

### 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.....	A
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.1
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 FACE WALLS.....	LEFT.....	L
WITH WING WALLS.....	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.
HEDGE, BRUSH, OR TIMBER.....	SPECIAL FLOWING.....	S.P.
GROUND ELEVATION.....	TELEPHONE POLE.....	Tel.P.
GRADE ELEVATION.....		

## OFFICE OF COUNTY SURVEYOR RAMSEY COUNTY Construction Plan of County Project No.

From a point 620 Feet No. of the East 1/4 Cor. Sec. 17 T. 29 N. R. 23 W. To a point 117.84 East & 98.20' North of the S.W. Cor. Sec. 4 T. 29 N. R. 23 W.

GROSS LENGTH 8020.00 FEET 1.519 MILES  
 LENGTH OF EXCEPTIONS 351.00 FEET 0.067 MILES  
 NET LENGTH 7669.00 FEET 1.452 MILES

PLAN, 1 Inch = 100 Feet  
 PROFILE, Horiz. 1 Inch = 100 Feet Vert. 1 Inch = 10 Feet

WORKING PLANS  
 Horiz. 1 Inch = 100 Feet  
 Vert. 1 Inch = 10 Feet  
 Cross-Sections, 1 Inch = 10 Feet

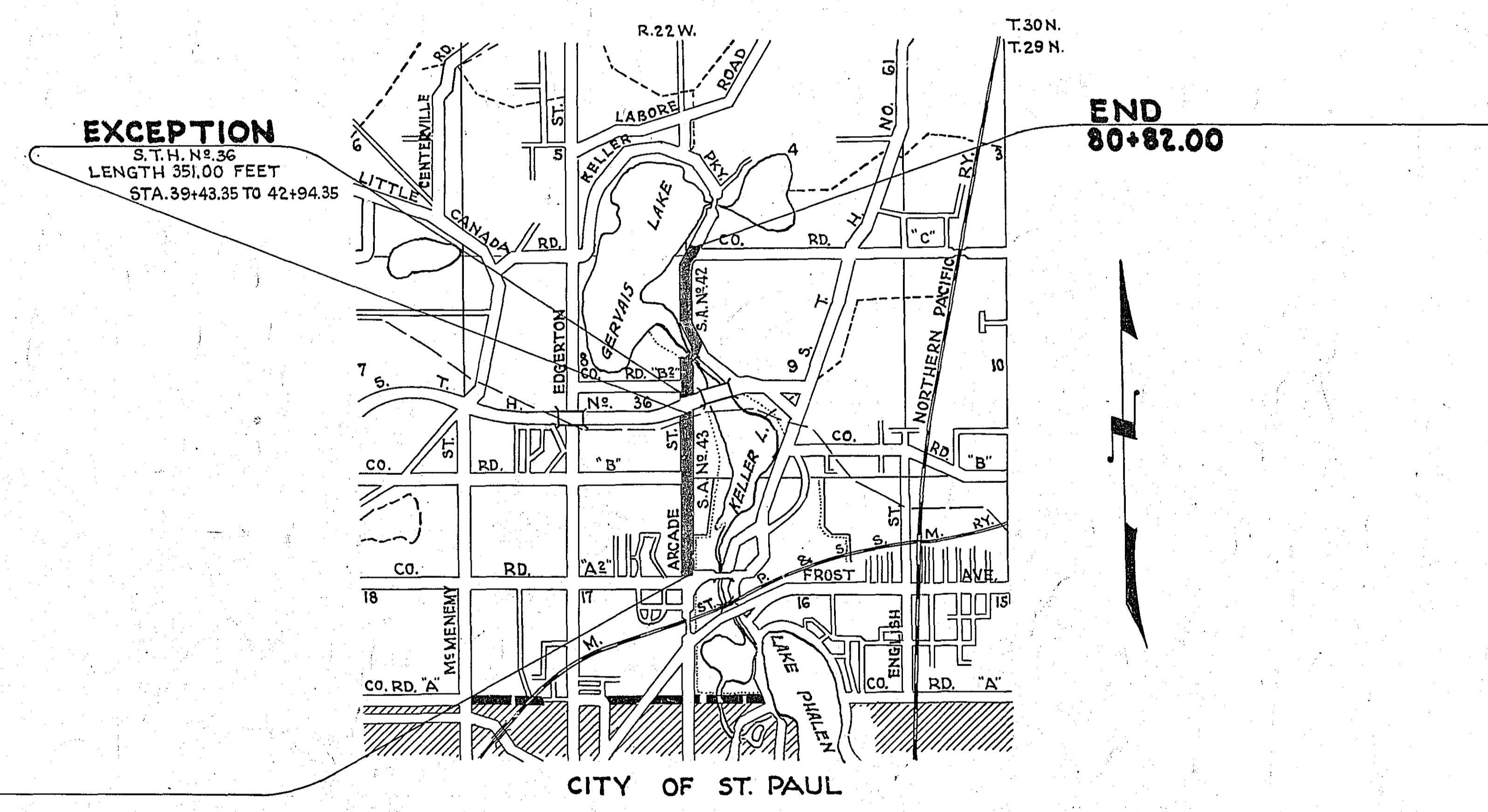
LAYOUT  
 SCALE, 1 Inch = 2640 Feet

SPECIFICATIONS

NOTE: The "Specifications For Highway Construction" dated July 1, 1938 and Supplement No. 3 approved by the Public Roads Administration Nov. 15, 1939 as modified by Supplement No. 4 dated March 1, 1940 and approved by the Public Roads Administration April 28, 1941, shall govern.

### INDEX OF SHEETS

Sheet No. 1. Title Sheet  
 " No. 2. Estimate, Grading & Paving Details  
 " No. 3. Paving & Miscellaneous Details  
 " No. 4 to 6 Panel Layout Sheets  
 " No. 7 to 9 Plan Sheets  
 " No. 10 to 25 Cross Sections



Planned By A. D. Crumpton May 7 1945  
 ASST. CIVIL ENGINEER

Approved Barry S. Brown May 7 1945  
 COUNTY SURVEYOR

Approved J. R. Moon May 7 1945  
 CHAIRMAN RAMSEY COUNTY BOARD

Recommended for Approval H. E. Egan 9-18- 1945  
 DISTRICT ENGINEER

Recommended for Approval J. M. Evans 9-24 1945  
 ENGINEER OF COUNTY DIVISION

Approved J. J. Moore 9/28 1945  
 ENGINEER OF SURVEYS & DESIGN

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER  
 PUBLIC ROADS ADMINISTRATION  
 FEDERAL WORKS AGENCY

APPROVED

COMMISSIONER  
 PUBLIC ROADS ADMINISTRATION  
 FEDERAL WORKS AGENCY

- 1+95 Lt. Inp. 18" x 20" C.M. Remove Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.
- 2+13 Lt. 14' Inp. 3.5" Sq. M.H. Remove
- 2+13 Lt. 14' to Sta. 2+29 Rt. 46' Inp. 18" x 62" Vit. Pipe. Remove Furn. & Inst. 18" x 80" S.C. Culv. Pl. 1 Flared S.C. Culv. End Sodding 6 Sq. Yds.
- 2+81 Lt. Inp. 15" x 12" C.M. Remove Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.
- 4+83 Rt. 18.5' to Sta. 4+94 Rt. 35' Inp. 15" x 20" C.M. Remove No Culv. Required.
- 5+26 Rt. 89' to Sta. 5+78 Rt. 110' Inp. 12" x 56" Masonry Arch Culv. O.K. Leave.
- 9+57 L. Inp. 12" x 40.5" C.M. Remove Furn. & Inst. 24" x 85" S.C. Culv. Pl. 2 Flared S.C. Culv. Ends Sodding 14 Sq. Yds.
- 11+75 Lt. 32' to Sta. 11+95 Lt. 15.5' Inp. 15" x 26" C.M. Remove No Culv. Req'd.
- 12+12 Lt. Inp. 12" x 28" Water Tanks. Remove No Culv. Req'd.
- 20+93 L. Inp. 24" x 49" C.M. Remove Furn. & Inst. 24" x 92" S.C. Culv. Pl. 2 Flared S.C. Culv. Ends Sodding 14 Sq. Yds.
- 22+40 Rt. Inp. 12" x 20" C.M. Remove Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.
- 23+24 Rt. Inp. 12" x 20" C.M. Remove Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.
- Sta. 25+93 Lt. 14' to Sta. 26+69 Lt. 15' Inp. 12" x 16" C.M. Remove
- 26+03 Rt. Inp. 15" x 20" C.M. Remove No Culv. Req'd.
- 26+50 Rt. Inp. 12" x 16" C.M. Remove No Culv. Req'd.

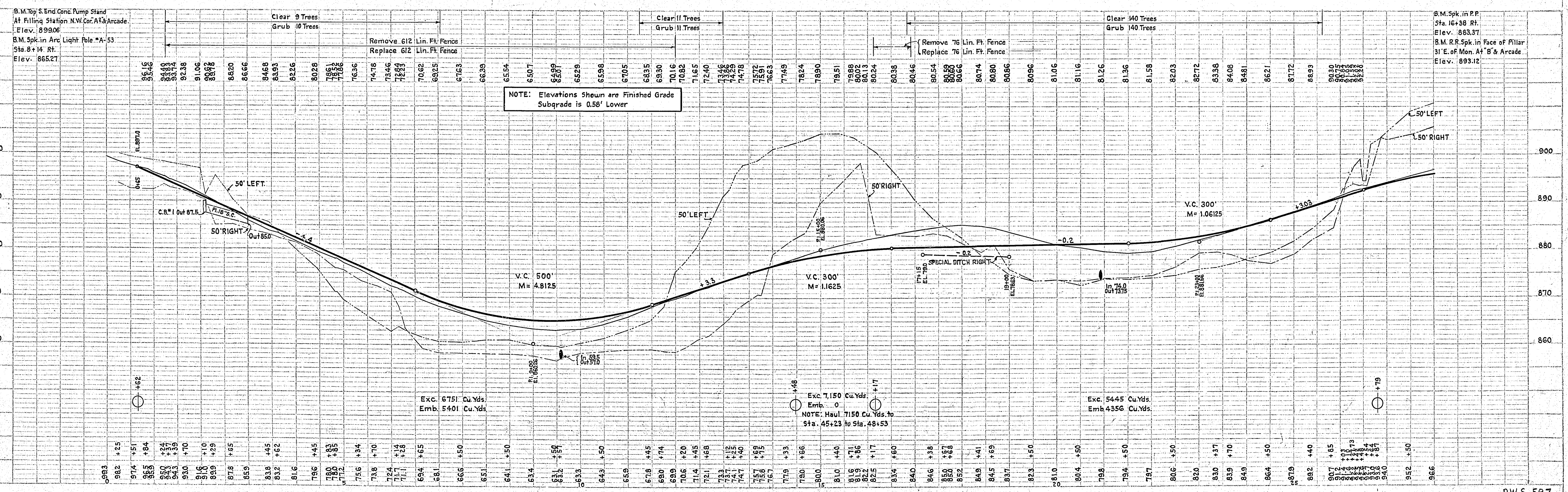
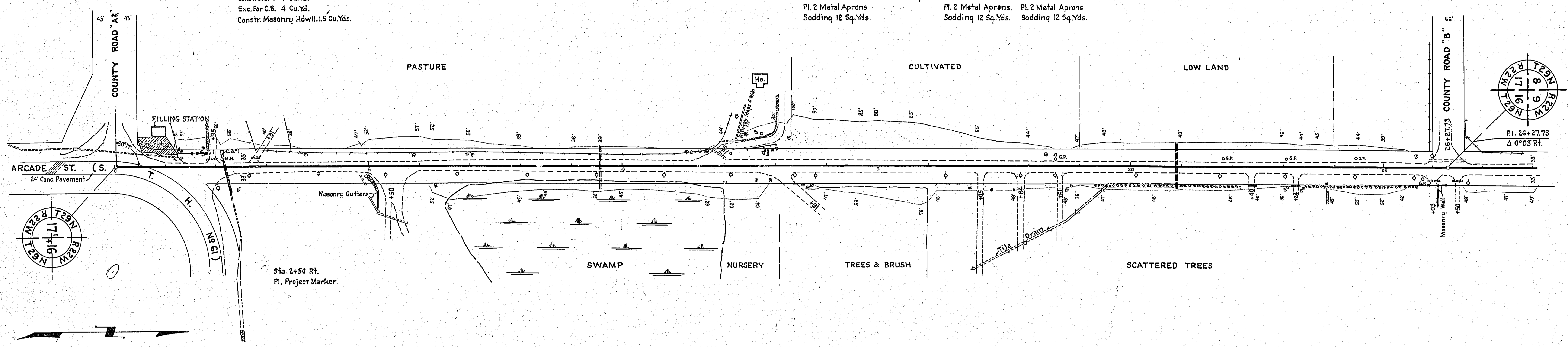
Sta. 2+13 Lt. 29.5' Const. C.B.#1 - 1 Cu. Yd. Exc. For C.B. 4 Cu. Yd. Constr. Masonry Hdwall. 1.5 Cu. Yds.

Sta. 12+91 Rt. Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.  
 Sta. 17+05 No Culv. Req'd.  
 Sta. 17+64 Rt. Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.  
 Sta. 18+61 Rt. Furn. & Inst. 15" x 20" C.M. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.

Sta. 1+25 Lt. 23' to Sta. 1+84 Lt. 23' Inplace Concrete Wall Remove. 1 Cu. Yd.

Sta. 1+54 Lt. 21' to Sta. 1+84 Lt. 21' Inplace 3 Conc. & Rubble Piers. Remove 1 Cu. Yd.

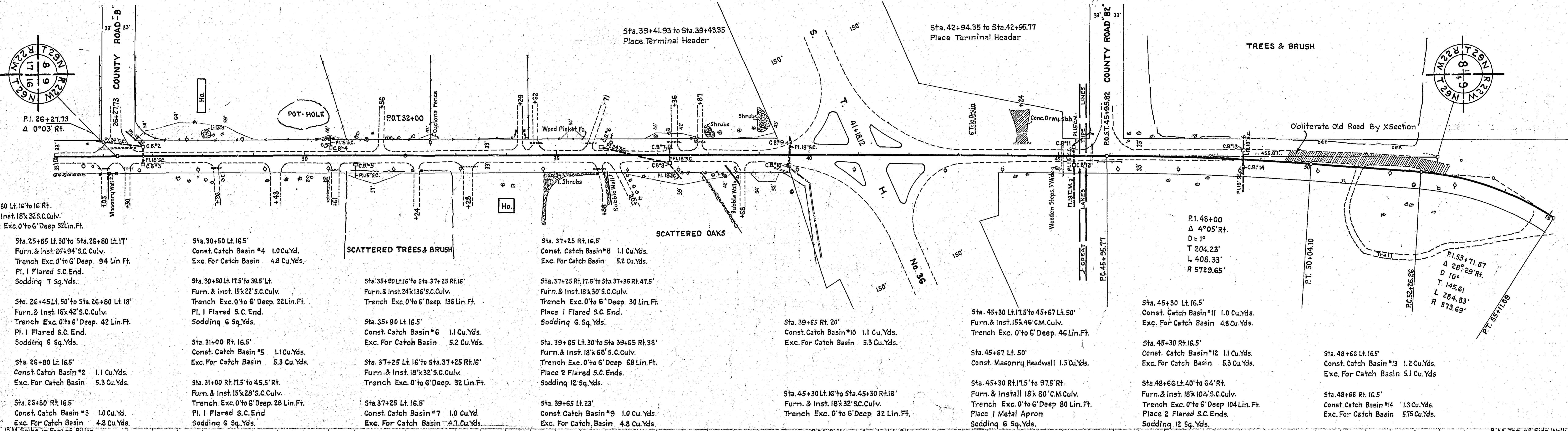
Sta. 23+90 Rt. 32' Inp. Masonry Pillar. Remove 0.5 Cu. Yd.



PLAN  
 SUBMITTED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NOTE: BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 NO. \_\_\_\_\_

PROFILE  
 SUBMITTED: \_\_\_\_\_  
 PLOTTED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NOTE: BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 NO. \_\_\_\_\_

28+26 Rt. Imp. 12'x20' C.M. Remove No Culv. Req'd.	30+01 Rt. Imp. 12'x20' C.M. Remove No Culv. Req'd.	33+28 Rt. Imp. 12'x34' C.M. Remove No Culv. Req'd.	34+62 Lt. Imp. 12'x20' C.M. Remove No Culv. Req'd.	35+71 Lt. Imp. 15'x20' C.M. Remove No Culv. Req'd.	35+88 Rt. Imp. 15'x26' C.M. Remove No Culv. Req'd.	37+36 Lt. Imp. 18'x33' C.M. Remove No Culv. Req'd.	37+87 Lt. Imp. 15'x26' C.M. Remove No Culv. Req'd.	39+45 Rt. Imp. 18'x26' C.M. Remove No Culv. Req'd.	39+65 & Imp. 18'x26' C.M. Remove No Culv. Req'd.	44+24 Lt. Imp. 18'x20' C.M. Remove No Culv. Req'd.	45+05 & Imp. 18'x26' C.M. Remove No Culv. Req'd.	45+62 & Imp. 10'x43' S.C. Remove	46+66 & Imp. 12'x51' V.I.P. Remove
29+43 Rt. No Culv. Req'd.	31+56 Lt. No Culv. Req'd.	32+24 Rt. No Culv. Req'd.	34+29 Lt. No Culv. Req'd.	36+02 Rt. No Culv. Req'd.	38+68 Rt. No Culv. Req'd.								



Sta. 26+80 Lt. 16' to 16' Rt. Furn. & Inst. 18'x32' S.C. Culv. Trench Exc. 0' to 6' Deep 32 Lin. Ft.

Sta. 25+85 Lt. 30' to Sta. 26+80 Lt. 17' Furn. & Inst. 24'x94' S.C. Culv. Trench Exc. 0' to 6' Deep. 94 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 7 Sq. Yds.

Sta. 26+45 Lt. 50' to Sta. 26+80 Lt. 16' Furn. & Inst. 18'x42' S.C. Culv. Trench Exc. 0' to 6' Deep. 42 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 6 Sq. Yds.

Sta. 26+80 Lt. 16.5' Const. Catch Basin #2 1.1 Cu. Yds. Exc. For Catch Basin 5.3 Cu. Yds.

Sta. 26+80 Rt. 16.5' Const. Catch Basin #3 1.0 Cu. Yd. Exc. For Catch Basin 4.8 Cu. Yds.

Sta. 30+50 Lt. 16.5' Const. Catch Basin #4 1.0 Cu. Yd. Exc. For Catch Basin 4.8 Cu. Yds.

Sta. 30+50 Lt. 17.5' to 39.5' Lt. Furn. & Inst. 15'x22' S.C. Culv. Trench Exc. 0' to 6' Deep. 22 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 7 Sq. Yds.

Sta. 30+50 Lt. 17.5' to 39.5' Lt. Furn. & Inst. 15'x22' S.C. Culv. Trench Exc. 0' to 6' Deep. 136 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 6 Sq. Yds.

Sta. 31+00 Rt. 16.5' Const. Catch Basin #5 1.1 Cu. Yds. Exc. For Catch Basin 5.3 Cu. Yds.

Sta. 31+00 Rt. 17.5' to 45.5' Rt. Furn. & Inst. 15'x28' S.C. Culv. Trench Exc. 0' to 6' Deep. 28 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 6 Sq. Yds.

Sta. 31+25 Lt. 16' to Sta. 37+25 Rt. 16' Furn. & Inst. 18'x32' S.C. Culv. Trench Exc. 0' to 6' Deep. 32 Lin. Ft.

Sta. 31+25 Lt. 16.5' Const. Catch Basin #7 1.0 Cu. Yd. Exc. For Catch Basin 4.7 Cu. Yds.

Sta. 37+25 Rt. 16.5' Const. Catch Basin #8 1.1 Cu. Yds. Exc. For Catch Basin 5.2 Cu. Yds.

Sta. 37+25 Rt. 17.5' to Sta. 37+35 Rt. 41.5' Furn. & Inst. 18'x30' S.C. Culv. Trench Exc. 0' to 6' Deep. 30 Lin. Ft. Place 1 Flared S.C. End. Sodding 6 Sq. Yds.

Sta. 39+65 Lt. 20' Const. Catch Basin #10 1.1 Cu. Yds. Exc. For Catch Basin 5.3 Cu. Yds.

Sta. 39+65 Lt. 30' to Sta. 39+65 Rt. 38' Furn. & Inst. 18'x30' S.C. Culv. Trench Exc. 0' to 6' Deep. 68 Lin. Ft. Place 2 Flared S.C. Ends. Sodding 12 Sq. Yds.

Sta. 39+65 Lt. 23' Const. Catch Basin #9 1.0 Cu. Yds. Exc. For Catch Basin 4.8 Cu. Yds.

Sta. 45+30 Lt. 16' to Sta. 45+30 Rt. 16' Furn. & Inst. 18'x32' S.C. Culv. Trench Exc. 0' to 6' Deep. 32 Lin. Ft.

Sta. 45+30 Lt. 17.5' to 45+67 Lt. 50' Furn. & Inst. 15'x46' C.M. Culv. Trench Exc. 0' to 6' Deep. 46 Lin. Ft.

Sta. 45+67 Lt. 50' Const. Masonry Headwall 1.5 Cu. Yds.

Sta. 45+30 Rt. 17.5' to 97.5' Rt. Furn. & Inst. 18'x80' C.M. Culv. Trench Exc. 0' to 6' Deep. 80 Lin. Ft. Place 1 Metal Apron Sodding 6 Sq. Yds.

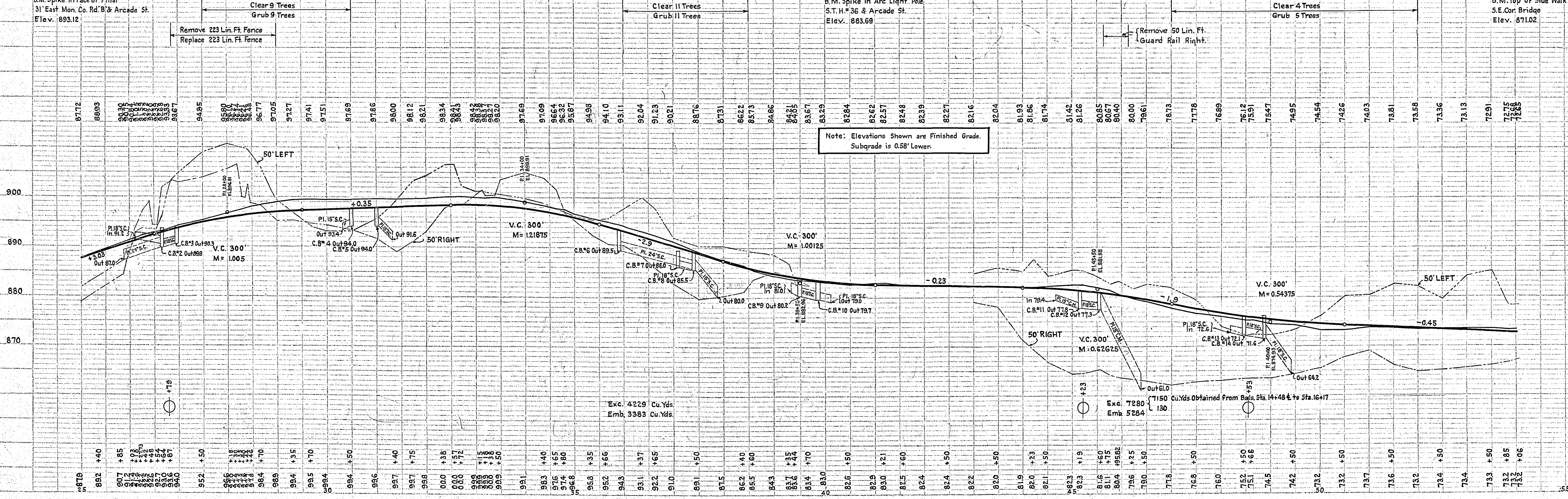
Sta. 45+30 Rt. 16.5' Const. Catch Basin #11 1.0 Cu. Yds. Exc. For Catch Basin 4.8 Cu. Yds.

Sta. 45+30 Rt. 16.5' Const. Catch Basin #12 1.1 Cu. Yds. Exc. For Catch Basin 5.3 Cu. Yds.

Sta. 48+66 Lt. 40' to 64' Rt. Furn. & Inst. 18'x104' S.C. Culv. Trench Exc. 0' to 6' Deep. 104 Lin. Ft. Place 2 Flared S.C. Ends. Sodding 12 Sq. Yds.

Sta. 48+66 Rt. 16.5' Const. Catch Basin #13 1.2 Cu. Yds. Exc. For Catch Basin 5.1 Cu. Yds.

Sta. 48+66 Rt. 16.5' Const. Catch Basin #14 1.3 Cu. Yds. Exc. For Catch Basin 5.75 Cu. Yds.



PLAN SURVEYED BY: [Name]  
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 DATE: [Date]

PROFILE SURVEYED BY: [Name]  
 CHECKED BY: [Name]  
 DATE: [Date]

Sta. 54+36 Lt. Inp. 18x26" C.M. Remove No Culv. Req'd.

Sta. 58+83 Rt. Inp. 15x32" C.M. Remove & Repl. Pl. 2 Metal Aprons Sodding 12 Sq. Yds.

Sta. 59+18 Rt. 32' to Sta. 59+26 Lt. 45' Inp. 15x77" C.M. O.K. Leave.

Sta. 60+16 Rt. Inp. 8x35" Vit.P. Remove No Culv. Req'd.

Sta. 61+11 Rt. 30' Inp. 12x20" S.C. Culv. Remove No Culv. Req'd.

Sta. 66+38 Rt. Inp. 15x20" C.M. Remove No Culv. Req'd.

Sta. 69+14 Rt. Inp. 15x20" C.M. Remove No Culv. Req'd.

Sta. 70+09 Lt. Inp. 2-12x40" Dredge Pipes. Remove No Culv. Req'd.

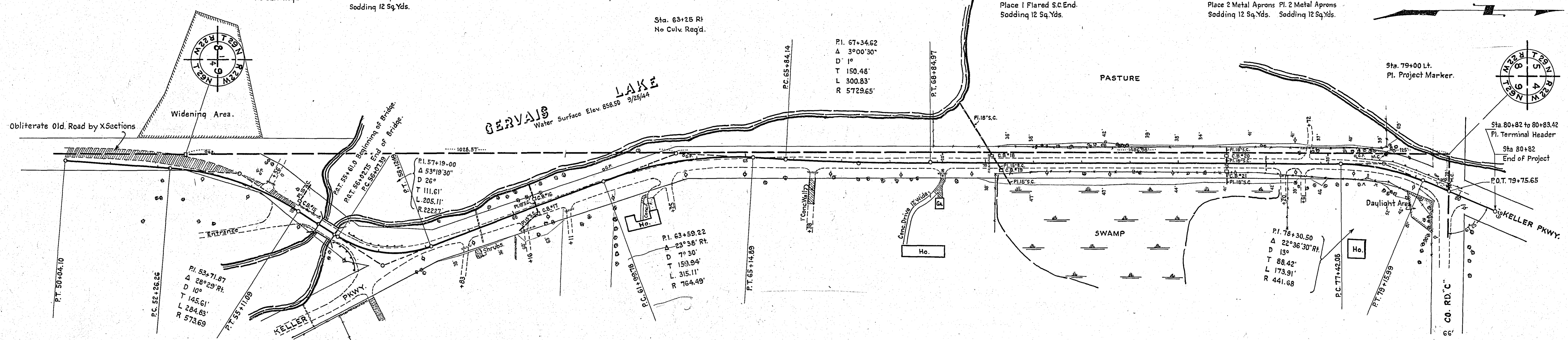
Sta. 69+43 Lt. 130' to Sta. 70+40 Rt. 22' Inp. 18x180" Vit. Pipe Remove Furn. & Inst. 18x196" S.C. Culv. Place 1 Flared S.C. End. Sodding 12 Sq. Yds.

Sta. 75+83 Lt. Inp. 18x31" C.M. Remove No Culv. Req'd.

Sta. 76+20 Rt. Inp. 15x20" C.M. Remove Furn. & Inst. 15x20" C.M. Place 2 Metal Aprons Sodding 12 Sq. Yds.

Sta. 76+61 Rt. Inp. 10x20" C.M. Remove Sodding 12 Sq. Yds.

Sta. 76+72 Lt. Inp. 12x26" C.M. Remove No Culv. Req'd.



Sta. 55+00 Lt. 17.5' to 61.5' Lt. Furn. & Inst. 15x44" S.C. Culv. Trench Exc. 0' to 6' Deep. 44 Lin. Ft. Pl. 1 Flared S.C. End. Sodding 6 Sq. Yds.

Sta. 55+00 Lt. 16.5' Const. Catch Basin #15 1.0 Cu. Yd. Exc. For Catch Basin 4.8 Cu. Yds.

Sta. 60+50 Lt. 16' to 16' Rt. Furn. & Inst. 10x32" S.C. Culv. Trench Exc. 0' to 6' Deep. 32 Lin. Ft.

Sta. 60+50 Lt. 16.5' Const. Catch Basin #16 1.0 Cu. Yd. Exc. For Catch Basin 4.6 Cu. Yds.

Sta. 60+50 Lt. 17.5' to 43.5' Lt. Furn. & Inst. 15x26" S.C. Culv. Trench Exc. 0' to 6' Deep. 26 Lin. Ft.

Sta. 60+50 Rt. 16.5' Const. Catch Basin #17 1.0 Cu. Yd. Exc. For Catch Basin 5.0 Cu. Yds.

Sta. 60+00 Rt. 35' to Sta. 60+50 Rt. 17.5' Furn. & Inst. 15x54" S.C. Culv. Trench Exc. 0' to 6' Deep. 54 Lin. Ft. Place 1 Flared S.C. End. Sodding 6 Sq. Yds.

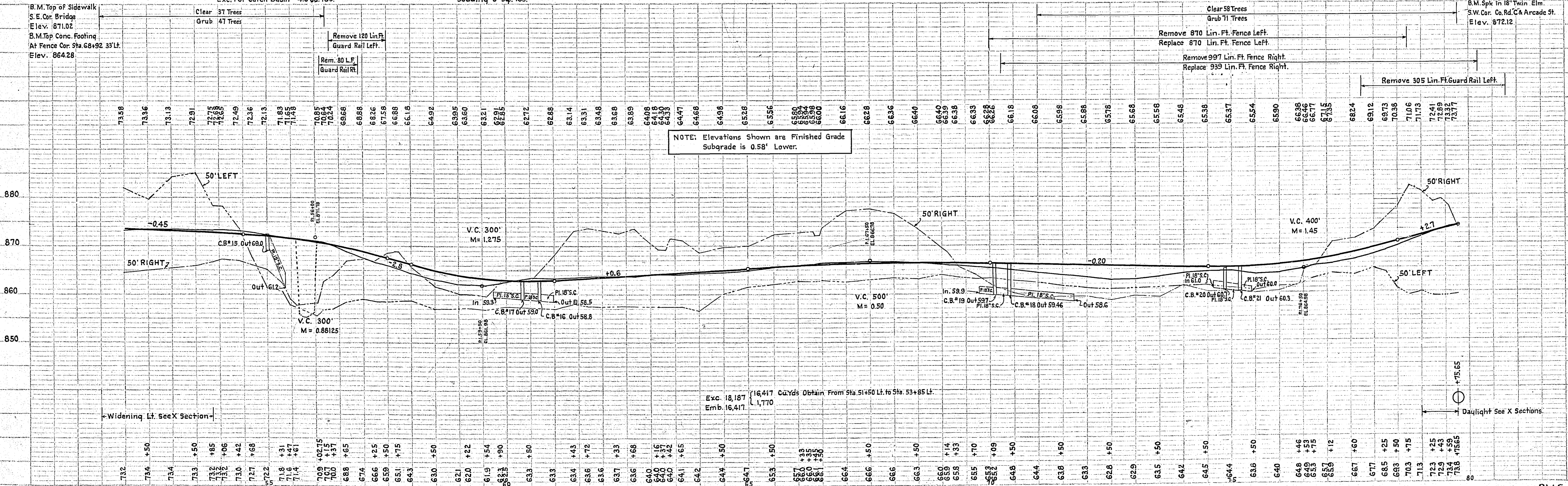
Sta. 70+16 Lt. 16.5' Const. Catch Basin #18 1.6 Cu. Yds. Exc. For Catch Basin 6.0 Cu. Yds.

Sta. 70+36 Rt. 16.5' Const. Catch Basin #19 1.6 Cu. Yds. Exc. For Catch Basin 6.0 Cu. Yds.

Sta. 75+00 Lt. 16.5' Const. Catch Basin #20 1.3 Cu. Yds. Exc. For Catch Basin 5.0 Cu. Yds.

Sta. 75+00 Rt. 16.5' Const. Catch Basin #21 1.3 Cu. Yds. Exc. For Catch Basin 5.0 Cu. Yds.

Sta. 75+00 Lt. 36' to Rt. 42' Furn. & Inst. 18x78" S.C. Culv. Trench Exc. 0' to 6' Deep. 78 Lin. Ft. Place 2 Flared S.C. Ends. Sodding 11 Sq. Yds.



NOTE: Elevations Shown are Finished Grade Subgrade is 0.58' Lower.