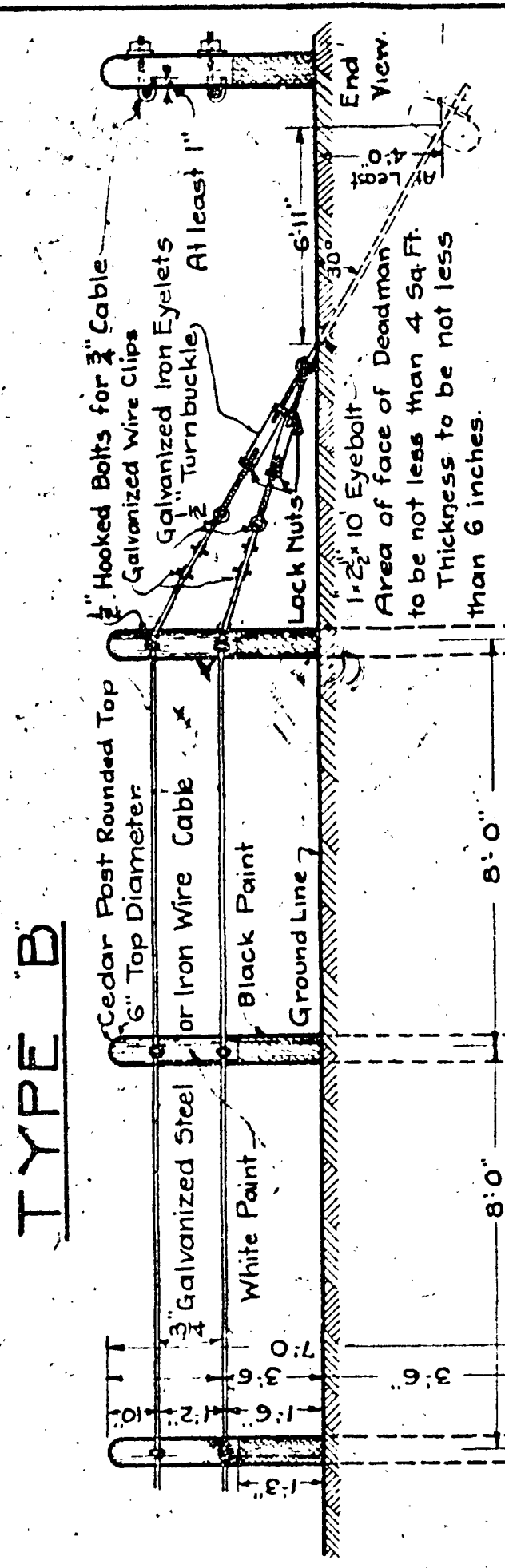
TYPE C



TYPE D



TYPE B



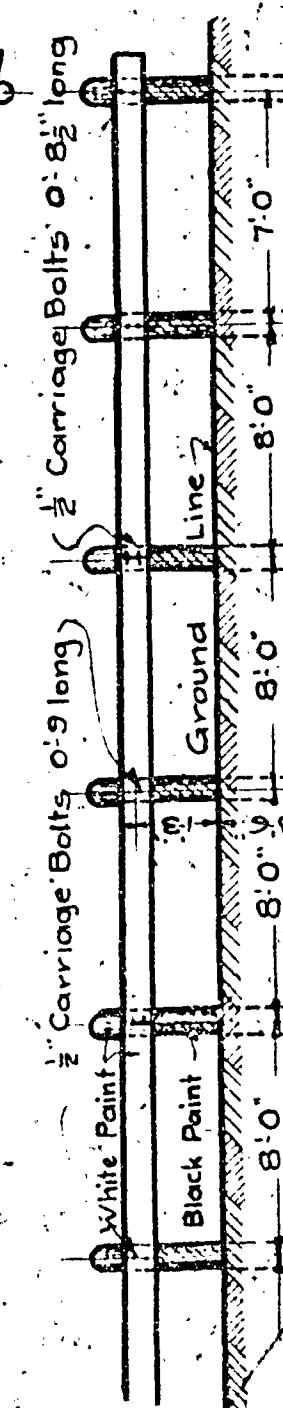
After erection posts and parts not galvanized shall have 2 coats of paint as per specifications. Posts to be not less than 6" top diameter and shall be shaved to the white from the ground line to the top.

- MATERIAL REQUIRED FOR 10 PANELS (80 LINEAL FEET) OF WIRE CABLE RAILING
- 160 Ft of 3/4" Galvanized Steel or Iron Wire Cable
  - 11 Posts, New Cedar, Fir or White Oak 10"x6" Round
  - 8 Galvanized Wire Clips
  - 4 Galvanized Eyelets

SPECIFICATIONS

All posts shall be of good sound straight and seasoned new cedar, fir or white oak at least 6" top diameter and shall be shaved to white from the ground line to the top. All lumber shall be good new sound fir, white, Norway or yellow pine surfaced seasoned and free from large knots. All guard fence shall be well painted with 2 coats of paint after erection. White point shall be made of white lead and pure boiled linseed oil, 18 lbs. of lead to the gallon of oil. Black paint shall be made of pure boiled linseed oil, lamp black and Japan drier, one gallon of oil, one pound of dry lamp black and one pint of drier. The pigment shall be high grade lamp black approved by the engineer. The ingredients shall be thoroughly mixed at least 24 hrs. before using. Rust shall be applied substantially in the manner required by the first 3 sentences in section 190r of the spec.

PLAN AND ELEVATION OF GUARD FENCES SHOWING END SECTION

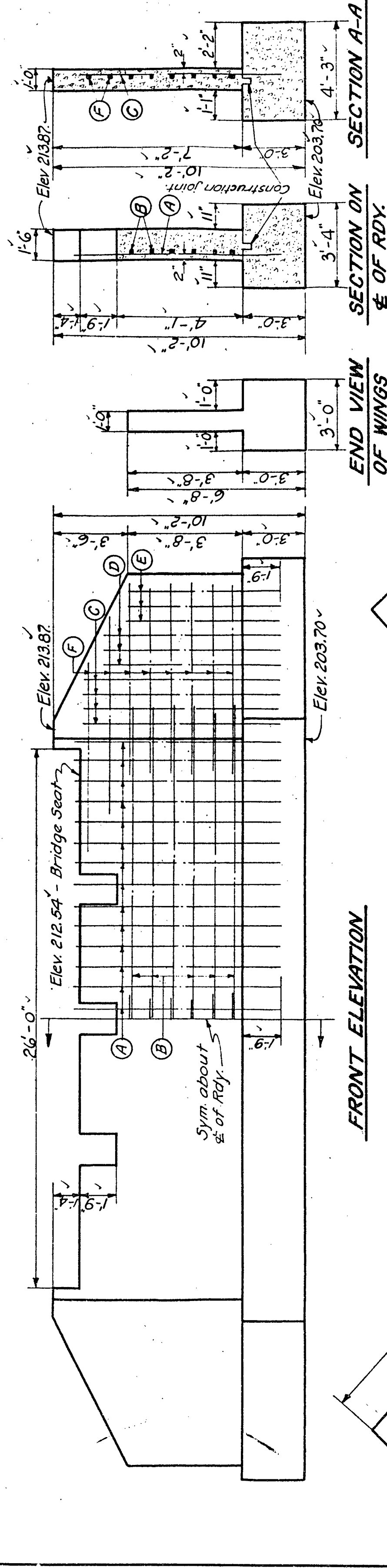


STANDARD GUARD FENCE  
WISCONSIN HIGHWAY COMMISSION  
MADISON, WIS.

Approved: *J. J. Donoghue*  
State Highway Engineer  
Jan. 1925



**DECK GIRDER ABUTMENTS 24 FT. RDY.**  
FOR HEIGHTS UP TO AND INCLUDING 12.0

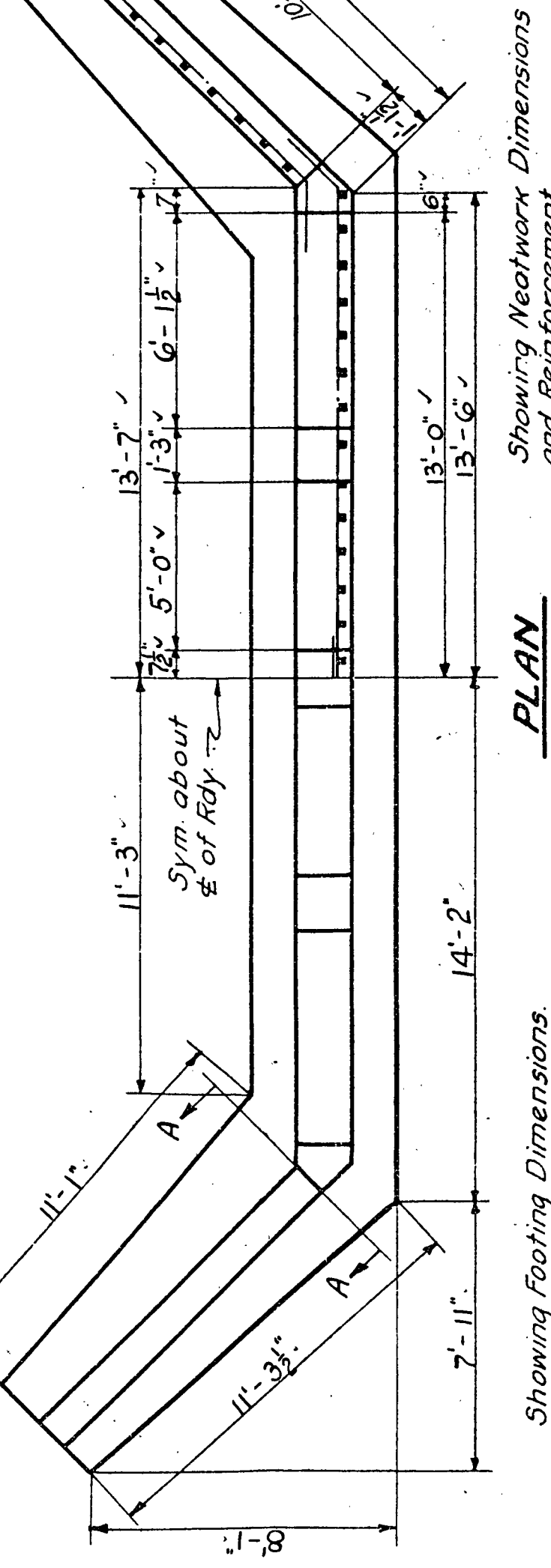


**BILL OF BARS**

NO	BAR SIZE	LENGTH	SPACING	LOCATION
36	1/2" A	8'-0"	10 cts	Vertical in the body
16	1/2" B	17'-6"	10 cts	Horizontal in the body
16	1/2" C	7'-6"	10 cts	Vertical in the wings
12	1/2" D	6'-6"	10 cts	Vertical in the wings
12	1/2" E	5'-6"	10 cts	Vertical in the wings
24	1/2" F	12'-0"	10 cts	Horizontal in the wings

**FRONT ELEVATION**

**PLAN**



**TYPICAL CONSTRUCTION JOINT**

**LOCATION DIAGRAM**

**GENERAL NOTES**

- Do not scale drawing
- All concrete shall be class 'A'
- 1:2:4 proportions
- Bevel exposed edges of concrete 1"
- Reinforcement shall be mechanical bond bars of net section equal to the area of bars specified.

**GENERAL NOTES**

- Concrete shall be class 'A' 1:2:4 proportions
- Reinforcement shall be mechanical bond bars of net section equal to area of bars specified
- All reinforcement shall be held in place by metallic bar chairs and spacers
- Transverse floor bars shall be bent around drains
- The F bars alternate with the G bars

**ESTIMATED QUANTITIES**

Concrete: 62.5 Cu Yds.  
Reinforcing Steel: 1090#

Wisconsin Project No. 413-A

Wisconsin Highway Commission  
Job No. W-343  
**REINFORCED CONCRETE ABUTMENTS FOR THE OCONTO RIVER BRIDGE**  
TOWNSHIP OF FREEDOM & WABENA, FOREST CO.  
Correct: STA. NO. 77+03

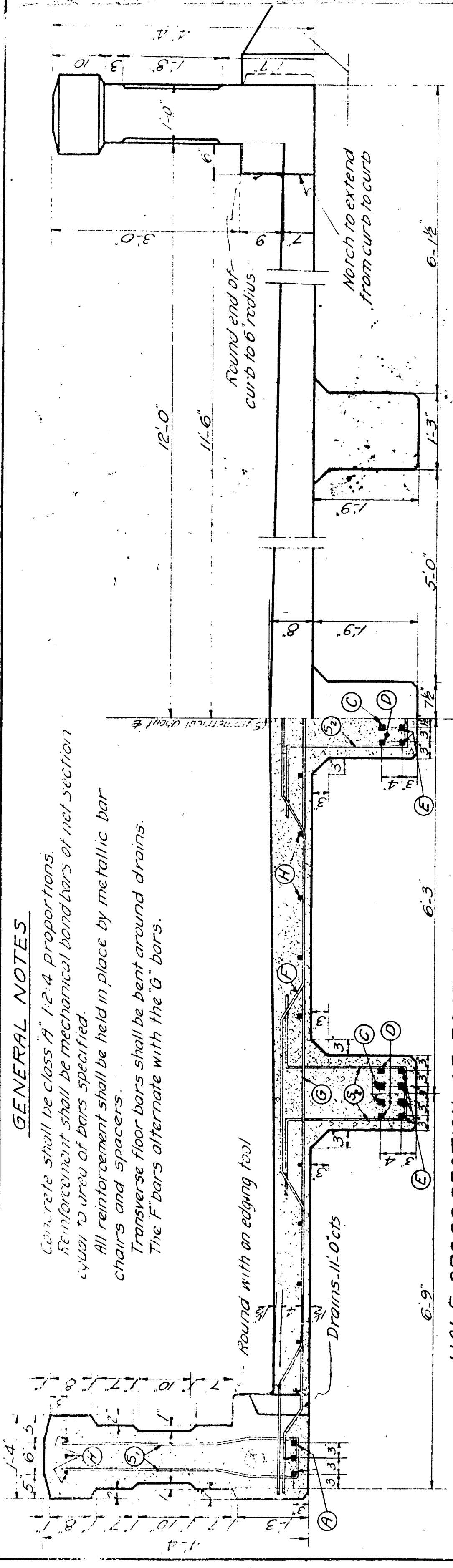
Approved: *G. J. Nish*  
G. J. Nish  
Bridge Engineer  
A-12-25  
Wisconsin Highway Commission  
M-1576

Approved: *H. J. Turelling*  
H. J. Turelling  
Design Engineer

Sta 77+03

**GENERAL NOTES**

- Concrete shall be class 'A' 1:2:4 proportions
- Reinforcement shall be mechanical bond bars of net section equal to area of bars specified
- All reinforcement shall be held in place by metallic bar chairs and spacers
- Transverse floor bars shall be bent around drains
- The F bars alternate with the G bars



**HALF CROSS SECTION OF ROADWAY**

**HALF END VIEW**

**BILL OF BARS**

NO	BAR SIZE	LENGTH	LOCATION	DETAIL
4	1/2" A	32.6	Longitudinal in side girders	22.4
2	1/2" B	35.9	Side girders	22.4
6	1/2" C	33.6	Longitudinal in interior girders	23.8
6	1/2" D	33.6	Longitudinal in interior girders	23.8
12	1/2" E	32.6	Longitudinal in interior girders	23.8
46	1/2" F	26.6	Transverse in floor	23.8
46	1/2" G	26.0	Transverse in floor	23.8
52	1/2" H	17.0	Longitudinal in floor, top of side girder	23.8
32	1/2" I	8.6	Side girder stirrups	23.8
108	1/2" J	7.6	Interior girder stirrups	23.8

**QUARTER FLOOR PLAN SHOWING REINFORCEMENT**

**HALF SECTION SHOWING INTERIOR PANELING**

**HALF SECTION SHOWING SIDE GIRDER REINFORCEMENT**

**DETAIL OF DRAIN**

**HALF SECTION SHOWING INTERIOR GIRDER REINFORCEMENT**

Notch for concrete paving

Plane of Rdy.

To be made of 16 #3 @ 12" o.c.

4 #16 @ 6'-0"

16'-6"

3'-0"

2'-0"

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# GRADE SHEET

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
FINAL SURVEY PLOTTED AREAS CHECKED  
NOTE BOOK NO. \_\_\_\_\_

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
ORIGINAL SURVEY PLOTTED TEMPLATE AREAS CHECKED  
NOTE BOOK NO. \_\_\_\_\_

STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE	CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES		STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE	CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES		STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE	CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES		
					LEFT OF C.L.	RIGHT OF C.L.						LEFT OF C.L.	RIGHT OF C.L.						LEFT OF C.L.	RIGHT OF C.L.	
PC	34474	350'	Below	04	Cut	01	19820'	F00	0	F14	190										
	RH 31	350'	"	04	Fill	03	19815'	F00	30	F05	200										
	150	464'	"	03	Fill	09	19810'	F02	136	C05	220										
	5	33	Above	01	Fill	08	19772'	F18	184	C08	228										
PI	54021	RH 33	"	01	Fill	12	19812'	F07	181	C08	228										
	5	250'	"	09	Fill	18	19826'	F27	211	C04	210										
	6	564'	"	15	Fill	26	19918'	F38	244	F22	211										
PT	1431	590'	"	36	Fill	48	19977'	F43	269	F47	271										
	1431	350'	"	52	Fill	56	19974'	F40	260	F55	235										
PC	1434	550'	"	19	Fill	41	20482'	F35	255	F52	286										
	1434	RH 20	"	55	Cut	38	21504'	C63	305	C36	244										
	150	400'	Below	55	Cut	19		C161	452	C24	226										
	140	530'	"	117	Cut	48	19982'	C163	442	F130	520										
	150	560'	"	70	Fill	70		F20	210	F16	478										
	9	400'	"	115	Fill	44	20118'	F14	192	F10	295										
	125	300'	"	86	Fill	86		F13	189	F12	298										
	150	300'	"	74	Fill	74	20308'	F20	210	F12	298										
	175	350'	"	72	Fill	72		C415	833	F98	27.7										
	10	300'	"	63	Fill	63	20470'	C403	815	F30	26.5										
	120	350'	"	33	Fill	33		C403	815	F83	25.5										
	135	450'	"	12	Cut	12		C403	824	F82	25.3										
	150	450'	"	34	Cut	34	20807'	C38.7	79.1	F73	24.0										
	175	370'	"	27	Fill	27		C388	789	F8.8	23.2										
	150	270'	"	19	Fill	19	21045'	C36.8	76.2	F85	22.8										
	17	300'	"	41	Fill	41	21107'	C24.3	57.5	F36	23.9										
	12	300'	Above	34	Fill	46	20869'	C18.4	48.6	F41	25.3										
PT	1453	350'	"	60	Fill	41	20497'	C16.7	45.1	F38	24.4										
	13	288'	"	55	Fill	32	20399'	C19.7	48.6	F32	17.8										
PC	1447	300'	"	80	Fill	28	20043'	C20.6	49.9	F32	17.8										
	14	270'	"	81	Fill	24	19884'	C15.1	41.7	F30	17.5										
	150	350'	"	84	Fill	21	19750'	C7.9	30.9	F31	17.7										
	15	350'	"	81	Fill	20	19703'	C30	235	F39	18.9										
PI	15404	350'	"	68	Fill	20	19798'	C07	20.1	F32	17.8										
	150	350'	Below	26	Fill	20	20729'	C13	21.0	F33	22.9										
	159	350'	"	24	Fill	23	20743'	C12	20.8	F31	22.3										
PC	17	400'	"	49	Fill	17	21033'	C40	250	F27	21.1										
	1664	350'	"	61	Grade		21279'	C54	271	F26	21.8										
	18	400'	"	79	Cut	04	21538'	C59	279	F27	23.1										
	150	350'	"	57	Grade		21448'	C47	261	F28	23.4										
	19	350'	"	68	Cut	06	21680'	C6.3	28.5	F29	23.7										
PI	141	RH 23	"	89	Cut	08	22023'	C6.2	28.3	F17	20.1										
	150	450'	"	62	Fill	05	21870'	C5.1	26.7	F28	23.4										
	20	350'	"	50	Fill	10	21881'	C8.1	23.7	F34	25.2										
	175	400'	"	22	Fill	22		C27	23.1	F43	27.9										
	21	450'	"	57	Cut	04	22070'	C40	250	F36	25.8										
PT	1089	400'	"	57	Cut	03	22084'	C47	261	F25	21.9										
	135	RH 39	"	12	Fill	12		C55	27.8	F47	27.6										
	175	320'	"	44	Fill	44		C47	261	F56	21.4										
	190	320'	"	29	Fill	44	22173'	C13	21.0	F52	20.8										
	150	207	"	45	Fill	45		C12	20.8	F55	21.3										
	175	306	"	18	Fill	18		C11	20.7	F88	26.2										
	23	330'	Below	88	Cut	16	23235'	C77	30.6	F46	19.9										
	111	330'	"	81	Cut	17	23254'	C78	30.7	F45	19.8										
	150	33'	"	97	Cut	16	23881'	C85	31.9	F1.3	1.50										
	24	33'	"	94	Fill	02	24178'	C104	34.6	F13	15.0										
	150	38'	"	91	Fill	02	24432'	C106	34.9	F36	18.4										
PI	1788	RH 30	"	84	Cut	02		C99	33.9	F44	19.6										
	25	390'	"	66	Fill	12	24584'	C93	33.0	F56	21.4										
	150	390'	"	74	Fill	12	24567'	C64	28.6	F63	22.5										
	26	330'	"	91	Fill	24	24760'	C66	28.9	F72	23.8										
PT	1432	400'	"	98	Fill	02	25091'	C86	31.9	F58	21.7										

NOTE: IN GRADING CHECK HEIGHT OF FINISHED GRADE BY COLUMN NO. 3 OF GRADE SHEET.

IN SETTING SLOPE STAKES, FACE IN DIRECTION IN WHICH STATION NUMBERS INCREASE.



# GRADE SHEET

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
4	WISC.	413A	265	653
DIVISION JOB NO. 7350				

STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C. L. TO SLOPE STAKES		STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C. L. TO SLOPE STAKES		STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C. L. TO SLOPE STAKES			
						LEFT OF C. L.	RIGHT OF C. L.							LEFT OF C. L.	RIGHT OF C. L.							LEFT OF C. L.	RIGHT OF C. L.		
90	35	Above	02	Cut 01	212.57	Cut 11	247	C18	250	126	35	Below	04	Cut 16	238.92	C34-241	C14-211	157	27	Below	13	Fill 02	252.56	C18-217	C20-220
91	35	Below	1.2	Cut 03	214.07	C22	267	C30	270	127	35	"	10	Cut 04	241.90	C24-226	C21-222	158	27	"	11	Grade	253.02	C18-217	C21-222
92	35	"	11	Cut 04	214.12	C24	274	C34	282	128	27	"	07	Fill 04	243.84	C12-208	C17-216	159	30	"	14	Fill 01	253.75	C17-216	C18-217
93	35	"	14	Cut 03	211.68	C20	278	C15	267	129	28	"	07	Fill 01	244.11	C15-213	C15-213	160	27	"	18	Cut 03	254.00	C20-220	C25-228
94	34	Above	08	Cut 04	213.14	C24-286	C20-280	F02-136	C09-219	130	26	"	11	Grade	244.83	C17-216	C16-214	161	26	"	19	Grade	252.98	C20-220	C26-229
95	35	"	01	Fill 01	214.65	C05-213	C10-220			131	27	"	07	Cut 02	244.61	C18-217	C19-219	162	26	"	01	Fill 02	249.73	C09-204	C13-210
96	35	Below	03	Cut 05	215.85	C07-216	C23-240			132	24	"	14	Grade	245.51	C23-225	C15-213	163	26	Above	12	Grade	248.11	F13-169	C05-198
97	35	"	09	Cut 02	217.39	C13-225	C21-237			133	25	"	14	Cut 03	245.27	C22-232	C19-219	164	32	Below	14	Grade	252.16	C25-228	C15-213
98	35	"	08	Cut 03	218.07	C26-244	C25-243			134	26	"	33	Cut 10	245.26	C10-190	C28-217	165	32	"	29	Grade	255.14	C30-235	C24-226
99	35	"	11	Cut 04	219.34	C33-255	C27-246			135				Cut 12		C47-246	C48-247	166	33	"	12	Fill 02	254.84	C16-214	C10-205
100	35	"	07	Fill 02	219.83	C27-246	C19-234			135	30	"	88	Cut 02	246.73	F06-148	C92-313	167	33	"	09	Fill 01	256.35	C17-216	C17-216
101	35	"	01	Fill 03	219.76	C05-213	C17-231			135				Cut 01		C91-312	C112-343	168	33	"	07	Fill 01	259.73	C18-217	C10-205
102	34	Above	05	Fill 06	219.70	C06-214	C15-228			135				Fill 02		F12-166	C50-250	169	32	"	08	Fill 04	264.68	C17-216	C11-207
103	35	Below	09	Grade	221.33	C19-234	C26-244			136	25	Below	09	Fill 03	232.80	F46-268	C03-180	170	32	"	26	Fill 03	272.23	C26-229	C17-216
104	35	"	11	Cut 03	221.77	C11-222	C23-240			136				Fill 09		F71-343	F22-196	171	30	"	25	Cut 01	277.01	C34-241	C20-220
105	35	"	04	Fill 02	221.24	C06-214	C21-237			137	40	Above	02	Fill 09	226.76	F36-238	F38-244	172	31	"	36	Cut 06	280.60	C45-258	C37-246
106	35	"	09	Grade	221.62	C17-231	C19-234			138	27	"	03	Fill 03	224.79	F18-184	F21-193	173	35	"	02	Cut 01	277.69	C12-208	C20-220
107	35	Above	03	Cut 02	220.36	C06-214	C11-222			139	29	"	17	Fill 12	224.50	F31-223	F31-223	174	34	Above	03	Fill 09	277.46	C07-201	F17-181
108	35	"	02	Cut 06	220.43	C10-220	C14-226			140	31	"	63	Fill 02	224.04	F78-364	F70-340	175	33	Below	07	Fill 08	278.82	C15-213	C05-198
109	35	Below	07	Cut 02	221.25	C18-232	C24-241			140				Cut 06		F03-139	C00-180	176	30	Above	01	Fill 06	278.34	C19-219	C08-202
110	35	"	13	Cut 06	221.88	C22-238	C27-246			141	38	Below	11	Cut 15	246.60	C125-363	C57-261	177	35	Below	25	Cut 03	281.14	C32-238	C20-220
111	35	"	20	Cut 03	222.50	F14-172	C34-256			142				Cut 34		C37-231	C104-331	178	25	"	17	Cut 09	280.25	C35-243	C27-231
112	35	"	28	Cut 13	222.78	C24-226	C27-231			142	40	"	81	Cut 40	245.80	C42-238	C60-274	179	25	"	05	Grade	278.86	C22-223	C15-213
113	35	"	39	Cut 19	223.21	C45-258	C43-255			143	30	"	65	Cut 24		C15-288	C84-301	180	27	"	02	Grade	277.89	C16-214	C10-205
114	35	"	48	Cut 23	223.39	C55-273	C40-230			143				Cut 16	243.22	C15-198	C92-313	181	35	"	01	Grade	277.22	C09-204	C07-201
115	35	"	03	Cut 09	218.15	C00-133	C16-214			144	32	Above	14	Fill 04	230.99	F68-334	F20-190	182	35	Above	05	Fill 02	276.57	C08-202	F09-157
116	35	Above	11	Fill 11	216.51	F21-193	F20-190			145	32	Below	20	Grade	229.69	F05-145	F01-133	183	35	"	01	Grade	277.77	C09-204	C04-196
117	32	"	07	Fill 16		F19-187	F27-211			146	31	Above	04	Fill 02		F07-151	F01-133	184	32	Below	21	Cut 01	281.74	C28-232	C06-199
118	32	"	04	Fill 13	216.80	F22-196	F20-190			146				Fill 01		F84-382	F03-139	185	34	"	57	Cut 03	286.77	C60-280	C34-241
119	29	Below	01	Fill 14		F19-187	F23-199			147	32	"	12	Fill 03	224.75	F13-169	F05-145	186	35	"	21	Fill 04	283.39	C31-237	C39-249
120	35	Above	06	Fill 23	217.07	F27-211	F27-211			148	32	"	03	Grade	225.41	C06-199	F01-133	187	33	Above	13	Fill 10	277.29	F15-175	C16-214
121	34	Below	05	Fill 21		F30-220	F24-202			149	32	"	20	Fill 02	224.40	F21-193	F01-133	188	255	Below	25	Fill 02	276.95	C14-211	C23-228
122	32	Above	53	Fill 09	217.55	F19-187	F16-178			150	32	"	24	Fill 05	225.31	F26-208	F19-187	189	26	"	28	Cut 03	273.23	C11-207	C35-243
123	33	Above	14	Cut 01	217.29	F03-139	F18-184			151	32	Below	13	Fill 08	233.81	C14-211	F45-265	190	26	"	25	Fill 05	268.82	C05-198	C32-238
124	35	"	01	Grade	220.23	F15-175	F28-214			152	28	Even		Fill 08		C106-349	F13-169	191	26	"	09	Fill 03	263.82	C13-225	C24-241
125	35	"	26	Cut 06	217.90	F28-214	F58-304			152				Grade				192	26	Below	11	Grade	261.45	C20-235	C25-243
126	35	"	01	Fill 04		F15-175	C00-130			153	31	Below	34	Cut 04		C71-297	C42-253	193	26	"	13	Fill 03	260.18	C12-223	C30-250
127	35	"	07	Cut 10	225.76	C100-340	C13-210			153				Grade	248.71	C77-306	C47-261	194	30	"	16	Fill 03	257.78	C14-226	C28-247
128	35	"	01	Cut 19	231.08	C83-315	C15-213			154	40	"	21	Cut 07		C07-201	C31-237	195	30	"	18	Fill 03	256.26	C16-229	C31-252
129	35	"	01	Cut 21		C68-295	C00-180			154				Cut 01				196	25	"	20	Fill 04	255.40	C10-220	C29-249
130	35	"	01	Cut 21	232.62	C57-276	C07-201			155	27	Below	13	Fill 02	251.39	C22-223	C18-217	197	30	Above	16	Fill 09	251.01	F18-184	C27-246
131	35	"	01	Cut 21		C47-261	C27-231			156	27	"	08	Fill 03	251.46	C20-220	C13-210	198	30	Below	05	Cut 03	252.30	C15-228	C45-273
132	35	"	01	Cut 21						156				Fill 03				199	30	"	43	Cut 08	255.36	C23-240	C52-283
133	35	"	01	Cut 21						156				Fill 03				200	28	"	34	Cut 11	253.72	C31-252	C45-273

DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 SURVEYED TO \_\_\_\_\_  
 SURVEY PLOTTED \_\_\_\_\_  
 ORIGINAL SURVEY PLOTTED \_\_\_\_\_  
 SURVEY TEMPLATE AREAS CHECKED \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_

DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 SURVEYED TO \_\_\_\_\_  
 SURVEY PLOTTED \_\_\_\_\_  
 ORIGINAL SURVEY PLOTTED \_\_\_\_\_  
 SURVEY TEMPLATE AREAS CHECKED \_\_\_\_\_  
 NOTE BOOK NO. \_\_\_\_\_

NOTE: IN GRADING CHECK HEIGHT OF FINISHED GRADE BY COLUMN No. 3 OF GRADE SHEET.

IN SETTING SLOPE STAKES, FACE IN DIRECTION IN WHICH STATION NUMBERS INCREASE.



# GRADE SHEET

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

DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 ORIGINAL SURVEY BOOK NO. \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_

STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES	
		Left of C.L.	Right of C.L.			Left of C.L.	Right of C.L.
201	30	Below	33	Cut 15	252.77	C33-255	C45-273
202	30	"	39	Cut 09	252.56	C27-246	C52-283
203	30	"	46	Cut 08	252.52	C38-262	C59-294
204	30	"	47	Cut 04	251.87	C06-214	C52-283
205	50	"	25	Cut 01	248.87	C16-229	C34-256
206	30	"	17	Fill 02	247.28	C08-217	C28-247
207	32	"	09	Fill 02	246.02	C08-217	C08-217
208	28.3	Above	11	Fill 11	243.91	F21-193	F19-187
209	33.4	"	06	Fill 08	244.41	F22-196	F21-193
210	35.0	"	12	Fill 09	243.77	F17-181	F19-187
211	36.7	"	08	Fill 12	244.20	F16-178	F18-184
212	21.7	"	14	Fill 13	243.59	F24-202	F18-184
213	24.0	"	01	Fill 13	244.94	F14-172	F17-181
214	40.0	Even		Fill 06	244.99	F05-145	F16-178
215	23.0	Above	09	Fill 07	244.13	F08-154	F14-172
216	23.0	"	04	Fill 05	244.58	F07-151	F13-169
217	22.0	Below	01	Fill 08	245.08	F08-154	F12-166
218	25.0	Above	13	Fill 08	243.73	F08-154	F18-184
219	25.0	"	11	Fill 20	243.85	F17-170	F27-211
220	25.0	"	09	Fill 13	244.13	F14-172	F14-172
221	26.0	"	03	Fill 10	244.68	F13-169	F12-166
222	27.0	"	06	Fill 08	244.38	F10-160	F13-169
223	28.0	"	06	Fill 03	244.38	F17-181	F13-169
224	29.0	Below	17	Fill 01	247.43	F17-181	C22-223
225	30.0	Above	42	Fill 27	244.25	F44-262	F47-271
226	31.0	"	53	Fill 17	248.92	F50-280	F55-295
227	30.0	Below	51	Cut 16	265.76	C114-361	C55-273
228	42.0	"	129	Cut 38	280.06	C136-394	C124-376
229	25.0	"	67	Cut 35	280.18	C75-303	C78-307
230	25.0	"	29	Cut 13	281.02	C39-249	C41-252
231	22.0	"	1.0	Fill 01	281.85	C19-219	C17-216
232	25.0	"	1.8	Cut 03	283.07	C25-288	C17-216
233	11.0	25.0			283.32		

STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES	
		Left of C.L.	Right of C.L.			Left of C.L.	Right of C.L.
<b>SUPERELEVATION AND WIDENING DATA</b>							
STATION NUMBER	DISTANCE SHLDR. ABOVE OR BELOW SUBGRADE ON E.	DISTANCE E. TO SHOULDER	DISTANCE E. TO SHOULDER	DIST. SHLDR. ABOVE OR BELOW SUBGRADE ON E.			
	Left of E.		Right of E.				
14° Right Curve at Sta. P.I. 57+02.1 Sup. 3/4 Per Ft. Wid. 3'							
3+474	00' Above	130'	14.5	00' Below			
4	00'	130'	160	03			
4.50	00'	130'	160	05			
5	08'	130'	160	10			
4.50	08'	130'	160	10			
6	08'	130'	160	10			
4.31	08'	130'	14.5	09			
8° Left Curve at Sta. P.I. 9+92.3 Superlevation 1/4 Per Foot							
7	02' Below	140'	130	02' Above			
RC 7+134	03	140	130	03			
4.50	03	150	130	03			
8	03	150	130	03			
4.40	03	150	130	03			
4.50	03	150	130	03			
4.80	03	150	130	03			
9	03	150	130	03			
4.25	03	150	130	03			
4.50	03	150	130	03			
4.75	03	150	130	03			
10	03	150	130	03			
4.20	03	150	130	03			
4.35	03	150	130	03			
4.50	03	150	130	03			
4.75	03	150	130	03			
11	03	150	130	03			
4.50	03	150	130	03			
12	03	150	130	03			
RC 1+85.3	03	140	130	03			
13		Normal Section					
5° Left Curve at Sta. P.I. 15+01.4 Superlevation 1/4 Per Foot							
RC 13+417	03 Below	130	130	03 Above			
14	03	130	130	03			
4.50	03	130	130	03			
15	03	130	130	03			
4.50	03	130	130	03			
16	03	130	130	03			
RC 1+59	03	130	130	03			
17		Normal Section					
8° Right Curve at Sta. P.I. 19+41 Superlevation 1/2 Per Foot							
RC 17+664	03 Above	130	140	03 Below			
18	03	130	150	03			
4.50	03	130	150	03			
19	03	130	150	03			
4.50	03	130	150	03			
20	03	130	150	03			
4.50	03	130	150	03			
4.75	03	130	150	03			
21	03	130	150	03			
RC 21+089	03	130	140	03			
4.35	02	130	135	02			
4.75	01	130	130	01			

STAKE NO.	DISTANCE FROM STAKE TO C.L. OF NEW ROAD	DISTANCE CENTER OF NEW SUBGRADE ABOVE OR BELOW TOP OF STAKE		CUT OR FILL	ELEVATION TOP OF STAKE	DISTANCE C.L. TO SLOPE STAKES	
		Left of C.L.	Right of C.L.			Left of C.L.	Right of C.L.
<b>SUPERELEVATION AND WIDENING DATA</b>							
STATION NUMBER	DISTANCE SHLDR. ABOVE OR BELOW SUBGRADE ON E.	DISTANCE E. TO SHOULDER	DISTANCE E. TO SHOULDER	DIST. SHLDR. ABOVE OR BELOW SUBGRADE ON E.			
	Left of E.		Right of E.				
6° Right Curve at Sta. P.I. 24+788 Superlevation 1/4 Per Foot							
22+75	07 Above	130	130	02 Below			
23	03	130	130	03			
RC 23+11	03	130	130	03			
4.50	03	130	130	03			
24	03	130	130	03			
4.50	03	130	130	03			
25	03	130	130	03			
4.50	03	130	130	03			
26	03	130	130	03			
RC 26+437	03	130	130	03			
4.55	02	130	130	02			
27	01	130	130	01			
16° Right Curve at Sta. P.I. 46+257 Superlevation 3/4 Per Foot							
RC 44+002	06 Above	130	150	09 Below			
4.50	08	130	170	11			
4.5	08	130	170	11			
4.50	08	130	170	11			
4.6	08	130	170	11			
4.50	08	130	170	11			
4.7	08	130	170	11			
4.50	08	130	170	11			
RC 43+077	08	130	150	08			

NOTE: IN GRADING CHECK HEIGHT OF FINISHED GRADE BY COLUMN NO. 3 OF GRADE SHEET.

IN SETTING SLOPE STAKES, FACE IN DIRECTION IN WHICH STATION NUMBERS INCREASE.