

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE	-----	EXCAVATION	-----E
COUNTY LINE	-----	EMBANKMENT	-----F
TOWNSHIP LINE	-----	OVERHAUL	-----H
SECTION LINE	-----	SURFACING	-----S
CITY, VILLAGE, OR BOROUGH	-----	GUARD RAIL	-----GR
FENCE LINE	-----	INTERSECTION ANGLE	-----A
RIGHT-OF-WAY LINE	-----	RADIUS	-----R
TRAVELLED WAY	-----	ELEVATION	-----E.L.
RAILROADS	-----	VERTICAL CURVE	-----V.C.
RETAINING WALL	-----	BECKH MARK	-----B.M.
BASE OR SURVEY LINE	-----	SECTIONAL CONCRETE CULVERT	-----P.C.
LEVEE	-----	CORRUGATED METAL CULVERT	-----C.M.
GRAVEL PIT	-----	CULVERT HAUL	-----P.L.H.
SAND PIT	-----	TON MILES	-----T.M.
CLAY PIT	-----	PLACE	-----P
ROCK QUARRY	-----	IN PLACE	-----Inp.
CULVERTS	-----	REPLACE	-----Rep.
PLAIN	-----	RIGHT	-----R
WITH FACEWALLS	-----	LEFT	-----L
WITH WINGWALLS	-----	HAND DITCHING	-----H.D.
DROP INLET	-----	POINT OF CURVE	-----P.C.
POWER POLE LINE	-----	POINT OF TANGENT	-----P.T.
TELEPHONE OR TELEGRAPH LINE	-----	POINT OF INTERSECTION	-----P.I.
MARSH	-----	SPECIAL EXCAVATION	-----S.E.
EDGE, BRUSH, OR TIMBER	-----	SPECIAL FLOWING	-----S.P.
GROUND ELEVATION	-----	TELEPHONE POLE	-----Tel.P.
GRADE ELEVATION	-----		

STATE HIGHWAY DEPARTMENT  
OF MINNESOTA

Plan and Profile of State Road No. 10  
COUNTY OF RAMSEY

From A point 988.3 ft. N. of the S.W. Cor. of Sec. 16-29-22 To A point 1216.0' W. and 407.0' S. of the Cen. of Sec. 16-29-22  
Give proper reference to Sections, Township and Range

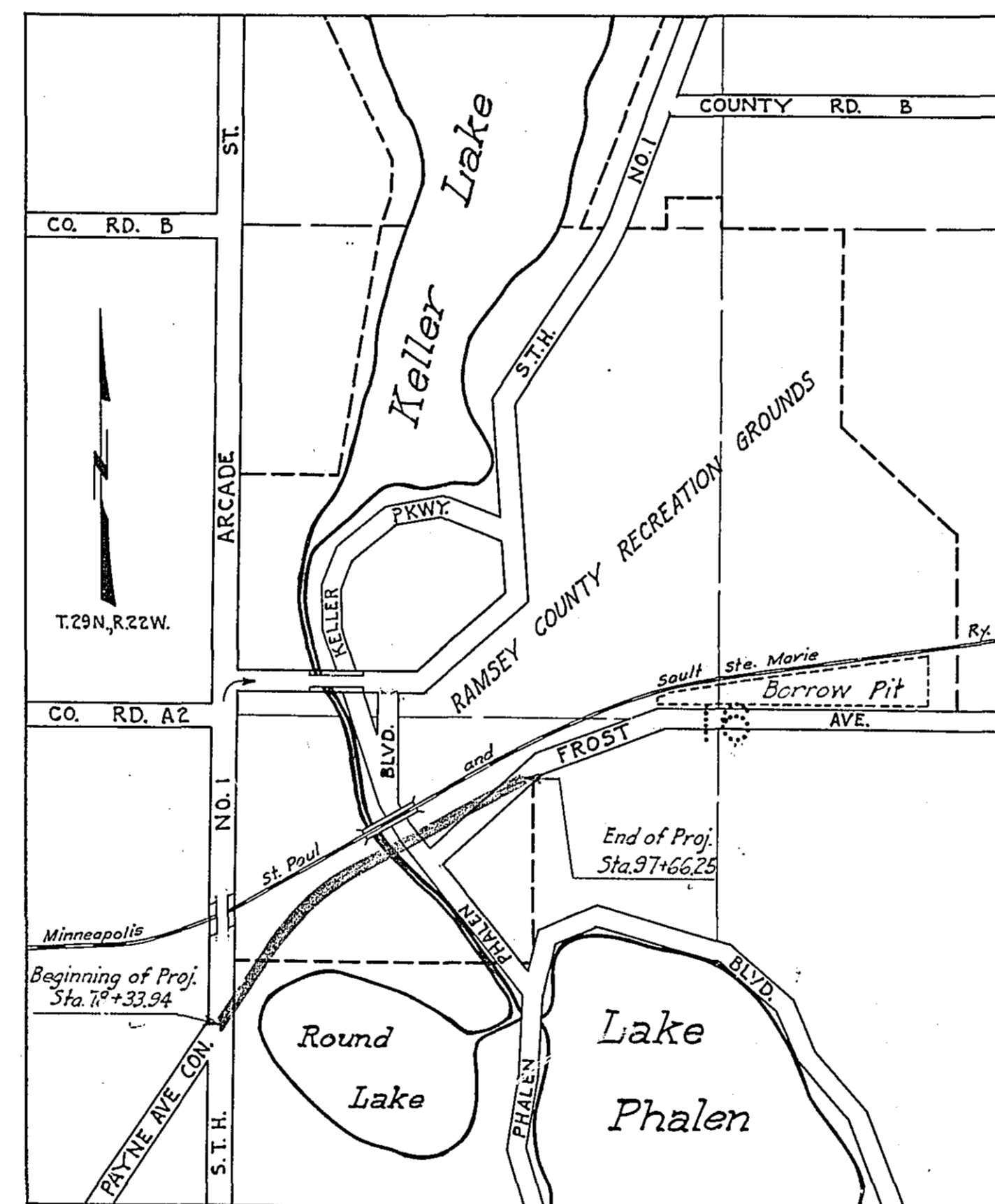
GROSS LENGTH 1932.31 FEET 0.366 MILES  
LENGTH OF EXCEPTIONS FEET MILES  
NET LENGTH 1932.31 FEET 0.366 MILES

PLAN, 1 Inch = 100 Feet.  
PROFILE, Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 10 Feet  
Herz. 1 Inch = 100 Feet  
Vert. 1 Inch = 10 Feet  
WORKING PLANS  
Cross-Section, 1 Inch = 10 Feet

LAYOUT  
Scale, 1 Inch = 900 Feet

INDEX OF SHEETS

Sheet No. 1. Title Sheet and Layout Map  
" No. 2. Typical Cross-Sections and Statement  
" No. 3. Plan and Profile, Sta. 78+33.94 to Sta. 97+66.25  
" No. 4. to 10 inc. Cross-Sections  
" No. 11 Guard Rail Plan



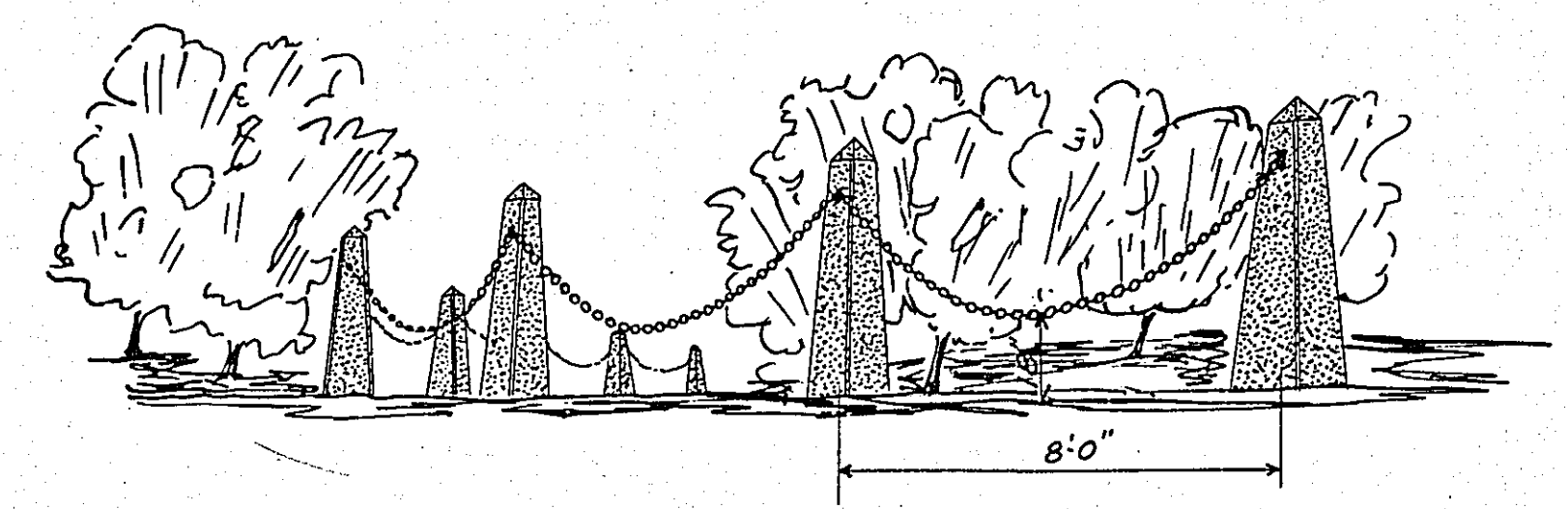
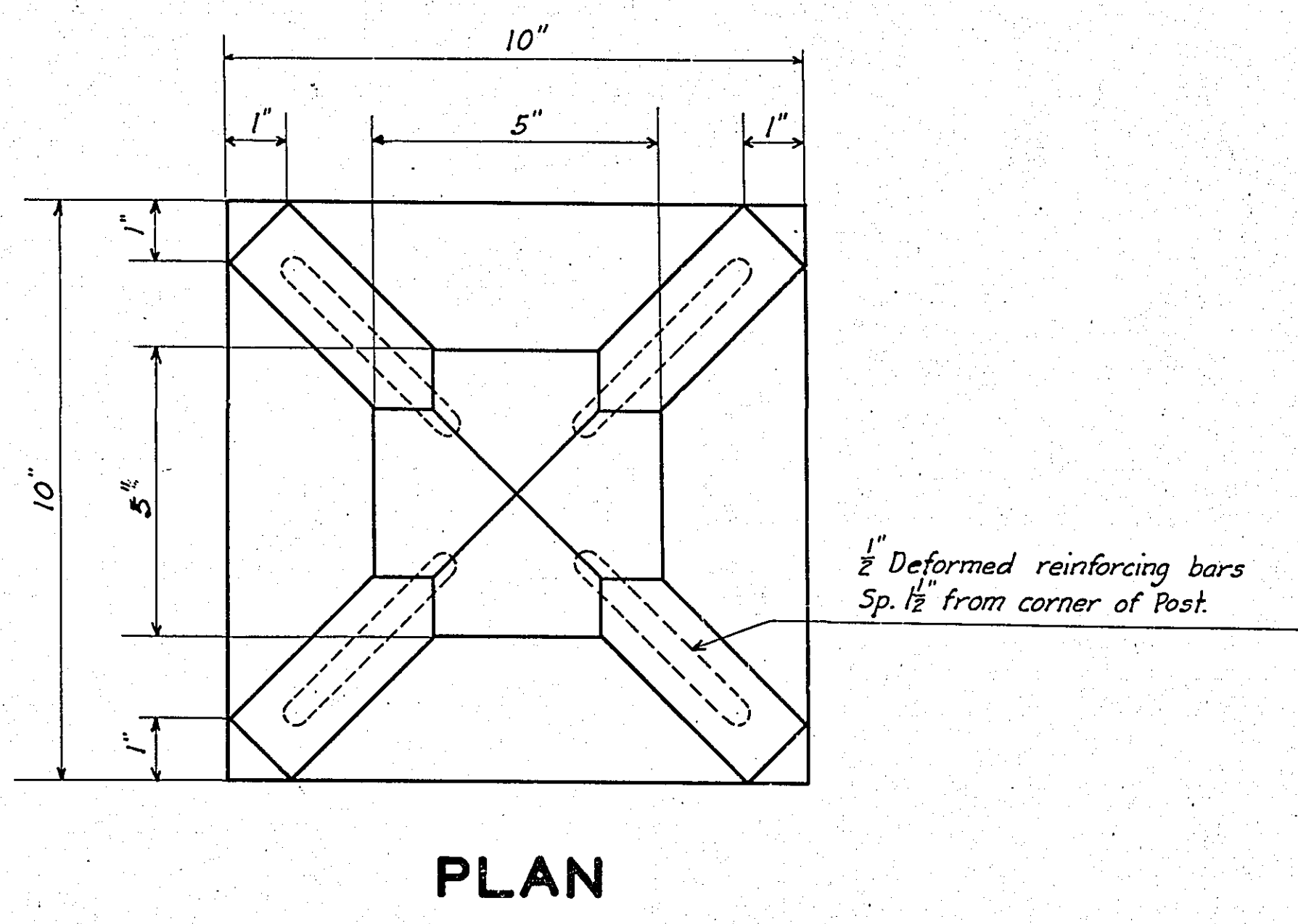
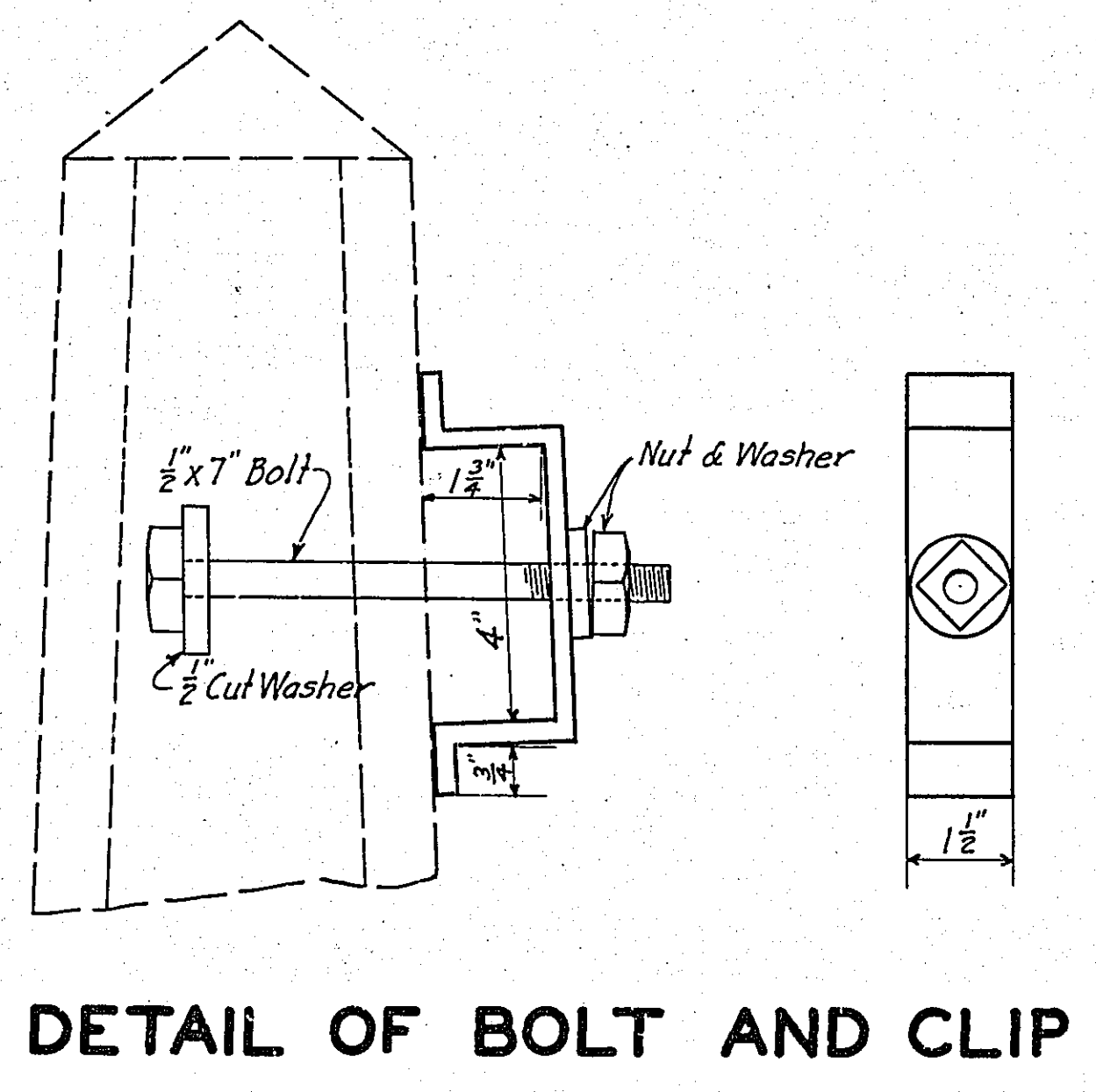
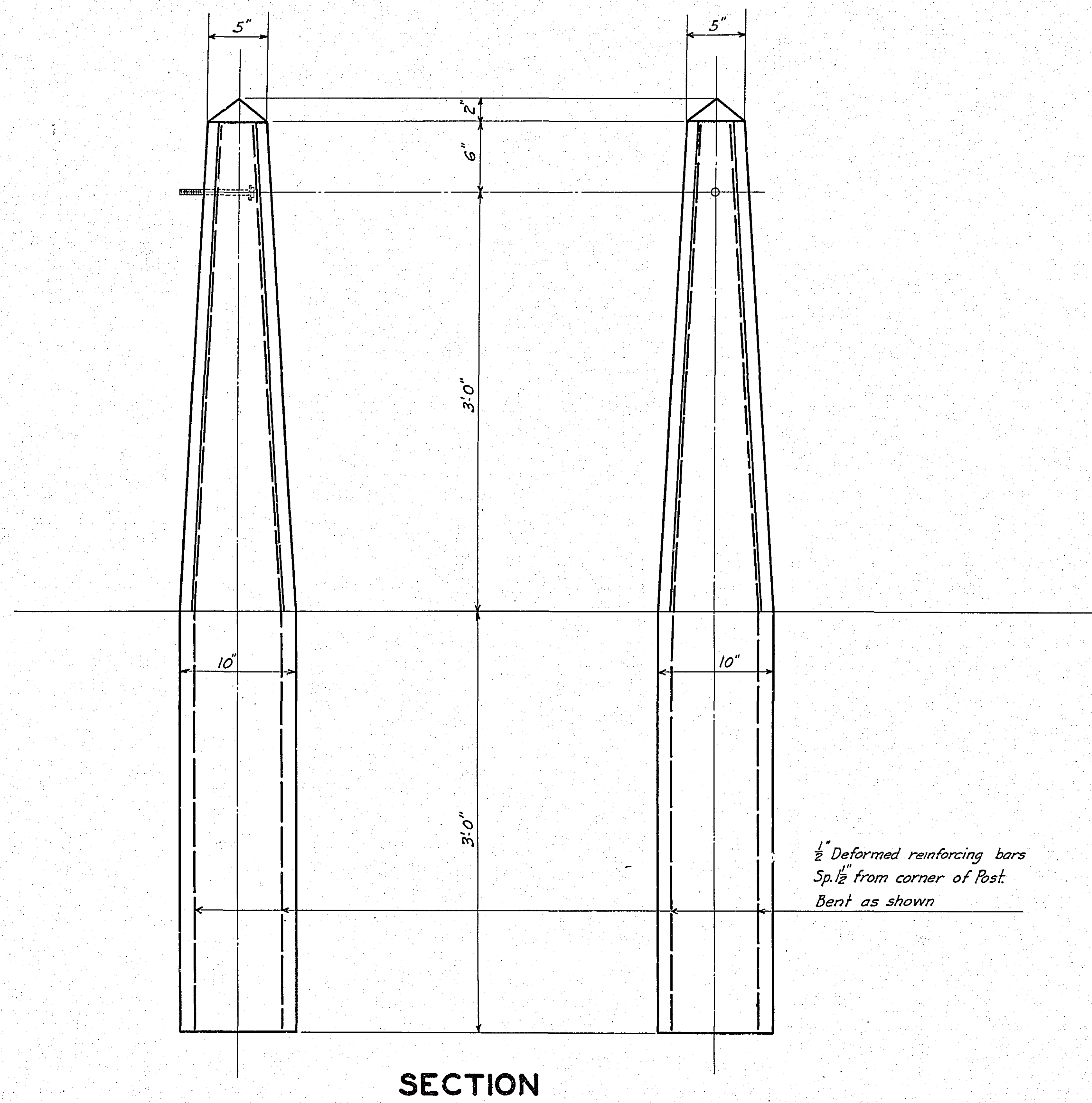
RECEIVED FIRST	5-3-30 P.M.
RETURNED TO ENGR	
RECEIVED SECOND	
TO DIVISION ENGR	
APPROVED	
FROM OFFICE ENGR	
FILED	

Planned By Paul H. Coates  
HIGHWAY ENGINEER FOR RAMSEY COUNTY.

Recommended for Approval \_\_\_\_\_  
DIVISION ENGINEER

Recommended for Approval E. G. Gladwin  
ENGINEER OF SURVEYS AND DESIGNER

Approved 5-5-1930 W. J. Collins  
CHIEF ENGINEER & DEPUTY COMMISSIONER



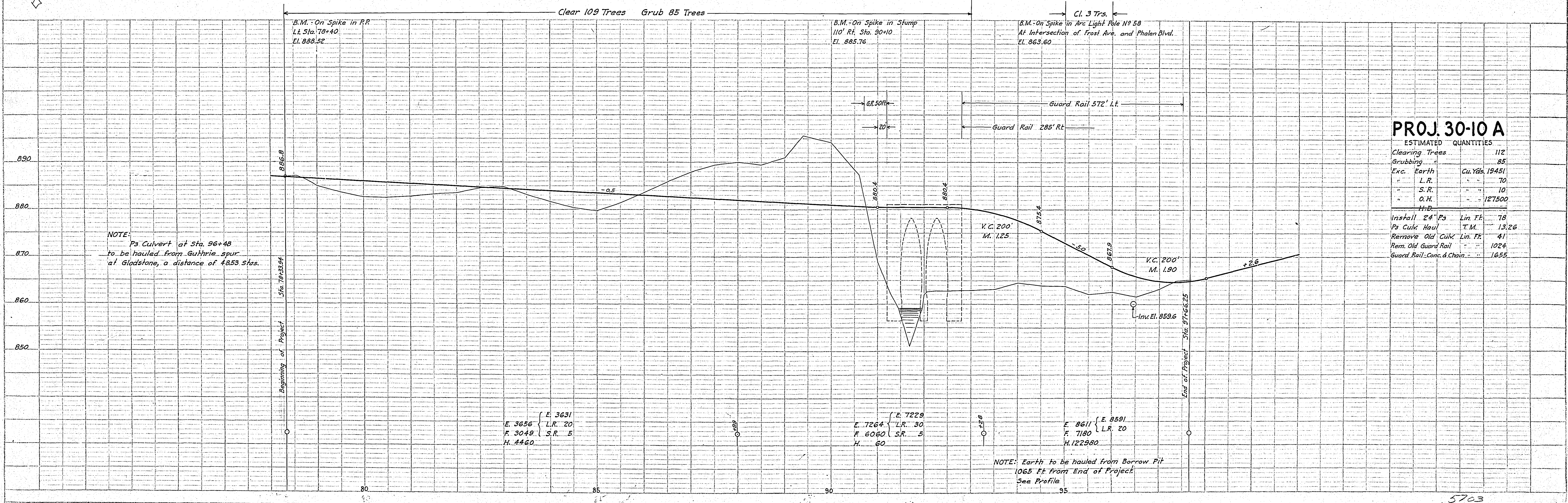
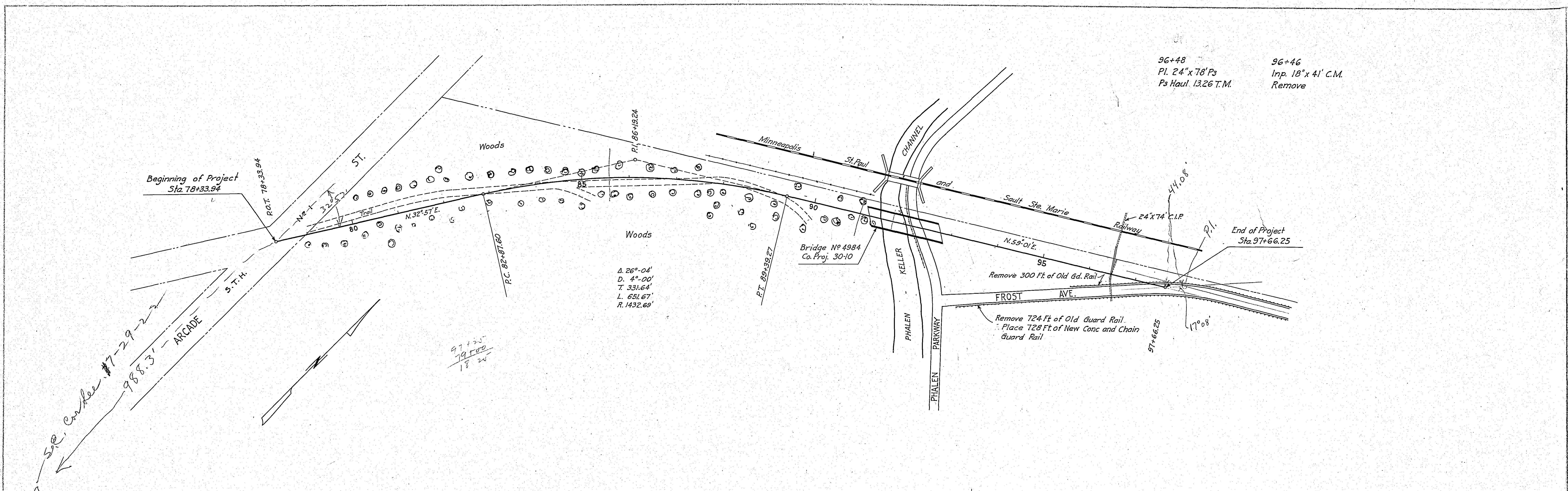
1-2-3  
C = 83 S.A.X  
S = .065 C.Y.  
R = .094 C.Y.  
8 Post = 1 Cu. Yd. Conc.

RAMSEY COUNTY STANDARD CONCRETE AND CHAIN GUARD RAIL



PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	BY	
	NO.	



**PROJ. 30-10 A**

ESTIMATED QUANTITIES

Clearing Trees	112
Grubbing	85
Exc. Earth	Cu. Yds. 19451
L.R.	70
S.R.	10
O.H.	127500
H.D.	
Install 24" Ps	Lin. Ft. 78
Ps Culk Haul	T.M. 13.26
Remove Old Culk	Lin. Ft. 41
Rem. Old Guard Rail	1024
Guard Rail Conc. & Chain	1655

5703

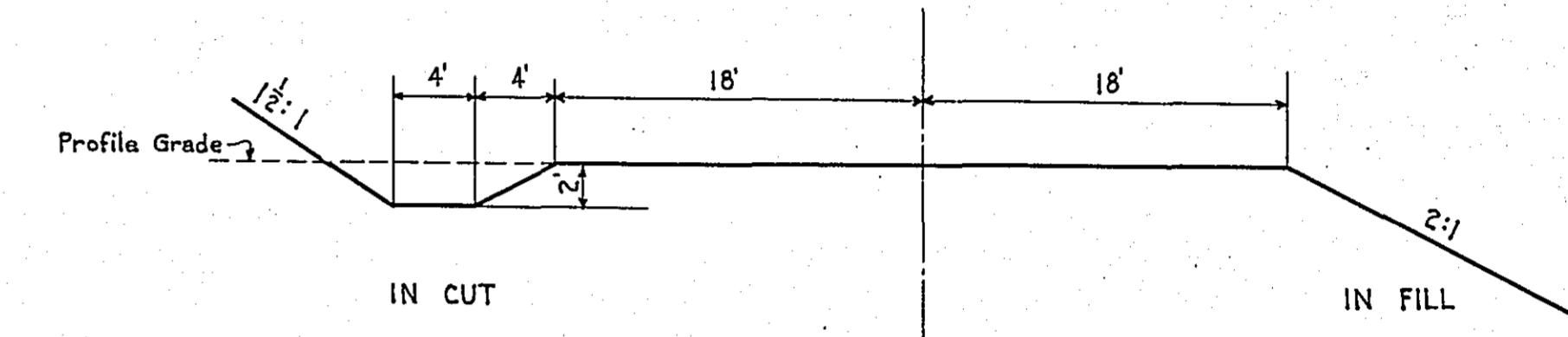


STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

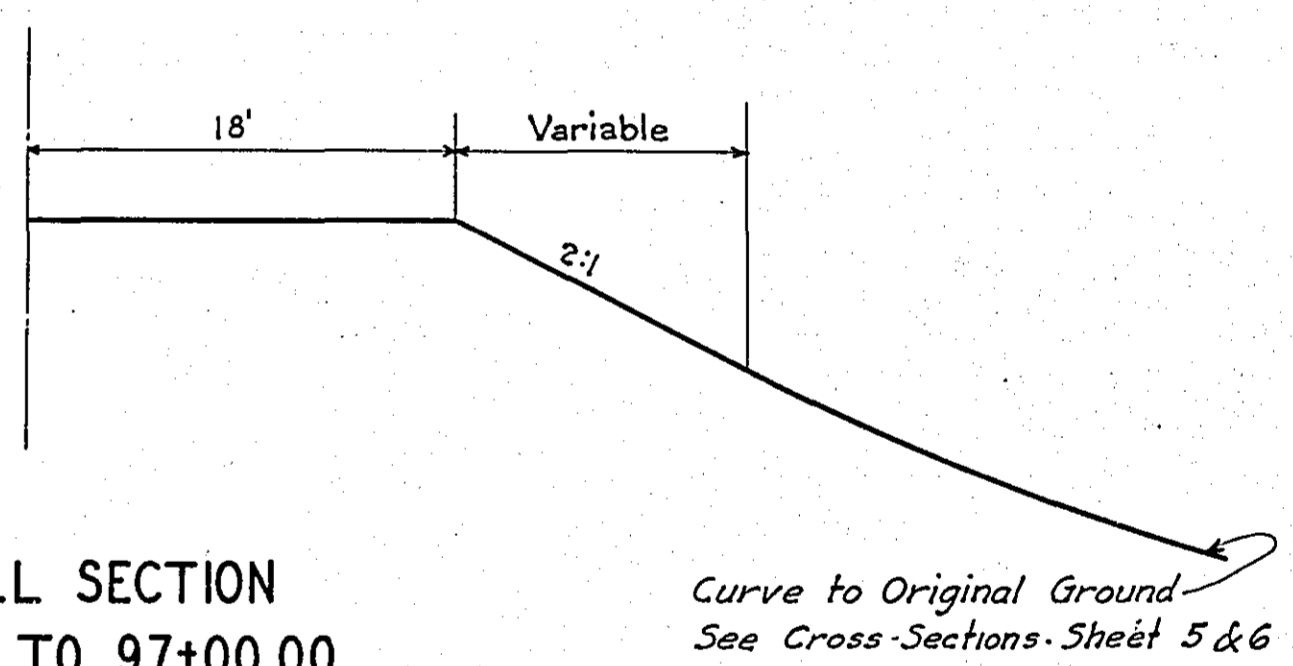
ITEM	UNIT	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	MILE	TOTAL ESTIMATED QUANTITIES	ESTIMATED UNIT PRICES	AMOUNTS	TOTALS
		Sta. 97+16.2 to Sta. 97+27.0	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.	Sta. to Sta.				
1 Clearing	Acre																		
2 Clearing	Tree	112														112			
3 Grubbing	Acre																		
4 Grubbing	Tree	85														85			
5 Excavation - Earth	Cu. Yd.	19451														19451			
6 Excavation - Loose Rock	Cu. Yd.	70														70			
7 Excavation - Solid Rock	Cu. Yd.	10														10			
8 Excavation - Overhaul	Cu. Yd.	127500														127500			
9 Special Excavation	Lin. Ft.																		
10 Hand Ditching	Cu. Yd.																		
11 Tile Drain	in. Lin. Ft.																		
12 Tile Drain	in. Lin. Ft.																		
13 Tile Drain	in. Lin. Ft.																		
14 Porous Back Fill Material	Cu. Yd.																		
15 Stone Rip - Rap	Cu. Yd.																		
16 Rip - Rap or Stone Drain Material	Cu. Yd. mile																		
17 Install	Lin. Ft.																		
18 Install	Lin. Ft.																		
19 Install	Lin. Ft.																		
20 Install	Lin. Ft.																		
21 Install	Lin. Ft.																		
22 Install	Lin. Ft.																		
23 Install	Lin. Ft.																		
24 Install	Lin. Ft.																		
25 Install 24" P <sub>3</sub>	Lin. Ft.	78														78			
26 Install 30" P <sub>3</sub>	Lin. Ft.																		
27 Install 36" P <sub>3</sub>	Lin. Ft.																		
28 P <sub>1</sub> Culvert Haul	Ton Mile																		
29 P <sub>3</sub> Culvert Haul	Ton Mile	13.26														13.26			
30 Remove old culv.	Lin. Ft.	41														41			
31 Rem. old Gd. Rail	Lin. Ft.	1024														1024			
TOTAL ESTIMATED COST OF GRADING (IN 'TOTALS' COLUMN)																			
33 Culv. Material	Lin. Ft.																		
34 Culv. Material	Lin. Ft.																		
35 Culv. Material	Lin. Ft.																		
36 Culv. Material	Lin. Ft.																		
37 Culv. Material	Lin. Ft.																		
38 Culv. Material	Lin. Ft.																		
39 P <sub>3</sub> Culv. Material 24"	Lin. Ft.	78														78			
40 P <sub>3</sub> Culv. Material 30"	Lin. Ft.																		
41 P <sub>3</sub> Culv. Material 36"	Lin. Ft.																		
TOTAL ESTIMATED COST OF PORTABLE CULVERT MATERIAL (IN 'TOTALS' COLUMN)																			
42 Gravel Pit Stripping	Cu. Yd.																		
43 Screening	Cu. Yd.																		
44 Loading	Cu. Yd.																		
45 Hauling	Cu. Yd. Mile																		
46 Shaping & Compacting	Man Hour																		
47 Shaping & Compacting	Man & Team Hour																		
48																			
49																			
50																			
51																			
TOTAL ESTIMATED COST OF GRAVEL HAUL (IN 'TOTALS' COLUMN)																			
52 Gravel Material F. O. B. Pit	Cu. Yd.																		
53 Freight (if any)	Cu. Yd.																		
54 Unloading from Cars	Cu. Yd.																		
TOTAL ESTIMATED COST OF GRAVEL MATERIAL (IN 'TOTALS' COLUMN)																			
55 Fine Grading - Exc. & Emb.	Cu. Yd.																		
56 Shoulders - Earth	Cu. Yd.																		
57																			
58																			
59 Pavement	Sq. Yd.																		
60 Integral Curb - One Course Concrete	Lin. Ft.																		
61 Stopping Curb	Lin. Ft.																		
62 Surface Drain	Lin. Ft.																		
63 Surface Drain Basins	Basin																		
64 Bridge Approach Slabs (square)	Slab																		
65 Bridge Approach Slabs (skew)	Slab																		
66																			
67																			
68																			
TOTAL ESTIMATED COST OF PAVEMENT CONSTRUCTION (IN 'TOTALS' COLUMN)																			
69 Concrete	Cu. Yd.																		
70 Reinforcing Steel	Lb.																		
71 Excavation - Earth	Cu. Yd.																		
72 Excavation - Loose Rock	Cu. Yd.																		
73 Excavation - Solid Rock	Cu. Yd.																		
74 Bridge	* Bridge No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.	Br. No.
75 Station																			
76 Concrete	Cu. Yd.																		
77 Reinforcing Steel	Lb.																		
78 Structural Steel	Lb.																		
79 Piling	Lin. Ft.																		
80 Temporary Crossing	Lump Sum																		
81 Removing old Bridge	Lump Sum																		
82 Bituminous Surface	Sq. Yd.																		
83																			
84																			
TOTAL ESTIMATED COST OF STRUCTURES (IN 'TOTALS' COLUMN)																			
85 Guard Rail - Conc. & Chain	Lin. Ft.	1655														1655			
86																			
87																			
TOTAL ESTIMATED COST OF MISCELLANEOUS ITEMS (IN 'TOTALS' COLUMN)																			

TYPICAL CROSS SECTIONS AND DETAILS

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	SEC.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
4	MINN.					



GENERAL GRADING SECTION



SPECIAL FILL SECTION  
RT. STA. 92+77.5 TO 97+00.00

\* NOTE: BRIDGE ITEMS LISTED UNDER BRIDGE NUMBERS IN MILE COLUMNS REGARDLESS OF LOCATION