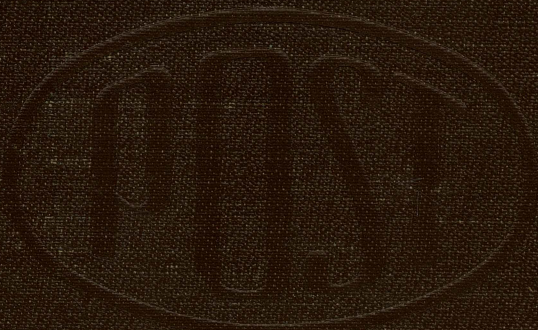


2281



THE  
M  
A  
C  
M  
I  
L  
L  
A  
N  
P  
U  
B  
L  
I  
S  
H  
E  
R  
S



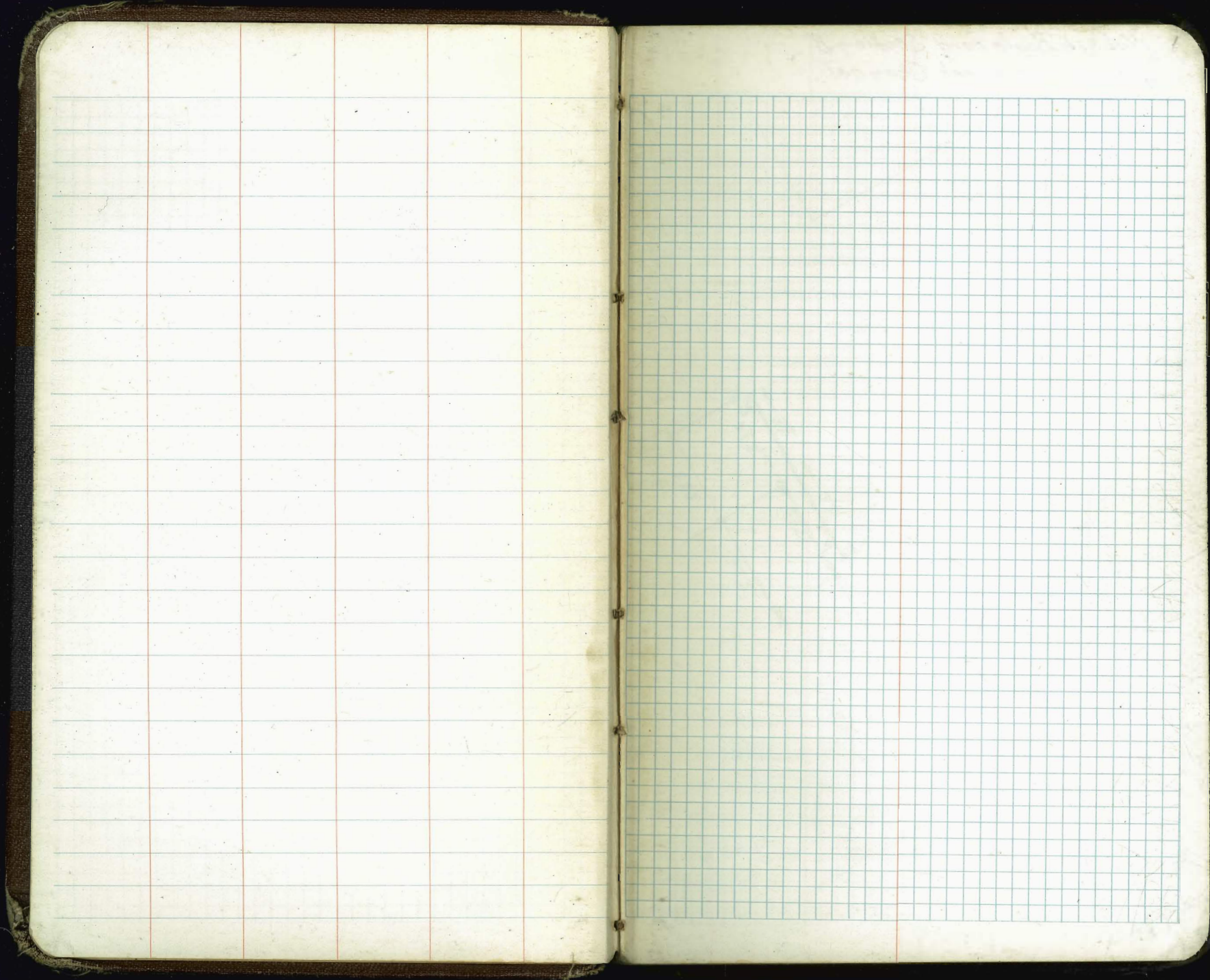
MICROFILMED  
JAN 5 1965

24.15  
28.00  
16.15

5170

INDEXED  
*completely*  
DEC 8 1954



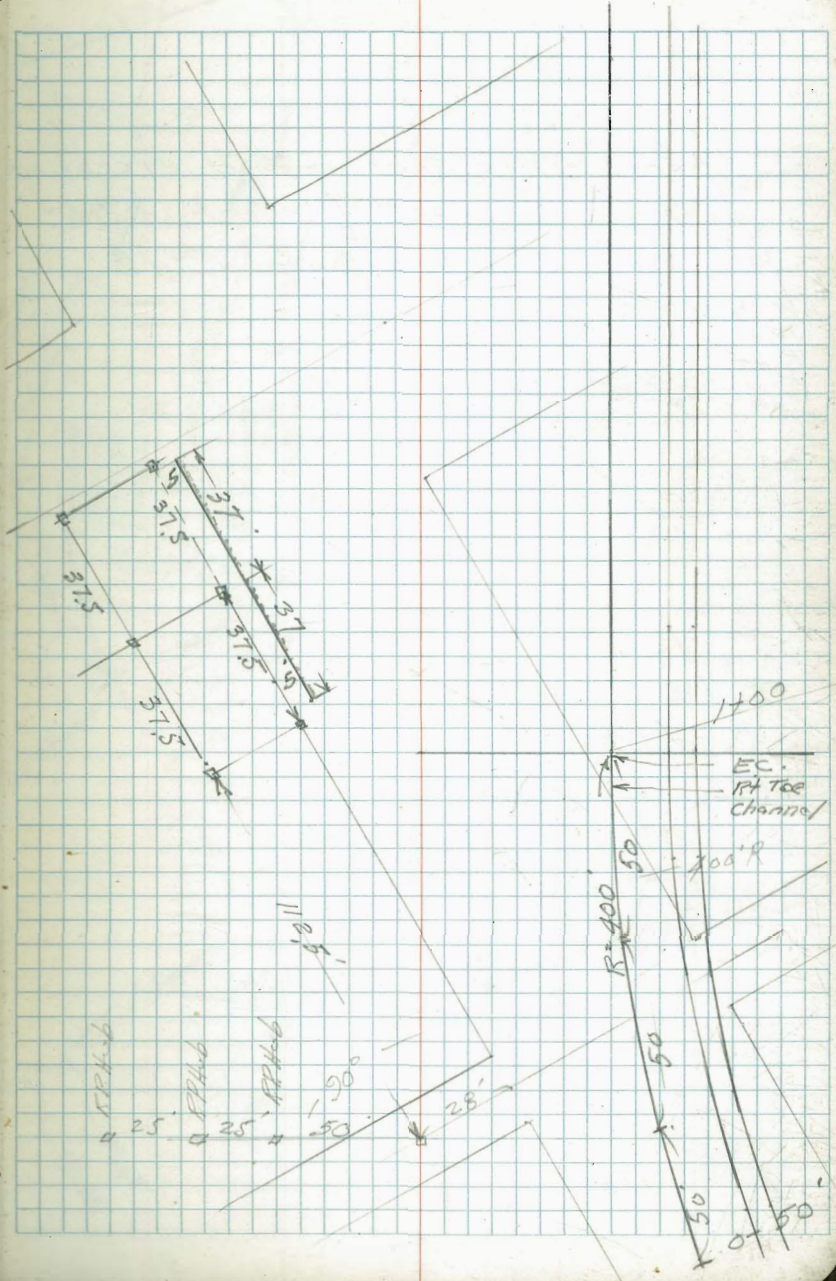




Yabash Boulevard Section B  
 Los Chollas Creek Channel

4

2



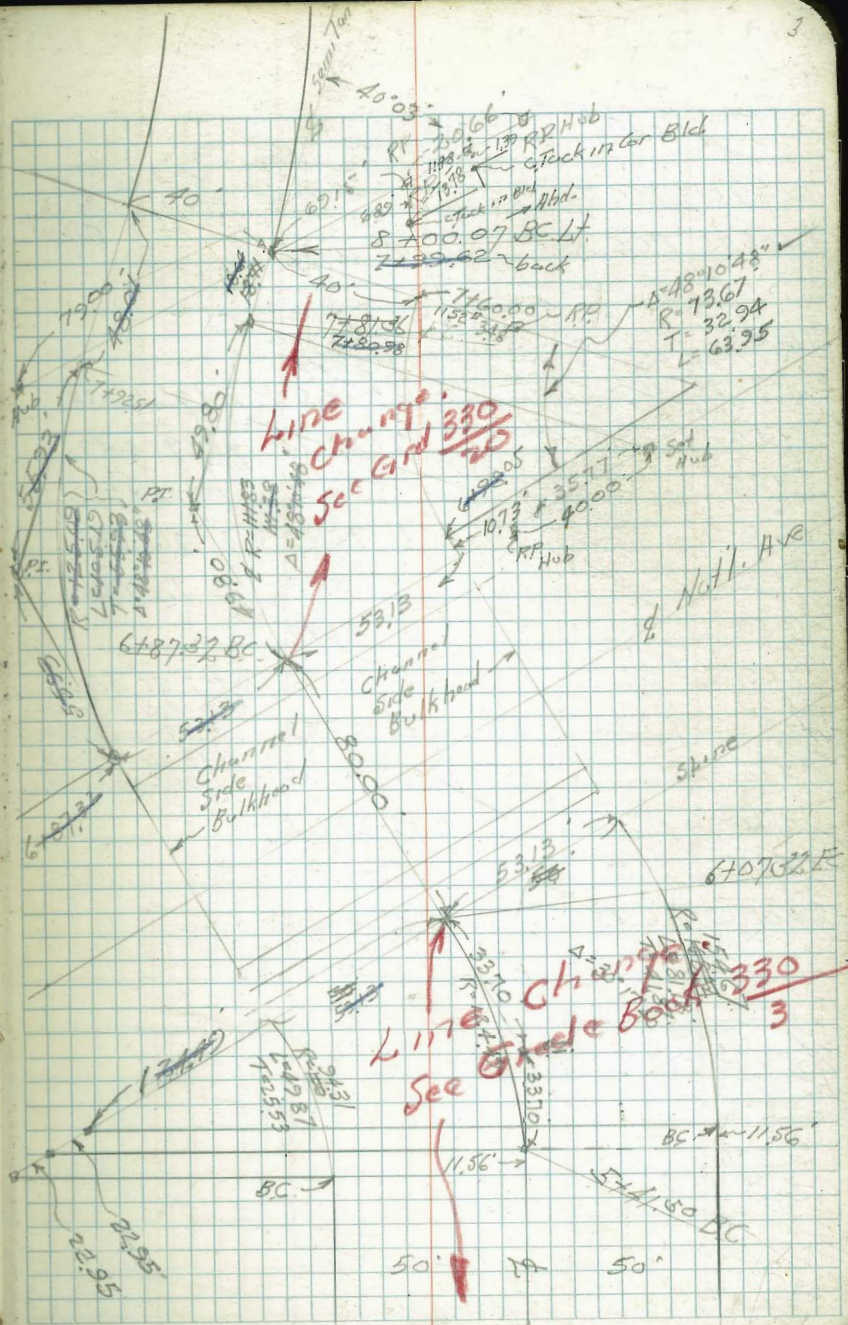


Las Chollas Creek  
Channel

KADIAL

Note: This sketch void excepting  
Ties at 8400.07 which is OK.  
New sketch & Data P-73

Mulhail  
Pope  
Pollen  
Broyton  
June 1953





Cont. P. 5

10 + 95.54 P.C.C. H<sub>4</sub>

11 + 06.75 P.C.C. Bad

9° 35.82

Radius

11 + 0

10 + 71.77 Page 58

10 + 61.22 Page 58

9° 23.12

8° 30.83

8° 11.65

Δ 19° 11' 38"

+ 50

7° 49.24

R 915.47

+ 25

7° 02.3

T 154.79

10 + 0

6° 15.37

L 306.68

+ 75

5° 23.43

D 1.8775

+ 50

4° 41.49

+ 25

3° 54.56

Note: at 55' H<sub>4</sub>

9 + 0

3° 07.62

of % Arc increases  
0.06' per ft.

+ 75

2° 20.68

Left decreases  
0.06' per ft.

+ 50

1° 33.74

+ 25

0° 46.8

8 + 00.07 B.C. H<sub>4</sub>

0° 00'

RR  
40  
Hub

RR  
Hub

60'

11406.75

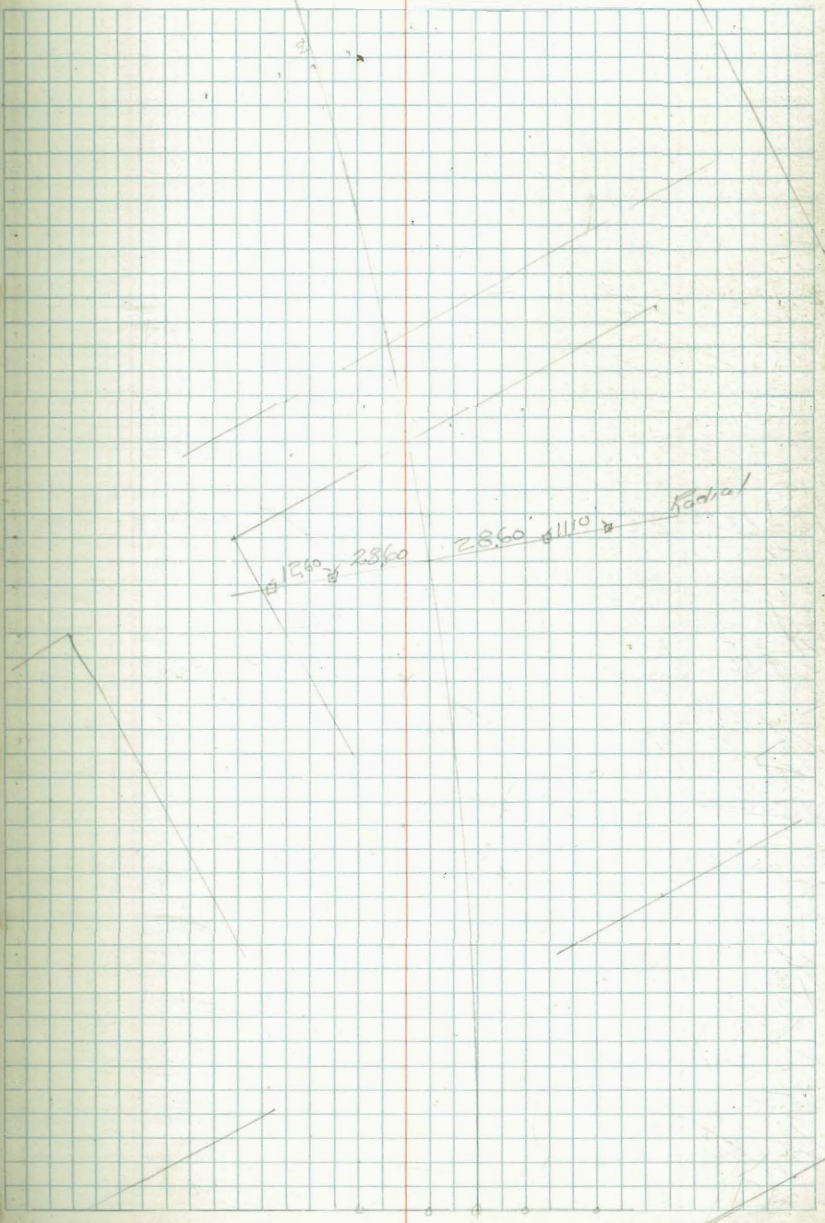
50.0

stub.

Broad Arc



+75		8° 00.38	
+50		7° 17.39 ✓	
+25		6° 34.44	
10+0	PAC	5° 51.45 ✓	
+75		5° 08.5	Δ 26° 40' 50"
			Δ R 1000
+50		4° 25.50 ✓	T 207.13
+25		3° 42.56	Δ 465.66
			D 1.7189
12+0		2° 59.56 ✓	
11+25.54	= End Bulkhead.	2° 51.82	
+50		1° 33.61 ✓	
11+0		0° 07.67 ✓	
10+95.54	PCC 44	0° 00	
11+06.75	PCC 84		





Los Chollas Creek Channel

1546120 E.C.

13° 20.42'

+50

13° 01.17' ✓

+25

12° 18.2

1540

11° 35.22' ✓

+75

10° 52.26

+50

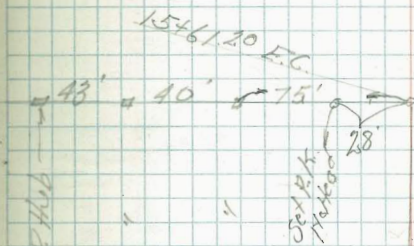
10° 09.28' ✓

+25

9° 26.32

1440

8° 43.34' ✓





+1894 EC 2°08.75

2240 1°52.98

+75 1°31.00

+50 1°02.51

+25 0°48.04

1140 0°26.54

$\Delta 4^{\circ} 17' 30''$

$\frac{1}{2}R 2000$

T 7494

L 14981

D. 0.8594

20769.13 BCRT

Sight on  
N. edge Window  
South of Front Door.

+18.44 EC 2°08.75

2040 1°52.92

+75 1°31.44

+50 1°02.26

+25 0°48.48

1940 0°26.97

$\Delta 4^{\circ} 17' 30''$

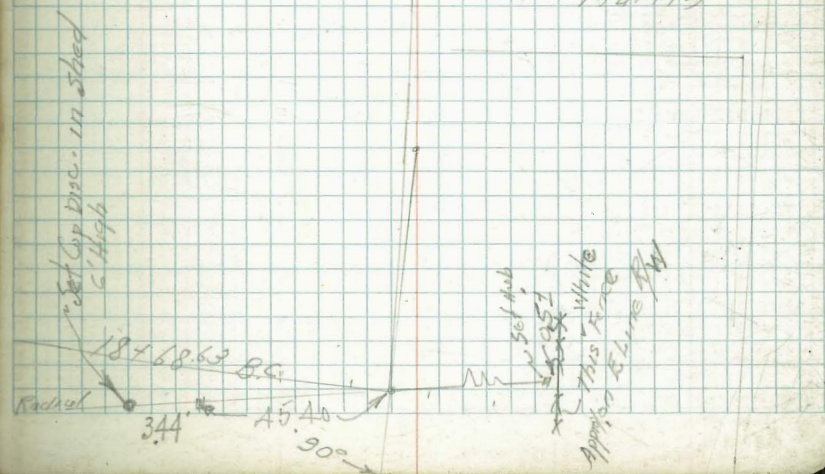
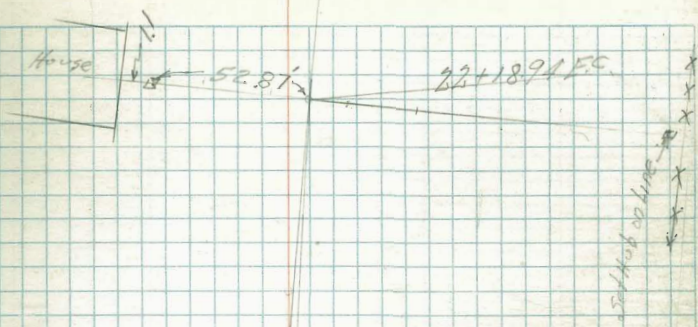
$\frac{1}{2}R 2000$

T 7494

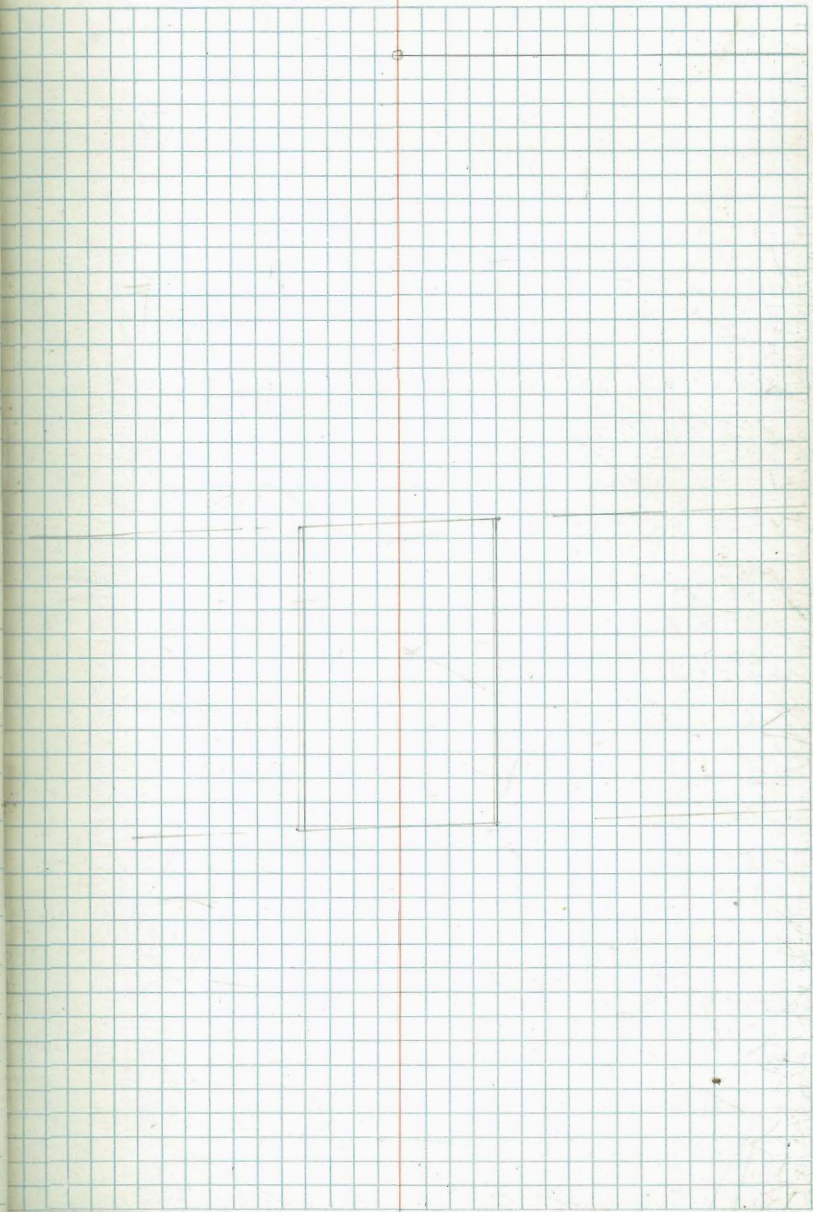
L 14981

D. 0.8594

18768.63 BC Lt









+77.62 PC  $0^{\circ} 57.50'$  ✓  
 34' L/C = 27.82

+50  $0^{\circ} 48.00'$  ✓

+25  $0^{\circ} 37.4'$  ✓  $\Delta 1^{\circ} 55'$   
 R 5000

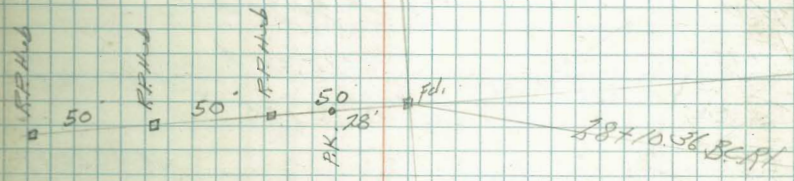
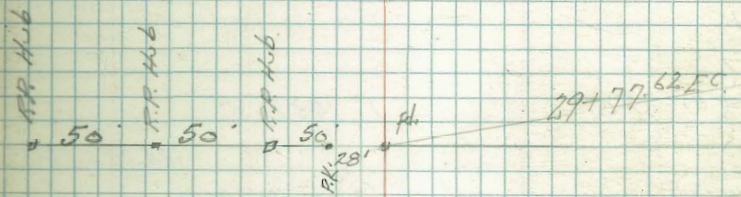
29+0  $0^{\circ} 30.82'$  ✓ T 82.64  
 L 167.28

+75  $0^{\circ} 22.2'$  ✓ D. 0.34377

+50  $0^{\circ} 15.63'$  ✓ 34' L/C = 25.16

34' L/C = 40.02

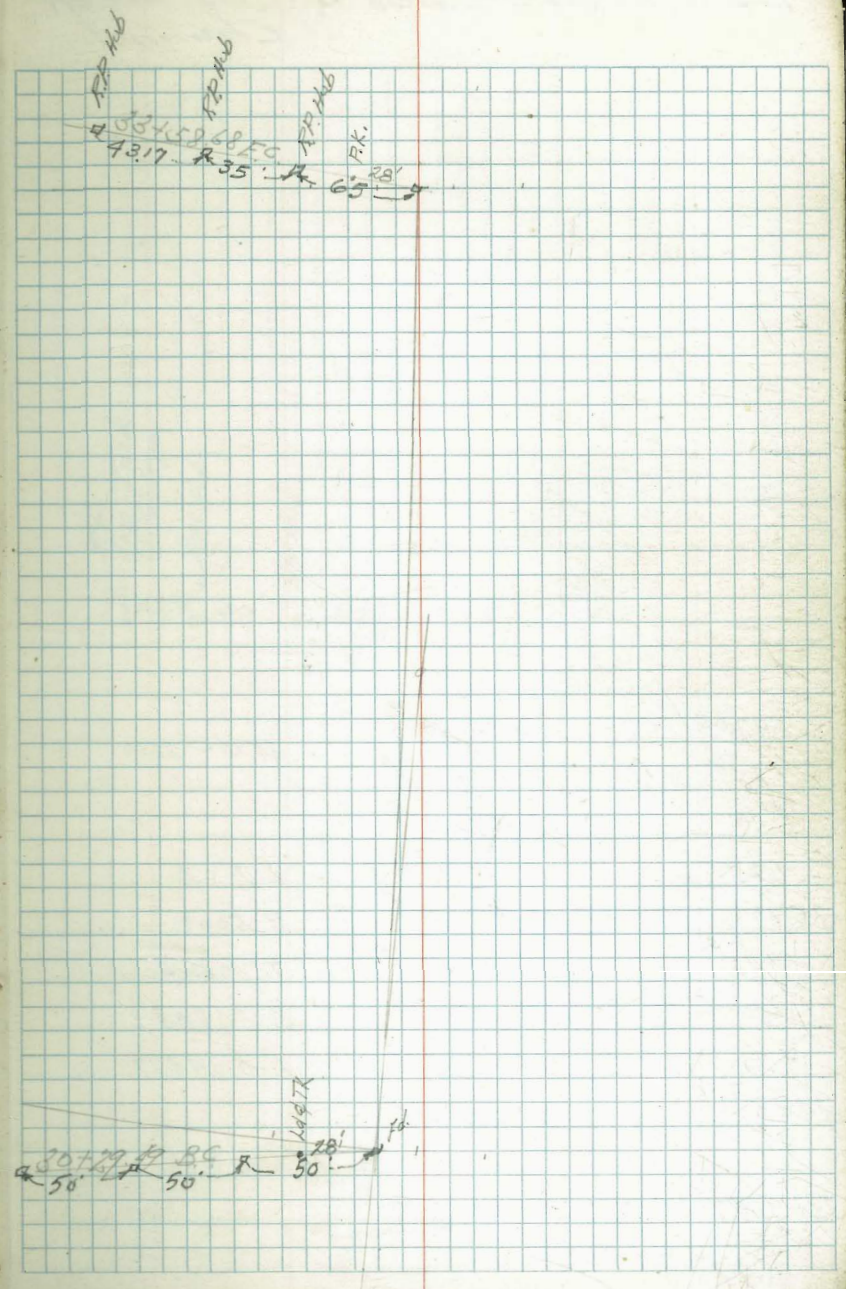
28+10.36 BC RT  $0^{\circ} 00'$





Los Chollas Creek Channel

+58.68	FC	1° 53.16'	34 Lt C = 8.66
+50		1° 50.18'	
+25		1° 41.6'	
33+0		1° 32.99'	
+75		1° 27.4'	Δ 0° 46' 20"
+50		1° 15.81'	R 5000'
+25		1° 07.2'	T 164.65
32+0		0° 58.62'	2 322.19
+75		0° 50.04'	D. 0.074377
+50		0° 41.43'	
+25		0° 32.86'	
31+0		0° 24.24'	
+75	L = 75 C. 13 RT 7505	0° 15.68'	34 Lt C = 37.84
+50		0° 07.05'	
			34 Lt C = 2037
30+29.99	BC Lt	0° 00'	



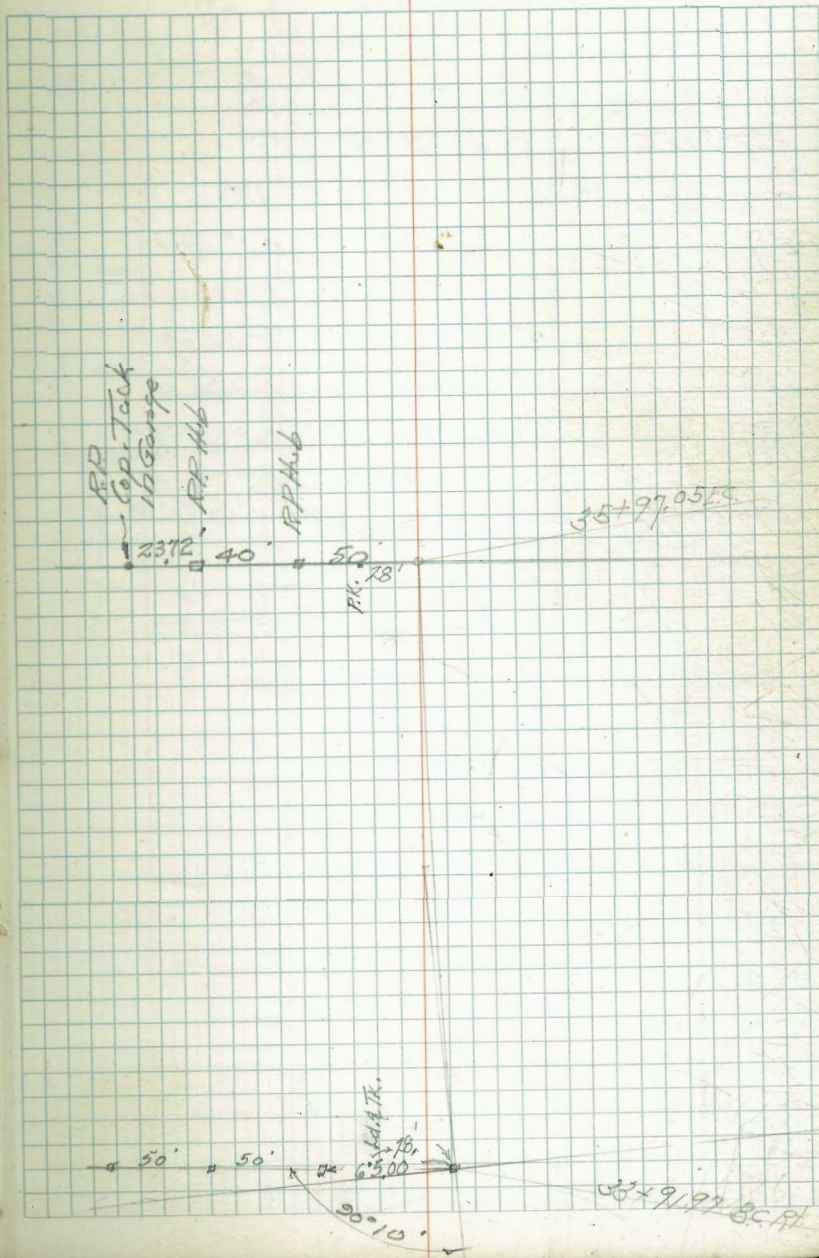


Alignment - Las Chollas Creek Channel

+97.05 FC	1° 10.50' ✓	34' LHC 2220
+75	✓ 1° 02.9' ✓	
+50	✓ 0° 54.32' ✓	
+25	✓ 0° 45.7' ✓	Δ 2° 21'
35+0	✓ 0° 37.13' ✓	R 5000'
+75	✓ 0° 28.54' ✓	T 102.55'
+50	✓ 0° 19.94' ✓	L 205.08'
+25	✓ 0° 11.36' ✓	D.O. 34377
34+0	✓ 0° 02.75' ✓	

34' LHC 8.06

33+91.97 BC RL 0° 00'

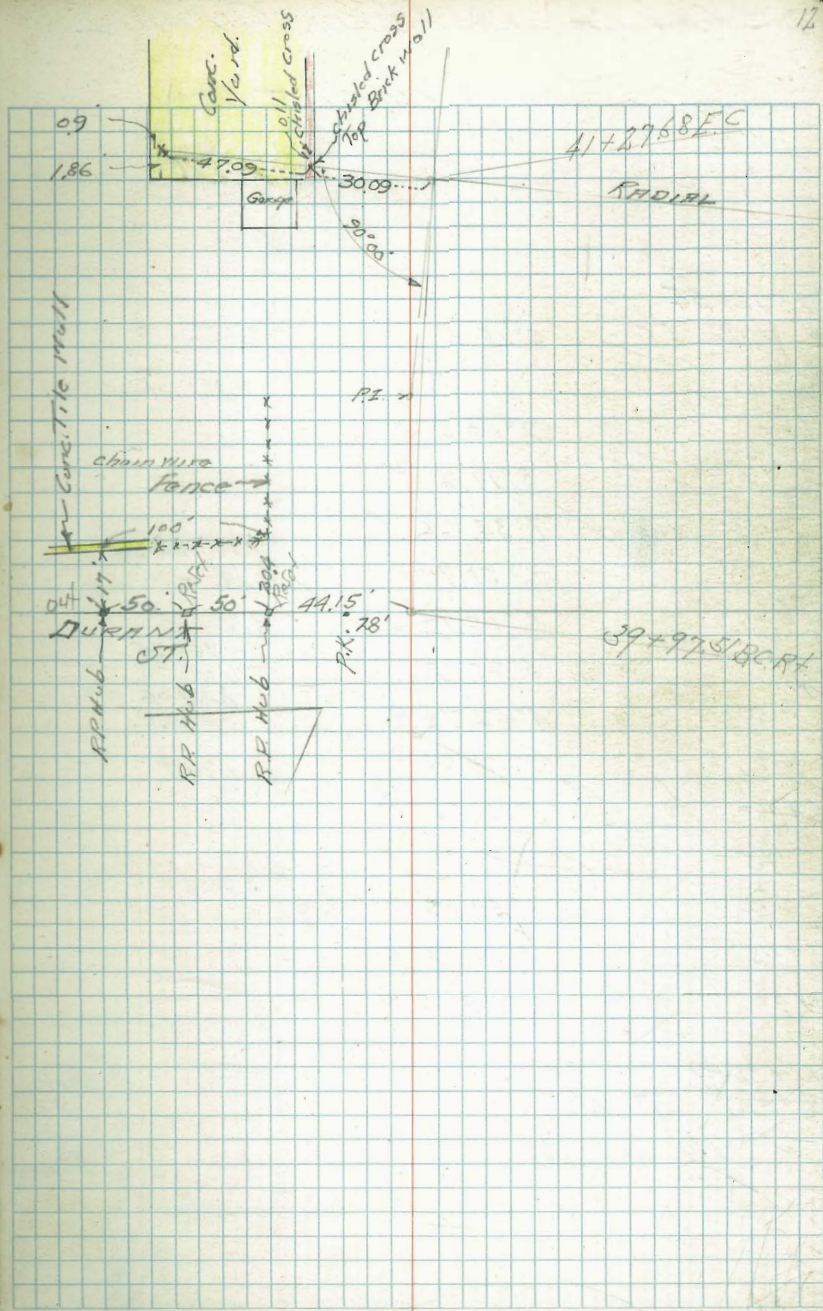




# LAS CHOLLAS CREEK CHANNEL

## ALIGNMENT

+27.68	FC	0° 41.75'	34' Lt C - 27.88
11+0		0° 55.23' ✓	Δ 1° 29' 30"
+75		0° 26.64' ✓	P 5000'
+50		0° 18.04' ✓	T 85.09
+25		0° 07.46' ✓	L 130.17
10+0		0° 50.85'	D, O. 54377
			34' Lt C - 2.49'
39+97.51	BCRT	0° 00'	



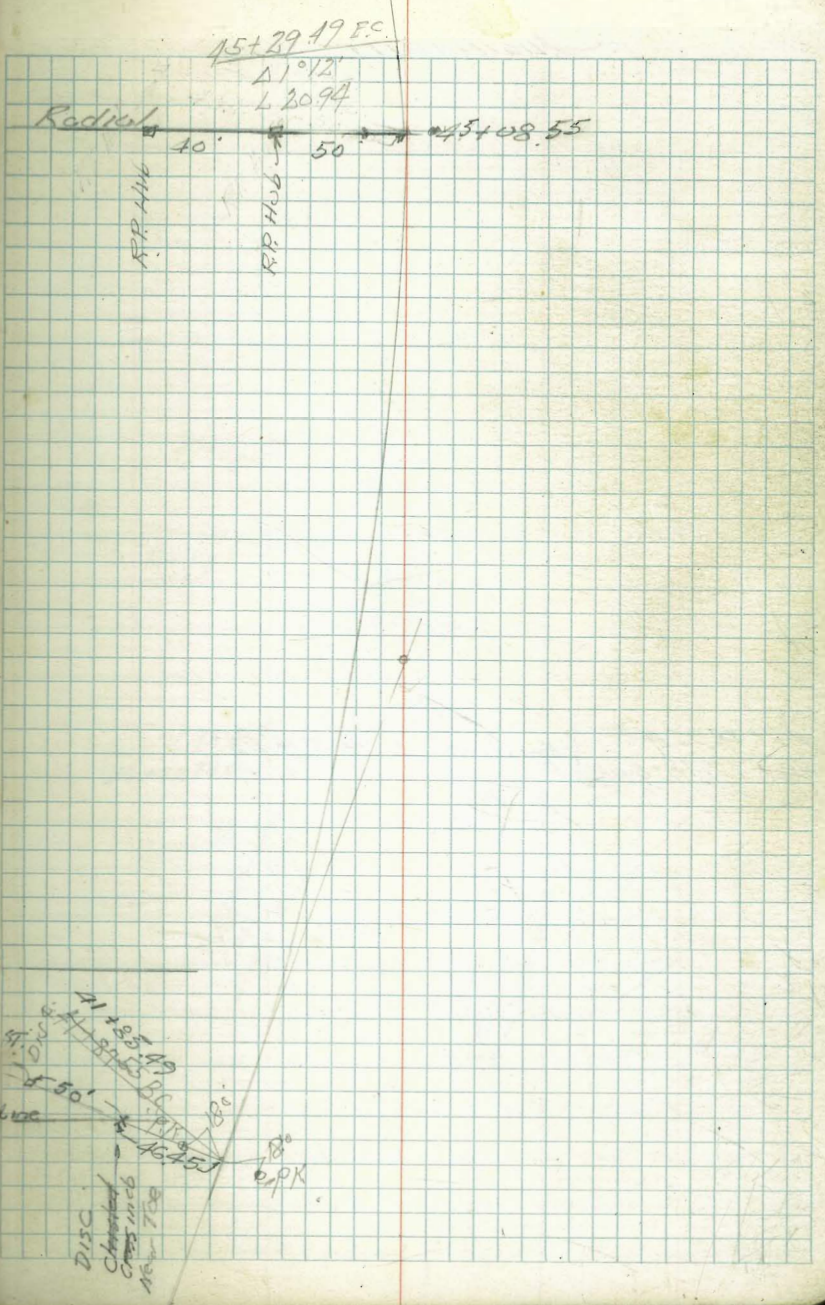


LAG CHULLAS CREEK CHANNEL

ALIGNMENT

		Add. 1° 18'	
		L. 80.94	
45+08.35	111.82 E.C.	9° 15.3 ✓	Stk Line Pt 8.80
45+10		9° 00.6 ✓	
+15		8° 17.6 ✓	
+50		7° 34.66 ✓	
+25		6° 51.7 ✓	18° 30' 36" A 18° 31' 16"
44+10		6° 08.72 ✓	R 1000
+15		5° 25.75 ✓	162.25 T 153.05
+50		4° 42.78 ✓	323.06 L 323.25
+25		3° 59.81 ✓	D 1.7189 ✓
43+10		3° 16.84 ✓	
+15		2° 33.87 ✓	Stk Line on Pt R 2057.8
+50		1° 50.93 ✓	L 25. C = 2578
+25		1° 08.07 ✓	
42+10		0° 25. ✓	

41+85.49  
H 187.65 BC Lt.

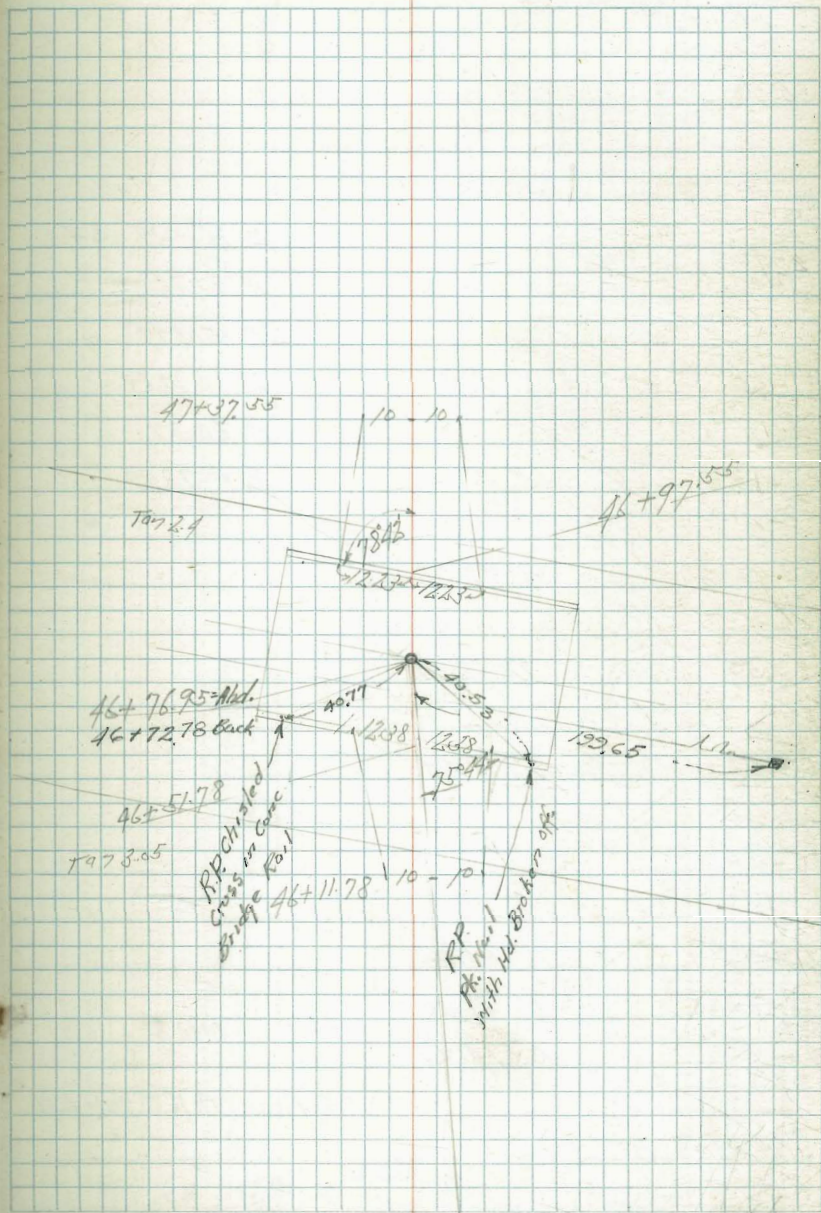




LOS CHOLLAS CREEK CHANNEL

ALIGNMENT

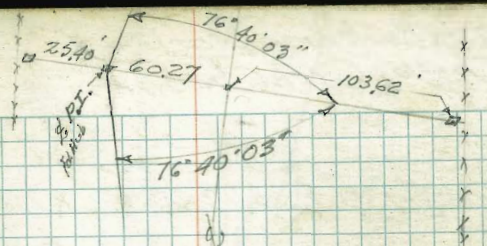
$46+76.95$  Ahd. } Equation  $\Delta R \theta 3^{\circ} 4.53''$   
 $46+72.78$  Back }



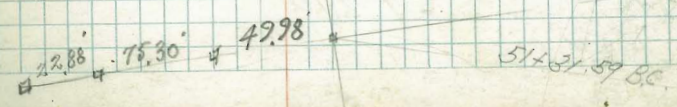


LAS CHOLLAS CREEK CHANNEL

+3793 P.O.C. Mid. Point	6° 39.97'		
56+0	6° 10.09'		
7+50	5° 30.59'		
55+0	4° 51.01'	A 26° 39' 54"	
6+50	4° 11.51'	R 21.76'	
		T 515.19'	
		L 1012.69'	
		E 60.27'	
13216 P.O.C. RR	3° 57.43'	D 0.7899'	
51+0	3° 32.02'		
4+50	2° 52.52'		
53+0	2° 12.05'		
7+50	1° 33.53'		
52+0	0° 54.04'		
+83.88	0° 41.30'	34.332'	3343 RT
1+50	0° 14.51'		
		18.666'	18.16' RT State Lane
51+31.59 B.C. RT	0° 00'		



384 50%



disc. fork to East RR

51+31.59 B.C.







WARREN BLVD - SEC. - "B"  
 LAS CHOLLAS CREEK CHANNEL

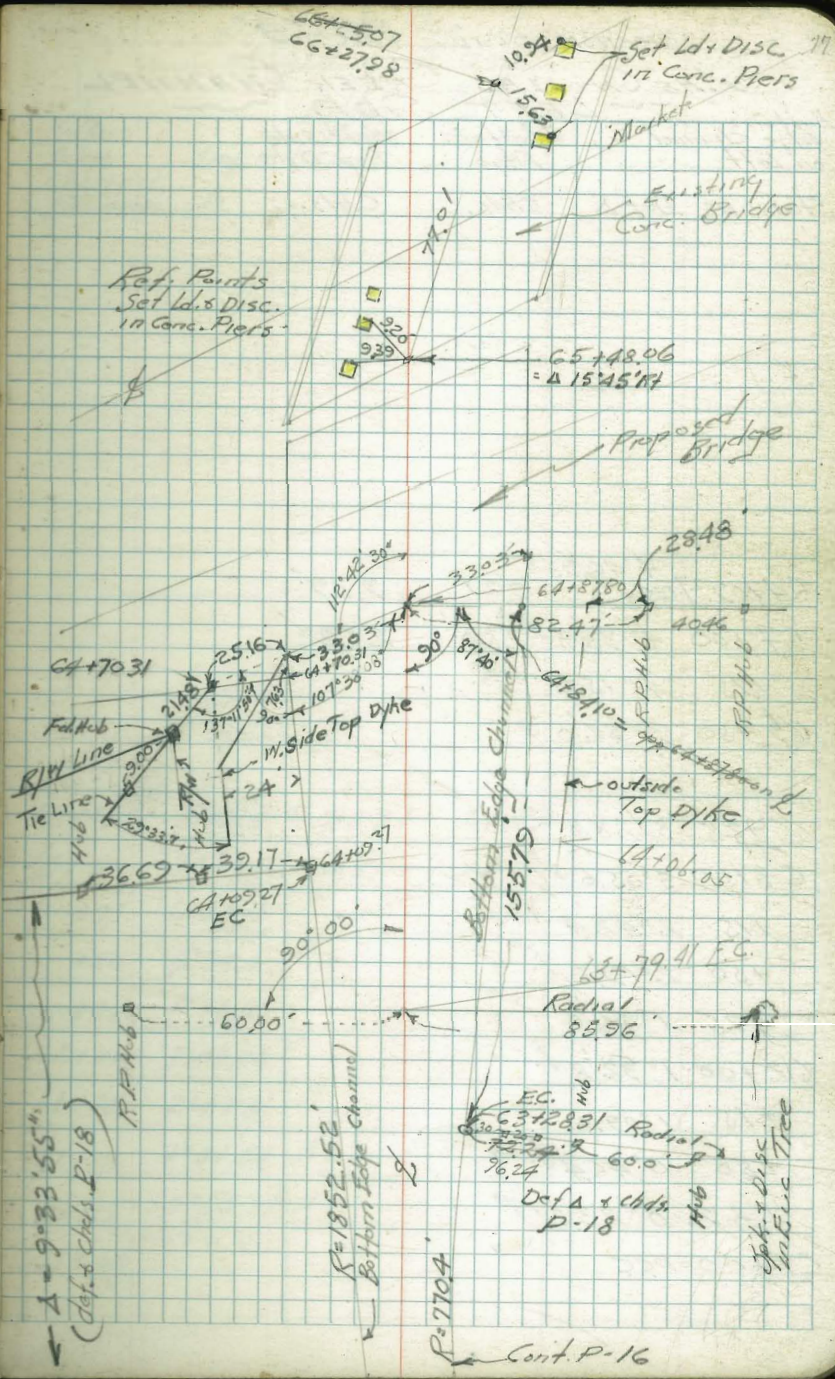
66+27.98 = N. edge Proposed 6" cut off wall  
 66+25.07

65+48.26 = Δ Rt. 15°45'

64+87.80 = P.O.T.

63+79.41 EC	6° 44.16'
+50	5° 53.61'
63+0	4° 27.66'
62+50	3° 01.72'

Radial



Cont. P-16



LAS CHOLLAS CREEK CHANNEL

Bottom  
Edge Channel  
on left

Bottom  
Edge

West side  
Top Dyke

Stations

Def Δ

Chds.

Chds.

64109.27	4°46.93 <sup>1</sup> EC.	9.27	9.39'
64100	4°38.4 <sup>1</sup>	25.0	25.32'
+75	4°15.0	"	"
63+50	3°52.0 <sup>1</sup>	"	"
+25	3°28.8 <sup>1</sup>	"	"
63100	3°05.6 <sup>1</sup>	"	"
+75	2°42.4 <sup>1</sup>	"	"
+50	2°19.2 <sup>1</sup>	"	"
+25	1°56.0 <sup>1</sup>	"	"
62+00	1°32.8 <sup>1</sup>	"	"
+75	1°09.6 <sup>1</sup>	"	"
+50	0°46.4 <sup>1</sup>	"	"
+25	0°23.2 <sup>1</sup>	"	"
61+00 = P.C.C.	"	"	"

18' w/c 25.25

Right Side

Bottom  
Edge  
Channel  
Station

Def  
Δ

Bottom  
Edge  
Chds.

East side  
Top Dyke

63+28.31	8°29.4 <sup>1</sup> EC.	28.31	27.43
63100	7°26.16 <sup>1</sup>	25.00	24.21'
+75	6°38.4 <sup>1</sup>	"	"
+50	5°34.6 <sup>1</sup>	"	"
+25	4°38.85 <sup>1</sup>	"	"
62100	3°43.08 <sup>1</sup>	"	"
61+75	2°47.31 <sup>1</sup>	"	"
61+50	1°51.54 <sup>1</sup>	"	"
+25	0°55.77 <sup>1</sup>	"	"
61+00 P.C.C.	"	"	"

18' w/c = 24.41







Mabach Boulevard Section "B"  
Grader Los Chollas Creek Channel

Sta	Top Dyke	RP	Bottom Cut	Flux
1+13	4.81	3.33 7.12 3.79 5' Back of Top of Rip Rap		-5.19
1+0	4.79			-5.21
1+50	4.68			-5.32
0+0	4.58			-5.46
1+50	4.48			-5.52
1+15	3.80	8.14	7.38	4.34
	9.17	11.72x		2.55
				P-60
Sta	Top Grade	RP	Top Corf	

Flux	Rt. Toe Ch.	Rt. Top Dyke	RP
	1 1/2:1	1 1/2:1	5.8
			RP
			1.3
			1.3
			10.1
			74.1
			3.36
			1.3
			1.3
			10.1
			74.1
			3.46
			5.8
			5.8
			10.1
			74.2
			3.56
			5.7
			5.7
			10.3
			74.1
			3.66
			5.5
			5.5
			10.1
			73.7

Sta      B.C      Top Corf      RP      Top Gr.



	Grades Top Dyke	Cuts & Fill Top Dyke	Cuts & Fill Lt. Toe Channel
1+0	5.41	$\begin{matrix} 159 \\ 102 \\ +53 \\ 187 \\ \hline 592 \\ 15.3 \\ F10.0 \\ 86.0 \end{matrix}$	$\begin{matrix} 1575 \\ 11.56 \\ C7.4 \\ 56.6 \end{matrix}$
3750 2 5/16 TR	4.35 11.33	1.16	6.98
1+50	5.31	$\begin{matrix} 153 \\ 467 \\ 800 \\ \hline 2.83 \\ 4.63 \\ F1.5 \\ 13.7 \end{matrix}$	$\begin{matrix} 1286 \\ 4.86 \\ C8.0 \\ 62.0 \end{matrix}$
3+0	5.20	$\begin{matrix} 4.7 \\ 4.1 \\ 20 \\ \hline 2.94 \\ 4.7 \\ F1.8 \\ 7.7 \end{matrix}$	$\begin{matrix} 1296 \\ 4.96 \\ C7.9 \\ 61.8 \end{matrix}$
1+50	5.10	$\begin{matrix} 64 \\ 72 \\ -15 \\ \hline 304 \\ 624 \\ F3.2 \\ 15.8 \end{matrix}$	$\begin{matrix} 1306 \\ 5.36 \\ C7.7 \\ 61.6 \end{matrix}$
2+0	5.00		
1+78	4.25	$\begin{matrix} 3.19 \\ 11.76 \\ F8.57 \\ 10.84 \\ \hline \text{top Rip Rap.} \end{matrix}$	
1+50	4.89		
1+37.5	4.87	$\begin{matrix} 3.27 \\ 4.23 \\ F3.66 \\ 5.14 \\ \hline \text{5' Buld} \\ \text{top Rip Rap.} \end{matrix}$	

Grades Floor	Rt. Toe Ch. H:1	Rt. Top Dyke Ret Point
-4.67	$\begin{matrix} 1595 \\ 825 \\ C7.0 \\ 605 \end{matrix}$	$\begin{matrix} 5.92 & 7.7 \\ 7.7 & 7.8 \\ -1.8 & -0.1 \\ 73.7 \end{matrix}$
-4.72	$\begin{matrix} 1286 \\ 4.86 \\ C8.0 \\ 62.0 \end{matrix}$	$\begin{matrix} 283 & 123 \\ 423 & 423 \\ F1.4 & -0.1 \\ 73.1 \end{matrix}$
-4.82	$\begin{matrix} 1296 \\ 5.0 \\ C8.0 \\ 62.0 \end{matrix}$	$\begin{matrix} 274 & 477 \\ 477 & 477 \\ F1.8 & 0.0 \\ 73.7 \end{matrix}$
-4.96	$\begin{matrix} 1306 \\ 5.06 \\ C7.0 \\ 60.5 \end{matrix}$	$\begin{matrix} 304 & 524 \\ 524 & 506 \\ F2.0 & +0.2 \\ 74 \end{matrix}$
-5.02	$\begin{matrix} 1316 \\ 5.2 \\ C7.3 \\ 61.0 \end{matrix}$	$\begin{matrix} 314 & 63 \\ 63 & 33 \\ F3.1 & +1.0 \\ 75.7 \end{matrix}$
-5.05		
-5.12	$\begin{matrix} 1326 \\ 4.2 \\ C7.1 \\ 63.7 \end{matrix}$	$\begin{matrix} 326 & 55 \\ 5.5 & 57 \\ F2.3 & -0.2 \\ 74.3 \end{matrix}$



Top Dyke	5' RR	Top Dike	Toe Ch.
		Fill	Cuts

+8938 BC

+

6+0932 EC

+

002075

For stations across Natl. Ave.  
See sketch P-73

5+4180 BC

For Grades & Slope stakes  
from 5+32.85 to 8+00.07, See P. 74-79

5+40	5.62	8.11 2.21 +6.9	5.71 2.11 F2.4 74.6	15.75 8.95 6.68 60.2
------	------	----------------------	------------------------------	-------------------------------

4+50	5.51	8.1 2.1 +1.4	5.82 2.1 F2.3 74.5	15.85 10.1 5.57 58.6
------	------	--------------------	-----------------------------	-------------------------------

Rt. Tac	Rt.
ch. Cuts	Top Dike
	Fill

Flow  
-4.05

-4.20

000

-1.34

-4.42

-1.62

15.75	5.71	24
2.21	2.1	20
6.7	F3.1	10.7
60.1	76.6	

15.85	5.82	24
8.85	2.1	54
C7.0	F3.6	00
60.5	76.4	



	1/2 Lt. Top Dykes	Dist. from Blk. Lt.	Vert. Cuts. Lt. Top Blkd.
Top Dyke			
6.55	48	3.71	1378
	38	7.8	5.11
	+10	F 1.1	C 5.9
		7.7	

750

9+0

6.45	74	3.81	1388
	71	7.4	2.28
	70	F 2.6	C 6.6
		11.4	

Note: From 8+50 To 16+00 See P-54-57 For New Cuts

750

6.34	97	3.92	1398
	37	9.7	10.2
	+08	F 5.8	C 3.78
		14.7	Face Blkd.

0.001075

8+00.07 BC Lt 6.24

10.26 K. from P-75

+8+56 F.C.

7+

Flow	d Lt. Cuts & Fills	Vert. cuts Lt. Blkd.	Kt. Top Dyke cuts & Fills	Dist. out from Face Blkd.	5' R.R.
-3.52	1778	1378	371	67	
	878	63	67	67	
	C 8.0	C 7.0	F 3.0	00	
			10.8		

-3.62

1388	1588	281	64
886	538	64	62
C 5.0	C 1.3	F 2.0	+0.1
		9.9	

-3.72

1398	1398	3.92	5.92
710	678	5.98	6.0
C 6.88	C 4.2	F 1.7	-0.4
		8.5	

-3.82

1408	726		
C 6.02			

900

-3.86



	Top Dyke	RP	Top Dyke Cuts & Fill	
End Bulkhead	7.2	2.2	14.2	
11+95.54	8.99	5.0	6.72	
		41.54	20.84	
Top of 2nd 39' H.C.				
10+95.54	11.20	3.97	5.29	OK
TP	5.91			
9+50	8.90	4.86	12.36	
		4.86	4.86	
		10.6	6.75	
		F 9.5	11.34	
			12.84	
			81.64	
11+0	8.80	3.86	0.46	
		3.86	3.56	
		0.0	F 3.8	
			14.1	
			16.8	
	9.26			

10+95.54 P.C. 46.  
+06.75 P.C.C.R. 8.79

Note: from 8+50 to 16+00  
see P. 59 to 57 for new cuts

11+0				
7+65	6.79	4.97	12.55	
on 2nd H.C.		2.5	7.43	Ver. cut
TP	5.33	0.0	6.33	3.93
9+50	6.76	6.0	13.58	
		6.0	6.0	
		0.0	6.75	
			9.8	
10+0	6.65	5.9	13.68	
		5.9	5.9	
		F 2.3	6.78	
	10.26	0.0	9.8	

	Flora	Cuts & Fill	RP Top Dyke Cuts & Fill	5'	RP
-301	4.00	14.5	2.21	8.2	
	6.80	0.8	6.2	6.0	
	7.40	6.74	F 4.2	1.9	
		2.1	4.0	4.0	
		14.2			
-310	12.76	12.36	0.96	3.06	
	5.17	3.06	3.26	3.76	
	7.4	6.93	F 2.1	4.0	
		14.0	10.4	14.0	
		76.0	14.0	76.0	
-320	12.46	5.16	5.16	5.16	
	5.96	5.16	5.16	5.16	
	7.4	7.4	F 4.7	13.1	
			13.1	13.1	
			13.1	13.1	
-321					
-322					
-329	12.55	12.55	2.47	5.67	
	4.86	4.86	6.7	5.57	
	7.75	7.75	-3.5	7.67	
			1.9		
-336	13.58	13.58	3.50	6.8	
	6.7	6.7	6.8	6.7	
	7.5	7.5	F 3.3	4.1	
			11.9		
-342	13.68	13.68	3.61	6.3	
	6.28	6.28	6.3	6.3	
	7.4	7.4	F 2.7	0.0	
			10.1		



	Top Dyke	Lt. Top Dyke	Lt. Top Channel	
150	9.90	92 91 F 3.3 37.0	589 1789 92 C 8.7 23.1	
<i>Note from 8450 to 16100 see how cuts p. 54-57</i>				
1540	9.73	94 91 F 3.4 39.6	606 1806 256 C 8.5	
150	9.57	95 94 F 3.3 39.1	<del>622</del> <del>1822</del> <del>256</del> C 8.7 23.1	
Break 1440	9.40	96 96 F 3.2 38.8	639 1839 256 C 8.7 23.1	
1450	9.30	98 97 F 3.2 39.0	649 1849 256 C 8.7 23.2	
1340	9.20	101 101 F 3.6 40.3	659 1859 257 C 8.8 23.6	
13+00 E. sh. b. T.P.	9.76	5.17	6.03 → OK	
12450	9.10	63 61 F 4.2 40.3 1120X	7410 59 C 8.8 22.3	

	Dist. of Lt. Rt. Top Channel	1/2:1 Rt Top Dyke	5' R.P.
Flot -210	1789 898 C 8.6 23.5	1789 898 C 8.7 23.1	589 898 F 3.7 38.1
-227	1806 903 C 8.7	1806 903 C 8.7 23.1	606 906 F 3.7 38.7
-243	1822 911 C 8.6 23.3	1822 911 C 8.7 23.1	622 911 F 3.5 38.4
-260	1839 919 C 8.8	1839 919 C 8.7 23.1	639 919 F 3.0 38.0
-270	1849 924 C 8.8	1849 924 C 8.7 23.1	649 924 F 3.3 38.3
-280	1859 929 C 8.8	1859 929 C 8.8 23.2	659 929 F 3.7 38.7
-290	1410 51 C 8.8	1410 51 C 8.4 22.6	210 51 F 3.5 39.3



TP	Rt. OF Lt	5'	Lt. Topk	L/Toe Ch.
18+68.63 B.C. Lt.	Top Dyke	RP 5.33 5.33 5.33 5.33	1 1/2 : 1 3.40 3.39 3.38 3.64	1 1/2 : 1 15.99 3.1 C 10.4 2.56
18+50	10.31	5.16 5.16 5.16	3.56 3.56 3.56 3.64	15.56 3.36 C 10.2 2.53
18+10	10.13	4.58 4.8 4.2	3.38 4.58 3.58	15.38 4.08 C 11.3 27.0
17+75	10.09			
+50	9.94	5.17 5.17 5.17	3.57 3.57 3.57 3.64	15.57 4.57 C 10.7 26.1
+25	9.85			
17+0	9.76	5.45 5.35 5.02	3.75 3.48 F 1.7 3.5	15.75 3.55 C 10.2 25.3
+75	9.67			
+50	9.58	5.53 5.53 5.53	3.93 3.93 F 1.6 3.64	15.93 3.7 C 10.3 25.3
+25	9.49			
TP 2.52	13.51		5.96	10.98
ck 8M #13-P-61	16.24			16.75-P-61
This Sec. P-57	0.19		0.19	16.77
16+0	9.40			
	16.96 P-57			

Cont. from P-57

15+64.20 F.C.	9.94	5.84	17.85	
	15.79		3.25 C 8.6 2.27	

Flora	d Cuts	Rt. Toe Ch.	Rt. Top Dyke	5'
-1.62	15.49 3.7 3.7	1 1/2 : 1 15.49 3.7 C 10.3 2.53	1 1/2 : 1 3.93 3.93 F 1.5 3.63	RP 4.99 4.99 4.99 4.99
-1.69	15.56 3.7 3.7	1 1/2 : 1 15.56 3.7 C 10.4 2.53	1 1/2 : 1 3.56 3.56 F 1.4 3.57	4.66 4.66 4.66 4.66
-1.87	15.38 4.58 C 10.5	1 1/2 : 1 15.38 4.58 C 10.8 26.2	1 1/2 : 1 3.38 4.48 F 1.1 3.57	4.48 4.60 4.60 4.60
-2.06	15.57 3.7 C 10.4	1 1/2 : 1 15.57 3.7 C 10.8 26.2	1 1/2 : 1 3.57 4.27 F 1.4 3.61	4.97 4.27 4.27 4.27
-2.24	15.75 3.7 C 10.4	1 1/2 : 1 15.75 3.7 C 10.5 25.8	1 1/2 : 1 3.75 3.45 F 1.5 3.63	5.25 5.0 4.92 4.92
-2.42	15.93 3.7 C 10.7	1 1/2 : 1 15.93 3.7 C 11.2 26.8	1 1/2 : 1 3.93 4.7 F 0.8 3.52	4.7 4.7 4.7 4.7
-2.60				
-2.76	17.85 3.86 C 9.0	17.85 3.86 C 9.0	5.85	



	Rt. or Lt.	Lt. Tail Top. 5 RP Dyke	Lt. Toe Ch. 1 1/2:1
22 + 1894 = EC	Top Dyke 11.65	355 325 F15 36.3	1555 475 C10.6 25.9
22 + 00	11.58	49 50 21 F13 36.0	1562 51 C10.5 25.8
+75	11.48		
+50	11.39	55 55 60 F17 36.6	1581 58 C10.3 25.5
+25	11.30		
21 + 0	11.21	57 57 60 F17 36.6	1599 569 C10.3 25.5
TR	5.70 15.20	4.37	9.50 = TR
20 + 62913 = BC RT	11.10	457 437 F18 36.7	1477 447 C10.3 25.5
CHK. & M. #14 - P-61		4.81	9.66 = 20.5 - P-W
+50	11.03		
20 + 1844 = EC	10.92	415 335 21 F12 35.8	1495 325 C11.0 26.5
TR M.			
20 + 0	10.85	43 43 52 F13 36.0	1502 43 C10.7 26.1
+75	10.76		
+50	10.67	53 51 50 F21 37.2	1520 51 C10.1 26.2
19 + 25	10.58		
19 + 0	10.49	59 53 50 F20 39.0	1538 538 C10.0 25.0

15.87

	Flow	Rt. Toe Ch. 1 1/2:1	Rt. Top Dyke	5 RP
-0.35	1555 475 C10.6 25.9	1555 475 C10.6 25.9	355 325 F15 36.3	1555 475 C10.6 25.9
-0.42	1562 51 C10.5 25.8	1562 51 C10.5 25.8	362 47 F11 36.1	1562 51 C10.5 25.8
-0.61	1581 58 C10.7 26.1	1581 58 C10.7 26.1	381 52 F14 36.1	1581 58 C10.7 26.1
-0.79	1599 569 C10.3 25.5	1599 569 C10.3 25.5	399 529 F14 36.1	1599 569 C10.3 25.5
-0.90	1477 447 C10.4 25.2	1477 447 C10.4 25.2	377 497 F13 36.0	1477 447 C10.4 25.2
-0.97	1484 454 C10.4 25.2	1484 454 C10.4 25.2	377 497 F13 36.0	1484 454 C10.4 25.2
-1.08	1495 325 C10.7 26.1	1495 325 C10.7 26.1	295 265 F17 36.1	1495 325 C10.7 26.1
-1.15	1502 43 C10.8 26.1	1502 43 C10.8 26.1	302 42 F12 35.8	1502 43 C10.8 26.1
-1.33	1520 51 C10.2 25.3	1520 51 C10.2 25.3	320 50 F18 36.7	1520 51 C10.2 25.3
-1.51	1538 538 C10.2 25.3	1538 538 C10.2 25.3	338 478 F16 36.4	1538 538 C10.2 25.3

ASPECT



		5' RP	lt. Top Dyke 1/2:1	
+50	Top Dyke 12.84	6.55 5.55 00	1/2:1	18.38 6.83 C12.3 28.5
+25	12.75			
25+0	12.66	7.49 7.43 00	7.03 7.43 F0.4 3.46	19.03 7.33 C11.7 27.6
+75	12.57			
+50	12.48	7.8 7.8 00	7.2 7.8 F0.6 3.49	12.21 7.51 C11.7 27.6
+25	12.39			
24+0	12.30	8.0 7.8 10.2	7.39 8.0 F0.6 3.49	19.39 7.69 C11.7 27.6
+75	12.21			
+50	12.12	8.17 8.17 00	7.57 8.17 F0.6 3.49	19.57 8.07 C11.5 27.3
+25	12.03			
TR	8.30 12.69		3.81	11.39 = TR
TR with 23+0	11.94	4.36 4.36 00	3.26 4.36 F1.1 3.57	15.26 4.0 C10.8 26.2
+75	11.85			
22+50	11.76	4.6 4.6 00	3.44 4.6 F1.2 3.57	15.44 4.8 C10.6 25.9

Flora	cuts	Rt. Top ch. 1 1/2:1	Rt Top Dyke 1 1/2:1	5' RP
0.84	18.35 6.55 C12.3	18.35 6.55 C12.4 28.6		6.4 6.4 00
0.66	19.03 7.33 C11.8	19.03 6.23 C12.1 28.2	7.03 No Dyke Cut Sec.	6.93 2.83 +0.1
0.48	12.21 7.51 C11.4	12.21 7.41 C11.8 27.7	7.21 7.5 F0.3 3.45	7.5 4.3 +0.2
0.30	19.39 7.69 C11.4	19.39 7.39 C11.6 27.3	7.39 7.49 F0.1 3.42	7.49 6.39 +0.6
0.12	12.57 8.07 C11.2	12.57 8.07 C11.1 27.7	7.57 8.07 F1.0 3.55	8.57 8.27 +0.3
-0.06	15.26 4.36 C10.8	15.26 4.36 C11.0 26.5	3.26 4.16 F0.9 3.57	4.16 3.26 +0.2
-0.24	15.44 4.27 C10.8	15.44 4.4 C11.0 26.5	3.44 4.55 F1.1 3.57	4.55 4.55 +0.0

-0.24 to 0.36 24



		5 R.F.	Lt. Toe Ch. 1 1/2 1
28+75 +50	4 Fiss	Top Dike 14.02 13.93	5.17 4.7 C13.0 29.5
28+10.36 86 ft.		13.79	5.11 C13.2 29.8
28+0		13.75 out	
27+75.18		13.66	5.14 5.14 C13.3 30.0
+50		13.57 out	
End widening 27+40		13.53	5.47 5.30 4.02 C13.1 22.7
27+0		13.39	
N. Ocean View 26+87.16 26+84.93		13.33	22.7 36.1 6.77 C13.5 35.8
Ch = 22 width of this station			
26+50 Ch. 8 m + 16		13.21	
T.P. 26+07.16	0.12	20.10	2.77 19.98 - 8 m + 16 20.00 p-61
26+07.48 N. Ocean View			
T.P. Bottom = 100' each side off 26+00	3.84	22.77	0.76 18.93 - T.P. 18.67 5.27 C13.4 31.0
25+60		12.88	
		19.69	

Flow	Rt. Toe Ch. 1 1/2 1	Rt. Top Dike 1 1/2 1	5 R.P.
1.93	18.17 4.21 C13.2 29.7	18.17 5.27 C13.1 29.7	5.07 2.87 4.02
1.79	18.31 5.21 C13.1 29.7	18.31 5.2 C13.1 29.7	5.2 3.7 4.01
1.75			
1.66	18.44 5.14 C13.3 30.0	18.44 5.24 C13.6 29.9	5.24 2.47 2.6
1.57			
1.53	18.57 5.35 C13.2 30	18.57 5.27 C13.3 30	5.27 5.25 4.01
1.39			
1.33	18.77 2.17 C16.6 30.8	18.77 2.17 C17.2 30.8	6.77 1.87 1.2 4.02
1.21	18.89	18.89	6.89
1.02	18.67 5.27 C13.4 31.2	18.67 5.17 C13.5 31.2	6.67 5.17 2.1
0.88			



	Elev.	5' RP	4 Top Dike Fills	Lt Top di. 1 1/2:1
+25	Top dike			
32+0	15.29	85 83 102		2100 85 C12.5 388
TP	9.59		960	14.61=TP
+75	15.11			
TP 1500		949 989 104		2119 949 C11.7 21.6
+50	15.02			
+25	14.93			
31+0	14.84	877		2137 877 C12.6 389
+75	14.75			
+50	14.66	925 923 900		2155 923 C12.3 388
30+29.19	14.58	928 929 902	963	2163 923 C12.4 388
4 50' RP 30+29.19	9.96		10.60	14.25=TP
TP				
30+0	14.47	988 978 101		2238 988 C12.5 388
77.8	39	1048		2248 1048 C12.0 388
29+78.62	14.37			
+50	14.29	1036 1020 101	1056	2256 1036 C12.2 388
TP	9.71		496	15.14=TP
+25	14.20			
29+0	14.11	90 89 111	5.99	17.20 12.3 C7.7 38.5 21.6

Restrike - Farther  
 Grade 233.1  
 (Bank)

Flow	Lo cuts.	Rt. ch. Top ch. 1 1/2:1	Rt. Top dike 1 1/2:1	5' RP
3.20	2100	2100		51 51 -1.2
	2100 99 C11.1	2100 51 C15.9 379		
3.02	2119	2119		37 37 -2.4
	2119 219 C12.0	2119 37 C17.8 367		
2.84	2137	2137		57 57 -2.3
	2137 917 C12.2	2137 57 C14.5 388		
2.66	2155	2155	955	565 565 -2.8
	2155 853 C13.0	2155 565 C12.9 294		
2.58	2163	2163	963	1043 1043 -0.3
	2163 822 C13.4	2163 1043 C12.0 268	963 1043 F0.8 25.2	
2.47	2238	2238	1038	1178 1178 ✓
	2238 875 C13.6	2238 1048 C8.7 250	1038 1178 F 2.4 40.6	
2.39	2248	2248	1048	1188 1188 11.5
2.37	2248	2248	1048	1188 1188 11.5
	2248 779 C12.4	2248 1048 C7.4 20.9	1048 1188 F 2.2 40.9	
2.29	2256	2256	1056	1196 1196 996
	2256 11.86 C10.7	2256 1236 C7.7 246	1056 1196 F 1.8 367	14.39 1396 F0.33
2.11	1799	1799	509	509 509 +0.1
	1799 789 C10.7	1799 509 C12.2 274	509 509 +0.1	



	Cont	P.32	5'	L. Top Dyke 1 1/2:1	L. Toe ch 1 1/2:1
T.P. 130A	25.77	Top Dyke 1	RR	10.16	12.73 = T.P.
+75		16.56	752	643	1842
+50		16.47	760	752	682
			01	FL1	C11.6
				35.7	274
+75		16.38			
35+0		16.29	78	660	1860
			78	78	85
			104	FL2	C101
				35.8	252
+75		16.20			
+50		16.11	808	678	1878
			793	808	845
			701	FL3	C103
				36.0	254
+25		16.01			
34+0		15.92	867	697	1897
			887	887	317
			82	FL4	C78
				36.6	297
33+91.97 = B.C. - R4		15.89	81	700	1900
			82	87	92
			02	FL7	C98
				36.6	247
on H4.			93	712	1912
TP 5455			82	33	202
33+58.69 = E.C		15.77	702	FL2	C181
				373	251
+50		15.74			
+25		15.65			
33+0		15.56	753	733	1933
			733	753	703
			102	FL2	C117
				34.3	276
TR	769	22.32		890	15.30 = T.P.
+75		15.47			
32+50		15.38	89	2082	
			82	83	
			107	FL3	C113
					273

Re stake - Portland Grade 333

384 50%

	L. Cuts	Rt. Toe ch. 1 1/2:1	Rt. Top Dyke (1:1)	5' KF
Flora				
4.47	18.42	1842	642	262
	732	1062	262	842
	C11.1	C7.8	F3.2	+12
		21.7	38.8	
4.29	18.60	1860	660	29
	78	11	27	83
	C11.4	C7.5	F3.3	+11
		21.5	39.0	
4.11	18.78	1878	678	138
	218	11.38	1034	308
	C14.6	C7.4	F3.6	+0.5
		21.1	39.4	
3.92	18.97	1897	697	
3.89	19.00	1900	700	114
	C12.5	C7.6	114	102
		21.4	F4.4	+0.5
			40.6	
3.77	19.12	1912	712	117
	812	11.2	107	116
	C17.0	C7.2	F4.6	+0.1
		21.3	40.9	
3.56	19.33	1933	733	185
	253	8.33	1183	
	C9.8	C7.0	F4.5	
		26.8	40.8	
3.38	20.22	2022	81	81
	842	81	86	
	C12.4	C12.7	-25	
		22.1		



	Top Dyke	5' RP	Lt. Top Dyke 1 1/2:1
+25 39+0	17.74	798 723 75	2003 793 C12.1 281
+75	17.65		
+50	17.56	81 792	2021 81 C12.1 281
+25	17.46		
38+0	17.37	80 80 00	2040 80 C12.4 286
+75	17.28		
TP1719 +50	17.19	RP 1.2 8.28 8.58 -0.3	2058 8.28 C12.9 28.5
+25	17.10		
37+0	17.01	8.66 8.16 +0.5	2076 8.66 C12.1 28.2
+50	16.92		
36+50	16.83	874 816 58	2094 874 C12.2 28.3
36+25	16.74		
35+27.25-FC 36+0	16.64	9.13	21.13

Residue Position Grade 333

25.77

Flow	L Cuts	Rt. Toe Ch 1 1/2:1	Ft. Top Dyke 1 1/2:1	5' RP	1783 1743 F270	32. 28.6 Rt.
574	2003 80 C12.0	2003 72 C12.1 282		79 25 -16	1774 1731 F043	1765 1740 F016
556	2021 66 C13.6	2021 90 C11.2 268		82 114 F3.2 38.8	1756 1620 F076	1746 1564 F152
537	2040 77 C13.0	2040 113 C9.1 297		840 118 118 F3.4 39.7	1737 1521 F146	1728 1507 F2.1
519	2058 488 C15.7	2058 13.18 C8.4 22.6		858 1178 F3.2 38.8	1719 1512 F147	
501	2076 916 C11.6	2076 12.52 C8.2 22.3		876 1206 F3.3 39.0	1704 1497 F06	
483	2094 10.82 C10.1	2094 12.64 C8.3 22.5		894 12.24 F3.1 38.7	1694 1487 F13	
464	21.13 12.3 C8.8	21.13 12.3 C7.8 21.7		913 12.13 F3.0 38.5	1683 1473 F09	

F2220  
F2220



	5' RP	Lt Top Dike 1/2:1	Lt Toe Ch. 1/2:1
BM 2957 6.31 +50 2988 6.68 TP 29.20 1.18 24.38	6.22 6.03 +0.2	16.6 13.5	17.82 6.22 C136 30.4
12+0	7.40 7.29 0.1	17.0 17.4	20.19 7.29 C127 22.1
41+85.49=BC Lt. R-13	7.29		20.29 7.29 C130 22.5
+50 4.0 4.1 35.1 1.13 10.2	7.15	19.4 18.4	20.55 7.15 C134 30.4
41+27.68=FC	7.41		20.71 7.41 C133 30.0
41+0	8.0 7.7 10.3	8.91	20.91 7.7 C129 23.4
41+27.68 = RM 30.05 Lt. T.P. 4.29 27.56		20.3	23.27 = Chisled Gross
+75			19.02 6.0 C130 25.5
+50 = BC	6.0 5.9 0.1		19.02 6.0 C130 25.5
+25			18.19
40+0 TP 16.99 B.C. RT 39+27.51	6.8 6.7 +0.1		19.21 6.8 C129 28.6
T.P. 6.79 +75 39+50	7.55	7.26	18.51 19.85 7.55 C127 28.5
25.30 17.92 25.77			TP on R.P.H.B. 44.5 Lt. P-12 39+27.51 = BC

	L. Cuts.	Rt. Toe Ch. 1/2:1	Rt. Top Dike 1/2:1	5' RP	
FLOY					
7.74	19.82 7.13 C127	19.82 5.72 C125 24.5	16.6 5.72 C128 29.2	6.58 6.52 +0.7	3.8 3.7 10.1 3.2
7.37	20.19 7.27 C124	20.19 7.27 C124 31.6	17.0 7.27 C129 29.4	5.78 6.89 -0.3	4.1 3.8 10.3 3.44
7.27	20.29 8.45 C127	20.29 8.45 C133 30.0		6.99 6.19 +0.5	
7.01	20.55 7.13 C134	20.55 7.13 C134 30.1	17.97 7.13 C128 29.2	7.18 6.85 +0.5	4.6 4.6 10.0 3.42
6.85	20.71 7.19 C133	20.71 7.19 C126 30.4		7.1 6.4 +0.4	
6.65	20.91 7.7 C132	20.91 7.7 C134 30.7	17.73 7.7 C127 28.2	7.2 7.3 -0.1	5.6 5.2 10.1 3.32
6.28	19.02 5.72 C133	19.02 5.72 C134 30.1		5.6 5.5 +0.1	18.46 17.78 F0.68 18.28 18.33 C105
6.10					18.10 18.74 C055
6.09	19.21 6.8 C124	19.21 6.8 C121 28.7		7.1 6.9 +0.2	18.09 16.99 F1.10
5.92	19.85 7.13 C125	19.85 7.13 C123 31.5		5.55 7.2 -2.4	18.01 18.20 F1.81 17.22 17.33 F0.59



Grades	5' RP	Lt. Top Dyke 1/2:1	Lt. Toe Ch. 1/2:1	
46+0	22.30	436 236 20	1726 236 C 12.9 29.4	19.0 17.2 C 12.8
+50	21.93	448 583 15	67 1708 138 28.3	19.4 6.7 C 12.7 27
45+0.55 EC. P-13	21.63	528 233 112	27 1798 137 29.1	14.8 8.7 C 12.1 28.3
45+0	21.57		17.99	
+50	21.20	786 226 +0.6	676 54 1876 936 F 1.5 363	13.2 3.4 C 11.5 27.3 C 11.8 27.7
44+0	20.8	732 761 +1.3	672 36.2 F 1.5 15.9	15.5 3.2 C 11.5 27.3 C 11.9 27.9
+50	20.47	899 209 -0.1	709 870 F 1.2 37.9 36.2	15.9 3.6 C 12.3 28.5
43+0	20.11	605 205 -0.0	117 12.45 605 C 13.4 30.1	15.5 2.9 C 13.9

Flow	Cuts	Rt. Toe Ch. 1/2:1	Rt. Top Dyke 1/2:1	5' RP	
10.30		17.26 9.76 C 7.5	17.26 7.96 F 1.2 25.3	526 556 +9.1 36.2	19.0 8.8 C 10.2 28.3
9.93		17.63	17.53 51.3 C 8.5 22.3	563 663 F 1.0 35.5	19.4 10.4 C 9.6 23.5
9.63		17.93 2.25 C 8.6	17.93 8.83 C 8.1 22.1	593 643 F 0.8 34.8	14.8 3.6 C 11.4 26.8
9.57		17.99 Not set	17.99		
9.20		18.36 7.33 C 11.0	18.36 10.36 C 8.00 22.6	636 806 F 1.2 36.6	15.5 3.7 C 11.5 27.5
8.87		18.72 2.21 C 14.5	18.72 14.2 C 8.3 22.5	14.5 6.2 6.7 10.7 F 1.2 39.6	6.4 3.2 C 11.2 28.7
8.47		12.09 5.87 C 13.2	12.09 10.09 C 2.0 22.5	709 1089 F 1.8 39.7	15.9 4.8 C 11.9 27.9
8.11		12.45 7.53 C 11.9	12.45 6.5 C 13.3 30.0	619 202 -2.5 C 12.3 28.5	4.9 0.1 30.5



		5' Lt Top Dike 1/2:1	Lt. Toe Ch. 1/2:1	
+25	5.06 24.64 Grades Top Dike	5.42 5.24 5.06 34	4.52 3.42 3.13 3.54	16.52 5.22 C11.3 27.0
19+0	5.42 24.46	5.42 5.24 5.06 34	4.52 3.42 3.13 3.54	16.52 5.22 C11.3 27.0
+75	5.42 24.28			Finish BP BM 29.57 0.12 29.701
+50	5.42 24.10	5.42 5.24 5.06 34	4.52 3.42 3.13 3.54	16.88 6.78 C10.1 25.1
TR	6.15 28.98		8.80	22.83
+25	5.79 28.91			
48+0	6.7 5.97 28.73 29.317	6.7 6.5 6.3 34	7.30 6.2 5.88	19.90 1.5 C8.4 22.6
+75	6.08 28.62			
+50	7.1 6.33 28.37 31.63	7.1 6.9 6.7 34	8.26 7.1 6.73	20.26 11.46 C8.8 23.2
+25 + 47+03-	6.52 23.18			20.61 8.61 C12.00
47+0	6.59 23.01			28.0
46+91+	22.98			
CHK B.M. BP. Imp. Acc Bridge				29.57 - B.M.
TR 206	31.63		2.06	29.63
TR 11.18	31.69		7.05	20.51
And 46+76.95 = Bridge Equation	22.83			
46+72.98 = Imp. Acc back				
46+57 Set chisled Mark South end Bridge				16.84 4.84 C12.00 20.00
46+50	27.56 22.67		4.89	16.89 7.89 C.24 24.1

	Luts	Rt. Toe Ch. 1/2:1	Rt. Top Dike 1/2:1	5' RP	
Flow	12.46	16.52 4.31 C11.6	16.52 2.42 C7.1 20.7	4.52 2.42 F4.3 4.4	9.40 9.27 10.2
	12.10	16.88 3.88 C13.00	16.88 2.58 C7.3 21.0	4.98 2.83 F4.1 4.7	9.28 10.2 F5.2 4.68
	11.73	19.90 8.8 C11.1	19.90 1.5 C7.3 21.0	7.90 1.5 F4.1 4.6	10.2 10.2 F4.1 3.75
	11.37	20.26 12.75 C7.5	20.26 12.66 C7.6 21.4	8.26 6.86 C1.4 3.61	6.8 2.5 F4.1 3.4
	11.02				
	10.93				20.70 8.70 C12.00 28.0
					set chisled Mark Near Bridge
					29.57 2.29 3.38 BM 29.57 0.29 29.86
					Imp. Bridge Sketch, Paper
					10.99 22.87 C14.00 12.87 = Bridge
					19.17 4.17 C13.00 18.58
					10.72 10.77 C13.00 18.58
					18.6 1.6 C12.00 17.0
					16.89 4.89 C12.00 28.0
					Imp. Bridge set chisled Mark, South end Bridge Imp. Acc

BM 29.57  
0.86 35  
3.043

6.0  
F4.1  
10.2  
BM 29.57  
0.29  
29.86

6.5  
F4.1  
F5.2  
36.7  
4.68

6.4  
F4.1  
F5.2  
36.8

6.7  
F4.1  
F5.2  
36.8

6.8  
6.8  
3.4

29.57  
2.29  
3.38 BM  
29.57  
0.29  
29.86

C14.00  
12.87 = Bridge

19.17  
4.17  
C13.00  
18.58  
18.6  
1.6  
C12.00  
17.0  
16.89  
4.89  
C12.00  
28.0



Stations	Cont P-39 P-43	Top Dyke	5' RP	L. Top Dyke 1 1/2 : 1	L. Toe ch 1 1/2 : 1
52+0	304	26.66			
T.P.	6.54	32.15	3.37	25.61	TP 25.51-32.59 -8.5
51+83.88	316 -Reg. Widening Section	26.54	474 304 -23	244 244 F1.8 375	1444 25.6 6.3 F0.7 251
+50	587	26.29	269	1467	
					29.70A
+31.39	305	26.15	433 518 -98	283 233 F1.8 36.3	1483 323 C11.4 271
+25	366 out	26.10			
51+0	45 45 286	25.92	476	306 446 F1.8 366	1506 366 C11.4 27.1
+75	397	25.72			
+50	49 49 286	25.55	493 503 -0.1	343 393 F1.8 363	1543 313 C10.3 25.5
+25	433	25.07			
50+0	57 57 286	25.19	519 529 -98	379 519 F1.8 361	1579 529 C10.5 25.8
+75	490	25.00			
49+50	56 56 286	24.82	466 566 -100	316 466 F1.8 348	1616 506 C11.1 26.7

36

Grades Flow	Cuts	R. Toe Ch. 1 1/2 : 1	R. Top Dyke 1 1/2 : 1	5' RP
14.66				43 5.5 5.8 186 TP 29.84A 29.84A 6.10 29.97A
14.54	1444 451 C9.9	1444 204 C6.4 12.6	214 444 F2.0 37.0	144 174 +27 34 34 13.0 270
14.29	14.67 Left out.	1469	269	43 20.42A 26.10 26.06 33.72
14.15	14.83 336 C11.5	1483 363 C6.2 19.3	283 513 513 F2.8 F2.2 37.5	27 43 0.0 3A 378
13.92	15.06 126 C13.1	1506 866 C6.4 12.6	306 586 F2.8 38.2	39 45 4.0 3A 38.2
13.53	1543 383 C11.6	1543 883 C6.6 12.2	343 703 F2.6 39.4	45 4.0 4.0 3A 39.4
13.19	1579 589 C9.9	1579 909 C6.7 29.1	379 799 F2.2 40.3	47 5.5 5.5 3A 40.3
12.82	1616 266 C11.5	1616 916 C7.0 20.5	416 906 F2.5 41.4	5.0 5.6 5.6 3A 41.4



Station	Grades	5' RP	Lt. Top Dyke 1 1/2:1	Lt. Toe Ch 1 1/2:1
+50	29.23			
55+0	28.85			
+50	28.48			
54+0	28.12			
+50	27.75			
53+0	27.39			
52+50	27.02			

37

Flow	Cuts	Rt. Toe Ch. 1 1/2:1	Rt. Top Dyke 1 1/2:1	5' RE
17.21				
16.85				
16.48				
16.12				
15.75				
15.39				
15.02				

0730890



Stations	Grades	5' Lt. R.P. Top Dyke	4. Top ch. 1 1/2' : 1' Dist. out from L	4. Top ch. 1 1/2' : 1' Dist. out from R
Cont. on P-42				
58+50	31.44	888 638 -25	748 888 F. 1.2 55.8	69. 6.9 1248 28 13.8 c. 7.4 51.1 30.4
T.P.	6.99	39.12	586	32.13
58+0	31.04	888 865 -23	695 865 F. 1.2 36.6	73. 7.3 1895 28 13.8 c. 7.4 51.1 30.4
+50	30.68	681 42	731 681 C. 9.5 134.8	27. 2.7 1931 37.5 C. 7.4 208
57+0	30.31	646 348 -29	769 646 C. 9.5 33.8	8.1 8.1 1931 37.5 C. 7.4 208 MS 46. 6.9 C. 0.7 35.1
56+77.14 = POC	37.99	Cont. from P-45		
+50	29.96			
56+0	29.58			

Stations	Grades	5' Lt. R.P. Top Dyke	4. Top ch. 1 1/2' : 1' Dist. out from L	4. Top ch. 1 1/2' : 1' Dist. out from R
Nov. 9. 53 38 MS. 45				
1744	19.68	1968	768	809
1904	18.95	1895	695	625
1868	19.31	1931	731	751
1831	19.68	1968	768	811
1794	19.58	1958	758	804



Widening Section - Las Chollas Creek Ch.  
For sketch alignment - see P-70-71

Stations	Lt. Toe Channel	Lt. Top Dyke Grades	5' RR	Lt. Top Dyke 1/2:1 Dist. ch.	Lt. Toe ch. 1/2:1 Dist. out-Toe ch.	
53+50	Cont. P-40	195	2775	640 63 50.1	440 64 F3.0 27.0	16.40 4.0 C 11.5 17.5
+25	Finish Grader	29.70	27.57	2.13		
53+59.8-88		227	2743	732 724 +0.1	470 F3.0 27.0	16.72 5.7 11.0 16.5
53+00		231	2739			16.76 out
+75		250				
52+50		268	2702	802 803 +0.4	518 803 F3.0 27.0	17.13 7.3 C 2.6 14.4
+25		286				
52+00		304	2666	809	540 809 F3.0 27.0	17.49 7.5 C 2.2 14.3

32.15 from P-36

51+83.88 - pos. P-36  
Sketch P-70-71

Cont. from P-36

Lt. Toe Channel	Grades	Cuts.	5' RR
15.75	108 90 66.9	43 44 82 F3.8 29.7	34.25 81.84 Page 45
15.43			43 32.17 6.32 TP 25.77 87.3 37.50
15.39	16.76	43 48 48 10.0 18.1	25.77 9.1 57.88
15.52	17.13 10.13 27.0	43 6.1 5.1 0.0 18.8	32.78 0.17 34.95
14.66	17.49 7.5 C 2.2	43 5.5 6.8 F1.3 28.0	
14.54			



Widening Sec. Las Chollas Creek Ch.

Lt. Toe Channel	Dike Lt Top	5' PP	Lt. Top Dike	Lt. Toe Ch.
Station (cont. P-4)	Grades		1 1/2:1	1 1/2:1
55+57.28=EC.	29.25			Dist. out from beach

55+50	29.20	4.71 6.61 10.1	5.11 4.41 P. 6 6.64	17.11 17.11 C 1.87 19.1	#3 5.7 6.7 F 1.0 25.5
-------	-------	----------------------	------------------------------	----------------------------------	-----------------------------------

55+00	28.84	4.57 4.57 10.3	5.47 4.57 C 1.09 25.4	17.47 17.47 C 1.87 19.7	6.0 C 6.0 33.0
-------	-------	----------------------	--------------------------------	----------------------------------	----------------------

54+50	2.36	34.31	7.20	24.95=T.P.	
-------	------	-------	------	------------	--

54+47.10=BC.MA	2.845	4.1 3.3 10.8	3.70 3.1 F 2.4 2.46	14.3 15.70 6.48 5.1 C 1.06 13.1 13.1 13.1 13.1 13.1 13.1	5.8 2.7 F 1.7 12.99
Finish		29.707			

54+20.08=EC.	2.826	7.09 2.69 +2.4	3.89 2.49 F 3.6 2.68	15.89 17.7 C 3.0 12.8	6.9 3.9 C 3.0 17.2 29.2
--------------	-------	----------------------	-------------------------------	--------------------------------	-------------------------------------

54+00	2.811	1.59 1.35 -0.5	4.05 2.45 C 2.8 2.82	16.05 14.5 C 1.8 11.7	#3 4.1 3.0 2.6 C 1.7 25.7 26.3
-------	-------	----------------------	-------------------------------	--------------------------------	--

Cont. from P-39

53+75	1.77	32.15	27.93		
-------	------	-------	-------	--	--

Lt. Toe Channel	Grades	Cuts
-----------------	--------	------

17.25		
-------	--	--

17.20	17.21	17.10 21.0 C 8.0
-------	-------	------------------------

16.84	16.85	17.46 23.6 C 8.1
-------	-------	------------------------

	16.98	18.57 21.7 C 8.5
--	-------	------------------------

16.45		
-------	--	--

16.26		
-------	--	--

16.11		16.05 8.25 C 7.8
-------	--	------------------------

34.257  
#3 34.88



Widening Section - Las Chollas Gk. Ch.

Lt. Toe  
Channel  
Stations

Flat  
Grade  
Top  
Dyke

5'

R.P.

Lt. Top  
Dike

1 1/2:1

Dist.  
from  
Toe  
Ch.

Lt. Toe  
Channel

1 1/2:1

Dist. out  
from Toe  
Ch.

Lt.  
Toe  
Channel  
Grades  
Flows

♀ ♂  
Grade Cuts

For  
chkout se  
Cont P-44

~~34.31~~

Cont. on P-38

56+77.14 Abd.  
56+80.31 back

30.14

277  
187  
2.1

4.17  
2.77  
C 1/4  
2.1

16.17  
8.77  
C 1/4  
2.1

1.7  
3.1  
C 1/4  
2.1

13.14

13.14

56+50.

29.92

333  
629  
29

4.30  
3.70  
C 1/4  
2.1

16.30  
8.70  
C 1/4  
2.1

5.0  
3.9  
C 1/4  
2.1

17.92

17.92

56+00

39.56

665  
653  
101

4.75  
4.65  
F 1/2  
4.9

16.75  
16.65  
C 1/4  
19.9

5.3  
7.1  
F 1/2  
26.7

17.56

~~34.31~~

Cont. from P-40

413  
34887







Widening Section - Las Chollas Creek Ch.

Rt. Toe  
Channel  
Stations

Sketch P-71-72  
Top Dyke  
Grades

Cont. P-44

53+50

27.75

53+21.33 = E.C.

27.54

Fig 106  
29.70 ft

53+00

2.31

27.39

+7.5

2.50

27.20

52+50

2.68

27.02

+2.5

2.86

26.84

52+00

26.66

32.15 = from  
P-36

51+83.88 = P.O.C. - P-36 26.84

Cont. from P-36

Rt  
Toe ch.

Grades  
Flow

Rt. Toe  
Ch.

Cuts 1/2:1

Dist. out  
= Toe ch.

Rt. Top  
Dyke

1/2:1

Dist. to  
Toe ch.

15.75

16.40  
3.8  
c 7.6  
11.7

4.40 8.5  
3.5 8.4  
F 4.1 4.1  
30.2 4.1

2.2  
3.1  
F 3.9  
29.9

15.54

16.61  
2.2  
c 7.4  
11.1

4.61 7.9  
2.1 3.7  
F 3.3 1.2  
29.0

2.4  
3.3  
F 3.9  
29.9

15.39

16.76  
3.5  
c 7.2  
10.8

4.76 7.86  
2.6 5.56  
F 3.1 4.3  
28.7

2.6  
3.4  
F 3.8  
29.7

15.02

17.13  
10.63  
c 6.5  
9.8

5.13 7.33  
2.3 4.53  
F 2.2 1.8  
27.3

3.0  
3.1  
F 3.1  
28.7

14.66

17.49  
12.79  
c 6.5  
9.8

5.49 7.69  
2.6 4.7  
F 2.3 1.9  
27.3

3.2  
3.5  
F 3.2  
27.9

14.57

17.61

5.61 7.7



Widening section - Las Chollas Creek. St.

Rt. Toe Channel Stations	Top Dyke Grades		
56+00	29.59	6.89	36.48
+7.5	29.41	7.02	
55+50	29.23	7.25	
55+43.01 - BC. Rd.	29.16	7.32	
+2.5	29.04	7.44	
55+00	28.85	7.63	
+7.5	28.67	7.81	
54+50	28.48	8.00	
TR	9.36	34.31	7.20 24.95
54+00	28.12		
	32.15		

Rt. Toe Ch. Grades Flow	Rt. Top Dyke 1 1/2:1	Rt. Top Dyke 1 1/2:1	5'		
17.59	Cuts Dist. out - Toe Ch. 16.72 2.52 C 14.2 21.3	Cuts & Fills Dist. out 27.50 2.61 47.0 4.8 C 0.2 27.6	RR 4.3 6.6 -2.3	47 4.7 C 0.6 24.9 4.3 29.97 4.39 25.58 8.57 34.25	4.9 26.5 20.5 29.97 4.39 25.58 8.57 34.25
17.23				50 out 43 34.50	
17.16	17.15 3.25 C 8.2 12.3	5.15 4.5 C 1.1 25.6	4.3 9.5 7.2	5.1 3.4 C 1.7 28.6	
16.85	17.46 9.46 C 8.0 12	5.46 3.6 C 1.6 2.4	3.86 2.4 7.1	5.4 3.4 C 1.7 28.6	5.4 3.4 C 1.7 28.6
16.48	17.83 3.93 C 7.9 11.9	5.83 3.3 F 3.5 2.3	2.37 6.3 7.4	4.3 3.8 F 3.5 2.3	4.3 3.8 F 3.5 2.3
16.12	7.89 6.38 6.38 0.0 2.0 4.38 11.3	16.03 8.53 C 7.5 11.3	4.03 7.93 7.93 7.93 7.93	6.1 10.2 F 3.5 2.3	6.1 10.2 F 3.5 2.3



Widening Section - Las Chollas Crk. Ch.

Rt. Toe  
Channel  
Stations

Top Dyke  
Grades

37.99  
Cont. p. 38

Cont. on p. 38

56+77.14 = R.O.C. 2  
56+74.41 = P.C.C.  
back

30.14

52 on first

56+50  
CHK 8M + 20 - p-61  
TR 1.37  
on RR Hub p-408 RT  
56+77.14  
TR 7.96

29.96

37.99

1.37

37.97

3.70

34.31

29.97

671 ✓

+25

36.62 = BM

36.60

30.61 = T.P. P-71

sketch

Rt. Toe  
Ch.  
Grades

↳  
Cuts

Rt. Toe ch  
1 1/2 : 1  
Dist. out  
from Toe ch.

Rt. Top  
Dyke  
1 1/2 : 1  
Dist.

5'  
RF

45

34.50X

34.25X

3.60

BM

30.85

30.61

18.14

19.85

19.85  
6.15  
C 13.7  
20.6

7.85 7.85  
7.85 8.35  
2.0 -1.0  
2.70

4.1  
3.1  
6.5  
2.4

17.96

20.03  
12.47  
7.4

20.03  
5.83  
C 14.2  
21.3

8.03 7.63  
2.63 2.13  
+ 2.4 -1.5  
2.46

4.3  
3.7  
6.5  
2.4



LAS CHULLAS CREEK CHANNEL - GRADES

in Widening Section  
from Sta. 61+00 = P.O.S. To Market St Bridge

Stations on Lt. & Rt. are on Toe of Channel

Stations are not Radial to Lt & Rt stns.

See sketch P-16-17

Stations	Lt. Top Dyke Grades	5' RP	Lt. Top Dyke Grades	Lt. Toe Ch. Grades
Cont P-41			1 1/2 : 1	1 1/2 : 1
63+00	38.12	6.6 6.9 -0.3	2.89 7.6 F 3.1 7.6	7.1 10.7 F 3.3 7.6 29° C 11.4
62+50	37.26	7.8	3.82 7.8 F 4.0 30.0	3.0 12.0 F 4.0 30.0 11.4
62+00	36.30	9.38 9.58 -0.2	4.78 9.28 F 4.5 30.8	9.0 13.1 F 4.1 30.2 8.18 C 8.3 12.5
61+50	35.39	8.6 8.2 +0.4	5.69 9.6 F 4.9 28.4	9.9 13.2 F 3.3 29° C 8.6 12.4
			41.08 from P.42	
61+00	34.55			
Cont from P-42				

Grade	Cuts	Rt. Toe Ch. 1 1/2 : 1 Dist. out from Toe ch.	Rt. Top Dyke 1 1/2 : 1 Dist from Toe ch.	5' RP	#3 42-33A	Rt. Top Dyke Grades
26.200		14.76 8.26 C 6.5 9.8	2.76 5.76 F 3.0 28.9	5.76 5.76 10.6	7.0 10.0 F 3.0 7.8	40 37 F 3.7 30.1 38.32
25.25		15.72 3.42 C 6.3 9.5	2.72 7.32 F 3.6 29.4	7.32 9.9	2.9 10.7 F 3.8 28.2	50 30 37 37.36
24.30		16.78 9.28 C 7.4 11.1	4.78 8.48 F 3.7 29.1	8.48 9.28 11.2	9.0 14.9 F 3.9 28.4	36.30
33.39		17.69 8.29 C 8.7 13.1	5.69 8.29 F 3.6 27.7	8.29 10.8	9.9 9.9 8.0 21	35.39
22.55						BM 32.18 12.99 F 2.71
					22.55 sub 27.56/4.0 Page 42	34.55



see Note. P-16  
 Lt. Top  
 Dyke  
 Grades  
 41.00

Stations  
 +526 = W.W.  
 64+50

5' Lt. Top Dyke 12:1 Lt. Top ch. 12:1  
 416 006 427 12.06  
 416 406 0.0 7.66  
 21 14.0 14.5 6.4  
 30.0 30.3 6.6

only on  
 64+09.27 = E.C. Lt. Top Channel

T.P. 400 41.06

64+00 40.06

50 10% 51 1302  
 42 50 410 52  
 401 F4.5 1300 C7.8  
 300 11.7

63+7941 = E.C. Lt. only

63+50 39.13

585 1.95 61 1398  
 575 585 100 299 575  
 401 F3.9 682  
 29.5 12.6

63+2831 = E.C. Rt. Top ch.

4108

Spk. in Pole  
 Pole A-3344  
 63+75 on Lt.

384 50%

cuts  
 Rt. Top ch. 12:1  
 11.96  
 2.26  
 C5.6  
 8.4

Fills  
 Rt. Top Dyke 5' Lt. Top Dyke  
 1014 41 9.1  
 546 546 41  
 F5.6 286 F3.0  
 324 12.0 28.5  
 41  
 F3.0  
 28.5

Grades  
 Flow  
 29.05

Grades  
 41.20

21  
 34  
 50 F1.3  
 50 260  
 135 402A

12.44  
 5.64  
 C9.8  
 5.7

0.84  
 8.24  
 F5.2  
 5.1

27.5  
 28.10

27.15

13.80  
 7.0  
 C6.8  
 10.2

1.80  
 6.6  
 F4.8  
 31.2

60  
 2.4  
 F1.5  
 29.3

27.5  
 32.28

14.22  
 8.12  
 C6.1  
 9.2

2.22  
 6.82  
 F4.1  
 30.1

6.4  
 10.6  
 F1.2  
 30.3

38.86

15.27 T



Slopes Completed  
6-12-53

Las Chollas Creek Ch.

see Note P-46  
 Sta. Lt. Top 5' Lt. Top Lt. Toe  
 Dyke PP Dyke ch.  
 Grades 1 1/2:1 1 1/2:1

				0.02
Chisled Sp. in Bridge curb				47.74 - BM# 21
Chk. Marked a Cholla ch.		3.81		47.72 P-61
TR	5.11	51.53	3.65	46.42
TR	13.01	5007	4.00	39.06

Station on Rt. Toe  
 64+97.92 - Sta. - SLY Edge Bridge

Sta.  
 64+87.80 - SLY edge Bridge

64+84.10 = opp 64+87.80 Sta.  
 see sketch P-17

Lt. Toe Sta. 41.51  
 64+77.94 - SLY edge Bridge

41.06

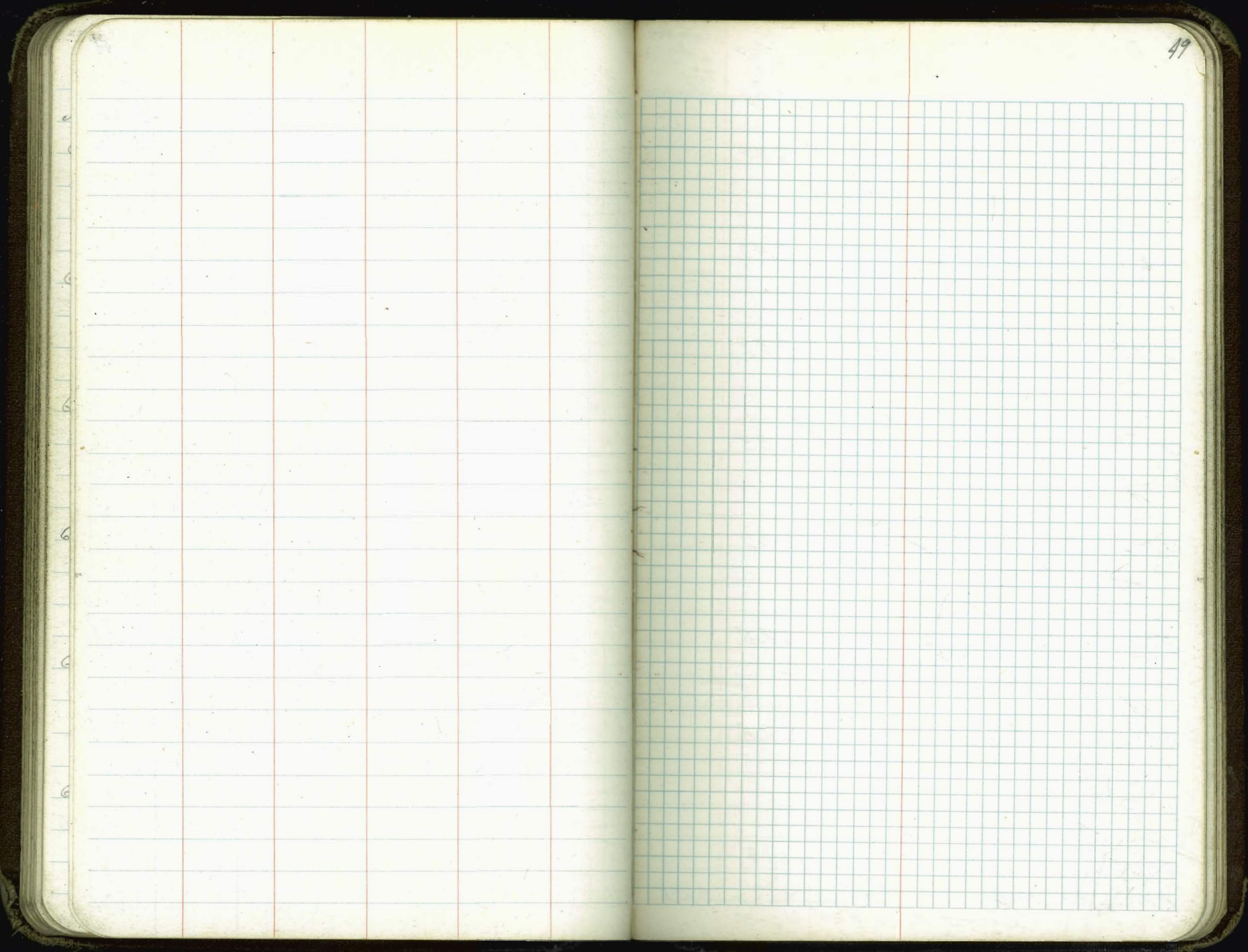
E	E	Rt.	Rt.	5'	Rt.
Grades	Cuts	Toe ch.	Top Dyke	PP	Top Dyke Grades
		1 1/2:1	1 1/2:1		

29.77

11.29	Rd = +0.71	4.7	
5.6		1.7	4.2
15.7	F 5.4	+0.8	
8.6		3.21	

41.77







	Lt. Top Blkd. Cutsfills	Grades Lt. Top Blkd.	Grades Lt Top Channel
9+75	6.44 4.09 F2.35	6.44	
9+50	6.40 6.22 F0.18	6.40	
9+25	6.37 1.74 F4.93	6.37	
9+00	6.33 2.00 F4.33	6.33	
8+75	6.29 0.31 F5.98	6.29	
8+50	6.25 0.35 F5.20	6.25	
8+25	6.22 0.30 F5.92	6.22	
8+00.07	6.18 0.33 F6.51	6.18	

B.M. on R.P. Hub

Direct Elev. Rod used.

529

	Rt. Toe Ch. Grades	Rt. Top Blkd.	Rt. Blkd. Cuts + Fills
			6.44 4.10 F2.34
			6.40 3.57 F2.83
			6.37 3.47 F2.90
			6.33 4.00 F2.33
			6.29 4.36 F1.93
			6.25 5.55 F2.30
			6.22 5.59 F0.63
			6.18 5.73 F0.45

B.M. 100 ft 1029.581 - P.S.A.



L45 CHOLLAS CRK. CH.  
 Restake Portion.

	Lt. Top Blkd. Cuts & Fills	Elev Grade Lt Top Blkd.	Lt. Top ch.
--	-------------------------------	----------------------------	-------------

Sketch P-58  
 10+71.77 - Beg. Pav. Rt. 8.60

Sketch P-58  
 10+61.92 - Beg. Pav. Lt. 8.57  
 4.26  
 F4.31

10+50 8.55  
 3.96  
 F4.59 8.55

10+25 8.52  
 4.55  
 F3.97 8.52

10+00 Blkd. steps up 8.48  
 3.84  
 F4.64 8.48

Direct Elev. Red. used.

Elev Grade	Channel Rt. Toe	Elev. Grade Blkd. Rt. Top	Rt. Top Blkd. Cuts Dist. to Fence Blkd.
------------	-----------------	------------------------------	--

8.60  
 8.60  
 3.86  
 F4.74  
 Vert  
 15.77  
 1

8.55  
 8.55  
 3.47  
 F5.08

8.52  
 8.52  
 4.15  
 F4.37

8.48  
 8.48  
 6.48  
 3.96  
 F 4.52 North  
 F 2.52 South



Las Chollas Creek Channel

32

Lt. Toe  
Channel ~ Alignment ~

Stations

For Grades See P. 39

Cont. P. 72

53+05.98-PC.

53+00

52+50

52+00

51+83.88-POC



LOUIS HOLLAS CREEK CHANNEL

Lt. Toe  
Channel  
Stations

53

56+77.14 Adv.  
56+80.31 back

56+50

56+00

Cont. from P. 72



145 Chalk Creek Channel

Slope stakes

	Elev. 5' Top Dyke	Lt. Top Dyke 1/2:1	Lt. Toe Channel 1/2:1 Vert. cuts Face Blkd.
10+50	8.55	5.2 5.4 -0.2	0.82 5.22 F 3.4 1.6 To Blkd.
10+25	8.52		
Blkd. steps up 10+00	To North 8.48 To South 6.48	5.0 5.4 -0.4	2.89 5.0 F 2.1 3.2 To Blkd.
+75	6.44		
9+50	6.40	5.87 5.27 -0.6	2.97 5.87 F 0.9 1.4 To Blkd.
+25	6.37		
9+00	6.33	6.44 5.54 -0.9	3.04 6.44 F 3.4 1.1 To Blkd.
+75	6.29		
8+50	6.25	8.0 8.4 -0.5	3.12 8.0 F 3.8 1.7 To Blkd.
100' at 10+45.5 TP 4.08	9.37		5.29 = TP P-24
8+25	6.22		
8+00.07 - PRC	6.18		

Cont. from P-79

Grade Flow	L cuts	Rt. Toe	Ft. Top Dyke 1/2:1	5' K.P.
8.45	12.82 5.45 C 7.4	12.82 5.27 C 7.6 Face Blkd.	0.82 5.0 F 3.2 1.8	6.0 5.9 5.1
8.32	12.89 5.4 C 7.5	12.89 5.4 C 7.5 Blkd.	2.89 5.4 F 2.5 2.8 To Blkd.	5.4 5.4 5.0
8.60	12.97 5.07 C 8.0	12.97 5.07 C 7.00 Face Blkd.	2.97 5.07 F 2.0 1.8 To Blkd.	5.97 5.87 5.0
8.67	13.04 5.27 C 8.07	13.04 5.65 C 7.4 Face Blkd.	3.04 5.65 F 2.4 2.6 to Blkd.	5.45 5.45 5.0
8.75	13.12 5.22 C 6.9	13.12 5.2 C 7.2 Face Blkd.	3.12 4.8 F 1.7 8.6 To Blkd.	4.8 5.2 5.4
8.82				



		Lt. Top Dyke cut & fill 1/2:1	Lt. Top Ch. 1/2:1 Dist 400 SS Shovel
12+50	887 44 43 10.1	050 44 F 3.9 1/2:1 41.2 To L	1250 41 1/2:1 C 8.4 226 To L
12+25	883		
11+95.54	879 54 52 10.1	058 54 F 4.8 41.2 To L	1258 1/2:1 52 C 7.4 211.40 L
+75			
11+50	872 50 44 10.6	065 50 F 4.3 12.5' To Blkd.	1265 50 1/2:1 C 7.7 33.5' To L
11+25			
11+00 Hhd.	865 40 40 0.0	072 40 F 3.3 11.0 To Blkd.	
10+95.54 Hhd. P.C.C.	864	073	1273
11+06.75 back			
11+00			
Sketch P-58			
10+71.77			
10+65	858 51 52 -0.1	079 51 F 4.3 12.5' To Blkd.	1279 52 C 7.5 Face Blk.

937

Grade Flow	Rt. Top Channel 1/2:1 Face Blkd. Vert. cut. or as shown	Rt. Top Dyke 1 1/2:1 Dist. To Blkd. or as shown	5' RP
-3.13	1250 39 C 8.6	1250 39 C 8.6 1/2:1 229 To L	050 38 38 36 F 3.3 40.2 39.0 To L
-3.21	1258 50 C 7.6	1258 50 C 7.7 1/2:1 216 To L	058 44 44 41 C 3.8 10.3 32.7 To L
-3.24			
-3.28	1265 52 C 7.3	1265 52 C 7.4 1/2:1 319 To L	065 32.5 32.5 32.5 F 2.6 40.2 32.40 Blkd. 39.9 To L
-3.33			
-3.35	1272 52 C 7.5	1272 52 C 7.5 319 To L	072 53 53 47 F 4.6 40.6 129.40 Blkd. 47.3 To L
-3.76	1273	1273	073
-3.37			
-3.40			
-3.42	1279 52 C 7.6	1279 52 C 7.5	079 58 58 57 F 5.0 40.1 13.5 To Blkd.
-3.43			



	File	5 Top - RP Dike	Fills L. Top Dike 1/2:1	Cuts H. Toe Channel 1/2:1
15750	932	104 10.3 10.1	764 10.4 F2.8 38.2	1764 10.4 C9.2 23.8
+25	929			
15700	925	106 10.5 10.1	771 10.6 F2.9 38.4	1971 10.7 C9.0 23.5
T.P. on di. +75	921			
14750	917	107 10.6 10.1	779 10.7 F2.9 38.4	1979 10.8 C9.0 23.5
+25	914			
14700	910	107 10.6 10.0	786 10.76 F2.9 38.4	1986 10.8 C9.0 23.5
+75	906			
13750	902	109 10.9 10.0	794 10.94 F3.0 38.5	1994 10.9 C9.0 23.5
+25	898			
T.P. 1075	16.26		316	621
13700	895	36 36 10.0	042 3.6 F3.2 38.8	1242 3.3 C9.1 23.7
1275	891			

937

	Cuts H. Toe Channel 1/2:1	Fills L. Top Dike 1/2:1	5 RP
268	1964 10.4 C9.5 24.3	764 10.4 F3.2 37.3	98 27 101
275	1971 10.5 C9.2 23.6	771 10.3 F2.6 37.9	103 10.1 101
283	1979 10.7 C9.1 23.8	779 10.4 F2.6 37.9	104 10.3 101
290	1986 10.8 C9.1 23.5	786 10.56 F2.7 38.1	105 10.3 102
298	1994 10.9 C9.1 23.4	794 10.2 F2.3 37.5	102 10.2 102
305	1242 3.4 C9.0 23.5	042 3.3 F2.9 38.4	33 34 101



Flow  
Top Dyke

Lt. Top Dyke  
Cuts & Fill  
1 1/2 : 1

Cuts  
Lt. Toe  
channel  
1 1/2 : 1

5'  
R.P.

Flow  
Grades

Cuts  
Rt. Toe  
Channel  
1 1/2 : 1

Fill  
Rt. Top  
Dike  
1 1/2 : 1

5'  
R.P.

Corr.  
p. 26

16+00 = Break

2.40	996	7.56	19.56
	276	2.76	16.80
	00	F2.4	C9.5
		37.6	24.3

15+75      2.36

15+61.20 = F.C.

9.34	103	7.62	19.62
	122	10.3	16.3
	70.1	F2.7	C9.3
		38.1	24.0

150

16.76

0.3624 of

2600

19.56	19.56	7.56	9.56
2.83	2.83	2.56	2.46
C9.7	C9.9	F2.0	7.01
	24.3	37.0	

2.66

19.62	19.62	7.62	10.0
10.0	9.9	10.0	9.9
C9.6	C9.7	F2.9	7.01
	24.5	37.6	

0.1506



Las Cholla Creek Channel

P.O.S. on L

11+95.54 = End Blvd. 2°51.89

11+75 2°16.61

11+50 1°33.64

11+25 0°50.67

11+00

10+95.54 Blvd.)

11+06.75 back } P.C.C. 2°35.82

11+00 2°23.14

8°30.15

10+71.77 Beg. Pav. on Rht

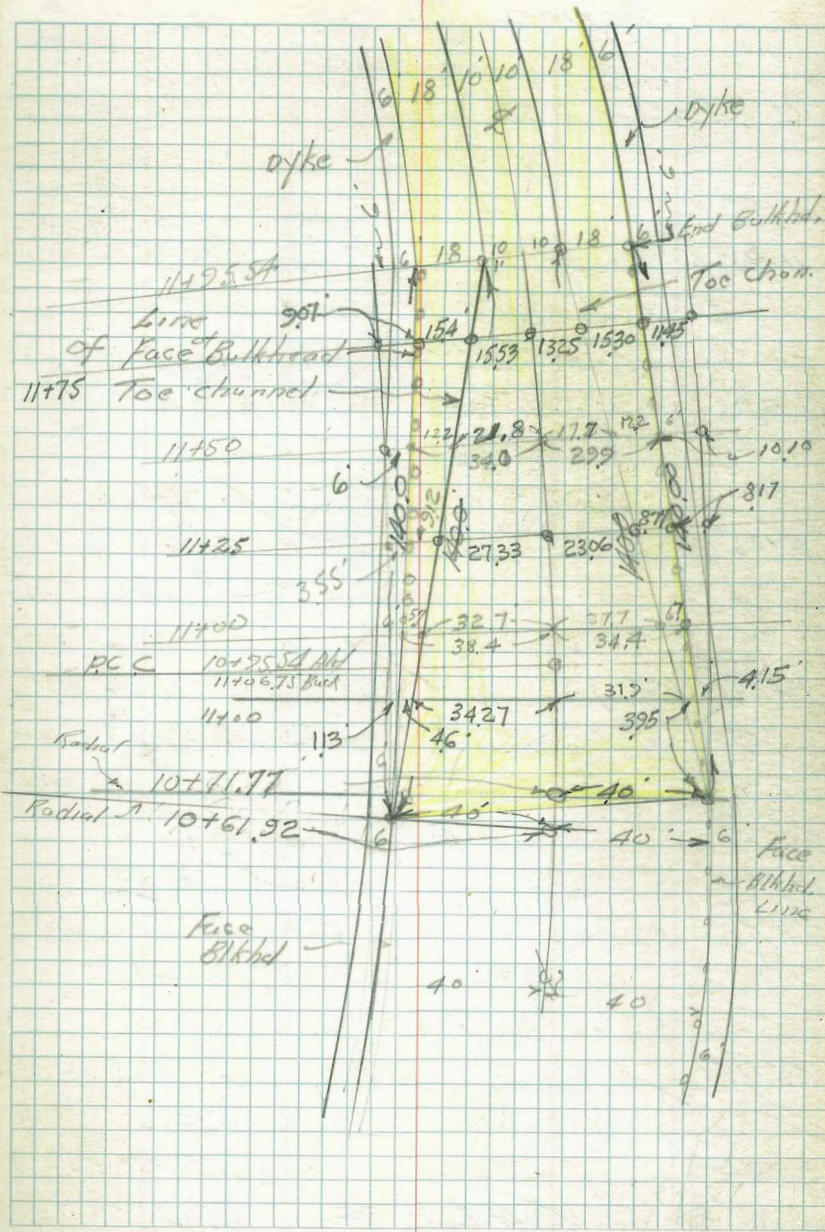
8°11.65

10+61.92 Beg. Paving on Lh.

10+50

7°49.24 = Page 4

8+00.07 = B.C. L.





Los Chollas Channel  
Finish Grades thru Widening  
Section.

Note: 0.6' Added to Dist.  
To Make Sub. Grade Same  
Elev. as Finish.

11+95.54 → Cont P-55

11+75      883      -324  
             720      8.83  
             -1.63      C12.07  
                                 787.1 to Toe

11+50      860      -328  
             533      860  
             -301      C11.88  
                                 784.2 to Toe

11+25      755      -333  
             587      7.55  
             -7.66      C10.88  
                                 767.2 to Toe

10+95.54 }  
11+06.75 } PCC

11+00      567      -337  
             412      567  
             -1.55      C9.1  
                                 14.3

10+71.77      500      -340  
                     215      500  
                     -1.55      C11.5  
                                 71.0  
                                 -343  
                                 82.5

10+61.92

10+95.54  
B.M. on K.P. 100 ft. P-54  
Direct Elev. Rod Used.

C11.68 - 16 ft d'bank  
81.2

5.27

Ch.

59

Grades	Ch. H. Toe 1/2 1			
-324				
-324		-324	881	
		881	731	
		C12.08	1.50	
		1848		
-328		-328	882	882
		882	604	4.77
		C12.10	2.18	
		786.5 = Toe Ch.		4.05
-333		-333	702	
		702	488	
		C10.35	-2.14	
		1612		
-336				
-337		-337	572	
		572	553	
		C9.09	0.19	
		1423		
-340		-340		
		861		
		C12.05		
-343				



BENCH MARKS - SECTION "B,"

Walker WABASH FREEWAY  
 Pope From Main AND 32ND 112 22008  
 Brayton To Federal Blvd & 35TH  
 Marcelaz  
 4-3-53 (Check levels on P-62)

	Cont. P-61		Elev.	Mean Et. Adj. Elev.
TP#20	0.225	19.149	0.749	18.854
TP#19	8.524	19.603	1.001	11.079
TP#18	5.290	12.080	2.010	6.790
TP#17	3.222	8.800	3.052	4.878
TP#16	5.360	7.230	6.532	2.570
TP#15	0.210	9.102	2.071	8.892
TP#14	4.721	10.263	4.480	6.242
TP#13	4.482	10.722	5.315	6.240
TP#12	5.489	11.555	4.325	6.066
TP#11	0.178	10.401	3.764	10.223
TP#10	2.763	13.287	0.882	11.224
TP#9	5.174	12.106	3.844	6.932
TP#8	7.018	10.776	4.800	3.758
TP#7	4.465	8.558	6.031	4.093
TP#6	1.885	10.124	2.252	8.239
TP#5	6.410	10.591	4.223	4.181
TP#4	4.646	8.404	5.412	3.758
TP#3	4.258	9.170	12.225	4.912
TP#2	0.218	17.137	12.684	16.919
TP#1	1.017	29.603	12.662	28.586
	2.598	41.248		38.650

BM#12 = S.E. BP National & 34th

BM#11 = Brass Pkg. South Curb Newton <sup>Approx. 31' E of 34th</sup>

BM#10 = 1 1/2" Iron Bolt NE Cor. Radio Tower

BM#9 = Brass Pkg. East End Conc. Hd wall Conduit K5UN

BM#8 = S.E. BP MAIN ST. AND RIGEL

BM#7 Brass Rivet SW Cor Bridge, Cholla Creek & Main St.

BM#6 Brass Pkg. SE Cor Bridge Paul Main & Cholla Creek

BM#5 Lds Tack USN. Coordinate = 1375' <sup>W</sup> with <sup>11' Black</sup> <sup>Passing</sup> 3400' <sup>E</sup> East

Check BM#3

U.S.C. & G. B.M. Brass Disc. N. Side Harbor & 32ND #4 on Safety Island

Set B.M. BP N.Y.K.C. Return, North Cholla Bridge & 32ND. BM#3

B.M. N.Y.K.C. B.C. curb Return 32ND & Gate #4 USN. #2

B.M. H.E.B.P. Main 32ND #1



BENCH MARKS - SECTION "B"  
WABASH FREEMAN

			Elem.	Adj. Elev.	Height
				51.870 = Record	
				0.055 = diff.	
Chk on B.M.		2.635	51.235	51.870	
TP # 41	7.002	54.570	2.855	47.568	43.026
TP # 40	7.330	50.423	6.473	43.093	<del>45.093</del>
TP # 39	5.290	49.566	9.803	44.276	47.74
TP # 38	6.272	54.079	8.886	47.807	47.807
TP # 37	8.212	56.693	10.380	48.481	54.05
TP # 36	4.733	58.861	1.592	54.128	54.123
TP # 35	13.012	55.720	10.322	42.708	36.624
TP # 34	7.038	43.740	3.373	36.702	36.696
TP # 33	4.930	40.075	4.525	35.145	29.57
TP # 32	10.017	39.670	3.172	29.653	<del>29.643</del>
TP # 31	7.352	32.825	11.968	25.473	35.654
TP # 30	1.717	37.441	7.353	35.724	35.718
TP # 29	10.322	43.077	6.400	32.755	32.69
TP # 28	4.516	39.155	2.860	34.639	32.746
TP # 27	4.598	37.499	0.092	32.901	19.98
TP # 26	12.961	32.993	3.320	20.032	<del>30.26</del>
TP # 25	6.255	33.352	3.975	17.097	17.043
TP # 24	5.324	21.072	0.448	15.748	17.093
TP # 23	7.092	16.196	6.161	9.104	9.053
TP # 22	3.593	15.265	6.080	11.672	9.098
TP # 21	0.957	17.752	2.354	16.795	16.75
					12.149

Cont. from P. 60

Note

The Adj. New B.M.s  
were made to fit the Plans  
of Wabash by Procuting Between  
B.M.s. as shown on Plans and the  
Number of TPS

61

B.M. # 23 NYLBR Federal Bldg & 35th

Sph. Root Fall Tree

B.M. # 22 = 1" Pipe = 1' East SE. Cor of House, on W 88+70  
Residence # 3433 DELLS DRIVE Approx. Sta.

B.M. # 21 Chisled 5/8" (on Curb) SE. Cor. Market St Bridge  
& Cholla Creek (Bridg Rail)

B.M. # 20 "A" Redwood Hub

B.M. # 20 Bolt NE. Cor. Bridge S.D. & R.R. Top

B.M. # 19 Brass Ptg. N. Rail & Bridge Imperial & 34th

B.M. # 18 1 1/2" x 3' Galv. Iron Pipe

B.M. # 17 = Chisled Cross Vt. Rail MA (110' N. 53+70  
= 27' N. 1+45 SE. O.C. Imp. Ave. (Approx. Guess)

B.M. # 16 SE 7' Tuck Ocean View & 34th St.

B.M. # 15 SE B.P. Ocean View & Gregory

B.M. # 14 = 1 1/2" x 3.3' Iron Bolt set in place of Hub  
N.L. Marlin  
W. Line at Way

B.M. # 13 South curb in Front Residence # 3405 Florence



# Check Levels

on Bench Marks as shown P-60-61.

~ Nobash Freeway sec. 'B' ~

Wilber  
Pope  
Boyton  
Morales

Cont. P-63

TP#59	12.992	33.013	1.179	20.021	20.026
TP			4.110	17.090	
TP#58	5.600	21.200	0.670	15.600	
TP#57	7.178	16.270	6.079	9.092	9.098
TP#56	3.813	15.171	5.590	11.358	
TP#55	0.159	16.948	3.743	16.789	
TP#54	2.451	20.532	1.151	11.081	
TP#53	5.434	12.232	2.038	6.798	
TP#52	3.257	8.836	3.038	4.879	
TP#51	5.352	7.217	7.338	2.565	
TP#50	1.009	9.903	2.178	8.894	
TP#49	4.835	11.072	5.130	6.237	
TP#48	5.138	11.367	5.145	6.229	
TP#47	0.162	11.374	0.744	11.212	
TP#46	5.032	11.956	3.488	6.924	
TP#45	6.660	10.412	5.640	3.752	
TP#44	3.832	9.392	11.560	5.560	
TP#43	0.202	17.120	12.599	16.918	
TP#42	0.935	29.517	12.620	28.582	
	2.552	41.202		38.650	

BM #16

BM #15

BM #14

BM #13

BM #12

BM #11 Brass Peg. Scrub Vectors, 37' East of 34th

BM #10 = 1 1/4" x 3

BM #9

BM #8

BM #6 S.E. B.P. Bridge Rail Main & Photo

BM #5

BM #3

chk BM #2

chk. TP #1

BM #1 = N.E. B.P. Main Ave 32nd St.



Check Levels on Bench Marks

SEC. 'B' ~ Hobash Freeway

				0.001	
chk BM#23=P-61			2.365	51.935=P-61	51.936
TP#73	6.637	54.201	2.736		47.564
TP#72	7.206	50.300	6.193		43.094
TP#71	5.015	49.387	10.300		44.272
TP#70	6.765	54.572	4.047		47.807
TP#69	4.474	51.854	8.887		47.380
	2.150	56.267	2.418		54.117
TP#68	12.265	56.535	0.102		44.270
TP#67	8.273	44.372	4.350		35.399
			3.060		36.689
TP#66	4.801	39.749	4.720		34.948
TP#65	10.035	39.668	3.090		29.633
TP#64	8.204	32.723	7.061		24.519
TP#63	2.559	31.580	10.735		29.021
			4.043		35.713
TP#62	1.420	39.756	3.518		38.336
			2.117		32.737
TP#61	7.215	41.854	3.358		34.639
TP#60	5.108	37.997	0.124		32.889
					33.013

Cont from P-62

Note:  
 Use Adj. Bench Marks P-61-62

BM#23 = NW. BR. Federal s 35th

Sph. in Eug Tree

BM#22 = Pipe SE. Cor. House  
 3493 Dells Drive

BM#21 Christed sq. on South Bridge Rail curb  
 Market & Chrolloa Ck.

BM#20-A

BM#20

BM#19

BM#18

BM#17

384 50%



BENCH MARKS

SECTION B

WABASH FREEWAY

Walker  
Bope  
Bryson  
Morales  
1-10-53  
Via Francis, S.E.C. & N.E.C. Market  
To 35th & Federal - Perchk. Levels  
See P. 66, 67

					Adj. Elev.
TP#90	8.748	131.262	1.128	122.514	113.57
TP#89	10.005	123.642	0.545	113.637	113.627
TP#88	13.035	114.182	3.157	101.147	
TP#87	6.225	104.304	0.856	97.379	
TP#86	12.050	98.229	1.006	86.179	86.11 86.172
TP#85	11.267	87.185	0.661	75.918	
TP#84	12.242	76.579	0.355	63.637	
TP#83	13.120	63.992	12.032	50.872	61.82
TP#82	1.019	62.904	0.432	61.885	61.890
TP#81	11.232	62.317	0.463	50.385	37.55
TP#80	13.230	50.848	3.153	37.618	37.624
TP#79	9.878	40.771	1.833	30.893	
	3.083	32.726		29.643	29.57

			0.004		
			29.645		
chk BM#19		3.348	29.647	29.57	
TP#78	2.092	32.995	12.195	30.903	30.826
TP#77	0.387	43.098	13.210	42.711	
TP#76	1.140	55.221	0.355	54.781	54.704
TP#75	12.430	55.176	0.942	42.706	
TP#74	12.755	43.648	1.830	30.893	
	3.080	32.723		29.643	29.57

BM #27 - 1" Pipe Sta of Sta Car MS Ferlands

on E.C. Hub 14+54.04

BM #26 set SW. B.P. Tomkins <sup>at</sup> 35+10

BM #25 on 1" Pipe Approx 14' West of <sup>West of</sup> Francis on S. SD + R. Trac

BM #19

chk on TP #74 Use This

BM #24 - E. Pk. Nail 0+00 "Ea-line" on Imp. Ave

BM #19 - Brass Ptg. W. Rail Bridge Imp. Ave  
+ Cholla Creeks  
P-61



BENCH MARKS

MEAN  
Elev.  
Adj.  
Elev.

				0.002	
CHK NYBR Federal 235 <sup>th</sup>	6384	51.938	51.870		
TP#106	5.579	58.322	12.215	52.743	
TP#105	1.127	64.958	12.783	63.831	
TP#104	1.580	76.614	11.381	75.034	
TP#103	1.733	86.415	13.099	84.682	
TP#102	2.220	97.781	12.381	95.561	107.29
TP#101	0.578	107.942	6.705	107.364	107.352
TP#100	1.802	114.069	13.040	112.267	
TP#99	0.161	125.307	13.059	125.146	134.17
TP#98	3.965	138.205	10.682	134.240	134.326
TP#97	2.691	144.922	11.760	142.231	150.74
TP#96	3.179	153.991	7.396	150.812	150.799
TP#95	11.102	158.208	0.338	147.106	
TP#94	12.735	147.444	0.058	134.709	122.17
TP#93	12.528	134.767	6.412	122.239	132.226 128.24
TP#92	0.341	128.651	13.012	128.310	135.286
TP#91	12.334	11.322	2.274	128.988	128.95
		131.262			
		from P-64			

BM#25

BM#32 = Pipe

BM#31 = Pipe

BM#30 = R.P. Pipe 79.6 RT of 4+87.74 N.E.O.C.

BM#29 = R.P. Pipe 99. RT of 22+18.94 N.E.O.C.

BM#28 = R.P. Pipe 59.60<sup>50</sup> RT of 8+37.20 P.S.



Check Leads

Mulker WABASH FREEWAY SEC. "B"  
 Pope on Circuit from TP#79 to TP#106  
 Morley 95 shown on P-64-65

4-13-53 From Trip. Ave North  
 Via - Francis St. S.E. OC of Market  
 and N.E. OC Market To Federal Blvd.

→ Cont D-67

TP#114	12.353	98.512	1.205	86.166	86.172
chk BM#26-A		0.013	87.358	87.357	87.357
TP#113	11.460	87.371		75.911	
TP#115	11.460			63.635	
			7.365	86.160	
TP#114	6.170	92.525	0.131	87.355	87.30
TP#113	11.575	87.486	0.497	75.911	
TP#112	12.773	76.408	0.124	63.635	
TP#111	12.251	63.829	11.763	50.878	61.82
TP#110	0.745	62.641	0.523	61.896	61.890
TP#109	12.360	62.419	0.238	50.059	37.55
TP#108	12.666	50.297	2.953	37.631	37.624
TP#107	9.681	40.584	2.370	30.903	
	3.690	33.273		29.643	29.57
			<del>3.008</del>	30.900	
	<del>3.270</del>	33.908		39.643	

Adj.  
 Elev.  
 Height  
 86.11  
 87.30

and 35th

on F.C. Hub 14+59.04

BM#26-A = NE BR Top Ret. Wall K-St & Francis

F.C. Hub 14+59.04

BM#26 A Jet Brass Ply. in Ret. Wall NE Francis & K-St

BM#26

chk BM#25 = 1" Pipe approx 14+14.66 Francis St. SD&R RR

BM#19 Brass Ply. Bridge Rail, Trip. Ave @ Chollus Crk.



Check Levels on Bench Marks

NEHH  
ELEV.  
Adj Elev

				51.936 = P-61		
				<del>51.928 = P-65</del>		
chk BM#23		6.286		<del>51.927</del>	51.87	
TP#134	1.795	58.213	12.106	56.418		
TP#133	5.157	68.524	12.077	63.367		
TP#132	1.596	75.444	11.703	73.848		
TP#131	2.304	85.551	13.160	83.247		
TP#130	0.864	96.407	12.628	95.543		
TP#129	0.830	108.171	8.226	107.341	107.29	
					<del>107.352</del>	
TP#128	1.312	115.567	12.427	114.255		
TP#127	0.494	126.752	12.771	126.258		
					134.17	
TP#126	4.820	137.029	10.930	134.209	134.226	
TP#125	2.173	145.139	12.890	142.966		
					150.74	
TP#124	5.081	155.856	5.915	150.775	150.793	
TP#123	11.022	156.620	0.412	145.668		
TP#122	11.403	146.080	0.303	134.677		
					122.17	
TP#121	12.770	134.980	6.424	122.210	122.226	
					128.24	
TP#120	9.423	128.704	12.921	128.281	128.296	
TP#119	12.238	141.202	2.478	128.964		
TP#118	6.566	131.462	0.868	124.896		
					113.57	
TP#117	12.146	125.764	2.202	113.618	113.627	
TP#116	12.760	115.820	1.307	103.060		
TP#115	7.008	104.367	1.160	97.359		
		98.519				

Cont. from P-66

BM#23 NW, B.P. Federal & 35th

BM#32

BM#31

BM#30

BM#29

~~BM#28~~

BM#28

BM#27



BENCH MARKS - WABASH FREEWAY SEC B  
 from 35<sup>th</sup> & FEDERAL BLVD  
 via Old Federal Blvd  
 To Bridge Cholla Creek & Federal Blvd

Molker  
 Pope  
 Morales  
 4-13-53

MEAN  
 ELEV.  
 Adj.  
 Elev.

				0.004	
CHK BM #23			5739	<del>57.996</del>	5187
TP #143	3.755	57.671	6.020	<del>53.916</del>	53.84
TP #142	3.251	59.236	6.883	55.985	53.917
TP #141	3.691	62.868	6.240	59.177	
TP #140	2.387	65.417	11.118	<del>63.090</del>	62.97
TP #139	0.580	74.148	0.373	73.568	62.970
TP #138	10.211	73.941	2.340	<del>63.030</del>	62.97
TP #137	6.172	65.370	2.973	59.178	
TP #136	6.162	62.151	3.620	55.989	
TP #135	5.691	59.609	4.304	53.918	53.917
	6.286	58.222		51.936	51.87
				51.936	51.936

CHK. BM #33 Brass Ply. Bulkhead

CHK BM #34

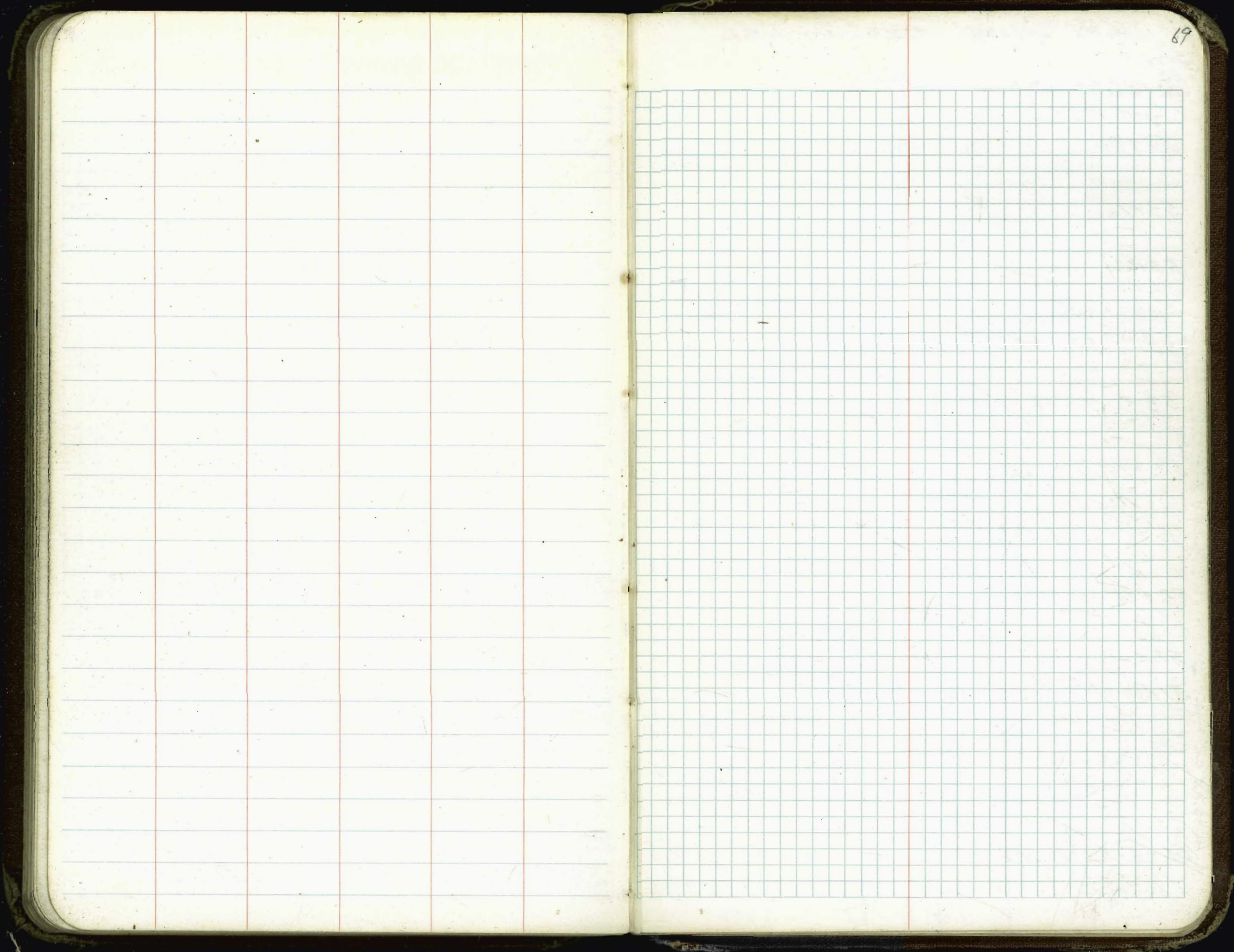
BM #35 Set Brass Ply. SW End Post Cholla Bridge & Federal

BM #34 Set Brass Ply. SE Cor Wing Wall <sup>Next</sup> Cholla Bridge & Federal

#33  
 BM #34 Set Brass Ply. NW Bulkhead old Bridge Cholla & Federal

BM #23 = NW BP Old Federal Blvd & 35<sup>th</sup>







LAS CHULLAS CREEK CHANNEL

Sta. = Rt. Toe Channel

Cont. P-71

54+00

53+75

53+50

Station  
Right Toe Channel  
3°16.12'

53+21.39 = E.C. on Rt. Toe Channel

c 21.06 Stake Line

53+00 2°45.58'

DATA  
Rt. Toe Channel

$\Delta = 6^{\circ}32'18''$

$R = 1205.12'$

$L = 137.51'$

$T = 68.83'$

Det. pt. ft. = 1.4263'

52+75 2°09.93'

52+50 1°34.28'

52+25 0°58.63'

52+00 0°22.98'

c 24.61 Rt.

c 15.08' Rt Stake Line

51+83.88 = P.C. = E.C. on Lt. = P.C. on Rt.

0°41.3'

$\Delta = 1^{\circ}22'36''$

$R = 2176'$

$T = 26.14'$

$L = 52.22'$

+57.72'

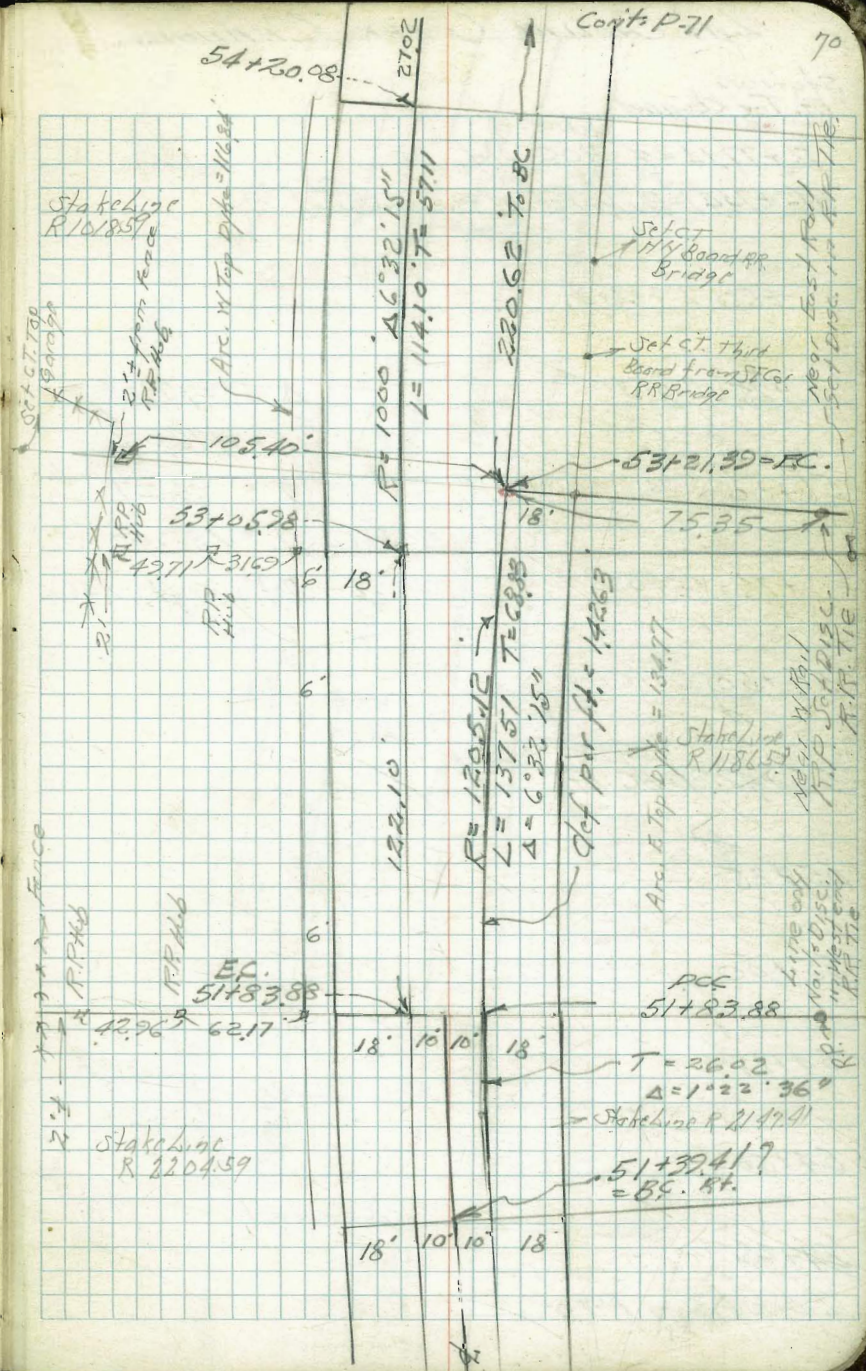
0°20.65'

D1 0.7899

10' Arc = 26.25 10' Arc = 26.02

51+31.59 = B.C. on Lt. 0°00'

Cont. P-71









THE CHOLLAS CREEK CHANNEL

72

Sta. = Lt. Toc Channel

Cont. P 53

55+75

55+57.28=EC. 2° 13.53

55+50 2° 00.8

+40 2° 42.68

55+25 2° 16.9

55+00 1° 33.00

c 25.03 Top

54+75 0° 49.10

c 27.90 Top

54+47.10=BC. Rk

54+20.08=EC. 3° 16.28

+16 3° 07.55

54+00 2° 41.75

53+75 1° 58.75

Stake line  
c 25.46

53+50 1° 15.75

+25 0° 32.75

Stake line  
c 19.41

53+08.98=BC. Rk

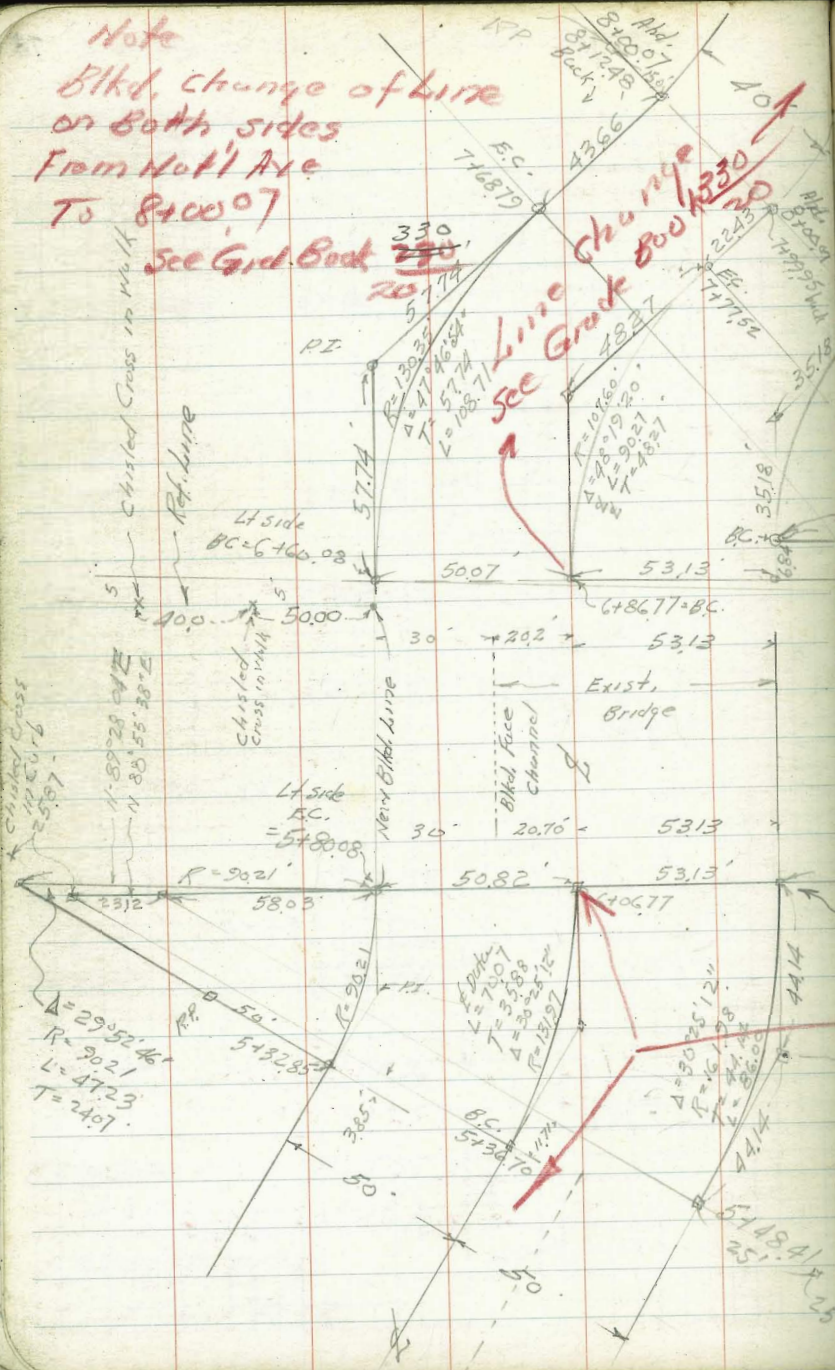
Cont. from P 52



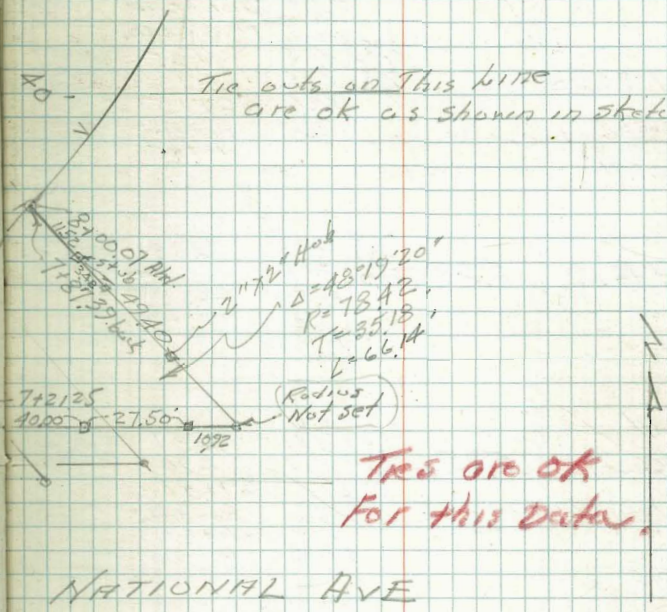
Note  
 Bldg. change of line  
 on both sides  
 from Nat'l Ave  
 to 8+00.07  
 See Grid Book 270

See Grid Book 270

Line Change  
 see Grade Book 330



Tie outs on this line  
 are ok as shown in sketch P-3



Tie out OK  
 for this data.

NATIONAL AVE

Line Changed  
 from 6+06.77  
 to South  
 See Grade Book 330/3

Black  
 Mark on Bld.



Chollas Creek at National Ave

Left Side Station Def. Grades Top Dike 5' Dist. Lt. Toe Chappel Dist. Lt. are From Toe ch

Cont. P. 75  
7+03.56 9°33'38

6.88  
6.65  
10.2  
4.25  
6.85  
F2.6  
2.2  
14.25  
7.10  
C7.15  
Face Blkd.  
Vert cut.

Chds. = 21.71'

6+81.82 4°16'69 5.98

7.78  
7.68  
10.9  
4.28  
7.78  
F3.5  
11.8  
From  
Blkd.

-102

Seq. Bullhead  
6+60.08-BC. 5.95  
From P. 79 = 10.26T

2.5  
2.8  
00  
14.1  
4.31  
2.81  
C11.37  
8.3  
From  
Blkd.

-4.05

14°56'38  
5+80.08-EC. 5.80

3.7  
3.6  
10.1  
5.53  
3.7  
C1.8  
23.7  
From  
Toe

-4.20

5+56.46 7°28'19 5.73

7.8  
7.8  
00  
5.60  
7.8  
F3.2  
24.3  
From  
Toe

-4.27

5+32.85 BC. 5.65

7.7  
7.7  
0.7  
5.68  
7.48  
F1.8  
23.7  
From  
Toe ch.

-4.35

11.33  
X from P. 22

Flow

-3.97
-102
-4.05
-4.20
-4.27
-4.35



Las Chollus Creek

Left  
Side Sta.

Grades  
Top Dyke

5' Top  
RP Dyke  
1 1/2:1

Dist. out  
are front.  
Face  
Blkhd.

Left  
Top Blkhd.  
Vert.  
Cuts

Flow

10,26 T Cont, P-23

8+00.07 Hbl.  
8+12.48 Blk = BC Lt.

6.18

1058  
1529  
471

418  
1058  
FC 5  
158

14.08  
10.00  
C 4.08

-3.82

7+68.79 EC  
23° 53' 45"

6.09

377  
477  
-10

417  
377  
C 4  
6.6

14.17  
4.81  
C 9.36

-3.91

7+47.04 = 12° 06' 76"

6.06

64  
63  
-01

4.20  
6.4  
FC 2  
9.3

14.20  
6.63  
C 7.57

-3.94

7+25.30 = 14° 30' 07"

6.04

66  
64  
-02

4.22  
6.6  
FC 4  
9.6

14.22  
6.65  
C 7.57

-3.96

10,26 T from P-74



Los Chollas Creek at Nat'l Ave

Station

7+17.02

6+86.77-EC. 171

6+06.77-EC.

5+83.42

5+60.06

5+36.70-EC. 41

Fluv

-399

-405

-420

-424

-429

-434



Las Chollas Creek at Nat'l. Ave.

77

Station

Flow

78700.07 Ahd.  
7+99.95 Back = BC. 1/2

3.82

7+77.52 EC.

-3.87

7+47.27

-3.93



Los Chollas Creek Channel

Rt. side  
Stations

7+21.25 BC. RT.

R.P. 40' RT 741.25

TP 4.28 10.26 5.35 5.98

6+3441 = EC. 15' 12.6

6+12.91 11' 24.45

5+91.41 7' 36.3

5+62.91 3' 48.15

chds = 21.51

5+48.41 = BC. LT.

11.33  
x from p. 74

Flow Grades	Top Dyke Grades	Cuts. Rt. Toe Channel	Dist. from Rt. Toe ch.	Dist. from Rt. Toe ch.	5' RP
-4.03	5.97	14.29 7.19 C 6.31 F 1.1 F 1.1	4.29	4.29	5.5 5.7 10.4
-4.20	5.80	15.53 5.03 C 10.5 15.8 To Toe ch.	5.53	5.0	5.0 5.0 0.0
-4.24	5.76	15.57 4.67 C 10.9 16.4	5.57	4.67	4.67 4.67 0.0
-4.28	5.72	15.61 5.0 C 10.6 15.9	5.61	4.8	4.8 4.8 0.0
-4.31	5.69	15.64 5.1 C 10.5 15.8	5.64	5.1	5.1 5.1 0.0
-4.33	5.67	15.66 5.1 C 10.6 15.9	5.66	5.12	5.12 5.12 0.0



Las Anollas Creek Channel

Rt. side  
Stations

8+00.07 hhd  
P.R.C.  
7+87.39 back 24°09.67

7+70.85 18°07.25

7+54.32 12°04.8

chds = 16.51

7+37.78 6°02.4

10.26  
T from P-78

Grade Flow Face Sided.	Grade Rt. Top. Dyke	Rt. Face Sided. Cuts.	Rt. Top Dyke Cuts & Fills Dist. out arc from Face Sided.	5' R.P. from Toe slope
---------------------------------	---------------------------	-----------------------------	---	------------------------------------

-3.82	6.18	14.08 4.14 C 9.34 Face Sided.	134 4.08 4.4 F 0.3 6.5	4.4 4.5 -0.1
-------	------	--	---------------------------------	--------------------

-3.87	6.13	14.13 5.92 C 8.21 Face Sided.	134 4.13 5.83 F 17. 8.5	5.83 4.9 10.9
-------	------	--	----------------------------------	---------------------

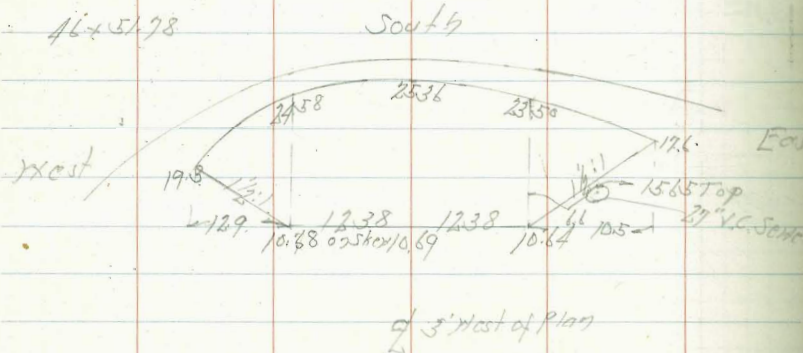
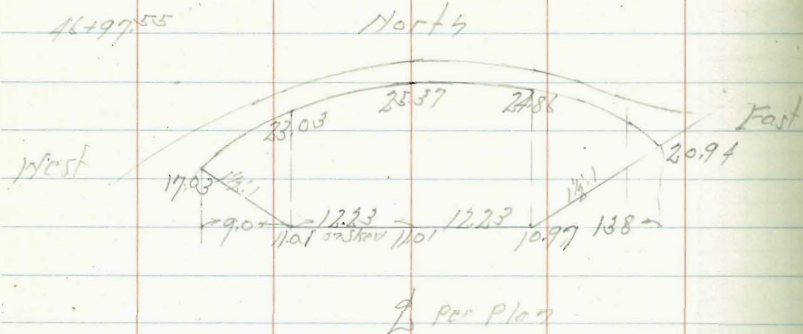
-3.92	6.08	14.18 6.08 C 8.1 Face Sided.	134 4.18 6.47 F 2.3 3.5	6.47 6.47 0.00
-------	------	---------------------------------------	----------------------------------	----------------------

-3.97	6.03	14.23 6.77 C 7.46 Face Sided. Vert. Cut.	134 4.23 5.9 F 1.7 8.5	5.9 5.6 10.3
-------	------	--	---------------------------------	--------------------



Ghollo Creek Channel +  
Imperial Ho. Bridge

Sept 1-54  
P. S. W. Co.



# IMPROVED TABLES AND INFORMATION

## HORIZONTAL STADIA CORRECTIONS

2°-00'	— 0.1	21°-00'	— 12.8	33°-00'	— 29.7
3°-00'	— 0.3	21°-30'	— 13.4	33°-15'	— 30.1
4°-00'	— 0.5	22°-00'	— 14.0	33°-30'	— 30.5
5°-00'	— 0.8	22°-30'	— 14.7	33°-45'	— 30.9
6°-00'	— 1.1	23°-00'	— 15.3	34°-00'	— 31.3
7°-00'	— 1.5	23°-30'	— 15.9	34°-15'	— 31.7
8°-00'	— 1.9	24°-00'	— 16.5	34°-30'	— 32.1
9°-00'	— 2.5	24°-30'	— 17.2	34°-45'	— 32.5
10°-00'	— 3.0	25°-00'	— 17.9	35°-00'	— 32.9
10°-30'	— 3.3	25°-30'	— 18.6	35°-15'	— 33.3
11°-00'	— 3.6	26°-00'	— 19.2	35°-30'	— 33.7
11°-30'	— 4.0	26°-30'	— 19.9	35°-45'	— 34.1
12°-00'	— 4.3	27°-00'	— 20.6	36°-00'	— 34.6
12°-30'	— 4.7	27°-30'	— 21.3	36°-15'	— 35.0
13°-00'	— 5.1	28°-00'	— 22.0	36°-30'	— 35.4
13°-30'	— 5.5	28°-30'	— 22.8	36°-45'	— 35.8
14°-00'	— 5.9	29°-00'	— 23.5	37°-00'	— 36.2
14°-30'	— 6.3	29°-30'	— 24.3	37°-15'	— 36.6
15°-00'	— 6.7	30°-00'	— 25.0	37°-30'	— 37.1
15°-30'	— 7.2	30°-15'	— 25.4	37°-45'	— 37.5
16°-00'	— 7.6	30°-30'	— 25.8	38°-00'	— 37.9
16°-30'	— 8.1	30°-45'	— 26.2	38°-15'	— 38.3
17°-00'	— 8.5	31°-00'	— 26.5	38°-30'	— 38.7
17°-30'	— 9.0	31°-15'	— 26.9	38°-45'	— 39.1
18°-00'	— 9.5	31°-30'	— 27.3	39°-00'	— 39.6
18°-30'	— 10.1	31°-45'	— 27.7	39°-15'	— 40.0
19°-00'	— 10.6	32°-00'	— 28.1	39°-30'	— 40.5
19°-30'	— 11.2	32°-15'	— 28.5		
20°-00'	— 11.7	32°-30'	— 28.9		
20°-30'	— 12.3	32°-45'	— 29.3		

### Chains to Feet

1	.....	66
2	.....	132
3	.....	198
4	.....	264
5	.....	330
6	.....	396
7	.....	462
8	.....	528
9	.....	594
10	.....	660

### Feet to Chains

100	....	1.515
200	....	3.030
300	....	4.545
400	....	6.060
500	....	7.575
600	....	9.090
700	....	10.606
800	....	12.121
900	....	13.636
1,000	....	15.151



