LAKE BERRYESSA
RECREATION AREAS IMPROVEMENT PROJECT
STEELE CANYON

60% DESIGN DRAWINGS

JULY 2015

**PRELIMINARY
NOT FOR
CONSTRUCTION**

SHEET No.	DESCRIPTION
GENERAL	
LB-SCRA-G01	GENERAL - COVER SHEET
LB-SCRA-G02	GENERAL - INDEX SHEET
LB-SCRA-G03	GENERAL - LOCATION, VICINITY, & KEY MAP
LB-SCRA-G04	GENERAL - NOTES
LB-SCRA-G05	GENERAL - SYMBOLS
LB-SCRA-G06	GENERAL - ABBREVIATIONS
CIVIL SITE PLANS	
LB-SCRA-CP01	CIVIL - SITE PLAN I
LB-SCRA-CP02	CIVIL - SITE PLAN II
LB-SCRA-CP03	CIVIL - SITE PLAN III
LB-SCRA-CP04	CIVIL - SITE PLAN IV
LB-SCRA-CP05	CIVIL - SITE PLAN V
LB-SCRA-CP06	CIVIL - SITE PLAN VI
LB-SCRA-CP07	CIVIL - SITE PLAN VII
LB-SCRA-CP08	CIVIL - SITE PLAN VIII
LB-SCRA-CP09	CIVIL - SITE PLAN IX
LB-SCRA-CP10	CIVIL - SITE PLAN X
LB-SCRA-CP11	CIVIL - SITE PLAN XI
LB-SCRA-CP12	CIVIL - SITE PLAN XII
LB-SCRA-CD01	CIVIL - GRADING AND ROAD DETAILS I
LB-SCRA-CD02	CIVIL - GRADING AND ROAD DETAILS II
LB-SCRA-CD03	CIVIL - GRADING AND ROAD DETAILS III
LB-SCRA-CD04	CIVIL - GRADING AND ROAD DETAILS IV
LB-SCRA-CD05	NOT USED
LB-SCRA-CD06	NOT USED
LB-SCRA-CD07	CIVIL - GRADING AND ROAD DETAIL VII
LB-SCRA-CR01	CIVIL - BOAT LAUNCH DEMOLITION PLAN
LB-SCRA-CR02	CIVIL - BOAT LAUNCH PLAN AND PROFILE
LB-SCRA-CR03	NOT USED
LB-SCRA-CR04	CIVIL - BOAT LAUNCH SECTIONS AND DETAILS
LB-SCRA-CR05	CIVIL - BOAT LAUNCH SECTIONS AND DETAILS
LB-SCRA-CR06	CIVIL - BOAT LAUNCH SECTIONS AND DETAILS
LB-SCRA-CR07	CIVIL - BOAT LAUNCH SECTIONS AND DETAILS
INFRASTRUCTURE	
LB-SCRA-IP01	INFRASTRUCTURE - PLAN I
LB-SCRA-IP02	INFRASTRUCTURE - PLAN II
LB-SCRA-IP03	INFRASTRUCTURE - PLAN III
LB-SCRA-IP04	INFRASTRUCTURE - PLAN IV
LB-SCRA-IP05	INFRASTRUCTURE - PLAN V
LB-SCRA-IP06	INFRASTRUCTURE - PLAN VI
LB-SCRA-IP07	INFRASTRUCTURE - PLAN VII
LB-SCRA-IP08	INFRASTRUCTURE - PLAN VIII
LB-SCRA-IP09	INFRASTRUCTURE - PLAN IX
LB-SCRA-IP10	INFRASTRUCTURE - PLAN X
LB-SCRA-IP11	INFRASTRUCTURE - PLAN XI
LB-SCRA-IP12	INFRASTRUCTURE - PLAN XII

SHEET No.	DESCRIPTION
INFRASTRUCTURE	
LB-SCRA-IS01	INFRASTRUCTURE - SEWER DETAILS I
LB-SCRA-IS02	INFRASTRUCTURE - SEWER DETAILS II
LB-SCRA-IS03	INFRASTRUCTURE - SEWER DETAILS III
LB-SCRA-IS04	INFRASTRUCTURE - SEWER DETAILS IV
LB-SCRA-IS05	NOT USED
LB-SCRA-IS06	INFRASTRUCTURE - SEWER DETAILS VI
LB-SCRA-IS07	INFRASTRUCTURE - SEWER DETAILS VII
LB-SCRA-IS08	INFRASTRUCTURE - SEWER DETAILS VIII
LB-SCRA-IS09	INFRASTRUCTURE - SEWER DETAILS IX
LB-SCRA-IS10	INFRASTRUCTURE - SEWER DETAILS X
LB-SCRA-ISS01	INFRASTRUCTURE - STRUCTURAL GENERAL NOTES, ABBREVIATIONS, & DETAILS
LB-SCRA-ISS02	INFRASTRUCTURE - STRUCTURAL PLANS, SECTIONS, & DETAILS
LB-SCRA-IW01	INFRASTRUCTURE - WATER DETAILS I
LB-SCRA-IW02	INFRASTRUCTURE - WATER DETAILS II
LB-SCRA-IW03	INFRASTRUCTURE - WATER DETAILS III
LB-SCRA-IW04	INFRASTRUCTURE - WATER DETAILS IV
LB-SCRA-IW05	INFRASTRUCTURE - WATER DETAILS V
LB-SCRA-IE01	INFRASTRUCTURE - ELECTRICAL LEGEND
LB-SCRA-IE02	INFRASTRUCTURE - ELECTRICAL DETAILS
LB-SCRA-IE03	INFRASTRUCTURE -SC-PNL-1 ONELINE
LB-SCRA-IE04	INFRASTRUCTURE - SC-PNL-2 ONELINE
LB-SCRA-IE05	INFRASTRUCTURE - SC-PNL-3 ONELINE
LB-SCRA-IE06	INFRASTRUCTURE - SC-PNL-7 ONELINE
LB-SCRA-IE07	INFRASTRUCTURE - SC-PNL-8 ONELINE
LB-SCRA-IE08	INFRASTRUCTURE - SC-PNL-9 ONELINE
LB-SCRA-IE09	INFRASTRUCTURE - SC-PNL-10 ONELINE
LB-SCRA-IE10	INFRASTRUCTURE - SC-PNL-11 ONELINE
LB-SCRA-IE11	INFRASTRUCTURE - CABLE SCHEDULES I
LB-SCRA-IE12	INFRASTRUCTURE - CABLE SCHEDULES II

LEGEND

LB-SCRA-G01

- Area: Lake Berryessa
- Subarea: Steele Canyon Recreation Area
- Drawing Number
- Discipline

Subarea Designations

PCRA	Putah Canyon Recreation Area
MSRA	Monticello Shores Recreation Area
BPRA	Berryessa Point Recreation Area
SFRA	Spanish Flat Recreation Area
SCRA	Steele Canyon Recreation Area

Discipline Legend

G	General
CP	Civil Site Plan
CD	Civil Grading & Road Details
CR	Civil Boat Launch & Ramp Details
IP	Infrastructure Plans
IS	Infrastructure Sewer Details
ISS	Infrastructure Sewer Structural
IW	Infrastructure Water Details
IE	Infrastructure Electrical Details

RECLAMATION
Managing Water in the West

N

STA, CDM SMITH
YYY-MM-DD
105904.2330.019

YYYY-MM-DD
ACCEPTED:
NAME, PROF. ABBR

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

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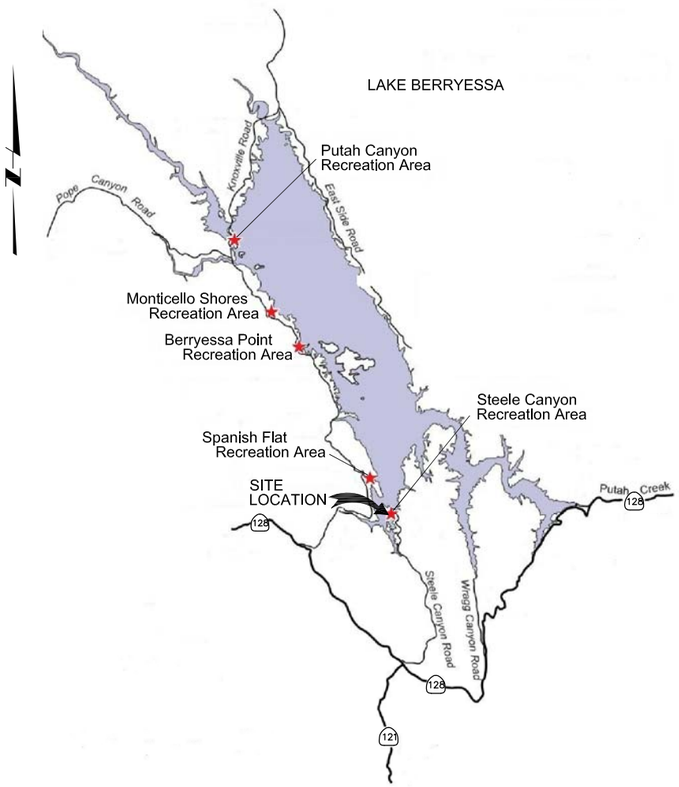
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON INDEX SHEET

LB-SCRA-G02
SHEET X OF X

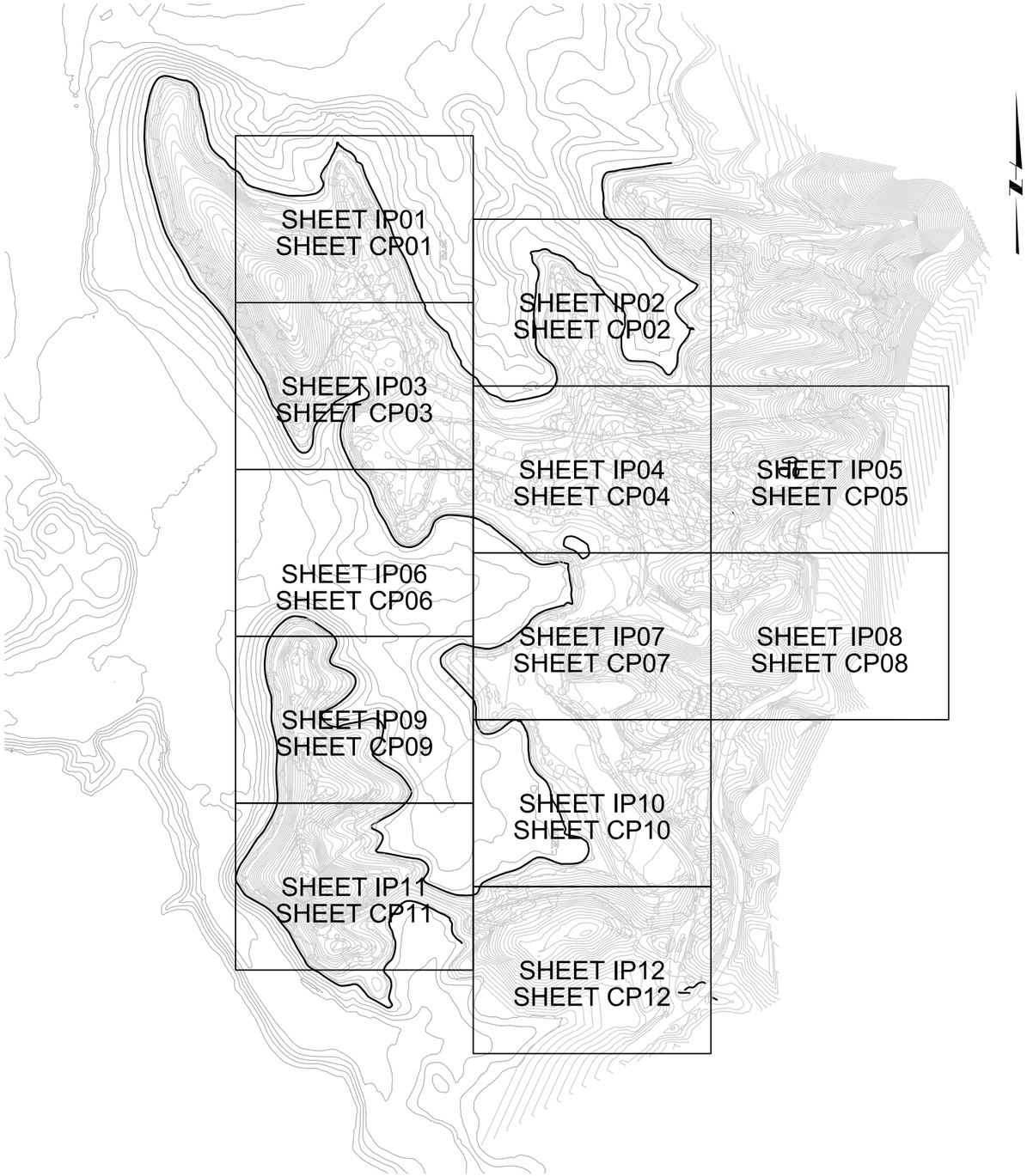
LOCATION MAP

N.T.S.



VICINITY MAP

N.T.S.



KEY MAP

N.T.S.

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STEELE CANYON LOCATION, VICINITY, & KEY MAP

LB-SCRA-G03

SHEET X OF X

GENERAL NOTES:

1. GENERAL NOTES APPLY TO ALL SHEETS, EXCEPT WHERE MORE SPECIFIC REQUIREMENTS ARE PROVIDED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL THE EXISTING ITEMS WITHIN OR ADJACENT TO THE WORK OR THAT MAY BE DISTURBED BY THE WORK (AND THEIR CURRENT CONDITION). IF NECESSARY, CONTRACTOR SHALL SEEK WRITTEN CLARIFICATION FROM THE CONTRACT OFFICER.
3. UNLESS OTHERWISE NOTED, THE LOCATION, SIZE AND MATERIAL OF EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF THE PROJECT SITE ARE NOT SHOWN ON THESE PLANS.
4. UNLESS OTHERWISE NOTED, ALL EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT SITE ARE INACTIVE & SHALL BE REMOVED OR ABANDONED IN PLACE, WHERE REMOVAL OR ABANDONMENT ARE REQUIRED FOR INSTALLATION OF NEW FACILITIES.
5. ALL WORK (OTHER THAN SURVEYING AND MONITORING) SHALL BE RESTRICTED TO THE LIMITS OF DISTURBANCE SHOWN ON THE DRAWINGS, UNLESS DEPICTED OTHERWISE. THE LIMITS OF DISTURBANCE ARE THE LIMITS OF THE TEMPORARY CONSTRUCTION EASEMENT.
6. MAINTAIN ACCESS TO ALL PROPERTIES ADJACENT TO THE WORK THROUGHOUT THE PERIOD OF CONSTRUCTION.
7. THE CONTRACTOR SHALL RESTORE ALL DAMAGED OR DISTURBED AREAS TO THEIR ORIGINAL CONDITION AFTER COMPLETION OF THE WORK.
8. ALL EXCESS MATERIALS AND SPOIL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN OFF-SITE LOCATION, ACCORDING TO ALL APPLICABLE LAWS AND REGULATIONS.
9. MECHANICAL EQUIPMENT USED ON THIS PROJECT SHALL BE SELECTED TO MINIMIZE DAMAGE TO THE ROADS USED AS TRUCK ROUTES TO BRING MATERIAL AND EQUIPMENT TO THE PROJECT. REPLACE DAMAGED ASPHALT CONCRETE (A.C.) PAVEMENT AND CONCRETE PAVEMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THE REQUIRED INSPECTIONS. THE PRESENCE OR ABSENCE OF A PROJECT REPRESENTATIVE OR OTHER INSPECTOR WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF THE WORK.
11. THE TERM "ACCEPTABLE TO THE ENGINEER" SHALL MEAN WRITTEN ACCEPTANCE BY THE CONTRACT OFFICER IS TO BE RECEIVED BY THE CONTRACTOR BEFORE WORK IS STARTED. OWNER (USBR) MAY BE USED INTERCHANGEABLY FOR ENGINEER AND CONTRACT OFFICER.
12. SEE INDIVIDUAL DRAWINGS FOR ADDITIONAL ABBREVIATIONS, SYMBOLS, LEGENDS, NOTES, DETAILS, AND OTHER REQUIREMENTS, IF ANY. NOT ALL OF THESE ITEMS AND/OR "STANDARD" DETAILS SHOWN MAY BE APPLICABLE TO THIS PROJECT. UNLESS OTHERWISE NOTED, IN ALL CASES, THE INFORMATION SHOWN ON INDIVIDUAL DRAWINGS SHALL GOVERN OVER ANY GENERAL INFORMATION.
13. UNLESS NOTED OTHERWISE, ALL WORK SHOWN IN THESE DOCUMENTS IS NEW AND TO BE PERFORMED UNDER THIS CONTRACT. WORK UNDER THIS CONTRACT IS NORMALLY SHOWN IN HEAVY LINES.

HEALTH AND SAFETY NOTES:

1. COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES RELATING TO THE SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR PERSONNEL. THIS SHALL INCLUDE BUT IS NOT LIMITED TO, THE SHORING OF TRENCHES, VENTILATION OF CONFINED SPACES, CONFORMANCE TO TRAFFIC CONTROL REQUIREMENTS INCLUDING THE PROVISION AND MAINTENANCE OF BARRICADES AND THE PREPARATION AND IMPLEMENTATION OF TRAFFIC CONTROL PLANS AS REQUIRED. THE STRICTEST HEALTH AND SAFETY REGULATIONS SHALL APPLY.
2. ALL HEALTH AND SAFETY PROTECTION MEASURES SHALL BE INSTALLED AND FUNCTIONAL AT THE SITE PRIOR TO PERFORMING ANY WORK. THE CONTRACTOR SHALL MAINTAIN ALL HEALTH AND SAFETY MEASURES UNTIL FINAL COMPLETION.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBSERVING AND MEETING ALL OSHA REQUIREMENTS.
4. THE CONTRACTOR SHALL PROVIDE TEMPORARY CHAINLINK FENCING AND/OR TRENCH PLATES AT THE END OF EACH DAY TO PREVENT PEOPLE AND WILDLIFE FORM ENTERING THE TRENCH.

ENVIRONMENTAL PROTECTION AND EROSION, STORM WATER AND SEDIMENTATION CONTROL NOTES:

1. EXCEPT AS NOTED, THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION, STORM WATER "SWPPP" AND SEDIMENTATION CONTROL AND ENVIRONMENTAL PROTECTION MEASURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL RELATED PERMITS.
2. ALL ENVIRONMENTAL PROTECTION MEASURES SHALL BE INSTALLED AND FUNCTIONAL AT THE SITE PRIOR TO PERFORMING ANY WORK, UNLESS NOTED. THE CONTRACTOR SHALL MAINTAIN ALL ENVIRONMENTAL PROTECTION MEASURES UNTIL FINAL COMPLETION.
3. SOIL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH SPECIFICATIONS, ENVIRONMENTAL PROTECTION MEASURES.
4. ALL EXISTING DRAINAGE FEATURES SHALL BE PROPERLY PROTECTED.

DEMOLITION AND REMOVAL NOTES:

1. ALL DEMOLITION AND REMOVAL WORK SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO THE NEED TO COORDINATE WITH EXISTING FACILITIES AND MAINTAIN ACCESS. CONTRACTOR SHALL ENSURE PUBLIC SAFETY DURING ALL ASPECTS OF DEMOLITION WORK.
2. ALL ITEMS WITHIN THE AREA SLATED FOR DEMOLITION OR REMOVAL ARE NOT WARRANTED TO BE SHOWN.

MEASUREMENT COORDINATES, & STATIONING NOTES:

1. WRITTEN DISTANCES AND ELEVATIONS SHALL GOVERN OVER SCALED DISTANCES AND ELEVATIONS.
2. DETAILS & DRAWINGS IDENTIFIED AS NTS (NOT-TO-SCALE) SHALL NOT BE SCALED IF DIMENSIONS ARE NOT PROVIDED.
3. PIPE LENGTHS SHOWN IN PROFILE OR PLAN ARE APPROXIMATE AND MAY VARY UP TO 5 PERCENT OF INDICATED LENGTH.
4. DIMENSIONS OF EXISTING STRUCTURES, PIPING, PAVING AND OTHER NON-STRUCTURAL ITEMS ARE APPROXIMATE. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ALL MAJOR DISCREPANCIES TO THE CONTRACT OFFICER AT LEAST 7 WORKING DAYS IN ADVANCE OF CONSTRUCTION IN THE AREA.
5. STATIONING SHOWN ON THESE DRAWINGS IS HORIZONTAL STATIONING MEASURED ON A LEVEL PLANE.
6. DISCREPANCIES BETWEEN COORDINATES, BEARINGS, LENGTHS, AND STATIONING SHALL BE RESOLVED IN THE FOLLOWING ORDER OF PRECEDENCE:
   A. COORDINATES
   B. BEARINGS AND LENGTHS
   C. STATIONING

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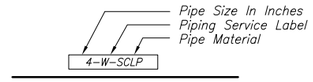
STEELE CANYON GENERAL NOTES

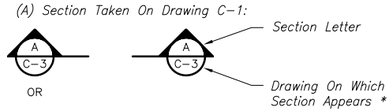
LB-SCRA-G04
SHEET X OF X

PIPE CODE

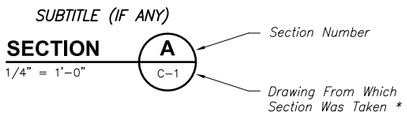


SECTION IDENTIFICATION

(A) Section Taken On Drawing C-1:

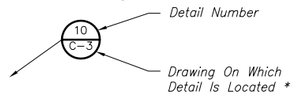


(B) On Drawing C-3 This Section Is Identified As:

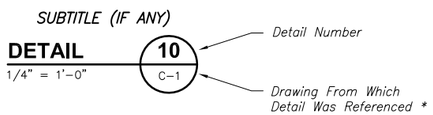


DETAIL IDENTIFICATION

(A) Detail Referenced On Drawing C-1:

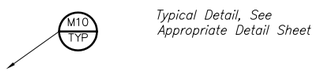


(101) On Drawing C-3 This Detail Is Identified As:



** Note: If Section Or Detail Appears On The Same Drawing As The Call-Out, The Drawing Number Is Replaced With A Dash.*

TYPICAL DETAILS



Typ In The Bottom Or End Of A Callout Indicates A Typical Detail. Refer To All Typical Detail Sheets In Different Disciplines. Typical Details May Not Be Shown In Numerical Order, Review All Sheets.

SYMBOL	FEATURE
1	Key Note
1	Column Or Wall Tag And Line Numbers And Letters Are Used
N 264700 E 1610600	Northing And Easting Coordinates
B-1	Soil Boring And Tag
84	Existing Contour And Elevation
85	New Contour And Elevation
365.7 OR 365.7	Spot Elevation
	Existing Facility (Lighter Line Work)
	New Or Modified Existing Facility (Darker Line Work)
	Existing Vegetation
N	North Arrow
	Camp Site Sewer Drop
	Water/Electric Service Connection

SYMBOL	FEATURE
	Existing Light Pole
OH OH	Existing Overhead Electric
	Existing Utility Pole Or Valve
	Overhead Line
	New Fire Hydrant
	Yard Hydrant
	Drain Inlet
	Existing Fencing
	New Fencing
	100' Buffer Zone
	Existing Water
	Flood Preclude
	Boundary Easement
	Demolition Of Existing Improvement
	Cap End/Cut End
	Check Valve
	Ball Valve
	Plug Valve
	Cleanout
	Manhole
	AVAR FM
	AIRVAC
	Blowoff Valve FM
	Blowoff Valve Water
	Butterfly Valve
	Gate Valve
XX	Lateral Number (See Infrastructure Plans)

	Standard Picnic Table
	Fire Ring
	Park Model
	Accessible Park Model
	Yurt
	Accessible Yurt
	Tent Site
	Accessible Tent Site
	Accessible Picnic Table
	Pedestal grill
	Cabin
	Accessible Cabin
	Tent Cabin
	Accessible Tent Cabin

	Scarify Soil
	Sand
	Aggregate Base, Class 2 Permeable
	Structural Fill
	Undisturbed Earth
	Drain Rock
	Paved Road/ Gravel Shoulder
	Gravel Road
	Grating Span Direction Where Applicable
	Checkered Plate
	Concrete
	Pavement Or Sidewalk (Section)
	Impermeable Material
	Asphalt Concrete Pavement (Plan)
	Storm Water Control Area

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STEELE CANYON SYMBOLS

LB-SCRA-G05

SHEET X OF X

ABBREVIATIONS

Ø	DIAMETER
#	NUMBER
@	At
△	CENTRAL ANGLE
AB	ANCHOR BOLT, AGGREGATE BASE
ABC	AGGREGATE BASE COURSE
ABDN	ABANDON
ABV	ABOVE
AC	ASPHALTIC CONCRETE
A/C	AIR CONDITIONING
ADDL	ADDITIONAL
ADJ	ADJUSTABLE, ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGG/AG	AGGREGATE
AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AIT	ANALYTICAL (ANALYSIS) INDICATING TRANSMITTER
AL, ALUM	ALUMINUM
ALT	ALTERNATE, ALTERNATIVE, ALTERNATING
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATELY
ARCH	ARCHITECTURAL
ARND	AROUND
ARV	AIR VACUUM RELEASE VALVE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASPH	ASPHALT CONCRETE
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BOLT CIRCLE, BEGIN CURVE
B/C	BASE OF CURB OR CONCRETE
BCV	BALL CHECK VALVE
BD	BOARD
BEL	BELOW
BEV	BEVEL(ED)
BF	BLIND FLANGE
BFP	BACKFLOW PREVENTER
BFV	BUTTERFLY VALVE
BGS	BELOW GROUND SURFACE
BHP	BRAKE HORSE POWER
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK(ING)
BM	BENCHMARK
BO	BLOWOFF, BOTTOM OF, BOTTOM OUTLET
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FOOTING
BPV	BACK PRESSURE VALVE
BR	BRASS
BRP	BRASS PIPE
BRZ	BRONZE
BS	BOTH SIDES
BTWN	BETWEEN
BV	BALL VALVE
BVC	BEGIN VERTICAL CURVE
BW	BUTT WELD
C	CUT
CATV	CABLE TV
CB	CATCH BASIN, CIRCUIT BREAKER
CBC	CALIFORNIA BUILDING CODE
CCP	CONCRETE CYLINDER PIPE
CCW	COUNTER CLOCK WISE
CDPH	CALIFORNIA DEPARTMENT OF PUBLIC HEALTH
CF	CUBIC FEET
CFF	CAP FOR FUTURE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHAM	CHAMFER
CHEM	CHEMICAL
CHK	CHECKERED, CHECK
CHK PL	CHECKERED PLATE
CI	CAST IRON
CIR	CIRCLE, CIRCUIT
CIRC	CIRCUMFERENTIAL
CLR	CLEAR
CJ	CONSTRUCTION JOINT, CONTROL JOINT
C/L	CHAIN LINK
CL2	CLASS 2
CL	CENTER LINE, CLASS, LEAN CLAY WITH SAND
CLR	CHLORINE RESIDUAL (ANALYZER), CLEAR(ANCE)
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CM	CENTIMETER
CM(P)	CORRUGATED METAL (PIPE)
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT, COMPANY
COMM	COMMUNICATION(S)
COMP	COMPACTION (COMPACTED), COMPRESSIBLE
CON	CONSTANT, CONCENTRIC
CONC	CONCRETE
COND	CONDUIT, CONDITION
CONT	CONTINUOUS, CONTINUATION, CONTINUED
COORD	COORDINATION
CORR	CORRUGATED
CP	CATHODIC PROTECTION
CPLG	COUPLING (ER)
CPU	CENTRAL PROCESSING UNIT
CPVC(P)	CHLORINATED POLYVINYLCHLORIDE (PIPE)
CRC	CHEMICAL RESISTANT COATING
CSP	CARBON STEEL PIPE
CTR	CENTER (ED)
CTRL	CONTROL
CTS	CALCIUM THIOSULFATE
CU	CUBIC, COPPER
CU FT	CUBIC FEET
CUP	COPPER PIPE
CV	CHECK VALVE, CONTROL VALVE, CONTROL VARIABLE
CW	COLD WATER (DOMESTIC POTABLE), CLOCK WISE
CY	CUBIC YARD
D	DRAIN, DEMOLITION, DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DI	DROP INLET, DUCTILE IRON
DIA, DIA	DIAMETER
DIEL	DIELECTRIC
DIM	DIMENSION
DI(P)	DUCTILE IRON (PIPE)
DL	DRAIN LINE
DN	DOWN
DMPRF	DAMPROOFING
DR	DRIVE
DTL	DETAIL
DWG	DRAWING
(E)	EXISTING, ELEVATION
E	ELECTRICAL, EASTING, EAST
EA	EACH
EC	END CURVE, EMPTY CONDUIT
ECC	ECCENTRIC
ED	EQUIPMENT DRAIN
EDB	ELECTRICAL DUCT BANK
EG	EXISTING GRADE
EL	ELEVATION
E/L	EASEMENT LINE
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR, ELEVATION
ELL, EL	ELBOW(S)
EMBED	EMBEDMENT
EOP	EDGE OF PAVEMENT
EP	ELECTRICAL PANEL, EXPLOSION PROOF, EDGE OF PAVEMENT
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQPT, EQUIP	EQUIPMENT
ES	EACH SIDE
ESH, ESW	EMERGENCY SHOWER AND EYEWASH
EW	EACH WAY
EX, EXIST, EXST	EXISTING
EXT	EXTERIOR, EXTENSION
(F)	FUTURE
F'C	CONCRETE COMPRESSIVE STRENGTH
F'M	MASONRY COMPRESSIVE PRISM STRENGTH
FAB	FABRICATE(D)(TION)
FC	FLEXIBLE COUPLING, FACE OF CURB, FLEXIBLE CONNECTION
FCA	FLANGE COUPLING ADAPTER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER AND CABINET, FLOW ELEMENT
FF	FINISHED FLOOR
FG	FINISH GRADE, FIBERGLASS
FH	FIRE HYDRANT
FIG	FIGURE
FIT	FLOW INDICATING TRANSMITTER
FL	FLOOR(ING)
FLA	FULL LOAD AMPERE
FLEX	FLEXIBLE
FLG	FLANGE(D)
FM	FORCE MAIN, FLOW METER
FND	FOUNDATION
FNPT, FPT	FEMALE NATIONAL PIPE THREAD
FO	FIBER OPTIC
FOC	FACE OF CONCRETE, FACE OF CURB
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FRP	FIBERGLASS REINFORCED PLASTIC
FT	FOOT, FEET
FTG	FOOTING, FITTING
FUT	FUTURE
FV	FUEL VENT (DIESEL), FIELD VERIFY
FWY	FREEWAY
G	GATE, GENERAL, GROUND, GAS
GA, GA	GAGE, GAUGE
GAL	GALLONS
GALV	GALVANIZED
GASP	GALVANIZED STEEL PIPE
GC	GENERAL CONTRACTOR, GROOVED COUPLING, CLAYEY GRAVEL
GD	GUTTER DRAIN
GEN	GENERATOR, GENERAL
GFI, GF	GROUND FAULT INTERRUPTER (ING)
GI	GALVANIZED IRON
GND	GROUND
GP	POORLY GRADED GRAVEL WITH CLAY AND SAND
GPM	GALLONS PER MINUTE
GR	GRADE
GRTG	GRATING
GV	GATE VALVE
GW	GROUNDWATER
H	HIGH, HEIGHT
HB	HOSE BIBB
HDG	HOT DIP GALVANIZE(D)
HDR	HEADER
HDPE	HIGH DENSITY POLYETHYLENE
HDWR	HARDWARE
HEX	HEXAGON(AL)
HF	HOSE FAUCET
HGL	HYDRAULIC GRADE LINE
HMC	HARNESSED MECHANICAL COUPLING
HMJ	HARNESSED MECHANICAL JOINT
HP	HORSE POWER, HIGH POINT
HV	HOSE VALVE, HVAC SYSTEM, HIGH VOLTAGE
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWS	HIGH WATER SURFACE
HYD	HYDRAULIC, HYDRANT
IBC	INTERNATIONAL BUILDING CODE
ID	INNER DIAMETER
IE	INVERT ELEVATION
IF, IFC	INSIDE FACE
IN	INCH, INLET
INCL	INCLUDING
INST	INSTALL
INSTR	INSTRUMENTATION, INSTRUMENT
INSUL	INSULATE(ION), INSULATING
INT	INTERIOR, INTERNAL
INV	INVERT
IRR, IRRIG	IRRIGATION
JB	JUNCTION BOX
JF	JOINT FILLER
JT	JOINT
KO	KNOCKOUT
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
L	LENGTH
LB(S)	POUND(S)
LE	LEVEL ELECTRODE, LEVEL ELEMENT
LF	LINEAR FEET, LIGHT FIXTURE
LI	LEVEL INDICATOR
LIT	LEVEL INDICATING TRANSMITTER
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW POINT, LIGHT POLE
LR	LONG RADIUS
LSA	AIR LEVEL SENSOR (BUBBLER)
LT	LEFT, LIGHT
LVR	LOUVER
LWL	LOW WATER LEVEL
MATL	MATERIAL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MG	MILLION GALLONS
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS EQUIPMENT
MJ	MECHANICAL JOINT
ML	SANDY SILT
MM	MILLIMETER
MOV	MOTOR OPERATED VALVE
MP	METERING PUMP
MSL	MEAN SEA LEVEL
MTL	METAL
MTR	MOTOR, MITER
(N)	NEW
N	NORTH, NORMAL, NEUTRAL, NORTHING
NA, N/A	NOT APPLICABLE
NBRID	NAPA BERRYESSA RESORT IMPROVEMENT DISTRICT
NC	NORMALLY CLOSED, NON COMBUSTIBLE
NDV	NEEDLE VALVE
NIP	NIPPLE
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NPS	NATIONAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
NSG	NON-SHRINK GROUT
NTS	NOT TO SCALE
O/	OVER
OB	WELL OVERBOARD FLOW
OC, O.C.	ON CENTER
OD, O.D.	OUTSIDE DIAMETER
OF, O/F	OVERFLOW
OHE	OVERHEAD ELECTRICAL
OHU	OVERHEAD UTILITY
OPNG	OPENING
ORG	ORGANIZATIONAL
P	PUMP, PAVEMENT
PA	PRESSURE AREA
PC	PORTLAND CEMENT
PE (P)	POLYETHYLENE (PIPE), PLAIN END
PERP	PERPENDICULAR
PG	PRESSURE GAUGE
PG&E	PACIFIC GAS AND ELECTRIC
PH	HYDROGEN ION MEASURE
PI	PRESSURE INDICATOR
PL	PLATE
P/L OR PL	PROPERTY LINE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PLYWD	PLYWOOD
PP	POWER POLE
PR	PAIR, INSTRUMENT CABLE PAIR
PRCST	PRE-CAST
PRV	PRESSURE (REGULATING, RELIEF, REDUCING) VALVE
PS	PRESSURE SWITCH, PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT, PRESSURE TREATED, PRESSURE TRANSDUCER
PTD	PAINTED
PVCH	POLYVINYL CHLORIDE HOSE
PVC(P)	POLYVINYL CHLORIDE (PIPE)
PVMT	PAVEMENT
QCV	QUICK COUPLING VALVE
QSD	QUALIFIED SWPPP DEVELOPER
R OR RAD	RADIUS
RD	ROAD
RED	REDUCE(R)
REINF	REINFORCE(D, ING, MENT)
REL	RELATIVE
REQD	REQUIRED
RFD	RECESSED FLOOR DRAIN
RPM	REVOLUTIONS PER MINUTE
RRFDG	RECLAMATION RECREATION FACILITY DESIGN GUIDELINES
RT	RIGHT
RTU	REMOTE TERMINAL UNIT
RW	RECYCLED WATER
RWD	REDWOOD
RWV	RECYCLED WATER VALVE
S	STRUCTURAL, START, STOP SIGN, SOUTH
SAM	SAMPLE WATER
SC	CLAYEY SAND GRAVEL
SCH(ED)	SCHEDULE
SCL	STEEL CEMENT MORTAR LINED
SCLP	STEEL CEMENT MORTAR LINED AND PAINTED PIPE
SD	STORM DRAIN
SDDI	STORM DRAIN DROP INLET
SDCO	STORM DRAIN CLEAN OUT
SDDW	STORM DRAIN DRY WELL
SDJB	STORM DRAIN JUNCTION BOX
SECT	SECTION
SELC	STEEL EPOXY LINED AND COATED
SELM	STEEL EPOXY LINED AND MORTAR COATED
SF	SQUARE FEET
SH	SODIUM HYPOCHLORITE
SHT	SHEET
SIM	SIMILAR
SKL	SKYLIGHT
SL	SLOPE
SMLC	STEEL CEMENT MORTAR LINED AND COATED PIPE
SOG	SLAB ON GRADE
SOV	SOLENOID VALVE, SHUT OFF VALVE
SP	POORLY GRADED SAND WITH CLAY AND GRAVEL, STATIC PRESSURE, STAND PIPE, SPARE
SPEC	SPECIFICATION(S), SPECIFIED
SQ	SQUARE
SQ FT	SQUARE FEET
SS	SANITARY SEWER, STAINLESS STEEL
SSMH	SANITARY SEWER MANHOLE
SST	STAINLESS STEEL
ST	STREET
ST	SELF TAPPING
STA	STATION
STL	STEEL
STRUCT	STRUCTURE (AL)
SWPPP	STORM WATER POLLUTION PREVENTION PLAN
T	TOP, TANK
T&B	TOP AND BOTTOM
TBD	TO BE DETERMINED
TBG	TUBING
TBM	TEMPORARY BENCH MARK
TC	TOP OF CURB, TOP OF CONCRETE
TDC	TRENCH DRAIN
TELE	TELEPHONE
TEMP	TEMPERATURE, TEMPERED, TEMPORARY
TG	TOP OF GRATE
THD	THREAD(ED)
THK	THICK(NESS)
THRU	THROUGH
TB	TRUST BLOCK
TJ	TOOLED JOINT
TM	THERMAL MAGNETIC
T.O.	TOP OF
TOC	TOP OF CONCRETE, TOP OF CURB
TOP	TOP OF PAVEMENT, TOP OF PIPE
TOR	TOP OF RESERVOIR
TOS	TOP OF SLAB
TOW	TOP OF WALL
TPZ	TREE PROTECTION ZONE
TRANS	TRANSFORMER
TRD	THREADED
T/S	TOP OF SWALE
TV	TELEVISION
TW	TREATED WATER, TOP OF WALL
TYP, TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VENT, VALVE, VOLT(S)(AGE)
VAR	VARIES
VB	VALVE BOX
VERT	VERTICAL
VF	VENT FAN
VFD	VARIABLE FREQUENCY DRIVE
VFF	VAULT FINISH FLOOR
VIF	VERIFY IN FIELD
VP	VENT PIPE
VR	VENT RISER
VRV	VACUUM RELIEF VALVE
W	WATER, WIDE, WATTS, WEST, WIDTH
W/	WITH
W/A	WHERE APPLICABLE
WL	WATER LEVEL
WM	WATER MAIN, WATER METER
WMS	WIRE MESH SCREEN
W/O	WITHOUT
WS	WATER STOP, WATER SURFACE, WATER SUPPLY
WSE	WATER SURFACE ELEVATION
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
XFMR	TRANSFORMER

RECLAMATION
Managing Water in the West

N

STA. CDM SMITH
YYY-MM-DD
105904.2330.019

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YYYY-MM-DD

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON ABBREVATIONS

LB-SCRA-G06

SHEET X OF X

STORMWATER CONTROL AREA SC-15

THREE POINT TURNAROUND (TYP.)

ACCESSIBLE PICNIC TABLE

ACCESSIBLE PARKING SPACE (TYP.)

CABIN (TYP.)

STANDARD PICNIC TABLE

FIRE RING

PARK MODEL (TYP.)

10' X 20' PARKING SPACE (TYP.)

16' WIDE OFF-ROAD GRAVEL SHARED ACCESS DRIVE (D/CD07)

DRIVE SC-8

DRIVE SC-7

REMOVE AND RELOCATE OVERHEAD WIRES AND POLE TO AVOID PROXIMITY TO CABIN.

PROPOSED GRADING (TYP.)

REMOVE AND RELOCATE UTILITY POLE TO AVOID TRAVELED WAY

REMOVE AND RELOCATE OVERHEAD WIRES TO AVOID PROXIMITY TO CABIN.

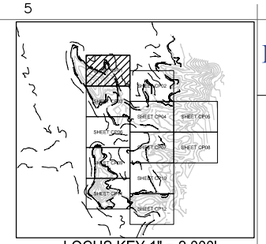
DRIVE SC-6

STORMWATER CONTROL AREA SC-14

100' BUFFER ZONE

Lake Berryessa - Lupine Shore
Water El. 429.87'
October 14, 2011

LOCUS KEY 1" = 2,000'



SCALE OF FEET: 40 0 40 80 120

MATCHLINE - CP02

MATCHLINE - CP03

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

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TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN I

LB-SCRA-CP01

SHEET X OF X

MATCHLINE - CP01

MATCHLINE - CP03

MATCHLINE - CP04

Lake Berryessa – Lupine Shore
Water El. 429.87
October 14, 2011

450
440
430
420
460

BOAT EXCLUSION AREA

LOCUS KEY 1" = 2,000'

SCALE OF FEET
40 0 40 80 120

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography 20163
Date of photography: October 20, 2011

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TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON SITE PLAN II

LB-SCRA-CP02
SHEET X OF X

MATCHLINE - CP01

ACCESSIBLE CABIN (TYP.)

STORMWATER CONTROL AREA SC-14

REMOVE AND RELOCATE OVERHEAD WIRES TO AVOID PROXIMITY TO CABIN.

ACCESSIBLE PARK MODEL (TYP.)

ACCESSIBLE PICNIC TABLE

D / CD07 GRAVEL SHARED ACCESS DRIVE

16' WIDE OFF-ROAD

100' BUFFER ZONE

RETAINING WALL

THREE POINT TURNAROUND (TYP.)

STANDARD PICNIC TABLE

FIRE RING

CABIN (TYP.)

DRIVE SC-6

50' UTILITY EASEMENT

STORMWATER CONTROL AREA SC-12(B)

REMOVE AND RELOCATE UTILITY POLE TO AVOID PARKING AREA

STORMWATER CONTROL AREA SC-12(A)

DRIVE SC-5

D / CD07 24' WIDE TWO-WAY GRAVEL CIRCULATION ROAD (TYP.)

ACCESSIBLE PARKING SPACE (TYP.)

C / CD07 5' WIDE WALKWAY (TYP.)

10' X 20' PARKING SPACE (TYP.)

STORMWATER CONTROL AREA SC-13

REMOVE AND RELOCATE UTILITY POLE TO AVOID TRAVELED WAY

DRIVE SC-3

A / CD07 24' WIDE TWO-WAY CIRCULATION ROAD

MATCHLINE - CP02

MATCHLINE - CP04

MATCHLINE - CP06

LOCUS KEY 1" = 2,000'

SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
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STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN III

LB-SCRA-CP03
SHEET X OF X

MATCHLINE - CP02

MATCHLINE - CP03

MATCHLINE - CP05

MATCHLINE - CP06

MATCHLINE - CP07

BOAT EXCLUSION AREA

COMFORT STATION WITH TOILETS, FFE 479'

FIRE RING

PICNIC TABLE

ACCESSIBLE PICNIC TABLE

50' UTILITY EASEMENT

15' WIDE GRAVEL SERVICE ROAD (D/CD07)

5' WIDE WALKWAY (TYP.) (C/CD07)

DRIVE SC-3

100' BUFFER ZONE

24' WIDE TWO-WAY CIRCULATION ROAD (TYP.) (A/CD07)

DRIVE SC-1

STORMWATER CONTROL AREA SC-9

SCALE OF FEET: 40 0 40 80 120

LOCUS KEY 1" = 2,000'

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

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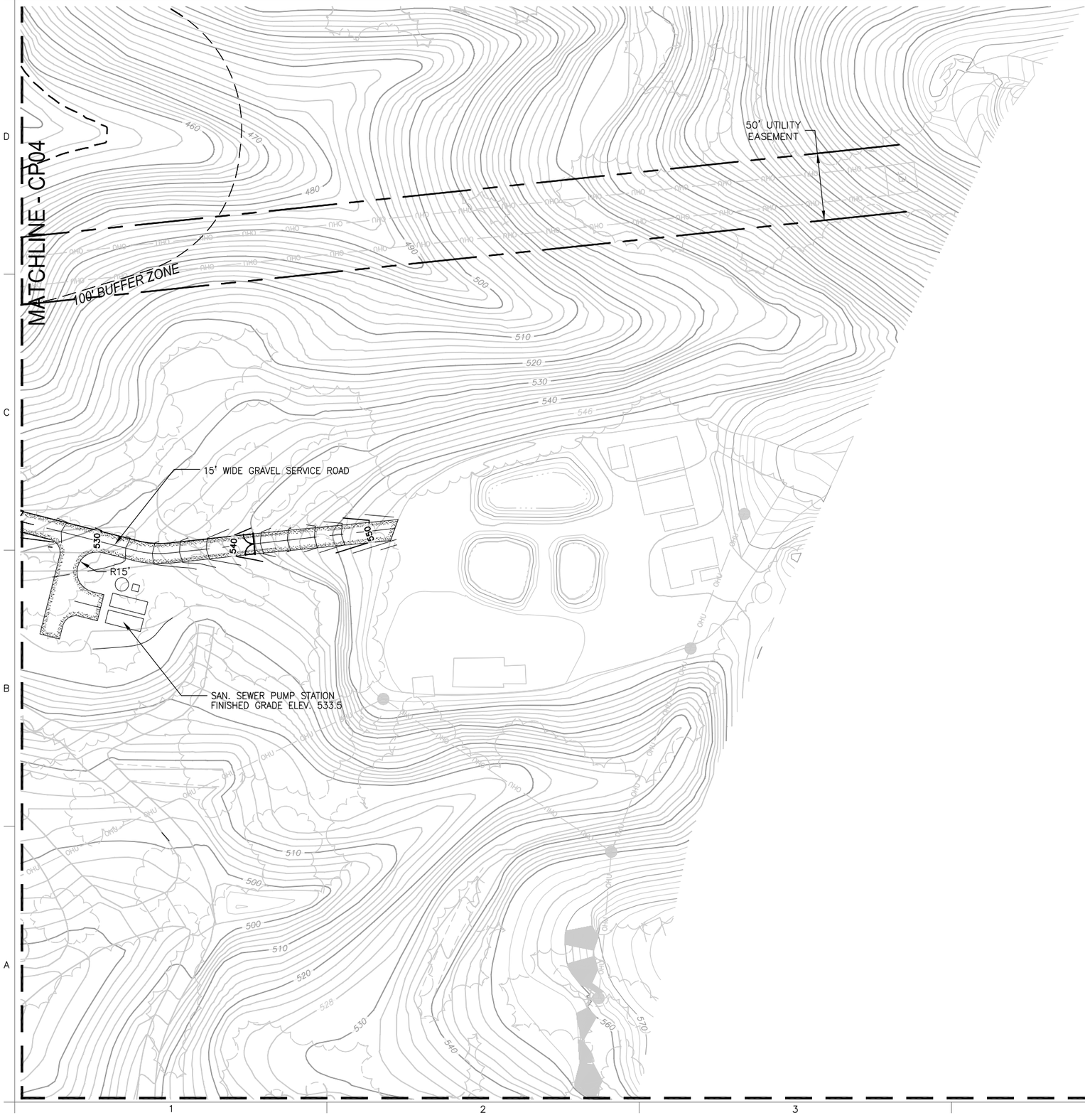
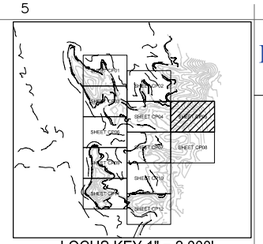
STEELE CANYON
SITE PLAN IV

LB-SCRA-CP04

SHEET X OF X





LOCUS KEY 1" = 2,000'

40 0 40 80 120
SCALE OF FEET

MATCHLINE - CP08

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RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

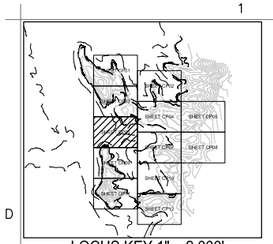
CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON SITE PLAN V

LB-SCRA-CP05
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - CP03

REMOVE AND RELOCATE OVERHEAD WIRES AND POLE TO AVOID PAVED AREA.

ACCESSIBLE PARKING SPACE (TYP.)

OUTDOOR DECK

1015–SF MARINA AND BOAT RENTAL BUILDING, FFE 464'

A CD07 24' WIDE TWO–WAY CIRCULATION ROAD (TYP.)

DRIVE SC–4

STORMWATER CONTROL AREA SC–11

STORMWATER CONTROL AREA SC–10

D CD07 40' WIDE GRAVEL OFF–ROAD PARKING LOT

8' WIDE DOCK (TYP.)

4' WIDE FINGER FLOAT (TYP.)

8'

40'

32'

20'

R20'

R40'

R55'

R35'

R5'

24'

6+00

5+00

4+00

3+00

462

460

458

456

454

450

444

442

446

KIOSK SEE RRFDG

RETAINING WALL UNDER GANGWAY

DOCK ACCESSIBLE ROUTE

ON SHORE FUEL AND SANITARY STORAGE TANKS, FFE 456'

10' X 20' PARKING SPACE (TYP.)

5' WIDE WALKWAY (TYP.)

MATCHLINE - CR04

32 HOUSE BOAT SLIPS
178 STANDARD BOAT SLIPS

DOCK FOR FUEL DISPENSING AND SANITARY PUMP OUT

12' WIDE MAIN DOCK WALKWAY (TYP.)

6' WIDE DOCK (TYP.)

3' WIDE FINGER FLOAT (TYP.)

20' TYP.

18' TYP.

MATCHLINE - CR07

430

440

450

460

470

40 0 40 80 120
SCALE OF FEET

MATCHLINE - CP09

RECLAMATION
Managing Water in the West

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STA. CDM SMITH 103939.2330.019

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

CONTRACTOR

DRAWN

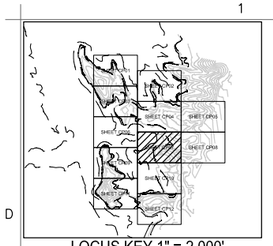
ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY–MM–DD

STEELE CANYON
SITE PLAN VI

LB–SCRA–CP06

SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - CP04

MATCHLINE - CP06

MATCHLINE - CP09

MATCHLINE - CP08

MATCHLINE - CP10

STORMWATER CONTROL AREA SC-9

STORMWATER CONTROL AREA SC-7

ACCESSIBLE PICNIC TABLE

ACCESSIBLE STANDARD SITE PARKING (TYP.) SEE RRFDG

FIRE RING

STANDARD SITE PARKING (TYP.)

CAMP HOST SITE

PICNIC TABLE

A CD07 24' WIDE TWO-WAY CIRCULATION ROAD

REMOVE AND RELOCATE UTILITY POLE TO AVOID PAVED AREA

6-LANE BOAT RAMP, SEE SHEETS CR02, CR04, CR05

KIOSK SEE RRFDG

10' WIDE X 20' LONG PARKING SPACE (TYP.)

DRIVE SC-1

STORMWATER CONTROL AREA SC-8

100' BUFFER ZONE

STORMWATER CONTROL AREA SC-6

COMFORT STATION WITH TOILETS, FFE 448'

ACCESSIBLE PARKING SPACE, (TYP.)

5' WIDE WALKWAY (TYP.) C CD07

12' WIDE GRAVEL PARKING (TYP.) FOR 75 VEHICLES WITH BOAT TRAILERS

RV DUMP STATION AT EL. 453' SEE INFRASTRUCTURE PLANS

DRIVE SC-1

24' WIDE TWO-WAY CIRCULATION ROAD A CD07

SCALE OF FEET 40 0 40 80 120

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

STA, CDM SMITH | 103939.2330.019
YYYY-MM-DD
ACCEPTED:
NAME, PROF., ABBR

ALWAYS THINK SAFETY

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

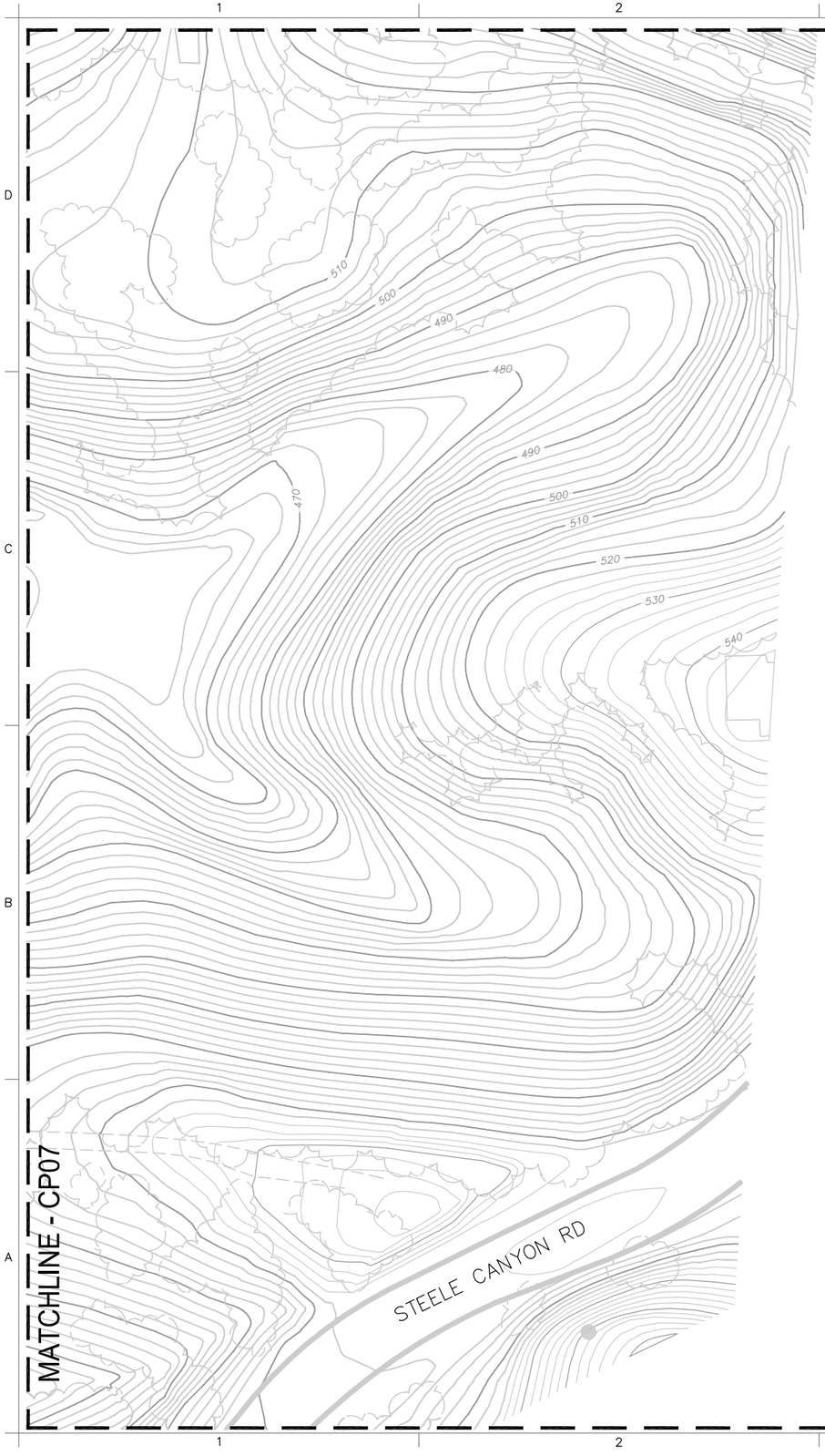
Topography by American Photomapping Services
Compiled from photography 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN VII

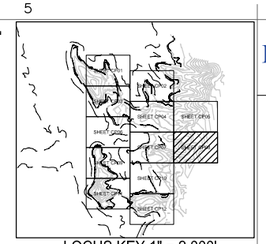
LB-SCRA-CP07
SHEET X OF X



MATCHLINE - CP05

MATCHLINE - CP07

NO REQUIRED FACILITIES THIS SHEET,
SEE CONCEPTUAL SITE PLANS FOR
POTENTIAL DEVELOPMENT OF
AUTHORIZED FACILITIES.



LOCUS KEY 1" = 2,000'

N

40 0 40 80 120
SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

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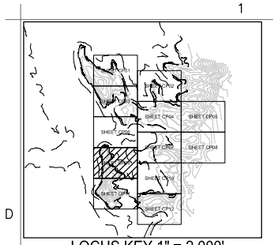
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN VIII

LB-SCRA-CP08

SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - CP06

6 LANE BOAT RAMP, SEE SHEETS CR02, CR04, CR05

8' WIDE X 60' LONG COURTESY DOCK (TYP. OF 4), SEE SHEETS CR06–CR07

216'

122'

430

420

410

MATCHLINE - CP07

100' BUFFER ZONE

Lake Berryessa – Lupine Shore
Water El. 429.87'
October 14, 2011

OHU

MATCHLINE - CP10

MATCHLINE - CP11

SCALE OF FEET
40 0 40 80 120

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RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

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STEELE CANYON
SITE PLAN IX

LB-SCRA-CP09
SHEET X OF X

MATCHLINE - CP07

MATCHLINE - CP09

MATCHLINE - CP11

MATCHLINE - CP12

INDIVIDUAL DAY USE SITES

FIRE RING

PICNIC TABLE

STORMWATER CONTROL AREA SC-5

12' WIDE GRAVEL PARKING (TYP.) FOR 75 VEHICLES WITH BOAT TRAILERS

DRIVE SC-1

24' WIDE TWO-WAY CIRCULATION ROAD (A / CD07)

ACCESSIBLE PARKING SPACE, (TYP.)

10' WIDE X 20' LONG PARKING SPACE, (TYP.)

STORMWATER CONTROL AREA SC-3

STORMWATER CONTROL AREA SC-4

COMFORT STATION WITH TOILETS AND FAMILY ROOM, FFE 453', SEE INFRASTRUCTURE PLANS

ACCESSIBLE STANDARD SITE PARKING (TYP.) SEE RRFDG

RV SITE SPUR (TYP.) SEE RRFDG

DRIVE SC-2

24' WIDE TWO-WAY GRAVEL CIRCULATION ROAD (D / CD07)

STORMWATER CONTROL AREA SC-2

100' BUFFER ZONE

Lake Berryessa - Lupine Shore
Water El. 429.87'
October 14, 2011

LOCUS KEY 1" = 2,000'

SCALE OF FEET: 0 40 80 120

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 20163
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STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN X

LB-SCRA-CP10
SHEET X OF X

MATCHLINE - CP09

100' BUFFER ZONE

NO REQUIRED FACILITIES THIS SHEET, SEE CONCEPTUAL SITE PLANS FOR POTENTIAL DEVELOPMENT OF AUTHORIZED FACILITIES.

MATCHLINE - CP10

MATCHLINE - CP12

LOCUS KEY 1" = 2,000'

40 0 40 80 120
SCALE OF FEET

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DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
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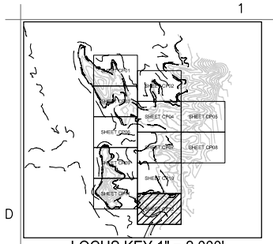
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SITE PLAN XI

LB-SCRA-CP11
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - CP10

MATCHLINE - CP11

DRIVE SC-1

D / CD07 15' WIDE GRAVEL SERVICE ROAD

VEHICLE CONTROL GATE SEE RRFDG

10' WIDE X 20' LONG PARKING SPACE, (TYP.)

ACCESSIBLE PARKING SPACE, (TYP.)

SINGLE UNIT VAULT TOILET, FFE 498', SEE INFRASTRUCTURE PLANS

ACCESSIBLE ENTRY STATION, FFE 495' SEE RRFDG

A / CD07 24' WIDE TWO-WAY CIRCULATION ROAD

STORMWATER CONTROL AREA SC-1

100' BUFFER ZONE

STEELE CANYON RD

R50' R20' R2' R112' R32' R46' R15'

15+00 16+00 14+00 13+00 12+00 11+00 10+00

460 470 480 490 500 510 520 496 494 492

E 6,504,000

E 6,504,500

40 0 40 80 120
SCALE OF FEET

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

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Date of photography: October 20, 2011

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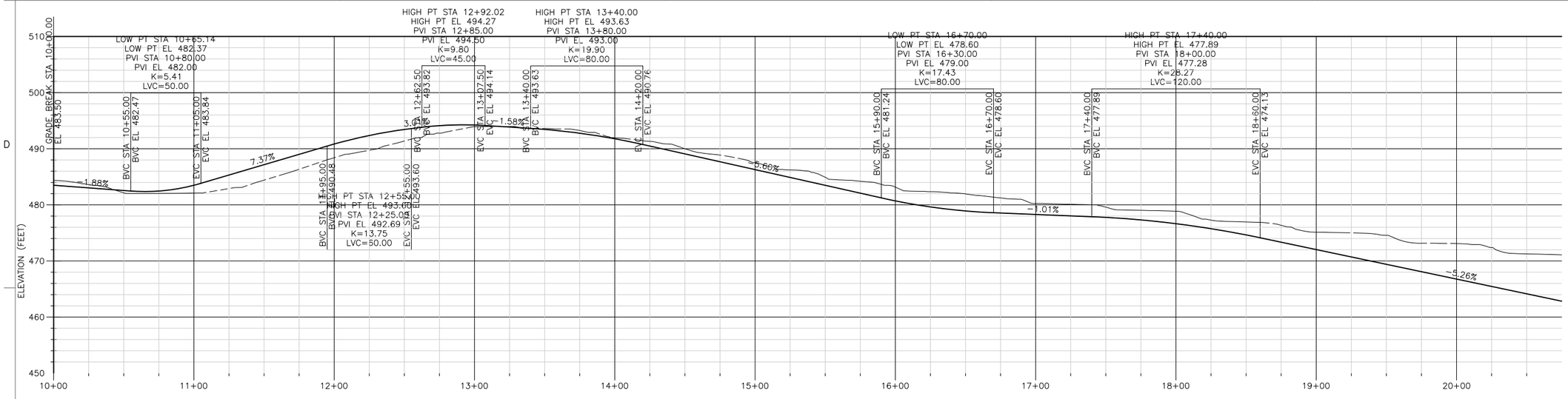
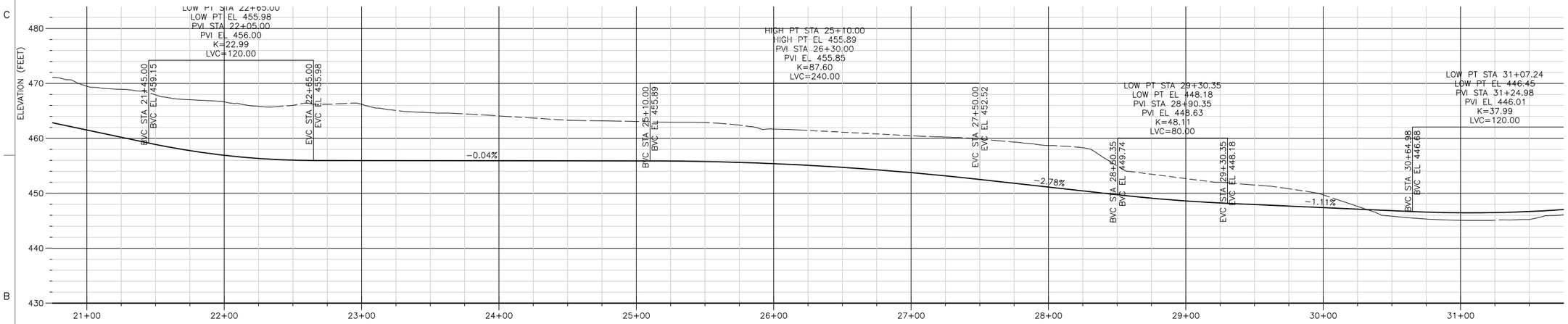
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

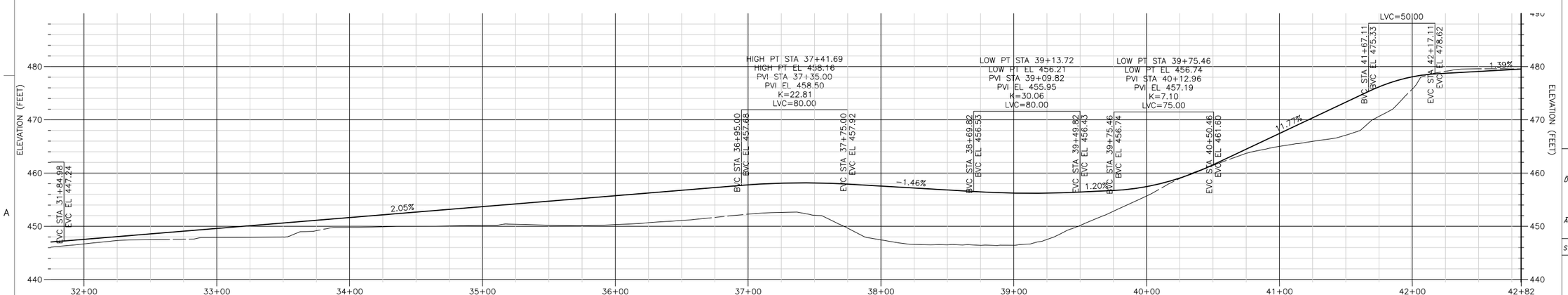
STEELE CANYON SITE PLAN XII

LB-SCRA-CP12

SHEET X OF X







PROFILE - STEELE CANYON DRIVE SC - I

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RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
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BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

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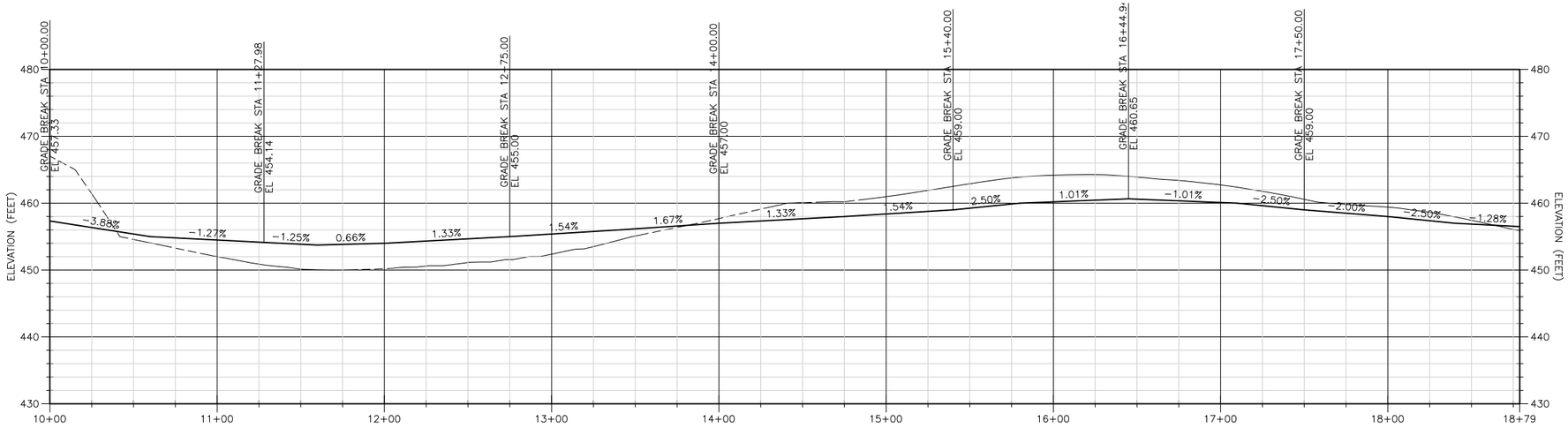
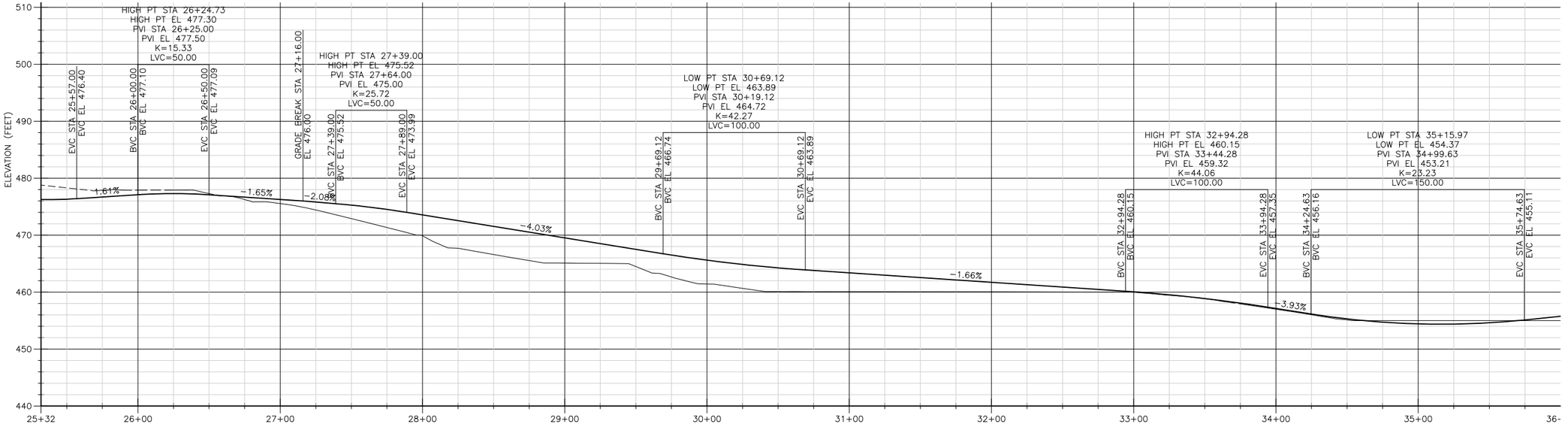
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
GRADING AND ROAD
DETAILS I

LB-SCRA-CD01



PROFILE - STEELE CANYON DRIVE SC-2



PROFILE - STEELE CANYON DRIVE SC-3

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DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
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BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
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Date of photography: October 20, 2011

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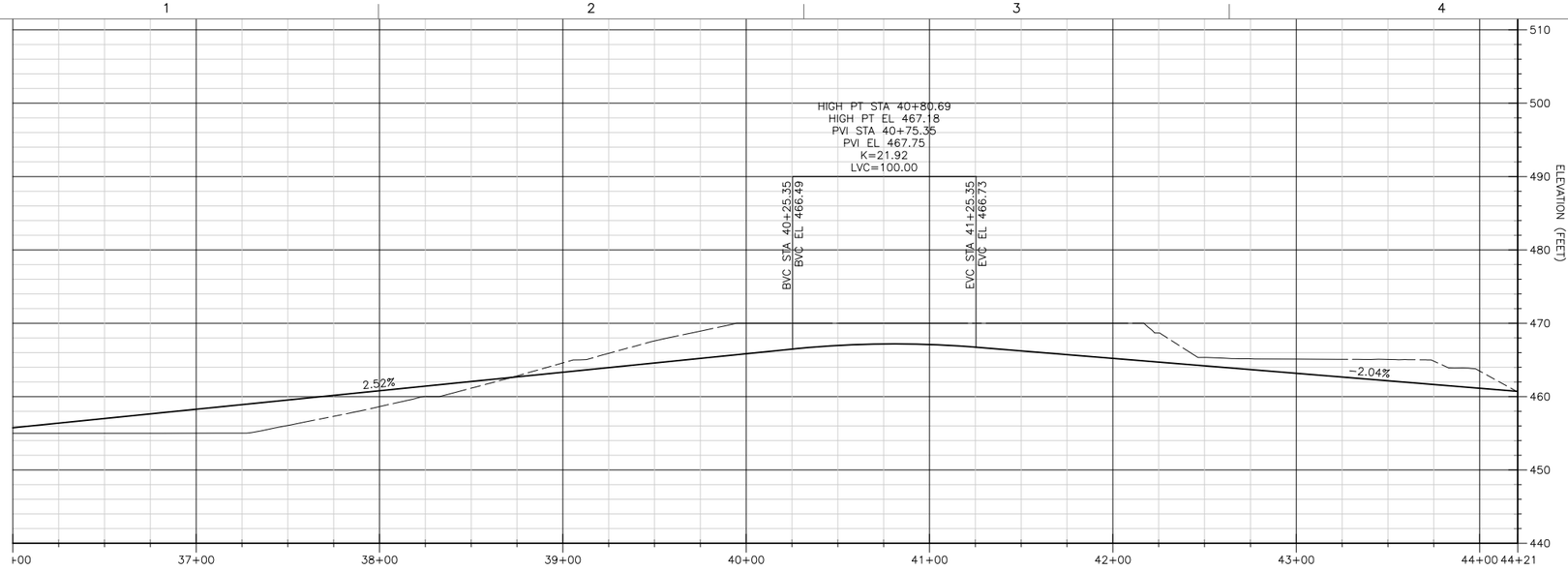
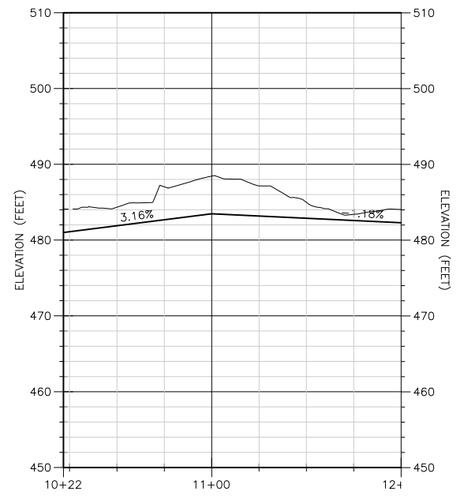
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON GRADING AND ROAD DETAILS II

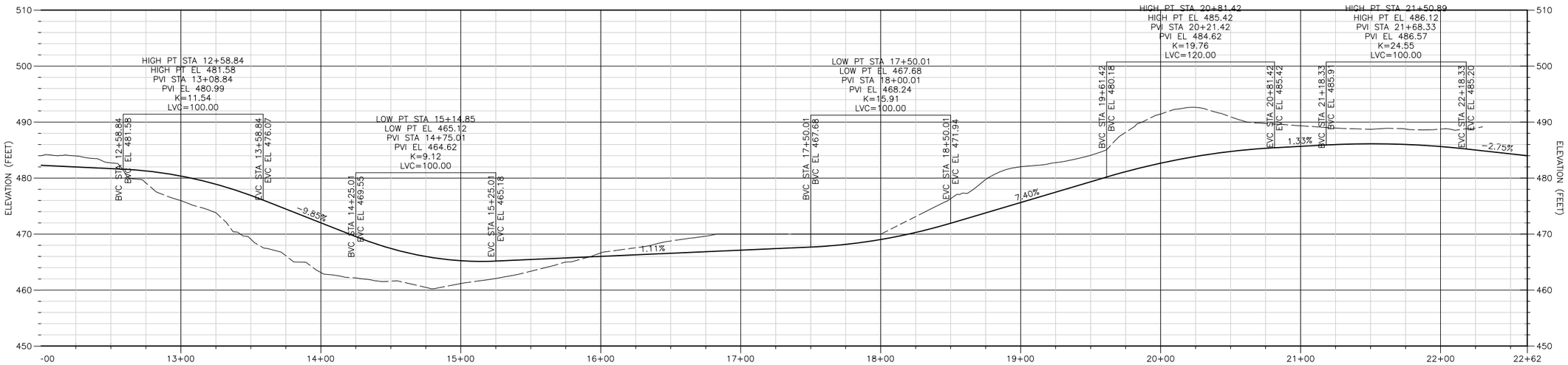
LB-SCRA-CD02



PROFILE - STEELE CANYON DRIVE SC-3



PROFILE - STEELE CANYON DRIVE SC - 4



PROFILE - STEELE CANYON ROAD III

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RECREATION AREA
DEVELOPMENT PLANS 60%

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NAME, PROF. ABBR
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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

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NAME
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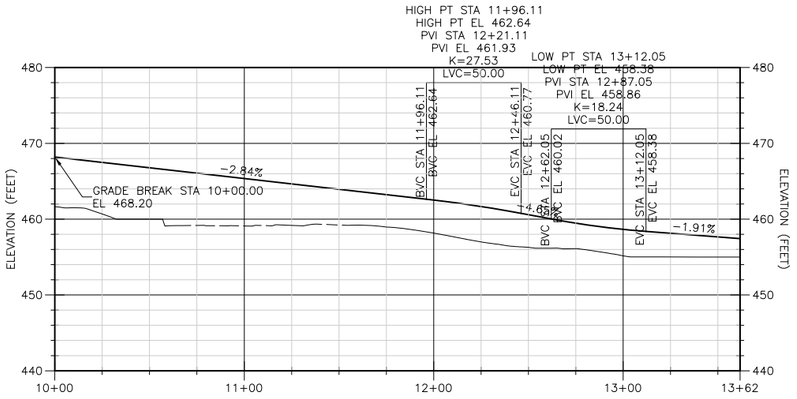
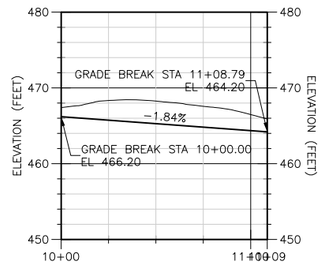
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON GRADING AND ROAD DETAILS III

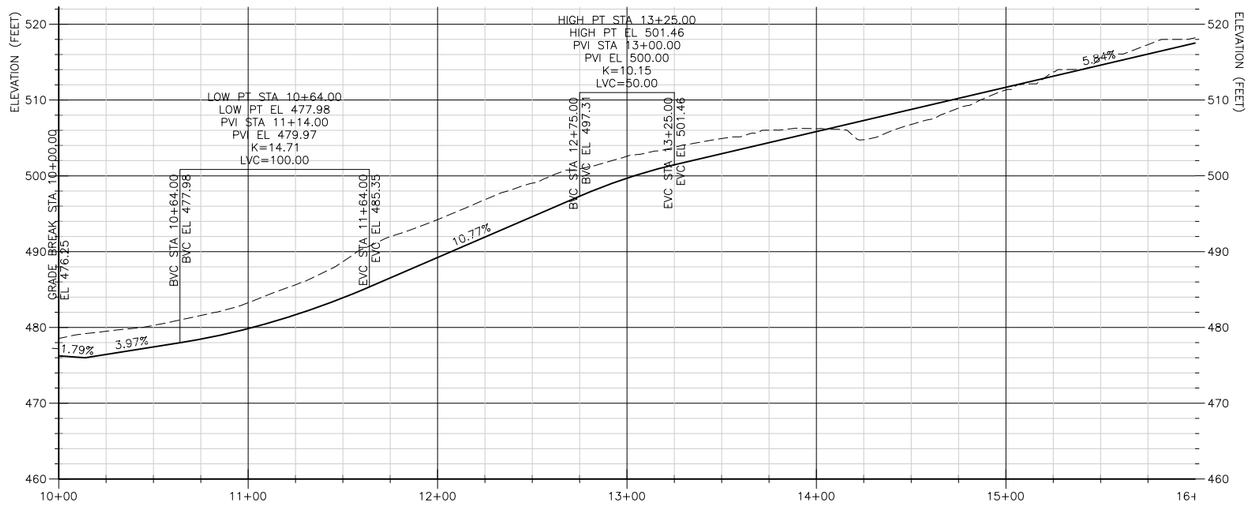
LB-SCRA-CD03



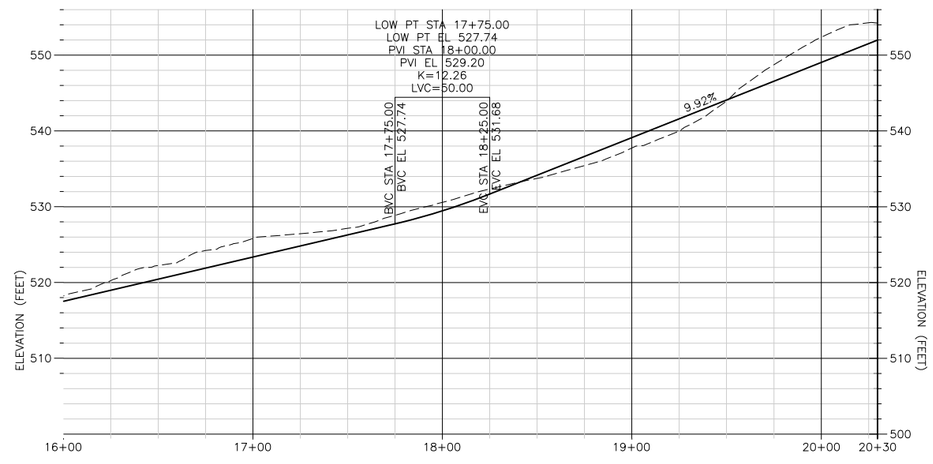
PROFILE - STEELE CANYON DRIVE SC - 5



PROFILE - STEELE CANYON DRIVE SC - 6



PROFILE - STEELE CANYON DRIVE SC - 7



PROFILE - STEELE CANYON DRIVE SC - 7

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LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

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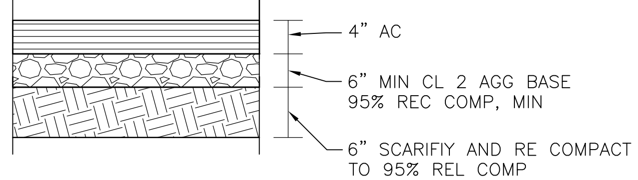
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

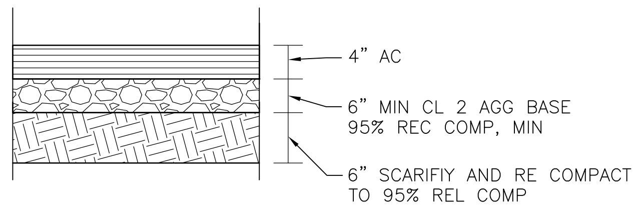
STEELE CANYON GRADING AND ROAD DETAILS IV

LB-SCRA-CD04



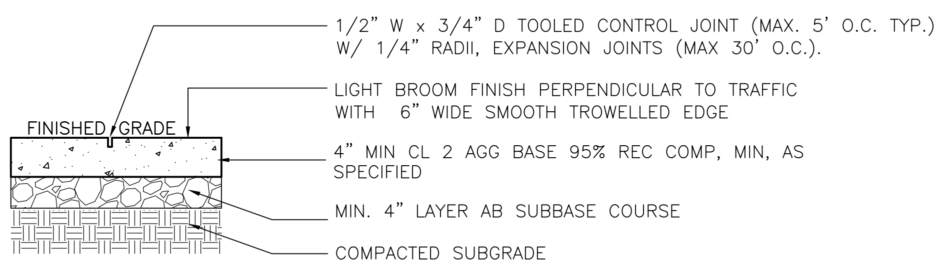
TYPICAL ACCESS DRIVE PAVEMENT

DETAIL A
NTS



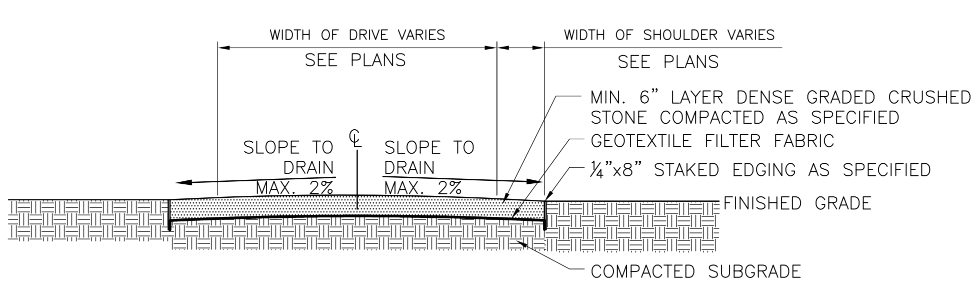
TYPICAL PARKING AREA PAVEMENT

DETAIL B
NTS



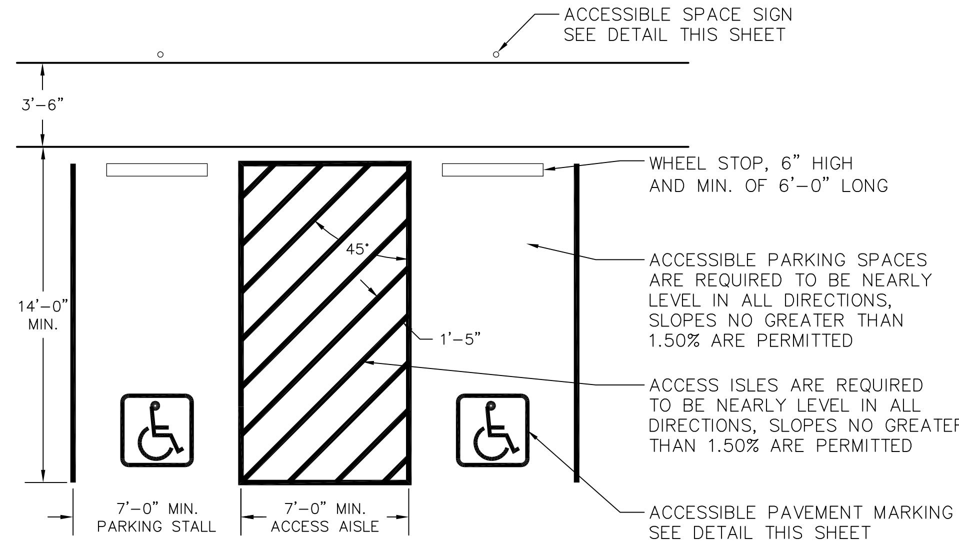
TYPICAL WALKWAY PAVEMENT

DETAIL C
NTS



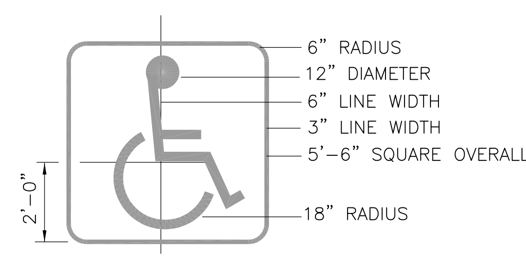
GRADED CRUSHED AGGREGATE STONE

DETAIL D
NTS



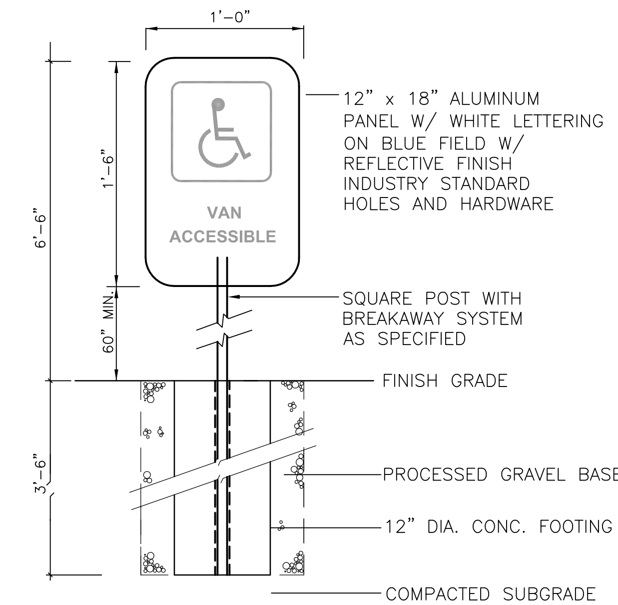
TYPICAL ACCESSIBLE PARKING LAYOUT

DETAIL E
NTS



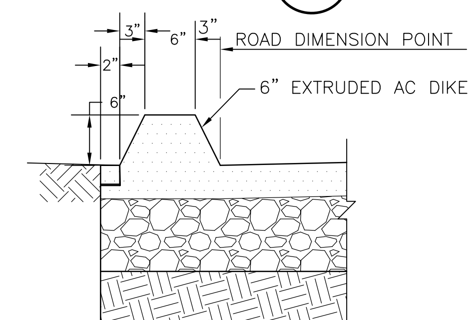
TYPICAL ACCESSIBLE PAVEMENT SYMBOL

DETAIL F
NTS



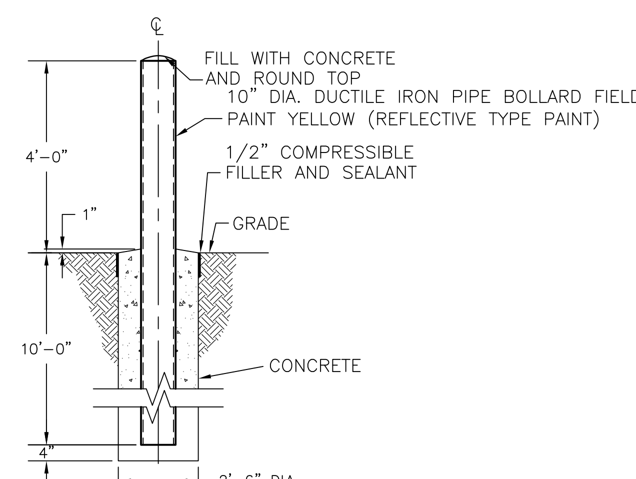
TYPICAL ACCESSIBLE PARKING SIGN

DETAIL G
NTS



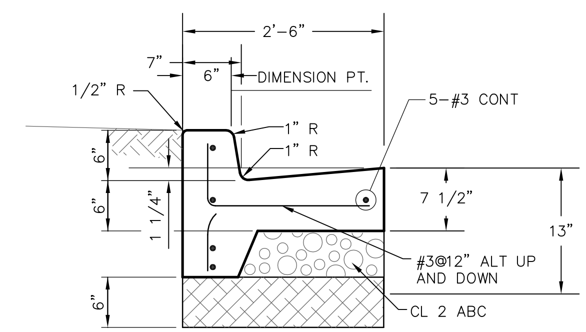
TYPICAL ASPHALT DIKE

DETAIL H
NTS



BOLLARD

DETAIL I
NTS



NOTES:
1. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT REGULAR INTERVALS, NOT TO EXCEED 20 FEET ON CENTER. EXPANSION JOINTS SHALL BE PLACED AT THE BC AND EC OF ALL CURVES.
2. CURB AND GUTTER SHALL BE CONSTRUCTED SEPARATELY FROM ADJOINING SIDEWALK OR CONCRETE SLABS.
3. FINISH ADJOINING CONCRETE SLABS AND GROUND FLUSH WITH TOP OF CURB.
4. AT INTERFACE WITH EXISTING CURB AND GUTTER, SAWCUT EXISTING CONCRETE, AND INSTALL 3 EACH #4 EPOXY DOWELS, WITH 6-INCHES EMBEDMENT EACH SIDE OF JOINT.

TYPICAL CONCRETE CURB AND GUTTER

DETAIL J
NTS

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NAME, PROF. ABBR

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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

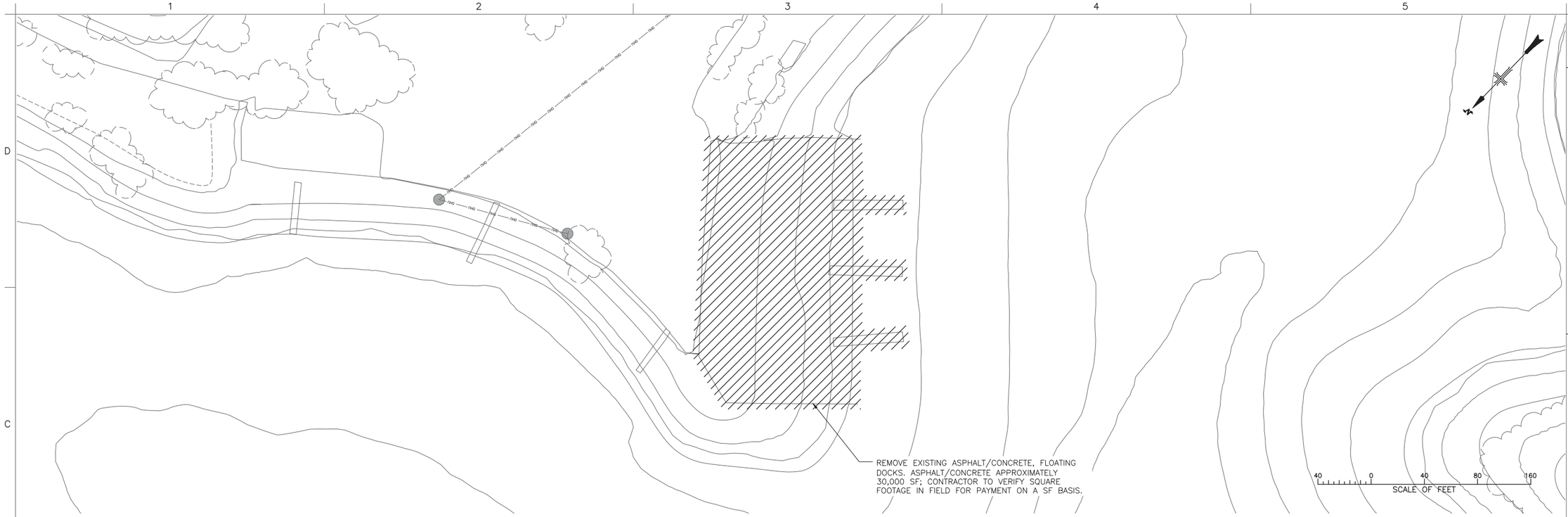
CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON GRADING AND ROAD DETAILS VII

LB-SCRA-CD07



RECLAMATION
Managing Water in the West

RON BERRY, PE | STA.|CDM SMITH | 105904.2330.019

YYYY-MM-DD | DC | ACCEPTED:

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BUREAU OF RECLAMATION

CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
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BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography 201163
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NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
BOAT RAMP
DEMOLITION PLAN

LB-SCRA-CR01

SHEET X OF X

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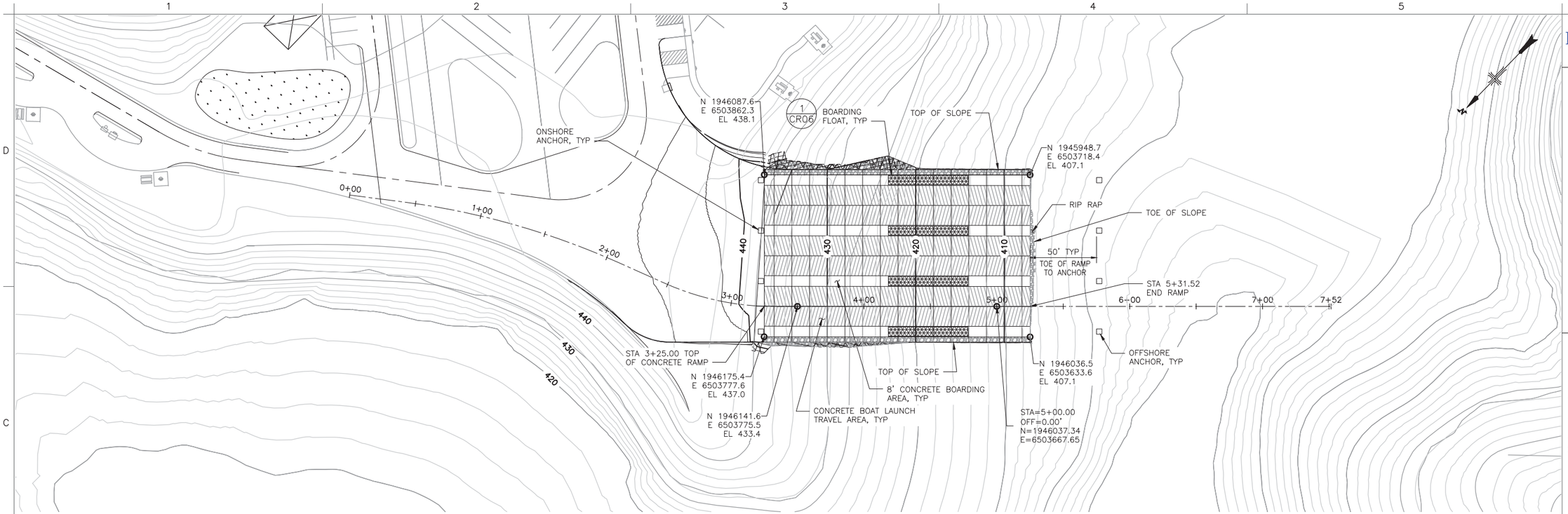

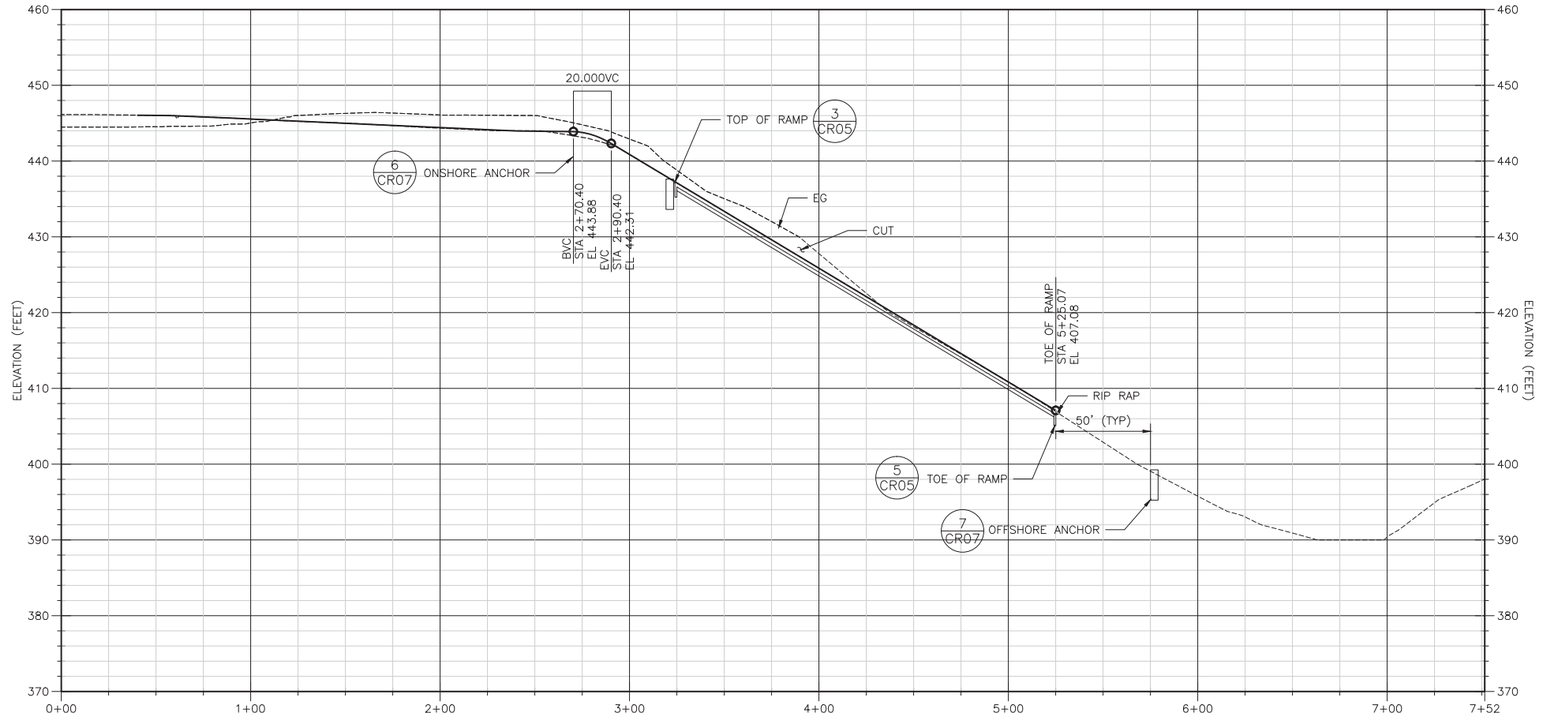

40 20 0 40 80 HORIZ.
10' 5' 0 10' 20' VERT.

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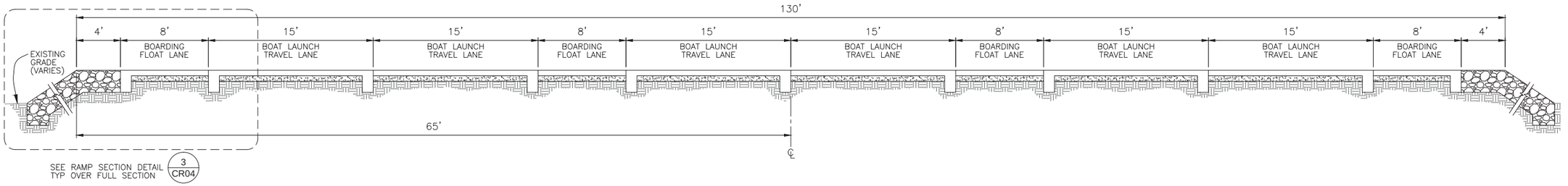
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography 20116J
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
BOAT RAMP
PLAN & PROFILE

LB-SCRA-CR02
SHEET X OF X

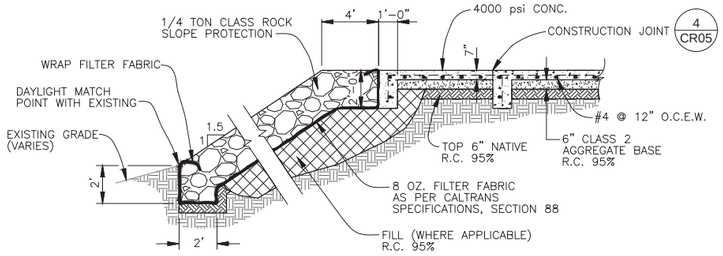


STEELE CANYON RAMP SECTION - FACING WATER

5 0 5 10FT

SCALE: 1"= 5'

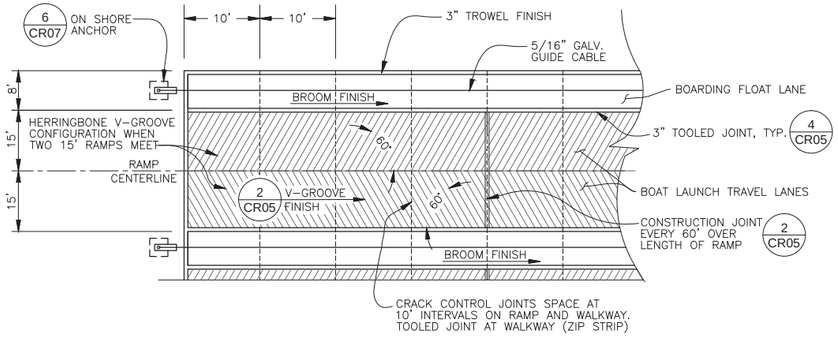
MATCHLINE - SEE ABOVE



NOTE: R.C. INDICATES RELATIVE COMPACTION

RAMP SECTION DETAIL 3/CR04

NTS



PLAN VIEW - LAUNCHING RAMP FINISH SCHEDULE 4/CR04

NTS

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Managing Water in the West

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DC, ES STA.COM SMITH
YYYY-MM-DD
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Topography by American Photomapping Services
Compiled from photography 201163
Date of photography: October 20, 2011

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NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SECTIONS & DETAILS

LB-SCRA-CR04

SHEET X OF X

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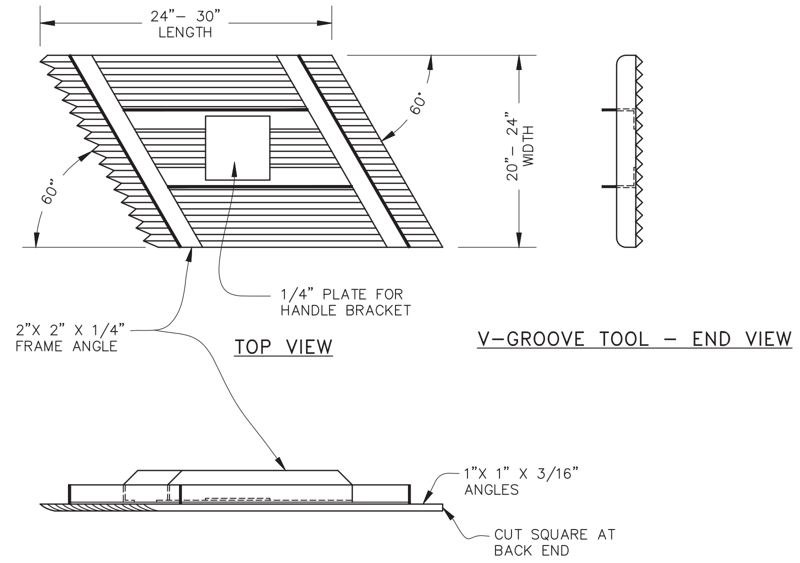
NOTES:

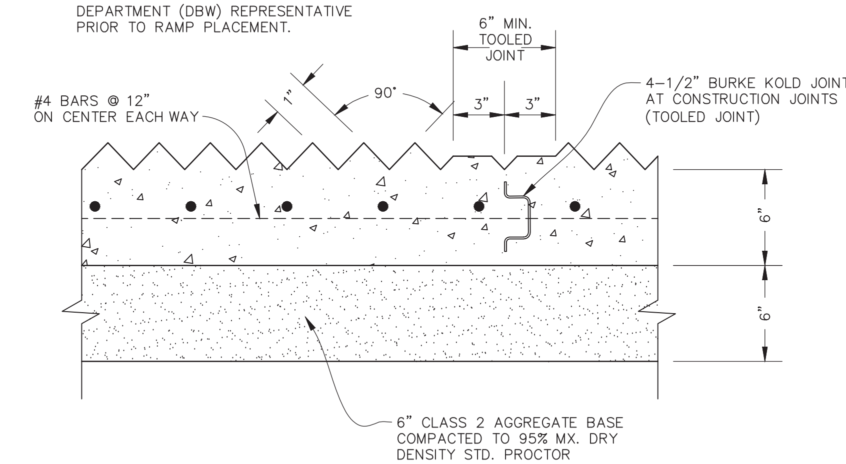
1. GROOVING TOOL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
2. A 4' X 8' X 4" V GROOVE TEST PANEL SHALL BE CONSTRUCTED ON THIS RAMP GRADE AND APPROVED BY A DEPARTMENT (DBW) REPRESENTATIVE PRIOR TO RAMP PLACEMENT.



NOTE; TOTAL WEIGHT = 22# – 25#

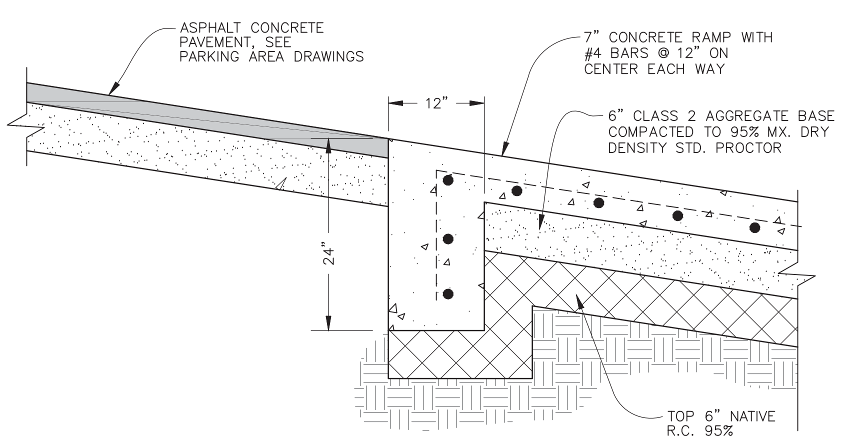
V-GROOVE TOOL DETAIL 1 CR05

NTS



V-GROOVE TOOL DETAIL 2 CR05

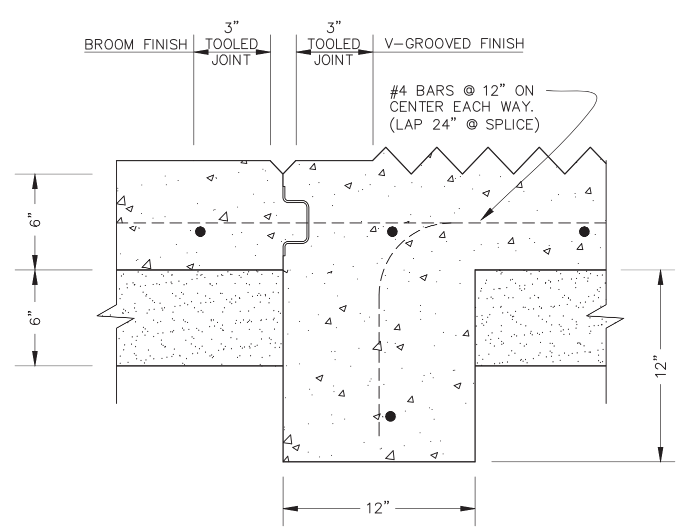
NTS



NOTE: R.C. INDICATES RELATIVE COMPACTION

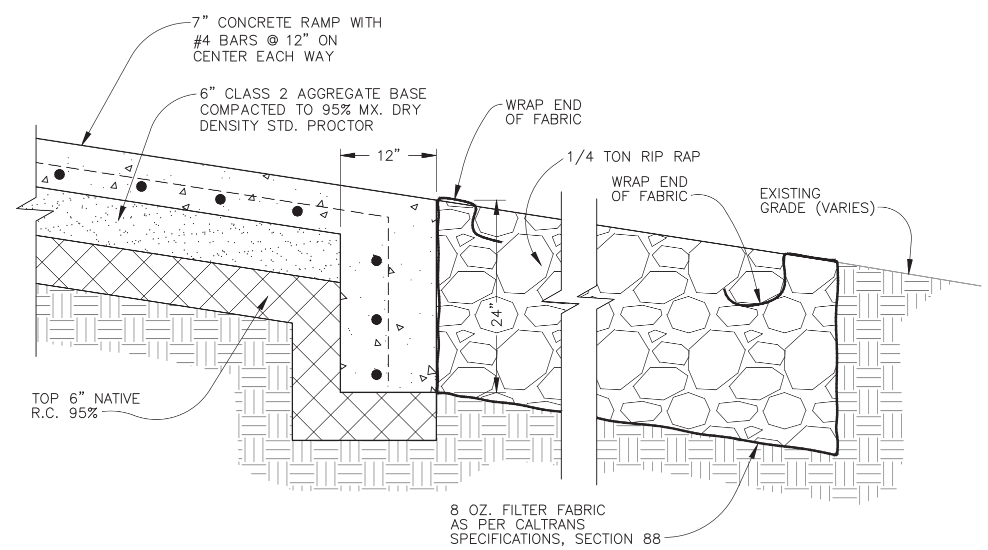
TOP OF RAMP DETAIL 3 CR05

NTS



JOINT DETAIL 4 CR05

NTS



NOTE: R.C. INDICATES RELATIVE COMPACTION

BOTTOM OF RAMP DETAIL 5 CR05

NTS

RECLAMATION
Managing Water in the West

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STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SECTIONS & DETAILS

LB-SCRA-CR05

SHEET X OF X

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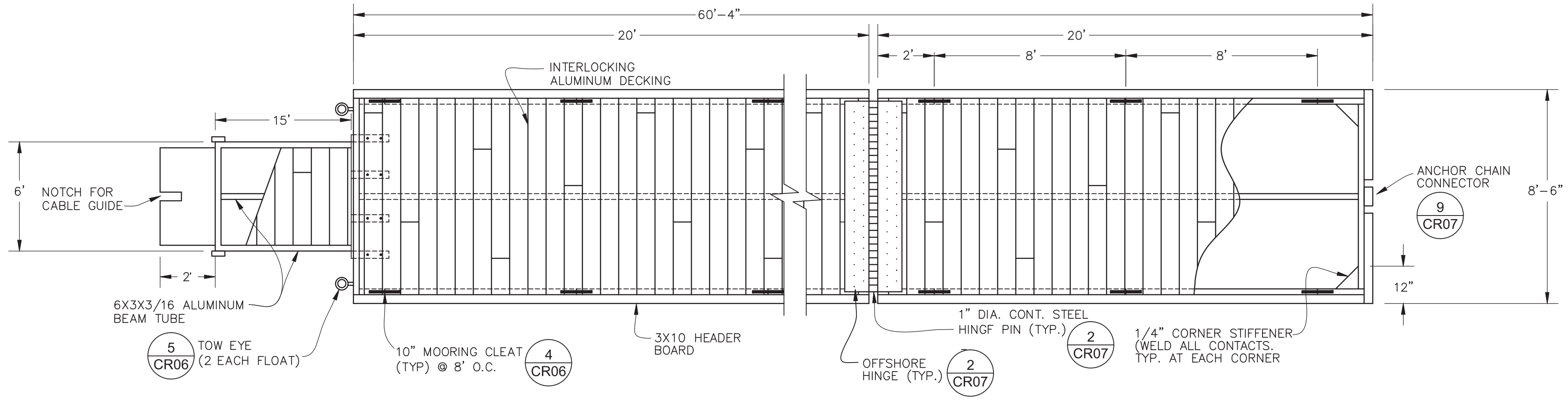
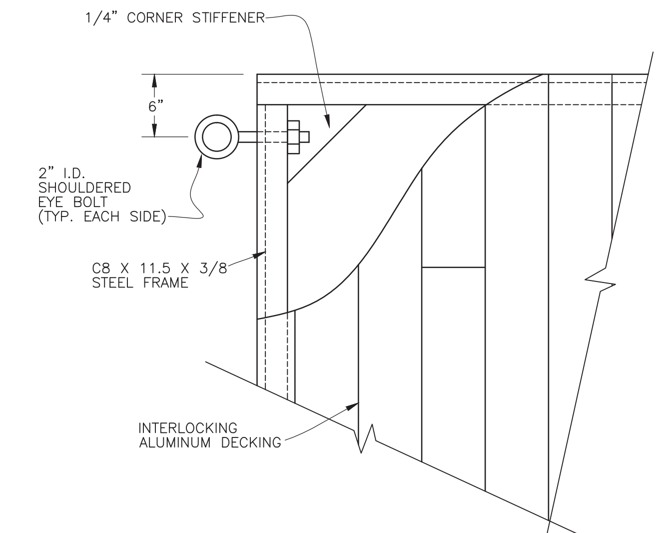
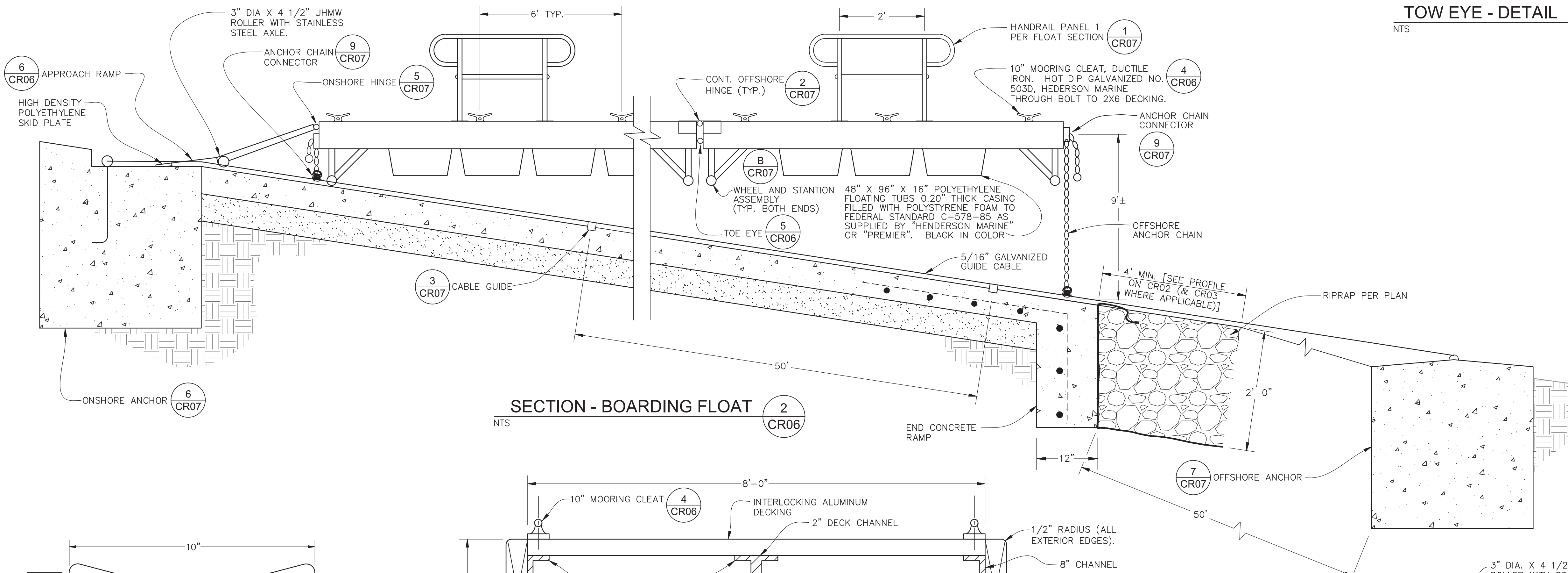


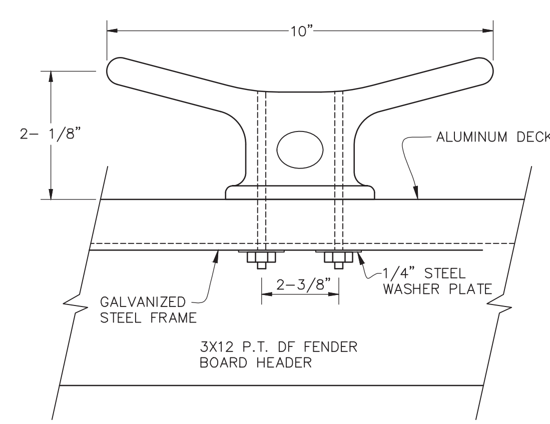
PLAN VIEW - BOARDING FLOAT 1 CR06
NTS



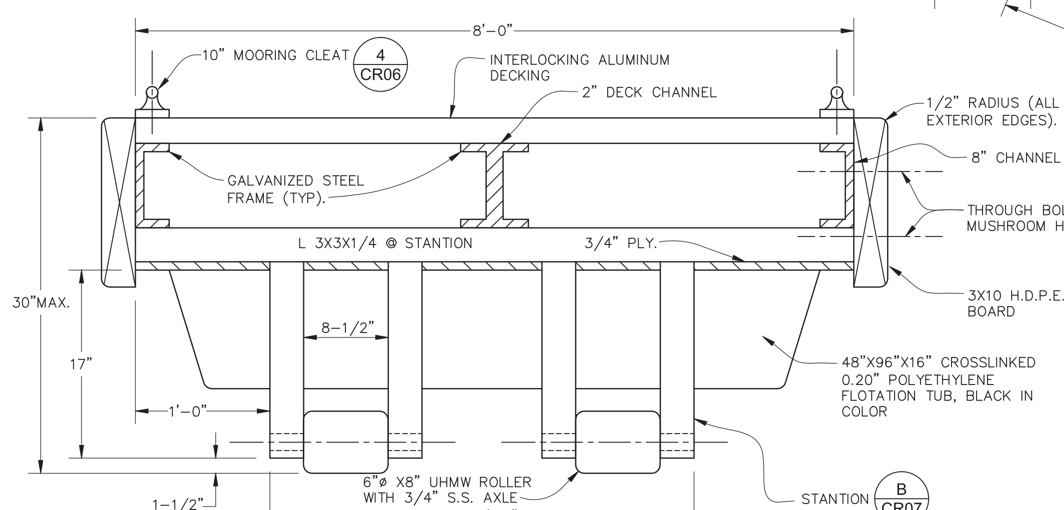
TOW EYE - DETAIL 5 CR06
NTS



SECTION - BOARDING FLOAT 2 CR06
NTS

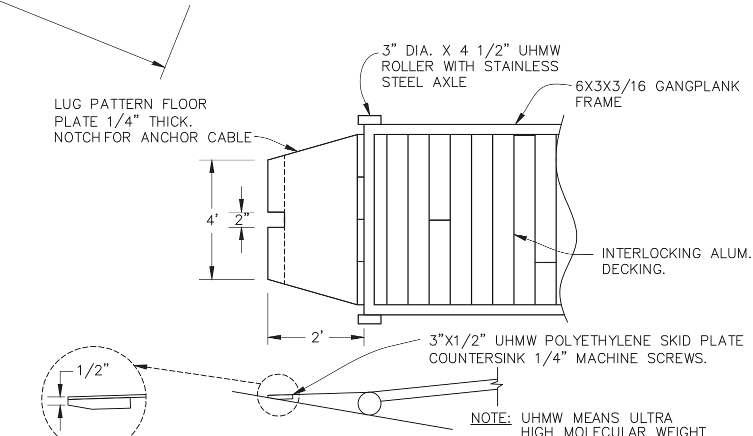


MOORING CLEAT ATTACHMENT DETAIL 4 CR06
NTS



NOTE: UHMW MEANS ULTRA HIGH MOLECULAR WEIGHT

SECTION - BOARDING FLOAT 3 CR06
NTS



NOTE: UHMW MEANS ULTRA HIGH MOLECULAR WEIGHT

APPROACH RAMP 6 CR06
NTS

RECLAMATION
Managing Water in the West

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Compiled from photography: 201163
Date of photography: October 20, 2011

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ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SECTIONS & DETAILS

LB-SCRA-CR06

SHEET X OF X

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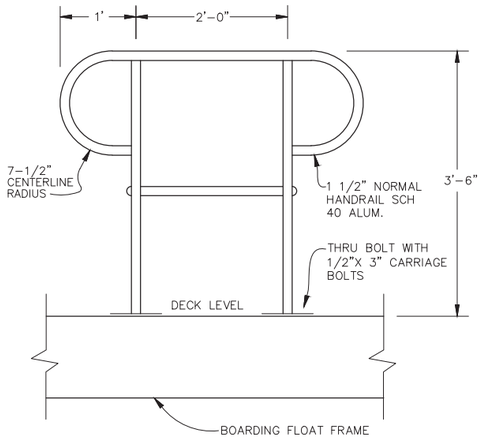
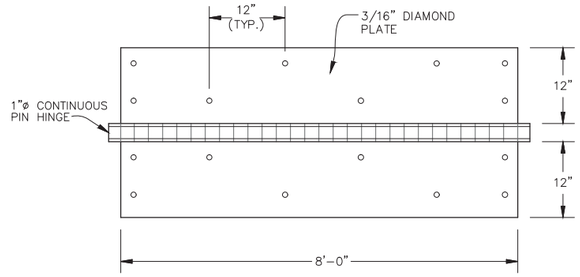
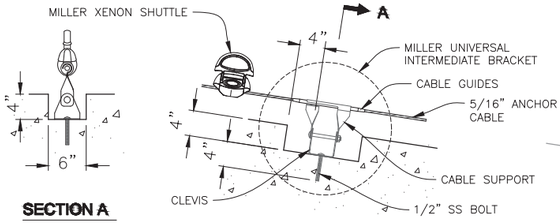


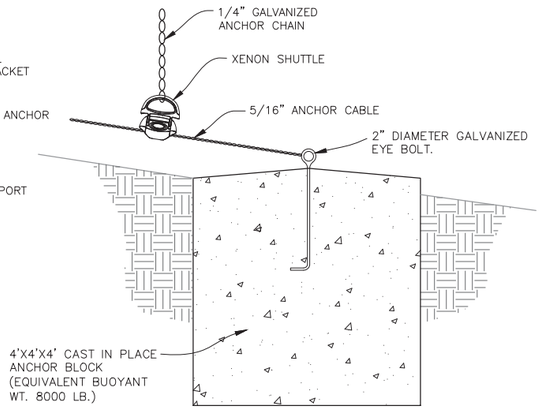
HANDRAIL PANEL - DETAIL 1 CR07
NTS



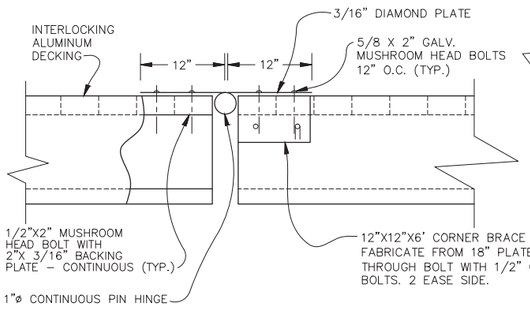
OFF SHORE HINGE 2 CR07
NTS



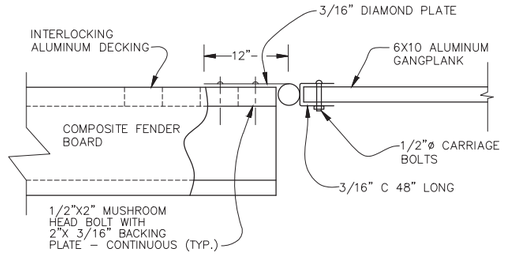
CABLE GUIDE - DETAIL 3 CR07
NTS



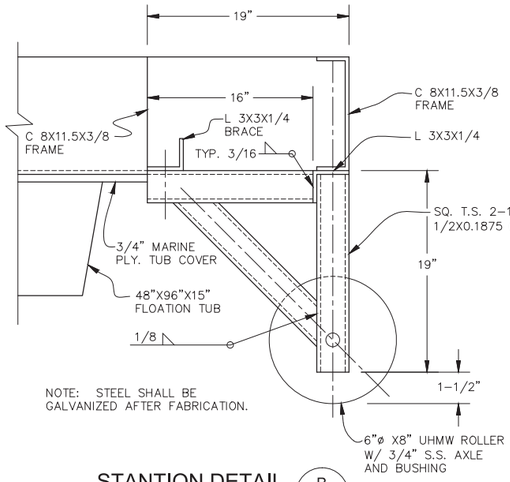
OFF SHORE ANCHOR - DETAIL 7 CR07
NTS



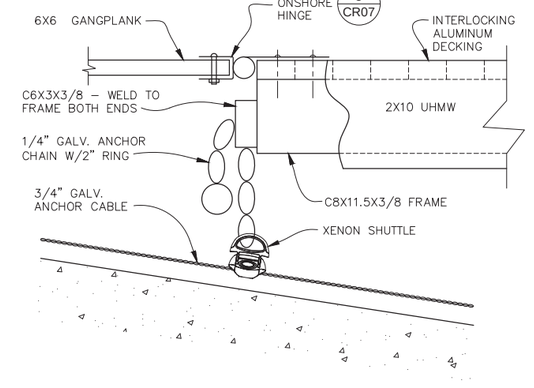
ONSHORE HINGE - ELEVATION 4 CR07
NTS

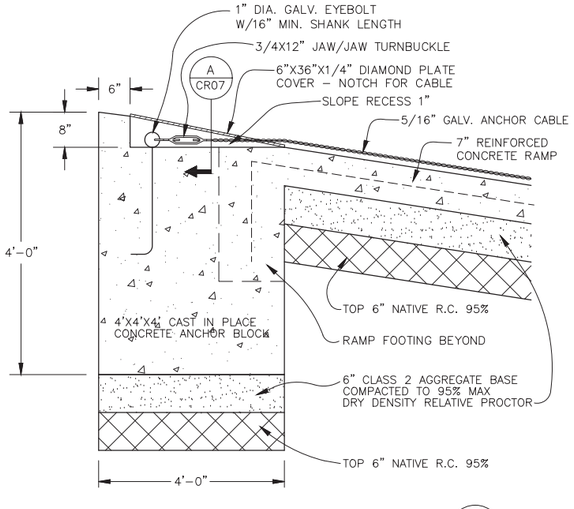


ONSHORE HINGE - ELEVATION 5 CR07
NTS



STANTION DETAIL B CR07
NTS





ONSHORE ANCHOR & EYEBOLT DETAIL 6 CR07
NTS

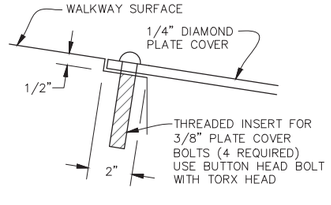
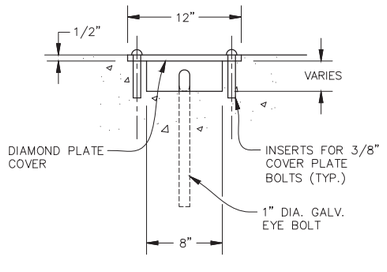
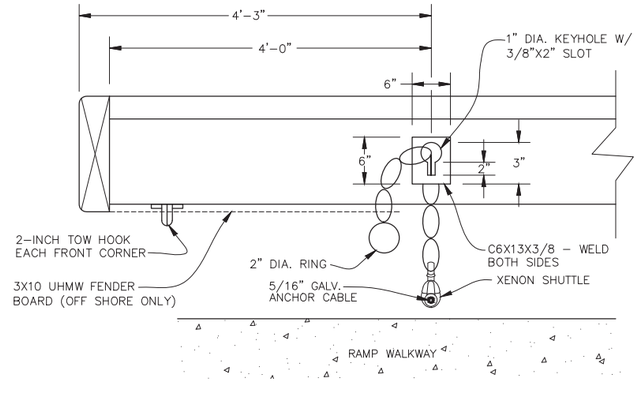


PLATE COVER BOLT C CR07
NTS



SECTION "A" CABLE RECESS A CR07
NTS



ONSHORE & OFFSHORE ANCHOR CONNECTOR 9 CR07
NTS

RECLAMATION
Managing Water in the West

RON BERRY, PE
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105904.2330.019
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RECREATION AREA
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SURVEY NOTES

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CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST)
YYYY-MM-DD

STEELE CANYON
SECTIONS & DETAILS

LB–SCRA–CR07
SHEET X OF X

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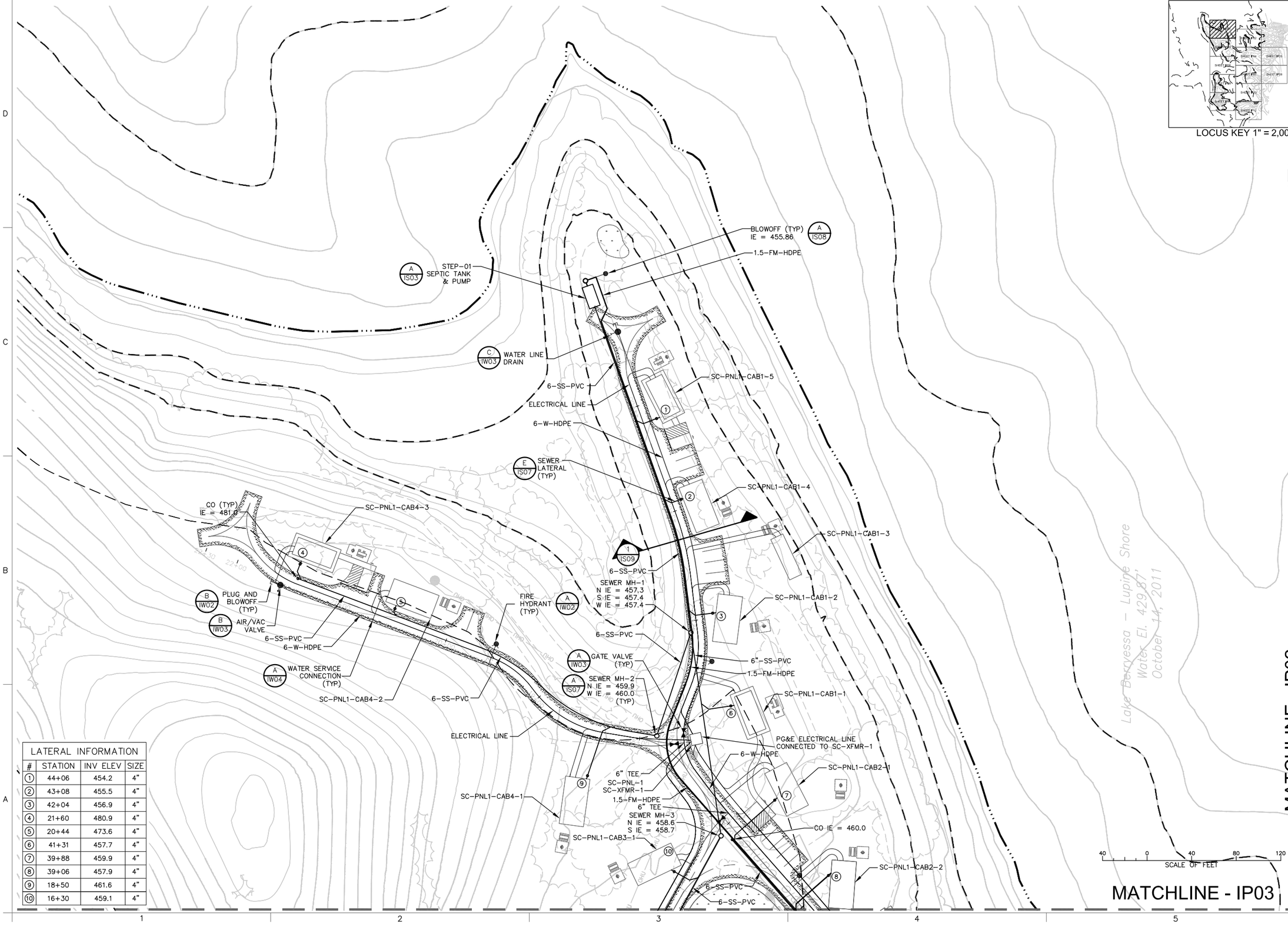
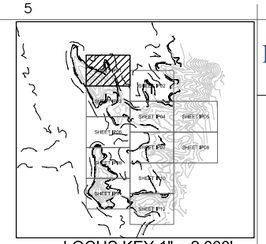


LOCUS KEY 1" = 2,000'



LATERAL INFORMATION			
#	STATION	INV ELEV	SIZE
1	44+06	454.2	4"
2	43+08	455.5	4"
3	42+04	456.9	4"
4	21+60	480.9	4"
5	20+44	473.6	4"
6	41+31	457.7	4"
7	39+88	459.9	4"
8	39+06	457.9	4"
9	18+50	461.6	4"
10	16+30	459.1	4"

RECLAMATION
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STEELE CANYON
INFRASTRUCTURE PLAN I

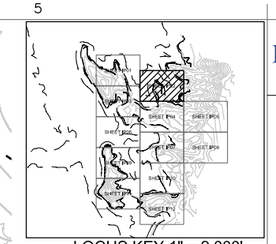
LB-SCRA-IP01
SHEET X OF X

MATCHLINE - IP01

MATCHLINE - IP03

NO REQUIRED FACILITIES THIS SHEET, SEE CONCEPTUAL INFRASTRUCTURE PLANS FOR POTENTIAL DEVELOPMENT OF AUTHORIZED FACILITIES.

Lake Berryessa – Lupine Shore
Water El. 429.87
October 14, 2011



LOCUS KEY 1" = 2,000'

40 0 40 80 120
SCALE OF FEET

MATCHLINE - IP04

RECLAMATION
Managing Water in the West

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STEELE CANYON
INFRASTRUCTURE PLAN II

LB-SCRA-IP02
SHEET X OF X

MATCHLINE - IP01

MATCHLINE - IP02

MATCHLINE - IP04

MATCHLINE - IP06

SC-PNL1-CAB3-2
SC-PNL1-CAB3-3
SC-PNL1-CAB-2
SC-PNL1-CAB-3
6-SS-PVC
6-W-HDPE
WATER LINE DRAIN
6" TEE
GATE VALVE (TYP)
C IW03
1.5-FM-HDPE
A IW03
4-SS-PVC
CO (TYP) IE = 455.0
SC-PNL2-PM3-PED3
SC-PNL2-PM3-PED2
SEWER MH-4 N IE = 460.5 S IE = 460.6
SEWER MH-6 S IE = 452.6 N IE = 452.7 W IE = 452.7
SC-PNL2-PM1-PED4
SC-PNL2-PM1-PED3
SC-PNL2-PM1-PED2
SC-PNL2-PM1-PED1
A IW02 FIRE HYDRANT (TYP)
SC-PNL2-PM3-PED1
PG&E ELECTRICAL LINE TO SC-XFMR-2
SC-PNL-2 SC-XFMR-2
SEWER MH-7 E IE = 449.0 N IE = 449.1 S IE = 449.1
8-SS-PVC
STEP-02 SEPTIC TANK & PUMP
A IS03
1.5-FM-HDPE
2-FM-HDPE
SC-PNL2-PM2-PED1
SC-PNL2-PM2-PED2
SC-PNL2-PM2-PED3
WATER LINE DRAIN
C IW03
CO IE = 450.0
A IW04 WATER SERVICE CONNECTION (TYP)
A IS08 BLOWOFF (TYP) IE = X
B IW03 AIR/VAC VALVE
B IW02 PLUG AND BLOWOFF (TYP)
A IS07 SEWER MH-5 N IE = 475.7 S IE = 475.8 (TYP)
D IS07 CO (TYP) IE = 478.0
E IS07 SEWER LATERAL (TYP)
11.25° ELBOW
PG&E ELECTRICAL LINE TO PC-XFMR-9
SC-PNL9-CAB-2
SC-PNL-9 SC-XFMR-9
SC-PNL9-CAB-1
2-FM-HDPE
3-FM-HDPE
6" TEE
PLUG AND BLOWOFF (TYP)
B IW02
POWER FROM EXISTING POLE TO XFMR AND PNL 10

LATERAL INFORMATION			
#	STATION	INV ELEV	SIZE
11	15+24	460.0	4"
12	14+80	460.3	4"
13	12+29	476.0	4"
14	10+99	478.0	4"
15	38+31	456.0	4"
16	36+80	452.0	4"
17	36+45	451.0	4"
18	12+23	454.9	4"
19	14+70	460.4	4"
20	36+35	450.7	4"
21	36+03	449.8	4"
22	35+31	449.5	4"
23	35+58	449.3	4"
24	34+88	449.8	4"
25	34+73	449.9	4"
26	34+69	449.9	4"

40 0 40 80 120
SCALE OF FEET

LOCUS KEY 1" = 2,000'

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

STA. CDM SMITH 1059042330.019
YYYY-MM-DD
ACCEPTED:
NAME, PROF. ABBR

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN III

LB-SCRA-IP03
SHEET X OF X

MATCHLINE - IP02

MATCHLINE - IP03

MATCHLINE - IP06

MATCHLINE - IP07

MATCHLINE - IP05

LOCUS KEY 1" = 2,000'

A IS03 STEP-04 SEPTIC TANK & PUMP

CO IE = 474.0

6-SS-PVC SEWER LATERAL (TYP)

E IS07

SC-PNL3-CS1

A IW04 WATER SERVICE CONNECTION (TYP)

2 IS09

1.5-FM-HDPE

8"x6" REDUCER

8" TEE

FIRE HYDRANT (TYP) A IW02

GATE VALVE (TYP) A IW03

8" x 6" REDUCER

4-FM-HDPE

8-W-HDPE

6-W-HDPE

3-FM-HDPE

SC-PNL-3
SC-XFMR-3

2-FM-HDPE

PG&E ELECTRICAL LINE

40 0 40 80 120
SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

STA, CDM SMITH 1059042330.019

YYYY-MM-DD

ACCEPTED:
NAME, PROF, ABBR

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHIC CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR

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ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN IV

LB-SCRA-IP04

SHEET X OF X

MATCHLINE - IP04

AVAR (TYP) IE = X — (B / IS08)
FIRE HYDRANT (TYP) — (A / IW02)
AIR/VAC VALVE — (B / IW03)
4-FM-HDPE
1.5-FM-HDPE
8-W-HDPE
ISOLATION VALVE
PRV VAULT — (A / IW05)
8" x 6" REDUCER
APPROXIMATE CONNECTION POINT TO LBRID POTABLE WATER SYSTEM
8" x 6" REDUCER
(A / IW03) GATE VALVE (TYP)
LIFT STATION AND STORAGE — (A / IS01)
EXISTING 8" FORCE MAIN

LOCUS KEY 1" = 2,000'

SCALE OF FEET: 40 0 40 80 120

MATCHLINE - IP08

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RECREATION AREA
DEVELOPMENT PLANS 60%

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ACCEPTED:
NAME, PROF, ABBR
105904.2330.019

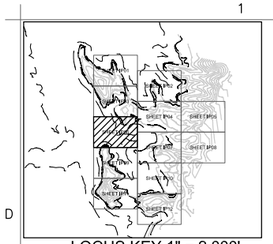
SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON INFRASTRUCTURE PLAN V

LB-SCRA-IP05
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - IP03

SC-PNL-10
SC-XFMR-10
1.5-FM-HDPE
STEP-05 SEPTIC TANK & PUMP
A IS03
IE = 456.8
WATER SERVICE CONNECTION
A IW04
6-W-HDPE
SC-PNL10-MARINA
6-SS-PVC
CO
IE = 457.0
A IW02
FIRE HYDRANT
SEWER LATERAL (TYP)
E IS07
B IS04
STORAGE TANK
3-FM-HDPE
BOAT PUMP-OUT FACILITY

MATCHLINE - IP04

MATCHLINE - IP07

MATCHLINE - IP09

40 0 40 80 120
SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

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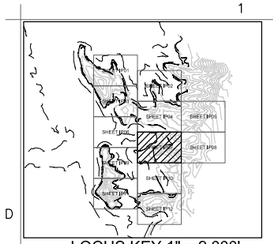
SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN VI

LB-SCRA-IP06
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - IP04

MATCHLINE - IP06

MATCHLINE - IP09

MATCHLINE - IP08

MATCHLINE - IP10

2-FM-HDPE

6-W-HDPE

SC-PNL7-SS-PED5

50

CO (TYP)
IE = 451.0
-D
IS07

RV PEDESTAL ELECTRICAL SERVICE CONNECTION (TYP)
-A
1E02

C
IW04
RV PEDESTAL WATER SERVICE CONNECTION (TYP)

49

4-SS-PVC

SC-PNL7-SS-PED4

SC-PNL7-SS-PED3

48

SC-PNL7-SS-PED2

SC-PNL7-SS-PED1

ELECTRICAL LINE

47

46

A
IS03
STEP-08 SEPTIC TANK & PUMP

4-SS-PVC

4-SS-PVC

FIRE HYDRANT (TYP)
A
IW02

C
IW03
WATER LINE DRAIN

CAMPSITE SEWER DROP (TYP)
C
IS07

6-W-HDPE

PG&E ELECTRICAL LINE TO SC-XFMR-7

IE = 440.0

6-SS-PVC

SEWER LATERAL (TYP)
E
IS07

1.5-FM-HDPE

2-FM-HDPE

SC-PNL-7
SC-XFMR-7

1.5-FM-HDPE

CO IE = 442.0

BLOWOFF (TYP)
IE = X
A
IS06

SC-PNL7-CS

SC-PNL7-PLL1

ELECTRICAL LINE

SC-PNL7-PLL2

AVAR (TYP)
IE = X
B
IS08

6-W-HDPE

RV DUMP STATION WATER TOWER
D
IW04

PG&E ELECTRICAL LINE TO SC-XFMR-8

A
IS04
RV DUMP STATION

LATERAL INFORMATION			
#	STATION	INV ELEV	SIZE
46	32+59	442.4	4"
47	33+53	444.5	4"
48	34+49	446.7	4"
49	35+45	448.8	4"
50	36+41	451.0	4"

40 0 40 80 120
SCALE OF FEET

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LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN VII

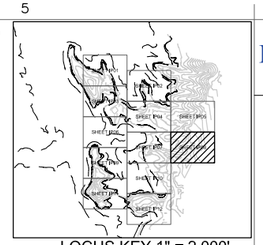
LB-SCRA-IP07
SHEET X OF X

MATCHLINE - IP05

MATCHLINE - IP07

NO REQUIRED FACILITIES THIS SHEET, SEE CONCEPTUAL INFRASTRUCTURE PLANS FOR POTENTIAL DEVELOPMENT OF AUTHORIZED FACILITIES.

STEELE CANYON RD



LOCUS KEY 1" = 2,000'

40 0 40 80 120
SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

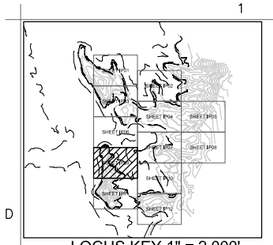
SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20113
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON INFRASTRUCTURE PLAN VIII

LB-SCRA-IP08
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - IP06

NO REQUIRED FACILITIES THIS SHEET, SEE CONCEPTUAL INFRASTRUCTURE PLANS FOR POTENTIAL DEVELOPMENT OF AUTHORIZED FACILITIES.

Boat Launch

Lake Berryessa - Lupine Shore
Water El. 429.87'
October 14, 2011

MATCHLINE - IP07

MATCHLINE - IP10

MATCHLINE - IP11

40 0 40 80 120
SCALE OF FEET

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RECREATION AREA
DEVELOPMENT PLANS 60%

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN IX

LB-SCRA-IP09
SHEET X OF X

MATCHLINE - IP07

MATCHLINE - IP09

MATCHLINE - IP11

MATCHLINE - IP12

SC-PNL8-PLL3

ELECTRICAL LINE

PG&E ELECTRICAL LINE TO SC-XFMR-8

SC-PNL8-PLL2

SC-PNL8-PLL1

SC-PNL8-PLL4

1.5-FM-HDPE

AIR/VAC VALVE (B/IW03)

1.5-FM-HDPE

6-W-HDPE

WATER LINE DRAIN (C/IW03)

BLOWOFF (TYP) IE = X (A/IS08)

ELECTRICAL LINE

SC-PNL-8, SC-XFMR-8

6-SS-PVC

SC-PNL8-CS

STEP-10 SEPTIC TANK & PUMP (A/IS03)

FIRE HYDRANT (TYP) (A/IW02)

WATER SERVICE CONNECTION (TYP) (A/IW04)

6-SS-PVC

11.25° ELBOW

CO IE = 448.1

ELECTRICAL LINE

SC-PNL8-RV-PED1

CAMPSITE SEWER DROP (TYP) (C/IS07)

RV PEDESTAL WATER SERVICE CONNECTION (TYP) (C/IW04)

SC-PNL8-SS-PED1

RV PEDESTAL ELECTRICAL SERVICE CONNECTION (TYP) (A/IE02)

6-SS-PVC

SC-PNL8-RV-PED2

ELECTRICAL LINE

SC-PNL8-SS-PED2

6-W-HDPE

SC-PNL8-RV-PED4

SEWER LATERAL (TYP) (E/IS07)

SC-PNL8-RV-PED3

6-SS-PVC

SC-PNL8-SS-PED3

SC-PNL8-SS-PED6

6-W-HDPE

CO (TYP) IE = 456.0 (D/IS07)

SEWER MH-14 N IE = 450.9 S IE = 451.0 E IE = 451.0 (A/IS07)

4-SS-PVC

4-SS-PVC

AIR/VAC VALVE (B/IW03)

GATE VALVE (TYP) (A/IW03)

6" TEE

SC-PNL8-SS-PED4

SC-PNL8-SS-PED5

CO IE = 455.0

Lake Berryessa – Lupine Shore
Water El. 429.87'
October 14, 2011

LATERAL INFORMATION

#	STATION	INV ELEV	SIZE
62	11+94	448.1	4"
63	12+54	448.9	4"
64	13+13	449.6	4"
65	12+95	449.4	4"
66	18+22	451.6	4"
67	13+94	450.7	4"
68	15+14	453.2	4"
69	15+70	454.9	4"
70	16+71	455.0	4"
71	17+47	453.1	4"

LOCUS KEY 1" = 2,000'

SCALE OF FEET: 40 0 40 80 120

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RECREATION AREA
DEVELOPMENT PLANS 60%

STA, CDM SMITH
YYYY-MM-DD
ACCEPTED:
NAME, PROF., ABBR

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

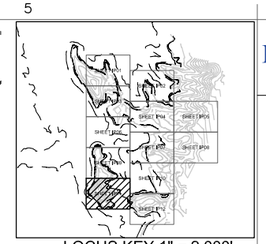
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN X

LB-SCRA-IP10
SHEET X OF X

MATCHLINE - IP09



LOCUS KEY 1" = 2,000'

NO REQUIRED FACILITIES THIS SHEET, SEE CONCEPTUAL INFRASTRUCTURE PLANS FOR POTENTIAL DEVELOPMENT OF AUTHORIZED FACILITIES.

MATCHLINE - IP10

MATCHLINE - IP12

40 0 40 80 120
SCALE OF FEET

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DEVELOPMENT PLANS 60%

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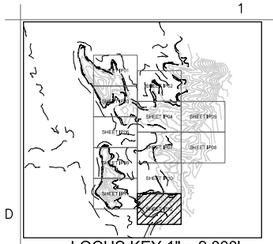
SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
INFRASTRUCTURE PLAN XI

LB-SCRA-IP11
SHEET X OF X



LOCUS KEY 1" = 2,000'

MATCHLINE - IP10

MATCHLINE - IP11

SC-PNL11-AE

SC-PNL-11
SC-XFMR-11

VAULT TOILET (A / IS06)

ENTRY STATION

PG&E ELECTRICAL
LINE TO SC-XFMR-11

STEELE CANYON RD

SCALE OF FEET
40 0 40 80 120

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RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 20113
Date of photography: October 20, 2011

CONTRACTOR
DRAWN

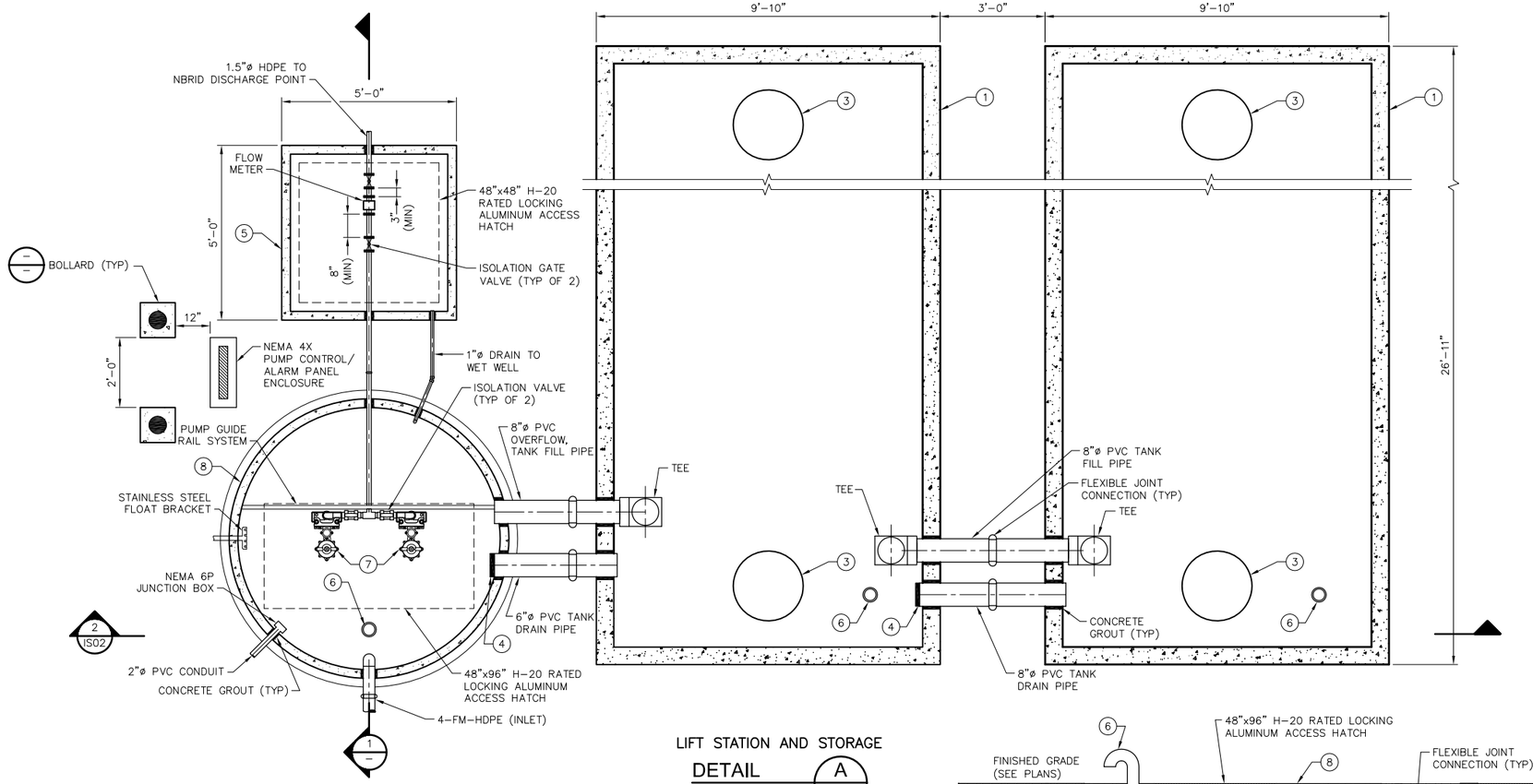
ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

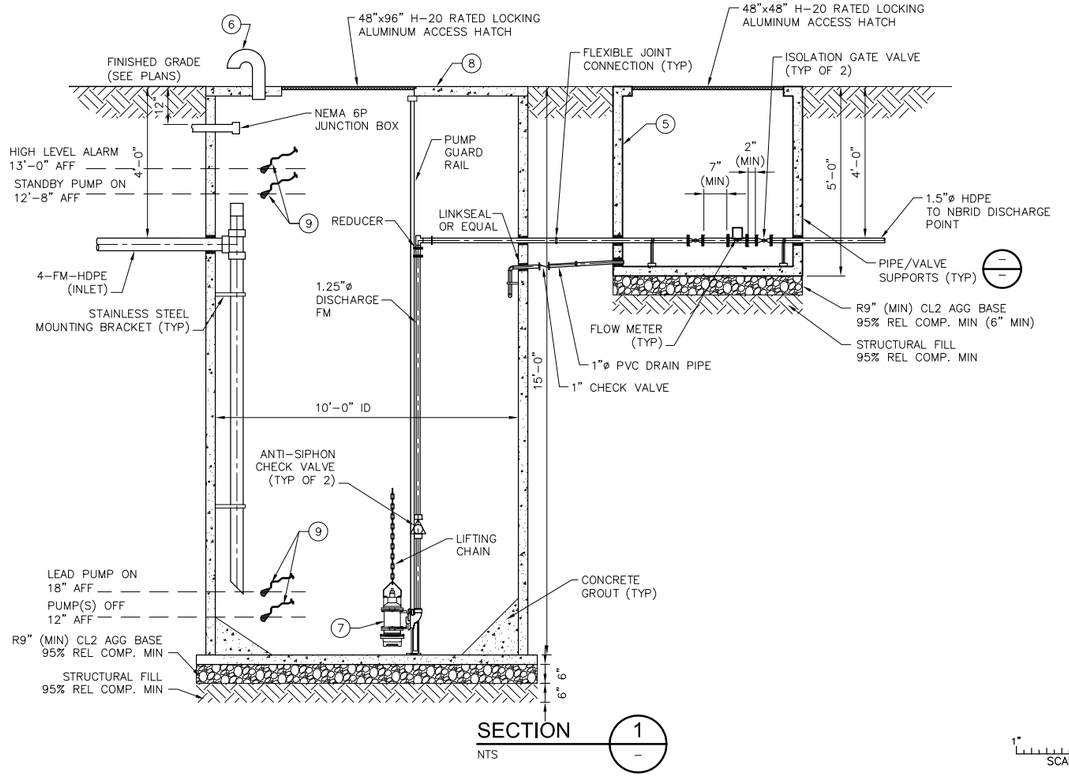
STEELE CANYON INFRASTRUCTURE PLAN XII

LB-SCRA-IP12

SHEET X OF X



LIFT STATION AND STORAGE
DETAIL A
NTS



SECTION 1
NTS

KEY NOTES:

1. PRECAST CONCRETE STORAGE TANK: TANK SHALL BE H-20 RATED AND WATER TIGHT. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. TANK CAPACITY SHALL BE 11,500 GALLONS (MIN). TANK SHALL BE JENSEN PRECAST MODEL KAV11500LHT OR EQUAL.
2. PRECAST CONCRETE GRADE RINGS AS REQUIRED. JENSEN PRECAST MODEL GR2432 OR EQUAL.
3. 24"ø CAST IRON LOCKING OR BOLTED FRAME AND COVER WITH GAS TIGHT GASKET. COVER AND FRAME SHALL BE H-20 RATED.
4. 6" WALL MOUNTED FLEXIBLE FLAP GATE CONSTRUCTED OF 1/4" THICK 60 DUROMETER MOLDED NEOPRENE. HARDWARE SHALL BE STAINLESS. CIRCULAR TITESEAL COPOLYMER FLAP GATE BY PLASTI-FAB OR EQUAL.
5. PRECAST CONCRETE VALVE VAULT SHALL BE H-20 RATED. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. VAULT SHALL BE JENSEN PRECAST 4x4 LS VALVE VAULT OR EQUAL.
6. 4" GOOSENECK VENT WITH BUG SCREEN.
7. PUMP: PROGRESSIVE CAVITY TYPE PUMP WITH INTEGRAL GRINDER AND SUBMERSIBLE MOTOR WITH DUAL MECHANICAL SEAL AND EXTERNAL START KIT. PUMP SHALL BE CAPABLE OF DELIVERING 10 GPM AT 135 FEET OF HEAD. MOTOR SHALL BE 1 HP, 1750 RPM, 208/230 V, SINGLE PHASE, 60 HZ. PUMP SHALL BE FURNISHED WITH LIFTING CHAIN AND POWER CORD. PUMP AND MOTOR SHALL BE MODEL KPCG-21 MANUFACTURED BY KEEN PUMP CO. OR EQUAL. PUMPS SHALL BE FURNISHED WITH PUMP CONTROL PANEL, VDF'S, PUMP CONTROL LEVEL FLOATS AND GUIDE RAILS.
8. PRECAST CONCRETE H-20 RATED 10-FT (ID) PACKAGED WET WELL. WET WELL PACKAGE SHALL BE COMPLETE WITH ACCESS HATCH, VENT, CONCRETE STRUCTURE, AND ADDITIONAL OPTIONS RECOMMENDED BY MANUFACTURER FOR COMPLETE AND FULLY OPERATIONAL SYSTEM. 120" DIAMETER PACKAGED WET WELL BY JENSEN PRECAST OR EQUAL. INTERIOR OF WET WELL SHALL BE COATED WITH PROTECTIVE LINING, PRIME COATINGS, INC. 125 MILS UTILITHANE OR EQUAL.
9. PUMP CONTROL LEVEL FLOAT SWITCH.

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

1" 0 1"
SCALE OF FEET

RECLAMATION
Managing Water in the West

N

STA. CDM SMITH 105904.2330.019
YYYY-MM-DD
ACCEPTED:

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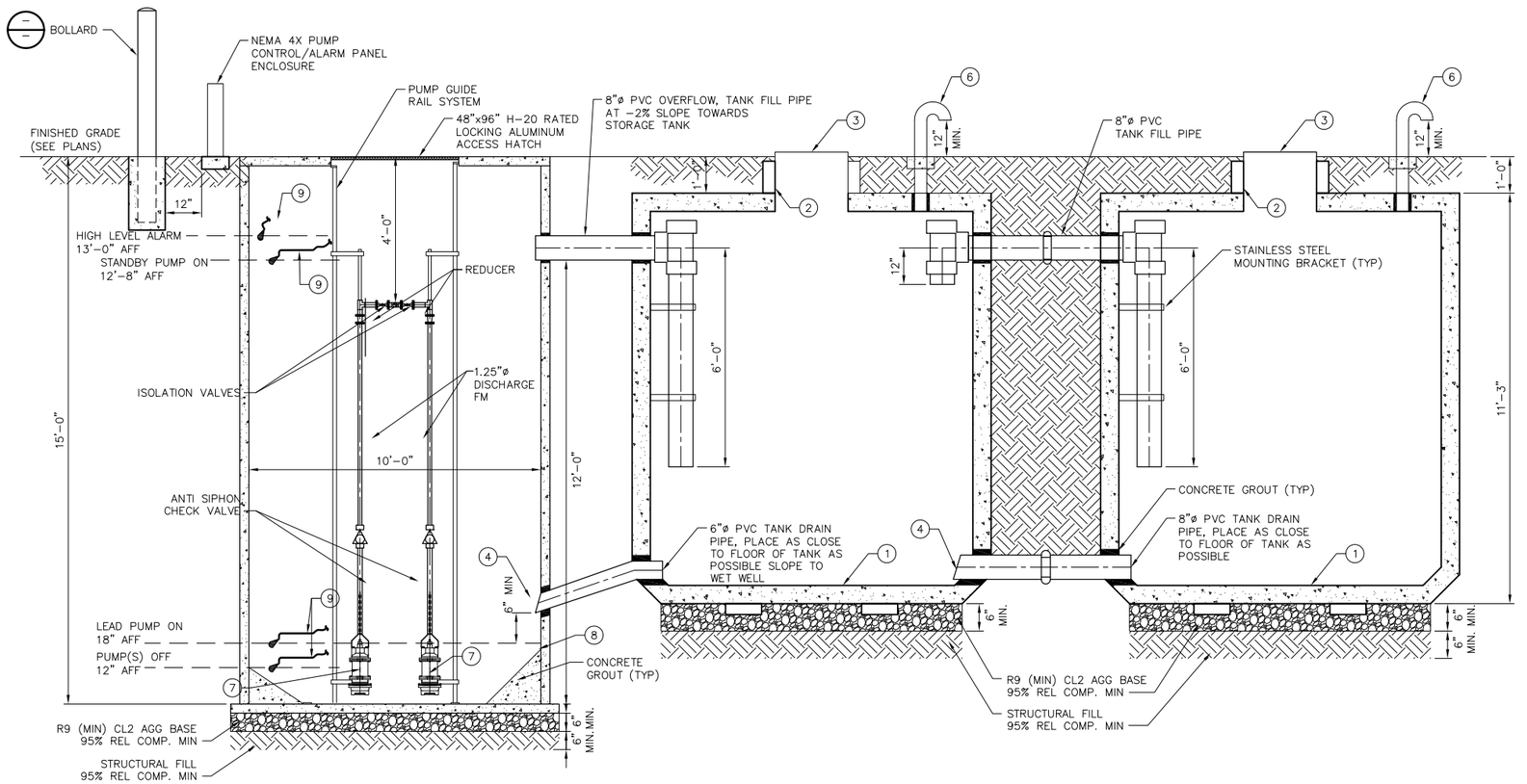
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SEWER DETAILS I

LB-SCRA-IS01
SHEET X OF X



SECTION 2 / ISO1
NTS

KEY NOTES:

1. PRECAST CONCRETE STORAGE TANK: TANK SHALL BE H-20 RATED AND WATER TIGHT. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. TANK CAPACITY SHALL BE 11,500 GALLONS (MIN). TANK SHALL BE JENSEN PRECAST MODEL KAV11500LHT OR EQUAL.
2. PRECAST CONCRETE GRADE RINGS AS REQUIRED. JENSEN PRECAST MODEL GR2432 OR EQUAL.
3. 24"ø CAST IRON LOCKING OR BOLTED FRAME AND COVER WITH GAS TIGHT GASKET. COVER AND FRAME SHALL BE H-20 RATED.
4. 6" WALL MOUNTED FLEXIBLE FLAP GATE CONSTRUCTED OF 1/4" THICK 60 DUROMETER MOLDED NEOPRENE. HARDWARE SHALL BE STAINLESS. CIRCULAR TITESEAL COPOLYMER FLAP GATE BY PLASTI-FAB OR EQUAL.
5. PRECAST CONCRETE VALVE VAULT SHALL BE H-20 RATED. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. VAULT SHALL BE JENSEN PRECAST 4x4 LS VALVE VAULT OR EQUAL.
6. 4" GOOSENECK VENT WITH BUG SCREEN.
7. PUMP: PROGRESSIVE CAVITY TYPE PUMP WITH INTEGRAL GRINDER AND SUBMERSIBLE MOTOR WITH DUAL MECHANICAL SEAL AND EXTERNAL START KIT. PUMP SHALL BE CAPABLE OF DELIVERING 10 GPM AT 135 FEET OF HEAD. MOTOR SHALL BE 1 HP, 1750 RPM, 208/230 V, SINGLE PHASE, 60 HZ. PUMP SHALL BE FURNISHED WITH LIFTING CHAIN AND POWER CORD. PUMP AND MOTOR SHALL BE MODEL KPCG-21 MANUFACTURED BY KEEN PUMP CO. OR EQUAL. PUMPS SHALL BE FURNISHED WITH PUMP CONTROL PANEL, VDF'S, PUMP CONTROL LEVEL FLOATS AND GUIDE RAILS.
8. PRECAST CONCRETE H-20 RATED 10-FT (ID) PACKAGED WET WELL. WET WELL PACKAGE SHALL BE COMPLETE WITH ACCESS HATCH, VENT, CONCRETE STRUCTURE, AND ADDITIONAL OPTIONS RECOMMENDED BY MANUFACTURER FOR COMPLETE AND FULLY OPERATIONAL SYSTEM. 120" DIAMETER PACKAGED WET WELL BY JENSEN PRECAST OR EQUAL. INTERIOR OF WET WELL SHALL BE COATED WITH PROTECTIVE LINING, PRIME COATINGS, INC. 125 MILS UTILITHANE OR EQUAL.
9. PUMP CONTROL LEVEL FLOAT SWITCH.

RECLAMATION
Managing Water in the West

STA, CDM SMITH 105904.2330.019
YYYY-MM-DD ACCEPTED:

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CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

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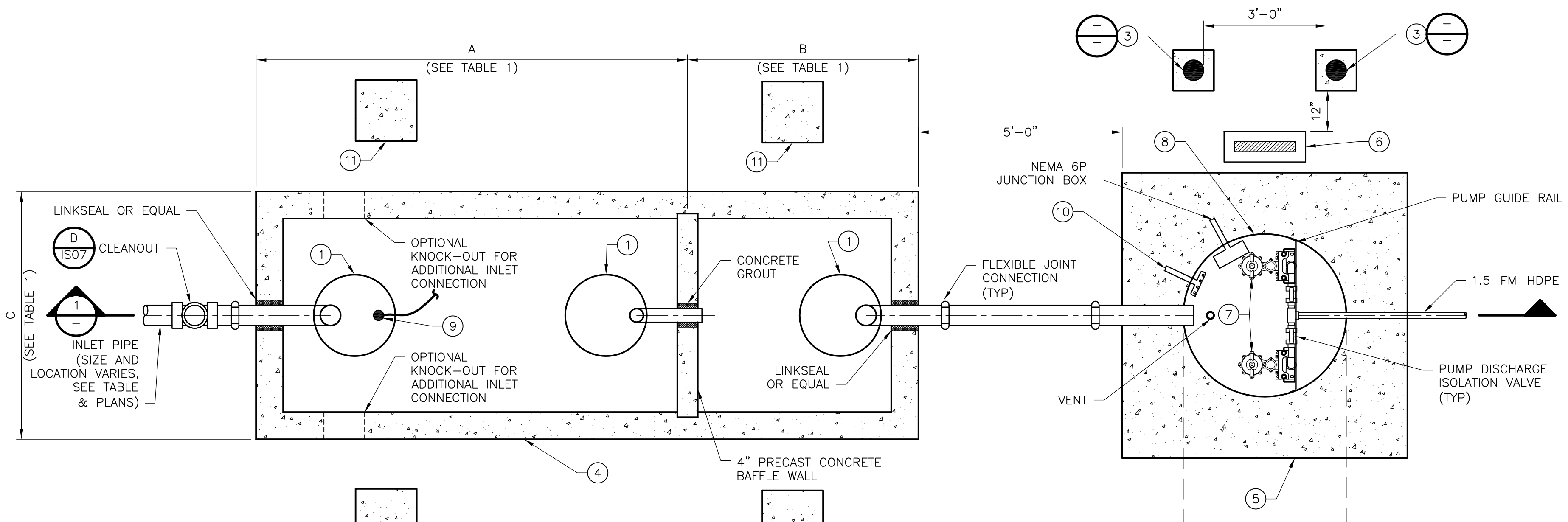
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SEWER DETAILS II

LB-SCRA-ISO2
SHEET X OF X

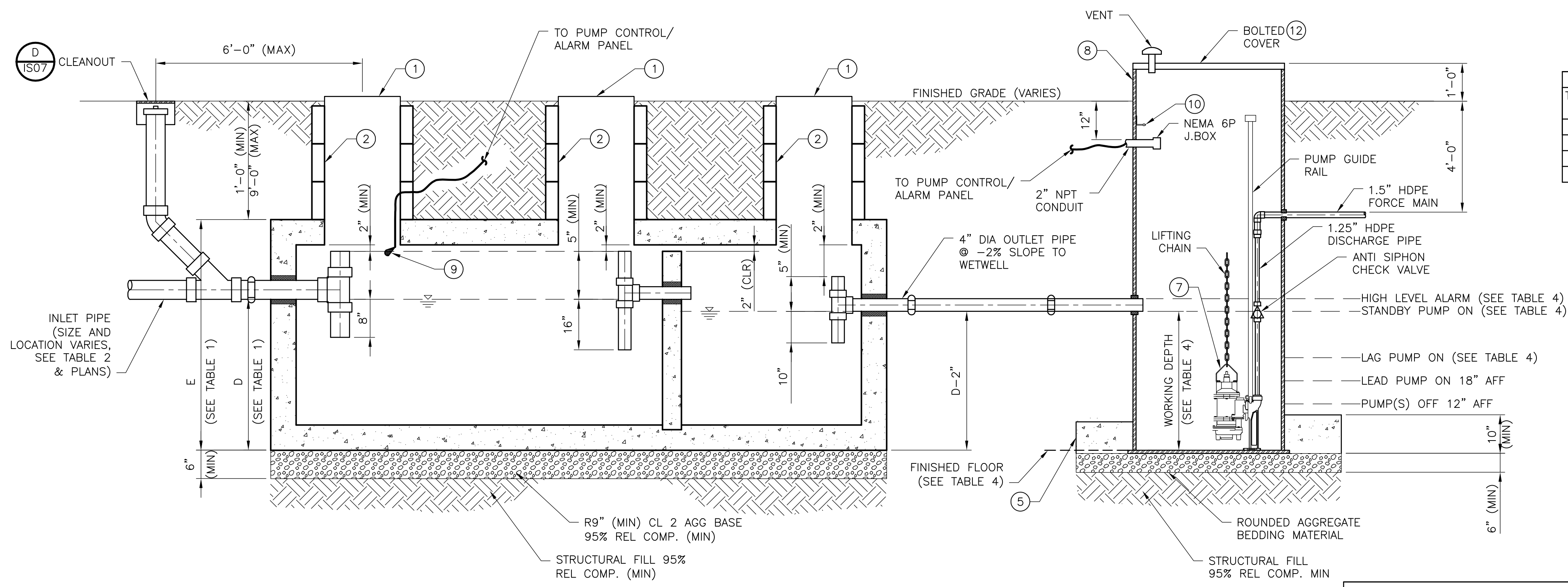
1" 0 1"
SCALE OF FEET



STEP SEPTIC TANK

DETAIL A

1/2" = 1'-0"



SECTION 1

1/2" = 1'-0"

1" 0 1"

SCALE OF FEET

KEY NOTES:

1. 24" DIAMETER CAST IRON LOCKING OR BOLTED FRAME AND COVER WITH GAS TIGHT GASKET. COVER AND FRAME SHALL BE H-20 RATED. COVER SHALL BE WATERTIGHT WHEN FINISHED GRADE ELEVATION IS LESS THAN 455'. REFER TO PLANS FOR FINISHED GRADE ELEVATION
2. PRECAST CONCRETE GRADE RINGS AND/OR MH RISER AS REQUIRED. JENSEN PRECAST OR EQUAL.
3. BOLLARDS: INSTALL BETWEEN WET WELL AND STREET; LOCATION VARIES. SEE CIVIL DETAILS.
4. PRECAST CONCRETE SEPTIC TANK: TANK SHALL CONFORM WITH ASTM C1227-13. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. TANK SHALL BE WATER TIGHT AND SHALL BE DESIGNED TO RESIST THE EFFECTS OF GROUNDWATER AT FINISHED GRADE USING PRECAST CONCRETE DEADMAN WHEN REQUIRED PER TABLE 2. TANK SHALL BE H-20 RATED. TANKS SHALL BE COMMERCIAL SEPTIC TANK BY JENSEN PRECAST OR EQUAL.
5. CAST-IN-PLACE CONCRETE BALLAST DESIGNED BY THE FRP LIFT STATION MANUFACTURER TO RESIST THE EFFECTS OF GROUNDWATER AT FINISHED GRADE.
6. DUPLEX PUMP CONTROL/ALARM PANEL NEMA 4X ENCLOSURE ON CONCRETE PAD.
7. PUMP: PROGRESSIVE CAVITY TYPE PUMP WITH INTEGRAL GRINDER AND SUBMERSIBLE MOTOR WITH DUAL MECHANICAL SEAL AND EXTERNAL START KIT. PUMP SHALL BE CAPABLE OF DELIVERING 10 GPM AT 135 FEET OF HEAD. MOTOR SHALL BE 1 HP, 1750 RPM, 208/230 V, SINGLE PHASE, 60 HZ. PUMP SHALL BE FURNISHED WITH LIFTING CHAIN AND POWER CORD. PUMP AND MOTOR SHALL BE MODEL KPCG-21 MANUFACTURED BY KEEN PUMP CO. OR EQUAL. SEE TABLE 4 FOR ADDITIONAL LIFT STATION REQUIREMENTS.
8. FRP DUPLEX LIFT STATION: STATION SHALL BE FURNISHED AS COMPLETE PACKAGE INCLUDING FRP WET WELL STRUCTURE, BOLTED FRP LID WITH VENT, TWO GRINDER PUMPS, DUPLEX PUMP CONTROL PANEL WITH AUTOMATIC PUMP ALTERNATOR AND NEMA 4X ENCLOSURE, THREE PUMP CONTROL LEVEL FLOAT SWITCHES, PUMP LIFTING GUIDE RAIL, NEMA 6P ELECTRICAL JUNCTION BOX, ISOLATION VALVES, CHECK VALVES AND OTHER COMPONENTS RECOMMENDED BY THE MANUFACTURER FOR A COMPLETE AND FULLY FUNCTIONING SYSTEM. PACKAGE SHALL BE FURNISHED BY A SINGLE MANUFACTURER. KEEN PUMP CO. BASIN PACKAGE OR EQUAL.
9. LEVEL ALARM FLOAT SWITCH: FLOAT SHALL ACTIVATE LOCAL ALARM. FLOAT SHALL BE LIQUID LEVEL ALARM AND FLOAT BY JENSEN PRECAST OR EQUAL.
10. STAINLESS STEEL FLOAT BRACKET.
11. PRECAST CONCRETE DEADMAN TO BE DESIGNED AND PROVIDED BY SEPTIC TANK MANUFACTURER TO RESIST BUOYANT FORCES WHERE INDICATED IN TABLE 2. DEADMAN SHALL BE ANCHORED TO TANK USING CORROSION RESISTANT ANCHORS. REFER TO TABLE 3 FOR DEADMAN NUMBER AND SIZE REQUIREMENTS BASED ON SEPTIC TANK CAPACITY.
12. FRP BOLTED COVER. COVER SHALL BE WATERTIGHT WHEN FINISHED GRADE ELEVATION IS LESS THAN 455'. REFER TO PLANS FOR FINISHED GRADE ELEVATION.

TABLE 1 – SEPTIC TANK DIMENSIONS

TANK WORKING VOLUME (GALLONS)	A	B	C	D	E	BASIS OF DESIGN
1,000	66"	32"	64"	60"	75"	JENSEN PRECAST MODEL JP1000 EE-ST
2,000	131"	60"	59"	60"	72"	JENSEN PRECAST MODEL JP2000 EE-ST
3,000	135"	67"	69"	67"	81"	JENSEN PRECAST MODEL JZ3000 EE-ST
4,000	135"	68"	92"	67"	81"	JENSEN PRECAST MODEL TY4000 EE-ST

TABLE 2 – STEELE CANYON SEPTIC TANK SCHEDULE

TANK NO.	TANK VOLUME (GAL)	APPROXIMATE FINISHED GRADE ELEV. (FT.)	INLET SIZE(S) (IN.)	INLET INVERT ELEVATION (FT.)	DEADMEN REQ'D ? (YES/NO)
STEP-01	4,000	460	6"	453	YES
STEP-02	3,000	455	8"	448	YES
STEP-03	NOT USED				
STEP-04	2,000	479	6"	473.9	NO
STEP-05	1,000	462	6"	456.8	YES
STEP-06	NOT USED				
STEP-07	NOT USED				
STEP-08	2,000	445	4" & 6"	440	YES
STEP-09	NOT USED				
STEP-10	2,000	452	6" & 6	446.7	YES

TABLE 3 – REQUIRED DEADMAN QUANTITY AND SIZE

SEPTIC TANK CAPACITY (GAL)	QTY OF DEADMAN	DIMENSIONS
1,000	4	2'-6"x2'-0"x2'-0"
2,000	4	2'-6"x2'-0"x2'-0"
3,000	4	3'-3"x3'-3"x3'-3"
4,000	6	3'-6"x3'-6"x3'-3"

NOTE: DEADMAN FINAL QUANTITY AND SIZE TO BE DESIGNED BY PRECAST TANK MANUFACTURER.

TABLE 4 – STEELE CANYON STEP LIFT STATION TANK SCHEDULE

TANK #	NUMBER OF PUMPS	APPROXIMATE FINISHED GRADE ELEV. (FT.)	INLET INVERT ELEVATION (FT.)	LIFT STATION DIAMETER (FT.)	WET WELL FLOOR ELEV. (FT.)	LAG PUMP ON (IN. AFF)	STANDBY PUMP ON (IN. AFF)	WORKING DEPTH (IN. AFF)	HIGH LEVEL ALARM (IN. AFF)
STEP-01	2 (LEAD, LAG PUMPS)	460	452.7	6.0	446.9	24	N/A	70	74
STEP-02	2 (LEAD, LAG PUMPS)	455	447.7	5.0	443.5	24	N/A	50	54
STEP-03	NOT USED								
STEP-04	2 (1 DUTY, 1 STANDBY)	479	473.6	4.0	470.6	N/A	36	36	40
STEP-05	2 (1 DUTY, 1 STANDBY)	462	456.5	4.0	453.5	N/A	36	36	40
STEP-06	NOT USED								
STEP-07	NOT USED								
STEP-08	2 (1 DUTY, 1 STANDBY)	445	439.7	4.0	436.7	N/A	36	36	40
STEP-09	NOT USED								
STEP-10	2 (1 DUTY, 1 STANDBY)	452	446.4	4.0	443.4	N/A	36	36	40

RECLAMATION
Managing Water in the West

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SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
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BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
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CONTRACTOR
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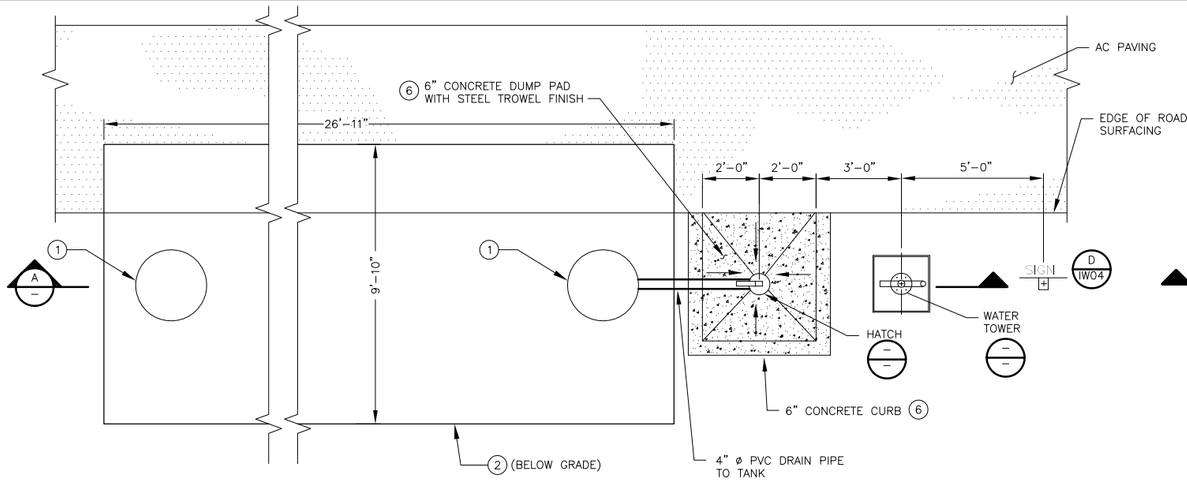
STATION NAME (CITY, ST) YYYY-MM-DD

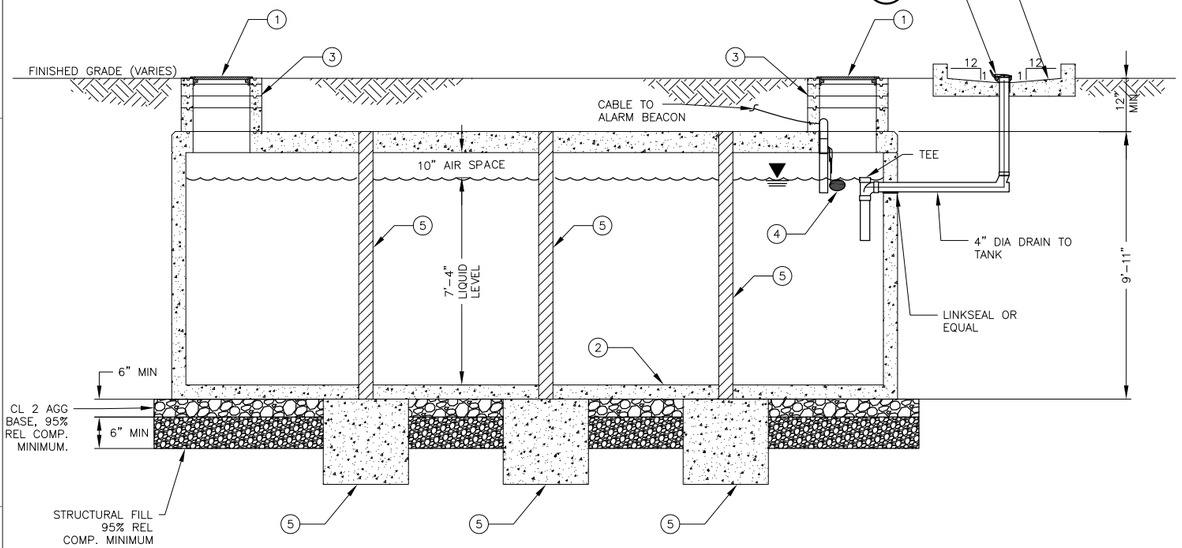
STEELE CANYON SEWER DETAILS III

LB-SCRA-IS03

SHEET X OF X

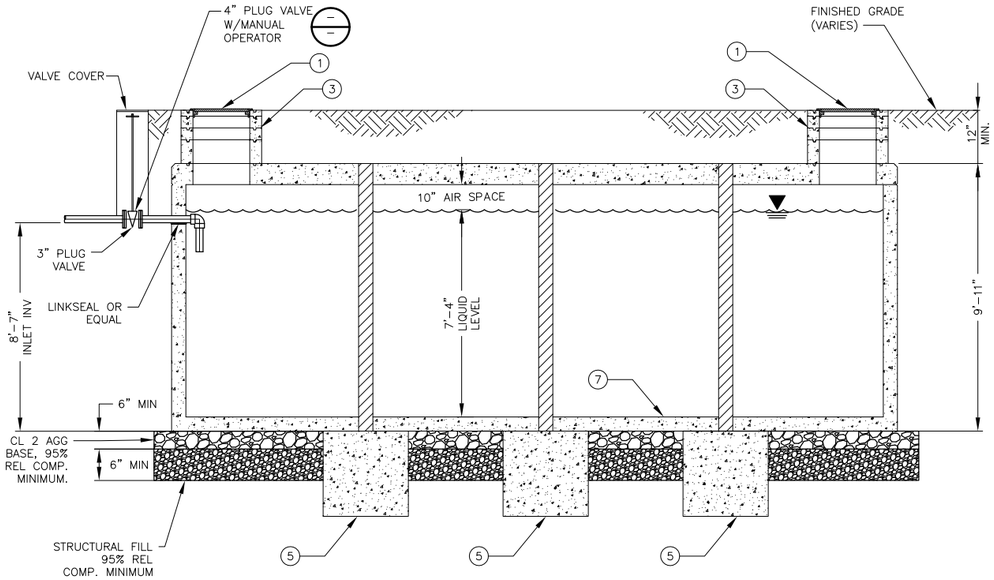


RV DUMP STATION
DETAIL A
NTS



SECTION A
NTS

SEWAGE STORAGE VAULT
DETAIL B
NTS



SECTION B
NTS

KEY NOTES:

1. 24–INCH DIAMETER CAST IRON LOCKING OR BOLTED FRAME AND COVER WITH GASTIGHT GASKET. COVER AND FRAME SHALL BE H–20 RATED. COVER SHALL BE WATERTIGHT WHEN FINISHED GRADE ELEVATION IS LESS THAN 455'. REFER TO PLANS FOR FINISHED GRADE ELEVATION.
2. 11,500 GALLON PRECAST CONCRETE STORAGE TANK. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. TANKS SHALL BE WATERTIGHT AND H–20 RATED. TANK SHALL BE JENSEN PRECAST MODEL KAV11500LHT OR EQUAL.
3. PRECAST CONCRETE GRADE RINGS AS REQUIRED. JENSEN PRECAST MODEL GR2432 OR EQUAL.
4. LEVEL ALARM FLOAT SWITCH; FLOAT SWITCH SHALL ACTIVATE LOCAL ALARM. FLOAT SHALL BE LIQUID LEVEL ALARM AND FLOAT BY JENSEN PRECAST OR EQUAL.
5. PRECAST CONCRETE DEADMAN TO BE DESINGED AND PROVIDED BY TANK MANUFACTURER TO RESIST BUOYANT FORCES. DEADMAN SHALL BE ANCHORED TO TANK USING CORROSION RESISTANT ANCHORS.
6. REFER TO STRUCTURAL DETAILS.
7. 14,000 GALLON PRECAST CONCRETE STORAGE TANK. JOINTS SHALL BE COATED WITH BITUMINOUS MASTIC COATING. TANKS SHALL BE WATERTIGHT AND H–20 RATED. TANK SHALL BE JENSEN PRECAST MODEL KAV11500LHT OR EQUAL.

RECLAMATION
Managing Water in the West

STA, CDM SMITH
YYY–MM–DD
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ACCEPTED:
NAME, PROF, ABBR
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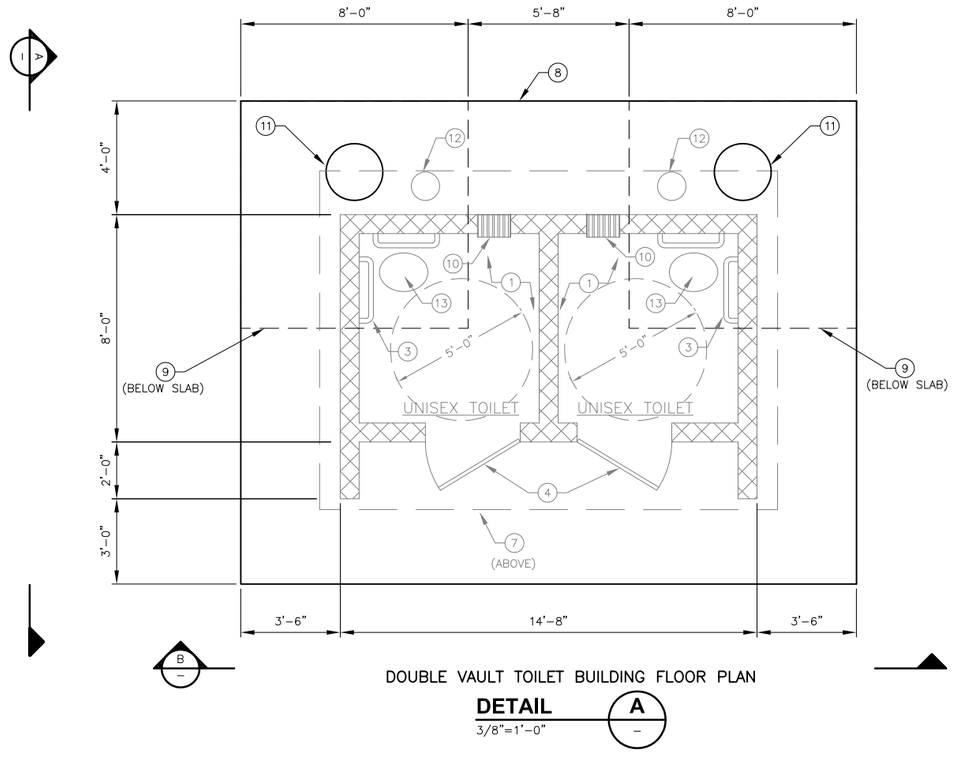
STEELE CANYON SEWER DETAILS IV

LB–SCRA–IS04

SHEET X OF X



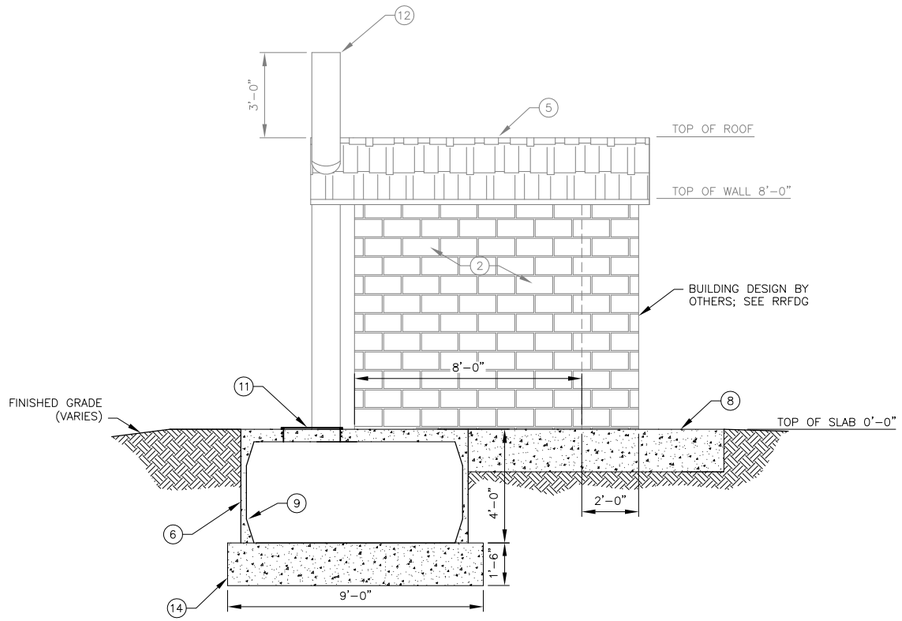
DOUBLE VAULT TOILET BUILDING FLOOR PLAN

DETAIL A
3/8"=1'-0"

KEY NOTES:

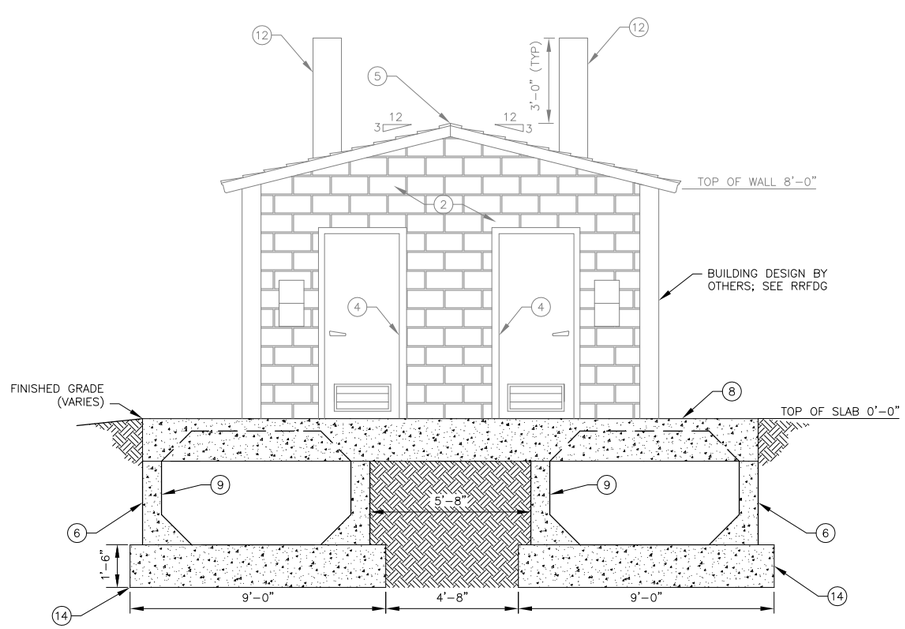
VAULT TOILET TOTAL BUILDING SQ. FT. : 120 SF

1. SLAB ON GRADE EXPOSED CONCRETE WITH LIGHT BROWN FINISH AND SLIP-RESITSTANT EPOXY COATING. (BY OTHERS)
2. 8" CONCRETE MASONRY UNIT WITH INTEGRAL COLOR. (BY OTHERS)
3. ADA COMPLIANT GRAB BARS. (BY OTHERS)
4. HOLLOW METAL DOORS AND FRAMES. (BY OTHERS)
5. STANDING SEAM METAL ROOF WITH SLATE GRAY OR GALVANIZE FACTORY FINISH OR RUSTIC CORRUGATED STEEL. (BY OTHERS)
6. ALL FOUR VERTICAL SIDES OF VAULT TOILET TANK ARE TO BE ENCASED IN CONCRETE PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.
7. ROOF LINE ABOVE. (BY OTHERS)
8. CAST-IN-PLACE CONCRETE SLAB; REFER TO STRUCTURAL DETAILS.
9. 1,000 GALLON REINFORCED LLDPE BLACK BELOW-GRADE TOILET VAULT STORAGE TANK SHALL HAVE 1 TOILET RISER CONNECTION, 1 VENT STACK CONNECTION AND 1 CLEANOUT CONNECTION. TANK BOTTOM SHALL SLOPE TOWARDS CLEANOUT CONNECTION. TANK SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN RECOMMENDATIONS. ROMTEC 1,000 GALLON VAULT WITH FOOTING KIT OR EQUAL.
10. METAL LOUVER WITH 120 SQUARE INCHES OF FREE SPACE (MIN). BOTTOM OF LOUVER SHALL BE LOCATED 12" ABOVE FINISHED FLOOR. (BY OTHERS)
11. 24" DIAMETER CLEANOUT CONNECTION WITH RISER AND BOLTED COVER. PROVIDE WATERTIGHT COVER AND GASKET WHERE FINISHED GRADE IS LESS THAN 455.00; SEE PLAN SHEETS FOR FINISHED GRADE.
12. 12" DIAMETER BLACK HDPE VENT PIPE. PIPE SHALL END 3' ABOVE HIGHEST POINT OF ROOF. ROMTEC POLY PIPE OR EQUAL. (BY OTHERS)
13. WHITE POLYETHYLENE SINGLE PIECE TOILET RISER WITH LID, SEAT AND MOUNTING HARDWARE. PROVIDE WATERTIGHT COVER AND GASKET WHERE FINISHED GRADE IS LESS THAN 455.00; SEE PLAN SHEETS FOR FINISHED GRADE ELEVATION. ROMTEC POLYETHYLENE TOILET RISER OR EQUAL. (BY OTHERS)
14. INSTALL 1.5' THICK X 9' SQUARE CAST-IN-PLACE CONCRETE DEADMAN BENEATH VAULT TOILET TANK. DEADMAN SHALL BE SECURED TO TANK WITH TWO CORROSION RESISTANT ORTHOGONAL HOLD DOWN ANCHORS CENTERED ALONG THE SIDES OF EACH TANK AND CROSSING IN THE MIDDLE OF THE TANK.
15. ABOVE GRADE STRUCTURE SHALL CONFORM TO RRFDG STANDARDS.



DOUBLE VAULT TOILET BUILDING SECTION

SECTION A
3/8"=1'-0"



DOUBLE VAULT TOILET BUILDING FRONT SECTION

SECTION B
3/8"=1'-0"

1" 0 1"
SCALE OF FEET

RECLAMATION
Managing Water in the West

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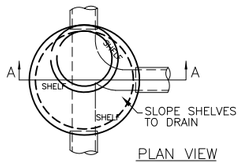
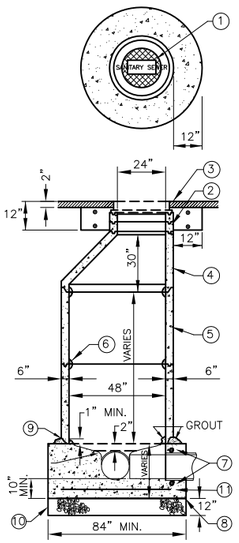
STEELE CANYON SEWER DETAILS VI

LB-SCRA-IS06
SHEET X OF X



PLAN VIEW



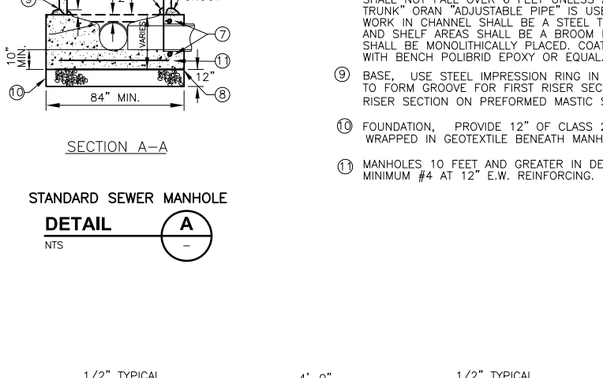
SECTION A–A

STANDARD SEWER MANHOLE

DETAIL A

NTS

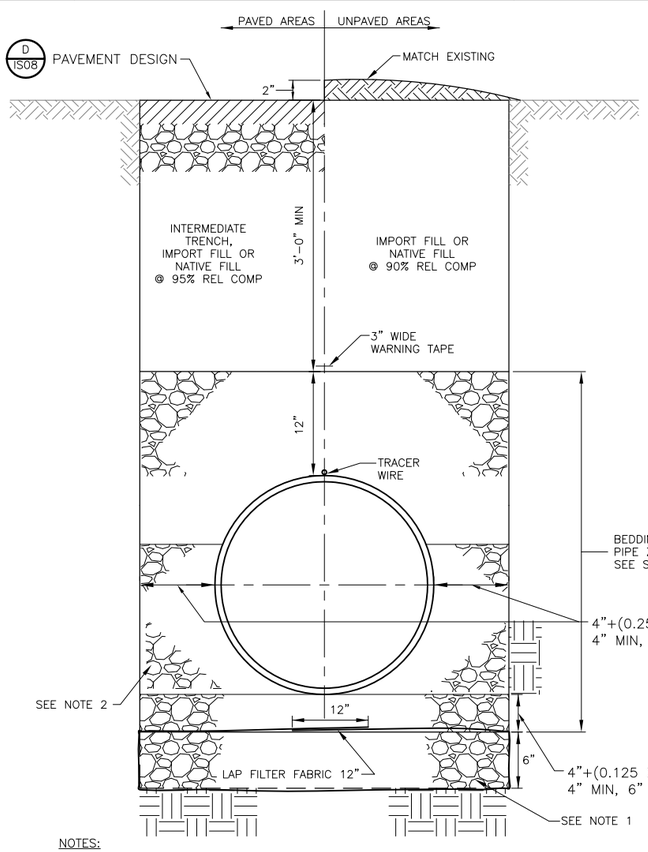
1. COVER, MANHOLE FRAMES AND COVER SHALL HAVE A 24" CLEAR OPENING AND A SEALED BLIND PICKHOLE. THE COVER SHALL BE LETTERED "SANITARY SEWER". COVER TO BE RATTLE–FREE WITHOUT THE USE OF SEALANT.
2. ADJUSTMENT, RINGS SHALL BE 3" OR 6". TOP OF CONE TO TOP OF FRAME SHALL NOT EXCEED 15". GRADE RINGS AND MANHOLE FRAME SHALL BE SEALED AT EVERY JOINT WITH BUTYL RUBBER (CONSEAL CS–102 OR EQUAL) AND GROUTED ON THE INSIDE.
3. CONCRETE COLLAR, COLLAR SHALL BE CLASS B, 3000 PSI CONCRETE. THE COLLAR SHALL BE ALLOWED TO CURE 48 HOURS PRIOR TO ANY TRAFFIC USE. REINF WITH 2–#4 HOOPS AND #4 VERTS
4. CONE, CONE SHALL BE ECCENTRIC AND CONFORM TO THE REQUIREMENTS FOR RISERS. THE STRAIGHT SIDE OF THE CONE SHALL BE POSITIONED OVER THE MANHOLE OUTLET. CONCENTRIC CONES MAY BE USED ONLY IN SPECIAL CASES WITH THE PRIOR WRITTEN CONSENT OF THE ENGINEER.
5. MANHOLE RISERS, MANHOLE RISERS SHALL BE 48" IN DIAMETER, PRECAST CONCRETE CONFORMING TO ASTM C478 FOR PRECAST REINFORCED MANHOLE SECTIONS. MANHOLE RISERS SHALL BE PVC LINED OR EQUAL. LINING SHALL EXTEND TO BASE OF COVER.
6. JOINTS, JOINTS SHALL BE SET WITH PREFORMED MASTIC SEALANT (RAMNEK, KENT SEAL, OR EQUAL). INSIDE OF JOINTS SHALL BE GROUTED WITH NON–SHRINK GROUT.
7. WATER STOPS, WHEN PVC USED, I.E. ADAPTER RINGS.
8. BASE, MANHOLE BASE SHALL BE 10" DEEP MINIMUM. CLASS "E", 5000 PSI CONCRETE SHALL BE USED AND SHALL NOT FALL OVER 6 FEET UNLESS AN "ELEPHANTS TRUNK" ORAN "ADJUSTABLE PIPE" IS USED. CONCRETE WORK IN CHANNEL SHALL BE A STEEL TROWEL FINISH AND SHELF AREAS SHALL BE A BROOM FINISH. BASE SHALL BE MONOLITHICALLY PLACED. COAT MANHOLE WITH BENCH POLIBRID EPOXY OR EQUAL.
9. BASE, USE STEEL IMPRESSION RING IN WET CONCRETE TO FORM GROOVE FOR FIRST RISER SECTION. SET FIRST RISER SECTION ON PREFORMED MASTIC SEALANT.
10. FOUNDATION, PROVIDE 12" OF CLASS 2 AB WRAPPED IN GEOTEXTILE BENEATH MANHOLE BASE.
11. MANHOLES 10 FEET AND GREATER IN DEPTH SHALL HAVE MINIMUM #4 AT 12" E.W. REINFORCING.



CAMPSITE SEWER DROP – SECTION VIEW

DETAIL C

NTS



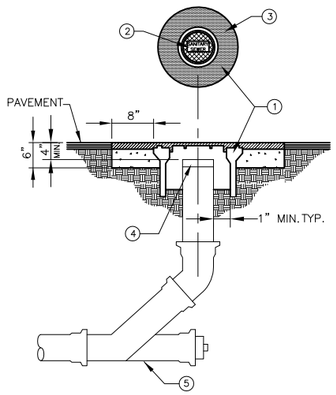
NOTES:

1. IF UNSUITABLE AND SOFT MATERIALS ARE PRESENT IN TRENCH BOTTOM, REMOVE AND PLACE 6" OF 3/4" CRUSHED ROCK MATERIAL BELOW PIPE BEDDING, WRAPPED WITH GEOTEXTILE FILTER FABRIC.
2. TRENCH SLOPE OR SHORING SHALL BE USED IN ACCORDANCE WITH CAL OSHA REQUIREMENTS.

PIPE TRENCH

DETAIL B

NTS

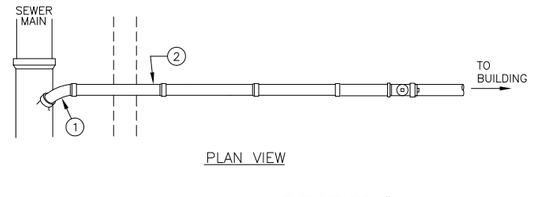


1. TRAFFIC VALVE WELL AND COVER: CHRISTY G–5 FOR 4" PIPE, AND CHRISTY G–12 FOR LARGER DIAMETER PIPES, SAME SIZE AS MAIN RECOMMENDED. BE SURE CLEANING EQUIPMENT WILL WILL PASS THROUGH.
2. TRAFFIC LID MARKED "SANITARY SEWER".
3. CLASS B, 3000 PSI CONCRETE COLLAR, TROWELLED TO STREET GRADE. ALLOW TO CURE 48 HOURS PRIOR TO TRAFFIC USE.
4. REMOVABLE CAP OR PLUG.
5. 2 – 45° BENDS SPACED 12 INCHES APART. 22 1/2° OR SWEEP IS PREFERABLE. ALL PIPES SHALL MATCH SEWER MAIN DIAMETER.
6. CLEANOUTS LOCATED AT THE END OF SEWER MAINS SHALL BE LOCATED 3' FROM LAST LATERAL.

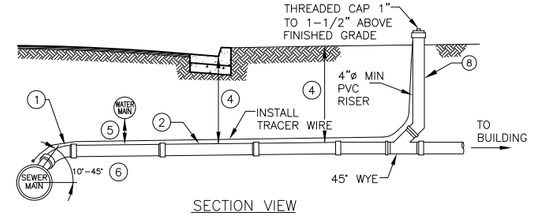
SEWER CLEANOUT

DETAIL D

NTS



PLAN VIEW



SECTION VIEW

1. FACTORY–FABRICATED WYE CONNECTION TO NEW SEWER MAINS WITH 1/8 BEND. BEND SHALL POINT DOWNSTREAM AND ENTER MAIN AT A VERTICAL ANGLE.
2. SEWER LATERAL PIPE AND FITTINGS SHALL BE ASTM D3034 GASKETED SDR 26 PVC WITH A MINIMUM DIAMETER OF 4", AND A MINIMUM SLOPE OF 1/4" PER FOOT. LATERAL INSTALLATION SHALL BEGIN AT MAIN AND PROCEED TO END. GRADE SHALL BE UNIFORM FROM MAIN TO PROPERTY LINE. CHANGES IN GRADE OF LATERAL SHALL BE MADE USING LONG–RADIUS BENDS.
3. NOT USED.
4. DEPTH OF LATERAL SHALL NOT BE LESS THAN 36" FROM TOP OF PIPE UNLESS ENCASED IN CONCRETE OR IRON PIPE. MAXIMUM DEPTH SHALL BE 60" WHEN TERRAIN IS FLAT, UNLESS UNLESS OTHERWISE NOTED.
5. A MINIMUM SEPARATION OF 12" SHALL BE MAINTAINED WHEN CROSSING WATER LINES. UNLESS OTHERWISE SHOWN, ROUTE LATERAL UNDER WATER MAINS WHEN POSSIBLE. IF VERTICAL DEFLECTIONS NECESSARY USE 22 1/2° LONG RADIUS ELBOWS.
6. DEEP LATERAL IN WHICH WYE IS INSTALLED VERTICALLY WILL BE ALLOWED ON CASE BY CASE BASIS. PROVIDE LONG RADIUS 22 1/2° ELBOW AT TOP.
7. ADJUST LATERAL SLOPES TO AVOID CONFLICTS WITH UTILITIES AND OTHER PIPES.
8. RV SITES & STANDARD SITES WITH UTILITIES SHALL NOT HAVE A CLEANOUT

SEWER LATERAL

DETAIL E

NTS

RECLAMATION
Managing Water in the West

STA, CDM SMITH
YYY–MM–DD
105904.2330.019

ACCEPTED:
NAME, PROF, ABBR
YYYY–MM–DD

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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

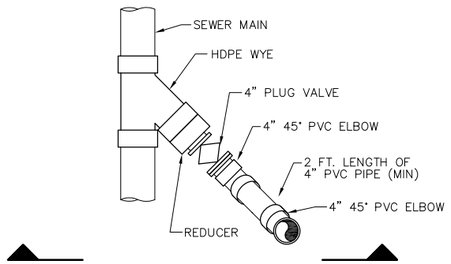
Topography by American Photomapping Services
Compiled from photography 20163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY–MM–DD

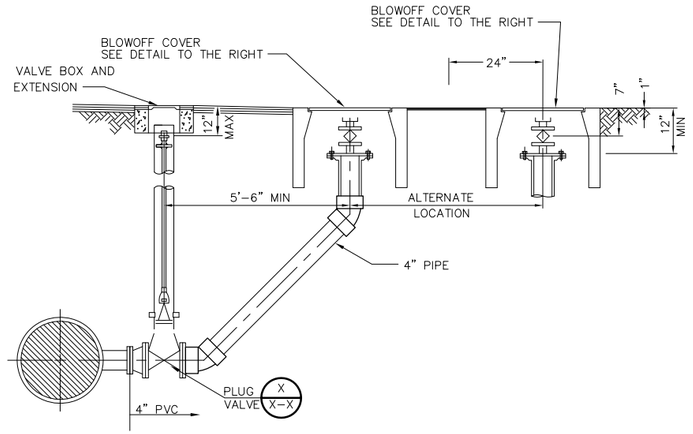
STEELE CANYON SEWER DETAILS VII

LB–SCRA–IS07

SHEET X OF X



PLAN

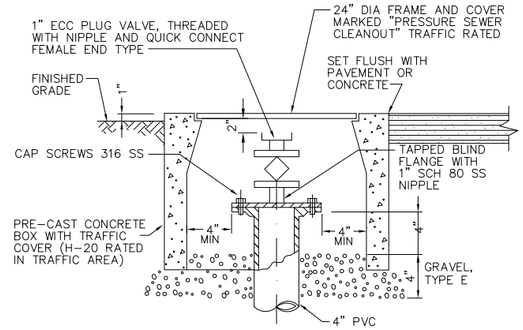


SECTION

BLOWOFF

DETAIL A

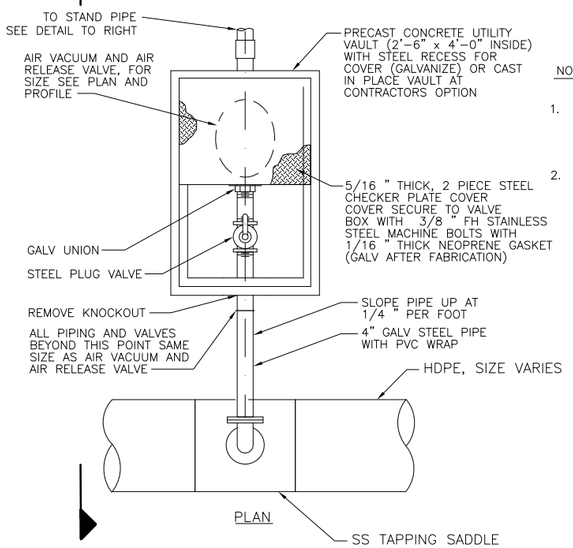
NTS



DETAIL

NOTES:

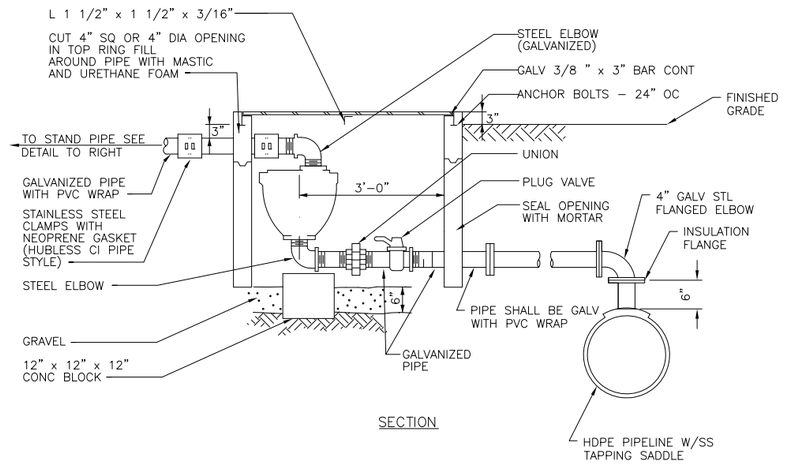
1. PIPE, FLANGE, AND TAPPED BLIND FLANGE SAME PRESSURE RATING AS PIPELINE.
2. CEMENT 1/16" THK. FULL COVER GASKET TO FLANGE.
3. ALL EXPOSED FERROUS SURFACES OF BURIED PIPE AND APPURTENANCES TO BE PROVIDED WITH PROTECTIVE COATINGS.
4. PROVIDE STAINLESS STEEL NUTS, BOLTS AND WASHERS TO BURIED FLANGES AND COUPLINGS EXCEPT FOR NON-METALLIC WASHERS AS PART OF INSULATING FLANGE SET.



PLAN

NOTES:

1. ALL FERROUS SURFACES OF PIPE AND APPURTENANCES TO BE PROVIDED WITH PROTECTIVE COATING PER SPECS.
2. PROVIDE STAINLESS STL. NUTS, BOLTS AND WASHERS TO BURIED FLANGES AND COUPLINGS, EXCEPT FOR NONMETALLIC WASHERS TO BE PROVIDED AS PART OF INSULATING FLANGE SET.

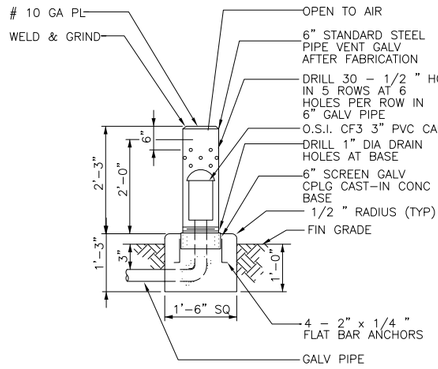


SECTION

AIR VACUUM AND AIR RELEASE VALVE ASSEMBLY

DETAIL B

NTS



DETAIL OF STANDPIPE ASSEMBLY

RECLAMATION
Managing Water in the West

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN

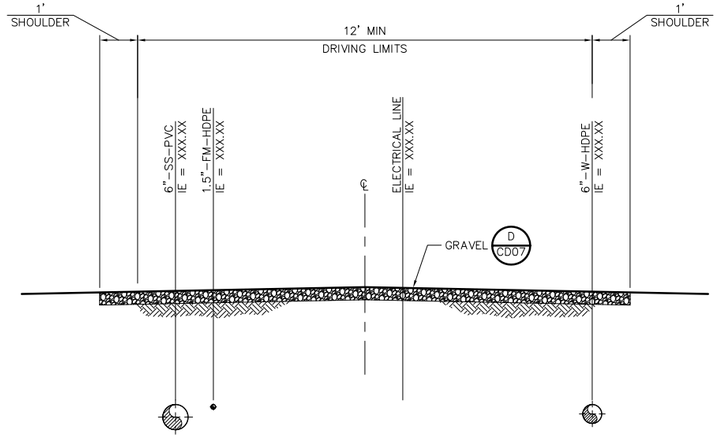
ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

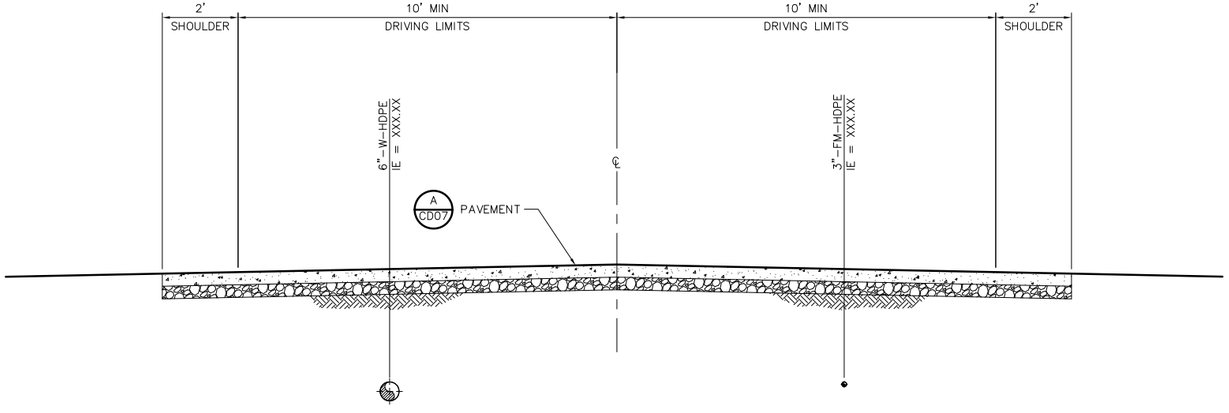
STEELE CANYON SEWER DETAILS VIII

LB-SCRA-IS08

SHEET X OF X



SECTION 1
1" = 2'
IP01



SECTION 2
1" = 2'
IP04

RECLAMATION
Managing Water in the West

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Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October - 20, 2011

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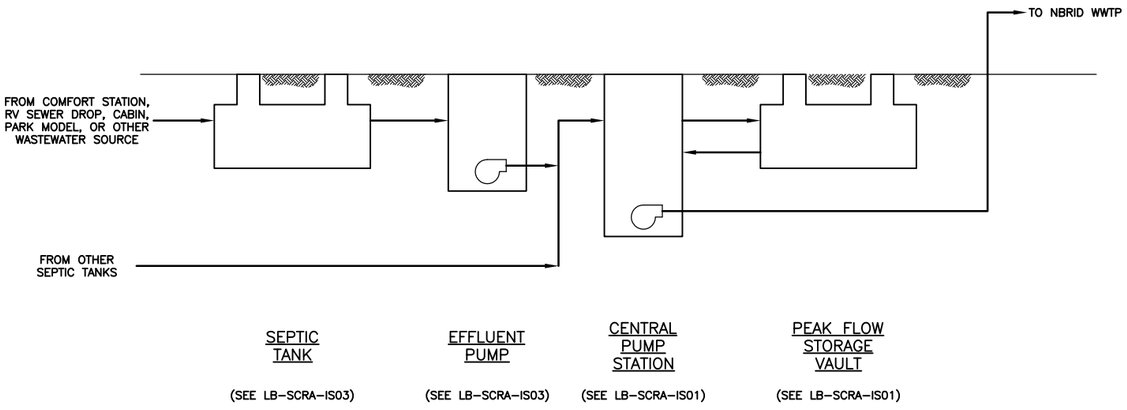
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON SEWER DETAILS IX

LB-SCRA-IS09
SHEET X OF X



WASTE WATER COLLECTION SYSTEM PROCESS FLOW DIAGRAM

RECLAMATION
Managing Water in the West

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YYY-MM-DD
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STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON SEWER DETAILS X

LB-SCRA-IS10
SHEET X OF X

A. GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE 2012 INTERNATIONAL BUILDING CODE (IBC).

2. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH MECHANICAL & ELECTRICAL DRAWINGS, SHOP DRAWINGS AND THE PROJECT SPECIFICATIONS. COORDINATE REGLETS, PIPE SLEEVES, CONDUITS OR OTHER ITEMS EMBEDDED OR PASSED THROUGH CONCRETE STRUCTURES WITH ALL OTHER PROJECT DOCUMENTS. PENETRATIONS THROUGH WALLS OR SLABS LESS THAN 12" IN DIAMETER MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. REFER TO THE RELEVANT DRAWINGS OR SPECIFICATIONS FOR SIZES AND LOCATIONS.

3. LOCATE CONDUIT IN MIDDLE THIRD OF SLAB.

4. NO STRUCTURAL MEMBERS SHALL BE CUT FOR PIPES, DUCTS, ETC. UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.

5. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED SIZES.

6. USE PERTINENT STANDARD DETAILS SHOWN, EVEN THOUGH THEY MAY NOT BE CALLED OUT AT LOCATIONS WHERE THEY APPLY.

7. INSTALL ALL SPECIFIED PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UNLESS NOTED OTHERWISE.

B. DESIGN LOADS

1. LATERAL:

a. SEISMIC:
- S_s = 2.12
- S1 = 0.85
- SITE CLASS: D
- Fa = 1.0
- Fv = 1.5
- S_{DS} = 1.42
- S_{D1} = 0.85
- RISK CATEGORY: I
- Ie = 1.0
- Ip = 1.0 UNLESS OTHERWISE NOTED
- SEISMIC DESIGN CATEGORY: D

b. WIND:
- BASIC WIND SPEED: 100 mph
- SURFACE ROUGHNESS: D
- EXPOSURE: D
- RISK CATEGORY: I

C. CAST-IN-PLACE CONCRETE NOTES

1. REINFORCED CONCRETE SHALL CONFORM TO ACI 318-11.

2. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, UNO:

a. CAST-IN-PLACE STRUCTURAL CONCRETE (CLASS D): f'c = 4000 psi

b. SIDEWALKS, PAVEMENT, CONCRETE ENCASEMENT (CLASS B): f'c = 3000 psi

3. REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM SPECIFICATION A615, GRADE 60. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

4. REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CRSI MANUAL OF STANDARD PRACTICE.

5. REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM CLEAR CONCRETE COVER, UNO:

CONDITION	COVER
UNFORMED SURFACES IN CONTACT WITH EARTH	3"
FORMED SURFACES EXPOSED TO EARTH, WATER, OR WEATHER	2"
FORMED SURFACES NOT EXPOSED TO EARTH, WATER OR WEATHER:	1 1/2"

6. ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4-IN CHAMFER, UNO.

7. WRITTEN SPACING AND LOCATION OF REINFORCING SHALL TAKE PRECEDENCE OVER DEPICTED SPACING AND LOCATION.

D. CONCRETE ANCHOR AND DOWEL NOTES

1. CAST-IN ANCHORS SHALL BE HEADED BOLTS CONFORMING TO ASTM F1554, GR 36, UNO.

2. POST-INSTALLED ANCHORS SHALL BE 36 ksi MIN GALVANIZED CARBON STEEL. ADHESIVE DOWELS SHALL BE 60 ksi REINFORCING STEEL CONFORMING TO ASTM A615. POST-INSTALLED ANCHORS AND DOWELS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE ICC OR IAPMO EVALUATION SERVICE REPORT. ONLY ANCHORS OR ADHESIVES WITH CURRENT ICC OR IAPMO EVALUATION SERVICE REPORTS FOR USE IN CRACKED CONCRETE SHALL BE USED. SEE SPEC SECTION 05500 FOR ADDITIONAL INFORMATION.

3. THE CONTRACTOR SHALL LOCATE EXISTING CONCRETE REINFORCEMENT USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR POST-INSTALLED ANCHORS OR DOWELS. ADJUST SPACING OF ANCHORS TO MISS EXISTING REINFORCING. THE TOTAL NUMBER OF ANCHORS OR DOWELS PROVIDED SHALL BE EQUAL TO WHAT IS SHOWN ON THE DRAWINGS.

4. EXPANSION OR UNDERCUT ANCHORS SHALL NOT BE USED FOR VIBRATORY LOADS, UNO.

E. CONCRETE JOINT NOTES

1. INTENTIONALLY ROUGHEN THE SURFACES OF CONSTRUCTION JOINTS AND WHERE NEW CONCRETE CONTACTS EXISTING CONCRETE TO A CONCRETE SURFACE PROFILE (CSP) 9 PER ICRI GUIDELINE 03732 WITH ¼" MINIMUM AMPLITUDE. THIS ROUGHENED SURFACE MAY BE ACCOMPLISHED BY RAKING THE PLASTIC CONCRETE OR BY BUSHHAMMERING OR CHISELING HARDENED CONCRETE SURFACES. THOROUGHLY CLEAN JOINT SURFACES OF LOOSE OR WEAKENED MATERIALS BY WATERBLASTING OR SANDBLASTING. SATURATE SURFACE WITH WATER 12 HOURS BEFORE AND AGAIN IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.

F. DEFERRED SUBMITTALS

1. THE FOLLOWING PORTIONS OF THE PROJECT ARE DEFERRED SUBMITTAL ITEMS AND HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD:

a. EQUIPMENT ANCHORAGE

b. PIPE SUPPORTS NOT DETAILED ON DRAWINGS

c. BELOW GRADE VAULTS

d. FISH CLEANING STATION SHELTER

f. VAULT TOILET STRUCTURES

2. CALCULATIONS AND SHOP DRAWINGS FOR DEFERRED SUBMITTAL ITEMS SHALL BE PREPARED AND SEALED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA.

3. CALCULATIONS AND SHOP DRAWINGS FOR EQUIPMENT ANCHORAGE SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW DURING THE CONSTRUCTION PHASE OF THE PROJECT.

4. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE ENGINEER OF RECORD HAS REVIEWED THE SUBMITTAL DOCUMENTS AND INDICATED THAT THEY HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE STRUCTURE.

STRUCTURAL ABBREVIATIONS:

ø	DIAMETER
AB	ANCHOR BOLT
ADDL	ADDITIONAL
AL	ALUMINUM
ALT	ALTERNATE(ING)
APPROX	APPROXIMATE(LY)
ARND	AROUND
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BGS	BELOW GROUND SURFACE
BLDG	BUILDING
BLK	BLOCK(ING)
B.O.	BOTTOM OF
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BTWN	BETWEEN
CJ	CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL, ℄	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CSP	CONCRETE SURFACE PROFILE
CTJ	CONTROL JOINT
CTR	CENTER (ED)
db	BAR DIAMETER
D	DEEP, DEPTH
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DO.	DITTO
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)
EA	EACH
EB	EXPANSION BOLT
ECC	ECCENTRIC
EF	EACH FACE
EL	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL (LY)
EQPT	EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE
ETC	ETCETERA
EW	EACH WAY
EXP	EXPANSION
EXST, (E)	EXISTING
EXT	EXTERIOR
f'c	CONCRETE COMPRESSIVE STRENGTH
fy	REINFORCEMENT YIELD STRENGTH
FDN	FOUNDATION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FIG	FIGURE
FIN	FINISH (ED)
FL	FLOOR
FS	FAR SIDE
FTG	FOOTING
GA	GAGE
GALV	GALVANIZED
GALVS	GALVANIZED STEEL
GRTG	GRATING
HDR	HEADER
H	HEIGHT
HOR(IZ)	HORIZONTAL
HP	HIGH POINT
HSB	HIGH STRENGTH BOLTS
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
I.F.	INSIDE FACE
INFO	INFORMATION
INT	INTERIOR
INV	INVERT
ld	DEVELOPMENT LENGTH
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG.	LONGITUDINAL
LP	LOW POINT
LT	LEFT
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MTL	METAL
(N)	NEW
NOM	NOMINAL
NS	NEAR SIDE
NSG	NON-SHRINK GROUT
NTS	NOT TO SCALE
O/E	OR EQUAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
O.F	OUTSIDE FACE
OPNG(S)	OPENING(S)
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
OPT	OPTION (AL)
PJF	PREMOLDED JOINT FILLER
PL	PLATE
PREFAB	PRE-FABRICATED
PT	POINT
PVC	POLY VINYL CHLORIDE
RAD	RADIUS
REF	REFERENCE / REFER
REINF	REINFORCE (D, ING)
REQD	REQUIRED
REV	REVISION
RO	ROUGH OPENING
RT	RIGHT
SC	SLIP CRITICAL
SEC(T)	SECTION
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SP	SPACE(S, ED)
SPCG	SPACING
SPEC	SPECIFICATION, SPECIFIED
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUC	STRUCTURE(S, URAL)
SYM	SYMMETRICAL
t	THICK(NESS)
T&B	TOP AND BOTTOM
TBD	TO BE DETERMINED
THK	THICK(NESS)
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
T.O.W.	TOP OF WALL
TRNSV	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT(S)	VERTICAL
W	WIDE
W/	WITH
W/O	WITHOUT
WD	WIDTH / WOOD
WP	WORKING POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

ABBREVIATION NOTES:

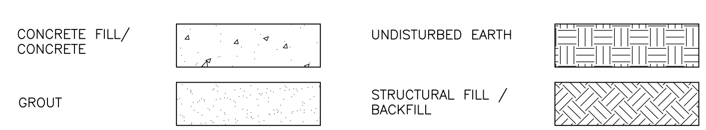
1. ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT MANUAL OF STEEL CONSTRUCTION BY AISC.

2. ABBREVIATIONS AND DESIGNATIONS FOR ALUMINUM MEMBERS MAY BE FOUND IN THE CURRENT MANUAL OF ALUMINUM STANDARDS AND DATA BY THE ALUMINUM ASSOCIATION, INC.

3. WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 1.1 & 1.4.

4. ABBREVIATIONS LISTED ARE FOR USE WITH STRUCTURAL DRAWINGS ONLY. SOME ABBREVIATIONS LISTED MAY NOT BE USED ON THE PLANS.

LEGEND:



f'c = 4000 PSI, f'y = 60,000 PSI, BAR SPACING ≥ 3 db				
REINF SIZE	ld (INCHES) FOR A STRAIGHT BAR		LAP SPLICE LENGTH	
	TOP BAR	OTHER BARS	TOP BAR	OTHER BARS
# 3	20	14	25	18
# 4	26	19	34	24
# 5	32	23	42	30
# 6	39	28	50	36
# 7	45	32	58	42
# 8	52	37	62	48
# 9	58	41	75	54
# 10	64	46	83	60

NOTES:

1. ld = DEVELOPMENT LENGTH, db = BAR DIAMETER

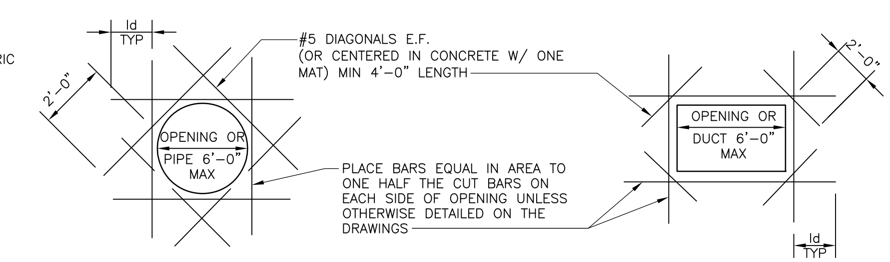
2. TOP BAR IS ANY HORIZONTAL BAR IN WALLS AND SLABS WITH MORE THAN 12" CONCRETE CAST IN ONE LIFT BENEATH IT. HORIZONTAL BARS IN WALLS SHALL BE CONSIDERED AS TOP BARS. VERTICAL BARS IN WALLS MAY BE CONSIDERED AS OTHER BARS.

3. SPLICES IN HORIZONTAL BARS SHALL BE STAGGERED.

4. WHEN LAPPING DIFFERENT SIZE BARS USE LENGTH BASED ON LARGER BAR DIAMETER, UNO.

DEVELOPMENT LENGTH AND LAP SPLICE LENGTH (UNO)

DETAIL C TYP
NTS



1. ld = DEVELOPMENT LENGTH: PROVIDE STD HOOK IF FULL DEVELOPMENT LENGTH IS NOT POSSIBLE.

2. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.

3. DETAIL IS TYP FOR ALL OPENINGS GREATER THAN 10 INCHES AND LESS THAN OR EQUAL TO 6 FEET IN THE LARGER DIMENSION IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE DETAILED ON THE DRAWINGS.

4. EXTRA BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.

EXTRA REINFORCEMENT AT OPENINGS

DETAIL D TYP
NTS

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RECREATION AREA
DEVELOPMENT PLANS 60%
DETAILS

SURVEY NOTES

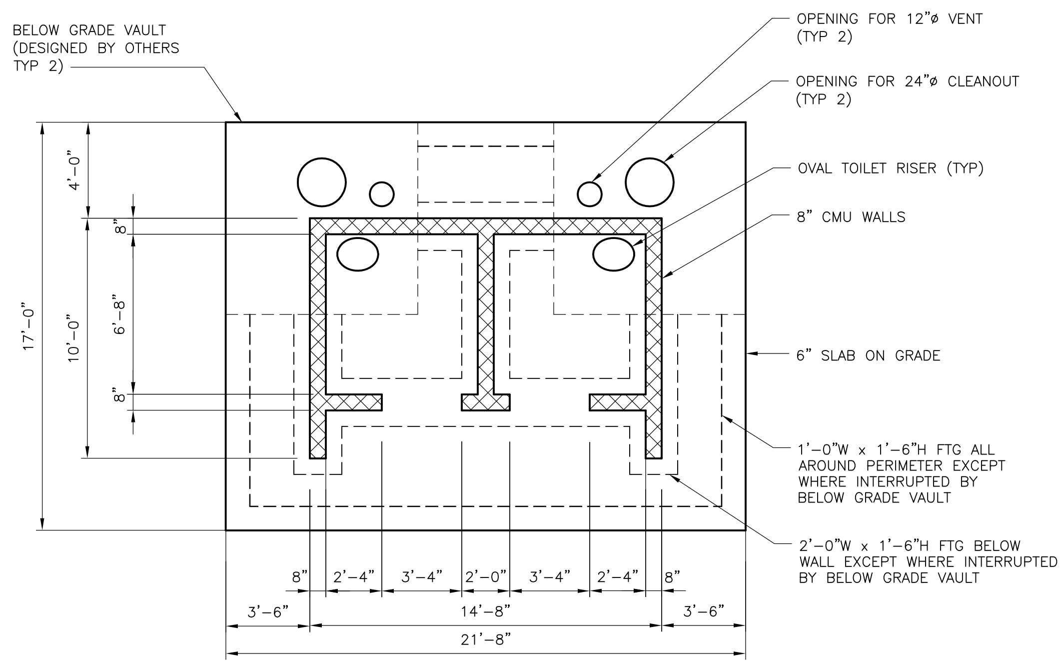
CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2 , U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
STRUC GENERAL NOTES, ABBREVIATIONS, & DETAILS

LB-SCRA-ISS01



NOTE:

1. WHERE THE BOTTOM OF BELOW GRADE VAULTS ARE AT ELEVATION 455.00 OR LOWER THEY SHALL BE DESIGNED TO RESIST BUOYANT FORCES ASSUMING WATER AT ELEVATION 455.00. USE LOAD COMBINATIONS IN ACCORDANCE WITH ASCE 7-10 SECTION 2.4.

VAULT TOILETS FOUNDATION PLAN

DETAIL A
1/4" = 1'-0"

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NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON STRUCTURAL PLANS, SECTIONS, AND DETAILS

LB-SCRA-ISS02

PIPE CROSSING NOTES:

1. WATER AND SEWER MAINS SHALL BE SEPARATED IN ACCORDANCE WITH STATE OF CALIFORNIA REQUIREMENTS IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. REFER TO DETAILS D, E, & F ON SHEET IW03 FOR GRAPHICAL REPRESENTATION. SEPARATION REQUIREMENTS ARE AS FOLLOWS:

   A. A WATER MAIN SHALL NOT BE PLACED:

      I. WITHIN 10 FEET, HORIZONTAL DISTANCE, AND LESS THAN 2 FEET VERTICAL DISTANCE, ABOVE THE TOP OF A SEWER MAIN UNLESS EXTRA PROTECTION IS PROVIDED. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE OR WITH SLIP-JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED. ALTERNATE EXTRA PROTECTION SHALL CONSIST OF ENCASING BOTH THE WATER AND SEWER MAINS IN AT LEAST 6 INCHES OF CONCRETE FOR AT LEAST 10 FEET BEYOND THE AREA COVERED BY THIS SUBSECTION.

   B. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE 8 FEET, MEASURED FROM THE CENTER OF THE MANHOLE.

   C. THE SEPARATION REQUIREMENTS DO NOT APPLY TO BUILDING, PLUMBING, OR INDIVIDUAL HOUSE SERVICE CONNECTIONS.

2. ALL BURIED WATER PIPING TO HAVE 3 FEET MINIMUM COVER, EXCEPT WHERE NOTED.

3. COORDINATE WITH USBR FOR ASSISTANCE IN LOCATING EXISTING SITE UTILITIES.

4. EXISTING UTILITIES SHALL BE FIELD LOCATED, PROTECTED, AND SUPPORTED AS REQUIRED DURING PIPELINE OR OTHER UNDERGROUND CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE CONTRACTING OFFICER OR UTILITY OWNER. WHEN THE PIPELINE CROSSES BENEATH EXISTING UTILITIES, SPECIFIED PIPELINE EMBEDMENT MATERIAL SHALL EXTEND FROM BENEATH THE NEW PIPELINE TO AN ELEVATION OF 6" ABOVE THE CROSSED UTILITY.

5. REPAIR OR REPLACEMENT WORK ON EXISTING UTILITIES, INCLUDING OVERHEAD POWER LINES AND POLES, SHALL BE PERFORMED BY THE UTILITY OWNER. ALL COSTS ASSOCIATED WITH REPAIR, AND/OR REPLACEMENT OF EXISTING UTILITIES DUE TO CONTRACTORS ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. ALL EXISTING UTILITIES MUST REMAIN IN SERVICE DURING AND AFTER CONSTRUCTION OR UNTIL DIRECTED BY THE CONTRACTING OFFICER.

7. ANY KNOWN SEWERS, WATER MAINS, TELEPHONE CONDUITS, ELECTRIC CABLES, AND OTHER UNDERGROUND STRUCTURES ARE SHOWN ON THE DRAWINGS ONLY TO THE EXTENT SUCH INFORMATION HAS BEEN MADE AVAILABLE OR DISCOVERED. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION AND QUANTITIES OF UTILITIES AND STRUCTURES SHOWN. THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR BUT IS NOT GUARANTEED TO BE EITHER CORRECT OR COMPLETE AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED. THE CONTRACTOR SHALL MAKE SUCH INVESTIGATION AS NECESSARY TO VERIFY ITS CORRECTNESS AND COMPLETENESS.

GENERAL UTILITY NOTES:

1. RETURN ALL DISTURBED SURFACE FEATURES TO ITS ORIGINAL CONDITION OR AS CALLED FOR ON THE CONTRACT DOCUMENTS, WHICHEVER IS MORE STRINGENT. ANY DISTURBANCES TO PROPERTY NOT OWNED BY THE USBR SHALL REQUIRE THE CONTRACTOR TO NOTIFY THE CONTRACTING OFFICER AND EACH PROPERTY OWNER A MIN. 72 HOURS IN ADVANCE. ANY IMPACTED PROPERTY SHALL BE RESTORED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION WITHIN AREA.

2. WHEN CONTRACTOR DESIRES ANY CHANGES TO SLOPE OF PIPES CREATING HIGH OR LOW POINTS WITHIN THE PIPELINE, THE CONTRACTING OFFICER MUST BE NOTIFIED.

3. MAKE EXPLORATORY EXCAVATIONS AT ALL LOCATIONS WHERE PROPOSED WORK CROSSES, CONNECTS TO, OR RUNS ADJACENT TO EXISTING UTILITIES. THE EXPLORATORY EXCAVATION SHALL BE MADE SUFFICIENTLY IN ADVANCE OF THE WORK, SO AS NOT TO DELAY CONSTRUCTION. IF THERE IS A CONFLICT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONTRACTING OFFICER OF THE CONFLICT'S LOCATION, ELEVATION, UTILITY TYPE AND SIZE.

4. RESIDENTIAL AND COMMERCIAL SERVICE CONNECTIONS INCLUDING TELEPHONE, ELECTRICAL, GAS, WATER, SEWER ARE NOT ALWAYS SHOWN. FIELD VERIFY LOCATIONS PRIOR TO NEW WORK.

5. SCHEDULE ALL EXISTING UTILITY LINE SHUTDOWNS WITH CONTRACTING OFFICER.

6. INSTALL TRACER WIRE AND WARNING TAPE ALONG ENTIRE LENGTH OF NEW WATERLINES.

7. ALL PLASTIC PIPE AND FITTINGS MUST BEAR THE SEAL (NSF-PW) OF THE NATIONAL SANITATION FOUNDATION.

8. ALL MATERIALS (CHEMICAL, SEALANTS, GASKETS, PIPE, ETC...) THAT COME INTO CONTACT WITH WATER OR A WATER TREATMENT CHEMICAL SHALL CONFORM TO ANSI/NSF STANDARD 61. CONFORMANCE WILL BE DETERMINED BY PROPER ANSI LABELING OF THE PRODUCT.

9. CONSTRUCTION MATERIALS AND PRODUCTS USED IN THE WATER SYSTEM SHALL BE LEAD FREE.

10. WATER LINES SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA C605-94 STANDARD. ON BURIED PIPING, THE AREA AROUND FITTINGS MUST REMAIN EXPOSED, NOT BACKFILLED, IN ORDER TO VISUALLY OBSERVE IF FITTINGS ARE LEAKING DURING TESTING.

11. ALL BACKFLOW PREVENTION ASSEMBLIES SHALL MEET ?. BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED AS CLOSE AS PRACTICABLE TO ALL SERVICE CONNECTIONS.

12. PIPE, FITTINGS, VALVES, FIRE HYDRANTS, AND OTHER APPURTENANCES SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION, AMERICAN NATIONAL STANDARDS INSTITUTE, OR FEDERAL GOVERNMENT.

13. ALL NEW, CLEANED, OR REPAIRED ELEMENTS, INCLUDING WATER STORAGE TANKS, WATER LINES, FITTINGS, VALVES, FIRE HYDRANTS, ETC., OF THE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA REQUIREMENTS.

14. ALL HOSE BIBBS SHALL BE PROTECTED AGAINST BACK SIPHONAGE WITH AN ATMOSPHERIC VACUUM BREAKER.

15. ALL FITTINGS AND HYDRANT LATERALS TO BE RESTRAINED.

RECLAMATION
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CONTRACTOR
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NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON RECREATION AREA WATER DETAILS I

LB-SCRA-IW01

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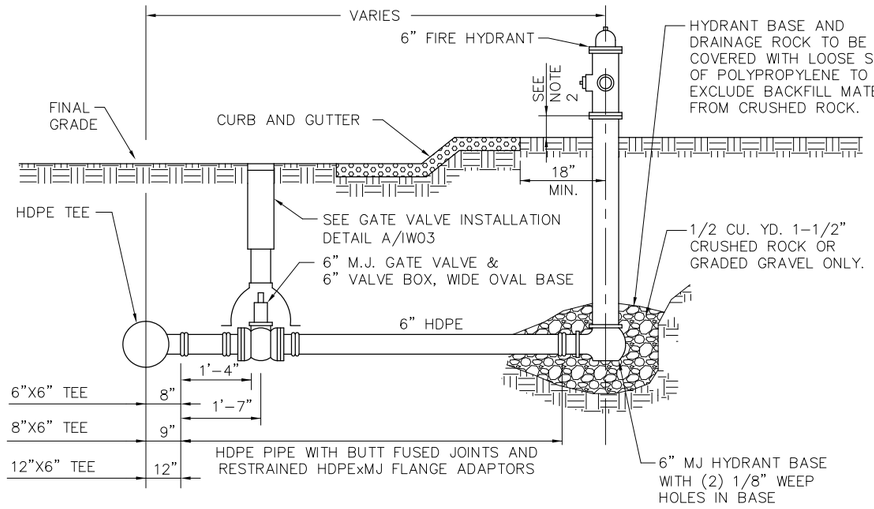
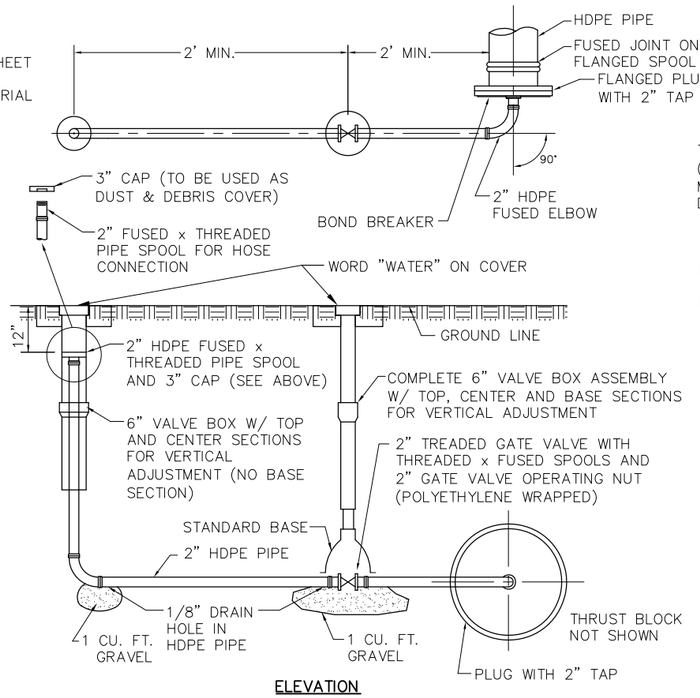


NOTES:

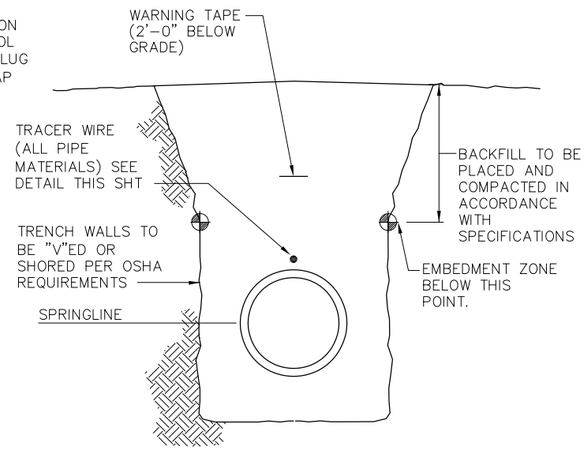
1. FIRE HYDRANT SHALL BE "MUELLER SUPER CENTURION MODEL A-421". PUMPER AND HOSE CONNECTIONS AS STATED IN NOTE 5. "AMERICAN FLOW CONTROL AMERICAN DARLING MARK 73-2" OR AN APPROVED EQUAL IS ALSO ACCEPTABLE.
2. FIRE HYDRANT FLANGE ELEVATION SHALL BE SET A MINIMUM OF 3-INCHES ABOVE THE FINAL GRADE AND A MAXIMUM OF 6-INCHES ABOVE FINAL GRADE.
3. THE FIRE HYDRANT SHALL BE VERTICAL.
4. FIRE HYDRANTS TO BE PAINTED WITH A 10 MIL. THICK SHOP COAT OF YELLOW COLOR, HEAVY DUTY ALKYD ENAMEL PAINT, CONFORMING TO FEDERAL COLOR NO. 13538 SPECIFICATIONS.
5. PUMPER AND HOSE CONNECTIONS SHALL BE PER "NATIONAL STANDARD SPECIFICATION" PUMPER NOZZLE: 4 1/2" - THREADS, 5 3/4" O.D.; 4 THREADS PER INCH; HOSE NOZZLE: 2 1/2" - THREADS, 3 1/16" O.D.; 7 1/2" THREADS PER INCH.

FIRE HYDRANT (A IW02)
NO SCALE

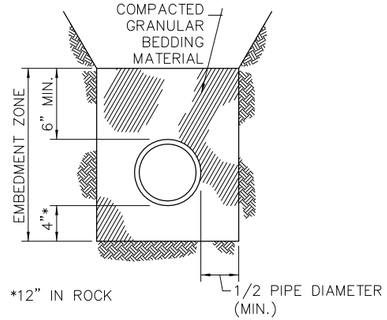


ELEVATION

END PLUG BLOW-OFF (B IW02)
NO SCALE

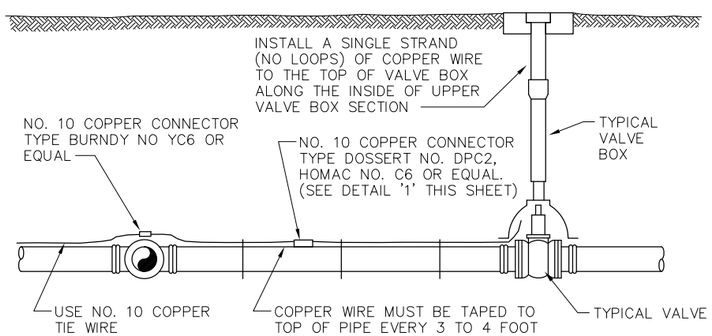


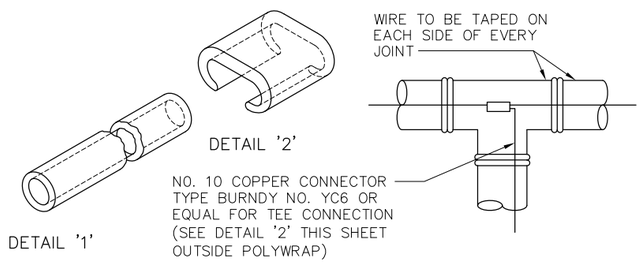
TYPICAL TRENCH (C IW04)
NO SCALE



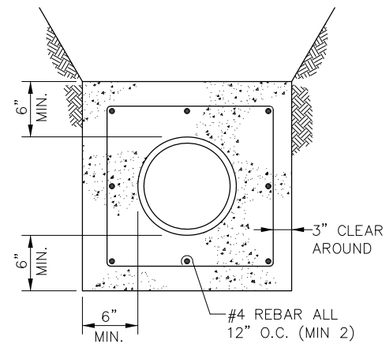
CLASS D TRENCH BACKFILL (E IW02)
NO SCALE

NOTES:
1. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.





TRACER WIRE (D IW02)
NO SCALE



TYPICAL CONCRETE ENCASEMENT (F IW02)
NO SCALE

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Managing Water in the West

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NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON RECREATION AREA WATER DETAILS II

LB-SCRA-IW02

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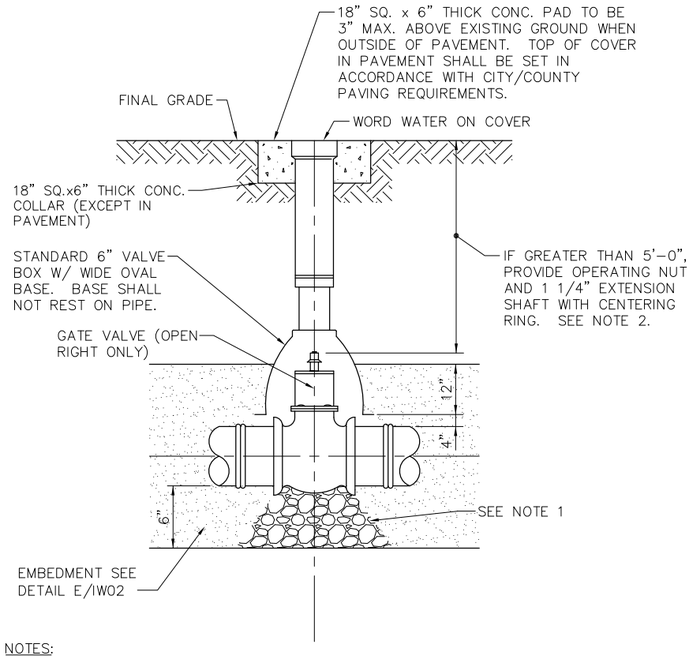
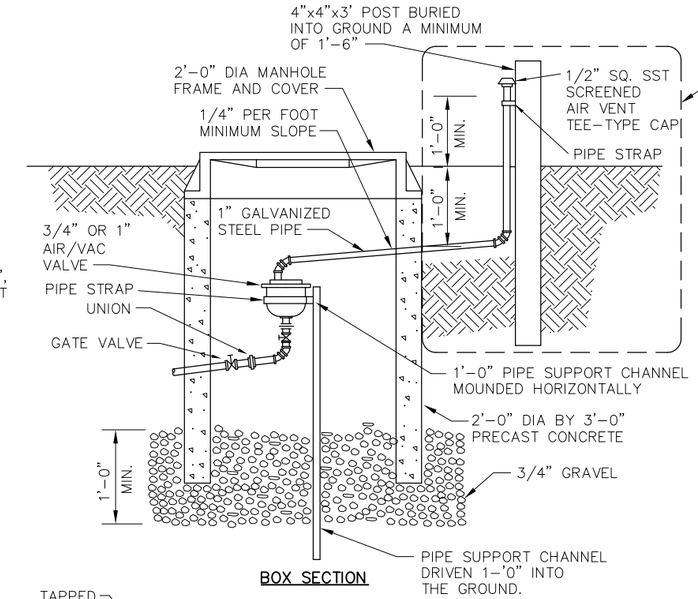


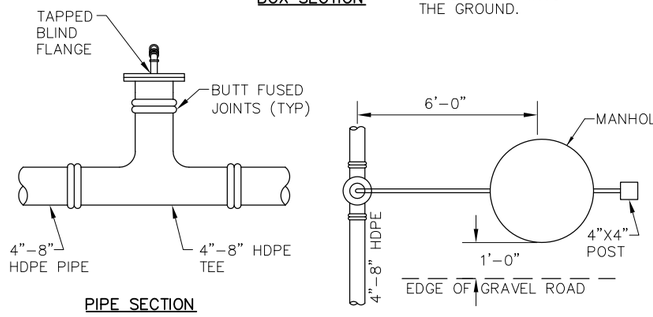
NOTES:

1. CARE SHALL BE TAKEN WHEN INSTALLING VALVES TO ASSURE PROPER SUPPORT OF THE VALVE. 3/4" CRUSHED ROCK SHALL BE INSTALLED UNDER THE VALVE TO PROVIDE PROPER SUPPORT.
2. OPERATING NUTS SHALL NOT BE SET CLOSER THAN THREE (3) FEET TO FINAL GRADE OR DEEPER THEN FIVE (5) FEET FROM FINAL GRADE. OPERATOR EXTENSIONS SHALL BE CONNECTED TO VALVE OPERATOR USING SET SCREW.
3. GATE VALVE SHALL BE POLYETHYLENE WRAPPED.

GATE VALVE INSTALLATION (A/IW03)
NO SCALE



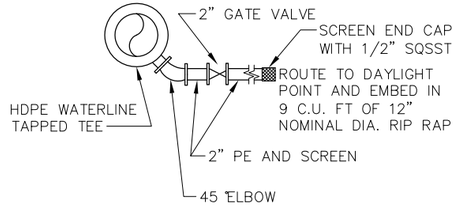
BOX SECTION



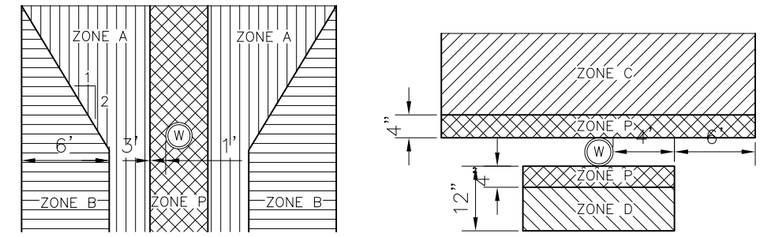
PIPE SECTION

PLAN

3/4" & 1" AIR/VAC VALVE AND VAULT (B/IW03)
NO SCALE

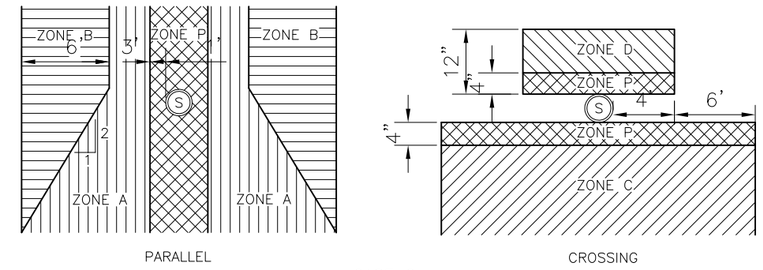


WATER LINE DRAIN (C/IW03)
NO SCALE



CASE 1
NEW SEWER MAIN
FIGURE 1

ZONE P IS A PROHIBITED ZONE. SECTION 64630(E)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.



CASE 2
NEW WATER MAIN
FIGURE 2

ZONE P IS A PROHIBITED ZONE. SECTION 64630(E)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.

NOTES AND DEFINITIONS

A. COMPRESSION JOINT – A PUSH-ON JOINT THAT SEALS BY MEANS OF THE COMPRESSION OF A RUBBER RING OR GASKET BETWEEN THE PIPE AND A BELL OF COUPLING.
B. DIMENSIONS ARE FROM THE OUTSIDE OF WATER MAIN TO OUTSIDE OF SEWER LINE OR MANHOLE.
C. FUSED JOINT – THE JOINING OF SECTIONS OF PIPE USING THERMAL OR CHEMICAL BONDING PROCESSES.
D. GROUND WATER – SUBSURFACE WATER FOUND IN THE SATURATION ZONE.
E. HEALTH AGENCY – THE STATE DEPOARTMENT OF HEALTH SERVICES. FOR THOSE WATER SYSTEMS SUPPLYING LESS THAN 200 SERVICE CONNECTIONS, THE LOCAL HEALTH OFFICER SHALL ACT FOR THE DEPARTMENT OF HEALTH SERVICES.
F. HOUSE LATERAL – A SEWER PIPE CONNECTING THE BUILDING DRAIN AND THE MAIN SEWER LINE.
G. LOW HEAD WATER MAIN – ANY WATER MAIN WHICH HAS A PRESSURE OF 5 PSI OR LESS AT ANY TIME AT ANY POINT IN THE MAIN.
H. MECHANICAL JOINT – BOLTED JOINT
I. RATED WORKING WATER PRESSURE OR PRESSURE CLASS – A PIPE CLASSIFICATION SYSTEM BASED UPON INTERNAL WORKING PRESSURE OF THE FLUID IN THE PIPE, TYPE OF PIPE MATERIAL, AND THE THICKNESS OF THE PIPE WALL.
J. SLEEVE – A PROTECTIVE TUBE OF STEEL WITH A WALL THICKNESS OF NOT LESS THAN ONE-FOURTH INCH INTO WHICH A PIPE IS INSERTED.
K. WATER SUPPLIER – ANY PERSON WHO OWNS OR OPERATES A PUBLIC WATER SYSTEM

CROSSING OF WATER AND SEWER LINES (D/IW03)
NO SCALE

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Managing Water in the West

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STEELE CANYON RECREATION AREA WATER DETAILS III

LB-SCRA-IW03

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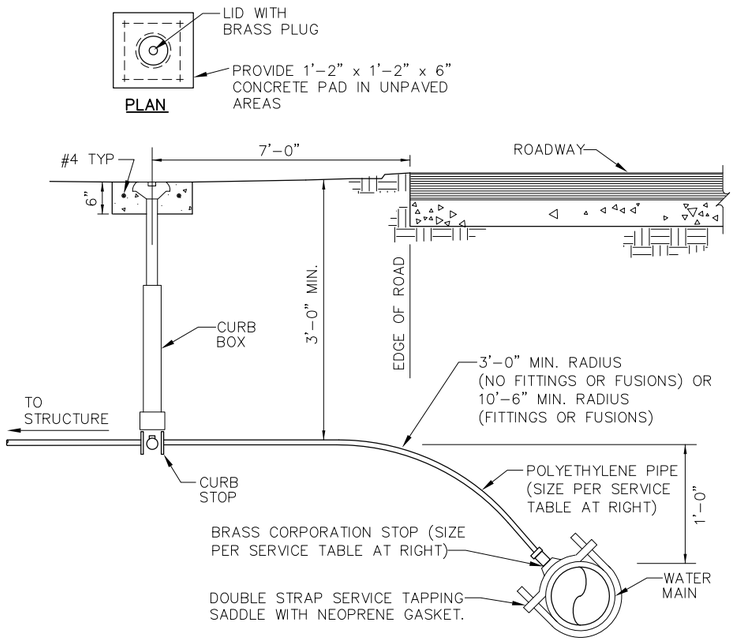


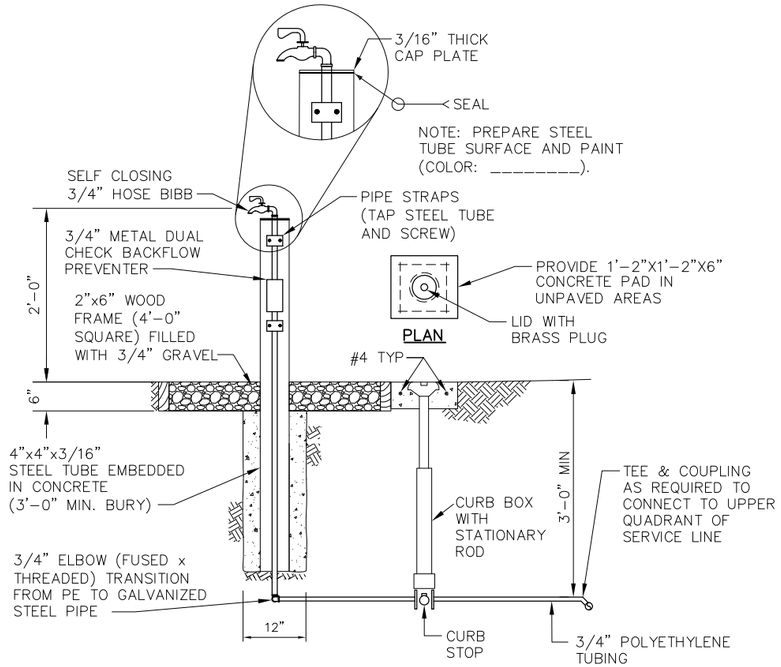
STRUCTURE WATER SERVICE

NO SCALE

A IW04

WATER SERVICE SIZE TABLE	
FACILITY DESCRIPTION	SERVICE SIZE
PARK MODEL	2"
CABIN	2"
FISH CLEANING STATION	1 3/4"
CONCESSIONAIRE BUILDING	1 3/4"
RESTURANT	1 3/4"
RETAIL STORE	1 1/2"
COMFORT STATION	2"
RV DUMP STATION	3/4"
HOSE BIBB	3/4"
YARD HYDRANT	3/4" *

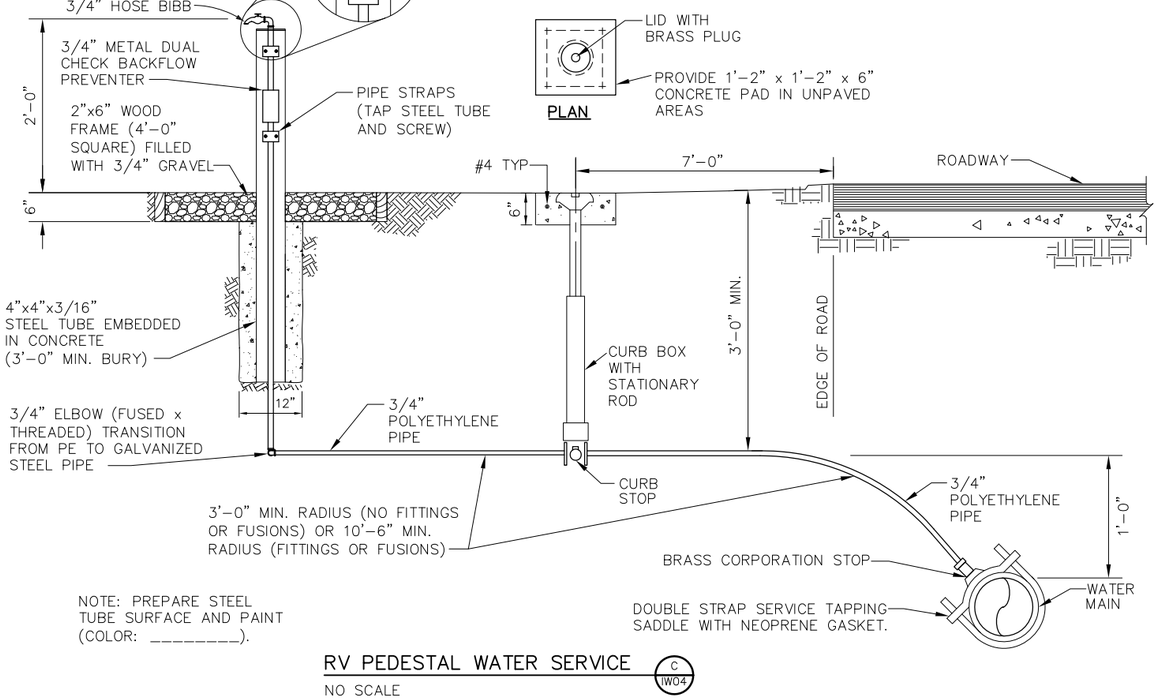
* UNLESS NOTED OTHERWISE ON PLANS



CAMPGROUND YARD HYDRANT

NO SCALE

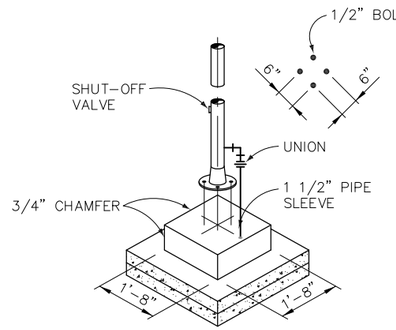
B IW04



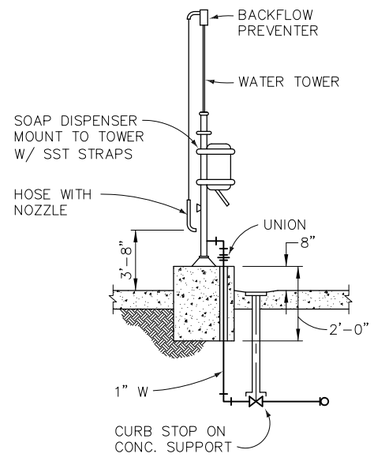
RV PEDESTAL WATER SERVICE

NO SCALE

C IW04



TOWER INSTALLATION



RV DUMP STATION WATER TOWER

NO SCALE

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON RECREATION AREA WATER DETAILS IV

LB-SCRA-IW04

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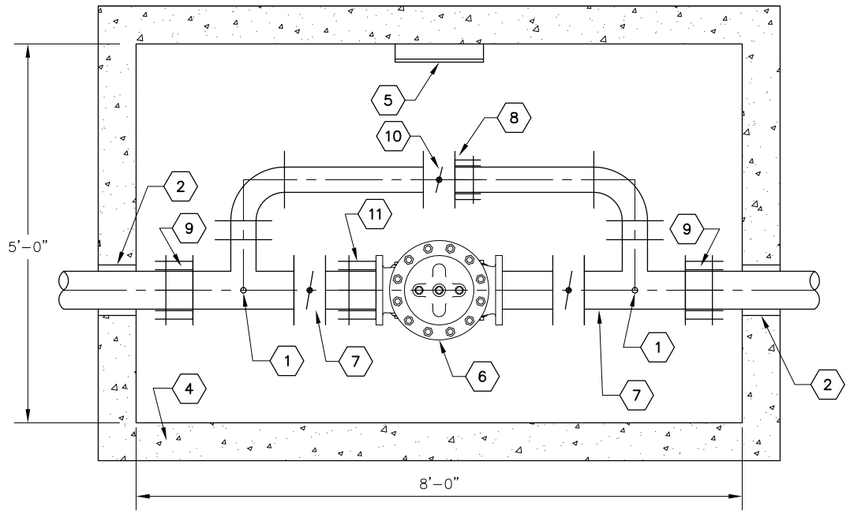


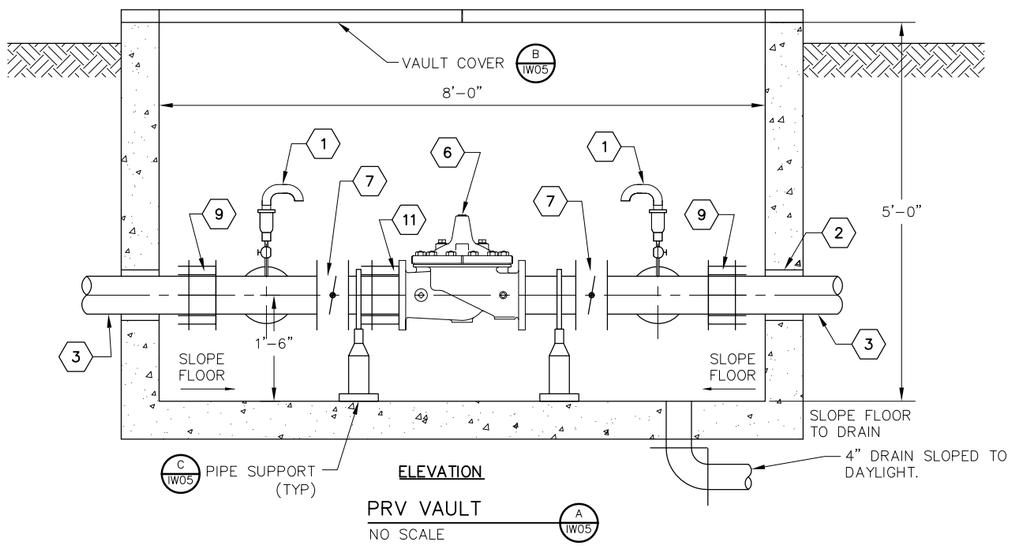
PLAN

SPECIFIC NOTES:

1. 1" TAP AND 1" AIR/VAC W/ 1/16" AIR RELEASE ASSEMBLY
2. SLEEVE AND CAULK OPENINGS AROUND PIPE PENETRATION, TYP.
3. 6" HDPE PIPE
4. PRECAST CONCRETE BOX (8'x5' INSIDE DIMENSIONS)
5. LADDER RUNGS AT 12" ON CENTER. CAST IN VAULT WITH FIRST RUNG 3" BELOW TOP OF ROOF SLAB.
6. 6" PRV VALVE
7. 6" BUTTERFLY VALVE
8. 4" FLANGE COUPLING ADAPTER
9. 6" FLANGE COUPLING ADAPTER (HDPE TO FLANGED)
10. 4" BUTTERFLY VALVE
11. 6" FLANGE COUPLING ADAPTOR

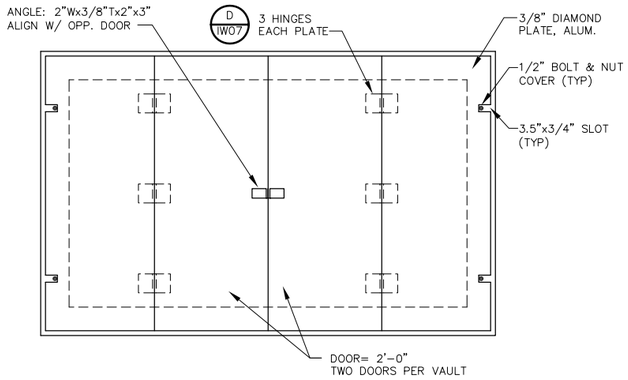
GENERAL NOTES:

1. ALL VAULTS SHALL HAVE AN INSIDE HEIGHT OF 5'–0". PIPING CENTERLINES SHALL BE SET 1'–0" ABOVE FLOOR OF VAULT. INSIDE DIMENSION PRECAST CONCRETE VAULT MEETING ASTM C–478–64T. PRECAST MFR. TO DESIGN FOR H20–44 LOADING AND PROVIDE STAMPED PLANS BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA OF STRUCTURAL DESIGN 2 WEEKS PRIOR TO CONSTRUCTION. 6" MINIMUM WALL THICKNESS
2. ALL INTERIOR VAULT PIPING TO BE FLANGED DIP.
3. SEE TYPICAL VAULT TOP COVER DETAILS ON THIS SHEET.
4. PROVIDE CONCRETE FLOOR WITH 4" DRAIN FLUSH WITH FLOOR AND PIPE TO DAYLIGHT WHERE GROUND IS SLOPED. SLOPE FLOOR TOWARDS DRAIN.
5. USE TYPE V ASTM C150 PORTLAND CEMENT ON ALL VAULTS.

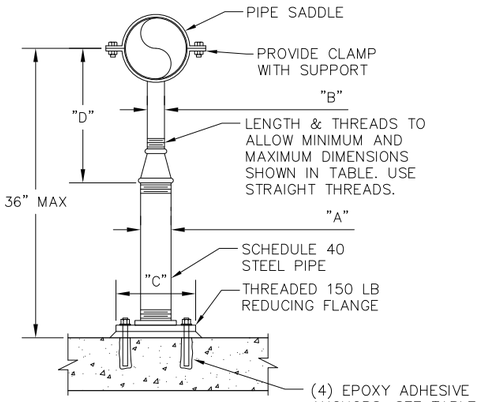


ELEVATION

PRV VAULT
NO SCALE
A IW05



VAULT COVER
NO SCALE
B IW05



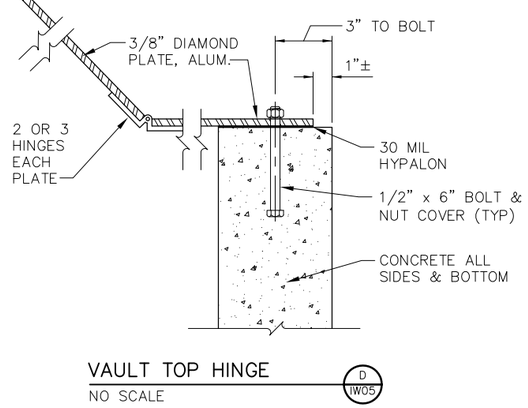
FLOOR PIPE SUPPORT SCHEDULE
DIMENSIONS IN INCHES

PIPE SIZE	"A"	"B"	"C"	"D"		ANCHORS	
				MINIMUM	MAXIMUM	DIA	EMBED
≤ 2 1/2	2 1/2	1 1/2	9	8	13	5/8	5
3	2 1/2	1 1/2	9	8 1/2	13 1/2	5/8	5
3 1/2	2 1/2	1 1/2	9	8 1/2	13 1/2	5/8	5
4	3	2 1/2	9	9 1/2	14	5/8	5
6	3	2 1/2	9	10 1/2	15 1/2	5/8	5
8	3	2 1/2	9	11 1/2	16 1/2	5/8	5

NOTES:

1. PIPE SUPPORT TO BE GALVANIZED AFTER FABRICATION

PIPE SUPPORT
NO SCALE
C IW05



VAULT TOP HINGE
NO SCALE
D IW05

RECLAMATION
Managing Water in the West

N

STA. | CDM SMITH | 105904.2330.019

YYYY–MM–DD ACCEPTED:

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

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STATION NAME (CITY, ST) YYYY–MM–DD

STEELE CANYON RECREATION AREA
WATER DETAILS V

LB–SCRA–IW05

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ONE-LINE SYMBOLOGY

OR — CIRCUIT BREAKER (CB). RATING AND NO. OF POLES AS SHOWN. WHEN SPECIFIED TYPE, OTHER THAN MCCB, IS REQUIRED, X INDICATES TYPE, Y INDICATES TRIP FEATURES.

TYPES:
- MCCB – MOLDED CASE
- ICCB – INSULATED CASE
- LVP – LOW VOLTAGE POWER
- MCP – MOTOR CIRCUIT PROTECTOR (RATING PER CONNECTED LOAD)

TRIP FEATURES:
- L – LONG
- S – SHORT
- I – INSTANTANEOUS
- G – GROUND

GFP — GROUND FAULT PROTECTION

FUSE, SIZE, AND NUMBER OF FUSES AS NOTED

FUSED CUTOUT, CURRENT RATING, FUSE SIZE, AND NUMBER OF POLES AS NOTED

FUSIBLE SWITCH, CURRENT RATING, FUSE SIZE, AND QUANTITY AS NOTED

NON-FUSED SWITCH, CURRENT RATING, AND NUMBER OF POLES AS NOTED

INDICATES THAT ALL OR PART OF CIRCUIT MAY BE ROUTED IN DUCT BANK OR UNDERGROUND

DISCONNECT OR DRAWOUT CONNECTION

L 1A — POLE MOUNTED LIGHT

P 50A — RV, PARK MODEL POWER PEDESTAL. 50/30/20A

P 30A — STANDARD SITES POWER PEDESTAL. 30/20A

CTP 60A — CONCESSIONAIRE INSTALLED SERVICE. FOR CABINS, FISH CLEANING, COMFORT STATIONS, AND ALL OTHER SERVICES, AMPERAGE AS INDICATED.

TRANSFORMER
- Δ 3-PHASE, 3-WIRE DELTA CONNECTION
- Y 3-PHASE, 4-WIRE GROUNDED WYE CONNECTION

LP100 208/120V 3ø, 4W — SWITCHBOARD OR PANELBOARD; NAME, VOLTAGE, PHASE, NUMBER OF WIRES WHEN INDICATED

ONE-LINE SYMBOLOGY

100 KVA — NON-MOTOR LOAD WITH DESIGN KVA, KW, OR AMP

VOLTAGE TRANSFORMER (VT OR PT)

CURRENT TRANSFORMER (CT)

kWH — UTILITY KWATT-HOUR METER PER UTILITY REQUIREMENTS

GROUND

SPD — LOW VOLTAGE SURGE PROTECTIVE DEVICE

POWER AND LIGHTING SYMBOLOGY

X / Y — FUSED DISCONNECT OR SAFETY SWITCH, 3P, X INDICATES AMP RATING GREATER THAN 30A, Y INDICATES FUSE SIZE

CB — SEPARATELY MOUNTED CIRCUIT BREAKER; SEE ELECTRICAL ONE - LINE DIAGRAM OR SCHEDULE FOR DESCRIPTION

CONTROL PANEL INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT

CONTROL PANEL WITH DISCONNECT SWITCH INTEGRAL OR PROVIDED WITH ASSOCIATED EQUIPMENT

J — JUNCTION OR PULL BOX

PANELBOARD (250V TO 600V)

PANELBOARD (LESS THAN 250V)

X — ELECTRICAL EQUIPMENT ENCLOSURE: SWITCHBOARD, MOTOR CONTROL CENTER, CONTROL PANEL, TRANSFORMER OR OTHER EQUIPMENT AS INDICATED. ESTIMATED SIZE AS INDICATED. WHEN USED X INDICATES EQUIPMENT TYPE.

EQUIPMENT TYPES:
- ATS – AUTOMATIC TRANSFER SWITCH
- CP – CONTROL PANEL
- MTS – MANUAL TRANSFER SWITCH
- MCC – MOTOR CONTROL CENTER
- UPS – UNINTERUPTABLE POWER SUPPLY
- VFD – VARIABLE FREQUENCY DRIVE
- SB – SWITCHBOARD
- SG – SWITCHGEAR
- T – TRANSFORMER

POWER AND LIGHTING SYMBOLOGY

POLE/STANCHION MOUNTED LUMINAIRE – LED

DOUBLE POLE/STANCHION MOUNTED LUMINAIRE – LED

CONDUIT AND WIRING SYMBOLOGY

CONDUIT TURNING UP

CONDUIT TURNING DOWN

HOME RUN TO PANEL, 2 #12, 1 #12G IN 3/4"C UNLESS OTHERWISE NOTED

CIRCUIT RUN BETWEEN DEVICES EXPOSED IN NON-ARCHITECTURALLY FINISHED AREAS; CONCEALED IN ARCHITECTURALLY FINISHED AREAS. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

CONDUIT RUN BETWEEN DEVICES CONCEALED IN NON-ARCHITECTURALLY FINISHED AREAS OR UNDER FLOOR SLAB. CONDUIT AND CONDUCTOR SIZES SHALL BE THE SAME AS THE HOMERUN FOR THE CIRCUIT.

FUTURE

CIRCUIT HASH MARKS (WHEN INDICATED); LONG, SHORT, SINGLE DOT, AND DOUBLE DOT REPRESENT PHASE, NEUTRAL, EQUIPMENT GROUND, AND ISOLATED EQUIPMENT GROUND, RESPECTIVELY. #12 IN 3/4" CONDUIT UNLESS OTHERWISE INDICATED.

CIRCUIT CONTINUATION

CONDUIT STUBBED OUT AND CAPPED

CORD AND PLUG CONNECTION

XXX OR XXX — CONDUIT TAG OR CIRCUIT NUMBER – WIRE AND CONDUIT SIZE AS SPECIFIED IN CIRCUIT SCHEDULE ON THE SHEETS

GROUND CABLE

GROUND ROD

GROUND ROD IN TEST WELL

GROUND CONNECTION

SITE NAMING CONVENTION

(SITE)-(PANELBOARD #)-(TYPE)-(NUMBER)

SITE
- PC – PUTAH CANYON
- MS – MONTICELLO SHORES
- BP – BERRYESSA POINT
- SC – STEELE CANYON
- SF – SPANISH FLAT

TYPE
- AE – ACCESSIBLE ENTRY
- BOAT – BOAT REPAIR OR SERVICE
- BOOST – BOOSTER PUMP
- CAB – CABIN
- CH – CAMP HOST SITE
- COB – CONCESSIONAIRE WITH BOAT REPAIR SHOP
- CON – CONCESSIONAIRE
- CS – COMFORT STATION
- DBS – DRY BOAT STORAGE
- EH – EMPLOYEE HOUSING
- FC – FISH CLEANING STATION
- FM – FLOATING MARINA
- FUEL – FUEL STORAGE OR DISPENSING
- GW – GROUND WATER PUMP
- MARINA – MARINA
- PM – PARK MODEL
- PS – PUMP STATION
- PLL – PARKING LOT LIGHT
- RV – RECREATIONAL VEHICLE SITE
- REST – RESTAURANT
- SS – STANDARD SITE WITH UTILITIES
- WWT – WASTE WATER TREATMENT FACILITY

1. THIS IS A STANDARD ELECTRICAL SYMBOLOGY SHEET. NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
3. SEE P&ID LEGEND SHEET FOR PROJECT-SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS, AND PIPING SYSTEM ABBREVIATIONS.

RECLAMATION
Managing Water in the West

STA, CDM SMITH
105904.2330.019
YYYY-MM-DD
ACCEPTED:

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

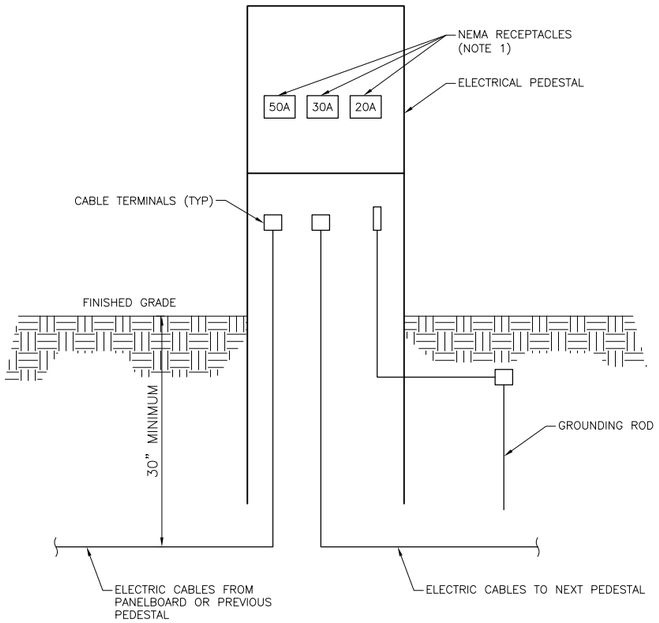
SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 20163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON ELECTRICAL LEGEND

LB-SCRA-IE01

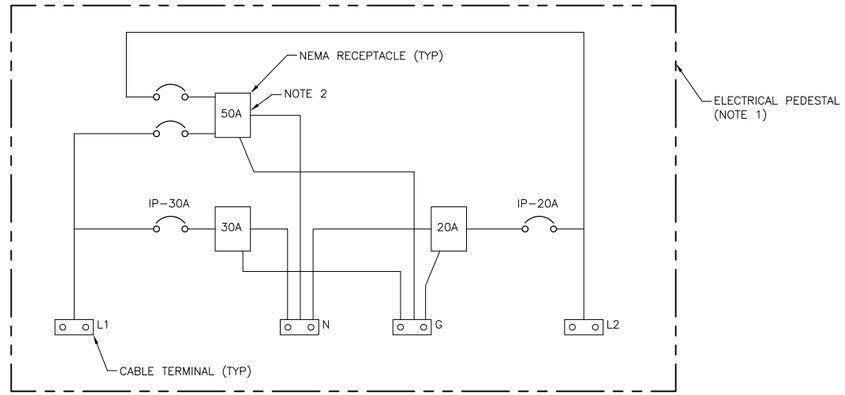


NOTES:

1. NO 50A RECEPTACLE AT STANDARD SITES.

ELECTRICAL PEDESTAL (A / IE02)

NO SCALE

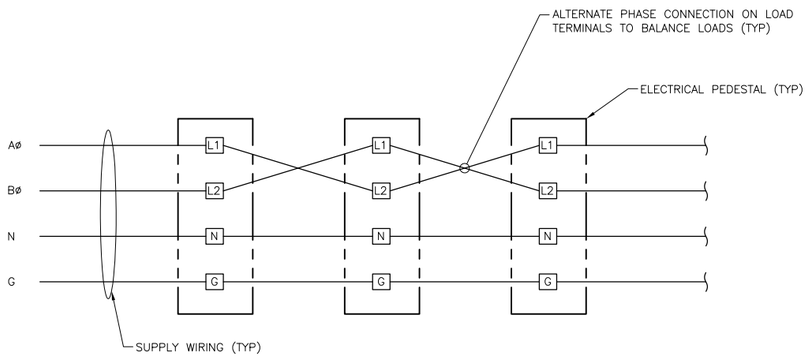


NOTES:

1. ELECTRICAL PEDESTAL IS ASSEMBLED BY MANUFACTURER.
2. 50A RECEPTACLE INCLUDED ONLY WHERE INDICATED.

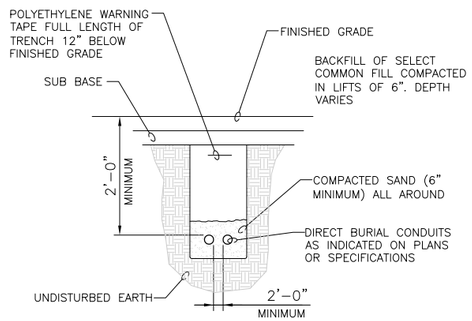
ELECTRIC PEDESTAL INTERNAL WIRING SCHEMATIC (B / IE02)

NO SCALE



PEDESTAL–TO–PEDESTAL WIRING SCHEMATIC (C / IE02)

NO SCALE



DIRECT–BURIED CONDUIT DETAIL (D / IE02)

NO SCALE

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Managing Water in the West

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CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
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NAME
TITLE
STATION NAME (CITY, ST) YYYY–MM–DD

STEELE CANYON
ELECTRICAL DETAILS

LB–SCRA–IE02

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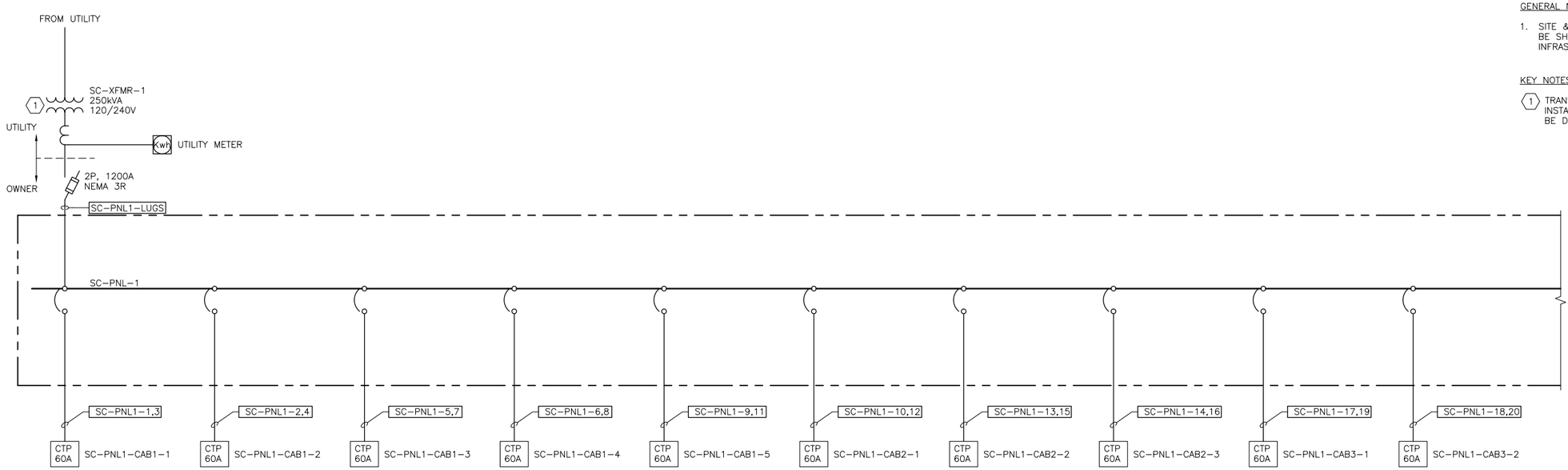
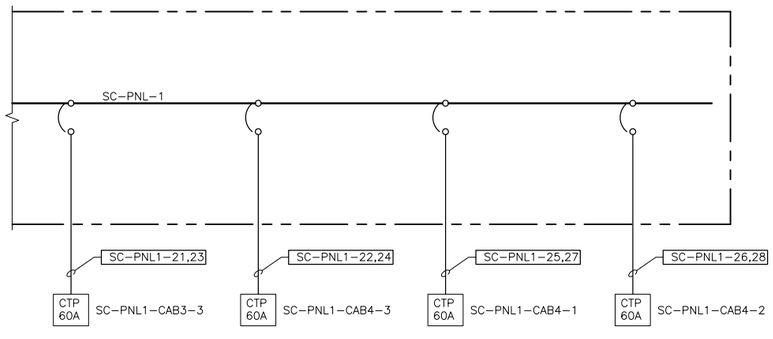


GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.



SC-PNL-1 ONELINE

		PANELBOARD: SC-PNL-1	BUS: COPPER						MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 1200A						LOCATION: STEELE CANYON PNL 1	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R								"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
7200		SC-PNL1-CAB1-1	2	60	1	2	60	2	SC-PNL1-CAB1-2	7200	
	7200	-	-	-	3	4	-	-	-		7200
7200		SC-PNL1-CAB1-3	2	60	5	6	60	2	SC-PNL1-CAB1-4	7200	
	7200	-	-	-	7	8	-	-	-		7200
7200		SC-PNL1-CAB1-5	2	60	9	10	60	2	SC-PNL1-CAB2-1	7200	
	7200	-	-	-	11	12	-	-	-		7200
7200		SC-PNL1-CAB2-2	2	60	13	14	60	2	SC-PNL1-CAB2-3	7200	
	7200	-	-	-	15	16	-	-	-		7200
7200		SC-PNL1-CAB3-1	2	60	17	18	60	2	SC-PNL1-CAB3-2	7200	
	7200	-	-	-	19	20	-	-	-		7200
7200		SC-PNL1-CAB3-3	2	60	21	22	60	2	SC-PNL1-CAB4-1	7200	
	7200	-	-	-	23	24	-	-	-		7200
7200		SC-PNL1-CAB4-2	2	60	25	26	60	2	SC-PNL1-CAB4-3	7200	
	7200		-	-	27	28	-	-	-		7200
					29	30					
					31	32					
					33	34					
					35	36					
					37	38					
					39	40					
					41	42					
50400		TOTAL "A"	100800						TOTAL "A"	50400	
	50400	TOTAL "B"	100800						TOTAL "B"		50400
TOTAL LOAD =			201600								

PANELBOARD SCHEDULE SC-PNL-1

RECLAMATION
Managing Water in the West

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STA. COM SMITH 105904.2330.019

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

CONTRACTOR
DRAWN

ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL1-ONELINE

LB-SCRA-IE03

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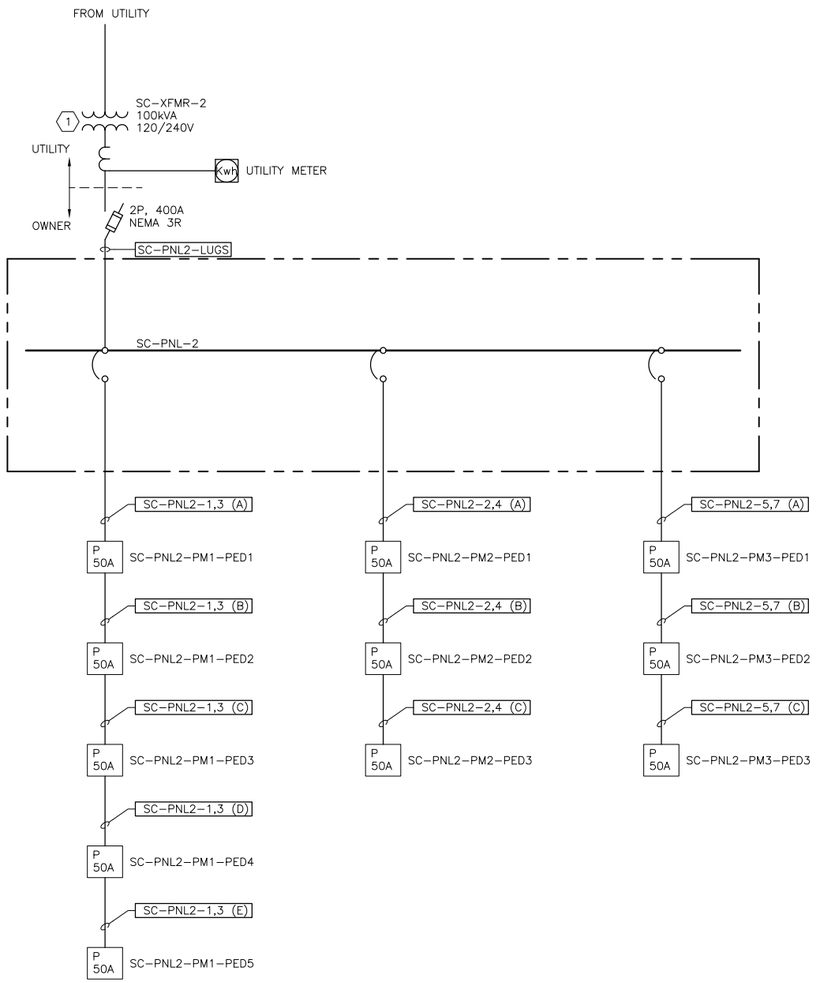

SC-PNL-2 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

		PANELBOARD: SC-PNL-2							MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE							LOCATION: STEELE CANYON PNL 2	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R								"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
15600		SC-PNL2-PM1-PED 1,2,3,4,5	2	220	1	2	125	2	SC-PNL2-PM2-PED 1,2,3	11520	
	15600	-	-	-	3	4	-	-	-		11520
11520		SC-PNL2-PM3-PED 1,2,3	2	125	5	6					
	11520	-	-	-	7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
27120		TOTAL "A"			38640				TOTAL "A"	11520	
	27120	TOTAL "B"			38640				TOTAL "B"		11520
TOTAL LOAD =					77280						

PANELBOARD SCHEDULE SC-PNL-2

RECLAMATION
Managing Water in the West

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LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN

ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL2-ONELINE

LB-SCRA-IE04

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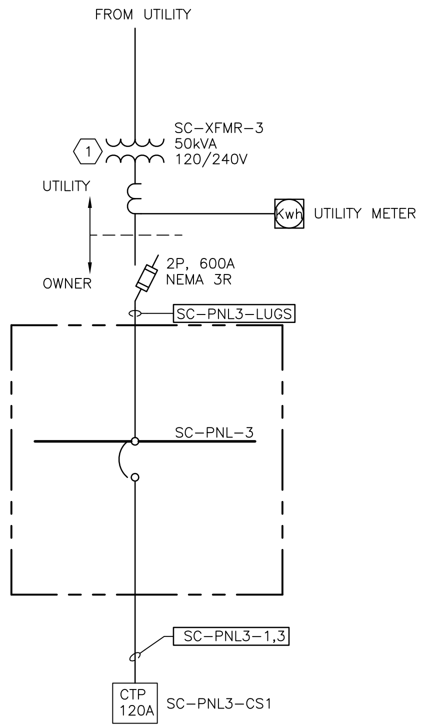

SC-PNL-3 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

		PANELBOARD: SC-PNL-3	BUS: COPPER						MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 600A						LOCATION: STEELE CANYON PNL 3	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R								"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
14400		SC-PNL3-CS1	2	125	1	2					
	14400	-	-	-	3	4					
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
14400		TOTAL "A"		14400				TOTAL "A"		0	
	14400	TOTAL "B"		14400				TOTAL "B"			0
TOTAL LOAD =				28800							

PANELBOARD SCHEDULE SC-PNL-3

RECLAMATION
Managing Water in the West

STA. CDM SMITH
105904.2330.019
YYYY-MM-DD
ACCEPTED:

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LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
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NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL3-ONELINE

LB-SCRA-IE05

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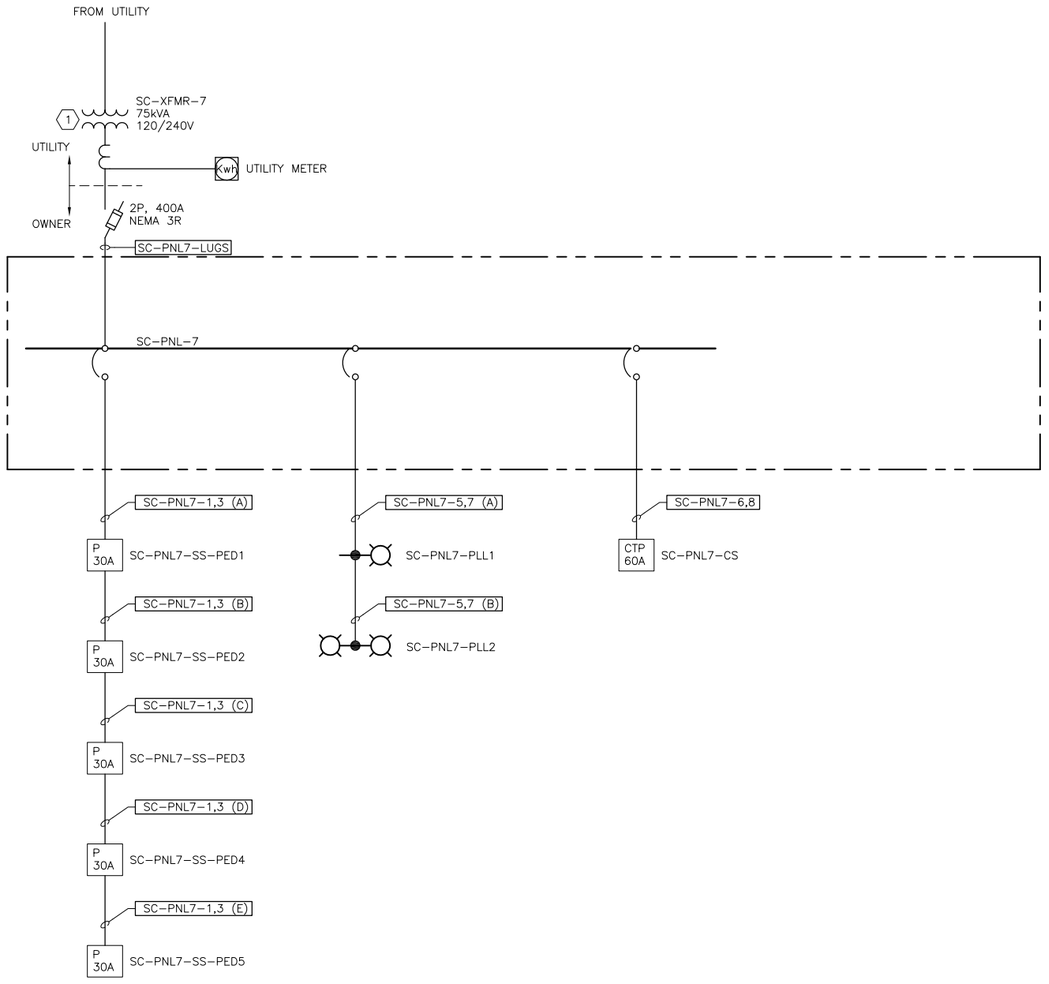

SC-PNL-7 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

		PANELBOARD: SC-PNL-7	BUS: COPPER					MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 400A					LOCATION: STEELE CANYON PNL 7	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R							"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
15960		SC-PNL7-SS-PED 1,2,3,4,5	2	175	1	2					
	15960	-	-	-	3	4					
240		SC-PNL7-PLL 1,2	2	20	5	6	60	2	SC-PNL7-CS	7200	
	240	-	-	-	7	8	-	-	-		7200
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
					31	32					
					33	34					
					35	36					
					37	38					
					39	40					
					41	42					
16200		TOTAL "A"	23400					TOTAL "A"	7200	
	16200	TOTAL "B"	23400					TOTAL "B"		7200
TOTAL LOAD =			46800							

PANELBOARD SCHEDULE SC-PNL-7

RECLAMATION
Managing Water in the West

N

STA, COM SMITH
105904.2330.019
YYYY-MM-DD
ACCEPTED:

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN

ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL7-ONELINE

LB-SCRA-IE06

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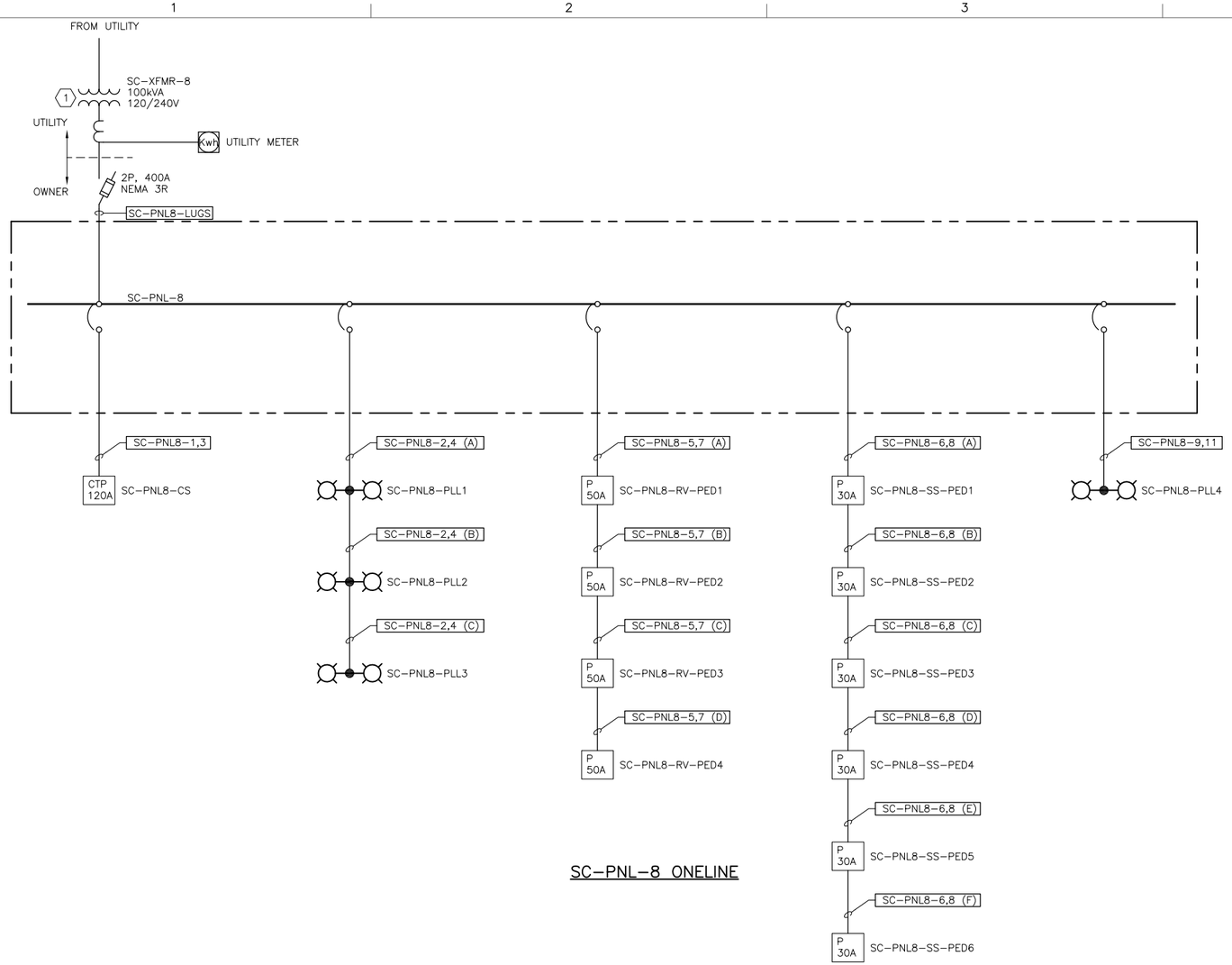

SC-PNL-8 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

		PANELBOARD: SC-PNL-8	BUS: COPPER						MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 400A						LOCATION: STEELE CANYON PNL 8	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R								"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
14400		SC-PNL8-CS	2	125	1	2	20	2	SC-PNL8-PLL 1,2,3	360	
	14400	-	-	-	3	4	-	-	-		360
14400		SC-PNL8-RV-PED 1,2,3,4	2	150	5	6	100	2	SC-PNL8-SS-PED1,2,3,4,5,6	6480	
	14400	-	-	-	7	8	-	-	-		6480
120		SC-PNL8-PLL4	2	20	9	10					
	120	-	-	-	11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
					31	32					
					33	34					
					35	36					
					37	38					
					39	40					
					41	42					
28920		TOTAL "A"	35760						TOTAL "A"	6840	
	28920	TOTAL "B"	35760						TOTAL "B"		6840
TOTAL LOAD =			71520								

PANELBOARD SCHEDULE SC-PNL-8

RECLAMATION
Managing Water in the West

N

STA, CDM SMITH
105904.2330.019

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BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL8-ONELINE

LB-SCRA-IE07

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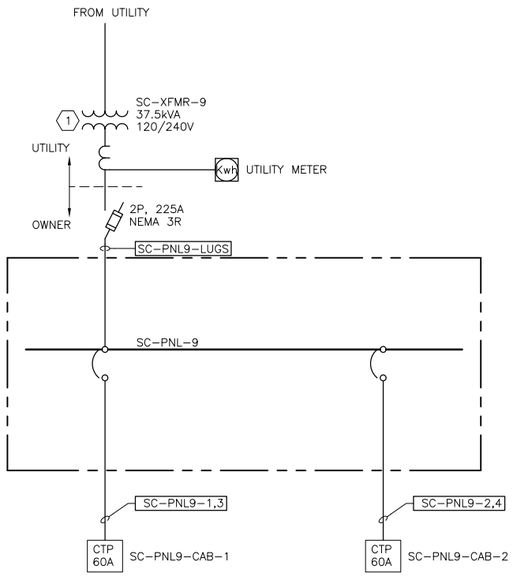

SC-PNL-9 ONELINE

		PANELBOARD: SC-PNL-9	BUS: COPPER						MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 225A						LOCATION: STEELE CANYON PNL 9	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R								"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
7200		SC-PNL9-CAB-1	2	60	1	2	60	2	SC-PNL9-CAB-2	7200	
	7200	-	-	-	3	4	-	-	-		7200
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
					31	32					
					33	34					
					35	36					
					37	38					
					39	40					
					41	42					
7200		TOTAL "A"	14400						TOTAL "A"	7200	
	7200	TOTAL "B"	14400						TOTAL "B"		7200
TOTAL LOAD =			28800								

PANELBOARD SCHEDULE SC-PNL-9

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

RECLAMATION
Managing Water in the West

N

STA, CDM SMITH

105904.2330.019

YYYY-MM-DD

ACCEPTED:

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR

DRAWN

ACCEPTED
NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL9-ONELINE

LB-SCRA-IE08

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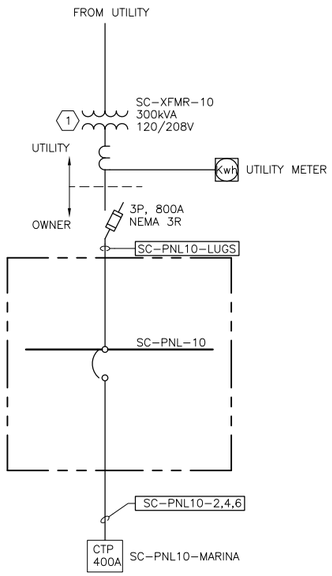

SC-PNL-10 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

			PANELBOARD: SC-PNL-10			BUS: COPPER				MAINS: LUGS			
PHASE			SERVICE: 120/208, 3PHASE			RATING: 800A				LOCATION: STEELE CANYON PNL 10	PHASE		
"A"	"B"	"C"	MOUNTING: Outdoor NEMA 3R								"A"	"B"	"C"
V.A.	V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.	V.A.
						1	2	400	3	SC-PNL10-MARINA	48036		
						3	4	-	-	-		48036	
						5	6	-	-	-			48036
						7	8						
						9	10						
						11	12						
						13	14						
						15	16						
						17	18						
						19	20						
						21	22						
						23	24						
						25	26						
						27	28						
						29	30						
0			TOTAL "A"		48036					TOTAL "A"	48036		
	0		TOTAL "B"		48036					TOTAL "B"		48036	
		0	TOTAL "C"		48036					TOTAL "C"			48036
TOTAL LOAD =					144107								

PANELBOARD SCHEDULE SC-PNL-10

RECLAMATION
Managing Water in the West

N

STA, COM SMITH

105904.2330.019

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CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR

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NAME
TITLE

STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON
SC-PNL10-ONELINE

LB-SCRA-IE09

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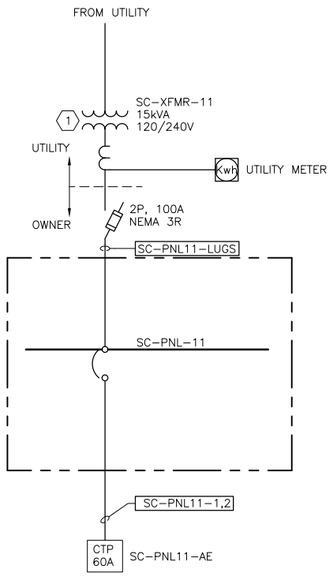

SC-PNL-11 ONELINE

GENERAL NOTES

1. SITE & SECURITY LIGHTING MAY NOT BE SHOWN ON ONE-LINES OR INFRASTRUCTURE PLANS.

KEY NOTES

(1) TRANSFORMER SIZE ESTIMATED INSTALLED TRANSFORMER SIZE WILL BE DETERMINED BY PG&E.

		PANELBOARD: SC-PNL-11	BUS: COPPER					MAINS: LUGS		
PHASE		SERVICE: 120/240, 1 PHASE	RATING: 100A					LOCATION: STEELE CANYON PNL 11	PHASE	
"A"	"B"	MOUNTING: Outdoor NEMA 3R							"A"	"B"
V.A.	V.A.	LOAD	P	BKR	CKT #		BKR	P	LOAD	V.A.	V.A.
4800		SC-PNL11-AE	2	60	1	2					
	4800	-	-	-	3	4					
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
					31	32					
					33	34					
					35	36					
					37	38					
					39	40					
					41	42					
4800		TOTAL "A"	4800					TOTAL "A"	0	
	4800	TOTAL "B"	4800					TOTAL "B"		0
TOTAL LOAD =			9600							

PANELBOARD SCHEDULE SC-PNL-11

RECLAMATION
Managing Water in the West

STA, COM SMITH
105904.2330.019
YYYY-MM-DD
ACCEPTED:

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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)
RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.
Topography by American Photomapping Services
Compiled from photography: 201163
Date of photography: October 20, 2011

CONTRACTOR
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ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) *YYYY-MM-DD*

STEELE CANYON
SC-PNL11-ONELINE

LB-SCRA-IE10

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Circuit Number	FROM EQUIPMENT Tag	Name	Comment	TO EQUIPMENT Tag	Name	Comment	Service	Voltage(Ref)	Material	Circuit Makeup	Cable Type	Raceway Type	Voltage Drop(%)	Length	Revision
PANEL 1 (SC-PNL-1)															
SC-PNL1-LUGS	SC-XFMR-1	STEELE XFMR 1		SC-PNL-1	STEELE PANELBOARD 1		Power	120/240, 1 ϕ, 3W	Copper	4 SETS: (3#400kcmil+2G),3.5"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.11%	20	
SC-PNL1-1,3	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB1-1	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.16%	72	
SC-PNL1-2,4	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB1-2	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.23%	144	
SC-PNL1-5,7	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB1-3	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#1/0#4G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.95%	276	
SC-PNL1-6,8	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB1-4	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#1/0#4G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.38%	384	
SC-PNL1-9,11	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB1-5	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#1/0#4G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.38%	468	
SC-PNL1-10,12	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB2-1	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.86%	84	
SC-PNL1-13,15	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB2-2	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.72%	168	
SC-PNL1-14,16	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB2-3	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-3	Direct Bury PVC(Sch 80)	2.70%	264	
SC-PNL1-17,19	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB3-1	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.74%	72	
SC-PNL1-18,20	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB3-2	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.59%	156	
SC-PNL1-21,23	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB3-3	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.45%	240	
SC-PNL1-22,24	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB3-4	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.62%	324	
SC-PNL1-25,27	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB4-1	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#1/0#4G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.43%	300	
SC-PNL1-26,28	SC-PNL-1	STEELE PANELBOARD 1		SC-PNL1-CAB4-2	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#1/0#4G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	2.46%	384	
PANEL 2 (SC-PNL-2)															
SC-PNL2-LUGS	SC-XFMR-2	STEELE XFMR 2		SC-PNL-2	STEELE PANELBOARD 2		Power	120/240, 1 ϕ, 3W	Copper	2 SETS: (3#4/0+3G),4"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.16%	20	
SC-PNL2-1,3(A)	SC-PNL-2	STEELE PANELBOARD 2		SC-PNL2-PM1-PED1	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.59%	108	
SC-PNL2-1,3(B)	SC-PNL2-PM1-PED1	PARK MODEL		SC-PNL2-PM1-PED2	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.63%	144	
SC-PNL2-1,3(C)	SC-PNL2-PM1-PED2	PARK MODEL		SC-PNL2-PM1-PED3	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.67%	204	
SC-PNL2-1,3(D)	SC-PNL2-PM1-PED3	PARK MODEL		SC-PNL2-PM1-PED4	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.63%	288	
SC-PNL2-1,3(E)	SC-PNL2-PM1-PED4	PARK MODEL		SC-PNL2-PM1-PED5	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.41%	372	
													Total=2.92%		
SC-PNL2-2,4(A)	SC-PNL-2	STEELE PANELBOARD 2		SC-PNL2-PM2-PED1	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.50%	60	
SC-PNL2-2,4(B)	SC-PNL2-PM2-PED1	PARK MODEL		SC-PNL2-PM2-PED2	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.57%	102	
SC-PNL2-2,4(C)	SC-PNL2-PM2-PED2	PARK MODEL		SC-PNL2-PM2-PED3	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.49%	174	
													Total=1.56%		
SC-PNL2-5,7(A)	SC-PNL-2	STEELE PANELBOARD 2		SC-PNL2-PM3-PED1	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.60%	72	
SC-PNL2-5,7(B)	SC-PNL2-PM3-PED1	PARK MODEL		SC-PNL2-PM3-PED2	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	1.01%	180	
SC-PNL2-5,7(C)	SC-PNL2-PM3-PED2	PARK MODEL		SC-PNL2-PM3-PED3	PARK MODEL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.81%	288	
PANEL 3 (SC-PNL-3)															
SC-PNL3-LUGS	SC-XFMR-3	STEELE XFMR 3		SC-PNL-3	STEELE PANELBOARD 3		Power	120/240, 1 ϕ, 3W	Copper	2 SETS: (3#400kcmil+3G),4"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.10%	20	
SC-PNL3-1,3	SC-PNL-3	STEELE PANELBOARD 3		SC-PNL3-CS1	COMFORT STATION W/ FAM, SHOWER, LNDRY		Power	120/240, 1 ϕ, 3W	Copper	3#2/0,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.10%	10	

RECLAMATION
Managing Water in the West

STA. CDM SMITH
105904.2330.019

YYYY-MM-DD
ACCEPTED:

ALWAYS THINK SAFETY

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA (CALIFORNIA)

RECREATION AREA
DEVELOPMENT PLANS 60%

SURVEY NOTES

CALIFORNIA STATE PLANE COORDINATE SYSTEM
ZONE 2, U.S. SURVEY FEET
HORIZONTAL DATUM: NAD 1983
VERTICAL DATUM: NAVD 1988
TOPOGRAPHY CONTOUR INTERVAL: 5 FT.
BATHYMETRIC CONTOUR INTERVAL: 10 FT.

Topography by American Photomapping Services
Compiled from photography 201163
Date of photography: October 20, 2011

CONTRACTOR
DRAWN
ACCEPTED
NAME
TITLE
STATION NAME (CITY, ST) YYYY-MM-DD

STEELE CANYON CABLE SCHEDULES

LB-SCRA-IE11

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Circuit Number	FROM EQUIPMENT Tag	Name	Comment	TO EQUIPMENT Tag	Name	Comment	Service	Voltage(Ref)	Material	Circuit Makeup	Cable Type	Raceway Type	Voltage Drop(%)	Length	Revision
PANEL 7 (SC-PNL-7)															
SC-PNL7-LUGS	SC-XFMR-7	STEELE XFMR 7		SC-PNL-7	STEELE PANELBOARD 7		Power	120/240, 1 ϕ, 3W	Copper	2 SETS: (3#4/0+3G),4"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.13%	20	
SC-PNL7-1,3(A)	SC-PNL-7	STEELE PANELBOARD 7		SC-PNL7-SS-PED1	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	1.10%	140	
SC-PNL7-1,3(B)	SC-PNL7-SS-PED1	STANDARD SITES W/ UTILITIES		SC-PNL7-SS-PED2	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.74%	120	
SC-PNL7-1,3(C)	SC-PNL7-SS-PED2	STANDARD SITES W/ UTILITIES		SC-PNL7-SS-PED3	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.55%	120	
SC-PNL7-1,3(D)	SC-PNL7-SS-PED3	STANDARD SITES W/ UTILITIES		SC-PNL7-SS-PED4	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.37%	120	
SC-PNL7-1,3(E)	SC-PNL7-SS-PED4	STANDARD SITES W/ UTILITIES		SC-PNL7-SS-PED5	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#350kcmil,#4/0N)+#1/0G	UD XLP	Direct Bury	0.18%	120	
SC-PNL7-5,7(A)	SC-PNL-7	STEELE PANELBOARD 7		SC-PNL7-PLL1	PARKING LOT LIGHT		Power	120/240, 1 ϕ, 3W	Copper	3#12,#12G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.92%	180	
SC-PNL7-5,7(B)	SC-PNL7-PLL1	PARKING LOT LIGHT		SC-PNL7-PLL2	PARKING LOT LIGHT		Power	120/240, 1 ϕ, 3W	Copper	3#12,#12G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.46%	90	
													Total=1.38%		
SC-PNL7-6,8	SC-PNL-7	STEELE PANELBOARD 7		SC-PNL7-CS	COMFORT STATION		Power	120/240, 1 ϕ, 3W	Copper	3#3,#8G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.47%	20	
													Total=2.94%		
PANEL 8 (SC-PNL-8)															
SC-PNL8-LUGS	SC-XFMR-8	STEELE XFMR 8		SC-PNL-8	STEELE PANELBOARD 8		Power	120/240, 1 ϕ, 3W	Copper	2 SETS: (3#4/0+3G),4"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.15%	20	
SC-PNL8-1,3	SC-PNL-8	STEELE PANELBOARD 8		SC-PNL8-CS	COMFORT STATION W/ FAM		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.10%	10	
SC-PNL8-2,4(A)	SC-PNL-8	STEELE PANELBOARD 8		SC-PNL8-PLL1	PARKING LOT LIGHTS		Power	120/240, 1 ϕ, 3W	Copper	3#12,#12G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.48%	100	
SC-PNL8-2,4(B)	SC-PNL8-PLL1	PARKING LOT LIGHTS		SC-PNL8-PLL2	PARKING LOT LIGHTS		Power	120/240, 1 ϕ, 3W	Copper	3#12,#12G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.61%	190	
SC-PNL8-2,4(C)	SC-PNL8-PLL2	PARKING LOT LIGHTS		SC-PNL8-PLL3	PARKING LOT LIGHTS		Power	120/240, 1 ϕ, 3W	Copper	3#12,#12G,2"	XHHW/XHHW-3	Direct Bury PVC(Sch 80)	0.26%	160	
													Total=1.35%		
SC-PNL8-5,7(A)	SC-PNL-8	STEELE PANELBOARD 8		SC-PNL8-RV-PED1	RV POWER PEDESTAL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#4/0,#2/0N)+#1/0G	UD XLP	Direct Bury	1.80%	180	
SC-PNL8-5,7(B)	SC-PNL8-RV-PED1	RV POWER PEDESTAL		SC-PNL8-RV-PED2	RV POWER PEDESTAL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#4/0,#2/0N)+#1/0G	UD XLP	Direct Bury	0.38%	50	
SC-PNL8-5,7(C)	SC-PNL8-RV-PED2	RV POWER PEDESTAL		SC-PNL8-RV-PED3	RV POWER PEDESTAL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#4/0,#2/0N)+#1/0G	UD XLP	Direct Bury	0.35%	70	
SC-PNL8-5,7(D)	SC-PNL8-RV-PED3	RV POWER PEDESTAL		SC-PNL8-RV-PED4	RV POWER PEDESTAL		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#4/0,#2/0N)+#1/0G	UD XLP	Direct Bury	0.23%	90	
													Total=2.75%		
SC-PNL8-6,8(A)	SC-PNL-8	STEELE PANELBOARD 8		SC-PNL8-SS-PED1	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.91%	160	
SC-PNL8-6,8(B)	SC-PNL8-SS-PED1	STANDARD SITES W/ UTILITIES		SC-PNL8-SS-PED2	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.47%	100	
SC-PNL8-6,8(C)	SC-PNL8-SS-PED2	STANDARD SITES W/ UTILITIES		SC-PNL8-SS-PED3	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.38%	100	
SC-PNL8-6,8(D)	SC-PNL8-SS-PED3	STANDARD SITES W/ UTILITIES		SC-PNL8-SS-PED4	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.34%	120	
SC-PNL8-6,8(E)	SC-PNL8-SS-PED4	STANDARD SITES W/ UTILITIES		SC-PNL8-SS-PED5	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.19%	100	
SC-PNL8-6,8(F)	SC-PNL8-SS-PED5	STANDARD SITES W/ UTILITIES		SC-PNL8-SS-PED6	STANDARD SITES W/ UTILITIES		Power	120/240, 1 ϕ, 3W	Aluminum	Triplex(2#3/0,#3/0N)+#1/0G	UD XLP	Direct Bury	0.09%	100	
													Total=2.38%		
SC-PNL8-9,11	SC-PNL-8	STEELE PANELBOARD 8		SC-PNL8-PLL4	PARKING LOT LIGHTS		Power	120/240, 1 ϕ, 3W	Copper	3#6,#8G,1"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.13%	200	
PANEL 9 (SC-PNL-9)															
SC-PNL9-LUGS	SC-XFMR-9	STEELE XFMR 9		SC-PNL-9	STEELE PANELBOARD 9		Power	120/240, 1 ϕ, 3W	Copper	3#250kcmil,#4G,3"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.10%	20	
SC-PNL9-1,3	SC-PNL-9	STEELE PANELBOARD 9		SC-PNL9-CAB-1	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.74%	72	
SC-PNL9-2,4	SC-PNL-9	STEELE PANELBOARD 9		SC-PNL9-CAB-2	CABIN		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.86%	84	
PANEL 10 (SC-PNL-10)															
SC-PNL10-LUGS	SC-XFMR-10	STEELE XFMR 10		SC-PNL-10	STEELE PANELBOARD 10		Power	120/208, 3 ϕ, 3W	Copper	3 SETS: (3#350kcmil+2G),3"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.19%	20	
SC-PNL10-2,4,6	SC-PNL-10	STEELE PANELBOARD 10		SC-PNL10-MARINA	MARINA		Power	120/208, 3 ϕ, 3W	Copper	3#350kcmil,#2G,3"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	1.08%	100	
PANEL 11 (SC-PNL-11)															
SC-PNL11-LUGS	SC-XFMR-11	STEELE XFMR 11		SC-PNL-11	STEELE PANELBOARD 11		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.39%	20	
SC-PNL11-1	SC-PNL-11	STEELE PANELBOARD 11		SC-PNL11-AE	ACCESSIBLE ENTRY		Power	120/240, 1 ϕ, 3W	Copper	3#2,#6G,2"	XHHW/XHHW-2	Direct Bury PVC(Sch 80)	0.25%	10	

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STEELE CANYON CABLE SCHEDULES

LB-SCRA-IE12

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