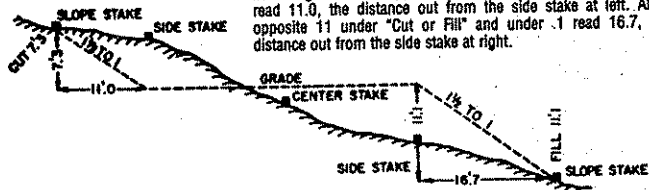


DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake											Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9		
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0	
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1	
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2	
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3	
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4	
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5	
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6	
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7	
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8	
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9	
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10	
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11	
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12	
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13	
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14	
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15	
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16	
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17	
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18	
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19	
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20	
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21	
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22	
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23	
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24	
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25	
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26	
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27	
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28	
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29	
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30	
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31	
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32	
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33	
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34	
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35	
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36	
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37	
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38	
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39	
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40	

ANNA

R.P. Stephen Davis, Jr
Feb., 2013

Grand Village/
Fatherland
datums need to be
reconciled.

Mapping at:
- Mangum
- Mt. Loust
- Foster

The paper in this book is
made of 50% high grade rag stock with
a WATER RESISTING surface sizing.

BATES 2

	N	E	H
GPS 1	1012.908	501.770	59.045
GPS 2	984.762	471.867	58.899
* 3	1016.420	531.542	60.392
* 4	1024.399	527.673	60.196
* 5	1044.636	517.916	59.274
6	1044.008	537.158	58.577

FOR UTM (15N), add

N 3513000

E 667000

3/5/13

SMITH CREEK

	N	E	H
GPS 1	1061.460	581.664	28.433
GPS 2	1055.634	533.632	29.061
Md C			
* 3	1067.023	635.976	32.235
* 4	1077.909	632.199	31.274
* 5	1088.322	633.514	31.666
6	1063.428	605.428	29.101
7	1106.874	617.573	28.622
8	1119.552	633.722	28.477
9	1147.355	609.434	27.449

For UTM (15), add

N - 3445000

E - 641000

	N	E	H
10	1070.325	637.561	32.657
11	1076.035	637.790	32.944
12	1087.947	572.867	28.430
13	1116.508	567.885	28.200
14	1112.325	547.617	28.659
15	1136.855	529.469	28.087
M&B			
* 16	1136.811	560.106	32.410
* 17	1150.619	551.814	32.416
* 18	1151.818	563.501	32.251
19	1027.286	494.992	31.041
20	992.680	483.373	31.346
^{along} _{creek} 21	1029.650	638.130	22.480

	N	E	H
along creek 22	1064.383	653.056	22.354
" 23	1103.306	664.310	22.257
ndA 24	1067.095	462.290	31.751
ndA * 25	1018.260	458.649	40.126
" * 26	1011.544	440.477	40.741
" * 27	1029.940	434.748	40.452
" 28	1016.596	435.267	40.586
" 29	1005.371	438.822	40.357
" 30	1036.134	431.783	40.024
" 31	1059.999	389.296	18.713
" 32	1146.979	636.903	28.152

BAYOU PIERRE Md D

N

E

N

GPS 1D 754.453 1093.794 37.321

GPS 2D 788.757 1132.992 37.248

* 3D 628.911 982.131 39.538

* 4D 619.585 992.872 39.482

* 5D 618.592 984.403 39.739

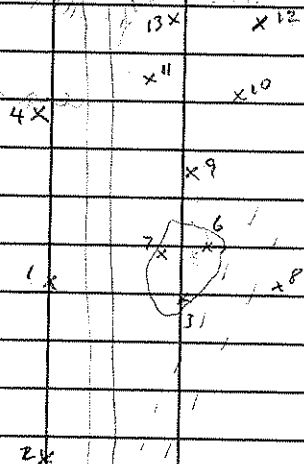
FOR UTM(15N), add

N 3539000

E 687000

	N	E	H
(1)	164.971	439.662	37.768
(2)	80.824	461.049	37.599
	824	049	
	840	055	

BAYOU PIERRE
MDA



BAYOU PIERRE MDA			
	N	E	H
GPS 1A	164.971	439.662	37.768
GPS 2A	80.840	461.055	37.599
* 3A	219.774	492.768	40.840
4A	187.894	486.959	36.942
5A	278.384	411.373	36.763
* 6A	243.976	497.671	41.083
* 7A	230.855	482.125	40.908
8A	239.800	517.725	35.225
9A	267.676	483.568	36.997
10A	297.850	505.845	37.333
11A	316.969	471.119	36.960

	N	E	H
12 A	338.171	511.848	36.419

13 A	351.115	458.946	36.633
------	---------	---------	--------

For UTM (15N), add

N 3540000

E 688000

DiGregory Control Points

Copper Pipes

Pumpkin Lake

		N	E	H
GPS	1	228.785	409.315	68.182
GPS	2	191.237	409.013	68.272
CP1	3	208.547	425.328	68.630
CP2	4	275.956	429.495	69.074
CP3	5	275.769	398.946	72.624
(on mound)				
*	6	274.490	401.932	72.520
*	7	256.994	400.150	71.588

For UTM (USN), add

N 3513000

E 664000

	N	E	U
(1)	284.011	614.132	56.861 57.057
(2)	235.158 148	610.659 659	57.477 57.068
* Check stations from ✓ OPUS			
	N	E	H
FP 11	167.798	617.020	53.606
FP 12	81.848	608.141	51.782
FP 13	466.265	645.845	56.586

FOSTER			
	N	E	H
GPS 1	284.011	614.132	57.057
GPS 2	235.148	610.659	57.068
3	255.712	630.077	57.144
4	183.880	607.259	57.780
5	239.581	586.596	56.232
* 6	378.720	638.692	57.774
* 7	396.197	591.728	58.731
8	444.176	648.595	58.359
9	417.380	581.967	57.045
10	440.706	577.109	56.718
FOR UTM (15N), add			
	N	3497000	
	E	658000	

Foster	2-13-13				
9-30	Road side				
31-44	Fence line				
45-96	Field/ West side of mound B				
97-114					
115-119	Driveway				
120-287	far side of Rd				
291-399	North + West side of mound				
400-445	Lawn				
446-469	D. way (1)	1072.618	518.306	57.517	
470-496	Lawn			517	
497-508	Grass (2)	1099.563	491.715	56.803	
509-524	Lawn				

HENDERSON			
	N	E	H
GPS 1	1072.618	518.306	57.517
GPS 2	1099.563	491.715	56.803
x 3	1068.616	534.047	56.888
x 4	1091.661	542.575	57.193
5	1132.778	549.824	56.671
6	994.291	511.460	55.925

For UTM (15N), add

N 3496000

E 657000

railroad bed	8	9150.076	433.425	55.157
	Flat	-		
N. bank	9	9164.322	443.904	57.119

		FELTUS		
		N	E	H
GPS	1	703.392	808.390	68.680
GPS	2	671.551	794.676	68.474
^{500R} 500	3	754.137	820.216	76.294
M&C N End	4	674.092	892.247	71.654
M&B N End	5	675.275	724.459	74.431
		bumped?		

For UTM (15N), add

N 3513000

E 664000

	N	E	H
13	419.721	1143.555	121.105

FOR UTM (15N), add

N 3501000

E 665000

	N	E	H
ML-1	1011.610	434.475	55.547 658 650

ML-2	1033.150 151	474.510 520	55.060
------	-----------------	----------------	--------

- 100m each corner base, and
 - house - cemetery, road to left



2	N 1033.151	E 474.512	H 55.060
---	------------	-----------	----------

3	1025.679	381.081	56.123
---	----------	---------	--------

Re-reconciled GPS points 1 & 2 and
 reshot fixpoints 2-15-13 ESN

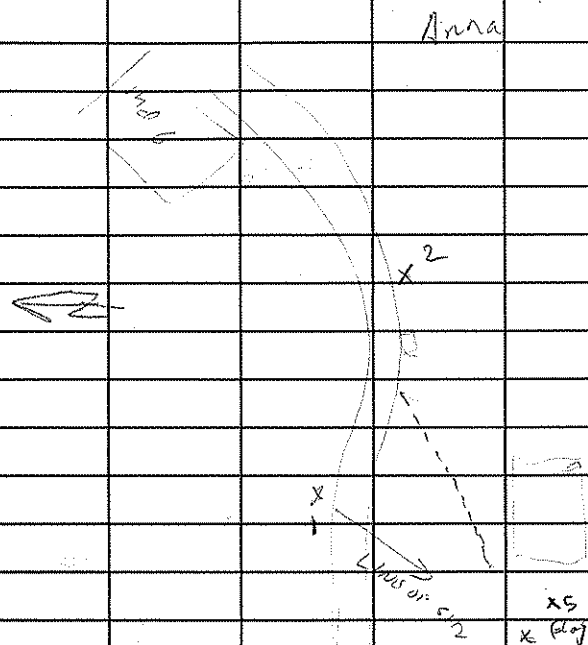
Mount Locust

	N	E	H
GPS 1	1011.610	434.475	55.658
GPS 2	1033.155	474.520	55.060
cen pt * 3	1025.663	381.064	56.126
" * 4	1033.296	368.308	56.873
" * 5	1010.402	371.883	56.225
house pt 6	1085.661	510.556	56.776
" 7	1100.059	527.734	56.466
" 8	1124.151	508.315	56.237
" 9	1108.389	490.614	56.240

For UTM (USN), all

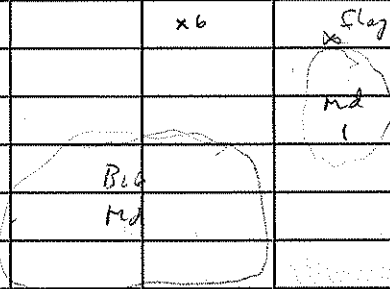
N 3506000

E 671000



Copper pipe "5" is 6m
from the southern
chimney toward the
big mound (315°);

Copper pipe "6" is
16m beyond 5 on the
same bearing.



ANNA

		N	E	H
GPS 1	822.411	520.771	Old 63.971	New 64.074
GPS 2	801.774	547.139	64.931	
	801.771	547.141	54.930	

- NEED TO CORRECT -

Corrected:

GPS 1	822.411	520.771	64.074
GPS 2	801.771	547.141	64.931
FX 3	826.478	434.659	65.725
FX 4	805.890	386.956	67.590

CP #5	812.749	444.158	65.949
CP #6	824.670	432.686	65.753

FOR UTM (15N), add

N 3507000

E 656000

2/14/13 ANNA

ERIN/ANDY

1-122 Small trenched mound

GRAND VILLAGE

	N	E	H
GPS #1	759.577	809.341	32.450

GPS #2	735.137	870.849	31.592
--------	---------	---------	--------

31.594

- NEED TO CORRECT -

FOR UTM (USN), add

N 3488000

E 653000

Collected

	N	E	H
GPS. 1	759.577	807.341	32.452

GPS 2	735.132	870.855	31.592
-------	---------	---------	--------

32.450
017

32.467

2.14.13

FOSTERA

FP 8

444.176

648.595

58.359

1

284.811

644.132

57.057

I-209

Mound A, east side
horse field

2-15-13

Mount Locust

At first set-up all easting
measurements were off by 1+ cm.

We re-recircled GPS points 1 & 2
to one another, then re-shot
fixpoints 3-9.

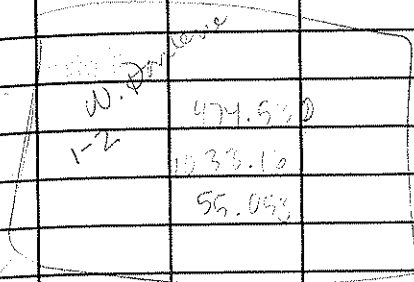
FP.	N	E	H
GPS 1	1011.610	434.475	55.650
GPS 2	1033.151	474.512	55.060
CR 3	1025.679	381.081	56.123
CR 4	1033.329	368.310	56.871
CR 5	1010.428	371.869	56.215
6	1085.623	510.612	56.779
7	1100.011	527.796	56.460
8	1124.114	508.395	56.240
9	1108.384	490.666	56.247
10	1003.587	345.370	52.910
11	1032.747	353.520	56.164
12	1054.237	362.615	55.606
13	1089.452	334.977	55.521
14	920.311	426.675	55.525

2-18-13

Mount Locust, cont.

PT ID

2-bad



474.512

1033.150

55.060

474.529

1033.159

55.050

2-18-13

EMERALD

From FP1:

-Pt ID 12-418

top edge of summit

+ E 1/2 of mound plaza

+

all of S-most mound @ 5m intervals

+

E 1/2 of N-most mound @ 5m intervals

From FP1:

-Pt ID 419-470

base of N end of mound

+

flat surrounding mound to N

From FP3:

* 471 + 472 = bad points (wrong rd height)

From FP3:

-Pt ID 473-533

base of SE end of mound

+

flat surrounding mound to SE

From Pt. 11:

-Pt ID 534-596

base of NE end of mound

+

flat surrounding mound to NE

2-19-13

Smith Creek

From FP 24:

-Pt ID: 31-76

Flat area N of Mound A

-Pt ID: 77-169

N edge of Mound A

From FP 28:

-Pt ID: 170-203

W Slope of Mound A

2-20-13

MK/AV

From FP 28

-Pt ID: 204-266

W Slope of Mound A

267-275 - No Good

276-336

Continued

Eriq
Point

N	E	H
1059.999	389.2%	18.713

2-20-13

LESSLEY

from FP4:

Pt ID • 8-63

outline of mound summit

Pt ID • 64-89

topo pts on mound summit

PL ID • 90-114

pts on NE flank

PL ID • 115-132

pts of NW flank

PL ID • 133-187

field to NE of mound

PL ID • 188-213

field to NW of mound

from FP 9:

Pt ID • 214-215 BAD POINTS

Pt ID • 216-280

pts on SE flank

2-22-13

Mount
Laust

Pt ID

2-94

NE Side of Mound & Plaza

2-25-13

Henderson

from PL 2: (BS pt. 4 - pt. 1 missing)

5-151

Expanding flat field around
mound to N and W

from Pt. 6 (BS pt. 2)

152-188

expanding railroad bed & banks to
the west

POCAHONTAS

 UTM add
 N: 3595000
 E: 755000

GPS Point 1 (BASE) FILE: 133345

N	E	H
3595253.309	755148.316	73.568
-3595000.000	-755,000.000	73.516
<u>1253.309</u>	<u>148.316</u>	

GPS Point 2 (ROVER) FILE: 133630

N	E	H
3595247.324	755177.247	<u>73.616</u>
-3595000.000	-755,000.000	
<u>1247.324</u>	<u>177.247</u>	
1247.321	177.262	

Fix Points

GPS 1	1253.309	148.316	73.516
GPS 2	1247.321	177.262	73.616
* 3	1246.193	132.052	73.334
* 4	1242.587	153.575	73.452
5	1223.734	144.795	73.129

1-25 Grave yard 46-172 Mound B

26-29 tree line

30-37 road

38-45 field 42 bad

2-27-13

BAYOU PIERRE MA area

From PPSA:

Pt ID 3162-

Flat area across new road.

} DARLENE

Expt 14A (on edge of road, up high, W side)

E 402.430

N 369.828

H 37.481

From FP 14A:

Pt ID 13-25

Road bed

2-27-13 Bayou Pierre Md D

Pt ID 5-50 area surrounding Md D

LESSLEY

2-28-13

Pt 17 281-379 SW Flank of Mound A
From Pt 8 New and Old Road Bed
380-408 New dirt Road
From Pt. 1

MOUNT LOCUST

3-1-13

Set new fxd^t from Pt 2:

FP14 N 920.311 E 426.675 ± 55.525

(in woods behind brick kiln)

From FP14:

Pt 11D: 97-163

Area in woods S of house mound

(vice on woodline is a brick kiln &

there's also an old road bed)

Windsat Planned Manned

	N	E	H
GPS 1	843.807	128.761	53.307

GPS 2	806.978	186.733	53.277
	806.961	186.755	51.990

52.020

~~~~~

| Corrected / Final: | N       | E       | H      |
|--------------------|---------|---------|--------|
| GPS 1              | 843.807 | 128.761 | 53.277 |
| GPS 2              | 806.961 | 186.755 | 51.990 |

6/17/2013

BOTAV

Windsor

Private

Mound

(Job: WINDSOR MOUND)

N

E

H

GPS 1B

119.008

311.733

57.528

- .088

= 57.440

GPS 2B

~~116.911~~~~324.395~~~~52.217~~

52.305

Re-shot to

116.911

324.395

.088

Reconciled/Finals

GPS 1B

119.008

311.733

52.440

GPS 2B

116.911

324.395

52.217

Pt ID

N

E

H

Description

3723

80.952

311.190

57.599

Copper Pipe 3

Dambusch GPS point reconciliation

- Andy/Kelly 6/21/2013

|       | E                  | N                  | H        |
|-------|--------------------|--------------------|----------|
| GPS 1 | 376.992            | 307.481            | 35.095   |
|       |                    |                    | + .116   |
|       |                    |                    | = 35.211 |
| GPS 2 | <del>320.732</del> | <del>308.879</del> | 34.948   |
|       | 390.725            | 308.878            | - 34.832 |
|       |                    |                    | .116     |

Hardee GPS Point Reconciliation

- Kelly/Andy 6/21/2013

|       | E       | N       | H        |
|-------|---------|---------|----------|
| GPS 1 | 338.494 | 193.191 | 30.055   |
|       |         |         | + .062   |
|       |         |         | = 30.117 |

|       |         |         |          |
|-------|---------|---------|----------|
| GPS 2 | 344.434 | 171.244 | 31.130   |
|       | 344.433 | 171.247 | - 31.068 |
|       |         |         | .062     |

| PT ID | Description                                        | E       | N       | H      |
|-------|----------------------------------------------------|---------|---------|--------|
| 3760  | Copper Pipe 3                                      | 386.346 | 170.950 | 34.201 |
| 3761  | U.S. Coast & Geodetic Triangulation Station (1958) | 398.681 | 170.647 | 34.351 |
| 3762  | CP 4                                               | 388.344 | 164.391 | 33.939 |

Mazique GPS Point Reconciliation (All done with IS-Dartec)

- Kelly/Andy 6/21/2013

|       | E       | N       | H        |
|-------|---------|---------|----------|
| GPS 1 | 284.340 | 509.628 | 38.755   |
|       |         |         | +        |
|       |         |         | = 38.966 |

|       |                    |                    |                   |
|-------|--------------------|--------------------|-------------------|
| GPS 2 | <del>278.018</del> | <del>485.538</del> | <del>38.977</del> |
|       | 278.017            | 485.531            | -38.766           |
|       |                    |                    | .211              |

| PT ID | Description                                                                               | E       | N       | H      |
|-------|-------------------------------------------------------------------------------------------|---------|---------|--------|
| 3763  | FX 3                                                                                      | 252.292 | 604.265 | 39.165 |
|       | 6/22/13 →                                                                                 | E       | N       | H      |
| 3764  | FX 4                                                                                      | 216.899 | 658.893 | 39.822 |
|       |                                                                                           | E       | N       | H      |
| 3765  | LaDu Datum 1000R1000                                                                      |         |         |        |
|       |                                                                                           | 195.881 | 691.434 | 41.105 |
|       |                                                                                           | E       | N       | H      |
| 3766  | FX 5                                                                                      | 184.998 | 734.251 | 41.385 |
|       |                                                                                           | E       | N       | H      |
| 3767  | FX 6                                                                                      | 0.051   | 752.993 | 43.421 |
|       |                                                                                           | E       | N       | H      |
| 3768  | FX 7 (On Mand A)                                                                          | 211.806 | 730.703 | 46.789 |
|       |                                                                                           | E       | N       | H      |
| 3769  | North east corner of Northmost Bldg<br>(Set 6cm North of corner, lined up with east wall) | -7.643  | 744.514 | 43.757 |

Pt ID

Description

3770

Southeast corner of Southernmost Building

(Set 6cm east of corner, lined up with south wall)

E

N

H

-10.980

699.683

43.702

3771

Northeast corner of Northernmost Building

(Set 6cm east of corner, lined up with north wall)

E

N

H

-7.581

744.451

43.924