

PLANS
NOT
TO
SCALE

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STATE OF MONTANA STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. 217D. YELLOWSTONE CANYON HWY. PARK COUNTY

LENGTH 4.648 MILES

SCALES

Horizontal: 1 Inch = 100 Feet
Vertical: 1 Inch = 10 Feet
Cross Section Hor. & Vert.: 1 Inch = 10 Feet

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MONT.	217 D.		1	22

Plans Completed May 31, 1927

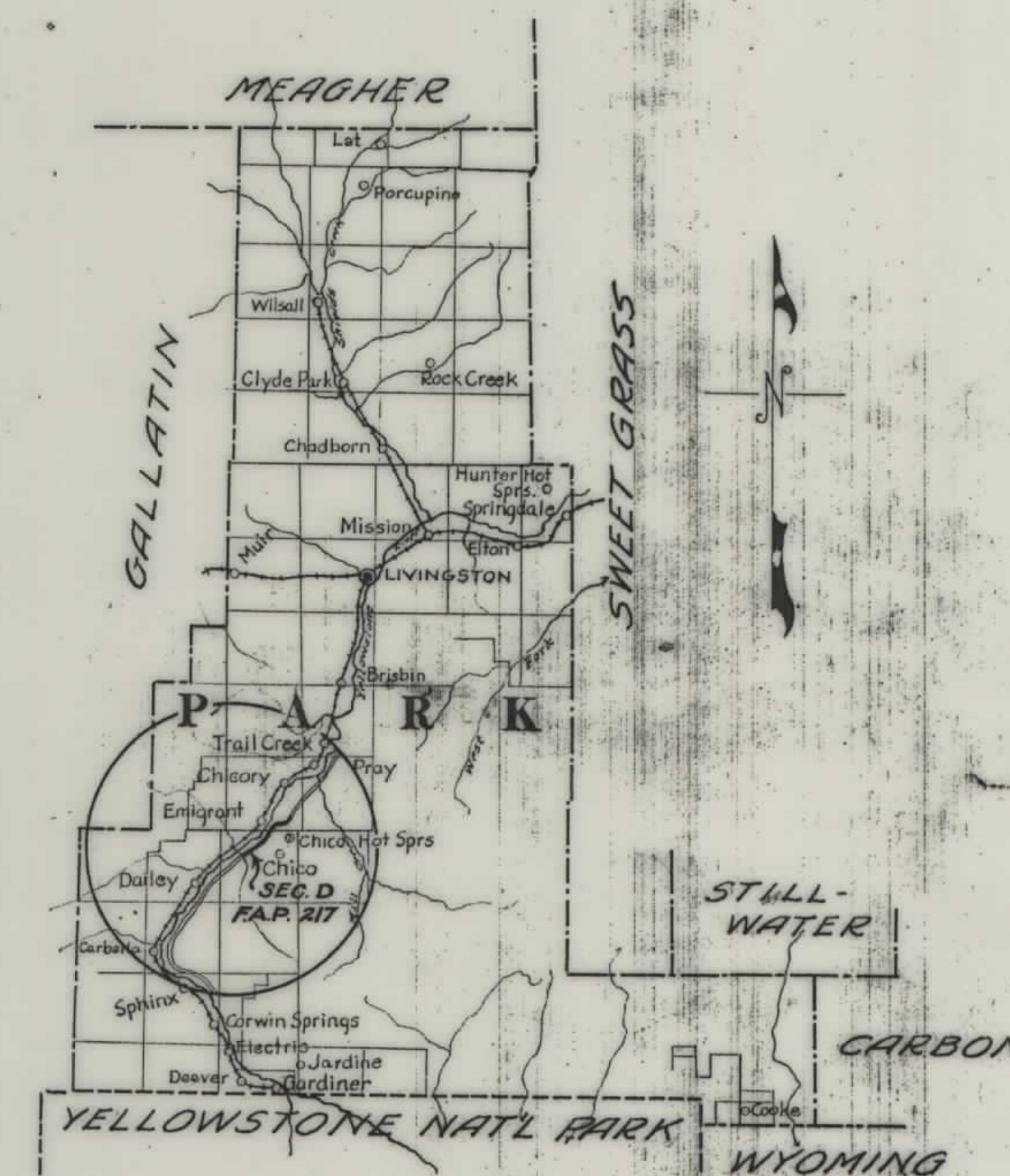


Scale: 1 inch = 2 miles

Sec. A

CONVENTIONAL SIGNS

State and National Line	Levee
County Line	Culvert
City, Village or Borough Line	Drop Inlet
Township Line	Trolley Pole
Section Line	Power Pole
Reservation Line	Telephone or Telegraph Pole
Fence Line	Marsh
Guard Rail	Ditch
Unfenced Property	Rip Rap
Right of Way Line	Leaching Basin
" " " Fenced	Bridge
Traveled Way	Proposed New Culvert (Profile)
Railroads	
Retaining Walls	
Base or Survey Line	



PARK COUNTY EAP 217 D

Scale: 1 inch = 12 miles

APPROVED
STATE HIGHWAY COMMISSION OF MONTANA
217D
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

DISTRICT ENGINEER, DISTRICT NO. 16
BUREAU OF PUBLIC ROADS

RECOMMENDED FOR APPROVAL

DEPUTY CHIEF ENGINEER
BUREAU OF PUBLIC ROADS

APPROVED

CHIEF ENGINEER
BUREAU OF PUBLIC ROADS

SUMMARY

LENGTH - Gross - - - - - 4648 Miles
Net (Without Bridge) 4642 Miles

NOTES

GRADES - Grades as shown on profile are sub grade
See Typical Sections.

EMBANKMENT - Embankment as shown on plans
includes shrinkage.

SHRINKAGE - A shrinkage factor is used on earth
placed in embankment as follows: 5000 cu.yds
or less per mile 20%; 5000 to 10,000 cu.yds
per mile 15%; 10,000 cu.yds. per mile or over 10%.

BORROW - Borrow pits or source of borrow to be
designated by the Engineer.

OVERHAUL - Free haul allowance is 400 feet.

GUARD RAIL - Standard guard rail to be placed on all
dangerous fills or curves or where designated
by the Engineer.

PROJECTIONS - Projections to be checked in the
field by reference to staked or located line.

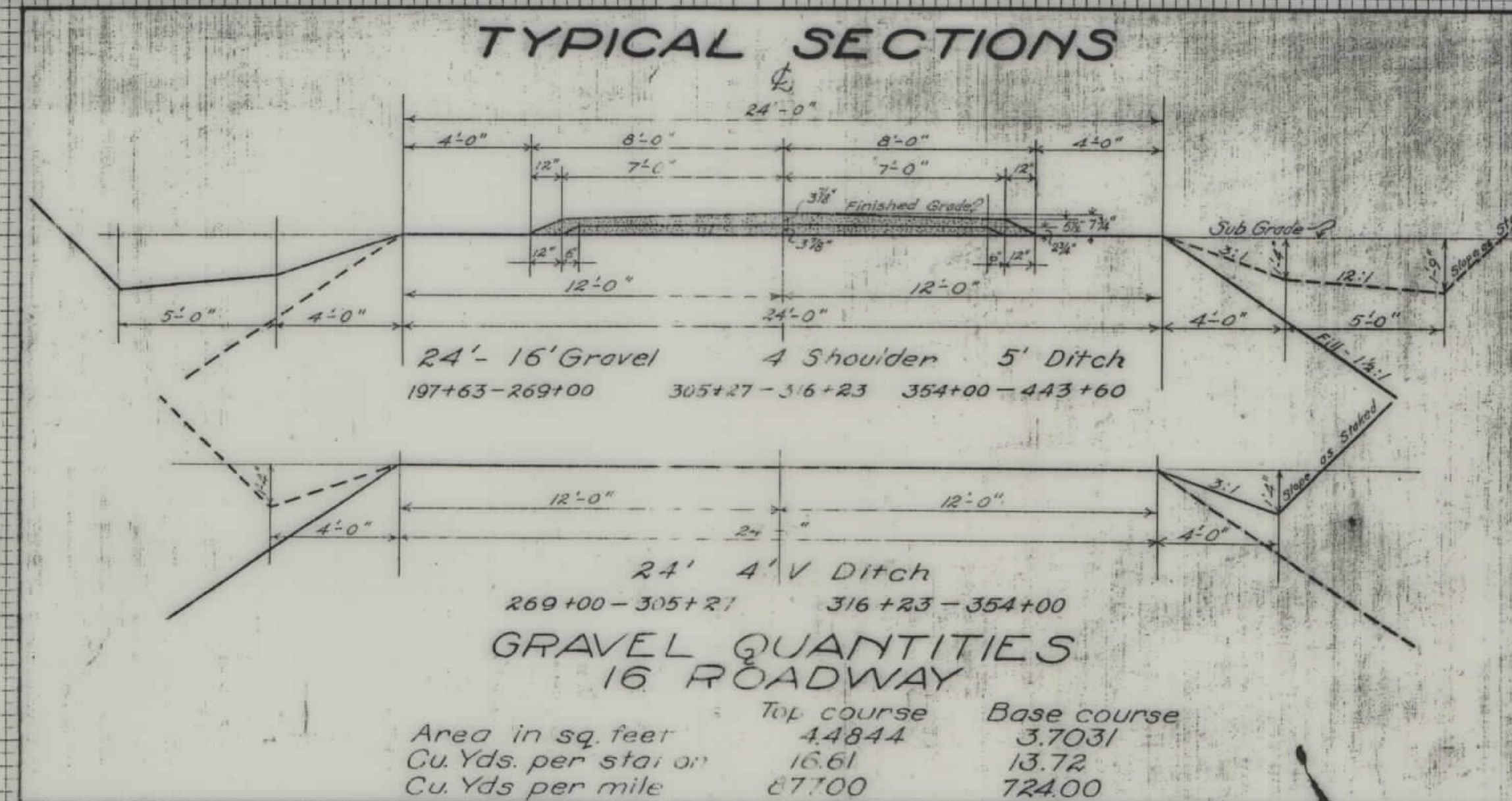
GRADING

STATION		BORROW	WASTE	ROCK	ROCK SWILL	EXCAVATION UNCLASSIFIED	EMBANKMENT FILL	OVERHAUL
FROM	TO							
197+63	206+84					989	989	812
206+84	210+10					1002	1002	
210+10	218+96					2949	2949	950
218+96	220+13					190	190	
220+13	224+20					1488	1488	30
224+20	230+25					1706	1706	740
230+25	235+23					716	716	145
235+23	237+08					147	147	
237+08	240+41					285	285	
240+41	243+87					903	903	
243+87	249+97					3128	3128	150
249+97	255+93					989	989	180
255+93	262+20					1712	1712	1405
262+20	268+80					4003	4003	1830
268+80	272+00					2554	2554	
272+00	282+27					6070	6070	3900
282+27	290+00					4456	4456	3070
290+00	299+84					6380	6380	6552
299+84	309+86					12482	12482	
309+86	320+20					2940	2940	4150
320+20	336+30					4744	4744	16940
336+30	341+56					3320	3320	
341+56	344+98					993	993	
344+98	351+68					2964	2964	2405
351+68	354+86					409	409	
354+86	370+00	2814				311	2525	
370+00	380+00	823				350	1173	
380+00	384+91					369	369	
384+91	393+07	1694				748	2482	286
393+07	401+67					1694	1694	
401+67	410+00					528	1229	90
410+00	424+76					341	2563	
424+76	433+00					720	720	630
433+00	443+60					1009	921	30
TOTAL		7084	68	500		73504	87020	24645

SURFACING

STATION		LENGTH		ADDITIONS & DEDUCTIONS				CUBIC YARDS GRAVEL		ADDITIONAL GRAVEL FOR CURB WIDENING	TYPE
FROM	TO	GROSS	NET	FROM	TO	ADD.	DED.	FOR	TOP COURSE	BASE COURSE	
197+63	443+60	24597.0	24508.7	332+96	356+00	57.3		EQUATION	4071	3363	13
				391+00	391+31.0			51.0 BRIDGE			2 Course Feather Edge Gravel
TOTAL		24597.0	24508.7			108.3			4071	3363	13

TYPICAL SECTIONS



GUARD RAIL

STATION		LINEAR FEET	
FROM	TO	LEFT	RIGHT
242+96	246+00		304
244+40	244+56	112	
267+50	269+00		200
268+00	269+44	144	
277+50	307+10		2960
337+50	338+68		112
339+00	342+04		304
345+00	349+06		496
390+36	391+00	64	
391+31	394+35	304	
TOTAL		624	4744

RIP RAP

STATION		CUBIC YARDS
FROM	TO	
285+76	287+75	147
291+76	303+75	486
305+00	307+20	162
336+70	337+50	111
339+10	341+50	158
TOTAL		1064

POLES TO MOVE

STATION		LEFT	RIGHT	KIND	REMARKS
FROM	TO				
203+88				TELEPHONE	

CULVERTS

STATION	CORRUGATED METAL PIPE					CONCRETE BOX CULVERTS & SIPHONS			STANDARD	REMARKS
	15	18	24	30	36	CLASS B CONCRETE IN HEADWALLS	SIZE	CLASS A CONCRETE	STEEL	
201+15			30			1.98				M-6 Drain
202+15		28				1.34				M-8-2 Irrigation
208+00		32				1.34				M-6 Drain
210+50		48						4.68	376	M-8-2 Irrigation
214+50		60						7.32	592	M-8-2 Irrigation
217+50		48				1.34				M-6 Irrigation & Drain
222+70		40								Road Crossing 80' R & L
223+80		38				1.34				M-6 Irrigation
226+00		30				1.34				M-6 Drain
229+15		24						6.00	434	M-8-2 Irrigation Siphon
234+00		28				1.34				M-6 Irrigation
236+80		34						4.68	376	M-8-2 Irrigation Siphon
239+30		28				1.34				M-6 Drain
244+35		24				1.34				M-6 Irrigation
244+75			56			2.72				M-6 Drain
252+70						1.34				M-6 Drain
261+05		32				1.34				M-6 Drain
267+74		36				1.34				M-6 Drain
268+90							4'x4'x130'	61.47	3697	C-4 Drain
276+74		40				1.34				M-6 Drain
286+25		35				1.34				M-6 Drain
291+30						1.34				M-6 Drain
304+85		28				1.34				M-6 Drain
307+30		28				1.34				M-6 Drain
310+25		28				1.34				M-6 Drain
318+40		36				1.34				M-6 Drain
327+40		36				1.34				M-6 Drain
330+00		32				1.34				M-6 Drain
331+00		44				1.34				M-6 Drain
340+60		58				1.34				M-6 Drain
345+37		48				1.34				M-6 Drain
347+62		30				1.34				M-6 Drain
357+00		28				1.34				M-6 Drain
363+70		28				1.34				M-6 Drain
369+70		28				1.34				M-6 Drain
373+62		42						3.58	286	M-8-2 Irrigation Siphon
380+25		28				1.34				M-6 Drain
403+00		28				1.34				M-6 Drain
412+15		30				1.34				M-6 Drain
416+20		28				1.34				M-6 Drain
420+38		36						3.80	304	M-8-2 Irrigation Siphon
426+20		32				1.34				M-6 Drain
430+44		42						4.46	358	M-8-2 Irrigation Siphon
436+21		28						4.46	358	M-8-2 Irrigation Siphon
438+24		42						5.86	448	M-8-2 Irrigation Siphon
439+65		32				1.34				M-6 Irrigation
443+00		42						5.86	448	M-8-2 Irrigation Siphon
443+50		30								Road Crossing Left
TOTAL		701896	150	56		30.70		112.17	7727	

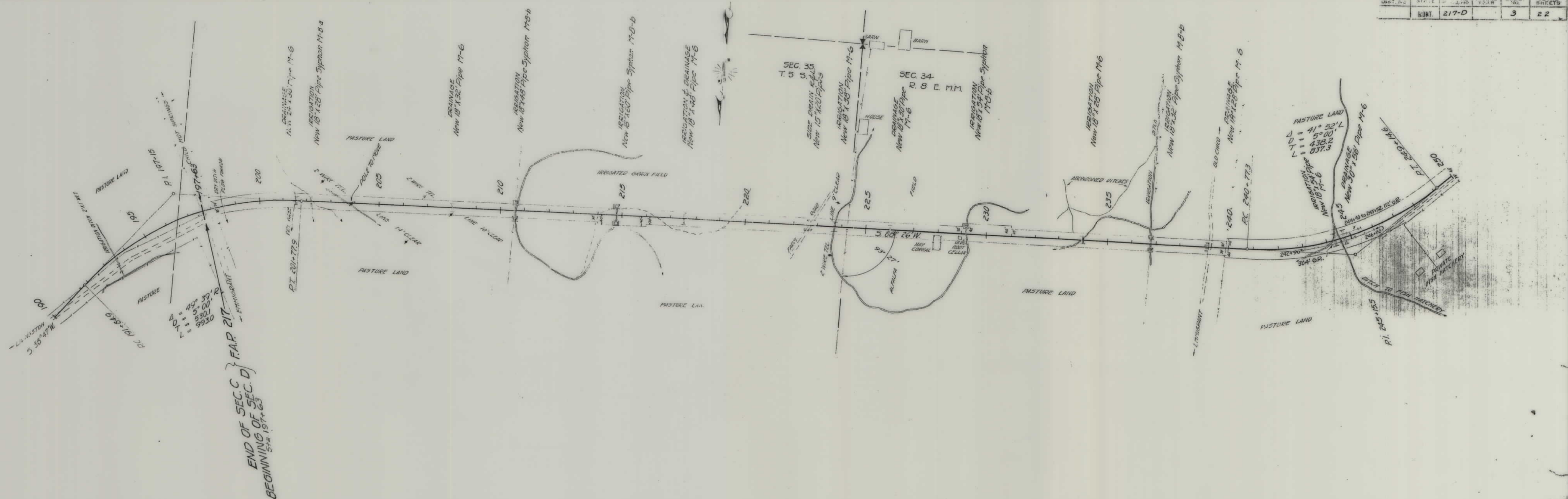
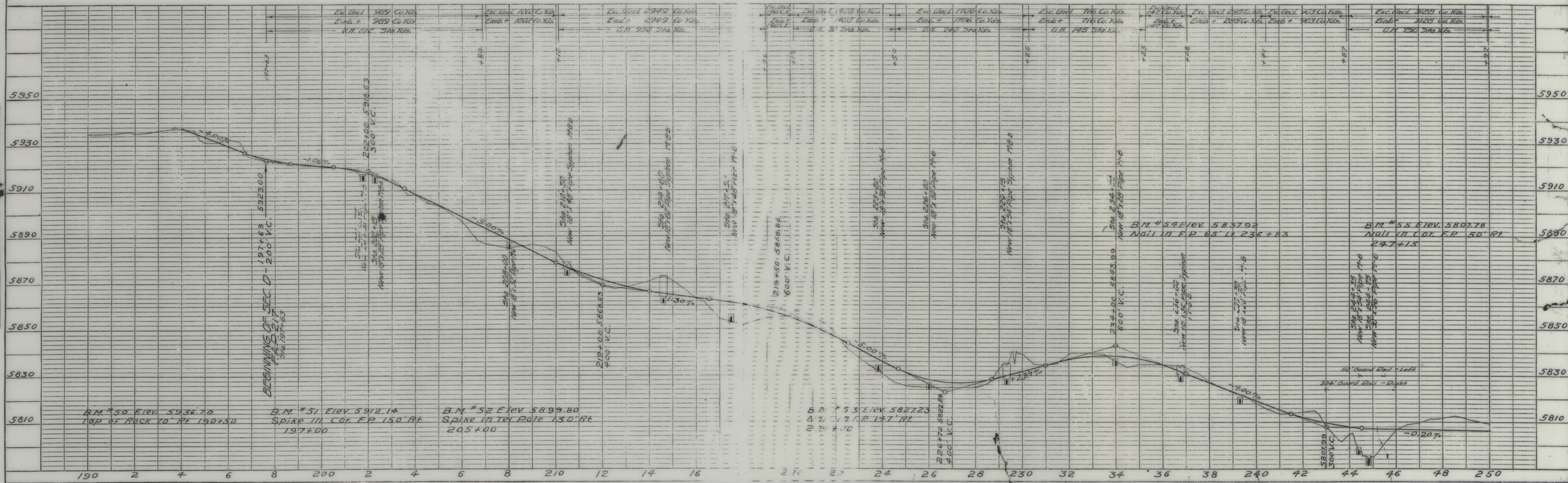
CLEARING & GRUBBING

STATION		CLEARING		GRUBBING	
FROM	TO	ACRES	ACRES	ACRES	ACRES
276+00	283+00	1.51		70	
283+00	298+00	2.41		1.00	
298+00	308+00	2.30		1.00	
308+00	321+00	1.79		1.0	
321+00	339+00	4.13		2.00	
339+00	352+00	2.39		1.00	
350+00	392+00	7.3		30	
TOTAL		15.36		6.70	

BRIDGES

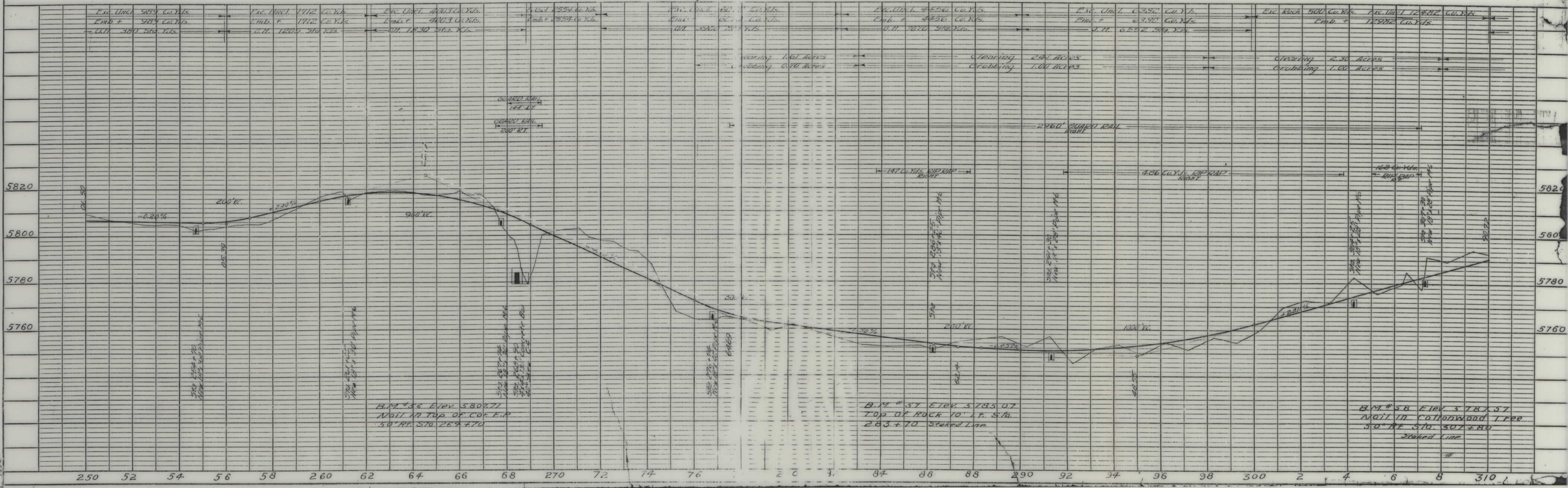
STATION		LBS. STEEL		CU.YDS. CONCRETE		LIN. FT. CULVERT		EXCAV.	
FROM	TO	STRUCT.	REINF.	CLASS A	CLASS B	RAIL	RAIL	EXCAV.	EXCAV.
391+00	391+31	17000	3,100	732	17	65.33	85		

DATE	BY	
		SURVEYED
		PLOTTED
		GRADES CHECKED
		B. M'S NOTED
		STRUCTURE NOTATIONS CH'KD.



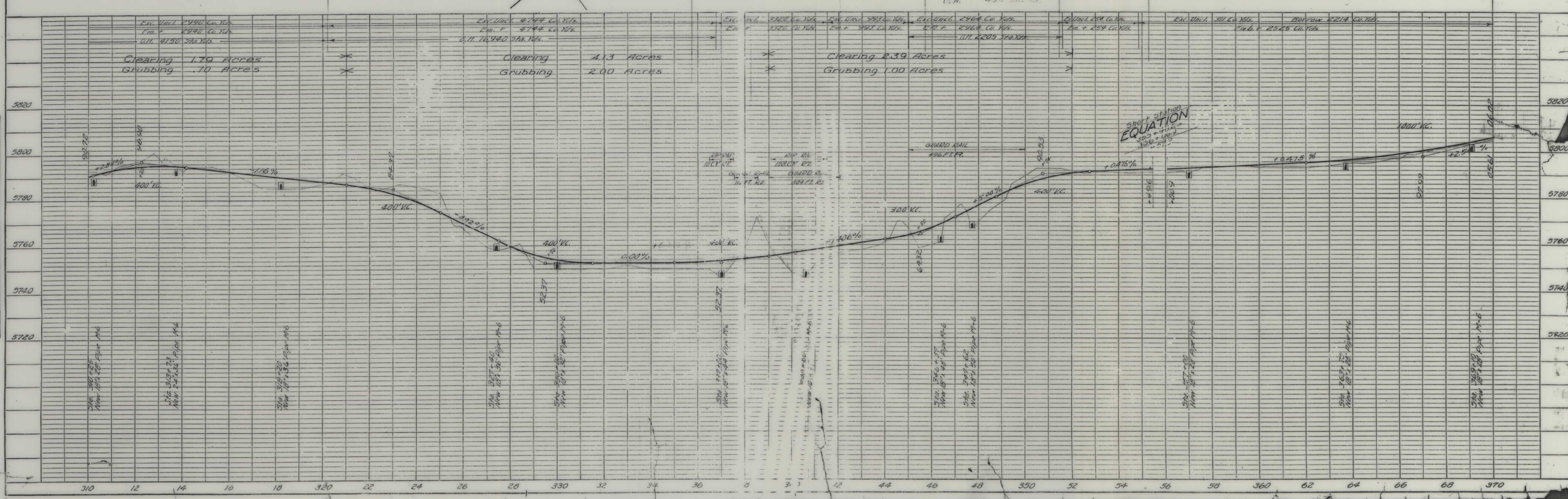
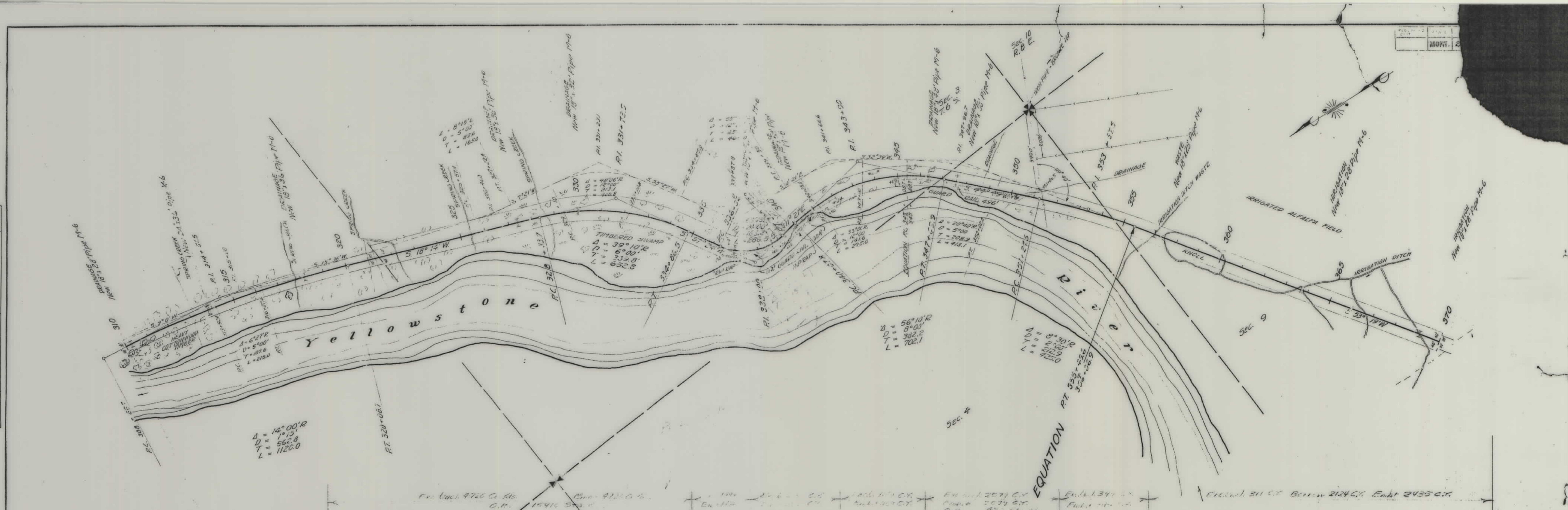
PLAN	DATE	5-27-27
	BY	A. O. B.
SURVEYED	NOTED	5-27-27
	ALIGNED	5-27-27
NOTE BOOK	NO.	22
	RT. OF WAY CHECKED	

PROFILE	DATE	5-27-27
	BY	A. O. B.
SURVEYED	NOTED	5-27-27
	ALIGNED	5-27-27
NOTE BOOK	NO.	22
	STRUCTURE NOTATIONS CH. 10	



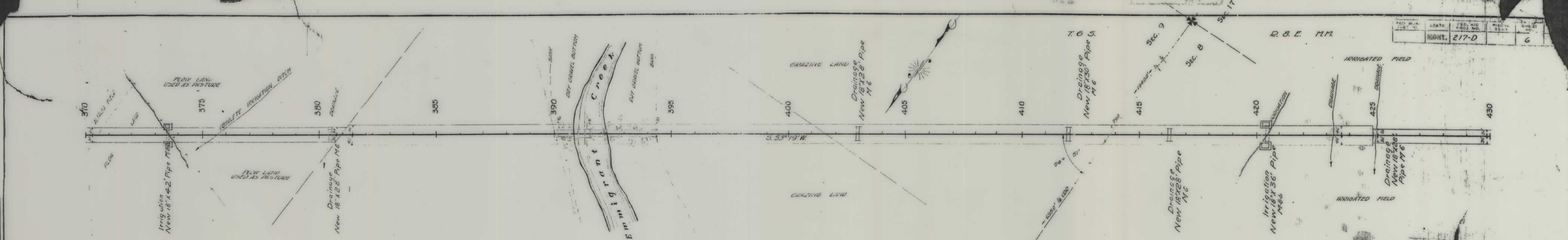
PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	ALIGNED CHECKED
	NO.	RT. OF WAY CHECKED

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	GRADES CHECKED
	NO.	STRUCTURE NOTATIONS CHKD.



PLAN
SURVEYED
NOTE BOOK GRADES CHECKED
RT. OF WAY CHECKED
BY
DATE
12-27-27
DEC

PLAN
SURVEYED
NOTE BOOK GRADES CHECKED
B. M. NOTED
STRUCTURE NOTED IN CH. NO.
BY
DATE
12-27-27
DEC



5840	EXC. UNCL. 350 CU. YDS.	EXC. UNCL. 369 CU. YDS.	EXC. UNCL. 778 CU. YDS.	EXC. UNCL. 169 CU. YDS.	EXC. UNCL. 598 CU. YDS.	EXC. UNCL. 341 CU. YDS.	EXC. UNCL. 120 CU. YDS.
5820	EMB. +1173 CU. YDS.	EMB. +369 CU. YDS.	EMB. +242 CU. YDS.	EMB. +169 CU. YDS.	EMB. +129 CU. YDS.	EMB. +2563 CU. YDS.	EMB. +720 CU. YDS.
5800	BORROW 823 CU. YDS.	BORROW 169 CU. YDS.	BORROW 169 CU. YDS.	BORROW 131 CU. YDS.	BORROW 131 CU. YDS.	BORROW 2222 CU. YDS.	BORROW 2222 CU. YDS.
370	72	74	76	78	80	82	84
380	82	84	86	88	90	92	94
390	92	94	96	98	100	102	104
400	102	104	106	108	110	112	114
410	112	114	116	118	120	122	124
420	122	124	126	128	130	132	134
430	134	136	138	140	142	144	146

