

507

FIELD BOOK

1860

No. 154

SAR No 4 Job # 2603

Data	Pg
Transit Notes	1 - 33
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Transit Notes  
SAR# 4 Job# 2603

22+80

FE on left

0+00

N 83° E

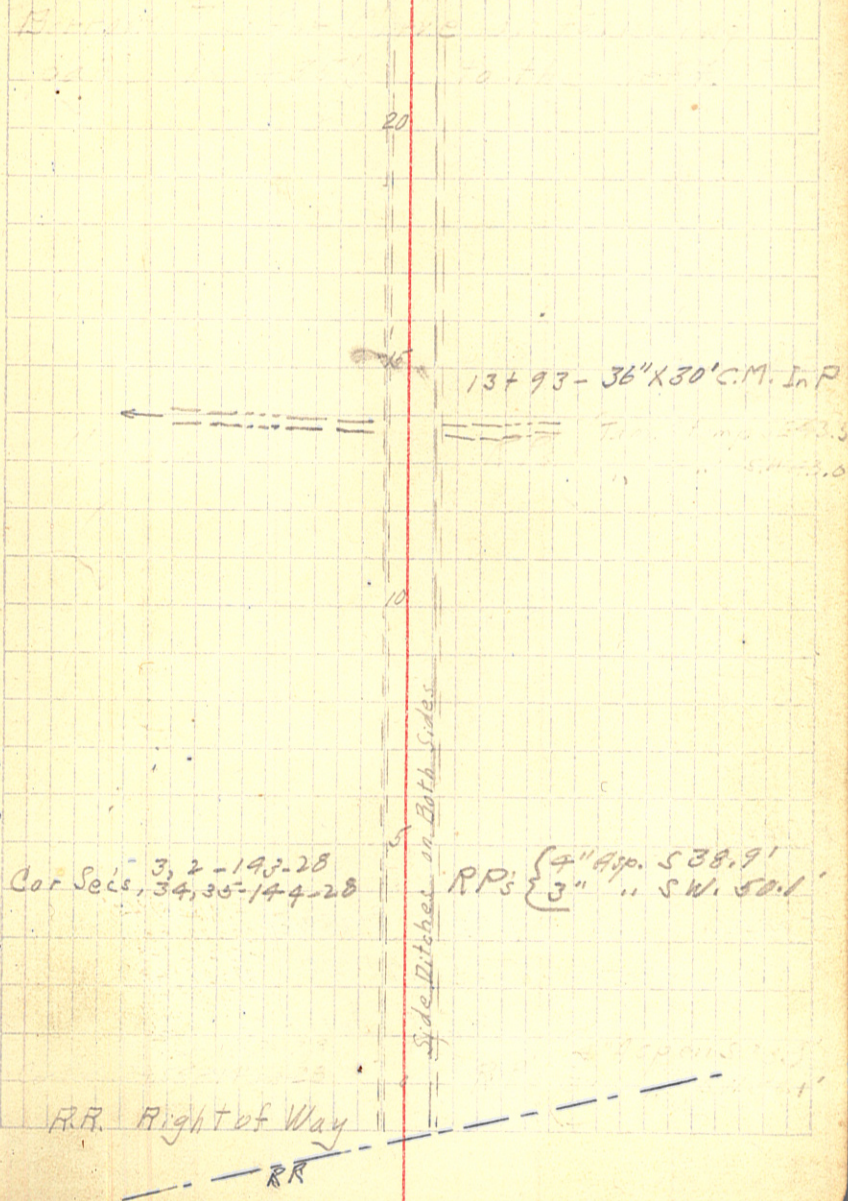
- 9+42

- 18+00

Nov 13+14-25

Weather - Cold - Cloudy

Party { R.A. Dahms - Engr. I  
A.R. Taubman - R  
H.H. Struss - Chain



Defl.	Angle	Mag. Bearing	Comp. Bearing
-------	-------	--------------	---------------

44+240

38+65

PT 28+19.18  
= +26.25

PI 26+60  
= +67.4

R 79°27' S 17°30' E  
D=20' Tan=238.07'  
R=296.51 L=397.23' Defl.

PC 24+21.93  
= 24+27

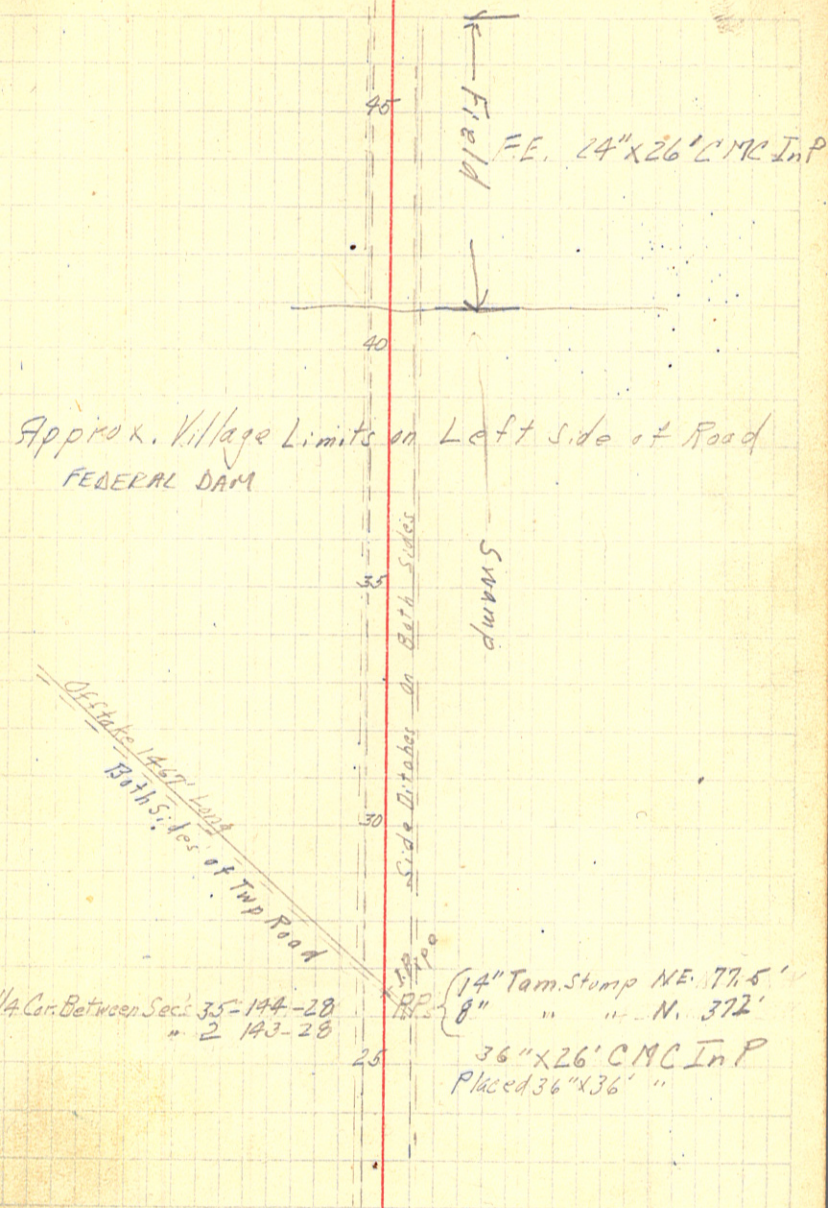
Ext=86.0'

S 17° 33' E

+19.18=39.42  
28=37.048  
+50=32.048  
37=27.048  
+30=22.048  
26=17.048  
+50=12.048  
25=7.048  
+50=2.048

Nov 1

2



Approx. Village Limits on Left Side of Road  
FEDERAL DAM

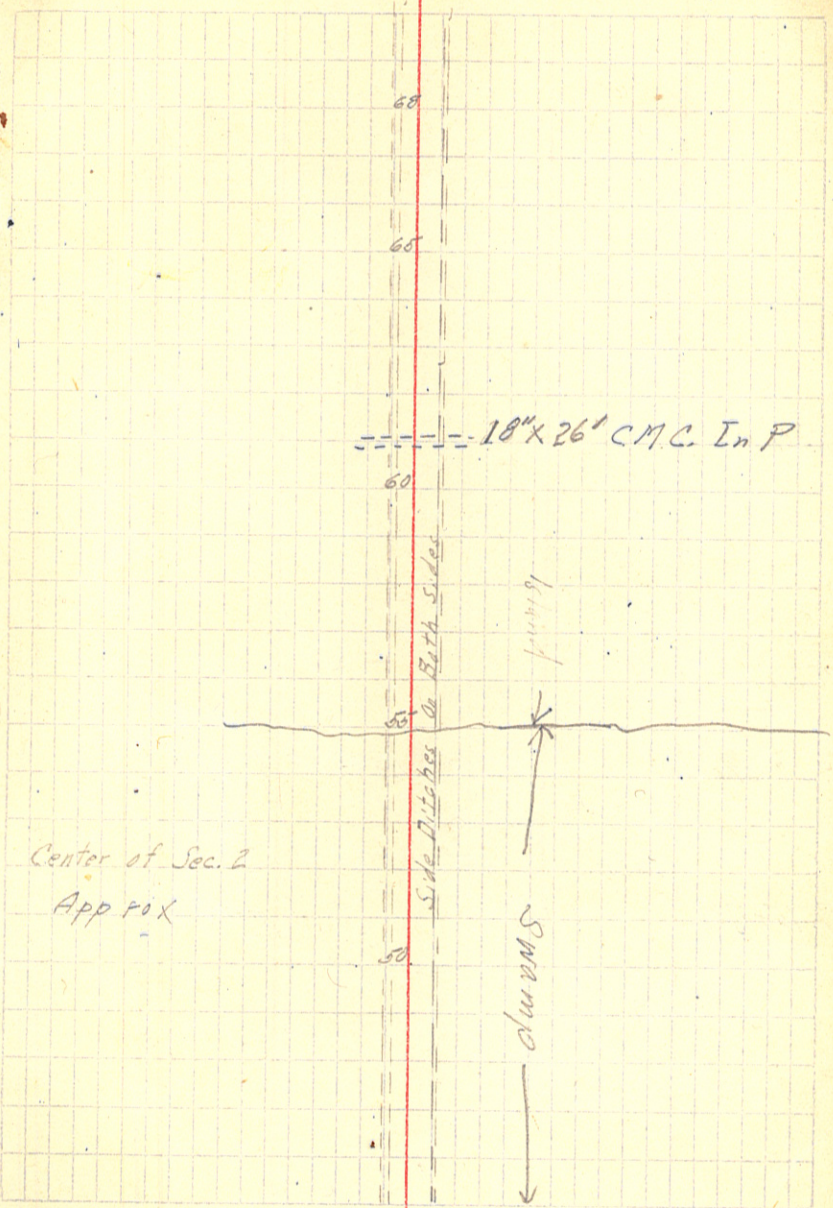
1/4 Cor. Between Secs 35-144-28  
" 2 143-28

14" Tam. Stump NE. 77.5'  
8" " " N. 372'  
36" x 26" CMC In P  
Placed 36" x 36" "

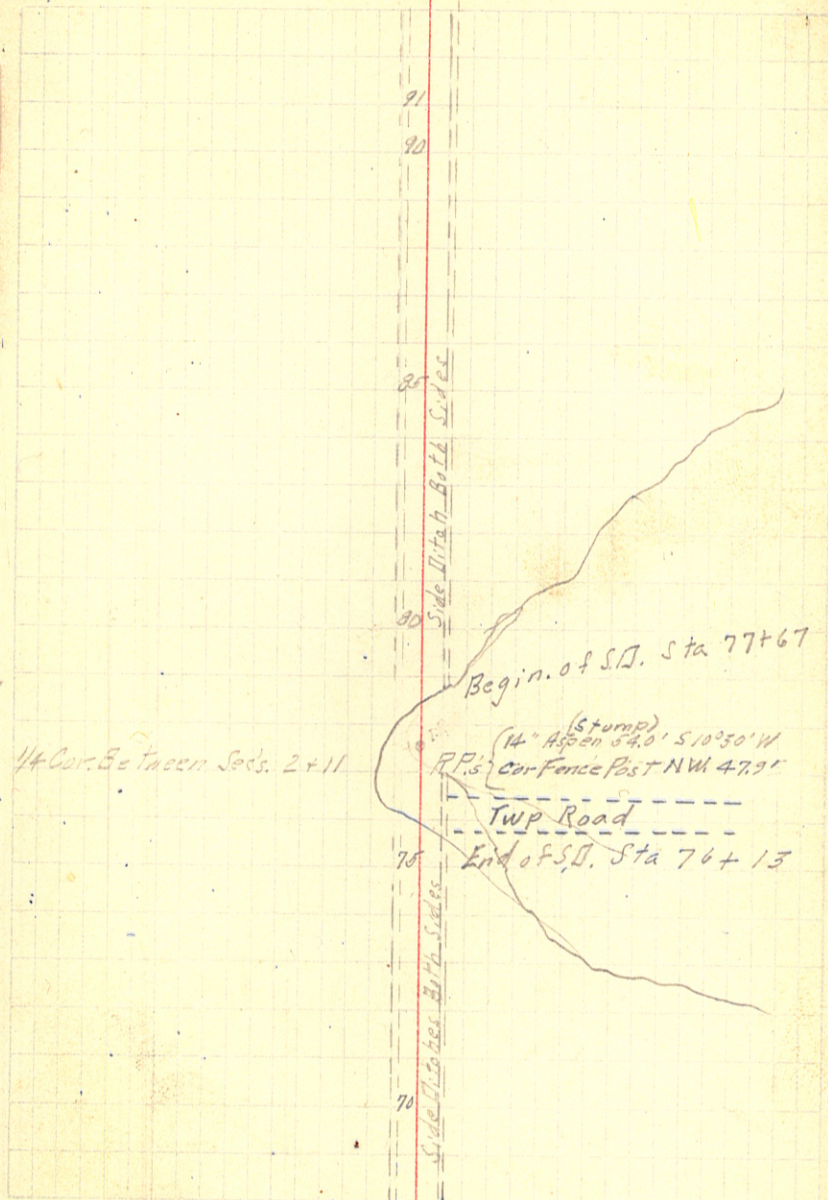
61+00

52+00

51+43.4

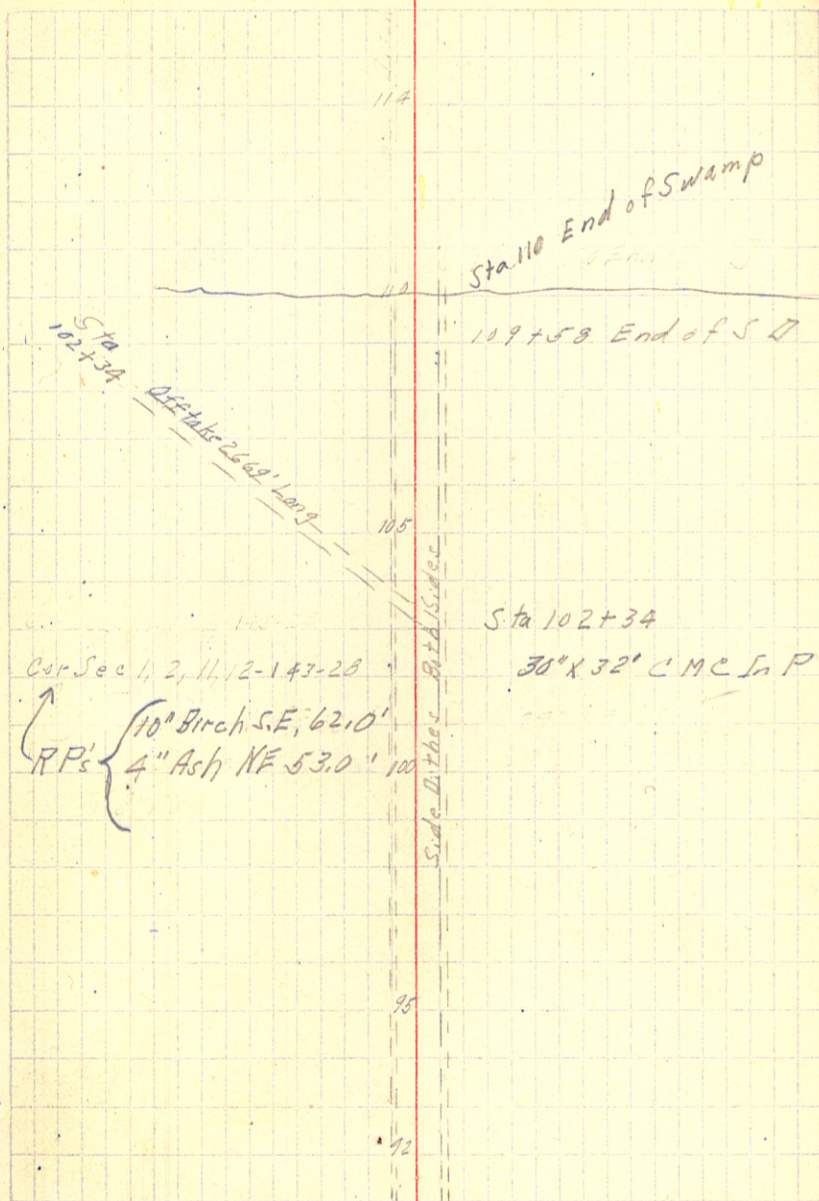


Sta	Defl.	Angle	Mag. Bearing	Computed Bearing
PT 79+25.62E 78+57.20				
P.I. 77+67	L	78°45'	N84°00'E	N83°42'E
	D=20°	Tan=236.13		+25.62=39°23'
	R=286.5'	L=342.75'	Defl's	79-36°49'
	Ext=89.13'			+50=3149'
PC 75+31.07=				78=26°49'
74+63.5				+50=21°49'
				77=12°49'
				+50=11°49'
				76=6°49'
				+50=1°49'



102+65

N80°30'E  
Approx. →



138+20

137+90

132+18

offtake

129+06

128+78

123+60

115+05

Reshaping

↑  
116+00

F.E. Placed  
12" x 24" CMC

137

Offtake 1390' Long

133+60 End of S.D.s

24" x 30" CMC In P

1/4 Cor. Between Sec. 1, 12.  
(Approx.)

130

RP's { 9" Aspen SW 42.0'  
6" " S 36.0'

127+60

125

Gravel Pit + No. B Road

120

115

15" x 26" CMC In P



Sta	Defl.	Angle	Mag. Bearing	Comp. Bearing
-----	-------	-------	--------------	---------------

160+50

PT 158+43.5  
= 157+10.75

PJ 156+80

R 90° 1.6' S 10° 30' E  
 D = 20° T = 287.75  
 R = 286.8' L = 45.125' Defl.'s

PC 153+92.25  
= 152+59.5

Ext. = 119.56'

S 5° 24' E  
 +43.5 = 45° 03'  
 159 = 44° 57'  
 +50 = 39° 57'  
 157 = 39° 57'  
 +50 = 29° 57'  
 156 = 29° 57'  
 +50 = 19° 57'  
 155 = 19° 57'  
 +50 = 9° 57'  
 154 = 9° 57'

151+35

N 87° E

144+10

143+42

49 68  
 40 47  
 21

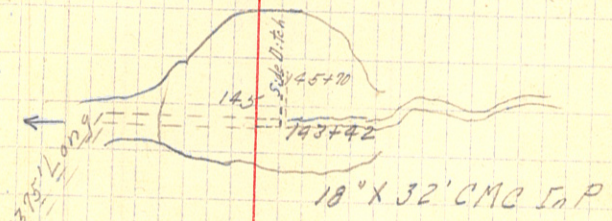
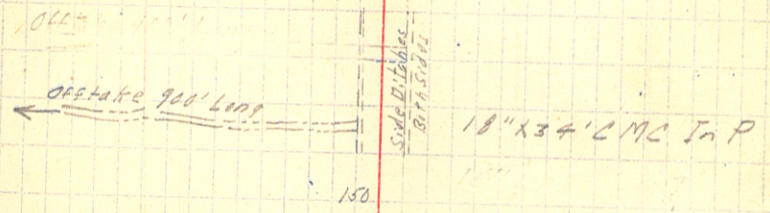
F.E. Sta 160+50

160

Cor. Sec's 1, 12 - N 28° W T 1+3  
 6, 7 - " 29 " " " "

155

Stamp  
 15" Basswood N NE 53.0  
 R.P.s  
 12" Birch 42.0 NW "



Field

140

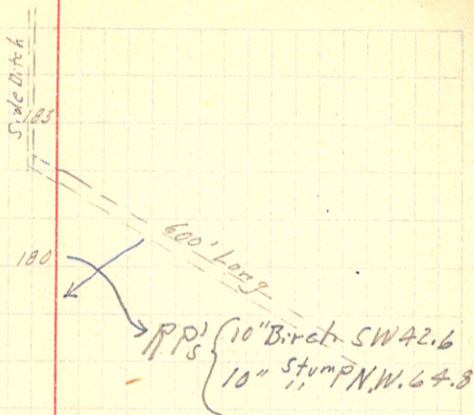
181+20  
179+95

171+15

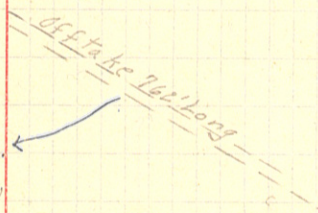
114 Cor. Bet. Sec 7+12  
(Approx)  
12" x 30' CMC In P.

15" x 30' CMC In P.

Sta 167+35 TWP Road  
Placed  
15' x 26' CMC

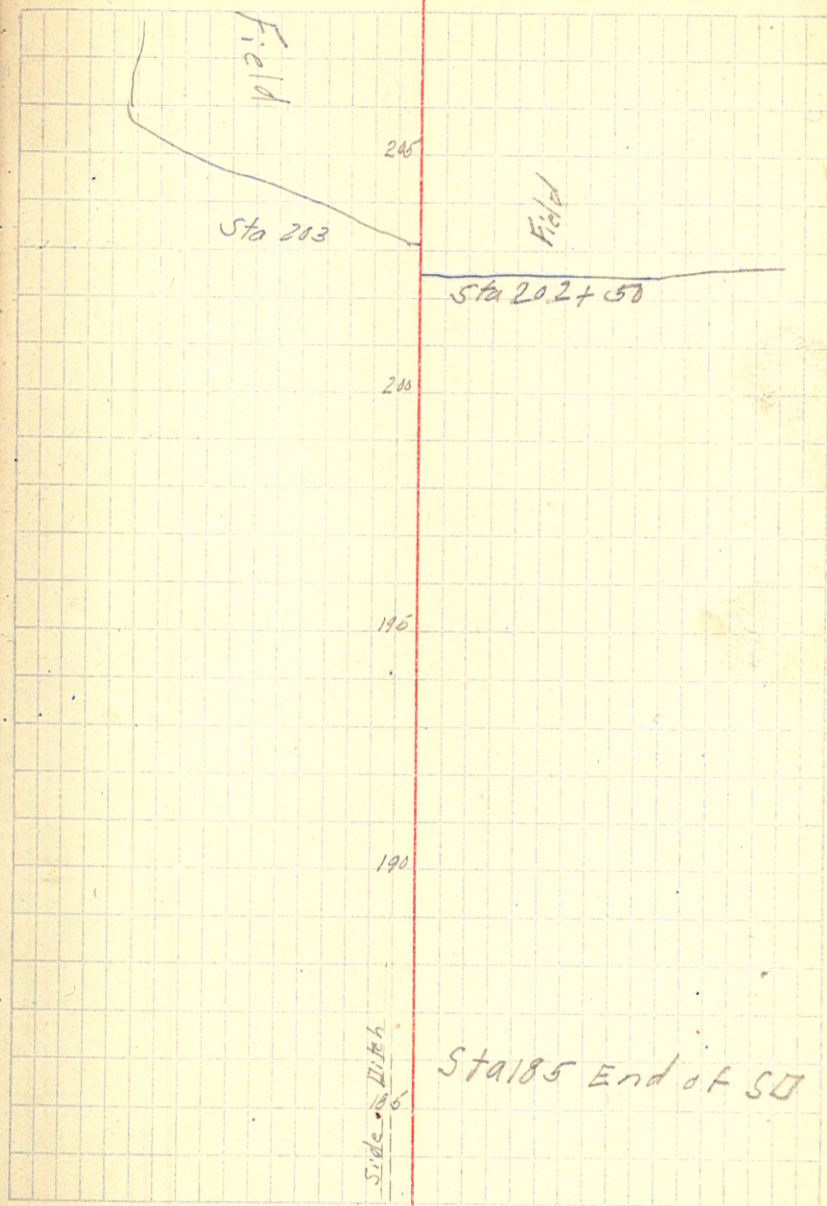


175



170

165



229

228

225+98

224+77

217

209+05

207+47

S 6° E

End of Field

End of Field

F.E.

Field

225

FE 12" X 18' C.M.C. In P.

223+50

+50 Begin of Field

220

12" X 30' C.M.C. In P.

215

End of Field Sta 211

FE Sta 209+90

Cor. Secs. 12, 13-143-28  
7, 18 - " - 27

210

Sta 209+05  
12" X 22' C.M.C. In P.



T&P

Road

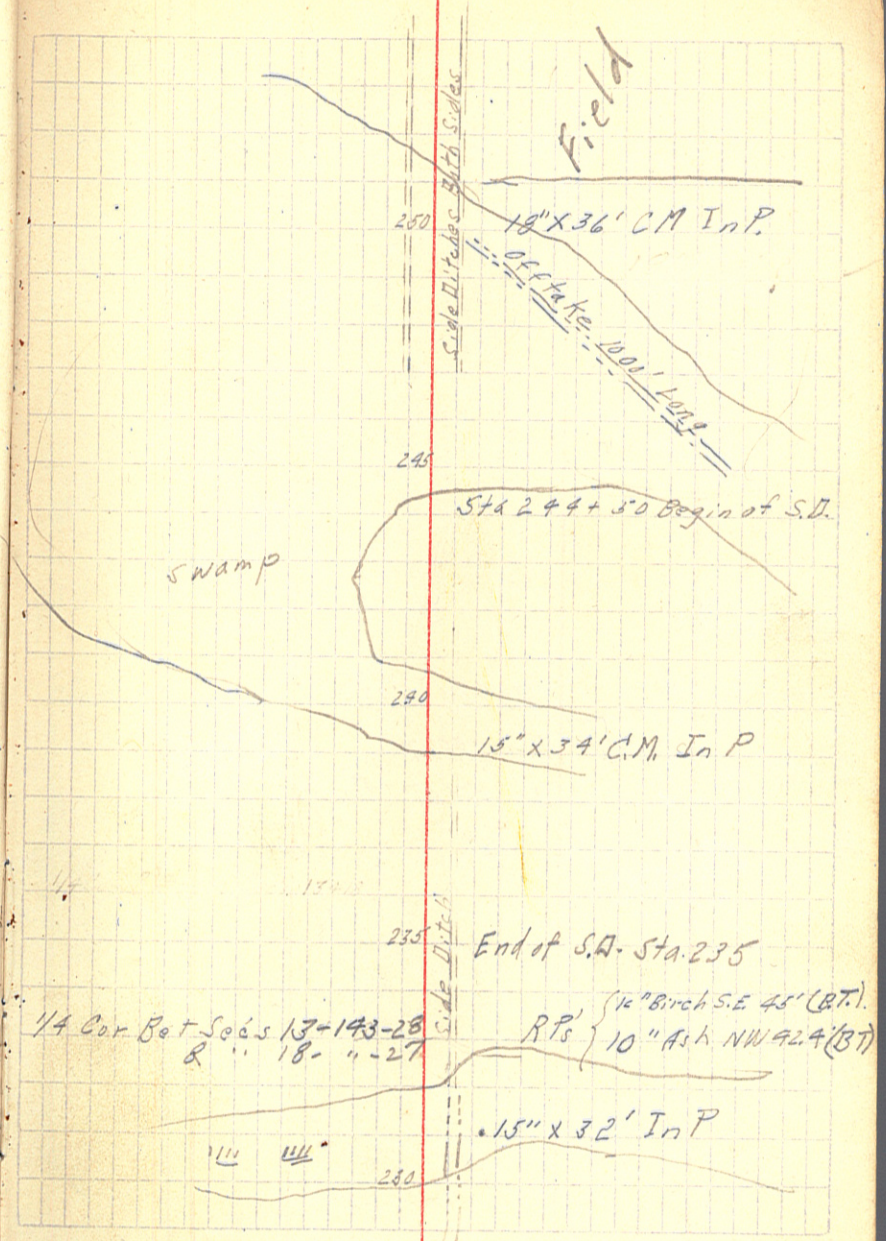
R.P. { Tel. Pole NW 33.6'  
Maple Stump NE 75.7'  
(B.M.)

250+44

240+20

233+91

231+91



Sta	Defl.	Angle	Mag Bearing
-----	-------	-------	-------------

267+25

PT 265+13.50  
= 261+91.67

PI 263+50

L 90°20' N 83°20' E  
D = 20° Tan = 288.17'  
R = 286.5' L = 451.67' Defl's

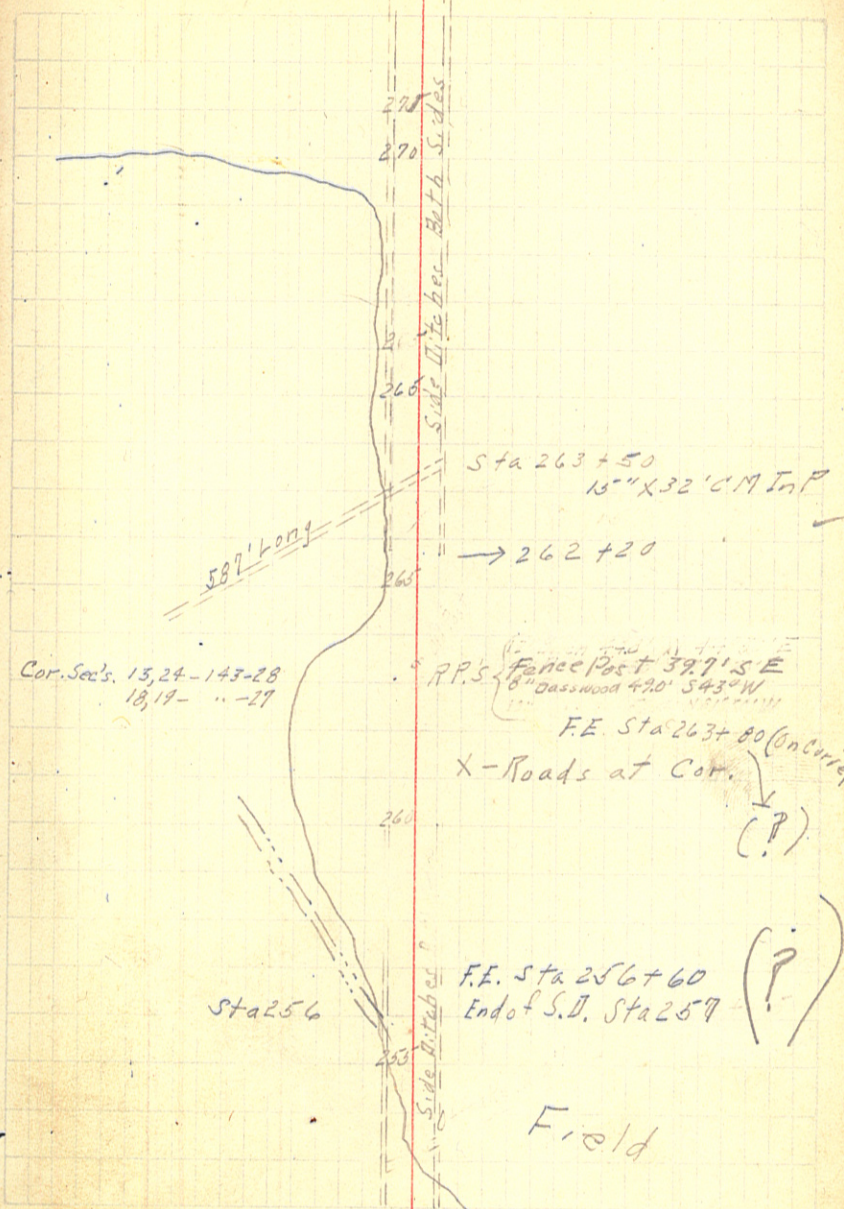
FC 260+61.85  
= 257+90

Ext = 119.86'

+18.5 = 4570'  
263 = 43049'  
+30 = 38049'  
264 = 37049'  
+30 = 32049'  
267 = 23491'  
+50 = 18049'  
262 = 13049'  
+50 = 80491'  
261 = 30491'

253+18

257 90  
261 67 12  
261.491.67



Cor. Sec's 15, 24-143-28  
18, 19- " -27

R.P.S. Fence Post 397' S E  
8" Basswood 420' S 43° W

F.E. Sta 263+80 (on Curve)  
X-Roads at Cor.

F.E. Sta 256+60  
End of S.D. Sta 257

Field

293+58

284+56

N 82° 40' E

288+31.5

+ 84

279+33

15" x 30' CM In P

290 ||| Begin of S.I. 290

FE 288+70

Sta 287+22 - 15" x 32' CM In P

FE 287+22

286

1/4 Cor. Bet Sec's. 18+19

RR's { 12" Birch SE. 86.2'  
Tel. Pole S. 30.0'

End of Field Sta 284+56

FE 280+25  
Placed 12" x 24'  
CMC.

280

FE Sta 280+25  
12" x 24' In P

1/4 C.

End of S.I. Sta 275

275

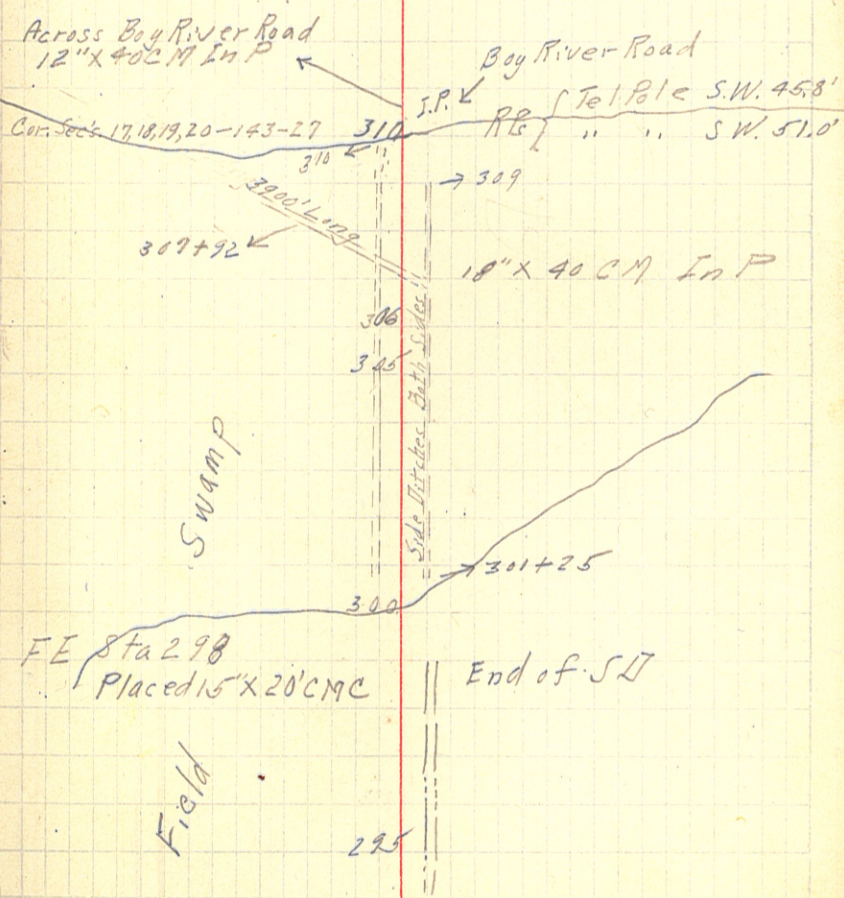
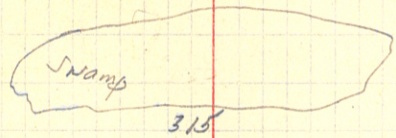
Begin of Field

Sta 274+84 - 18" x 30' CM In P

FE Sta 279+33  
Placed 15" x 26' CMC

310+90.5

307+92



Across Boy River Road  
12" x 40 CM In P

Boy River Road

Cor. Sects 17, 18, 19, 20 - 143-27

310

310

309

307+92

300' Limp

18" x 40 CM In P

306

305

Swamp

Side Terrace Bath

300

301+25

FE Sta 298  
Placed 15" x 20" CMC

End of SJ

Field

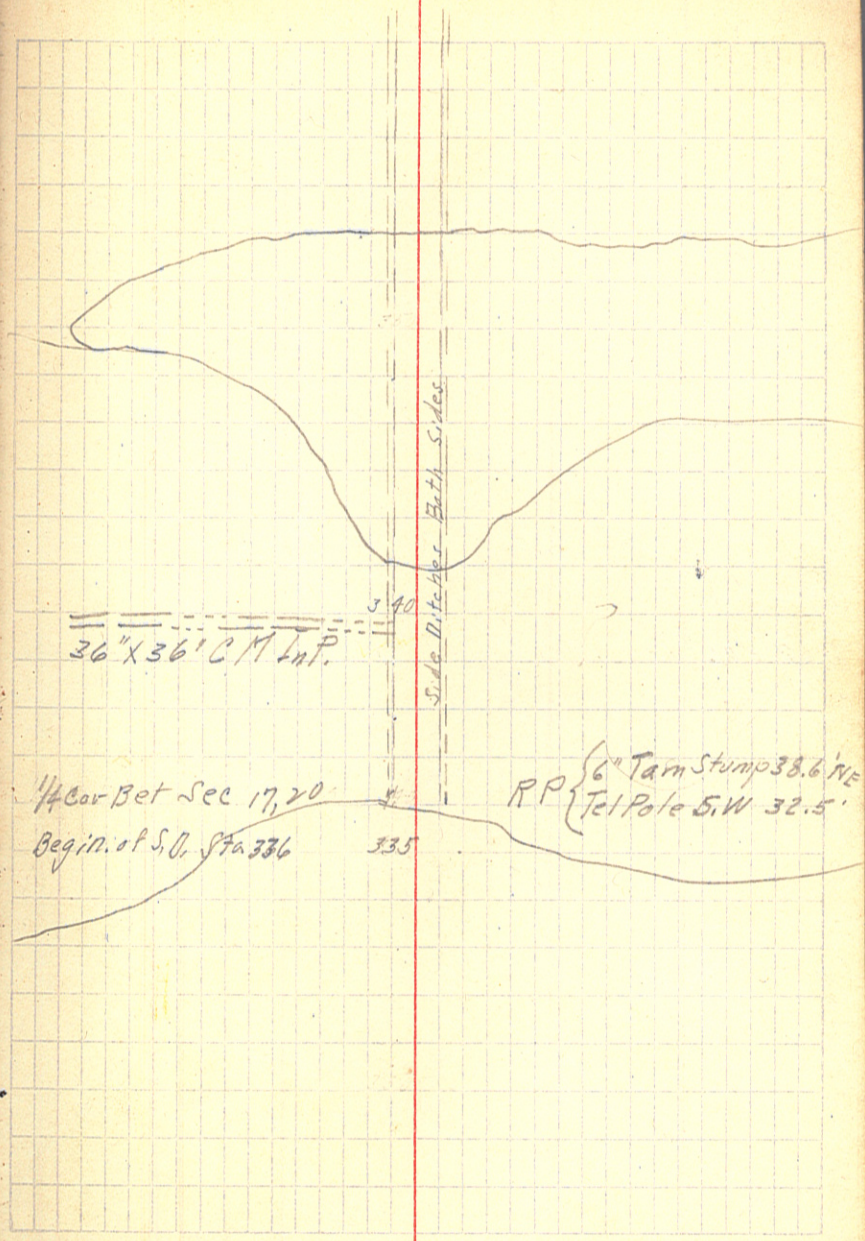
295



339+30

336+93

N. 81° 30' E



36" x 36" CM Int.

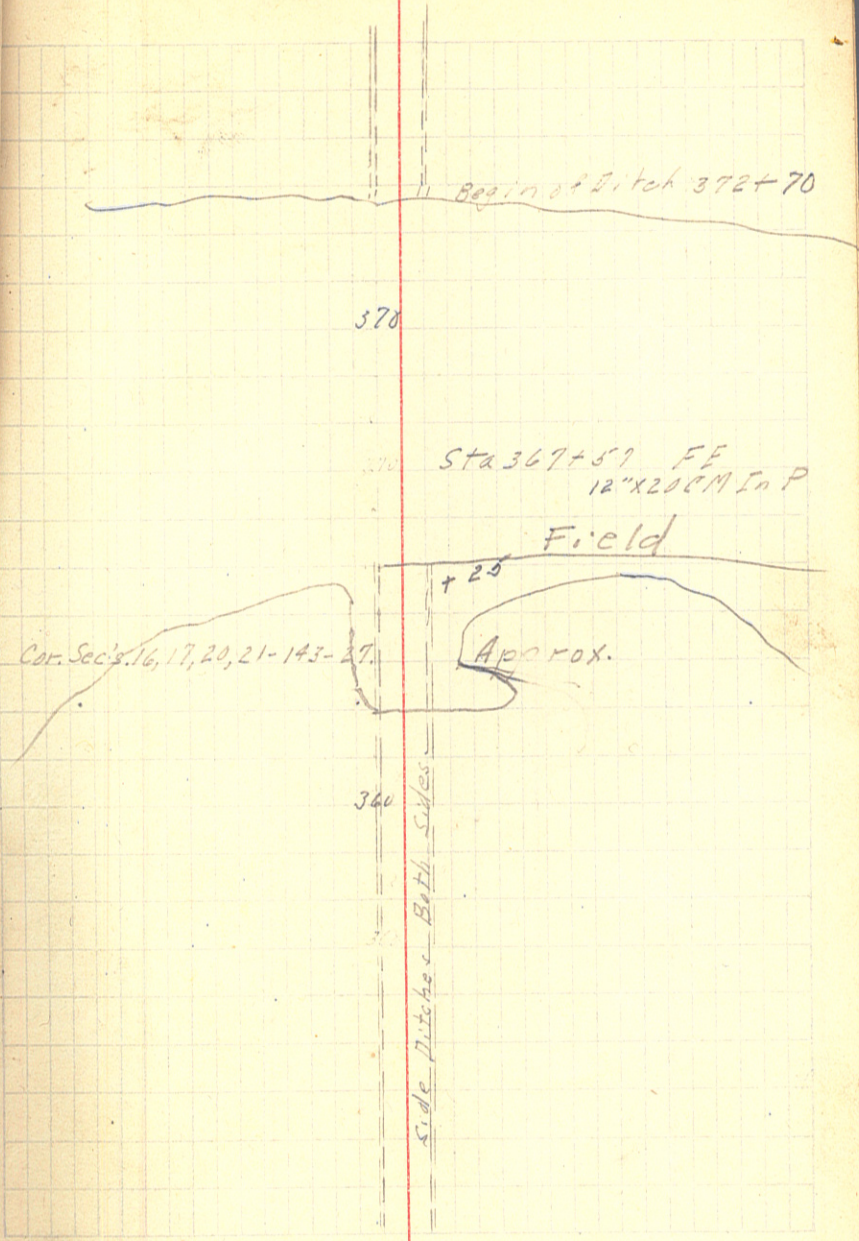
1/4 Cor Bet Sec 17, 20  
Begin. of S.O. Sta 336

335

RP { 6" Tarn Stump 38.6' NE  
Tel Pole 51' W 32.5'

363+06

N82°E



388+83

N 82° E

382+94

344+90 - 12" x 30' CM In P

FE 396+40  
12" x 20' CM In P  
Field

End of Ditches 392+30

1/4 Cor Between Sec's 16, 21.

PP's { 4" Tam stump 56.2 S.W.  
3" " S. 69.6'

3573 Long

24" x 36' CM In P

Side Ditches Both Sides

End of Field

916+40

414+84

909+72

907+24

903+20

N80°30'E

Cor. Sec's. 15, 16, 21, 22 - 143-27



420

12" x 30' CM In P

RP's { 12" Balsam <sup>stump</sup> NE 51.9'  
12" " SE stump 59.0'

410

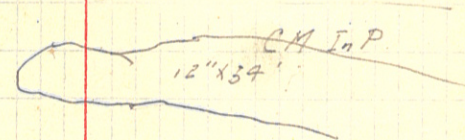
12" x 30' CM In P

End of Field

12" x 30' CM In P

FE 406+70 ?

405



442+92

441+42

N79°30'E

437+26

429+38

400' Long

1/4 Mile Between Sec's. 15 & 22  
Approx.

S.D. 44th Series

30" x 32' CM In P.

Begin of S.D. 441+35

12" x 30' CM In P.

435

End of S.D. 430+80

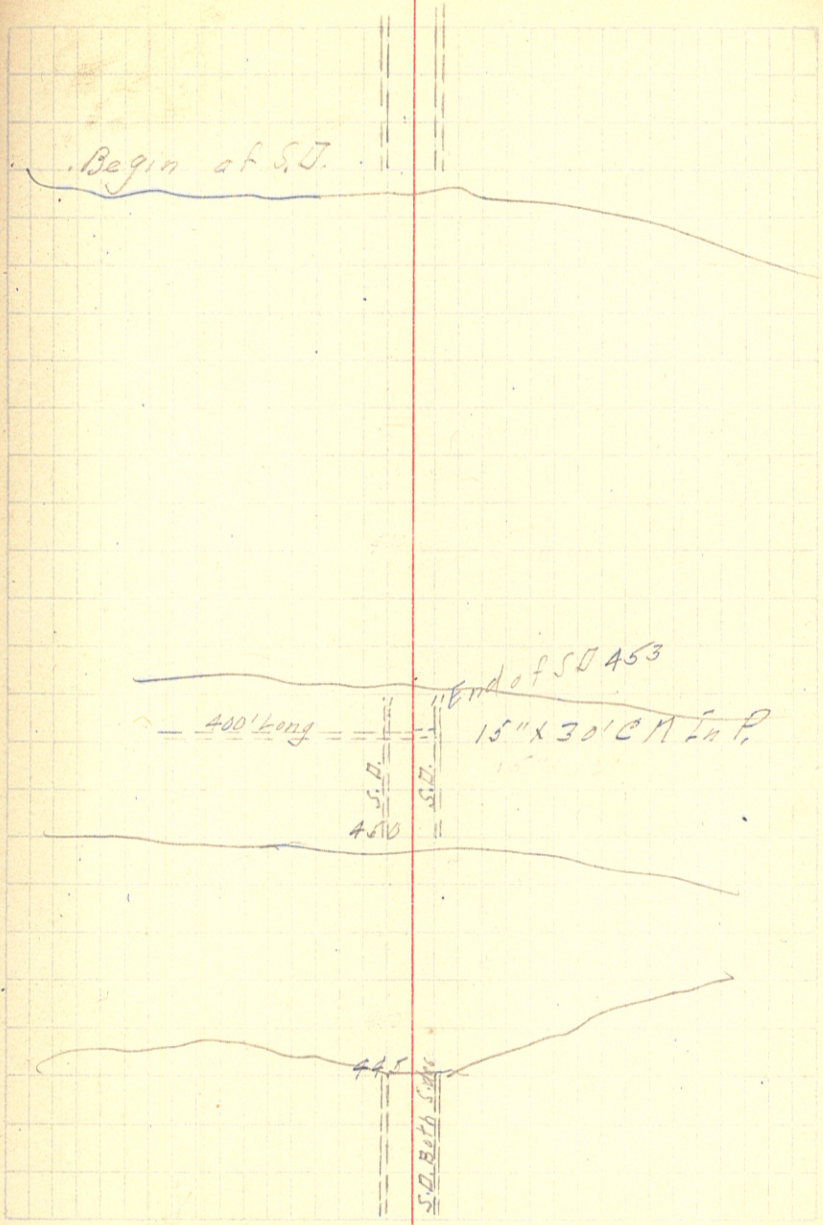
12" x 30' CM In P.

Begin of S.D. 428+80

425

469

452 + 50



4684 II

N78°30'

490

480

470

Cor. Sec's. 14, 15, 22, 23 - 143-27

RTs { 4" <sup>(RT)</sup> Tarn SW 91'  
6" Cedar SE 50'  
(RT.)

Side of Paces Butte Sides

497+60

495+13

N82°E

510

500

Side Ditches Both Sides

36" x 20' CM In P

1/4 Cor Between Sec's. 14, 23.

RP { 3" Tam (B.T.) S.E. 37.7'  
-3" " " NW 39.0'



RP  
113

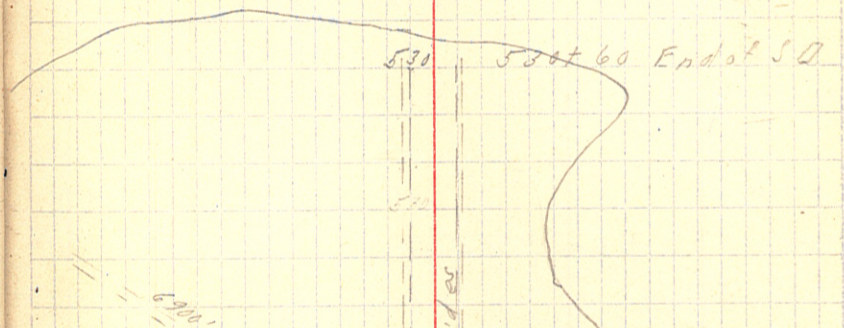
Mag.  
Bearing

522+22.5

522+22.5

N78°45'E

Field



Cor. Secs. 13, 14, 23, 24-  
143-27

Sta 522+43 - 36" x 36" C.M. In P

RP: {

- S 49° E screw in end of equipment 25.4'
- N 46° E " " 27.9'
- N 20° E 50.2' 14° Jam

520

S.D. Sides  
Ditch Sides

558

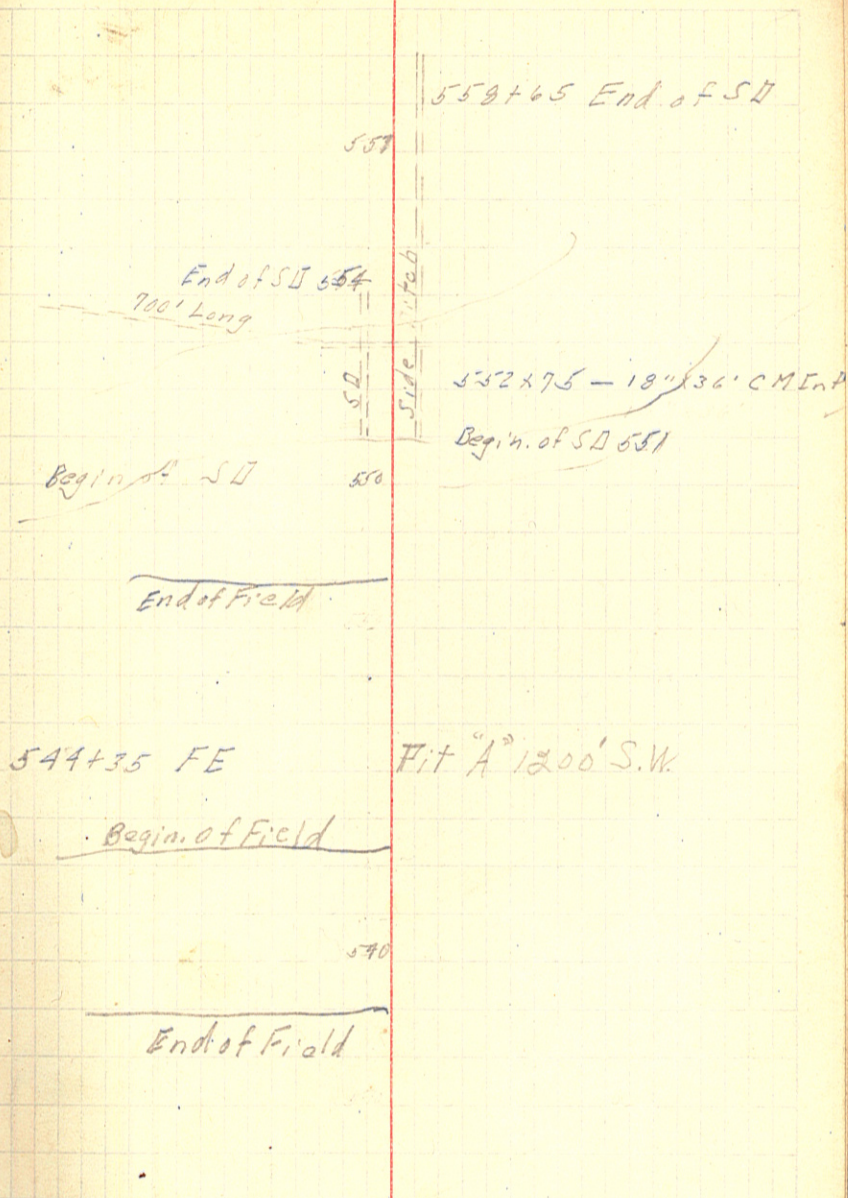
550+78

549+14

548+15

Approx 1/4 Cor.

544

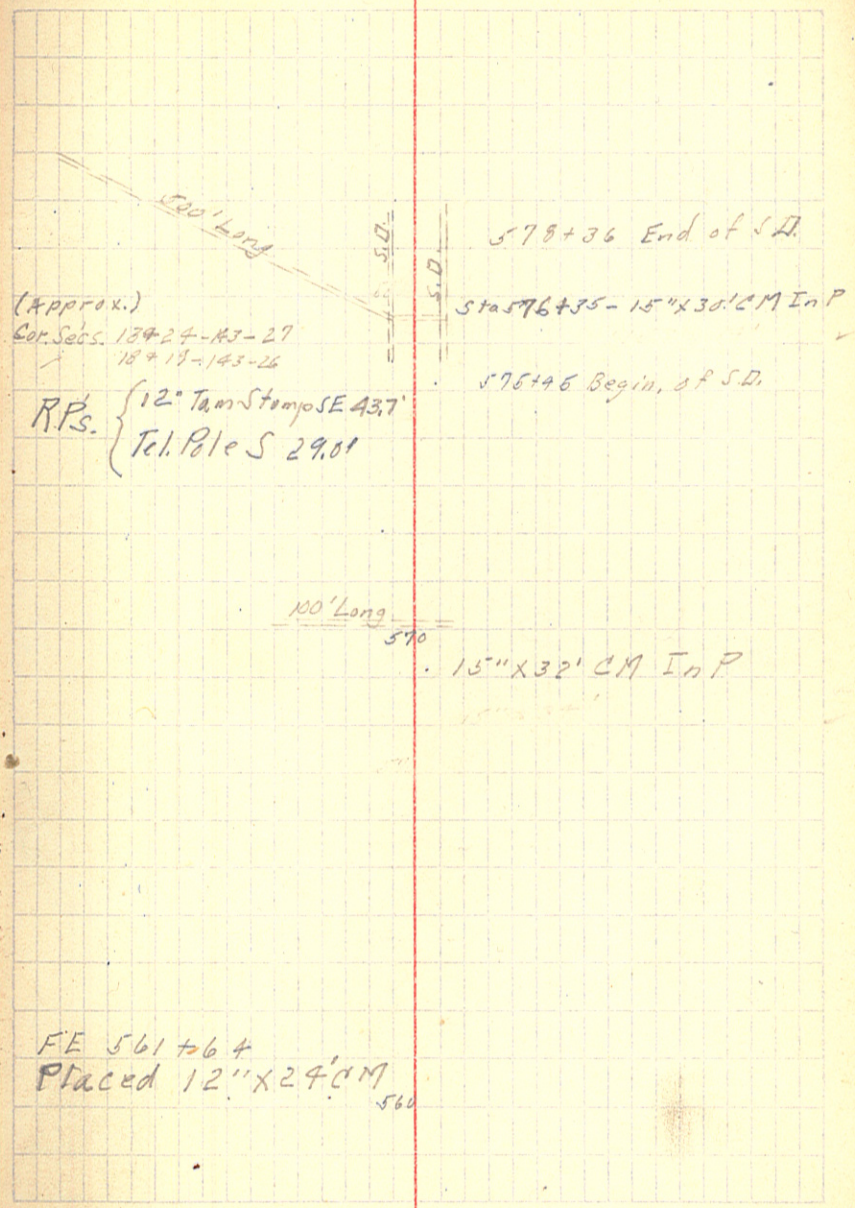


Mag  
Bearing

576+16

N80°30'E

569+86



(Approx.)  
Cor. Secs. 13+24-A3-27  
18+19-143-26

R.P.s. { 12" Tam Stamps E 43.7  
Tel. Pole S 29.01

578+36 End of S.D.

Sta 576+35 - 15" x 30' CM In P

575+96 Begin. of S.D.

100' Long  
570

15" x 32' CM In P

FE 561+64  
Placed 12" x 24' CM  
560

Mag  
Bearing

601+07

601+07

N80°30'E

(Approx)  
1/4 Cor. Between Secs. 18, 19.

RR's { Tel. Pole 43.0' S.W.  
6" Spruce Stump 43.2  
(B.T.) S.E.

End of Field

585+32

Begin of Field

587 End of S.D.

15' x 30' C.M. L.P.

584+96 Begin of S.D.

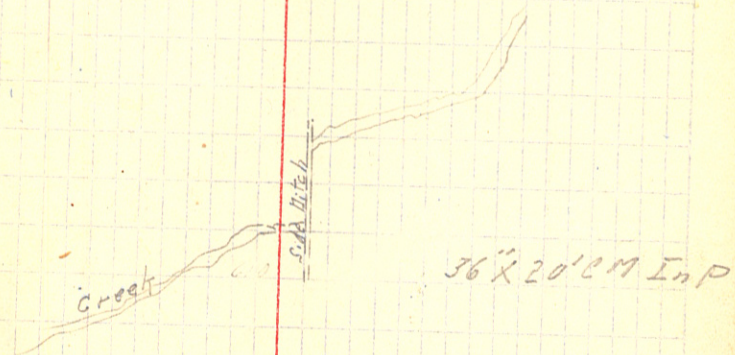
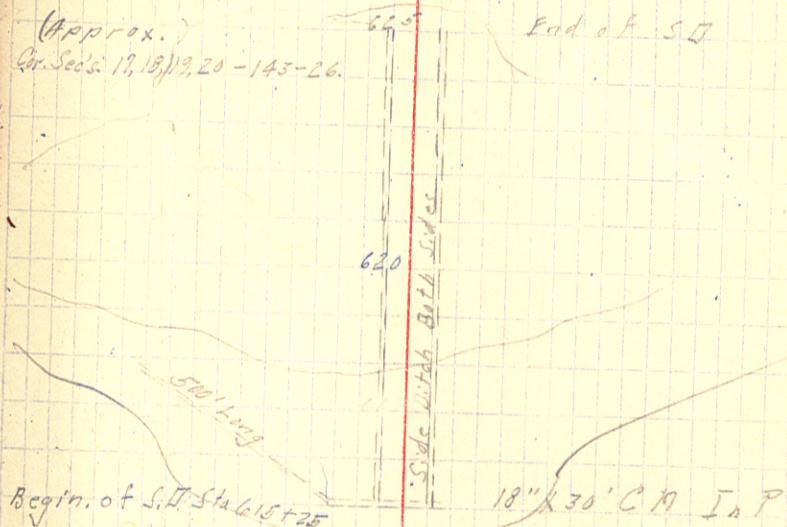


625+90

~~625+100~~

615+55

608+22

(Approx.)  
Cor. Secs. 17, 18, 19, 20 - 143-26.

649+04

636+05

631+29

650

15" x 30' CM In P ✓

Placed 12" x 24'  
640+64 FE

640

Field

End of SD 639

1583' Long

15" x 32' CM In P ✓

635+00 Begin of SD

18" x 28' CM In P ✓

671+29

667+9A

662+1A

661+60

659+55

658+95

655+10

651+55

15" x 30' In P

670

15" x 30' CM In P

15" x 30' CM In P

661+60

660

659+76

18" x 36' CM In P

657+84

656



(APPROX.)  
1/4 Cor. Between Sec's, 17+20

R R's { F Post NE 30'  
Tel Pole SE. 54.6'

677+60

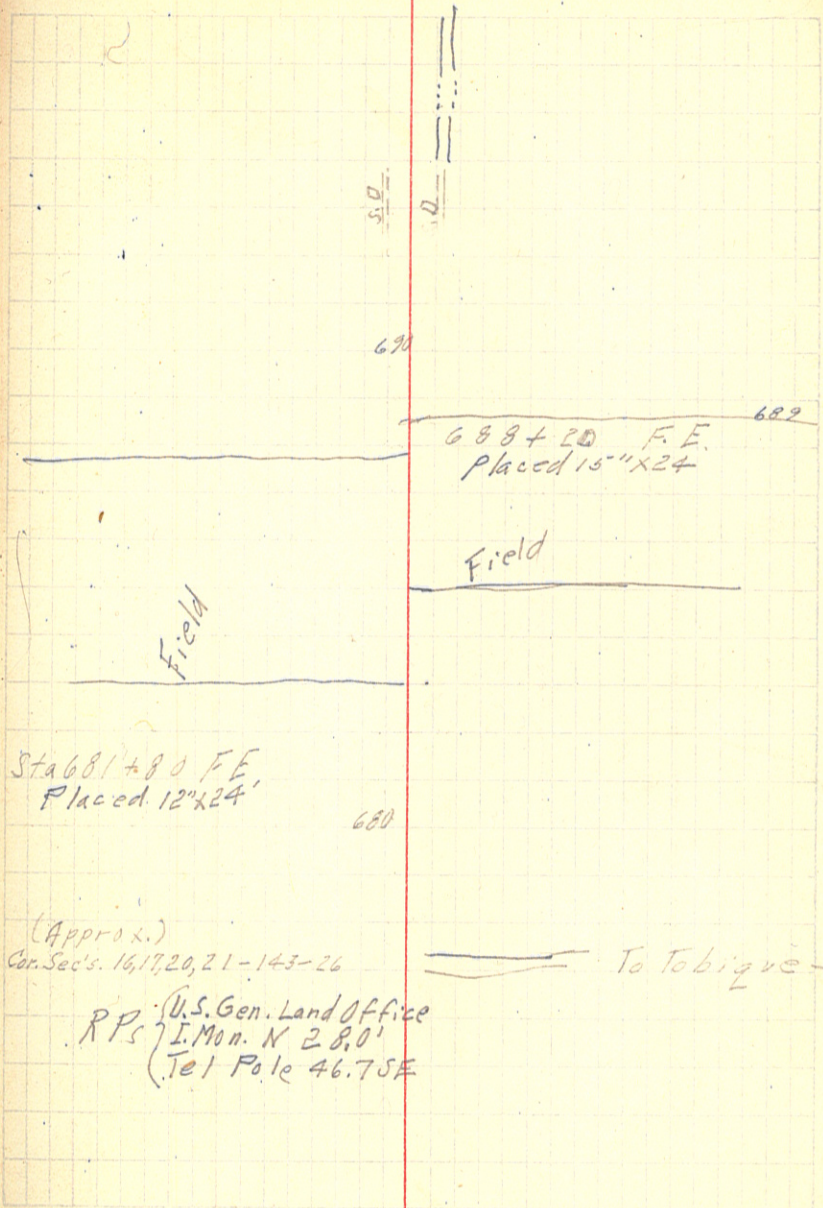
Sta 681+80 F.E.  
Placed 12" x 24"

680

(Approx.)  
Con. Sec's. 16, 17, 20, 21-143-26

RP's } U.S. Gen. Land Office  
I. Mon. N 28.0'  
Tel Pole 46.75E

==== To Tobique →

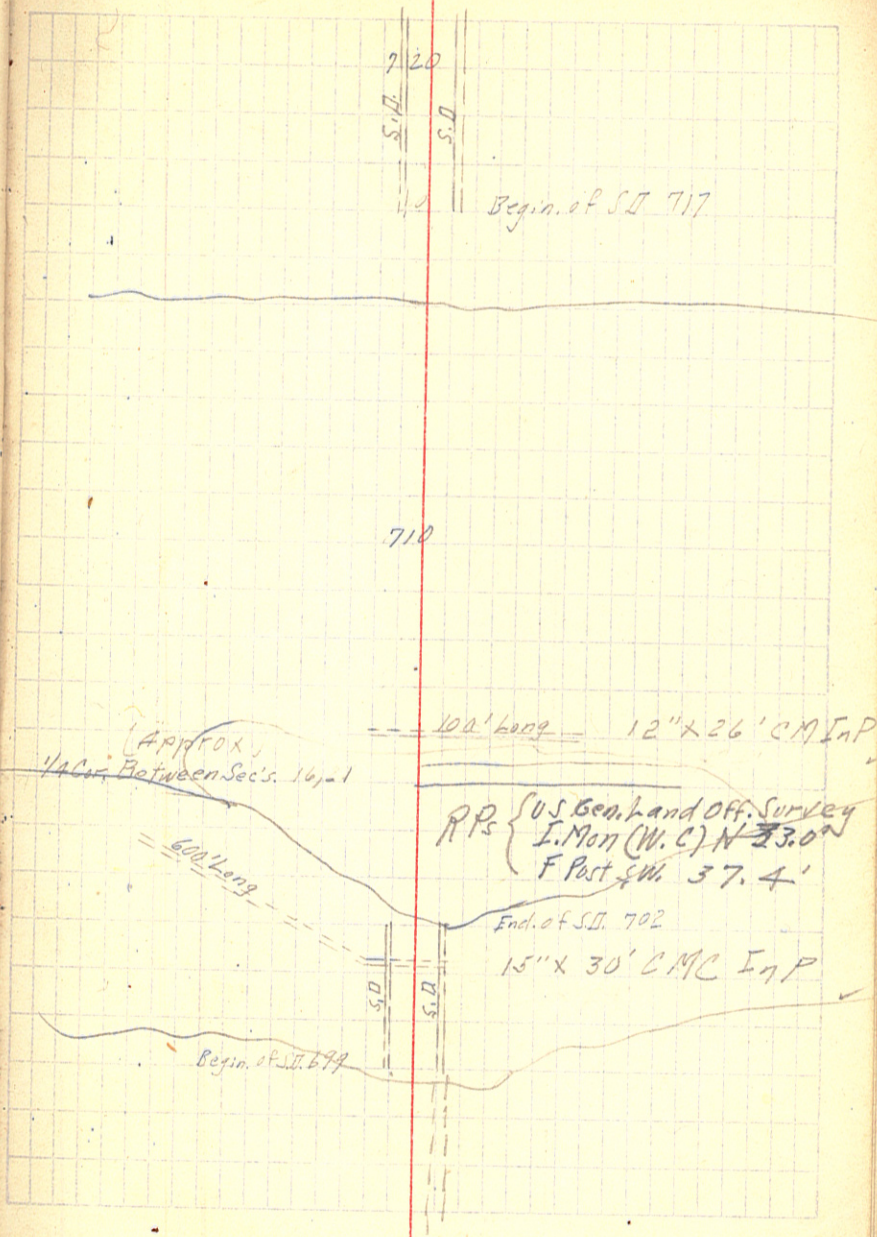




706+18

704+78

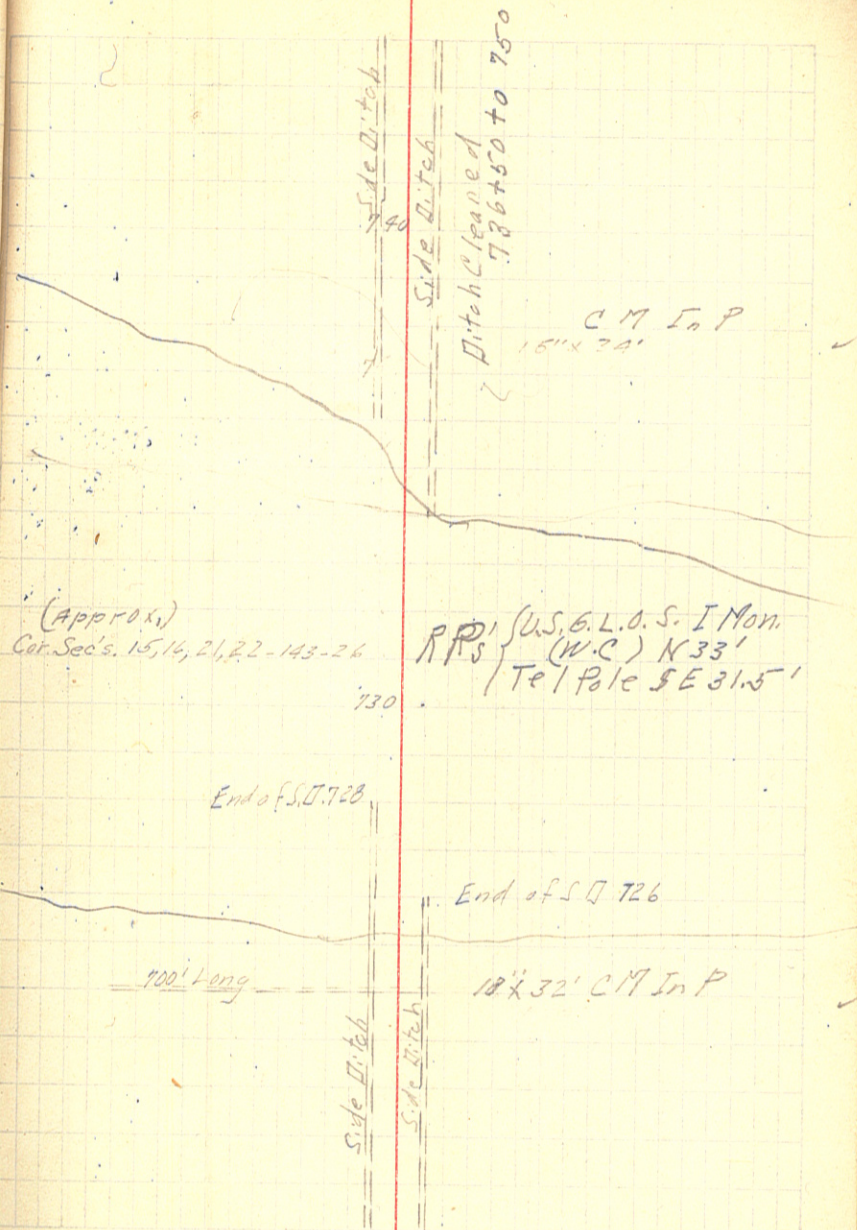
701+36



738+

731+86

724+21



Total Length to Gravel  
76,880' = 14,5606

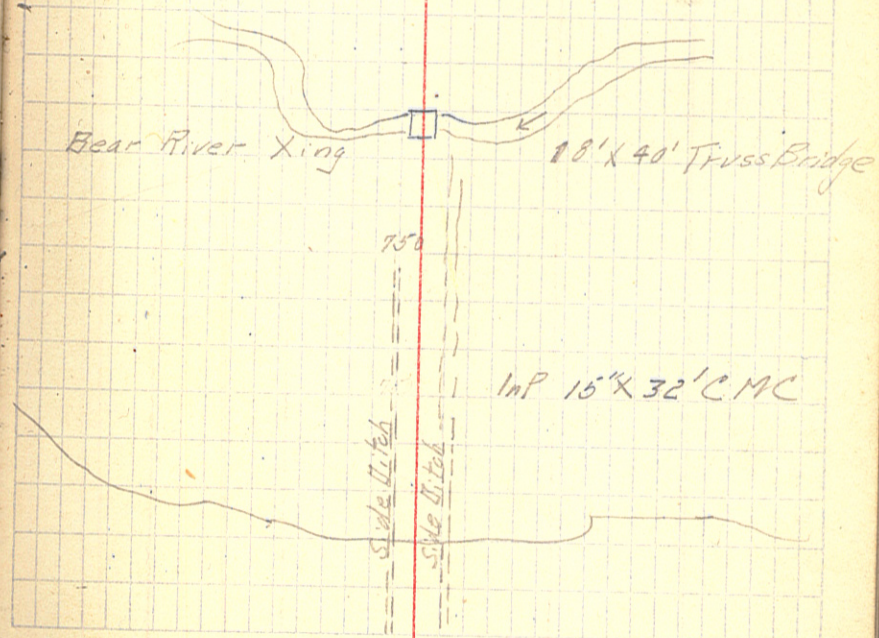
758+80

752+90  
752+50

746+20

33

1/4 Cor. Between Sec's. 15 & 22



Sta	-	H1	+	Ele
BM		1301.96	4.96	1297.0
24	5.4			1296.6
PC + 21.93	5.4			1296.6
+ 50	5.3			1296.7
25	6.1			1295.9
+ 10	8.0			1294.0
+ 50	7.0			1295.0
26	7.5			1294.5
+ 50	6.6			1295.4
27	6.8			1295.2
+ 10	9.3			1292.7
+ 50	6.0			1296.0
28	5.5			1296.3
PT + 19.18	5.5			1296.3
29	5.8			1296.2

Nov. 14-25  
Weather - Cold & Cloudy

Party: R. A. Dahms - Eng. P. + Rod  
A. R. Taubman - T  
H. H. Struss - Chain

34

Top of 1/4 Cor. Monument

6.3	6.1	8.1	0.1	6.2	5.4	5.5	6.1	2.0	2.0	7.5	6.2	6.2
30	18	15	13	12	8	3	12	13	16	11	22	33
6.2	6.3	7.5	8.2	6.3	5.4	5.4	6.2	8.1	8.0	6.3	6.4	6.4
35	25	24	15	14	9	7	11	12	15	17	30	30

	4.5	4.3	4.4	5.3	7.2	7.2	6.4	6.4
	14	14	4	1	3	5	6	26

5.4	4.3	6.4	6.1	5.0	4.7
24	18	17	14	18	33

5.2	4.3
33	33

7.8	7.8	5.2	5.0	5.2
33	31	24	24	33

4.0	5.2	7.7	7.7	5.0
19	7	6	3	12

7.1	5.5	4.5	4.7	5.8	6.5	8.5	5.3	5.5
25	23	11	2	8	9	12	14	26

6.2	7.3	8.4	8.4	5.9	5.6	5.4	6.0	8.7	8.7	5.8	5.8
27	21	20	17	16	10	6	16	17	21	22	32

7.0	8.1	8.2	5.9	5.3	5.5	6.2	8.3	8.3	6.3	4.0
21	17	19	15	10	7	17	18	21	22	22



L

R

On roof of ditch NE of Sta 156+80

6.8	6.9	5.5	5.3	6.0	6.9	5.5	5.9
31	19	11	5	14	15	22	28
5.3	5.5	4.6	4.5	4.7	5.5	6.5	5.7
30	23	17	8	2	6	10	13
	3.6	3.9	5.6				5.6
	24	17	7				25
5.0	5.1						6.0
30	17						25
5.6	5.0						5.3
38	29			5.2			25
4.4	4.7						5.4
30	17			4.7			25
3.4	4.0	4.9					5.5
33	24	19		5.2			25
4.7	6.2	5.0	4.7				5.6
30	26	20	9	6.0	4.9		25
6.5	6.4	6.5	5.8	3	5.0		7.9
28	17	13	14		5.5	7.1	31
					10	14	
	7.4	7.0	5.5		5.5	6.4	7.0
	24	10	6		13	16	31

BM.		1317.50	6.50	1311.00
153	9.1			1308.4
PC+92.25	8.6			1308.9
154+50	8.9			08.6
155	9.3			08.2
+50	7.7			09.8
156	6.3			11.2
+50	6.6			10.9
157	6.4			11.1
+50	4.6			12.9
158	4.0			13.5
PT+43.5	4.2			13.3
159	4.2			13.3



X- Sec Notes

Sta	-	H1	+	Elev	Grade
B.M.		1301.88	4.88	1297.0	
PC 24+21.93	5.4			96.5	96.6
+50	5.5			96.4	96.6
25	6.1			95.8	96.5
+50	7.1			94.8	96.5
26	7.5			94.4	96.5
+50	6.6			95.3	96.5
27	7.1			94.8	96.5
+50	6.0			95.9	96.5
28	5.6			96.3	96.5
+19.18	5.7			96.2	96.5

Side Ditch

B.M.		H1	+	Elev	Grade
B.M.		1301.82	4.82	1297.00	
PC +2193	6.3			95.5	93.0
+50	6.7			95.1	92.9
26	7.5			94.3	92.75
+50	6.6			95.2	92.6
26	6.3			95.5	92.50
+50	6.6			95.2	92.6
27	6.2			95.6	92.67
+50	6.45			95.4	92.7
28	6.2			95.6	92.84
PT +19.18	6.2			95.6	92.9
Offtake Ditch At C.M.C.				70' Long	

5-15-26

Weather - Clear & Cool

Party - (A.R. Taubman - Asst. Engt  
Ed McKeig - Chain (30)  
Harry Eastman - Rod

Top of 1/4 Cor. Monument

-2.6	-0.5 SE	-0.1	+0.6 SE	-2.2	RP40'
15.9				15.3	
-3.5	-1.0 SE	-0.2	+1.0 SE	-1.8	RP40'
17.3				14.7	
-0.9	-1.0 SE	-0.7	+0.0 SE	-0.9	RP40'
13.4				13.4	
-2.8	-1.0 SE	-1.7	+1.0 SE	-0.8	RP40'
16.2				13.2	
-2.9	-1.0 SE	-2.1	+1.0 SE	-0.7	RP40'
16.4				13.1	
-2.2	-1.0 "	-1.2	+1.0 "	-0.3	RP40'
15.3				12.5	
-1.9	-1.0 "	-1.7	+1.0 "	-0.6	RP40'
14.9				12.9	
-1.2	-1.0 "	-0.7	+1.0 "	-0.8	RP40'
13.8				13.2	
-2.0	-1.0 "	-0.2	+1.0 "	-0.0	RP40'
15				12.0	
-1.4	-0.5 "	-0.3	+0.5 "	-0.6	RP40'
14.1				12.9	

+1.5	+2.5	+2.6
2.5		3.6
+2.5	+2.2	+2.5
3.5		3.5
+2.1	+1.6	+1.7
3.1		2.7
+2.9	+2.6	+2.5
3.9		3.5
+3.0	+3.0	+3.0
4.0		4.0
+2.8	+2.6	+2.8
2.8		3.8
+3.0	+2.9	+2.7
4.8		3.7
+2.7	+2.7	+2.6
3.7		3.6
+3.9	+2.8	+2.5
3.9		3.5
+2.4	+2.7	+2.5
3.4		3.5
	+2.0	



Sta	-	H1	+	Elev.	Grade
BM		1304.54	4.10	1300.36	
PC+31.87	5.8			98.7	98.9
+50	5.7			98.8	98.9
76	5.7			98.6	98.9
+50	5.6			98.9	98.9
77	5.5			99.0	98.9
+50	6.4			98.3	98.9
78	7.6			96.9	98.9
+50	5.7			98.8	98.9
79	5.7			98.8	98.9
PT+25.62	5.8			98.7	98.9

In 14" Aspen Stump (RP) SW. of Sta 77+67

RP's 40'	DC 1.5	+ 0.5 S.E.	-0.2	-0.5 S.E.	-1.2
"	22.3				13.8
"	+ 0.5	+ 1.0	-0.1	-0.0	-1.2
"	23.8				14.4
"	+ 0.6	"	-0.1	"	-0.7
"	23.9				13.1
"	+ 0.4	"	0.0	"	-1.2
"	23.6				13.8
"	+ 0.3	"	+0.1	"	-0.5
"	23.5				12.8
"	DC 1.9	"	-0.6	"	-2.0
"	22.9				15.0
"	DC 1.7	"	-2.0	"	-1.1
"	22.6				13.7
"	DC 1.5	"	-0.1	"	-0.9
"	22.3				13.4
"	DC 1.1	"	-0.1	"	-2.4
"	21.7				15.6
"		+ 0.5 S.E.	-0.2	-0.5 S.E.	

Sta	-	H I	+	Elev	Grade
BM	L	1312.14	6.14		1311.00
PC + 92.25	8.3			08.8	1309.0
154 + 50	8.5			08.6	09.5
156	9.0			08.1	10.0
+ 58	7.6			09.5	10.5
156	5.9			11.2	11.0
+ 60	6.1			11.0	11.5
157	6.1			11.0	12.0
+ 50	4.9			12.2	12.5
158	3.8			13.3	13.0
PT + 43.5	3.9			13.2	13.1

5-17-26

Party (AR Taubman Asst Engr 40  
Ed Mc Keig - Chain  
Harry Eastman - Rid)

Weather - Clear + Warm

On Root of 10" Ash NE. of Sta 156 + 80

-1.8	-0.5 SE.	-0.2	+0.5 S.E.	DC 16	R.P. 41
14.7				22.4	
D.C. 0.3	-1.0 SE.	-1.9	+1.0	+0.0	" " "
20.5				23.0	" " "
D.C. 0.5	" "	-1.9	" "	P.C. 0.5	" "
20.8				20.8	" "
D.C. 0.1	" "	-1.0	" "	D.C. 1.5	" "
20.2				22.3	" "
D.C. 1.5	" "	+0.2	" "	+1.4	" "
22.3				25.1	" "
D.C. 1.1	" "	-0.5	" "	+0.1	" "
21.7				23.2	" "
D.C. 0.3	" "	-1.0	" "	D.C. 1.7	" "
20.5				22.6	" "
D.C. 1.1	" "	-0.3	" "	+1.0	" "
21.7				24.5	" "
D.C. 0.7	" "	+0.3	" "	D.C. 1.0	" "
21.1				21.5	" "
-2.2	-0.5 "	0.0	+0.5 "	D.C. 1.0	" "
15.3				21.5	" "

Sta	-	H <sub>1</sub> <sup>1958</sup>	+ 2.82	Elev	Grade
B.M.		1319.62	2.86	1316.76	
P.C. +61.83	8.8			10.8	11.0
261	8.7			10.9	11.3
+50	8.9			10.7	11.5
262	7.8			11.8	11.7
+50	7.7			11.9	11.9
263	8.0			11.6	12.1
+50	8.1			11.5	12.1
264	8.4			11.2	12.2
+50	7.8			11.8	12.2
265	7.4			12.2	12.2
PT +13.5	7.4			12.2	12.2

On Cor. Fence Post S. of Sta 263+50

RP40'	D.C. 2.7	+0.5 SE,	-0.2	-0.5 SE.	-0.7
	21.1				13.1
"	D.C. 1.7	+0.5 "	-0.4	-1.0 "	D.C. 0.1
	22.6				20.2
"	+0.1	+1.0 "	-0.8	-1.0 "	D.C. 0.8
	23.2				21.2
"	+0.3	" "	+0.1	" "	D.C. 0.3
	23.5				20.5
"	+0.6	" "	0.0	" "	+0.0
	23.9				23.0
"	+0.1	" "	-0.5	" "	D.C. 1.2
	23.2				21.8
"	D.C. 1.6	" "	-0.6	" "	D.C. 1.2
	22.4				21.8
"	+0.4	" "	0.0	" "	+0.0
	23.6				23.0
"	D.C. 1.9	" "	-0.4	" "	D.C. 0.0
	22.9				20.0
"	D.C. 1.4	+0.5 "	0.0	-0.5 "	D.C. 1.3
	22.1				22.0
"	D.C. 1.5	+0.5 "	0.0	-0.5 "	D.C. 1.1
	22.3				21.7

Transit Notes Grave Pit A  
Base Line

5-19-26

Weather - Clear + Warm

Party { A.R. Tarbman Asst Engr  
Ed McKerg - Chain  
H. Eastman - Rod (42)

Sta

Mag Bearing

4+50

+25

4+00

+25

+30

+25

3+00

+25

+50

+25

2+00

+25

+50

+25

1+00

+25

+25

0+00

N20°5'W

RPs { 16" Birch Stub SW 29.15'  
10" Maple " S 23.1'  
N.W. Cor. of Pit 46.5' SE.

RPs { 7" Birch S.W. 26'  
18" Maple SE. 225'  
S.W. Cor. of Pit 64.1' NE.



Transit Notes Gravel Pit "B"

Sta

Base Line

Mag. Bearing

3+98

3+00

+75

+50

+25

2+00

+75

+50

+25

1+00

+75

+50

+25

0+00

586° E

-0+75

x R.P. { Cor Fence Post 196'5"  
3" Willow S.W. 36.7'

x R.P. { 6" Aspen NW 17.8'  
6" " W 16.5'

x R.P. { 6" Asp. NW. 23.5'  
5" " SW 18.1'

X-Section Notes  
Gravel Pit 'B'

Sta	-	H1	+ Elev	
BM		118.91	391	115.00 11
0+00	2.4			
+25	3.7			
+50	4.6			
+75	5.1			
1+00	6.1			
+25	6.0			
+50	7.8			
+75	9.6			
2+00	10.4			
2+25	10.8			
BM		117.73	2.73	115.00
-0+25	5.3			
-0+50	8.7		H1	5.6
-0+75	13.3			
BM	10.24			

45 Base  
Line

On 6" Aspen (RP) N.W. of Sta 0+00

	16.7	14.4	11.1	3.1					
	15.4	100	71	31	00				
	16.2	13.5	12.8	8.6	3.9				
	15.6	100	86	57	31	05			
15.3	13.2	10.7	10.0	8.0	3.9				
15.6	13.5	11.7	10.0	7.7	3.0	05			
	13.4	7.9	5.3	3.0	3.4				
	15.4	122	100	72	3.9	00			
12.2	10.5	9.3	7.3	4.7	4.0	5.0			
15.6	13.6	11.5	10.0	8.2	6.8	4.2	00		
11.9	10.9	9.4	7.5	6.2	6.9	6.8			
15.6	13.1	11.4	10.0	8.4	6.4	4.4	00		
	11.8	11.2	10.1	8.5	6.9	7.9			
	15.6	13.1	11.2	10.0	8.3	5.8	00		
	11.9	10.9	9.0	8.0	8.7				
	15.6	12.3	10.0	7.8	5.8	00			
	12.5	11.8	10.1	9.3	8.6				
	15.6	13.3	11.4	11.0	8.5	00			

On 6" Aspen (RR) NW of Sta 0+00

13.2	10.3	5.7	6.4	7.1	5.2	4.2	4.4
7.5	5.8	4.1	3.3	2.3	1.1	7.2	2.1
	9.6	5.0	5.6	5.3		7.16	2.7
	5.4	3.7	3.0	1.7		11.27	
			6.6	5.7			
			3.3	2.7			

On 8" Aspen W of Sta -0+75

Ditch Levels Sta 735+50 to 752+50

Sta	-	HI	+	Elev.
B.M.		109.45	9.45	100.00
0+00=752+50	17.7			91.75
1	9.9			99.55
2	5.7			103.75 03.5
3	2.7			106.75 03.6
TP	1.68			107.77
+		113.42	5.65	
3+65	5.0			88.4 03.65
4	4.2			09.2 03.7
+70	4.4			09.0 03.77
5	4.2			09.2 03.8
6	5.2			08.2 03.9
7	5.6			07.8 04.0
8	6.6			06.8 04.1
9	6.3			07.1 04.2
TP	5.74			07.68
+		12.61	4.93	
10	5.3			7.3 04.3
11	5.4			7.2 04.4
12	5.6			7.0 04.5
13	5.9			6.7 04.6
14	6.0			6.6 04.7
15	5.8			6.8 04.8
16	5.6			7.0 04.9
17=735+50	5.7			6.9 05.0

On S.W. Abutment of Bridge  
Water Level

L	R
	10.4
L 4.7	6.2 5.7 7.8 7.8
L	2.7 3.2 6.6 6.6 4.5
L	5.0 4.8 6.1 9.9 6.7
L	9.2 4.2 5.1 9.9 9.9 6.3
L	9.9 4.0 6.3 8.4 6.3
L	4.7 4.2 4.2 5.0 7.9 6.2
L	5.2 4.5 5.1 6.7 6.1
Bot of D: A' Top	7.4 6.1
" " " G' Top	7.4 6.6
" " "	7.6 6.3
Bot of D:	6.7 5.3
" " "	6.7 5.4 C of Road 7.9
" " "	6.6 5.6 " " " 5.0 5.3
" " "	6.9 5.7 " " " 5.3
" " "	7.0 6.1 " " " 4.8
" " "	6.4 5.8 " " " 5.2
" " "	6.2 5.6 " " " 5.0
" " "	6.3 5.7 " " " 4.3



# Finishing Stakes

Sta	-	H1	+	Elev	Grade
BM		1317.18	6.18	1311.0	
PC+92	L	R			1309.1
	7.7	8.7			
154+60	6.7	8.7			109.5
155	6.2	8.2			10.0
+50	5.7	7.7			10.5
156	5.2	7.2			11.0
+50	4.7	6.7			11.5
157	4.2	6.2			12.0
+50	3.7	5.7			12.5
158	3.2	5.2			13.0
+43.5	3.6	4.6			13.1

On Root of 10" Arch NE of Sta 156+80

Grade Stakes

Sta	Grade Stakes			Elev
	L	H	R	
BM			1300.92	1297.0
24+21	3.9	4.4	4.9	96.5
+50	3.4	4.4	5.4	96.5
25	3.4	4.4	5.4	96.5
+50	3.4	4.4	5.4	96.5
26	3.4	4.4	5.4	96.5
+50	3.4	4.4	5.4	96.5
27	3.5	4.5	5.5	96.4
+50	3.6	4.6	5.6	96.3
28	3.7	4.7	5.7	96.2
+19	4.3	4.8	5.3	96.1

Top of 1/4 Cor. Man.

BM	Grade Stakes			Elev
	L	H	R	
PC+61.83			18.06	1316.76
261	7.6	7.1	6.6	11.0
+50	7.8	6.8	5.8	11.3
262	7.6	6.6	5.6	11.5
+50	7.4	6.4	5.4	11.7
263	7.2	6.2	5.2	11.9
+50	7.0	6.0	5.0	12.1
264	7.0	6.0	5.0	12.1
+50	6.9	5.9	4.9	12.2
265	6.9	5.9	4.9	12.2
+50	6.4	5.9	5.4	12.2
+50				12.2

On Cor. F. Post

Level Notes  
 S.A.R # 4 Job # 2603

Sta		Bot. of Ditch	H I	+	Elev
B.M.			1302.43	0.73	1301.70
-10+00	3.0	6.2			1299.4
-9+00	4.1				98.3
-8+00	4.4				98.0
-7+00	4.2				98.2
-6+00	4.3				98.1
-5	4.4				98.0
-4	4.7				97.7
-3	5.3				97.1
-2	5.4				97.0
TP	5.33				1297.10
+			1300.75	3.65	
-1	3.8				96.9
0+00	4.0	6.0			96.7
1	4.0				96.7
2	4.4				96.3
3	4.5				96.2
4	5.0				95.7
5	4.8				95.9
6	4.8				95.9
7	4.7				96.0
TP	4.73				1296.02
+			1300.64	4.62	
8	4.6				96.0
9	4.8				95.8
10	4.6	7.4			96.0
11	4.8				95.8
12	4.8				95.8
13	4.8	Bot. of C.M			95.8
+92	4.8	8.6			95.8

9-14-26 Part SAR. Taubman Asst Eng -  
 Weather - Cool - Cloudy R. Byer - Rod (49)

Top of East Rail of R.R. at X-ing

Sta	-	Bot. of Ditch	HI	+	Elev
14	4.8		1300.64		1295.8
15	4.9				95.7
16	5.1				95.5
17	4.9				95.7
TP	5.00				1295.64
+			1300.49	4.85	
18	4.8				95.7
19	4.8				95.7
20	4.8	7.3			95.7
21	4.8				95.7
22	4.8				95.7
23	4.8				95.7
24	4.7				95.7
+29=+21	4.5	7.5			95.8
+50	4.2				96.0
25	4.7				96.3
+30	4.7				95.8
B.M.-T.P.	3.9.9				95.8
+			1300.22	3.72	1296.58
26	4.4				95.8
+50	4.2				96.0
27	4.3	B. of C.M. 8.0			95.9
+30	4.3				95.9
28	4.4				95.8
+19=+26	4.5	7.8			95.7
29	4.6				95.6
30	4.8				95.4
31	4.7	7.7			95.5
32	4.6				95.6
33	4.6				95.6
34	4.6				95.6
TP	4.71				1295.51
+			1299.71	4.20	
35	4.1				95.6
36	4.0				95.7

Top of 1/4 Cor Mon.

Sta		Bot. of Dish	H 1	+	Elev
37	4.0		1299.71		96.7
38	4.3				95.4
39	4.1				95.6
40	3.9				95.8
41	3.5	6.7			96.2
42	3.8				95.9
TP	3.80				1295.91
+			1302.13	6.22	
43	5.5				96.6
44	5.3				96.8
45	4.8				97.3
46	5.2				96.9
47	5.4				96.7
48	5.4				96.7
49	5.2				96.9
50	5.5	8.7			96.6
TP	6.83				1295.30
+			1301.56	6.26	
51	4.6				97.0
52	5.1				96.5
53	4.5				97.1
54	4.1				97.5
55	3.4				98.2
56	3.4				98.2
57	2.9				98.7
58	2.8				98.8
59	3.0				98.6
TP	2.64				1298.92
+			1303.46	4.54	
60	4.6				98.9
61	4.9	8.3			98.6
62	5.0				98.5
63	5.0				98.5
64	5.2				98.3
65	5.3				98.2

Sta		Bot of Ditch	H.I.		
66	5.6		1303.46		97.9
67	5.5				98.0
TP	5.60				1297.86
+			1303.21	5.35	
68	5.1				98.1
69	5.0				98.2
70	4.8				98.4
71	5.1				98.1
72	4.8				98.4
73	4.8	6.9			98.4
74	4.6				98.6
+63=75+31	4.4				98.8
+50	4.5				98.7
76	4.6				98.6
77	4.4				98.8
TP	1.13				1303.08
+			1303.58	0.50	
B.M.	322				1300.36
78	4.7				98.9
79	5.0				98.6
+25=78+57	5.6				98.6
79	4.9				98.7
80	5.0				98.6
81	4.7				98.9
82	5.0				98.6
83	4.9				98.7
84	4.6				98.0
TP	4.84				1298.74
+			1303.45	4.71	
85	4.5	8.1			98.9

On (RP) Cor Fence Post NW. of Cor

On 14" Aspen Stump SW of Cor. (RP)

Sta		Bot. of Ditch	H 1	+	Elev
86	4.8		1303.45		1298.6
87	4.8				98.6
88	4.9				98.5
89	5.1				98.3
90	5.1				98.3
91	5.1				98.3
92	5.0	8.7			98.4
93	5.5				97.9
TP	6.23				1297.22
+			1302.77	5.55	
94	4.9				97.9
95	5.0				97.8
96	5.0				97.8
97	4.9	8.6			97.9
98	5.0				97.8
99	5.0				97.8
100	5.3				97.5
101	5.2				97.6
102	5.3	9.0			97.5
TP	5.92				1296.85
+			1301.37	4.52	
+34	3.9	B. of C.M.C. 8.2			97.5
103	4.2				97.2
4	4.5				96.9
5	4.9				96.5
6	4.7				96.5
7	4.7				96.7
8	4.7				96.7
9	4.8	8.0			96.6
110	4.6				96.8
TP	4.80				1296.57
+			1302.07	5.50	
111	4.8				97.3

Sta		Bot. of CMC	H	+	Elev
112	4.9		1302.07		1297.2
13	5.0				97.1
14	5.1				97.0
115	5.6	7.5			96.5
16	5.3				96.8
17	4.9				97.2
18	4.2				97.9
TP	4.16				1297.91
+			1303.68	5.77	
119	4.9				1298.8
20	4.6				99.1
21	4.5				99.2
22	4.0				99.7
23	4.6				99.1
24	5.1				98.6
125	5.9				97.8
26	6.8				96.9
127	7.2				96.5
TP	7.12				1296.56
+			1301.11	4.55	
128	4.7				1296.4
129	4.9				96.2
130	5.3				95.8
131	5.1				96.0
BM	4.36				1296.75
132	5.0				96.1
+18	5.0	9.1			96.1
133	4.7				96.4
134	4.7				96.4
135	4.3				96.8
136	3.3				97.8
TP	3.85				1297.26
+			1305.57	8.31	

On 7" Aspen S.E. of Sta 131



Sta		Bot. of CMC	H.I.	+	Elev
137	5.9		1306.57		1299.7
138	4.8				1300.8
139	4.5				01.1
140	4.4				01.2
141	5.7				1299.9
142	6.3				99.3
143	7.4				98.2
+42		12.1			
144	7.1				1298.5
146	5.0				1300.6
TP	7.22				1298.35
+			1305.18	6.83	
146	1.9	Bot. of S.W. 5.2			1303.3
147	1.4				03.8
148	3.9				1301.3
149	5.6				1299.6
150	6.7				98.5
151	7.5				97.7
+35		11.1			94.1
152	7.8				97.4
+59	7.4				97.8
154	7.4				1297.8
TP	3.95				1301.23
+			1307.39	6.16	
BM	7.56				1299.89
155	8.5				98.9
156	7.5				1299.9
157	6.5				1300.9
158	5.1				02.3
+10	5.0				02.4
158	4.5				02.9
159	1.5				05.9

On 12" Elm N. of Sta. 156+80

Sta		Bot. of C.M.C.	HI	+	Elev
160	0.7		1307.39		1306.7
161	1.0				06.4
162	1.9				05.5
TP	2.01				1305.38
+			1310.58	5.20	05.3
163	5.3				05.3
164	5.3				05.2
165	5.4				05.1
166	5.5				05.1
167	5.5				05.6
168	5.0				05.1
169	5.5				05.2
170	5.4				05.0
171	5.6				02.6
+15		8.0			
TP	6.84				1303.74
+			1316.37	12.63	06.3
172	10.11				08.4
173	8.0				11.3
174	5.1				11.7
175	4.7				11.6
176	4.8				09.3
177	7.1				08.8
178	7.6				08.5
179	7.9				05.9
+45		10.5			1306.92
TP	9.45				
+			1314.69	7.77	08.9
180	5.8				1309.46
B.M.	5.23				09.9
181	4.8				10.1
182	4.6				09.9
183	4.8				

Top of C.M.C.

On Root of Birch S.W. of Sta 180

Sta	B. of C. MC.	H I	+	E lev.
184	—	1314.69		1309.4
185	8.0			09.6
186				11.1
TP				1310.52
+		1323.55	13.01	
187				1314.0
188				17.8
189				21.1
190				21.6
191				21.3
192				23.0
TP				1322.87
+		1329.37	6.50	
193				1323.3
194				23.5
195				23.5
196				24.4
197				25.2
198				27.5
TP				1328.53
+		1339.38	10.85	
199				1330.3
200				32.1
1				32.2
2				32.7
3				34.3
4				36.4
BM				1337.60
5				37.6
T.P.				1338.97
+		1345.44	6.47	
206				39.4

9-15-26 Partly  
Weather - Clear + Warm

SAR. Taubman - Asst Engr.  
R. Boyer - Rod (57)

On Tol Pole SE of Sta 204

Sta		Bot of C.M.C.	H1	+	Flöv
B.M.	5.47		1395.44		1339.97
207	5.7				39.7
+ 47	5.5				39.9
208	5.8				39.6
9	6.0	8.0			39.4
210	5.1				40.3
11	5.3				40.1
12	7.1				38.3
13	7.3				38.1
14	8.2				37.2
15	9.0				36.4
TP	9.83				1336.61
+			1339.16	3.49	
16	3.0				36.1
17	2.8	6.2			36.3
18	2.7				36.4
19	3.6				35.5
220	5.1				34.0
1	6.1				33.0
2	8.4				30.7
3	11.8				27.3
TP	12.90				1326.20
+			1327.53	1.33	
4	2.4				25.1
5	3.0				24.5
6	2.9				24.6
7	5.0				22.5
8	7.1				20.4
9	10.4				17.1
230	11.9				15.6
1	12.5				15.0
TP	12.97				1314.56
+			1319.21	4.65	

On Maple Stump E of Sta 207

Sta		Bot of MC.	H.I.	+	Elev.
231+90	-	7.4	1319.21		1311.8
232	4.4	/			14.6
233	4.4				14.8
234	5.1				14.1
235	5.0				14.2
BM	3.72				1315.49
236	5.3				13.9
7	5.8				13.4
8	6.5				12.7
9	8.6				10.6
240	8.9				10.3
TP	9.6				1309.75
+			1314.99	5.24	
240+28		6.4			08.6
241	4.5				10.5
2	3.6				11.4
3	2.8				11.2
4	4.8	Bot of SW			10.2
5	5.8	7.8			09.2
6	5.6				09.4
7	5.7				09.3
8	5.5				09.5
TP	5.80				1309.19
+			1314.17	4.98	
9	5.0				09.2
250	5.1				09.1
251	5.1				09.1
252+44		9.1			09.1
252	5.1				09.1
253	5.1				09.1
254	5.1				09.1

On 10" Birch E of Sta. 234

Sta		Bot. of SD	H.I.	+	Elev.
255	4.9	7.7	1314.17		09.3
6	4.9				09.3
7	4.3				09.4
+40 = P.C.	3.8				10.4
TP	3.97				1310.20
+			1318.90	8.70	
TP B.M.	2.52				1316.38
+			1317.68	1.30	
261	6.8				10.9
2	6.4				11.3
3	6.0				11.7
4	5.9				11.8
5	5.9				11.8
+13.5 =	5.9				11.8
261+91	5.8				11.9
262	5.8				11.9
263	5.8	9.0			07.9
+50		Bot. of C.M.C.			12.5
		9.8			13.1
264	5.2				1312.93
5	4.6				
TP	4.75				
+			1317.74	4.81	
6	4.2				13.5
7	4.9				12.8
8	4.8				12.9
9	4.8				12.9
270	4.8				12.9
1	4.8				12.9
2	4.2				13.5
3	4.2				13.5
4	4.2	7.3			13.5
TP	6.27				1311.47
+			1322.77	11.30	
+84		Bot. of C.M.C.			10.5
		12.3			13.4
5	9.4				

9-16-26 Party { A.R. Taubman Asst Engr.  
R. Bloyer - Rod. (60)

Weather - Warm & Cloudy

On Cor. F. Post SE. of Sta 263+50

Sta		H I	+	Elev.
276.	7.4	1322.77		15.4
7	6.4			16.7
8	4.6			18.2
9	3.1			19.7
280	1.3			21.5'
TP	1.95			1320.82
+		1333.62	1280	
1	8.8			24.8
2	6.2			27.4
3	5.2			28.4
4	3.3			30.3
5	1.8			31.8
6	1.6			32.0
7	2.2	Bot. of CMC 5.0		31.4
TP	3.66			1329.96
+		1334.89	4.93	
8	3.1			31.8
9	3.1			31.8
290	3.4			31.5
1	4.6			30.3
2	3.0			29.9
3	4.9			30.0
+58		Bot. of CMC 7.8		27.1
4	5.6			29.3
5	5.6			29.3
TP	5.82			1329.07
+		1333.03	3.96	
6	3.4			29.6
7	3.8			29.2
8	3.5			29.5
9	4.3			28.7
BM	4.02			1329.04
300	5.8			27.2

On Root of 15" Oak Stump S.E. of Sta 299

Sta		Bot. of S.T.	H1	+	Elev.
301	6.0	8.5	1333.03		1327.0
2	6.1	1			26.9
3	6.0				27.0
4	5.9				27.1
TP	6.94				1326.09
+			1331.60	5.57	
5	4.8	7.3			26.8
6	4.9				26.7
7	4.9				26.7
+9.2		Bot. of G.M. 7.8			23.8
8	5.0				26.6
9	5.1				26.5
310	4.5				27.1
11	3.1				28.5
12	1.8				29.8
13	1.7				29.9
TP	1.56				1330.04
+			1335.14	5.10	
14	5.5				29.6
15	5.7				29.4
16	5.5				29.6
17	5.3				29.8
18	4.8				30.3
19	4.7				30.4
320	5.1				30.0
1	5.5				29.6
2	5.7				29.4
TP	5.76				1329.68
+			1334.28	4.60	
3	4.6				29.7
4	4.2				30.1
5	4.6				29.7
6	4.9				29.4



Sta		Bot of S.P.	H1	+	Elev
327	5.0		1334.28		29.3
8	4.5				29.8
9	4.8				29.5
330	5.6				28.7
1	5.9				28.9
TP	5.65				1328.63
+			1332.58	3.95	28.8
2	3.8				28.3
3	4.3				26.7
4	5.9				27.7
5	4.9				27.4
6	5.2	8.3			27.2
7	5.4				27.1
8	5.5				27.4
9	5.2	Bot of CM			24.2
+30		8.4			1326.96
TP	5.62				
+			1334.46	7.50	28.0
340	6.5				27.8
1	6.7				28.0
2	6.5				29.5
3	5.0				1330.26
BM	4.20				30.6
4	3.9				30.8
5	3.7				30.2
6	4.3				30.1
7	4.4	8.1			30.2
8	4.3				
TP	4.70				1329.76
+			1334.91	5.15	30.5
9	4.4				
350	5.0				29.9

On Root of 14" Elm N of Sta 344

Sta		Bot. of	H	+	Elev
351	5.1	5.0	1334.91		29.8
2	4.7				30.2
3	4.5	7.5			30.4
4	5.0				29.9
5	5.0				29.9
6	4.4				30.5
TP	4.29				1330.62
+			1335.37	4.75	
357	4.8				30.6
8	4.7				30.7
9	4.6				30.8
TP B.M.	4.83				1330.54
+			1335.81	5.27	
360	4.9	7.5			30.9
1	5.2				30.6
2	5.0				30.8
3	5.2				30.6
4	4.9				30.9
+25		7.2			(28.6)
5	4.3				31.5
6	4.3				31.5
7	5.0				30.8
8	4.8				31.0
9	6.0				29.8
TP	6.65				1329.16
+			1331.12	1.96	
370	1.9				29.2
1	2.9				28.2
2	4.1				27.0
3	5.2				25.9
4	5.1	2.2			26.0
5	5.1				26.0

9-2 4-2 6

Weather - Cold &amp; Clear

Party

Taubman - Asst. Eng (64)

L. Butterfield - Rod

On Tam Stump SE of Sta 360.

Sta		Bot. of S.D	H1	+	Elev
376	5.1		1331.12		1326.0
7	5.1				26.0
8	5.1				26.0
TP	5.52				25.60
+			1330.28	4.68	
9	4.8				25.5
380	4.7				25.6
1	5.1				25.2
2	5.7				24.6
3	5.0	Bot. of C.M.			25.3
3+92		7.5			(22.8)
4	4.6				25.7
5	4.5				25.8
6	4.4				25.9
7	4.3				26.0
TP	4.73				1325.55
+			1331.46	5.91	
8	5.4				26.1
9	5.8				25.7
390	5.8				25.7
1	5.8				25.7
2	5.5				26.0
+30		7.7			(23.8)
BM.	2.74				1328.72
3	4.5				27.0
4	4.1	Bot. of C.			27.4
5	4.2	6.7			27.3
6	2.9				28.6
TP	1.38				1330.08
+			1342.12	12.04	
7	9.8				32.3
8	7.5				34.6
9	5.1				37.0

On 5" Paper NE. of Sta 392

Sta		Bot. of CMC.	H.I	+	Elev
400	4.1		1342.12		38.0
1	5.3				36.8
2	5.6				36.6
3	7.5	9.8			39.6
4	6.3				35.8
TP	2.85				1339.27
+			1351.32	12.05	
5	12.2				39.1
6	8.3				43.0
7	7.0				44.3
+2A		9.2			(42.1)
8	5.5				45.8
9	4.7				46.6
+72		7.6			(43.7)
410	4.6				46.7
11	3.1				48.2
12	2.4				48.9
TP	1.80				1349.52
+			1355.02	5.50	
13	6.6				48.4
14	9.6				45.4
15	9.4				45.4
16	9.3				45.7
+40		12.5			(42.5)
17	8.9				46.1
18	5.7				49.3
BM	3.82				1351.20
19	4.0				51.0
420	5.3				49.7
1	8.1				46.9
2	10.5				44.5
3	12.6				42.4
TP	10.91				1344.11
+			1345.93	1.82	

on 8" Birch S.E. of Sta. 418

Sta		Bot. of C.M.C.	H 1 1345.93	+	Elev
424	4.6				41.3
25	5.1				40.8
6	7.9				38.0
7	10.2				35.7
TOP	12.45				1333.48
+			1333.61	0.13	
428	2.4				31.2
9	4.9				28.7
+ 38		6.6			(27.0)
430	4.9				28.7
1	4.6				29.0
2	6.2				27.4
3	7.8				25.8
4	10.4				23.2
TP	12.17				1321.44
+			1321.74	0.30	
5	2.8				18.9
6	6.3				15.4
7	8.2				13.5
+ 24		10.2			(11.5)
8	8.2				13.5
9	7.4				14.3
440	7.7				14.0
TP	7.26				1319.48
+			1316.86	2.38	
1	3.8	Bot. of S.D. 5.8			13.1
+ 35					(11.1)
2	4.8				12.1
+ 92		7.6			(09.3)
3	4.7				12.2
4	4.9				12.0
B.M.	2.72				1314.14
5	5.5	Bot. of S.D. 7.2			11.4

On 9" Ash S.E. of St 444

Sta		Bot of SD	HI	+	Elev
446	5.1		1316.86		11.8
7	5.1				11.8
8	5.1				11.8
TP	5.23				1311.63
+			1314.53	2.90	
9	3.6				10.93
450	4.7	6.6			09.8
1	5.3				09.2
2	5.7	Bot of C. 7.5			08.8
+50					07.0
3	5.3				09.2
4	4.3				10.2
5	2.8				11.7
6	2.2				12.3
7	1.9				12.6
TP	19.5				1312.58
+			1315.30	2.72	
8	2.2				13.1
9	2.2				13.1
460	3.1				12.2
1	4.3				11.0
2	4.6				10.7
3	6.7				08.6
4	7.9	8.8			07.4
5	9.2				06.1
6	9.7	11.3			05.6
TP	9.57				1305.73
+			1310.07	4.34	
7	4.9				05.2
8	4.7				05.4
9	4.4				05.7
470	4.7				05.4
471	4.8				05.3
B.M.	3.38				1306.69
2	5.2				04.9

On 3" Spruce S.W. of Sta. 471

Sta		Bot of S.I	H.I	+	Elev
473	5.3	7.6	1310.07		04.8
4	5.3				04.8
5	5.3				04.8
TP	5.53				1304.54
+			1309.44	4.90	
6	4.7				04.7
7	4.7				04.7
8	4.7				04.7
9	4.8				04.6
480	4.8				04.6
1	4.8				04.6
2	5.1				04.3
3	5.1				04.3
TP	5.15				1304.21
+		7.9	1308.92	4.63	
4	4.6				04.3
5	4.6				04.3
6	4.6				04.3
7	4.8				04.1
8	4.8				04.1
9	4.8				04.0
490	4.9				04.0
1	5.1				03.8
2	5.1				03.8
TP	4.85				1304.07
+			1308.57	4.50	
3	4.9				03.7
4	4.9				03.7
5	4.9				03.7
6	4.9				03.7
BM	3.38	On 5" Tam. S.W. of Sta 497		13	05.19
7	5.0	Bot. of C			03.6
8	5.1	8.5			03.5
9	5.2				03.4
500	5.2				03.4
1	5.2				03.4

Sta		Bot. of SD	H1	+	Elev
TP	4.75		1308.57		1303.82
+			1308.29	4.47	
502	5.1				03.2
3	5.1				03.2
4	5.1				03.2
5	5.0				03.3
6	5.0				03.3
7	5.0				03.3
8	5.0	7.9			03.3
9	5.0				03.3
510	5.0				03.3
TP	4.75				1303.54
+			1308.29	4.75	
511	5.0				03.3
12	5.0				03.3
13	5.0				03.3
14	5.0				03.3
15	5.0				03.3
16	4.9				03.4
17	4.8				03.5
18	4.8				03.5
19	4.8				03.5
TP	5.05				1303.29
+			1309.67	6.43	
520	6.3				03.4
1	6.4				03.3
2	6.4	Bot. of S			03.3
+22.5		9.5			1300.2
BM	6.32	On Screw	S. End of	CNTC	1303.35
3	5.5				04.2
4	5.1				04.6
5	5.3				04.4
6	5.6				04.1
7	5.9				03.8
8	5.2	7.7			04.5
TP	4.91				1304.76
+			1317.32	12.56	
9	11.6				05.7
530	9.8	10.2			07.5



Sta	—	Bot. of S.I.	H.I.	+	Elev
531	8.2		1317.32		09.1
2	6.5				10.8
3	3.8				13.5
4	2.7				14.6
5	2.4				14.9
6	2.2				15.1
7	1.4				15.9
TP	1.55				1315.77
+			1328.49	12.72	16.8
8	11.7				19.3
9	9.2				21.5
540	7.0				22.3
1	6.2				23.2
2	5.3				25.3
3	3.2				28.3
4	0.2				1327.12
TP	1.37				28.1
+			1330.71	3.59	24.9
5	2.6				23.1
6	5.8				23.1
7	7.6				22.1
8	7.6				19.0
9	8.6				1319.15
530	11.7				16.7
TP	12.56				16.7
+			1323.01	4.86	(13.2)
1	6.3	7.8			17.4
2	6.9				17.9
+75		9.8			17.6
3	5.6				16.3
4	5.1				16.6
BM	4.54				17.3
5	5.4				17.9
6	6.7				20.9
7	6.4				1321.43
8	5.7				
9	5.1	7.0			
560	2.1				
TP	1.58				
+			1334.38	12.95	

On 15" Elm NE. of Sta 554

Sta	—	Bot. of S.I.	H.I.	+	Elev
TP	11.10		1314.19		1303.09
+			1308.10	5.01	03.1
737	5.0				03.2
8	4.9				03.2
9	4.9				02.7
740	5.4				03.1
1	5.0	8.0			03.1
2	5.0				03.1
3	5.0				03.4
4	5.0				03.8
5	4.7				1303.47
6	4.3				(01.0)
TP	4.63				03.3
+			1305.38	1.91	03.7
+20					1303.0
7	2.1				1299.7
8	1.7				97.0
9	2.4				95.1
750	5.7	7.4			94.9
1	8.4				94.9
2	10.3				95.1
+50	10.5	19.5			96.3
790	10.5				97.9
3	10.3				1297.80
4	9.1				1306.15
5	7.5				8.35
TP	7.58				1300.6
+					00.7
6	5.5				02.9
7	5.4				04.7
8	3.2				1296.97
+80	1.4				
BM	9.18				

Bot. of C. 4.4 5.6

On 8" Elm N of Sta 756

Sta	Bot. of CMC	HI	+	Elev
561		1334.38		24.7
2				27.0
3				29.8
4				31.6
5				31.9
6				31.8
7				29.6
8				29.6
9				29.8
TP				1329.50
+		1334.26	4.76	(27.1)
+86	7.2			29.3
570				30.8
1				31.9
2				29.1
3				28.1
4				25.5
5				23.4
6				1326.61
TPBM				
+		1332.08	8.47	(19.4)
+35	12.7			23.1
7				23.2
8				26.4
9				27.9
580				27.4
1				25.6
2				25.5
3				22.5
4				1324.98
TP				
+		1336.41	11.43	23.4
5				(20.6)
+32				23.5
6				24.1
7				25.8
8				27.5
9				31.3
590				

9-25-66 Party { Taubman Asst. Engr. (72)  
R. Bloyer Rod

Weather - Cold & Clear

Sta	Bot. of SD	HI	+	Elev
708		1315.71		07.6
9				11.1
TP				1310.77
+		1315.12	4.35	11.9
710				12.5
11				13.2
12				12.4
13				09.4
14				06.6
15				05.7
16				05.7
17				05.3
18				1304.62
TP 19				
+		1310.40	5.78	04.8
720				04.4
1				04.4
2				04.9
3				04.9
4				(02.1)
+21				05.6
5				06.3
6				05.4
7				04.8
8				06.4
9				1306.10
TP				
+		1314.19	8.09	08.8
730				09.1
1				08.2
2				1313.24
BM				06.3
3				03.8
4				03.8
5				03.1
6				

Sta	-	B	H I	+	Elev
591	3.0		1336.41		33.4
2	2.2				34.2
3	1.9				34.5
TP	1.05				1335.36
+			1338.91	3.55	
4	2.0				36.9
5	2.5				36.4
6	3.0				35.9
7	4.4				34.5
8	5.8				33.1
9	7.7				31.2
600	10.0				28.9
1	9.8				29.1
2	10.0				28.9
TP	10.06				1328.85
+			1330.44	1.59	
3	0.7				29.7
4	2.8				27.6
5	4.9				25.5
6	6.8				23.6
BM	1.76	On 14" N. Pine N. of Sta 604			1328.63
7	8.1				22.3
8	8.3	12.1			22.1
+22					(18.3)
9	8.5				21.9
TP	8.75				1321.69
+			1332.58	10.89	
610	9.8	8.1550			22.8
11	9.0	14.2			23.6
12	8.0				24.6
13	5.6				27.0
14	3.6				29.0
15	6.5				26.1
+55		10.7			(21.9)
16	8.6				24.0
17	8.1	10.5			24.5
18	5.5				27.1
19	3.6				29.0
TP	3.85				1328.73
+			1337.53	8.80	
620	7.8				29.7

Sta	-	Bat. of 50	H I	+	Elev
680	8.0		1361.06		53.1
1	10.9				50.2
2	12.0				49.1
TP	12.45				1348.61
+			1349.01	0.40	
3	0.4				48.6
4	2.7				46.3
5	5.7				43.3
6	7.7				41.3
7	12.0				37.0
TP	12.82				1336.19
+			1336.40	0.21	
8	3.2				33.2
9	6.2				30.2
690	7.6				28.8
1	8.6				27.8
2	10.8				25.8
3	12.8	16.4			23.8
TP	13.05				1323.35
+			1323.91	0.56	
4	0.8	2.6			23.1
5	1.4				22.5
6	2.8	6.0			21.1
7	4.6	7.8			19.3
8	8.1				15.8
9	13.2	15.4			10.71
TP	12.11				1311.80
+			1315.71	3.91	
700	8.0				07.7
1	8.3				07.4
+36		11.4			(04.3)
2	7.8				07.9
3	5.8				09.9
4	5.0				10.7
BM	5.48	On W.C. N. of Cor			1310.23
5	5.8				08.7
6	8.7				07.0
+18		11.1			(04.6)
7	8.7				07.0

Sta	-	Bot. of SD	H1	+	Elev
621	7.1	10.1	1337.53		50.4
2	6.7				50.8
3	5.7				31.8
4	5.4				32.1
5	5.3	7.9			32.2
6	3.3				34.2
7	2.8				34.7
8	2.9				34.6
9	2.3				35.2
630	2.6				34.9
TP	3.20				1334.33
+	6.0		1339.81	5.48	33.8
+29		7.3			(32.5)
2	5.3				34.5
3	4.9				34.9
4	4.4				35.4
B.M.	3.94				1335.87
5	5.3	8.3			34.5
6	5.8				34.0
+05		9.6			(30.2)
7	5.3				34.5
8	2.3				37.6
TP	0.43				1339.38
+			1352.02	12.64	43.8
9	8.2				48.3
640	3.7				1351.70
TP 641	0.32				55.1
+			1362.12	10.42	56.8
2	7.0				58.5
3	5.3				57.6
4	3.6				57.3
5	4.5				58.9
6	4.8				53.3
7	5.2				52.7
8	8.8				54.5
9	9.4	11.1			57.2
650	7.6				1355.80
1	4.9				
TP	6.32				
+			1358.91	3.11	

SE. of Sta. 634  
on 16" Aspen stump

Sta	-	Bot. of CMC	H1	+	Elev
652	3.5		1358.91		55.4
3	2.7				56.2
4	2.9				56.0
5	4.7				54.2
6	8.2				50.7
7	10.1				48.8
8	13.0				45.9
+95		21.0			(37.9)
9	14.2				44.7
TP	10.59				1348.32
+			1351.97	3.65	
660	6.6				45.4
1	4.9				47.1
2	8.0				44.0
3	5.7	9.5			46.3
4	1.7				50.3
TP	0.47				1351.50
+			1364.18	12.68	55.1
5	9.1				59.1
6	5.1				59.6
7	4.6				58.3
8	5.9	7.3			62.3
9	1.7				1363.58
TP	0.60				
+			1373.81	10.23	65.6
670	8.3				64.6
1	9.2				(63.8)
+24	10.0	11.2			64.6
2	9.2				67.0
3	6.8				68.9
4	4.9				68.8
5	5.0				65.3
6	8.5				64.8
7	13.0				1360.53
TP B.M.	13.28				
+			1361.06	0.53	57.4
8	3.7				57.5
9	6.6				

On W.C. N. of Cor.

License	Width		Length	Height			
	Top	Bot					
32-417	3.35	1.9	{ 7.2 4.5	{ 4.3 0.7	1.6	13	✓
	4.3	2.3	6.7	4.85	2.3	15	✓
23-404	4.25	2.3	6.05	2.05	1.6	25	✓
5-114	3.1	3.05	7.0	1.85	1.5	48	✓
31-121	4.35	2.7	6.0	2.1	1.8	8	✓ Rebuilt

License No	TRUCK		Sizes		Capacity C.T.	Truck No	
	Width Top	Width Bot.	Length	Hght.			
30-599	4.2	2.8	5.9	2.0	1.5	14	✓
31-087	3.7		5.6	2.0	1.6	4	✓
29-499	4.14	1.9	8.0	2.43	2.4	5	✓ Top .7' Straight Side
31-121	4.35	3.7	6.0	2.0	1.7	8	Bot. 1.0' Str. Side + Top .5' Str. Side
29-899	4.3		7.1	1.6	1.8	43	✓
31-715	3.7		6.0	1.9	1.6	28	✓
681	5.1		7.4	1.3	1.8	6	✓
19-577	4.7		6.7	1.6	1.9	60	✓
29-500	4.1	2.4	9.6	{ 2.6 2.9	3.1	3	✓ * Top .6' Straight Side
712	3.8		6.2	2.25	2.0	61	✓
27-851	3.9	2.4	5.85	2.0	1.3	7	✓
9478	5.6		9.5	1.5	3.0	51	✓
15811	4.9	4.6	7.9	2.1	2.9	65	✓
28569	3.7		5.5	2.3	1.8	2	✓ + Top .9' Straight Side
30-638	3.6	1.3	6.4	{ 2.9 1.4	1.6	10	✓
27-851	4.2	2.1	5.85	2.5	1.7	7	✓ Rebuilt
27-377	3.8		5.6	2.0	1.6	1	✓
30-599	4.2	2.8	5.9	2.25	1.7	14	✓ Rebuilt
31-138	4.9		7.0	1.5	1.9	9	✓
32-024	4.2	1.05	7.0	2.7	1.6	38	✓
32016	3.4 <sup>8</sup> 3.7	2.5	{ 6.3 2.6	{ 0.9 1.75	1.5	19	✓
	3.7	1.8	7.8	{ 0.75 1.7	2.1	100	✓
23431	3.9	2.3	5.9	2.1	1.4	20	

GRAVEL PIT "B"  
SW<sup>1</sup>/<sub>4</sub>. SE<sup>1</sup>/<sub>4</sub>. Sec. 1-143-28

stripping 220 C.Y.

stripping hauled to Curve #1  
in place of excavation 548.5 pd as Gravel

Gravel 2,833.4  
2,381.9 C.Y.

Clearing + Grubbing  $\frac{10 \times 50}{43,560} = 0.01 \text{ Acre}$

Sta. on road  
124+90

NE 1250' to Pit. B

Location of Gravel Pit A  
NE 1/4 NW 1/4 Sec. 24-143-27

SAR #4 Job #2603

78

Sta	Defl	Angle	Mag Bearing
124+90	L	N.E.	1250 Ft.
1+73	R	90°55'	N62°30'E
1+88	L	8°42'	N28°30'W
1+29	R	88°00'	N20°W
1+94	R	83°18'	S72°W
1+99	R	27°02'	S11°E
1+23	R	79°30'	S38°E
50+00 4+80	L	90°30'	N62°30'E
539+84 = 0+00	R	73°00'	S27°E
			N80°E

Meander Description

Beginning at a point 1418' East of the NW Cor. of Sec. 24-143-27 Thence at a defl. angle R 73°00', 980' to corner of Pit, Thence at Defl. angle L, 90°30', 123', Thence at defl. angle R 79°30', 199', Thence at Defl. angle R 27°02', 194', Thence at Defl. angle R 83°18', 129', thence at Defl. R, 88°00', 188', thence at Defl. angle L 8°42', 173', to Pit Corner of beginning, the above described tract contains 1.26 Acres.

$$\frac{150 \times 295}{43,560} = 1.01 \text{ Acres}$$

Clearing & Grubbing Pit 160' x 300' x 140' x 290'

Stripping 210' x 80'  
 $\frac{215}{2} \times 80 \times 210 = 2,100 \text{ CY.}$

Dead Haul 1200' to Sta. 536+40

Clear. on road 1/2 paid by Co.  $\frac{1200 \times 20}{43,560} = 0.55 \text{ Acre.}$

1418' E of NW Cor. of Sec. 24-143-27 Sta. on road 539+84  
New Sta. = 536+40





Natural Tangents

deg.	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'
0	0.0000	0.0029	0.0058	0.0087	0.0116	0.0145	0.0174	0.0203	0.0232	0.0261
1	0.0175	0.0204	0.0233	0.0262	0.0291	0.0320	0.0349	0.0378	0.0407	0.0436
2	0.0349	0.0378	0.0407	0.0436	0.0465	0.0494	0.0523	0.0552	0.0581	0.0610
3	0.0524	0.0553	0.0582	0.0611	0.0640	0.0669	0.0698	0.0727	0.0756	0.0785
4	0.0699	0.0729	0.0758	0.0787	0.0816	0.0845	0.0874	0.0903	0.0932	0.0961
5	0.0875	0.0904	0.0933	0.0962	0.0991	0.1020	0.1049	0.1078	0.1107	0.1136
6	0.1051	0.1080	0.1109	0.1138	0.1167	0.1196	0.1225	0.1254	0.1283	0.1312
7	0.1228	0.1257	0.1286	0.1315	0.1344	0.1373	0.1402	0.1431	0.1460	0.1489
8	0.1405	0.1434	0.1463	0.1492	0.1521	0.1550	0.1579	0.1608	0.1637	0.1666
9	0.1584	0.1613	0.1642	0.1671	0.1700	0.1729	0.1758	0.1787	0.1816	0.1845
10	0.1763	0.1792	0.1821	0.1850	0.1879	0.1908	0.1937	0.1966	0.1995	0.2024
11	0.1944	0.1973	0.2002	0.2031	0.2060	0.2089	0.2118	0.2147	0.2176	0.2205
12	0.2126	0.2155	0.2184	0.2213	0.2242	0.2271	0.2300	0.2329	0.2358	0.2387
13	0.2300	0.2329	0.2358	0.2387	0.2416	0.2445	0.2474	0.2503	0.2532	0.2561
14	0.2493	0.2522	0.2551	0.2580	0.2609	0.2638	0.2667	0.2696	0.2725	0.2754
15	0.2679	0.2708	0.2737	0.2766	0.2795	0.2824	0.2853	0.2882	0.2911	0.2940
16	0.2867	0.2896	0.2925	0.2954	0.2983	0.3012	0.3041	0.3070	0.3099	0.3128
17	0.3057	0.3086	0.3115	0.3144	0.3173	0.3202	0.3231	0.3260	0.3289	0.3318
18	0.3249	0.3278	0.3307	0.3336	0.3365	0.3394	0.3423	0.3452	0.3481	0.3510
19	0.3443	0.3472	0.3501	0.3530	0.3559	0.3588	0.3617	0.3646	0.3675	0.3704
20	0.3640	0.3669	0.3698	0.3727	0.3756	0.3785	0.3814	0.3843	0.3872	0.3901
21	0.3839	0.3868	0.3897	0.3926	0.3955	0.3984	0.4013	0.4042	0.4071	0.4100
22	0.4040	0.4069	0.4098	0.4127	0.4156	0.4185	0.4214	0.4243	0.4272	0.4301
23	0.4245	0.4274	0.4303	0.4332	0.4361	0.4390	0.4419	0.4448	0.4477	0.4506
24	0.4452	0.4481	0.4510	0.4539	0.4568	0.4597	0.4626	0.4655	0.4684	0.4713
25	0.4663	0.4692	0.4721	0.4750	0.4779	0.4808	0.4837	0.4866	0.4895	0.4924
26	0.4877	0.4906	0.4935	0.4964	0.4993	0.5022	0.5051	0.5080	0.5109	0.5138
27	0.5095	0.5124	0.5153	0.5182	0.5211	0.5240	0.5269	0.5298	0.5327	0.5356
28	0.5317	0.5346	0.5375	0.5404	0.5433	0.5462	0.5491	0.5520	0.5549	0.5578
29	0.5543	0.5572	0.5601	0.5630	0.5659	0.5688	0.5717	0.5746	0.5775	0.5804
30	0.5774	0.5803	0.5832	0.5861	0.5890	0.5919	0.5948	0.5977	0.6006	0.6035
31	0.6009	0.6038	0.6067	0.6096	0.6125	0.6154	0.6183	0.6212	0.6241	0.6270
32	0.6249	0.6278	0.6307	0.6336	0.6365	0.6394	0.6423	0.6452	0.6481	0.6510
33	0.6494	0.6523	0.6552	0.6581	0.6610	0.6639	0.6668	0.6697	0.6726	0.6755
34	0.6745	0.6774	0.6803	0.6832	0.6861	0.6890	0.6919	0.6948	0.6977	0.7006
35	0.7002	0.7031	0.7060	0.7089	0.7118	0.7147	0.7176	0.7205	0.7234	0.7263
36	0.7265	0.7294	0.7323	0.7352	0.7381	0.7410	0.7439	0.7468	0.7497	0.7526
37	0.7536	0.7565	0.7594	0.7623	0.7652	0.7681	0.7710	0.7739	0.7768	0.7797
38	0.7813	0.7842	0.7871	0.7900	0.7929	0.7958	0.7987	0.8016	0.8045	0.8074
39	0.8098	0.8127	0.8156	0.8185	0.8214	0.8243	0.8272	0.8301	0.8330	0.8359

134  
165

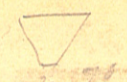
290  
290

deg.	60'	50'	40'	30'	20'	10'	0'
80	5.6713	5.7694	5.8708	5.9758	6.0844	6.1970	6.3138
81	6.3138	6.4348	6.5606	6.6912	6.8269	6.9682	7.1154
82	7.1154	7.2687	7.4287	7.5958	7.7704	7.9530	8.1443
83	8.1443	8.3450	8.5555	8.7769	9.0098	9.2553	9.5144
84	9.5144	9.7882	10.078	10.385	10.7111	11.059	11.430
85	11.430	11.826	12.250	12.706	13.197	13.727	14.300
86	14.300	14.924	15.605	16.350	17.169	18.075	19.081
87	19.081	20.206	21.470	22.903	24.542	26.432	28.636
88	28.636	31.242	34.368	38.189	42.964	49.104	57.290
89	57.290	68.750	85.940	114.588	171.885	343.770	

Natural Cotangents

4.2  
2.8  
17.0  
3.0

3497.25  
24+28  
28+26.25



14 18  
52 66  
539784  
42  
59  
378  
1202  
2478  
16  
4971.18  
15600  
3190  
27490  
79+63.5  
3  
93.75  
78+57.25

73.78  
451.25  
15259.5  
5740.75  
2478  
4817  
282  
26123.79  
6  
79+63.5  
3  
93.75  
78+57.25  
5280/471  
758  
576  
1827  
143  
136  
80

248  
1  
0+00 to - 9+42 - 467

388 83  
26 40  
415 23

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.

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