

FHWA DISTRICT	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	M-1-988(02)1000	29

**INITIAL CURB & GUTTER, TYPE-I**  
 50+00 to 53+28.8 Lt. (Off. Loc.) 351.4 L.F.  
 50+00 to 53+63.4 Rt. (Off. Loc.) 395.0 L.F.  
 53+55 to 55+00 Lt. (Off. Loc.) 181.7 L.F.  
 54+07 to 55+00 Rt. (Off. Loc.) 127.7 L.F.

**INSTALL REIN. CONC. PIPE SEWER**  
 54+66.9 to 55+00 Rt. 12" x 39.8' R.C.P.S. C.I.M (Off. Loc.)

**INSTALL INLET**  
 54+68.4 - 27' Rt. (Off. Loc.) 1 Ea.

**ADJUST MANHOLE**  
 53+53 E 1 Ea.

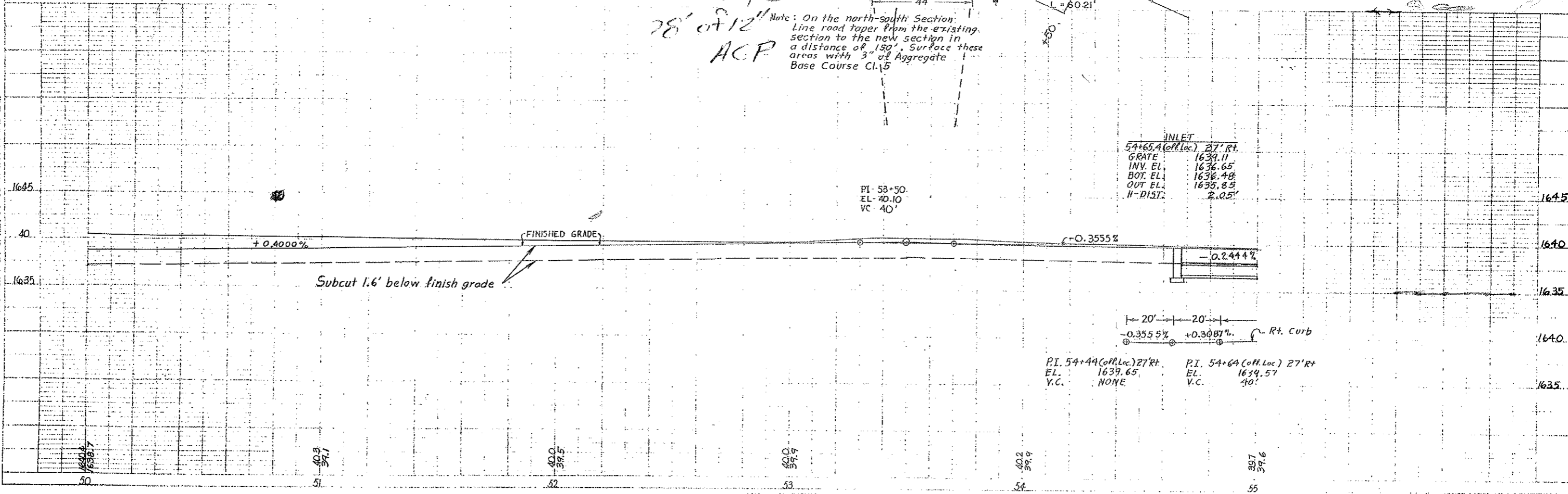
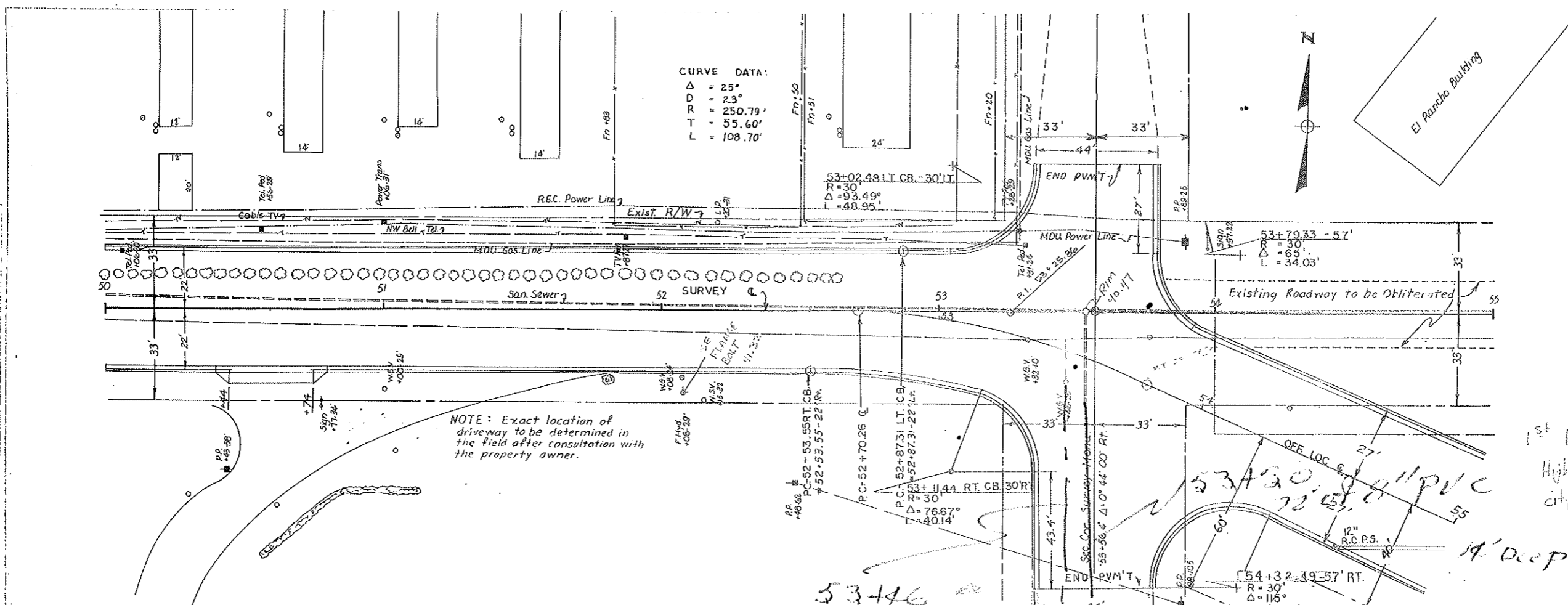
**ADJUST UTILITY APPURTENANCE**  
 53+32 - 10' Lt. C.W.G.V. 1 Ea.

**INSTALL CONCRETE DRIVEWAY**  
 50+59 - 27' Rt. 30' 21.7 Sq.

**ROADWAY OBLITERATION**  
 54+00 to 55+00 100 L.F.

1st Hyd. E of 24th on 3rd  
 Highway dept - 40.70  
 city bench mark - 40.90 ← used this for design of sewer & water

**CURVE DATA:**  
 Δ = 25°  
 D = 23°  
 R = 250.79'  
 T = 55.60'  
 L = 108.70'



FHWA REGION	STATE	FED. AID PROJ. NO.	SHEET NO.
8	N.D.	M-1-988(02)000	30

INSTALL CURB & GUTTER, TYPE-1  
 55+00 To 59+69 Lt. (Coff. Loc.) 441.3 L.F.  
 55+00 To 59+85 Rt. (Coff. Loc.) 516.3 L.F.

INSTALL REINFC. CONC. PIPE SEWER  
 55+00 To 55+98.3 Lt. (Coff. Loc.) 12"x284.3' R.C.P.S.  
 ~ CI. III  
 58+01.5 To 59+62.8 Lt. (Coff. Loc.) 12"x140' R.C.P.S.  
 ~ CI. III - I.R.C.E.S.

59+82 (Coff. Loc.) 22"x13'+72' (Sk 14" Rt. & Ahd.)  
 R.C.P.S Arch - 2 R.C.E.S.

INSTALL DOUBLE INLET  
 58+00 - 27' Lt. 1 Ea.

ADJUST MANHOLE  
 59+73 - 52' Lt (C Sur. & ) 1 Ea.

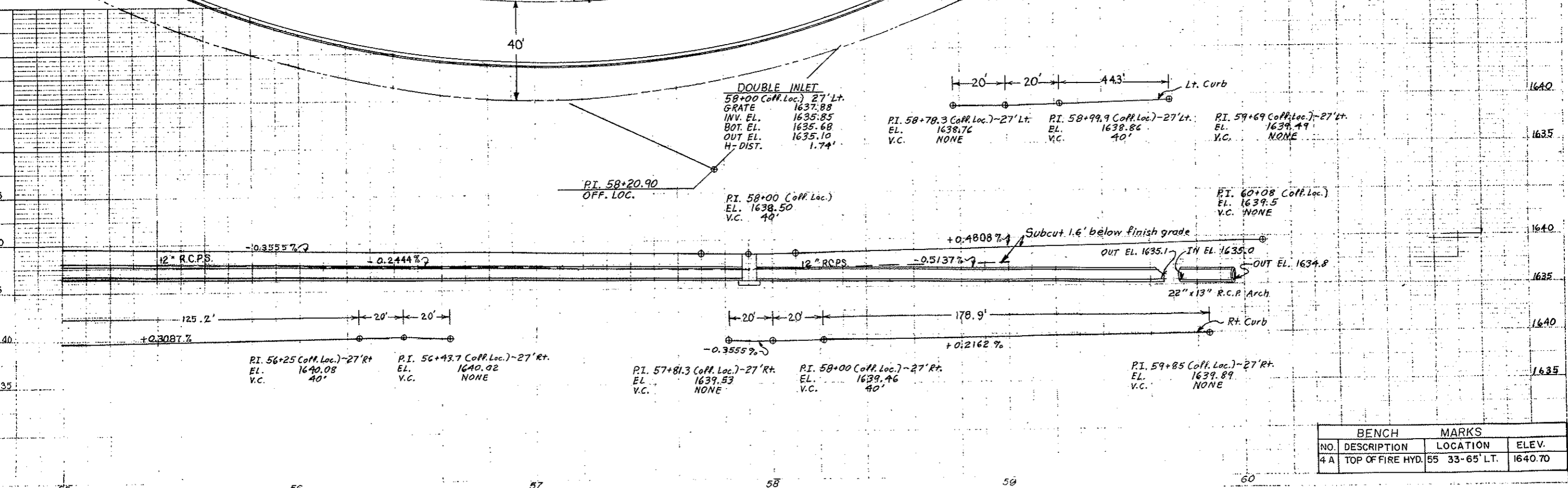
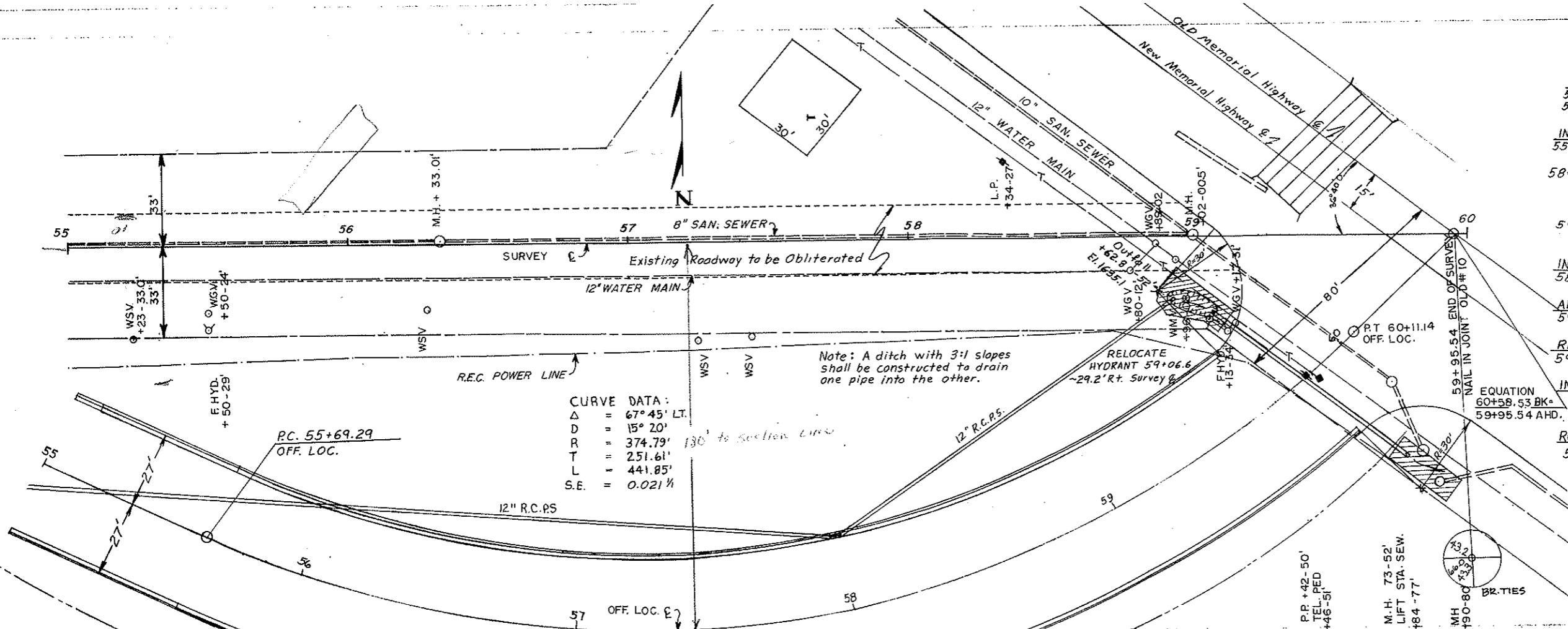
RELOCATE HYDRANT  
 59+13 - 34' Rt. 1 Ea.

INSTALL SODDING  
 59+80 - 45' Lt. 35 S.Y.  
 59+82 - 45' Rt. 26 S.Y.

ROADWAY OBLITERATION  
 55+00 to 59+00 400 L.F.

CURVE DATA:  
 $\Delta = 67^\circ 45' \text{ LT.}$   
 $D = 15^\circ 20'$   
 $R = 374.79'$   
 $T = 251.61'$   
 $L = 441.85'$   
 $S.E. = 0.021\%$

Note: A ditch with 3:1 slopes shall be constructed to drain one pipe into the other.



BENCH MARKS	
NO.	DESCRIPTION
4A	TOP OF FIRE HYD. 55 33-65' LT. 1640.70