

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	121-A	1930	1	57

INDEX OF SHEETS

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" 3	DETAILS OF CONSTRUCTION
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22	STA 28+65 10x4 BOX CULVERT
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34-57	CROSS SECTIONS

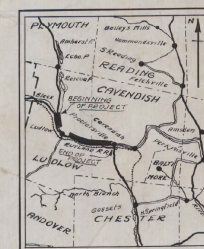
STATE OF VERMONT STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

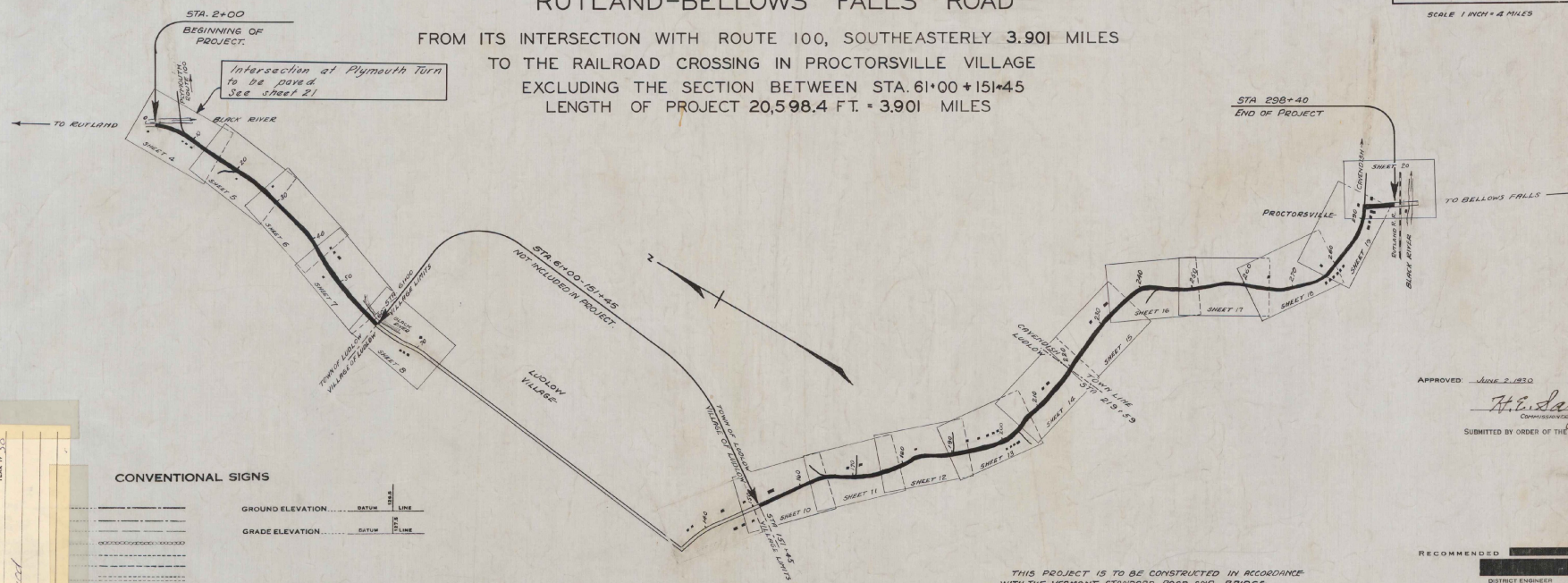
FEDERAL AID PROJECT

TOWNS OF LUDLOW - CAVENDISH
RUTLAND-BELLOWS FALLS ROAD

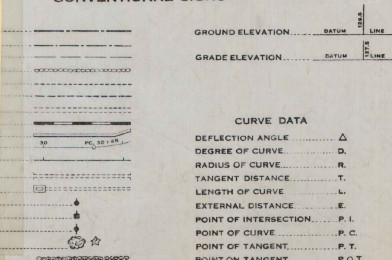
FROM ITS INTERSECTION WITH ROUTE 100, SOUTHEASTERLY 3.901 MILES
TO THE RAILROAD CROSSING IN PROCTORSVILLE VILLAGE
EXCLUDING THE SECTION BETWEEN STA. 61+00 + 151+45
LENGTH OF PROJECT 20,598.4 FT. = 3.901 MILES



SCALE 1 INCH = 4 MILES



CONVENTIONAL SIGNS



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.

SCALE: 1 IN. = 1000 FT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE
WITH THE VERMONT STANDARD ROAD AND BRIDGE
SPECIFICATIONS FOR 1930.
THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY
BE REQUIRED BY THE COMMISSIONER OF HIGHWAYS.

APPROVED - JUNE 2, 1930

H. E. Sargent
Commissioner of Highways

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

RECOMMENDED

DISTRICT ENGINEER

RECOMMENDED FOR APPROVAL

CHIEF ENGINEER

APPROVED

DIRECTOR - BUREAU OF PUBLIC ROADS

SERIES F. NO. 121-A FILED
SHEET 1 OF 57

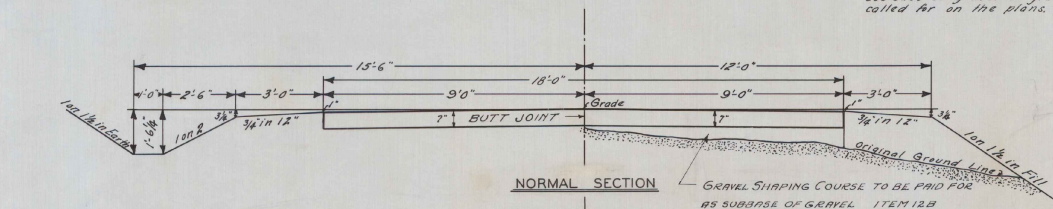
TYPICAL SECTIONS

ONE COURSE CEMENT CONCRETE PAVEMENT

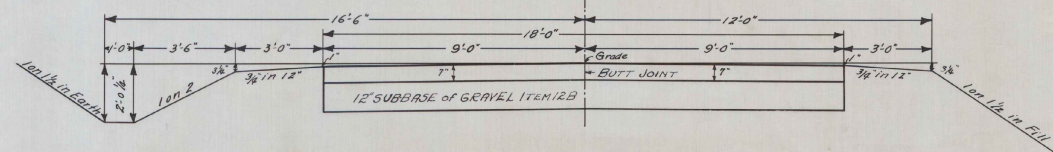
The intent of the sub-sail boring data as noted on the layout is to show the sub-sail conditions only of the point where the boring was taken, and is no exact indication of surrounding sub-sail conditions.

The common excavation, including rock, as encountered on the project unless otherwise ordered by the Engineer, is to be used in the formation of embankments outside of the pavement widths and also is not to be used for shoulder construction. Approved borrow is to be used for fill under pavement and for shoulder construction over the entire project except at those locations where sub-base of gravel or gravel shoulders are called for on the plans.

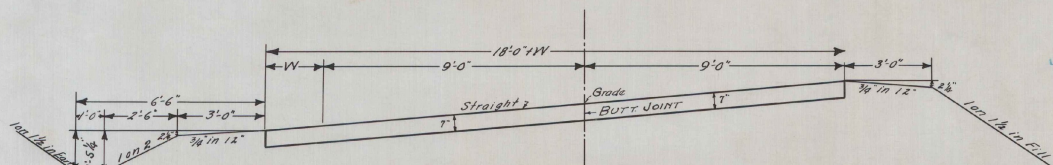
- A minimum thickness of 10" of sub-base of gravel shall be used under pavement through rock cuts. This sub-base to be extended 30 feet beyond each end of rock section.
- Through rock cuts one or two mat slabs are to be used in order to control cracking in the slab. A construction joint is to be placed at each end of the rock cut.
- Corrugated metal pipes from under roadway if in serviceable condition as determined by the Engineer, are to be used as far as possible at driveways, instead of new corrugated metal pipe called for on the Plans, and are to be paid for under the item of RELAYING PIPE CULVERTS.
- The attention of the Engineer is called to the use of sub-base of gravel under culverts and the backfilling of the culvert trench with gravel at such locations as indicated on cross-sections and at such other culverts as the Engineer may deem advisable.



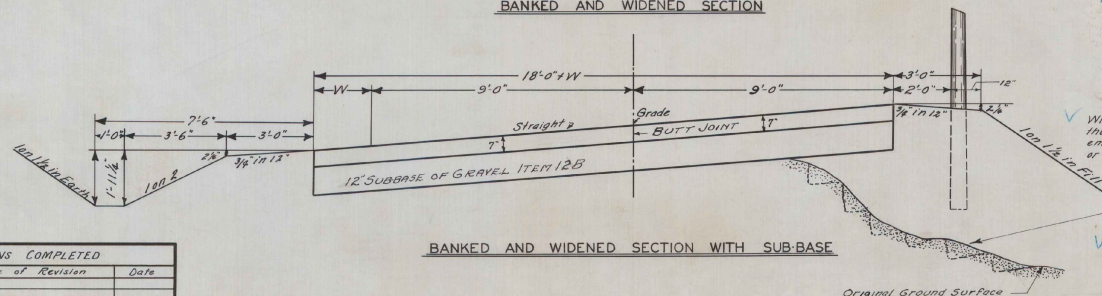
NORMAL SECTION



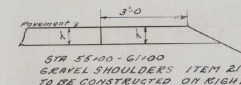
NORMAL SECTION WITH SUB-BASE



BANKED AND WIDENED SECTION



BANKED AND WIDENED SECTION WITH SUB-BASE

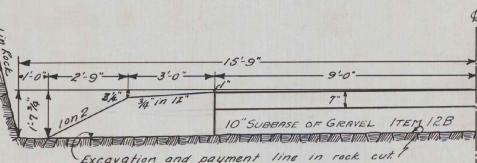


All borrow banks shall be stripped to the satisfaction of the Engineer.

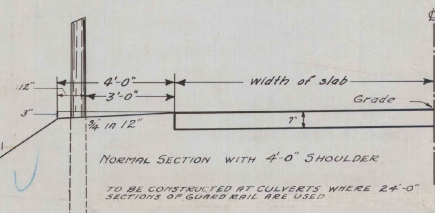
- Driveways to be constructed so as to provide satisfactory approaches to pavement at locations shown on cross-sections or as may be directed by the Engineer.
- FIVE MAT slab are to be used except as noted otherwise.

When embankments are to be made on a hillside, the slope of the original ground on which the embankment is to be made, shall be deeply plowed or cut into steps before filling is commenced. See Pamphlet 8-Item 10- Paragraph 10.3

The attention of the Engineer is called to the removal of SOI

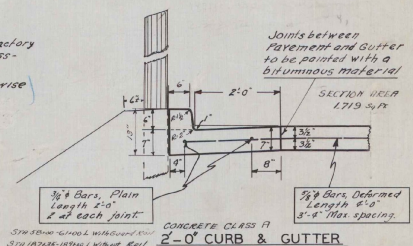


NORMAL ROCK SECTION



NORMAL SECTION WITH 4'-0" SHOULDER

TO BE CONSTRUCTED AT CULVERTS WHERE 24'-0" SECTIONS OF GUARD RAIL ARE USED



Joints between pavement and gutter to be pointed with a bituminous material.
 Joints in curb and gutter not to exceed 8'0" apart. Permitted bituminous expansion joint filler, 3/4" thick, to be placed after every 50' section. Remaining joints to be either butt joints pointed with bituminous material, or cut plate joints.

PLANS COMPLETED		
No.	Nature of Revision	Date

ITEMS	IN SQUARE FEET	IN CUBIC FEET
PAVEMENT	10.50	11.67
10" SUB-BASE OF GRAVEL	18.00	18.67
12" " " "	18.00	20.00

Surveyed by C.E. Purnham
 Designed by A.J. Reynolds
 Drawn by H.H. Sells
 Traced by H.H. Sells
 Checked by
 Series F No. 121-A Filed
 Sheet 2 of 57 Sheets

<u>CABLE GUARD RAIL REQUIRED</u>		
<u>STATIONS</u>	<u>LEFT</u>	<u>RIGHT</u>
5+90 TO 6+70 'BLINE 240'		—
6+70 8' LINE TO 11+50	480'	
10+76 TO 11+24		48
<u>WOOD GUIDE POSTS REQUIRED</u>		
<u>CULV. STA</u>	<u>LT</u>	<u>RT</u>
6+92		1
8+16		1
8+83	—	1

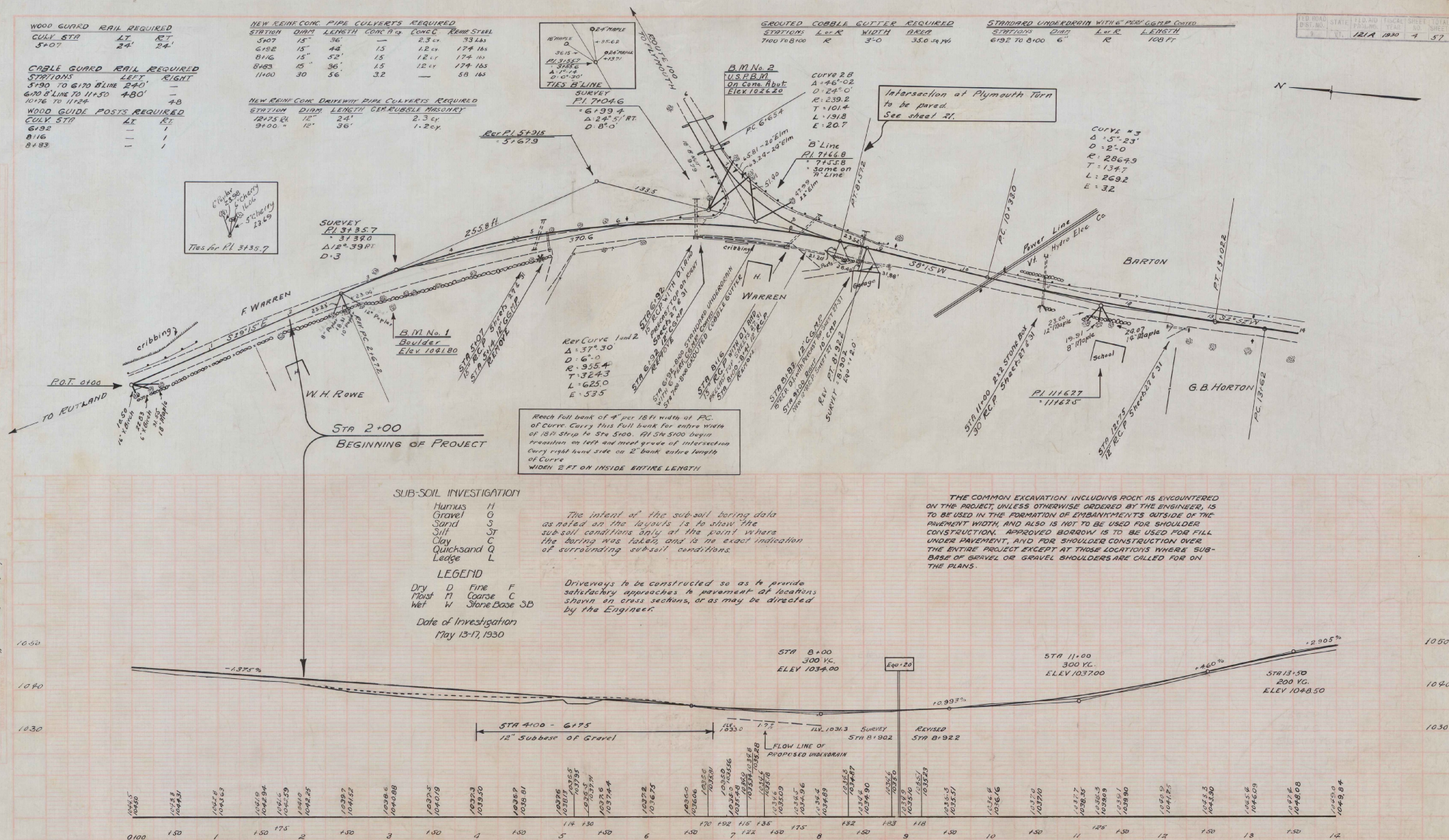
NEW REINF CONC. PIPE CULVERTS REQUIRED					
STATION	DIM	LENGTH	CONC A.C.	CONC.	REINF STEEL
5107	15"	36'	—	2.3 cy	33 lbs
6152	15"	42'	1.5	12 cy	174 lbs
8116	15"	52'	1.5	12 cy	174 lbs
8453	15"	36'	1.5	12 cy	174 lbs
11400	30"	56'	3.2		58 lbs

NEW REINFORCED DRIVEWAY PIPE CULVERTS REQUIRED			
STATION	DIAM.	LENGTH	GEN. RUBBLE MASONRY
12175 RL	12"	24'	2.3 cy.
9+00 "	12"	36'	1.2 cy.

GROUTED COBBLE GUTTER REQUIRED			
STATIONS	L or R	WIDTH	AREA
7100 To 8100	R	3'-0	35.0 sq yd

STANDARD UNDERDRAIN WITH 6" PERF GGP COATED			
STATIONS	DIA	L or R	LENGTH
6+92 TO 8+00	6"	R	108 FT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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B.M. No. 1 - Point on boulder, 25' Rt. of Sta. 3418. Elev. 1041.80

B.M. No. 2 - U.S.P.B.M. on south-westerly wing at bridge. Elev. 1026.20

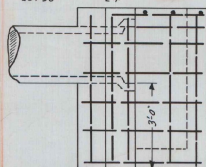
SERIES F No. 121-A
SHEET 4 OF 57

WOOD GUARD RAIL REQUIRED		
COLL STA	LEFT	RIGHT
16+12.5	24'	24'
20+90	24'	24'

CABLE GUARD RAIL REQUIRED		
STATIONS	LEFT	RIGHT
12+25.75-13+50	18'	—

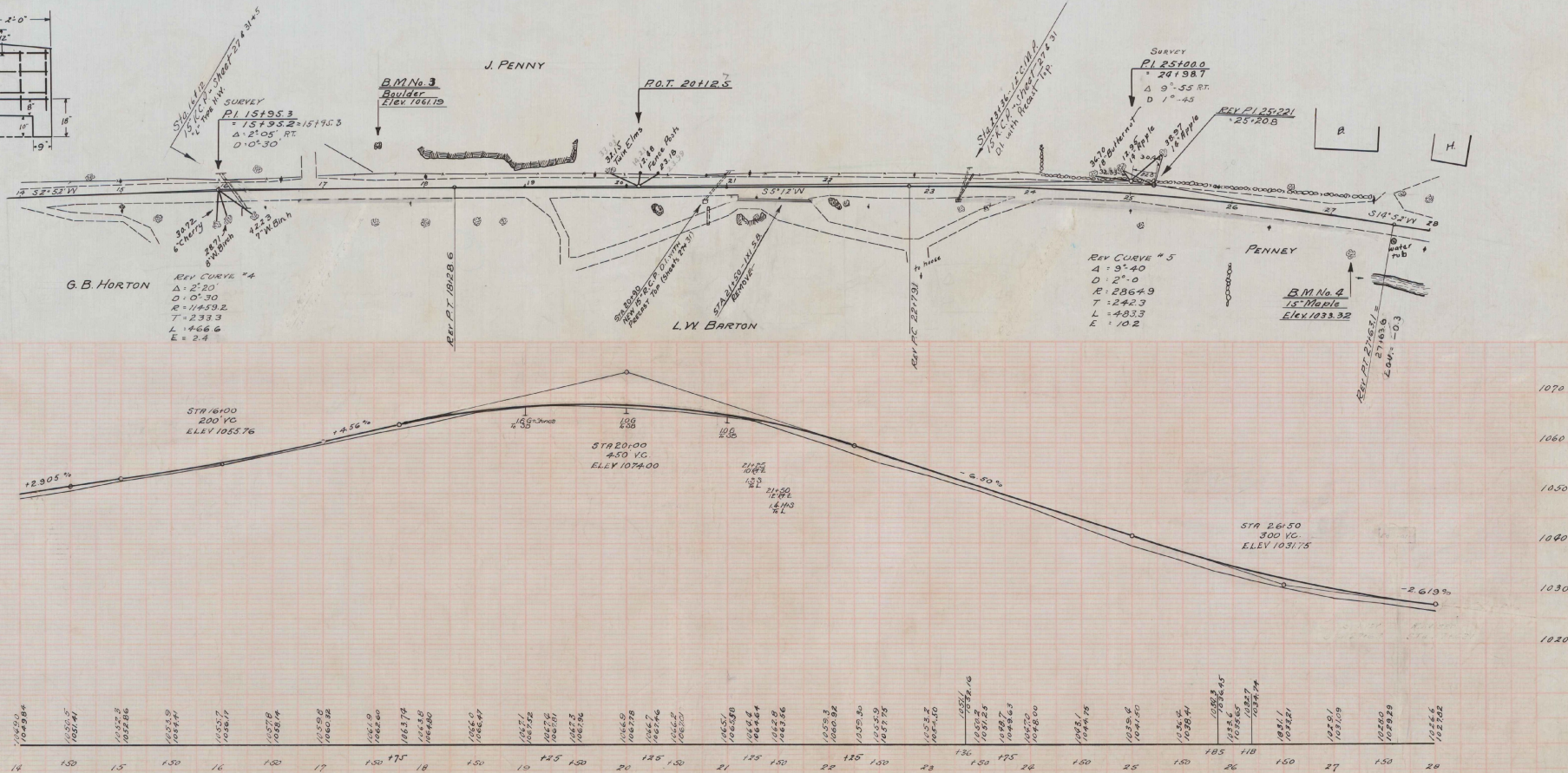
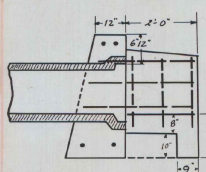
WOOD GUIDE POSTS REQUIRED		
COLL STA	LEFT	RIGHT
23+36	—	1
20+90	—	1

NEW REIN CONC PIPE CULVERTS REQUIRED					
STATION	DIAM	LENGTH	CONC. A	CONC. C	REIN. STEEL
16+12	15"	44'	19 cy	12 cy	92 lb.
23+36	15"	40'	15 cy	12 cy	174 "
20+90	15"	36'	15 cy	12 cy	174 "



DETAIL OF - L-TYPE HEADWALL

Concrete Class A
All Reint Steel to be $\frac{3}{8}$ " dia. bars, 12" R
Quantities for 18' Pipes
Conc Class A: 1.9 cy
Reint steel: 25 lbs.



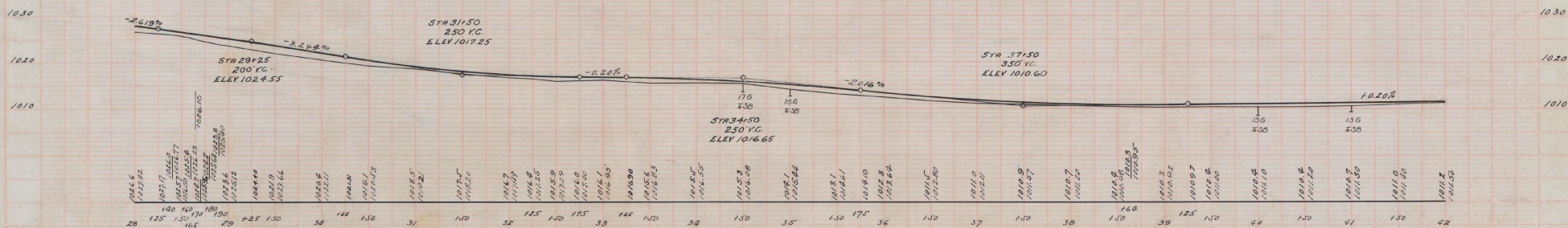
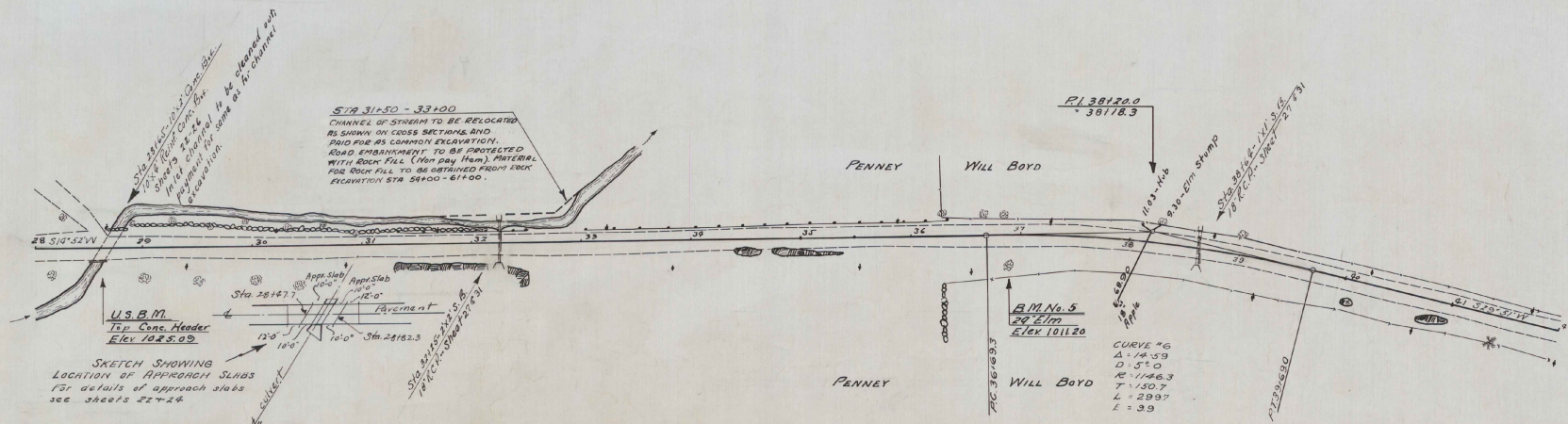
B.M. No. 3 - Boulder, 40' left of Sta 17+54. Elev 1061.19
B.M. No. 4 - Spike in root of 15' Maple, 32' right of Sta 27+24. Elev 1033.32

WOOD GUARD RAIL REQUIRED	
STATION	RIGHT
32+25	24'
32+64	24'

CABLE GUARD RAIL REQUIRED	
STATION	RIGHT
28+17 to 28+89	48'
31+00 to 32+64	184'

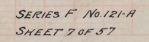
NEW RAIN CONC PIPE CULVERTS REQUIRED				
STATION	DIM	LENGTH	CODE	CONC C
32+25	18"	36'	18-2	54.145
32+64	18"	32'	18-2	54.145

ED. ROAD	STATE	FILE NO.	YEAR	SHEET NO.	TOTAL SHEETS
	VI	121A	1930	6	37



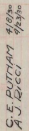
U.S.B.M. - On conc. header, 11' right of Sta. 28+17. Elev 1025.00
 B.M. No. 5 - Spike in root of Sta. 36+190. Elev 1011.20

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
9	VT.	1214	1930	7	52

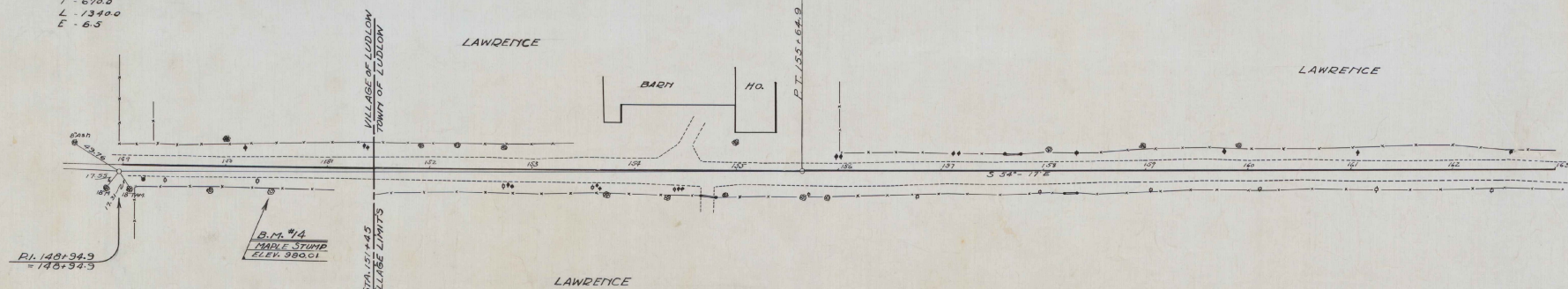


STATION	LEN	WID	QTY
66+75-67+00	L	3'0"	25'
			9.34 Yds

SERIES F No. 121-R
SHEET 8 OF 57

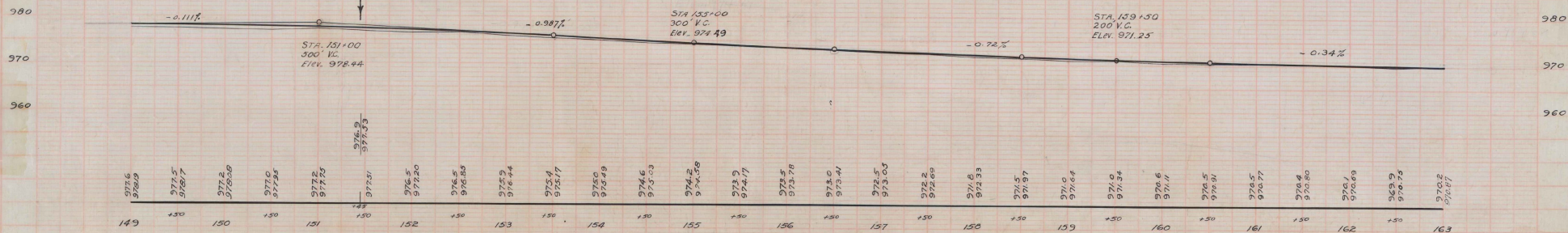


CURVE #23
 Δ - 2° 4'
 D - 0° 10'
 R - 34.3775
 T - 670.0
 L - 1340.0
 E - 6.5



STA 151+45
 END OF SECTION 2
 OF LUDLOW VILLAGE PROJECT

STA 151+45
 BEGINNING OF SECTION 2
 OF F.R.P. 121-A



B.M. #14 36" MAPLE STUMP 21' RIGHT OF STA 150+44 ELEV. 980.01

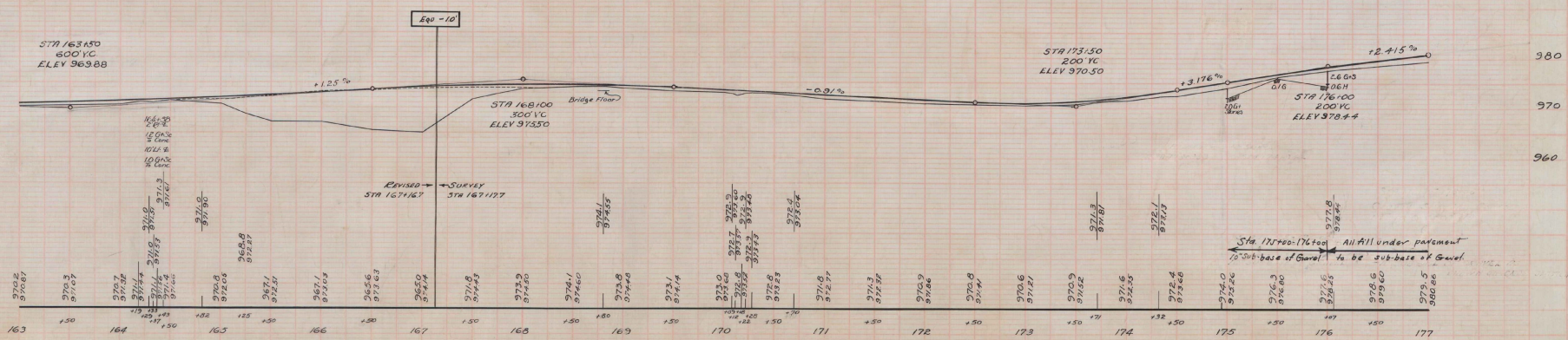
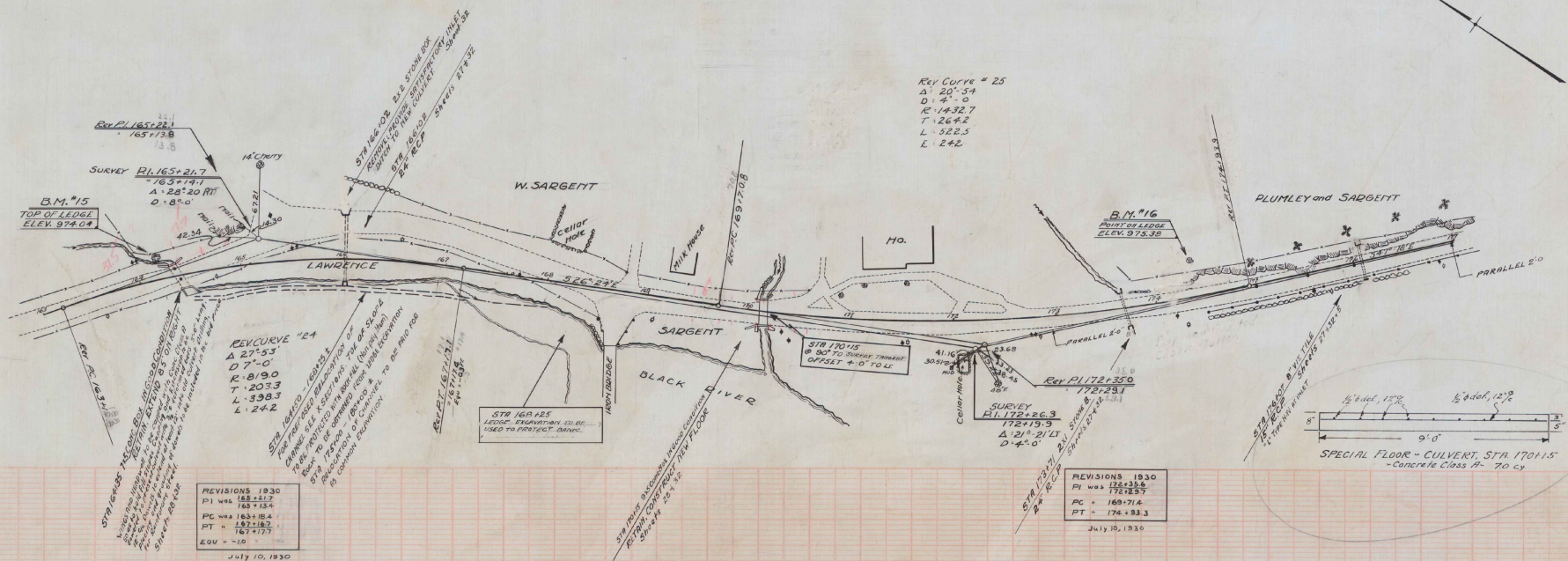
WOOD GURED RAIL REQUIRED		
CULV. STA.	LEFT	RIGHT
166+02	24'	—
175+71	24'	24'
176+07	24'	—

CARBIL GURED RAIL REQUIRED		
STATIONS	LEFT	RIGHT
164+23 - 164+47	24'	—
164+23 - 168+23	—	24'
170+53 - 170+57	26'	36'
175+25 - 177+00	—	175'

NEW KEINT CONC PIPE CULVERTS REQUIRED						
CULV. STA.	DIAM.	LENGTH	CONC. B	CONC. C	KEINT STEEL	
166+02	24"	64'	24"	—	54' 1/2"	
173+71	24"	40'	24"	—	54' 1/2"	
176+07	15"	36'	13 1/2"	12 1/2"	32' 1/2"	

CULVERT REPAIRS REQUIRED		
CULV. STA.	CONC. B	KEINT STEEL
164+35	12.5' 1/2"	0' 13' 1/2"
170+15	9' 0"	500 lbs.

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VI	VI	121A	1930	71	57



B.M. #15 TOP OF LEDGE AT BRIDGE 33' LEFT OF STR 164+17 ELEV 974.08
 B.M. #16 POINT ON LEDGE 36' LEFT OF STR 174+40 ELEV 973.38

WOOD GUARD RAIL REQUIRED
CULV. STD. LEFT RIGHT
183+00 — 24' —

WOOD GUIDE POSTS REQUIRED
CULV. STD. LEFT RIGHT
183+00 — 1 —

CARL GUARD RAIL REQUIRED
STATIONS LEFT RIGHT
179+00 - 178+25 153
179+50 - 185+25 576

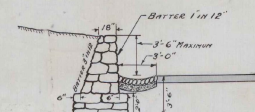
CONC. CURVED AND GUTTER REQUIRED
STATIONS LEFT RIGHT
188+00 - 180+00 200'
188+31 - 188+29 48' —

GROUTED COBBLE GUTTER REQUIRED
STATIONS LEFT WIDTH
186+00 - 187+35 L 45' 4" W 3'-0"
180+25 - 181+00 R 3'-0" W 3'-0"
181+25 - 181+75 L 4'-0" W 3'-0"
183+00 - 184+25 L 3'-0" W 3'-0"

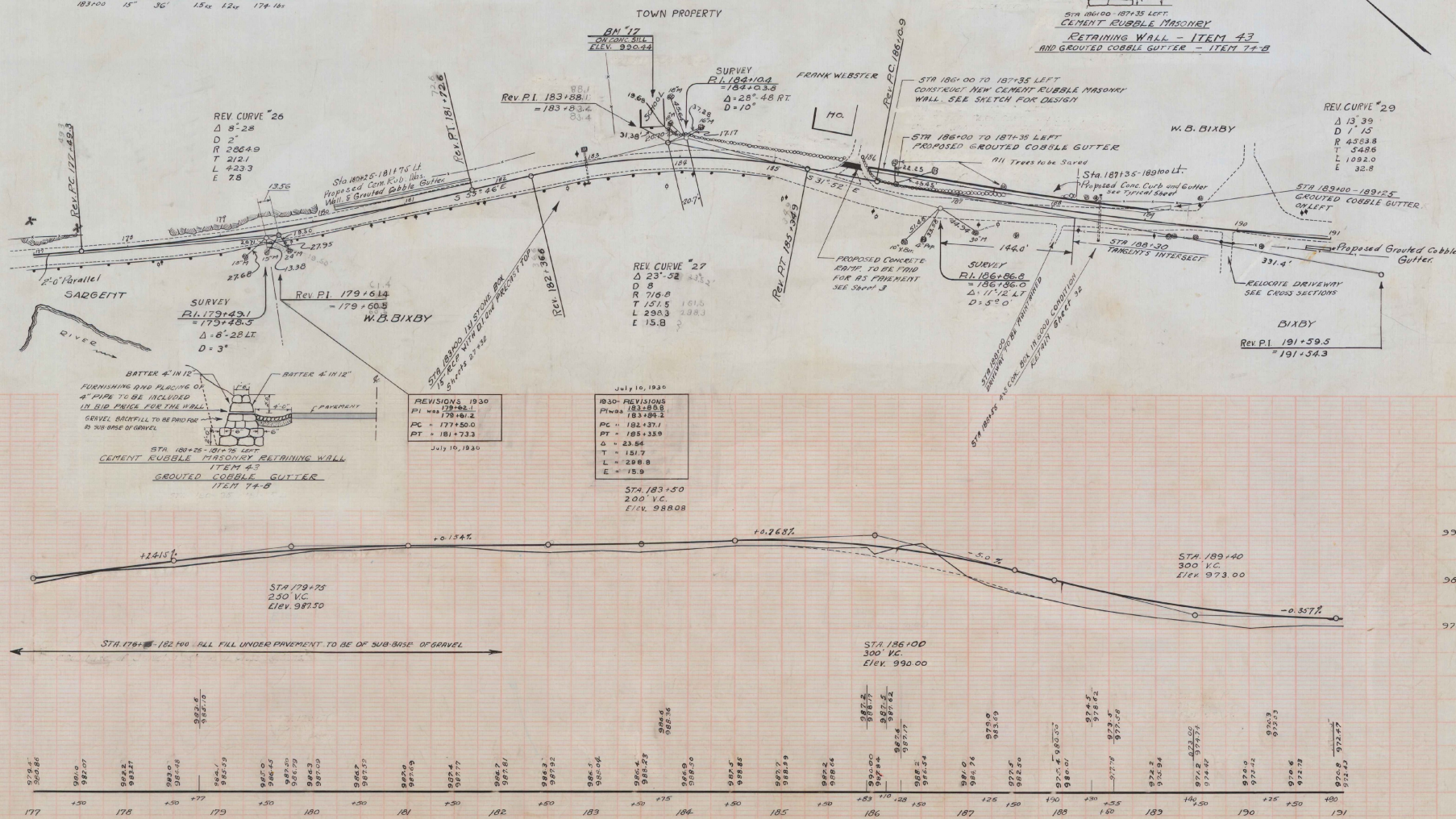
CEMENT RUBBLE MASONRY RETAINING WALL
STATIONS LENGTH MASONRY
186+00 BT+35 (L 135' 90 c.f.
181+25 - 181+75 (L 150' 100 c.f.)

RAW KIRK CONG. PIPE CULVERTS REQUIRED
EVALUATE ROPS LENGTH CULV. CHUCKS CONG. STEEL
183+00 15' 30' 184' 12' 174' 10'

STATE PROJECT NO. YEAR NO. SHEETS
VT. 121-A 1930 12 57



STA 186+00 - 187+35 LEFT
CEMENT RUBBLE MASONRY
RETAINING WALL - ITEM 4.3
AND GROUTED COBBLE GUTTER - ITEM 7.4-B



BY M 17 SPOT IN CONG. WINDOW SILL AT SCHOOL 31.5' LEFT STA 183+73 ELEV. 990.44

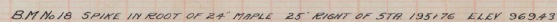
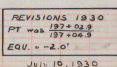
<u>WOOD GUIDE POSTS REQUIRED</u>		
CULV. STA	LEFT	RIGHT
203+30	1	—
195+35	1	—

NEW REINF CONC PIPE CULVERTS REQUIRED					
CULK STM	DIAM	LENGTH	Conc A	Conc C	REINF STEEL GRATE
203+30	18"	60'	2.9 cy	1.5 cy	165
195+35	18"	40'	1.6	1.5	73

<u>GRAOUTED COBBLE GUTTER REQUIRED</u>				
<u>STATIONS</u>	<u>L or R</u>	<u>WIDTH</u>	<u>LENGTH</u>	<u>AREA</u>
204+00-205+00	L	3'-0"	100'	33 sq. yds.

CONCRETE CURB AND GUTTER REQUIRED				
STATIONS	L or R	WIDTH	Conc. R.	Steel
203+00 - 209+00	Lt.	2'-0"	6.4c.y.	180#

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GROUTED COBBLE GUTTER REQUIRED				
STATIONS	L or R	LENGTH	WIDTH	AREA
203+00-207+00	L	200'	3'-0"	67 sq. ft.
217+75-220+25	R	250'	3'-0"	84 sq. ft.

STA 211+00
200' V.C.
Elev 967.50

1.317%

220' V.C.

200' V.C.

1.052%

1.33%

STA 214+00
400' V.C.
Elev 971.50

1.615%

330' Jump

STA 220+50
250' V.C.
Elev 961.00

330' Jump

STA 207+00
200' V.C.
Elev 967.19

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BM No 19 SPIKE IN ROOT OF 20" MAPLE AT SIDE ROAD 19' LEFT OF STA 208+62 ELEV 968.07

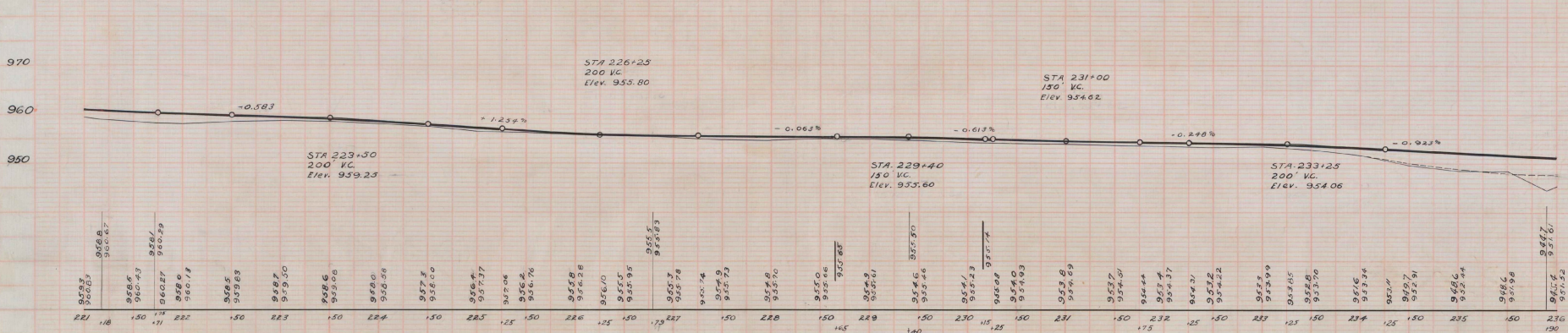
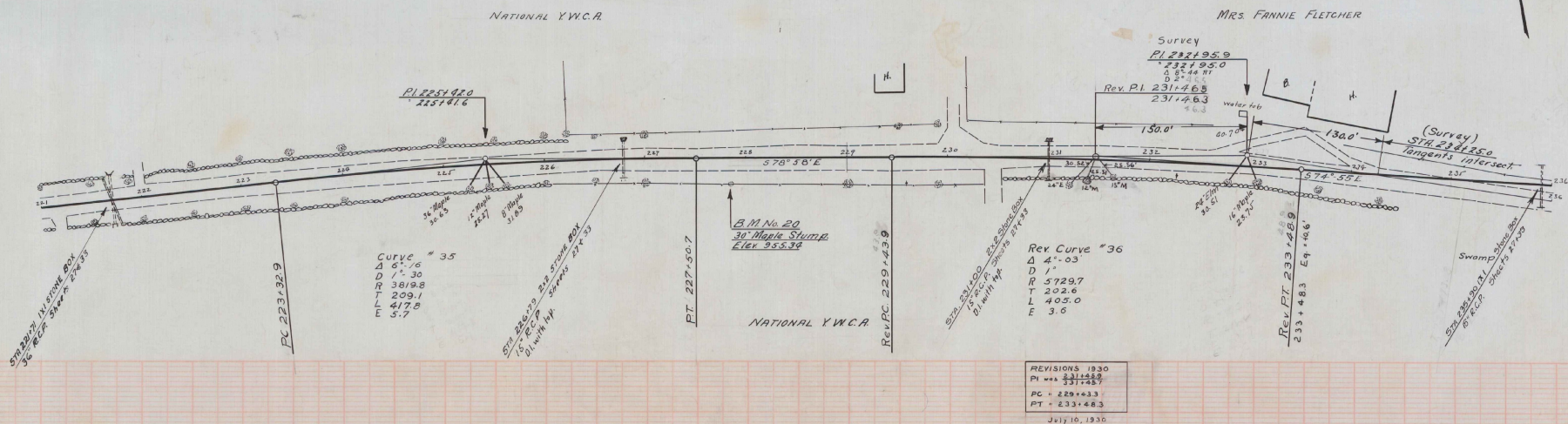
WOOD GUARD RAIL REQUIRED		
CULVERT	LEFT	RIGHT
226+79	—	24'
231+00	—	24'
235+90	24'	24'

WOOD GUIDE POSTS REQUIRED		
CULVERT	LEFT	RIGHT
226+79	1	—
231+00	1	—

CABLE GUARD RAIL REQUIRED		
STATIONS	LEFT	RIGHT
221+47 - 221+95	48'	48'

NEW REIN. CONC. PIPE CULVERTS REQUIRED					
CULVERT	DIAM.	LENGTH	CONC.	REIN. STEEL	
221+71	36"	45'	4.0 cu.	53 lbs.	
226+79	15"	32'	1.5 cu.	174 lbs.	
231+00	15"	40'	1.5 cu.	174 lbs.	
235+90	18"	40'	—	3.0 cu.	33 lbs.

DATE	BY	CHKD	APP'D	DATE	BY	CHKD	APP'D
12/12/30	12/12/30	12/12/30	12/12/30	12/12/30	12/12/30	12/12/30	12/12/30



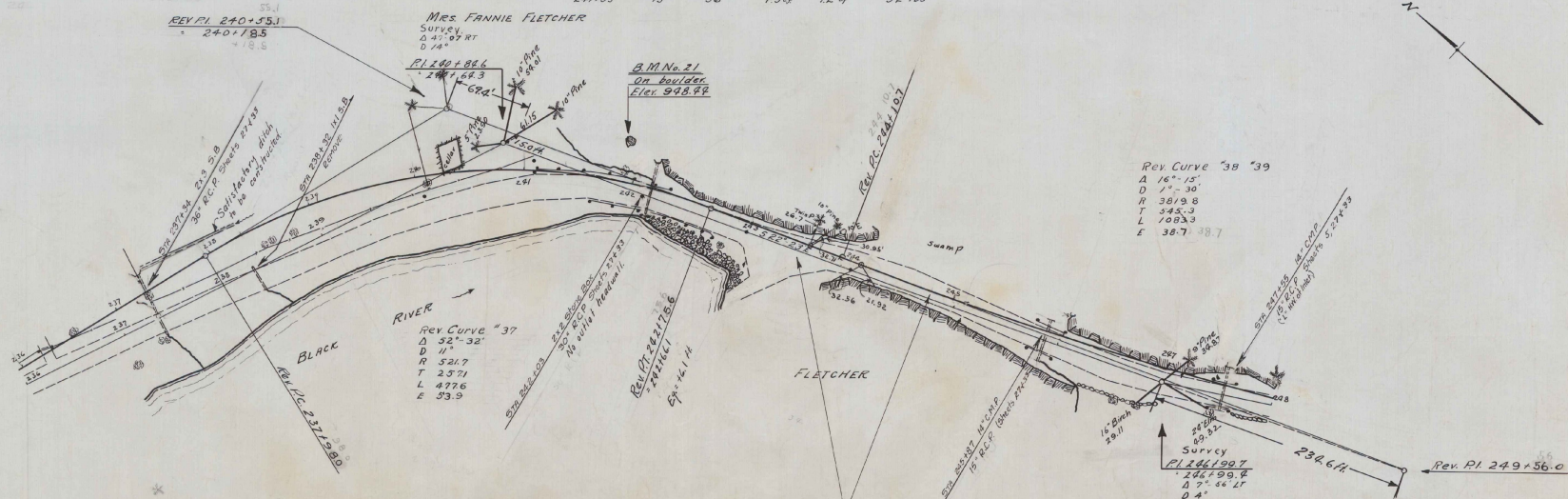
B.M. No. 20 SPIKE IN 30' MAPLE STUMP 23' RIGHT OF STA 227+85 ELEV. 955.34

WOOD GURED RAIL REQUIRED		
CULV. STA.	LEFT	RIGHT
237+34	24'	24'
245+87	24'	24'
247+55	24'	24'

CABLE GURED RAIL REQUIRED		
STATIONS	LEFT	RIGHT
241+82-242+86	160'	136'

NEW REIN. CONC PIPE CULVERTS REQUIRED					
CULV. STA.	DIAM.	LENGTH	CONC. R.	CONC. C.	REIN. STEEL
237+34	36"	40'	4.0 cu yd	—	50 lbs
245+87	30"	50'	1.8 cu yd	—	28 lbs
247+55	15"	36'	1.9 cu yd	1.2 cu yd	33 lbs

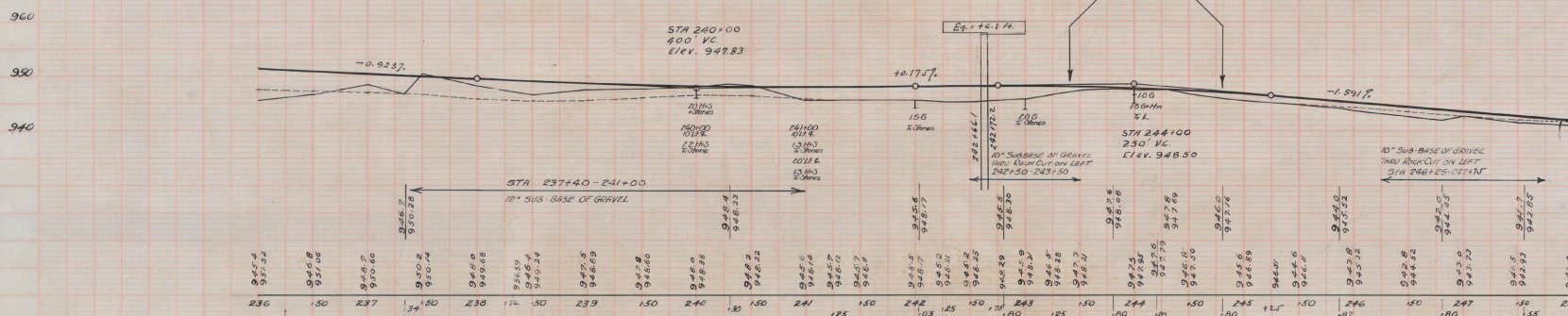
FILE NO.	STATE	FILE NO.	FISCAL YEAR	NO. SHEETS
8	VI	121A	1930	16 57



REVISIONS 1930
PI was 240+55.1
PC = 237+84.6
PT = 245+72.2
E = 38.4
July 16, 1930

STA 243+40 - 244+80
TWO 12" SLABS ARE TO
BE USED IN ORDER TO
CONTROL CRACKING IN
THE SLAB. A CONSTRUCTION
JOINT IS TO BE PLACED AT
EACH END OF THE ROCK
CUT

REVISIONS 1930
PI was 249+56.0
PC = 243+82.7
E = 38.4
July 16, 1930



87% RI TOP OF C BOULDER IN LEDGE 41' LEFT OF STA 241+79 ELEV 946.44

WOOD GUARD RAIL REQUIRED

CULV. STA.	LEFT	RIGHT
250+82	24'	24'
253+30	24'	24'
254+34	24'	24'
256+50	24'	24'
260+98	24'	24'

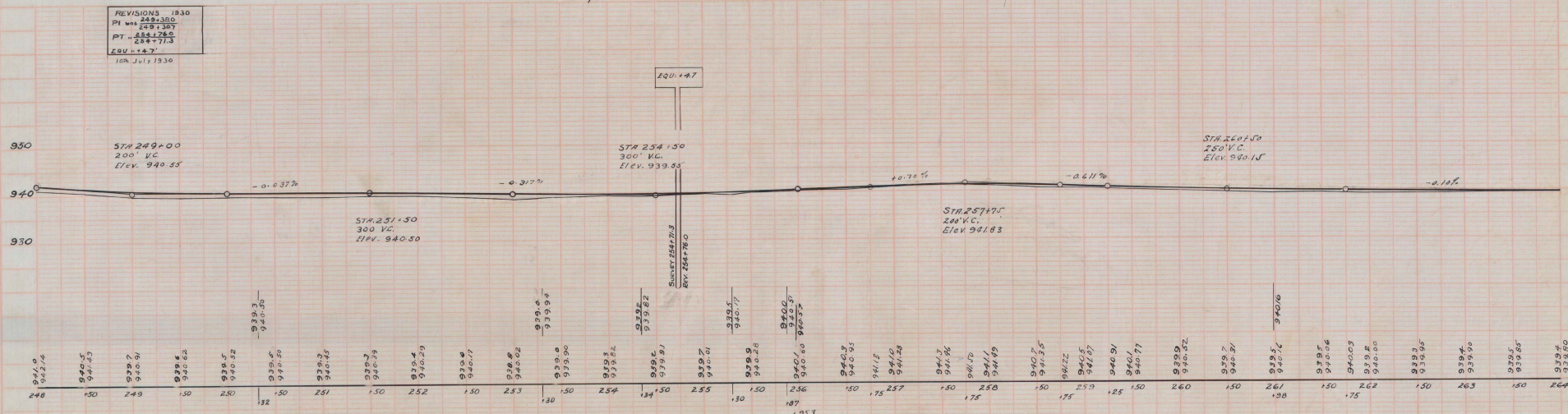
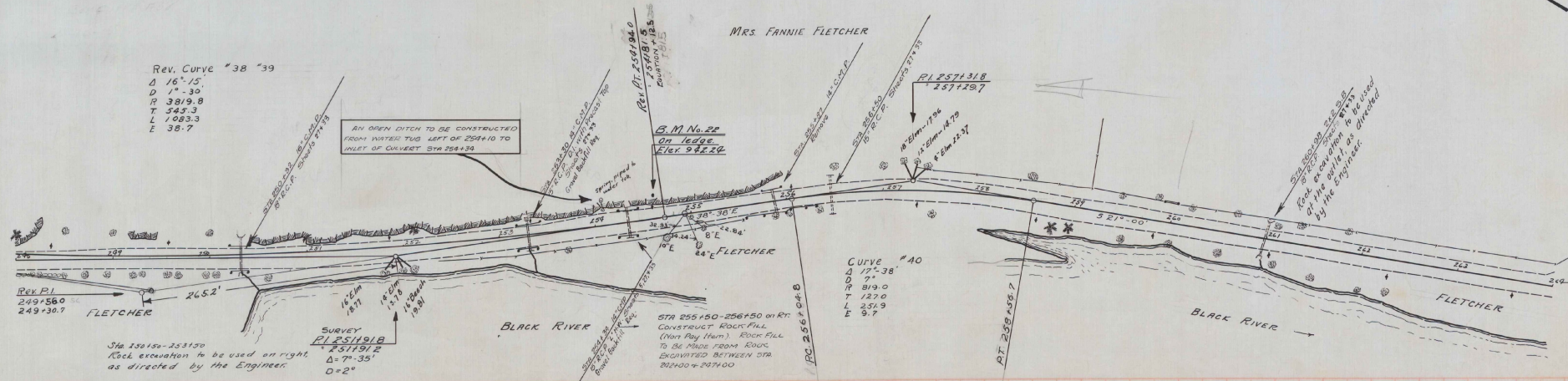
CABLE GUARD RAIL REQUIRED

STATIONS	LEFT	RIGHT
255+24-257+00	-	176'

NEW REIN. CONC. PIPE CULVERTS REQUIRED

CULV. STA.	DIA.	LENGTH	CONC.	REIN. STEEL
250+32	18"	36'	1.8 cu	54 lbs
253+30	15"	32'	1.5 cu	48 lbs
254+34	15"	35'	1.9 cu	57 lbs
256+50	15"	40'	2.0 cu	60 lbs
260+98	18"	36'	1.8	54 lbs

FED. ROAD DIST. NO.	STATE	FED. AID FUND. PROJ. NO.	YEAR	SHEET NO.	TOTAL SHEETS
121	A	1930	17	57	



BM. No 22 ON LODGE 23' LEFT OF STA 254+62 ELEV 942.24

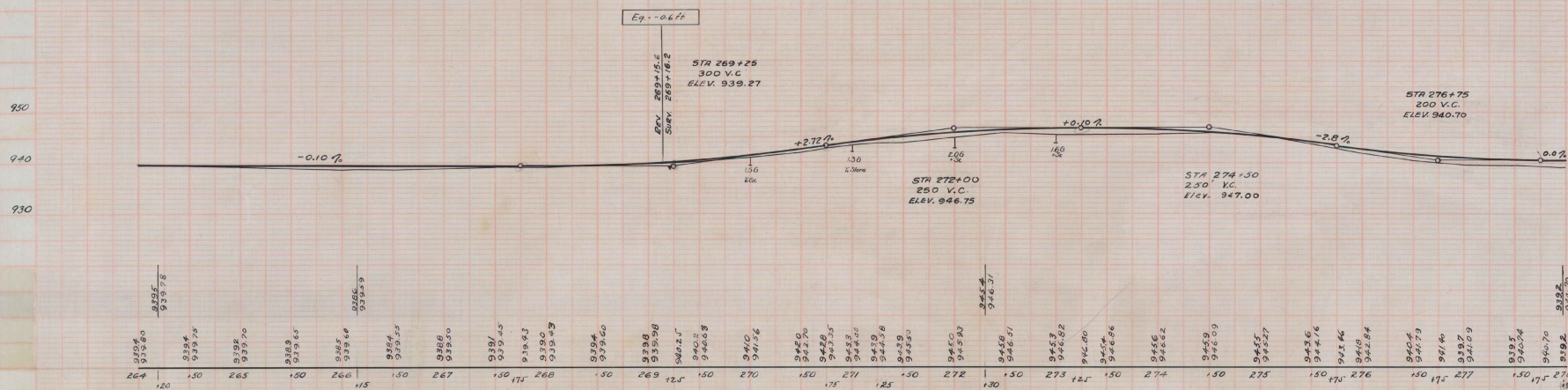
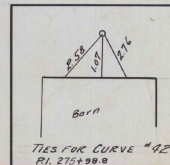
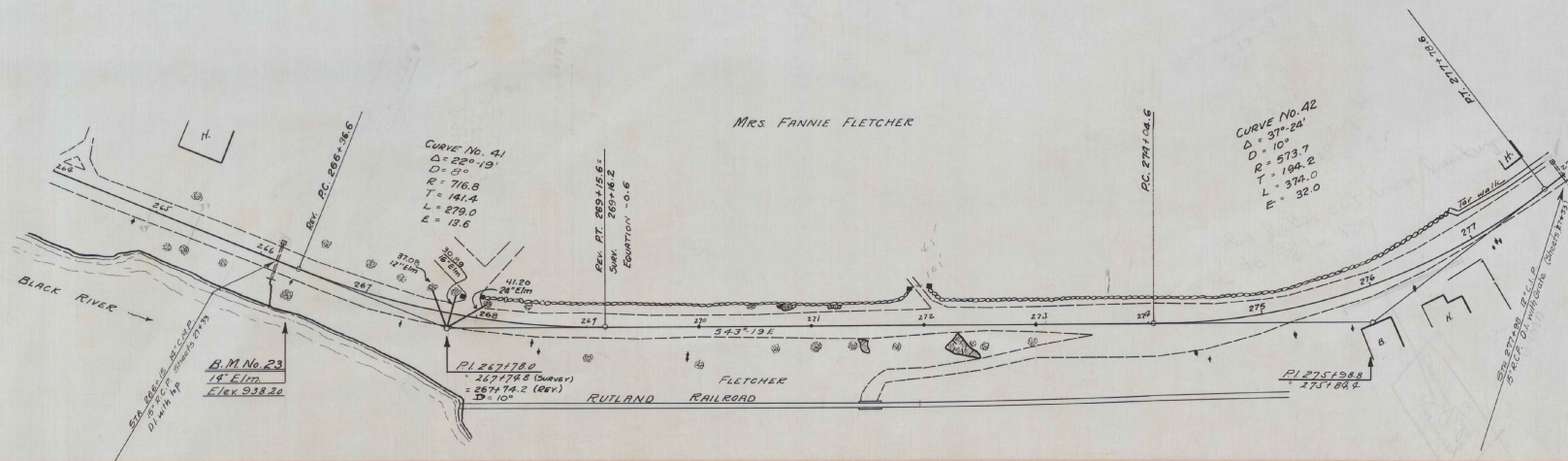
WOOD GUARD RAIL REQUIRED		
CULV. STA.	LEFT	RIGHT
266+15	-	24'
278+00	-	24'

CABLE GUARD RAIL REQUIRED		
STATIONS	LEFT	RIGHT
269+26	-	40'

WOOD GUIDE POSTS REQUIRED		
CULV. STA.	LEFT	RIGHT
266+15	1	-

NEW REIN. CONC. PIPE CULVERTS REQUIRED						
CULV. STA.	DIAM.	LENGTH	CURV. CORR. C.	REIN. STEEL	SENSE	
266+15	12"	36'	155'	155'	170' 165'	-
278+00	15"	32'	140'	140'	170' 165'	1

STATE	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
VT.	1930	18	37



B.M. No. 23 SPIKE IN ROOT OF 14' ELEV. NEAR R.R. BRIDGE 20' RIGHT OF STA 266+34 ELEV. 938.20

NEW CONCRETE GRAVITY CURB REQUIRED
STATIONS L+R CONC. R
279+40-279+90 L 30 4.3-5

NEW CONC. CURB AND GUTTER REQUIRED
STATIONS WIDTH CURB (INCH) CONC. R
279+90-290+50 W 2'-0" 6'-6" 67.4-4 600"

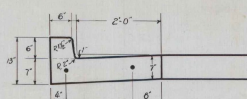
NEW DROP INLETS REQUIRED
STATION L+R CONC. R DRAINAGE
287+50 L 2.8 4.3 198 140 2
287+50 R 1.4 9.9 99 1
290+75 R 1.4 9.9 99 1

REINFORCING CONC. PIPE REQUIRED

Station Diam Length
287+50 15" 88'

VITRIFIED CLAY PIPE REQUIRED

Station Diam Length
290+75-292+00 R 8" 126'



JOINTS IN CURB AND GUTTER NOT TO EXCEED 6'-0" APART. PREMOULDED BITUMINOUS EXPANSION JOINT FILLED, 1/2" THICK, TO BE PLACED AFTER EVERY 3RD SECTION. REMAINING JOINTS TO BE EITHER BUTT JOINTS PAINTED WITH BITUMINOUS PAINT OR CUT PLATE JOINTS.

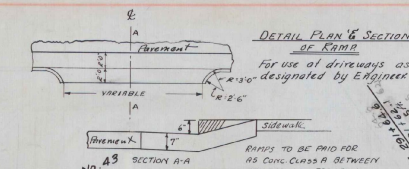
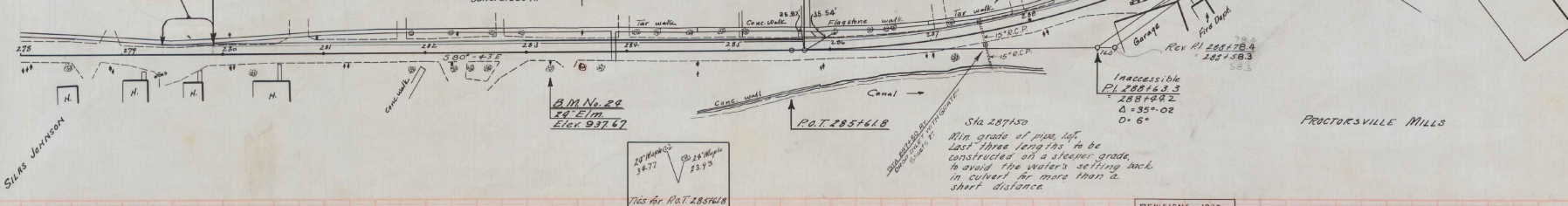
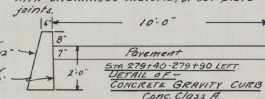
CONCRETE CURB & GUTTER

Sta 279+90-290+50 L+R
Conc. Class A
SECTION REE 170 sq. ft.

JOINTS IN GRAVITY CURB NOT TO EXCEED 6'-0" APART. PREMOULDED BITUMINOUS EXPANSION JOINT FILLED, 1/2" THICK, TO BE PLACED AFTER EVERY 3RD SECTION. REMAINING JOINTS TO BE EITHER BUTT JOINTS PAINTED WITH BITUMINOUS MATERIAL OR CUT PLATE JOINTS.

STA 279+40-279+90 LEFT -
Proposed Gravity Curb.
(See sketch for details)
CONSTRUCT 10 FT. PAVEMENT ON LEFT BETWEEN THESE STATIONS.

STA 279+90 LEFT
BEGINNING OF
PROPOSED
CONCRETE CURB
AND GUTTER
(See sketch for details)



REV. CURVE No. 43
D = 35'-38"
D = 6"
R = 955.4
T = 306.3
L = 592.5
E = 456

DETAIL PLAN & SECTION OF RAMP

For use of driveways as designated by Engineer

RAMP TO BE RAMP FOR
RAMP CONC. CLASS A 18" THICK
STA 279+90 + 290+50 LEFT

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

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END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

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CONCRETE CURB
AND GUTTER.
(See sketch for details.)

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(See sketch for details.)

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CONCRETE CURB
AND GUTTER.
(See sketch for details.)

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

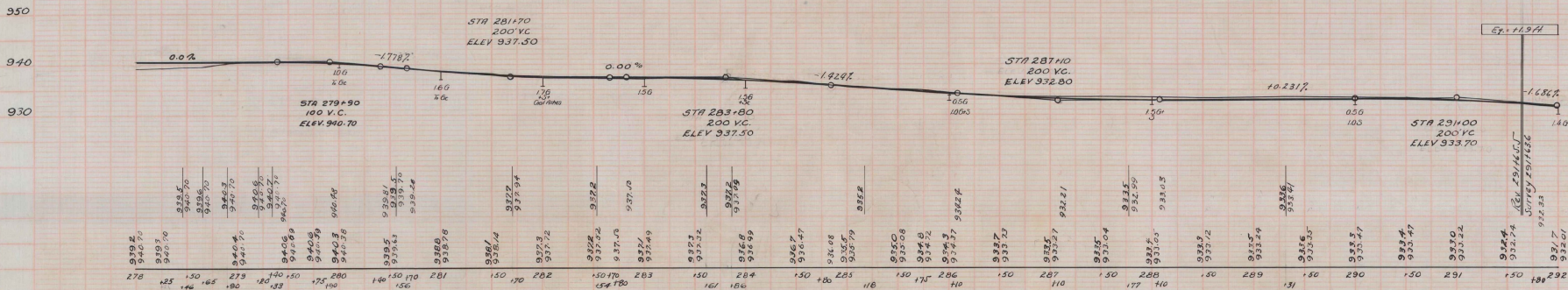
STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

STA 290+50 LEFT
END OF PROPOSED
CONCRETE CURB
AND GUTTER.
(See sketch for details.)

REVISIONS 1930
PI was 288+772.3
PC = 285+730
PT = 291+836
EQU = 11.9
July 10, 1930

Remove grades from all existing Drop Inlets.
Place a precast reinforced concrete cap on same in a manner to securely seal the opening and at an elevation below the bottom of proposed pavement or curb & gutter. These caps to be paid for at the bid price for Conc. Class A and Reinforcing Steel.



BM No 24 SPINE IN ROOT OF 24" ELM. AT POWER POLE 12' RIGHT OF STA 283+23 ELEV 937.67

DROP INLETS WITH GRATE REQUIRED

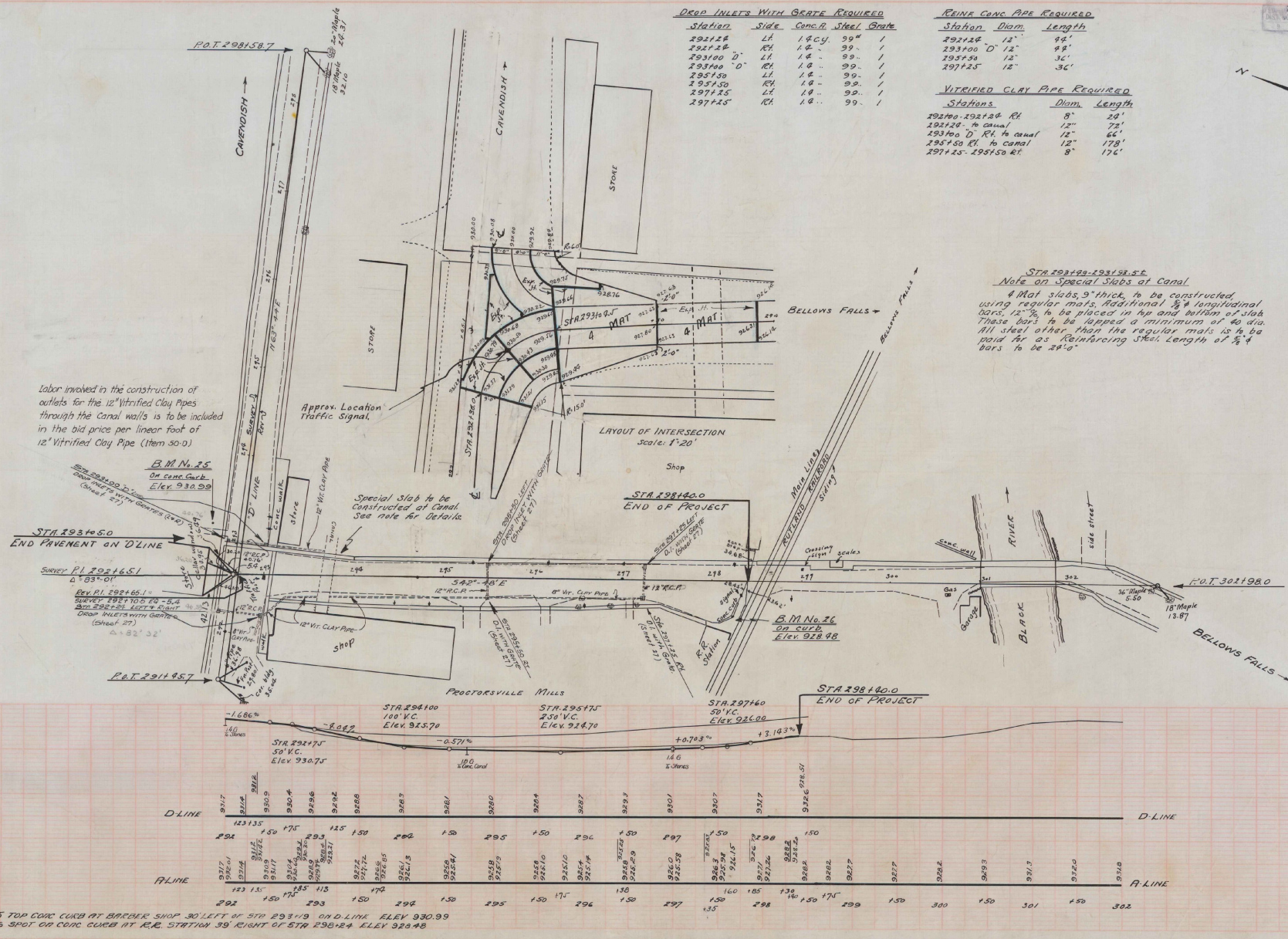
Station	Side	Conc. Pipe	Steel Grate
292124	Lt.	14" C.Y.	30"
292124	Rt.	14"	30"
293100	D	14"	30"
293100	Rt.	14"	30"
295150	Lt.	14"	30"
295150	Rt.	14"	30"
297125	Rt.	14"	30"

REIN. CONC. PIPE REQUIRED

Station	Diam.	Length
292124	12"	44'
293100	12"	44'
293100	12"	36'
297125	12"	36'

VITRIFIED CLAY PIPE REQUIRED

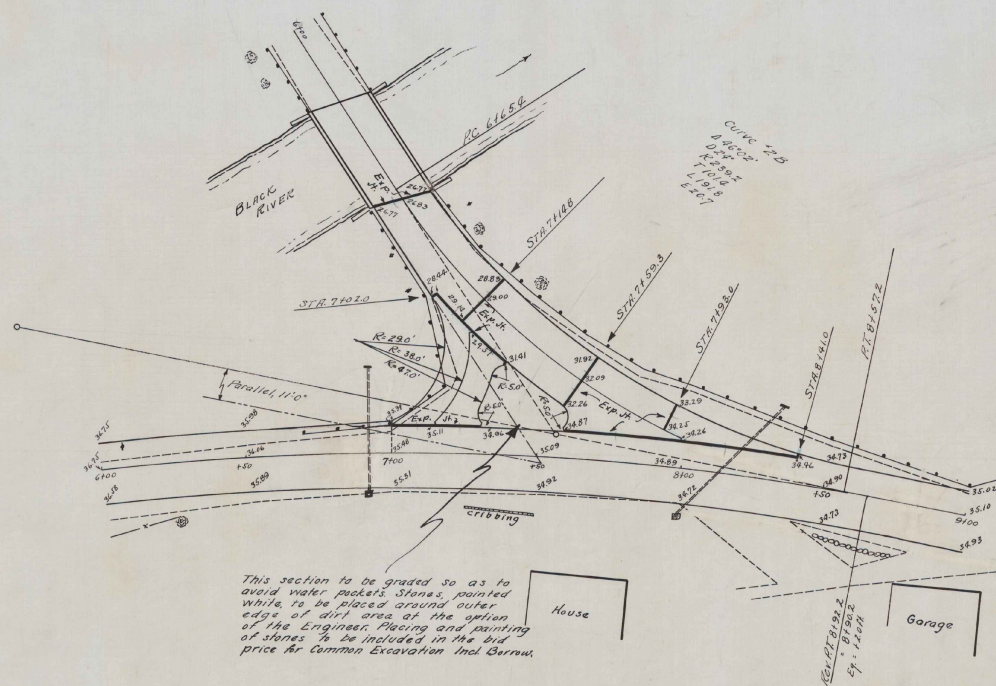
Stations	Diam.	Length
292100-292124	8"	24'
292124 - to canal	12"	72'
293100 D Rt. to canal	12"	66'
295150 Lt. to canal	12"	178'
297125-295150	8"	176'



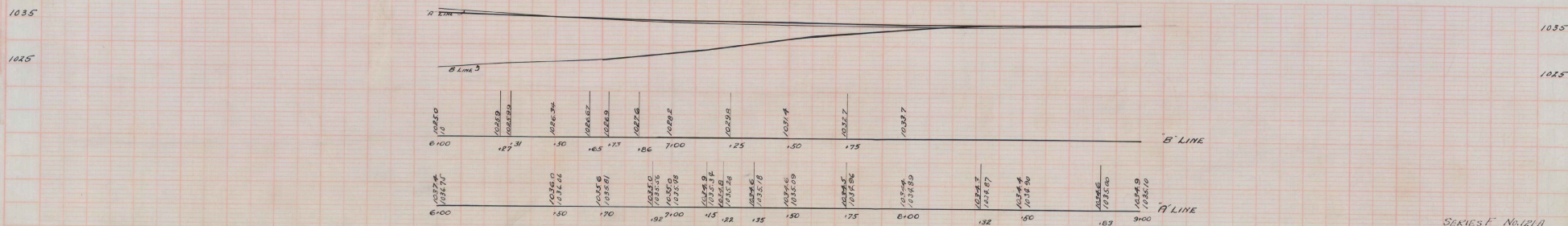
B.M. No. 25 TOP CONC. CURB AT BARBER SHOP 30' LEFT OF STA 293+19 ON D.L. LINE ELEV. 930.99
 B.M. No. 26 SPOT ON CONC. CURB AT R.R. STATION 39' RIGHT OF STA 295+24 ELEV. 928.98

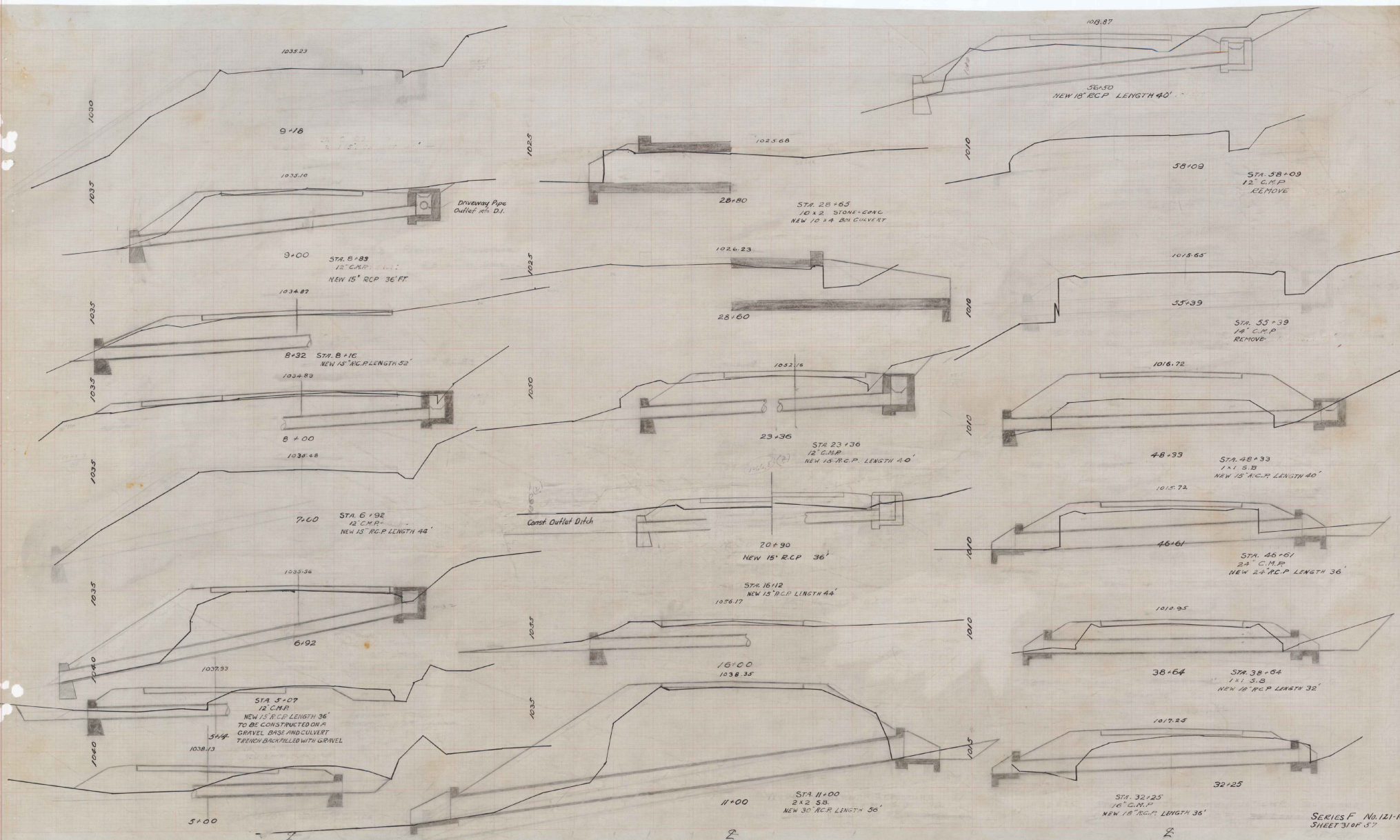
Surveyed by _____
Designed by *H. L. TILTON*
Drawn by *J. E. F.*
Traced by *J. E. F.*
Checked by _____

Series	No.	Filed
	Sheet	of Sheets

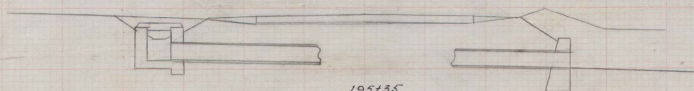


INTERSECTION AT PLYMOUTH TURN
 Scale: 1"=20'
 Drainage structures shown are those proposed.





969.52



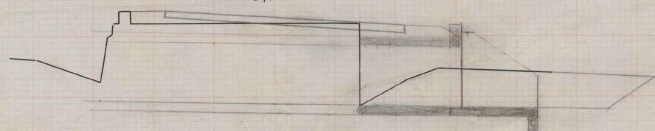
195+55

NEW 15" R.C.P. Length 40'
To be constructed if outlet can be obtained

2x3 CONC. BOX IN GOOD CONDITION
RETAIN, EXTEND 8.3' ON RIGHT
Wings and Headwall To Be Caped With
Cone. Gravel. So. 40' To Side Fill Slopes.
Capping And Extension To Be Done And In
Present Culvert With 36" Deformed Bars
3' x 3' Long 12" c/c. Details To Detail At
Least 12' From Old Culvert. Detailing
Placing And Casting Of Concrete To Be
Included In The Bid. Price For Rein-
forcing Steel

971.56

970



164+37

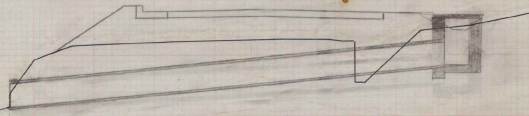
1012.86

61+15

STA. 61+15
NEW 18" R.C.P. LENGTH 32'
THIS CULVERT TO BE
INCLUDED IN PROJECT

1013.99

1010



58+98

STA. 58+98
14" C.M.P.
NEW 24" R.C.P. LENGTH 36'

2

977.58

188+55

4x5 CONC. BOX
IN GOOD CONDITION
TO BE RETAINED

988.04

183+00

STA. 183+00
111 STONE BOX
NEW 15" R.C.P. LENGTH 36'

970.14

176+07

STA. 176+07
8" V.T.P.
NEW 15" R.C.P. LENGTH 36'

971.81

173+71

STA. 173+71
24" STONE BOX
NEW 24" R.C.P. LENGTH 40'

973.32

170+18

STA. 170+18 in good condition.
Retain and construct new floor

973.47

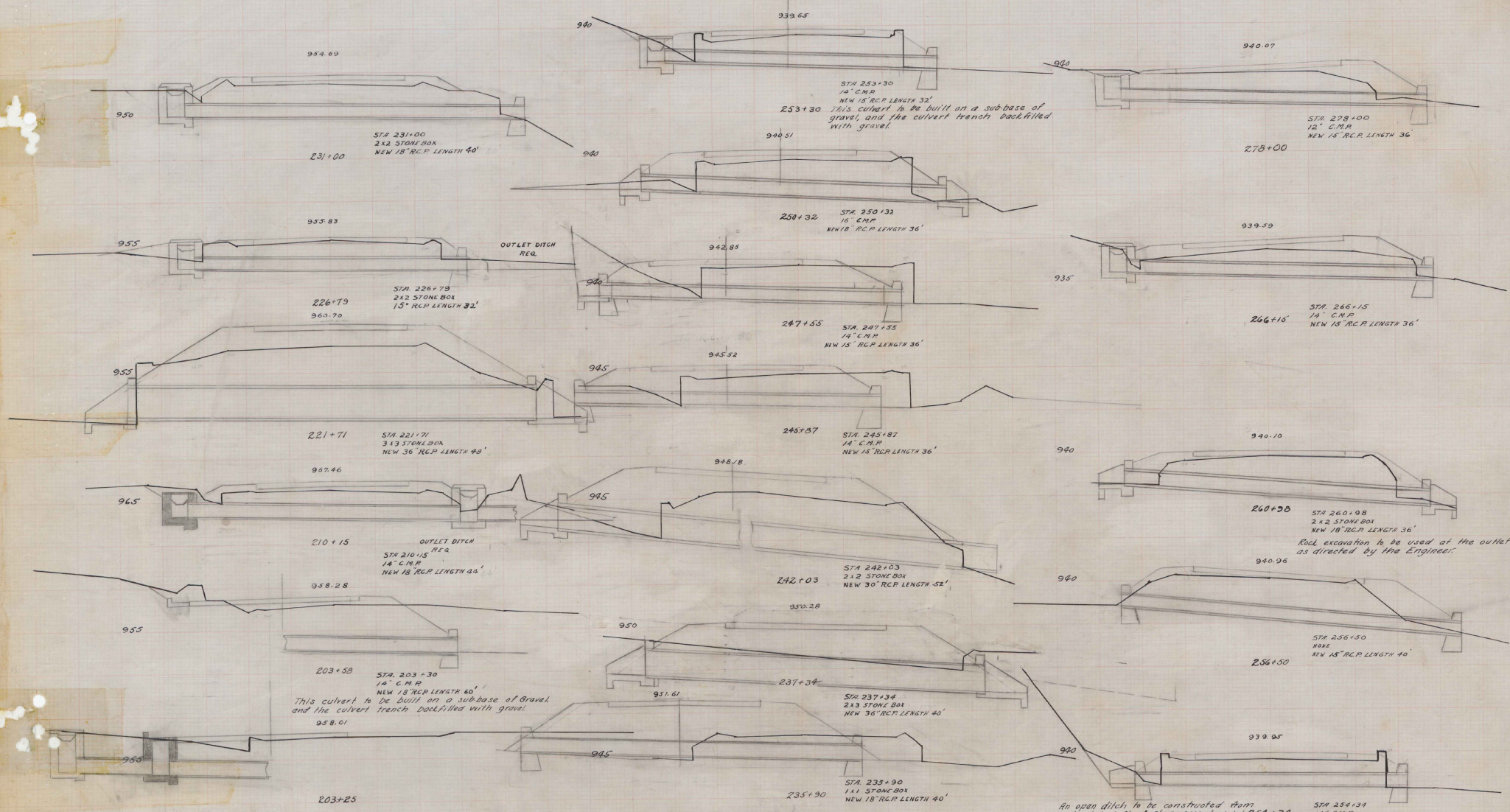
170+12

973.06

166+02

STA. 166+02
2x2 S. BOX
NEW 24" R.C.P. LENGTH 64'

76



An open ditch to be constructed from water-tub left of Sta 234+10 to inlet 234+34 of culvert. The culvert to be built on a sub-base of gravel, and the culvert trench backfilled with gravel.

STA 234+34
 14" C.M.P.
 NEW 15" R.C.P. LENGTH 32'

SERIES F No 121-A
 SHEET 33 OF 57

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
9	VT.	121A	1928	1	7

INDEX OF SHEETS

SHEET NO.	TITLE	PAGE
1	PLAN AND PROFILE STA. 2+50 TO STA. 4+00	
2	SUPERSTRUCTURE DETAILS	
3-4	ABUTMENT DETAILS	
5-6	PIER DETAILS	
7		

STATE OF VERMONT
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
STATE HIGHWAY

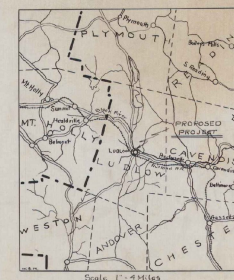
FEDERAL AID PROJECT

TOWN OF LUDLOW

FIRE STATION BRIDGE
OVER BLACK RIVER

LOCATED IN LUDLOW VILLAGE

LENGTH 150.0 FEET = 0.028 MILES



SCALES

PLAN 1 IN. = 20 FEET
VERT. 1 IN. = 20 FEET
HORIZ. 1 IN. = 20 FEET
SECTIONS 1 IN. = 5 FEET

LAYOUT
SEE SHEET 3

APPROVED: APRIL 26 1928

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

April 26, 1928

COMMISSIONER OF HIGHWAYS

CONVENTIONAL SIGNS

COUNTY LINE	-----
TOWN LINE	-----
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	-----

GROUND ELEVATION	BATH	LINE
GRADE ELEVATION	BATH	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.

THIS PROJECT TO BE CONSTRUCTED IN ACCORDANCE
WITH STANDARD SPECIFICATIONS ON FILE WITH THE
U.S. BUREAU OF PUBLIC ROADS

STRUCTURES ON THIS PROJECT TO BE CONSTRUCTED
IN ACCORDANCE WITH DETAILS GIVEN ON STANDARD
STRUCTURE SHEETS SERIES NOS. 517-18-19

DISTRICT	No. 4
BRIDGE	No. 18-21
TOWN	LUDLOW

RECOMMENDED

DISTRICT ENGINEER BUREAU OF PUBLIC ROADS

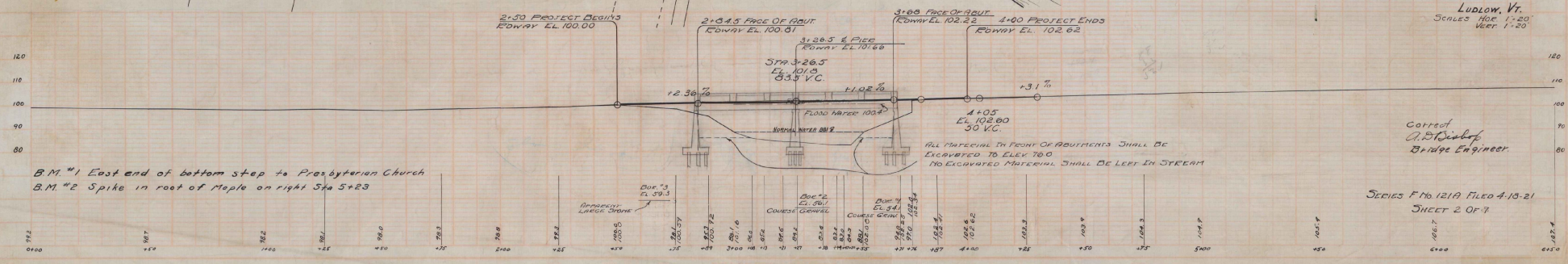
RECOMMENDED FOR APPROVAL

CHIEF ENGINEER BUREAU OF PUBLIC ROADS

APPROVED

DIRECTOR - BUREAU OF PUBLIC ROADS

SERIES F. NO. 121A FILED 4-18-21
SHEET 1 OF 7

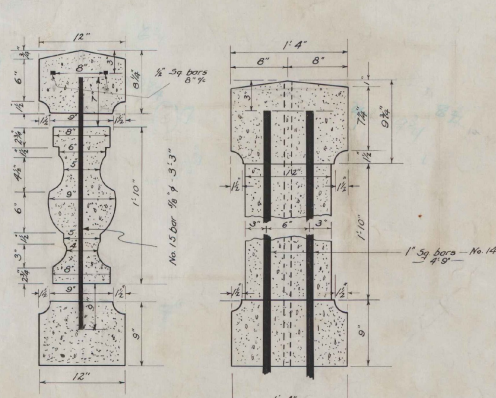
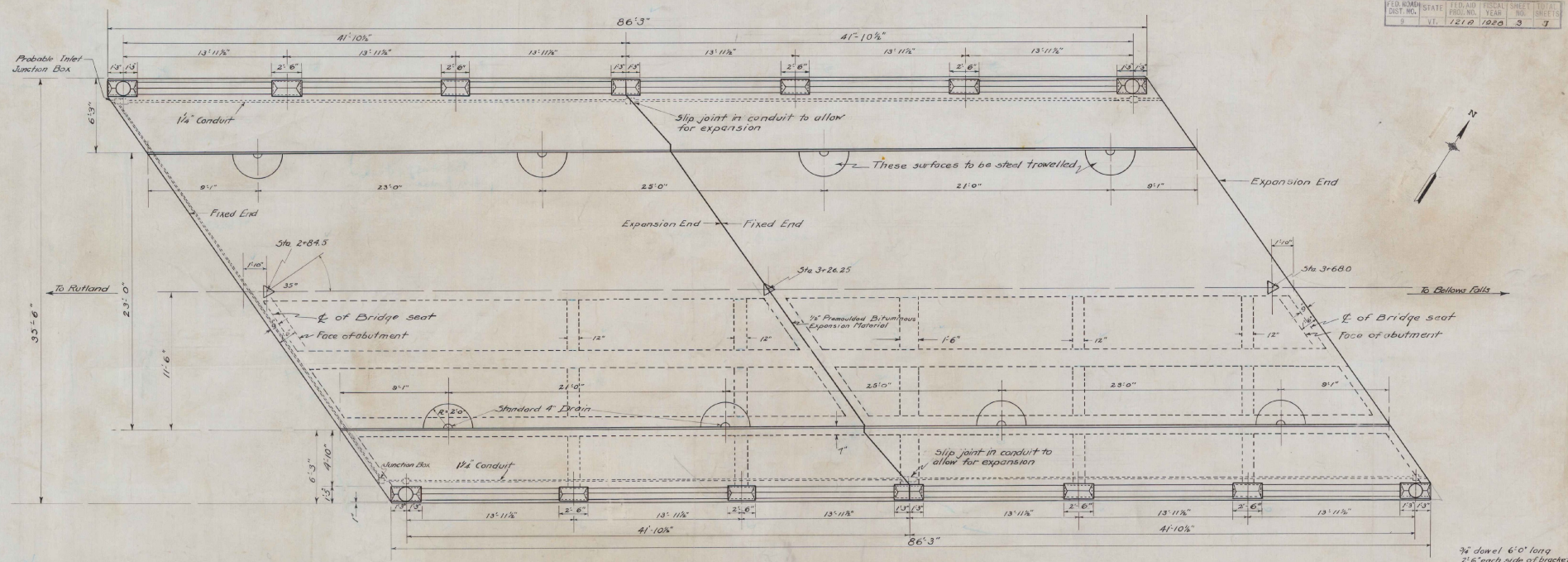


DISTRICT No 4
 FIRE STATION BRIDGE
 LUDLOW, VT.
 Scales: HOR. 1"=20'
 VERT. 1"=20'

Corrected
 A. B. Smith
 Bridge Engineer

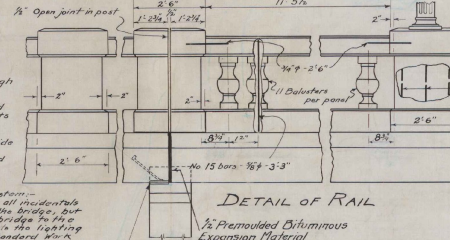
SERIES F No 1219 FILED 4-10-21
 SHEET 2 OF 7

B.M. #1 East end of bottom step to Presbyterian Church
 B.M. #2 Spike in root of Maple on right Sta 5+23

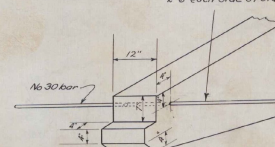


One light required (100 Watts - 200 Watts)
Size of base of cones shall be 11" - 30"
Diameter of fluted shafts - 4" Top 8" Bottom
Diameter of shaft and base shall be 3" separate
units.
Base and capital to be best grade of rough
gray founding pipe. Base to fit on pipe.
Shaft to be 3" diameter and 8" high.
Copper Bearing Shell, Lead screwed Disk Fluted
and pressed firmly together, no solder or rivets.
4 Casters, Standards required
Caster, Furnishing Standards shall provide
entire bolt plate.
Standards for light standards shall be placed
in past form before standards is deposited.
Lamp and ball for light standard to be the
complete cost of labor and materials and for
the installation of the following lighting system -
1. 100 Watts - 200 Watts - 100 Watts - 100 Watts
necessary for the complete lighting of the bridge, but
the contractor may use any other type of lighting
system, for all work and materials necessary for the lighting
of the bridge, the contractor shall be responsible for the
cost of labor and materials required for this class of work and shall be
responsible for the same work and materials to be performed to the Code of
the National Board of Fire Underwriters.

1 Field coat of approved Red Lead and Oil
1 Field coat of Standard White Gypsum Red Paint, Prime
and color coat for the bridge.



All concrete in superstructure to be class 5 (1-4) concrete.
All exposed edges except the very top portion of the rail shall be chamfered about 1/4" which dimension should be the total length of the chamfer. The corners of the exposed joints are used in the rail the corners shall be chamfered to prevent spalling.
All work and material shall conform to the Standard Road and Bridge Specifications of the Vermont Department of Highways, 1926.



SUPERSTRUCTURE
FIRE STATION BRIDGE
LUDLOW - VT.

Surveyed by *Radián*
Designed by *W.G.H.* 3-12-28
Drawn by *A.G.* 3-20-28
Traced by *A.G.* 3-20-28
Checked by *M. R. Woodruff* 4-17-28
Series *F* No. *121A* Filed *4-17-28*
Sheet *3* of *7* Sheets

1930

Ludlow-Cavendish
F 121 A

1930

Vermont Agency of
Transportation
PHASE 2-INTERSTATE
#122302-01
INITIALS ☐
Hanger 2405 DONE