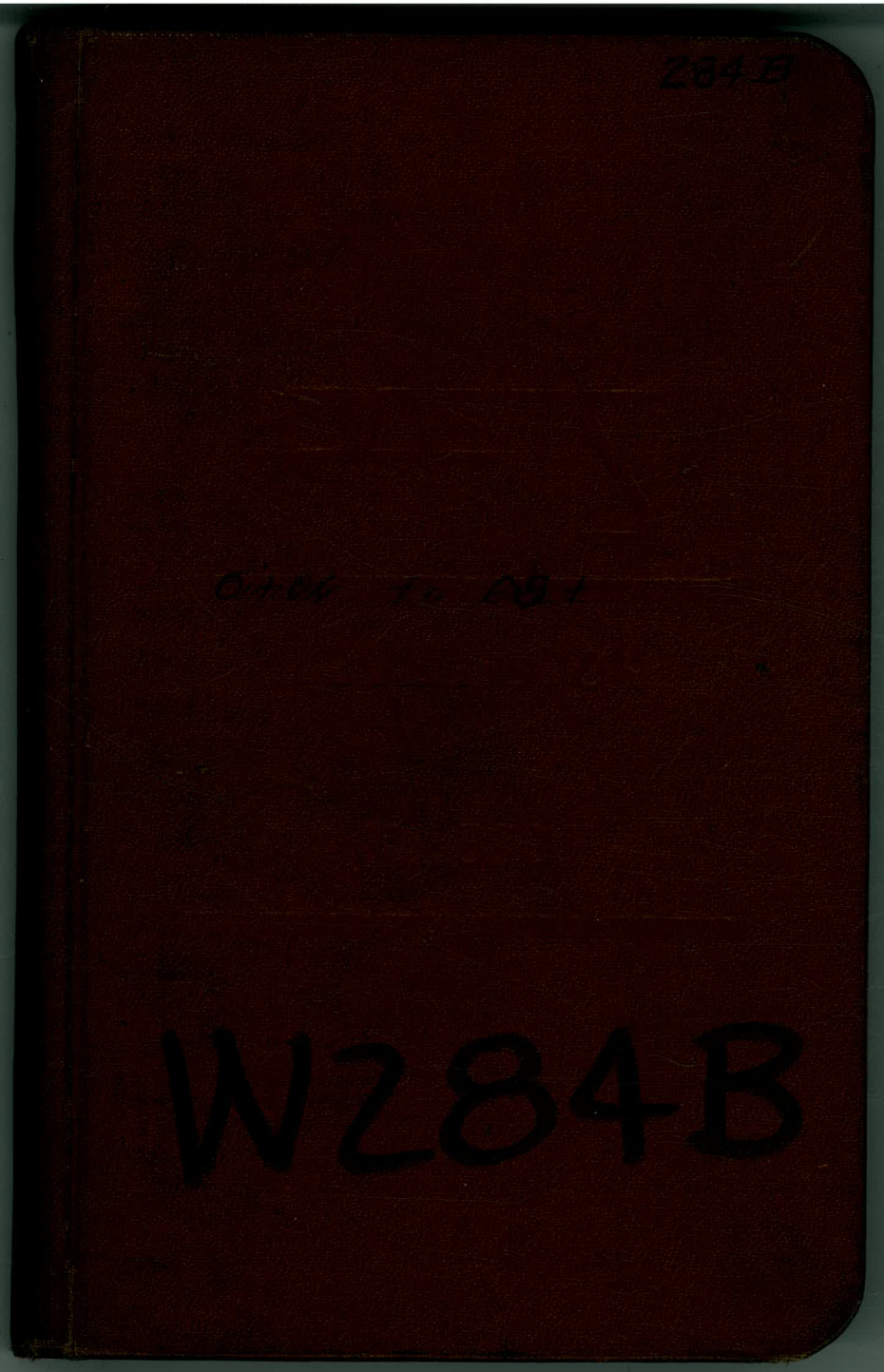
2843
W284B

2ND M.P.L.

Our Leather Bound Engineers Note Books are carried in the following rulings:

No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.

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THE FREDERICK POST CO.

ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

Index

69+53 61			380.41	
	0.18	376.74	376.56	= T.P.
69+25			4.34 372.40	
			13.01 363.73	= T.P. set in Side Bank
	0.23	363.96		
69+00			365.40	
68+89 48			1.51 362.45	
68+61 25			11.64 352.32	
			10.64 363.32	= cut 1ª set in Side Bank
		T.P.	12.30 351.66	
	0.75	352.41		
		T.P.	12.46 339.95	
68+50			347.35	
	1.35	341.30		

B.M. # 17 - El. = 389.92

60' Rt sta. 70+48 - Top A.V.

8/28/30

Simpson - Notes

Jacobszoon - "

Soper - Rod

Kiernan - Stakes

Remmen - "

clear and warm.

8/28/30

Simpson - Notes

Jacobszoon - "

Soper - Rod

Kiernan - Stakes

Remmen - "

clear and Hot

		341.30			
68+25			5.00	336.30	
	↑		12.63	328.67	
	0.19 old	328.86			
	3.14 19	319.66	12.34	316.52	
	+ 44.19		7.69	311.97 = check on Tier #2	
68+00				325.25	
	+				
67+70	X			312.00	
	0.10 old				
	0.10			313.92 = B.M. #16	
	10.46	324.38			
66+85	X		12.38	312.00	
			6.38	318.00 = Cut 6" set in Side Bank	
		T.P.	0.10	324.28	
	12.74	337.01			

↑

8/28/30
Simpson - notes
Jacobszoon - T
Soper — Rod
Kiernan - stakes
Remmen - "

clear and Hot

B.M. #16 - El. = 313.92
60' Rt. Sta. 67+56
Nail in sill of old Trestle #9

9/5/30 :
Simpson - notes
Jacobszoon - T
Soper - Rod
Kiernan - stakes
Remmen - "

9/6/30
Simpson - Notes
Jacobszoon - T
Soper - Rod
Kiernan - Stakes
Remmen - "

clear and Hot

↓

	1	337.01		
66+50	0/0		10.60	326.41
	8		0.04	336.97
	12.45	349.42		
	1			
66+13 89	X		8.14	341.28
			0.21	349.21
	12.90	362.11		
	V.C.			
65+85 62	X		10.79	351.32
		T.P.	0.22	361.89
	12.83	374.72		
65+50	0/0			362.01
	30.00			
	1			
65+43 27	X		10.70	364.02

9/6/30
Simpson - Notes
Jacobszoon - T
Soper - Rod
Kiernan - stakes
Remmen - "

clear and warm

		374.72		
65+14 25			3.10	371.62
		T.P.	0.14	374.58
	12.29	386.87		
64+84 77	V.C.		9.71	377.16
64+54 97	X		6.17	380.60
64+50				381.00
64+20 70	-8.00		3.53	383.34
64+00				385.00
63+95 IV	X		1.48	385.39
			1.32	385.55 check on Grade Point Sta. 63+50

9/6/30
Simpson - notes
Jacobszoon - T

B.M. # 15 - El. = ~~398.52~~ 398.85 Fitting changed on A.V.
Rt. Sta. 63+96 - Top A.V.

398.52 = B.M. #15

63+50	2.20 0.70	400.72 388.61	12.81	387.91	
			3.01	385.60	
63+07 65			2.82	385.79	
62+77 66			3.65	384.96	
62+47 79			6.42	382.19	
62+18 16			11.12	377.49 = T.P. ← 9/2/30	
			12.91	375.70	
62+00	0.44	376.14	2.25	373.89	

+19.85 570

V. C. 0.46 90

9/2/30

Simpson - notes

Jacobszoon - T

Soper - Rod

Kiernan - stakes

Remmen - "

↓

clear and warm.

	+19.8% →	376.14		
61+64 [25]			9.25	366.89
		T.P.	12.17	363.97
	V.C. 0.18	364.15		
61+35 [73]			4.88	359.27
		T.P.	12.78	351.37
	1.73	353.10		
61+10			2.36	350.74 ✓
61+00				347.43
	+33.14%			
60+77 [58]				340.00
				340.79 = B.M. # 14
	7.66	348.45		
	0.0%			
60+15			8.45	340.00
			6.45	342.00 - cut 2'
				Set in side Bank.

9/2/30
Simpson - Notes
Jacobszoon - T
Soper — Rod
Kiernan - stakes
Remmen - "

clear and warm

9/2/30

9/3/30
Simpson - Notes
Jacobszoon - T
Soper — Rod
Kiernan - stakes
Remmon - "

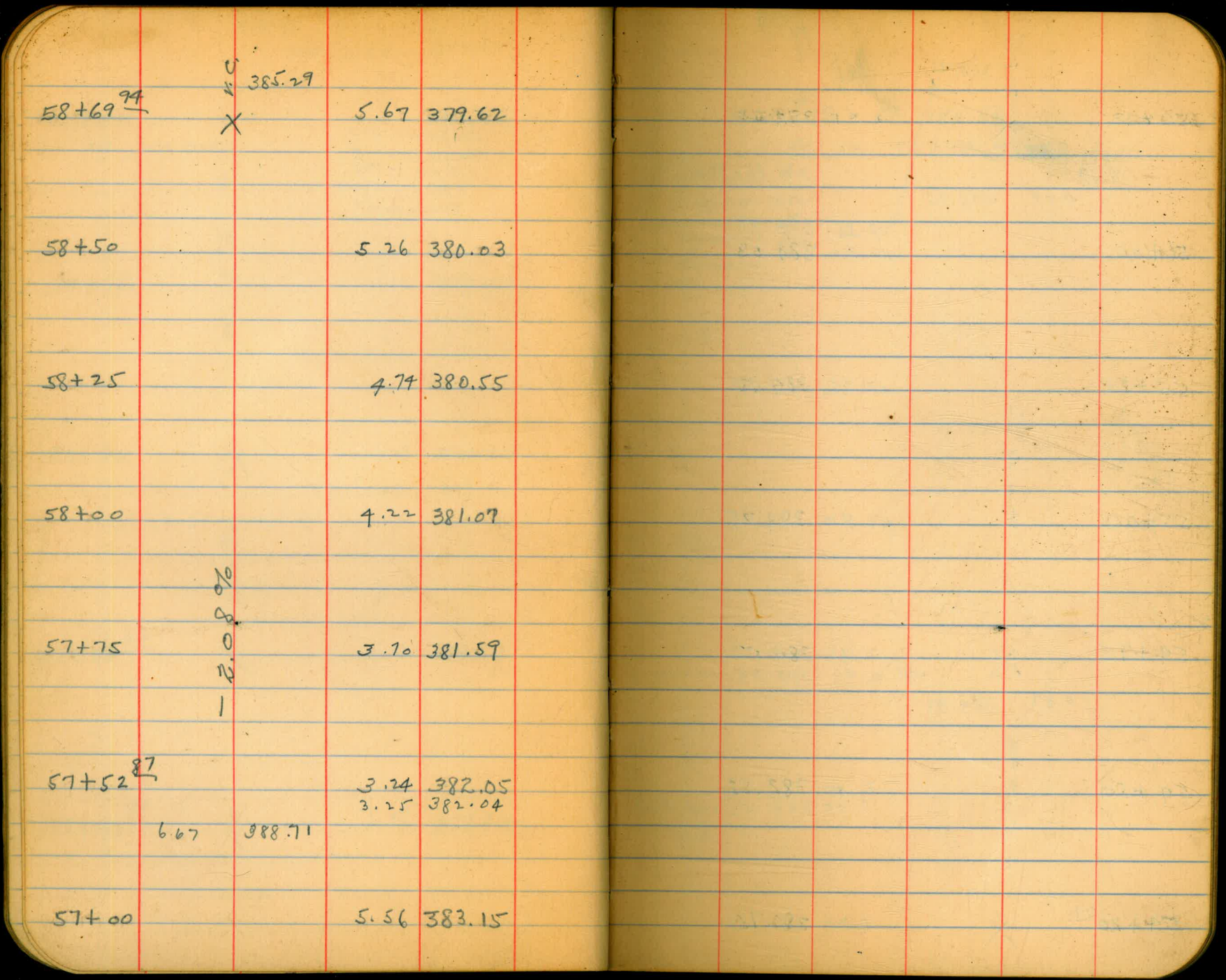
clear and Hot

B.M. # 14 - El. = 340.79
60' Rt. Sta. 60+76
nail in Sill of old Trestle #8

		348.45		
		T.P. - 0.82		347.63
	12.66	360.29		
60+00				346.92
	↑			
	-16.15			
59+75			1.83	358.46
		T.P.	0.00	360.29
	12.70	372.99		
59+50	X		2.99	370.00
		T.P. - 0.03		372.96
	12.33	385.29		
	-18.07			
59+29 60	X		11.62	373.67
58+99 88			7.47	377.82

9/3/30
Simpson - notes
Jacobszoon - ↑
Soper - Rod
Kiernan - stakes
Remmen - "

Clear and Hot


385.29
58+69 94
5.67 379.62
58+50
5.26 380.03
58+25
4.74 380.55
58+00
4.22 381.07
57+75
3.70 381.59
57+52 87
3.24 382.05
3.25 382.04
6.67 388.71
57+00
5.56 383.15

		388.71	
56+50		4.51	384.20
			396.86 - B.M. #13
	0.09	396.95	
		4.56	384.15
56+00		12.80	384.15
55+50		12.85	384.10
55+00		12.90	384.05
54+75		12.93	384.02
		T.P. 12.90	384.05
	0.87	384.92	
54+50		2.40	382.52
		1.40	383.52 = Cut 1² set in S. side Bank
54+20		4.20	380.72

B.M. # 13 - El. 396.86

Rt. Sta. 56+72 - Top A.V.

8/29/30

Simpson - Notes

Jacobszoon - T

Soper - Rod

Kiernon -

Remmen -

		384.92		
53+90 16			6.88	378.04
53+60 49			11.30	373.62
			10.30	374.62 - cut 1ft set in side Bank.
	0.09	372.11	12.90	372.02
53+31 17			4.64	367.47
			3.64	368.47 = cut 1.0 set in side Bank
53+00			12.11	360.00
			T.P. 12.09	360.02
	0.19	360.21		
			T.P. 12.01	348.20
	0.19	348.39		
52+50			T.P. 2.39	346.00
	0.16	346.16		
			T.P 12.65	333.51
	0.08	333.59		
52+00			1.59	332.00

8/29/30
Simpson - Notes. clear and Hot
Jacobszoon - T
Soper — Rod
Kiernan - stakes
Remmen - "

9/3/30
Simpson - Notes
Jacobszoon - T clear and Hot
Soper — Rod
Kiernan - stakes
Remmen - "

		333.59		
51+50			11.59	322.00
		T.P.	12.97	320.62
	0.19	+ 20.0 S/O	320.81	
51+25		X	3.81	317.00
51+00			8.31	312.50
			12.85	307.96
	0.26	+ 18.0 S/O	308.22	
50+50		X	4.72	303.50
			3.72	304.50 = Cut 1' Set in Side Bank
		+ 26.0 S/O		
50+33 19		X	9.01	299.21
			12.51	295.71
	1.58		297.29	

9/3/30
Simpson - notes
Jacobszoon - "
Soper - Rod
Kiernan - stakes
Remmen - "

clear and Hot

	297.29		
50+04 20		4.58	292.71
49+74 52		8.95	288.34
V. C			
49+44 60		11.17	286.12
		2.39	294.90 = check on B.M. #12
			294.97
	2.39	297.36	
49+14 60	X	11.31	286.05
49+00	-3.40 90	10.81	286.55

B.M. #12 – El. = 294.97
60' Rt. Sta. 49+85
Nail in sill of old Trestle #7

9/3/30
Simpson - Notes
Jacobszoon - T
Soper - Rod
Kiernon - Stakes
Remmen - "

clear and Hot

297.36

48+75		9.96	287.40
	− 3.70 o/o		
48+65.07	X	9.62	287.74
	V.C.		
48+35.16	X	6.74	290.62
48+21.41		4.55	292.81
	− 15.96 o/o		
	T.P.	2.98	294.38
6.00	30038		
48+02.67	X	4.58	295.80
47+72.87		1.09	299.29

9/3/30
Simpson - notes
Jacobszoon - A
Soper - Rod
Kiernan - Stakes
Remmen - 1

Clear and Hot

	300.38		
47+42 89		0.08	300.30
47+12 93		1.57	298.81
46+83 19	C	5.54	294.89
46+53 89	X	11.97	288.41
	T.P.	13.01	287.37
	0.18	287.55	
46+39 55	C	2.72	284.83
46+10 03	X	8.05	279.50

9/3/30
Simpson – Notes
Jacobsson – "
Soper – Rod
Kiernan – Stakes
Remmen – "

clear and Hot

		287.55			
46+00				278.50	
45+75			11.55	276.00	
		T.P.	13.01	274.54	
45+50	0.32	274.86		273.50	
45+25	+ 10.000		3.86	271.00	
45+00				268.50	
44+75	X		8.86	266.00	
44+50			9.36	265.50	
44+25			9.86	265.00	
	10.45	275.46	T.P. = 9.85	265.01	
			5.98	269.48	= Check on B.M. #11 — Record El = 269.49
				265.50	= Grade Hub Sta. 44+50
	3.18	268.68			
44+00			4.18	264.50	
			3.18	265.50	= Cut 1? set in Side Bank

9/3/30
Simpson - notes
Jacobszoon - A
Soper - Rod
Kiernan - stakes
Remmen - "

clear and Hot

9/9/30

268.68

43+50		5.18	263.50	
		3.18	265.50	= cut 2° set in Side Bank
43+00		6.18	262.50	set to Grade in Side Bank
	2.0			
42+50		7.18	261.50	
		6.18	262.50	= cut 1° set in Side Bank
42+25		7.68	261.00	
		6.68	262.00	= cut 1° set in Side Bank
42+00		7.68	261.00	
		6.68	262.00	= cut 1° set
		4.71	263.97	= check on
			269.49	= B.M. 11
	1.0			
	7.54	279.03		
		T.P.	11.49	267.54
	7.30	274.84		
41+85		13.84	261.00	
		10.84	264.00	= cut 3° set in Side Bank

9/9/30

Simpson
Elliott
Jacobszoon
Soper
Remmen

clear

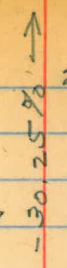
3° cut in Side Bank at 249.41+85

B.M. # 11 — El. = 269.49

9/8/30
Simpson - Notes
Jacobszoon - T
Soper - Rod
Remmen - Stakes

Nail in sill of old Trestle # 6

Part cloudy and cool



274.84

41+50 — 3.25 — 271.59

T.P. 0.38 — 274.46

12.79 — 287.25

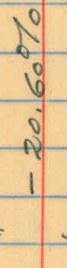
41+25 — 8.10 — 279.15

7.10 — 280.15 = Cut 1st set in side Bank

41+00 — 2.95 — 284.30

T.P. 0.20 — 287.05

12.51 — 299.56



40+50 — 4.96 — 294.60

T.P. 0.34 — 299.22

12.68 — 311.90

40+00 — 7.00 — 304.90

T.P. 0.22 — 311.68

12.69 — 324.37

9/8/30

Simpson - notes

Jacobszoon - T

Soper - Rod

Remmen - stakes

Part cloudy and cool

39+75		324.37		310.05
	20.60 ft			
39+50			9.17	315.20
			T.P. 0.00	324.37
	12.96	337.33		
	25.60 ft			
39+25				321.60
39+00			9.33	328.00
			T.P. 0.09	337.24
	12.84	350.08		
	31.20 ft			
38+75				335.80
38+50			6.48	343.60
			T.P. = 6.02	350.06
	12.86	362.92		

9/8/30

Simpson - Notes

Jacobszoon - T

Esper - Rod

Remmen - stakes

Part cloudy and cool

		362.92		
38+25	90			352.66
	0			
	0			
	6			
	N			
	1			
38+00		X	1.32	361.60
			T.P. = 0.18	362.74
	10.96	373.70		
37+75	90		2.10	371.60
	9.		T.P. 0.10	373.60
	6.			
	11.54	385.14		
	1			
37+44.07		X	1.19	383.95
			T.P. = 0.25	384.89
	12.12	397.01		
37+14.59			7.49	389.52
	V.	C.		
36+84.78			4.13	392.88

9/8/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Remmen - Stakes

Part cloudy and cool

	V.C.	397.01		
36+54.80			3.01	394.00
36+25	11.84	405.84	T.P. 3.01	394.00
	5.44	405.86	5.43	400.41 = Check on B.M.#
36+00	P/O		11.86	394.00
35+50			11.86	394.00
35+35.50			11.86	394.00
35+05.52			13.02	392.84
T.P	0.04	392.88	13.02	392.84
	V.C.			
34+75.72			3.52	389.36

9/8/30
Simpson-Notes
Jacobszoon-T.
Soper - Rod
Remmen - stakes

clear and warm
11:00 A.M.

Rec. El. = 400.42

9/10/30
Elliott-Notes
Jacobszon T
Soper - Rod
Remmen - stakes

BM# 10 El 400.42
Sta. 35+10 A.V.

		392.88			
34+46 28			9.29	383.59	
T.P.			12.69	380.19	
	0.23	380.42			
34+17 38			9.86	375.56	
34+00			10.42	370.00	
T.P.			12.92	367.50	
	0.13	367.63			
33+75			5.63	362.00	
T.P.			9.31	358.32	
	6.02	364.34			
B.M. #9	0.18	364.40	0.13	364.21	Record. 364.22
33+50				354.00	
32+87 50			10.40	354.00	

+32.00 to Trestle

+0.90 to

B.M. # 9 El 364 22
Sta. 33+36.
Nail in sill of trestle

		364.40		
32+50			1.19	363.21
T.P.			0.13	364.27
	11.30	375.57		
32+15	43		3.87	371.70
31+85	53		1.49	374 08
✓ 31+55	53		1.49	374 08
31+25	03		3.87	371.70
31+00			9.90	365.67
T.P.			12.90	362.67
	0.59	363.26		

BM ± 8 El. 397.47
Sta 31+83 A.V.

		363.26			
30+67 30			5.62	357.64	
T.P.			12.84	350.42	
	0.01	350.43			
30+38 53			1.34	349.09	
30+09 18		V.C.	7.49	342.94	
29+79 41			11.19	339.24	
			10.19		Cut 1.0 set in pink
T.P.			6.18	344.25	
	0.97	345.22			
29+49 43			7.22	338.00	
B.M. #7			1.09	344.13	Record 344.12
	4.32	348.44			
		0.00 Test			
29+05.09				338.00	
		V.C.			

9/10/30

9/11/30
Elliott Notes
Jacobszon π
Soper ϕ
Remmer

BM #7 El. 344.12
Sta. 29+27 Nail in Sill

		348.44			
28+90.10			9.90	338.54	
			9.90		Cut 5° Stake offset
28+75.19			8.27	340.17	
			7.27		1° cut in bank
T.P.					
28+60.44			5.57	342.87	
28+50			3.24	345.20	
T.P.			0.13	348.31	
	13.09	361.40			
28+00			5.20	356.20	
T.P.			0.38	361.02	
	13.19	374.21			
27+75			11.40	362.81	

22.00 ft

26.44 ft

		374.21			
27+43 BS			3.16	371.05	
T.P.			0.18	374.03	
	12.60	386.63			
27+14 HI			9.34	377.29	
26+84 FS			5.36	381.27	
26+54 BS			3.63	383.00	
26+00			2.57	384.06	
25+75			2.09	384.59	
25+50			1.60	385.03	
T.P.	T.P. 1		1.60	385.03	
	11.20	396.23			
T.P.			1.10	395.13	
	6.22	401.35			
B.M.			0.41	400.94	Record 400.94

V.C.

1.9 +/-

9/11/30

T.P.	3.72	388.75		385.03	
25+00			2.75	386.00	
24+50			5.25	383.50	
T.P.					
24+00			7.75	381.00	
23+50			10.25	378.50	
T.P.	0.37	378.87	10.25	378.50	
+25					
			1.62	377.25	
23+00			2.87	376.00	
T.P.			12.92	365.95	
	0.08	366.03			
22+75			1.28	364.75	

+1.94%
−
×
+5.00%
+5.00%

9/12/30

Elliott Notes
Jacobszon
Soper
Remmen
States

B.M. #6 El. 400.94
Sta. 25+25 A.V.

		366.03								
22+50			12.53	353.50						
T.P.			12.93	353.10						
	+0.10	353.20								10'. Hsets
22+25	↑		10.95	342.25						~93.48 · BM #5
T.P.			13.03	340.17		9.86	303.34			
	0.17	340.34								
	+ 450				20+50			12.0	291.3	284.0 = Grade
22+00	+		9.34	331.00 ✓						C = 7.3
T.P.			9.34	331.00						
	0.09	331.09			20+80	9/13/30		13.76	289.58	284.0 = Grade
						↓				C = 5.6
21+75			11.34	319.75						
T.P.	0.24	318.46	12.87	318.22	21+00			4.34	299.00	9.12 = Grade
21+59	X		5.91	312.55						C = 7.8 ✓
				309.30						
21+50			9.16	308.50			T.P. = 0.13		303.21	
T.P.			12.95	305.51		12.95	316.16			
	0.16	305.67								
	+ 36.138				21+25			8.99	307.17	300.26 = Grade
				300.26						C = 6.91 ✓
21+25			5.41	294.85						
T.P.			12.84	292.83			T.P.	0.10	316.06	
	6.58	299.41				12.06	328.12			
			8.18	291.23						
21+00										
BM #5			5.93	293.48	21+59			7.47	320.65	312.55 = Grade
				293.48						C = 8.10 ✓

Grade Revised 9/4/30

Record

Sta.	B.S.	H.I.	F.S.	Elev.	Remarks
B.M. #5	2.54	296.02		293.48	
20+80°			12.02 8.02	284.00 288.00	Cut 4.0 Stake in bank
20+23			12.02 11.02	284.00 285.00	✓ Cut 1.0 Stake in bank
20+00			3.85	292.17	
T.P.			0.06	295.96	
	12.70	308.66			
19+78 51			8.85	299.81	
T.P.			0.01	308.65	
	12.62	321.27			
19+50 44			10.87	310.40	
T.P.			0.14	321.13	
	12.96	334.09			
19+23 38			10.61	323.48	
T.P.			0.05	334.04	
	12.85	346.89			
19+00			11.97	334.92	
T.P.			0.07	346.82	
	13.18	360.00			

+36.138% ↑   0.0%   -35.536   -48.23%

Revision Grade 9/14/30

9/16/30
Elliott Notes
Jacobszon π
Soper ¢
Remmen Hammer

B.M. #5 El. 293.48
Sta. 20+80 Nail in Sill

Sta.	B.S.	H.I.	F.S.	Elev.
				293.48 = B.M. #5
				10' offsets
	2.79	306.27		
20+23			12.41	293.86 284.00 = Grade C-9.86 ✓
20+00			6.3	300.0 292.2 = Grade C-7.8 ✓
T.P.			0.23	306.04
	13.04	319.08		
19+78 51			11.20	307.88 299.81 = Grade C-8.07 ✓
19+50 44			T.P. = 0.30	318.78 310.40 = Grade C-8.38 ✓
	12.52	331.30		
19+23 38			1.02	330.28 323.48 C-6.80

		360.00		
18+70 $\frac{96}{}$			10.86	349.14
18+57. $\frac{24}{}$			4.67	355.33
T. P.			0.23	359.77
	12.15	371.92		
18+43 $\frac{18}{}$			11.36	360.56
18+28 $\frac{80}{}$			7.08	364.84
18+14 $\frac{17}{}$			3.78	368.14
17+99 $\frac{35}{}$			1.47	370.45

9/16/30

489.3
2904
19572
44037
9786
1420922

349.14
1+21
3+93

		371.92			9/16/30
17+84 41			0.16	371.76	
T.P.		X	0.16	371.76	
	10.68	382.44			
17+50			8.77	373.67	
17+00			6.05	376.39	
16+50			3.33	379.11	
16+00			0.61	381.83	
T.P.			0.60	381.84	
	11.74	393.58			
15+50			9.03	384.55	

		393.58			
15+00	−5.45%		6.31	387.27	
14+72.06			4.79 3.79	388.79	Cut 1' stake in bank
T.P.	10.61	404.01	0.18	393.40	
B.M. #4			1.87	402.14	Record 402.15
14+57.06			4.53	389.05	
14+42.08			5.36	388.22	
14+27.20	+16.60%		7.28	386.30	
14+14.58			9.46	384.12	
T.P.			12.79	380.79	
	0.31	381.10			

9/16/30

B.M. #4 El. 402.15
Stg 15+00 A.V.

	+ 24.11	381.10	
13+85 42		4.01	377.09
13+75		7.30	373.80
T. P.		7.30	373.80
	0.29	374.09	
13+55		6.61	367.48
13+50			365.90
	T.P. —	12.88	361.21
	0.25	361.46	
13+25		3.46	358.00
13+03.79		10.16	351.30
	T.P.	12.92	348.54
	0.04	348.58	
12+89 34		1.32	347.26
V.C.			

9/16/30
Elliott Notes
Jacobszon ☁
Soper ☀
Remmen stakes

clear and warm

Grade stake at 13+75

9/18/30
Simpson Notes
Jacobszoon ☁
Soper - Rod
Remmen - stakes

clear and warm

348.58

12+74.65		4.37	344.21
12+59.79		6.42	342.16
12+44.83		7.47	341.11
12+27.59		8.12	340.46
12+00		9.11	339.47
11+75		10.81	338.57
		T.P. - 10.00	338.58
11.80	350.38	9.34	341.04 - check
11+50	6.79	347.80	10.13 337.67
11+25			11.03 336.77
11+10.43			11.53 336.27

12+27.59 P.T.

12+00 = 2°12'½

11+75 = 4°12'½

11+50 = 6°12'½

11+25 = 8°12½'

11+10.43 = 9°22'

10+80.43 = 11°46'

10+61.13 = 13°19' P.C.

9/18/30

Simpsen - notes

Jacobszoon - A

Soper - Rod

Remmen - stakes

on B.M. 3 - Rec El. = 341.01

9/19/30

19.3
48
15 44
77 2
92 64

14.57
9.8
11656
5828
69.936

11.46
13.35
1319

48
30
1440
279
927
1206

B.M. #3 El. 341.01

Nail in Sill

10+80 43 — 336.32

9.34 350.35 — 341.01 = B.M #3

10+50 42 — 11.72 338.63

10.72 339.63 = cut 1° set in side Bank

8 17

10+20 87 — 7.16 343.19

6.16 344.19 = cut 1° set in side Bank

9+91 65 — T.P. 0.44 349.91

12.84 362.75

T.P. 0.02 362.73

9+75 — 354.50

12.99 375.72

9+43 60 — 12.67 363.05

9/18/30 — clear and Warm

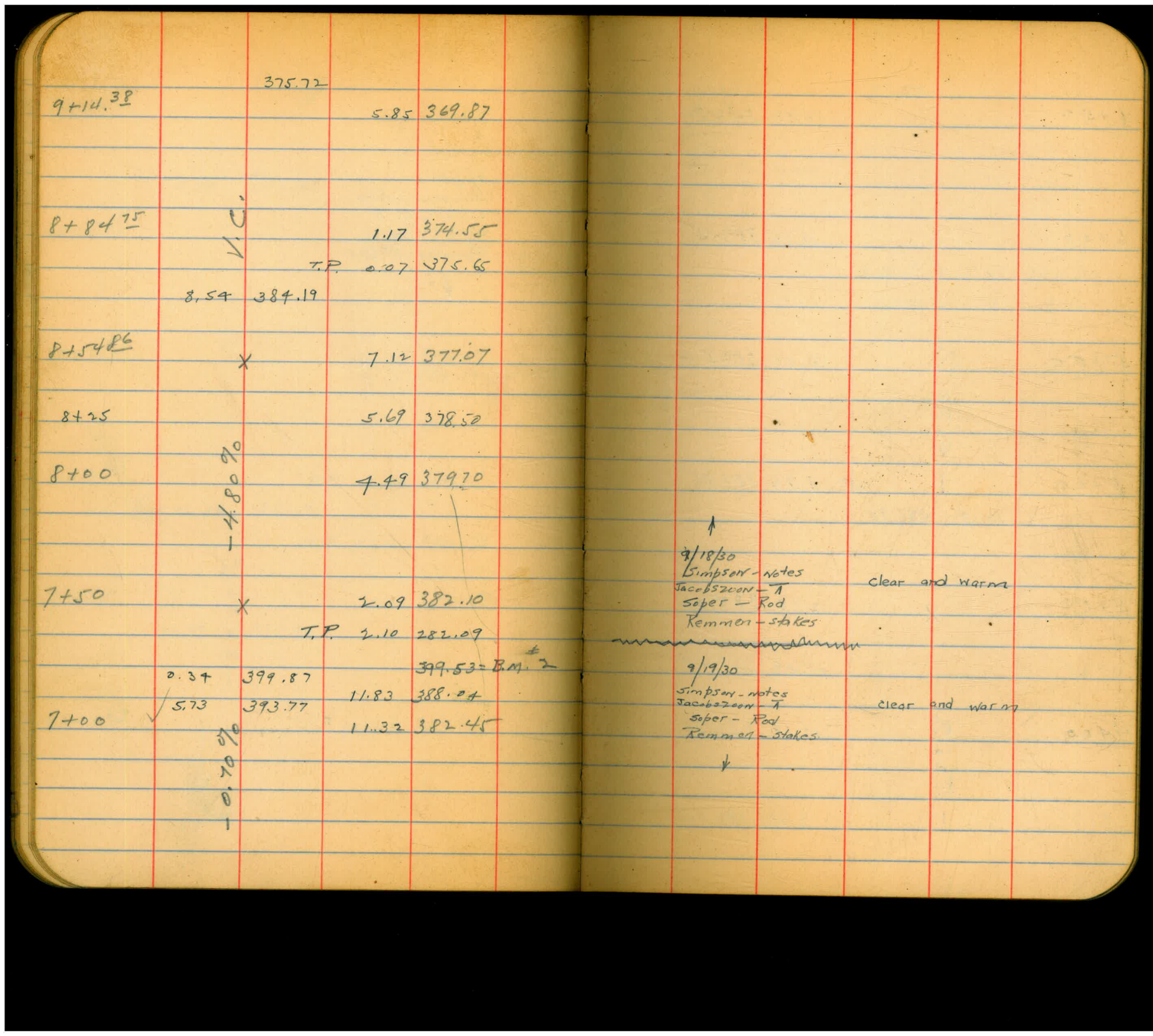
Simpson - notes

Jacobszoon - ↑

Soper - Rod

Remmen - stakes

↓


375.72
9+14.38
5.85 369.87
8+84.75
V. C.
1.17 374.55
T.P. 0.07 375.65
8.54 384.19
8+54.86
7.12 377.07
8+25
5.69 378.50
8+00
4.49 379.70
-4.80 90
9/18/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Remmen - stakes
clear and warm
7+50
2.09 382.10
T.P. 2.10 282.09
399.53 = B.M. #2
0.34 399.87
5.73 393.77
11.83 388.04
7+00
11.32 382.45
-10.10
9/19/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Remmen - stakes
clear and warm

		393.77		
6+50			10.97	382.80
6+00			10.62	383.15
5+50			10.27	383.50
		0.70		
5+00			T.P. 9.92	383.85
	13.13	396.98		
4+50		X	12.78	384.20
4+25			11.48	385.50
4+00			10.18	386.80
		2.70		
3+75			8.88	388.10

9/19/30
Simpson - notes
Jacobszoon - T
Soper - Rod
Remmen - stakes

clear and warm

B.M. # 2 El. 399.53
Sta. 5+69 A.V.

396.98

3+50		7.58	389.40	set nail in side bank
3+25		6.28	390.70	
3+00		T.P. 4.98	392.00	
	10.72		402.72	
2+75		9.42	393.30	
2+50		8.12	394.60	
2+29 61		7.06	395.66	
2+00		7.06	395.66	
		2.18	400.54	ck. on B.M. # 1 — Rec. El. 400.56
1+75			395.66	
1+50			395.66	
			396.33	
1+00			395.66	

$\Delta = 53^\circ 30'$ $D = 24^\circ$

4+52 68	P.T. = 26°45
4+50	= 26°26'
4+25	= 23°26
4+00	= 20°26
3+75	= 17°26'
3+50	= 14°26'
3+25	= 11°26'
3+00	= 8°26'
2+75	= 5°26'
2+50	= 2°25.7
2+29 76	P.C.

9/19/30

87
3940
4267

400.56

2.88 403.38

7.05 396.33

0+50 — 396.33 — 395.66

0+25 — 396.33 — 395.66

0+00 — 396.33 — 395.66 — 396.33

-4.88 ft

0.00 ft

BM #1 El. 400.56
Spike in Transformer pole
of Otay Filter Plant.

400.56
2.43
402.99
395.66
7.33

402.99
6.67
396.32

10/21/30

Rd. Grade at Exit #3

394.91 B.M #3

	4.45	399.36		
2+50		383.77	3.2	396.2
		376.1		
3+00			4.0	395.4
3+50			4.8	394.6
4+00			5.6	393.8
4+50			6.4	393.0
5+00			7.4	392.0
5+50			8.4	391.0
		T.P.	9.61	389.75
	2.31	392.06		
6+00			2.1	390.0
6+50			3.5	388.6
7+00			4.7	387.4
7+50			6.3	385.8
8+00			7.6	384.5
8+50			9.1	383.0
		T.P.	9.84	382.22
	4.45	384.67		
9+00			3.0	381.7
9+50			4.4	380.3
10+00			5.7	379.0
10+50			7.2	377.5
11+00			8.5	376.2

9+10 = R. 2°42'

6+21.07 P.O.T.

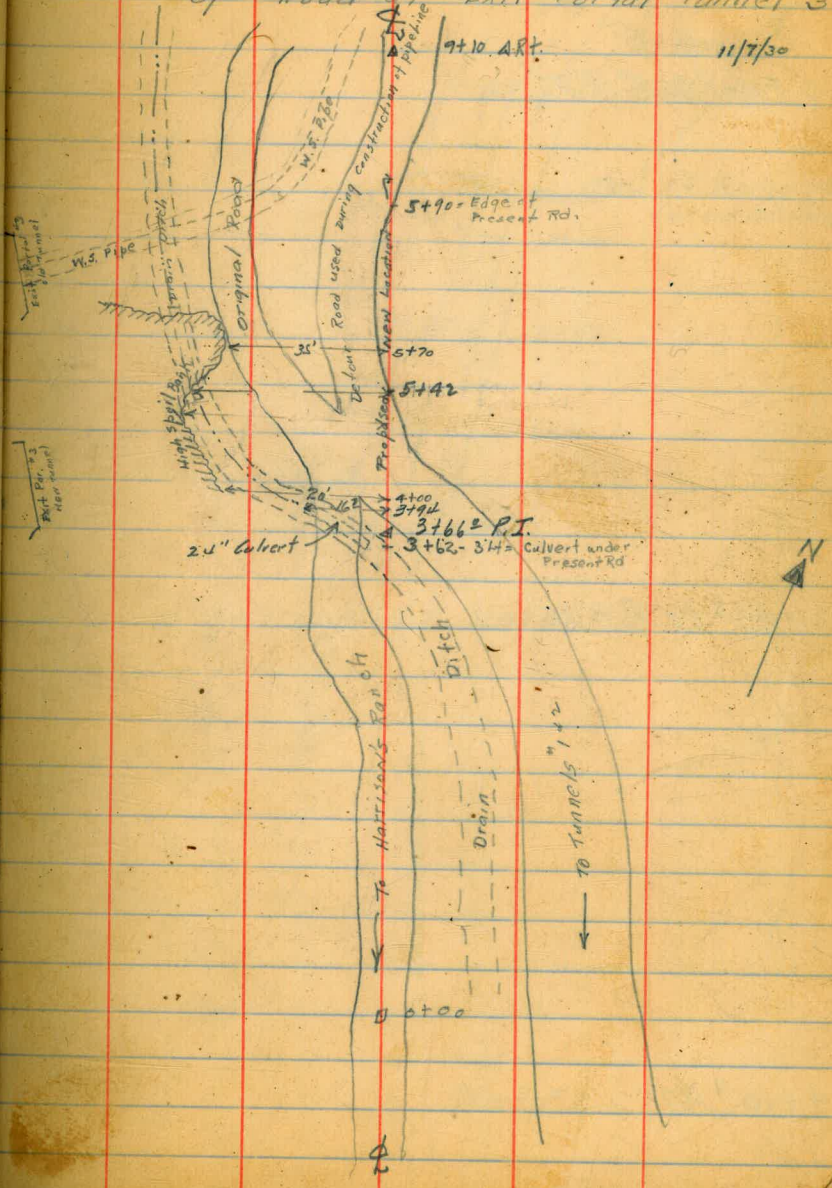
3+66 = R. 3°55'

0+00

Abandoned
See Page 49.

Alignment of Proposed New Location of Road at Exit Portal Tunnel #3

11/7/30



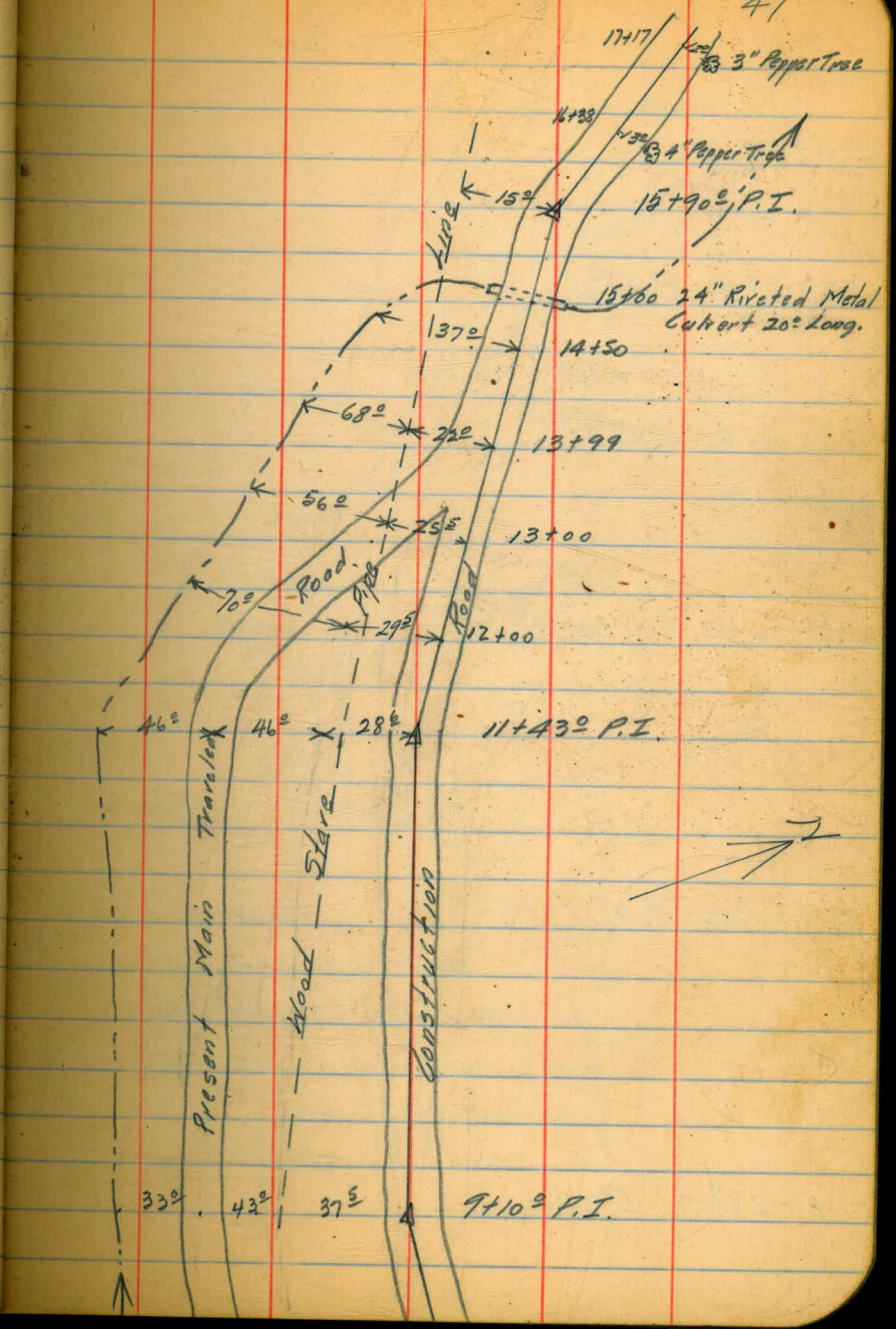
Harrison Road Survey.

Contd. from Page 49.

15+90 P.I. R. 18°47'

11+43 P.I. R. 8°26'

9+10 P.I.



Harrison Road Survey.

24+00

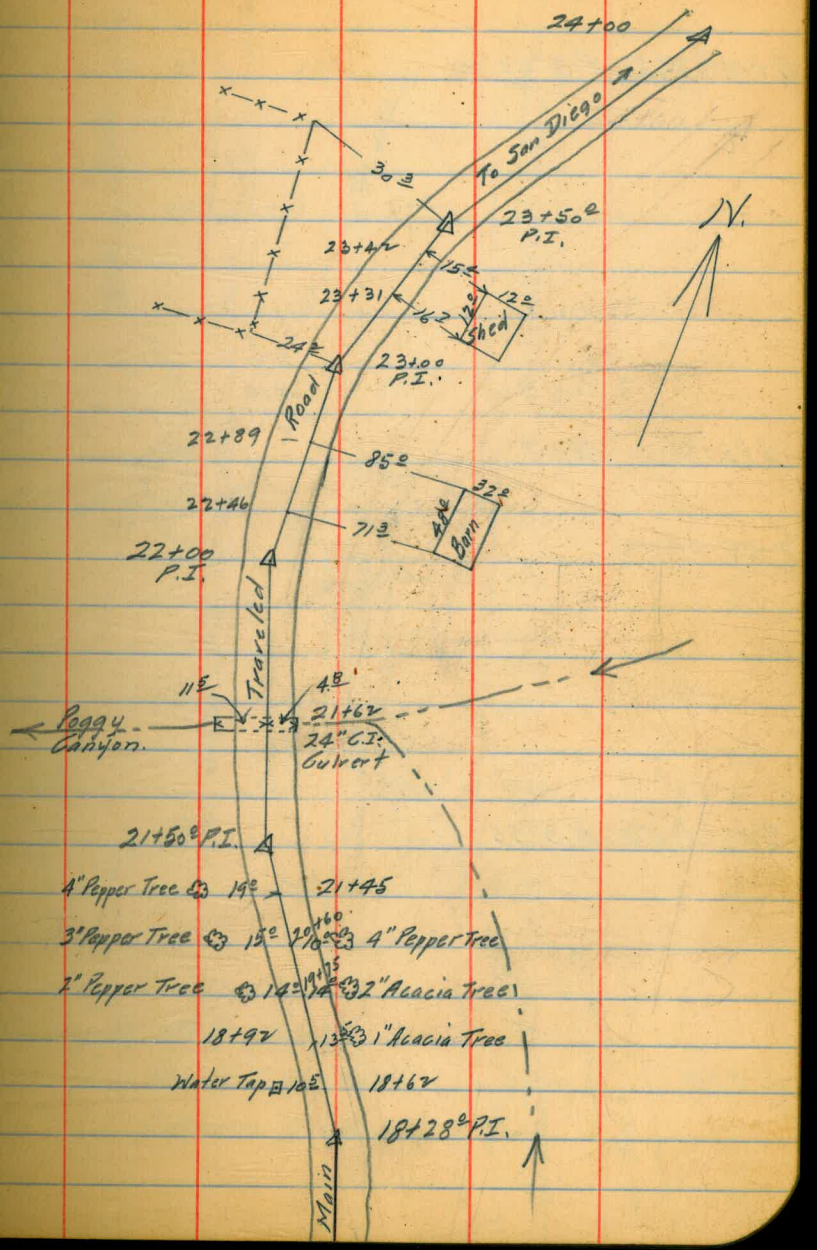
23+50° P.I. R. 44° 0'

23+00 P.I. R. 19° 37'

22+00 P.I. R. 16° 12'

21+50° P.I. R. 9° 18'

18+28° P.I. L. 5° 35'



Alignment of proposed relocation of road at exit end Tunnel 3.
Harrison Ranch.

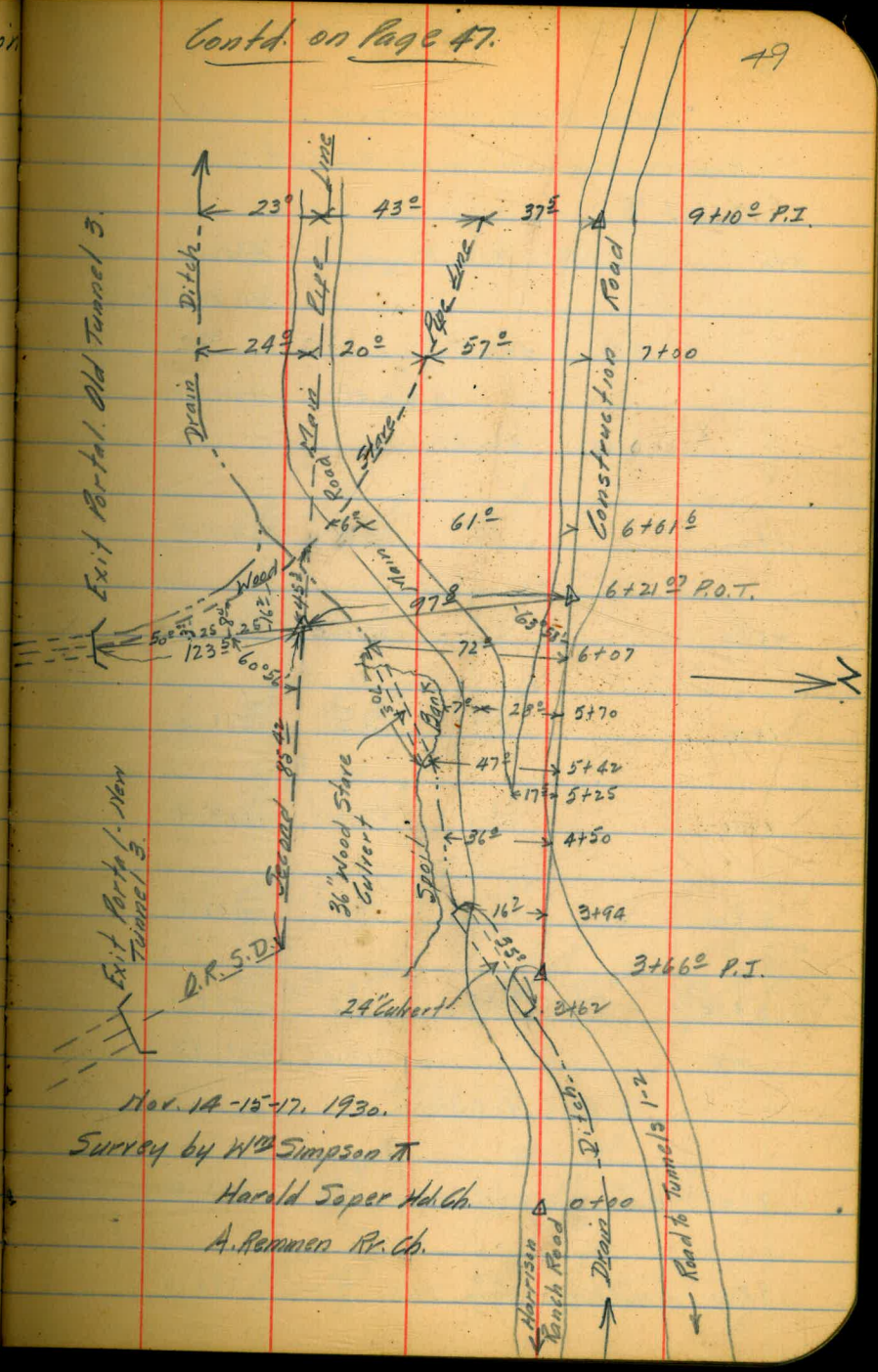
9+10 = P.I. R. 2°42'

6+21.07 P.O.T.

3+66 = P.I. R. 3°55'

0+00

Contd. on Page 47.



Nov. 14-15-17, 1930.
Survey by Wm Simpson Jr
Harold Soper Hd. Ch.
A. Remmen Rr. Ch.

See Level notes on Page 56, This Book

Profile levels and cross-sections of Proposed New location for Road at Exit Portal Tunnel #3.

Sta.	+	T	℄ Rod	Elev.
				394.91 = B.M. #43
	7.86	402.77		
T.P.			0.45	402.32
	12.56	414.88		
0+00			+0.8	415.7
0+50			1.6	413.3
1+00			3.5	411.4
1+50			5.0	409.9
2+00			7.3	407.6
2+50			9.8	405.1
T.P.			12.01	402.87
	2.89	405.76		
3+00	℄ on Edge of present Road		2.6	403.2
3+50	= Bottom of Drain Ditch		9.2	396.6

Cross sections.

Lt. ℄ Rt.

H.I. 414.9

+4' 419.0 / 13° | +3' 418.0 / 8° | +0.8 415.7 / 6° | +1° 415.9 / 10°

+1' 416.3 / 13° | +0.5 415.9 / 7° | 1.8 413.1 / 5° | 1.3 413.6 / 10°

0' 414.5 / 13° | 1.5 413.4 / 7° | 3.6 411.3 / 4° | 3.5 411.9 / 11°

1' 413.8 / 13° | 2.5 412.4 / 6° | 5° 409.9 / 4° | 5' 409.8 / 13°

4.5 410.4 / 15° | 5' 409.5 / 9° | 7.6 407.3 / 7° | 7.6 407.3 / 11°

7' 407.7 / 18° | 8° 406.9 / 13° | 9° 405.0 / 10° | 10° 404.9 / 6° Edge of present Rd | 13° 401.9 / 13° | 18° / 21° = Bottom of Drain Ditch

H.I. 405.8

3' 402.7 / 15° | 6' 399.6 / 10° | 8.8 397.0 / 11° = Bottom of Drain Ditch

5.9 399.9 / 19° | 6° 399.8 / 6° | 9' 396.6 / 6° | 6° 399.8 / 11° = Edge of present Rd to Tunnels 1 & 2 | 7° / 25°

Cross sections

Sta.	+	7	− Rods	Elev.		Cross sections (Lt. — ℄ — Rt.)
		405.76				Lt. ℄ Rt.; 405.8 = H.I.
3+62 in Bottom of Drain Ditch opposite culvert			9.7	396.1		6.5/18.0 399.3 · 6.7/5.5 399.1 · 9.8/5.0 396.0 · 8.0/1.0 397.8 · 6.4/9.0 399.4 · 7.0/22
3+62			11.7	394.1	= Flow line of 24" culvert 3'Lt 3+62	
3+66			7.0	398.8		6.9/18.0 398.9 · 7.0/12.0 398.8 · 7.0/24.0 = N. Edge Rd. · 4.9/27.0
4+00			7.6	398.2		0.6/41.0 405.2 = on Spoil Bank · 10.3/18.5 395.5 in Bottom Drain Ditch · 7.8/13.0 398.0 · 7.8/13.0 398.0 = N. Edge Rd. · 5.5/17.0 400.3
4+50			8.6	397.2		0.0/59.0 405.8 = on Spoil Bank · 10.0/37.0 395.8 = Bottom Drain Ditch · 8.5/15.0 397.3 · 6.7/5.0 399.1 · 5.3/15.0 400.5 · 3.8/25.0 402.0
5+00			6.6	399.2		1.9/57.0 393.9 on Spoil Bank · 12.6/41.0 393.2 = Drain Ditch · 9.4/20.0 396.4 · 9.7/8.0 396.1 · 7.3/5.0 398.5 · 4.6/15.0 401.2
5+50			7.2	398.6		0.8/67.0 405.0 = on Spoil Bank · 13.4/40.0 392.4 = Flow line of 36" W.S. Culvert · 8.5/13.0 397.3 · 8.4/4.0 397.4 · 4.6/15.0 401.2
5+81 This section goes over the Center of Large Spoil Bank on Top 36" W.S. Culvert.			7.1			+5.0/58.0 410.8 = Top Spoil B. · 11.0/34.0 394.8 · 10.9/22.5 394.9 · 7.2/11.0 398.6 · 5.8/3.0 400.0 · 1.0/25.0 404.8
6+00			6.9	398.9		6.9/62.0 398.9 · 10.9/43.0 394.9 · 10.8/26 395.0 = Edge Rd. · 7.7/21.0 398.1 · 6.4/11.0 399.4 · 3.1/15.0 402.7
T.P.			10.82	394.94 394.91		
	9.90	404.81				H.I. 404.8
6+50			4.0	400.8		17.5/94.0 387.3 Drain Ditch · 10.5/84.0 394.3 · 10.6/44.0 394.2 · 9.1/40.0 395.7 · 5.9/18.0 398.9 · 3.8/8.0 401.0 · 3.4/4.0 401.4 · 1.9/5.0 402.9 · 0.3/15.0 404.5
7+00			2.8	402.0		17.7/100.0 387.1 Drain Ditch · 12.3/92.0 392.5 · 12.2/64.0 392.6 = Edge Rd. · 4.8/20.0 400.0 · 2.7/10.0 402.1 · 2.8/3.0 402.0 · 0.4/4.0 404.4 · +1.7/15.0 406.5
7+50			2.9	401.9		4.5/20.0 400.3 · 2.8/10.0 402.0 · 2.6/2.0 402.2 · 0.8/3.0 404.0 · +2.1/15.0 406.9

Sta.	+	HI	⊄ Rod	Elev.
		404.81		
8+00			2.1	402.7
T.P.			1.41	403.40
	4.24	407.64		
8+50			3.2	404.4
9+00			2.8	404.8
9+50			4.0	403.6
10+00			6.4	401.2
10+50			7.7	399.9
11+00			9.9	397.7
11+50			12.0	395.6
T.P.			12.93	394.71
	1.30	396.01		
12+00			3.6	392.4
12+50			7.4	388.6
T.P.			13.67	382.94

404.8

Cross sections.

℄

Lt. Rt.

8+00: 385.1 Drain Ditch 19.7/110.0; 391.1 14.7/102.0; 390.2 14.6/71.0; 394.5 10.3/67.0; 403.4 1.4/15.0 — Rt.: 404.4 0.4/6.0; 406.9 +2.1/15.0

H.I. 407.6

8+50: 401.9 5.7/17.0; 404.6 3.0/11.0 — Rt.: 404.9 2.7/12.0

9+00: 383.8 Drain Ditch 23.8/115.0; 388.6 19.0/106.0; 386.8 20.8/74.0; 390.8 16.8/62.0; 392.6 15.0/46.0; 390.3 = Top W.S. pipe 17.3/38.5; 402.1 5.5/15.0; 406.1 1.5/6.0 — Rt.: 404.8 2.8/15.0

9+50: Drain Ditch 380.1 27.5/123.0; 386.9 20.7/111.0; 385.6 22.0/84.0; 390.5 17.1/55.8; 389.7 = W.S. Pipe 17.9/35.0; 398.5 9.1/18.0; 404.2 3.4/9.0 — Rt.: 403.2 4.4/15.0

10+00: 400.1 7.5/15.0; 401.6 6.0/11.0 — Rt.: 401.6 6.0/15.0

10+50: 379.0 = Drain Ditch 28.6/112.0; 383.1 24.5/98.0; 383.1 24.5/73.0; 389.9 17.7/38.0; 389.1 = W.S. pipe 18.5/32.0; 394.6 13.0/22.0; 395.6 12.0/17.0; 400.1 7.5/8.0 — Rt.: 400.3 7.3/10.0

11+00: 393.7 13.9/21.0; 397.4 10.2/11.0 — Rt.: 397.7 9.9/3.0; 403.0 4.6/11.0

11+50: 377.2 = Drain Ditch 30.4/101.0; 380.3 27.3/89.0; 380.2 27.4/57.0; 385.9 21.7/52.0; 387.2 Pipe 20.4/29.0; 392.0 15.6/20.0; 395.7 11.9/9.0 — Rt.: 395.6 12.0/4.0; 396.9 10.7/9.0; 400.3 7.3/12.0

H.I. 396.0

12+00: 389.2 6.8/19.0; 392.5 3.5/10.0 — Rt.: 393.4 2.6/7.0; 396.9 +0.9/13.0

12+50: 376.0 = Drain Ditch 20.0/95.0; 376.9 19.1/88.0; 377.6 18.4/55.0; 381.0 15.0/46.0; 381.9 = pipe 14.1/27.5; 385.5 10.5/19.0; 389.3 6.7/10.0 — Rt.: 390.0 6.0/7.0; 392.6 3.4/11.0

Sta.	+	=	−	Elev.
				382.94
	0.83	383.77		
13+00			2.0	381.8
13+50	℄ is on the old original Road at This sta.		8.0	375.8
14+00			8.7	375.1
14+50			9.2	374.6
15+00			9.6	374.2
15+00			13.4	370.4 = Flow line of 24" steel culvert
15+50			10.4	373.4
T.P.			10.09	373.68
	3.37	377.05		
15+90			3.8	373.2
16+50			4.8	372.2
17+00			5.0	372.0

Cross Sections

Lt. ℄ Rt.

H.I. 383.8

8 375.4 = Drain Ditch / 80
7 376.4 / 53
7 376.8 / 33
4 378.9 / 20
1 382.8 / 10
0 383.1 / 8
+0 384.4 / 10
+1 385.7 / 15

8 375.4 = Drain ditch / 70
8 375.6 / 50
8 375.7 / 20
7 376.2 / 10
7 376.3 / 10
5 378.0 / 15
3 380.5 / 30

374.3 = Drain Ditch
9 374.8 / 63
9 374.8 / 45
10 373.7 / 15
8 375.6 / 40

13 370.8 / 20
13 370.8 / 12
9 373.9 / 8
373.9
9 / 8
13 370.7 / 15
13 370.7 / 45

H.I. 377.0

0 377.0 / 20
4 372.8 / 14
2 375.0 / 7
4 372.7 / 14
7 370.0 / 22
7 369.7 / 50

0 377.0 / 21
5 372.0 / 9
5 371.6 / 8
8 368.5 / 17
9 367.7 / 50

		377.05			
17+50			5.2	371.8	
18+00			7.7	369.3	
18+50			10.3	366.7	
19+00			11.3	365.7	
19+50			12.3	364.7	
T.P.			12.95	364.10	
	2.28	366.38			
20+00			2.7	363.7	
20+50			4.4	362.0	
21+00			5.7	360.7	
21+50			5.5	360.9	
21+62			7.6	358.8	= Flow line of 24" C.I culvert
22+00			5.6	360.8	

Lt. — H.I. 377.0 — Rt.

+36 380.6 / 25°
0° 377.0 / 13°
4° 372.1 / 6°
5° 371.7 / 8°
9° 367.4 / 20°
10° 366.4 / 50°

0° 377.0 / 36°
7° 369.3 / 13°
10° 367.0 / 9°
10° 366.5 / 7°
12° 364.7 / 12°
13° 363.8 / 40°

2° 375.0 / 39°
8° 369.0 / 12°
11° 365.3 / 6°
12° 364.1 / 9°
13° 363.2 / 14°
14° 362.2 / 50°

H.I. 366.4

0° 366.4 / 37°
36° 367.8 / 18°
361.4 / 50°

46° 361.8 / 60°
82° 357.7 / 30°
56° 360.8 / 8°
55° 360.9 / 6°
67° 359.7 / 11°
53° 361.1 / 45°

		366.38		
22+50			4.8	361.6
23+00			2.0	364.4
T.P.			0.75	365.63
	8.79	374.42		
23+50			6.6	367.8
24+00			3.2	371.2

H.I. 366.4

6+ 360.3 / 50°
5+ 360.5 / 30°
7+ 358.9 / 24°
5+ 361.4 / 13°
5+ 361.4 / 40°

H.I. 374.4

6+ 368.1 / 28°
7+ 366.9 / 21°
6+ 368.2 / 16°
7+ 366.9 / 20°

Additional Elevations on Drain Ditch and Culverts on proposed new Location for Road at exit Portal tunnel #3
See other notes in this Book.

394.91 = B.M. #43.

6.39 401.30

12.9 388.4 = Bottom of Drain Ditch at old Portal tunnel #3

13.7 387.6 = Bottom of Drain Ditch opposite where new steel pipe goes under old W.S. pipe,

10.3 391.0 = Flow line of 36" W.S. culvert at west end.
9.0 392.3 = " " " " " " East end.

7.3 394.0 Flow line of 24" steel culvert 3'Lf sta 3+62. East end
7.3 394.0 " " " " " " " " West end.

Slope stakes set for Harrison road — Jan. 22 clear + warm

Hill Instr. notes: Elliot, Simpson } chain

As per drawing W.D. 288

Sta.	+ s	H.I.	- s	Elev.	Grade	L	℄	R
B.M.	10.51	405.42		394.91	Air rail at sta. 226+			
3+00			2.3	403.1	403.2		-0.1	
+58			5.8	399.6	402.2		-2.6	
4+00			7.2	398.2	401.9		-3.7	
+50			8.1	397.0	401.8	-4.1 / 15.6	-4.8	-1.8 / 11.7
5			6.2	399.2	401.6	-5.1 / 16.6	-2.4	-1.0 / 10.5
+50			6.8	398.6	401.5	-5.2 / 16.8	-2.9	-1.1 / 10.6
6			6.4	399.0	401.3	-1.5 / 11.3	-2.3	+0.2 / 9.2
+50			4.5	400.9	401.2	-0.4 / 9.6	-0.3	+3.0 / 12.0
7			3.4	402.0	401.0	+1.2 / 10.2	+1.0	+5.7 / 14.7
T.P.	6.33	408.56	3.19	402.23				
+50			6.6	402.0	400.9	+1.1 / 10.1	+1.1	+6.3 / 15.3
	6.67	408.90		402.23				
8			6.2	402.7	400.8	+2.6 / 11.6	+1.9	+6.3 / 15.3
+50			4.5	404.4	400.7	+2.4 / 11.4	+3.7	+5.1 / 14.1

(cont)

						L	℄	R	
			40890		Grade				
9			4.1	404.8	400.5	+3.0 12.0	+1.3	+1.2 13.2	
+50			5.3	403.6	399.6	+3.6 12.6	+1.0	+3.6 12.6	
10			7.0	401.4	398.6	+3.4 12.4	+2.8	+2.8 11.8	
+50			9.0	399.9	397.3	+1.7 10.7	+2.6	+8.4 17.1	
11			11.1	397.8	395.2	+2.3 11.3	+2.2	+11.5 20.5	
T.P.	0.56	398.03	11.43	397.47					
+50			2.4	395.6	393.0	+2.1 11.1	+2.6	+10.3 19.3	
12			5.6	392.4	390.2	+2.1 11.1	+2.2	+8.8 17.8	
+50			9.4	388.6	387.3	+1.8 10.8	+1.3	+6.3 15.3	
T.P.	0.56	385.88	12.71	385.32					
13			4.1	381.8	384.5	-3.0 13.5	-2.7	-0.3 9.5	
+50			10.1	375.8	382.0	-7.0 18.5	-6.2	-4.6 15.9	
T.P.	0.47	378.61	7.74	378.14					Jan. 23 same crew cloudy & cool
14			3.6	375.0	380.0	-5.1 17.1	-5.0	-6.2 18.3	
+40					378.5	Grade break			
+50			4.2	374.4	378.2	-3.8 14.7	-3.8	-5.9 17.8	

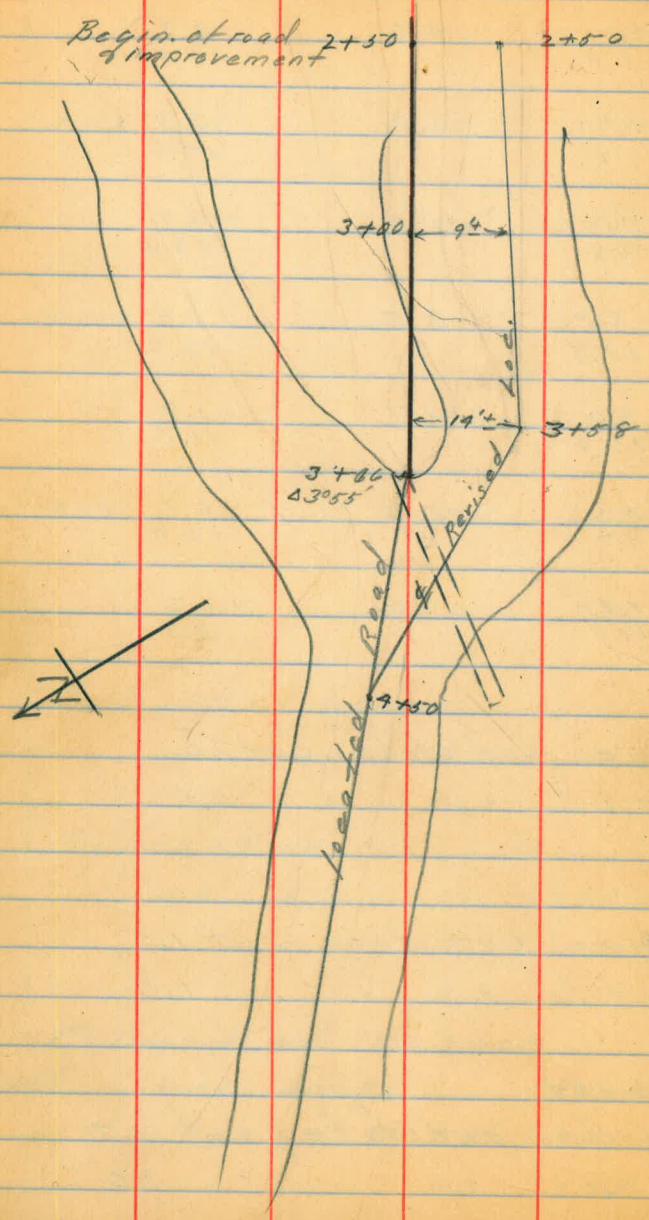
		378.61			Grade
15			4.6	374.0	377.0
+50			5.2	373.4	375.7
16			5.7	372.9	374.5
+50			6.4	372.2	373.2
17			6.7	371.9	372.0
+50			6.8	371.8	370.7
18			9.3	369.3	369.1
+50			11.9	366.7	368.2
T.P.	3.04	369.23	12.42	366.19	
19			3.6	365.6	366.9
+50			4.5	364.7	365.7
20			5.7	363.5	364.4
+50			7.2	362.0	363.8

L	℄	R
-5.8 17.7	-3.0	-6.0 18.0
-1.0 10.5	-2.3	-5.6 17.4
0.0 9.0	-1.6	-2.2 12.3
-0.4 9.6	-1.0	-3.5 14.3
+0.2 9.2	-0.1	-2.8 13.2
+7.3 16.3	+1.1	+0.6 9.6
+4.0 13.0	-0.1	-2.0 12.0
-0.7 10.0	-1.5	-3.3 13.9
+2.1 11.1	-1.3	-3.0 13.5
+3.3 12.3	-1.0	-2.1 12.1
+0.3 9.3	-0.9	-1.8 11.7
-1.2 10.8	-1.8	-2.1 12.1

		369.23			Grade		L	℄	R
21			8.5	360.7	363.7		-3.0	-3.0	-2.9
							13.5		13.7
	+50		8.5	360.7	363.7		-4.6	-3.0	-3.3
							15.9		14.0
22			8.5	360.7	363.7		-5.1	-3.0	-2.7
							16.6		13.0
	+50		7.7	361.5	364.0		-4.2	-2.5	-2.8
							15.3		13.2
23			4.9	364.3	366.0		-2.0	-1.7	-1.8
							12.0		11.7
	+60		1.5	367.7	368.0		+0.2	-0.3	-0.7
							9.2		10.0
24			+2.1	371.3	371.3		-1.1	0.0	+0.3
							11.1		9.3
	Culvert at 21+89								
		H1.369.23							
			10.3	358.9	Flow line E. side cut stake - cut 1.0				
			10.8	358.4	" " " " " " 0.5				
	Culvert at sta 15+00 -								
	4.8	379.2		374.4	sta. 14+5				
			8.9	370.3	Flow line S. side cut stake - cut 1.5				
			9.3	369.9	" " N. " " " " 1.0				
	Culvert at sta. 37+50								
B.M.	9.45	404.36		394.91	Air valve at 226+				
			8.8	395.6	Flow line N. side - cut stake, cut 3.7				
			9.3	395.1	" " S. " " " " 1.0				

Revision of Road Fork.

Jan. 22
1931



Grades And offset cuts For "B" line
Connection of First Main Pipe to
Second Main Pipe.

Sta.	+	π	−	El:	Grade	offset Cut.
	7.58	350.96		343.38 = B.M. #125		
0+00			5.56	345.40	345.63	
0+08					344.89	5.2
0+25					343.33	7.9
0+45			4.76	346.20	341.99	
0+64			8.56 C-18 on ℄	342.40	X 339.74	
0+82.7	Intersection with 2nd M.P.W.		13.66 7" on ℄	337.30	330.14	

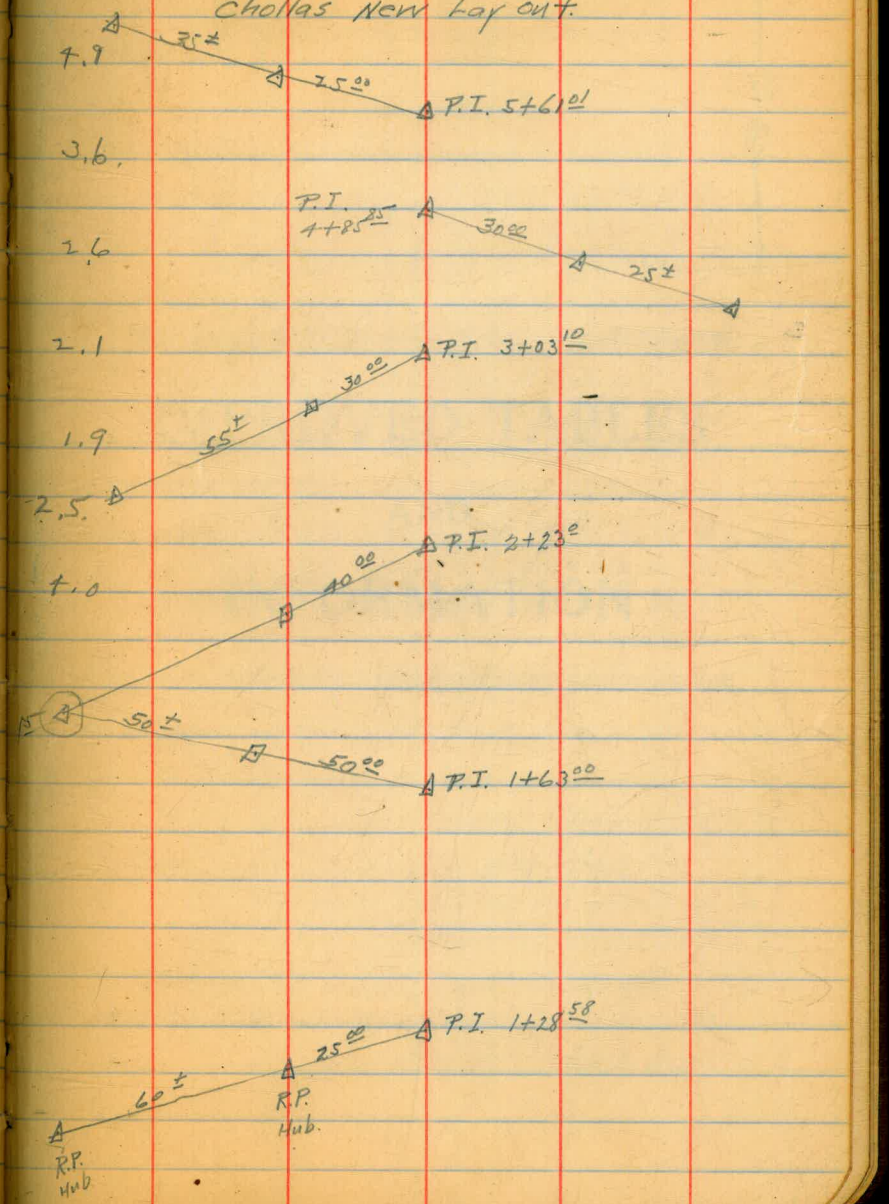
Grades and offset cuts for
"A" Line new layout Chollas "Wye"

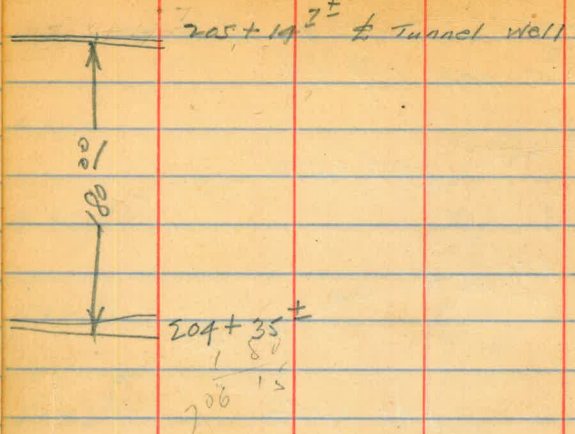
Sta.	+	π	−	Elev. 343.38 = B.M. #125	Grade	Offset cut.
	6.82	350.20				
0+00					347.09	
0+14 11			3.12	347.08	347.04	
0+39 11			3.1 C-12 on ℄	347.1	345.91	1.2
0+63 12			4.2 C-3.8 on ℄	346.0	342.85	3.2
0+90			4.8 C-6½ on ℄	345.4	338.31	7.1
1+15			8.7 C-7½ on ℄	141.5	335.16	6.3
1+38 58			8.3 C-7½ on ℄	341.9	334.59	7.3
1+40			5.8 C-11 on ℄	344.4	334.11	10.3

Sta.	+	x	−	Elev.	Grade	offset cut
1+63		350.20	10.3 C-7 on ℄	339.9	334.11	5.8
		T.P.	12.54	337.66		
	1.09	338.75				
1+93			4.85 C-9 on ℄	333.90	331.85	2.0
2+23			C-9 on ℄		324.90	4.6
				V.C.		
2+48			12.3 C-8 on ℄	326.5	317.77	8.7
		T.P. —	12.28	326.97		
2+70.63	0.53	327.00				
			2.5 C-8 on ℄	324.5	316.07	8.4
3+03.1			6.0 C-6 on ℄	321.0	314.06	6.9
				6.2 ft/0		
3+50			9.1 C-6 on ℄	317.9	311.15	6.7
3+80			10.6 C-7 on ℄	316.4	309.29	7.1
				-3.6 ft/0		
4+00			11.8 C-6 on ℄	315.2	308.57	6.6
		T.P. →	12.36	314.69		

Sta.	+	H.I.	−	Elev.	Grade
	0.80	315.44		314.64	
4+50			2.4 C-5 on ℄	313.0	308.07
4+85 85			4.1 C-3 5 on ℄	311.3	307.73
5+01 41			5.2 C-2 on ℄	310.2	307.56
5+23 41			6.8 C-1 5 on ℄	308.6	306.53
5+46 91			9.9 C-1 on ℄	305.5	303.63
5+61 01			11.6 C-2 on ℄	303.8	301.32
		T.P. →	12.07	303.37	
5+91 64	0.70	304.07	3.8 C-3 1 on ℄	300.3	296.30
		98 0			
6+13 64			9.1 C	295.0	293.53
6+36 60					292.38
6+53 6 = Intersection with W.S. Pipe					292.18

Reference Points on "A" Line
Chollas New Lay out.





IMPROVED TABLES AND INFORMATION

52.8
145
2640
2112
528
76560

10.44
7.28
2.66