

14

*Field Book*

BARRETT DAM  
LEVEL BOOK

380

W131

MICROFILMED

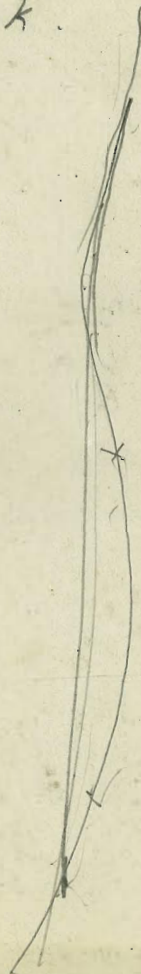
DEC 7 1964

86  
57  
62

11  
81  
62

# 14

Field Book



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Ran Intersection Line - at C 34 -  
occupy C-46 - Sight Center for  
90° - Turn 8° 36' - for 120'  
400' Radius = Intersection C-34.

Measured from 34-425.54 To  
Intersection Point which checked  
25.84

Occupy C 34 - Sight Center for 90°  
Turn 120 for 14° = 337.06 -

BM.

8.89 61.87

1452.95

Top of  
Form

384

58.03

10.70

Dist out.

up stream face  
Dist out

8/4/20  
866

2

upstream face -  
C 28 - 70632+064

50' s.t. sump.							DIST OUT
28		11-32 64.30		14.52	98		
29 10	0-43		5.12	59.18	10.58	65.18	998
30 20	1-26		5.07	59.23	10.58	65.23	998
31 30	2-08		4.75	59.52	10.55		998
32+35 43.5	3-07		6.96	57.34	10.77	65.2	998
446.1	3-28		4.2	65.5			995
			4.3	60.0			

8/7/20

Bvd  
Fisher  
Mixer.

Elev. of Coord. Pts + 955.72 Radius

At C 31 - Sight C 46 for 00

B-42 -

11.30 1491.94

1450.64

2.00 1489.94

Turn 100°-44' - Chained 30'

31-430 -

50' SE  
Sump

11.41 64.39

1452.98

31-430

3.10 1461.29

At B-38 - Sight Center for 90°

Turn 90° - 0-0

22.79

B-36 1°-26'

B-34 2°-52'

chained 22.03 = 34-477.52

B-32

At B 36 - Sight B 42 for 4°-18'

Turn 180 for Radial Line



8/12/20

Bub  
Fisher  
Minter

### Inspection Gallery Points

Occupy C-46 - Sight Center for  
~~Zero~~ <sup>90°</sup> Turn To Zero -

C-28 -  
180' 180' 12°-54'

Occupy C 28 - Sight C46 for  
12°-54' - Turn to 90° - for Center.

Chained 10' = 28-390-

Turned - 1°-26' = C-30

Occupy C 30 Sight C18 for  
8°-36' - Turn 90 for Center.

Chained 10' = 30-390 & Gallery

Chained 25.6 from 30-390 = 30-364.40

4

Occupy C 28-390 - & Gallery.

Sight Center for 9

8/12/20

5

± Outlet Gallery

31-430	8.50	1469.79	1461.29	849	70.18	61.69
Radial # 28				outlet ± Gallery		
2+81.5	<del>1467.099</del>	2.59	67.10	364.40		3.69 66.49
				3+80		3.38 66.80
				3+70	1-36	3.58 66.60 ✓
	8.55	1469.84	1461.29			
± Gallery						
30-390	1467.0		2.84	1467.00		
30-390						
31-430	8.90	70.19	61.29			
± Form	At 28-390					
3+27.81			2.79	1467-40		
3+11-	1467-15	2°-09'-0" - 2-10'	3.04	1467-15		
3+2.1	1467-30	2-54" 2-55"	2.89	67-30		
2+95	1467-10	1-00" 1-00"	3.09	67-10		
2+70						
2+70	1483.76	0-51-20	2.95	67.23	F-16-6 1/4"	
2+61-0		1-32'				
2+55	TRIP-XXXR	1-36'				
265						

8/13/70  
Bvd  
Fisher  
Mixer

Upstream face - for Forms

At C-28 Sight C18 for  
7°-10' -

				Distant	Distant 50' Higher
31-430	1966	71.95	1461.29		
27-05 <sup>54</sup>	0-21'	5.34	65.61	9.94	9.44
C28-		5.42	65.53	9.95	9.45
C29 <sup>10</sup>	0-43'	5.62	65.35	9.97	9.47
C30 <sup>10</sup>	1-26	5.03	65.92	9.91	9.41
C31 <sup>30</sup>	2-09	5.05	65.90	9.91	9.41
C32 <sup>40</sup>	2-52	5.04	65.91	9.91	9.41
45-0	3-13		55	9.91	9.41
+ 59-Forms	3-17				

Inspection Gallery

At 28-390' -  $\frac{1}{2}$  Gallery  
Sight Center for 90°

13.5  
1+95

1-0 ✓

341 19.5  
30 Radial

1-26

29.5  
3+11

2-09 = 210'

39.5  
3+21

2-54 2-55-15

46.35  
3+27.85

8/13/20

Bob  
Fisher  
Miller

Concrete Fillet.

At 30 - 31-23 - Sight Center  
for Zero Az Right

31- 430            14.57 75.86            1461.29

Face Dam

Cor Fillet

R.C -

R.C.

Bottom Fillet

R.C.

Face of Dam

Cor Fillet

			9.0	
22.24	16-32		9.0	66.9
17.9	34-15		9.9	66.0
21.9	42-30		9.8	66.1
27.1	52-45		9.5	66.4
31.3	45-50		9.3	66.6

Transferred Final Topog  
Book #12

8

8/13/20

## Location of Outlet Tower

HI 328 dist Az- vert A

Bottom Rock  
00- 27.15 +41°-10'Top of Rock  
Hub 44.42 +48°-02' 4.0

26.72 90°-08' + 139°-52' 3.28

Corrected Dist

20.44

29.70

20.51

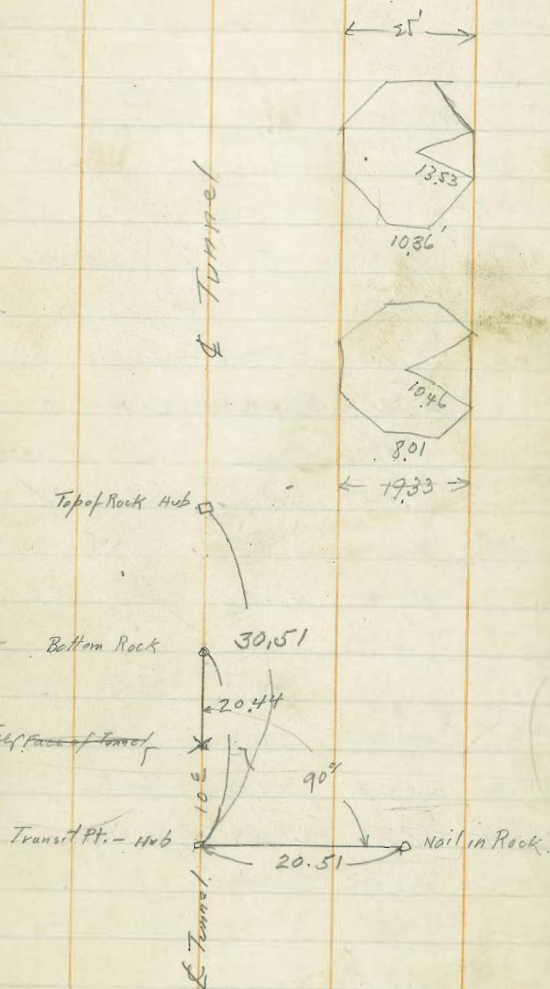
Tower Diameters

Inside 14'

outside 19.33'

Outside Base 35'

9



D

8/16/20  
Bub  
Fisher  
Mayer

sections over Burley Drill Holes

10

7.22 1753.07 ✓ 1745.85

4.22 48.85

Stadia Reading diff. Vert Ang Horiz Ang corrected Stadia Dist. Difference in Elev.  
Upper Hair Lower Hair

HI = 4.22

48.85

1753.07 Set on 5+35 Quarry Line

Sight 3+24 for Zero Angle Left

	Upper Hair	Lower Hair	diff.	Vert Ang	Horiz Ang	corrected Stadia Dist.	Difference in Elev.		
Both Rock	5.01	3.46	155	+11°-21'	150-40 <del>209-70</del>	149 ✓	+27.7	1762.8	78.6 ✓
" "	4.86 ?	3.59 ?	127	+6-15	142-0 <del>218-0</del>	122 ✓	+13.7	165.8	61.6 ✓
Both Rock	4.75	3.65	113	+11-26 <del>10-25</del>	127-30	109 ✓	+21.8	74.9	70.7 ✓
Both Granite	4.74	3.72	102	+10-16	127-15	98 ✓	+17.8	70.9	66.7 ✓
" "	4.64	3.80	84	+10-34	115-30	79 ✓	+14.7	67.8	63.6 ✓
" "	4.65	3.78	87	+13-32	109-01	84 ✓	+19.4	72.3	68.1 ✓
	5.43								
Hole # 1	5.43	3.10	233	+23-32	143-30	196 ✓	+45.0	1838.1	1533.9 ✓
Hole # 2	5.32	3.13	219	+24-25	141-0	181 ✓	82 ✓	1835.0	31.0 ✓
Hole # 3	5.27	3.16	211	+25-30	138-10	171 ✓	82.0 ✓	1835.0	31.0 ✓
Hole # 4	5.23	3.23	200	+26-32	135-20 <del>137-20</del>	160 ✓	50.0 ✓	33.0	29.0 ✓
" # 5	5.18	3.26	192	+27-37	132-10	150 ✓	79.0 ✓	32.0	25.0 ✓
Hole # 6	5.12	3.33	179	+27-0	129-30	141 ✓	72.0 ✓	25.0	21.0 ✓
Hole # 7	5.06	3.36	170	+27-04	125-30	132 ✓	70.0 ✓	22.0	19.0 ✓
Hole # 8	5.00	3.46	154	+26-35	121-20	123 ✓	61.5 ✓	14.6	10.4 ✓
Hole # 9	5.23	3.22	201	+21-40	140-0	173 ✓	69.0 ✓	22.6	17.9 ✓

8/16/20

HI 4.22

1753.07

At 5+35 Quarry Line Sight 3+24 for Zero

AZ Left.

	Stadia Upper Hair	Reading Lower Hair	Diff	vert Angle	Horiz Ang	Corrected Stadia	Difference in Elev.	
					(48.9) ✓	+		+
Hole #10	5.16	3.22	194	+22-20	143-30	165 ✓	+68 <sup>53</sup> ✓	21.0 ✓ 16.9 ✓
Hole #11	5.16	3.29	187	+23-16	140-20	158 ✓	+71.5 <sup>67.5</sup> ✓	20.5 ✓ 16.4 ✓
Hole #12	5.14	3.33	181	+24-15	137-30	150 ✓	+67.5 ✓	20.5 ✓ 16.4 ✓
Hole #13	5.07	3.38	169	+25-05	134-30	138 ✓	+65.0 ✓	18.0 ✓ 13.9 ✓
	5.08	3.36	172	+26-36	132-20	138 ✓	+69.0 ✓	22.0 ✓ 17.9 ✓
+12	vert 45'			+26-36	133-20	139 ✓	+74 <sup>2</sup> ✓	27.0 ✓ 22.9 ✓
	5.28	3.18	210	+21-30	146-00	182 ✓	+71.5 ✓	24.5 ✓ 20.4 ✓
	5.21	3.24	197	22-58	141-45	167 ✓	+70.5 ✓	23.5 ✓ 19.4 ✓
Face	5.18	3.27	191	22-43	144-0	163 ✓	+68.0 ✓	21.0 ✓ 16.9 ✓
Face	5.12	3.33	179	23-26	141-0	150 ✓	+65.0 ✓	18.0 ✓ 13.9 ✓
Face	5.10	3.34	176	25-03	134-40	144 ✓	+67.05 ✓	20.5 ✓ 16.4 ✓
	5.44	3.00	244	25-44	137-40	198 ✓	+95.0 ✓	48 ✓ 43.9 ✓
	5.40	3.04	236	28-33	130-10	182 ✓	+99.0 ✓	52 ✓ 47.9 ✓
	5.32	3.12	220	31-02	118-0	161 ✓	+97.5 ✓	60.5 ✓ 46.9 ✓

P/L to d. 9/13/20  
Drawing

HI 4.79

1753.64

At 5+35 Quarry Line Sight 3+24  
For Zero AZ Left.

	7.79	53.64			1745.55			
	5.58	4.01	157	13-04	150-45	1490	34.6	88.2
	5.52	4.07	145	16-30	135-30	133	39.5	93.1
	5.46	4.13	133	16-0	131-15	123	35.3	88.9

11



8/18/20  
Fisher  
Mixer.

Upstream face -

At 34-42584 Sight 34-274  
for zero chained 25.84 =

34-400-

BM. <sup>58 SE</sup> Sump.

4.68 57.66 1452.98

Dist out

At C 34 Sight. Center for 90°  
chord length Turn

C-34	0 0		4.62	53.04	11.20	10.7
10'						
C-35	0-43'		4.86	52.80	11.22	10.72
20'						
C-36	1-26'		4.92	52.74	11.23	10.70
30'						
C-37	2-09'	29.99 ✓	4.95	52.71	11.23	10.70
40'						
C-38	2-52'	39.98 ✓	5.12	52.54	11.25	10.70
50'						
C-39	3-35'	49.97				

C-33 0-430 4.6 53.06 11.20 10.70 10.70

C 32+06 1-0

120'  
C-46 8.36 (checked) -

31-430 72 12.63 73.92 1461.29

C-28. 4.5 69.4 956

C 27+10 5.01 68.98 961

5.9 68.0 970

52.98  
4.68 ✓  
57.66 ✓  
4.66  
53.00

8/21/20  
Bub  
Fisher  
Mixer

Upstream Face -  
34-40

At-34-42584 Sight Center  
chain 25.74 = C 34

At C 34 Sight Center  
for 90°

BM 30' SE  
Sump

976 62.74

1452.95

10  
C 34 0-43  
20  
C 35 1-26  
30  
C 36 2-09  
40  
C 37 2-52  
50  
C 38 3-35  
C 39 4-18  
C 40 5-01

4.69 59.05

13

Int - 10.94  
Cor - 707.00  
cont - 11.15  
Cont → 10.70 10.2  
11.25  
cont 10.70 10.2  
11.20  
cont 10.70  
10.84

8/25/20

Bub.  
Fisher  
Mixer

At 28 - Sight Center fr  
Zero- Put Intersection nails  
on 400 - Radius -

At C18 - Sight Tangent for -  
0-0 - Turn 7°-10 - for 100' =  
C 28 -

At

At C 28 - Sight C18 for 7°-10

31-430	12.63	73.92	1461.29
	10.90	72.19	1461.29

C-28

27+10 0-43

C 29 <del>28</del> 0-43	5.27	71.92	66.72	9.31
-------------------------	------	-------	-------	------

B-30 1-26

-	5.36	75.07151	66.83	9.31
---	------	----------	-------	------

C 31 2-09

C-32 2.52

5.27	71.94	66.92
------	-------	-------

9.31

C 33 3-35

5.25	71.94	66.94
------	-------	-------

9.96

C-34 4.19

10.21

Distout

Dist out.

10 15

C 36 5-44

36+065 6-08

8/25/20

- Inspection Gallery -

At 29 - 392 Sight Center

For 90° - Turns

2+75

28-392

2+91.57

0-59.32

1471.88

4.77 1467.11

19.6°

2+97.60 1°-26'

3+13.60 2°-36'

4.55 67.33

3+21.60 3°-11'-10"

4.51 67.37

At 30-392 Sight 46-392

for 10°-24'

31-430

10.59 71.88

1461.29

4° 0+02

4.95 66.931

0° 7' 18"

5.24 66.64

0+24

5.33 66.55

71.88

At 30-392

2+9760 =  
30-392

2+7826 75.92<sup>✓</sup> 1-25 4.65 67.23<sup>✓</sup>

2+6494 147435<sup>✓</sup> 2-23 2.83 69.05<sup>✓</sup>

T.P. 8.21 79.83 0.26 71.62<sup>✓</sup>

2+5163 149338<sup>✓</sup> 3-22 2.05 77.75<sup>✓</sup>

Top stake T.P. 12.02 89.79<sup>✓</sup> 2.06 77.77<sup>✓</sup>

2+74.97 3-51 3-51

✓  
2+3832 1502.41<sup>✓</sup> 4-20 1.35 88.44<sup>✓</sup>

Fill inches

8.69<sup>✓</sup> 8-5 1/4"

15.70<sup>✓</sup> 15-8 1/2" 13-8 1/4"

15.80<sup>✓</sup> 15-9 5/8" 13-9 5/8"

13.97<sup>✓</sup> 13-11 5/8" 11-11 3/8"

67  
28

### Inspection Gallery

392 R.  
3+21.6 44.6 71.83 67.37

3+631 67.98 3.85 67.98

B-48

13 25 26,03

1512,75

Butt  
Elev. ELeav.

18.0 1508.

At 52-468 "

Chained toward center. ~~5376~~<sup>5304</sup> =

52-415.07 —

At B-56 - Chained toward center =

22.65 = 56-427,35

At B-58 - Chained 22.82 Toward center =

58-427,18 —

At B-60 - Chained 26.18 toward center =

60-423<sup>82</sup> \* —

At B 62 Chained 34.2 Toward

center = 62-416.0

8/29/20  
Fisher  
Cox

Upstream face Points

At C 28 Sight Center for 90°

31-430  
Tip of Farm  
C 28

Turn 6.85 1468.14

1461.29  
~~1452.98~~

Dist out

5.07 1463.10

+ 5.00 = 1468.10

50  
C 33 3°-35'

0.4 1468.10

9.69

60  
C 34 4-18'

70  
C 35 5.01'

80  
C 36 5-44'

90  
C 37 6°-27'

100  
C 40 7°-10'

At 34-405- Sight Center

90° Turn

20  
36- 1-26

30  
37 2-09

40  
38 2-52

Inspection Gallery  
At. <sup>(2797.60)</sup> (39-392) Sight <sup>(46-392)</sup> (392-415+96)

for 11-27

3721.6            446    71.83            67.37

2797.60

3721.6

3729.6                            4.35 ✓ 67.48

3745.6                            4.11    67.72

3761.60                            3.87    67.96

Top of form                            3.63    68.20

363



392 Radius  
3 + 21.6. Gallery

Up stream Face -

5.01 72.38 1467.37

At C 30 Sight Center for 90°  
Turn

Elev. Top  
of Firms  
20'

1473.25

Dist out

C 32

2-19.26 ✓

9.18 ✓

30'  
C 33

2-09

9.18 ✓

~~40~~  
C 34

2-52

9.18 ✓

50  
C 35

3-35 ✓

9.18 ✓

60  
C 36

4-18 ✓

9.18 ✓

70  
C 37

5-01 ✓

9.18 ✓

80  
C 38

5-44 ✓

9.18 ✓

90  
C 39

6-27

100  
C 40

7-10

110  
C 41

7.53

120  
C 42

8.36

C 27

341 68.97

9.60

8/31/20

B. J. B.  
Fisher  
Mixer

# Inspection Gallery Final Elevations

At  $\left\{ \begin{matrix} 2+97.6 \\ 30-392 \end{matrix} \right\}$  Sight Center for 90°

Terrain

392 Radway				
3+21.6	4.47	1471.84		1467.37
2+97.6				

3+21.6	67.48	1-45	4.35	67.49
--------	-------	------	------	-------

3+29.6	2-20	4.35		
--------	------	------	--	--

3+45.6	67.72	3-30	4.11	67.73
--------	-------	------	------	-------

3+61.6	67.96	4-41	3.86	67.98
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Outlet

1+07.54	84.85		8.25	63.59
---------	-------	--	------	-------

Radius 282.46

F-126 1-4 1/8"

9/7/20  
Fisher

Elev of Water

B-38	0.97	71.27		1470.30
			8.90	62.37

9/17/20

Fisher  
Mixer  
Nail in Rock,  
B.M.

# Sections Star Drill Holes

Stake  
T.P.  
Stake<sup>TP</sup>  
TP Rock  
Rock  
TP

0.01 1830.16 1830.15

8.44 21.72

0.27 18.54 11.89 18.27

6.54 12.00

12.82 05.72

Hand Level

0.10 1805.82 1805.72

Section 1-

9°  
20  
22

65 99.3

64 99.4

1.8 04.0

Section 1 1/2

05.8

11  
23  
24  
33  
33  
36  
46

4.0 01.8

3.3 02.5

0.9 03.9

10.0 15.8 0.0 1805.8

6.3 09.5

4.0 11.8

2.4 13.4

2.1 13.7

Section 1

15.8

1805.5

35

39

4.6

Rock  
T.P.

Section 2

11.0 16.7

6.5 09.3

2.4 13.4

2.0 13.5

05.7

12.0 04.7

11.2 05.5

8.4 08.3

5.5 11.2

2.4 14.3

2.3 14.4

Section 3

16.7

9.0 07.7

9.7 07.0

6.6 10.1

4.4 12.3

1.2 15.5

0.7 16.0

## Section 4

11.9 16.7 057

14	5.2	11.5
2.6 <sup>0</sup>	5.2	11.5
37	+ 1.0	17.7

## Section 5

5.7 24.0 1815.3

12	12.4	11.64
22	11.4	17.6
31	3.8	20.2
44	0.0	24.0

Section 6  
24.0

14	12.0	17.0
23	11.0	13.0
24	6.4	17.6
31	2.0	27
38	1.2	27.8

2.0 1523.7 1821.7

13	10.5	13.2
225	10.5	13.2
23.0	7.5	16.2
28.0	2.7	21.0
36	1.5	22.2
36	+ 0.5	24.2

Section 7  
Hole # 18

-	8.8	14.9
-70	8.8	14.9
4	3.8	29.9
5	2.8	20.9
8	2.0	21.9
17		

10349

Body

Shell lost

53.2

24

-Star Drill-

24

		Depth of Finished Holes		
Old #	New #	Driller Depth	Baled out Depth	
*12	#1	51.5	51.8	*18-#13
				*19-#14
*9	#2	55.0	58.0	*20-#15
*8	#3	59.0	60.0	*21-#16
*7	#4			*22-#17
	#	17.0	17.0	
*3	#5	63.0	36.0	23-#18
*4	#6	64.0	64.0	
*5	#7	47.0	47.0	
*13	#8	60.0	61.0	
*14	#9	61.0	66.0	
*15	#10	63.0	59.0	
*16	#11	59.0	28.0	
*17	#12			

9/20/20

Sub  
Pistol  
Mixer

Outlet Tower.

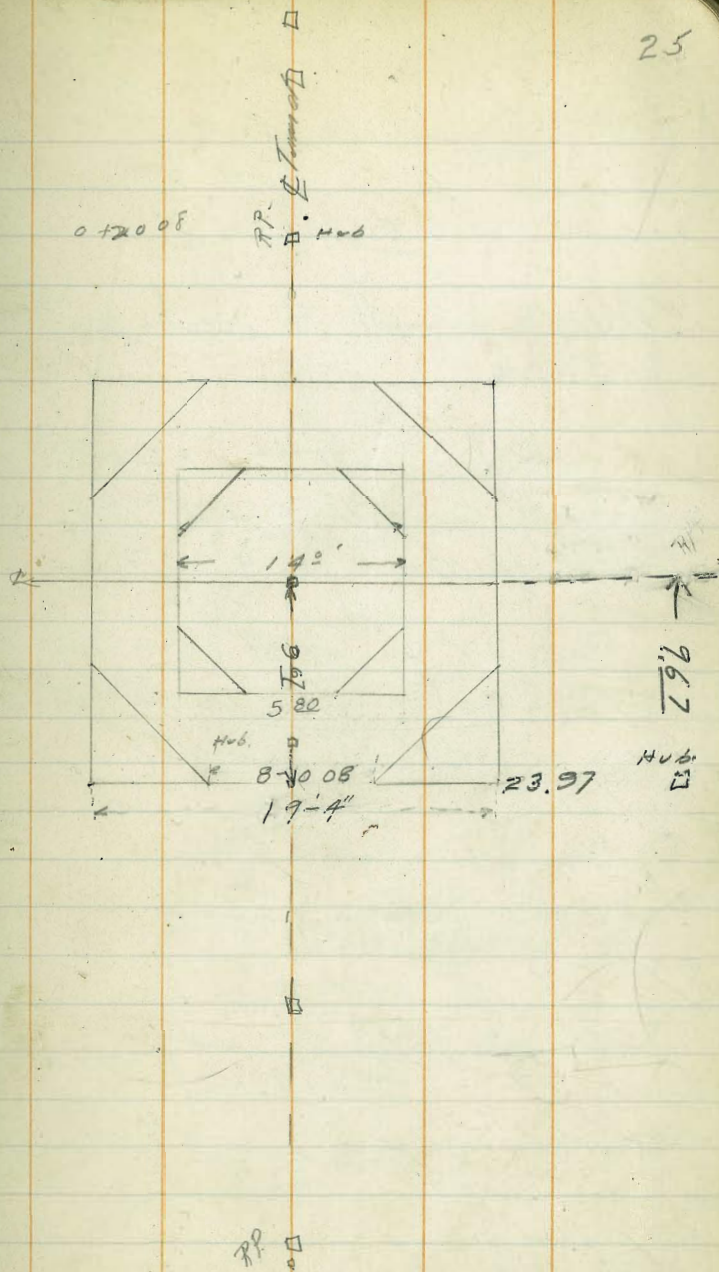
Hwb  
0 + 20.08 ✓

♀ Tower  
0 + 0

Hwb  
0 - 09.26

0 - 09.67

25



V. A,

43.32 + 47°21'

Measurement to Hub on top  
of Rock

Set on station 0-9<sup>25</sup>

bird angle = +47°21'

Slope dist = 43.32

Cos 47°20' = ~~0.6850~~ 6777 6772

Cos 47°30' = 6256 6775

diff 10' = .0021

1' = 2.1

Cos 47°21' = 6775  
43.32

13 550

20 325

20325

27100

29349300

926

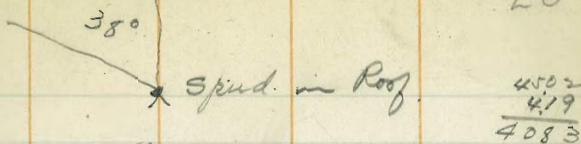
0+20.08 Hub on Top Rock

0+51.87  
Corrected  
Dist

29.34

~~0+11.04~~

0+02.82

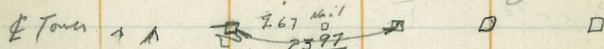


3984

Spud in Roof

12.42

Spud in Roof



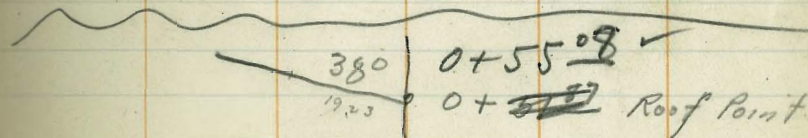
E Tower 4 A

9.26

Nail

RP nail

9.26



0+55.08 ✓

0+19.23 Roof Point

0+11.04 Roof Point

0+15.24

0+20.82 Roof Point ✓

E Tower = 0+00

0-9<sup>67</sup> E Face Tower

7/1/20

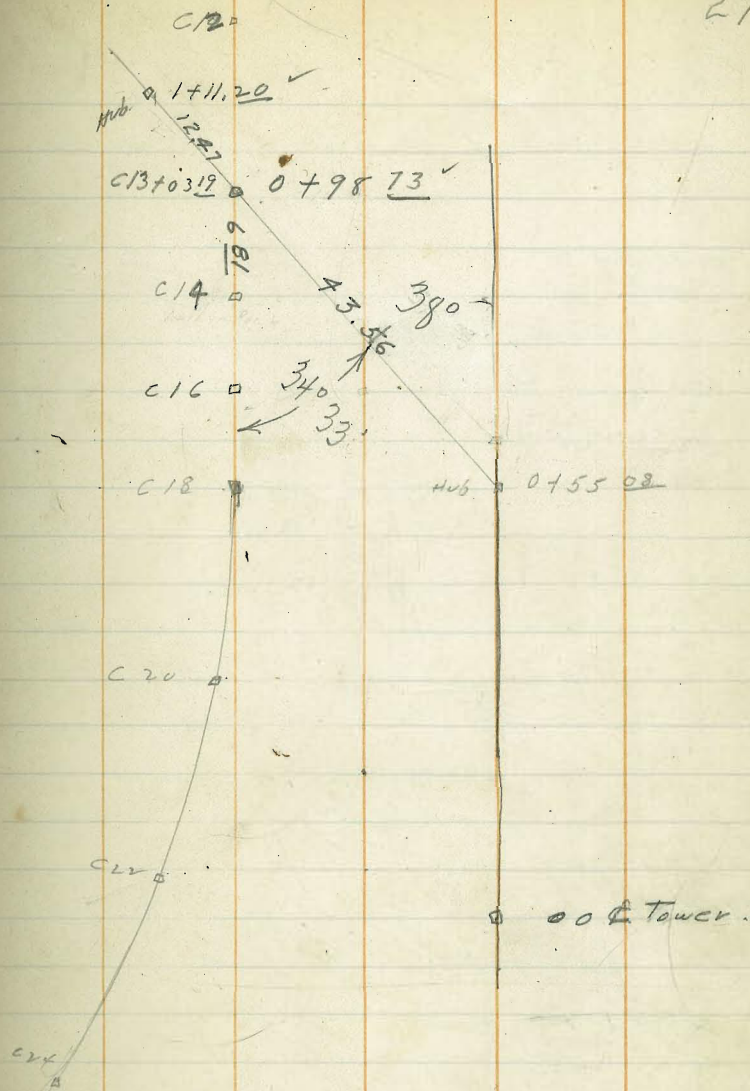
Bubb  
Fisher  
Mixer

27 35  
Alignment of Tunnel 92  
36 92

{ C 13+03.19  
Tunnel: 0+98.73

Δ 38° 04'  
0+55.08

27



Tie Upstream 400  
Radius to Tunnel Line



8/24/21  
 Filter  
 Mixer

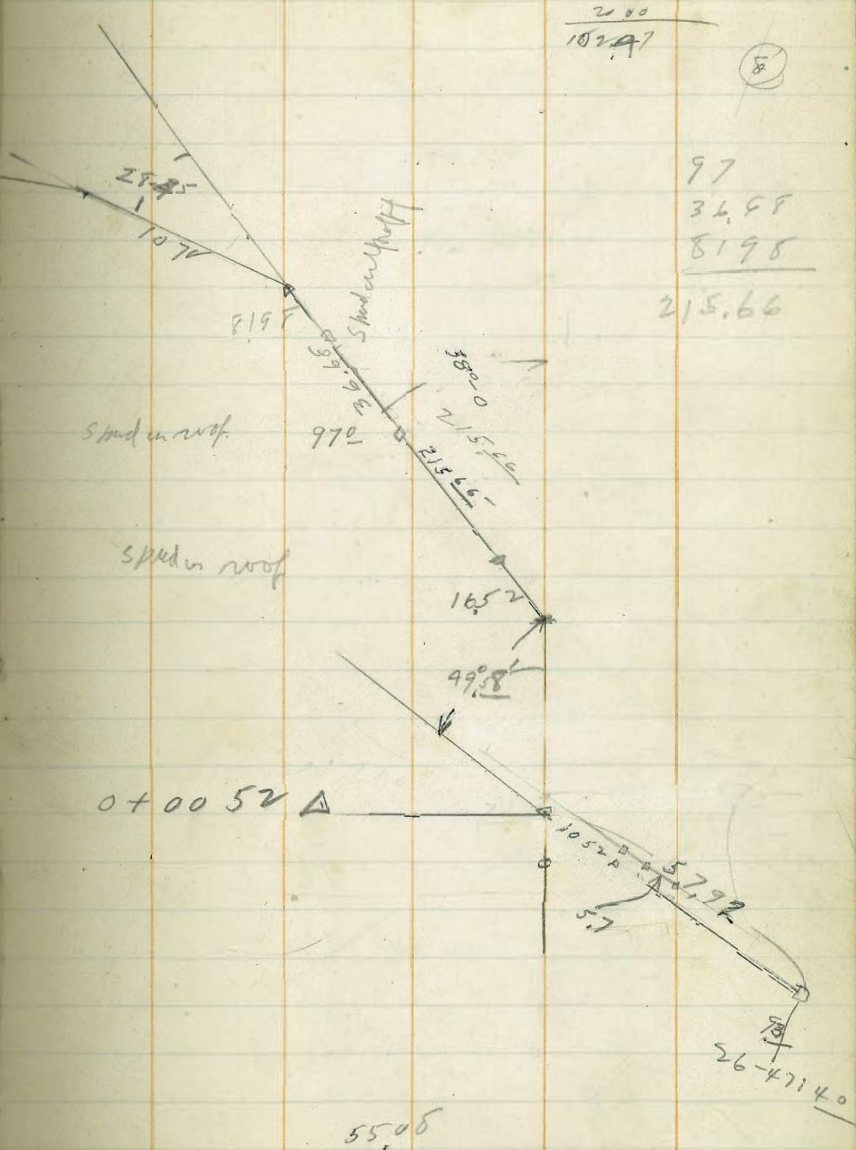
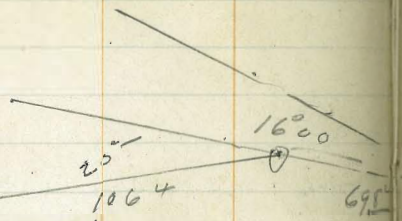
Alignment of Tunnel

3+9754  
 3+2724  
 5+0394  
 2+7074 ΔL 28°45'

0+5508 ΔL 38°0'

3+04005 ΔR 47°58'  
 00 E Tower -

5508  
 52  
 57.56



37.55  
 28.45  
 16.05  
 2.00  
 102.97

97  
 34.58  
 8198  
 215.66

5508

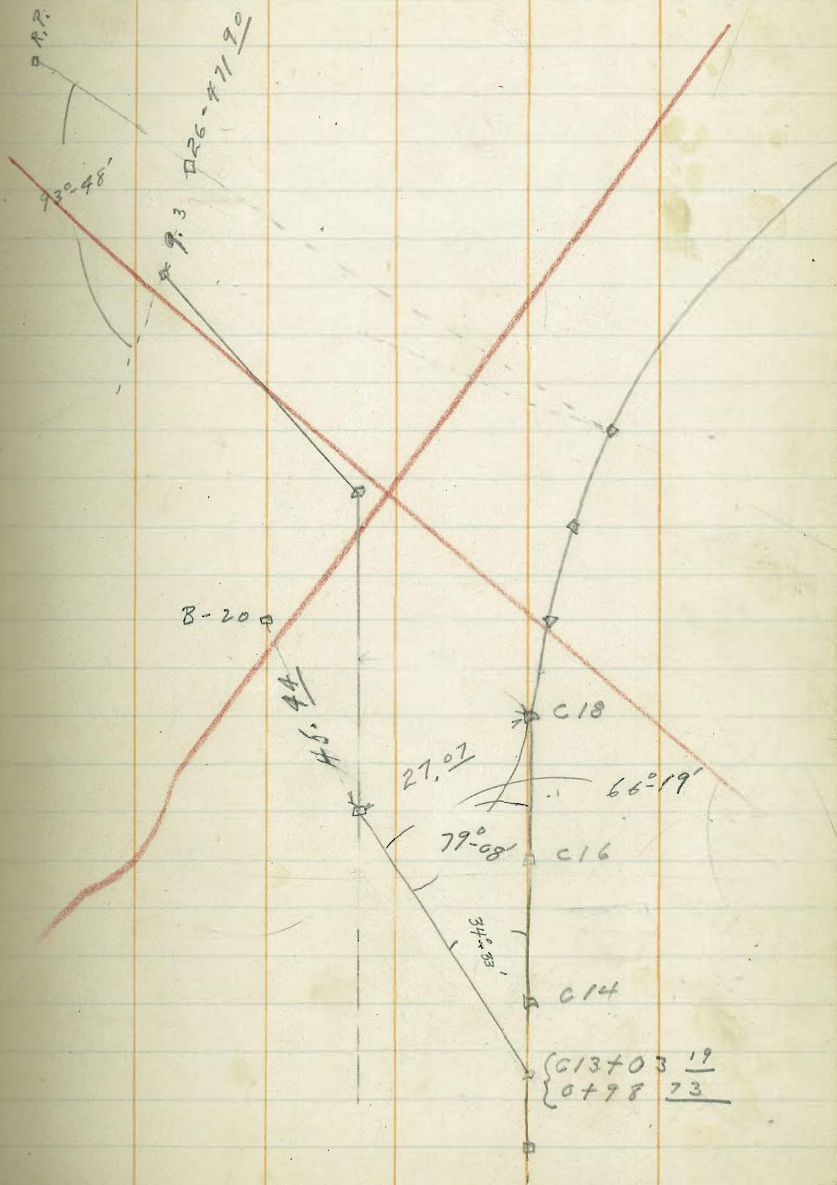
9/24/20  
Fisher  
Mintel

Ties to Alignment of  
Outlet Tunnel

Void see Page

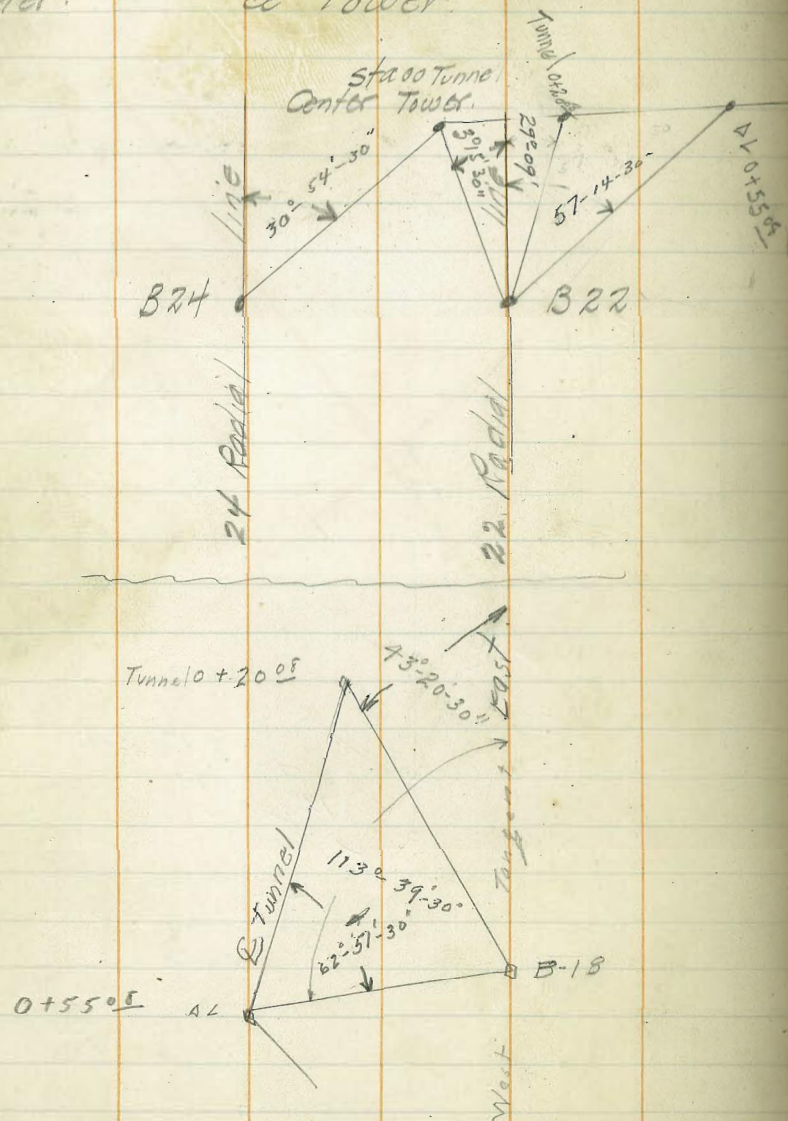
30

29



Sept 25  
 Bub  
 Fisher  
 Mixer.

TIES Coordinates to Tunnel Outlet  
 & Tower.



		29-09	
$30^\circ 54'$	$30-15'$	$30-51'$	$62^\circ 43'$
$61-49$	$6-31.0$	$61-42$	$125^\circ 28'$
$30-54-30$	$3-15-30$	$30-51'$	$62^\circ 43'$
			43

62

~~253~~ 41 +

113

9/27/20

Fisher Mixer

Grades

Outlet Tunnel Inspection Gallery

0.13

Outlet Tunnel  
0+24

5.20 1471.75

1466.55

Top of Mail

0.0

1509.17

1.53

1509.17

5.27

1503.90

0+54.0 1465.92

5.83

1465.92

0+36

-19

4.95

1504.22

Forms-

0+85.0 1465.30

6.45

1465.30

0+48

-7.0

4.90

1504.27

9/29/20

Fisher Mixer

Final Elev - Outlet Tunnel  
Inspection Gallery

0+59

+40

5.07

1504.10

0+48  
T.P.

4.96

1508.99

5.04

1504.13

Outlet Gallery  
0+24

6.66

7321

1466.55

1470

5.37

1503.72

0+34 66.32

6.93

66.28

High water

1.40

1507.69

0+50 66.00

7.28

65.93

1.53

1510.70

1509.17

0+66 65.68

7.61

65.60

T.P.

2.17

1512.74

0.13

1510.57

0+82 65.36

7.87

65.34

B-26

1.72

1509.65

5.38

1507.36

0+84 65.32

7.88

65.33

5.23

1503.85

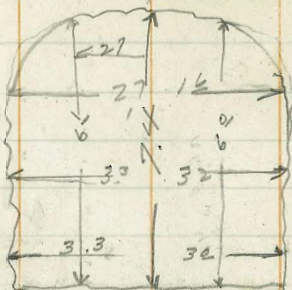
10/2/20

Fisher  
Mixer

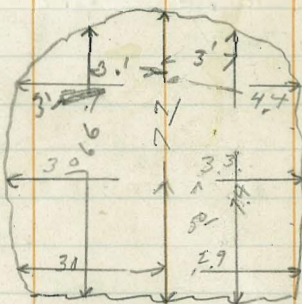
Sections in Tunnel

0+15

1503.90

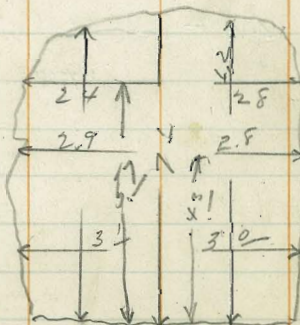


0+24



0+36

1504.22

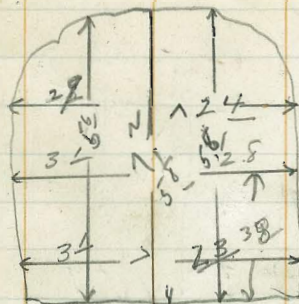


4

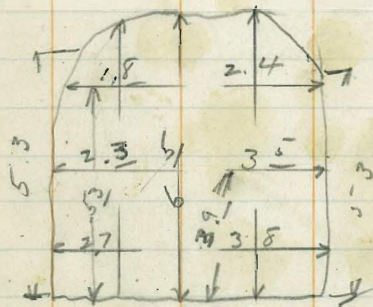
Obstruction

0+48

1504.13

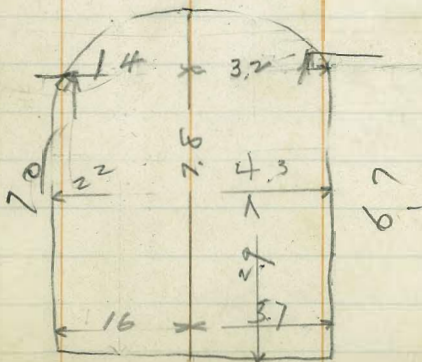


0+71



+37.5

1  
5  
7  
x  
his



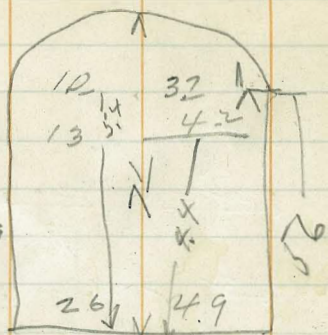
6.7

19/2/20

1.75

High Water 1507.59

1503.85



10/6/20

Bub  
Fisher  
Mixer

# Location of Concrete Tower # 2

3.83 1467.72

1463.59

22

65.2

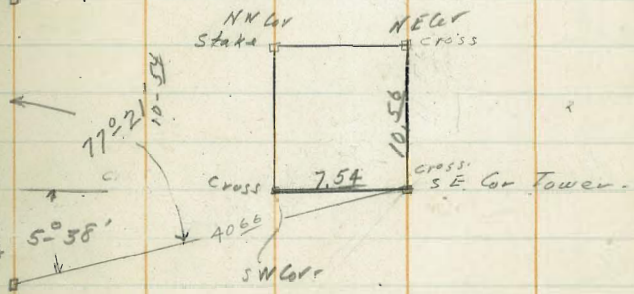
38-350 Nail

38-325

x in Rock  
Loops

Por  
Boulder  
in  
Concrete

38-300



R.P.

Por

34

Hub R.P.

10/7/20

Bub  
Fisher  
Mixer

Downstream Face

30 - 282.46

11.17 1474.76

1463.59

0.8 1474

42 line

7 1.2 1476

289.2 10.8

3.00 718

40 line

54 69.4

280.2 19.8

38 line

8.8 66.0

275.7 24.3

12.11

14

Out down



10/6/20

Fisher  
Mixer

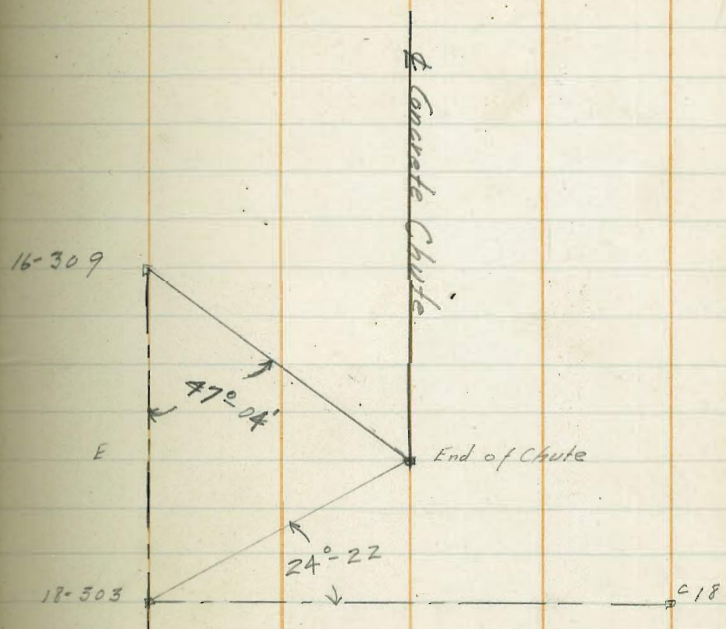
Location End of Concrete Chute

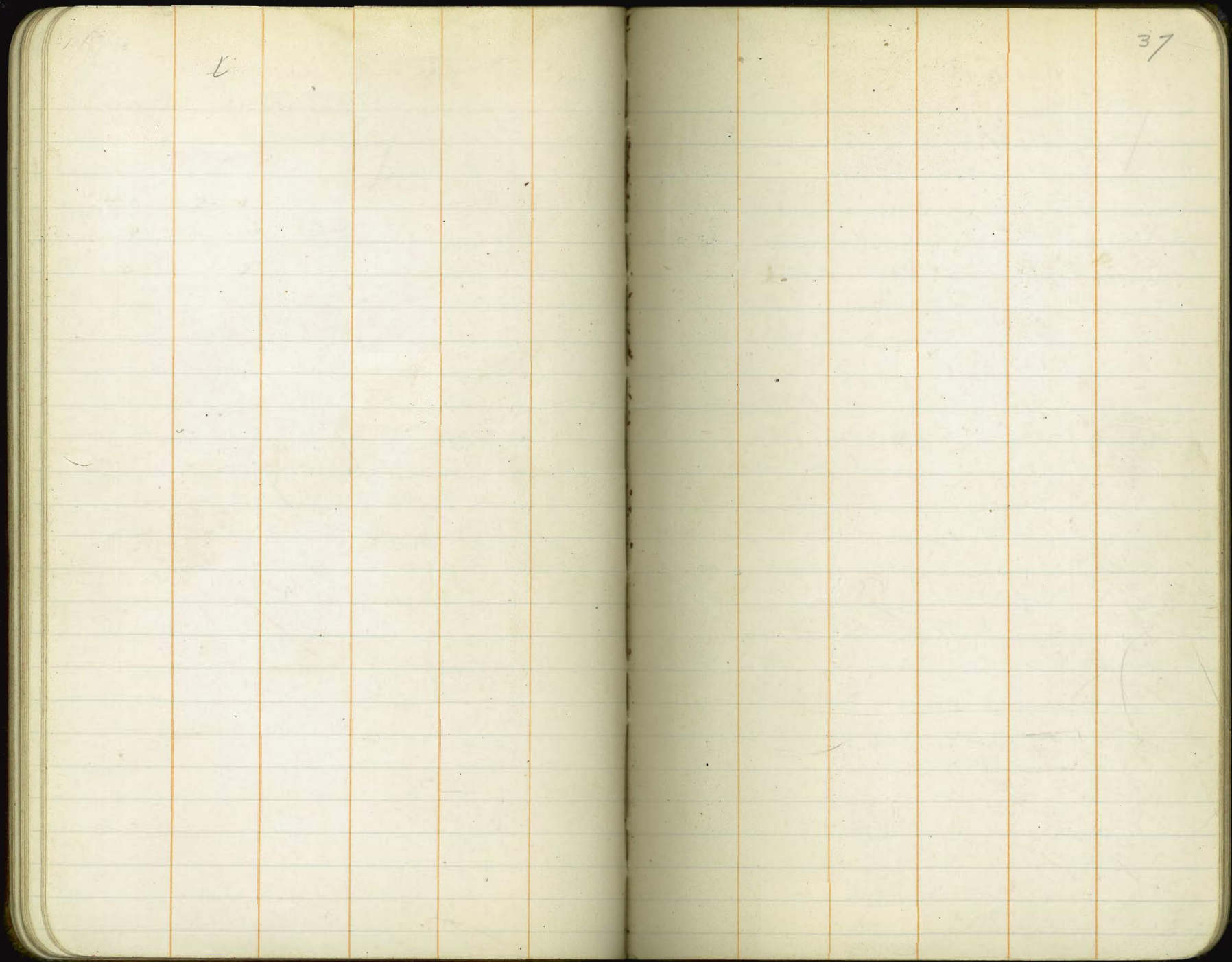
12.16 51.74 1539.58

Flow Line  
Elev

5.64 46.10

36





✓

37

Upstream Face -

At C 36 Sight C 18 for 12°-53'

40-413 <sup>53</sup>		0.65	148359	148294
c-33				
30'	2°-08' ✓			
c-32				
40'	2-51 ✓			
c-31				
50'	3°-35 ✓			
c-30				
60'	4-17 ✓			
c-29				
70'	5-01 ✓			
c-28				
80'	5-44 ✓			
c-27				
90'	6-27 ✓			
c-26				
100'	7-10 ✓			
c-25				
110'	7-53 ✓			
c-24				
120'	8-36			
130'	9-18			

140  
 32+18<sup>31,5</sup> - 2°-14'      5.81      77.79

32+18<sup>15</sup>      contraction Joint  
 Rod      10.45      73.14  
 add 5<sup>0</sup>      78.14      =      8.69

1.5  
 32+18<sup>5</sup>

Distant

8.69

8.69      Nail      6-7 3/8" out.

8.69

8.69

8.69

8.69

8.69

10/8/20  
Cut  
Fishes  
mud

A + C 36 Sight C 18 for zero  
AZ RT.

23.8

B-38 3.08 1473.38 1470.30

5.25 68.13  
5.9 67.5  
5.9 67.5  
5.4 68.0

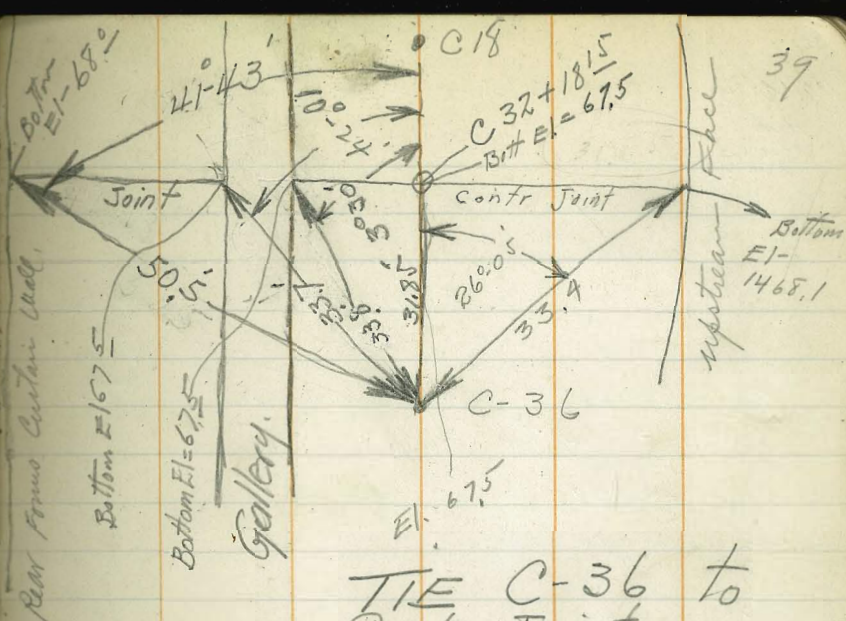
3.56 1473.86 1470.30

Top Form

0.63 73.23

Rock 7' East  
BM 34-329

78.2  
1.04 1472.82



TIE C-36 to  
Contr. Joint.

Placed Nail in concrete -

34 - 328.73

cut out

8.68

10/16/20

Upstream Face -

Bub  
Fisher  
Mxter

At C 40 sight C 18 for

	9.18	1482.00		1472.82
			3.81	78.19
			+ 5.0	83.19
8				
C 32				
80	50-44	✓		
51				
90	60-27	✓		
30				
100	70-10	✓		
29				
110	7-53	✓		
15				
120	8-36	✓		
27				
130	9-18			
26				
140	10-07			

	12.11	84.93		1472.82
--	-------	-------	--	---------

Top of Form			1.70	83.23
C-28				89.2
27				88.2
26				88.2
25				
gallery	93.58		1.38	83.55

Distance	38	78.19
	5.18	84
	5.18	
	8.18	
	8.18	
	8.18	

Distance

7.68
7.68
7.68
7.68

10-03

10-03

10/11/20  
Bob  
Fisher  
Mixer

# Location Concrete Tower #2

41

76-18

38-350

P.O.R.

Hub • Near 38-450

P.O.R. in Concrete

103-42

NE Cor Nail

+ on Rock

38-300

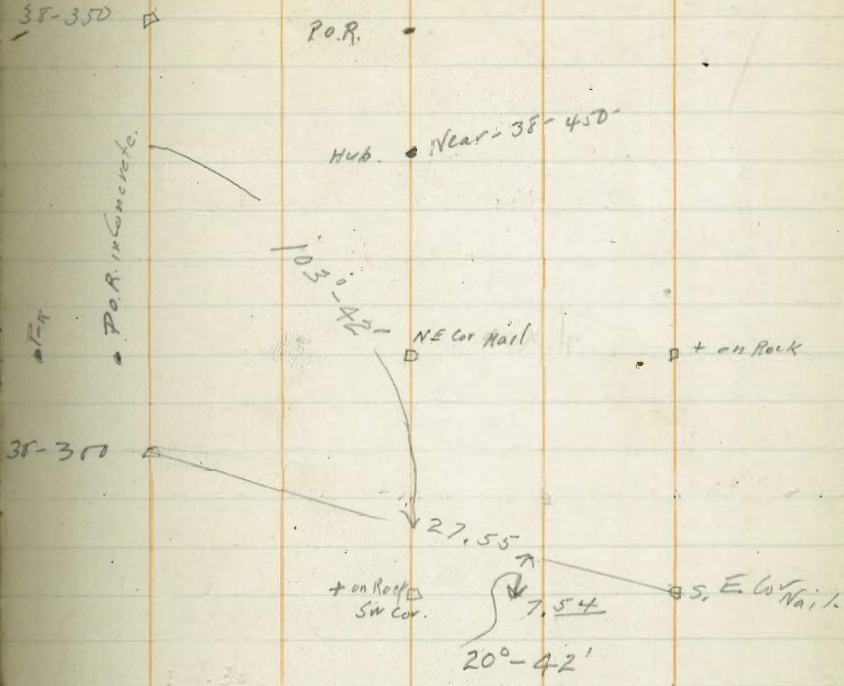
27.55

+ on Rock  
SW Cor.

7.54

SE Cor Nail

20-42'



10/11/20

Bv6

Fisher

Mixer.

# Inspection Gallery

At 28- Sight RP for  
 28 Line - Set Intersection Pts  
 on 400' Radius -  
 A C18 Sight West Tangent  
 for 2000' Turn

100'	
C 28	7° 10'
90	
C 27	6° 27'
80	
C 26	5° 44'
70	
C 25	5° 01'

At 26- 392 = Sta 2+58.40  
 Sight Center 90° Turn -

6.77	12.11	1484.93	1472.82	
2+51.63	93.58	0° 39'	1.35	83 55
13.313				10.03
2+38.80		1° 37'		6-10'-0.36

10/12/20

Fisher  
Mixer

B-38

Elev- to find if Water would  
Flow Downstream at Present Elev

3.30 1473.60 1470.30

El. of Water 6.67 66.93

Front face  
El of Concrete 6.22 67.38

7.5 6.23 67.37

Elev - Lower Water 13.70 59.90

T.P. 6.21 68.34 10.47 63.13

9.25 59.06

Elev water 10.76 57.58

T.P. 6.93 70.06 63.13

5.15 63.61 11.63 58.43

5.94 57.67

43



10/14/20

Bryson  
Bub  
Fisher  
Minter

## A Upstream Face

At 28-481.71 Sight Center- Set  
Intersection Pts - 400 RadiusAt C 18 Sight West Tangent for Zero  
Turn.

100'				Dist out
C 28	7° 10'	1493.7		7.18
80				
C 27	6° 27'	1493.2		7.18
80				
C 26	5° 44'	"		7.18
70				
C 25	5° 01'	"		7.18

At C 28 Sight C 18 for 7°-10'

26.70	
2+53.10	1°-56'
40x49	
2+39.51	2°-54'

At C-2+53.10 Sight C18 for 5°-14'

B-42-	9.17	1489.81	1480.64	
398 Radius				
2+51.63	1493.58	90°-0	3.50	86.31
			165	
	2.14	98.45		86.31
				7.69
				7.27 7.3 1/4

44

10/17/20

Bub  
Fisher  
Mixer

At C 28 - Sight C18 for  $179^{\circ}50'$

Turn

cut

392 - Radius

Gallery = 2151<sup>63</sup>

10

29

20

30

31

32

48.25

32 + 8.25

2.14

88.45

1486.31

0-43

5.31

83.14

88.14 = 769

1-26

88.14 = 769

2-09

88.14 = 765

2-54

88.14 = 769

3-27

88.14 = 769

10/28/20

Bryson  
Fisher

Mixer

Near B-29

BM

C 29

10

C 28

20

C 27

30

C 26

46

C-25

50

At C 30 Sight C18 for  $8^{\circ}36'$

11.62

1503.54

1491.92

0-43

07.40

1503.1

03.1

6.19

1-26

2-09

2-52

3-34

10/15/20

Fisher  
Mixer

# Location & Profile Star Drill

Holes - Third (row of holes -)

80-37

84-36

85-30

85

86-0

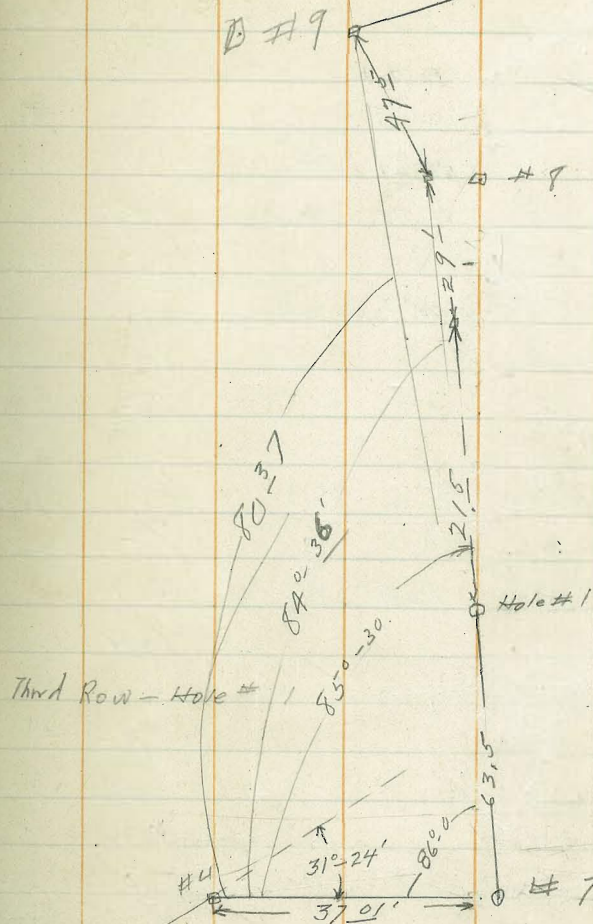
v-A

43.18 30.58'

D.# 4 Sight # 2 for 100-

Corrected  
Dist  
37.01-

46



Profile for Star Drill Hole  
Ledge #3

West End P Line BM above Road.	12.56	64.23		1751.67
T.P.	12.78	76.84	0.17	64.06
T.P. on Rock.	12.97	89.62	0.19	76.65
TP on Rock.	12.13	180.26	0.49	89.13
TP on Rock	12.01	1812.86	0.41	180.85
□ # 7 Hole # 1	11.71	24.30	0.27	1812.59
			9.5	14.8

Profile from Hole #1

10			7.4	16.9
20			5.2	19.1
□ # 7 6			4.3	20.0
30			2.6	21.7
40			0.5	23.8
T.P.	12.85	36.54	0.61	23.69
50			10.4	26.1
□ # 8 9			10.02	26.5
60			8.2	28.3
70			6.1	30.45
80			4.2	32.3
90			3.3	33.2
100 -			3.7	32.8
□ # 9			3.35	33.19
Nail in BM Rock			8.04	28.50
T.P.	12.70	41.00	0.24	36.30
BM			79.7	41.03

TP. Rock	12.51	61.27	0.24	1848.76
BM Nail Top of Rock			1.38	59.89

10/16/20<sup>CHB</sup> Check Levels Star Drill

B.M.	2.80	1754.47		1751.67
Q. Floor			11.50	1742.97
T.P.	9.67	1763.14	1.00	1753.47
T.P.	13.03	1775.28	0.89	1762.25
T.P.	11.83	1787.10	0.01	1775.27
T.P.	12.84	1799.07	0.87	1786.23
T.P.	11.44	1810.28	0.24	1798.83
T.P. <sup>note</sup> Grat * Drill	11.55	1821.59	0.24	1810.04
			6.80	1814.79

1814.79  
1742.97  
71.82

10/18/20

Bryson  
Fisher  
Mixer

Upstream Face

48

42-420.17

6.10 1493.12

1487.02

4.56 88.26

93.26

Dist out

7.18

TR

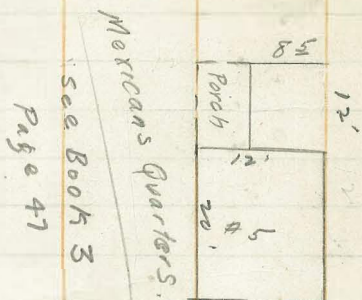
926 03.60

94.34

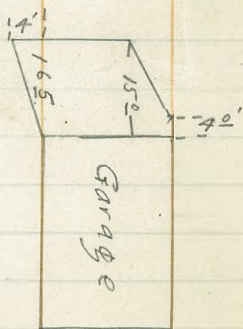
0.38 03.22

10/18/20  
Fisher  
Mixer

Location of Building.



House #3 has 8'x8' Tent.  
connects with House

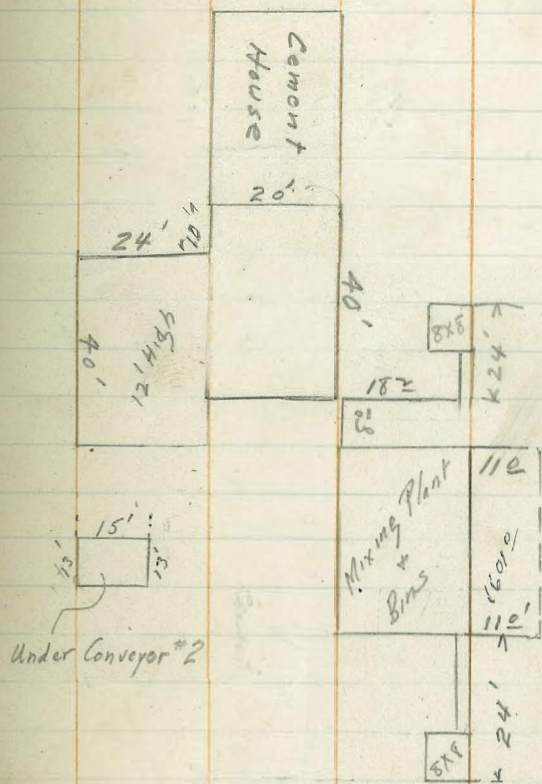


10/17/20

Fisher  
Mixer

49

Additions To Cement Shed +  
Mixing Plant + Bins.



10/21/20  
Fisher  
Mixer.

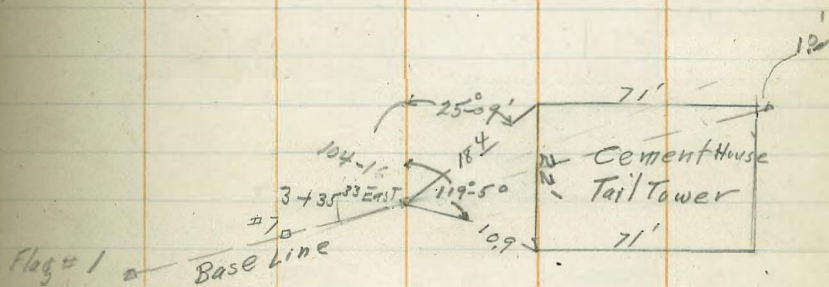
Location of Buildings  
House #



10/21/20

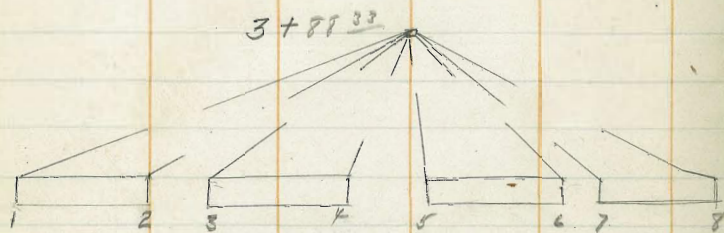
50

Cement House Tail Tower.



10/ 1/20

Location Landing Platform for  
Cement - Tail Tower.



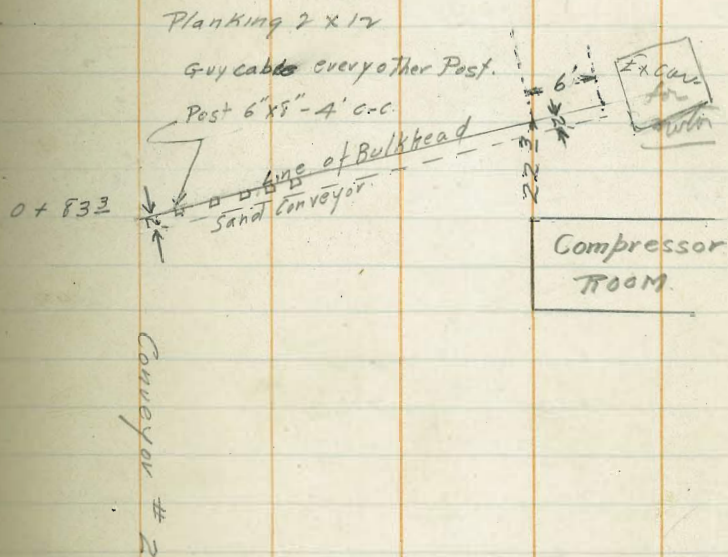
Dist      Hor. - Angle

- # 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

10/25/20  
Fisher.

51

Sand Bulkhead +  
Conveyor -





10/31/20  
Bryson  
Fisher

Upstream Face Points.

At C 30 Sight C18 for  $8^{\circ}36'$   
 ~~$7^{\circ}53'$~~

c 29	
101	0-43'
c 28	
20	1-26
c 27	
30	2-09
c 26	
40	2-52
c 25	
50	3-35'
c 24	
60	4-18
70	5-01

Tidbank - 27.465  
B.M.

1491.92

BM	531	<del>1509.01</del> 5.31	1503.70
----	-----	----------------------------	---------

c 47+5	9.1	1499.9
c 50	9.0	1500
c 52	10.0	1499
c 54	6.8	0610
c 56	3.9	0511
# 46 Hole	11.3	977
	1	1511.50

11/5/20  
Bryson  
Fisher

Final Topog -  
Filleth.

53

Top of Km	5.94	1514.16		1508.22
	Az	Dist		
USF - Farm	31°30'	39'	10.60	03.61
R.C. Farm	358°	27.0'	10.60	03.6
R.C.	0°	20.4'	10.05	04.1
✓	358°45'	17.6'	10.00	04.2
✓	2°45'	12.0	10.05	04.1
✓	10°45'	10.5	9.85	04.3
✓	34°45'	16.4	9.45	04.7
✓	47°45'	14.5	8.80	05.4
✓	57°	15.9'	8.50	05.7
	80°15'	11.3	8.40	05.8
	97°30'	15.4'	8.00	06.2
Corner Farm	107°08'	18.8	5.94	08.2
Ave. Elev.			9.43	04.7

Transferred Book 15 Page 7

11/6/20

11/4/20  
Bryson  
Fisher

# Levels for 16" Drain Pipe

11/4/20

BM.	4.46	1474.76		1470.30
			5.63	1469.13
			6.67	1468.09
			6.78	1467.98
			7.40	1467.36
			4.48	1470.28
			5.90	1468.76
			5.60	1469.36
			7.00	1467.76

El. of

Top Curtain wall extension at 16" pipe loc

Main Top Curt. wall

Sta 3+61.60 (392R) Insp. Gallery floor.

38-350

38-331

38-325

38-317

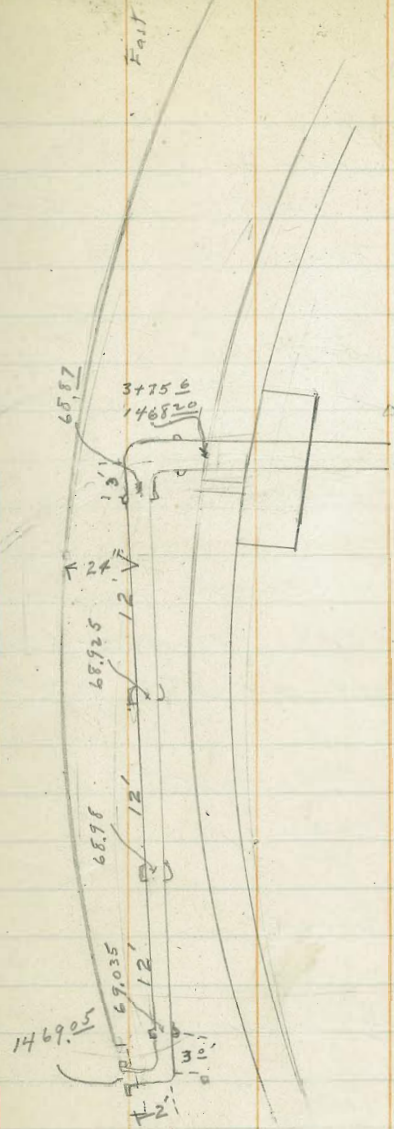
38-331-9' east

54

11/12/20  
Bryson  
Fisher.

A

North



55

11/12/20  
806  
Fisher

Gallery Points

Occupy 46-392 = gallery - 4+54+48

Sight 3+61.60 for 6°-39'

Turn

46-392  
4+54+40

4+41.16

0°-57'

4+26.84

2°-00'

4+12.53

3°-03'

11/20/20

Bryson  
Fisher  
Marter

Occupy 46-392 = gallery = 4+54+48

Sight 4+26.84 for 2°-00'-45'

B-38

5.48

1475.78

1470-30

4+54.90/13.24

0-58

4+41.16/14.31

2°-00'-45"

4+26.84/14.31

3°-03'-30"

4+12.53/14.31

4°-06'-15"

8+98.22

5-09

3+83.91

1475.19 5-40.22

5.17

1470.61

4.58 = 4'-7"

11/16/20  
 But  
 Packer  
 Method.

# 16" pipe Grades.

ATC 36 - Sight C 46 for 7°-10'

Turn -

4.88 72.86 67.98

1°-24'

N.S. Incp Gallery

4.66 68.20

SS " "

4.60 68.26

5.17 73.15 67.98

5.08 68.07

4.94 72.92 67.98

9.60 77.80 68.20 ✓

9.06 68.74 ✓

8.94 68.86 ✓

9.93 68.87

9.87 68.93

8.82 68.98

8.76 69.04 ✓

8.75 69.05

# Concrete Pipe Grades

57

77.80

8.0

Fams.  
51.6

31.6

21.6

15 dp -

9.09 68.71

9.32 68.45 ✓

9.22 68.58

9.17 68.63 ✓

68.1

Deflection

2°-16'-33"

11/17/20  
Bub  
Fisher  
Mixer

Upstream face

At Intersection of West Tangent  
with 50 Line - Sight West  
Tangent for Zero Turn  $2^{\circ}-16'-33''$   
for Intersection - 28 line at 400  
Radius -

At 28-407 Sight Intersection  
Pt on 50 line for Zero Turn  
 $30^{\circ}-34'$  - check C 4+75 by  
0.03

B-48                    10.35 1523.13                    1512.78  
At C 28 Sight C 4+75 - for  
 $13^{\circ}-58'$  - Turn

C29 10'                    0-43'  
C30 20'                    1-26'  
C31 30'                    2-09'  
C32 40'                    2-52'  
C33 46'<sup>15</sup>                    3-19'

At C 28 - Sight C-4+75 for 180°  
Turn

B-48	10.35	1523.13	1512.78
C27 10'	0-43'	4.90	1518.23
C26 20'	1-26'		
C25 30'	2-09'		
C24 40'	2-52'		
C23 50'	3-35'		
C22 60'	4-18'		
C21 70'	5-01'		
80'	5-44'		

2313  
482  

---

1831

11/17/20  
 Sub  
 Fisher  
 Mixer

Nov. Estimate  
 Concrete Sections  
 Top of Curtain Wall

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59

B-48

10.35 1523.13

1512.75

4.65

5.0 18.1

00

5.0 18.1

10

5.8 17.3

22.2

7.2 15.9

22.3

12.4 10.7

3 + 7/10 <sup>15</sup> 400 - Radius

400 R = 00

L 5.2

10.2 12.9

0.0

10.1 13.0

10

9.5 13.6

21.9

9.4 13.7

4.65

4.8 18.3

32

00

5.0 18.1

22.2

9.5 13.6

10

5.3 17.8

0.0

10.0 13.1

20.1

7.2 15.9

5.18

10.3 12.8

20.1

12.4 10.7

22.2

5 + 30

09.8

30

27

4.65

6.0 17.1

4.65

4.9 18.2

0.0

5.9 17.2

0.0

4.8 18.3

10

7.0 16.1

1.8

5.3 17.8

23.4

7.3 15.8

1.2

7.1 16.0

Est. Cft.

13.3 09.8

17.8

7.6 15.5

17.8

12.3 10.8

28

4.65

5.0 18.1

00

5.0 18.1

10

5.2 17.9

23.4

7.2 15.9

12.7 10.4

Transferred Book 13  
 Page 12



11/26

Bub  
Mittler

At C 44 Sight Center for zero.

1481.58

End Firm	46.9	1° 31'	Bot F 8.00	73.6	✓
Fillet R.C.	46.5	357° 45'	Top F 2.8	78.8	✓
			Bot F 7.1	74.5	✓
			Top R. 4.1	77.5	✓

Face Forma	54.2	12° - 30'			✓
Fillet R.C.	54.9	9° - 30'	8.6	73.0 =	Average Top of Fillet

Gallery Grade

B-38		1128	1481.58	1470.30	
392 R.					
3+9822	1482.31		54.9	76.09	

$$\frac{8231}{7609} = 6'-2\frac{3}{4}''$$

Platted 12/6/20

At C 44 Sight Center for zero.

1481.58

Up Stream Face	57.2	94° 35'	9.0	726	✓	Average Top Fillet
End Fill R.C.	50.7	99° 15'				

11/27/20

Sub  
Explos

## Upstream Points

Ht.

B-38	1255	8285	1470.30
+ Form			.45
+ ✓			.42
+ ✓			.31
+ ✓			.36

## A+46-392 Sight Center

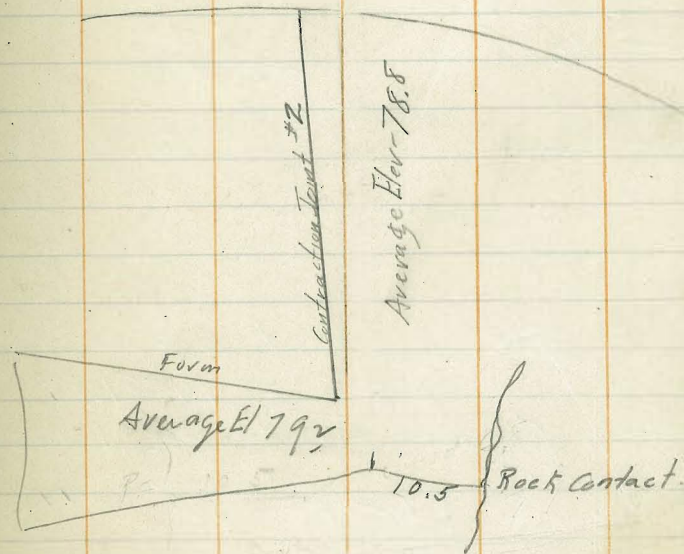
85.96

U.S.F. P.C.	28.5	120-30	7.1	78.9
Cor Form D.S. Center Wall	3.78	36-20	6.9	79.1

## Elev of Lifts

46-	5.7	1508.40	1503.70
#2 Lift		10.1	99.3
#1 lift		20.1	89.3

61

Concrete - for  
Nov - Est

12/5/20

Bub  
Kistner

# Level Section 4 About Gallery Pts Sta.

40-413.52

3.02 85.96

1482.94

~~3+98.22~~

X

3.98 81.98

Tip of  
Elev of Step at Sta 3+98.22

4+14.22 82.218

1.4922  
15 on  
392

4+30.22 82.457

3.50 82.46

85.96

85.96

82.22

3.74

Grade Red. 62

85.96

82.22

3.50

1100 Pin in Conc.

" Nail on Grade & Form = 0.10 54

54 40

24.25

30.15

Elev of Top Step = Sta 3+98.22  
= 1481.98

Figured grade for 1.4922  
on 392 for 32' = 4130.22

grade = 1482.457

12/6/20  
Bob  
Fisher  
Mixer

Upstream Points

40-413 52

2.89 91.83

1482 94

3.74 88.09

dit out

7.69

12/13/20

Bryson  
Franklin  
Mister

Elev Downstream - Section  
Down

2738 = Radius

Top Iron Pk  
Westside Canyon

0.24 62.17

1461.95

7 51 1454.68

1464.68

Radius = 282.46

1707.54

1463.59

2738.80  
2729.76  
9.04

12/14/20  
 Bub  
 Fisher  
 Mixer.

1<sup>st</sup> Lift on Downstream face -

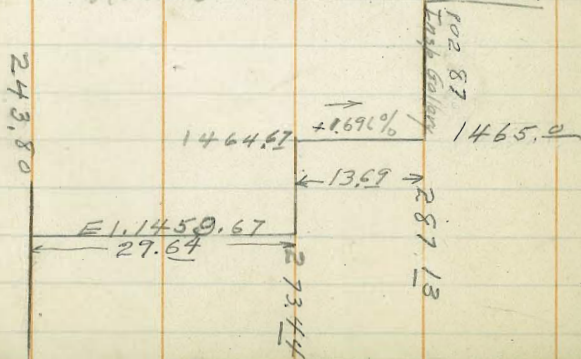
273.44 Radius -

	17"	00 = 34' Pipe	
1	0-06'-28.60 ✓	② 6.836	= 0°-47.97'
		③ 13.67	= 1°-25.94'
2	0-12'-34"	④ 20.51	= 2°-8.91'
		⑤ 27.34	= 2°-51.88'
3	0-18'-51"	⑥ 34.18	= 3°-34.81'
		⑦ 41.04	= 4°-17.83'
4	0-25'-09"	⑧ 47.85	= 5°-0.79'
		⑨ 54.69	= 5°-43.77'
5	0-31'-26."	⑩ 61.54	= 6°-26.73'
10	1-02'-52" ✓		

- Cord -

6.836	= 10' on 400 Radius = 0-43'
13.672	20' " " " = 1-26'

- Radius 286.80 -



Nail in Rock  
 about 10'-west  
 about 24-250

1.46 1466.19 1464.73

Top 1<sup>st</sup> lift at Toe

6.52 59.67

273.44 x 5' = 278.44 10' on 400 = 6.961 on 278.44

1' = 0°-6.1734'

5' = 0°-17.34'

10' = 1°-1.7'

20' = 2°-3.47'

30' = 3°-5.2'

40' = 4°-6.9'

50' = 5°-8.7'

60' = 6°-10.39'

70' = 7°-12.11'

80' = 8°-13.86'

90' = 9°-15.59'

Set Dec 15 1920

Bub  
 Mixer

34-274.14  
 273.44  
 - 0.7

12/16/20

377 Nail in Rock 24-250 156 66.29 1464.73

Top Lift #2 at Bot 1.62 6467

" " " at End Gallery 12.9 1465.00

12/16/20

Bob  
mittler

28713 R

1 = 0° - 59.863'

10' = 0° - 59.863'

20' 1° - 59.726'

20' on 400 R = 14.356 on 28713

(27) 14.36 = 1° - 25.973'

(30) 28.71 = 2° - 51.95'

(29) 43.07 = 4° - 17.92'

Nail in form  $\frac{12.25}{12.23}$  1° - 13.93'

$\frac{11.35}{43.60} = 2° - 21.37'$

BM Nail in Rock 727 72.00

Grade End Gallery  $\frac{7.00}{1465.00}$

1464.73

1474.63

1465.00

42-420<sup>m</sup>

4.58 91.60

1487.02

1282 96.77 7.65 83.95

0.1 96.7

5.8 90.0

287.13 R-

10 0 - 59.863 10-0'

20 1° - 59.724 2°-0'

30 2 - 59.589 3°-0'

40 3° - 59.452 3-59'

50 4 - 59.315 4°-59'

60 5 - 59.178 5-59'

70 6° - 59.041 6°-59'

71, 28 7 09 418 7-10'

Elevations of Coordinates Points  
Reference Points

station	Elev	Station	Elev.
455.79	B Line	450	B Line East Tangent
Tangent 12		54	
Tangent 14		56	1550.34
Tangent 16		58	1559.53
18	1557.81 ✓	60	1568.41
20	1545.11	62	1579.43
22	1534.73	64	1588.64
24	1525.20	66	1603.56
26	1503.85	68	1617.48
28	1488.45	70	1624.03
30	1472.35	74	1650.44
32			
34		Hub with witness about C 7460	1649.50
36		East Tangent	
38	1470.30	325' Line	
40	1473.85	60	1571.25
42	1480.64	62	1582.59
44	1489.94	64	1591.57
46	1502.68	66	1602.58
48	1512.78	68	1612.52
50	1522.67	70	1623.02
52-468''	1532.83	72	1633.50

Elevations of Coordinates Points  
Reference Points

station	Elev.	Station	Elev.
300	Line East Tangent	250	Line
44		44	1513.11
50	1524.46	46	1519.99
52	1536.34	48	1526.25
54	1540.42	out. 50	
56	1551.41		
58	1560.76	60	1568.21
60	1571.50		
275	Line East Tangent		
60	1567.79		
62	1579.68		
64	1588.49		
66	1600.42		
68	1614.82		
70	1622.85		
72	1633.30		
250	Line		
38	1491.47	mid	
40	1496.25		
42	1507.15		



Elevations of Coordinate Points  
Reference Points

station Elev	station Elev.
Miscellaneous	Miscellaneous
0-0	12-426 <sup>32</sup> 1587.32
0-0	12-437 1588.34
2	12-502 <sup>02</sup> 1600.80
2	14
4	14-319 1551.84
4-350 1603.26	14-350 <sup>42</sup> 1556.70
4-455 1615.92	14-417 <sup>92</sup> 1574.98
4-	14-436 <sup>28</sup> 1574.96
6-480 1615.35	14-495 <sup>10</sup> 1588.87
6	14-
6	16-
8	16-309 1539.58 ✓
8-450 1601.85	16-333 <sup>20</sup> 1569.42 ✓
8	16-446 <sup>12</sup> 1567.75 (?)
10	16-490 <sup>02</sup>
10-315 1573.77	18-502 <sup>24</sup>
10-442 1596.55	18-303 <sup>2</sup> 1529.40 ✓
<small>Top of Concrete Joint.</small> 10-447 1597.75	18-488 <sup>2</sup> 1561.08 ✓
10-	18-470 <sup>25</sup>
12	20
12-315 1561.72	20-421 <sup>21</sup> 1541.71 ✓
12-340 <sup>13</sup> 1569.42	20-505 <sup>2</sup> 1549.60 ✓

Elevations of Coordinate Points  
Reference Points

station Elev	station Elev.
Miscellaneous	Miscellaneous
20-	36
22-409 <sup>24</sup>	36
22-497-40 1542.61 ✓	38-
22-	38-229 <sup>54</sup> 1509.45
22-	38-480 <sup>41</sup> 1477.56
BM about 24-432 1525.75	38-
24-505 <sup>2</sup>	40-219 <sup>10</sup> 1513.09
Ref. Pt. <small>Point MARK on Rock</small>	40-413 <sup>53</sup> 1482.94
24-800 <small>For Line -</small>	40-67A Ref. Pt.
24-	40-
26-	40-
26-471 <sup>20</sup> 1510.42	42-217 <sup>4</sup> 1514.56
<small>+ on Mark across Conduit</small>	42-412 <sup>62</sup> 1486.04
26-500 Ref. Pt.	42-420 <sup>12</sup> 1487.02
26-	42-434 <sup>02</sup> 1491.70
28-481 <sup>17</sup> 1503.57	42 <small>about</small> 1586.01
28	42-624 Ref. Pt.
30 431 <sup>23</sup> 1463.57	42-
30-282 <sup>46</sup> 1463.59 <small>cut</small>	44
31-430 1461.29	44-218 <sup>20</sup> 1517.70
32	44-414 <sup>42</sup> 1491.53
34-118 <sup>66</sup>	44-670 1500.82
34-274 <sup>14</sup> 1467.05	Ref. Pt.
34-425 <sup>84</sup>	44
	46-

Elevations of Coordinate Points

Reference Points

station Elev

station Elev.

46-338<sup>o</sup> 1481.42

46-414<sup>o</sup> 7

46-432<sup>o</sup> 22

48-

48

48-416<sup>o</sup> 5

Elevation of Coordinate Points

Reference Points

Station Elev

Station Elev.

List of B.M's.

Harris B.M. Iron Pin Set in Boulder  
U.S.G.S. (D) 40' South of Conveyer #2 - Barrett Dam 1626.33

Nail in Stump 10-340 1579.55

Nail in Stump 12-330 1570.88

Nail - 10-446.58 End of Steel Pipe  
Concrete Sewer Pipe 1597.75

Nail in Stump about - 16-468 1573.90

Nail in Stump about 17-410 1550.96

on top of Rock Near Concrete Tower #1 1546.24

Nail in Rock. about 24-432 1525.75

Nail in Stump near B-30 1471.73

Nail in Stump 11 1/2' E. of 52-468 1537.72

Hub about C-7+60 with witness 1649.80

Nail in Rock - West cable way 30' North 1764.33

T.R.B.M. West end "P" Line above Road - 1751.67

Top of Rock 5' S.E. of Sump 1452.98

T.R. Rock 44-385 1474.44

Top of Rock 7' East of 34-329 1472.82

Nail near 74-750 1464.73

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1% to 1%. If ground is nearly level, the cut or fill at side stake is located by the double entry method in the column and top row. The number in bold type in same row and column gives distance to cut or fill and distance in table. Set up rod and level. Add this amount to cut or fill and find distance in table. Set up rod and level. If it does not make the slight adjustment necessary.

IMPROVED TABLES AND INFORMATION

TABLE No. 2.

R/1718.87 ✓

any other... add connection found in column of corrections. Degree of curve with a given... may be found by dividing tangent (or external) - opposite 1 by given tangent (or external). The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius. Dept. = Minutes for 10' of arc.

2.20

$$\begin{array}{r} 44 \\ 55 \\ \hline 145 \\ 2 \\ \hline 8x \\ 17 \end{array}$$

2/165

$$\begin{array}{r} 30 \\ 10 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 460 \\ 340 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 10 \\ 20 \\ 30 \\ 40 \\ 50 \\ 60 \\ 70 \\ 80 \\ 90 \end{array}$$

3.6

$$\begin{array}{r} 43 \\ -28 \\ \hline 71 \end{array}$$

34

$$\begin{array}{r} 145 \\ -385 \\ \hline \end{array}$$

14  
5

82  
18

See page 47

Δ 6 Elev.