

W261

THE
1870

MICROFILMED

YUV

100

INDEX

Subject - - - - Page

San Vicente - Lakeside pipe line
change: P³ line Profile³/₄ X-section 1 to 25

Profile levels and Cross-section
of P3 line Lake side San Vicente
Pipeline via Benedict Ave.
+ H.I. - Elev.

2+50

2+00

1+50

1+00

0+50

0+15

0+09

0+00

2.00

402.22

BM#21
400.35
=402.22

L+

Rt

May 18-28

POG
Leach
Simpson

1

H.I. 402.22

20	5.0	5.0	4.5	5.5	2.0
5.7	5.6	5.0	5.4	6.2	5.0

397.2

20	5.0	4.8	5.0	6.0	2.0
5.8	5.3	4.8	5.1	6.0	4.9

397.4

20	5.0	4.6	4.6	5.6	2.0
5.9	4.8	4.6	4.8	5.6	4.8

397.6

20	5.0	4.4	4.5	5.5	2.0
5.5	4.3	4.4	4.5	5.4	4.7

397.8

20	5	4.3	4.5	5.0	2.0
5.7	4.7	4.3	4.8	5.5	4.3

397.9

20	5	4.3	5	2.0
4.2	4.3	4.3	4.8	4.5

397.9

20	5	5.4	5	2.0
5.1	5.4	5.4	4.6	3.9

396.8

20	5	4.2	5	2.0
3.8	4.0	4.2	4.4	4.7

398.0

6/13/66
chr. Patten m.

P3 Profile of x-section

	+	H.I.	-R	Elev.
		402.22		
6+50			5.82	396.40
	3.60	400.00		
6+00				
5+50				
5+00				
4+50				
4+00				
3+50				
3+00				

L1

18-15-28
 P.O.9
 Leach
 Simpson

22

H.I. 400.00						
20	5.0		4.4	5.0	20	
5.1	4.5	4.2	4.2	5.6	4.3	
395.8 ✓						
20	5.0		4.8	5.7	20	
4.8	4.3	4.1	4.2	5.6	4.4	
395.9 ✓						
20	5.0		4.0	5.5	20	
5.0	4.1	3.8	4.2	5.4	4.2	
396.2 ✓						
20	5.0		4.0	5.3	20	
4.9	3.9	3.7	3.8	5.1	4.2	
396.3 ✓						
20	5.0		4.0	5.0	20	
4.7	3.8	3.6	3.7	4.6	3.7	
396.4 ✓						
H.I. 402.22						
20	5.0		3.0	5.0	20	
6.5	5.6	5.8	5.9	6.7	5.9	
396.4						
20	5.0		3.0	3.5	20	
6.4	5.3	5.8	5.6	6.7	5.5	
396.4 ✓						
20	5.0		4.5	4.5	20	
6.4	5.8	5.2	5.6	6.1	5.4	
397.0 ✓						

6/13/28
 d. v. *[unclear]*

P3 Profile of X-section

L

Q Rt

5-18-28
P.O.G
Leath
Simpson

3

H.I. 398.20

↓	$\frac{20}{3.6}$	$\frac{5.0}{3.2}$	3.3	$\frac{4.5}{3.5}$	$\frac{5.0}{4.2}$	$\frac{20}{3.6}$	↓
			394.9 ✓				

$\frac{20}{3.8}$	$\frac{5.0}{3.3}$	3.5	$\frac{4.0}{4.0}$	$\frac{6.0}{4.4}$	$\frac{20}{3.6}$
			394.7 ✓		

H.I. 400.00

↓	$\frac{20}{6.3}$	$\frac{6.0}{5.1}$	5.0	$\frac{4.7}{5.0}$	$\frac{5.4}{6.1}$	$\frac{20}{5.2}$	↓
			395.0 ✓				

$\frac{20}{5.2}$	$\frac{6.0}{4.9}$	4.8	$\frac{4.5}{4.8}$	$\frac{5.5}{5.9}$	$\frac{20}{4.8}$
			395.2 ✓		

$\frac{20}{5.6}$	$\frac{5.0}{4.7}$	4.5	$\frac{5.0}{4.7}$	$\frac{6.3}{6.0}$	$\frac{20}{4.9}$
			395.5 ✓		

$\frac{20}{5.3}$	$\frac{5.0}{5.1}$	4.6	$\frac{5.5}{4.5}$	$\frac{5.8}{5.7}$	$\frac{20}{4.6}$
			395.4 ✓		

$\frac{20}{5.1}$	$\frac{5.0}{4.9}$	4.4	$\frac{4.5}{4.8}$	$\frac{5.5}{5.7}$	$\frac{20}{4.6}$
			395.6 ✓		

$\frac{20}{4.9}$	$\frac{5.0}{4.6}$	4.2	$\frac{4.0}{4.6}$	$\frac{5.1}{5.7}$	$\frac{20}{4.3}$
			395.8 ✓		

10+50

4.00.00

5.85 394.15 ✓

10+00

4.05

398.20

9+50

9+00

8+50

8+00

7+50

7+00

6/13/28
checked
m.

P3 Profile X-section

13+50

13+00

398.20

12+72

12+64

12+50 top of Rail

12+28

12+11

11+50

11+00

L+

♀ Rt

18-5-28
P.O.G
Leach
Simpson

4
4

H.I. 398 20

$\frac{20}{5.3}$	$\frac{7.0}{5.5}$	$\frac{5.0}{4.7}$	4.0	$\frac{1.0}{4.0}$	$\frac{1.5}{4.8}$	$\frac{6.3}{5.8}$	$\frac{2.0}{4.4}$
394.2							

$\frac{20}{5.5}$	$\frac{5.0}{4.1}$	$\frac{4.2}{4.6}$	4.3	$\frac{1.5}{4.2}$	$\frac{2.0}{4.9}$	$\frac{7.0}{6.0}$	$\frac{2.0}{4.6}$
393.9							

$\frac{20}{5.2}$	$\frac{5.0}{4.2}$	4.1	$\frac{2.2}{4.1}$	$\frac{3.0}{5.3}$	$\frac{2.0}{4.9}$
394.1					

$\frac{20}{8.4}$	$\frac{5.0}{8.0}$	7.8	$\frac{4.0}{5.4}$	$\frac{2.0}{5.0}$
390.4				

392.6

$\frac{20}{8.0}$	$\frac{5.0}{7.9}$	5.4	$\frac{5.0}{5.5}$	$\frac{2.0}{4.9}$
394.8				

$\frac{20}{7.3}$	$\frac{1.3}{3.5}$	$\frac{5.0}{3.5}$	3.7	$\frac{1.0}{3.9}$	$\frac{1.4}{5.3}$	$\frac{2.0}{4.9}$
394.5						

$\frac{20}{4.2}$	$\frac{5.0}{3.3}$	3.6	$\frac{2.0}{3.9}$	$\frac{3.0}{5.3}$	$\frac{2.0}{4.2}$
394.6					

$\frac{20}{4.0}$	$\frac{5.0}{3.1}$	3.6	$\frac{3.3}{3.6}$	$\frac{4.6}{4.5}$	$\frac{2.0}{3.2}$
394.6					

6/18/66
Dr. [unclear]
m.

P3
Profile of X-section

398.20 ✓
5.71 392.49 ✓
17+50 4.97 397.46

17+00

16+50

16+00

15+50

15+00

14+50

14+00

Lt
Q RL
May 18-28
P.O.G.
Leach
Simpson

H.I. 397.46
 $\frac{20}{4.6}$ $\frac{5.0}{4.4}$ $\frac{1.5}{4.8}$ $\frac{3.0}{5.0}$ $\frac{5.0}{4.0}$ $\frac{7.0}{4.5}$ $\frac{2.0}{5.4}$ $\frac{2.0}{4.6}$
397.7 ✓

$\frac{20}{4.9}$ $\frac{5.0}{4.8}$ $\frac{1.5}{4.9}$ $\frac{4.5}{5.1}$ $\frac{6.5}{4.8}$ $\frac{2.0}{5.4}$ $\frac{2.0}{4.5}$
397.6 ✓

$\frac{20}{5.3}$ $\frac{4.0}{5.8}$ $\frac{5.0}{4.7}$ $\frac{5.0}{5.2}$ $\frac{2.0}{5.3}$ $\frac{2.0}{4.2}$
397.3 ✓

H.I. 398.20
 $\frac{20}{5.0}$ $\frac{5.0}{4.2}$ $\frac{1.2}{4.5}$ $\frac{5.6}{4.6}$ $\frac{6.6}{5.1}$ $\frac{2.0}{5.8}$ $\frac{2.0}{4.7}$
398.7 ✓

$\frac{20}{4.5}$ $\frac{5.0}{4.2}$ $\frac{1.0}{3.8}$ $\frac{1.2}{4.7}$ $\frac{5.4}{4.4}$ $\frac{6.0}{4.9}$ $\frac{2.0}{5.7}$ $\frac{2.0}{4.2}$
398.5 ✓

$\frac{20}{4.3}$ $\frac{5.0}{4.1}$ $\frac{1.5}{4.1}$ $\frac{2.0}{4.2}$ $\frac{5.7}{5.0}$ $\frac{6.3}{4.7}$ $\frac{2.0}{5.3}$ $\frac{2.0}{4.0}$
398.1 ✓

$\frac{20}{4.8}$ $\frac{5.0}{4.5}$ $\frac{1.2}{4.3}$ $\frac{2.5}{4.4}$ $\frac{5.0}{4.9}$ $\frac{6.0}{4.6}$ $\frac{2.0}{5.2}$ $\frac{2.0}{3.9}$
398.9 ✓

$\frac{20}{4.9}$ $\frac{5.0}{4.4}$ $\frac{1.0}{4.2}$ $\frac{1.5}{4.3}$ $\frac{6.0}{4.9}$ $\frac{2.0}{4.6}$ $\frac{2.0}{5.2}$ $\frac{2.0}{4.6}$
398.0 ✓

6/13/58
d. plotted 2

P3
Profile 2/1 X-sections

21+50 397.46 ✓
0.86 394.26 ✓ 4.06 393.40 ✓

21+00

20+50

20+00

19+50

19+00

18+50

18+00

L1 4 RL 5-18-28
P.O.G.
Leach
Simpson

6
6

H.I. $\boxed{390+26}$
 $\frac{20}{1.9}$ $\frac{50}{1.6}$ $\frac{50}{1.6}$ $\frac{20}{1.8}$
394.7

H.I. $\boxed{397.46}$
 $\frac{20}{4.3}$ $\frac{50}{1.5}$ $\frac{50}{4.2}$ $\frac{20}{4.1}$ $\frac{20}{3.9}$
393.3

$\frac{20}{4.1}$ $\frac{50}{4.2}$ $\frac{50}{4.4}$ $\frac{20}{3.9}$ $\frac{20}{4.3}$
393.14

$\frac{20}{4.2}$ $\frac{50}{4.0}$ $\frac{3.0}{4.4}$ $\frac{4.0}{5.1}$ $\frac{20}{4.2}$
393.34

$\frac{20}{5.2}$ $\frac{50}{4.4}$ $\frac{1.5}{4.3}$ $\frac{2.0}{3.7}$ $\frac{5.0}{3.6}$ $\frac{20}{4.7}$ $\frac{20}{4.0}$
393.2

$\frac{20}{4.7}$ $\frac{5.0}{4.1}$ $\frac{0.5}{4.0}$ $\frac{1.5}{4.0}$ $\frac{3.0}{4.5}$ $\frac{4.4}{4.0}$ $\frac{1.9}{4.4}$ $\frac{20}{4.0}$
393.51

$\frac{20}{4.3}$ $\frac{5.0}{4.1}$ $\frac{1.0}{4.4}$ $\frac{2.0}{4.5}$ $\frac{2.0}{4.7}$ $\frac{4.7}{4.1}$ $\frac{6.0}{4.6}$ $\frac{20}{5.2}$ $\frac{20}{4.3}$
393.1

$\frac{20}{4.2}$ $\frac{5.0}{4.1}$ $\frac{1.0}{4.2}$ $\frac{2.0}{4.7}$ $\frac{3.0}{4.6}$ $\frac{5.0}{4.7}$ $\frac{6.0}{5.2}$ $\frac{20}{4.4}$
393.3

6/18/28 the patted

P3

Profile of X-sections

27+00

394.26 ✓

1.90

392.36 ✓

4.63

396.99 ✓

26+50

26+00

25+50

25+20

25+00

24+50

24+00

23+50

LK

R 5-28
P.O.G.
Loach
Simpson

8

H.I.

396.99

$\frac{20}{4.3}$	$\frac{5.0}{7.9}$	$\frac{5.0}{4.8}$	$\frac{5.0}{4.7}$	$\frac{2.0}{4.8}$
------------------	-------------------	-------------------	-------------------	-------------------

392.22 ✓

$\frac{20}{5.7}$	$\frac{5.0}{5.7}$	$\frac{5.0}{5.7}$	$\frac{2.0}{6.7}$
------------------	-------------------	-------------------	-------------------

391.31 ✓

$\frac{20}{4.4}$	$\frac{5.0}{4.8}$	$\frac{5.0}{5.9}$	$\frac{2.0}{6.3}$	$\frac{2.0}{6.8}$
------------------	-------------------	-------------------	-------------------	-------------------

391.11 ✓

$\frac{30}{5.6}$	$\frac{5.0}{4.9}$	$\frac{5.0}{4.6}$	$\frac{2.0}{4.8}$	$\frac{2.0}{6.8}$
------------------	-------------------	-------------------	-------------------	-------------------

391.41 ✓

H.I.

394.26

$\frac{20}{2.2}$	$\frac{5.0}{2.8}$	$\frac{5.0}{2.6}$	$\frac{1.0}{3.5}$	$\frac{2.0}{4.6}$	$\frac{2.0}{4.8}$
------------------	-------------------	-------------------	-------------------	-------------------	-------------------

391.71 ✓

$\frac{20}{4.0}$	$\frac{12.0}{3.3}$	$\frac{9.0}{4.9}$	$\frac{5.0}{4.8}$	$\frac{5.0}{5.0}$	$\frac{5.0}{5.0}$	$\frac{2.0}{4.7}$
------------------	--------------------	-------------------	-------------------	-------------------	-------------------	-------------------

389.31 ✓

$\frac{20}{5.1}$	$\frac{5.0}{5.5}$	$\frac{5.0}{5.6}$	$\frac{5.0}{5.7}$	$\frac{2.0}{5.6}$
------------------	-------------------	-------------------	-------------------	-------------------

388.71 ✓

$\frac{20}{6.3}$	$\frac{5.0}{5.8}$	$\frac{5.0}{6.0}$	$\frac{5.0}{5.6}$	$\frac{2.0}{5.6}$
------------------	-------------------	-------------------	-------------------	-------------------

388.31 ✓

$\frac{20}{6.5}$	$\frac{5.0}{6.7}$	$\frac{5.0}{6.8}$	$\frac{5.0}{6.1}$	$\frac{2.0}{6.3}$
------------------	-------------------	-------------------	-------------------	-------------------

388.01 ✓

6/13/28
re-profiled.

P3
Profile X-section

30+50		396.99		
30+00	5.82	395.26	7.55	389.44
29+50				
29+00				
28+50				
28+00				
27+58				
27+53				
27+40				

18-5-28
R.P.O.G
Leach
Simpson

9

H.I. 395.26

5.9
389.4 ✓

5.7
389.6 ✓

H.I. 396.99

7.7
389.3 ✓

7.7
389.3 ✓

7.6
389.4 ✓

20 5.0 5.0 20
7.6 7.6 7.7 7.7 7.8

389.3 ✓

20 5.0 5.0 15 20
7.9 7.7 7.8 7.5 3.5 4.1

389.2 ✓

20 7.0 5.0 5.0 20
7.6 7.7 4.3 4.3 4.2 3.7

394.7 ✓

20 5.0 5.0 20
4.5 4.4 4.4 4.0 3.9

392.6 ✓

6/13/28
R.P.O.G

in stream bed take level
Section at each Sta.

P.3

Profile $\frac{3}{4}$ x-section

33+45.63

395.26 ✓

33+28

32+69.88

32+50

+40

32+00

31+50

31+00

30+50

Equation
31+03.19=
30+40-align.

L+ R±

May 18-22 10

POS

Leach 10

Simpson

395.26

44

390.9 ✓

44

390.9 ✓

45

390.8 ✓

47

390.6 ✓

53

390.0 ✓

56

389.7 ✓

57

389.6 ✓

53

390.0 ✓

58

389.5 ✓

59

389.4 ✓

6/13/24
ch + potted
m.

D3
Profile $\frac{2}{3}$ X-Section

37+00

395.26 ✓

36+50

3.28 392.03 ✓ to left
of Sta. 36+00

4.43

396.46 ✓

36+00

35+50

35+00

34+50

34+00

33+99.36

33+69.99

L. $\frac{2}{3}$ RL 18-5-28
POG
Leach
Simpson

11

H.I.		396.46			
$\frac{13.5}{2.5}$	$\frac{11.2}{4.8}$	$\frac{5.0}{4.7}$	$\frac{5.0}{4.6}$	$\frac{2.0}{4.6}$	
		4.6	4.6	4.6	
		391.9 ✓			

$\frac{11.0}{1.4}$	$\frac{10}{4.8}$	$\frac{5.0}{4.8}$	$\frac{5}{4.8}$	$\frac{2.0}{4.8}$	
		4.8	4.8	4.8	
		391.7 ✓			

H.I. 395.26

3.5
391.7 ✓

3.9
391.4 ✓

3.9
391.4 ✓

3.6
391.7 ✓

4.3
391.0 ✓

4.2
391.1 ✓

4.1
391.2 ✓

6/13/28
ch. plotted
m

P3

Profile X-section

3 40+23

396.46

2.44

394.02

10.50

404.52

30 40+00

4.41

400.11

8.56

408.67

30 39+50

35 39+00

3 38+78.03

34 38+44

3 38+28

402.6 bottom of stringers of Bridge

35 38+00

3 37+50

L

L.R.

21-5-28

P.O.G.

Leach

Simpson

12

408.67				H.I.				396.46			
253	28.0	14.0	7.6	2.8		5.0	2.0				
3.6	3.9	8.3	9.8	0.0	3.1	3.9	4.0				
405.1	404.8	400.4	398.9	396.5	393.4	392.6	392.5				

6.0	10	4.0	2.0
0.0	4.1	4.0	4.1
390.5		392.41	

14.0	7.5	5.0	2.0
0.0	4.2	4.2	4.2
		392.30	

22.7	15.4	5.0	5.0	2.0
8.0	4.2	4.2	4.2	4.2
				392.30

22.2	22.2	5.0	5.0	2.0
3.8	4.3	4.3	4.3	4.2
				392.20

10.8	10.8	5.0	5.0	2.0
3.8	4.3	4.3	4.3	4.3
				392.20

on top of Concrete	12.5	12.5	10.5	to end pile in
West	3.8	4.3	4.3	First Band of Bridge
				392.20

22	17.5	5.0	5.0	2.0
0.0	4.4	4.4	4.4	4.4
				392.10

14.3	13.5	5.0	5.0	2.0
2.9	4.6	4.4	4.4	4.4
				392.10

4 1/2 ft
ch + 10 ft
m.

Profile X-Section

42+75.2 408.64

42+30

41+96.46

41+50

41+28.4

40+96.9

40+75

40+49

40+28.7 from this Sta. North all end.
readings in Lt column = Edge of Pavement

Lt

Rt

27-5-28
P.T.O.G
2 each
Simpson

H.I.	408.67	Air R. 13.3	395.4
10.9	10.1	5.0	2.0
3.0	4.3	11.9	13.6
408.7			14.4

5.5 R = 13.9 Rad = 394.8

15.5	11.5	4.0	10.0	20.0
3.4	3.2	11.4	13.7	14.6
408.3				17.6

3.8 R = Rad 14.2 = 394.4

17.2	14.5	4.4	2.3	5.0	2.0
3.5	3.9	10.9	13.0	13.8	14.4
408.2					14.5

3.7 R = Rad 13.9 = 394.8

17.3	13.1	3.5	5.2	2.0
3.6	4.3	13.1	13.8	14.8
408.1				14.7

2.8 R = Rad 14.3 = 394.4

12" culvert invert

18.2	15.3	9.6	8.0	5.0	2.0
3.6	3.9	8.2	8.9	13.8	14.7
408.1					14.2

Rad 13.4
1.3 R = 395.3

19.7	15.3	5.0	2.0	5.0	1.8
3.6	4.4	11.7	13.2	13.5	15.0
408.1					14.2

21.3	16.0	9.8	2.0	5.0	2.0
3.6	4.3	8.5	11.3	13.6	14.6
408.1					15.6

22.3	19.2	15.9	11.6	8.5	1.8	5.0	7.5	2.0
3.6	3.8	4.7	8.0	8.1	12.2	14.2	14.9	16.2
408.1								16.3

24.2	21.6	15.3	7.2	1.7	5.0	2.0
3.7	3.9	6.9	9.5	13.6	15.9	16.2
408.0						16.3

6/13/28
Revised + checked

P3
Profile $\frac{3}{4}$ X-section

46+14 408+67

3.70 2.44 406.23
409.93

46+045

45+79 09

45+29 33

44+00

44+22.2

43+85

43+50

43+24

L $\frac{1}{2}$ 21-5-28
RL POG 14
Leach
Simpson

H.I. $\boxed{409.93}$ 1.0 R. = 11.2 Rod = 398.7

20	15.2	11.0	45	2.5	7.3	20
3.5	3.8	5.9	10.4	11.2	12.8	12.5
406.4						

2.0 R. = 8.4 Rod = 401.5

19.0	15.0	10.6	1.0	2.5	6.5	20
3.5	3.8	5.7	6.9	6.9	9.1	11.8
406.4						12.0

4.7 R. = 7.8 Rod = 400.1

12.3	10.6	6.9	5.0	18.4	20
3.4	3.9	5.8	7.3	7.9	8.7
406.5					10.1

7.0 R. = 8.1 Rod = 401.8

14.0	5.8	3.5	5.0	20
2.9	3.5	6.2	7.0	7.9
407.0				9.4

6.9 R. = 8.2 Rod = 401.7

14.1	8.2	5.0	20
2.8	3.3	7.4	8.0
407.1			9.9

5.0 R. = 10.4 Rod = 399.5

16.0	6.5	5.0	11.0	20
3.1	3.8	8.5	10.9	14.4
406.8				17.6

5.5 R. = 13.5 Rod = 396.4

15.5	7.0	5.0	11.0	20
3.4	4.2	11.8	13.4	16.0
406.6				16.2

H.I. $\boxed{408.67}$ 4.0 R. = 9.6 Rod = 399.1

11.0	6.3	5.0	10.2	20
2.4	3.5	7.8	10.0	14.0
406.3				14.1

4.5 R. = 11.8 Rod = 395.9

16.5	8.5	5.0	11.0	20
2.6	3.6	8.4	12.2	13.7
406.1				14.2

6/10/28
Revised
m

P 3

Profile $\frac{E}{X}$ - section

49+50

409.93

3.56 406.37

49+00

3.70 410.07

48+50

48+00

47+50

47+00

46+81 18" Culvert invert

46+50

46+30.25

L L

21-5-28
Rt P 99

15

Leach

Simpson

H.I.	410.07								v.6 R. = 9.6	Rd = 400.5
12.4	11.3	6.8	0.5	3.2	8.5	14.5	2.0			
3.3	3.7	6.2	7.6	9.1	9.8	9.3	10.3	10.6		
406.8										

19.0	13.7	9.0	0.5	2.5	5.3	15.5			
3.7	4.1	6.7	8.2	9.1	11.0	10.9	7.4		
406.3									

H.I.	409.93								1.0 R. = 11.0	Rd = 398.9
2.0	15.0	9.6	3.5	2.0	6.0	10	18			
3.9	4.2	7.2	8.6	10.2	10.8	11.6	9.8	9.8		
406.9										

20.7	16.3	9.2	2.2	1.7	5.0	2.0			
7.0	4.2	8.3	9.0	11.1	11.5	11.1	9.5		
406.9									

21.8	19.5	11.7	2.0	5.0	2.0				
3.9	4.2	7.3	8.8	10.9	11.9	10.1			
406.0									

23.4	9.0	5.0	2.0						
3.9	2.6	11.0	11.5	10.8					
406.0									

16.8	9.0	12.6	399.3						

23.0	13.0	5.0	5.0	2.0					
3.8	5.2	11.7	12.3	12.2	12.2				
106.1									

20.4	17.5	9.0	5.0	2.0					
3.7	3.8	9.8	12.4	12.2	12.2				
406.2									

6/13/28
measured by
N.

P 3

Profile $\frac{2}{2}$ X-section

53+33.7

410.07

2.04 408.03

5.59

413.67

53+00

52+38.6

52+00

51+50

51+00

50+50

50+18

49+96.33

L+

E

21-5-28

POG

Leach

Simpson

16
16

H.I.

413.63

12" Culvert invert Elev.

3.5
11.7
401.9

7.5' R. = 15.0' Rad = 398.4

13.5	7.8	2.0	4.8	11.1	2.0
5.0	5.8	9.3	10.3	13.7	17.1
408.0					17.2
					376.4

H.I.

410.07

13.8	8.9	9.8	2.0
2.5	2.9	6.8	13.5
407.6			13.6
			396.5

7.0' R. = 14.0' Rad = 398.4

11.0' R. = 22.0' Rad = 396.8

9.8	4.2	3.3	8.0	2.0
2.7	3.1	6.4	8.9	13.3
407.4				13.5

15' R. = 30.0' Rad = 397.0

6.0	8.5	17.0	2.0
2.7	3.2	10.1	13.8
407.4			13.8

14' R. = 28.0' Rad = 397.9

4.0	2.0	10.4	21.3
2.7	3.0	3.2	9.7
407.4			13.9

13.7' R. 9.5' Rad = 400.6

8.3	3.7	6.5	13.1	17.8	2.0
2.8	2.0	4.1	6.0	9.7	14.0
407.3					14.1

7.6' R. = 15.2' Rad = 401.3

13.4	8.2	3.2	2.0	11.5	12.5
2.2	3.1	5.3	6.3	6.9	10.1
407.3					13.8

3.0' R. = 6.0' Rad = 400.7

18.0	12.0	5.5	1.3	5.0	8.0	15.0	2.0
2.9	3.5	6.4	7.1	9.2	9.5	9.9	14.3
407.2							14.7

6/13/28
Revised plotted
m.

P3
Profile X-section

56+50

413.63

56+19.83

56+00

55+50

55+00

54+50

54+00

53+85

53+56.73

LF

21-5-28

177

P.O.G

Leach

Simpson

0.9 R = 11.4 R2 = 401.2

H.I.	413.63						401.2
20.1	13.7	5.5	5.0	19.8	2.8		
2.5	4.1	11.6	12.4	12.6	12.2	15.4	
410.1							

1.1 R = 11.4 R2 = 402.2

19.9	14.7	9.2	13.6	2.0	
3.7	4.1	11.2	12.8	15.9	15.8
409.9					

2.5 R = 11.1 R2 = 402.5

18.5	11.3	6.0	7.5	2.0	
3.8	4.5	10.1	12.5	15.7	15.8
409.8					

3.9 R = 13.9 R2 = 399.7

17.1	9.8	7.0	2.0	
4.1	4.5	10.9	16.1	16.2
409.5				

7.3 R = 16.5 R2 = 397.1

13.7	8.4	3.5	6.4	20.0	
4.4	4.8	10.3	12.4	16.5	16.5
409.2					

8.6 R = 16.6 = 397.0

12.4	6.2	1.5	7.7	2.0	
4.7	6.1	11.0	11.5	16.6	16.7
408.9					

8.5 R = 16.8 = 396.8

12.5	7.2	2.0	2.0	8.4	2.0
5.0	5.5	8.7	11.3	12.3	16.8
408.6					

8.0 R = 16.9 R2 = 396.8

13.0	8.3	1.5	6.0	7.3	2.0
5.1	5.4	9.9	10.7	14.3	16.8
408.5					

7.6 R = 16.8 R2 = 396.8

13.4	8.0	3.2	1.6	4.5	2.0
5.3	5.3	10.5	12.1	12.6	16.8
408.3					

6 1/2 ft
measured
P.O.G

P3

Profile of X-section

60+00

413.63 ✓

59+54.07 7.10

418.03 ✓
417.73 ✓

2.70 410.63⁹³ ✓

59+26.57

59+00

58+50

58+00

57+98

57+50

57+00

L

21-5-28
P.O.G.
Leach

18°

H.I. 418.03 ✓
 $\frac{19.0}{2.4} \quad \frac{14.6}{2.8} \quad \frac{7.6}{6.6} \quad \frac{0.5}{8.4} \quad \frac{5.0}{9.1} \quad \frac{2.0}{9.1} \quad \frac{2.0}{12.4}$
 415.9

3L = 9.5 R₂ = 408.5 ✓

$\frac{21.3}{4.3} \quad \frac{17.5}{4.9} \quad \frac{8.4}{8.6} \quad \frac{11.9}{9.5} \quad \frac{15.0}{12.5} \quad \frac{21.3}{13.0} \quad \frac{2.7}{17.3}$
 413.4

3.4L = 10.4 R₂ = 407.6 ✓

$\frac{24.4}{5.0} \quad \frac{18.3}{5.4} \quad \frac{10.8}{9.0} \quad \frac{2.3}{11.0} \quad \frac{14.6}{17.5} \quad \frac{2.0}{17.7} \quad \frac{2.0}{17.0}$
 412.7

2.6L = 11.1 R₂ = 406.9 ✓

$\frac{23.0}{5.7} \quad \frac{16.2}{6.0} \quad \frac{9.4}{10.2} \quad \frac{1.5}{11.5} \quad \frac{9.2}{11.6} \quad \frac{2.0}{17.2} \quad \frac{2.0}{17.1}$
 412.0

4.5L = 12.6 R₂ = 405.4 ✓

$\frac{20.5}{6.6} \quad \frac{20.0}{7.0} \quad \frac{11.5}{9.1} \quad \frac{1.0}{14.3} \quad \frac{4.3}{16.0} \quad \frac{2.0}{17.6} \quad \frac{2.0}{18.7}$
 411.1

2.0L = 16.0 R₂ = 402.0 ✓

$\frac{23.0}{7.0} \quad \frac{18.0}{7.4} \quad \frac{6.5}{12.5} \quad \frac{3.5}{15.8} \quad \frac{9.2}{16.3} \quad \frac{7.2}{16.9} \quad \frac{1.0}{15.7} \quad \frac{1.2}{15.8} \quad \frac{1.2}{17.5}$
 410.7

12" Culvert invert $\frac{4.8}{13.1} \rightarrow \frac{16.4}{401.6}$

8L = 16.4 R₂ = 401.6 ✓

$\frac{21.8}{7.3} \quad \frac{17.8}{7.6} \quad \frac{8.0}{15.1} \quad \frac{5.0}{16.5} \quad \frac{5.0}{16.9} \quad \frac{15.0}{15.8}$
 410.4

H.I. 413.63 ✓
 $\frac{2.11}{3.2} \quad \frac{1.42}{4.5} \quad \frac{5.4}{9.0} \quad \frac{4.0}{11.4} \quad \frac{5.0}{11.8} \quad \frac{5.0}{11.3} \quad \frac{12.4}{12.5}$
 410.4

401.8 ✓

6/12/56
produced & plotted
m.

P3
Profile 90 X-section

63+66.76 418.03
417.73
5.58 412.45
13.16 425.31
63+45.47 0.90 424.71
4.77 429.48
63+24.18 1.03 422.87
7.64 421.54

63+00

62+50

62+00

61+50

61+00

60+50

L4 Q R L 21-5-25 19
P.O.G. Leach Simpson
H.L. 429.48 108R. 8.5 R.R. = 421.07
10.2 3.3 5.0 2.0
6.5 6.4 7.1 7.9 7.6
8.6 R. = 8.9 R.R. = 420.6
12.7 6.8 3.2 2.0 1.5 5.0 20.0
5.4 5.7 6.7 8.0 8.0 8.3 8.5 10.1
3. R = 10.7 R.R. = 418.8
18.0 10.7 6.0 1.3 2.0 2.0
4.9 5.5 8.1 10.0 10.0 10.6 11.9
2.7 L = 10.4 R.R. = 419.1
23.7 14.5 5.0 5.0 2.0
4.5 4.8 7.6 11.3 11.6 13.3
4.5 L = 8.2 R.R. = 421.3
25.5 11.2 4.7 5.0 2.0
4.3 5.1 8.1 9.7 11.2 13.7
3.4 L = 8.9 R.R. = 420.6
24.2 19.0 18.1 13.0 3.0 2.6 5.0 2.0
4.2 6.3 3.1 3.6 7.1 10.2 10.6 11.3 14.7
6.8 R.R. = 418.8
H.L. 425.61
23.0 18.0 16.4 12.0 5.0 2.0
3.4 3.4 1.4 1.7 8.1 9.1 12.1
0.7 L = 10.6 R.R. = 415.0
21.7 7.4 1.5 5.0 2.0
5.9 5.8 11.0 11.9 12.2 14.7
changed by 100
0.7 R = 6.8 R.R. = 411.2
11.1 418.0 3
20.3 12.5 4.5 5.0 2.0
0.3 0.7 6.9 6.7 7.3 8.7
417.4
411.2
6/13/25
rechecked
M.

P 3
Profile of x-section

Lt L RL 21-5-28
POG
Leach
Simpson 20

66+55.7 422.87
6.90 415.87
99 on Pav.
oppos.
65.50

66+50 5.03 421.00
420.70

66+09.7

H.I. 421.00
12" C.M.P.
inner elev
3.5
8.1 8.4
41 2.6

10.7' R = 10.1 Rad = 410.9
10.3 5.0 3.3 5.4 20
5.5 5.6 8.2 8.7 9.7 10.4

11.6' R = 9.1 Rad = 411.9
9.4 5.3 5.0 20
5.5 5.7 7.8 8.5 9.9

66+00

10.0 R = 8.8 Rad = 412.2
11 5.0 5.0 20
5.4 6.3 7.7 8.4 9.7

65+50

5.0 R 8.2 Rad = 412.6
16.0 11 7.0 5.0 20
5.0 5.2 7.0 8.0 8.4 9.0

65+00

H.I. 422.87
6.1 R = 8.7 Rad = 414.2
14.9 11.7 4.5 5.0 20
5.5 5.8 7.8 8.1 8.7 9.3

64+50

7.1 R = 5.6 Rad = 417.3
13.9 2.0 6.3 5.0 20
3.5 4.1 4.8 5.3 5.5 6.1

64+18

8.0 R = 3.5 Rad = 419.2
13.0 5.0 0.5 5.0 20
2.2 2.2 2.3 2.8 3.3 4.4

63+88.03

9.9 R = 2.2 Rad = 420.7
11.1 5.8 5.9 5.0 20
0.7 1.4 0.3 1.0 1.2 2.9

on top of Standpipe 1.8' diam
11.0 11.1
4.0 4.4
8.0 8.4
2.5 2.5
1.9 1.9
6.0 6.0
10.8 10.8
5.7 5.7
6/13/28
reduced
N.

P3

Profile Ex-section

70+00 $\frac{421.00}{420.70}$

69+50

69+27.42

68+65

68+37.82

68+00

67+50

67+00

66+63.23

L1

E

R1

22-5-28

21

POG

Leach

Simpson

1000ft = 411.0v

$$\frac{421.00}{420.70} \quad 3.8R. \quad \frac{1000ft}{1000ft} = 411.0v$$

17.2	9.8	4.5	6.0	5.0	2.0
4.5	4.5	7.8	10.1	9.6	10.2
					11.0

4.2R = 9.2 R2 = 411.8v

16.8	10.8	5.3	1.4	5.0	11.9	2.0
4.1	4.1	8.0	9.5	8.6	9.3	11.2
						11.1

0.8L = 8.2 R2 = 412.8v

21.8	13.3	8.7	4.5	3.1	5.0	2.0
4.2	4.3	7.4	9.2	7.8	8.3	8.7
						11.3

2.6R = 8.1 R2 = 412.9v

18.4	10.8	6.2	4.0	2.6	5.0	2.52
3.2	4.0	6.9	8.5	7.3	7.9	8.3
						11.4

0.6R = 8.3 R2 = 412.7v

20.4	12.4	10	6.3	3.5	2.6	5.0	2.0
3.7	4.2	6.4	8.5	7.7	8.1	8.3	8.7
							11.7

5.2R = 9.0 R2 = 412.0v

15.8	7.9	3.4	3.5	1.2	5.0	2.20
3.7	4.3	7.6	8.6	7.9	7.9	9.0
						12.0

6.9R = 9.1 R2 = 411.9v

14.1	9.1	6.9	2.4	1.0	2.8	6.0	11.6	1.9
4.3	4.1	6.6	8.8	8.6	8.6	9.0	8.8	10.5
								11.8

8.4R = 10.8 R2 = 410.2v

12.8	8.1	1.0	1.5	6.0	8.1	2.0
5.0	5.0	8.9	8.9	8.4	9.4	10.8
						11.0

12.6R = 10.2 R2 = 410.8v

8.4	3.5	4.4	5.4	2.0
5.5	5.4	6.7	8.5	10.0
				10.4

6/13/28
M

P3
Profile X-section

73+76.

421.00 ✓
~~420.70~~

4.89 416.11 ✓
 ~~415.81~~

73+48

3.6.6

77 ✓
~~419.77~~

73+33.36

73+00

72+50

72+00

71+50

71+00

70+50

LT Q Rk. 22.4-28 22

File of
Wing Wall

H.I. 419.47 ✓
14.9 12.1 12.1 9.7 5.0 2.0
6.0 6.1 12.9 14.2 16.1 16.1 16.3

Simpson
5.1R. = 16.1 = 403.7 ✓

Side and top
of last
Pile in
Wing Wall

13.8 9.1 4.0 4.0 2.1 5.0 13.8 2.0
5.5 6.3 8.2 10.5 10.8 13.7 16.7 16.7

7.4R. = 14.4 Rk. = 405.4 ✓

8.4R. = 11.9 Rk. = 407.9 ✓

12.6 7.5 5.0 5.0 8.4 2.0
5.2 5.4 7.2 10.7 11.7 11.9 16.7

7.8R. = 10.7 Rk. = 409.1 ✓

13.2 5.3 2.4 2.0 5.0 17.0 27.6
4.7 5.3 7.3 7.9 8.7 10.2 12.3 16.5

7.5R. = 9.5 Rk. = 410.3 ✓

13.5 6.0 2.0 2.0 5.0 2.0
4.3 4.5 7.1 7.6 9.0 9.3 10.5

6.7R. = 9.2 Rk. = 410.6 ✓

14.3 5.4 4.0 3.0 5.0 2.0
3.7 3.7 5.0 7.8 9.3 9.1 9.8

H.I.

421.00 ✓
~~420.70~~
15.0 5.5 7.0 2.0
4.8 5.3 8.8 10.3 10.3

6.0R. = 10.1 Rk. = 410.9 ✓

5.5R. = 10.2 Rk. = 410.8 ✓

15.5 6.7 3.8 2.0 5.0 2.0
4.7 5.5 7.5 9.6 10.5 10.2 10.8

4.6R. = 10.1 Rk. = 410.9 ✓

16.4 10.2 4.6 1.0 5.0 2.0
4.8 4.8 8.3 10.3 9.8 10.1 10.9

6/12/28
redwood + potted
m.

Profile Ex-section

76+42.15

$$\begin{array}{r} 77 \\ 419.47 \end{array}$$

76+25.00 1.71

$$\begin{array}{r} 417.15 \\ 416.85 \end{array}$$

4.33 4.15 4.4

76+11.5 Crossing irrigation pipe

76+07.3 Crossing Wing Wall

76+00

75+50

75+00

74+50

73+87.4 End of Bridge

PL 22.5-28
POG
Lead
Simpson
6.4 Rad. = 410.9 ✓

$$\begin{array}{r} 417.15 \\ 416.85 \end{array}$$

16.1	11.	5.0	5.0	18.0
4.1	4.1	6.2	6.4	7.0

6'R = 6.5 Rad. = 410.7

15.0	11.0	5.0	5.0	18.4
3.6	3.7	5.3	6.4	7.5

$$\frac{8.3}{406.8}$$
 invert elev. of 10" pipe

Pile in Wing Wall

4.0	4.0	10.7	10.7	12.2
4.2	4.2	10.7	10.7	12.2

top of Plank on
ground Elev. on

$$\frac{406.5}{405.0}$$

6.5R = 13.3 Rad. = 403.8

14.5	14.5	13.4	13.4	13.3	7.2
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top of Pile
in Wing Wall

6.5R = 13.6 Rad. = 403.5 ✓

14.5	14.5	13.6	13.6	13.6
2.1	12.9	13.6	13.6	13.6

6.5R = 12.7 Rad. = 404.4 ✓

14.5	14.5	12.7	12.7	12.6
1.7	13.0	12.7	12.7	12.6

6.5R = 13.3 Rad. = 403.8 ✓

14.5	14.5	13.3	13.3	13.5
2.0	13.0	13.3	13.3	13.5

H.I. $\frac{419.47}{419.47}$ 6.5R = 16.0 Rad. = 403.8 ✓

14.5	14.5	15.8	15.8	15.8
5.6	15.0	15.8	16.0	15.8

6/13/28
reduced + posted
m.

P3
Profile of X-section

80+50

417.15
416.85

5.44 411.71

80+00

5.49

417.20
416.90

77+50

79+00

78+49.40

78+00

77+50.65

77+04.86

76+50

L R 22.5-28
POG
Lagdp
Symposon
411.6 v

24

H.I. 417.20 1.8R = 5.6 Rad = 411.6 v
13.5 5.2 5.9 5.7 5.0 5.6 5.5

8.0R = 6.0 Rad = 411.2 v
13.0 5.3 5.0 6.1 6.5 6.0 5.6

7.3R = 6.0 Rad = 411.2 v
13.7 5.5 5.0 6.6 6.5 6.2 5.6

H.I. 417.15 5.2R = 6.3 Rad = 410.8 v
15.6 5.5 6.0 6.8 6.8 6.3 5.9

1.3R = 6.8 Rad = 410.3 v
19.7 5.6 5.0 6.5 7.0 6.3 6.5

5.8R = 7.1 Rad = 410.0 v
15.2 5.7 10.1 5.9 5.0 7.1 7.4 7.1 9.6 7.0

1.3L = 7.6 Rad = 409.5 v
22.3 5.5 12 6.0 5.0 7.7 7.6 7.5 10.3 6.2

1.1L = 6.8 Rad = 410.3 v
22.1 5.1 5.0 6.6 6.9 7.2 7.9 15 7.9

5.6R = 6.1 Rad = 411.0 v
15.4 7.1 5.0 6.1 5.5 6.1 7.2

6/23/28
Release - plotted

P3

Profile of x-section

$$\begin{array}{r} 417.25 \\ \underline{416.90} \end{array}$$

3.18	414.00 413.72	T.P?
3.00	413.90 414.20	BM #20 1/2

82+83 38 End of line change

82+50

82+00

81+89 22

81+50

81+00

L+

 RT 2-1-28
 P.O.G
 Leads
 Simpson

25

H.H.	417.20	3.5R.
$\frac{17.5}{4.7}$	$\frac{5.0}{5.6}$	$\frac{5.0}{5.5}$
		$\frac{11.5}{5.2}$

5.5 Red = 411.7

$\frac{18.8}{4.8}$	$\frac{5.0}{5.3}$	5.5	$\frac{5.0}{5.6}$	$\frac{10.0}{5.6}$
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2.4 R = 56 Red
411.6

$\frac{21.4}{4.9}$	$\frac{5.0}{5.5}$	5.6	$\frac{5.0}{5.2}$	$\frac{7.9}{5.2}$
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0.4 L = 56 Red
411.6

$\frac{13.2}{4.9}$	$\frac{5.0}{5.4}$	5.6	$\frac{5.0}{5.3}$	$\frac{7.3}{5.3}$
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7.8 R = 5.3 = 411.9

$\frac{12.8}{5.0}$	$\frac{5.0}{5.6}$	5.8	$\frac{5.0}{5.8}$	$\frac{10.0}{5.6}$
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2.4 R = 58 Red = 411.4

$\frac{15.5}{5.2}$	$\frac{5.0}{5.8}$	6.7	$\frac{5.0}{6.0}$	$\frac{14.0}{5.7}$
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5.5 R = 6.0 Red = 411.4

6/13/28
Redwood + plaster
W.

27²⁷

61

68

71

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 $\frac{1}{2}$ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body

IMPROVED TABLES

AND

INFORMATION

to cut. Add this amount to cut. Set up rod at this point and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. 2.

To find Tangent and External for curve of any other degree, divide by degree of curve and add connection found in column of connections.

Degree of curve with a given L may be found by dividing tangent (or external) opposite L by given tangent (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

+874

8.7
9.8
8.9