

CONVENTIONAL SIGNS & ABBREVIATIONS

STATE LINE	-----	EXCAVATION	F
COUNTY LINE	-----	EMBANKMENT	F
TOWNSHIP LINE	-----	OVERHAUL	H
SECTION LINE	-----	SURFACING	S
CITY, VILLAGE, OR BOROUGH	-----	GUARD RAIL	GR
FENCE LINE	-----	INTERSECTION ANGLE	Δ
RIGHT-OF-WAY LINE	-----	RADIUS	R
TRAVELLED WAY	-----	ELEVATION	EI
RAILROADS	-----	VERTICAL CURVE	VC
RETAINING WALL	-----	BENCH MARK	B.M.
BASE OR SURVEY LINE	-----	SECTIONAL CONCRETE CULVERT	P.C.
LEVEE	-----	CORRUGATED METAL CULVERT	C.M.
GRAVEL PIT	⊙	CULVERT HAUL	P.H.
SAND PIT	⊙	TON MILES	T.M.
CLAY PIT	⊙	PLACE	P
ROCK QUARRY	⊙	IN PLACE	Imp.
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.
HERD, BRUSH, OR TIMBER	-----	SPECIAL FLOWING	S.P.
GROUND ELEVATION	-----	TELEPHONE POLE	TEL.P.
GRADE ELEVATION	-----		

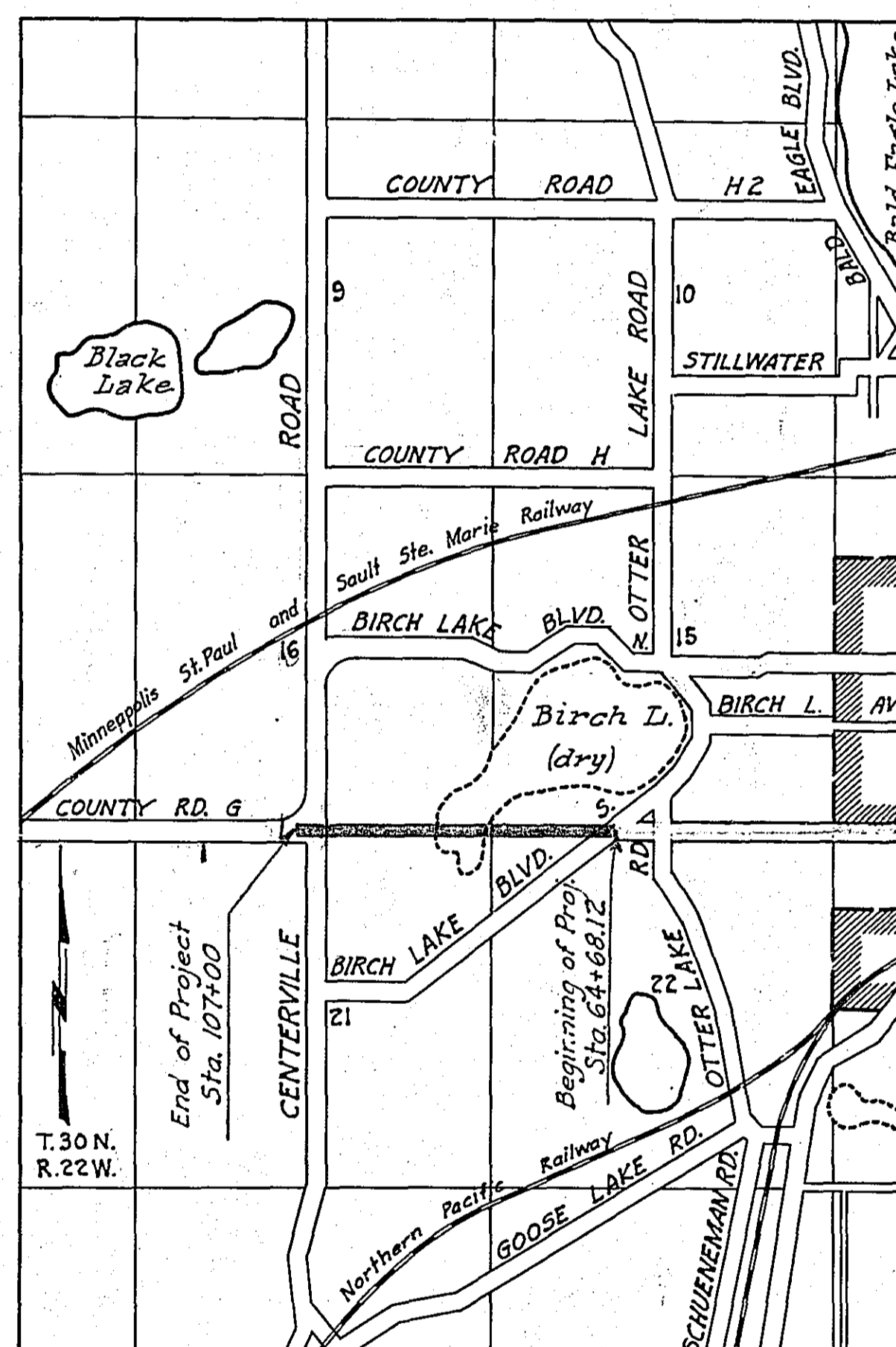
STATE HIGHWAY DEPARTMENT  
OF MINNESOTA  
Plan and Profile of State Road No. 11  
COUNTY OF RAMSEY

From A point 1215.88' W. of N. 1/4 Cor. of Sec. 22-30-22 To A point 173.58' W. of N. 1/4 Cor. of Sec. 21-30-22  
Give proper reference to Sections, Township and Range

GROSS LENGTH 4231.88 FEET 0.801 MILES  
LENGTH OF EXCEPTIONS FEET MILES  
NET LENGTH 4231.88 FEET 0.801 MILES  
PLAN, 1 Inch = 200 Feet.  
PROFILE, Horz. 1 Inch = 200 Feet. Vert. 1 Inch = 20 Feet  
WORKING PLANS { Horz. 1 Inch = 100 Feet  
Vert. 1 Inch = 10 Feet  
Cross-Section, 1 Inch = 10 Feet  
LAYOUT  
Scale, 1 Inch = 2640 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. 64+68.12 to Sta. 107+00  
" No. 4-7 Incl. Cross-Sections



*Not Des. S. A. R. Res. not in  
Res. to be passed 4-7-30*

RECEIVED FIRST	4-30-30
RETURNED TO ENG'R	
RECEIVED SECOND	
TO DIVISION ENG'R	
APPROVED	
FROM OFFICE ENG'R	4-30-30
FILED	

Planned By Paul N. Loates  
HIGHWAY ENGINEER FOR RAMSEY COUNTY.  
Recommended for Approval [Signature]  
DIVISION ENGINEER  
Recommended for Approval [Signature]  
CONSTRUCTION ENGINEER  
Approved 4-5-30 1930 [Signature]  
CHIEF ENGINEER & DEPUTY COMMISSIONER

*May 9/6*



STATEMENT OF ESTIMATED QUANTITIES AND COSTS.

ITEM	UNIT	MILE																TOTAL ESTIMATED QUANTITIES	ESTIMATED UNIT PRICES	AMOUNTS	TOTALS
		0.125 to 0.175	0.175 to 0.250	0.250 to 0.375	0.375 to 0.500	0.500 to 0.750	0.750 to 1.000	1.000 to 1.500	1.500 to 2.000	2.000 to 3.000	3.000 to 4.000	4.000 to 5.000	5.000 to 6.000	6.000 to 8.000	8.000 to 10.000	10.000 to 12.000	12.000 to 15.000				
1	Clearing	Acre	0.49															0.49			
2	Clearing	Tree	43															43			
3	Grubbing	Acre	0.57															0.57			
4	Grubbing	Tree	58															58			
5	Excavation - Earth	Cu. Yd.	5334.4															5334.4			
6	Excavation - Loose Rock	Cu. Yd.	100															100			
7	Excavation - Solid Rock	Cu. Yd.	30															30			
8	Excavation - Overhaul	Cu. Yd.	100200															100200			
9	Special Excavation	Lin. Ft.																			
10	Hand Ditching	Cu. Yd.	365															365			
11	Tile Drain	in.																			
12	Tile Drain	in.																			
13	Tile Drain	in.																			
14	Porous Back Fill Material	Cu. Yd.																			
15	Stone Rip - Rap	Cu. Yd.																			
16	Stone Rip - Rap	Cu. Yd. mile																			
17	Install 15" C.M.	Lin. Ft.	200															200			
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.	72															72			
26	Install 30" P <sub>3</sub>	Lin. Ft.																			
27	Install 36" P <sub>3</sub>	Lin. Ft.	60															60			
28	P <sub>1</sub> Culvert Haul	Ton Mile																			
29	P <sub>3</sub> Culvert Haul	Ton Mile	49.75															49.75			
30	Rent. old guard rail	Lin. Ft.	270															270			
31																					
32																					
TOTAL ESTIMATED COST OF GRADING			(IN 'TOTALS' COLUMN)																		
33	Culv. Material	Lin. Ft.																			
34	Culv. Material	Lin. Ft.																			
35	C.M. Culv. Material 15"	Lin. Ft.	200															200			
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.	72															72			
40	P <sub>3</sub> Culv. Material 30"	Lin. Ft.																			
41	P <sub>3</sub> Culv. Material 36"	Lin. Ft.	60															60			
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	Lin. Ft.																			
61	Sloping Curb	Lin. Ft.																			
62	Surface Drain	Lin. Ft.																			
63	Surface Drain Basins	Basin																			
64	Bridge Approach Slabs (Square)	Slab																			
65	Bridge Approach Slabs (Rect)	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.	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 (Cable)	Lin. Ft.	2400																2400		
86	Replace old G.R.	Lin. Ft.	270																270		
87	Guard rail anchors	Each	2																2		
TOTAL ESTIMATED COST OF MISCELLANEOUS ITEMS			(IN 'TOTALS' COLUMN)																		

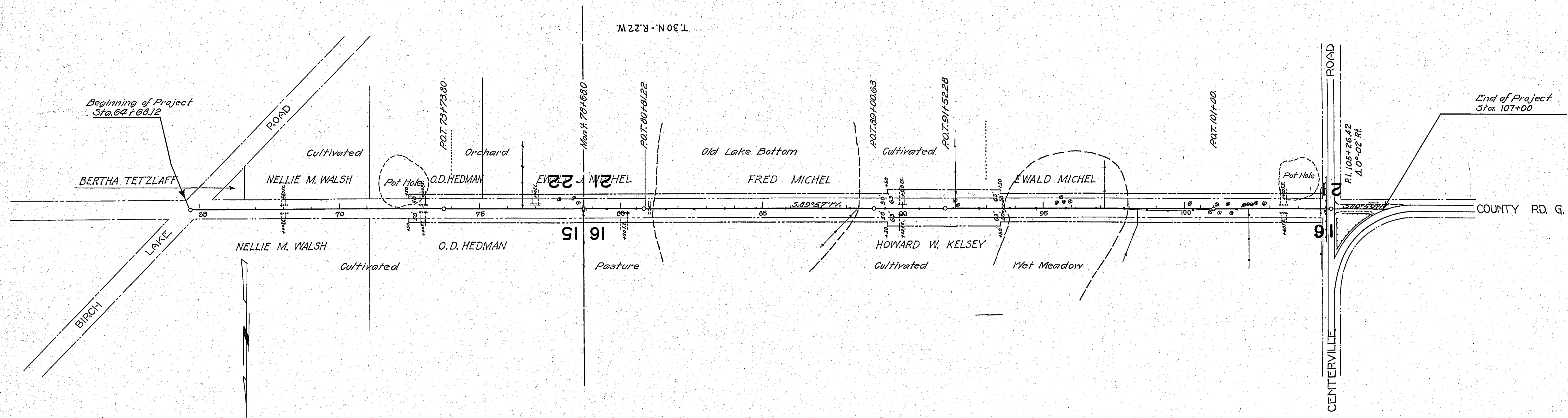
TYPICAL CROSS SECTIONS AND DETAILS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SEC.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	MIN					

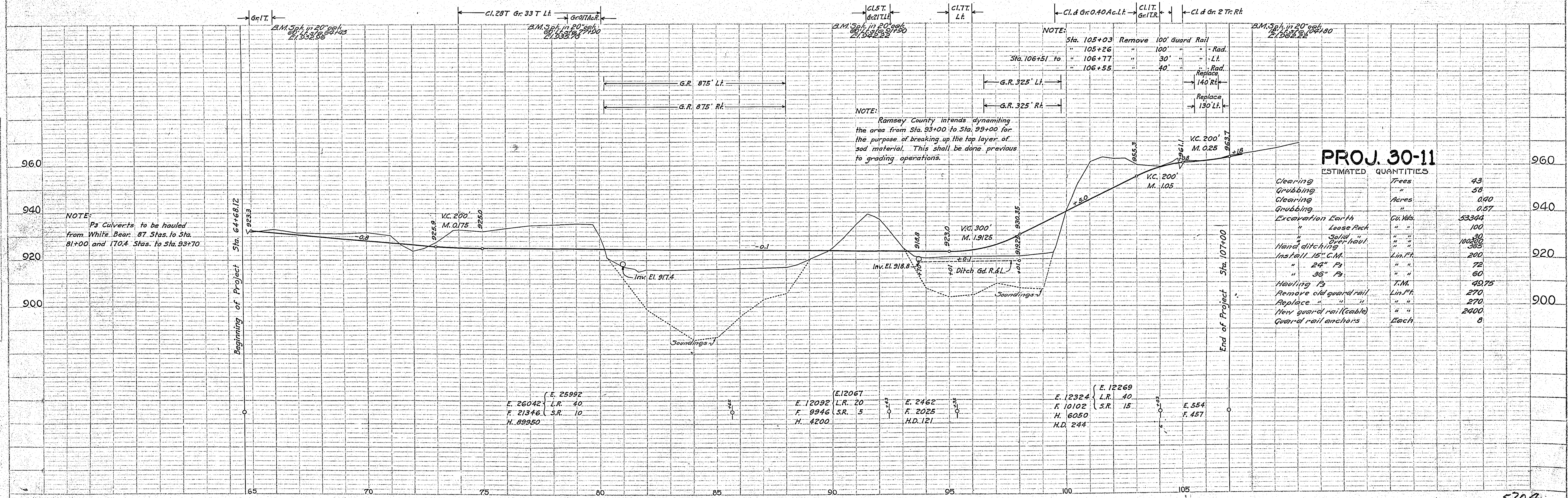


68+00 Rt. P. 15'x20' C.M.    68+00 Lt. P. 15'x20' C.M.    73+00 Rt. P. 15'x20' C.M.    73+00 Lt. P. 15'x20' C.M.    77+00 Lt. P. 15'x20' C.M.    80+20 Rt. P. 15'x20' C.M.    81+00 P. 36"x60" P<sub>3</sub> P<sub>3</sub> Haul 25.95 T.M.    90+00 Rt. P. 15'x20' C.M.    90+00 Lt. P. 15'x20' C.M.    93+70 P. 24"x72" P<sub>3</sub> P<sub>3</sub> Haul 23.80 T.M.    103+50 Rt. P. 15'x20' C.M.    103+50 Lt. P. 15'x20' C.M.

DATE	
BY	
PLAN	
REVISIONS	
NO.	
NOTE: BOOK ALIGNMENT CHECKED.	
NOTE: E.T. OF V.M. CHECKED.	



DATE	
BY	
PROFILE	
REVISIONS	
NO.	
NOTE: BOOK GRABBLING CHECKED.	
NOTE: E.T. OF V.M. CHECKED.	
NOTE: STRIP PILE MEASUREMENTS CHECKED.	



NOTE:

Sta. 105+03	Remove 100' Guard Rail	
" 105+26	" 100'	Rad.
Sta. 106+51 to	" 106+77	" 30' - Lt.
" 106+55	" 106+55	" 40' - Rad.
		Replace 140 Rt.
		Replace 130 Lt.

NOTE:  
P<sub>3</sub> Culverts to be hauled from White Bear. 87 Stas. to Sta. 81+00 and 170.4 Stas. to Sta. 93+70

### PROJ. 30-11

ESTIMATED QUANTITIES

Item	Unit	Quantity
Clearing	Trees	43
Grubbing	"	58
Clearing	Acres	0.40
Grubbing	"	0.57
Excavation Earth	Cu. Yds.	5334.4
" Loose Rock	"	100
" Solid " "	"	30
Hand ditching	"	100,000
Install 15" C.M.	Lin. Ft.	200
" 24" P <sub>3</sub>	"	72
" 36" P <sub>3</sub>	"	60
Hauling P <sub>3</sub>	T.M.	49.75
Remove old guard rail	Lin. Ft.	270
Replace " " "	"	270
New guard rail (cable)	"	2400
Guard rail anchors	Each	8