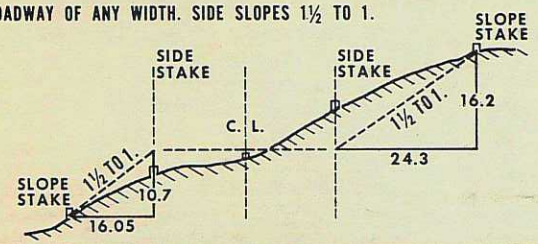
AIRPORT SURVEY
8-5-76 #2
BOOK

AIRPORT SURVEYS BK 2 76

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

8-5-76

Property of CACHE COUNTY ENGINEER

Address _____

_____

Telephone _____

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

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AIRPORT ACCESS ROAD	78-84

Angle	# of REP.	∠	Single ∠

~~$AC = \sqrt{BA^2 + BC^2 - 2(BA)(BC)\cos ABC}$~~

~~AC = 2642.01 (CALCULATED)~~

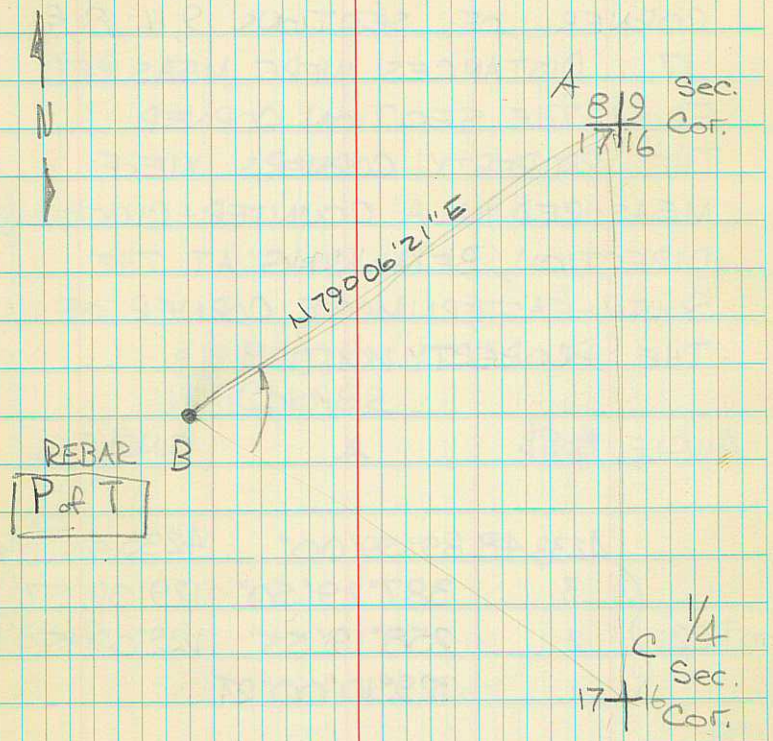
STA	SLP DIST	VERT ∠	HOR. DIST
B-A	2361.61	89°52'55"	2361.60
B-C	3188.18	89°50'50"	3188.17
ABC	4	217°41'00"	54°25'15"
ABC	3	163°15'55"	54°25'18"
ABC	2	108°50'25"	54°25'13"
ABC	1	54°25'10"	

USE: 54°25'15"

SET CORNER FOR TRIANGULATION

T & NOTES - WILLIAMS 8-9-76

Φ - WARD Clear, Warm

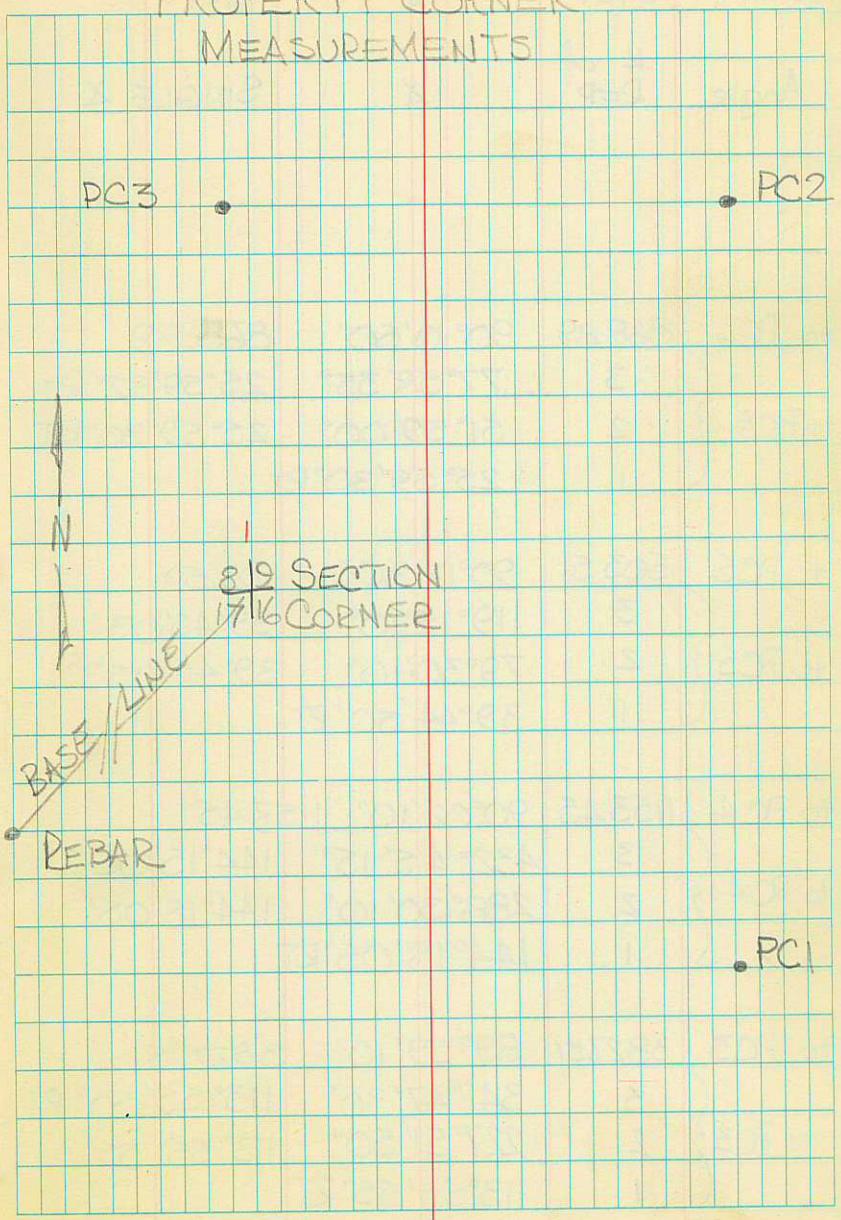


STA	SLP DIST	VERT ∠	HOR DIST	

All ∠'s WERE MEASURED BY BACKSIGHTING ON THE POINT OF TRIANGULATION FROM THE CORNER OF SECTIONS 9, 16, 8, & 17. DISTANCES WERE MEASURED FROM THE SECTION CORNER. THE PROPERTY CORNERS WERE MEASURED IN A COUNTER-CLOCKWISE DIRECTION, BEGINNING AT THE SOUTH-EASTERNMOST CORNER OF THE PROPERTY.

ANGLE	# of REP	∠	SINGLE ∠
	4233.48	89°59'00"	4233.48'
	3	387°29'50"	129°09'57" RT
to PC2	2	258°19'55"	129°09'57" RT
	1	129°10'00" RT	
to PC1	3748.52	89°48'00"	3748.50
	3	316°38'10"	105°32'43" LT
to PC1	2	211°05'40"	105°32'50" LT
	1	105°32'50" LT	

PROPERTY CORNER MEASUREMENTS



STA	SLP DIST.	VERT X	HOR DIST
Angle	# of REP.	X	SINGLE X
to PC6	868.89	90°10'50"	868.89
	3	77°58'35"	25°59'32" RT
to PC6	2	51°59'00"	25°59'30" RT
	1	25°59'30" RT	
to PC5	503.51	90°17'30"	503.50
	3	119°15'10"	39°45'03"
to PC5	2	79°30'10"	39°45'05"
	1	39°44'50" RT	
to PC4	1153.45	90°02'10"	1153.45
	3	432°45'15"	144°15'05"
to PC4	2	288°30'10"	144°15'05"
	1	144°15'05" RT	
to PC3	3827.51	89°59'10"	3827.51
	3	341°47'30"	113°55'50" RT
to PC3	2	227°51'50"	113°55'55"
	1	113°55'55" RT	

STA	SLP DIST	VERT ∠	HOR DIST
Angle	# REP	∠	SINGLE ∠
to PC10	3360.56	90°05'15"	3360.56
	3	123°28'00" RT	41°09'20" RT
to PC10	2	82°18'45" RT	41°09'23" RT
	1	41°09'05" RT	
to PC9	3050.85	90°05'40"	3050.85
	3	118°04'00" RT	39°21'20" RT
to PC9	2	78°42'40" RT	39°21'20" RT
	1	39°21'10" RT	
to PC8	2825.99	90°04'10" RT	2825.99
	3	125°06'20" RT	41°42'07" RT
to PC8	2	83°24'15" RT	41°42'08" RT
	1	41°42'05" RT	
to PC7	2718.31	90°05'00"	2718.31
	3	113°13'05" RT	37°44'22" RT
to PC7	2	75°28'55" RT	37°44'17" RT
	1	37°44'15" RT	

9340-100

STA	SLP DIST	VERT ∠	HOR. DIST
Angle	# REP	∠	SINGLE ∠

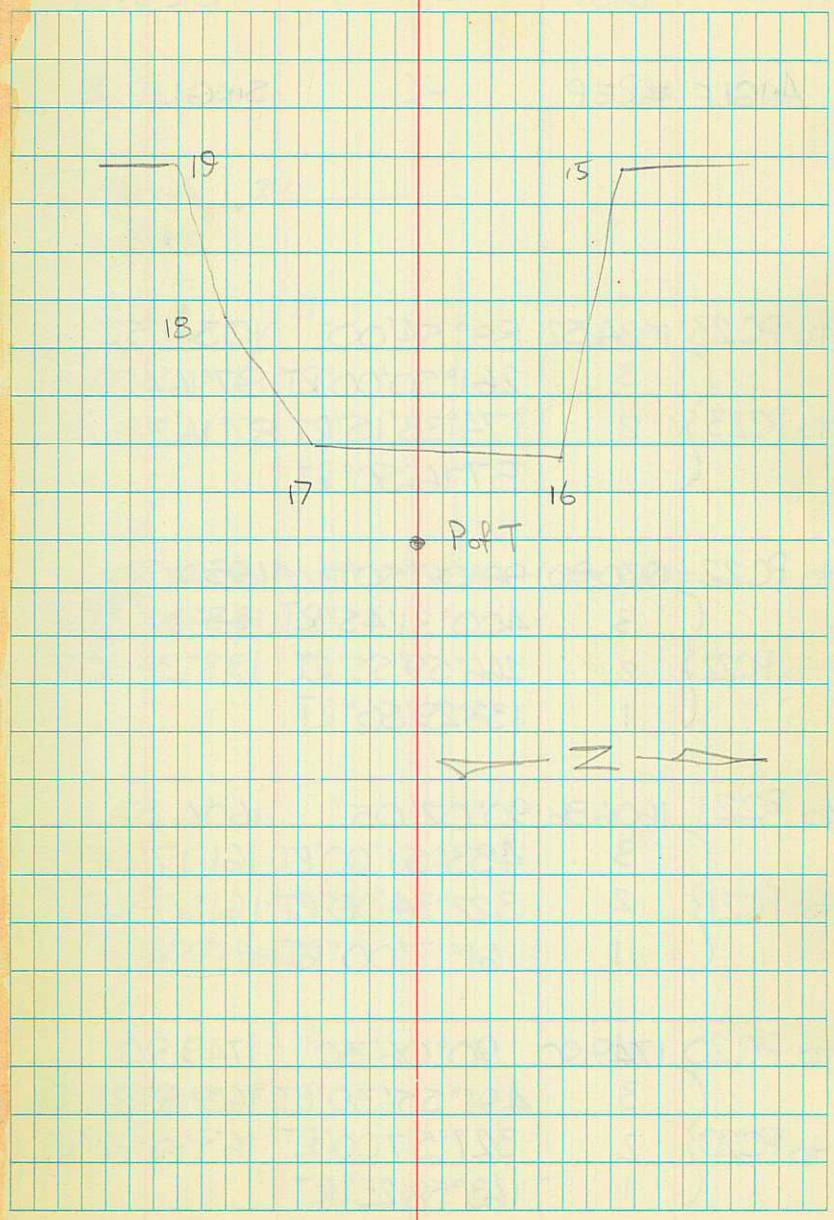
THE NEXT SERIES OF ANGLES WERE MEASURED BY BACKSIGHTING ON THE CORNER OF SECTIONS 9, 16, 8, & 17 FROM THE POINT OF TRIANGULATION. THE DISTANCES WERE MEASURED FROM THE POINT OF TRIANGULATION TO THE RESPECTIVE PROPERTY CORNERS. THE COUNTER-CLOCKWISE DIRECTION WAS AGAIN ASSUMED, BEGINNING WITH PC 12.

SEC COR to PC12			
to PC12	3	108°15'00" RT	
	2	72°10'00" RT	
	1	36°05'00" RT	
to PC11	3394.00	90°04'55"	3394.00'
PC11	3	126°15'05" RT	42°05'02" RT
	2	84°10'03" RT	42°05'02" RT
	1	42°05'00" RT	

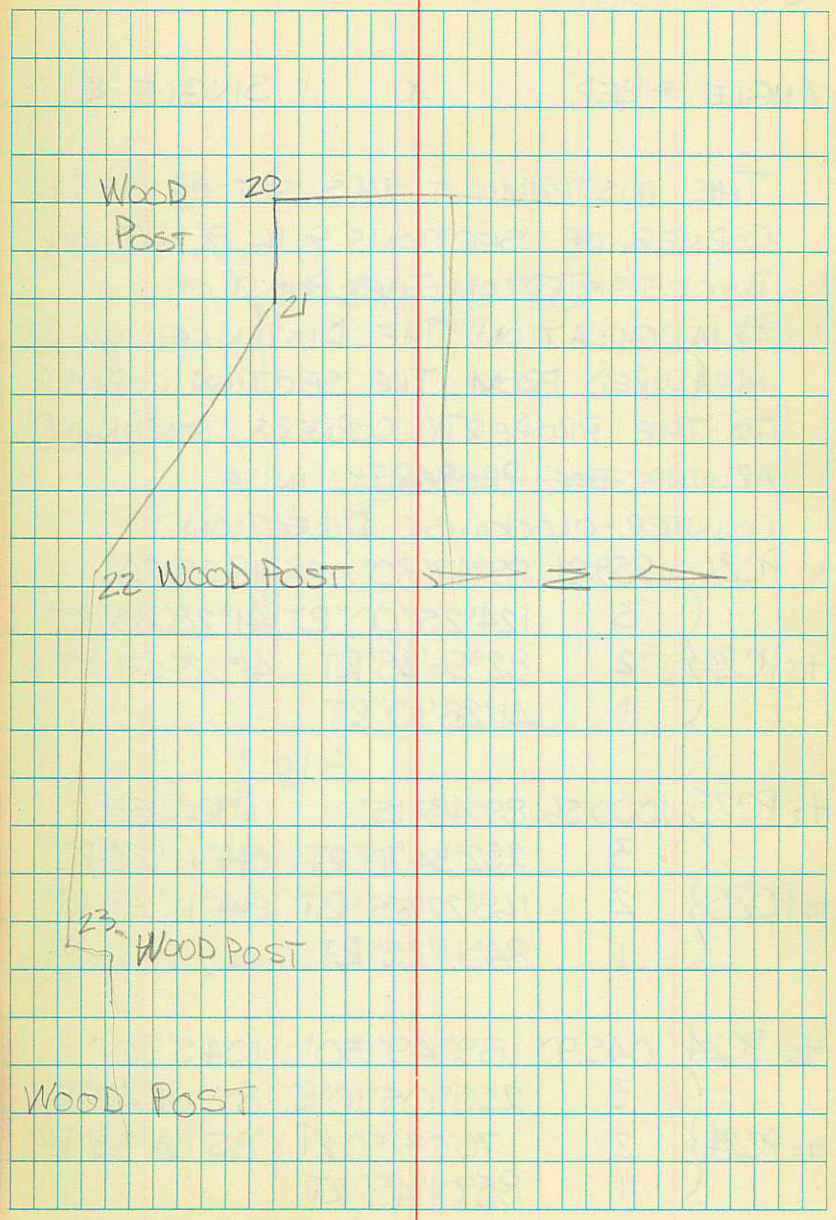
9340-100

STA	SLP DIST	VERT ∠	HOR DIST
ANGLE	# REP.	∠	SINGLE ∠
to PC 15	2018.51	90°05'30"	2018.51
	3	373°37'30" LT	124°32'30" LT
to PC 15	2	249°05'00" LT	124°32'30" LT
	1	124°32'40" LT	
to PC 14	2383.90	90°05'25"	2383.90
	3	348°52'35" LT	116°17'32" LT
to PC 14	2	232°35'00" LT	116°17'30" LT
	1	116°17'30" LT	
to PC 13	2370.01	90°05'20"	2370.01
	3	347°02'25" LT	115°40'48" LT
to PC 13	2	231°21'40" LT	115°40'50" LT
	1	115°41'00" LT	
to PC 12	2616.21	90°05'30"	2616.21
	3	335°23'05" LT	111°47'42" LT
P.T. to PC 12	2	223°35'30" LT	111°47'45" LT
	1	111°47'55" LT	

STA	SLP DIST	VERT ∠	HOR DIST
ANGLE	# REP.	∠	SINGLE ∠
to PC19	1720.40	90°05'45"	1720.40
	3	497°29'10" RT	165°49'43" RT
to PC19	2	331°39'30" RT	165°49'45" RT
	1	165°49'50" RT	
to PC18	1275.55	90°06'00"	1275.55
	3	468°17'45" RT	156°05'55" RT
to PC18	2	312°11'55" RT	156°05'58" RT
	1	156°05'55" RT	
to PC17	287.92	89°28'00"	287.91
	3	363°54'30" RT	121°18'10" RT
to PC17	2	242°36'20" RT	121°18'10" RT
	1	121°18'00" RT	
	8-10-76	Warm Sunny	
to PC16	610.38	89°42'40"	610.37
	3	267°40'30" LT	89°13'30" LT
to PC16	2	178°27'30" LT	89°13'45" LT
	1	89°13'55" LT	



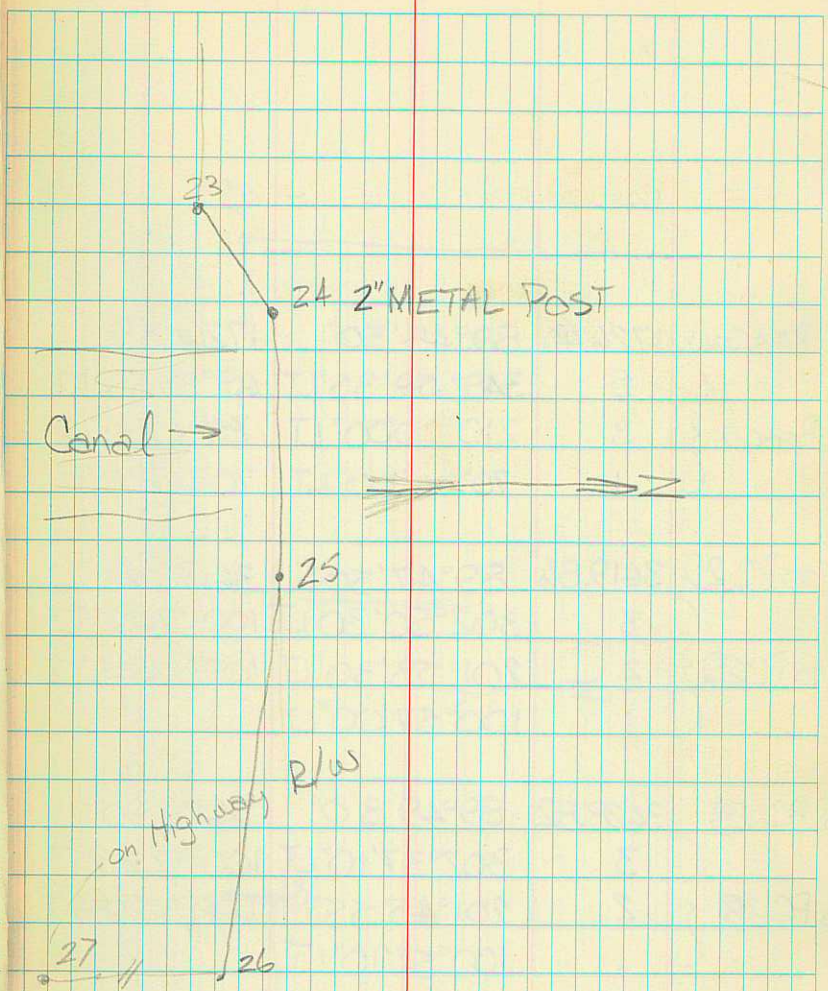
STA	SLP DIST	VERT. ∠	HOR DIST
ANGLE	# REP	∠	SINGLE ∠
to PC 23	1034.52	89° 54' 00"	1034.52
	3	261° 50' 00" RT	87° 16' 40" RT
to PC 23	2	174° 33' 15" RT	87° 16' 38" RT
	1	87° 16' 50" RT	
to PC 22	1930.90	90° 02' 50"	1930.90
	3	400° 31' 45" RT	~~133° 30' 35" RT~~
to PC 22	2	266° 59' 55" RT	133° 29' 58" RT
	1	133° 29' 50" RT	
to PC 21	1606.86	90° 02' 05"	1606.86
	3	483° 51' 00" RT	161° 17' 00" RT
to PC 21	2	322° 34' 00" RT	161° 17' 00" RT
	1	161° 17' 00" RT	
to PC 20	1749.90	90° 06' 30"	1749.90
	3	491° 55' 30" RT	163° 58' 30" RT
to PC 20	2	327° 57' 00" RT	163° 58' 30" RT
	1	163° 58' 25" RT	



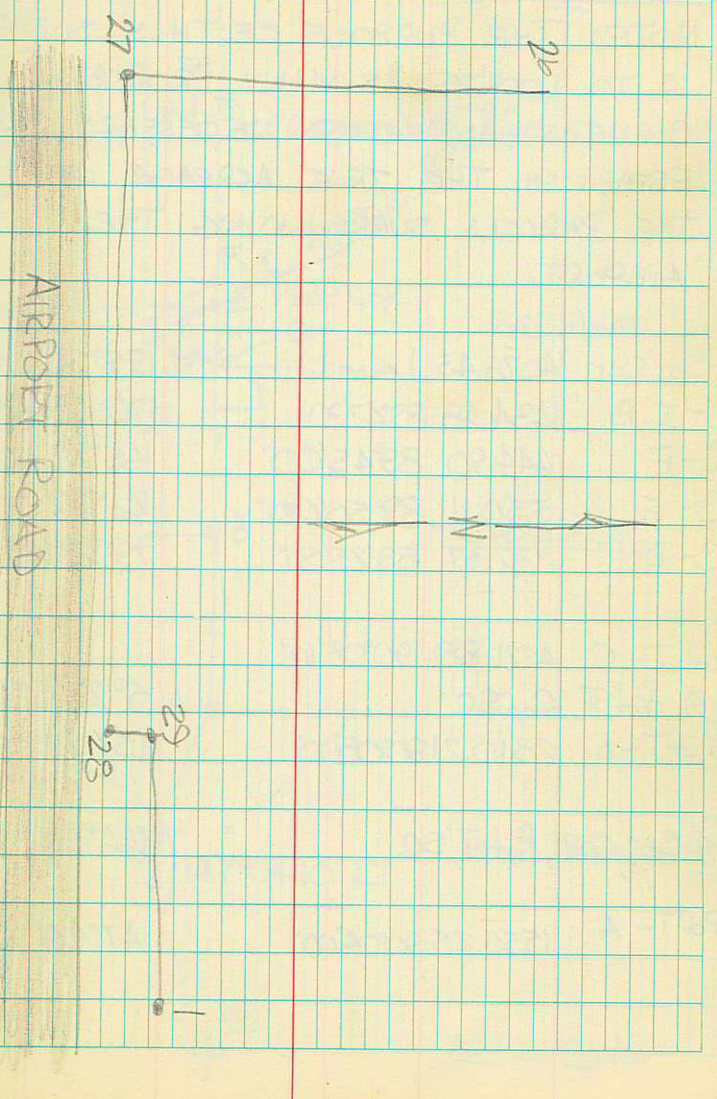
STA	SLP DIST	VERT ∠	HOR DIST
ANGLE	# REP.	∠	SINGLE ∠

THE INSTRUMENT WAS SET UP ON THE CORNER OF SECTIONS 9, 16, 8, & 17, and BACKSIGHTED ON THE POINT OF TRIANGULATION. THE DISTANCES WERE MEASURED FROM THE SECTION CORNER TO THE PROPERTY CORNERS, CONTINUING AROUND THE PROPERTY IN A COUNTER-CLOCKWISE DIRECTION.

to PC26	1959.21	89°47'30"	1959.20
	3	124°25'00" RT	41°28'20" RT
to PC26	2	82°56'35" RT	41°28'18" RT
	1	41°28'10" RT	
to PC25	1000.56	89°48'15"	1000.55
	3	252°34'10" RT	84°11'23" RT
to PC25	2	168°22'55" RT	84°11'27" RT
	1	84°11'25" RT	
to PC24	1045.90	89°49'30"	1045.90
	3	255°05'10" RT	85°01'43" RT
to PC24	2	170°03'50" RT	85°01'55" RT
	1	85°01'45" RT	

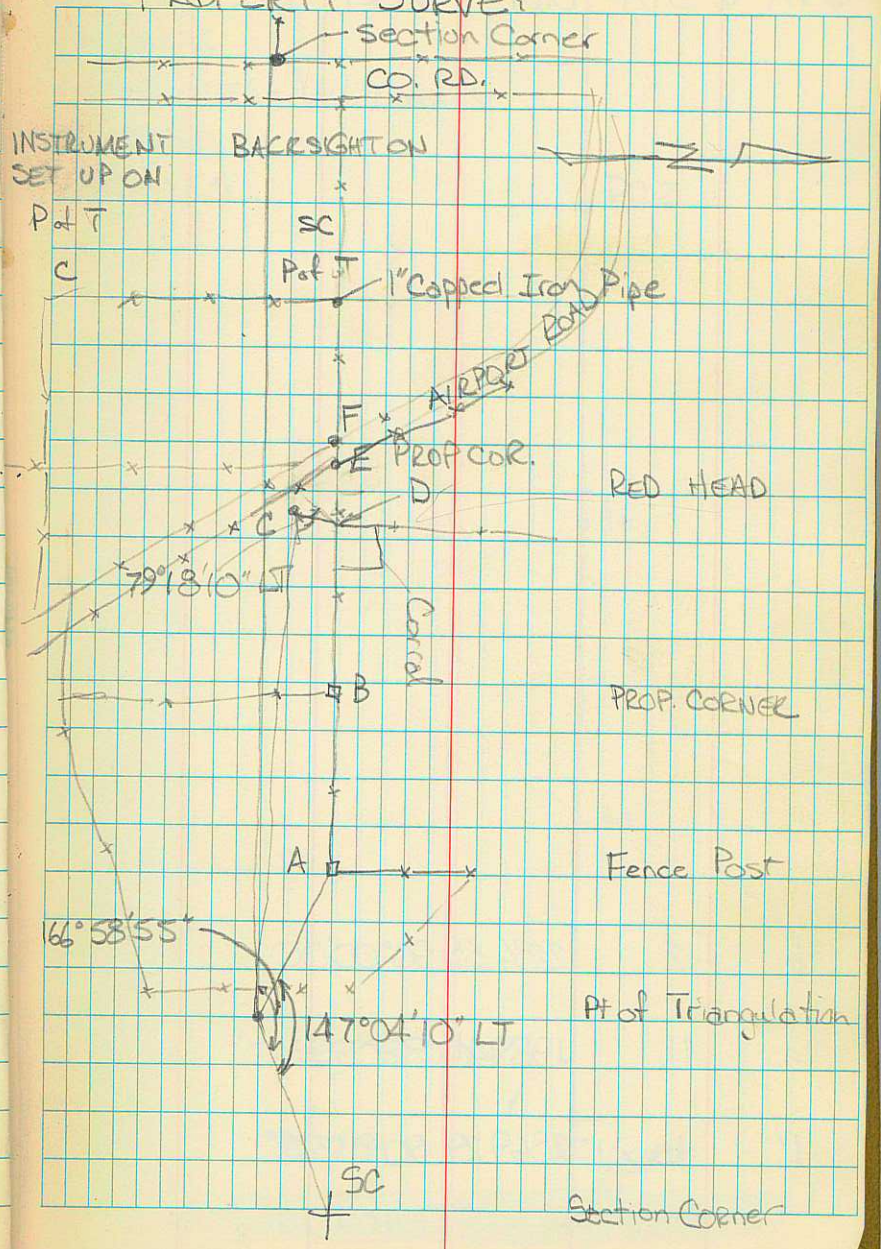


to BEACON	1726.40	89°48'30"	1726.39
	5	349°59'35"LT	69°59'55"LT
to Beacon	3	210°00'00"LT	70°00'00"LT
	1	70°00'00"LT	70°00'00"LT
to PC 29	3619.86	89°47'50"	3619.84
	3	302°50'30"LT	100°56'50"LT
to PC 29	2	201°53'30"LT	100°56'45"LT
	1	100°57'00"LT	
to PC 28	3628.92	89°49'30"	3628.90
	3	302°37'10"LT	100°52'23"LT
to PC 28	2	201°45'55"LT	~~100°52'58"LT~~
	1	100°52'10"LT	
to PC 27	3417.15	89°55'00"	3417.15
	3	199°46'45"LT	66°35'35"LT
to PC 27	2	133°11'05"LT	66°35'32"LT
	1	66°35'40"LT	



STA	SLP DIST	VERT ∠	HOR DIST	HOR ∠
T & NOTES - WILLIAMS			Warm, Sunny	
Φ - WARD			8-12-76 Thurs.	
NOTE: THE PURPOSE OF THIS SURVEY IS TO LOCATE AS MANY PROPERTY CORNERS AS DEEMED NECESSARY TO ESTABLISH THE TRUE ACREAGE OF THE PARCELS SURROUNDING THE AIRPORT.				
C-Sec. Cor.	4076.43	Level		175°20'05" RT
C-I.P.	1434.68	89°47'30"		176°08'45" LT
C-F	644.90	89°45'00"		165°18'40" LT
C-E	550.11	89°50'00"		161°36'00" LT
C-D	232.37	89°25'58"		79°18'10" LT
P of T-C	4221.80	90°08'10"		
∠ P of T, C, SC				5°28'55" LT
P of T-B	2810.21	90°08'00"		157°22'00" LT
∠ Sec Cor, P of T, SC				166°58'55"
P of T-A	1550.25	90°04'00"		147°04'10" LT

PROPERTY SURVEY



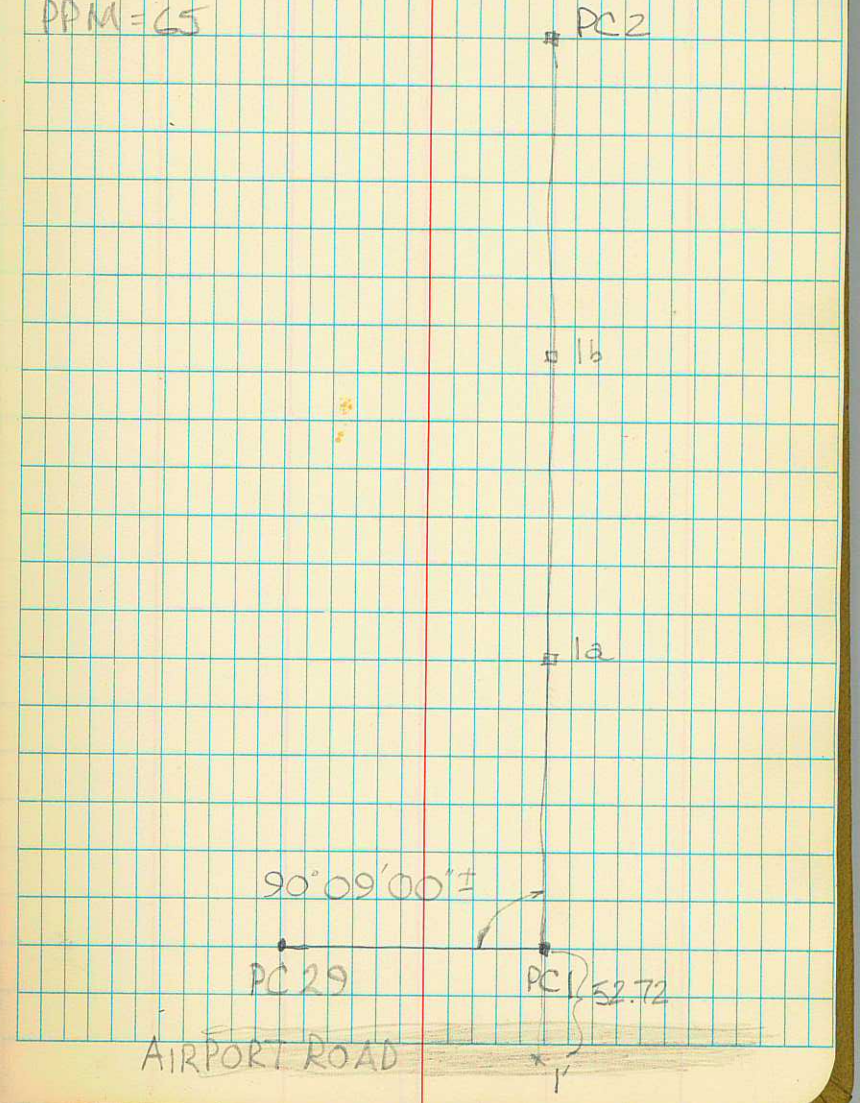
STA to	STA	SLP DIST	VERT	Δ	HOR DIST
1b	2	2286.55	90°00'00"		
1a	1b	1989.41	89°59'10"		
1'	1a	2869.29	90°11'35"		

9/29/76

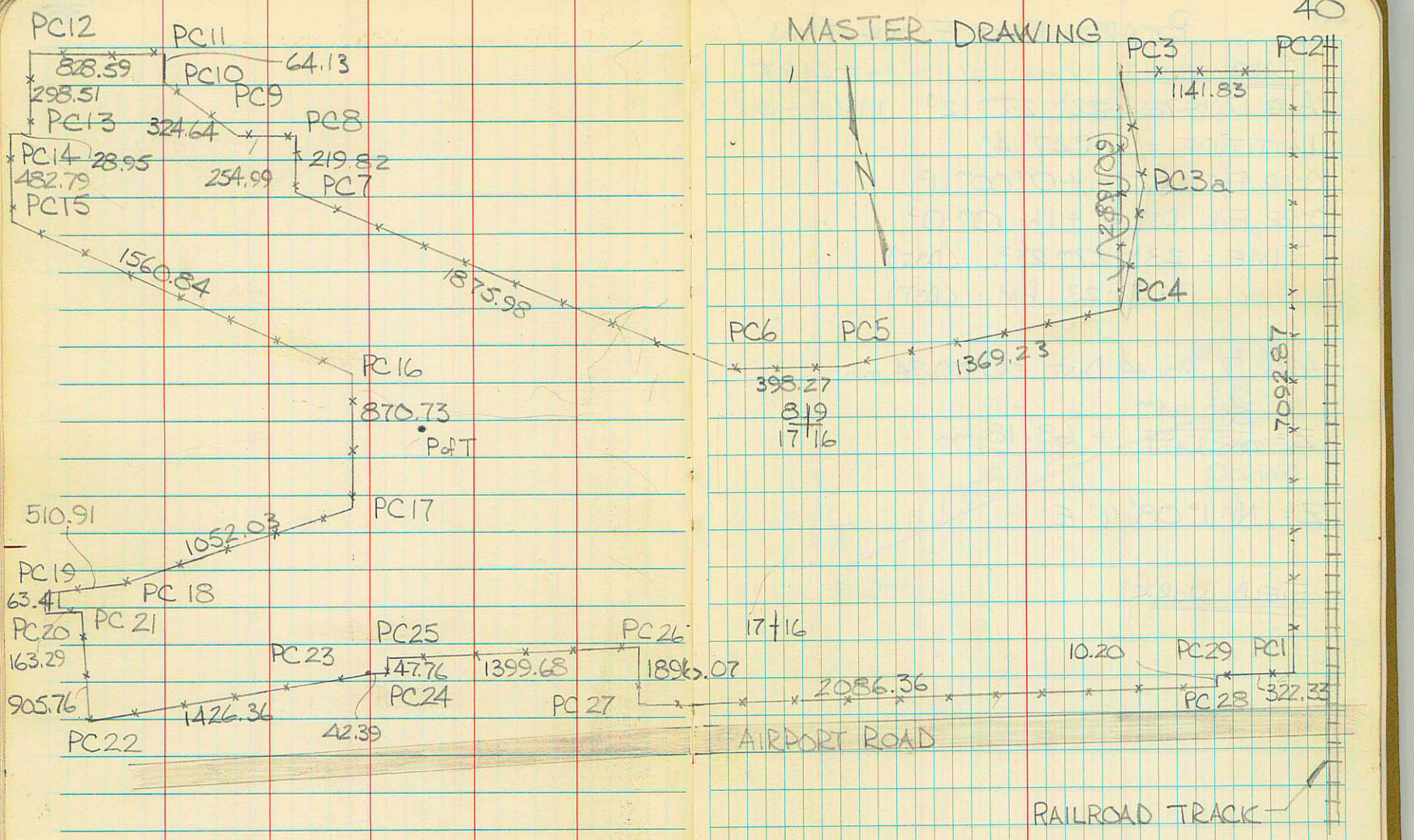
T & NOTES - WILLIAMS

$ - WARD

PPM = 65



MASTER DRAWING



POLARIS-EAST ELONGATION

CALC

AUG 17, 1976 = $22^{hr}\ 27^{m}\ 12^{s}$

LATITUDE = $41°47'14''$

CORR FOR LATT = $+0^{hr}\ 00^{m}\ 11^{s}$

CORR FOR DST = $+1hr\ 0^{m}\ 0^{s}$

TIME = $23^{hr}\ 27^{m}\ 23^{s}$ (DST)

or 11:27:23 PM (DST)

AUG 17 POLAR DIST = 0° 50.84 min

$Z = \frac{50.84^{m}}{\cos LATT} = 68.18$ min

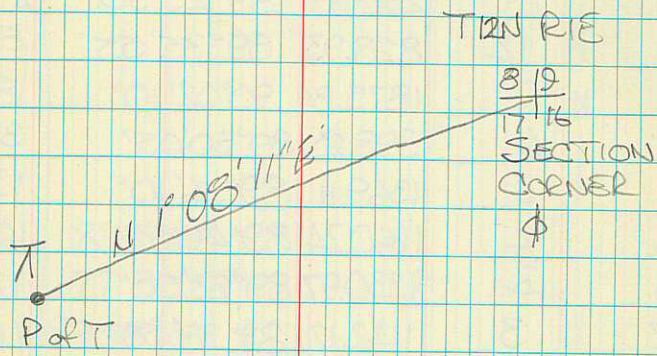
Z = N 1°08'11" E

FIELD WORK

POLAR OBSERVATION

TR NOTES - WILLIAMS 11:00 PM

ϕ - WARD 8-17-76 COOL



PC	to PC	SLP DIST	VERT ∠	HOR DIST
13	14			29.03
12	13	298.55	89°23'30"	298.53
11	12	828.93	89°35'55"	828.91
6	7	1875.86	90°02'10"	1875.86
5	6	398.23	89°30'05"	398.21
4	5	1369.11	89°56'10"	1369.11
3a	4	1660.74	89°49'30"	1660.73
3	3a	1230.97	89°53'50"	1230.97
2	3	1142.12	89°38'55"	1142.10
28	29			10.26
24	25			47.73
23	24			42.55
20	21			163.29
19	to 20			63.63
10	to 11			64.28
9	to 10			325.74
8	to 9			255.10
7	to 8			219.69

9340-100

∠	D-M-S
1	
3a-4-5	118°15'00" LT
3-3a-4	177°30'55" LT
2-3-3a	89°58'10" RT

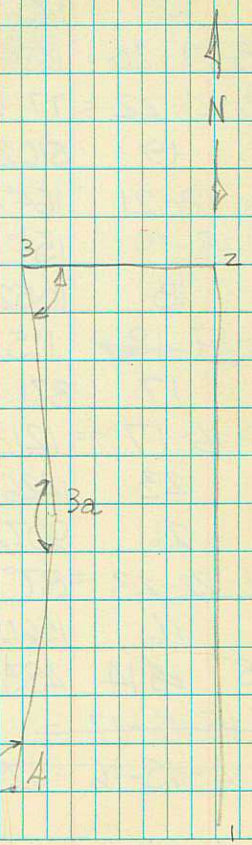
CHECK OF PROPERTY SURVEY BY ALTERNATE METHOD

T3 NOTES - WILLIAMS

4 - WARD

9-7-76

Clear, Warm



STA	to STA	SLP DIST	VERT ∠	HOR DIST
∠ 25-26-27 = 88°17'02" LT				
29	1			323.20
25	26	1399.92	89°43'50"	
∠	23-25-26 = 131°36'50" LT			
23	25	64.43	86°09'35"	
∠ 22-23-25		159°00'00" RT		
23	22	1426.50	90°00'55"	
∠ 18-21-20 =		169°21'05" LT		
∠ 18-21-22 =		77°18'00" RT		
18	19	510.86	89°40'00"	
∠ 17-18-21		164°36'00" LT		
∠ 17-18-19		154°13'00" LT		
17	18	1052.40	90°05'05"	
∠ 16-17-18		115°21'05" LT		
16	17	871.10	89°49'55"	
∠ 15-16-17 =		121°54'45" LT		PPM = 65
22	23	1426.40	89°47'55"	
22	21	907.40	90°00'00"	
∠ 21-22-23 =		87°17'05" RT		
15	16	1561.92	89°40'50"	
~~∠~~ 15	~~to~~ 14	483.14	89°37'10"	
~~∠ 15-16-17 =~~				
∠ 14-15-16 =		129°38'58" RT		

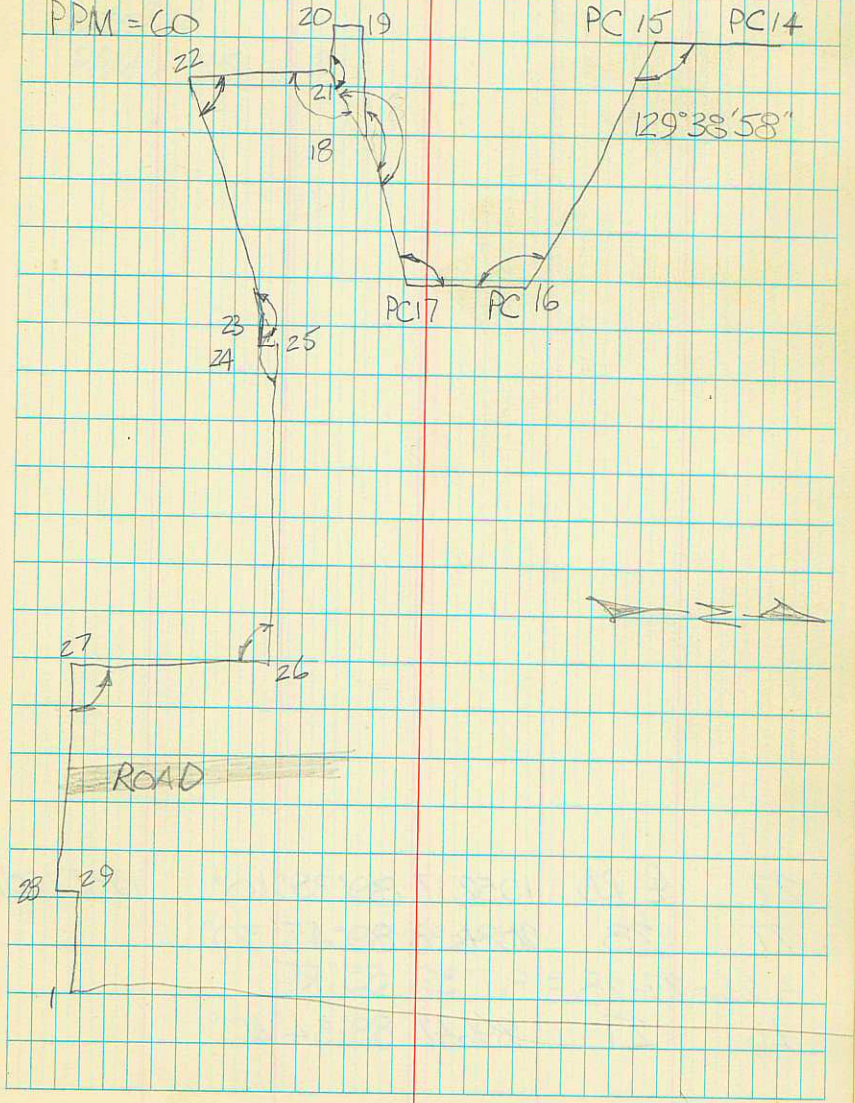
9340-100

9/30/76

TR NOTES - WILLIAMS

Q - WARD

PPM = 60



STA	to STA	SLP DIST	VERT ∠		HOR DIST
27	℄ RD	1052.17	89°39'	10"	1052.1507
27	28	2086.38	89°45'	30"	
∠ 26-27-28 = 87°38'55" RT					
26	27	1896.42	89°54'	40"	

π & NOTES - WILLIAMS
℄ - WARD
10/5/76
PAM = 35

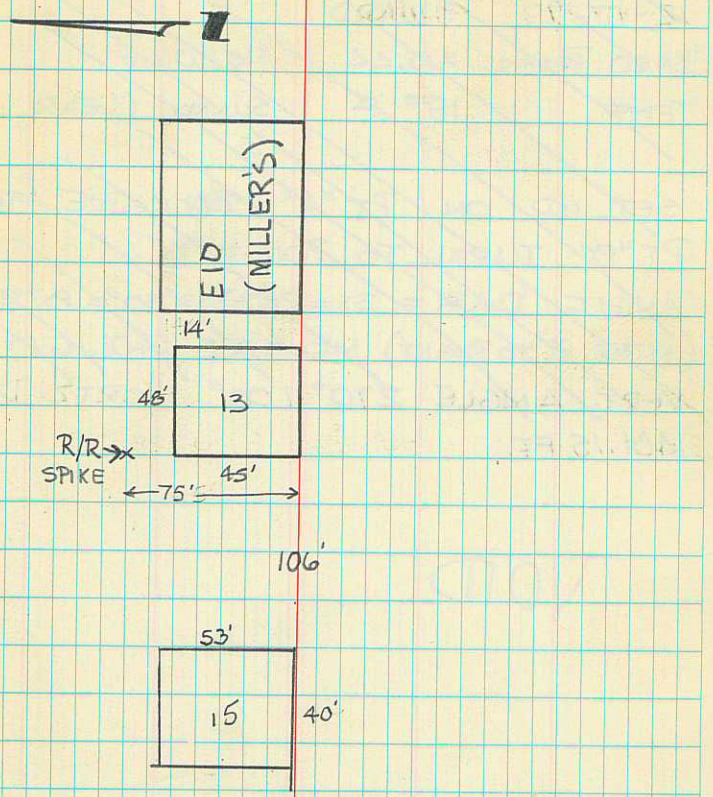
AIRPORT HANGERS # 13, 14, 15

12-14-79 P. WARD

SEE Pg. 66 THIS BOOK

ALSO BOOK 1-80- PROJ 1-80-0003

SET A RAIL ROAD SPIKE IN THE GROUND 75' NORTH OF FROM SOUTHWEST EDGE OF HANGER 13



AIRPORT SUBDIVISION BOUNDARY
12-17-79 P. WARD
BARO. PRESS. 30.44 NO WIND
TEMP. 19° F SUNNY CLEAR

SET UP ON PT "A" BACKSITE TO PT "D" TURN TO POINT "B"
ANGLE DAB = 3x = 263°05'30" = 87°41'50"
(INTER. ∠ TO RIGHT) MEASURE 1401.16 FT
VERT. ANGLE 270°11'00" HORIZ. DISTANCE 1401.15 FT.

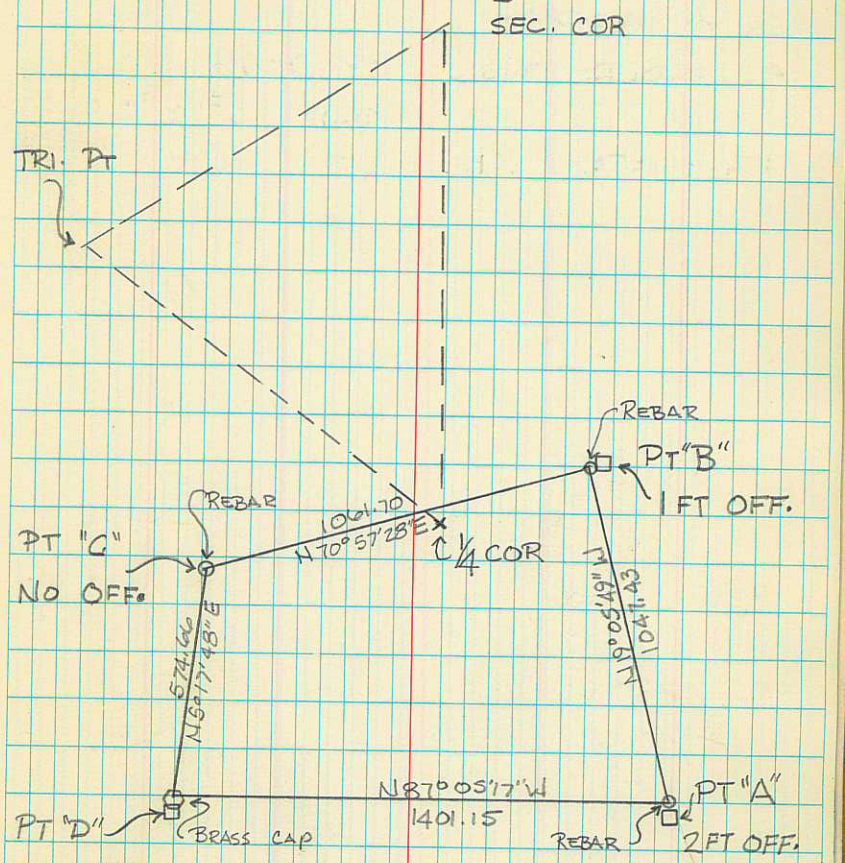
VOID

AIRPORT HANGER SUBDIVISION
OUTSIDE BOUNDARY 12-17-79
P.WARD CLEAR NO WIND BARO PRESS 30.44 TEMP. +19° F
ALL ANGLES INSIDE TO RIGHT

STA	–	STA	HORTZ. ANGLE	SLOPE DIST.	VERT ANGLE	HORTZ DIST.
A		B	68°02'45"	1049.43	90°07'30"	1049.43
B		C	90°00'	1062.70	90°02'	1062.70
C		D	114°17'17"	576.22	90°03'	576.22
D		A	87°41'50"	1401.16	270°11'	1401.15

SET UP ON ¼ COR BACKSITE PT "C"
∠ TO TRI. PT. 53°13'00" RT
SLOPE DIST. 710.60; VERT ∠ 90°11'
HORTZ. DIST. 710.60 FROM ¼ COR – PT "C"

SEE REVISION PG. 116



BEARINGS ARE CALC.
DIST. FROM ¼ COR – PT. B = N 227.11 E 304.09

STA	+	HI	−	ELEV
CHECK OF GROUND SLOPE ON WEST SIDE OF AIRPORT TO CHECK POSS. OF UNDERDRAIN			12-20-79	
P.WARD T			MILD 45° P/C	
G.L. RICHARDSON ϕ				
			7.35	47.68
DITCH AT FEN. CORN. #26			6.5	48.5
	4.62	55.03		
TP 1			5.49	50.41
BM	3.90	4455.90		
BM	USGS ASMITH MARKER			4452.00 (Asm)

9340-100

CHECK ELEV. OF HANGERS ALONG ACCESS ROAD AT AIRPORT. 12-20-79

T P. WARD MILD 45° P/C

Φ GL. RICHARDSON

STA	+	HI	-	ELEV.
ROAD ℄			3.32	55.09
DAVE NELSON FOOT. # 28			2.85	55.56
HANGER # E6			3.91	54.50
HANGER # E5			4.85	53.56
HANGER # 6			5.24	53.17
HANGER # 12			4.97	53.44
BM	6.41	58.41		
BM USGS MARKER			4452.00	

STAKING OF HANGER LOTS

AT AIRPORT LOT 15

3-6-80

COOL 35° PARTLY CLOUDY.

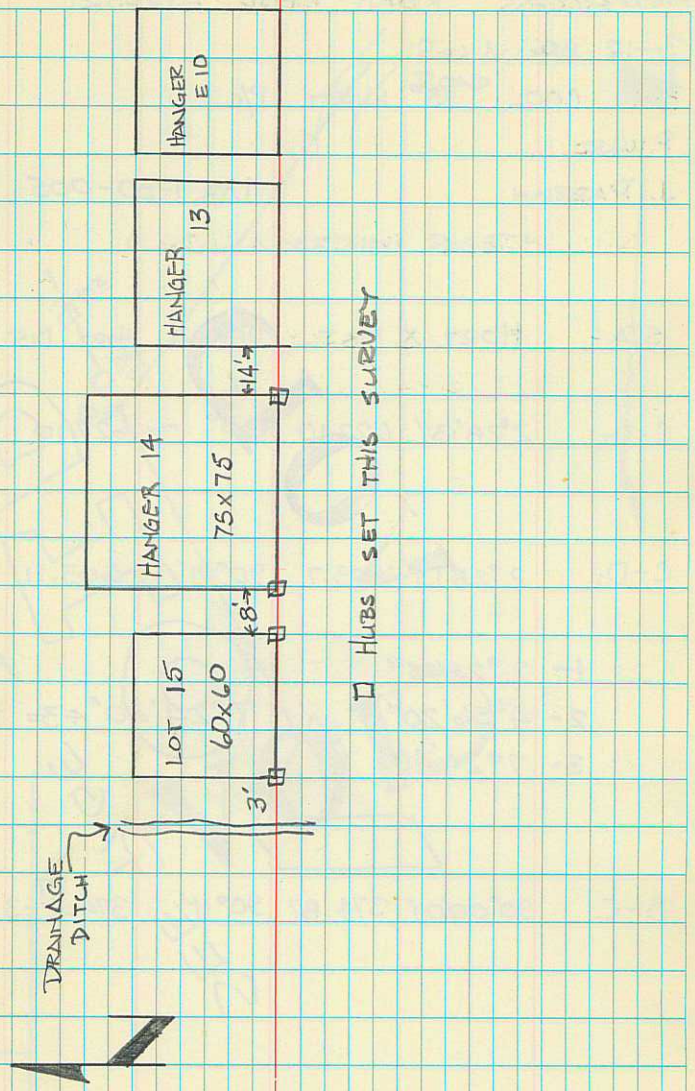
P. WARD

W. SAUNDERS (AIRPORT MANAGER)

CLOTH TAPE EYED IN LINE

SEE Pg. 54 THIS BOOK

ALSO SEE BOOK 1-80 Proj NO. 1-80-003



NEW ACCESS ROAD FOR AIRPORT

3-12-80

P/C COOL 35° WINDY P/C

P. WARD

J. PARRISH JOB 1-80-005

STA -	HORZ ∠ DIST	VERT ∠	HORZ. DIST.
C-D_2	2°28'13" 627.10	90°	627.10
C-D_1	2°28'13" 603.71	90°01'	603.71

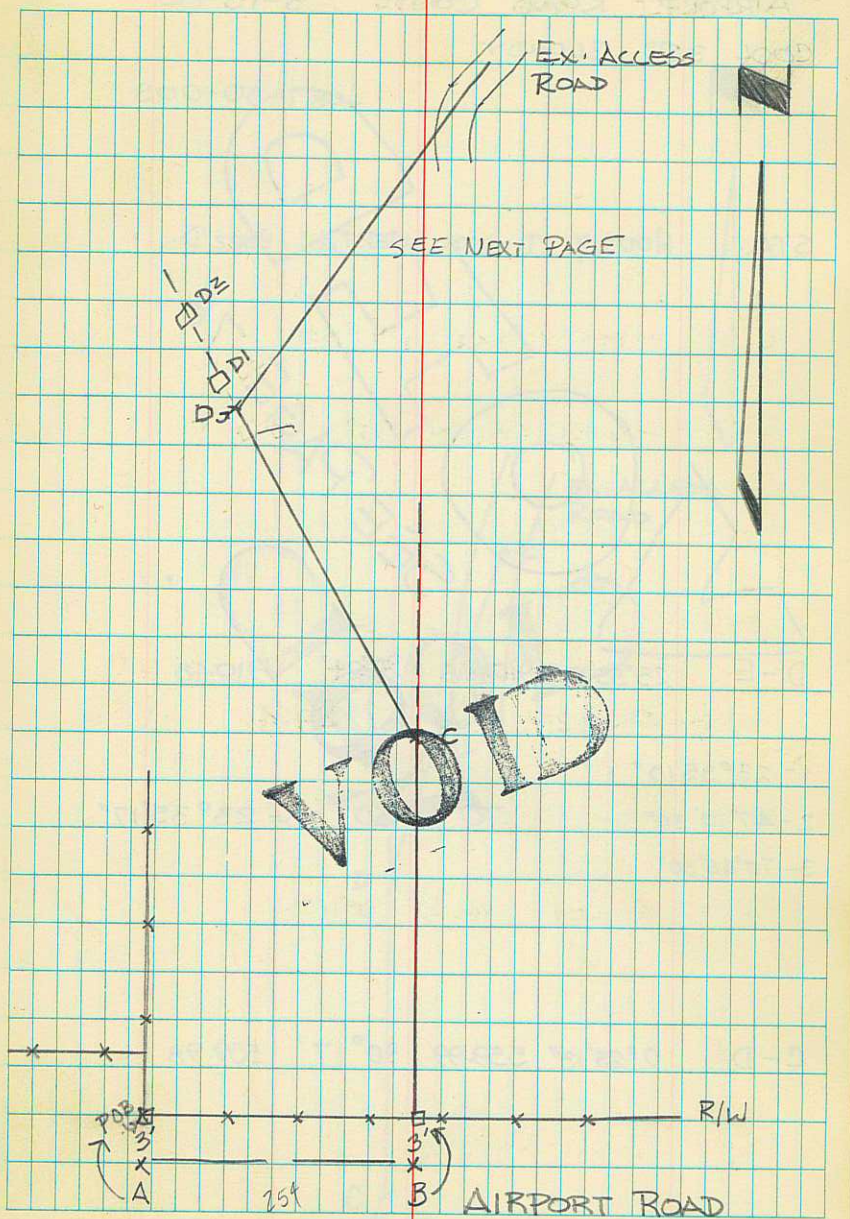
1- 2°28'15"
2- 4°56'20"
3- 7°24'40"

7°24'40" ÷3= 2°28'13"

B-C	90°00'00"	374.87	90°11'	374.87 - 3' = 371.87
A-B	0°00'	254.70'	269°50'	254.70

OLD ROAD

SEE NEXT PAGE



AIRPORT ROAD CONT. 3-13-80

COOL 30° CLOUDY

JOB 1-80-005

VOID SEE PAGE 78

STA.	HORZ ∠	DIST	VERT ∠	HORZ DIS.
D-E	23°35'17"	910.48	90°24'	910.48

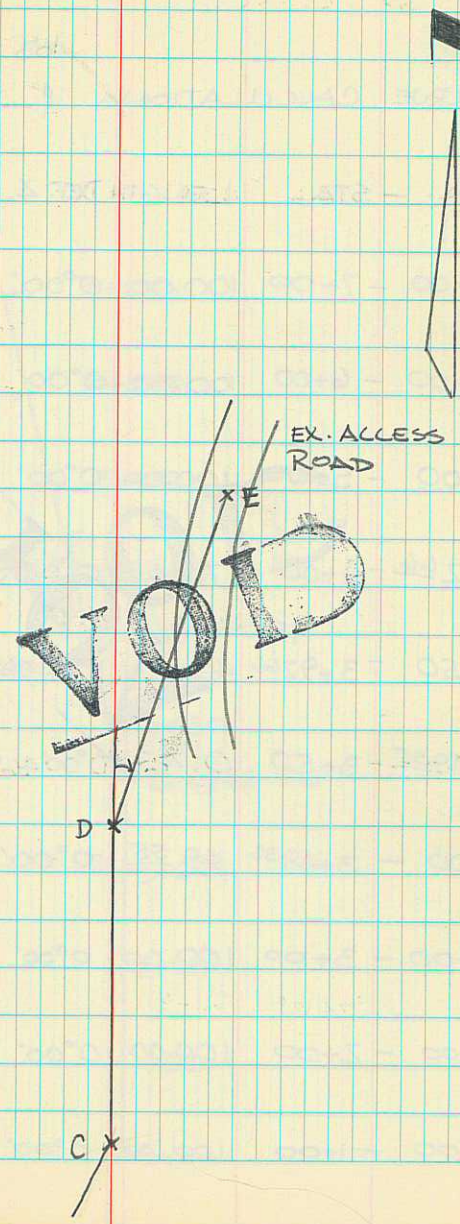
1 - 23°35'10"

2 - 47°10'30"

3 - 70°45'50"

~~70°45'50"~~ ÷3 = 23°35'17"

C-D	2°28'13"	559.99	90°17'	559.98



AIRPORT ROAD CONT. 3-13-80

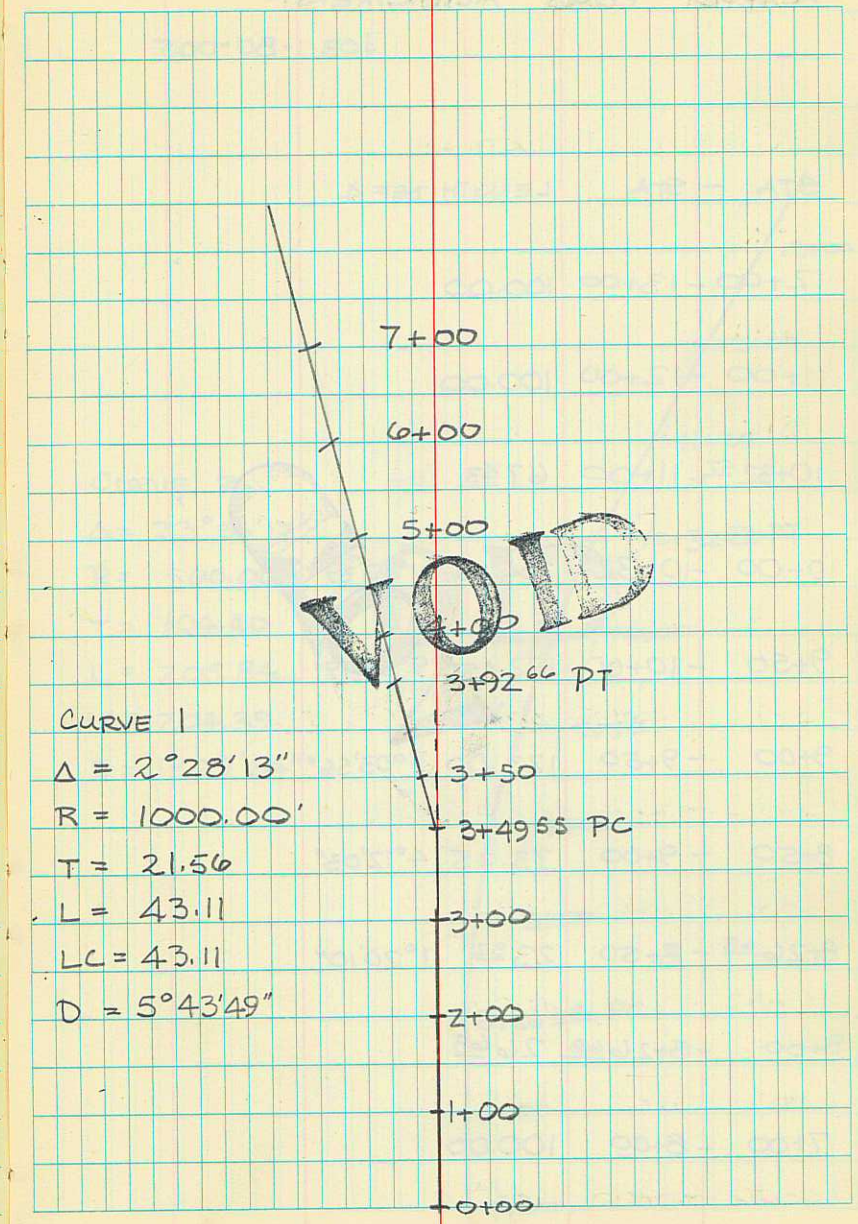
JOB 1-80-005

CURVE CALCULATIONS & ALIGNMENT

STA.	– STA.	LENGTH	DEF. ∠
6+00	– 7+00	100.00	0°00'
5+00	– 6+00	100.00	0°00'
4+00	– 5+00	100.00	0°00'
3+92 66	– 4+00	7.34	0°00'
3+50	– 3+92 66	43.11	1°14'06"
3+49 55	– 3+50	0.45	0°00'46"
3+00	– 3+49 55	49 55	0°00'
2+00	– 3+00	100.00	0°00'
1+00	– 2+00	100.00	0°00'
0+00	– 1+00	100.00	0°00'

VOID

VOID



CURVE 1

Δ = 2°28'13"

R = 1000.00'

T = 21.56

L = 43.11

LC = 43.11

D = 5°43'49"

AIRPORT ROAD ALIGNMENT

JOB 1-80-005

STA	–	STA	LENGTH	DEF Δ
12+00	–	13+00	100.00	
11+00	–	12+00	100.00	
10+32.57	–	11+00	67.43	
10+00	–	10+32.57	204.39	11°47'39"
9+50	–	10+00	172.45	9°[illegible]"
9+00	–	9+50	123.00	7°03'56"
8+50	–	9+00	73.25	4°12'03"
8+26.68	–	8+50	23.32	1°20'10"
8+00	–	8+26.68	26.68	
7+00	–	8+00	100.00	

VOID

CURVE 2

Δ = 23°35'17"

R = 500.00

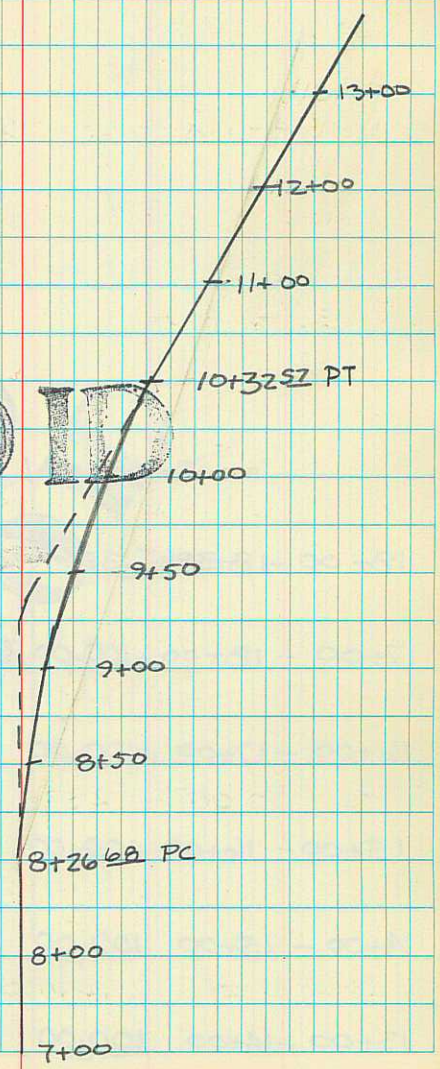
T = 104.40

L = 205.84

LC = 204.39

D = 11°27'34"

VOID



AIRPORT ROAD ALIGNMENT

JOB 1-80-005

STA	– STA	LENGTH	DEF ∠

NEW ACCESS ROAD FOR AIRPORT

3-12-80

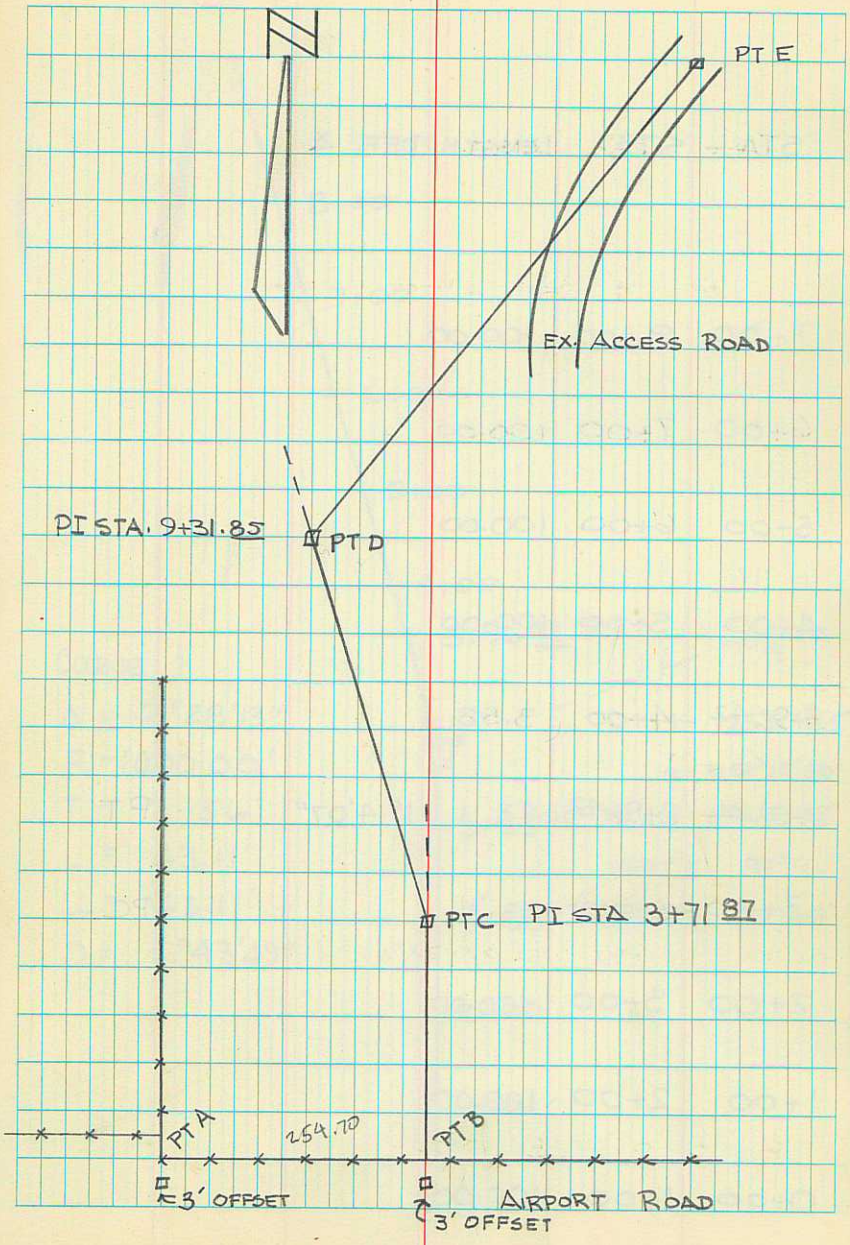
P/C COOL 35° WINDY

P. WARD J. PARRISH

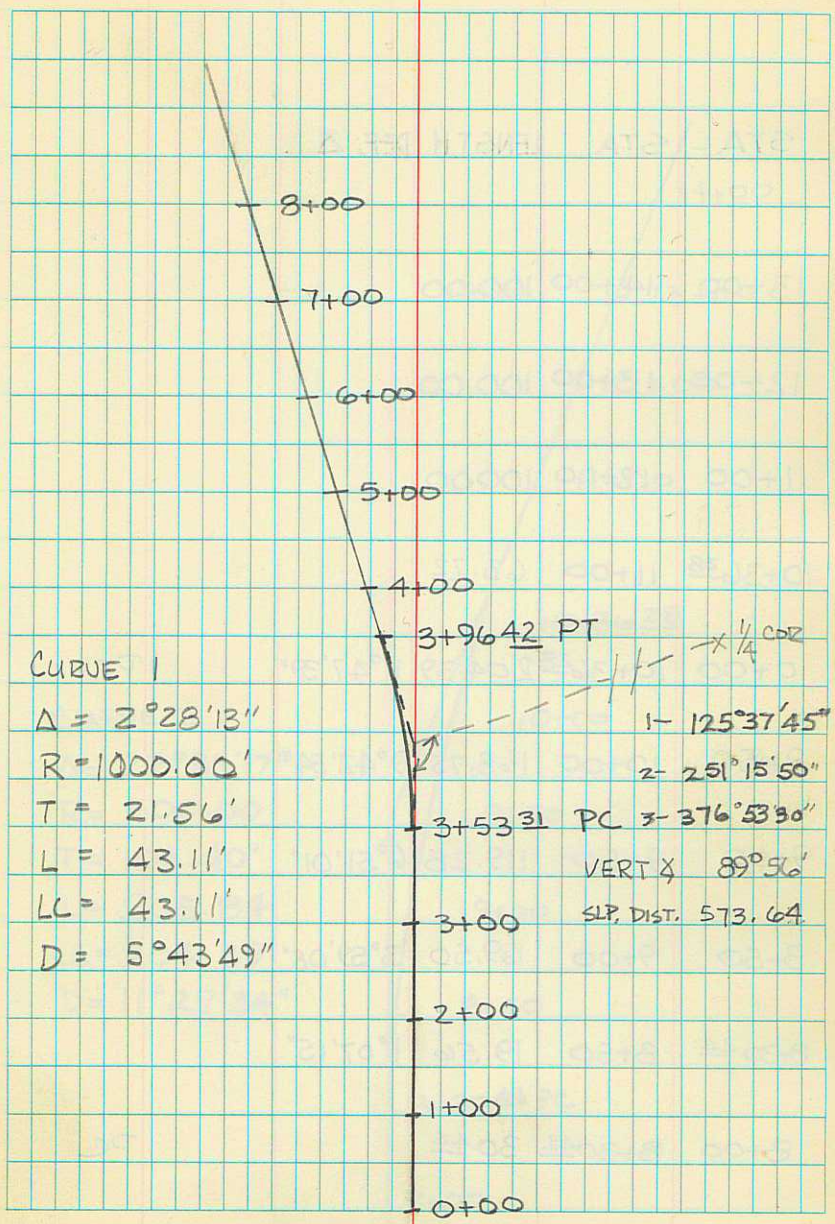
JOB 1-80-005

(SEE BOOK 1-80) P. 6

STA	HORZ ∠	DIST	VERT ∠	HORZ. DIST.
D-E	23°35'17"	910.48	90°04'	910.48
C-D	2°28'13"	559.99	90°17'	559.98
B-C	90°00'	374.87	90°11'	374.87 - 3' OFFSET 371.87
A-B	0°00'	254.70	269°50'	254.70'

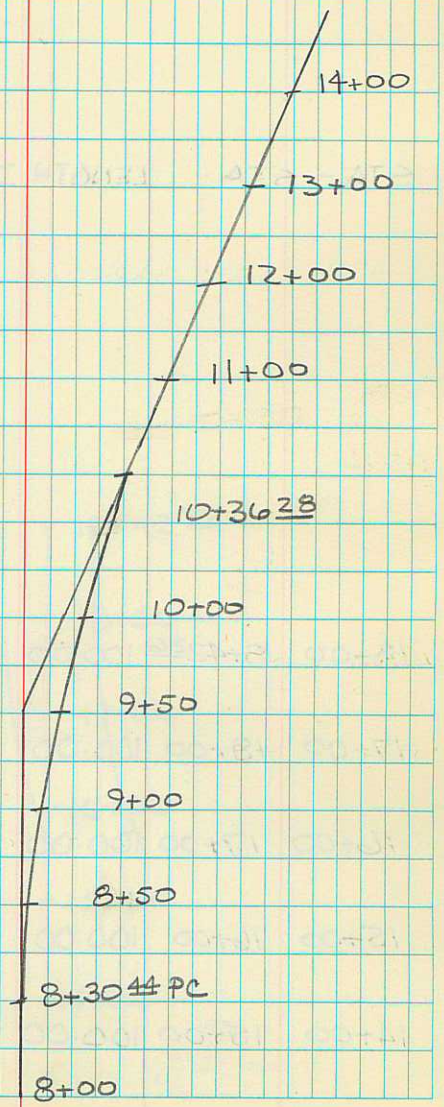


STA. -	STA.	LENGTH	DEF. Δ		
7+00	8+00	100.00			
6+00	7+00	100.00			
5+00	6+00	100.00			
4+00	5+00	100.00			
3+96 42	4+00	3.58			
3+53 31	3+96 42	43.11	1°14'07"		PT
3+00	3+53 31	53.31			PC
2+00	3+00	100.00			
1+00	2+00	100.00			
0+00	1+00	100.00			

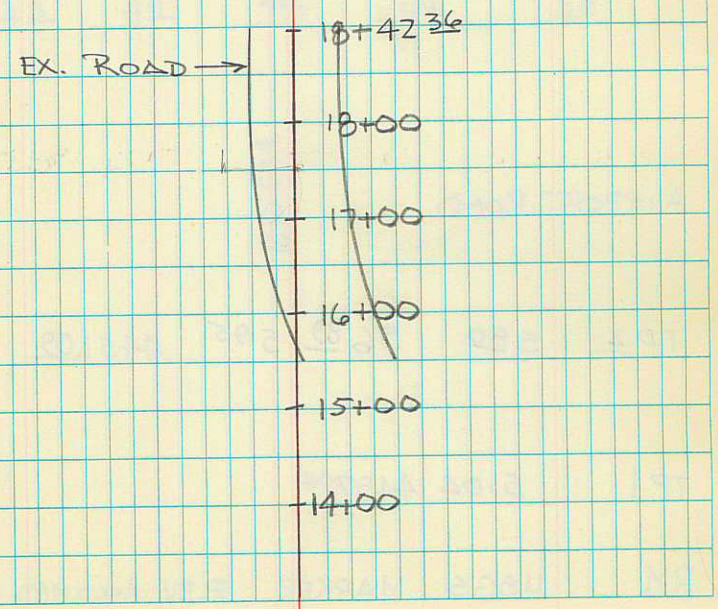


STA -	STA	LENGTH	DEF. Δ		
13+00	14+00	100.00			
12+00	13+00	100.00			
11+00	12+00	100.00			
10+36 28	11+00	63.72			
10+00	10+36 28	204.39	11°47'39"		PT
9+50	10+00	168.75	9°42'54"		
9+00	9+50	119.28	6°51'01"		
8+50	9+00	69.50	3°59'08"		
8+30 44	8+50	19.56	1°07'15"		
8+00	8+30 44	30 44			PC

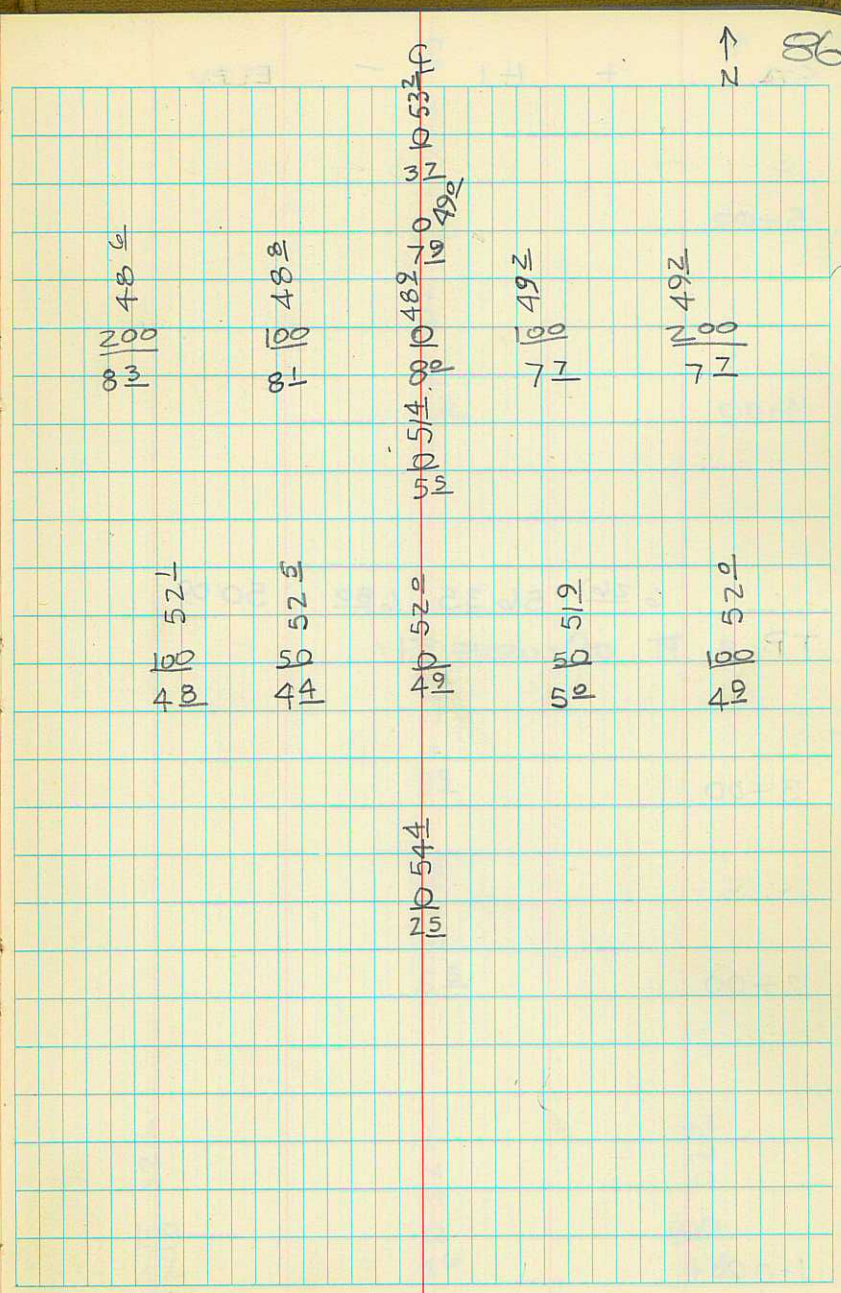
CURVE 2
Δ = 23°35'17"
R = 500.00'
T = 104.40'
L = 205.84
LC = 204.39
D = 11°27'34"



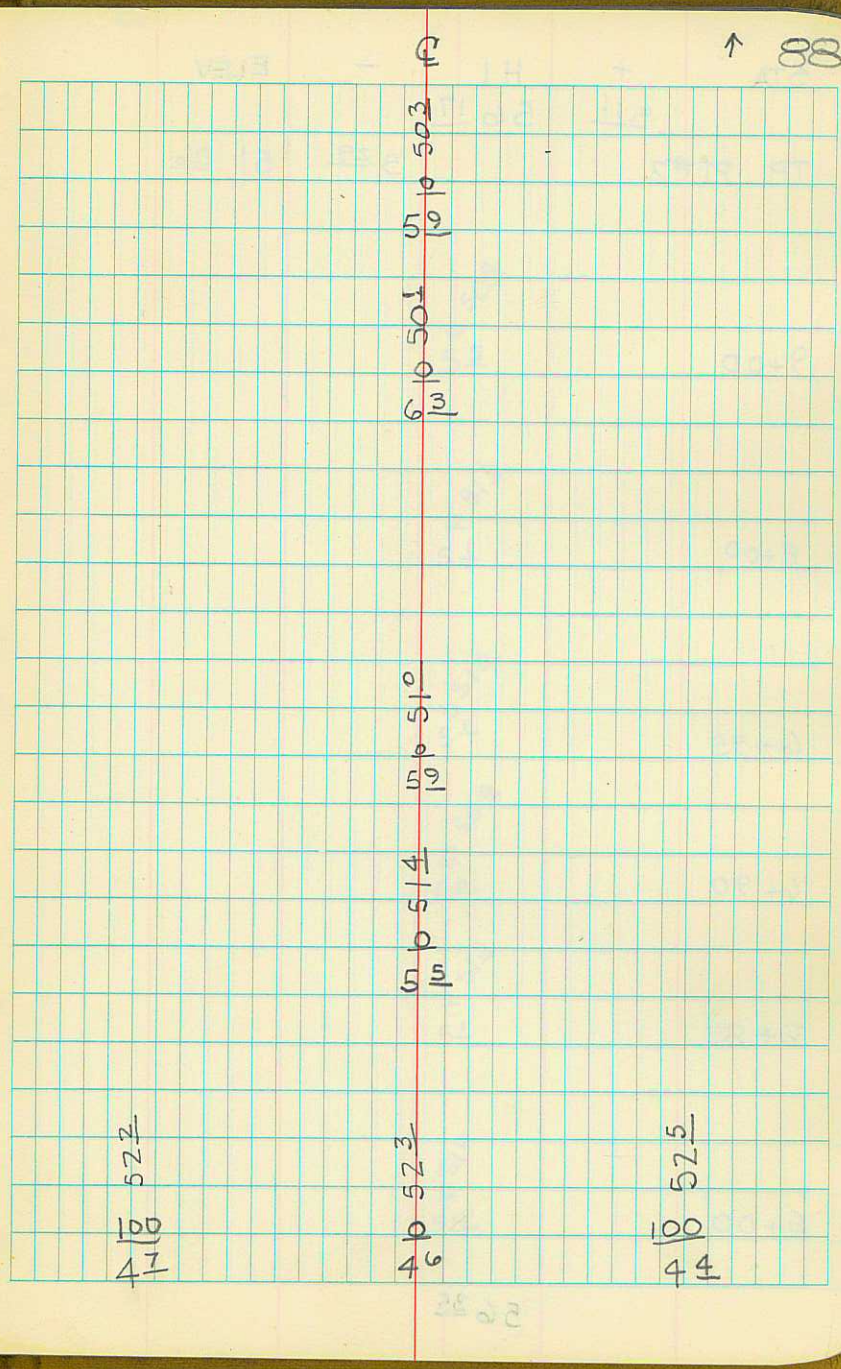
STA -	STA	LENGTH	DEF. Δ
18+00	18+42 36	100.00	END PROJECT
17+00	18+00	100.00	
16+00	17+00	100.00	
15+00	16+00	100.00	
14+00	15+00	100.00	



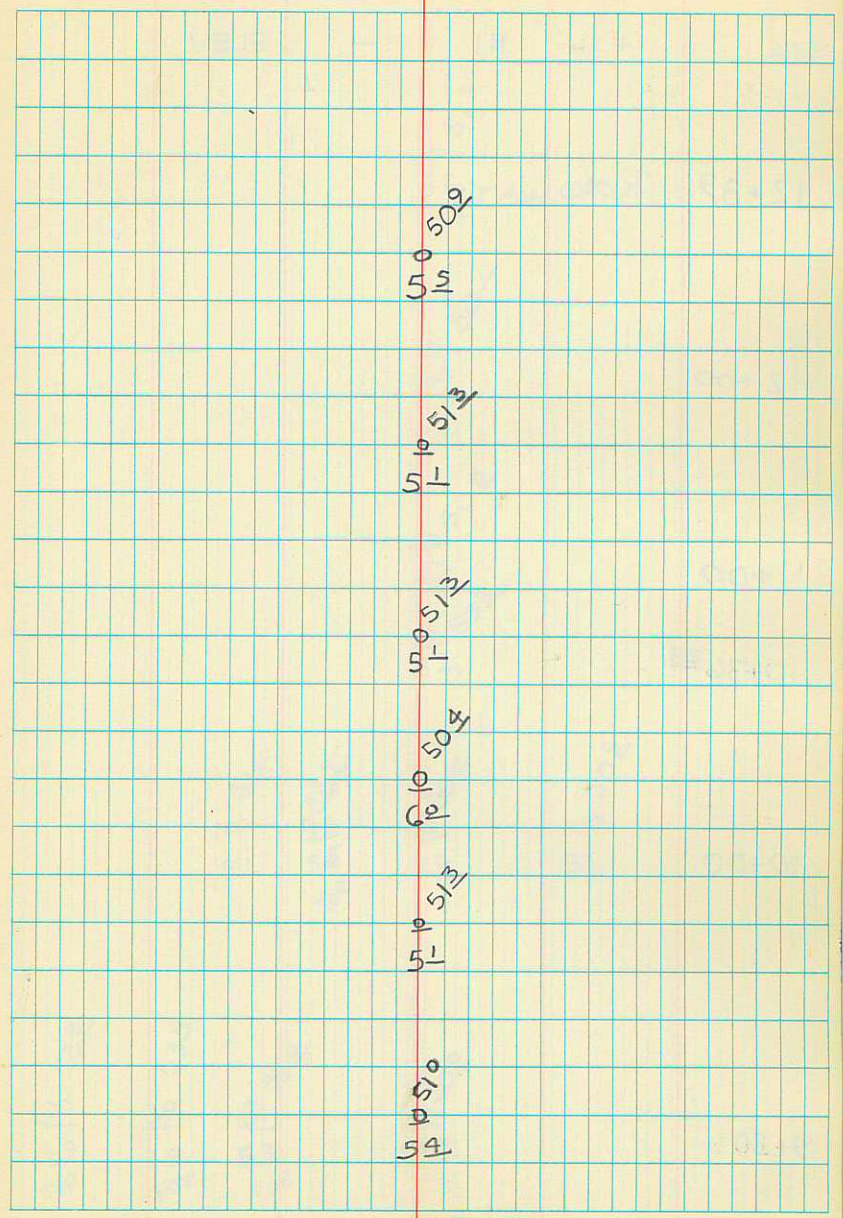
STA	+	HI	−	ELEV
0+51	DITCH BANK No. SIDE			
0+49	DITCH FL No. SIDE			
0+26	DITCH FL So. SIDE			
0+25	DITCH BANK SO. SIDE			
0+00				
AIRPORT ROAD				
TP 2	5 80	56 89	5 95	4451.09
TP 1	5.04	4457 04	595	
BM	USGS MARKER ELEV ASSUMED 4452.0			



STA	+	HI	−	ELEV
5+00				
4+00				
	6 26	56 35	6 80	50 09
TP 3	PI of CURVE #1			
3+00				
2+00				
1+00				
		56 89		



STA	+	HI	−	ELEV
	5 11	56 17		
TP PI #2			5 29	51 06
9+00				
8+00				
6+95				
6+90				
6+85				
6+00				
		56 35		



STA	+	HI	−	ELEV
12+39	ROADWAY			
12+00				
11+00				
10+36 28				
10+00				
9+50				
		56 17		

9340-100

5 0 51.0
5 2

6 1.0 50.1

5 1.0 50.8
5 4

5 1.0 50.3
5 2

5 1.1
100 50.7
5 1 5 2
5 5
TOE

5 1.0 50.6
5 6

100 50.5
5 7

5 3.3
100 53.4
2 9 89 51.0
TOP 2 8 81
TOP 5 2
TOE

5 1.0 50.9
5 3

16+69	55' LT	LIGHT NE COR			
16+00					
	5 62	56 64			
TP			5 15	51 02	
15+00					
14+00					
13+00					
12+56	EDGE	OF ROADWAY			
		56 17			

50.2	50.6	50.1	51.4	51.7	51.5	50.4	51.7
100	26	18	7	0	27	35	100
59	60	65	52 EO	49	55 EO	62	49

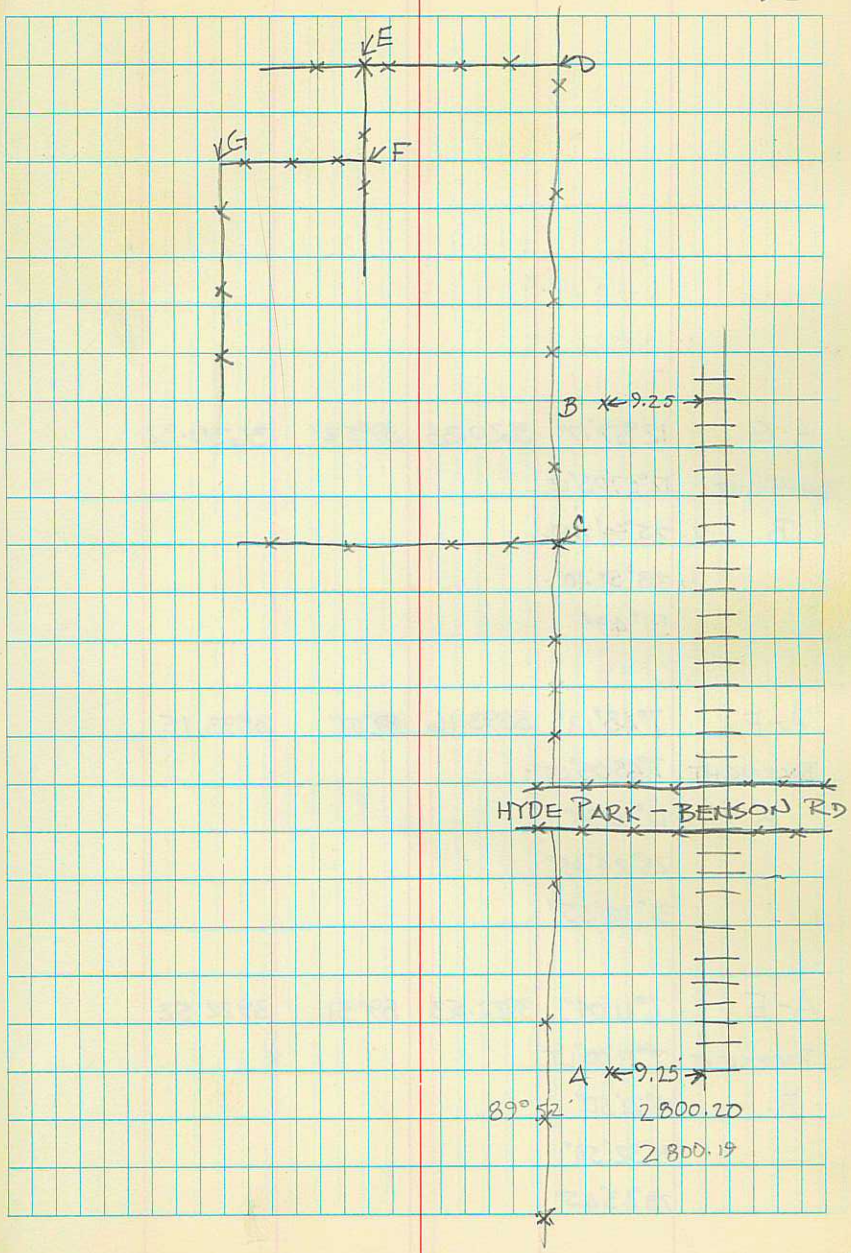
51.0	50.2	50.4	50.7
0	0	0	0
52	60	58	55

9340-100

			50 7	50 9	50 2	51 2	51 4	50 7	50 3	51 2	51 6
			100	37	29	19	0	16	23	73	97
			59	57	64	54 EO	55	59 EO	63	54 EO	50 BUILDING
18+00											
							51 4				
							0				
							52				
17+19	44' LT	WHITE BUILDING NE COR									
17+00											
		56 64									

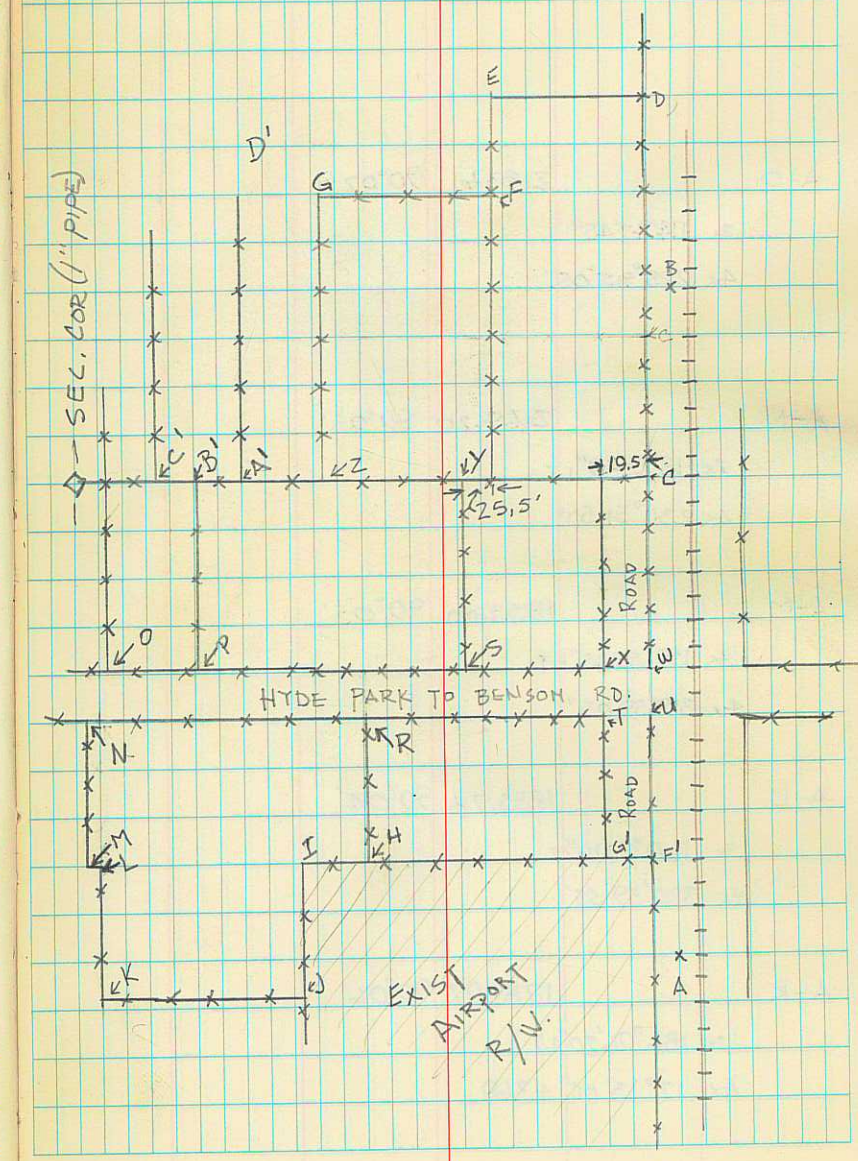
NORTH + SOUTH RUNWAY EXTENTION

STA-STA	HORZ ∠	SLP DIST.	VERT ∠	HORZ. DIST.
A-D	0°19'58" LT	3909.65	89°48'30"	3909.63
BACKSIGHT	20'00" LT			
B	0°39'55"			
	0°59'55"			
	1°19'45"			
A-C	0°31'27" LT	2275.10	89°52'	2275.09
BACKSIGHT	0°31'30" LT	~~2275.10~~	~~89°52'~~	
B	1°03'00"			
	1°34'15"			
	2°05'45"			
A-B	0°00'00"	2800.20	89°52'	2800.19



A-G	12°57'12"	3630.33	89°52'	3630.32
BACKSIGHT	12°57'05" LT			
B.	25°54'20"			
	38°51'40"			
	51°49'			
A-F	7°48'13"	3593.16	89°51'	3593.15
BACKSIGHT	7°48'05" LT			
B	15°36'30"			
	23°24'45"			
	31°12'55"			
A-E	7°11'04"	3922.53	89°51	3922.52
BACKSIGHT	7°11'00" LT			
B.	14°21'50"			
	21°32'50"			
	28°43'45"			

A-J		1141.24	90°04'
BACKSIGHT B	2x 188°09'15" LT		
	4x 16°18'20"	+360°	
A-I		1238.94	90°01'
BACKSIGHT B	2x 139°25'45"		
	4x 278°50'30"		
A-H		1102.03	90°02'
BACKSIGHT B	2x 133°16'15" LT		
	4x 266°32'30"		
A-G'		484.99	89°35'
	2x 11°27'30" LT		
BACKSIGHT B	4x 22°55'10"		
A-F'		483.77	89°35'
	2x 5°04'10" LT		
BACKSIGHT B	4 10°07'30"		
~~A-F~~			



A-O		2183.61	90°02'
	2x	114°47'45" LT	
	4x	229°35'05"	
A-N		2169.20	90°03'
	2x	118°25'40" LT	
	4x	236°51'50"	
A-M		1853.00	90°05'
	2x	159°59'45" LT	
	4x	319°59'05"	
A-L		1835.78	90°04'
	2x	160°30'10" LT	
	4x	320°59'55"	
A-K		1789.97	90°06'
	2x	186°06'20" LT	
	4x	12°13'00" +360	

A-U		1164.41	89°42'
2x	2°04'20"		
4x	4°08'55"		
A-T		1165.93	89°44'
2x	4°51'55" LT		
4x	9°43'55"		
A-S		1304.74	89°59'
2x	42°48'55" LT		
4x	85°37'30"		
A-R		1539.64	90°00'
2x	85°07'55"		
4x	170°15'15"		
A-P		1897.46	90°02'
2x	102°31'10" LT		
4x	205°02'00"		

A-A'		2476.41	90° 00
	2x	53°32'15" LT	
	4x	107°04'20"	
A-Z		2361.45	90° 01'
	2x	38°35'20" LT	
	4x	77°11'05"	
A-Y		2296.32	89°56'
	2x	24°00'40" LT	
	4x	48°01'00"	
~~A-Y~~		~~2275.24~~	~~89°52'~~
	~~2x~~	~~1°01'30" LT~~	
	~~4x~~	~~2°02'55" LT~~	
A-X		1228.74	89°49'
	2x	3°47'00" LT	
	4x	7°34'05"	
A-W		1228.93	89°43'
	2x	1°58'10" LT	
	4x	3°56'40" LT	

9340-100

A-H'		3075.91	89°58'
2x	43°10'15" LT		
4x	86°20'45"		
A-E'		3415.33	89°56'
2x	38°53'15" LT		
4x	77°46'10"		
A-D'		3676.02	89°57'
2x	58°49'00" LT		
4x	117°38'30"		
A-C'		2821.11	90°04'
2x	79°40'00" LT		
4x	159°19'55"		
A-Sec. Cor		2871.45	90°02'
2x	82°28'55"		
4x	164°57'45"		
A-B'		2666.79	90°03'
2x	70°05'45" LT		
4x	140°11'00"		

9340-100

A-L'		3698.06	89°55'
2x	35°58'55" LT		
4x	71°57'55"		
A-K'	3	3038.81	89°56'
2x	30°37'00" LT		
4x	61°10'30"		
A-J'		3027.76	89°57'
2x	37°48'30" LT		
4x	75°36'45"		

SET NORTH LINE OF ROW A
OF "T" HANGERS.
PIVARD, G.L. RICHARDSON

	49°46'19"	63.59
¼ COR – NE COR	45°51'10"	66.47'
BACKSIGHT Δ		
℄ INT LT		
¼ COR – NW COR	14°41'52"	425.28'
BACKSIGHT Δ		
℄ INT LT		
	9°17'28"	

FLOOR EL. of Δ12 – 4455.0
BM – 4452.0

ROAD @ 53 4

HI 57 07
5 3 3
2 1

2'
FILL 3'

BRASS CAP
5.37
EAST OF
¼ COR.

× POB

988071
49,300.49
× Δ

NW COR
×
9824.43
49612.63

10000
49994.63
× ℄ ¼ COR 10,000
50,000

× NE COR
9945.20
49962.38

× B

× C

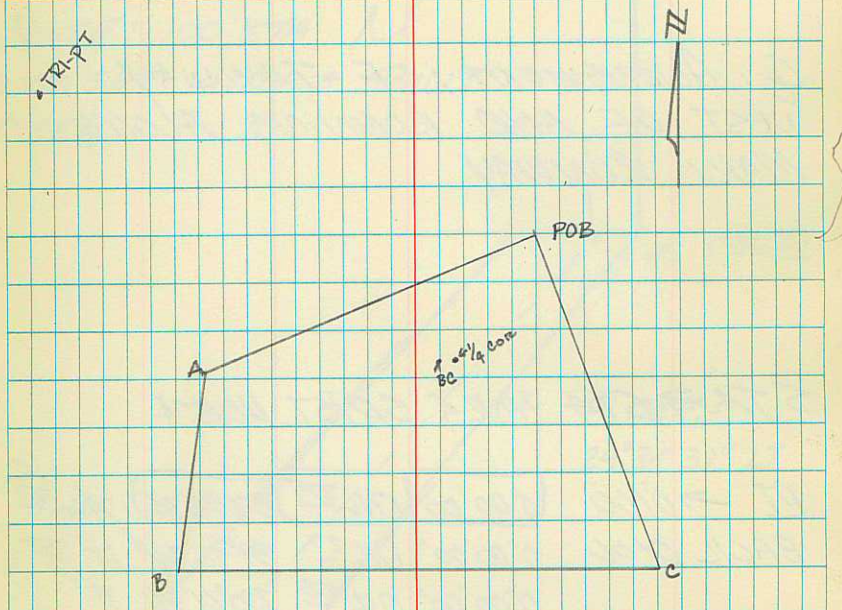
80°14'56"

BRASS C. - B	87°15'55"	1006.11	89°50'	1006.11
BACK TRI-PT				
INT ~~RT~~ LT				
BRASS CAP-A	53°27'25"			705.31
BACK TRI-PT				
∠ INT LT				
A-BRASS CAP	114°57'00"	705.31	89°59'	705.31
BACK TRI-PT				
∠ INT RT				
A-B	218°05'50"	574.80	89°37'	574.79
BACK TRI-RT				
∠ INT RT				
A-C	148°24'10"	1492.51	89°45'	1492.50
BACK TRI-PT				
∠ INT RT				
A - POB	103°48'05"	1061.70	89°49'	1061.69
BACKSIGHT TRI-PT				
∠ INT RT				

- AIRPORT SUB-DIVISION CHECK AND TIES TO USGS BRASS CAP AND 1/4 CORNER -

10-17-80 REVISED FROM Pg. 58

P. WARD

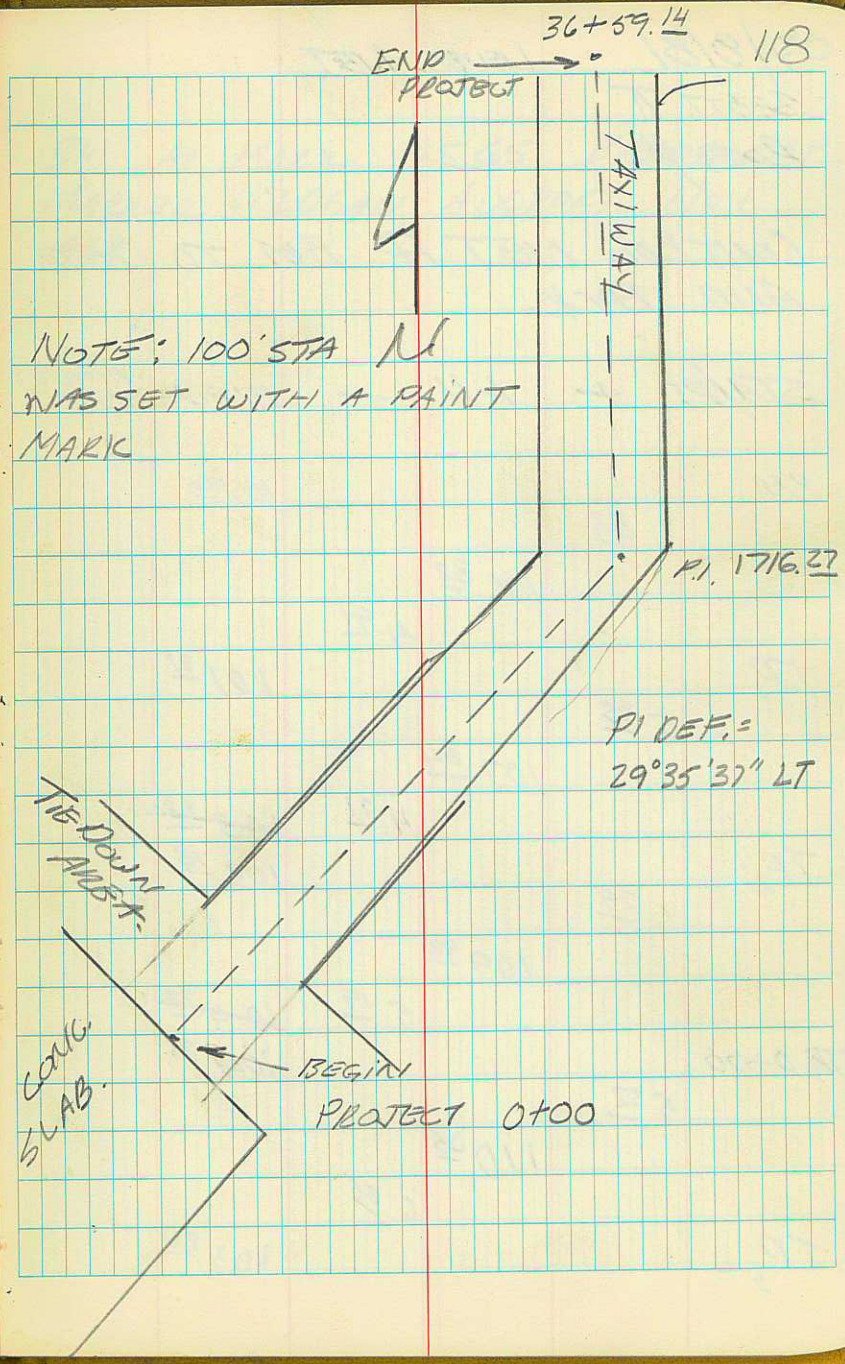


7/8/81 TAXIWAY ENPROUEMENTS.
SCOTT T.
ROSS #

COOL, 65°
BREEZY
CLEAR

℄ ALIGNMENT OF TAXIWAY WEST OF AND RUNNING ALONG MAIN RUNWAY.

STA → STA	HOR ∠	SDIST	VERT ∠	
PI → 0+00	0°00'00"	1716.275	89°58'30"	1716.27
BACK 0+00	0°00'00"	1716.27	89°58'30"	
	0°00'00"	1716.28	270°01'30"	
P → →	150°24'23"	1942.875	90°03'30"	1942.87
INT RT	156°24'20"	1942.87	90°03'30"	
BACK 0+00	241°37'30"	1942.88	269°56'30"	



7/8/81 LEVEL NET
SCOTT T
ROSS #

CONTROL NET FR BM TO 0+00 AND BACK.

STA/PT	+	H.I.	−	BLED	ALMOST BLED
BM				100.82	
	6.82				
		106.82			
			4.91		
TP1				101.91	
	5.93				
		107.84			
			4.71	~~103.13~~	
TP2				103.13	
	6.79				
		109.92			
			5.19	~~104.22~~	
STA 0+00				104.73	
	5.32				
		110.05			
			6.85		
TP3				103.20	

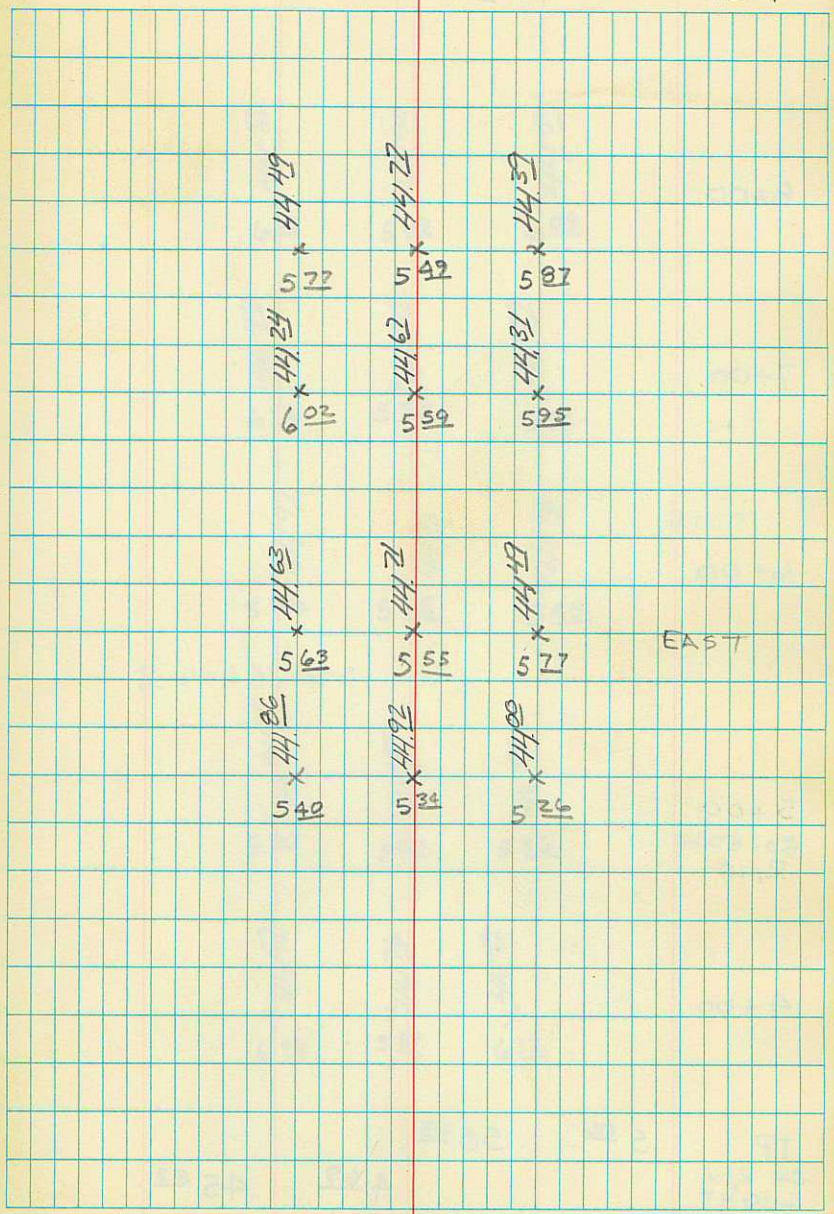
BM. A2 MARK U.S.G.S BRASS CAP MARKED LOGAN AIRPORT No 1 1963.

STA/PT	+	HI	−	ELEV	ADJ. ELEV
TP_3				103.20	
	4.58				
		107.78			
			6.29		
TP_4				101.49	
	4.23				
		105.72			
			5.69		
TP_5				100.03	

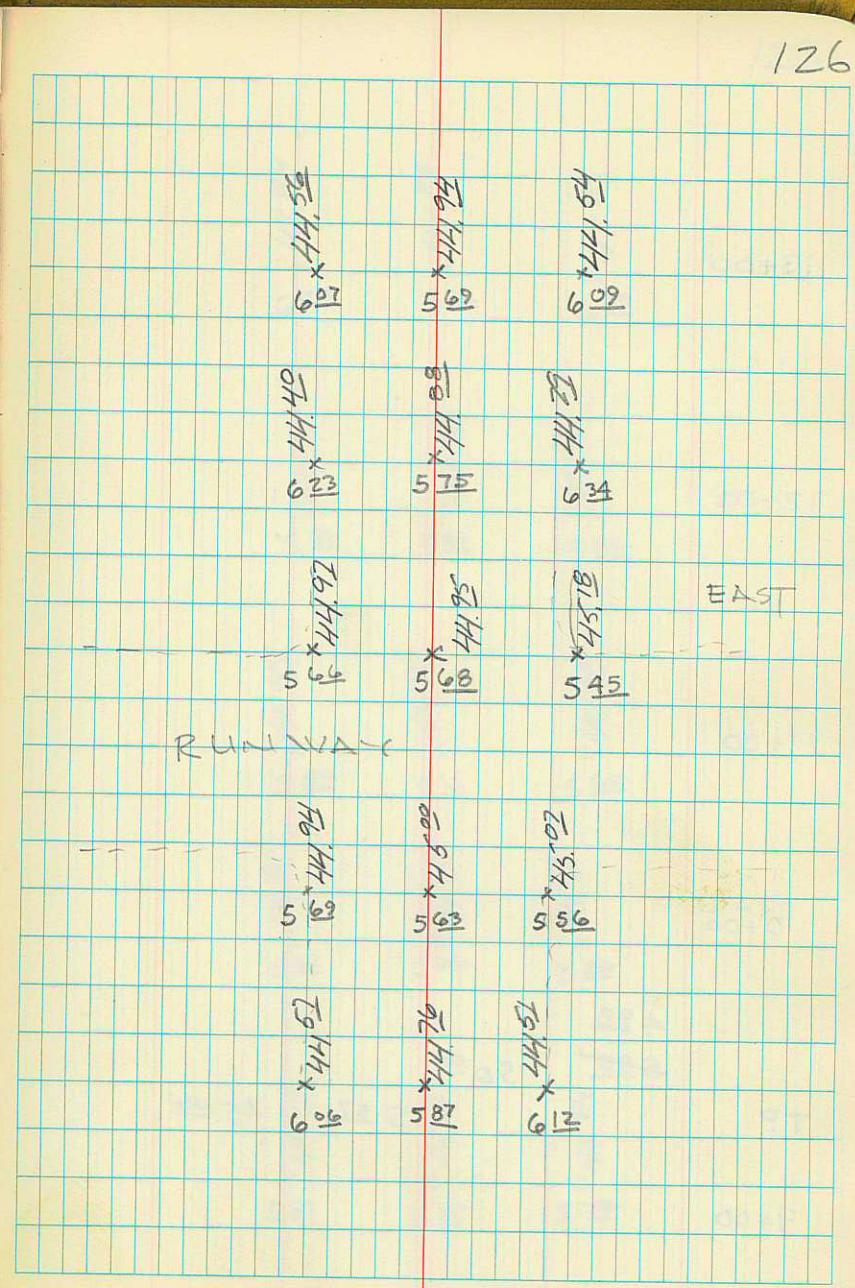
JULY 9, 1981

LAPRAY, RUSSELL, WARD

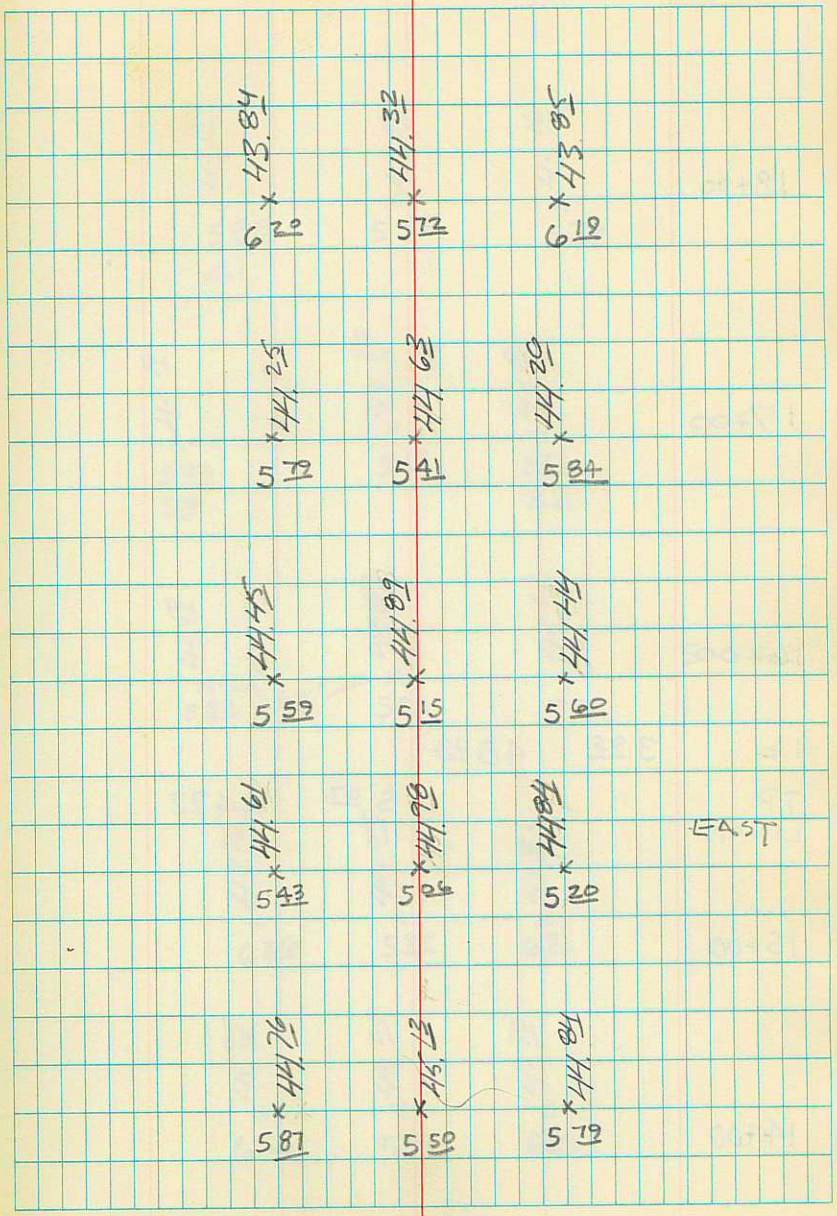
STA.	+	HI	−	EL.
3+00				
2+00				
1+00				
0+00				
END OF TAXIWAY	4 44	5026		
			4 69	45.82
REBAR UNDER	4.91	44505 1		
LIGHT BM		4445 60		



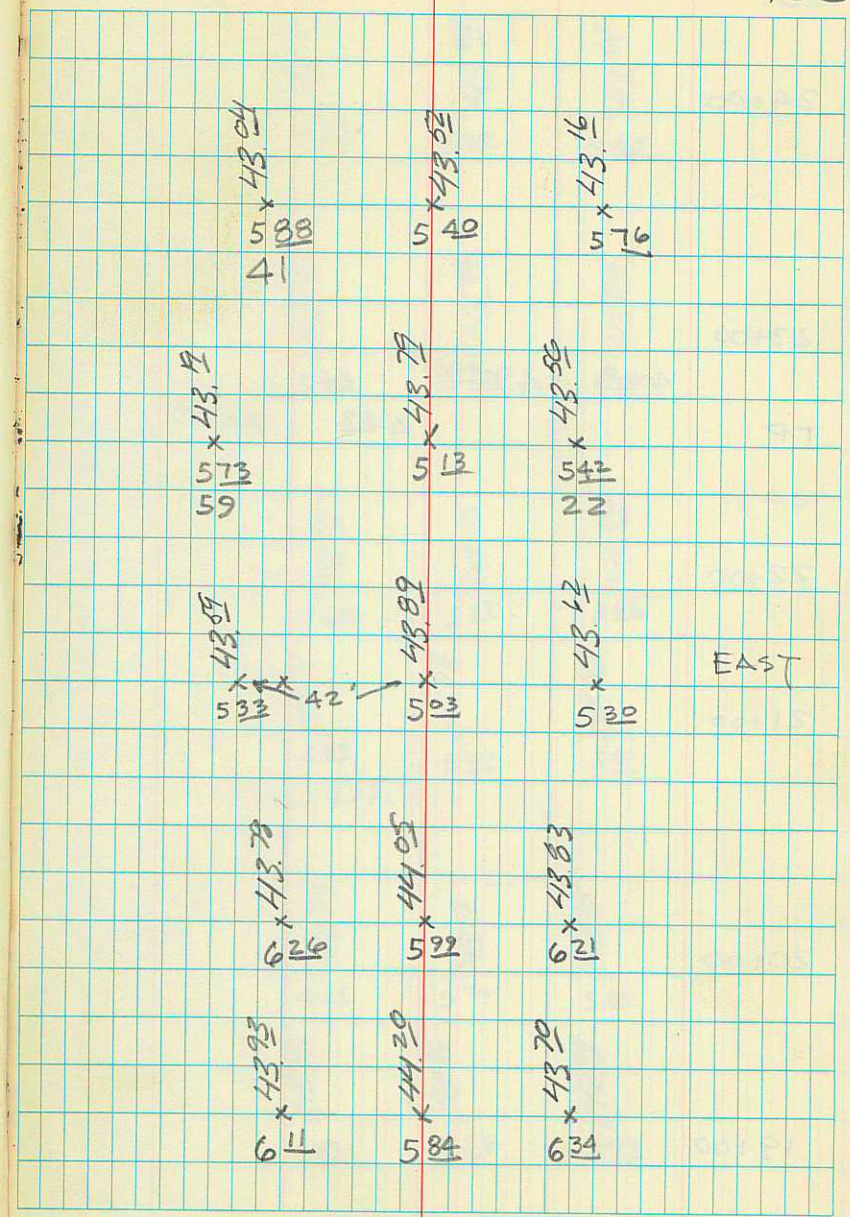
	+	HI	−	
8+00				
7+00				
6+00				
5+00 50. EDGE R/W				
4+00				
TP	5 06	50 63		
ON R/W LIGHT			4 69	45 52
		50 36		



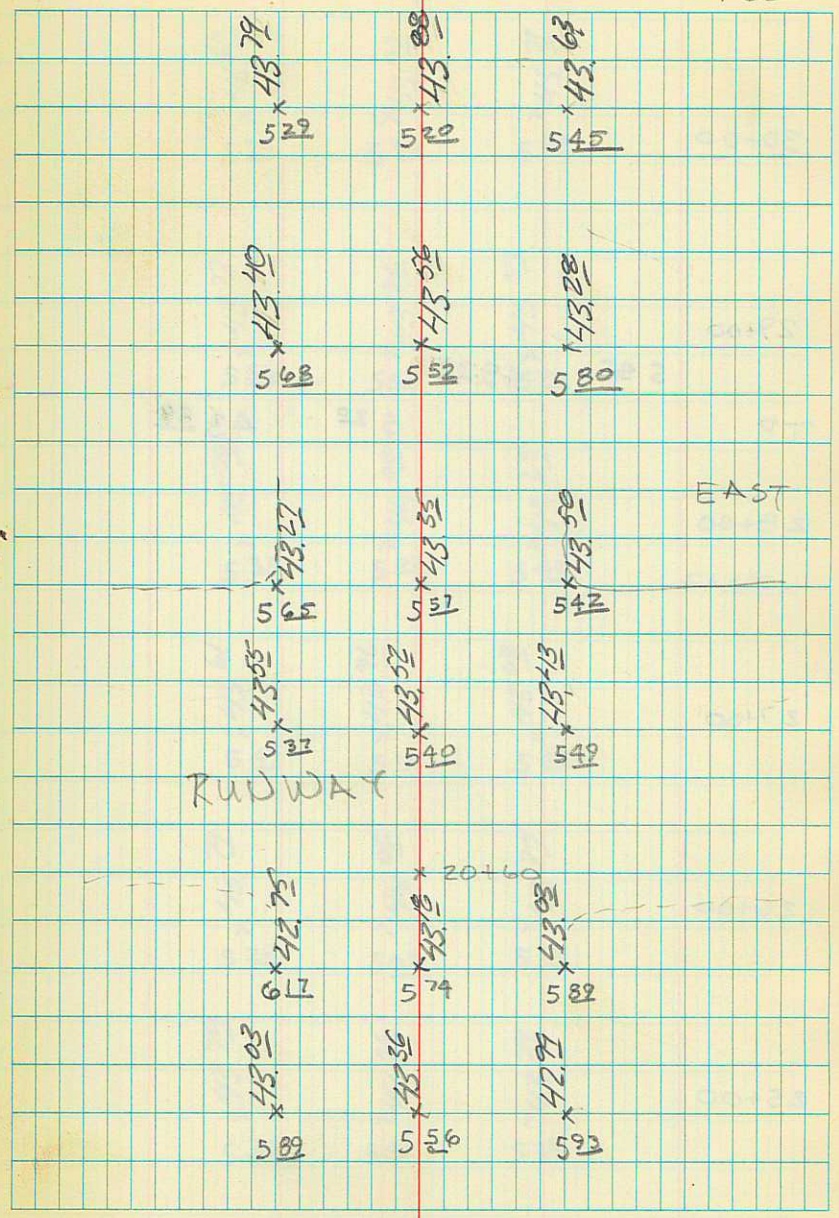
13+00				
12+00				
11+00				
10+00				
	498			
	~~590~~	50 04		
TP			5 57	45 06
9+00				
		50 63		



18+00				
17+00				
16+00				
16'	3 95	48 92		
TP LIGHT			5 07	44 97
15+00				
14+00				
		50 04		



24+00					
23+00					
	4 68	49 08			
TP			4 52	44 40	
22+00					
21+00					
20+00					
19+00					
		48 92			



	+	HI	−		
30+00					
29+00					
	5 45	49 33			
TP			5 20	43 88	
28+00					
27+00					
26+00					
25+00					
		49 08			

5 73 × 43.60

5 36 × 43.42

5 60 × 43.28

5 56 × 43.22

5 40 × 43.23

5 76 × 43.37

5 30 × 43.28

5 08 × 43.00

5 43 × 43.15

EAST

5 47 × 43.16

5 12 × 43.26

5 40 × 43.08

5 29 × 43.29

5 02 × 43.05

5 33 × 43.25

5 34 × 43.24

5 07 × 43.05

5 29 × 43.28

36+59					
36+00					
35+00					
34+00					
33+00					
32+00					
31+00					
		4933			

5 *42.99
6 34
5 *43.35'
5 98
5 *43.54
5 79
5 *43.41
5 82
5 *43.56
5 83
5 *43.67
5 72
5 *43.77
5 12

5 *43.65'
5 18
5 *43.75'
5 58
5 *43.87
5 44
5 *43.83
5 50
5 *43.91
5 42
5 *43.95
5 34
5 *43.93
5 32

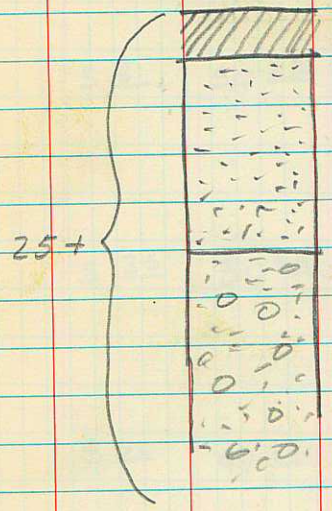
5 *43.38
5 25
5 *43.27
5 56
5 *43.65
5 68
5 *43.43
5 90
5 *43.57
5 82
5 *43.45
5 67
5 *43.43
5 10

EAST

STA	+	HI	−	ELEV
			5 09	45 62
	4 86	50 71		
TP			443	45 85
	5 51	50 28		
TP			5 47	44 77
	5 35	50 24		
TP			4 48	44 89
	5 92	49 37		
TP			5 12	43 45
TP	4 69	48 57		
			5 45	43 88
	5 40	49 33		
TP			5 40	43 93
		49 33		

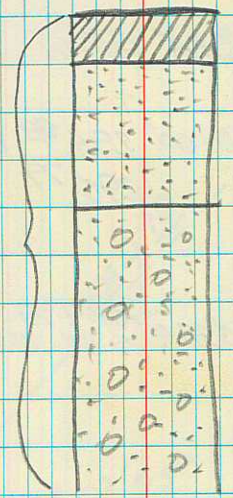
TEST HOLE #1 JULY 9, 1931

STA. 3+30 TAXI-WAY



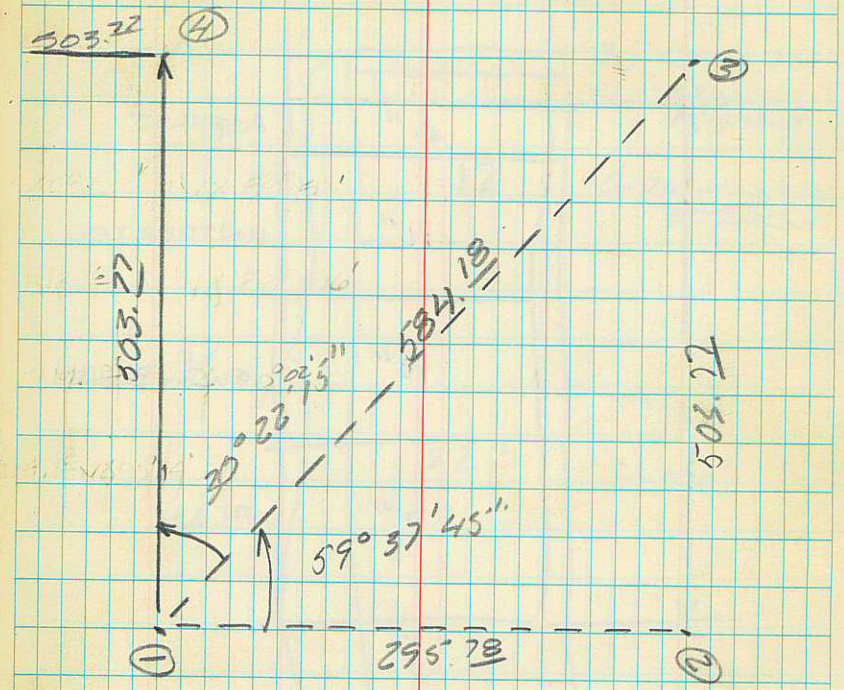
TEST HOLE #2 JULY 9, 1931

STA. 34+25 TAXIWAY



7/9/81
SCOTT T
PROCTOR #

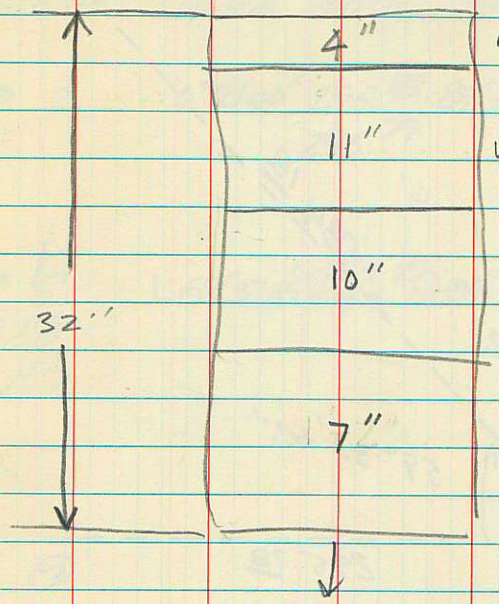
STA → STA	HORZ	SLOPE	VERT
1 → 2	0°00'00"	295.80 295.79	89°30'00" 295.7831
1 → 3	L59°37'45"	584.27 584.20	89°11'50" 584.1777
INT LT BACK 2			



TEST HOLE #1 JULY 10,

STA - 6+05

3 SAMPLES TAKEN DEPTH 32"

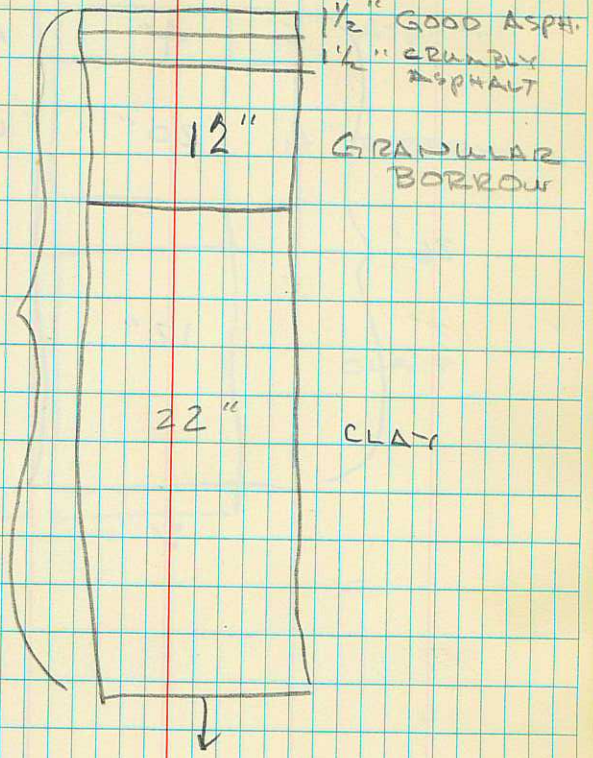


TEST HOLE #2 JULY 10

STA.

2 SAMPLES DEPTH 37"

1 5
2 4

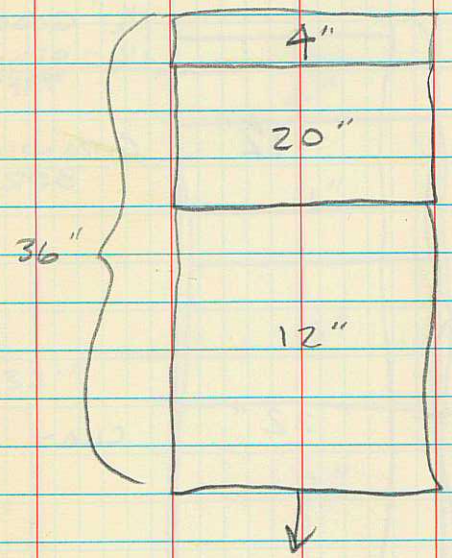


TEST HOLE #3 JULY 10, 1981

STA.

2 SAMPLES

DEPTH 36"

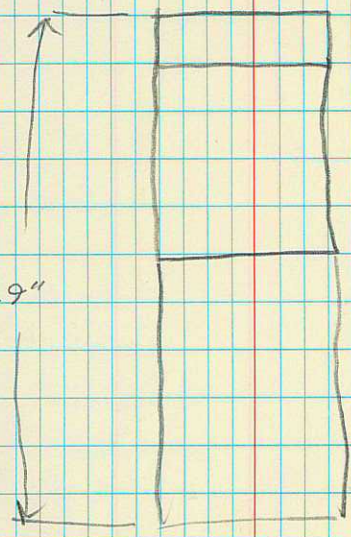


TEST HOLE #4 JULY 10

STA.

1 SAMPLE

DEPTH



BM. LEVELS ON APRON

JULY 10, 1981

	+	HI	−	ELEV	
			4 27	49 81	BM SOUTH APRON
PT 3	5 72	54 08			
		4 27	5 21	48 36	
				5 72	
PT 2	6 15	53 57			
			4 54	47 42	
PT 1	6 36	51 96			
BM LIGHT TOWER			4445	60	

CROSS SECTIONS on APRON 7-16-81

LAPRAY, RUSSELL, WARD

	+	HI	−	ELEV	
4+00					
3+00					
2+00		47.62	45.61		
1+32	10' LT	6.00 TOP 8.01 (2.01)			GRATE
1+00					
0+62	132' RT	TOP 5.24 (3.95)	48.38 FF	9.19	GRATE 44.43
0+00					
	3.81	53.62			

BM 4449.81

| | | | | |

	+	HI	—		
6+00					
6+47	29' LT	4 62			NO EDGE HANG.
5+48	29' LT	4 62			SO. EDGE HANG
5+29	2' LT	4 85 TOP	8 76	FF	GRATE
5+00					
4+63	133 RT	5.54	TOP 5 54	FF 10 17	GRATE
	4 54	52 73	543	48 19	
TP				4 54	
4+88	31 6 LT	4 88			NO EDGE HANG
4+28	31 6 LT	4 93			S. EDGE HANG
4+19	4' LT	TOP 5 85	FF 8 85	8 54	MH
		53 62			

4 62 | 29 | 48.11

4 67 × 48.00

4 69 | 50 | 48.04

5 16 | 100 | 47.57

5 42 | 131 | 47.31

5 36 | 150 | 47.37

4 90 | 200 | 47.83

4 55 | 250 | 48.18

4 61 | 295 | 48.12

4 62 | 308 | 48.11

3 | 5 | 48.22

4 51

4 79 × 47.95

4 40 | 50 | 48.33

4 88 | 100 | 47.85

5 07 | 126 | 47.66

5 27 | 131 | 47.46

5 05 | 150 | 47.68

4 70 | 200 | 48.03

4 34 | 250 | 48.39

4 32 | 293 | 48.36

4 56 | 308 | 48.17

8 85

8 54

	+		−		
8+00					
	5.12	52.51			
TP			5.34	47.39	
7+60	131 RT	6.10 TOP		10.16 FF	GRATE
		4.06		10.60 Bottom Box	
~~8+00~~					
8+08	29 LT	5.16			NO HANG
7+71	29 LT	5.60			SO. HANG.
7+61	29 LT	~~5.99~~ 4.95			NO HANG.
7+22	29 LT	4.89			SO. HANG.
7+17	29.4 LT	4.74			NO HANG.
7+00					
6+76.5	29.4 LT	4.66			SO. HANG.
		52.73 (5.34)			

4.85	15	47.66
4.92 ×	80	47.55
5.20	100	47.51
5.26	129	47.35
5.76	150	46.75
5.53	200	47.18
5.06	250	47.45
4.21	275	47.80
4.77	300	47.74
4.81		47.64

29 / 5.08 *

4.70	29	48.03
4.77 ×	55	47.96
4.95	102	47.78
5.28	131	47.45
5.81	150	46.92
5.46	202	47.27
5.08		47.65

	+		−	ELEV	
	4.56	50.98			
T.P.			6.09	46.47	
11+00		46.12			
10+84	130 RT	6.34			GRATE
10+00					
	NOTE: GAS PAD DIAM. = 50'				
9+67		5.25 47.37			CONC. PAD (50) GASS
9+47	28.5 LT	5.06 41.46			10. EDGE HANGER
9+00		47.33			
8+47	28.5 LT	5.18			50. EDGE HANGE
		52.51			

9340-100

| | | | | |

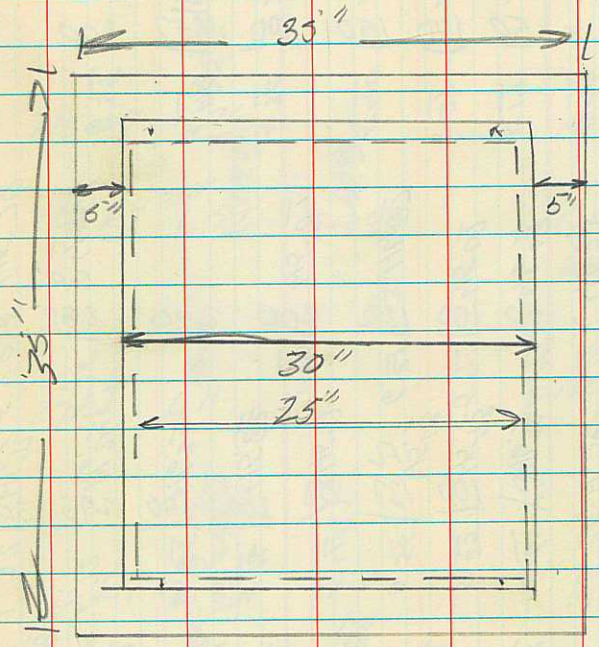
	+		−		
B.M			4.99	45 69	45 60
	4.03	50 65			
T.P.			4.33	46.65	
15+00		45.26			
14+51	115 RT	5.26			M.H.
		TOP 44.39			
14+19	128 RT	TOP 6.59	40.81 FL-3.58		GRATE ~~GRATE~~
14+00		46.87			
13+30	27 LT	4.11			NO HANG
13+06		TOP 46.55			
12+91	13 RT	TOP 4.35			M.H.
12+26	27 LT	4.73 3.95			50 HANG
12+00					
		50.98			

| | | | | |

7/23/81
SCOTT
KOSS

TYPICAL GRATES & MANHOLES

ALL GRATE



NOTE

160

MANHOLE

TOP
30"

CURVE DATA

PHASE III PARKING APRON (CONC. PAD)

R=291.1300
D=19.4050
DELTA=36.3000

L=185.4630

PT=1,572.9630
PI=1,483.5003
PC=1,387.5000

R=291.1300
D=19.4050
DELTA=36.3000

L=185.4630
T=96.0003
C=182.3428
M=14.6441
E=15.4197

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CURVE AND REDUCTION TABLES

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Table III—TRIGONOMETRIC FORMULAE

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CURVE FORMULAE

Table V—TANGENTS AND EXTERNALS TO A 1° CURVE

USEFUL RELATIONS

Table VI—INCHES TO DECIMALS OF A FOOT

Table VII—MINUTES IN DECIMALS OF A DEGREE

Table VIII—MIDDLE ORDINATES OF RAILS

Table IX—SHORT RADIUS CURVES

Table X—RODS IN FEET, 10THS AND 100THS OF FEET

Table XI—LINKS IN FEET, 10THS AND 100THS OF FEET

Rod $4\frac{45}{}$ Bm

" 14° Slough Hl

