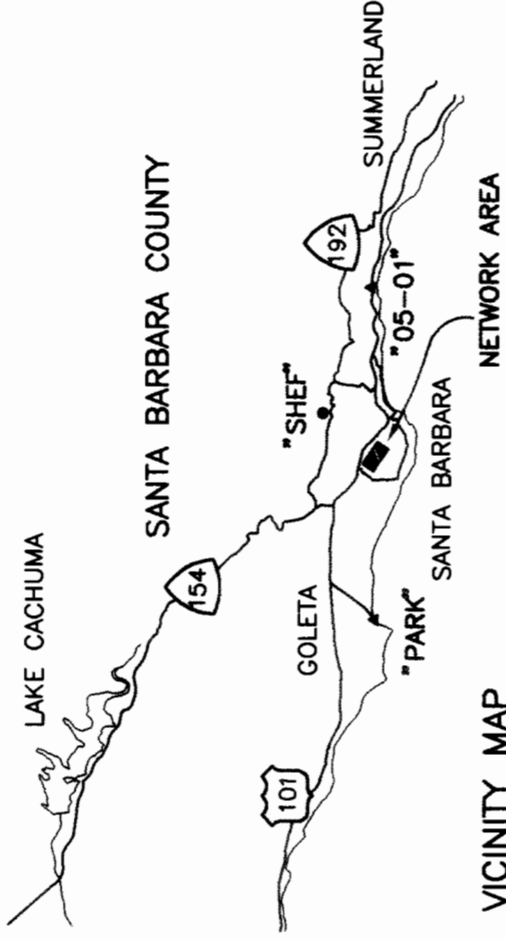


STATION COORDINATE LISTING

STATION	NORTH LATITUDE (D M S)	WEST LONGITUDE (D M S)	NORTHING (M)	EASTING (M)	NORTHING (USF)	EASTING (USF)	ELEV (USF)	MAPPING ANGLE	SCALE FACTOR	SEA LEVEL FACTOR	COMBINATION FACTOR	STATION
1146	34 25 23.14756	119 43 40.93302	603759.509	1841169.136	1980834.3204	6040569.0676	114.38	-0-59-06.01	0.99993841	1.00000005	0.99993846	1146
1147	34 25 16.60549	119 43 28.48252	603552.505	1841483.528	1980155.1748	6041600.5353	106.96	-0-58-58.91	0.99993859	1.00000041	0.99993900	1147
1148	34 25 20.72342	119 43 25.13718	603677.902	1841571.110	1980566.5915	6041887.8773	107.23	-0-58-57.00	0.99993848	1.00000039	0.99993887	1148
1149	34 25 14.31658	119 43 6.94267	603472.570	1842032.230	1979892.9214	6043400.7351	92.41	-0-58-46.63	0.99993866	1.00000110	0.99993975	1149
1150	34 25 6.75064	119 43 14.97681	603242.992	1841823.128	1978139.7142	6042714.7063	93.24	-0-58-51.21	0.99993887	1.00000106	0.99993903	1150
1151	34 25 3.44860	119 43 30.72214	603148.091	1841419.393	1978628.3599	6041390.1191	106.21	-0-59-00.19	0.99993896	1.00000049	0.99993945	1151
1152	34 24 52.45314	119 43 14.11037	602802.143	1841637.708	1977693.3621	6042762.5409	101.05	-0-58-50.72	0.99993927	1.00000069	0.99993996	1152
1153	34 23 4.09300	119 43 2.16223	603195.529	1842148.382	1978652.7627	6043781.8105	79.88	-0-58-43.92	0.99993894	1.00000170	0.99994064	1153
1154	34 25 0.50425	119 42 48.10426	603038.835	1842505.920	1978469.9092	6044954.8331	74.54	-0-58-35.89	0.99993904	1.00000195	0.99994100	1154
1155	34 24 53.59390	119 42 57.05992	602829.849	1842273.382	1977784.2609	6044191.9146	84.30	-0-58-41.00	0.99993924	1.00000149	0.99994073	1155
TEMP	34 25 34.00258	119 43 30.39237	604089.302	1841443.970	1981916.3163	6041470.7521	125.6	-0-59-00.00	0.99993952	1.00000052	0.99993763	TEMP
P&S	34 24 55.65197	119 50 9.86463	603088.505	1831224.656	1979632.8681	6007942.8861	16.3	-1-02-47.70	0.99993918	1.00000477	0.99994395	P&S
P&S	34 25 33.74592	119 42 16.50519	604049.212	1843330.049	1981784.7877	6047658.6629	121.5	-0-58-17.88	0.99993812	0.99993971	0.99993783	P&S
SHEF	34 26 49.78946	119 41 36.85116	606374.823	1844381.828	1989414.7298	6051109.3745	712.3	-0-57-55.28	0.99993611	0.99997145	0.99990757	SHEF
05-01	34 25 13.64200	119 36 21.81244	603280.720	1852374.951	1979263.4935	6077333.4789	137.9	-0-54-55.70	0.99993868	0.99999893	0.99993760	0501



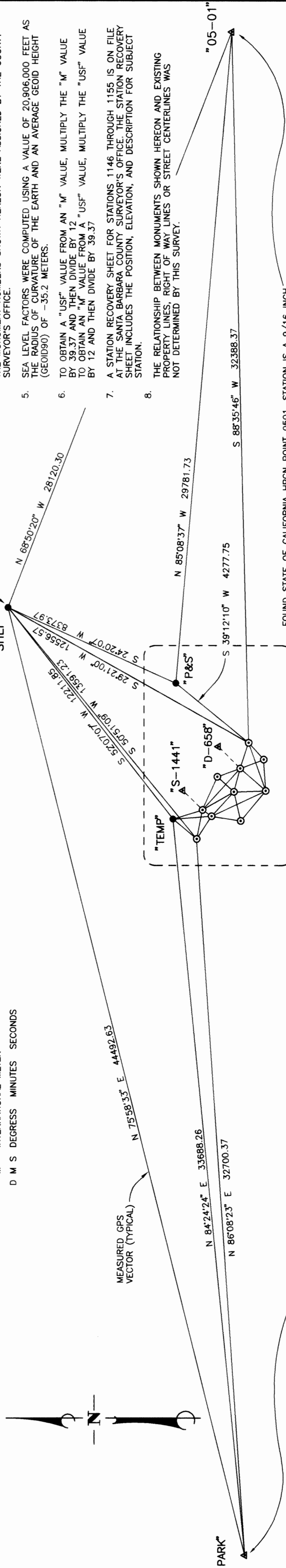
LEGEND:

- ▲ FOUND HORIZONTAL OR VERTICAL CONTROL POINT AS NOTED ON SHEET 1 AND SHEET 2
- SET 2 1/2" DIAMETER BRASS CAP MK'D "S.B. CO. GPS CONTROL 1993 PLUS 6167" AND WITH MONUMENT NUMBER AS DESIGNATED HEREON. THE BRASS CAP IS SET FLUSH IN CONCRETE SURFACE IN THE LOCATION AS NOTED ON SHEET 2.
- SET MONUMENT AS NOTED ON SHEET 2
- HPGN HIGH PRECISION GEODETIC NETWORK ESTABLISHED BY CALTRANS AND NGS
- 1146 S.B.CO. SURVEY MONUMENT NUMBER DESIGNATION
- USF UNITED STATES SURVEY FEET
- M INTERNATIONAL METER
- D M S DEGREE MINUTES SECONDS

STATEMENT OF PURPOSE:

THE MONUMENTS SHOWN ON THIS SURVEY FOUND AND SET ARE A HORIZONTAL AND VERTICAL CONTROL NETWORK ESTABLISHED FOR THE S.B.CO. FLOOD CONTROL AND WATER CONSERVATION DISTRICT IN THE CITY OF SANTA BARBARA AS A BASIS FOR TOPOGRAPHIC MAPPING AND PROJECT CONTROL FOR THE UPPER WESTSIDE STORM DRAIN IMPROVEMENT PROJECT AND AS SANTA BARBARA COUNTY GPS CONTROL POINTS.

SET LEAD AND TAG MARKED "L.S. 6167" IN TOP OF 3' X 6" SANDSTONE BOULDER. BOULDER IS LOCATED IN THE CENTER ISLAND OF ROCKWOOD DRIVE AT ITS INTERSECTION WITH MOUNTAIN DRIVE APPROXIMATELY 11' NORTHERLY A CONCRETE LIGHT STANDARD. THE INTERSECTION IS NORTHWESTERLY OF THE SHEFFIELD RESERVOIR.



RECORDER'S STATEMENT

FEE \$
 FILED THIS
 AT 4:10 P.M. IN BOOK 147 OF 28-29
 RECORD OF SURVEYS AT PAGE 28-29
 AT THE REQUEST OF
 PENFIELD & SMITH - ENGINEERS * SURVEYORS
 KENNETH A. PETTIT
 COUNTY CLERK-RECORDER-ASSESSOR
 SANTA BARBARA COUNTY
 BY: *Debra Butke* DEPUTY COUNTY RECORDER

COUNTY SURVEYOR'S STATEMENT

THIS MAP HAS BEEN EXAMINED IN ACCORDANCE WITH SECTION 8766 OF THE LAND SURVEYOR'S ACT.
 THIS 26th DAY OF September, 1995.
 BY: *Edmund R. Villa* COUNTY SURVEYOR
 P.L.S. NO.: 6232 LICENSE EXPIRATION DATE: 3-31-98

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT AT THE REQUEST OF
 S.B. COUNTY FLOOD CONTROL & WATER CONSERVATION DIST.
 IN NOVEMBER 1993
 P.L.S. NO.: 6167 LICENSE EXPIRATION DATE: 3-31-98

FOUND CALIFORNIA STATE LANDS COMMISSION BRASS CAP MONUMENT STAMPED "PARK 1957" SET FLUSH IN SANDSTONE ROCK AT TOP OF BLUFF AT THE WESTERLY END OF THE GOLETA BEACH PARKING LOT PARK PER 41 RS 68. THE STATION IS ALSO SHOWN ON THE RECORD OF SURVEY MAP OF THE CONTROL NETWORK FOR THE CENTRAL COAST CONDUIT PROJECT SUBMITTED BY THIS FIRM TO THE COUNTY SURVEYOR'S OFFICE UNDER FILE NO. 5861, WHICH WILL NOT RECORD BEFORE THIS MAP.

FOUND STATE OF CALIFORNIA HPGN POINT 0501. STATION IS A 9/16 INCH DIAMETER STAINLESS STEEL ROD, DRIVEN VERTICALLY INTO GROUND, WITH A 2 1/2 INCH DIAMETER ALUMINUM CAP STAMPED "CALIF DEPT OF TRANSPORTATION HPGN-CALIF STA 05-01". CENTER PUNCHED AND IS IN A 6 INCH DIAMETER ALUMINUM MONUMENT WELL. THE STATION IS LOCATED ON THE SOUTHERLY SIDE OF US HIGHWAY 101, AT THE TOP OF ORTEGA RIDGE NEAR THE RIGHT OF WAY FENCE IN A LARGE TURNOUT AREA, AND HAS A FIBER-GLASS WITNESS POST. SHOWN ON THE RECORD OF SURVEY MAP OF THE CONTROL NETWORK FOR THE CENTRAL COAST CONDUIT PROJECT SUBMITTED BY THIS FIRM TO THE COUNTY SURVEYOR'S OFFICE UNDER FILE NO. 5861, WHICH WILL NOT RECORD BEFORE THIS MAP.



RECORD OF SURVEY
 OF A CONTROL NETWORK
 ESTABLISHED FOR THE
 WESTSIDE STORM DRAIN IMPROVEMENT PROJECT
 IN THE CITY OF SANTA BARBARA

SANTA BARBARA COUNTY
 STATE OF CALIFORNIA
 SCALE: 1" = 3000'
 NOVEMBER, 1993

Penfield & Smith
 ENGINEERS * SURVEYORS
 111 E. VICTORIA ST.
 SANTA BARBARA
 (805) 963-9532
 MAILING ADDRESS: P.O. BOX 98 (93102)

SHEET 1 OF 2 SHEETS W.O. 10819.01

NOTES:

- THE SURVEY WAS PERFORMED IN NOVEMBER, 1993 USING ASHTECH LD-12 DUAL-FREQUENCY GPS RECEIVERS OPERATING IN STATIC MODE, WITH AN AVERAGE 90 MINUTE OCCUPATION TIME. BASELINE PROCESSING WAS DONE WITH "ASHTech GPPS" SOFTWARE VERSION 5.0, USING THE SINGLE FREQUENCY OBSERVABLES (L1) AND THE BROADCAST EPHEMERIS. NETWORK ADJUSTMENT WAS PERFORMED WITH FILNET VERSION 3.0. DIFFERENTIAL AND TRIGONOMETRIC LEVELING TIES NOTED ON SHEET 2 WERE MEASURED USING CONVENTIONAL SURVEYING EQUIPMENT.
- LATITUDES AND LONGITUDES LISTED HEREON ARE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, 1992 ADJUSTMENT. (NAD83, 1992) HORIZONTAL COORDINATES LISTED HEREON ARE REFERENCED TO THE CALIFORNIA COORDINATE SYSTEM, NAD83 (CCS83), ZONE 5 GRID. THE HORIZONTAL POSITIONS OF "PARK" AND "05-01" WERE NOT DETERMINED BY THIS SURVEY, AND ARE GIVEN HERE AS THEY APPEAR ON THE RECORD OF SURVEY MAP OF THE CONTROL NETWORK FOR THE CENTRAL COAST CONDUIT PROJECT SUBMITTED BY THIS FIRM TO THE COUNTY SURVEYOR'S OFFICE UNDER FILE NO. 5861, WHICH WILL NOT RECORD BEFORE THIS MAP. BEARINGS SHOWN HEREON ARE REFERENCED TO CCS83, ZONE 5 GRID NORTH. THE POSITIONS OF STATIONS "PARK" AND "05-01" NOTED HEREON HAVE BEEN USED AS THE BASIS OF BEARINGS FOR THIS MAP.
- FOR NEW STATION POSITIONS ESTABLISHED BY THIS NETWORK, THE HORIZONTAL ACCURACIES ACHIEVED IN THIS SURVEY MEET OR EXCEED THE GUIDELINE ACCURACIES FOR ORDER 2, CLASS 1 (ORDER "C") GPS SURVEYS AS OUTLINED IN "GEOMETRIC GEODETIC ACCURACY STANDARDS AND SPECIFICATIONS FOR USING GPS RELATIVE POSITIONING TECHNIQUES" FEDERAL GEODETIC CONTROL COMMITTEE, AUGUST 1989. THE PRECEDING STATEMENT REFERS ONLY TO THE HORIZONTAL POSITIONAL ACCURACY AT THE TIME OF SURVEY, AND NOT TO THE CHARACTER OR STABILITY OF THE MONUMENTATION.
- ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD88)
- ELEVATIONS ON STATIONS 1146, 1148, 1153, AND 1155 WERE OBTAINED USING DIFFERENTIAL AND TRIGONOMETRIC LEVELING SURVEYING METHODS WITH TIES TO NGS BENCHMARKS "S1441" AND "D658."
- ELEVATIONS OF ALL OTHER NETWORK STATIONS WERE ESTIMATED BY FIXING THE DIFFERENTIAL LEVELING DERIVED ELEVATIONS OF 1146, 1148, 1153, AND 1155 IN THE NETWORK ADJUSTMENT, AND USING THE GEOID90 GEOID MODEL TO DERIVE THE GEOID/ELLIPSOID SEPARATION.
- THE ELEVATIONS OF "S1441" AND "D658" WERE NOT DETERMINED BY THIS SURVEY, AND ARE GIVEN AS THEY APPEAR ON THE NGS DATA SHEETS.
- THE MONUMENT NUMBERS SHOWN HEREON WERE ASSIGNED BY THE COUNTY SURVEYOR'S OFFICE.
- SEA LEVEL FACTORS WERE COMPUTED USING A VALUE OF 20,906,000 FEET AS THE RADIUS OF CURVATURE OF THE EARTH AND AN AVERAGE GEOID HEIGHT (GEOID90) OF -35.2 METERS.
- TO OBTAIN A "USF" VALUE FROM AN "M" VALUE, MULTIPLY THE "M" VALUE BY 39.37 AND THEN DIVIDE BY 12.
- TO OBTAIN AN "M" VALUE FROM A "USF" VALUE, MULTIPLY THE "USF" VALUE BY 12 AND THEN DIVIDE BY 39.37.
- A STATION RECOVERY SHEET FOR STATIONS 1146 THROUGH 1155 IS ON FILE AT THE SANTA BARBARA COUNTY SURVEYOR'S OFFICE. THE STATION RECOVERY SHEET INCLUDES THE POSITION, ELEVATION, AND DESCRIPTION FOR SUBJECT STATION.
- THE RELATIONSHIP BETWEEN MONUMENTS SHOWN HEREON AND EXISTING PROPERTY LINES, RIGHT OF WAY LINES OR STREET CENTERLINES WAS NOT DETERMINED BY THIS SURVEY.