SURVEYS 1997

Keuffel & Esser Company

82 0020

Weatherproof Field Book

"Rite in the Rain" All-Weather Paper

32 Leaves

4 5/8" X 7"

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

"Rite in the Rain" - A unique All-Weather Writing Paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather.

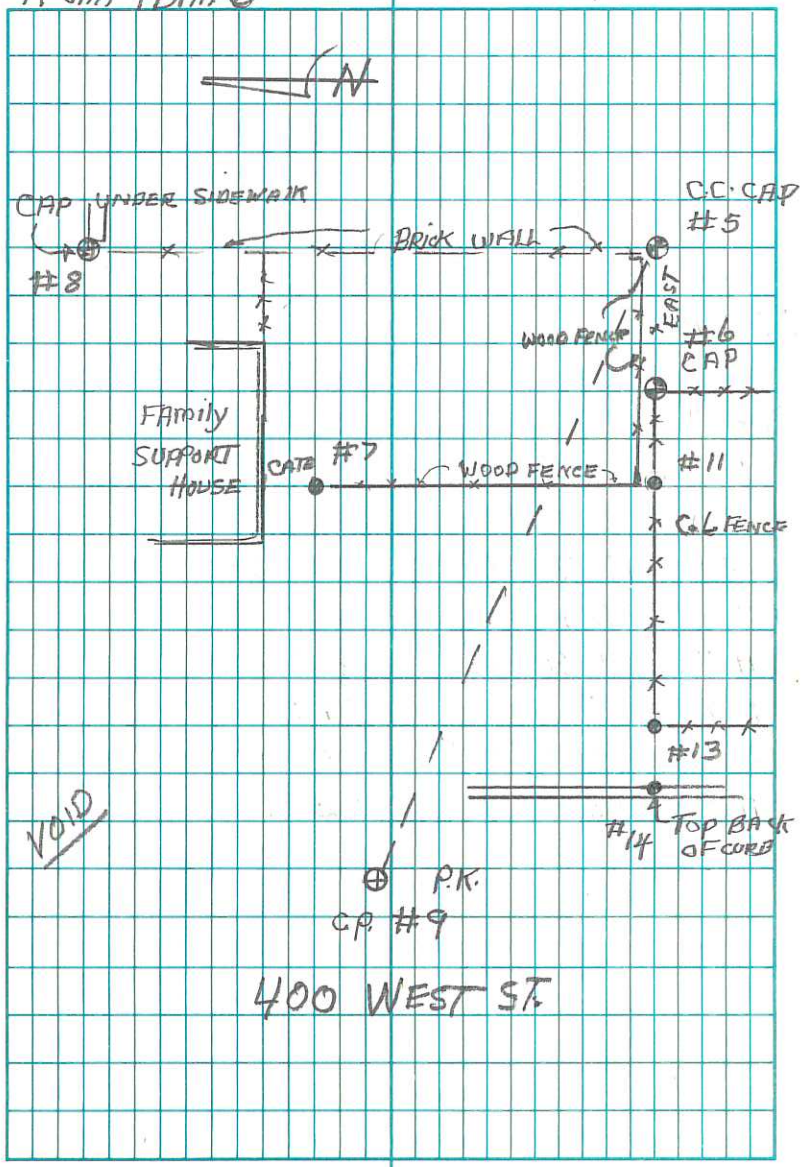
CACHE COUNTY CHILDREN'S CENTER
PROP SURVEY

STA	HOR. ∠	HOR. DIST
BS #5		
C.C. CAP	0° 00' 00"	196.41'
∠@ #9		
P.K.		
FS #6	12° 28' 27"	157.22'
#11	16° 25' 14"	148.91'
#13	41° 26' 15"	123.66'
#14	46° 32' 39"	122.40'
#7	305° 18' 53"	91.07'
#8	267° 13' 54"	263.65'

VOID

31 JULY 1997 84° ± 3

A Jim & DAN B



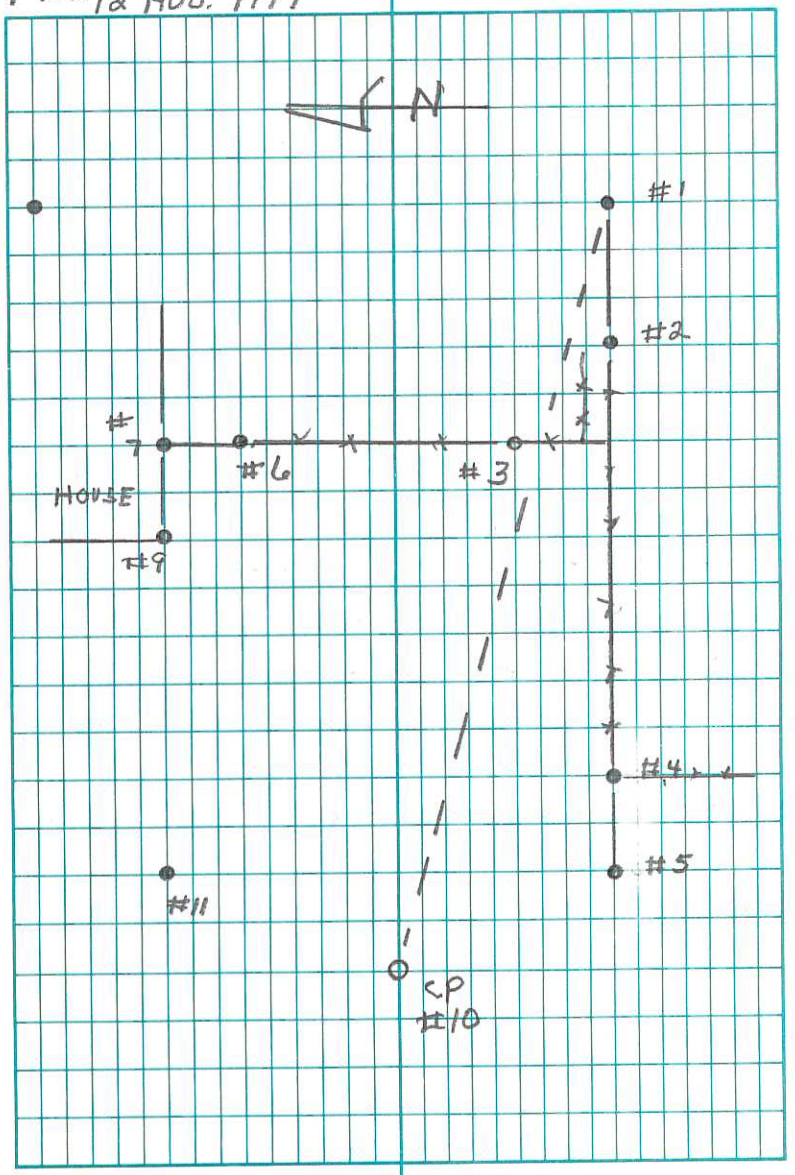
CACHE COUNTY CHILDREN'S CENTER
PROP. SURVEY

STA	HOR ∠	HOR. DIST
BS #1		
T@#10		
FS #2	12° 57' 57"	153.63'
#3	8° 59' 00"	122.26'
#4	42° 54' 40"	122.08'
#5	47° 55' 18"	121.53'
#6	303° 18' 26"	87.15'
#7	295° 50' 28"	91.95'
#9	287° 33' 51"	71.02'
#11	239° 43' 06"	39.40'
#8	265° 43' 39"	261.97'

TB
ϕ D.B. 12 AUG. 1997

75° ±

4



CLARKSTON SECTION CORNER SURVEY (EVAN KOLLER / BURKE GODFREY)

WARD, P.D.

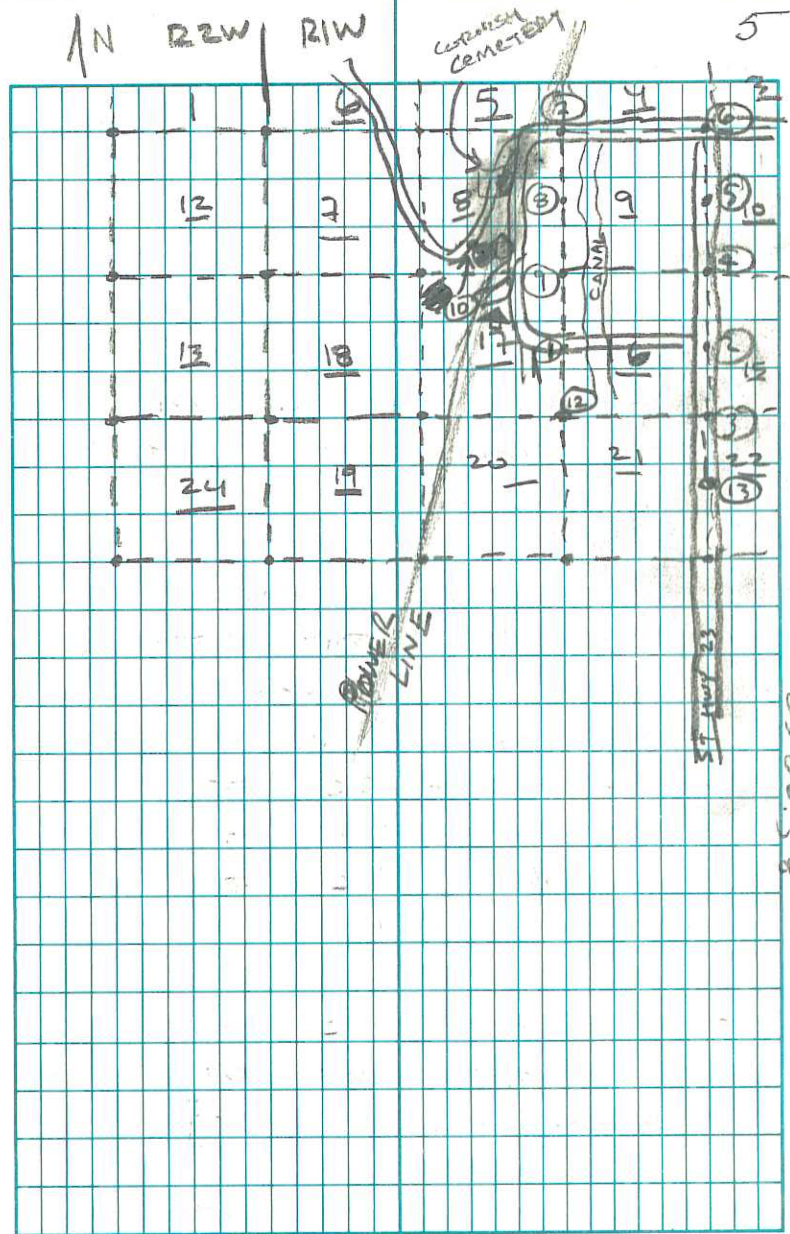
BISHOP, J.L.

CHRISTENSEN, J.A.

7/14/98

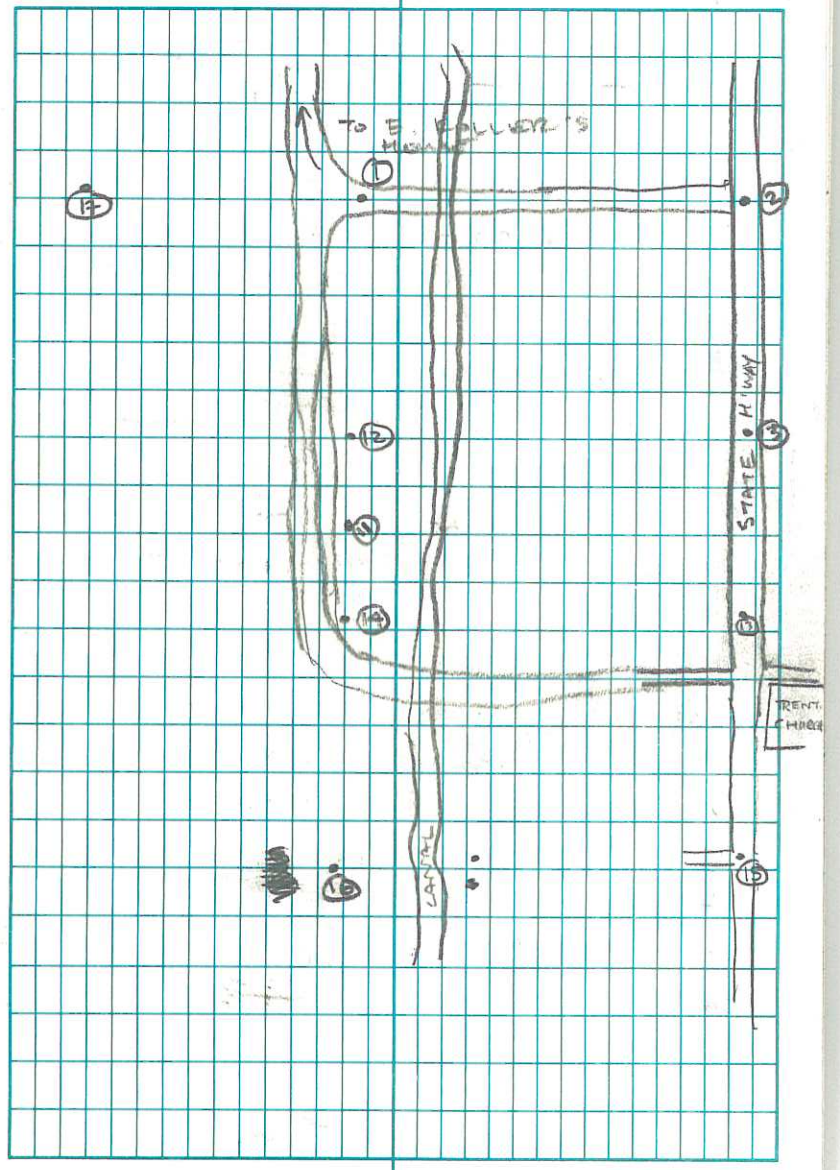
WE ARE SHOOTING SECTION CORNERS IN THE CORNISH & CLARKSTON AREAS.

POINT		∠	H.D.	NOTES	
CP₁	10	—	—	CP₁ POINT ON E. KOLLER PROPERTY	
BS	1	0°00'00"	4811.64'	1/4 CORNER	17 & 16
FS	2	324 18 37	8382.32	1/4 C	16 & 15
	3	336 59 20	10099.77	S. C.	16/15 21/22
	4	306 37 08	7265.09	S. C.	9/10 16/15
	5	285 16 34	7027.33	1/4 C	9 & 10
	6	265 19 14	7753.04	S. C.	4/3 9/10
	7	226 21 03	3813.03	S. C	4/5 8/9
	8	268 05 19	1806.55	1/4 C	8 & 9
	9	339 00 50	2533.42	S. C.	8/9 17/16



7/15/98 (CONT.)

SITE	∠	H.D.	NOTES
11	—	—	CP2
BS 2	0°00'00"	6316.75'	1/4 c. 16 | 15
FS 3	24°35'49"	5340.72	S C 16/15 21/22
12	303 13 24	953.49	S. C 17/16 20/21
13	COULD NOT SEE		1/4 C 21 | 22
14	122 52 08	1685.08	1/4 C 20 | 21
15	72 40 02	6944.88	S.C. 21/22 28/27
16	122 43 44	4324.12	S.C. 20/21 29/28
10	—	—	CP1
BS 1	0°00'00"	4811.89'	1/4 CORN. 17 | 16
FS 17	38°39'54"	8611.30	~~1/4 COR. 18 | 17~~ CP3
17	—	—	CP3
BS 10	0°00'00"	8611.30'	CP1
FS 18	166°56'03"	9551.73	S.C 20/29 31/32
19	168°45'03"	6957.03	1/4 C 30 | 29
20	303°56'33"	1355.30	SC 18/17 19/20
21	327°16'30"	3981.50	POST
22	333°06'55"	6585.34	
23	174°20'48"	3758.08	CP4
24	217°01'11"	7308.96	24/19 19/17 25/30 31/28 5/8" REBAR
25	262 43 07	6102.71	~~24/19~~ 13/18 24/19
26	283 58 52	7066.20	30/18



7/15/98

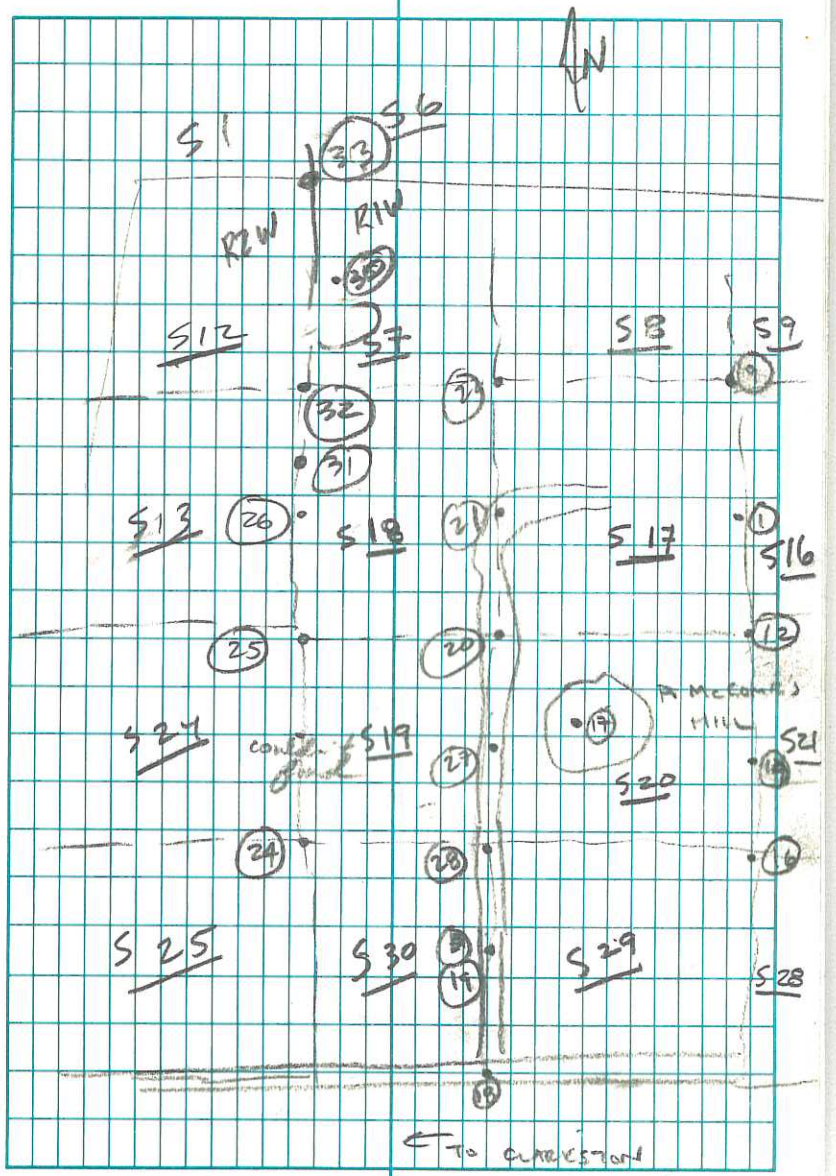
SITE	∠	HD	NOTES
23	—	—	CP 4
BS 17	0°00'00"	3757.83	CP 3
FS 27	346 48 46	2085.43	19/20
28	168 30 02	519.28	15/20 30/29

7/16/98

SITE	∠	HD	NOTES
CP5 29	—	—	CP5 [illegible]
BS 2	0°00'00"	1679.90'	1/4 SE 16/15 see p. 6
FS 3	178 27 37	980.60	S.C 16/15 21/22
13	178 31 43	3591.48	1/4 C 21 • 22 1/4 C B7 [illegible]
[illegible]	J. CHRISTENSEN / D. WARD		

7/21/98

P6 30	—	—	POINT IN E. KELLER FIELD
BS 25	0°00'00"	7290.89'	13/18 24/19
FS 26	8°06'03"	4683.28'	13/18
FS 31	0°09'13"	3360.55	POST ON CROP LINE
32	0°00'42"	1989.56	12/7 13/18
~~33~~	~~[illegible]~~	~~[illegible]~~	~~POST ON CROP LINE~~
33	179°59'04"	3237.19	1/12 6/7



7/28/98

STA	∠	HD	NOTES
17	—	—	CONTROL POINT
BS 20	0°00'00"		
30	75°25'02"	3809.39	SET REBAR

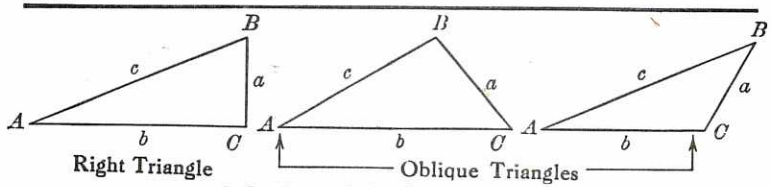
Set a flintstone 14x10x6
9" Deep for Corner to 1,12
6 7

10 ch Spring Branch

40 Lime Stone 20x15x 6 15" Deep

41 Spring

TRIGONOMETRIC FORMULÆ



Solution of Right Triangles

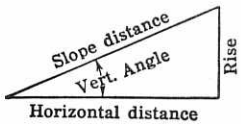
For Angle A. $\sin = \frac{a}{c}$, $\cos = \frac{b}{c}$, $\tan = \frac{a}{b}$, $\cot = \frac{b}{a}$, $\sec = \frac{c}{b}$, $\text{cosec} = \frac{c}{a}$

Given	Required	
a, b	A, B, c	$\tan A = \frac{a}{b} = \cot B,\ c = \sqrt{a^2 + b^2} = a\sqrt{1 + \frac{b^2}{a^2}}$
a, c	A, B, b	$\sin A = \frac{a}{c} = \cos B,\ b = \sqrt{(c+a)(c-a)} = c\sqrt{1 - \frac{a^2}{c^2}}$
A, a	B, b, c	$B = 90° - A,\ b = a \cot A,\ c = \frac{a}{\sin A}$
A, b	B, a, c	$B = 90° - A,\ a = b \tan A,\ c = \frac{b}{\cos A}$
A, c	B, a, b	$B = 90° - A,\ a = c \sin A,\ b = c \cos A,$

Solution of Oblique Triangles

Given	Required	
A, B, a	b, c, C	$b = \frac{a \sin B}{\sin A},\ C = 180° - (A + B),\ c = \frac{a \sin C}{\sin A}$
A, a, b	B, c, C	$\sin B = \frac{b \sin A}{a},\ C = 180° - (A + B),\ c = \frac{a \sin C}{\sin A}$
a, b, C	A, B, c	$A + B = 180° - C,\ \tan \frac{1}{2}(A - B) = \frac{(a-b)\tan \frac{1}{2}(A+B)}{a+b},$ $c = \frac{a \sin C}{\sin A}$
a, b, c	A, B, C	$s = \frac{a+b+c}{2},\ \sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}},$ $\sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}},\ C = 180° - (A+B)$
a, b, c	Area	$s = \frac{a+b+c}{2},\ \text{area} = \sqrt{s(s-a)(s-b)(s-c)}$
A, b, c	Area	$\text{area} = \frac{bc \sin A}{2}$
A, B, C, a	Area	$\text{area} = \frac{a^2 \sin B \sin C}{2 \sin A}$

REDUCTION TO HORIZONTAL



Horizontal distance = Slope distance multiplied by the cosine of the vertical angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10′. From Table, Page IX. cos 5° 10′ = .9959. Horizontal distance = 319.4 × .9959 = 318.09 ft.
Horizontal distance also = Slope distance minus slope distance times (1—cosine of vertical angle). With the same figures as in the preceding example, the following result is obtained. Cosine 5° 10′ = .9959. 1—.9959 = .0041. 319.4 × .0041 = 1.31. 319.4—1.31 = 318.09 ft.

When the rise is known, the horizontal distance is approximately:—the slope distance less the square of the rise divided by twice the slope distance. Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = $302.6 - \frac{14 \times 14}{2 \times 302.6} = 302.6 - 0.32 = 302.28$ ft.