

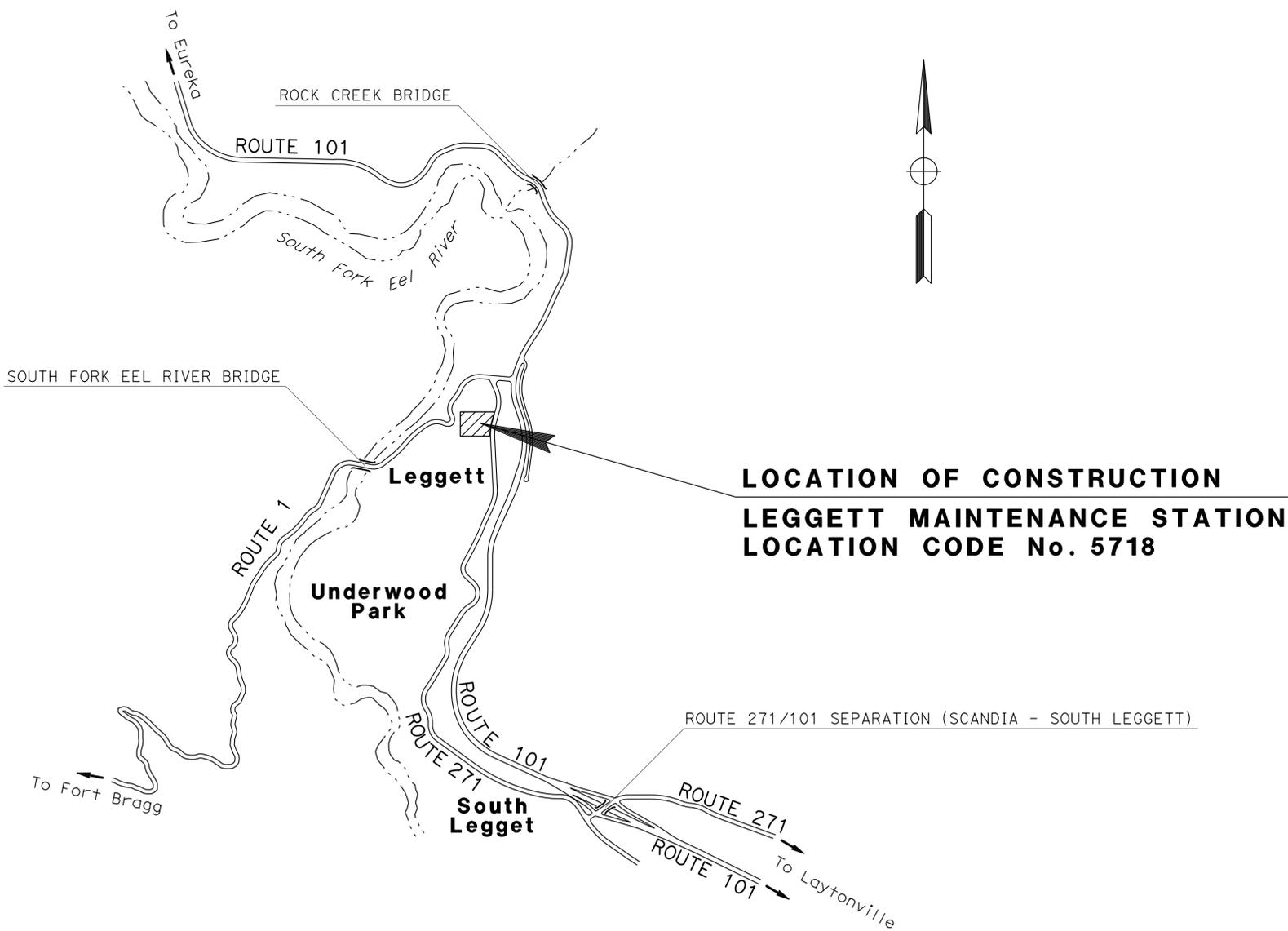
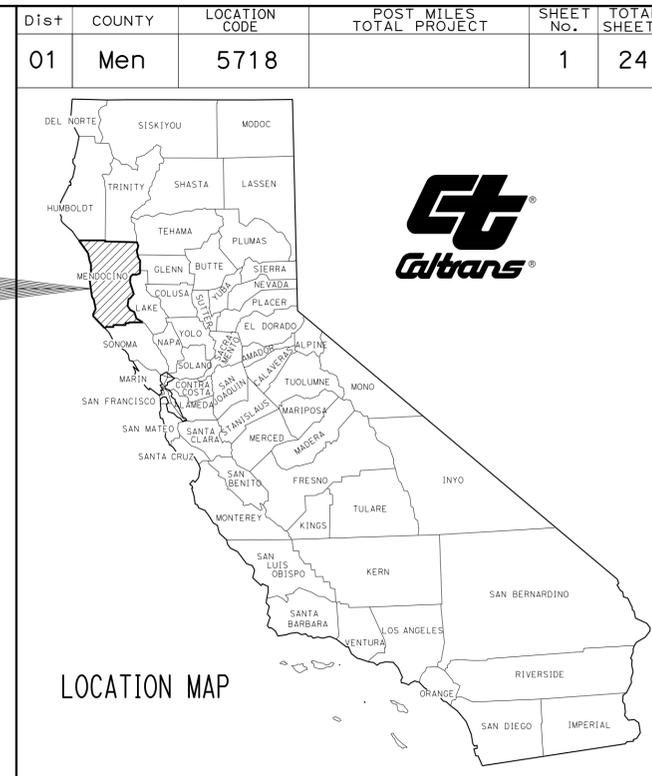
INDEX OF PLANS

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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION
IN MENDOCINO COUNTY
AT THE LEGGETT MAINTENANCE STATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

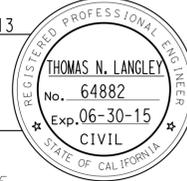


NO SCALE

PROJECT MANAGER	STEVEN BLAIR
DESIGN ENGINEER	MASTRI ALVANDI

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

11-5-13
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
December 9, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



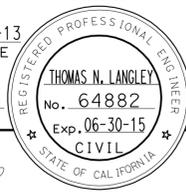
CONTRACT No.	01-497104
PROJECT ID	0100000684

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		3	24


 11-5-13
 REGISTERED CIVIL ENGINEER DATE

12-9-13
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CHAIN LINK FENCE

ITEM	LF
REMOVE CHAIN LINK FENCE	209
CHAIN LINK FENCE (TYPE CL-6)	428

STRUCTURE EXCAVATION (PETROLEUM-IMPACTED SOIL)

ITEM	TON
STRUCTURE EXCAVATION (PETROLEUM-IMPACTED SOIL)	140

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

 DESIGN
 FUNCTIONAL SUPERVISOR
 MASTRI ALVANDI
 CALCULATED/DESIGNED BY
 CHECKED BY
 TOM LANGLEY
 MASTRI ALVANDI
 REVISED BY
 DATE REVISED

SUMMARY OF QUANTITIES
Q-1



	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	S	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
TeI	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWL	WINGWALL LAYOUT LINE	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		4	24

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE



THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 12-9-13

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A	
SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B	
SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
Ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

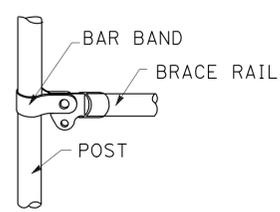
RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A10B

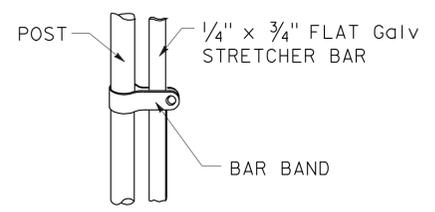
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		5	24

Glenn DeCou
 REGISTERED CIVIL ENGINEER
 October 19, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

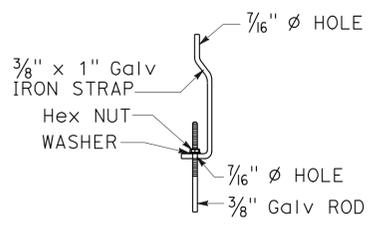
REGISTERED PROFESSIONAL ENGINEER
 Glenn DeCou
 No. C34547
 Exp. 9-30-13
 CIVIL
 STATE OF CALIFORNIA



BRACE RAIL



STRETCHER BAR

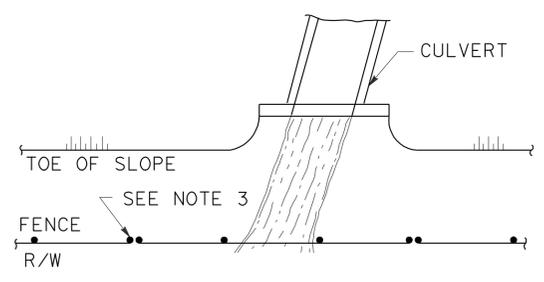


TRUSS TIGHTENER

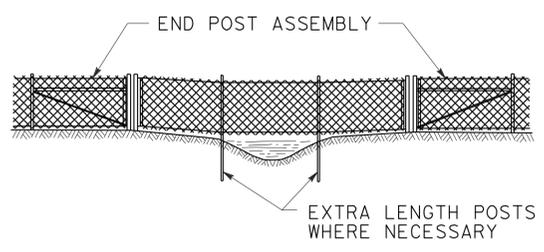
NOTES:

1. All material for abutment connection to be galvanized.
2. The chain link fabric shall be replaced by barbed wire strands at 12" maximum centers between the double posts.
3. When the width of the culvert makes it necessary to anchor a post to the top of the culvert, a cast iron shoe or other device approved by the Engineer shall be used.
4. Fencing over stream and around headwall may also use Barbed Wire or Wire Mesh fencing with either wood post or steel post installation.
5. See Standard Plan A85 for Chain Link fence dimensions. See Standard Plan A86 for Barbed Wire and Wire Mesh fence dimensions and for wood post and steel post installation.

TO ACCOMPANY PLANS DATED 12-9-13

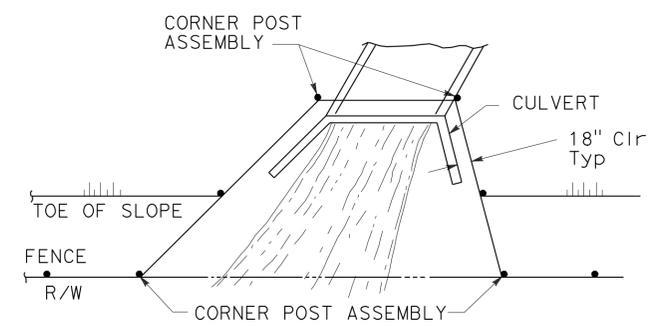


PLAN

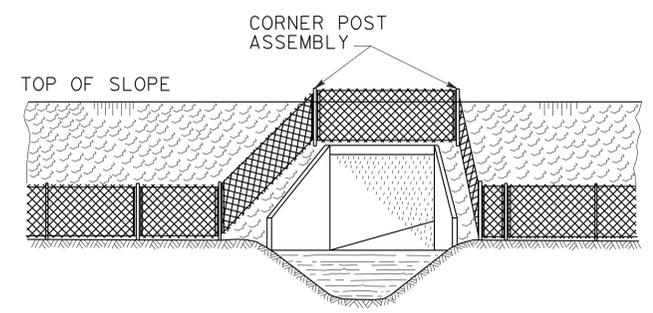


ELEVATION

INSTALLATION OVER STREAM



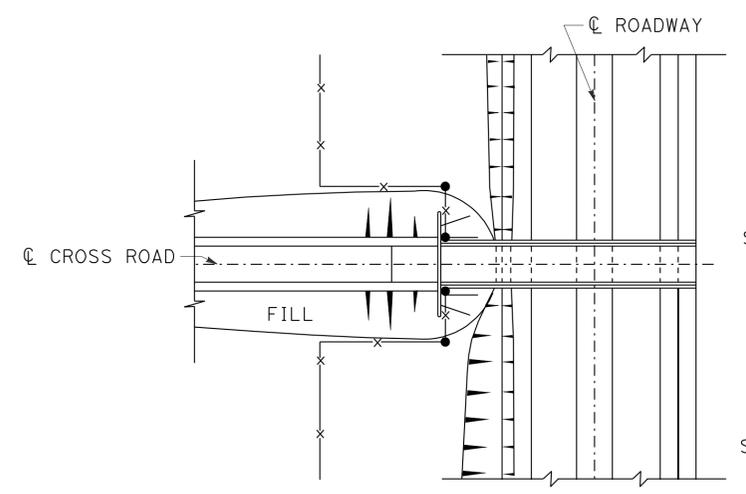
PLAN



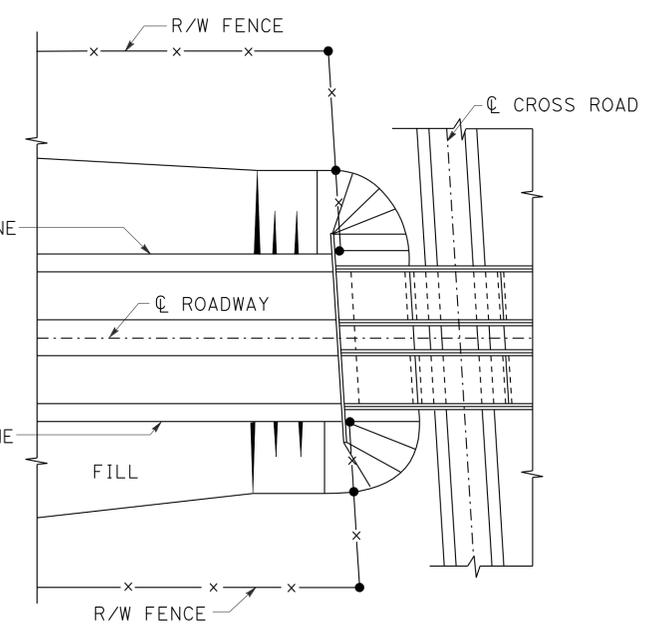
ELEVATION

INSTALLATION AROUND HEADWALL

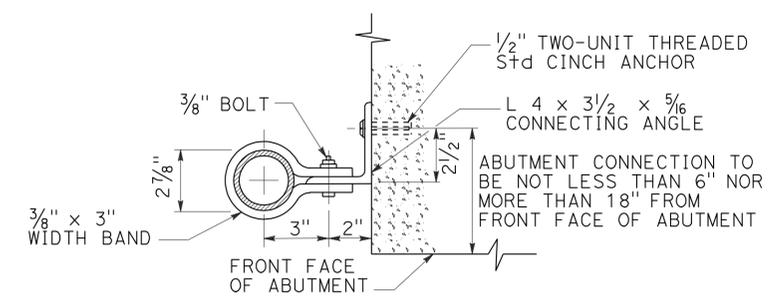
See Note 4



PLAN OF ROADWAY - OVERCROSSING



PLAN OF ROADWAY - UNDERCROSSING



ABUTMENT CONNECTION

TYPICAL INSTALLATION AT BRIDGES

ABUTMENT CONNECTION TO BE NOT LESS THAN 6" NOR MORE THAN 18" FROM FRONT FACE OF ABUTMENT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE DETAILS

NO SCALE

RSP A85B DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A85B DATED MAY 20, 2011 - PAGE 114 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A85B

2010 REVISED STANDARD PLAN RSP A85B

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL	M/M	MULTIPLE TO MULTIPLE TRANSFORMER
BBS	BATTERY BACKUP SYSTEM	Mtg	MOUNTING
BC	BOLT CIRCLE	MV	MERCURY VAPOR LIGHTING FIXTURE
BPB	BICYCLE PUSH BUTTON	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
C	CONDUIT	N	NEUTRAL (GROUNDED CONDUCTOR)
CB	CIRCUIT BREAKER	NB	NEUTRAL BUS
CCTV	CLOSED CIRCUIT TELEVISION	NC	NORMALLY CLOSE
Ckt	CIRCUIT	NO	NORMALLY OPEN
CMS	CHANGEABLE MESSAGE SIGN	P	CIRCUIT BREAKER'S POLE
C+id	CALTRANS IDENTIFICATION	PB	PULL BOX
Comm	COMMUNICATION	PBA	PUSH BUTTON ASSEMBLY
DLC	LOOP DETECTOR LEAD-IN CABLE	PEC	PHOTOELECTRIC CONTROL
EMS	EXTINGUISHABLE MESSAGE SIGN	Ped	PEDESTRIAN
EVUC	EMERGENCY VEHICLE UNIT CABLE	PEU	PHOTOELECTRIC UNIT
EVUD	EMERGENCY VEHICLE UNIT DETECTOR	PT	CONDUIT WITH PULL TAPE
FB	FLASHING BEACON	RE	RELOCATED EQUIPMENT
FBCA	FLASHING BEACON CONTROL ASSEMBLY	RM	RAMP METERING
FBS	FLASHING BEACON WITH SLIP BASE	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
FO	FIBER OPTIC	SB	SLIP BASE
G	EQUIPMENT GROUNDING CONDUCTOR	SIC	SIGNAL INTERCONNECT CABLE
GB	GROUND BUS	Sig	SIGNAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SMA	SIGNAL MAST ARM
HAR	HIGHWAY ADVISORY RADIO	SNS	STREET NAME SIGN
Hex	HEXAGONAL	SP	SERVICE POINT
HPS	HIGH PRESSURE SODIUM	TDC	TELEPHONE DEMARCATION CABINET
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN	TMS	TRAFFIC MONITORING STATION
ISL	INDUCTION SIGN LIGHTING	TOS	TRAFFIC OPERATIONS SYSTEM
LED	LIGHT EMITTING DIODE	Veh	VEHICLE
LMA	LUMINAIRE MAST ARM	VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
LPS	LOW PRESSURE SODIUM	WIM	WEIGH-IN-MOTION
Ltg	LIGHTING	Xfmr	TRANSFORMER
Lum	LUMINAIRE		
M	METERED		
MAT	MAST ARM MOUNTING TOP ATTACHMENT		
MAS	MAST ARM MOUNTING SIDE ATTACHMENT		

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		6	24

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-14
ELECTRICAL
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 12-9-13

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
Hz	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

NOTES:

- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
- LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		7	24

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
 No. E15129
 Exp. 6-30-14
 ELECTRICAL
 STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 12-9-13

CONDUIT

NEW	EXISTING	
		LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
		TRAFFIC SIGNAL CONDUIT
		COMMUNICATION CONDUIT
		TELEPHONE CONDUIT
		FIRE ALARM CONDUIT
		FIBER OPTIC CONDUIT
		CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

SERVICE EQUIPMENT

NEW	EXISTING	
		OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

POLE-MOUNTED SERVICE DESIGNATION

	TYPE H SERVICE, 28'-10"	TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE
--	-------------------------	--

FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

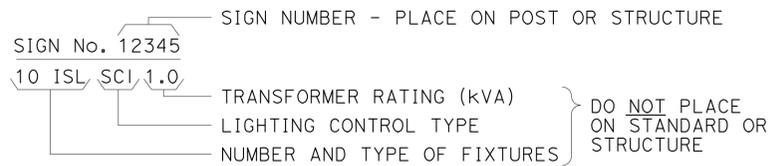
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

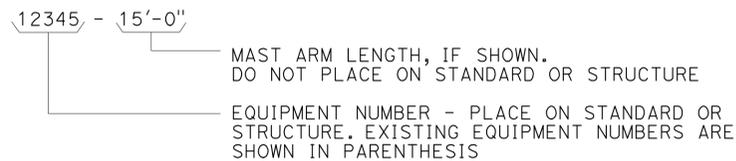
2010 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

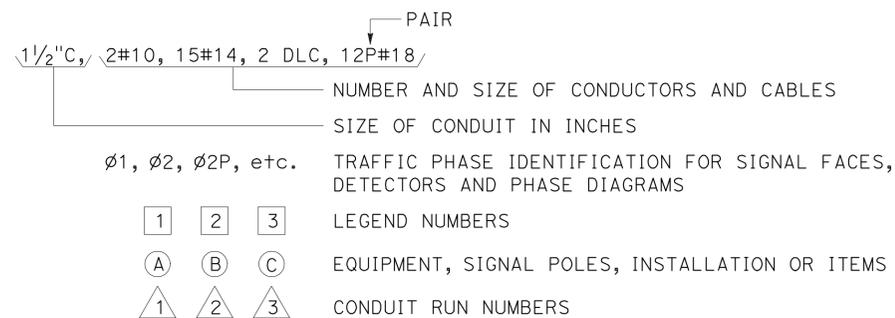
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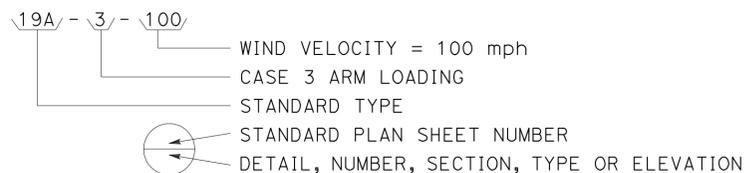
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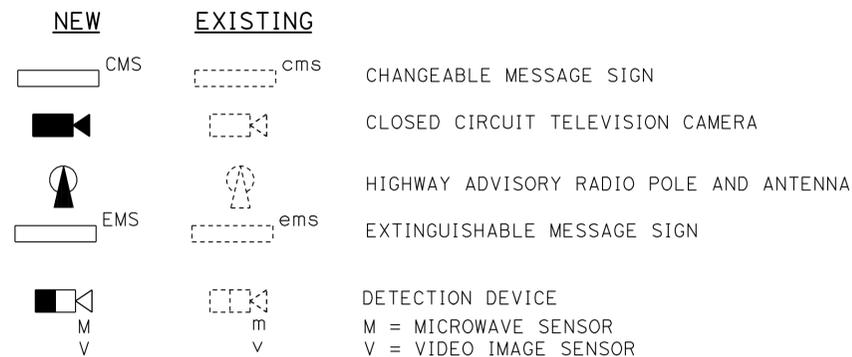
CONDUIT AND CONDUCTOR IDENTIFICATION:



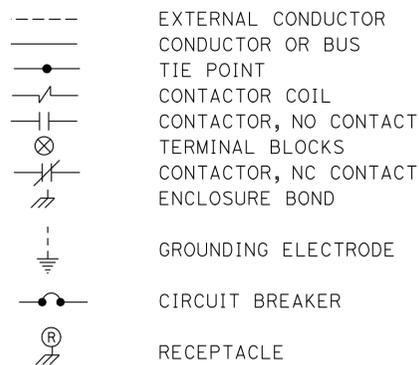
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



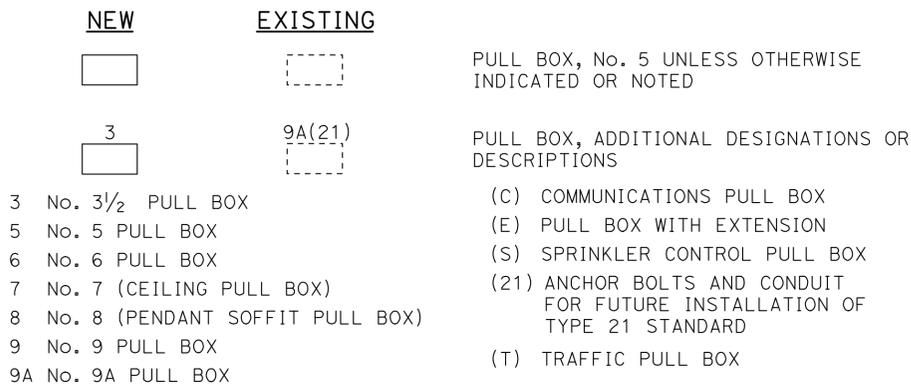
MISCELLANEOUS EQUIPMENT



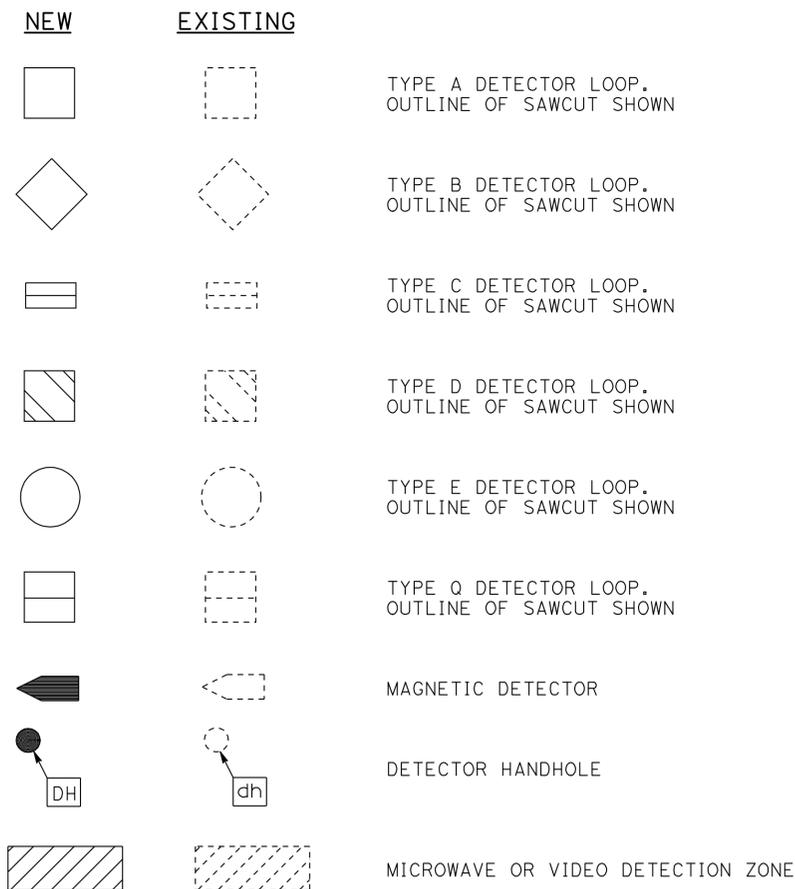
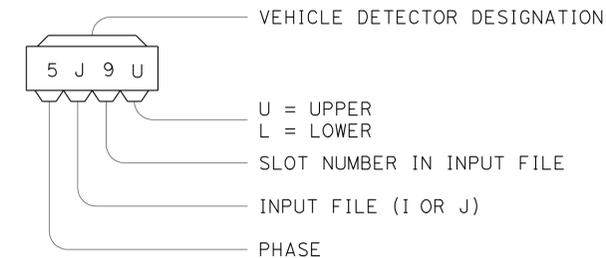
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C

INDEX OF SHEETS

SHEET No.	DESCRIPTION
GP	EXISTING GENERAL PLAN
MECHANICAL PLANS	
M-0	MECHANICAL LEGEND
M-1	MODIFIED SITE PLAN
M-2	EQUIPMENT LAYOUT
M-3	PIPING & INSTRUMENTATION DIAGRAM
M-4	SPARGE POINT DETAILS
M-5	EXISTING AIR SPARGE POINT DETAILS
M-6	CONDUIT DETAILS
ELECTRICAL PLANS	
EEO-0	LEGEND
EEO-1	NOTES AND ABBREVIATIONS
EEO-2	TITLE 24 INDOOR LIGHTING FORMS 1
EEO-3	TITLE 24 INDOOR LIGHTING FORMS 2
EEO-4	SITE PLAN
EEO-5	PANEL SCHEDULE AND ELEVATION
EEO-6	LIGHTING PLAN
EEO-7	EQUIPMENT POWER PLAN

NOTES:

LEGEND:

- ⊙ APPROXIMATE (EXISTING) MONITORING WELL LOCATION
- ⊕ APPROXIMATE (EXISTING) AIR SPARGE WELL LOCATION

ABBREVIATIONS:

- AS - AIR SPARGE (EXISTING WELLS FROM PREVIOUS AIR SPARGE TEST SYSTEM)
- MW - MONITORING WELL (EXISTING)

MW-7
⊙

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		9	24
 REGISTERED MECHANICAL ENGINEER			9/20/13	DATE	
12-9-13 PLANS APPROVAL DATE					
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CSFM File Number: 01-23-11-0045

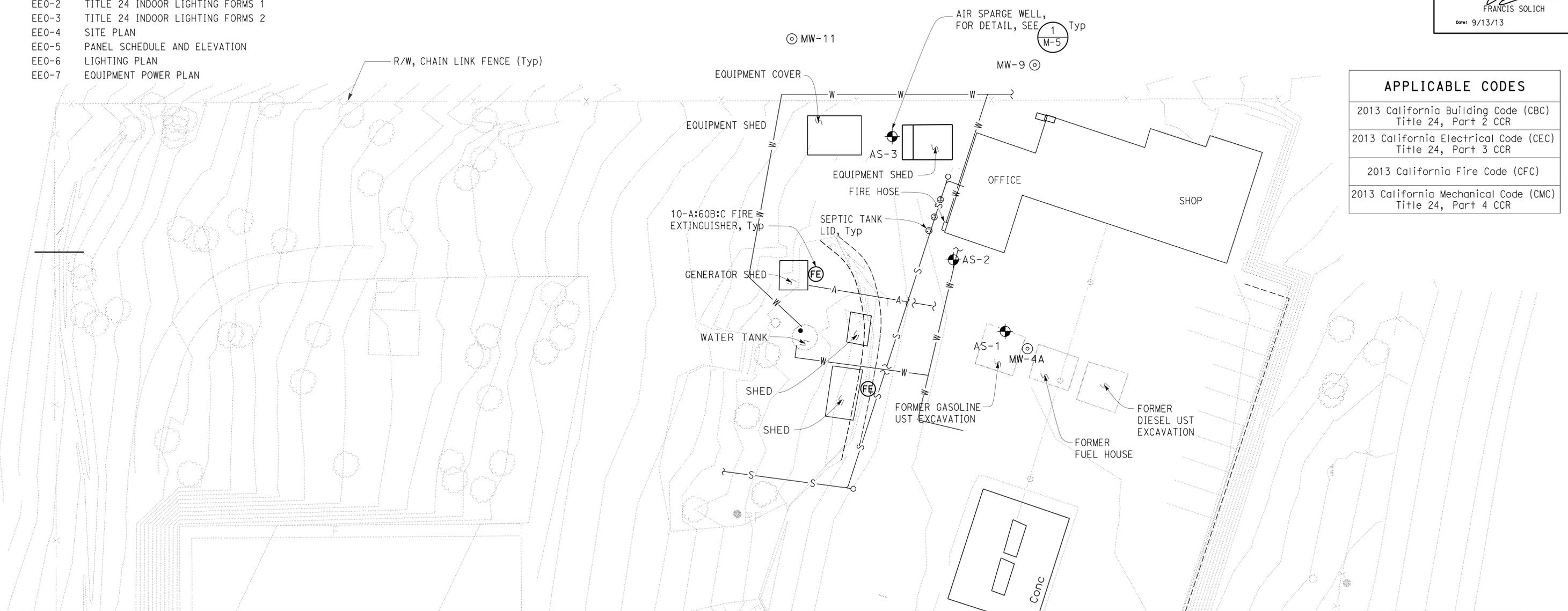
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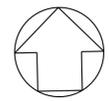
Reviewed by: 
 FRANCIS SOLICH
 Date: 9/13/13

APPLICABLE CODES

2013 California Building Code (CBC) Title 24, Part 2 CCR
2013 California Electrical Code (CEC) Title 24, Part 3 CCR
2013 California Fire Code (CFC)
2013 California Mechanical Code (CMC) Title 24, Part 4 CCR



PROJECT SCOPE: PROJECT SCOPE CONSISTS OF CONSTRUCTING AN OZONE GENERATION SYSTEM TO FEED 20 SPARGE WELLS, FOR THE PURPOSE OF SOIL REMEDIATION DUE TO THE CONTAMINATION OF PREVIOUSLY BURIED BELOW GROUND DIESEL AND GASOLINE FUEL TANKS.



EXISTING GENERAL PLAN

SCALE: 1" = 20'-0"

 DESIGN SUPERVISOR  DESIGN ENGINEER	DESIGN	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI
	DETAILS	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI
	QUANTITIES	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No. 10M5718
 POST MILE

LEGGETT MAINTENANCE STATION REMEDIATION		SHEET OF
EXISTING GENERAL PLAN		

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		10	24

 9/20/13
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12-9-13
 PLANS APPROVAL DATE

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PLUMBING

- — — — COLD WATER
- **A** — COMPRESSED AIR
- **F** — FIRE SERVICE WATER LINE
- **G** — GAS
- **D** — EQUIPMENT DRAIN
- **RD** — ROOF DRAIN
- **OD** — OVERFLOW DRAIN
- **RWL** — RAIN WATER LEADER
- — — — HOT WATER
- **R** — RELIEF VALVE DISCHARGE PIPE
- **S** — SEWER LINE
- SANITARY SEWER (ABOVE GRADE)
- SEWER LINE
- — — — SANITARY SEWER VENT

HEATING, VENTILATING AND AIR CONDITIONING

- (T) THERMOSTAT
- (FE) FIRE EXTINGUISHER

OZONE SPARGE SYSTEM

- LEGEND:**
- ⊙ (EXISTING) MONITORING WELL
 - ⊕ OZONE-SPARGE WELL
 - OZONE-SPARGE/VAPOR MONITORING WELL
 - OZONE MONITOR

ABBREVIATIONS:

- AS AIR SPARGE HREAD
- FPT FEMALE PIPE T
- MW MONITORING WELL (EXISTING)
- OS OZONE SPARGE
- SS STAINLESS STEEL TYPE 316

PIPE FITTINGS AND VALVES

- ┌ — — — — CAP, THREADED
- └ — — — — ELBOW, TURNED DOWN
- ⊙ — — — — ELBOW, TURNED UP
- — — — REDUCER, CONCENTRIC
- ⊙ — — — — PRESSURE GAUGE
- — — — STRAINER
- — — — UNION
- — — — UNION, INSULATING
- — — — — VALVE, BALL
- — — — VALVE, CHECK
- — — — VALVE, GAS
- — — — VALVE, GATE
- — — — VALVE, SAFETY RELIEF
- ⊙ — — — — VALVE, PRESSURE REDUCING
- — — — VALVE, PRESSURE/TEMPERATURE
- — — — WATER HAMMER ARRESTOR

MISCELLANEOUS

- 4 ANGLE
- SECTION/ELEVATION BY LETTERS
- SHEET NUMBER
- DETAILS BY NUMBER
- SHEET NUMBER

MECHANICAL ABBREVIATIONS

- A/C AIR CONDITIONING
- ABS ACRYLONTIRLE BUTADIENE STYRENE
- AC ASPHALT CONCRETE
- AD AIR DROP
- AP ALTERNATIVE PIPE
- ATF AUTOMATIC TRANSMISSION FLUID
- BFP BACKFLOW PREVENTER
- BTUH BRITISH THERMAL UNIT PER HOUR
- BV BALANCING VALVE
- C CONDUIT
- Cap CAPACITY
- CHLF COMBINATION HEAT LAMP, LIGHT AND FAN UNIT
- CO CLEANOUT
- COTF CLEANOUT THROUGH FLOOR
- COTG CLEANOUT THROUGH GRADE
- CV CHECK VALVE
- CW COLD WATER
- CFM CUBIC FEET PER MINUTE
- DWV DRAIN/WASTE/VENT
- DB DRY BULB
- DF DRINKING FOUNTAIN
- DH DUCT HEATER
- (E) EXISTING
- EA EXHAUST AIR
- EEW EMERGENCY EYEWASH AND SHOWER
- EF EXHAUST FAN
- Elect. ELECTRICAL
- ESP EXTERNAL STATIC PRESSURE
- EWC ELECTRIC WATER COOLER
- EWH ELECTRIC WATER HEATER
- °F FARENHEIT
- FC FLEXIBLE CONNECTION
- FD FLOOR DRAIN
- FDC FIRE DEPARTMENT CONNECTION
- FE FIRE EXTINGUISHER
- FS FLOW SWITCH
- FTR FLUE THRU ROOF
- GH GROUND HYDRANT
- GV GLOBE VALVE
- GPM GALLONS PER MINUTE
- GV GATE VALVE
- GWH GAS WATER HEATER
- Gyp GYPSUM
- HB HYDRANT BOX
- H/C HOT WATER, HIGH PRESSURE CLEANER
- HF HOSE FAUCET
- HVAC HEATING, VENTILATING AND AIR CONDITIONING
- HW HOT WATER
- HZ HERTZ
- IE INVERT ELEVATION
- In INCH
- IPS INTERNATIONAL PIPE STANDARD
- KS KITCHEN SINK
- Kw KILOWATT
- LAV LAVATORY
- LPG LIQUIFIED PETROLEUM GAS
- L/S LITERS PER SECOND
- MS MOP SINK
- (N) NEW
- NIC NOT IN CONTRACT
- NPT NATIONAL PIPE THREAD
- NST NATIONAL STANDARD THREAD
- NPS NOMINAL PIPE SIZE
- OA OUTSIDE AIR
- OC ON CENTER
- Psig POUNDS PER SQUARE INCH GAUGE
- Ph PHASE
- POC POINT OF CONNECTION
- PRV PRESSURE REDUCING VALVE
- RH RADIANT HEATER
- Reg REGISTER
- RV RELIEF VALVE
- Req REQUIRED
- RA RETURN AIR
- RD ROOF DRAIN
- SCFH STANDARD CUBIC FEET PER HOUR
- SDS SANITARY DUMP STATION
- SS SANITARY SEWER
- Sch SCHEDULE
- S/S SERVICE SINK
- SHR SHOWER
- S.P. STATIC PRESSURE
- SA SUPPLY AIR
- SF SUPPLY FAN
- TCV TEMPERATURE CONTROL VALVE
- TP TRAP PRIMER
- TS TIME SWITCH
- UST UNDERGROUND STORAGE TANK
- UH UNIT HEATER
- UR URINAL
- V VENT
- VAC VOLT. ALTERNATING CURRENT
- VR VENT RISER
- VTR VENT THRU ROOF
- W/ WITH
- W/O WITHOUT
- WB WET BULB
- WC WATER CLOSET
- W.C. WATER COLUMN
- W.H. WALL HYDRANT
- W.H.A. WATER HAMMER ARRESTOR
- WLS WATER LEVEL SWITCH
- WP WEATHERPROOF
- WSI WASH SINK

CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: 
FRANCIS SOLICH

Date: 9/13/13

DESIGN BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE No. 10M5718	LEGGETT MAINTENANCE STATION REMEDIATION MECHANICAL LEGEND	SHEET M-0
DETAILS BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI		POST MILE		
QUANTITIES BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI				

UNIT: 3615 CONTRACT No.: 497104
 PROJECT NUMBER & PHASE: 0100000684

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

TAEWW Imperial - CCSC Rev. 01/13

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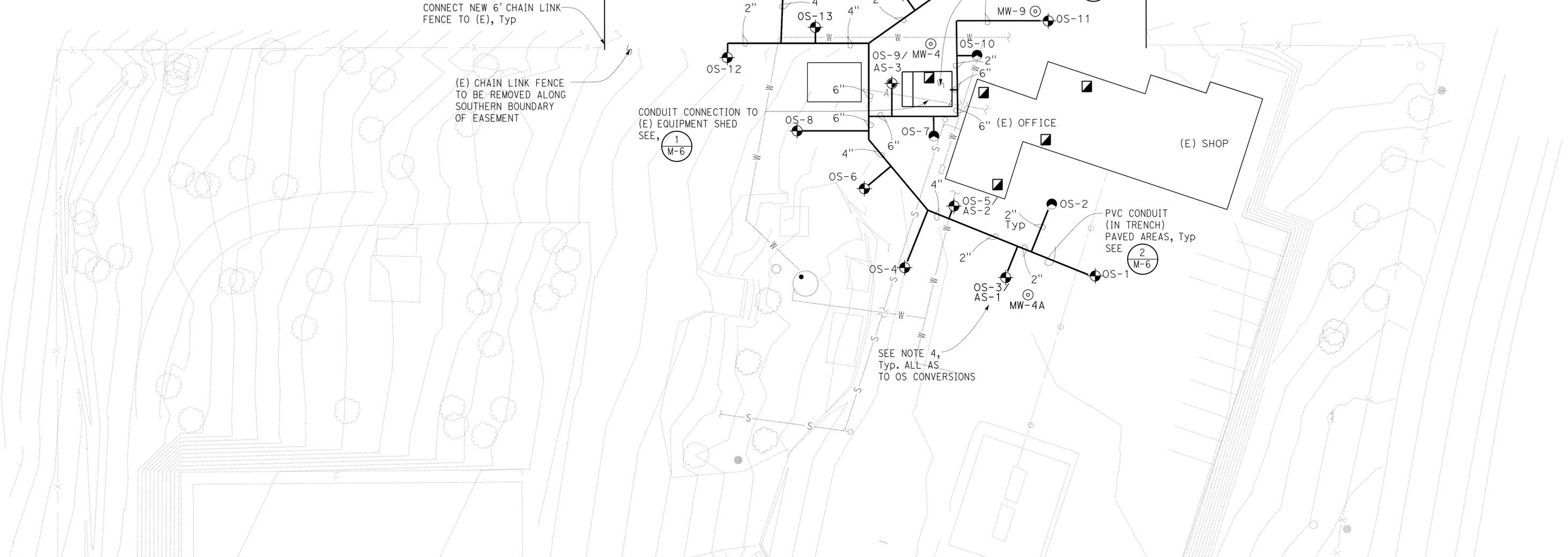
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NOTES:

1. VERIFY ALL FIELD DIMENSIONS AND SITE CONDITIONS BEFORE BEGINNING WORK. ANY CONFLICTS WITH PLANS MUST BE NOTED AND DISCUSSED WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
2. THE SYSTEM LAYOUT WAS DESIGNED BASED ON TYPICAL OZONE SPARGE SYSTEM MANUFACTURER'S REQUIREMENTS AND TYPICAL SYSTEM LAYOUTS THAT MEET THE PERFORMANCE CRITERIA IN THE PLANS AND SPECIFICATIONS. MODIFICATIONS TO THE DESIGN SYSTEM LAYOUT MUST BE APPROVED BY THE ENGINEER.
3. SYSTEM LAYOUTS ARE GENERALLY DIAGRAMMATIC AND LOCATION OF EQUIPMENT IS APPROXIMATE. EXACT ROUTING OF PIPES, TUBING, TRENCHING, CONTROLS, WIRING, ETC., AND LOCATION OF EQUIPMENT AND SPARGE WELLS ARE TO BE GOVERNED BY ENVIRONMENTAL AND STRUCTURAL CONDITIONS AND OBSTRUCTIONS.
4. AIR SPARGE TEST SYSTEM TO BE CONVERTED TO OS WELLS AND CONNECTED TO OZONE SPARGE SYSTEM (TOTAL 3).
5. VERIFY THE LOCATIONS OF ALL (E) UTILITIES WITHIN THE PROPOSED WORK AREAS PRIOR TO PERFORMING WORK.

LEGEND:

- ⊙ APPROXIMATE (E) MONITORING WELL LOCATION
- ⊕ OZONE-SPARGE WELL LOCATION (TOTAL 13)
- OZONE-SPARGE/VAPOR MONITORING POINT LOCATION (TOTAL 7)
- OZONE MONITOR LOCATION (TOTAL 5)



Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		11	24

REGISTERED MECHANICAL ENGINEER DATE 9/20/13
 12-9-13
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 MARK HEDGLIN
 No. M32912
 Exp. 9-30-14
 MECH
 STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by: FRANCIS SOLICH
 Date: 9/13/13

MODIFIED SITE PLAN
 SCALE: 1" = 20'-0"

DESIGN	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI
DETAILS	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI
QUANTITIES	BY MARK HEDGLIN	CHECKED SHAHJAHAN ALI

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING SERVICES
 ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No.	10M5718	LEGGETT MAINTENANCE STATION REMEDIATION	SHEET M-1
POST MILE			
MODIFIED SITE PLAN			

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		12	24

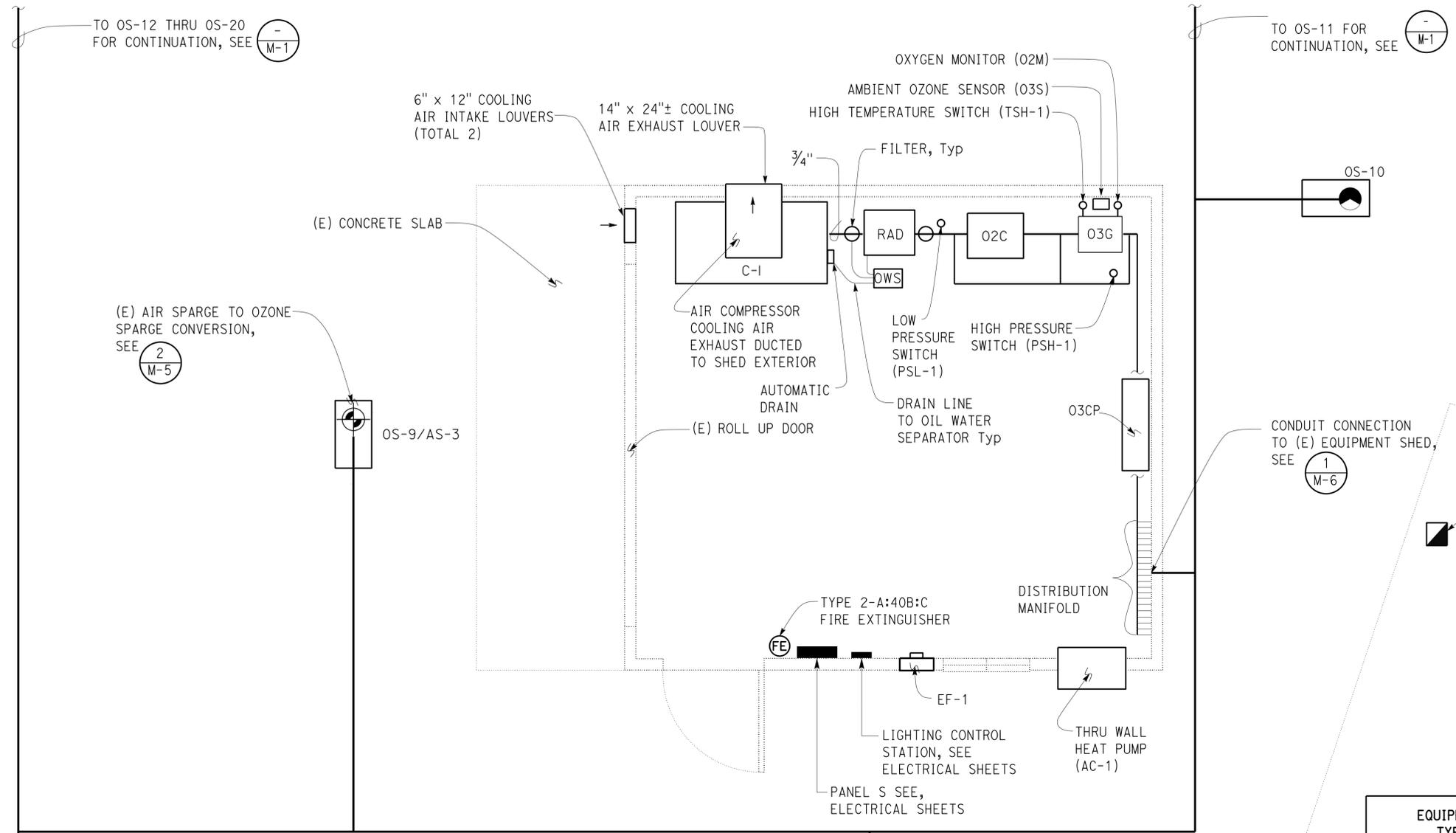
REGISTERED MECHANICAL ENGINEER DATE 9/20/13
 12-9-13
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Reviewed by: FRANCIS SOLICH
Date: 9/13/13



- NOTES:**
- All piping must be supported from wall and routed to avoid conflict with overhead door and other equipment and electrical conduits.
 - Not all system components shown, for complete piping and instrumentation diagram see, M-3
 - For system wiring layout see electrical sheets.

EQUIPMENT LAYOUT
SCALE: 1/2" = 1'-0"

TO OS-1 THRU OS-6, & OS-8 FOR CONTINUATION, SEE M-1

TO OS-11 FOR CONTINUATION, SEE M-1

CONDUIT CONNECTION TO (E) EQUIPMENT SHED, SEE M-6

AMBIENT OZONE SENSOR, FOR ALL OTHER LOCATIONS, SEE M-1. ALL LOCATIONS SHOWN ARE APPROXIMATE, FINAL LOCATIONS MUST BE APPROVED BY THE ENGINEER, Typ

(E) OFFICE Bldg

EQUIPMENT SCHEDULE

EQUIPMENT TYPE	CAPACITY	DESCRIPTION	FULL LOAD AMPERE RATING	Rating HP/ WATTS/ AMPERES/ BTUH	V-Ph-Hz
AIR COMPRESSOR (C-1)	18.5 CFM @ 90° F	80 GALLON TANK	26	5 HP	230-3-60
REFRIGERATED AIR DRYER (RAD-1)	25 CFM @ 180° F		-	7.5 HP	115-1-60 OR 230-1-60
OXYGEN CONCENTRATOR (O2C)	80 SCFH Min @ 45 Psig		-	180 W	120-1-60
OZONE GENERATOR (O3G)	6 lbs / DAY		8.3	1000 W	230-1-60
EXHAUST FAN (EF-1)	250 CFM		-	1/4 HP	120-1-60
HEAT PUMP (AC-1)	250 CFM		-	7200 BTUH Heat 6000 BTUH Cool	230-1-60
OZONE SPARGE SYSTEM CONTROL PANEL (O3CP)	-	NEMA 1	3	24 V(dc) DIGITAL CONTROLS	120-1-60

DESIGN BY	MARK HEDGLIN	CHECKED	SHAHJAHAN ALI
DETAILS BY	MARK HEDGLIN	CHECKED	SHAHJAHAN ALI
QUANTITIES BY	MARK HEDGLIN	CHECKED	SHAHJAHAN ALI

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DEPARTMENT OF TRANSPORTATION

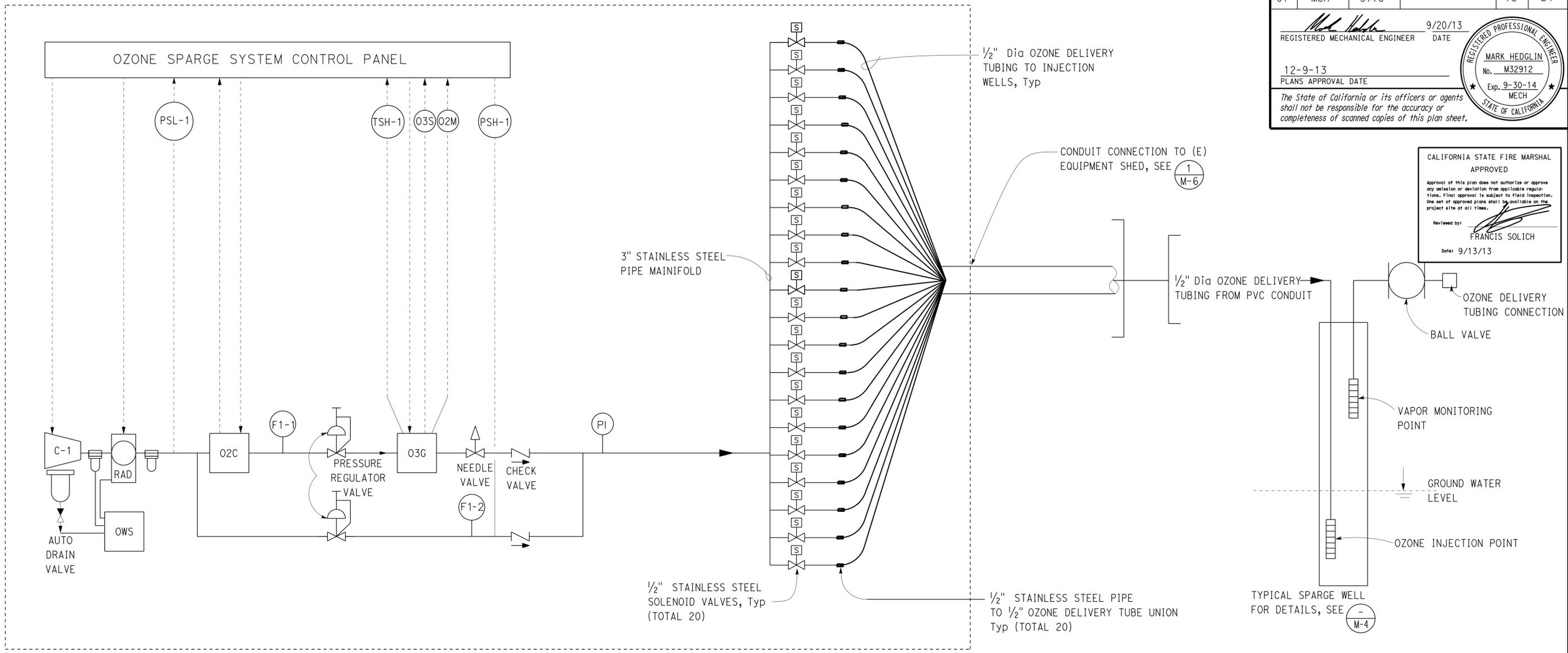
DIVISION OF ENGINEERING SERVICES
ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN

BRIDGE No. 10M5718
POST MILE

LEGGETT MAINTENANCE STATION REMEDIATION
EQUIPMENT LAYOUT

SHEET M-2 OF

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		13	24
 REGISTERED MECHANICAL ENGINEER			9/20/13	DATE	
12-9-13 PLANS APPROVAL DATE					
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PIPING AND INSTRUMENTATION DIAGRAM (P&ID)

ABBREVIATIONS:

C-1	COMPRESSOR
F1-1/2	FLOW METER
O2C	OXYGEN CONCENTRATOR
O3G	OZONE GENERATOR
O3S	AMBIENT OZONE SENSOR
O2M	OXYGEN MONITOR
OWS	OIL WATER SEPARATOR
PI	PRESSURE INDICATOR
PSH-1	HIGH PRESSURE SWITCH
PSL-1	LOW PRESSURE SWITCH
RAD	REFRIGERATED AIR DRYER
TSH-1	HIGH TEMPERATURE SWITCH

NOTES:

- THIS P&ID AND OZONE SPARGING SYSTEM DESIGN IS BASED ON A TYPICAL OXYGEN FED OZONE SPARGE SYSTEM. THE SYSTEM LAYOUT IS GENERIC. ACTUAL SYSTEM DIAGRAM MUST BE SUBMITTED PRIOR TO CONSTRUCTION.
- PRIOR TO PURCHASE AND INSTALLATION OF THE OZONE SPARGE SYSTEM, SUBMIT COMPLETE SYSTEM DETAILS AND RECEIVE WRITTEN APPROVAL BY THE ENGINEER.
- THE DISTRIBUTION SYSTEM MANIFOLD MUST HAVE A MINIMUM OF 20 PORTS. PORTS IN EXCESS OF 20 MUST SERVE AS SPARE CONNECTIONS.

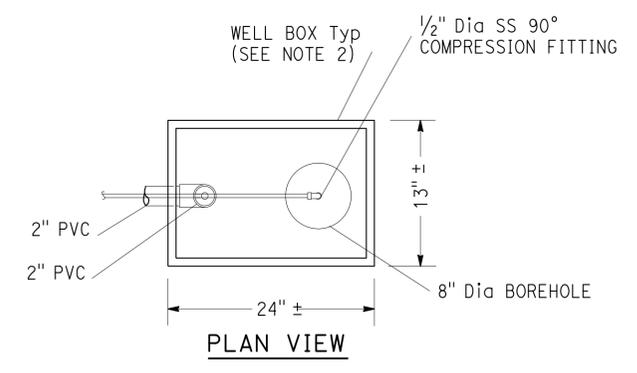
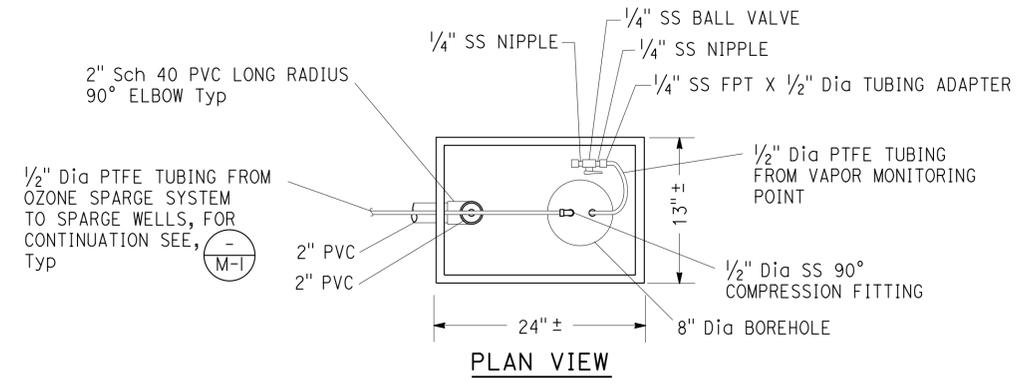
CONTROLS:

O3S	AMBIENT OZONE SENSOR - SHUT DOWN OXYGEN CONCENTRATOR AND OZONE GENERATOR.
O2M	OXYGEN MONITOR - SHUT DOWN OXYGEN CONCENTRATOR AND OZONE GENERATOR.
PSH-1	PRESSURE SWITCH HIGH - SHUT DOWN OXYGEN CONCENTRATOR AND OZONE GENERATOR.
PSL-1	PRESSURE SWITCH LOW - SHUT DOWN OXYGEN CONCENTRATOR AND OZONE GENERATOR.
TSH-1	TEMPERATURE SWITCH HIGH - SHUT DOWN OXYGEN CONCENTRATOR AND OZONE GENERATOR.

DESIGN BY: MARK HEDGLIN CHECKED: SHAHJAHAN ALI DETAILS BY: MARK HEDGLIN CHECKED: SHAHJAHAN ALI QUANTITIES BY: MARK HEDGLIN CHECKED: SHAHJAHAN ALI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718 POST MILE	LEGGETT MAINTENANCE STATION REMEDIATION PIPING AND INSTRUMENTATION DIAGRAM	SHEET M-3 OF
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3	UNIT: 3615 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 08/20/13 08/27/13 08/27/13 09/05/13 09/20/13	SHEET OF

TAEWW Imperial - CCSC Rev. 01/13
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12-9-13 PLANS APPROVAL DATE					
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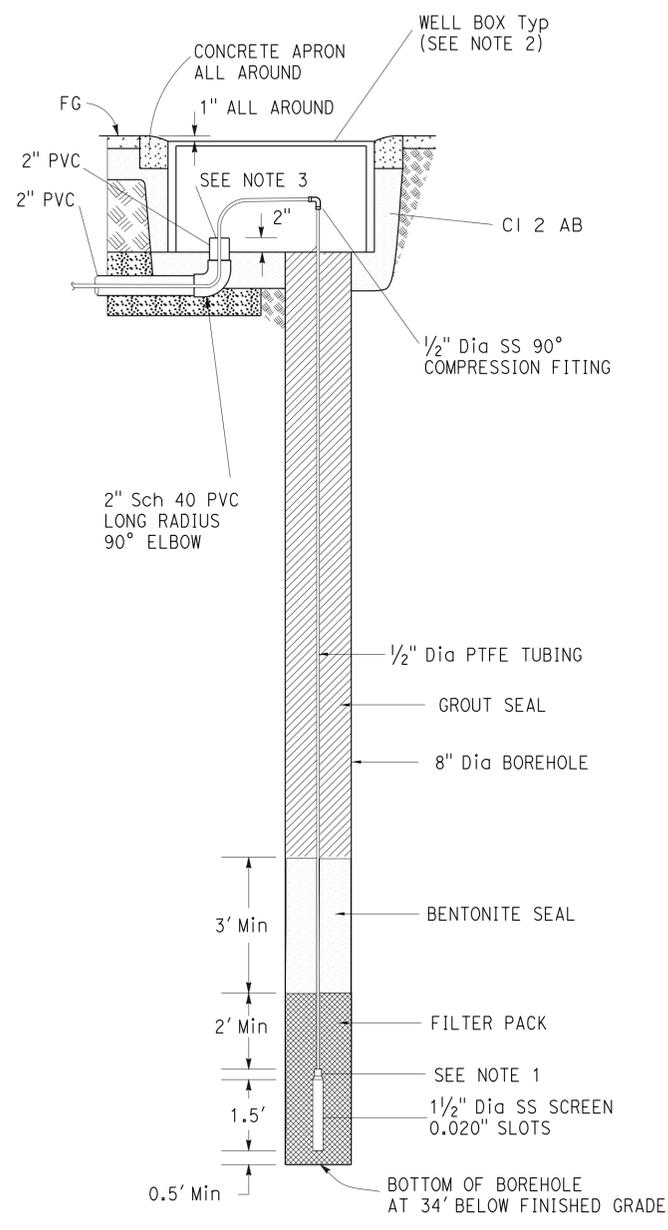
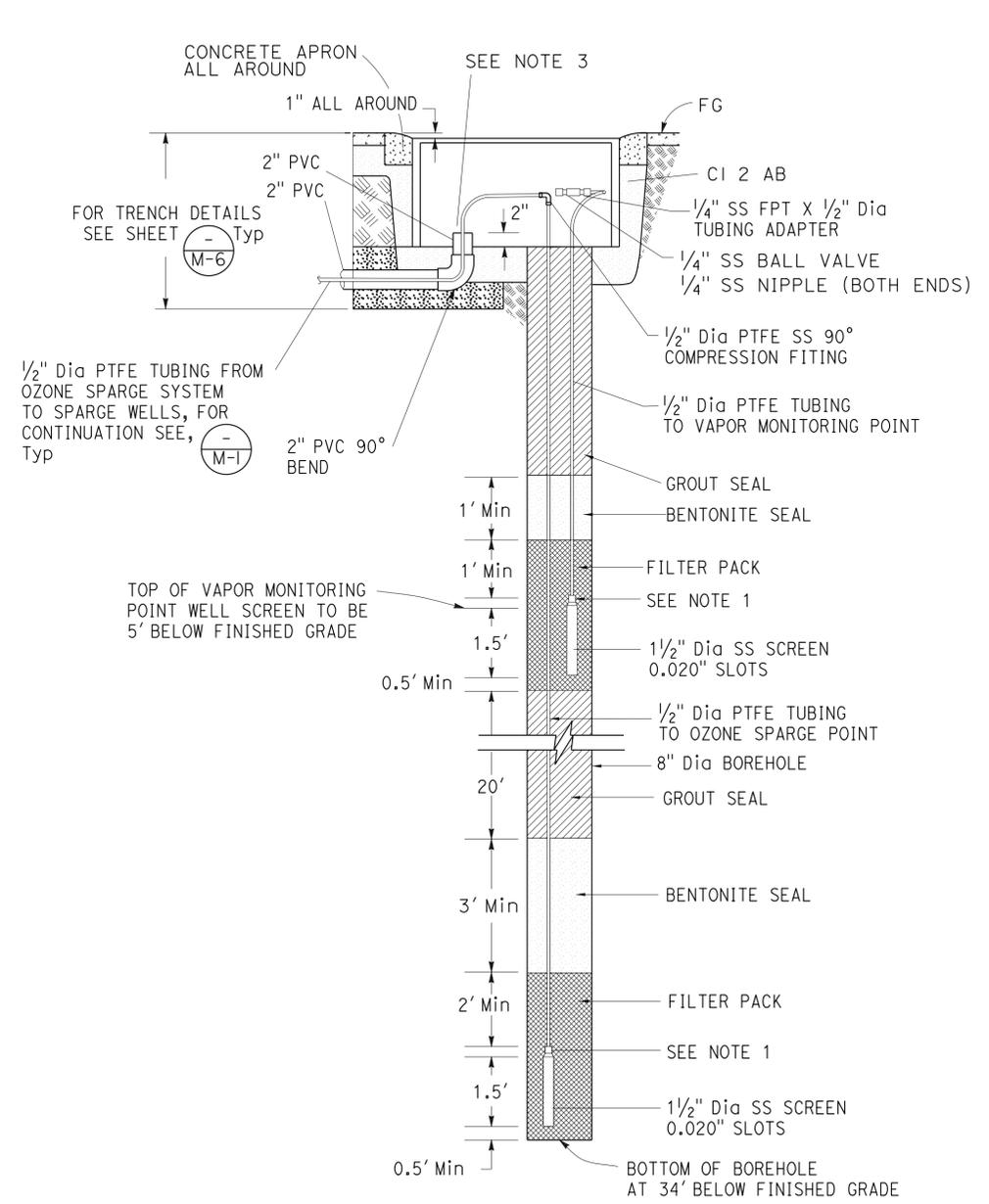
CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: 
FRANCIS SOLICH
 Date: 9/13/13

NOTES:

- A 1/2" MALE THREADED STAINLESS STEEL FITTING MUST BE WELDED ONTO THE STAINLESS STEEL SCREEN. A 1/2" STAINLESS STEEL COMPRESSION FITTING MUST BE SCREWED ONTO THIS FITTING. THE 1/2" DIAMETER PTFE TUBING MUST BE SECURELY CONNECTED TO THIS COMPRESSION FITTING.
- THE WELL BOX MUST BE SET IN CLASS 2 AGGREGATE BASE. THE WELL BOX MUST BE INSTALLED APPROXIMATELY 1" BELOW GRADE AND SECURED WITH A 6" CONCRETE APRON THAT SLOPES TO THE WELL BOX. WELL BOX MUST BE PRECAST CONCRETE WITH STEEL LID. WELL BOXES IN PAVED AREAS MUST BE TRAFFIC RATED.
- INSTALL EXPANDING FOAM INSIDE THE 2" PVC CONDUIT TO LIMIT WATER ENTRANCE INTO THE CONDUIT.

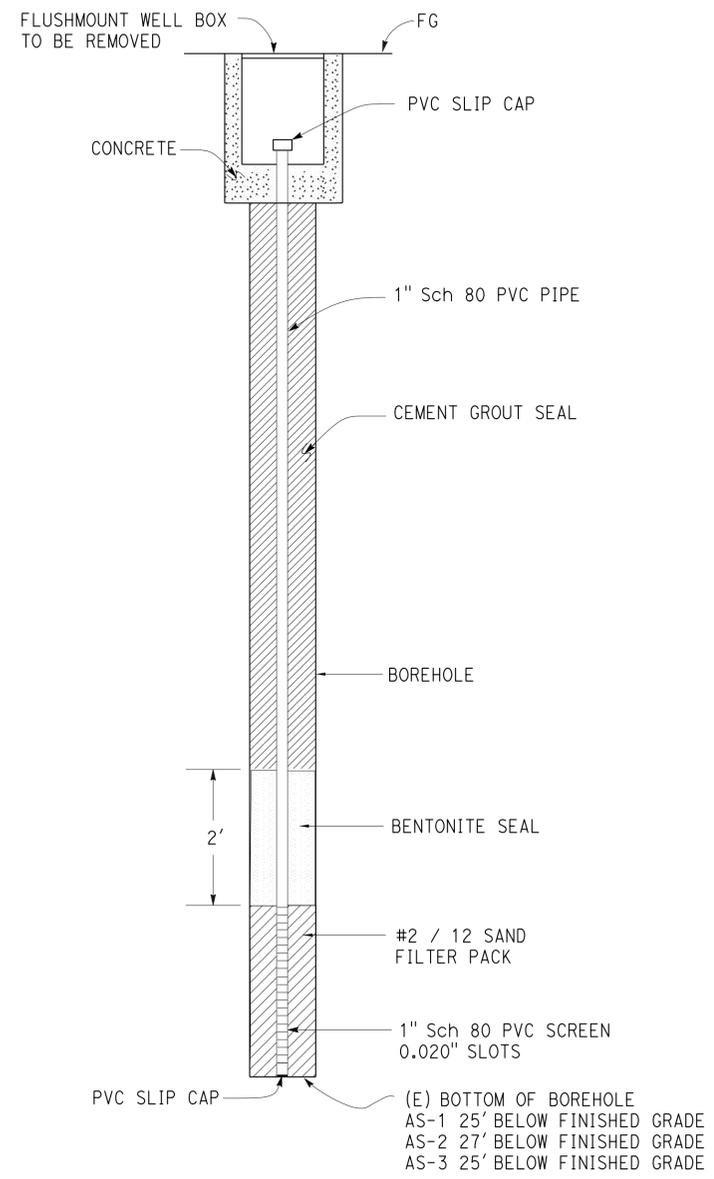
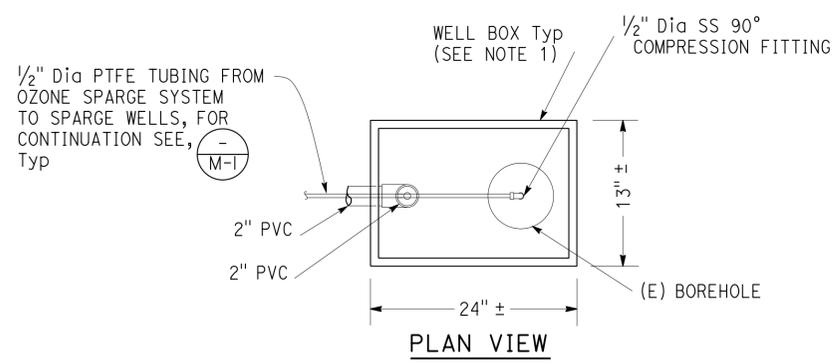


1 OZONE SPARGE WELL/VAPOR MONITORING POINT DETAIL
 OS-2, OS-7, OS-10, OS-15, OS-16, OS-19, OS-20

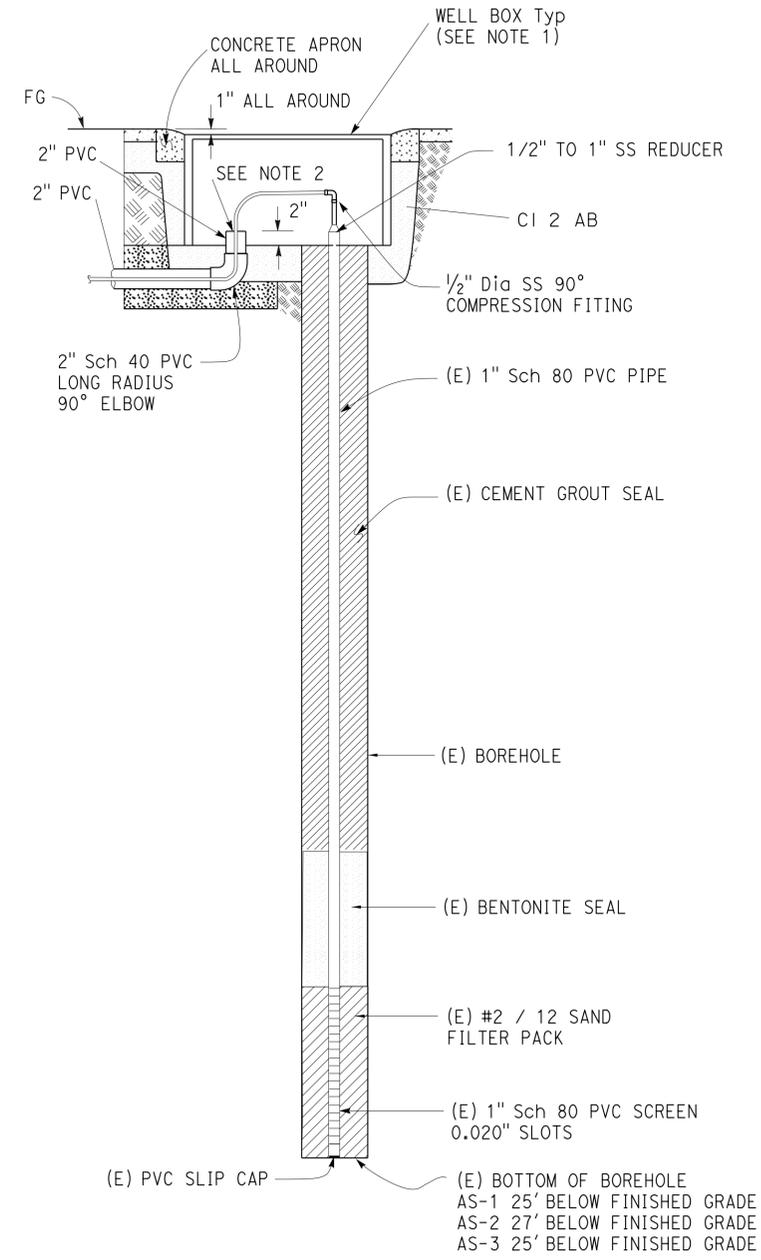
2 OZONE SPARGE WELL DETAIL
 OS-1, OS-4, OS-6, OS-8, OS-11, OS-12, OS-13, OS-14, OS-17, OS-18

DESIGN BY MARK HEDGLIN CHECKED SHAHJAHAN ALI DETAILS BY MARK HEDGLIN CHECKED SHAHJAHAN ALI QUANTITIES BY MARK HEDGLIN CHECKED SHAHJAHAN ALI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718 POST MILE	LEGGETT MAINTENANCE STATION REMEDIATION OZONE SPARGE WELL DETAILS	SHEET M-4 OF	
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: 3615 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 08/20/13 08/27/13 08/28/13 09/05/13 09/20/13	SHEET OF	TAEWW Imperial - CCSC Rev. 01/13
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Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		15	24
 REGISTERED MECHANICAL ENGINEER			9/20/13	DATE	
12-9-13 PLANS APPROVAL DATE					
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1 (E) AIR SPARGE WELL DETAIL
AS-1, AS-2, AS-3



2 (E) AS TO OS WELL CONVERSION DETAIL
OS-3/AS-1, OS-5/AS-2, OS-9/AS-3

NOTES:

1. THE WELL BOX MUST BE SET IN CLASS 2 AGREGATE BASE. THE WELL BOX MUST BE INSTALED APPROXIMATELY 1" BELOW GRADE AND SECURED WITH A 6" CONCRETE APRON THAT SLOPES TO THE WELL BOX. WELL BOX MUST BE PRECAST CONCRETE WITH STEEL LID. WELL BOXES IN PAVED AREAS MUST BE TRAFFIC RATED.
2. INSTALL EXPANDING FOAM INSIDE THE 2" PVC CONDUIT TO LIMIT WATER ENTRANCE INTO THE CONDUIT. WELL BOX DIMENSIONS MAY BE MODIFIED AS APPROVED BY THE ENGINEER.
3. EXISTING AIR SPARGE WELLS (AS-1, AS-2, AND AS-3) MUST BE CONVERTED TO INJECT OZONE BY REPLACING WELL BOX AND CONVERTING THE EXISTING WELL CAP WITH THE FOLLOWING FITTINGS: 1" TO 1/2" STAINLESS STEEL REDUCER, 1/2" DIAMETER STAINLESS STEEL 90 DEGREE COMPRESSION FITTING; AND 1/2" DIAMETER OZONE TUBING FROM OZONE SPARGE UNIT.

DESIGN BY MARK HEDGLIN CHECKED SHAHJAHAN ALI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	LEGGETT MAINTENANCE STATION REMEDIATION	SHEET M-5
			10M5718		
DETAILS BY MARK HEDGLIN CHECKED SHAHJAHAN ALI			POST MILE	EXISTING AIR SPARGE WELL DETAILS	SHEET OF
QUANTITIES BY MARK HEDGLIN CHECKED SHAHJAHAN ALI					
TAEMWW Imperial - CCSC Rev. 01/13	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3615 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
					08/20/13 08/27/13 08/27/13 09/26/13 09/20/13

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		16	24

<i>Mark Hedglin</i>	9/20/13
REGISTERED MECHANICAL ENGINEER	DATE
12-9-13	
PLANS APPROVAL DATE	

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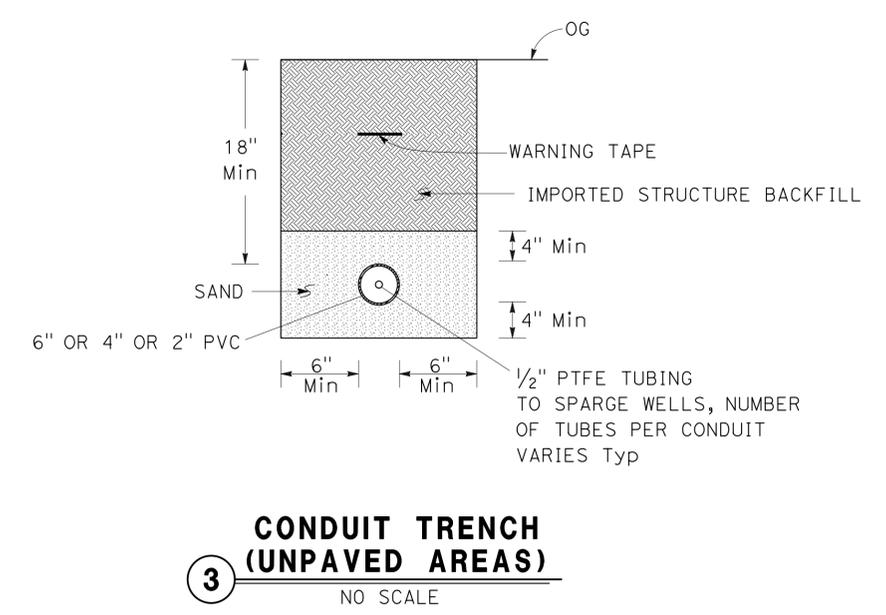
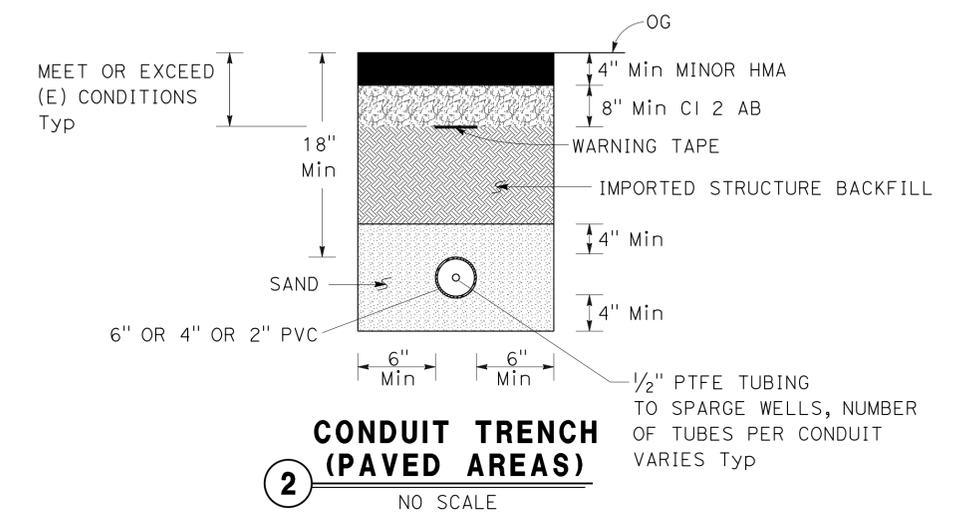
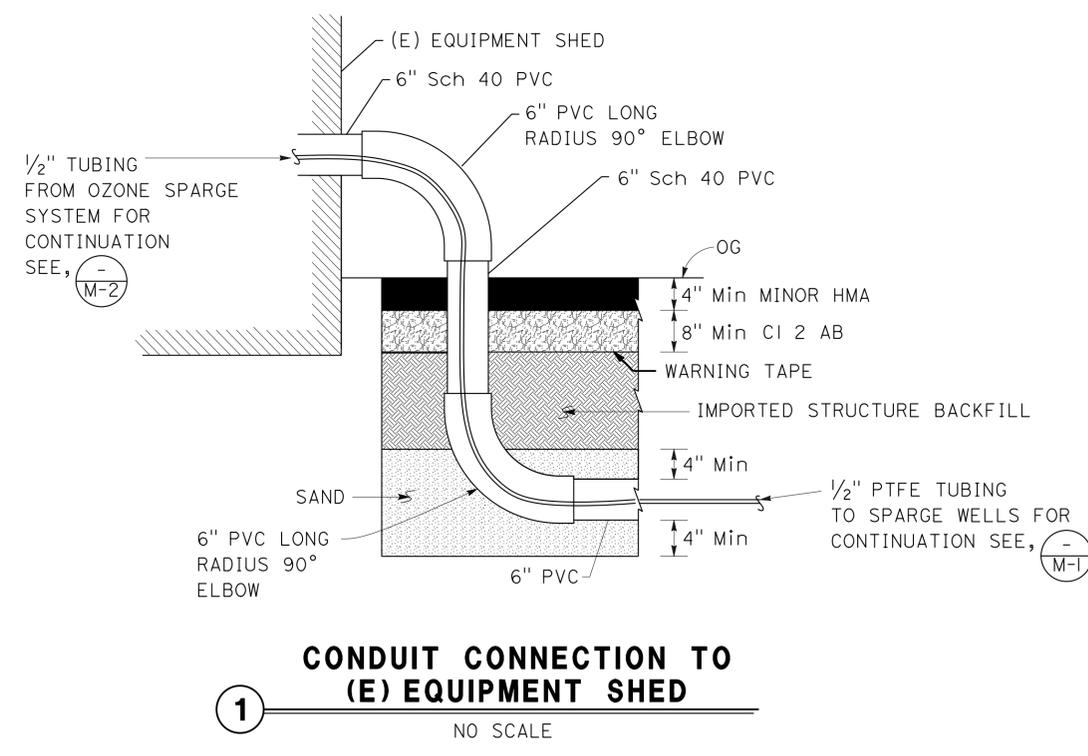
CALIFORNIA STATE FIRE MARSHAL APPROVED

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Reviewed by: *Francis Solich*
FRANCIS SOLICH
 Date: 9/13/13

NOTES:

1. DRILL 3/8-INCH DIAMETER HOLES IN THE BOTTOM OF THE PVC CONDUIT EVERY 10' AND AT LOW POINTS TO ALLOW FOR DRAINAGE.
2. FIELD FIT THE PVC CONDUIT USING LONG RADIUS ELBOWS.



DESIGN BY MARK HEDGLIN CHECKED SHAHJAHAN ALI	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No.	LEGGETT MAINTENANCE STATION REMEDIATION	SHEET M-6
			10M5718		
DETAILS BY MARK HEDGLIN CHECKED SHAHJAHAN ALI			POST MILE	CONDUIT DETAILS	
QUANTITIES BY MARK HEDGLIN CHECKED SHAHJAHAN ALI					

UNIT: 3615	CONTRACT No.: 497104	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
PROJECT NUMBER & PHASE: 0100000684			08/20/13 08/27/13 08/27/13 09/05/13 09/20/13		

TAEMWW Imperial - CCSC Rev. 01/13 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

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GRAPHIC SYMBOLS FOR ELECTRICAL WIRING AND LAYOUT DIAGRAMS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	POLE-TOP ELECTROLIER	S	SINGLE-POLE SWITCH
	POLE-ARM ELECTROLIER	S2	DOUBLE-POLE SWITCH
		S3	THREE-WAY SWITCH
		S4	FOUR-WAY SWITCH
	SURFACE FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE	SCHLF	TWO TIMER SWITCHES, ONE SWITCH FOR LIGHT AND FAN AND ONE SWITCH FOR HEAT LAMP
	RECESSED FLUORESCENT, METAL HALIDE, LED, OR SODIUM VAPOR FIXTURE	SD	AUTOMATIC DOOR
	EXIT LIGHT	SDTS	DIGITAL TIMER SWITCH
	SURFACE OR PENDANT INDIVIDUAL FLUORESCENT OR LED FIXTURE	SF	FAN SWITCH
	RECESSED INDIVIDUAL FLUORESCENT OR LED FIXTURE	SH	HEATER SWITCH
	SURFACE OR PENDANT CONTINUOUS ROW FLUORESCENT OR LED FIXTURES	SHP	MANUAL MOTOR STARTING SWITCH, WITHOUT OVERLOAD ELEMENT
	NOTE: A LOWER CASE LETTER NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES THAT FIXTURE IS CONTROLLED BY A SIMILARLY MARKED SWITCH, AN ALPHA-NUMERIC SYMBOL NEAR GRAPHIC LIGHTING FIXTURE SYMBOL DENOTES FIXTURE TYPE, (I=INCANDESCENT, F=FLUORESCENT, MH=METAL HALIDE, H=HIGH PRESSURE SODIUM VAPOR, L=LED), DESIGN TYPE, NUMBER OF LAMPS AND WATTAGE.	SK	KEY OPERATED SWITCH
	EXAMPLE : (4) F2-2x32	SL	LIGHT SWITCH
		SM	MOTION SENSOR SWITCH
	BLANK OUTLET	SMC	MOMENTARY CONTACT SWITCH
	JUNCTION BOX	S1	OCCUPANCY SENSOR WALL SWITCH, SINGLE LEVEL
	DROP CORD	S2	OCCUPANCY SENSOR WALL SWITCH, BILEVEL
	SINGLE RECEPTACLE OUTLET	SRC	REMOTE CONTROL SWITCH
	DUPLEX RECEPTACLE OUTLET	ST	MANUAL MOTOR STARTING SWITCH, THERMAL OVERLOAD TYPE
	DUPLEX RECEPTACLE OUTLET (WITH GFCI)	SVS	VARIABLE SPEED MOTOR CONTROL SWITCH
	DUPLEX RECEPTACLE OUTLET, WEATHERPROOF (WITH GFCI)	SWP	WEATHERPROOF SWITCH
	SINGLE, SPECIAL PURPOSE RECEPTACLE OUTLET	TS	TIMER SWITCH
	DUPLEX, SPECIAL PURPOSE RECEPTACLE OUTLET		PUSHBUTTON
	RANGE OUTLET		PUSHBUTTON STATION, NC, WITH LOCKING DEVICE FOR OPEN
	CLOCK HANGER RECEPTACLE		PUSHBUTTON STATION MOTOR CONTROL
	FAN HANGER RECEPTACLE		BELL
	FLOOR SINGLE RECEPTACLE OUTLET		COMBINATION BELL-BUZZER
	FLOOR DUPLEX RECEPTACLE OUTLET		PRESSURE SWITCH
	FLOOR SPECIAL PURPOSE OUTLET		CONTROL RELAY
	FLOOR RADIO OUTLET		FLOW SWITCH
	FLOOR TELEPHONE OUTLET		PHOTOELECTRIC UNIT
	MULTI-FLOOR OUTLET, 2 OR MORE GANG		HAND DRYER NOZZLE
	MULTI-OUTLET ASSEMBLY		HAND DRYER
	SWITCH AND SINGLE RECEPTACLE		FLUSH-MOUNTED PANELBOARD AND CABINET
	SWITCH AND DUPLEX RECEPTACLE		SURFACE-MOUNTED PANELBOARD AND CABINET
	RADIO OUTLET		LIGHTING PANEL
	SOUND SYSTEM LOUD SPEAKER OUTLET		POWER PANEL
	RADIO OUTLET		COMBINATION LIGHTING AND POWER
	TELEVISION OUTLET		MOTOR CONTROLLER
	MICROPHONE OUTLET		DISCONNECT SWITCH
	THERMOSTAT		CONDUIT CONCEALED IN CEILING OR WALL
			CONDUIT CONCEALED IN FLOOR
			CONDUIT EXPOSED
			CROSS-LINES INDICATE NUMBER OF #12 AWG CONDUCTORS. LONGER CROSS-LINE INDICATES 1#12 AWG (G) FOR EQUIPMENT GROUNDING CONDUCTOR. NO CROSS-LINE INDICATES 2#12 WITH 1#12 (G) UNLESS OTHERWISE NOTED. ALL CONDUIT MUST BE 1/2" UNLESS OTHERWISE NOTED.
			HOMERUN TO PANELBOARD, ARROWS INDICATE NUMBER OF CIRCUITS, LETTER DENOTES PANELBOARD, NUMERAL DENOTES CIRCUIT

SYMBOL	DESCRIPTION
	—SM— SURFACE METAL RACEWAY
	(2) 1/2" C, PVC, 2#12 CONDUCTOR INFO (PER CONDUIT) CONDUIT TYPE CONDUIT SIZE NUMBER OF CONDUITS (NO NUMBER INDICATES ONE CONDUIT)
	—MC— CONDUIT, RIGID STEEL, UNDERGROUND
	—PVC— CONDUIT, POLYVINYL CHLORIDE, UNDERGROUND
	~~~~~ CONDUIT, FLEXIBLE
	—○— CONDUIT, TURN UP
	—●— CONDUIT, TURN DOWN
	—▲— CONDUIT SEAL, EXPLOSION-PROOF
	—X— CONDUIT, EXPANSION JOINT
	—▶— ADAPTER, ONE TYPE CONDUIT TO ANOTHER
	○ POLE
	⊙ OCCUPANCY SENSOR
	⊞ OCCUPANCY SENSOR POWER PACK
	⊞ P MANUAL PULL STATION
	⊞ AV AUDIO/VISUAL ALARM DEVICE
	⊞ H HEAT DETECTOR
	⊞ S SMOKE DETECTOR
	⊞ G GLASS BREAK DISCRIMINATOR
	⊞ C MAGNETIC CONTACT SWITCH-PEDESTRIAN DOOR
	⊞ C MAGNETIC CONTACT SWITCH-VEHICLE DOOR
	⊞ K KEYPAD FOR ALARM SYSTEM
	⊞ W COMBINATION DETECTOR (MICROWAVE/PASSIVE INFRARED)
	□ PULL BOX-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	□ (T) PULL BOX (TRAFFIC-RATED)-LETTER INDICATES TYPE OF PULL BOX (E-ELECTRICAL, T-TELEPHONE, R-RADIO)
	⊞ CHLF COMBINATION HEAT, LIGHT, AND FAN UNIT
	⊞ A — SECTION/ELEVATION LETTER
	⊞ EE-2 — SHEET NUMBER
	⊞ 1 — DETAIL NUMBER
	⊞ EE-2 — SHEET NUMBER

**REMODEL WORK**

SYMBOL	DESCRIPTION
	⊞-○-⊞ EXISTING FLUORESCENT FIXTURE-TO REMAIN
	⊞-X-⊞ EXISTING FLUORESCENT FIXTURE-REMOVE
	⊞-⊞ EXISTING INCANDESCENT FIXTURE-TO REMAIN
	⊞-X EXISTING INCANDESCENT FIXTURE-REMOVE
	○ EXISTING OUTLET-TO REMAIN
	⊞ EXISTING RECEPTACLE OUTLET-TO REMAIN
	⊞-X EXISTING RECEPTACLE OUTLET-REMOVE
	-E---E- EXISTING CONDUIT AND CONDUCTORS-TO REMAIN UNLESS OTHERWISE NOTED
	-X---X- EXISTING CONDUIT AND CONDUCTORS-REMOVE
	S EXISTING SWITCH-TO REMAIN
	X EXISTING SWITCH-REMOVE
	⊞ EXISTING JUNCTION BOX-TO REMAIN
	X EXISTING JUNCTION BOX-REMOVE

**GRAPHIC SYMBOLS FOR ELECTRICAL DIAGRAMS**

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER, SINGLE-POLE
	CIRCUIT BREAKER, DOUBLE-POLE
	CIRCUIT BREAKER, THREE-POLE
	GFCI
	CIRCUIT BREAKER, WITH GROUND FAULT CIRCUIT INTERRUPTER
	CIRCUIT BREAKER, SINGLE-POLE, SWITCHED NEUTRAL
	CONTACT, NORMALLY OPEN
	CONTACT, NORMALLY CLOSED
	CONTACT, NORMALLY CLOSED, TIME DELAY CLOSING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY OPENING ON DE-ENERGIZING
	CONTACT, NORMALLY OPEN, TIME DELAY CLOSING ON ENERGIZING
	CONTACT, NORMALLY CLOSED, TIME DELAY OPENING ON ENERGIZING
	CONTACT, SINGLE-POLE, DOUBLE-THROW
	OPERATING COIL
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY CLOSED
	LIQUID LEVEL ACTUATED SWITCH, NORMALLY OPEN
	PRESSURE ACTUATED SWITCH, NORMALLY CLOSED
	PRESSURE ACTUATED SWITCH, NORMALLY OPEN
	FLOW ACTUATED SWITCH, NORMALLY CLOSED
	FLOW ACTUATED SWITCH, NORMALLY OPEN
	TEMPERATURE ACTUATED SWITCH, NORMALLY CLOSED
	TEMPERATURE ACTUATED SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	LIMIT SWITCH, NORMALLY OPEN
	PUSHBUTTON SWITCH, NORMALLY CLOSED
	PUSHBUTTON SWITCH, NORMALLY OPEN
	SWITCH, SINGLE-POLE
	SWITCH, SINGLE-POLE, DOUBLE-THROW
	SWITCH, DOUBLE-POLE
	SWITCH, DOUBLE-POLE, DOUBLE-THROW
	SWITCH, SINGLE-POLE, 3-POSITION
	THERMAL OVERLOAD
	FUSE
	RESISTOR
	VARIABLE RESISTOR
	TRANSFORMER WINDING
	GROUNDING ELECTRODE
	ENCLOSURE BOND
	PILOT LIGHT (A=AMBER, G=GREEN, R=RED)
	INDICATING LIGHT (A=AMBER, G=GREEN, R=RED)
	GENERATOR
	MOTOR
	FAN MOTOR

Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		17	24

J. S. SANDHU 9-20-13  
 REGISTERED ELECTRICAL ENGINEER DATE  
 12-9-13  
 PLANS APPROVAL DATE

REG. PROFESSIONAL ENGINEER  
 J.S. SANDHU  
 No. 11803  
 Exp. 9-30-14  
 ELEC  
 STATE OF CALIFORNIA

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**CALIFORNIA STATE FIRE MARSHAL APPROVED**

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Reviewed by: FRANCIS SOLICH  
 Date: 9/13/13

DESIGN BY Jipinderpal Kaur	CHECKED J. S. Sandhu	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b>	SHEET EE-0	
DETAILS BY Dali Zhou	CHECKED Jipinderpal Kaur		DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN		POST MILE X	LEGEND
QUANTITIES BY Jipinderpal Kaur	CHECKED Jipinderpal Kaur		UNIT: 3596 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

TAEMWW Imperial - CCSC Rev. 02/13

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**ABBREVIATIONS**

<b>A</b>		<b>F</b>	
A/C	AIR CONDITIONING UNIT	F	FUSE
ACS	AIR COMPRESSOR STARTER	FA	AC FUSE
AFCI	ARC FAULT CIRCUIT INTERRUPTER	FD	DC FUSE
AI	ANALOG INPUT	FL	FAILURE LIGHT
AL	ALARM LIGHT	FLA	FLASHER
AO	ANALOG OUTPUT	Flex	FLEXIBLE CONDUIT
AR	ALARM RESET	FLS	FLOW SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	FR	FAILURE RESET or FLAME RESISTANT
AUTO	AUTOMATIC	FS	FLOAT SWITCH
AVC	AIR VOLUME CONTROLLER		
<b>B</b>		<b>G</b>	
BC	BARE COPPER	G	GROUND
BD	BUILDING DISCONNECT	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
BP	BOOSTER PUMP		
<b>C</b>		<b>I</b>	
Ca+	CATEGORY	IL	INDICATING LIGHT
CC	CENTER CHANNEL LIGHT	IR	INDUCTION RELAY
CD	CONTROL DISCONNECT	ISR	INTRINSICALLY SAFE RELAY
CM	CENTER MARGIN LIGHT		
CPU	CENTRAL PROCESSING UNIT	<b>J</b>	
CR	CONTROL RELAY	JB	JUNCTION BOX
CS	CURRENT SWITCH		
CT	CURRENT TRANSFORMER	<b>L</b>	
<b>D</b>		LC	LIGHTING CONTACTOR
DI	DIGITAL INPUT	LCD	LIQUID CRYSTAL DISPLAY
DO	DIGITAL OUTPUT	LCP	LIGHTING CONTROL PANEL
DP	DUPLEX PLUG RECEPTACLE	LD	LIGHT DISCONNECT
DS	DOOR SWITCH	LDCI	LEAK DETECTOR CIRCUIT INTERRUPTER
		LL	LIQUID LEVEL RELAY
<b>E</b>		LLC	LIQUID LEVEL CONTROLLER
(E)	EXISTING	LP	LIGHT PANEL
EF	EXHAUST FAN	LS	LIGHT SWITCH
ENET	ETHERNET NETWORK	LT	LIGHT TRANSFORMER
		LTO	LIGHT TRANSFORMER OVERLOAD
		LTPD	LIGHT TRANSFORMER PRIMARY DISCONNECT
		LTSD	LIGHT TRANSFORMER SECONDARY DISCONNECT

<b>M</b>	
MB	MAIN BREAKER
MC	METALLIC CONDUIT
MCP	MOTOR CIRCUIT PROTECTOR
MCC	MOTOR CONTROL CENTER
MD	MOTOR DISCONNECT
MH	MOUNTING HEIGHT
MR	MASTER RELAY/STARTER
MS	MOTOR SAVER
MSB	MAIN SWITCHBOARD
MTS	MANUAL TRANSFER SWITCH

<b>N</b>	
(N)	NEW
Nav	NAVIGATIONAL LIGHTS
NSW	NEUTRAL SWITCHING BREAKER

<b>O</b>	
O/C	ON CENTER
OIT	OPERATOR INTERFACE TERMINAL
OL	OVERLOAD

<b>P</b>	
PCP	PUMP CONTROL PANEL
PD	PUMP DISCONNECT
PEC	PHOTOELECTRIC CONTROL
PFRD	PHASE FAILURE RELAY DISCONNECT
PL	PILOT LIGHT
PLC	PROGRAMMABLE LOGIC CONTROLLER
PS	POWER SUPPLY or PRESSURE SWITCH
PTS	POWER TRANSFER SWITCH
PV	PHOTOVOLTAIC

<b>R</b>	
RD	RECEPTACLE DISCONNECT
RECEPT	RECEPTACLE
Req'd	REQUIRED
RES	RESISTOR
RIO	REMOTE INPUT/OUTPUT
RLM	REDUNDANCY LINK MODULE
Rm	ROOM
RTB	RADIO TERMINAL BOARD

<b>S</b>	
S	STARTER COIL
Sch	SCHEDULE
SD	SERVICE DISCONNECT
SFR	SEAL FAILURE RELAY
SL	SUMP LIGHT
SPR	STANDBY POWER RECEPTACLE
Sq	SQUARE
SS	SELECTOR SWITCH
ST	STARTER
SST	STAINLESS STEEL
SV	SOLENOID VALVE
SWIM	SLOW WEIGH-IN-MOTION

<b>T</b>	
TB	TERMINAL BLOCK
TBD	TO BE DETERMINED
TC	TELEPHONE CABLE
TDR	TIME DELAY RELAY
TGLS	TOGGLE SWITCH
TM	TIME METER
TS	TIMER SWITCH or TEMPERATURE SWITCH
TSW	TEST SWITCH
TTB	TELEPHONE TERMINAL BOARD

<b>U</b>	
UPS	UNINTERRUPTIBLE POWER SUPPLY

<b>V</b>	
VFD	VARIABLE FREQUENCY DRIVE

<b>W</b>	
WLS	WATER LEVEL SWITCH
WP	WEATHERPROOF
WSMS	WEIGH STATION MESSAGE SIGN



Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		18	24
Jipinderpal Kaur 9-20-13 REGISTERED ELECTRICAL ENGINEER DATE					
12-9-13			PLANS APPROVAL DATE		
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**PROJECT NOTES**

1. Separate grounded (Neutral) conductor must be used for each 120-volt circuit.
2. Homeruns to Panelboards must be installed as shown on the plans. Homeruns must not be combined.
3. A single insulated equipment grounding conductor, sized as required, must be installed in each conduit run.

**STANDARD NOTES**

**STANDARD PLANS**

Dated 2010

- (A10A)
- (RSP A10B)
- (RSP ES-1A)
- (RSP ES-1B)
- (RSP ES-1C)

**SYMBOLS**

∠	ANGLE
°	DEGREES
Δ	DELTA
∅	PHASE
±	PLUS OR MINUS

DESIGN BY Jipinderpal Kaur	CHECKED J. S. Sandhu	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b>	SHEET	
DETAILS BY Dali Zhou	CHECKED Jipinderpal Kaur			POST MILE		NOTES AND ABBREVIATIONS	<b>EE-1</b>
QUANTITIES BY Jipinderpal Kaur	CHECKED Jipinderpal Kaur			X			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3		UNIT: 3596 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	8-12-13 8-23-13 9-20-13	SHEET OF	





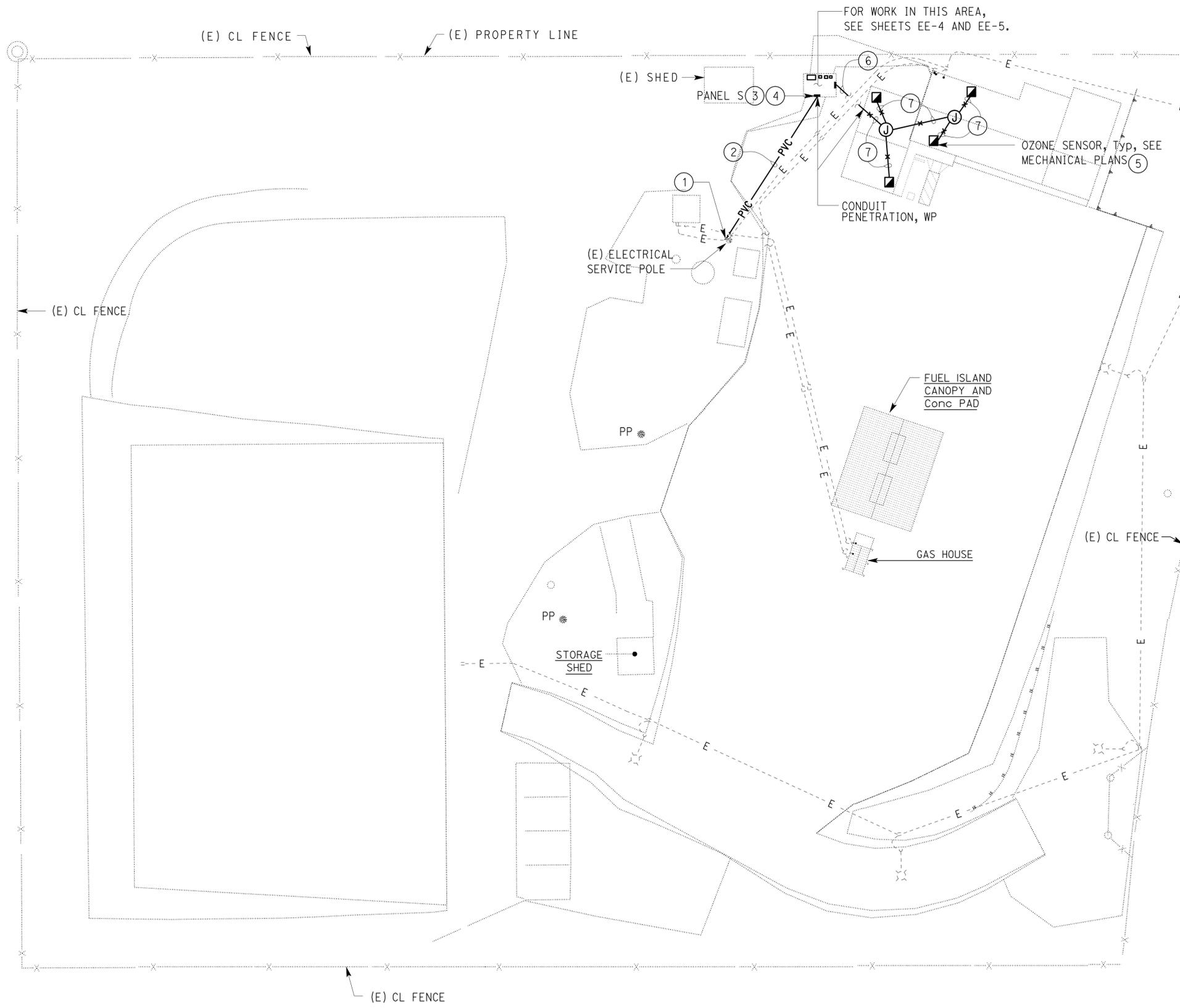
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		21	24

J. S. SANDHU  
 REGISTERED ELECTRICAL ENGINEER DATE 9-20-13  
 12-9-13  
 PLANS APPROVAL DATE  
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**CALIFORNIA STATE FIRE MARSHAL APPROVED**

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Reviewed by: FRANCIS SOLICH  
Date: 9/13/13



**GENERAL NOTES:**

- A. Existing underground electrical conduits and conductors system as shown are diagrammatic and their location as shown is approximate only. Therefore, field verify exact location of existing underground facilities prior to the beginning of trenching and or removal work. The cost for pot holing and for locating existing underground utilities shall be considered to be paid for in the building lump sum price and no additional cost will be paid.
- B. Not all underground utilities shown.

**NOTES:**

- ① Existing service cabinet is 120/240 V, 3-phase, 4-wire Service cabinet with meter and 200 A main circuit breaker.  
 Perform the following:
  - Remove existing load side conductors and conduit from the existing main breaker.
  - Install new ground electrode, grounding electrode conductor and terminate it on the existing neutral bus inside existing service cabinet and ground electrode.
  - Install 3/4"C, 1#4G between neutral bus/ground bus and ground electrode. Provide swivel type grounding fitting at the conduit termination at ground electrode.
- ② 2 1/2"C, 4#3/0, 1#6G to feed Panel S at the Ozone Sparge Equipment Building. Terminate conductors on existing main breaker at the existing service cabinet and at Panel S.
- ③ Panel S must be 120/240 V, 3-phase, 4-wire panel. For Panel S mounting, see Elevation A on sheet EE-5.
- ④ For Panel Schedule see sheet EE-5.
- ⑤ Office area Ozone Sensor.  
 Perform the following:
  - In the event no 120-Volt outlet is available near the ozone sensor, then install conduit and conductors from the nearest outlet to supply power for new outlets for Ozone Sensors.
  - At your option, you may install new homerun to the nearest panelboard as required to supply power to the Ozone Sensors. Install branch circuit breaker if necessary.
- ⑥ 1"C, PVC, control conductors as required.
- ⑦ 1/2"C, Control conductors as required.

**SITE PLAN**  
1" = 30'

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

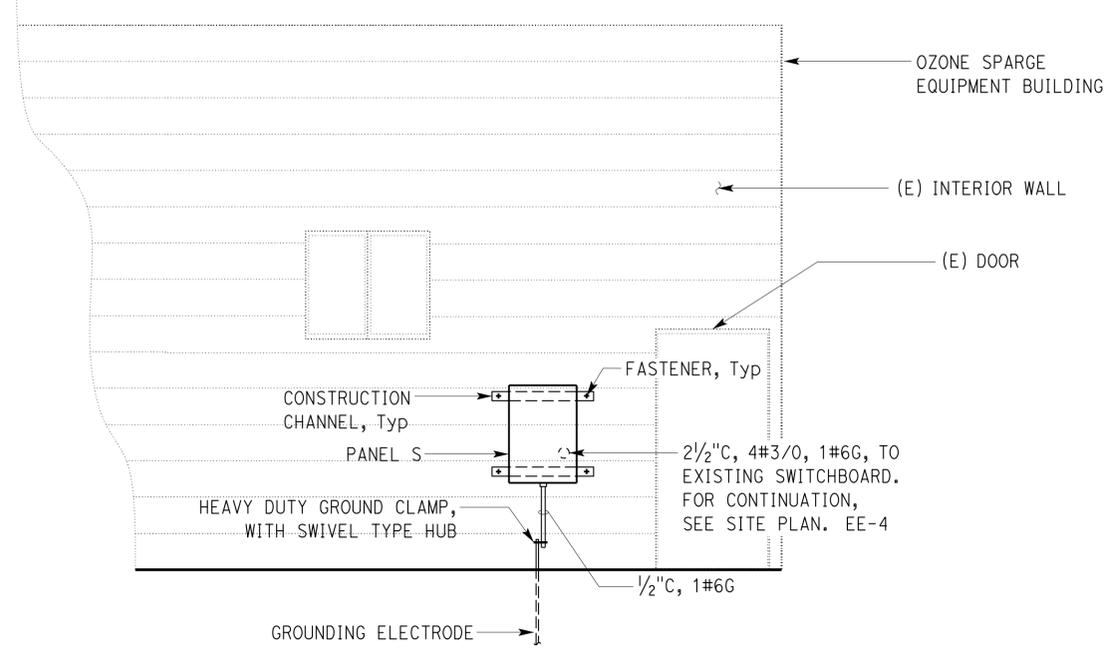
DESIGN SUPERVISOR <i>Paul Schreff</i> DESIGN ENGINEER <i>Mark Chap</i>	DESIGN BY Jipinderpal Kaur	CHECKED J. S. Sandhu	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES <b>ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN</b>	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b>	SHEET <b>EE-4</b> OF
	DETAILS BY Dali Zhou	CHECKED Jipinderpal Kaur			POST MILE X		
	QUANTITIES BY Jipinderpal Kaur	CHECKED Jipinderpal Kaur					

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3  
 UNIT: 3596 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684  
 DISREGARD PRINTS BEARING EARLIER REVISION DATES  
 REVISION DATES (PRELIMINARY STAGE ONLY) 8-12-13 8-23-13 9-20-13  
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Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		22	24

**CALIFORNIA STATE FIRE MARSHAL**  
**APPROVED**  
Approval of this plan does not authorize or approve any addition or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.  
Reviewed by: *[Signature]*  
**FRANCIS SOLICH**  
Date: 9/13/13

*Jipinderpal Kaur* 9-20-13  
REGISTERED ELECTRICAL ENGINEER DATE  
12-9-13  
PLANS APPROVAL DATE  
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**A ELEVATION**  
NO SCALE

MAIN: 200 A CIRCUIT BREAKER  
VOLTS: 120/240 V, 3-PHASE, 4-WIRE

PANEL S

FEEDER SIZE: 4#3/0, 1#6G  
LOCATION: OZONE SPARGE EQUIPMENT BUILDING

DESCRIPTION	AMPERES			Brk	Ckt	A	B	C	Ckt	Brk	AMPERES			DESCRIPTION
	A	B	C								A	B	C	
AIR COMPRESSOR	15				1	•			2	100/1	80			REFRIGERATED AIR DRYER
		15		30/3	3		•		4			-		SPACE
			15		5			•	6	15/1			6	OXYGEN CONCENTRATOR
SPARE	-			20/1	7	•			8	15/1	5			OZONE SPARGE SYSTEM CONTROL PANEL
SPACE					9		•		10	30/2		17		AIR CONDITIONER
GFCI AND MULTIOUTLET ASSEMBLY			16	20/1	11			•	12				17	
SPARE	-			15/1	13	•			14	60/2	-			SPARE
SPACE		-			15		•		16			-		
EXHAUST FAN			6	15/1	17			•	18	20/1			10	OZONE GENERATOR
SPARE	-			20/1	19	•			20	15/1	2			INDOOR LIGHTS

A	B	C	TOTAL CONNECTED LOAD (AMPERES PER PHASE)
102	32	70	

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DESIGN BY Jipinderpal Kaur CHECKED J. S. Sandhu	DETAILS BY Dali Zhou CHECKED Jipinderpal Kaur	QUANTITIES BY Jipinderpal Kaur CHECKED Jipinderpal Kaur	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b> PANEL SCHEDULE AND ELEVATION	SHEET EE-5
					POST MILE X		
					DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)

UNIT: 3596 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684  
REVISION DATES: 8-12-13, 8-23-13, 9-20-13  
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Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		23	24

*Jasvinder K Sandhu* 9-20-13  
 REGISTERED ELECTRICAL ENGINEER DATE  
 12-9-13  
 PLANS APPROVAL DATE

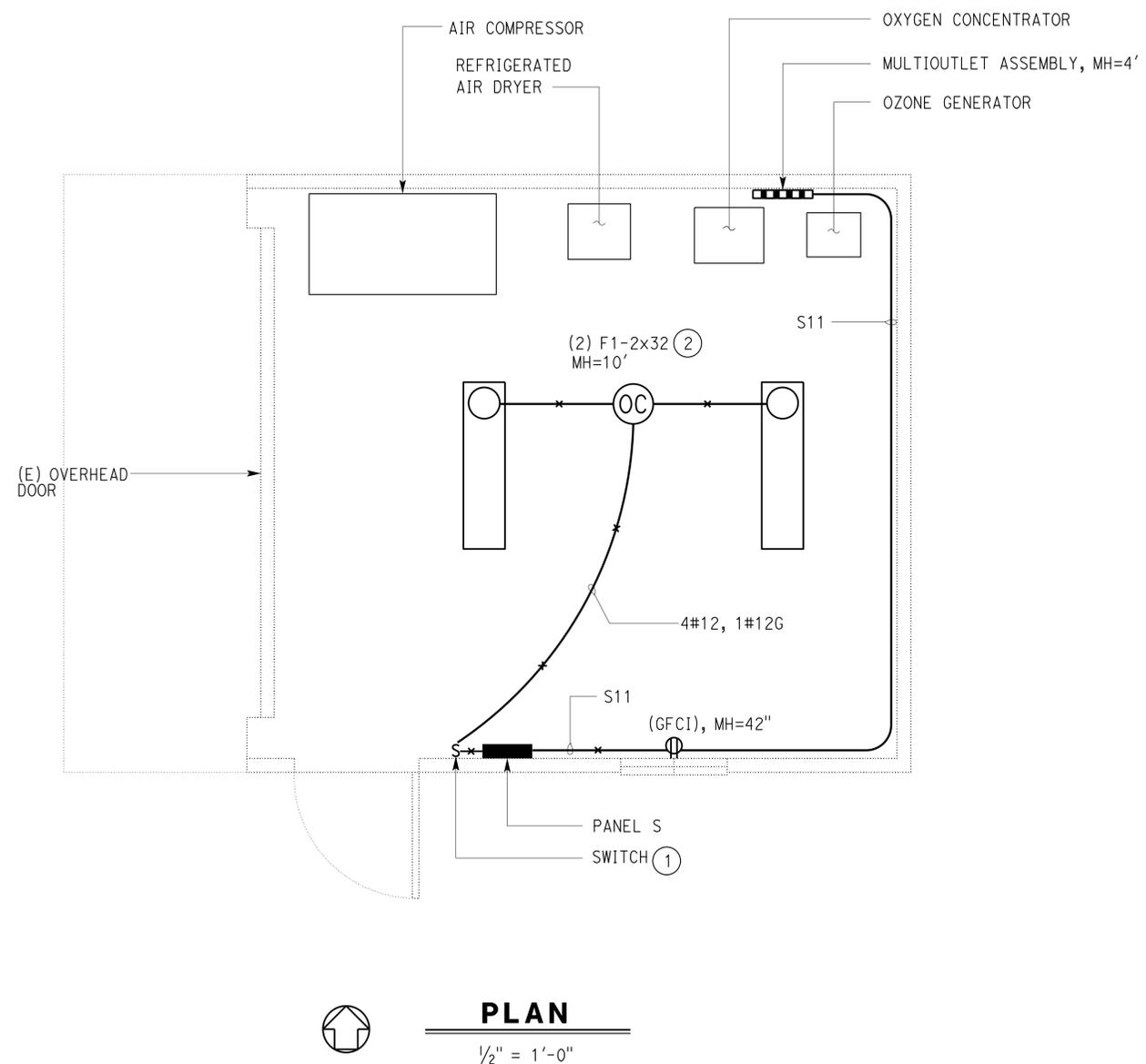


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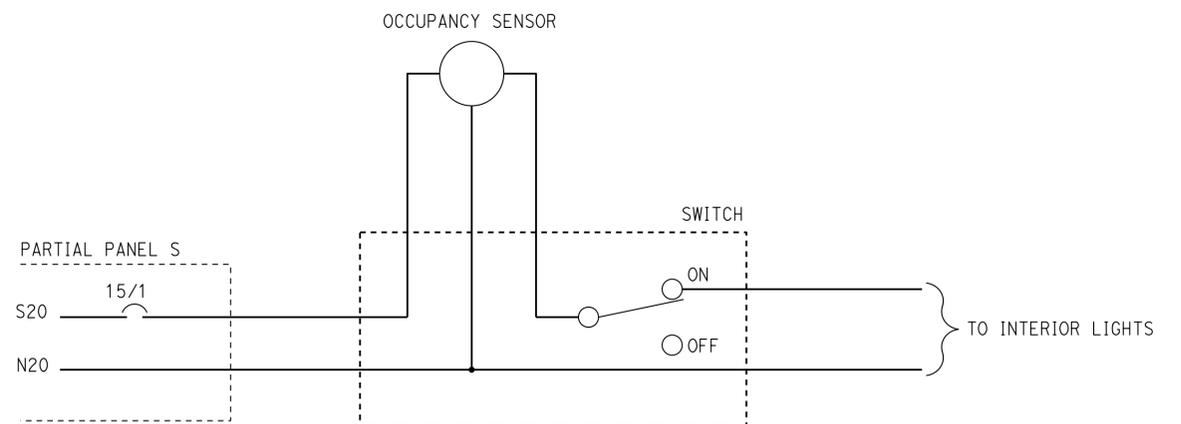


- NOTES:
- For wiring, see Schematic Diagram this sheet.
  - See Lighting Fixture Schedule this sheet.

- GENERAL NOTES:
- Exact location of all electrical equipment such as light fixtures and receptacle shall be per Engineer's direction in the field.
  - All exposed conduits must be 3/4" minimum, unless otherwise noted.
  - All junction boxes and outlet boxes must be weatherproof type, cast iron boxes.
  - All conduit fittings must be weatherproof type.



LIGHT FIXTURE SCHEDULE			
TYPE	MANUFACTURER	LAMPS	DESCRIPTION
F1	LITHONIA AF SERIES, COLUMBIA DYNAMO KL SERIES OR EQUAL	2-32 W T8	STEM MOUNTED, FOUR FEET, INDUSTRIAL FLUORESCENT FIXTURE WITH TWO 32-WATT T8 LAMP, 120 VOLTS ELECTRONIC BALLAST, AND WHITE BAKED ENAMEL RIBBED REFLECTOR. FIXTURE SHALL BE COMPLETE WITH END PLATES.



**SCHEMATIC DIAGRAM**

THIS DRAWING ACCURATE FOR ELECTRICAL WORK ONLY

DESIGN BY Jipinderpal Kaur CHECKED J. S. Sandhu	DETAILS BY Dali Zhou CHECKED Jipinderpal Kaur	QUANTITIES BY Jipinderpal Kaur CHECKED Jipinderpal Kaur	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b>	SHEET <b>EE-6</b> OF	
					POST MILE X			LIGHTING PLAN
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			UNIT: 3596 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684		DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY) 8-12-13   8-23-13   9-20-13	SHEET OF

TAEWW Imperial - CCSC Rev. 02/13  
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**CALIFORNIA STATE FIRE MARSHAL APPROVED**

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Reviewed by: *Francis Solich*  
**FRANCIS SOLICH**  
 Date: 9/13/13

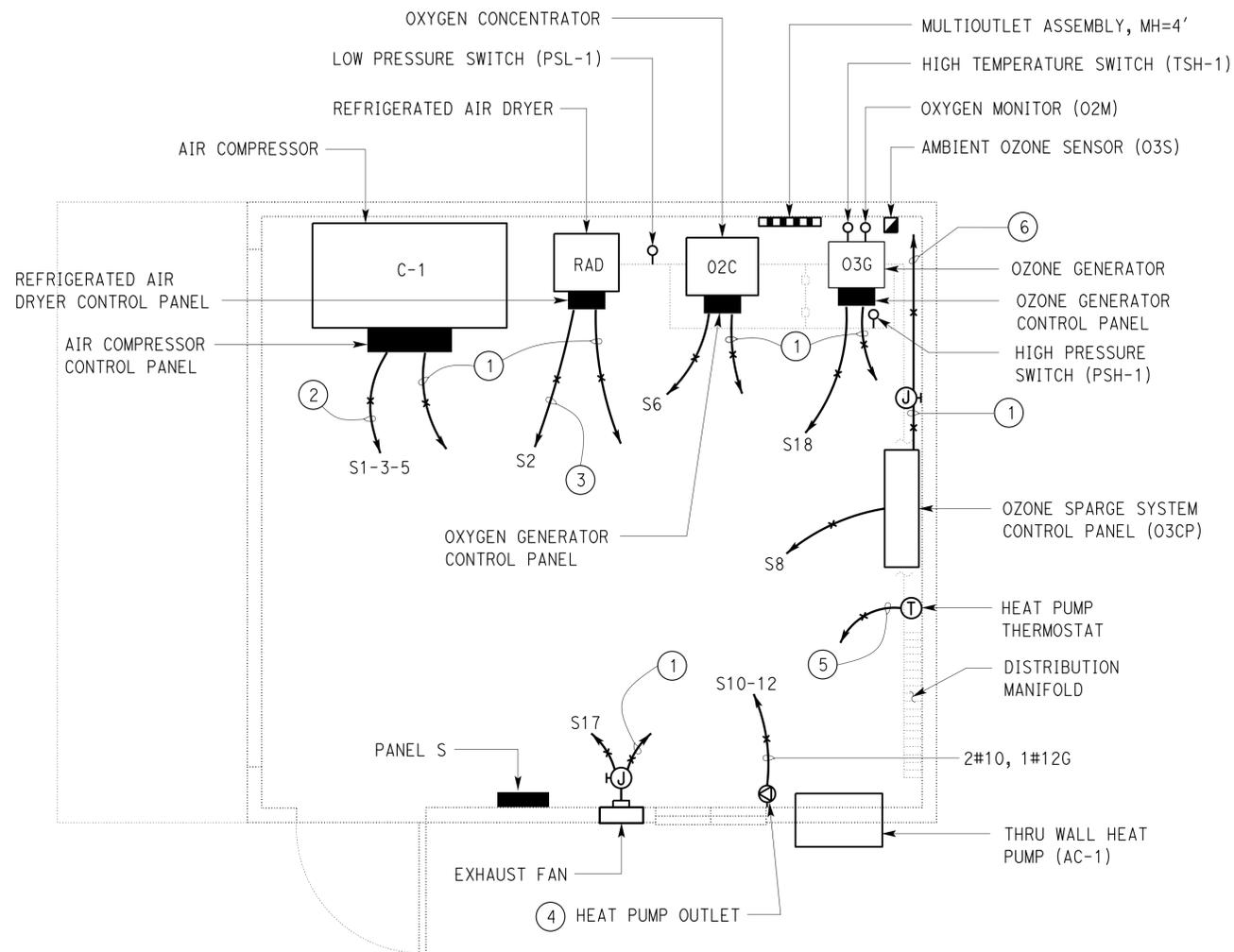
Dist	COUNTY	LOCATION CODE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
01	Men	5718		24	24

*Jasvinder K Sandhu* 9-20-13  
 REGISTERED ELECTRICAL ENGINEER DATE

12-9-13  
 PLANS APPROVAL DATE

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**REGISTERED PROFESSIONAL ENGINEER**  
**J.S. SANDHU**  
 No. 11803  
 Exp. 9-30-14  
 ELEC  
 STATE OF CALIFORNIA



**GENERAL NOTES:**

- A. Exact location of all electrical equipment shall be per Engineer's direction in the field.
- B. All exposed conduits must be 3/4" minimum, unless otherwise noted.
- C. All junction boxes and outlet boxes must be weatherproof type, cast iron boxes.
- D. All conduit fittings must be weatherproof type.
- E. In the event additional conduit and conductors are needed for complete automatic operation of Ozone Sparge System, contractor must provide and install these at no cost to State of California.

**NOTES:**

- ① To Ozone Sparge System Control Panel, control conductors as required
- ② 4#10, 1#10G to Panel S.
- ③ 1 1/4" C, 2#3, 1#3 spare, 1#8G to Panel S.
- ④ Mount at height as required by the Heat Pump manufacturer.
- ⑤ To Heat Pump, Control conductors as required.
- ⑥ To Ozone Sensor, High Pressure Switch, Oxygen Monitor and Low Pressure Switch, Control Conductors as required. Perform the following:
  - Install junction boxes as required.
  - Install flexible conduits between junction boxes and sensors.

**PLAN**  
 1/2" = 1'-0"

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DESIGN BY Jipinderpal Kaur CHECKED J. S. Sandhu	DETAILS BY Dali Zhou CHECKED Jipinderpal Kaur	QUANTITIES BY Jipinderpal Kaur CHECKED Jipinderpal Kaur	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES ELECTRICAL-MECHANICAL-WATER AND WASTEWATER DESIGN	BRIDGE No. 10M5718	<b>LEGGETT MAINTENANCE STATION REMEDIATION</b> EQUIPMENT POWER PLAN	SHEET OF <b>EE-7</b>
					POST MILE X		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3				UNIT: 3597 CONTRACT No.: 497104 PROJECT NUMBER & PHASE: 0100000684	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 8-12-13 8-23-13 9-20-13	SHEET OF

TAEWW Imperial - CCSC Rev. 02/13  
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