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STATE OF VERMONT  
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED  
STATE HIGHWAY

FEDERAL AID PROJECT

TOWN OF BARNET

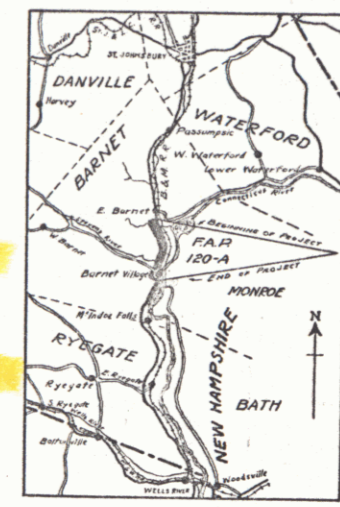
ST. JOHNSBURY-WELLS RIVER ROAD

FROM THE END OF F.R.P. 15-G, SOUTH 2.683 MILES

LENGTH OF PROJECT

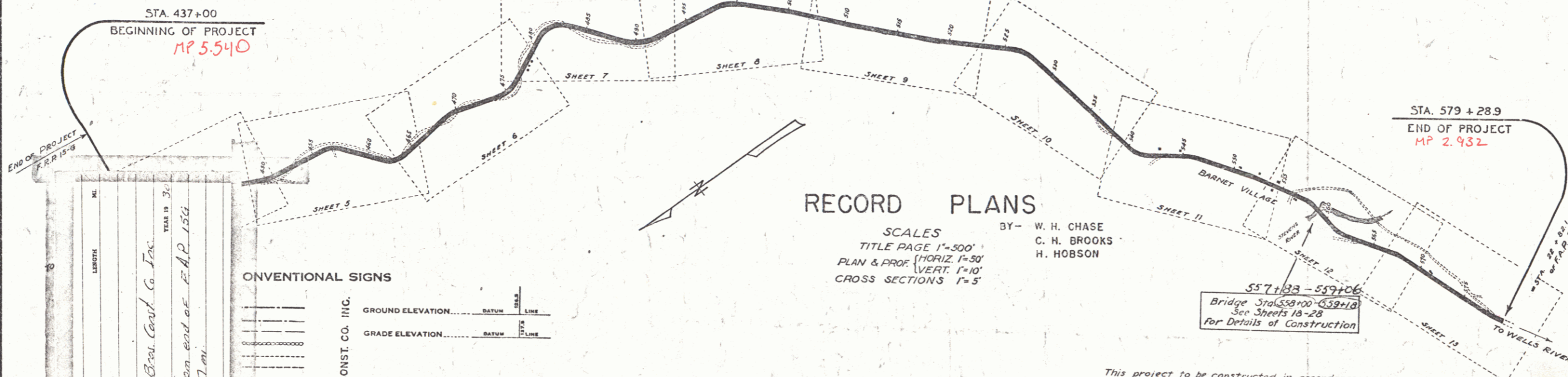
INCLUDING BRIDGE OVER 20 FT. SPAN 14,167.7 FT. = 2.683 MILES  
EXCLUDING " " 20 FT. " 14,049.7 FT. = 2.660 MILES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	120-A	1930	1	32



(To Be Returned To R.O.W. Division)  
Town of US5  
PERPETUAL  
ET I A N M O  
NOISIAIC AV-WEIIE

Route: US5  
Project: F120-A  
Pin # 9912349



PROJECT NO.	120-A
TITLE	Concrete
CONTRACTOR	Miller Bros. Const. Co. Inc.
LOCATION	US 5 from end of F.R.P. 15-G southward 2.7 mi.
YEAR	1930
DATE	
SCALE	
DATE	
BY	
CHECKED	
APPROVED	
DATE	

**CONVENTIONAL SIGNS**

GROUND ELEVATION ..... DATUM ..... LINE

GRADE ELEVATION ..... DATUM ..... LINE

**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.

RECORD PLANS

SCALES  
TITLE PAGE 1"=500'  
PLAN & PROF. (HORIZ.) 1"=50'  
VERT. 1"=10'  
CROSS SECTIONS 1"=5'

BY - W. H. CHASE  
C. H. BROOKS  
H. HOBSON

557+133-559+06  
Bridge Sta. 558+00-559+18  
See Sheets 13-28  
for Details of Construction

This project to be constructed in accordance with Standard Road and Bridge Specifications for 1930.  
These plans are subject to such revisions as may be required by the Bureau of Public Roads or the Chief Engineer.

RIGHT-OF-WAY DIVISION  
TOWN FILE  
PERPETUAL  
Town of US5  
(To Be Returned To R.O.W. Division)

APPROVED March 9, 1930  
H. S. Sargent  
COMMISSIONER OF HIGHWAYS

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER MATTERS PERTAINING TO THIS PROJECT MAY BE OBTAINED EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

RECOMMENDED \_\_\_\_\_  
DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL \_\_\_\_\_  
CHIEF ENGINEER BUREAU OF PUBLIC ROADS

APPROVED \_\_\_\_\_  
DIRECTOR - BUREAU OF PUBLIC ROADS

SERIES F. No. 120A FILED  
SHEET 1 OF 32

**WOOD GUARD RAIL REQUIRED**

CULVERT STATIONS	LEFT	RIGHT
443+00	24'	24'
448+00	24'	24'

**CABLE GUARD RAIL RAIL REQUIRED**

STATIONS	LEFT	RIGHT
440+00 to 444+00	12'	12'
443+00 to 448+00	12'	12'
443+14.75 to 444+52	12'	12'

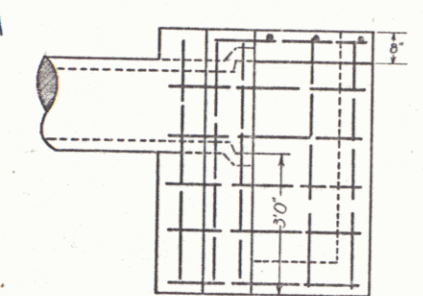
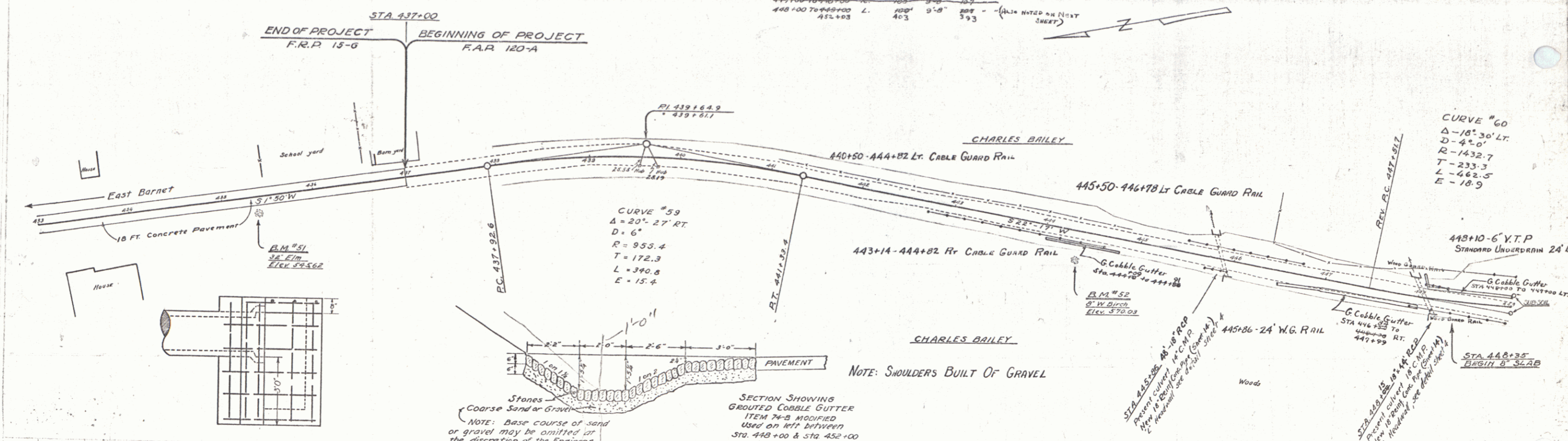
**NEW REIN. CONC. PIPE CULVERTS REQUIRED**

STATIONS	DIAM.	LENGTH	CONC. CLASS	NO. OF	REIN. SPEC.
443+00	18"	20'	1	1	12#
448+00	18"	20'	1	1	12#

**GROUTED COBBLE GUTTER REQUIRED**

STATIONS	LOE	REO	WIDTH	DEPTH	NO. OF	REIN. SPEC.
440+00 to 444+00	R	20'	3'-0"	12"	32.3	0.9 16"
440+00 to 444+00	R	20'	3'-0"	12"	77	
440+00 to 448+00	L	100'	3'-0"	12"	393	

DATE	12-0-25
SCALE	1" = 40'
SHEET	52



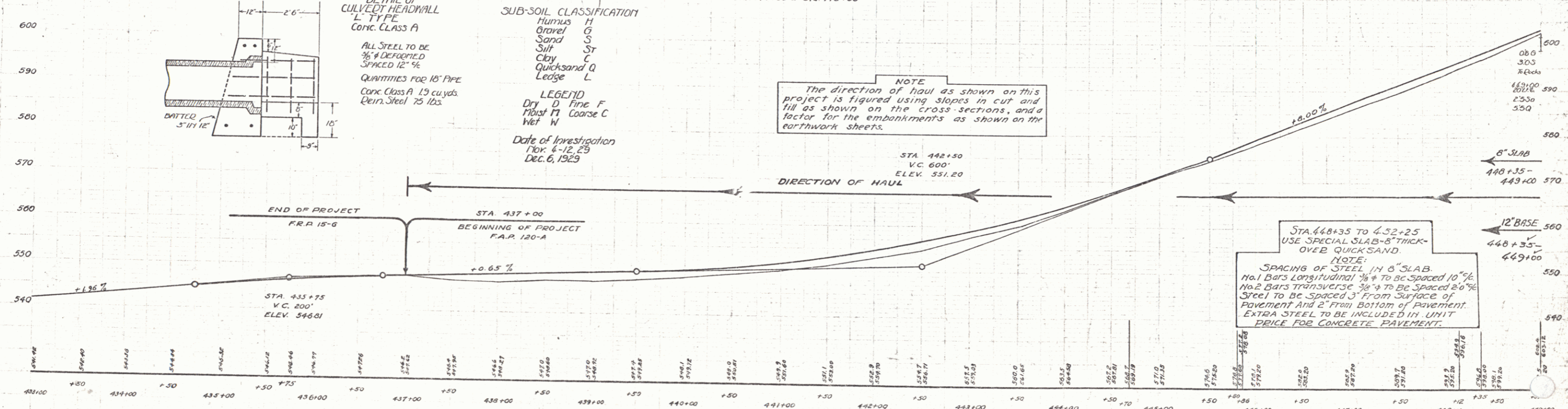
**DETAIL OF CULVERT HEADWALL**  
 TYPE  
 CONC. CLASS A  
 ALL STEEL TO BE  
 3/8" DEREGMENTED  
 SPOKED 12" X 6"  
 QUANTITIES FOR 18" PIPE  
 CONC. CLASS A 19 cu yds.  
 REIN. STEEL 75 lbs.

**SUB-SOIL CLASSIFICATION**  
 Humus H  
 Gravel G  
 Sand S  
 Silt ST  
 Clay C  
 Quicksand Q  
 Ledger L

**LEGEND**  
 Dry D Fine F  
 Moist M Coarse C  
 Wet W  
 Date of Investigation  
 Nov 4-12, 25  
 Dec. 6, 1925

**SECTION SHOWING GROUTED COBBLE GUTTER**  
 ITEM #4-B MODIFIED  
 Used on left between  
 Sta. 448+00 & Sta. 452+00  
 and on right between  
 Sta. 447+00 & Sta. 448+00

**NOTE**  
 The direction of haul as shown on this project is figured using slopes in cut and fill as shown on the cross-sections, and a factor for the embankments as shown on the earthwork sheets.



**STA. 448+35 TO 452+25**  
 USE SPECIAL SLAB-8" THICK-OVER QUICKSAND.  
**NOTE:**  
 SPACING OF STEEL IN 8" SLAB.  
 No. 1 Bars longitudinal 1/4" to be spaced 10".  
 No. 2 Bars transverse 3/4" to be spaced 20".  
 Steel to be spaced 3" from surface of pavement and 2" from bottom of pavement.  
 EXTRA STEEL TO BE INCLUDED IN UNIT PRICE FOR CONCRETE PAVEMENT.

B.M. #51 SPIKE IN ROOT OF 32' ELM 135 FT RT. STA. 435+37 ELEV. 545.62  
 B.M. #52 SPIKE IN ROOT OF 6" W. BIRCH RT. STA. 444+36 ELEV. 570.03

SERIES F No. 120A  
 SHEET 52 OF 52

WOOD GUARD RAIL REQUIRED  
CULVERT STATIONS LEFT RIGHT

STATION	LEFT	RIGHT
452+45	2	2
457+4	-	2

WOOD GUIDE POSTS REQUIRED  
STATION LEFT RIGHT

STATION	LEFT	RIGHT
452+45	-	2
457+4	-	2

CURVE #60 REV.  
Δ = 10°-30' LT  
D = 4°  
R = 1432.7  
T = 233.3  
L = 462.5  
E = 10.9

CABLE GUARD RAIL REQUIRED

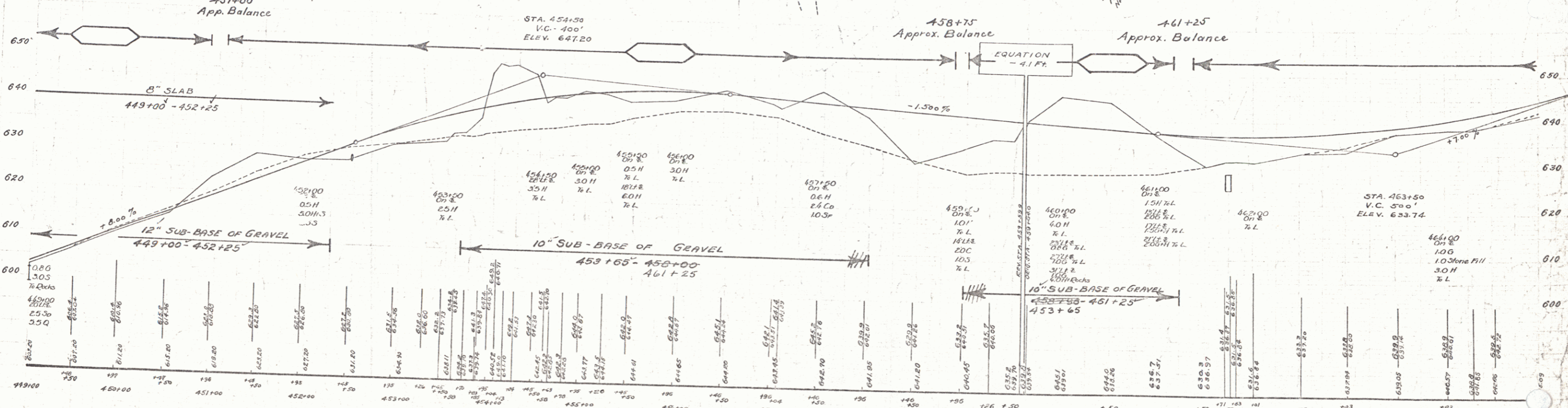
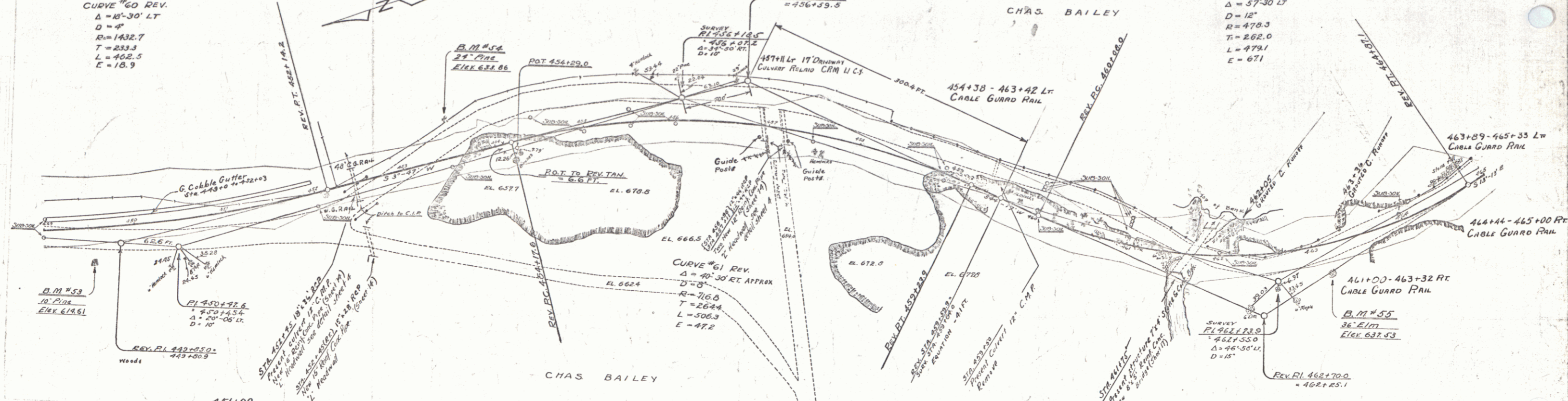
STATIONS	LEFT	RIGHT
452+45 TO 457+4	2	2
461+00 TO 463+32	2	2
464+44 TO 465+00	2	2

NEW DEPTH CONC. PIPE CULVERTS REQUIRED

STATIONS	DIAM.	LENGTH	CONC. C	CONC. E	CONC. S	CONC. T	CONC. B	CONC. F	CONC. O	CONC. P	CONC. M	CONC. L	CONC. H	CONC. G	CONC. J	CONC. K	CONC. N	CONC. R	CONC. S	CONC. T	CONC. U	CONC. V	CONC. W	CONC. X	CONC. Y	CONC. Z
452+45 TO 457+4	18"	30'	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

GROUPED COBBLE GUTTER REQUIRED

STATIONS	WIDTH	AREA	CONC. C	CONC. E	CONC. S	CONC. T	CONC. B	CONC. F	CONC. O	CONC. P	CONC. M	CONC. L	CONC. H	CONC. G	CONC. J	CONC. K	CONC. N	CONC. R	CONC. S	CONC. T	CONC. U	CONC. V	CONC. W	CONC. X	CONC. Y	CONC. Z
452+45 TO 457+4	12'	13	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



BM #53 SPIKE IN ROOT OF 10" W PINE 33' RT STA. 449+59 ELEV. 616.61  
 BM #54 SPIKE IN ROOT OF 24" W PINE 41' LT STA. 453+63 ELEV. 633.86  
 BM #55 SPIKE IN ROOT OF 36" ELM 28' RT STA. 463+18 ELEV. 637.53

NO.	DATE	BY	REVISION
1	12-0-A	1930	5



**WOOD GUARD RAIL REQUIRED**

CONVERT STATIONS	LEFT	RIGHT
480+00	24'	24'
486+00	24'	24'
488+75	24'	24'

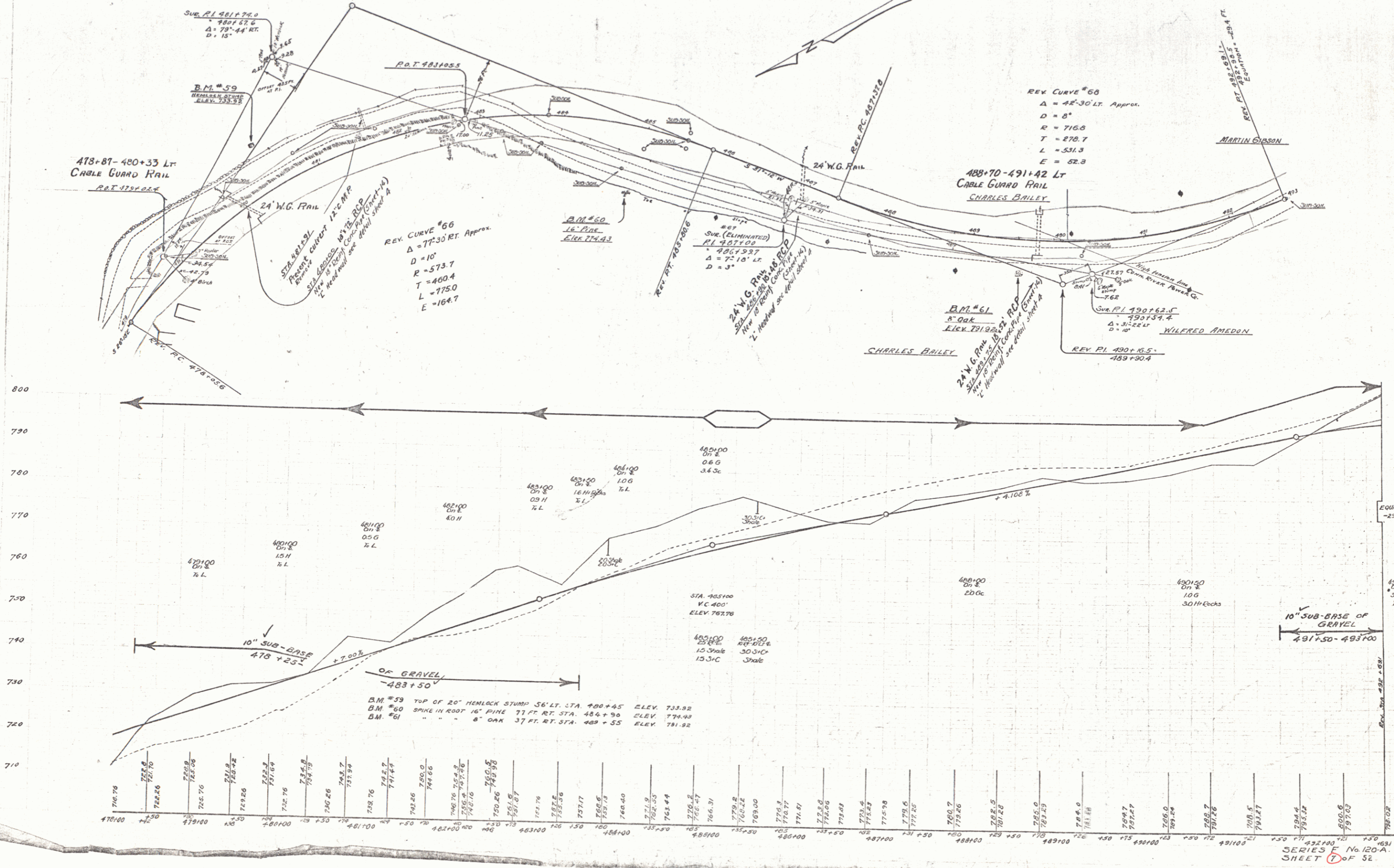
**CABLE GUARD RAIL REQUIRED**

STATIONS	LEFT	RIGHT
478+00 to 480+00	24'	24'
488+00 to 491+00	24'	24'

**NEW REINF. CONC. PIPE CULVERTS REQUIRED**

STATIONS	DIAM.	LENGTH	CURVE	GRADE	APPROX. STRENGTH
480+00 to 480+75	18"	75'	LI	9/4	100
486+00 to 486+75	18"	75'	LI	9/4	100
488+75 to 488+75	18"	0'	LI	9/4	100

STATE	PROJECT	SHEET	TOTAL
ALABAMA	MOBILE	1248	1252
8	125A	1930	7 52



C.E. PATTIN

Richard  
Gardner

**WOOD GUARD RAIL REQUIRED**

CULVERT STATIONS	LEFT	RIGHT
495+30	24'	24'
501+15	24'	24'
505+25	24'	24'

**CABLE GUARD RAIL REQUIRED**

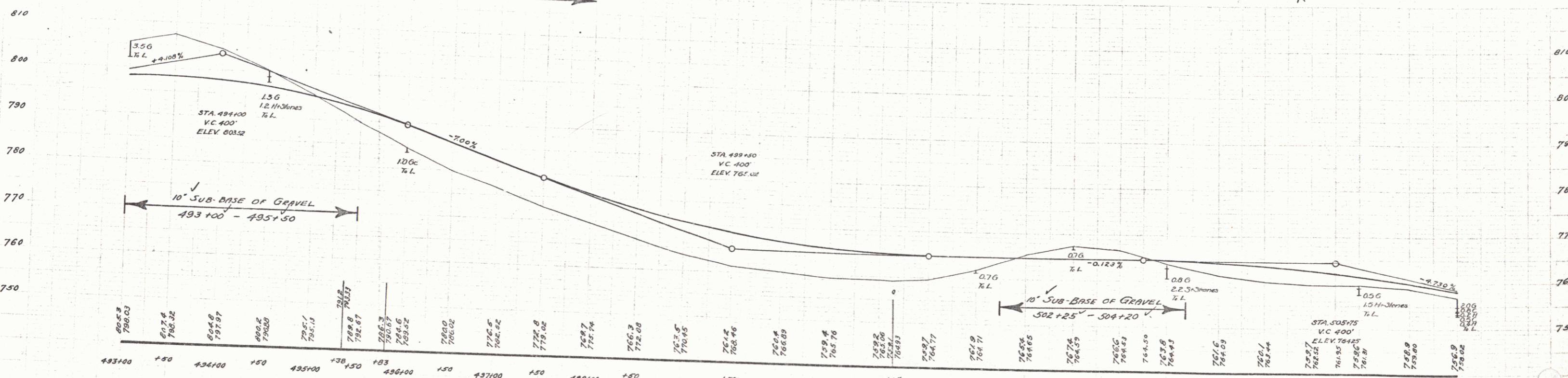
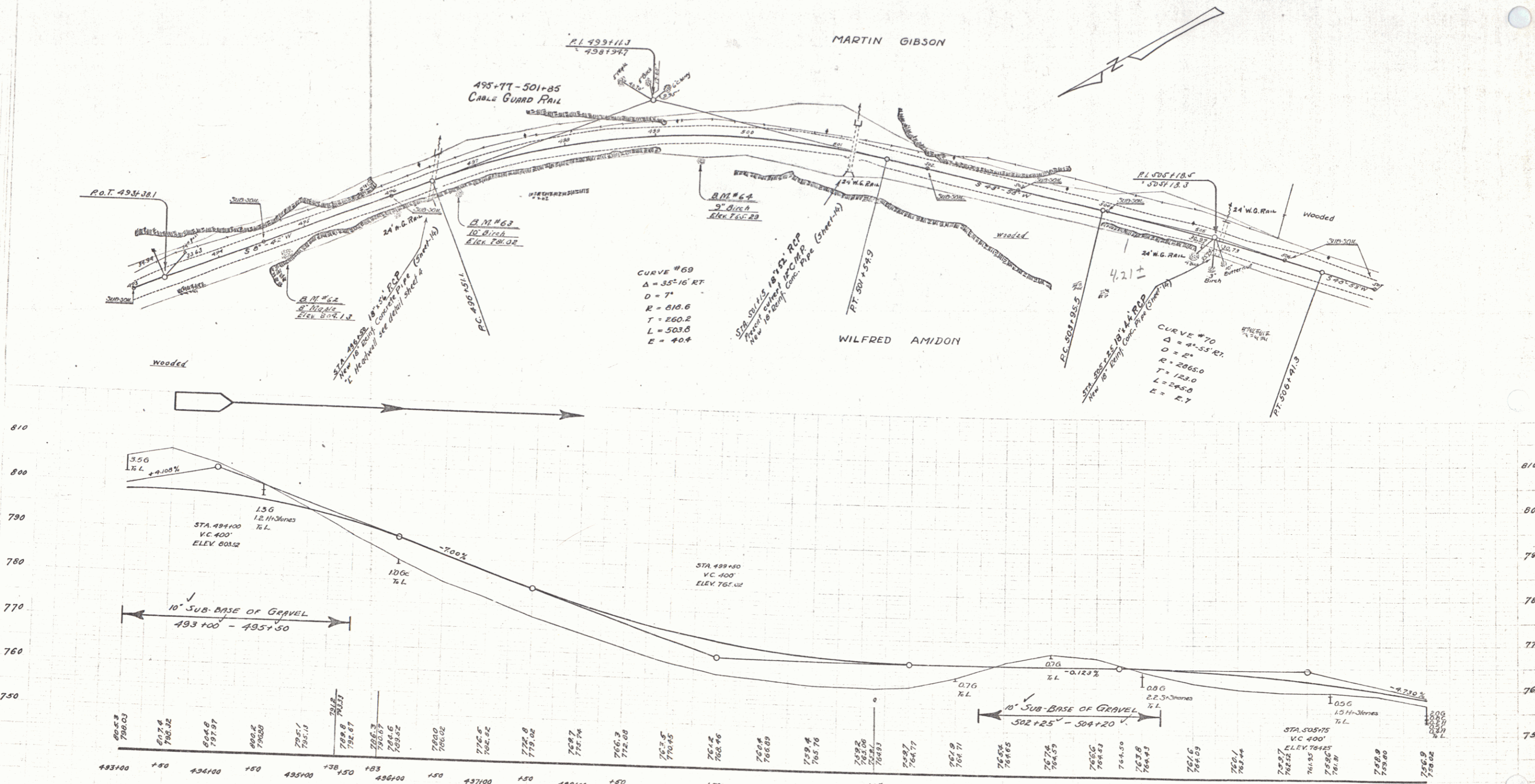
STATIONS	LEFT	RIGHT
495+77	+85	608

**NEW CONC. PIPE CULVERTS REQUIRED**

STATION	DIAM.	LENGTH	CONCRETE	BRICK	STEEL
495+50	10"	24'	3.2	0	0
501+15	10"	32'	3.2	0	0
505+25	10"	40'	3.2	0	0

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 DIVISION OF HIGHWAYS  
 PROJECT NO. 120A  
 SHEET NO. 62

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BM #62 SPIKE IN ROOT OF 8" MAPLE 20 FT. RT. OF STA 494+66 ELEV. 804.13  
 BM #63 SPIKE IN ROOT OF 10" YELLOW BIRCH 24 FT. RT. OF STA 496+74 ELEV. 781.02  
 BM #64 SPIKE IN ROOT OF 8" YELLOW BIRCH 20 FT. RT. OF STA 499+47 ELEV. 765.29

SERIES F No. 120A  
 SHEET 6 OF 62

6

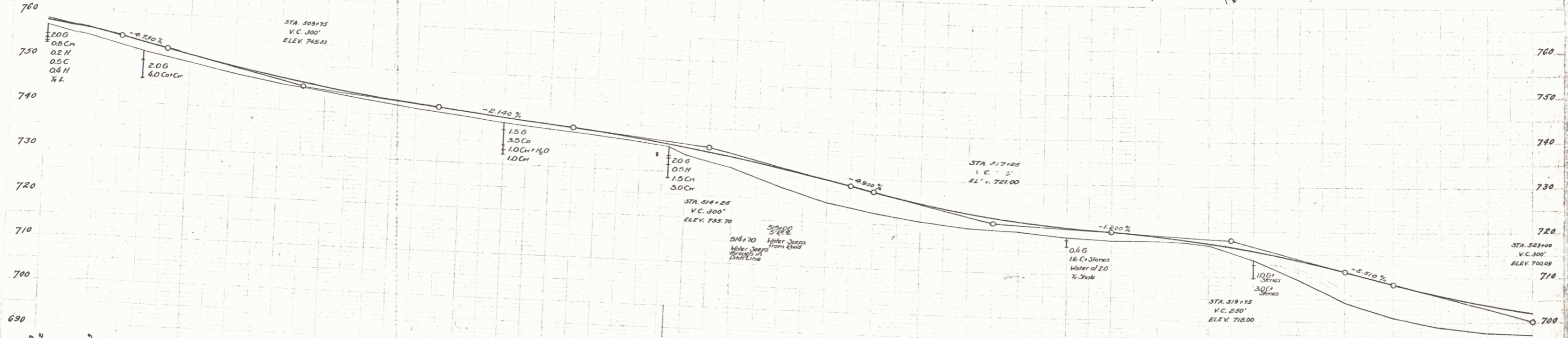
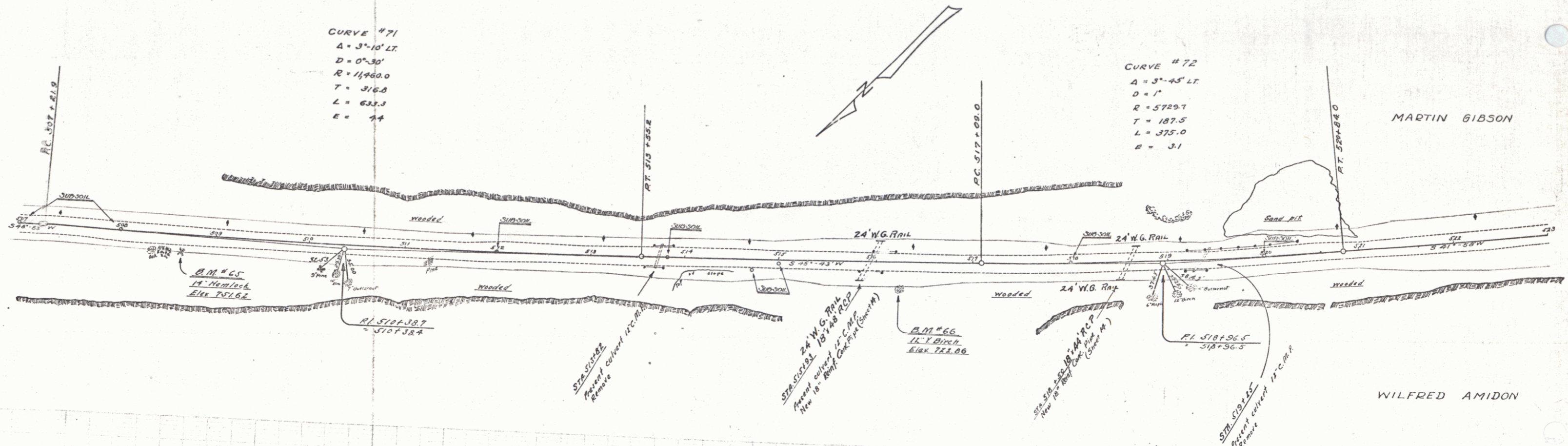
WOOD GUARD RAIL REQUIRED  
 CULVERT STATIONS LEFT RIGHT  
 515 + 03' 24' 24'  
 518 + 50' 24' 24'

NEW RINK CONG. PIPE CULVERTS REQUIRED  
 STATIONS DIAM. LENGTH CONC. CORR. STEEL  
 515 + 55' 18" 48' - 3.420 32.00 31  
 518 + 50' 18" 44' - 3.420 32.00 31

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 120-A 1930 9 82

CURVE #71  
 $\Delta = 3^{\circ}10' \text{ LT.}$   
 $D = 0^{\circ}30'$   
 $R = 11400.0$   
 $T = 316.8$   
 $L = 623.3$   
 $E = 44$

CURVE #72  
 $\Delta = 3^{\circ}45' \text{ LT.}$   
 $D = 1^{\circ}$   
 $R = 5729.7$   
 $T = 187.5$   
 $L = 375.0$   
 $E = 31$



507+00	507+25	507+50	507+75	508+00	508+25	508+50	508+75	509+00	509+25	509+50	509+75	510+00	510+25	510+50	510+75	511+00	511+25	511+50	511+75	512+00	512+25	512+50	512+75	513+00	513+25	513+50	513+75	514+00	514+25	514+50	514+75	515+00	515+25	515+50	515+75	516+00	516+25	516+50	516+75	517+00	517+25	517+50	517+75	518+00	518+25	518+50	518+75	519+00	519+25	519+50	519+75	520+00	520+25	520+50	520+75	521+00	521+25	521+50	521+75	522+00	522+25	522+50	522+75	523+00
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BM #65 SPIKE IN 14" HEMLOCK 187 FT. RT. OF STA. 508+65 ELEV. 751.62  
 BM #66 SPIKE IN 12" YELLOW BIRCH 271 FT. RT. OF STA. 516+24 ELEV. 722.06

SERIES No. 120A  
 SHEET 9 OF 52

**WOOD GUARD RAIL REQUIRED**

CANCEL STATIONS	LEFT	RIGHT
523+60	24'	24'
530+50	24'	24'
534+60	24'	24'
536+00	24'	24'

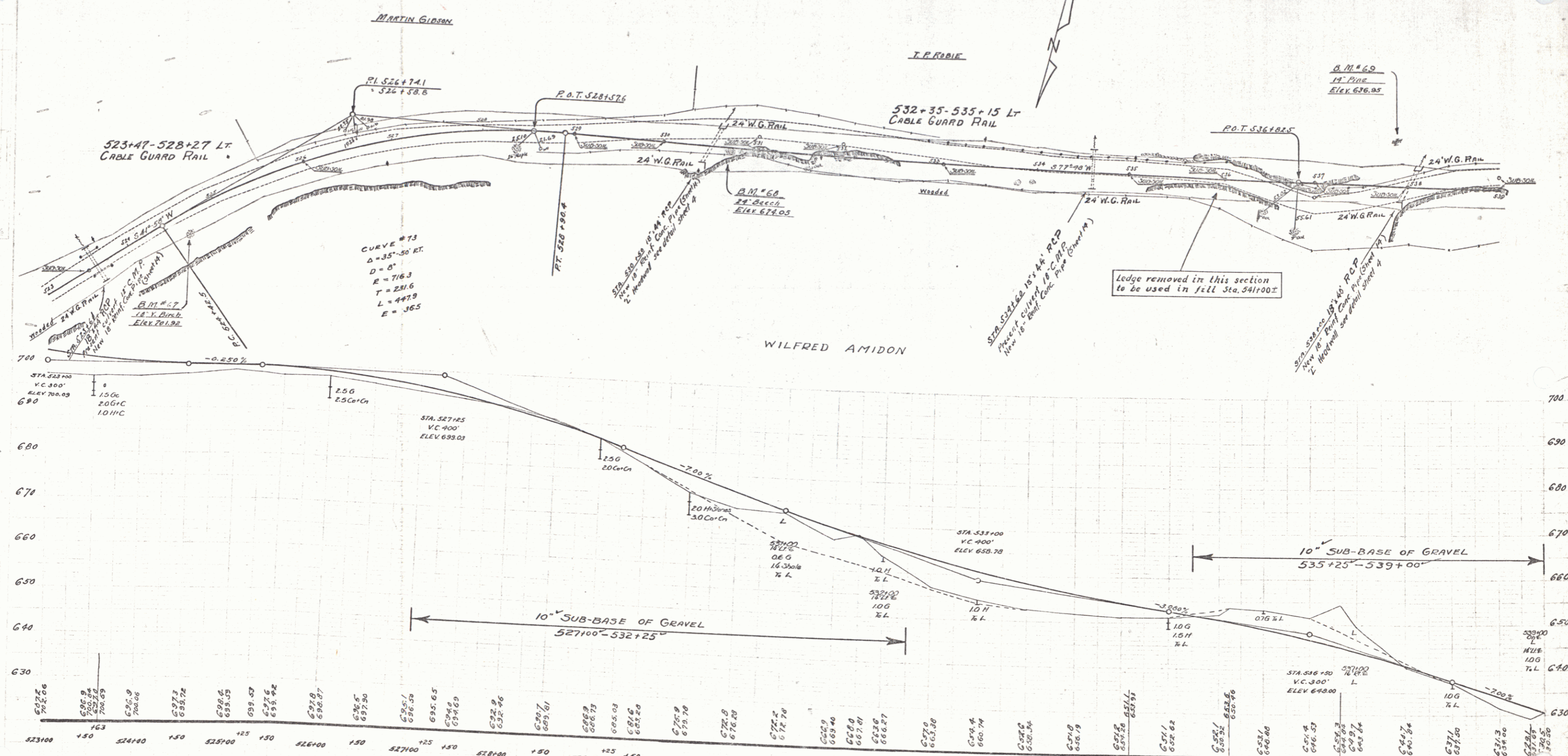
**CABLE GUARD RAIL REQUIRED**

STATIONS	LEFT	RIGHT
Approach to 523+60	24'	24'
523+47 to 528+27	48'	-

**NEW REIN. CONC PIPE CULVERTS REQUIRED**

STATIONS	DIAM	LENGTH	CHUTE A	CHUTE C	CHUTE D
523+47	18"	44'	12'	12'	12'
530+50	18"	44'	12'	12'	12'
534+60	18"	44'	12'	12'	12'
536+00	18"	44'	12'	12'	12'

120-A 1930 10 52



BM #67 SPIKE IN 18" YELLOW BIRCH 21' RT. OF STA. 524+60  
 ELEV. 701.92  
 BM #68 SPIKE IN 24" BEECH 4' RT. OF STA. 530+74  
 ELEV. 674.05  
 BM #69 SPIKE IN ROOT OF 18" WHITE PINE 30' RT. 537+86  
 ELEV. 636.95

SERIES F No 120-A  
 SHEET 10 OF 52

**WOOD GUARD RAIL REQUIRED**

CULVERT STATIONS	LEFT	RIGHT
540+20	44	24

**CABLE GUARD RAIL REQUIRED**

STATIONS	LEFT	RIGHT
540+20 TO 542+15	192	192

**NEW BEING CONK PIPE CULVERTS REQUIRED**

STATIONS	DIAM.	LENGTH	NO. OF	NO. OF	NO. OF
541+00	48"	60'	1	1	1
542+20	18"	48'	2	2	2
542+25	18"	20'	1	1	1
542+00	18"	48'	2	2	2

**NEW VITRIFIED CLAY PIPE REQUIRED**

STATIONS	DIAM.	LENGTH	NO. OF
542+20 TO 542+25	18"	5'	1
542+25 TO 542+30	18"	5'	1

**CONCRETE CURB & GUTTER REQUIRED**

STATIONS	LEFT	RIGHT
542+20 TO 542+25	40'	40'
542+25 TO 542+30	40'	40'

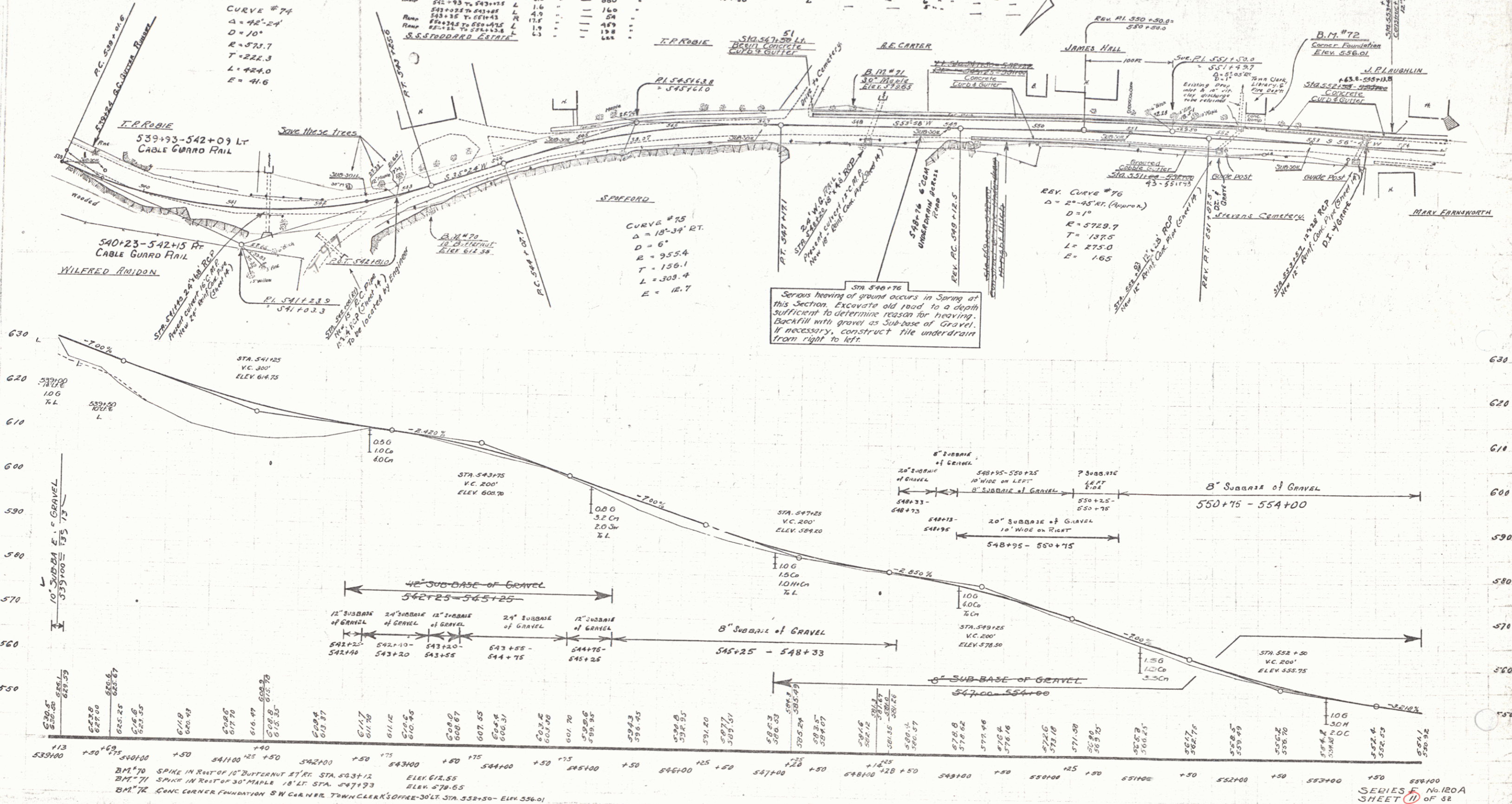
**REQUIRED CABLE GUTTER REQUIRED**

STATIONS	LEFT	RIGHT
542+20 TO 542+25	40'	40'
542+25 TO 542+30	40'	40'

**CURVE #74**  
 $\Delta = 42^\circ 24'$   
 $D = 10'$   
 $R = 571.7$   
 $T = 222.3$   
 $L = 424.0$   
 $E = 41.6$

**CURVE #75**  
 $\Delta = 10^\circ 34' RT.$   
 $D = 6'$   
 $R = 955.4$   
 $T = 156.1$   
 $L = 309.4$   
 $E = 12.7$

542+76  
 Serious heaving of ground occurs in Spring at this section. Excavate old road to a depth sufficient to determine reason for heaving. Backfill with gravel as Sub-base of Gravel. If necessary, construct the underdrain from right to left.





**WOOD GUARD RAIL REQUIRED**

COLLECT STATION	LEFT	RIGHT
572+00		

**CABLE GUARD RAIL REQUIRED**

STATION	LEFT	RIGHT
572+00		

**NEW REIN CONC PIPE CULVERTS REQUIRED**

STATIONS	DIAM	LENGTH	CONC A	CONC C	REIN STEEL	PIECES
573+10	10"	80'	3.1	1.7	112	1

**CONCRETE RETAINING WALL REQUIRED**

STATIONS	LEFT	RIGHT
572+00		

FEED NO.	STATION	FEED NO.	FEED NO.	SHEET	TOTAL SHEETS
3	120-A	130	130	1	12

