

1392
Otay Water
on Wightman
Alignment

W323

MICROFILMED
JAN 12 1965

Otagy Res. - San Diego 2nd U.P.L.
Schedule IV
Construction Field Book

1930

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
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THE FREDERICK POST CO.
ENGINEERING and DRAFTING SUPPLIES
IRVING PARK STATION
CHICAGO, ILL.

Alignment	Page	1-19
Cut stakes	"	21-29
fine grades	"	50-57

Alignment Schedule A Otag
Reservoir - San Diego. Second
Main Pipe line

3/21/30 Loudon C.O.P.
Diermit Inst.
Isbell H. Ch.
Kanagay R. Ch.

855+12.95 = Beginning Schedule A

+50

+53.95 L.

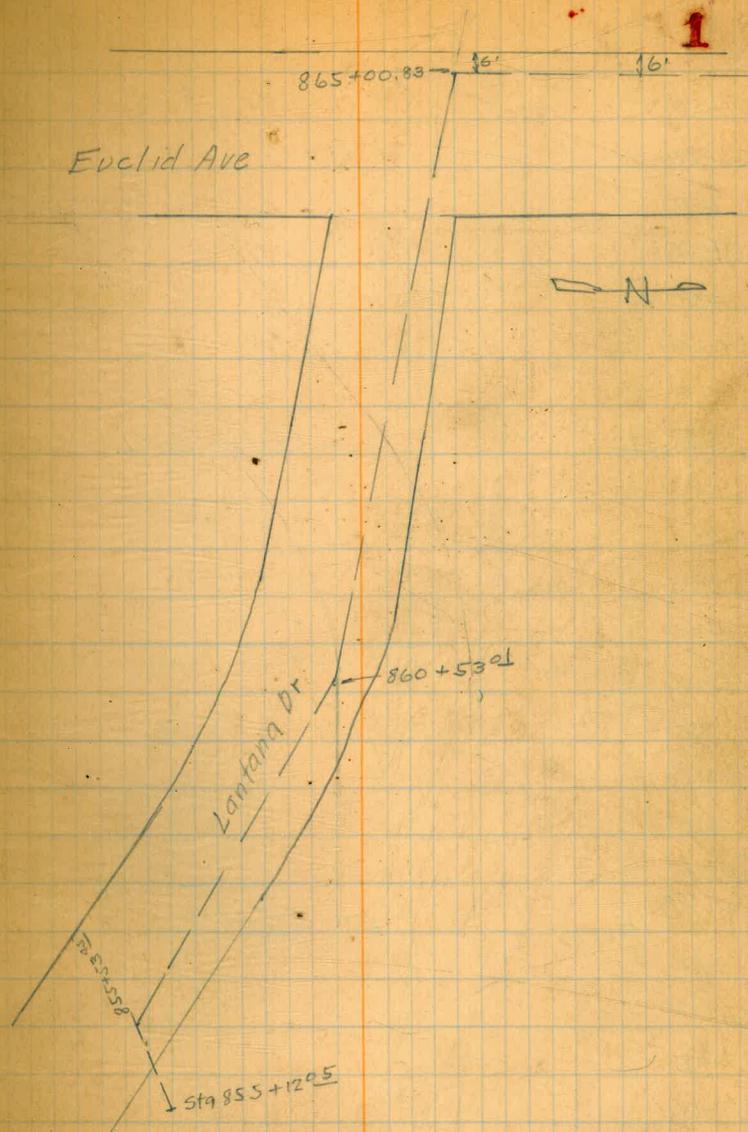
$\Delta = 33^{\circ}24' R$

856+00

+50

857+00

Euclid Ave



857+50

858+00

+50

859+00

+50

860+00

+50

+53⁹¹ L

$$\Delta = 21^{\circ}43'30'' L$$

861+00

+50

862+00

+50

863+00

+50

864+00

+50

865+00

+00⁸³ L

$$\Delta = 56^{\circ}44' R$$

+50

866+00

+50

867+00

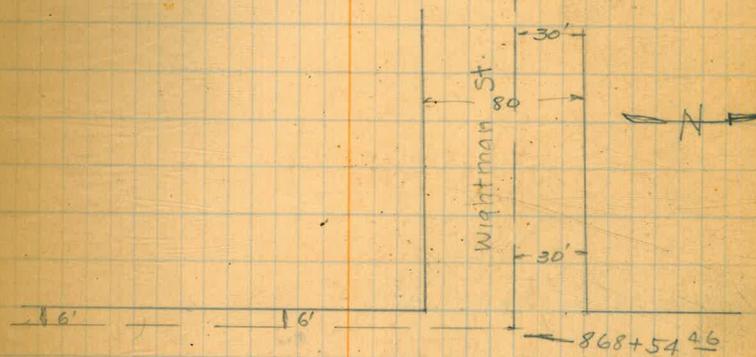
867+50

868+00

868+50

2

Line continues in
straight line to 954+58.89



Euclid Ave

868+54²⁴

$$\Delta = 89^{\circ} 58' 30'' L$$

869+00

+50

+94 & Alley W of Euclid

870+00

+50

871+00

+50

872+00

+50

873+00

873+25 & Alley W of 47th St.

+50

874+00

+50

875+00

+50

876+00

+50

+56 & Alley W of Menlo Ave

877+00

+50

878+00

+50

879+00

3

868 54 .46

865 00 .83

353.63

8.33

12) 345.30

28.

4.33

3.80

.63

9.30

63

9.93

65

.28

879+50

+85 ± Alley W. of 46th St.

880+00

+50

881+00

+50 Tied 32²⁶ to NE 7' tack - 32⁶⁸ to NW 7' tack

882+00

+50

883+00

+13⁵ ± Alley W. of Champeune

+50

884+00

+50

885+00 Tied 48⁸⁵ to NE 7' tack - 23³⁰ to NW 7' tack ^{45th St.}

+50

886+00

+25⁵ ± Alley W. of 45th St.

+50

2057

887+00

+50

888+00 Tied 26⁵⁸ to NE 7' tack - 44³⁰ to NW 7' tack ^{Highland Ave}

+50

889+00

+50

+80 ± Alley W. of Highland

890+00

+50

891+00

+50 Tied 36³² to NE 7' track - 44^B St - 29¹⁵ to NW 7' track+74^S W.L. 44th

892+00

892+50

893+00

+10 ± Alley w. of 44th

+50

894+00

+45 W.L. Fairmount.

+50

895+00 Tied 53⁴³ to N.E 7' track - 23²⁵ to NW 7' track Fairmount.

+50

896+00

S +41 ± Alley w. of Fairmount.

+50

897+00

+50
+75 E.L. 43rd898+00 Tied 29²⁴ to NE 7' track - 53⁴² to NW 7' track 43rd

898+50

+55 W.L. 43rd

899+00

+50

900+00

900+00 & Alley W. of 43rd

+50

901+00

+50

+50 E.L. Van Dyke

902+00 Tied 44th to NE 7' track - 35th to NW 7' track. Van Dyke

+36 W.L. Van Dyke.

+50

903+00

+50

+85 & Alley W. of Van Dyke.

904+00

+50

905+00

+35 E.L. 42nd

+50

906+00 Tied 63rd to NE 7' track - 24th to NW 7' track 42nd

+15 W.L. 42nd.

+50

907+00

+50

+65 & Alley W. of 42nd

908+00

+50

909+00

909+15 E.L. Marlborough.

+50 tied 36²⁵ to NE 7' tack - 43⁶⁹ to NW 7' tack Marlborough

+94 W.L. Marlborough

910+00

+50

911+00

911+45 \pm Alley W. of Marlborough

911+50

912+00 B.C.

$\Delta = 4^{\circ} 06' L$

$R = 1005.03$

$T = 36.00$

$L = 72.00$

+12

0-20-30 12.00

+24

0-41-00 11.00

+36

1-01-30 11

+48

1-22-00 11

+60

1-42-30 11

+72 E.C.

2-03-00 11

+84 B.C.

$\Delta = 8^{\circ} 12' R$

$R = 1005.03$

$T = 72.04$

$L = 144.00$

+96

0-20-30 "

913

+08

0-41-00 "

+20

1-01-30 "

+32

1-22-00 "

+44

1-42-30 "

+56

2-03-00 "

7

R.P.P. 11 31⁵² (NW) 31⁵² (NE) -19⁵⁸ to XS in N c b

R1. tied 63¹⁵ to NE 7' tack 64.40 to SE 7' tack
21st St.

912+94 = EL 21st

913+68
 909+ +80
 +92
 +919+04
 +16

2-23-30
 2-44-00
 3-04-30
 3-25-00
 3-45-30

+ +28 E.C.
 910 +40 B.C.

4-06-00

$\Delta = 40' 06" L$

$R = 1005.03$

$T = 36.00$

911 +52
 911 +64
 912 +76
 +88
 915+00

$L = 72.00$

0-20-30

0-41-00

1-01-30

1-22-00

1-42-30

2-03-00

+12 E.C.

+25 $\frac{1}{2}$ Alley W of 41st

+ +50

+ 916+00

+ +50

+ +74 E.L. Central

917+00 Tied 2929 to NE 7' tack 52³⁵ to N.W.

7' tack Central.

+ +50

+ +54 = w.l. Central

918+00

+50

919+00

+04 = $\frac{1}{2}$ Alley W. of Central.

913

+ +50

+ 920+00

P.I. Tied (NE) (NW) to X's on N 6.

913+74 = w.l. 41st

920+50

+53 EL 40th St

921+00 Tied 45th to NE 7' tack 39th to NW 7' tack

40th

19
92532
92745
- 84

+33 WL 40th

+50

922+00

+50

+84 & Alleg w of 40th

923+00

+50

924+00

+33 EL 39th St.

+50 Tied 24⁵⁵ to NE 7' tack 60⁶³ to NW 7' tack 39¹⁵ St.

925+00

+13⁵ WL 39th

+50

926+00

+50

+63 & Alleg w of 39th

927+00

+50

928+00

+13 EL 38th

+50

+93 WL 38

929+00

929+50

930+00

+14 & Alley w. of 38th

+50

931+00

+50

+92^E E.L. 37th932+00 Tied 23rd to NE 7th tack 69th to NW 7th tack37th St.

+50

+73rd W.L. 37th

933+00

+50

934+00

+23 & Alley w. of 37th

+50

935+00

+50

+72 E.L. Cherokee

936+00 Tied 30th to NE 7th tack 50th toN.W. 7th tack Cherokee

+50

+52 W.L. Cherokee

937+00

+50

938+00

+02 & Alley w. of Cherokee

938+50

939+00

+50

+52 EL 36th St940+00 Tied 46⁸⁵ to NE 7' tack 34th to NW 7' tack 36th+32 W.L. 36th

+50

941+00

+50

+82 & Alley W. of 36th

942+00

+50

943+00

+32 E.L. Wilson

+50 Tied 25³⁰ to NE 7' tack 59⁶² to NW 7' tack Wilson.

944+00

+12 W.L. Wilson

+50

945+00

+50

+62 & Alley W. of Wilson.

946+00

+50

947+00

+12 E.L. 35th

947+50 Tied 55¹² to SW 7¹² tack 53¹² to S.E. 7¹² tack 35th.

+92 W.L. 35th

948+00

+50

949+00

+42 ~~Alley~~ W of 35th

+50

950+00

+50

+91^E E.L. Swift

951+00

+50 Tied 56¹² to NE 7¹² tack 27³² to NW. 7¹² tack Swift.

+72 W.L. Swift

952+00

+50

953+00

+50

954+00

954+58⁸⁴ L

$\Delta = 73^{\circ} 27' R.$

R.P.s $50^{\circ} N$ $50^{\circ} E$ 1x1 Hubs

955+00

+50

956+00

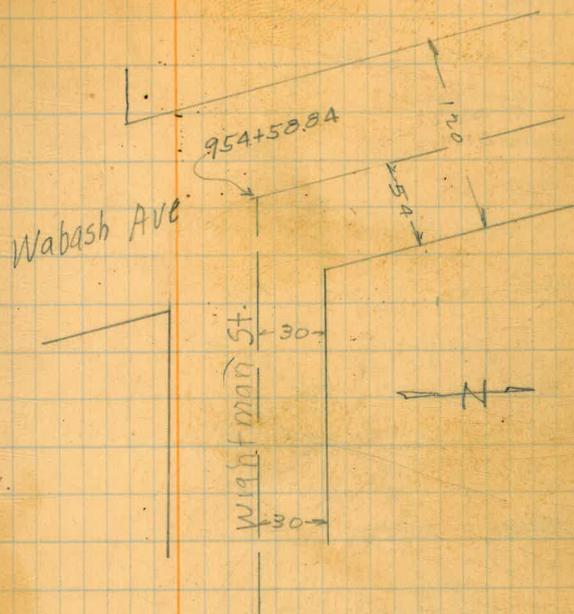
+50

957+00

+50

958+00

+50



959+00

+01^E Pav Univ.+23^E rail+29^E "+35^E "+41^E "+50^E+55^E Tel. Cond.

+64 culvert

+68 Lighting cond.

960+00 Tied: 38' NW 38' SW Nails Pav.

+50

961+00

+50

962+00

+07² = 962+38⁶³ R.P.S. @ curb 55⁸⁵ SE. - 50²³ N.E.
L in Lincoln $\Delta = 53^{\circ}06' L$

+50

963+00

+56

+94 Sewer Lateral 3' below Pav.

964+00

+50

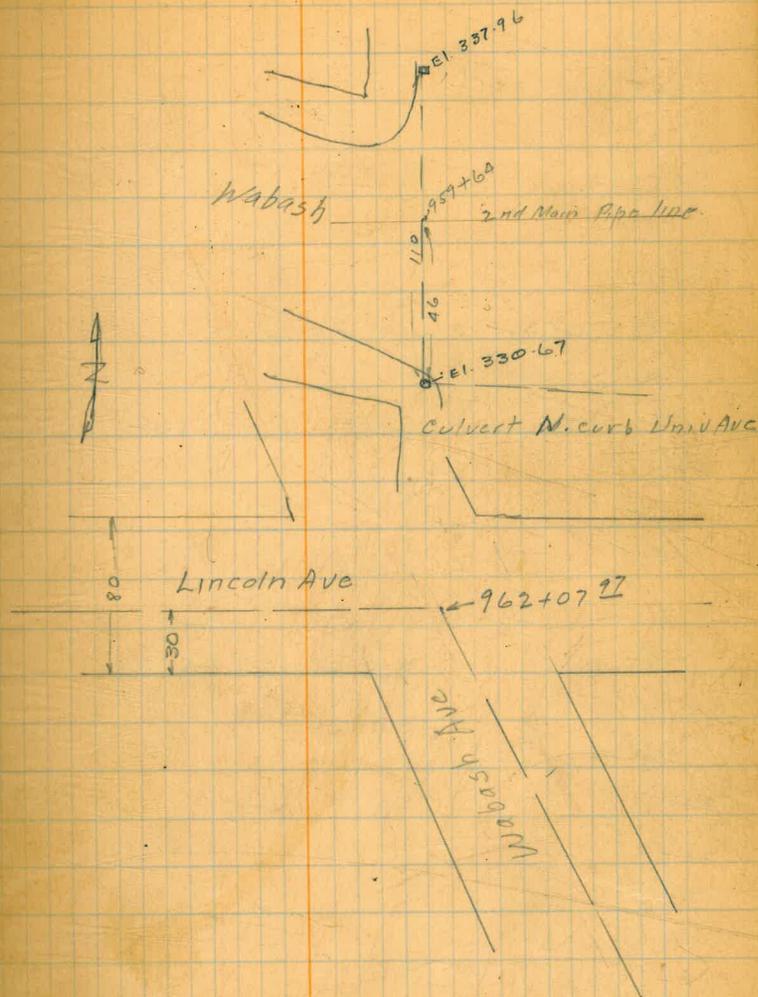
965+00

+50

966+00

+98¹⁶ L. = 966+66⁵³ $\Delta = 21^{\circ}11'30'' L$

+50



966+60⁰⁰ EL 33rd

967+00

+43 = w L 33rd

+50

968+00

+50

969+00

+14 culvert Alley w of 33rd.

+50

+97 ~~±~~ Big culvert. w of 33rd

970+00

+50

+76 End Pav on Lincoln.

971+00.

+13⁰⁰ L: $\Delta = 72^{\circ} 25' R$ R.P.s. ticks curb $49^{\circ} SE - 51^{\circ} SW$

+50

+64 N.E. Lincoln

972+00

+50.

973+00

+50

974+00

+50

975+00

+50

976+00

+18³³ L $\Delta = 1^{\circ}40' R$ R.P.s @ on curb $87^{\circ}12' S.E. - 41^{\circ}21' N.E.$

+50

976+00

+50

977+00

+50

978+00

+05 culvert from S.W. ret Polk
+25 30" w.m. in Polk
+50

+66 culvert from N.W. ret Polk

979+00

+50

980+00

+50

981+00

+50

982+00

+19 S Paw orange st.

+50

983+00

+02 N.L. Orange

+50

984+00

+50

985+00 S.L. Howard

+32²⁷ L $\Delta = 74^{\circ}02' L$ Tied 52³³ to N.W. 7' tack - 40¹⁵ to S.W. 7' tack

985+50

+72 W.L. Boundary.

986+00

+50

987+00

+22 & Alley W of 32nd

+50

988+00

+50

+72 E.L. Iowa.

989+00 Tied 31^L to SE 7' tack

+50

+52 W.L. Iowa.

990+00

+50

991+00

+01 & Alley W. of Iowa.

+50

992+00

+50

+52 E.L. Illinois.

993+00 Tied 47³⁵ to SE 7' tack 33⁵⁴ to SW 7' tack Illinois.

+32 W.L. Illinois.

+50

994+00

994+50

+82 \pm Alley w. of Illinois

995+00

+50

996+00

+52 E.L. Ohio

+50 Tied 25⁵⁹ to SE 7' tack 44⁵⁹ to NE 7' tack Ohio.

997+00

+12 w.L. Ohio.

+50

998+00

+50

+62 \pm Alley w. of Ohio.

999+00

+50

1000+00

+13 E.L. 30th+50 Tied 38⁵⁷ to SE 7' tack 53⁵⁸ to NE 7' tack 30th

1001+00

+50

1002+00

+42 \pm Alley w. of 30th

+50

1003+00

+50

+41 E.L. Kansas

1004+00

+50 Tied 56⁷¹ to SE 7' tack 26⁶³ to SW 7' tack Kansas

1005+00

+50

1006+00

+21 & Alley W. of Kansas

+50

1007+00

+50

+71 E.L. Utah.

1008+00 Tied 31²² to SE 7' tack 49²¹ to S.W. 7' tack Utah.

+50

+51 W.L. Utah.

1009+00

+50

1010+00

1010+01 & Alley W of Utah.

+26 BC

$$\Delta = 20.44 \text{ R}$$

1011+00

$$R = 1005.03$$

+50

$$T = 24.00$$

+51 56⁷¹ T. 1000

$$L = 48.00$$

1010+38

$$0-20-30 \quad 12.00$$

+50

$$0-41-00 \quad "$$

+62

$$1-01-30 \quad "$$

+74 E.C.

$$1-22-00 \quad "$$

P1. R.P. 3 xs in south curb Howard. 25'

1011+10 B.C.

 $\Delta = 2^{\circ}44' L$ $R = 1005.03$ $T = 24.00$ $L = 48.00$

1011+22

0-20-30 12-00

+34

0-41-00 "

+46

1-01-30 "

+51 E.L. Idaho

+58 E.C.

1-22-00 "

1012+00

+51¹⁸ Lakeside line.1013+10⁸⁶ L $\Delta = 22^{\circ}30' R$ +42²⁶ Filter riser.

P.1 R.P.s. x 5 in South Corb 25'

Tied 25.00 S.W. & S.E.

Cut stakes

Schedule 4

Sta	346.09	El	Grade	Cut	340.46 B.M. 5.63
855+120 ^E	7.6	338.5	330.58	7.9 ✓	346.09 H.I. 5.63
L +53 ⁴⁵	7.1	339.0	330.67	8.3 ✓	340.46 B.M. 3.65
856+00	6.5	339.6	330.77	8.8 ✓	344.11 H.I.
+50	6.1	340.0	330.88	9.1 ✓	
857+00	6.0	340.1	330.99	9.1 ✓	
+50	5.7	340.4	331.10	9.3 ✓	
858+00	5.6	340.5	331.21	9.3 ✓	
+50	5.5	340.6	331.32	9.3 ✓	
859+00	5.4	340.7	331.43	9.3 ✓	
+50	5.3	340.8	331.54	9.3 ✓	
860+00	5.1	341.0	331.65	9.4 ✓	
L +53 ²¹	5.2	340.9	331.77	9.1 ✓	
B.M. +60	5.1	341.0	331.80	9.2 ✓	
861+00	4.8	341.3	331.92	9.4 ✓	
+50	4.7	341.4	332.07	9.3 ✓	
862+00	4.6	341.5	332.22	9.3 ✓	
+50	4.7	341.4	332.37	9.0 ✓	
863+00	4.8	341.3	332.52	8.8 ✓	
+50	4.8	341.3	332.67	8.6 ✓	
864+00	4.8	341.3	332.82	8.5 ✓	
+50	344.11		332.97		
B.M. +60	3.5	340.6	333.00	7.6	
865+00	3.5	340.6	333.60	7.0 ✓	
B.M. +40	4.1	340.0	334.20	5.8 ✓	

Otay pipe line

21

Sta	El	Grade	Cut	344.11 H.I. 5.04
865+50	344.11	334.25		339.67 B.M.T.P.
866+00	4.9	339.2	334.50	4.7 ✓
+50	4.9	339.2	334.75	4.4
B.M. +60	4.9	339.2	334.70	4.4
867+00	4.8	339.3	334.80	4.4
+50	4.3	339.8	334.72	4.6
868+00	3.5	340.6	334.62	5.2
+50	345.12	334.41	334.52	6.1
L +54 ^{46 54}	4.5	339.7	334.41	5.3
869+00	4.5	340.6	334.60	344.81 B.M. 46 5.63
+50	4.4	340.7	334.40	350.49 H.I.
870+00	4.3	340.8	334.55	6.0
+50	4.2	340.9	334.72	6.0 ✓
871+00	4.1	341.0	334.89	5.9 ✓
B.M. +60	350.49 H.I. 8.8	341.7	335.06	5.8 ✓
B.M. +80	8.7	341.8	335.23	5.8 ✓
+96	8.3	342.2	335.43	6.3 ✓
872+50	6.5	344.0	335.68	6.1 ✓
B.V.C. +16	4.5	346.0	335.94	6.3 ✓
+40	4.4	346.1	337.45	6.5 ✓
E.V.C. +64	4.8	345.7	339.33	6.7 ✓
874+00	5.6	344.9	339.65	6.4 ✓
+60 B.M.	7.2	343.3	339.30	6.4 ✓
			338.25	6.6 ✓
			336.50	6.8 ✓

Sta		Elev.	Grade	Cut	
	349.70				
875+00	7.8	341.9	335.84	6.1 ✓	349.70 Hl. 90.00 339.65 BM.
+50	7.3	342.4	335.02	7.4 ✓	
876+00	7.1	342.6	334.19	8.4 ✓	344.84 B.M. 7.03
+50			333.37		351.87 Hl. 4.68
Brk. +60	7.1	342.6	333.20	9.4 ✓	347.19 TP. 8.00
877+00	6.9	342.8	333.53	9.3 ✓	355.21 Hl.
+50	351.87 Hl. 8.9	343.0	333.74	9.1 ✓	
878+00	8.6	343.3	334.35	8.9 ✓	
+50	8.0	343.9	334.76	9.1 ✓	
879+00	7.0	344.9	335.17	9.7 ✓	
+50	6.0	345.9	335.58	10.3 ✓	
Brk. 880+00	5.1	346.8	336.00	10.8 ✓	
+50	4.6	347.3	336.08	11.2 ✓	
881+00	4.4	347.5	336.16	11.3 ✓	
+50	4.6	347.3	336.24	11.1 ✓	
882+00	3.8	348.1	336.32	11.8 ✓	
+50	3.9	348.0	336.40	11.6 ✓	
883+00			336.48		
Brk. +10	4.2	347.7	336.50	11.2 ✓	
+50	4.2	347.7	336.68	11.0 ✓	
884+00	4.2	347.7	336.90	10.8 ✓	
+50	4.68	347.19	337.13	10.1 ✓	
885+00	355.21 8.5	346.7	337.35	9.3 ✓	
+50	7.1	348.1	337.58	10.5 ✓	
886+00	6.5	348.7	337.81	10.9 ✓	
Brk. +10	6.0	349.2	338.00	11.2 ✓	

Sta	Rod	Elev	Grade	Cut	
	355.21				22
887+00	5.6	349.6	338.94	10.7 ✓	355.21 Hl. 1.22
+50	4.9	350.3	339.72	10.6 ✓	353.77 TP. 5.98
888+00 Brk	4.8	350.4	340.50	9.9 ✓	359.77 Hl. 4.38
+50	3.9	351.3	342.03	9.3 ✓	355.39 BM. Fairmount
889+00	3.5	351.7	343.56	8.1 ✓	
+50	3.0	352.2	345.09	7.1 ✓	
+50 Brk	2.5	352.7	346.00	6.7 ✓	
890+00	2.3	352.9	346.12	6.8 ✓	
+50	1.7	353.5	346.41	7.1 ✓	
891+00	1.22	353.99	346.71	7.3 ✓	
	359.97				
+50	5.6	354.4	347.00	7.4 ✓	Pavement 14" ft.
892+00	5.1	354.9	347.30	7.6 ✓	
+50	4.9	355.1	347.59	7.5 ✓	
893+00	4.9	355.1	347.88	7.2 ✓	
+20 Brk	4.8	355.2	348.00	7.2 ✓	BM. 355.39 2.58
+50	4.8	355.2	347.63	7.6 ✓	357.97
894+00	4.8	355.2	347.01	8.2 ✓	
+50	4.7	355.3	346.38	8.9 ✓	
895+00	4.9	355.1	345.76	9.3 ✓	
+50	357.97 3.1	354.9	345.13	9.8 ✓	
896+00	3.2	354.8	344.51	10.3 ✓	
Brk. +40	3.5	354.5	344.00	10.5 ✓	896+50 Blow off
897+00	3.7	354.3	344.50	9.8 ✓	
+50	3.9	354.1	344.92	9.2 ✓	
898+00	4.6	353.4	345.34	8.1 ✓	

Sta	Rod	Elev.	Grade Elev.	Cut.	Sta	Rod	Elev.	Grade Elev.	Cut.
898+50	5.0	353.0	345.75	7.8	910+18	5.1	346.0	339.35	6.7
899+00	4.4	353.6	346.17	7.4	911+00	6.9	342.8	338.20	6.4
+50	4.1	353.9	346.58	7.3	+48	8.3	341.4	334.65	6.8
900+00 Brk.	3.7	354.3	347.00	7.3	912+00	10.4	339.3	332.78	6.5
+50	3.5	354.5	347.07	7.4	+48	12.5	337.2	331.18	6.0
901+00	3.4	354.6	347.13	7.5	+96	6.8	336.0	329.17	6.8
+50	3.5	354.5	347.20	7.3	913+24	PGC. 6.7	336.1	328.30	7.8
902+00	3.5	354.5	347.26	7.2	+36	6.8	336.0	327.93	8.1
+50	3.6	354.4	347.32	7.1	+48	6.9	335.9	327.67	8.2
903+00	2.7	354.1	347.38	6.7	+60	7.1	335.7	327.54	8.2
+50	2.9	353.9	347.44	6.5	+72	7.1	335.7	327.53	8.2
904+00 Brk.	2.9	353.9	347.50	6.4	+84	6.8	336.0	327.64	8.4
+50	3.2	353.6	346.88	6.7	+96	6.5	336.3	327.85	8.5
905+00	3.5	353.3	346.25	7.0	914+40	5.4	337.4	328.88	8.5
+50	4.8	352.0	345.63	6.4	+88	3.8	339.0	330.58	8.4
906+00 Brk.	5.1	351.7	345.00	6.7	915+12	7.5	339.9	331.47	8.4
+50	5.0	351.8	343.60	8.2	+50	7.5	339.9	331.47	8.4
907+00	6.0	350.8	342.19	8.6	916+00	6.4	341.0	332.65	8.4
+60 Brk.	6.8	350.0	340.50	9.5	+50	5.1	342.3	333.82	8.5
908+00	7.3	349.5	340.42	9.1	B.V.C. +82	5.1	342.3	334.58	7.7
+50	8.3	348.5	340.32	8.2	349.75	Grade stakes Ref. Road.			
909+00	9.0	347.8	340.21	7.6	897+00	2.0	357.7	344.5	13.2
+50	2.4	347.3	340.11	7.2	+50	4.1	355.6	344.7	10.7
B.V.C. +82	2.6	347.1	340.04	7.1	898+00	6.4	353.3	345.3	8.0
+74	2.8	346.7	339.95	7.0	+50	6.8	352.9	345.7	7.2
910+06	3.1	346.6	339.72	6.7	899+00	4.7	355.0	346.2	8.8
					+50	5.9	353.8	346.6	7.2
					900+00	5.5	354.2	347.0	7.2

357.99 H.I.
 3.75
 354.197
 2.61
 356.50 H.I.
 9.63
 347.17 H.I.
 347.16
 0.01 ✓
 Wrightman & Marble
 B.M. 347.16
 2.56
 347.72
 -12.46
 337.26
 5.53
 342.79
 7.27
 335.50
 335.50
 0.00
 Wrightman & Marble

353.66
 6.09
 359.75

40' MacCord
 B.M.
 343.59
 3.80
 347.39

	347.39	El	Grade	cut	B.M.
916+94	5.0	342.4	334.81	7.6	343.59
917+06	4.5	342.9	334.92	8.0	347.39
917+18 E.V.C.	4.4	343.0	334.92	8.1	-7.42
+50	4.5	342.9	334.77	8.1	339.97
918+00	4.1	343.3	334.56	8.7	+0.25
+50	4.3	343.1	334.35	8.8	340.22
919+00	4.5	342.9	334.15	8.7	-12.61
+50	4.7	342.6	333.94	8.7	327.61
920+00	4.9	342.5	333.74	8.8	+11.24
+50	4.9	342.5	333.53	9.0	328.85
921+00	4.7	342.7	333.32	9.4	9.16
+50	4.7	342.7	333.12	9.6	319.69
922+00	5.3	342.1	332.91	9.2	B.M.
+50	5.9	341.5	332.71	8.8	384
+80 E.V.C.	6.2	341.2	332.50	8.7	
923+00	6.4	341.0	332.29	8.7	
+50	6.9	340.5	331.77	8.7	
924+00	7.4	340.0	331.25	8.8	
+50	340.22	0.8	337.4	330.73	8.7
+90 E.V.C.	1.3	338.9	330.31	8.6	
925+02	1.5	338.7	330.12	8.6	
+14	1.8	338.4	329.83	8.6	
+26	2.5	337.7	329.41	8.3	
+38	3.2	337.0	328.89	8.1	
+50 E.V.C.	4.0	336.2	328.25	8.0	

	340.22	El.	Grade		
926+00	7.2	333.0	325.34	7.7	
+50	10.4	329.8	322.43	7.4	
927+00	328.85	2.2	326.6	319.52	7.1
+50	5.8	323.0	316.61	6.4	
928+00	8.4	320.4	314.66	5.7	
+32 E.V.C.	9.4	319.4	313.60	5.8	
+44	9.3	319.5	313.27	6.2	
+56	9.3	319.5	313.09	6.4	
+68	9.6	319.2	313.04	6.2	
+80	9.8	319.0	313.15	5.9	
+92	9.3	319.5	313.40	6.1	
929+04	8.7	320.1	313.79	6.3	
+16	7.9	320.9	314.30	6.6	
+28 E.V.C.	7.1	321.7	315.00	6.7	
+50	5.6	323.2	316.37	6.8	
930+00	339.07	12.5	326.6	319.49	7.1
+50	9.4	329.7	322.61	7.1	
931+00	6.3	332.8	325.73	7.1	
+50	3.4	335.7	328.87	6.8	
E.V.C.	+70	2.1	337.0	330.13	6.9
+82	1.3	337.8	330.81	7.0	
+94	0.9	338.2	331.35	6.9	
932+06	0.8	338.3	331.75	6.6	
+18	0.7	338.4	332.02	6.4	
E.V.C.	+30	0.6	338.5	332.13	6.4

338.81
0.26
339.07

339.07					339.07 H 0.50 338.57 TP 9.46 348.03 0.04 347.99 TP 4.75 352.77 H					
932+50	0.5	338.6	332.22	6.4	941+00	4.9	347.9	340.46	-7.4	352.77 H. 4.17
933+00	8.7	339.3	332.45	6.9	+50	4.6	348.2	340.62	-7.6	348.60 TP 5.24
+50	7.7	340.3	332.67	7.6	942+00	4.6	348.2	340.76	-7.4	354.44 H1 3.68
B.V.C. +90	6.6	341.4	332.87	8.5	+50	4.3	348.5	340.9.1	-7.6	350.76 TP 350.74 TP
934+02	6.4	341.6	332.99	8.6	943+00	4.2	348.6	341.07	-7.5	0.02 ✓ Wilson L
+14	6.1	341.9	333.25	8.7	+50	6.2	348.2	341.22	-7.0	
+26	5.8	342.2	333.63	8.6	944+00	5.8	348.6	341.37	-7.2	
+38	5.6	342.4	334.16	8.2	+50	4.7	349.7	341.53	-8.2	B.V. 350.74 5.75
E.V.C. +50	5.4	342.6	334.80	7.8	945+00	4.2	350.2	341.69	-8.5	356.49
B.V.C. +90	4.3	343.7	337.20	6.5	+50	5.7	350.8	341.85	-8.0	9.0
935+02	4.0	344.0	337.85	6.2	B.V.C. +70	5.4	351.1	341.91	-9.2	
+14	3.8	344.2	338.36	5.8	+82	5.2	351.3	342.01	-9.3	
+26	3.5	344.5	338.73	5.8	94	4.8	351.7	342.20	-9.5	
+38	3.1	344.9	338.96	5.9	946+06	4.7	351.8	342.36	-9.4	
E.V.C. +50	2.8	345.2	339.05	6.2	+18	4.6	351.7	342.99	-8.9	
936+00	1.7	346.3	339.13	7.2	E.V.C. +30	4.5	352.0	343.50	-8.5	
+50	1.9	346.1	339.22	6.9	B.V.C. +70	4.3	352.2	345.50	-6.7	
937+00	6.0	346.8	339.30	7.5	+82	4.1	352.4	346.03	-6.4	
+50	6.1	346.7	339.40	7.3	+94	4.0	352.5	346.42	-6.1	
B.V.C. 938+00	5.6	347.2	339.50	7.7	947+06	3.8	352.7	346.65	-6.0	
+50	5.6	347.2	339.66	7.5	+18	3.8	352.7	346.75	-6.0	
939+00	5.2	347.6	339.82	7.8	E.V.C. +30	3.8	352.7	346.70	-6.0	
+50	5.0	347.8	339.98	7.8	01	352.4				
940+00	5.1	347.7	340.14	7.6						
+50	5.1	347.7	340.30	7.4						

352.77					352.77				
941+00	4.9	347.9	340.46	-7.4	352.77 H. 4.17				
+50	4.6	348.2	340.62	-7.6	348.60 TP 5.24				
942+00	4.6	348.2	340.76	-7.4	354.44 H1 3.68				
+50	4.3	348.5	340.9.1	-7.6	350.76 TP 350.74 TP				
943+00	4.2	348.6	341.07	-7.5	0.02 ✓ Wilson L				
+50	6.2	348.2	341.22	-7.0					
944+00	5.8	348.6	341.37	-7.2					
+50	4.7	349.7	341.53	-8.2	B.V. 350.74 5.75				
945+00	4.2	350.2	341.69	-8.5	356.49				
+50	5.7	350.8	341.85	-8.0	9.0				
B.V.C. +70	5.4	351.1	341.91	-9.2					
+82	5.2	351.3	342.01	-9.3					
94	4.8	351.7	342.20	-9.5					
946+06	4.7	351.8	342.36	-9.4					
+18	4.6	351.7	342.99	-8.9					
E.V.C. +30	4.5	352.0	343.50	-8.5					
B.V.C. +70	4.3	352.2	345.50	-6.7					
+82	4.1	352.4	346.03	-6.4					
+94	4.0	352.5	346.42	-6.1					
947+06	3.8	352.7	346.65	-6.0					
+18	3.8	352.7	346.75	-6.0					
E.V.C. +30	3.8	352.7	346.70	-6.0					
01	352.4								

B.V.C	356.49	El.	grade		356.49
947+70	4.1	352.4	346.30	-6.1	9.60 346.85
+82	4.1	352.4	346.11	-6.3	1.65 348.50
+90	4.3	352.2	345.78	-6.4	9.50
948+06	4.9	351.6	345.31	-6.3	B.M. 340.00 had swift
+18	5.5	351.0	344.70	-6.3	
E.V.C +30	6.1	350.4	343.97	-6.4	
+50	7.2	349.3	342.61	-6.7	
949+00	9.6	346.9	339.22	-7.7	swift
B.V.C +16	2.3	346.2	338.13	-8.1	B.M.
+28	2.8	345.7	337.38	-8.3	2.84
+40	3.3	345.2	336.75	-8.5	337.36 340.20
+52	3.8	344.7	336.23	-8.5	13.09
E.V.C +64	4.3	344.2	335.81	-8.4	327.11 0.26
950+00	5.9	342.6	334.79	7.8	327.3741
+50	8.4	340.1	333.35	6.8	
951+00	11.1	337.4	331.90	5.5	
+50	3.2	337.0	330.46	6.5	340.20
B.V.C +70	3.6	336.6	329.87	6.7	
+82	4.0	336.2	329.48	6.7	
+94	4.7	335.5	328.97	6.5	
952+06	5.6	334.6	328.37	6.2	
+18	6.6	333.6	327.65	6.0	
E.V.C +30	8.0	332.2	326.81	5.4	
+50	9.5	330.7	325.35	5.4	

	340.20	El.	Grade	Cut.	
953+00	13.1	327.1	321.70	5.4	
+50	3.8	323.6	318.05	5.5	327.37 6.00
954+00	7.3	320.1	314.40	5.7	321.37 13.05
+22	10.1	317.3	312.78	4.5	334.42 18
+34	10.0	317.4	312.00	5.4	334.24
+46	10.3	317.1	311.42	5.7	
+58	11.0	316.4	311.03	5.4	
+70	9.6	317.8	310.85	7.0	
+82	9.1	318.3	310.86	7.4	
+94	7.5	319.9	311.07	8.8	
955+06	6.8	320.6	311.48	9.1	334.25 5.10
E.V.C +18	13.0	321.4	312.12	9.3	339.38 11.01
+50	12.7	321.7	314.02	7.7	338.3777 10.64
B.M. 956+00	10.5	323.9	317.00	6.9	349.01 H1
+50	9.1	325.3	318.66	6.6	
957+00	7.1	327.3	320.32	7.0	
+50	6.0	328.4	321.98	-6.4	
958+00	4.5	329.9	323.65	-6.3	
+50	2.8	331.6	325.32	6.3	
B.M. 959+00	0.8	333.6	327.00	6.6	
+50	4.1	335.3	327.83	7.5	
B.V.C +96	2.0	337.4	328.60	8.8	
960+20	1.0	338.4	329.25	9.2	
E.V.C +44	9.9	339.1	330.40	8.7	
961+00	8.0	341.0	333.66	7.3	

349.01

PVC					
961+16	7.5	341.5	334.60	6.9	349.01
+40	6.6	342.4	335.77	6.6	$\frac{7.37}{341.42 TP}$
EVC					$\frac{2.83}{344.25 HI}$
+64	5.8	343.2	336.48	6.7	$\frac{6.06}{338.19 DM}$
962+00	5.2	343.8	337.20	6.6	
PVC					
+16	5.2	343.8	337.52	6.3	
+40	5.5	343.3	337.76	5.7	
EVC					
+64	5.5	343.5	337.50	6.0	
963+00	6.0	343.0	336.75	6.3	
+50	6.5	342.5	335.71	6.8	
964+00	7.0	342.0	334.67	7.3	
+50	7.6	341.4	333.63	7.8	
+80 Brk	3.3	340.9	333.00	7.9	
965+00	3.5	340.7	332.98	7.7	
+50	4.0	340.2	332.93	7.3	
966+00	4.7	339.5	332.87	6.6	
+38 ¹² L	5.0	339.2	332.83	6.4	
+60 Brk	5.1	339.1	332.80	6.3	
967+00	5.8	338.4	332.19	6.1	
+50	7.2	337.0	331.65	5.4	
Brk					
968+00	7.6	336.6	331.00	5.6	
+50	7.8	336.4	329.34	7.1	
PVC					
+84	8.0	336.2	328.20	8.0	
+96	8.1	336.1	327.88	8.2	
969+08	8.2	336.0	327.71	8.3	
+20	8.2	336.0	327.69	8.3	
+32	8.1	336.1	327.83	8.3	

344.25

969+44	8.0	336.2	328.12	8.1	338.78 DM
+56 EVC	7.9	336.3	328.60	7.7	$\frac{9.42}{348.20 HI}$
970+00	10.8	337.4	330.55	6.8	$\frac{3.67}{344.53 TP}$
+50	8.6	339.6	332.77	6.8	$\frac{3.53}{350.06 HI}$
PVC					$\frac{3.19}{346.87}$
+70	7.7	340.5	333.67	✓ 6.8	Hydrant
+82	7.3	340.9	334.15	6.8	SE Polk
+94	7.2	341.0	334.52	6.5	Barcraft
971+06	6.9	341.3	334.80	✓ 6.5	$\frac{4.88}{351.75 HI}$
+18	6.5	341.7	334.97	✓ 6.7	
EVC					
+30	6.4	341.8	335.04	✓ 6.8	
+50	6.5	341.7	335.07	✓ 6.6	
972+00	5.7	342.5	335.14	✓ 7.4	
+50	5.4	342.8	335.21	✓ 7.6	
973+00	5.0	343.2	335.28	✓ 7.7	
+50	4.9	343.3	335.35	✓ 8.0	
974+00	3.9	344.3	335.42	✓ 8.9	
+50	3.5	344.7	335.49	✓ 9.2	
975+00	3.2	345.0	335.56	✓ 9.4	
+50	2.8	345.4	335.63	✓ 9.8	
976+00	4.6	345.5	335.70	✓ 9.8	
+28 ²⁵	5.0	345.1	335.74	✓ 9.4	
+50	5.0	345.1	335.77	✓ 9.3	
977+00	4.6	345.5	335.84	✓ 9.7	
+50	5.9	345.8	335.91	✓ 9.9	
EVC					
+90	5.8	345.9	335.96	9.9	

27

MS 351.75

978+02	5.7	346.0	336.00	10.0
+14	5.4	346.3	336.04	10.3
+26	5.2	346.5	336.10	10.4
+38	5.2	346.5	336.20	10.3
^{EVC} +50	5.2	346.5	336.40	10.1
979+00	4.6	347.1	340.00	7.1
+50	2.9	348.8	342.50	6.3
^{Prk} 980+00	1.1	350.6	345.00	5.6
+50	11.2	352.3	346.59	5.7
981+00	9.9	354.1	348.19	5.9
+50	7.7	355.8	349.78	6.0
982+00	5.8	357.7	351.38	6.3
+50	4.3	359.2	352.97	6.2
983+00	2.6	360.9	354.57	6.3
+50	1.1	362.4	356.17	6.2
984+00	7.4	364.2	357.76	6.4
+50	5.7	365.9	359.36	6.5
^{PVC} +96 ⁷²	4.2	367.4	360.85	6.6
985+03 ⁷²	3.9	367.7	361.17	6.5
+20 ⁷²	3.7	367.9	361.38	6.5
+32 ⁷² L	3.6	368.0	361.47	6.5
+44 ⁷²	3.7	367.9	361.44	6.5
+56 ⁷²	4.1	367.5	361.30	6.2
^{EVC} +68 ⁷²	4.0	367.6	361.06	6.5

351.75 HI

-1.11
350.64 TP 12.77
363.52 HI 1.07
362.43 TP 9.14
371.57 HI 2.06
369.51 BM 32-Howard
371.57 HI 11.38
359.99 BM
361.00 0.01
BM Orange Boundary

986+00
+50
987+00
+50
988+00
+50
^{BVC} +82
+94
989+06 ^{EVC} H8
+50
990+00
+50
991+00
+50
992+00
+50
+80
993+00
+50
994+00
^{BVC} +60
995+00
+50
996+00
^{Prk} +60

371.26

4.6	366.7	360.25	6.4
6.0	365.3	358.96	6.3
7.4	363.9	357.67	6.2
8.8	362.5	356.38	6.1
10.0	361.3	355.09	6.2
11.1	360.2	353.80	6.4
6.0	359.6	352.97	6.6
6.0	359.6	352.72	6.9
6.0	359.6	352.59	7.0
6.2	359.4	352.57	6.8
6.8	358.8	352.70	6.1
6.4	359.2	352.90	6.3
6.1	359.5	353.10	6.4
6.0	359.6	353.30	6.3
5.6	360.0	353.50	6.5
5.4	360.2	353.70	6.5
4.9	360.7	353.90	6.8
4.8	360.8	354.00	6.8
4.7	360.9	354.33	6.6
4.1	361.5	355.16	6.3
3.7	361.9	355.99	5.9
3.1	362.5	357.00	5.5
2.8	362.8	357.05	5.8
2.3	363.3	357.10	6.2
1.7	363.9	357.15	6.8
1.3	364.3	357.20	7.1

28

BM Hyd
3rd Branch, Howard

369.51
1.75
371.26
11.07
360.19
5.40
365.59
1.27
364.32
7.62
371.96

997+00	372.0 7.6	364.4	357.43	7.0	371.96
+50	7.1	364.9	357.71	7.2	<u>2.88</u> 369.08
Brk. 998+00	6.7	365.3	358.00	7.3	Brk Hyd SE. Howard x 30th
+50	6.3	365.7	358.21	7.5	
999+00	6.0	366.0	358.41	7.6	
+50	5.6	366.4	358.62	7.8	
1000+00	5.2	366.8	358.83	8.0	
Brk +40	4.9	367.1	359.00	8.1	
1001+00	4.7	367.3	360.57	6.7	
+50	4.3	367.7	361.88	5.8	
Brk 1002+00	3.9	368.1	363.20	4.9	Brk Hyd Howard rd. chas.
+50	3.5	368.5	363.20	5.3	372.41
1003+00	3.1	368.9	363.20	5.7	377
+50	2.7	369.3	363.20	6.1	<u>376.18</u> 2.73
1004+00	376.18 6.3	369.7	363.20	6.7	373.43 4.96
Brk +20	5.9	370.3	363.20	7.1	<u>378.39</u> 376.18
+50	5.8	370.4	363.70	6.7	7.72
1005+00	5.7	370.5	364.53	6.0	Gas-368.46
+50	5.2	371.0	365.35	5.6	
1006+00	4.8	371.4	366.17	5.2	
Brk +20	4.6	371.6	366.5	5.1	
+50	4.4	371.8	366.42	5.4	
1007+00	3.9	372.3	366.28	6.0	
+50	3.5	372.7	366.14	6.6	
Brk. 1008+00	2.8	373.4	366.00	7.4	
+50	378.37 4.4	374.0	365.63	8.4	

378.37				29	
1009+00	4.9	373.5	365.25	8.3	
+50	4.9	373.3	364.88	8.6	
Brk. 1010+00	5.2	373.2	364.50	8.7	
+26 B.C.5.2	373.2	364.41	8.8		
+50	5.3	373.1	364.33	8.8	378.37 Gas-7.40
+74 E.C.	5.4	373.0	364.24	8.8	
1011+10 B.C.	5.5	372.7	364.11	8.8	378.37 5.37
+34	5.6	372.8	364.03	8.8	373.02
+58 E.L.	5.9	372.5	363.82	8.7	
1012+00	379.08 6.5	372.6	363.40	9.2	Brk 373.01
Brk +20	5.8	373.3	363.20	10.1	6.07
Brk +60	3.7	375.4	363.20	12.2	379.08
1013+10 ⁸⁶ / ₂	4.1	375.0	368.14	6.9	
+42 ²⁶ / ₂	3.7	375.4	371.20	4.2	

351.31

978+62	4.9	346.4	336.60	9.8
+74	4.7	346.6	337.10	9.5
+86	4.4	346.9	337.65	9.3
+98	4.1	347.2	338.60	8.6
979+10	3.7	347.6	339.60	8.0
+22	3.4	347.9	340.50	7.4
+34	3.0	348.3	341.40	6.9
+46	2.6	348.7	342.30	6.4

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	+	H.I.	-	Grade Elev.	Euclid Lafayette
Sta. of Brks	5.68	346.19			
	2.82	336.40	12.56	333.58	
860 + 53 ⁰¹ P.I.			4.63		
856 + 06 ²³ Brk			5.62	330.78	
	12.26	443.04			
855 + 33 ⁴⁵ P.I.			12.37	330.67	
+ 12 ⁰⁵ Flange start of line			12.46	330.58	
853 + 32 ⁷³			12.41	330.63	
	4.70	345.16		340.46 ^{BM}	
865 + 10 ⁸³ P.I.			11.55	333.61	
	4.96	338.57			
864 + 60 Brk			5.57	333.00	
865 + 40 ^{Brk}			4.37	334.20	
	4.70	345.16		340.46 ^{BM}	
866 + 60			10.46	334.70	
868 + 54 ⁴⁶ P.I.			10.56	334.60	
	4.90	344.56		339.66 ^{BM}	in light man Euclid
869 + 57 ⁴⁶ P.I.			9.96	334.60	
	6.83	346.49		339.66 ^{BM}	
871 + 60 P.V.C.			11.06	335.43	
+ 72			10.89	335.60	
+ 84			10.72	335.77	
+ 96 E.V.C. TP			10.55	335.94	
	7.73	343.67			
873 + 16 P.V.C.			4.34	339.33	
+ 28					
+ 40			4.02	339.65	

Sta.	+	H.I.	-	Elev.
				340.46
				5.68
				346.14
				12.56
				333.58
				2.82
				336.40
				31.77
				4.63
873 + 52				343.67
+ 64 E.V.C.			4.37	339.30
874 + 60 Brk.			7.17	336.50
876 + 60 Brk.			10.47	333.20
				346.27
				13.07
				2.61
				343.90
			4.74	2.61
				343.66
			13.71	344.82 - 344.54 BM
				343.81
			12.33	
855 + 53 ⁴⁵			12.44	330.78 - 856 + 06
855 + 12 ⁰⁵ Flange			12.53	330.67 F. 1 ⁰ Resot.
				330.58 F. 1 ² "
873 + 16			1.86	341.19
+ 28				339.33
+ 40				1.61
				339.58
+ 52				1.54
				339.65
+ 64 E.V.C.				1.61
				339.58
				1.89
				339.30

4.96
6.6
5.57
339.66
6.93
346.49

	+	HI	-		BM.
	4.20	352.20			348.00
89 TP	0.71	341.47	11.44	340.76	
880+00 Brk.			5.47	336.00	
880+10 Brk.			4.97	336.50	
812+90			✓ 5.00	336.47	
	5.00	345.46		340.46	Enclid BM. Lantana 5-12-30
865+00 ⁸³			11.85	333.61	Resol
	4.72	345.18		340.46	BM.
860+53 ⁸¹			13.27	331.91	C-160
864+60 Brk.	4.99	337.99		329.00	Brk.
865+00 ⁸² Pl.	3.79	344.25	4.38	333.61	Resol.
				340.46	BM. 5-13-31
865+40 Brk			10.05	334.20	✓
866+60 Brk			9.55	334.70	✓
868+54 ⁸⁵ Pl.	5.40	340.00	9.65	334.60	
871+60 ⁸⁶ Pl.	5.64	341.07	4.57	335.43	
+72			5.47	335.60	
+84			5.30	335.77	
+96 E.V.C.			5.13	335.94	
873+16 E.V.C.			1.74	339.33	
+28			1.49	339.58	
+40			1.42	339.65	
+52			1.49	339.58	
+64			1.77	339.30	
874+60			4.57	336.50	
876+60			7.87	333.20	
TP	6.26	340.26	2.07	334.00	

					340.26
880+00 Brk	5.48	341.48	4.26		336.00
883+10 Brk			4.98		336.50
Wrightman & 5th B.M.					
	6.48			353.91	347.43
7 P.	1.42			344.25	342.83
Brk					
886+40			6.25		338.00
Brk					
888+00	7.94	348.44	3.75		340.50
Brk					
889+80	6.65	352.65	2.44		346.00
Brk					
893+20	2.96	350.96	4.65		348.00
Brk					
896+40			6.96		344.00
B.M.	3.63	359.02			355.39
Brk					
896+40			+1	15.02	344.00
B.M.	4.71	359.68			354.97
893+20			11.68		348.00

			Wrightman Van Dyke
B.M	H. 11	358.84	354.73
Brk			
900+00			11.80 347.00
Brk			
904+00			11.34 347.50
B.M	3.59	356.24	352.65
Brk			
906+00			11.24 345.00
B.M	1.89	354.54	352.65
909+30			13.20 341.34
B.M	3.60	350.76	347.16
909+84	B.V.C		10.72 340.04
+96			10.82 339.94
910+08			11.05 339.71
+20	E.V.C		11.37 339.39
B.M	5.42	340.92	335.50
913+20	B.V.C		12.30 328.62
B.M	4.35	339.85	335.50
913+32			11.69 328.16
+44			11.99 327.86
+56			12.18 327.67
+68			12.26 327.59
+77			12.22 327.63
+80			12.20 327.65
E.V.C			
+92			12.10 327.75
915+12			9.25 330.60

Central B.M	22.2	345.81	343.59
915+25			10.76 c 417. 14.93 330.88
B.V.C			
916+82			11.23 334.58
+94			11.00 334.81
917+06			10.89 334.92
917+18	E.V.C		10.89 334.92
917			
B.M	2.08	345.20	343.12
922+80	Brk		12.70 332.50
B.M	5.62	325.28	319.66
928+25	B.V.C		313.89
+37			11.74 313.54
+49			11.98 313.30
+61			12.09 313.19
+73			12.08 313.20
+85			11.95 313.33
+97			11.71 313.57
929+09			11.32 313.96
+21	E.V.C		10.84 314.44
B.M	2.53	341.34	338.81
931+70	B.V.C		11.21 330.13

H. 1.

5.10 343.91

338.81 BM. 37th

931+70 B.V.C

330.13

13.10 ✓ 330.81

12.56 ✓ 331.35

12.16 ✓ 331.75

11.89 ✓ 332.02

932+30 E.V.C

11.78 ✓ 332.18

933+90 B.V.C

11.04 ✓ 332.87

10.92 ✓ 332.99

10.66 ✓ 333.25

out. 10.28 333.63

9.75 ✓ 334.16

934+50 E.V.C.

9.11 ✓ 334.80

934+85 B.V.C.

7.01 ✓ 336.90

6.11 ✓ 337.80

5.81 ✓ 338.10

5.31 ✓ 338.60

5.01 ✓ 338.90

935+45 E.V.C.

4.87 339.04

3.82 351.48

347.66 BM. 36th

938+44 B.V.C

11.78 339.50

4.90

TP 455
945+64 B.V.C

357.38

351.23 10.70

946+24 E.V.C

947+70 B.V.C

947+30 E.V.C

947+70 B.V.C

948+30 E.V.C.

53

352.48
346.68

9.34 341.89

9.26 341.97

9.08 342.15

8.82 342.41

8.46 ✓ 342.77

8.03 ✓ 343.20

5.73 ✓ 345.50

5.20 ✓ 346.03

4.81 ✓ 346.42

4.58 ✓ 346.65

4.48 ✓ 346.75

4.53 ✓ 346.70

4.91 ✓ 346.32

5.10 ✓ 346.13

5.53 ✓ ~~4.53~~ 345.80

5.88 ✓ 345.35

6.47 ✓ 344.76

7.20 ✓ 344.03

	H.I.			
4.30	351.96	347.66	B.M. 36 th	
941+00 Brk		11.50	340.16	
941+02 Brk		10.26	341.70	
2.88	353.62	350.74	B.M. Wilson	
945+00		11.92	341.70	
945+70 PVC 10' grad sewer		11.73	341.89	
Read-1003		11.77	341.85	C-1.70
B.M	0.07	334.35	334.28	
TP	2.39	323.87	12.87	321.48
954+02 B.V.C		11.09	312.78	
+26		11.35	312.52	
+38		12.06	311.81	
+45		12.47	311.40	
+58 ⁸⁹ C		12.84	311.03	
76 ⁹³		13.02	310.85	
81 ⁹³		13.01	310.86	
87 ⁹³ Gate		12.92	310.95	
955+0A ⁰⁸		12.46	311.41	
+12 ⁰⁸		12.07	311.80	
+18 E.V.C		11.75	312.12	
12.79	324.91	312.12		
955+82 B.V.C		8.98	315.93	
955+94		9.41	316.50	
956+06		7.63	317.28	
+18 E.V.C		7.31	317.60	
6.50	330.68	0.93	328.98	
958+88		4.01	326.49	

54

Swift			
B.M	9.35	346.71	337.36
949+16 B.V.C			
+21	-8.58		338.13
+33	-8.88		337.83
+45	9.60		337.11
+57	-10.18		336.53
+64 E.V.C (5' head)	10.60		336.11
	-10.90		335.81
	11.04		
B.M	2.88	340.24	337.36
951+73 B.V.C			
	10.46		329.78
	10.91		329.33
	11.42		328.82
	12.05		328.19
	12.80		327.44
952+33 E.V.C			
	13.65		326.59
5.25	331.72		326.47
959+00			
+15	4.72		327.00
	4.47		327.25

1.77	341.46	339.67
959+92 B.V.C	12.97	328.49
	12.72	328.74
	12.4	329.05
	11.99	329.47
960+40 E.V.C	11.46	330.00
961+12 B.V.C	7.26	334.20
	6.66	334.86
	6.01	335.45
	5.53	335.93
961+60 E.V.C	5.13	336.33
962+12 B.V.C		337.38
	3.88	337.58
	3.78	337.68
	3.76	337.70
962+60 E.V.C	3.85	337.61
0.82	340.51	339.69
964+50	6.88	333.63

B.M 0.85 344.70

965+00	11.72	332.98
965+38 ^{1/2}	11.87	332.83
B.K+00	11.94	332.76
T.P. 8.58	12.54	332.16
340.74		
962+00	9.74	331.00
962+78	12.34	328.40
B.M 1.85		338.78
340.63		
970+70 B.V.C	7.09	333.54
	6.59	334.04
	6.20	334.43
	6.00	334.63
971+13 ⁰³ L	5.38	346.26
	5.75	334.88
971+30 E.V.C	5.24	335.02
972+50	5.05	335.21
968+91	12.63	328.00
969+02	12.88	327.75
969+20	12.94	327.69
969+31	12.80	327.83
969+36	12.70	327.93
969+48	12.36	328.27
969+56 E.V.C	11.85	328.78

332.98

55

4475.0 Alley
343.85

972+50	5.25	340.46		335.21
974+00	3.69	339.11	5.04	335.42
			3.37	335.74

B.M.	3.67	351.38		347.71
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T.P.	2.00	343.56	9.82	341.56
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977+90	B.V.C.		-7.60	335.96
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			-7.56	336.00
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			-7.52	336.04
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			7.46	336.16
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			7.36	336.20
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			7.16	336.40
--	--	--	------	--------

			6.96	336.60
--	--	--	------	--------

			6.46	337.10
--	--	--	------	--------

			5.91	337.65
--	--	--	------	--------

			4.96	338.60
--	--	--	------	--------

			3.96	339.60
--	--	--	------	--------

			3.06	340.50
--	--	--	------	--------

			2.16	341.40
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979+46	EV ^{5.04}	347.34	1.26	342.30
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980+00	Brk.		2.34	345.00
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B.M.	7.22	369.22		360.00
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			11.36	357.86
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B.M.	1.97	371.48		
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984+62 ²²	11.73			
+74 ²²	11.48			

984+86 ²²	11.45			
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984+98 ²²	skib.			
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985+70 ²²	11.02			
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985+17 ²²	10.73			
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985+32 ²²	10.48			
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985+49	10.28			
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985+61	10.28			
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+73	10.52			
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B.M.	4.34	364.37		
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988+82	B.V.C.	11.40		
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5.33	358.30			
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	5.46			
--	------	--	--	--

	5.71			
--	------	--	--	--

	5.73			
--	------	--	--	--

	4.30			
--	------	--	--	--

369.57

56

357.75

360.00

360.03

360.24

360.46

360.75

361.00

361.20

361.20

360.96

360.03

352.97

352.97

352.84

352.59

352.57

354.00

59

60

61

64

67

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101

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71

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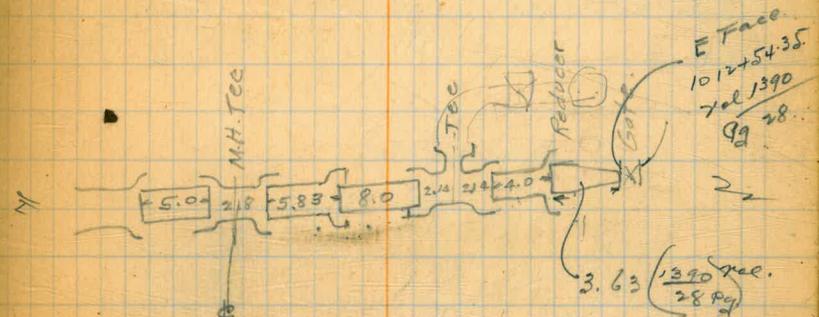
78

78

Cut stakes Drain at Wabash
 & Wightman. Elevs. from Profile.

0+00				
+41	312.8	309.4	3.4	
	311.3	308.2	3.1	
1+23.5E	310.4	307.0	3.4	
1+72	301.2	295.6	5.6	
2+00	290.0	289.0	1.0	

6/71 Caulting 940+00
 0/71 Laying 947+00



1012+54.35 -	3.63
27.14	4.00
1012+27.21	4.28
	8.00
	5.83
	1.40
	27.14

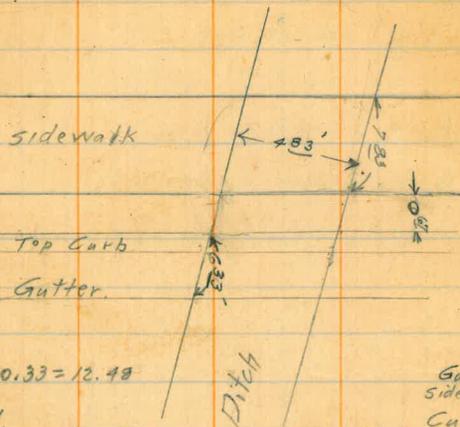
*+ 26.50 per
 minute cut*

3.63 (1390 x 28)

Pavement cut Sta. 855 + 12.03

Curb.
8' of Curb

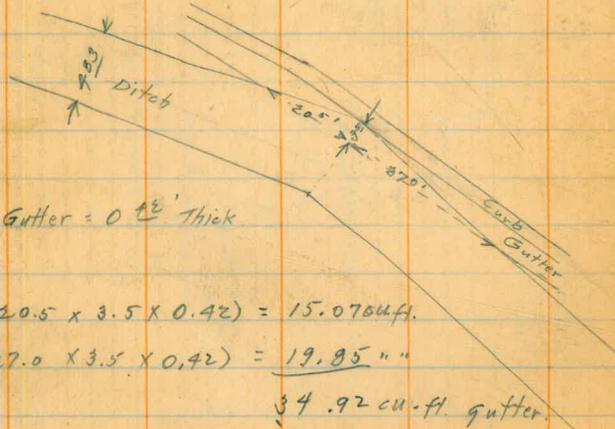
Gutter.
Area.
30.57 sq. ft.
12.84 cu. ft.



Gutter = 0.42' Thick
sidewalk = 0.33' "
Curb = 1.33' "

Walk
 $4.83 \times 7.83 \times 0.33 = 12.48$
37.82 sq. ft.

Pavement Cut.
Sta 858 + 53.01



Gutter = 0.42' Thick

$$\frac{1}{2} (2.05 \times 3.5 \times 0.42) = 15.0764 \text{ ft.}$$

$$\frac{1}{2} (27.0 \times 3.5 \times 0.42) = 19.85 \text{ ft.}$$

34.92 cu. ft. gutter.

83.12 sq. ft gutter.

10" W.M. in Euclid.

B.M
239.66
6.14
245.80
6.01
339.79
233.95
C 5.84

6" W.M. Alley bet Highland & 44th

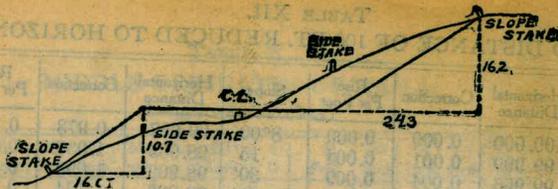
B.M 354.97
2.34
357.31
4.64
352.67
350.20 - gr. to b
C 2.47

6" W.M. Bet VanderKam & 2nd

B.M 352.65
6.05
358.70
4.81
353.89
347.2
C 6.69

6" W.M. Alley W of Swift.

337.36
0.58
337.94
11.70
326.24
320.00 - gr
C 6.24



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.

30'
 7.5
 6.25
 8
 5.45
 6.8
 1.35

77946
 97790
 156
 75
 750
 1092
 11700
 17
 468
 178
 187

$H \frac{1}{6} (A + a + 4m)$

3.9
 3.6
 5.48
 2.66
 0.82

5.48
 4.76
 72

11-1
 10-10

.0000066
 12
 .0000792
 20
 .0015840

10.83
 10.43
 11.03
 11.41
 11.15
 11.23
 10.83
 11.23

10.83
 10.43
 21.26
 11.03
 32.29
 11.41
 11.15
 23.56
 11.23
 33.79

11.23 5.83 28 50 11.23