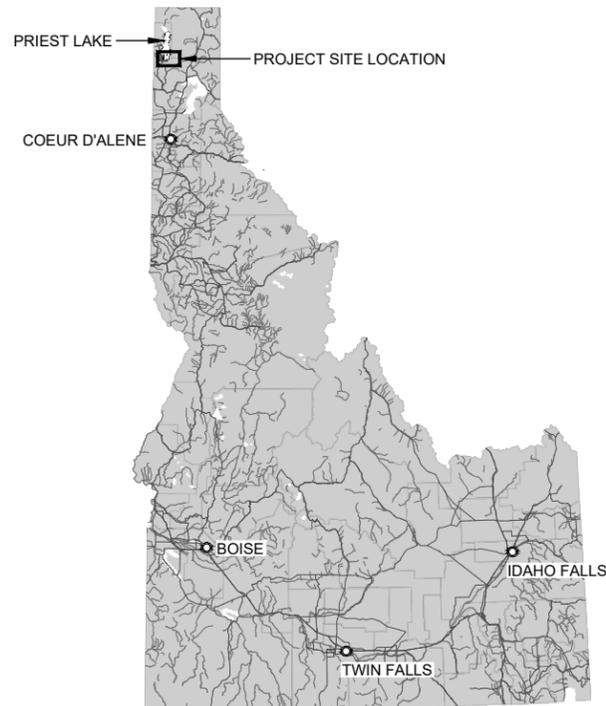


# PRIEST LAKE WATER MANAGEMENT PROJECT

## OUTLET DAM IMPROVEMENTS



**LOCATION MAP**  
NOT TO SCALE



SOURCE: GOOGLE EARTH, 7/14/2013

**VICINITY MAP**  
NOT TO SCALE



SOURCE: PICTOMETRY, OCTOBER 15, 2019

**OBLIQUE AERIAL PHOTO**  
NOT TO SCALE

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**DAM INFORMATION**

Dam Name: Priest Lake (Outlet Dam)  
 River: Priest River  
 NID Storage: 76,100 Acre Feet  
 NID Height: 12 feet (8'-6" at Radial Gates)  
 Primary Dam Type: Concrete  
 Year Completed: 1978  
 NID Harzard Potential: Significant

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number: **376997**    B/O: **1**    Total: **25**

Designed	E. Sheesley	Eng check	S. Phillips
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Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
Drawing Number		<b>CS-1</b>	

Title: **Priest Lake Water Management Project Outlet Dam Improvements**

**COVER SHEET / INDEX OF DRAWINGS**

# GENERAL NOTES

## SCOPE OF WORK:

- WORK DETAILED ON THE DRAWINGS AND APPLICABLE ITEMS DESCRIBED IN THE GENERAL STRUCTURAL NOTES AND SPECIFICATIONS.
- DRAWINGS TO BE READ IN CONJUNCTION WITH SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE PERFORMANCE OF THIS WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION AND COORDINATION OF ALL SPECIFICATIONS, PLANS, SECTIONS AND DETAILS PRIOR TO PROCEEDING WITH ANY WORK. IMMEDIATELY NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCIES FOUND.
- CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING AND PROTECTION FOR ALL WORK IN PROGRESS UNTIL THE WORK IS COMPLETE.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL CONDUCT THEIR OPERATIONS IN ACCORDANCE WITH ALL CURRENT LOCAL, STATE, AND FEDERAL CODES COVERING SUCH OPERATIONS. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE THEIR WORK WITH THE IDAHO WATER RESOURCE BOARD (OWNER), BONNER COUNTY, AND OTHER CONTRACTORS, IF ANY.
- THE CONTRACTOR SHALL HAVE AN ENGINEER LICENSED IN THE STATE OF IDAHO PREPARE AND STAMP A SET OF PLANS AND ALL CALCULATIONS FOR THE FOLLOWING WORK:
  - COFFERDAM DESIGN
  - STRUCTURAL LIFTING AND TEMPORARY SHORING OF STRUCTURES
  - JACKING FRAMES
  - DESIGN CHECK OF EXISTING STRUCTURE FOR CONTRACTOR'S OPERATIONS INVOLVING THE USE OF THE EXISTING STRUCTURE
  - OTHER WORK BY CONTRACTOR ON THESE PLANS NOT MENTIONED

PLANS AND CALCULATIONS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL ALLOW AT LEAST TWO WORKING DAYS PER DRAWING AND ONE DAY PER FOUR PAGES OF CALCULATIONS FOR REVIEW. A MINIMUM OF TEN WORKING DAYS MUST BE ALLOWED FOR EACH SET OF DRAWINGS OR CALCULATIONS SUBMITTED FOR REVIEW. NO WORK MAY BEGIN

UNTIL THE RESPECTIVE SUBMITTALS ARE APPROVED. ALL COSTS FOR PREPARING THESE PLANS AND CALCULATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE, INCLUDING RESUBMITTALS. THE CONTRACTOR'S ENGINEER SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF THE REHABILITATION WORK.

- MULTIPLE MOBILIZATIONS MAY BE REQUIRED TO COMPLETE THE WORK.

## DRAWINGS AND SPECIFICATIONS:

- DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT GIVEN.
- ADVISE THE OWNER'S REPRESENTATIVE OF DIMENSIONAL DISCREPANCIES.
- VERIFY ALL EXISTING FIELD CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK AT ANY TIME WITHOUT CONTRACT DOCUMENTS OR, WHERE REQUIRED, APPROVED SHOP DRAWINGS, PRODUCT DATA OR SAMPLES FOR SUCH PORTION OF THE WORK.

## CONSTRUCTION SAFETY:

- THESE DRAWINGS DO NOT INCLUDE PROVISIONS TO SATISFY SAFETY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING SAFETY DURING CONSTRUCTION AND FOR CONFORMANCE TO ALL APPLICABLE OSHA STANDARDS AND OTHER APPLICABLE CODES. JOBSITE VISITS BY THE OWNER'S REPRESENTATIVE SHALL NOT CONSTITUTE APPROVAL, AWARENESS OR LIABILITY FOR ANY HAZARDOUS CONDITIONS.

## BUILDING CODES AND SPECIFICATIONS:

- US ARMY CORPS OF ENGINEERS, DESIGN OF HYDRAULIC STEEL STRUCTURES, ENGINEERING TECHNICAL LETTER (ETL) 1110-2-584, JUNE 2014
- US ARMY CORPS OF ENGINEERS, DESIGN OF SPILLWAY TAINTER GATES, ENGINEERING MANUAL (EM) 1110-2-2702, JANUARY 2000 (SUPERCEDED BY ETL 1110-2-584)
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION, SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AISC 360-10, JUNE 2010
- AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-10 THIRD PRINTING, MARCH 2013
- AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318-14, SEPTEMBER 2014

## REHABILITATION NOTES:

- THE CONTRACTOR SHALL EXAMINE AND VERIFY, IN THE FIELD, ALL CONDITIONS AND DIMENSIONS. DIMENSIONS OF THE EXISTING STRUCTURES SHOWN ON THESE PLANS ARE FOR GENERAL REFERENCE ONLY. THEY HAVE BEEN TAKEN FROM THE ORIGINAL CONSTRUCTION DRAWINGS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL TAKE ALL SUCH FIELD MEASUREMENTS AS ARE NECESSARY TO ENSURE PROPER FIT OF THE FINISHED WORK, AND THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. IF THE FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGES TO THOSE SHOWN ON THE PLANS, AS APPROVED BY THE OWNER'S REPRESENTATIVE. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS MADE SHALL BE INDICATED ON THE SHOP DRAWINGS SUBMITTED FOR REFERENCE OF THE REVIEWER.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE CONDITION OF EXISTING STRUCTURES, THE EXACT EXTENT OF WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING STRUCTURE CAUSED BY THEIR OPERATIONS WHICH IS NOT INCLUDED AS PART OF THE INTENDED WORK. ALL DAMAGE TO THE EXISTING STRUCTURE, WHICH IS NOT PART OF THE INTENDED WORK, SHALL BE REPAIRED BY THE CONTRACTOR WITHOUT COST TO THE OWNER, AND TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- LAWN AREAS DISTURBED BY THE CONTRACTOR, AS PART OF WORK TO BE PERFORMED UNDER THIS CONTRACT, SHALL BE RESTORED AS SPECIFIED, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, INCLUDING DISTURBANCE TO STAGING AREAS. ALL DISTURBED GRASS AREAS SHALL BE GRADED IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE, TOPSOILED, AND SEEDED.

## REMOVAL, EXCAVATION, AND BACKFILL NOTES:

- THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORTS, BRACING, AND OTHER DEVICES REQUIRED OR DIRECTED BY THE OWNER'S REPRESENTATIVE, TO PROTECT THE SAFETY OF THE ADJACENT STRUCTURES AND UTILITIES. ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN CONTRACTOR'S BID.
- DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT DROP WASTE CONCRETE, DEBRIS, AND OTHER MATERIAL INTO PRIEST RIVER OR ON TO ADJACENT PROPERTIES EXCEPT WHERE THE PLANS OR SPECIFICATIONS SPECIFICALLY PERMIT DEPOSITION OF MATERIAL. PLATFORMS, NETS, SCREENS, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE OWNER'S REPRESENTATIVE DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED. IF MATERIAL FALLS ON THE AREA BELOW AND ADJACENT TO THE DAM, IT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IMMEDIATELY.
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING, AND DISPOSING OF ALL ACCESS ROADS, PLATFORMS, NETS, SCREENS, AND OTHER PROTECTIVE DEVICES, SHALL BE INCLUDED IN THE BID PRICE OF THE CONTRACT.
- CARE SHALL BE TAKEN TO RETAIN NATURAL GROWTH AND PREVENT DAMAGE TO TREES WITHIN AND OUTSIDE THE LIMITS OF CONSTRUCTION, AND NOT SCHEDULED FOR REMOVAL. ANY DAMAGE CAUSED TO THIS NATURAL GROWTH SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR, AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CONDUCT REMOVAL OPERATIONS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE SO AS NOT TO UNDULY DISTURB UNDERLYING MATERIALS WHICH ARE TO REMAIN IN PLACE. THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, WILL NOT BE DISTURBED.

## REMOVAL, EXCAVATION, AND BACKFILL NOTES (CONT'D):

- THE CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE CAUSED BY THE CONTRACTOR'S ACTIVITIES TO ALL ACCESS ROADS TO THE OWNER'S SATISFACTION AND AT NO ADDITIONAL COST TO THE OWNER'S REPRESENTATIVE.

## UTILITY NOTES:

- LOCATION OF UTILITIES, PUBLIC AND/OR PRIVATE, INDICATED AS EXISTING AS SHOWN ON THE PLANS, ARE APPROXIMATE ONLY. THEIR EXACT LOCATION SHALL BE DETERMINED IN THE FIELD. ADDITIONAL UTILITY LINES, WHETHER ABANDONED OR IN SERVICE, MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT OPERATIONS AND TAKE THE NECESSARY PRECAUTIONS TO PREVENT INTERFERENCE WITH OR DAMAGE TO THESE OR OTHER FACILITIES DURING THE COURSE OF CONSTRUCTION.
- SHOULD UTILITIES BE ENCOUNTERED DURING CONSTRUCTION WHICH INTERFERE WITH THE WORK AND FOR WHICH PROVISIONS ARE NOT PROVIDED ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF THEIR EXISTENCE AND EXTENT OF CONFLICT WITH THE WORK. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNING AGENCY TO MODIFY ITS FACILITY IN ORDER TO ALLOW THE WORK TO PROGRESS. ANY WORK AS A RESULT OF SUCH UTILITY CONFLICTS WILL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- ANY DAMAGE, CAUSED BY THE CONTRACTOR'S OPERATIONS, FROM MINOR SCRAPES TO SEVERING OF THE UTILITY SERVICE, SHALL BE IMMEDIATELY REPORTED TO THE UTILITY OWNER AND THE OWNER'S REPRESENTATIVE, AND SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.

## ENVIRONMENTAL PROTECTION NOTES:

- STREAM CONSERVATION: THE CONTRACTOR SHALL CONDUCT OPERATIONS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE TO PREVENT ANY DAMAGE TO PRIEST RIVER FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM THE MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR THE WATERWAYS. THE CONTRACTOR SHALL NOT RETURN DIRECTLY TO A STREAM, OR TO A DITCH IMMEDIATELY FLOWING INTO A STREAM, ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH COULD CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR WANTS TO USE RIVER / LAKE WATER FOR CONSTRUCTION PURPOSES, A TEMPORARY WATER USE PERMIT IS REQUIRED FROM IDAHO DEPARTMENT OF WATER RESOURCES. IF THE CONTRACTOR USES WATER FROM A STREAM, HE/SHE SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM. THESE TEMPORARY MEASURES SHALL BE REMOVED AND THE AREA RESTORED AT THE COMPLETION OF THE WORK.
- DEWATERING WILL BE REQUIRED FOR THE CONSTRUCTION OF CONCRETE SUBSTRUCTURES AND GATES. THE COST OF DEWATERING IS TO BE INCLUDED IN THE CONTRACTOR'S PRICE BID.
- VISIBLY TURBID DISCHARGES FROM DEWATERING OPERATIONS OR EXCAVATION ACTIVITIES SHALL NOT BE ALLOWED TO ENTER THE RIVER. ANY SUCH DISCHARGE SHALL BE (1) RETAINED IN AN APPROPRIATELY MAINTAINED UPLAND SETTLING BASIN, OR (2) FILTERED THROUGH CRUSHED STONE, SAND, HAY BALES, AND SILT SCREENING (EQUIVALENT OPENING SIZE OF U.S. SIEVE NUMBER 20).
- ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT THE ENTRANCE OF FRESH CONCRETE INTO THE WATERS. EQUIPMENT, TOOLS, AND TRUCKS USED IN THIS PROJECT SHALL BE CLEANED IN SUCH A MANNER AS TO PREVENT WASH WATER FROM ENTERING ANY STREAM OR LAKE. WET CONCRETE IS HIGHLY TOXIC TO FISH.
- SPILLAGE OF OIL AND HAZARDOUS SUBSTANCES IS ESPECIALLY PROHIBITED BY SECTION 311 OF THE CLEAN WATER ACT OF 1977. MEASURES INCLUDING PROPER MAINTENANCE OF CONSTRUCTION EQUIPMENT, DESIGNATING FUEL/HAZARDOUS SUBSTANCES HANDLING AREAS TO ALLOW SPILLS TO BE CONTAINED BEFORE REACHING THE WATERWAY, INSTRUCTING PERSONNEL NOT TO DISPOSE OF OIL AND OTHER SUCH MATERIALS INTO DRAINS OR INTO THE WATERWAY DIRECTLY, AND OTHER NECESSARY PROCEDURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ACTIVITIES. IF IN SPITE OF SUCH PLANNING, OIL/HAZARDOUS SUBSTANCES ARE SPILLED INTO A WATER COURSE, IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER, OWNER'S REPRESENTATIVE, THE OWNER'S CONSTRUCTION MANAGER AND IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY. A CONTAINMENT BOOM AND A SUPPLY OF HAY, STRAW, OR OTHER ABSORBENT SHOULD BE RETAINED SO THAT IT MAY BE RAPIDLY DEPLOYED TO SOAK UP ANY POSSIBLE SPILLAGE, PENDING IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY ARRIVAL ON THE SCENE. THE USE OF CHEMICAL DISPERSING AGENTS AND EMULSIFIERS IS NOT AUTHORIZED WITHOUT PRIOR SPECIFIC FEDERAL OR STATE APPROVAL.
- A PRE-CONSTRUCTION NOTIFICATION WILL BE SUBMITTED TO THE U.S. ARMY CORPS OF ENGINEERS FOR THE PROPOSED WORK TO BE PERFORMED BY THE OWNER UNDER NATIONWIDE PERMIT #3. THE CONTRACTOR SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE NATIONWIDE PERMIT AND THE PROVISIONS OF THE TITLE 5 OF ARTICLE 15 OF THE ENVIRONMENTAL CONSERVATION LAW.
- A SILT FENCE SHALL BE INSTALLED AROUND THE ENTIRE PERIMETER OF ANY STONE, TOPSOIL, WASTE, OR OTHER STOCKPILES THAT WILL NOT BE USED OR STABILIZED WITHIN 14 DAYS.
- SEDIMENTS COLLECTED DURING DE-WATERING ARE TO BE DISPOSED OF AT A NON-HAZARDOUS SOLID WASTE APPROVED FACILITY. THESE MATERIALS ARE NOT TO BE RE-USED ON SITE AS FILL MATERIAL UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL COMPLY WITH THE LOCAL NOISE ORDINANCE.

## DAM NOTES:

- ALL GATES MUST BE IN PLACE AND FUNCTIONAL PRIOR TO REMOVING COFFERDAMS.
- THE CONTRACTOR WILL NOT BE PERMITTED TO ERECT OR PLACE SCAFFOLDING OR OTHER TEMPORARY STRUCTURES OVER THE DAM WITHOUT THE WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE. THE REQUEST FOR APPROVAL OF PROPOSED SCAFFOLDING OR TEMPORARY STRUCTURES OVER THE DAM MUST BE ACCOMPANIED BY PLANS OR SKETCHES OF THE SCAFFOLDING OR TEMPORARY STRUCTURES, INCLUDING PLANS FOR REMOVAL OF SAID ELEMENTS.
- ANY SCAFFOLDING, TEMPORARY STRUCTURES, MASKING SYSTEM, CONTAINMENT COMPONENT OR TIE DOWNS, ETC. SHALL NOT INTERFERE WITH THE OPERABLE GATES.
- DURING THE COURSE OF WORK UNDER THIS CONTRACT, CARE SHALL BE EXERCISED THAT NO MATERIAL IS DROPPED INTO THE RIVER.
- EACH YEAR, IN THE SPRING THE GATES ARE CLOSED AND PLACED INTO THE WATER TO BEGIN THE RECREATION SEASON AND IN THE WINTER THE GATES ARE OPEN AND REMOVED FROM THE WATER TO END THE RECREATION SEASON. APPROXIMATE OPENING AND CLOSING DATES FOR THE DAM ARE AS SCHEDULED BELOW:

2020/2021:  
OPEN: NOVEMBER 1  
CLOSED: AFTER APRIL 1

- THE CONTRACTOR SHALL SCHEDULE AND PROGRESS WORK SUCH THAT THE DAM IS OPEN FOR USE WITHIN THE DATES NOTED ABOVE.
- THE CONTRACTOR SHALL LIMIT THEIR WORK REQUIRING USE OF ANY WATER CONTROL STRUCTURE TO THE TIME PERIOD FROM "OPEN" TO "CLOSED" NOTED ABOVE.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK DURING THE PEAK RECREATIONAL SEASON IN THE TIME PERIOD FROM "CLOSED" TO "OPEN" NOTED ABOVE WHICH AFFECTS THE OPERATION OF THE GATES WITHOUT PRIOR APPROVAL FROM THE OWNER'S REPRESENTATIVE.

## ABBREVIATIONS:

ABUT	ABUTMENT	ITD	IDAHO TRANSPORTATION DEPARTMENT
ACI	AMERICAN CONCRETE INSTITUTE	IWRB	IDAHO WATER RESOURCE BOARD
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LOC	LIMITS OF CONSTRUCTION
AWS	AMERICAN WELDING SOCIETY	MAX	MAXIMUM
APPROX.	APPROXIMATELY	MIN	MINIMUM
BM	BENCHMARK	MLW	MEAN LOW WATER
B.O.	BOTTOM OF	MP	MAGNETIC PARTICLE TESTING
BOT	BOTTOM	N	NORTHING OR NORTH
B.W.	BOTH WAYS	NAD83	NORTH AMERICAN DATUM OF 1983
CL	CENTERLINE	NAVd88	NORTH AMERICAN VERTICAL DATUM OF 1988
COMM	COMMUNICATIONS	O.C.	ON CENTER
CDF	CONTROLLED DENSITY FILL	OHW	ORDINARY HIGH WATER
CIP	CAST-IN-PLACE	PPGW	PARTIAL PENETRATION GROOVE WELD
CLR	CLEAR	PQR	PROCEDURE QUALIFICATION RECORD
CONC	CONCRETE	QA	QUALITY ASSURANCE
CPGW	COMPLETE PENETRATION GROOVE WELD	QC	QUALITY CONTROL
Ø	DIAMETER	REF	REFERENCE
E	EASTING	R.F.	REAR FACE
EA	EACH	REINFC	REINFORCEMENT
E.F.	EACH FACE	RT	RADIOGRAPHIC TESTING
EG	FOR EXAMPLE	S	SOUTH
EQ.	EQUAL	SIM	SIMILAR
E.S	EACH SIDE	SMAW	SHIELDED METAL ARC WELDING
E.W.	EACH WAY	STD	STANDARD
EOP	EDGE OF PAVEMENT	STA	STATION
EL	ELEVATION	T.O.	TOP OF
ETC	AND SO ON	TYP	TYPICAL
EX, EXIST	EXISTING	UT	ULTRASONIC TESTING
FCAW	FLUX CORED ARC WELDING	VIF	VERIFY IN FIELD
FCM	FRACTURE CRITICAL MEMBER	WP	WORKING POINT
F.F.	FRONT FACE	WPS	WELD PROCEDURE SPECIFICATION
FT	FEET	WSEL	WATER SURFACE ELEVATION
GCP	GROUND CONTROL POSITION	W/	WITH
GALV	GALVANIZED	@	AT
HT	HARDNESS TESTING	'	MINUTES OR FEET
HMA	HOT MIX ASPHALT	"	SECONDS OR INCHES
IBC	INTERNATIONAL BUILDING CODE		

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Project Number: 376997  
B/O: 2  
Total: 25

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
Drawing Number	GN-1		

Title

**Priest Lake Water Management Project Outlet Dam Improvements**

**GENERAL NOTES AND ABBREVIATIONS**

# GENERAL NOTES - CONT'D

## CONCRETE NOTES:

- ALL STRUCTURAL CONCRETE WORK SHALL COMPLY WITH ACI 301-10 AND TO THE REQUIREMENTS IN SPECIFICATION SECTION 033000.
- ALL REINFORCED CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO THE ACI "MANUAL OF CONCRETE PRACTICE", "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318-14), AND "ACI DETAILING MANUAL" (ACI SP 66), EXCEPT AS MODIFIED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS.
- CONCRETE FOUNDATIONS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

	f <sub>c</sub>	W/C RATIO
APRON SLAB, KEYWAY, WALLS	5000 PSI	0.40
PIERS	5000 PSI	0.40

CONCRETE SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 033000 CAST-IN-PLACE CONCRETE.

- ALL REINFORCING STEEL SHALL HAVE MINIMUM YIELD STRENGTH, f<sub>y</sub>=60 KSI AND SHALL BE NEW DEFORMED BILLET-STEEL CONFORMING TO ASTM A615, GRADE 60.
- ALL DETAILING, BENDING, PLACEMENT AND SUPPORT OF REINFORCING SHALL CONFORM TO THE STANDARDS CITED.
- CLEAR CONCRETE COVER OVER PRINCIPAL REINFORCING SHALL BE 3" WHEN CONCRETE IS CAST AGAINST OR PERMANENTLY IN CONTACT WITH GROUND AND 2" AT ALL OTHER LOCATIONS.
- ALL STRUCTURAL MEMBERS SHALL BE CAST MONOLITHICALLY FOR THEIR FULL DEPTH, UNLESS OTHERWISE NOTED.
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED, WETTED AND SPLASHED WITH CEMENT GROUT JUST PRIOR TO PLACING NEW CONCRETE.
- THE SPACING OF REINFORCING SHOWN ON THE CONTRACT DRAWINGS IS THE MAXIMUM PERMITTED. IT MAY BE REDUCED FOR CONSTRUCTION CONSIDERATIONS, BUT IS NOT TO BE EXCEEDED.
- WHERE INDICATED ON THE PLANS, ALL STRUCTURAL CONCRETE SHALL BE REMOVED TO THE DEPTH SPECIFIED, OR TO THE DEPTH AS ORDERED BY THE OWNER'S REPRESENTATIVE. BEFORE STARTING THIS WORK, THE CONTRACTOR SHALL SUBMIT A PLAN SHOWING THE PROPOSED METHOD, EQUIPMENT, AND SEQUENCE FOR THE REMOVAL WORK TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
- EXPOSED REINFORCING STEEL THAT WILL REMAIN IN THE STRUCTURE SHALL BE PROTECTED FROM DAMAGE, AND BLAST-CLEANED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
- ALL EXPOSED EDGES OF CONCRETE ARE TO BE CHAMFERED UNLESS OTHERWISE NOTED.
- ALL FORMING HARDWARE SUCH AS TIES AND "ALL-THREADS" THAT ARE TO REMAIN IN THE CONCRETE SHALL BE ELECTROPLATED OR MADE OF A NON-FERROUS MATERIAL TO PREVENT CORROSION.
- WHERE DRILLING AND GROUTING REINFORCING BARS, THE DIAMETER OF THE DRILLED HOLE SHALL BE AS RECOMMENDED BY THE EPOXY GROUT MANUFACTURER.
- ALL CONCRETE ELEMENTS SHALL CONTAIN AN AIR ENTRAINMENT ADMIXTURE.

## REINFORCING BAR EMBEDMENT/ LAP SPLICE SCHEDULE

BAR SIZE	TOP BARS		OTHER BARS	
	EMBEDMENT	LAP	EMBEDMENT	LAP
	5000 PSI	5000 PSI	5000 PSI	5000 PSI
#3	17"	22"	13"	17"
#4	22"	29"	17"	22"
#5	28"	36"	21"	28"
#6	33"	43"	25"	33"
#7	48"	63"	37"	48"
#8	55"	72"	42"	55"

## NOTES

- TOP BARS ARE THOSE WHICH ARE ORIENTED HORIZONTAL AND HAVE MORE THAN 12" OF CONCRETE BELOW THE BAR.
- SPLICE BOTTOM BARS AT SUPPORTS.
- SPLICE UPPER BARS IN MIDDLE 1/2 OF SPAN.
- WHERE CONCRETE DEPTH PRECLUDES FULL EMBEDMENT, PROVIDE 90 HOOK.
- PROVIDE CONCRETE PROTECTION FOR REINFORCEMENT AS DESCRIBED IN ACI 318 CHAPTER 20.
- EMBEDMENT AND LAP SPLICE LENGTHS SHOWN ARE APPLICABLE TO ASTM A615 GR. 60 REINFORCING BARS.

## STEEL NOTES:

- ALL STRUCTURAL STEEL INCLUDING CONNECTIONS AND MISCELLANEOUS STEEL SHALL CONFORM TO THE REQUIREMENTS IN SPECIFICATION SECTION 051200.
- ALL GALVANIC SHOP APPLIED COATINGS FOR STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS SPECIFIED IN SPECIFICATION SECTION 050500.
- ALL STEEL FABRICATION, FURNISHING, DELIVERY, AND ERECTION OF STRUCTURAL STEEL AND ITS COMPONENTS SHALL BE PERFORMED IN ACCORDANCE WITH AWS D1.1 AND AISC MANUAL OF STEEL CONSTRUCTION (14TH EDITION).
- ALL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION SECTION 050500.
- SHOP DRAWINGS OF ALL STRUCTURAL STEEL SHALL BE PREPARED AND SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW IN ACCORDANCE WITH AISC STANDARDS SHOWING ALL SHOP AND ERECTION DETAILS INCLUDING CUTS, COPES, CONNECTIONS, ETC.
- FIELD BURNING OF HOLES WILL NOT BE PERMITTED.
- ALL WELDING ELECTRODES SHALL CONFORM TO THE E-70 SERIES AS PER AWS STRUCTURAL WELDING CODE D1.1/D1.1M.
- CARE SHALL BE TAKEN TO AVOID CAUSING DAMAGE TO EXISTING MEMBERS WHICH ARE TO REMAIN IN PLACE.

## J-SEAL NOTES:

- J-SEAL REQUIREMENTS:**  
THE PROPOSED RADIAL GATE J-SEALS SHALL HAVE THE SAME CROSS-SECTIONAL DIMENSIONS AS THE EXISTING J-SEALS. THE CONTRACTOR SHALL MEASURE THE EXISTING J-SEAL DIMENSIONS AND/OR DEVELOP THE DIMENSIONS BASED ON THE ORIGINAL 1978 DRAWINGS IN ORDER TO DEVELOP THE PROPOSED J-SEAL DRAWINGS. THE CONTRACTOR SHALL SUBMIT J-SEAL MATERIAL INFORMATION AND J-SEAL SHOP DRAWINGS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
- DELIVERY, STORAGE, AND HANDLING OF J-SEALS:**  
STORE J-SEALS IN A PLACE WHICH PERMITS FREE CIRCULATION OF AIR, MAINTAINS A TEMPERATURE OF 70 DEGREES F OR LESS, AND PREVENTS THE RUBBER FROM BEING EXPOSED TO THE DIRECT RAYS OF THE SUN. KEEP J-SEALS FREE OF OILS, GREASE, AND OTHER MATERIALS WHICH WOULD DETERIORATE THE RUBBER. J-SEALS SHALL NOT BE DISTORTED DURING HANDLING.
- PRODUCTS - J-SEALS:**  
J-SEALS SHALL BE RUBBER SEALS OF THE MOLD TYPE ONLY, SHALL BE COMPOUNDED OF NATURAL RUBBER, SYNTHETIC POLYISOPRENE, OR A BLEND OF BOTH, AND SHALL CONTAIN REINFORCING CARBON BLACK, ZINC OXIDE, ACCELERATORS, ANTIOXIDANTS, VULCANIZING AGENTS, AND PLASTICIZERS. PHYSICAL CHARACTERISTICS OF THE J-SEALS SHALL MEET THE FOLLOWING REQUIREMENTS:

PHYSICAL TEST	TEST VALUE	TEST METHOD SPECIFICATION
TENSILE STRENGTH	2500 PSI (MIN.)	ASTM D412
ELONGATION AT BREAK	450% (MIN.)	ASTM D412
300 PERCENT MODULUS	900 PSI (MIN.)	ASTM D412
DUROMETER HARDNESS (SHORE TYPE A)	60 TO 70	ASTM D2240
WATER ABSORPTION	5% BY WEIGHT (MAX)	ASTM D471
COMPRESSION SET	30% TENSILE STRENGTH (MIN.)	ASTM D395
TENSILE STRENGTH (AFTER AGING 48 HRS)	80% TENSILE STRENGTH (MIN.)	ASTM D572

THE "WATER ABSORPTION" TEST SHALL BE PERFORMED WITH DISTILLED WATER. THE WASHED SPECIMEN SHALL BE BLOT DRY WITH FILTER PAPER OR OTHER ABSORBENT MATERIAL AND SUSPENDED BY MEANS OF SMALL GLASS RODS IN THE OVEN AT A TEMPERATURE OF 158 DEGREES F PLUS OR MINUS 2 DEGREES F FOR 22 HOURS PLUS OR MINUS 1/4 HOUR. THE SPECIMEN SHALL BE REMOVED, ALLOWED TO COOL TO ROOM TEMPERATURE IN AIR, AND WEIGHED. THE WEIGHT SHALL BE RECORDED TO THE NEAREST OUNCE AS W1 (W1 IS DEFINED IN ASTM D471). THE IMMERSION TEMPERATURE SHALL BE 158 DEGREES F PLUS OR MINUS 1 DEGREE F AND THE DURATION OF IMMERSION SHALL BE 166 HOURS.

- ASTM PUBLICATIONS:**  
ASTM D395 (2016; E 2017) STANDARD TEST METHODS FOR RUBBER PROPERTY - COMPRESSION SET  
ASTM D412 (2016) STANDARD TEST METHODS FOR VULCANIZED RUBBER AND THERMOPLASTIC ELASTOMERS - TENSION  
ASTM D413 (1998; R 2017) STANDARD TEST METHODS FOR RUBBER PROPERTY - ADHESION TO FLEXIBLE SUBSTRATE.  
ASTM D471 (2016A) STANDARD TEST METHOD FOR RUBBER PROPERTY - EFFECT OF LIQUIDS  
ASTM D572 (2004; R 2010) RUBBER DETERIORATION BY HEAT AND OXYGEN  
ASTM D2240 (2015; E 2017) STANDARD TEST METHOD FOR RUBBER PROPERTY - DUROMETER HARDNESS
- J-SEAL FABRICATION AND INSTALLATION:**  
J-SEALS SHALL BE CONTINUOUS OVER THE FULL LENGTH. J-SEALS SHALL BE ACCURATELY FITTED AND DRILLED FOR PROPER INSTALLATION. BOLT HOLES SHALL BE DRILLED IN THE J-SEALS BY USING PREPARED TEMPLATES OR THE RETAINER BARS AS TEMPLATES. SPLICES IN J-SEALS SHALL BE FULLY MOLDED, DEVELOP A MINIMUM TENSILE STRENGTH OF 50 PERCENT OF THE UNSPLICED SEAL, AND OCCUR ONLY AT LOCATIONS SHOWN ON THE DRAWINGS. ALL VULCANIZING OF SPLICES SHALL BE DONE IN THE SHOP. THE VULCANIZED SPLICES BETWEEN MOLDED CORNERS AND STRAIGHT LENGTHS SHALL BE LOCATED AS CLOSE TO THE CORNERS AS PRACTICABLE. SPLICES SHALL BE ON A 45-DEGREE BEVEL RELATED TO THE "THICKNESS" OF THE J-SEAL. THE SURFACES OF FINISHED SPLICES SHALL BE SMOOTH AND FREE OF IRREGULARITIES. J-SEALS SHALL BE ADJUSTED AFTER INSTALLATION SO THAT THEY ARE SLIGHTLY COMPRESSED IN THE CLOSED, UNWATERED CONDITION TO PREVENT EXCESSIVE DEPRESSION AND WEAR IN THE CLOSED, WATERED CONDITION. BEFORE OPERATING THE GATES, A SUITABLE LUBRICANT SHALL BE APPLIED TO THE J-SEAL RUBBING PLATES TO PROTECT THE RUBBER.

## METAL FABRICATION NOTES:

- THESE NOTES ARE INTENDED TO BE A GUIDELINE. THESE NOTES ARE NOT A COMPLETE LISTING OF ALL REQUIREMENTS. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE SPECIFICATIONS.
- ALL STEEL SHALL BE OF DOMESTIC ORIGIN.
- THE DIMENSIONAL TOLERANCE OF EACH INDIVIDUAL MEMBER SHALL BE IN ACCORDANCE WITH THE GOVERNING CODE, UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. THE DIMENSIONAL TOLERANCE OF THE COMPLETED ASSEMBLY SHALL ALSO BE IN ACCORDANCE WITH THE LEAST RESTRICTIVE TOLERANCE OF THE INDIVIDUAL MEMBERS.
- BOLTED CONNECTIONS:
  - MEMBERS OF CONNECTIONS SHALL BE MATCH MARKED AS NECESSARY FOR ASSEMBLY AFTER CLEANING AND GALVANIZING OF THE CONNECTION INNER PLIES.
  - INNER PLIES OF ALL BOLTED CONNECTIONS SHALL BE CLEANED.
  - ALL BOLTING SHALL BE PERFORMED IN ACCORDANCE WITH AISC. THIS SHALL INCLUDE BOLT TENSION VERIFICATION AND SAMPLING OF FASTENERS.
- ALL EXPOSED EDGES ON PLATES AND SHAPES SHALL BE CHAMFERED TO A MINIMUM RADIUS OF 1/16" TO FACILITATE GALVANIZING.

## QUALITY CONTROL (QC) / QUALITY ASSURANCE (QA):

- THE CONTRACTOR/FABRICATOR IS RESPONSIBLE FOR QC AND THE OWNER'S REPRESENTATIVE MAY PERFORM QA AS DESCRIBED IN AISC. ANY QA PERFORMED BY THE OWNER'S REPRESENTATIVE WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM BOTH QC AND QA INSPECTION TESTS TO ENSURE THAT ALL PRODUCTS MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY CONCERNING UNACCEPTABLE MATERIALS AND WORKMANSHIP AND THE RESPONSIBILITY TO ACCEPTABLY REPAIR OR REPLACE THE SAME.
- THE OWNER'S REPRESENTATIVE WILL INSPECT ALL STEEL AT THE TIME OF DELIVERY FOR WORKMANSHIP, FIT, AND CONFORMANCE TO THE CONTRACT DOCUMENTS. ANY MATERIAL WITH DEFECTS, DEFICIENCIES, UNAPPROVED CHANGES OR REPAIRS WILL BE CAUSE FOR IMMEDIATE REJECTION. REJECTED STEEL SHALL BE REMOVED AND REPLACED, OR REPAIRED BY A PROCEDURE APPROVED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.

## REPAIR REQUIREMENTS:

- ANY REPAIRS TO STRUCTURAL STEEL MEMBER SHALL NOT BE PERFORMED UNTIL THE REPAIR PROCEDURE HAS BEEN APPROVED BY THE ENGINEER OF RECORD.
- ANY MEMBER THAT HAS BEEN REPAIRED, OR IS BEING REPAIRED, WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD SHALL BE REJECTED, AND A NEW MEMBER SHALL BE FABRICATED AT NO ADDITIONAL COST TO THE OWNER.
- ANY MEMBER WITH UNAPPROVED MILL CERTIFICATIONS, CATALOG CUT SHEETS, CHANGES OR REPAIRS, HAS MATERIAL DEFECTS, DISCONTINUITIES, MISPLACED BOLT HOLES, OR HAS BEEN WELDED BY AN UNQUALIFIED WELDER WILL BE CAUSE FOR IMMEDIATE REJECTION. REJECTED STEEL SHALL BE REMOVED AND REPLACED, OR REPAIRED BY A PROCEDURE APPROVED BY THE ENGINEER OF RECORD OR OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- GOVERNING WELDING SPECIFICATION:
  - THE FABRICATION AND WELDING OF ALL WELDS ON STEEL MEMBERS SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE AMERICAN WELDING SOCIETY'S STRUCTURAL WELDING CODE - D1.1/D1.1M.
- SHOP OR FIELD WELDING SHALL NOT BE PERFORMED ON ANY STEEL MEMBER UNTIL:
  - MILL CERTIFICATIONS AND CATALOG CUT SHEETS HAVE BEEN SUBMITTED AND EITHER "APPROVED" OR "APPROVED AS NOTED BY THE OWNER'S REPRESENTATIVE".
  - A COPY OF THE WELDER QUALIFICATIONS HAS BEEN SUBMITTED AND APPROVED BY THE OWNER'S REPRESENTATIVE, FOR ALL PERSONNEL WHO WILL BE WELDING ON THE WORK.
  - THE WELD PROCEDURE SPECIFICATION (WPS) HAS BEEN SUBMITTED AND APPROVED, BY THE OWNER'S REPRESENTATIVE, FOR EACH JOINT IN THE WORK.
  - THE PROCEDURE QUALIFICATION RECORD (PQR) HAS BEEN SUBMITTED AND APPROVED, BY THE OWNER'S REPRESENTATIVE, FOR EACH PROCESS TO BE USED IN THE WORK.
- WELDER, WELDING OPERATOR, AND TACKER REQUIREMENTS:
  - ALL TACK, FILLET, AND CPGW'S SHALL BE PERFORMED BY WELDERS CURRENTLY QUALIFIED FOR THE POSITION, PROCESS AND LOCATION (FIELD OR SHOP) TO BE USED IN THE WORK IN ACCORDANCE WITH AWS D1.1.
  - ALL PPGW'S SHALL BE PERFORMED BY WELDERS CURRENTLY QUALIFIED FOR THE POSITION, PROCESS AND LOCATION (FIELD OR SHOP) TO BE USED IN THE WORK IN ACCORDANCE WITH AWS D1.1.
- TEMPORARY AND TACK WELDS:
  - PREHEAT IS REQUIRED FOR FIELD WELDED TEMPORARY OR TACK WELDS.
  - PREHEAT IS REQUIRED WHEN A TACK WELD IS NOT INCORPORATED INTO THE FINAL SUBMERGED ARC WELD.
  - TEMPORARY OR TACK WELDS NOT INCORPORATED INTO THE FINAL WELD SHALL BE GROUND FLUSH WITH THE ORIGINAL SURFACE.
- BOLTED CONNECTIONS:
  - BOLTING OR DRILLING OF HOLES SHALL NOT BE PERFORMED ON ANY STEEL MEMBER UNTIL THE MILL CERTIFICATIONS AND CATALOG CUT SHEETS HAVE BEEN SUBMITTED AND EITHER "APPROVED" OR "APPROVED AS NOTED BY THE OWNER'S REPRESENTATIVE".
  - BOLT HOLES SHALL NOT BE INSTALLED UNLESS SPECIFICALLY AND ACCURATELY DIMENSIONED ON THE SHOP DRAWINGS. MAXIMUM AND MINIMUM BOLT SPACING, EDGE DISTANCE, STITCH AND SEALING SPACINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC.

FOR BID

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP




Project Number: 376997  
B/O: 3  
Total: 25

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
Drawing Number	GN-2		

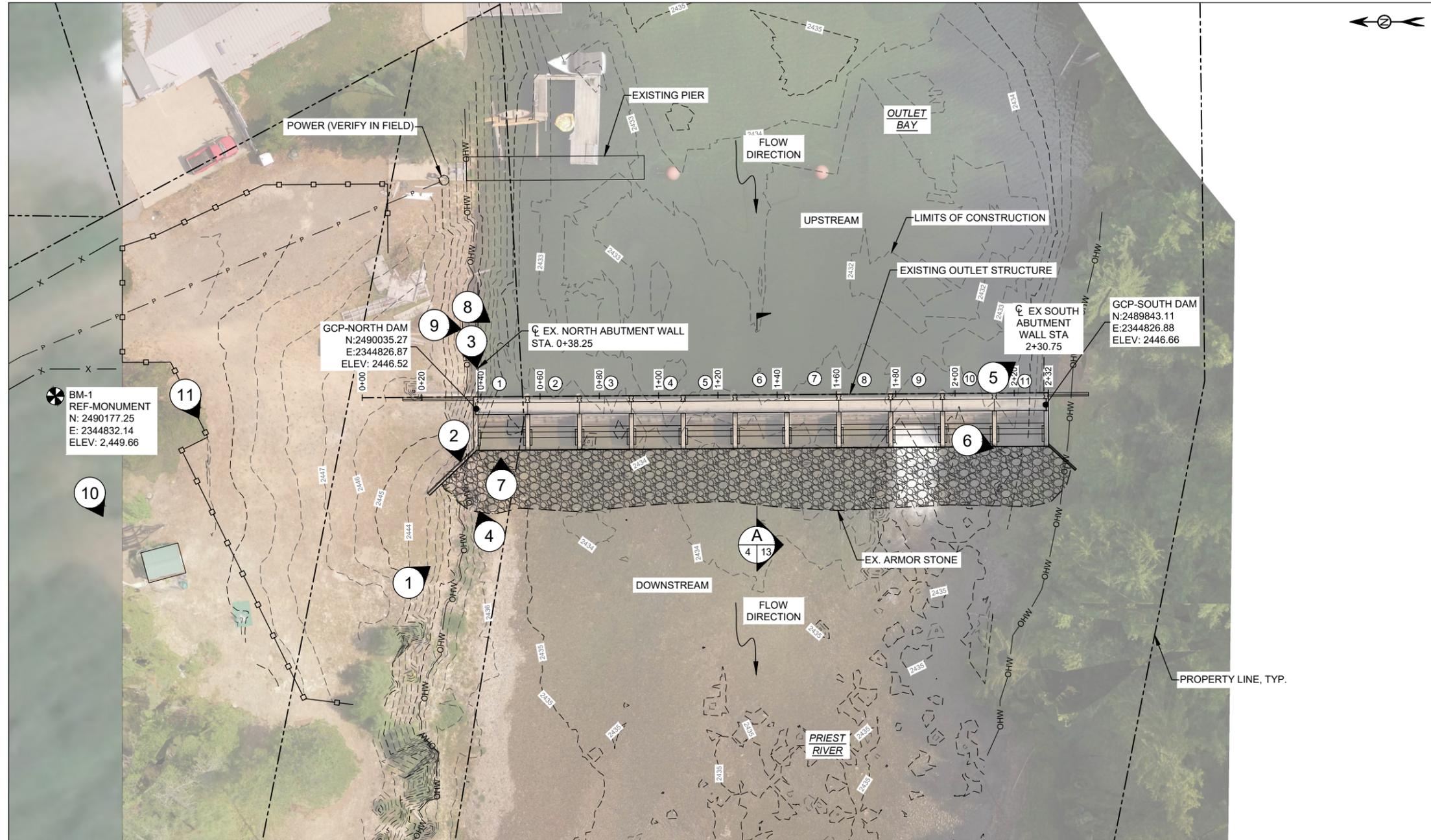
Title

Priest Lake Water Management Project Outlet Dam Improvements

GENERAL NOTES

**LEGEND**

- ⊕ BENCHMARK
- # BAY NUMBER
- ⓧ PHOTO NUMBER (SEE DWG PH-1 OR PH-2)
- - - - PROPERTY LINES
- OHW- ORDINARY HIGH WATER (OHW)
- LOC- LIMITS OF CONSTRUCTION
- P- POWER LINE
- SS- SEWER LINE (VERIFY IN FIELD)
- TEMPORARY FENCING



**EXISTING SITE PLAN**



**NOTES**

1. TOPOGRAPHIC AND BATHYMETRY SOURCE, MOTT MACDONALD DATA COLLECTION, AUGUST-SEPTEMBER 2018.
2. HORIZONTAL DATUM: NAD83, IDAHO STATE PLANE, WEST ZONE
3. VERTICAL DATUM: NAVD88.
4. AERIAL SOURCE: DELPHIS, AUGUST 2018, UAV AERIAL PHOTOGRAMMETRY.

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Professional Engineer Licenses for T. Morrison (18040) and S. Phillips (18040).

Project Number: 376997  
B/O: 4  
Total: 25

Designed	E. Sheesley	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
1" = 20'			
Drawing Number	GP-1		

Title: Priest Lake Water Management Project Outlet Dam Improvements

**OVERALL SITE PLAN - EXISTING CONDITIONS**

GROUND PHOTO 1



GROUND PHOTO 2



GROUND PHOTO 3



GROUND PHOTO 4



GROUND PHOTO 5



GROUND PHOTO 6



GROUND PHOTO 7



GROUND PHOTO 8



GROUND PHOTO 9



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Rev	Date	Drawn	Description	Ch'k'd	App'd
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0	5/20/20	TM	FOR BID	SK	SP




Project Number  
**376997**

B/O **5** Total **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
Drawing Number		<b>PH-1</b>	

Title  
Priest Lake Water Management Project  
Outlet Dam Improvements

**PHOTOS SHEET - EXISTING CONDITIONS 1**

GROUND PHOTO 10



GROUND PHOTO 11



GROUND PHOTO 12



GROUND PHOTO 13



GROUND PHOTO 14



**NOTE**

- 1. FOR LOCATION OF GROUND PHOTOS 12, 13, AND 14, SEE DWG. C-1.

**FOR BID**

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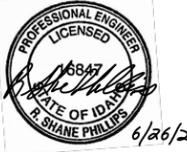
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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP




Project Number  
**376997**

B/O  
**6**

Total  
**25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
Drawing Number		<b>PH-2</b>	

Title

**Priest Lake Water Management Project Outlet Dam Improvements**

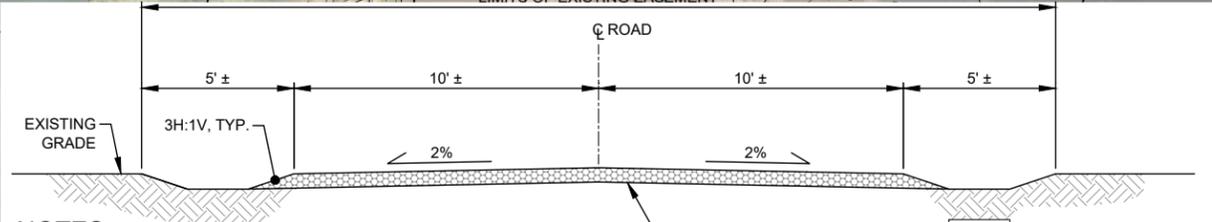
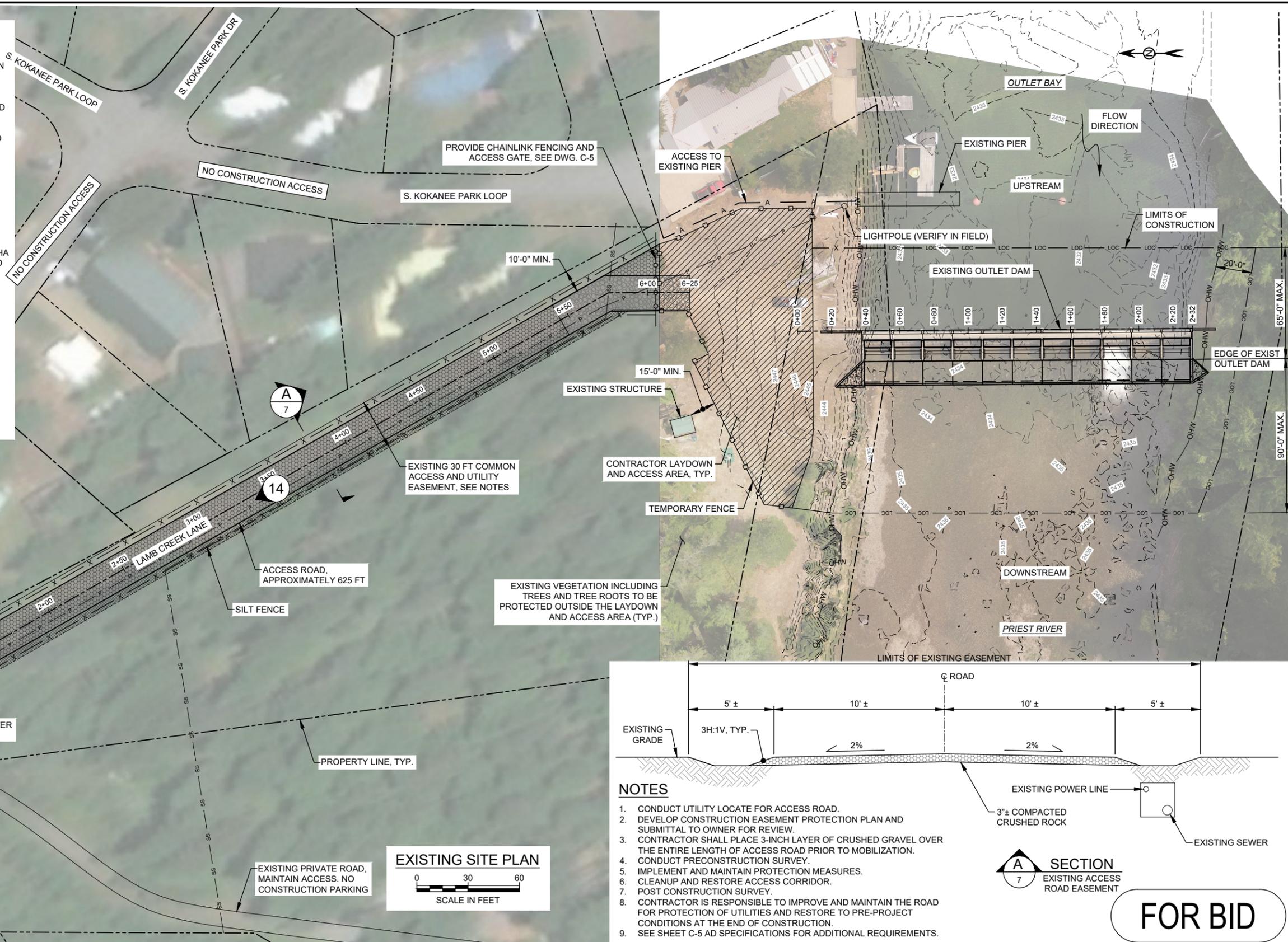
**PHOTOS SHEET - EXISTING CONDITIONS 2**

**NOTES**

1. WORK ACTIVITIES SHALL OCCUR WITHIN THE DEFINED LIMITS OF CONSTRUCTION. LAYDOWN AND ACCESS AREA SHOWN REPRESENTS GENERAL LOCATION AVAILABLE TO CONTRACTOR FOR STORAGE OF EQUIPMENT, MATERIALS, AND FIELD OFFICES. LIMITS OF AVAILABLE LAYDOWN AND ACCESS AREAS MAY VARY AND WILL BE DETERMINED BY OWNER'S REPRESENTATIVE. USE OF THESE AREAS SHALL BE LIMITED TO STORAGE OF EQUIPMENT AND MATERIALS.
2. THE CONTRACTOR MAY USE LAMB CREEK LANE FOR ACCESS TO THE SITE AND LAYDOWN AREA BUT MUST TAKE STEPS TO MINIMIZE DAMAGE DUE TO CONSTRUCTION OPERATIONS.
3. CONSTRUCTION ACTIVITIES, TEMPORARY STAGING, OR PARKING OF ANY KIND IS NOT ALLOWED IN THE ADJACENT KOKANEE PARK OR HWY 57.
4. CONTRACTOR SHALL CONFINE ALL REFUELING OF EQUIPMENT TO THE CONSTRUCTION ENTRANCE PAD AREA AND SUBMIT A PLAN TO BE APPROVED BY THE OWNER'S REPRESENTATIVE.
5. CONTRACTOR SHALL NOT RESTRICT ACCESS TO KOKANEE PARK OR HWY 57 DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION TO ENSURE ACCESS TO KOKANEE PARK AND HWY 57 DURING CONSTRUCTION.
6. DURING NON-WORKING HOURS, ALL CONSTRUCTION EQUIPMENT SHALL BE STORED IN AN AREA APPROVED BY THE OWNER'S REPRESENTATIVE.
7. ALL WORK AREAS SHOULD BE COMPLETELY FENCED, CONFORMING WITH OSHA REGULATIONS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, TO PROTECT THE PUBLIC AND PREVENT UNAUTHORIZED ENTRY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONTRACTOR'S BID.
8. CONTRACTOR TO VERIFY AVAILABILITY OF EXISTING UTILITIES AND PROVIDE NECESSARY UTILITY CONNECTIONS TO ACCOMMODATE THEIR OPERATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR RETURNING ALL LAYDOWN AND ACCESS AREAS INCLUDING CONSTRUCTION ENTRANCES TO PRE-EXISTING CONDITIONS.
10. ALL PORTIONS OF THE LAYDOWN AND ACCESS AREAS WHERE TRAFFIC OR LOADING COMPACTS THE NATIVE SOILS, THE CONTRACTOR SHALL PLOW OR TILL THE AREA TO A DEPTH OF 1.5 FEET BEFORE BEING RESTORED.
11. ANY DAMAGE CAUSED BY THE CONTRACTOR TO THE EXISTING FACILITIES OR PAVING SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND IDAHO TRANSPORTATION DEPARTMENT (ITD) AT NO ADDITIONAL COST TO THE OWNER.
12. VEGETATION SHALL NOT BE DISTURBED UNLESS IT IS REQUIRED FOR CONSTRUCTION AND IS WITHIN THE LIMITS OF CONSTRUCTION.

**LEGEND**

- PROPERTY LINES
- OHW --- ORDINARY HIGH WATER (OHW)
- A --- PIER ACCESS ROAD
- P --- POWER LINE
- POWER UTILITY TRENCH (VERIFY IN FIELD)
- SS --- SEWER LINE (VERIFY IN FIELD)
- LOC --- LIMITS OF CONSTRUCTION
- TEMPORARY FENCING
- x --- SILT FENCE
- o --- ACCESS GATE
- PHOTO NUMBER (SEE DWG. PH-2)
- ACCESS ROAD EASEMENT
- LAYDOWN AND ACCESS AREA



**NOTES**

1. CONDUCT UTILITY LOCATE FOR ACCESS ROAD.
2. DEVELOP CONSTRUCTION EASEMENT PROTECTION PLAN AND SUBMITTAL TO OWNER FOR REVIEW.
3. CONTRACTOR SHALL PLACE 3-INCH LAYER OF CRUSHED GRAVEL OVER THE ENTIRE LENGTH OF ACCESS ROAD PRIOR TO MOBILIZATION.
4. CONDUCT PRECONSTRUCTION SURVEY.
5. IMPLEMENT AND MAINTAIN PROTECTION MEASURES.
6. CLEANUP AND RESTORE ACCESS CORRIDOR.
7. POST CONSTRUCTION SURVEY.
8. CONTRACTOR IS RESPONSIBLE TO IMPROVE AND MAINTAIN THE ROAD FOR PROTECTION OF UTILITIES AND RESTORE TO PRE-PROJECT CONDITIONS AT THE END OF CONSTRUCTION.
9. SEE SHEET C-5 AD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

**SECTION A-A**  
EXISTING ACCESS ROAD EASEMENT

**FOR BID**

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

**PROFESSIONAL ENGINEER LICENSED**  
STATE OF IDAHO  
6/26/20

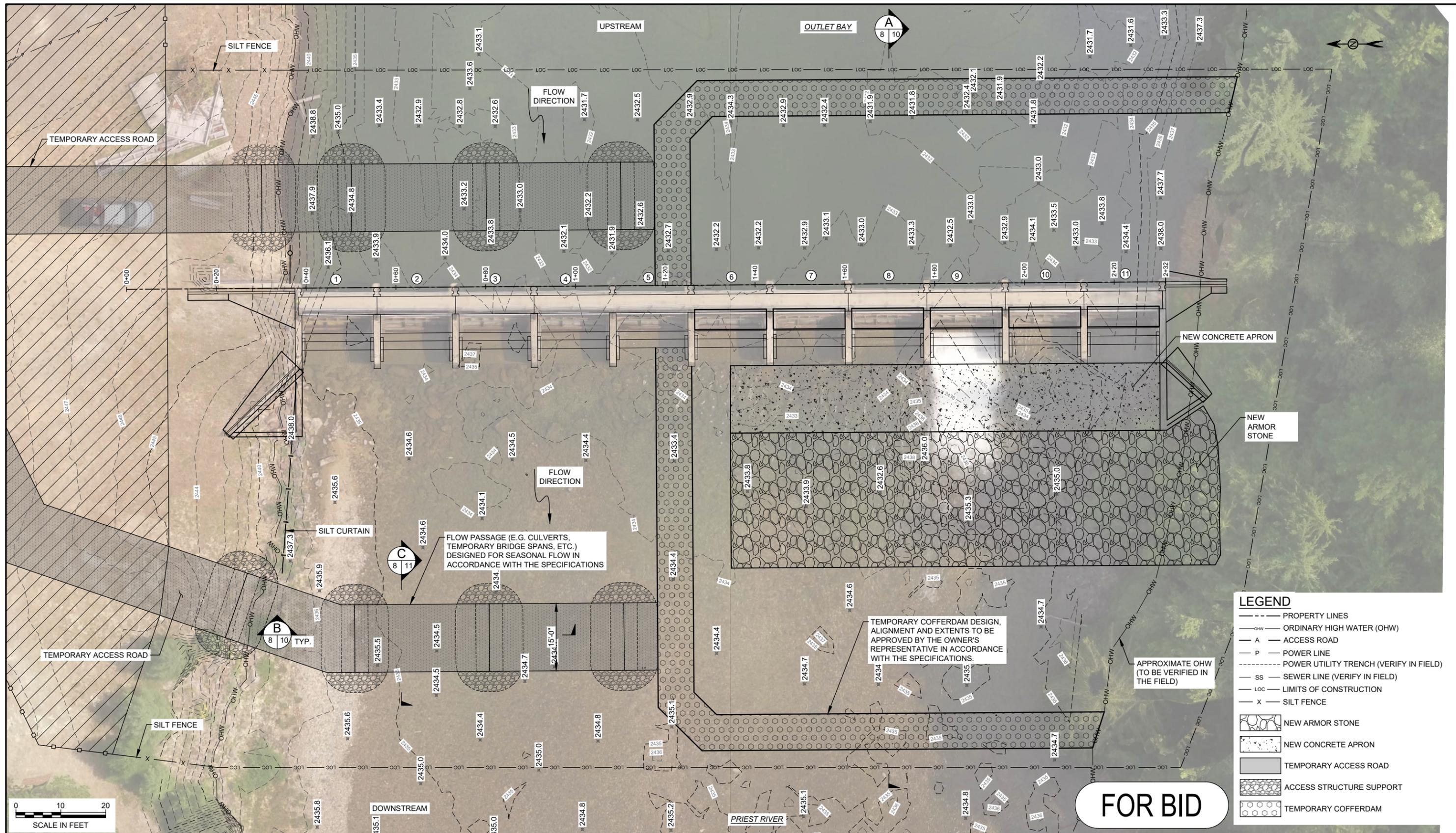
**PROFESSIONAL ENGINEER LICENSED**  
STATE OF IDAHO  
18040

Project Number: 376997  
B/O: 7  
Total: 25

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
As Noted			
Drawing Number	C-1		

Title: Priest Lake Water Management Project Outlet Dam Improvements

**CONSTRUCTION ACCESS AND WORK LIMITS PLAN**



**LEGEND**

- PROPERTY LINES
- OHW — ORDINARY HIGH WATER (OHW)
- A — ACCESS ROAD
- P — POWER LINE
- POWER UTILITY TRENCH (VERIFY IN FIELD)
- SS — SEWER LINE (VERIFY IN FIELD)
- LOC — LIMITS OF CONSTRUCTION
- X — SILT FENCE
- NEW ARMOR STONE
- NEW CONCRETE APRON
- TEMPORARY ACCESS ROAD
- ACCESS STRUCTURE SUPPORT
- TEMPORARY COFFERDAM

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

PROFESSIONAL ENGINEER  
 LICENSED  
 16847  
 T. SHANE PHILLIPS  
 6/26/20

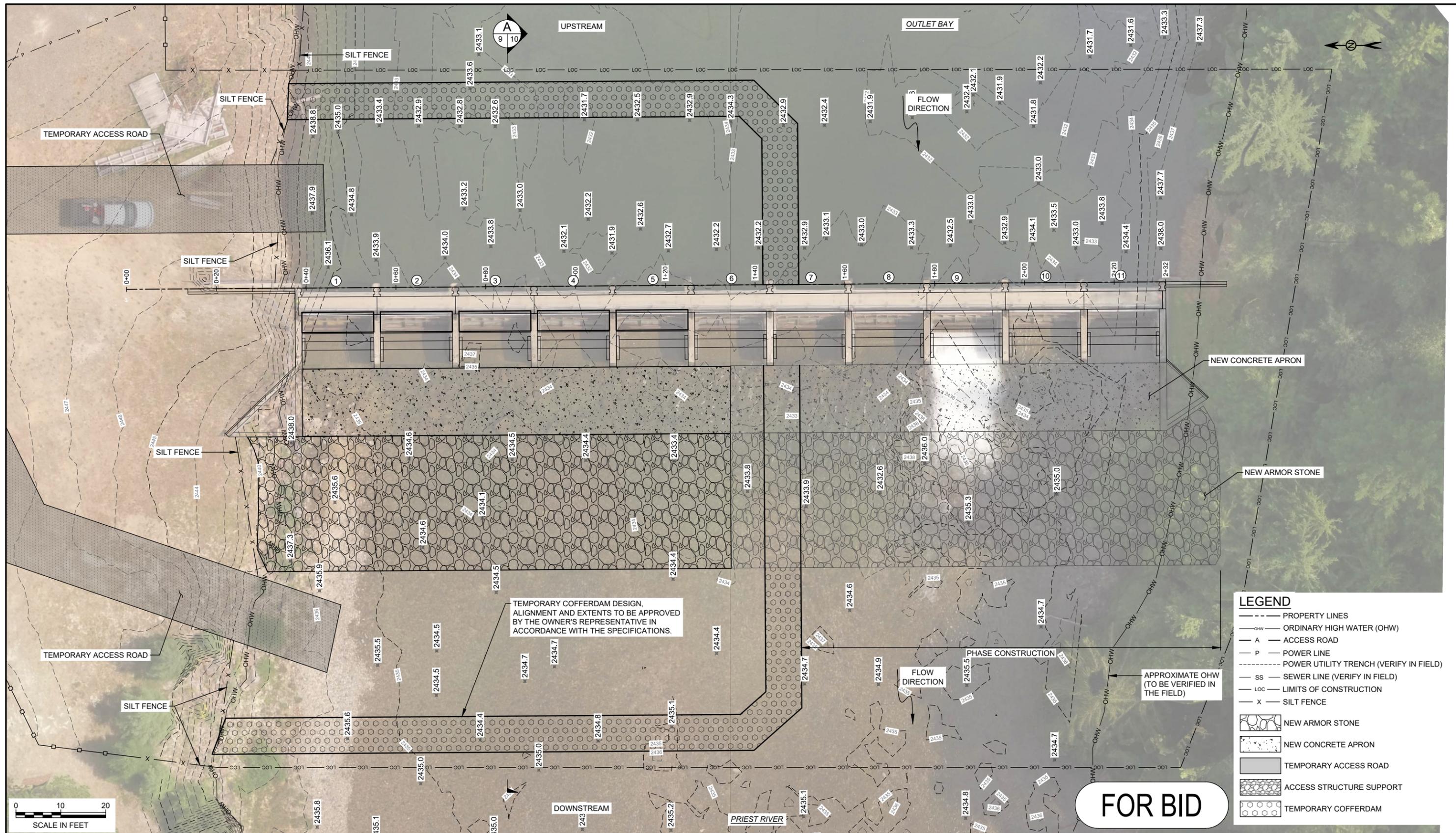
Project Number **376997** B/O **8** Total **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>1" = 10'</b>			
Drawing Number	<b>C-2</b>		

Title

**Priest Lake Water Management Project  
 Outlet Dam Improvements**

**CONSTRUCTION PHASING &  
 DEWATERING PLAN 1**



**LEGEND**

- PROPERTY LINES
- OHW --- ORDINARY HIGH WATER (OHW)
- A --- ACCESS ROAD
- P --- POWER LINE
- POWER UTILITY TRENCH (VERIFY IN FIELD)
- SS --- SEWER LINE (VERIFY IN FIELD)
- LOC --- LIMITS OF CONSTRUCTION
- X --- SILT FENCE
- NEW ARMOR STONE
- NEW CONCRETE APRON
- TEMPORARY ACCESS ROAD
- ACCESS STRUCTURE SUPPORT
- TEMPORARY COFFERDAM

TEMPORARY COFFERDAM DESIGN, ALIGNMENT AND EXTENTS TO BE APPROVED BY THE OWNER'S REPRESENTATIVE IN ACCORDANCE WITH THE SPECIFICATIONS.

APPROXIMATE OHW (TO BE VERIFIED IN THE FIELD)

**FOR BID**

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

PROFESSIONAL ENGINEER  
LICENSED

*Shane Phillips*  
6/26/20

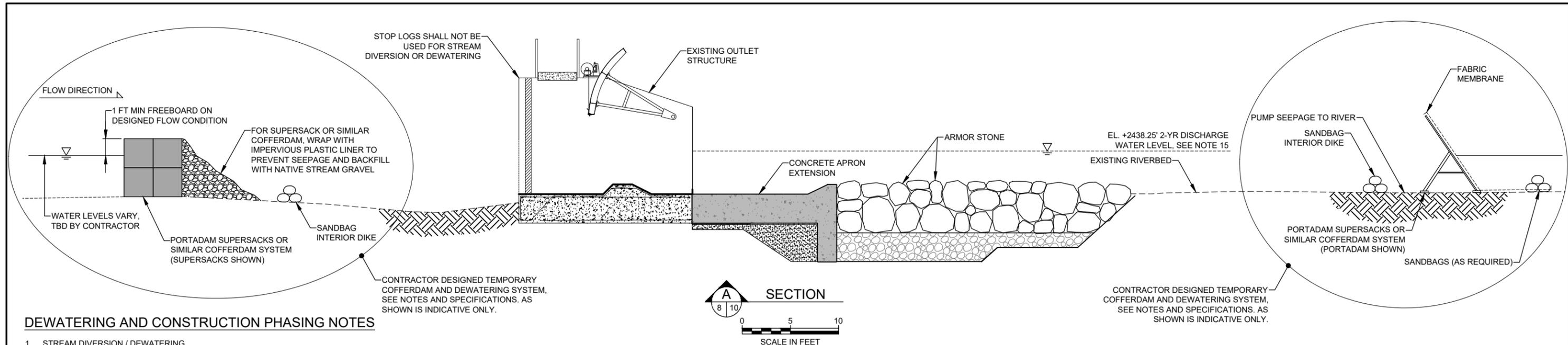
Project Number: 376997  
B/O: 9  
Total: 25

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
1" = 10'			
Drawing Number	C-3		

Title

Priest Lake Water Management Project  
Outlet Dam Improvements

CONSTRUCTION PHASING & DEWATERING PLAN 2



**DEWATERING AND CONSTRUCTION PHASING NOTES**

**1. STREAM DIVERSION / DEWATERING**

A. DIVERSION AND CARE OF WATER IS RECOMMENDED TO OCCUR IN THE FOLLOWING ORDER; HOWEVER THE NUMBER OF PHASES SHALL BE DETERMINED BY THE CONTRACTOR:

- CONSTRUCT ACCESS ROAD / STRUCTURE AND SILT CURTAINS DURING ACCESS / STRUCTURE CONSTRUCTION.
- INSTALL PHASE 1 COFFERDAMS.
- INSTALL WATER DISCHARGE CONTROL SETTLING BASIN AND PERFORM PHASE 1 AREA DEWATERING.
- CONSTRUCT BAYS 6 TO 11.
- DISCONTINUE PUMPING AND ALLOW COFFERDAM AREA TO FLOOD TO THE LEVEL OF THE ADJACENT POOL.
- INSTALL PHASE 2 COFFERDAMS AND SILT CURTAINS.
- INSTALL WATER DISCHARGE CONTROL SETTLING BASIN AND PERFORM PHASE 2 AREA DEWATERING.
- CONSTRUCT BAYS 1 TO 5.
- DISCONTINUE PUMPING AND ALLOW COFFERDAM AREA TO FLOOD TO THE LEVEL OF THE ADJACENT POOL.
- REMOVE COFFERDAM AND RESTORE SITE.

B. THE DIVERSION SYSTEM / TEMPORARY COFFERDAM SHALL BE DESIGNED BY THE CONTRACTOR, SEE SPECIFICATIONS.

C. A TWO STAGE DEWATERING SYSTEM SHALL BE USED, SEE SPECIFICATIONS FOR WATER QUALITY REQUIREMENTS.

2. THE CONTRACTOR SHALL PROVIDE A COFFERDAM THAT WILL ALLOW FOR DEWATERING AND CONSTRUCTION OF THE WORK WITHIN THE COFFERDAM LIMITS SHOWN ON THE PLAN. THE COFFERDAMS SHOWN ARE SCHEMATIC ONLY. ALL COFFERDAM DESIGNS, DETAILS, AND PLACEMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

3. THE CONTRACTOR SHALL HAVE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IDAHO PREPARE A SET OF COFFERDAM PLANS AND CALCULATIONS WHICH ARE TO BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL. ALL PLANS AND CALCULATIONS SHALL BEAR THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IDAHO PREPARING THE DOCUMENTS.

4. CONTRACTOR SHALL CONSTRUCT SEDIMENT TRAPS SO THEY DRAIN BY GRAVITY FLOW OR MECHANICAL MEANS (PUMPS) TO PREVENT TURBID WATER FROM ENTERING THE RIVER.

5. CONTRACTOR'S COFFERDAM DESIGN SHALL INCLUDE DETAILS FOR THE CONNECTIONS AT THE PIER AND ABUTMENT INTERFACES TO SEAL THEM AND CONTROL SEEPAGE.

6. CONTRACTOR'S COFFERDAM DESIGN SHALL INCLUDE DETAILS FOR THE INTERFACE BETWEEN THE EXISTING STREAMBED IN PHASE 1 & 2 AND NEW STREAM BED ARMORING IN PHASE 2 TO SEAL THE COFFERDAMS AND CONTROL SEEPAGE.

7. CONTOURS SHOWN MAY NOT DEPICT ALL CONDITIONS WITHIN THE STREAMBED THAT MAY EFFECT THE DESIGN OF THE COFFERDAMS AND HEIGHT OF RETAINED WATER. CONTRACTOR IS RESPONSIBLE FOR PERFORMING A FIELD PRE-CONSTRUCTION SURVEY OF THE RIVERBED TO ENSURE THE DESIGN OF THE COFFERDAMS COVERS ALL CONDITIONS ENCOUNTERED DURING INSTALLATION AND CONSTRUCTION OPERATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS.

8. CONTRACTOR SHALL CONSTRUCT A TEMPORARY SETTLING BASIN FOR WATER DISCHARGE CONTROL AND PERFORM DEWATERING FOR THE DURATION OF THE WORK IN PHASE 1 & 2 OF CONSTRUCTION.

9. CONTRACTOR SHALL PROVIDE PUMPING AND MAINTENANCE OF THE WATER DISCHARGE CONTROL SETTLING BASIN FOR THE DURATION OF THE PROJECT.

10. CONTRACTOR SHALL DISCONTINUE PUMPING AND ALLOW THE COFFERDAM AREA TO FLOOD TO THE LEVEL OF ADJACENT POOL UPON COMPLETION AND ACCEPTANCE OF THE WORK FOR EACH STAGE REQUIRING COFFERDAMS BY OWNER'S REPRESENTATIVE.

11. COFFERDAM REMOVAL OPERATIONS SHALL NOT CAUSE AN INCREASE IN TURBIDITY IN THE RIVERBED.

12. CONTRACTOR SHALL DETERMINE THE METHOD TO REDUCE TURBIDITY DURING CONSTRUCTION TO MEET PERMIT REQUIREMENTS. SILT CURTAIN IS INDICATIVE ONLY AND SHOWN DURING COFFERDAM INSTALLATION, ACCESS STRUCTURE CONSTRUCTION, AND EXCAVATION OPERATIONS.

13. HISTORICAL STREAMFLOW DISCHARGE STATISTICS (2, 5, AND 10-YR) AND CORRESPONDING WATER LEVELS FOR UNOBSTRUCTED FLOW THROUGH 11 GATES ARE PROVIDED IN THE TECHNICAL SPECIFICATIONS AND APPENDICES. CONTRACTOR TO DETERMINE THE REQUIRED DESIGN POOL ELEVATION FOR COFFERDAM AND DEWATERING DESIGN. WATER LEVELS DURING CONSTRUCTION WILL VARY BASED ON STREAM DISCHARGE AND THE NUMBER OF SPILLWAY BAYS THAT ARE CLOSED OFF FOR THE FLOW DIVERSION. CONTRACTOR TO DETERMINE DEPTH OF FLOW AND DESIGN THE COFFERDAM AND DEWATERING SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS.

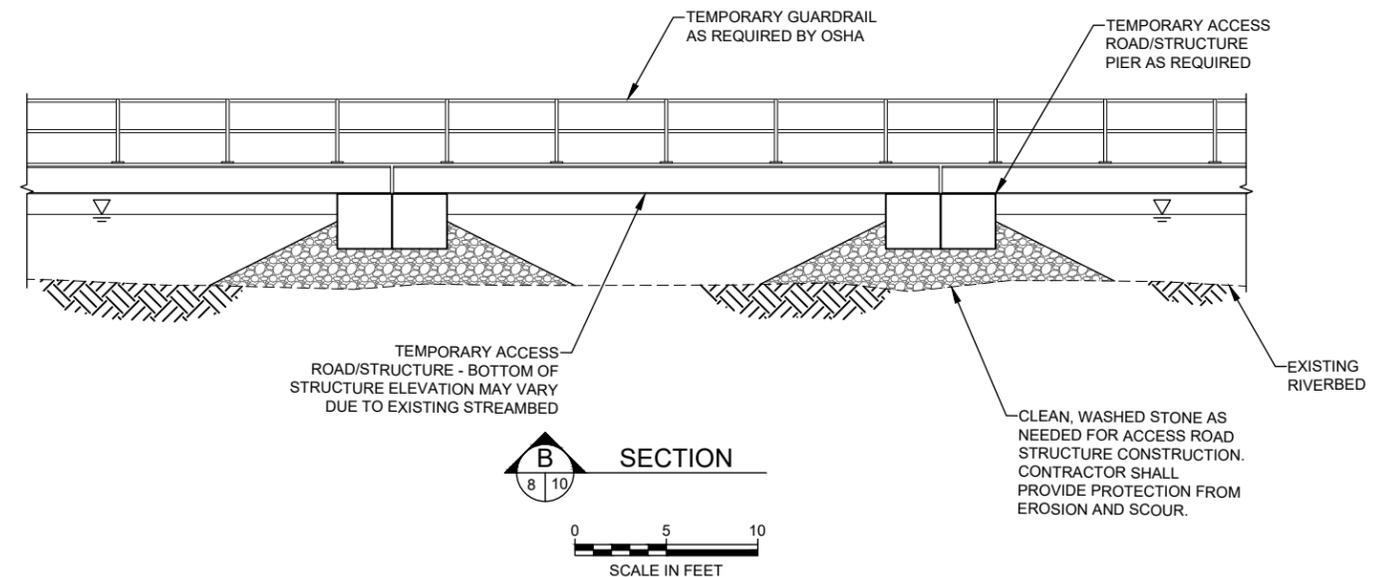
14. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE WORK, PRIOR TO FINAL ACCEPTANCE, FOR FLOW CONDITIONS UP TO A 10-YR FLOW EVENT, SEE TECHNICAL SPECIFICATIONS.

15. 2-YR DISCHARGE WATER ELEVATION SHOWN IS UPSTREAM OF THE DAM WITH ALL GATES OPEN WITHOUT A COFFERDAM. REFER TO SPECIFICATIONS FOR DISCHARGE FLOW RATES AND COFFER DAM DESIGN REQUIREMENTS.

**TEMPORARY ACCESS ROAD/STRUCTURE NOTES**

1. CONTRACTOR SHALL CONSTRUCT A TEMPORARY ACCESS ROAD/STRUCTURE FOR CONSTRUCTION ACCESS TO BAYS 6 TO 11 FOR PHASE 1 CONSTRUCTION AS NEEDED. THE ACCESS ROAD/STRUCTURE SHOWN ABOVE IS SCHEMATIC. TEMPORARY ACCESS ROAD/STRUCTURE DESIGN, DETAILING, AND PLACEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR.

2. THE CONTRACTOR SHALL HAVE A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IDAHO PREPARE A SET OF PLANS AND CALCULATIONS WHICH WILL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR REVIEW AND APPROVAL. ALL PLANS AND CALCULATIONS SHALL BEAR THE SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER LICENSED IN THE STATE OF IDAHO PREPARING THE DOCUMENTS.



**FOR BID**

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1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP
Rev	Date	Drawn	Description	Ch'k'd	App'd

Project Number  
**376997**

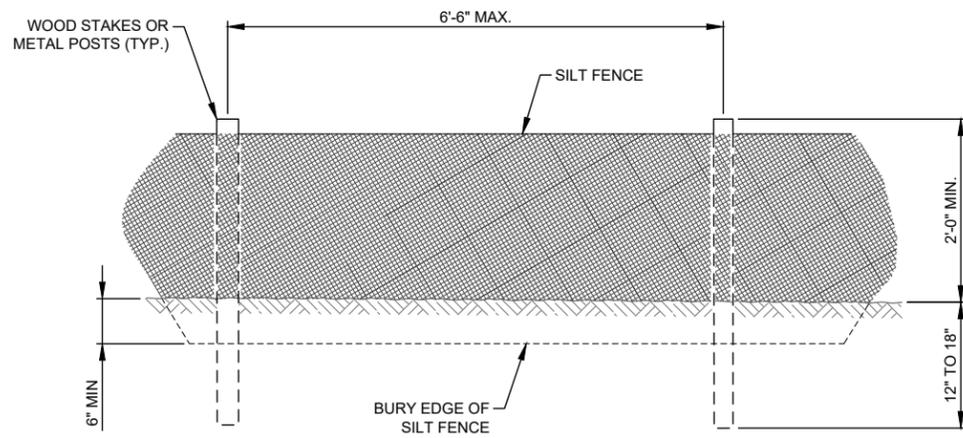
B/O  
**10**

Total  
**25**

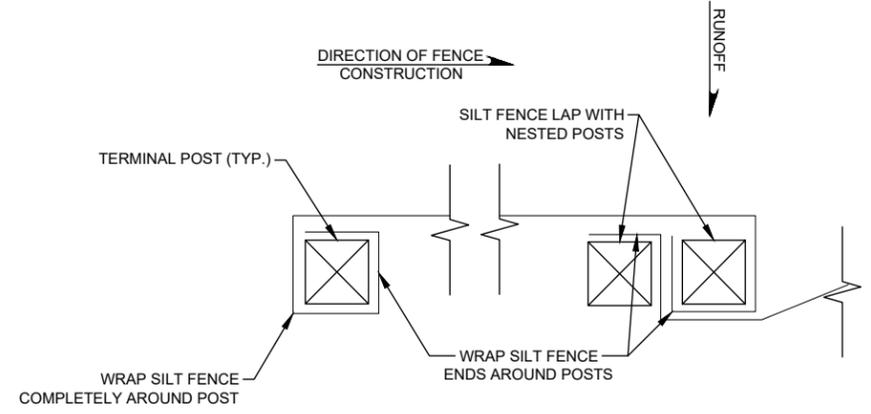
Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>1" = 5'</b>			
Drawing Number	<b>C-4</b>		

Title  
**Priest Lake Water Management Project Outlet Dam Improvements**

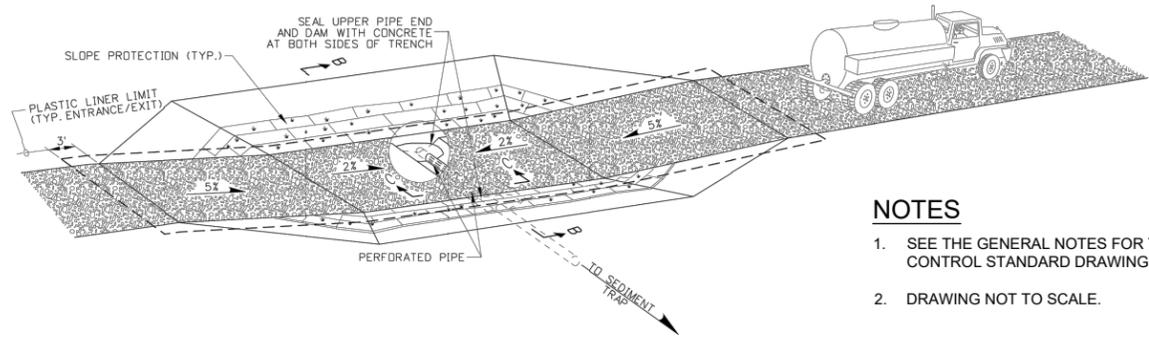
**DEWATERING DETAILS**



**1 SILT FENCE DETAIL**  
NOT TO SCALE



**2 SILT FENCE LAP DETAIL**  
NOT TO SCALE

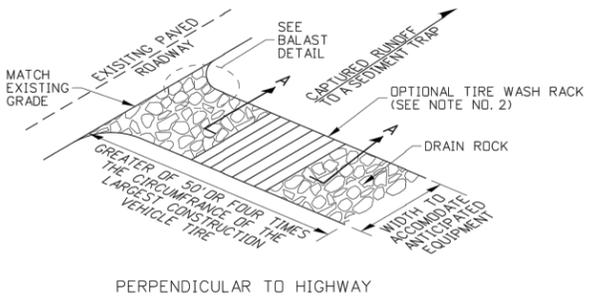


- NOTES**
- SEE THE GENERAL NOTES FOR TEMPORARY EROSION CONTROL STANDARD DRAWINGS ON 212-1.
  - DRAWING NOT TO SCALE.



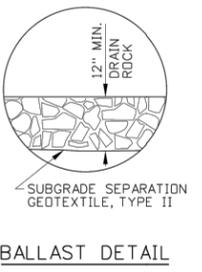
**VEHICLE AND EQUIPMENT WASHDOWN**

**NOTE**  
PROVIDE WASHDOWN AREA IN ACCORDANCE WITH ITD STANDARD DRAWING 212-6.

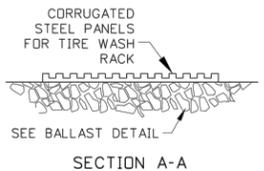


**3 TEMPORARY CONSTRUCTION ENTRANCE**  
NOT TO SCALE

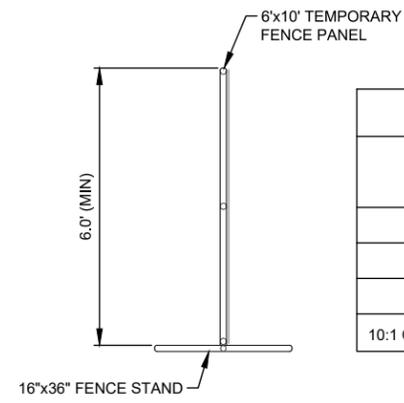
**NOTE**  
PROVIDE TEMPORARY CONSTRUCTION ENTRANCE IN ACCORDABLE WITH ITD STANDARD DRAWING 212-6.



**BALLAST DETAIL**



**SECTION A-A**



**4 CHAIN LINK FENCE DETAIL**  
NOT TO SCALE

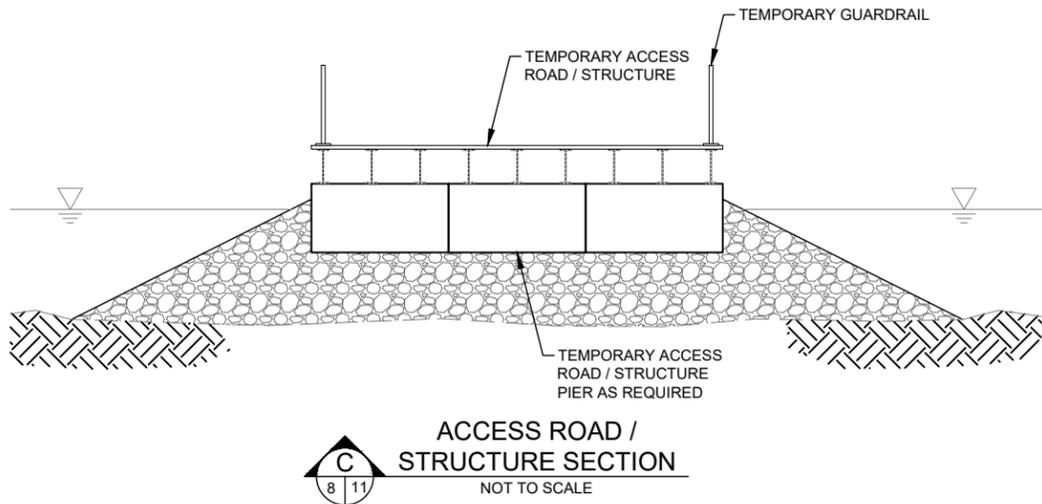
SILT FENCE SPACING TABLE			
SLOPE	SOIL TYPE		
	SILTY	CLAYS	SANDY
1:1	50 FT	75 FT	100 FT
2:1	75 FT	100 FT	125 FT
4:1	100 FT	125 FT	150 FT
10:1 OR FLATTER	125 FT	150 FT	200 FT

**NOTES**

- INSTALL TEMPORARY SEDIMENT CONTROL BARRIERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFICATIONS. THE DIMENSIONS SHOWN ARE GENERAL GUIDELINES.
- PLACE SEDIMENT BARRIERS TO FOLLOW THE SLOPE CONTOURS. METAL POSTS OR WOOD STAKES MAY BE USED.
- ENSURE THAT RUNOFF PASSES THROUGH THE SILT FENCE AND NOT AROUND THE FENCE.
- THE NEED FOR TEMPORARY SEDIMENT CONTROL DEVICES ARE DETERMINED BY SITE DESIGN. SPACE SILT FENCES IN ACCORDANCE WITH THE SILT FENCE SPACING TABLE.
- EXTEND OR JOIN SILT FENCE USING SILT FENCE LAP WITH NESTED POSTS.
- REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF SILT FENCES WHEN ACCUMULATION HAS REACHED THE EFFECTIVE HEIGHT OF THE BARRIER.
- SILT CURTAIN SHALL BE A MAXIMUM OF 100 FEET LONG FOR EACH SECTION OF CURTAIN REQUIRED. END SECTIONS SHALL TERMINATE 10 FEET BEYOND THE LIMIT OF DISTURBANCE.
- THE SILT CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.
- THE CONTRACTOR SHALL CONTINUALLY MONITOR THE INSTALLATION, TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF THE SILT CURTAIN.
- THE SILT CURTAIN SHALL BE REMOVED BY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE WATERWAY.
- THE WEIGHTED ANCHORING SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR OF THE BOTTOM OF THE WATERWAY.
- CONSTRUCTION, DISTURBANCE AND LAYDOWN AREAS SHOWN ON PLAN ARE APPROXIMATE AND THE CONTRACTOR IS RESPONSIBLE FOR THE COST RELATED TO CHANGES TO THE SWPP AT NO ADDITIONAL COST TO THE OWNER IF ANY OF THESE AREAS ARE EXCEEDED.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE ALL AREAS OF SOIL DISTURBANCE ARE STABILIZED DURING CONSTRUCTION AND WHENEVER WORK IS SUSPENDED ON THE PROJECT. CONTRACTOR SHALL SEED AND MULCH THESE AREAS AS REQUESTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL NOT WASH CONCRETE TRUCKS ONTO THE BARE GROUND, DIRECTLY INTO STORM OR SANITARY SYSTEMS INCLUDING SWALES, DITCHES OR ADJACENT PROPERTIES. EXCESS CONCRETE AND WASH WATER SHALL BE COLLECTED IN WASH BASIN AND DISPOSED OF PROPERLY.

**CONSTRUCTION NOTES**

- SPECIAL CONDITIONS APPLY TO THE USE OF LAMB CREEK LANE. SEE TECHNICAL SPECIFICATIONS. THE FOLLOWING CONDITIONS APPLY TO THE ACCESS ROAD:  
  
CONTRACTOR SHALL PROVIDE PERIODIC GRAVEL AND GRADING TO ENSURE RUTTING DOESN'T OCCUR AND ROAD SECTION IS MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.  
  
CONTRACTOR SHALL INSTALL STEEL TRENCH PLATES AT LOCATION WHERE CONSTRUCTION TRAFFIC WILL PASS OVER BURIED UTILITIES WITH LESS THAN 4 FEET OF COVER AND ALL LATERALS TO EACH LOT.
- CONTRACTOR ACCESS OUTSIDE OF THE INDICATED ACCESS ROAD ROUTE AND PROJECT SITE LIMITS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE OWNER.
- CONTRACTOR SHALL ACTIVELY CLEAR THE ACCESS ROAD HAUL ROUTE DURING PERIODS WHEN SNOW IS PRESENT, AND IT PRECLUDES SAFE EQUIPMENT ACCESS TO THE PROJECT SITE LIMITS.
- CONSTRUCTION ACCESS TO HAVE CHAINLINK SECURITY FENCING AND GATE TO PRECLUDE PUBLIC ACCESS DURING NON-WORKING HOURS.
- CONSTRUCTION SAFETY FENCING SHALL BE INSTALLED ALONG ACCESS CORRIDOR FROM SANDPIPER SHORE ROAD LOT 10 TO OHW LINE.



**ACCESS ROAD / STRUCTURE SECTION**  
NOT TO SCALE

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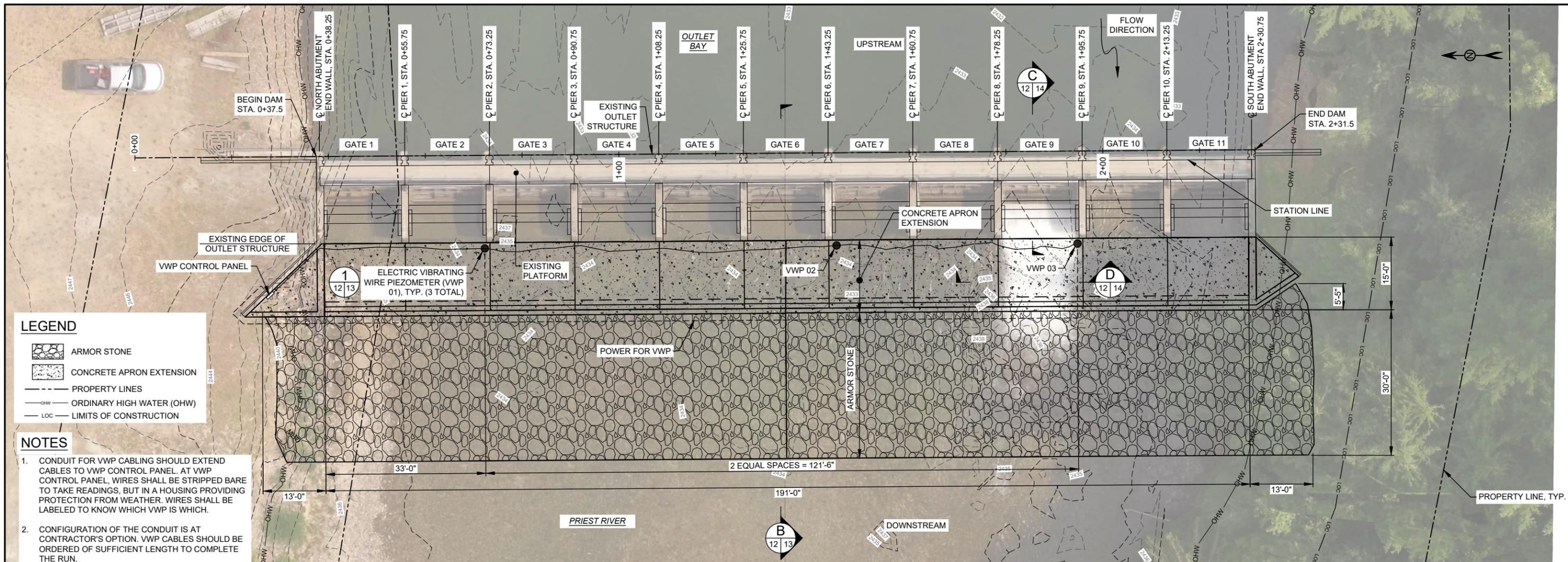
Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number **376997** B/O **11** Total **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>C-5</b>		

Title **Priest Lake Water Management Project Outlet Dam Improvements**

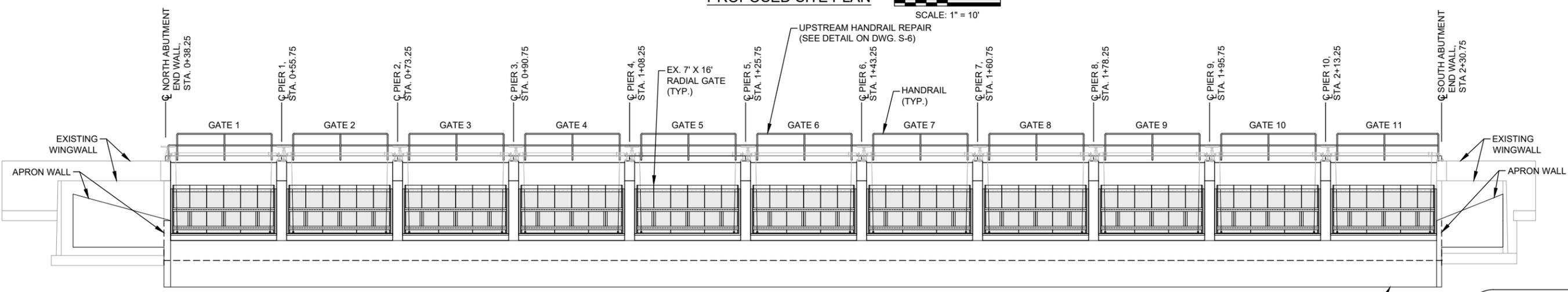
**TEMPORARY EROSION & SEDIMENT CONTROL DETAILS**



- LEGEND**
- ARMOR STONE
  - CONCRETE APRON EXTENSION
  - PROPERTY LINES
  - ORDINARY HIGH WATER (OHW)
  - LIMITS OF CONSTRUCTION

- NOTES**
1. CONDUIT FOR VWP CABLING SHOULD EXTEND CABLES TO VWP CONTROL PANEL. AT VWP CONTROL PANEL, WIRES SHALL BE STRIPPED BARE TO TAKE READINGS, BUT IN A HOUSING PROVIDING PROTECTION FROM WEATHER. WIRES SHALL BE LABELED TO KNOW WHICH VWP IS WHICH.
  2. CONFIGURATION OF THE CONDUIT IS AT CONTRACTOR'S OPTION. VWP CABLES SHOULD BE ORDERED OF SUFFICIENT LENGTH TO COMPLETE THE RUN.

**PROPOSED SITE PLAN**  
SCALE: 1" = 10'



**ELEVATION**  
DOWNSTREAM  
SCALE IN FEET

**FOR BID**

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number: **376997**  
B/O: **12**  
Total: **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>S-1</b>		

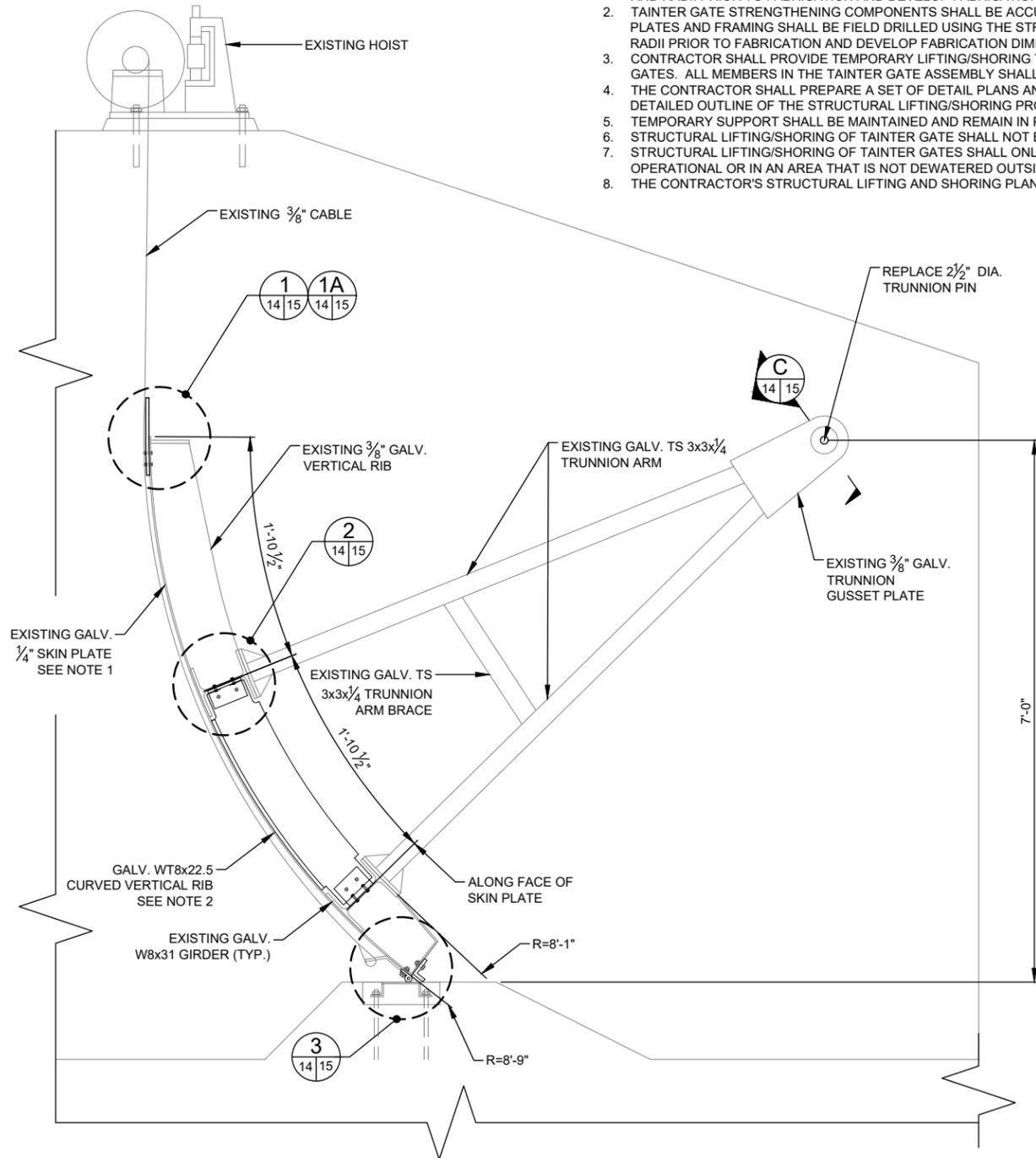
Title: **Priest Lake Water Management Project Outlet Dam Improvements**

**GENERAL DAM PLAN AND ELEVATION**

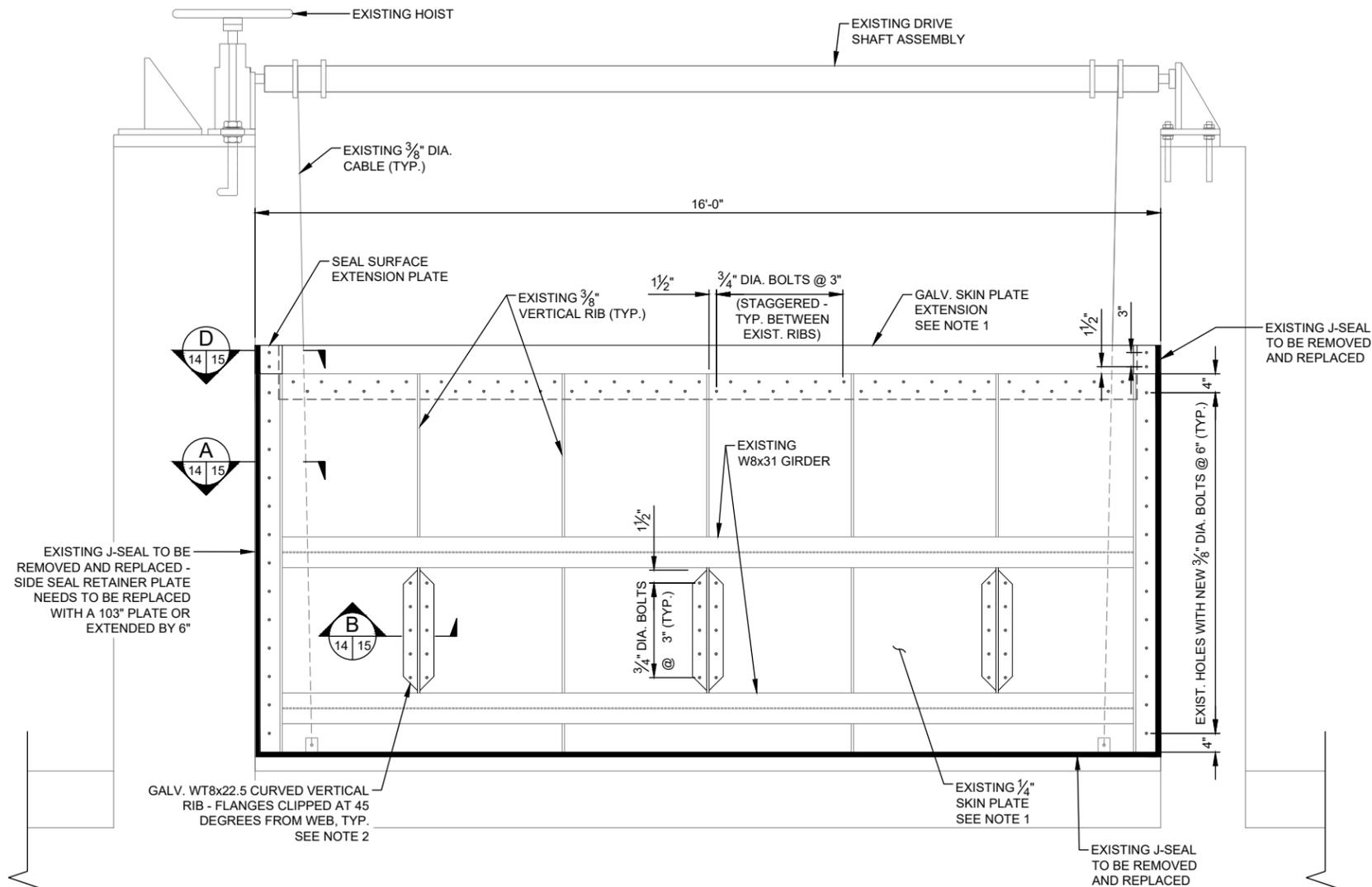


**NOTES**

1. TAITNER GATE EXTENSION PLATES SHALL BE CONTINUOUS OVER THE FULL WIDTH OF THE EXISTING GATES. THE EXTENSIONS SHALL BE ACCURATELY FITTED AND BOLT HOLES DRILLED IN THE SHOP FOR PROPER INSTALLATION. (FIELD DRILLING OF BOLT HOLES IN EXTENSION NOT ALLOWED.) BOLT HOLES IN EXISTING TAITNER GATE SKIN PLATES SHALL BE FIELD DRILLED USING THE EXTENSIONS AS A PREPARED TEMPLATE TO ENSURE PROPER FITTING OF PIECES. CONTRACTOR SHALL FIELD MEASURE THE EXISTING TAITNER GATE SKIN PLATE DIMENSIONS AND RADII PRIOR TO FABRICATION AND DEVELOP FABRICATION DIMENSIONS BASED ON THESE MEASUREMENTS AND ORIGINAL 1978 DRAWINGS IN ORDER TO PREPARE THE EXTENSION SHOP DRAWINGS.
2. TAITNER GATE STRENGTHENING COMPONENTS SHALL BE ACCURATELY FITTED AND BOLT HOLES DRILLED IN THE SHOP FOR PROPER INSTALLATION. (FIELD DRILLING OF BOLT HOLES IN STRENGTHENING COMPONENTS NOT ALLOWED.) BOLT HOLES IN EXISTING TAITNER GATE SKIN PLATES AND FRAMING SHALL BE FIELD DRILLED USING THE STRENGTHENING COMPONENTS AS A PREPARED TEMPLATE TO ENSURE PROPER FITTING OF PIECES. CONTRACTOR SHALL FIELD MEASURE THE EXISTING TAITNER GATE SKIN PLATE AND FRAMING DIMENSIONS INCLUDING RADII PRIOR TO FABRICATION AND DEVELOP FABRICATION DIMENSIONS BASED ON THESE MEASUREMENTS AND ORIGINAL 1978 DRAWINGS IN ORDER TO PREPARE THE EXTENSION SHOP DRAWINGS.
3. CONTRACTOR SHALL PROVIDE TEMPORARY LIFTING/SHORING TO SUPPORT TAITNER GATES DURING TRUNNION PIN REPLACEMENT. THE CONTRACTOR SHALL EMPLOY SUITABLE EQUIPMENT AND METHODS SO AS TO NOT DAMAGE OR OVERSTRESS ANY MEMBERS IN THE TAITNER GATES. ALL MEMBERS IN THE TAITNER GATE ASSEMBLY SHALL BE SAFELY BRACED AND FIRMLY HELD IN PLACE UNTIL THEY CAN BE RESUPPORTED ON THE NEW TRUNNION PINS.
4. THE CONTRACTOR SHALL PREPARE A SET OF DETAIL PLANS AND CALCULATIONS FOR THE STRUCTURAL LIFTING/SHORING OPERATIONS. THE PLANS AND CALCULATIONS SHALL BE STAMPED BY AN IDAHO STATE LICENSE PROFESSIONAL ENGINEER. THE PLANS SHALL INCLUDE A DETAILED OUTLINE OF THE STRUCTURAL LIFTING/SHORING PROCEDURE. THE STRUCTURAL LIFTING SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO LRFD BRIDGE SPECIFICATIONS.
5. TEMPORARY SUPPORT SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL BOTH TRUNNION PINS IN A GATE BEING LIFTED/SHORED HAVE BEEN REPLACED AND THE TAITNER GATE ASSEMBLY HAS BEEN RESUPPORTED IN ITS ORIGINAL CONDITION.
6. STRUCTURAL LIFTING/SHORING OF TAITNER GATE SHALL NOT BE UNDERTAKEN UNDER ANY SITUATION WHICH WOULD RESULT IN COMPROMISING ITS CAPACITY, STABILITY, OR ABILITY TO OPERATE.
7. STRUCTURAL LIFTING/SHORING OF TAITNER GATES SHALL ONLY OCCUR WHEN COFFERDAM IS IN PLACE AND IN AREA THAT IS DEWATERED. STRUCTURAL LIFTING/SHORING OF TAITNER GATES SHALL NOT BE UNDERTAKEN UNDER ANY CIRCUMSTANCE ON GATES THAT ARE STILL OPERATIONAL OR IN AN AREA THAT IS NOT DEWATERED OUTSIDE THE COFFERDAMS.
8. THE CONTRACTOR'S STRUCTURAL LIFTING AND SHORING PLAN SHALL INCLUDE ALL DETAILS AND DESIGN CHECKS REQUIRED TO ENSURE THE EXISTING SUBSTRUCTURE REMAINS STABLE.



**C** SECTION  
SCALE: 1" = 1'-0"



**D** ELEVATION  
TAITNER GATE  
SCALE: 3/4" = 1'-0"

**FOR BID**

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Professional Engineer  
LICENSED  
18040  
STATE OF IDAHO  
POLSKA W SIERPIAN KORNALIA

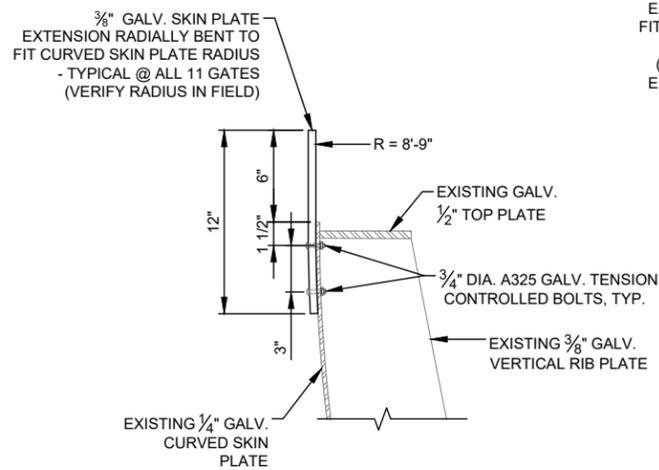
Project Number: 376997  
B/O: 14  
Total: 25

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
As Noted			
Drawing Number		S-3	

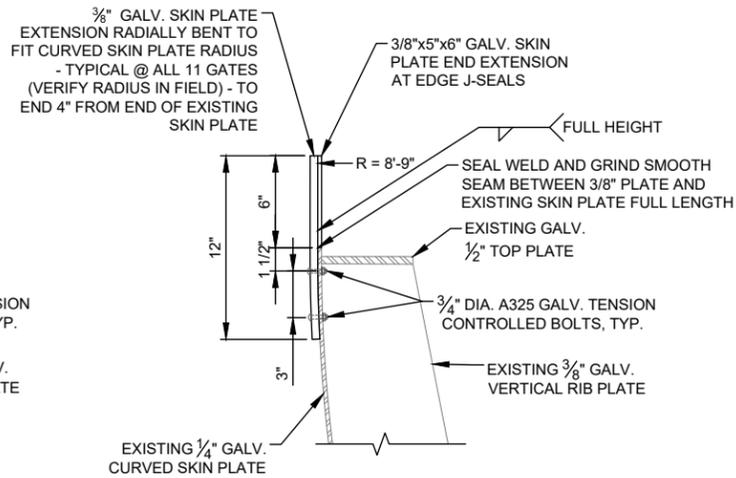
Title

Priest Lake Water Management Project  
Outlet Dam Improvements

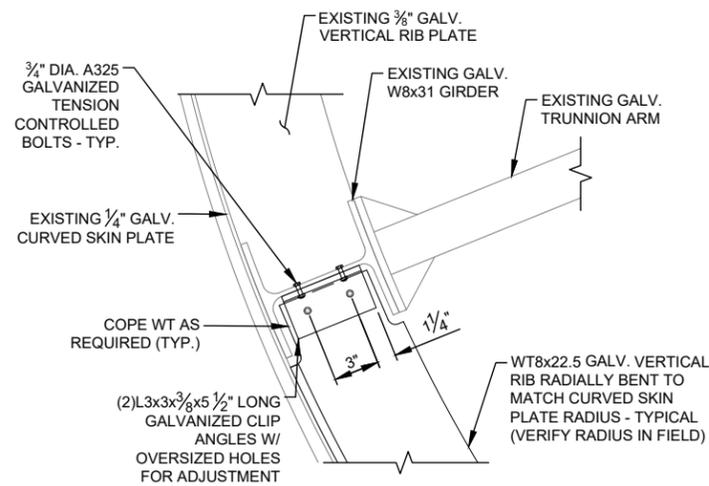
**TAITNER GATE ELEVATION AND SECTION**



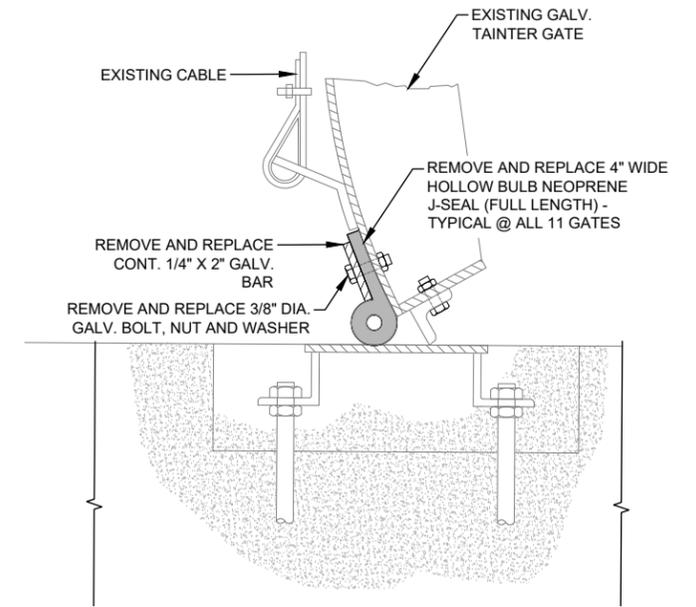
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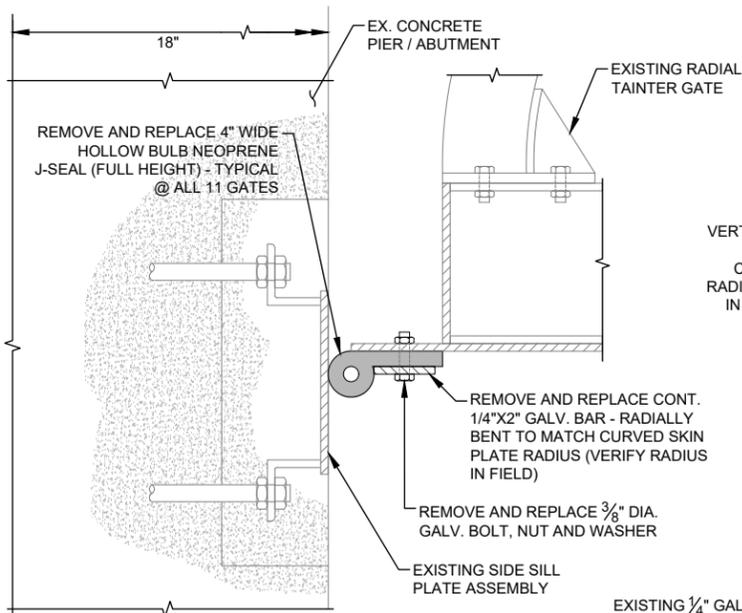
**1A** **DETAIL (AT JOINT SEALS)**  
SCALE: 1" = 6"



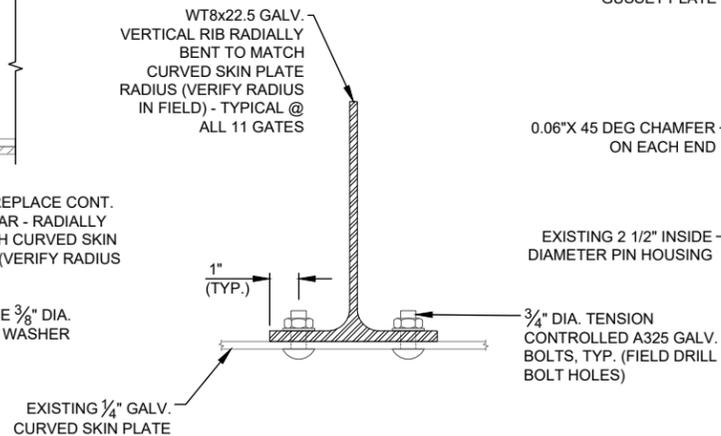
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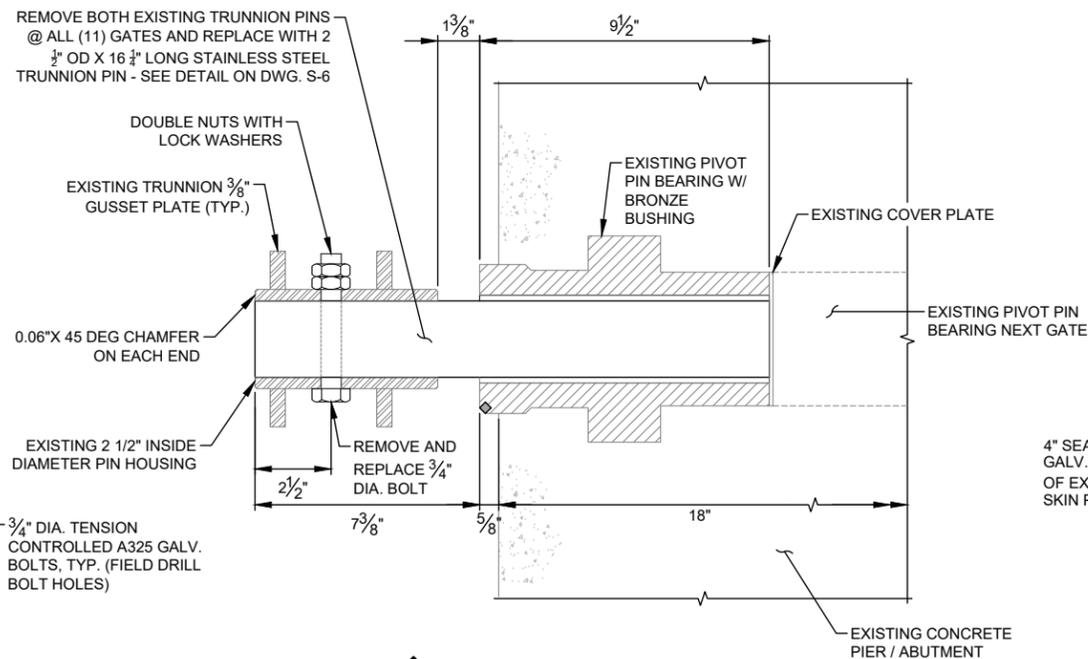
**3** **DETAIL**  
SCALE: 1" = 3"



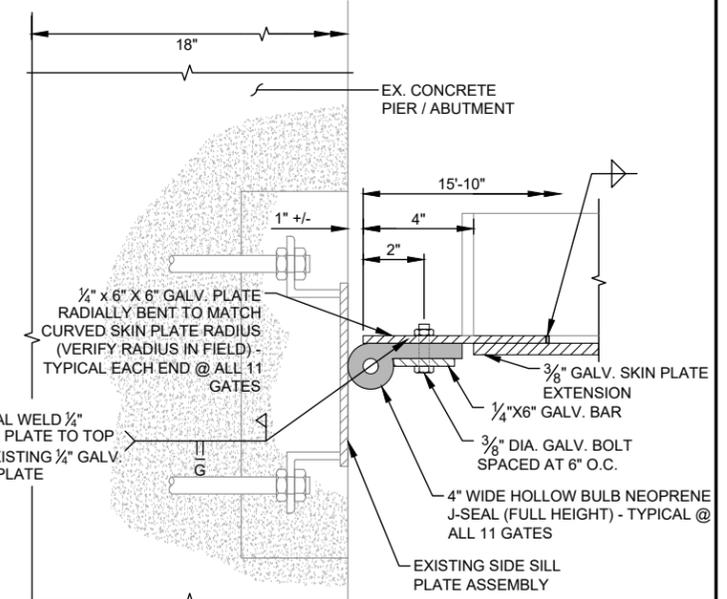
**A** **SECTION**  
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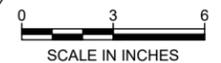
**B** **SECTION**  
SCALE: 1" = 3"



**C** **SECTION**  
TRUNNION PIN REPLACEMENT  
SCALE: 1" = 3"



**D** **SECTION**  
SCALE: 1" = 3"



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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

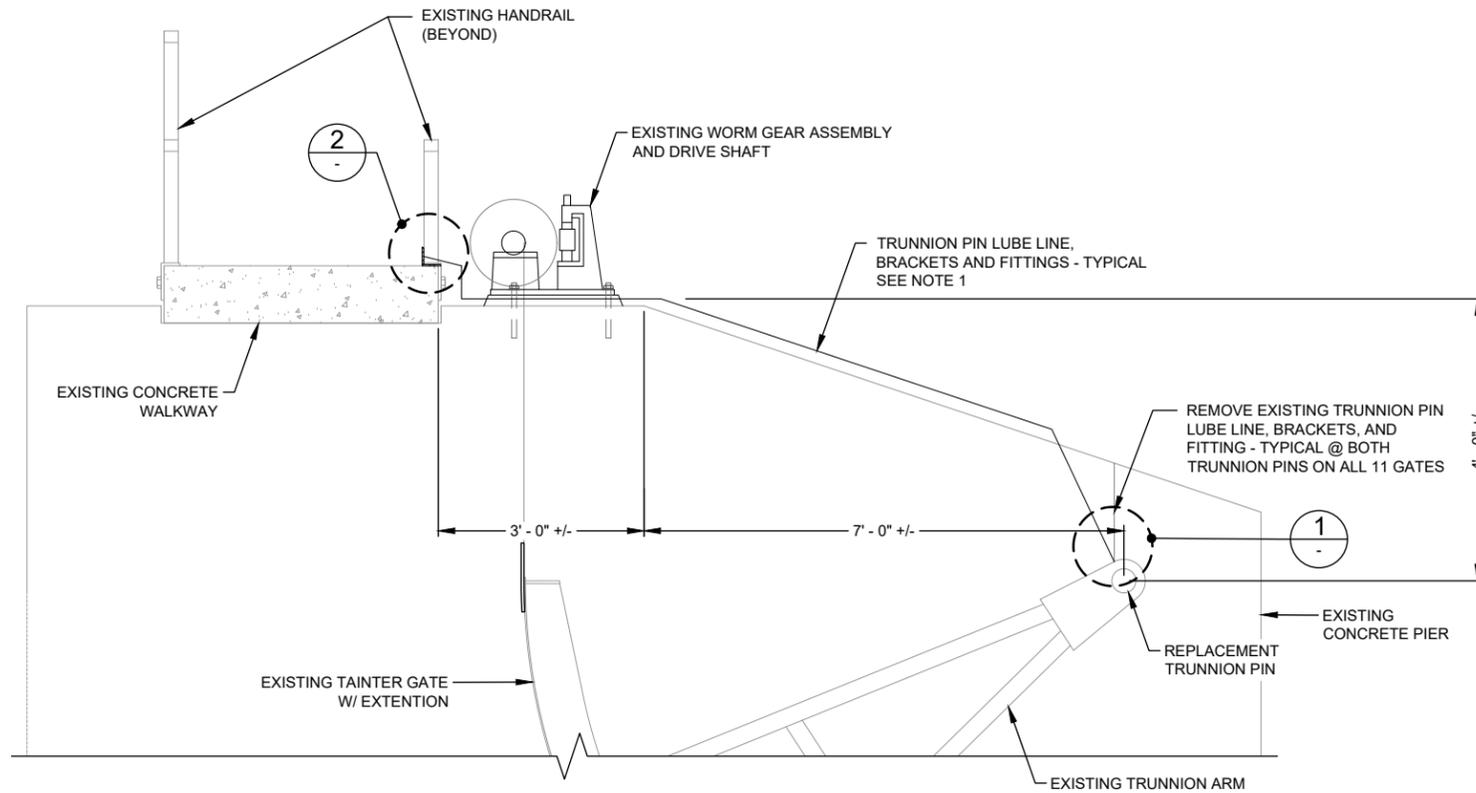
**PROFESSIONAL ENGINEER**  
**LICENSED**  
**18040**  
**STATE OF IDAHO**  
**WALTERS LAW SCZEPAN KOBIALKA**

Project Number: **376997**  
B/O: **15**  
Total: **25**

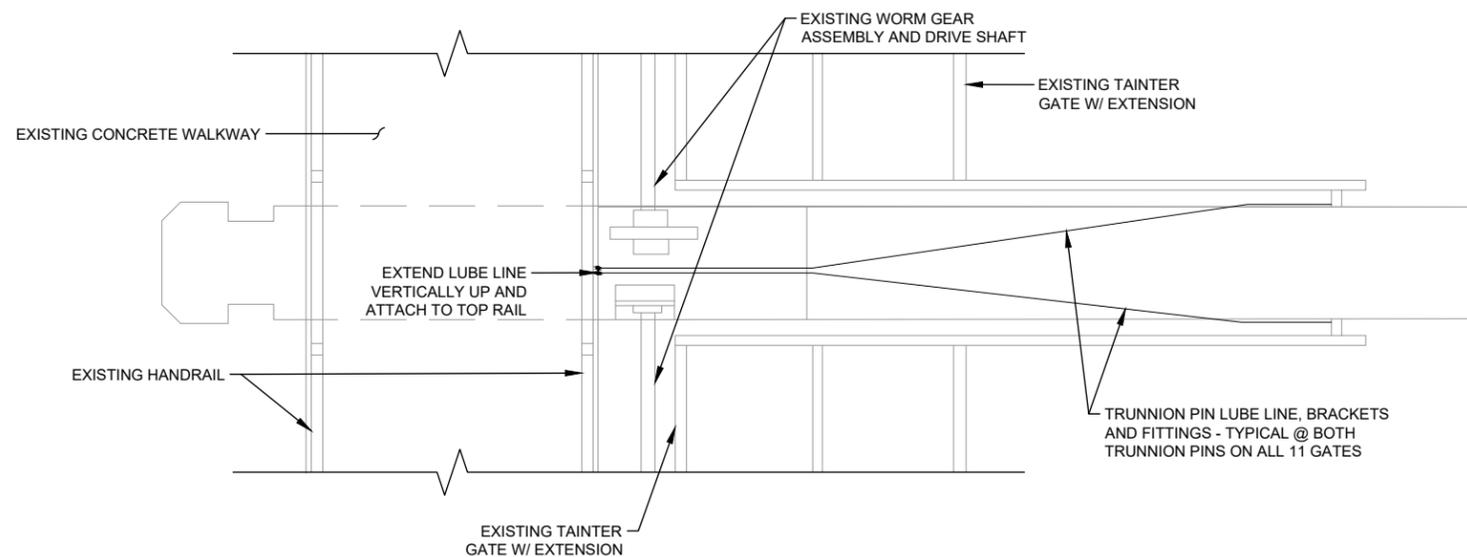
Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>S-4</b>		

Title: **Priest Lake Water Management Project Outlet Dam Improvements**

**TANTIER GATE DETAILS**

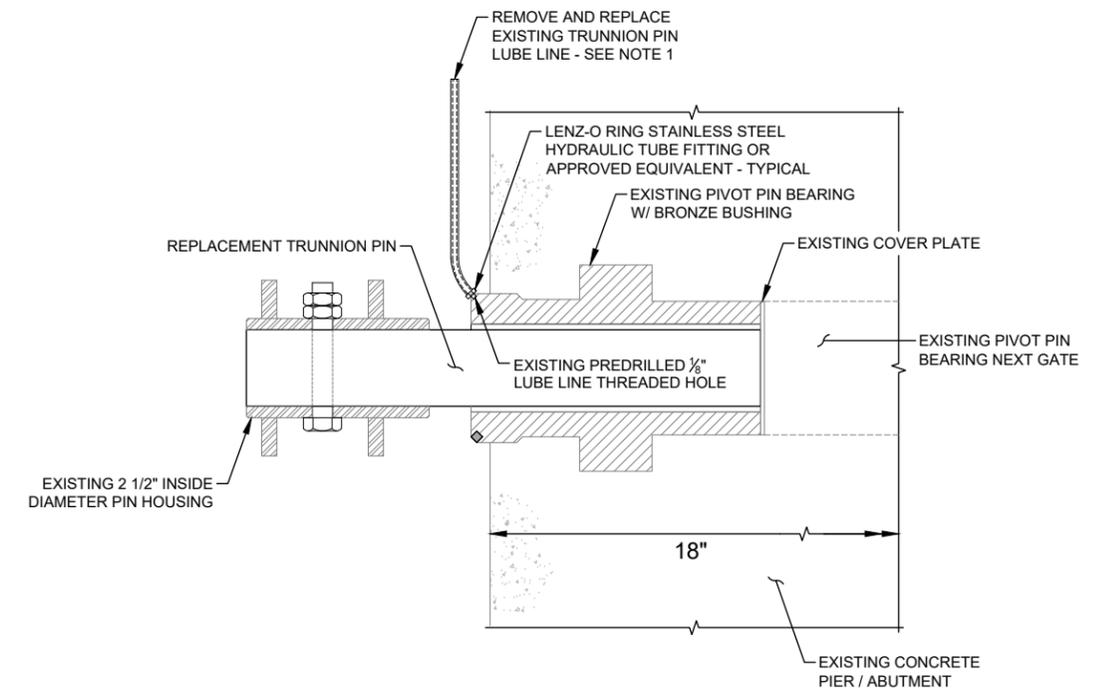


**GREASE FITTING REPAIR DETAIL**  
NOT TO SCALE

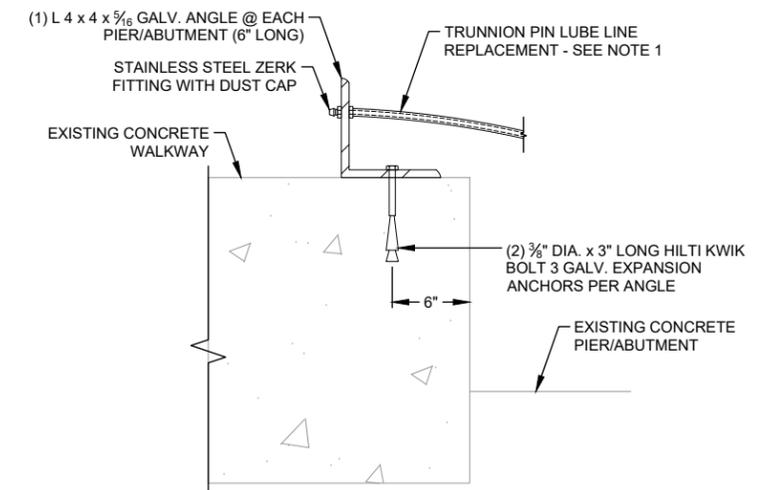


**NOTES**

1. REMOVE AND REPLACE EXISTING LUBE LINE AT BOTH TRUNNION PINS ON ALL 11 GATES WITH A 1/4" SAE J525 ANNEALED STEEL SEAMLESS TUBING LUBE LINE RATED FOR A MINIMUM 5000 PSI PRESSURE.
2. CONTRACTOR SHALL SUPPLY OWNER WITH (2) LINCOLN 1882 20V POWERLUBER HANDHELD BATTERY OPERATED GREASE GUNS RATED FOR A MAXIMUM GREASE DELIVERY PRESSURE UP TO 10000PSI.
3. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ALL LUBE LINES, FITTINGS, AND BRACKETS TO HOLD LUBE LINE IN PLACE ON CONCRETE PIER/ABUTMENT.



**1 DETAIL**  
SCALE: 1" = 3"



**2 DETAIL**  
SCALE: 1" = 3"

**FOR BID**

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Client

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Rev	Date	Drawn	Description	Ch'k'd	App'd
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0	5/20/20	TM	FOR BID	SK	SP

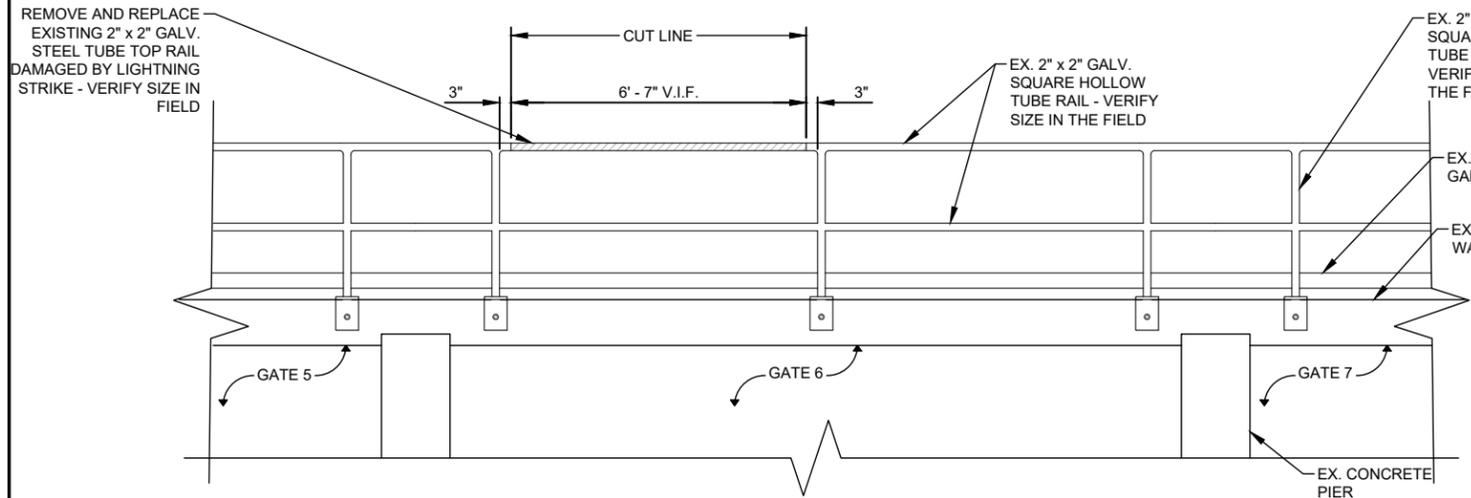
Project Number **376997** B/O **16** Total **25**

**PROFESSIONAL ENGINEER LICENSED 18049**  
STATE OF IDAHO  
PRZEMYSŁAW SZCZEPANIK

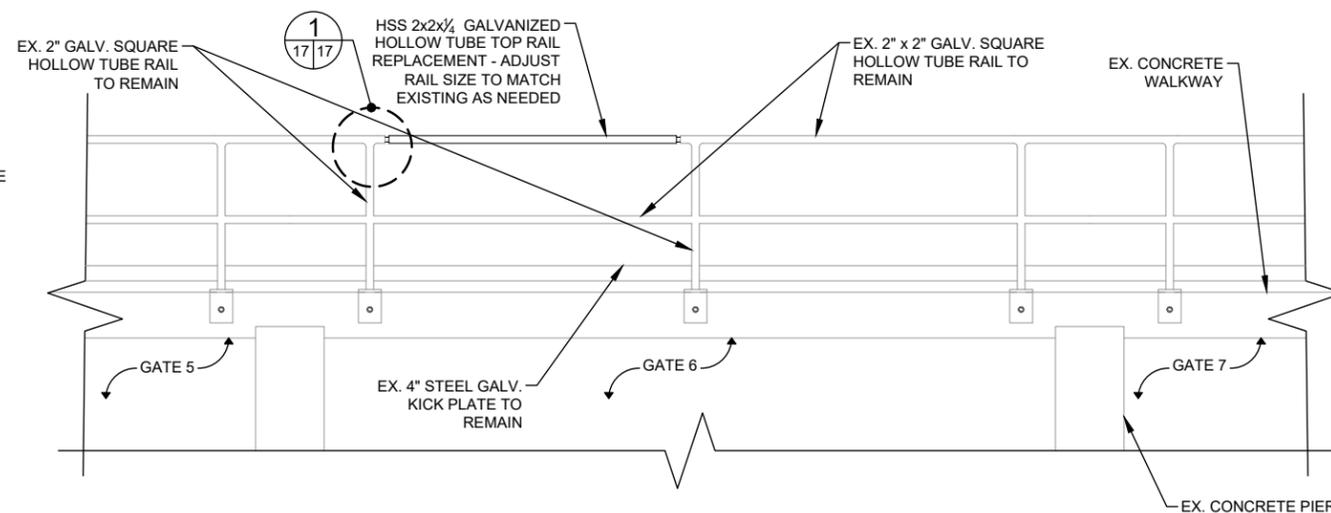
Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>S-5</b>		

Title **Priest Lake Water Management Project Outlet Dam Improvements**

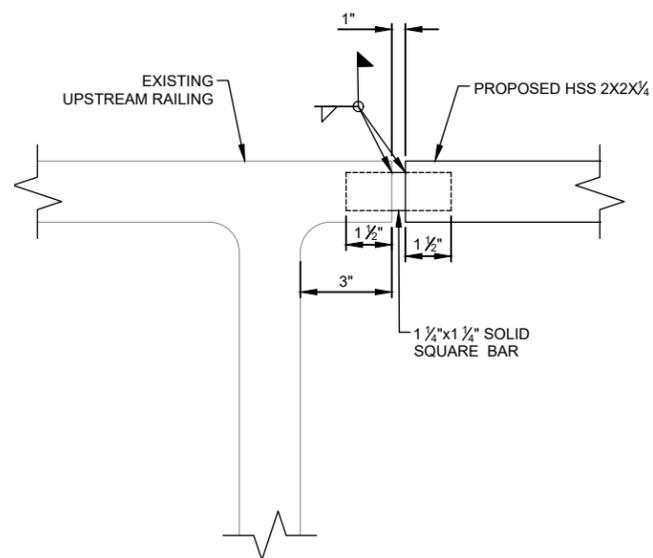
**TRUNNION GREASE TUBE REPLACEMENT DETAILS**



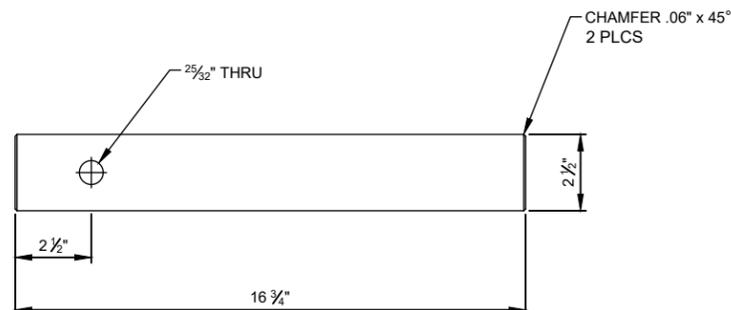
EXISTING UPSTREAM HAND RAIL REPLACEMENT DETAIL



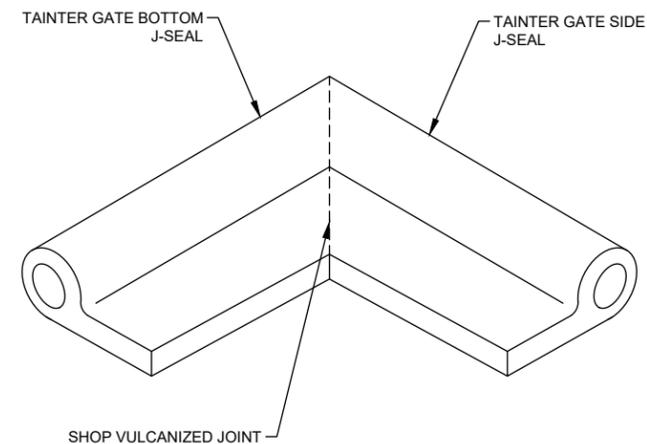
PROPOSED UPSTREAM HAND RAIL REPLACEMENT DETAIL



1/17 DETAIL SCALE: 1" = 1/4"



TRUNNION PIN DETAIL



J-SEAL CORNER DETAIL

FOR BID

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Rev	Date	Drawn	Description	Ch'k'd	App'd
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0	5/20/20	TM	FOR BID	SK	SP

PROFESSIONAL ENGINEER  
LICENSED  
18049  
STATE OF IDAHO  
TOMASZEWICZ, SŁAWA SZCZEPAN KOSIŃSKA

Project Number  
**376997**

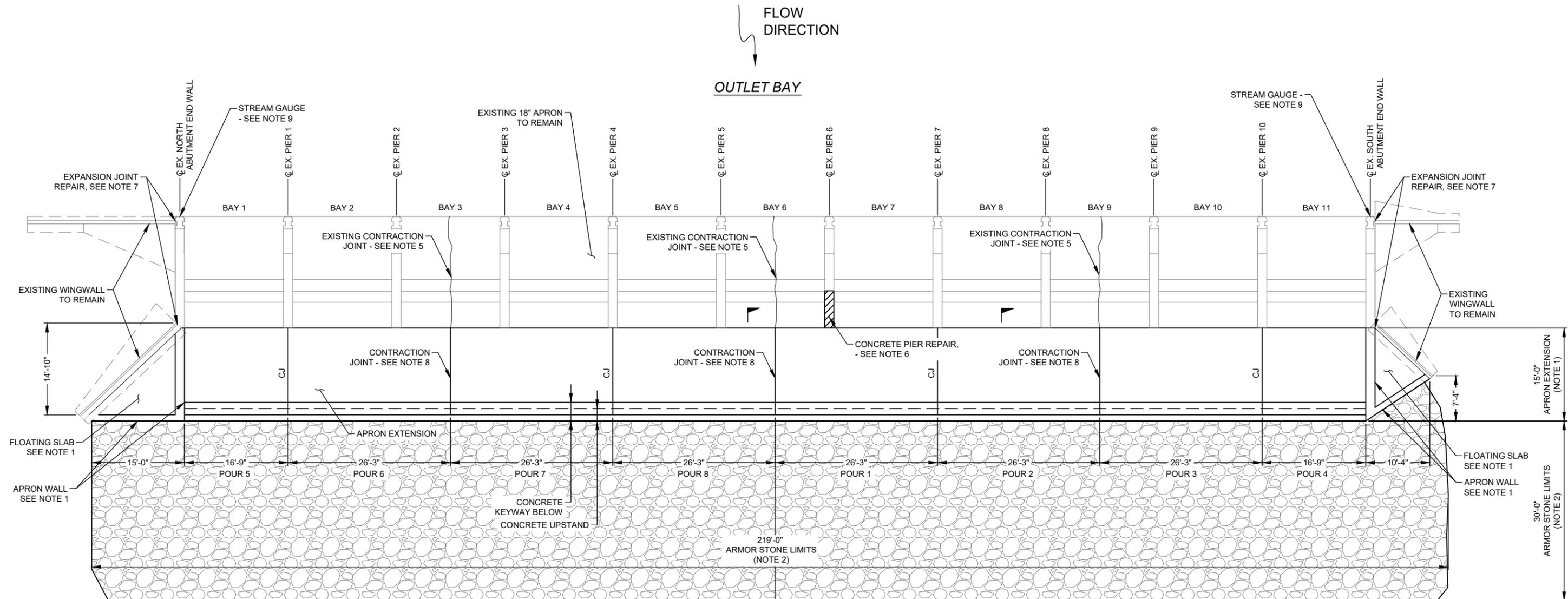
B/O  
**17**

Total  
**25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
As Noted			
Drawing Number		S-6	

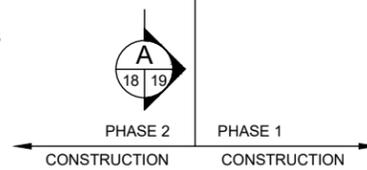
Title  
Priest Lake Water  
Management Project  
Outlet Dam Improvements

MISCELLANEOUS STEEL DETAILS

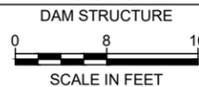


**NOTES:**

1. CONTRACTOR SHALL PLACE CONCRETE APRON EXTENSION WITH APRON WALLS, UPSTAND, KEYWAY, AND FLOATING SLAB TO LIMITS IDENTIFIED. SEE DRAWINGS A-3 THRU A-5 FOR SECTIONS AND DETAILS.
2. CONTRACTOR SHALL PLACE ARMOR STONE DOWNSTREAM OF APRON EXTENSION EDGE TO LIMITS IDENTIFIED. SEE DRAWINGS A-2 FOR PLACEMENT DETAIL.
3. EXISTING ARMOR STONE WITHIN THE LIMITS OF THE APRON EXTENSION AND BEDDING STONE SHALL BE REMOVED, RELOCATED, AND RESET DOWNSTREAM AS DIRECTED BY THE OWNERS REPRESENTATIVE. WIDTH AND DEPTH OF ARMOR STONE TO BE REMOVED VARIES ALONG WIDTH OF EXISTING DAM. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REMOVAL AND DISPOSAL COSTS ASSOCIATED WITH ANY OF THIS WORK.
4. CONTRACTOR SHALL EXCAVATE, FLATTEN, AND PREPARE SUBGRADE BENEATH APRON EXTENSION AND ARMOR STONE LIMITS AS INDICATED ON DRAWING A-2.
5. CONTRACTOR SHALL SEAL EXISTING CONTRACTION JOINTS AT THE 3 IDENTIFIED LOCATIONS ON THE PLAN. SEE DRAWING M-1 FOR DETAIL.
6. CONTRACTOR SHALL REPAIR DETERIORATED AREA OF CONCRETE ON PIER 6 AS INDICATED ON DRAWING P-1.
7. CONTRACTOR SHALL REPAIR EXPANSION JOINT BETWEEN EXISTING ABUTMENTS AND WING WALLS AT ALL 4 LOCATIONS FOR THE FULL HEIGHT OF THE WALL. SEE DRAWING M-1 FOR DETAIL.
8. CONTRACTOR TO LOCATE CONTRACTION JOINTS IN APRON SLAB EXTENSION TO MATCH EXISTING CONTRACTION JOINT LOCATION. SEE DRAWING A-5 FOR DETAIL.
9. CONTRACTOR TO REMOVE AND REPLACE EXISTING STREAM GAUGE ON THE NORTH ABUTMENT AND INSTALL A NEW STREAM GAUGE ON THE SOUTH ABUTMENT. SEE DRAWING M-1 FOR DETAIL.
10. CONTRACTOR TO LOCATE CONSTRUCTION JOINTS IN APRON EXTENSION AS INDICATED ON PLAN WITH CJ. SEE DRAWING A-5 FOR DETAIL.



**SUBSTRUCTURE PLAN**



FOR BID

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Rev	Date	Drawn	Description	Ch'k'd	App'd
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0	5/20/20	TM	FOR BID	SK	SP

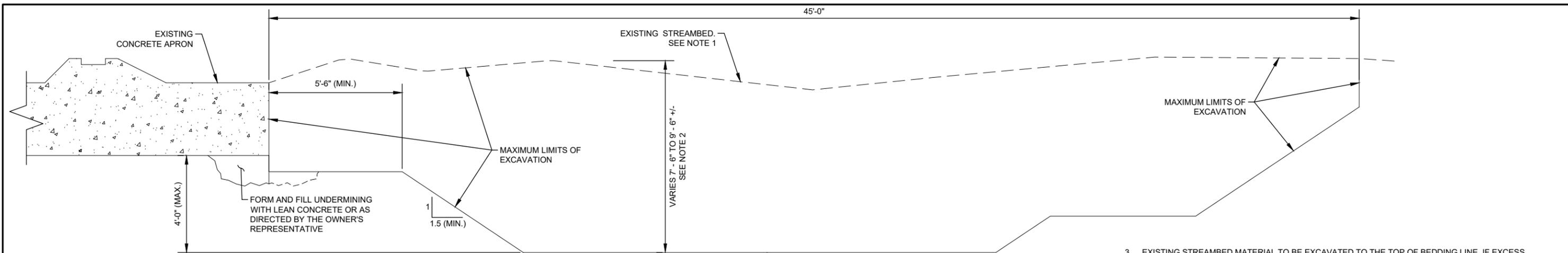
Project Number: **376997**      B/O: **18**      Total: **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>1" = 8'</b>			
Drawing Number	<b>A-1</b>		

Title

**Priest Lake Water Management Project  
Outlet Dam Improvements**

**SUBSTRUCTURE PLAN**

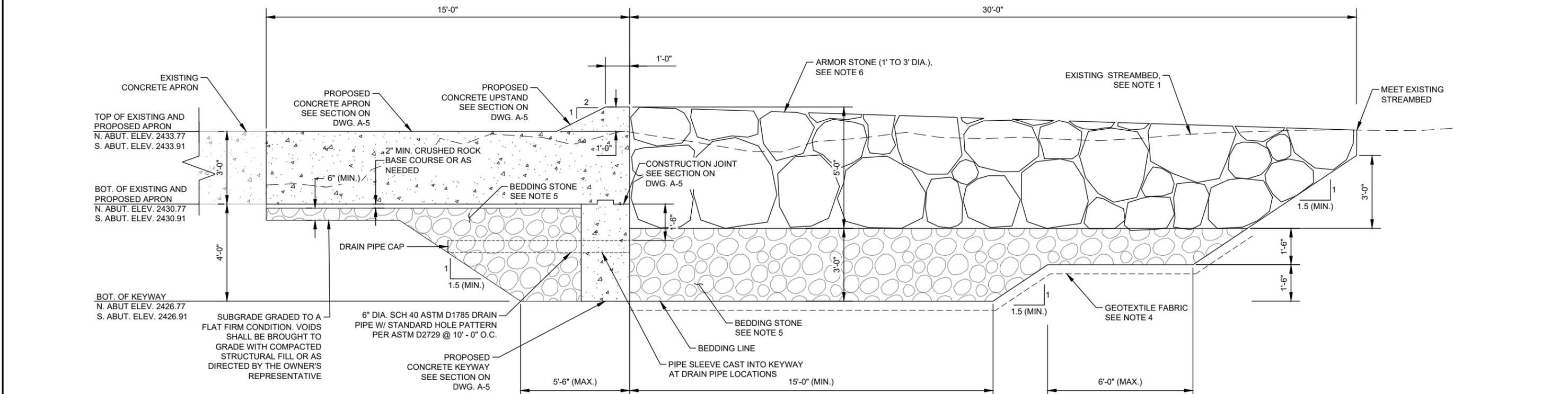


**NOTES:**

- EXISTING STREAMBED SHOWN IS NOT REPRESENTATIVE OF ACTUAL GRADE. IT IS EXAGGERATED TO ILLUSTRATE POTENTIAL FIELD CONDITIONS THAT COULD BE ENCOUNTERED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE CONDITIONS IN THE FIELD.
- EXISTING STREAMBED EXCAVATION DEPTH PROVIDED AS AN APPROXIMATE TO FACILITATE CONTRACTORS BID. SPOT ELEVATIONS OF EXISTING STREAMBED CAN BE FOUND ON DRAWINGS C-2 & C-3 TO PROVIDE THE CONTRACTOR A MORE COMPREHENSIVE DEPICTION OF EXISTING STREAMBED ELEVATION VARIATIONS. CONTRACTOR IS RESPONSIBLE FOR ESTIMATING QUANTITIES OF EXCAVATION AND FILL THAT MAY BE REQUIRED TO PERFORM THE SPECIFIED WORK IN THESE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS ASSOCIATED WITH ADDITIONAL EXCAVATION OR FILL THAT MAY BE NEEDED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

**A SECTION**  
EXCAVATION  
SCALE: 1/2" = 1'-0"

- EXISTING STREAMBED MATERIAL TO BE EXCAVATED TO THE TOP OF BEDDING LINE. IF EXCESS MATERIAL MEETS THE REQUIREMENTS OF ARMOR STONE OR STREAMBED FILL MATERIAL CONTRACTOR SHALL RELOCATE AND RESET MATERIAL TO FILL DEEPER VOIDS BELOW THE TOP OF BEDDING LINE OR SCOUR HOLES AS DIRECTED BY OWNER'S REPRESENTATIVE. SUITABILITY OF MATERIAL RE-USE SHALL BE DETERMINED BY OWNER'S REPRESENTATIVE. IF OWNER'S REPRESENTATIVE DETERMINES MATERIAL IS UNSUITABLE FOR RE-USE CONTRACTOR SHALL DISPOSE OF MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
- INSTALL CLASS C NONWOVEN GEOSYNTHETIC FABRIC WITH MODERATE SURVIVABILITY BETWEEN NATIVE SUBGRADE AND BEDDING STONE FOR UNDERGROUND DRAINAGE/FILTRATION PER SPECIFICATION SECTION 353123 ARMOR STONE.
- PLACE BEDDING STONE DIRECTLY BENEATH APRON EXTENSION AND ARMOR ROCK TO LIMITS IDENTIFIED ON PLAN AND IN SECTION. AGGREGATES USED SHALL BE FREE OF ADHERENT COATINGS AND DELETERIOUS MATERIALS SUCH AS ORGANICS OR CONSTRUCTION MATERIALS. BEDDING STONE MATERIAL AND GRADATION SHALL MEET THE REQUIREMENTS LISTED IN SPECIFICATION SECTION 353123 ARMOR STONE.
- PLACE ARMOR STONE ON BEDDING STONE TO TOP OF PROPOSED CONCRETE UPSTAND FOR LIMITS IDENTIFIED. ARMOR STONE MATERIAL AND GRADATION SHALL MEET THE REQUIREMENTS LISTED IN SPECIFICATION SECTION 353123 ARMOR STONE.



**B SECTION**  
PROPOSED APRON EXTENSION  
SCALE: 1/2" = 1'-0"

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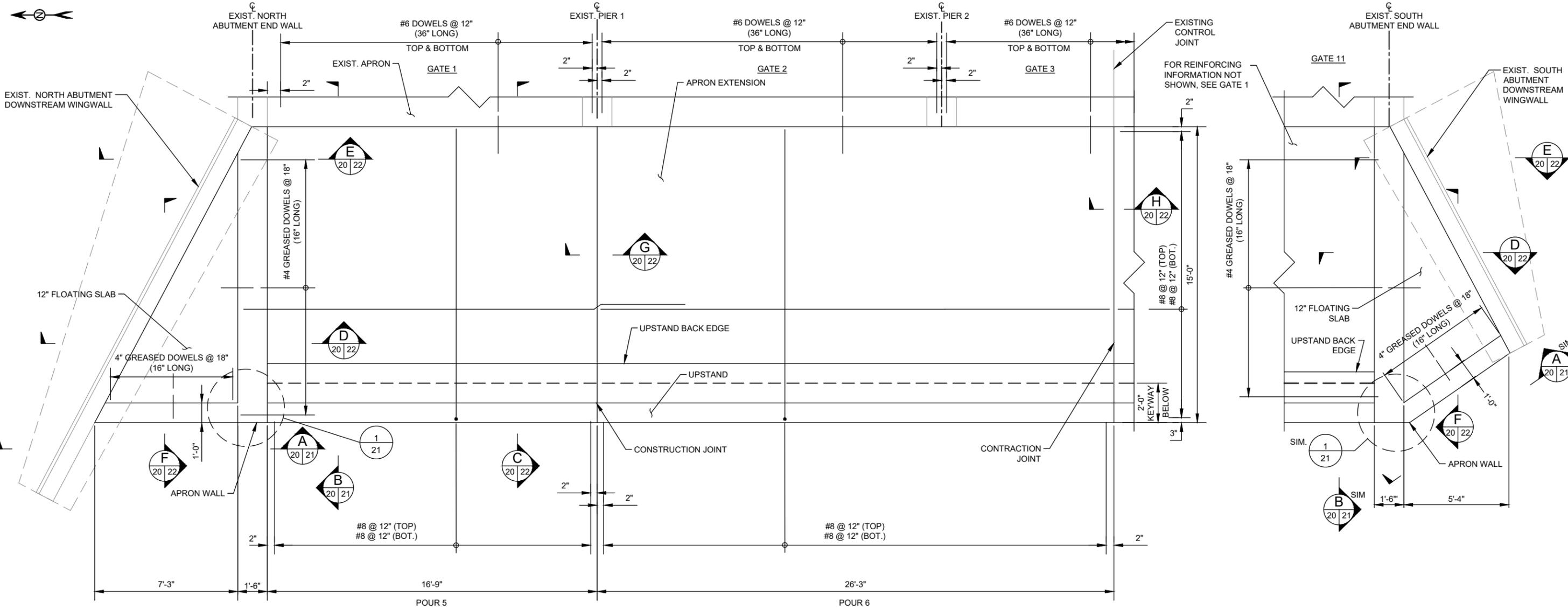
Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number: 376997  
B/O: 19  
Total: 25

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	1/2" = 1'	Status	Rev
Drawing Number	A-2		

Title: Priest Lake Water Management Project Outlet Dam Improvements

APRON EXTENSION SECTIONS



**APRON REINFORCING PLAN**

POUR 5 AND 6 SHOWN. POUR 4 SIMILAR TO POUR 5 AND POURS 1, 2, 3, 7 AND 8 SIMILAR TO POUR 6



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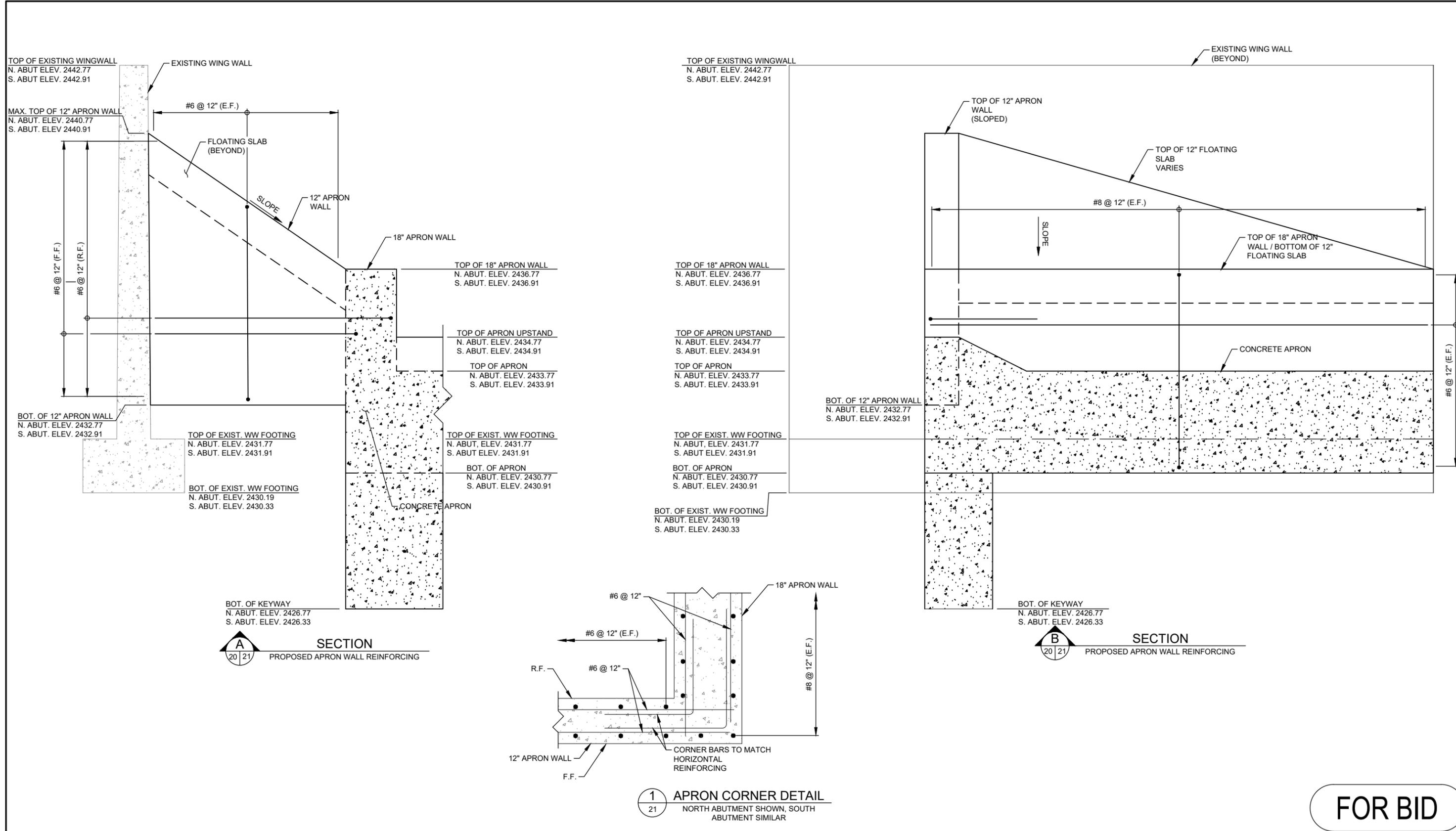
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1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number **376997** B/O **20** Total **25**

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
<b>1" = 30'</b>			
Drawing Number	<b>A-3</b>		

Title **Priest Lake Water Management Project Outlet Dam Improvements**

**APRON REINFORCING PLAN**



**FOR BID**

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Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

PROFESSIONAL ENGINEER LICENSED  
STATE OF IDAHO  
6/26/20

PROFESSIONAL ENGINEER LICENSED  
STATE OF IDAHO  
18040

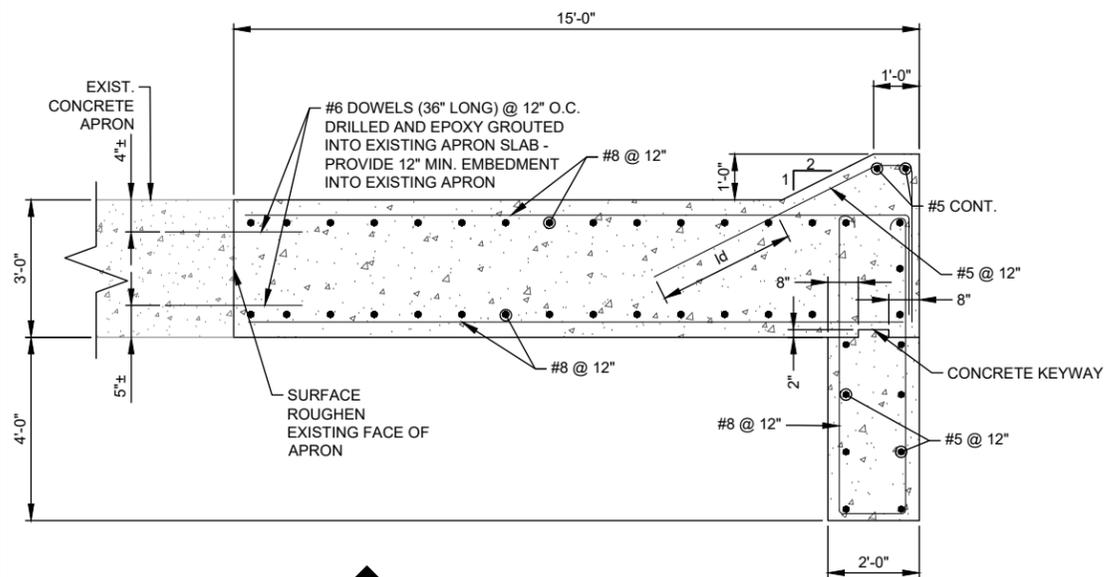
Project Number: 376997  
B/O: 21  
Total: 25

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
As Noted			
Drawing Number	A-4		

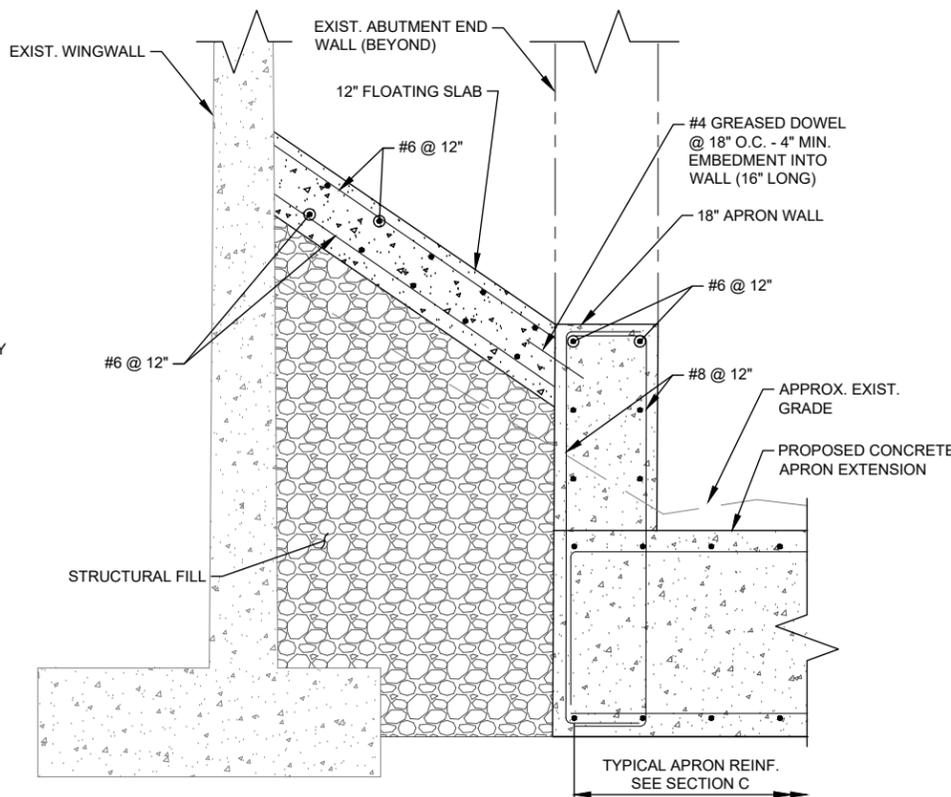
Title

Priest Lake Water Management Project  
Outlet Dam Improvements

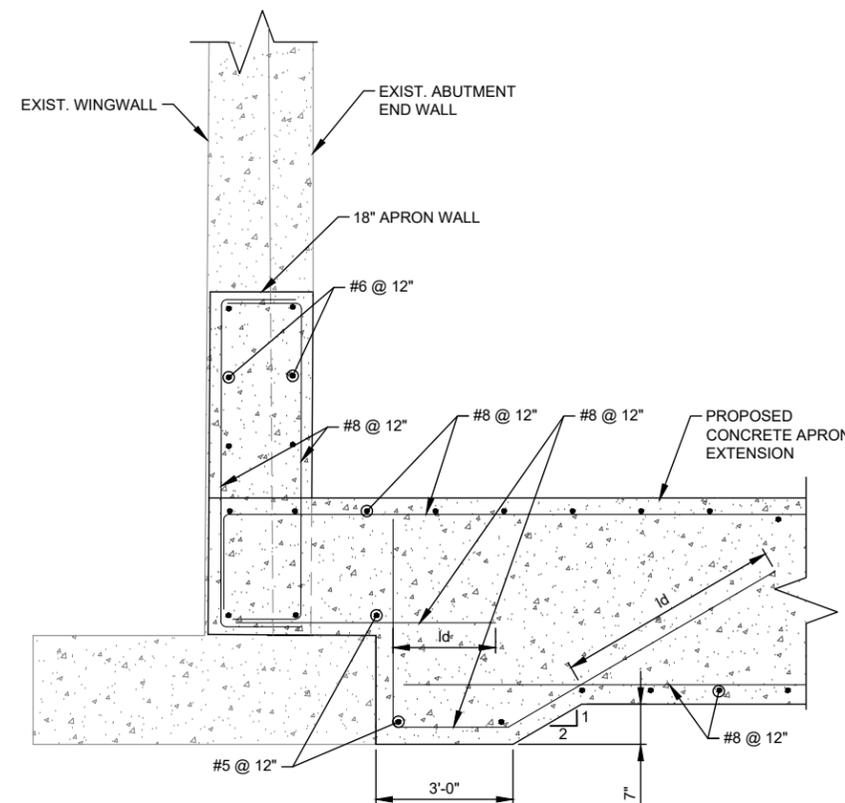
APRON WALL ELEVATIONS



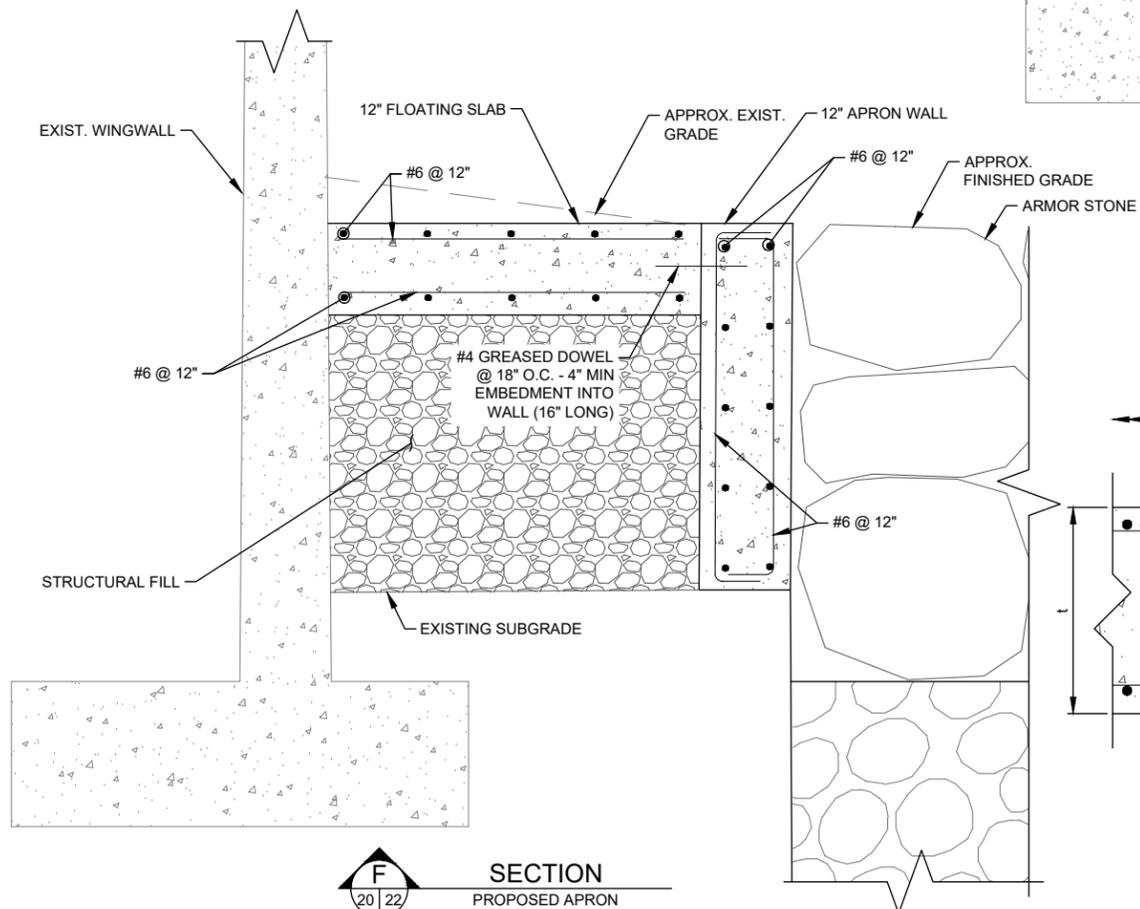
**C**  
SECTION  
20 22 PROPOSED APRON REINFORCING  
SCALE: 1/2" = 1'-0"



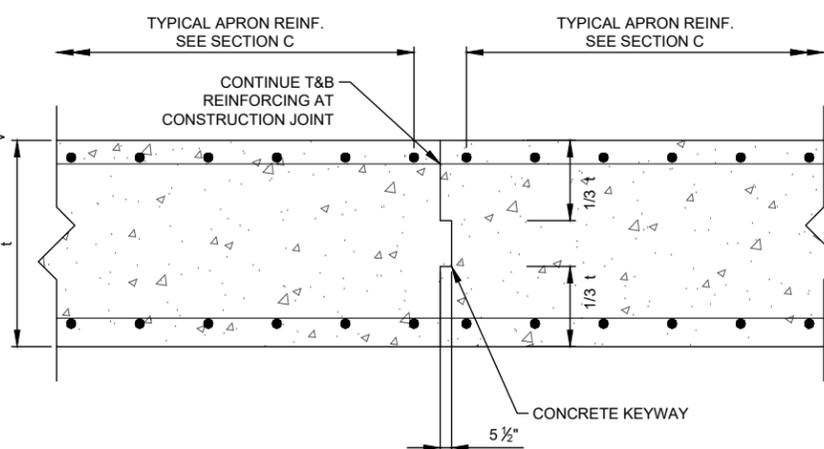
**D**  
SECTION  
20 22 PROPOSED APRON REINFORCING AT WINGWALL  
SCALE 3/4" = 1'-0"



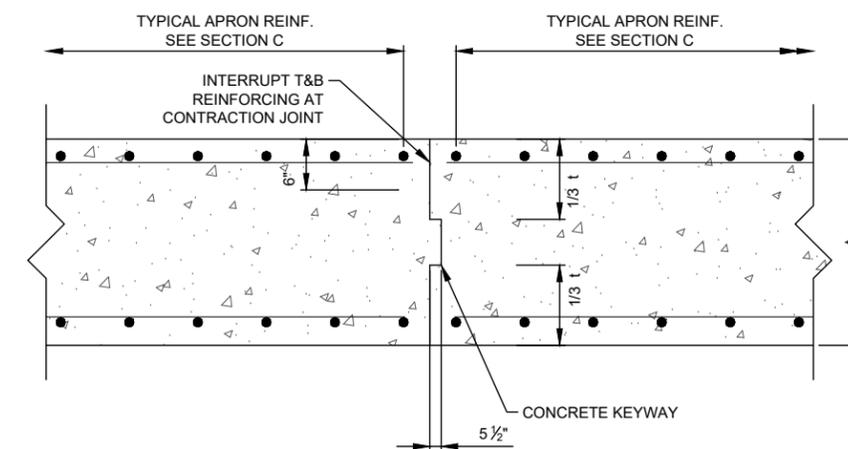
**E**  
SECTION  
20 22 PROPOSED APRON REINFORCING AT WINGWALL  
SCALE 3/4" = 1'-0"



**F**  
SECTION  
20 22 PROPOSED APRON REINFORCING AT WINGWALL  
SCALE: 1" = 1'-0"



**G**  
SECTION  
20 22 CONSTRUCTION JOINT  
SCALE: 3/4" = 1'-0"



**H**  
SECTION  
20 22 CONTRACTION JOINT  
SCALE: 3/4" = 1'-0"

**FOR BID**

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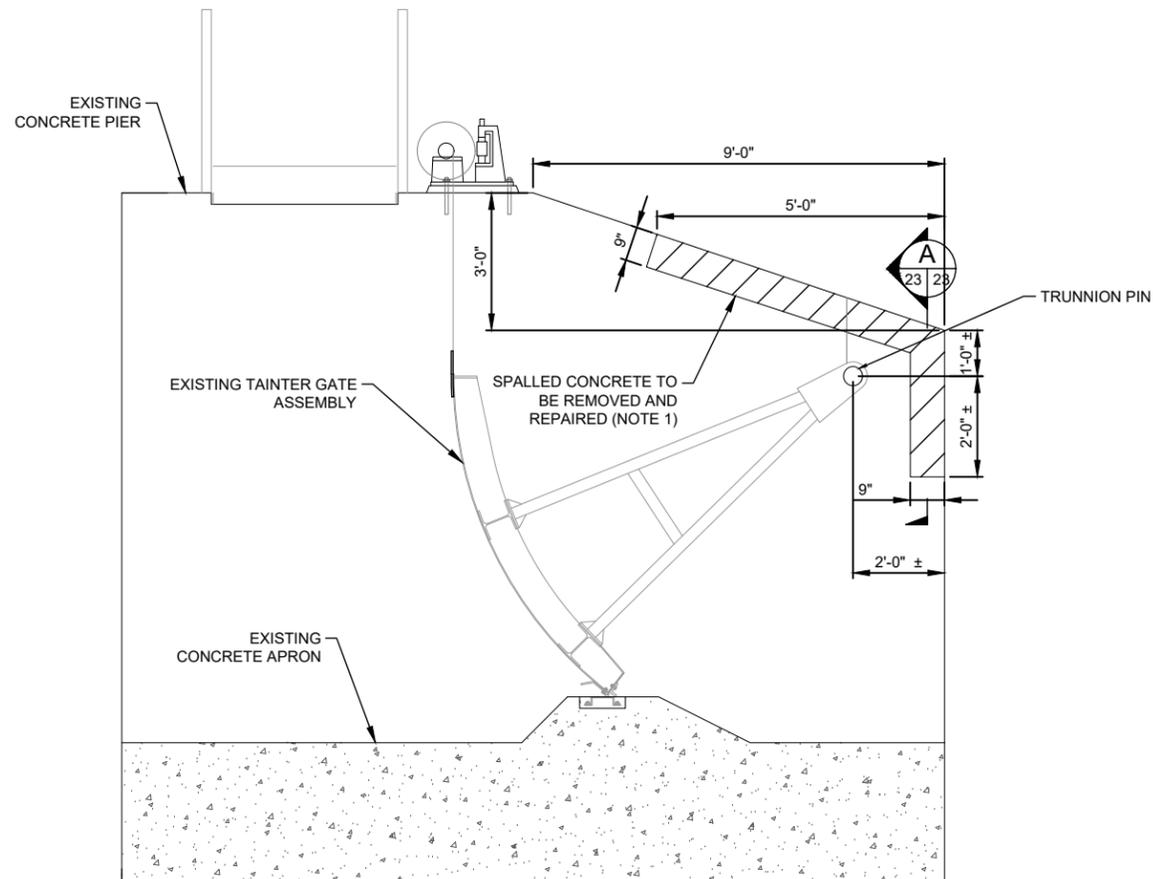
Client  
**IDAHO**  
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322 Front Street Suite 648  
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0	5/20/20	TM	FOR BID	SK	SP

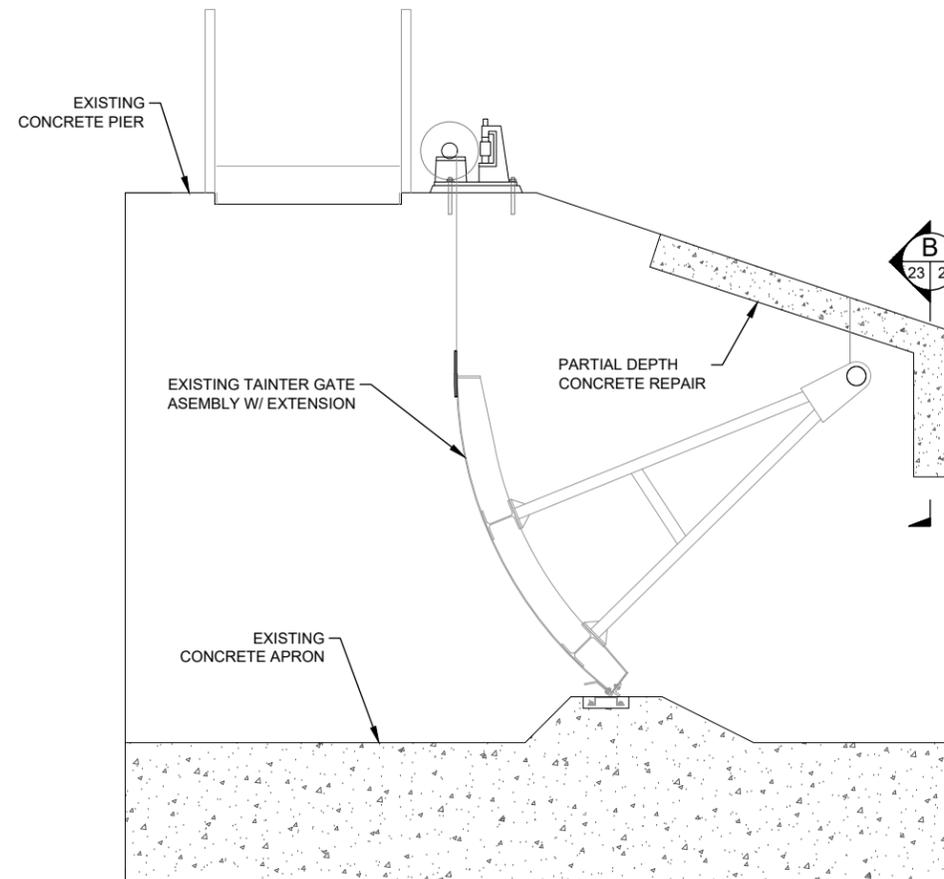
Project Number: **376997**  
B/O: **22**  
Total: **25**

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
As Noted			
Drawing Number	<b>A-5</b>		

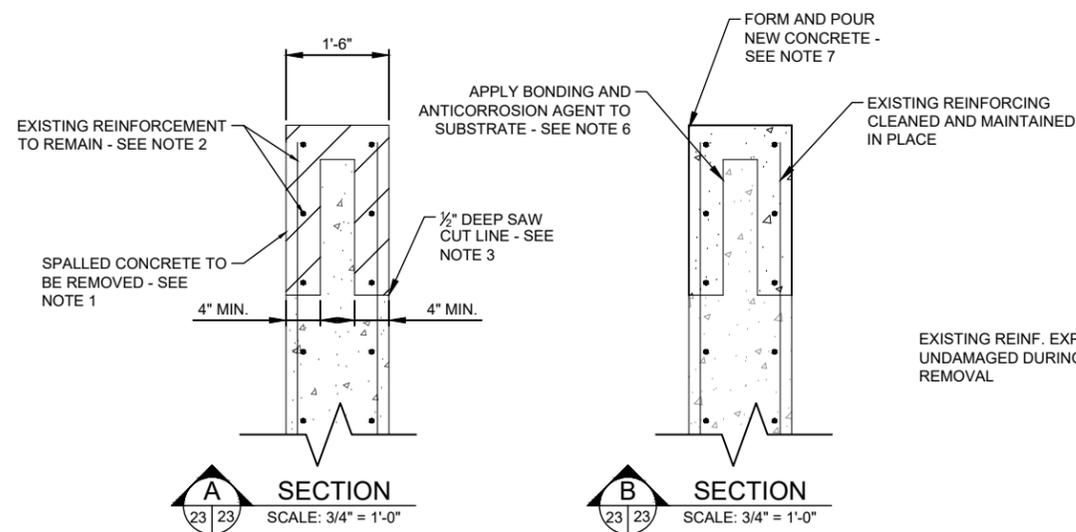
Title  
**Priest Lake Water Management Project Outlet Dam Improvements**  
**APRON REINFORCING SECTIONS**



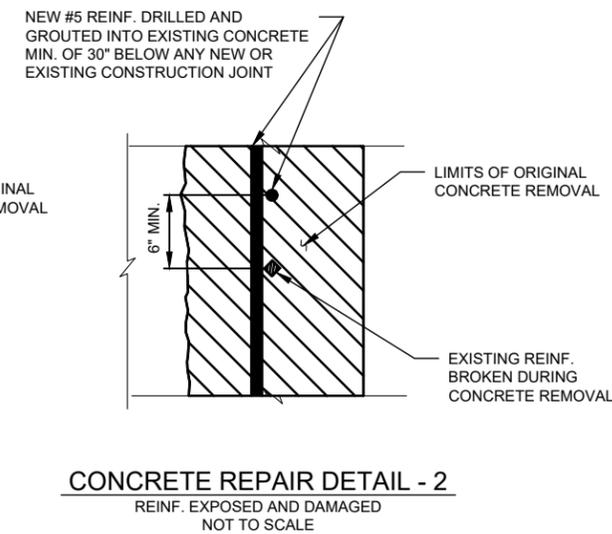
**EXISTING ELEVATION - PIER 6**  
SCALE: 1/2" = 1'-0"



**PROPOSED ELEVATION - PIER 6**  
SCALE: 1/2" = 1'-0"



**CONCRETE REPAIR DETAIL - 1**  
REINF. EXPOSED, NO DAMAGE  
NOT TO SCALE



**CONCRETE REPAIR DETAIL - 2**  
REINF. EXPOSED AND DAMAGED  
NOT TO SCALE

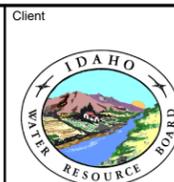
**NOTES**

1. REMOVAL OF STRUCTURAL CONCRETE SHALL BE A MINIMUM OF 4" OR TO SOUND CONCRETE, IF POOR CONDITION CONCRETE EXTENDS BEYOND THE 6" REMOVAL LIMIT, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE BEFORE REMOVING ADDITIONAL CONCRETE TO REACH SOUND CONCRETE.
2. CONTRACTOR TO MAINTAIN AND PROTECT EXISTING REINFORCEMENT.
3. SAW CUT HORIZONTALLY THE EXISTING WALL AS DIMENSIONED ON THE EXISTING ELEVATION THIS SHEET. SAW CUT LINE SHALL BE CUT LEVEL AND PARALLEL WITH EXISTING PIER PROFILE.
4. REMOVE THE LOOSE AND UNSOUND CONCRETE ON THE PIER FACE WITHIN THE LIMITS IDENTIFIED IN ELEVATION.
5. MECHANICALLY PREPARE CONCRETE SURFACE TO ENSURE BONDING OF REPAIR MATERIAL.
6. PREPARE AND APPLY BONDING AGENT TO ROUGHENED CONCRETE SURFACE WITHIN LIMITS OF PARTIAL DEPTH REPAIR IDENTIFIED ON WALL ELEVATIONS IN ACCORDANCE WITH THE BONDING AGENTS MANUFACTURER RECOMMENDED SPECIFICATIONS.
7. FORM AND POUR REPAIR CONCRETE WITHIN THE LIMITS OF THE PARTIAL DEPTH REPAIR IDENTIFIED IN ELEVATION.

**FOR BID**

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0	5/20/20	TM	FOR BID	SK	SP

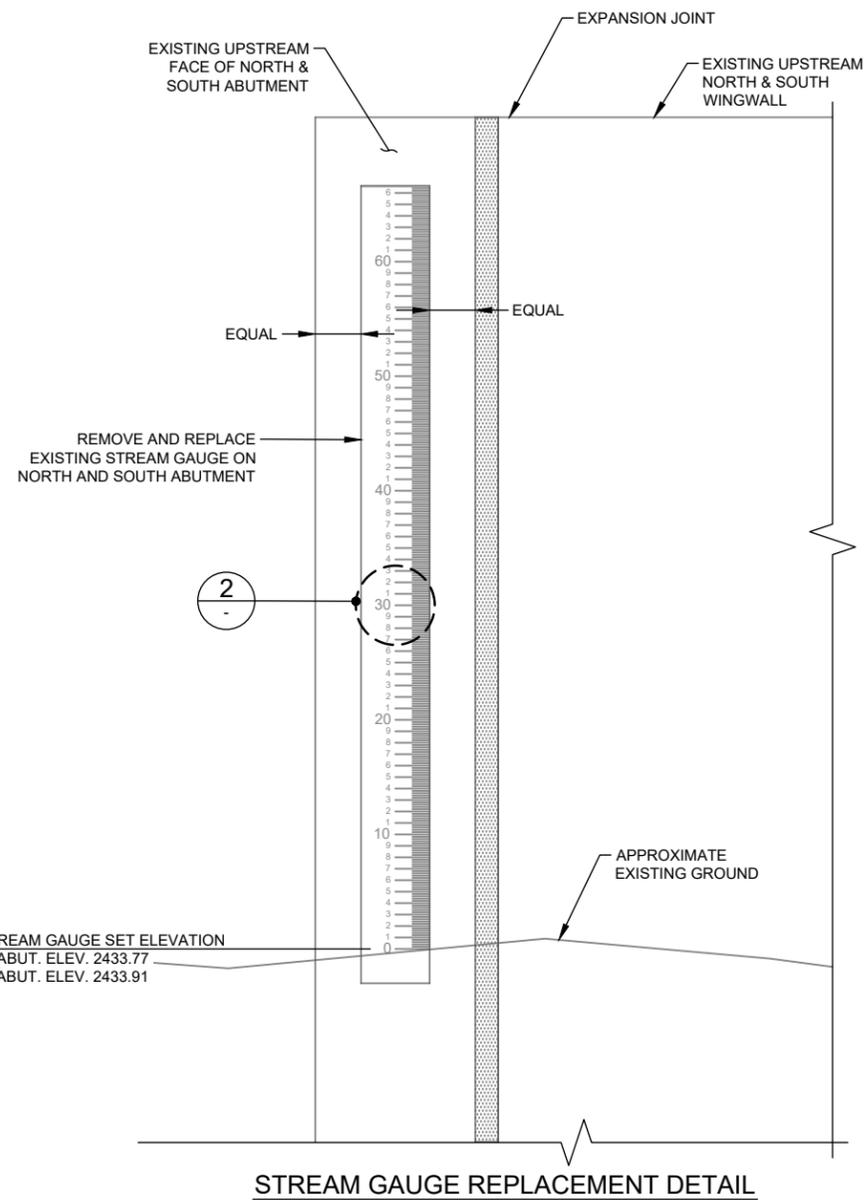
Project Number **376997** B/O **23** Total **25**

Professional Engineer License 6887, State of Idaho, Shane Phillips, 6/26/20

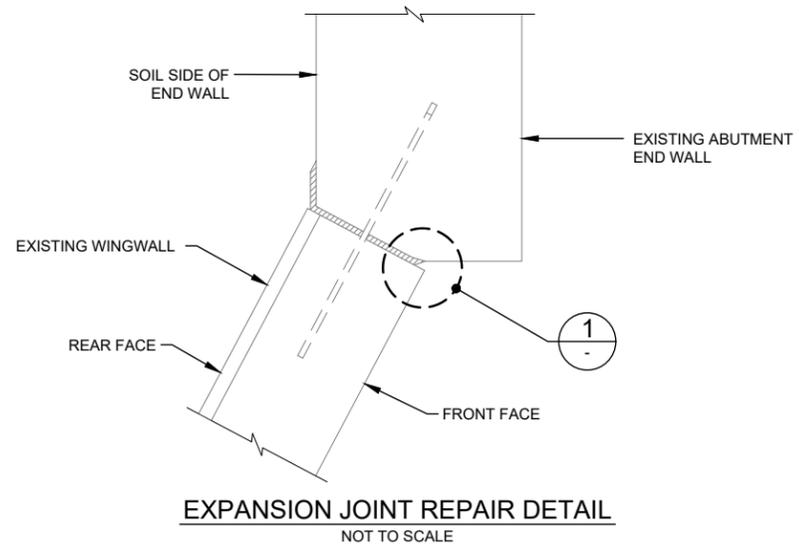
Professional Engineer License 18040, State of Idaho, Adam Wright

Designed	E. Wright	Eng check	L. Greno
Drawn	E. Wright	Coordination	P. Kobialka
Dwg check	T. Morrison	Approved	S. Phillips
Scale at ANSI D	Status	Rev	Security
As Noted		P-1	

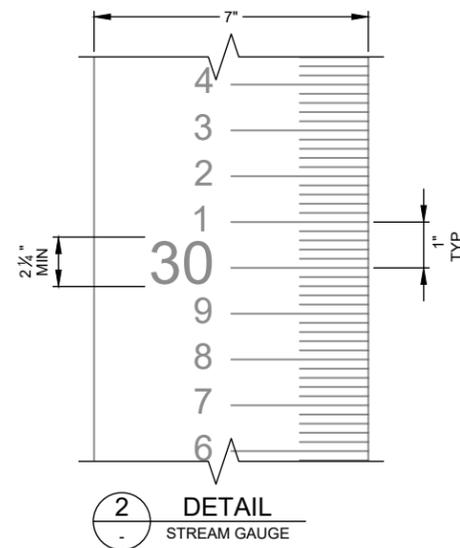
Title **Priest Lake Water Management Project Outlet Dam Improvements**  
  
**PIER 6 REPAIR DETAILS**



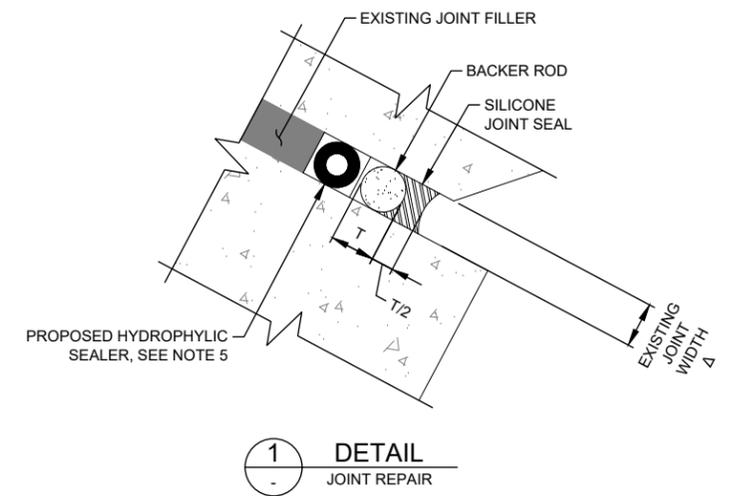
**STREAM GAUGE REPLACEMENT DETAIL**



**EXPANSION JOINT REPAIR DETAIL**  
NOT TO SCALE



**2** DETAIL  
STREAM GAUGE



**1** DETAIL  
JOINT REPAIR

**EXPANSION JOINT REPAIR PROCEDURE**

1. REMOVE EXISTING JOINT SEAL OR MASTIC TO A MINIMUM DEPTH OF 2".
2. INSTALL BACKER ROD AND JOINT SEAL AS PER MANUFACTURERS RECOMMENDATIONS.
3. EXTEND SEAL FROM THE BOTTOM OF THE FRONT FACE OVER TOP OF THE WALL AND SIX INCHES DOWN THE REAR FACE OF THE WALL.
4. PERFORM SEALING ON BOTH THE DOWNSTREAM WINGWALL EXPANSION JOINT (SHOWN) AND THE UPSTREAM WINGWALL EXPANSION JOINT (NOT SHOWN).
5. INSTALL PROPOSED HYDROPHYLIC SEALER. USE SIKA HYDROTITE OR APPROVED EQUAL AS PER MANUFACTURERS RECOMMENDATIONS.

**STREAM GAUGE NOTES**

1. STREAM GAUGE SHALL BE CONSTRUCTED OF A DURABLE FIBERGLASS COMPOSITE TO ENSURE IT WILL NOT BE DAMAGED DUE TO IMPACT, ROT, OR RUST.
2. CONTRACTOR SHALL ATTACH GAUGE TO UPSTREAM FACE WITH STAINLESS STEEL ANCHORS.
3. STREAM GAUGE SHALL BE COATED WITH A NON-GLARE COATING.

**FOR BID**

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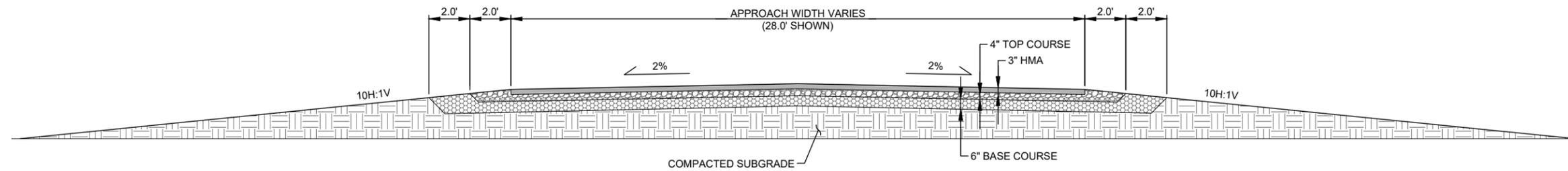
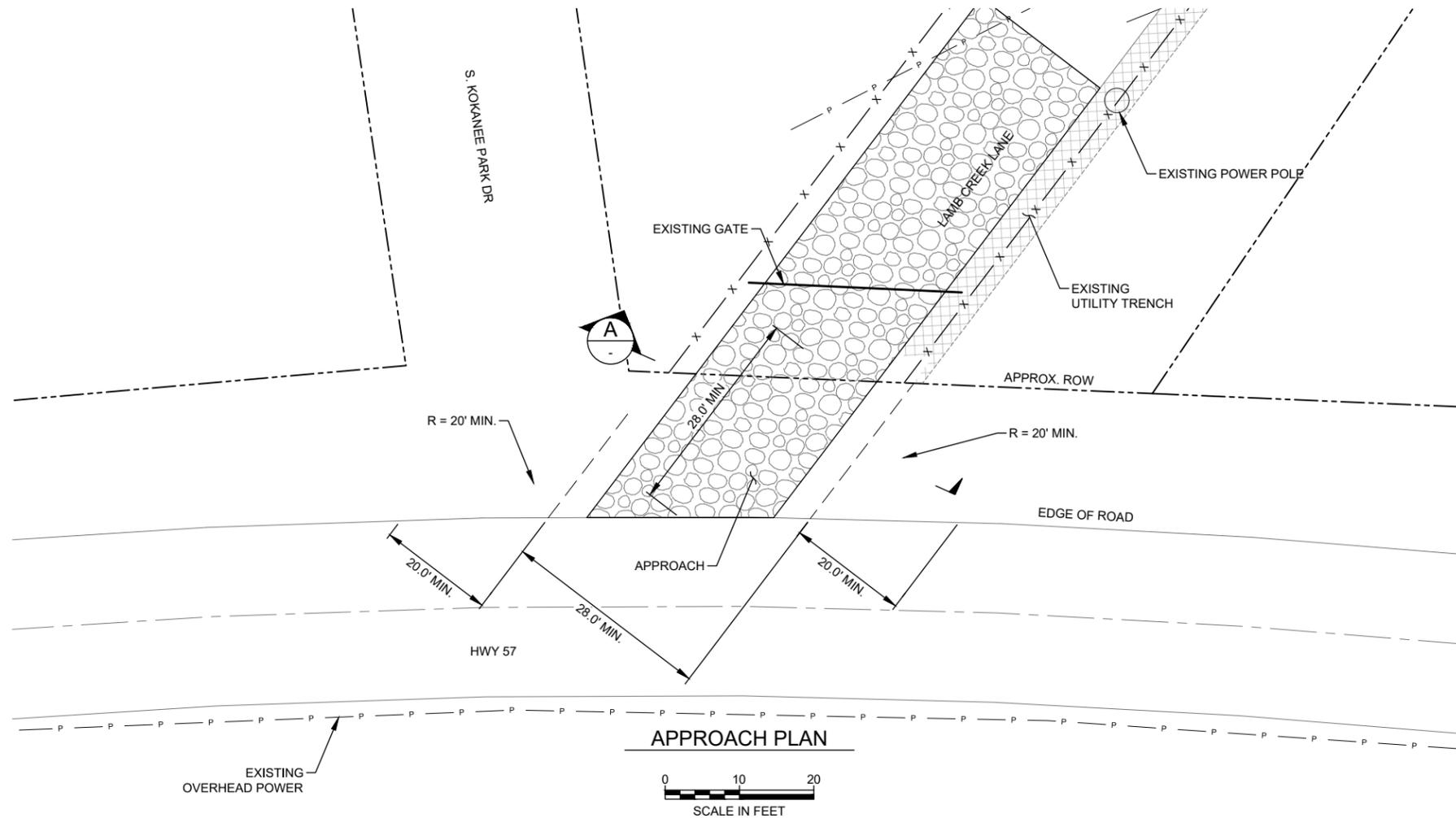
Rev	Date	Drawn	Description	Ch'k'd	App'd
1	6/25/20	TM	AMENDMENT 1	SK	SP
0	5/20/20	TM	FOR BID	SK	SP

Project Number **376997** B/O **24** Total **25**

Designed	J. Dawson	Eng check	S. Phillips
Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>M-1</b>		

Title **Priest Lake Water Management Project Outlet Dam Improvements**

**MISCELLANEOUS DETAILS 1**



**TYPICAL SECTION**  
CONSTRUCTION APPROACH

0 3 6  
SCALE IN FEET

**NOTES**

1. CONSTRUCTION APPROACH IN ACCORDANCE WITH ITD STANDARD PLANS.
2. COORDINATE GRADES WITH ADJACENT EXISTING APPROACHES AND ROADWAYS.
3. PROVIDE GRANULAR SUBBASE AND AGGREGATE BASE COURSE ON COMPACTED SUBGRADE IN ACCORDANCE WITH ITD SPECIFICATION SECTIONS 301 AND 303, RESPECTIVELY.
4. PROVIDE HMA ROAD MIX PAVEMENT IN ACCORDANCE WITH ITD SPECIFICATION SECTION 406.

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Project Number  
**376997**

B/O  
**25**

Total  
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Drawn	T. Morrison	Coordination	
Dwg check		Approved	
Scale at ANSI D	Status	Rev	Security
<b>As Noted</b>			
Drawing Number	<b>M-2</b>		

Title  
**Priest Lake Water Management Project Outlet Dam Improvements**

**MISCELLANEOUS DETAILS 2**