

343 (9)

TELEDYNE

FREDERICK

343 (9)

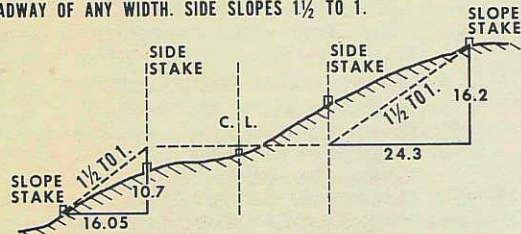
FIELD BOOK

No. 1620



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

ROADWAY OF ANY WIDTH. SIDE SLOPES 1½ TO 1.



Cut or Fill	Distance out from Side or Shoulder Stake.										Cut or Fill
	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

Property of CACHE COUNTY

Address _____

Telephone _____

This Book is manufactured of a High Grade 50% Rag Paper having a Water Resisting Surface, and is sewed with Nylon Water-proof Thread.

INDEX

<u>DESCRIPTION</u>	<u>PAGE</u>
ALIGNMENT	2
PIPE & P. POLE ETC.	3-8
CROSS SECTION	9-14
SLOPE STAKES	15-21
Cross PIPE STA 271+32	33-34
UTILITIES	24-33

284 + 31.34

S 88° 25' 40" E 0° 27' 05" RT
264.949

6th WEST

257 + 81.85

262

261

260

259

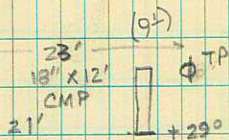
258+00

257+81.85

4483 52

17560
81.85
0.5.75

3

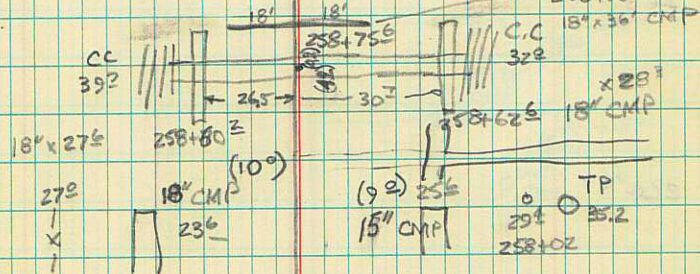


+45 W 2'

TP 259+12

253

258+90



268

267

266

265

264

263

4

226 ϕ +98
TP

22' ϕ TP +72
90
18' x 28' - DRIVEWAY
OMP
21' +18"
(6")
Water Meter +3"
(8")

274

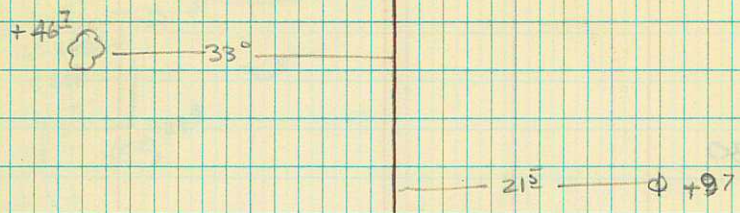
273

272

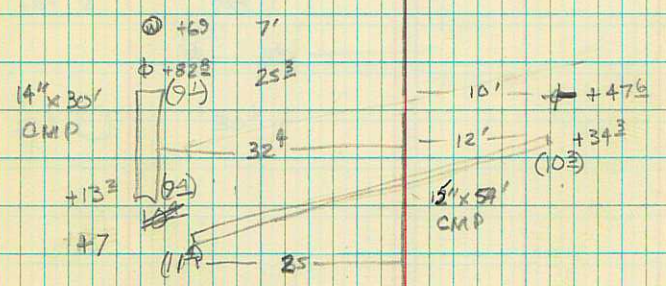
271

270

269



9740-100



280

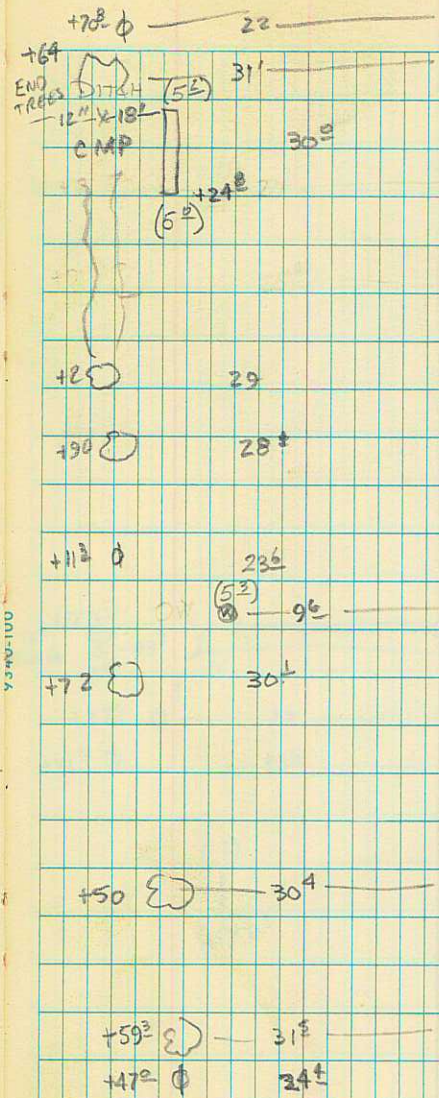
279

278

277

276

275



SCALE

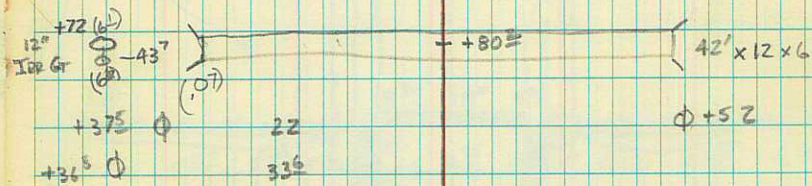
284+31.34

284

283

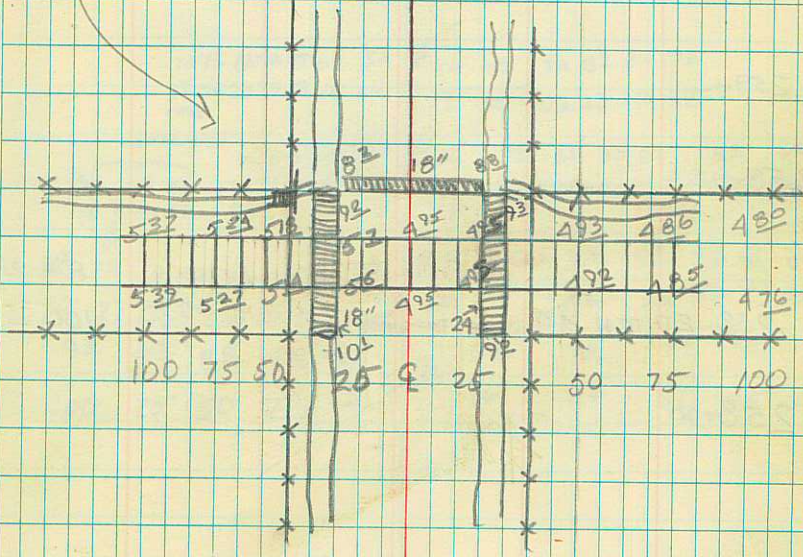
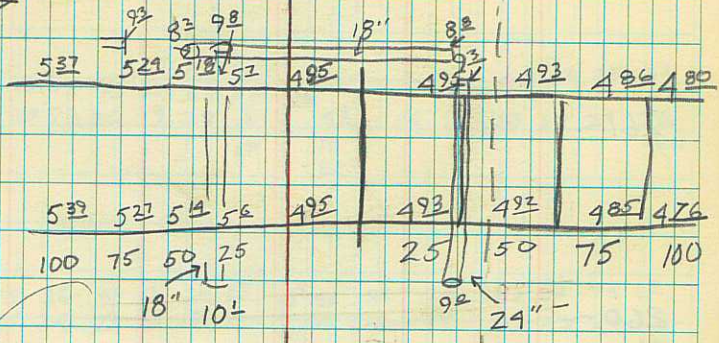
282

281



19⁸

⊕ +42²



258-75

HI

261~

260~

259~

258+92

258+1/2 DITCH 4 FT WIDE TO SOUTH

258+100

257+81 85

+599 4483 52

B.M.

P.P. EAST 64 4477 53

9

62	72	72	72	62	55	52	42	42	72	82	82	72	62	
28	24	23	20	19	17	11	X	48	14	19	20	22	23	26
FENCE							EP	10	FENCE					
							EP							

72	74	85	82	72	62	55	52	52	72	82	82	74	62	
27	25	24	21	20	17	10	X	10	14	19	20	23	24	27
FENCE														

72	72	82	72	62	52	42	52	52	72	82	82	72	
39	24	23	20	19	16	10	X	12	18	22	23	30	32
FENCE													

IN THE DITCH															
72	72	82	82	72	62	52	42	52	72	82	82	82	82	82	
92	92	82	39	25	24	20	10	X	12	21	24	30	32	50	100
FENCE															

82 82

100 75

82	72	82	72	92	82	72	62	62	65	92	92	82	82	10	
50	27	25	24	22	21	16	10	X	10	18	22	33	50	75	100
92	92	82	72	72				62	72	72	72	75	74		
100	75	50	23	13				X	16	26	50	75	100		

72	72	72	72												
+100	+75	+50	+25	X	+25	50	75	100							

266

265

264

263

TP

755

4486¹⁶

-4 91

4478⁶¹TOP CMP
EAST END

262~

4483⁵²

6^E 76 76 7A 6E 5A 50 5A 56 6E 8A 8A 7E 6^L
 27 21 20 19 15 10 10 20 23 24 25 26 33
 FEN FEN

8^E 6E 8L 7E 5E 5E 5E 5E 6L 7A 9E 9E 7A 7E
 41 26 20 19 15 10 10 20 22 23 24 25 31
 FEN FEN

7A 7E 8E 8E 8E 6E 6L 5E 6E 6E 7E 9E 9E 7L
 25 21 20 17 16 13 10 10 21 25 26 27 30
 FEN

8^E 8E 8E 7L 6E 6A 6E 6E 8E 8E 8E
 26 17 16 13 10 10 15 20 24 27
 FEN FEN

6E 6E 8E 7E 6E 5E 4E 4E 4E 4E 6E 7E 7E 5E
 28 23 22 20 19 17 11 10 14 18 19 23 26
 FEN EP EP FEN

271

TP 596 4490²¹ 0⁴¹ 4485⁷⁵₃

270

269

268

267

4486¹⁶₄₁

7292929292 62 62 52 61 62 62
3634272520 11 10 20 30
FEN

34 52 22 12 15 16 12
33 27 15 10 10 23
FEN

48 72 55 36 31 22 28 31
34 28 27 23 15 10 23
FEN

52 72 72 62 41 38 39 38 42 42
34 28 26 25 20 12 10 12 25
FEN

52 72 78 62 52 42 42 48 51 52
33 29 27 26 23 13 10 17 26
FEN

TP ⁵⁷ 276+20 +5⁶⁷ 4496¹⁸ -1²⁰ 4490⁵⁷ BM BPOLE

276

275

4496¹⁸

274

273

272

4490⁷¹

8¹ 11⁰ 11⁹ 9² 7² 7² 6² 6² 7¹ 9² 12⁰ 12⁰ 10⁰ 7⁰
34 28 27 26 21 12 10 16 24 25 27 28 35

9² 11¹ 11¹ 10² 8² 8¹ 7² 7² 8² 11² 12⁰ 12⁰ 11² 8²
34 30 29 28 24 11 10 15 16 17 18 19 35

*

5² 6² 8² 8² 6² 5² 4² 3² 4¹ 4² 5⁴ 7² 9² 9² 7⁴ 4¹
35 31 30 29 28 25 12 10 16 19 25 26 28 29 35

5² 8¹ 8¹ 6² 5⁴ 4² 4² 4⁰ 5¹ 7⁴ 9² 9² 7² 5²
35 31 30 29 27 12 10 14 23 24 26 28 33

7⁴ 8² 8² 7² 5² 5² 5² 5² 5² 8² 7² 9² 8² 5²
35 31 30 29 21 11 10 16 23 27 28 29 30 35

281~

 $49 \underline{91}$ $4498 \overset{49}{9}$ $-2 \overset{10}{0}$ $4499 \overset{08}{8}$

280~

279~

278~

277~

4496¹⁸
 $4^2 \ 5^3 \ 6^6 \ 6^6 \ 5^8 \ 4^2 \ 4^4 \ 4^2 \ 4^6 \ 5^5 \ 8^7 \ 9^6 \ 8^2 \ 6^2$
 $37 \ 30 \ 29 \ 27 \ 26 \ 23 \ 11 \ 10 \ 17 \ 26 \ 27 \ 30 \ 31 \ 35$
 $3^7 \ 5^4 \ 5^4 \ 4^1 \ 3^1 \ 2^3 \ 2^2 \ 3^8 \ 6^2 \ 8^3 \ 8^3 \ 4^2$
 $39 \ 28 \ 27 \ 25 \ 11 \ 10 \ 17 \ 25 \ 26 \ 29 \ 34$
 $5^1 \ 7^4 \ 7^6 \ 5^2 \ 4^2 \ 4^2 \ 3^6 \ 3^8 \ 4^2 \ 8^5 \ 10^2 \ 10^2 \ 8^3 \ 5^0$
 $34 \ 25 \ 23 \ 22 \ 20 \ 11 \ 10 \ 16 \ 23 \ 24 \ 26 \ 28 \ 34$
 $6^1 \ 9^2 \ 9^3 \ 7^2 \ 5^4 \ 5^1 \ 4^2 \ 5^2 \ 5^2 \ 9^6 \ 10^2 \ 10^2 \ 6^4$
 $39 \ 28 \ 26 \ 25 \ 22 \ 11 \ 10 \ 17 \ 24 \ 26 \ 27 \ 34$
 $6^2 \ 9^4 \ 10^4 \ 10^4 \ 9^3 \ 6^2 \ 6^7 \ 5^8 \ 5^2 \ 6^6 \ 10^2 \ 11^5 \ 10^2 \ 7^2$
 $39 \ 29 \ 28 \ 27 \ 26 \ 22 \ 12 \ 10 \ 17 \ 25 \ 28 \ 29 \ 34$

284~

- .07 4498⁴²

9340-100

10

283~

37	31	30	29	26	11	25	28	36	62	73	91	94	72	56
37	31	30	29	26	11	10	18	24	26	27	30	31	35	

282~

47	66	53	41	32	37	43	50	74	95	95	72	55
35	27	26	25	22	10	10	19	26	27	29	31	34

4498⁴⁹

STA.	+ SLOPE #1		+ EL STAKES		RT. SUB
	LT. SUB	LT. SHOU.	CEN. LIN.	RT. SHOU.	

261~	79 [±]	80 [±]	80 [±]	80 [±]	79 [±]
------	-----------------	-----------------	-----------------	-----------------	-----------------

260~	78 [±]	79 [±]	79 [±]	79 [±]	78 [±]
------	-----------------	-----------------	-----------------	-----------------	-----------------

259~	77 [±]	78 [±]	78 [±]	78 [±]	77 [±]
------	-----------------	-----------------	-----------------	-----------------	-----------------

+75[±]

258~	75 [±]	76 [±]	76 [±]	76 [±]	75 [±]
	76 [±]	4485 ¹²		4477 ⁵³	BM

15



DITCH		SUBGRD		SHLD	
LT	RT	LT	RT	LT	RT
75 [±]	75 [±]	C1 [±]	C2 [±]	F2 [±]	F1 [±]
81 [±]	73 [±]			F3 [±]	F2 [±]
77 [±]	78 [±]				

75 [±]	75 [±]	C1 [±]			
74 [±]	75 [±]	C1 [±]	F1 [±]	F2 [±]	F2 [±]
82 [±]	83 [±]				
76 [±]	76 [±]				

74 [±]	74 [±]	C2 [±]	C2 [±]	F1 [±]	F0 [±]
82 [±]	84 [±]			F1 [±]	F1 [±]
76 [±]	76 [±]				
74 [±]	74 [±]				

STA.	LT. SUB	LT. SHOU.	CEN. LIN.	R. SHOU.	R. SUB
------	---------	-----------	-----------	----------	--------

265~	81 ⁴	82 ²	82 ⁵	82 ³	81 ⁴
------	-----------------	-----------------	-----------------	-----------------	-----------------

	9 ³⁵	4488 ⁵²	6 ⁰²	4479 ¹²	TP
264~	81 ⁴	81 ⁹	82 ²	81 ²	81 ⁴

263~	80 ²	81 ⁵	81 ⁸	81 ⁵	80 ²
------	-----------------	-----------------	-----------------	-----------------	-----------------

262~	80 ²	80 ⁸	81 ¹	80 ⁸	80 ²
------	-----------------	-----------------	-----------------	-----------------	-----------------

DITCH

DITCH SUBGED SHLD

DITCH		DITCH		SUBGED		SHLD	
LT	RT	LT	RT	LT	RT	LT	RT

78 ³			0 ²				
77 ²	78 ²	C1 ²	C0 ⁵	F2 ²	F1 ²	F3 ²	F2 ²
9 ³	10 ⁰						
79 ²	78 ²						

77 ²			1 ⁵				
76 ²	77 ²	C2 ²	C1 ²	F1 ²	F2 ²	F2 ²	F3 ²
6 ⁰²	6 ⁵						
79 ²	78 ²						

77 ⁰			1 ⁴				
76 ⁴	76 ⁸	C2 ²	C2 ⁵	F2 ²	F1 ²	F3 ¹	F2 ²
6 ²	6 ⁰						
78 ²	79 ²						

76 ³			C1 ²				
75 ²	76 ²	C2 ¹	C2 ⁵	F2 ²	F1 ²	F2 ⁸	F2 ¹
7 ²	6 ⁵						
78 ²	78 ²						

STA LT SUB LT SHDU CEN LIN RT SHDU RT SUB

269 84² 85⁺ 85⁺ 85⁺ 84³

268 83⁺ 84² 84[±] 84² 83⁺

267 82[±] 83[±] 83[±] 83[±] 82[±]

266 81[±] 82[±] 82[±] 82[±] 81[±]

DITCH DITCH SUBGRD SKLD
 LT RT LT RT LT RT LT RT

~~81¹~~
 81⁰ C0⁺
 79³ C1[±] F3[±] F1[±] F4[±] F2[±]
 7[±] 55[±]
 81[±] 83[±]

80[±] C1⁰
 78[±] C2[±] F2[±] F1[±] F2[±] F2[±]
 7[±] 69[±]
 81[±] 81[±]

~~80[±]~~
 79⁷ C0[±]
 78[±] C2[±] F1[±] F2[±] F2[±] F3[±]
 7[±] 83[±]
 80[±] 80[±]

79[±] C1[±]
 77[±] C2[±] F1[±] F2[±] F2[±] F2[±]
 83[±] 88[±]
 80[±] 71[±]

STA.	+ LT SUB	H1 LT SHOU	- CEN LIN	EL RT SHOU	RT SUB
------	-------------	---------------	--------------	---------------	--------

277	9 ²³ 91 ⁶	4499 ¹³ 924	5 ²³ 92 ³	4489 ²⁰ 92 ⁴	91 ⁶
-----	------------------------------------	---------------------------	------------------------------------	---------------------------------------	-----------------

276	90 ²	91 ⁵	91 ²	91 ⁵	90 ²
-----	-----------------	-----------------	-----------------	-----------------	-----------------

275	89 ⁸	90 ⁶	90 ²	90 ⁶	89 ⁸
-----	-----------------	-----------------	-----------------	-----------------	-----------------

274	88 ²	89 ²	90 ⁰	89 ²	88 ²
-----	-----------------	-----------------	-----------------	-----------------	-----------------

DITCH		DITCH		SUB GRD		SHLD	
LT	RT	LT	RT	LT	RT	LT	RT

		88 ²		C0 ⁴			
86 ²		86²	C2 ³	C2²	F2 ⁴	F3 ²	F4 ²
5 ²³ 89 ²		6 ² 88 ⁴					

		87 ²		C0 ²			
85 ⁸		85⁸	C2 ²	C2¹	F2 ²	F2 ²	F3 ⁵ F3 ²
6 ⁴ 88 ²		6 ⁵ 87 ²					

		86 ⁵		C0 ¹			
84 ²		84²	C1 ³	C1²	F3 ³	F3 ²	F4 ¹ F4 ²
7 ² 86 ⁵		7 ² 86 ⁴					

		85 ⁸		C0 ¹			
83 ⁶		83⁶	C2 ¹	C1²	F2 ³	F2 ³	F3 ² F4 ²
8 ² 86 ¹		8 ¹ 85 ²					

STA LT SUB LT SHDU CEN. LIN. RT. SHDU RT SUB

281 95³ 96⁴ 96⁴ 96⁴ 95³

280 94² 95⁴ 95⁴ 95⁴ 94²

279 93⁴ 94² 94⁵ 94² 93⁴

278 92⁵ 93³ 93⁶ 93³ 92⁵

PITCH DITCH SUB GRD SHLD.

LT RT LT RT LT RT LT RT

90² ~~87²~~ C2² ~~C2²~~ F1² F3² F2⁵ F4⁶
 5³ 7⁶
 7⁸ 9⁵
 9³

90² ~~87⁴~~ C2² ~~C1⁶~~ F1² F3² F2² F4⁶
 6² 8⁶
 9⁵ 90⁵
 (91⁹)

89² ~~88²~~ C2⁴ ~~C1²~~ F2⁴ F3³ F2² F4⁴
 7⁵ 9²
 91² 90⁴

88⁴ ~~87²~~ C1² ~~C2⁵~~ F2³ F2² F3⁵ F3⁵
 9³ 8⁷
 89² 89²

STA LT. SUB LT. SHOU CEN. LIN. RT. SHOU RT. SUB

284 97⁺ 97[±] 98[±] 97[±] 97⁺

283 96[±] 97[±] 98[±] 97[±] 96[±]

282 96[±] 97[±] 97[±] 97[±] 96[±]

0⁶⁶ 4498⁴⁷ ⁽⁰⁹⁾ BM 4498⁴²

DITCH ⁽³¹⁾ DITCH ⁽¹⁷⁾ SUB. GRD. ⁽²⁰⁾ SHLD.

LT RT LT RT LT RT LT RT

91[±] ~~89[±]~~ 90[±]

91[±] ~~89[±]~~ C2[±] C1[±] ~~89[±]~~ F3[±] F4[±] F4[±] F5[±]

91[±] ~~89[±]~~ C2[±] C1[±] ~~89[±]~~ F2[±] F4[±] F3[±] F5[±]

5[±]
93[±]

6[±]
92[±]

5[±]
93[±]

7[±]
91[±]

AUG 8, 1975 80°, CLEAR, SLIGHT BREEZE

WILLIAMS
WARD

HOANH

UTILITIES & ALIGNMENT
(GAS, WATER, ELEC, TEL, ETC.)

260+00

259+00

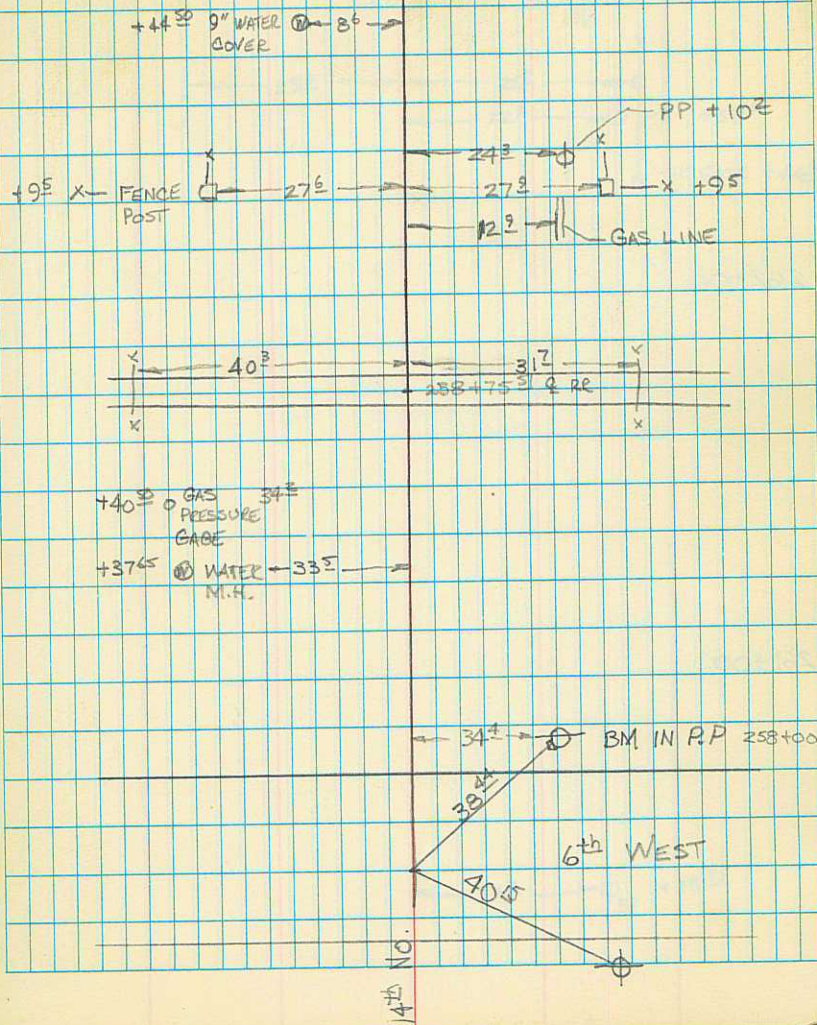
258+00

257+81.85

PK NAIL
14th NORTH
& 6th WEST

55
27
27

24

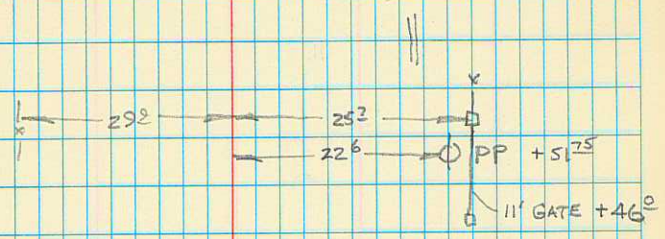


55.6
25
29.9

263+00

262+00

261+00

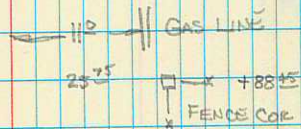
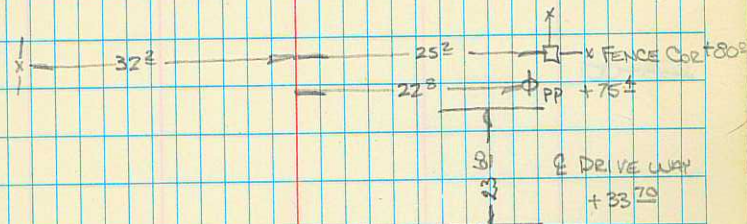


266+00

265+00

264+00

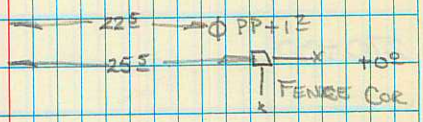
26



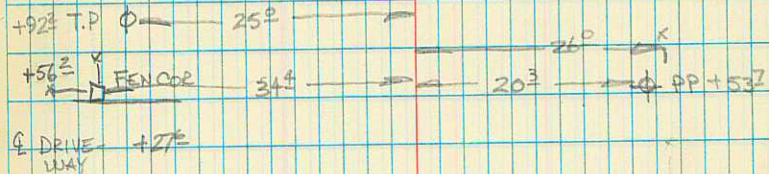
269+00

268+00

267+00



272+00



271+00

+528 PP O 26°

270+00

225 O PP + 27 Z

275+00

274+00

273+00

29

21^S ———— ϕ P.P. + 5^S

+ 98^S T.P. ϕ ———— 24³⁵ ———— \rightarrow

278+00

277+00

276+00

9340-100

25³ T.P ϕ — 23¹ —

30

— 21¹ — ϕ PP + 56²

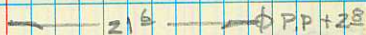
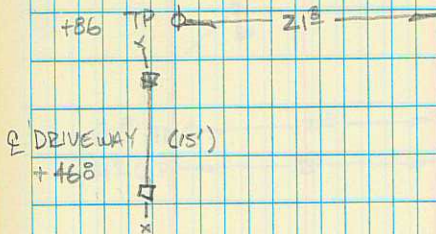
258³ T.P ϕ — 24² —

281+00

280+00

279+00

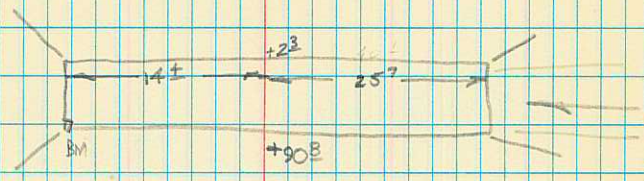
9340-100



284+00

283+00

282+00



285+00

284+31³⁴

STA	+	HI	-	HUB ELEV. CUT OR FILL TO E
-----	---	----	---	-------------------------------

~~VOID~~

HUB 4			92	4482.3 C20
-------	--	--	----	------------

HUB 3			91	4481.8 C15
-------	--	--	----	------------

HUB 2			64	4485.4 C16
-------	--	--	----	------------

HUB 1			72	4483.6 F.02
-------	--	--	----	-------------

3.28 4491.50

BM # NT-9 ON POWER POLE STA 71+53 EL. 4488.22

CROSS PIPE

5-5-76

34

INLET STA. 71+32

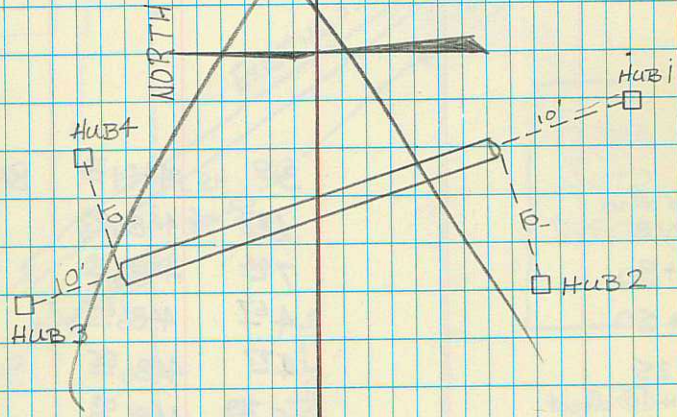
WARD HOANH

OUTLET STA. 71+07

30" X 52' PIPE CULVERT FEED

F INLET ELEV. 4483.8

F OUTLET ELEV. 4480.2



STA	+	HI	-	EL	CUT/FILL
-----	---	----	---	----	----------

GRADE TO BE SET IN THE FIELD.

INLET 4483.8

OUTLET 4482.3

⊗ Ward
⊕ Williams

		3.10	4491.32	BM
North 10' offset LABELED "B"		6.29	4485.03	
0+80		7.94	4483.38	
0+50		4.67	4486.65	
0+25		4.77	4486.55	
South 10' offset LABELED "A"		5.29	4486.03	
0+00		5.20	4485.62	
	3.10	4491.32		
			4488.22	BM EL. PP NT-9

35

CROSS PIPE LOGANA

⊗ - Williams

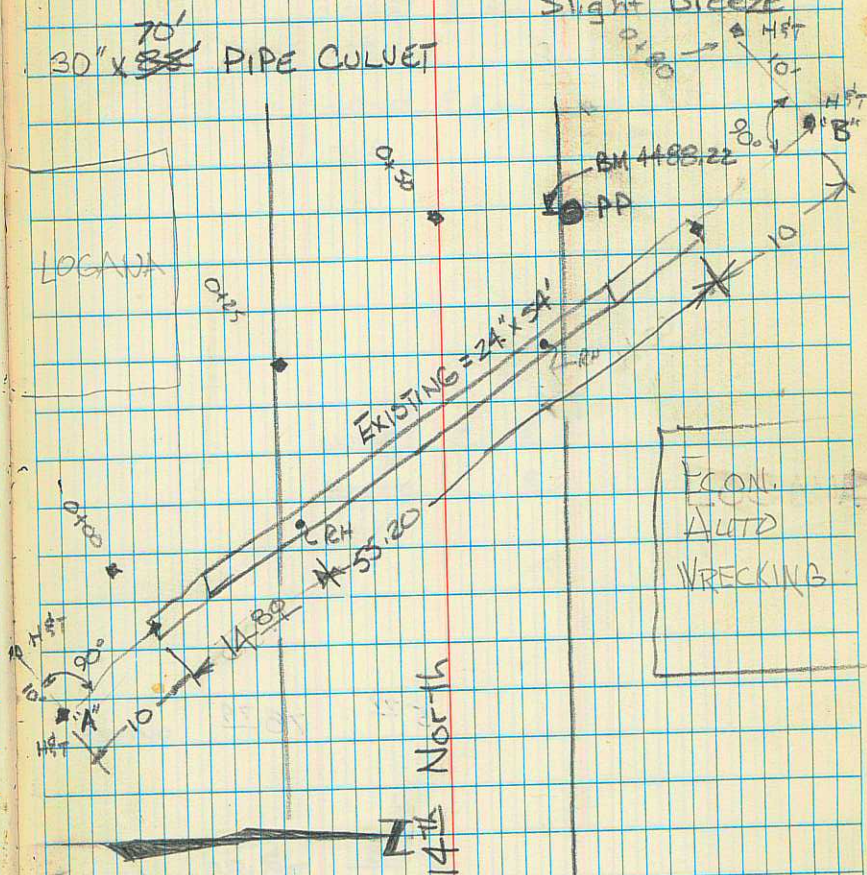
⊕ - Ward

5/10/76

Cool, Clear

Slight Breeze

70'
30" x ~~36"~~ PIPE CULVERT



+ HI - MAY

5⁷⁷ 78⁷⁹ OUTLET

5⁸⁸ 78⁸⁸ INLET

2⁶⁸ 484⁵⁶
7⁰⁰

44⁸ 88⁸⁸
2⁶⁸

INLET F EL 78⁷
7⁹⁰ 77⁶
1³
OUTLET F EL 78⁸
7⁹ 77⁹

INLET C 13
OUTLET C 18

42
 49
 (41)
 39
 88²
 83²
83²

2649 41
 2649 58
 40
 48
 48

83²
 25
863

50
 (49)
 50

HI PIPE 736

+ 214
 88²²
 14
9036
 833
68

9036
 736
8300

866
838

9036
 736
8300

9036
 8
823

675/2
 1/8
 833
 823
 1/10
 812
 1/11
 802
 1/12

8:00

4 MED BEDMS

2 CRANE