

PROCEDURE OF SURVEY:

THE PURPOSE OF THIS SURVEY IS TO REPLACE A HORIZONTAL GEODETIC CONTROL STATION IN THE CITY OF ENCINITAS TO BE UTILIZED FOR GIS PURPOSES AND SUBSEQUENT MAPPING SURVEYS IN THE CITY.

TO ACCOMPLISH THIS TASK A GPS SURVEY WAS CONDUCTED USING FOUR LEICA SYSTEM 500 SYSTEMS COMPRISED OF AT502 L1,L2 MICROSTRIP ANTENNAS, AND SR 530 DUAL FREQUENCY RECEIVERS UTILIZING "FAST AMBIGUITY RESOLUTION" TECHNIQUES. ALL OCCUPATIONS UTILIZED EITHER FIXED HEIGHT POLES OR ANTENNA TRIPODS. THE MONUMENT USED FOR THIS SURVEY WAS SELECTED IN AN UNOBSTRUCTED LOCATION ALONG EL CAMINO REAL FOR FUTURE USE.

THE NETWORK SURVEY WAS CONDUCTED IN COMPLIANCE WITH ACCURACY STANDARDS PER THE CALIFORNIA GEODETIC CONTROL COMMITTEE (C.G.C.C.) DOCUMENT "SPECIFICATIONS FOR GEODETIC CONTROL NETWORKS USING HIGH-PRODUCTION GPS SURVEYING TECHNIQUES" VERSION 2.0, JULY 1996 FOR BAND V (1cm), 1'ST ORDER EQUIVALENT AS DEFINED IN THE CALIFORNIA PUBLIC RESOURCES CODE SECTION 8801-8819.

THE NETWORK CONTROL TIES CONSISTS OF FOUR CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) STATIONS 2 OF WHICH ARE SANCTIONED BY THE NGS FOR 2004.0 EPOCH COORDINATE VALUES. ADDITIONALLY THIS NETWORK TIED TO 3 ADJACENT EXISTING FIRST ORDER MONUMENTS IN THE CITY OF ENCINITAS CONTROL NETWORK PER R.O.S. 18416. THE NETWORK CONTROL TIES WERE SURVEYED ON NOVEMBER 28, 2005 CONCURRENTLY WITH THE OVERALL NETWORK. STATION DATA LOGGING OCCUPATION TIMES TO THE EXISTING CORS STATIONS RANGED FROM 60 TO 120 MINUTES.

THE OVERALL NETWORK INCLUDED ONE STATION ESTABLISHED ON THIS SURVEY (7 STATIONS IN TOTAL ADJUSTMENT). STATION DATA LOGGING OCCUPATION TIMES TO THE EXISTING FIRST ORDER STATIONS RANGED FROM 60 TO 80 MINUTES.

THE OVERALL NETWORK WAS CONSTRAINED IN TWO ADJUSTMENTS ON TWO SEPARATE DATUMS. THE CCS83 ZONE 6, 1991.35 EPOCH HORIZONTAL DATUM WITH THE NGVD 29 VERTICAL DATUM TO CORRESPOND WITH THE EXISTING HIGH ORDER CITY OF ENCINITAS CONTROL SURVEY PER R.O.S. 18416, AND ALSO CONSTRAINED TO THE CCS83 ZONE 6, 2004.0 EPOCH HORIZONTAL DATUM WITH THE NAVD88 VERTICAL DATUM PER CORS STATIONS AND NGS DATASHEETS AS THE MOST CURRENT HIGH PRECISION GEODETIC NETWORK (HPGN) SURVEY ADJUSTMENT.

THE NETWORK STATION POSITION DATA IS THE RESULT OF CONSTRAINED BASELINE ADJUSTMENTS USING "MOVE 3 VERSION 3.2.2" LEAST SQUARES ADJUSTMENT SUBROUTINE IMBEDDED IN "LEICA SKI PRO VERSION 3.0" GPS SOFTWARE. THE ADJUSTMENT WAS CONSTRAINED TO THE HORIZONTAL AND VERTICAL MONUMENTS LISTED UNDER "BASIS OF COORDINATES" AND "BASIS OF ELEVATIONS" AS NOTED.

COMPUTATIONS PERFORMED WITH THE "LEICA" LEAST SQUARES ADJUSTMENT WERE SPECIFIED TO 2-SIGMA (95%) CONFIDENCE REGIONS. GEOID 2003 PUBLISHED BY THE NATIONAL GEODETIC SURVEY (NGS) WAS THE GEOID MODEL UTILIZED TO COMPUTE GEOID SEPARATIONS FOR THE ADJUSTMENTS. THE RESULTS OF THE NETWORK ADJUSTMENT ACCURACY CONFORMS TO FIRST ORDER AS DEFINED BY THE FEDERAL GEODETIC CONTROL COMMITTEE (F.G.C.C.) BY DOCUMENT ENTITLED "GEOMETRIC GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATIVE POSITIONING TECHNIQUES", VERSION 5.0, REPRINTED WITH CORRECTIONS AUGUST 1, 1989 AND CONFORMS TO THE 1 CENTIMETER HORIZONTAL LOCAL ACCURACY CLASSIFICATION AS DEFINED BY THE FEDERAL GEODETIC CONTROL SUBCOMMITTEE (F.G.C.S.) BY DOCUMENT ENTITLED "GEOSPATIAL POSITIONING ACCURACY STANDARDS PART 2: STANDARDS FOR GEODETIC NETWORKS" (FGDC-STD-007.2-1998).

BASIS OF COORDINATES: CCS83, ZONE 6, 2004.0 EPOCH PER NGS DATASHEETS:

THE HEREIN-LISTED NORTH AMERICAN DATUM OF 1983 (NAD83) LATITUDES, LONGITUDES AND ELLIPSOID HEIGHTS, AND, THE HEREIN-LISTED CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 6 PLANE COORDINATES ALL PER EPOCH 2004.0 ARE BASED IN THE HORIZONTAL COMPONENT UPON THE FOLLOWING VALUES FOR TWO CONTROL MONUMENTS OF B-ORDER ACCURACY OR BETTER.

NO.	NAME	NORTHING	EASTING	ELL. HGT	SOURCE	ORDER
OGHS	ORANGE GLEN HS	1992066.979	6319281.696	610.3	NGS DATASHEET	(CORS)
S103	SCRIPPS NO. 3	1895871.559	6254482.497	116.8	NGS DATASHEET	(CORS)

NAVD88 ELEVATIONS PER CORS STATION GPS BENCHMARKS:

THE HEREIN LISTED NATIONAL GEODETIC VERTICAL DATUM OF 1988 (NAVD88) ORTHOMETRIC HEIGHTS ARE BASED IN THE VERTICAL COMPONENT UPON THE FOLLOWING VALUES FOR ONE GPS STATION AND NGS GEOID 2003 GEOID MODEL.

NO.	NAME	ORTHO HGT	SOURCE	ORDER
1007	CLSB-004	84.68	R.O.S. 18416	3RD LEVELS R.O.S. 18416

BASIS OF COORDINATES: CCS83, ZONE 6, 1991.35 EPOCH PER R.O.S. 18416.

THE HEREIN-LISTED NORTH AMERICAN DATUM OF 1983 (NAD83) LATITUDES, LONGITUDES AND ELLIPSOID HEIGHTS, AND, THE HEREIN-LISTED CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83) ZONE 6 PLANE COORDINATES ALL PER EPOCH 1991.35 ARE BASED IN THE HORIZONTAL COMPONENT UPON THE FOLLOWING VALUES FOR THREE CONTROL MONUMENTS OF FIRST ORDER ACCURACY.

NO.	NAME	NORTHING	EASTING	SOURCE	ORDER
1007	CLSB-004	1969591.693	6251923.819	R.O.S. 18416	FIRST
1021	ENC-21	1965268.244	6257064.577	R.O.S. 18416	FIRST
1023	134WCCS2	1968948.942	6246412.993	R.O.S. 18416	FIRST

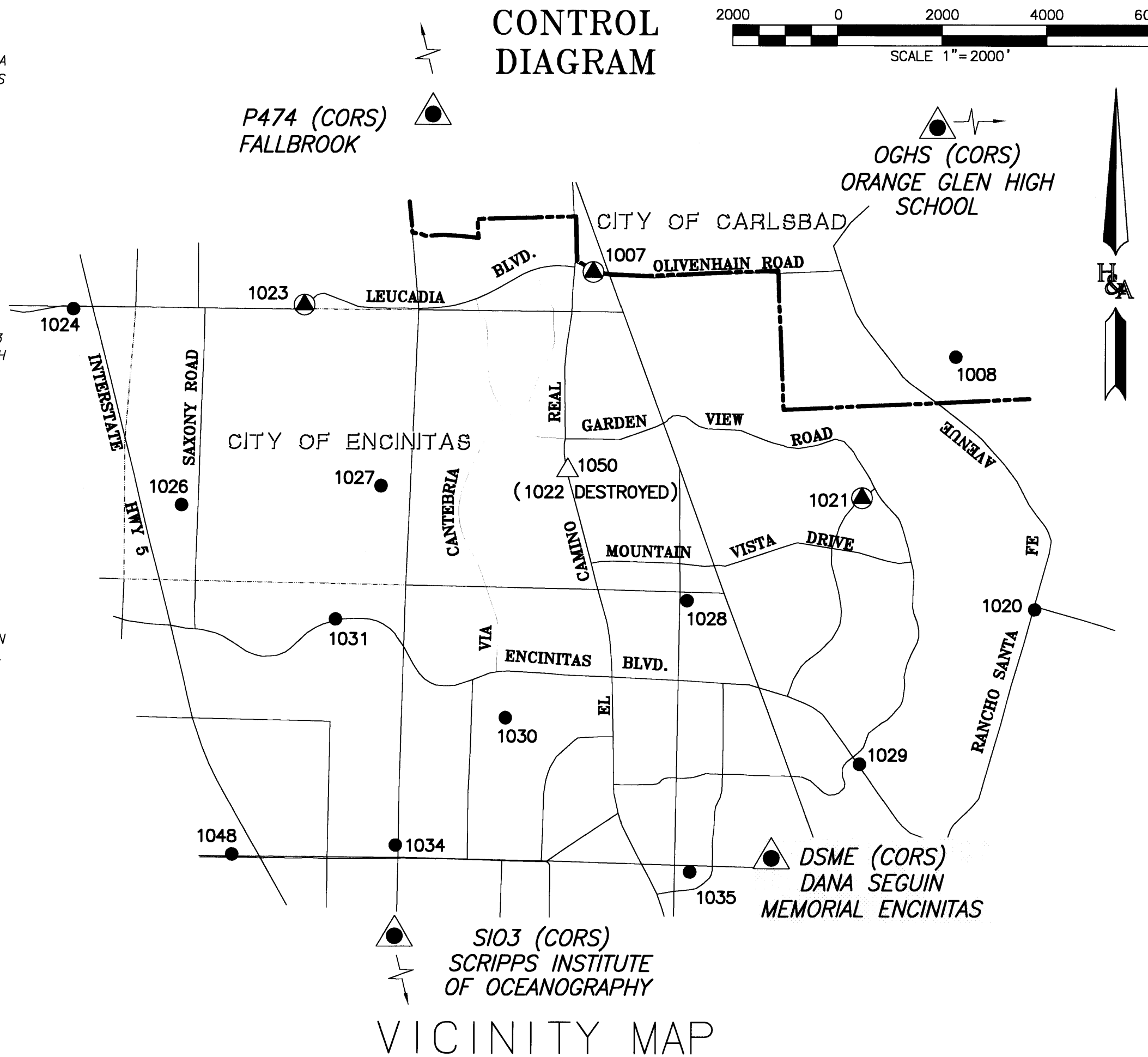
NGVD29 ELEVATIONS PER R.O.S. 18416 GPS BENCHMARKS:

THE HEREIN LISTED NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29) ORTHOMETRIC HEIGHTS ARE BASED IN THE VERTICAL COMPONENT UPON THE FOLLOWING VALUES FOR THREE GPS STATIONS AND NGS GEOID 2003 GEOID MODEL.

NO.	NAME	ORTHO HGT	SOURCE	ORDER
1007	CLSB-004	82.53	R.O.S. 18416	3RD
1021	ENC-21	262.17	R.O.S. 18416	3RD
1023	134WCCS2	318.266	R.O.S. 18416	3RD

CONTROL SURVEY
 CITY OF ENCINITAS

CONTROL
 DIAGRAM



RECORD OF SURVEY

A GEODETIC CONTROL SURVEY TO REPLACE FIRST ORDER CONTROL STATION, NO. 1022 WHICH WAS DESTROYED BY CONSTRUCTION IN THE CITY OF ENCINITAS SURVEY CONTROL NETWORK, IN THE CITY OF ENCINITAS, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.

SURVEYORS STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYOR'S ACT AT THE REQUEST OF THE CITY OF ENCINITAS IN DECEMBER, 2005.

David W. Ambler 7-12-2006
 DAVID W. AMBLER L.S. 7322
 EXP. 12-31-07

LICENSED LAND SURVEYOR
 DAVID W. AMBLER
 L.S. 7322
 Exp. 12-31-07
 STATE OF CALIFORNIA

LEGEND

- INDICATES CONTINUOUSLY OPERATING REFERENCE STATION (CORS)
- INDICATES EXISTING FIRST OR "B" ORDER CONTROL MONUMENT HELD IN ADJUSTMENT (SEE BASIS OF COORDINATES)
- INDICATES EXISTING GROUP C 1'ST ORDER MONUMENT IN CITY OF ENCINITAS CONTROL NETWORK (SEE R.O.S. 18416),
- INDICATES A MONUMENT ESTABLISHED (SET) AS A PART OF THIS SURVEY.

STATION NAME DESCRIPTIONS:

(MONUMENTS WITH STATION NAMES WHICH HAVE THE FOLLOWING DESIGNATION)

(CORS) - INDICATES AN EXISTING CONTINUOUSLY OPERATING REFERENCE STATION (CORS) MONUMENT IN SAN DIEGO COUNTY FROM THE SOUTHERN CALIFORNIA INTEGRATED GPS NETWORK.

SURVEYORS NOTE

DESCRIPTIONS FOR THE EXISTING CONTROL IS ON FILE WITH THE CITY OF ENCINITAS ENGINEERING DEPARTMENT, R.O.S. 18416 OR AVAILABLE IN THE NGS DATABASE.

POINT 1050

2 1/2" BRASS DISK STAMPED "ENC-50, LS 7322, 2005" SET IN CONCRETE MEDIAN CURB NEAR CENTERLINE OF EL CAMINO REAL IN THE NORTH END OF THIRD MEDIAN ISLAND SOUTH OF GARDEN VIEW ROAD. 700 FEET SOUTHERLY OF INTERSECTION AND 15 FEET SOUTHERLY OF CURB NOSE.

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYORS ACT THIS 18th DAY OF JULY, 2006.

LICENSED LAND SURVEYOR
 PHILIP J. GIURBINO
 L.S. 4424
 Exp. 9-30-07
 STATE OF CALIFORNIA

Philip J. Giurbinio
 PHILIP J. GIURBINIO
 L.S. 4424, COUNTY SURVEYOR

RECORDER'S STATEMENT

FILE NO. 2006-0514654

FILED THIS 21st DAY OF July, 2006, AT 9:51 O'CLOCK, A.M. IN BOOK OF RECORD OF SURVEY MAPS AT PAGE _____ AT THE REQUEST OF DAVID W. AMBLER.

GREGORY J. SMITH
 COUNTY RECORDER

BY: *Gregory J. Smith*
 DEPUTY

FEE \$8.00