D. A. Lochenstein

1212

A-E-G

FIELD BOOK

760

Stocics and Boyd's

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0 44	100.00	0.87	99.99	1.31	89
1	99.98	1 75	99 98	2 18	99 97	2.62	99.95	3.05	88
2	99.94	3.49	99 92	3.93	99 91	4 36	99.88	4.80	87
3	99.86	5.23	99 84	5.67	99.81	6.10	99.79	6.54	86
4	99 76	6.98	99 73	7.41	99.69	7.85	99.66	8.28	85
5	99 62	8.72	99.58	9.15	99 54	9.58	99.50	10 02	84
6	99.45	10.45	99.41	10 89	99.36	11.32	99.31	11.75	83
7	99 25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16 50	98 56	16.93	80
10	98 48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98 16	19.08	98 08	19 51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21 64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24 62	96.81	25 04	96.70	25.46	75
15	96.59	25 88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27 98	95.88	28 40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30 07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35 43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38 67	67
23	92.05	39.07	91.88	39 47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89 69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48 86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52 99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60 53	79.34	60.88	79.07	61 22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

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F- 2+00 67-3A LT

F 1+00 80+40 LT.

14886

115.6
200
114.76

115
20
11235

247.35

TABLE OF STADIA REDUCTIONS

For a Constant of 100.

ROD VERTICAL.

Min.	0°		1°		2°		3°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor Dist.	Diff. Elev.
0'.....	100.00	.00	99.97	1.74	99.88	3.49	99.73	5.23
2.....	100.00	.06	99.97	1.80	99.87	3 55	99.72	5.28
4.....	100.00	.12	99.97	1.86	99.87	3.60	99.71	5.34
6.....	100.00	.17	99.96	1.92	99.87	3.66	99.71	5.40
8.....	100.00	.23	99.96	1.98	99.86	3.72	99.70	5.46
10.....	100.00	.29	99.96	2.04	99.86	3.78	99.69	5.52
12.....	100.00	35	99.96	2.09	99.85	3.84	99.69	5.57
14.....	100.00	41	99.95	2.15	99.85	3.90	99.68	5.63
16.....	100.00	.47	99.95	2.21	99.84	3.95	99.68	5.69
18.....	100.00	.52	99.95	2.27	99.84	4.01	99.67	5.75
20.....	100.00	.58	99.95	2.33	99.83	4.07	99.66	5.80
22.....	100.00	64	99.94	2.38	99.83	4.13	99.66	5.86
24.....	100.00	70	99.94	2.44	99.82	4.18	99.65	5.92
26.....	99.99	.76	99.94	2.50	99.82	4.24	99.64	5.98
28.....	99.99	.81	99.93	2.56	99.81	4.30	99.63	6.04
30.....	99.99	.87	99.93	2.62	99.81	4.36	99.63	6.09
32.....	99.99	.93	99.93	2.67	99.80	4.42	99.62	6.15
34.....	99.99	.99	99.93	2.73	99.80	4.48	99.62	6.21
36.....	99.99	1.05	99.92	2.79	99.79	4.53	99.61	6.27
38.....	99.99	1.11	99.92	2.85	99.79	4.59	99.60	6.33
40	99.99	1.16	99.92	2.91	99.78	4.65	99.59	6.38
42.....	99.99	1.22	99.91	2.97	99.78	4.71	99.59	6.44
44.....	99.98	1.28	99.91	3.02	99.77	4.76	99.58	6.50
46.....	99.98	1.34	99.90	3.08	99.77	4.82	99.57	6.56
48.....	99.98	1.40	99.90	3.14	99.76	4.88	99.56	6.61
50.....	99.98	1.45	99.90	3.20	99.76	4.94	99.56	6.67
52.....	99.98	1.51	99.89	3.26	99.75	4.99	99.55	6.73
54.....	99.98	1.57	99.89	3.31	99.74	5.05	99.54	6.78
56.....	99.97	1.63	99.89	3.37	99.74	5:11	99.53	6.84
58.....	99.97	1.69	99.88	3.43	99.73	5.17	99.52	6.90
60	99.97	1.74	99.88	3.49	99.73	5.23	99.51	6.96
c= .75...	.75	.01	.75	.02	.75	.03	.75	.05
c=1.15..	1.15	.01	1.15	.03	1.15	.05	1.15	.07
c=1.90...	1.90	.02	1.90	.05	1.90	.08	1.90	.12

Min.	4°		5°		6°		7°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist	Diff. Elev.	Hor Dist.	Diff. Elev.
0'.....	99.51	6.96	99.24	8.68	98.91	10.40	98.51	12.10
2.....	99.51	7.02	99.23	8.74	98.90	10.45	98.50	12.15
4.....	99.50	7.07	99.22	8.80	98.88	10.51	98.48	12.21
6.....	99.49	7.13	99.21	8.85	98.87	10.57	98.47	12.26
8.....	99.48	7.19	99.20	8.91	98.86	10.62	98.46	12.32
10.....	99.47	7.25	99.19	8.97	98.85	10.68	98.44	12.38
12.....	99.46	7.30	99.18	9.03	98.83	10.74	98.43	12.43
14.....	99.46	7.36	99.17	9.08	98.82	10.79	98.41	12.49
16.....	99.45	7.42	99.16	9.14	98.81	10.85	98.40	12.55
18.....	99.44	7.48	99.15	9.20	98.80	10.91	98.39	12.60
20.....	99.43	7.53	99.14	9.25	98.78	10.96	98.37	12.66
22.....	99.42	7.59	99.13	9.31	98.77	11.02	98.36	12.72
24.....	99.41	7.65	99.11	9.37	98.76	11.08	98.34	12.77
26.....	99.40	7.71	99.10	9.43	98.74	11.13	98.33	12.83
28.....	99.39	7.76	99.09	9.48	98.73	11.19	98.31	12.88
30.....	99.38	7.82	99.08	9.54	98.72	11.25	98.29	12.94
32.....	99.38	7.88	99.07	9.60	98.71	11.30	98.28	13.00
34.....	99.37	7.94	99.06	9.65	98.69	11.36	98.27	13.05
36.....	99.36	7.99	99.05	9.71	98.68	11.42	98.25	13.11
38.....	99.35	8.05	99.04	9.77	98.67	11.47	98.24	13.17
40.....	99.34	8.11	99.03	9.83	98.65	11.53	98.22	13.22
42.....	99.33	8.17	99.01	9.88	98.64	11.59	98.20	13.28
44.....	99.32	8.22	99.00	9.94	98.63	11.64	98.19	13.33
46.....	99.31	8.28	98.99	10.00	98.61	11.70	98.17	13.39
48.....	99.30	8.34	98.98	10.05	98.60	11.76	98.16	13.45
50.....	99.29	8.40	98.97	10.11	98.58	11.81	98.14	13.50
52.....	99.28	8.45	98.96	10.17	98.57	11.87	98.13	13.56
54.....	99.27	8.51	98.94	10.22	98.56	11.93	98.11	13.61
56.....	99.26	8.57	98.93	10.28	98.54	11.98	98.10	13.67
58.....	99.25	8.63	98.92	10.34	98.53	12.04	98.08	13.73
60.....	99.24	8.68	98.91	10.40	98.51	12.10	98.06	13.78
c= .75...	.75	.06	.75	.07	.75	.08	.74	.10
c=1.15...	1.15	.09	1.14	.11	1.14	.13	1.14	.15
c=1.90...	1.89	.15	1.89	.18	1.89	.21	1.88	.25

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PLUMOSA PARK
POINSETTIA DRIVE 60' WIDE

℄ STREET ALIGNMENT.

9+07.90	P.T.	02° 18'	04° 36'
9		2° 04.802	R=1030
+50		0° 41.367	L=82.69
			LC=82.67
			D'=1.6687
8+25.21	P.C. LT.		D50=1°23.435
			CH = 49.99
~~7+65.37~~	~~P.T.~~		
7+65.06			
5+80.67	P.T.	15°-41-45"	31° 23'30" ← 31-23-2
+75		14° 44.412'	RS=170
+50		10° 31.636'	L=93.14
+25		6° 18.860	LC=91.98
			D'=10.111'
5		2° 06.084	D25=4°12.776
			CH=24.978
4+87.53	P.C. RT.		
75			
+12.53	P.T.	11°18-40"	22°-37-20"
4		10° 03.112	RS=285
+75		7° 32.334'	L=112.53
+50		5° 01.556'	LC=111.80
3+25		2° 30.778'	D'=6.03)'
			D25=2°30.778
3+00.00	P.C. LT.		CH.=24.98
300			
		90° 00'	RET. OF N.L. ELLIOTT
0+00	℄ POINSETTIA	AND N.L. ELLIOTT	

=P.T. END 20' RS. CURVE RT. SIDE BEGONIA AT ℄ POSITION.

=P.O.C END LT SIDE BEGONIA AT ℄ POSITION

25' RS P.L. RETURN ON RT.

POINSETTIA DRIVE
& NOYES 60' WIDE

LT

~~11+30.65~~
11+30.64

11+34.99 RP

~~11+34.32~~ END 2 = INTER. & PSTIA AND W.L. TRACT.

10+83.12 P.O.T. = N.W DAFF. AND PSTIA.

10+74.41 P.O.T. = N.E. DAFF. AND PTSTIA.

10+18.74 P.O.T = S.W. DAFFODIL AND POINSETTIA.

9+72.76 POT = P.T. 40' RS DAFFODIL LT P.T.

~~9+47.70~~ 22.92

9+07.90 PT

JONQUIL DRIVE 60' WIDE
& NOTES

6+59.03	P.C.C.	22°32'37½"	45°05'15"
6+50	P.C.C.	21°57.339'	Rs = 440
6+063	P.O.C.	19°06'55.5	L = 346.25
6		18°42.019'	LC = 337.38
+50		15°26.699'	D1' = 3.907'
5		12°11.379'	D 50 = 3° 15.320'
+50		8°56.059'	CH = 49.97
4		5°40.739'	
+50		2°25.419	
3+12.78	P.C. Lt.		
2+53.40	P.T.	05°10'37.5"	10°21'15"
+50		4°59.313	TC = 516.8500
2		2°13.028'	L = 93.40166
1+60.00	P.C. Rt.		LC = 93.27 D1' = 3.3257 D 50 = 2°46.285 CH = 49.98
0+00.00	= & JONQUIL AND N. L ELLIOTT		

= BEGIN 20' RS LT TURN INTO LT SIDE BEGONIA (L.C. BACK P.C.)

JONQUIL DRIVE
60' WIDE
& NOTES

7+83.46 P.T.	20°58'-07½"	41°56'15"
+75	19°32.577'	T(S=170
+50	15°19.801'	L=121.46
+25	1°07.025'	
7	6°54.249'	LC=118.90
+75	2°41.473'	D1=10,111'
6+59.03 P.C.C.		D25=4°12.776'
		CH=24978

7+80.49
2.47
7+83.46

END LT. LINE JONQUIL AT LT. LINE BEGONIA.

NARCISSUS DRIVE
60' WIDE
& NOTES

CON			
6+75			
+50		27°13.456'	
+40.05		26°29'48"	
+25			
6		23°33.088	
+75			
+50		19°52.720'	
+25			
5		16°12.352'	
+75			
+50		12°31.984'	
+25			
4		8°51.616'	
+75			
+50		5°11.248"	
+25			
3		1°30.880'	
2+79.38	P.C. Rt.		
27.485			
+03.06	P.O.T.		
0+04.53	P.O.T.		
0+00	P.O.T.		
		81°-24'-54.00"	Rt. N. L. Elliott.

237.90 L.C.

34800

= Lt. Line Narc. and N. L. Elliott.

= E Narc. and N. L. Elliott

= Rt. Line Narc. and N. L. Elliott St.

NARCISSUS DRIVE 60' WIDE
& NOTES

	IND		
8+81.83	PT	44°-15'-13"	88°-30-26"
+75			T=390
+50		41°54.928'	L=602.45
+25			L:C=544.32
8		38°14.560'	D1'=4.407136'
+75			D25'=1°50.184'
+50		34°34.192	D50'=3°40.368'
+25			CH25=
7		30°53,824	CH.50=49.96
6+75			
6+50		27°13.456	

BEGONIA DRIVE
& NOTES
60' WIDE

6+01.98	P.C. RT		
(279.86)			
5+71.92	P.O.T		
4+22.93	P.O.T		
3+61.99	P.O.T.		
3+22.12	P.T.	16°44'50"	33°29'40"
3		15°07.342'	T=390
+75		13°17.158'	L=227.99
+50		11°26.974'	LC=224.76
+25		9°36.791'	D1=4.4074'
2		7°46.607'	D25=1°50.184'
+75		5°56.423'	CH=24.995
+50		4°06.239'	
~~+354 P.O.C.~~		~~3°02.167'~~	
+25		2°16.055'	
1		0°25.871'	
+94.13	P.C.C.T.	17°58'40"	35°57'20"
+75		14°19.437'	T=150
+50		9°32.958'	L=94.13
+25		4°46.479'	LC=92.60
0+00	P.C. = L.T.		D1=11.459'
			D25=4°46.479'
			CH=24.971

30' LT = IND 20 RS RET. LT. LINE NARCISSUS

30 RT = BEG LT. LINE DAFFODIL

30 RT = BEG. RT. LINE DAFFODIL

26 = P.O.C IND RT LINE NARCISSUS

2691

IND 20' RS. RETURN FROM LT LINE HYACINTH
TO RT. LINE BEGONIA

544 635

P.C. HYACINTH DRIVE

BEGONIA DRIVE

13+97.16	P.O.C.	47°16'52½"	94°33'45" IND
+75		43°32.794'	Ps=170
+50		39°20.081'	L=280.57
+25		35°07.242'	LC=249.82
13		30°54.466'	D1=10.111'
+75		26°41.690'	D25=4°12.776
+50		22°28.914'	CH=24.978
~~+29.66~~	~~POC~~	18°57'12½"	~~12+58.20~~
+25		18°16.138'	
12		14°03.362'	
+75		9°50.586'	
+50		5°31.810'	
+25		1°25.034'	
11+16.59	P.C.Lt.		
148.98			23°28'
9+67.6	P.T.	11°42'12½"	23°24'25"
+50		11°08.372'	R=895
+29.54	P.O.C.	10°29'05½"	L=365.63
9		9°32.347'	LC=363.09
+50		7°56.322'	D1=1.9205 51.76
8		6°20.297'	D50'=1°36.025'
+50		4°44.272'	CH=49.993
7		3°08.247'	
+50		1°32.222'	
6+01.98	P.C.Pt		49.64

BEGONIA DRIVE
60' WIDE

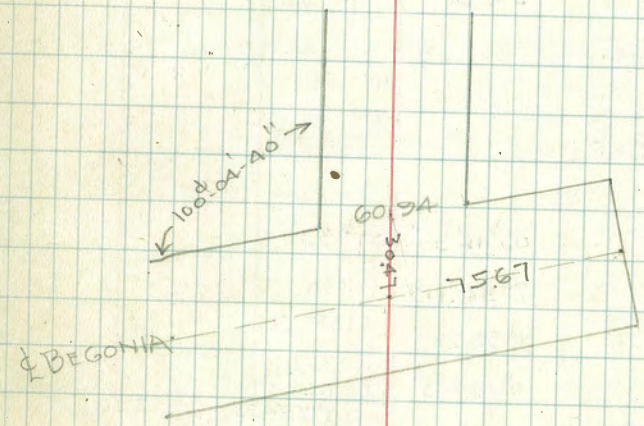
=P.C. 20' Ps Return To Pt Line Poinsettia ~~Center 50' Pt 7+65.37 Pot. Pistia~~
~~(LC=110.44)~~

=End Lt. L. Jonquil

=End 20' Ps Return End Pt Line Jonquil
(LC=38.06 Back PT)

DAFFODIL DRIVE 60' WIDE
& NOTES

6+88.13 P.T	19°24'45"	38°49'30"	
+75	17°54.503'	R=250	
+50	15°02.616'	L=169.41	
+25	12°10.729'	LC=166.19	
6	9°18.842'	D1=6.876'	
+75	6°26.955'	D25=2°51.887'	=7.99
+50	3°35.068'	Ot=24.99	
+25	0°43.181		7.04
5+18.72 P.C. P.T.			
3 x .60			
3+84.12 P.T	57°25'15"	114°50'30"	
+75	54°09.316'	R=80	
+50	45°12.168'	L=160.35	
+25	36°15.020'	LC=134.82	
3	27°17.872'	D1=21.486'	
+75	18°20.724'	D25=8°57.148	
+50	9°23.576'	Ot=24.898	
+25	0°26.428'		
2+23.77 P.C. LT.			
0+10.66 POT	(10.66/60)	(100°04-40 RT)	
0+05.33 POT			
0+00 = LT LINE DAFF. AND RT LINE BEGONIA.			



= RT LINE DAFF AND RT LINE BEGONIA
-℄ DAFF AND RT. L. BEGONIA
FROM ℄ DAFF.

DAFFODIL DRIVE

60' WIDE

		END		
11+25.69 (145.86)	P.O.T.			
10+81.71 (10188)	P.O.T.			
9+79.83	P.T.	03°46'30"	07°33'	
+50		2°56.715	R=1030	
9		1°32.280	L=135.73	48.54
+50		0°09.845'	LC=135.62 DI'=1.6687 D50'=1°23.435	
8+44.10 (155.97)	P.C. LT.		C#=4999	57.6
6+88.13	P.T.			

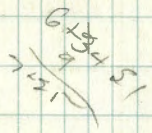
= PCT LINE DAFF. AND PCT LINE PSTIA. DRIVE

= 30' RT OF 40 T.S. RETURN LT. LINE INTO TCT LINE PSTIA DRIVE

HYACINTH DRIVE 60' WIDE

& NOTES

8+19.88	P.C.C.	10°01'15"	20°02'30"		
8		9°57.009'			
+50		6°50.591'	R=630		47.63
7		4°34.173'	L=~~221.27~~ (2) 220.37 ✓		
+50		2°17.755'	LC=219.24		
6		00°01.337'	DI=2.72837		14.75
5+99.51	P.C. LT.		D50=2°16 4.18 CH=4499		
(30)					
5+69.51	P.T	17°55'20"	35°50'40"		
+50		14°31.906'	R=165		
+25		10°11.481'	L=10321		
5		5°51.056'	~~LC=9604~~	101.55 ✓	
+75		1°30.631'	DI=10.4174 D25=4°20.425		
4+66.30	P.C. PT		CH=24.976		
4+66.30	P.O.T.				
~~4+31.30~~	POT	30L+R.			
(111.77)					
2+15.04					
~~2+14.66~~	POT	30 AND 40R.			
~~1+27.52~~	POT	30R (2)			
~~0+15.75~~	POT	30'R.			
~~0+07.875~~	POT				
0+00	POT	30'L			



=0+00 P.C. LT BEGONIA.

=

=PT LINE HYAC. AND PT LINE AZALEA DRIVE

=PT LINE HYAC. AND WLY L. CHTSTH BLVD.

=℄ HYAC. AND WLY L CHTSTH. BLVD.

= LT LINE HYAC. AT ℄ AND WLY LINE CHTSTH. BLVD.

HYACINTH DRIVE 60' WIDE
& NOTES

END

10 + 5°32.892
+50 4°00.482' Ts=930
9 2°28.072' D1=1.8482'
+50 0°55.662 D50=1°32.41 CH=49.994
8+19.88 PCC
T=930

48.38
29.16

R 1C5 Δ=26-41 L=7684
D'=10.474 D25=4°20.475'

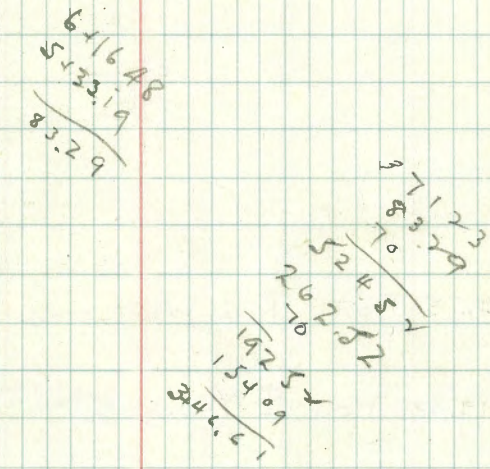
+39.43 PT 40-25-40
+25 38°09.443
13 33°56.769'
+75 29.4389
+50 25°31.115
+25 21°18.339
12 17°05.563
+75 12°52.787
+50 8°40.011
+28 4°27.235
11 0°14.459
10+98.57 PCC 8°33-05' 17°-10-10
+50 7°05.308 T=930
10 5°32.892' L=2786.9
+50 4°00.482 T=140-40
9 2°28.072
+50 0°55.662
8+19.88 PCC

80-51-20
T=170
L=2408.8
T=1448.2
D'=10.111
D25=4°12.776'
CH=2497.8

285.22

AZALEA DRIVE
℄ NOTES 60' WIDE

7+95.35	P.O.T	LT L. AND N.L. TRACT	
7+89.11	POT	℄ AND N L TRACT	
7+82.87	POT	PT L AND N.L TRACT.	
6+58.85	P.O.T.	PT L AND LT. L. WISTERIA	
6+31.02	P.O.T.	PT. L. AND ℄ WISTERIA	
6+16.48	P.O.T.	℄ AZALEA AND ℄ WISTERIA	
6+03.19	P.O.T.	LT. L AND PT. L WISTERIA	
5+33.19	PT.	20°18'	40°36'
5		18°31.353'	R = 535
+50		15°50.711'	L = 388.10
4		13°10.069'	LC = 371.23
+50		10°29.427'	DI = 3.21284
3		7°48.785'	DSo = 2°40.642'
+50		5°08.143'	CH. =
2		2°27.501'	
1+54.09	P.C. LT.		
0+35.35			
0+17.675			
0+00			



87.14
50
69.64 34.82

WISTERIA DRIVE 50' WIDE

3+09.55 P.O.T. PT. L. WIST. AND N.L. TRACT.

2+77.08 P.O.T. ℄ WIST. AND N.L. TRACT

2+44.62 P.O.T. LT. L. WIS. AND N.L. TRACT.

0+45.45 LT. L. AND PT. LINE AZALEA

0+33.34 = ℄ AND TCT. LINE AZALEA

0+21.23 PT. L. AND TCT. L. AZALEA

0+00 ℄ = 6+16.48 ℄ AZALEA DRIVE 64°09' TC

PLUMOSA DRIVE

4+26.76	P.C.				
(25)					
4+01.76	P.T.	06°22'	12°44'		
4		6°18.573	R=885		
+50		4°41.463	L=19668		
3		3°04.353	LC=19628		
+50		1°27.243	DI=1.94224	48.1	5.89
2+0508	P.C.C.	18°39'05"	D50'=1°3711	43.93	45.67
2		18°11.36'	CH=50.00	22.37	5.27
+75		15°54.92'	R=315	26.18	26.18
+50		13°38.52'	L=20508		
+25		11°22.10'	LC=20150		
1		9°05.68'	DI=54568		
+75		6°49.26'	D25=2°16.42		
+50		4°32.84'	CH=24.99		
0+25		2°16.42'			
0+00	P.C.L.T.				

10+38.45

9+88.56

℄ AT RT LINE

℄ AT LT LINE

℄ TO RETURN

6+62.25 P.C.RT.

3 46.2

25.0

6+37.25 P.T 90° 180° 00'

R=67

L=21049

LC=13400

+25 84°45.8274 D1' = 24.1638' 25.6549

6 74°04.4549 D 25' = ~~10°04.925'~~ 10°41.37 25'

+75 63°23.0824 CH = 2485

+50 52°41.7099'

+25 42°00.3374

5 31°18.9649

+75 20°37.5924

+50 9°56.2199

4+26.76 P.C.RT

NARCISSUS

5.31

	LT				RT
	0.19				148.86
		149.05			
	12.29			182	147.23
		159.52			
	1.92			0.19	159.32

SKEW

	LT						RT
	161.2	161.2	160.6	160.7	159.6	160.0	159.3
0+00	0.0	0.0	0.6	0.5	1.6	1.2	1.9
	60	41	41	℄	20	20	0
	160.3	159.4	158.9	159.1	158.0	158.4	157.9
0+50	0.9	1.8	2.3	2.1	3.2	2.8	3.3
	60	41	41	℄	20	20	0.0
	159.3	158.5	157.8	158.3	157.1	157.5	156.2
1+00	1.9	2.7	3.4	2.9	4.1	3.7	4.7
	60	40	40	℄	20	20	0
	157.1	155.9	155.4	155.8	154.2	154.6	154.5
1+50	4.1	5.3	5.8	5.4	6.6	6.2	6.7
	60	41	41	℄	20	20	0
	155.1	154.3	153.8	153.7	152.6		151.1
2+00	6.1	6.9	7.4	7.5	8.6		10.1
	60	41	41	℄	20		0
	156.2	155.3	154.8	154.6	154.0	154.5	153.5
2+50	5.0	5.8	6.4	6.5	7.2	6.7	7.7
	60	42	42	℄	22	21	0
	155.9	155.0	154.3	154.4	153.6		151.3
2+79.38	5.3	6.2	6.9	6.8	7.6		9.9
	60	43	43	℄	21		0
	155.4	154.6	154.1	154.0	153.0		151.1
3+00	5.8	6.6	7.1	7.2	8.2		10.1
	60	42	42	℄	21		0
	155.9	155.5	154.8	155.0	154.7	155.4	154.2
3+50	5.3	5.7	6.4	6.2	6.5	6.0	7.0
	60	42	42	℄	21	21	0
	155.1	154.7	154.0	154.4		153.6	153.2
4+00	6.1	6.5	7.2	6.8		7.6	8.0
	60	40	40	℄		20	0

190

=HUB ℄ LINE NARCISSUS AND N.L.I. ELLIOTT

'53 NARCISSUS

LT 161.24 ℄ RT

4+50	1536	1529	1524	1528	1520	1524	1513
	7.6	8.3	8.8	8.4	9.2	8.8	9.9
	60	37	37	℄	18	18	0
5+00	1534	1528	1524	1524	1517	1520	1516
	7.8	8.4	8.8	8.8	9.5	9.2	9.6
	60		33	℄	14	14	0
P	1.27		1.5468		7.83	153.41	
5+50	1530	1523	1519	1522	1516	1518	1516
	1.7	2.4	2.8	2.5	3.1	2.9	3.1
	60		34	℄	13	13	0
6+00	1533	1529	1527	1529	1522	1525	1520
	1.4	1.8	2.0	1.8	2.5	2.2	2.7
	60		39	℄	16		0
6+50	1546			1534	1526	1529	1527
	0.1			1.3	2.1	1.8	2.0
	60			℄		9	0
7+00	1543			1538	1536	1528 1530	1528
	0.4			1.0	1.1	1.9 1.7	1.9
	60			℄	12	4 4	0
7+50	1515			1514	1515 1516 1517	1511	1515
	3.2			3.3	3.2 3.7 3.0	3.6	3.7
	60			℄	19 19 10	0	0
8+00	1468	1474	1471	1484	1492	1483 1494	1495
	7.9	7.3	7.6	6.2	5.5	5.8 5.3	5.7
	60	53		℄	12	3 3	0
8+50	1437		1458 1464	1462	1472	1473 1478	1482
	11.0		8.9 8.3	8.5	7.5	7.4 6.9	6.5
	60		℄	24 24	12	4 4	0
8+81.83	1420			1442	1456 1469	1458 1466	1469
	12.7			10.5	9.1 7.8	8.9 8.1	7.8
	60			℄	24 12	3 3	0
END							

BEGONIA

	LT				RT	
			154.68			
TP	1.63			13.13		141.55
			143.18			
TP	5.12			9.02		134.16
	LT		139.28		RT	
0+00	134.2	133.3	132.6 132.0	131.9	131.7	129.2
	5.1	6.0	6.7 7.3	7.4	7.6	11.1
	0	15	19 20	℄	36	60
0+25	134.9	134.1	133.1 133.0	132.4	131.5	129.3
	4.4	5.2	6.2 6.3	6.9	7.8	10.0
	0	14	14 ℄	40	43	60
0+50	135.7	135.4	134.3 134.6	134.1	132.9 131.8	130.9
	3.6	3.9	4.8 4.7	5.2	6.4 7.4	8.4
	0	5	5 20 ℄	48	50	60
	30.8	30.7	29.7 30.1	29.2		27.0
0+75	136.1	136.0	135.0 135.4	134.5		132.5
	3.2	3.4	3.9 ℄			6.8
	0	3	3 18	48		60
	31.2	30.9	30.4 30.5	28.5		28.1
1+00	136.5	136.2	135.7 135.8	133.8		133.4
	2.8	3.1	3.6 3.5	4.5		5.9
	0	2	3 14	℄		60
	31.8	31.6	30.9 31.4	31.2 30.9	30.6	29.9
1+25	137.1	136.9	136.2 136.7	136.5 136.2	136.9	134.2
	2.2	2.4	3.1 2.6	2.7 3.1	3.4	5.1
	0	3	4 12	13 24	℄	60
	33.0	32.9	31.9 32.5	31.7	31.3	29.5
1+50	138.3	138.2	137.2 137.8	137.0	136.6	134.8
	1.9	1.1	2.1 1.5	2.3	2.7	4.5
	0	3	3 17	23	℄	60
	35.6	35.4	33.4 33.8	32.9	32.3	30.5
1+75	140.2	140.7	138.7 139.1	138.2	137.6	135.7
	3	99	0.6 0.2	1.1	1.7	3.6
	0	2	3 19	22	℄	60
	37.6	37.5	36.5 36.5	35.6 35.3	34.3	32.0
2+00	142.9	142.8	141.6 141.8	140.6 139.6		137.3
	7.7	7.8	9.0 8.8	10.0 11.8		13.3
	0	2	3 19	23	℄	60
	39.3	39.3	37.6 38.6	36.1 35.3		33.3
2+25	144.6	144.6	142.9 143.3	141.4 140.6		138.6
	6.0	6.0	7.7 7.3	9.2 10.0		12.0
	0	1	3 19	26	℄	60

P. PIPE

BEGONIA

	LT							TCT
2+50	40.1		150.60					
	145.7	145.3	143.7	143.9	143.6	143.3	141.6	139.3
	5.2	5.1	6.9	6.7	7.0	8.3	9.0	11.3
	0	2	2	17	21	25	30	60
2+75	145.8	145.8	144.1	144.7	143.0	142.7		140.1
	4.8	4.8	6.5	6.4	7.6	8.4		10.5
	0	3	3	22	25	¢		60
3+00	146.3	146.2	144.8	145.0	143.9	143.2		140.9
	4.3	4.4	5.8	5.6	6.7	7.4		9.7
	0	3	4	22	26	¢		60
3+22 12 P.C	146.8	146.6	145.8	145.5	144.2			142.0
	3.8	4.0	4.8	5.1	6.4			8.6
	0	3	3	24	¢			60
3+50	148.0	147.6	147.2	146.7	145.6			143.2
	2.6	3.0	3.4	4.4	5.0			7.4
	0	2	2	24	¢			60
4+00	149.2		148.3		147.6			143.9
	1.4		2.3		3.0			4.7
	0		15		¢			60
PT	10.64		160.86		0.38			150.22
4+50	151.4				151.0			149.9
	3.5				9.9			11.0
	0				¢			60
5+00	154.1				153.6			153.4
	6.8				7.3			8.5
	0				¢			60
5+50	154.9				155.0			154.5
	6.0				5.9			6.4
	0				¢			60
6+00	154.8	154.6	155.0	155.4				155.5
	6.1	6.3	5.9	5.5				5.4
	0	10	10	¢				60
6+01.98	154.8	154.6	155.0	155.4				155.7
	6.1	6.3	5.9	5.5				5.7
	0	10	10	¢				60
6+50	154.4	154.1	154.9	155.3	155.7			156.5
	6.5	5.8	6.0	5.6	5.2			4.4
	0	11	19	19	¢			60

BEGONIA	Lt	℄	Rt
7+00		160.86	67
	154.9 154.9 154.6 155.1 155.0 155.4	155.9	156.9 156.7
	6.0 6.0 6.3 5.8 5.9 5.5	5.0	4.0 4.2
	0 2 2 12 24 24	℄	45 60
7+50	156.4 156.5 156.0 156.7 156.5	156.9	156.6 156.9 157.2
	4.5 4.4 4.9 4.2 4.4	4.0	4.3 4.0 3.7
	0 1 1 10 24	24	30 47 60
			℄
8+00	157.8 157.8 157.4 157.8 157.7	157.9	158.2
	3.1 3.1 3.5 3.0 3.2	3.0	2.7
	0 1 1 14 25	℄	60
8+50	160.4 160.4 160.1 160.9 160.4 160.7	160.7	160.8
	0.5 0.5 0.8 0.1 0.5 0.2	0.2	0.1
	0 3 3 14 26 26	℄	60
TP	10.52 171.22		0.16 160.70
9+00	163.5 163.6 163.2 163.7 163.2 163.6	163.5	162.9
	7.7 7.6 8.0 7.5 8.0 7.6	7.7	7 8.3
	0 4 4 16 27 27	℄	60
9+50	165.1 164.7 165.1 164.4 164.7	164.6	164.0
	6.1 6.5 6.1 6.8 6.5	6.6	7.2
	0 0 11 27 27	℄	60
9+67.61 P.T.	165.6 165.2 164.6 165.0	164.8	164.3
	5.6 6.0 6.6 6.2	6.4	6.9
	0 15 27 27	℄	60
10+00	165.9 164.4 164.6	164.6	163.6
	5.3 5.8 6.6	6.6	7.6
→	0 15 26	℄	60
10+50	166.3 165.7 165.0	165.1	164.3
	4.9 5.5 6.2	6.1	6.9
	0 18 ℄	℄	60
11	168.4 167.6 166.8 167.0 165.8	166.1	164.9
	2.8 3.6 4.4 4.2 5.4	5.1	6.3
	0 8 8 16 29	℄	60
11+16.59	168.7 168.0 167.2 167.4 166.2	166.4	165.1
(= 7+83.46	2.5 3.2 4.0 3.8 5.0	4.8	6.1
JONQUIL)	0 8 8 15 ℄	℄	60
11+25	168.7 168.1 167.4 167.5 166.3	166.5	165.2
	2.5 3.1 3.8 3.7 4.9	4.7	6.0
	0 7 7 14 29	℄	60

66.6
5.3
59.3

BEGONIA

	LT							TCT
			17122					
	1687	1683	1676	1678	1664	1665		1652
J1+50	25	29	36	34	48	47		60
	0	6	6	14	℄	℄		60
	1689	1685	1679	1682	1667	1669		1648
J1+75	23	27	33	30	45	43		64
	0	5	5	12	℄	℄		60
	1692	1686	1679	1683	1675	1677		1647
12+00	20	26	33	29	37	35		65
	0	7	7	14	℄	℄		60
TP		533		17460		195		16927
	1703	1693	1684	1682	1673			11676
12+25	43	53	62	64	73			70
	0	9	9	19	℄			60
	1712	1689	1680	1677	1675	1646		1646
12+50	34	57	66	69	71	100		100
	0		16	16	℄	35	58	60
	1716	1690	1680	1678	1672	1664		1649
12+75	30	56	66	68	74	82		97
	0		22	22	℄	40	45	60
	1722	1690	1681	1679		1687		1655
13+00	24	56	65	67		79		91
	0		24	24	℄		45	60
	1720	1699	1692	1688				1667
13+25	26	47	54	58				79
	0		20	20	℄			60
	1722	1709	1699	1700		1687		1667
13+50	24	37	47	46		59		79
	0		18	18	℄		44	60
	1720	1711	1700	1698		1686		1657
13+75	26	35	46	48		60		89
	0		15	15	℄		39	60
	1716	1702	1693	1689		1673		1643
13+97.16	30	44	53	57		73		1028
	0		17	17	℄		41	60
END								
=5+80.67								

(2)

HYACINTH

	0.45	147.68		147.23
	0.24		12.31	135.37
		135.61		
	0.82		12.69	122.92
		123.74		

END COURSE

SKEW	LT			RT
0+00	120.7 3.0 0		118.3 5.4 4	116.0 7.7 6102

0+50	119.5	119.0	118.7	118.1	118.1	117.7	117.2	116.8	115.7
	4.2	4.7	5.0	5.6	5.6	6.0	6.5	6.9	8.0
	0	C	17	18	Q	4	38½	47	60
1+00	120.0	119.2	119.0	118.0	118.2	117.9	117.1	116.8	115.5
	3.7	4.5	4.7	5.7	5.5	5.8	6.6	6.9	8.7
	0	C	17	17	Q	C	Q	C3	60
1+50	119.9		119.6	118.9	119.0	118.6	118.1		117.5
	3.8		4.1	4.8	4.7	5.1	5.6		6.2
	0		C	Q	C	Q	C		60
2+00	121.5	121.0	120.9	120.3	120.4	120.1	120.2	119.9	119.3
	2.2	2.7	2.8	3.4	3.3	3.0	3.5	3.8	4.4
	0	C	17	17	Q	4	Q	C	60
2+50	123	123.0	123.0	122.0	122.4	122.3	122.1	122.0	122.2	122.1	121.9
	0.4	0.7	0.7	1.7	1.3	0.2	1.6	1.7	1.5	1.6	1.8
	0	C	17	17	Q	4	Q	47	41	C	60

PT									
	9.81		133.22			0.33	123.41		
3+00	125.5	125.3	125.4	125.1	125.1	124.9	124.7	125.1	125.2	124.7
	7.7	7.9	7.8	8.5	8.1	8.0	8.3	8.5	8.0	8.5
	0	6	18	18	Q	4	Q	40	40	C	60
3+50	127.7	127.2	126.8	126.6	126.4	126.8		126.1	126.8	126.4	125.6
	5.5	6.0	6.4	6.8	6.8	6.4		7.1	6.8	6.8	7.6
	0	C	19	19	Q	4		Q	Q	C	60
4+00	129.3	129.1	128.7	128.2	128.3	128.4		127.4	126.2	127.4	127.1	126.2
	3.9	4.1	4.5	5.0	4.9	4.8		5.8	6.0	5.8	6.1	7.0
	0	C	19	19	Q	4		Q	40	40	C	60

-3.57

Lt HYACINTH

133.72

Rt

	1324	1321	1309	1303	1305	1304	1300	1284	1267		
4+50	08	11	18	23	29	27	28	32	48	65	
	0	10	C	20	Q	E	35	Q	G	60	
TP		2.93		135.91			0.24		132.98		
	1356	1346	1327	1333	1331	1323	1316	1297	1285		
5+01.30	13	13	22	26	28	30	43	67	74		
	0	2	4	13	Q	℄	Q	C	60		
		1344	1335	1331	1325	1319	1314	1308	1303	1283	
5+25		15	20	28	34	40	45	51	56	76	
		0	C	Q	℄	37	Q	41	C	60	
	1336	1333	1326	1326	1320	1320	1315	1303	1282	1288	
5+50	23	26	33	33	39	39	44	56	57	71	
	0	5	10	C	Q	℄	Q	43	C	60	
	1329	1321	1319	1314	1314	1315	1309	1309	1304	1303	1295
5+75	30	38	40	45	45	44	50	50	55	56	63
	0	C	17	19	Q	℄	Q	41	43	C	60
	1321	1313	1315	1309	1309	1313	1308	1303		1295	
6+00	38	40	44	50	50	46	51	56		60	
	0	C	19	20	Q	℄	Q	C		60	
	1320	1318	1314	1327	1327	1313	1308	1303		1295	
6+04.51 PC	37	41	45	52	52	46	51	56		60	
	0	C	20	20	Q	℄	Q	C		60	
	1307	1303	1303	1256	1293	1301	1295	1293		1287	
6+34.53 PC	52	56	56	63	60	58	64	66		72	
	0	C	17	17	Q	℄	Q	C		60	
	1298	1294	1274	1286	1289	1290	1285	1283		1275	
6+50	61	65	65	73	70	69	74	76		84	
	0	C	16	16	Q	℄	Q	C		60	
	1267	1253	1255	1255	1254	1251	1245	1239		1229	
7+00	92	100	104	104	105	108	114	120		130	
	0	12	12	C	Q	℄	Q	C		60	
TP		4.57		127.44			1.94		122.87		
	1248	1240	1234	1238	1225	1222	1216	1209	1202		1189
7+50	26	34	40	40	45	49	57	58	65	72	85
	0	9	9	C	Q	29	℄	32	Q	C	60

3.5

HYACINTH

RT LT

127.44

8+00
119.7 120.9 121.7 122.1 122.8 123.3 123.3 123.5 123.9 124.5
7.7 6.5 5.7 5.3 4.6 4.1 4.1 3.9 3.5 2.9
60 C Q 32 ℄ Q C 9 9 0

8+50
120.6 121.6 122.0 122.4 122.7 122.6 123.3 123.8
6.8 5.8 5.4 5.0 4.7 4.8 4.1 3.6
60 C Q ℄ Q C C 0

8+54.91 PCC
120.3 121.4 121.9 122.3 122.7 122.5 123.4 123.8
7.1 6.0 5.5 5.1 4.7 4.9 4.0 3.6
60 6 Q ℄ Q C C 0

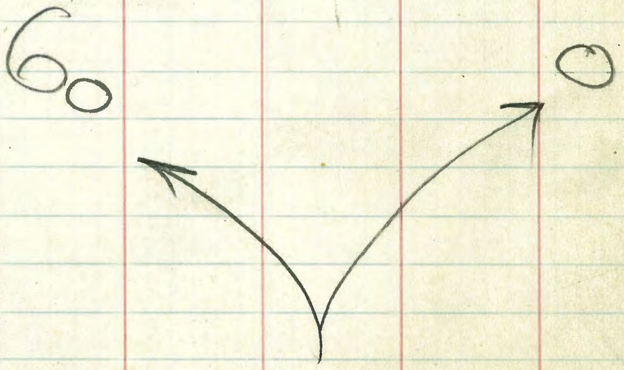
9+00
118.2 119.2 119.4 120.0 120.4 120.7 120.7 121.3 121.8 122.5
9.2 8.2 8.0 7.4 7.0 6.7 6.7 6.1 5.6 4.9
60 C 43 Q ℄ Q 18 18 C 0

9+50
118.4 119.5 120.1 120.2 120.4 120.8 121.0 121.4 122.4
9.0 7.9 7.3 7.2 7.0 6.4 6.4 6.0 5.0
60 C Q ℄ 27 27 Q C 0

9+
122.0
5.4
0

9+
118.8
8.6
60

10+00
118.8 119.3 119.6 120.4 120.4 120.9 121.5
8.6 8.1 7.8 7.4 7.0 6.5 5.9
60 C Q ℄ Q C 0



'5.31

DAFFODIL

1.3' obs - 8.5' ½

	5.7.4			14.7.29						14.1.55		
	LT									TCT		
SKEW	14.7.6	14.6.6		14.6.4	14.5.3	14.6.0	14.5.5	14.4.7	14.5.0	14.4.2		14.3.7
0+00	0	0.7		0.9	1.4	1.3	1.8	2.6	2.3	3.1		3.6
		C		17	17	Q	↯	Q	Q	C		60
	14.5.6	14.4.9	14.4.6	14.4.1	14.4.2	14.3.8	14.2.9	14.3.4		14.2.8	14.2.2	
0+50	1.7	2.4	2.7	3.2	3.1	3.5	4.4	3.9		4.5	5.1	
	0	C	17	17	Q	↯	Q	Q		C	60	
	14.4.7	14.3.7	14.3.7	14.3.0	14.2.9	14.2.7	14.1.9	14.2.2		14.1.8	14.1.2	
1+00	2.6	3.6	3.6	4.3	4.4	4.6	5.4	5.1		5.5	6.1	
	0	C	16	16	Q	↯	38	Q		C	60	
	14.3.6	14.2.6	14.2.5	14.2.0	14.2.0	14.1.5	14.0.6	14.1.1		14.0.6	13.9.8	
1+50	3.7	4.7	4.8	5.3	5.3	5.8	6.7	6.2		6.7	7.5	
	0	C	17	17	Q	↯	Q	Q		C	60	
	14.2.4	14.1.8	14.1.2	14.1.4		14.0.5	14.0.2	14.0.6		13.9.8	13.9.5	
2+00	A9	5.5	6.1	5.9		6.5	7.1	6.7		7.0	7.5	7.8
	0	C	C	Q		↯	35	35		Q	C	60
	14.2.6	14.2.1	14.1.7	14.1.8	14.1.4		14.0.6			14.0.1	13.9.7	13.9.2
2+23.77 PC	4.7	5.2	5.6	5.5	5.9		6.7			7.2	7.6	8.1
	0	2	9	C	Q		↯			Q	C	60
	14.2.8	14.2.6	14.2.1	14.2.2	14.1.4		14.1.1	14.1.3	14.0.8	14.0.3	13.9.8	13.9.0
2+50	4.5	4.7	5.2	5.1	5.9		6.2	6.0	6.5	7.0	7.5	8.3
	0	4	4	C	Q		↯	24	↯	Q	C	60
		14.2.2		14.2.0	14.1.3	14.1.6	14.1.4		14.1.0	14.0.5	13.9.8	13.9.4
2+75		5.1		5.3	6.0	5.7	5.9		6.3	6.8	7.5	8.4
		0		C	20	20	↯		↯	Q	C	60
	14.2.5	14.1.7	14.1.3	14.0.6		13.9.8	13.9.1		13.8.7			
3+00	4.8	5.6	6.0	6.7		7.5	8.2		9.1			
	0	C	Q	↯		Q	C		60			13.8.2
	14.2.9	14.2.8	14.1.9	14.1.7	14.2.1	14.1.5	14.0.5		13.9.3	13.9.4		
3+25	4.4	4.5	5.4	5.6	5.7	5.8	6.8		7.4	7.9		9.0
	0	5	C	16	16	Q	↯		Q	C		60
	14.3.2	14.2.9	14.3.3	14.2.6	14.2.1		14.1.7	14.1.4				
3+50	3.6	4.4	4.0	4.7	5.7		5.6	5.9		6.5		
	0	C	14	Q	↯		Q	C		60		
	14.4.0	14.4.0	14.4.3		14.4.2		14.4.1	14.3.9	14.4.0			14.3.5
3+75	2.7	3.3	3.0		3.1		3.7	3.4	3.3			3.8
	0	C	C		Q		↯	Q	C			60

8.31 DAFFODIL

	LT			RT
		147.29		
	144.9 144.4	144.4 144.7 144.6	144.4 144.3	144.3 144.0
3+84.12	2.4 2.9	2.9 2.6 2.7	2.9 3.0	3.0 3.3
	0 C	15 15 Q	℄ Q	C 60
	145.4 145.3 145.0	145.4 145.3	145.3 145.1	145.0 144.8
4+00	1.9 2.0 2.3	1.9 2.0	2.0 2.2	2.3 2.5
	0 C 16	16 Q	℄ Q	6 60
TP	10.84	156.29	1.84	145.45
	147.3 147.3	146.9 147.2 147.2	147.2 146.9	146.4 146.4
4+50	9.0 9.0	9.4 9.1 9.1	9.1 9.4	9.4 9.9
	0 C	18 18 Q	℄ Q	C 60
	149.5 149.8 149.6	150.1 150.0	149.4 148.9	149.0 148.7
5+00	6.8 6.5 6.7	6.2 6.3	6.9 7.4	7.3 7.6
	0 C 18	18 Q	℄ Q	C 60
	150.8 151.2	151.0 150.4 150.8	150.7 150.3	150.3 150.0 149.7
5+18.72	5.5 5.1	5.3 5.9 5.5	5.6 6.0	6.0 6.3 6.6
	0 Q	C 19 19 ℄	Q ℄	Q C 60
	151.3 151.7 151.5	150.5 151.0	150.9 151.0	150.5 150.1 150.0
5+25	5.0 4.6 4.8	5.8 5.3	5.4 5.3	5.8 6.2 6.3
	0 9 C	19 19	Q ℄	Q C 60
	153.2 152.7	152.6 151.9 152.3	151.4 151.3	151.2 151.2
5+50	3.1 3.6	3.7 4.4 4.0	4.9 5.0	3.1 5.1
	0 1	C Q Q	℄ Q	C 60
	154.6 153.8 153.8	152.9 153.1	152.7 152.4	152.3 152.2
5+75	1.7 2.5 2.5	3.4 3.2	3.6 3.9	4.0 4.1
	0 1 C	Q Q	℄ Q	C 60
	155.3 155.0 154.4	154.7 154.7	154.4 154.2 154.0	153.8
6+00	1.0 1.3 1.9	1.6 1.6	1.9 2.1 2.3	2.5
	0 C 19	19 Q	℄ Q C	60
TP	7.52	162.69	1.12	155.17
	157.0 156.5 155.8	156.2 156.0	155.8 155.5 155.25	155.2
6+25	5.7 6.2 6.9	6.5 6.7	6.9 7.3 7.5	7.5
	0 C 19	19 Q	℄ Q C	60
	157.5 157.5	155.8 157.1 157.0	156.7 156.5	156.5 156.5
6+50	5.2 5.2	5.9 5.6 5.7	6.0 6.2	6.2 6.2
	0 C	20 20 Q	℄ Q	C 60

S.3

DAFFODIL

	LT						RT		
S3.1			162.69						157.5
	158.1	158.2	157.6	157.7		157.5			
6+75	4.6	4.5	5.1	4.8	5.0	5.0	5.2		5.2
	0	C	Q	Q	℄	Q	C		60
	158.4	158.5	157.9	158.2	158.0	157.8	157.9	157.8	
6+88.13	4.3	4.2	4.8	4.5	4.7	4.9	4.8	4.9	
	0	C	Q	Q	℄	Q	C	60	
	158.5	158.9	158.4	158.7	158.7	158.4	158.2	158.1	
7+00	4.2	3.8	4.3	4.0	4.0	4.3	4.5	4.6	
	0	C	Q	Q	℄	Q	C	60	
	157.8	157.9	157.4	157.8	157.0	157.6	157.6	157.5	
7+50	4.9	4.8	5.3	4.9	5.0	5.1	5.0	5.0	
	0	C	20	20	Q	℄	C	60	
	154.7	154.9	154.7	154.7		154.9	156.1	156.0	
7+80	8.0	7.8	8.0	8.0		7.8	6.6	6.7	
	0	C	20	20	Q	℄	C	60	
	153.9	153.4	152.7	153.1	152.9	153.1	152.5	152.8	
8+00	8.9	9.3	10.0	9.6	9.8	9.6	9.8	10.2	
	0	C	19	19	Q	℄	C	60	
	152.7	152.4	151.7	152.1	151.9	150.5	150.1	149.5	
8+35	10.0	10.3	11.0	10.6	10.8	11.7	12.2	12.6	13.7
	0	C	20	20	Q	℄	Q	C	60
	152.7		152.4	151.9	150.0	151.7	151.4	151.0	150.4
8+44.10PC	10.0		10.3	10.8	10.7	11.0	11.5	11.7	12.3
	0		C	Q	Q	℄	Q	C	60
	152.9	152.6	152.5	152.7	152.3	152.1	151.7	151.5	150.8
8+50	9.8	10.1	10.5	10.0	10.3	10.6	11.0	11.2	11.9
	0	C	19	19	Q	℄	Q	C	60
	156.3		157.1	157.1	157.3	157.7	157.7	157.6	157.0
9+00	6.4		5.6	5.6	5.3	5.0	5.0	5.1	5.7
	0		C	Q	Q	℄	Q	C	60
	160.3	160.7	160.1	160.2	160.2	159.8	159.5	159.6	
9+50	2.4	2.0	2.6	2.3	2.5	2.9	3.2	4.1	
	0	C	Q	Q	℄	Q	C	60	
	161.1	161.4	160.9	160.9	160.7	160.3	160.3	159.8	
9+79.83	1.0	1.6	1.3	1.9	1.8	2.0	2.4	2.4	2.9
	0	1	C	Q	Q	℄	Q	C	60
PT		4.72		166.36		1.05		161.64	

SG

ON LEFT PIPE

'53

LT DAFFODIL TCT

	162.5	162.6	162.2	166.36	161.6	161.7	161.2	161.0	161.2	161.1		160.6
10+00	3.9	3.8	4.4	4.0	4.5	4.9	4.8	4.7	5.1	5.4	5.1	5.3	5.8
	0	1	1	C	19	19	Q	℄	Q	41	41	C	60
	162.2	163.9	163.0	163.4									
10+50	3.2	3.1	3.4	3.0	3.3	3.6	3.5	3.2	3.8	3.6	3.3	3.4	3.6
	0	1	1	C	2.	2.	Q	℄	Q	40	40	C	60
	159.6	160.4	160.9		161.4	161.5	162.2	162.8	163.1				
11	6.6	6.0	5.5		5.0	4.9	4.4	3.6	3.3				
	0	C	Q		℄	Q	Q	C	60				
	157.2	157.9			158.4	159.1	159.6	159.5	161.0	161.4	161.9		
11+ SKEW	9.7	9.5			8.0	7.3	6.8	6.9	5.4	5.0	4.5		
	Q	2	2		C	Q	℄	Q	41	C	60		

157.5
89(½ TURN
155.4
NO FIND

9+50 HIGH PSTIA 11.9 145.5 & V 153.9

15.4.5

LT 11+22 3.2

RT 11+25 5.9

16.5
4.9 RETURN. LT.
10+81.7

JONQUIL

	LT						RT		
	11.68		17 1.00				159.32		
	163.7	164.1	164.5	164.5		164.5	164.7	164.2	164.9
0+00	8.0	7.3	6.9	6.5		6.5	6.3	4.8	4.1
	0	C	Q	℄		Q	C	52	60
	168.5	168.1	167.7	168.0	168.5	168.6	168.6	169.2	169.6
0+50	2.5	2.9	2.9	3.3	3.2	2.5	2.4	1.8	1.4
	0	C	19	19	Q	℄	Q	41	C	60
	170.0	170.0	169.6	169.8	170.1	169.9	169.8	170.3	170.2	170.2
0+75	1.0	1.0	0.8	1.4	1.2	0.9	1.1	1.2	0.7	0.8	0.8
	0	C	18	18	Q	℄	Q	41	41	C	60
TP	7.83		17 7.86			097	169.6	17 0.03			
	171.4	171.8	170.7	170.3	170.4	169.8	169.3	169.4	169.4	169.1	
1+00	6.5	6.8	7.2	7.6	7.6	7.3	8.1	8.2	8.3	8.5	8.8
	0	C	19	19	Q	℄	Q	42	42	C	60
	171.9	171.2	170.8	170.3	170.4	169.7	169.1	169.4	169.2	168.6
1+50	6.0	6.7	7.1	7.6	7.5	8.2	8.8	8.5	8.7	9.3
	0	C	Q	Q	℄	Q	44	44	C	60
	172.2	171.2	170.9	170.4	170.4	169.8	169.0	169.5	169.2	168.5
1+60.0 PC	5.7	6.7	7.0	7.5	7.5	7.5	8.1	8.9	8.4	8.7	9.4
	0	C	20	20	Q	℄	Q	43	43	C	60
	171.7	171.1	170.7	170.2	170.3	169.7	169.0	169.3	169.2	168.4
2+00	6.2	6.8	7.2	7.7	7.6	8.2	8.9	8.6	8.7	9.5
	0	C	20	20	Q	℄	Q	44	44	C	60
	172.7	171.5	170.9	170.2	170.3	169.6	168.7	168.4		167.7
2+50	5.2	6.4	7.0	7.7	7.7	8.0	8.3	9.2	9.5		10.7
	0	C	20	20	Q	℄	Q	42	C		60
	172.8	171.5	170.9	170.3	170.2	170.0	169.5	168.7	168.4		167.7
2+53.40 PT	5.1	6.4	7.0	7.6	7.7	7.9	8.4	9.2	9.5		10.7
	0	C	20	20	Q	℄	Q	42	C	60	60
	173.5	171.9	171.3	170.5	170.2	170.2	169.7	168.4	168.0		166.7
3+00	4.4	6.0	6.6	7.4	7.5	7.7	8.7	9.5	9.9		11.2
	0	C	17	18	Q	℄	Q	42	C	60	60
	173.7	172.0	171.5	170.4	170.5	170.3	169.8	168.4	168.1		166.8
3+12.78 PC	4.2	5.9	6.4	7.5	7.4	7.6	8.1	9.5	9.8		11.1
	0	C	17	19	Q	℄	Q	43	C	60	60
	172.7	171.7	171.1	171.2	171.2	170.7	170.2	170.1	169.3	168.1	
3+50	5.2	6.2	6.2	6.7	6.7	7.2	7.2	7.4	7.8	8.6	9.8
	0	C	15	15	20	20	Q	℄	Q	C	60

JONQUIL

	LT				RT
4+00					
4+50					
5+00					
5+50					
P					
6+00					
6+50					
6+59.03					
6+75					
7+25					
7+50					
7+75					
7+83.46					

END

531

POINSETTIA

RT   LT

12.46   171.78   159.32

TP   4.62   163.44   12.96   158.82

158.6 157.2 156.6 155.3 155.2 155.3 155.3 154.7 153.5 152.2

0+00   48 62 68 81 8.2 8.2 81 8.7 9.9 11.2

0 C 19 19 Q ℄ 37 Q C 60

160.6 159.3 158.1 156.7 156.7 156.1 154.9 153.9 152.1

0+25   2.8 4.1 5.3 6.7 6.7 7.3 8.5 9.5 11.3

0 C 20 Q ℄ Q 42 C 60

161.0 159.3 158.3 156.8 156.8 156.6 155.7 153.6 152.3

0+50   2.4 4.1 5.1 66 6.6 6.8 7.7 98 11.1

0 C 20 20 Q ℄ Q C 60

161.0 159.4 158.4 156.8 156.8 156.5 155.8 154.8 154.3 153.2

1+00   24 4.0 50 66 6.6 6.9 76 8.6 9.1 10.2

6 C 19 19 Q ℄ Q 42 C 60

161.4 160.0 158.8 156.8 156.8 156.7 156.3 155.7 155.0 154.5 153.4

1+20   20 34 46 4.6 6.6 67 7.1 7.7 84 89 10.0

0 C 20 20 Q ℄ 37 Q 42 C 60

160.3 158.7 157.8 156.5 156.5 156.84 156.7 155.8 155.2 154.6 153.3

1+50   3.1 4.7 56 6.9 6.9 6.84 6.7 7.6 8.2 8.8 10.1

0 C 20 20 Q ℄ 35 Q 40 C 60

160.3 158.6 157.7 156.4 156.3 156.40 156.4 155.3 154.9 152.8

2+00   3.1 4.8 5.7 7.0 7.1 7.0 6.9 8.1 9.1 10.6

0 C 19 19 Q ℄ 36 Q C 60

162.3 169.1 158.2 157.8 157.8 157.8 156.8 156.2 154.9 153.0

2+50   1.1 33 52 56 56 56 66 7.2 85 10.4

0 C 19 Q ℄ 36 Q 40 C 60

TP   4.82   168.13   0.13   163.31

164.1 162.3 161.9 160.1 160.6 160.2 158.4 157.4 155.1

3+00.0 P.C   4.0 5.8 62 8.0 7.5 7.9 9.7 10.7 13.0

0 C 19 Q ℄ Q 43 C 60

165.8 164.8 164.1 162.1 162.4 162.1 160.7 159.9 157.1

3+25   23 33 40 60 5.7 60 74 8.2 11.0

0 C 20 Q ℄ Q 43 C 60

167.2 165.7 165.1 163.2 163.5 163.6 163.3 162.0 161.5 159.4

3+50   0.9 24 30 4.9 46 4.5 4.8 6.1 6.6 8.7

0 C 20 Q ℄ 37 Q 43 C 60

=HUB R LINE NARCISSUS AND N L ELLIOTT

RETURN PIPE

53, RT POINSETTIA LT

3+75 167.5 165.8 168.13 165.1 163.5 163.7 163.6 161.9 160.1
0.6 23 3.0 46 44 4.5 6.2 80
0 C Q 23 ℄ Q C 60

166.5 165.1 164.3 163.1 163.3 163.1 161.5 161.0 159.4
4+00 1.6 30 38 50 48 50 66 7.1 87
0 C Q Q ℄ Q 43 C 60

166.1 164.7 163.7 162.8 163.2 162.6 160.8 159.2
4+12.53 P.T. 2.0 34 44 53 49 55 73 89
0 C Q Q ℄ Q C 60

167.0 165.6 164.7 163.7 163.8 163.5 162.8 160.9
4+50 1.1 25 34 44 43 46 53 72
0 C Q Q ℄ Q C 60

168.9 167.6 166.9 165.6 165.9 165.8 164.5 163.7 161.4
4+87.53 P.C. 4.1 0.5 1.2 2.5 2.2 2.3 3.6 4.4 6.7
0 C Q Q ℄ Q 42 C 60

TP 5.00 172.98 0.15 167.98

169.3 168.0 167.1 166.2 166.4 166.0 165.0 164.0 162.0
5+00 3.7 5.0 5.9 6.8 6.6 7.0 8.0 9.0 11.0
0 C Q Q ℄ Q 41 C 60

170.1 168.7 167.8 166.7 167.2 166.6 165.2 163.1
5+25 29 43 52 63 58 64 78 9.9
0 C Q Q ℄ Q C 60

171.0 169.0 168.4 167.6 167.5 167.0 165.6 163.7
5+50 2.0 4.0 4.6 54 55 60 74 93
0 C Q Q ℄ Q C 60

171.5 170.5 169.9 168.9 169.0 168.6 167.1 166.5 165.9 164.1
5+75 1.5 2.5 3.1 4.1 4.0 4.4 5.9 6.5 7.1 8.9
0 C 17 17 Q ℄ Q 43 C 60

171.6 170.5 170.2 169.3 169.3 168.9 167.6 166.3 164.1
=P.T. 5+80.67 1.4 2.5 28 3.7 3.7 4.1 5.4 6.7 8.9
0 C 16 16 Q ℄ Q C 60

172.0 171.0 170.1 170.0 169.7 168.5 167.2 165.1
6+00 1.0 2.0 2.9 3.0 3.3 4.5 58 7.9
0 C C Q ℄ Q C 60

170.1 169.8 169.0 168.9 168.6 168.1 167.4 166.7 165.5
6+50 2.9 3.2 4.0 4.1 4.4 4.9 5.6 6.3 7.5
0 5 5 C Q ℄ Q C 60

—END BEGONIA—

POINSETTIA

	RT.								LT.
	162.3	163.4	172.98		165.0	165.4			166.4
7+00	10.7	9.6	9.1	8.4	8.0	7.6			6.6
	0	C	Q	℄	Q	C			60
	163.4	162.5	161.9	161.8	161.2	160.2	159.0		157.6
7+50	9.6	10.5	11.1	11.2	11.8	12.8	1.8		3.2
	0	C	C	Q	℄	Q	C		60
PP	160.40		160.78			12.60			160.38
	160.0	158.0	156.9	156.6	156.4	155.3	153.9		151.6
8+00	0.8	2.9	3.8	4.2	4.4	5.5	6.9		9.2
	0	C	15	Q	℄	Q	C		60
	156.6	152.6	154.7	153.7	153.7	153.5	152.0	150.8	149.0
8+25.21PC	4.2	6.2	6.1	7.1	7.1	7.3	8.8	10.0	11.8
	0	C	16	16	Q	℄	Q	C	60
	154.2	154.1	153.0	153.9	152.0	151.7	149.6	149.1	147.3
8+50	6.6	7.7	7.8	8.9	8.8	9.0	9.1	11.2	11.7	13.5
	0	C	16	16	Q	℄	33	Q	C	60
	154.1	153.0	152.8	151.4	151.3	150.9	150.7	149.1	147.9	146.3
8+70	6.7	7.8	8.0	9.4	9.5	9.9	10.1	11.7	12.9	11.8
	0	C	16	16	Q	℄	35	Q	C	60
PP	10.27		158.14			12.91			147.87
	152.2	151.6	151.3	150.4	150.3	150.1	149.7	148.3	148.1	146.9	145.6
8+90	5.2	6.5	6.8	7.7	7.8	8.0	8.4	9.8	10.0	11.2	12.5
	0	C	16	16	Q	℄	33	37	Q	C	60
	150.6	151.1	150.7	150.2	150.1	150.1	148.4	147.7		145.9	
9+00	5.5	7.0	7.4	7.9	8.0	℄	9.7	10.4		12.2	
	0	C	16	16	Q	8.0	Q	C	47.5	60	
	153.0	151.6	151.3	150.2	150.3	150.0	149.6	148.6		146.1	
P.T. 9+07.90	5.1	6.5	6.8	7.9	7.8	8.1	8.6	9.5	10.6	12.0	
	0	C	16	16	Q	℄	34	Q	C	60	
	154.4	152.5	152.3	151.4	151.4	151.6	150.0	149.0	147.3		
9+50	3.7	5.6	5.8	6.7	6.7	6.8	8.1	9.1	10.8		
	0	C	15	15	Q	℄	Q	C	60		
		156.1	154.6	153.2	153.1	153.3	151.5	151.4	150.6	149.6	
10+00		2.0	3.5	4.8	5.0	4.8	5.6	6.7	7.5	8.5	
		0	C	Q	℄	34	Q	42	C	60	

Reversed

3.71 16927

'531

PONNSETTIA

	RT						LT
	540		15814 16346		008		158.06
	158.6	158.3	158.3 157.5	156.8	155.5 154.4	153.5	150.7
10+40 ↑	4.9	5.2	5.2 6.0	6.7	8.1 9.1	10.0	12.8
	0	5	T C	Q	℄ Q	C	60
	159.8	159.5	158.3 157.5	156.8	155.4 154.4	153.5	150.7
10+40 ↓	3.7	4.0	5.2 6.0	6.7	8.1 9.1	10.0	11.3
	0	5	T 6	6.7	℄ Q	C	60
	160.5	159.0	158.0 157.3	157.5	155.2 153.6	09	150.2
10+50	3.0	4.5	5.5 6.2	7.0 ℄	8.3	09	11.3
	0	C	C 6.0	Q 6.5 ℄	Q 5.9	C	60
	162.8	160.9	160.6	160.5	159.5 159.8		150.3
11+00	0.7	1.6	2.9	3.0	4.0 4.7		6.2
	0	C	Q 162.6	℄ 162.5	Q 162.1 C 161.5		60
	162.3	162.4				20	160.5
END SKEW	1.2	1.1	0.9	1.0	1.4	C	3.0
11+44.99	0	C	Q	℄	Q		60
PP					3.00		160.46
		END PTSTIA.					
PP					12.39		151.07

11+30.64

160.46
5.31
155.15

N.W. PIPE END PTSTIA.

S 5.31 SKEW ST N.W. COR

LT (DAFFODIL) RT

1491 15598 15107
150.2 150.9 152.6 151.3 151.7 152.8 153.6 155.4
0+00 SKEW 58 5.1 3.4 3.7 43 3.7 2.4 0.6
0 C Q ℄ Q Q C 64

148.4 149.3 150.6 151.4 151.3 152.3 153.4 155.4
0+23.33 7.6 6.7 5.4 4.6 4.7 3.7 2.6 0.6
0 C Q ℄ Q Q C 60

146.3 147.5 148.4 148.9 148.9 149.5 150.7 153.4
0+50 9.7 8.5 7.6 7.1 7.1 6.5 5.3 2.6
0 C Q ℄ Q Q C 60

PP 5.74 149.65 12.07 143.91
141.3 143.0 144.5 145.4 145.8 146.5 147.6 149.6
1+00 8.4 6.7 5.2 4.3 3.9 3.7 2.0 0.1
0 C Q ℄ Q Q C 60

140.1 142.2 143.4 144.0 144.2 145.7 148.9
1+24.95 BISECTION 9.6 7.5 6.3 5.7 5.5 4.0 0.8 ← (1+38.50)
0 C Q ℄ Q C 60

143.7 143.7 144.7 146.2
1+24.95 ALONG W.L. LOTS
140.1 141.7 142.7
9.6 8.0 7.0 6.0 6.0 5.0 3.5
0 C Q ℄ Q C 60 ← 1+51.89

LT NIPOMA RT

202 165.33 163.31
1.85 155.05 12.13 153.20
0+00
150.1 149.3 148.7 148.4 147.8 147.5 146.6
5.0 5.8 6.4 6.7 7.3 7.6 8.5
0 C Q ℄ Q C 60

165.33
157.5 156.1 155.3 154.8 154.3 153.5 154.8 151.9
0+50 7.8 9.2 10.0 10.8 11.0 11.8 10.5 13.4
0 C Q Q ℄ Q C 60

160.9 161.0 160.8 161.0 160.6 160.2 159.2
SKEW 4.4 4.3 4.5 4.3 4.7 5.1 6.1
0 C Q ℄ Q C RL
LL

1C4(

ELLIOTT TO WIDE

	RT				LT
	0.24	15906			15882
)25 E.L.PST	1A				
	0.2	2.8	3.9 4.0 4.2	4.5 4.7	4.9
	0	7	C Q	Q C	70
E.L.PSTIA	0.5	2.5	3.3 3.7 4.2	4.8 5.1	7.1
	0	C	2222 Q	Q C	70
E.C.B.P.STIA	1.7	3.4	4.2 4.4 4.8	5.1 5.7	7.3
	0	14	C Q	Q C	70
E.Q PSTIA	3.8	4.6	5.1 5.5	5.4 6.0	8.1
	0	C	Q	Q C	70
E PSTIA	3.7	4.8	5.2 5.7	5.7 6.5	8.6
	0	C	Q	Q C	70
W.Q.PSTIA	4.9		5.6 6.2 6.8	7.0 7.6	8.9
	0	C	Q	Q C	70
W.C.PSTIA	5.5	6.3	6.7 7.2	7.7 8.1	9.2
	0	C	Q	Q C	70
W.L.PSTIA -	6.8	7.3	7.5 7.8	8.2 8.8	9.9
0+00	0	C	Q	Q C	70
	1496	1490	1489	1478 1472	1467 1461
0+50	108.	111	111	112 118	119 130
	0	C	Q	Q C	70
TP	3.89	150.22	127.73	146.33	
	1438	1434	1427	1433 1430	1425
1+00	64	64	65	69 72	77
	0	C	Q	Q C	70
	1414	1414	1412	1410 1405	1399
1+27.65	88	86	88	90 92	93 103
	0	C	Q	Q C	70

PLUMOSA

	LT						RT
	781	1303	73				1222.92
0+00	2.3	3.4		3.8		4.1	4.7
	0	C		Q		℄	Q
0+25	3.0	4.0		4.5	4.6	5.4	5.5
	0	C		Q	℄	Q	48
0+50	3.3	5.1		5.1	5.4	6.1	5.9
	0	C		Q	℄	Q	48
0+75	3.7	5.1		5.8	5.6	6.0	6.6
	0	C		Q	℄	Q	48
1+00	4.0	5.1		6.1	6.3	6.4	7.0
	0	C		Q	℄	Q	48
1+25	3.6	4.9	6.7	6.8	6.9	7.2	7.9
	0	3	15	C	Q	℄	Q
1+50	4.9	6.4	6.9	7.1	7.3	7.8	8.6
	0	15	15	C	Q	℄	Q
1+75	5.0	6.5	7.1	7.3	7.7	8.0	9.3
	0	C		Q	℄	Q	48
2+00	4.1	5.6	5.7	6.4	6.4	6.4	6.6
	0	C	20	20	Q	℄	Q
2+50.08 PCC	3.9	5.4	5.2	6.2	6.3	6.3	6.6
	0	C	20	20	Q	℄	Q

TP	1318		1363.7		754		1323.19
2+50	6.7	7.7	8.8	8.6	8.9	9.1	9.5
	0	C	22	22	Q	℄	Q
3+00	4.5	4.3	4.4	5.1	5.3	5.2	5.7
	0	C	21	21	Q	℄	Q

(right)

FND CURB FRONT OFFICE

11940

PLUMOSA

3.57

LT RT

3	133.5 133.1 132.0 132.0 131.6 131.6 136.37 131.6 131.5 130.5 129.2		
3+50		2.9 3.3 4.4 4.4 4.8 4.8 4.8 4.9 5.9 7.2	0 6 6 16 16 C Q ℄ 37 Q 48
4+00	133.0 133.0 131.6 131.7 131.9 131.7 130.4 129.2 128.3	3.4 3.4 4.8 4.7 4.5 4.7 6.0 7.2 8.1	0 8 8 C Q 28 ℄ Q 48
4+26.76 P.C.	133.0 132.1 151.1 131.2 131.6 131.6 130.4 129.6 128.8	3.4 4.3 5.3 5.2 4.8 4.8 6.0 6.8 7.6	0 12 12 C Q 28 ℄ Q 48
4+50	132.2 131.8 130.3 130.5 130.8 130.8 128.6 127.4 126.6	4.2 4.6 6.1 5.9 5.6 5.6 7.8 9.0 9.8	0 10 14 C Q 28 ℄ Q 48
4+75	133.2 132.2 130.6 131.0 130.8 129.8 129.2 127.5	3.2 4.2 5.6 5.4 5.6 6.6 7.2 8.9	0 14 14 C Q ℄ Q 48
5+00	131.2 130.2 130.3 130.0 128.9 127.3 127.1	5.2 6.2 6.1 6.4 7.5 9.1 9.3	0 C Q 30 ℄ Q 48
5+25	134.1 132.7 131.1 131.1 131.3 131.2 130.6 129.9 130.1 130.5	2.3 3.7 5.3 5.3 5.1 5.2 5.8 6.5 6.3 5.9	0 14 14 C Q 30 ℄ 30 Q 48
5+50	132.8 132.9 133.3 133.6 133.4 133.5	3.6 3.5 3.1 2.8 3.0 2.9	0 C Q ℄ Q 48
5+75	138.0 136.8 136.1 135.9 135.8 135.3 134.7	2.7 3.9 4.6 4.8 0.6 1.1 1.7	0 C C Q ℄ Q 48
TP	5.19	140.66	0.90 135.47
6+00	140.0 138.0 137.1 137.1 136.9 136.4 135.6	0.7 2.7 3.6 3.6 3.8 4.3 5.1	0 C 21 Q ℄ Q 48
6+25	139.4 138.8 138.5 137.9 137.8 137.4 137.0 135.2	1.3 1.9 2.2 2.8 2.9 3.3 3.7 4.5	0 C 21 21 Q ℄ Q 48

(352)

LT PLUMOSA RT

140.66
138.6 138.5 138.4 137.6 137.6 137.5 135.9 136.4
6+37.25 P.C. 2.1 2.2 2.3 3.1 3.1 3.2 38 43
0 C 20 20 Q ℄ Q 48

137.5 137.3 136.8 136.8 136.8 136.2 135.6
6+62.25 PC 3.2 34 39 39 39 43 5.1
C C Q ℄ Q 48

136.5 135.5 135.0 135.0 134.9 133.8 133.2
7+00 42 5.2 5.7 5.7 58 69 7.5
0 C C Q ℄ Q 48

133.0 132.8 132.4 132.7 132.2 131.6 130.8
7+50 7.7 79 8.3 8.0 85 9.1 9.9
0 C C Q ℄ Q 48

130.5 130.6 130.5 130.4 139.2 130.1
8+00 10.2 100 10.1 103 105 10.6
0 C Q ℄ Q 48

128.1 128.3 127.8 127.9 128.0 128.0 128.1 127.9
8+50 12.6 124 129 128 12.7 12.7 12.6 128
0 15 16 C Q ℄ Q 48

TP 0.29 129.29 11.66 129.00

125.6 125.4 125.4 125.3 125.3 125.0
9+00 3.7 3.9 3.9 4.0 4.0 43
0 C Q ℄ Q 48

123.2 123.3 123.2 122.7 122.8 123.8 123.4
9+50 6.1 60 6.1 6.6 6.5 5.5 59
0 C Q C ~~37~~ 37 48
℄

120.1 120.1 120.7 121.1 121.1 121.2 121.2 121.1
10+00 8.2 8.2 8.6 82 8.2 8.1 8.1 8.2
0 12 12 C Q ℄ Q 48

118.8 118.9 118.7 118.6 118.6 119.3 119.3 119.3
10+50 10.5 10.4 10.6 10.7 10.7 10.0 10.0 10.8
C Q ℄ 38 38 Q 48

119.8
INSIDE PIPE 9.5

122.4
OUTSIDE RETURN HYACINTH 6.9
122.6
PLUMOSA 6.7

AZALEA

	0.00			122.92							122.92								
0+00 SKEW					RET. HCT. 30														
	3.5	3.9		4.1	4.3	4.3		4.5	5.1	5.6	5.5	5.7	6.8						
	0	C		19	20	℄		℄	Q	42	42	C	60						
0+38.35																			
	3.5	4.1		4.3	4.4	4.6		5.3	5.7		5.5	5.7	6.6						
	6	C		Q	22	℄		Q	42		42	C	60						
0+50																			
	3.8	4.4		4.7	4.8	5.2		5.1	5.8	6.0	5.7	6.0	6.8						
	0	C		Q	℄	23		℄	Q	41	41	C	60						
1+00																			
	3.9	4.0	4.6	4.6	5.3	5.0		5.3	5.9	44	44	6	60						
	0	C	Q	℄	℄	℄		℄	Q	44	44	C	60						
1+50																			
	4.7	5.1	5.8	5.2	5.7	5.6		6.3	7.0		6.6	7.0	7.8						
	0	C	Q	26	26	℄		Q	44		44	C	60						
1+54.09 PC																			
	5.0	5.4		5.6	5.5	5.9		5.9	6.5	7.1	6.8	7.0	7.8						
	0	C		Q	26	26		℄	Q	44	44	C	60						
2+00																			
	8.0	8.2	8.7	8.3	8.8	8.5		8.7	9.1	8.8	8.9	9.6							
	2	C	Q	24	24	℄		Q	44	44	C	60							
2+50																			
	10.3	10.5	11.0	11.4	11.4	11.5		12.3	12.3	12.2	12.6	13.1							
	0	C	20	20	Q	℄		Q	40	40	C	60							
TP																			
	0.52			113.22				10.22			112.78								
3+00																			
	2.9	3.0	3.3	3.8	3.8	3.6		4.4	4.4	4.0	4.3	4.6							
	0	C	20	20	Q	℄		Q	40	40	C	60							
3+50																			
	4.1	4.1	4.5	4.9	5.0	4.7		5.3	5.4	5.1	5.3	6.1							
	0	C	20	20	Q	℄		Q	40	40	C	60							
4+00																			
	6.1	6.3	6.3	6.7	6.5	6.5		7.2	6.8		6.8	6.8							
	0	C	19	19	Q	℄		Q	Q		C	60							

35.35

87.14
1.50
69.64

11=9.1

RET AZALEA 3.8

AZALEA

	Lt								Rt		
4+50	7.9	8.3	8.5	8.7	8.7	8.7	9.1	8.8	8.8	9.0	9.2	
	0	C	17	17	Q	30	37	37	Q	C	60	
5+00	8.7	9.3	9.5	9.8	9.5	10.0	10.4	10.1				11.0
	0	C	15	15	Q		35	35	Q	C		60
5+33.97 Pt	9.1	9.5	9.6	10.0	9.6		9.8	10.2	10.0	10.1	10.2	11.0
	0	C	16	16	Q			35	35	Q	C	60
TP												
5+50	1.4	1.6	1.6	2.0	1.7	2.0	2.4	2.0	2.2	2.3	2.0	
	0	C	16	16	Q		35	35	Q	C	60	
6+00	2.7	3.2	3.4	3.6	3.4	3.7	4.4	4.6	4.3	4.4	4.6	3.4
	0	C	16	16	Q		Q	42	42	C	60	60
6+50	4.3	4.6		5.1			5.3	5.0	5.6	5.3	5.7	
	0	C		Q			37	37	Q	C	60	
6+70	6.6	7.6		7.9			7.0		6.7		6.3	
	0	C		Q			Q		C		60	
6+90	10.8	13.2		14.2		13.5	12.3		11.5		10.1	
	0	C		Q			Q		C		60	
TP	1.48			93.87			12.58		92.39			
7+00	0.0		3.1	4.0		4.6	3.9	3.3		1.5		
	0	C		Q			Q	C		60		
7+25	2.6		5.4	6.9		8.1	8.4		8.1		7.0	
	0	C		Q			Q		C		60	
7+50	7.9		9.8	10.9		11.5	12.3		12.4		10.5	
	0	C		Q			Q		C		60	

+71 6+90

Lt P.T. Pipe

AZALEA

	LT	93.87		TCT		
TP	1.84	86.30	9.41	84.46	PIPE	NW
7+82.87 RT	3.0	7.6	8.6	7.3		
	0	Q	Q	6.0		
SKEW.	1.9	6.3	9.1	8.1		
IND	0	Q	Q	5.1		
7+95.35 LT						

WISTERIA

50' WIDE

X SECTED 10' WALKS - 75' QUARTERS

LT LINE P.T. AZALEA

	LT 0					RT 50				PIPE
	0.58	10.47.1				10.41.3				10.0.4
SICE W	54	55	53	56	53	50	51	54	49	48	47
	0	C	14	14	Q	℄	Q	39	39	C	50
0+45.45	54	55	55	59	55	52	55	58	53	51	57
	0	C	13	13	Q	℄	Q	38	38	C	50
0+50	56	56	56	60	55	54	56	59	53	53	53
	0	C	13	13	Q	℄	Q	37	37	C	50
1+00	70	69	68	73	66	65	64	67	60	61	61
	0	C	13	13	Q	℄	Q	37	37	C	50
1+50	86	79	80	84	79	76	79	82	76	76	77
	0	C	13	13	Q	℄	Q	37	37	C	50
2+00		10.5		10.0	94	91	92	93	87	87	88
		0		C	Q	℄	Q	36	36	C	50
2+20	129	114		112	103	99	95	96	98	93	91	98
	0	C		12	14	Q	℄	Q	37	37	C	50
2+44.62	126	113		108		105	99	102	104	98	97	103
	0	C		13		Q	℄	Q	37	37	C	50
RT ANGLES												
3+09.55	114	113		112	116	113	110	113	113	115	112	114	117	112	111
	0	C		11	11	Q	21	℄	Q	35	35	C	AC	AC	50

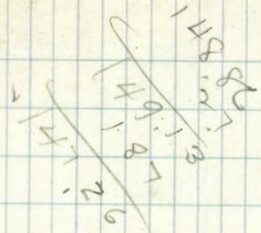
	1.45	150.31		148.86
			5.85	144.46
			7.23	143.08
	~~1.14~~	150.00		14886
	0.95			148.86
		149.81		
	2.27		10.25	139.56
		141.83		
			7.20	134.63
	3.90			148.86
		152.76		
TP	0.27		7.45	145.31
		145.58		
			4.68	140.90
TP	9.95	153.66	1.87	143.71
445a	C		9.1	144.6
			9.9	143.8
	C		6.0	147.6
			6.9	146.8
	C		4.6	149.1
			5.7	148.0
	C		2.8	150.9
			3.3	150.4

CLOVE

CURTISS
DUMAS
} CHTSWT.

=14120

=147.27

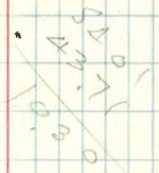


		153.66			
	C		1.5	152.2	
			2.2	151.5	
TP	11.16		0.15	153.51	
		164.67			
BM			10.66	154.01	= 159.32
	C		9.1	155.6	
	2 HUB RE NAIL		11.0	153.7	
	C		4.5	160.2	
			4.8	159.9	
	C		3.6	161.1	
			3.6	161.1	
	C		3.3	161.4	
			3.2	161.5	
	C		3.6	161.1	
			4.0	160.7	
	C		4.6	160.1	
			4.9	159.8	
	RL. JON		6.3	158.4	
	LL		8.0	156.7	
	0.78	157.45	8.00	156.67	
	C END		6.3	151.2	
			5.1	152.3	
			3.98	153.47	= 158.82

NARCISSUS

531

535



154.01
1.48
155.49
1.76
153.73

PLUMOSA PARK

SEWER IN ALLEY BLOCK ~~X~~ C

BEGIN ℄ ALLEY AND LT LINE AZALEA

(1)	17.0			119.40
		121.10		
	4.48		3.71	111.39
		115.87		
0+00			3.8	112.1
+50			2.4	113.5
+68			1.4	114.5
+74			2.0	113.9
+83			1.1	114.8
+91±	ATC.		0.6	115.3
1			1.0	114.9
+50			3.4	112.5
℄ 75			4.4	111.5
2			4.3	111.6
+50			5.3	110.6
3			7.0	108.7
+50			8.5	107.4
4			9.7	106.2
+50			10.7	105.2
+91±	ALT.		11.8	104.1
5			12.2	103.7
+50			13.1	102.8
TP	3.97		12.04	103.83
		107.80		

SEWERS

12.29
3.52
119.40

107.80

5+69	6.0	101.80
6	5.9	101.9
+13	6.6	101.2
+33± IND	5.8	102.0

ALLEY

1+16.33 3°08' Rt

0+00 = ℄ ALLEY AND Rt. LINE NARCISSUS

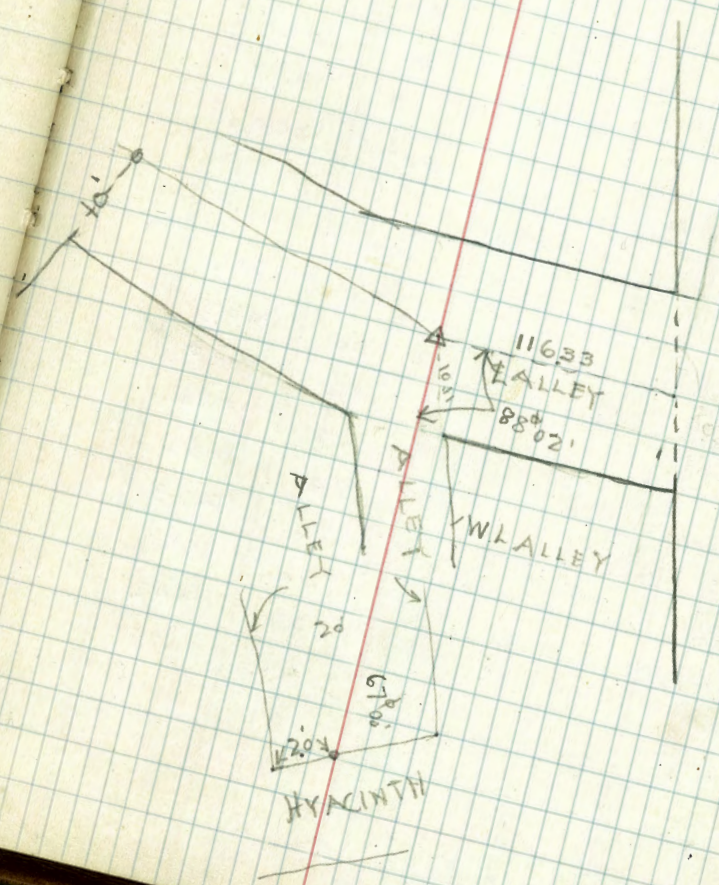
=1+16.33 E+W. ALLEY = 3°08' Rt.

7+85.90

5+05 41°49' Lt.

3+33.0 42°30' Lt.

.00



(2)

SEWER IN ALLEY BLK ~~13~~ M)

	5.71	12511		11940
	12.08		0.02	12509
		137.17		
0	=LT LINE HYCT)(		7.8	1294
+12			7.3	1293
+50			4.5	1327
+60			3.8	1332
+68			4.0	1337
+73			3.1	1341
1			1.7	1355
TP	11.00		0.27	13690
		14790		
+50			10.4	1375
+72			9.3	1386
2			7.2	1407
+50			4.6	1433
3			2.9	1450
+33	ΔLT		2.4	1455
+50			2.6	1453
+75			3.0	1449
4			3.7	1442
+27			4.7	1432
+50			6.1	1418
5			7.5	1404
+05	ΔLT HOLE		8.3	1396

(2)

		147.90		
5+17			89	139.0
+39			92	138.7
+50			72	140.7
+70			60	141.9
6			-8.8	139.1
+16			10.9	137.0
+33			11.1	136.8
+50			12.1	135.8
+87			6.0	141.9
7+00			5.2	142.7
+20			5.0	142.9
+50			3.9	144.0
+85.90			1.3	146.6
JP			2.12	145.78

F+W ALLEY BLIC. ~~IBM~~ M)

(3)

	6.45				
		152.23			
0			0.8	151.4	= PT LINE NARCISSUS
+50			3.2	149.0	
+80			4.4	147.8	
1			4.3	147.9	
+1633	= 7+85.90		5.7	146.5	
+50			7.6	144.6	
2			11.1	141.1	
+18			12.4	139.8	

(3)		152.23		
2+50			12.6	139.6
P	4.50		12.84	138.39
		142.89		
2+75			4.2	138.7
3			5.3	137.6
+50			5.8	137.1
4			6.8	136.1
+50			7.2	135.7
+65			7.7	135.2
+70			9.5	133.4
5			10.5	132.4
+037	F.		10.7	132.2
SOUTH	E+W ALLEY BLOCK N2 L			
(4)	9.86	163.87		154.01
0+00	=℄ ALLEY AND PT LINE JONQUIL			
			0.8	163.1
+50			3.5	160.4
1			5.0	158.9
+37.93	=℄ S.F+W ALLEY		6.7	157.2
+50	WITH ℄ N+S "		6.9	157.0
2			8.5	155.4
+50			10.6	153.3
+74.44	=℄ ALLEY + LT LINE		11.4	152.5
	NARCISSUS			

=N.E COR NARC. + ELLT.

N+S. ALLEY BLOCK 12

(5)

16387

0+00 = ℄ S.E+W. ALLEY AND		(1+37.93)	157.2
0+50	℄ N+S. ALLEY	78	156.1
1		91	154.8
+37		84	155.5
+50		93	154.6
2		98	154.1
+50		101	153.8
3		107	153.2
+50 ≅	℄ N.E+W. ALLEY	14.0	152.9
	STA 1+20±		

(6)

N-E+W ALLEY BLK 12 L

0+00 = ℄ N.E+W. ALLEY + R+L		44	159.5
	VANQUIL		
+11		56	158.3
+50		76	156.3
1		99	154.0
1+20±			152.9
+50		120	151.9
PP	6.20	158.02	151.82
2		79	150.1
+50		92	148.8
+60±	℄ N.E+W. ALLEY	95	148.5
	AND LT LINE NARCISSUS		

WING ST

	7.82			119.40
		127.22		
P.T. 00			1.0	126.2
CB (10.5)			0.7	126.5 .75
LT L. PLUMOSA			2.3	124.9
CB (10)				
0+50			4.2	123.0
GUT.	10.5		4.6	122.6
1+00			6.8	120.4
CB.	10.5		6.9	120.3
GUT			7.6	119.6
1+50			9.5	117.5
GUT	19.		10.2	117.0
2+00			13.4	113.8
GUT	35.		12.8	114.2
114 PCT. END CORR AS IS				
	3.5	117.3		113.8
2+00			3.5	113.8
17TC			3.2	114.1
2+50			7.5	109.8
20TC			6.5	110.8
3CR			6.5	110.8
5CR	GUT		6.0	111.3
WING RE	(2+77)		7.4	109.8

SEWERS PLUMOSA

	0.72			153.51	ELLIOTT RETURN PIPE RT & POINSETTIA
		15423			
			8.1	146.1	B.C. 80 RS } VILLA DRIVE
			7.8	1464	GRADE PLUG }
F+W. ALLEY BLOCK I (7)					
0+00 = ℄ ALLEY AND LT L. POINSETTIA			6.0	1482	
+50			11.3	1429	
PT	0.41	14200	12.64	141.59	
+75			12	140.8	
1+00			4.6	1374	
+22.34	℄S ALLEYS		6.5	135.5	
+29.84			7.7	1343	
WEST ALLEY S BLOCK J (9)					
0+00	℄ WALLEY AND S.L.T.	RACT	17.2	124.8	
+50			14.8	127.2	
1			10.0	132.0	
+12			8.7	133.3	
+3.	℄ W. ALLEY AND S.L. FLLT.		8.1	1339	
WEST ALLEY = BLOCK I (8)					
0+00	= ℄ WEST ALLEY AND N.L. ELLT.		6.7	1353	
+50			7.9	134.2	
1			8.6	1334	
+50			7.1	1349	
2			5.2	1368	
+50			5.8	136.2	

(8)		142.00		
2+62			61	135.9
3			46	137.4
+50			35	138.5
+39.90	= VALLEY AND SL NIPOMA 10.58		14	140.6
PT			058	141.42
(10)	BLK. H.	152.00		
0+00	VALLEY AND N.L. NIPOMA		80	144.0
+50			42	147.8
1			1.9	150.1
+50			1.5	150.5
2			2.7	149.3
+50			72	144.8
+70			85	143.5
+95			134	138.6
TP	4.04		12.77	139.23
		143.27		
3			53	138.0
+50			98	133.5
4			129	130.4
+40			148	128.5
+50			14.8	128.5
5			14.8	128.5
+50			13.2	130.1
+85			115	131.8
6			96	133.7
+00.46	VALLEY + S.L. AMARYLLIS		90	134.3

SEWERS PLUMOSA

N.+S. SEWER	℄ ALLEY BLK E			
(11)	141	16481		16340
0+00	℄ N+S ALLEY + N.L. LOTUS		4.8	1600
+50.			6.3	158.5
1+00			7.3	157.5
1+22±	℄ S ALLEYS		7.4	1574
	= 0+00 E+W ALLEY			
1+50			7.3	157.5
2			7.3	157.5
+42±	℄ N+S ALLEY		8.1	1567
(12)	AND S.L. DEMARYLLIS		BLK E	
0+00	℄ S N+S ALLEY AND E+W ALLEY		7.4	1574
0+50			8.7	156.1
+90			9.6	1552
1			9.0	1558
+17			8.2	1566
+50			8.6	1562
2			9.4	1554
+50			9.3	1555
3			9.6	1552
TP	041	155.42	9.80	155.01
3+44±	LT		1.8	1536
50			1.8	1536
4			2.9	1525
+50			4.5	1509

(12)

		15542		
5+00			6.0	1494
+50			80	1474
+58+	℄ LT		84	1470
6			9.0	1464
+50			110	1444
7			129	1425
+03+	= ℄ ALLEY (E+W) AND S.L. AMARYLLIS		132	1422

ALLEYS IN BLK "D"

(13)

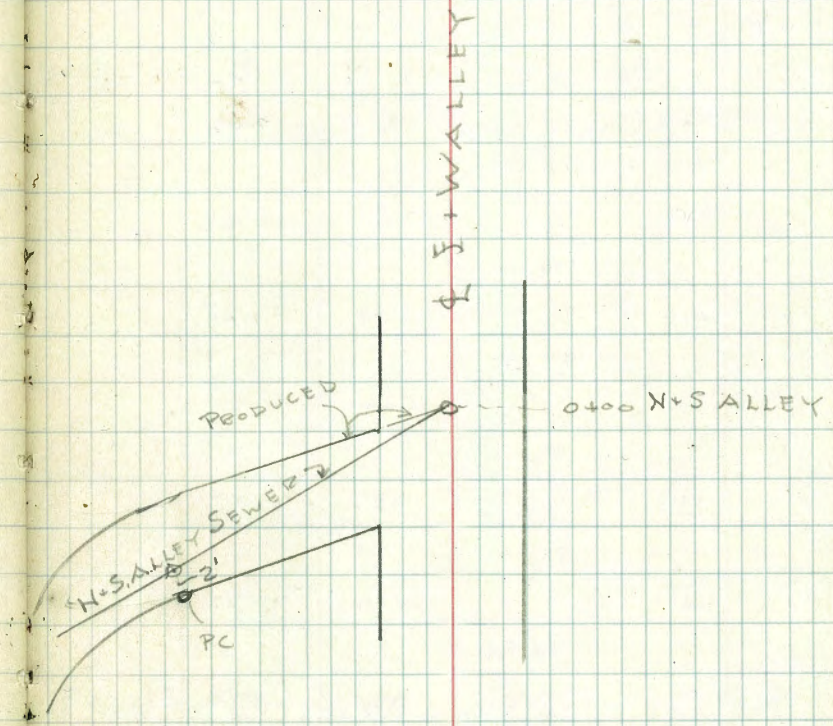
	109	135.59		134.50
0+00	E+WALLEY = ℄ ALLEY AND PT LINE AMARYLLIS.		1.1	134.5
+50			3.4	132.2
1			5.8	129.6
+40	= 0+00 N+S ALLEY		7.5	128.1
+50			8.0	127.6
2			10.0	125.6
+50			12.4	123.2
+71	= ℄ E+W. ALLEY AND LT HYACINTH		13.5	122.1

(14) BLK D

N+S ALLEY IN BLK "D"

0+50	= ℄ E+WALLEY	8.5	127.1
1		8.5	127.1

CON.



(14)

		135.59			
1+50			9.4	126.2	
2			11.2	124.4	
+40 = N.L TRACT			12.5	123.1	
			11.5		

LEVELS ALONG CNTSWTH TO SEWER MH's NEAR BURNHAM HOUSE

	1.57			119.40	= ELEV. IRON CURB AT PLUMOSA ~~PAE~~ POST OFFICE
TP		120.97			
TP	1.22		12.51	108.46	
		109.68			
TP	0.10		12.43	97.25	
		97.15			
TP	1.75		11.44	85.71	
		87.26			
TP	2.23		9.39	77.87	
		80.10			
TP	4.11		9.77	70.33	
		74.44			
			9.70	64.74	FLOW ELEV. MH AT CNTSWTH AND ALLEY TO WEST

22	FINAL SERVES			
	7.58			155.15
"B" LINE		162.73		
B 0+00			5.4	157.3
B 0+50			5.4	157.3
B 0+85			5.5	157.2
=A 1+00				
A LINE				
A 0+00			3.5	159.2
A +50			4.8	157.9
A 1+00	ΔR		5.5	157.2
+50			6.6	156.1
+90			7.6	155.1
2			7.0	155.7
+20			6.1	156.6
+50			6.7	156.0
3			7.4	155.3
+50			7.4	155.3
4+00			7.7	155.0
+20	ΔL		8.2	154.5
TP	1.07 HUB A+20		8.18	154.55
		155.62		
+50			1.9	153.7
5			3.1	152.5
+50			4.7	150.9
6			6.4	149.2
+50			8.2	147.4

K+57.96 ΔLT

A LINE		15562			
6+57.40 =1+25.00 C LINE	ΔLT C		8.6	1470	CONT
0+00			12.8	1428	
+50			10.7	1449	
1			9.0	1466	
1+25	C		8.6	1470	
=6+57.40	A				
A LINE					
7+00			10.6	1450	RESUME "A"
+50			13.2	1424	
PI	059		12.86	142.76	
		14335			
8+00			5.0	1384	
8+30			7.2	136.2	
+50			8.3	135.1	
8+61.00	ΔLT		9.0	1344	
9			10.9	1325	
+50			13.1	130.3	
	031	13098	12.68	130.67	
10			3.0	12800	
10+0184	POT		30	1280	CONT.
7+00 D			2.77	~~128.2+~~	

6+57.96
63 69
7+21.65
ALONG LOT → 15545
LINE
8+77.10
18264
10.5974
16016

EQUATION 12+19.90
= 11+62.00

=1+45 € DIFF

LINE D		13098			
0+00			6.8	124.2	
+50			5.1	125.9	
1+00			4.2	126.8	
+50			4.2	126.8	
2+00			3.0	128.0	
10+00 184	P.O.T.A				
LINE A					
10+50			5.3	125.7	RESURGE "X"
11			7.5	123.5	
+20			8.0	123.0	
+50			10.5	120.5	
11+6200	ARC		11.4	119.6	
12			8.4	122.6	
+50			4.9	126.1	
+70			4.0	127.0	
13			3.5	127.6	
+2634	ALT		2.8	128.2	
PP HUB	1.56	129.77	2.77	128.21	
+50			1.0	128.8	
14			1.3	128.5	
+50			3.1	126.7	
15			5.3	124.5	
+50			6.8	123.0	
16			8.5	121.3	
+50			10.8	119.0	

LINE A		129.77		
17+00			13.0	116.8
TP	4.02		13.12	116.65
		120.67		
17+48.50	POT		.55	115.2
+50			5.6	115.1
18			6.3	114.4
+15			6.1	114.6
+50			6.7	114.0
19			5.4	115.3
+08.30			5.0	115.7
			1.43	119.24
			10.73	109.94
A LINE		121.71	1	
17+50			6.4	115.3
18			7.3	114.4
+50			8.0	113.7
19			7.2	114.5
+15			6.9	114.8
+50			6.7	115.0
+62.08			7.2	114.5
			2.34	119.37

E LINE

	9.60	163.61		154.01
0+00			22	161.4
+50			43	159.3
1+00			63	157.3
+50			7.5	156.1
2			93	154.3
+50			113	152.3
+55			122	151.4
+75			122	151.4
3			129	150.7
TP	067		13.00	150.61
		151.28		
+50			29	148.4
+85			44	146.9
4			42	147.1
+43.50	ΔR		68	144.5
+50			73	144.0
5			108	140.5
+23			125	138.8
+50			128	138.5
6			134	137.9
TP	049		12.13	139.15
		139.64		
+50			24	137.2
7			35	136.1
+50			40	135.6

=HUB TO L NARCISSUS + N.L ELLIOTT

F LINE		139.64			
7+70			44	1352	
+77			62	1334	
8			71	1325	
+1275	ΔL		77	1319	
+50			109	1287	CONT.
LINE F					
6+00			65	1331	
+18			60	1336	
+50			70	1326	
1+00	ΔLT		83	1313	
+50			140	1256	
+57			161	1235	
+69			163	1233	
+75			143	1253	
2			123	1273	
+18			132	1264	
+50			121	1275	
2+66			114	1282	
3			115	1281	
+50			116	1280	
+75			117	1279	
4			132	1264	
TP	1.85	129.16	12.33	127.31	
+50			76	1216	
5			93	1199	

		129.16		
5+35.00	END F		10.1	119.1
=E 9+61.50	E			
E 9+00			4.5	124.7
9+12			5.1	124.1
+23			7.3	121.9
9+50			9.1	120.1
+61.50	ΔR		10.1	119.1
10			8.4	120.8
+50			7.5	121.7
11			6.8	122.4
+03	EDGE PAVE.		7.6	121.6
~~+~~41.20 E	SEWER		7.9	121.3
END "E"				
	4.60	131.91		127.31
LINE G				
0+00			1.6	130.3
+50			4.2	127.7
1			5.8	126.1
+50			8.7	123.2
2			11.0	120.9
+50			12.9	119.0
TP	2.84	121.71	13.04	118.87
3			5.2	116.5
+30	G		6.4	115.3
=17+48.50	A			

I LINE					
	12.66			154.01	
-		166.67			
0+00			1.6	165.1	
+50			1.8	164.9	
1			1.7	165.0	
+50			1.5	165.2	
+75			0.7	166.0	
2			0.6	166.1	
+50			0.9	165.8	
+80			3.1	163.6	
3			3.5	163.2	
3+20.70	I ΔR		3.9	162.8	CONT.
=2+400	J END				
LINE J					
0+00			6.3	160.4	
+32			6.2	160.5	
+50			5.3	161.4	
1			4.8	161.9	
+50			3.7	163.0	
+80			3.4	163.3	
2			4.6	162.1	
+40			3.9	162.8	
RESUME I LINE					
I 3+30			4.2	162.5	
+50			6.9	159.8	
+60			8.2	158.5	
4			10.2	156.5	

"I" LINE					
		16667			
4+50			12.5	154.2	
"	093		12.92	153.75	
		15+68			
+75			1.8	152.9	
5			2.5	152.2	
+50			4.3	150.4	
6			5.7	149.0	
+33.25 ΔR			6.9	147.8	CONT.
=7+65.05 H END					
H LINE					
0+00			6.0	148.7	
+25			5.3	149.4	
+50			6.0	148.7	
+80			7.2	147.5	
1			6.2	148.5	
+20			5.3	149.4	
+50			5.7	149.0	
2			7.0	147.7	
+25			7.0	147.7	
+50			7.5	147.2	
+52			7.0	147.7	
+65.05 END			6.9	147.8	
RESUME I					
6+50			7.0	147.7	
+52			7.5	147.2	
+85			7.5	147.2	

LINE I		15468		
7+00			7.7	147.0
+20			8.0	146.7
+25			7.6	147.1
+50			7.5	147.2
8			6.8	147.9
+30			6.2	148.5
+50			6.5	147.9
+78			7.5	147.2
9			8.9	145.8
+2740	ΔTC		11.0	143.7
TP	0.21		10.91	143.77
		143.98		
+50			13	142.7
10			3.9	140.1
+05			3.0	141.0
+50			4.3	139.7
11			5.5	138.5
+20			6.2	137.8
+45			8.1	135.9
+50			9.5	134.5
12			11.4	132.6
TP	5.00		12.51	131.47
		136.47		
+50			6.7	129.8
12+7093	IAR END		8.0	128.5
13+2634	ASL			

K LINE

	5.90	169.30		163.40
0+00			72	162.1
+20			72	162.1
+50			47	1646
1			38	1655
+12			37	165.6
+16			45	1648
+30			43	1650
+50			50	1643
1+66.4	ΔL		70	1623
+80			67	1626
2			70	1623
+50			85	160.8
+73			93	160.0
	1.15	160.44	10.01	159.29
3			20	158.4
+50			26	1578
+75			24	1580
4			24	1580
+08			25	1579
+46.83	ΔR		50	1554
+50			53	155.1
5			80	1524
+36			93	151.1
+50			92	1512
6			90	1514

153.51

"K" LINE					-12.75
		160.44			
K 6+50			9.2	151.2	
7			9.1	151.3	
TP	6.61		9.02	151.42	
		158.03			
+22			6.6	151.4	
+50			8.2	149.8	
+8183 ΔTC=2+37.0"L"			10.4	147.6	
8			11.5	146.5	CONT.
"L" LINE					
			4.53	153.50	=153.51
			6.90	151.13	BOTTOM ELEV. FLUSH TANK LOMA PORTAL SEWER
0+00			2.5	155.5	
+50			4.4	153.6	
1			6.1	151.9	
+50			7.6	150.4	
# 90			8.7	149.3	
2+00			8.5	149.5	
+10			8.5	149.5	
+27				147.6	
TP	1.97	147.75	12.25	145.78	
K 8+50			4.4	143.4	RESUME K
9			8.3	139.5	
+4.98	END		12.9	134.9	

NEW "J" LINE

	11.60				16190
		17350			
0+00				2.1	1714
+30	Δ P			2.4	1711
+50				2.8	1707
+~~85~~				3.6	1699
1				5.8	1677
+50				10.6	1629
+73.10				10.9	1626
2				11.7	1618
+50				10.5	1630
3				10.9	1626
+45.00		: 3+20.76 I		10.7	1628

NEW A LINE

6+57	Δ B	2.1	149.10		14700
7+00				2.8	1463
+72	Δ PT			3.7	1454
+50				4.4	1447
8				6.7	1424
+50				9.9	1392
+775	Δ L			12.2	1369
9				13.3	1358
+ 22.50	Δ C			14.9	1342
8+61.00					

1428

(1+00) 11.68 17350

"S" LINE (AZALEA)

	0.06			11940	END Co 2B
		119.46			
0+00				52	114.3
Back Lot 2				121	107.8
↘ ↘	3			130	106.5
+50				57	114.3
1				73	112.2
Back Lot 1 (40)		SPun		160	103.5
+50				93	110.2
2				125	107.0
PT	0.33			12.61	106.85
		107.18			
+50				20	105.2
Back Lot #6				37	103.5
+60	ΔL			22	105.0
3				35	103.7
+50				54	101.8
4				71	100.1
+50				73	99.9
5				88	98.4
+28 ~~28~~ ΔR				101	97.1
+50				107	96.5
6				117	95.5
+50				125	94.7
PT	2.67	97.50		12.35	94.83

7:55 LT.

5 28
2+60
2.68

		9750			
7				4.4	93.1
+50				5.8	91.7
8				6.5	91.0
+05	END			6.5	91.0
"J" LINE					
	0.90	15340			15250
0				2.5	1509
+50				5.2	1482
1				8.0	1454
+~~23~~				9.3	144.1
+50				12.1	141.3
TP	4.77		12.06		141.34
	2+26	146.11			
+70				6.9	139.2
2				8.1	1380
+26	END			10.5	1356
	4.3				1545
		1588			
				4.7	154.1
				7.0	1518

8 05
5 +28.28
2.77

SECTIONS ON ELLIOTT ST 18' W PUBLIC AREA
0+00 = N.W.LY COR POINT LOMA VILLAS = 1090' E. OF E.L. POINSETTIA.
10.11 163.62 153.51 CORRECTED

	N.L				
0+00	10.5	153.1	12.9 1507 (11)	13.5 150.1 (18)	
+40	10.5	153.1	12.4 151.2 (5)	13.3 150.3 (18)	
+87.83	10.2	153.4	12.0 151.6 (11)	12.4 151.0 (18)	
1	8.9	154.7	10.3 153.3 (3)	12.1 151.5 (18)	
+50	8.6	155.0	10.2 153.4 (16)	10.8 152.8 (18)	
2	7.2	156.4		8.6 154.9 (18)	
+50	4.9	158.7	6.2 157.4 (8)	6.9 156.7 (18)	
3	1.9	161.7	3.8 159.8 (4)	5.2 158.4 (18)	
+20	2.0	161.6	3.0 160.6 (3)	3.7 159.9 (8)	4.1 159.5 (18)
+60	1.6	162.0	2.5 161.1 (7)	2.9 160.7 (14)	3.3 160.3 (18)
4	1.6	162.0	1.4 162.2 (4)	2.0 161.6 (6)	2.3 161.3 (18)
+50	2.1	161.5	2.5 161.1 (14)	3.0 (18)	160.6
5	3.3	160.3	3.3 160.3 (4)	3.6 160.0 (6)	3.6 160.0 4.2 159.4 (15) (18)
+40	5.6	158.0	5.4 158.2 (15)	6.0 (18)	157.6
+80	5.4	158.2	7.2 156.4 (9)	7.7 155.9 (18)	
PP	2.07	158.20	7.49	156.13	

	N.L	158.20								
6+20	3.7	154.5	3.8	154.4						
			18							
6+60	4.7	153.5	5.0	153.2	5.0	153.2				
			6		18					
7	5.9	152.3	5.9	152.3						
			18							
+40	7.1	151.1	6.8	151.4	6.6	151.6				
			8		18					
+70	7.7	150.5	7.4	150.8	7.3	150.9	7.8	149.3		
			5		16		18			
8	8.0	150.2	8.0	150.2	8.3	149.9				
			16		18					
+50	8.7	149.5	8.5	149.7	8.6	149.6	8.9	149.3		
			5		16		18			
9	9.3	148.9	9.0	149.2	9.3	148.9	9.3	148.9	9.6	148.7
			5		7		15			
+50	9.4	148.8	8.8	149.4	9.5	148.7	10.8	147.4		
			7		10		18			
10	10.0	148.2	9.5	148.7	10.3	147.9	10.8	147.4		
			4		15		18			
+50	11.1	147.1	11.5	146.7	11.4	146.8	12.0	146.2		
			8		16		18			
TP										
	0.03	148.01		10.22		147.98				
11										
	4.0	144.0	4.3	143.7	4.7	143.3				
			13		18					

		148.01				
11+44.50	7.8	140.2	79 3	140.1	83 7 1397	83 18 1397
	13.1	134.9				

12.0 END CURB 136.0 CNTWTH 0.80 CURB FACE

LEVELS ALONG PATH IN BLOCK

	2.00 LT	149.50		147.50 RT	
0+00	2.0	147.5		1.9	147.6
+5.	2.8	146.7		2.8	146.7
1+00	4.2	145.3		4.4	145.1
1+15	4.6	144.9		5.1	144.4
1+35	5.5	144.0		5.0	143.9
1+50	6.2	143.3		6.4	143.1
2+00	9.0	140.5		9.5	140.0
2+47.35				13.0	136.5
2+49.82	13.1	136.4			

6+50 - 2.000 147.40 149.40

OPP. PROP LINES

=STA 7+00 RT LINE NARCISSUS DRIVE (CORRECTED)
=RT LINE NARCISSUS DRIVE

N.W'LY LINE ALLEY

S.E.LY " "

} NW'LY LINE PLUMOSA DRIVE

(8) 7° 18' LT 53.46

89.00

(7) LT 8° 18'

120 46

(6) 38° 47' RT

90.07

(11) 155

148 To Creek

(10) 51° 50

85.20

(9) 31° 43' LT

AT 3+00 12° 08' RT

To FENCE 295 - 9° 45' RT

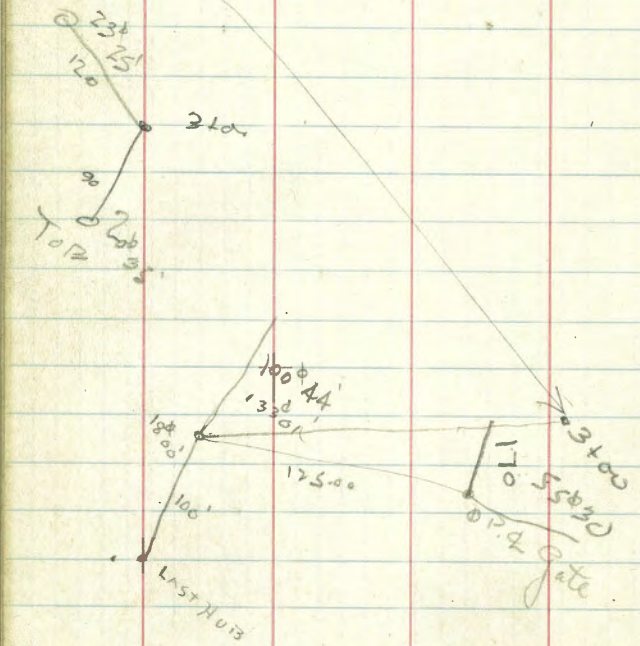
160 - 7 5° 00' LT 370 - 24° 15' RT

170 - 55° 15' LT 390 - 28° 35' RT

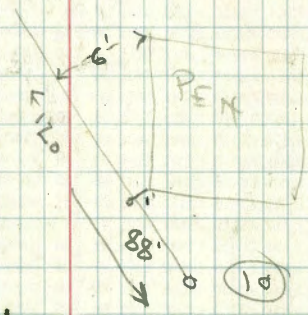
220 - 31° 45 LT 470 - 34° 50' RT

245 - 22° 55' LT 390 - 34° 30' RT (2)

245 14° 25 LT



LT 80 To 38 3' off 7



AT #

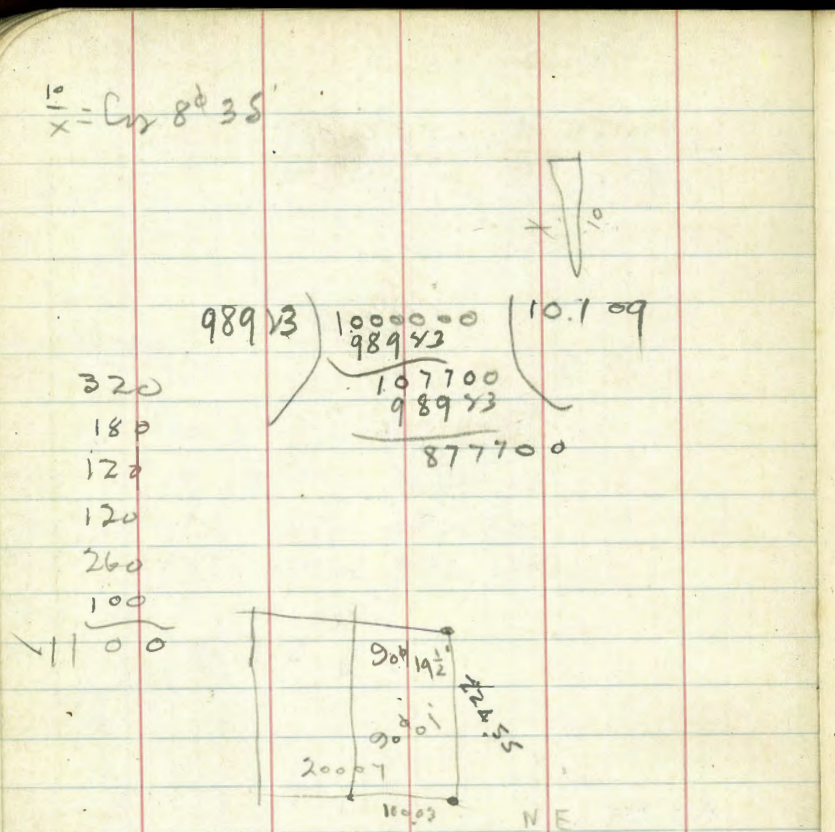
11 To T

25' To ℄ Road.

120 80° LT

110 16° LT = FECE LINE

114 58° 40' RT FENCE Cor 13' GATE



NATURAL TRIGONOMETRICAL RATIOS

Angle °	'	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.		Angle °	'	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
0		0	0	1.	∞	∞	1.	90	8		.1392	.1405	1.0098	7.185	7.115	.99027	82
	10	.0029	.0029		343.8	343.8	I.	50		10	.1421	.1435	1.0102	7.040	6.968	.98986	50
	20	.0058	.0058		171.9	171.9	.99998	40		20	.1449	.1465	1.0107	6.900	6.827	.98944	40
	30	.0087	.0087		114.6	114.6	.99996	30		30	.1478	.1495	1.0111	6.766	6.691	.98902	30
	40	.0116	.0116	1.0001	85.94	85.94	.99993	20		40	.1507	.1524	1.0115	6.636	6.561	.98858	20
	50	.0145	.0145	1.0001	68.76	68.75	.99989	10		50	.1536	.1554	1.0120	6.512	6.435	.98814	10
1		.0175	.0175	1.0002	57.30	57.29	.99985	89	9		.1564	.1584	1.0125	6.394	6.314	.98769	81
	10	.0204	.0204	1.0002	49.11	49.10	.99979	50		10	.1593	.1614	1.0129	6.277	6.197	.98723	50
	20	.0233	.0233	1.0003	42.98	42.96	.99973	40		20	.1622	.1644	1.0134	6.166	6.084	.98676	40
	30	.0262	.0262	1.0003	38.20	38.19	.99966	30		30	.1650	.1673	1.0139	6.059	5.976	.98629	30
	40	.0291	.0291	1.0004	34.38	34.37	.99958	20		40	.1679	.1703	1.0144	5.955	5.871	.98580	20
	50	.0320	.0320	1.0005	31.26	31.24	.99949	10		50	.1708	.1733	1.0149	5.855	5.769	.98531	10
2		.0349	.0349	1.0006	28.65	28.64	.99939	88	10		.1736	.1763	1.0154	5.759	5.671	.98481	80
	10	.0378	.0378	1.0007	26.45	26.43	.99929	50		10	.1765	.1793	1.0160	5.665	5.576	.98430	50
	20	.0407	.0407	1.0008	24.56	24.54	.99917	40		20	.1794	.1823	1.0165	5.575	5.485	.98378	40
	30	.0436	.0437	1.0010	22.93	22.90	.99905	30		30	.1822	.1853	1.0170	5.488	5.396	.98325	30
	40	.0465	.0466	1.0011	21.49	21.47	.99892	20		40	.1851	.1883	1.0176	5.403	5.309	.98272	20
	50	.0494	.0495	1.0012	20.23	20.21	.99878	10		50	.1880	.1914	1.0181	5.320	5.226	.98218	10
3		.0523	.0524	1.0014	19.11	19.08	.99863	87	11		.1908	.1944	1.0187	5.241	5.145	.98163	79
	10	.0552	.0553	1.0015	18.10	18.07	.99847	50		10	.1937	.1974	1.0193	5.164	5.066	.98107	50
	20	.0581	.0582	1.0017	17.20	17.17	.99831	40		20	.1965	.2004	1.0199	5.089	4.989	.98050	40
	30	.0610	.0612	1.0019	16.38	16.35	.99813	30		30	.1994	.2035	1.0205	5.016	4.915	.97992	30
	40	.0640	.0641	1.0020	15.64	15.60	.99795	20		40	.2022	.2065	1.0211	4.945	4.843	.97934	20
	50	.0669	.0670	1.0022	14.96	14.92	.99776	10		50	.2051	.2095	1.0217	4.877	4.773	.97875	10
4		.0698	.0699	1.0024	14.34	14.30	.99756	86	12		.2079	.2126	1.0223	4.810	4.705	.97815	78
	10	.0727	.0729	1.0027	13.76	13.73	.99736	50		10	.2108	.2156	1.0230	4.745	4.638	.97754	50
	20	.0756	.0758	1.0029	13.23	13.20	.99714	40		20	.2136	.2186	1.0236	4.682	4.574	.97692	40
	30	.0785	.0787	1.0031	12.75	12.71	.99692	30		30	.2164	.2217	1.0243	4.620	4.511	.97630	30
	40	.0814	.0816	1.0033	12.29	12.25	.99668	20		40	.2193	.2247	1.0249	4.560	4.449	.97566	20
	50	.0843	.0846	1.0036	11.87	11.83	.99644	10		50	.2221	.2278	1.0256	4.502	4.390	.97502	10
5		.0872	.0875	1.0038	11.47	11.43	.99619	85	13		.2250	.2309	1.0263	4.445	4.331	.97437	77
	10	.0901	.0904	1.0041	11.10	11.06	.99594	50		10	.2278	.2339	1.0270	4.390	4.275	.97371	50
	20	.0929	.0934	1.0043	10.76	10.71	.99567	40		20	.2306	.2370	1.0277	4.336	4.219	.97304	40
	30	.0958	.0963	1.0046	10.43	10.39	.99540	30		30	.2334	.2401	1.0284	4.284	4.165	.97237	30
	40	.0987	.0992	1.0049	10.13	10.08	.99511	20		40	.2363	.2432	1.0291	4.232	4.113	.97169	20
	50	.1016	.1022	1.0052	9.839	9.788	.99482	10		50	.2391	.2462	1.0299	4.182	4.061	.97100	10
6		.1045	.1051	1.0055	9.567	9.514	.99452	84	14		.2419	.2493	1.0306	4.133	4.011	.97030	76
	10	.1074	.1080	1.0058	9.309	9.255	.99421	50		10	.2447	.2524	1.0314	4.086	3.962	.96959	50
	20	.1103	.1110	1.0061	9.065	9.010	.99390	40		20	.2476	.2555	1.0321	4.039	3.914	.96887	40
	30	.1132	.1139	1.0065	8.834	8.777	.99357	30		30	.2504	.2586	1.0329	3.994	3.867	.96815	30
	40	.1161	.1169	1.0068	8.614	8.556	.99324	20		40	.2532	.2617	1.0337	3.949	3.821	.96742	20
	50	.1190	.1198	1.0072	8.405	8.345	.99290	10		50	.2560	.2648	1.0345	3.906	3.776	.96667	10
7		.1219	.1228	1.0075	8.206	8.144	.99255	83	15		.2588	.2679	1.0353	3.864	3.732	.96593	75
	10	.1248	.1257	1.0079	8.016	7.953	.99219	50		10	.2616	.2711	1.0361	3.822	3.689	.96517	50
	20	.1276	.1287	1.0082	7.834	7.770	.99182	40		20	.2644	.2742	1.0369	3.782	3.647	.96440	40
	30	.1305	.1317	1.0086	7.661	7.596	.99144	30		30	.2672	.2773	1.0377	3.742	3.606	.96363	30
	40	.1334	.1346	1.0090	7.496	7.429	.99106	20		40	.2700	.2805	1.0386	3.703	3.566	.96285	20
	50	.1363	.1376	1.0094	7.337	7.269	.99067	10		50	.2728	.2836	1.0394	3.665	3.526	.96206	10
								82									74
		Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.			Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

NATURAL TRIGONOMETRICAL RATIOS

Angle	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
16	.2756	.2867	1.0403	3.628	3.487	.96126	74
10	.2784	.2899	1.0412	3.592	3.450	.96046	50
20	.2812	.2931	1.0423	3.556	3.412	.95964	40
30	.2840	.2962	1.0429	3.521	3.376	.95882	30
40	.2868	.2994	1.0438	3.487	3.340	.95799	20
50	.2896	.3026	1.0448	3.453	3.305	.95715	10
17	.2924	.3057	1.0457	3.420	3.271	.95630	73
10	.2952	.3089	1.0466	3.388	3.237	.95545	50
20	.2979	.3121	1.0476	3 357	3.204	.95459	40
30	.3007	.3153	1.0485	3.326	3.172	.95372	30
40	.3035	.3185	1.0495	3.295	3.140	.95284	20
50	.3062	.3217	1.0505	3.265	3.108	.95195	10
18	.3090	.3249	1.0515	3.236	3.078	.95106	72
10	.3118	.3281	1.0525	3.207	3.048	.95015	50
20	.3145	.3314	1.0535	3.179	3.018	.94924	40
30	.3173	.3346	1.0545	3.152	2.989	.94832	30
40	.3201	.3378	1.0555	3.124	2.960	.94740	20
50	.3228	.3411	1.0566	3.098	2.932	.94646	10
19	.3256	.3443	1.0576	3.072	2.904	.94552	71
10	.3283	.3476	1 0587	3.046	2.877	.94457	50
20	.3311	.3508	1.0598	3.020	2.850	.94361	40
30	.3338	.3541	1.0608	2.996	2.824	.94264	30
40	.3365	.3574	1.0619	2.971	2.798	.94167	20
50	.3393	.3607	1.0631	2.947	2.773	.94068	10
20	.3420	.3640	1.0642	2.924	2.747	.93969	70
10	.3448	.3673	1.0653	2.900	2.723	.93869	50
20	.3475	.3706	1.0665	2.878	2.699	.93769	40
30	.3502	.3739	1.0676	2.856	2.675	.93667	30
40	.3529	.3772	1.0688	2.833	2.651	.93565	20
50	.3557	.3805	1.0700	2.811	2.628	.93462	10
21	.3584	.3839	1.0711	2.790	2.605	.93358	69
10	.3611	.3872	1.0723	2.769	2.583	.93253	50
20	.3638	.3906	1.0736	2.749	2.560	.93148	40
30	.3665	.3939	1.0748	2.729	2.539	.93042	30
40	.3692	.3973	1.0760	2.709	2.517	.92935	20
50	.3719	.4006	1.0773	2.689	2.496	.92827	10
22	.3746	.4040	1.0785	2.670	2.475	.92718	68
10	.3773	.4074	1.0798	2.650	2.455	.92609	50
20	.3800	.4108	1.0811	2.632	2.434	.92499	40
30	.3827	.4142	1.0824	2.613	2.414	.92388	30
40	.3854	.4176	1.0837	2.595	2.394	.92276	20
50	.3881	.4210	1.0850	2.577	2.375	.92164	10
23	.3907	.4245	1.0864	2.559	2.356	.92050	67
10	.3934	.4279	1.0877	2.542	2.337	.91936	50
20	.3961	.4314	1.0891	2.525	2.318	.91822	40
30	.3987	.4348	1.0904	2.508	2.300	.91706	30
40	.4014	.4383	1.0918	2.491	2.282	.91590	20
50	.4041	.4417	1.0932	2.475	2.264	.91472	10
							66
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

Angle	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
24	.4067	.4452	1.0946	2.459	2.246	.91355	66
10	.4094	.4487	1.0961	2.443	2.229	.91236	50
20	.4120	.4522	1.0975	2.427	2.211	.91116	40
30	.4147	.4557	1.0989	2.411	2.194	.90996	30
40	.4173	.4592	1.1004	2.396	2.177	.90875	20
50	.4200	.4628	1.1019	2.381	2.161	.90753	10
25	.4226	.4663	1.1034	2.366	2.145	.90631	65
10	.4253	.4699	1.1049	2.351	2.128	.90507	50
20	.4279	.4734	1.1064	2.337	2.112	.90383	40
30	.4305	.4770	1.1079	2.323	2.097	.90259	30
40	.4331	.4806	1.1095	2.309	2.081	.90133	20
50	.4358	.4841	1.1110	2.295	2.066	.90007	10
26	.4384	.4877	1.1126	2.281	2.050	.89879	64
10	.4410	.4913	1.1142	2.268	2.035	.89752	50
20	.4436	.4950	1.1158	2.254	2.020	.89623	40
30	.4462	.4986	1.1174	2.241	2.006	.89493	30
40	.4488	.5022	1.1190	2.228	1.991	.89363	20
50	.4514	.5059	1.1207	2.215	1.977	.89232	10
27	.4540	.5095	1.1223	2.203	1.963	.89101	63
10	.4566	.5132	1.1240	2.190	1.949	.88968	50
20	.4592	.5169	1.1257	2.178	1.935	.88835	40
30	.4617	.5206	1.1274	2.166	1.921	.88701	30
40	.4643	.5243	1.1291	2.154	1.907	.88566	20
50	.4669	.5280	1.1308	2.142	1.894	.88431	10
28	.4695	.5317	1.1326	2.130	1.881	.88295	62
10	.4720	.5354	1.1343	2.119	1.868	.88158	50
20	.4746	.5392	1.1361	2.107	1.855	.88020	40
30	.4772	.5430	1.1379	2.096	1.842	.87882	30
40	.4797	.5467	1.1397	2.085	1.829	.87743	20
50	.4823	.5505	1.1415	2.073	1.816	.87603	10
29	.4848	.5543	1.1434	2.063	1.804	.87462	61
10	.4874	.5581	1.1452	2.052	1.792	.87321	50
20	.4899	.5619	1.1471	2.041	1.780	.87178	40
30	.4924	.5658	1.1490	2.031	1.767	.87036	30
40	.4950	.5696	1.1509	2.020	1.756	.86892	20
50	.4975	.5735	1.1528	2.010	1.744	.86748	10
30	.5000	.5774	1.1547	2.	1.732	.86603	60
10	.5025	.5812	1.1566	1.990	1.720	.86457	50
20	.5050	.5851	1.1586	1.980	1.709	.86310	40
30	.5075	.5890	1.1606	1.970	1.698	.86163	30
40	.5100	.5930	1.1626	1.961	1.686	.86015	20
50	.5125	.5969	1.1646	1.951	1.675	.85866	10
31	.5150	.6009	1.1666	1.942	1.664	.85717	59
10	.5175	.6048	1.1687	1.932	1.653	.85567	50
20	.5200	.6088	1.1707	1.923	1.643	.85416	40
30	.5225	.6128	1.1728	1.914	1.632	.85264	30
40	.5250	.6168	1.1749	1.905	1.621	.85112	20
50	.5275	.6208	1.1770	1.896	1.611	.84959	10
							58
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

NATURAL TRIGONOMETRICAL RATIOS

Angle	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
32	.5299	.6249	1.1792	1.887	1.600	.84805	58
10	.5324	.6289	1.1813	1.878	1.590	.84650	50
20	.5348	.6330	1.1835	1.870	1.580	.84495	40
30	.5373	.6371	1.1857	1.861	1.570	.84339	30
40	.5398	.6412	1.1879	1.853	1.560	.84182	20
50	.5422	.6453	1.1901	1.844	1.550	.84025	10
33	.5446	.6494	1.1924	1.836	1.540	.83867	57
10	.5471	.6536	1.1946	1.828	1.530	.83708	50
20	.5495	.6577	1.1969	1.820	1.520	.83549	40
30	.5519	.6619	1.1992	1.812	1.511	.83389	30
40	.5544	.6661	1.2015	1.804	1.501	.83228	20
50	.5568	.6703	1.2039	1.796	1.492	.83066	10
34	.5592	.6745	1.2062	1.788	1.483	.82904	56
10	.5616	.6787	1.2086	1.781	1.473	.82741	50
20	.5640	.6830	1.2110	1.773	1.464	.82577	40
30	.5664	.6873	1.2134	1.766	1.455	.82413	30
40	.5688	.6916	1.2158	1.758	1.446	.82248	20
50	.5712	.6959	1.2183	1.751	1.437	.82082	10
35	.5736	.7002	1.2208	1.743	1.428	.81915	55
10	.5760	.7046	1.2233	1.736	1.419	.81748	50
20	.5783	.7089	1.2258	1.729	1.411	.81580	40
30	.5807	.7133	1.2283	1.722	1.402	.81412	30
40	.5831	.7177	1.2309	1.715	1.393	.81242	20
50	.5854	.7221	1.2335	1.708	1.385	.81072	10
36	.5878	.7265	1.2361	1.701	1.376	.80902	54
10	.5901	.7310	1.2387	1.695	1.368	.80730	50
20	.5925	.7355	1.2413	1.688	1.360	.80558	40
30	.5948	.7400	1.2440	1.681	1.351	.80386	30
40	.5972	.7445	1.2466	1.675	1.343	.80212	20
50	.5995	.7490	1.2494	1.668	1.335	.80038	10
37	.6018	.7536	1.2521	1.662	1.327	.79864	53
10	.6041	.7581	1.2549	1.655	1.319	.79688	50
20	.6065	.7627	1.2577	1.649	1.311	.79512	40
30	.6088	.7673	1.2605	1.643	1.303	.79335	30
40	.6111	.7720	1.2633	1.636	1.295	.79158	20
50	.6134	.7766	1.2661	1.630	1.288	.78980	10
38	.6157	.7813	1.2690	1.624	1.280	.78801	52
10	.6180	.7860	1.2719	1.618	1.272	.78622	50
20	.6202	.7907	1.2748	1.612	1.265	.78442	40
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

Angle	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′							
30	.6225	.7954	1.2778	1.606	1.257	.78261	30
40	.6248	.8002	1.2808	1.601	1.250	.78079	20
50	.6271	.8050	1.2838	1.595	1.242	.77897	10
39	.6293	.8098	1.2868	1.589	1.235	.77715	51
10	.6316	.8146	1.2898	1.583	1.228	.77531	50
20	.6338	.8195	1.2929	1.578	1.220	.77347	40
30	.6361	.8243	1.2959	1.572	1.213	.77162	30
40	.6383	.8292	1.2991	1.567	1.206	.76977	20
50	.6406	.8342	1.3022	1.561	1.199	.76791	10
40	.6428	.8391	1.3054	1.556	1.192	.76604	50
10	.6450	.8441	1.3086	1.550	1.185	.76417	50
20	.6472	.8491	1.3118	1.545	1.178	.76229	40
30	.6494	.8541	1.3151	1.540	1.171	.76041	30
40	.6517	.8591	1.3184	1.535	1.164	.75851	20
50	.6539	.8642	1.3217	1.529	1.157	.75661	10
41	.6561	.8693	1.3251	1.524	1.150	.75471	49
10	.6583	.8744	1.3284	1.519	1.144	.75280	50
20	.6604	.8796	1.3318	1.514	1.137	.75088	40
30	.6626	.8847	1.3352	1.509	1.130	.74896	30
40	.6648	.8899	1.3386	1.504	1.124	.74703	20
50	.6670	.8952	1.3421	1.499	1.117	.74509	10
42	.6691	.9004	1.3456	1.494	1.111	.74314	48
10	.6713	.9057	1.3492	1.490	1.004	.74120	50
20	.6734	.9110	1.3527	1.485	1.098	.73924	40
30	.6756	.9163	1.3563	1.480	1.091	.73728	30
40	.6777	.9217	1.3600	1.476	1.085	.73531	20
50	.6799	.9271	1.3636	1.471	1.079	.73333	10
43	.6820	.9325	1.3673	1.466	1.072	.73135	47
10	.6841	.9380	1.3711	1.462	1.066	.72937	50
20	.6862	.9435	1.3748	1.457	1.060	.72737	40
30	.6884	.9490	1 3786	1.453	1.054	.72537	30
40	.6905	.8545	1.3824	1.448	1.048	.72337	20
50	.6926	.9601	1.3863	1.444	1.042	.72136	10
44	.6947	.9657	1.3902	1.440	1.036	.71934	46
10	.6967	.9713	1.3941	1.435	1.030	.71732	50
20	.6988	.9770	1.3980	1.431	1.024	.71529	40
30	.7009	.9827	1.4020	1.427	1.018	.71325	30
40	.7030	.9884	1.4061	1.422	1.012	.71121	20
50	.7050	.9942	1.4101	1.418	1.006	.70916	10
	.7071	1.	1.414	1.414	1.	.70711	45
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.