

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.....	EL
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 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.
HEDGE, BRUSH, OR TIMBER.....	SPECIAL FLOWING.....	S.P.
GROUND ELEVATION.....	TELEPHONE POLE.....	Tel.P.
GRADE ELEVATION.....		

OFFICE OF COUNTY SURVEYOR
 RAMSEY COUNTY
 Plan and Profile of County Project No. W.P.A. 2

From A point which is 1475' N. of the S.1/4 Cor. Sec. 17-29-22 To The center of Sec. 17-29-22

GROSS LENGTH	1125.0	FEET	0.21	MILES
LENGTH OF EXCEPTIONS		FEET		MILES
NET LENGTH	1125.0	FEET	0.29	MILES
SCALES	WORKING PLANS	PLAN, 1 Inch = 100 Feet		
		PROFILE, Horz. 1 Inch = 100 Feet. Vert. 1 Inch = 10 Feet		
		Horz. 1 Inch = 100 Feet Vert. 1 Inch = 10 Feet Cross-Sections, 1 Inch = 10 Feet		
LAYOUT				
	SCALE, 1 Inch = 2640 Feet			

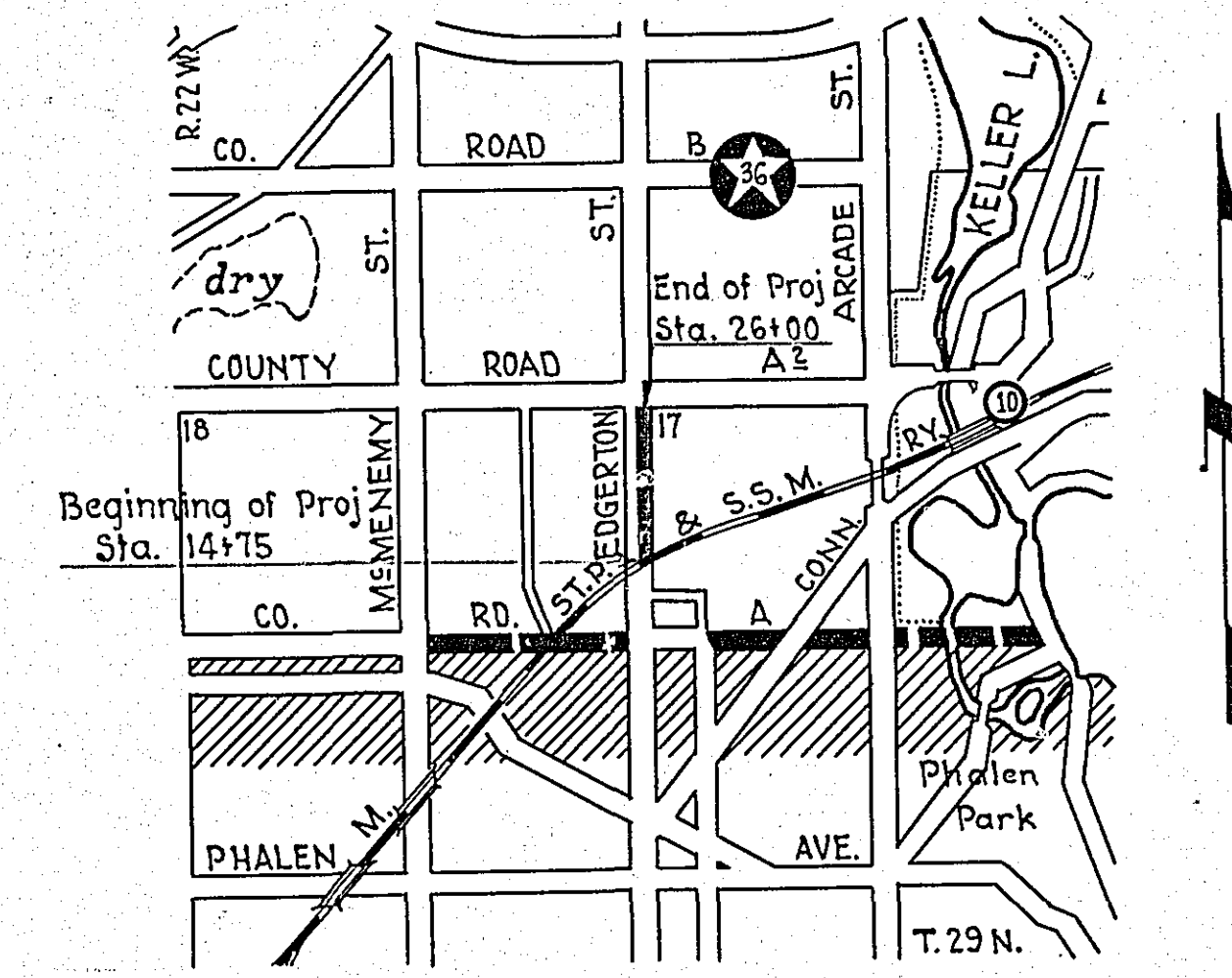
INDEX OF SHEETS

Sheet No. 1. Title Sheet and Layout Map

" No. 2. Typical Cross-Sections and Statement

" No. 3. Plan and Profile,

" No. 4, & 5. Gross Sections



Planned by M. W. Casper OFFICE ENGINEER

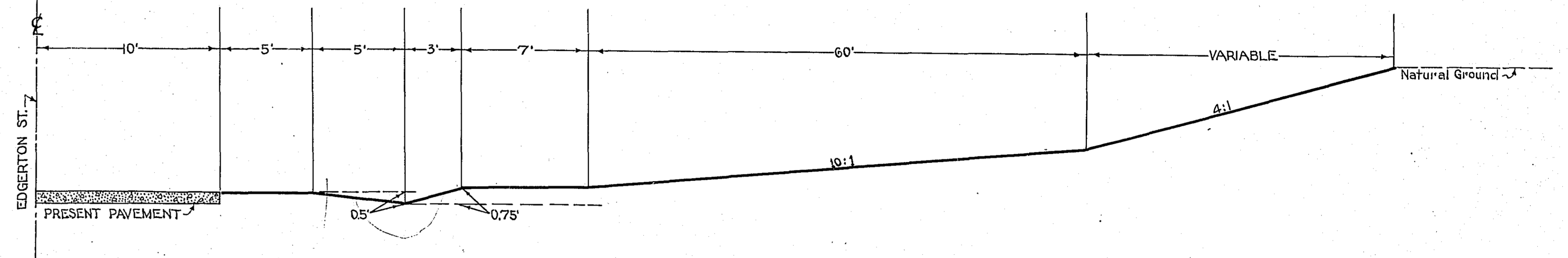
Recommended for Approval R. S. Brown PRINCIPAL ASSISTANT ENGINEER

Plans Approved and Recommended for Consideration Emil W. Schulz COUNTY SURVEYOR

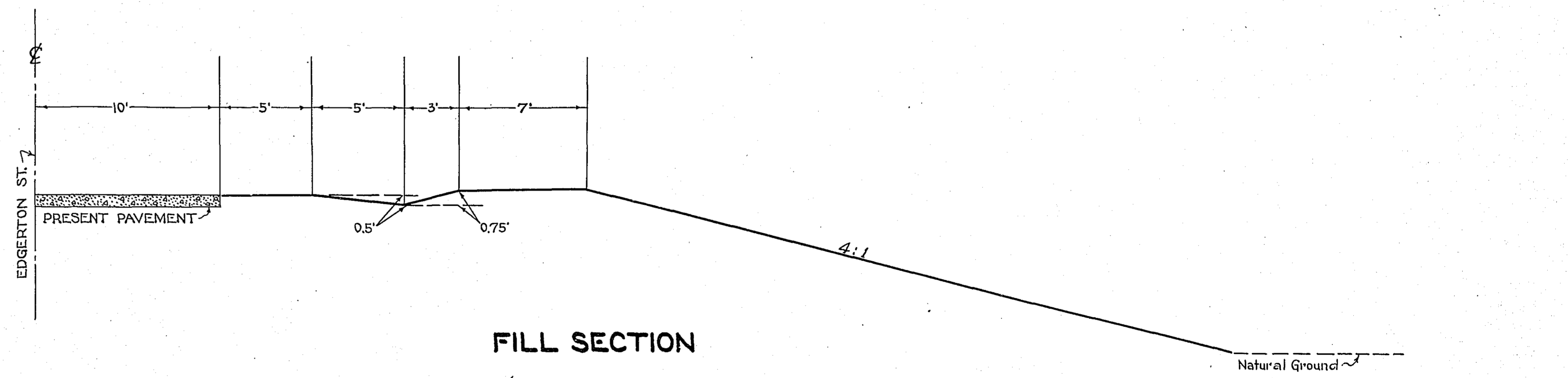
STATEMENT OF ESTIMATED QUANTITIES

CLASS	ITEM	UNIT	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	MILE From To	TOTAL ESTIMATED QUANTITIES
GRADING	1	Clearing	Trees										
	2	Grubbing	Trees										
	3	Clearing	Acres										
	4	Grubbing	Acres										
	5	Excavation Earth	Cu. Yds.	8279									8279
	6	Excavation Loose Rock	Cu. Yds.										
	7	Excavation Solid Rock	Cu. Yds.										
	8	Excavation Overhaul	Cu. Yds.										
	9	Excavation Special	Cu. Yds.										
	10	Excavation Hand Ditch	Cu. Yds.										
	11	Install 12" C.M.	Lin. Ft.										
	12	Install 15" C.M.	Lin. Ft.										
	13	Install 18" C.M.	Lin. Ft.										
	14	Install 24" C.M.	Lin. Ft.	30									30
	15	Install	Lin. Ft.										
	16	Install	Lin. Ft.										
	17	Install 18" Ps	Lin. Ft.										
	18	Install 24" Ps	Lin. Ft.	30									
	19	Install 30" Ps	Lin. Ft.										
	20	Install 36" Ps	Lin. Ft.										
	21	Install	Lin. Ft.										
	22	Install	Lin. Ft.										
	23	Remove Old Culvert	Lin. Ft.										
	24	Replace Old Culvert	Lin. Ft.										
	25	Finishing and Seeding	100 Sq.Yds.										
	26	Rubble Gutter	Cu. Yds.										
	27	Headwall Concrete	Cu. Yds.										
	28	Headwall Steel	Lbs.										
	29	Remove old guard rail	Lin. Ft.	810									810
	30												
	31												
	32												
C.M. CULVERTS	1	Furnish 12" C.M.	Lin. Ft.										
	2	Furnish 15" C.M.	Lin. Ft.										
	3	Furnish 18" C.M.	Lin. Ft.										
	4	Furnish 24" C.M.	Lin. Ft.										
	5	Furnish	Lin. Ft.										
	6	Furnish	Lin. Ft.										
	7	Furnish 12" C.M. Bond	Each										
	8	Furnish 15" C.M. Bond	Each										
	9												
	10												
P ₃ CULVERTS	1	Furnish 18" Ps	Lin. Ft.										
	2	Furnish 24" Ps	Lin. Ft.										
	3	Furnish 30" Ps	Lin. Ft.										
	4	Furnish 36" Ps	Lin. Ft.										
	5												
GUARD RAIL	1	Guard Rail - Cable	Lin. Ft.										
	2	Guard Rail Anchors	Each										
	3	Dummy Posts	Each										
	4												
SIDEWALKS AND CURBING	1	Concrete Curb - Straight	Lin. Ft.										
	2	Concrete Curb - Radius	Lin. Ft.										
	3	Remove Old Curb	Lin. Ft.										
	4	Remove Old Curb and Gutter	Lin. Ft.										
	5	Remove Old Sidewalk	Sq. Ft.										
	6	Replace Old Sidewalk	Sq. Ft.										
	7	Construct New Sidewalk	Sq. Ft.										
	8	Curb Inlet	Each										
	9	Catch Basin Complete	Each										
	10												
	11												
	12												
SEWER	1	12" Vitrified Sewer Pipe	Lin. Ft.										
	2	15" Vitrified Sewer Pipe	Lin. Ft.										
	3	18" Vitrified Sewer Pipe	Lin. Ft.										
	4	20" Vitrified Sewer Pipe	Lin. Ft.										
	5	24" Vitrified Sewer Pipe	Lin. Ft.										
	6	Manhole Complete	Each										
	7	Catch Basin Complete	Each										
	8												
	9												
	10												
PAVEMENT	1	Pavement - 1 Course Conc.	Sq. Yds.										
	2	Pavement - Asphaltic Conc.	Sq. Yds.										
	3	Integral Curb 8"	Lin. Ft.										
	4	Integral Curb 12"	Lin. Ft.										
	5	Surface Drain	Each										
	6	Surface Drain Basin	Each										
	7	Shoulders - Earth	Lin. Ft.										
	8												
STRUCTURES	1	Concrete	Cu. Yds.										
	2	Reinforcing Steel	Lbs.										
	3	Excavation	Cu. Yds.										
	4	Piling	Lin. Ft.										
	5												
	6												
	7												
	8												
	9												
	10												

DETAILS



CUT SECTION



FILL SECTION

DATE	
BY	
PLANNED	
DESIGNED	
CHECKED	
APPROVED	
NO.	
PT. OF W.P. RECORD	

DATE	
BY	
PLANNED	
DESIGNED	
CHECKED	
APPROVED	
NO.	
PT. OF W.P. RECORD	

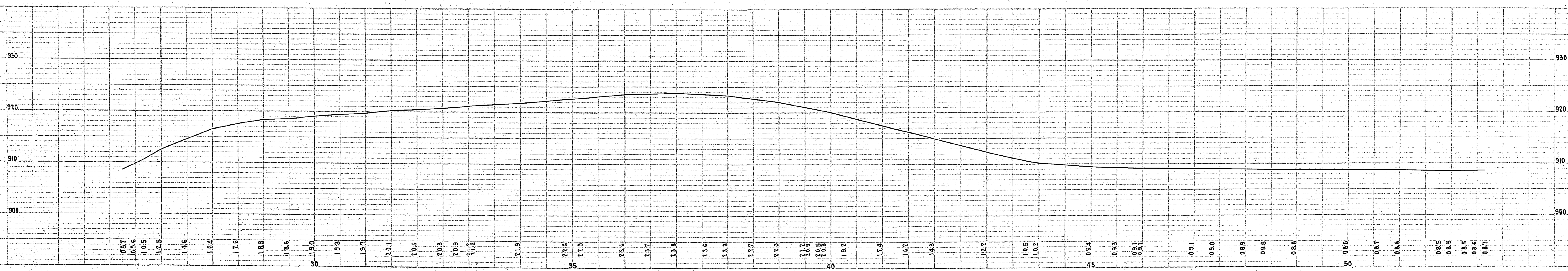
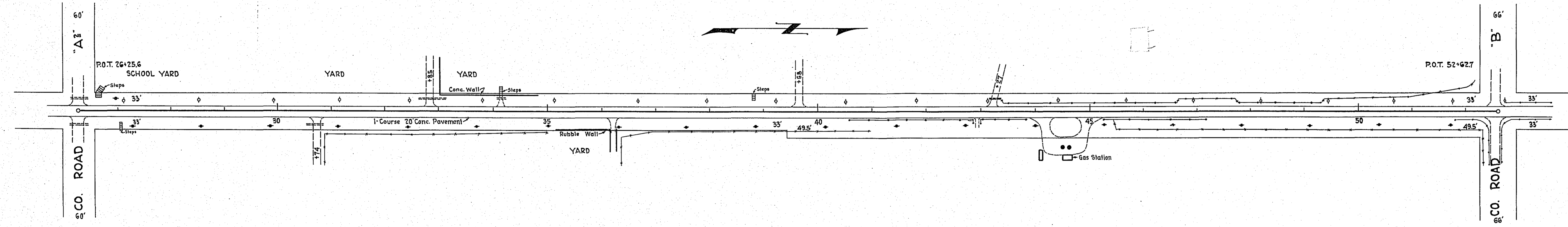
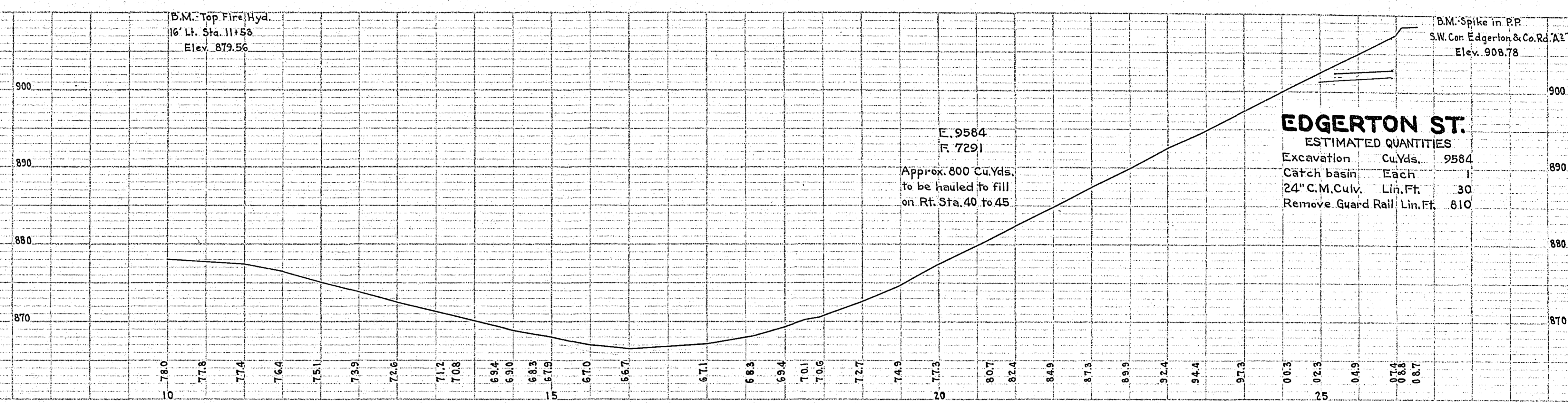
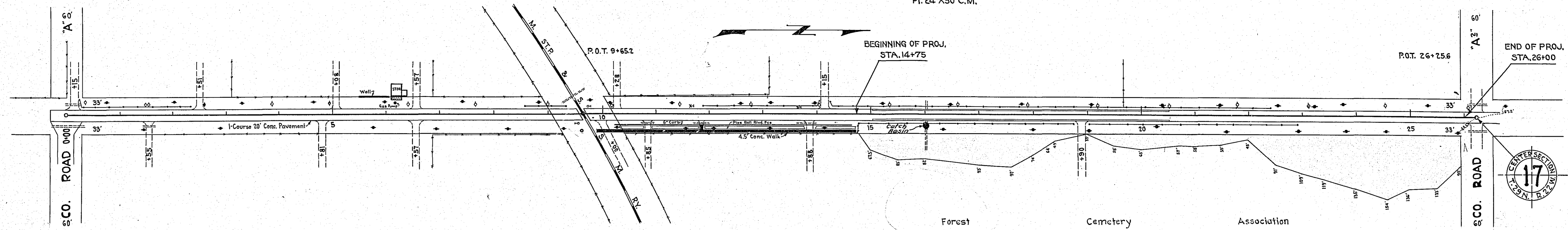


PLATE 2 - PLAN-PROFILE O. P. A. R. E. STANDARD
 KEUFFEL & ESSER CO., NEW YORK