

← LETTER →

Mc DANIAL DRAIN

166-

TRANSIT BOOK

368 L

KEUFFEL & ESSER CO.

DRAWING MATERIALS
AND
SURVEYING INSTRUMENTS.
NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

⊙ 100.20 ✓

⊙ 99.77 ✓

⊙ 97.63 ✓

⊙ 95.93 ✓

⊙ 95.55 ✓

⊙ 94.85 ✓

⊙ 95.57 ✓

⊙ 97.25 ✓ 8

⊙

⊙

⊙

99.45

99.85

360
60
45

360
45
465

120
160
120
15
465

388
 155
 1940
 1940
 388
 60140

60
 33
 93

44
 3 | 132
 72
 0

255 $\sqrt{99.000}$
 765
 2250
 2040
 2100
 2040

30

132
 72
 60

40

132
 80
 52

255
 365
 1275
 1530
 765
 93075

89.5
 2360
 1260

365
 555
 1825
 1825
 365
 56575
 365
 33
 60

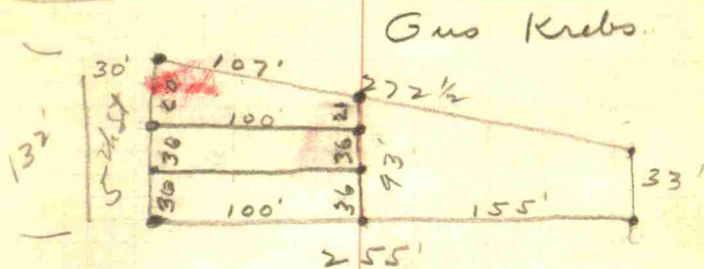
43
 72
 21

J. F. Frozier - Victor ^{A.} ~~Bank~~
 mill st 60 ¹ ⁰ Bankers Trust Co
 12 19

Gus Krebs. ~~South~~ mill.
 30 .45

Asa Good. ice house
 lots 283 Bl 12 - Hayden's add

Bill Morgan - acreage
 South of Frozier.



132
 33
 99

331 X .365
 155
 1825
 1825
 365
 56575

255 $\sqrt{99.000}$
 765
 2250
 2130
 1200
 1275

1275
 2130
 765
 99.075

2. ~~Wm~~ ~~Hopwood~~ to Lennie ~~Husband~~
Deed Record 125 P. 437

10 ~~Wm~~ B. Morgan
Aug. 1921

10 1 5

\$

0 45

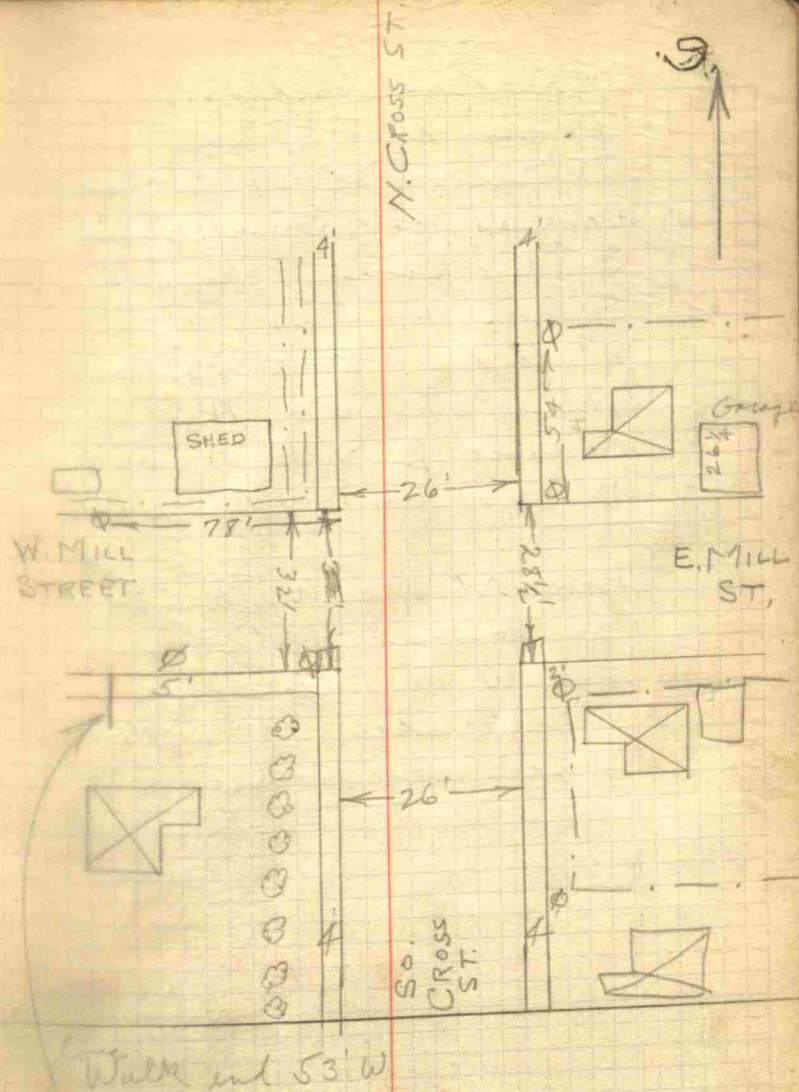
P. NW. Cor. of Intersection
 N. SIDE of Mill St.
 W. side of Cross.

From S edge of Sidewalk
 To 1st Fence 7'
 To 2nd Fence 18'
 To E EDGE Shed 29'
 To W edge shed 49½'
 To 2nd Bldg 74' E. EDGE
 To 2nd Bldg 84½' W. EDGE

Fire Plug 9'4" ^{E. EDGE WALK.} W and
 2' So of end of Walk.

N. from end of Walk
 Fence W. — 8'-4"
 W. shed S. edge 10½"
 W. shed N. edge 15"
 1st shed S " 16"
 " " N " 52½"

Jersey Mill + Cross St
 Intersection
 Danville



10.

NE Cor. Intersection
 From End of Walk.
 Telephone Pole 1' N. of end
 of Walk at Back edge Sidewalk
 S. edge Garage $3\frac{1}{2}'$ N.
 S " House 15' N.
 N. edge " " 43' N.
 Tele. Pole 54' N.
 Fence E 54' N and
 2' E. of back edge Walk

From St. edge Walk East
 To House 16'
 To W. edge Garage $61\frac{1}{2}'$ E
 " E edge 74' E
 " E edge House $58\frac{1}{2}'$ E

$58\frac{1}{2}$
 16
 42

$1\frac{1}{2}$
 $1\frac{1}{2}$
 $1\frac{1}{2}$

11.

SW. Cor Intersection
 From St edge of Walk. W.
 Tree line - $8\frac{1}{2}'$ W
 E. edge House - 53' W
 Wedge House - $116\frac{1}{4}'$ W
 Telephone pole - 40' W
 Fence S $138\frac{1}{2}'$ W
 Telephone Pole $138\frac{1}{2}'$ St edge Walk
 end of Walk S
 1st tree - 13'
 2nd tree - 29'
 3rd " - 47'
 4th " - 67'
 5th " - 85'
 6th " - 103'
 7th " - 120'
 8th " - 141'
 N. edge House - $34\frac{1}{2}'$ S
 S edge House - 79' S
 Fence W - 152' S

$116\frac{1}{4}$
 53
 $63\frac{1}{4}$

ix 2.

SE corner Intersection

From St Edge Walk E.
 Fence - 6⁹/₁₆ E
 W - House 15'9" E
 E - House 69' E
 W - Shed 72¹/₂' E
 E - Shed. 85¹/₂' E

From End of Walk S.
 N. edge shed - 8¹/₂' S
 Fence 8¹/₂' S
 N edge House - 21' S
 S edge " - 49' S
 Fence E - 85¹/₂' S
 N edge House - 97³/₄' S
 S edge House - 135¹/₄' S
 Telephone Pole - 85¹/₂' S

9775

37.50

13525

13.

184.
from Main St. South

0+0 52.41
 0+25 52.36
 1+0 48.60
 2+0 43.95
 3+0 39.65
 3+41 38.50
 4+0 34.36
 5+0 28.00
 6+0 21.51
 6+33 20.06
 6+67 18.90
 7+0 16.30
 8+0 10.83
 9+0 7.82
 10+0 5.95
 11+0 5.90
 12+0 6.16
 12+39 6.40
 12+56 6.82
 12+68 6.67
 13+0 6.79
 14+0 6.30

S. edge Pine
S. edge Main

N. edge Marion
S " "

N edge Bway
S " "

N. edge Mill
E mill
S edge mill

~~0 32.79~~
42.35

	E	25' N	
810.	From Kentucky E,		
0+0	18.00	22.00	E. Kent
0+10	17.70		E. edge Kent
1+0	15.66	20.15	
2+0	11.59	16.30	
3+0	7.17		
3+10	7.00	7.10	W. edge Cross
3+27	6.82		E Cross
3+43	6.36		E. edge Cross
4+0	4.80		
5+0	3.40		
6+0	3.00		

17

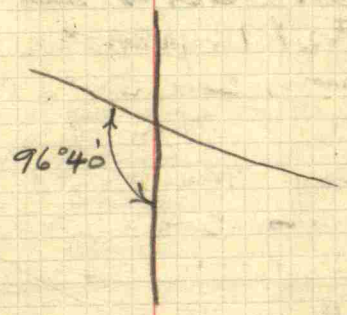
B.M. on arrow
on top fine plug
at NW. cor
of Cross & mill
E.L. 10.00

250.
W.M. A. M^cDANIEL DRAIN

- 0+0 Stk. Cross Sec. N 27° W
- 2+0 Stk " "
- 4+0 " " "
- 5+43 Deg L 43° 32'
- 7+30 Deg R 23° 38'
- 9+50 Stk Cross Sec.
- 9+68 Relit. Pikes So. line
- 11+77 Deg L 34° 35'
- 12+20 Tilt from N. 16"
- 14+0 Cross Sec
- 16+84 E. Road Fence
- 16+99 E NTS Road
- 17+08 Stk in W. Burm
- 17+08 Deg L 6° 30'
- 17+23 W. Rd. Fence
- 19+0 Cross Sec.
- 21+0 Cross Sec.
- 23+0 " "
- 25+0 " "
- 27+0 " "
- 30+05 Deg L 4° 50'
- 32+0 Cross Sec
- 34+0
- 36+0
- 38+0

Sta 16+99
20' So. TO CEN. So. OF CEN. OF SEC. 30.

Conc Budge 20' Rdway
5' Rise
20' Span



4252
4070 Cross Sec.
42+22 Def. R. $22^{\circ}29'$
43+36 Kennes W. line
43+50 Def. R. $28^{\circ}37'$
46+0 Def. R. $14^{\circ}47'$
48+0 Cross Sec.
49+27 Slagle S. line
49+50 Def. L. $11^{\circ}32'$
51+50 Cross Sec.
53+50 " "
54+40 Def. R. $15^{\circ}43'$
56+0 Cross Sec.
58+0 " "
60+0 " "
61+70 Def. L. $58^{\circ}48'$
63+34 12" Tile from N.
63+50 Cross Sec.
64+93 E. Fence of N. T.S. Rd.
65+13 E. Rd.
65+32 W. Rd. Fence
65+22 Def. R. $12^{\circ}48'$
67+0 Cross Sec.
68+96 Def. R. $10^{\circ}56'$
71+0 Cross Sec.
73+82 Def. R. $25^{\circ}25'$
75+50 Cross Sec.

Sta 49+27 - Slagle S. line ^{2.3.}

57+32 N. line of Slagle
and Halfaker S. line

Sta 65+13

Cone. Bridge on N. T.S. Rd.
20' Rdway
20' Span
4' Rise

Halfaker N. line and Slagle's
So line is about 2' N. of Sta 65+22

24

77+20 Def. R. $18^{\circ}56'$
79+50 Def. L. $11^{\circ}45'$
81+0 Cross Sec.
82+80 Def. L. $49^{\circ}12'$
84+16 Stanley W. line
85+76 Def. R. $11^{\circ}23'$
87+70 Def. L. $36^{\circ}34'$
also arm #1
90+40 Def. R. $19^{\circ}10'$
94+0 Cross Sec.
97+60 Stanley W. line + Stanley E. line
97+85 Def. L. $29^{\circ}51'$
100+0 Cross Sec.
102+0 Def. R. $2^{\circ}30'$
104+0 Cross Sec.
106+0 "
108+0 "
109+75 Def. L. $10^{\circ}41'$
111+48 arm #1
111+72 Def. L. $13^{\circ}55'$
111+76 Stanley W. line Waller
E. line

25
STA. 65+13

434 ft. So. TO CEN. EAST OF CEN. OF SEC. 25
and Halifax's So. line.

Web.

- 114+70 Def R 28°04'
- 117+0 Cross Sec.
- 118+50 Def R 4°07'
- 121+0 Cross Sec.
- 123+0 " "
- 126+0 Def L 16°40'
- 126+22 Williams W. line & Robbins
E. line.
- 128+0 Cross Sec.
- 128+29 10" tile from N.
- 129+50 Def L 18°43'
- 132+0 Def R 18°58'
- 134+0 Cross Sec.
- 136+0 Def R 6°37'
- 138+0 Cross Sec.
- 139+0 Def L 8°00'
- 141+0 Cross Sec.
- 141+56 E. Rd Fence
- 141+66 Def R 32°27'
- 141+75 E N + S Rd
- 141+94 W. Rd. Fence
- 143+22 Def R 42°24'
- 145+25 Def L 47°58'
- 148+90 Def R 9°25'
- 148+96 Robbins W line

127

Sta 141+75
 Conc. Bridge
 18'-0" Rdway
 4'-0" Rise
 8'-0" Span

144' So. to center of Sec No
 Fred Robbins So. line.

28.
 151+45 Def R $13^{\circ}14'$
 153+0 Def L $34^{\circ}00'$
 154+75 Def L $24^{\circ}43'$
 156+25 Def R $10^{\circ}55'$
 156+43 12" Tile from No.
 159+0 Cross Sec.
 161+50 " "
 162+09 Vic S. line + Sears N. line
 162+64 Def L $12^{\circ}23'$
 Leave old channel
 Old channel runs 100' W.
 164+28 Cross old channel
 Old channel N+S.
 165+0 Cross Sec
 167+0 " "
 168+55 Cross Old Channel
 Channel runs E+W.
 169+0 Cross Sec.
 171+82 Cross Channel N.+S.
 171+90 Sears W line - W^c Pointed E line
 171+92 Def. R. $24^{\circ}36'$
 174+0 Cross Sec
 176+0 "
 179+56 And. 6" & 8" Tiles

5290 | 17122
 15840
 12540

29

583' West to center of
 N+S Road and 843' N
 to cen E of cen of sec 27

30.
 111+48
 0+0
 2+0
 4+0
 6+0
 8+0
 10+0
 12+0
 12+96 S. Rd. Fence
 13+02 Def L $0^{\circ}36'$
 13+11 E Rd.
 13+20 N. Rd. Fence.
 15+0 Cross Sec
 17+0 "
 19+0 "
 20+61 E+W. Fence
 21+0 Cross Sec.
 23+58 Def. L $89^{\circ}56'$
 23+77 N. & S. Fence
 26+0 Cross Sec.
 28+0 "
 29+85 Def L $2^{\circ}51'$
 32+0 Cross Sec
 34+0 "
 37+28 N+ S. Fence
 37+43 Def L $86^{\circ}44'$

Run #1

Def R $118^{\circ}08'$

Cross Sec.

Def R $1^{\circ}06'$

Cross Sec

S. Rd. Fence

Def L $0^{\circ}36'$

E Rd.

N. Rd. Fence.

Cross Sec

E+W. Fence

Cross Sec.

Def. L $89^{\circ}56'$

N. & S. Fence

Cross Sec.

Def L $2^{\circ}51'$

Cross Sec

N+ S. Fence

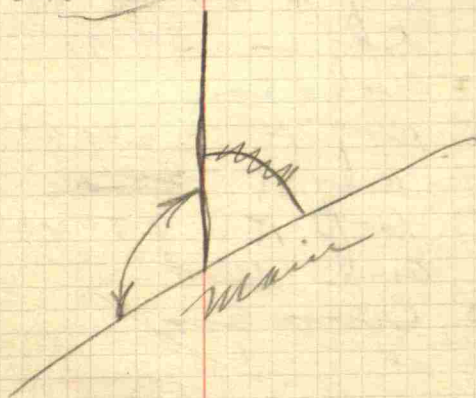
Def L $86^{\circ}44'$

Sta 13+

8' Span

18' Rdway

$2\frac{1}{2}$ ' Rise



58
 19
 77
 34

32
~~3470~~ Cross Sec
41+85 Def R. $94^{\circ}18'$
44+0 Cross Sec
46+0 "
47+77 Def R. ~~77+78~~ $86^{\circ}07'$
50+83 Def L $54^{\circ}47'$
53+0 Cross Sec
55+35 Def R $22^{\circ}18'$
56+22 Def R. ~~22+23~~ $29^{\circ}00'$
59+74 Def R. $29^{\circ}40'$
61+30 and West.
63+0 Cross Sec
65+0 "
67+66 Def L. $33^{\circ}44'$
69+0 Cross Sec.
71+75 End 12' Fil
71+75 Machine So. line
910' - 7+ start to E. N. 1/4 S. Rd

55
12' Fil

34. Arm # 2

61+20 = 0+0

0+0 Ref L 71034'

0+74 Ref L 42032'

3+0 Cross Sec.

5+29 E. Fence line of Rd.

5+31 5th End.

20" Sewer pipe at end
and 12" Arched, under
road.

4" from N. along E. side
of Rd.

12" Tile from Dettling

35.

38

	Book SM	F ¹ 5th	Book		
0+0	Level	4285	4341	4260 ⁵	3690
2+0	Level	4356 ¹	4416	4295 ⁰	3770
4+0	40.55 4 ⁴ 3955 4330	4387	4478	4345 ¹⁰	4412
5+43		4390	4443	4263 ⁶	400 ⁷
7+30		4415	4445	4338 ³	4163 ⁹
9+50	Level		4539	4475 ⁴	4292 ⁹
11+72	Level		46.30	41.82 ^{45.22 7}	4040 ¹⁰
14+0	45.39 ³ 44.85 ¹	4466	4424	4175 ⁴	
17+08		4950	4470	4415 ^{10 W}	
19+0	L	4670	4747	4526 ⁶	4230
21+0		4670	4705	4303 ²	4225
23+0		4710	4753	4585 ³	4320 ⁷
25+0		4762	4785	4748 ³⁰	6222
27+0	4766 ⁸	4746	4766	4395 ⁸	4350
30+05	level	4924	5021	4905 ⁴	4730 ⁵
32+0	80'-L-	4905	4956	Level	
34+0	130'-L-	4906	4960	"	
36+0	75'-L	4990	5030	"	
38+0	50'-L	5055	5103	"	
40+0	85'-L	5090	51.27	4990 ¹⁰	
42+22		51.45 ³	51.80	50.20 ⁴	4810 ⁵
4350		5115 ²	5170	4880 ⁴	4750
46+0		5230 ³	5235	5080 ⁶	4870 ⁹

39

 Sta 17+08
 BIT
 on NE
 wing
 EL 50.00

3580 ¹⁹	42.40 ²³	Level	
3500 ⁴⁷ 25	38.30 ²⁰	4390 ⁷	Level
4555 ¹⁹			
4090 ¹⁰	4408 ²⁰	Level	
3985 ¹²	4200 ¹⁶	4410 ²⁰	up on 30°
4169 ¹²	41.35 ²⁰	41.96 ²¹	4484 ²⁹ Level
4144 ¹⁶	4315 ¹⁹	4450 ²²	4485 ³⁰
4090 ¹⁰	42.75 ¹⁴	4454 ¹⁶	4515 ²⁰
4228 ⁷	41.80 ¹⁵	4360 ²²	4635 ²⁹ Level
4280 ⁵	4450 ⁶	4700 ²⁵	Level
4268 ⁸	4460 ⁹	4565 ¹⁸	4918 ²⁴
4290 ¹⁰	4310 ¹³	4525 ¹⁹	4625 ²⁴ 4825 ²⁷
440	50' of 5th		
4566 ¹⁰	4550 ¹³	4766 ²⁰	Level
4546 ⁹	4470 ¹²	4590 ³²	4738 ³⁶
			2 stream # 43.70
4730 ⁹	4725 ¹⁵	5020 ²⁰	Level
4845 ¹⁴	5022 ¹⁵	5080 ²⁰	"
4750 ¹⁰	4790 ¹⁶	5008 ¹⁸	5195 ²⁴

40.		Top			
48+0		5268	5222	5107	4860
49+50		5312	Level	5200	4966
51+50	5278	5222	5178	5102	4972
53+50	5260	5300	5212	5025	5025
54+40		5290	5253	5195	5026
56+0	5322	5378	5305	5160	5040
58+0					
60+0	5387 ⁰	5268	5212	5090	5055
61+70	5428 ¹	5476	5322 ⁸	4988	4915
63+50	Level	5345	5310	5110	4950
65+22	5350 ⁰	5746	5255	4975	5150
67+0					
68+96	5475 ⁴	5462	5407	5163	5005
71+0	5595 ⁴	5435	5372	5182 ⁸	5045
73+82	Level	5708	5620	5508	5185
75+50	Level	5735	5670	5625	5195
77+20	5700 ⁵	5742	5640	5235 ⁶	5085
79+50	Level	5830	5780	5720	5295
81+0	5795	5809	5795	5685 ³	5322
82+80	6180 ²	6160	6009 ⁴	5376	5250
85+76	5795 ⁵	5826	5785	5678	5345
87+70	Level	5828	5780	5422 ¹⁴	5322
90+40	"	5855	5815	5766 ³	5547
94+0	"	5853	5807	5604 ⁴	5450

LETTER

71

BM. on NE
 wing. 654
 EL 57.13

4750 ¹⁵	4895 ¹⁸	5107 ¹⁹	5195 ²⁰
4760 ²	4885 ¹⁷	5155 ²⁰	Level
4810 ¹²	4970 ¹⁵	5168 ¹⁷	5250 ²³
4895 ⁴	5080 ¹⁸	5270	5273 ²⁶ level
4938 ²⁴	5010 ²⁷	5120 ²⁹	5300 ³⁴
4890 ¹⁶	5000 ²⁰	5165 ²¹	5250 ²⁶
5174 ²⁵	5400 ³⁰	Level	
5095 ²²	5250 ²⁴	5318 ³¹	
5008 ¹³	5260 ¹⁴	5585 ²³	
5520 ²⁴	Level		
5175 ¹⁵	5360	5524 ²³	
5175 ¹⁸	5345 ²²	5655 ²⁷	
5080 ¹⁵	5200 ²²	5440 ²⁴	5825 ³⁶
5110 ¹⁴	5228 ¹⁸	5322 ²⁶	5680 ³³
	5240 ²⁵	5705 ³⁹	
5144 ¹⁴	5300 ²²	5460 ²⁶	5600 ³⁰
5176		5265 ²⁰	5810 ²⁸
5400 ²⁷	5600 ³⁶	5730 ⁴¹	
5230 ¹⁴	5470 ²⁰	5710 ²⁵	
5438 ¹⁹	5600 ²³	5745 ²⁸	
5480 ¹⁴	5591 ²⁰	60.71 ³¹	Level
5640 ¹²	5715 ¹⁶	5915 ²²	

42.

	T.M. Sta	Gd Sta			
97+85	5930 ⁵	60,21	6010 ⁸	5645 ⁸	5550 ¹²
100+0	60,35	5925	6035		5646 ⁶
102+0	59,00	5942	5900 ⁹	5652 ²	5592 ¹⁰
104+0		6079	6031	6010	level
106+0		6043	5998	6028	"
108+0	out				
109+75	6140 ⁴	6235	6190 ⁴	6115 ⁴	5630 ⁴
111+72		6346 ^x	6295	6235 ³	5770 ¹²
114+70		6236	6183 ¹	5995 ⁵	5770 ⁶
117+0	6248 ^{61 sta}	6295	6225 ⁶	5870 ¹³	5810 ¹⁰
118+50		6295	6245 ¹	6125 ⁹	5940 ⁸
121+0	6300 ⁵	6379	6324 ⁴	6295 ⁴	5915 ¹⁰
123+0	level	6358	6313	6308 ⁵	5915 ¹⁰
126+0	6338	6402		6270	6005
128+0	6402	6479	6494 ³	6080 ⁰	5986
129+50	level	6470	6420	6415 ¹	6099
132+0	"	6525	6478	6315 ⁷	6180
134+0	"	6585	6545	6420 ⁵	6155
136+0	"	6590	6540	6495 ²	6200 ⁹
138+0	6563 ⁵	6620	6600	6252 ⁶	6179
139+0	level	6655	6625	6257 ⁸	6190 ⁹
141+0	"	6677	6628	6632 ⁶	6307 ¹²
141+66	"	6793	6748	6310 ¹¹	6250 ¹⁴
143+22	6719 ⁵	6855	6812	6765 ³	6342

43.

L.P. 9/10
 B.M. on ~~the~~ NE
 Wing bridge at
 Sta 141+66
 EL. 67.33

5660 ²¹	5860 ²⁵	6086 ²⁹		
5620 ¹⁶	5656 ²²	6003 ²⁸		
5638 ²³	5992 ³⁰			
5595 ¹¹	5668 ¹⁵	6234 ²⁰	level	
5660 ¹⁵	5743 ²⁰	6251 ²⁸	6100 ³³	
5745 ⁸	5790 ¹¹	6225 ¹⁷	level	
5873 ¹³	6072 ²⁰	6210 ²⁴		
5825 ¹²	5910 ¹⁴	6220 ²⁰		
5896 ¹²	6000 ¹⁵	6274 ¹⁸	level	
5918 ¹⁵	6030 ¹⁸	6285 ²²		
5950 ¹²	6030 ¹⁸	6390 ²²		
6069 ⁶	6236 ¹⁸	6442 ²⁵		
6000 ¹¹	6065 ¹²	6457 ²⁰		
6050 ¹³	6145 ¹⁴	6508 ²¹		
6084 ¹¹	6115 ¹²	6572 ²²		
6123 ¹⁰	6215 ¹²	6620 ¹⁸	6525 ²³	
6220 ⁹	6650 ¹⁰	6670 ²⁰		
6260 ¹¹	6470 ¹³	6662 ¹⁸		
6268 ¹⁹	6322 ²¹	6690 ²⁹		
6332 ¹⁸	6733 ²⁵			
6305 ¹²	6345 ¹⁵	6800 ²³	6660 ²⁸	

30

31
4 5

	Top 5th	6d 3th			
4 4					
145725	6705 ³	6756	6712	6345 ¹⁰	6285 ¹²
147+00	6698 ³	6786	6810 ³	6418 ¹¹	6345 ¹⁴
148+90	6795	6847	level		6430 ¹²
153+0	level	6903	6855	6922 ³	6500 ⁷
154+75	6846 ⁴	6905	level	6795 ⁵	6506 ¹⁰
156+25	6910 ⁴	7052	7010	6522 ¹³	6470 ¹⁴
159+0	6915 ⁵	7055	7007	7042 ³	6558 ¹³
161+50		7068	7012	level	
162+64		7140	7093	7032	level
165+0		7100	7046	level	
167+0		7122	7080	7035	level
169+0		7164	7108	7070	level
171+92		7145	7035	6875 ¹¹	6810 ¹²
174+0	7020	7090	7110 ²	6860 ⁹	6845 ¹⁰
176+0	7032 ⁵	7110	7138 ²	6926 ⁶	6845 ¹⁰
179+56	7138 ⁵	7380	7304 ⁴	6800 ¹⁰	6910 ¹⁰
				6870	
151+45	level	6880	6840	6862 ²	6500 ⁸

FL. 6" tile - 6860
 FL. 8" tile - 6800
 Bottom ditch is 68.00 at
 mouth of tile

6360	6850 ²⁴	6735 ²⁹	
6412 ¹⁵	6925 ²⁴	6874 ²⁹	
6375 ¹⁶	6430 ²²	6857 ³³	level
6440 ¹⁰	6520 ¹³	6909 ¹⁸	6872 ²²
6466 ¹¹	6530 ¹³	6852 ²²	level
6538 ¹⁵	6965 ²²	6865 ²⁴	
6509 ¹⁴	7065 ²⁵	6967 ³¹	
6905 ²⁰	7020 ²³	level	
6895 ¹⁵	7106 ¹⁸		
6905 ¹⁵	7118 ¹⁸		
7350 ²³	level		
6420 ¹⁰	6500 ¹⁴	6860 ¹⁹	6778 ²⁴

	46	50	54	58	62
0+0	6345	6191	5690	5655	5715
2+0	6375	6406	slope to	5800	5770
4+0	6276	6251		5832	5787
6+0	level	6295	6250	5955	5945
8+0		6377	6320	6485	5990
10+0	6540	6620	6685	6072	5965
12+0	6315	6345	6399	6135	6021
13+0		6543	6497	6120	6062
15+0	6480	6620	6575	6110	6080
17+0	6500	6690	6662	6158	6090
19+0	6738	6690	6880	6135	6100
21+0	6666	6733	6735	6230	6112
23+58	6730	6794	6760	6212	6255
26+0	level	6731	6700	6333	6220
28+0		6710	6765	6330	6190
29+85		6777	6720	6332	6310
32+0		6840	6755	6832	6843
34+0	6785	6924	6869	6876	6390
37+43		6993	6937	6928	7010
739+0		6842	6750	6795	6776
41+85	6852	7018	6869	6900	6500
44+0		6870	6815	6800	6985
46+0		6914	6865	7015	6990

	64.60	6953	BM. on SE
6275	level		77 wing of bridge
5808	14	6290	sta 13+02
5892	9	6070	EL. 64.73
5890	26	6320	level
5900	22	5990	23
6062	25	6600	33
6145	26	6345	31 level
6137	18	6478	26
6132	12	6582	19
6190	14	6735	19
6165	16	6885	23
6228	16	6744	23
6580	14	6875	30
6279	16	6752	18
6340	18	6831	23
6370	17	6708	24
6392	5	6258	12
6265	13	6320	16
6420	20	6400	25
6430	8	6400	2
6410	12	6480	18
6500	16	6430	19
6620	10	6575	12
		6510	10
		6570	20
		6880	23
		6715	29
		6930	40
		6818	1
		6670	26
		6750	26
		6895	29
		6845	34
		6990	20
		6940	31

© on high point of log under wood bridge sta 30+ EL. 65.91

48*		TOT	6d			
		20h	20h			
47+77	6985 ⁴	7130	7085	7115 ³	6655 ⁵	
50+83	6904	6932	6878	7082	7030	
53+0	7078	7078	7035	6990 ⁷	6694 ⁴	
55+35	7070 ²	7163	6710 ⁷	6542 ⁷	6650 ¹⁴	
56+22	7070	7180	7130	7065	6710 ⁹	
59+74	6980	7121	7078	7065 ³	6680 ¹⁰	
61+30	7018	7066	7155	7140 ⁷	6696 ¹²	
63+2	6968	7140	7111	7068 ⁵	6736 ¹²	
65+5	7080	6995	6956	6766 ⁹	6695 ¹²	
67+66		7055	7012	7125 ¹⁴	6800 ¹⁸	
69+0	7042	7120	7088	7260 ⁷	7180 ¹⁰	
71+75	7150	7225	7180	7125 ⁸	6790 ¹²	

6080 FL. (16)

0+0	TOT	
0+50	50h	6
3+0	7165	6670
5+31	7222	6733
24 ¹ 088	7090	
	6705	FL. 12"

49

6515 ¹⁶	6610 ¹⁶	7068 ²⁴	7090 ³⁰	
6646 ¹²	6560 ¹⁶	6610 ¹⁹	7135 ²⁷	6990 ³²
6550 ¹⁵	6660 ¹⁹	7160 ²⁶	7040 ³²	
7130 ¹⁹	7110 ²⁵			
6630 ¹²	6708 ¹⁶	7130 ²²	7020 ²⁸	
6632 ¹⁶	6680 ¹⁹	7062 ²⁴	6995 ²⁸	
6625 ¹⁶	6725 ¹⁹	7235 ²⁹		
6656 ¹⁴	6706 ¹⁶	7080 ²¹		
6770 ¹²	7071 ²⁰			
6700 ²⁵	6745 ²⁸	7200 ³⁷	7100 ⁴⁰	
6750 ¹⁵	6690 ²¹	6780 ²⁴	7225 ³³	7075 ³⁶
6790 ²⁰	7125 ²⁸	7025 ³²		

Advised to be Continued
at Sta 61+05

580

Top
~~20~~ 2

0+50 7165 6670

1+0 6782

2+0 6700

3+

4+0 6725

570

6" file from W of 63+10

54 POWELL Ditch

0+0 - 35' N of E Point and
 158' W of Ashley E. line.
 +10 N 19° W
 0+25 Dig L 36° 05' 29' old ch
 1+0 stk 37' old ch
 2+0 stk 46' old ch
 2+80 Center of Pond
 4+0 stk 33' old ch
 5+0 " 24' old ch
 5+50 Dig L 7° 41' - 19' old ch
 6+0 stk 20' old ch
 7+0 " 24' old ch
 8+0 " 29' old channel
 9+0 Dig R 18° 50' - 26' old ch
 10+0 stk 22' So to old channel
 10+10 Ashley W. line
 10+15 Arm N.
 10+75 End.

C.B. is about 20' So. of
 Sta. 10+15

55

17' So. from 0+0 to
 N. hdwch of culvert.

3' x 3' Box

36½' long.

56

Fl.	N. end	of Rd. Clot.	-	15.43
Fl.	S. end	of Rd. Culvert	-	15.40
6+0	sth	End 5'	Fl. of ditch	
0+0	18.43	18.12	15.50	
0+25	18.25	17.83	15.88	
1+0	19.15	18.50	16.07	
2+0	19.70	19.10	16.85	
2+80	Low spot Pond -		17.25	
4+00	20.79	20.27	18.04	
5+0	21.24	20.45	19.17	
5+50	21.63	21.03	20.97	
6+0	22.15	21.64	21.25	
7+0	22.90	22.35	21.85	
8+0	23.93	23.34	-	
9+0	25.63	25.20	22.58	
10+0	25.06	24.75	23.51	
10+75	26.00	25.47		

57

B.T.A. on W. end of N. Hill
at 0+0 - EL. 20.00

8+33 - Fl. tile - 20.10

Fl. of Present tile in Concrete
Basin. 20' So. of sth line
at sta 10+15 - 22.13

58^c Ann #1

0+0 = 10+15 on Main ~~at 10+15~~

0+60

1+0 St

1+93 End

Stk 12.5'

0+60 25.88 24.84

1+00 27.17 25.86

1+93 30.32 29.80

Fl. 4" Zils - 28.56

Sub Ann

~~0+60 = 0+0 on~~

0+0 = 0+60 on Ann #1

Stk 6d 5'

1+0 26.36

Low spot

24.65 4' N of Stk

24.45 5' E of Stk

24.50 15' S of Stk

59^c

Std. 23.50

Beginning 157' East of Culvert across
State Road + 27' - N @ 0 + Road

0+00 - N 50' - West

3+70 N 64° - 30 West

6+60 N 54° - 30 West

7+80 N 28° - 0 West

8+75 - End

Sta	BS	HI	FS	Elev
BM				20.00
	3.76	23.76		
			8.33	15.43
			8.27	15.49
0+00				
1+00				
2+00				
①			2.69	21.07
π	5.06	26.13		
3+00				
3+70			6.88	19.25 1.05 18.17
4+00				
5+00				
6+00				
①			2.96	23.17
π	6.68	29.85		
6+60			9.71	20.14

WEND

N. Head Wall State Road #34

F.L. S End culvert
F.L. N " "

F.L. open	Stake	Ground at stake
6.85	4.94	5.02
16.91	18.82	18.24
5.73	3.38	4.25
18.02	20.38	19.51
5.91	2.7	3.3
17.85	21.06	20.46

9.22	4.37	5.0
18.91	21.76	21.18

Top 12" Tile E End

TG 5.97	4.16	5.46
20.16	21.37	20.67
TG 4.16	3.66	4.34
21.97	22.47	21.77
TG 3.25	2.96	3.52
22.88	23.17	22.61

F.L. 12" Tile W End

6210 HN SHUMATE ROAD

SE COR. Sec. 24-16-1E.

WIT.

MAPLE TREE 24" - N70°W - 41'

HIGH POINT ON BOULDER

N40°W - 40 1/2'

NE COR. SEC. 24-16-1E

CONCRETE COR. POST N45°W - 23.2'

WOODEN COR. POST S45°W - 22.5'

NE corner sec 12-16-1E
Stone

Corner Post N45°E - 30 1/2'

Corner Post N45°W - 28 1/2'

HI 29.85

7+00

FL. 0.00
8.59
21.26

stake
5.33
24.52

63
Gate stake
5.96
23.89

8+00

6.05
23.80

4.46
25.39

5.0
24.85

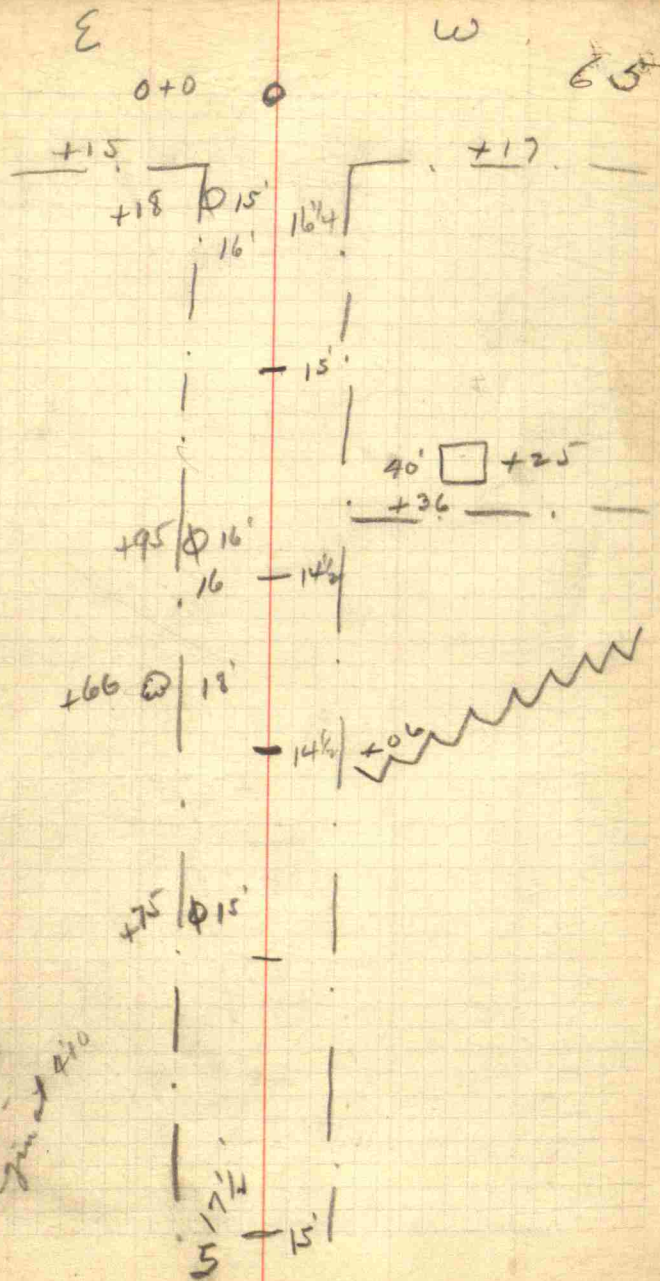
8+75

top - 12" dia
6.31
23.54
1.08
22.46

4.0
26.85

4.79
25.06

64 John Shumate Rd.



66

E

5

W

67

orchard
remnant tree
30'
ends 7+10

+70 @ 17'

17' - 14'

17' - 14'

17' - 14'

19' - 13'

+58 @ 18'

10+0

18' - 13'

+47 @ 16'

+66 @ 18'

- 12'

17 1/2'

13+0 17'

68

E

W 69

$$\begin{array}{r}
 +23 \quad \cdot \quad \frac{13+0}{17\frac{1}{2}} - 12' \\
 \hline
 +19 \quad \phi \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 \frac{+73}{+30} \\
 \hline
 \end{array}$$

$17\frac{1}{2} - 12'$

$$\begin{array}{r}
 +25 \quad \phi \quad 16 \\
 \hline
 \frac{15+0}{12\frac{1}{2}} - 12' \\
 \hline
 \end{array}$$

—

$$\begin{array}{r}
 +27 \quad \phi \quad 14 \\
 \hline
 \frac{16' - 13'}{13\frac{1}{2}} \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 +85 \quad \cdot \quad \frac{+13 \quad \phi \quad 14}{+47 \quad \phi \quad 20'} \\
 \hline
 \frac{20+0}{16} - 14' \\
 \hline
 \end{array}$$

20 + 50
sum

$$\begin{array}{r}
 +9 \quad \phi \quad 14 \\
 \hline
 15' - 14\frac{1}{2} \\
 \hline
 \end{array}$$

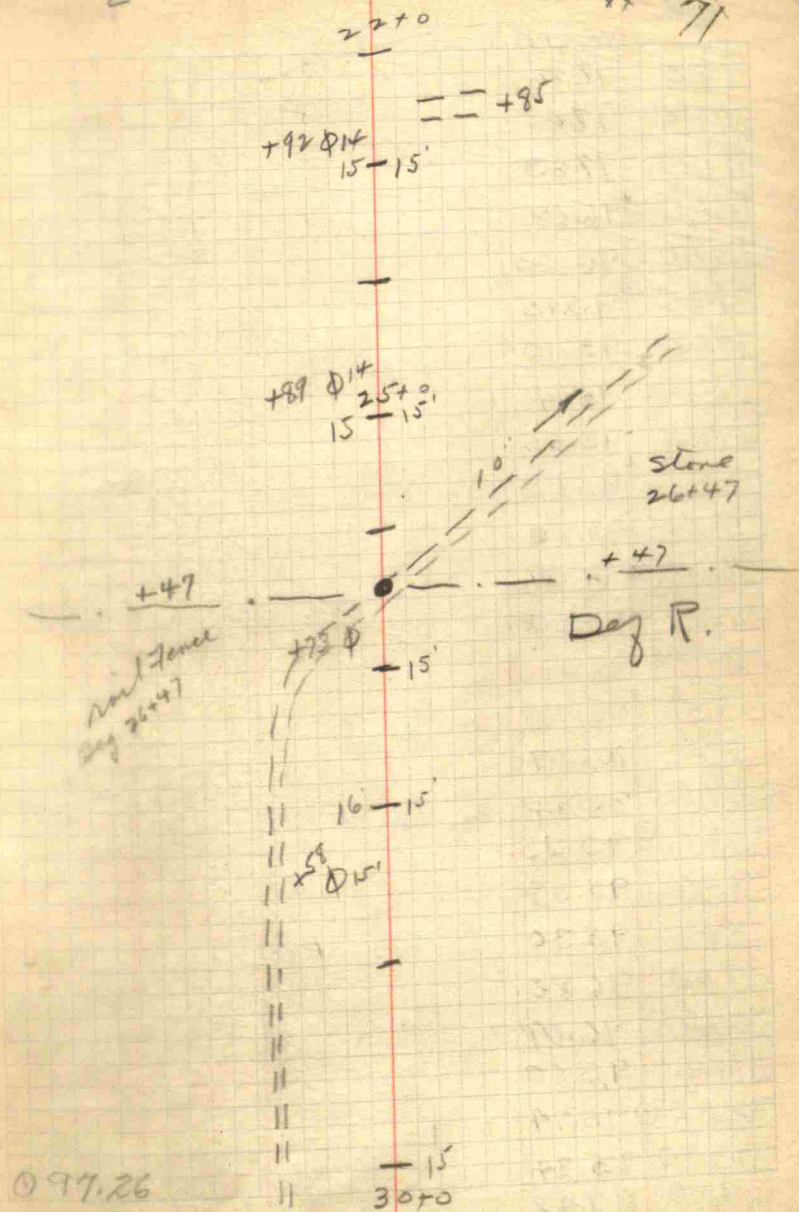
70

Grade Elevations Shumate Rd.

	W. STK.
0+18	98.90
1+0	98.92
2+0	99.11
3+0	99.30
4+0	99.13
5+0	98.80
6+0	97.99
7+0	97.20
8+0	96.93

E

44 71



72

Grade Elevations

W.S.F.R. From BM #2

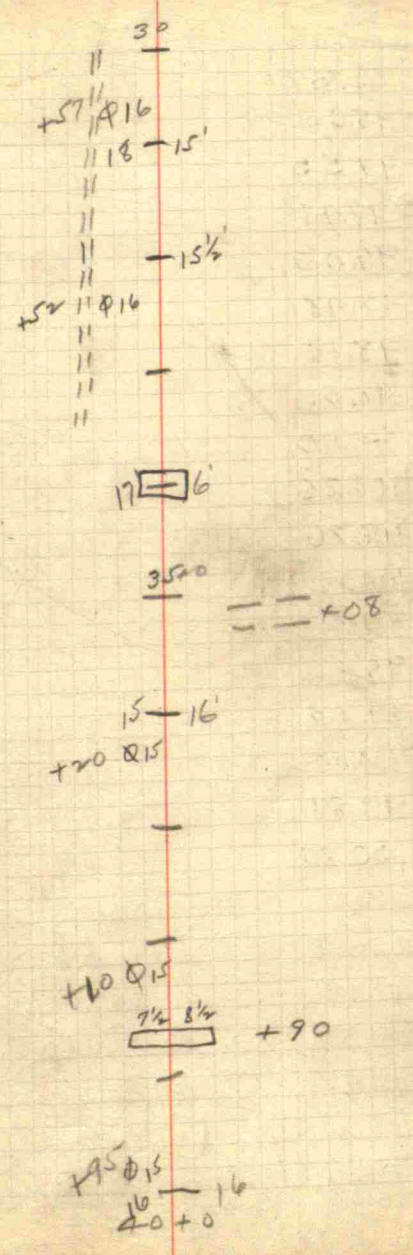
9+0	96.86
10+0	97.68
11+0	97.63
12+0	96.68
13+0	96.35
14+0	95.15
15+0	95.10
16+0	95.14
17+0	95.55
18+0	95.55
19+0	95.70
20+0	94.59
21+0	94.50
22+0	96.11
23+0	96.73
24+0	95.49
25+0	95.20
26+0	95.33
27+0	95.38
28+0	95.30
29+0	96.80
30+0	96.09
31+0	95.60
32+0	95.74
33+0	95.84
34+0	97.42

E

W

73

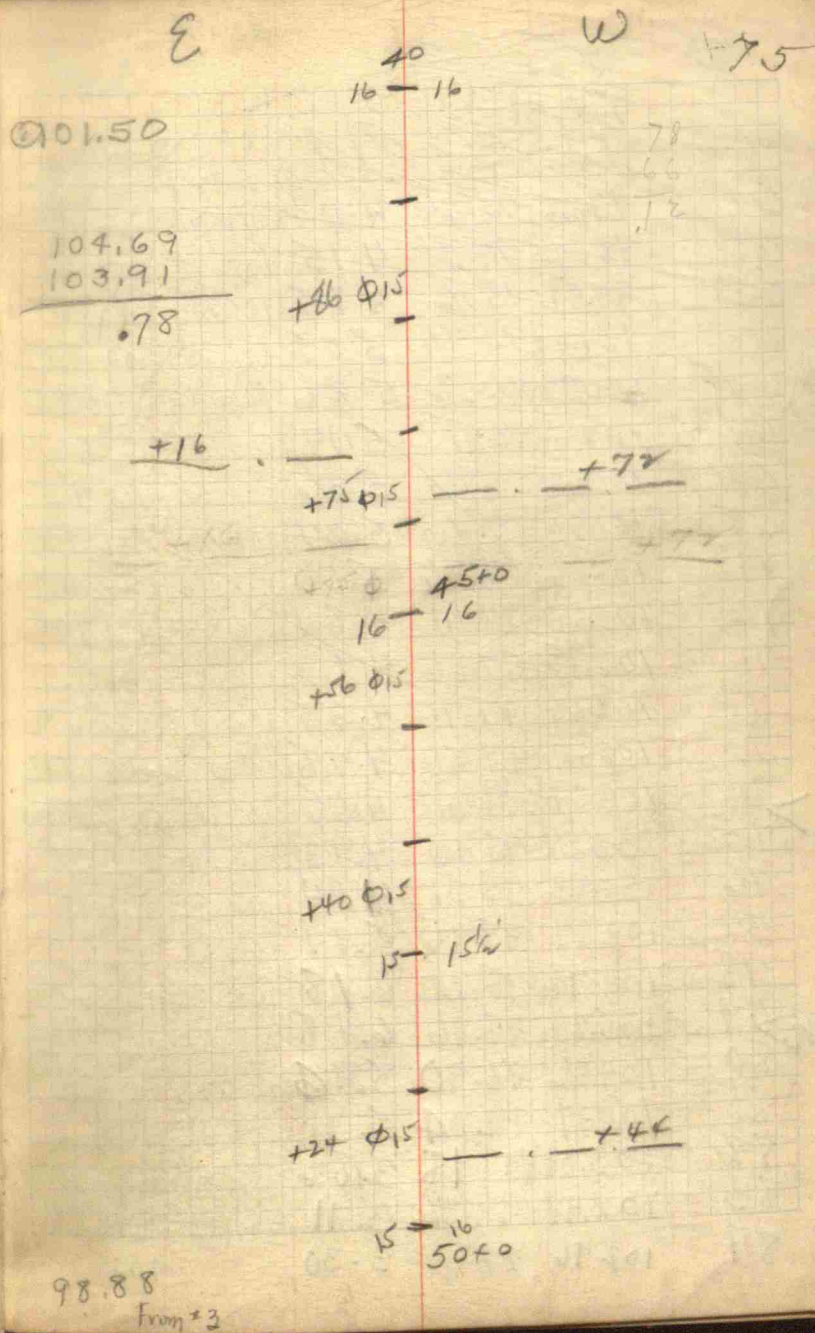
10" tile in
East side ditch
Heads at 32+60



Grade Elevations.

Sta	W. Line Stk.	From BM #2
35+0	98.37	
36+0	98.03	
37+0	97.55	
38+0	97.41	
39+0	97.05	
40+0	97.48	
41+0	98.14	
42+0	98.51	
43+0	99.90	
44+0	100.26	
45+0	100.26	
46+0	100.01	
47+0	99.49	
48+0	99.45	
49+0	99.73	
50+0	100.00	
51+0	99.89	
52+0	100.27	
53+0	101.42	From BM #3
54+0	102.03	102.22
55+0	101.19	102.84
56+0	101.37	102.00
57+0	101.47	102.19
58+0	100.27	102.29
59+0	98.63	101.08
60+0	96.00	99.44
		96.79

B.M. S.W. end Wing wall
 S.W. Cor. of rail. Ee. 98.10 Std. 60+50



Station	Tile Stake	Stake Md	Out	From BM #3	From BM #2
61	97.68	93.66	4.02	97.36	96.59
62	98.56	94.41	4.15	100.07	99.30
63	99.91	95.16	4.75	100.64	99.86
64	101.00	95.91	5.09	101.61	100.84
BP 65	101.92	96.66	5.26	102.56	101.79
66	102.00	96.81	5.19	102.39	101.61
67	102.32	96.96	5.36	102.50	101.75
68	102.38	97.11	5.27	102.51	101.78
69	102.26	97.26	5.00	102.73	102.00
70	102.25	97.41	4.84	102.49	101.75
71	102.18	97.56	4.62	102.67	101.93
72	102.06	97.71	4.35	102.80	102.05
73	102.64	97.86	4.78	103.59	102.81
74	102.67	98.01	4.66	103.35	102.64
75	102.29	98.16	4.13	102.24	101.55
76	102.85	98.31	4.54	102.41	101.71
77	104.37	98.46	5.91	105.52	104.79
78	104.79	98.61	6.18	106.00	105.24
OK 79	105.24	98.76	6.48	105.55	104.85
80	104.86	96.90	5.96	104.93	104.23
81	104.17	99.04	5.11	104.36	103.69
82	103.09	99.18	3.86	103.18	102.47
83	102.47	99.32	3.11	102.89	102.20-102.89
84	102.76	99.46	3.30	102.50	103.18

E. W

@ 98.07 50 77

BM
Stump
103.51

100.98 15' - 16'

101.52 +24' @ 15'

105.99 +14' +99 @ 16'

103.65 +14' +100 @ 15'

+48' +10 @

+57 @

+57 @ 16 1/2' 15' @ +30

+53 @ 15'

+66 @ 15'

+70 @ 15'

+92 @ 17'

+68 @ 22'

103.51

102.94

57

101.44

101.27

+35' Ban

Conn
crib 200'
+84
150'

52+70 250'

+15'

stms +30

+45'

55+0

16 @ +53

+22 @ 15'

+22 @ 15'

18 @ +58

19 @ +51

18 @ +81

-17' 60+0

78

Brick Arch

60+46

⊕ 8½' West to rail

⊕ 8½' East to rail

5½' rise

10' span

16' foot Span
all wings at 45° to ♀

16X5

E.

W.

79
60

15¾ — 17' — — — +02
 +10 ⊕15 — — — — — +60

+83 ⊕16 — 19' ⊕ +96

+18 ⊕16 — 20' ⊕ +41
 +72 — — — — —

+86 ⊕14 — 14 — 18' 19' ⊕ +42
 ⊕ +13
 20' ⊕ +27
 ⊕ +31

+95

+63 ⊕13 — 14 — 18

+42 ⊕13

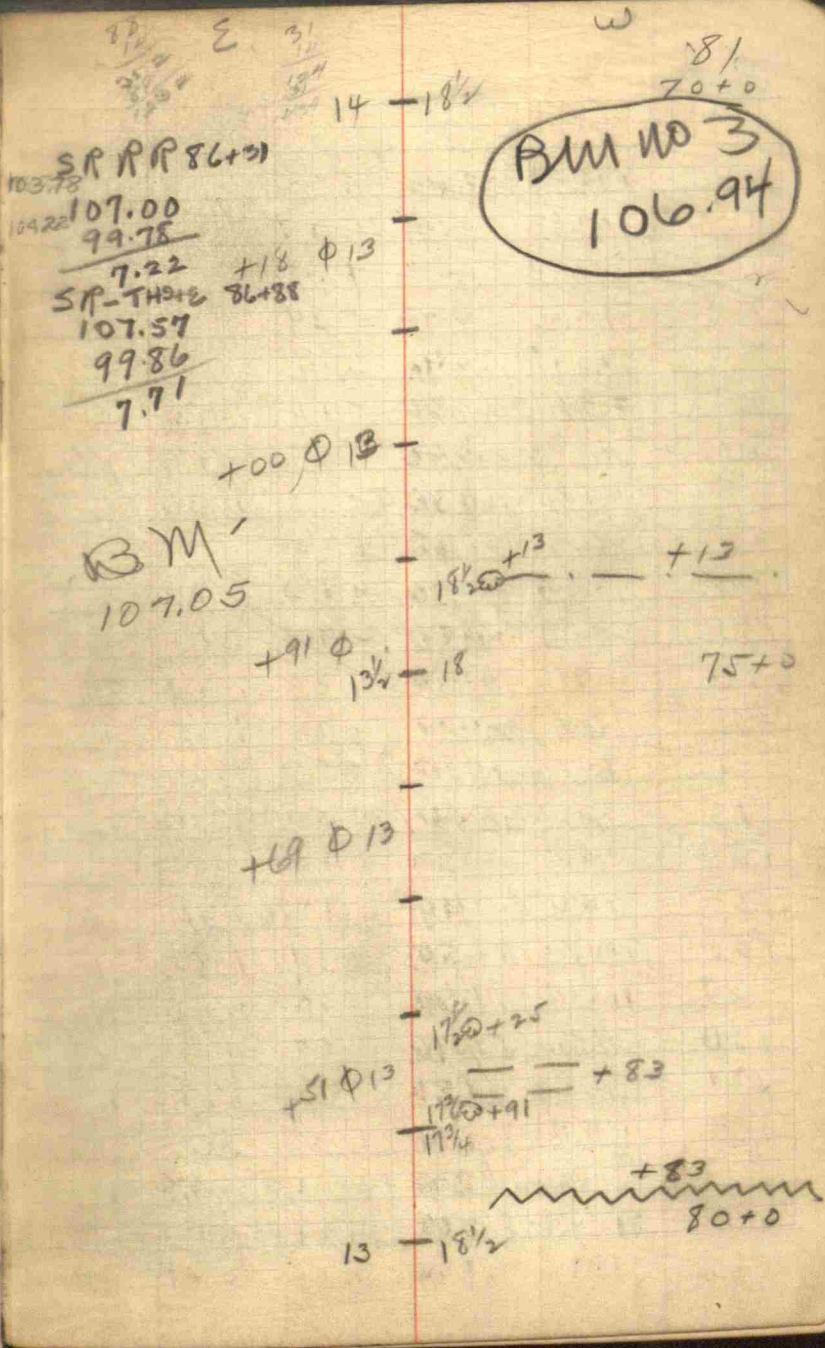
+24 ⊕13

14 — 18½

65+0

70+0

Sta	Tide			W. side Line Sta
85	103.54	99.60	3.94	103.07
86	104.19	99.74	4.45	103.55
87	107.20	99.88	7.32	
88	105.26	100.02	5.24	105.72
89	105.77	100.16	5.61	106.07
90	105.22	100.30	4.92	105.70
91	105.82	100.40	5.38	106.55
92	105.80	100.50	5.28	106.08
93	105.54	100.60	4.82	106.04
94	105.66	100.70	4.80	105.91
95	105.97	100.80	4.97	106.37
96	106.46	100.90	5.32	106.82
97	106.19	101.00	4.91	106.45
98	105.75	101.10	4.33	106.30
99	106.06	101.20	4.50	106.27
100	106.45	101.30	4.75	106.88
101	106.62	101.40	4.78	106.40
102	106.45	101.50	4.47	106.22
103	106.80	101.60	4.68	106.65
104	107.68	101.70	5.46	107.75
105	107.72	101.80	5.32	108.00
106	108.18	101.90	5.64	108.07
107	108.30	102.00	5.64	108.57
108	109.24	102.10	6.42	109.23
109	109.23	102.20	6.27	109.50
BK 110	108.90	102.30	5.80	108.90



82

83+24

16' x 10" C.M. Pipe in place

9 1/2' W of E

5 1/2' E of E

Replaced with 26' x 12" RC
Pipe & Headwalls.

86+17

30' x 18" Vit. Tile

12' E + 18' W of E

S Rail of P + E 86+31

N Rail of P + E 86+36 1/2

86+57

30' x 20"

Extended

S Rail TH 1+E 86+88

N Rail TH 1+E 86+94

E

W

83
80+0

+26 ϕ 12 1/4 13 - 18 1/4

+13 ϕ 12 1/4

RR sign
+30 \square 7'
+92 ϕ 12 1/2

85+0

+96 12 1/4 - 17 1/2

+97
+100 RR sign \square

+12

+07

87+10

Dr. Tile

22' x 10'

7 1/2' W of E

\square RR sign
87+17

87+45

E state Rd

84

87+12

26x12" RC Pipe
L. Huddell.

E

W

+6.7

85

+87 ϕ 12
12 1/4

88+0 no fence

17 ϕ +40

ϕ +57

17 ϕ +74

□ +85 50'

12 - 89+0

ϕ +73

17 ϕ +45

+55 ϕ 12

17 ϕ +54

12 ϕ RR sign +90

□ +56 55'

12 - 90+0

ϕ +10 +10

+52 = □ fence lay
down at +10 along

15 ϕ +65

19 1/2 -

12 - 91+0

W side Rd.
17 1/2 fence
+91

no fence

+73 ϕ 12

12 - 92+0

+94 ϕ 12

12 -

93+0

no fence

86^r

	Stn	Tile	6d	Cut	W. side Stn
111	108.47	102.40	5.25	6.07	108.50
112	109.58	102.50	6.19	7.03	109.63
113	110.64	102.60	7.18	8.04	110.98
114	110.06	102.70	6.48	7.36	110.23
115	109.78	102.80	6.08	6.98	110.10
116	109.76	102.90	5.94	6.86	109.65
117	109.59	103.00	5.65	6.59	109.62
118	109.54	103.10	5.48	6.44	109.45
119	109.42	103.20	5.24	6.22	109.35
120	109.15	103.30	4.85	5.85	109.02
121	109.16	103.40	4.74	5.76	109.20
122	108.97	103.50	4.43	5.47	108.90
123	109.77	103.60	5.11	6.17	109.73
124	110.60	103.70	5.82	6.90	110.78
125	109.43	103.80	4.53	5.63	109.54
126	109.19	103.90	4.17	5.29	109.10
127	109.11	104.00	3.97	5.11	109.24
128	110.60	104.10	5.34	6.50	110.47
129	110.68	104.20	5.30	6.48	110.85
130	108.35	104.30	2.85	4.05	109.60
131	109.40	104.40	3.78	5.00	109.75
132	110.11	104.56	4.37	5.55	110.22
133	109.60	104.72	3.74	4.88	109.55
134	110.30	104.88	4.32	5.42	110.42
135	109.95	105.04	3.85	4.91	111.30

E

12' 93+0 W no 8 ft

+66 ft

12' 95+0

+38 ft

Top 12" Tile 13410

106.66

1.13

105.53

105.62

104.53 +09 ft

1.09

105.33

104.40

1.13

+86 ft

13' 15'

+85
100+07 feet on
W. bag at
98+45

88

Stone 106+33

ε

13' - 15' 100+0 ^w 89

+64 φ12'

+34 φ12'

+25

13 - 15' 105+0

+67 φ12'

+33

+78 0

13 - 13 1/2

+57 φ12'

14 1/2 - 13

110+0

9.8

Tilo
 sub 4d cut

136	109.47	105.20	3.25	4.27	110.60
137	110.55	105.36	4.21	5.19	110.78
138	110.32	105.52	3.86	4.80	112.75
139	110.60	105.68	4.02	4.92	111.32
140	110.42	105.84	3.72	4.58	112.15
141	111.07	106.00	4.25	5.07	111.70
142	109.79	106.16	2.85	3.63	110.21
143	111.64	106.32	4.58	5.32	111.57
144	111.63	106.48	4.45	5.15	112.40
145	112.80	106.64	4.80	5.46	112.75
146	112.55	106.80	5.13	5.75	113.02
147	111.77	106.96	4.23	4.81	112.50
148	111.93	107.12	3.27	4.81	112.70
149	112.20	107.28	3.42	3.92	110.64
150	110.92	107.44	3.02	3.48	111.00
151	111.40	107.60	2.98	3.80	111.85
152	112.15	107.76	4.01	4.39	112.52
153	112.57	107.92	4.31	4.65	113.00
154	112.40	108.08	4.02	4.32	112.80
155					113.80
156					114.42
157					115.00
158					115.10
159					115.70

End
 750

159454
 End Rd

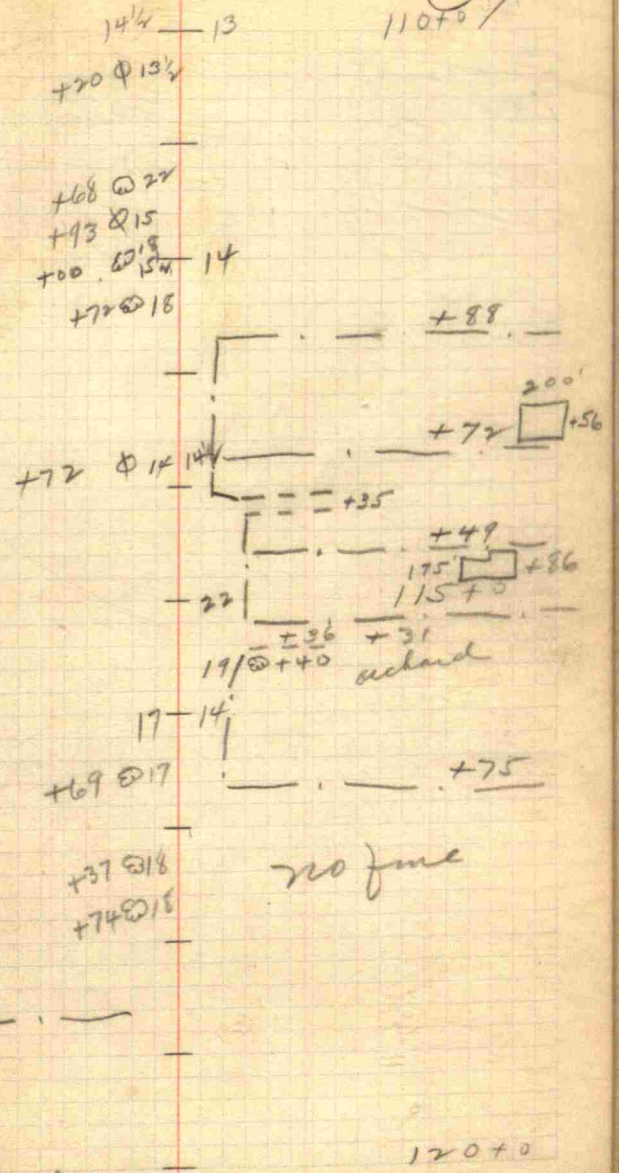
Ad
~~116.12~~
 116.12

116.72

E

W
 11070
 91

528
 3
 15840



Sedge Tar Knot Rd

985

E

W

447 @ 18

+71 @ 18

17 1/2 - 14 1/2

18 - 15 1/2

19 - 16

19 - 17

986
12070

Fence leg
on W. of 120+25

125+0

130+0

9.4

Culvert on skew
 130+64 E. end culvert
 130+76 ♀ Culvert
 130+88 W. end culvert
 28' x 18" part C.M. pipe and
 part vit tile
 Sever

Stone 132+94

E

XX

95
130+0

130+64
 woods starts
 on E. side +76 @ 16
 +54 @ 16

19-17

Woods

19-17

● +94 — — +94

14 1/2 - 15 1/2

135+0

Hamster

+48

+20

woods

Kearns
recent tree 18'

16-15

+51

125'

140+0

96

Snow Sta 149
by Cross Section

← LETTER →

E

W

16-15

140+0

+74



16-15

145+0

+14



150+0

98

NE corner 12-16-18

Stone

159+54

E

99

150+0

+44

16 1/2 - 15

rail fence ends
along west

+03

wire fence beg
along west

16

16' - 16'

155+0

+43

16 - 16

+40

• 754

160+0

Sta	W	5' out	Chk	Ditch	Burn	£
1+0	99.15	99.29	98.55 ⁵	99.11 ^{11.5}	99.61	
2+0	99.24	99.22	99.65 ⁶	99.50 ¹⁰	99.95	
3+0	99.42	99.41	98.40 ⁶	99.82 ¹²	99.87	
4+0	99.26	99.55	98.53 ⁶	99.63 ¹²	99.72	
5+0	98.95	99.10	98.04 ⁶	99.30 ¹⁰	99.45	
6+0	98.18	98.22	97.64 ⁶	98.12 ¹⁰	98.41	
7+0	97.37	97.27	97.32 ⁷	97.43 ⁹	97.79	
8+0	96.95	97.10	96.81 ⁶	97.32 ⁸	97.90	
9+0	96.82	96.90	96.65 ⁶	97.22 ⁸	97.22	
10+0	97.89	98.10	97.24 ⁶	97.95 ¹⁰	98.07	
11+0	97.83	98.09	96.66 ⁶	98.11 ¹¹	98.80	
12+0	96.84	97.18	96.35 ⁷	97.26 ⁹	97.20	
13+0	96.57	96.86	96.13 ⁸	96.66 ⁹	96.58	
14+0	95.39	94.56	95.67 ⁶	95.65 ⁹	96.00	
15+0	95.27	95.37	95.42 ⁵	95.56 ¹¹	96.06	
16+0	95.36	95.50	95.24 ⁷	95.86 ¹¹	96.36	
17+0	95.49	96.20	95.36 ⁷	96.00 ¹¹	96.49	
18+0	95.77	96.02	95.36 ⁶	95.98 ¹⁰	96.60	
19+0	95.92	96.32	95.46 ⁷	95.77 ¹⁰	96.30	
20+0	94.76	94.68	94.73 ⁶	95.20 ¹¹	95.31	
21+0	94.80	94.93	94.50 ⁶	95.10 ¹⁰	95.37	
22+0	96.36	96.30	95.71 ⁶	96.03 ¹⁰	96.22	
23+0	96.92	96.90	96.36 ⁶	96.64 ⁹	96.70	
24+0	95.70	95.70	95.27 ⁵	95.62 ⁷	96.09	
25+0	95.23	95.48	94.92 ⁸	95.67 ¹⁰	95.95	

Burn	Ditch	Stk	Stk	E
99.51 ²¹	99.08 ²¹	99.21	99.15	151' W
99.85 ²²	99.36 ²⁷	99.72	99.82	100.08
99.74 ²³	99.15 ²⁷	99.70	100.05	100' W
99.81 ²⁴	99.86 ²⁸	99.83	99.53	99.92
99.54 ²⁵	99.17 ²⁷	99.22	99.54	50' W
98.35 ²⁵	98.00 ²⁸	98.30	98.63	99.50
97.76 ²¹	97.23 ²⁶	97.53	97.37	99.98
97.35 ²²	96.96 ²⁷	97.14	97.20	50' E
97.10 ²⁷	97.05 ²⁷	97.28	97.50	99.56
98.11 ²⁴	97.85 ²⁹	97.89	98.22	150' E
98.35 ²⁵	97.60 ²⁹	98.78	99.14	99.84
97.42 ²⁵	97.25 ²⁹	97.45	97.84	50' S
96.57 ²⁵	96.90 ³⁰	96.90	96.74	99.38
96.17 ²⁴	95.41 ²⁷	95.78	95.35	
95.95 ²¹	95.14 ²⁰	95.92	95.81	150' S
96.44 ²⁵	95.25 ²⁵	95.80	95.61	99.34
96.28 ²⁵	95.07 ²⁶	96.11	96.32	
96.51 ²⁵	95.31 ²⁵	96.35	95.95	0
96.20 ²¹	95.35 ²⁷	95.92	95.71	0 99.81
95.18 ²¹	94.07 ²⁷	93.90	93.70	
95.35 ²⁰	94.59 ²⁵	94.70	93.95	
96.02 ²¹	95.39 ²⁶	96.00	95.35	0 97.45
96.57 ²¹	95.32 ²⁷	96.24	96.05	0 97.23
95.98 ²¹	94.62 ²⁶	95.57	95.49	0 96.33
95.75 ²⁰	94.80 ²⁸	95.65	95.20	0 96.78

B.M. # on Foundation Rock
 at S.E. corner Red Barn Sta. 1+0
 E.L. 100.00'

0
 99.81
 0 97.45
 0 97.23
 0 96.33
 0 96.78

105201	3'out	Stk	Ditch	Burn	\$
25+0	95.23	95.48	94.92 ⁵	95.67 ⁹	95.95
26+0	95.43	95.55	95.05 ⁷	95.38 ⁹	95.97
27+0	95.55	95.70	95.04 ⁶	95.70 ¹⁰	96.15
28+0	95.54	95.58	95.19 ⁵	95.90 ⁹	96.34
29+0	97.08	97.00	96.13 ⁵	96.55 ⁸	96.62
30+0	96.16	96.35	95.66 ⁵	96.09 ⁸	96.45
31+0	95.70	95.76	95.86 ⁴	96.27 ¹⁰	96.60
32+0	95.80	96.03	95.39 ⁴	95.81 ⁷	96.43
33+0	96.05	96.28	95.85 ⁹	96.02 ⁸	96.87
34+0	97.45	97.78	96.85 ⁶	97.60 ¹⁰	96.73
35+0	98.91	98.85	98.00 ⁹	98.63 ⁹	98.89
36+0	98.10	98.30	97.32 ⁵	97.96 ⁹	98.33
37+0	97.63	97.55	96.85 ⁵	97.35 ⁹	98.04
38+0	97.36	97.85	96.73 ⁹	97.55 ¹⁰	98.03
39+0	97.05	97.30	96.67 ⁵	97.36 ⁹	97.66
40+0	97.65	98.00	97.25 ⁵	97.75 ¹⁰	98.13
41+0	98.05	98.70	97.62 ⁵	98.70 ¹¹	98.58
42+0	98.70	99.33	98.46 ⁵	99.12 ¹⁰	99.25
43+0	99.75	100.15	98.98 ⁵	99.72 ⁹	99.87
44+0	100.50	100.67	99.36 ⁵	100.20 ⁹	100.56
45+0	100.62	100.93	99.31 ⁵	100.24 ⁸	100.36
46+0	100.36	100.63	99.10 ⁵	99.95 ⁸	100.19
47+0	99.76	99.93	99.02 ⁵	99.48 ⁷	99.72
48+0	99.71	99.92	99.16 ⁵	99.29 ⁸	100.02
49+0	99.72	100.02	99.59 ⁵	99.79 ¹⁰	100.22

Burn	Ditch	Stk	3'out	103
95.70 ²⁰	94.80 ²⁵	95.65	95.20	098.00
95.57 ²⁰	95.03 ²⁴	95.45	95.15	099.58
95.72 ²⁰	95.26 ²⁴	95.55	95.75	
96.11 ¹⁹	95.17 ²⁴	95.51	95.62	
96.72 ¹⁸	95.77 ²⁶	96.20	96.58	
96.79 ²⁰	95.55 ²⁵	96.71	96.52	
96.46 ²⁰	95.95 ²⁶	95.86	95.70	
96.48 ²¹	94.84 ²⁷	95.70	95.35	
96.78 ²¹	95.54 ²⁵	96.00	95.63	
97.63 ²²	96.82 ²⁷	97.80	98.30	
98.88 ²³	98.45 ²⁶	98.70	98.71	
98.78 ²³	97.73 ²⁷	98.68	99.04	
97.76 ²²	96.68 ²⁷	97.35	97.48	
97.63 ²¹	96.67 ²⁷	97.89	97.85	
97.13 ²²	96.71 ²⁷	97.15	97.00	
97.57 ²⁴	97.37 ²⁸	97.90	97.95	
98.36 ²⁴	97.91 ²⁶	98.91	98.83	
99.35 ²³	98.52 ²⁶	99.45	99.61	
97.85 ²⁵	99.95 ²⁸	100.19	100.17	
100.49 ²⁴	100.28 ²¹	100.70	101.21	
100.47 ²³	100.17 ²⁹	100.41	101.12	
100.08 ²⁹	99.74 ²⁹	100.11	100.20	
99.86 ²³	99.31 ²⁶	99.55	99.35	
99.73 ²⁴	99.30 ²⁵	99.24	99.51	
100.15 ²¹	99.52 ³⁰	99.80	99.85	

Sta.	Point	Stk	Ditch	Berm	4
49+0					
50+0	10017	10056	9963 ¹	10013 ¹	10066
51+0	10020	10015	9995 ²	10029 ²	10055
52+0	10070	10073	10021 ⁵	10045 ¹⁰	10091
53+0	10171	10182	10145 ⁶	10150 ¹⁰	10136
54+0	10239	10268	10149 ⁴	10180 ⁷	10246
55+0	10166	10167	10105 ³	10190 ⁶	10200
56+0	10128	10187	10105 ³	10126 ⁷	10195
57+0	10142	10172	10086 ⁴	10116 ⁷	10196
58+0	10152	10024	9937 ⁰	9981 ⁸	10032
59+0	9962	9945	9955 ⁵	9956 ⁹	9987
60+0	9635	9644	9670 ⁵	9711 ¹⁰	9735
61+0	9653	9668	9693 ⁴	9735 ⁸	9760
62+0	9926	9887	9774 ⁶	9904 ⁶	9831
63+0	10020	9985	9907 ³	9942 ⁷	9975
64+0	10191	10101	10002 ²	10036 ⁶	10067
65+0	10211	10159	10063 ³	10130 ⁸	10169
66+0	10169	10639	10120 ²	10150 ⁶	10171
67+0	10193	10140	10114 ²	10135 ⁵	10179
68+0	10190	10157	10134 ¹	10135 ²	10165
69+0	10198	10189	10150 ²	10166 ⁴	10206
70+0	10174	10158	10155 ²	10162 ⁵	10187
71+0	10198	10173	10165 ²	10169 ⁵	10200
72+0	10196	10178	10173 ²	10193 ⁵	10196
73+0	10306	10275	10166 ³	10196 ⁶	10228
			12	7.5	6
			9125	9795	9774

Bridge Sta.
69

Berm	Ditch	Stk	Berm	Ditch	3'out
10065	10015 ²⁵	10077	10095		100' N
10032	9959 ²⁹	10062	10097		102.70
10017	10008 ²⁶	10011	10046		100' E
10153	10083 ²⁷	10145	10195		101.92
10171	10143 ²⁶	10237	10242		
10173	10100 ²⁴	10151	10193		
10165	10103 ²⁵	10183	10172		
10126	10114 ²³	10206	10186		
10013	9965 ²⁸	10061	10060		
9957	9806 ²⁷	9913	9930		
9760	9630 ²⁵	9600	9641		
9771	9606 ²⁹	9593	9595		
9836	9805 ²⁵	9945	9914		
9997	9952 ²⁴	10092	10026		
10099	10018 ²⁹	10077	10091		
10176	10103 ²³	10170	10162		
10180	10094 ²⁴	10175	10135		
10067	10092 ²³	10170	10172		
10203	10120 ²⁴	10190	10162		
10214	10136 ²⁴	10192	10127		
10231	10101 ²⁴	10218	10141		
10209	10084 ²⁴	10176	10107		
10215	10124 ²⁴	10174	10120		
10210	10189 ²⁶	10197	10160		
	11				
9820	9150				

105
B.M. #2 ON N.E. CORNER OF
CONCRETE STATION
ATA 53+0
EL. 103.91

- 102.25
 - 100.26
 - 101.88
- See Stamp
on west
side of
road
Sta.
74+0
EL.
103.51

STA	3' out	Stk	Ditch	Berm	℄
74+0	10270	10271	10201	10228	10245
75+0	10144	10165	10172	10193	10210
76+0	10191	10192	10195	10255	10278
77+0	10480	10415	10357	10420	10393
78+0	10547	10511	10422	10500	10532
79+0	10497	10487	10480	10497	10501
80+0	10436	10432	10426	10456	10462
81+0	10400	10348	10348	10383	10392
82+0	10268	10230	10226	10310	10331
83+0	10230	10205	10190	10280	10292
84+0	10283	10253	10219	10286	10300
85+0	10300	10306	10245	10352	10370
86+0	10405	10346	10330	10472	10452
86+31					10709
86+36					107.10
86+88					107.59
86+94					107.61
87+0		10720			107.36
87+38					10603
87+56					10604
88+0	10532	10507	10488	10492	10520
89+0	10556	10561	10548		10533
90+0	10520	10521	10500		10542
91+0	10620	10543	10529	10607	10610
92+0	10560	10550	10525	10525	10613

Track
Road

Berm	Ditch	Stk	B-int	℄
10280	10257	10295	10237	Ditch
10227	10163	10157	10163	103.01
10280	10186	10250	10262	150'
10472	10455	10468	10471	107.58
10547	10512	10573	10607	100'
10497	10455	10483	10499	10125
10457	10405	10413	10400	15'
10357	10345	10412	10475	101.35
10370	10285	10270	10287	East
10298	10202	10245	10280	15'
10309	10240	10300	10342	101.30
10320	10294	10383	10395	100'
10459	10385	10427	10464	101.51
10709				150'
				101.59
10709				106.39
		107.20		
10543	10441	10565	10519	0 10502
10505	10467	10546	10518	
10471	10460	10465	10460	
10600	10496	10635	10590	
10585	10532	10597	10580	

35
BM #3 on SE Cor of Ground
Step of House Sta 90+0
EL. 107.05
106.39

1070 ²⁰	3'out	StK	Ditch	Bum	4
93+0	10537	10560	10519 ⁴	10576 ⁹	10606
94+0	10527	10540	10515 ⁴	10564 ⁹	10597
95+0	10589	10593	10529 ⁶	10601 ¹¹	10617
96+0	10615	10651	10555 ⁴	10625 ⁹	10696
97+0	10566	10600	10535 ⁵	10632 ⁹	10655
98+0	10565	10584	10517 ⁵	10608 ¹⁰	10660
99+0	10562	10613	10530 ⁴	10616 ¹¹	10646
100+0	10593	10649	10560 ³	10645 ⁸	10693
101+0	10600	10632	10568 ⁴	10637 ⁹	10675
102+0	10560	10610	10578 ⁴	10627 ⁹	10641
103+0	10623	10660	10622 ⁶	10653 ⁷	10657
104+0	10725	10780	10709 ⁵	10703 ⁹	10720
105+0	10735	10765	10701 ⁵	10724 ¹⁰	10746
106+0	10747	10800	10726 ⁵	10729 ¹⁰	10753
107+0	10808	10823	10735 ⁵	10772 ⁹	10805
108+0	10865	10881	10852 ⁵	10859 ⁹	10893
109+0	10885	10894	10857 ⁵	10860 ¹⁰	10891
110+0	10829	10892	10820 ⁷	10835 ¹⁰	10866
111+0	10811	10805	10826 ⁶	10858 ¹⁰	10878
112+0	10915	10922	10845 ⁶	10900 ¹⁰	10915
113+0	11041	11052	11010 ⁵	10991 ¹¹	11000
114+0	10970	10974	10955 ⁹	10940 ¹²	10979
115+0	10947	10949	10911 ⁷	10913 ¹⁴	10964
116+0	10919	10919	10860 ⁷	10920 ¹³	10915
117+0	10914	10892	10890 ⁷	10918 ¹³	10921

Bum	Ditch	StK	3'out
10545 ²¹	10528 ²⁵	10605	10576
10551 ²²	10527 ²⁵	10571	10590
10587 ²¹	10573 ²⁵	10643	10602
10644 ²²	10619 ²⁵	10694	10629
10619 ²¹	10590 ²⁵	10636	10610
10606 ²⁰	10555 ²⁵	10626	10585
10600 ²⁰	10547 ²⁴	10617	10579
10600 ²¹	10600 ²⁴	10659	10678
10635 ²¹	10580 ²⁴	10610	10635
10655 ²²	10595 ²⁴	10620	10628
10641 ²²	10635 ²⁵	10693	10652
10700 ²²	10710 ²⁶	10743	10758
10710 ²²	10705 ²⁵	10706	10671
10720 ²²	10712 ²⁶	10726	10715
10787 ²²	10820 ²⁶	10840	10815
10887 ²²	10881 ²⁶	10895	10886
10871 ²²	10865 ²⁶	10850	10824
10837 ²³	10916 ²⁸	10830	10827
10851 ²³	10920 ²⁸	10875	10850
10881 ²³	10885 ²⁸	10907	10902
10967 ²³	10980 ²⁸	11010	11013
10923 ²⁴	10951 ²⁸	10954	10960
10959 ²⁴	10909 ²⁶	10936	10947
10920 ²⁴	10856 ²⁷	10909	10913
10921 ²⁴	10871 ²⁶	10911	

109
 10640
 10995

110.1171	3' out	Stk	Ditch	Berm	€
118-0	10902	10998	10876 ⁷	10928 ⁹	10924
119-0	10881	10873	10890 ⁹	10885 ¹³	10904
120-0	10860	10871	10876 ⁸	10975 ¹²	10878
121-0	10865	10879	10825 ⁸	10862 ¹²	10870
122-0	10825	10870	10840 ⁶	10860 ¹³	10860
123-0	10883	10825	10905 ⁸		10860
124-0	11005	11060	10865 ⁸		11014
125-0	10946	10920	10878 ⁸		10940
126-0	10838	10909	10837 ⁸		10949
127-0	10875	10888	10891 ⁸		10954
128-0	10981	11031	10897 ⁷		11026
129-0	11050	11050	10897 ⁶		11007
130-0	10785	10818	10800 ⁷		10907
131-0	10933	10937	10801 ⁸		10980
132-0	10954	10991	10853 ⁶		11032
133-0	10925	10950	10883 ⁷		10001
134-0	10995	11021	10930 ⁶		11020
135-0	11082	11074	10980 ⁶		11054
136-0	10988	11023	10970 ⁶		11021
137-0	11016	11014	10954 ⁵		11033
138-0	11019	11027	10973 ⁴		11017
139-0	11085	11078	11035 ⁴		11020
140-0	11160	11155	11001 ³		11080
141-0	11085	11096	11086 ⁴		11065
142-0	10965	10965	10972 ⁴		11060

Berm	Ditch	Stk	3' out
10946 ²¹	10870 ²⁷	10842	10953
10910 ²⁰	10876 ²⁷	10892	10908
10882 ²⁰	10827 ²⁷	10856	10860
10976 ²⁰	10851 ²⁷	10858	10862
10870 ²⁰	10827 ²⁷	10845	10867
10923 ²¹	10920 ²⁹	10936	10938
	10970 ²⁹	11040	11035
	10871 ²⁹	10890	10895
	10865 ²⁹	10866	10871
	10865 ²⁸	10871	10903
	10913 ²⁹	10950	11025
	10920 ²⁸	10974	10983
	10818 ²⁸	10860	10860
	10917 ²⁸	10915	10915
	10975 ²⁶	10950	10953
	10905 ²⁶	10961	10965
	10947 ²⁶	10927	10931
	10961 ²⁶	10973	10975
	11024 ²⁵	10953	10960
	10970 ²⁵	11035	11045
	11077 ²⁵	11081	11085
	11010 ²⁵	11048	11020
	11067 ²⁴	11083	11076
	11075 ²⁵	11080	11105
	11063 ²⁷	11100	11110

110.1171
 10883
 110.29
 110.90
 110.68

0

	N				
H. & S.	3' east	SW	Ditch		Co
143+0	11131	11125	11079 ⁷	11105	11105
144+0	11087	11193	11128 ⁷		11163
145+0	11263	11258	11193 ⁷		11226
146+0	11256	11213	11162 ⁸		11178
147+0	11209	11193	11118 ⁷		11105
148+0	11207	11210	11089 ⁶		11074
149+0	11076	11083	11035 ⁶		11043
150+0	11055	11097	11047 ⁶		11054
151+0	11159	11136	11001 ⁶		11094
152+0	11210	11204	11090 ⁵		11174
153+0	11240	11247	11207 ⁷		11218
154+0	11238	11156	11225 ⁷		11257
155+0	11355	11398	11255 ²		11333
156+0	11526	11491	11313 ²		11481
157+0	11471	11470	11363 ²		11485
158+0	11480	11490	11371 ²		11497
159+0	11545	11546	11449 ²		11519
160+0	11731				11737

86+15	10395	10161	10519 ⁹	10579 ⁴	10513 ²⁵
86+60	10360	10372	10425	10669	10666 ²
87+15	10501	10489	10555 ⁸	10628 ¹²	10634 ²

	E		
Ditch	SPK	3' east	
10052 ²⁷	11136	11125	
11114 ²⁷	11201	11161	
11113 ²⁶	11152	11232	
11024 ²⁷	11150	11096	
11058 ²⁸	11121	11080	
10995 ²⁸	11107	11051	
11050 ²⁶	11090	11027	
11105 ²⁷	11108	11025	
11103 ²⁵	11139	11093	
11074 ²⁹	11214	11156	
11217 ²⁹	11215	11174	
11167 ²⁹	11241	11234	
11288 ²⁹	11300	11326	
11403 ²⁹	11501	11511	
11380 ²⁹	11497	11468	
11471 ²⁶	11504	11448	
11555 ²⁹	11580	11531	
		11720 ⁶⁰	

10430 ²⁰	11450 ³⁷		
10679 ²⁰	10498 ²⁵	10305 ^{51K}	10400 ³⁷
10642 ¹²	10491 ²⁵	10482	10469 ³⁸

125
11371

BM # 4 on
at N.E. corner post
of M.E. Co. 2nd section
of R.D. 19
of corner post
of M.E. Co. 2nd section
of R.D. 19

11.6.11 Clark, Samuel, Beaver

3+50 is where tile ends.
5+96 Samuels Dr. line
7+86 E Co. Road.

10+50 Culvert under E+W. Rd

24+44 Culvert under Rd.
25+0 End

117

118

Estimate of Quantities.

Cut - 8860 Cu. Yds.
 Fill - 8856 Cu. Yds.
 Tons Stone - 2960
 Gal. Tar or A. 19200
 Gravel - 2360 Cu. Yds.
 Key " 208 " "
 R.C. Pipe 130' x 12"
 R.C. Pipe - 36' x 24"
 Vit Tile - 12' 18"
 Loose Steel - 2381 lbs.
 Concrete - 89.21 Cu. Yds.
 Drain Tile 3354' x 10"
 3600' x 8"
 2400' x 6"

@ Total

119

354	3001.00
2.75	8140.00
144	2688.00
2.25	6660.00
2.25	458.00
1.50	195.00
3.00	108.00
1.00	12.00
.05	119.05
1400	1248.94
.25	838.50
.20	720.00
.17	408.00
	24595.49
Costs -	204.51
	25400.00

Total Cost

X 20

Eh, 5+K.

71.14

61.65

9.49

2.50

11.99

to bot of footing

9.49 to top of footing

8.19 to floor line of tile

3.49 to top of headwall.

1.2x

71.14

60.54

10.60

2.50

13.10

to top of footing

to bot of footing

9.60

to floor line of tile

4.60

to top of headwall

126	70.65	50k
161+50	70.11	
162+64	70.93	
163+50	70.97	
163+50	72.11	
164+0	71.45	
164+50	71.10	
165+0	70.79	
165+50	70.95	
166+0	71.11	
+50	71.18	
167+0	71.15	
+50	71.83	
168+0	72.25	
+50	71.81	
169+0	70.21	
+50	71.30	
170+0	71.63	
+50	71.90	
171+0	72.07	
+50	71.57	
172+0	71.75	
+50	71.90	
173+0	72.68	
+50	70.96	
174+0	71.23	
+50	71.34	

Cut for the Memorial Drive 70.93

127

El St 161+50 -	70.68	07020
" " 162+64 -	71.40	07890
" " alt 166 -	71.05	
" " alt 450 ft -	71.70	
" " " 650 ft -	76.10	
	81.00	
Pond 800' -	74.20	

0	4+50	11+0	19+00
71.05	71.70	76.10	74.20
63.50	1	69.50	71.00
		<hr/>	
		7.60	3.20

650
3000

128.

17540	71.05
+50	70.70
17670	70.63
+50	71.34
17750	71.18
+50	71.20
17840	71.28
+50	70.56
17940	68.78
179750	70.68
18040	71.41
180750	71.40
18140	71.72
+50	71.54
18240	71.56
+50	72.38
18340	73.15
+35	72.75

Elosta

129

18440	72.15
+50	72.15
18540	72.15
+50	72.15
18640	72.15
+50	72.15
18740	72.15
+50	72.15
18840	72.15
+50	72.15
18940	72.15
+50	72.15
19040	72.15
+50	72.15
19140	72.15
+50	72.15
19240	72.15
+50	72.15
19340	72.15
+50	72.15
19440	72.15
+50	72.15
19540	72.15
+50	72.15
19640	72.15
+50	72.15
19740	72.15
+50	72.15
19840	72.15
+50	72.15
19940	72.15
+50	72.15

138

6406

6450

63+0

+50

63+0

+50

64+0

+50

65+0

+50

66+0

+50

67+0

+50

68+0

+50

69+0

+50

70+0

70+50

71+0

+50

+75

66.5/16

CUT

63.50

7221 63.58 8.63

7217 63.66 9.51

7247 63.74 8.73

7167 63.82 7.85

7195 63.90 7.55

7191 63.98 7.93

7179 64.06 7.73

7182 64.14 7.68

7225 64.22 8.03

7100 64.30 6.70

7136 64.38 6.98

7244 64.46 7.98

7295 64.54 8.41

7291 64.62 8.29

7340 64.70 8.70

7302 64.78 8.24

7368 64.86 8.22

7324 64.94 8.30

7364 65.02 8.52

7377 65.10 8.67

65.18

65.22

Adm of 24° Daniel Ditch

137

63.50

632
0+0
0+50
1+0
+50
2+0
+50
3+0
+50
4+0
+50
5+0

Sub term

6546	63.50	CUT
7174	63.62	8.12
7176	63.74	8.02
7202	63.86	8.16
7231	63.98	8.33
7280	64.10	8.70
7335	64.22	9.13
7276	64.34	8.42
7305	64.46	8.59
7235	64.58	7.7.7
7285	64.70	8.15

632

69.88
64.15
5.65

Tile 64.00

63.08
12.00

63.4

McDaniel Drain

Sta	Sta	Tile Gd	Top Footing	New Gd	Old Gd	CUT
161+22	69.88	63.08	62.08	64.00	57.37	6.80
161+50	70.68	63.14	64.05			7.54
162	71.30	63.24	64.14			7.96
+50	70.40	63.34	64.23			7.06
163	70.65	63.44	64.32			7.21
+50	70.98	63.54	64.41			7.44
164	71.11	63.64	64.50			7.47
+50	70.10	63.74	64.59			6.36
165	70.76	63.84	64.68			6.92
+50	70.93	63.94	64.77			6.99
166	70.78	64.04	64.86			6.74
+50	70.81	64.14	64.95			6.67
167	70.92	64.24	65.04			6.68
+50	71.12	64.34	65.13			6.78
168	71.84	64.44	65.22			7.40
+50	72.21	64.54	65.31			7.67
169	71.15	64.64	65.40			6.51
+50	70.69	64.74	65.49			5.83
170	70.29	64.84	65.58			5.45
+50	70.51	64.94	65.67			5.57
171	70.67	65.04	65.76			5.63
+50	70.60	65.14	65.85			5.46
172	71.98	65.24	65.94			6.08

Top Hd of 64.15

Tile slope 161+50 El 70.68 ✓
state 162+64 - El 71.40 ✓

Cut to Tile Gd 6'-10"

" to Top Footing 7'-10"

" to Bottom " 10'-4"

{ Top Hd of 67.96
 Apron 63.04
 FL Tile 64.14

End 14" Tile

McDaniel Drain Tile

Sta	Sta	Code	Old	Cut
172+50	71.47	6534	66.02	6.13
173	71.11	6544	66.10	5.67
+50	70.49	6554	66.18	4.95
174	72.00	6564	66.26	6.36
+50	71.50	6574	66.34	5.76
175	71.55	6584	66.42	5.71
+50	70.99	6594	66.50	5.05
176	71.82	6604	66.58	5.78
+50	71.56	6614	66.66	5.72
177	72.01	6624	66.74	5.77
+50	72.07	6634	66.82	5.73
178	71.30	6644	66.90	4.86
+50	72.60	6654	66.98	6.06
179	73.50	6664	67.06	6.86
+50	70.68	66.74	67.14	3.94
+56	70.44	66.75	67.15	3.69

Atx

Top 6" 68.68 - FL = 68.08

$$\begin{array}{r} \text{Top 7" } 68.73 - \text{FL} = 68.08 \\ \underline{66.75} \\ 1.33 \end{array}$$

71.40 Pond

$$\begin{array}{r} 67.80 \\ \underline{3.60} \\ 66.75 \\ \underline{1.05} \\ 67.80 \end{array}$$

New Profile
Levels On Shomate Road

~~228~~

(1) B. M. EL. 100 On S.W. Wing Wall

	W. S. + K.	Road
60+0	97.93	99.91
59+0	100.55	100.06
58+0	102.20	101.28
57+0	103.39	101.90
56+0	103.30	102.42
55+0	103.20	102.98
54+0	103.92	103.11
53+0	103.25	102.56
52+0	102.29	102.04
51+0	101.75	101.80
50+0	101.77	101.83
49+0	101.64	101.56
48+0	101.35	101.27
47+0	101.36	101.08
46+0	101.86	101.39
45+0	102.10	101.75
44+0	102.15	101.77
43+0	101.77	101.10
42+0	100.40	100.58
41+0	100.04	100.03
40+0	99.38	99.34
39+0	98.95	98.97
38+0	99.30	99.18

228

← LETTER →

(2) Bench Mark Horse shoe nail on East side of corner Post Sta 35+16

Sta	S+K	ℙ Road
37+0	99.42	99.30
36+0	99.93	99.63
35+0	100.25	100.15
34+0	99.30	98.95
33+0	97.72	98.06
32+0	97.60	97.63
31+0	97.48	97.83
30+0	97.97	97.58
29+0	98.65	97.96
28+0	97.17	97.54
27+0	97.25	97.40
26+0	97.18	97.04
25+0	97.08	97.19
24+0	97.35	97.28
23+0	98.60	97.95
22+0	97.98	97.48
21+0	96.35	96.61
20+0	96.44	96.50
19+0	97.59	97.78
18+0	97.40	97.82
17+0	97.40	97.65
16+0	97.00	97.48
15+0	96.94	97.27
14+0	96.97	97.39
13+0	98.24	98.07

(3) Bench mark Nail on East side
of corner Post 13+20 E. 97.87. 97.95

98.45

RA² width.

12+0 98.55

11+0 99.44

10+0 99.50

9+0 98.66

8+0 98.70

7+0 99.00

6+0 99.80

5+0 100.60

4+0 100.94

3+0 101.09

2+0 100.90

1+0 100.68

0+18 100.17

£
Road

98.60

99.67

99.39

98.75

99.00

99.00

99.67

100.75

100.92

101.17

101.11

100.90

100.95

(4) Bench Mark Nail on East
Side of Corner Post on West
side of Rd at Sta 0+18
El. 100.68

RA³

138

107.05
106.94
11

Natural Trigonometrical Ratios.

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.
0	0	0	1.	∞	∞	1.	90	1.	0	0	∞	∞	0
10	.0029	.0029		343.8	343.8	1.	50	.1392	.1405	1.0098	7.185	7.115	.98027
20	.0058	.0058		171.9	171.9	.99998	40	.1421	.1435	1.0102	7.040	6.968	.98986
30	.0087	.0087		114.6	114.6	.99996	30	.1449	.1465	1.0107	6.900	6.827	.98944
40	.0116	.0116	1.0001	85.94	85.94	.99993	20	.1478	.1495	1.0111	6.766	6.691	.98902
50	.0145	.0145	1.0001	68.76	68.75	.99989	10	.1507	.1524	1.0115	6.636	6.561	.98858
1	.0175	.0175	1.0002	57.30	57.29	.99985	80	.1536	.1554	1.0120	6.512	6.435	.98814
10	.0204	.0204	1.0002	49.11	49.10	.99979	50	.1564	.1584	1.0125	6.394	6.314	.98769
20	.0233	.0233	1.0003	42.98	42.96	.99973	40	.1593	.1614	1.0129	6.277	6.197	.98723
30	.0262	.0262	1.0003	38.20	38.19	.99966	30	.1622	.1644	1.0134	6.166	6.084	.98676
40	.0291	.0291	1.0004	34.38	34.37	.99958	20	.1650	.1673	1.0139	6.059	5.976	.98629
50	.0320	.0320	1.0005	31.26	31.24	.99949	10	.1678	.1703	1.0144	5.955	5.871	.98580
2	.0349	.0349	1.0006	28.65	28.64	.99939	88	.1708	.1733	1.0149	5.855	5.769	.98531
10	.0378	.0378	1.0007	26.45	26.43	.99929	50	.1736	.1763	1.0154	5.759	5.671	.98481
20	.0407	.0407	1.0008	24.56	24.54	.99917	40	.1765	.1793	1.0160	5.665	5.576	.98430
30	.0436	.0437	1.0010	22.93	22.90	.99905	30	.1794	.1823	1.0165	5.575	5.485	.98378
40	.0465	.0466	1.0011	21.49	21.47	.99892	20	.1822	.1853	1.0170	5.488	5.396	.98325
50	.0494	.0495	1.0012	20.23	20.21	.99878	10	.1851	.1883	1.0176	5.403	5.309	.98272
3	.0523	.0524	1.0014	18.11	18.08	.99863	87	.1880	.1914	1.0181	5.320	5.226	.98218
10	.0552	.0553	1.0015	18.10	18.07	.99847	50	.1908	.1944	1.0187	5.241	5.145	.98163
20	.0581	.0582	1.0017	17.20	17.17	.99831	40	.1937	.1974	1.0193	5.164	5.066	.98107
30	.0610	.0612	1.0019	16.38	16.35	.99813	30	.1965	.2004	1.0199	5.089	4.989	.98050
40	.0640	.0641	1.0020	15.84	15.80	.99795	20	.1994	.2035	1.0205	5.018	4.915	.97992
50	.0669	.0670	1.0022	14.96	14.92	.99776	10	.2022	.2065	1.0211	4.945	4.843	.97934
4	.0698	.0699	1.0024	14.34	14.30	.99756	86	.2051	.2095	1.0217	4.877	4.773	.97875
10	.0727	.0729	1.0027	13.76	13.73	.99736	50	.2079	.2126	1.0223	4.810	4.705	.97815
20	.0756	.0758	1.0029	13.23	13.20	.99714	40	.2108	.2156	1.0230	4.745	4.638	.97754
30	.0785	.0787	1.0031	12.75	12.71	.99692	30	.2136	.2186	1.0236	4.682	4.574	.97692
40	.0814	.0816	1.0033	12.29	12.25	.99668	20	.2164	.2217	1.0243	4.620	4.511	.97630
50	.0843	.0846	1.0036	11.87	11.83	.99644	10	.2193	.2247	1.0249	4.560	4.449	.97568
5	.0872	.0875	1.0038	11.47	11.43	.99619	85	.2221	.2278	1.0256	4.502	4.390	.97502
10	.0901	.0904	1.0041	11.10	11.06	.99594	50	.2250	.2309	1.0263	4.445	4.331	.97437
20	.0929	.0934	1.0043	10.76	10.71	.99567	40	.2278	.2339	1.0270	4.390	4.275	.97371
30	.0958	.0963	1.0046	10.43	10.39	.99540	30	.2306	.2370	1.0277	4.336	4.219	.97304
40	.0987	.0992	1.0049	10.13	10.08	.99511	20	.2334	.2401	1.0284	4.284	4.165	.97237
50	.1016	.1022	1.0052	9.839	9.788	.99482	10	.2363	.2432	1.0291	4.232	4.113	.97169
6	.1045	.1051	1.0055	9.567	9.514	.99452	84	.2391	.2462	1.0299	4.182	4.061	.97100
10	.1074	.1080	1.0058	9.309	9.255	.99421	50	.2419	.2493	1.0306	4.133	4.011	.97030
20	.1103	.1110	1.0061	9.065	9.010	.99390	40	.2447	.2524	1.0314	4.086	3.962	.96958
30	.1132	.1139	1.0065	8.834	8.777	.99357	30	.2476	.2555	1.0321	4.039	3.914	.96887
40	.1161	.1169	1.0068	8.614	8.556	.99324	20	.2504	.2586	1.0329	3.994	3.867	.96815
50	.1190	.1198	1.0072	8.405	8.345	.99290	10	.2532	.2617	1.0337	3.949	3.821	.96742
7	.1219	.1228	1.0075	8.206	8.144	.99255	83	.2560	.2648	1.0345	3.906	3.776	.96667
10	.1248	.1257	1.0079	8.016	7.953	.99219	50	.2588	.2679	1.0353	3.864	3.732	.96593
20	.1277	.1287	1.0082	7.834	7.770	.99182	40	.2616	.2711	1.0361	3.822	3.689	.96517
30	.1305	.1317	1.0086	7.661	7.596	.99144	30	.2644	.2742	1.0369	3.782	3.647	.96440
40	.1334	.1346	1.0090	7.496	7.429	.99106	20	.2672	.2773	1.0377	3.742	3.606	.96363
50	.1363	.1376	1.0094	7.337	7.269	.99067	10	.2700	.2805	1.0386	3.703	3.566	.96285
							82	.2728	.2836	1.0394	3.665	3.526	.96208
													74

Cosin. Cotg. Cosec. Sec. Tan. Sine. Angle. Cosin. Cotg. Cosec. Sec. Tan. Sine. Angle.

#3 107.01 - according to notes
 = 3 706.39 - from 300 ft
 .66

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.
 FOR SINGLE TRACK EMBANKMENT.

	0	1	2	3	4	5	6	7	8	9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MADE IN GERMANY.

Handwritten calculations and notes on the left page:

- 18" 2. $\frac{26}{142.9}$
- $\frac{142}{3}$
- 6274
- 104.53
- 100.30
- 4.10 | 4.23
- 106.33
- 53+30
- 53.03
- 26.515
- 53.30
- 4.10
- 100.30
- 104.40
- 69.8
- 63.08
- 79.81
- 3354
- 33600
- 3410
- 10838
- 10440
- 23 | 3.98
- 16.8
- 6.40
- 60+40
- 93
- 154+00
- 103
- 23
- 17