

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS IN WHATCOM COUNTY, WASHINGTON:

TWP. 37 N, R. 2 E, W.M.:
Sections 1, 2, 11, 12, 13, 14

TWP. 37 N, R. 3 E, W.M.:
Sections 4, 5, 6, 7, 8, 9, 16, 17, 18

TWP. 38 N, R. 2 E, W.M.:
Sections 1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15,
16, 23, 24, 25, 26

TWP. 38 N, R. 3 E, W.M.:
Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15,
16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29,
30, 31, 32, 33, 34, 35

TWP. 39 N, R. 2 E, W.M.:
Sections 33, 34, 35, 36

TWP. 39 N, R. 3 E, W.M.:
Sections 31, 32, 33, 34, 35



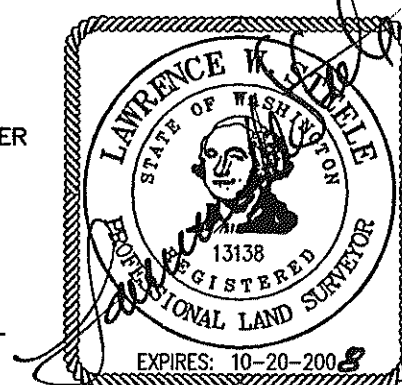
0 1 MI. 2 MI.
SCALE: 1" = 1 MILE



SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF THE CITY OF BELLINGHAM, DEPARTMENT OF PUBLIC WORKS.

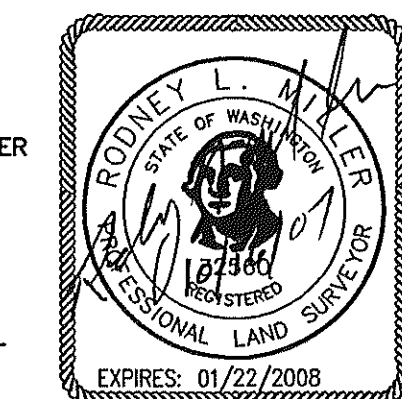
Lawrence W. Steele 10/16/07
LAWRENCE W. STEELE, P.L.S., CERTIFICATE NO. 13138



SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF THE CITY OF BELLINGHAM, DEPARTMENT OF PUBLIC WORKS.

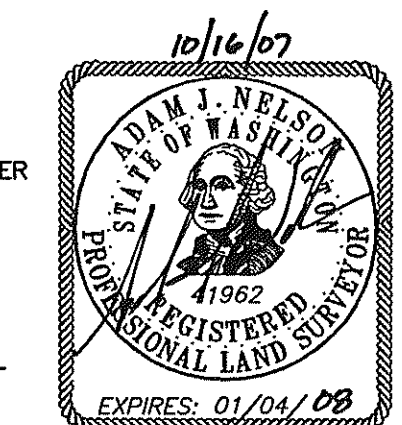
Rodney L. Miller 10/16/07
RODNEY L. MILLER, P.L.S., CERTIFICATE NO. 32560



SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF THE CITY OF BELLINGHAM, DEPARTMENT OF PUBLIC WORKS.

Adam J. Nelson 10/16/07
ADAM J. NELSON, P.L.S., CERTIFICATE NO. 41962



AUDITOR'S CERTIFICATE:

FILED FOR RECORD THIS 17th DAY OF October 2007 AT 11:39 AM, AT THE REQUEST OF THE CITY OF BELLINGHAM.
RECORDED UNDER AUDITOR'S FILE NUMBER 2071002449

Shirley Forsberg
WHATCOM COUNTY AUDITOR'S OFFICE



LEGEND

- ✚ = SECTION CORNER
- 9 = SECTION NUMBER
- ⊙ = N.G.S. CONTROL MONUMENT

CONTACT INFORMATION FOR LOCAL CONTROL POINTS

THE COORDINATE VALUES SHOWN REPRESENT THE CONDITION OF EACH MONUMENT AT THE TIME OF THIS DENSIFICATION SURVEY.

CONTACT THE CITY OF BELLINGHAM SURVEY OFFICE FOR MONUMENT DESCRIPTIONS, SITE MAPS AND PHOTOS, AND FOR THE CURRENT CONDITION AND STATUS OF THE SPECIFIC MONUMENT.

CITY OF BELLINGHAM PUBLIC WORKS
210 LOTTIE STREET, BELLINGHAM, WA. 98225

EMAIL: LANDSURVEYINFO@COB.ORG

LOCAL GEODETIC HORIZONTAL CONTROL SURVEY

THE PURPOSE OF THIS SURVEY IS TO ESTABLISH LOCAL CONTROL POINTS TO EXTEND THE NATIONAL GEODETIC SURVEY (NGS) HORIZONTAL CONTROL NETWORK WITHIN THE BELLINGHAM AREA IN THE NAD83\98 WASHINGTON STATE PLANE, NORTH ZONE, U.S. SURVEY FEET DATUM UTILIZING SEVEN FIRST ORDER STATIONS ESTABLISHED IN 2005 AND REGISTERED WITH NGS. THE HORIZONTAL COORDINATES OF THE SEVEN STATIONS WERE ESTABLISHED BY GPS OBSERVATIONS BY PACIFIC SURVEYING & ENGINEERING IN 2004 AND SUBMITTED TO N.G.S. BY W & H PACIFIC, INC. IN 2005.

BELLINGHAM N.G.S. STATIONS:

DESIGNATION	PID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
DONOVAN	DH3744	630,920.10	1,235,270.13	48 43 02.85620	122 30 41.96462	0.99999705	-1 14 58.4
HAWK	DH3745	628,277.03	1,248,423.07	48 42 39.56630	122 27 25.04204	0.99999587	-1 12 31.8
HORTON	DH3746	663,610.59	1,240,406.46	48 48 26.44086	122 29 35.90435	1.00001476	-1 14 09.2
FIRE4	DH3747	656,888.60	1,259,141.23	48 47 24.02279	122 24 54.03564	1.00001115	-1 10 39.3
TERMINAL	DH3748	659,812.52	1,230,995.47	48 47 46.94812	122 31 55.20128	1.00001247	-1 15 52.9
BLOEDEL	DH3749	645,677.20	1,257,632.67	48 45 33.11594	122 25 13.10610	1.00000497	-1 10 53.5
PARKADE	DH3750	642,917.53	1,243,457.91	48 45 02.95461	122 28 43.72250	1.00000334	-1 13 30.3

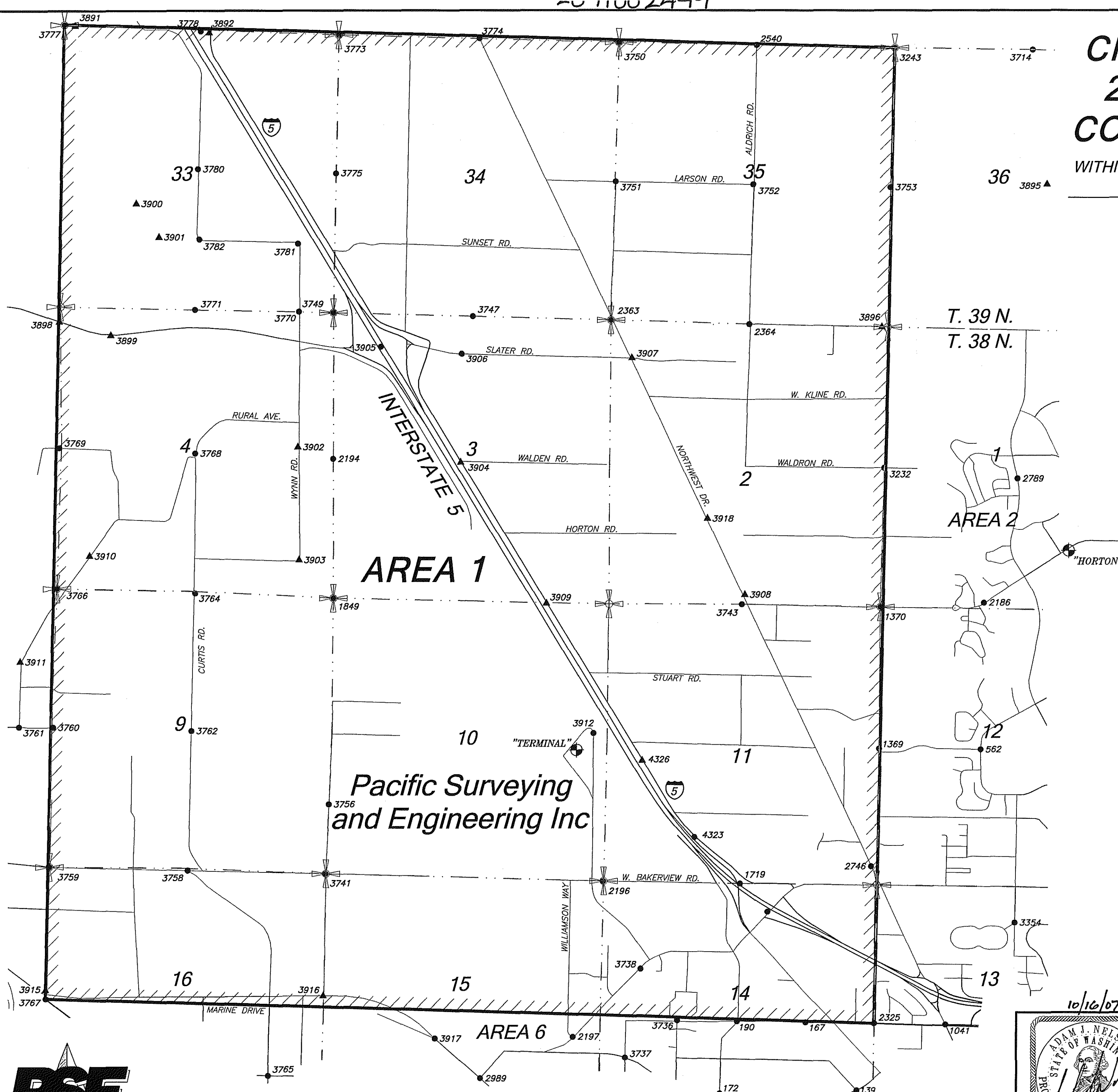
RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1 MILE	SHEET 1 OF 19

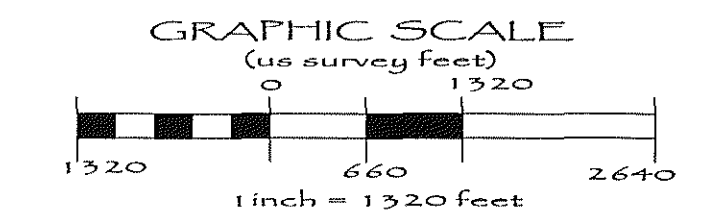
CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16,
T. 38 N., R. 2 E., & 33, 34, 35, 36,
T. 39 N., R. 2 E., W.M

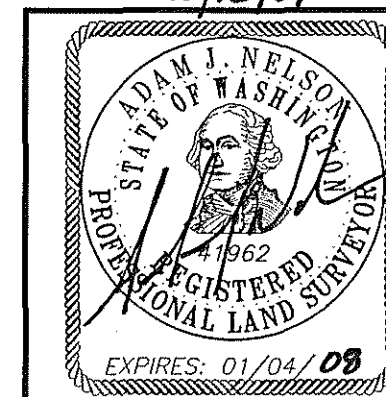


PACIFIC SURVEY & ENGINEERING INC
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685
EMAIL: pse@pesurvey.com www.pesurvey.com



LEGEND

- ⊕ COB NGS CADASTRAL REFERENCE POINTS
- FOUND MONUMENT
- ▲ SET 2" ALUMINUM CAP MONUMENT
- "CITY OF BELLINGHAM CONTROL"
- (STAMPED W/ POINT NUMBER)



RECORD OF SURVEY FOR CITY OF BELLINGHAM		
DRWN BY JVD	DATE 10/16/2007	JOB NO. 2003183
CHKD BY AJN, PKB	SCALE 1" = 1320'	SHEET 2 OF 19

AREA 1:
COORDINATE TABLE

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
139	653337.6650	1236344.2877	48°46'44.2329"	122°30'33.2299"	1.000008899	- 1°14'52"
167	654639.2707	1235368.8953	48°46'56.86305"	122°30'48.21320"	1.000009610	- 1°15'03"
172	653277.7219	1233726.2450	48°46'43.07725"	122°31'12.28803"	1.000008835	- 1°15'21"
190	654658.5741	1234057.5370	48°46'56.77056"	122°31'07.79459"	1.000009605	- 1°15'18"
562	659823.2769	1238725.1923	48°47'48.72175"	122°29'59.78849"	1.000012569	- 1°14'27"
1041	654593.6408	1238039.3291	48°46'56.98617"	122°30'08.33589"	1.000009617	- 1°14'33"
1369	659834.4415	1236783.4532	48°47'48.41599"	122°30'28.78539"	1.000012551	- 1°14'49"
1370	662542.8303	1236813.1188	48°48'15.13969"	122°30'29.22268"	1.000014101	- 1°14'49"
1719	657283.0883	1234121.7413	48°47'22.67443"	122°31'07.69436"	1.000011075	- 1°15'18"
1849	662715.9056	1226343.8428	48°48'14.56994"	122°33'05.62414"	1.000014068	- 1°16'45"
2186	662624.1819	1238789.0059	48°48'16.36541"	122°29'59.74150"	1.000014172	- 1°14'27"
2194	665356.2188	1226351.0119	48°48'40.61691"	122°29'06.39768"	1.000015594	- 1°16'46"
2196	657325.0987	1231507.4082	48°47'22.52211"	122°31'46.73859"	1.000011066	- 1°15'47"
2197	654362.4799	1230915.5909	48°46'53.16812"	122°31'54.59770"	1.000009402	- 1°15'52"
2325	654619.9696	1236680.1270	48°46'56.95452"	122°30'28.63371"	1.000009616	- 1°14'48"
2363	667996.3284	1231670.8713	48°49'07.82487"	122°31'47.81107"	1.000017205	- 1°15'47"
2364	667922.7950	1234316.5909	48°49'07.67312"	122°31'08.26520"	1.000017196	- 1°15'18"
2540	673234.5583	1234475.8770	48°50'00.10558"	122°31'07.62387"	1.000020351	- 1°15'17"
2746	657610.1250	1236628.1441	48°47'26.44047"	122°30'30.38137"	1.000011290	- 1°14'50"
2789	664977.3199	1239432.3087	48°48'39.71566"	122°29'50.89451"	1.000015541	- 1°14'20"
2989	653570.2345	1229142.1446	48°46'44.96589"	122°32'20.80766"	1.000008941	- 1°16'12"
3232	665177.3994	1236894.7334	48°48'41.14626"	122°30'28.86001"	1.000015625	- 1°14'49"
3243	673181.5278	1237112.6050	48°50'00.15061"	122°30'28.20764"	1.000020354	- 1°14'48"
3354	656532.2157	1239367.9535	48°47'16.39359"	122°29'49.12851"	1.000010717	- 1°14'19"
3714	673144.2730	1239744.5388	48°50'00.34602"	122°29'48.86836"	1.000020366	- 1°14'19"
3736	654674.8802	1232913.5567	48°46'56.68386"	122°31'24.87648"	1.000009600	- 1°15'30"
3737	653963.8180	1231917.8835	48°46'49.45344"	122°31'39.50545"	1.000009193	- 1°15'41"
3738	655652.0223	1232214.6181	48°47'06.17145"	122°31'35.63072"	1.000010136	- 1°15'38"
3741	657472.4494	1226195.8467	48°47'22.81302"	122°33'06.08552"	1.000011083	- 1°16'46"
3743	662596.0875	1234163.6216	48°48'15.09430"	122°31'08.80694"	1.000014098	- 1°15'18"
3747	668070.2818	1229025.5130	48°49'07.97713"	122°32'27.35174"	1.000017214	- 1°16'17"
3749	668143.6678	1226360.0996	48°49'08.11564"	122°33'07.19187"	1.000017223	- 1°16'46"
3750	673287.9168	1231837.7452	48°50'00.06003"	122°31'47.06105"	1.000020348	- 1°15'47"
3751	670634.3985	1231761.7985	48°49'33.86793"	122°31'47.32166"	1.000018764	- 1°15'47"
3752	670580.6145	1234396.3362	48°49'33.90853"	122°31'07.94369"	1.000018767	- 1°15'18"
3753	670521.5027	1237018.6192	48°49'33.89023"	122°30'28.74705"	1.000018766	- 1°14'49"
3756	658793.3484	1226254.0766	48°47'35.85595"	122°33'05.65656"	1.000011829	- 1°16'45"
3758	657539.7236	1223560.0885	48°47'22.89414"	122°33'45.45801"	1.000011088	- 1°17'15"
3759	657613.8228	1220920.0410	48°47'23.03793"	122°34'24.89688"	1.000011096	- 1°17'44"
3760	660260.1860	1220993.6812	48°47'49.15940"	122°34'24.69102"	1.000012594	- 1°17'44"
3761	660266.1233	1220341.4506	48°47'49.07235"	122°34'34.43171"	1.000012589	- 1°17'51"
3762	660187.1008	1223633.7363	48°47'49.02560"	122°33'45.24676"	1.000012587	- 1°17'15"
3764	662814.6215	1223706.9560	48°48'14.96102"	122°33'45.03517"	1.000014090	- 1°17'15"
3765	653625.3813	1225087.3660	48°46'44.61878"	122°33'21.34854"	1.000008921	- 1°16'57"
3766	662909.1394	1221073.5560	48°48'15.30774"	122°34'24.39288"	1.000014117	- 1°17'44"
3767	655108.9036	1220846.4436	48°46'58.31167"	122°34'25.14979"	1.000009692	- 1°17'45"
3768	665462.4101	1223716.0659	48°48'41.08208"	122°33'45.78784"	1.000015621	- 1°17'15"
3769	665570.8282	1221120.5678	48°48'41.57431"	122°34'24.58978"	1.000015650	- 1°17'44"
3770	668162.1587	1225701.3096	48°49'08.15277"	122°33'17.03898"	1.000017225	- 1°16'54"
3771	668202.6044	1223715.2854	48°49'08.11240"	122°33'46.71950"	1.000017222	- 1°17'16"
3773	673433.7512	1226474.6408	48°50'00.32456"	122°33'07.24599"	1.000020364	- 1°16'47"
3774	673366.3386	1229166.9300	48°50'00.25086"	122°32'26.99488"	1.000020360	- 1°16'17"
3775	670794.1774	1226418.0537	48°49'34.27422"	122°33'07.21054"	1.000018789	- 1°16'47"
3777	673631.8734	1221235.5468	48°50'01.11722"	122°34'25.59584"	1.000020413	- 1°17'45"
3778	673508.3179	1223837.6543	48°50'00.47723"	122°33'46.67318"	1.000020374	- 1°17'16"
3780	670880.0089	1223781.0638	48°49'34.53802"	122°33'46.63596"	1.000018805	- 1°17'16"
3781	669453.1830	1225682.2050	48°49'20.88380"	122°33'17.75586"	1.000017985	- 1°16'54"
3782	669539.8889	1223802.1615	48°49'21.32321"	122°33'45.87075"	1.000018011	- 1°17'15"
3891	673609.6642	1221439.2082	48°50'00.94358"	122°34'22.54520"	1.000020402	- 1°17'43"
3892	673478.4873	1223999.7953	48°50'00.21892"	122°33'44.24043"	1.000020358	- 1°17'14"
3895	670577.6115	1240007.4421	48°49'35.08304"	122°29'44.11142"	1.000018837	- 1°14'15"
3896	667863.5274	1236852.4812	48°49'07.63477"	122°30'30.36468"	1.000017194	- 1°14'50"
3898	667977.4642	1221124.8112	48°49'05.31532"	122°34'25.33943"	1.000017056	- 1°17'45"
3899	667715.8623	1222109.2958	48°49'02.95417"	122°34'10.54542"	1.000016916	- 1°17'34"
3900	670219.9374	1222599.7984	48°49'27.76451"	122°34'04.06175"	1.000018974	- 1°17'29"
3901	669581.4580	1223035.9406	48°49'21.56322"	122°33'57.33124"	1.000018026	- 1°17'24"
3902	665577.6852	1225677.4084	48°48'42.65304"	122°33'16.53237"	1.000015714	- 1°16'53"
3903	663438.4887	1225693.3871	48°48'21.55448"	122°33'15.57908"	1.000014475	- 1°16'53"
3904	665284.2789	1228790.9235	48°48'40.44322"	122°32'29.93204"	1.000015584	- 1°16'19"
3905	667492.3602	1227268.3098	48°49'01.89073"	122°32'53.40828"	1.000016852	- 1°16'36"
3906	667352.2364	1228813.5636	48°49'00.84756"	122°32'30.27967"	1.000016790	- 1°16'19"
3907	667274.6877	1232066.6703	48°49'00.79228"	122°31'41.66118"	1.000016787	- 1°15'43"
3908	662779.0950	1234219.4356	48°48'16.91166"	122°31'08.03331"	1.000014204	- 1°15'18"
3909	662613.2361	1230421.2346	48°48'14.45092"	122°32'04.70009"	1.000014061	- 1°15'60"
3910	663521.6233	1221693.2711	48°48'21.48772"	122°34'15.34491"	1.000014471	- 1°17'37"
3911	661515.1234	1220365.2862	48°48'01.39840"	122°34'34.49826"	1.000013302	- 1°17'52"
3912	660130.4690	1231321.0284	48°47'50.15548"	122°31'50.44503"	1.000012652	- 1°15'49"
3915	655268.7878	1220841.0752	48°46'59.88767"	122°34'25.28390"	1.000009781	- 1°17'45"
3916	655150.8930	1226144.7093	48°46'59.90056"	122°33'06.07494"	1.000009782	- 1°16'46"
3917	654331.7500	1228276.4055	48°46'52.28843"	122°32'33.98243"	1.000009352	- 1°16'22"
3918	664220.5357	1233513.9285	48°48'30.97830"	122°31'19.04166"	1.000015027	- 1°15'26"
4323	658166.3083	1233246.8677	48°47'31.19784"	122°31'21.04519"	1.000011562	- 1°15'27"
4326	659607.9491	1232254.8162	48°47'45.20399"	122°31'36.33033"	1.000012366	- 1°15'39"

CITY OF BELLINGHAM 2005
HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

1, 2, 3, 4, 9, 10, 11, 12, 13, 14, 15, 16,
T. 38 N., R. 2 E., & 33, 34, 35, 36,
T. 39 N., R. 2 E., W.M

AREA 1:
HORIZONTAL CONTROL: NAD83/98
WASHINGTON STATE PLANE, NORTH ZONE

DURING THE MONTHS OF OCTOBER AND NOVEMBER 2005, PACIFIC SURVEYING & ENGINEERING USED FAST STATIC METHODS TO LOCATE 84 CONTROL POINTS, 20 NEW MONUMENTS WERE SET AND 51 EXISTING MONUMENTS WERE LOCATED UTILIZING GPS. THE DATA WAS SIMULTANEOUSLY ADJUSTED AS ONE NETWORK. THIRTEEN MONUMENT'S COORDINATES ARE BASED ON CONVENTIONAL CLOSED LOOP HORIZONTAL TRAVERSE TO AND FROM THE GPS CONTROLLED MONUMENTS.

HORIZONTALLY, FIRST ORDER NATIONAL GEODETIC SURVEY CONTROL MONUMENTS 'TERMINAL' (PID # DH3748), 'HORTON' (PID # DH3746) AND 'T38N R2E SEC 6 NE COR' (PID # TR2707). FIXING 'TERMINAL' THE UNCONSTRAINED NETWORK CLOSURE OF THE CONTROL POINTS RESULTED IN ERROR ELLIPSES OF LESS THAN 18MM (0.06 FEET). A CONSTRAINED LEAST SQUARES ADJUSTMENT WAS MADE FIXING ALL THREE MONUMENTS. THE NAD83\98 ADJUSTMENT YIELDED TWO SIGMA (95%) STATION CONFIDENCE LEVEL OF LESS THAN 22 MM (.07 FEET)

FAST STATIC FIELD OBSERVATIONS WERE COLLECTED WITH FOUR TOPCON HYPERLITE GPS RECEIVERS. THE POINTS AND VECTORS WERE PROCESSED USING TOPCON PINNACLE SOFTWARE VERSION 1.01. ALL POINTS WERE OCCUPIED FOR A MINIMUM OF TWO TIMES FOR FIFTEEN MINUTES. DATA WAS RECORDED AT FIVE SECOND INTERVALS. INTERNATIONAL GEODETIC SURVEY RAPID EPHEMERIS DATA WAS USED IN THE SOLUTION.

COORDINATES SHOWN ARE STATE PLANE COORDINATES IN US SURVEY FEET.

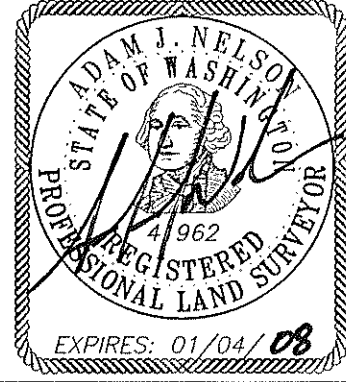


10/16/07
RECORD OF SURVEY
FOR
CITY OF BELLINGHAM

DRWN BY	DATE	JOB NO.
JVD	10/16/2007	2003183
CHKD BY	SCALE	SHEET 3 OF 19
AJN, PKB	1" = 1320'	



PACIFIC SURVEY & ENGINEERING INC
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685
EMAIL: pse@psurvey.com
www.psurvey.com

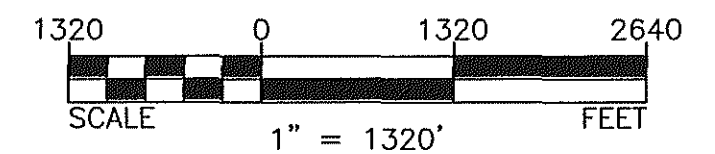


2011002449

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

1, 12, 13, T. 38 N., R. 2 E., &
5, 6, 7, 8, 17, 18, T. 38 N., R. 3 E., &
36, T. 39 N., R. 2 E., &
31, 32, T. 39 N., R. 3 E., W.M



LEGEND:

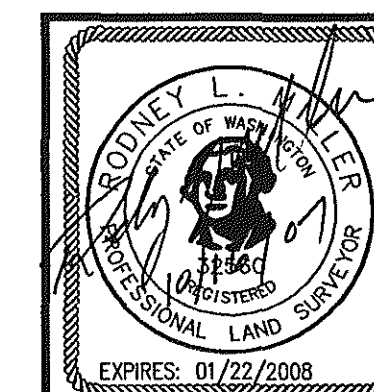
- ⊕ = COB NGS REFERENCE POINTS
- = FOUND MONUMENT
- ▲ = SET 2" ALUMINUM CAP MONUMENT
"CITY OF BELLINGHAM CONTROL"
(STAMPED W/ POINT NUMBER)



 **Wilson**
SURVEY/ENGINEERING

WILSON ENGINEERING, LLC
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 • FAX (360) 647-9061

www.wilsonengineering.com



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 4 OF 19

AREA 2: COORDINATE TABLE

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
260	654,422.010	1,244,584.647	48 78 24.11736	122 47 51.59923	1.0000096000	-1 12 21
562	659,823.277	1,238,725.192	48 47 48.72175	122 29 59.78849	1.0000125691	-1 14 27
1041	654,593.641	1,238,039.329	48 46 56.98617	122 30 08.33589	1.0000096173	-1 14 33
1042	654,568.624	1,239,328.655	48 46 57.01487	122 29 49.08139	1.0000096189	-1 14 19
1072	662,447.927	1,242,135.727	48 48 15.33881	122 29 09.70518	1.0000141125	-1 13 50
1368	657,249.347	1,236,735.760	48 47 22.90460	122 30 28.65745	1.0000110881	-1 14 48
1369	659,834.442	1,236,783.453	48 47 48.41590	122 30 28.78545	1.0000125515	-1 14 49
1370	662,542.830	1,236,813.119	48 48 15.13984	122 30 29.22267	1.0000141009	-1 14 49
1373	657,158.150	1,242,011.670	48 78 97.58416	122 48 60.72506	1.0000111010	-1 13 50
1375	656,808.307	1,252,509.292	48 47 21.87420	122 26 33.02449	1.0000110294	-1 11 53
1376	654,152.671	1,252,437.861	48 46 55.66189	122 26 33.26174	1.0000095426	-1 11 53
1383	656,928.691	1,247,300.611	48 47 21.97996	122 27 50.82610	1.0000110354	-1 12 51
1384	654,315.659	1,247,222.597	48 46 56.18653	122 27 51.16396	1.0000095722	-1 12 51
1385	654,249.203	1,249,828.566	48 46 56.07402	122 27 12.24234	1.0000095659	-1 12 22
1456	659,141.288	1,242,074.075	48 79 51.96299	122 48 59.90351	1.0000122230	-1 13 50
1457	661,125.242	1,242,115.028	48 80 06.35144	122 48 59.97233	1.0000133540	-1 13 49
1458	663,771.351	1,242,164.723	48 80 78.88925	122 48 60.26853	1.0000148760	-1 13 49
1746	654,470.312	1,241,951.136	48 78 23.89600	122 48 60.84118	1.0000095960	-1 13 49
1885	655,730.231	1,238,506.200	48 47 08.29822	122 30 01.73422	1.0000102573	-1 14 28
2169	658,516.226	1,239,405.417	48 47 35.97329	122 29 49.20964	1.0000118358	-1 14 19
2173	660,688.814	1,239,773.561	48 47 57.48372	122 29 44.41382	1.0000130753	-1 14 16
2181	659,154.563	1,240,745.699	48 47 42.55570	122 29 29.40377	1.0000122139	-1 14 04
2188	662,523.280	1,238,433.235	48 48 15.29399	122 30 05.02188	1.0000141099	-1 14 31
2232	667,466.865	1,252,581.384	48 49 07.03384	122 26 35.27737	1.0000171582	-1 11 55
2233	667,557.099	1,249,988.300	48 49 07.38702	122 27 14.04182	1.0000171793	-1 12 24
2246	656,882.829	1,249,897.637	48 47 22.06872	122 27 12.03900	1.0000110404	-1 12 22
2261	662,160.051	1,252,524.205	48 48 14.67142	122 26 34.47322	1.0000140736	-1 11 54
2271	655,167.045	1,242,619.731	48 47 03.61723	122 29 00.14544	1.0000099921	-1 13 43
2275	662,371.896	1,244,700.794	48 48 15.13053	122 28 31.37447	1.0000141004	-1 13 21
2276	659,569.245	1,247,302.706	48 47 48.02895	122 27 51.63047	1.0000125291	-1 12 52
2319	667,653.953	1,244,774.618	48 49 07.25239	122 28 31.95532	1.0000171712	-1 13 22
2325	654,619.970	1,236,680.127	48 46 56.95452	122 30 28.63371	1.0000096155	-1 14 48
2349	659,484.087	1,252,517.071	48 47 48.27184	122 26 33.74365	1.0000125431	-1 11 54
2355	667,614.678	1,247,397.505	48 49 07.41496	122 27 52.76189	1.0000171809	-1 12 52
2431	655,622.189	1,247,261.601	48 47 09.08339	122 27 50.99509	1.0000103018	-1 12 51
2445	657,080.091	1,243,861.054	48 47 22.75122	122 28 42.22546	1.0000110794	-1 13 29
2447	657,213.583	1,239,381.795	48 47 23.11803	122 29 49.14181	1.0000111003	-1 14 19
2488	655,530.734	1,251,168.448	48 47 08.99400	122 26 52.64260	1.0000102970	-1 12 08
2788	665,397.856	1,239,342.911	48 48 43.84501	122 29 52.36561	1.0000157841	-1 14 21
3093	659,069.194	1,243,704.514	48 47 42.34024	122 28 45.19777	1.0000122015	-1 13 31
3118	664,407.636	1,238,408.928	48 48 33.87729	122 30 05.99507	1.0000151974	-1 14 32
3179	655,580.084	1,249,212.641	48 47 09.07505	122 27 21.85562	1.0000103014	-1 12 29
3230	665,114.712	1,240,868.713	48 48 41.37688	122 29 29.48483	1.0000156386	-1 14 04
3232	665,177.399	1,236,894.733	48 48 41.14626	122 30 28.86001	1.0000156251	-1 14 49
3243	673,181.528	1,237,112.605	48 50 00.15061	122 30 28.20764	1.0000203538	-1 14 48
3244	667,862.425	1,236,962.365	48 49 07.64748	122 30 28.72287	1.0000171947	-1 14 49
3678	656,469.550	1,240,731.393	48 47 16.06571	122 29 28.75352	1.0000106985	-1 14 04
3683	654,998.909	1,241,328.096	48 47 01.68492	122 29 19.37297	1.0000098828	-1 13 57
3693	660,994.768	1,247,689.904	48 48 02.17235	122 27 46.29971	1.0000133469	-1 12 48
3706	662,210.010	1,247,303.701	48 80 39.11034	122 46 45.69874	1.0000140390	-1 12 52
3707	664,964.973	1,244,737.225	48 81 13.10605	122 47 54.60237	1.0000156000	-1 13 21
3708	658,496.332	1,246,001.895	48 47 37.17245	122 28 10.71311	1.0000119046	-1 13 06
3709	663,376.913	1,239,398.713	48 48 23.92102	122 29 50.87932	1.0000146137	-1 14 20
3713	673,046.675	1,242,378.814	48 49 59.94324	122 29 09.47453	1.0000203410	-1 13 50
3714	673,144.273	1,239,744.539	48 50 00.34602	122 29 48.86836	1.0000203657	-1 14 19
3715	672,976.767	1,247,406.735	48 50 00.31217	122 27 54.32268	1.0000203636	-1 12 54
3716	673,028.716	1,244,745.009	48 50 00.26592	122 28 34.11204	1.0000203608	-1 13 23
3717	672,814.340	1,252,720.837	48 49 59.81406	122 26 34.86531	1.0000203334	-1 11 54
3718	672,914.462	1,250,071.261	48 50 00.25308	122 27 14.48819	1.0000203600	-1 12 24
3727	658,149.107	1,238,075.152	48 47 32.06757	122 30 08.95238	1.0000116119	-1 14 34
3785	655,348.205	1,243,802.904	48 47 05.65427	122 28 42.54078	1.0000101074	-1 13 29
3801	654,185.425	1,252,391.437	48 46 55.97534	122 26 33.96479	1.0000095603	-1 11 54
3802	656,730.951	1,252,474.356	48 47 21.10368	122 26 33.52187	1.0000109854	-1 11 53
3803	659,965.636	1,252,492.664	48 47 53.01727	122 26 34.25865	1.0000128170	-1 11 54
3804	662,136.132	1,252,489.617	48 48 14.42836	122 26 34.98197	1.0000140594	-1 11 54
3805	664,719.928	1,252,521.985	48 48 39.92350	122 26 35.30600	1.0000155530	-1 11 55
3806	667,491.205	1,252,545.460	48 49 07.23247	122 26 35.87749	1.0000171721	-1 11 55
3807	659,025.787	1,244,692.760	48 47 42.12030	122 28 30.42822	1.0000121889	-1 13 20
3808	672,873.434	1,252,682.234	48 49 59.60171	122 26 34.66257	1.0000203683	-1 11 54
3809	656,911.071	1,249,863.002	48 47 22.34013	122 27 12.56496	1.0000110559	-1 12 22
3810	656,967.243	1,247,274.423	48 47 22.35479	122 27 51.22928	1.0000110568	-1 12 51
3811	657,160.148	1,243,890.614	48 47 23.54719	122 28 41.60970	1.0000111248	-1 13 29
3812	654,436.831	1,241,974.058	48 46 56.27711	122 29 09.54989	1.0000095773	-1 13 50
3813	654,954.748	1,241,322.985	48 47 01.24820	122 29 19.43509	1.0000098581	-1 13 57
3814	656,039.885	1,242,030.402	48 47 12.10284	122 29 09.22279	1.0000104732	-1 13 49
3815	656,447.189	1,240,769.332	48 47 15.85319	122 29 28.17993	1.0000106864	-1 14 03
3816	657,083.577	1,242,053.282	48 47 22.40346	122 29 09.21586	1.0000110596	-1 13 49
3817	658,069.368	1,240,803.924	48 47 31.86293	122 29 28.18529	1.0000116002	-1 14 03
3818	659,072.628	1,242,028.340	48 47 42.01967	122 29 10.22612	1.0000121831	-1 13 50
3819	661,194.569	1,242,158.283	48 48 02.97957	122 29 08.96636	1.0000133937	-1 13 49
3820	662,489.841	1,242,180.472	48 48 15.76171	122 29 09.05043	1.0000141372	-1 13 49
3821	663,673.847	1,242,117.197	48 48 27.42821	122 29 10.37519	1.0000148191	-1 13 50
3822	672,971.676	1,242,312.147	48 49 59.18924	122 29 10.44667	1.0000202954	-1 13 50
3823	657,152.859	1,239,452.469	48 47 22.53409	122 29 48.06708	1.0000110670	-1 14 18
3824	654,502.725	1,238,050.149	48 46 56.09165	122 30 08.14484	1.0000095668	-1 14 33
3825	657,181.604	1,236,725.384	48 47 22.23412	122 30 28.79035	1.0000110499	-1 14 49

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

1, 12, 13, T. 38N., R. 2 E., &
5, 6, 7, 8, 17, 18, T. 38N., R. 3 E., &
36, T. 39 N., R. 2 E., &
31, 32, T. 39 N., R 3 E., W.M

AREA 2 COORDINATES & PROCEDURE NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 U.S. SURVEY FOOT ADJUSTMENT.

THE COORDINATES OF THE MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN JULY AND AUGUST OF 2005, HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "TERMINAL" (PID DH3748), "HORTON" (PID DH3746) & "FIRE4" (PID DH3747) AS FIXED CONTROL POINTS IN A FULLY CONSTRAINED SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.64.

ACHIEVED HORIZONTAL ACCURACY IS ± 2 CM AT THE 95% CONFIDENCE LEVEL.

SURVEY PROCEDURE

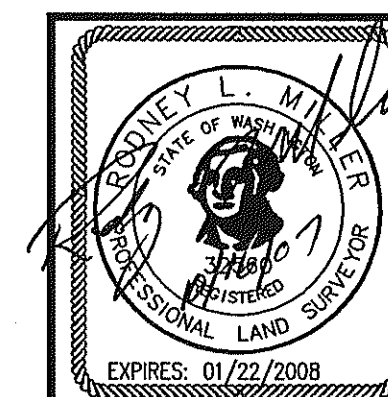
FAST STATIC GPS METHODS USING TRIMBLE 5700/R7 AND 4000SSI RECEIVERS.

DUE TO HEAVY OBSTRUCTION IN SOME AREAS SOME POINTS WERE SET USING TRADITIONAL FIELD TRAVERSE PROCEDURES AND A ONE-SECOND LIETZ SET 5 TOTAL STATION.



WILSON ENGINEERING, LLC
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 • FAX (360) 647-9061

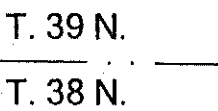
www.wilsonengineering.com



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 5 OF 19

201100244



RECORD OF SURVEY

FOR

CITY OF BELLINGHAM

DRAWN BY EAK	DATE 10/16/2007	JOB NO. 04607
CHKD BY LWS	SCALE 1" = 1320'	SHEET 6 OF 13

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK
AREA 3

MONUMENT ID	NORTHING	EASTING	LATITUDE NORTH	LONGITUDE WEST	SCALE FACTOR	CONVERGENCE ANGLE
1377*	656746.9100	1255127.7100	48 47 21.80689	122 25 53.91317	1.000011026	-1 11 24
1378	654128.1520	1255068.0280	48 46 55.96082	122 25 53.99207	1.000009559	-1 11 24
1381	656731.1520	1257691.7670	48 47 22.17510	122 25 15.62753	1.000011047	-1 10 55
1588	654043.8090	1260308.0060	48 46 56.19524	122 24 35.74541	1.000009573	-1 10 26
1591	654073.8880	1257637.7470	48 46 55.95033	122 25 15.61545	1.000009559	-1 10 55
1595*	654016.7910	1262917.4460	48 46 56.45434	122 23 56.78410	1.000009587	-1 09 57
2020	656724.7130	1260343.7490	48 47 22.64952	122 24 36.03188	1.000011074	-1 10 26
2344*	662107.8300	1255236.3800	48 48 14.71399	122 25 53.95329	1.000014076	-1 11 24
2352*	662048.6600	1257829.9100	48 48 14.65994	122 25 15.20306	1.000014073	-1 10 55
2353*	661960.5800	1263131.9400	48 48 14.86271	122 23 55.99488	1.000014085	-1 09 56
3380*	661909.9900	1265749.6100	48 48 14.88722	122 23 16.88674	1.000014086	-1 09 27
3381*	661859.9400	1268371.6900	48 48 14.91428	122 22 37.71288	1.000014088	-1 08 58
4355*	667085.8600	1268499.2700	48 49 06.49306	122 22 37.37333	1.000017126	-1 08 58
3671*	664549.1200	1268418.5800	48 48 41.45227	122 22 37.81840	1.000015643	-1 08 58
3672*	667225.9200	1263251.7800	48 49 06.82887	122 23 55.80501	1.000017146	-1 09 56
3673*	664604.3100	1263189.8900	48 48 40.95453	122 23 55.93274	1.000015614	-1 09 56
3674*	669736.5700	1288590.5900	48 49 32.66019	122 22 36.80348	1.000018692	-1 08 57
3676*	667352.9600	1257970.9700	48 49 07.01479	122 25 14.73070	1.000017157	-1 10 55
3677*	667423.8600	1255234.5900	48 49 07.15532	122 25 55.62960	1.000017165	-1 11 25
3826	659808.1540	1257079.4710	48 47 52.40473	122 25 25.71855	1.000012782	-1 11 03
3827	656756.1840	1254627.5250	48 47 21.79582	122 26 01.38367	1.000011025	-1 11 29
3828	660103.5690	1260829.8010	48 47 56.07995	122 24 29.80772	1.000012894	-1 10 21
3831	653512.9510	1262900.7350	48 46 51.48060	122 23 56.88050	1.000009307	-1 09 57
3832	654484.3650	1262916.2230	48 47 01.06672	122 23 56.94439	1.000009848	-1 09 57
3833	657923.6750	1262940.2880	48 47 35.00033	122 23 57.63007	1.000011780	-1 09 57
3835	662086.6620	1255541.5520	48 48 14.56768	122 25 49.38927	1.000014068	-1 11 21
3836	662030.7620	1258128.1830	48 48 14.54407	122 25 10.74311	1.000014066	-1 10 52
3837	661934.1630	1265558.9900	48 48 15.08768	122 23 19.74080	1.000014098	-1 09 29
3838	661974.5290	1260372.0540	48 48 14.44434	122 24 37.21568	1.000014060	-1 10 27
3839	664470.9300	1268399.7750	48 48 40.67721	122 22 38.07584	1.000015597	-1 08 58
3840	667170.2710	1265580.1870	48 49 06.74578	122 23 21.00537	1.000017141	-1 09 30
3841	669809.7080	1268575.4870	48 49 33.37870	122 22 37.05106	1.000018735	-1 08 57
3842	669973.6510	1263346.4060	48 49 33.95386	122 23 55.22647	1.000018769	-1 09 56
3843	667063.8260	1268478.4730	48 49 06.27158	122 22 37.67741	1.000017113	-1 08 58
3844	664667.8200	1263173.8730	48 48 41.57784	122 23 56.19128	1.000015651	-1 09 56
3845	667329.0480	1259167.7300	48 49 07.02208	122 24 56.84570	1.000017158	-1 10 41
3846	667434.1180	1255298.9430	48 49 07.26969	122 25 54.67146	1.000017172	-1 11 24
3847	661976.9260	1263168.0530	48 48 15.03120	122 23 55.46054	1.000014095	-1 09 56
3848	667194.6390	1263229.0190	48 49 06.51572	122 23 56.13551	1.000017127	-1 09 56
4179*	667176.5200	1265873.0900	48 49 06.86582	122 23 16.63173	1.000017148	-1 09 27
4346	658282.4080	1263749.3010	48 47 38.70148	122 23 45.65952	1.000011992	-1 09 48
3829	657198.3970	1257725.2840	48 47 25.79127	122 25 15.27106	1.000011310	-1 10 55
3834	661924.3560	1263523.3750	48 48 14.58388	122 23 50.13812	1.000014069	-1 09 52
3830	661882.1250	1268179.9630	48 48 15.09518	122 22 40.58284	1.000014098	-1 09 00
4347	667460.0540	1252296.8620	48 49 06.90791	122 26 39.52549	1.000017151	-1 11 58

* SEE SURVEYORS NOTE

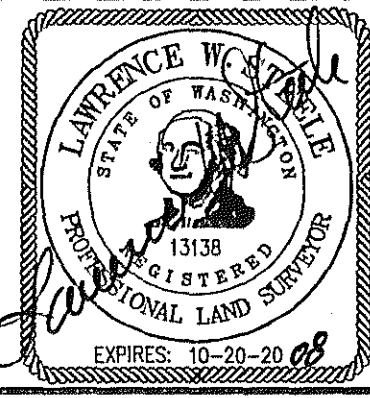
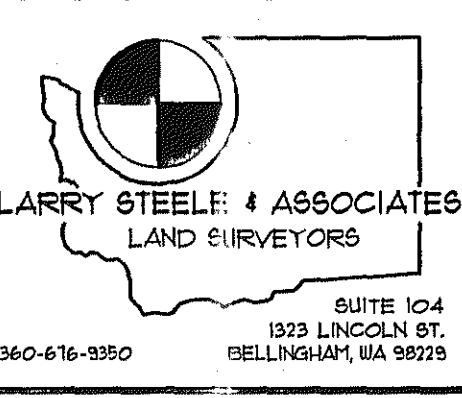
SURVEYORS NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 ADJUSTMENT. THE COORDINATES OF 30 MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN SEPTEMBER OF 2005 AND HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "FIRE4" (PID DH3747) & "BLOEDEL" (PID DH3749) AS FIXED CONTROL POINTS IN A SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.62. COORDINATES OF THE REMAINING 15 MONUMENTS VISITED BY THIS SURVEY WERE COMPUTED USING CONVENTIONAL HORIZONTAL SURVEYING TECHNIQUES BETWEEN MONUMENTS VISITED BY GPS. THE RESULTANT COORDINATES WERE THEN ENTERED INTO CORPSCON 6.0.1 TO COMPUTE THE MONUMENTS LATITUDE, LONGITUDE, SCALE FACTOR, AND CONVERGENCE ANGLE. ACHIEVED HORIZONTAL ACCURACY IS ±2CM AT THE 95% CONFIDENCE LEVEL.

EQUIPMENT

TRIMBLE 5700/R7 AND 5800/R8 RECEIVERS.
LEICA TCA 703 DIGITAL TOTAL STATION (3 SECOND)

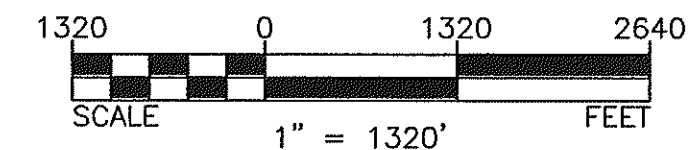


		WITHIN PORTIONS OF SECTIONS 33, 34, & 35, T. 39 N., R. 3 E., AND SECTIONS 2-4, 9-11, 14-16, T. 38 N., R. 3 E., W.M. WHATCOM COUNTY, WA.			RECORD OF SURVEY FOR CITY OF BELLINGHAM	
		DRWN BY EAK	DATE 10/16/2007	JOB NO. 04607	CHKD BY LWS	SCALE

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

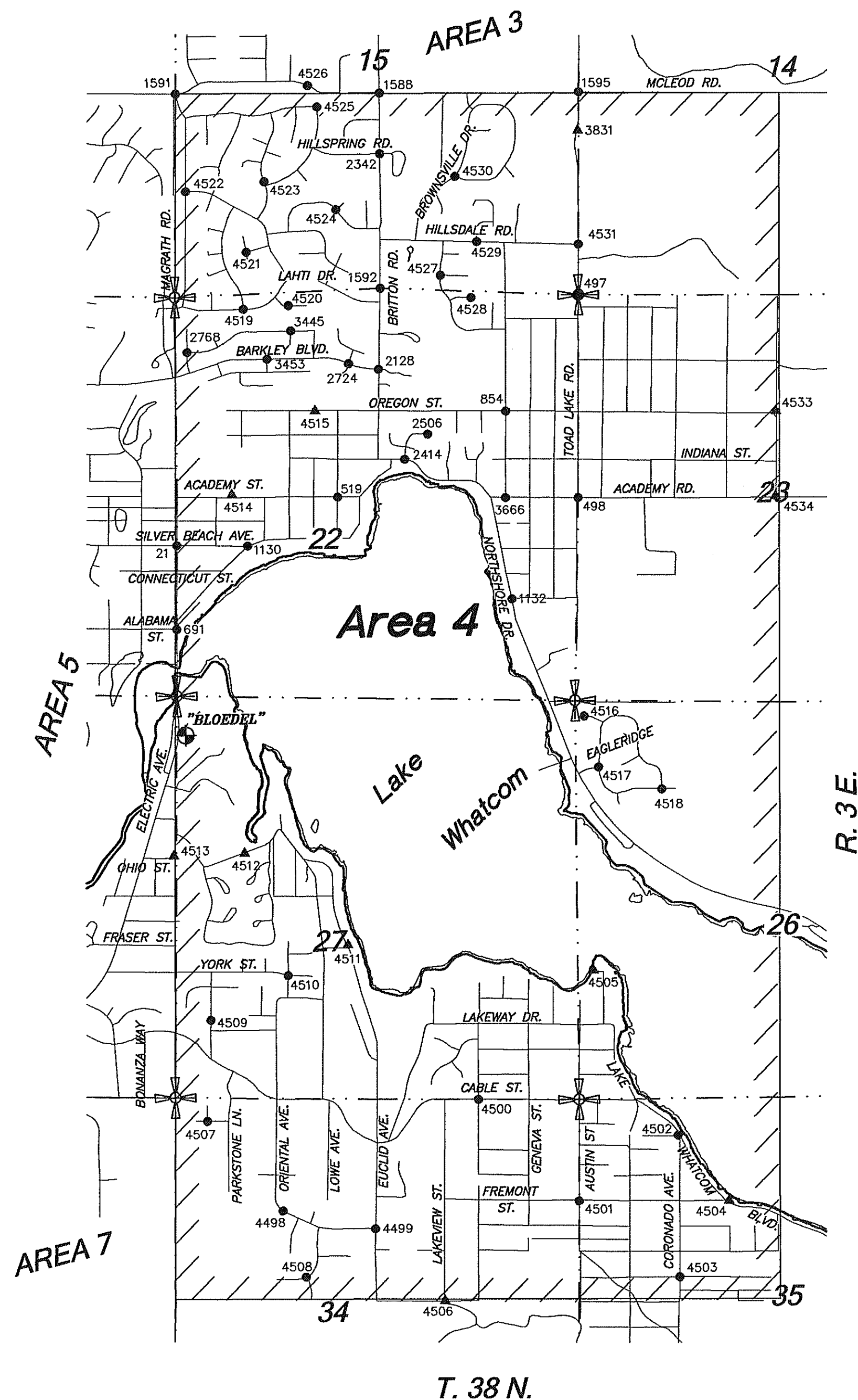
WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

15, 22, 23, 26, 27, 34, 35,
T. 38 N., R. 3 E., W.M



LEGEND:

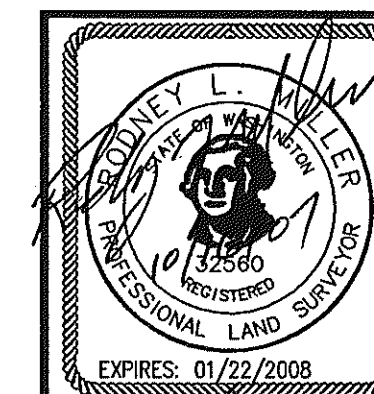
- ⊕ = COB NGS REFERENCE POINTS
- = FOUND MONUMENT
- ▲ = SET 2" ALUMINUM CAP MONUMENT
"CITY OF BELLINGHAM CONTROL"
(STAMPED W/ POINT NUMBER)



 **Wilson**
SURVEY/ENGINEERING

WILSON ENGINEERING, LLC
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 • FAX (360) 647-9061

www.wilsonengineering.com



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 8 OF 19

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

15, 22, 23, 26, 27, 34, 35,
T. 38 N., R. 3 E., W.M

AREA 4: COORDINATE TABLE

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
21	648,159.805	1,257,557.725	48 45 57.59166	122 25 14.98859	1.0000063069	-1 10 55
497	651,364.473	1,262,870.406	48 46 30.27969	122 23 56.68063	1.0000081184	-1 09 57
498	648,708.739	1,262,823.030	48 46 04.07122	122 23 56.58117	1.0000066640	-1 09 57
519	648,767.468	1,259,674.596	48 46 04.01594	122 24 43.58471	1.0000066610	-1 10 32
691	647,060.490	1,257,537.629	48 45 46.74280	122 25 14.95003	1.0000057113	-1 10 55
854	649,859.586	1,261,894.073	48 46 15.23768	122 24 10.79482	1.0000072817	-1 10 07
1130	648,140.756	1,258,483.973	48 45 57.59203	122 25 01.16041	1.0000063070	-1 10 45
1132	647,392.657	1,261,934.000	48 45 50.90930	122 24 09.44805	1.0000059397	-1 10 06
1588	654,043.809	1,260,308.006	48 46 56.19524	122 24 35.74541	1.0000095726	-1 10 26
1591	654,073.888	1,257,637.747	48 46 55.95033	122 25 15.61545	1.0000095588	-1 10 55
1592	651,494.421	1,260,277.134	48 46 31.03928	122 24 35.42654	1.0000081608	-1 10 25
1595	654,016.791	1,262,917.446	48 46 56.45434	122 23 56.78410	1.0000095873	-1 09 57
2128	650,432.499	1,260,235.906	48 46 20.55506	122 24 35.71714	1.0000075769	-1 10 26
2342	653,251.123	1,260,298.363	48 46 48.37344	122 24 35.64691	1.0000091321	-1 10 26
2414	649,250.192	1,260,560.809	48 46 08.95720	122 24 30.50680	1.0000069339	-1 10 22
2506	649,575.639	1,260,867.582	48 46 12.22968	122 24 26.02791	1.0000071150	-1 10 18
2724	650,512.569	1,259,846.695	48 46 21.26624	122 24 41.55055	1.0000076164	-1 10 30
2768	650,692.006	1,257,734.042	48 46 22.60773	122 25 13.13678	1.0000076910	-1 10 54
3445	650,954.993	1,259,095.854	48 46 25.47869	122 24 52.89245	1.0000078508	-1 10 38
3453	650,587.965	1,258,780.161	48 46 21.79392	122 24 57.49156	1.0000076457	-1 10 42
3666	648,724.007	1,261,872.114	48 46 04.03071	122 24 10.77683	1.0000066618	-1 10 07
3831	653,512.951	1,262,900.735	48 46 51.48060	122 23 56.88050	1.0000093069	-1 09 57
4498	639,424.016	1,258,798.690	48 44 31.66456	122 24 53.79015	1.0000016660	-1 10 39
4499	639,170.252	1,260,004.786	48 44 29.40532	122 24 35.72252	1.0000015464	-1 10 26
4500	640,843.051	1,261,382.576	48 44 46.18573	122 24 15.68114	1.0000024380	-1 10 11
4501	639,493.375	1,262,679.066	48 44 33.13165	122 23 55.93154	1.0000017438	-1 09 56
4502	640,335.071	1,263,993.963	48 44 41.69858	122 23 36.57292	1.0000021989	-1 09 42
4503	638,477.573	1,263,983.471	48 44 23.37194	122 23 36.16767	1.0000012274	-1 09 41
4504	639,464.795	1,264,651.083	48 44 33.24448	122 23 26.50802	1.0000017498	-1 09 34
4505	642,512.933	1,262,921.330	48 45 02.96866	122 23 53.23385	1.0000033365	-1 09 54
4506	638,210.816	1,260,901.179	48 44 20.12132	122 24 22.05961	1.0000010559	-1 10 16
4507	640,614.548	1,257,829.461	48 44 43.21250	122 25 08.61305	1.0000022795	-1 10 50
4508	638,553.222	1,259,087.596	48 44 23.13263	122 24 49.21408	1.0000012148	-1 10 36
4509	641,937.575	1,257,896.925	48 44 56.27801	122 25 08.01337	1.0000029775	-1 10 50
4510	642,506.876	1,258,918.604	48 45 02.10163	122 24 52.94658	1.0000032899	-1 10 39
4511	642,895.879	1,259,711.306	48 45 06.09973	122 24 41.23973	1.0000035048	-1 10 30
4512	644,117.066	1,258,378.643	48 45 17.87674	122 25 01.49636	1.0000041401	-1 10 45
4513	644,096.830	1,257,449.766	48 45 17.48827	122 25 15.34866	1.0000041191	-1 10 55
4514	648,814.597	1,258,290.077	48 46 04.20011	122 25 04.26098	1.0000066711	-1 10 47
4515	649,898.602	1,259,398.561	48 46 15.11871	122 24 48.05073	1.0000072751	-1 10 35
4516	645,846.527	1,262,853.572	48 45 35.84137	122 23 55.25642	1.0000051156	-1 09 56
4517	645,179.220	1,263,032.605	48 45 29.29423	122 23 52.38257	1.0000047592	-1 09 53
4518	644,878.964	1,263,855.931	48 45 26.49715	122 23 40.00708	1.0000046073	-1 09 44
4519	651,249.285	1,258,479.958	48 46 28.25690	122 25 02.17524	1.0000080056	-1 10 45
4520	651,286.793	1,259,069.138	48 46 28.74648	122 24 53.39298	1.0000080329	-1 10 39
4521	651,991.515	1,258,529.829	48 46 35.58913	122 25 01.65891	1.0000084151	-1 10 45
4522	652,796.245	1,257,747.868	48 46 43.36883	122 25 13.57822	1.0000088509	-1 10 54
4523	652,911.311	1,258,778.715	48 46 44.71343	122 24 58.22645	1.0000089264	-1 10 42
4524	652,529.519	1,259,713.379	48 46 41.13650	122 24 44.15799	1.0000087257	-1 10 32
4525	653,874.038	1,259,488.007	48 46 54.35452	122 24 47.93408	1.0000094689	-1 10 35
4526	654,155.753	1,259,369.768	48 46 57.10969	122 24 49.78549	1.0000096243	-1 10 36
4527	651,650.409	1,261,066.253	48 46 32.73744	122 24 23.69600	1.0000082557	-1 10 17
4528	651,354.226	1,261,461.460	48 46 29.89526	122 24 17.70691	1.0000080970	-1 10 12
4529	652,081.259	1,261,549.185	48 46 37.08513	122 24 16.61916	1.0000084988	-1 10 11
4530	652,939.683	1,261,277.905	48 46 45.49882	122 24 20.93018	1.0000089705	-1 10 15
4531	652,027.582	1,262,882.111	48 46 36.82365	122 23 56.70732	1.0000084841	-1 09 57
4533	649,802.852	1,265,437.850	48 46 15.38781	122 23 17.88871	1.0000072900	-1 09 28
4534	648,687.147	1,265,415.771	48 46 04.37688	122 23 17.88173	1.0000066809	-1 09 28

AREA 4 COORDINATES & PROCEDURE NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 U.S. SURVEY FOOT ADJUSTMENT.

THE COORDINATES OF THE MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN APRIL THROUGH JUNE OF 2006, HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "PARKADE" (PID DH3750), "BLOEDEL" (PID DH3749) & "FIRE4" (PID DH3747) AS FIXED CONTROL POINTS IN A FULLY CONSTRAINED SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.64.

ACHIEVED HORIZONTAL ACCURACY IS ± 2 CM AT THE 95% CONFIDENCE LEVEL.

SURVEY PROCEDURE

FAST STATIC GPS METHODS USING TRIMBLE 5700/R7 AND 4000SSI RECEIVERS.

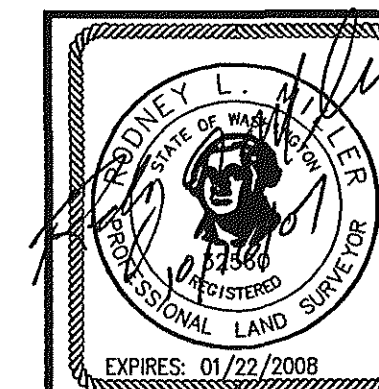
DUE TO HEAVY OBSTRUCTION IN SOME AREAS SOME POINTS WERE SET USING TRADITIONAL FIELD TRAVERSE PROCEDURES AND A ONE-SECOND LIETZ SET 5 TOTAL STATION.



Wilson
SURVEY/ENGINEERING

WILSON ENGINEERING, LLC
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 • FAX (360) 647-9061

www.wilsonengineering.com



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 9 OF 19

2011002449



 COB NGS CADASTRAL REFERENCE POINTS
 FOUND MONUMENT
 SET 2" ALUMINUM CAP MONUMENT
 "CITY OF BELLINGHAM CONTROL"
 (STAMPED W/ POINT NUMBER)



WITHIN PORTIONS OF
SECTIONS 16-18, 20, 21,
27-29, 32, & 33 T. 38 N.
R. 3 E., W.M.,
CITY OF BELLINGHAM,
WHATCOM COUNTY, WA

RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRAWN BY EAK	DATE 10/16/2007	JOB NO. 04607
CHKD BY LWS	SCALE 1" = 1320'	SHEET 10 OF 11

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK AREA 5

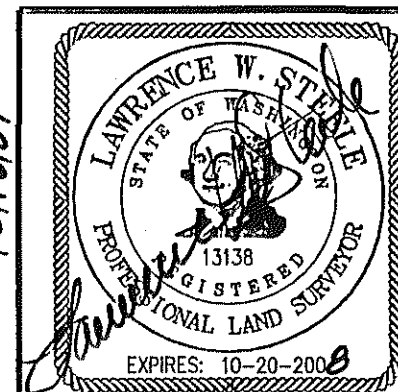
MONUMENT ID	NORTH	EAST	LATITUDE NORTH	LONGITUDE WEST	SCALE FACTOR	CONVERGENCE ANGLE
21	648159.8050	1257557.7250	48 45 57.59166	122 25 14.98859	1.000006307	-1 10 55
25	647509.4310	1257546.3400	48 45 51.17339	122 25 14.95824	1.000005954	-1 10 55
32	646284.8420	1253590.2210	48 45 38.28349	122 26 13.61182	1.000005249	-1 11 39
34	643806.1300	1246975.4630	48 45 12.45942	122 27 51.52770	1.000003848	-1 12 51
193	648903.4770	1253640.2320	48 46 04.12656	122 26 13.68002	1.000006667	-1 11 39
197	647592.4400	1253616.1190	48 45 51.18826	122 26 13.63207	1.000005955	-1 11 39
205	647652.0220	1252295.7410	48 45 51.50407	122 26 33.35374	1.000005972	-1 11 53
223	645700.0660	1254956.5130	48 45 32.79509	122 25 53.04377	1.000004950	-1 11 23
242	642944.3850	1256703.8570	48 45 05.96736	122 25 26.12192	1.000003498	-1 11 03
245	644080.2970	1257069.2560	48 45 17.24767	122 25 21.02063	1.000004106	-1 10 59
348	643042.5640	1251222.5870	48 45 05.81014	122 26 47.92548	1.000003489	-1 12 04
856	649079.4920	1250093.0900	48 46 05.13024	122 27 06.67038	1.000006723	-1 12 18
893	644837.7300	1249616.3140	48 45 23.18648	122 27 12.45264	1.000004428	-1 12 22
947	645347.2840	1248261.5810	48 45 27.93133	122 27 32.82581	1.000004685	-1 12 38
956	649139.9454	1247293.1813	48 46 05.14353	122 27 48.47350	1.000006723	-1 12 49
962	641334.1390	1247048.4050	48 44 48.08856	122 27 49.65799	1.000002540	-1 12 50
997	640667.7500	1247985.0900	48 44 41.71021	122 27 35.47524	1.000002200	-1 12 40
1235	645332.0990	1248961.5000	48 45 27.92729	122 27 22.37801	1.000004685	-1 12 30
1238	646772.7250	1248992.5510	48 45 42.14545	122 27 22.36807	1.000005460	-1 12 30
1260	647707.3640	1249713.1980	48 45 51.51542	122 27 11.90854	1.000005973	-1 12 22
1323	645117.4250	1253605.5840	48 45 26.77007	122 26 13.01955	1.000004622	-1 11 38
1378	654128.1520	1255068.0280	48 46 55.96082	122 25 53.99207	1.000009559	-1 11 24
1385	654249.2030	1249828.5660	48 46 56.07402	122 27 12.24234	1.000009566	-1 12 22
1391	647665.9710	1251637.3470	48 45 51.50573	122 26 43.18286	1.000005973	-1 12 01
1394	649045.6690	1251665.9440	48 46 05.12230	122 26 43.18744	1.000006722	-1 12 01
1402	646715.7150	1251617.7230	48 45 42.12743	122 26 43.17861	1.000005459	-1 12 01
1403	645275.2500	1251587.8970	48 45 27.91110	122 26 43.17337	1.000004684	-1 12 01
1471	651622.3950	1249759.8460	48 46 30.14658	122 27 12.44254	1.000008111	-1 12 22
1473	651499.4790	1255008.1930	48 46 30.01684	122 25 54.07016	1.000008104	-1 11 24
1591	654073.8880	1257637.7470	48 46 55.95033	122 25 15.61545	1.000009559	-1 10 55
1664	649117.3851	1248343.1703	48 46 05.14012	122 27 32.79701	1.000006723	-1 12 38
1665	647737.3546	1248313.3588	48 45 51.52002	122 27 32.80676	1.000005973	-1 12 38
2152	651653.9890	1248748.0960	48 46 30.24783	122 27 27.55327	1.000008117	-1 12 34
2260	650142.8830	1251687.5370	48 46 15.95072	122 26 43.20823	1.000007321	-1 12 01
2295	648871.2520	1254958.4270	48 46 04.07925	122 25 53.99809	1.000006664	-1 11 24
2357	640971.0523	1255511.1927	48 44 46.25671	122 25 43.30449	1.000002442	-1 11 16
2521	649383.6760	1256439.4110	48 46 09.43721	122 25 32.05499	1.000006961	-1 11 08
2589	650172.2100	1250326.5080	48 46 15.95825	122 27 03.52982	1.000007322	-1 12 16
2712	651277.2290	1257432.0140	48 46 28.31948	122 25 17.82483	1.000008009	-1 10 57
3251	646078.6280	1254903.5990	48 45 36.51878	122 25 53.95063	1.000005153	-1 11 24
3282	643427.0810	1247860.5480	48 45 08.90497	122 27 38.20345	1.000003656	-1 12 42
3873	650209.5520	1248716.9350	48 46 15.99212	122 27 27.56325	1.000007324	-1 12 34
3890	646787.4600	1248292.8140	48 45 42.14509	122 27 32.81383	1.000005460	-1 12 38
3922	643719.9270	1248661.8580	48 45 11.96090	122 27 26.34109	1.000003821	-1 12 33
3976	649707.2680	1255785.2450	48 46 12.49579	122 25 41.91776	1.000007130	-1 11 15
4073	648571.2180	1252314.2770	48 46 00.57574	122 26 33.36401	1.000006471	-1 11 53
4166	640880.3370	1253372.6320	48 44 44.92316	122 26 15.17725	1.000002371	-1 11 40
4176	640557.8781	1254014.8202	48 44 41.87406	122 26 05.49766	1.000002208	-1 11 33
4283	654098.8320	1256453.2460	48 46 55.95493	122 25 33.30496	1.000009559	-1 11 09
4481	641825.1530	1255448.3500	48 44 54.66962	122 25 44.50613	1.000002891	-1 11 17
4482	641716.5220	1251579.0150	48 44 52.80240	122 26 42.19370	1.000002791	-1 12 00
4483	640669.0410	1248895.0570	48 44 41.91248	122 27 21.90205	1.000002210	-1 12 29
4484	651108.9800	1255830.6030	48 46 26.33293	122 25 41.67445	1.000007898	-1 11 15
4485	652181.2060	1255967.3190	48 46 36.93636	122 25 39.96553	1.000006491	-1 11 14
4490	645607.2180	1252268.9940	48 45 31.32660	122 26 33.11471	1.000004870	-1 11 53
4496	644744.6960	1251561.0100	48 45 22.67164	122 26 43.40869	1.000004400	-1 12 01

COORDINATES & PROCEDURE NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 ADJUSTMENT. THE COORDINATES OF THE 56 MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN JANUARY AND FEBRUARY OF 2006, HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "BLOEDEL" (PID DH3749) & "PARKADE" (PID DH3750) AS FIXED CONTROL POINTS IN A FULLY CONSTRAINED SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.62. ACHIEVED HORIZONTAL ACCURACY IS ± 2 CM AT THE 95% CONFIDENCE LEVEL.

EQUIPMENT

TRIMBLE 5700/R7 AND 5800/R8 RECEIVERS.



WITHIN PORTIONS OF
SECTIONS 16-18, 20, 21,
27-29, 32, & 33 T. 38 N.,
R. 3 E., W.M.,
CITY OF BELLINGHAM,
WHATCOM COUNTY, WA.

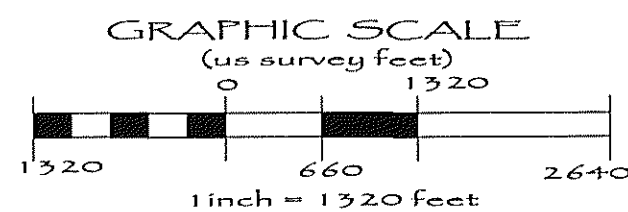
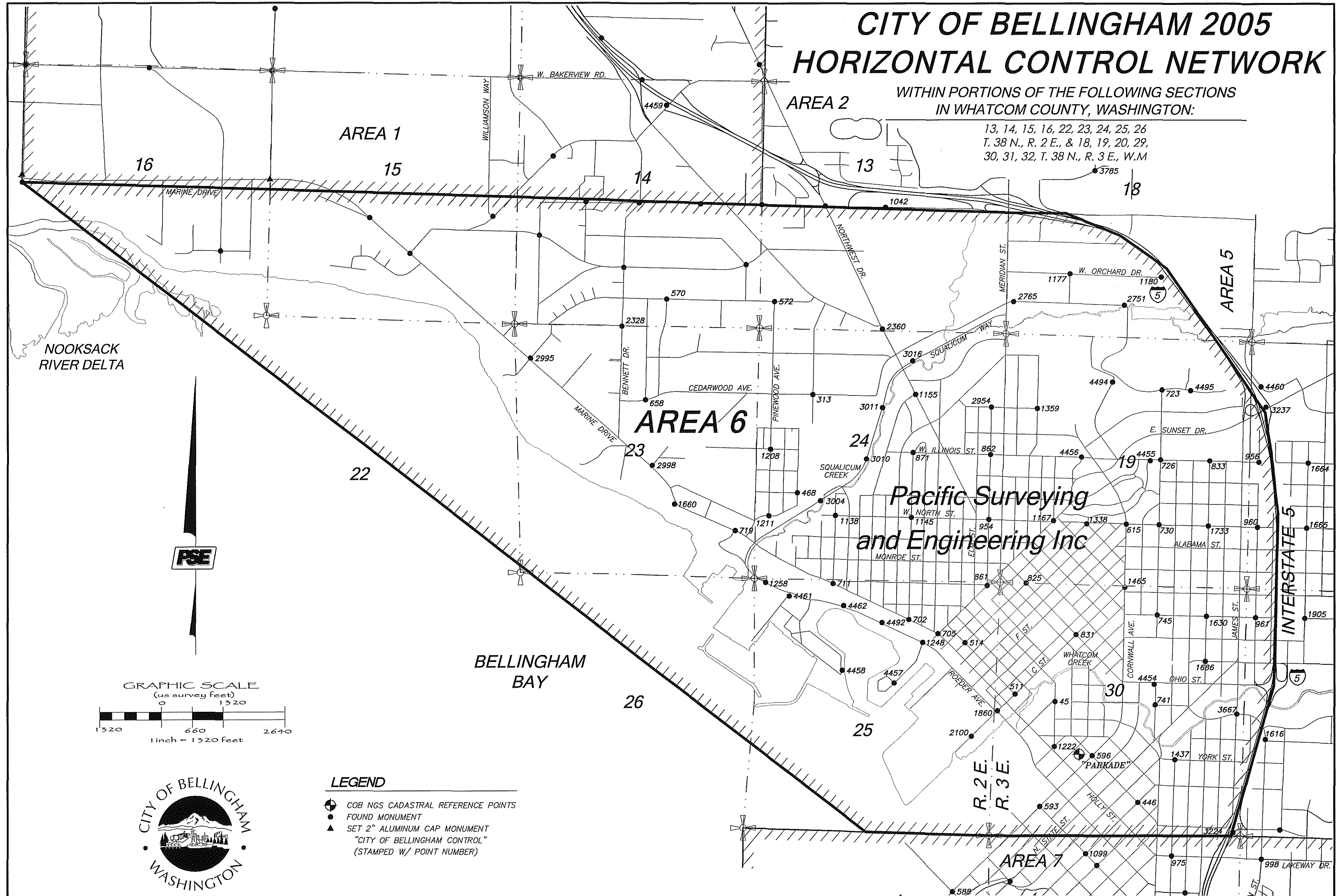
RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRAWN BY EAK	DATE 10/16/2007	JOB NO. 04607
CHKD BY LWS	SCALE 1" = 1320'	SHEET 11 OF 13

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

13, 14, 15, 16, 22, 23, 24, 25, 26
T. 38 N., R. 2 E., & 18, 19, 20, 29,
30, 31, 32, T. 38 N., R. 3 E., W.M



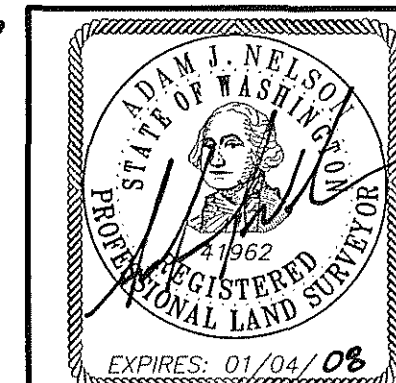
LEGEND

- COB NGS CADASTRAL REFERENCE POINTS
- FOUND MONUMENT
- ▲ SET 2" ALUMINUM CAP MONUMENT
"CITY OF BELLINGHAM CONTROL"
(STAMPED W/ POINT NUMBER)



PACIFIC SURVEY & ENGINEERING INC EMAIL: pse@psurvey.com
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685 www.psurvey.com

10/16/07



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY JVD	DATE 10/16/2007	JOB NO. 2003183
CHKD BY AJN, PKB	SCALE 1" = 1320'	SHEET 12 OF 19

AREA 6:
COORDINATE TABLE

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
45	644043.8274	1242943.4541	48°45'13.95685"	122°28'51.75711"	1.000003928	- 1°13'36"
313	650578.6646	1237775.6752	48°46'17.32302"	122°30'10.97089"	1.000007397	- 1°14'35"
446	641890.1158	1244713.8006	48°44'53.08378"	122°28'24.66014"	1.000002806	- 1°13'16"
468	648478.2953	1237441.7382	48°45'56.53181"	122°30'15.27392"	1.000006249	- 1°14'38"
511	644207.5836	1242092.2884	48°45'15.39229"	122°29'04.50816"	1.000004006	- 1°13'46"
514	645304.7255	1241025.4279	48°45'25.98930"	122°29'20.77708"	1.000004580	- 1°13'58"
570	652600.1304	1234642.5759	48°46'36.59093"	122°30'58.38947"	1.000008471	- 1°15'11"
572	652555.1854	1236951.2912	48°46'36.64427"	122°30'23.91562"	1.000008474	- 1°14'45"
588	639988.1596	1240757.7416	48°44'33.48509"	122°29'23.06336"	1.000001763	- 1°13'60"
593	641803.6004	1242619.5688	48°44'51.78876"	122°28'55.87298"	1.000002737	- 1°13'39"
596	642892.5357	1243736.9793	48°45'02.76692"	122°28'39.55135"	1.000003326	- 1°13'27"
615	647819.9912	1244464.0397	48°45'51.52895"	122°28'30.27334"	1.000005974	- 1°13'20"
658	650465.4142	1234191.1472	48°46'15.43509"	122°31'04.42979"	1.000007293	- 1°15'15"
702	645796.6460	1239822.0838	48°45'30.58619"	122°29'38.88943"	1.000004829	- 1°14'11"
705	645499.0277	1240450.4854	48°45'27.78392"	122°29'29.41772"	1.000004677	- 1°14'04"
711	646559.5269	1238203.6190	48°45'37.76657"	122°30'03.28422"	1.000005221	- 1°14'30"
719	647678.0833	1236107.4385	48°45'48.35158"	122°30'34.92478"	1.000005799	- 1°14'53"
723	650684.8271	1245226.2875	48°46'19.95048"	122°28'19.80944"	1.000007543	- 1°13'13"
726	649184.7355	1245194.0788	48°46'05.14551"	122°28'19.81330"	1.000006723	- 1°13'13"
730	647804.9671	1245163.8325	48°45'51.52790"	122°28'19.82611"	1.000005974	- 1°13'13"
741	643975.6186	1245080.9045	48°45'13.73430"	122°28'19.84651"	1.000003916	- 1°13'13"
745	645895.5040	1245122.4748	48°45'32.68255"	122°28'19.83638"	1.000004944	- 1°13'13"
825	646573.7335	1242329.9712	48°45'38.78439"	122°29'01.71933"	1.000005276	- 1°14'44"
831	645477.2098	1243397.1308	48°45'28.19281"	122°28'45.44610"	1.000004699	- 1°13'32"
833	649162.2173	1246243.5232	48°46'05.14357"	122°28'04.14495"	1.000006723	- 1°13'01"
861	646516.8441	1241496.9981	48°45'38.04674"	122°29'14.12996"	1.000005236	- 1°13'53"
862	649293.9567	1241566.5728	48°46'05.45729"	122°29'13.98250"	1.000006741	- 1°13'53"
871	649336.9081	1239911.7138	48°46'05.52937"	122°29'38.69221"	1.000006744	- 1°14'11"
954	647914.0060	1241532.0749	48°45'51.83697"	122°29'14.05468"	1.000005991	- 1°13'53"
956	649139.9454	1247293.1813	48°46'05.14353"	122°27'48.47350"	1.000006723	- 1°12'49"
960	647760.1044	1247263.4714	48°45'51.52532"	122°27'48.48062"	1.000005974	- 1°12'49"
961	645849.9932	1247222.2412	48°45'32.67360"	122°27'48.49200"	1.000004943	- 1°12'49"
975	640754.4860	1245429.8850	48°44'42.03128"	122°28'13.61755"	1.000002217	- 1°13'08"
998	640689.1363	1247345.3448	48°44'41.78767"	122°27'45.02480"	1.000002204	- 1°12'47"
1042	654568.6240	1239328.6548	48°46'57.01487"	122°29'49.08139"	1.000009619	- 1°14'19"
1099	640801.1637	1243596.7166	48°44'42.10609"	122°28'40.97692"	1.000002221	- 1°13'28"
1138	647997.0083	1238253.5664	48°45'51.95774"	122°30'03.00378"	1.000005997	- 1°14'29"
1145	647956.5811	1239876.8930	48°45'51.90527"	122°29'38.76724"	1.000005994	- 1°14'11"
1155	650581.5106	1239973.1754	48°46'17.82022"	122°29'38.17585"	1.000007425	- 1°14'11"
1167	647892.3625	1242911.4926	48°45'51.91545"	122°28'53.46383"	1.000005995	- 1°13'38"
1177	653147.7078	1243265.8944	48°46'43.83346"	122°28'49.85416"	1.000008877	- 1°13'35"
1180	653079.4146	1245213.2031	48°46'43.56998"	122°28'20.76602"	1.000008862	- 1°13'13"
1208	649412.6267	1236864.9377	48°46'05.62514	122°30'24.18443"	1.000006750	- 1°14'45"
1211	647994.1853	1236829.4699	48°45'51.62490"	122°30'24.25336"	1.000007295	- 1°13'42"
1222	643084.4283	1242930.7928	48°45'04.48979"	122°28'51.63950"	1.000003418	- 1°13'36"
1248	645307.2348	1240123.2210	48°45'25.82231"	122°29'34.23885"	1.000004571	- 1°14'08"
1258	646580.9441	1236762.6146	48°45'37.66921"	122°30'24.79230"	1.000005215	- 1°14'46"
1338	647829.1221	1243620.1103	48°45'51.44120"	122°28'42.86951"	1.000005969	- 1°13'30"
1359	650287.2703	1242569.2081	48°46'15.46850"	122°28'59.33772"	1.000007295	- 1°13'42"
1437	642807.9466	1245501.0467	48°45'02.30351"	122°28'13.20773"	1.000003301	- 1°13'08"
1465	646486.6865	1244435.0704	48°45'38.36994"	122°28'30.28111"	1.000005254	- 1°13'20"
1616	643240.8042	1247432.8521	48°45'06.97809"	122°27'44.52532"	1.000003552	- 1°12'46"
1630	645872.6250	1246172.0864	48°45'32.67709"	122°28'04.16821"	1.000004943	- 1°13'01"
1660	648231.9814	1234810.8075	48°45'53.53654"	122°30'54.45346"	1.000006084	- 1°15'08"
1664	649117.3851	1248343.1703	48°46'05.14012"	122°27'32.79701"	1.000006723	- 1°12'38"
1665	647737.3546	1248313.3588	48°45'51.52002"	122°27'32.80676"	1.000005973	- 1°12'38"
1686	644912.7905	1246151.5314	48°45'23.20408"	122°28'04.17068"	1.000004429	- 1°13'01"
1733	647782.3809	1246213.5236	48°45'51.52535"	122°28'04.15523"	1.000005974	- 1°13'01"
1860	643845.1349	1241719.8032	48°45'11.73788"	122°29'09.94919"	1.000003809	- 1°13'50"
1905	645827.2354	1248272.0403	48°45'32.66820"	122°27'32.82107"	1.000004943	- 1°12'38"
2100	643300.5262	1241160.3128	48°45'06.24674"	122°29'18.12140"	1.000003513	- 1°13'56"
2328	652024.5168	1233687.0732	48°46'30.70627"	122°31'12.46265"	1.000008142	- 1°15'21"
2360	651969.8534	1239262.4469	48°46'31.36448"	122°29'49.23093"	1.000008179	- 1°14'19"
2751	652479.9884	1244422.7346	48°46'37.49046"	122°28'32.37391"	1.000008521	- 1°13'22"
2765	652557.8774	1242060.4377	48°46'37.75994"	122°29'07.65827"	1.000008537	- 1°13'48"
2954	650313.1288	1241589.4770	48°46'15.51610"	122°29'13.96762"	1.000007297	- 1°13'53"
2995	651342.1675	1231722.0712	48°46'23.54913"	122°31'41.56629"	1.000007743	- 1°15'43"
2998	649056.3612	1234329.4484	48°46'01.56500"	122°31'01.90559"	1.000006526	- 1°15'13"
3004	648308.6078	1237936.2794	48°45'54.96375"	122°30'07.83922"	1.000006162	- 1°14'33"
3010	649200.1343	1238916.2531	48°46'03.96791"	122°29'53.60354"	1.000006658	- 1°14'23"
3011	650302.4990	1239263.4830	48°46'14.91660"	122°29'48.67744"	1.000007263	- 1°14'19"
3016	651294.6393	1239908.0145	48°46'24.84122"	122°29'39.37807"	1.000007815	- 1°14'12"
3224	641256.5912	1246743.6440	48°44'47.25982"	122°27'54.17960"	1.000002495	- 1°12'53"
3237	650321.3698	1247448.2207	48°46'16.83056"	122°27'46.53319"	1.000007370	- 1°12'48"
3667	643783.6647	1246827.8444	48°45'12.20692"	122°27'53.72292"	1.000003833	- 1°12'53"
3785	655348.2052	1243802.9044	48°47'05.65427"	122°28'42.54078"	1.000010107	- 1°13'29"
4454	644415.0576	1245059.2057	48°45'18.06477"	122°28'20.30988"	1.000004150	- 1°13'13"
4455	649165.2405	1244973.1270	48°46'04.90676"	122°28'23.10443"	1.000006710	- 1°13'15"
4456	649242.9565	1243507.1748	48°46'05.36466"	122°28'45.00602"	1.000006735	- 1°13'31"
4457	644441.9927	1239508.9746	48°45'17.15604"	122°29'43.12457"	1.000004101	- 1°14'15"
4458	644712.8934	1238401.1764	48°45'19.59206"	122°29'59.73967"	1.000004233	- 1°14'27"
4459	656743.2745	1234645.3268	48°47'17.46241"	122°30'59.70122"	1.000010778	- 1°15'12"
4460	650755.9201	1247337.5726	48°46'21.09422"	122°27'48.32193"	1.000007607	- 1°12'49"
4461	646293.4512	1237267.1418	48°45'34.94133"	122°30'17.17110"	1.000005067	- 1°14'40"
4462	646090.3087	1238429.5851	48°45'33.18611"	122°29'59.76094"	1.000004971	- 1°14'27"
4492	645734.8672	1239248.7333	48°45'29.85458"	122°29'47.42412"	1.000004790	- 1°14'18"
4494	650850.3778	1244170.7648	48°46'21.36154"	122°28'35.61535"	1.000007622	- 1°13'24"
4495	650669.9613	1245841.8935	48°46'19.93308"	122°28'10.61709"	1.000007542	- 1°13'06"

CITY OF BELLINGHAM 2005
HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

13, 14, 15, 16, 22, 23, 24, 25, 26
T. 38 N., R. 2 E., & 18, 19, 20, 29,
30, 31, 32, T. 38 N., R. 3 E., W.M

AREA 6:
HORIZONTAL CONTROL: NAD83/98
WASHINGTON STATE PLANE, NORTH ZONE

DURING THE MONTHS OF JANUARY AND FEBRUARY 2006, PACIFIC SURVEYING & ENGINEERING USED FAST STATIC GPS METHODS TO LOCATE 88 EXISTING MONUMENTS. THE DATA WAS SIMULTANEOUSLY ADJUSTED AS ONE NETWORK.

HORIZONTALLY, FIRST ORDER NATIONAL GEODETIC SURVEY CONTROL MONUMENTS, "TERMINAL" (PID # DH3748), "HORTON" (PID # DH3746) AND "FIRE4" (PID # DH3747). FIXING "TERMINAL" THE UNCONSTRAINED NETWORK CLOSURE OF THE CONTROL POINTS RESULTED IN ERROR ELLIPSES OF LESS THAN 18MM (0.06 FEET). A CONSTRAINED LEAST SQUARES ADJUSTMENT WAS MADE FIXING ALL THREE MONUMENTS. THE NAD83\98 ADJUSTMENT YIELDED TWO SIGMA (95%) STATION CONFIDENCE LEVEL OF LESS THAN 22 MM (.07 FEET)

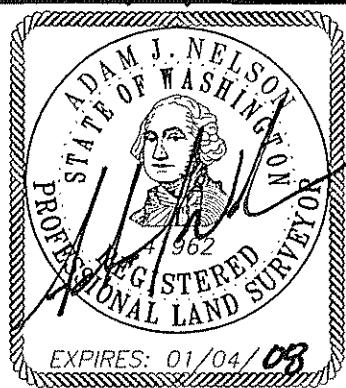
FAST STATIC FIELD OBSERVATIONS WERE COLLECTED WITH FOUR TOPCON HYPERLITE GPS RECEIVERS. THE POINTS AND VECTORS WERE PROCESSED USING TOPCON PINNACLE SOFTWARE VERSION 1.01. ALL POINTS WERE OCCUPIED FOR A MINIMUM OF TWO TIMES FOR FIFTEEN MINUTES. DATA WAS RECORDED AT FIVE SECOND INTERVALS. INTERNATIONAL GEODETIC SURVEY RAPID EPHEMERIS DATA WAS USED IN THE SOLUTION.

COORDINATES SHOWN ARE STATE PLANE COORDINATES IN US SURVEY FEET.



PACIFIC SURVEY & ENGINEERING INC
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE:671.7387 FAX:671.4685

EMAIL: pse@psurvey.com
www.psurvey.com



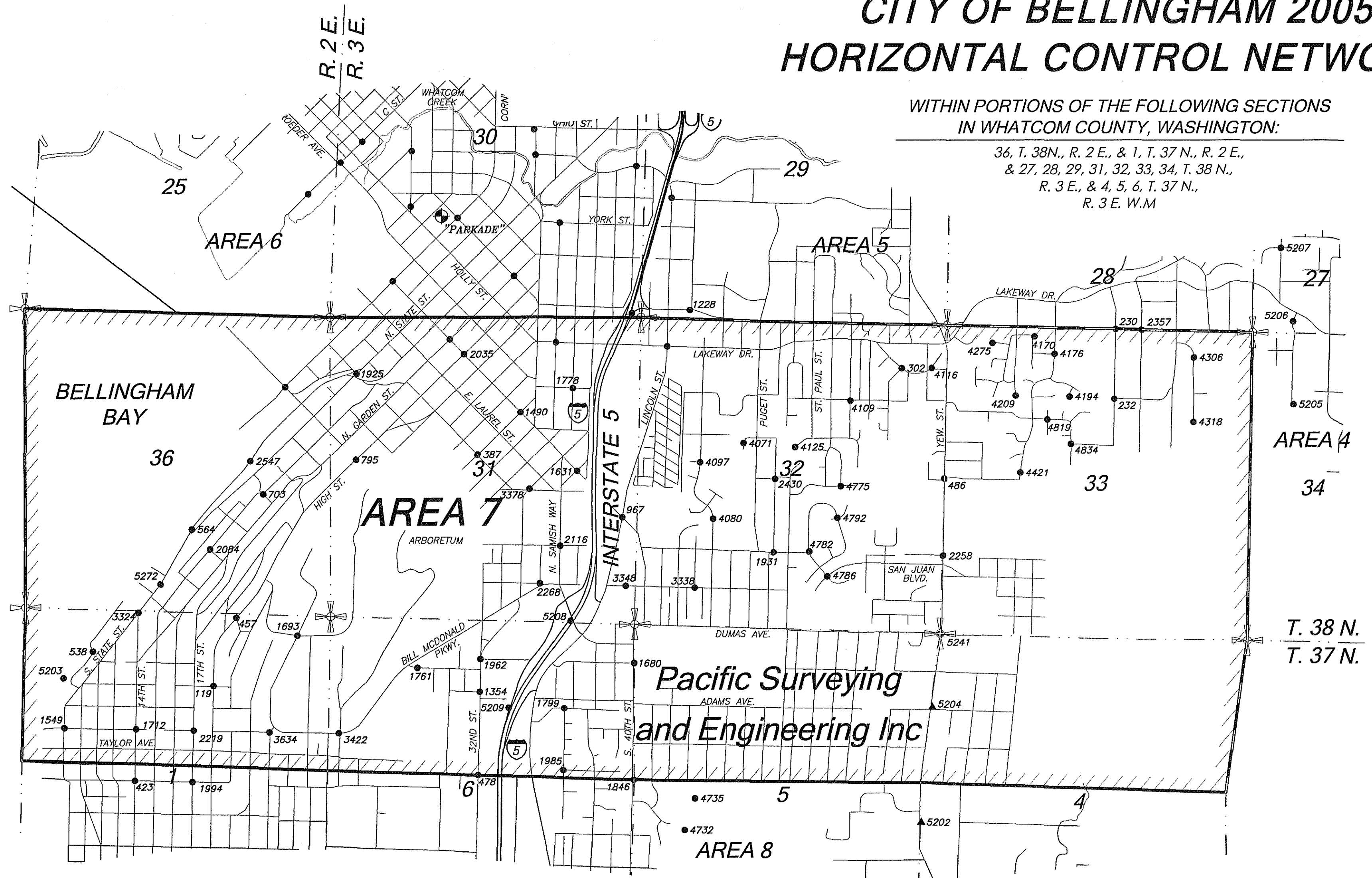
RECORD OF SURVEY
FOR
CITY OF BELLINGHAM

DRWN BY JVD	DATE 10/16/2007	JOB NO. 2003183
CHKD BY AJN, PKB	SCALE 1" = 1320'	SHEET 13 OF 19

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

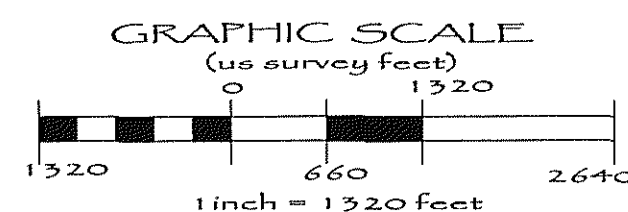
WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

36, T. 38 N., R. 2 E., & 1, T. 37 N., R. 2 E.,
& 27, 28, 29, 31, 32, 33, 34, T. 38 N.,
R. 3 E., & 4, 5, 6, T. 37 N.,
R. 3 E. W.M



Pacific Surveying
and Engineering Inc

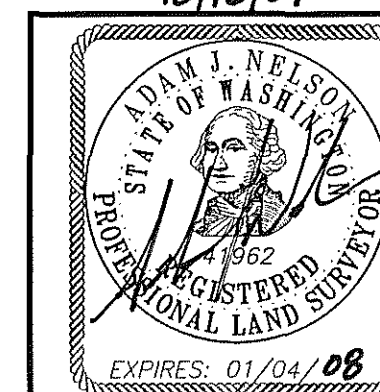
PSE



LEGEND

- COB NGS CADASTRAL REFERENCE POINTS
- FOUND MONUMENT
- ▲ SET 2" ALUMINUM CAP MONUMENT
"CITY OF BELLINGHAM CONTROL"
(STAMPED W/ POINT NUMBER)

10/16/07



RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY JVD	DATE 10/16/2007	JOB NO. 2003183
CHKD BY AJN, PKB	SCALE 1" = 1320'	SHEET 14 OF 19



PACIFIC SURVEY & ENGINEERING INC EMAIL: pse@psurvey.com
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685 www.psesurvey.com

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

AREA 7: COORDINATE TABLE

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
119	634865.2159	1239513.4148	48°43'42.68293"	122°29'39.97381"	0.999999099	- 1°14'12"
230	640981.3520	1255066.1286	48°44'46.26723"	122°25'49.94673"	1.000002442	- 1°11'21"
232	639781.6684	1255041.3779	48°44'34.42719"	122°25'49.94446"	1.000001812	- 1°11'21"
302	640308.7475	1251393.4500	48°44'38.87631"	122°26'44.52181"	1.000002049	- 1°12'02"
387	638823.2977	1244073.5518	48°44'22.69501"	122°28'33.23439"	1.000001192	- 1°13'23"
423	633232.9522	1238158.7781	48°43'26.29175"	122°29'59.64643"	0.999998253	- 1°14'27"
457	636029.9663	1239907.3793	48°43'54.25701"	122°29'34.47377"	0.999999700	- 1°14'08"
478	633328.4932	1244074.9160	48°43'28.48906"	122°28'31.46506"	0.999998366	- 1°13'21"
486	638408.3739	1252121.6901	48°44'20.27942"	122°26'33.06626"	1.000001064	- 1°11'53"
538	635457.3567	1237440.2587	48°43'48.08171"	122°30'11.07946"	0.999999379	- 1°14'35"
564	637539.3158	1239141.6443	48°44'08.98356"	122°29'46.37927"	1.000000470	- 1°14'17"
703	638144.9142	1240376.1966	48°44'15.22055"	122°29'28.16203"	1.000000798	- 1°14'03"
795	638734.8523	1241979.7677	48°44'21.38041"	122°29'04.43469"	1.000001122	- 1°13'46"
967	637748.7696	1246571.6283	48°44'12.61920"	122°27'55.63564"	1.000000661	- 1°12'55"
1228	641310.5697	1247743.4730	48°44'48.00122"	122°27'39.28217"	1.000002535	- 1°12'42"
1354	634762.5855	1244107.7564	48°43'42.64333"	122°28'31.43172"	0.999999097	- 1°13'21"
1490	639548.3014	1244817.6979	48°44'30.00372"	122°28'22.36589"	1.000001578	- 1°13'14"
1549	634148.8392	1236943.6546	48°43'35.06690"	122°30'18.06090"	0.999998705	- 1°14'41"
1631	638545.5250	1245795.1400	48°44'20.31655"	122°28'07.46888"	1.000001066	- 1°13'05"
1680	635253.1928	1246774.4484	48°43'48.04271"	122°27'51.82178"	0.999999377	- 1°12'52"
1693	635727.1844	1240958.4845	48°43'51.49343"	122°29'18.70195"	0.999999556	- 1°13'56"
1712	634122.9670	1238177.5964	48°43'35.07573"	122°29'59.65327"	0.999998705	- 1°14'27"
1761	635172.1740	1243033.5136	48°43'46.45745"	122°28'47.58118"	0.999999295	- 1°13'33"
1778	639967.8956	1245723.0004	48°44'34.33309"	122°28'08.99584"	1.000001808	- 1°13'05"
1799	634482.1030	1245565.7152	48°43'40.18273"	122°28'09.60212"	0.999998969	- 1°13'05"
1846	633245.2940	1246764.9712	48°43'28.23271"	122°27'51.32845"	0.999998352	- 1°12'51"
1925	640212.8550	1241990.7457	48°44'35.96314"	122°29'04.74405"	1.000001894	- 1°13'46"
1931	637150.8015	1249176.6756	48°44'07.26353"	122°27'16.59548"	1.000000380	- 1°12'26"
1962	635323.6339	1244120.4497	48°43'26.29582"	122°29'44.88084"	0.999998253	- 1°14'16"
1985	633412.9876	1245551.4816	48°43'29.63289"	122°28'09.47541"	0.999998425	- 1°13'05"
1994	633211.9521	1239148.6203	48°43'26.29582"	122°29'44.88084"	0.999998253	- 1°14'16"
2035	640550.5456	1243840.9590	48°44'39.68525"	122°28'37.25382"	1.000002092	- 1°13'26"
2084	637198.6290	1239453.2893	48°44'05.68912"	122°29'41.62175"	1.000000298	- 1°14'13"
2116	637259.1222	1245496.9906	48°44'07.56365"	122°28'11.50764"	1.000000396	- 1°13'06"
2219	634102.0973	1239167.4981	48°43'35.08111"	122°29'44.88613"	0.999998706	- 1°14'16"
2258	637088.0514	1252094.8241	48°44'07.24881"	122°26'33.05513"	1.000000379	- 1°11'53"
2268	636613.0929	1245147.3223	48°44'01.11718"	122°28'16.51741"	1.000000058	- 1°13'10"
2357	640971.0523	1255511.1927	48°44'46.25671"	122°25'43.30449"	1.000002442	- 1°11'16"
2430	638409.7536	1249209.5486	48°44'19.68997"	122°27'16.50083"	1.000001033	- 1°12'25"
2547	638708.9846	1240156.9287	48°44'20.73845"	122°29'31.61362"	1.000001088	- 1°14'06"
3324	636116.8140	1238219.5114	48°43'54.75387"	122°29'59.67222"	0.999999726	- 1°14'27"
3338	636546.2975	1247819.0504	48°44'01.01739"	122°27'36.65217"	1.000000053	- 1°12'40"
3348	636577.0108	1246629.5388	48°44'01.07190"	122°27'54.40134"	1.000000056	- 1°12'54"
3378	638231.5622	1244971.0222	48°44'17.04634"	122°28'19.66067"	1.000000894	- 1°13'12"
3422	634049.1321	1241671.9415	48°43'35.09074"	122°29'07.52532"	0.999998706	- 1°13'48"
3634	634070.1249	1240476.9425	48°43'35.04434"	122°29'25.35071"	0.999998704	- 1°14'01"
4071	639023.2516	1248662.1342	48°44'25.62828"	122°27'24.85847"	1.000001347	- 1°12'32"
4080	637725.0525	1248137.2296	48°44'12.71219"	122°27'32.27847"	1.000000666	- 1°12'37"
4097	638695.4811	1247918.0182	48°44'22.23978"	122°27'35.85380"	1.000001168	- 1°12'40"
4109	639754.3304	1250504.9676	48°44'33.22309"	122°26'57.60107"	1.000001749	- 1°12'11"
4116	640310.4811	1251908.1608	48°44'38.99974"	122°26'36.84472"	1.000002055	- 1°11'56"
4125	638955.7579	1249549.3782	48°44'25.14693"	122°27'11.60378"	1.000001321	- 1°12'22"
4170	640853.5362	1253671.7052	48°44'44.72026"	122°26'10.70767"	1.000002360	- 1°11'36"
4176	640557.8781	1254014.8202	48°44'41.87406"	122°26'05.49766"	1.000002208	- 1°11'33"
4194	639820.1638	1254274.6626	48°44'34.64979"	122°26'01.39279"	1.000001824	- 1°11'30"
4209	639836.7192	1253348.3408	48°44'34.62282"	122°26'15.21503"	1.000001823	- 1°11'40"
4275	640743.7720	1252948.6168	48°44'43.48869"	122°26'21.45973"	1.000002294	- 1°11'44"
4306	640492.1732	1256408.6263	48°44'41.71587"	122°25'29.76964"	1.000002200	- 1°11'06"
4318	639384.2429	1256398.5758	48°44'30.78398"	122°25'29.57773"	1.000001619	- 1°11'06"
4421	638513.4323	1253428.4816	48°44'21.58498"	122°26'13.60824"	1.000001133	- 1°11'39"
4732	632383.7271	1247636.6459	48°43'19.91578"	122°27'38.02978"	0.999997925	- 1°12'41"
4735	632925.4606	1247818.0892	48°43'25.29745"	122°27'35.52503"	0.999998201	- 1°12'40"
4775	638280.3106	1250338.3569	48°44'18.64731"	122°26'59.62430"	1.000000978	- 1°12'13"
4782	637163.0365	1249790.6989	48°44'07.51176"	122°27'07.44190"	1.000000393	- 1°12'19"
4786	636738.7918	1250103.5617	48°44'03.39147"	122°27'02.64293"	1.000000177	- 1°12'15"
4792	637736.4001	1250277.5518	48°44'13.26900"	122°27'00.36074"	1.000000695	- 1°12'13"
4819	639431.0782	1253891.3681	48°44'30.73275"	122°26'06.98922"	1.000001617	- 1°11'34"
4834	639008.3261	1254292.9205	48°44'26.64470"	122°26'00.86861"	1.000001400	- 1°11'29"
5202	632514.1721	1251713.2907	48°43'22.04830"	122°26'37.31762"	0.999998035	- 1°11'56"
5203	635007.4897	1236933.2281	48°43'43.53519"	122°30'18.49455"	0.999999140	- 1°14'41"
5204	634500.2858	1251908.7427	48°43'41.68187"	122°26'35.02293"	0.999999047	- 1°11'55"
5205	639690.1891	1258118.8493	48°44'34.15242"	122°25'04.01236"	1.000001798	- 1°10'47"
5206	641114.7858	1258113.8270	48°44'48.20520"	122°25'04.52487"	1.000002546	- 1°10'47"
5207	642372.2141	1257906.1882	48°45'00.56765"	122°25'08.00880"	1.000003208	- 1°10'50"
5208	635979.6595	1245677.3077	48°43'54.97957"	122°28'08.41281"	0.999997400	- 1°13'04"
5209	634486.1210	1244606.1959	48°43'40.02087"	122°28'23.91127"	0.999998961	- 1°13'16"
5241	635757.2779	1252041.2539	48°43'54.10956"	122°26'33.43898"	0.999999693	- 1°11'53"
5272	636602.0238	1238603.7966	48°43'59.62250"	122°29'54.09810"	0.999999980	- 1°14'23"

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

36, T. 38N., R. 2 E., & 1, T. 37 N., R. 2 E.,
& 27, 28, 29, 31, 32, 33, 34, T. 38 N.,
R. 3 E., & 4, 5, 6, T. 37 N.,
R. 3 E. W.M

AREA 7: HORIZONTAL CONTROL: NAD83/98 WASHINGTON STATE PLANE, NORTH ZONE

DURING THE MONTHS OF NOVEMBER AND DECEMBER 2006, PACIFIC SURVEYING & ENGINEERING USED FAST STATIC METHODS TO LOCATE 79 CONTROL POINTS. 2 NEW MONUMENTS WERE SET AND 77 EXISTING MONUMENTS WERE LOCATED UTILIZING GPS. THE DATA WAS SIMULTANEOUSLY ADJUSTED AS ONE NETWORK.

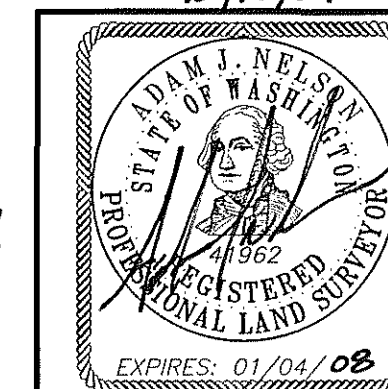
HORIZONTALLY, FIRST ORDER NATIONAL GEODETIC SURVEY CONTROL MONUMENTS 'TERMINAL' (PID # DH3748), 'HAWK' (PID # DH3745), 'FIRE4' (PID # DH3747) AND 'DONOVAN' (PID # 3744). FIXING 'HAWK' THE UNCONSTRAINED NETWORK CLOSURE OF THE CONTROL POINTS RESULTED IN ERROR ELLIPSES OF LESS THAN 18MM (0.06 FEET). A CONSTRAINED LEAST SQUARES ADJUSTMENT WAS MADE FIXING ALL FOUR MONUMENTS. THE NAD83\98 ADJUSTMENT YIELDED TWO SIGMA (95%) STATION CONFIDENCE LEVEL OF LESS THAN 22 MM (.07 FEET)

FAST STATIC FIELD OBSERVATIONS WERE COLLECTED WITH FOUR TOPCON HYPERLITE GPS RECEIVERS. THE POINTS AND VECTORS WERE PROCESSED USING TOPCON PINNACLE SOFTWARE VERSION 1.01. ALL POINTS WERE OCCUPIED FOR A MINIMUM OF TWO TIMES FOR TWELVE MINUTES. DATA WAS RECORDED AT FIVE SECOND INTERVALS. INTERNATIONAL GEODETIC SURVEY RAPID EPHEMERIS DATA WAS USED IN THE SOLUTION.

COORDINATES SHOWN ARE STATE PLANE COORDINATES IN US SURVEY FEET.



PACIFIC SURVEY & ENGINEERING INC EMAIL: pse@psurvey.com
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685 www.psurvey.com

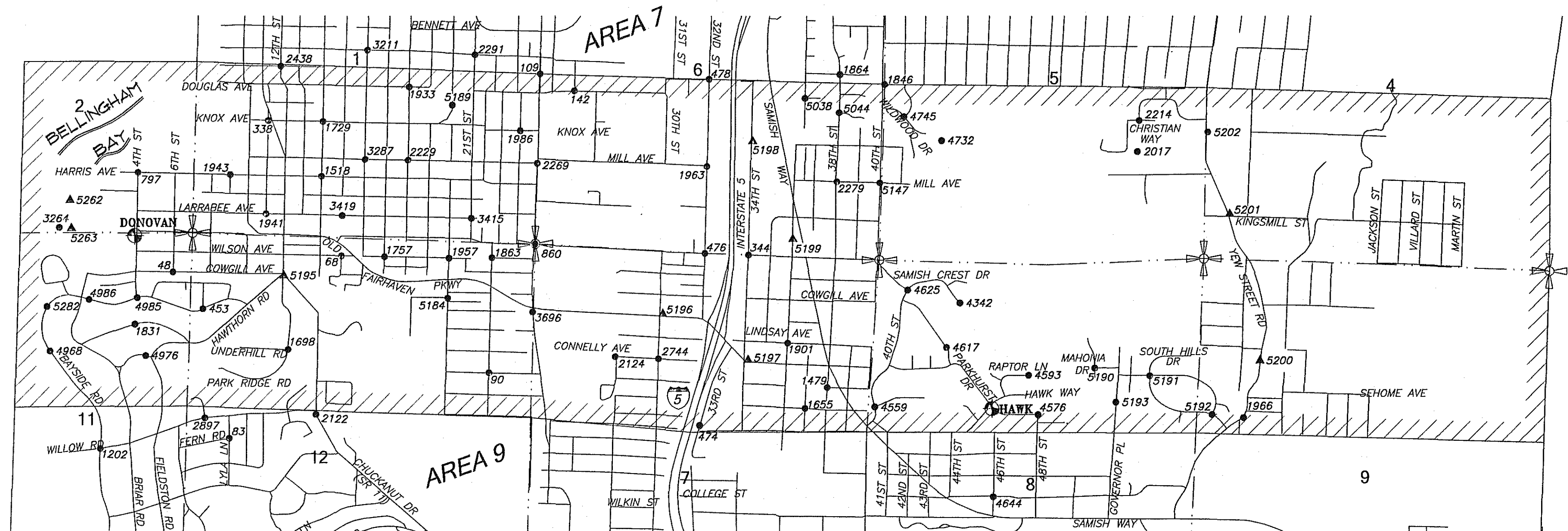


RECORD OF SURVEY FOR CITY OF BELLINGHAM

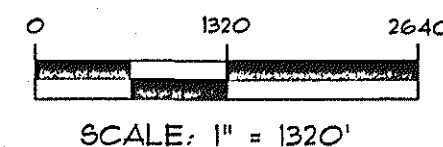
DRWN BY JVD	DATE 10/16/2007	JOB NO. 2003183
CHKD BY AJN, PKB	SCALE 1" = 1320'	SHEET 15 OF 19

2011602449

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK AREA 8

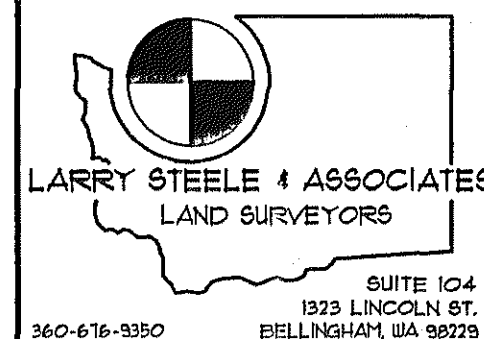
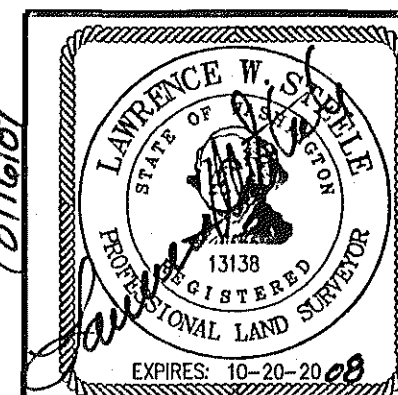


R. 2 E.
R. 3 E.



LEGEND (JAN. & FEB. 2001)

- COB NGS REFERENCE POINTS
- FOUND MONUMENT
- SET 2" ALUMINUM CAP MONUMENT
"CITY OF BELLINGHAM CONTROL"
(STAMPED W/ POINT NUMBER)



WITHIN PORTIONS OF
SECTIONS 4-9, T. 31 N.,
R. 3 E., & SECTIONS 1, 2, 11,
& 12, T. 31 N., R. 2 E., W.M.,
CITY OF BELLINGHAM,
WHATCOM COUNTY, WA.

RECORD OF SURVEY FOR CITY OF BELLINGHAM

DRWN BY EAK	DATE 10/16/2001	JOB NO. 04601
CHKD BY LWS	SCALE 1" = 1000'	SHEET 16 OF 19

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK
AREA 8

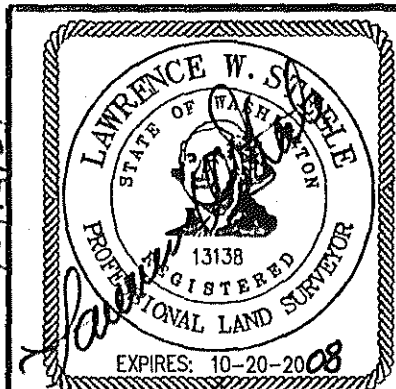
MONUMENT ID	NORTHING	EASTING	LATITUDE NORTH	LONGITUDE WEST	SCALE FACTOR	CONVERGENCE ANGLE
48	630367.9542	1235857.9678	48 42 57.53567	122 30 33.02164	0.999996783	-1 14 52
68	630619.1093	1238434.3459	48 43 00.56511	122 29 54.69420	0.999996937	-1 14 23
83	627819.6058	1236723.0866	48 42 32.58194	122 30 19.29898	0.999995524	-1 14 41
90	628829.3825	1240701.0670	48 42 43.39198	122 29 20.32732	0.999996068	-1 13 58
109	633403.6342	1241480.4417	48 43 28.68233	122 29 10.17403	0.999998376	-1 13 50
142	633151.1098	1242006.4126	48 43 26.30256	122 29 02.25075	0.999998253	-1 13 44
338	632690.7964	1237307.1900	48 43 20.76126	122 30 12.16836	0.999997969	-1 14 36
344	630632.2687	1244678.5073	48 43 02.01766	122 28 21.60865	0.999997011	-1 13 14
453	629803.1306	1236314.9755	48 42 52.06184	122 30 26.02543	0.999996506	-1 14 46
474	628026.8450	1243941.5160	48 42 36.15994	122 28 31.76702	0.999995704	-1 13 21
476	630657.8584	1244013.9542	48 43 02.13031	122 28 31.52421	0.999997017	-1 13 21
478	633328.4932	1244074.9160	48 43 28.48906	122 28 31.45506	0.999998366	-1 13 21
797	631892.2944	1235319.3039	48 43 12.45740	122 30 41.54761	0.999997543	-1 14 58
860	630798.8802	1241406.0210	48 43 02.97064	122 29 10.44937	0.999997059	-1 13 50
1202	627649.0200	1234748.6840	48 42 30.47482	122 30 48.67359	0.999995418	-1 15 03
1479	628603.9855	1245898.9165	48 42 42.26459	122 28 02.77209	0.999996011	-1 13 00
1518	631833.4406	1238130.0076	48 43 12.47946	122 29 59.62344	0.999997544	-1 14 27
1655	628288.3485	1245557.8503	48 42 39.07931	122 28 07.75629	0.999995851	-1 13 04
1698	629184.0598	1237619.0979	48 42 46.23414	122 30 06.38415	0.999996211	-1 14 32
1729	632673.2944	1238146.8755	48 43 20.76820	122 29 59.64316	0.999997969	-1 14 27
1757	630605.3973	1239094.3576	48 43 00.57063	122 29 44.85021	0.999996937	-1 14 16
1831	629568.8574	1235276.0837	48 42 49.52751	122 30 41.43647	0.999996378	-1 14 58
1846	633245.2940	1246764.9712	48 43 28.23271	122 27 51.32845	0.999998353	-1 12 51
1863	630588.9646	1240742.5072	48 43 00.75909	122 29 20.27397	0.999996947	-1 13 58
1864	633396.6795	1246082.0875	48 43 29.58322	122 28 01.55855	0.999998422	-1 12 59
1901	629289.1579	1245284.9077	48 42 48.89513	122 28 12.14226	0.999996346	-1 13 07
1933	633205.0945	1239478.4950	48 43 26.29845	122 29 39.96010	0.999998253	-1 14 12
1941	631281.3134	1237277.3123	48 43 06.65306	122 30 12.15124	0.999997247	-1 14 36
1943	631862.6304	1236729.4872	48 43 12.46765	122 30 20.51342	0.999997544	-1 14 42
1957	630584.6976	1240084.2000	48 43 00.57715	122 29 30.08678	0.999996938	-1 14 05
1963	631993.4586	1244044.9026	48 43 15.31258	122 28 31.48775	0.999997689	-1 13 21
1966	628142.9230	1252271.0220	48 42 39.04036	122 26 27.63998	0.999995849	-1 11 49
1986	632535.5858	1241173.2008	48 43 20.05390	122 29 14.47692	0.999997932	-1 13 53
2017	632217.5403	1250635.3708	48 43 18.89913	122 26 53.29673	0.999997873	-1 12 08
5282	629833.2990	1233927.9659	48 42 51.84567	122 31 01.61940	0.999996495	-1 15 13
2122	628189.3580	1238053.5150	48 42 36.51427	122 29 59.58714	0.999995722	-1 14 27
2124	629076.8848	1242641.0016	48 42 46.24439	122 28 51.48800	0.999996212	-1 13 36
2214	632692.3311	1250663.6280	48 43 23.58884	122 26 53.02398	0.999998114	-1 12 08
2229	632085.7968	1239455.3497	48 43 15.25167	122 29 39.94492	0.999997686	-1 14 12
2269	632034.7851	1241440.4282	48 43 15.17015	122 29 10.33221	0.999997682	-1 13 50
2279	631756.6291	1246038.7029	48 43 13.39494	122 28 01.68620	0.999997591	-1 12 59
2291	633699.4529	1240479.4392	48 43 31.38819	122 29 25.19446	0.999998515	-1 14 01
2438	633521.8627	1237500.7059	48 43 29.00111	122 30 09.55190	0.999998392	-1 14 34
2744	629043.4469	1243305.0616	48 42 46.05468	122 28 41.57814	0.999996202	-1 13 29
2897	628131.8542	1236351.4137	48 42 35.58255	122 30 24.94033	0.999995675	-1 14 46
3211	633769.1454	1238830.4531	48 43 31.72467	122 29 49.80445	0.999998532	-1 14 20
3264	631042.0755	1234112.9916	48 43 03.81011	122 30 59.25532	0.999997102	-1 15 11
3287	632099.5958	1238795.4188	48 43 15.24714	122 29 49.78853	0.999997686	-1 14 20
3415	631195.4194	1240427.0407	48 43 06.67479	122 29 25.17171	0.999997248	-1 14 01
3419	631236.7528	1238446.9091	48 43 06.66084	122 29 54.70618	0.999997247	-1 14 23
3696	629759.3777	1241371.6623	48 42 52.70864	122 29 10.62868	0.999996539	-1 13 50
4342	629898.0236	1247925.5436	48 42 55.45392	122 27 32.96905	0.999996678	-1 12 38
4559	628302.8851	1246628.0810	48 42 39.44683	122 27 51.80741	0.999995869	-1 12 52
4576	628189.4640	1249126.8450	48 42 38.84879	122 27 14.52362	0.999995839	-1 12 24
4593	628791.2947	1248977.1149	48 42 44.75481	122 27 16.94463	0.999996136	-1 12 26
4617	629217.4548	1247720.7899	48 42 48.69735	122 27 35.80702	0.999996336	-1 12 40
4625	630099.3556	1247126.1194	48 42 57.27327	122 27 44.95035	0.999996770	-1 12 47
4644	626918.1710	1248448.2660	48 42 26.16619	122 27 24.23909	0.999995203	-1 12 31
4732	632383.7271	1247638.6459	48 43 19.91578	122 27 38.02978	0.999997925	-1 12 41
4745	632752.9044	1247060.4959	48 43 23.43703	122 27 46.76651	0.999998106	-1 12 48
4968	629154.3756	1233973.5590	48 42 45.15796	122 31 00.71828	0.999996157	-1 15 12
4976	629086.9477	1235441.3283	48 42 44.80903	122 30 38.81651	0.999996139	-1 14 56
4985	629974.4235	1235311.4086	48 42 53.53600	122 30 41.04173	0.999996580	-1 14 58
4986	629940.0745	1234571.5306	48 42 53.03782	122 30 52.06030	0.999996555	-1 15 06
5038	633037.2623	1245546.1367	48 43 25.92522	122 28 09.43599	0.999998234	-1 13 05
5044	632811.8739	1246068.4386	48 43 23.81122	122 28 01.57692	0.999998125	-1 12 59
5147	631733.9486	1246695.9528	48 43 13.30876	122 27 51.87986	0.999997587	-1 12 52
5184	629974.7792	1240069.6608	48 42 54.55720	122 29 30.10756	0.999996632	-1 14 05
5189	632932.1405	1240133.0939	48 43 23.74506	122 29 30.11212	0.999998122	-1 14 05
5190	628899.5193	1249990.8775	48 42 46.03292	122 27 01.86628	0.999996201	-1 12 14
5191	628782.6884	1250832.5303	48 42 45.05469	122 26 49.28307	0.999996152	-1 12 05
5192	628187.5164	1251790.9358	48 42 39.38126	122 26 34.81037	0.999995866	-1 11 54
5193	628381.4480	1250319.8090	48 42 40.99024	122 26 56.80066	0.999995947	-1 12 11
5195	630313.9879	1237553.7753	48 42 57.36689	122 30 07.72323	0.999996775	-1 14 33
5196	629730.4004	1243371.9698	48 42 52.84563	122 28 40.79982	0.999996545	-1 13 28
5197	629028.2279	1244677.8706	48 42 46.19356	122 28 21.10870	0.999996209	-1 13 13
5198	632372.5501	1244742.5569	48 43 19.19909	122 28 21.20650	0.999997888	-1 13 14
5199	630879.4049	1245361.3839	48 43 04.59908	122 28 11.50641	0.999997142	-1 13 06
5200	629017.0319	1252518.2872	48 42 47.71454	122 26 24.22617	0.999996286	-1 11 46
5201	631260.9150	1252052.8356	48 43 09.75483	122 26 31.86424	0.999997405	-1 11 52
5202	632514.1721	1251713.2907	48 43 22.04830	122 26 37.31762	0.999998035	-1 11 56
5252	631460.8093	1234278.5049	48 43 07.97660	122 30 56.92429	0.999997315	-1 15 10
5263	631027.0344	1234297.5818	48 43 03.70156	122 30 56.49848	0.999997097	-1 15 09

COORDINATES & PROCEDURE NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 ADJUSTMENT. THE COORDINATES OF THE 83 MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN JANUARY AND FEBRUARY OF 2007, HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "DONOVAN" (PID DH3744) & "HAWK" (PID DH3745) AS FIXED CONTROL POINTS IN A FULLY CONSTRAINED SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.62. ACHIEVED HORIZONTAL ACCURACY IS ±2CM AT THE 95% CONFIDENCE LEVEL.

EQUIPMENT

TRIMBLE 5700/R7 AND 5800/R8 RECEIVERS.



WITHIN PORTIONS OF SECTIONS 4-9, T. 37 N., R. 3 E., & SECTIONS 1, 2, 11, & 12, T. 37 N., R. 2 E., W.M., CITY OF BELLINGHAM, WHATCOM COUNTY, WA.

RECORD OF SURVEY

FOR CITY OF BELLINGHAM

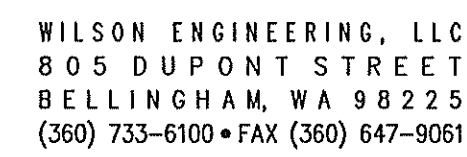
DRWN BY EAK	DATE 10/16/2007	JOB NO. 04607
CHKD BY LWS	SCALE 1" = 1000'	SHEET 17 OF 19

201100 2449

11, 12, 13, 14, T. 37 N., R. 2 E., &
7, 8, 9, 16, 17, 18, T. 37 N., R. 3 E., W.M



-  = COB NGS REFERENCE POINTS
 = FOUND MONUMENT
 = SET 2" ALUMINUM CAP MONUMENT
 "CITY OF BELLINGHAM CONTROL"
 (STAMPED W/ POINT NUMBER)



DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 18 OF 19

CITY OF BELLINGHAM 2005 HORIZONTAL CONTROL NETWORK

WITHIN PORTIONS OF THE FOLLOWING SECTIONS
IN WHATCOM COUNTY, WASHINGTON:

AREA 9: COORDINATE TABLE

11, 12, 13, 14, T. 37 N., R. 2 E., &
7, 8, 9, 16, 17, 18, T. 37 N., R. 3 E., W.M

MONUMENT ID	NORTHING	EASTING	LATITUDE (NORTH)	LONGITUDE (WEST)	SCALE FACTOR	CONVERGENCE ANGLE
60	626,803.960	1,235,658.975	48 42 22.33419	122 30 34.83065	0.9999950112	-1 14 53
79	627,219.583	1,237,565.499	48 42 26.84310	122 30 06.54814	0.9999952365	-1 14 32
265	619,884.547	1,256,648.648	48 41 18.46660	122 25 19.84187	0.9999918712	-1 10 59
308	628,054.870	1,243,278.280	48 42 36.29666	122 28 41.66234	0.9999957106	-1 13 29
323	626,594.108	1,234,904.505	48 42 20.10170	122 30 46.00777	0.9999948998	-1 15 01
458	625,224.637	1,251,427.876	48 42 10.07698	122 26 39.29773	0.9999944011	-1 11 58
459	627,899.716	1,251,540.785	48 42 36.49042	122 26 38.44949	0.9999957203	-1 11 57
474	628,026.845	1,243,941.516	48 42 36.15994	122 28 31.76702	0.9999957037	-1 13 21
1202	627,649.020	1,234,748.684	48 42 30.47482	122 30 48.67359	0.9999954184	-1 15 03
1352	625,435.795	1,243,870.726	48 42 10.58410	122 28 31.99791	0.9999944263	-1 13 22
1747	626,783.079	1,238,667.442	48 42 22.77238	122 29 49.98249	0.9999950331	-1 14 20
1865	627,293.515	1,245,849.176	48 42 29.32625	122 28 03.09868	0.9999953608	-1 13 00
1949	627,945.791	1,245,859.739	48 42 35.76323	122 28 03.14772	0.9999956838	-1 13 00
1965	627,009.152	1,251,398.467	48 42 27.67547	122 26 40.29297	0.9999952782	-1 11 58
1966	628,142.923	1,252,271.022	48 42 39.04036	122 26 27.63998	0.9999958485	-1 11 49
1977	626,943.078	1,250,246.347	48 42 26.78530	122 26 57.44545	0.9999952337	-1 12 11
2010	626,566.953	1,248,911.277	48 42 22.79769	122 27 17.22734	0.9999950344	-1 12 26
2011	626,568.466	1,249,085.428	48 42 22.84881	122 27 14.63204	0.9999950369	-1 12 24
2047	625,723.580	1,235,745.987	48 42 11.69494	122 30 33.18300	0.9999944814	-1 14 52
2111	626,612.634	1,246,485.061	48 42 22.74240	122 27 53.40512	0.9999950316	-1 12 53
2121	628,245.591	1,238,054.681	48 42 37.06926	122 29 59.58790	0.9999957494	-1 14 27
2122	628,189.358	1,238,053.515	48 42 36.51427	122 29 59.58714	0.9999957215	-1 14 27
2150	627,918.748	1,246,498.663	48 42 35.63021	122 27 53.61517	0.9999956771	-1 12 53
2272	625,475.555	1,241,281.089	48 42 10.42932	122 29 10.60703	0.9999944186	-1 13 50
2745	625,775.864	1,243,226.629	48 42 13.80320	122 28 41.70602	0.9999945862	-1 13 29
2851	625,400.055	1,237,379.152	48 42 08.85355	122 30 08.73741	0.9999943404	-1 14 34
2852	625,411.358	1,237,372.720	48 42 08.96368	122 30 08.83693	0.9999943458	-1 14 34
2856	626,077.387	1,238,323.891	48 42 15.73739	122 29 54.87553	0.9999946824	-1 14 23
2864	626,362.851	1,239,715.180	48 42 18.85003	122 29 34.23074	0.9999948374	-1 14 08
2865	626,350.652	1,239,655.879	48 42 18.71707	122 29 35.11068	0.9999948308	-1 14 09
2871	625,744.264	1,240,366.482	48 42 12.88610	122 29 24.32469	0.9999945406	-1 14 01
4555	627,985.297	1,246,718.762	48 42 36.33275	122 27 50.35534	0.9999957124	-1 12 51
4557	628,090.113	1,246,595.928	48 42 37.34108	122 27 52.21947	0.9999957631	-1 12 52
4568	627,988.632	1,248,108.086	48 42 36.65560	122 27 29.64661	0.9999957286	-1 12 35
4576	628,189.464	1,249,126.845	48 42 38.84879	122 27 14.52362	0.9999958389	-1 12 24
4577	628,068.789	1,249,119.668	48 42 37.65682	122 27 14.59271	0.9999957789	-1 12 24
4636	627,247.999	1,247,315.689	48 42 29.18392	122 27 41.22478	0.9999953537	-1 12 44
4640	626,900.978	1,247,768.250	48 42 25.85493	122 27 34.36969	0.9999951871	-1 12 39
4641	626,925.236	1,247,769.109	48 42 26.09441	122 27 34.36453	0.9999951991	-1 12 39
4644	626,918.171	1,248,448.266	48 42 26.16619	122 27 24.23909	0.9999952027	-1 12 31
4650	626,787.109	1,241,971.686	48 42 23.51412	122 29 00.73348	0.9999950701	-1 13 43
4658	626,126.910	1,241,928.562	48 42 16.99208	122 29 01.16520	0.9999947449	-1 13 43
4930	626,119.216	1,235,292.722	48 42 15.50044	122 30 40.06711	0.9999946706	-1 14 57
4958	624,037.558	1,235,577.604	48 41 55.02612	122 30 35.14512	0.9999936568	-1 14 53
5193	628,381.448	1,250,319.809	48 42 40.99024	122 26 56.80066	0.9999959467	-1 12 11
5212	626,554.271	1,251,980.417	48 42 23.30811	122 26 31.47682	0.9999950598	-1 11 52
5213	625,268.893	1,238,530.642	48 42 07.80569	122 29 51.53336	0.9999942884	-1 14 21
5214	624,946.985	1,239,296.275	48 42 04.79327	122 29 40.01886	0.9999941392	-1 14 12
5215	624,747.505	1,240,519.172	48 42 03.08544	122 29 21.72920	0.9999940547	-1 13 59
5216	623,437.500	1,238,266.126	48 41 49.68246	122 29 54.88495	0.9999933938	-1 14 23
5217	621,823.149	1,239,553.971	48 41 34.03126	122 29 35.17397	0.9999926275	-1 14 09
5218	625,144.434	1,243,459.668	48 42 07.62321	122 28 38.03164	0.9999942794	-1 13 26
5219	624,651.813	1,244,703.993	48 42 03.02530	122 28 19.32987	0.9999940517	-1 13 12
5222	622,129.331	1,247,471.976	48 41 38.72012	122 27 37.28187	0.9999928565	-1 12 41
5223	620,778.472	1,253,475.542	48 41 26.63635	122 26 07.39890	0.9999922674	-1 11 34
5224	625,175.203	1,255,246.779	48 42 10.37418	122 25 42.36415	0.9999944158	-1 11 15
5225	625,670.119	1,253,824.843	48 42 14.96529	122 26 03.71067	0.9999946440	-1 11 31
5226	626,326.227	1,253,036.245	48 42 21.27589	122 26 15.66841	0.9999949584	-1 11 40
5227	626,559.083	1,250,593.156	48 42 23.06894	122 26 52.15593	0.9999950479	-1 12 07
5228	623,605.712	1,251,636.690	48 41 54.14909	122 26 35.68065	0.9999936136	-1 11 55
5229	626,491.136	1,247,408.241	48 42 21.73669	122 27 39.60657	0.9999949814	-1 12 43
5230	627,559.521	1,243,818.142	48 42 31.52378	122 28 33.45736	0.9999954710	-1 13 23
5231	626,894.068	1,244,089.142	48 42 25.01608	122 28 29.20626	0.9999951452	-1 13 20
5234	624,830.016	1,234,889.901	48 42 02.69579	122 30 45.65157	0.9999940354	-1 15 01
5235	628,148.729	1,241,564.051	48 42 36.86029	122 29 07.24511	0.9999957389	-1 13 48
5281	626,156.691	1,237,412.750	48 42 16.32497	122 30 08.48128	0.9999947116	-1 14 33

AREA 9 COORDINATES & PROCEDURE NOTES

MONUMENT VALUES AS SHOWN, ARE WASHINGTON STATE PLANE COORDINATES, NORTH ZONE, NAD 83/1998 U.S. SURVEY FOOT ADJUSTMENT.

THE COORDINATES OF THE MONUMENTS VISITED BY THIS SURVEY WERE DERIVED FROM DUAL FAST STATIC OCCUPATIONS IN JANUARY AND FEBRUARY OF 2007, HOLDING THE PUBLISHED VALUES OF THE CITY OF BELLINGHAM'S NGS REFERENCE POINTS "DONOVAN" (PID DH3744) & "HAWK" (PID DH3745) AS FIXED CONTROL POINTS IN A FULLY CONSTRAINED SIMULTANEOUS ADJUSTMENT USING TRIMBLE GEOMATICS OFFICE VERSION 1.64.

ACHIEVED HORIZONTAL ACCURACY IS ±2CM AT THE 95% CONFIDENCE LEVEL.

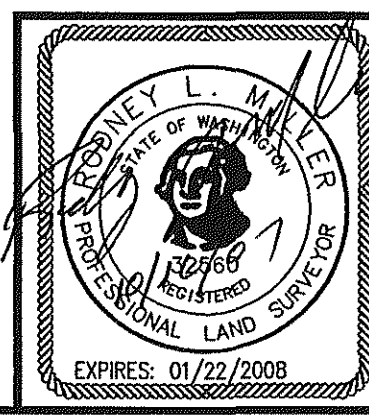
SURVEY PROCEDURE

FAST STATIC GPS METHODS USING TRIMBLE 5700/R7 AND 4000SSI RECEIVERS.

DUE TO HEAVY OBSTRUCTION IN SOME AREAS SOME POINTS WERE SET USING TRADITIONAL FIELD TRAVERSE PROCEDURES AND A ONE-SECOND LIETZ SET 5 TOTAL STATION.



WILSON ENGINEERING, LLC
805 DUPONT STREET
BELLINGHAM, WA 98225
(360) 733-6100 • FAX (360) 647-9061
www.wilsonengineering.com



RECORD OF SURVEY FOR CITY OF BELLINGHAM		
DRWN BY BHR	DATE 10/16/2007	JOB NO. 2005-083
CHKD BY RLM	SCALE 1" = 1320'	SHEET 19 OF 19



Request of: PUBLIC

AFTER RECORDING RETURN TO:

Wilson Engineering
805 Dupont Street
Bellingham, WA 98225

AFFIDAVIT OF CORRECTION

DOCUMENT TITLE: Record of Survey for the City of Bellingham,
2005 Horizontal Control Network, Sheet #9

RECORDING NO.: 2071002449

LEGAL DESCRIPTION: Within the SE1/4, NE1/4, Section 22, T 33N, R3E, W.M.

I, John Thomas Brewster, being duly sworn on oath, deposes and says:

That I am a Professional Land Surveyor and that I have noted minor survey, spelling, mathematical or drafting errors or omitted signatures which do not in any way materially subvert the approval of the original document by changing lot areas so as to effect zoning approvals, easements, conditions of approval or access roadways. The affiant approves the following changes to the aforementioned recordings as follows:

TO WIT:

Corrected Washington State Plane (North Zone) NAD83/98 Coordinates for **Bellingham City Cadastral Monument #498** to read: **Northing = 648,705.342**, **Easting = 1,262,825.038**, rather than the incorrect: **Northing = 648,708.739**, **Easting = 1,262,823.030**.

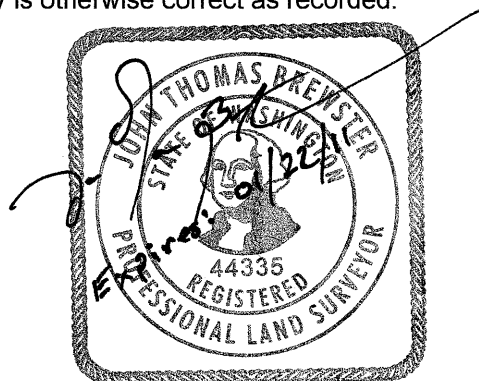
Also, corrected the Geographic Coordinates for said **Monument #498** to read: **Latitude = North 48° 46' 04.03853"**, **Longitude = West 122° 23' 56.55018"**, rather than the incorrect: **Latitude = North 48° 46' 04.07122"**, **Longitude = West 122° 23' 56.58117"**.

Our review indicates that this Record of Survey is otherwise correct as recorded.

John Thomas Brewster, PLS
Professional Land Surveyor

P.L.S. # 44335

License Number



ACKNOWLEDGEMENT:

STATE OF WASHINGTON

COUNTY OF WHATCOM

On this day personally appeared before me:

John Thomas Brewster

known to me to be the individual described in and who executed the within and forefoing instrument and acknowledged that he signed the same as his free and voluntary act and deed for the use and purposes therein mentioned. Given under my hand and official seal.

This 9th day of April, 2009.

[Signature]

Notary public in and for the State of Washington.

Residing in Everson, Washington.

My commission expires 9-28-2012.

