SURVEYOR'S NOTES

- 1.) THE MAIN SURVEY CAMPAIGN IS TO PROVIDE PACIFIC GAS AND ELECTRIC COMPANY A PRIMARY HORIZONTAL AND VERTICAL CONTROL NETWORK TO RE-ESTABLISH PACIFIC GAS AND ELECTRIC'S 4500 FOOT CONTOUR LINE SURROUNDING LAKE ALMANOR DESCRIBED IN THE GRANT DEED FROM THE RED RIVER LUMBER COMPANY, A MINNESOTA CORPORATION, TO GREAT WESTERN POWER COMPANY, A CALIFORNIA CORPORATION, DATED OCTOBER 7, 1935 IN VOLUME 68 OF DEEDS AT PAGE 308 IN THE OFFICE OF PLUMAS COUNTY RECORDER. PACIFIC GAS AND ELECTRIC COMPANY BEING THE SUCCESSOR.
- 2.) TO PROVIDE A PRIMARY HORIZONTAL AND VERTICAL CONTROL NETWORK TO RE-ESTABLISH THE 4960 FOOT CONTOUR LINE SURROUNDING THE SO-CALLED INDIAN OLE OR MOUNTAIN MEADOWS RESERVOIR DESCRIBED IN THE GRANT DEED FROM THE RED RIVER LUMBER COMPANY, A MINNESOTA CORPORATION IN LIQUIDATION, TO PACIFIC GAS AND ELECTRIC COMPANY, A CALIFORNIA CORPORATION, RECORDED ON DECEMBER 31, 1945 IN BOOK 33 OF OFFICIAL RECORDS PAGE 567 IN THE OFFICE OF THE LASSEN COUNTY RECORDER.
- 4.) THE HORIZONTAL AND VERTICAL NETWORK SHOWN ON THIS RECORD OF SURVEY WAS DEVELOPED USING GLOBAL POSITIONING SYSTEM (GPS) TECHNIQUES.
- 5.) DATA WAS COLLECTED USING FOUR TRIMBLE R10 DUAL-FREQUENCY GNSS ANTENNAS WITH A FIXED HEIGHT OF 1.421 METERS; DATA WAS COLLECTED SIMULTANEOUSLY OVER A THREE DAY PERIOD.
- 6.) EACH CONTROL POINT IN THE NETWORK WAS OBSERVED AT LEAST TWO TIMES.
- 7.) POST-PROCESSING WAS PERFORMED USING MICROSURVEY STAR*NET-PRO VERSION 8.0.2.630, A FULLY CONSTRAINED ADJUSTMENT USING THE PUBLISHED CORS STATION STANDARD DEVIATIONS AS REPORTED BY CSRC.
- 8.) ALL CONTROL POINTS WERE FOUND WITH NO PROPERTY OR BOUNDARY RELATIONSHIPS INTENDED.

VERTICAL DATUM

THE ELEVATIONS FOR LAKE ALMANOR AND MOUNTAIN MEADOWS RESERVOIR ARE BASED ON DIFFERENT VERTICAL DATUM STATEMENTS.

LAKE ALMANOR

THE 4500 FOOT CONTOUR ELEVATION IS BASED ON THE GRANT DEED FROM THE RED RIVER LUMBER COMPANY, A MINNESOTA CORPORATION, TO GREAT WESTERN POWER COMPANY, A CALIFORNIA CORPORATION, DATED OCTOBER 7, 1935 IN VOLUME 68 OF DEEDS AT PAGE 308 IN THE OFFICE OF THE PLUMAS COUNTY RECORDER. PACIFIC GAS AND ELECTRIC COMPANY BEING THE SUCCESSOR (PACIFIC GAS AND ELECTRIC COMPANY LAND DOCUMENT 2129-07-0017)

THE 4500 FOOT CONTOUR LINE IS 3.3 FEET LOWER THAN THE ELEVATION OF THE PERMANENT BENCH MARK DESCRIBED IN SAID DEED AS FOLLOWS: "ON DAM AT SOUTH END OF LAKE ALMANOR; ON BRIDGE ABUTMENT AT SOUTHEAST CORNER OF BRIDGE, 8 INCHES NORTH OF RETAINING WALL; COPPER NAIL IMBEDDED IN CONCRETE BRIDGE ABUTMENT. PAINTED ON END OF TRUSS OF BRIDGE 'U.S. 4513.5 P.B.M.' INSCRIBED ON TOP OF CONCRETE ABUTMENT '4503.290."

TO CONVERT PACIFIC GAS AND ELECTRIC COMPANY ELEVATIONS TO NAVD88 ELEVATIONS ADD 13.5 FEET.

MOUNTAIN MEADOWS RESERVOIR

THE 4960 FOOT CONTOUR ELEVATION IS BASED ON THE RED RIVER LUMBER COMPANY WESTWOOD DATUM DESCRIBED IN THE GRANT DEED FROM THE RED RIVER LUMBER COMPANY, A MINNESOTA CORPORATION IN LIQUIDATION, HEREINAFTER CALLED RED RIVER, TO PACIFIC GAS AND ELECTRIC COMPANY RECORDED ON DECEMBER 31, 1945 IN BOOK 33 OF OFFICIAL RECORDS PAGE 567 IN THE OFFICE OF THE LASSEN COUNTY RECORDER. (PACIFIC GAS AND ELECTRIC LAND DOCUMENT XXGT-01-0667 (SHEET 2)).

PACIFIC GAS AND ELECTRIC COMPANY INTERNAL LAND RECORDS (435143-2 DATED SEPTEMBER 27, 1966) INDICATE THAT THE MOUNTAIN MEADOWS RESERVOIR NORMAL MAXIMUM WATERSHED ELEVATION OF 4958.84 FEET ON THE SAID RED RIVER LUMBER COMPANY WESTWOOD DATUM CORRESPONDS TO 5042.58 FEET ON THE U. S. GEOLOGICAL SURVEY DATUM.

TO CONVERT RED RIVER LUMBER COMPANY WESTWOOD ELEVATIONS TO NAVD88 ELEVATIONS ADD 87.1 FEET.

REFERENCES

LAKE ALMANO

1.) VOLUME 68 OF DEEDS PAGE 308, PLUMAS COUNTY

MOUNTAIN MEADOWS RESERVOIR

- 1.) BOOK 33 OF OFFICIAL RECORDS PAGE 567, LASSEN COUNTY
- 2.) PACIFIC GAS AND ELECTRIC COMPANY EXHIBIT K-2 435143-2 DATED 9/27/1966 TITLED "MOUNTAIN MEADOWS RESERVOIR HAMILTON BRANCH PROJECT" USED AS PART OF THE APPLICATION FOR LICENSE WITH THE FEDERAL ENERGY REGULATORY COMMISSION (FERC) (NOT RECORDED)

AZIMUTH PAIR DETAILS

AZIMUTH PAIR	BEARING	DISTANCE	PRECISION RATIO
100 - 101	N 60° 00' 36" W	36302.98'	1:1878640
100 - 102	N 17° 38' 51" W	50357.70'	1:2488800
100 - 103	N 00° 58' 25" E	35158.04'	1:1798561
100 - 209	N 23° 55' 28" E	44111.99'	1:1593879
100 - 210	S 25° 55' 56" E	591.01'	1:17621
101 - 102	N 28° 27' 37" E	33943.98'	1:1729206
101 - 103	N 62° 02' 25" E	36273.78'	1:1963479
101 - 209	N 65° 47' 41" E	54086.50'	1:2028397
101 - 210	S 59° 29' 39" E	36793.99'	1:1162115
102 - 103	S 51° 01' 30" E	20405.81'	1:1044822
102 - 209	S 76° 58' 53" E	34030.08'	1:1189768
102 - 210	S 17° 44' 36" E	50942.61'	1:1474274
103 - 209	N 73° 21' 25" E	18047.54'	1:673401
103 - 210	S 00° 32' 39" W	35686.07'	1:1049428

R/S 2017-013 RECORD OF SURVEY FOR PACIFIC GAS AND ELECTRIC COMPANY

IN THE TOWNS OF CHESTER, PRATTVILLE, CANYON DAM, WESTWOOD AND IN THE UNINCORPORATED TERRITORY OF THE COUNTIES OF PLUMAS AND LASSEN, STATE OF CALIFORNIA.

SHOWING A CONTROL SURVEY FOR CERTAIN LANDS LOCATED IN PORTIONS OF SECTIONS: 1, 2, 3, 11, 12 AND 13 OF TOWNSHIP 27 NORTH, RANGE 7 EAST; SECTIONS 2, 3, 4, 5, 8, 9, 10, 11, 14, 15, 16,17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, AND 36 OF TOWNSHIP 28 NORTH, RANGE 7 EAST; SECTIONS 28, 29, 32, AND 33 OF TOWNSHIP 29 NORTH, RANGE 7 EAST; SECTIONS 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 20, 21, 22, AND 28 OF TOWNSHIP 27 NORTH, RANGE 8 EAST; SECTIONS 13, 17, 18, 19, 20, 21, 24, 27, 28, 29, 30, 31, 32, 33, AND 34 OF TOWNSHIP 28 NORTH, RANGE 8 EAST; SECTIONS 7, 8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35, AND 36 OF TOWNSHIP 28 NORTH, RANGE 9 EAST, ALL OF MOUNT DIABLO BASE AND MERIDIAN.

PREE LAND ENGINEERING

PACIFIC GAS AND ELECTRIC COMPANY

245 MARKET STREET SAN FRANCISCO, CALIFORNIA

OCTOBER 2017

ORDER NO. 3022380

SHEET NO. 2 OF 2

3.) THE SURVEY WAS CONDUCTED IN OCTOBER 2017.

MONUME	MENT DESCRIPTIONS						
POINT NO.	NORTHING	EASTING	PG&E ELEVATION LAKE ALMANOR	LATITUDE	LONGITUDE	COMBINED GRID FACTOR	DESCRIPTION
100	1947873.32	6815894.14	4519.90	40°10' 25.236" N	121° 05' 24.763" W	0.99974778	FOUND 3/4" REBAR AND 1 1/2" ALUMINUM CAP STAMPED "CALTRANS CM3012" ADJACENT TO HIGHWAY 89 AT POST MILE 30.12 IN PLUMAS COUNTY. 0.54 MILES WESTERLY OF THE INTERSECTION OF HIGHWAY 147 AND HIGHWAY 89. APPROX. 370 FEET WESTERLY OF WESTERLY EDGE SPILLWAY RETAINING WALL. 40.8 FEET NORTHERLY OF NORTHERLY EDGE HWY 89. 80 FEET WESTERLY OF POWER POLE WITH GUY WIRE. 4 FEET SOUTHERLY OF METAL GUARD POST. 0.5 FEET BELOW GROUND SURFACE.
101	1966019.36	6784451.68	4546.65	40°13' 27.582" N	121°12' 07.687" W	0.9997368	FOUND 3 1/2" ALUMINUM DISC SET IN MONUMENT WELL STAMPED "CALIFORNIA SPATIAL REFERENCE CENTER DEPARTMENT OF TRANSPORTATION 89 PL-U 37.49 2004". ADJACENT TO HWY 89 AT POST MILE 37.49 IN PLUMAS COUNTY. APPROX. 1.25 MILES NORTHWEST OF ALMANOR WEST, 6.21 MILES SOUTHEASTERLY OF CHESTER, 4.6 MILES SOUTHEASTERLY FROM THE INTERSECTION OF HWY 89 AND HWY 36. 154 FEET NORTHEASTERLY OF YELLOW STRIPE OF HIGHWAY 89, 3 FEET SOUTH OF ORANGE CARSONITE POST WITH AMBER REFLECTOR, 49 FEET SOUTHWEST OF METAL GUARD POST, FLUSH WITH GROUND. DESIGNATION 89 PLU 37.49, PID DH6607
102	1995861.15	6800627.63	4872.14	40°18' 20.969" N	121° 08'35.385" W	0.99970718	FOUND 3 1/2" ALUMINUM DISC SET IN MONUMENT WELL STAMPED "CALIFORNIA SPATIAL REFERENCE CENTER CA. DEPARTMENT OF TRANSPORTATION 36 PLU 13.94" ADJACENT TO HWY 36 IN PLUMAS COUNTY AT POST MILE 13.94, ABOUT 4.5 MILES EAST OF CHESTER, AT INTERSECTION HWY 36 AND A-13. PROCEED 230 FEET NORTHERLY ON A-13 TO PARKING LOT ON EASTERLY SIDE. TURN RIGHT INTO THE PARKING AREA OF THE SNOWMOBILE PARK AND GO TO THE STATION ON THE RIGHT IN THE MIDDLE OF THE PARKING LOT. THE STATION IS A SURVEY DISK ENCASED IN PVC PIPE WITH ACCESS COVER SET IN CONCRETE FLUSH WITH THE GROUND 148 FEET SOUTHEAST OF AN ORANGE CARSONITE WITNESS POST, 120 FEET NORTHWEST OF THE SOUTHEAST EDGE OF PAVEMENT, 196 FEET EAST OF A MEMORIAL PLAQUE ON A BOULDER FOR BILL HUNTER, AND 264 FEET SOUTH OF THE NORTH CORNER OF THE PARKING LOT. DESIGNATION 36 PLU 13.94, PID DH6579
103	1983026.28	6816491.52	4592.50	40° 16' 12.553" N	121° 05' 12.348" W	0.99972642	FOUND 2" BRASS DISC IN CONCRETE STAMPED "CALIF DEPT OF TRANSPORATION 7.36 GPS 9-147 SP9." ADJACENT TO HWY 147 IN PLUMAS COUNTY AT POST MILE 7.36 IN PLUMAS COUNTY, AT THE SOUTHWEST QUADRANT OF HWY 147 AND A-13 (BIG SPRINGS RD.) 6.7 FEET WEST OF WEST EDGE HWY 147, 40 FEET SOUTHERLY OF THE PROJECTION OF THE SOUTHERLY EDGE OF A-13, OPPOSITE OF POWER POLE WITH 3 GUY WIRES, SET FLUSH WITH GROUND, 3 FEET NORTH OF METAL GUARD POST. ON WEST SIDE OF HIGHWAY GUARDRAIL.
210	1947341.82	6816152.59	4503.29	40° 10' 19.957" N	121° 05' 21.505" W	0.99974886	FOUND 1/4" DIAMETER COPPER NAIL SET IN ABANDONED BRIDGE ABUTMENT. 3/8" INCH ABOVE ABUTMENT. ADJACENT TO HWY 89 IN PLUMAS COUNTY AT POST MILE 30, 570 FEET SOUTHWESTERLY OF SOUTHERLY END OF BRIDGE THAT CROSSES SPILLWAY. TO ACCESS PROCEED 570 FEET EASTERLY ON HWY 89 FROM SOUTHERLY END OF BRIDGE, TURN SOUTHERLY ON ROAD TO PG&E CAMP LAKE ALMANOR, PROCEED 180 FEET THEN TURN WESTERLY AT INTERSECTION OF ROAD, CONTINUE TOWARD SPILLWAY APPROX. 800 FEET. PROCEED SOUTHWESTERLY APPROX. 275 FEET TO MONUMENT. 1.5 FEET WESTERLY OF SET REBAR AND ALUMINUM CAP STAMPED "PACIFIC GAS AND ELECTRIC SURVEY CONTROL WITNESS" 20.85 FEET NORTHWESTERLY OF POWERPOLE WITH NAIL AND SHINER 2 FEET ABOVE GROUND. 2 FEET SOUTHEASTERLY OF SOUTHEASTERLY RETAINING WALL. POINT IS FLUSH WITH GROUND

POINT NO.	NORTHING	EASTING	PG&E ELEVATION MTN. MEADOWS	LATITUDE	LONGITUDE	COMBINED GRID FACTOR	DESCRIPTION
209	1988195.23	6833783.02	(RED RIVER LUMBER COMPANY WESTWOOD DATUM) 4961.85	40° 17' 01.790" N	121° 01' 28.535" W	0.00070201	FOUND 3 1/2" BRASS DISC SET IN CONCRETE RETAINING WALL STAMPED "PACIFIC GAS & ELECTRIC CO. SURVEY MARKER M.M.R.BM 7-19-1966 EL. 5045.59 U.SC&G.S. DATUM" IN LASSEN COUNTY. FROM THE INTERSECTION OF HWY 36 AND HWY 147 PROCEED SOUTH ON HWY 147 .60 MILES TURN LEFT ON A-21 (3RD ST) PROCEED 500 FT TURN RIGHT ONTO DIRT ROAD (INDIAN OLE RD) PROCEED 1.60 MILES TO DAM AND SPILLWAY AT MOUNTAIN MEADOWS RESERVOIR. CONTROL POINT IS ON NORTHERLY SIDE OF DAM ON TOP OF RETAINING WALL. NO RECORD