



STATION 1021
PER R1
(HPGN D CA 05-DQ)
(NGS PID DZ 1809)

2010-014

N 27°39'32.3" E 24554.65' (CF R1)
S 27°39'32.5" W 24554.66' (M)

STA 1019'
(R1)

BASIS OF BEARINGS
(M & CF R1)

STATION 1022
PER R1
FLAGS 1976
(HPGN D CA 05 CP)
(NGS PID DZ 1262)

1" = 800'
0 800 1600 2400 3200

Surveyor's Statement

I hereby state that I have prepared this amending map or it was prepared under my direction on April 4, 2011 and that the changes shown hereon are as provided for in Section 8770.5 of the Professional Land Surveyor's Act.

Mark E. Reinhardt
P.L.S. No. 6392

Date



County Surveyor's Statement

This amending map has been examined for conformance with the requirements of Section 8770.5 of the Professional Land Surveyor's Act this 17th day of October, 2011.

Michael B. Emmons
County Surveyor



Legend

✱ = Set 2"x24" galvanized steel pipe in concrete with 3" brass cap stamped "City of Buellton Horizontal Control and Benchmark, PLS 6392, City Surveyor, 2010-(Station Number)".
Monuments are set in 8" diameter cast iron monument wells flush with surface

▲ = Found monument as noted

DMS = Degrees, Minutes, Seconds

U.S.S.F. = United States Survey Feet

Meas. = Measured distance

R1 = Record per map filed in Book 147, Page 98 of Records of Surveys.

Purpose of Survey

The purpose of this survey was to provide a readily accessible and evenly dispersed network of survey monuments within the City of Buellton for use by the general public and government agencies.

Recorder's Statement

Filed this 31st day of OCT, 2011 at 3:24 P.M. in Book 177 of Records of Surveys at Page(s) 89-90 at the request of MNS Engineers, Inc.

Fee: \$37.00

Joseph E. Holland
County Clerk-Recorder - Assessor

By:

Deputy

Amending RECORD OF SURVEY

THIS RECORD OF SURVEY IS INTENDED TO AMEND THE MAP
FILED IN BOOK 177, PAGES 45 & 46 OF RECORDS OF SURVEY.
BEING A HORIZONTAL AND VERTICAL CONTROL NETWORK
in the City of Buellton
County of Santa Barbara, State of California

November 2010
Amended April 2011

SHEET 1 of 2

MNS
ENGINEERS INC
201 Industrial Way
Buellton, CA 93427
805.688.5200 Phone

ENGINEERING
PLANNING
SURVEYING
CONSTRUCTION MANAGEMENT

CIBUE.090107_RS.dwg * 4/4/2011 * TR * E-File

amended from original BK 177 PGs 45-46

CERT OF CORR 10-31-2011
2011-0062636

BK 177 PG 89

RS 6705 APN: 099-300-004-

STATION COORDINATE LISTING

STATION ID	NORTHING (U.S.S.F.)	EASTING (U.S.S.F.)	ELEVATION (U.S.S.F.)	ELEVATION METHOD	ELIPSOID HEIGHT	LATITUDE (D'M'S')	LONGITUDE (D'M'S')	COMBINED FACTOR	CONVERGENCE ANGLE (D'M'S')
2010-001	2056265.4831	5897630.8994	382.96	GPS	266.05	34-37-21.50745	120-12-26.63219	0.99991191	-1-15-29.67
2010-002	2056152.0278	5904238.9736	382.66	GPS	265.87	34-37-21.81366	120-11-07.54774	0.99991192	-1-14-44.60
2010-003	2051832.8732	5906272.3679	387.64	GPS	270.88	34-36-39.53485	120-10-42.10141	0.99991216	-1-14-30.09
2010-004	2051529.4433	5899140.8080	321.86	GPS	204.99	34-36-34.99698	120-12-07.32720	0.99991536	-1-15-18.67
2010-005	2054465.6092	5896800.6724	342.23	LEVEL	225.34	34-37-03.52680	120-12-36.09096	0.99991406	-1-15-35.07
2010-006	2054088.2573	5898673.0704	346.60	LEVEL	229.72	34-37-00.20153	120-12-13.59319	0.99991388	-1-15-22.24
2010-007	2055314.8459	5900204.5325	400.81	GPS	283.96	34-37-12.66388	120-11-55.59410	0.99991115	-1-15-11.98
2010-008	2053053.2738	5901039.2317	359.17	LEVEL	242.33	34-36-50.47803	120-11-45.01746	0.99991339	-1-15-05.95
2010-009	2052341.5546	5898785.2102	319.85	GPS	202.96	34-36-42.95145	120-12-11.79364	0.99991536	-1-15-21.22
2010-010	2051127.7674	5900797.5369	347.17	GPS	230.32	34-36-31.38306	120-11-47.40524	0.99991419	-1-15-07.32
2010-011	2053385.5079	5901967.6031	363.31	LEVEL	246.49	34-36-53.96420	120-11-33.99887	0.99991315	-1-14-59.67
2010-012	2054163.8210	5902429.4324	373.46	LEVEL	256.65	34-37-01.76114	120-11-28.67735	0.99991258	-1-14-56.64
2010-013	2056178.7709	5902976.6857	409.43	LEVEL	292.62	34-37-21.80642	120-11-22.65594	0.99991064	-1-14-53.21
2010-014	2058267.4081	5903351.4350	431.16	LEVEL	314.38	34-37-42.54320	120-11-18.71680	0.99990938	-1-14-50.96
2010-015	2051428.7732	5902859.4508	356.50	GPS	239.69	34-36-34.80491	120-11-22.82037	0.99991370	-1-14-53.30
2010-016	2053732.2615	5903486.3085	381.92	GPS	265.12	34-36-57.72084	120-11-15.92199	0.99991222	-1-14-49.37
2010-017	2051979.6307	5904006.9692	360.91	LEVEL	244.12	34-36-40.49980	120-11-09.23762	0.99991342	-1-14-45.56
2010-018	2052564.0874	5904884.8268	368.82	GPS	252.04	34-36-46.46864	120-10-58.88876	0.99991298	-1-14-39.66
2010-019	2051160.4387	5905522.0533	370.32	LEVEL	253.57	34-36-32.72370	120-10-50.90192	0.99991306	-1-14-35.11
2010-020	2055265.3173	5898341.2733	366.48	GPS	249.60	34-37-11.77033	120-12-17.87123	0.99991280	-1-15-24.68
2010-021	2054434.5079	5900677.5678	371.92	GPS	255.07	34-37-04.05989	120-11-49.70494	0.99991263	-1-15-08.63
2010-022	2054787.3425	5901588.8011	384.33	GPS	267.48	34-37-07.74621	120-11-38.89631	0.99991199	-1-15-02.46
2010-023	2053752.6194	5897530.0148	314.06	LEVEL	197.12	34-36-56.63407	120-12-27.17877	0.99991548	-1-15-29.99
2010-024	2052432.5374	5901516.3028	353.98	LEVEL	237.14	34-36-44.44216	120-11-39.14856	0.99991371	-1-15-02.61
2010-025	2053891.6356	5899928.4448	358.28	LEVEL	241.42	34-36-58.52898	120-11-58.52430	0.99991334	-1-15-13.65
'STA 1019'	2055319.3679	5901896.5140	517.33	LEVEL	400.47	34-37-13.07422	120-11-35.35408	0.99990557	-1-15-00.45
'STA 05-DQ'	2077068.0637	5913294.9988	739.73	GPS	623.47	34-40-50.60252	120-09-24.57631	0.99989307	-1-13-45.90
'FLAGS 1976'	2049460.3742	5901736.2626	346.48	LEVEL	229.64	34-36-15.09572	120-11-35.74155	0.99991442	-1-15-00.67

Record Data per RS filed in Book 147, Page 98 (R1)

	LAT.	LONG.	NORTHING	EASTING	ELEVATION	CONV.	COMB. FACTOR
Station '1019'	N34°37'13.07422"	W120°11'35.35383"	2055319.367	5901896.536	517.256	-1°15'00.445508"	0.99989998
Station 1022 'FLAGS' 'HPGN D CA 05 CP' NGS PID DZ1262	N34°36'15.09572"	W120°11'35.74155"	2049460.373	5901736.264	346.476	-1°15'00.666613"	0.99990883
Station 1021 'HPGN D CA 05 DQ' NGS PID DZ1809	N34°40'50.60252"	W120°09'24.57631"	2077068.064	5913294.998	739.680	-1°13'45.900865"	099988750

The record latitude and longitude for 'DZ1262 & DZ1809' ARE also per NGS Data Sheets, Superseded Survey Control, Adjustment 1991.35

Monument Descriptions

STATION 'FLAGS 1976' PID DZ1262	STANDARD CALIFORNIA DIVISION OF HIGHWAYS 3 1/2" BRASS DISK SET IN TOP OF A 14" CONCRETE CYLINDER FLUSH WITH PAVEMENT STAMPED "FLAGS 1976"
STATION '1019'	3 1/2" BRASS DISK STAMPED "SB CO, GPS CONTROL, STA. 1019,1993 PLS 6392" IN WELL MONUMENT
STATION '05-DQ' PID DZ1809	SURVEY DISK ENCASED IN PVC PIPE WITH ACCESS COVER SET IN CONCRETE FLUSH WITH GROUND STAMPED "CA-HPGN-D STA. 05-DQ SB 101 PM 62.63 1993"
STATIONS '2010-001' THROUGH STATION '2010-025'	SET 3 1/2" BRASS DISK STAMPED "CITY OF BUELLTON HORIZONTAL CONTROL AND BENCHMARK, CITY SURVEYOR, PLS6392 (AND THEIR RESPECTIVE STATION NUMBER)" IN 2"x24" PIPE SET IN A CONCRETE CYLINDER FLUSH WITH PAVEMENT ENCASED IN PVC PIPE WITH ACCESS COVER

Datum

The horizontal data published herein are in relation to the California Coordinate System of 1983 (CCS 83), 1991.35 epoch, California Lambert Projection, Zone 5.

The vertical data published herein are in relation to the North American Vertical Datum of 1988 (NAVD 88).

Basis of Elevations

Station 1022 - Flags
elevation 346.476 Per R1

Basis of Coordinates

Station 1021 - See Record data Per R1

Surveyor's Notes

Survey was performed using Trimble R8 Dual Frequency receivers. Minimum static data collection times were double occupancy, 30-minute plus, independent sessions.

A 3D minimally constrained adjustment was calculated fixing Station 1022. 134 vectors were measured with one being rejected. The average 2D residual was 0.015. The average up residual was 0.004.

Initially fixing Station 1022 from the R1 data, checks were observed to the R1 data for Station 1019 and Station 1021. Station 1019 is 5,661 feet from 1022 and Station 1021 is 29,930 feet from 1022. For Station 1019, the delta northing was -0.00043, delta easting was -0.02533 and delta elevation was 0.347. For Station 1021 the delta northing was -0.00429, delta easting was -0.01841 and delta elevation was 0.215.

The final adjustment for the horizontal values was calculated fixing Stations 1021 and 1022.

Four level circuit closed loops were performed using a LEICA DNA10 Digital Level. They were run from Station 1022 to Station 2010-014, Station 2010-013 to Station 1019, Station 2010-011 to Station 2010-019, and from Station 2010-011 to Station 2010-005. The raw loop closures were 0.014', 0.0075', 0.0005' and 0.0075' respectively.

A total of 14 Stations were included in these level loops, including Station 1022. A separate GPS adjustment was run fixing all fourteen Stations and holding Station 1022 as the basis of elevation. The elevations for the thirteen (13) Stations not included in the level loops were established in this adjustment. The average standard deviation for the vertical values for these 13 Stations was 0.018'.

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