

PROJECT A09822

STERLING HWY.

STA. 740 TO 983

ALIGNMENT AND REF.

76.11.05 STERLING HWY: MP 37-62

CROSS SECTION BOOK

DEC. 1976

5 MAY 1977

INDEX

Alignment

Ref.

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2 to 11

12 to 14

Sta. level Dist. slope Dist. Vert. Hvy. 4

Combined Factor
0.9998913

P.O.T. #2 777+32.23

POB

2,078.64 2,078.72

20 18.41

(1) 90° 30.5'
(2) 269° 28.8
M = 0° 30' 21"
From P.O.T. #1
To P.O.T. #2

P.O.T. #1 756+53.59

1,653.59 1,653.59

16 53.41

(1) 89° 54'
(2) 270° 05.8
M = 0° 05' 54"
From P.O.T. #1
To HV-2

HV-2 740+00.00

(1) 0° 00.0
(2) 0° 00.0
M = 0° 00' 27"
(4) 0° 00.0
M = 0° 00' 27" Defl. Lt

HV-4

Dec 8, 1976

Cred - Smith
Banks
West
Kestenberg
Howard
Fisher

PI. #1

871+74.47

P.O.T. #2

777+32.23

PK. Nail

P.O.T. #1

756+53.59

PK. Nail

Wrong
0° 00' 27"

740+00.00

HV-2

PK. Nail

HV-4

PK. Nail

3 Sta level Dist slope Dist. Vert. Δ Hor. Δ

P.O.T. #5 815+05.87

1363.57

1,363.85
72

1,363.86

(1) 87°-10.5'

(2) 270°-49.8

M=0°-49'-39"

From P.O.T. #5
To P.O.T. #4

P.O.T. #4 801+42.02 on Top of Hill between HV-2 & P.I. #1 used
To set up line

868.04

868.13

868.13

(1) 87°-49.5

(2) 270°-10.5

M=0°-10'-30"

From P.O.T. #3
To P.O.T. #4

P.O.T. #3 792+73.89

1541.49

1,541.66

1,541.66

(1) 90°-06.2

(2) 269°-53.8

M=0°-06'-12"

From P.O.T. #3
To P.O.T. #2

P.O.T. #2 777+32.23

HV-2

Dec. 8, 1976
95/10

same crew

3

P.I. #1 871+74.47

P.O.T. #5 815+05.87

PK. Nail

P.O.T. #4 801+42.02

PK. Nail

P.O.T. #3 792+73.89

PK. Nail

P.O.T. #2 777+32.23

HV-2 770+00.00

PK. Nail

Sta. level Dist. slope Dist. Vert. Δ Hor. Δ

P.O.T. #8 860+43.59

1528.58

1,538.75

2669.34

2,669.63 2,669.67

(1) 89°-50.0'

(2) 270°-10.0'

M=0°-10'-00"

from P.I. #1
To P.O.T. #7

P.O.T. #7 845+04.84

1338.91

1,339.06

4008.25

4,008.69 4,008.71

(1) 89°-50.0'

(2) 270°-07.7'

M=0°-07'-51"

from P.I. #1
To P.O.T. #6

P.O.T. #6 831+65.78

1659.73

1,659.91

1,660.06

(1) 90°-47.0'

(2) 269°-13.2'

M=0°-46'-57"

from P.O.T. #5
To P.O.T. #6

P.O.T. #5 815+05.87

P.I. #1 871+74.47

P.O.T. #8 860+43.59
PK. Nail

P.O.T. #7 845+04.84
PK. Nail

P.O.T. #6 831+65.78
PK. Nail
Note Dec. 10 Tripod blow down
by Sea land Truck
& broke Tripod

P.O.T. #5 815+05.87
PK. Nail

H.V. 2 740+00.00

Sta. Level Dist Slope Dist Vert Δ Horiz Δ

PI. #2

PT. 874+63.60

PI. #1 871+74.47

PC. 868+83.35

839.61
839.76

P.O.T. #8 860+43.59

- (1) $11^{\circ}-36'-2''$
- (2) $23^{\circ}-12'-6''$
- $M = 11^{\circ}-36'-18''$
- (4) $46^{\circ}-25'-2''$
- $M = 11^{\circ}-36'-18''$ Defl. RA

- (1) $89^{\circ}-55'-5''$
- (2) $270^{\circ}-09'-7''$
- $M = 0^{\circ}-04'-36''$
- From PI. #1
To P.O.T. #8

1130.76

1,130.88 1,130.88

Dec. 8, 9th 10 1976

Same Crew

PI. #2

PT. 874+63.60
PK. Nail

$11^{\circ}-36'-18''$

PI. #1 871+74.47

$\Delta = 11^{\circ}-36'-18''$ RA

$D = 2^{\circ}$

$T = 291.12'$

$L = 580.25'$

$R = 2,864.79'$

$E = 19.75'$

5/8" Re bar in sh. - 0'

P.O. 868+83.35
PK. Nail

P.O.T. #8 860+43.59
PK. Nail

HV-2

Sta. level Dist Slope Dist Vert Δ Hor. Δ

PI. #2

P.O.T. #9 883+14.47

1141.89

1142.01 1142.05

PI. #1 871+74.47

(1) 90°-30.5'
(2) 269°-30.0'
M= 0°-30'-15"
From PI. #1
To P.O.T. #9

Dec. 8, 9, 10 1976

Same Crew

PI. #2

P.O.T. #9 883+14.47
PK nail

PI. #1 871+74.47

Sta. level Dist. Slope Dist. Vert. Δ Hor. Δ

E.O.P. 983+73.90

PT. 899+07.87

PT. #2 895+67.48

2394.74

2,395.00 2,395.12

P.C. 892+19.54

PT. #1 871+74.47

(1) 20°-39.0'
(2) 41°-18.1'
M= 20°-39'-03"
(4) 82°-36.0'
M= 20°-39'-00" Defl. Lt.

(1) 90°-34.3
(2) 269°-25.9
M= 0°-34'-12"
From PT. #2
To PT. #1

Dec. 8, 9, 10 1976

Same Crew

E.O.P. 983+73.90
P.K. Nail

PT. 899+07.87
P.K. Nail

20°-39'-00"

$\Delta = 20^\circ-39'-00''$
D= 3"
T= 347.94'
L= 688.33'
R= 1,909.86'
E= 31.44'

PT. #2 895+67.48
5/8" Rebar up + 03

P.C. 892+19.54
P.K. Nail

PT. #1 871+74.47

Sta. level Dist. Slope Dist. Vert. Δ Hor. Δ
 E.O.P. 983+73.90

P.O.T. #12 957+83.07

(1) $90^\circ-10.0'$
 (2) $269^\circ-42.0'$
 $M = 0^\circ-16'-00''$
 from P.I. #2
 To P.O.T. #12

6222.46

6223.14 6223.21

P.O.T. #11 942+02.18

(1) $90^\circ-19.8'$
 (2) $269^\circ-40.8'$
 $M = 0^\circ-19'-30''$
 From P.I. #2
 To P.O.T. #11

4641.75

4642.25 4642.32

P.O.T. #10 926+14.24

(1) $90^\circ-24.2'$
 (2) $269^\circ-36.2'$
 $M = 0^\circ-24'-36''-00''$
 From P.I. #2
 To P.O.T. #10

3053.98

3054.31 3054.39

P.I. #2 895+67.48

Dec. 8, 10 & 14 1976

Same Grade

E.O.P. 983+73.90

P.O.T. #12 957+83.07
 P.K. Nail

P.O.T. #11 942+02.18
 P.K. Nail

P.O.T. #10 926+14.24

P.I. #2 895+67.48

Sta. level Dist Slope Dist Vert X Hor. Z

HV-25

1448.89 ✓

1449.05 ✓ 1449.09

(1) 90°-24'0
(2) 267°-36'0
M 0°-24'-00"
From E.O.P.
To HV-25

(1) 0°-00.5'
(2) 0°-00.9'
M= 0°-00'-27"
(4) 0°-01.8
M= 0°-00'-27" Defl. R

E.O.P. 983+73.90 ✓

953.88 ✓

953.98 ✓ 954.01

(1) 90°-27.4'
(2) 267°-32.2'
M= 0°-27'-42" 36"
From E.O.P.
P.O.T. #13

P.O.T. #13 974+18.92 ✓

7859.14 ✓

7859.99 ✓ 7860.04

(1) 90°-12.3'
(2) 267°-47.3'
M= 0°-12'-30"
From P.I. #2
To P.O.T. #13

P.I. #2 895+67.48

Dec. 8, 9, 10, 14, 17/6

PK HV-25

0°-00'-27"

on Dec. 8 Range Pole
& Tripod hit on this Point

E.O.P

983+73.90
PK Nail

on Dec. 14, 1976
leg broke on Tripod by Truck

P.O.T. #13

974+18.92
PK Nail

P.I. #2



895+67.48

4 PT. #2 BK

2473.78

2,474.05 2,474.14

(1) 89°-30.0'
(2) 270°-30.0'
M= 0°-30'-00"
From 4 PT. #1 BK
To 4 PT. #2 BK

4 PT. #1 BK

1040.94

1,641.12 1,641.25

(1) 19°-12.3'
(2) 38°-24.9'
M= 19°-12'-27"
(4) 76°-49.3'
M= 19°-12'-20" Defn. R/L

(1) 90°-43.8'
(2) 269°-16.2'
M= 0°-43'-48"
From 4 PT. #1 BK
To HV-26

PT. #2 895+67.48

(1) 1°-24.1'
(2) 2°-48.3'
M= 1°-24'-09"
(4) 5°-37.0'
M= 1°-24'-15" Defn. R/L

HV-26

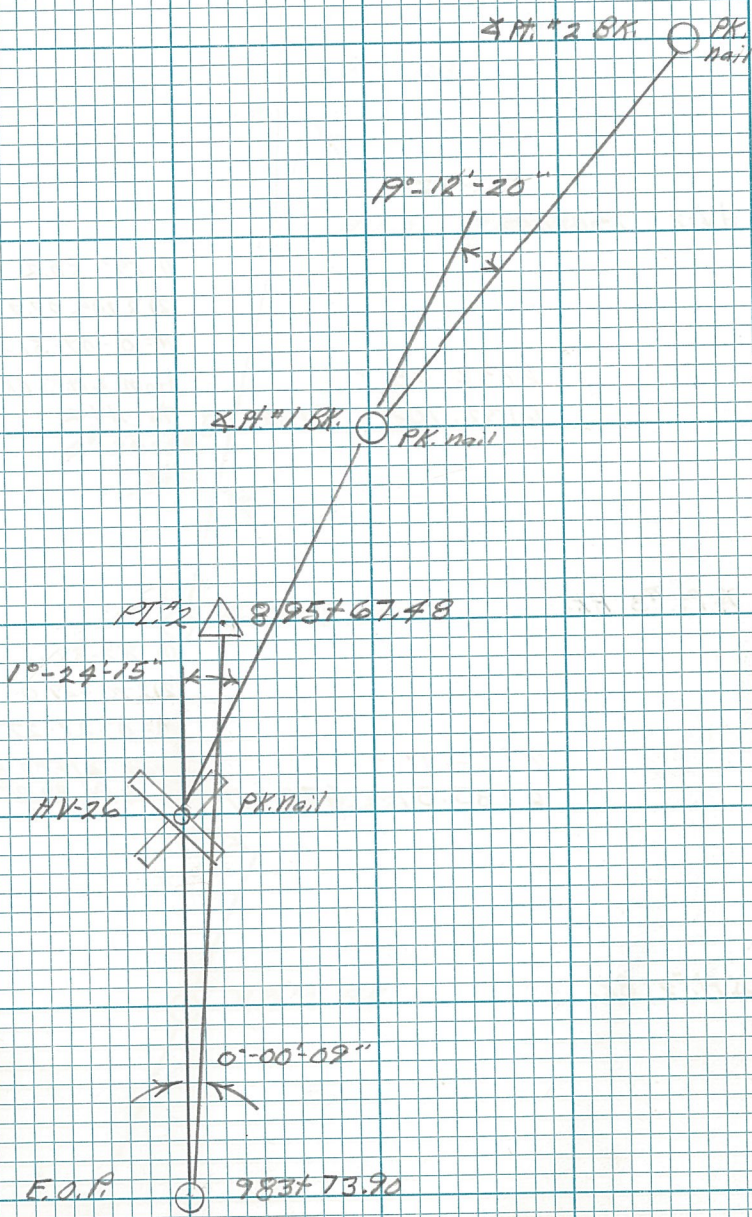
7348.39

7349.19 7349.19

(1) 89°-59.4'
(2) 270°-00.1'
M= 0°-00'-21"
From E.O.P.
To HV-26

E.O.P. 983+73.90

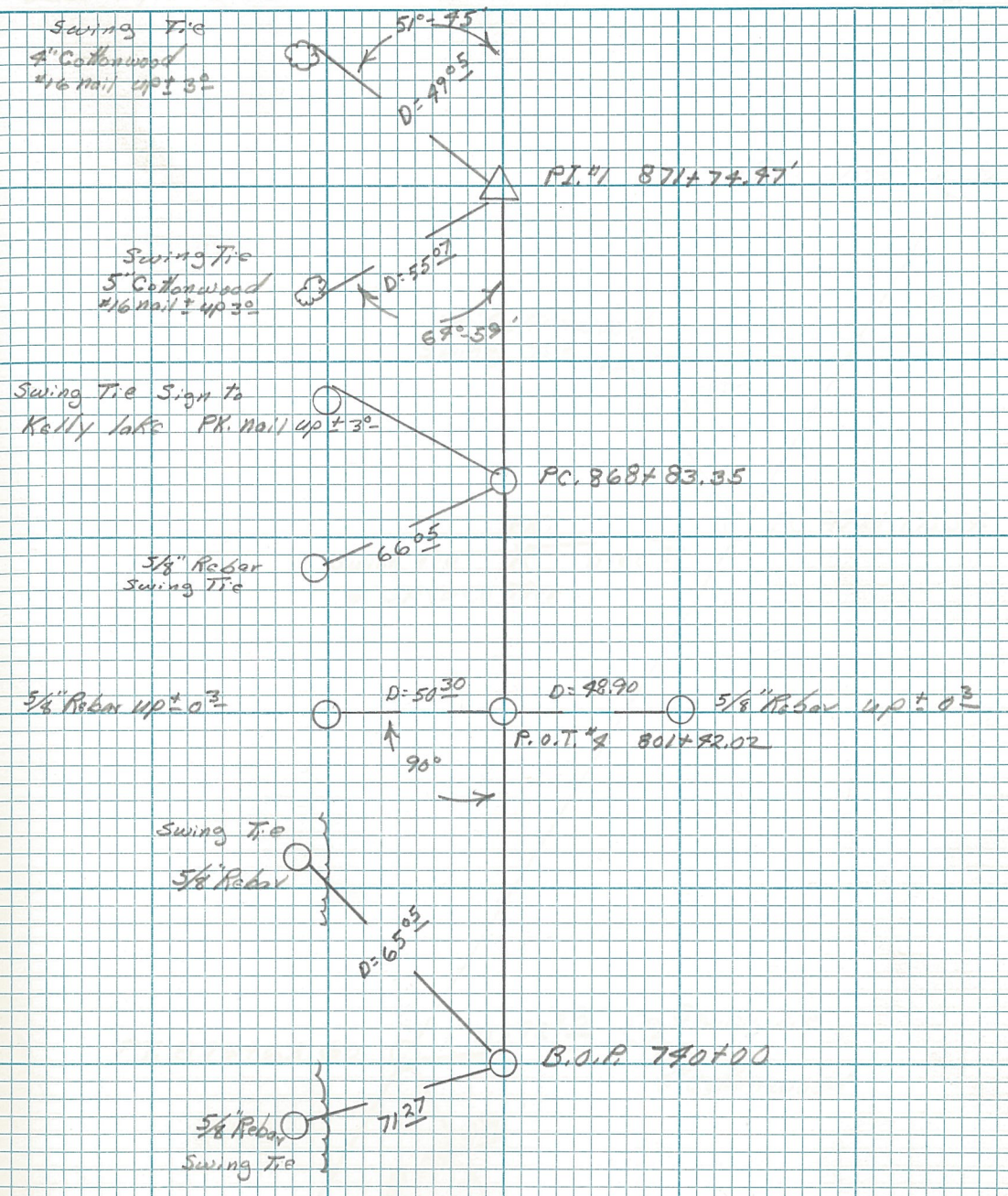
(1) 0°-00.3'
(2) 0°-00.4'
M= 0°-00'-12"
(2) 0°-00.6'
M= 0°-00'-09" Int. LA

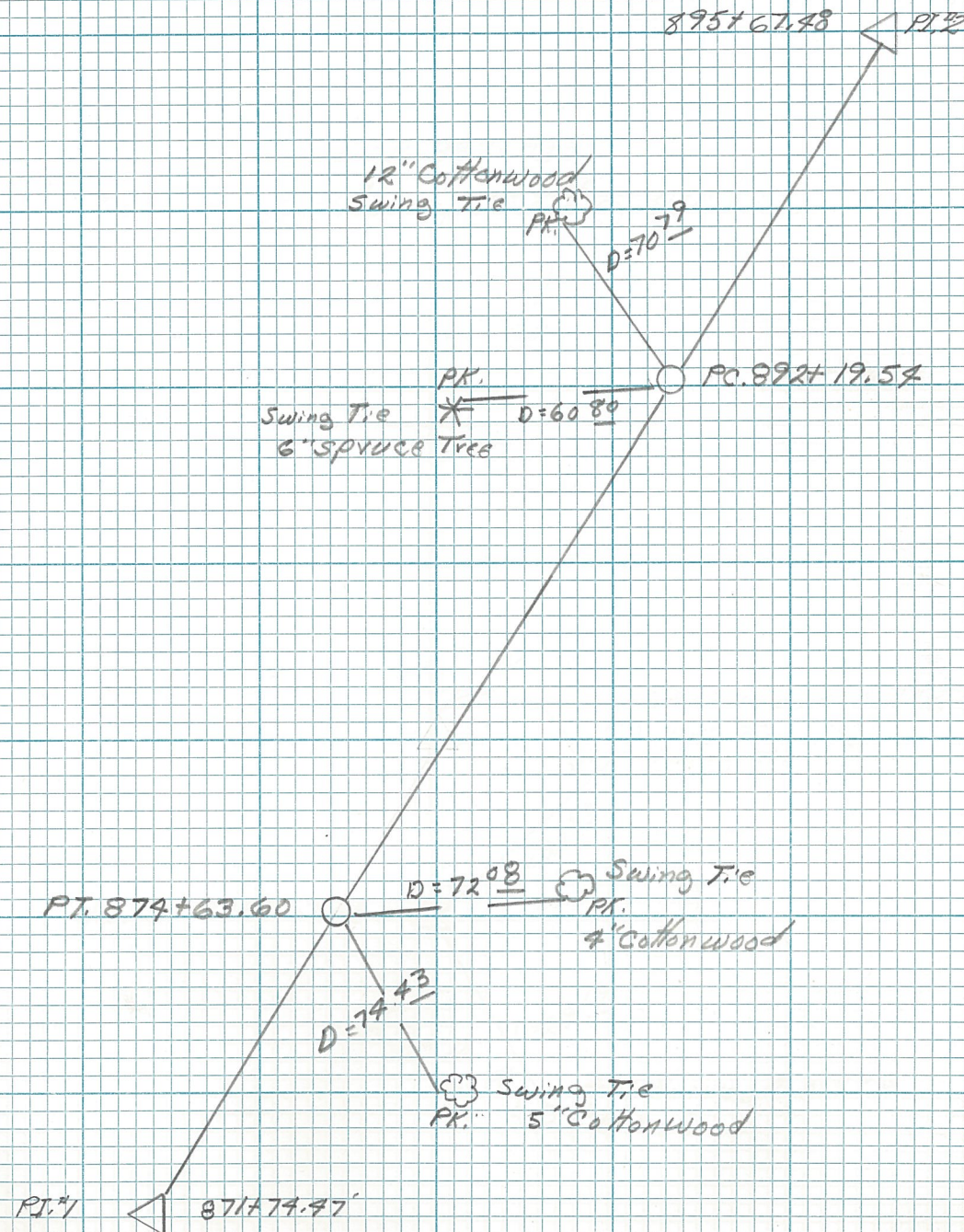


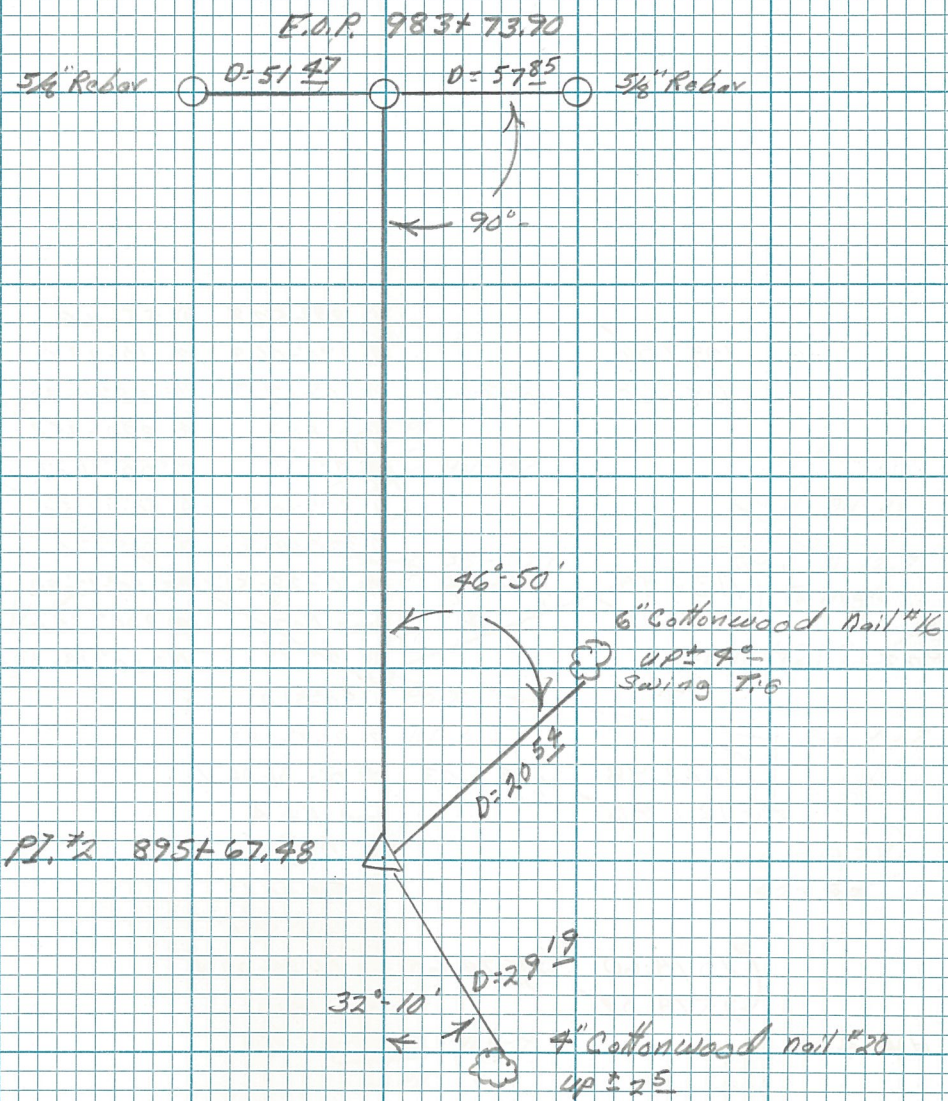
Sta

Dec. 1976

Same view







HV-2

1097.56
1097.68

1097.68

(1) 89°-52.8' (1) 55°-11.6'
(2) 270°-06.8' (2) 110°-23.0'
M= 0°-07.0' M= 55°-11'-30"
from P.O.T. (4) 220°-45.8' To HV-34
to HV-34 M= 55°-11'-27" ✓ Defl. Rt.

1136.40
1136.28

1136.44

(1) 89°-30.8' (1) 50°-13.5'
(2) 270°-28.5' (2) 100°-27.0'
M= 0°-28'-51" ✓ M= 50°-13'-30"
from P.O.T. (4) 200°-54.0' To HV-33
to HV-33 M= 50°-13'-30" ✓ Defl. Lt.

P.O.T.

1122.98
1122.86

1123.03

(1) 90°-31.0'
(2) 269°-28.8'
M= 0°-31'-06" ✓
from HV-4
to P.O.T.

2574.60
2574.32

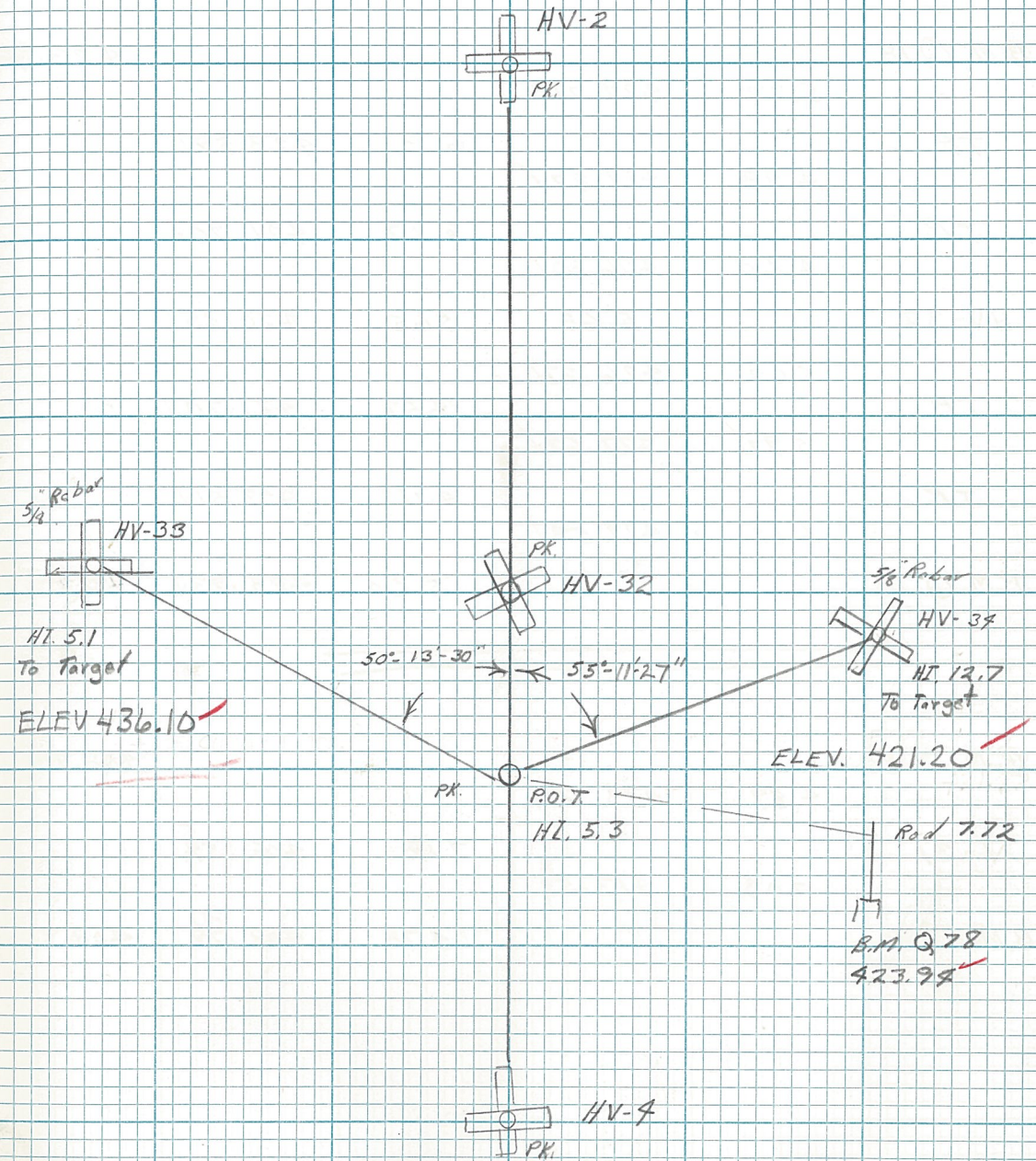
2574.65

(1) 90°-20.6'
(2) 269°-39.0'
M= 0°-20'-28" ✓
from HV-4
to HV-32

HV-4

May 12, 1971

Banks Δ
West ϕ
Kettenburg π
Frazier ϕ



17 Sta.	+	HI.	-	Elev.	D.M. Elev.
B.M. H-80					403.52 ✓
	3.58	407.10 ✓			
T.P.			9.88	397.22 ✓	
	3.23	400.25 ✓			
T.P.			7.74	392.713 ✓	
	1.81	394.52 ✓			
HV-30			8.36	386.16 ✓	386.17 ✓
	8.34	394.50 ✓			
T.P.			1.74	392.76 ✓	
	8.22	400.98			
T.P.			3.77	397.21 ✓	
	11.59	408.80 ✓			
B.M. H-80			5.30	403.50 ✓	403.52
HV-30					386.17
	2.54	388.71 ✓			
T.P.			10.26	377.45 ✓	
	5.14	382.59 ✓			
T.P.			1.78	382.81 ✓	
	13.10	393.91 ✓			
V-29			6.99	384.92 ✓	384.93 ✓
	6.90	393.82 ✓			
T.P.			12.38	384.44 ✓	
	4.12	384.56 ✓			
T.P.			7.76	376.80 ✓	
	9.20	384.00 ✓			
HV-30			1.85	386.15 ✓	386.17 ✓

May 17, 1977 Same Crew

PK

PK

Top $\frac{3}{8}$ " Rebar $\pm 0 \pm 2'$ above Gr.

PK

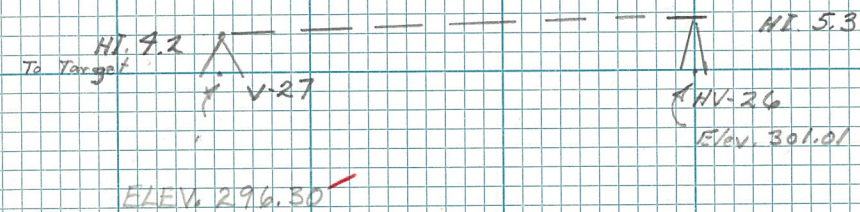
16 Sta. + HL. - Elev. B.M. Elev.

B.M. G-80				347.59✓
	5.15	352.74✓		
V- 28			7.89	344.85✓
	7.96	352.81✓		
B.M. G-80			5.21	347.60✓ 347.59✓
B.M. F-80				321.84✓
	2.25	324.09✓		
T.P.			13.18	310.91✓
	0.15	311.06✓		
V- 26			10.05	301.01✓
	10.08	311.09✓		
TR			0.49	310.60✓
	13.85	324.95✓		
B.M. F-80			2.60	321.85✓ 321.84✓

May 11, 17 11 39175 18

PK

PK



Vert 4

(1) 90°-23.0'

(2) 269°-36.2'

M.O. = 23'-2.4" ✓

from HV-26
to V-27

S.D. = 853.75

P.O.T. #6 831+65.78

HV-30

774.32
774.40

774.47

P.O.T. #4 801+42.02

(1) 90°-47.0 (2) 0°-00.8
(3) 269°-12.8 (4) 0°-01.2
M= 0°-47'06" ✓ M= 0°-00'-36"
From P.O.T. #4 0°-02.8
To HV-30 M= 0°-00'-42" ✓ INT. PK

