

LEVELS  
215



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LEVEL BOOK

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# 215

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the same as Left Hand Page  
of this Book.
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Book, Right Hand Page 4x4  
to the inch, Center Line Red.
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BOOK. Left Hand Page as in this  
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tical and 4 horizontal lines to  
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**THE FREDERICK POST CO.**

*ENGINEERING and DRAFTING SUPPLIES*

P. O. Box 803

CHICAGO



Levels For W.B. Harvey at  
Glen Croover & W.B. Harvey Farms  
Pt. SE<sup>1</sup> 2.9-17-1E

9 June 1948 Jim Gassett  
16 July 1948 John Selch  
19 July 1948

Sta	B.S.	H.I.	F.S. Stake	F.S. Ground	Elo Stake	Elo Ground	
BM #1	2.43	102.49			100		SE cor of SE Wing of E. headwall
				9.14		93.29	F. line of West tile
				9.22		93.21	F. line of East tile
0+00			6.18		96.25		
1+00			6.52	9.90	95.91	92.53	Bottom of ditch
2+00			7.78	7.7	94.65	94.73	Top of Bank 6' from E. to Bank
3+00			7.78	9.08	94.65	92.95	
4+00			5.69	5.79	96.74	96.64	
5+00			9.62	11.70	92.81	90.73	
5+00 T.P.			10.00	10.85	92.43	91.54	
6+00	2.73	94.62	10.54	3.65	91.89	90.97	
7+00			3.45	4.50	91.17	90.12	
7+00				5.80		88.82	Bottom of ditch
8+00			3.86	5.77	90.76	88.85	
8+00				6.55		88.07	
9+00			4.34	5.30	90.28	89.32	
9+00				7.05		87.57	

102.49  
-10.54  
91.89  
+12.73  
94.62  
-3.62  
90.95  
+3.42  
94.37  
-8.27  
86.10  
+2.76  
88.86

Sta	B.S	HI	F.S Stake	F.S Ground	Elev Stake	Elev Ground		
10+00		94.62	5.05	5.89	89.57	88.78		88.86
12+00				7.23		87.39	Bottom of ditch	<del>88.86</del>
11+00			5.34	6.32	89.28	88.90		<del>88.86</del>
11+00				7.65		86.97		<del>88.86</del>
12+00			5.65	6.77	88.97	87.85		<del>88.86</del>
12+00				8.13		86.79		<del>88.86</del>
13+00	3.42	94.37	3.67	4.20	90.96	90.17		<del>88.86</del>
13+50				5.25		89.12		<del>88.86</del>
14+00			8.97	7.70	86.40	86.67		<del>88.86</del>
15+00	2.76	88.86	8.27	4.40	86.10	84.46		<del>88.86</del>
16+00			4.54	5.26	84.32	83.60		<del>88.86</del>
17+00	5.25	90.18	3.93	6.65	84.93	83.58		<del>88.86</del>
17+00				7.0		83.18	Bottom of ditch	<del>88.86</del>
18+00			6.93	6.59	83.25	83.59		<del>88.86</del>
19+00			7.14	7.93	83.04	82.25		<del>88.86</del>
19+00				8.96		81.22	Bottom of ditch	<del>88.86</del>
20+00			7.50	7.90	82.68	82.28		<del>88.86</del>
21+00			9.07	9.63	81.11	80.55		<del>88.86</del>
22+00	2.67	83.82	8.99	3.68	81.19	80.18		<del>88.86</del>
22+00				4.76		79.10		<del>88.86</del>
23+00			3.68	4.20	80.18	79.66		<del>88.86</del>
24+00			4.56	5.15	79.30	78.71		<del>88.86</del>
				6.25		77.63		<del>88.86</del>
25+00			5.86	6.57	78.00	77.29		<del>88.86</del>



Sta	BS	HI	FS Stake	FS Ground	Elev Stake	Elev Ground	
26+00		83.86	6.28	7.10	77.59	76.26	
1+00			5.59	6.00	78.27	77.86	arm running NEwardly from Sta #26+00
2+00			3.59	4.60	80.27	79.26	
2+00				6.10		77.76	Bottom of ditch
27+00			7.98	8.40	75.84	75.46	
T.P. 28+00	1.61	77.14	8.33	0.40	75.53	76.74	
28+75				3.30		73.84	
29+00			3.45	4.05	73.79	73.09	
29+00				7.20		69.94	Bottom of ditch
30+00			3.65	4.00	73.49	73.14	<del>94.17</del> 7.18 101.80 9.88
30+00			-	9.92		67.22	Bottom of ditch
30+64				11.62	65.52		F. lip of bridge
B.M #2			9.18		67.96		N.W. cor of E. footing of bridge
TP	9.03	82.50	3.67		73.47		
TP	12.89	91.21	3.68		79.82		
TP	7.13	95.99	2.35		88.86		
TP	7.39	103.18	0.20		95.77		
TP	5.23	108.98	4.43		98.75		
BM #1			3.83		100.15		

MAIN

Proposed:

Elev. new ditch @ 0+0 = 92.29

Grade = -0.75%

ARM

Elev. at 0+00 = 72.79

Grade = +2.00%

Total 3735 cu yds excavation



BM

3.82 100.40

96.58

5.24

95.16

94.50

Grd. rd.

5.9

0.66

7'-10"

1.3

8'-13"

9'-1"

85.50 14.9

9.66

6.00

94.40

8.42

7.5

7.67

7'-7"

8'-5"

9"

7'-8"

9'-8"

1'-3"

8'-5"

100.40

87.6

12.80

South Stk

Cut 8" top of Wall

" 9'8" bot. of Ftg

8'5" top Ftg

North Stk

Fill 1" top of Wall

Cut 8.9 bot Ftg

" 7.65 top "

Headwall @ Sta 54+00

6

Hicks pet. for McLane drain

Joe Nowling  
SW<sup>1</sup> Sec. 29-16-2.E

30 Aug 1948

Jim Gossett  
Roland Randolph

B.S	H.L	F.S	Ele.
2.05	102.05		100.00
8.09	107.42	2.72	99.33
5.90	112.20	1.12	
		2.62	
		6.80	

2.15	102.15		100.20
6.02	103.31	4.86	97.29
5.55	104.56	4.30	99.01
5.40	106.01	3.95	100.61
3.80	108.26	1.55	104.96
12.40	116.76	3.90	104.36
2.55	110.71	8.60	108.16

100.00  
- 2.05  
102.05  
- 2.72  
99.33  
- 8.09  
107.42  
- 1.12  
106.30  
- 5.90  
112.20

B.M. High point of Rock S. of Dam.

Top of bridge

Flow line of bridge

102.15    104.96  
- 4.86    3.80  
97.29    108.26  
+ 6.02    - 3.90  
103.31    104.36  
- 4.30    + 12.40  
99.01    116.76  
+ 5.55    - 8.60  
104.56    100.61  
- 3.95    2.55  
100.61    110.71  
+ 3.40  
104.01  
- 1.55  
104.46



110.71      8.90      151.61

8  
Flow line of ditch at N. property fence

Set a bench mark <sup>notch</sup> on a 30" sycamore  
tree which is 3'3" below the  
spillway as to be put in. This  
notch is 1'3" below the rock  
I used as my B.M. the spillway  
will be 2' above the rock.

JOHN W. LACKEY DRAIN  
(Opening 836' of lower end)

27 Nov. 1948

Franklin  
Shurtle  
Gossett

0+00 to 1+75 follow old ditch  
3+77 N bank } cross old channel  
3+92 S bank }  
5+03 N bank } cross old channel  
5+44 S " } course SW  
6+06 N " } cross old channel  
6+44 S " } course SE  
8+36 concrete headwall  
9+00

Cross sec @ 0+00 (Facing S.)  
east & west

15' 10' 5' 5' 10' 15'  
2.95 3.50 5.00 3.70 3.35 3.35'

B.M. # 1

Sta.	B.S.	H.I.	Stake F.S.	Ground F.S.	Stake Elev.
B.M. # 1	0.49	100.00			99.51
0+00			2.75	5.20	97.25
1+00			4.15	7.25	
2+00			4.30	4.75	
3+00			5.25	5.80	
40RT-2+90	Top tile		9.35		90.65
3+84				9.70	
4+00			6.59	7.05	
5+00			7.25	7.75	
5+23				10.75	
6+00			8.35	8.77	
6+25				10.94	
7+00			7.15	7.68	
8+00			9.30	9.80	
Top hdwl. 8+36	3.62	93.40	10.22		89.78
Top tile 8+36			6.34		
9+00			4.96	5.55	
10+00				8.30	
11+00				8.70	
12+00				9.80	



## CHAS. E. McCLAIN DITCH

2-15-2W

Elev BM #1 95.06 - Top of headwall over  
tile

27 Nov. 1948.

Franklin  
Shortle  
Gossett

Sta.	B.S.	H.I.	Stake F.S.	Ground F.S.	Elev. Stake	Elev. Ground
B.M. #1	5.07	100.13				
0+00			<sup>Tile</sup> -7.63			
1			4.15	5.50	95.99	94.96
2			3.45	4.40	96.69	95.73
3			3.12	4.50	97.01	95.63
4			2.62	4.20	97.51	95.93
5			2.97	4.20	97.16	95.99
6			3.33	4.00	96.80	96.13
-7	3.53	101.16	2.50	3.50	97.69	96.63
8			3.36	4.30	97.80	96.86
9			3.72	4.20	97.44	96.96
9+60			3.54	3.80	97.62	97.36
Top 5" tile			7.75			93.41

LINGEMAN DITCH  
25, 35, & 36 - 16 - 1E

Mar. 5, 1949

M. Franklin T

Shurtle - Gossett - Line

Sta.	B.S.	H.I.	F.S.	EL.	Proposed EL.
B.M. #1	4.78	100.00			
0+0			10.49	89.51	87.51
2			8.90	91.10	
4			9.50	90.50	
6			9.50	90.50	
8			9.90	90.10	
8+50 Ditch			9.90	90.10	
8+50 Stake	4.17	99.28	4.89	95.11	
10			9.20	90.08	
12			9.50	89.78	
14			10.40	88.88	
16			11.10	88.18	
18			11.80	88.48	
18+50 Ditch			12.30	86.98	
18+50 Stake			6.20	93.08	
20			12.30	86.98	
20+40 Ditch			12.30	86.98	
20+40 Stk.			6.70	92.58	
21+70 Ditch			12.30	86.98	
21+70 Stk.	3.63	95.84	7.07	92.21	

SE cor. hdlw. EL. 95.22'

Flowline of tile.



Sta.	B.S.	H.I.	F.S.	EL.
22			8.70	87.14
24			9.20	86.64
24+55 Ditch			9.20	86.64
24+55 Stake			4.95	90.89
26			9.60	86.24
26+80 Ditch			9.20	86.64
26+80 Stk.			5.06	90.78
28			9.40	86.44
28+10 Ditch			9.40	86.44
28+10 Stk.			5.60	90.24
30			9.70	86.14
30+10 Ditch			9.70	86.14
30+10 Stake			6.20	89.64
32			10.30	84.54
B.M. #2	5.25	94.61	6.48	89.36
34			9.40	85.21
36			9.60	85.01
B.M. #3			4.90	89.71
38			10.40	84.21
39+30 Ditch			10.70	83.91
39+30 Stk.			5.00	89.61

(21+88 Pl. fence N.E.S.)

NE cor. NW wing of private br.

(E E & W Road 36+61)  
NW cor SW wing of bridge

40+71 Turns South  
49+35  $\phi$  N & S Road  
66+46 P.L. Fence N & S  
76+92 fence E & W.  
87+51 P.L. fence E & W.  
88+00 End of ditch - stake set on  
N. bank.



sp??  
Chas. E. McLane

243-15-2W

6<sup>th</sup> May 1949

	B.S.	H.I.	-F.S.	Elev.
BM#2	1.28	97.86		96.58

50 4.57 97.27

49

48

47

46

45 4.14

① 4.64 97.36 4.64 93.22

A.V. Fox X  
M.R. Hull Rod 21

BM#1 top of handrail elev 95.06  
@ Sta 8+00 this survey = 0+00 of  
survey dated 27 Nov 1948 (Book 215 page 13)  
= 0+00 of survey dated 6 June 1947  
(Book 209 page 13) = Sta 3+00 of plans  
drawn from the earlier surveys

BM#2 = Top SE Cor of S. handrail  
on bridge at Sta. 29+59 (Book 209 pp 16)  
= Sta 0+41 of plans = Sta 50+41  
this survey Elev. 96.58

Stk	E Profile		
4.6	6.09	7.19A	10.1 9.9 4.1
10	0	15	8.8 26 33
			20

5.9	4.89	5.9	10.0	10.3	10.0	4.2
10	0	6		9	22	32

10	5.46	6.4	6.2	8.2	8.4	11.2	11.3	10.0	8.9	4.4
	0	2	4	8	12	15	18	19	27	33

4.09	4.9	11.1	10.7	11.0	8.3	8.4	4.6
0	10	18		14	26	27	32

4.15	4.7	4.5	10.3	11.2	11.2	11.2	9.9	3.9
0	2	11	16	20	24	27	36	

4.65	5.3	10.6	11.3	11.6	11.3	6.9	4.65
0	9	14	17	22	30	38	

97.36

44

43

42

41

40

39

38

⊙

37

36

35

34

33

2.62 95.04  
4.64 97.06

494 92.42

22

♀

9 19 7.8 11.1  
0 1411.00 11.1 9.7 7.7  
16 20 25 354 06 5.4 5.1 8.3 8.7 11.1 11.8 11.3 9.5 6.0  
0 2 7 10 25 27 28 31 354 25 5.4 5.2 8.0 8.2 11.3 12.0 11.7 11.2 7.8 6.1  
0 2 8 11 14 23 27 26 31 394 95 5.9 12.1  
0 1412.4 12.1 7.9 4.9  
17 20 32 424 86 6.0 6.0 11.1 11.1 11.1 11.1 11.1 11.1 11.1 5.2  
0 2 8 20

86.0 85.6 87.0

11.8 10.0 9.7 7.2 5.2  
22 28 36 43 486.5 5.46 6.5 9.0 9.3 12.1 12.0 12.1 11.5 9.8 8.5  
5 2 5 9 15 20 26 30 415 9 4 9 4 5.8 10.5 11.0 12.6 12.6 12.5 9.9 7.3  
5 2 7 11 15 21 28 393 8 2 4.6 8.8 9.5 10.0 9.8 5.7  
0 17 23 32 454 47 5.5 8.3 9.7 8.8 9.8 4.9  
0 11 34 41 502 64 3.5 8.7 10.5 10.1 10.5 8.0 5.6  
0 12 18 24 32 404 20 4.9 9.0 10.7 10.7 10.7 6.0  
0 14 21 27 384 37 5.1 8.8 9.2 10.5 10.6 10.0 9.0 8.0  
0 7 12 18 23 27 36



32

95.04

31

①

2.50

94.95

2.59

92.45

30

29+15

BM#3

2.30

95.96

1.29

93.66

4.79

97.19

3.56

92.40

7.58

97.74

7.03

90.16

BM#2

2.79

99.37

1.21

96.53

96.58

51

52

53

54

55

①

4.29

100.75

2.91

96.46

56

4.69

2.2 2.9 2.9 9.4 9.7  
0 3 17 2411.4 11.4 11.4 10.0 8.4  
26 28 31 372.5 9.3 2.3 6.9 3.9 9.1 11.7 11.4 11.9 10.3 9.1  
0 5 15 21 23 26 27 355.28 11.0 11.7 10.8 11.2 8.6  
0 22 27 31 33 39

6.42

11.5

SE Wing @ Handrail of Bridge  
@ Sta 29+15

ck 0.05 - ok

5.2 4.77 5.2 6.1 11.7 11.7 5.8 6.2  
10 0 3 6 14 28 344.2 3.44 4.6 4.7 11.2 ~~11.7~~ 11.6 4.9 5.5  
10 0 2 11 14 17 26 344.5 4.08 5.0 9.8 11.5 11.4 4.9 5.1  
10 0 11 13 20 27 3593.57  
5.80 8.9 10.3 10.3 5.3 5.0  
20 29 34 42 523.5 3.12 9.1 4.3 10.6 10.6 4.0 4.0  
10 3 0 3 12 17 28 38(3.4/3.32) 8.8 4.1 10.6 11.4 11.1 4.6 4.6  
(10/2) 1 11 15 19 25 35

100.75

57

5

2.1	2.11	39	3.2	11.3	11.3	3.9	3.9
10	2		5	14	20	27	37

58

2.3	2.3	213	2.8	10.1	10.1	3.1	3.1
10	2		0	14	18	29	39

59

2.7	2.7	188	2.9	3.5	10.6	10.6	3.5	2.9
10	2		0	2	13	17	24	36

60

O

.88

1002.2

141

2.44

99.34

3.2	2.9	241	3.4	4.2	8.8	11.2	11.2	9.9	5.9	4.8	4.6
10	3		0	5	10	16	21	23	27	31	39

61

3.5	2.9	234	3.3	3.6	8.6	9.6	9.6	8.8	4.2	4.2
10	2		0	2	10	14	16	20	27	37

62

4.7	374	4.7	5.1	8.8	9.3	9.3	8.6	5.3	5.3
10		0	4	11	14	18	20	27	37

63

4.0	246	3.5	2.7	8.7	9.4	9.0	4.5	4.5
10		0	4	11	17	20	24	34

64

3.2	162	2.7	8.6	8.3	8.6	3.2	3.4
10		0	12	16	19	26	36

65

2.9	2.7	242	3.3	8.4	9.3	8.4	3.5	3.5
10	2		0	10	14	19	26	36

66

3.3	180	2.8	2.8	7.9	9.2	8.5	4.1	3.4
10		0	1	16	19	19	26	36

67

O

4.23

100.85

360

9662

4.3	360	4.6	4.8	8.4	8.4	4.6	4.1
10		0	2	9	15	25	35

68

4.8	450	5.5	9.1	9.1	8.7	4.1	4.1
10		0	6	10	16	25	35



10085

25

69

4.6	413	5.1	5.3	8.4	9.2	8.4	5.4	4.6
10		0	3	10	14	19	24	34

70

4.0	320	4.2	7.9	8.8	8.8	5.0	4.0
10		0	7	11	18	24	34

71

3.9	322	4.1	7.7	8.6	7.9	4.2	3.6
10		0	9	15	18	24	34

74

4.2	389	4.7	8.2	8.2	4.7	4.7
10		0	6	20	24	34

73

4.7	423	5.0	7.7	8.2	7.7	5.0	5.0
10		0	6	12	17	24	34

74

4.7	418	5.2	8.0	8.0	7.0	5.3	5.1	5.2
10		0	3	7	16	20	24	34

①

3.88 16055 418 96.62

75

4.7	514	67	5.6	7.2	8.0	7.3	4.7	4.7
10			0	3	10	15	23	33

76

4.5	453	5.3	7.0	7.5	7.0	5.0	4.5	4.5
10		0	4	9	14	18	24	34

77

4.7	410	4.9	6.8	7.2	6.7	5.2	4.2	4.0
10		0	5	10	14	17	23	33

78

4.5	415	4.8	6.6	6.6	7.1	4.9	4.3	4.1
10		0	5	12	15	17	23	33

79

4.4	392	4.7	6.3	6.3	5.9	5.9	4.8	4.5	4.5
10		0	5	7	10	16	19	23	33

80

4.7	319	4.7	3.7	4.7	6.0	6.0
10		0	11	20	22	32

EM

5.60 9A.95 95.06

Ck 0.11 6K

BM #1 6.52 101.58

95.06

stk

81

5.9 5.4 5.1 4.8  
30 9 0

82

5.0 5.1 4.6 3.84  
30 15 0

83

5.2 5.1 4.3 3.48  
30 15 0  
4.0 3.08

84

5.0 4.9 4.7 4.1 4.0 3.08  
30 15 6 5 0

85

4.7 4.8 4.2 3.20  
30 15 0

86

4.7 4.4 4.1 3.78  
30 15 0

87

4.2 4.1 3.8 2.82  
30 15 0

88

4.0 3.8 3.4 2.67  
30 15 0

89

3.8 3.9 3.9 3.09  
30 15 0

90

3.6 3.2 2.90  
30 0

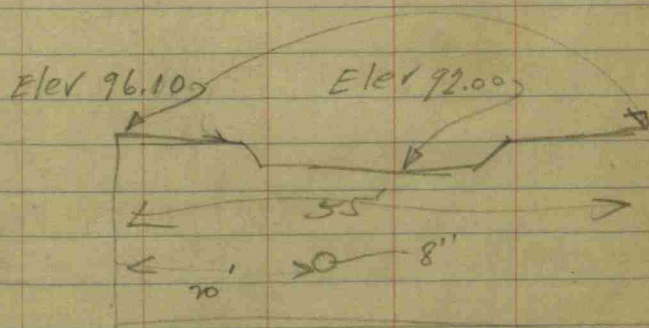
BM #1	5.51	100.57	6.5V	95.06	95.06	ck ok
Sta 74	3.79	100.55	3.81	96.76		
Sta 67	3.74	100.38	3.89	96.66		
Sta 60	1.90	101.02	1.06	99.32		



		101.02			
5.55	276	99.18	4.60	96.42	
BM#2			2.64	96.54	96.58
				ck 0.04	ok

Datum for Hdwl  
@ Sta 54+00

Length 55'  
Pipe 20' from Southend



THARP DRAW

15  
3  
2.5  
39.5  
19.5  
12.5  
3.5  
15.5  
17.5  
6.5  
47.7  
3  
141.6  
170  
21.5  
50.5  
15.5  
170  
31.5

P.C.	93+10.1	0°
+50		3°00'
94		6°45'
+50		10°30'
95		14°15'
+50		18°00'
96		21°45'
+50		25°30'
+73.1		27°14'

PC	99+52.8	0°
100		2°21.6'
+50		4°51.6'
101		7°21.6'
+50		9°51.6'
102		12°21.6'
+50.5		14°53'

92+88  
221  
93+10.1  
196.5

29

Angle of ditch with N&S Sec 33  
SE Quad. = 96°04'

Curve Data Sta 95+

Δ	= 54°27'	P.C.	93+10.1
D	= 15°00'	P.I.	95+06.6
T	= 196.5'	P.T.	96+73.1
L	= 363.0'		
E	47.6		

Curve Data Sta 101+

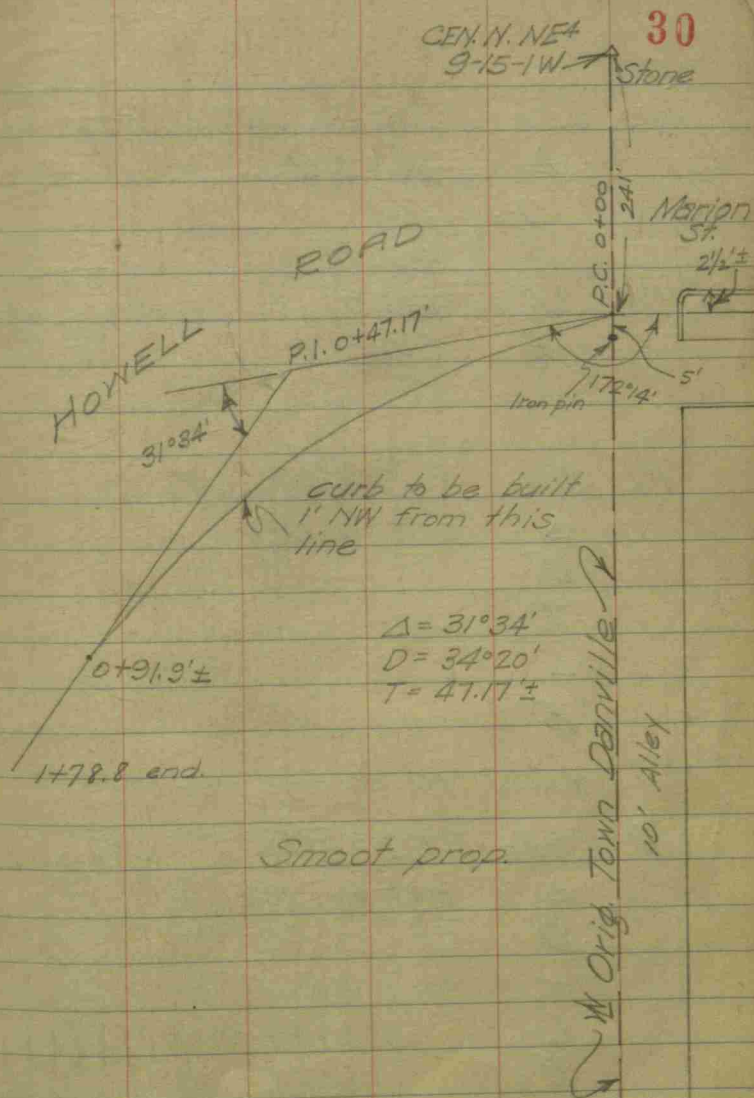
Δ	= 29°46'	PC	99+52.8
D	= 10°00'	P.I.	101+05.1
T	= 152.98	P.T.	102+50.5
L	= 297.667		
E	19.89		

Hendricks County Highway Dept.  
 Survey for curb & gutter  
 N. Marion St. - Howell Rd.  
 Danville - In  $W^2 NE^4 9-15-1W$

Shurtle - Gossett - Randolph

14 July 1949

Sta.	Defl.
P.C. 0+00	0°
+20	3°26'
+40	6°52'
+60	10°18'
+80	13°44'
P.T. 91.93	15°47'





3306.5  
189.5  
31+7.5  
305.5  
311.7.5

Thorp Drain

P.I. Sta 33+06.5 31+50-1° 07.5  
 $\Delta = 36^\circ 30' L$  33 4° 07.5  
 $D = 10^\circ$  35 6° 37.5  
 $T = 189.0$  33 9° 07.5  
 $L = 365.0$  35 11° 37.5  
 $E = 30.4$  39 14° 07.5  
 +50 16° 37.5  
 +82.5 18° 15'

P.I. Sta. 27+77.9  
 $\Delta = 42^\circ 06' Rt.$   
 $D = -$   
 $T =$  no curve  
 $L =$   
 $E =$

(Hold) P.O. +26+65.8 10° Rt

P.I. Sta 23+98  
 $\Delta = 58^\circ 01' Rt.$   
 $D =$   
 $T =$  no curve  
 $L =$   
 $E =$

653.33  
326.1

653.33  
326.1  
31

P.I. Sta 22+22.7  
 $\Delta = 5^\circ 38' Rt.$

P.I. Sta 20+53  
 $\Delta = 17^\circ 08' Rt.$

no curve

P.I. Sta 39+33.9 P.O. 37.5 = 0°  
 $\Delta = 65^\circ 14' Rt$  38 4° 57'  
 $D = 20^\circ$  39 9° 57'  
 $T = 183.35 (183.4)$  39 10° 57'  
 $L = 326.2$  40 19° 57'  
 $E = 53.64$  40 24° 57'  
 PT +16.7 37° 37'

32° 37' 29° 57'  
 +13  
 100  
 25° 40'

290

166 27  
19 23

105.5 74.7

107.2  
25.5

PI Sta 41+83.4 178.9

$$\Delta = 19^\circ 33' R$$

$$D = 100$$

$$T = 78.7'$$

$$L = 195.5'$$

$$E = 8.44$$

166  
19  
182  
167

PC 40+83.4

0°

16.6

41

0° 50'

79.8

150

3° 20'

42

5° 50'

78.2

150

8° 20'

86.7

PT.

+78.9

9° 46.5'

60.7

10.7

1933

946.2

PI. 45+25.7 - 137° 25'  $\Delta = 42^\circ 35'$

PI 58+039 - 148° 47'  $\Delta = 31^\circ 13' R$



Levels

BM #	5.63	114.60		108.97
			(9.5)	105.10
○	4.05	116.15	2.50	112.10
○	5.21	115.97	5.39	110.76
○	3.89	115.14	4.74	111.23
○	3.85	115.34	3.63	111.29
○	3.20	111.93	6.61	108.73
BM ⊕			11.93	100.00
			17.5	

25.83

34.80

25.83

8.97

33

East

N. End of Hdwl on 36" CMP-Str #160  
on SR #39

Low spot in SW Cor of the NENE Sead?

" #  
BM Top of SE Wing Str #125 SR #39  
at Center of Horiz. portion of wing.  
Streambed from same H.I.

9.00

3.9

5.1

5.6

10.7

111.93

17.5

94.43

1500

3525

5025

17

6725

68



BH#S 3.34 103.34 100.0

60

59

58

0 3.40 103.33 3.41 99.93

57

56

55

0 4.33 104.24 3.92 99.91

54

53

0 5.22 103.83 5.63 98.61

52

51

51

50

4

34

101.1  
2.1  
103.2  
2.1  
101.1

101.1

V.V. 56.29

96.5

51 46 307 81 88 81 19 46 46  
8 4 2 8 10 13 18 20 23

46 341 94.1  
5 13 87 9.7 9.1 4.0 3.8 4.1  
0 6 9 12 18 22 28

50 368 93.7  
6 22 45 9.1 9.6 9.9 5.0 4.6 3.8 4.9  
0 0 7 10 12 14 17 20 26

44 4.7 306 9.1 9.3 9.0 5.2 4.2 5.1  
6 3 0 2 11 14 17 20 22 26

5.4 4.9 322 9.0 7.0 8.6 4.4 3.4 3.9  
10 6 0 7 10 16 18 20 27

5.8 321 94.1  
8 6.2 9.8 10.1 9.7 6.5 6.5  
0 11 17 22 32 38

6.9 6.4 523 93.5  
11 7 6.6 6.6 9.0 10.7 9.8 7.9 7.8 7.8  
0 6 10 14 20 25

6.5 6.4 555 93.5  
10 6 5.5 5.6 10.5 10.7 9.3 6.5 5.5 5.5  
0 1 9 10 12 18 22 30

6.3 5.8 549 92.1  
8 4 5.8 6.0 10.0 11.7 10.1 6.7 5.7 5.6  
0 2 5 10 12 16 21 24

6.6 6.6 553 92.6  
12 7.5 6.3 6.9 9.1 11.1 11.7 10.7 6.0 6.0  
0 2 6 8 11 13 20 24

103.83  
49  
O 513 103.68 5.28 98.55

48

47

46  
O 4.67 102.02 6.33 97.35

45

44  
O 3.64 102.41 3.25 98.77

43

42

41

+60 - 8" file on Rt

40  
O 3.80 98.36 7.85 94.56

39

BM#4 9.85 102.43 3.78 94.58  
O 3.70 102.47 3.66 98.77  
47° 102.97 4.20 98.27

97.9  
95.4  
84.6  
5.6  
103.68  
7.2  
96.48  
90.2  
6.3  
35  
92.6  
6.5 6.3 6.1 9.8 11.2 11.2 10.7 6.1 6.1  
17 6 0 3 7 7 17 18 22

92.4  
6.0 6.1 6.5 6.6 8.8 10.9 11.4 11.3 9.7 7.3 6.0  
14 7 0 3 9 10 14 10 15 17 25

92.3  
6.8 6.9 6.1 6.7 6.3 11.1 11.6 11.0 9.9 6.6 6.1 6.4  
10 6 0 3 9 10 12 15 16 20 24 36

91.7  
7.7 7.6 7.8 7.2 7.7 11.3 12.0 10.6 8.3 6.8 6.8  
12 7 0 5 9 12 10 16 19 25

91.5  
6.7 6.4 6.0 5.6 10.4 10.5 10.1 5.2 5.4  
13 4 0 3 13 14 16 23 28

91.1  
7.1 7.1 3.25 4.1 2.5 7.6 10.9 10.6 10.6 9.1 5.8 5.9  
15 12 0 4 11 13 16 19 23 30 35

90.8  
7.5 6.1 6.5 7.5 11.1 11.6 11.5 7.9 6.0 6.7 6.7  
15 6 0 4 11 12 12 16 20 24 26

90.1  
7.9 7.2 7.0 8.0 11.6 12.1 12.3 6.8 7.3 7.3  
16 11 0 3 9 13 16 20 22 26

90.0  
9.6 7.7 7.0 9.8 11.7 12.4 10.9 7.4 6.2 7.7  
15 5 0 9 11 14 18 20 24 30

89.9  
8.5 8.3 8.7 9.0 11.9 12.5 12.3 9.1 9.1  
8 4 0 4 6 11 15 21 25

88.4  
9.7 3.7 3.8 4.5 8.8 9.0 4.6 7.6 5.2  
8 3 0 2 5 8 11 11 22

39+90-30 Rt triple white poplar  
Notch out in North trip



8.7  
100

102.97  
5.04 103.88 4.13 98.84

6.93 105.42 5.41 98.49

BM #5  
60

4.79 104.79 5.01 99.98

okg.00  
100.00

61

100.24  
375 951  
5.56 5.16 4.61 5.0 9.4 9.7 39 6.1 5.1 6.3  
14 6 0 2 9 12 14 21 25 37

62

53 95.0  
5.7 5.8 6.1 7.0 9.5 9.8 9.6 5.1 5.4 5.7  
14 4 0 4 10 12 15 24 30 34

63

418 95.4  
5.4 5.3 5.1 7.1 9.4 9.0 4.1 4.2 5.6 5.8  
14 8 0 9 13 15 24 27 31 36

64

475 95.3  
5.0 5.2 5.4 9.2 9.5 9.4 4.9 4.9 5.4 5.4  
14 7 0 7 9 12 23 26 29 35

65

385 95.5  
5.3 4.3 4.2 8.9 9.3 8.8 7.9 4.7 4.7 5.7 5.6  
14 3 0 8 11 14 15 23 25 30 36

66

359 95.8  
4.8 4.5 4.2 4.6 8.9 9.3 9.0 7.6 4.5 4.5 5.6 5.6  
12 4 0 2 10 13 15 17 24 26 33 38

3.51 104.71 3.59 101.40

67

385 95.9  
5.2 5.2 4.7 4.8 8.8 8.7 8.5 7.1 4.4 3.9 5.1 5.2  
12 5 0 2 8 10 13 16 23 27 30 38

68

352 95.9  
4.9 4.9 4.4 4.2 4.8 8.3 8.8 8.6 7.1 4.8 5.0 5.6  
15 10 3 0 2 7 10 14 16 23 31 38

69

461  
5.0 4.7 4.2 8.0 8.6 7.8 5.6 4.4 4.4 5.0 5.6  
16 8 8 12 15 19 24 27 29 36

100.4  
91.7  
8.5

99.0  
92.3  
7.1

36



70		109.71		
71				
72				
73				
74				
75				
BM # 6	3.19	105.29	3.19	102.10
75+58	Tharp = 10+00		Gentry	
76				
77				
78				
79				
80				
81				

51	5.2	4.6	8.3	8.3	6.2	4.2	4.2	4.2	4.2	5.1
20	12	4	2	7	11	14	17	23	25	30
4.7	4.7	4.7	6.2	8.0	8.3	7.8	6.7	4.4	4.4	4.4
15	8	3	7	9	12	15	17	24	34	
5.1	4.5	4.2	4.5	7.7	7.9	7.5	7.2	5.2	4.2	5.5
14	6	3	2	5	8	10	13	18	23	35
5.5	5.3	4.2	4.3	8.2	8.6	8.7	7.7	4.5	5.1	5.7
15	7	3	3	8	11	14	23	28	30	37
5.1	4.7	4.3	4.5	5.9	8.2	8.8	8.5	6.8	4.3	4.8
14	7	0	2	5	8	10	14	16	22	29
5.9	5.5	3.8	8.2	8.7	8.5	8.1	6.6	3.5	3.5	4.3
18	10	3	6	8	10	12	14	21	24	28
BM # 6 = 36" oak 75+50 Ct 50' Notch in North Root										
4.6	4.9	3.8	7.8	8.1	8.2	8.0	6.3	3.5	3.4	4.8
16	8	3	8	11	15	21	25	34	37	44
7.4	7.3	4.2	7.9	8.0	7.9	4.2	4.1	5.1	5.0	
12	4	0	3	8	11	16	22	26	32	39
5.3	5.2	4.8	5.7	8.3	8.2	6.7	4.3	4.3	5.2	5.2
14	6	4	0	8	10	13	17	23	27	33
5.7	5.5	4.5	7.7	8.1	5.3	4.2	5.6	5.0	5.1	
15	10	6	2	8	10	15	21	24	28	34
7.7	6.8	6.6	7.7	9.9	10.1	9.6	7.7	7.3	7.5	
16	6	0	5	10	12	15	19	28	36	
7.5	7.6	7.4	6.6	9.9	10.0	9.8	8.3	6.6	6.8	7.6
16	12	7	0	2	7	10	13	14	20	24
7.3	7.6	6.3	9.2	9.9	9.1	5.7	5.7	7.5	7.5	
18	8	3	0	5	9	12	19	23	29	36

107.53

82

83

0

2.89 106.00 4.72 103.11

84

85

BM#7 5.47 108.09 3.38 102.62

8

86

87

88

89

90

91

0

3.58 106.85 4.82 103.27

92

92+84

End open portion

107.5  
5.6  
101.9  
40.1  
61.8101.8  
75.0  
64102.6  
25.3  
7.3103.2  
75.1  
8.1

38

477 478  
62 68 65 60 58 6.1 9.7 9.7 5.0 5.0 6.4 6.2  
15 10 4 2 0 2 10 11 20 23 30 36

472 48.2  
5.3 6.2 5.5 6.0 8.8 9.3 7.9 5.4 3.4 3.4 5.0 5.0  
14 6 0 2 7 11 14 17 21 23 30 36

484 48.7  
4.2 3.9 3.8 7.1 7.3 7.3 7.7 4.6 3.6 3.6  
17 7 0 6 9 12 15 19 24

308 98.1  
4.5 4.2 4.1 7.0 7.1 7.2 7.0 4.3 3.8 4.2  
18 7 0 2 7 10 12 15 18 24  
24' 110' 0 5.6 8.5 10.0 - 7.5' 5.1' Not in N.W. Root

550 99.1  
6.0 5.9 6.0 8.6 9.0 8.9 5.2 6.1  
20 10 0 7 10 13 21 35

377 99.2 5.1  
4.5 4.3 4.4 4.7 8.6 8.9 8.7 8.5 3.5 3.4 4.3 4.2  
20 10 0 2 7 9 11 17 24 22 27 35

305 99.6  
5 4.5 4.6 4.8 8.3 8.5 8.5 5.5 3.6 3.8 4.4  
21 8 0 3 6 9 12 15 21 25 33

403 99.4  
5.1 5.1 4.9 5.5 8.2 8.7 8.3 3.9 5.2 E.G. Pt.  
20 10 0 3 8 10 12 20 29

436 99.0  
4.8 4.7 5.0 5.4 6.0 8.2 8.7 8.3 8.3 4.4 5.4  
20 10 0 2 4 8 11 12 18 22 27

57 99.5 5.5  
5.7 5.7 5.5 7.1 8.5 8.6 8.1 4.4 4.1 6.5  
20 10 0 5 8 9 11 14 20 24 30

49.8  
4.5 4.8 5.0 5.7 6.7 7.1 7.3 8.3  
18 11 0 3 6 12 21 30

49.9  
4.4 4.4 4.0 5 6.1 6.9 7.0 6.8 3.1 3.6  
20 10 0 4 12 15 18 23 30



N end brace - concrete Post.  
BM. #3 106.85

3.76 106.75 3.86 102.99

93

+14 Invert 14" Pipe

+50

94

+50

95

+50

96

+50

97

98

99

⊙

100

5.45 108.13 4.07 102.68

39

307

108.7

31

93.5

82

102.2

46

102.1

47

101.7

51

101.8

50

101.7

51

102.10

48

101.8

50

101.8

50

101.9

49

102.1

40.7

47

102.4

5.8



108.13

100 + 50

101

+ 50

102

103

104

105  
① 4.67 108.25 4.55 103.58

106

107

108

109

110

102.2  
59

102.6  
55

102.7  
54

102.1  
50

103.2  
49

103.0  
51

~~103.2~~  
52

103.1  
52

103.3  
50

103.2  
49

104.1  
42

104.1  
42

108.25  
 111  
 ① 4.91 110.12 3.04 105.21

112

113

+47.2

+70

+90

114+00 Edge prvmt. SRd 34

+ 11 d "

+ 22 Nudge " " "

+ 33 Side ditch " "

+ 43

B14<sup>#9</sup> 2nd S headwall on 18" Pipe  
 5.41 112.26 3.27 106.85

109.6  
37104.3  
58104.7  
52105.1  
50105.0  
51105.2  
47107.4  
27107.5  
2.6107.3  
2.8105.1  
50

49



4.10

⊙ 5.63 112.26 113.49 4.40 107.86

⊙ 4.10 112.75 4.84 108.65

⊙ 1.77 107.86 6.66 106.09

⊙ 4.64 106.74 5.76 102.10

BH<sup>28</sup> - 3.78 102.96

GENTRY ARM  
THARP DRAIN

BM # 6 3.38 105.48

102.10

10:00 Gentry = 75458 Tharp see page 37

11:00

<sup>3.12</sup>  
5.6 5.2 4.4 3.9 7.7 8.0 7.9 3.8 4.1 5.2 5.2  
15 8 4 7 10 12 20 24 30 34

12

<sup>4.29</sup>  
5.2 5.2 4.3 4.0 7.6 7.7 7.5 3.2 3.6 4.7  
15 8 3 9 12 14 23 28 33

13

<sup>2.08</sup>  
4.6 4.3 3.4 2.8 6.4 7.4 7.4 3.3 2.7 4.0 4.0  
18 10 5 0 6 10 10 18 22 28 35

14

<sup>1.91</sup>  
4.2 4.1 2.8 2.6 3.4 6.7 7.2 6.8 3.8 1.9 3.3 3.9  
20 10 4 0 2 7 10 12 16 21 26 35

15

<sup>2.16</sup>  
4.3 4.2 3.6 3.0 3.1 6.4 6.8 6.4 3.8 3.4 3.8 3.3  
18 10 3 0 2 8 11 13 14 22 28 35

+60

<sup>48.6</sup>  
3.5 4.7 4.8 6.5 6.9 6.2 4.3 3.5 3.2  
15 0 2 4 6 10 13 24 35

4.41 101.07

+65

Invert 16" Tile

0

4.97 106.04 4.41 101.07

16

101.7  
473

17

101.2  
48

18

101.1  
49

19

101.5  
45

101.7  
93.3  
8.8

7.6  
2.9

101.5  
93.8  
7.7

43

102.9  
98.9  
5.9

102.5  
94.2  
8.3



106.07  
 20  
 ① 4.94 107.31 3.67 102.37

21

22

23

24

①

4.00 108.72 2.59 104.72

25

26

27

①

4.37 108.92 4.17 104.55

28

29

30

31

f50

101.7

43

102.1

52

102.8

49

103.3

40

104.2

31

103.8

49

103.7

50

103.8

49

103.7

52

104.1

48

103.5

54

103.7

52

103.7

52

110.1

102.1

108.92

32

+50

33

+50

34

0

5.05 109.21 4.76 104.16

+50

35

36

37

+50.5

+75.6

38

+50

45

109.2

47

109.0

49

103.7

52

103.7

52

103.3

56

103.1

61

103.0

62

102.3

69

103.7

53

104.7

45

104.2

45

104.7

45

104.6

46



39

109.21

+50

40

⊙

3.70 109.57 3.34 105.87

+50

+76.7

+83.4

41

BM 76 36" Oak 50' H. Sta. 41

3.02 109.57 3.02 106.55

41+60

42

+50

+78.9

43

46

104.4

48

109.8

44

105.2

40

104.8

48

104.7

49

104.7

49

104.7

47

105.1

45

105.1

4.5

105.0

46

105.5

41

105.6

40

141° 47'  
58 + 03.9

109.57

44

45

+25.7

0

4.06 109.47 4.16 105.41

46

47

48

49

50

51

0

4.05 110.74 2.78 106.69

52

53

54

55

137° 25'  
45 + 25.7

47

105.6

40

105.1

45

105.0

46

104.7

48

104.6

49

104.6

50

104.2

50

105.1

44

105.3

37

106.3

44

106.4

45

106.0

47

105.5

52



		110.74			
56					
57	4.69	111.51	3.92	106.82	
①	4.69	111.51	3.92	106.82	
58					
59					
60					
61					
BM 86					
			2.65	108.86	

105.6  
51105.0  
47105.7  
58106.4  
51105.8  
57105.1  
64

BM<sup>4</sup> 333 99 91 96.58  
50+41 8730

51 ① 5.8 99.1 87.36

52 ① 5.0 99.1 87.46

53 ① 87.56

54 ? 87.7 12.2

55 ① 87.8 12.1

56 ① 87.9 12.0

57 88.0 11.9

383 102.52 1.22 98.69

58 88.1 14.4

59 88.2 14.3

60 ① 88.3 14.2

61 88.4 14.1



6.72 1/4 10.05

54

12.8 10.5

5.3

7.1

12.3 11.2

4.8

7.5

12.0

5.5

6.9

3.4

10.3

12.3

5.0

6.8

3.4

10.2

3.

7.2 10.8  
5.6

		102.52			
62				88.5	14.0
63				88.6	12.9
64				88.7	13.2
	31.8	100.95	4.75	97.77	
65				88.8	12.1
66				88.9	12.0
67				89.0	11.9
68				89.1	11.8
69				89.2	11.7
70				89.3	11.6
71				89.4	11.5
	45.9	101.12	4.42	96.53	
72				89.5	11.6
73				89.6	11.5



	101.12				
74			87.7		
75			89.8		
76			89.9		
77			90.00		
78			90.1		
79			90.2		
BM	6.49	101.55	6.00	95.12	95.00
80				90.3	ck 0.06
81			90.4	11.2	6.1 9.4 11.1
82			90.5	11.1	11 11.2 5.5 2.7 1.3 9.7
83			90.6	11.0	11.1 2.7 6.4 3.2 1.2 11.1
84			90.7	10.9	
85			90.8	10.8	

		101.55			
86				90.9	10.1
87	513	102.90	388	97.67	
				91	11.2
88				91.1	11.2
89				91.2	11.2
+60				91.2	11.2

Shots on JCHill - Pond

F.S.	H.L.	B.S	EL
	113.2		
10.9			102.3
11.0			
11.1			
11.2			102.0
9.5			
9.5			103.7
		10.2	102.99
			99.05

53

IN SE/4 33-17-W

APR. 5, 1950

Fox - Shurtle  
cloudy - windy - cold - snow

} Pond in field 700 ± SE of Mrs. J.C. Hills farm

Pond @ lane E. of Mrs. Hills farm  
500 ± N. of lane  
B.M. #8  
EL. New outlet

104.2	
97.9	102.99
6.3	102
	113.19
	113.2
	10.2
	2.3
113.2	
9.5	113.2
103.7	112
	102
	3.5
	98.5



Beaman Ditch

BURROYS

BLACE

GRAHAM

Sta.	B.S.	H.I.	F.S.	EL.
BM#1	2.24			
BM#2	2.19			
0+0			11.28	
1+0			11.03	
2+0			10.03	
3+0			9.21	
4+0			9.22	
5+0			9.33	
6+0			8.10	
○			8.13	

## Bearnan Ditch

BURROYST  
GRAHAM  
BLACK

BM#1	3.08	
BM#2	3.07	
0+0		12.27
1+0		11.89
2+0		10.91
3+0		10.05
4+0		10.04
5+0		9.24
6+0		8.96
①	8.03	8.44
7+0		8.30

TOP N end W wing wall  
MIDDLE W wing wall

Clear, Cold  
Dec 23, 1953

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Ross Drain - Trib. #3

Party - BURROWS

GRAHAM

BLACK

S to	B.S.	H.I.	F.S.	ELEV
BM	2.69	952.55		949.86
⊙	4.79	953.67	3.67	948.88
⊙	2.72	945.15	11.24	942.43
-170			8.9	936.25
-70			7.9	937.25
0+0			7.9	937.25
1+0			5.9	939.25
2+0			4.6	940.55
3+0			4.3	940.85
⊙	5.22	946.71	3.66	941.49
4+0			5.1	941.61
5+0			5.0	941.71
6+0			4.8	941.91
7+0			5.1	941.61
8+0			5.1	941.61
9+0			4.9	941.81
10+0			4.2	942.51
10+15			3.8	942.91
⊙	9.70	952.93	3.48	943.23
11+0			10.0	942.93
12+0				

~~158 - 1 foot deep~~

below bridge



1240	10.0	942.93
12474	9.9	943.03
B.M.	3.20	949.73

Beaman Drain

fences

9+53	fence crosses	N4S
36+51	barnyard fence	"
39+52	fence crosses	<del>E4W</del>
44+34	" "	N4S
58+26	" "	N4S
72+01	" "	"
76+20	" "	E4W
85+37	" "	"
87+32	(barnyard) "	"
90+28	" "	"
92+80	End of open drain	

Clear, Cold  
Dec 23, 1953

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Beaman Ditch  
Parky BURNING - K  
GERHAM  
BLACK

Sta	+		-	
	BS		FS	
BM#1	3.23	11.92		8.69
BM#2	3.23	<del>8.69</del>		
0+0			12.5	-0.58
1+0			12.0	-0.08
2+0			11.1	0.82
3+0			10.1	1.82
4+0			10.0	1.92
5+0			9.4	2.52
6+0			9.2	2.72
7+0			9.1	2.82
①	1028	14.01	8.19	3.73
8+0			10.6	3.41
9+0			9.2	4.81
10+0			9.4	4.61
11+0			9.2	4.81
12+0			8.8	5.21
13+0			8.5	5.51
14+0			7.9	6.11
②	1075	17.32	7.44	6.57
15+0			11.5	5.81
16+0			11.1	6.22

Top NE Cor. W  
Middle W



17+0			10.1	7.22
18+0			10.0	7.32
19+0			9.4	7.92
20+0			9.3	8.02
21+0			8.7	8.62
①	10.69	20.16	7.85	9.47
22+0			10.8	9.36
23+0			11.1	9.06
24+0			10.2	9.96
25+0			10.5	9.66
26+0			9.6	10.56
27+0			9.3	10.86
②	10.07	20.58	9.65	10.51
28+0			10.4	10.18
28+73			9.2	11.38
BM#3	4.28	21.68	3.18	17.40
BM#4			2.05	19.63
29+0			10.9	10.78
30+0			10.0	11.68
31+0			9.8	11.88
32+0			9.5	12.18
32+90			7.6	14.08
33+0			9.3	12.38
34+0			9.3	12.38
35+0			8.7	12.98

Top NE COR. N abut. bridge @ 29+00  
Top N Handrail

F.L. - 4" steel pipe

95+76

○	6.35	24.69	3.34	18.34
36+0			11.4	13.29
37+0			10.8	13.89
38+0			10.3	14.39
39+0			10.1	14.59
39+17			8.3	16.39
40+0			10.0	14.69
41+0			9.7	14.99
42+0			8.9	15.19
43+0			8.2	16.49
44+0			7.5	17.19
○	10.38	28.11	6.96	17.73
45+0			11.5	16.61
46+0			10.8	17.31
47+0			10.7	17.41
48+0			10.4	17.71
49+0			9.3	18.81
50+0			9.0	19.11
51+0			9.0	19.11
52+0			8.5	19.61
○	6.96	31.38	3.69	24.42
53+0			11.0	20.38
54+0			10.6	20.78
55+0			9.6	21.78

private bridge

FL 6" corr. metal pipe

56+0			9.4	21.96
57+0			9.0	22.38
58+0			8.5	22.88
59+0			8.0	23.38
0	6.58	32.31	5.65	25.73
60+0			8.5	23.81
61+0			8.5	23.81
62+0			8.2	24.11
63+0			7.6	24.71
63+10			6.4	25.91
63+22			7.5	24.81
63+22			4.08	27.73
64+0			7.0	24.71
65+0			7.7	24.61
66+0			7.2	25.11
0	7.16	37.49	1.98	30.33
67+0			11.9	25.59
68+0			11.5	25.99
69+0			11.1	26.39
70+0			11.0	26.49
71+0			10.6	26.89
72+0			10.1	27.39
73+0			9.6	27.89
73+16			8.3	29.19

FL. 4" DR. T. L.F.T.  
 FL. 10" DR. T. RT.  
 TOP H'D WALL

FL. 4" DR. T



74+0			8.5	28.99
75+0			9.0	28.49
①	5.99	38.03	5.45	32.04
76+0			9.5	28.53
77+0			8.9	29.13
78+0			8.8	29.23
79+0			8.5	29.53
80+0			7.8	30.23
81+0			7.3	30.73
82+0			7.2	30.83
83+0			7.0	31.03
84+0			6.5	31.53
85+0			6.1	31.93
①	10.06	42.55	5.54	32.49
86+0			10.4	32.15
87+0			9.8	32.75
88+0			9.6	32.95
89+0			9.5	33.05
90+0			9.2	33.35
91+0			8.7	33.85
<del>92+0</del>				
①	3.88	42.63	3.80	33.75
92+0			8.2	34.13
92+00			8.72	<del>33.90</del> 33.91
	9.30	44.39	7.54	35.09
			7.54	

F.L. 14" DR.T  
TOP 14" DR.T.

<del>4.41</del>			
<del>4.30</del>	43.31	5.49	38.90
<del>4.41</del>	41.71	5.90	37.41
<del>2.60</del>	36.24	8.07	33.64
<del>4.41</del>	34.62	8.03	28.21
<del>4.21</del>	32.95	5.88	28.74
<del>4.82</del>	30.58	7.19	25.76
<del>4.75</del>	36.68	0.65	29.93
<del>1.66</del>	29.97	8.37	28.31
<del>3.72</del>	26.76	6.93	23.04
<del>4.59</del>	24.36	6.99	19.77
<del>2.65</del>	25.43	1.58	22.78
<del>3.57</del>	17.96	11.04	14.39
<del>2.67</del>	12.54	8.11	9.85
<del>3.57</del>			
2.69		4.58	7.96
		4.53	8.01

~~Top 14" DR. T~~

~~+~~ N Handrail (BM#4)

BM#1 TopNE cor w abut.

BM#2 Middle w abut.



# IMPROVED TABLES AND INFORMATION

## HORIZONTAL STADIA CORRECTIONS

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

### Chains to Feet

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

### Feet to Chains

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



