MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY

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TETRA TECH

INDEX OF DRAWINGS

PROJECT LOCATION:
SLEEPY HOLLOW
STEELHEAD REARING FACILITY

CLIENT INFORMATION:
MONTEREY PENINSULA
WATER MANAGEMENT DISTRICT
5 HARRIS COURT, BUILDING G
MONTEREY, CA 93940

Tt PROJECT No.:
200-124674-21001

CLIENT PROJECT No.:

PROJECT DESCRIPTION / NOTES:
REARING POOL AND CHANNEL REHABILITATION AT THE SLEEPY HOLLOW STEELHEAD REARING FACILITY (SHSRF).

ISSUED:
AUGUST 30, 2022 - ISSUED FOR REVIEW

VICINITY MAP:

GENERAL CONSTRUCTION NOTES

1. TETRA TECH IS NOT RESPONSIBLE FOR SAFETY, IN, ON, OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS THERETO. TETRA TECH EXERCISES NO CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS, OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERVISION OF THE SAME.

UTILITY LOCATION NOTES

1. CALIFORNIA STATE LAW REQUIRES CONTRACTORS TO LOCATE UTILITIES PRIOR TO BEGINNING ANY EXCAVATION. CONTRACTOR IS EXPECTED TO ABIDE BY ALL APPLICABLE LAWS AND REGULATIONS GOVERNED BY THE STATE OF CALIFORNIA.
2. EXCAVATORS MUST NOTIFY THE CENTER AT LEAST 2 BUSINESS DAYS, AND UP TO 14 BUSINESS DAYS IN REMOTE AREAS, BEFORE COMMENCING AN EXCAVATION. CALL 811.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO STARTING CONSTRUCTION. THE 811 DIGLINE MAY NOT INCLUDE ALL UTILITIES IN THE AREA. CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL UTILITES HAVE BEEN LOCATED. THIS INCLUDES POTHOLING ALL UTILITY CROSSINGS. THE OWNER AND ENGINEER SHALL BE CONTACTED 72 HOURS PRIOR TO POTHOLING OF ANY UTILITY CROSSINGS.

SURVEY CONTROL DATA

SURVEY PERFORMED UNDER THE SUPERVISION OF DAN HELT LS 8925
SURVEY DATES: JUNE 22-25 2015

HORIZONTAL CONTROL

HORIZONTAL CONTROL FOR THIS PROJECT IS BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 4. NORTH AMERICAN DATUM OF 1983, DEFINED LOCALLY BY CORS STATION SANTA LUCIACN, 2004 P171. COORDINATES FOR LOCAL CONTROL WERE ESTABLISHED BY GPS AND ADJUSTED THROUGH POST PROCESSING.

BASIS OF BEARING

THE BEARING OF N54°45'15"W BETWEEN SET CONTROL MONUMENTS "3" AND "4" IS THE BASIS OF BEARING FOR THIS PROJECT

CONTROL POINT NUMBER "3"

N: 2055949.337
E: 5762949.718
ELEV: 403.17

COMBINED FACTOR: 0.99993164
CONVERGENCE ANGLE: -1°37'13"

CONTROL POINT NUMBER "4"

N: 2056061.227
E: 5762791.373
ELEV: 402.11

COMBINED FACTOR: 0.99993167
CONVERGENCE ANGLE: -1°37'14"

VERTICAL CONTROL

VERTICAL CONTROL FOR THIS PROJECT IS BASED ON THE NATIONAL GEODETIC VERITCAL DATUM OF 1929 (NGVD 29) AND IS DEFINED LOCALLY BY NGS SURVEY MONUMENT F 704 PID: GU2842 ELEV = 408.50.

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS SET CONTROL POINT NUMBER "3". SEE DRAWING C010 FOR LOCATION.
ELEVATION = 403.17 FEET (NGVD 29).

REFERENCE

DENOTES SECTION NUMBER IDENTIFICATION — X / X-XXX — DENOTES SHEET NO. WHERE SECTION IS REFERENCED

SECTION REFERENCE

DENOTES SECTION NUMBER IDENTIFICATION — X / X-XXX — SECTION — SCALE: — DENOTES SHEET NO. WHERE SECTION IS REFERENCED

SECTION TITLE

DENOTES DETAIL NUMBER IDENTIFICATION — X / X-XXX — "-" ONLY DENOTES THAT THIS DETAIL IS SHOWN ON THE SAME SHEET

DETAIL REFERENCE

DENOTES DETAIL NUMBER IDENTIFICATION — X / X-XXX — DETAIL — SCALE: — "-" ONLY DENOTES THAT THIS DETAIL WAS REFERENCED FROM THE SAME SHEET

DETAIL TITLE

GENERAL

CALL OUTS — XXX, ZZZ, YYY, XX, YYY

BREAK

KEYNOTE — --

REVISION — X

NORTH ARROWS — N — PLAN NORTH

ABBREVIATIONS

A	AIR
AFF	ABOVE FINISHED FLOOR
AB	ANCHOR BOLT
ABV	ABOVE
ADD'L	ADDITIONAL
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECTURAL
B	BYPASS
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BO	BOTTOM OF
BV	BUTTERFLY VALVE
CD	CHEMICAL DRAIN
CFM	CUBIC FEET PER MINUTE
CI	CAST IRON
CIP	CAST IN PLACE
CL	CENTER LINE
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT, CLEAR OPENING
CONC	CONCRETE
CONN	CONNECTION
COORD	COORDINATE
CPL	COUPLING
CU	CUBIC
D	DRAIN
DG	DIGESTER GAS
DI	DUCTILE IRON
DIA	DIAMETER
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
EA	EACH
EF	EACH FACE/EXHAUST FAN
EFF	EFFLUENT
EG	EXHAUST GRILL
EL	ELEVATION
ELEC	ELECTRIC
EOS	EDGE OF SLAB
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEV
FG	FINISHED GRADE
FLG	FLANGE
FM	FORCE MAIN
FOC	FACE OF CONCRETE
FOF	FACE OF FRAMING
FOS	FACE OF STUD
FRP	FIBER REINFORCED PLASTIC
FT	FEET
GA	GAUGE
GAL	GALLONS
GI	GALVANIZED IRON
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GS	GRAVITY SEWER
GV	GATE VALVE
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HAS	HEADED ANCHOR STUD
HDPE	HIGH DENSITY POLYETHELENE
HDWR	HARDWARE
HGL	HYDRAULIC GRADE LINE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HRT	HYDRAULIC DETENTION TIME
HP	HORSEPOWER/HIGH POINT
HW	HEADWORKS/HIGH WATER
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INF	INFLUENT
INV	INVERT
LBS	POUNDS
LF	LINEAR FOOT
LL	LIVE LOAD
LHO	LOW HEAD OXYGENATOR
LOC	LOCATION
LP	LOW POINT
MAV	MOTORIZED AIR VALVE
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MG	MILLION GALLONS
MG/L	MILLIGRAMS PER LITER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MT	MOUNTED
MTL	METAL
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
OC	ON CENTER
OH	OVERHANG
OPP	OPPOSITE
PD	PERFORATED DRAIN
PE	PLAIN END
PNT	PAINT
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	PENSTOCK TAP
PVC	POLYVINYL CHLORIDE
R	RADIUS
RA	RETURN AIR
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RECIRC	RECIRCULATION
REINF	REINFORCING
REQ'D	REQUIRED
RO	ROUGH OPENING
SCFM	STD CUBIC FEET PER MINUTE
SD	STORM DRAIN
SHT	SHEET
SF	SQUARE FEET/SUPPLY FAN
SIM	SIMILAR
SL	SLOPE
SQ	SQUARE
SS/SST	STAINLESS STEEL
STE	SEPTIC TANK EFFLUENT
STEP	SEPTIC TANK EFFLUENT PUMP
TC	TOP OF CURB
TDC	TOP DEAD CENTER
TO	TOP OF
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
TRT	TAILRACE TAP
TS	TUBE STEEL
TYP	TYPICAL
UD	UNDERDRAIN
UH	UNIT HEATER
UV	ULTRA VIOLET RADIATION
V	VENT
VFD	VARIABLE FREQUENCY DRIVE
VA	VACUUM
VIN	VINYL
VERT	VERTICAL
VTR	VENT THROUGH ROOF
W/	WITH
WH	WATER HEATER
WN	NON-POTABLE WATER
WNH	NON-POTABLE HOT WATER
WP	POTABLE WATER
WPH	POTABLE HOT WATER
WS	WATER SURFACE
WWF	WELDED WIRE FABRIC
YCO	YARD CLEAN OUT

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MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY

REARING POOL AND CHANNEL REHABILITATION

GENERAL NOTES AND ABBREVIATIONS

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

G-002

Bar Measures 1 inch

8/22/2022 3:29:00 PM - O:\PROJECTS\SEATTLE\124674200-124674-21001\CAD\SHEETFILES\POOL-RIFFLE-MODIFICATIONS\G-002 GENERAL\NOTES&ABBREVIATIONS.DWG - NORDHOLM, ERIK

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ELEVATION AND O.D. OF ALL EXISTING LINES AT THE POINT OF CONNECTION TO THE NEW SYSTEM PRIOR TO ORDERING MATERIALS THAT DEPEND ON THIS INFORMATION.

2. ALL PIPE TO STRUCTURE CONNECTIONS AND PENETRATIONS (INCLUDING MANHOLES) SHALL HAVE A FLEXIBLE COUPLING OR FLEXIBLE JOINT NOT MORE THAN 18 INCHES OR ONE HALF OF THE PIPE DIAMETER (WHICHEVER IS GREATER) FROM THE OUTSIDE WALL OF THE STRUCTURE. ALL CONNECTIONS OF PRESSURIZED PIPING SHALL BE RESTRAINED.

GENERAL GEOTECHNICAL NOTES

SEE GEOTECHNICAL INVESTIGATION BY PACIFIC CREST ENGINEERING INC. DATED APRIL 2018 FOR INFORMATION REGARDING EXPECTED SUBSURFACE CONDITIONS INCLUDING BUT NOT LIMITED TO AREAS OF EXPECTED DIFFICULT EXCAVATION AND GROUNDWATER CONDITIONS AS WELL AS OTHER CRITERIA NOT IDENTIFIED ON THE DRAWINGS.

CLEARING AND STRIPPING

THE INITIAL PREPARATION OF THE SITE MAY CONSIST OF REMOVAL OF ANY DESIGNATED TREES AND DEBRIS. TREE REMOVAL, IF NEEDED, SHOULD INCLUDE THE ENTIRE STUMP AND ROOT BALL. ANY VOIDS CREATED BY THE REMOVAL OF TREE AND ROOT BALLS MUST BE BACKFILLED WITH PROPERLY COMPACTED ENGINEERED FILL. SURFACE VEGETATION, TREE ROOTS AND ORGANICALLY CONTAMINATED TOPSOIL SHOULD THEN BE REMOVED ("STRIPPED") FROM THE AREA TO BE GRADED. IN ADDITION, ANY REMAINING DEBRIS OR LARGE ROCKS MUST ALSO BE REMOVED (THIS INCLUDES CONCRETE OR ROCKS GREATER THAN 2 INCHES IN GREATEST DIMENSION). LARGE ROCKS MIXED WITH CLEAN SOIL CAN BE USED FOR FILL WHERE DESIGNATED.

GENERAL SUBGRADE PREPARATION

AREAS OF MAN-MADE FILL, IF ENCOUNTERED, ARE TO BE COMPLETELY EXCAVATED TO UNDISTURBED NATIVE MATERIAL. EXPOSED SOILS IN AREAS TO RECEIVE CONCRETE SLABS-ON-GRADE SHOULD BE SUBEXCAVATED TO A MINIMUM DEPTH SHOWN BELOW BOTTOM OF ALL FOUNDATIONS. SUBEXCAVATIONS SHOULD EXTEND AT LEAST 5 FEET HORIZONTALLY BEYOND FOUNDATIONS, UNLESS DIMENSIONED OTHERWISE ON THE DRAWINGS. FOLLOWING CLEARING, STRIPPING AND ANY NECESSARY SUBEXCAVATIONS, THE EXPOSED SUBGRADE SOIL THAT IS TO SUPPORT CONCRETE SLABS-ON-GRADE, AND FOUNDATIONS SHOULD THEN BE SCARIFIED 8 INCHES, AND THE SOIL MOISTURE CONDITIONED AND COMPACTED. FOLLOWING THE SUBEXCAVATION AND SUBGRADE PREPARATION, AREAS SHOULD BE BROUGHT UP TO DESIGN GRADES WITH ENGINEERED FILL THAT IS MOISTURE CONDITIONED AND COMPACTED.

ENGINEERED FILL

NATIVE OR IMPORTED SOIL PROPOSED FOR USE AS ENGINEERED FILL SHOULD MEET THE FOLLOWING REQUIREMENTS:

A. FREE OF ORGANICS, DEBRIS, AND OTHER DELETERIOUS MATERIALS.
B. FREE OF "RECYCLED" MATERIALS SUCH AS ASPHALTIC CONCRETE, CONCRETE, BRICK, ETC.
C. GRANULAR IN NATURE, WELL GRADED, AND CONTAIN SUFFICIENT BINDER TO ALLOW UTILITY TRENCHES TO STAND OPEN.
D. FREE OF ROCKS IN EXCESS OF 2 INCHES IN SIZE.
E. A PLASTICITY INDEX BETWEEN 4 AND 12 AND A MINIMUM RESISTANCE "R" VALUE OF 30.
F. NON-EXPANSIVE.

ENGINEERED FILL PLACEMENT, COMPACTION, AND MOISTURE CONDITIONING

ENGINEERED FILL SHOULD BE PLACED IN MAXIMUM 8 INCH LIFTS, BEFORE COMPACTION, AT A WATER CONTENT WHICH IS WITHIN 1 TO 3 PERCENT OF THE LABORATORY OPTIMUM VALUE. FILL SHALL BE COMPACTED TO A MINIMUM OF 90% OF ITS MAXIMUM DRY DENSITY. MAXIMUM DRY DENSITY WILL BE OBTAINED FROM A LABORATORY COMPACTION CURVE RUN IN ACCORDANCE WITH ASTM PROCEDURE D1557. THIS TEST WILL ALSO ESTABLISH THE OPTIMUM MOISTURE CONTENT OF THE MATERIAL. FIELD DENSITY TESTING WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST D6938 (NUCLEAR METHOD). PERFORM FIELD DENSITY TESTING IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION.

UTILITY TRENCH BACKFILL

ANY PIPES WITHIN THE TOP 24 INCHES OF A FINISHED SURFACE THAT WILL HAVE VEHICLE TRAFFIC SHALL BE CONCRETE ENCASED. PIPES SHALL BE BEDDED AND BACKFILLED AS SHOWN ON THE DRAWINGS AND DEFINED IN THE SPECIFICATIONS.

BACKFILL IS DEFINED AS MATERIAL PLACED IN A TRENCH STARTING ONE FOOT ABOVE THE PIPE, AND BEDDING IS ALL MATERIAL PLACED IN A TRENCH BELOW THE BACKFILL.

UNLESS SHOWN OTHERWISE, BEDDING AROUND UTILITY PIPES SHALL BE FREE-DRAINING CLEAN SAND FOR PIPES LESS THAN 6 INCHES DIAMETER. SAND BEDDING SHOULD BE COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION. CLEAN SAND IS DEFINED AS 100 PERCENT PASSING THE #4 SIEVE, AND LESS THAN 5 PERCENT PASSING THE #200 SIEVE. APPROVED IMPORTED CLEAN SAND OR APPROVED NATIVE SOIL SHOULD BE USED AS UTILITY TRENCH BEDDING AND BACKFILL. BACKFILL IN TRENCHES LOCATED UNDER AND ADJACENT TO STRUCTURAL FILL, FOUNDATIONS, CONCRETE SLABS AND PAVEMENTS SHOULD BE PLACED IN HORIZONTAL LAYERS NO MORE THAN 8 INCHES THICK. EACH LAYER OF TRENCH BACKFILL SHOULD BE WATER CONDITIONED AND COMPACTED TO AT LEAST 95 PERCENT RELATIVE COMPACTION. UTILITY TRENCHES WHICH CARRY "NESTED" CONDUITS (STACKED VERTICALLY) SHOULD BE BACKFILLED WITH A CONTROL DENSITY FILL (SUCH AS 2-SACK SAND\CEMENT SLURRY) TO AN ELEVATION ONE FOOT ABOVE THE NESTED CONDUIT STACK.

PROCESS WATER CONSTRUCTION NOTES

1. PIPE SHALL BE SOLVENT WELD SCHEDULE 40 PVC UNLESS NOTED OTHERWISE.

2. CLEAN PIPE OF ALL DEBRIS DURING INSTALLATION. DO NOT RELY ONLY ON FLUSHING TO CLEAN THE PIPE. REMOVE GRINDINGS, FILINGS, SLAG, ETC. DURING INSTALLATION.

3. ELBOWS AND ANGLE POINTS ARE SHOWN ON THE DRAWINGS TO ACHIEVE THE DESIRED LOCATION AND ALIGNMENT FOR THE PIPE. CONTRACTOR SHALL USE ELBOWS THAT ARE FABRICATED AND MITERED IN COMPLIANCE WITH APPLICABLE PIPE STANDARDS. WHERE NECESSARY AND UPON REVIEW BY THE ENGINEER DEFLECTIONS OTHER THAN WHAT ARE SHOWN ON THE DRAWINGS MAY BE USED.

4. SOME PIPE TYPES MAY ALLOW FOR ANGLES TO BE MADE BY DEFLECTING OR BENDING THE PIPE. CONTRACTOR SHALL NOT EXCEED MANUFACTURES MAXIMUM DEFLECTION OR MINIMUM RADIUS.

5. PRESSURE TEST ALL PIPES. IF TEST PRESSURE IS NOT SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS, THEN TEST TO 1.5 TIMES THE RATED PRESSURE. DO NOT EXCEED MANUFACTURE MAXIMUM PRESSURE FOR PIPE, FITTINGS, VALVES OR EQUIPMENT. TEST PROCEDURE TO BE IN ACCORDANCE WITH APPLICABLE ASTM STANDARD AND AS APPROVED BY THE ENGINEER.

6. CONTRACTOR TO VERIFY FITTINGS AND CONNECTIONS BETWEEN DIFFERENT MATERIAL TYPES ARE COMPATIBLE AND PROVIDE ADAPTERS WHERE NECESSARY.

7. INSTALL STEEL PIPE IN ACCORDANCE WITH AWWA MANUAL M11 AND FIELD WELD IN ACCORDANCE WITH AWWA C206. INSTALL HDPE PIPE IN ACCORDANCE WITH THE PLASTIC PIPE INSTITUTE (PPI) POLYETHYLENE PIPE HANDBOOK, APPLICABLE PPI GUIDELINES, AWWA C906, AND ASTM D 2321.

LEGEND

EXISTING

- TAILRACE TAP (TRT)
- WARM WATER SUPPLY (WWS)
- HIGH PRESSURE, PENSTOCK TAP (PT)
- FALLS CREEK TAP (FCT)
- SANITARY SEWER (SS)
- UNDERGROUND ELECTRIC (UE)
- UNDERGROUND TELEPHONE (UT)
- UNDERGROUND FIBER OPTIC (FO)
- SANITARY SEWER (SS)
- STORM SEWER (SD)
- FORCEMAIN (FM)
- WATER (W)
- ABANDONED PIPE (ABAN)
- GAS (G)
- ELECTRIC - OVERHEAD (OE)
- ELECTRIC - UNDERGROUND (UE)
- FIBER OPTIC (FO)
- COMM - UNDERGROUND (UT)
- ASPHALT
- GRAVEL
- STEEL FENCE (XX)
- WOOD FENCE (X)
- WETLANDS BOUNDARY
- CONTOUR MAJOR (130)
- CONTOUR MINOR (129)
- RIPRAP
- CONCRETE
- BUILDING OUTLINE
- TREES
- WATER VALVE (WV)
- BORING (B-00)
- MONITORING WELL (MW)
- OBSERVATION WELL (OW)
- UTILITY POLE
- UTILITY POLE ANCHOR

PROPOSED

- STORM SEWER
- SANITARY SEWER
- SANITARY SEWER (FORCE MAIN)
- WATER
- ASPHALT
- GRAVEL
- ROAD CENTERLINE
- STEEL FENCE (XX)
- WOOD FENCE (X)
- SEDIMENT CONTROL FENCE (SF)
- FLOOD HAZARD AREA
- PROPERTY LINE
- RIGHT OF WAY LINE (R-O-W)
- LIMITS OF CONTRUCTION
- EASEMENT
- POND / LAKE EDGE
- RAIL ROAD TRACK
- WETLANDS BOUNDARY
- CONTOUR MAJOR (130)
- CONTOUR MINOR (129)
- CONTOUR DEPRESSION
- ASPHALT PAVED SURFACE
- RIPRAP
- CONCRETE
- GRAVEL SURFACING
- PIPE BEND
- GATE VALVE (GV)
- WATER VALVE (WV)
- BACK FLOW PREVENTER
- HOSE BIB
- PIPE CAP
- HYDRANT (FH)
- SEWER CLEANOUT (CO)
- STORM BASIN (SD)
- STORM MANHOLE (SD)
- STORM CULVERT END
- ELECTRIC METER (EM)
- TRANSFORMER PAD (TS)
- SPOT ELEVATION (×000.00)
- BUTTERFLY VALVE

TETRA TECH
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Tel 503.684.9097

MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY

REARING POOL AND CHANNEL REHABILITATION

CIVIL LEGEND AND GENERAL NOTES

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

C-001

Bar Measures 1 inch

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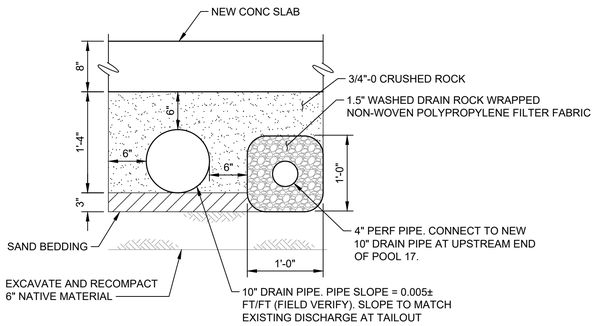
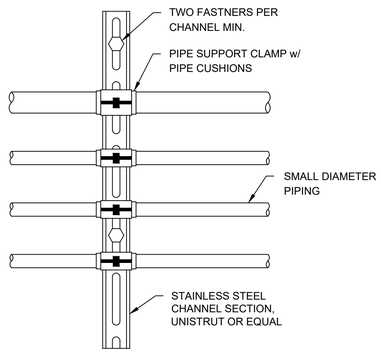


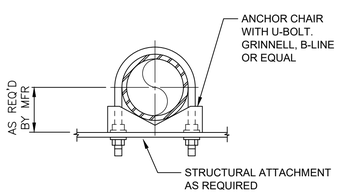
1 TYPICAL TRENCH SECTION
NO SCALE



1/2" THROUGH 3" PIPE

NOTES:
1. SECURE CHANNEL SECTION TO WOOD STUD, DECKING, OR CONCRETE SLAB AS APPROPRIATE. FURNISH WOOD FASTENERS OR EPOXY ANCHORS AS APPLICABLE.

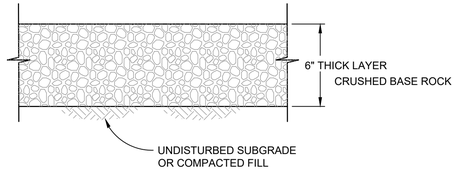
2 PIPE SUPPORT
NO SCALE



4" THROUGH 24" PIPE

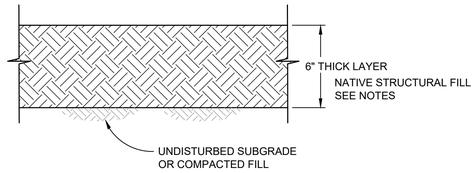
NOTES:
1. ALL INSTALLATIONS OF THIS ANCHOR MUST HAVE CALCULATIONS TO CONFIRM THE ADEQUACY OF THE COMPONENT SIZES. THESE CALCULATIONS SHALL BE SUBMITTED FOR APPROVAL.

3 PIPE HANGER
NO SCALE



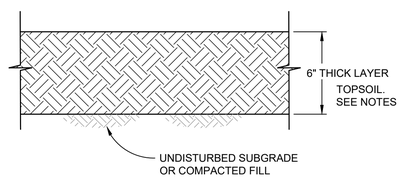
NOTES:
1. STRIP TOPSOIL AND REMOVE ALL ORGANICS PRIOR TO PLACING FILL.
2. COMPACT TO 95% MAX DRY DENSITY.

4 GRAVEL SURFACING
NO SCALE



NOTES:
1. NATIVE BACKFILL SHALL MEET REQUIREMENTS OF STRUCTURAL FILL. IF REQUIREMENTS CANNOT BE ACHIEVED THEN CONTRACTOR SHALL FURNISH IMPORTED FILL.
2. STRIP TOPSOIL AND REMOVE ALL ORGANICS PRIOR TO PLACING FILL.
3. COMPACT TO 95% MAX DRY DENSITY.

5 NATIVE ROADWAY SURFACING
NO SCALE



NOTES:
1. PRIOR TO EXCAVATION, TOPSOIL SHALL BE STRIPPED AND STOCKPILED ONSITE.
2. UTILIZE STOCKPILED TOPSOIL FOR FINAL RESTORATION.
3. COMPACT WITH ROLLER EQUIPMENT
4. RESEED WITH NATIVE GRASS MIX WHEN INSTRUCTED BY THE OWNER.

6 TOPSOIL SURFACING
NO SCALE

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MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY
REARING POOL AND CHANNEL REHABILITATION
CIVIL DETAILS

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

C-002

Bar Measures 1 inch

KEYED NOTES:

1. END NEW CONCRETE SLAB AT EXISTING CONCRETE HEADWORKS STRUCTURE. DEMO EXISTING HYPALON LINER AND SALVAGE EXISTING FASTENING HARDWARE. REPLACE WITH NEW EPDM LINER ALONG FULL LENGTH OF CHANNEL. UTILIZE EXISTING FASTENING HARDWARE.
2. CONNECT TO EXIST 6" AIR LINE WITH 6"x4" REDUCER AT DOWNSTREAM END OF POOL #1.
3. INSTALL NEW 4" FRENCH DRAIN ALONG EXISTING 6" DRAIN PIPE TO REMAIN. EXTEND 4" FRENCH DRAIN UPSTREAM TO EXISTING CONCRETE HEADWORKS STRUCTURE.
4. INSTALL 10"x6" SDR 35 COUPLING D/S OF RIFFLE 1-2 STANDPIPE. BEGIN 10" SDR 35 DRAIN.
5. CONNECT NEW 1.5" WATERLINE TO EXISTING WATERLINE. INSTALL 2" QUICK CONNECT FOR SALT WATER LINE. FIELD VERIFY CONNECTIONS WITH MPWMD PRIOR TO ORDERING MATERIALS AND INSTALLING.
6. FURNISH AND INSTALL WOODEN WEIR AT DOWNSTREAM END OF POOL #5. FIELD VERIFY LOCATION WITH MPWMD STAFF.
7. INSTALL 10"x10"x4" SCH 40 PVC TEE AND RISER. BEGIN 10" SCH 40 PIPE. SLOPE TO DRAIN.
8. CUT AND CAP EXISTING 6" DRAIN. ABANDON IN PLACE DOWNSTREAM OF POOL #17.
9. ROUTE DRAIN PIPE OVER TOP OF CHANNEL WALL. INSTALL 10" BFV AND 90° ELBOW DIRECTED DOWNWARDS.

TOP CHANNEL 390.73
TOP WEIR 390.41
BOT CHANNEL 388.15

10" SCH 40 PVC DRAIN PIPE. SLOPE DOWNWARDS TO DRAIN. SECURE TO CHANNEL WALL WHERE VISIBLE AT 10 FT SPACING

RESTORATION COMPLETED PREVIOUSLY FOR POOL #17

INSTALL 4" AIR, 1.5" FRESH WATER, & 2" SALT WATER LINE ALONG FULL LENGTH OF CHANNEL

1 / C-005 POOL RESTORATION (TYP OF 16)

1 / C-006 CHANNEL RESTORATION (TYP OF 16)

CONSTRUCT CONC BASE SLAB IN EXISTING REARING POOLS AND RIFFLE CHANNELS

CONNECT EXISTING TANK DRAIN TO NEW DRAIN

CONCRETE DEER AND TURKEY BRIDGE

REMOVE EXISTING 6" DRAIN. INSTALL NEW 10" DRAIN AND 4" FRENCH DRAIN.

EXISTING 6" DRAIN TO REMAIN

EXISTING CONC HEADWORKS

POOL
CARMEL RIVER
12"SYCAMORE
24"SYCAMORE
(2)~12"COTTONWOOD
48"SYCAMORE
8"SYCAMORE
18"SYCAMORE
30"SYCAMORE
18"OAK
RAS/TREATMENT BUILDING
SETTLING BASIN
TREATMENT TANKS
ACCESS ROAD
GENERATOR
TANK
4" AIR SUPPLY PIPE
OFFICE
LEACH FIELD

0 15' 30' 60'

Bar Measures 1 inch

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Portland, OR 97224
Tel 503.684.9097

MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY

REARING POOL AND CHANNEL REHABILITATION

OVERALL SITE PLAN

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

C-003

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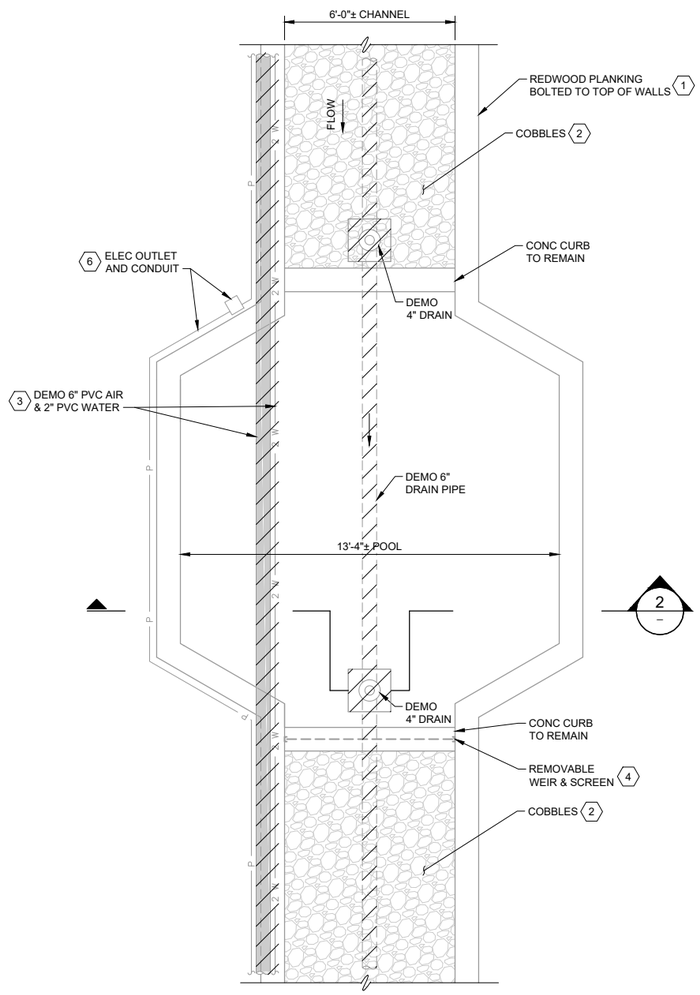

1 C-003 EXISTING POOL & CHANNEL PLAN
SCALE: 3/8"=1'-0"

2 – POOL SECTION
SCALE: 1/2"=1'-0"

3 – EXISTING POOL PHOTO
NO SCALE

GENERAL NOTES

1. ALL EXCAVATION SHALL BE HAND DUG TO AVOID DAMAGE TO EXISTING PIPE, CONCRETE, AND NET SYSTEM. EXCESS EXCAVATED MATERIAL CAN BE SPREAD ON SITE. ALL OTHER MATERIAL DESIGNATED FOR DEMOLITION SHALL BE REMOVED AND DISPOSED OFFSITE.
2. DRAWING AND DIMENSIONS ARE BASED ON ORIGINAL 1994 DESIGN DRAWINGS AT ONE POOL LOCATION. FIELD VERIFY ALL DIMENSIONS AND ADJUST AS REQUIRED.

KEY NOTES

1. REMOVE AND SALVAGE EXISTING REDWOOD PLANKING. NUMBER ACCORDING TO POOL AND LOCATION. AVOID DAMAGE DURING REMOVAL. STORE IN PROTECTED AREA AND REINSTALL IN ORIGINAL LOCATION FOLLOWING CONSTRUCTION.
2. REMOVE COBBLES FROM CHANNELS AND STOCKPILE ONSITE.
3. DEMO 6" AIR AND 2" WATER PIPING. SALVAGE EXISTING BRACKETS AND MOUNTING HARDWARE.
4. REMOVE AND SALVAGE EXISTING WOODEN WEIR, WEIR GUIDES, AND HARDWARE. NUMBER EACH WEIR WITH INDIVIDUAL POOL LOCATION. STORE IN PROTECTED AREA AND REINSTALL IN ORIGINAL LOCATION FOLLOWING CONSTRUCTION.
5. SALVAGE EXISTING LINER ATTACHMENT HARDWARE FOR USE WITH NEW LINER.
6. PROTECT 120V OUTLETS, CONDUIT AND WIRING. (LOCATION VARIES ALONG CHANNEL.

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MARK	DATE	DESCRIPTION	BY

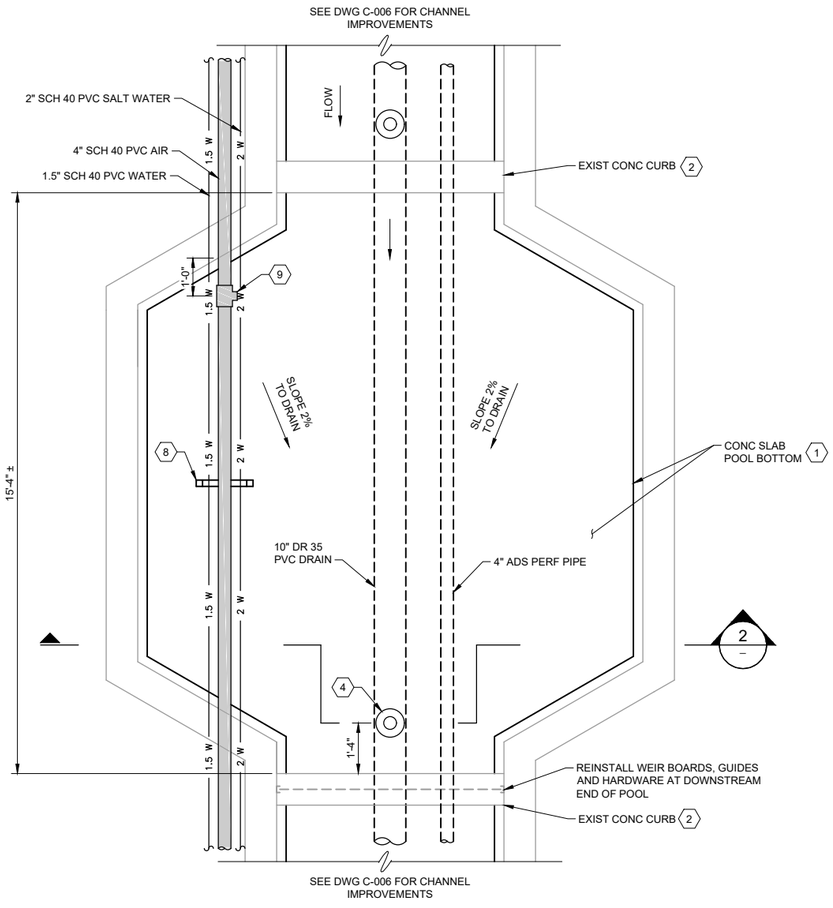
MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY
REARING POOL AND CHANNEL REHABILITATION

EXISTING POOL AND CHANNEL DEMOLITION PLAN

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

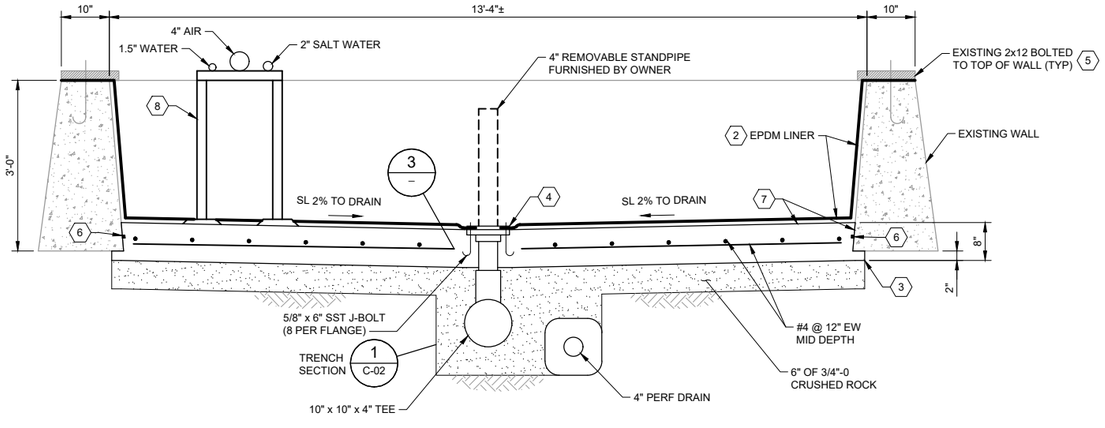
C-004

Bar Measures 1 inch



1 C-003 TYPICAL REARING POOL PLAN

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



2 – SECTION

SCALE: 3/4"=1'-0"

GENERAL NOTES

1. ALL EXCAVATION SHALL BE HAND DUG TO AVOID DAMAGE TO EXISTING PIPE, CONCRETE, AND NET SYSTEM. EXCESS EXCAVATED MATERIAL CAN BE SPREAD ON SITE.
2. SUBGRADE SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR. EXCAVATED MATERIAL MAY BE SUBSTITUTED FOR CRUSHED ROCK IF COMPACTION CAN BE MET.
3. DRAWING AND DIMENSIONS ARE BASED ON ORIGINAL 1994 DESIGN DRAWINGS AT ONE POOL LOCATION. FIELD VERIFY ALL DIMENSIONS AND ADJUST AS REQUIRED.

KEY NOTES

1. NEW CONCRETE 8" THICK CONCRETE SLAB.
2. EXISTING HYPALON LINER IN POOL TO BE REMOVED AND REPLACED WITH EPDM LINER. OVERLAP & FUSE TO NEW CHANNEL LINER AND ATTACH TO CONCRETE CURB AT EACH END OF POOL WITH SALVAGED HARDWARE.
3. NEW CONC SLAB TO EXTEND APPROX 2" BENEATH EXISTING WALL.
4. INSTALL NEW 4" PVC FLANGE FLUSH WITH TOP OF CONC SLAB. FURNISH 3/8" SST BACKUP RING AND GASKET FOR ATTACHING EPDM LINER AT THE DRAIN OPENING. BACKUP RING SHALL HAVE CL 150 FLANGE DRILLING PATTERN
5. REINSTALL EXISTING 2X12 REDWOOD PLANKIN ON TOP OF EXISTING WALL, SECURE EPDM LINER.
6. PROVIDE AND INSTALL ADHESIVE WATERSTOP ALONG EXISTING WALLS, FOR EXISTING WALL LENGTH.
7. NEW CONCRETE SURFACES AND EXISTING SURFACES IN CONTACT WITH NEW CONCRETE SHALL BE TREATED WITH WATERPROOFING, XYPEX OR EQUIVALENT.
8. FABRICATED SST UNISTRUT SUPPORT STAND LOCATED AT MID POINT OF EACH POOL. ATTACH TO BASE SLAB WITH 2-BOLT POST BASE AND SST EPOXY ANCHORS EMBEDDED 4". FURNISH MIN 1" THICK NON-SHRINK GROUT LEVELING PADS BENEATH POST BASES. ATTACH PIPES TO STAND WITH SST CUSHIONED CLAMPS.
9. 4"x4"x2" PVC SCH 40 FEMALE THREADED TEE AND 2" THREADED PLUG.

NOTES:

1. REINFORCEMENT IN OTHER DIRECTION SHALL BE TREATED IN A SIMILAR MANNER.
2. "W" AND "L" = DIMENSION OF OPENING. FOR CIRCULAR OPENINGS, "W"= DIAMETER.
3. ALL OPENINGS IN WALLS AND SLABS LARGER THAN OR EQUAL TO 10" IN ANY ONE DIRECTION SHALL CONFORM TO DETAILS.
4. OPENING DETAILS SHOWN ARE TYPICAL UNLESS NOTED OTHERWISE.
5. THE NUMBER OF ADDITIONAL BARS AT EACH SIDE OF THE OPENING EQUALS HALF THE NUMBER OF TYPICAL REINFORCING BARS THAT ARE INTERRUPTED BY THE OPENING.

REINFORCING AT WALL AND SLAB OPENINGS

3 – DETAIL

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Tel 503.684.9097

MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
"SLEEPY HOLLOW STEELHEAD REARING FACILITY"
REARING POOL AND CHANNEL REHABILITATION

REARING POOL PLAN AND SECTION

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

C-005

Bar Measures 1 inch

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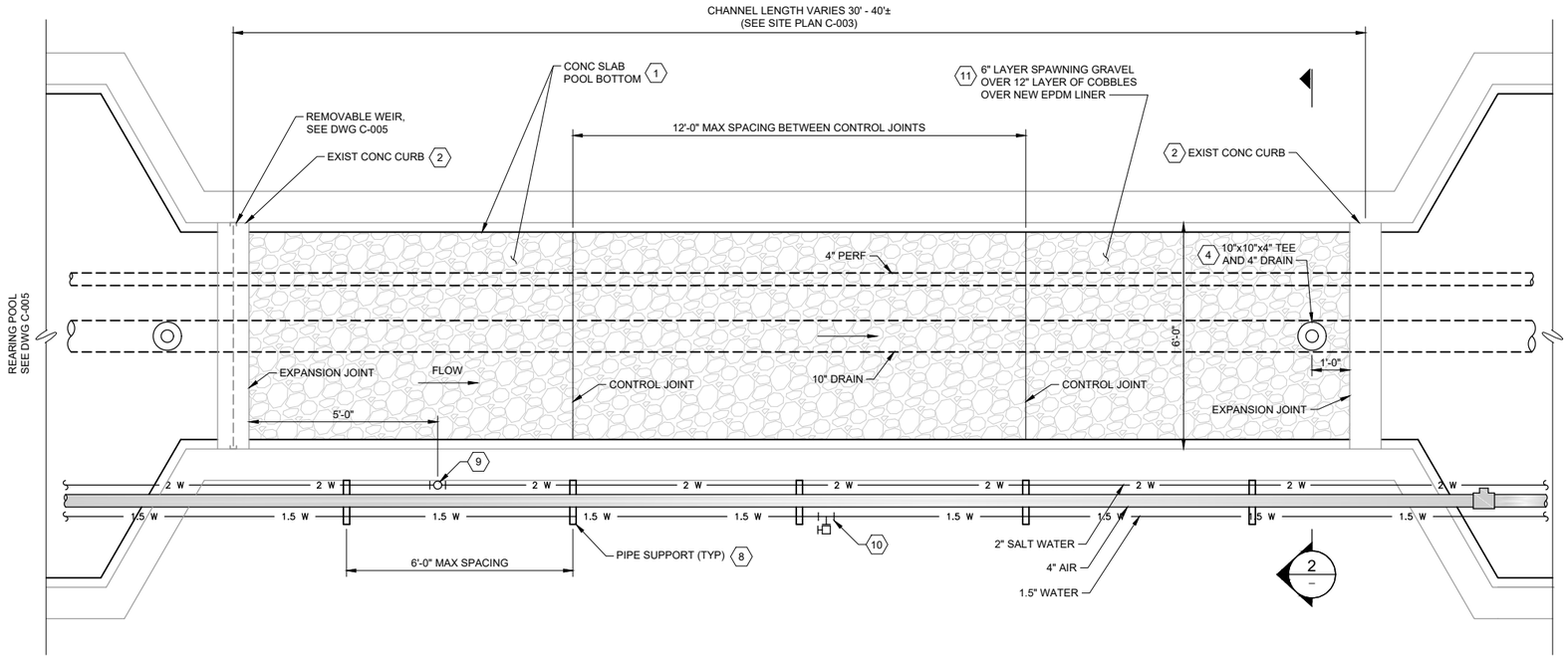
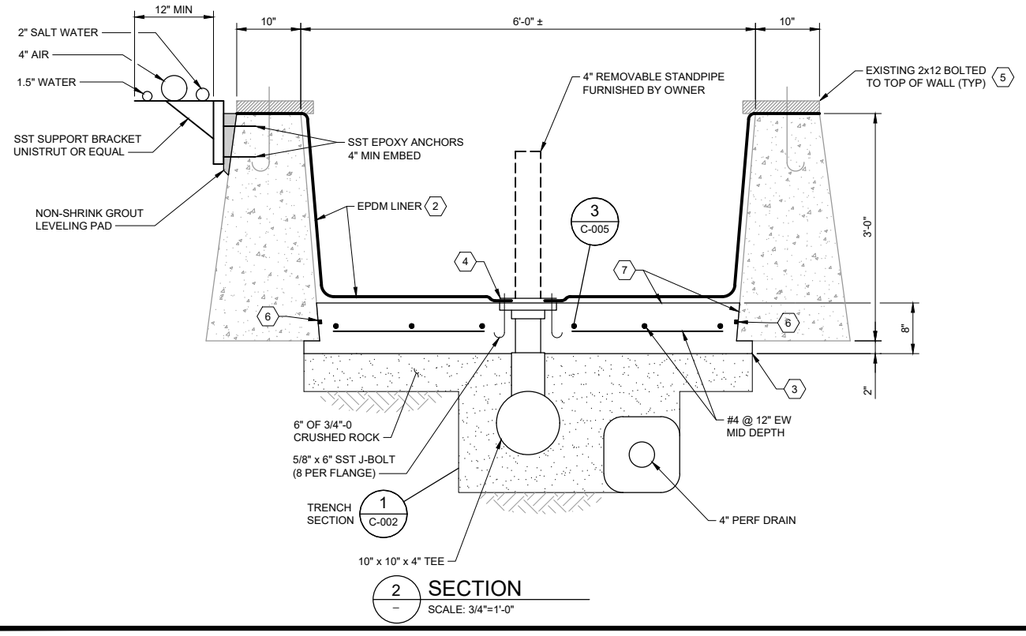


1 – TYPICAL CHANNEL PLAN

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



2 – SECTION

SCALE: 3/4"=1'-0"

GENERAL NOTES

1. ALL EXCAVATION SHALL BE HAND DUG TO AVOID DAMAGE TO EXISTING PIPE, CONCRETE, AND NET SYSTEM. EXCESS EXCAVATED MATERIAL CAN BE SPREAD ON SITE.
2. SUBGRADE SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR. EXCAVATED MATERIAL MAY BE SUBSTITUTED FOR CRUSHED ROCK IF COMPACTION CAN BE MET.
3. DRAWING AND DIMENSIONS ARE BASED ON ORIGINAL 1994 DESIGN DRAWINGS AT ONE POOL LOCATION. FIELD VERIFY ALL DIMENSIONS AND ADJUST AS REQUIRED.

KEY NOTES

1. NEW CONCRETE 8" THICK CONCRETE SLAB. SLOPE PARALLEL TO EXISTING CHANNEL WALLS (ABOUT 0.5%).
2. EXISTING HYPALON LINER IN CHANNEL TO BE REMOVED AND REPLACED WITH EPDM LINER. OVERLAP & FUSE TO NEW POOL LINER AND ATTACH TO CONCRETE CURB AT EACH END OF CHANNEL WITH SALVAGED HARDWARE.
3. NEW CONC SLAB TO EXTEND APPROX 2" BENEATH EXISTING WALL.
4. INSTALL NEW 4" PVC FLANGE FLUSH WITH TOP OF CONC SLAB. FURNISH 3/8" SST BACKUP RING AND GASKET FOR ATTACHING EPDM LINER AT THE DRAIN OPENING. BACKUP RING SHALL HAVE CL 150 FLANGE DRILLING PATTERN
5. REINSTALL EXISTING 2X12 REDWOOD PLANKIN ON TOP OF EXISTING WALL, SECURE EPDM LINER.
6. PROVIDE AND INSTALL ADHESIVE WATERSTOP ALONG EXISTING WALLS, FOR EXISTING WALL LENGTH. ROUGHEN EXISTING CONCRETE TO 1/4" AMPLITIDE, CLEAN, AND SATURATE SURFACE DRY PRIOR TO PLACING NEW CONCRETE.
7. NEW CONCRETE SURFACES AND EXISTING SURFACES IN CONTACT WITH NEW CONCRETE SHALL BE TREATED WITH WATERPROOFING, XYPEX OR EQUIVALENT.
8. SST PIPE SUPPORT AT MAX 6'-0" SPACING. ATTACH TO EXTERIOR OF CHANNEL WALL. FURNISH MIN 1" THICK NON-SHRINK GROUT PAD TO CREATE VERTICAL MOUNTING FACE. ATTACH PIPES TO SUPPORT WITH SST CUSHIONED CLAMPS.
9. 2"x2"x2" PVC SCH 40 TEE WITH FEMALE THREADED OUTLET. ORIENT TEE VERTICALLY UPWARDS.
10. 1.5"x1.5x3/4" PVC SCH 40 TEE AND 3/4" BRASS HOSE BIBB. LOCATE TEE APPROXIMATELY 1/2-WAY BETWEEN UPSTREAM AND DOWNSTREAM CURBS. POINT TEE OUTWARDS FROM CHANNEL WALL AND ROTATE UPWARDS AT 45 DEGREES FROM HORIZONTAL.
11. REUSE EXISTING STOCKPILED COBBLES. SPAWNING GRAVEL SHALL BE IMPORTED NEW BY CONTRACTOR. TAPER DEPTH OF BOTH LAYERS AT EACH END OF CHANNEL TO MATCH TOP OF EXISTING CONCRETE CURBS.

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MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY
REARING POOL AND CHANNEL REHABILITATION

CHANNEL PLAN AND SECTION

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

C-006

Bar Measures 1 inch

8/29/2022 7:33:18 PM - O:\PROJECTS\SEATTLE\124674\200-124674-21001\CAD\SHEETFILES\POOL-RIFFLE-MODIFICATIONS\C-006 CHANNEL PLAN & SECTION.DWG - NORDHOLM, ERIK

G. STRUCTURAL - GENERAL

G1 SCOPE

THE NOTES AND DETAILS ON THIS SHEET ARE GENERAL AND APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.

G2 APPLICABLE SPECIFICATIONS AND CODES

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE. THE ABOVE SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.

G3 ALTERNATIVE DESIGNS

THE STRUCTURAL SYSTEMS AND DETAILS ON THESE PLANS ARE THE PRIORITY DESIGN; HOWEVER, ALTERNATIVE SYSTEMS AND DETAILS MAY BE CONSIDERED IF THE CONTRACTOR SUBMITS PLANS WITH SUBSTANTIATING CALCULATIONS AND TEST DATA WHICH BEAR A CALIFORNIA STATE LICENSED ENGINEER'S SEAL AND SIGNATURE FOR APPROVAL OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE WHOSE EFFORTS FOR REVIEW OF SUCH ALTERNATIVE DESIGNS SHALL BE PAID FOR BY THE CONTRACTOR.

G4 DIMENSIONS

STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. DEVIATIONS FROM THAT WHICH IS SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE DRAWINGS.

G5 CONSTRUCTION LOADS

STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND SUPPORTS AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND MAINTENANCE OF TEMPORARY SUPPORTS. THE DESIGN OF THE TEMPORARY SUPPORTS SHALL BE PERFORMED BY A LICENSED ENGINEER HIRED BY THE CONTRACTOR.

F. STRUCTURAL DESIGN

F1 DESIGN CODE

DESIGN IS IN ACCORDANCE WITH THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE. THE ABOVE SHALL GOVERN EXCEPT WHERE OTHER APPLICABLE CODES OR THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.

F2 DESIGN SOIL PRESSURE FOR FOUNDATIONS

DESIGN BASED ON GEOTECHNICAL INVESTIGATION PREPARED BY PACIFIC CREST ENGINEERING INC DATED APRIL 2018.

(1) ALLOWABLE BEARING PRESSURE = 1000 PSF W/ 1/3 INCREASE FOR WIND AND SEISMIC
(2) LATERAL BEARING = 300 PCF
(3) COEFFICIENT OF FRICTION = 0.35
(4) FROST DEPTH = 12"

L. DESIGN LOADS

A. LIVE
(1) SLAB ON GRADE = 125 PSF
(2) ELEVATED WALKWAYS AND PLATFORMS = 60 PSF

B. SNOW
(1) GROUND SNOW LOAD Pg = 0 PSF
(2) MINIMUM FLAT ROOF SNOW LOAD Pf = N/A
(3) OCCUPANCY CATEGORY II
(4) IMPORTANCE FACTOR = N/A
(5) EXPOSURE FACTOR Ce = N/A
(6) THERMAL FACTOR Ct = N/A

C. WIND
(1) NOMINAL DESIGN WIND SPEED = 85 MPH
(2) ULTIMATE DESIGN WIND SPEED = 110 MPH
(3) OCCUPANCY CATEGORY II
(4) IMPORTANCE FACTOR = 1.0
(5) WIND EXPOSURE B
(6) INTERNAL PRESSURE COEFFICIENTS
ENCLOSED BUILDINGS - GCpi = +/-0.18
PARTIALLY ENCLOSED BUILDINGS - GCpi = +/-0.55

D. SEISMIC
(1) OCCUPANCY CATEGORY II
(2) IMPORTANCE FACTOR = 1.0
(3) SITE CLASS = D
(4) S_S = 1.34 S_1 = 0.49
(5) S_{DS} = 0.89 S_{D1} = 0.49
(6) SEISMIC DESIGN CATEGORY = D
(7) ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE
(8) LATERAL FORCE RESISTING SYSTEM (COOLING TOWER) = STEEL ORDINARY MOMENT FRAME WITH UNLIMITED HEIGHT / R = 1

H. FOUNDATIONS

H1 SUBGRADE AND STRUCTURAL FILL

SEE CIVIL DRAWINGS AND GEOTECHNICAL INVESTIGATION FOR SUBGRADE PREPARATION.

K. SUBMITTALS

K1 STRUCTURAL STEEL AND METAL FABRICATIONS

SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL STEEL AND METAL FABRICATIONS.

K2 REINFORCING STEEL

SUBMIT SHOP DRAWINGS FOR REINFORCING STEEL FABRICATION.

K3 CONCRETE

SUBMIT CONCRETE MIX DESIGN AND CONCRETE CYLINDER TEST RESULTS IN ACCORDANCE WITH ACI 318 CHAPTER 5.

C. CONCRETE

C1 APPLICABLE CODE

CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2014 EDITION OF THE ACI BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318.

C2 REINFORCING STEEL DETAILS

DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH DETAILS AND DETAILING OF CONCRETE REINFORCEMENT ACI 315.

C3 DESIGN STRENGTHS

A. CAST-IN-PLACE CONCRETE
(1) GENERAL USE - f'c = 4500 psi @ 28 DAYS
B. MAX WATER TO CEMENTITIOUS MATERIAL RATIO = 0.45
C. MINIMUM CEMENTITIOUS MATERIAL FOR MAXIMUM AGGREGATE SIZE OF 3/4" = 560 LBS/CY
MINIMUM CEMENTITIOUS MATERIAL FOR MAXIMUM AGGREGATE SIZE OF 1" = 535 LBS/CY
MINIMUM CEMENTITIOUS MATERIAL FOR MAXIMUM AGGREGATE SIZE OF 1 1/2" = 515 LBS/CY
D. FOR NOMINAL MAXIMUM AGGREGATE SIZE OF 3/4" OR 1", AIR CONTENT = 5%
FOR NOMINAL MAXIMUM AGGREGATE SIZE OF 1 1/2", AIR CONTENT = 4.5%
E. REINFORCING STEEL SHALL BE ASTM A 615, GRADE 60.
F. GROUT SHALL BE ASTM C 1107 WITH f'c = 7000 psi @ 28 DAYS
G. CONCRETE SHALL BE PROPORTIONED TO MEET THE AVERAGE COMPRESSIVE STRENGTH REQUIREMENTS IN ACI 301.

C4 CONCRETE COVER

CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:

A. FOOTINGS AND FOUNDATION MATS CAST ON GROUND - 3"
B. FORMED OR FINISHED SURFACES - 2"

C5 DOWELS

DOWELS SHALL BE AT LEAST THE SAME SIZE AND SPACING AS BARS WITH WHICH THEY ARE LAPPED. THE LAP EMBEDMENT SHALL BE AS RECOMMENDED BY ACI 318 OR AS NOTED.

C6 BAR SPLICES

SPLICES OF REINFORCING STEEL BAR SHALL BE IN ACCORDANCE WITH SCHEDULE SHOWN ON CONCRETE DETAILS AND ACI 318 AND SHALL BE CLASS B UNLESS OTHERWISE NOTED. THE LENGTH OF LAP SPLICE OF BARS OF DIFFERENT DIAMETER SHALL BE BASED ON THE SMALLER DIAMETER. BAR SPLICES MAY ALSO BE MADE BY WELDING IN ACCORDANCE WITH AWS SPEC D 1.4 IF APPROVED BY THE ENGINEER.

C7 RESTRICTED BAR ANCHORAGE

IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND END IN STANDARD HOOKS.

C8 STANDARD HOOKS

BARS ENDING IN RIGHT ANGLE BENDS OR HOOKS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318.

C9 CHAMFERS

EXCEPT AS OTHERWISE REQUIRED, EXPOSED CONCRETE CORNERS AND EDGES SHALL HAVE 3/4" CHAMFERS. RE-ENTRANT CORNERS SHALL NOT HAVE FILLETS.

C10 CAST-IN-PLACE CONCRETE ANCHORS

ANCHORS SHALL BE HEADED BOLTS OF ASTM F1554 GRADE 55 (WITH SUPPLEMENT S1) WITH ASTM A563 HEAVY HEXAGONAL NUTS AND ASTM A36 PLATE WASHERS WITH MINIMUM SIZE CONFORMING TO TABLE 14-2 OF THE CURRENT AISC STEEL CONSTRUCTION MANUAL, UNLESS NOTED OTHERWISE. ALTERNATELY, ANCHORS SHALL BE THREADED AND NUTTED ROD CONFORMING TO ASTM F1554 GRADE 55 (WITH SUPPLEMENT S1). ALL MATERIALS SHALL BE HOT DIP GALVANIZED.

C11 POST-INSTALLED ADHESIVE ANCHORS

ADHESIVE ANCHORS AND THEIR PROPERTIES SUCH AS DIAMETER, SPACING, EDGE DISTANCE, EMBEDMENT AND MATERIAL/FINSH SHALL CONFORM TO THE DETAILS IN THESE DRAWINGS. ADHESIVE SHALL BE HILTI HIT-HY 200 OR APPROVED EQUAL. THREADED ROD SHALL BE F1554 GRADE 55 (WITH SUPPLEMENT S1) HOT DIP GALVANIZED.

C12 INSTALLATION OF POST-INSTALLED ANCHORS

ALL ADHESIVE ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S DIRECTIONS. ALL HOLES SHALL BE HAMMER DRILLED WITH A CARBIDE BIT.

C13 SPECIAL WEATHER CONCRETING

FOR SPECIAL WEATHER CONCRETING (HOT & COLD CONCRETING) ADHERE TO REPORTS OF ACI COMMITTEE 305, "HOT WEATHER CONCRETING", AND ACI 306, "COLD WEATHER CONCRETING."

C14 CURING

CONCRETE SHALL BE CURED IN ACCORDANCE WITH ACI 308.1.

C15 CONSTRUCTION JOINTS

LOCATION OF CONSTRUCTION JOINTS SHALL HAVE THE APPROVAL OF THE ENGINEER. CONSTRUCTION JOINTS SHALL BE DETAILED AS SHOWN ON THE DRAWINGS. UNLESS A METAL KEYED FORM IS USED, ALL CONSTRUCTION JOINTS SHALL BE ROUGHENED TO A MINIMUM 1/4" AMPLITUDE. ALL JOINT SURFACES SHALL BE THOROUGHLY CLEANED TO REMOVE GREASE, LOOSE CONCRETE, AND LAITANCE OR OTHER BOND REDUCING MATERIAL. SURFACES SHALL BE SATURATED SURFACE DRY PRIOR TO PLACING FRESH CONCRETE.

C16 CRACK CONTROL JOINTS

CCJ INDICATES A 1/8" WIDE CONTINUOUS SAW CUT CRACK CONTROL JOINT FILLED WITH ELASTOMERIC JOINT SEALANT. VERTICAL CONTROL JOINTS SHALL BE FORMED WITH 3/4 INCH CHAMFER STRIP AND FILLED WITH ELASTOMERIC JOINT SEALANT. THE ELASTOMERIC JOINT SEALANT SHALL CONFORM TO ASTM C920, TYPE S OR M, GRADE NS, CLASS 50.

S. STEEL

S1 CODES AND SPECIFICATIONS

STEEL CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS AND STANDARDS AS CONTAINED IN THE 14TH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.

S2 MATERIAL

STRUCTURAL BARS, PLATES, ANGLES, AND CHANNELS INDICATED ON THE DRAWINGS SHALL BE STEEL MEETING ASTM A36 SPECIFICATIONS. ROLLED W SECTIONS SHALL BE STEEL MEETING ASTM A572 GR50 OR ASTM A992. HOLLOW STRUCTURAL SECTIONS SHALL BE STEEL MEETING ASTM A500 GRADE B. BOLTS SHALL BE STEEL MEETING ASTM A325. HEAVY HEXAGONAL NUTS SHALL BE STEEL MEETING ASTM A563. WASHERS SHALL BE STEEL MEETING ASTM F436 UNLESS OTHERWISE NOTED.

S3 WELDING

WELDING SHALL CONFORM TO AWS D1.1 "STRUCTURAL WELDING CODE - STEEL". ELECTRODE SHALL BE E70XX GROUP, LOW HYDROGEN. LIGHT GAUGE STEEL WELDING SHALL CONFORM TO AWS D1.3. WELDING SHALL BE CONDUCTED BY WELDERS CERTIFIED BY THE AWS.

S4 HOT-DIP GALVANIZING

UNLESS OTHERWISE NOTED, ALL STEEL FABRICATIONS SHALL BE HOT-DIPPED GALVANIZED. STEEL SHALL BE GALVANIZED AFTER FABRICATION.

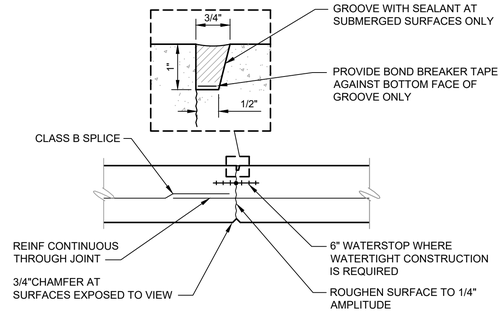
I. STRUCTURAL TESTS AND SPECIAL INSPECTIONS

I1 STRUCTURAL TESTS AND SPECIAL INSPECTIONS

SPECIAL INSPECTION SHALL CONFORM TO SECTION 1705 OF THE 2016 CALIFORNIA BUILDING CODE. LABORATORIES FOR MATERIAL TESTING AND/OR AGENCIES FOR TESTING SERVICES SHALL BE SELECTED BY, ENGAGED BY, AND RESPONSIBLE TO THE OWNER / OWNERS REPRESENTATIVE.

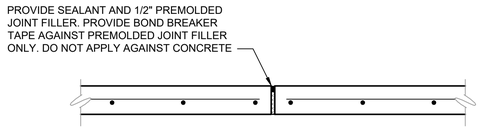
THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION PER CBC CHAPTER 17. THESE INSPECTIONS SHALL BE PERFORMED BY A QUALIFIED SPECIAL INSPECTOR.

ITEM	DESCRIPTION
INSPECTION OF REINFORCING STEEL, INCLUDING PLACEMENT	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
INSPECTION OF ANCHORS CAST IN CONCRETE	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
VERIFYING USE OF REQUIRED DESIGN MIX	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	FREQUENCY: CONTINUOUS REFERENCE: CBC 2016 TABLE 1705.3
CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	FREQUENCY: CONTINUOUS REFERENCE: CBC 2016 TABLE 1705.3
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUE	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
INSPECTION OF FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.3
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.6
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.6
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.6
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	FREQUENCY: CONTINUOUS REFERENCE: CBC 2016 TABLE 1705.6
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PROPERLY PREPARED	FREQUENCY: PERIODIC REFERENCE: CBC 2016 TABLE 1705.6
PRIOR TO WELDING, WELDING PROCEDURE SPECIFICATIONS AVAILABLE AND MANUFACTURER CERTIFICATIONS OF WELDING CONSUMABLES AVAILABLE	FREQUENCY: PERFORM FOR EACH JOINT REFERENCE: AISC 360-10 TABLE N5.4-1
PRIOR TO WELDING, MATERIAL IDENTIFICATION, WELDER IDENTIFICATION SYSTEM, FIT-UP OF GROOVE AND FILLET WELDS, CONFIGURATION AND FINISH OF ACCESS HOLES, CHECK WELDING EQUIPMENT	FREQUENCY: OBSERVE RANDOMLY REFERENCE: AISC 360-10 TABLE N5.4-1
DURING WELDING, USE OF QUALIFIED WELDERS, CONTROL AND HANDLING OF WELDING CONSUMABLES, NO WELDING OVER CRACKED TACK WELDS, ENVIRONMENTAL CONDITIONS, WPS FOLLOWED, WELDING TECHNIQUES	FREQUENCY: OBSERVE RANDOMLY REFERENCE: AISC 360-10 TABLE N5.4-2
AFTER WELDING, WELDS CLEANED	FREQUENCY: OBSERVE RANDOMLY REFERENCE: AISC 360-10 TABLE N5.4-3
AFTER WELDING, SIZE, LENGTH AND LOCATION OF WELD,S WELDS MEET VISUAL ACCEPTANCE CRITERIA, ARC STRIKES, K-AREA, BACKING REMOVED AND WELD TABS REMOVED, REPAIR ACTIVITIES, DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	FREQUENCY: PERFORM FOR EACH JOINT REFERENCE: AISC 360-10 TABLE N5.4-3
PRIOR TO BOLTING, MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	FREQUENCY: PERFORM FOR EACH JOINT REFERENCE: AISC 360-10 TABLE N5.6-1
PRIOR TO BOLTING, FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS, PROPER FASTENERS SELECTED FOR JOINT DETAIL, PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL, CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION MEET APPLICABLE REQUIREMENTS, PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	FREQUENCY: OBSERVE RANDOMLY REFERENCE: AISC 360-10 TABLE N5.6-1
DURING BOLTING, FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS ARE POSITIONED AS REQUIRED, JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO PRETENSIONING OPERATION, FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING, FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION	FREQUENCY: OBSERVE RANDOMLY REFERENCE: AISC 360-10 TABLE N5.6-2
AFTER BOLTING, DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	FREQUENCY: PERFORM FOR EACH JOINT REFERENCE: AISC 360-10 TABLE N5.6-3



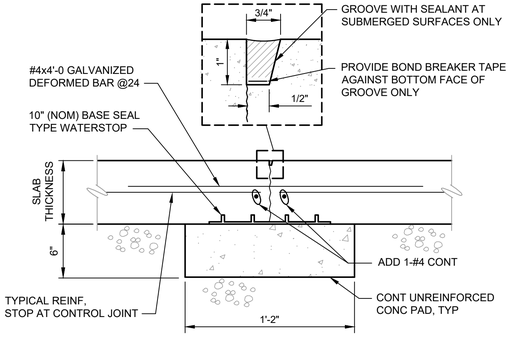
TYPICAL CONSTRUCTION JOINT
HYDRAULIC STRUCTURES

1 CONCRETE DETAIL
SCALE: NONE



EXPANSION JOINT

2 CONCRETE DETAIL
SCALE: NONE



CONTROL JOINT
HYDRAULIC STRUCTURES

3 CONCRETE DETAIL
SCALE: NONE

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Portland, OR 97224
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MARK	DATE	DESCRIPTION	BY

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
SLEEPY HOLLOW STEELHEAD REARING FACILITY
REARING POOL AND CHANNEL REHABILITATION

STRUCTURAL GENERAL NOTES & DETAILS

Project No.:	200-124674-21001
Designed By:	DJN
Drawn By:	TM
Checked By:	DJN

S-001

Bar Measures 1 inch