

1966

HILLSBOROUGH COUNTY

K+Σ

LEVEL BOOK

82 0040

1
9
6
6

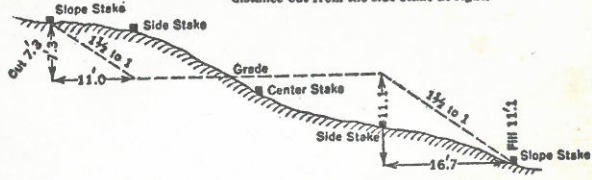
43

Ryan Mapall
 Jeff Cramer
 % Florida Geological
 Survey (F.B.C.)
 P.O. Drawer 631
 Tallahassee, Florida

Book # 2

Summer 1966

The paper in this book is made
 of 50% high grade rag stock with
 a WATER RESISTING surface sizing.

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING												
Roadway of any Width. Side Slopes 1 1/2 to 1.												
In the figure below: opposite 7 under "Cut or Fill" and under 3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.												
												
Cut or Fill	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	ft	in
Distance out from Side or Shoulder Stake												
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0	
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1	
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2	
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3	
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4	
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5	
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6	
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7	
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8	
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9	
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10	
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11	
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12	
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13	
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14	
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15	
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16	
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17	
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18	
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19	
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20	
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21	
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22	
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23	
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24	
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25	
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26	
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27	
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28	
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29	
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30	
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31	
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32	
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33	
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34	
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35	
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36	
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37	
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38	
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39	
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40	

0-6140 BS 14 FS ELEV. ✓

BM 134'

TP₁ 6.61 140.61 5.79 134.82

TP₂ 5.34 140.16 4.47 135.69 ✓

TP₃ 5.11 140.80 5.36 135.44 CONCRETE

17.06 5.83 134.97 GROUND ✓

15.62
1.44

15.62

JULY 11, 1966

BM-TOPO. RD. ELEV. 134'

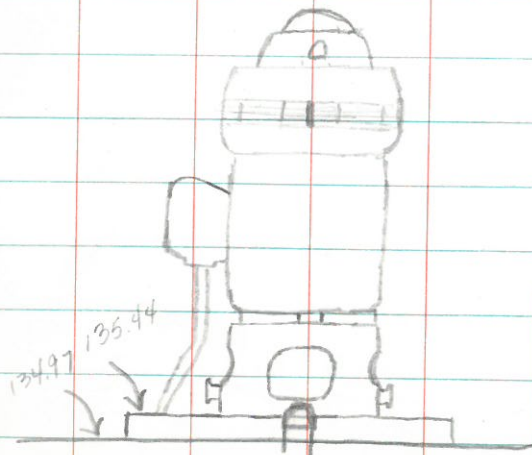
RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

SMITH-DOUGLAS CO., INC.

PARTLY CLOUDY MORNING



W-5957	B.S.	H.T.	F.S.	2460	✓
B.M.				116.09	
TP ₁	5.58	21.67	6.24	115.43	
TP ₂	2.78	118.21	8.92	109.29	
TP ₃	4.14	113.43	5.13	109.30	
TP ₄	5.40	113.70	3.60	110.10	
TP ₅	9.28	119.38	3.06	116.32	
TP ₆	6.62	122.94	5.95	116.99	correct
	<u>33.80</u>		<u>32.90</u>		

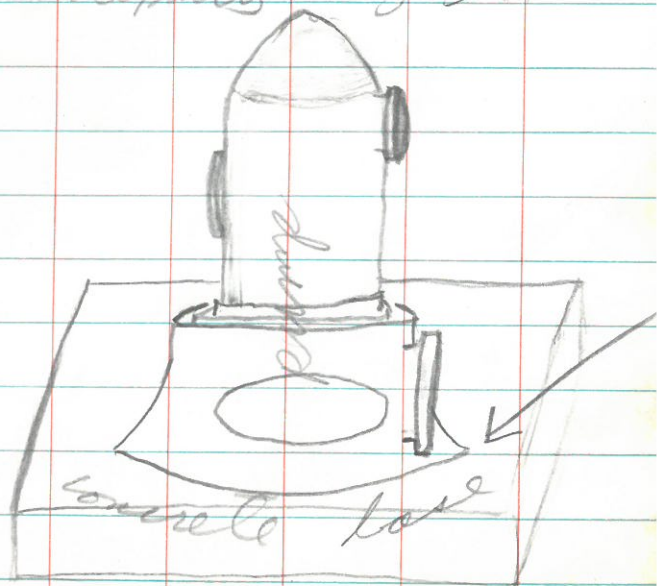
July 12, 1966
U.S. C + G.S. + F.S.G.S. B.M. E109 1942

Ryan - Level
Jeff - Rod

County - Hillsborough

Owner - B. H. Varn

Clear to partly cloudy & hot



W-7409 BS IH FS ELEV.

✓
ASSUM.

JULY 13, 1966

BM

60

BM - USC46S

0257 1965

TP₁ ^{3.3} 6.44 66.44 ^{3.3} 6.50 59.94

RYAN ROD

TP₂ 4.92 64.86 5.38 59.48

JEFF LEVEL

TP₃ 5.18 64.66 4.95 59.71

HILLSBOROUGH COUNTY

TP₄ 6.92 66.63 5.21 61.42

USGS OBSERVATION WELL

TP₅ 4.55 65.97 5.37 60.60

PARTLY CLOUDY MORN.

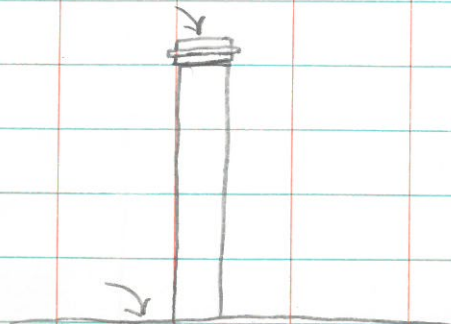
TP₆ 6.53 67.13 5.18 61.95

TP₇ 5.07 67.02 5.85 61.17

~~39.64~~
38.44
1.17

~~38.44~~
2.42

64.60



W-7410	BS	IH	FS	ELEV.	
BM				61.95	
TP	5.07	67.02	5.88	61.14	GROUND
			2.47	64.55	CASING
			81		

BM - W-7409 FROM USCGS

Q 257 1965

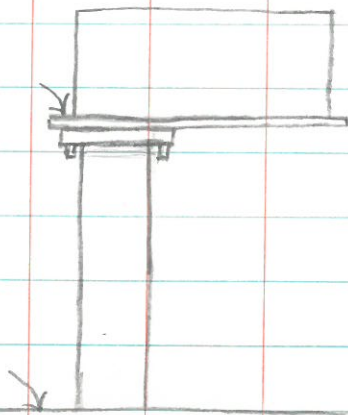
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

USGS OBSER. WELL

PARTLY CLOUDY MORN.



W-7416 B.S. H.I. F.S. FLEV.

July 13, 1966

B.M.

62.00'

U.S.G.S. BM TT6 JFS 1955

TP,

4.82

66.82

6.55

60.27

~~60.27~~
60.27

173

3.28

63.54

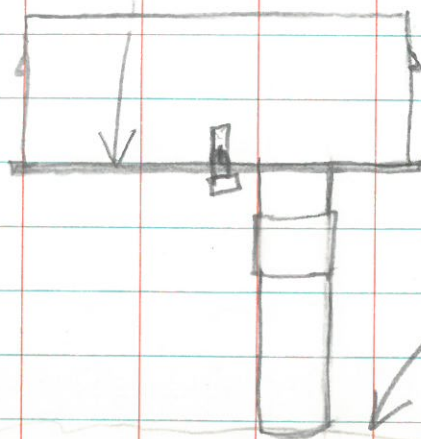
coring

Ryan - Level
Jeff Rod

County - Hillsborough

Owner - U.S. E.S.

Overhead & hot



W-5361 BS IH FS ELEV ASSUM.
10

BM

TP₁ 3.55 13.55 6.57 6.98

TP₂ 6.58 13.56 4.10 9.46

TP₃ 6.66 16.12 4.42 11.70

TP₄ 4.53 16.23 5.52 ~~10.71~~

TP₅ 21.32 20.61 10.71
71

JULY 13, 1966

BM - USC&GS 5257 1965

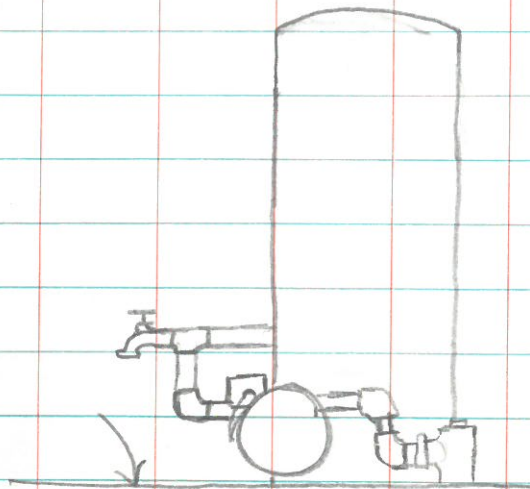
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

HILLS. CO. PARK DEPT.

PARTLY CLOUDY MORN.



W-5661 B.S. H.T. F.S. F.CED



July 13, 1966

B.M.

7.98

S.R.O B.M R.L. Spike in Palm Tree

TP₁ 5.56 13.54 5.19 8.35

6.91

TP₂ 5.31 13.66 5.30 8.36

Lyon - Level

TP₃ 4.90 13.26 4.90 8.36

Jeff - Rod

TP₄ 5.58 13.94 5.91 8.03

TP₅ 6.26 14.29 6.71 7.58

County - Hillsborough

TP₆ 5.30 12.88 5.62 7.26

Owner - General Telephone Company

TP₇ 4.78 12.04 6.13 5.91

Overcast + hot as h -

TP₈ 4.92 10.83 3.92 6.91

metal corner

TP₉ 42.61 43.68 43.68 6.33

ground

42.61
43.68
1.07

Well under ground

W-6980 BS IH FS ELEV. ✓

BM 43

TP₁ 3.80 46.80 6.50 40.30TP₂ 4.93 45.23 5.72 39.51TP₃ 4.24 43.75 5.65 38.10TP₄ 5.83 43.93 4.93 39.0018.8022.80

12.80

7.20

JULY 14, 1966

BM - TOPO RD ELEV. 43'

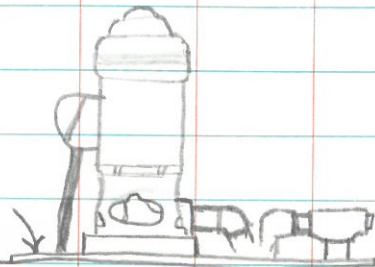
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

GOOD SAMARITAN HOSPITAL

FAIR + HOT MORNING

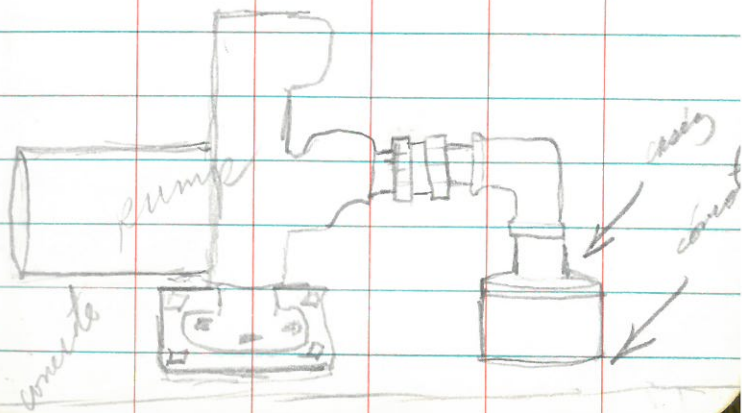


W-6511	B.S.	H.I.	F.S.	ELEV.	
B.M.				43.00'	
TP ₁	2.14	45.14	8.18	36.96	35.90 7.10
TP ₂	3.30	40.26	4.86	35.40	
TP ₃	5.46	40.86	5.98	34.88	
TP ₄	5.46	40.34	7.44	35.90	concrete
	16.36	23.46	28.46	4.78	35.56
		16.36	7.10		

July 14, 1966
Citrus Park Supermarket Rd Elev.

Gen. Sewer
Jeff. Rod

County - Hillsborough
Owner - Arthur M. Benchoff
Overcast & threatening



W-5266	BS	IH	FS	ELEV.	✓
BM				50.00	
TP ₁	^{6.4} 4.31	54.31	^{5.2} 6.26	47.45	^{46.20} 3.50
TP ₂	3.95	51.40	6.22	45.18	
TP ₃	4.29	49.47	5.64	43.83	
TP ₄	5.62	47.51	4.11	45.40	
TP ₅	6.60	52.00	5.88	^{46.12} 47.12	
TP ₆	3.86	50.98	5.50	45.42	
TP ₇	4.71	50.19	5.78	44.41	
TP ₈	4.99	49.40	4.81	44.59	
TP ₉	5.25	50.44	3.24	^{46.70} 47.20	
	<u>44.24</u>		<u>48.04</u>		
			^{54.24} 3.80		

JULY 14, 1966

PM USGS TT8 JFS 1955

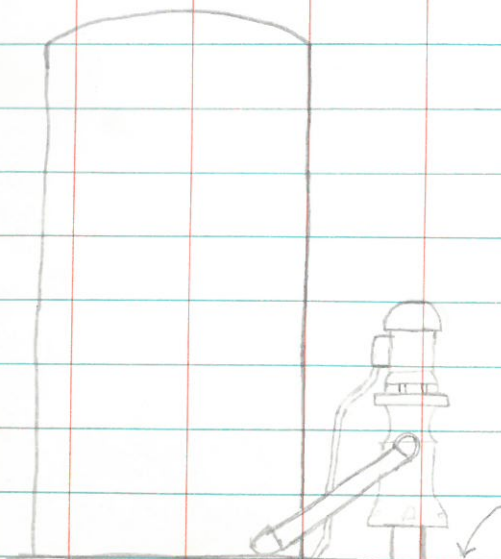
RYAN ROD

SCFF-LEVEL

HILLSBOROUGH CO.

CARROLWOOD UTILITIES

CLOUDY AFTERNOON



W-4886 B.S. H.T. F.S. ELEV. ✓

July 14, 1966

B.M. 40.30

3rd line W-6980

TP1 6.82 47.12 6.02 41.10

TP2 5.38 46.48 6.02 40.46

TP3 5.56 46.02 4.80 41.22

TP4 4.92 46.14 6.84 39.30

TP5 6.36 45.66 5.26 40.40 concrete

29.04

28.94

2.94

.10

Ryan - Level

Jeff - Rod

Windy - Kilishnigh

Dura - Well Curb & Rod System

Overcast.

concrete well

Pump Building

W-6604	BS	IH	FS	ELEV	
BM				27.99	
TP ₁	5.27 ^{4.2}	33.26	5.63 ^{3.3}	27.63	27.55 - .44
TP ₂	5.55	33.18	5.23	27.95	
TP ₃	4.80	32.75	4.57	28.18	
TP ₄	4.95	33.13	5.47	27.66	
TP ₅	5.12	32.78	6.97	25.81	
TP ₆	6.04	31.85	4.44	27.41	27.29
TP ₇	4.90	32.31	5.02	26.29	27.55
	3.80	30.09	3.54	26.55	CONCRETE
	40.43	40.57	40.57	17.36	
		40.49	3.73	26.56	CASING

JULY 14, 1966

BM - USC+GS X101 1942

27.992

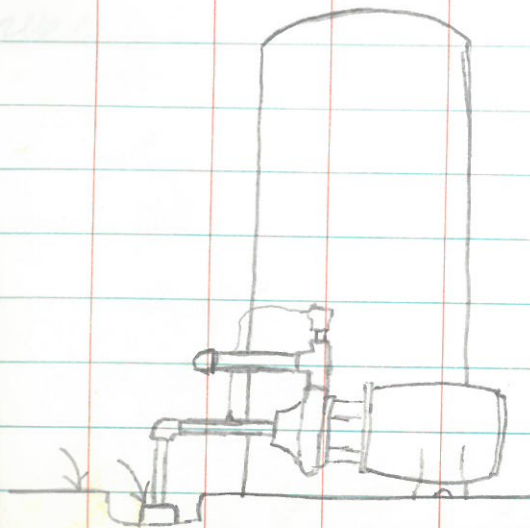
RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

COLONIAL PLASTICS

CLEAR AFTERNOON



W-5253	B.S.	H.I.	F.S.	ELEV.
B.M.				41.43
TP.	3.55	43.86	2.43	41.43
	2.43			Correct Floor 1.12
	1.12			

July 15, 1966

From W-6172

Rye - Sand

Soft Rod

County Hillsboro

Owner - Sunny Brook Dairy

Clear to Cloudy & hot

Well inside building

W-6356 BS IH FS ELEV. ✓

JULY 15, 1966

BM 46'00

TP₁ 3.05 49.05 8.96 40.09 22.68
23.32

TP₂ 2.43 42.52 6.99 35.53

TP₃ 3.64 39.17 7.47 31.70

TP₄ 2.96 34.66 6.67 27.99

TP₅ 4.35 32.34 5.85 26.49

TP₆ 5.50 31.99 5.51 26.48

TP₇ 5.13 31.61 5.33 26.28

TP₈ 4.86 31.14 8.46 22.68

TP₉ 31.92 21 23.24 23.93

23.12
23.32

BM SECTION CORNER 26

TP₁ 4.76 30.76 8.18 22.58

BM - USC&GS AZIMUTH MARK

CITRUS AZIMUTH 1934

RESET 1955 (former elev. 46.22)

RYAN-ROD

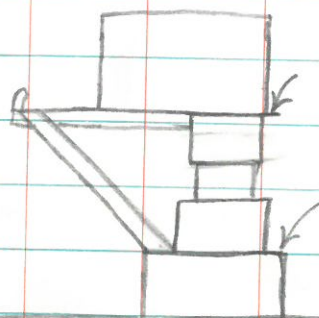
JEFF-LEVEL

HILLSBOROUGH COUNTY

CITY OF ST. PETERSBURG

PARTLY CLOUDY & EXCEEDINGLY

WARM



N-6979	B.S.	H.I.	F.S.	ELEV.	✓
B.M.				39.01	
TP ²	2.82	41.83	6.01	35.82	38.10 -11
TP	10.14	45.96	5.82	40.14	
TP ₃	4.82	44.96	9.44	35.52	
TP ₄	7.80	43.32	5.22	38.10	correct
	25.58		26.49		
			25.58		
			91		

July 14, 1966

S.P.D. B.M. 39.01 nail in tree

Rye - Level

Diff. Ld

County - Hillsborough

Dinner - Michigan Park Motel - Jackson

Clear to cloudy & hot

well under ground under shuffleboard court.

W-6981 B.S. H.I. F.S. FLEI. ✓
 49.18
 48.10
 1.08

July 14, 1966

B.M.

Don W-6979

TP₁ 5.58 53.68 5.32 48.36

TP₂ 5.74 54.10 4.92 49.18

1.32

10.24

10.24

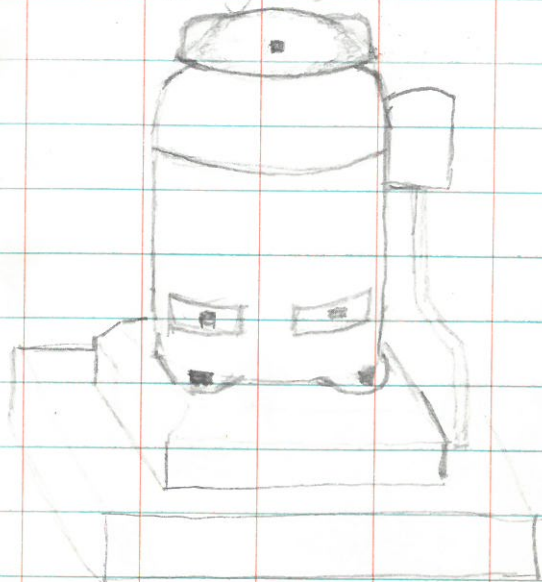
1.08

Lynn - Lenz
 Jeff - Rob

County - Hillsborough

Owner - Samuels' Petrol Mobil Park

Clear to Cloudy + hot.



W-6606 BS IH FS ELEV.

✓
56.27

JULY 15, 1966

BM

51.32

BM - USC&GS D40 1933 51.315

TP₁ 6.35⁴ 57.67 3.89³ 53.78

49.5

RYAN-ROD

TP₂ 4.51 58.29 5.45³⁴ 52.74

JLFF-LEVEL

TP₃ 3.08 57.82 5.17 52.65

HILLSBOROUGH COUNTY

TP₄ 4.05 56.70 4.97 51.73

PETER PAN RESTAURANT

TP₅ 5.38 57.11 3.32 53.79

PARTLY CLOUDY & BLISTERINGLY

TP₆ 5.77 59.56 2.04 57.52

HOT

TP₇ 2.28 59.80 3.63 56.17

23.42

28.47

.27

28.47

4.95

PUMP & CASING SUBMERGED

ELEV. AT GROUND LEVEL

W-7247 BS. H.T. F.S. ELEV. ✓
 assumed
 B.M. 10.00

TP₁ ²² 4.96 ²² 14.9 5.38 1.58

TP₂ 6.40 15.98 1.84 14.14

TP₃ 7.32 21.46 1.11 20.35

TP₄ 10.26 30.61 2.50 28.11

TP₅ 6.68 34.79 9.26 25.53

TP₆ 6.02 31.55 5.48 26.07

41.64
25.57
 16.07

25.57

July 18, 1966

U.S. CGS B.M. W-256 1965

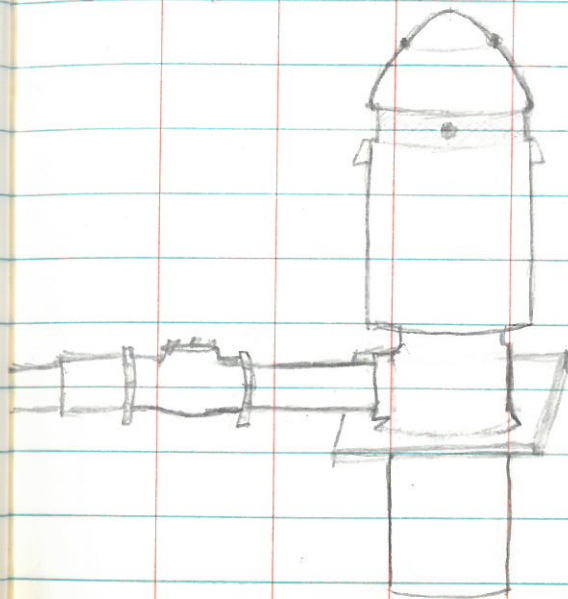
Rye Level

Jeff. Pond

County - Hillsborough

Dinner Dampas Cold Storage

Overcast + hot



W-7036 BS IH FS ELEV. ✓

JULY 18, 1966

BM 51.00

BM - TOPO RR CROSSING 51'

TP₁ 0.04 51.04 4.28 46.76 50.43
5.57

RYAN - ROD

TP₂ 6.21 52.97 4.45 48.52

JEFF - LEVEL

TP₃ 7.49 56.01 7.17 48.84

HILLSBOROUGH COUNTY

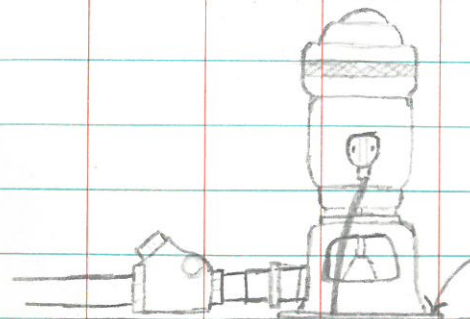
TP₄ 6.84 55.68 5.25 50.43

R.A. PARCO (TOWN'S LAUNDRY CLEANING)

TP₅ 20.58 21.15
20.58

PARTLY CLOUDY & HOT MORN.

TP₆ .57



W-5457 B.S. H.I. F.S. ELEV. ✓
 B.M. 44.00'

TP 3.22 47.22 1.84 45.38

1.84
 1.88

July 18, 1966

Open shell Rd. elevation

Rgn - Level
 Jeff - Rod

County - Hellsborough
 Owner - Shell Oil Company
 Clear to partly cloudy hot.

Will a small well house
 back Shell Service Station

W-6127 BS 1H FS ELEV. ✓

BM

RESUM.
10

TP₁ 6.38 16.38 6.35 10.03

TP₂ 4.98 15.01 2.97 12.04

TP₃ 11.36 1.32

9.32
2.04

JULY 18, 1966

PM USC&GS F257 1965

RYAN-ROD

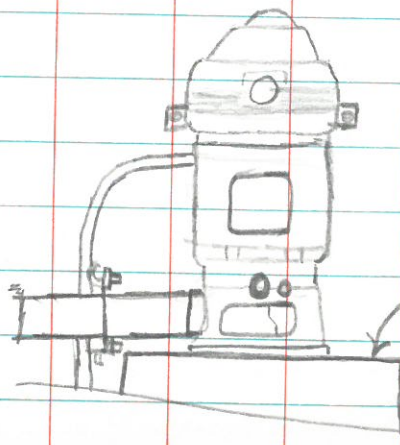
JEFF - LEVEL

HILLSBOROUGH COUNTY

EPITHANY OF OUR LORD PARISH

CLEAR TO PARTLY CLOUDY

90° F



W-6469	B.S.	H.T.	F.S.	ELEV.	✓
B.M.					32.46
					27.83
					4.63
TP ₁	5.28	33.11	6.00	27.11	
TP ₂	5.63	32.74	5.38	27.36	
TP ₃	5.50	32.86	5.99	26.87	
TP ₄	5.83	32.70	2.76	29.94	
TP ₅	7.24	37.18	4.72	32.46	ground
	29.48		24.85		
	24.85				
	4.63				

July 18, 1966

From W-5077 M + C. Book #1 pg. 129

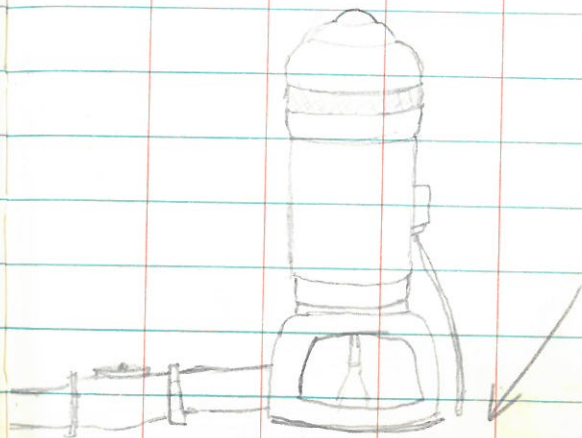
Pyen - Tunnel

Jeff. Road

County - Hillsborough

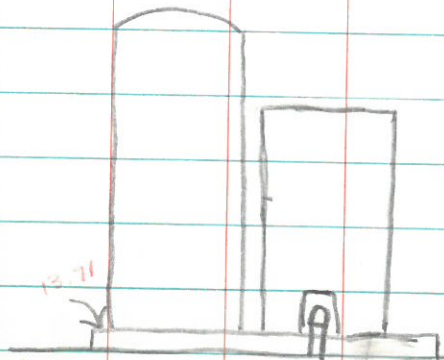
Dunes - Herbert Nasrallah

Overcast + Hot 5,000,000° F.



W-5524	BS	IH	FS	ELEV.	✓
BM				13.71	13.65
TP ₁	3.38	17.03	5.67	11.36	
TP ₂	4.35	15.71	5.53	10.18	
TP ₃	7.19	17.37	5.33	12.04	
TP ₄	6.15	18.19	4.48	13.71	
TP ₅	4.37	18.08	7.88	10.20	
TP ₆	5.08	15.28	5.81	9.47	
TP ₇	5.97	15.44	5.45	9.99	
TP ₈	8.20	18.19	5.06	13.13	
TP ₉	6.13	19.26	5.55	13.71	
	<u>50.8</u>		<u>50.76</u>		
	<u>50.76</u>				

JULY 19, 1966
 BM - USCGS K40 1933
 13.652
 RYAN - ROD
 JEFF - LEVEL
 HILLSBOROUGH COUNTY
 ST. PATRICK'S CATHOLIC CHURCH
 CLEAR + VERY HOT MORN.



W-6092 P.S. H.T. F.S. ELEV.

B.M.

18.00'

Dopo Rd. Elev.

July 17, 1966

TP₁ 6.38 24.37 5.58 1880

TP₂ 5.86 24.66 5.22 1944

12.24

10.80

1.44

10.8.0

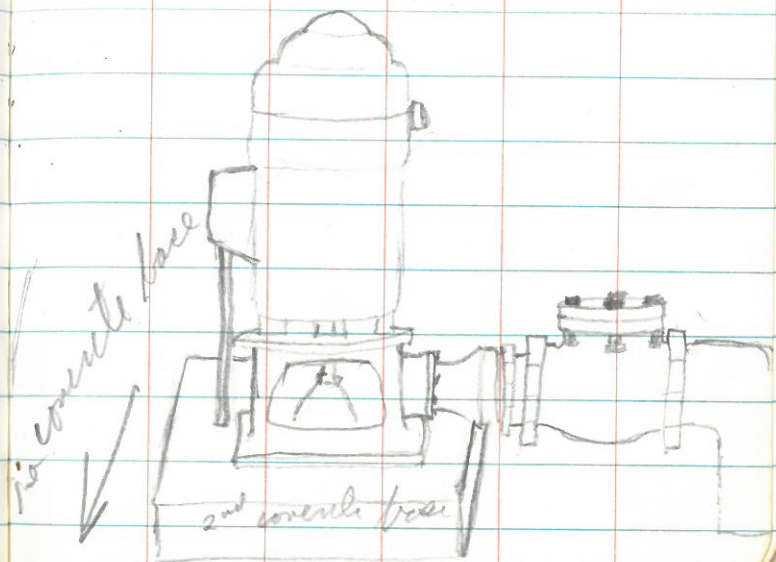
Liquid Level

Jeff Rod

Locality - Hillsborough

Owner - International Construction Corp.

Overhead + Hot



1st concrete base

2nd concrete base

W-5522	BS	IN	FS	ELEV.	✓
BM					20.31 16.93
TP ₁	^{2 3} 6.14	23.07	^{2 2} 3.55	19.52	3.38
TP ₂	4.53	24.05	6.03	18.02	
TP ₃	5.12	23.14	4.01	19.13	
TP ₄	5.45	24.58	6.12	18.46	
TP ₅	4.58	23.04	5.17	17.87	
TP ₆	5.00	22.87	4.96	17.91	
TP ₇	6.87	24.78	4.53	20.25	
TP ₈	5.19	25.44	5.13	20.31	
	42.88 39.50 3.38		39.50		

JULY 19, 1966

USCYGS J40

1933 16.926

RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

PALMA CEIA PRESBYTERIAN CHURCH

PARTLY CLOUDY AFTERNOON

WELL IN SMALL HOUSE

ELEV GROUND LEVEL

W-5674 B.S. H.T. F.S. ELEV. ✓
 B.M. 19.00'

TP. 5.98 24.98 4.38 20.60

4.38
 1.60

July 20, 1966

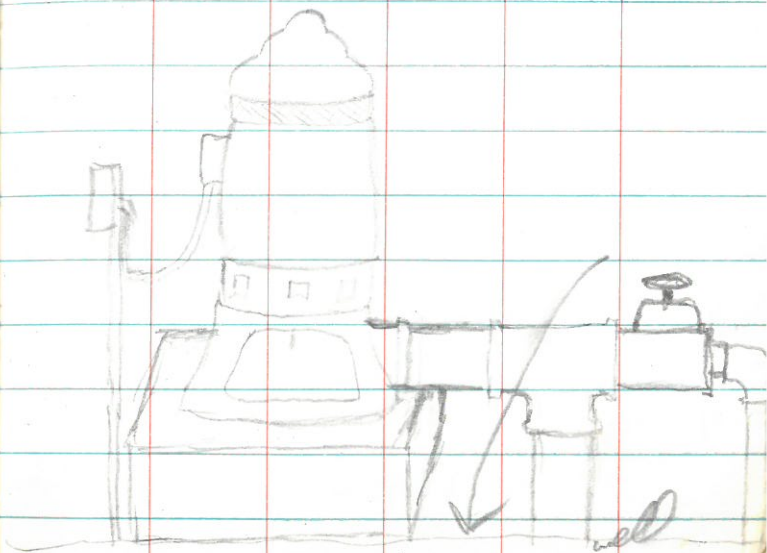
Topo Rd. Elevation

Rye - Sand
 Jeff - Rod

County - Hillsborough

Dunes - Florida Steel Corp.

Clear to Clouds & hot morning



W-6984 BS IH FS ELEV. 47.26

BM 45.90

TP₁ 7.47 53.17 4.90 48.27

TP₂ 5.97 54.24 6.82 47.42

TP₃ 3.77 51.19 5.93 47.26

17.21

15.65

15.65

1.56

JULY 20, 1966

U.S. CHGS. M/D 1942 45.702

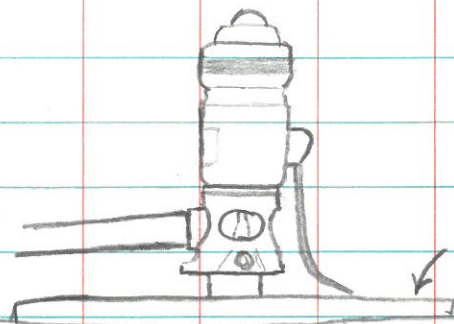
RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

TURNER'S PLANTATION DAIRY

PARTLY CLOUDY + HOT MORN.



W-6982	B.S.	H.T.	F.S.	FLCU	✓
B.M.				6.99	
TP	5.96	12.95	5.96	6.99	30
TP	6.04	13.03	5.74	7.29	7.29
	12.00	11.70	±.80	conversion to M.S.L. for M.L.W.	ground

8.09

Post Section p.m. established from M. Low Water

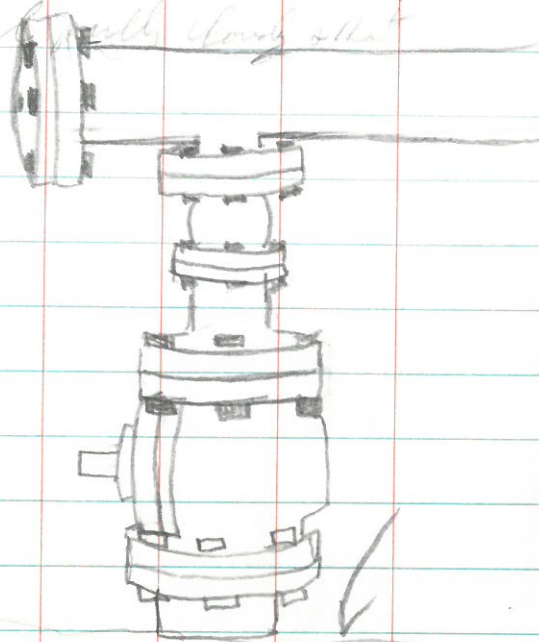
Ryan - Level

Jeff - Rad

County - Hillsborough

Owner I.M.C. Phosphate Corp.

Clear for 100 ft. from station



W-5396 BS IN FS ELEV ✓

BM

22.45
21.53
.92

TP₁ 4.37 25.90 4.22 21.68

TP₂ 6.13 27.81 4.31 23.50

TP₃ 3.90 27.40 4.95 22.45

TP₄ 14.40
13.48
.92 13.48

JULY 25, 1966

BM-USC & GS R18 1933

21.532

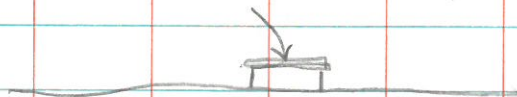
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

STATE OFFICE BUILDING

CLEAR & WARM MORNING



W-2934 B.S. H. J. F.S. ELEV. [✓] assumed

B.M. 10.00

TP, 3.84 13.84 5.88 7.96 $\frac{7.96}{2.04}$

$\frac{3.84}{2.04}$

2.04

July 25, 1966
U.S.G.S. B.M. TT 9 JFS 1955

Ryan - Level

Jeff - Rod

County - Hillsborough

Owner - Leary Memorial Baptist Church

Overcast & threatening

Well in underground behind church

W-2952 BS 1H FS ELEV ✓

BM 50'

TP₁ 5.13 55.13 5.97 49.16

TP₂ 6.33 55.49 4.96 50.53

TP₃ 8.23 58.76 5.20 53.56

TP₄ 5.40 58.96 5.63 53.33

TP₅ 6.88 60.21 3.88 56.33

21.97
25.64
6.33

25.64

JULY 25, 1966

BM USGS TT8 JFS 1955

50'

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

JUVENILE HOME

CLOUDY

ELEV AT GROUND

LEVEL

W-3428 B.S. H.T. F.S. CLEV. assumed

B.M.

TP 4.34 14.34 6.18 8.16 10.00
8.16
1.84

4.34

1.84

U.S.C. & G.S. S 257 1965

July 25, 1966

Ryan - Sewel

Jeff - Rod

Townly - Kellsborough

Owner - Lutz School

Overcast

Well inside well house

behind school

w-3378 BS 1A FS ELEV.

BM

TP₁ 7.41 57.41 4.75 52.66

TP₂ 4.75
2.66

ASSUM
50'

JULY 25, 1966

BM - USC & GS R257 1965

RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH CO.

FIRST BAPTIST CHURCH OF LUTZ

HAZY + MILDLY WARM

WELL FILLED

GROUND ELEV.

W-5404 B.S. H.T. F.S. FLIV ✓
B.M.

assumed
100.00
88.16
11.84

TP 0.36 100.36 9.02 91.34

TP 4.23 95.57 6.08 89.49

TP 4.70 94.19 5.90 88.29

TP 5.01 93.30 5.14 88.16

14.30

26.14

14.30

11.84

July 25, 1966

W-6658 uscha bend park Books 1 pg 69

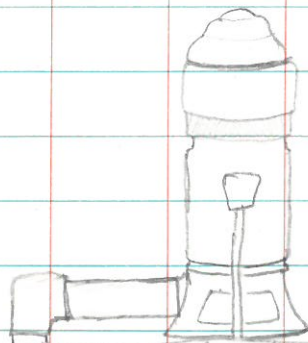
Lyn - Land

Jeff - Rod

County - Hillsboro

Owner - Ocean Park

Basement



concrete floor

W-5403 B.S. H.I. F.S. ELFO

B.M.

88.16

Run from W-5404

TP₁ 5.74 93.90 5.74 88.16

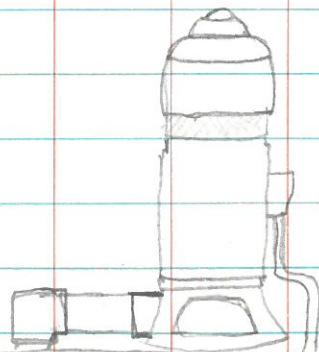
Pipe Level

Jeff Rod

County - Hillsborough

Dunes - Ocean Products

Overcast



concrete floor

W-3803 BS IN FS ELEV

JULY 26, 1966

BM 23.50

BM - Rd ELEV. 23.5

TP, 4.04 27.54 5.85 21.69 GROUND

LOCAL SURVEYORS

5.03 22.51 GRADING

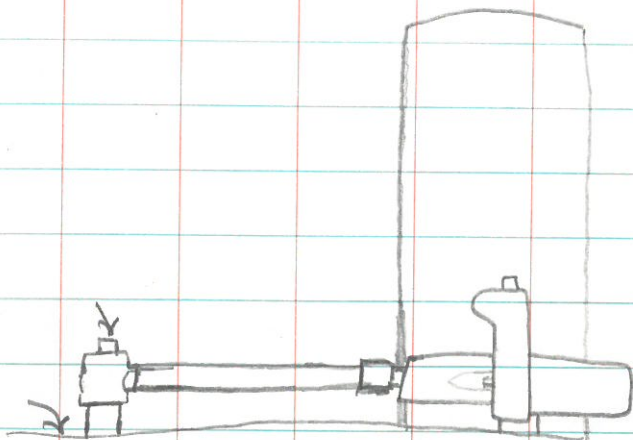
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH CO.

STAUFFER CHEMICAL CO.

CLOUDY & MILD



July 26, 1966

W-33 41	B.S.	H.I.	F.S.	ELEV.	
B.M.				57.00'	assumed
TP ₁	4.72	61.72	51.72	6.76	44.96
TP ₂	9.54	54.50	0.38	54.12	
TP ₃	7.80	61.92	4.32	57.60	TBM
TP ₄	3.28	60.98	9.50	51.38	
TP ₅	2.04	53.42	8.51	44.91	
TP ₆	5.78	50.69	5.74	44.95	
TP ₇	5.42	50.37	4.72	45.65	using
	48.58	37.93	55.13	5.24	45.13
					ground

U.S.L + G.S. B.M. 840 Reset 1949

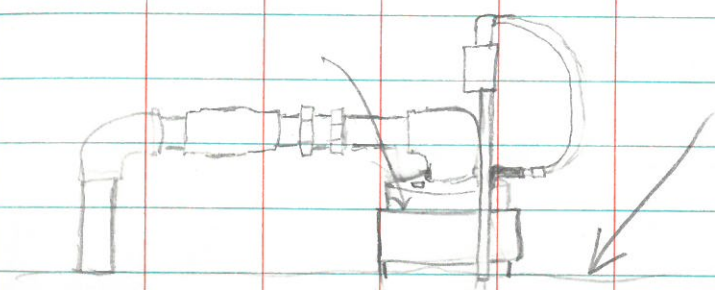
Ryan - Sand

Jeff - Red

Locality - Hillsborough

Owner - Friends Inc.

Clear to Cloudy



W-4487

BS

IH

FS

ELEV

✓

JULY 26, 1966

BM

57.00

BM - TBM FROM USC&GS

TP₁

2.64

59.64

9.90

49.74

44.74

122.6

B40 RESET 1949

TP₂

5.04

54.78

4.08

50.70

SEE W-3341

TP₃

6.04

56.74

6.01

50.73

RYAN - ROD

TP₄

3.01

53.74

9.00

44.74

CONCRETE
BASE

JEFF - LEVEL

TP₅

16.73

29.89

12.78

12.26

19.19

9.52

44.22

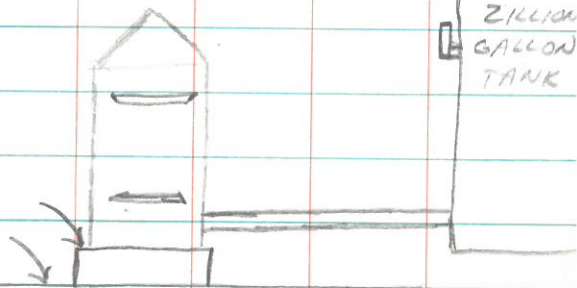
GROUND

HILLSBOROUGH COUNTY

E.S. MITTMAN, SLUMBERING OAKS

TRAILER PK.

CLEAR & HOT AFTERNOON



W-3906

R.S.

H.I.

F.S.

ELEV.

B.M.

✓
 descend
 10.00'

T_P

8.38

19.38

4.46

13.92

T_{P2}

6.38

20.30

5.46

14.34

ground

10.76

10.42

10.42

~~6.18~~

4.34

July 26, 1966

U.S.C. & G.S.B.M. " F 257 1965

Lyon. Level

Lff. Pod

County - Hillsborough

Owner - General Cable Corp.

Cable & hot

Well underground

W W-3905 B.S. H.T. T.S. F.W. ✓

B.M.

14.34

from W-3906

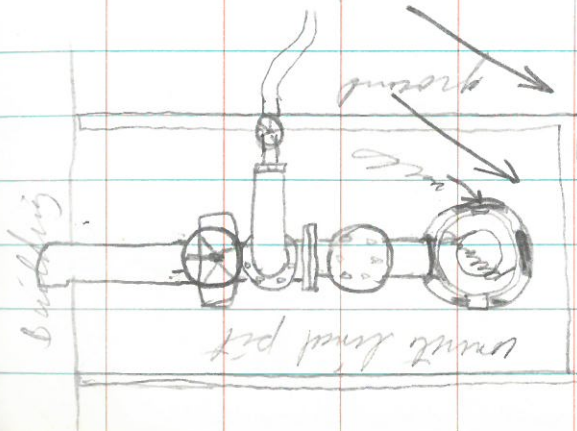
TP. 5.96 20.30 5.96 14.34 ground

7.58 12.72 concrete

Sp. - Level
Jeff. Rod

Gentry - Hillsboro
Dane Level Cabb Crp
Cloudy & hot

Well underground



W-3025 BS IH FS ELEV. ✓

BM

TP₁ ^{2.2} 5.38 120.38 ^{2.1} 5.23 115.15

TP₂ 2.68 117.83 7.84 109.99

TP₃ 2.13 112.12 7.14 104.98

TP₄ 4.53 109.51 5.66 103.85

TP₅ 4.53 108.38 5.82 102.56

19.25

31.69

19.25

12.44

115.00

102.56

12.44

JULY 27, 1966

BM - USC & GS B109

RESET 1957

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

FLORIDA BOARD OF FORESTRY

CLEAR & HOT AFTERNOON



house

W-3860	B.S.	H.T.	K.S.	ELEV.	✓
B.M.				81.00	
TP ₁	5.69	86.69	4.88	81.81	1.78
TP ₂	6.30	88.11	5.33	82.78	corrects
	<u>11.99</u>		<u>10.21</u>		
	1.71				

July 27, 1966

Topo Road Elevation

Ryan. Lend
Jeff. Rob

County - Hillsboro
Owner - Beverly Hills Dairy
Clear to partly cloudy & hot

Well in small well house beside
dairy barn

W-2997	BS	1H	FS	ELEV.	✓
--------	----	----	----	-------	---

BM				18.15
----	--	--	--	-------

TP,	² 4.94	23.09	³ ² 3.93	19.16
-----	----------------------	-------	-----------------------------------	-------

TP ₂	11.44	30.60	3.67	26.93	TBM
-----------------	-------	-------	------	-------	-----

TP ₃	3.05	29.98	7.59	22.39	TBM ₂
-----------------	------	-------	------	-------	------------------

TP ₄	6.72	29.11	4.96	24.15
-----------------	------	-------	------	-------

26-15

20.15

20.15

JULY 28, 1966

BM - USC46S Q18 18.146'

RYAN - ROD

STIFF - LEVEL

HILLSBOROUGH CO.

FERNANDEZ + GARCIA

FAIR TO PARTLY CLOUDY & HOT

WELL UNDER GROUND

W-3370	BS	1H	FS	ELEV	
BM					22.39
TP ₁	3.38	25.77	8.05	17.72	22.11
TP ₂	6.57	24.29	4.71	19.58	.28
TP ₃	6.68	26.26	4.73	21.53	
TP ₄	6.07	27.60	5.49	22.11	
	22.70		22.98		
			22.70		
			.28		

JULY 28, 1966

BM-TBM FROM USCGS Q18

SEE W-2997

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

CUERVO'S CAFE

FAIR AND HOT



W-2896 B.S. H.T. F.S. ELEV. ✓

B.M.

26.93

TP 9.20 36.13 2.70 33.43 TBM₃

4.47

TP 2.52 35.95 4.55 31.40

11.72

7.25

7.25

4.47

From W-2997

July 28, 1966

Ryan - Tank

Juff - Rod

HILLSBOROUGH COUNTY

A.A. GONZALEZ CLINIC

FAIR TO PARTLY CLOUDY



W-2895 BS H.I F.S. ELEV.

B.M.

31.46

TP, 4.55 35.45 4.54 31.41

From W-2896

RAIN - LEVEL

JEFF - ROD

HILLSBOROUGH COUNTY

A.A. GONZALEZ CLINIC

FAIR TO PARTLY CLOUDY

WELL SUBMERGED

W-2980 BS IH FS ELEV ✓

BM

TP₁ 6.67 40.10 7.72 32.38

TP₂ 4.34 36.72 5.16 31.56

TP₃ 6.81 38.37 2.04 36.33

TP₄ 10.24 46.57 3.01 43.56

TP₅ 6.02 49.58 3.72 45.86

34.08

21.65

12.43

21.65

45.86

33.43

12.43

JULY 28, 1966

BM-TBM FROM USC&GS Q18

SEE W-2896

RYAN-ROD

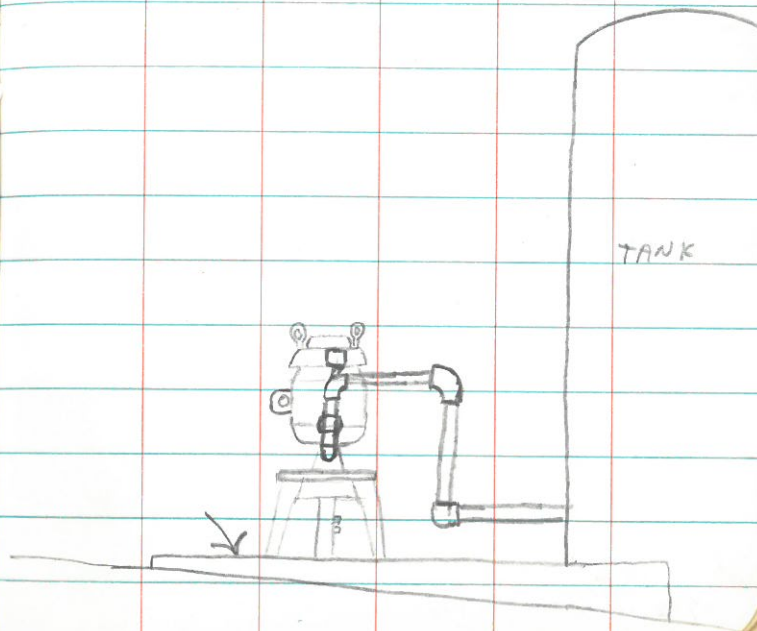
JEFF-LEVEL

HILLSBOROUGH COUNTY

MERCEDES CAFE

PAIR & HOT

TANK



W-2889 B.S. H.I. F.S. Elev ✓

B.M.

TP, 2.90 22.41 5.54 16.87

TP, 6.17 23.04 5.01 18.03

9.07

10.55

9.07

1.48

19.571

1.48

18.03

U.S.C. & S. L.M. Jamps 1932

Ryan - Land

Jeff - Rod

County - Hillsborough

Owner - Jamps Motor Oil

Deceased - Heaton

Well under sidewalk

W-2920	BS	IN	FS	ELEV.	✓
BM				51.56	51.37
TP ₁	3.75	55.12	5.16	49.96	19
TP ₂	7.01	56.97	5.35	51.62	
TP ₃	5.77	57.39	5.83	51.56	
	16.53		16.34		
	16.34				
	19				

JULY 28, 1966

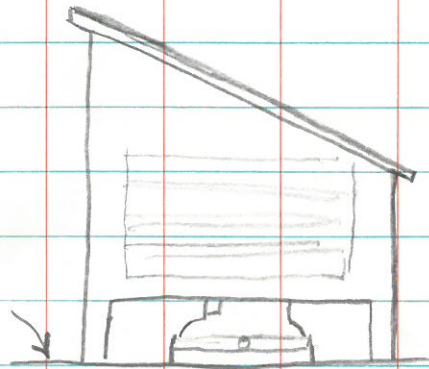
BM - SRD TBM #2 51.365"

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

DUVAL FUNERAL HOME



W-2992 B.S. H.T. F.S. ELEV. ✓

August 2, 1966

B.M. 39.72 S.P. D.T. B.M.

TP₁ 3.55 43.27 4.81 38.46 3.55

TP₂ 8.02 46.48 4.15 42.33 3.27

TP₃ 6.72 49.05 5.78 43.27

18.29
14.74
3.55

14.74

Sign - Level
off - Lot

Locally rich soil

Owner: Serugge Bros. Plumbing
San + hot morning

Well underground in front of
Loulde's (left hand corner)

W-3029 BS IH FS ELEV. ✓

BM 48.10

TP, 9.46 57.56 8.68 48.88

TP₂ 8.68
78

AUGUST 2, 1966

BM - CITY OF TAMPA 41.10

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

BOARD OF PUBLIC INSTRUCTION

HILLS HIGH SCHOOL

PARTLY CLOUDY & HOT

W-4467 P.S. H.I. F.S. ELEV ✓

B.M.

42.17

S.R.D. T.B.M. # 6A

August 2, 1966

TP₁ 4.08 46.25 7.45 38.80 1.27

TP₂ 6.68 45.48 4.68 40.80 40.80

10.76

12.13

10.76

1.37

Ryan - Seal
Hoff - Seal

County - Hillsborough

Owner - Seminal Hills Methodist Church

Clear to Cloudy but morning

Well in small well house on
south side of main church
building.

W-3977	BS	IH	FS	ELEV.	
BM					48.42
TP ₁	²² 1.52	49.94	²¹ 6.64	43.30	$\frac{26.75}{21.67}$
TP ₂	5.38	48.68	7.10	41.58	
TP ₃	3.82	45.40	6.26	39.14	
TP ₄	0.83	39.97	9.66	30.31	
TP ₅	2.05	32.36	5.61	26.75	
TP ₆	13.60		35.27		$\frac{13.60}{21.67}$

AUGUST 2, 1966

BM-SRD RR SPIKE IN POWER

POLE 48.42'

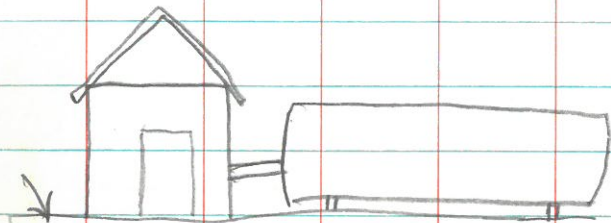
RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

AMERICAN LEGION POST 111

PARTLY CLOUDY + HOT



W-4180 B.S. H.T. F.S. ELEV ✓

August 2, 1966

B.M. 31.00 ft 20 ft B. Elev.

TP₁ 5.52 36.52 4.95 31.57

TP₂ 5.38 36.95 5.33 31.62

TP₃ 5.52 37.14 5.68 31.46

16.42

15.96

15.96

.46

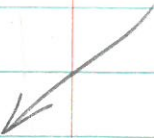
Rope - Level

Jeff - Rod

County Hillsborough

Owner - Rubber Products Inc.

Clear to cloudy & breeze & hot



W-3646 BS IH FS ELEV.

BM

TP₁ 5.81 39.81 4.78 35.03

TP₂ 5.54 40.59 5.38 35.19

TP₃ 11.35 10.16

TP₄ 1.19

check about
city BM

35.19

34

1.19

AUGUST 3, 1966

BM - TOPO ROAD ELEV. 34'

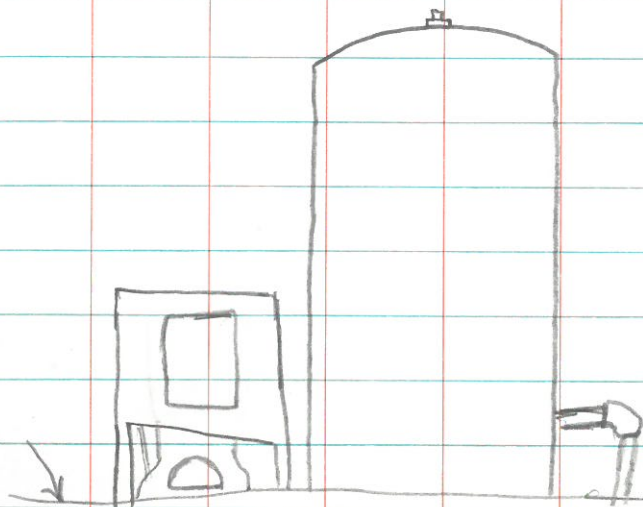
RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

ST. JOSEPH'S SCHOOL

PARTLY CLOUDY & HOT



1W-5284 B.S. H.T. F.S. ELEV. ✓

B.M.

46.00

570 Rd. Elev.

August 3, 1966

TP₁ 6.76 52.76 5.27 47.49

TP₂ 8.86 56.35 4.70 51.65

TP₃ 6.22 57.87 5.80 52.07

TP₄ 4.61 56.68 5.10 51.58

26.45

20.87

20.87

5.58

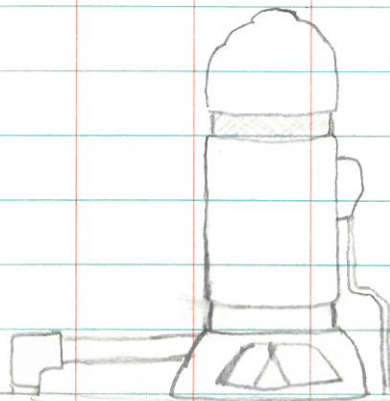
Rye - Sand

Jeff - Red

Locality - Hillsborough

Owner - Canolwood Golf + Tennis Club

Clear to cloudy + hot morning



W-4061 BS IH FS ELEV

BM

TP₁ 5.41 52.41 6.81 45.60TP₂ 5.14 50.74 7.58 43.16TP₃ 5.96 49.12 2.82 46.30TP₄ 5.46 51.76 6.83 44.93TP₅ 5.83 50.76 3.43 47.33TP₆ 7.17 ~~54.70~~ 4.59 50.11TP₇ 5.64 55.75 4.51 ~~51.24~~40.61
36.57
4.04

36.57

47

4.04

AUGUST 3, 1966

BM - TOPO Rd. ELEV. 47

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

BRD PUBLIC INSTR.

LAKE MAGDELENE SCH.

PARTLY CLOUDY & HOT

WELL INSIDE

LOCKED HOUSE

ELEV GROUND LEVEL

W-3709 B.S. H.T. F.S. ELEV.

August 3, 1966

B.M.

49.66

County Engineer P.M.

TP 4.89 54.55 5.26 49.29

49.29

4.89

37

Rgn - Level

Jeff - Rod

County - Hillsborough

Owner - Salvation Army Home

Clear to Cloudy afternoon

In small wooden well house.

W-3568	BS	114	FS	ELEV.	L
					46.27
BM					44
TP ₁	4.85	48.85	4.86	43.99	
TP ₂	7.00	50.99	5.24	45.75	
TP ₃	3.12	48.87	5.27	43.60	
TP ₄	6.97	50.57	4.30	46.27	
TP ₅	21.94		19.67		
	19.67				
	2.27				

AUGUST 3, 1966

BM-TOPO RD. ELEV. 44'

RYAN-ROD

JEFF-LEVEL

HILLSBOROUGH COUNTY

BOY SCOUT COUNCIL OF TAMPA

PARTLY CLOUDY & HOT

WELL INSIDE HOUSE

ELEV. GROUND LEVEL

W-3181 B.S. H.T. F.S. ELEV. ✓

August 4, 1966

B.M. 2 2 2 2 49.27

U.S.C. & G.S. State Survey F51

TP₁ 7.40 56.67 9.60 47.07 5.71

TP₂ 1.56 48.63 5.34 43.29 54.98

Ryan - Land

TP₃ 6.18 49.47 6.16 43.31

Jeff - Rod

TP₄ 6.92 50.23 2.69 47.54

TP₅ 5.56 53.10 2.90 50.20

County - Hillsborough

TP₆ 8.66 58.86 3.88 54.98

Owner - Yates Elementary School

36.28

30.57

Clear to partly cloudy + hot morning

30.57

571

Well in large well house behind school.

W-3026 BS IH FS ELEV ✓

AUGUST 4, 1966

BM 62

BM - TOPO Rd ELEV 62'

TP₁ 10.50 72.50 6.17 66.33

RYAN - ROD

TP₂ 5.13 71.46 4.89 66.57 GROUND

JEFF - LEVEL

15.63

11.06

11.06

4.34

67.12 CASING

HILLSBOROUGH COUNTY

4.57

STEWART-MELLON CO.

PARTLY CLOUDY & HOT



W-5949	B.S.	H.T.	F.S.	ELEV.	✓
B.M.	4	2	4	3	41.75
TP ₁	6.70	48.45	3.70	44.75	6.63
TP ₂	3.53	48.28	5.56	42.72	35.12
TP ₃	3.90	46.62	7.88	38.74	
TP ₄	3.44	42.18	6.36	35.82	
TP ₅	5.20	41.02	5.63	35.39	
TP ₆	5.29	40.68	5.94	34.74	
TP ₇	4.50	39.24	6.48	32.76	
TP ₈	6.96	39.52	4.40	35.12	
	39.32		45.95		
			39.32		
			6.63		

August 4, 1966

Ryan - Level
Jeff - Rod

County - Hillsborough

Diner - Peter Scaglione University Restaurant

Clear to cloudy & hot afternoon



W-3741	BS	1H	FS	ELEV.	L
BM					82.08
TP ₁	5.29	41.65	5.79	35.86	36.36
TP ₂	9.19	45.05	1.63	43.42	45.72
TP ₃	10.17	53.59	4.71	48.88	
TP ₄	5.03	54.41	4.18	50.23	
TP ₅	7.60	57.83	3.61	54.22	
TP ₆	6.10	60.32	4.33	55.99	
TP ₇	5.83	61.82	3.03	58.79	
TP ₈	11.68	70.47	0.25	70.22	
TP ₉	11.70	81.92	2.71	79.21	
TP ₁₀	8.09	87.30	5.22	82.08	
	81.18		35.46		
	35.46				
	45.72				

AUGUST 4, 1966

BM - SRD NAIL IN PINE

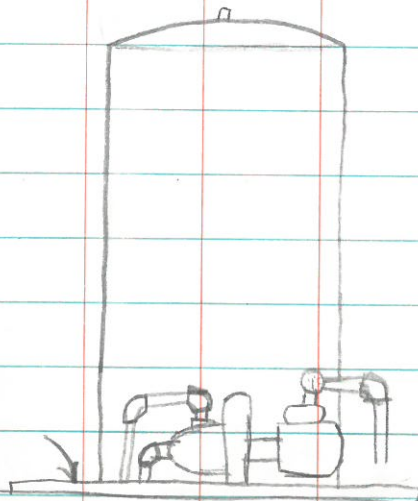
36.36'

RYAN - ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

FOWLER AVE. BAPTIST CHURCH

PARTLY CLOUDY + HOT

W-4646 B.S. H.T. F.S. ELEV. 59.93
B.M. 54.07

TP 7.82 61.89 3.96 57.93

TP 6.75 64.68 4.78 59.90

10.57

8.74

8.74

5.83

4.23

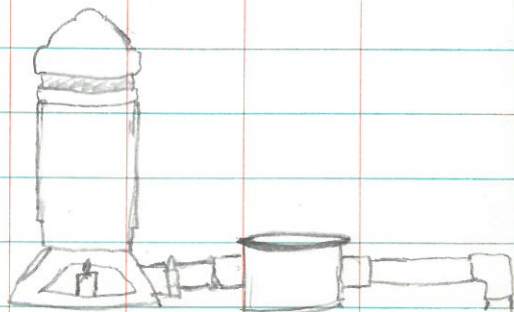
S.R.D. B.M.

Ryan - Lenz
Jeff. Rob

County - Wellsbrough

Dinner - Varsity Clearing

Clear & hot, hot, hot! afternoon



W-2491 B.S. H.T. F.S.

ELEV.

August 19, 1966

B.M.

3

1

147.65

U.S.G.S. B.M. R 117

TP₁ 5.64 153.29 5.02 148.27

4.25
147.65
143.40

TP₂ 4.58 152.85 5.62 147.23

TP₂ 4.88 152.11 6.08 146.03

TP₃ 4.64 150.67 5.90 144.77

TP₁ 4.64 149.41 5.04 144.37

TP₅ 5.23 149.60 6.20 143.40

ground

29.61

9.96 144.64

using

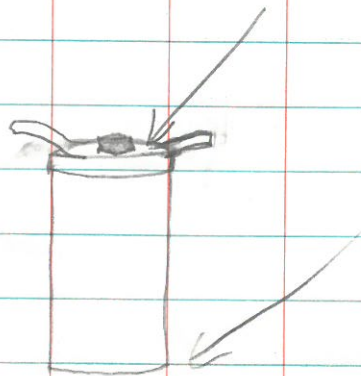
33.86
29.61
4.25

Ryan - Level
Jeff Rod

County - Hillsborough

Owner - Plant City Steel Corp.

Hot afternoon



W-2471 BS IH FS ELEV.

ASSUM.

AUGUST 19, 1966

BM

100.00

BM- USGS TT20 GBG 1947

TP₁ 2.34 102.34 10.99 91.35

89.61

10.39

TP₂ 4.17 95.52 5.91 89.61

RYAN-ROD

TP₃ 6.51 16.90

JEFF-LEVEL

6.51
10.39

HILLSBOROUGH COUNTY

FRED. GORTNER

SUNNY AND HOT

ELEV AT GROUND

LEVEL

August 23, 1966

✓
ELEV.

W-3605	B.S.	H.T	F.S	
B.M.				
TP ₁	9.10	106.10	3.58	102.52
TP ₂	2.94	105.46	11.70	93.76
TP ₃	3.46	97.22	3.34	93.88
TP ₄	7.34	101.22	5.12	96.10
TP ₅	5.20	101.30	6.38	94.92
<u>28.04</u>			<u>30.12</u>	
			28.00	
			<u>2.08</u>	

97.00
2108
42
Topo Rd. Elevation

Rye - Level
Jeff Rod

ground
Hillsborough County -
Owner - Jennings School
Raze morning

Well in white well house
beside school. On south side.

W-3216 BS IH FS ELEV. ASSUM.

BM

TP₁ 4.58 97.58 8.70 88.88

TP₂ 2.43 91.31 7.26 84.05

TP₃ 2.20 86.25 11.27 74.98

TP₄ 1.53 76.52 8.61 67.91

5.83 73.74 6.01 67.72 GROUND

16.57 41.95 5.41 67.32 CONCRETE

16.57
25.28

AUGUST 23, 1966

BM- USCTGS F53 RESET 1961

RYAN-ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

DR. U.R. HUNTER

SUNNY + HOT



W 2776 B.S. A.T. F.S.

ELEV.

August 23, 1966

B.M.

31.00'

Jopo Rd. Elev.

TP₁ 4.04 35.04 2.94 32.10

6.23

TP₂ 8.97 41.07 4.72 36.35TP₃ 6.92 43.27 6.04 37.23TP₄ 14.93 13.70

13.70

6.23

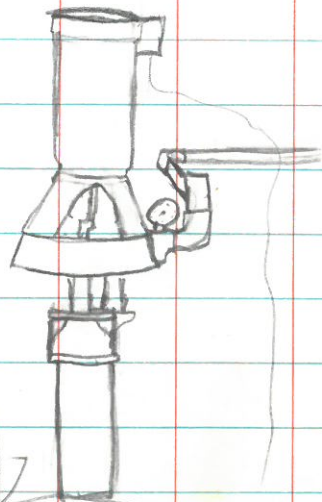
Rear - East

Left - East

Hillsboro County

Owner - Karl Krenschler

Sunny + hot!



w-2493 BS IN FS ELEV ✓

AUGUST 23, 1966

BM 66.00

BM - TOPO Rd ELEV. 66'

TP ₁	²¹ 0.12		³² 11.60	54.52	57.27
					8.73

RYAN - ROD

TP₂ 2.01 56.53 8.47 48.06

JEFF - LEVEL

TP₃ 1.81 49.87 4.00 45.87

HILLSBOROUGH COUNTY

TP₄ 9.85 55.72 1.69 54.03

DONALD CLARK (FORMERLY EA. RITTER)

TP₅ 7.10 61.13 5.67 55.46

SUNNY & HOT

TP₆ 6.55 62.01 4.74 57.27

27.44

36.17

27.44

8.73

W-7688

B.S.

H.T.

F.S.

✓
ELEV.

August 24, 1966

B.M.

26.00'

Dopo Road Elevation

TP₁ 5.08 31.08 5.20 25.88TP₂ 5.36 31.24 5.20 26.04TP₃ 5.40 31.44 5.02 26.42 ground15.843.82 27.62 correct

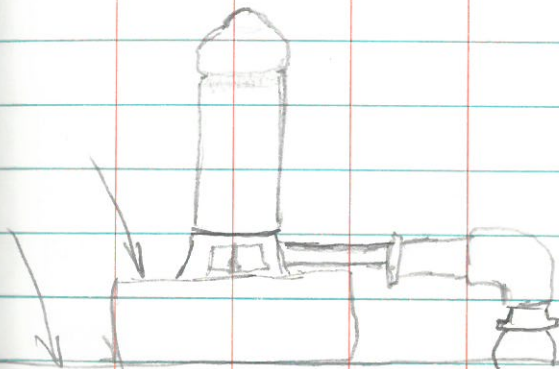
1542

Ryan - Level

Jeff - Rod

Hillsborough County

Dunes - Clair Mel Sullivan # 6

Clear + hot morning, dogs barking,
crickets chirping, snakes slithering

VW-7691

BS-

H.J.

F.S.

✓
ELBA

August 24, 1966

B.M. ~~1~~

27.62

From W- 2688

TP₁ 3.82 31.44 5.66 25.78TP₂ 5.56 31.34 5.16 26.18TP₃ 4.68 30.86 6.06 24.80TP₄ 5.16 29.96 6.56 23.405.05
24.91TP₅ 4.74 28.14 5.14 23.00

23.96 2.88 25.26

28.58
23.96
4.62

Ryan - Lead

JEAN Jeff - Lead

Milledge County

Owner - Clair Mfg # 8

Hot rolling



W. 7689

B.S.

H.2

F.5

FLRD

August 24, 1966

B.M.

25.26

W - 7691

TP₁ 2.88 28.14 6.32 21.82

2.62

TP₂ 6.50 28.32 5.08 23.24

9.38

2.33 25.99

18.85

Ryan - Land

Jeff - Rod

Hillsborough County

Owner - Claim # 7

SAME AS W-7691 pg 143

W-7690 BS L.I. 15

B.M.

TP₁ 2.33 28.32 5.58 22.74

TP₂ 4.76 27.50 4.82 22.68

TP₃ 8.48 31.16 4.00 27.16

15.57

3.30 27.86

14.40

14.40

1.17

✓
FLEV.

25.99

1.17

27.16

August 24, 1966

W-7689

Ryan - Level

Jeff - Rod

Wellsburg (cont)

Dune - Chain Mel # 9

Hot Raining

SAME AS W-7688 pg 141

W-3969	BS	IN	FS	ELEV.	
BM					28.34
					24.91
					3.43
TP ₁	² 6.15	31.06	³ 5.22	25.84	
TP ₂	4.24	30.08	5.66	24.42	
TP ₃	6.25	30.67	5.09	25.58	
TP ₄	5.62	31.20	4.21	26.99	
TP ₅	5.35	32.34	4.14	28.20	
TP ₆	5.35	33.55	5.70	27.85	
	5.48	33.33	4.99	28.34	GROUND
	38.44		^{35.01}		
	35.01		3.96	29.37	CONCRETE
	3.43				BASE

AUGUST 24, 1966

BM- TBM FROM W-7691

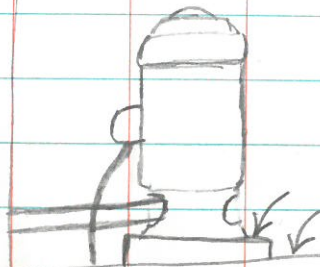
RYAN ROD

JEFF - LEVEL

HILLSBOROUGH COUNTY

CAMP OAMOR MODERN DAIRY

PARTLY CLOUDY + HOT



W-2921 B.S. H.T. F.S.

ELEV.

August 25, 1966

B.M.

40.03

U.S. 65 AM B112 1940

	B.S.	H.T.	F.S.	ELEV.
TP ₁	6.30	46.33	4.84	41.49

TP ₂	5.00	46.49	3.16	43.33
-----------------	------	-------	------	-------

TP ₃	7.51	50.84	3.58	47.26
-----------------	------	-------	------	-------

TP ₄	7.76	55.02	3.16	51.86
-----------------	------	-------	------	-------

TP ₅	6.38	58.24	6.26	51.98
-----------------	------	-------	------	-------

TP ₆	3.46	55.44	6.96	48.48
-----------------	------	-------	------	-------

TP ₇	2.58	51.06	5.24	45.82
-----------------	------	-------	------	-------

TP ₈	5.04	50.86	5.70	45.16
-----------------	------	-------	------	-------

TP ₉	44.03		38.90	
	38.90			
	5.13			

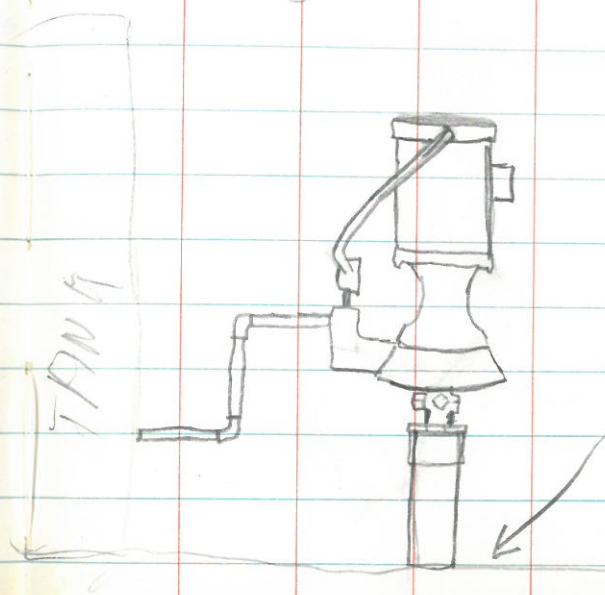
Ryan - Seal

Jeff - Rod

Hillsdale County

Owner -

Hot morning



W-7734 BS 1A FS ELEV —

BM 832.61

TP₁ 0.00 832.61 126.60 706.01
106.31
726.30

TP₂ 0.02 706.03 203.21 502.82

TP₃ 0.61 503.43 196.32 307.11

TP₄ 0.22 307.33 201.02 106.31

.85

727.15

.85

726.30

NOVEMBER 3, 1966

BM - USCS JDC 9 1947

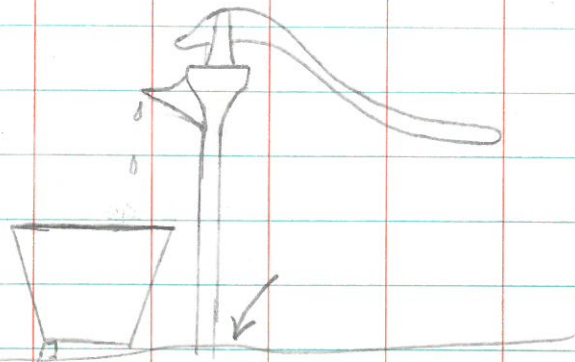
(ON TOP OF RADIO TOWER)

RYAN-ROD JEFF-LEVEL

HILLSBOROUGH COUNTY

ADAMS APPLEBEE'S CAMEL RANCH

SNOWING & BLOWING



CONTENTS

PAGE

WELL
NUMBER

1	6140	✓	33	6606	✓
3	5957	✓	35	7247	✓
5	7409	✓	37	7035	✓
7	7410	✓	39	5457	✓
9	7416	✓	41	6127	✓
11	5361	✓	43	6469	✓
13	5661	✓	45	5524	✓
15	6980	✓	47	6092	✓
17	6511	✓	49	5522	✓
19	5266	✓	51	5674	✓
21	4886	✓	53	6984	✓
23	6604	✓	55	6982	✓
25	5253	✓	57	5396	✓
27	6356	✓	59	2934	✓
29	6979	✓	61	2952	✓
31	6981	✓	63	3428	✓
			65	3378	✓

67	5404	✓	101	3029	✓
69	5403	✓	103	4467	✓
71	3803	✓	105	3977	✓
73	3341	✓	107	4181	✓
75	4487	✓	109	3646	✓
77	3906	✓	111	5284	✓
79	3905	✓	113	4051	✓
81	3025	✓	115	3709	✓
83	3860	✓	117	3568	✓
85	2997	✓	119	3181	✓
87	3370	✓	121	3026	✓
89	2896	✓	123	5949	✓
91	2895	✓	125	3741	✓
93	2980	✓	127	4646	✓
95	2889	✓	129	2491	✓
97	2920	✓	131	2471	✓
99	2992	✓	133	3605	✓

135

3216

✓

137

2776

✓

139

2493

✓

141

7688

✓

143

7691

✓

145

7689

✓

147

7690

✓

149

3969

✓

151

2921

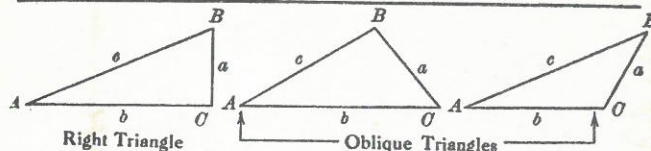
✓

153

7734

✓

TRIGONOMETRIC FORMULÆ



Right Triangle

Oblique Triangles

Solution of Right Triangles

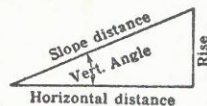
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{a}$, $\csc = \frac{c}{b}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B, c = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90^\circ - A, b = a \cot A, c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90^\circ - A, a = b \tan A, c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90^\circ - A, a = c \sin A, b = c \cos A$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a}, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180^\circ - C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a + b + c}{2}, \sin \frac{1}{2}A = \sqrt{\frac{(s - b)(s - c)}{b c}},$ $\sin \frac{1}{2}B = \sqrt{\frac{(s - a)(s - c)}{a c}}, C = 180^\circ - (A + B)$
a, b, c	Area	$s = \frac{a + b + c}{2}, \text{area} = \sqrt{s(s - a)(s - b)(s - c)}$
A, b, c	Area	$\text{area} = \frac{b c \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = $5^\circ 10'$. From Table, Page IX, $\cos 5^\circ 10' = .9959$. Horizontal distance = $319.4 \times .9959 = 318.09$ ft. Horizontal distance also = Slope distance minus slope distance times (1 - cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. $\text{Cosine } 5^\circ 10' = .9959, 1 - .9959 = .0041, 319.4 \times .0041 = 1.31, 319.4 - 1.31 = 318.09$ ft.

When the rise is known, the horizontal distance is approximately: the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.