

W. H. M.

5  
19.32  
3.5.68

Property of City of S. D.

443

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JAN 12 1965

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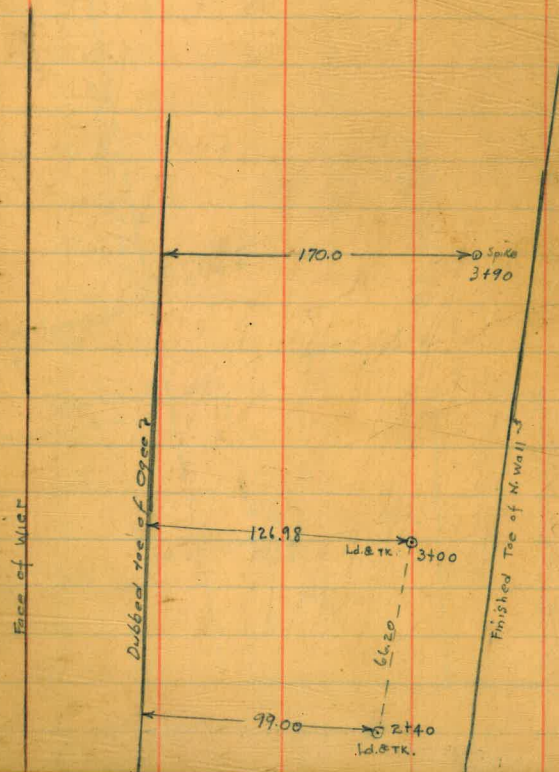
Spillway Construction.	1-7, 8, 11 Page
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Form Points on Ogce	2
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Final x Sec Hy Fill	8-10
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Check on B.M. on Emb.	75-78.

MICROFILMED

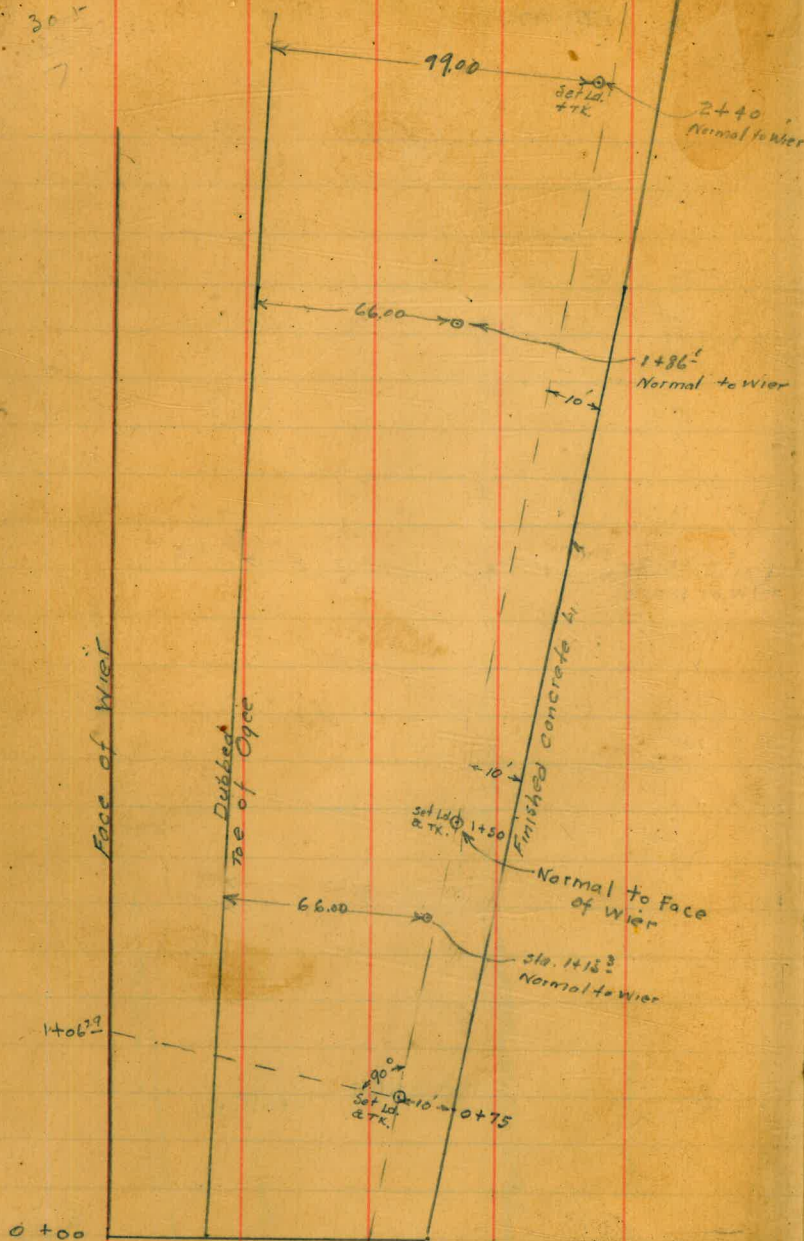
JAN 1 1962

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Permanent Working Points Set in  
Concrete Floor

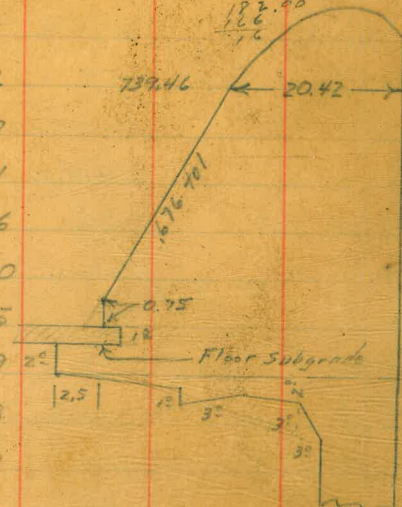


# INDEX



Elevs. + Dists on O.G.  
Divergence = 0.0183 ±

Sta	Elev.	Dist.
0+00	733.75	24.28
+24	733.09	24.72
148	732.43	25.17
+72	731.78	25.61
0+96	731.12	26.06
1+20	730.46	26.50
+44	729.80	26.95
+68	729.15	27.39
1+92	728.49	27.83
2+16	727.83	28.28
+40	727.17	28.72
+64	726.52	29.17
2+88	725.86	29.61
3+12	725.20	30.05
+36	724.54	30.50
+60	723.89	30.95
3+84	723.23	31.39
4+08	722.57	31.83
+32	721.91	32.28
+56	721.26	32.72
780	720.60	33.17
4+95	720.19	33.44
5+10	719.78	33.72
5+13		



32.28  
30.50  
17.8  
182.10  
17.78  
152.22  
29.78  
182.00  
166.76

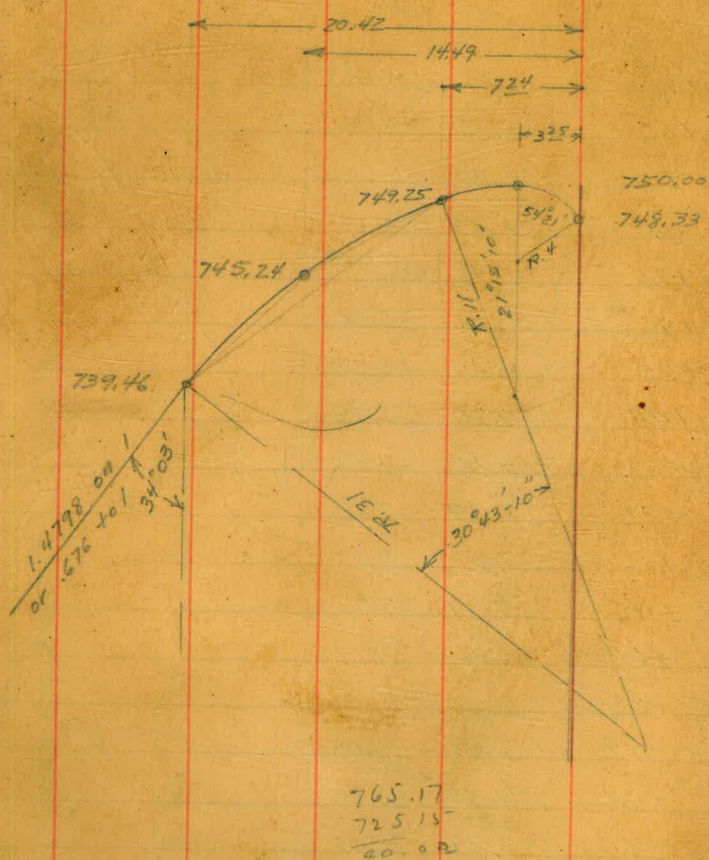
3+95.70  
32.31  
278.00  
26.00  
512  
476.00  
5066  
23  
504.2

3372  
1742

B.V.C.

= 38.27 for 2° offset from  
O.G. subgrade

Points for Ogce forms



765.17  
725.15  
40.02

Floor Subgrades

2

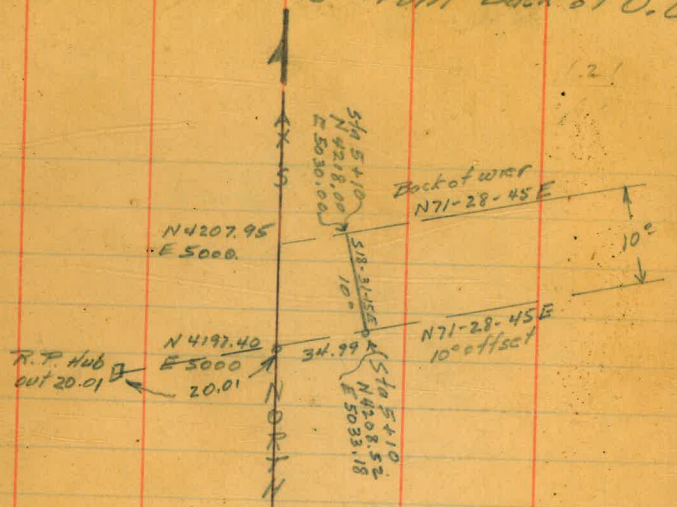
0-00 <sup>00</sup>	732.00	5+20	717.01
0+25	731.31	+30	16.20
+50	730.63	+40	15.25
+75	729.94	+50	14.15
1+00	729.26	+60	12.91
+25	728.57	+70	11.53
+50	727.89	+80	09.99
+75	727.20	+90	08.53
2+00	726.52	6+00	06.51
+25	725.83	+10	704.56
+50	725.15	+20	02.45
+75	724.46	+30	700.21
3+00	723.78	+40	697.82
+25	723.09	+50	95.23
+50	722.41	+60	72.61
+75	721.72	+70	89.79
4+00	721.04	+80	86.83
+25	720.35	6+87 <sup>29</sup>	EVG. 684.57
+50	719.67	7+00	680.58
+75	718.98	7+10	677.44
187 <sup>29</sup>	718.65 B.V.C.	7+20	674.29
+90	718.58	7+30	671.15
5+00	718.20	7+40	668.01
5+10	717.68	End R+C Contract	

Grade = 0.0273964

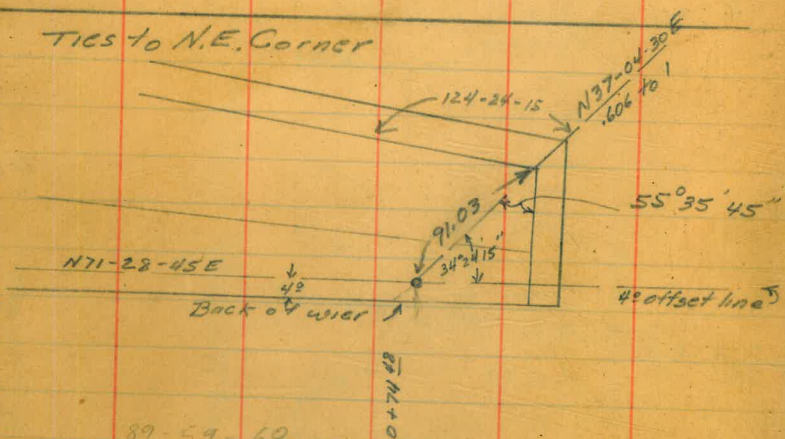
31.42%



Ties to Axis from Back of O.G.



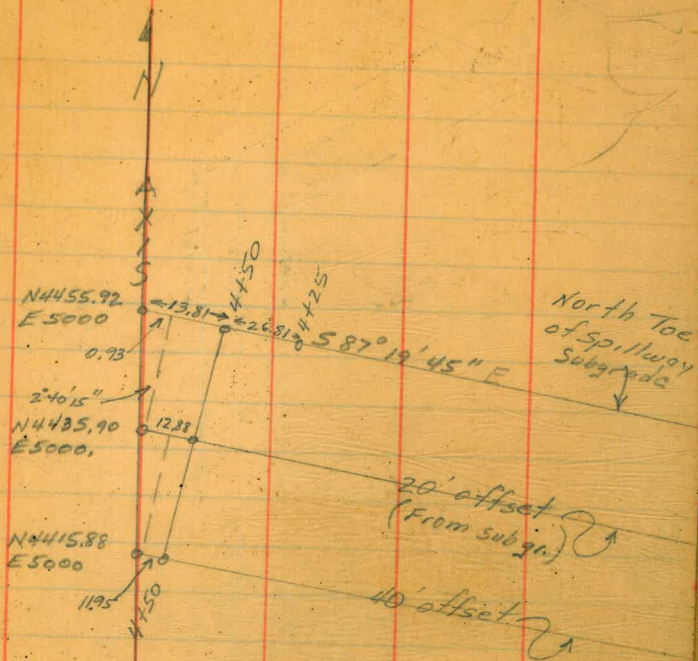
TIES to N.E. Corner



89-59-60  
34-24-15  
55-35-45

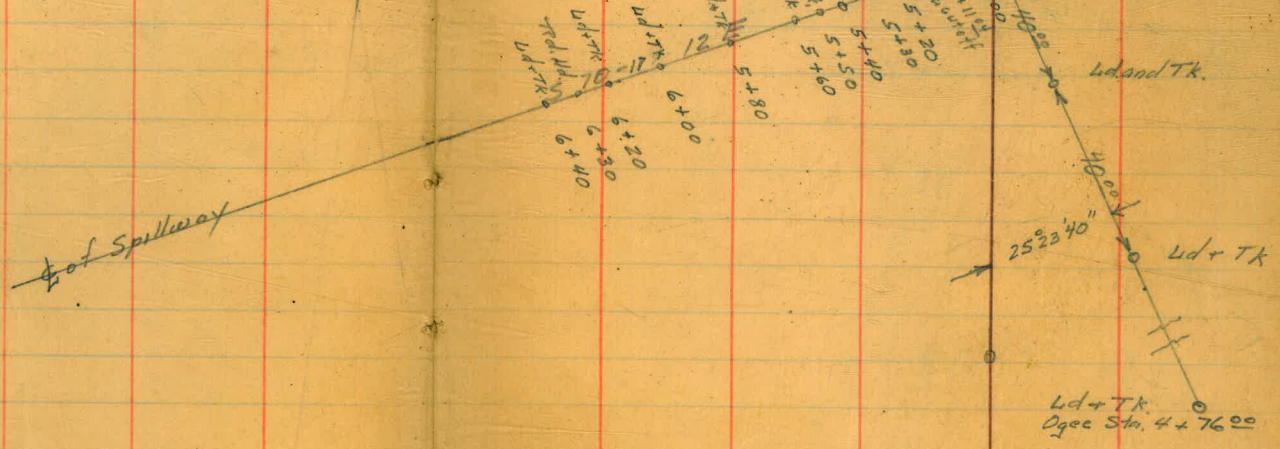
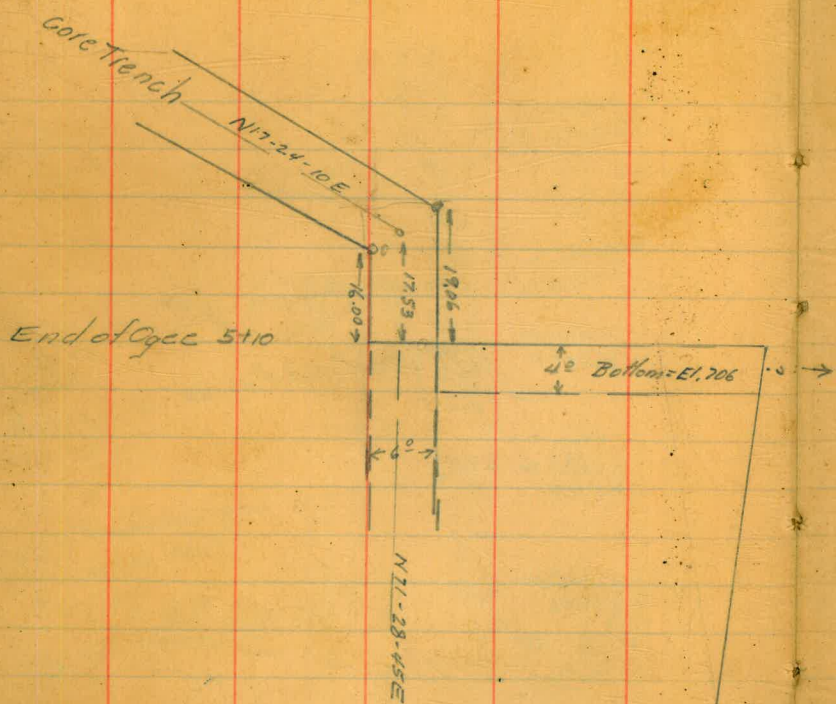
Ties to Axis on N. line

4

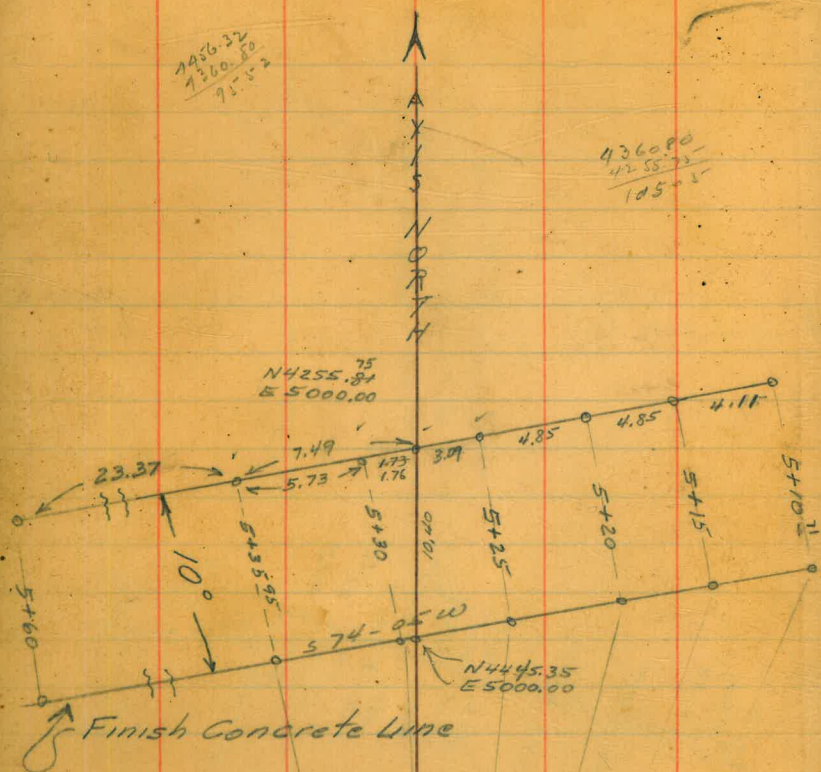


20' offset  
(From subgr.)  
10' offset





R.P.s to So. line 5+10 to 5+60  
Dec 5-1933



2456.32  
7300.50  
915.18

436080  
4255.73  
185.07

4255.92  
4255.73  
18.19

Points on N. end of Core Wall

Grout holes to be drilled at these Sta

0+05 W ✓ 0+20 E 0+35 W

0+10 E ✓ 0+25 W 0+40 E

0+15 W ✓ 0+30 E

Steel to be placed at these stations

0+04 E ✓

0+12 E ✓ Set

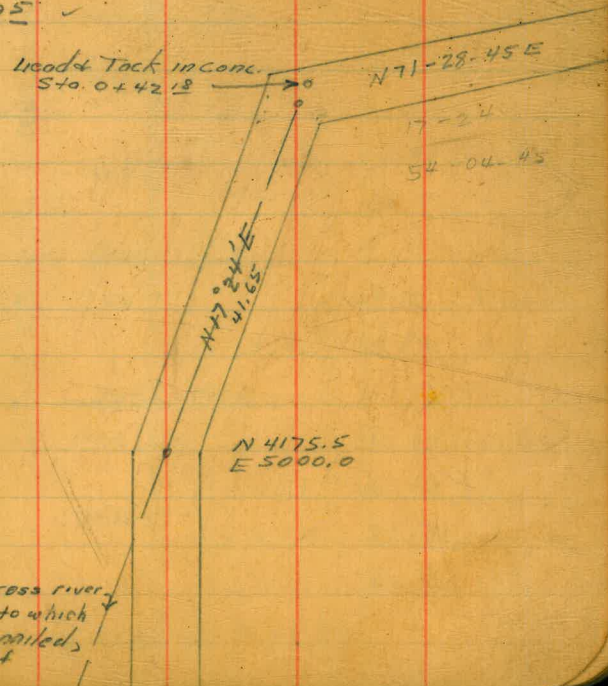
0+20 E ✓

0+27 E ✓

0+33 E ✓

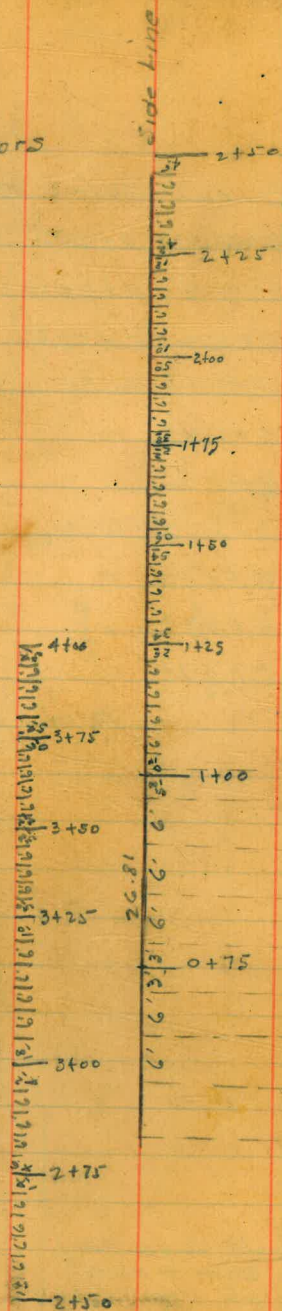
0+39 E ✓

Wood & Tack in core.  
Sta. 0+42.18



To sight across river,  
Post on flume to which  
telephone pole is nailed,  
about center of  
traverse

Location Side Wall Anchors



Location Weep Holes in North Side Wall

Stations Normal to Wier

Sept. 24-1934

B.M.	Station	Distance	Reading
		755.29	749.89
	0+72 <sup>3</sup> weep hole	6.58	748.71 ✓
	0+62 <sup>2</sup>	6.40	748.89 ✓
	0+53 <sup>6</sup>	6.21	749.08 ✓
	0+42 <sup>3</sup>	6.03	749.26 ✓
	+90 <sup>2</sup>	6.95	48.34 ✓
	1+00 <sup>2</sup>	7.14	48.15 ✓
	+37 <sup>5</sup>	7.88	47.41 ✓
	+46 <sup>2</sup>	8.07	47.22 ✓

Sept. 25-1934

B.M.	Station	Distance	Reading
		755.59	749.89
	1+74 <sup>2</sup>	8.92	46.67 ✓
	+84 <sup>2</sup>	9.11	46.48 ✓
	+93 <sup>5</sup>	9.29	46.30 ✓

Oct. 1-1934

B.M.	Station	Distance	Reading
		754.97	749.89
	0+81 <sup>6</sup>	6.45	748.52

Oct. 2-1934

B.M.	Station	Distance	Reading
		746.44	733.59
	2+30 <sup>8</sup>	0.88	745.56
	2+21 <sup>4</sup>	0.70	45.74
	+12 <sup>2</sup>	0.51	45.93

continued on Page 17

7  
 1+00<sup>2</sup> 748.89  
 +09<sup>2</sup>  
 +18<sup>2</sup>  
 +28<sup>2</sup>  
 +37<sup>5</sup>  
 1+46<sup>2</sup>  
 +56<sup>2</sup>  
 +65<sup>5</sup>  
 +74<sup>8</sup>  
 +84<sup>2</sup>  
 +93<sup>5</sup> = 748.89  
 2+00<sup>2</sup>  
 +12<sup>1</sup>  
 +21<sup>1</sup>  
 +30<sup>1</sup>  
 +40<sup>1</sup>  
 +50<sup>2</sup>  
 +60<sup>1</sup> ✓  
 +70<sup>2</sup>  
 +80<sup>1</sup> ✓  
 +90<sup>2</sup>  
 +96<sup>2</sup> = 744.49

Final X Sections of Hyd. Fill  
At Time of Change From Hyd. Fill  
To Rolled Embankment.

August - 15 - 1934

Downstream Beach

Core Wall Staff 725.8

Use section at N3950  
To North abutment

N3950

E 4954 7.8 718.0 ✓  
4920 6.2 19.6 ✓

N3900

E 4956 7.9 717.9 ✓  
20 5.8 720.0 ✓  
4911 5.4 720.4 ✓

N3800

4970 7.8 718.0 ✓  
20 4.7 721.1 ✓  
4913 4.9 720.9 ✓

N3700

4974 8.0 717.8 ✓  
4920 4.9 720.9 ✓

N3600

4973 7.7 718.1 ✓  
30 6.0 719.8 ✓  
4920 6.0 719.8 ✓

converse  
Simpson  
Soper  
Isabelle

8

725.8

N3500

4970 7.6 718.2 ✓  
4920 6.2 719.6 ✓

N3400

4960 7.9 717.9 ✓  
25 5.6 720.2 ✓  
4912 5.5 720.3 ✓

N3300

4965 8.0 717.8 ✓  
32 5.3 720.5 ✓  
4913 5.1 720.7 ✓

N3200

4963 8.1 717.7 ✓  
25 5.0 720.8 ✓  
4912 4.6 721.2 ✓

N3160

4960 8.0 717.8 ✓  
20 5.3 720.5 ✓  
4912 4.7 721.1 ✓

## Final XSections of Hyd. Fill Contd.

Aug. -15-1934

Downstream Beach

	725.8	N 3130	
4955	8.0	717.8 ✓	
4912	6.5	719.3 ✓	

Use this section to South abutment.

Upstream Beach

Water Surface	7.1	724.8	717.7 ✓
---------------	-----	-------	---------

Use this section to So. abutment, N 3100

5040	6.7	718.1 ✓
5080	5.3	719.5 ✓

## N 3130

5042	6.5	718.3 ✓
5080	5.1	719.7 ✓

## N 3160

5045	6.6	718.2 ✓
5080	5.1	719.7 ✓

724.8

		N 3200	
5045	6.4	718.4 ✓	
5080	4.9	719.9 ✓	

		N 3300	
5040	6.6	718.2 ✓	
5080	5.1	719.7 ✓	

		N 3400	
5036	6.1	718.7 ✓	
5080	4.4	720.4 ✓	

		N 3500	
5030	6.4	718.4 ✓	
5080	4.5	720.3 ✓	

		N 3600	
5030	6.5	718.3 ✓	
80	4.7	720.1 ✓	

		N 3700	
5032	6.3	718.5 ✓	
5080	3.4	721.4 ✓	

		N 3800	
5038	6.2	718.6 ✓	
5080	4.0	720.8 ✓	

Final x Sections of Hyd. Fill Cont'd.  
upstream Beach

724.8

N 3900

5032	6.5	718.3	✓
5080	3.4	721.4	✓

N 3950

5030	6.4	718.4	✓
5080	3.6	721.2	✓

N 4000

5030	6.7	718.1	✓
5080	3.8	721.0	✓

N 4080

5030	7.3	717.5	✓
5080	4.7	720.1	✓

Use this Section to North abutment

Top of Wall Points

10.

Oct. 8, 1934.

Top of wall Pt.				
2+75	7.52	772.20	764.68	
3+15	Top of wall		8.29 763.91	3 <sup>20</sup> out From Finish Grade.
Set B.M.			6.83 765.37	Spike in Bank Sta. 3+12 <sup>1</sup> 1 <sup>5</sup> above Top of wall.

Oct. 11 - 1934

B.M.	5.53	770.90	765.37	
3+50			7.66 763.24	2 <sup>67</sup> out From Finish Grade

East End Spillway 'Whindig'

Aug. -18-1934

B.M.	1.69	751.58	749.89	
At Face of Wier				Subgrade
Toe of Cone	4.05	547.53	743.53	C-4°
8' So. of Face of Wier at toe of cone	5.48	746.10	742.73	C-3½
25' So. of Face of Wier at toe of cone	5.48	746.10	740.98	C-5'
25' So. of Face of Wier Slope Stake on East wall	1.63	749.95	742.45	C-7½ out 3½

Aug. 20-1934

B.M.	11.47	761.36	749.89
T.P.		0.31	761.05
	12.80	773.85	

Oct. 15-1934

B.M.	12.59	782.13	769.54
4+40		12.33	769.80 <sup>719.94</sup> cut 49° out 24½
T.P.	11.98	790.65	3.46 778.67
5+00		2.05	788.60 <sup>719.20</sup> out 34° - 1½ right

Oct. 17-1934

B.M.	10.24	760.13	749.89	759.88
B.M.	10.45	760.34	749.89	
75' So. of Face of Wier		0.0	760.34	on Subgrade
T.P.	12.93	771.25	2.02	758.32
East side of 10' straight section at top of Wall		2.10	769.15	

Vertical cuts to Bottom of Footing  
Along North Wall of Spillway

Aug. -25-1934

B.M.	3.66	737.25	733.59	on 09 <sup>00</sup> 56.0755
0+75		6.31	730.94	C-2° Vertical
1+00		6.99	730.26	
+25		7.68	729.57	

Aug. 31-1934

B.M.	1.93	735.52	733.59	
0+75		4.58	730.94	C-2° Vertical
0+77 <sup>54</sup>		4.65	730.87	Finish Grade

Sept. 1-1934

Finish Floor Grades

B.M.	1.00	734.59	733.59	
1+00		4.33	730.26	Finish Grade

Sept. 6-1934

B.M.	0.23	733.82	733.59	
1+25		4.25	729.57	
+50		4.93	728.89	
1+00		3.56	730.26	

Sept. 18-1934

B.M.	0.77	734.36	733.59	
2+25		7.53	726.83	Cut 2°

Simpson  
Super  
Isabelle

12

Sept. 18-1934

B.M.	0.93	734.52	733.59	
------	------	--------	--------	--

2+25		7.69	726.83	Vertical cut 2°
------	--	------	--------	--------------------

Sept. 19-1934

B.M.	12.87	746.46	733.59	
------	-------	--------	--------	--

1+60	Slope Stake	4.77	741.69	727.62 C-14° out 7°
------	-------------	------	--------	------------------------

Sept. 20-1934

B.M.	1.64	735.23	733.59	Drill steel Set in Conc. floor of Sta. 2+15'
Set B.M.		8.24	726.99	
2+50		9.08	726.15	vertical cut 2°

B.M.	12.97	746.56	733.59	
------	-------	--------	--------	--

2+00	Slope Stake	4.04	742.52	726.52 C-16° out 8°
------	-------------	------	--------	------------------------

check on 1+60	Slope Stake	4.88	741.68	Elev. 741.69
------------------	-------------	------	--------	-----------------



Cross Sections of Spillway Floor.

See Book 451.

B.M.	4.28	737.87	733.59
		0+60	
Dist. out from toe of AC			
15		7.6	
30		7.4	
48		7.6	
		0+75	
4		8.2	
25		8.1	
40		8.0	
52		8.0	
		0+85	
4		8.3	
15		8.5	
27		8.3	
40		8.4	
47		8.6	
56		8.1	
		0+95	
60		8.5	
40		8.9	
30		8.6	
13		8.5	
5		8.9	

Copied to Book 451.

Cut Stakes Around Bottom of Cone 13  
at East End of Spillway.

Sept. 29 - 1934

B.M.	5.38	755.27	749.89
Face of wier cone Subgrade		7.80	747.47 cut 4°
8' South of Face of wier, on curve		10.72	744.55 Subgrade 742.73 - c-1 <sup>2</sup>
14' South of Face of wier, on curve		11.22	744.05 742.13 - c-1 <sup>2</sup>
20' South of Face of wier on curve		11.42	743.85 741.53 - c-2 <sup>3</sup>
24' South of Face of wier on curve		11.88	743.39 741.13 - c-2 <sup>3</sup>
East end of cone at Bottom (35 <sup>th</sup> )		12.46	742.81 740.98 - c-1 <sup>2</sup>
Slope Stake on East wall to East edge of 10' Flat Section	9.02	746.25	742.95 - c-3 <sup>3</sup> out 11°

Oct. 1 - 1934

B.M.	3.27	730.26	726.99
<del>2+75</del>		<del>4.80</del>	<del>725.46</del>
3+00		5.48	724.78 vertical cut 2°
2+80		4.94	"
2+50		4.11	"

Oct. 2 - 1934

B.M.	3.02	730.01	726.99
2+60		4.13	725.88
2+50		3.86	726.15 vertical cut 2°
2+80		4.69	725.32
B.M.	4.73	731.72	726.99
2+80		6.40	725.32

## Slope stakes - No. Wall

Sept. 5-1934

Simpson  
Soper  
Isbell

14

B.M. 2.31 735.90 733.59

1+50 +0.4 736.3 727.89

+75 5.3 730.6 727.20

2+00 3.28 732.62 726.52

2+50 2.55 733.35 725.15

~~+75 724.46~~

T.P. 5.44 730.46

9.35 739.81

2+75 3.35 736.46 724.46

3+00 6.63 733.18 723.78

~~3+25 722.09~~Sept. 21-1934

B.M. 9.60 736.59 726.99

3+25 6.30 730.29 723.09

3+50 8.78 727.81 722.41

3+75 +8.60 745.19 721.72

4+00 +7.10 743.69 721.09

+25 Found old slope stake

+50 719.67

cut 8<sup>4</sup> out 4<sup>2</sup>cut 3<sup>4</sup> out 1<sup>2</sup>cut 6<sup>4</sup> out 3<sup>00</sup>cut 8<sup>2</sup> out 4<sup>1</sup>cut 12<sup>0</sup> out 6<sup>0</sup>cut 9<sup>4</sup> out 4<sup>2</sup>cut 7<sup>20</sup> out 3<sup>60</sup>cut 5<sup>40</sup> out 2<sup>70</sup>cut 23<sup>5</sup> out 11<sup>75</sup> check on old slope stake.cut 22<sup>6</sup> out 11<sup>3</sup> Reset old slope stake

Finish Floor Grades

Sept. 7-1934

B.M. 1.43 735.02 733.59

1+50 6.13 728.89

+75 6.82 728.20

Sept. 8, 1934

B.M. 1.54 735.13 733.59

1+60 6.51 728.62 Vertical cut 2"

1+75 6.93 728.20 "

1+60 6.51 728.62

1+80 7.07 728.06

1+25 5.56 729.57

Sept. 11, 1934

Osborne

B.M. 2.19 731.40 733.59

2+00 3.88 727.52

2+15 4.28 727.12

Sept. 12-1934

B.M. 0.69 734.28 733.59

2+15 7.17 727.11

~~1+95 6.62 727.66~~

Jimpson  
Soper  
Isabelle

15

B.M. 0.81 734.40 733.59

2+40 7.98 726.42

Sept. 26-1934

Cut stakes around Bottom of Cone at East end of Spillway

B.M. 1.02 750.91 749.89

East end of Cone at Bottom 7.13 743.78 Subgrade 740.98 = C-2<sup>8</sup>

24" south of Face of Weir 7.30 43.61 741.13 = C-2<sup>5</sup>

20" south of Face of Weir 7.70 43.21 741.53 = C-1<sup>7</sup>

14" south of Face of Weir 7.02 43.89 742.13 = C-1<sup>8</sup>

8" south of Face of Weir 6.71 44.20 742.73 = C-1<sup>5</sup>

B.M. 0.52 750.41 749.89

40' South of Bottom of Cone 5.76 744.65 739.45 = C-6<sup>3</sup> / 3<sup>1</sup>

65' " " " " " 11.56 732.25 735.95 = C-2<sup>7</sup> / 2<sup>5</sup>

Sept. 27-1934

B.M. 10.68 760.57 749.89

Subgrade 11<sup>30</sup> from Top of wall 2.83 757.74 Subgrade at Bottom 740.98

Sept. 27-1934

B.M.	4.66	731.65	726.99	
2+50		5.50	726.15	Vertical cut 2 <sup>00</sup>
2+25		4.82	726.83	check.

Oct. 3-1934

B.M.	3.14	730.13	726.99	
3+00		5.35	724.78	
2+80		4.81	725.32	
B.M.	2.42	729.41	726.99	
2+70		3.81	725.60	
3+25		5.32	724.09	
3+20		5.18	724.23	

Oct. 6-1934

B.M.	4.41	731.40	726.99	
3+50 vertical cut.		7.99	723.41	c-2 <sup>00</sup>
4+00 slope stake		1.02	731.6	721.04 c-16 <sup>5</sup> / <sub>5</sub> <sup>2</sup>

Oct. 8-1934

B.M.	1.14	728.13	726.99	721.72
3+75 slope stake		0.81	727.32	c-5 <sup>00</sup> out 2 <sup>00</sup>
4+00 slope stake		3.09	725.04	721.04 Cut 4 <sup>00</sup> out 2 <sup>00</sup>

Oct. 10-1934

B.M.	12.18	739.17	726.99	722.91
3+50 slope stake		0.14	739.03	0.58 Back of subgrade.

Cont'd. on Page 17.

Oct. 9-1934.

B.M.	11.80	738.79	726.99	719.09
4+71 <sup>21</sup> slope stake		+10.9	749.7	cut 30 <sup>00</sup> out 15 <sup>00</sup>
4+87 <sup>29</sup>		5.7	33.1	718.63 - cut 14 <sup>00</sup> 7 <sup>00</sup> tight
5+00		6.3	32.5	718.20 cut 14 <sup>00</sup> 7 <sup>00</sup> tight
5+13 <sup>85</sup>		8.6	30.2	717.4 cut 12 <sup>00</sup> 6 <sup>00</sup> tight
5+30		9.1	29.7	716.7 cut 13 <sup>00</sup> 6 <sup>00</sup> tight
+40		11.8	27.0	715.2 cut 11 <sup>00</sup> 5 <sup>00</sup> tight
+50		13.2	25.6	714.2 cut 11 <sup>00</sup> 5 <sup>00</sup> tight
+58 <sup>70</sup> slope stake		8.9	29.9	713.08 cut 16 <sup>00</sup> out 8 <sup>00</sup>
+80		12.5	26.3	710.0 c-16 <sup>00</sup> out 8 <sup>00</sup>
6+00		12.0	26.8	706.5 cut 20 <sup>00</sup> out 10 <sup>00</sup>
T.P.	1.54	728.33	12.00	726.79
6+20		0.68	727.65	702.45 cut 25 <sup>00</sup> out 12 <sup>00</sup>
+40		5.31	723.02	697.82 cut 25 <sup>00</sup> out 12 <sup>00</sup>
+60		6.02	722.31	692.61 cut 29 <sup>00</sup> out 14 <sup>00</sup>

B.M.	1.31	728.30	726.99	
3+75		5.58	722.72	Vertical cut 2 <sup>00</sup>
3+50		4.89	723.41	
4+00		4.22	724.08	721.04 cut 5 <sup>00</sup> out 15 <sup>00</sup>
4+25		5.84	722.46	720.35 cut 2 <sup>00</sup> out 11 <sup>00</sup>
4+50				719.67

Location of Weep Holes in North Wall  
Stationing Normal to Wier

Oct. 10-1934.

B.M.	11.74	745.33	733.59
2+68 <sup>1</sup>		0.52	744.81
+77 <sup>4</sup>		0.71	44.62

Oct. 11-1934.

B.M.	11.73	745.32	733.59
2+96		1.06	744.26
3+05 <sup>4</sup>		1.25	744.07
3+14 <sup>7</sup>		1.44	743.88

Nov. 6-1934.

B.M.	12.05	745.64	733.59
4+07 <sup>1</sup>		3.60	742.04
+17 <sup>3</sup>		3.78	741.86
+26 <sup>6</sup>		3.97	41.67
+35 <sup>9</sup>		4.16	41.48

B.M.	5.40	755.29	749.89
0+35 <sup>5</sup>		5.85	749.44

B.M.	5.44	755.33	749.89
0+25 <sup>6</sup>		5.70	749.63

B.M.	5.36	755.25	749.89
0+16		5.93	749.82

B.M.	11.98	745.57	733.59
4+54 <sup>6</sup>		4.46	741.11

4+73 <sup>2</sup>		4.83	740.74
+82 <sup>5</sup>		5.01	740.56
+91 <sup>8</sup>		5.20	740.37

See Page 21

Finish Floor Grades And Vertical Cuts.

183  
555

280  
112  
1.68  
17.

Oct. 11-1934

B.M.	4.28	731.27	726.99
4+00		9.23	722.04
+25		9.92	721.35
3+75		8.55	722.72

B.M.	5.25	770.62	765.37
4+00		1.7	768.9
B.M.	6.15	771.52	765.37
3+75		9.7	761.8

Oct. 19-1934

B.M.	7.36	703.72	696.36
6+25		1.36	702.36
6+40		4.90	698.82
6+60		5.31	698.41

T.P.	12.13	719.49	702.36
T.P.	7.14	720.42	1.21
6+25		2.62	717.80

Oct. 22-1934

B.M.	7.24	703.60	696.36
6+60		9.99	693.61
6+40		4.78	698.82
6+20	T.P.	0.15	703.45

7.05	710.50	2.99	707.51
6+00		+0.49	710.99
5+80			

Contd. on  
Page 18

Oct 26 - 1933

Elev 4+80 offset			717.82	
	6.93	724.75		
			+ 9.73	734.48
B.M.	4.88	725.82		<del>720.94</del>
4+95		6.69	719.13	<sup>719.40</sup> 718.39 COT
5+10		6.14	719.68	717.68 C. 20
T.P.	5.75	721.22	10.35	715.47
4+95		-2.78	<sup>718.49</sup> 718.41	on back wall
5+10		+3.54	717.68	" " "
Core trench		+1.00	722.2	706.0 C162

Oct 27 - 1933

B.M.	4.44	725.38		720.94
			10.7	714.7 706.00 C <sup>82</sup>
B.M.	7.83	728.77		720.94
3+50			5.36	723.41 Conc. Gr.
Set B.M.			4.61	724.16
	5.48	729.64		
2+00			2.12	727.52 Conc. Gr.

18

Oct 27 - 1933  
Slope Stakes

B.M.	12.01	770.35		758.34
			0.44	769.91
	4.75	774.66		
Set B.M.			0.64	774.02
5+36 <sup>95</sup>			14.3	760.4 715.7 C44.7 22.4
5+40			4.9	769.8 715.3 C54.5 27.3

Oct 28

B.M.	2.71	752.58		749.87
			19.72	732.86
	2.86	735.72		
			+ 3.74	739.46
	1.94	734.80		732.86
			+ 10.44	745.24 for grade
			+ 4.44	739.24 745.24 F. 6°

Oct - 23 - 1934

B.M.	12.84	709.20		696.36
T.P.	11.14	719.41	0.93	708.27
T.P.	8.74	726.54	1.61	717.80
Set B.M.			2.34	724.20 on Large Boulder top of slope Sta. 7+15'
6+40	Top of wall		1.81	724.73 13 <sup>40</sup> out
+60	" " "		9.28	717.26 12 <sup>33</sup> out

cont'd. on Page 20

Oct 28 - 1933

B.M.	3.88	724.82		720.94		
5+35 <sup>95</sup>			+0.5	725.3	715.6	<sup>C92</sup> 48
5+30			+1.8	726.6	716.2	<sup>C108</sup> 42
			-			1.4 tight 0.515 to 1 slope
5+25			+1.7	726.5	716.6	<sup>C97</sup> 42
						1 1/2 tight 0.541 to 1.5 slope
5+20			+0.6	725.4	717.0	<sup>C84</sup> 42
						0.2 tight 0.5827 to 1 slope
5+15			+1.1	725.9	717.4	<sup>C85</sup> 54
						0.6334 to 1

Oct 30

B.M.	2.64	752.51		749.87	
T.P.			11.19	741.32	
1	+2.14	743.46			
			+ 5.79	749.25	
	+ 1.32	742.64		741.32	
			+ 7.36	750.00	

Nov 3 - 1933

B.M.	11.55	735.67		724.12		
			0.0	735.67		
	6.43	742.10				
5+20			4.9	737.2	712.0	<sup>C20<sup>2</sup></sup> 11.8
5+25			3.8	738.13	716.6	<sup>C21.2</sup> 11.7
5+30			5.4	736.7	716.2	<sup>C20<sup>5</sup></sup> 10.5
5+35 <sup>95</sup>			7.7	734.4	715.5	<sup>C18.8</sup> 9.4

Finish Floor Grades  
with cut of 0.50

B.M.	7.91	728.85	720.94
		4.70	724.15
	8.02	732.17	Subgr.
1+00		1.41	729.76
+25		2.10	729.07
+50		2.78	728.39
+75		3.47	727.70
2+00		4.15	727.02
+25		4.84	726.33
+50		5.52	725.65
+75		6.21	724.96
3+00		6.89	724.28
+25		7.58	723.59
+50		8.26	722.91

Finish Floor Grades

Oct. 24-1934.

20

71907

Q. Plug			
Sta. 6+20 B.M.	11.50	715.03	703.53
6+00		7.52	707.51
5+80		4.04	710.99
5+60		1.12	713.91
B.M.	12.52	716.05	703.53
T.P.	10.99	723.59	3.45 712.60
5+40		7.34	716.25
5+20		5.58	718.01
5+60		9.68	713.91

Oct. 25-1934.

B.M.	12.36	715.89	703.53
5+60		1.98	713.91
T.P.		0.59	715.30
	5.51	720.81	
5+40		4.56	716.25



Slope Stakes Nov. 30 - 1933

B.M. 10.27 706.63 696.36

8+15 2.5 704.1 644.4

8+00 3.3 703.3 649.2

7+75 2.6 704.0 652.0

T.P. 0.29 706.34

4.40 710.74

7+50 6.3 704.4 664.9

T.P. 0.21 710.53

B.M. 0.53 774.55 774.02

7+00 26.3 748.3 680.6

C 597  
298

C 541  
271

C 475  
235

(offset 30°  
C. 56°)

C 395  
198

C 671  
336

Weep Holes - Nov. 22 - 1934

B.M. 11.97 745.56 733.59

5+01 5.38 740.18

5+10 5.56 740.00

Slope = 1°34'

22

Finish Gr.

Nov 2

B.M.	8.63	732.78	724.15
1+25		3.22	729.57
2+50		6.63	726.15
B.M.	4.48	728.63	724.15
3+75		5.91	722.72
3+50	Check	4.72	6" above 723.91
3+75		5.41	6" above 723.22
2+50		1.98	6" above 726.65
2+50		2.48	726.15

Nov 3

B.M.	4.15	728.30	724.15
3+00		-3.02	6" above 725.28
3+00		3.52	724.78
3+75		5.08	6" above 723.22
3+75		5.58	722.72
B.M.	3.82 1/2	727.97 1/2	724.15
Set B.M.		3.85 1/2	724.12

B.M.	3.00	727.12	724.12	6" above Grade
4+00		4.58	722.54	
4+50		5.95	721.17	
4+75		6.64	720.48	

Floor Grades  
Nov. 4, 1933.

B.M.	4.26	728.38	724.12
3+00			724.78
3+80		5.80	722.58 722.58
3+60		5.24	723.14 723.14
3+40		4.70	723.68 723.68
3+20		4.15	724.23 724.23
3+00		3.60	724.78 724.78
3+75		5.66	722.72 722.72

Simpson  
Soper  
MS Hugh  
Salgado.

Finish Floor Grades  
Nov. 6, 1933

B.M.	2.82	726.94	724.12
3+85		4.49	722.45
3+65		3.95	722.99
3+45		3.39	723.55
3+75		4.22	722.72

Nov. 7, 1933

B.M.	3.19	727.31	724.12
3+60			723.14
3+80		4.73	722.58
3+40		3.63	723.68

Nov. 8, 1933

B.M.	3.42	727.54	724.12
3+75		4.82	722.72
2+85		2.35	725.19

23

Finish Floor Grades  
Nov. 8, 1933

B.M.	6.59	730.71	724.12
2+85			725.19
2+66		5.00	725.71
2+46		4.45	726.26
2+26		3.90	726.81

Nov. 9, 1933

B.M.	2.01	726.13	724.12
4+00		4.09	722.04
+25		4.78	721.35
+50		5.46	720.67

Nov. 10, 1933

B.M.	2.13	726.25	724.12
4+00		4.21	722.04
+25		4.90	721.35
+50		5.58	720.67
B.M.	3.35	727.47	724.12
3+85		5.02	722.45
4+05		5.57	721.90

## Form Points on Ogee Section

				Grade	
B.M.	2.37	726.49		724.12	
4+95	2' offset		8.99	717.50	718.40
"	Toe Ogee		6.30	720.19	720.19
"			5.03	721.46	726.46

F 0<sup>00</sup>E 5<sup>00</sup>Form Points on Ogee  
Nov. 9, 1933.

B.M.	9.91	734.03		724.12	
			3.57	730.46	739.46

F 9<sup>00</sup>

Nov 14 - 1933

## Form Points on Ogee

B.M.	5.42	755.29		749.87	
T.P.			12.52	742.77	
	2.14	744.91			
1st curved panel			+0.33	745.24	
	1.64	744.41		742.77	
2nd "	"		+ 4.84	749.25	
	0.34	743.11		742.77	
			+6.89	750.0	F. 5.75
			-0.53	742.58	748.33

Nov. 7, 1933  
Simpson  
Sapar  
McHugh

25

Slope stakes on South Line

B.M.	2.60	726.72	724.12
5+60	4.3	722.4	712.91
5+80	6.8	719.9	710.0
6+00	8.4	718.3	706.51
+20	2.6	724.1	702.45
+40	0.3	726.4	697.82
+60			692.61

$$\frac{c-95}{48}$$

$$\frac{c-92}{52}$$

$$\frac{c-118}{50}$$

$$\frac{c-217}{102}$$

$$\frac{c-286}{142}$$

$$\frac{+257 = c-92}{212}$$

$$\frac{+222 = c-92}{212}$$

$$\frac{+203 = c-92}{223}$$

$$\frac{+154 = c-92}{222}$$

728.1  
724.1

Nov. 8, 1933

26

Simpson  
Soper  
McHugh  
Salgado,

Floor Subgrade Cuts.

B.M.	2.54	726.66	724.12		
A+00		4.76	721.9	721.0	c-0 <sup>9</sup>
4+25		5.25	721.4	720.4	c-1 <sup>0</sup>
4+50		5.5	721.2	719.7	c-1 <sup>5</sup>
4+75		5.45	721.2	719.0	c-2 <sup>2</sup>
4+87 <sup>2</sup> B.V.C.		5.8	720.9	718.65	c-2 <sup>2</sup>

Line 30' No. of South  
side of cut.

B.M.	1.47	725.59	724.12		
5+00		5.8	719.8	718.2	c-1 <sup>5</sup> ✓
+20		7.7	717.9	717.0	c-0 <sup>8</sup> ✓
+40		9.0	716.6	715.2	c-1 <sup>4</sup> ✓
+60		9.9	715.7	712.9	c-2 <sup>8</sup> ✓
+80		11.3	714.3	710.0	c-4 <sup>3</sup> ✓
6+00		12.2	712.8	706.5	c-6 <sup>3</sup> ✓
+20		14.0	711.6	702.4	c-9 <sup>2</sup> ✓

Nov. 8, 1933

S. Simpson  
Coper  
McHugh  
Salgado.

Spillway, cuts to  
Floor Subgrade

B.M.	0.34	724.46	724.12	Sub- Grade	
4+87 <sup>29</sup>		5.2	719.3 ✓	718.65	c-0.7 ✓
5+00		5.2	719.3 ✓	718.2	c-1.1 ✓
+20		6.5	718.0 ✓	717.0	c-1.0 ✓
+40		8.4	716.1 ✓	715.2	c-0.9 ✓
+60		9.9	714.6 ✓	712.9	c-1.7 ✓
+80		11.9	712.6 ✓	710.0	c-2.6 ✓
6+00		12.4	712.1 ✓	706.5	c-5.6 ✓
+20		13.0	711.5 ✓	702.4	c-9.1 ✓
+40		12.6	711.9 ✓	697.8	c-14.1 ✓
+60		7.5	717.0 ✓	692.6	c-24.4 ✓
+80		9.3	715.2 ✓	686.8	c-28.4 ✓

B.M.	2.52	726.64	724.12
4+25		4.79	721.85 6" above

Finish Grades Nov. 14

B.M.	3.31	727.43	724.12
4+05		5.53	721.90
4+25		6.08	721.35
4+45		6.63	720.80
4+50		6.76	720.67 check

Nov. 15, 1933.

B.M.	0.86	724.98	724.12
4+87 <sup>29</sup>		5.33	719.65
4+66		4.75	720.23
4+45		4.18	720.80 check

B.M.	2.40	726.52	724.12
------	------	--------	--------

4+26		5.19	721.33
------	--	------	--------

		4.62	721.90
--	--	------	--------

Nov. 16, 1933

B.M.	0.23	724.35	724.12
------	------	--------	--------

4+87 <sup>29</sup>		4.70	719.65
--------------------	--	------	--------

5+00		5.15	719.20
------	--	------	--------

4+63		4.04	720.31
------	--	------	--------

4+75		4.37	719.98
------	--	------	--------

4+50		3.18	721.17
------	--	------	--------

B.M.	2.11	726.23	724.12
------	------	--------	--------

4+63		5.92	720.31
------	--	------	--------



Simpson  
Super  
McHugh  
Salgado

Cut stakes on  $\frac{1}{2}$  Floor  
Nov. 15, 1933.

B.M. 0.44 724.56 724.12

Set B.M. 6.00 718.56

2.75 721.31

Sub.  
Grade

5+20	3.4	717.9	717.0	c-0 <sup>9</sup> ✓	
+40	5.7	715.6	715.2	c-0 <sup>2</sup> ✓	
+60	6.4	714.9	712.9	c-2 <sup>0</sup> ✓	
+80	8.1	713.2	710.0	c-3 <sup>2</sup> ✓	
6+00	8.9	712.4	706.5	c-5 <sup>9</sup> ✓	
+20	9.2	712.1	702.4	c-9 <sup>2</sup> ✓	
+40	10.1	711.2	697.8	c-13 <sup>4</sup> ✓	
+60	13.3	708.0	692.6	c-15 <sup>4</sup> ✓	
<hr/>					
5+00	1.8	719.5	718.2	c-1 <sup>3</sup> ✓	
4+87 <sup>2</sup>	1.8	719.5	718.65	c-0 <sup>9</sup> ✓	

Finish Floor Grades  
Nov. 16, 1933.

B.M.	3.47	722.03		718.56
5+00			2.83	719.20
5+20			4.02	718.01
4+87 <sup>29</sup>			2.38	719.65

Nov. 17. Cuts on Trench  
under Cgee

B.M.	5.21	723.77		718.56
			8.11	715.66
	4.43	720.09		
			4.0	716.1 706.0 C102
			2.0	718.1 706.0 C122

Slope stakes So. Side

B.M.	3.44	722.00		718.56
5+50			4.2	717.8 714.2 C36 12
5+40			4.5	717.5 715.3 C22 12
5+35 <sup>25</sup>			2.6	719.4 715.6 C38 19

Finish Floor Grades  
Nov 18-1933

B.M.	6.40	724.96		718.56
4+87 <sup>29</sup>			5.31	719.65
4+30			3.75	721.21
3+75			2.24	722.72

Nov 21-1933

Finish Floor Grades

B.M.	1.90	726.02		724.12
4+75			6.04	719.98
4+50			5.35	720.67
4+45			5.22	720.80

Nov 22 - 1933  
Finish Grades

B.M.	2.31	726.43	724.12	0.96 1000
3+75			4.67	721.76 722.72 0.07 1000
3+75			3.64	722.79 722.72
↑ Raked in				
↓				
4+87 <sup>29</sup>			6.78	719.65
T.P.			6.78	719.65
	4.65	724.30		
5+00			5.10	719.20
B.M.	3.72	722.28	718.56	
5+20			4.27	718.01
5+40			6.03	716.25
5+60			8.37	713.91

Finish Floor Grades So. Toe  
Nov 23 - 1933

B.M. 2.94 721.50 718.56

5+35~~25~~ 4.85 716.65

5+25 3.88 717.62

5+20 3.49 718.01

5+15 3.14 718.36

5+40 5.25 716.25

B.M. 2.20 720.76 718.56

5+15 2.40 718.36

+20 2.75 718.01

+25 3.14 717.62

+30 3.56 717.20

+35~~25~~ 4.11 716.65

5+40 4.51 716.25

Elliott R

32

Finish Floor Grades  
Nov 24 - 1933

B.M. 0.88 719.44 718.56

5+20 1.43 718.01

5+40 3.19 716.25

5+60 5.53 713.91

5+80 8.45 710.99

Nov 25 - 1933

B.M. 3.32 721.88 718.56

Floor sub.  
at 5+10 6.26 715.62 717.68 <sup>F206</sup>

Elliott - Soper - Osborne

Finish Floor Grades  
Nov 27-1933

Finish Gr.

B.M.	2.68	721.24	718.56	
5+10		2.56	718.68	
5+20		3.23	718.01	
5+30		4.04	717.20	
5+40		4.99	716.25	
T.P.		10.98	710.26	
	5.77	716.03		
6+00		9.52	706.57	subgrade
6+00		7.7	708.3	c 18 706.5
6+00		6.7	709.3	628 706.5
Check				
5+60		2.13	713.90	713.91
5+70		3.50	712.53	
B.M.	3.09	721.65	718.56	
Sub 5+10		3.97	717.68	
B.M.	2.28	726.40	724.12	
Set B.M.		6.09	720.31	
Elev.	5.25	719.16	713.91	
5+90			708.33	

33  
676  
9  
6084

Form Points  
Nov 29-1933  
Elliott - Soper - Osborne

B.M.	4.74	723.30	718.56	
5+10		3.52	719.78	Toe spec
5+10		4.62	718.68	finish floor
T.P.		4.07	719.23	
	2.97	722.20		
5+10		+8.26	730.46	
B.M.	1.16	719.72	718.56	
5+60		5.81	713.91	
5+70		7.17	712.53	
5+80		8.73	710.99	
5+90		10.39	709.33	
6+00		12.21	707.51	

Dec 2 - 1933

Form Points

B.M.	7.01	727.32	720.31	
T.P.	8.02	735.00	0.34	726.98
Check			4.55	730.45 730.46
5+10			+4.46	739.46
End of straight panel				

Finish Floor Grades  
Dec 4-1933

B.M.	3.17	723.48		720.31
5+00			4.28	719.20
5+20			5.47	718.01
5+60			9.57	713.91
T.P.	5.09	719.00	9.57	713.91
Subgrade				
5+60			4.61	714.39 712.91 <sup>C148</sup>
5+80			5.95	713.05 709.99 <sup>C305</sup>
6+00			6.72	712.28 706.51 <sup>C522</sup>

Cut off Trench Grades

B.M.	2.83	723.14		720.31
5+12			9.5	713.6

Finish Grade

5+20			5.13	718.01
5+40			6.89	716.25
5+60			9.23	713.91

Original Form Points

B.M.	4.51	754.38		749.87
5+10			11.38	743.00
	1.32	744.32		
1st curved pannel			0.08	744.24 745.24 <sup>F12</sup>
	1.16	744.16		743.00
2nd curved pannel			0.91	743.25 749.25 <sup>F62</sup>
	0.15	743.15		743.00
Crest			1.15	742.00 750.00 <sup>F82</sup>

Form Points  
Dec 5-1933

34

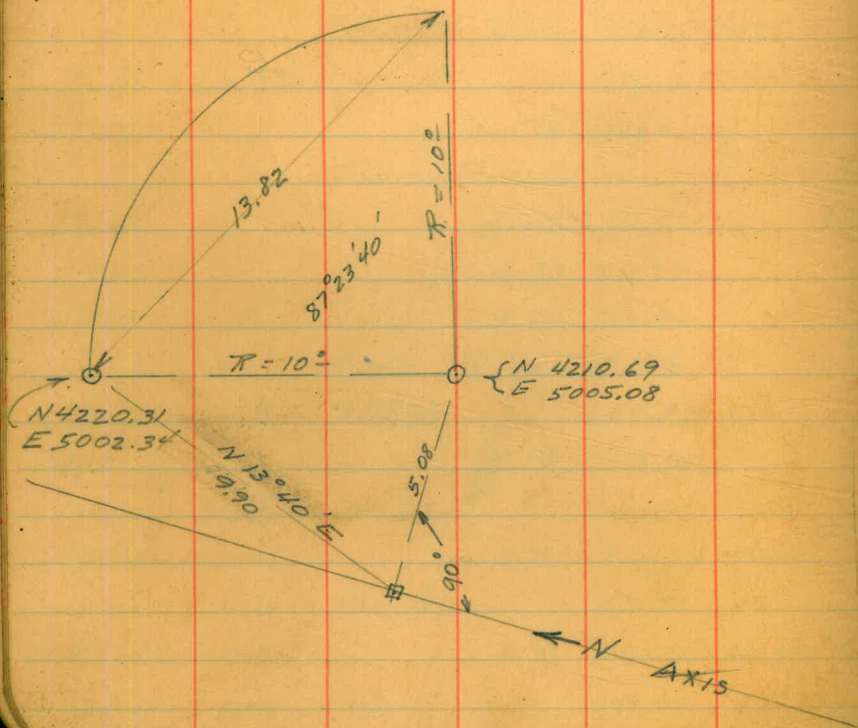
T.P.	9.18	752.18		743.00
5+10			3.85	748.33

Points on Curb W. end Ogee

Dec 5 - 1933

Elliott - Soper - Osborne

B.M.	1.38	775.40	774.02
T.P.	5.10	775.51	4.99 770.41
Radius Point		7.51	766.00
T.P.	2.71	773.12	770.41
B.C.		12.31	760.91 766.00



Finish Floor Grades

	1.42	721.73	720.31
5+80		10.74	710.99
T.P.		10.74	710.99
	2.31	713.30	
6+00		5.92	707.38 706.51
6+00		5.79	707.51 Finish

Finish Floor Grades

Dec 7 - 1933 Elliott - Simpson - Soper - Remmen

B.M.	1.08	721.39	720.31
5+20		3.38	718.01
5+40		5.14	716.25
5+60		7.48	713.91
5+80		10.40	710.99
5+60	No. Side	6.73	714.66

c. 1.75 to Subgrade

Grades in Core Trench  
Dec 7-1933

B.M.	5.04	754.91	749.87
Set B.M. at 4+76	4.94	749.97	
	2.82	752.79	
		-12.81	
		-17.11	
		<u>-29.92</u>	722.87 706.00 C169
		-18.25	
		-11.84	
	30.09	722.7	706.0 C162

Finish Grades Dec 8-33

B.M.	109	719.65	718.56
5+60	5.74	713.91	
4' cut off trench	6.05	713.6	

Core Trench Grades  
Dec. 18, 1933.

B.M.	3.17	753.14	749.97
T.P.		5.78	747.36
	4.29	751.65	
		-11.17	
		-23.80	
		44.67	706.98 C-13
		5.12	
		38.53	
		<u>43.65</u>	708.00 C-2 <sup>o</sup>
T.P.	4.26	751.62	747.36
T.P.		12.31	739.31
	0.18	739.49	
T.P.		12.71	726.78
	0.24	727.02	
4088		11.02	716.00 Steel Grade
4096	4' step	11.02	716.00 Bottoms
"		7.02	720.00 Top
	4.40	751.76	747.36
		13.69	738.07
			18.07
			<u>720.00</u>



Slope stakes So. side  
Dec 8-1933

B.M.	4.63	723.19	718.56	
6+60	2.1	721.1	692.6	<sup>c285</sup> <sub>143</sub>
6+80	0.8	722.4	686.8	<sup>c356</sup> <sub>178</sub>
7+00	1.6	721.6	680.6	<sup>c412</sup> <sub>205</sub>
7+20	4.9	718.3	674.3	<sup>c445</sup> <sub>222</sub>
7+40	16.0	707.2	668.0	<sup>c393</sup> <sub>196</sub>

Slope Stake on No. side  
Dec 12-1933

B.M.	6.06	726.37	720.31	
7+00	5.2	721.2	680.6	<sup>c405</sup> <sub>203</sub>
6+80	11.65	689.53	686.8	<sup>c22</sup>
6+60	4.1	697.1	692.6	<sup>c45</sup>

Subgrade Cuts  
Dec 16-1933

Elliott  
Louden  
Osborne

37

B.M.	1.51	720.07	718.56	
Check on Grade Pin 5+80	9.07	711.00	710.0	<sup>c10</sup>
6+10	12.6	707.5	704.6	<sup>c29</sup>
T.P.	12.63	707.44		
6+60	2.78	710.22		
6+60	6.2	704.2	692.6	<sup>c110</sup>
6+87 <sup>3</sup>	7.7	702.5	684.6	<sup>c173</sup>
B.M.	4.82	701.18	696.36	
6+80	7.9	693.3	686.83	<sup>c65</sup>
6+60	4.1	697.1	692.6	<sup>c45</sup>
6+40	1.3	702.5	697.8	<sup>c47</sup>
6+60 N. side	8.6	692.6	692.6	<sup>c0</sup>
6+40	4.7	696.5	697.8	<sup>F13</sup>

Floor Grades.

B.M.	1.34	721.65		720.31	
T.P.			12.76	708.89	
	4.27	713.16			
6+00			5.65	707.51 - Finish Grade	
6+20			6.8	706.4	Subgrade 702.45
+40			7.5	705.7	697.82
+60			9.2	704.0	692.6
+80			10.5	702.7	686.8

c-4°  
c-7°  
c-11°  
c-15°

Steel Grades  
Core Wall.

B.M.	1.59	721.90	720.31	Steel Grade
5+13		15.74	706.16	708.00 <sup>F 84</sup>

15.86 706.04

Cuts Dec 20 - 1923

B.M.	10.87	707.23	696.36	
6+00		+1.0	708.2	706.5 C <sup>12</sup>
+20		3.3	703.9	702.5 C <sup>14</sup>
+40		7.2	700.0	697.8 C <sup>22</sup>
+60		10.5	696.7	692.6 C <sup>41</sup>
+70		16.2	691.0	688.6 C <sup>24</sup>
+87 <sup>29</sup>		14.5	692.7	684.6 C <sup>81</sup>

7+00

Dec 20. 1933  
Toe of agee grade

B.M.	3.76	724.07	720.31
5+10 <sup>21</sup>		6.28	717.79 718.64 <sup>F 85</sup>

Dec 21 - 1933  
 Steel points in Core Wall  
 Elliott-Simpson-Soper-Remmes

Dec 21 - 1933  
 Concrete Grades in Core Wall 40

B.M. (+1.84)	724.94		726.78	
4092	9.06	715.88	716.0	F012
4100	4.34	720.60	720.0	C0.60
4108	4.22	720.72	"	C0.72
4116	4.08	720.86	"	C0.86
4124	4.01	720.93	"	C0.93
4132	3.74	721.20	"	C1.20
4140	3.42	721.52	"	C1.52
4148	3.33	721.61	"	C1.61
4156	3.54	721.40	"	1.40

B.M.	6.01	732.79		726.78
4088			10.79	722.0 Bottom
4096			6.79	726.0 Top of 4 step
4104			11.21	734.0 Top of 8' step
B.M.	3.84	751.20		747.36
4112			11.20	740.0 Top of 6' step
4128			7.20	744.0 Top of 6' step
4160			7.20	744.0 Concr. grade

Slope Stakes N. side Dec 21

B.M.	12.08	708.44		696.36
6+8729			10.2	708.6 684.6 $\begin{matrix} C24^{\circ} \\ 12^{\circ} \end{matrix}$
B.M.	7.20	727.51		720.31
6+70			5.7	721.8 689.8 $\begin{matrix} C32^{\circ} \\ 16^{\circ} \end{matrix}$

Dec 23 - 1933

Elliott  
Remick

## Cuts in Spillway

B.M.	1.99	722.30		720.31	
T.P.	1.63	712.83	11.10	711.20	
6+20			7.2	705.6	702.5 C3L
+40			8.0	704.8	697.8 C7 <sup>2</sup>
+60			8.8	704.0	692.6 C11 <sup>2</sup>
+80			9.1	703.7	686.8 C16 <sup>2</sup>
7+00			10.1	702.7	680.6 C22 <sup>2</sup>
+20			9.7	703.1	674.3 C28 <sup>2</sup>
7+40			7.4	705.4	668.0 C37 <sup>2</sup>

Dec. 30, 1933

Converse  
Simpson  
41

B.M.	2.67	722.98		720.31	
					Finish Grade
5+35 <sup>25</sup> #1			7.02	715.92	716.65 - F-0 <sup>69</sup>
5+30 #2			6.78	716.20	717.20 - F-1 <sup>90</sup>
5+25 #3			6.17	716.81	717.62 - F-0 <sup>81</sup>
5+20 #4			7.06	715.92	718.01 - F-2 <sup>87</sup>
5+15 #5			6.18	716.80	718.36 - F-1 <sup>56</sup>

Jan 5 - 1933

B.M.	1.24	719.80		718.56	Finish Grade
5+50			6.82	712.98	715.15 F-2 <sup>17</sup>
5+60			8.33	711.47	713.91 F-2 <sup>44</sup>
5+80			4.69	715.11	710.99 C 4.12 2.06
B.M.	2.50	721.06		718.56	
5+40			3.74	717.72	716.25 C 1.47 074

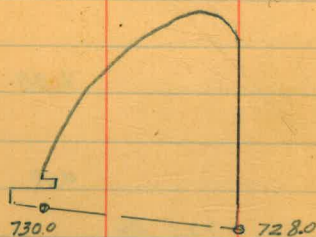
1934  
Jan 3 - 1933  
Finish Floor Grades

Elliot  
Simpson  
Saper  
Kemmen

B.M.	0.90	721.21		720.31
5+80 T.P.	2.34	713.35	10.20	711.01 710.99
5+90			4.02	709.33
6+10			7.79	705.56

Vertical Cut at 0+00 on Ogee

B.M.	3.68	753.55		749.87
			+0.2	753.8 728.0 C258
			16.8	736.8 730.0 C68



Jan 6 - 1934  
Finish

42

B.M.	1.11	721.42		720.31
			12.54	708.88
	1.47	710.35		
5+90			1.02	709.33
6+10			4.79	705.56
6+30			9.14	701.21
T.P.			2.43	707.92

Grades for top of So. wall  
Jan 8 - 1934

B.M.	0.40	766.78		766.38
			12.52	754.26
	0.96	755.22		
			11.48	743.74
	3.16	746.90		
5+62 <sup>27</sup>			3.30	743.60
5+82 <sup>27</sup>			6.28	740.62
B.M.	1.83	720.39		718.56
6+20			+ 7.79	728.18

Subgrade Cuts  
Jan 9-1933

B.M.	0.97	719.53		718.56
6+70			7.87	711.66 Top of wall
T.P.			12.76	706.77
	2.17	708.94		
6+10			4.2	704.7 704.6 C 0'
+20			4.3	04.6 702.5 C 2'
+30			4.7	04.2 700.2 C 4'
+40			5.9	03.0 697.8 C 5'
+50			7.5	01.4 695.2 C 6'
+60			8.2	700.7 692.6 C 8'
			Top of wall points	
B.M.	0.23	718.79		718.56
6+50			0.53	718.26 Top of wall

B.M.	0.23	718.79		718.56
6+70			7.1	711.7 689.8 C 21.9 11.0
6+50			12.7	706.1 695.2 C 10.2 5.5
B.M.	0.32	718.88		718.56
6+10			10.4	708.5 704.56 C 3.2 2.0
			Top of Wall points	
			Jan 10	
B.M.	7.60	727.91		720.31
			2.00	725.91
			9.78	735.69
6+00			0.92	734.77 Top of wall

Finish Grades Jan 10 - 1934

B.M.	1.35	721.66	720.31
T.P.		10.96	710.70
	1.37	712.07	
5+80		1.08	710.99
+90		2.74	709.33
6+00		4.56	707.51
T.P.	1.21	711.91	710.70
		Subgrade	
5+90		3.58	708.33
6+00		5.40	706.51
6+10		7.35	704.56
6+20		9.46	702.45
6+30		11.70	700.21

Floor Subgrade

B.M.	3.19	753.06	749.87
T.P.		13.10	739.96
	1.35	741.31	
0+24		9.97	731.34

Ogce Points

Elliott 4.4  
Soper  
Remmen

B.M.	3.03	752.90	749.87
		12.38	740.52
	0.67	741.19	
0+48		9.01	732.18 728.68 C350
"	half way back	11.4	729.8 722.7 C2'
0+24		10.53	730.66 729.34 C132
"	"	10.5	730.7 728.3 C24
0+00		4.04	737.15 730.00 C715
"	"	10.4	730.8 729.0 C78
Set B.M.		7.04	734.15

1.3  
3.6  
4.9  
1.5  
6.4



Jan 11-1934 Finish Grades

Elliott  
Soper  
Remmen

B.M.	0.58	720.89		720.31
			10.20	710.69
	0.72	711.41		
6+20			7.96	703.45
6+30			10.20	701.21
6+40			12.59	698.82
T.P.			12.59	698.82
	2.74	701.56		
6+50			5.33	696.23

Subgrade Cuts

Jan 13-1934

B.M.	0.36	720.67		720.31
T.P.	0.64	708.55	12.76	707.91
			12.23	696.32
	0.14	696.46		

6+70			2.4	694.1	689.8	C.43
6+87.39			6.5	690.0	684.6	C.54
7+00			8.5	688.0	680.6	C.74
7+25			10.8	685.7	672.7	C.130

Jan 16-1938

45

B.M.	2.70 1/2	752.57 1/2		749.87	
			10.97	741.60 1/2	
	1.67	743.27 1/2			
B.M.			9.11 1/2	734.16	734.15
Set B.M.			9.68 1/2	733.59	on peg at Sta 0+55
B.M.	0.90	721.21		720.31	
			12.66	708.55	
	1.53	710.08			
6+20			6.63	703.45	

Points on Ogee  
Jan 18 - 1934

B.M.	2.62	736.21	733.59	
0+24	Top of str. panel	4.85	731.36	739.46 <sup>F 810</sup>
0+00	" "	+3.25	739.46	Grade
B.M.	2.77	736.36	733.57	
0+24	Top of key	5.18	731.18	733.09 <sup>F 121</sup>
0+00	" "	-2.61	733.75	Grade

Finish Floor Grades

B.M.	7.97	704.33	696.36	
6+30		3.12	701.21	
6+40		5.51	698.82	
6+60		10.72	693.61	

Side Lining

B.M.	4.28	724.57	720.31	
6+35		-1.39	723.20	Top of Wall
6+70		-12.93	711.66	Top of Wall

Cuts to Subgrade  
Jan 18 - 1934

B.M.	3.04	699.4	696.36	
6+70		8.9	690.5	689.8 C 0 7
6+87 <sup>29</sup>	I.V.C.	10.4	689.0	684.6 C 4 4
7+00		10.7	688.7	680.6 C 8 1
7+25		11.7	687.7	672.7 C 15 2
7+40		11.1	688.3	668.02 C 20 3
B.M.	0.84	697.20	696.36	
#1				
7+40		12.8	684.4	668.0 C 16 4
#2				
7+40		9.7	689.7	C 21 7
#3				
7+40		8.9	688.3	C 20.3
#4				
7+40		3.9	693.3	C 25 3

Points on Ogee  
Jan 20 - 1934

B.M. 11.27 744.86 733.59

0+00 to 0+24 1st panel +0.38 745.24

Finish Floor Grades

B.M. 1.83 698.19 696.36

6+60 4.58 693.61

6+70 7.40 690.79

6+80 10.36 687.83

Cuts in Core Trench

Jan 22 -

B.M. 2.85 752.82 749.97

T.P. 0.0 743.60 9.22 743.60

T.P. 21.00 722.60

0.16 722.76

1.33 721.4 706 C.154

1.83 720.9 706 C.149

1.52 721.25 706 C.152

47

Ogee Form Points  
Jan 22

B.M. 3.93 753.80 749.87

7.66 746.14

4.06 750.20

0+24 2nd panel -3.75 746.25 749.25 F 3°

0+00 " " -0.95 749.25 749.25 Gr.

0+24 Crest 5.2 745.0 750 F 5°

0+00 " 0.20 750.0 750 Gr.

Jan 23 - 1934

B.M. 5.42 755.29 749.87

0+24 Heel of wier 6.96 748.33

" " 11.58 743.71 748.33 F 4.62

" " 11.58 743.71 748.33 F 4.62

Floor Grades  
Jan 23-1934

Elliott  
Soper  
Remmen

B.M.	8.85	705.21	696.36
6+20		1.76	703.45
6+30		4.00	701.21
6+40		6.39	698.82

Jan 24

B.M.	7.01	703.37	696.36
6+30		2.16	701.21
6+40		4.55	698.82
6+50		7.14	696.23

Slope Stakes So. side

B.M.	4.08	700.44	696.36
		1.21	699.23
	11.01	710.24	
7+00		0.7	709.5 680.58 <sup>C283</sup> <sub>45</sub>
7+20		1.5	708.7 674.30 <sup>C34</sup> <sub>172</sub>
7+40		3.2	707.0 668.02 <sup>C392</sup> <sub>195</sub>

Jan 25-1934  
Cuts on Curb Footing  
W. end of spillway.

48  
29  
2.2

B.M.	1.84	775.86	774.02
------	------	--------	--------

point #1-1	5.7	770.2	764.0 C.62
	5.2	770.7	764 C.62
	11.86	764.0	764 Grade

Finish Floor Jan 26-1934

B.M.	4.47	700.83	696.36
6+40		2.01	698.82
6+50		4.60	696.23
6+60		7.22	693.61
6+70		10.04	690.79
6+80		13.00	687.83
B.M.	2.35	698.71	696.36
6+87 <sup>29</sup>	E.V.C.	13.14	685.57

Slope stakes No. side

6+87 <sup>29</sup>	2.2	696.5	684.5 <sup>C120</sup> <sub>60</sub>
7+00	8.0	690.7	680.5 <sup>C10</sup> <sub>51</sub>
T.P.	13.14	685.57	
	7.96	693.53	
7+20	10.3	683.2	674.2 <sup>C90</sup> <sub>45</sub>
7+40	+3.2	696.7	668.0 <sup>287</sup> <sub>14.4</sub>

Finish Grades  
Jan 27 - 1934

B.M.	2.50	698.86	696.36	
6+60		5.25	693.61	
6+70		8.07	690.79	
Jan. 29 - 1934				
B.M.	0.02	696.38	696.36	
Set B.M.		13.33	683.05	
	5.77	688.82		
6+87 <sup>29</sup>		3.25	685.57	
7+00		7.24	681.58	
6+80		0.97	687.83	
7+00	Subgr.	8.29	680.53	
"	" 6'	6.49	682.33	680.53 C180
"	" 20'So.	5.34	683.48	680.53 C295
"	" 60'No	6.66	682.16	680.53 C163
Slope Stake				
B.M.	4.49	687.54	683.05	
7+40		6.2	681.3	667.96 C134 62

Floor Grades  
Jan 30 - 1934

B.M.	5.40	688.45	683.05	
7+00		6.87	681.58	
Top of N. Wall				
B.M.	2.75	699.11	696.36	
7+40		10.10	689.01	Top of 20' wall
B.M.	2.48	698.84	696.36	
7+12 <sup>29</sup>		1.12	697.72	Top of 20' wall
B.M.	11.82	708.18	696.36	
6+87 <sup>29</sup>		1.12	707.06	Top of 21.49' wall
Slope Stakes Jan 31				
B.M.	7.69	728.00	720.31	
6+40		5.6	722.4	697.8 C246 12.3
6+20		5.2	722.8	702.5 C203 10.2
6+00		4.5	723.5	706.5 C172 8.5
5+80		3.4	724.6	710.0 C146 7.5
5+58 <sup>23</sup>	B.C.	+2.3	730.2	712.1 C182 9.1

Top of So. wall  
Feb 1 - 1934

Elliott  
Soper  
Remmen

Floor Subgrade Cuts  
Feb 3 - 1934

50

B.M.	3.55	707.08	703.53	4' plug at 6+20	Elev finish 3.99 Gr.	685.57	681.58	7+00
					7+10		8.2	677.4
6+90		1.99	705.09	Top				
Floor (finish)			- 684.72	Bottom	3.85	685.43	681.58	
			2   20.87	High	7+20		11.1	674.3
			10.19	out				
	3.47	707.00	703.53		3.95	685.53	681.58	
			1.91	705.09	7+30		14.4	671.1

Feb 2 - 1934

B.M.	1.75	698.11	696.36					
6+70			7.32	690.79				
6+80			10.28	687.83				
T.P.			10.27 1/2	687.83 1/2				
	0.94	688.77 1/2						
6+87 2/3			3.20 1/2	685.57				
Set B.M.			5.78	683.00	B.M.			
7+00			7.20	681.58				

Top of So. wall

B.M.	2.66	706.19	703.53					
6+90			1.10	705.09				

Core Wall  
Concrete Grades  
Feb 5 - 1934

B.M.	2.62	752.59		749.97
			6.13	746.46
	5.54	752.00		
			2.30	749.70
	0.0	749.70		
T.P.			23.50	726.20
	0.90	727.10		
Conc. Grade			7.10	720.00

Final Profile

B.M.	+(-9.95)	711.3		721.25
0+142				721.3
0+146			5.4	705.9
0+00-4175.5			5.8	705.5
4166			5.3	706.0

Grout holes.

4169 W.				
4174 E				
0+04 W		4175 = 0+00		
0+09 E				
0+14 W				

Finish Floor  
Feb 5 - 1934

51

B.M.	0.40	696.76		696.36
T.P.			11.18	685.58
	1.81	687.39		
7+10			8.95	678.44

Feb 6 - 1934

T.P.	2.55	688.13		685.58
7+10			9.69	678.44

Feb 7, 1934

T.P.	0.62	686.20		685.58 = 6+87.29
7+10			7.76	678.44
7+00			4.62	681.58
T.P.	12.06	697.64		685.58
6+60			4.03	693.61
6+70			6.85	90.79
6+80			9.81	87.83

Top of So. Wall

Feb. 7, 1934

T.P. 12.06 697.64 685.58

7+12.29 +0.08 697.72

6+90 slope stake 3.1 694.5 <sup>Finish Gr.</sup> 684.72 C-9<sup>8</sup> - out 4<sup>9</sup>

6+70 " " 4.4 693.2 690.79 C-2<sup>4</sup> - out 1<sup>2</sup>



## Finish Floor Grades

Feb. 8, 1934.

Grade

T.P.	2.95	688.53	685.58	687.29
6+87 <sup>29</sup>	2.96	685.57	685.57	
7+00	6.95		681.58	
7+00	4.85	683.68	681.58 <sup>to</sup> C-3 <sup>10</sup> Subgr.	
7+10	10.09	678.44	678.44	
"	7.73	680.80	C-3 <sup>36</sup> to Sub. Gr.	
7+20	9.54	678.99	Subgrade, 674.29 C-4 <sup>2</sup>	
"	12.27	676.26	C-2 <sup>00</sup>	
	13.51	675.02	C-1 <sup>7</sup>	

## Anchor Holes

Finish Floor

6+92		684.09	
98		82.21	
7+04		80.33	
7+10		78.94	
7+10	Slope stake	1.5	687.0 C-8 <sup>6</sup> -4 <sup>3</sup> out
7+16		676.55	
	685.06		
Set B.M.	9.76	675.30	in Bank Sta. 7+40 <sup>+</sup>

## Finish Floor Grades

Feb. 10, 1934

Finish  
Grade

T.P.	1.41	686.99	685.58	
7+00	5.41	681.58	681.58	
7+10	8.55	678.44	678.44	
7+20	11.70	675.29	675.29	
"	10.73	676.26	C-1 <sup>97</sup> to Subgr.	
6+87 <sup>29</sup>	1.42	685.57	685.57	

Feb. 12, 1934.

T.P.	0.48	686.06	685.58	
7+10	7.62		678.44	
7+30			672.15	
7+00	4.48	681.58	681.58	
B.M.	0.76	697.12	696.36	
T.P.	0.27	685.06	12.33	684.79
7+40	11.5	673.6	C-5 <sup>6</sup> to Sub. Gr.	6+87 <sup>E</sup>
"	10.66	674.4	C-6 <sup>2</sup>	"
"	1.66	683.4	C-15 <sup>4</sup>	"

Feb. 13, 1934

B.M.	2.49	706.02	703.53	± Plug C+20
6+70	Slope Stake			Finish Gr. 690.79
B.M.	11.61	686.91	675.30	
7+00		5.33	681.58	
7+40				669.01 Subgr.
7+25	Slope Stake	4.3	682.6	Finish Gr. 673.72
				C-8 <sup>1</sup> out 4 <sup>40</sup>
Feb. 14, 1934				
B.M.	7.50	682.80	675.30	
7+10		4.36	678.44	
7+20		7.51	675.29	
Grade Pin 7+10	9.83	688.27	678.44	
		+ 0.74	689.01	
7+22		11.61	676.66	
28		13.49	74.78	
34		15.37	72.90	

Finish Floor Grades

Feb. 15, 1934

B.M.	0.48	696.84	696.36	
T.P.		12.96	683.88	
	0.40	684.28		
Set B.M.		10.04	674.24	Spike in Bank Sta. 7+40
7+20		8.99	675.29	
T.P.	5.74	689.62	683.88	
Top of wall 7+40		0.40	689.22	
Grade Pin 7+20	2.80	678.09	675.29	
7+30		5.94	672.15	
Feb. 16, 1934				
B.M.	10.22	684.46	674.24	
7+10		6.02	678.44	
T.P.		0.95	683.51	
	6.42	689.93		
Top of wall - 7+40		0.71	689.22	

Finish Floor Grades

Feb. 17, 1934.

B.M.	8.33	682.57	674.24
7+28		9.79	672.78
7+20		7.28	675.29
7+10		4.13	678.44
7+40		13.56	669.01
7+00		0.99	681.58

Feb 19 - 1934

B.M.	4.12	678.36	674.24
7+20		3.07	675.29
7+30		6.21	672.15
7+40		9.35	669.01

Finish Floor Grades

Elliott 55  
Soper  
Remmen

Feb 28 - 1934

B.M.	2.58 1/2	698.94 1/2	696.36
T.P.			12.67 1/2 686.27
	0.40	686.67	
Set B.M.			11.68 674.99
	3.60	678.59	
7+28		5.81	672.78
7+40		9.58	669.01
B.M.	1.65	676.64	674.99
7+40		7.63	669.01

Mar 1 - 1934

B.M.	4.41	678.65	674.24
7+28		5.87	672.78
7+40		9.64	669.01

B.M.	0.60	604.42		603.82		Cut to grade	Wall Elev.	Cut to Wall
	3.67	598.94	7.15	595.27				
11+40			5.0	593.9	<sup>3/4 to 1</sup> 545.4	648.5	591.2	2.7
11+60			6.2	592.7	<sup>7/8 to 1</sup> 543.0	649.7	589.7	3.0
11+80 <sup>3</sup>			7.6	591.3	<sup>1 to 1</sup> 542.1	649.2	588.2	3.1
12+00			9.0	589.9	<sup>1 to 1</sup> 542.1	647.8	586.6	3.3
12+30 <sup>3</sup>			11.2	587.7	<sup>1 to 1</sup> 542.0	645.2	584.4	3.3

## Slope Stakes on Spillway

Mar 10 - 1934

No. Side

Using Subgrade as 1.05' below Const.

B.M.	10.70	614.52		603.82	
T.P.			0.80	613.72	
	11.45	625.17			
11+00 <sup>29</sup>	side		11.4	613.8	554.8 C 59°
10+75	"		12.4	612.8	562.7 C 50°
10+50	"		11.4	613.8	570.6 C 43°
11+00 <sup>2</sup>	Slope		7.8	617.4	554.8 C 62° out 31°
10+75	"		8.0	617.2	562.7 C 54° out 27°
T.P.	11.18	635.16	1.19	623.98	
10+50	Slope		5.8	629.4	570.6 C 58° out 29°
10+25	Side		6.1	629.1	578.4 C 50°
10+25	Slope		5.6	629.6	578.4 C 51° out 25°
10+00	"		5.1	630.1	586.3 C 43° out 21°
B.M. Check			2.54	632.62	632.64

Slope Stakes to Core Trench  
Mar 26-1934

B.M.	3.1	735.7		732.60	
N. 3040 E		+0.5	736.2	727.8	C 84 out 114
N 3040 W		+11.8	747.5	"	C 19.7 out 22.7
N. 3060 E		8.5	727.2	715.1	C 124 out 154
N. 3060 W		12.3	723.4	"	C 83 out 113

Points on N. End of Core Wall

B.M.	5.12	771.12	766.00
Column Cut off		2.12	769.0
B.M.	3.44	769.44	766.00
Form		3.44	766.00
B.M.	4.64	770.64	766.00
Curb subgrade at	N4180 E5013	4.57	766.07 770.0
" "	N4189 E5013	3.87	766.77 768.9
" "	N4198 E5013	6.11	764.53 767.8
Concrete at	N420709 E5013	12.41	758.23 766.73
T.P.	5.19	771.26	766.07
		4.51	766.75
		3.46	767.80
		4.53	766.73
		5.26	766.0

B.M.	1.68	775.70	774.02
Top of curb		4.70	771.0
B.M.	1.18	775.20	774.02
Top of curb		4.20	771.00
Top of 6' wall		5.70	769.50

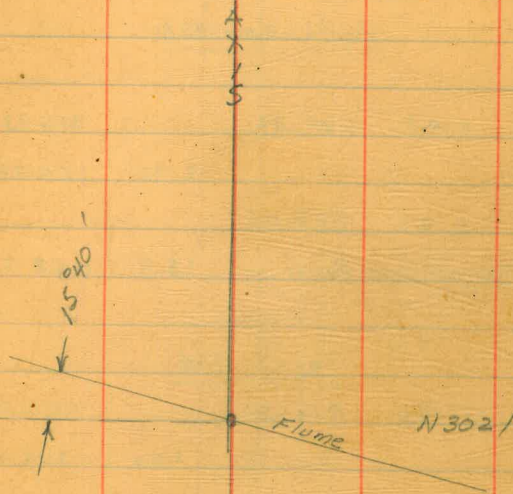
F 3.93  
F 2.13  
F 3.27  
F 8.50

Core Wall April 3-1934

B.M.	11.98	720.51	708.53	
Set B.M.			5.09	715.42
	6.10	721.52		
N 3056		9.52	712.0	Bottom 6' step
"		3.52	718.0	Top 6' step
N 3048		3.52	718.0	Bottom 6' step
N 3048		12.48	724.0	Top 6' step
3040		12.48	724.0	Bottom 4' step
3040		16.48	728.0	Top " "

Steel Grades Apr. 5

B.M.	4.85	720.27	715.42	
3060		8.02	712.25	Cut 3"
3052		1.94	718.33	Cut #1



B.M.	1.31	757.26	755.95
50' upstream		3.5	753.8
50' downstream		3.6	753.7



April 10-1934  
Core Wall Concrete Grades

B.M.	2.41	752.38	749.97
N4092		12.38	740.0 F20
N4100		8.38	744.0 F20

April-30-1934

B.M.	1.43	757.39	755.95
Set B.M.		2.90	754.48
	2.57	757.05	
N3032 Top of East Bank		18.3	738.7

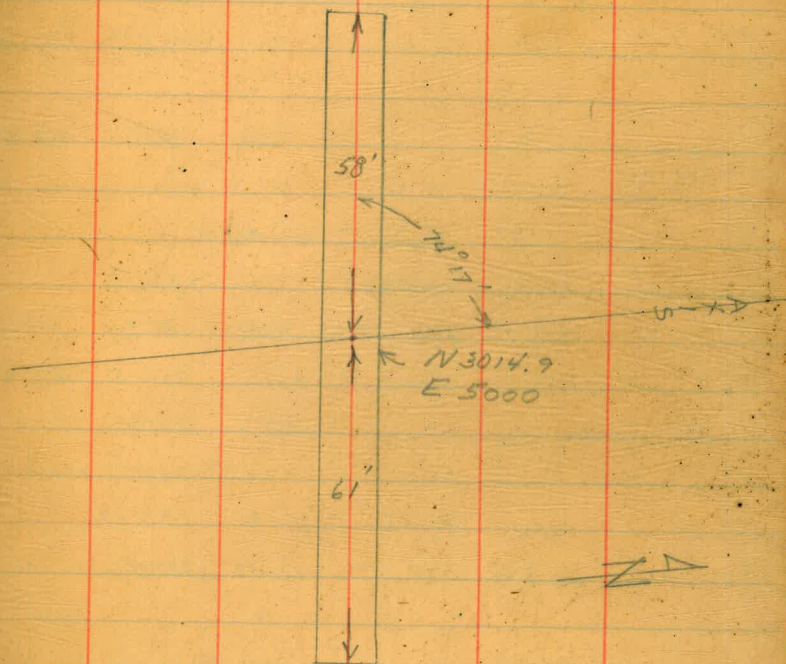
May-2-1934

B.M.	1.98	710.51	708.53
T.P.		1.00	709.51
	9.14	718.65	
T.P.		0.22	718.43
	10.82	729.25	
3040		+0.75	730.00 Bottom of 4 <sup>th</sup> step.
3036 Steel grade		5.05	724.20 F-3 <sup>80</sup>

Ties to Flume Culvert  
April 11-1934

□ T.P. 40

705-42



□ R.P. 20.25

B.M.	0.5	758.1	757.60
Upst. end		4.9	753.2
Φ <sub>1</sub>		5.2	752.9
Downst. end		4.2	753.9

Friday April 13-1934  
Whindigan E. end of spillway

B.M.	13.3	800.6		787.3	
T.P.			0.1	800.5	
	9.7	810.2			
Face of pier at back of 10' level portion of cone			4.4	805.8	Grade 172
Toe of cone at back of 10' level portion			+0.9	811.1	742.5 343

April 14-1934

B.M.	12.60	799.88		787.28	
T.P.	2.49	802.19	0.18	799.70	
Toe of cone			0.7	801.5	742.5 295
10' So. of toe			2.1	800.1	741.5 293
30' So. of toe			9.7	792.5	739.5 265
T.P.	0.60	789.88	12.91	789.28	
T.P.	0.54	778.00	12.42	777.46	
71' So. of toe					735.4

April 17-1934

B.M.	9.74	759.7		750.0	
76.4' from pier			+2.4	762.1	737.4 124
92' from pier			10.6	749.1	735.8 67

Slope Stakes on E. end of  
Spillway. April 18-1934

B.M.	10.27	760.14		749.87	
Set B.M.			10.25	749.89	4d+TK 0+55
T.P.	12.08	771.57	0.65	759.49	
Top of E. Wall			1.57	770.00	
B.M.	8.96	758.95		749.89	
To bottom of E. Wall			2.45	756.4	732.0 123
"	"	"	2.25	756.6	732.0 123

April 19-1934

B.M.	11.26	761.15		749.89	
T.P.			1.71	759.44	
	12.06	771.50			
Top of wall 0+00 <sup>52</sup>			1.50	770.00	Grade Subgr. from top 732 = 49' out
Top of wall 0+25			1.78	769.52	731.31 = 17' out
Top of wall 0+50				769.03	730.63 = 19' out
B.M.	8.85	758.74		749.89	
0+25			9.2	749.5	731.31 18 <sup>2</sup> 9.1
0+00 <sup>52</sup>			2.74	756.0	732.00 12 <sup>0</sup> 12 <sup>0</sup>
B.M.	10.41	760.30		749.89	
Corner			2.0	758.3	732.00 15 <sup>2</sup> 15 <sup>2</sup>
0+50			8.47	751.83	730.63 10 <sup>5</sup> 10 <sup>5</sup>

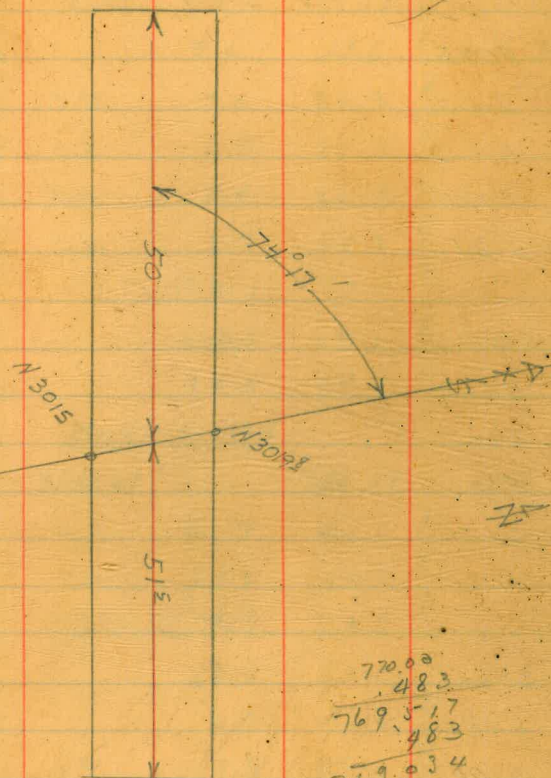
North wall Points  
Spillway

Flume As Built.

63

B.M.	5.38	755.27	749.89	
0+75		7.93	747.34	729.94 C178 8.7
April 121-1934				
B.M.	12.26	762.15	749.89	
T.P.	8.29	769.32	1.12	761.03
0+50 top of wall		0.29	769.03	730.63 out 19.20
B.M.	5.40	755.29	749.89	
0+50 slope stake		6.76	748.53	730.63 8.9 C179
B.M.	5.46	755.35	749.89	
0+75 slope stake		8.01	747.34	729.94 8.20 C178
<u>May-9-1934</u>				
B.M.	12.45	762.64	749.89	
T.P.		11.03	770.46	3.21 759.43
0+50 Top of wall		1.43	769.03	out 19.20
B.M.	5.28	755.17	749.89	
0+50 Slope stake		12.24	742.93	730.63 - C122 / C15
			770.46	
0+66 <sup>1</sup> Top of wall		1.75	768.71	out 19.22
B.M.	5.25	755.14	749.89	
0+66 <sup>2</sup> Slope stake		15.72	739.42	C-9 <sup>25</sup> / 462

Floor Subgrade  
730.17



770.00  
- 483  
769.517  
- 483  
769.034

.. 483  
20  
9.660  
19  
1085

X Sections of Upstream Rock Lift

April 21-1934

N3900

Staff	713.7		
E 5085		691.0	Toe of sand
5100	11.7	702.0	Intersection of rock & sand
5105	5.0	708.7	Rock
5124	5.4	708.3	"
5131	11.1	702.6	"

N3600

Staff	714.3		
5085		691.5	Toe of sand
5102	10.6	703.7	Intersection of rock & sand
5106	5.0	709.3	Rock
5126	5.0	709.3	"
5135	10.5	703.8	"

N3400

Staff	713.6		
5082		691.4	Toe of sand
5100	8.3	705.3	Intersection of rock & sand
5104	5.0	708.6	Rock
5126	5.8	707.8	"
5133	12.3	701.3	"

Simpson  
Soper  
Remmen

64

Core Trench Final Profile

May 2-1934

B.M.	10.82	729.25		718.43
3033			9.6	19.6 ✓
29			9.0	20.2 ✓
28			6.9	22.3 ✓
17 <sup>1</sup>			5.4	23.8 ✓
17 <sup>5</sup>			3.9	25.3 ✓
11			2.1	27.1 ✓
09			2.1	27.1 ✓
3006			+0.5	29.7 ✓

May 12-1934

B.M.	6.33	760.81		754.48
3006 also			20.7	40.1 ✓
3005			20.2	40.6 ✓
3005 also			7.9	52.9 ✓
3001			7.7	53.1 ✓
3000			2.2	58.6 ✓
2995			1.8	59.0 ✓
2994			+4.8	65.6 ✓
Elev.	7.3	776.8		769.5
2991.5			4.6	772.2 ✓
2990			4.6	772.2 ✓
2990			3.3	773.5 ✓

Original Ground

Core Wall Concrete Grades.

May-4-1934

B.M.	1.83	756.31	754.48	
T.P.		12.69	743.62	
	0.64	744.26		
T.P.		12.77	731.49	
	4.15	735.64		
3032		1.64	734.00	Bottom of 6' step.
"		+4.36	740.00	
3024		+4.36	740.00	Bottom of 11' step.
"		+2.36	738.00	Steel Grade
3008		+2.36	738.00	Steel Grade

May-14-1934

B.M.	6.67	761.15	754.48	
3004	Steel	8.37	752.78	F-1 <sup>22</sup>

Simpson  
Seper  
Remmen

Core Trench Excavation Slope Stakes.

May-5-1934

Top of 6'  
Neat Line Trench

B.M.	6.18	760.66	754.48	
3005	East side	+1.6	62.3	753.8 - C-8 <sup>2</sup> / 11 <sup>2</sup>
"	West side	+5.1	65.8	" - C-12 <sup>2</sup> / 15 <sup>2</sup>
3010	East side	7.8	52.9	749.6 - C-3 <sup>2</sup> / 6 <sup>2</sup>
3014	West side	0.7	60.0	747.5 - C-12 <sup>2</sup> / 15 <sup>2</sup>

May-7-1934

B.M.	3.44	757.92	754.48	
3020	East side	4.7	753.2	744.3 - C-8 <sup>2</sup> / 11 <sup>2</sup>
3028	East side	8.2	749.7	744.1 - C-5 <sup>2</sup> / 8 <sup>2</sup>
"	West side	4.7	53.2	" - C-9 <sup>2</sup> / 12 <sup>2</sup>

May 15-1934

Slope Stakes E. end.

B.M.	5.30	755.19		749.89
T.P.	6.02	751.01		10.20 744.99
Corner			5.81 745.2	732.0 C13.2 8.0
			8.21 742.8	732.0 C10.8 5.4
			3.14 747.87	732.0 C15.9 7.9

May 16-1934

B.M.	7.36	740.95		733.59
0+00 <sup>62</sup>			1.11 739.84	732.00 C7.84 3.9
0+25			4.14 736.81	731.31 C5.50 2.5
0+50				730.63

027 66

May 18-1934

Vertical Cuts + Slopes E. end

B.M.	6.42	740.01		733.59
0+12 <sup>5</sup>			7.9	732.1 730.7 C1.4
0+00			4.7	735.3 732.0 C3.3
0+00			6.8	733.2 731.0 C2.2

May 21-1934

B.M.	4.50	738.09		733.59
0+00			6.09	732.00
+25			6.78	731.31
+50			7.46	730.63

May 22- Finish Conc. Grades

B.M.	3.09	736.68		733.59
0+06			3.84	732.84
0+25			4.37	732.31
0+50			5.05	731.63
B.M.	2.35	735.94		733.59
0+50			4.31	731.63

May 25-1934

B.M.	1.91	735.50		733.59
0+58 <sup>5</sup>			4.10	731.40

## Spillway

North Wall Points  
May-9-1934Slope of Top  
of wall = .01802

B.M.	12.75	762.64	749.89	
T.P.			3.21	759.42
	11.03	770.46		
0+91 <sup>2</sup>	Top of Wall		2.23	768.23
				Grade 768.23 out 1937
B.M.	5.48	755.37	749.89	
0+91 <sup>2</sup>	Slope stake		11.88	743.49
				Floor Subgrade 729.49 C-14' out 7 <sup>00</sup>
<u>May-10-1934</u>				
B.M.	8.65	758.54	749.89	
T.P.			0.68	757.86
	10.51	768.37		
1+25	Slope Stake		<del>0.79</del>	767.58
			+1.21	769.58
				C-41' out 20 <sup>5</sup> 2' above wall
1+75	Slope Stake		+ 7.90	776.27
	92' above wall			772.20 C-49' out 24 <sup>5</sup>
<u>Sept. 13-1934</u>				
B.M.	11.69	761.58	749.89	
T.P.			0.44	761.14
	11.66	772.80		
0+91 <sup>2</sup>			4.57	768.23
1+25			5.22	767.58

67

Sept. 18-1934

B.M.	12.08	761.97	749.89	
T.P.			1.13	760.84
	12.65	773.49		
T.P.			6.07	767.42
				on Boulder Near Top of Wall Sta. 1+002
1+25	Top of Wall		5.91	767.58
0+91 <sup>2</sup>	" " "		5.26	769.23
				check
0+66 <sup>2</sup>	" " "		4.78	769.71

Sept. 20-1934

T.P.	6.51	773.93	767.42	
				on Boulder Near Top of Wall Sta. 1+002
1+60	Top of Wall		7.02	766.91
				set

Sept. 24-1934

T.P.	6.09	773.51	767.42	
2+00	Top of Wall		7.38	766.13

Sept. 27-1934

T.P.	6.38	773.80	767.42	
2+25	Top of Wall		8.15	765.65
2+50	" " "		8.63	765.17

Oct. 6-1934

Top of Wall				
2+00	6.19	772.32	766.13	
Top of Wall				
2+50			7.14	765.18
2+75	Top of Wall		7.64	764.68

Wharped Concrete  
at Sta. 5+10. June 27-1934

B.M.	0.99	770.53	769.54
		5.53	765.00
		10.53	760.00
T.P.		13.11	757.42
	2.74	760.16	
		5.16	755.00
		10.16	750.00
B.M.	11.24	761.21	749.97
		12.6	748.6 745.0 C3 <sup>6</sup>
		13.0	748.2 740.8 C7 <sup>4</sup>
		10.8	750.4 745.0 C5 <sup>4</sup>
		7.6	753.6 750.0 C3 <sup>6</sup>
		4.1	757.1 755.0 C2 <sup>1</sup>
		+ 0.1	761.3 760.0 C1 <sup>2</sup>
		+ 4.4	765.6 765.0 C0.6

Wharped Conc. at Sta. 5+10  
June 28 68

B.M.	12.72	762.69	749.97
		12.69	750.0
		7.69	755.0
T.P.		2.69	760.0
	10.58	770.58	
		5.58	765.0

June 29

B.M.	5.23	755.20	749.97
		10.20	745.0
		7.30	747.90 740.80 C7 <sup>1</sup>
B.M.	5.30	755.27	749.97
		7.31	747.96 745.0 C2 <sup>2</sup>
		5.27	750.0
		0.27	755.0

July 3-1934

B.M.	4.97	654.94	649.97
		12.22	642.72 740.80 C1 <sup>22</sup>



Slope stakes  
July 9-1934

B.M. 4.52 774.06 769.54

2+75 5.2 768.9 724.5  
2+50 5.0 769.1 725.2  
2+25 11.9 762.2 725.8

C 44.4 out 22.2  
C 43.9 out 22.0  
C 36.4 out 18.2

July 11-1934

B.M. 4.33 754.30 749.97

2+25 0.3 754.0 725.8  
+50 0.9 753.4 725.2  
+75 4.4 749.9 724.5  
3+00 8.3 746.0 723.8  
+25 10.0 744.3 723.1

C 28.2 out 14.1  
C 28.2 out 14.1  
C 25.4 out 12.7  
C 22.2 out 11.1  
C 21.2 out 10.6

July 20-1934

B.M. 5.48 755.37 749.89

Weep hole #1 5.37 750.00  
+ #2 5.55 749.82

July 23-1933  
Finish Floor Grades  
Elliott Simpson Remmen

B.M.	2.71	726.83	724.12
T.P.		7.35	719.48
	6.08	725.56	
4+80		5.71	719.85

Slope stakes

B.M.	1.73	751.62	749.89
------	------	--------	--------

2+00			726.52	Not set
1+75	3.92	747.70	727.20	C 20.5
1+50	4.53	747.09	727.89	C 19.2
1+25	8.75	742.87	728.57	C 14.3
1+00	9.36	742.26	729.26	C 13.0

July 25 - 1934 Elliott  
 Super  
 Isabell  
 Cuts along toe of N. Wall

B.M.	1.41	751.30		749.89		
1+00			10.3	41.0	729.3	C 11.7
+25			10.7	40.6	28.6	12.0
+50			8.9	42.4	27.9	14.5
+75			7.9	43.4	27.2	16.2
2+00			8.4	42.9	26.5	16.4
+25			9.4	41.9	25.8	16.1
+50			11.3	40.0	25.2	14.8
+75			12.0	39.3	24.5	14.8
3+00			12.4	38.9	23.8	15.1
+25			12.6	38.7	23.1	15.6
+50			14.8	36.5	22.4	14.1
+75			16.6	34.7	21.7	13.0

Finish Floor Cont.

B.M.	2.56	726.68		724.12
			5.62	721.06
	3.56	724.62		
4+87 <sup>29</sup>			4.97	719.65
4+70			4.50	720.12
4+50			3.95	720.67
4+30			3.40	721.22

July 27 - 1934  
Finish Floor

E 1110 #  
Soper  
Remmen

B.M.	2.80	726.92		724.12
			4.03	722.89
	3.42	726.31		
4+10			4.54	721.77
3+90			4.00	722.31
3+70			3.45	722.86

Slope stakes on North Spillway Slope  
July 28 - 1934.

B.M.	0.84	750.73		749.89	Ld. + TK. 0+55 Crest.
					<u>Floor Subgrade</u>
1+25		7.66	743.07	728.57	C-14 <sup>50</sup> out 7 <sup>25</sup>
1+50		7.24	743.49	727.89	C-15 <sup>60</sup> out 7 <sup>30</sup>
1+75		5.73	745.00	727.20	C-17 <sup>80</sup> out 8 <sup>30</sup>
2+00		4.81	745.92	726.52	C-19 <sup>2</sup> out 9 <sup>20</sup>

106  
30  
30  
166

106  
48  
154  
158  
162

72

4  
25  
106  
48  
58

Slope Points on East End  
of Spillway - Aug. 1-1934

73

B.M.	13.13	763.02		749.89		
T.P.			0.18	762.84		
	12.60	775.44				
T.P.			0.32	775.12		
	11.88	787.00			Finish Grade	
136 <sup>th</sup> no. of Face of Weir			+6.1	793.1	770.0	cut 23' out 11' <sup>50</sup>
136 <sup>th</sup> so. of Face of Weir			8.9	778.1	753.25	cut 22' <sup>9</sup> vertical on Back of 10' Level Section
106 <sup>th</sup> so. of Face of Weir			+3.4	790.4	758.50	
Set B.M.			2.94	784.06		
	4.53	788.59				
106 <sup>th</sup> so. of Face of Weir			+1.5 <sup>0</sup>	790.1	758.50	cut 31' <sup>6</sup> out 16' <sup>80</sup>
25 <sup>th</sup> South of Face of Weir			+0.5	789.1	742.45	cut 46' <sup>6</sup> out 23' <sup>3</sup>
45 <sup>th</sup> so. of Face of Weir			13.24	775.35	740.45	cut 34' <sup>9</sup> out 17' <sup>45</sup>

## Slope stakes - No. Side

Aug. - 9 - 1934

Simpson  
Soper  
Isabelle

74

B.M.	0.77	750.66	749.89	Subgrade	
1+00		10.40	740.26	729.26	C-11° out 5 <sup>5</sup>
+50		9.77	740.89	727.89	C-13° out 6 <sup>5</sup>
+75		9.96	740.70	727.20	C-13 <sup>5</sup> out 6 <sup>75</sup>
2+00		11.54	739.12	726.52	C-12 <sup>6</sup> out 6 <sup>3</sup>
+25		10.83	739.83	725.83	C-14° out 7°
+50		12.21	738.45	725.15	C-13 <sup>3</sup> out 6 <sup>6</sup>
T.P.		12.23	738.43		
	6.00	744.43			
2+75		8.27	736.16	724.46	C-11 <sup>7</sup> out 5 <sup>81</sup>
3+00		6.65	737.78	723.78	C-14° out 7°
+25		5.84	738.59	723.09	C-15 <sup>5</sup> out 7 <sup>75</sup>

Aug. 20 - 1934

B.M.	0.68	750.57	749.89		
T.P.		12.76	737.81		
	2.52	740.33			
		0.49	739.84	on slope Stake 2+25	C-14° - Rec. Elev. 739.83
2+00		2.91	737.42	726.52	C-10 <sup>9</sup> - out 5 <sup>20</sup>
1+75		4.43	735.90	727.20	C-8 <sup>70</sup> out 4 <sup>30</sup>
+50		7.14	733.19	727.89	C-5 <sup>3</sup> out 2 <sup>65</sup>
T.P.	5.68	738.43	7.58	732.75	
+25		6.66	731.77	728.57	C-3 <sup>2</sup> out 1 <sup>60</sup>
1+00		3.17	733.26	729.26	C-6° out 3°
0+75		6.29	732.14	729.94	C-2 <sup>2</sup> out 1 <sup>1</sup>

Check on B.M.s on Embankments

Feb 26 - 1934

Elliott  
Soper  
Remmen

Upstream

B.M.	3.12	711.65	708.53
T.P.		11.00	700.65
	3.22	703.87	
B.M.#1	South	2.63½	701.235
	6.48	707.71½	
B.M.#2	Middle	3.49½	704.22
	4.63½	708.85½	
B.M.#3	North	4.66½	704.19

Downstream

Check on B.M.s on Embankments

Feb 19 - 1934

75

Elliott  
Simpson  
Soper  
Remmen

Upstream

B.M.	2.32	710.85	708.53
T.P.		11.71½	699.13½
	5.44	704.57½	
B.M.#1		3.33½	701.24
	4.56½	705.80½	
B.M.#2		1.57½	704.23
	3.61	707.84	
B.M.#3		3.63½	704.20½

Downstream

B.M.	9.49½	703.58½	694.09
B.M.#1		3.42	700.16½
	6.27	706.43½	
B.M.#2		6.65	699.78½
	3.51	703.29½	
B.M.#3		2.45	700.84½

Feb. 15, 1934

Simpson  
Soper  
Remmen.Check B.M.S on Rock Emb's.  
For Movement,  
Upstream

B.M.	1.97	710.50		708.53
T.P.			11.37	699.13
	5.05	704.18		
# 1			2.92	701.26
	4.66	705.92		
# 2			1.67	704.25
	2.32	706.57		
# 3			2.36	704.21
				704.22

Down Stream

B.M.				694.09
	9.065	703.155		
# 1			2.980	700.175
	5.790	705.965		
# 2			6.160	699.805
	3.640	703.445		
# 3			2.580	700.865
				700.85

Feb. 16, 1934

Simpson  
Soper  
Remmen.Check B.M.S on Rock Emb's.  
For Movement,  
Down Stream

B.M.	8.975	703.065		694.09
# 1			2.890	700.175
	5.930	706.105		
# 2			6.305	699.800
	3.22	703.02		
# 3			2.165	700.855
				700.855

76



Feb. 7, 1934

Simpson  
Soper  
Remmen

Check Elevs. of B.M.s on Rock  
Embankments for Movement.  
upstream

B.M.	2.195	710.725	708.53	
T.P.			11.560	699.165
#1	4.270	703.435		Elev. 2/3/34 701.28.
			2.160	701.275
#2	4.335	705.61		
			1.34	704.27
	2.18	706.45		704.27.
#3			2.21	704.24
				704.24

Feb. 13, 1934  
upstream.

B.M.	2.155	710.685	708.53	
T.P.			11.550	699.135
#1	5.185	704.320		
			3.06	701.26
#2	4.38	705.64		
			1.385	704.255
#3	2.355	706.610		
			2.39	704.22
	2.48	706.70		
B.M.			2.88	703.82
				Rec. Elev. 703.83.

Simpson  
Soper  
Remmen.

77

check Elev. of Gauging point  
at top of North Spillway Slope.  
Feb. 7, 1934.

B.M.	9.44	945.74	936.30	
T.P.			0.99	944.75
	11.77	956.52		
T.P.			3.065	953.455
	8.380	961.835		Elev. 1/15/34.
Point "A"			8.985	952.850
				752.85

Check Elevs. of B.M.s. on Downstream  
Rock Emb. for movement.  
Feb. 13, 1934

B.M.	9.11	703.20	694.09	
				Elev. 2/3/34
#1	N3320 <sup>±</sup>		3.02	700.18
				700.20
	5.71	705.89		
#2	N3570 <sup>±</sup>		6.09	699.80
				699.825
	4.58	704.38		
#3	N3770 <sup>±</sup>		3.53	700.85
				700.885

B.M.s on downstream embankment  
 Set on Feb 3-1934  
 Elliott-Soper-Rammen  
 Original Elevs.

B.M.	8.93	703.02	694.09
B.M. #1 South	2.82	700.20	Point on Rock Lath + Flag
	5.90	706.10	
B.M. #2 Middle	6.27½	699.825	Point on Rock Lath and Flag
	6.04	705.86½	
B.M. #3 North	4.98	700.885	Point on Rock Lath and Flag

B.M.s on Upstream Emb. 78  
 Set on Feb 3-1934  
 Elliott-Soper-Rammen  
 Original Elevs.

B.M.	2.15	710.68	708.53
T.P.	4.25½	704.67	10.26½ 700.41½
B.M. #1	about N3330	3.98½	700.685
	9.17½	709.86	Point on Rock Lath + Flag
B.M. #2	N3620	6.19	703.67
	4.72	708.39	
		4.75½	703.635
B.M. #3	about N3860		Point on Rock Lath and Flag
	3.25	706.88	
		3.66	703.22
			703.83
	3.66	707.49	
# 3	4.70	708.94	3.25 704.24
# 2			4.67 704.27
	6.07	710.34	
# 1			9.06 701.28
	3.42	704.70	
T.P.			4.29 700.41
	11.14	711.55	
B.M.		3.03	708.52 708.53

Final Profile of Core Trench  
Dec. 18, 1923.

	1.60	708.60	707.00
4088		9.1	699.5
4099		9.1	99.5
4099		3.1	705.5
4110		2.9	705.7
	0.90	708.90	708.00
30		3.0	05.9
50		3.0	5.9
66		3.0	5.9

copied to Book #  $\frac{451}{45}$

Anchors 4° on slope  
from 6+00 = Set at 6+31  
Set at 6+58

0724  
26810  
181  
175  
60  
2121  
16800  
2121  
175  
60

2121  
724

40530  
7017

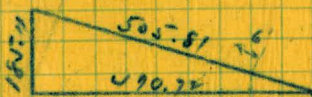
# North Sidewall Anchors. 6 ft. Centers.

Row Number 14 to Number — Corresponding to  
Spillway Crest Stations and  $\Delta$  Stations

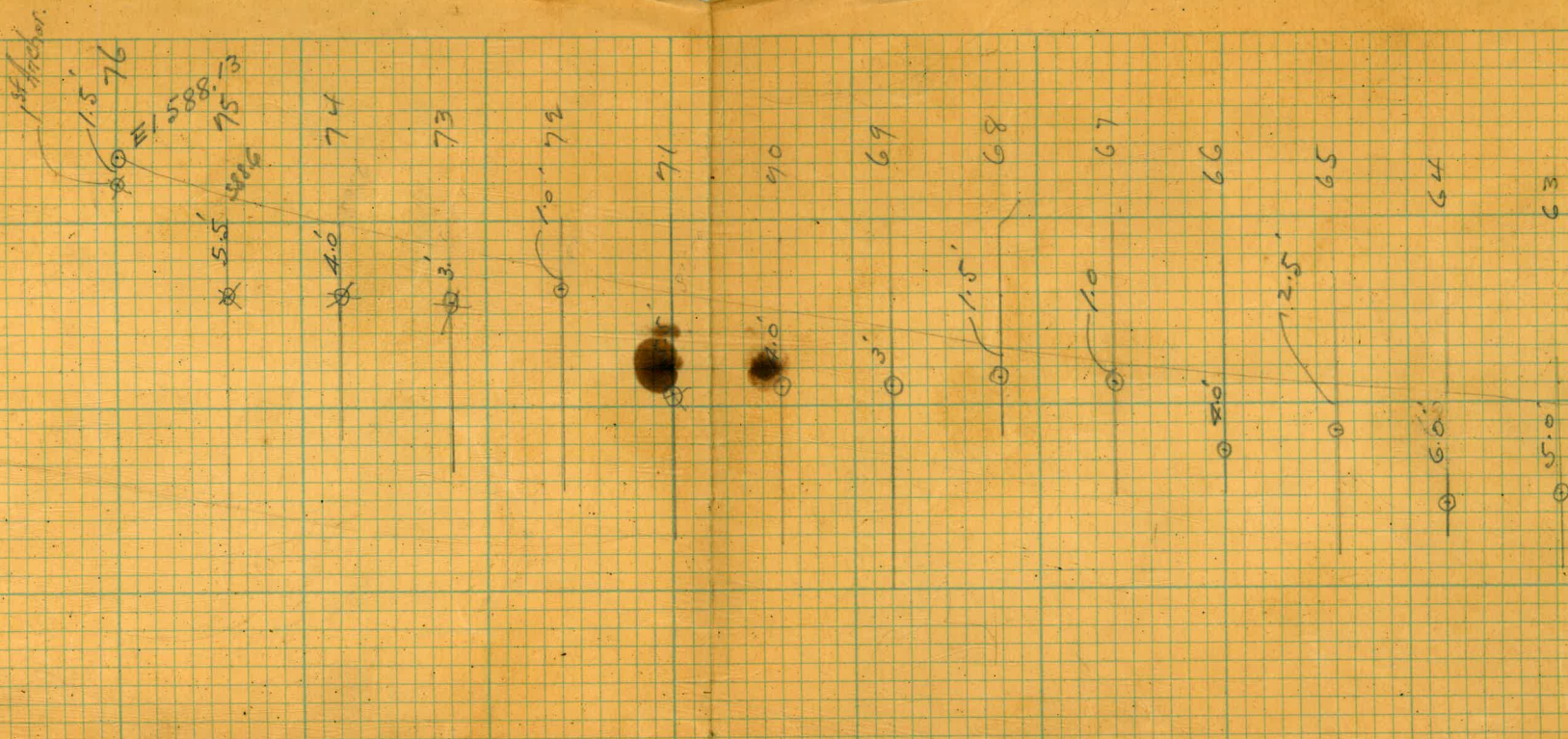
Row No.	Sta	No Anchors.	Row No.	Sta	No Anchors.
14	0+66.99		51	2+73.6	
15	72.6		52	79.1	
16	78.2		53	84.7	
17	83.7		54	90.3	
18	89.3		55	95.9	
19	94.9		56	3+01.5	
20	1+00.5		57	07.1	
21	06.1		58	12.6	
22	11.7		59	18.2	
23	17.2		60	23.8	
24	22.8		61	29.4	
25	28.4		62	35.0	
26	34.0		63	40.6	
27	39.6		64	46.1	
28	45.2		65	51.7	
29	50.7		66	57.3	
30	56.3		67	62.9	
31	61.9		68	68.5	
32	67.5		69	74.1	
33	73.1		70	79.6	
34	78.6		71	85.2	
35	84.2		72	90.8	
36	89.8		73	96.4	
37	95.4		74	4+02.0	
38	2+00.9		75	07.6	
39	06.6		76	13.1	
40	12.1		77	18.7	
41	17.7		78	24.3	
42	23.3		79	29.9	
43	28.9		80	35.7	
44	34.5		81	41.1	
45	40.1		82	46.6	
46	45.6		83	52.2	
47	51.2		84	57.8	
48	56.8		85	63.4	
49	62.4		86	69.0	
50	68.0			4+74.5	8
				80.1	

On curve 200' Rad.

Sta 9+00 to 4+70.72



$$\Delta \text{ per Sta} = \frac{470.72 \times 6.0}{505.81} = 5.583$$



El 594.08

L = 63.6

11700.29	554.79
10	551.96
20	49.40
30	47.22
40	45.43
50	44.03
60	43.01
70	42.39
11780.29	42.16

Subgrade = 1' Lower  
Finish = 1' Higher

Sta 11480 El 543.16

Cuts to Finish Grade  
of Anchors on 1/2:1 slope

1	-.89	1.79	5.366 = cons.
2	-1.58	7.16	
3	-6.26	12.52	
4	-8.94	17.887	
5	-11.62	23.25	
6	-14.31	28.62	
7	-16.99	33.98	
8	-19.68	39.35	
9	-22.36	44.72	
10	-25.04	50.08	

L = 42.67

Sta 11400 El 555.84

EUGENE DIEBLEN CO. NO. 315

640

641227

27.71

37.37

19397

8313

19397

8313

10,255,227

724.73

697.82

26.91

13.23  
24

735.09

10355

724.735

7474

717.260

19.54

697.72

717.26

692.61

24.65

3737

200

7.4740

5229

3737

36603

15687

36603

15687

19,540,773

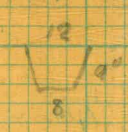
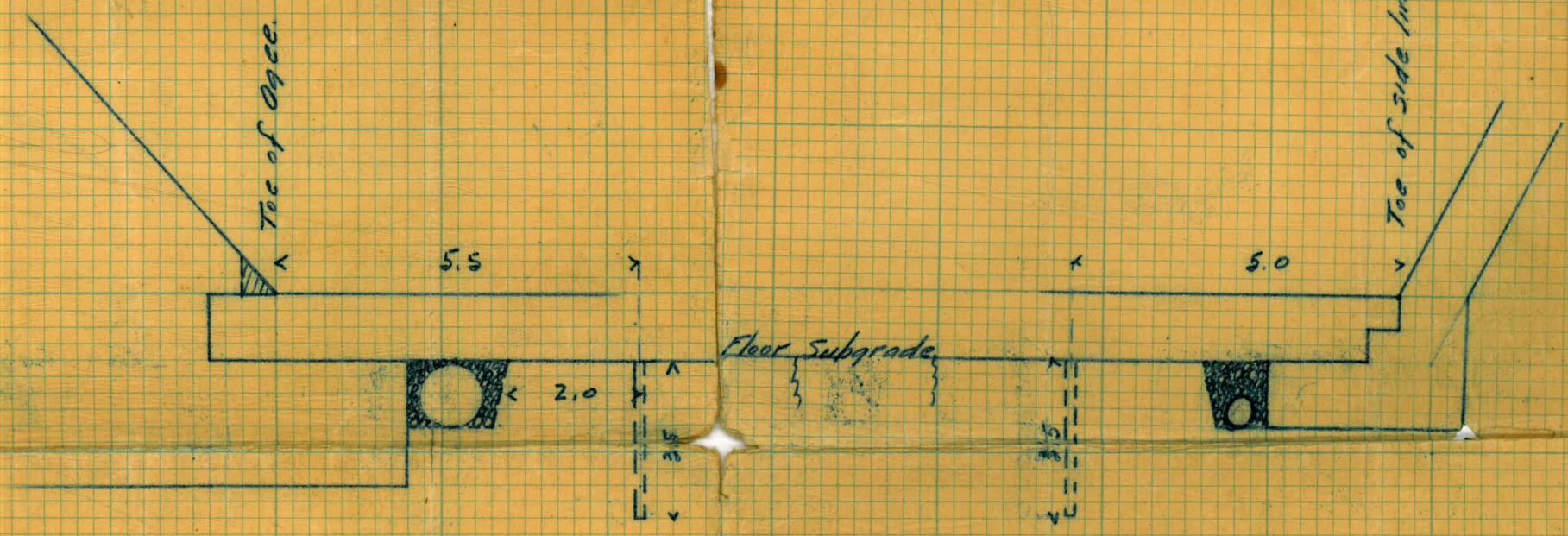
726.54

717.80

8.74

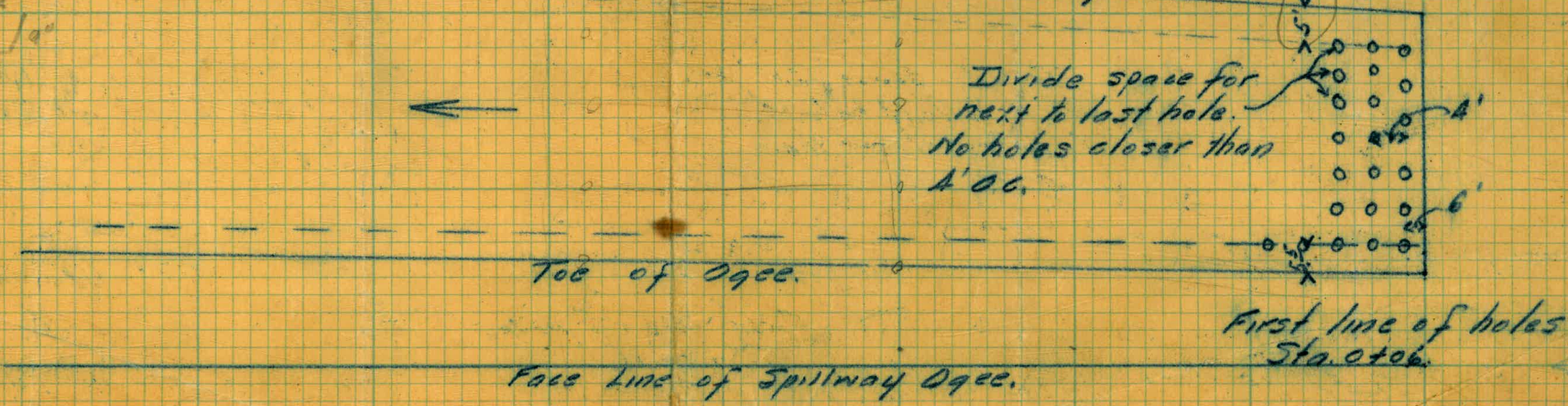
Oct. 31. 1933.  
G.M.G.

El Capitan Dam.  
Anchor holes in Spillway Floor.  
All holes on lines normal to face line of Ogee.



Toe of side lining. 6' 8" from back of subgrade

Divide space for next to last hole.  
No holes closer than 4' 00."



0+74

6  
66 74.5  
8.5

Final Profile of Core trench  
Dec 18, 1932.

	1.60	708.60	707.00
4088		9.1	699.5
4099		9.1	99.5
4099		3.1	705.5
4110		2.9	705.7
	0.90	708.90	708.00
30		3.0	05.9
50		3.0	5.9
66		3.0	5.9

copied to Book #  $\frac{451}{45}$

Anchors  $4^\circ$  on slope  
from 6+00 = Set at 6+31  
Set at 6+58

IMPROVED TABLES  
AND  
INFORMATION

1.0724  
26.810  
181  
175  
6.0  
5  
1

2121  
12807  
2121  
1108  
68

2.21  
1.0724  
8084  
4742  
14847  
2121  
22745604  
2121  
1.53

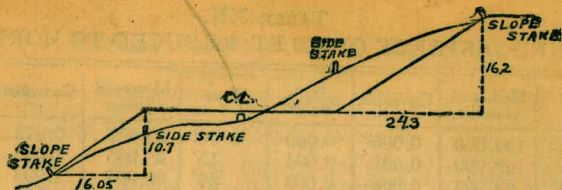
10530  
12019  
2-28-98

13005  
22547  
2430  
4-20-22

762  
934  
16.96

1048  
284  
1332





DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.

Side Hooks at 6+62 5.37 vert. =

+68  
+74  
+80  
+86  
+92

6+98

7+04

7+10

+16

+22

+28

+34

7+40

Floor Anchors

7+16.2

+20.0

+26.8

+27.6

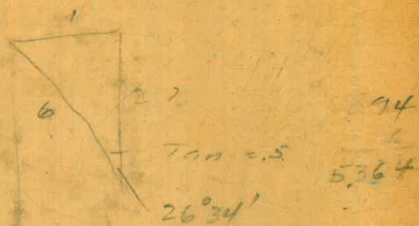
+31.4

+35.2

7+39.0

12  
6  $\frac{7}{16}$   
21  $\frac{15}{16}$   
40  $\frac{1}{2}$

5' 8"



5+329 = west Drain in  
wharped section

