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38-65 Cross Sections

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	129-A	1931	1	85

STATE OF VERMONT
STATE HIGHWAY DEPARTMENT

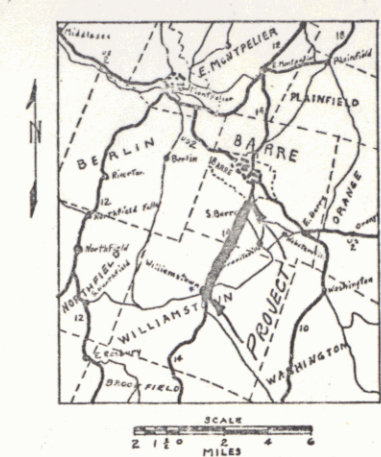
PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY
FEDERAL AID PROJECT

TOWNS OF BARRE - WILLIAMSTOWN Pin#00R722

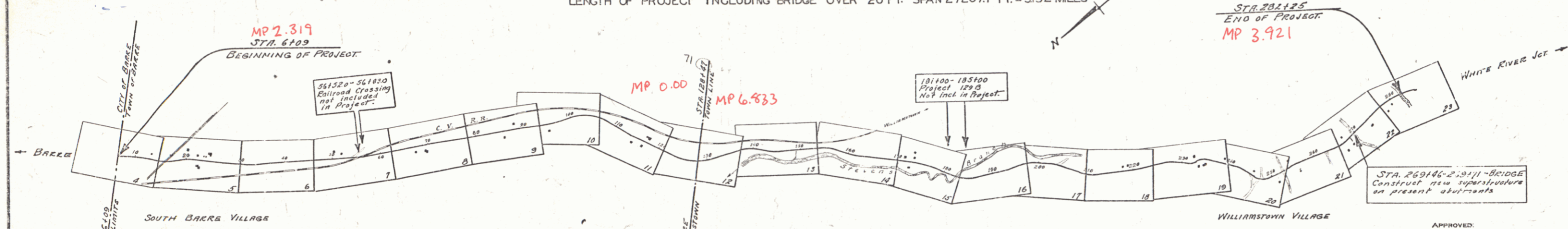
WILLIAMSTOWN GULF ROAD

FROM THE BARRE CITY LINE
SOUTH 5.152 MILES TO A BRIDGE
2000 FEET SOUTH OF WILLIAMSTOWN VILLAGE

LENGTH OF PROJECT EXCLUDING BRIDGE OVER 20 FT. SPAN 27181.1 FT. = 5147 MILES
LENGTH OF PROJECT INCLUDING BRIDGE OVER 20 FT. SPAN 27207.1 FT. = 5152 MILES



(To Be Returned to E.O.W. Division)
Form of
414
PERPETUAL
M O N I T O R
RIGHT-OF-WAY DIVISION



RECORD PLANS

Project No. F 129A
Rte. VT 14

APPROVED: *H. Johnson*
COMMISSIONER OF HIGHWAYS
SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

SEE ANY FURTHER INFORMATION CONCERNING THIS PROJECT AT THE OFFICE OF THE CHIEF ENGINEER, BUREAU OF PUBLIC ROADS, STATE HIGHWAY DEPARTMENT, MOUNTAIN VIEW, VERMONT. THE FIELD OFFICE OR THE ESTIMATE FILE.

CONVENTIONAL SIGNS

COUNTY LINE	GROUND ELEVATION
TOWN LINE	GRADE ELEVATION
FENCE LINE	
STONE WALL	
UNFENCED PROPERTY	
GUARD RAIL	
TRAVELED WAY	
RAILROAD	
RETAINING WALL	
CENTER LINE	
SURVEY LINE	
CULVERT	
DROP INLET	
TROLLEY POLE	
POWER POLE	
TELEPHONE POLE	
TREES	
HEDGE	

CURVE DATA

DEFLECTION ANGLE	Δ
DEGREE OF CURVE	D
RADIUS OF CURVE	R
TANGENT DISTANCE	T
LENGTH OF CURVE	L
EXTERNAL DISTANCE	E
POINT OF INTERSECTION	P. I.
POINT OF CURVE	P. C.
POINT OF TANGENT	P. T.
POINT ON TANGENT	P. O. T.

BARRE - WILLIAMSTOWN 129 A
RECORD PLANS
CONTR. LANE CONST. CORR.
FISCAL YEAR 1931

SCALES
Title: 1" = 1000'
Plan: 1" = 50'
Profile: Hor. 1" = 50'
Vert. 1" = 10'
Cross Sections: 1" = 5'

These plans are subject to such revisions as may be required by the Bureau of Public Roads or the Chief Engineer

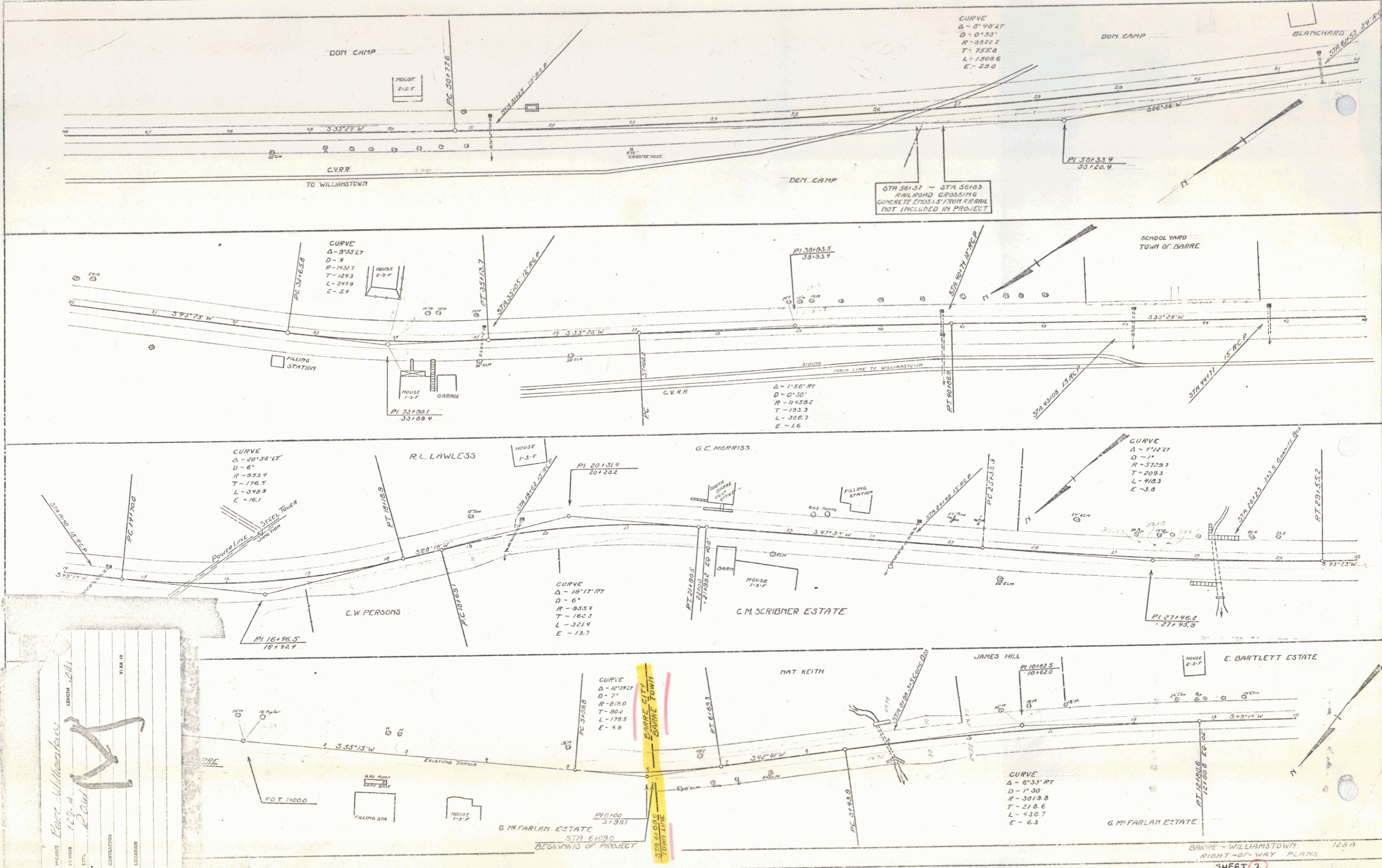
RECOMMENDED: [Signature] DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL: [Signature] CHIEF ENGINEER BUREAU OF PUBLIC ROADS

APPROVED: [Signature] ROAD ENGINEER

PLANS COMPLETED: [Signature]

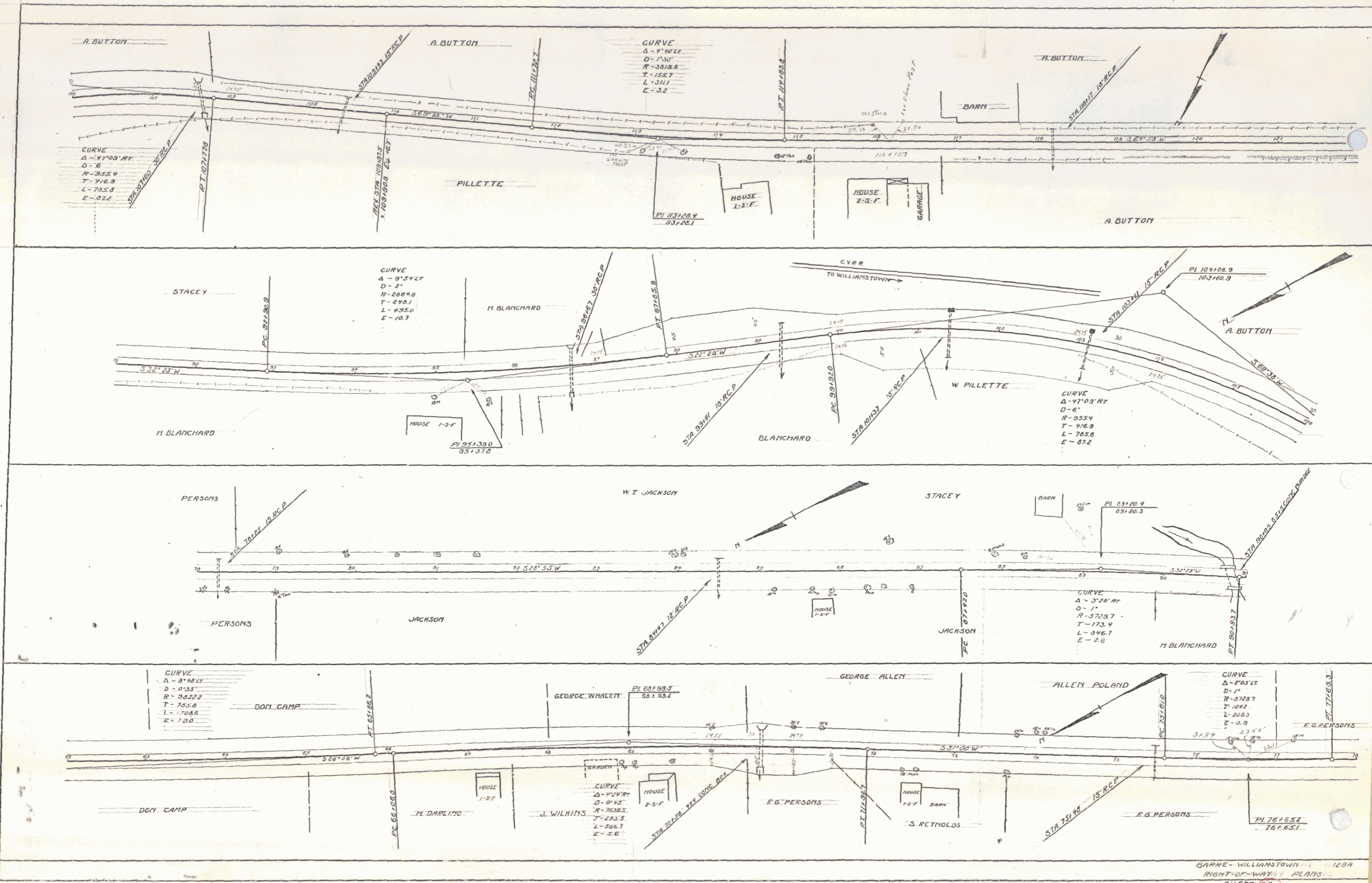
SERIES F. No. 129A FILED SHEET 1 OF 85



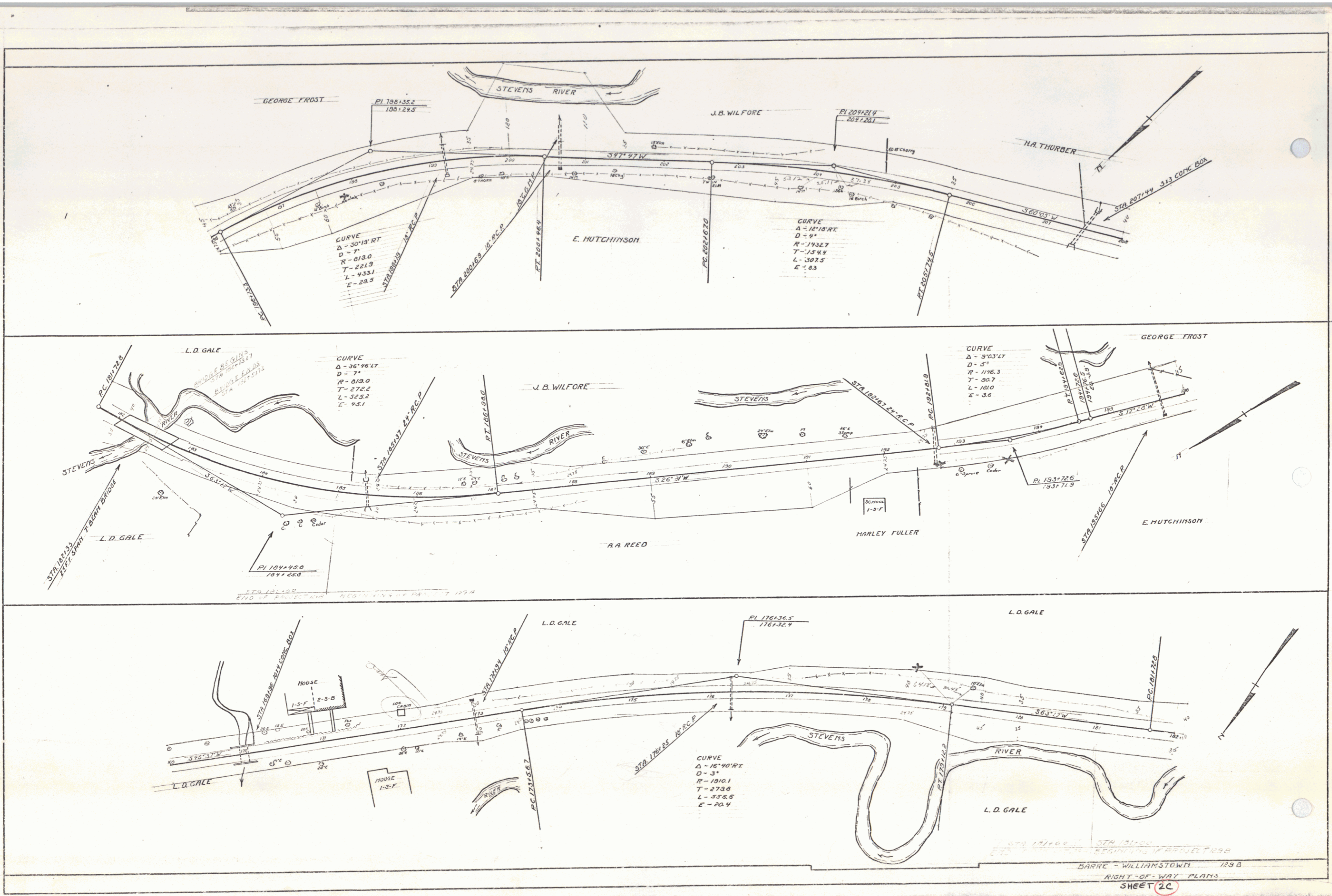
ENGINEER: *Eare-Williamson*
 SURVEYOR: *123.4*
 TITLE: *Plan*
 CONTRACTOR:
 LOCATION:
 YEAR:

STA 561.32 - 561.33
 BEGINNING OF PROJECT

BARRE - WILLIAMSTOWN 1239 A
 RIGHT-OF-WAY PLANS
SHEET 2

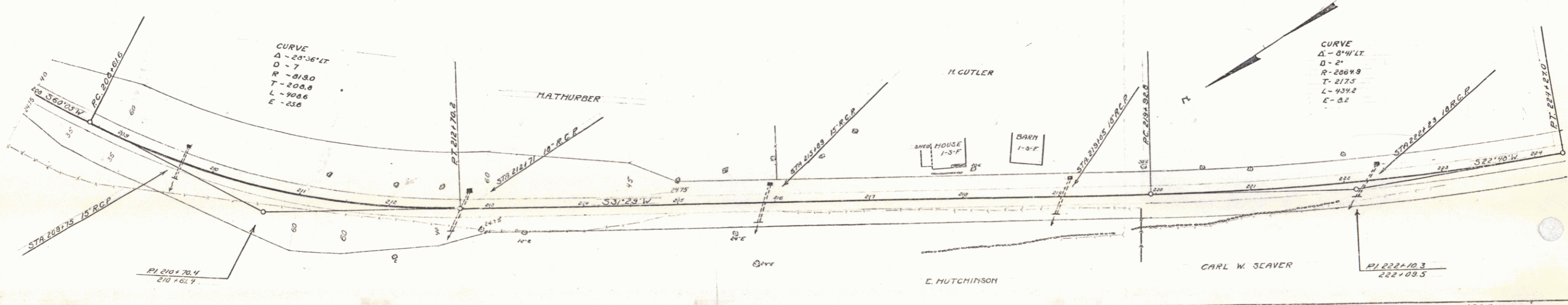
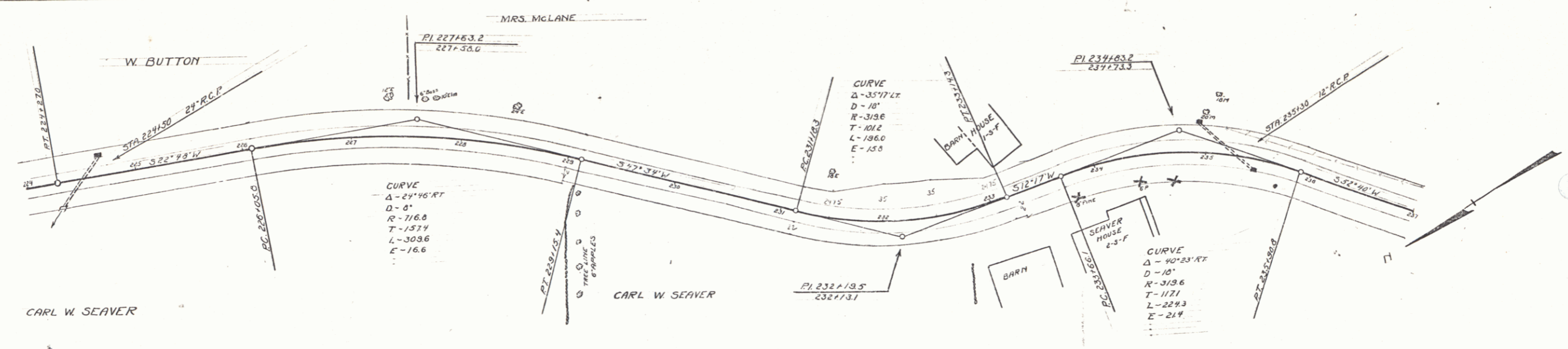
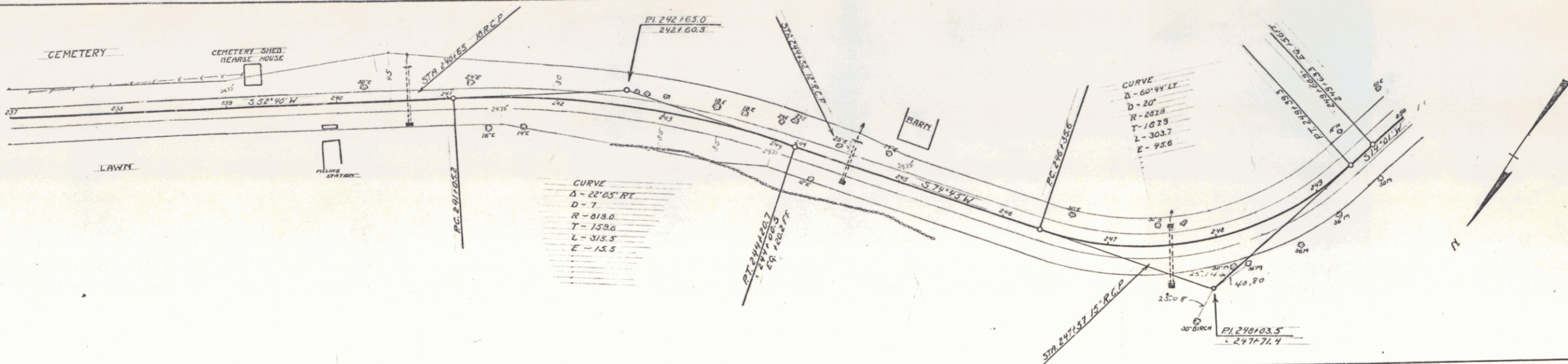


BARRE - WILLIAMSTOWN 1129A
 RIGHT-OF-WAY PLANS
 SHEET 2A



BARRE - WILLIAMSTOWN 129 B
 RIGHT-OF-WAY PLANS
 SHEET 2C

5



CABLE GUARD RAIL REQUIRED

Station	Length	Constant	Ply-length
7100-9184LL	200'	40'	320'
7125-10104RL	200'	40'	320'
8110	12	192	132

CULV REPAIRS REQUIRED

STA.	SIZE	CONC.	STEEL
0150	3X5	0.654	10.02
		102	335

NEW G.G.M PIPE CULV. REQUIRED

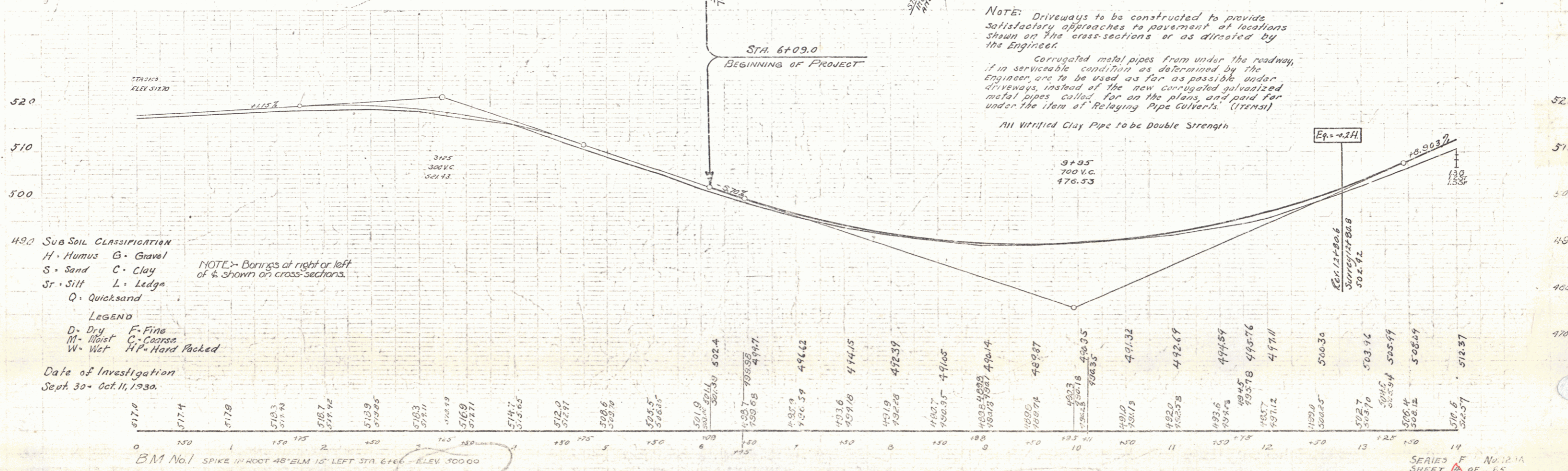
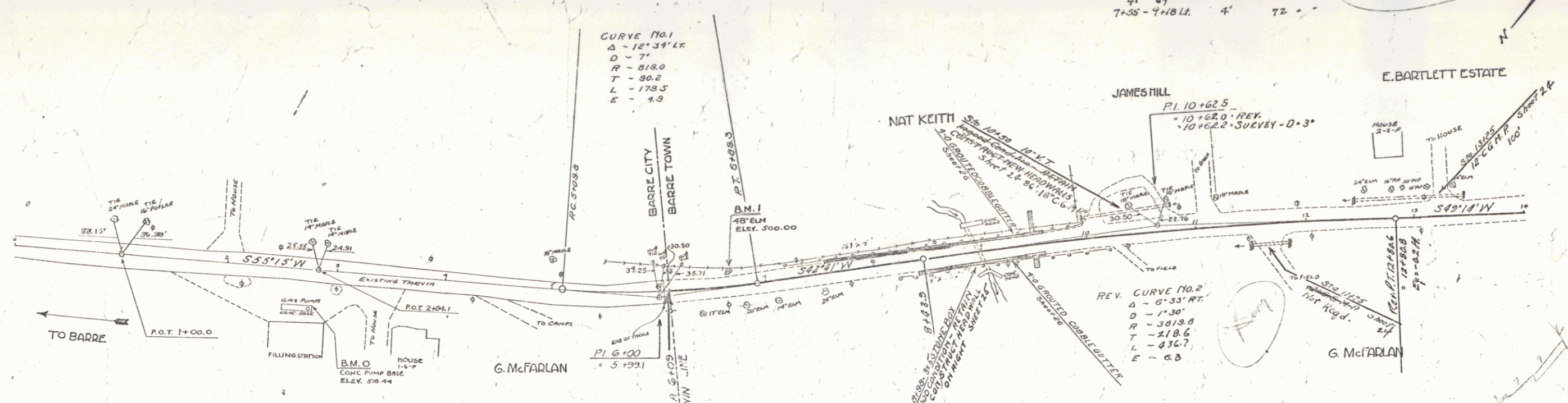
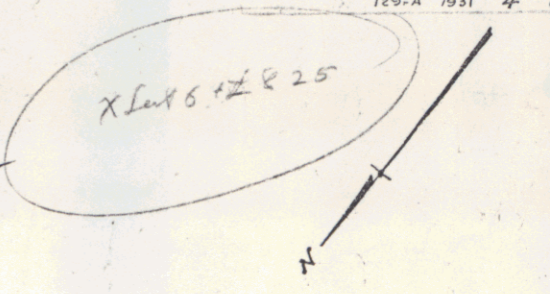
STA.	SIZE	CONC.	STEEL	ELEV. PUB. HAS.
1145-1145LT	12"	100	2.3	63.
1150-10166LT	18"	96	3.5	

DRIVEWAY PIPE CULV. REPAIRS REQUIRED

STA.	SIZE	CONC.	STEEL
7125-7125	12"	100	2.3

GRAVELLED CABLE GUTTER REQUIRED

Stations	Width	Area
9150-4112	4'	31 sq. yds.
8125-5105 50-R	4'	56 sq. yds.
7135-7118 LT	4'	72 "



49.0 Sub Soil Classification
 H. Humus G. Gravel
 S. Sand C. Clay
 St. Silt L. Ledge
 Q. Quicksand

LEGEND
 D. Dry F. Fine
 M. Moist C. Coarse
 W. Wet H.P. Hard Packed

Date of Investigation
 Sept. 30 - Oct. 11, 1930.

BM No. 1 SPIKE IN ROOT 48' ELM 15' LEFT STA. 6166 ELEV. 300.00

SERIES F No. 12 1A
 SHEET 6 OF 65

WOOD GUARD RAIL REQUIRED

Culvert Sta.	Left	Right
14140	24' V	
19162	24' V	

CABLE GUARD RAIL REQUIRED

Stations	Length	Const.	Pay-Long
17100-18175	175'	20'	198'
18175-19162	987'	15'	231'

NEW REIN. CONC. PIPE CULV. REQUIRED

Sta. Diam.	Length	Const.	Pay-Long
14140 18"	447'	15'	1354.5'
13162 15"	304'	15'	911.4'
21140 15"	866'	15'	2429.1'
23120-24100	680'	15'	1920.0'
25185-28123	12"	234'	314'

CHANGING ELEV. OF CATCH BASIN REQUIRED

Station	Left	Right
20123	1'	1'

NEW VITRIFIED CLAY PIPE CULV. REQUIRED

Sta.	Side	Diam.	Length	Const.	Pay-Long
24100	LT	10"	32'	1.44	46.1
24100-25037	RT	10"	48'	1.44	68.6
25125	LT	10"	100'	2.2	220.0

RELAYING PIPE CULV. REQUIRED

Sta.	Side	Diam.	Length	Const.	Pay-Long
21100	LT	34"	2.34		

GROUTED COBBLE GUTTER REQUIRED

Stations	Width	Area
14140-19162	1'	367 yds.
19162-20123	4'	570 yds.
19175-20190	4'	558 yds.
21140-21166	4'	10 yds.

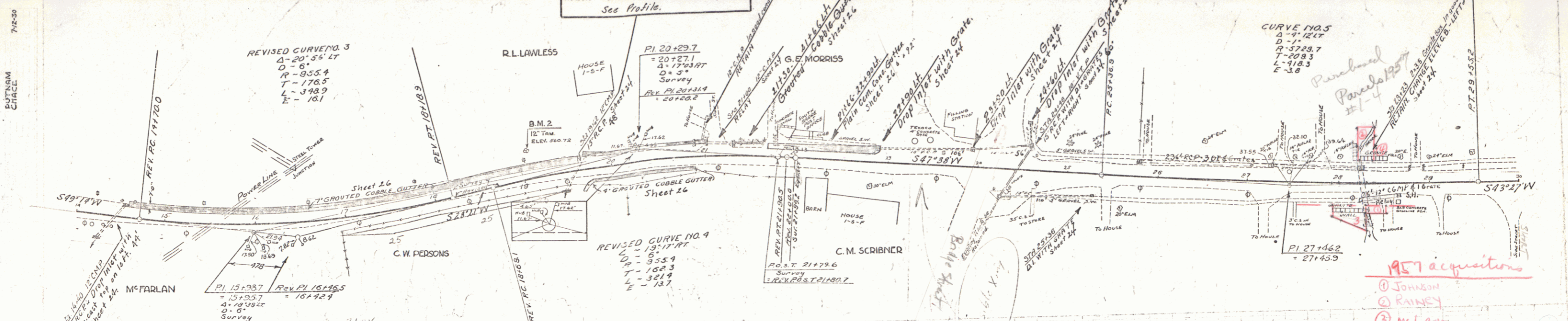
PLAIN CEM. CONC. GUTTER REQUIRED

Stations	Width	Area
11166-12190	6'	839 yds.

WOOD GUIDE POSTS REQUIRED

Culvert Sta.	Left	Right
14140	1	1
19162	1	1
10150	1	1

Note: While excavating for and constructing the culvert at Sta. 19162, care must be taken that the existing gas main is not disturbed. See Profile.

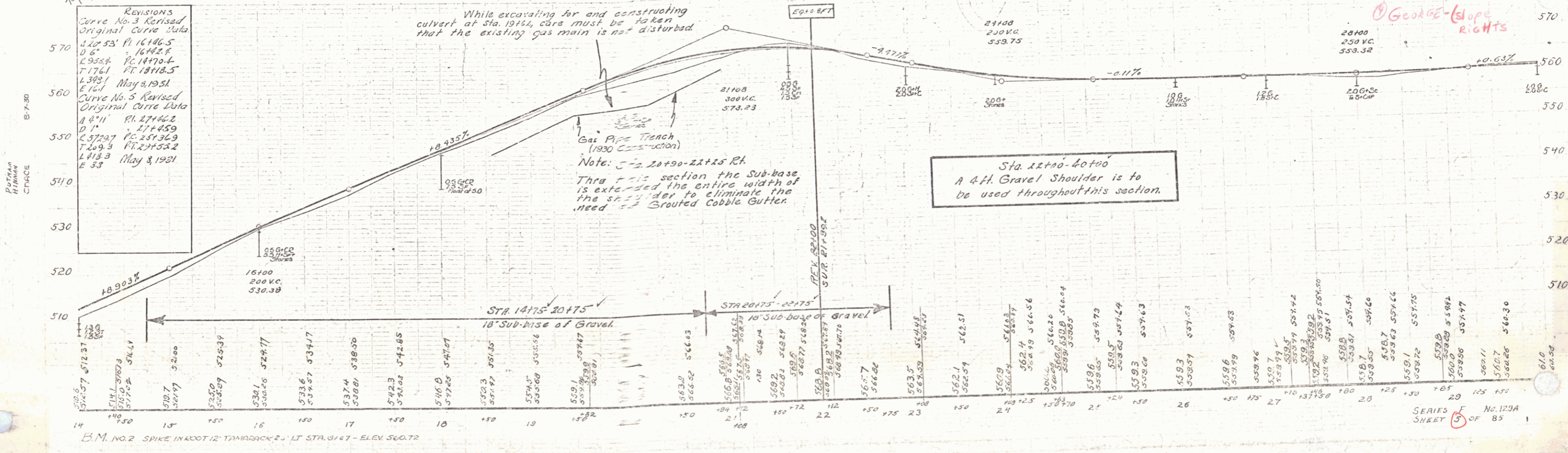


Revisions
 Curve No. 3 Revised Original Curve Data
 Δ=20°53' P.I. 16146.5
 D=81 P=1612.4
 L=952.4 P.C. 14170.4
 T=176.1 P.T. 18118.5
 L=398.1 May 4, 1931
 E=101
 Curve No. 5 Revised Original Curve Data
 Δ=4°11' P.I. 2746.2
 D=81 P=2714.59
 L=271.522 P.C. 25136.9
 T=171.459 P.T. 27152.2
 L=33 May 3, 1931
 E=33

While excavating for and constructing culvert at Sta. 19162, care must be taken that the existing gas main is not disturbed.

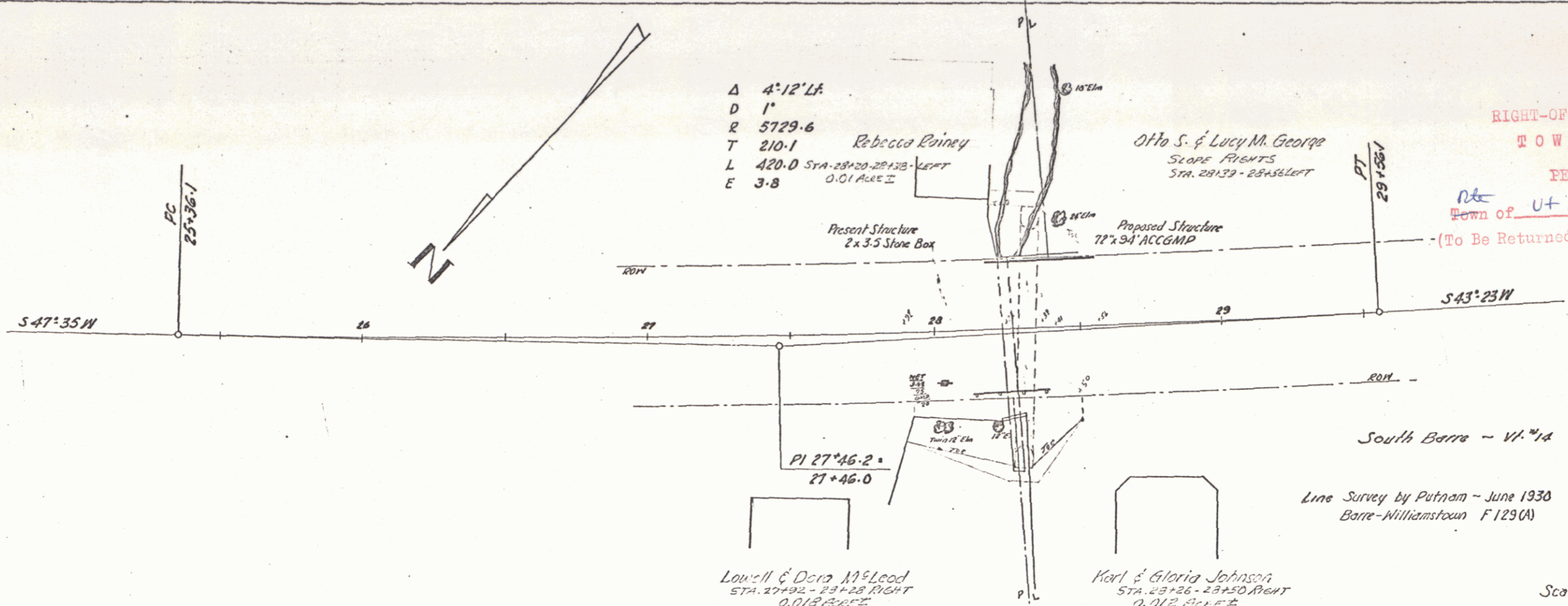
Gas Pipe Trench (1930 Construction)
 Note: Sta. 20190-22125 R/L
 This 7-1/2' section the sub-base is extended the entire width of the shoulder to eliminate the need for GROUTED COBBLE GUTTER.

Sta. 12100-40100
 A 4 ft. Gravel Shoulder is to be used throughout this section.



PLAN	DATE
BY	
CHECKED	
APPROVED	
SCALE	
NOTE BOOK	
NO.	

PROFILE	DATE
BY	
CHECKED	
APPROVED	
SCALE	
NOTE BOOK	
NO.	



RIGHT-OF-WAY DIVISION
 TOWN FILE
 PERPETUAL

Town of U+14
 (To Be Returned To R.O.W. Division)

Scale - 1" = 20'

SHEET 5A

10

WOOD GUARD RAIL REQUIRED

Sta	Left	Right
35+00	-	+
43+74	-	24' ✓
43+08	-	24' ✓

WOOD GUIDE POSTS REQUIRED

Sta	Left	Right
35+00	+	-
43+77	+	-
43+08	+	-

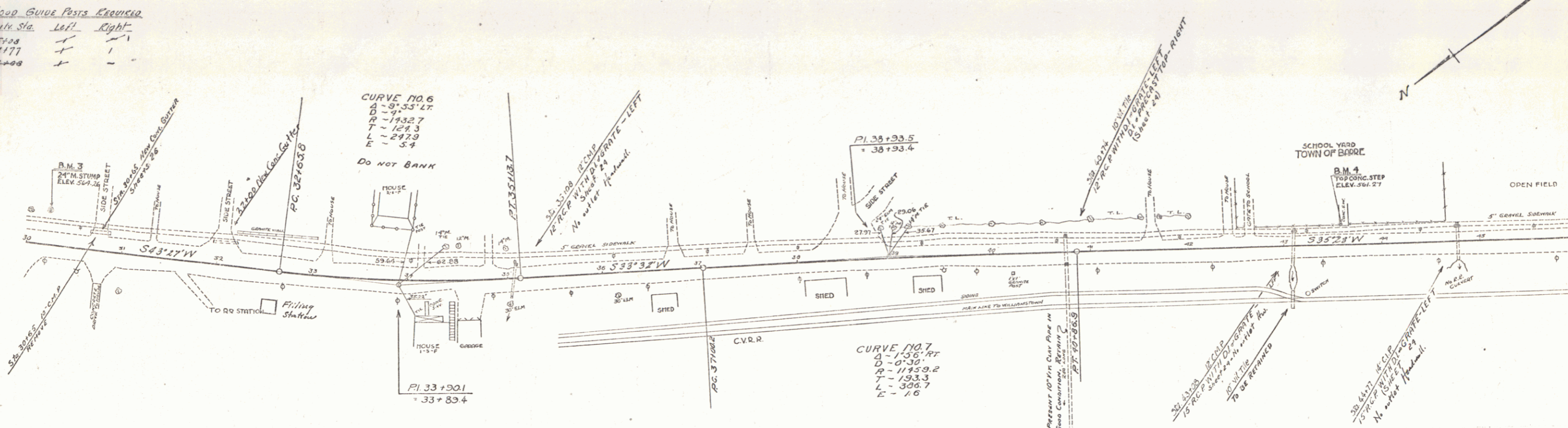
NEW REINF CONC PIPE GULV REQUIRED

STA	DIAM	LENG	CONC	STEEL	DI GRATE
35+00	18"	36 FT	18" x 18" x 4"	18" x 18" x 4"	1"
43+74	18"	36 FT	18" x 18" x 4"	18" x 18" x 4"	1"
43+08	15"	30 FT	15" x 15" x 4"	15" x 15" x 4"	1"
44+77	15"	30 FT	15" x 15" x 4"	15" x 15" x 4"	1"

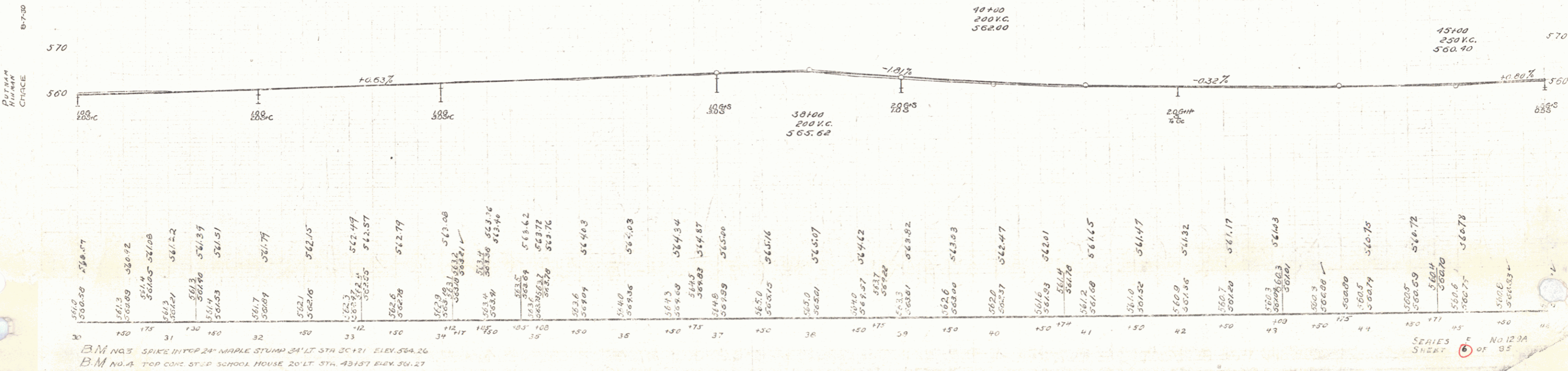
NEW CONCRETE GUTTER REQUIRED

STATION	ROR L	WIDTH	LENGTH	AREA
30+00 - 30+73	L	6'	73'	271.9 SQ. FT.
32+00 - 32+32	L	6'	32'	211.2'

123-A 1931 6 85



Sta 22+00 - 40+00
A 4ft Gravel Shoulder is to be used throughout this section.



B.M. NO. 3 SPIKE IN TOP 24" MAPLE STUMP 34' LT STA 30+21 ELEV. 564.26
B.M. NO. 4 TOP CONC STEP SCHOOL HOUSE 20' LT STA. 43+57 ELEV. 561.27

SERIES SHEET NO 12 2A OF 95

WOOD GUIDE PASTS REQUIRED
 Bulk Sta Left Right
 61122 1 1

WOOD GUIDE PASTS REQUIRED
 Bulk Sta Left Right
 61123 1 1
 61122 1 1

NEW REINFORCED CONCRETE PIPE CULV. REQUIRED
 STA. DIAM. LENG. CONC. STEEL CEMENT GRADE
 61123 10" 40 FT 1.4% 90.23' 1'
 61122 24" 30 2.4% 100.27' 26.27%

CGM PIPE CULV. REQUIRED
 STA. SIDE DIAM. LENG. CONC. STEEL GRADE
 61130 27" 12" 30.13' 1.4% 99' 1'
 61128 27" 12" 32.13' 1.4% 99' 1'
 61148 12" 13 71 49'

RELAYING PIPE CULV. REQUIRED
 STA. SIDE LENG. CONC. STEEL GRADE
 49'05' LT 36'00" 10'35' 1'
 49' 16' 1'

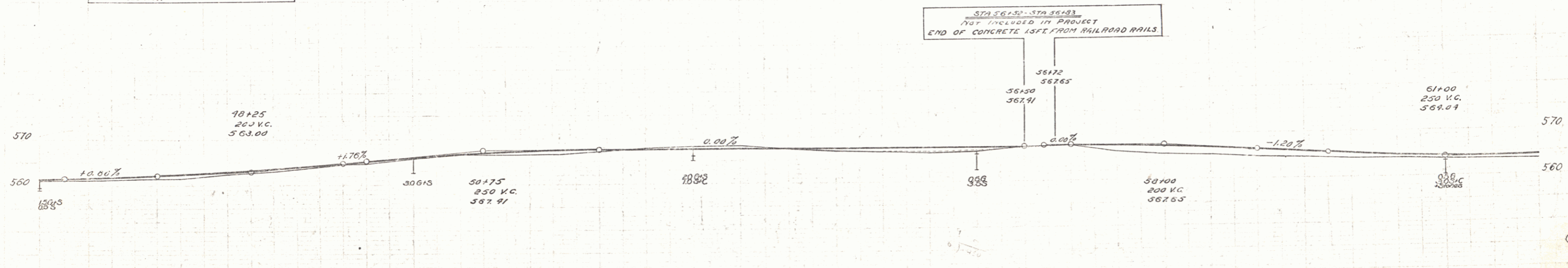
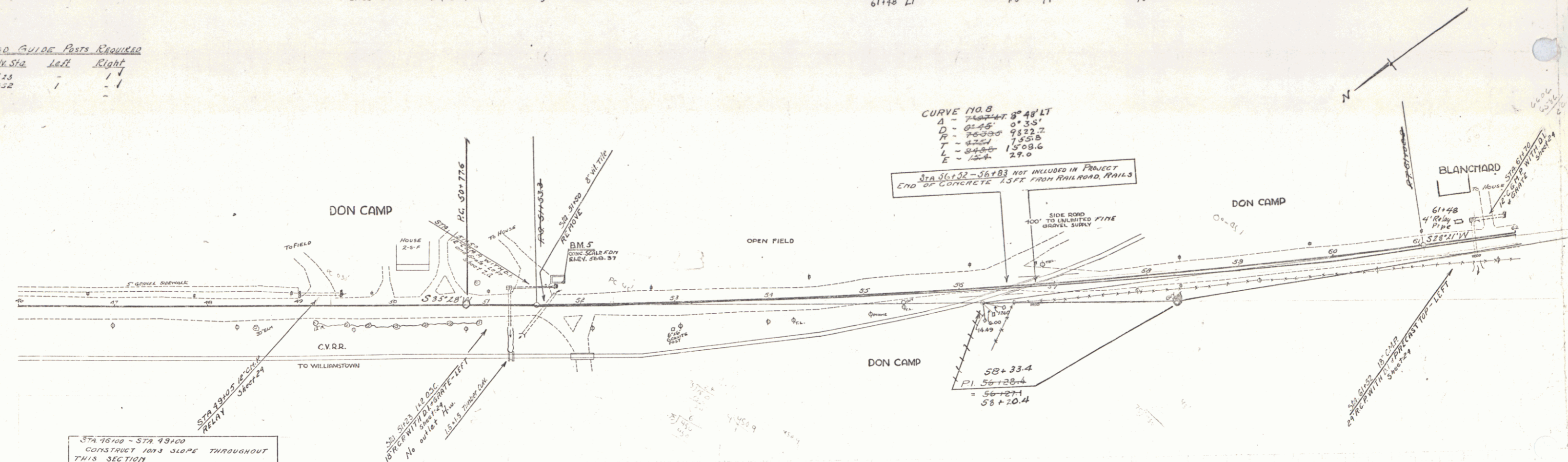
123-A 1931 7 85

7-4-30

CHURCH

B-7-30

CHURCH



BM No. 5 TOP S.W. CORNER CONC. SCALE FOR 23 FT. LT. STA. 51104 ELEV. 568.57

Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.	Sta.	Elev.
46	561.2	47	561.4	48	561.6	49	561.8	50	562.0	51	562.2	52	562.4	53	562.6
54	567.0	55	567.2	56	567.4	57	567.6	58	567.8	59	568.0	60	568.2	61	568.4
62	568.6	63	568.8	64	569.0	65	569.2	66	569.4	67	569.6	68	569.8	69	570.0

12" Sub-base of Gravel

SERIES SHEET 7 OF 85 No. 123A

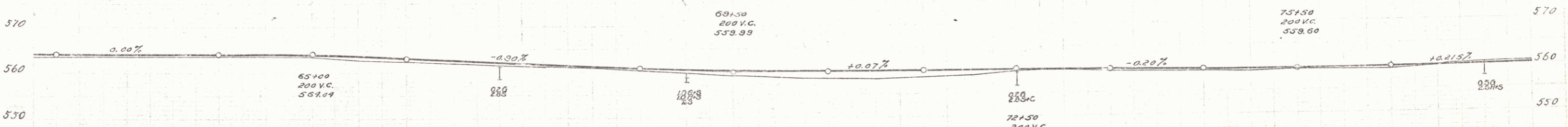
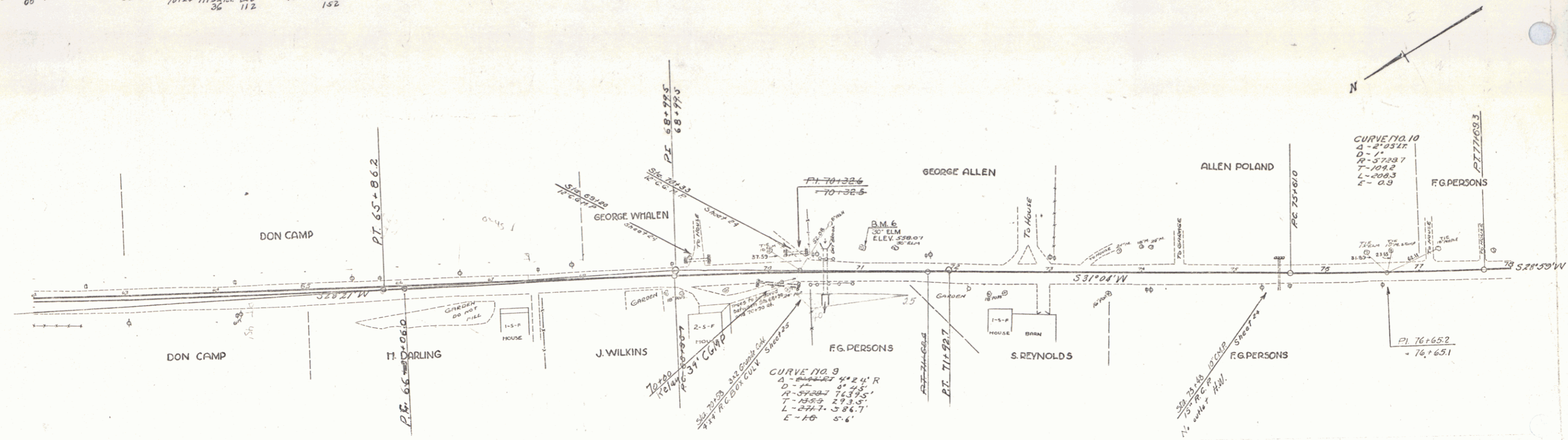
12

WOOD GUIDE POSTS REQUIRED				CABLE GUIDE PINS REQUIRED				NEW REIN CONC PIPE CULV REQUIRED				NEW REIN CONC BOX CULV REQUIRED				NEW G.C.M PIPE CULV REQUIRED									
CULV STA	Left	Right		Stations	Length	Constant	Pay-Item	STA	DIAM	LENG	CONCR	CEM PUB MAS	STA	SIZE	CONCR	STEEL	1000 LBS	STA	SIZE	DIAM	LENG	CONCR	CEM PUB MAS		
75+43				70+54.4	40'	40'	00'	75+98	15"	327'		1.5	70+30	48"	475'	1878		69+00	48"	10'	100'	10	250'		
65+26.67+0				70+24-71+52.8	128'	00'	148'												70+00	RT	12"	39'	10	250'	
				36	112		152																	10	250'

129-A 1931 8 85

PUTNAM CHANCE 74+30

PUTNAM CHANCE 8-7-30



STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV	STA	ELEV
62	558.1	63	564.02	64	564.07	65	563.97	66	563.09	67	562.1	68	561.7	69	561.3	70	560.8	71	560.6
72	560.15	73	560.0	74	559.9	75	559.8	76	559.7	77	559.6	78	559.5						

SERIES SHEET 8 OF 85

13

WOOD GUARD RAIL REQUIRED				CABLE GUARD RAIL REQUIRED				NEW RENTED CONC PIPE GULCH REQUIRED			
CUV. STA	Left	Right	Stations	Length	Constant	Pay Item	STA. DIAP	LEGS	CONC. PIPE	STEEL	GEN. R.V. MASS.
96147	2'	2'	100100-103176	376'	90'	416'	90447	120	50	10	1.25
99176	2'	2'				386'	99130	18	60	12	2.00
101139	2'	-					101139	18	60	12	2.00
103111	2'	-					103111	15	48	12	1.75

Relay pipe
92+50 16' - 12" 1.2 con. Rev. Mas.

Integral curb
100+00 - 103+57 RT 2" = 344 LF

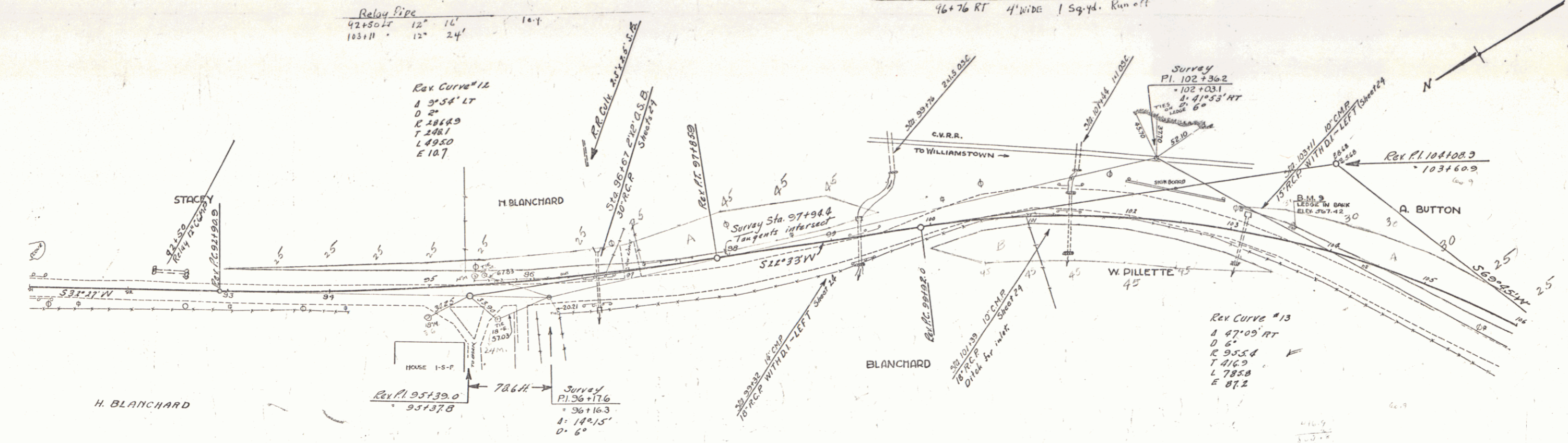
Metal Drop Inlet - Grate
103+11 RT

Grouted Cobble Gutter
96+76 RT 4' wide 1 Sq. yd. Run off

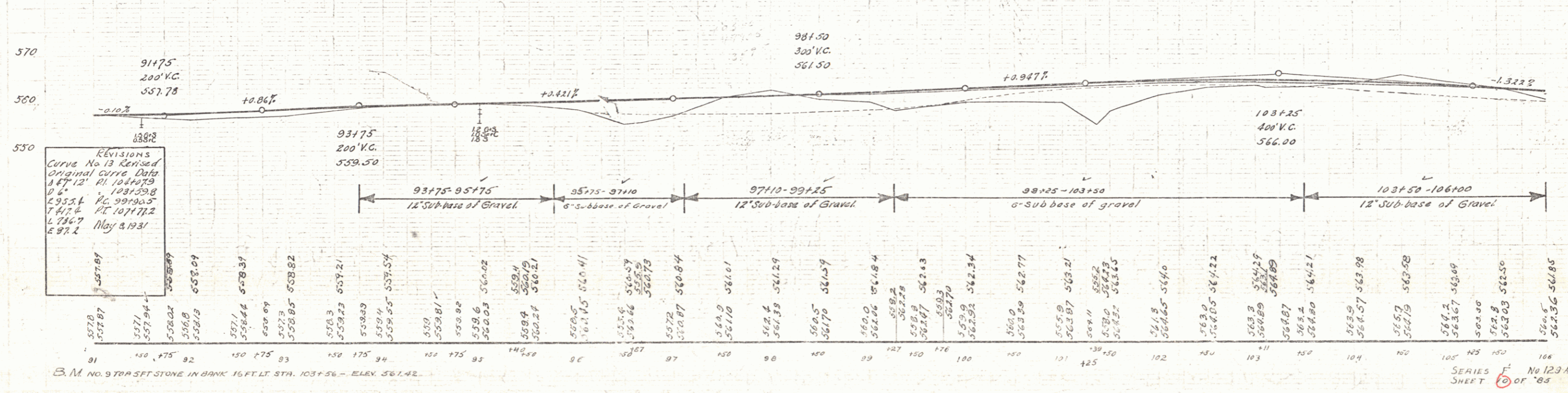
Relay Pipe
92+50 12" 16'
103+11 12" 24'

Rev Curve #12
R 35.54' LT
D 6'
C 286.69
T 248.1
L 295.0
E 10.7

Rev Curve #13
R 47.05' RT
D 6'
C 955.4
T 916.9
L 785.8
E 87.2



STA 96100 - 99100
CONSTRUCT 10% SLOPE INFILL
THROUGHOUT THIS SECTION



Revisions
Curve No. 13 Revised
Original Curve Data
R 47' 12" PI 104107.9
D 6'
103159.8
295.24 V.C. 99190.5
741.2 PI 107177.2
L 786.7
E 87.2
May 8, 1931

B.M. NO. 9 TRIPLET STONE IN BANK 16 FT. LT. STA. 103+56 - ELEV. 561.42

SERIES F No 123A
SHEET 10 OF 85

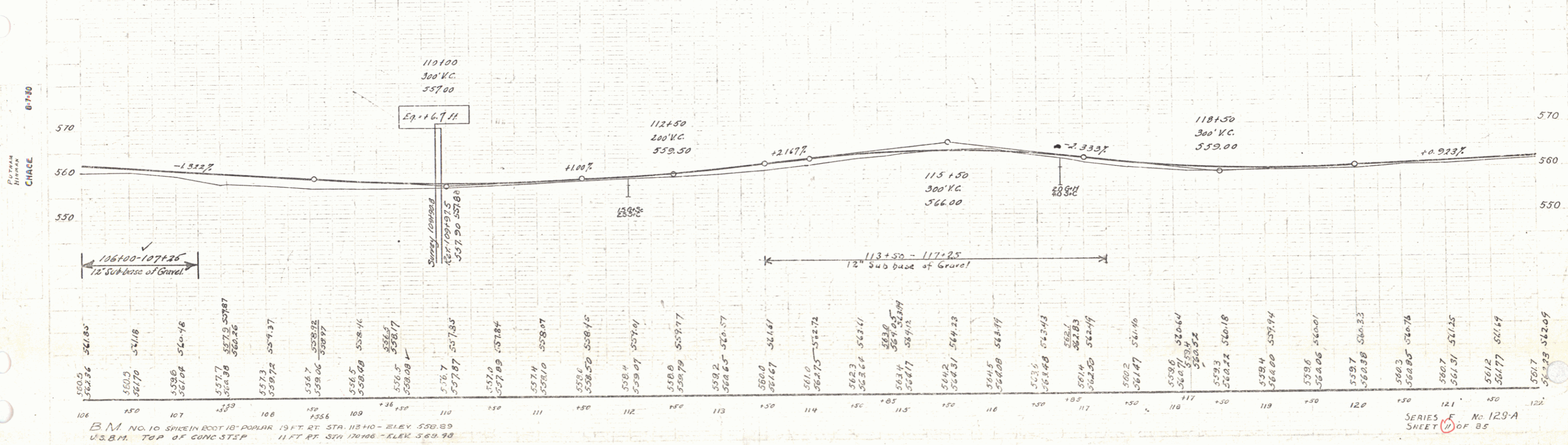
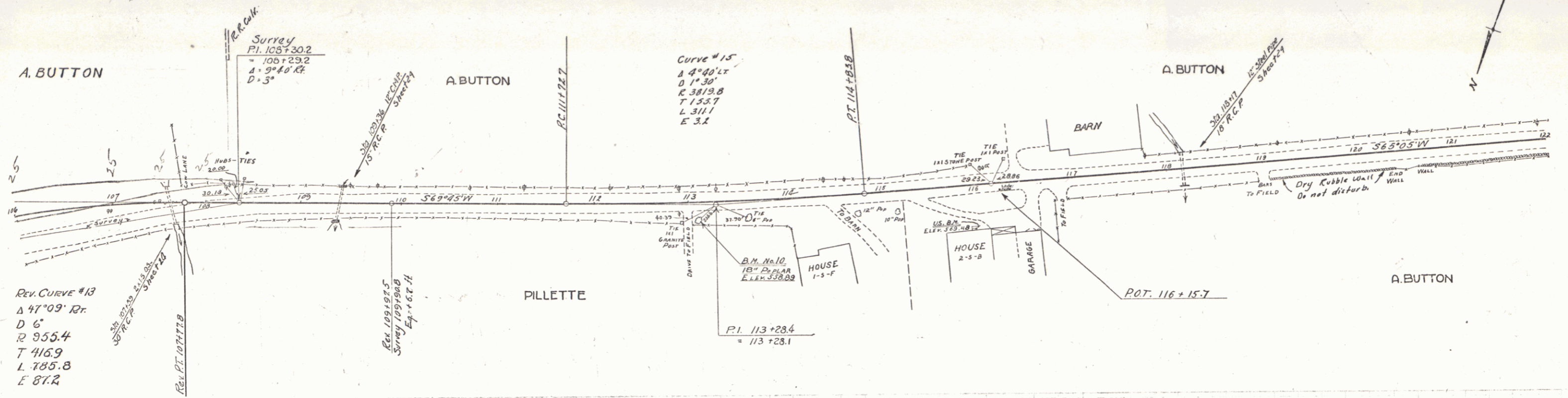
WOOD GUARD RAIL REQUIRED

Curv Sta.	Left	Right
1071.59	24'	24'
1091.36	24'	24'
1181.17	24'	24'

Guide Posts
118+17 LT 1

NEW REINFC CONC PIPE CULV REQUIRED

STA.	WIDTH	LENG	CONC. Q.	STEEL CRY. REQ. MAX.	CONC. C.
1071.59	30"	40 FT	3.23 cu yd	3400 lbs.	
1091.36	30"	36	2.87 cu yd	3000 lbs.	
1181.17	30"	38.40	3.53	3624 cu yd	18.30 cu yd

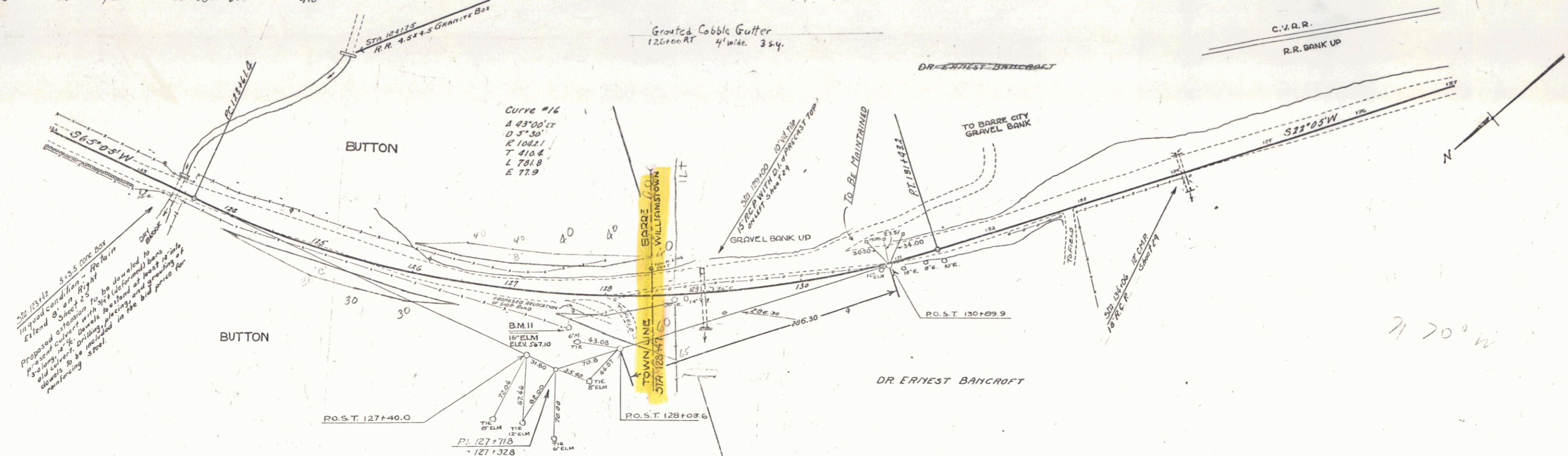


B.M. NO. 10 SPICEY ROOT 10' PAPER 19 FT RT. STA. 113+40 - ELEV. 558.89
U.S.B.M. TOP OF CONCRETE 11 FT RT. STA. 107+00 - ELEV. 564.98

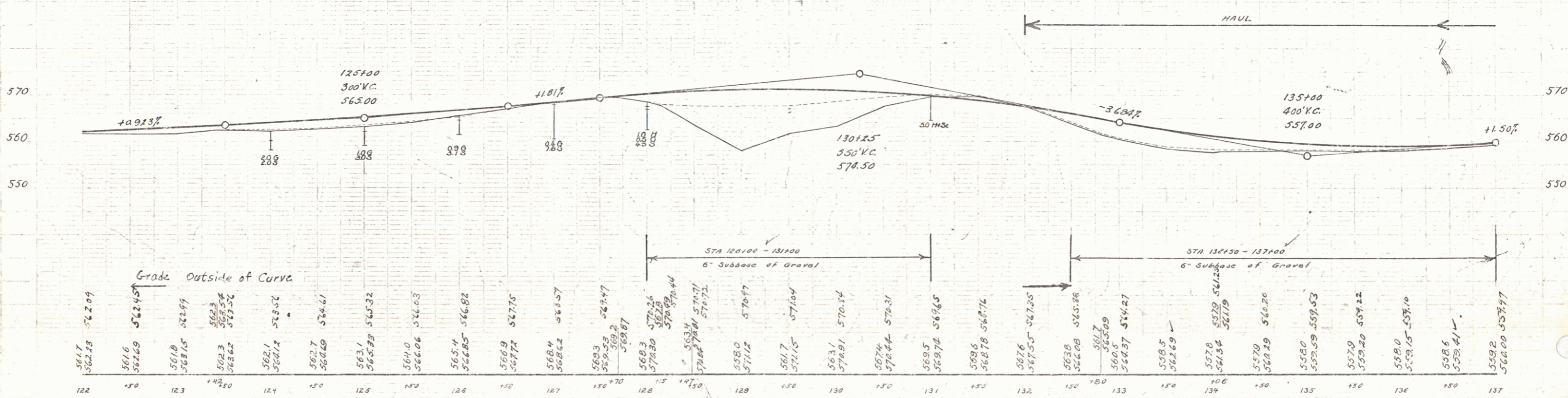
SERIES E No. 129-A
SHEET 10 OF 85

WOOD GUARD RAIL REQUIRED				GRABE GUARD RAIL REQUIRED				NEW REINF CONC PIPE CULV REQUIRED				CULV REPAIRS REQUIRED					
CULV STA	Left	Right	Stations	LENG	CONC	By Leng	STA	DIAM	LENG	CONC	CONC	STEEL	CULV DIA	STA	SIZE	CONC	STEEL
12344.2	24'	24'	12344.2-12610.0	265'	40"	200	123100	15"	5677.5	40%	1072.85	307.85	30"	123100	33.5	4.3	357
12910.0	24'	24'	12745.0-12845.0	100'	40"	200	129100	18"	11	30%	33	33	30"				
13440.6	24'	24'	13113.8-13113.8	0'	40"	410											

SCALE 1" = 40' HORIZ. 1" = 10' VERT. 123-A 1931 12 B5



87-30
BUTMAN
CHANCE



B.M. NO. 11 SPIKE IN ROOT 16" ELM. 34 FT. RT. STA. 127163 - ELEV. 567.10

SERIES F No. 123A
SHEET 2 OF 85

WOOD GUARD RAIL REQUIRED

Culv. Sta.	Left	Right
133+96	2'	2'
152+08	2'	2'

WOOD GUIDE POSTS REQUIRED

Culv. Sta.	Left	Right
138+50	1	1
143+94	1	1

CABLE GUARD RAIL REQUIRED

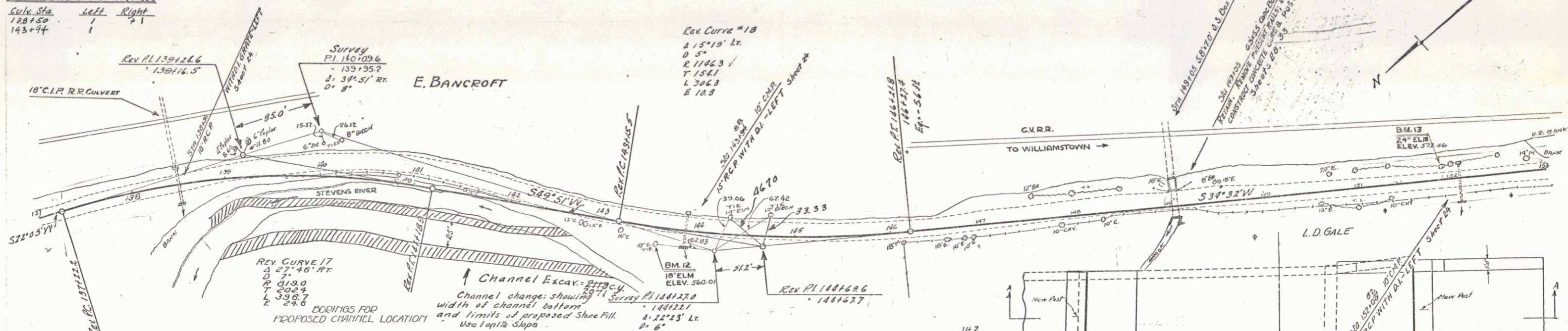
Stations	Length	Const.	Qty. Posts
137+25 to 140+25	300'	1/2" x 3/4" x 1/2"	300
140+25 to 143+25	300'	1/2" x 3/4" x 1/2"	300

NEW PEINING CONIC PIPE CULV. REQUIRED

Sta. Dia.	Length	Const.	Qty.
130+50	10'	1/2" x 3/4" x 1/2"	1
131+00	15'	1/2" x 3/4" x 1/2"	1
132+00	10'	1/2" x 3/4" x 1/2"	1

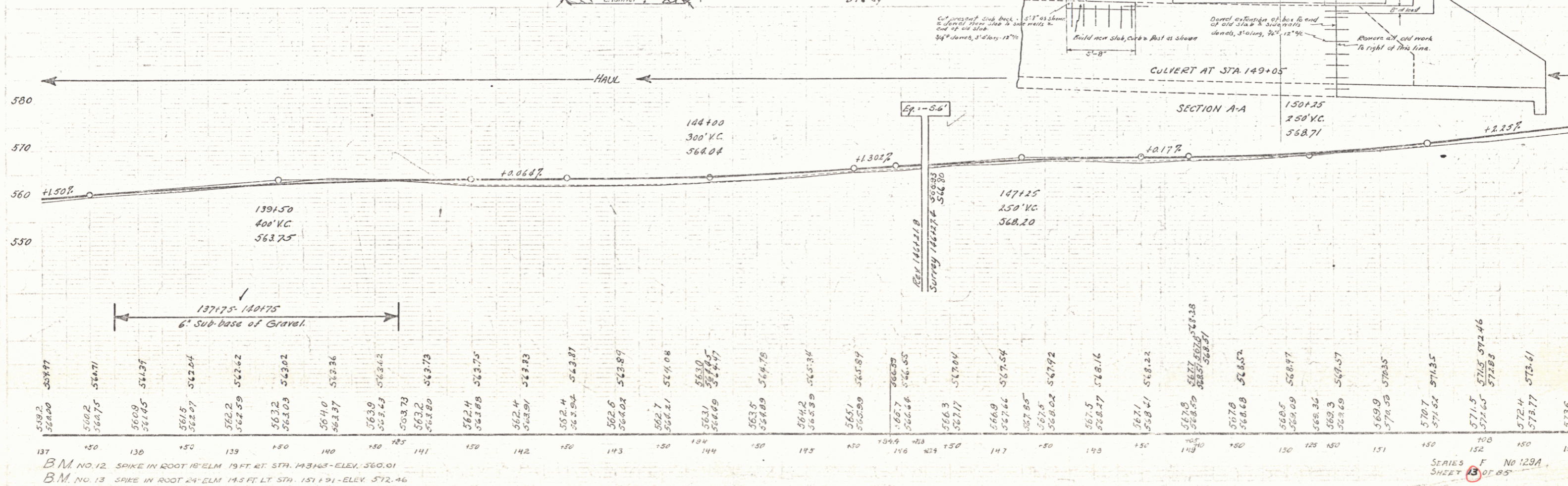
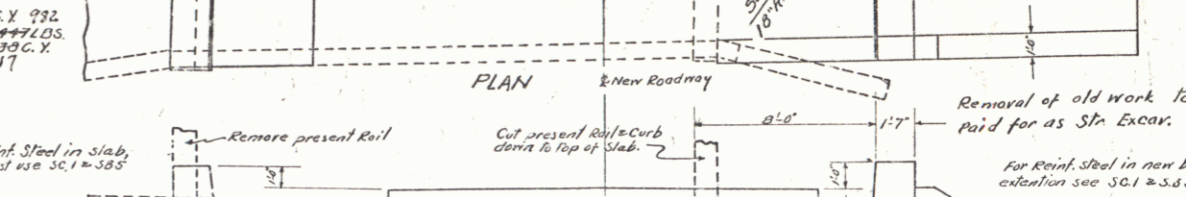
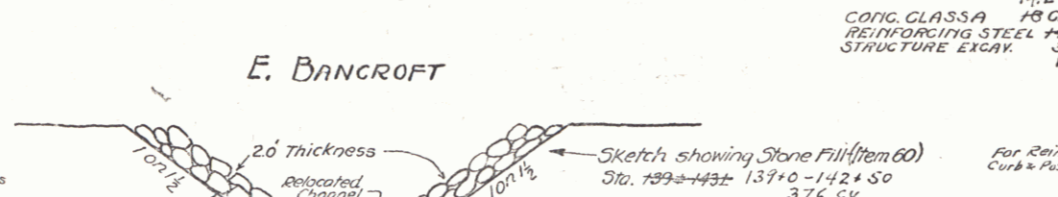
Lip Curb
139+0 - 141+97 RT 2'-2 1/2" LF

Grouted Cobble Gutter
139+48 RT 2' wide 12 S.Y.
139+00 RT 2 1/4" wide 12 S.Y.



DOORINGS FOR PROPOSED CHANNEL LOCATION

Sta.	Top	Bottom	Side
139+20	140+00	141+00	141+00
25' of Gravel	50' EF	50' EF	50' EF
40' of Gravel	40' H.S.	40' H.S.	40' H.S.
20' of Gravel	20' H.S.	20' H.S.	20' H.S.
10' of Gravel	10' H.S.	10' H.S.	10' H.S.
5' of Gravel	5' H.S.	5' H.S.	5' H.S.
2' of Gravel	2' H.S.	2' H.S.	2' H.S.
1' of Gravel	1' H.S.	1' H.S.	1' H.S.



B.M. NO. 12 SPIKE IN ROOT 18' ELM 19 FT. RT. STA. 143+68 - ELEV. 560.01
 B.M. NO. 13 SPIKE IN ROOT 24' ELM 14.5 FT. LT. STA. 151+91 - ELEV. 572.46

SERIES F No 129A
 SHEET 8 OF 85

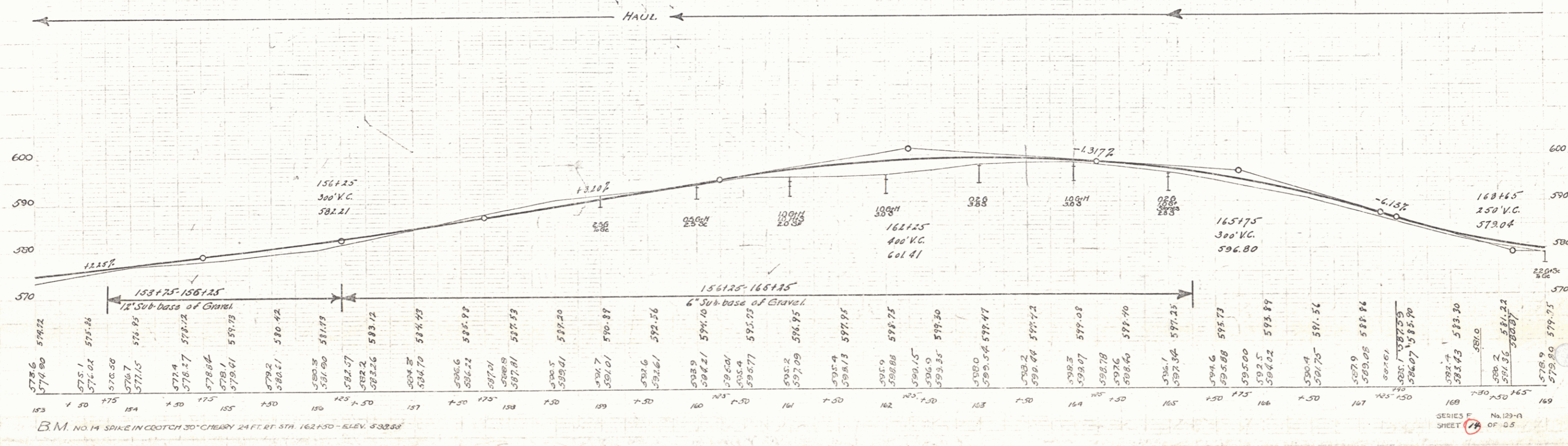
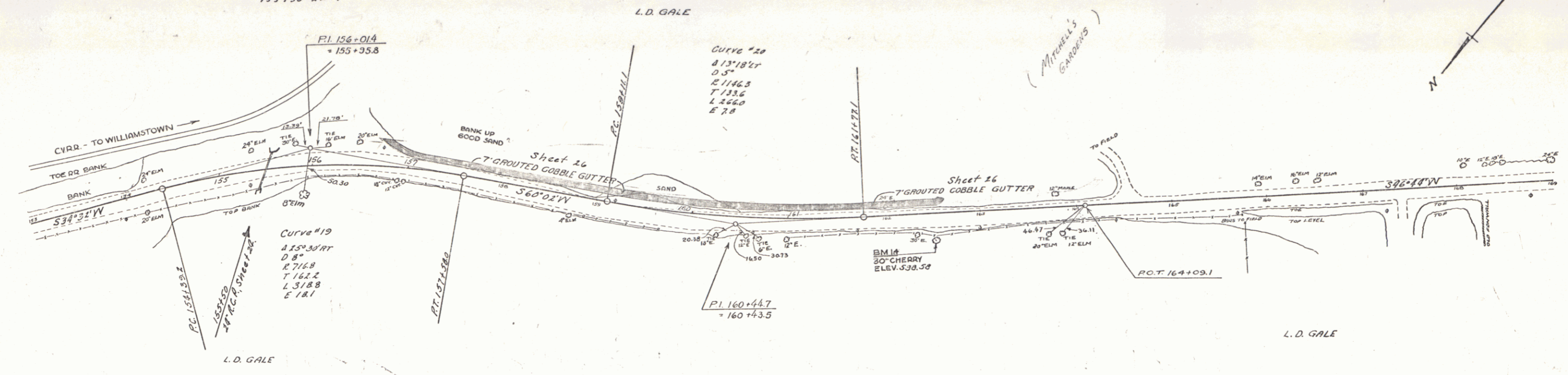
CABLE GUARD RAIL REQUIRED				NEW KEINK CONG PIPE CULVERTS REQUIRED			
Stations	Len ^g	Const.	Pa ^u Leng.	Station	Diam	Len ^g	Conc. & Steel
155+70	155+75	30'	343	155+30	24"	44'	3 Key 58"
155+75	155+80	5'	377				
164+50	164+98	48'	400				

INTEGRAL CURB
155+50 - 157+92 LT. 2" - 2.99 LE

GROUTED COBBLE GUTTER REQUIRED		
Stations	Width	Area
155+70-162+30	7'	447 sq. yds.
155+48	4'	7 " (Run off)
"	RT	5 " " "

STATE OF MISSOURI
127-A 1931 14 85

Guide Post
155+50 LT. 1



B.M. NO 14 SPIKE IN CROTCH 30" CHERRY 24 FT. RT STA. 162+30 - ELEV. 532.88

SERIES F No. 129-A
SHEET 14 OF 25

129 A
WOOD GUARD RAIL REQUIRED

STA.	LEFT	RIGHT
173+00	24	24
176+27	24	24

129 A
CABLE RAIL REQUIRED

STA.	LENS	CONST	TABLE
169+72	170+30	48' 5"	40
169+72	170+30	48' 5"	40
172+00	174+40	48' 5"	40
176+16	179+40	48' 5"	40

129 A
NEW CONC. PIPE REQUIRED

STA.	DIAM.	LENS	CONC.	STEEL	CONC. A
170+00	18"	44'	18 CY	27	4-0 CY
170+00	18"	44'	20	30 CY	35

129 A
GRAVELLED COPPER GUTTER REQUIRED

STA.	SIDE	LENS	CONC.	STEEL	CONC. A
172+17	L	15'	28 CY	100 LB.	2
172+17	R	15'	28 CY	100 LB.	2

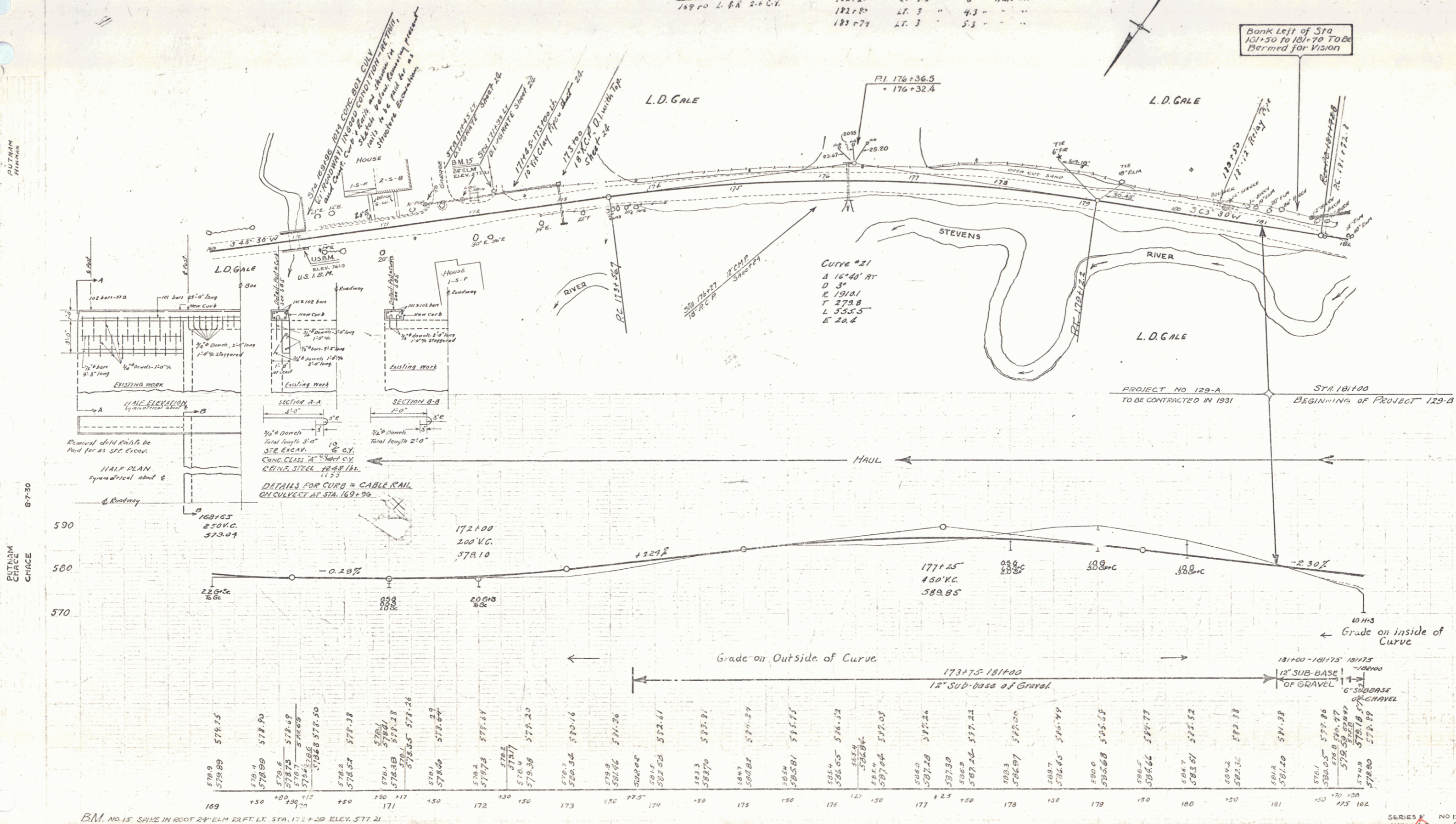
PLAN CONC. GUTTER
189 TO L. R. 2.6 C.Y.

GRAVELLED COPPER GUTTER 129-B
181+00 - 182+00 3" WIDE 15 C.Y.
182+20 21.35 " 6 " RUN OFF
182+80 21.3 " 4.3 " " "
183+74 21.3 " 3.3 " " "

129 A
VITRIFIED CLAY PIPE REQUIRED

STA.	SIDE	LENS	CONC.	STEEL	CONC. A
172+17	L	15'	28 CY	100 LB.	2
172+17	R	15'	28 CY	100 LB.	2

129-A 1931 15 85

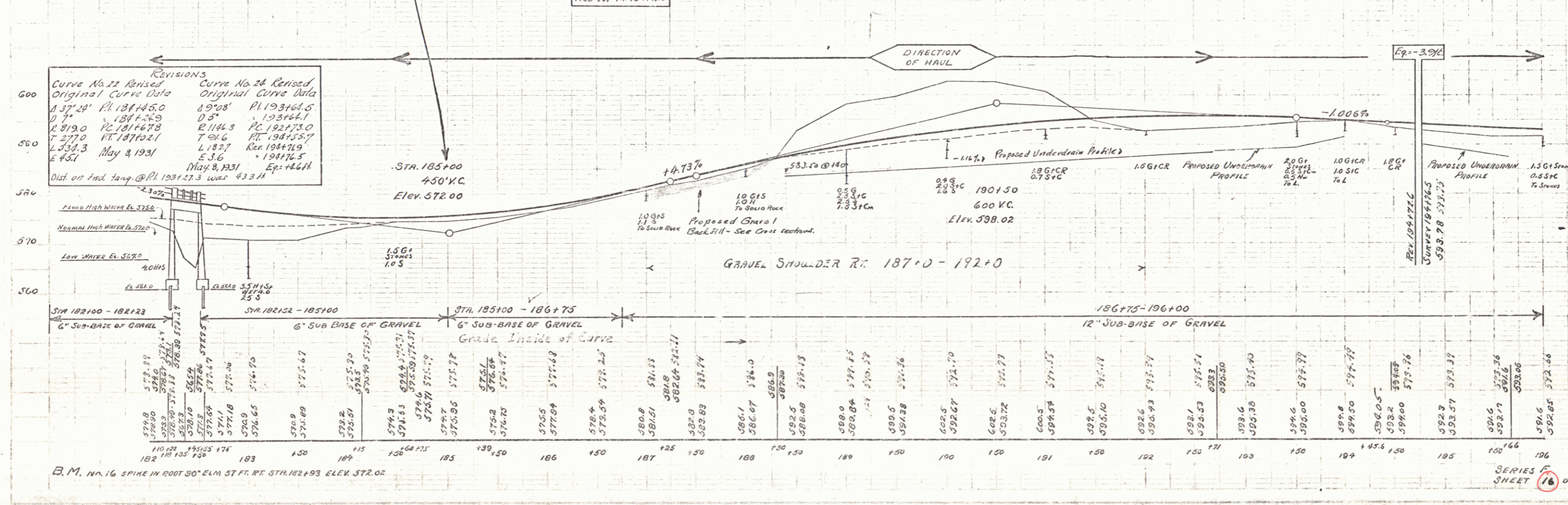
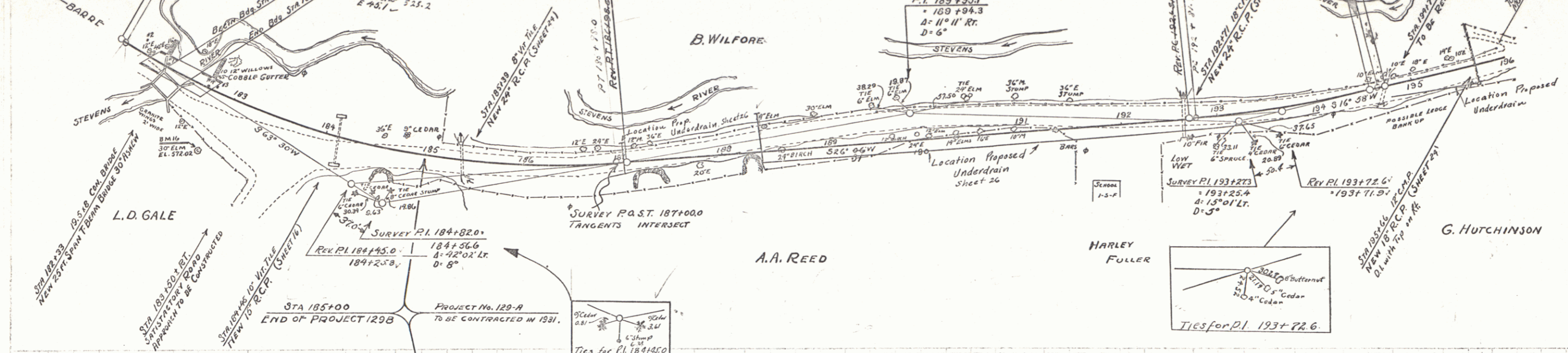


BM. NO. 15 SHANK IN ROOT 24' ELM. 2 FT. STA. 172+20 ELEV. 577.21

SERIES NO 129-A
SHEET 15 OF 85

WOOD GUARD RAIL REQUIRED				CABLE GUARD RAIL REQUIRED				NEW RING CONG. PIPE GULCH REQUIRED				STD UNDERDRAIN WITH 6" PEK. C.G.M.P. REQUIRED			
Stn	Left	Right	Length	Stations	Length	Cont.	Pay Temp.	Stn	Length	Cont.	Pay Temp.	Stations	Length	Wood Guide Posts	Com. Kub. Mat.
192+71	-	24'	18.54	187+00	30'	40'	187+30	187+00	30'	1	0.33	187+00	30'	1	0.33
193+66	-	24'	19.18	187+30	40'	40'	187+70	187+30	40'	1	0.33	187+30	40'	1	0.33
193+39	-	24'	19.18	187+70	40'	40'	188+10	187+70	40'	1	0.33	187+70	40'	1	0.33

GUIDE POST				CONCRETE CURB & GUTTER				INTEGRAL CURB				
Stn	Left	Right	Length	Stations	Length	Cont.	Pay Temp.	Stations	Length	Wood Guide Posts	Com. Kub. Mat.	
184+45	LT	1		182+25	25'	1.3	CV	191+55	191+72	17'	2	237
185+39	LT	1		182+55	25'	1.3	CV	192+24	192+58	34'	2	34
				182+85	25'	1.3	CV	192+51	193+74	23'	2	133
				183+00	25'	1.3	CV	193+74	194+42	68'	2	133



B.M. No. 16 SPIKE IN ROOT 30' ELM 57 FT. RT. STA. 182+93 ELEV. 572.02

WOOD GUIDE POSTS REQUIRED

Cully Sta.	Left	Right
109+18	-	1
200+60	-	1

CABLE GUARD RAIL REQUIRED

Stations	Length	Count	By Item
196+24-198+32	20	40	74
198+32-201+52	30	60	75
201+52-203+00	18	36	76

NEW REIN. CONC. PIPE CULV. REQUIRED

STA. DIAM.	LENG.	CONCR.	STEEL	CEMENT	MASS	STEEL	CEMENT	MASS	STEEL	CEMENT	MASS
18" DIA.	10'	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

NEW REIN. CONC. BOX CULV. REQUIRED

STA. DIAM.	LENG.	CONCR.	STEEL	CEMENT	MASS	STEEL	CEMENT	MASS
24" DIA.	10'	1.0	1.0	1.0	1.0	1.0	1.0	1.0

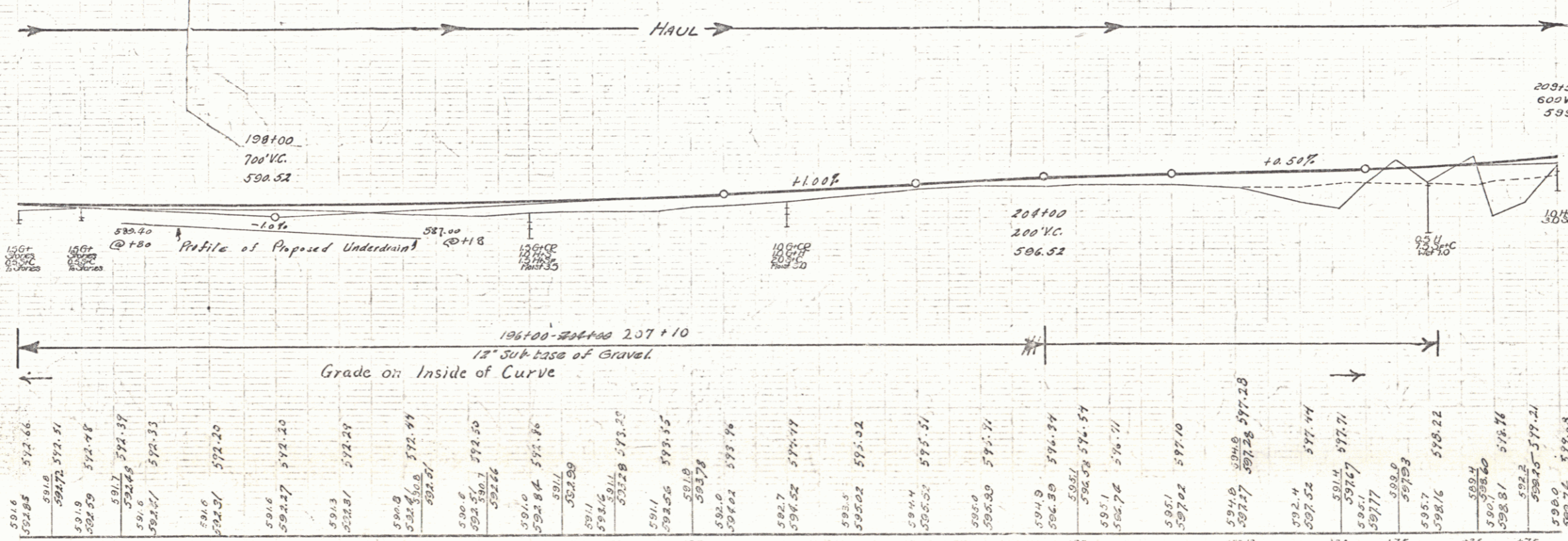
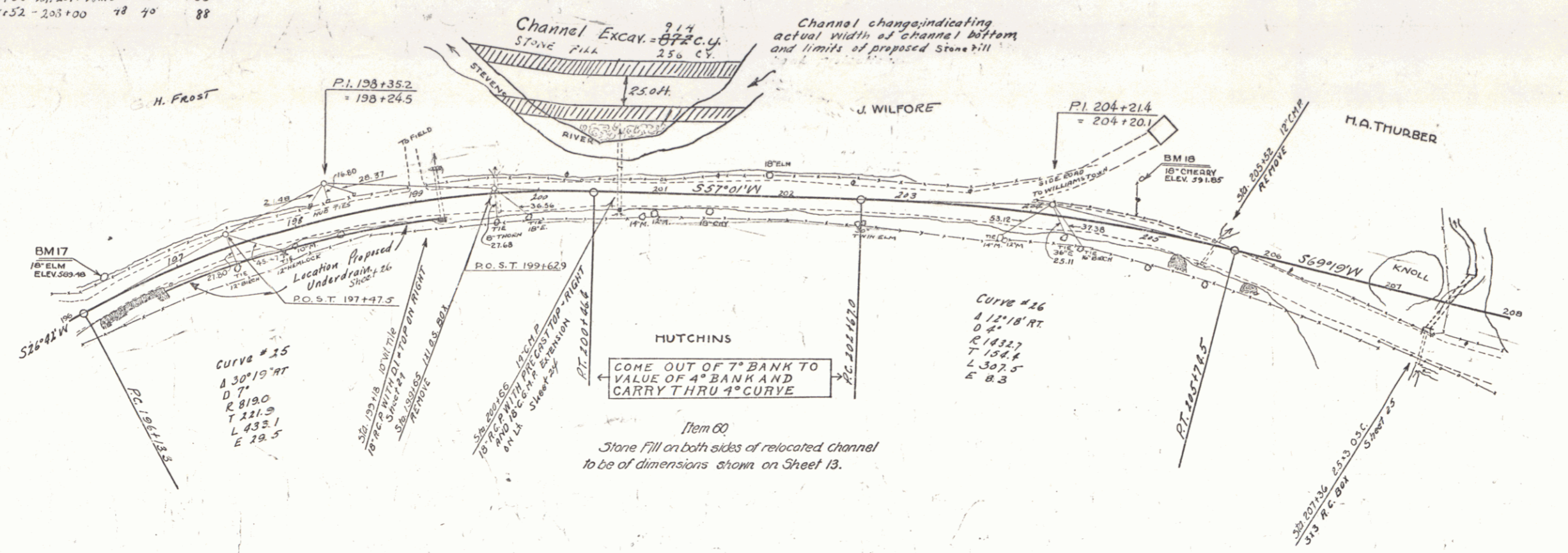
NEW C.C.P. PIPE CULV. REQUIRED

STA. DIAM.	LENG.
24" DIA.	10'

STO. UNDERDRAIN WITH 6" PERK C.G.M.P.

Stations	Length
196+80-199+78	238'
	270'

129-A 1931 17 85



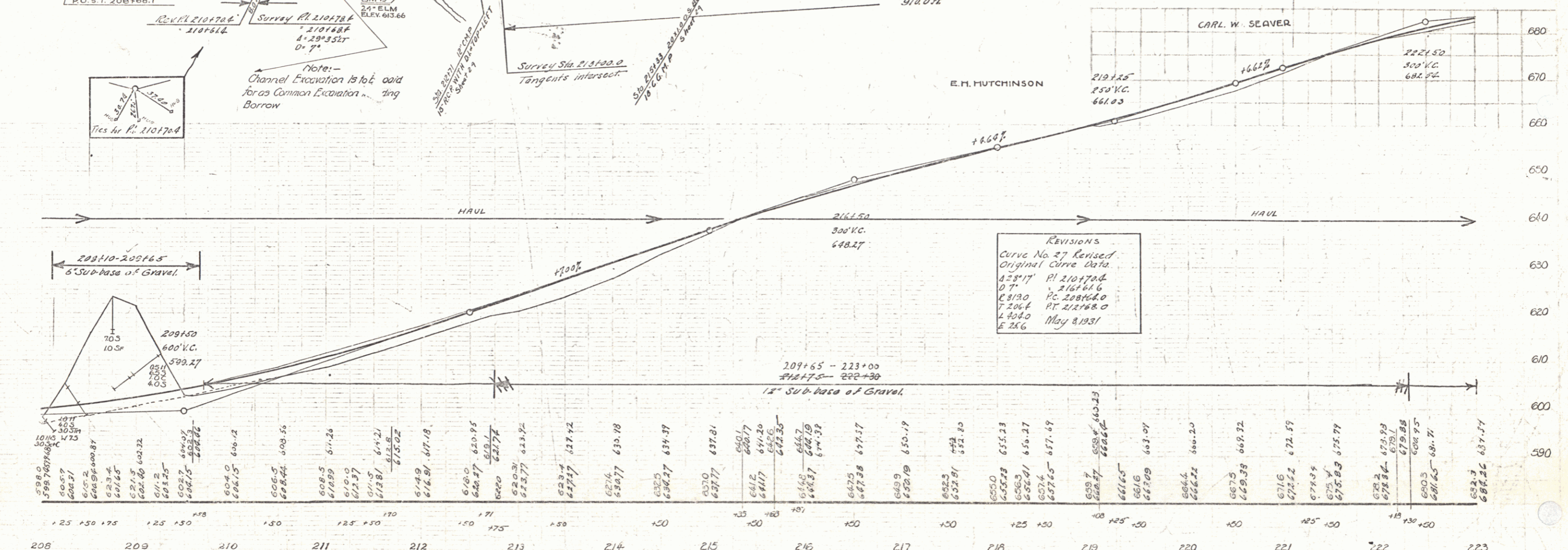
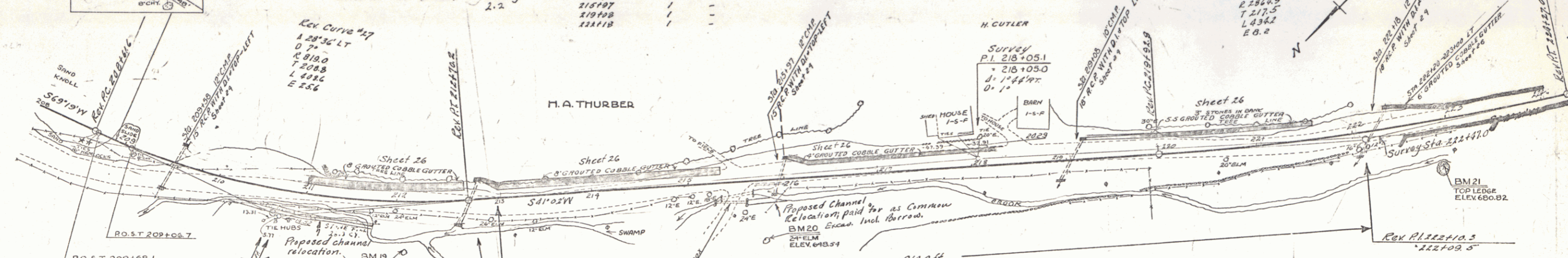
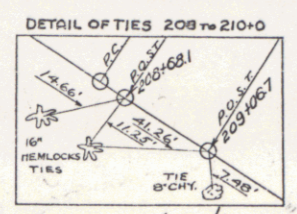
B.M. NO. 17 SPIKE IN BACK OF 3" ELM 15 FT. LT. STA. 196+42 - ELEV. 599.42
B.M. NO. 18 SPIKE IN SIDE OF 2 1/2" CHERRY STUMP 30 FT. LT. STA. 204+82 - ELEV. 591.05

SERIES F No 129-A
SHEET 17 OF 85

NEW REIN. CONCRETE PIPE CULY REQUIRED				WOOD GUARD RAIL REQUIRED				CABLE GUARD RAIL REQUIRED					
STA	DIAM	LENG	CONC. RUB. MAS.	CULY STA	Left	Right	Stations	LENG	CONC.	RUB. MAS.	Stations	Width	Area
209+58	18"	300 FT	14.4 CY	209+58	24'	24'	209+58-213+00 R	420'	40'	360'	211+00-212+00 L	9'	1.57 sq. yds.
213+00	18"	150	7.2	213+00	24'	24'	213+00-215+00 R	200'	40'	360'	212+00-213+00 L	9'	1.57 sq. yds.
215+00	18"	150	7.2	215+00	24'	24'	215+00-217+00 R	200'	40'	360'	213+00-214+00 L	9'	1.57 sq. yds.
217+00	18"	150	7.2	217+00	24'	24'	217+00-219+00 R	200'	40'	360'	214+00-215+00 L	9'	1.57 sq. yds.
219+00	18"	150	7.2	219+00	24'	24'	219+00-221+00 R	200'	40'	360'	215+00-216+00 L	9'	1.57 sq. yds.
221+00	18"	150	7.2	221+00	24'	24'	221+00-223+00 R	200'	40'	360'	216+00-217+00 L	9'	1.57 sq. yds.

NEW CONCRETE PIPE CULY REQUIRED				WOOD GUIDE POSTS REQUIRED			
STA	DIAM	LENG	CONC. RUB. MAS.	CULY STA	Left	Right	Stations
215+33	18"	36 FT	2.2	215+33	1	1	215+33-215+33
				215+37	1	1	215+37-215+37
				215+40	1	1	215+40-215+40
				215+43	1	1	215+43-215+43

GRADED CABLE GUTTER REQUIRED			
Stations	Width	Area	Notes
211+00-212+00 L	9'	1.57 sq. yds.	
212+00-213+00 L	9'	1.57 sq. yds.	
213+00-214+00 L	9'	1.57 sq. yds.	
214+00-215+00 L	9'	1.57 sq. yds.	
215+00-216+00 L	9'	1.57 sq. yds.	
216+00-217+00 L	9'	1.57 sq. yds.	
217+00-218+00 L	9'	1.57 sq. yds.	
218+00-219+00 L	9'	1.57 sq. yds.	
219+00-220+00 L	9'	1.57 sq. yds.	
220+00-221+00 L	9'	1.57 sq. yds.	
221+00-222+00 L	9'	1.57 sq. yds.	
222+00-223+00 L	9'	1.57 sq. yds.	



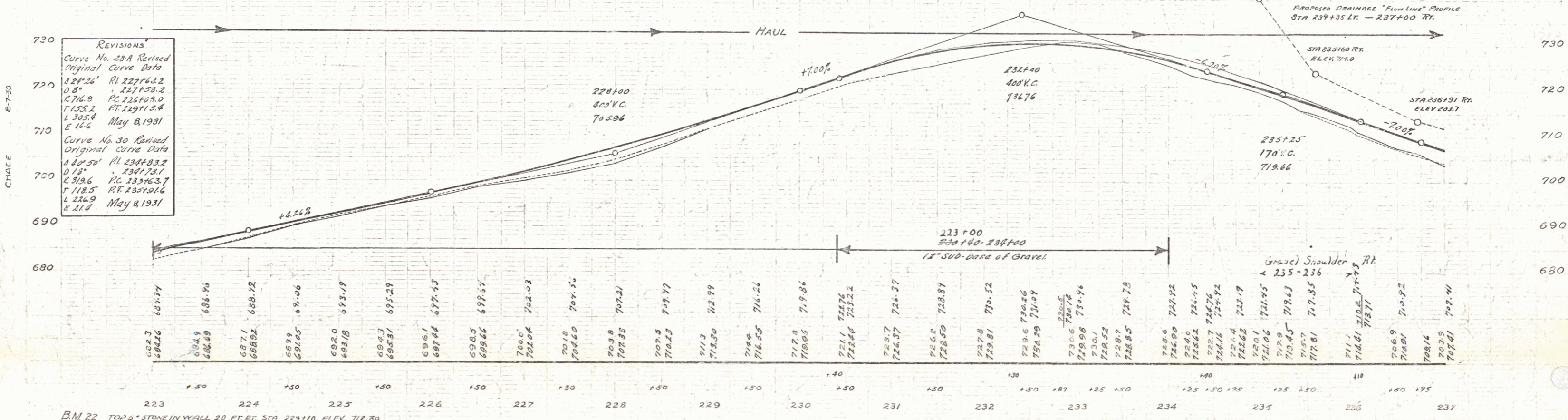
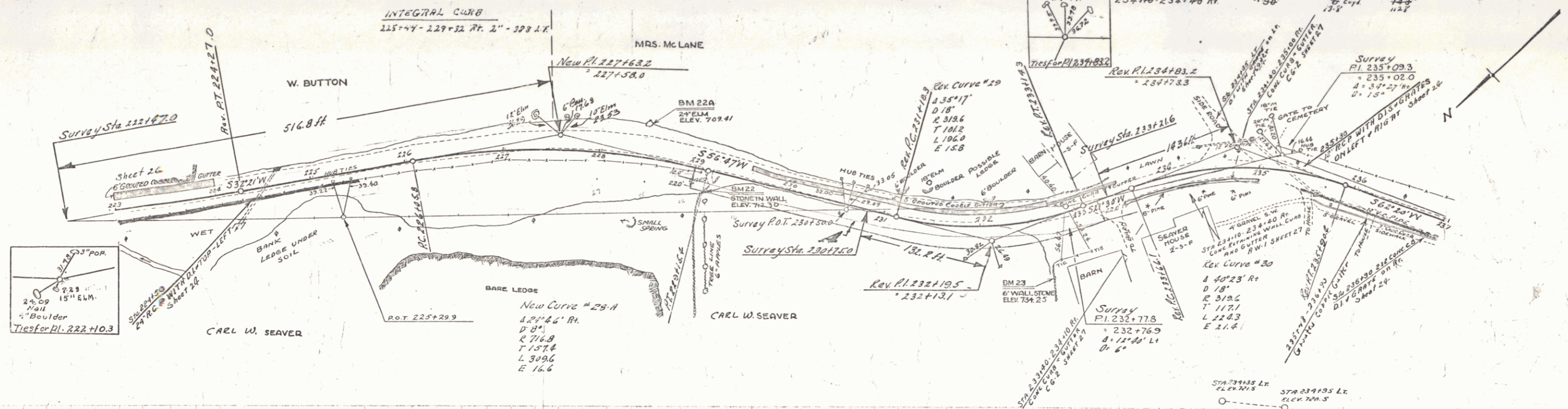
REVISIONS
 Curve No. 27 Revised
 Original Curve Data
 P.I. 210+70.0
 P.C. 208+62.0
 P.T. 212+78.0
 L 216.0
 E 2.6
 May 8, 1931

B.M. NO. 19 SPIKE IN ROOT 24' ELM. 51' FT. BY STA. 212+04: ELEV. 613.66
 B.M. NO. 20 SPIKE IN ROOT 24' ELM. 61' FT. STA. 215+79: ELEV. 649.54
 B.M. NO. 21 TOP LEDGE IN FIELD 30' RT. STA. 222+95: ELEV. 600.82

WOOD GUARD RAIL REQUIRED		CABLE GUARD RAIL REQUIRED		NEW REINFORCED CONCRETE PIPE CULV REQUIRED		NEW VITRIFIED CLAY PIPE CULV REQUIRED		GRADED CABLE GUTTER REQUIRED		CONCRETE CURB AND GUTTER REQUIRED	
CULV STA	Left	Right	Stations	Length	Const	Day(s)	STA	DIAM	LENGTH	CONC	STEEL
228+50		20'	228+20-228+40	148'	40'	108'	228+50	24"	50 FT	2 CY	1 1/2
			229+30	14'	40 FT	2 CY	229+30	24"	50 FT	2 CY	1 1/2
			229+35	12'	30 FT	2 CY	229+35	24"	50 FT	2 CY	1 1/2

STATIONS	WIDTH	HEIGHT	LENGTH	CONC. A	STEEL
228+70-233+00	2'	6"	65'	4.14	49#
233+00-234+00	2'	6"	10'	7.45	15.92
234+00-235+00	2'	6"	10'	5.30	4.5
235+00-236+00	2'	6"	10'	5.30	4.5

STATIONS	LENGTH	CONC. A	STEEL
234+00-234+00	10'	17.3	11.2



BM 22 TOP OF STONE IN WALL 20 FT BT STA. 229+10 ELEV. 712.30
 BM 22A SHIP IN ROOT 24' ELM 32 FT LT STA. 228+45 ELEV. 709.41
 B.M. 23 TOP OF BOLDER IN WALL 6 FT BT STA. 232+60 ELEV. 734.25

GRADED-CURB/GUTTER REQUIRED

STA	WIDTH	AREA
2421.25-2441.25 RT	4'	80.00 YDS
2471.25-2491.25 LT	4'	80.00 YDS

CABLE GUARD RAIL REQUIRED

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

CONC CURB/GUTTER AND RETAINING WALL REQUIRED

STA	LENGTH	CONC	STEEL
2421.25-2441.25	20.0'	32CY	3603#
2471.25-2491.25	20.0'	32CY	3603#

Guide Post
240+50 RT 2

NEW REIN CONC PIPE CULV REQUIRED

STA	QUANTITY	REMARKS
240+00-240+10	10' RT	12" CONC PIPE
241+00-241+10	10' LT	12" CONC PIPE
242+00-242+10	10' RT	12" CONC PIPE
243+00-243+10	10' LT	12" CONC PIPE
244+00-244+10	10' RT	12" CONC PIPE
245+00-245+10	10' LT	12" CONC PIPE
246+00-246+10	10' RT	12" CONC PIPE
247+00-247+10	10' LT	12" CONC PIPE
248+00-248+10	10' RT	12" CONC PIPE
249+00-249+10	10' LT	12" CONC PIPE

NEW VITRIFIED CLAY PIPE CULV REQUIRED

STA	QUANTITY	REMARKS
240+10-240+20	10' RT	18" VITRIFIED CLAY PIPE
241+10-241+20	10' LT	18" VITRIFIED CLAY PIPE
242+10-242+20	10' RT	18" VITRIFIED CLAY PIPE
243+10-243+20	10' LT	18" VITRIFIED CLAY PIPE
244+10-244+20	10' RT	18" VITRIFIED CLAY PIPE
245+10-245+20	10' LT	18" VITRIFIED CLAY PIPE
246+10-246+20	10' RT	18" VITRIFIED CLAY PIPE
247+10-247+20	10' LT	18" VITRIFIED CLAY PIPE
248+10-248+20	10' RT	18" VITRIFIED CLAY PIPE
249+10-249+20	10' LT	18" VITRIFIED CLAY PIPE

CONCRETE CULV REQUIRED

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

METAL DROP INLET & GRATE

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

CEMENT RUBBLE MASONRY WALL

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

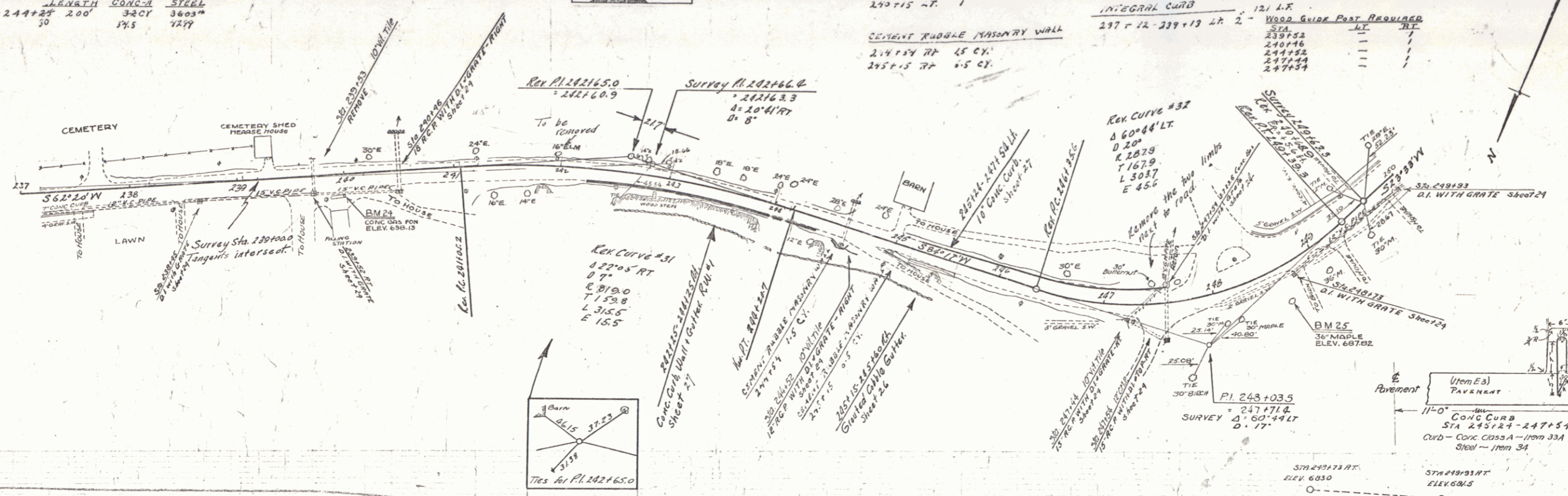
INTEGRAL CURB

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

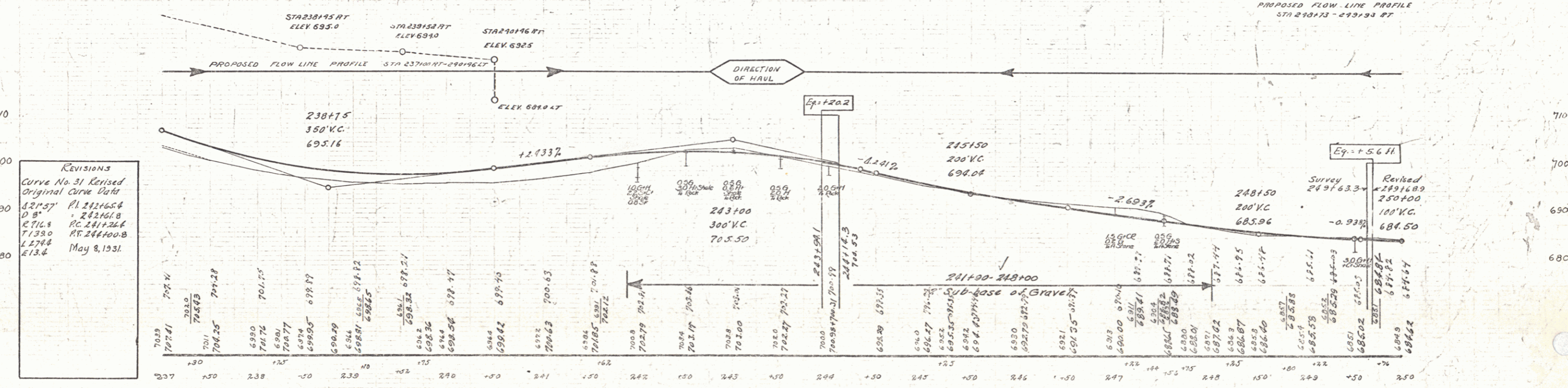
WEDGE GUIDE POST REQUIRED

Stations	Length	Cost	Qty
2421.25-2441.25	20'	240	240
2471.25-2491.25	20'	240	240

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CHASE 8-8-20



Revisions

Curve No. 31 Revised
Original Curve Data

Date	By	Description
5/8/13	CH	Original Curve Data
5/8/13	CH	Revised Curve Data

B.M. No. 24 TOP CONC. GAS PUMP FDN. 17 FT. RT. STA. 239+83 ELEV. 698.13
B.M. No. 25 SPIKE IN ROOT 3/4" MAPLE 30 FT. RT. STA. 248+65 ELEV. 687.62

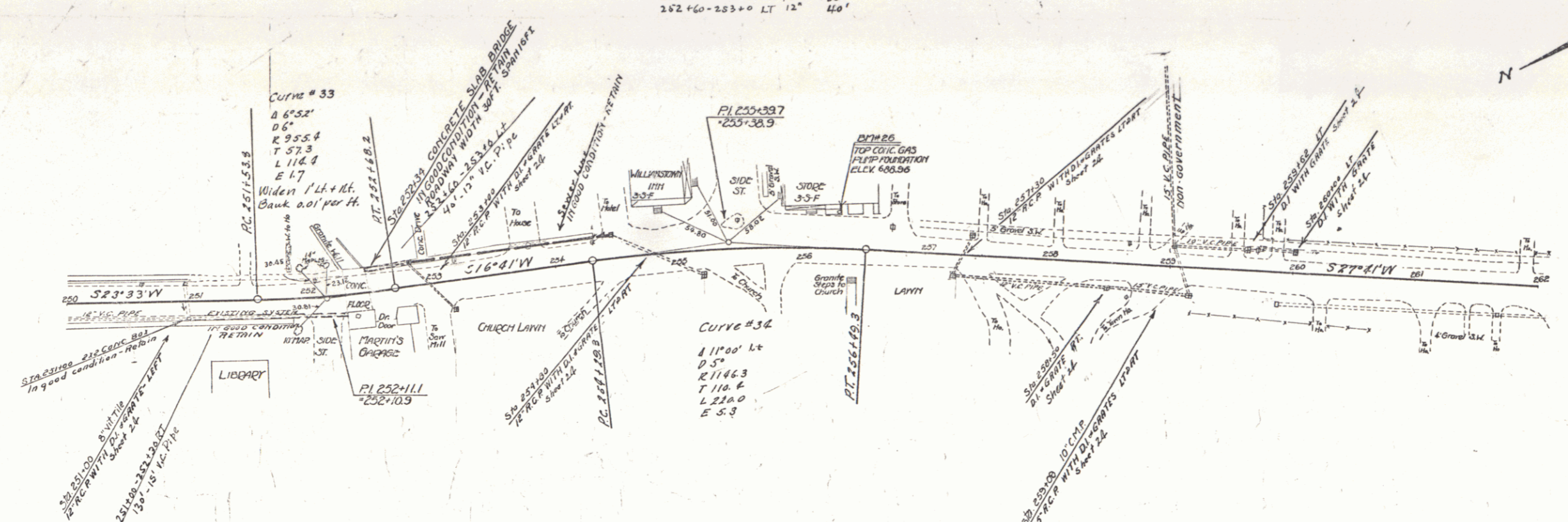
SERIES F NO. 129-A
SHEET 3 OF 83

NEW RIVINE CONC. PIPE CULV. REQUIRED

STA.	DIAM.	LENG.	CONC.	STEEL	DL GRATE
251+00	12"	25.00 FT	32.40 CY	108.00 LBS	2.4
251+00	12"	50	40.00 CY	173.00 LBS	2
251+00	12"	75.00	15.00	97.00 LBS	1.2
251+00	12"	30	7.50	21.00 LBS	2
251+00	12"	40	10	10.00	2

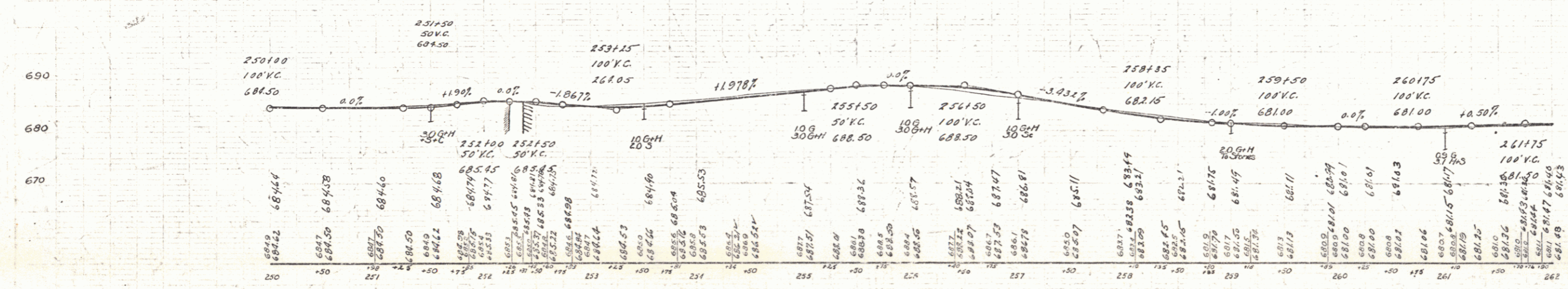
NEW VITRIFIED CLAY PIPE CULV. REQUIRED

STA.	DIAM.	LENG.	CONC.	STEEL	DL GRATE
249+94	12"	25.00 FT	32.40 CY	108.00 LBS	2.4
251+25	12"	25.00 FT	32.40 CY	108.00 LBS	2.4
251+25	12"	25.00 FT	32.40 CY	108.00 LBS	2.4
251+25	12"	25.00 FT	32.40 CY	108.00 LBS	2.4
251+25	12"	25.00 FT	32.40 CY	108.00 LBS	2.4



NOTE
THE GRADE OVER BRIDGE IS DESIGNED TO USE PRESENT SLAB AS ROAD SLAB.

NOTE Flatten shoulders thru village as shown on cross section.

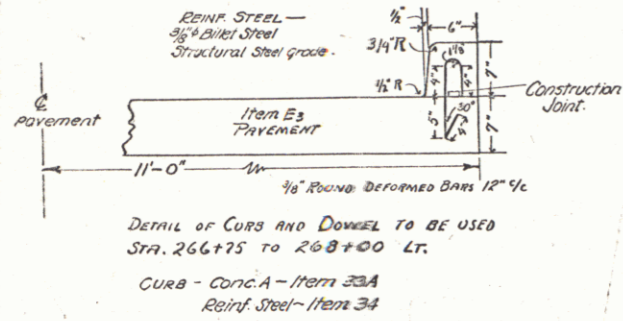


B.M. 26 - TOP OF CONC. FOUNDATION GAS PUMP 20' LT STA. 256+32 ELEV. 688.98

BRIDGE 269+5 - 269+71 23' Clear Span
 26' Out to Out
 Following is a Schedule of Reinforcing Steel Bars
 which have been modified from those of STB 20 No 25
 to fit a 23'-0" Clear Span. Other Bars as per STB 20 No 25

BAR	SIZE	LGTH	DETAILS
1	1/2"	28'-0"	
2	1/2"	29'-0"	
3	1/2"	29'-0"	
10	3/8"	25'-6"	STRAIGHT
11	1/2"	25'-6"	"
101	1/2"	25'-6"	"

Note: Reinforcing Steel for Approach Slab
 Brackets and Fixed End Dowells, to be ordered.



NEW REIN. CURB PIPE ONLY REQUIRED

STA.	DIAM.	LGTH	CODE	STEEL	ALUMINUM	WOOD	QUANTITY
263+75	14"	36 FT	1-1/2"	20	2	-	1-1/2"

CONCRETE CURB REQUIRED

STA.	CURB H.	REINF. ST.
266+75 TO 268+00 LT	2.3	2-3

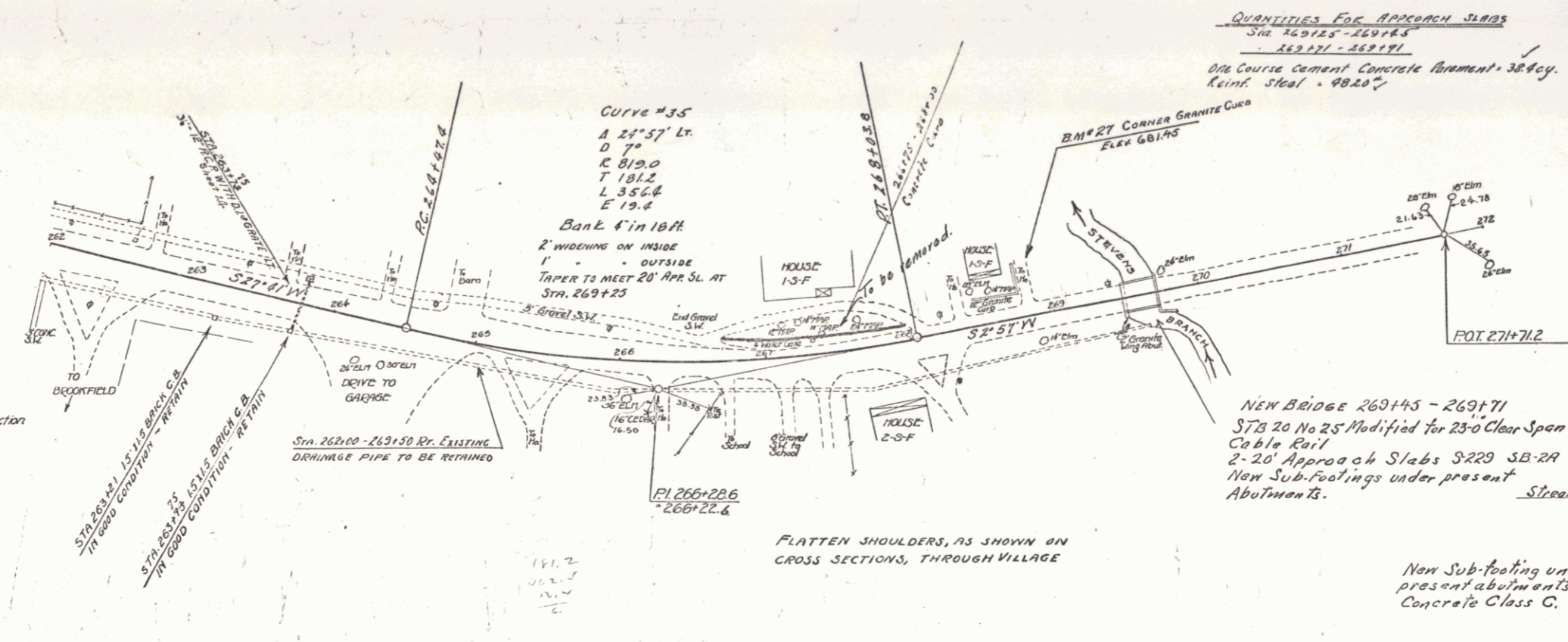
SUMMARY OF QUANTITIES

ITEM No 15 Structure Excavation 6+3 Cu. Yd.	67
ITEM No 33A Concrete Class A 31.7 20' "	31.7
ITEM No 33C Concrete Class C 2.5 20' "	2.5
ITEM No 34 Reinforcing Steel 517,942 Lbs.	517,942
ITEM No 35 Temporary Bridge 1'-Long 500	500
ITEM No 37 Cable Guard Rail 320 62' Lin. Ft.	320

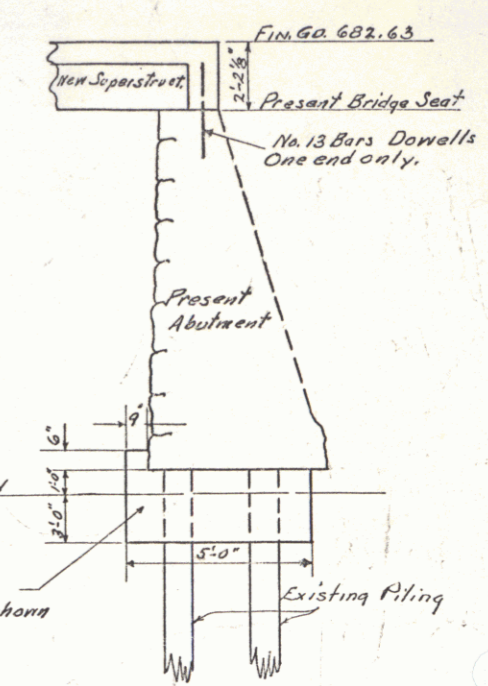
CABLE GUARD RAIL REQUIRED

STATIONS	LENGTH	CONST.	EST. LENGTH
263+75 TO 268+00	420'	100'	520'
268+00 TO 269+71	180'	100'	280'

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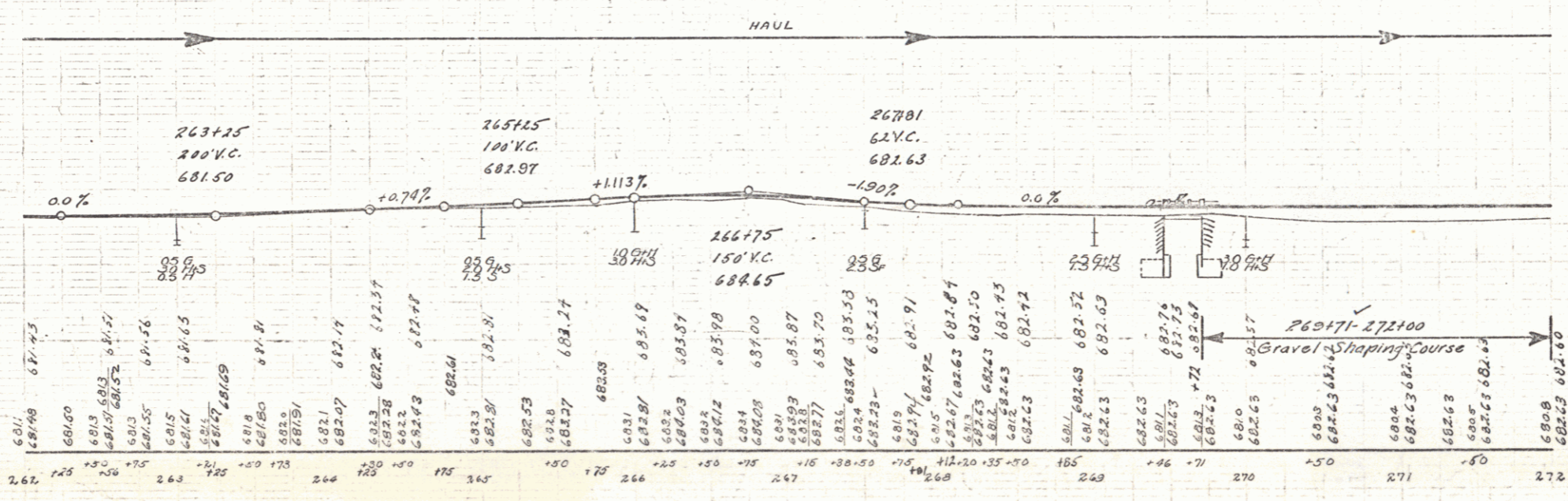


QUANTITIES FOR APPROACH SLABS
 STA. 263+75 - 268+00
 268+00 - 269+71
 ONE COURSE CEMENT CONCRETE FURNISH 38.8 cu. Yd.
 REINF. STEEL - 9820 LBS.



NEW BRIDGE 269+5 - 269+71
 STB 20 No 25 Modified for 23'-0" Clear Span
 2'-20" Approach Slabs S229 SB-29
 New Sub-footings under present
 Abutments.

New Sub-footing under
 present abutments as shown
 Concrete Class C.



REVISIONS
 Curve No. 35 Revised
 Original Curve Data:
 D 77' P.I. 266+28.6
 O.T. 265+22.7
 R 819.0 P.C. 264+99.0
 T 179.6 P.T. 268+02.3
 L 353.3
 E 19.2
 May 8, 1931

B.M. #27 COR. GRANITE CURB 15' LT. STA. 268+75 ELEK 6814.3

CORRECT
 A. D. Bishop
 BRIDGE ENGINEER

SERIES F 110 129 A
 SHEET 22 OF 85

