



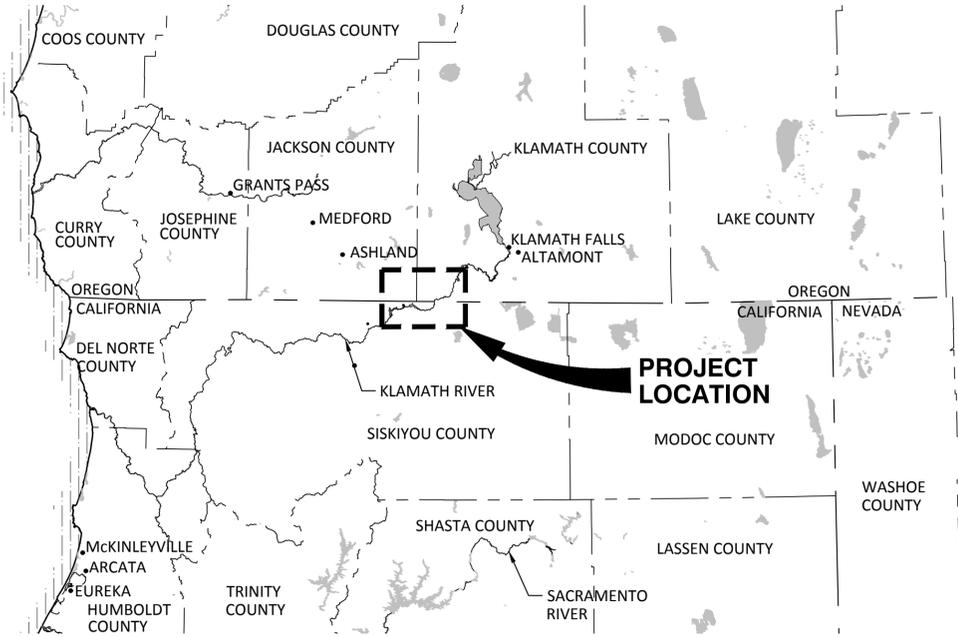
KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

VOLUME 2 - CONSTRUCTION DRAWINGS
JUNE 2022

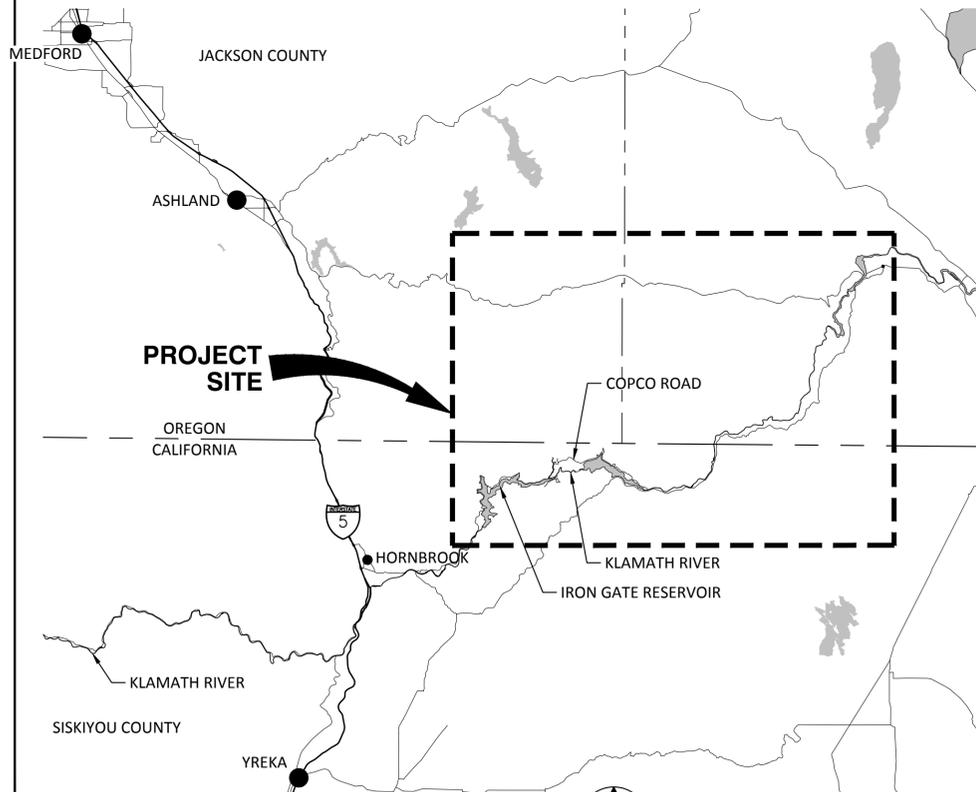
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KLAMATH RIVER RENEWAL CORPORATION

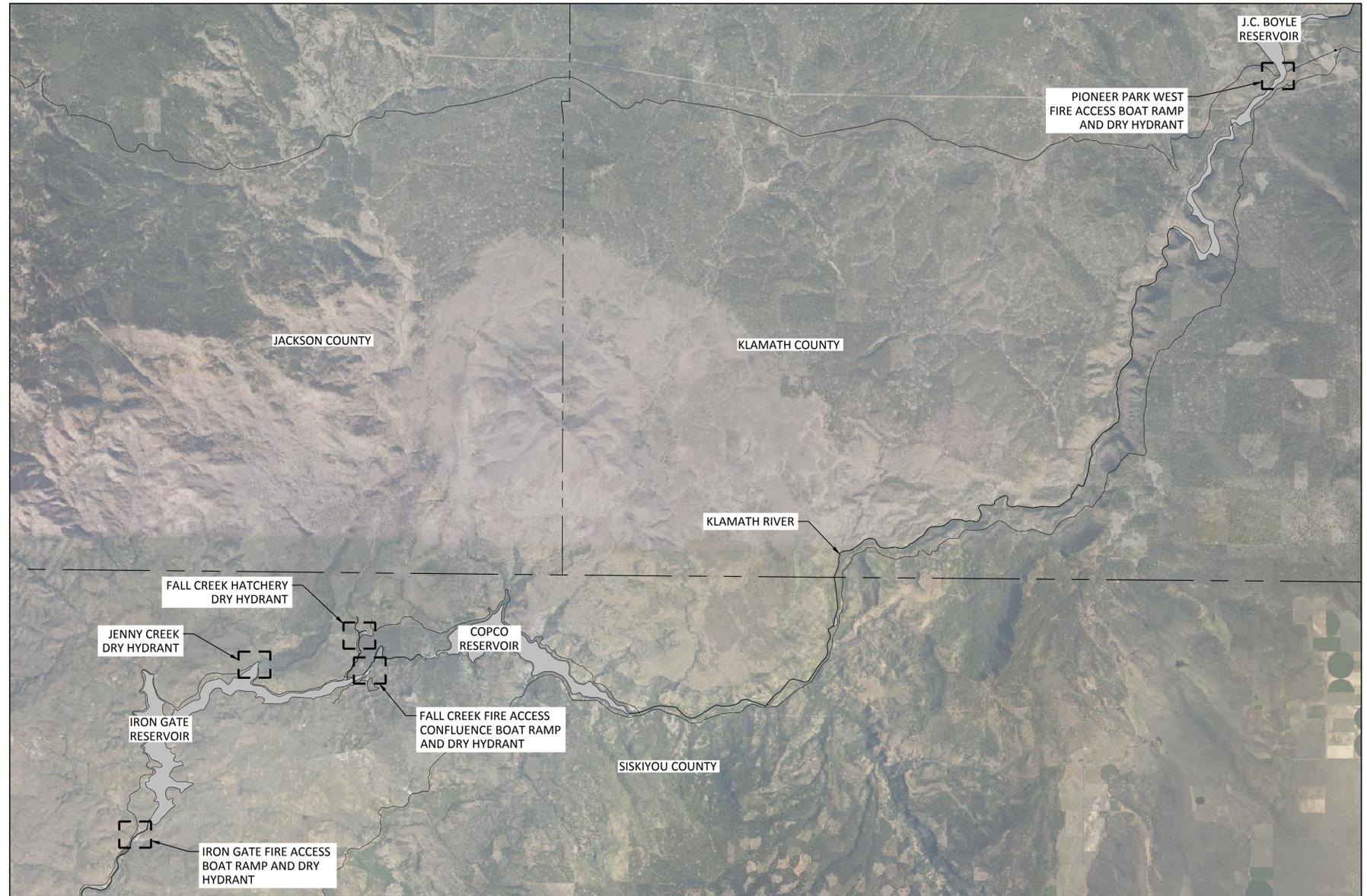
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS 100% DESIGN SUBMITTAL



PROJECT VICINITY MAP
NTS



PROJECT LOCATION MAP
NTS



SITE MAP
NTS



REV	DATE	BY	DESCRIPTION
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WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.



KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DESIGNED <u>K. JENSEN</u>	DRAWING G001
		DRAWN <u>R. WOOD</u>	
LOCATION MAP, VICINITY MAP AND SITE MAP		CHECKED <u>M. McMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	

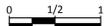
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JOB NO: 000000

DRAWING INDEX		
DWG NO	SHEET NO.	DESCRIPTION
GENERAL		
		COVER SHEET
1	G001	LOCATION MAP, VICINITY MAP AND SITE MAP
2	G002	DRAWING INDEX
3	G003	STANDARD ABBREVIATIONS
4	G004	STANDARD SYMBOLS
5	G005	DESIGN CRITERIA
6	G006	PIPING SCHEDULE
EROSION AND SEDIMENT CONTROL		
7	EC001	EROSION AND SEDIMENT CONTROL STANDARD NOTES
8	EC002	EROSION AND SEDIMENT CONTROL STANDARD DETAILS
9	EC003	EROSION AND SEDIMENT CONTROL KEY PLAN
10	EC100	EROSION AND SEDIMENT CONTROL PLAN IRON GATE
11	EC200	EROSION AND SEDIMENT CONTROL PLAN JENNY CREEK
12	EC300	EROSION AND SEDIMENT CONTROL PLAN FALL CREEK HATCHERY
13	EC400	EROSION AND SEDIMENT CONTROL PLAN FALL CREEK CONFLUENCE
14	EC500	EROSION AND SEDIMENT CONTROL PLAN PIONEER PARK WEST
CIVIL		
15	GC001	CIVIL GENERAL NOTES
16	GC002	CIVIL STANDARD DETAILS 1
17	GC003	CIVIL STANDARD DETAILS 2
18	C001	DRY HYDRANT TYPICAL DETAILS 1
19	C002	DRY HYDRANT TYPICAL DETAILS 2
20	C003	FIRE ACCESS BOAT RAMP PRECAST DETAILS
21	C004	FIRE ACCESS BOAT RAMP CAST-IN-PLACE DETAILS
22	C005	OVERALL SITE KEY PLAN
23	C100	IRON GATE FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN
24	C101	IRON GATE FIRE ACCESS BOAT RAMP AND ACCESS ROAD PROFILES
25	C200	JENNY CREEK DRY HYDRANT PLAN
26	C300	FALL CREEK HATCHERY DRY HYDRANT PLAN
27	C400	FALL CREEK CONFLUENCE FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN
28	C401	FALL CREEK CONFLUENCE FIRE ACCESS BOAT RAMP PROFILE
29	C500	PIONEER PARK WEST FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN
30	C501	PIONEER PARK WEST FIRE ACCESS BOAT RAMP PROFILE

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KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
DRAWING INDEX

DESIGNED <u>K. JENSEN</u>
DRAWN <u>R. WOOD</u>
CHECKED <u>M. MCMILLEN</u>
PROJECT DATE <u>06/22/22</u>

DRAWING
G002

A/C	AIR CONDITIONING	CLR	CLEAR	F TO F	FACE TO FACE	I	INSTRUMENTATION (DWG DISCIPLINE)	N	NORTH, NEUTRAL	RESIL	RESILIENT	UTIL	UTILITY
A/E	ARCHITECTURAL/ENGINEER	CMH	COMMUNICATION MANHOLE	FAB	FABRICATE	ID	INSIDE DIAMETER, INTERIOR DIMENSION	NA	NOT APPLICABLE	RET	RETAINING, RETURN	V	VENT, VELOCITY, VOLT
A	ARCHITECTURAL (DWG DISCIPLINE), AMP	CMU	CONCRETE MASONRY UNIT	FBO	FURNISHED BY OWNER	IE	INVERT ELEVATION	NAT	NATURAL	REV	REVISION, REVERSE	VA	VOLT AMPERE
AB	ANCHOR BOLT	CO	CLEAN OUT, CONCRETE OPENING	FC	FLUSHING CONNECTION	IF	INSIDE FACE	NC	NORMALLY CLOSED	RFL	REFLECTED, REFLECTOR	VAC	VACUUM
ABC	AGGREGATE BASE COURSE	COL	COLUMN	FCA	FLANGED COUPLING ADAPTER	IH	INTAKE HOOD	NEG	NEGATIVE	RGS	RIGID GALVANIZED STEEL	VAR	VARNISH, VARIABLE, VOLT AMPERES REACTIVE
ABAN	ABANDON	COM	COMMON	FCV	FIXED CONE VALVE	IMP	IMPACT	NF	NEAR FACE, NON-FUSED	RH	RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY	VB	VAPOR BARRIER, VINYL BASE, VALVE BOX
AC	ALTERNATING CURRENT	COMB	COMBINATION	FD	FLOOR DRAIN	IN	INCH	NG	NATURAL GAS	RL	REQUIRED LAP	VC	VERTICAL CURVE
ACST	ACOUSTIC	COMM	COMMUNICATION	FDC	FLEXIBLE DUCT CONNECTION	INC	INCLUDE, INCANDESCENT	NIC	NOT IN CONTRACT	RND	ROUND	VCT	VINYL COMPOSITION TILE, VERTICAL CENTERLINE
AD	ADDENDUM, AREA DRAIN	COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE	FDR	FEEDER	INF	INFLUENT	NO	NORMALLY OPEN, NUMBER	RO	ROUGH OPENING	VEL	VELOCITY
ADDL	ADDITIONAL	CONC	CONCENTRIC, CONCRETE	FE	FLANGED END	INSTR	INSTRUMENTATION	NOM	NOMINAL	ROW	RIGHT-OF-WAY	VERT	VERTICAL
ADH	ADHESIVE	CONN	CONNECTION	FEC	FIRE EXTINGUISHER CABINET	INSUL	INSULATION	NPS	NOMINAL PIPE SIZE	RPM	REVOLUTIONS PER MINUTE	VS	VERSES, VAPOR SEAL
ADJ	ADJUSTABLE, ADJACENT	CONST	CONSTRUCTION	FEXT	FIRE EXTINGUISHER	INT	INTERIOR, INTERSECTION	NPT	NATIONAL PIPE THREAD	RR	RAILROAD	VOL	VOLUME
AF	AMP FRAME, AMP FUSE	CONT	CONTINUOUS, CONTINUED	FF	FAR FACE, FACTORY FINISH, FLAT FACE	INTR	INTERMEDIATE, INTERIOR	NS	NEAR SIDE	RT	RIGHT	VPC	VERTICAL POINT OF CURVATURE
AFF	ABOVE FINISH FLOOR	COORD	COORDINATE	FG	FINISHED GRADE	INV	INVERT	NTS	NOT TO SCALE	S	SOUTH, SINK, STRUCTURAL (DWG DISCIPLINE)	VPI	VERTICAL POINT OF INTERSECTION
AFG	ABOVE FINISH GRADE	CORR	CORROSIVE, CORRUGATED	FIG	FIGURE	IPS	IRON PIPE SIZE	NWL	NORMAL WATER LEVEL	SA	SUPPLY AIR	VPT	VERTICAL POINT OF TANGENCY
AGGR	AGGREGATE	CP	CHECKER PLATE, CONTROL POINT	FH	FIRE HYDRANT	IPT	INTERNAL PIPE THREAD	O TO O	OUT-TO-OUT	SAN	SANITARY	VTR	VENT THROUGH ROOF
AIC	AMPS INTERRUPTING CAPACITY	CPLG	COUPLING	FIN	FINISH	IRR	IRRIGATION	OA	OUTSIDE AIR, OVERALL	SC	SOLID CORE	VWC	VINYL WALL COVERING
ALIG	ALIGNMENT	CSK	COUNTERSINK	FL	FLOW, FLOW LINE	ISO	ISOMETRIC	OC	ON CENTER	SCH	SCHEDULE	W/	WITH
ALUM	ALUMINUM	CTR	CENTER	FLEX	FLEXIBLE	JB	JUNCTION BOX	OCPD	OVER CURRENT PROTECTION DEVICE	SCHM	SCHEMATIC	W/O	WITHOUT
ALT	ALTERNATE, ALTITUDE	CTRL	CONTROL	FLG	FLANGE	JCT	JUNCTION	OD	OUTSIDE DIAMETER	SE	STEEL/ALUMINUM EDGE	W	WATT, WEST, WIDE, WINDOW, WIRE, WIDE FLANGE BEAM
AMB	AMBIENT	CU	COPPER, CUBIC	FLOR	FLUORESCENT	JF	JOINT FILLER	OH	OVERHEAD	SEC	SECONDARY, SECONDS	WC	WATER CLOSET, WATER COLUMN
ANC	ANCHOR	CW	CLOCKWISE	FLR	FLOOR	JT	JOINT	OPNG	OPENING	SECT	SECTION	WD	WIDTH
AP	ACCESS PANEL	CY	CUBIC YARD	FLS	FLASHING, FLUSH	K	KIP	OPP	OPPOSITE	SEP	SEPARATE	WF	WIDE FLANGE, WASH FOUNTAIN
APRX	APPROXIMATE	d	PENNY (NAIL MEASURE)	FND	FOUNDATION	KB	KNEE BRACE	OPT	OPTIONAL	SF	SQUARE FOOT	WG	WIRE GLASS, WATER GAGE
APVD	APPROVED ARCH ARCHITECTURAL	D	DEEP, DIFFUSER	FNC	FENCE	KCMIL	THOUSAND CIRCULAR MILS	ORD	OVERFLOW ROOF DRAIN	SH	SHOWER	WH	WALL HYDRANT, WEEP HOLE
ARV	AIR RELEASE VALVE	DB	DECT BANK, DECIBEL, DRY BULB	FO	FINISHED OPENING	KD	KNOCK DOWN	ORIG	ORIGINAL	SHT	SHEET	WL	WATER LEVEL
ASSY	ASSEMBLY	DBA	DEFORMED BAR ANCHOR	FOB	FLAT ON BOTTOM	KO	KNOCK OUT	OVFL	OVERFLOW	SHTG	SHEATHING	WLD	WELDED
AT	AMP TRIP	DBL	DOUBLE	FOC	FACE OF CONCRETE, FACE OF CURB, FIBER	KSI	KIPS PER SQUARE INCH	OVHG	OVERHANG	SIM	SIMILAR	WM	WIRE MESH
ATM	ATMOSPHERE	DC	DIRECT CURRENT	FOF	FACE OF FINISH	L	ANGLE, LENGTH, LAVATORY	OZ	OUNCE	SL	SLOPE	WP	WATERPROOF, WORKING POINT
AUTO	AUTOMATIC	DEG	DEGREE	FOM	FACE OF MASONRY	LAM	LAMINATE	P	PAINT, PROCESS (DWG DISCIPLINE)	SLTD	SLOTTED	WTHP	WEATHERPROOF
AUX	AUXILIARY	DEG C	DEGREE CENTIGRADE	FOS	FACE OF STUDS	LATL	LATERAL	PAR	PARALLEL, PARAPET	SLV	SLEEVE	WS	WATERSTOP, WATER SURFACE
AVE	AVENUE	DEG F	DEGREE FAHRENHEIT	FOT	FLAT ON TOP	LB	LAG BOLT, POUND	PB	PANIC BAR, PULL BOX	SMLS	SEAMLESS	WSEL	WATER SURFACE ELEVATION
AVG	AVERAGE	DEMO	DEMOLITION	FPT	FEMALE PIPE THREAD	LDR	LEADER	PBD	PARTICLE BOARD	SOG	SLAB ON GRADE	WT	WEIGHT, WATER TIGHT
AWG	AMERICAN WIRE GAGE	DEP	DEPRESSED	FR	FRAME	LF	LINEAR FOOT	PE	PLAIN END	SP	SOUNDPROOF, STANDPIPE	WWF	WELDED WIRE FABRIC
B/B	BACK TO BACK	DEPT	DEPARTMENT	FRP	FIBERGLASS REINFORCED PLASTIC	LG	LONG	PED	PEDESTAL	SPC	SPACING	XS	EXTRA STRONG
BAL	BALANCE	DET	DETAIL	FS	FLOOR SINK, FAR SIDE	LH	LEFT HAND	PEMB	PRE-ENGINEERED METAL BUILDING	SPT	SET POINT	XXS	DOUBLE EXTRA STRONG
BBD	BULLETIN BOARD	DI	DROP INLET, DUCTILE IRON	FT	FEET, FOOT	LIN	LINEAR	PEN	PENETRATION	SQ	SQUARE	XSECT	CROSS SECTION
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE	DIA	DIAMETER	FTG	FOOTING, FITTING FUR FURRED, FURRING	LIQ	LIQUID	PERF	PERFORATED	SR	SHORT RADIUS	YH	YARD HYDRANT
BD	BOARD	DIAG	DIAGONAL, DIAGRAM	FURN	FURNITURE, FURNISH	LL	LIVE LOAD	PERP	PERMANENT	SS	SERVICE SINK	YS	YIELD STRENGTH
BE	BOTH ENDS, BELL END	DIFF	DIFFERENTIAL, DIFFERENCE	FUT	FUTURE	LLH	LONG LEG HORIZONTAL	PF	POWER FACTOR	SST	STAINLESS STEEL		
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET	DIM	DIMENSION	FV	FACE VELOCITY	LLV	LONG LEG VERTICAL	PH	PHASE	ST	STREET		
BFV	BUTTERFLY VALVE	DISCH	DISCHARGE	FW	FIELD WELD, FIRE WALL	LMLU	LIQUID MARKER LECTURE UNIT	PI	POINT OF INTERSECTION	STA	STATION		
BITUM	BITUMINOUS	DIST	DISTANCE, DISTRIBUTION	FWD	FORWARD	LNG	LONGITUDINAL	PKG	PACKAGE	STD	STANDARD		
BKG	BACKING	DIV	DIVISION	FWE	FURNISHED WITH EQUIPMENT	LOC	LOCATION	PL	PLATE, PROPERTY LINE	STIF	STIFFENER		
BL	BASE LINE	DL	DEAD LOAD	FXTX	FIXTURE	LP	LOW POINT	PLBG	PLUMBING	STIR	STIRRUP		
BLDG	BUILDING	DN	DOWN	G	GRILLE, GROUND, GENERAL (DWG DISCIPLINE)	LPS	LOW PRESSURE SODIUM	PLF	POUNDS PER LINEAR FOOT	STL	STEEL		
BLK	BLOCK	DP	DEPTH	GA	GAGE (METAL THICKNESS)	LR	LONG RADIUS	PNEU	PNEUMATIC	STOR	STORAGE		
BLKG	BLOCKING	DS	DOWN SPOUT	GAL	GALLON	LT	LEFT	POL	POLISH	STR	STRUCTURAL, STRAIGHT		
BM	BENCHMARK, BEAM	DT	DOUBLE TEE, DRIP TRAP ASSEMBLY	GALV	GALVANIZED	LTG	LIMITED	POS	POSITIVE, POSITION	SUB	SUBSTITUTE		
BOC	BACK OF CURB	DUP	DUPLICATE	GB	GRADE BREAK	LTN	LIGHTNING	PP	POLYPROPYLENE, POWER POLE	SUC	SUCTION		
BOD	BOTTOM OF DUCT	DWL	DRAWING	GD	GUARD	LV	LOW VOLTAGE	PRC	POINT OF REVERSE CURVATURE	SUSP	SUSPENDED		
BOD	BOTTOM OF GRILLE	E	EAST, ELECTRICAL (DWG DISCIPLINE)	GEN	GENERAL	LVR	LOUVER	PREF	PREFINISHED	SY	SQUARE YARD		
BOL	BOTTOM OF LOUVER	EA	EACH, EXHAUST AIR	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	LW	LIGHTWEIGHT	PREFAB	PREFABRICATED	SYM	SYMBOL		
BOP	BOTTOM OF PIPE	EC	ELECTRICAL CONTRACTOR	GL	GLASS	LWC	LIGHTWEIGHT CONCRETE	PRELIM	PRELIMINARY	SYMM	SYMMETRICAL		
BOR	BOTTOM OF REGISTER	ECC	ECCENTRIC	GP	GUY POLE	LWL	LOW WATER LEVEL	PREP	PREPARE	SYN	SYNTHETIC		
BOT	BOTTOM	EDB	ELECTRICAL DUCT BANK	GR	GRADE	M	MECHANICAL (DWG DISCIPLINE)	PRES	PRESSURE	SYS	SYSTEM		
BOU	BOTTOM OF UNIT	EE	EACH END	GRND	GROUND	MA	MIXED AIR	PROP	PROPERTY	T&B	TOP AND BOTTOM		
BP	BASE PLATE	EG	EXISTING GRADE	GRTG	GRATING	MAINT	MAINTENANCE	PROT	PROTECTION	T&G	TONGUE AND GROOVE		
BRG	BEARING	EF	EACH FACE	GT	GREASE TRAP	MAN	MANUAL	PSF	POUNDS PER SQUARE FOOT	T	TILE, TREAD		
BRGP	BEARING PLATE	EG	EXISTING GRADE	GWB	GYPSUM WALLBOARD	MAOP	MAXIMUM ALLOWABLE OPERATING PRESSURE	PSI	POUNDS PER SQUARE INCH	TA	TEMPERED AIR		
BRKT	BRACKET	EGL	ENERGY GRADE LINE	GYP	GYPSUM HARDBOARD	MATL	MATERIAL	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	TAN	TANGENT		
BRKT	BRACKET	EFF	EFFLUENT, EFFICIENCY	H	HIGH	MAX	MAXIMUM	PSIG	POUNDS PER SQUARE INCH GAGE	TBM	TEMPORARY BENCHMARK		
BS	BOTH SIDES	EHH	ELECTRICAL HANDHOLE	HB	HOSE BIB	MB	MACHINE BOLT	PT	POINT, POINT OF TANGENCY	TEMP	TEMPORARY, TEMPERATURE		
BTU	BRITISH THERMAL UNIT	EIFS	EXTERIOR INSULATION & FINISH SYSTEM	HBD	HARDBOARD	MBR	MEMBER	PTN	PARTITION	THK	THICK		
BTW	BETWEEN	EJ	EXPANSION JOINT	HC	HANDICAPPED, HOLLOW CORE, HORIZONTAL CURVE	MCJ	MASONRY CONTROL JOINT	PVC	POLYVINYL CHLORIDE	THRD	THREAD		
BTWLD	BUTT WELD	EL	ELBOW, ELEVATION	HC	HORIZONTAL CENTERLINE	MECH	MECHANICAL	PVMT	PAVEMENT	THRU	THROUGH		
BV	BALL VALVE	ELEC	ELECTRICAL	HDR	HEADER	MED	MEDIUM	PWD	PLYWOOD	TOB	TOP OF BOLT, TOP OF BANK, TOP OF BEAM		
BW	BOTH WAYS	EMBD	EMBEDDED	HDW	HARDWARE	MFR	MANUFACTURER	PZ	PIEZOMETER	TOC	TOP OF CURB, TOP OF CONCRETE		
BYP	BYPASS	EMER	EMERGENCY	HORIZ	HORIZONTAL	MH	MANHOLE, METAL HALIDE	Q	RATE OF FLOW	TOD	TOP OF DUCT		
C TO C	CENTER TO CENTER	EMH	ELECTRICAL MANHOLE	HP	HIGH POINT, HORSEPOWER	MIN	MINIMUM	QTR	QUARTER	TOF	TOP OF FOOTING		
C&G	CURB & GUTTER	ENCL	ENCLOSURE	HPC	HORIZONTAL POINT OF CURVATURE	MIR	MIRROR	QTY	QUANTITY	TOG	TOP OF GRATING		
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT, CIVIL (DRAWING DISCIPLINE)	ENGR	ENGINEER	HPS	HIGH PRESSURE SODIUM	MISC	MISCELLANEOUS	QUAL	QUALITY	TOL	TOLERANCE, TOP OF LEDGER		
CAB	CABINET	ENTR	ENTRANCE	HPT	HORIZONTAL POINT OF TANGENCY	MJ	MECHANICAL JOINT	R&R	REMOVE AND REPLACE	TOM	TOP OF MASONRY		
CAP	CAPACITY	EOP	EDGE OF PAVEMENT	HR	HOUR	MMB	MEMBRANE	R&S	REMOVE AND SALVAGE	TOP	TOP OF PLATE		
CAT	CATALOG	EOW	EDGE OF WATER	HS	HEADED STUD, HIGH STRENGTH	MO	MASONRY OPENING	R	RADIUS, REGISTER, RISER	TOPO	TOPOGRAPHY		
CAV	CAVITY	EQ	EQUAL	HSS	HOLLOW STRUCTURAL SHAPE	MOD	MODULAR, MODIFY	RA	RETURN AIR	TOS	TOP OF SLAB, TOP OF STEEL		
CB	CATCH BASIN	EQUIP	EQUIPMENT	HT	HEIGHT	MON	MONUMENT	RB	RESILIENT BASE, ROCK BERM	TOW	TOP OF WALL		
CCB	CONCRETE BLOCK	EQUIV	EQUIVALENT	HV	HIGH VOLTAGE	MPT	MALE PIPE THREAD	RCPT	RECEPTACLE	TP	TELEPHONE POLE, TOE PLATE, TRAP PRIMER		
CCW	COUNTER CLOCKWISE	ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER	HVAC	HEATING, VENTILATION & AIR CONDITIONING	MSL	MEAN SEA LEVEL	RD	ROOF DRAIN	TPG	TOPPING		
CF	CUBIC FEET (FOOT)	ESEW	EMERGENCY SHOWER AND EYE WASH	HWD	HARDWOOD	MT	MOUNT	REC	RECESS	TRANS	TRANSITION		
CHFR	CHAMFER	EST	ESTIMATE	HWL	HIGH WATER LEVEL	MU	MASONRY UNIT	RECD	RECEIVED	TRD	TRENCH DRAIN		
CHD	CHORD	EW	EACH WAY, EMERGENCY EYE/FACE WASH	HYD	HYDRAULIC HZ HERTZ, CYCLES PER SECOND	MULL	MULLION	RECT	RECTANGULAR	TYP	TYPICAL		
CHH	COMMUNICATION HANDHOLE	EWC	ELECTRIC WATER COOLER			MV	MEDIUM VOLTAGE	RED	REDUCER	U	URINAL		
CI	CURB INLET	EWFC	EACH WAY, EACH FACE			MW	MONITORING WELL	REF	REFERENCE	UG	UNDERGROUND		
CIP	CAST-IN-PLACE	EWFB	EACH WAY, TOP AND BOTTOM					REINF	REINFORCING	ULT	ULTIMATE		
CIPB	CONCRETE INTERLOCKING PAVER	EXC	EXCAVATION					REQD	REQUIRED	UNFN	UNFINISHED		
		EXH	EXHAUST							UNO	UNLESS NOTED OTHERWISE		
		EXIST	EXISTING										
		EXP	EXPANSION, EXPOSED										
		EXT	EXTERIOR, EXTERNAL, EXTENSION										
CIRC	CIRCULATION, CIRCULAR												
CJ	CONSTRUCTION JOINT, CONTROL JOINT												
CKT	CIRCUIT												
CL	CENTERLINE, CLASS, CLOSE												

GENERAL NOTES:

- THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
- LISTING OF ABBREVIATIONS DOES NOT IMPLY ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
- ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF THE WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING; "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.
- 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.
- SEE SHEET ##### FOR PROJECT SPECIFIC EQUIPMENT SYMBOLS, EQUIPMENT ABBREVIATIONS AND PIPING SYSTEM ABBREVIATIONS.

						<p>WARNING</p> <p>IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.</p>						<p>KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS</p>		<p>DESIGNED <u>K. JENSEN</u></p>		<p>DRAWING</p>	
										<p>STANDARD ABBREVIATIONS</p>		<p>DRAWN <u>R. WOOD</u></p>		<p>G003</p>			
												<p>CHECKED <u>M. McMILLEN</u></p>		<p>PROJECT DATE <u>06/22/22</u></p>			
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BOAT RAMP AND DRY HYDRANT HYDRAULIC CRITERIA (FT)					
DESCRIPTION	IRON GATE	JENNY PARK	FALL CREEK HATCHERY	FALL CREEK CONFLUENCE	PIONEER PARK WEST
ANTICIPATED CONSTRUCTION WATER LEVEL	2171.5	2334.5	2490.5	2328.9	3786.5
DESIGN LOW WATER LEVEL (OLW)	2171.5	2334.5	2490.5	2328.9	3786.5
DESIGN HIGH WATER LEVEL (OHW)	2172.9	2336.0	2494.0	2333.7	3787.5

SHEET NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING SURVEYED ELEVATIONS AND FOR FIELD-FITTING FACILITY COMPONENTS AS NEEDED.
2. CONTRACTOR IS RESPONSIBLE FOR DEFINING THE ORDINARY HIGH WATER AND ORDINARY LOW WATER ELEVATIONS.

NATIONAL FIRE PROTECTION ASSOCIATION DESIGN CRITERIA	
DRY HYDRANTS	
PIPE MATERIAL	SCHEDULE 40
MIN FLOW RATE (GPM)	1000.0
MIN DRY HYDRANT CLEARANCE (FT)	3
ACCESSABILITY	ALL-WEATHER
MIN HYDRANTS DIST FROM STRUCTURES (FT)	100.0
MIN DEPTH ABOVE STRAINER (FT)	2.0
MIN DEPTH BELOW STRAINER (FT)	1.0
BOAT RAMPS	
MIN ROADWAY WITH (FT)	12.0
MIN RADIUS OF CURVATURE AT BENDS (FT)	100.0
ACCESSIBILITY	ALL-WEATHER

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WARNING

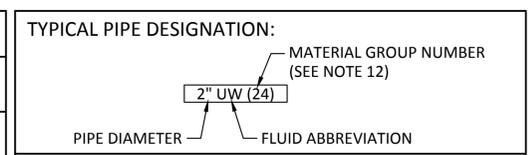
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KLAMATH RIVER RENEWAL CORPORATION		DESIGNED <u>K. JENSEN</u>	DRAWING G005
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN <u>R. WOOD</u>	
DESIGN CRITERIA		CHECKED <u>M. McMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	

FLUID ABBREVIATION	FUNCTION	ALLOWABLE PIPING MATERIAL GROUP NO. (SEE NOTE 1 AND 4)				FIELD TEST REQUIREMENTS (SEE NOTE 3 AND NOTE 4)		
	THIS LIST MAY INCLUDE FLUIDS NOT USED IN THIS PROJECT	EXPOSED PIPING (SEE NOTE 14)		BURIED PIPING (SEE NOTE 13)		MINIMUM TEST PRESSURE PSI	TEST MEDIUM	LEAKAGE ALLOWANCE (SEE NOTE 2)
	(* SEE NOTE 5)	3" DIA AND SMALLER	4" DIA AND LARGER	3" DIA AND SMALLER	4" DIA AND LARGER			
COMMONLY USED FUNCTIONS								
UW	UTILITY WATER (NOT-POTABLE)	16	16	16	16	125	WATER	(A)

PIPING MATERIAL SCHEDULE (SEE NOTE 1)			
GROUP NO.	PIPE MATERIAL	FITTINGS / JOINTS	LININGS AND COATINGS (SEE NOTE 13)
16	POLYVINYL CHLORIDE, SCHEDULE 80, NORMAL IMPACT. ASTM D1785.	POLYVINYL CHLORIDE, SCHEDULE 80, NORMAL IMPACT, SOCKET SOLVENT WELD JOINTS, ASTM D2467 PER SECTION 40 23 22. (SOLVENT & GLUE SHALL BE COMPATIBLE WITH FLUID SERVICE)	NOT APPLICABLE



NOTES:

NOTE 1
ALTHOUGH SEVERAL PIPE MATERIAL GROUPS MAY BE LISTED ON THIS SHEET FOR A GIVEN FLUID SERVICE, CONTRACTOR SHALL PROVIDE ONLY THE PIPE MATERIAL GROUP SHOWN ON THE DRAWINGS AND SPECIFIED FOR THAT FLUID SERVICE.

NOTE 2
LEAKAGE ALLOWANCE IS AS FOLLOWS
A. PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE.
B. PIPES SO DESIGNATED SHALL SHOW ZERO LEAKAGE FOR UNBURIED PIPE AND NOT MORE THAN 0.02 GALLON PER HOUR PER INCH DIAMETER PER 100 FEET OF BURIED PIPE.
C. PIPES SO DESIGNATED SHALL NOT SHOW A LEAKAGE OF MORE THAN 0.15 GALLON PER HOUR PER INCH OF DIAMETER PER 100 FEET OF PIPE.
D. PIPES SO DESIGNATED SHALL NOT SHOW A LOSS OF PRESSURE OF MORE THAN 5 PERCENT.
E. PIPE SO DESIGNATED SHALL NOT SHOW A LOSS OF VACUUM OF MORE THAN 4 INCHES MERCURY COLUMN.

NOTE 3
FOR FIELD TEST PROCEDURES AND ADDITIONAL TEST REQUIREMENTS, SEE PIPING SECTION OF SPECIFICATIONS.

NOTE 4
NO SUBSTITUTIONS U.N.O. IN THE SPECIFICATIONS.

NOTE 5
PIPING GROUP FUNCTION SHOWN THUS * SHALL BE INSULATED PER SPECIFICATIONS.

NOTE 6
STATIC WATER TEST WITH SURFACE 5- FEET ABOVE HIGH POINT OF PIPE.

NOTE 7
NOT APPLICABLE.

NOTE 8
NOT APPLICABLE.

NOTE 9
NOT APPLICABLE.

NOTE 10
NOT APPLICABLE.

NOTE 11
NOT APPLICABLE.

NOTE 12
CHANGE IN PIPING MATERIAL GROUP NUMBER IS INDICATED THUS: —◆—

NOTE 13
FOR FULL PIPE LINING AND COATING REQUIREMENTS, SEE SPECIFICATIONS.

NOTE 14
EXPOSED OUTDOOR PIPING SHALL BE PAINTED IN ACCORDANCE WITH SPECIFICATIONS. COLORS TO BE SELECTED BY OWNER.

NOTE 15
NOT APPLICABLE.

NOTE 16
ALL FISH RELEASE PIPE BENDS SHALL HAVE A MINIMUM RADIUS OF 5 TIMES THE PIPE DIAMETER. FITTINGS FOR FISH RELEASE PIPE SHALL BE OF THE SAME MATERIAL AS THE PIPING. ALL FISH RELEASE PIPING SHALL BE FREE OF BURRS AND ROUGH SURFACES. ALL PIPING JOINTS SHALL BE SMOOTH AND FREE OF SURFACE BLEMISHES. INTERNAL BEAD FROM BUTT WELDING SHALL BE REMOVED USING A DEBEADER FOR PIPES UP TO 20"Ø (INTERNAL). ABOVE 20"Ø INTERNAL BEAD SHALL BE REMOVED BY ENTERING THE PIPE.

NOTE 17
FOR HDPE PIPING THE SIZE OF PIPE SHOWN ON DRAWING CALL-OUTS SHALL BE THE NOMINAL PIPE DIAMETER. HDPE PIPE SHALL BE ACCORDING TO THE IRON PIPE SIZE (IPS) CONVENTION, AND THE PIPE WALL THICKNESS AND INNER DIAMETER SHALL BE PER DR RATING REQUIREMENT.

NOTE 18
ALL REFRIGERANT PIPING SHALL CONFORM TO SPECIFICATION 23 23 00 AND SHALL COMPLY WITH ASME B31.5, CHAPTER VI.

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KLAMATH RIVER RENEWAL CORPORATION	
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS	
PIPING SCHEDULE	

DESIGNED <u>K. JENSEN</u>	G006
DRAWN <u>R. WOOD</u>	
CHECKED <u>M. McMILLEN</u>	
PROJECT DATE <u>06/22/22</u>	

Path: C:\Vault\20\klamath_river_renewal\corp\boat_ramp_dry_hydrant\G006.dwg Plot date: Jun 24, 2022 10:51am. CAD User: wood JOB NO: 000000

EROSION AND SEDIMENT CONTROL NOTES - GENERAL:

1. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN FOR WORK DURING CONSTRUCTION THAT MEETS ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS.
 - A. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES (MULCHING OF STRAW, SAND DIVERSION DITCHES, ETC.) DICTATED BY FIELD CONDITIONS TO PREVENT EROSION OR THE INTRODUCTION OF DIRT, MUD, OR DEBRIS TO EXIST PUBLIC OR PRIVATE ROADWAY, OR ADJACENT PROPERTIES DURING ANY PHASE OF CONSTRUCTION OPERATIONS. SPECIAL ATTENTION SHALL BE GIVEN TO ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NOTED BELOW.
 - B. THE GENERAL EROSION AND SEDIMENT CONTROL PLAN ON THE EC DRAWINGS IS PROVIDED TO AID THE CONTRACTOR IN DEVELOPING THE EROSION AND SEDIMENT CONTROL PLAN ACCORDING TO CONTRACTOR SCHEDULE AND PHASING OF THE PROJECT.
 - C. EROSION CONTROL DETAILS ARE FOR INFORMATION ONLY TO AID THE CONTRACTOR. THE FINAL LOCATIONS AND DETAIL SHALL BE SHOWN ON THE CONTRACTOR'S PREPARED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DOCUMENT.
 - D. CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT. MAINTENANCE OF BOTH TEMPORARY AND PERMANENT EROSION CONTROL MEASURES SHALL BE CONSIDERED INCIDENTAL.
 - E. ALL BMP REQUIRED MATERIALS SHALL MEET OR EXCEED STATE OF CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) OR OREGON DEPARTMENT OF TRANSPORTATION (ODOT) EROSION CONTROL MANUAL REQUIREMENTS, AS APPLICABLE.
 - F. CONTRACTOR SHALL DEVELOP A SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLAN THAT WILL BE ATTACHED TO THE SWPPP.

EROSION AND SEDIMENT CONTROL NOTES - BMP MEASURES:

1. ALL RUNOFF FROM SITE CONSTRUCTION ACTIVITIES AND FROM RAINFALL EVENTS SHALL BE DETAINED ON SITE AND FILTERED PRIOR TO DISCHARGE. STORMWATER RUNOFF SHALL NOT BE ALLOWED TO LEAVE THE SITE UNTREATED (LADEN W/ SUSPENDED SEDIMENT). IF THIS OCCURS, THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY PERMIT VIOLATIONS AND FINES.
2. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT ACCUMULATION OF CONSTRUCTION WASTE AND LITTER ON-SITE.
3. CONTRACTOR SHALL INSTALL SILT FENCE AND/OR STRAW WATTLES AS INDICATED AND IN ANY ADDITIONAL LOCATIONS WHERE MATERIAL COULD LEAVE THE CONSTRUCTION SITE, AT THE CONTRACTOR'S EXPENSE.
4. THE SILT FENCE AND/OR STRAW WATTLES SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
5. CONTRACTOR SHALL HAVE AVAILABLE AT ALL TIMES ADEQUATE SPRINKLER EQUIPMENT TO FACILITATE DUST ABATEMENT AND CONTROL. CONTRACTOR SHALL PROVIDE ALL WATER NECESSARY FOR SPRINKLER OPERATIONS.
6. STOCKPILED EXCAVATION MATERIALS SHALL BE PROTECTED FROM WATER AND WIND EROSION BY COVERING AS APPROPRIATE. WHEN EXPOSED FOR MORE THAN 14 DAYS, COVER STOCKPILES WITH IMPERMEABLE TARPS TO PROTECT DISTURBED SOILS AND SLOPES.
7. ALL TOP SOIL SHALL BE STRIPPED AND PLACED IN SEPARATE STOCKPILE. AFTER BANK RESTORATION TO EXIST GRADE, TOP SOIL SHALL BE PLACED AND RESEDED.
8. CONTRACTOR SHALL HAVE ON-SITE AT ALL TIMES SPILL PREVENTION AND CONTROL MEASURES.
9. ENSURE ALL EQUIPMENT IS CLEAN AND FREE OF OIL/FUEL LEAKS, DIRT, PLANTS AND ANIMALS OR FRAGMENTS OF PLANTS, AQUATIC INVASIVE SPECIES, AND OTHER VEGETATIVE MATTER. EQUIPMENT FOR WORK INSIDE OF THE ORDINARY HIGH WATER MARK SHALL UTILIZE FOOD-GRADE HYDRAULIC FLUID.

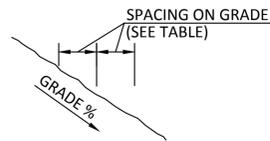
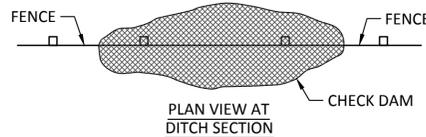
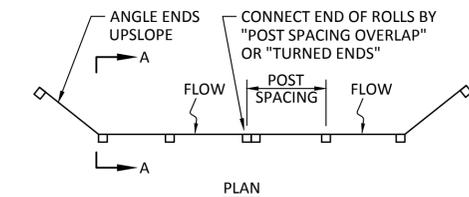
EROSION AND SEDIMENT CONTROL NOTES - GRADING AND FINAL STABILIZATION:

1. CLEARING, GRUBBING, AND GROUND DISTURBING ACTIVITIES SHALL BE CONFINED TO WITHIN THE CLEARING LIMITS AND SHALL MEET THE REQUIREMENTS OF SPECIFICATION 31 11 00. NO GRADING OR CONSTRUCTION ACTIVITIES SHALL OCCUR OUTSIDE OF THE PROPOSED IMPROVEMENTS SHOWN ON THE CONSTRUCTION PLANS FOR THIS PROJECT. PRESERVE EXIST VEGETATION BEYOND DISTURBED AREA - UTILIZE AS NATURAL BUFFER STRIPS.
2. DURING CONSTRUCTION, PROVIDE POSITIVE DRAINAGE AWAY FROM FACILITIES.
3. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES, FENCING, AND STAGING AREA MATERIALS WHEN CONSTRUCTION IS COMPLETE. NO CONSTRUCTION DEBRIS, DEMOLITION MATERIALS, OR EXCESS EQUIPMENT SHALL BE LEFT ON SITE.
4. CONTRACTOR SHALL REGRADE DISTURBED SLOPES TO NEAR EXIST CONDITION AS APPROVED BY THE OWNER.
5. ESTABLISH A TEMPORARY VEGETATIVE COVER ON ALL DISTURBED AREAS AS SOON AS PRACTICAL AFTER THE LAST GROUND DISTURBING ACTIVITIES IN THE AREA. CONTRACTOR SHALL RESEED ALL DISTURBED AREAS WITH NATIVE VEGETATION, PER SPECIFICATION 31 35 30.

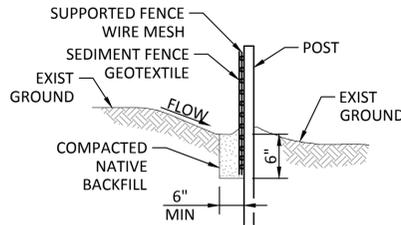
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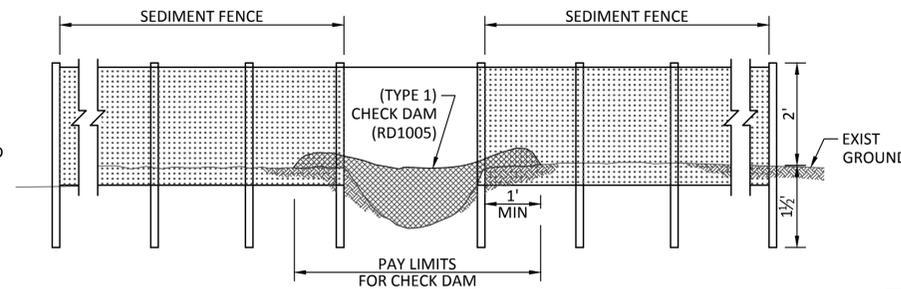
KLAMATH RIVER RENEWAL CORPORATION		DESIGNED <u>K. JENSEN</u>	DRAWING EC001
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN <u>R. WOOD</u>	
EROSION AND SEDIMENT CONTROL STANDARDS NOTES		CHECKED <u>M. MCMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	



PLAN



SECTION A



ELEVATION VIEW AT DITCH SECTION OR LOW AREAS

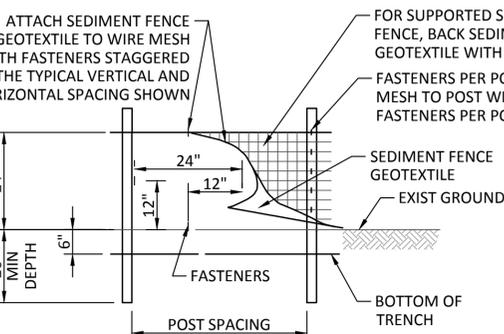
TABLE 1
FENCE SPACING FOR GENERAL APPLICATION
INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS

GRADE	MAXIMUM SPACING ON GRADE
GRADE ≤ 10%	300'
10% ≤ GRADE < 15%	150'
15% ≤ GRADE < 20%	100'
20% ≤ GRADE < 30%	50'
30% ≤ GRADE	25'

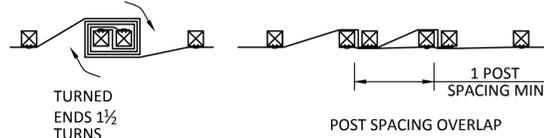
TABLE 2
POST SPACING

4'	SUPPORTED SEDIMENT FENCE
6'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION * LESS THAN 50%
4'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION * MORE THAN 50%

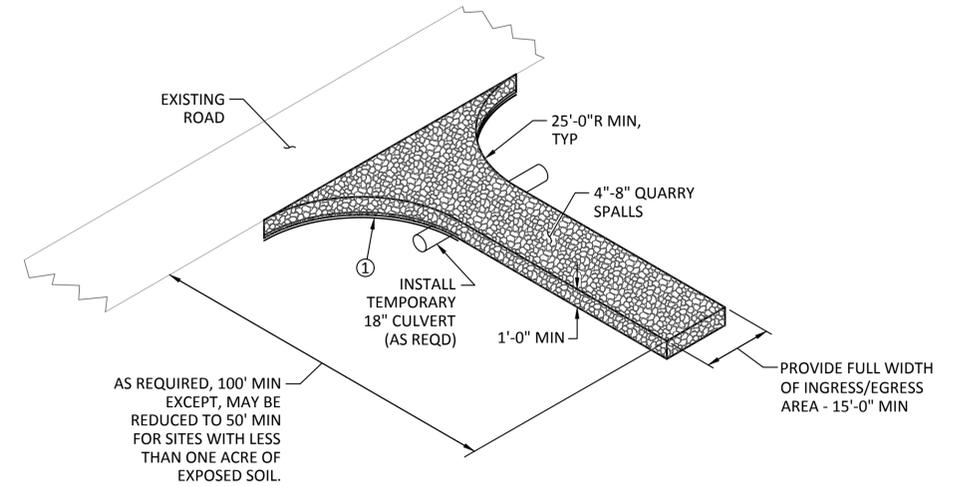
* GEOTEXTILE GRAB ELONGATION VALUE AS DOCUMENTED BY "LEVEL B" MANUFACTURER'S DOCUMENTATION (SEE STANDARD SPECIFICATIONS).



ELEVATION



GEOTEXTILE END CONNECTIONS



AS REQUIRED, 100' MIN EXCEPT, MAY BE REDUCED TO 50' MIN FOR SITES WITH LESS THAN ONE ACRE OF EXPOSED SOIL.

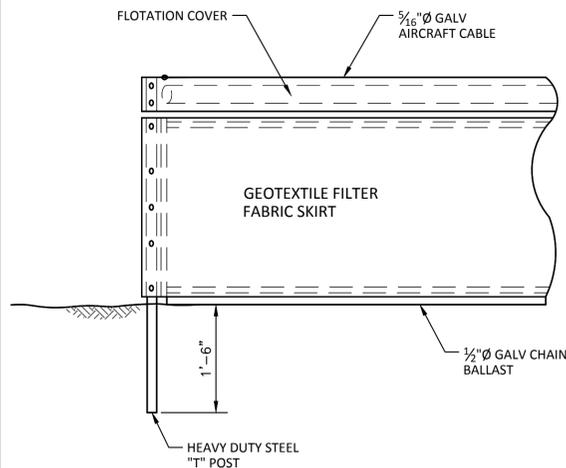
① PLACE CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION AND A MINIMUM OF 0.15' CRUSHED ROCK UNDER THE SPALLS, FROM THE EDGE OF THE EXISTING ROADWAY TO THE RADIUS RETURNS, OR AS DIRECTED BY THE ENGINEER.

SILT FENCE DETAIL

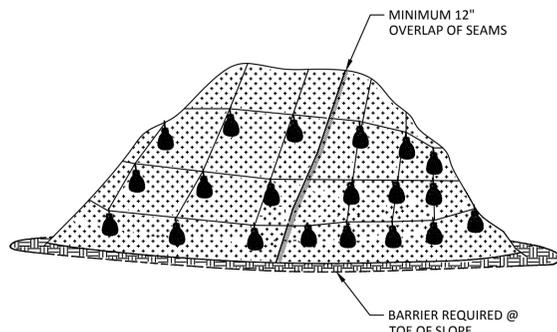
SCALE: NTS

TEMPORARY ENTRANCE

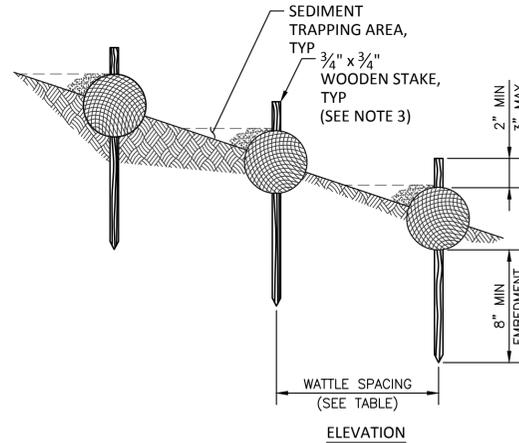
SCALE: NTS



NOTE:
1. TURBIDITY BLANKET TO BE HANES GEO COMPONENTS OR EQUAL.



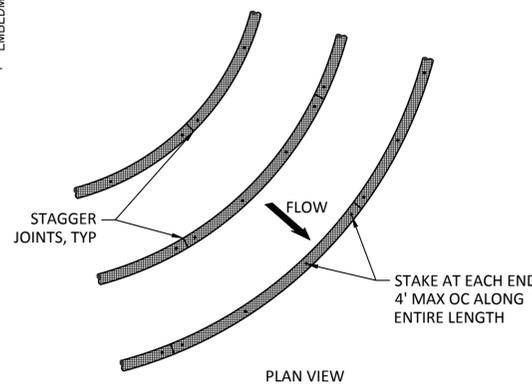
NOTES:
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. BARRIER REQUIRED @ TOE OF STOCK PILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.



WATTLE SPACING TABLE

SLOPE	MAXIMUM SPACING
1:1	10 FEET
2:1	20 FEET
3:1	30 FEET
4:1	40 FEET
>4:1	80 FEET

- NOTES
1. INSTALL WATTLES ALONG CONTOURS. SEE TABLE FOR SPACING.
 2. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RUNOFF PRODUCING RAINFALL, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
 3. LIVE STAKES MAY BE USED FOR PERMANENT INSTALLATIONS.
 4. INSTALL WATTLES SNUGLY INTO THE TRENCH. ABUT ADJACENT WATTLES TIGHTLY, END TO END, WITHOUT OVERLAPPING THE ENDS.
 5. PILOT HOLES MAY BE DRIVEN THROUGH THE WATTLE AND INTO THE SOIL, WHEN SOIL CONDITIONS REQUIRE.
 6. INSTALL AT TOE OF SLOPES. SLOPES GREATER THAN 15' IN LENGTH SHALL HAVE A WATTLE INSTALLED MID SLOPE.



TURBIDITY CURTAIN DETAIL

SCALE: NTS

PLASTIC SHEETING DETAIL

SCALE: NTS

WATTLE DETAIL

SCALE: NTS

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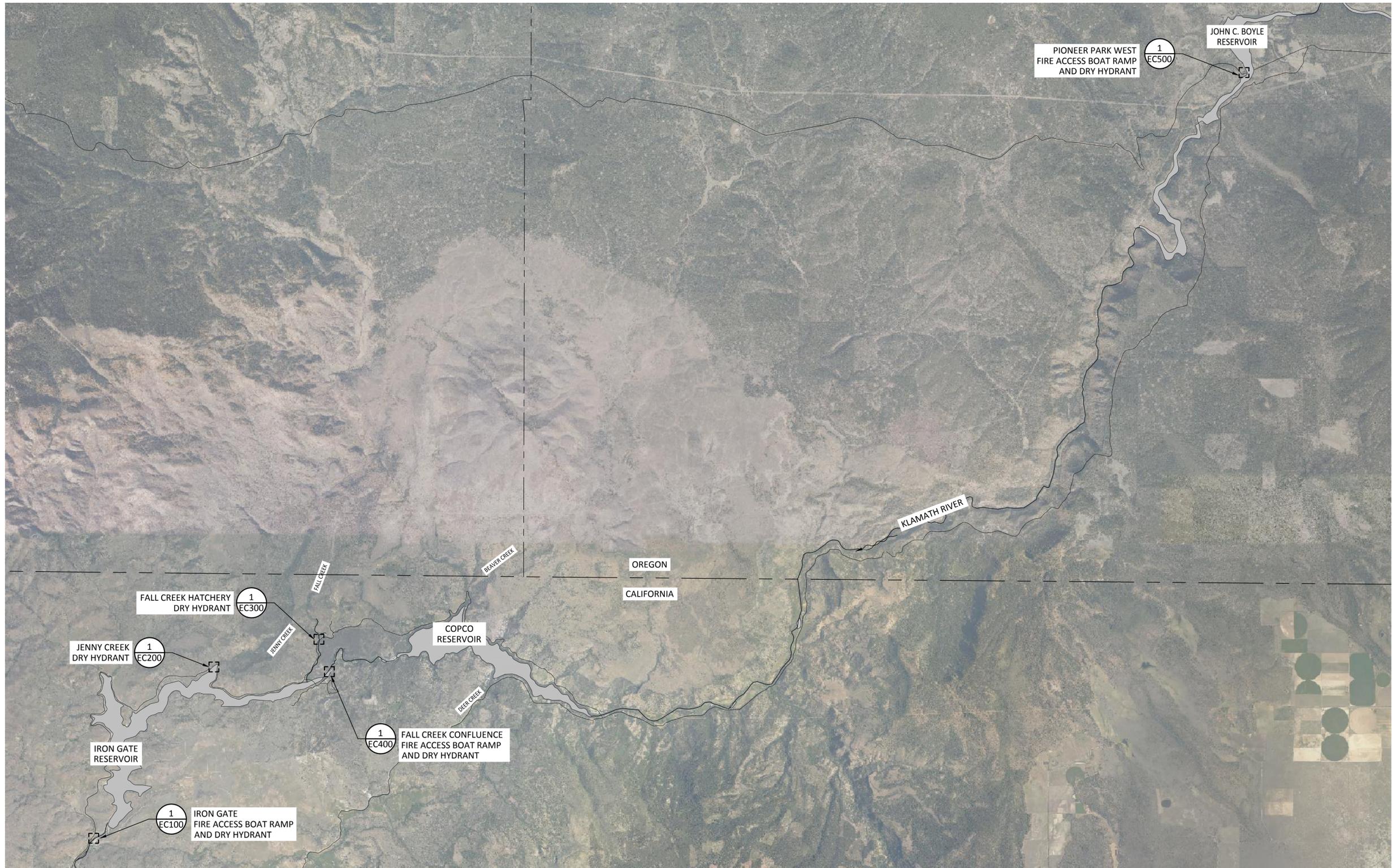
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KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
EROSION AND SEDIMENT CONTROL
STANDARD DETAILS

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. McMILLEN
PROJECT DATE 06/22/22

DRAWING
EC002



EROSION AND SEDIMENT CONTROL KEY PLAN

SCALE: 1" = 5000'



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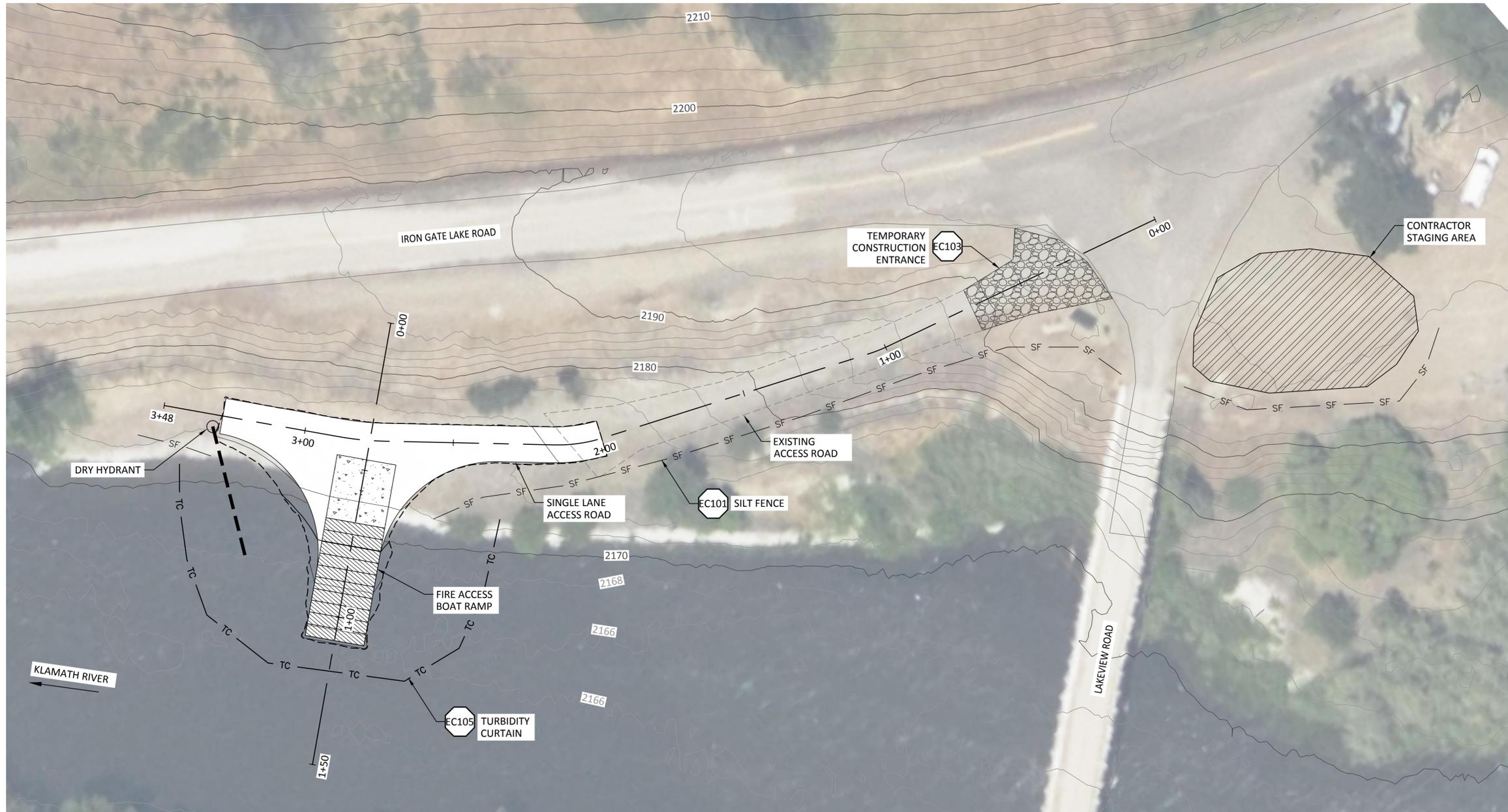
KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
EROSION AND SEDIMENT CONTROL KEY PLAN

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. MCMILLEN
PROJECT DATE 06/22/22

DRAWING
EC003

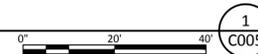
SHEET NOTES:

1. CONTRACTOR SHALL SUBMIT A PROPOSED DEWATERING PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION. DEWATERING PLAN SHALL INCLUDE DRAWINGS OF PROPOSED DEWATERING CONFIGURATION, AND DESCRIPTION OF INSTALLATION AND REMOVAL SEQUENCING.
2. DEWATERING IS REQUIRED FOR INSTALLATION OF BOAT RAMP SUBBASE AND RAIL SYSTEM, BUT NOT FOR PRECAST PLANK INSTALLATION.
3. CONTRACTOR TO INSTALL TEMPORARY FLOATING TURBIDITY CURTAIN SURROUNDING THE PERIMETER OF IN-WATER WORK ACTIVITIES. CONTRACTOR SHALL SUBMIT FLOATING TURBIDITY CURTAIN SHOP DRAWINGS AND INSTALLATION PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION.
4. CONTRACTOR SHALL CLEAR AND GRUB THE SITE PER THE CIVIL SPECIFICATIONS TO ENSURE ACCESS TO THE FACILITY AND TO PROVIDE AT LEAST 20 FEET OF SPACE AROUND THE HYDRANT LOCATION.



EROSION AND SEDIMENT CONTROL PLAN IRON GATE

SCALE: 1" = 20'



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KLAMATH RIVER RENEWAL CORPORATION		DESIGNED K. JENSEN	DRAWING EC100
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN R. WOOD	
EROSION AND SEDIMENT CONTROL PLAN IRON GATE		CHECKED M. MCMILLEN	
		PROJECT DATE 06/22/22	



SHEET NOTES:

1. INSTALLATION OF HYDRANT PIPE AND UNDERWATER STRAINER SUPPORT SHALL INCLUDE, AT A MINIMUM, TEMPORARY USE OF A FLOATING TURBIDITY CURTAIN TO MITIGATE SEDIMENT SUSPENSION IN SURFACE WATERS.
2. NO DEWATERING IS ANTICIPATED FOR PLACEMENT OF HYDRANT PIPE AND UNDERWATER STRAINER SUPPORT. SHOULD PERMIT REQUIREMENTS NECESSITATE LOCALIZED DEWATERING FOR INSTALLATION OF HYDRANT PIPE AND STRAINER SUPPORT, CONTRACTOR SHALL SUBMIT A PROPOSED DEWATERING PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION. DEWATERING PLAN SHALL INCLUDE DRAWINGS OF PROPOSED DEWATERING CONFIGURATION, AND DESCRIPTION OF INSTALLATION AND REMOVAL SEQUENCING.
3. CONTRACTOR SHALL CLEAR AND GRUB THE SITE PER THE CIVIL SPECIFICATIONS TO ENSURE ACCESS TO THE FACILITY AND TO PROVIDE AT LEAST 20 FEET OF SPACE AROUND THE HYDRANT LOCATION.

EROSION AND SEDIMENT CONTROL PLAN JENNY CREEK

SCALE: 1" = 40'



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FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN <u>R. WOOD</u>	EC200
EROSION AND SEDIMENT CONTROL PLAN JENNY CREEK		CHECKED <u>M. MCMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	

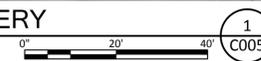


SHEET NOTES:

1. INSTALLATION OF HYDRANT PIPE AND UNDERWATER STRAINER SUPPORT SHALL INCLUDE, AT A MINIMUM, TEMPORARY USE OF A FLOATING TURBIDITY CURTAIN TO MITIGATE SEDIMENT SUSPENSION IN SURFACE WATERS.
2. NO DEWATERING IS ANTICIPATED FOR PLACEMENT OF HYDRANT PIPE AND UNDERWATER STRAINER SUPPORT. SHOULD PERMIT REQUIREMENTS NECESSITATE LOCALIZED DEWATERING FOR INSTALLATION OF HYDRANT PIPE AND STRAINER SUPPORT, CONTRACTOR SHALL SUBMIT A PROPOSED DEWATERING PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION. DEWATERING PLAN SHALL INCLUDE DRAWINGS OF PROPOSED DEWATERING CONFIGURATION, AND DESCRIPTION OF INSTALLATION AND REMOVAL SEQUENCING.
3. CONTRACTOR SHALL CLEAR AND GRUB THE SITE PER THE CIVIL SPECIFICATIONS TO ENSURE ACCESS TO THE FACILITY AND TO PROVIDE AT LEAST 20 FEET OF SPACE AROUND THE HYDRANT LOCATION.

EROSION AND SEDIMENT CONTROL PLAN FALL CREEK HATCHERY

SCALE: 1" = 20'



REV	DATE	BY	DESCRIPTION
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WARNING

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KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

EROSION AND SEDIMENT CONTROL PLAN
 FALL CREEK HATCHERY

DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. MCMILLEN
 PROJECT DATE 06/22/22

DRAWING
EC300



SHEET NOTES:

1. CONTRACTOR SHALL SUBMIT A PROPOSED DEWATERING PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION. DEWATERING PLAN SHALL INCLUDE DRAWINGS OF PROPOSED DEWATERING CONFIGURATION, AND DESCRIPTION OF INSTALLATION AND REMOVAL SEQUENCING.
2. CONTRACTOR SHALL CLEAR AND GRUB THE SITE PER THE CIVIL SPECIFICATIONS TO ENSURE ACCESS TO THE FACILITY AND TO PROVIDE AT LEAST 20 FEET OF SPACE AROUND THE HYDRANT LOCATION.

EROSION AND SEDIMENT CONTROL PLAN FALL CREEK CONFLUENCE

SCALE: 1" = 40'



REV	DATE	BY	DESCRIPTION
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WARNING
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KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

EROSION AND SEDIMENT CONTROL PLAN
 FALL CREEK CONFLUENCE

DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. MCMILLEN
 PROJECT DATE 06/22/22

DRAWING
EC400

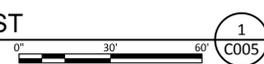
SHEET NOTES:

1. CONTRACTOR SHALL SUBMIT A PROPOSED DEWATERING PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION. DEWATERING PLAN SHALL INCLUDE DRAWINGS OF PROPOSED DEWATERING CONFIGURATION, AND DESCRIPTION OF INSTALLATION AND REMOVAL SEQUENCING.
2. DEWATERING IS REQUIRED FOR INSTALLATION OF BOAT RAMP SUBBASE AND RAIL SYSTEM, BUT NOT FOR PRECAST PLANK INSTALLATION.
3. CONTRACTOR TO INSTALL TEMPORARY FLOATING TURBIDITY CURTAIN SURROUNDING THE PERIMETER OF IN-WATER WORK ACTIVITIES. CONTRACTOR SHALL SUBMIT FLOATING TURBIDITY CURTAIN SHOP DRAWINGS AND INSTALLATION PLAN FOR OWNER APPROVAL PRIOR TO IMPLEMENTATION.
4. CONTRACTOR SHALL CLEAR AND GRUB THE SITE PER THE CIVIL SPECIFICATIONS TO ENSURE ACCESS TO THE FACILITY AND TO PROVIDE AT LEAST 20 FEET OF SPACE AROUND THE HYDRANT LOCATION.



EROSION AND SEDIMENT CONTROL PLAN PIONEER PARK WEST

SCALE: 1" = 30'



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KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
EROSION AND SEDIMENT CONTROL PLAN PIONEER PARK WEST

DESIGNED <u>K. JENSEN</u>
DRAWN <u>R. WOOD</u>
CHECKED <u>M. MCMILLEN</u>
PROJECT DATE <u>06/22/22</u>

DRAWING
EC500
 JOB NO: 00000

GENERAL PROJECT NOTES:

1. ELEVATIONS GIVEN ARE TO FINISH GRADE UNLESS OTHERWISE SHOWN.
2. SLOPE UNIFORMLY BETWEEN CONTOURS AND SPOT ELEVATIONS SHOWN.
3. CONTRACTOR SHALL REPAIR ALL EXIST SURFACE, UTILITIES, BUILDINGS, AND FOUNDATIONS IMPACTED BY CONSTRUCTION, WHICH ARE NOT INDICATED TO BE DEMOLISHED.
4. CONTRACTOR SHALL KEEP ALL CONSTRUCTION WITHIN THE WORK BOUNDARIES DEFINED FOR THIS PROJECT AS SHOWN. THIS INCLUDES, BUT IS NOT LIMITED TO, VEHICLES AND EQUIPMENT, LIMITS OF TRENCH EXCAVATION, STOCKPILED EXCAVATED MATERIAL, BACKFILL MATERIAL, AND PIPE MATERIAL.
5. SEE SPECIFICATION 31 00 00 FOR AGGREGATE MATERIAL TYPES.

GENERAL CONSTRUCTION NOTES:

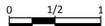
1. ALL MATERIAL FURNISHED ON, OR FOR THE PROJECT, MUST MEET THE MINIMUM REQUIREMENTS OF APPROVING AGENCIES. AT THE REQUEST OF THE APPROVING AGENCY OR THE DESIGN ENGINEER, CONTRACTORS SHALL FURNISH PROOF THAT ALL MATERIALS INSTALLED ON THIS PROJECT MEET THE SPECIFICATION REQUIREMENTS SET FORTH IN THE PROJECT SPECIFICATIONS.
2. ANY DEVIATION FROM THE APPROVED PLANS AND SPECIFICATIONS MUST HAVE DESIGN ENGINEER AND OWNER APPROVAL IN WRITING PRIOR TO CONSTRUCTION.
3. ALL DISTURBED SURFACES SHALL BE RETURNED TO ORIGINAL OR BETTER CONDITIONS.

GENERAL PIPING AND UTILITY NOTES:

1. EXIST BASE MAP MAY CONTAIN ERRORS. CONTRACTOR TO VERIFY LOCATION OF EXIST PIPES, STRUCTURES, AND OVERHEAD UTILITIES PRIOR TO THE START OF CONSTRUCTION OR THE SUBMITTAL OF SHOP DRAWINGS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES TO REMAIN.
3. THE CONTRACTOR SHALL CONTACT THE UTILITY AGENCIES FOR FIELD LOCATION OF UTILITIES, AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 24" COVER ON TOP OF ALL PIPELINES UNLESS OTHERWISE INDICATED OR DIRECTED.
5. ELEVATIONS SHOWN ARE TO THE INVERT (FLOWLINE) OF PIPES, UNLESS OTHERWISE NOTED.
6. STRAIGHT SLOPES SHALL BE MAINTAINED BETWEEN INVERTS SHOWN OR SPECIFIED.
7. ALL PIPE TRENCHING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
8. ALL BUILDING COORDINATES ARE TO OUTSIDE CORNER OF BUILDING STEM WALL UNLESS OTHERWISE NOTED.
9. CONC THRUST BLOCKS PER DETAIL C605 SHALL BE PLACED ON ALL BENDS AND TEES.
10. ALL SLEEVE COUPLINGS ON YARD PIPING SHALL BE UNRESTRAINED, UNLESS NOTED OTHERWISE.

REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



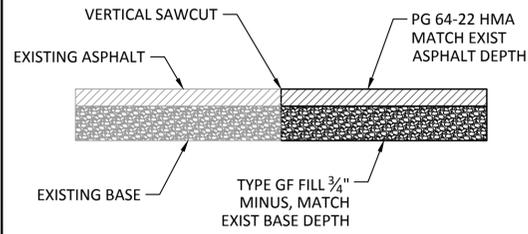
WARNING

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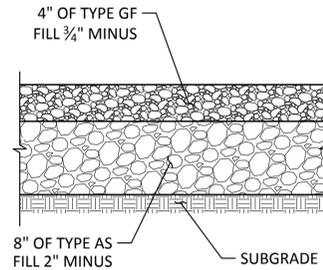
KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
GENERAL CIVIL NOTES

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. McMILLEN
PROJECT DATE 06/22/22

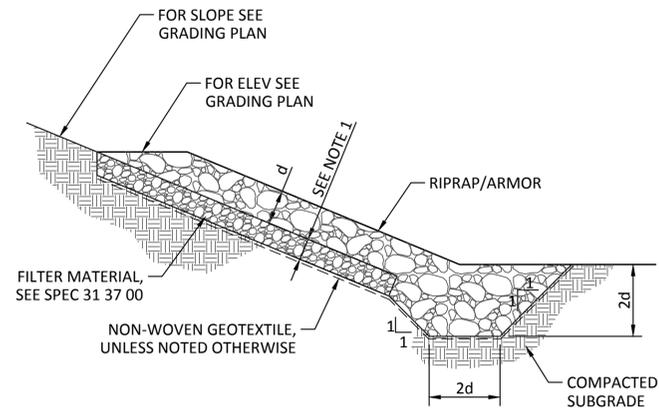
DRAWING
GC001



NOTES:
 1. AFTER ASPHALT REPLACEMENT, RESTORE LANE STRIPING, AS REQUIRED, WITH PAVEMENT MARKING PAINT PER SPECIFICATION 32 11 13.



GRAVEL SURFACING
 SCALE: NTS



NOTES:
 1. RIPRAP LAYER THICKNESS, d , TO BE THE LARGER OF (A) 2X THE MEDIAN ROCK DIAMETER AND (B) THE MAX ROCK DIAMETER. FILTER MATERIAL TO BE 12" FOR TYPE 1 FILTER MATERIAL, AND 6" FOR TYPE 2 FILTER MATERIAL, SEE SPEC 31 37 00.
 2. FOR RIPRAP ARMOR AND BEDDING SIZE, SEE INDICATED RIPRAP TYPE ON PLANS AND DEFINITIONS IN SPEC 31 37 00.

RIPRAP & ARMOR PROTECTION
 SCALE: NTS

ASPHALT REPAIR
 SCALE: NTS



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WARNING
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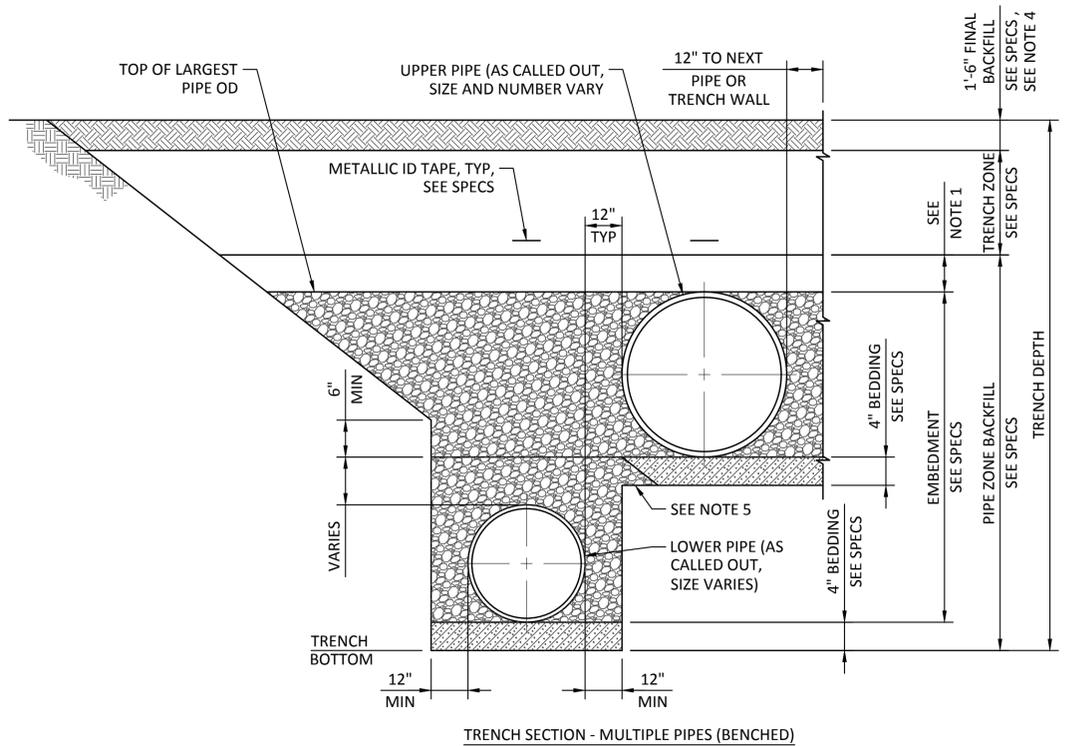
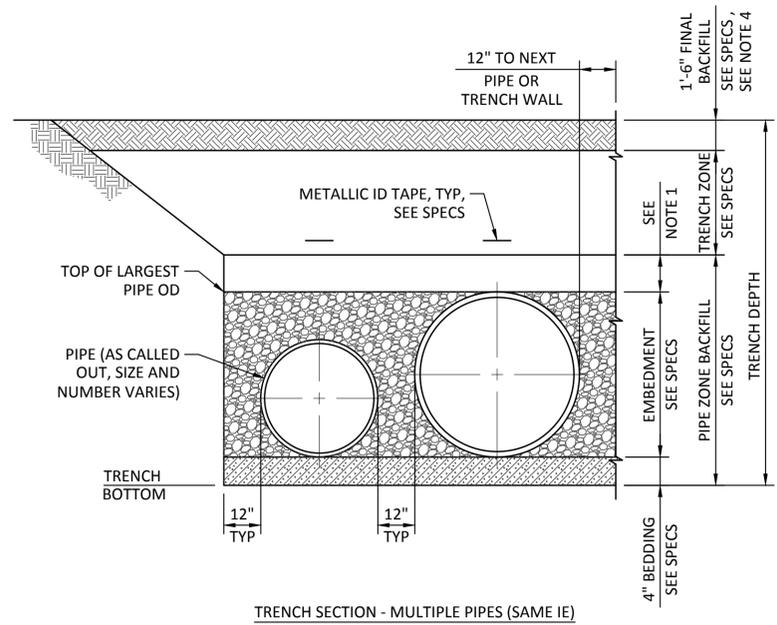
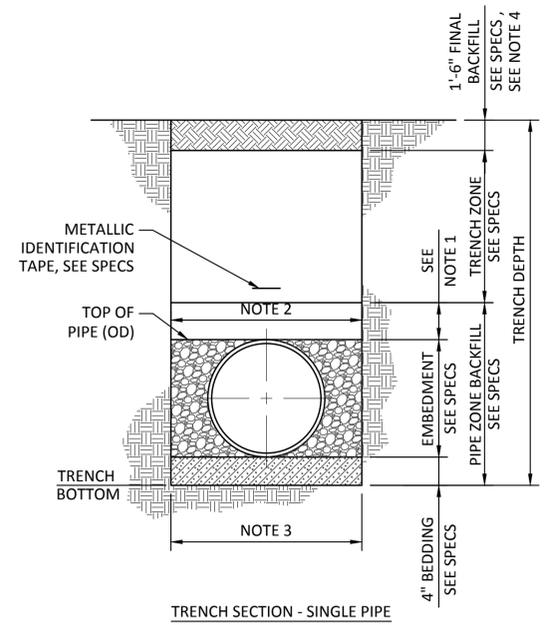


KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
CIVIL STANDARD DETAILS 1

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. McMILLEN
PROJECT DATE 06/22/22

DRAWING
GC002

- A. FLEXIBLE PIPE REFERS TO ALL STEEL, DUCTILE-IRON, AND PLASTIC PIPES.
- B. TYPICAL TRENCH SECTIONS ARE TO BE USED ONLY WHERE STABLE, COMPACT SOIL CONDITIONS EXIST. IF BOULDERS OR LARGE OBSTRUCTIONS ARE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER OR WIDER THAN SHOWN. THE ENGINEER SHALL BE ADVISED SHOULD THIS OCCUR.
- C. THE NEED FOR PROTECTIVE SYSTEMS AND EXCAVATION SLOPES SHALL BE DETERMINED CONSIDERING APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, AND GEOTECHNICAL CONSULTANTS' RECOMMENDATIONS.
- D. PROTECTIVE SYSTEMS SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.
- E. SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER REGARDING PIPE DESIGN AND COMPLIANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS.
- F. UNSUPPORTED VERTICAL AND/OR SLOPING TRENCH WALL SLOPES SHALL NOT BE STEEPER THAN ALLOWED BY APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, UNLESS SUPPORTING DOCUMENTATION IS SUBMITTED, ACCORDING TO AFOREMENTIONED SAFETY STANDARDS.
- G. TRENCH SECTIONS OTHER THAN THE TYPICAL SECTIONS SHOWN MAY BE UTILIZED PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS. DOCUMENTATION SUPPORTING THIS COMPLIANCE AND PIPE DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER.
- H. IF OVER-EXCAVATION DUE TO POOR FOUNDATION MATERIAL IS ORDERED BY THE ENGINEER, THE BACKFILL MATERIAL SHALL BE ACCORDING TO EARTHWORK SPECIFICATION 31 00 00.
- I. IF DURING CONSTRUCTION, THE WATER TABLE IS DISCOVERED TO BE ABOVE THE TRENCH BOTTOM, THE ENGINEER SHALL BE NOTIFIED, AND APPROPRIATE DEWATERING SHALL BE IMPLEMENTED TO LOWER THE WATER LEVEL BELOW THE TRENCH BOTTOM. THE BACKFILL MATERIAL SHALL BE ACCORDING TO THE EARTHWORK SECTIONS OF THE SPECIFICATIONS, OR AS ORDERED BY THE ENGINEER.
- J. ALL PIPE BEDDING, PIPE ZONE BACKFILL, AND TRENCH ZONE BACKFILL MATERIAL TYPES AND COMPACTION REQUIREMENTS ARE INDICATED IN SPECIFICATION 31 00 00.

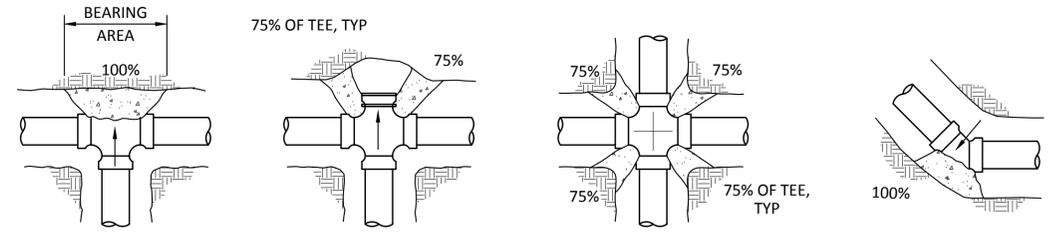


- NOTES:
- 6" MIN FOR PIPE DIAMETER < 24" LESS THAN OR EQUAL TO 24".
 - MAX TRENCH WIDTH @ TOP OF PIPE:
O.D. + 36" FOR 18" & LARGER PIPE O.D.
O.D. + 24" FOR LESS THAN 18" PIPE O.D.
 - MIN TRENCH BOTTOM WIDTH =
O.D. + 24" FOR MECHANICAL COMPACTION
 - WHERE PIPES ARE UNDER GRAVEL ROAD SURFACING OR ASPHALT REPAIR, FINAL BACKFILL SHALL BE TO 18" BELOW THE ROAD SUBGRADE. PLACE FILL PER SPECIFICATIONS AND TOP WITH ROAD SURFACING PER DETAIL C134 OR C135, PER LOCATION.
 - CONSTRUCT LOWER PIPE TRENCH TO 12" MIN. EITHER SIDE OF LOWER PIPE AND UP TO INVERT ELEVATION OF UPPER PIPE. THEN PLACE BEDDING FOR UPPER PIPE, AND CONSTRUCT UPPER PIPE TRENCH. UPPER PIPE TRENCH BEDDING NOT TO INFRINGE UPON EMBEDMENT OF LOWER PIPE TO 12" EITHER SIDE.

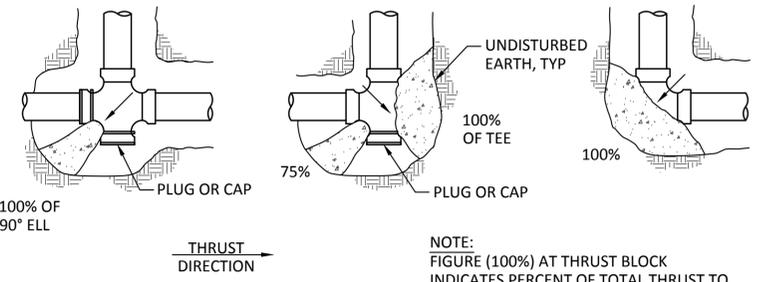
TRENCH SECTION FLEXIBLE PIPE

SCALE: NTS

C601



PLAN



VERTICAL BLEND

VALVE

DEAD-END

THRUST PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS						
PIPE SIZE	11.25° BEND	22.5° BEND	30° BEND	45° BEND	90° BEND	DEAD END / TEE
4	3	7	9	13	24	24
6	8	15	20	29	54	54
8	13	26	35	52	95	95
10	21	41	55	81	150	150
12	29	59	78	115	213	213
14	36	71	94	139	257	257
16	47	93	123	182	337	337
18	59	118	156	231	427	427
20	73	146	194	286	529	529
24	106	211	280	414	764	764

EXAMPLE:
8-INCH 90° ELBOW, PRESSURE = 200 PSI
FROM TABLE: THRUST = 95x200 = 19,000 LB
ASSUME BEARING STRENGTH OF SOIL = 2000 PSF
 $\frac{19,000}{2000} = 9.5$ SQ.FT. = BEARING AREA REQUIRED FOR THRUST BLOCK

NOTES:

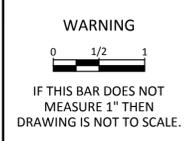
- IN USING THE ABOVE TABLES, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (i.e. HYDROSTATIC TEST PRESSURE).
- SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL IN THE ABSENCE OF A SOILS REPORT AN AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 PSF.
- USE LIGHTWEIGHT CONCRETE FOR HILL THRUST BLOCK. CONCRETE FOR THRUST BLOCKS TO BE 2000 PSI.
- THRUST BLOCKS SHALL BE PLACED ON ALL PRESSURE PIPE BENDS AND TEES. PRESSURE PIPES INCLUDE ALL SUPPLY LINES, AND A PORTION OF THE DRAIN LINE, SO INDICATED ON THE PLANS.

CONCRETE THRUST BLOCKS

SCALE: NTS

C605

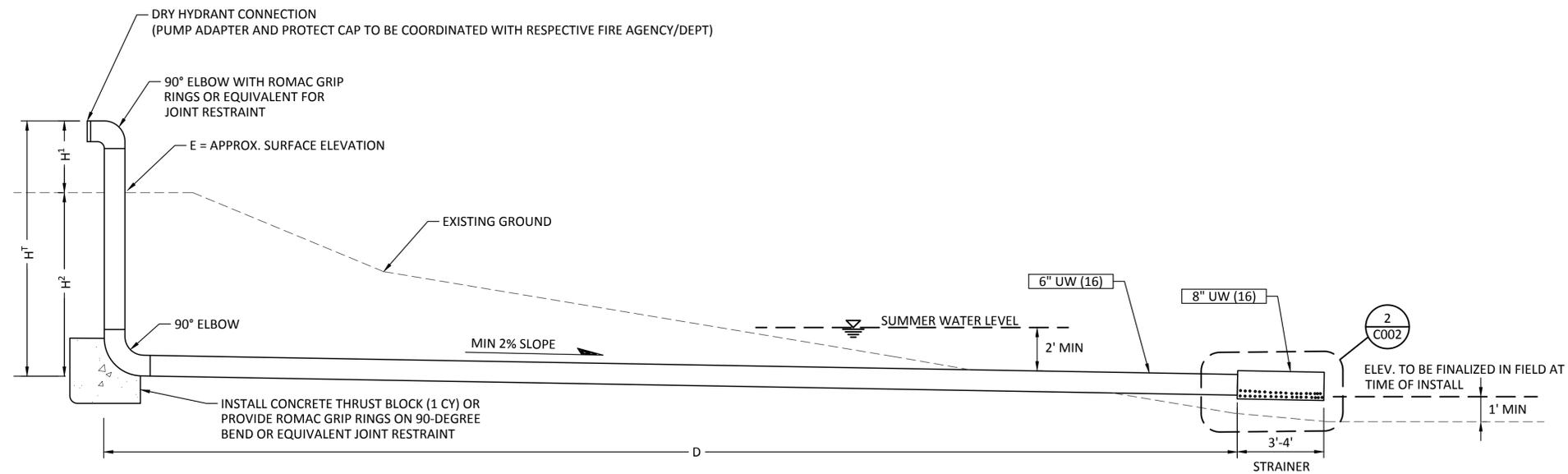
REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DESIGNED <u>K. JENSEN</u>	GC003
CIVIL STANDARD DETAILS 2		DRAWN <u>R. WOOD</u>	
		CHECKED <u>M. McMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	DRAWING

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DRY HYDRANT SCHEDULE					
SITE	H ¹ = HEIGHT GROUND TO CONNECTION (FT)	H ² = HEIGHT ELBOW TO GROUND (FT)	H ^T = TOTAL HEIGHT (FT)	D = HORIZONTAL DISTANCE - ELBOW TO STRAINER (FT)	NOTES
IRON GATE	3.0	2.6	5.6	46.5	LOCATE ON RIVER RIGHT DOWNSTREAM OF RAMP
JENNY CREEK	3.0	2.8	5.8	112.0	EXCAVATE INTO RIVER-LEFT BANK
FALL CREEK HATCHERY	3.0	5.3	8.3	52.0	LOCATE ON RIVER-RIGHT UPSTREAM OF EXISTING BRIDGE
FALL CREEK CONFLUENCE	3.0	6.9	9.9	78.0	LOCATE ON RIVER-RIGHT AT EXISTING BOAT RAMP
PIONEER PARK WEST	3.0	6.0	9.0	50.0	LOCATE ON RIVER-RIGHT IN EXISTING RESERVOIR



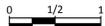
DRY HYDRANT TYPICAL DETAIL

SCALE: NTS

1
-

REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



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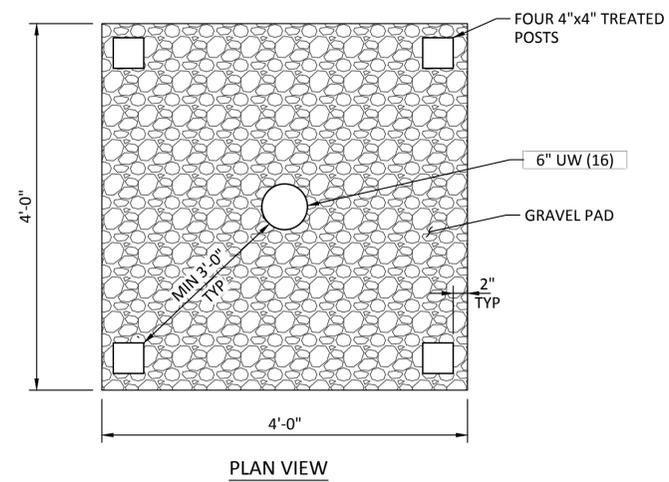
KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

DRY HYDRANT
 TYPICAL DETAILS 1

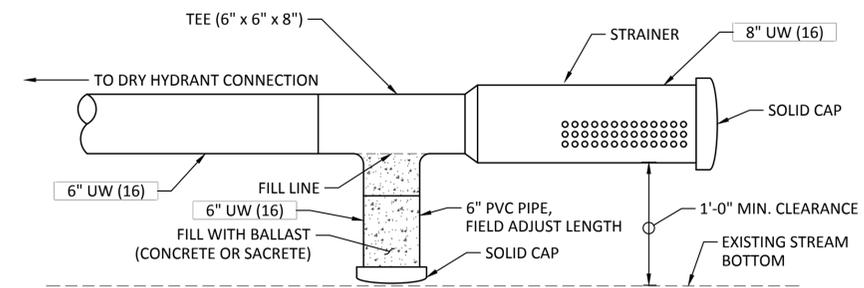
DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. MCMILLEN
 PROJECT DATE 06/22/22

DRAWING

C001



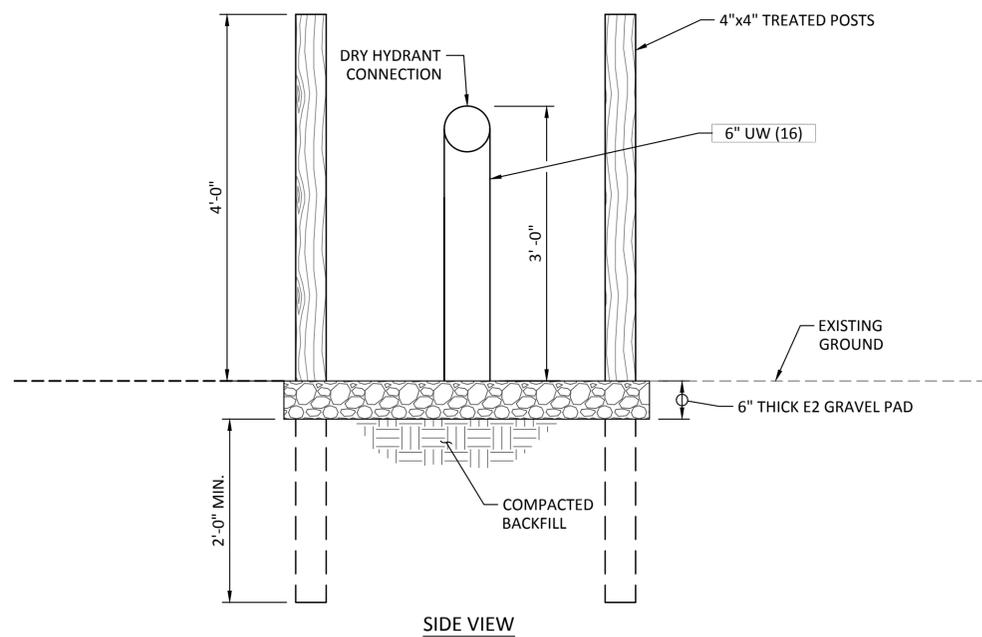
PLAN VIEW



PIPE SUPPORT DETAIL

SCALE: NTS

2



SIDE VIEW

PROTECTIVE BASE PAD DETAIL

SCALE: NTS

1

REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
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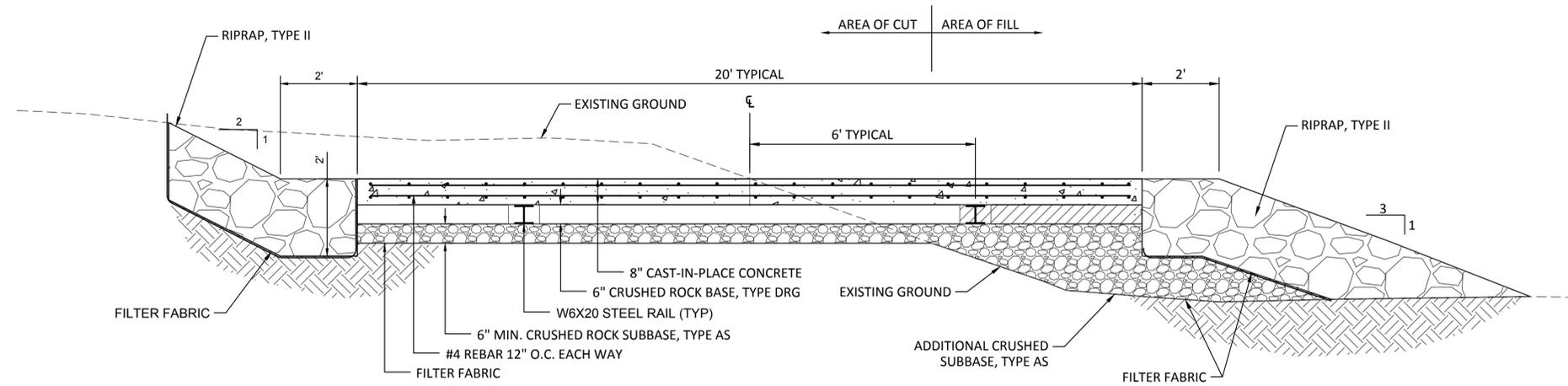
KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

DRY HYDRANT
 TYPICAL DETAILS 2

DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. MCMILLEN
 PROJECT DATE 06/22/22

DRAWING

C002

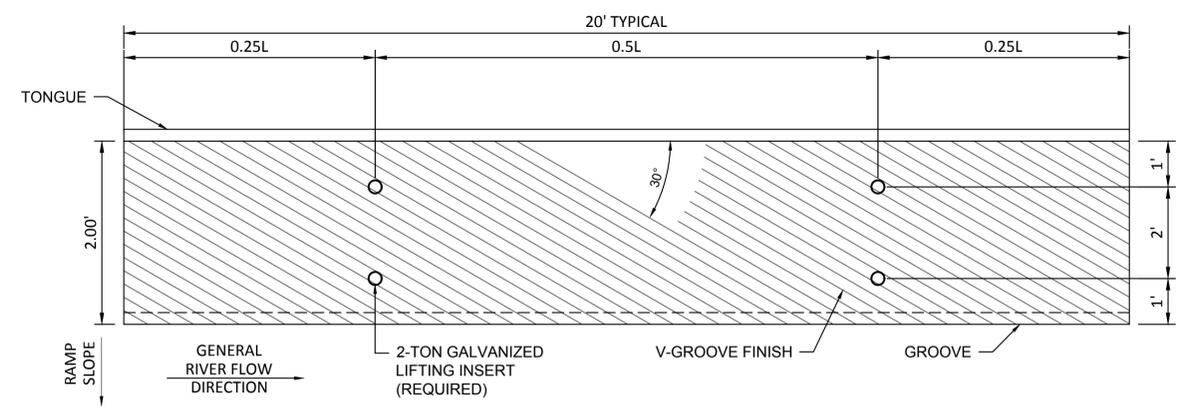


PRECAST CONCRETE PLANK RAMP SECTION IN CUT/FILL
 SCALE: 1/2" = 1'-0"

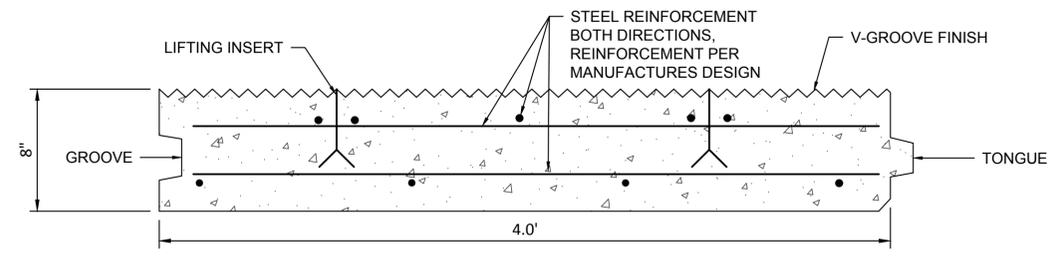
- SHEET NOTES:**
- CONTRACTOR TO SUBMIT SHOP DRAWINGS OF CONCRETE BOAT RAMPS PRIOR TO COMMENCING WORK.
 - CONCRETE SHALL BE PROPORTIONED, TRANSPORTED, AND PLACED IN ACCORDANCE WITH ACI 350-06.
 - ALL WALLS AND SLABS TO BE 8" THICK CONCRETE UNLESS NOTED OTHERWISE.
 - CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH F'C = 4,000 PSI AT 28 DAYS. PRECAST CONCRETE SHALL HAVE A F'C = 5,000 PSI AT 28 DAYS.
 - MAXIMUM SIZE OF AGGREGATE IS 3/4".
 - ALL REBAR SHALL BE FY=60,000 KSI, ASTM A615, GRADE 60 AND EPOXY COATED.
 - ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFERS AND SMOOTH FINISHES ON ALL CONCRETE SURFACES. UNLESS NOTED OTHERWISE.
 - MIN CLR FOR REINF BARS, UNLESS SHOWN OTHERWISE, SHALL BE 3" WHEN PLACED ON GROUND AND 2" FOR SURFACES EXPOSED TO WATER OR WEATHER.
 - UNLESS OTHERWISE NOTED, ALL WALL REINF BARS SHALL BE CONT AROUND CORNERS. REINF SHALL BE EXTENDED INTO CONNECTION WALLS AND LAPPED ON THE OPPOSITE FACE OF THE CONNECTING WALLS, AS INDICATED ELSEWHERE ON THIS SHEET. VERT WALL BARS SHALL BE LAPPED WITH DOWELS FROM BASE SLABS AND EXTENDED INTO THE TOP FACE OF ROOF SLABS AND LAPPED WITH TOP SLAB REINF. UNLESS INDICATED OTHERWISE, CONTRACTOR MAY SPLICE CONTINUOUS SLAB OR LONGITUDINAL BEAM BARS AT LOCATIONS OF HIS CHOOSING, EXCEPT THAT TOP BAR SPLICES SHALL BE LOCATED AT MIDSPAN AND BOTTOM BAR SPLICES SHALL BE LOCATED AT SUPPORTS. STAGGER ADJACENT SPLICES PER ACI 350 WITH A MINIMUM OF 2'-0". ALL REINF BENDS AND LAPS UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENT:

BAR SIZE	CLASS B TENSION SPLICE	
	TOP	OTHER
#4	20	15
#5	24	19
#7	42	33

* TOP BAR SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR, IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.



PRECAST CONCRETE PLANK
 SCALE: NTS



PRECAST CONCRETE PLANK SECTION
 SCALE: NTS

REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



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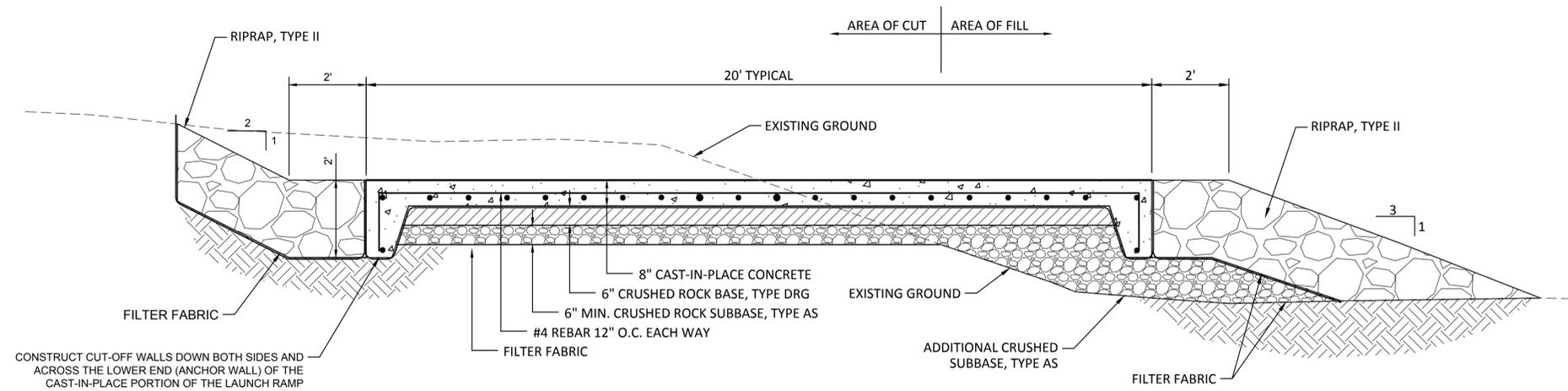
KLAMATH RIVER RENEWAL CORPORATION	DESIGNED K. JENSEN	DRAWING C003
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS	DRAWN R. WOOD	
FIRE ACCESS BOAT RAMP PRECAST DETAILS	CHECKED M. McMILLEN	
	PROJECT DATE 06/22/22	

SHEET NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS OF CONCRETE BOAT RAMPS PRIOR TO COMMENCING WORK.
2. CONCRETE SHALL BE PROPORTIONED, TRANSPORTED, AND PLACED IN ACCORDANCE WITH ACI 350-06.
3. ALL WALLS AND SLABS TO BE 8" THICK CONCRETE UNLESS NOTED OTHERWISE.
4. CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH F'C = 4,000 PSI AT 28 DAYS. PRECAST CONCRETE SHALL HAVE A F'C = 5,000 PSI AT 28 DAYS.
5. MAXIMUM SIZE OF AGGREGATE IS 3/4".
6. ALL REBAR SHALL BE FY=60,000 KSI, ASTM A615, GRADE 60 AND EPOXY COATED.
7. ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFERS AND SMOOTH FINISHES ON ALL CONCRETE SURFACES. UNLESS NOTED OTHERWISE.
8. MIN CLR FOR REINF BARS, UNLESS SHOWN OTHERWISE, SHALL BE 3" WHEN PLACED ON GROUND AND 2" FOR SURFACES EXPOSED TO WATER OR WEATHER.
9. UNLESS OTHERWISE NOTED, ALL WALL REINF BARS SHALL BE CONT AROUND CORNERS. REINF SHALL BE EXTENDED INTO CONNECTION WALLS AND LAPPED ON THE OPPOSITE FACE OF THE CONNECTING WALLS, AS INDICATED ELSEWHERE ON THIS SHEET. VERT WALL BARS SHALL BE LAPPED WITH DOWELS FROM BASE SLABS AND EXTENDED INTO THE TOP FACE OF ROOF SLABS AND LAPPED WITH TOP SLAB REINF. UNLESS INDICATED OTHERWISE, CONTRACTOR MAY SPLICE CONTINUOUS SLAB OR LONGITUDINAL BEAM BARS AT LOCATIONS OF HIS CHOOSING, EXCEPT THAT TOP BAR SPLICES SHALL BE LOCATED AT MIDSPAN AND BOTTOM BAR SPLICES SHALL BE LOCATED AT SUPPORTS. STAGGER ADJACENT SPLICES PER ACI 350 WITH A MINIMUM OF 2'-0". ALL REINF BENDS AND LAPS UNLESS OTHERWISE NOTED, SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENT:

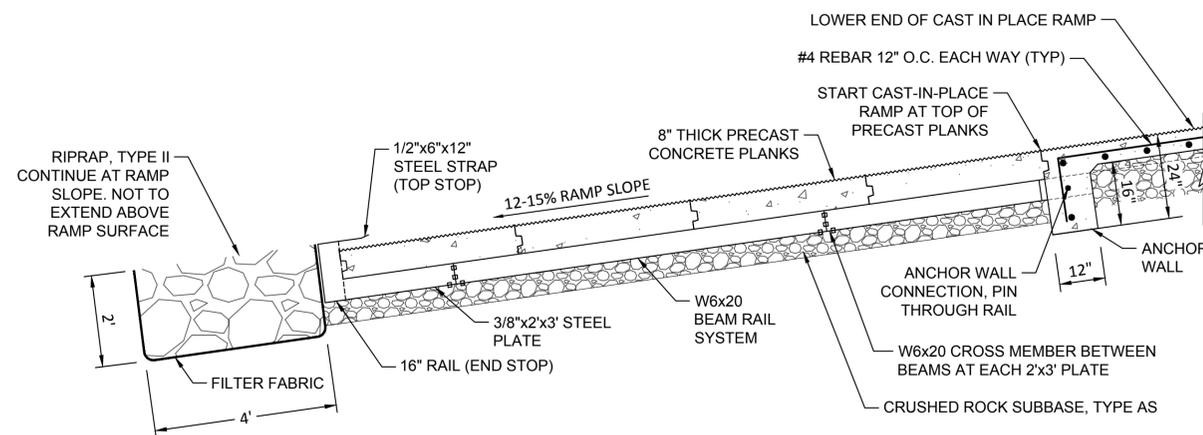
BAR SIZE	CLASS B TENSION SPLICE	
	TOP	OTHER
#4	20	15
#5	24	19
#7	42	33

* TOP BAR SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR, IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE CONSIDERED TOP BARS.



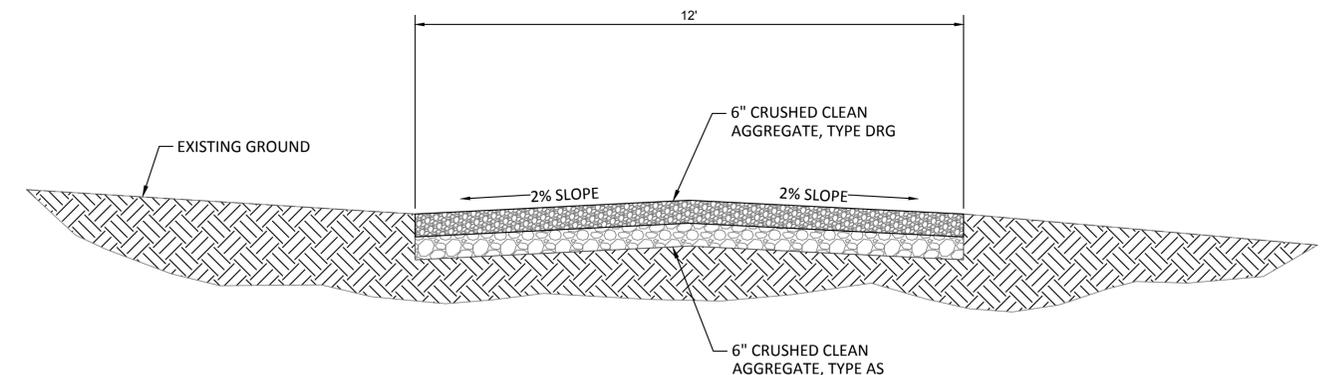
CAST-IN-PLACE RAMP SECTION (TYPICAL CUT/FILL)

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



CAST-IN-PLACE TO PRECAST TRANSITION

SCALE: NTS



NOTES:

1. BASE ROCK SHOULD BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.
2. THE GROUND SURFACE SHOULD BE STRIPPED OF ALL VEGETATION AND ANY AREAS OF SOFT OR DISTURBED SUBGRADE SHOULD BE PROPERLY MOISTURE CONDITIONED AND RECOMPACTED OR OVEREXCAVATED AND REPLACED WITH ADDITIONAL BASE ROCK.

TYPICAL GRAVEL ROAD SECTION

SCALE: NTS



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL

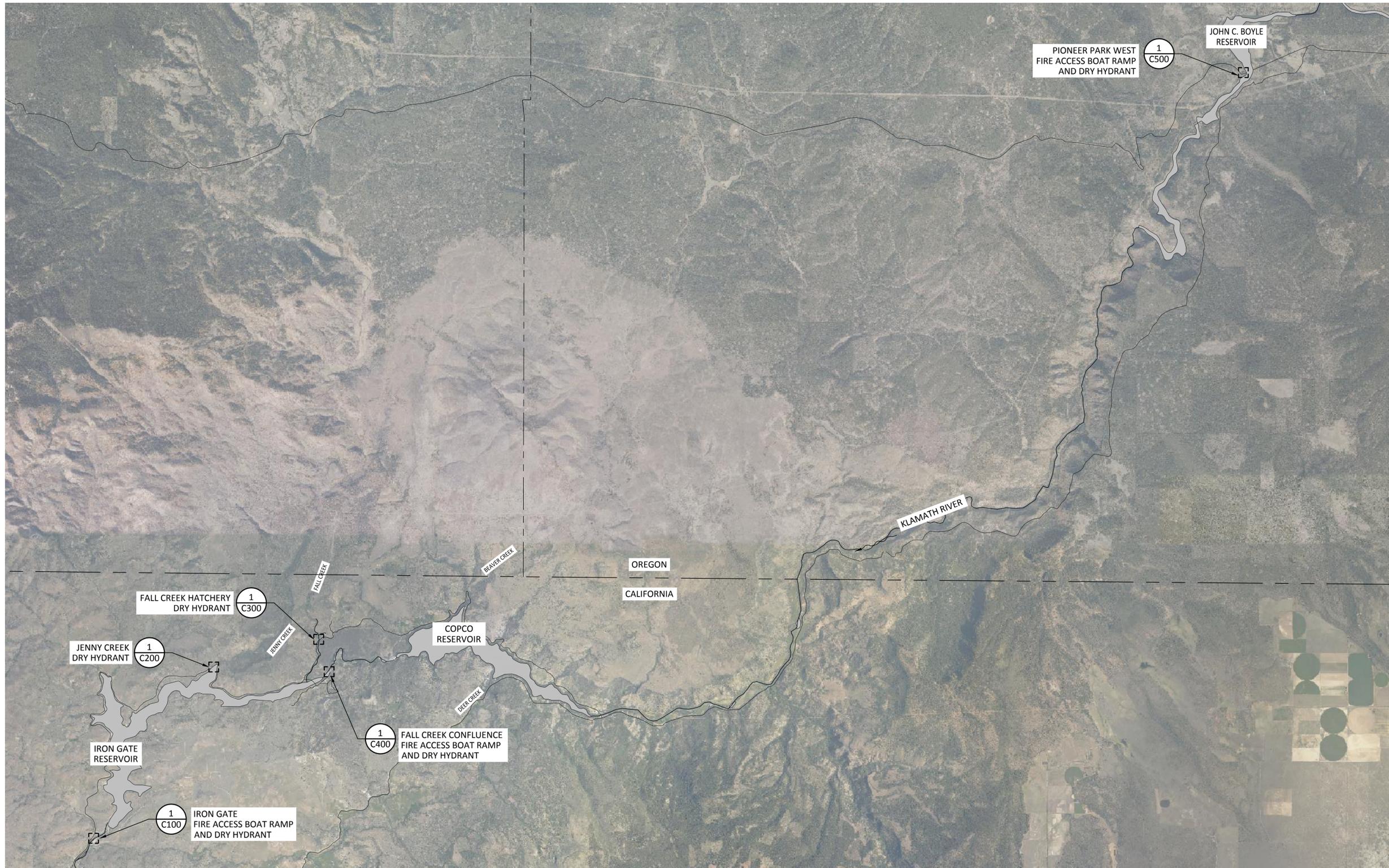


WARNING
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KLAMATH RIVER RENEWAL CORPORATION		DESIGNED K. JENSEN	DRAWING C004
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN R. WOOD	
FIRE ACCESS BOAT RAMP CAST-IN-PLACE DETAILS		CHECKED M. McMILLEN	
		PROJECT DATE 06/22/22	

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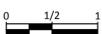
OVERALL SITE KEY PLAN

SCALE: 1" = 5000'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING

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KLAMATH RIVER RENEWAL CORPORATION	
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS	
OVERALL SITE KEY PLAN	

DESIGNED	K. JENSEN
DRAWN	R. WOOD
CHECKED	M. MCMILLEN
PROJECT DATE	06/22/22

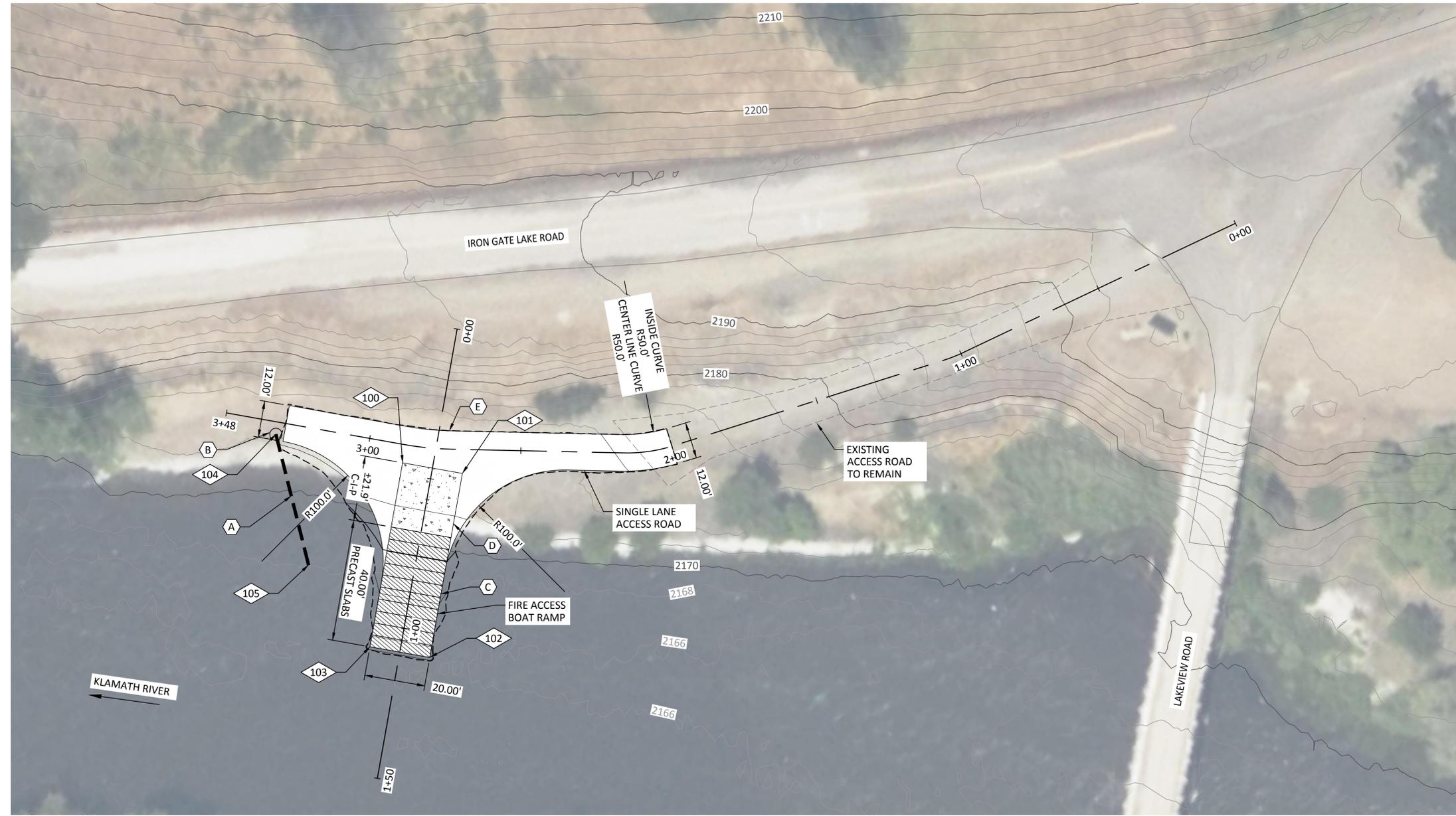
DRAWING
C005
 JOB NO.: 000000

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SHEET KEY NOTES:

- A CONSTRUCT NEW DRY HYDRANT PER DRAWING C001.
- B CONSTRUCT PROTECTIVE PAD FOR DRY HYDRANT AND CONNECTION POINT PER DRAWING C002.
- C CONSTRUCT PRECAST PANELS PER DRAWING C003.
- D CONSTRUCT CAST-IN-PLACE CONCRETE SLAB PER DRAWING C004.
- E CONSTRUCT GRAVEL ROAD SECTION PER DRAWING

CONTROL POINTS				
POINT NO	NORTHING	EASTING	FG EL	DESCRIPTION
100	2587068.26	6441279.42	2172.9	WEST CORNER OF RAMP
101	2587080.80	6441295.01	2172.9	NORTH CORNER OF RAMP
102	2587032.93	6441333.51	2165.5	EAST CORNER OF RAMP
103	2587020.39	6441317.92	2165.5	SOUTH CORNER OF RAMP
104	2587042.98	6441244.92	2175.5	DRY HYDRANT FG (E)
105	2587022.84	6441284.35	2168.0	INTAKE APPROX FG, FIELD FIT PIPE TO MEET CRITERIA



IRON GATE FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN
SCALE: 1" = 20'



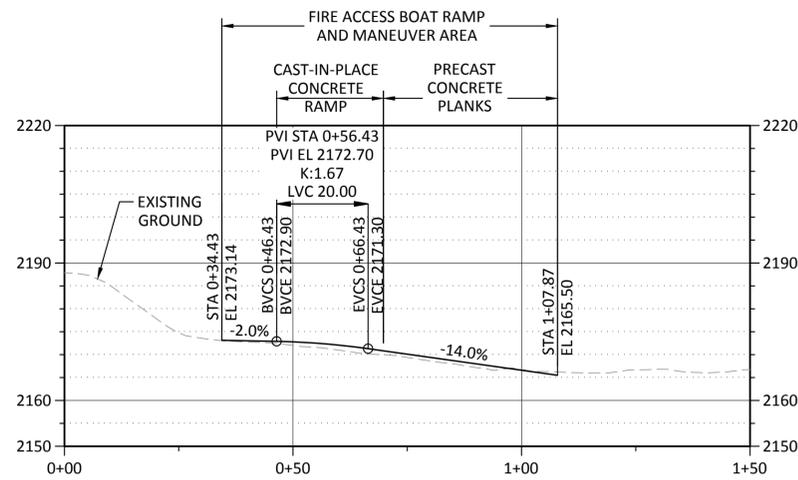
REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

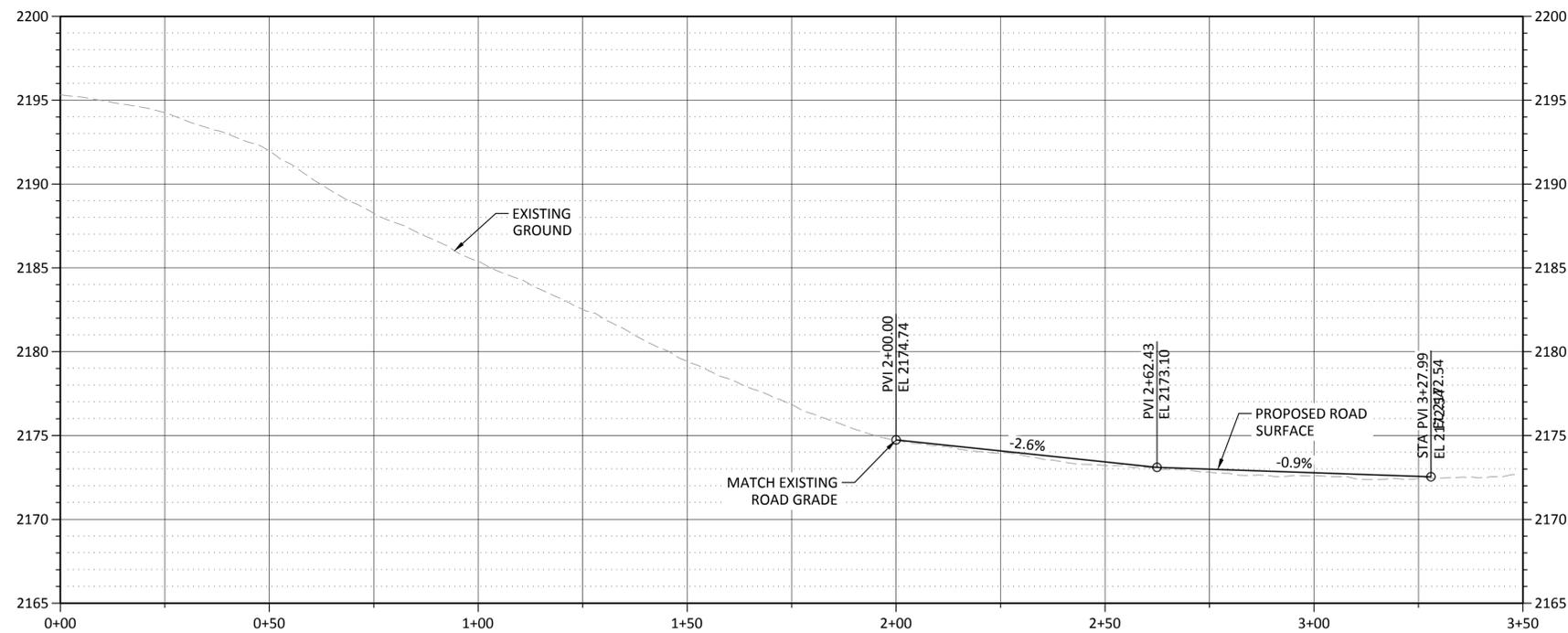
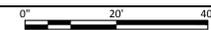


KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS	DESIGNED <u>K. JENSEN</u>	DRAWING C100
IRON GATE FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN	DRAWN <u>R. WOOD</u>	
	CHECKED <u>M. MCMILLEN</u>	
	PROJECT DATE <u>06/22/22</u>	



FIRE ACCESS BOAT RAMP PROFILE

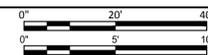
SCALE: 1"= 20'



ACCESS ROAD PROFILE

SCALE: HORIZ 1"= 20'

VERT 1"= 5'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING

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KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

IRON GATE FIRE ACCESS BOAT RAMP
 AND ACCESS ROAD PROFILES

DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. McMILLEN
 PROJECT DATE 06/22/22

DRAWING

C101

SHEET KEY NOTES:

- A CONSTRUCT NEW DRY HYDRANT PER DRAWING C001.
- B CONSTRUCT PROTECTIVE PAD FOR DRY HYDRANT AND CONNECTION POINT PER DRAWING C002.

SHEET NOTES:

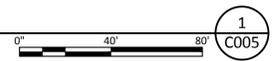
1. PIPE OUTLET INVERT ELEVATION IS APPROXIMATE. FIELD FIT PIPE OUTLET ELEVATION TO ENSURE MINIMUM OF 2 FEET OF SUBMERGENCE ON PIPE CROWN DURING SUMMER LOW FLOW PERIOD.

CONTROL POINTS				
POINT NO	NORTHING	EASTING	FG EL	DESCRIPTION
200	2603727.04	6453212.96	2337.0	DRY HYDRANT FG (E)
201	2603771.15	6453242.14	2335.0	ELBOW, FG
202	2603801.84	6453292.42	2331.0	INTAKE APPROX FG, FIELD FIT PIPE TO MEET CRITERIA



JENNY CREEK DRY HYDRANT PLAN

SCALE: 1"= 40'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
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KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
JENNY CREEK DRY HYDRANT PLAN

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. MCMILLEN
PROJECT DATE 06/22/22

DRAWING
C200



SHEET KEY NOTES:

- A CONSTRUCT NEW DRY HYDRANT PER DRAWING C001.
- B CONSTRUCT PROTECTIVE PAD FOR DRY HYDRANT AND CONNECTION POINT PER DRAWING C002.

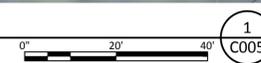
SHEET NOTES:

1. COORDINATE WITH HATCHERY CONSTRUCTION PRIOR TO INSTALLATION.
2. PIPE OUTLET INVERT ELEVATION IS APPROXIMATE. FIELD FIT PIPE OUTLET ELEVATION TO ENSURE MINIMUM OF 2 FEET OF SUBMERGENCE ON PIPE CROWN DURING SUMMER LOW FLOW PERIOD.

CONTROL POINTS				
POINT NO	NORTHING	EASTING	FG EL	DESCRIPTION
◊300	2606334.04	6463159.72	2494.3	DRY HYDRANT FG (E)
◊301	2606325.72	6463188.58	2487.0	INTAKE APPROX FG, FIELD FIT PIPE TO MEET CRITERIA

FALL CREEK HATCHERY DRY HYDRANT PLAN

SCALE: 1" = 20'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
 0 1/2 1
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.



KLAMATH RIVER RENEWAL CORPORATION
 FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS

FALL CREEK HATCHERY DRY HYDRANT
 PLAN

DESIGNED K. JENSEN
 DRAWN R. WOOD
 CHECKED M. McMILLEN
 PROJECT DATE 06/22/22

DRAWING

C300



SHEET KEY NOTES:

- A CONSTRUCT NEW DRY HYDRANT PER DRAWING C001.
- B CONSTRUCT PROTECTIVE PAD FOR DRY HYDRANT AND CONNECTION POINT PER DRAWING C002.
- C CONSTRUCT GRAVEL ROAD SECTION PER DRAWING C004.
- D IMPROVEMENTS TO EXISTING BOAT RAMP TO INCLUDE PLACEMENT AND COMPACTION OF GRAVEL AND COBBLE MATERIAL 3 TO 6 INCHES DEEP AND SPREAD OVER EXISTING RAMP TO CREATE AN EVEN SURFACE. WORK FINER GRAVEL MATERIAL INTO VOIDS TO ACHIEVE A COMPACT SURFACE.

SHEET NOTES:

- 1. RETAIN AND PROTECT ALL TREES WITHIN THE PROJECT AREA, UNLESS NOTED OTHERWISE.

CONTROL POINTS				
POINT NO	NORTHING	EASTING	FG EL	DESCRIPTION
400	2602002.95	6461361.72	2333.0	WEST CORNER OF RAMP
401	2602052.28	6461449.04	2334.7	NORTH CORNER OF RAMP
402	2601893.07	6461431.09	2321.4	EAST CORNER OF RAMP
403	2601891.44	6461411.15	2320.3	SOUTH CORNER OF RAMP
404	2601999.58	6461355.64	2333.0	DRY HYDRANT FG (E)
405	2601926.04	6461396.97	2323.5	INTAKE APPROX FG, FIELD FIT PIPE TO MEET CRITERIA

FALL CREEK CONFLUENCE FIRE ACCESS BOAT RAMP AND DRY HYDRANT

SCALE: 1"= 40'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



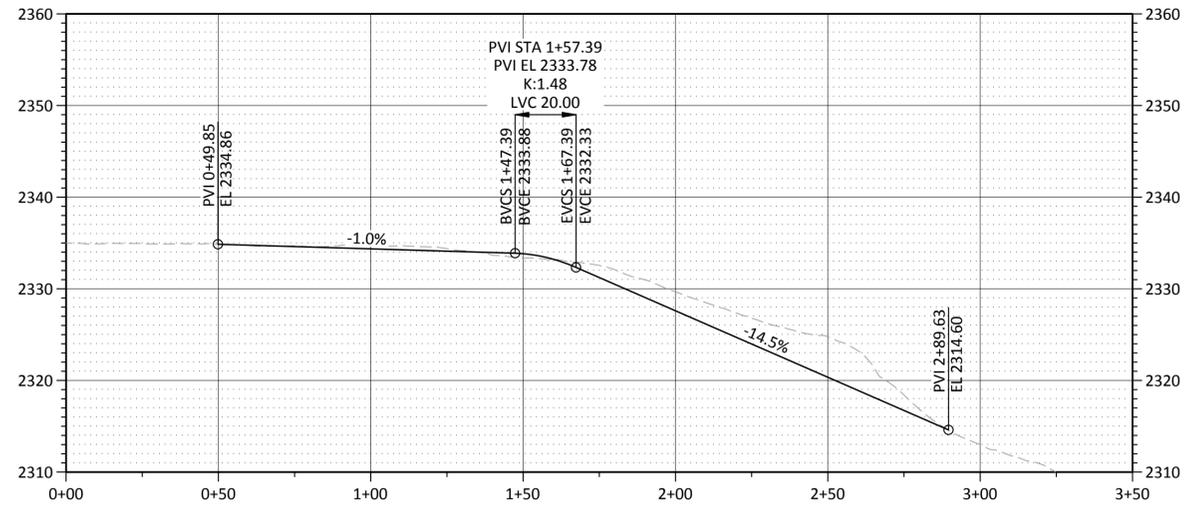
WARNING

 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.



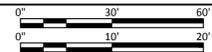
KLAMATH RIVER RENEWAL CORPORATION		DESIGNED <u>K. JENSEN</u>	DRAWING C400
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS		DRAWN <u>R. WOOD</u>	
FALL CREEK CONFLUENCE FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN		CHECKED <u>M. McMILLEN</u>	
		PROJECT DATE <u>06/22/22</u>	

Path: C:\Vault\20\klamath_river_renewal\corp\boat_ramp_dry_hydrant\C400.dwg Plot date: Jun 24, 2022 10:55am CAD User: wood



ACCESS ROAD AND FIRE ACCESS BOAT RAMP PROFILE

SCALE: HORIZ 1" = 30'
VERT 1" = 10'



REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
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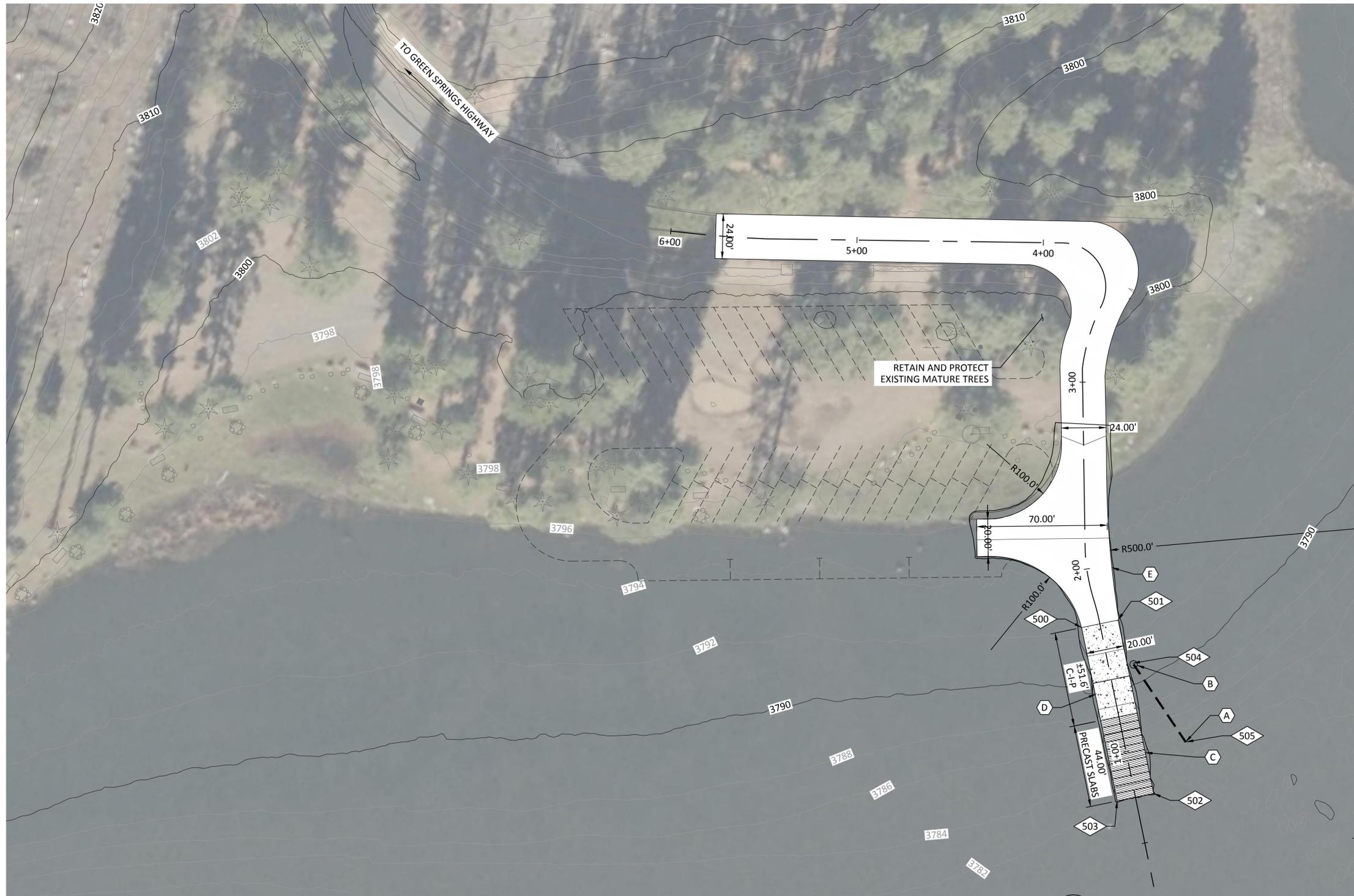


KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
FALL CREEK CONFLUENCE FIRE ACCESS BOAT RAMP PROFILE

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. MCMILLEN
PROJECT DATE 06/22/22

DRAWING
C401

Path: C:\Vault\20\klamath_river_renewal_corp\boat_ramp_dry_hydrant\C401.dwg Plot date: Jun 24, 2022 10:55am CAD User: wood



PIONEER PARK WEST FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN

SCALE: 1" = 30'



SHEET KEY NOTES:

- A CONSTRUCT NEW DRY HYDRANT PER DRAWING C001.
- B CONSTRUCT PROTECTIVE PAD FOR DRY HYDRANT AND CONNECTION POINT PER DRAWING C002.
- C CONSTRUCT PRECAST PANELS PER DRAWING C003.
- D CONSTRUCT CAST-IN-PLACE CONCRETE SLAB PER DRAWING C004.
- E CONSTRUCT GRAVEL ROAD SECTION PER DRAWING C004.

SHEET NOTES:

1. PROJECT CONSTRUCTION TO OCCUR DURING LOW WATER TO FACILITATE CAST-IN-PLACE RAMP PLACEMENT.

CONTROL POINTS				
POINT NO	NORTHING	EASTING	FG EL	DESCRIPTION
500	2660836.29	6552917.94	3793.1	WEST CORNER OF RAMP
501	2660849.23	6552933.19	3793.1	NORTH CORNER OF RAMP
502	2660776.95	6552994.49	3781.0	EAST CORNER OF RAMP
503	2660764.01	6552979.23	3781.0	SOUTH CORNER OF RAMP
504	2660832.39	6552951.91	3791.0	DRY HYDRANT FG (E)
505	2660809.37	6552996.29	3783.0	DISTANCE APPROX FG, FIELD FIT PIPE TO MEET CRITERIA

REV	DATE	BY	DESCRIPTION
A	06/22/22	KRJ	100% DESIGN SUBMITTAL



WARNING
 IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

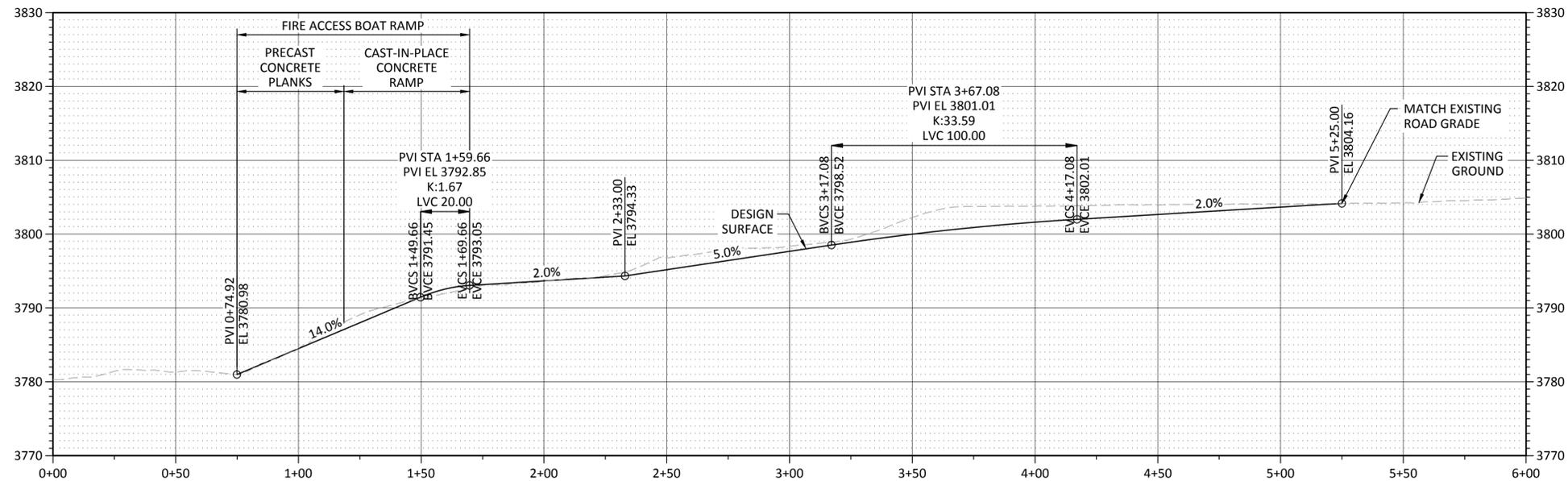


KLAMATH RIVER RENEWAL CORPORATION FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
PIONEER PARK WEST FIRE ACCESS BOAT RAMP AND DRY HYDRANT PLAN

DESIGNED K. JENSEN
DRAWN R. WOOD
CHECKED M. MCMILLEN
PROJECT DATE 06/22/22

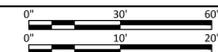
DRAWING
C500
 JOB NO: 00000

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PIONEER PARK WEST FIRE ACCESS BOAT RAMP PROFILE

SCALE: HORIZ 1" = 30'
VERT 1" = 10'



REV	DATE	BY	DESCRIPTION
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WARNING
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KLAMATH RIVER RENEWAL CORPORATION
FIRE ACCESS BOAT RAMPS AND DRY HYDRANTS
PIONEER PARK WEST FIRE ACCESS BOAT RAMP PROFILE

DESIGNED <u>K. JENSEN</u>
DRAWN <u>R. WOOD</u>
CHECKED <u>M. MCMILLEN</u>
PROJECT DATE <u>06/22/22</u>

DRAWING
C501