APPENDIX G

SURVEY REPORT

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5485 McCORMICK ROAD
P.O. BOX 528
RAVENNA, OH 44266

PH 330-296-2375

DON TROCCHIO
REGISTERED SURVEYOR

NARRATIVE

This survey task came about SpecPro's desire to accurately locate numerous soil/water sample and monitor well locations related to the cleanup of an area known as the Fuze and Booster Quarry and the nearby 40mm Test Range within the Ravenna Army Ammunition Plant, locally referred to as the Ravenna Arsenal. Initial control was transferred to the site in December 2003 via GPS. Location of the samples also began in December 2003 and was completed in December 2003 under very cold and snowy conditions.

During the survey, about 176 sample locations were located scattered throughout the site within area roughly measuring about 2800' east and west by about 1600' north and south.

Horizontal and vertical control is based on existing monuments known as RAV-1, RAV-2 and RAV-4 established by the U.S. Army Corps of Engineers in 1997 associated with aerial photo mapping of the facility. All coordinates are referenced to the North American Datum of 1983 (NAD83), Ohio State Plane Coordinate System, North Zone, U.S. Survey Foot. The elevations are referenced to the NAVD of 1988 and are shown in feet.

GPS data was transferred to the site using 3 Locus L1 receivers in static mode. Field locations of the samples was performed using a Topcon APL1-A robotic total station with Husky data collector.

Attached is a copy of the file fbq.lst. a text file, of the adjusted raw values generated by Starnet, a 3D adjustment program.

9/29/04

Don Trocchio, PS
Ohio Registration No. 6445

STAR*NET-LIGHT Version 5.102
Copyright 1996 STARPLUS SOFTWARE, INC.
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Serial Number 20744
Run Date: Tue Dec 16 2003 18:45:04

Summary of Files Used

Project Directory C:\STAR\JOBS
Input Data File FBQ.DAT
Output Listing (This File) FBQ.LST
Coordinates FBQ.PTS
Project Parameters FBQ.PRJ
Error Log FBQ.ERR
Plot File FBQ.SPL

Adjustment Options

STAR*NET Run Mode : Adjust Only
Type of Adjustment : 3D
Input Order for Coordinates : N,E,Elev
Project Scale Factor : 0.99989500
Linear Units : US Feet
Input Order for Angle Stations : At-From-To
Max Iterations; Convergence Limit : 10; 0.0100

Correct Zeniths for Curve & Refract : Yes
Adjust 3D Obs for Vert Divergence : Yes
3D Data Input Mode : Slope/Zenith
Earth Radius : 20906000.000 US Feet
Coefficient of Refraction : 0.070

Default Instrument Standard Error Settings

Distances (Constant) : 0.0200000 US Feet
Distances (PPM) : 0.0000000
Angles : 5.0000000 Seconds
Directions : 5.0000000 Seconds
Azimuth / Bearings : 4.0000000 Seconds

Zeniths : 10.0000000 Seconds
Elevation Differences (Constant) : 0.0500000 US Feet
Elevation Differences (PPM) : 0.0000000
Centering Error Instrument : 0.0100000 US Feet
Centering Error Target : 0.0100000 US Feet

Adjustment Solution Iterations

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Iteration # 1

Changes from Last Iteration (US Feet)

Station	dN	dE	dZ
3	-0.0000	-0.0000	-0.0000
4	0.0000	0.0000	0.0000
16	0.0000	-0.0000	-0.0000
15	0.0102	-0.0075	-0.0060
30	-0.0306	-0.0022	-0.0432
33	-0.0039	-0.0026	-0.0282
66	-0.0043	0.0109	0.0002
69	-0.0054	0.0086	-0.0145
121	-0.0122	0.0209	0.0077
138	-0.0338	0.0055	0.0404
143	0.0266	-0.0366	-0.0045
147	0.0174	-0.0099	-0.0061
122	0.0104	-0.0666	-0.0092
163	-0.0056	-0.0006	-0.0281
174	-0.0136	-0.0101	-0.0361
176	-0.0034	0.0146	-0.0180
183	0.0239	0.0197	-0.0072
195	0.0156	0.0425	0.0033
205	-0.0180	0.0274	0.0142
162	-0.0020	-0.0095	-0.0338
185	0.0013	-0.0044	-0.0340

Iteration # 2

Changes from Last Iteration (US Feet)

Station	dN	dE	dZ
3	0.0000	0.0000	-0.0000
4	-0.0000	0.0000	0.0000
16	0.0000	-0.0000	0.0000
15	-0.0000	0.0000	-0.0000
30	0.0000	0.0000	-0.0000
33	0.0000	0.0000	0.0000
66	-0.0000	-0.0000	-0.0000
69	0.0000	-0.0000	0.0000
121	-0.0000	-0.0000	-0.0000
138	-0.0000	0.0000	-0.0000
143	-0.0000	0.0000	0.0000
147	-0.0000	0.0000	-0.0000
122	-0.0000	0.0000	0.0000
163	0.0000	-0.0000	0.0000
174	0.0000	0.0000	-0.0000
176	-0.0000	-0.0000	0.0000
183	-0.0000	-0.0000	0.0000
195	-0.0000	-0.0000	0.0000
205	-0.0000	-0.0000	0.0000
162	0.0000	0.0000	-0.0000
185	0.0000	0.0000	-0.0000

Iteration # 3

Changes from Last Iteration (US Feet)

Station	dN	dE	dZ
3	0.0000	0.0000	0.0000
4	-0.0000	-0.0000	0.0000
16	0.0000	0.0000	-0.0000
15	0.0000	-0.0000	-0.0000
30	-0.0000	-0.0000	-0.0000
33	-0.0000	0.0000	0.0000
66	-0.0000	0.0000	0.0000
69	-0.0000	0.0000	0.0000
121	-0.0000	0.0000	0.0000
138	-0.0000	-0.0000	0.0000
143	0.0000	-0.0000	-0.0000
147	0.0000	-0.0000	-0.0000
122	0.0000	-0.0000	-0.0000

163	-0.0000	-0.0000	-0.0000
174	-0.0000	-0.0000	-0.0000
176	0.0000	0.0000	-0.0000
183	0.0000	0.0000	0.0000
195	0.0000	0.0000	0.0000
205	0.0000	0.0000	0.0000
162	-0.0000	-0.0000	-0.0000
185	-0.0000	-0.0000	-0.0000

Summary of Unadjusted Input Observations

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Number of Entered Stations (US Feet) = 26

Fixed Stations	N	E	Elev	Description
3	553251.5120	2350072.0460	1123.1760	NS ROAD
4	553952.6430	2350190.2150	1135.3060	NS DAM
16	554037.6820	2348868.2430	1105.5200	RAV 4

Unused Stations	N	E	Elev	Description
1	551472.4620	2357923.3260	1023.8880	RAV 1
2	558490.7870	2357792.6680	1061.6100	RAV 2
5	554078.5571	2350872.9390	1177.8200	KIM
31	554454.9820	2349742.3240	1139.9360	FBQ 031
32	554454.1830	2349877.6430	1145.7500	FBQ 030
38	554029.4060	2349793.8850	1122.6670	FBQ 019
39	553801.4790	2349499.3580	1114.0120	FBQ 014
40	553564.8010	2349369.0130	1099.6930	FBQ 010
95	553409.0900	2350168.7000	1121.8000	FBQ 144
97	553399.0700	2350342.2700	1121.8000	FBQ 145
96	553525.5400	2350263.9400	1116.8000	FBQ 146
101	553599.4100	2350195.6400	1119.8000	FBQ 147
102	553605.6700	2350305.3000	1120.8000	FBQ 148
99	553712.1100	2350197.4900	1122.2200	FBQ 149
100	553760.3100	2350247.6200	1121.7200	FBQ 150
103	553789.1100	2350185.5800	1121.7200	FBQ 151
104	553834.8100	2350243.2300	1120.7200	FBQ 152
105	553897.4200	2350182.4500	1121.2200	FBQ 153
106	554010.0000	2350161.1200	1122.7400	FBQ 154
107	554054.4400	2350207.4900	1122.7400	FBQ 155
108	554115.8000	2350179.2900	1120.7400	FBQ 156
109	554200.3100	2350154.8500	1122.7400	FBQ 157

110 554213.4600 2350209.3700 1123.7400 FBQ 158

Number of Angle Observations = 55

At	From	To	Angle	StdErr
3	4	15	284-49-57.00	9.02
3	4	15	284-50-04.00	9.02
3	4	15	284-49-59.00	9.02
3	4	30	10-45-20.00	7.78
3	4	30	10-45-24.00	7.78
3	4	30	10-45-22.00	7.78
3	4	33	24-39-45.00	6.73
30	3	4	153-43-24.00	15.00
30	3	4	153-43-26.00	15.00
4	30	66	124-52-58.00	17.08
4	30	66	124-52-56.00	17.08
4	30	66	124-52-50.50	17.08
4	30	69	205-39-15.50	13.90
66	4	121	148-59-13.00	19.62
66	4	121	148-59-08.00	19.62
66	4	121	148-59-11.00	19.62
121	66	16	179-26-01.00	14.76
121	66	16	179-26-00.00	14.76
121	66	138	181-13-16.50	14.46
121	66	138	181-13-17.50	14.46
15	3	143	194-14-35.00	37.53
15	3	143	194-14-32.00	37.53
15	3	143	194-14-08.00	37.53
15	3	143	194-14-02.00	37.53
15	3	147	198-26-46.00	19.15
15	3	147	198-26-47.00	19.15
15	3	147	198-26-47.00	19.15
143	15	122	143-10-33.00	39.50
143	15	122	143-10-28.00	39.50
143	15	122	143-10-36.00	39.50
33	3	163	250-03-15.00	14.37
33	3	163	250-03-17.00	14.37
163	33	174	276-31-11.00	17.05
163	33	174	276-31-16.00	17.05
163	33	176	177-11-34.50	26.45
176	163	183	173-54-16.00	22.20
176	163	183	173-54-13.50	22.20

183	176	195	280-32-12.00	14.97
183	176	195	280-32-00.50	14.97
195	183	205	260-01-55.00	18.00
195	183	205	260-01-56.00	18.00
195	183	205	260-01-55.50	18.00
195	183	205	260-01-53.50	18.00
174	163	162	92-42-57.00	21.44
174	163	162	92-42-24.50	21.44
162	174	185	185-01-09.00	35.71
162	174	185	185-01-37.00	35.71
162	174	185	185-01-03.50	35.71
162	174	185	185-01-06.00	35.71
205	195	185	128-34-41.00	26.11
205	195	185	128-34-22.00	26.11
205	195	185	128-34-30.00	26.11
205	195	185	128-34-26.00	26.11
205	195	185	128-34-26.50	26.11
205	195	185	128-34-28.00	26.11

Number of Distance Observations (US Feet) = 72

>From	To	Distance	StdErr	HI	HT	Scale	Flags
3	15	426.7000	0.0245	5.730	5.600	0.9998950	S
3	15	426.7400	0.0245	5.730	5.600	0.9998950	S
3	15	426.7000	0.0245	5.730	5.600	0.9998950	S
3	30	429.9200	0.0245	5.730	5.000	0.9998950	S
3	30	429.9200	0.0245	5.730	5.000	0.9998950	S
3	30	429.9200	0.0245	5.730	5.000	0.9998950	S
3	33	650.4000	0.0245	5.730	5.000	0.9998950	S
30	3	429.9200	0.0245	5.490	5.580	0.9998950	S
30	4	299.8400	0.0245	5.490	5.000	0.9998950	S
30	4	299.8400	0.0245	5.490	5.000	0.9998950	S
4	30	299.8000	0.0245	5.600	5.580	0.9998950	S
4	66	274.4800	0.0245	5.600	5.500	0.9998950	S
4	66	274.4800	0.0245	5.600	5.500	0.9998950	S
4	66	274.4800	0.0245	5.600	5.500	0.9998950	S
4	69	557.3800	0.0245	5.600	5.510	0.9998950	S
69	4	557.3800	0.0245	5.630	5.570	0.9998950	S
66	4	274.4800	0.0245	5.650	5.570	0.9998950	S
66	121	247.3000	0.0245	5.650	5.000	0.9998950	S
66	121	247.3000	0.0245	5.650	5.000	0.9998950	S
66	121	247.3000	0.0245	5.650	5.000	0.9998950	S

121	66	247.2800	0.0245	5.800	5.570	0.9998950	S
121	16	836.1200	0.0245	5.800	6.120	0.9998950	S
121	16	836.1600	0.0245	5.800	6.120	0.9998950	S
121	138	967.3600	0.0245	5.800	6.120	0.9998950	S
121	138	967.3800	0.0245	5.800	6.120	0.9998950	S
15	3	426.7000	0.0245	5.620	5.570	0.9998950	S
15	143	87.3600	0.0245	5.620	5.000	0.9998950	S
15	143	87.4000	0.0245	5.620	5.000	0.9998950	S
15	143	87.4000	0.0245	5.620	5.000	0.9998950	S
15	143	87.4000	0.0245	5.620	5.000	0.9998950	S
15	147	204.9600	0.0245	5.620	5.000	0.9998950	S
15	147	204.9800	0.0245	5.620	5.000	0.9998950	S
15	147	204.9600	0.0245	5.620	5.000	0.9998950	S
143	15	87.4000	0.0245	5.700	5.550	0.9998950	S
143	122	263.1200	0.0245	5.700	5.800	0.9998950	S
143	122	263.1600	0.0245	5.700	5.800	0.9998950	S
143	122	263.1600	0.0245	5.700	5.800	0.9998950	S
122	143	263.1600	0.0245	5.600	5.550	0.9998950	S
16	138	134.2600	0.0245	5.550	5.550	0.9998950	S
33	3	650.4200	0.0245	5.495	5.550	0.9998950	S
33	163	244.2000	0.0245	5.495	5.000	0.9998950	S
33	163	244.2000	0.0245	5.495	5.000	0.9998950	S
163	33	244.2200	0.0245	5.370	5.550	0.9998950	S
163	174	247.7400	0.0245	5.370	5.570	0.9998950	S
163	174	247.7600	0.0245	5.370	5.570	0.9998950	S
163	176	163.5400	0.0245	5.370	6.000	0.9998950	S
176	163	163.5400	0.0245	5.440	5.550	0.9998950	S
176	183	469.1200	0.0245	5.440	5.300	0.9998950	S
176	183	469.1200	0.0245	5.440	5.300	0.9998950	S
183	176	469.1200	0.0245	5.420	5.550	0.9998950	S
183	195	220.3000	0.0245	5.420	5.500	0.9998950	S
183	195	220.3000	0.0245	5.420	5.500	0.9998950	S
195	183	220.3000	0.0245	5.510	5.550	0.9998950	S
195	205	291.0400	0.0245	5.510	5.000	0.9998950	S
195	205	291.0800	0.0245	5.510	5.000	0.9998950	S
195	205	291.0400	0.0245	5.510	5.000	0.9998950	S
195	205	291.0400	0.0245	5.510	5.000	0.9998950	S
174	163	247.7400	0.0245	5.665	5.050	0.9998950	S
174	162	172.4000	0.0245	5.665	5.000	0.9998950	S
174	162	172.4000	0.0245	5.665	5.000	0.9998950	S
162	174	172.4400	0.0245	5.750	5.050	0.9998950	S
162	185	122.9400	0.0245	5.750	6.000	0.9998950	S
162	185	122.9400	0.0245	5.750	6.000	0.9998950	S

162	185	122.9400	0.0245	5.750	6.000	0.9998950	S
162	185	122.9600	0.0245	5.750	6.000	0.9998950	S
205	195	291.1000	0.0245	5.925	5.050	0.9998950	S
205	185	141.2000	0.0245	5.925	5.300	0.9998950	S
205	185	141.2400	0.0245	5.925	5.300	0.9998950	S
205	185	141.2400	0.0245	5.925	5.300	0.9998950	S
205	185	141.2000	0.0245	5.925	5.300	0.9998950	S
205	185	141.2400	0.0245	5.925	5.300	0.9998950	S
205	185	141.2400	0.0245	5.925	5.300	0.9998950	S

Number of Zenith Observations = 72

>From	To	Zenith	StdErr	HI	HT	Flags
3	15	91-42-46.00	10.00	5.730	5.600	C
3	15	91-42-44.00	10.00	5.730	5.600	C
3	15	91-42-45.00	10.00	5.730	5.600	C
3	30	88-47-45.00	10.00	5.730	5.000	C
3	30	88-47-44.00	10.00	5.730	5.000	C
3	30	88-47-46.00	10.00	5.730	5.000	C
3	33	87-12-05.00	10.00	5.730	5.000	C
30	3	91-16-51.00	10.00	5.490	5.580	C
30	4	89-37-45.00	10.00	5.490	5.000	C
30	4	89-37-45.00	10.00	5.490	5.000	C
4	30	90-28-01.00	10.00	5.600	5.580	C
4	66	89-55-07.00	10.00	5.600	5.500	C
4	66	89-55-08.00	10.00	5.600	5.500	C
4	66	89-55-08.00	10.00	5.600	5.500	C
4	69	87-36-41.00	10.00	5.600	5.510	C
69	4	92-24-02.00	10.00	5.630	5.570	C
66	4	90-07-04.00	10.00	5.650	5.570	C
66	121	92-11-36.00	10.00	5.650	5.000	C
66	121	92-11-36.00	10.00	5.650	5.000	C
66	121	92-11-38.00	10.00	5.650	5.000	C
121	66	88-01-01.00	10.00	5.800	5.570	C
121	16	91-27-05.00	10.00	5.800	6.120	C
121	16	91-27-05.00	10.00	5.800	6.120	C
121	138	91-20-27.00	10.00	5.800	6.120	C
121	138	91-20-27.00	10.00	5.800	6.120	C
15	3	88-18-26.00	10.00	5.620	5.570	C
15	143	90-42-09.00	10.00	5.620	5.000	C
15	143	90-42-03.00	10.00	5.620	5.000	C
15	143	90-42-10.00	10.00	5.620	5.000	C

15	143	90-42-09.00	10.00	5.620	5.000	C
15	147	91-18-01.00	10.00	5.620	5.000	C
15	147	91-18-01.00	10.00	5.620	5.000	C
15	147	91-18-02.00	10.00	5.620	5.000	C
143	15	89-48-26.00	10.00	5.700	5.550	C
143	122	91-41-31.00	10.00	5.700	5.800	C
143	122	91-41-34.00	10.00	5.700	5.800	C
143	122	91-41-36.00	10.00	5.700	5.800	C
122	143	88-17-46.00	10.00	5.600	5.550	C
16	138	90-37-09.00	10.00	5.550	5.550	C
33	3	92-51-09.00	10.00	5.495	5.550	C
33	163	87-39-21.00	10.00	5.495	5.000	C
33	163	87-39-19.00	10.00	5.495	5.000	C
163	33	92-24-59.00	10.00	5.370	5.550	C
163	174	92-15-54.00	10.00	5.370	5.570	C
163	174	92-15-59.00	10.00	5.370	5.570	C
163	176	88-21-57.00	10.00	5.370	6.000	C
176	163	91-22-48.00	10.00	5.440	5.550	C
176	183	92-23-19.00	10.00	5.440	5.300	C
176	183	92-23-19.00	10.00	5.440	5.300	C
183	176	87-36-45.00	10.00	5.420	5.550	C
183	195	89-53-00.00	10.00	5.420	5.500	C
183	195	89-52-57.00	10.00	5.420	5.500	C
195	183	90-05-26.00	10.00	5.510	5.550	C
195	205	88-42-43.00	10.00	5.510	5.000	C
195	205	88-42-42.00	10.00	5.510	5.000	C
195	205	88-42-41.00	10.00	5.510	5.000	C
195	205	88-42-42.00	10.00	5.510	5.000	C
174	163	87-49-47.00	10.00	5.665	5.050	C
174	162	88-29-27.00	10.00	5.665	5.000	C
174	162	88-29-23.00	10.00	5.665	5.000	C
162	174	91-57-53.00	10.00	5.750	5.050	C
162	185	91-46-05.00	10.00	5.750	6.000	C
162	185	91-46-08.00	10.00	5.750	6.000	C
162	185	91-46-01.00	10.00	5.750	6.000	C
162	185	91-46-02.00	10.00	5.750	6.000	C
205	195	91-33-56.00	10.00	5.925	5.050	C
205	185	90-37-41.00	10.00	5.925	5.300	C
205	185	90-37-35.00	10.00	5.925	5.300	C
205	185	90-37-35.00	10.00	5.925	5.300	C
205	185	90-37-39.00	10.00	5.925	5.300	C
205	185	90-37-39.00	10.00	5.925	5.300	C
205	185	90-37-37.00	10.00	5.925	5.300	C

Number of Sideshots (US Feet) = 156

At	From To	Angle	Distance	Vertical	HI	HT
3	4					
	7	245-38-42.00	502.2200	92-03-31.00	5.730	6.000
	8	245-45-56.00	504.4200	91-42-34.00	5.730	5.000
	9	262-45-03.00	671.3600	91-48-51.00	5.730	9.700
	10	233-20-57.00	250.1000	93-03-44.00	5.730	5.000
	11	200-41-01.00	118.3000	93-56-19.00	5.730	5.000
	12	278-12-39.00	195.2400	92-44-04.00	5.730	5.000
	13	284-51-33.00	400.8200	91-42-57.00	5.730	7.700
	14	285-33-50.70	491.1440	91-40-02.00	5.730	6.300
	18	331-44-47.00	134.1800	89-32-40.00	5.730	6.000
	19	337-37-56.00	163.3600	89-28-51.00	5.730	6.000
	20	338-08-09.00	197.9200	90-29-24.50	5.730	10.000
	21	310-16-41.00	247.7820	91-20-04.60	5.730	9.000
	22	321-27-15.90	311.0300	89-52-46.00	5.730	7.300
	23	23-04-06.00	54.6000	92-02-55.00	5.730	7.000
	24	18-15-12.00	79.6600	88-41-07.00	5.730	5.000
	25	20-06-47.00	81.2000	86-42-17.00	5.730	5.000
	26	71-15-20.00	148.3600	87-48-48.00	5.730	5.000
	27	72-00-53.00	149.2400	86-55-39.00	5.730	5.000
	28	79-56-43.00	167.9800	88-23-57.00	5.730	5.000
	29	70-57-23.00	211.4800	89-15-53.90	5.730	6.700
30	3					
	41	244-46-30.00	177.2400	86-33-02.00	5.490	5.000
	42	304-28-06.00	202.6800	90-43-06.00	5.490	6.200
	43	313-35-15.00	284.4400	91-28-59.00	5.490	6.200
	44	303-16-57.00	169.3600	92-29-56.00	5.490	6.200
	45	190-19-50.20	152.4160	85-20-48.70	5.490	4.900
	46	161-19-20.00	272.6800	91-55-23.00	5.490	5.000
	49	139-02-43.00	342.4200	88-56-59.00	5.490	5.000
	50	139-20-47.00	342.3600	88-30-57.00	5.490	5.000
	52	145-01-23.00	596.1200	89-19-03.00	5.490	5.000
	53	145-11-43.00	595.4800	89-01-23.00	5.490	5.000
	54	147-24-07.00	563.7800	89-47-02.00	5.490	6.480
	55	143-15-42.00	633.5000	89-17-14.00	5.490	5.000
	56	105-00-36.00	235.8000	88-08-10.00	5.490	6.200
	57	92-28-26.00	183.7200	88-54-31.00	5.490	6.200
	58	67-06-47.00	159.6400	90-20-26.00	5.490	5.980

	59	57-04-12.00	156.5000	90-46-24.00	5.490	5.000
	60	57-22-57.00	158.0800	89-48-39.00	5.490	5.000
	61	43-48-21.00	168.0400	90-27-02.00	5.490	6.000
	62	41-47-44.00	75.8800	95-44-40.00	5.490	6.000
	63	126-18-06.00	102.4200	94-34-35.00	5.490	6.000
4	30					
	65	120-05-47.00	226.6800	89-01-15.00	5.600	7.700
	70	179-56-50.00	539.8200	88-30-55.00	5.600	5.950
	71	178-08-19.20	588.5620	88-43-08.20	5.600	6.100
	72	179-28-30.60	572.2480	88-44-59.10	5.600	5.200
	73	184-40-53.00	436.4200	88-52-26.00	5.600	5.580
	74	186-18-44.00	290.8400	92-00-10.00	5.600	5.000
	75	194-15-39.00	392.1200	89-29-45.00	5.600	5.000
	76	198-22-23.80	456.8100	89-08-55.10	5.600	5.200
	77	204-29-26.00	471.1200	88-46-27.00	5.600	5.120
	78	204-29-53.00	438.6800	88-46-08.00	5.600	5.120
	79	210-24-22.00	479.8800	88-38-24.00	5.600	5.120
	80	215-43-54.00	353.9230	87-48-07.50	5.600	5.000
	81	232-16-41.00	230.6800	87-17-40.00	5.600	5.600
	82	257-58-42.40	272.2800	84-30-28.00	5.600	5.280
	83	251-45-58.10	333.5320	85-00-21.40	5.600	5.500
	84	285-24-35.30	195.4090	84-05-55.30	5.600	5.000
	85	252-19-02.30	93.4120	89-10-25.40	5.600	5.500
	86	256-40-07.00	111.4400	89-21-12.00	5.600	5.000
	87	257-11-42.00	113.9200	87-34-32.00	5.600	5.000
	88	213-21-51.00	212.2600	89-35-20.00	5.600	6.650
	89	213-38-33.00	214.4400	88-27-40.00	5.600	6.700
	90	212-35-27.50	230.5820	89-47-45.00	5.600	5.550
	91	199-52-14.50	276.2400	89-50-56.00	5.600	5.550
	92	151-34-32.90	398.2250	88-56-52.00	5.600	5.700
	93	148-34-00.00	464.0000	88-40-43.00	5.600	5.900
	94	148-31-21.00	465.6400	88-09-05.00	5.600	5.840
69	4					
	47	340-55-59.00	15.1200	92-23-59.00	5.630	5.000
	48	27-18-43.00	36.8200	96-39-33.00	5.630	5.000
	51	237-53-23.00	71.4200	87-26-23.00	5.630	5.000
	64	238-47-59.00	72.8600	84-43-15.00	5.630	5.000
	67	218-05-34.00	93.4400	87-49-01.00	5.630	5.000
	68	253-52-54.00	158.4400	87-18-04.00	5.630	5.000
	98	278-51-35.00	218.3800	87-44-08.00	5.630	5.000
	111	320-14-20.70	309.0860	89-14-03.20	5.630	5.500
	112	342-32-13.00	274.2800	92-00-43.00	5.630	5.830
	113	328-23-50.30	225.5280	91-39-51.90	5.630	2.000

	114	318-50-45.00	130.9000	94-12-12.00	5.630	5.600
	115	314-42-18.00	109.7400	95-34-29.00	5.630	5.600
	116	6-21-12.00	159.9400	95-21-06.00	5.630	5.600
	117	54-38-06.00	74.2400	94-53-37.00	5.630	4.900
66	4					
	119	95-01-24.70	282.5440	93-08-44.80	5.650	6.100
	120	93-51-13.80	199.4500	93-28-15.40	5.650	5.800
121	66					
	125	24-18-42.00	112.7000	92-24-32.00	5.800	5.000
	126	51-29-48.00	118.4000	93-55-36.00	5.800	5.000
	127	65-45-48.90	449.3500	90-01-31.00	5.800	4.800
	128	100-25-17.00	173.9800	92-41-27.00	5.800	5.000
	129	81-13-02.00	187.9000	93-31-03.00	5.800	5.000
	130	146-00-54.00	125.6200	91-45-47.00	5.800	5.000
	131	220-28-18.00	110.2600	90-34-17.00	5.800	6.000
	132	288-23-12.80	201.1820	87-36-57.10	5.800	5.700
	134	262-55-27.00	370.6620	90-25-30.90	5.800	5.600
	135	325-41-13.00	120.3000	89-10-28.00	5.800	5.000
15	3					
	141	336-41-58.60	77.7780	88-31-05.00	5.620	8.300
	142	132-15-35.60	62.7200	93-45-29.00	5.620	6.000
143	15					
	17	270-49-58.00	93.0800	89-13-36.00	5.700	5.000
	34	270-28-00.00	95.3400	86-55-55.00	5.700	5.000
	35	261-29-40.00	230.1800	88-11-58.00	5.700	2.450
	36	261-39-42.00	229.0400	88-21-33.00	5.700	5.000
	37	300-15-30.90	161.5370	88-00-10.00	5.700	6.800
	118	115-41-08.00	94.1600	95-29-55.00	5.700	5.700
122	143					
	136	65-34-00.00	68.4400	91-59-22.00	5.600	5.500
	139	131-27-05.00	74.9600	91-44-07.00	5.600	6.290
	140	141-08-39.00	127.4200	91-46-20.00	5.600	6.180
	144	136-59-52.00	100.4200	91-27-41.00	5.600	7.100
	145	158-38-44.00	92.8400	91-59-25.00	5.600	6.000
	146	168-45-50.00	90.4200	92-19-17.00	5.600	6.000
	148	169-18-11.00	97.9400	92-20-00.00	5.600	6.000
	149	151-40-07.00	171.8600	91-51-37.00	5.600	5.400
	151	168-06-29.00	223.2000	91-57-35.00	5.600	6.000
	153	160-02-09.40	245.1510	91-27-03.20	5.600	6.800
	154	189-10-11.40	263.5270	91-55-40.70	5.600	6.500
	155	157-52-40.00	299.6770	91-56-14.70	5.600	7.200
	156	133-11-26.00	439.8140	91-47-35.00	5.600	5.700
	157	181-01-32.30	114.9290	91-41-19.20	5.600	7.200

16 138
160 257-13-53.50 886.8920 90-45-00.00 5.550 7.300
161 257-46-15.60 1005.6500 90-59-11.80 5.550 7.000
163 33
166 142-34-14.00 34.8400 88-39-59.00 5.370 5.000
167 160-26-39.10 162.8510 87-51-23.10 5.370 6.000
168 145-16-05.30 123.5000 87-19-07.00 5.370 6.000
169 239-39-20.00 96.8800 84-07-05.00 5.370 4.940
170 278-17-26.00 123.4200 92-51-55.00 5.370 4.940
171 295-47-04.00 90.9400 93-46-35.00 5.370 4.940
172 320-05-01.00 101.8790 92-54-39.90 5.370 6.100
173 284-50-02.00 29.0400 93-15-59.00 5.370 5.000
176 163
178 259-55-11.00 92.8800 91-35-08.00 5.440 6.000
179 266-00-17.80 145.9740 91-41-21.30 5.440 5.700
180 185-35-49.80 159.1910 92-30-47.20 5.440 5.700
181 152-59-29.10 228.0970 91-55-45.60 5.440 5.000
182 176-41-54.30 233.4170 92-08-30.50 5.440 6.000
183 176
186 339-48-52.00 28.9000 89-36-57.00 5.420 5.000
187 343-01-07.60 111.8500 88-12-26.60 5.420 5.960
188 163-40-17.00 30.8000 91-52-21.00 5.420 5.430
189 267-12-09.00 130.4800 89-36-18.00 5.420 6.000
190 225-58-53.00 99.5400 90-43-29.00 5.420 6.000
191 217-39-01.00 139.2800 90-51-15.00 5.420 6.000
192 239-10-19.00 234.9400 91-01-29.00 5.420 5.000
193 256-38-54.00 232.0800 90-37-11.00 5.420 5.000
194 279-31-01.00 338.3800 90-20-15.00 5.420 5.500
195 183
198 286-08-17.00 60.8200 88-47-15.00 5.510 5.000
199 273-16-40.00 180.2800 88-24-33.00 5.510 5.640
200 244-30-37.90 205.8870 89-30-25.80 5.510 5.700
201 265-08-45.90 230.8780 88-55-43.30 5.510 5.800
202 275-35-54.90 231.7740 88-50-53.00 5.510 5.800
203 278-39-03.30 277.3160 88-20-22.30 5.510 5.390
204 269-54-16.90 264.3480 88-33-45.10 5.510 5.300
174 163
123 32-42-34.70 125.6730 81-26-27.20 5.665 5.000
124 52-45-10.20 119.3740 81-20-30.60 5.665 5.000
133 71-39-35.60 66.8840 87-09-12.70 5.665 5.000
158 121-10-27.80 71.9430 89-12-54.90 5.665 5.000
159 83-58-03.10 165.4720 87-50-51.60 5.665 5.800
162 174

177	172-02-14.00	112.8200	91-31-54.00	5.750	5.440
184	194-26-41.00	135.7600	92-21-47.00	5.750	5.440
205 195					
208	258-56-03.00	36.6800	89-15-14.00	5.925	5.000
209	252-51-17.50	88.5280	88-58-46.30	5.925	5.000
210	127-53-51.40	57.9400	91-44-08.00	5.925	5.000
214	188-13-51.00	103.1200	87-33-38.00	5.925	5.300

Adjustment Results

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Solution Has Converged in 3 Iterations

Adjusted Coordinates (US Feet)

Station	N	E	Elev	Description
1	551472.4620	2357923.3260	1023.8880	RAV 1
2	558490.7870	2357792.6680	1061.6100	RAV 2
3	553251.5120	2350072.0460	1123.1760	NS ROAD
4	553952.6430	2350190.2150	1135.3060	NS DAM
5	554078.5571	2350872.9390	1177.8200	KIM
16	554037.6820	2348868.2430	1105.5200	RAV 4
31	554454.9820	2349742.3240	1139.9360	FBQ 031
32	554454.1830	2349877.6430	1145.7500	FBQ 030
38	554029.4060	2349793.8850	1122.6670	FBQ 019
39	553801.4790	2349499.3580	1114.0120	FBQ 014
40	553564.8010	2349369.0130	1099.6930	FBQ 010
95	553409.0900	2350168.7000	1121.8000	FBQ 144
97	553399.0700	2350342.2700	1121.8000	FBQ 145
96	553525.5400	2350263.9400	1116.8000	FBQ 146
101	553599.4100	2350195.6400	1119.8000	FBQ 147
102	553605.6700	2350305.3000	1120.8000	FBQ 148
99	553712.1100	2350197.4900	1122.2200	FBQ 149
100	553760.3100	2350247.6200	1121.7200	FBQ 150
103	553789.1100	2350185.5800	1121.7200	FBQ 151
104	553834.8100	2350243.2300	1120.7200	FBQ 152
105	553897.4200	2350182.4500	1121.2200	FBQ 153
106	554010.0000	2350161.1200	1122.7400	FBQ 154
107	554054.4400	2350207.4900	1122.7400	FBQ 155
108	554115.8000	2350179.2900	1120.7400	FBQ 156
109	554200.3100	2350154.8500	1122.7400	FBQ 157

110	554213.4600	2350209.3700	1123.7400	FBQ 158
15	553427.6916	2349683.6617	1110.5476	NS PATH
30	553654.5091	2350221.3067	1132.8966	NS 1ST DAM
33	553788.5565	2350437.4221	1155.6306	NS ON TOP
66	554085.3935	2349950.0188	1135.7960	NS OLD RD
69	554476.8847	2350377.9267	1158.6090	NS
121	554076.3958	2349703.0995	1126.9900	NS LANE
138	554061.7966	2348736.1999	1104.0690	NS ROAD
143	553482.2507	2349615.4116	1110.0982	NS
147	553567.0256	2349533.4388	1106.5170	NS
122	553490.5780	2349352.5363	1102.2254	NS LAGOON
163	553728.3628	2350673.8523	1166.1129	NS
174	553496.9711	2350585.9338	1156.1149	NS
176	553695.8432	2350834.0557	1170.1563	NS
183	553651.9219	2351300.6590	1150.7576	NS
195	553440.0831	2351240.2706	1151.1367	NS
205	553470.2050	2350950.8867	1158.1991	NS
162	553428.2171	2350743.9413	1161.3222	NS WOODS
185	553369.5208	2350851.8864	1157.2793	NS CLOSE

Statistical Summary
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Number of Stations = 21

Number of Observations = 199
Number of Unknowns = 54
Number of Redundant Obs = 145

Observation	Count of StdRes	Sum Squares	Error Factor
Angles	55	4.93	0.35
Distances	72	35.60	0.82
Zeniths	72	45.03	0.93
Total	199	85.56	0.77

Adjustment Passes the Chi Square Test at 5% Level

Adjusted Observations and Residuals
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Adjusted Angle Observations

At	From	To	Angle	Residual	StdErr	StdRes
3	4	15	284-50-00.00	0-00-03.00	9.02	0.3
3	4	15	284-50-00.00	-0-00-04.00	9.02	0.4
3	4	15	284-50-00.00	0-00-01.00	9.02	0.1
3	4	30	10-45-24.10	0-00-04.10	7.78	0.5
3	4	30	10-45-24.10	0-00-00.10	7.78	0.0
3	4	30	10-45-24.10	0-00-02.10	7.78	0.3
3	4	33	24-39-45.00	-0-00-00.00	6.73	0.0
30	3	4	153-43-22.18	-0-00-01.82	15.00	0.1
30	3	4	153-43-22.18	-0-00-03.82	15.00	0.3
4	30	66	124-52-55.42	-0-00-02.58	17.08	0.2
4	30	66	124-52-55.42	-0-00-00.58	17.08	0.0
4	30	66	124-52-55.42	0-00-04.92	17.08	0.3
4	30	69	205-39-15.50	-0-00-00.00	13.90	0.0
66	4	121	148-59-05.06	-0-00-07.94	19.62	0.4
66	4	121	148-59-05.06	-0-00-02.94	19.62	0.1
66	4	121	148-59-05.06	-0-00-05.94	19.62	0.3
121	66	16	179-25-54.90	-0-00-06.10	14.76	0.4
121	66	16	179-25-54.90	-0-00-05.10	14.76	0.3
121	66	138	181-13-18.77	0-00-02.27	14.46	0.2
121	66	138	181-13-18.77	0-00-01.27	14.46	0.1
15	3	143	194-14-19.25	-0-00-15.75	37.53	0.4
15	3	143	194-14-19.25	-0-00-12.75	37.53	0.3
15	3	143	194-14-19.25	0-00-11.25	37.53	0.3
15	3	143	194-14-19.25	0-00-17.25	37.53	0.5
15	3	147	198-26-46.67	0-00-00.67	19.15	0.0
15	3	147	198-26-46.67	-0-00-00.33	19.15	0.0
15	3	147	198-26-46.67	-0-00-00.33	19.15	0.0
143	15	122	143-10-32.33	-0-00-00.67	39.50	0.0
143	15	122	143-10-32.33	0-00-04.33	39.50	0.1
143	15	122	143-10-32.33	-0-00-03.67	39.50	0.1
33	3	163	250-03-16.00	0-00-01.00	14.37	0.1
33	3	163	250-03-16.00	-0-00-01.00	14.37	0.1
163	33	174	276-31-15.06	0-00-04.06	17.05	0.2
163	33	174	276-31-15.06	-0-00-00.94	17.05	0.1
163	33	176	177-11-27.02	-0-00-07.48	26.45	0.3
176	163	183	173-54-10.32	-0-00-05.68	22.20	0.3
176	163	183	173-54-10.32	-0-00-03.18	22.20	0.1
183	176	195	280-32-01.52	-0-00-10.48	14.97	0.7
183	176	195	280-32-01.52	0-00-01.02	14.97	0.1

195	183	205	260-01-52.86	-0-00-02.14	18.00	0.1
195	183	205	260-01-52.86	-0-00-03.14	18.00	0.2
195	183	205	260-01-52.86	-0-00-02.64	18.00	0.1
195	183	205	260-01-52.86	-0-00-00.64	18.00	0.0
174	163	162	92-42-38.95	-0-00-18.05	21.44	0.8
174	163	162	92-42-38.95	0-00-14.45	21.44	0.7
162	174	185	185-01-12.99	0-00-03.99	35.71	0.1
162	174	185	185-01-12.99	-0-00-24.01	35.71	0.7
162	174	185	185-01-12.99	0-00-09.49	35.71	0.3
162	174	185	185-01-12.99	0-00-06.99	35.71	0.2
205	195	185	128-34-27.60	-0-00-13.40	26.11	0.5
205	195	185	128-34-27.60	0-00-05.60	26.11	0.2
205	195	185	128-34-27.60	-0-00-02.40	26.11	0.1
205	195	185	128-34-27.60	0-00-01.60	26.11	0.1
205	195	185	128-34-27.60	0-00-01.10	26.11	0.0
205	195	185	128-34-27.60	-0-00-00.40	26.11	0.0

Adjusted Distance Observations (US Feet)

From	To	Distance	Residual	StdErr	StdRes
3	15	426.7113	0.0113	0.0245	0.5
3	15	426.7113	-0.0287	0.0245	1.2
3	15	426.7113	0.0113	0.0245	0.5
3	30	429.8896	-0.0304	0.0245	1.2
3	30	429.8896	-0.0304	0.0245	1.2
3	30	429.8896	-0.0304	0.0245	1.2
3	33	650.3934	-0.0066	0.0245	0.3
30	3	429.9034	-0.0166	0.0245	0.7
30	4	299.7884	-0.0516	0.0245	2.1
30	4	299.7884	-0.0516	0.0245	2.1
4	30	299.7921	-0.0079	0.0245	0.3
4	66	274.4684	-0.0116	0.0245	0.5
4	66	274.4684	-0.0116	0.0245	0.5
4	66	274.4684	-0.0116	0.0245	0.5
4	69	557.3769	-0.0031	0.0245	0.1
69	4	557.3831	0.0031	0.0245	0.1
66	4	274.4687	-0.0113	0.0245	0.5
66	121	247.2900	-0.0100	0.0245	0.4
66	121	247.2900	-0.0100	0.0245	0.4
66	121	247.2900	-0.0100	0.0245	0.4
121	66	247.2579	-0.0221	0.0245	0.9
121	16	836.1089	-0.0111	0.0245	0.5

121	16	836.1089	-0.0511	0.0245	2.1
121	138	967.3754	0.0154	0.0245	0.6
121	138	967.3754	-0.0046	0.0245	0.2
15	3	426.7060	0.0060	0.0245	0.2
15	143	87.3929	0.0329	0.0245	1.3
15	143	87.3929	-0.0071	0.0245	0.3
15	143	87.3929	-0.0071	0.0245	0.3
15	143	87.3929	-0.0071	0.0245	0.3
15	147	204.9667	0.0067	0.0245	0.3
15	147	204.9667	-0.0133	0.0245	0.5
15	147	204.9667	0.0067	0.0245	0.3
143	15	87.3869	-0.0131	0.0245	0.5
143	122	263.1496	0.0296	0.0245	1.2
143	122	263.1496	-0.0104	0.0245	0.4
143	122	263.1496	-0.0104	0.0245	0.4
122	143	263.1511	-0.0089	0.0245	0.4
16	138	134.2490	-0.0110	0.0245	0.5
33	3	650.4266	0.0066	0.0245	0.3
33	163	244.2023	0.0023	0.0245	0.1
33	163	244.2023	0.0023	0.0245	0.1
163	33	244.2154	-0.0046	0.0245	0.2
163	174	247.7512	0.0112	0.0245	0.5
163	174	247.7512	-0.0088	0.0245	0.4
163	176	163.5547	0.0147	0.0245	0.6
176	163	163.5352	-0.0048	0.0245	0.2
176	183	469.1222	0.0022	0.0245	0.1
176	183	469.1222	0.0022	0.0245	0.1
183	176	469.1218	0.0018	0.0245	0.1
183	195	220.3017	0.0017	0.0245	0.1
183	195	220.3017	0.0017	0.0245	0.1
195	183	220.3015	0.0015	0.0245	0.1
195	205	291.0517	0.0117	0.0245	0.5
195	205	291.0517	-0.0283	0.0245	1.2
195	205	291.0517	0.0117	0.0245	0.5
195	205	291.0517	0.0117	0.0245	0.5
174	163	247.7351	-0.0049	0.0245	0.2
174	162	172.3960	-0.0040	0.0245	0.2
174	162	172.3960	-0.0040	0.0245	0.2
162	174	172.4373	-0.0027	0.0245	0.1
162	185	122.9429	0.0029	0.0245	0.1
162	185	122.9429	0.0029	0.0245	0.1
162	185	122.9429	0.0029	0.0245	0.1
162	185	122.9429	-0.0171	0.0245	0.7

205	195	291.0861	-0.0139	0.0245	0.6
205	185	141.2266	0.0266	0.0245	1.1
205	185	141.2266	-0.0134	0.0245	0.5
205	185	141.2266	-0.0134	0.0245	0.5
205	185	141.2266	0.0266	0.0245	1.1
205	185	141.2266	-0.0134	0.0245	0.5
205	185	141.2266	-0.0134	0.0245	0.5

Adjusted Zenith Observations

From	To	Zenith	Residual	StdErr	StdRes
3	15	91-42-49.90	0-00-03.90	10.00	0.4
3	15	91-42-49.90	0-00-05.90	10.00	0.6
3	15	91-42-49.90	0-00-04.90	10.00	0.5
3	30	88-48-07.72	0-00-22.72	10.00	2.3
3	30	88-48-07.72	0-00-23.72	10.00	2.4
3	30	88-48-07.72	0-00-21.72	10.00	2.2
3	33	87-12-17.66	0-00-12.66	10.00	1.3
30	3	91-17-02.92	0-00-11.92	10.00	1.2
30	4	89-38-00.67	0-00-15.67	10.00	1.6
30	4	89-38-00.67	0-00-15.67	10.00	1.6
4	30	90-27-52.76	-0-00-08.24	10.00	0.8
4	66	89-55-08.05	0-00-01.05	10.00	0.1
4	66	89-55-08.05	0-00-00.05	10.00	0.0
4	66	89-55-08.05	0-00-00.05	10.00	0.0
4	69	87-36-49.59	0-00-08.59	10.00	0.9
69	4	92-24-10.59	0-00-08.59	10.00	0.9
66	4	90-07-09.55	0-00-05.55	10.00	0.6
66	121	92-11-30.27	-0-00-05.73	10.00	0.6
66	121	92-11-30.27	-0-00-05.73	10.00	0.6
66	121	92-11-30.27	-0-00-07.73	10.00	0.8
121	66	88-00-45.40	-0-00-15.60	10.00	1.6
121	16	91-27-01.72	-0-00-03.28	10.00	0.3
121	16	91-27-01.72	-0-00-03.28	10.00	0.3
121	138	91-20-23.55	-0-00-03.45	10.00	0.3
121	138	91-20-23.55	-0-00-03.45	10.00	0.3
15	3	88-18-40.69	0-00-14.69	10.00	1.5
15	143	90-42-04.62	-0-00-04.38	10.00	0.4
15	143	90-42-04.62	0-00-01.62	10.00	0.2
15	143	90-42-04.62	-0-00-05.38	10.00	0.5
15	143	90-42-04.62	-0-00-04.38	10.00	0.4
15	147	91-18-01.33	0-00-00.33	10.00	0.0

15	147	91-18-01.33	0-00-00.33	10.00	0.0
15	147	91-18-01.33	-0-00-00.67	10.00	0.1
143	15	89-48-13.49	-0-00-12.51	10.00	1.3
143	122	91-41-34.51	0-00-03.51	10.00	0.4
143	122	91-41-34.51	0-00-00.51	10.00	0.1
143	122	91-41-34.51	-0-00-01.49	10.00	0.1
122	143	88-17-48.54	0-00-02.54	10.00	0.3
16	138	90-37-09.94	0-00-00.94	10.00	0.1
33	3	92-51-21.66	0-00-12.66	10.00	1.3
33	163	87-39-22.97	0-00-01.97	10.00	0.2
33	163	87-39-22.97	0-00-03.97	10.00	0.4
163	33	92-25-04.93	0-00-05.93	10.00	0.6
163	174	92-16-00.49	0-00-06.49	10.00	0.6
163	174	92-16-00.49	0-00-01.49	10.00	0.1
163	176	88-21-46.05	-0-00-10.95	10.00	1.1
176	163	91-22-42.36	-0-00-05.64	10.00	0.6
176	183	92-23-15.31	-0-00-03.69	10.00	0.4
176	183	92-23-15.31	-0-00-03.69	10.00	0.4
183	176	87-36-53.06	0-00-08.06	10.00	0.8
183	195	89-52-51.11	-0-00-08.89	10.00	0.9
183	195	89-52-51.11	-0-00-05.89	10.00	0.6
195	183	90-05-18.41	-0-00-07.59	10.00	0.8
195	205	88-42-37.22	-0-00-05.78	10.00	0.6
195	205	88-42-37.22	-0-00-04.78	10.00	0.5
195	205	88-42-37.22	-0-00-03.78	10.00	0.4
195	205	88-42-37.22	-0-00-04.78	10.00	0.5
174	163	87-49-46.87	-0-00-00.13	10.00	0.0
174	162	88-29-25.43	-0-00-01.57	10.00	0.2
174	162	88-29-25.43	0-00-02.43	10.00	0.2
162	174	91-57-48.26	-0-00-04.74	10.00	0.5
162	185	91-46-05.01	0-00-00.01	10.00	0.0
162	185	91-46-05.01	-0-00-02.99	10.00	0.3
162	185	91-46-05.01	0-00-04.01	10.00	0.4
162	185	91-46-05.01	0-00-03.01	10.00	0.3
205	195	91-33-46.42	-0-00-09.58	10.00	1.0
205	185	90-37-36.90	-0-00-04.10	10.00	0.4
205	185	90-37-36.90	0-00-01.90	10.00	0.2
205	185	90-37-36.90	0-00-01.90	10.00	0.2
205	185	90-37-36.90	-0-00-02.10	10.00	0.2
205	185	90-37-36.90	-0-00-02.10	10.00	0.2
205	185	90-37-36.90	-0-00-00.10	10.00	0.0

Adjusted Bearings and Horizontal Distances (US Feet)

>From	To	Bearing	Distance
3	4	N09-34-00.31E	711.0194
3	15	N65-35-59.69W	426.4758
3	30	N20-19-24.42E	429.7504
3	33	N34-13-45.31E	649.5510
4	66	N61-04-17.99W	274.4393
4	69	N19-42-02.10E	556.8348
15	143	N51-21-40.44W	87.3772
15	147	N47-09-13.02W	204.8924
16	138	N79-39-01.16W	134.2270
30	4	N05-57-13.40W	299.7507
33	163	S75-42-58.69E	243.9724
66	121	S87-54-47.08W	247.0832
121	16	S87-20-41.98W	835.7536
121	138	S89-08-05.85W	967.0098
143	122	N88-11-08.10W	263.0072
162	185	S61-27-51.70E	122.8715
163	174	S20-48-16.37W	247.5314
163	176	S78-31-31.67E	163.4707
174	162	S66-29-04.69E	172.3180
176	183	S84-37-21.35E	468.6659
183	195	S15-54-40.17W	220.2781
195	205	N84-03-26.97W	290.9473
205	185	S44-31-00.63W	141.2033

Sideshot Coordinates Computed After Adjustment

Station	N	E	Elev	Description
7	553123.4178	2349586.8258	1104.8705	FBQ 166 GND
8	553123.8568	2349584.3329	1108.8639	FBQ 166
9	553278.6443	2349401.6415	1097.9614	FBQ 001
10	553137.8166	2349849.7134	1110.5468	FBQ 003
11	553149.5727	2350012.5959	1115.7805	FBQ 005
12	553311.0491	2349886.3601	1114.5925	FBQ 004
13	553417.1660	2349707.3026	1109.2078	FBQ 162
14	553459.9842	2349627.6283	1108.3214	FBQ 163
18	553378.6012	2350029.0612	1123.9732	FBQ 178
19	553410.7885	2350035.8563	1124.3868	FBQ 006

20	553444.8634	2350029.8977	1117.2137	FBQ 143
21	553440.8207	2349912.3214	1114.1361	FBQ 142
22	553523.5715	2349921.3723	1122.2624	FBQ 008
23	553297.4577	2350101.4691	1119.9543	FBQ 164
24	553321.9387	2350109.2094	1125.7339	FBQ 177 GND
25	553321.9350	2350112.1817	1128.5737	FBQ 177
26	553275.1552	2350218.3847	1129.5672	FBQ 176 GND
27	553273.3275	2350219.4502	1131.9057	FBQ 176
28	553252.9419	2350239.9367	1128.5993	FBQ 060
29	553286.3255	2350280.6007	1124.9198	FBQ 165
41	553669.6242	2350397.5600	1144.0514	FBQ 058
42	553488.9373	2350338.1403	1129.6465	FBQ 059
43	553399.1626	2350346.3392	1124.8266	EW
44	553518.3258	2350321.6879	1124.8031	EW
45	553785.1808	2350298.7522	1145.8516	FBQ 057
46	553926.8946	2350229.1324	1124.2377	EW
49	553974.8813	2350100.6871	1139.6655	FBQ 170 GND
50	553975.4008	2350102.4132	1142.2564	FBQ 170
52	554231.1378	2350070.5311	1140.4947	FBQ 171 GND
53	554230.9259	2350072.4362	1143.5469	FBQ 171
54	554205.3393	2350101.4620	1134.0397	FBQ 044
55	554262.0771	2350042.3182	1141.2756	FBQ 023
56	553790.7938	2350029.0630	1139.8572	FBQ 016
57	553725.6752	2350051.9872	1135.6867	FBQ 015
58	553647.3699	2350061.8460	1131.4583	FBQ 011
59	553620.3589	2350068.6096	1131.2749	FBQ 168 GND
60	553620.8530	2350066.8689	1133.9091	FBQ 168
61	553581.1962	2350070.1281	1131.0658	FBQ 007
62	553619.2068	2350154.5786	1124.7918	EW
63	553739.7573	2350165.1495	1124.2149	EW
65	554045.3341	2349983.4147	1137.0808	FBQ 018
70	554489.2627	2350133.7524	1148.9489	FBQ 028
71	554535.5314	2350110.2132	1147.9715	FBQ 029
72	554521.0415	2350125.6697	1148.1988	FBQ 182
73	554388.8252	2350180.5274	1143.9069	FBQ 027
74	554243.2692	2350192.0335	1125.7435	EW
75	554340.5930	2350246.8600	1139.3595	FBQ 045
76	554398.6670	2350288.4393	1142.4978	FBQ 041
77	554399.1718	2350339.9407	1145.8693	FBQ 037
78	554368.4060	2350329.6852	1145.2151	FBQ 042
79	554389.3114	2350388.7782	1147.1803	FBQ 038
80	554259.5745	2350365.8395	1149.4820	FBQ 047
81	554111.7506	2350356.8532	1146.1960	FBQ 053

82	554036.2758	2350447.9888	1161.6876	FBQ 183
83	554088.7664	2350493.2788	1164.4430	FBQ 054
84	553920.7125	2350381.9270	1155.9978	FBQ 056
85	553990.0870	2350275.7726	1136.7533	FBQ 055
86	553989.4420	2350295.3840	1137.1640	FBQ 175 GND
87	553989.2412	2350297.9758	1140.7253	FBQ 175
88	554141.0482	2350287.9186	1135.7799	FBQ 174 GND
89	554142.4379	2350289.8121	1139.9658	FBQ 174
90	554158.7288	2350293.5827	1136.1787	FBQ 052
91	554220.7450	2350256.6478	1136.0861	FBQ 049
92	554281.2205	2349965.4192	1142.5221	FBQ 024
93	554321.1782	2349908.5804	1145.7105	FBQ 172 GND
94	554322.1687	2349907.3721	1150.0914	FBQ 172
47	554461.7804	2350377.7597	1158.6059	FBQ 035
48	554451.9514	2350351.1773	1154.9693	FBQ 034
51	554492.2159	2350447.6011	1162.4295	FBQ 173 GND
64	554491.3471	2350449.0138	1165.9429	FBQ 173
67	554526.6444	2350456.9235	1162.7985	FBQ 032
68	554466.9971	2350535.8651	1166.7000	FBQ 036
98	554372.5733	2350569.5631	1167.8686	FBQ 040
111	554186.6067	2350483.9255	1162.8719	FBQ 051
112	554203.0114	2350367.2259	1148.7812	FBQ 050
113	554256.3214	2350424.4152	1155.6895	FBQ 048
114	554355.3946	2350425.6693	1149.0449	FBQ 043
115	554378.3914	2350425.1050	1147.9787	FBQ 039
116	554333.8389	2350307.9919	1143.7222	FBQ 046
117	554456.9148	2350306.7120	1153.0060	FBQ 033
119	553851.3989	2349792.4733	1119.8426	FBQ 013
120	553918.0340	2349842.2366	1123.5717	FBQ 017
125	554033.8102	2349807.3236	1123.0534	FBQ 181
126	553986.7054	2349779.9469	1119.6823	FBQ 159
127	553673.6831	2349902.3366	1127.7959	FBQ 012
128	553904.4611	2349677.9113	1119.6228	FBQ 180
129	553892.2339	2349738.4625	1116.2624	FBQ 160
130	554002.4735	2349601.6222	1123.9255	FBQ 020
131	554144.8499	2349616.6846	1125.6907	FBQ 022
132	554269.3039	2349759.5096	1135.4598	FBQ 025
134	554442.2797	2349644.0832	1124.4418	FBQ 026
135	554147.7691	2349799.9080	1129.5236	FBQ 021
141	553426.1996	2349761.3912	1109.8793	FBQ 141
142	553402.8988	2349626.2040	1106.0568	FBQ 002
17	553554.0888	2349674.5705	1112.0546	FBQ 167 GND
34	553556.1194	2349675.4547	1115.9011	FBQ 167

35	553681.2050	2349730.8956	1120.5816	FBQ 169
36	553679.9000	2349730.9106	1117.3576	FBQ 169 GND
37	553540.3690	2349766.0080	1114.6284	FBQ 009
118	553441.6453	2349530.9482	1101.0758	FBQ 140
136	553427.4469	2349378.8397	1099.9496	FBQ 133
139	553436.0243	2349301.1888	1099.2656	FBQ 135
140	553413.8660	2349250.8889	1097.7051	FBQ 132
144	553424.4770	2349276.9972	1098.1646	FBQ 134
145	553459.5483	2349265.1051	1098.6013	FBQ 139
146	553475.7900	2349263.4186	1098.1631	FBQ 138
148	553475.4693	2349255.8612	1097.8382	FBQ 137
149	553413.8974	2349198.8527	1096.8471	FBQ 131
151	553451.5493	2349132.9314	1094.1937	FBQ 161
153	553414.2460	2349119.6816	1094.8194	FBQ 130
154	553540.7566	2349094.0107	1092.4610	FBQ 129
155	553386.6415	2349071.6768	1090.4958	FBQ 128
156	553179.7944	2349041.6987	1088.3678	FBQ 127
157	553496.2695	2349237.8103	1097.2389	FBQ 136
160	553151.7489	2348905.6657	1092.1771	FBQ 179
161	553032.8271	2348901.2144	1086.7747	FBQ 126
166	553742.0523	2350705.8759	1167.2938	FBQ 062
167	553743.3145	2350835.8838	1171.5747	FBQ 063
168	553771.4570	2350789.4315	1171.2608	FBQ 061
169	553635.7641	2350700.5108	1176.4713	FBQ 072
170	553614.5533	2350626.5379	1160.3737	FBQ 075
171	553658.9267	2350615.4476	1160.5535	FBQ 071
172	553684.3515	2350582.1278	1160.2091	FBQ 065
173	553703.0367	2350659.7457	1164.8283	FBQ 066
178	553603.0360	2350831.7969	1167.0266	FBQ 073
179	553551.1893	2350815.0644	1165.5936	FBQ 077
180	553649.1596	2350986.0702	1162.9166	FBQ 067
181	553756.8891	2351053.6731	1162.9181	FBQ 064
182	553662.6869	2351064.9164	1160.8740	FBQ 068
186	553644.5365	2351272.7225	1151.3714	FBQ 069
187	553629.4374	2351191.1602	1153.7167	FBQ 080
188	553657.7693	2351330.8788	1149.7412	FBQ 070
189	553521.5909	2351294.7866	1151.0775	FBQ 091
190	553574.1884	2351362.8044	1148.9188	FBQ 081
191	553556.9045	2351402.4541	1148.1017	FBQ 082
192	553439.8376	2351401.5939	1146.9771	FBQ 093
193	553422.1236	2351332.8498	1148.6685	FBQ 092
194	553324.9510	2351213.6933	1148.6867	FBQ 100
198	553472.3464	2351188.7369	1152.9337	FBQ 090

199	553499.3092	2351070.0905	1156.0122	FBQ 089
200	553405.8293	2351037.2826	1152.7185	FBQ 099
201	553484.3507	2351013.7420	1155.1644	FBQ 088
202	553525.0391	2351024.7046	1155.5073	FBQ 079
203	553555.2970	2350988.1809	1159.2939	FBQ 074
204	553512.0999	2350986.0369	1157.9795	FBQ 087
123	553570.8592	2350685.8396	1175.4841	FBQ 076
124	553530.3720	2350699.1092	1174.7506	FBQ 084
133	553494.0990	2350652.6665	1160.1014	FBQ 083
158	553440.3068	2350630.2384	1157.7653	FBQ 094
159	553454.8142	2350745.8069	1162.1950	FBQ 095
177	553397.9815	2350852.5802	1158.6168	FBQ 097
184	553344.7892	2350850.8776	1156.0350	FBQ 096
208	553506.7315	2350947.6118	1159.6018	FBQ 086
209	553557.0233	2350933.6920	1160.7009	FBQ 078
210	553428.4379	2350910.7773	1157.3694	FBQ 098
214	553495.4290	2350851.0068	1163.2135	FBQ 085

Elapsed Time = 00:00:00

8

46

0000011E Summary of Files Used and Option Settings

00000826 Adjustment Solution Iterations

000018A1 Summary of Unadjusted Input Observations

0000897A Adjusted Coordinates

0000952B Statistical Summary

00009828 Adjusted Observations and Residuals

0000D624 Adjusted Bearings and Horizontal Distances

0000DB7A Sideshot Coordinates Computed After Adjustment

000104CA

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