

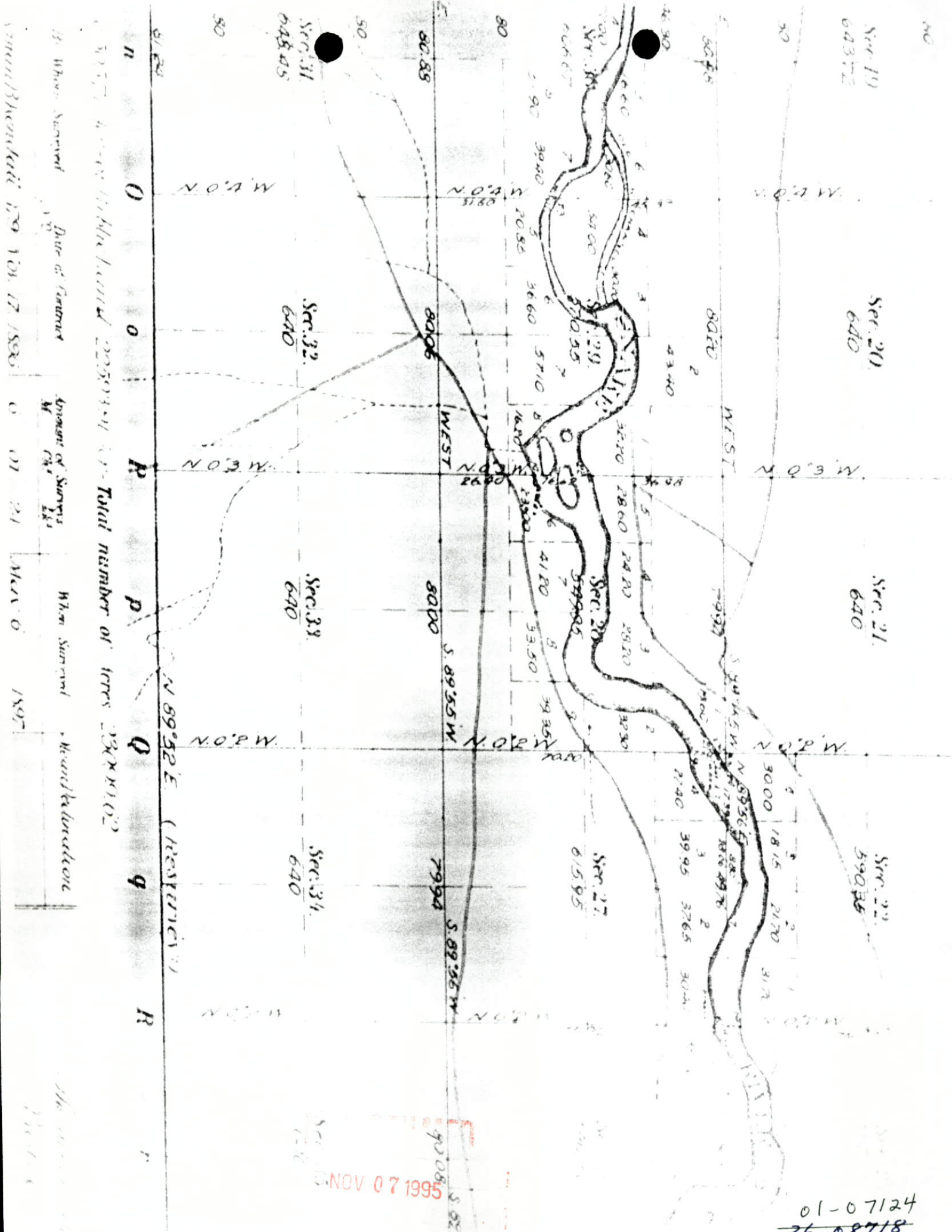
HUNT QUADRANGLE

IDAHO-JEROME CO.

7.5 MINUTE SERIES (TOPOGRAPHIC)

TAR LAKE) 731 R. 19 E. 10° R. 20 E. 733 460 000 FEET 734 735 114° 0





3. When Surveyed Date of Transfer Amount of Survey When Surveyed How Revaluated
 189 10/17/1890 0 01 24 M. 0 1897

22503.41 189 Total number of acres 23000.02

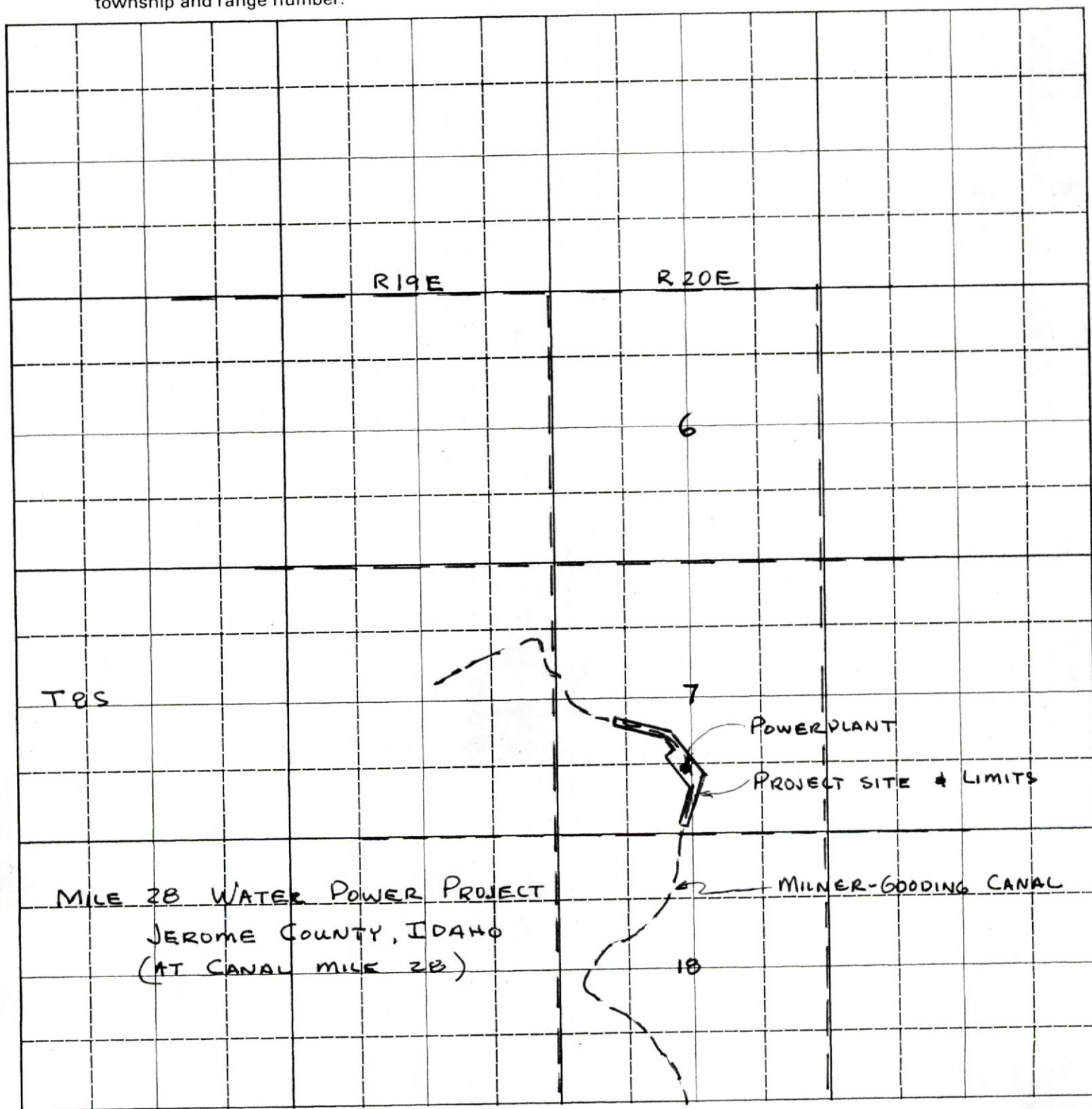
01-07124
 36-08718



NOV 07 1995

01-07124
36-08718

13. Map of proposed project: show clearly the proposed point of diversion, place of use, section number, township and range number.



Scale: 2 inches equal 1 mile.

BE IT KNOWN that the undersigned hereby makes application for permit to appropriate the public waters of the State of Idaho as herein set forth.

NOV 07 1995

John J. Straubhaar, President
(Applicant)
Contractors Power Group, Inc.

01-07124
36-08718

has been consolidated to the maximum practicable density, is free from pockets of coarse aggregate, and closes snugly against all surfaces of forms and embedded materials. Concrete shall not be placed upon other plastic concrete until the previously placed concrete has been thoroughly consolidated. Consolidation of all concrete required for the buttress wall shall be by immersion-type vibrators. Immersion-type vibrators shall be operated at speeds of at least 7,000 vibrations per minute when immersed in concrete. The Contractor shall immediately replace improperly operating vibrators with acceptable vibrators. Prior to beginning the concrete placement, the Contractor shall make ready a sufficient number of properly operating vibrators and operators, and shall have readily available additional vibrators to replace defective ones during the progress of the placement. The Engineer may require the Contractor to delay the start of the concrete placement until the number of working vibrators available are acceptable.

d. Interruption of placement. In the event that placement operations are interrupted, a cold joint may be required. A cold joint is an unplanned joint resulting when a concrete surface hardens before the next batch is placed against it. Cold joints are undesirable and should be avoided. However, in the event of equipment breakdown or other unavoidable prolonged interruption of continuous placing when it appears that unconsolidated concrete may harden to the extent that later vibration will not fully consolidate it, the Contractor shall immediately consolidate such concrete to a stable and uniform slope. If delay of placement is then short enough to permit penetration of the underlying concrete, placement shall resume with particular care being taken to thoroughly penetrate and re-vibrate the concrete surface placed before the delay. If concrete cannot be penetrated with a vibrator, the cold joint shall then be treated as a construction joint. If a construction joint will impair the structural integrity, as determined by the Engineer, the concrete shall be repaired with the appropriate method directed by the Engineer. The direction may include removal of all or a portion of the previously placed concrete and the Contractor will not be entitled to any payment for such work. Surfaces of concrete floors shall be worked to a smooth, uniform, level,

steel-trowel finish, free from blemishes and trowel marks. Exposed unformed surfaces of other concrete shall be brought to level uniform surfaces and worked with suitable tools to a reasonably smooth, wood-float or steel trowel finish, as directed. Concrete in the tops of foundations in which stub angles are embedded shall be sloped to provide drainage away from the stub angles.

4.5.4. DEVIATIONS AND SURFACE TOLERANCES FOR CONCRETE CONSTRUCTION

a. General. Structural deviations are defined as allowable variations from specified lines, grades, and dimensions. Allowable variations from specified lines, grades, and dimensions are listed in Table 4A (Deviations from Specified Lines, Grades, and Dimensions) in subparagraph b. below. Surface tolerances are the maximum allowable magnitude of the surface irregularities. Allowable magnitudes for concrete surface irregularities are specified in Table 4B (Concrete Surface Tolerances), in subparagraph d. below.

The intent of this paragraph is to establish structural deviations and surface tolerances which are consistent with modern construction practice, yet are governed by the effect that permissible variations may have upon a structure. The Engineer reserves the right to diminish the structural deviations and/or surface tolerances set forth herein if such variations impair the structural action, operational function, or architectural appearance of a structure or portion thereof.

Concrete shall be within all stated variations even though more than one may be specified for a particular concrete structure. Provided, that the specified variation for one element of a structure shall not apply when it will permit another element of the structure to exceed its allowable

variation. Where variations are not specified or shown on the drawings for a particular structure, variations shall be those specified for similar work. The Contractor shall be responsible for finishing the concrete and for setting and maintaining concrete forms within the limits necessary to ensure that the completed work will be within the variations specified. Concrete work that does not conform to the limits specified shall be remedied in accordance with subparagraphs d. and e. below.

Plumb and string lines shall be installed before, and maintained during concrete placement. These lines shall be used by the Contractor's personnel and by Engineer inspectors to determine the accurate position of forms during placement. The Contractor shall continually monitor plumb and string line positions and immediately correct deficiencies during the placement.

b. Structural deviations. Variations from specified lines, grades, and dimensions in hardened concrete structures shall be checked by the Contractor and will be subject to such inspection and measurement as needed to determine that the structures are within the tolerances specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions).

Variation is defined as the distance between the actual position of the structure or any element of the structure and the specified position in plan for the structure or the particular element. Plus or minus variations, shown as plus (+) or minus (-), indicate a permitted actual position up or down and in or out from the specified position in plan. Variations not designated as (+) or (-) indicate the maximum deviation permitted between designated successive points on the completed element of construction.

Specified position in plan is defined as the lines, grades, and dimensions described in these specifications or shown on the drawings or as otherwise prescribed by the Engineer.

Table 4A. Deviations from Specified Lines, Grades, and Dimensions

A. Structural deviations for buildings and structures:

1. Variation from plumb or specified batter for lines and surfaces of columns, piers, and walls and for arises:

(a) When overall height of line or surface is:

Less than 10 feet	+1/4 inch
10 to 20 feet, inclusive	+3/8 inch
More than 20 feet, but less than 40 feet	+1/2 inch
40 feet or more	+1 inch

(b) For any two successive intermediate points on the line or surface separated by:

10 to 20 feet, inclusive	1/4 inch
More than 20 feet	3/8 inch

c. Concrete surface irregularities:

- (1) General. Bulges, depressions, and offsets are defined as concrete surface irregularities (or roughness). Concrete surface irregularities are classified as "abrupt" or "gradual", and allowable tolerances are listed in Table 4B (Concrete Surface Tolerances). A concrete surface tolerance is designated by a capital "T" followed by a number 1 through 5. Concrete surface tolerance designations are separate from concrete surface finishes and concrete structural deviations.

(2) Abrupt surface irregularities. Abrupt surface irregularities are

defined herein as offsets such as those caused by misplaced or loose forms. Abrupt surface irregularities are further defined as isolated irregularities in which the maximum dimension of the irregularity perpendicular to the surface is greater than the maximum dimension of the irregularity in the plane of the surface. Also, abrupt surface irregularities include all incidences of isolated surface irregularities which exceed the gradual irregularity specifications set forth herein. Abrupt surface irregularities are measured as specified in subparagraph f. below.

(3) Gradual surface irregularities. Gradual surface irregularities are defined herein as bulges and depressions resulting in gradual changes on the concrete surface. Gradual surface irregularities are further defined as isolated undulations on the concrete surface. The maximum dimension of the undulation perpendicular to the surface is small relative to the maximum dimension of the undulation in the plane of the surface. Gradual surface irregularities are measured as specified in subparagraph f. below.

(4) The magnitude of surface irregularities on formwork and finished concrete surfaces shall be checked by the Contractor to ensure that the concrete surfaces are within specified tolerances. The Engineer will also make such checks of hardened concrete surfaces as determined necessary to ensure compliance with these specifications.

4. Concrete surface tolerances. The allowable concrete surface tolerance shall be T2 as described in Table 4B (Concrete Surface Tolerances) below.

Table 4B. Concrete Surface Tolerances

Concrete surface tolerance	Maximum allowable concrete surface irregularity	
	Abrupt	Gradual
T1	1 inch	1/4 inch/inch
T2	1/2 inch	1/8 inch/inch
T3	1/4 inch	1/16 inch/inch
T4	1/8 inch	1/32 inch/inch
T5	1/32 inch	1/120 inch/inch

e. Repair of hardened concrete not within specified tolerances. Hardened concrete which is not within specified tolerances shall be repaired to bring it within those tolerances. Such repair shall be in accordance with paragraph 4.5.11. (Repair of Concrete), and shall be accomplished in a manner approved by the Engineer. Concrete repair to bring concrete within tolerances shall be done only after consultation with a Government Inspector regarding the method of repair. The Contractor shall notify the Government as to the time when repair will be performed.

Concrete which will be exposed to public view shall be repaired in a manner which will result in a concrete surface with a uniform appearance. Grinding of concrete surfaces exposed to view shall be limited in depth such that no aggregate particles are exposed more than 1/16-inch in cross-section at the finished surface. Where grinding has caused or will cause exposure of aggregate particles greater than 1/16-inch in cross-section at the finished surface, concrete shall be repaired by excavating and replacing the concrete.

f. Field verification of concrete surface tolerances. To determine compliance of a concrete surface with the surface tolerance specifications, the following evaluation and measuring techniques shall be employed:

- (1) Evaluating surface roughness. The following steps describe the evaluation process for concrete surface roughness:

(a) Measure the roughness height or depth and check for compliance with the values given in Tables 4A (Deviations from Specified Lines, Grades, and Dimensions) and 4B (Concrete Surface Tolerances).

(aa) If the measured height or depth of the roughness is less than the value given by the abrupt tolerance specification and if the height or depth of the roughness does not cause the structure to exceed any applicable value specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions), the surface roughness is acceptable and no further evaluation is required.

(bb) If the roughness height or depth exceeds the abrupt tolerance specification, the roughness slope must be determined for comparison to the gradual tolerance specification.

(b) Measure the roughness length and determine the roughness slope by dividing the roughness height or depth by the roughness length (see Figure 1 for details).

(aa) If the roughness slope is greater than the slope specified by the gradual tolerance specification, the roughness does not meet the specifications and shall be repaired by and at the expense of the Contractor.

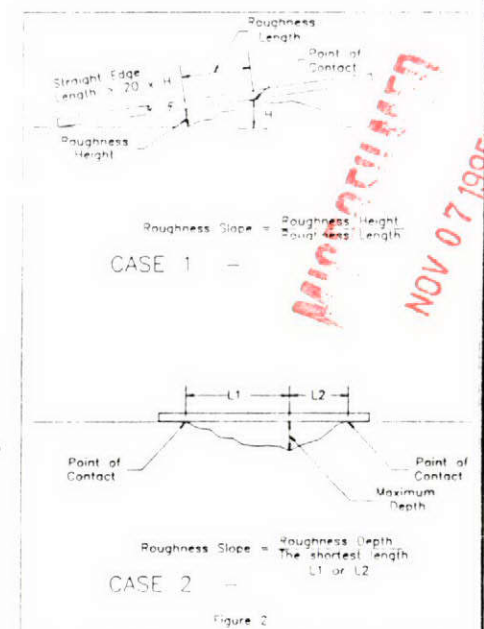
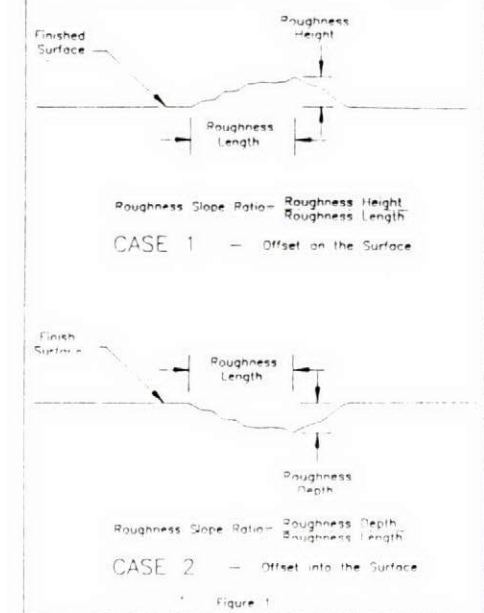
(bb) If the roughness slope is less than the gradual slope specified and if the gradual roughness does not cause the structure to exceed allowable structural deviations, as specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions), the roughness is acceptable. (2) Measuring surface roughness. Two examples illustrating how to make the necessary surface measurements for typical roughness are given below:

(a) CASE 1 Roughness protruding above the surface. A roughness protruding above the surface should be measured with a straightedge that is at least 20 times longer than the roughness height being measured. Position the straightedge with one end resting on top of the roughness, as shown in Figure 2 (CASE 1). Determine the roughness height by measuring the maximum gap that occurs normal to the straight edge. Also, note the position on the straightedge from which the normal distance is measured. To determine the roughness length, measure the distance along the straightedge from the point where the height was measured to the point of contact between the straightedge and the top of the roughness. The roughness slope is defined as the ratio of the roughness height to the roughness length. As roughness is seldom symmetric, moving the position of the straightedge about the roughness may be necessary to locate the point where the maximum height and slope exists.

(b) CASE 2 Roughness extending below the surface. A roughness occurring as an indentation to the surface is measured by placing the straightedge across the indentation, as shown in Figure 2 (CASE 2).

Measure the maximum gap between the straightedge and the surface and note the location of the measurement on the straightedge. From the point of the depth measurement, measure along the straightedge in both directions to the point of contact with the surface. The shortest length measured is used as the roughness length. Divide the roughness depth by the roughness length to determine the roughness slope.

A simple measuring device can be constructed to perform the surface tolerance measurements and evaluation process directly and quickly. Information concerning concrete tolerance measuring devices can be obtained from the Bureau of Reclamation, Attention: D-3730, PO Box 25007, Denver CO 80225, telephone (303) 236-5989.

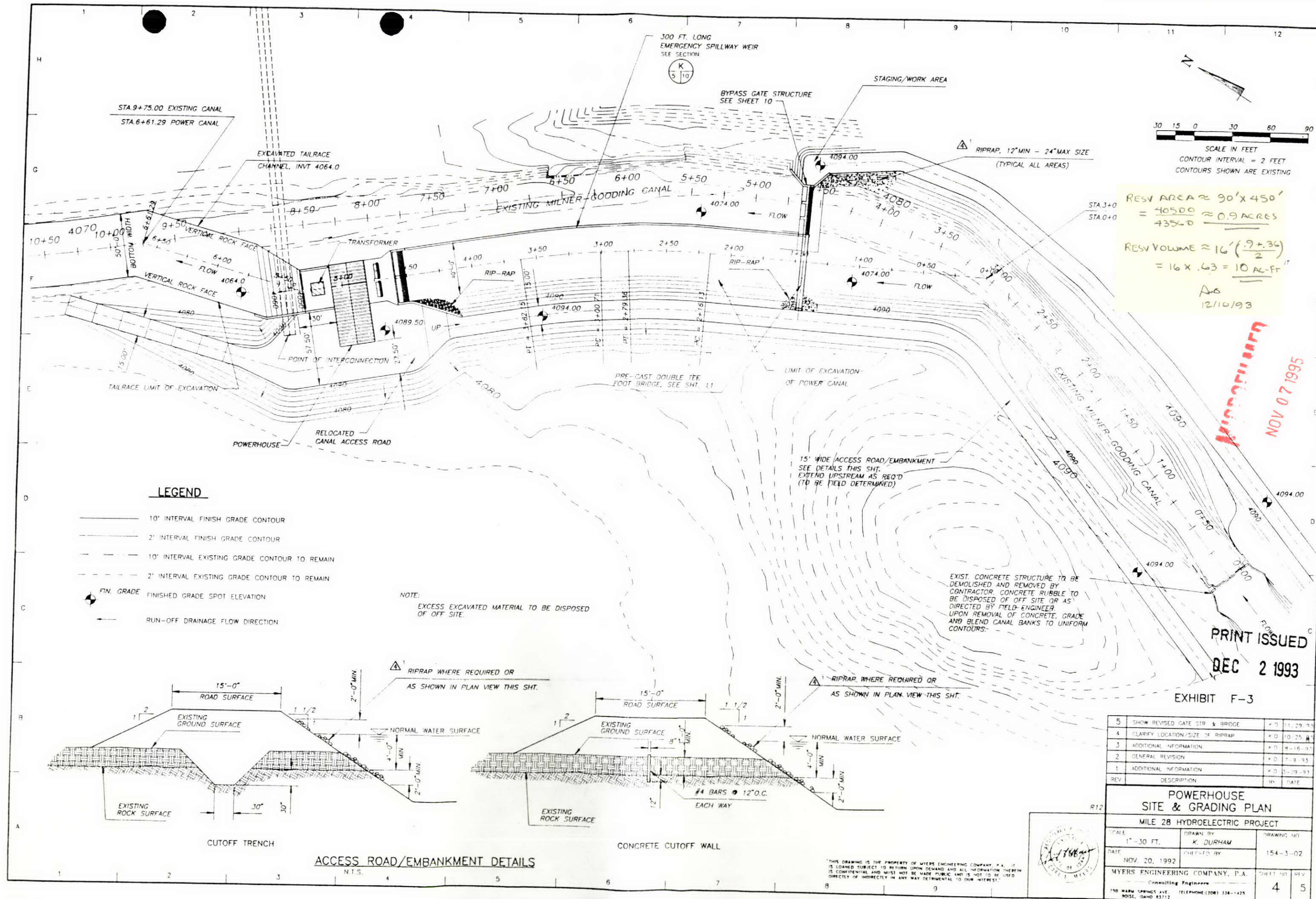


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FIGURE F-2A

2	GENERAL REVISION	K.D.	1/25/94
1	GENERAL REVISION	K.D.	4/8/94
REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
SCALE	DRAWN BY	DRAWING NO.	
N.T.S.	K. DURHAM	154-1-03	
DATE	CHECKED BY		
NOV. 20, 1992			
MYERS ENGINEERING COMPANY, P.A.			SHEET NO.
150 WARM SPRINGS AVE., TELEPHONE (208) 334-1425			2A
BOISE, IDAHO 83712			REV



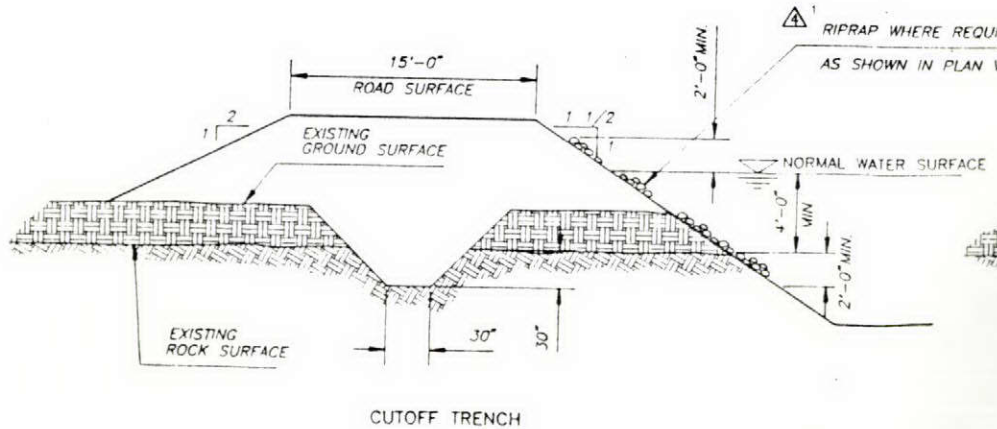
RESV AREA $\approx 90' \times 450'$
 $= 40500 \approx 0.9 \text{ ACRES}$
 43560
 RESV VOLUME $\approx 16' \left(\frac{.9 + .36}{2} \right)$
 $= 16 \times .63 = 10 \text{ AC-FT}$
 A.G.
 12/10/93

LEGEND

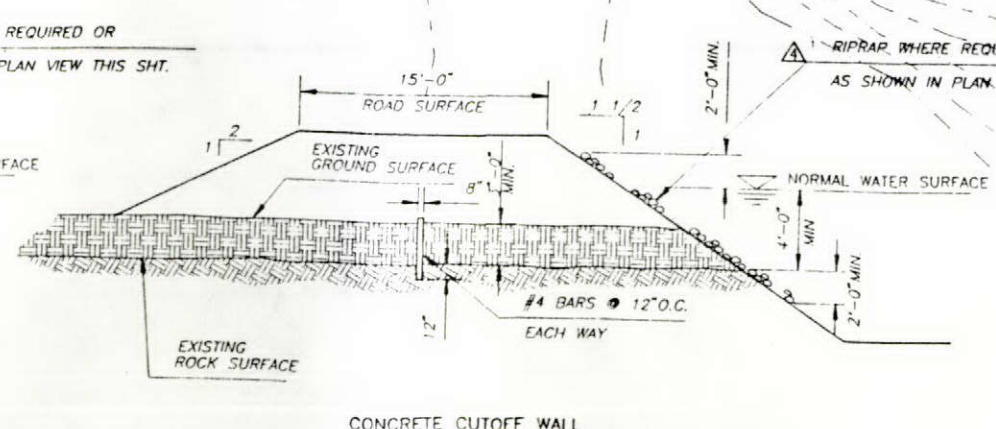
- 10' INTERVAL FINISH GRADE CONTOUR
- 2' INTERVAL FINISH GRADE CONTOUR
- 10' INTERVAL EXISTING GRADE CONTOUR TO REMAIN
- 2' INTERVAL EXISTING GRADE CONTOUR TO REMAIN
- FIN. GRADE FINISHED GRADE SPOT ELEVATION
- RUN-OFF DRAINAGE FLOW DIRECTION

NOTE:
 EXCESS EXCAVATED MATERIAL TO BE DISPOSED
 OF OFF SITE.

EXIST. CONCRETE STRUCTURE TO BE
 DEMOLISHED AND REMOVED BY
 CONTRACTOR. CONCRETE RUBBLE TO
 BE DISPOSED OF OFF SITE OR AS
 DIRECTED BY FIELD ENGINEER.
 UPON REMOVAL OF CONCRETE, GRADE
 AND BLEND CANAL BANKS TO UNIFORM
 CONTOURS.



CUTOFF TRENCH



CONCRETE CUTOFF WALL

ACCESS ROAD/EMBANKMENT DETAILS

N.T.S.

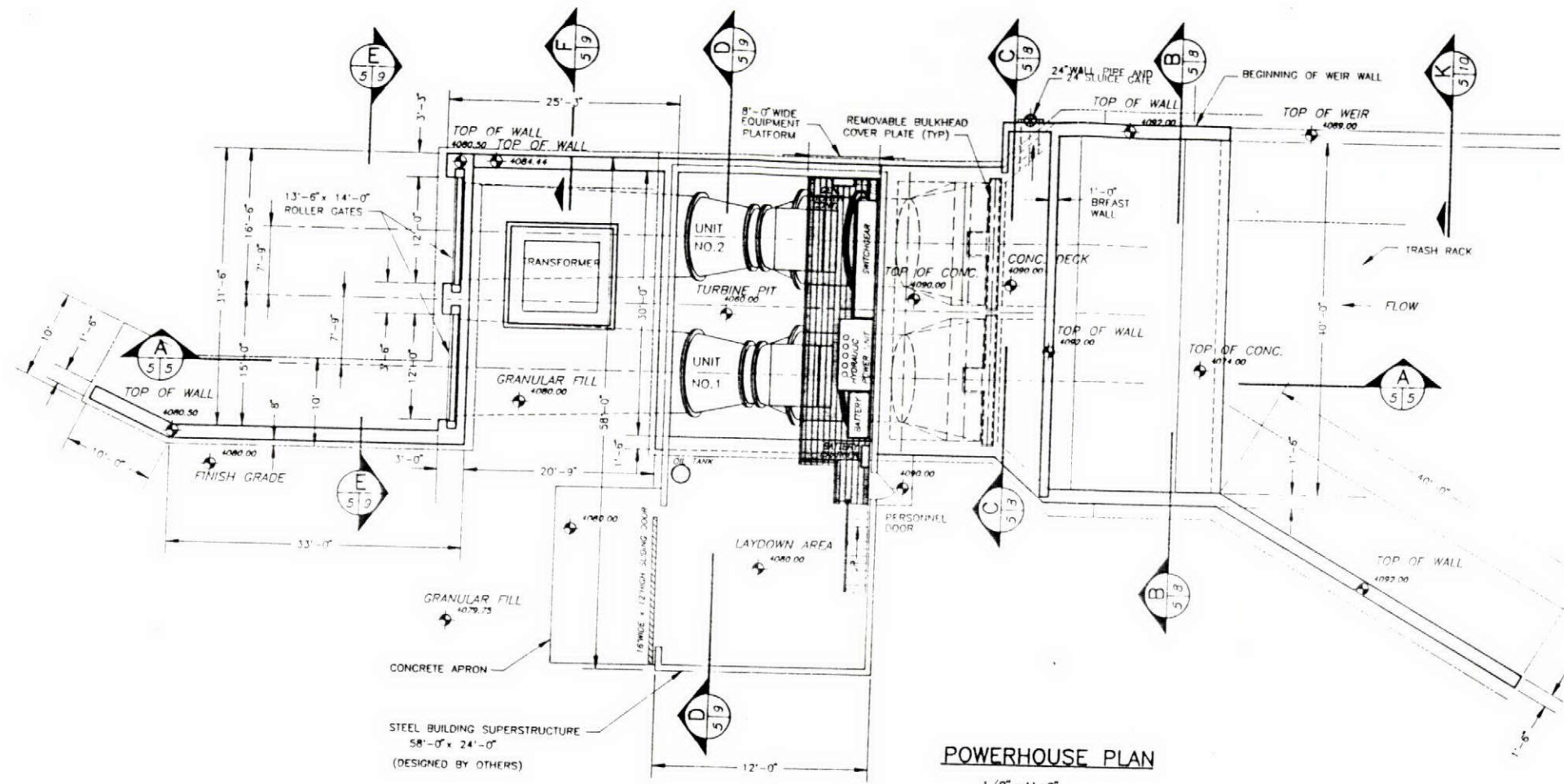
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5	SHOW REVISED GATE STR. & BRIDGE	K.D.	11-29-93
4	CLARIFY LOCATION/SIZE OF RIPRAP	K.D.	10-25-93
3	ADDITIONAL INFORMATION	K.D.	8-15-93
2	GENERAL REVISION	K.D.	7-9-93
1	ADDITIONAL INFORMATION	K.D.	3-29-93
REV	DESCRIPTION	BY	DATE
POWERHOUSE SITE & GRADING PLAN			
MILE 28 HYDROELECTRIC PROJECT			
SCALE 1"=30 FT.	DRAWN BY K. DURHAM	DRAWING NO. 154-3-02	
DATE NOV. 20, 1992	CHECKED BY		
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 4	REV 5
150 WARM SPRING AVE. BOISE, IDAHO 83712		TELEPHONE (208) 338-1425	

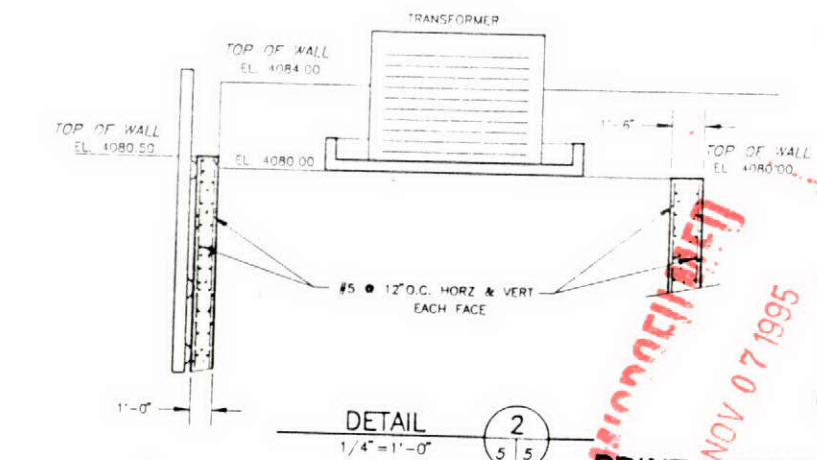
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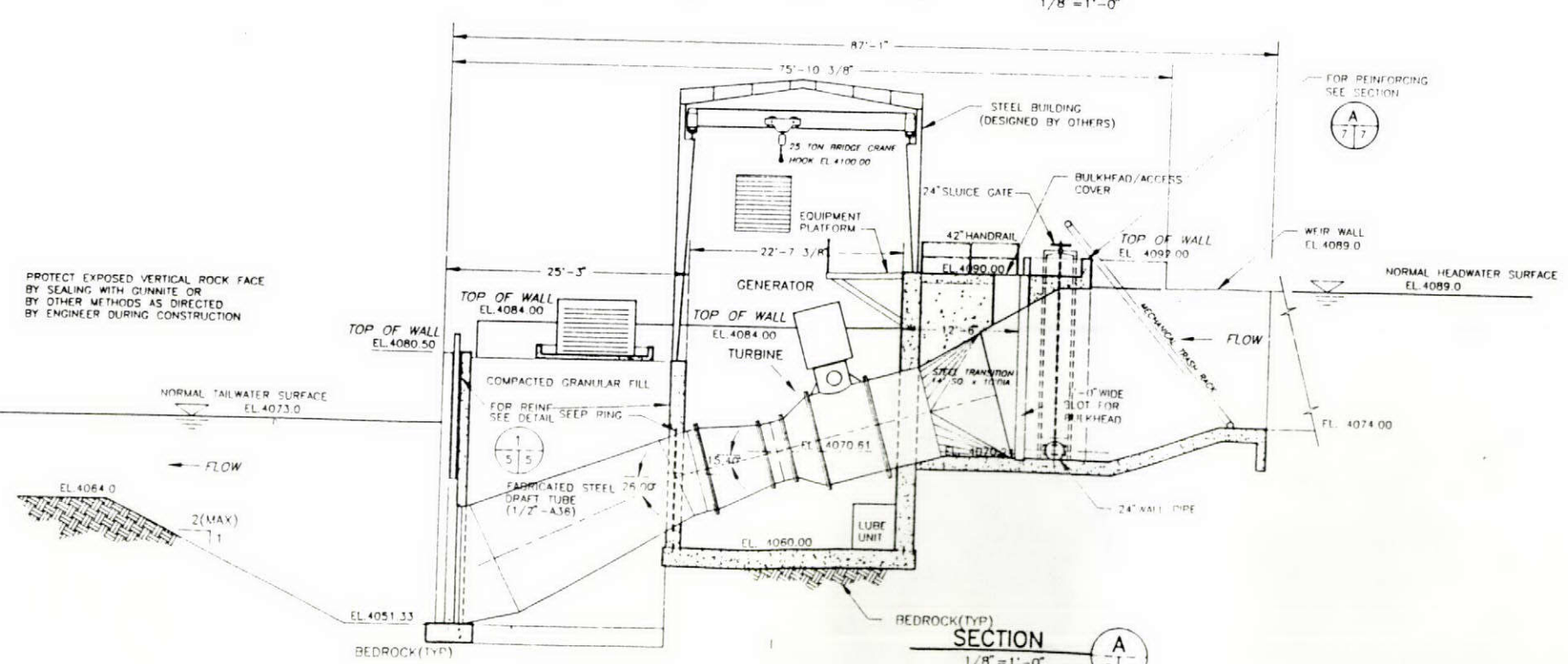
EXHIBIT F-3



POWERHOUSE PLAN
1/8" = 1'-0"



DETAIL 2
1/4" = 1'-0"



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

PROTECT EXPOSED VERTICAL ROCK FACE BY SEALING WITH GUNNITE OR BY OTHER METHODS AS DIRECTED BY ENGINEER DURING CONSTRUCTION

SECTION OR ELEVATION LETTER OR DETAIL NUMBER
SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN
SHEET ON WHICH SECTION/DETAIL IS SHOWN

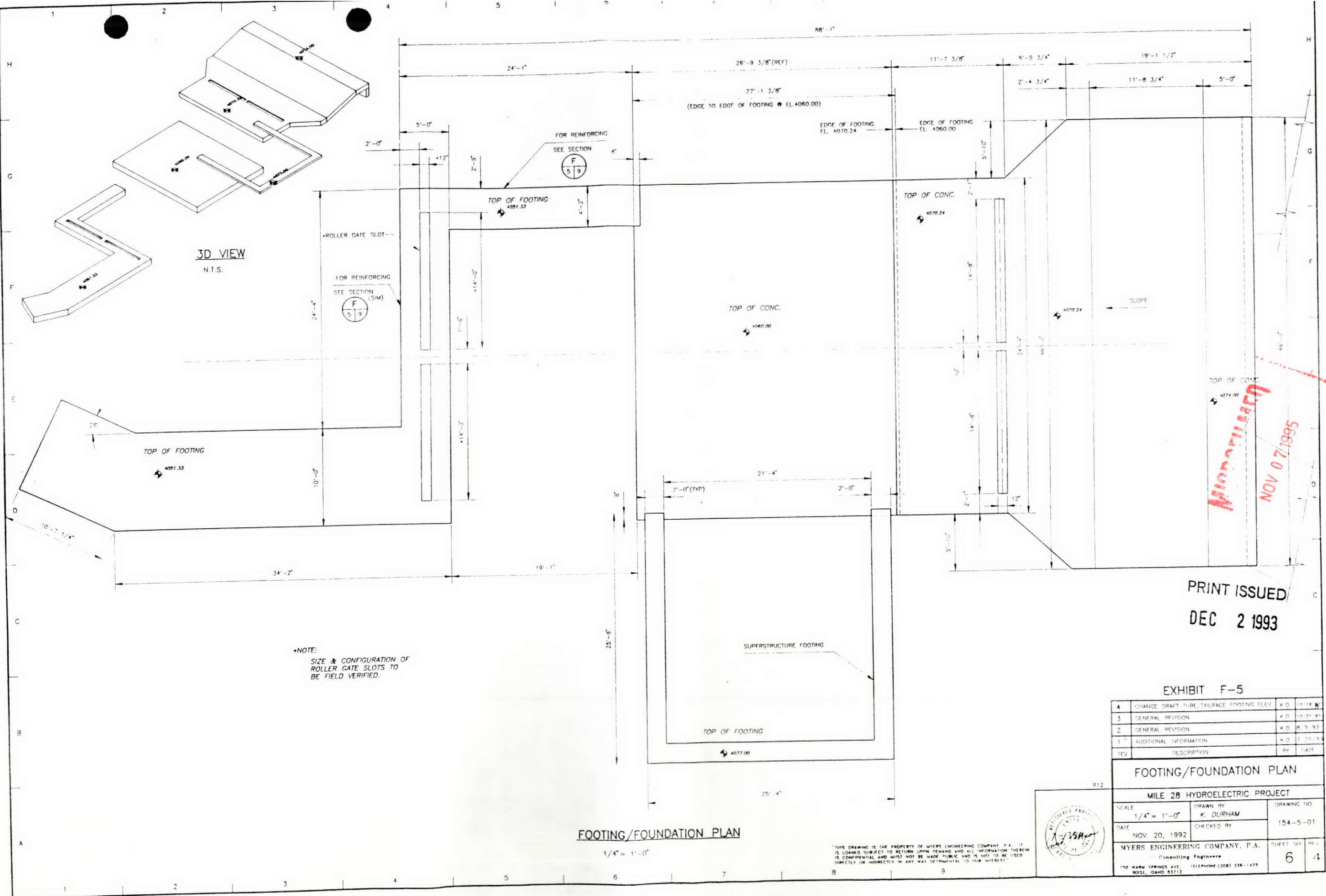
EXHIBIT F-4

REV	DESCRIPTION	BY	DATE
8	REVISE INTAKE & DRAFT TUBE	K.D.	11/19/91
5	REVISE INTAKE & DRAFT TUBE	K.D.	10/28/91
4	ADDITIONAL INFORMATION	K.D.	10/22/91
3	ADDITIONAL INFORMATION	K.D.	7/11/91
2	GENERAL REVISION	K.D.	7/11/91
1	ADDITIONAL INFORMATION	K.D.	5/31/91

POWERHOUSE GENERAL ARRANGEMENT		
MILE 28 HYDROELECTRIC PROJECT		
SCALE 1/8" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-4-01
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 700 WARM SPRINGS AVE. BOISE, IDAHO 83712		SHEET NO. 5 REV. 6

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EXHIBIT F-5

4	CHANGE DRAFT TUBE, TAIRACE FOOTING ELEV.	K.D.	10-19-81
3	GENERAL REVISION	K.D.	10-27-81
2	GENERAL REVISION	K.D.	8-9-81
1	ADDITIONAL INFORMATION	K.D.	3-31-81
REV.	DESCRIPTION	BY	DATE

FOOTING/FOUNDATION PLAN

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-01
DATE NOV. 20, 1992	CHECKED BY	

MYERS ENGINEERING COMPANY, P.A.

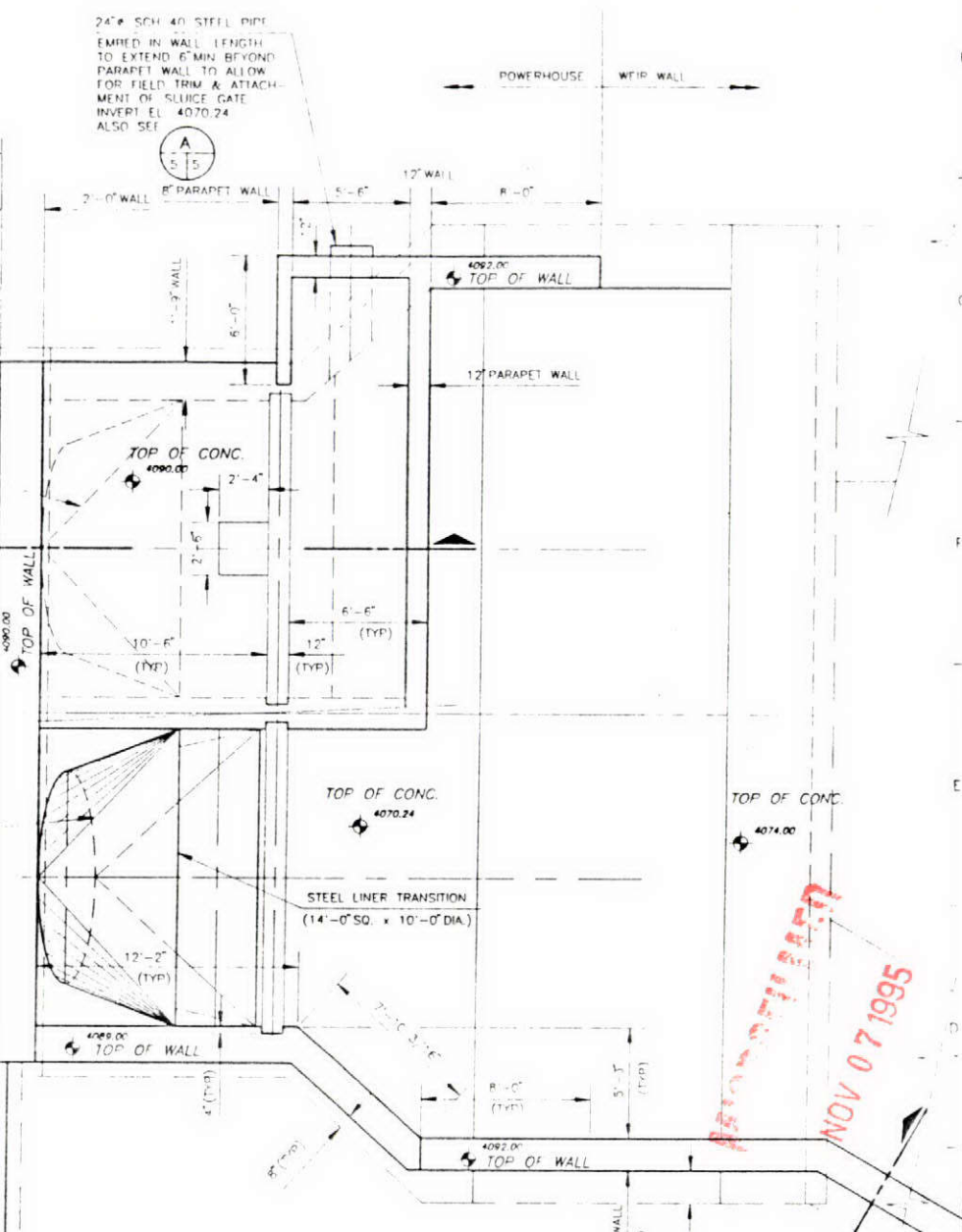
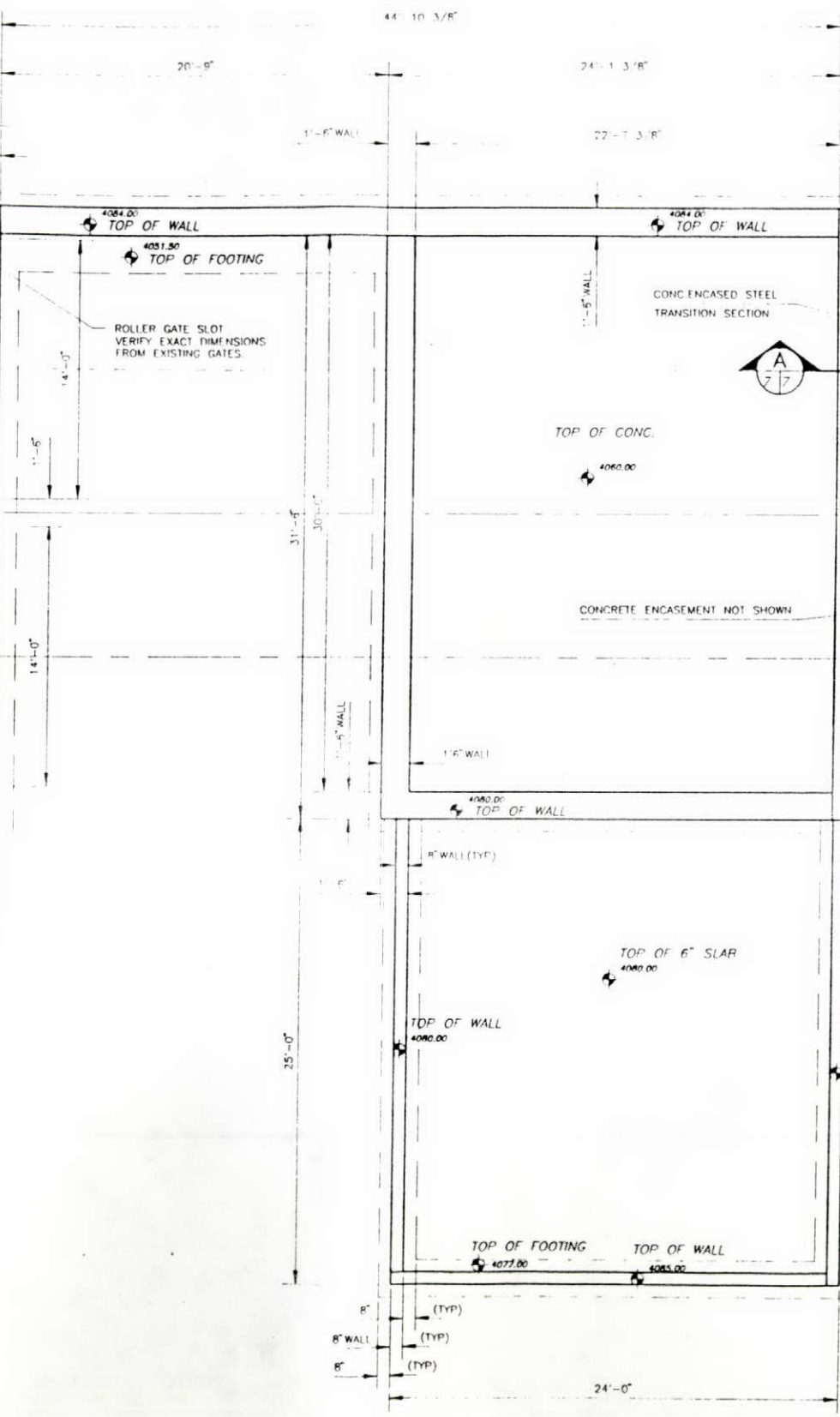
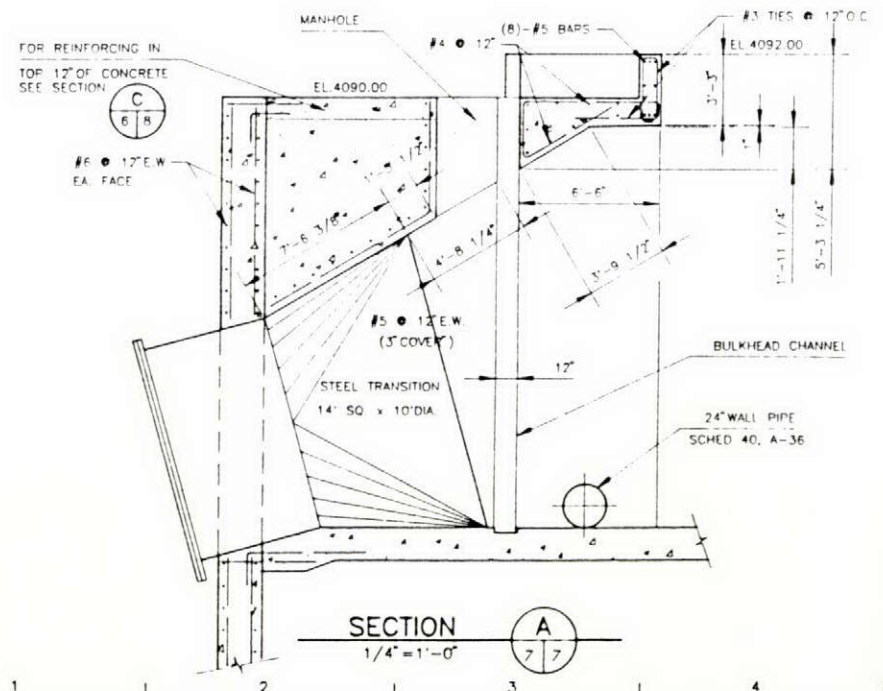
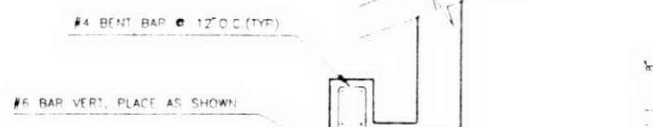
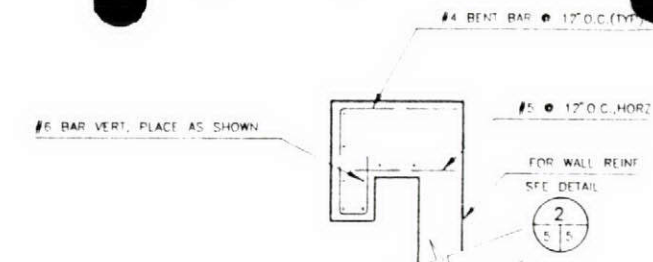
— Consulting Engineers —

750 WARM SPRINGS AVE. TELEPHONE (208) 338-1425
 BOISE, IDAHO 83712

SHEET NO. 1 OF 1

6

4



CONCRETE WALLS PLAN

1/4" = 1'-0"

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EXHIBIT F-6

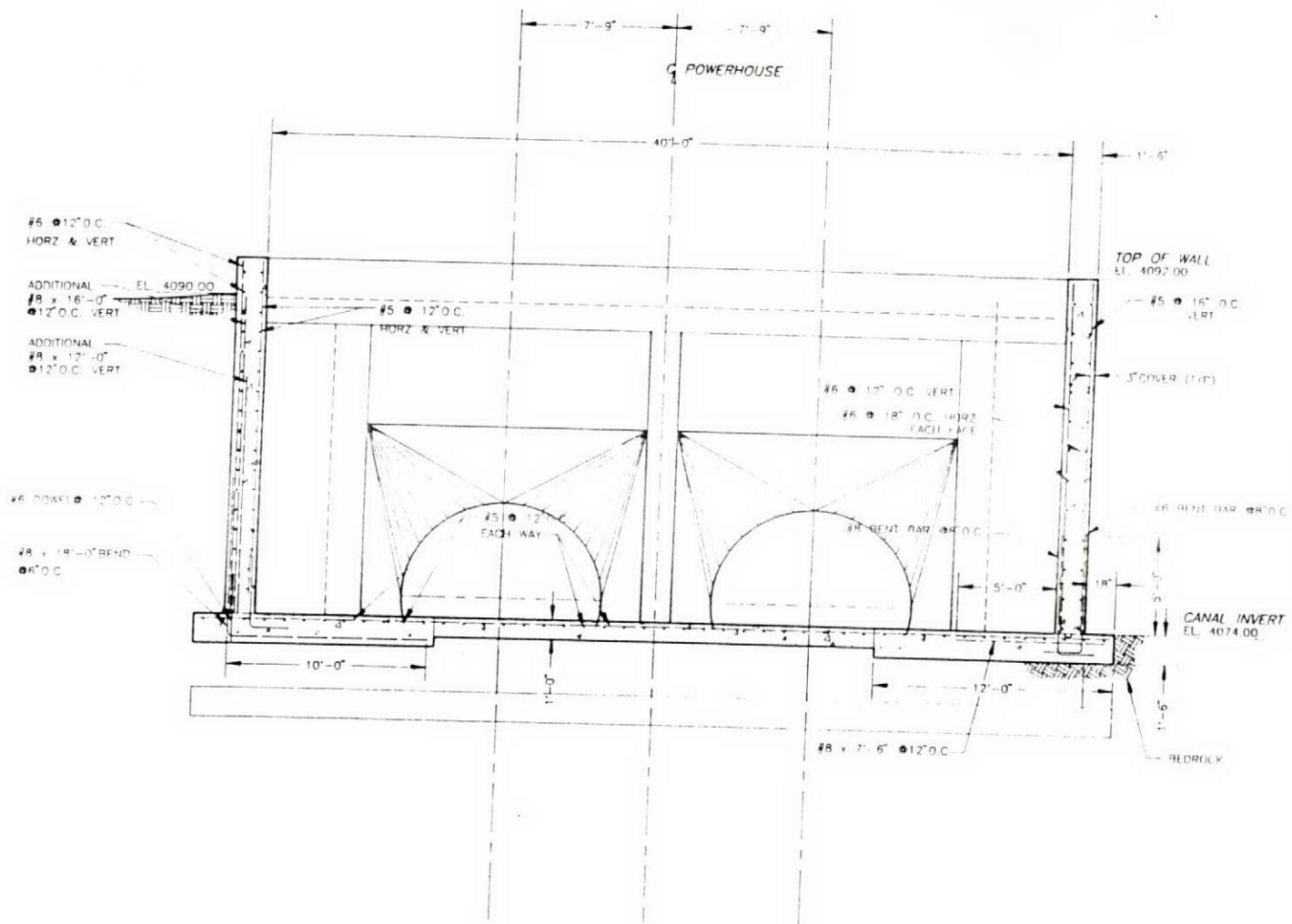
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4	GENERAL REVISION	K.D.	10/28/93
3	ADDITIONAL INFORMATION	K.D.	8/16/93
2	GENERAL REVISION	K.D.	8/9/93
1	ADDITIONAL INFORMATION	K.D.	3/31/93
REV	DESCRIPTION	BY	DATE

CONCRETE WALLS PLAN

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-02
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 7
750 WARM SPRINGS AVE. BOISE, IDAHO 83712		REV. 5

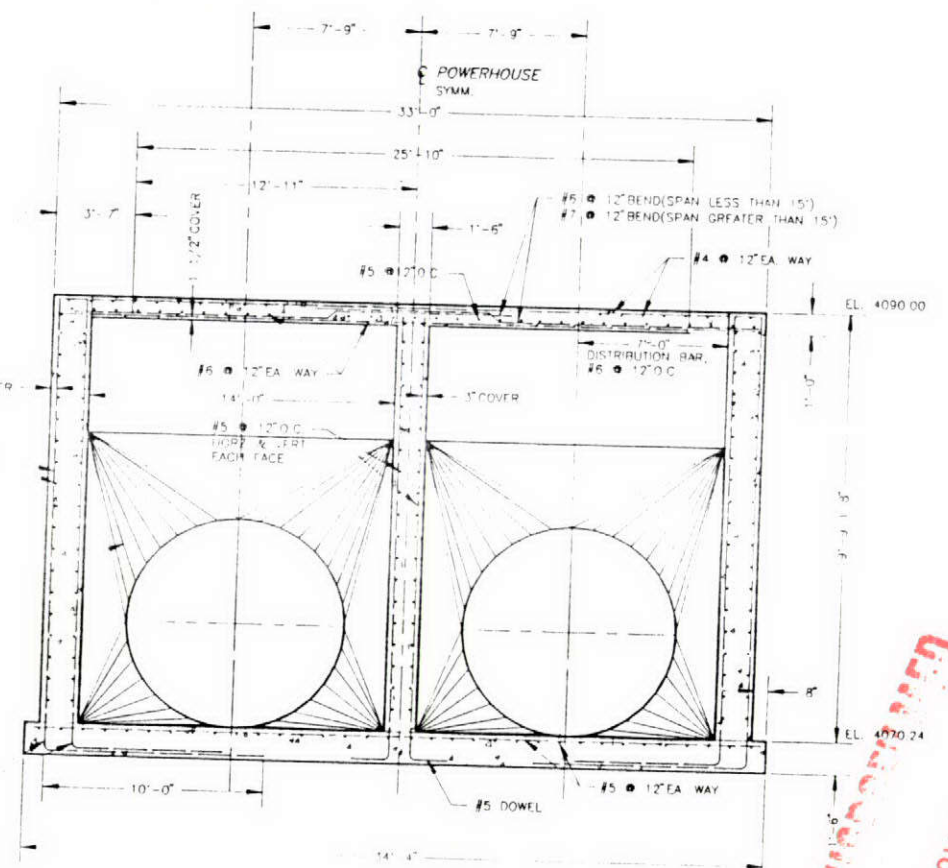
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SECTION B
1/4" = 1'-0"

- NOTES:
1. PRIOR TO PLACING CONCRETE, CONTRACTOR SHALL OBTAIN FROM THE MANUFACTURER OF THE STEEL SUPERSTRUCTURE A CONCRETE ANCHORAGE/EMBEDMENT PLAN WHICH HAS BEEN APPROVED BY THE ENGINEER.
 2. REINFORCING TO HAVE 3" MIN. CONCRETE COVER.

STEEL TRANSITION SECTION -
14' 0" SQ. x 10' 0" DIA.
(CONCRETE ENCASEMENT NOT SHOWN THIS VIEW)



SECTION C
1/4" = 1'-0"



SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

SECTION OR ELEVATION LETTER OR DETAIL NUMBER

SHEET ON WHICH SECTION/DETAIL IS SHOWN

APPROVED
 NOV 07 1995

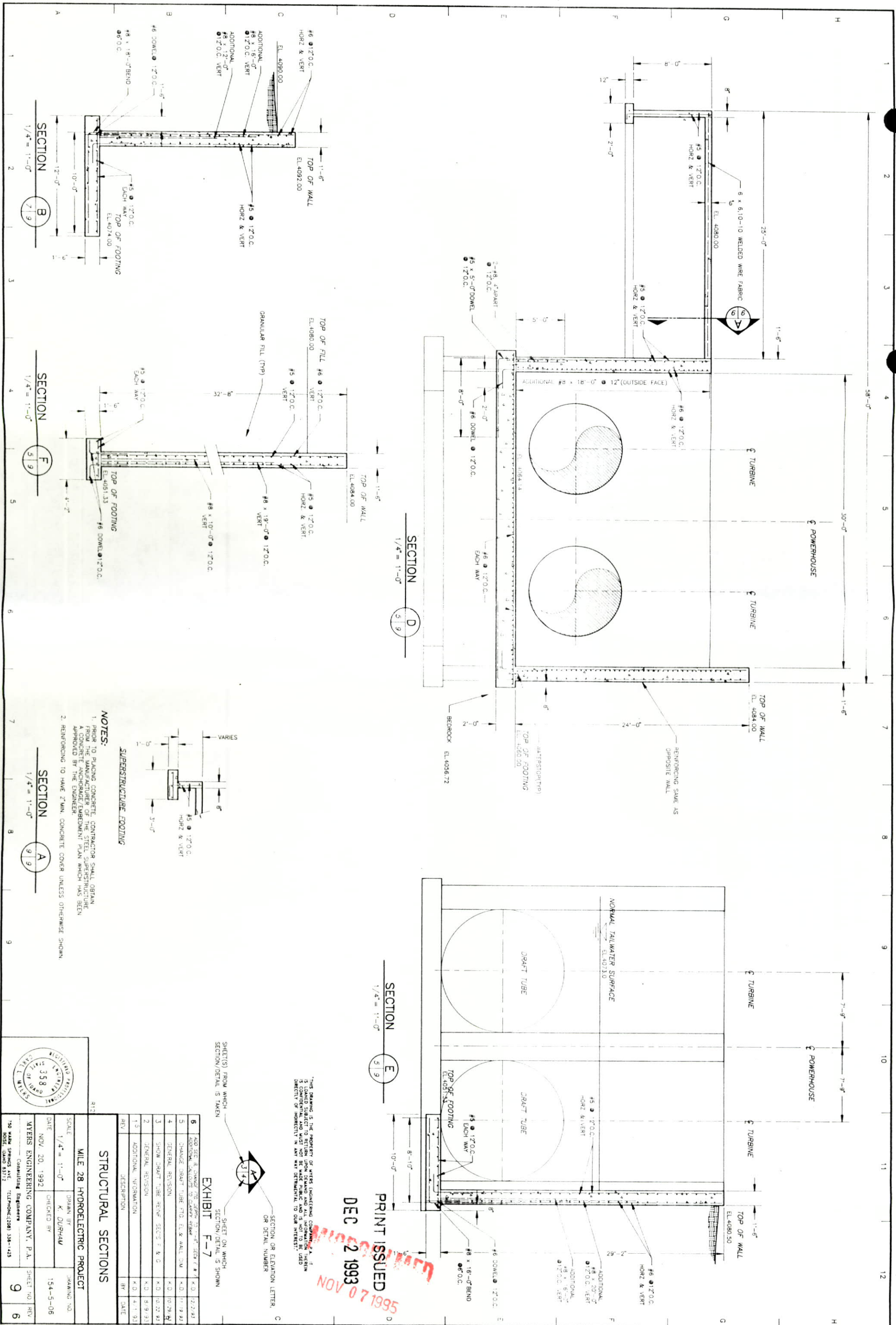
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DEC 2 1993

EXHIBIT F-7

REV	DESCRIPTION	BY	DATE
5	ADDITIONAL CALL-OUTS FOR CLARIFICATION	K.D.	12-1-93
4	GENERAL REVISION	K.D.	10-29-93
3	ADDITIONAL INFORMATION	K.D.	9-10-93
2	GENERAL REVISION	K.D.	8-9-93
1	ADDITIONAL INFORMATION	K.D.	4-1-93

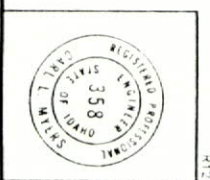
STRUCTURAL SECTIONS		
MILE 28 HYDROELECTRIC PROJECT		
SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-03
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 150 WARM SPRINGS AVE. BOISE, IDAHO 83712		SHEET NO. 8 OF 7

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NOTES:

1. PRIOR TO PLACING CONCRETE, CONTRACTOR SHALL OBTAIN FROM THE MANUFACTURER OF THE STEEL SUPERSTRUCTURE A CONCRETE ANCHORAGE/EMBEDMENT PLAN WHICH HAS BEEN APPROVED BY THE ENGINEER.
2. REINFORCING TO HAVE 2" MIN. CONCRETE COVER UNLESS OTHERWISE SHOWN.



STRUCTURAL SECTIONS			
SCALE	DRAWN BY	CHECKED BY	DATE
1/4" = 1'-0"	K. DURHAM		NOV 20, 1992
DATE	NOV 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A.			
150 MAIN SPRING AVE. (TELEPHONE) 338-1433			
NO. 338, EXPI. 12/31/93			

REV	DESCRIPTION	BY	DATE
1	ADDITIONAL INFORMATION	K.D.	4.1.93
2	GENERAL REVISION	K.D.	8.9.93
3	SHOW DRAFT TUBE REINFORCING SECTIONS F & G	K.D.	10.22.93
4	GENERAL REVISION	K.D.	10.29.93
5	CHANGE DRAFT TUBE F.T.G. EL. & WALL DIM.	K.D.	11.19.93
6	ADD SEC. B, CHANGE THE DRAFT TUBE TO 1'-6" DIA. SEC. F & G	K.D.	12.2.93

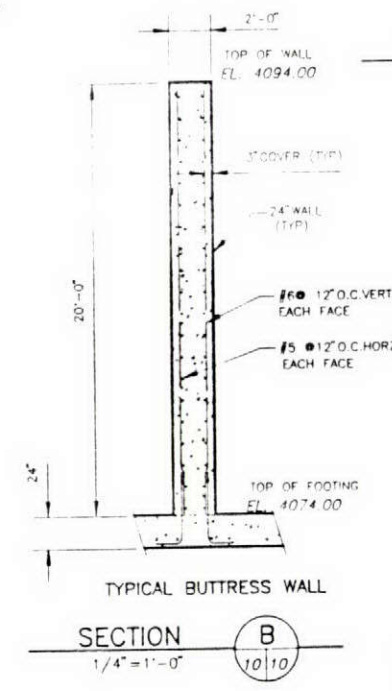
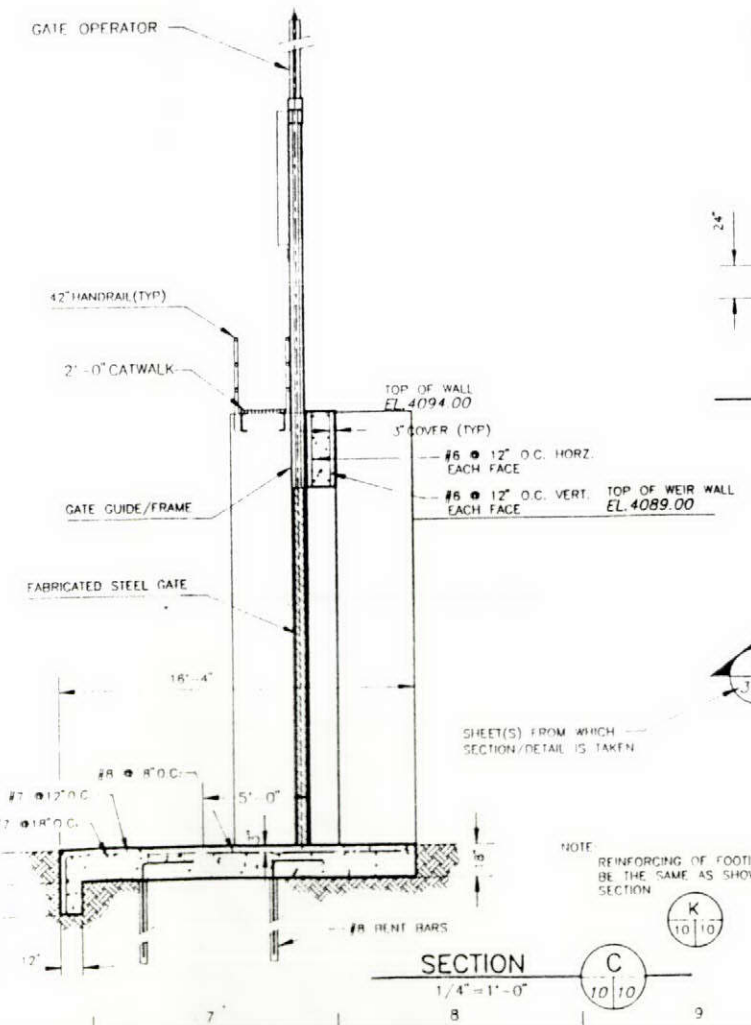
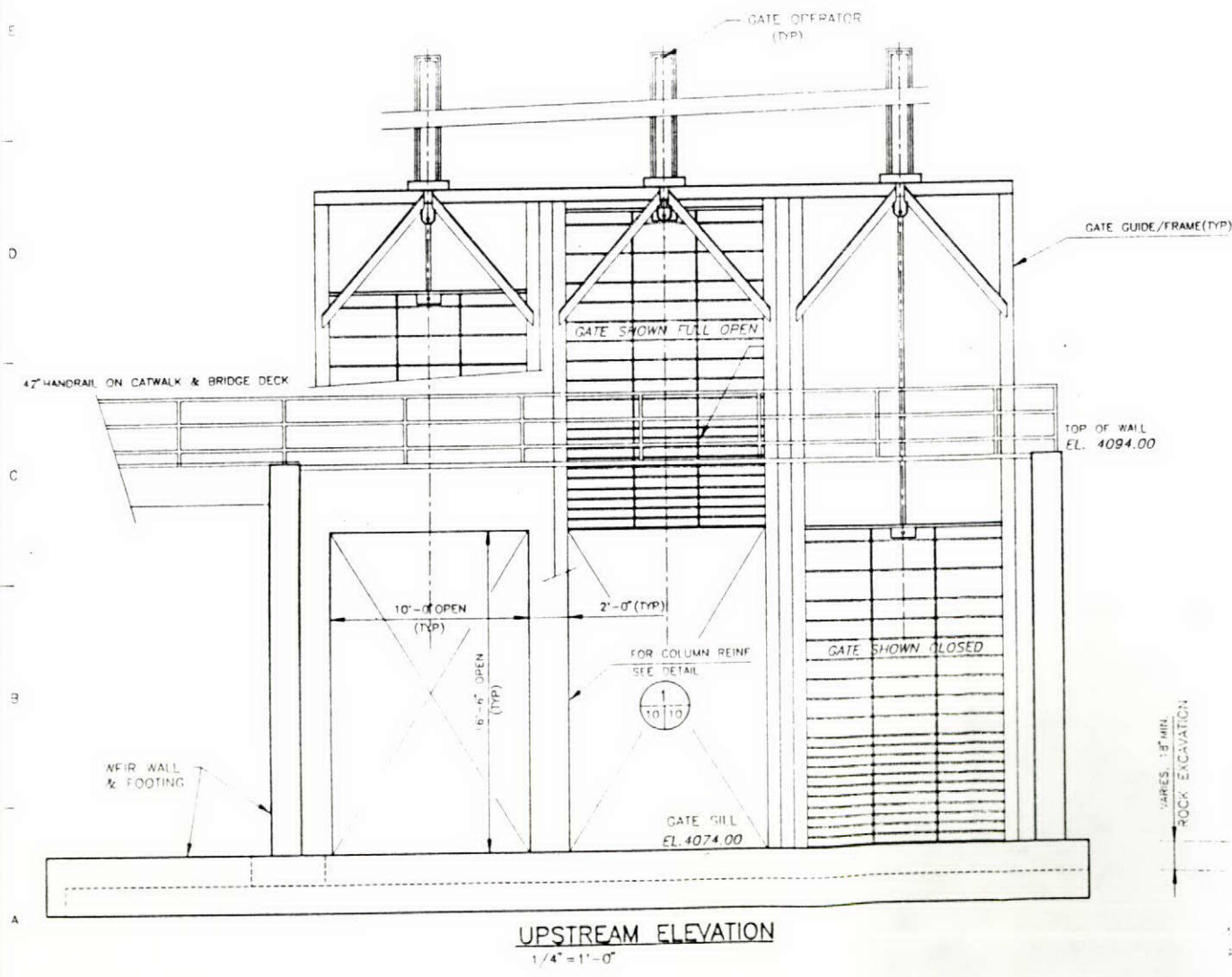
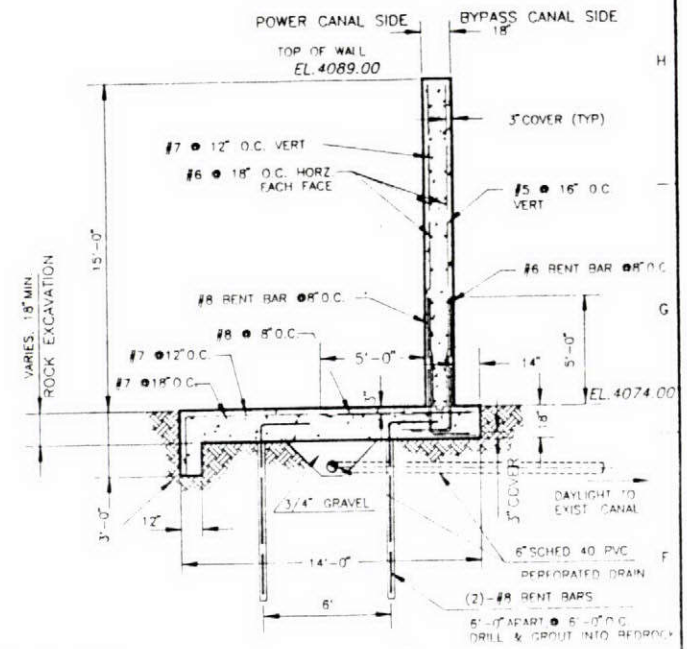
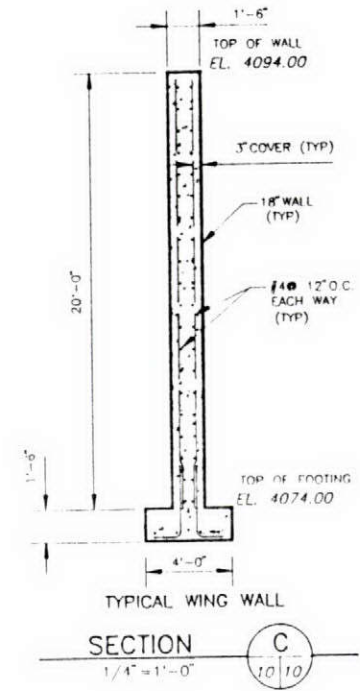
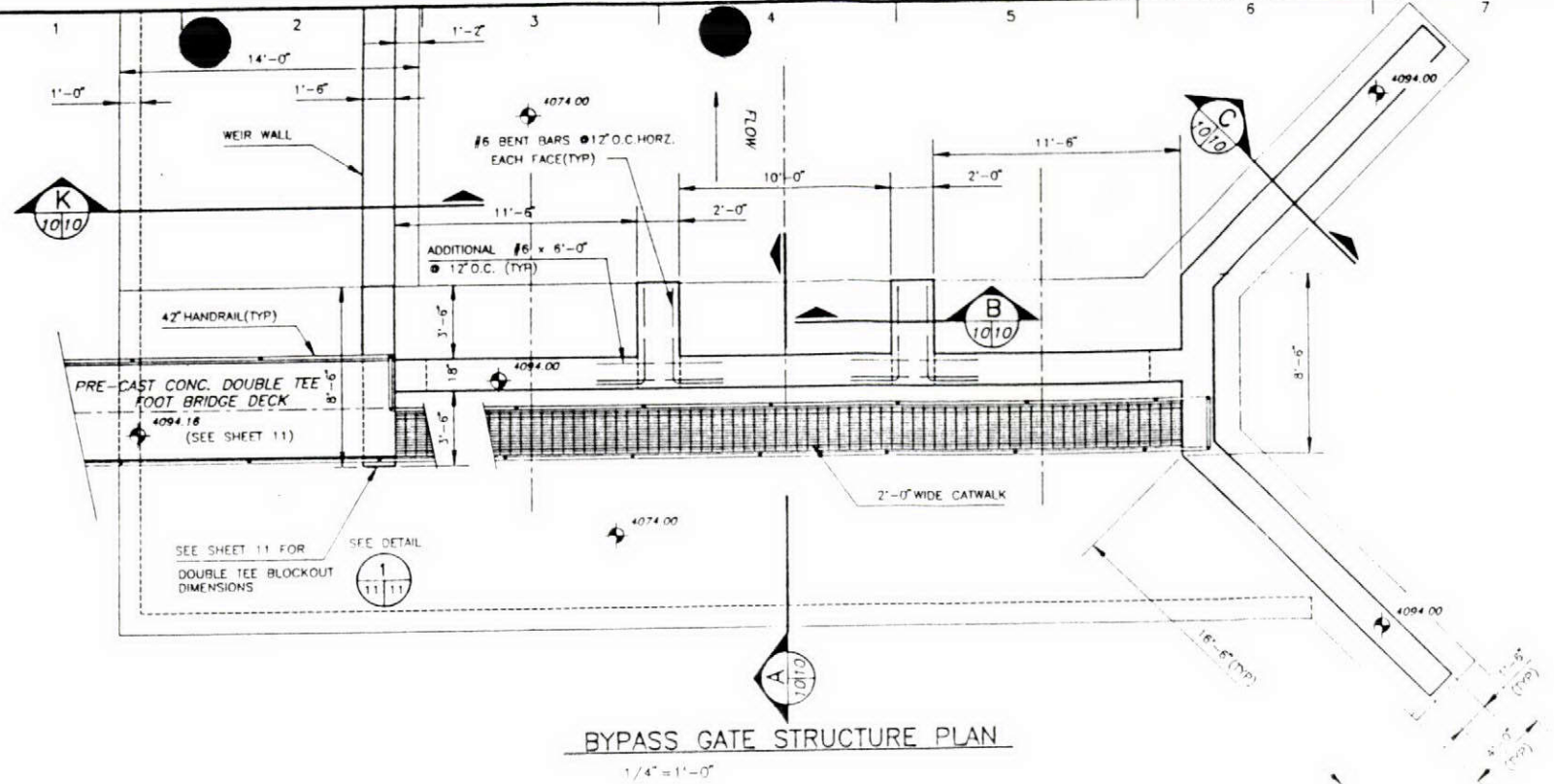
EXHIBIT F-7

SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

SHEET OR ELEVATION LETTER, OR DETAIL NUMBER

"THIS DRAWING IS THE PROPERTY OF MYERS ENGINEERING COMPANY, P.A. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST."

PRINT ISSUED
DEC 2 1993
NOV 07 1995



PRINT ISSUED
DEC 2 1993

THIS DRAWING IS THE PROPERTY OF MYERS ENGINEERING COMPANY, P.A. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND ALL INFORMATION THEREIN IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST.

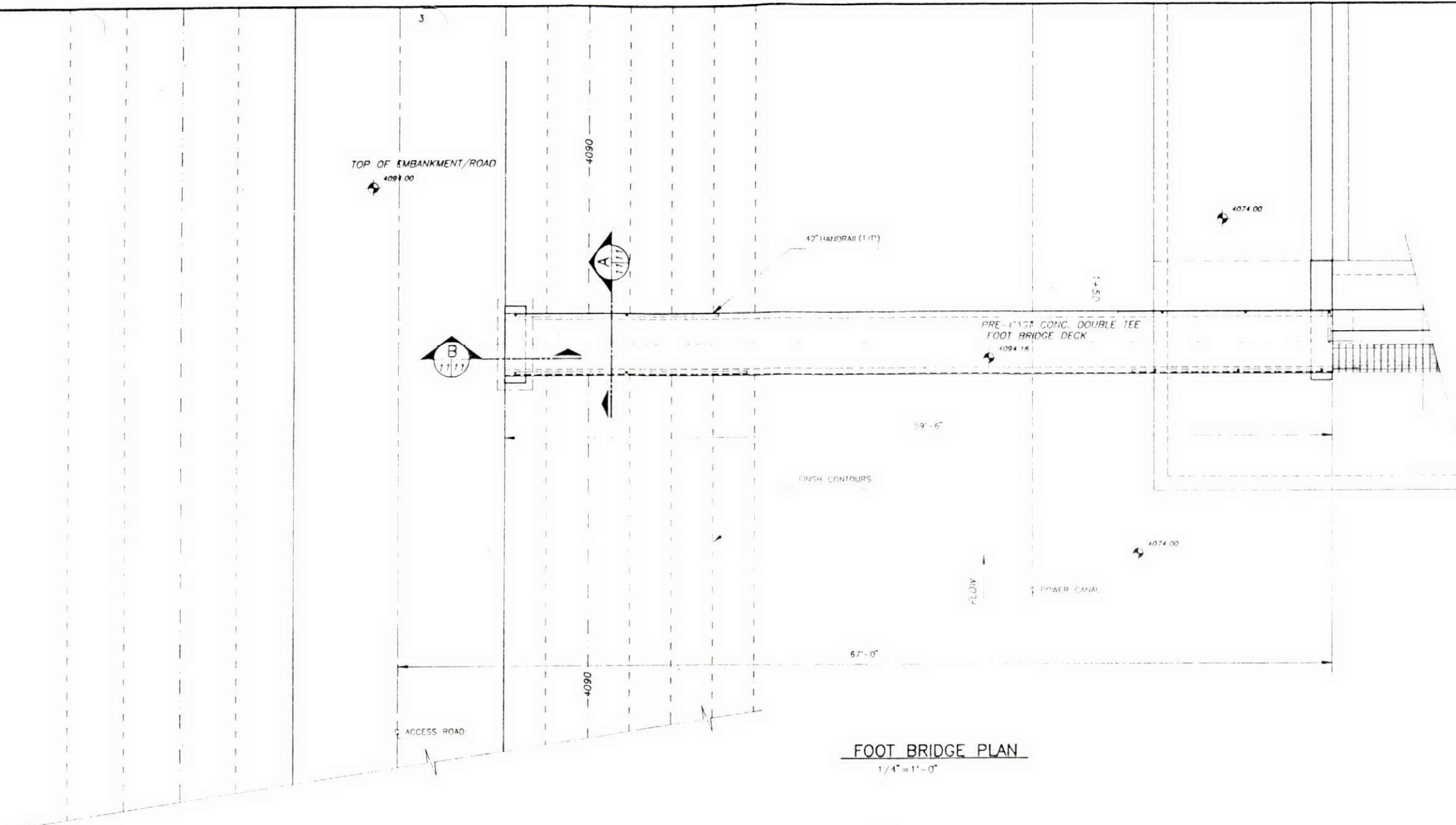
EXHIBIT F-8

REV	DESCRIPTION	BY	DATE
6	GENERAL REVISION	K.D.	11/15/93
5	ADDED REINFORCING TO GATE STRUCTURE FOOTING SEC. A. ADD REINFORCING NOTE SEC. A. EXTEND #4 BARS REFER SEC. K. ADD UNDERDRAIN, #8 BARS, & CUTOFF WALL	K.D.	10/21/93
4	REVISE FOOTING DIMENSIONS & BAR SIZES, CLARIFY REINFORCING SHOWN, REVISE ELEVATIONS	K.D.	9/24/93
3	ADDITIONAL INFORMATION	K.D.	8/17/93
2	ADD BRIDGE DECK, CHANGE ELEVATIONS	K.D.	7/5/93
1	GENERAL REVISION	K.D.	4/2/93

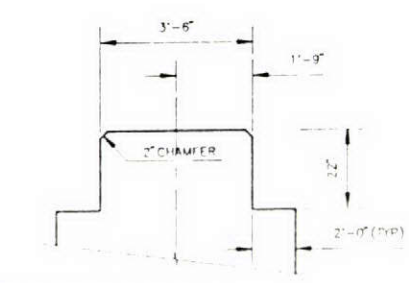
**GATE STRUCTURE AND
SPILLWAY WEIR**

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K.D.	DRAWING NO. 154-5-04
DATE NOV 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 10
150 WARM SPRINGS AVE. BOISE, IDAHO 83712		6

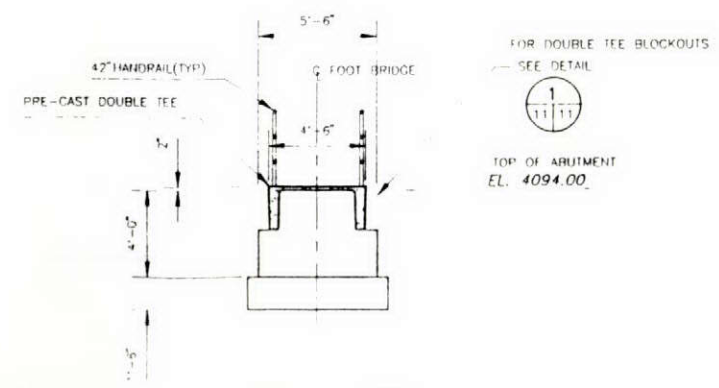


FOOT BRIDGE PLAN
1/4" = 1'-0"

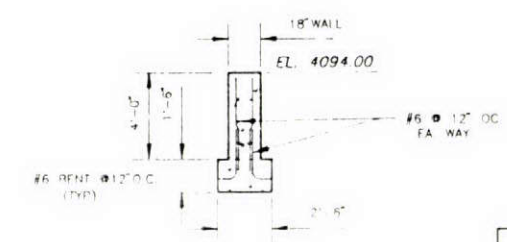


DETAIL
N.T.S.

NOTE: VERIFY WIDTH & DEPTH OF NOTCHES IN TOP OF WALL, WITH DOUBLE TEE WFR



SECTION A
N.T.S.



SECTION B
N.T.S.

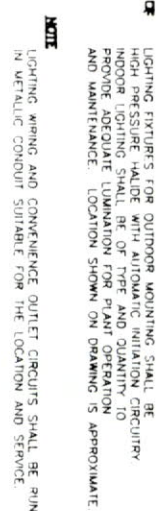
APPROVED
 NOV 07 1995

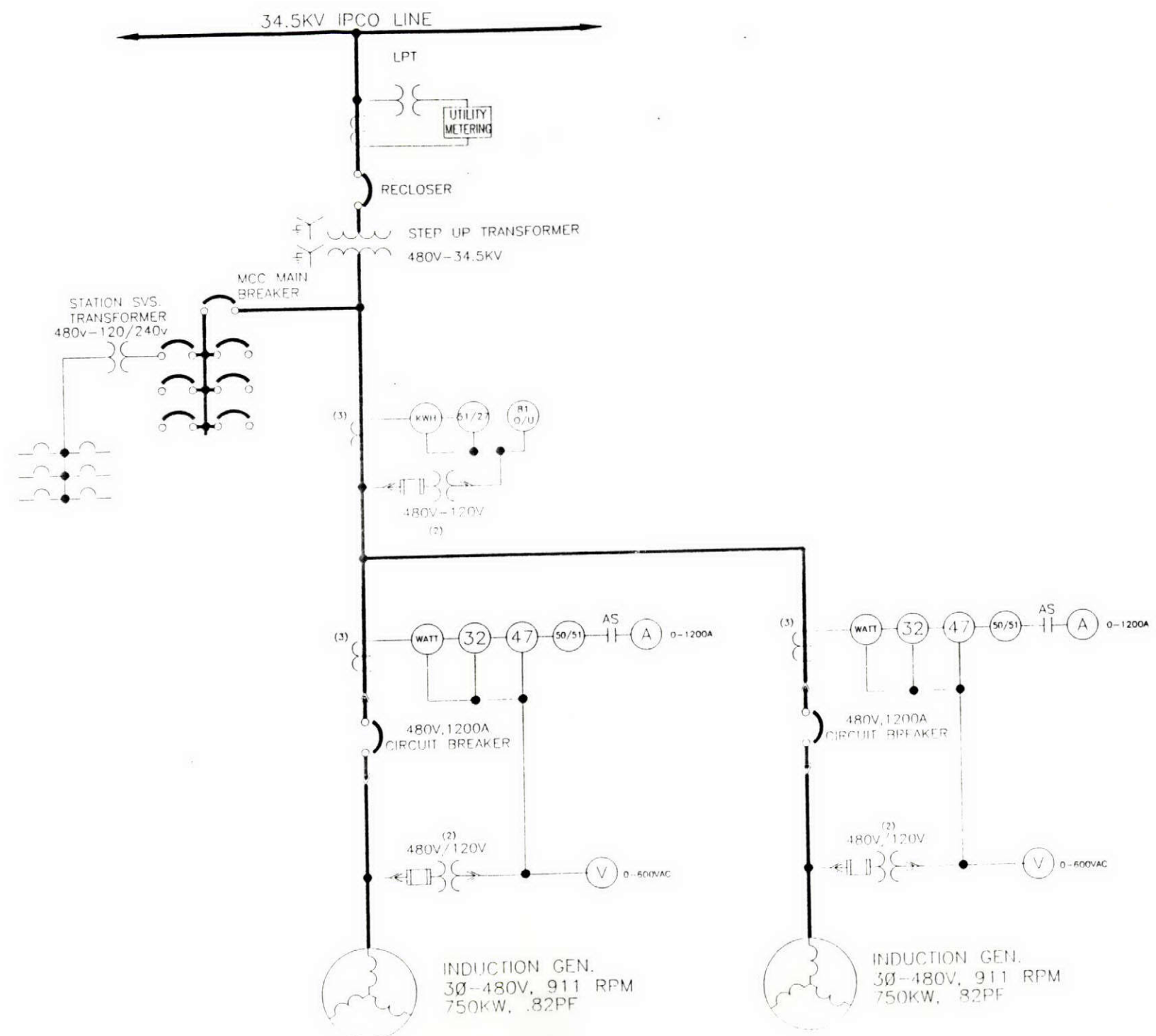
PRINT ISSUED
DEC 2 1993

EXHIBIT F-10

REV	DESCRIPTION	BY	DATE
3	REVISE BRIDGE ABUTMENT	K.D.	11-29-93
2	GENERAL REVISION	K.D.	11-15-93
1	GENERAL REVISION	K.D.	9-9-93
0	DESCRIPTION		

FOOT BRIDGE PLAN & SECTIONS		
MILE 28 HYDROELECTRIC PROJECT		
SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-05
DATE APR. 6, 1993	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 11
720 WARM SPRINGS AVE. BOISE, IDAHO 83712		13





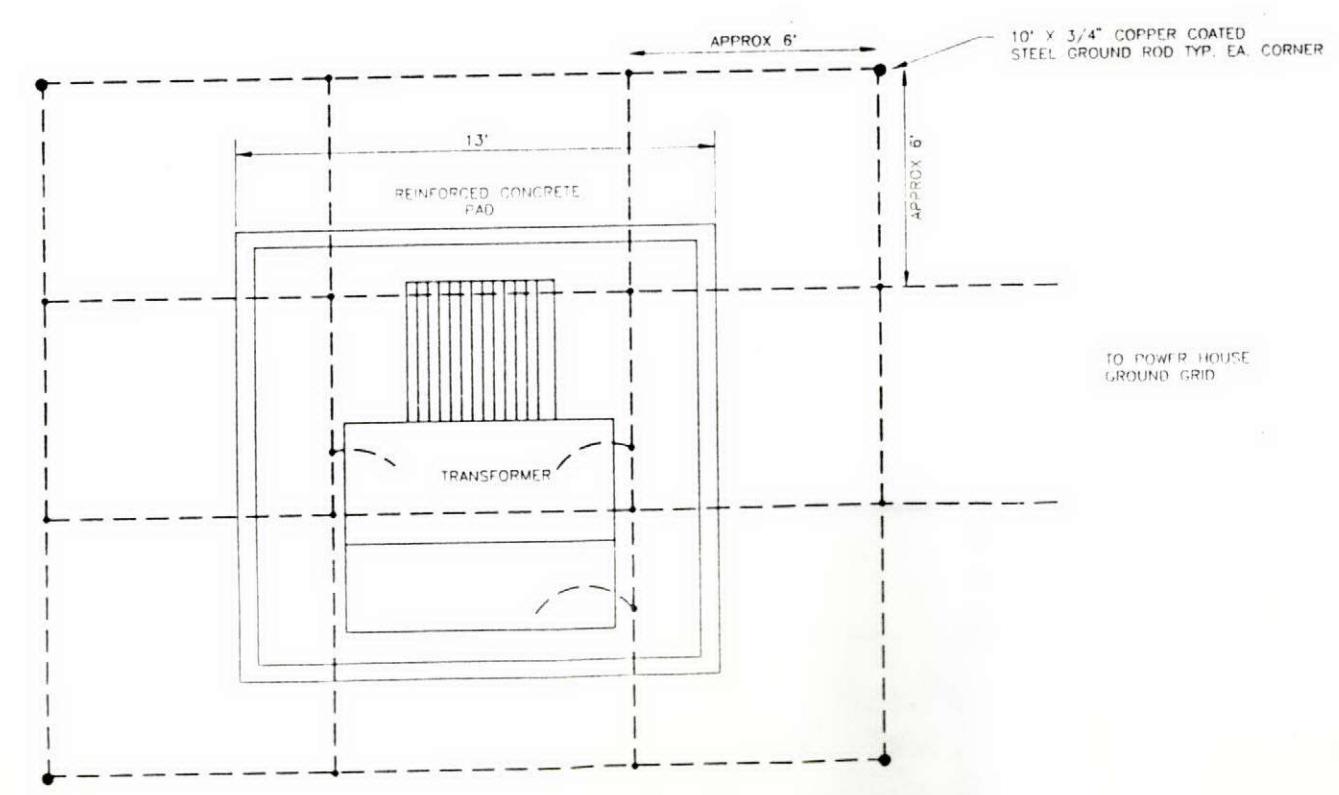
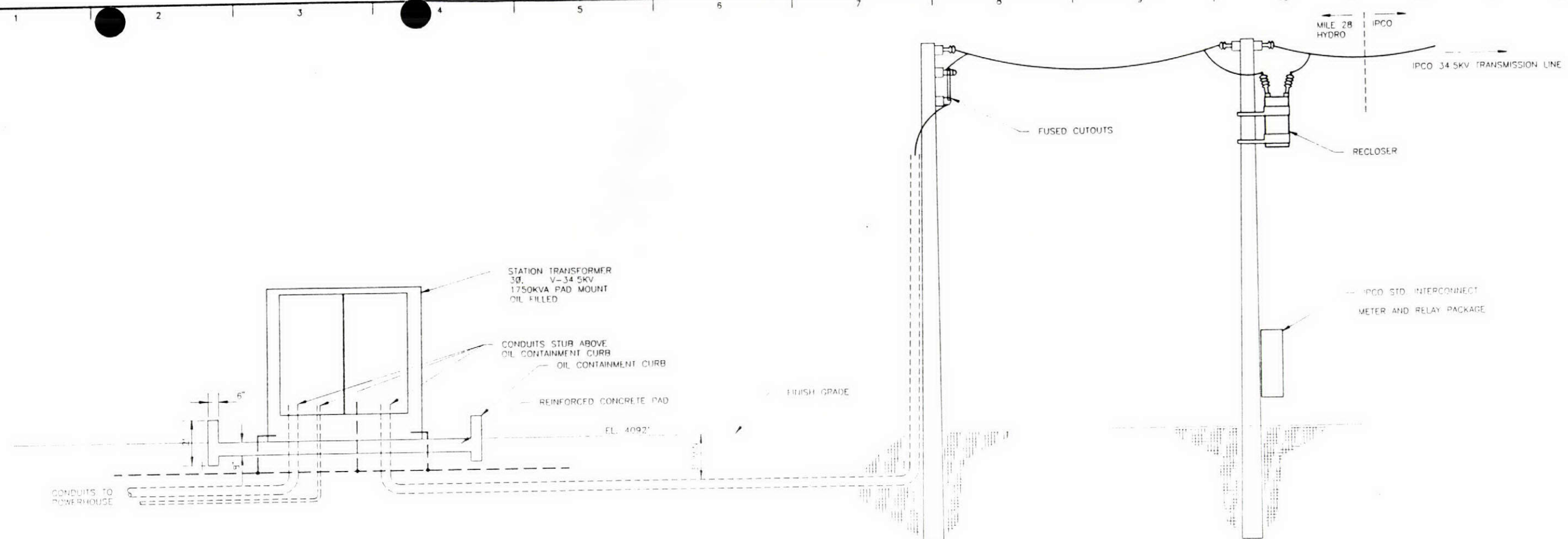
PRINT ISSUED
DEC 2 1993
NOV 07 1995

EXHIBIT F-13

THIS DRAWING IS THE PROPERTY OF MYERS ENGINEERING COMPANY, P.A. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND ALL INFORMATION THEREIN IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST.



2	REVISE GENERATOR TYPE, ETC.	CY	6-20
1	TRANSMISSION VOLTAGE	CY	4-14
REV	DESCRIPTION	BY	DATE
PROJECT ONE-LINE DIAGRAM MILE 28 HYDROELECTRIC PROJECT			
SCALE 1/8" = 1'-0"	DRAWN BY C. YARBOROUGH	DRAWING NO. 154-7-03	
DATE JUNE 25, 1993	CHECKED BY		
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 14	REV. 2
150 WARM SPRINGS AVE. TELEPHONE (208) 338-1475 BOISE, IDAHO 83712			



NOTES

GROUNDING CONDUCTORS TO BE #2/0 STRANDED, BARE COPPER. ALL METAL STRUCTURES CAST IN PRIMARY CONCRETE SHALL BE GROUNDED USING "CAD-WELD" DIRECT TO GROUNDING CONDUCTORS. ALL REMOVABLE METAL STRUCTURES AND EQUIPMENT SHALL BE GROUNDED USING "CAD-WELD" LUGS CAD-WELDED TO GROUNDING CONDUCTOR AND BOLTED TO GROUND PAD OF EQUIPMENT. ALL COVERED GROUND MAT CONNECTIONS SHALL BE "CAD-WELD". NO CLAMP OR COMPRESSION CONNECTIONS SHALL BE ALLOWED.

PRINT ISSUED
DEC 2 1993

EXHIBIT F-14

1	TRANSMISSION VOLTAGE	3	4-14
REV	DESCRIPTION	BY	DATE
SUBSTATION PLAN, AND SUBSTATION GROUNDING			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	DRAWN BY	DRAWING NO.	
NOT TO SCALE	C. YARBOROUGH	1547-04	
DATE	CHECKED BY		
NOV. 20, 1992			
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	15
Consulting Engineers		REV.	1
740 WARM SPRINGS AVE. TELEPHONE (208) 358-1425 BOISE, IDAHO 83712			

THIS DRAWING IS THE PROPERTY OF MYERS ENGINEERING COMPANY, P.A. IT IS LOANED SUBJECT TO RETURN UPON DEMAND AND ALL INFORMATION THEREIN IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC AND IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST.

RECEIVED
 NOV 20 1993

ENVIRONMENTAL ASSESSMENT
FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF HYDROPOWER LICENSING
DIVISION OF PROJECT REVIEW

July 22, 1992

Mile 28 Hydroelectric Project

FERC Project No. 10552-002

A. APPLICATION

1. Application type: Minor License

Date filed with the Commission: May 13, 1991
Revised September 26, 1991

3. Applicant: Contractor's Power Group, Inc. (CPG)

4. Water body: Milner-Gooding Canal River basin: Snake

5. Nearest city or town: Eden (see figure 1)

6. County: Jerome County State: Idaho

B. PURPOSE AND NEED FOR ACTION

1. Purpose.

The purpose of this project is to make electric power from a renewable resource available to electric utilities. The proposed project would produce about 5.8 gigawatt-hours of energy annually and would cost about \$1.7 million to construct.

2. Need for power.

CPG proposes to sell the Mile 28 Hydroelectric Project output to the Idaho Power Company, which is a member of the Northwest Power Pool serving customers in the Northwest Power Planning Council region.

The combined effect of (1) electrical load growth and (2) a fixed or declining level of existing generation makes adding conservation or generating resources, or both, necessary if adequacy and reliability levels are to be maintained. Four aspects affect the timing for adding more resources: the rate of load growth, load characteristics, the age and condition of existing resources, and system reliability criteria.

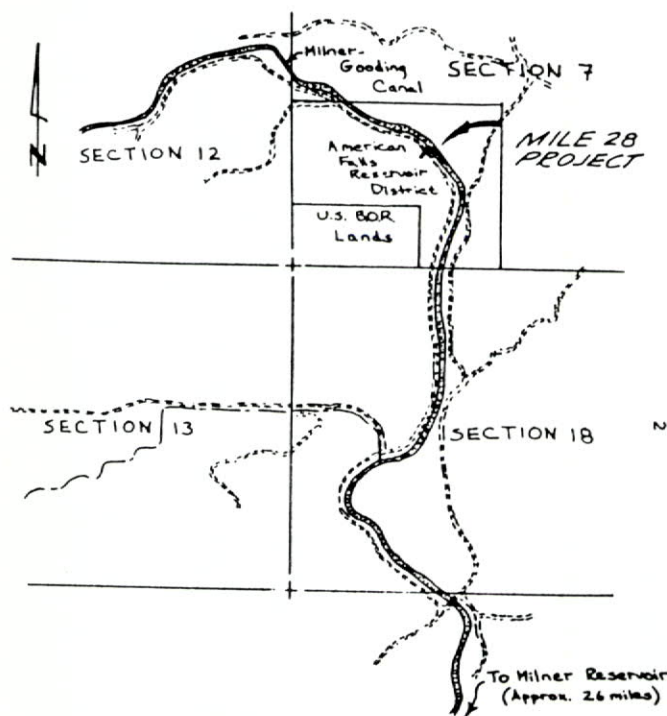
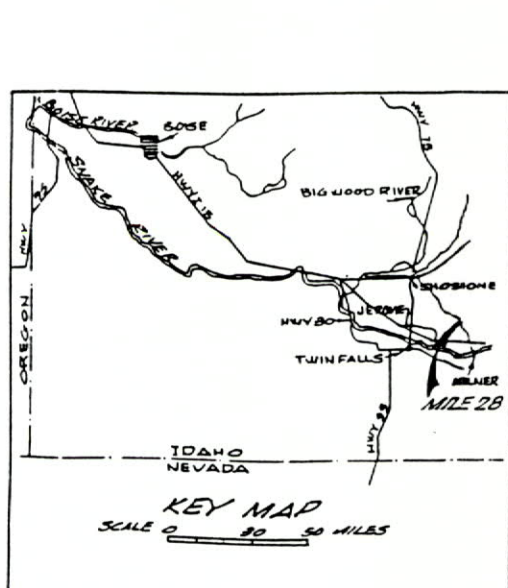


Figure 1. Location of the proposed Mile 28 Hydroelectric Project, FERC Project No. 10552, Idaho (Source: Contractors Power Group, Inc. 1991).

MIDCOURT

NOV 07 1995

According to the Council's adopted Northwest Conservation and Electric Power Plan and the load projections and needs analyses of the Pacific Northwest Utilities Conference Committee, a need for more power is likely to occur in the Pacific Northwest starting sometime in the 1990's. Firm energy provided by the project would, depending on cost, be useful in meeting a part of the projected need.

C. PROPOSED PROJECT AND ALTERNATIVES

1. Description of the proposed action (see figure 2).

The proposed project would be constructed on the existing Milner-Gooding Canal, approximately 28 miles from the head of the canal at the Milner Dam Reservoir on the Snake River. The project would consist of: (1) a 210-foot-long, concrete diversion/overflow spillway; (2) a 34-foot-wide, 55-foot-long powerhouse, containing two Kaplan turbine/generator units, with a rated capacity of 1.5 MW; (3) a 1,200-foot-long tailrace channel; (4) about 3 miles of 34.5-kilovolt primary transmission line, connecting to a local distribution line; and (4) appurtenant facilities. The mode of operation would be run-of-river.

2. Applicant's proposed mitigative measures.

a. Construction.

CPG proposes to: (1) limit excavation of the canal to the non-irrigation season; (2) prepare a site-specific restoration and stabilization plan, prior to construction; and (3) design the project structures as low-profile facilities with earth tone colors.

b. Operation.

None.

3. Federal lands affected.

☒ Yes; Bureau of Reclamation (BRI);
acreage = 12.0;

☒ Conditions have not been provided.

4. Alternatives to the proposed project.

a. ☐ No reasonable action alternative has been found.

b. ☒ Staff alternative: proposed action with our recommended environmental recommendations.

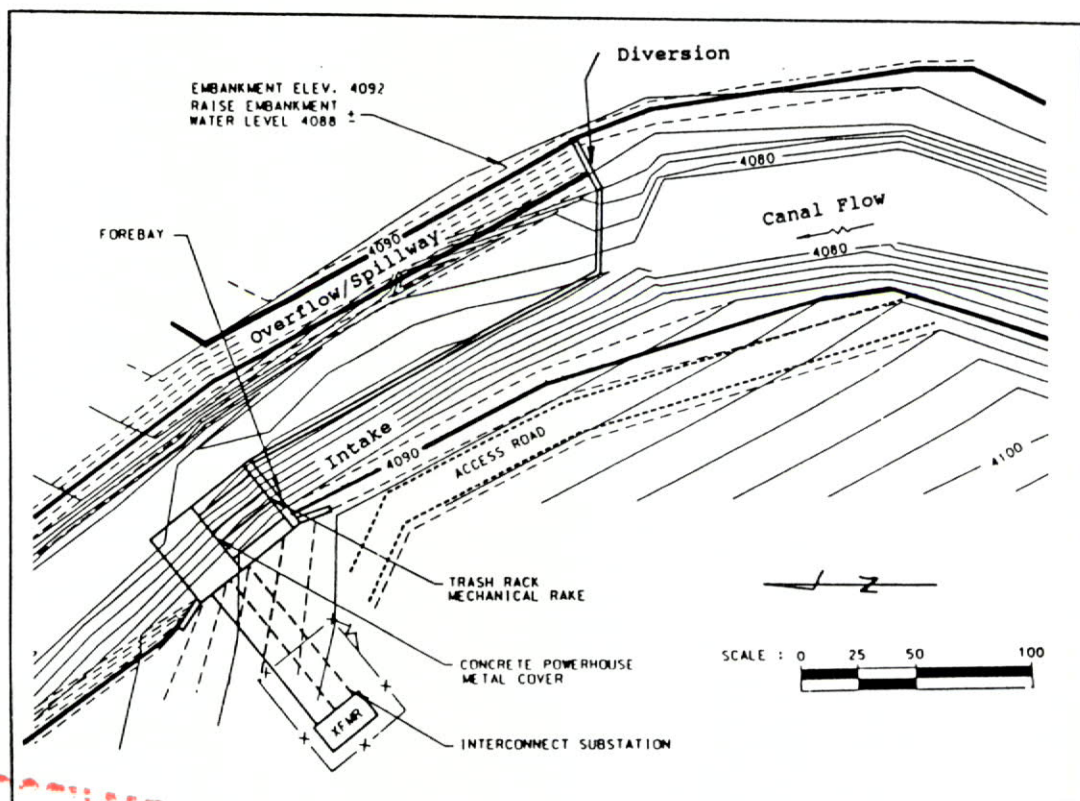


Figure 2. Location of project features for the proposed Mile 28 Hydroelectric Project, FERC Project No. 10552, Idaho (Source: Contractors Power Group, Inc. 1991).

NOV 07 1995

LEGAL NOTICE

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER
GROUP INC
C/O PO BOX 820
TWIN FALLS ID
83303-0820

Source: Snake River
tributary to Columbia
River

Diversion Pt: Lot 5
(SWNW), S28, T10S,
R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07,
T08S, R20E

The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec. 42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson,
Director

Affidavit of Publication

STATE OF IDAHO }
COUNTY OF TWIN FALLS } SS.

RECEIVED

No 25307

OCT 28 1993

I, Linda Capps McSaine, being first duly sworn upon oath, depose and say that I am Princ Clerk of the TIMES-NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Two consecutive Weeks, commencing with the issue dated October 7, 1993, and ending with the issue dated October 14, 1993.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 21 day of October in the year of 1993, before me, a Notary Public, personally appeared Linda Capps McSaine, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Janeva R. Feltman
Notary Public for Idaho
Residing at Twin Falls
My commission expires: 5/19/94

OK
MB
10-28-93

NOV 07 1995

Proof of Publication
The Post-Register

RECEIVED

OCT 22 1993

Department of Water Resources
Southern Region Office

State of Idaho, }
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for two..... consecutive weeks, first publication having been made on the 7th..... day of October....., 19. 93., last publication having been made on the 14th..... day of October....., 19. 93., and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this . 20th. . day of October....., 19. 93.

**NOTICE OF APPLICATION FOR TRUST
WATER RIGHT**

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to
Columbia River

Diversion Pt: Lot 5 (SWNW), S28,
T10S, R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec.42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson, Director
Pub: Oct 7, 14, 1993

S. Bob Bright

Susan Magowan
Notary Public

My commission expires July. 1....., 19. 97.

OK
MB
10-22-93

MICROFILMED

NOV 07 1993

B10

TRIBUNE PUBLISHING COMPANY, INC.
The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 101493 INVOICE No. L00383525
Account No. 446620 1-07124
Description 83525NOTIC
Times 2 Lines 48
Tab Lines _____

**LEGAL ADVERTISING
INVOICE**

SOLD TO:

ID DEPT OF WATER RESOURCE
222 SHOSHONE ST. EAST
TWIN FALLS
ID 83301

RECEIVED \$ 54.00
OCT 21 1993

Department of Water Resources
Southern Region Office

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

STATE OF IDAHO, ss.
County of Nez Perce

Karen J. Lewis, being duly sworn,
deposes and says, I am the Legal Clerk
of the Tribune Publishing Company, a corporation organized and existing
under and by virtue of the laws of the State of Idaho, publishers of the
LEWISTON MORNING TRIBUNE, a newspaper of general circulation
published at Lewiston, Nez Perce County, Idaho; That the said Lewiston
Morning Tribune is an established paper and has been published regular-
ly and issued regularly at least once a day for more than 21 consecutive
years next immediately preceding the first publication of this notice, and
has been so published uninterrupted for said period; that the

NOTICE OF APPLICATION FOR
attached hereto and which is made a part of this affidavit was published in
the said Lewiston Morning Tribune, 2 time(s). Publication be-
ing on 100793, or once a
WEEK for 2 consecutive WEEKS, the first
publication thereof being on the 100793, and the last pub-
lication thereof being on the 101493, and said

NOTICE OF APPLICATION FOR
was so published in the regular and entire issue of said newspaper and
not in a supplement thereof and was so published in every issue and
number of the said paper, during the period and times of publication as
set forth above.

Karen J. Lewis
SUBSCRIBED AND SWORN BEFORE ME THIS THE 18th
day of October 1993

Sheral M. Lantz
Notary Public in and for the State of Idaho,
residing at Lewiston, therein.

Commission expires June 6, 97

NOTICE OF APPLICATION FOR TRUST
WATER RIGHT

The following application has
been filed to appropriate the
public waters of the State of
Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary
to Columbia River

Diversion Pt: Lot 5 (SWNW),
S28, T10S, R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

The permit (s) will be subject
to all prior water rights.
Protests may be submitted based
on the criteria of Sec.42-203A,
Idaho Code and/or the new public
Interest criteria of Sec.
42-203C, Idaho Code. Protests
must be filed with the applicant
and with the Director, Dept. of
Water Resources, Southern
Region, 222 Shoshone Street
East, Twin Falls, ID 83301 on
or before October 25, 1993.

R. Keith Higginson, Director

Published in North Side News on
10/6 & 10/13/93; Idaho
Statesman, Post Register,
Lewiston Morning Tribune, Times
News on 10/7 & 10/14/93.

MICROFILMED

NOV 07 1995

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due

56.04

Account Number 100632		Identification NOTICE OF APPLICATION FOR TRUST WATER RIGHT	
Ordered By Mary Baldwin	P.O. Number	Rate NT	Run Dates October 7, 14, 1993
State of Idaho Department of Water Resources Southern Region 222 Shoshone Street East Twin Falls, Idaho 83301		Estimated Inches	Real Inches
		# Affidavits 1	Legal Number 6051

RECEIVED

OCT 18 1993

Department of Water Resources

Southern Region Office

LEGAL NOTICE NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC

C/O PO BOX 820

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Source: Snake River tributary to Columbia River

Diversion Pt: Lot 5 (SWNW),

S28, T10S, R21E; Jerome County.

Use: Power (1300 cfs) from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

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R. Keith Higginson
Director

Pub. October 7, 14, 1993

6051

CAROL PAYNE-CULPAN

, being duly

sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for TWO

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of OCTOBER 7, 1993

and ending with the issue of OCTOBER 14, 1993

C. Payne-Culpan

STATE OF IDAHO)

ss.

COUNTY OF ADA)

On this 14TH day of OCTOBER in the year of 1993, before me, a Notary Public, personally appeared CAROL PAYNE-CULPAN, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

R. Keith Higginson
Notary Public for Idaho

Residing at BOISE, ID

My commission expires: 11-27-93

NOTARIZED

NOV 07 1995

AFFIDAVIT of PUBLICATION

State of Idaho }
County of Jerome } ss.

RECEIVED

OCT 14 1993

Patty Nance Department of Water Resources
Southern Region Office

sworn, deposes and says that she is the printer (publisher) of the Jerome North Side News, a newspaper published every week in Jerome, County of Jerome, State of Idaho; that said newspaper has been continuously and uninterruptedly published for a period of seventy-eight consecutive weeks prior to the first publication of the annexed notice, and is a newspaper qualified to publish legal notices as provided by act of the 1919 session of the legislature of the State of Idaho, known as House Bill 145; that the annexed advertisement was published once each week for

2 consecutive issues in said newspaper proper and not in a supplement; that the date of the first publication of said advertisement was on the 6 day of October, 1993.

and the date of the last publication was on the 13 day of October, 1993.

Patty Nance
Subscribed and sworn to before me this 13th day of October, 1993.
(SEAL)

Norma We Doe
NOTARY PUBLIC

#5793/143
NORTH SIDE NEWS
Jerome, Idaho

COST OF PUBLICATION

Number of Picas per Line _____
Number of Lines in Notice _____
Number of Insertions 2x's

Lines tabular at _____ 6¢/Pica
Lines straight at \$25.30 5¢/Pica
Subsequent lines at 20.24 4¢/Pica
TOTAL COST \$45.54

NOV 07 1995

COPY OF NOTICE

(Paste Here)

Notice of Application
Trust for Water
Right

PLAINTIFF ATTORNEY

DEFENDANT

PLAINTIFF

Dept. of Water Resources
WILL TO

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to Columbia River

Diversion Pt: Lot 5 (SWNW), S28, T10S, R21E; Jerome County.

Use: Power (1300 cfs) from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

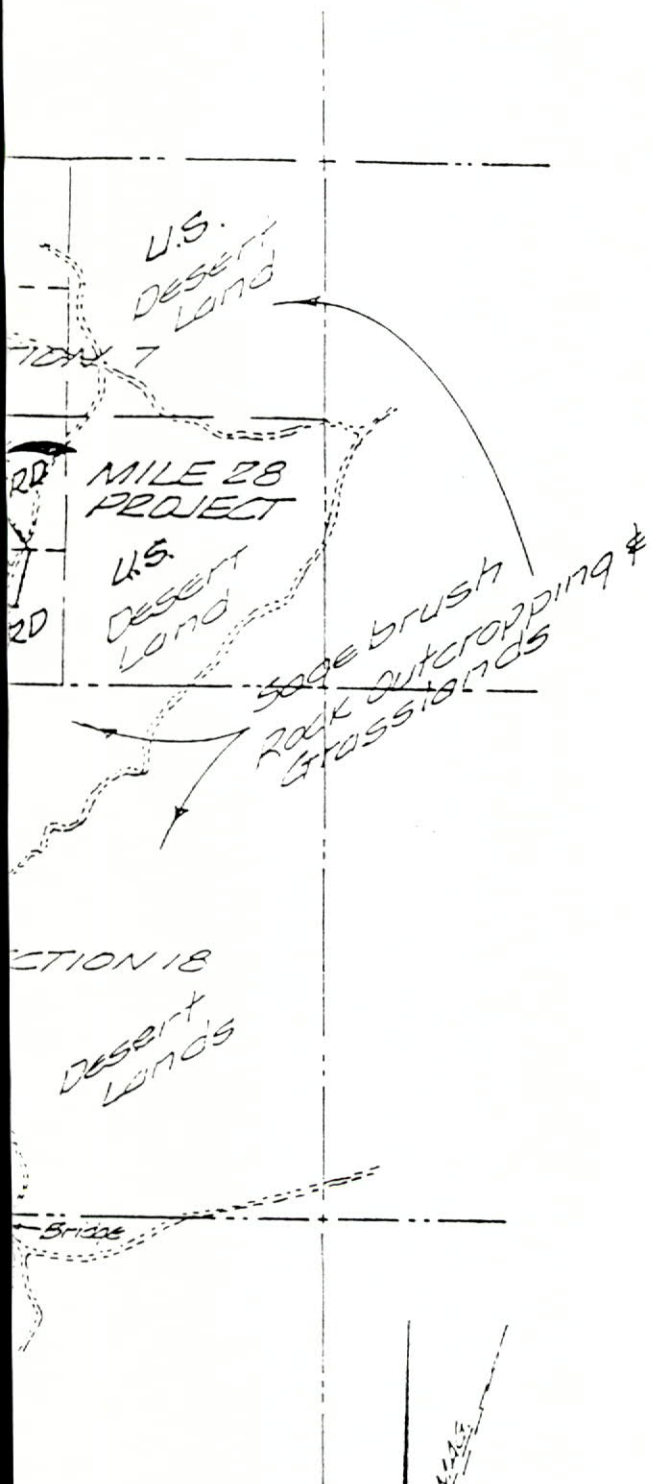
The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec.42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson, Director

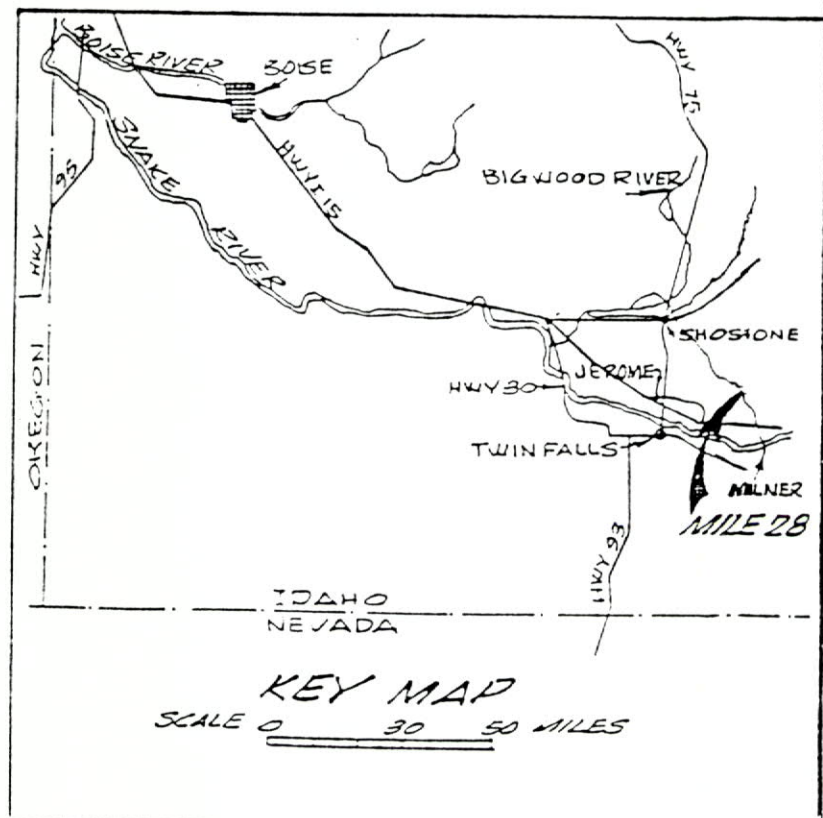
Published in North Side News on 10/6 & 10/13/93; Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News on 10/7 & 10/14/93.

OK MB
10/18/93

TBS., REDE., BM.



U.S. - United States
 AFRD - American Falls
 Reservoir District



KEY MAP
 SCALE 0 30 50 MILES

MILE 28
 WATERPOWER PROJECT

NOV 07 1935

FIGURE E-1

Jerome County, Idaho



RECEIVED

OCT 13 1995

Department of Water Resources

1. Permit No. 01-07124 Telephone No. 208-736-8255

2. Name(s) of Permit Holder(s): Contractors Power Group, Inc. aka Mile 28 Water Power Project, L.L.C.

3. Mailing Address: P.O. Box 820 Twin Falls, Idaho 83303-0820

a. Well Driller: _____ Drilling Permit Number: - - -

b. **OPTIONAL:**
 Pump Horsepower: Pressure (psi): Dynamic pumping level (ft):

5. Use(s) (as authorized by the water right permit):

Domestic (No. of households): _____ Stockwater (No. and type of stock): _____

Irrigation (No. of acres): Other: Hydroelectric Production

6. Total rate of diversion and/or volume for which proof is submitted: 1300 cfs OR acre feet

7. Measuring Device Requirement: (refer to the approval conditions on your permit and respond accordingly)
(This question is not optional. Please check either yes or no. Proofs returned not checked accordingly, will be considered incomplete)

Measuring Device: Is a measuring device required? Yes or No XX
Has the measuring device been installed? Yes or No XX

Flow Measurement Port: Is a flow measurement port required? Yes or No XX
Has the measurement port been installed? Yes or No XX

8. Fee Enclosed: \$ 600.00 (See Fee Schedule on back of the instructions for filing proof of beneficial use)

9. Person to contact to accompany the Department representative during field examination of the water system.

Name: John J. Straubhar **Telephone Number:** 208-736-8255

Address: 1201 Falls Ave. E, Suite 38, P.O. Box 820 Twin Falls, ID 83303-0820

10. The information given on this form is my true statement of the extent to which the above numbered permit has been developed and I relinquish any undeveloped portion of the permit to the State of Idaho.

Signature of permit holder: John J. Strachan, P.E. President Date: Oct. 14, 1995

(Include your title, if on behalf of company or organization)

NOV 27 1995

State of Idaho
Department of Water Resources
Permit To Appropriate Water

NO. 01-07124

Proposed Priority: September 1, 1993 Maximum Diversion Rate: 1300.00 CFS

This is to certify, that **CONTRACTORS POWER GROUP INC**
C/O PO BOX 820
TWIN FALLS ID 83303-0820
has applied for a permit to appropriate water from:

SNAKE RIVER tributary of **COLUMBIA RIVER**

and a permit is **APPROVED** for development of water as follows:

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>RATE OF DIVERSION</u>
-----------------------	----------------------	--------------------------

POWER	04/01 to 10/31	1300.00 CFS
-------	----------------	-------------

LOCATION OF POINT(S) OF DIVERSION: Lot 5(SWNW), Sec. 28, Township 10S, Range 21E
JEROME County

PLACE OF USE: POWER

TWN RGE SEC

08S 20E 7

NESW

SESW

CONDITIONS/REMARKS:

1. Proof of construction of works and application of water to beneficial use shall be submitted on or before **December 1, 1995.**
2. Subject to all prior water rights.
3. Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
4. This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.
5. The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
6. This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.
7. Use of water under this right shall be non-consumptive.

NOV 27 1993

State of Idaho
Department of Water Resources**Permit To Appropriate Water**

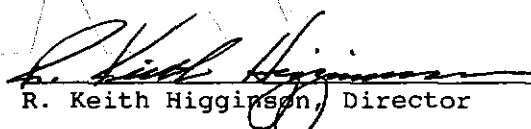
NO. 01-07124

CONDITIONS/REMARKS:

8. The diversion and use of water under this right and any license subsequently issued is subject to review by the Director on the date(s) of expiration of any license issued by the Federal Energy Regulatory Commission. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.
9. The issuance of this right in no way grants any right-of-way or easement across the land of another.
10. This permit does not convey any authority to require or demand the diversion of water into the Milner-Gooding Canal and only authorizes the use of water which has been diverted into the canal under other existing water rights.
11. This permit does not authorize changes to the existing diversion structure where the Milner-Gooding Canal diverts water from the Snake River.
12. The right holder shall either install a measuring device, or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer. This measuring condition applies at the point where water is diverted from the Milner-Gooding Canal to the power use.
13. Water used under this right shall meet Idaho Water Quality Standards and shall be returned undiminished to the canal without interfering with the operation of the canal for its primary purpose of supplying irrigation water.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code.
Witness the signature of the Director, affixed at Boise, this

27TH day of DECEMBER, 1993.


R. Keith Higginson, Director

RECORDED

NOV 07 1995

RECEIVED

Form 202
6/85

SEP 01 1993

NOV 09 1993

Department of Water Resources
STATE OF IDAHO

01-07124
Ident. No. 36-08718

Department of Water Resources
Southern Region Office

DEPARTMENT OF WATER RESOURCES
APPLICATION FOR PERMIT

To appropriate the public waters of the State of Idaho

736-8255

1. Name of applicant Contractors Power Group, Inc. Phone (208) 736-8255
Post office address ~~3507 N 3000E~~, c/o P.O. Box 820, Twin Falls, ID 83303-0820
2. Source of water supply SNAKE RIVER Milner Gooding Canal which is a tributary of COLUMBIA RIVER Milner Dam
3. Location of point of diversion is E 1/2 1/4 of SW 1/4 of NW 1/4, Govt. Lot 5
Sec. 28 Township 10S Range 21E B.M. Jerome County; additional
(Changes made 9-9-93 per telephone conv. with Jack Straubler - MTS)
points of diversion if any: NA

4. Water will be used for the following purposes:

Amount 1300 cfs for hydropower purposes from April 1 to October 31 (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)
Amount _____ for _____ purposes from _____ to _____ (both dates inclusive)
(cfs or acre-feet per annum)

5. Total quantity to be appropriated is (a) 1300 cfs and/or (b) _____
cubic feet per second acre feet per annum

6. Proposed diverting works:

- a. Description of ditches, flumes, pumps, headgates, etc. a concrete diversion comprised of a power house, overflow weir, emergency radial gate, trash rack, trash rake, intake structure to be installed in existing canal. Forebay, bypass reach, tailrace to be constructed in existing Milner-Gooding canal. Transmission line to interconnect with IPCo system southeast 3 1/2 miles from project site.
b. Height of storage dam NA feet; active reservoir capacity NA acre-feet; total reservoir capacity NA acre-feet; period of year when water will be diverted to storage: NA to NA inclusive.
c. Proposed well diameter is NA inches; proposed depth of well is NA feet.
d. Is ground water with a temperature of greater than 90°F being sought? NA

7. Time required for the completion of the works and application of the water to the proposed beneficial use is 2 years (minimum 1 year).

NOV 07 1995

8. Description of proposed uses (irrigation only, go to item 9):

- a. Hydropower; show total feet of head and proposed capacity in KW. 16 feet head, 1500 KW
- b. Stockwatering; list number and kind of livestock. NA
- c. Municipal; show name of municipality. NA
- d. Domestic; show number of households. NA
- e. Other; describe fully. nonconsumptive use

9. Description of place of use:

- a. If water is for irrigation, indicate acreage in each subdivision in the tabulation below.
- b. If water is used for other purposes, place a symbol of the use (example: D for Domestic) in the corresponding place of use below. See instructions for standard symbols.

TWP	RANGE	SEC.	NE¼				NW¼				SW¼				SE¼				TOTALS
			NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	NE¼	NW¼	SW¼	SE¼	
8 S	20 E	7									P			P					

Total number of acres to be irrigated NA

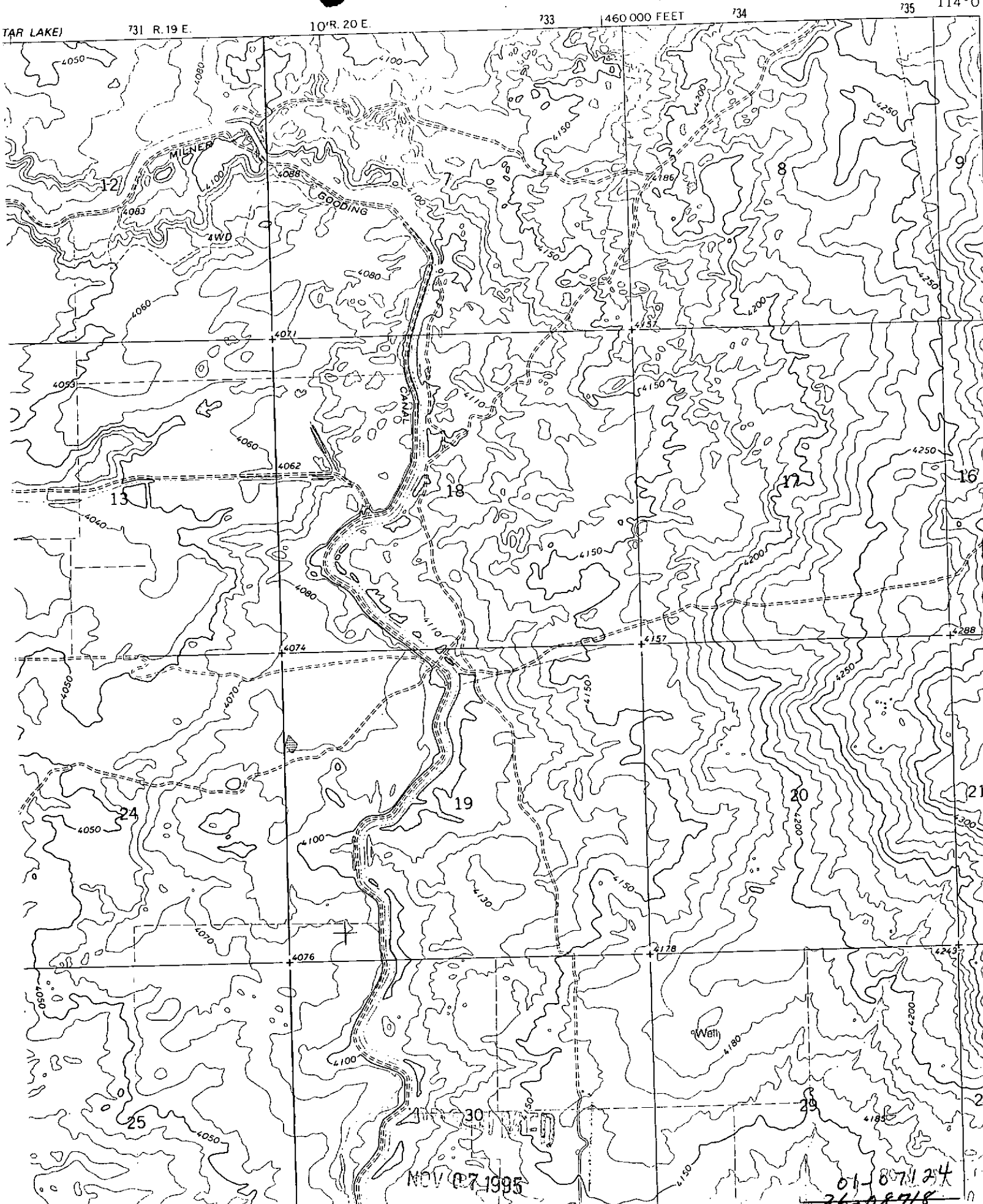
10. Describe any other water rights used for the same purposes as described above. NA

11. a. Who owns the property at the point of diversion? US Bureau of Reclamation
- b. Who owns the land to be irrigated or place of use?
- c. If the property is owned by a person other than the applicant, describe the arrangement enabling the applicant to make this filing. site agreement between applicant and USBOR, right-of-way easement between IPCo and applicant for transmission line.
12. Remarks: The project will be constructed on lands owned by the US Bureau of Reclamation and operated by the American Falls Reservoir District No. 2. Contractors Power Group, Inc. has a Site Agreement and R.O.W. agreements with USBOR.

NOV 07 1995

01-07124
36-49718

HUNT QUADRANGLE
IDAHO-JEROME CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



40

Sec. 19
64372

Sec. 20
640

Sec. 21
640

Sec. 22
59035

30

N. 0.2 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

60.48

60.20

WEST

7992

S. 89.45 W.

N. 89.56 E.

30.00

18.15

24.70

31.70

26.30

43.40

WEST

7992

S. 89.45 W.

N. 89.56 E.

30.00

18.15

24.70

31.70

10.60

54.00

57.00

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

60.67

54.00

57.00

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

51.90

39.40

30.85

36.60

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

57.10

80

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

80.88

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

50

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

Sec. 31
64345

Sec. 32
640

Sec. 33
640

Sec. 34
640

80

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

81.62

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

81.62

N. 0.2 W.

N. 0.3 W.

N. 0.3 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

N. 0.2 W.

Sec. 31 64345 Sec. 32 640 Sec. 33 640 Sec. 34 640

WEST 8000 S. 89.55 W. 7994 S. 89.56 W. 7994

40085

By Whose Survey

Date of Survey

Amount of Survey

How Surveyed

Warranted

Actual 13th of 1897

07 21

Mean 0

1897

The map is by

NOV 07 1995

01-07124
36-08718



NOV 07 1995

01-07124
36-08718

A hand-drawn map on a grid background. The map is oriented with North at the top. The grid lines are labeled with section and township coordinates. The top horizontal line is labeled 'R19E' on the left and 'R20E' on the right. The left vertical line is labeled 'T8S'. A dashed line represents the 'MILNER-GOODING CANAL', which flows from the top left towards the bottom right. A solid line outlines the 'PROJECT SITE & LIMITS', which is a small area on the canal. A 'POWER PLANT' is indicated by a small circle within the project site. The text 'MILE 28 WATER POWER PROJECT JEROME COUNTY, IDAHO (AT CANAL MILE 28)' is written in the bottom left corner. The number '6' is written in the upper right quadrant, and the number '18' is written in the lower right quadrant.

01-07124

Received by DJ Date 9/1/93 Time 1:55 Preliminary check by MTS
Fee \$ 4025.00 Received by DJ # 3016161 Date 9/1/93
Publication prepared by MB Date 9/28/93 Published in North Idaho News, Times
Reggie Post Register, ID
Statesman, Lewiston Trib
Publication approved MBaldwin Date 10/18/93

ACTION OF THE DIRECTOR, DEPARTMENT OF WATER RESOURCES

This is to certify that I have examined Application for Permit to appropriate the public waters of the State of Idaho No. _____, and said application is hereby _____.

1. Approval of said application is subject to the following limitations and conditions:

a. SUBJECT TO ALL PRIOR WATER RIGHTS.

b. Proof of construction of works and application of water to beneficial use shall be submitted on or before _____, 19____.

c. The rate of diversion, if water is to be used for irrigation under this permit, when combined with all other water rights for the same land shall not exceed 0.02 cubic feet per second for each acre of land.

d. The water right acquired under this permit if for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against any future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.

e. Other:

RECEIVED

OCT 07 1995

61-07124
36-08718

7

ANALYSIS SHEET
FOR
PROOF OF BENEFICIAL USE

Permit No. 01-07124

Reviewed by [Signature]

Date 10-25-95

GENERAL CONSIDERATIONS

YLS Name same as permit?

YLS Address same as permit?

yes Proof timely received?
If not, complete calculation below.

TYPES OF USE

Hydro

Correct Uses? yes

SOURCE OF WATER

X Surface water source

 Ground water source

 Drilling permit required?

 Copy in the file? Drilling Permit No.

 Amount paid for permit

 Well log in the file?

 Correct?

LICENSE EXAMINATION FEE

yes Required?

600.00 Amount Submitted

yes Correct?

MEASURING DEVICE

no Required?

1 Installed?

 Waiver requested?

PRIORITY CALCULATION

Date proof received

Date proof due

No. of days late

Priority Date

New Priority Date

<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> </u>

DEFICIENCIES OR ACTION ITEMS

Proof acceptable

DATA ENTRY

New Address X

Proof Made 10-13-95

October 26, 1995

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 833030820

PROOF ACKNOWLEDGMENT LETTER

RE: PERMIT NO. 01-07124

Dear Permit Holder:

The department acknowledges receipt of the proof of beneficial use form submitted for the above referenced permit. The next step in the process of developing a water right is for the department to conduct a field examination to determine and confirm the use being made of the water.

If you have questions concerning this matter, please feel free to contact the SOUTHERN Regional Office in Twin Falls at (208)736-3033.

Sincerely,

JULIE L. YARBROUGH
Senior Secretary

c: IDWR - Region

RECEIVED

NOV 07 1995

September 30, 1995

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 833030820

PROOF DUE NOTICE

RE: PERMIT NO. 01-07124

Dear Permit Holder:

One of the conditions of approval of the above referenced water permit was that proof of the extent of your beneficial use must be submitted to this office on or before December 1, 1995. (See last page of your approved permit or your last approved extension request.) Enclosed is a form which when accompanied by the license examination fee or a complete field examination report prepared by a certified water right examiner may be used to submit the required proof.

If you have not fully completed your project, and you or a previous owner of this permit have not received a prior extension of time, you may request an extension of time if the delay is for reasonable cause as provided in Section 42-204, Idaho Code. If you have been prevented from proceeding by a governmental agency or by litigation which might bring title to the water in question, more than one extension of time can be granted. An extension of time request form is enclosed for your convenience.

Either an acceptable proof of beneficial use submittal or an acceptable request for an extension of time must be received by this department on or before the above described proof due date. If neither is received, the department will send you a lapse notice. Within sixty (60) days of the mailing of the lapse notice, the permit will no longer be of any force nor effect.

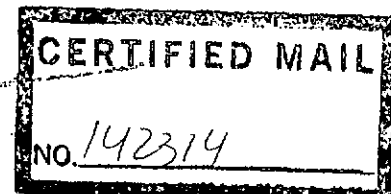
SINCERELY,

JULIE L. YARBROUGH
Senior Secretary

Enclosures

RECORDED

NOV 07 1995





State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000

Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

January 10, 1994

John J. Straubhar
Contractor's Power Group, Inc.
2235 South Lincoln
Jerome, ID 83338

RE: PERMIT NO. 01-07124

Dear Mr. Straubhar:

I have reviewed your letter dated January 7, 1994 in connection with Condition of Approval No. 8 for the above referenced permit.

Condition of Approval No. 8 is based on the provisions of Section 42-203B, paragraphs (6) and (7), Idaho Code. The department's intent is that the two sentences in the condition are tied together and that the Director's public interest review of a hydropower permit would not occur prior to the first expiration date shown in the FERC license. This review could be conducted, however, prior to any extension of the original expiration date on a FERC license.

I hope this clarifies the issue for you. If you have additional questions, please contact the department.

Sincerely,

NORMAN C. YOUNG
Administrator

c: IDWR - S. Region

RECORDED

NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000

Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

December 28, 1993

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

PERMIT APPROVAL NOTICE

RE: PERMIT NO. 01-07124

Dear Permit Holder(s):

Enclosed is a copy of your approved application for permit. Please be sure to thoroughly review the "CONDITIONS/REMARKS:" listing on the permit.

As a permit owner you must commence the excavation or construction of the diverting works within one year of the date the permit was issued, and you must proceed diligently until the project is completed. The date shown under condition no. 1 is the date when the project must be completed. You will receive a "Proof Due Notice" from this Department approximately 60 days prior to the completion date requiring you to file either a Proof of Beneficial Use form stating that the project has been completed or file a Request for an Extension of Time in which to file the proof statement.

Please note that the Department has not evaluated the plans for structural or hydraulic adequacy.

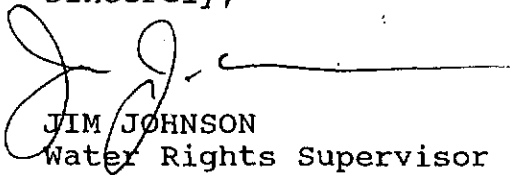
Please be advised that your application for permit has been approved because we no longer wait for approval from the Federal Energy Regulatory Commission (FERC) or the Idaho Public Utilities Commission (PUC) when the flow is less than 25 cfs and the power to be generated is less than 500 hp. However, you may still need to obtain approval from FERC and/or PUC.

Please note the special condition requiring you to install a measuring device, or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer. This measuring condition applies at the point where water is diverted from the Milner-Gooding canal to the power use.

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NOV 07 1995

Also please note the special condition requiring that water used under this right will meet Idaho Water Quality Standards. This condition also requires that this water shall be returned undiminished to the canal without interfering with the operation of the canal for its primary purpose of supplying irrigation water.

Sincerely,



JIM JOHNSON
Water Rights Supervisor

JJ:dc

Enclosure

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NOV 07 1995

Contractor's Power Group, Inc.

2235 South Lincoln
Jerome, Idaho 83338

Telephone (208) 324-5563
Fax (208) 324-7114

December 3, 1993

RECEIVED

DEC 07 1993

Department of Water Resources

L. Glen Saxton, Chief
Water Allocation Bureau
State of Idaho
Department of Water Resources
1301 North Orchard Avenue
Boise, Idaho 83720-9000

Re: Application for Permit No. 01-07124

Dear Mrs. Saxton:

It is our understanding that the Department of Water Resources is conducting a final review of the above referenced application and supporting data in the water right file. At your request, we are submitting the following information to facilitate the review of the application:

1. Plans and specifications for the proposed facility.
2. A copy of the Federal Energy Regulatory Commission Minor License.
3. Financial resource information relative to funding for the project i.e., a letter from Key Bank of Idaho and financial statements of the principals.

We need to have the application processed as soon as possible to facilitate project financing. I would appreciate it if you would call and advise me of your schedule. I can be reached at 736-8255.

If you have questions, please give me a call.

Sincerely,

John J. Straubhaar, P.E.

John J. Straubhaar, P.E.
President

NOV 07 1995

Key Bank of Idaho

A KeyCorp Bank

Commercial Banking Center
Twin Falls Office
P.O. Box 1405
103 Main Ave. East
Twin Falls, Idaho 83301
(208) 734-6000



RECEIVED

DEC 21 1993

Department of Water Resources

December 2, 1993

Idaho Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, Id 83720

RE: Mile 28 Hydroelectric Project
Jerome County, Idaho

Gentlemen:

Contractor's Power Group, Inc., an Idaho corporation ("Assignor") owns the above-referenced hydroelectric project located in Jerome County, Idaho (the "Project"). In connection with the operation to the Project, Assignor has obtained the following water permits from the Idaho Department of Water Resources (the "Department"): Permit No. 01-07124 and all other applications, permits, licenses, and water rights of Assignor related to the Project (collectively the "Permits"). Assignor has also received certification from the Idaho Department of Health and Welfare, Division of Environmental Quality (the "DEQ") for water quality protection, as set forth more particularly in the July 6, 1992, letter from the DEQ.

Key Bank of Idaho, ("Key Bank") is making a loan to Assignor for the purpose of financing the construction of the Project (the "Loan") and, in connection with the Loan, Key Bank is requiring that Assignor execute a Collateral Assignment of Water Rights, pursuant to which Assignor is collaterally assigning the Permits to Key Bank. A fully executed and acknowledged copy of the Collateral Assignment of Water Rights is enclosed with this letter for filing with the Department pursuant to the requirements of Statute 42-207 of the Idaho Code.

Please have the Director of the Department acknowledge the filing of the enclosed Collateral Assignment of Water Rights with the Department, pursuant to Idaho Code Statute 42-207. Also, please advise us in writing, if any additional proof of compliance with Idaho Code Statutes 42-206 and 42-207 will be necessary. In the event any license(s) will be issued in connection with the Permits, Key Bank hereby requests that any such license(s) be issued in the name of Key Bank, pursuant to the terms of the enclosed Assignment.

RECORDED

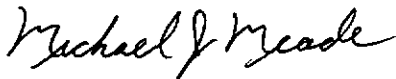
NOV 07 1995

Idaho Department of Water Resources
December 2, 1993
Page 2

We sincerely appreciate your assistance and cooperation in this matter.

Very truly yours,

KEY BANK OF IDAHO



Michael J. Meade
Vice President & Manager

MJM:pd

Compliance with Idaho Code Statue 42-206 and 42-207 is hereby acknowledged this day of _____, 1993.

Director of the State of Idaho
Department of Water Resources

MICROFILMED
NOV 07 1995

Key Bank of Idaho

A KeyCorp Bank



Commercial Banking Center

Twin Falls Office

P.O. Box 1405

103 Main Ave. East

Twin Falls, Idaho 83301

(208) 734-6000

December 2, 1993

Idaho Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, Id 83720

RE: Mile 28 Hydroelectric Project
Jerome County, Idaho

Gentlemen:

Contractor's Power Group, Inc., an Idaho corporation ("Assignor") owns the above-referenced hydroelectric project located in Jerome County, Idaho (the "Project"). In connection with the operation to the Project, Assignor has obtained the following water permits from the Idaho Department of Water Resources (the "Department"): Permit No. 36-08718 and all other applications, permits, licenses, and water rights of Assignor related to the Project (collectively the "Permits"). Assignor has also received certification from the Idaho Department of Health and Welfare, Division of Environmental Quality (the "DEQ") for water quality protection, as set forth more particularly in the July 6, 1992, letter from the DEQ.

Key Bank of Idaho, ("Key Bank") is making a loan to Assignor for the purpose of financing the construction of the Project (the "Loan") and, in connection with the Loan, Key Bank is requiring that Assignor execute a Collateral Assignment of Water Rights, pursuant to which Assignor is collaterally assigning the Permits to Key Bank. A fully executed and acknowledged copy of the Collateral Assignment of Water Rights is enclosed with this letter for filing with the Department pursuant to the requirements of Statue 42-207 of the Idaho Code.

Please have the Director of the Department acknowledge the filing of the enclosed Collateral Assignment of Water Rights with the Department, pursuant to Idaho Code Statue 42-207. Also, please advise us in writing, if any additional proof of compliance with Idaho Code Statues 42-206 and 42-207 will be necessary. In the event any license(s) will be issued in connection with the Permits, Key Bank hereby requests that any such license(s) be issued in the name of Key Bank, pursuant to the terms of the enclosed Assignment.

NOV 07 1995

Idaho Department of Water Resources
December 2, 1993
Page 2

We sincerely appreciate your assistance and cooperation in this matter.

Very truly yours,

KEY BANK OF IDAHO



Michael J. Meade
Vice President & Manager

MJM:pd

Compliance with Idaho Code Statute 42-206 and 42-207 is hereby acknowledged this day of _____, 1993.

Director of the State of Idaho
Department of Water Resources

RECEIVED
NOV 07 1995

INDIVIDUAL OR PARTNERSHIP
FINANCIAL STATEMENT

(04-90) INV.0819

KEY BANK OF IDAHO
COMMERCIAL CREDIT

CUSTOMER NAME(s) Breck and Desiree Glassinger		OCCUPATION Electrical Contractor/Engineer		SOCIAL SECURITY NUMBER 519-70-0067	
ADDRESS 838 East Rd		YEARS AT PRESENT LOCATION 6	PHONE 324-8340	BIRTHDATE 9-2-55	
Jerome, ID 83338		NUMBER OF DEPENDENTS 1	MARRIED ☒ UNMARRIED ☐ SEPARATED ☐		
TO KEY BANK OF IDAHO, Twin Falls, CBC BRANCH					
For the purpose of obtaining credit with you from time to time, I/we herewith submit the following as being a fair and accurate statement of my/our financial condition at the close of business on the 17 day of September , 19 93					

ASSETS (What you own)		
Cash on Hand and in	<u>First Security</u>	2,000
Time Deposits and Savings Accounts		9,000
Notes Receivable (Due in 1 year-Schedule 1)		
Trade Accounts Receivable		
	Potato Rent due 1-1-94	4,500
Other Accounts Receivable (Describe)		
	Brecks IRA	34,505
	Desiree IRA	11,331
Merchandise Inventory		
Cash Value Life Insurance		1,966
Listed Securities (Schedule 4)		
Other Current Assets (Describe)		
	Caribou Profit Sharing	65,000
TOTAL CURRENT ASSETS		128,302
Real Estate (Schedule 3)		285,000
Office Furniture and Equipment		
Investments (Describe)		
Unlisted Securities (Book Value)		665,000
Notes Receivable (over 1 year-Schedule 1)		
Automobiles and Trucks		55,000
Personal Property (Describe)		60,000
Other Assets (Describe)		
	Gun Collection	15,000
	Jerome Partners	130,000
TOTAL ASSETS		1,338,302

LIABILITIES (What you owe)		
Notes Payable to This Bank		
Notes Payable to Others (Describe)		
Trade Accounts Payable		
Other Accounts Payable (Describe)		
Accrued Expenses		
Taxes Due		
Unpaid Interest		
Contracts Payable (Due in 1 year-Schedule 2)		6,600
Mortgages (Due in 1 year-Schedule 3)		
Loans Against Life Insurance Policy		
Other Current Liabilities (Describe)		
TOTAL CURRENT LIABILITIES		6,600
Mortgages (Schedule 3)		31,500
Contracts Payable (over 1 year-Schedule 2)		
Other Liabilities (Describe)		
TOTAL LIABILITIES		38,100
NET WORTH		1,300,202
(Total Assets minus Total Liabilities)		
TOTAL LIABILITIES & NET WORTH		1,338,302

NOV 07 1995

NOTES AND CONTRACTS RECEIVABLE (Schedule 1)						
From (Name)	Date of Obligation	Collateral Description	Balance		Payment Terms	Due Date
			Original	Present		
TOTAL						

Due To (Name)	Date of Obligation	Collateral Description	Balance		Payment Terms	Due Date
			Original	Present		
TOTAL						

Type & Location of Property	Date Acquired	Title in Name of	Income Per Month	Original Cost	Market Value	Mortgages		Holder of Lien
						Present Balance	Payment Terms	
Residence + 40 Acres	1988	Self	-0-	75,000	150,000	-0-	-0-	None
Cabin (Featherville)	1991	Self	-0-	75,000	100,000	38,100	550mth	10 yr esc
6.7 Acre Jerome	1993	Self	1,000	35,000	35,000	-0-	-0-	None
Ind. Park								
TOTAL								

No. of Shares/Bonds	Description	Stock/Bond Price	If Pledged—To Whom	Market Value
100 100%	Caribou Construction Inc.			550,000
50%	Contractors Power Group Inc.			115,000
TOTAL				665,000

Contingent Liability: As Endorser \$ _____; As Guarantor \$ 300K; Other for Caribou Construction Inc's
Life Insurance Carried 1. Allied \$ 100,000, Beneficiary Desiree Glassinger
2. Allied \$ 100,000, Beneficiary Caribou Construction
Are there any suits pending against you? No ☒ Yes ☐ Have you ever filed Bankruptcy? No ☒ Yes ☐
Fire Insurance: Buildings \$ Market Value Extended Coverage? _____ Public Liability \$ 5,000,000

Salary \$ 120,000 /yr Caribou Construction

Bonus or Commissions _____

Dividends 12,000/yr Jerome Partners

Real Estate Income 18,000/yr Caribou Construction & Glassinger Farm

NOTICE: You may include income based on alimony, child support, or maintenance payments, but you are under no obligation to do so. If you do rely on income derived in whole or in part from alimony, child support, or maintenance payments, information concerning your spouse and/or former spouse may be required.

Other Income _____

Total Income \$ 150,000/yr

NOV 07 1995

Date 9/21/93

Applicant Signature

CONFIDENTIAL
**Consulting Engineer and
Project Management**
From: John J. Straubhar
Address 3397 Highlawn Drive
To: First Security (Branch)
**P. O. Box 820 (business address)
Twin Falls, Id 83303-0820**
Business or Borrower Mailing Address (if different than above)

For the purpose of procuring credit from time to time, I (we) furnish you with the following statement, which fully and truly sets forth my (our) financial condition on the 17th day of September, 19 93, which statement you can consider as continuing to be full and accurate unless notice of change is given to you. In consideration of the granting of such credit, I (we) agree that if at any time I (we) stop payment or become insolvent, or commit an Act of Bankruptcy, or if any of the representations made below prove to be untrue, or if I (we) fail to notify you of any material change in my (our) financial condition, then and in either such case all my (our) obligations held by you shall, at your option, immediately become due and payable without demand or notice.

ASSETS		AMOUNT	LIABILITIES		AMOUNT
CURRENT:			CURRENT (Payable within one year):		
Cash on hand		23,700	Notes payable to this bank (Schedule D)		10,000
Checking, savings in First Security Bank		2,300	Notes payable to other banks (Schedule D)		12,500
Checking or savings in other banks			Notes payable to others (Schedule D)		NA
Stocks and bonds - listed (Schedule A)		44,000	Credit card debt		NA
Inventories (Business)			Real estate mortgages and contracts (Schedule B, amount due within one year)		
Accounts receivable (Schedule C)		32,000	Due to relatives (Schedule D)		
Notes and contracts receivable (Schedule C amount due within one year)		239,500	Instalment purchases (Schedule D)		1000
Other current assets (Describe)			Other accounts payable (Schedule D)		NA
Cash surrender value life insurance			Taxes payable		
TOTAL CURRENT ASSETS		341,500	Other current liabilities (Describe)		
Noncurrent:			TOTAL CURRENT LIABILITIES		23,500
Stocks and bonds—unlisted (Schedule A)		471,000	Noncurrent (Payable after one year):		
Real estate and buildings (Schedule B)		532,500	Real estate mortgages and contracts (Schedule B, amount due after one year) ..		365,000
Machinery and equipment (deprec. value)			Notes and contracts (Schedule D, amount due after one year) ..		
Furniture, fixtures and personal property		28,000	Other liabilities (Describe) ..auto loans.		15,000
Automobiles and trucks		24,000			
BRF & S&V Builders		96,000			
Notes and contracts receivable (Schedule C amount due after one year)		269,000	Loans against life insurance policies		NA
Other business interests (Schedule E)					
Other assets - (Describe) Airplane, TF Flyers membership		1,500	TOTAL LIABILITIES		403,500
Retirement Accounts (Describe) ..IRA.....		11,500	NET WORTH		
			(Total assets minus total liabilities)		1,371,500
TOTAL ASSETS		1,775,000	TOTAL LIABILITIES AND NET WORTH		1,775,000

ANNUAL INCOME

Salary		80,000	
Securities Income		15,000	
Rental Income Gross 57,600		12,000	Net
Other Income (Describe)			
1. Director & Manage-			
2. n F -		800	

Marital status (Do not check any of these boxes if you are applying for individual unsecured credit and you are not living in or relying upon assets located in a community property state).

☒ Married ☐ Unmarried ☐ Separated
 Number of dependents 1 Age(s) 54
 Do you have a will? Yes
 Last filing of IRS Return 1992
 Liability as co-borrower or guarantor for others \$ 50,000

Number of Shares	Description—Rate—Matur	In Name of	Where Traded	Present Market Value	Cost	Are these Pledged? To Whom?
Variable	Shearson - Lehman	Straubhar	NYSE	44,000	39,000	NA
100	Albertsons S.	Straubhar	NYSE	3,000	2,400	NA
251	Shorock Hydro	Straubhar	-----	215,000		NA
1	Shoshone Hydro L.P.	Straubhar	-----	86,000		NA
1/2	RKT Lmtd Partnership	Straubhar	-----	30,000		NA
1/2	Mi28 Water Power Prjt	Straubhar	-----	130,000		NA
1/6	Ryegrass Power Project	Straubhar	-----	10,000		NA

Schedule B

REAL ESTATE

Note: If taxes are delinquent on specific parcel, please show amount and year(s).

Type and Location of Property	Date Acquired	Original Cost	Title in Name of	Income Per Month	Market Value	Mortgages			Holder of Lien
						Present Balance	Payment Terms	Int. Rate	
2 4-plexes	1986	250,000	J.J.S.	3,600	290,000	201,000	2300	9%	Troy-Nichols
Lot- Kethcum	2/92	100,000	J.J.S.	---	82,500	44,000	620/mo	8%	Peter Bedford
(Partnership - 50%) - House -			D.O'Day						
Highlawn Dr	10/92	154,000	J.J.S.	----	160,000	120,000	945/mo		1st Federal

Schedule C

NOTES, CONTRACTS AND ACCOUNTS RECEIVABLE

Due From (Name)	Date of Obligation	Balance			Payment Terms	Due Date	Description of Collateral If Any
		Original	Present	Int. Rate			
JUB Engineers	1986	80,000	50,000	8%	2630/mo	until paid	unsecured
Auger Falls	1990		80,000	10%	in full	12/93	Hydroelectric project
Auger Falls	1990		80,000	10%	in full	10/94	Hydroelectric project
Land Paymnt-RKT	1990		9,000	10%	in full	12/93	Hydroelectric project
Land Paymnt-RKT	1990		9,000	10%	in full	5/94	Hydroelectric project
Land pymnt-Shordck	1990		30,000	10%	in full	12/93	Hydroelectric project
Land pymnt-Shordck	1990		30,000	10%	in full	10/94	Hydroelectric project

See Attached

Schedule D

NOTES, CONTRACTS AND ACCOUNTS PAYABLE

Due to (Name)	Date of Obligation	Balance			Payment Terms	Due Date	Description of Collateral If Any
		Original	Present	Int. Rate			
1st Security	2/92	9,500	8,000		324/mo	2/95	Ford Explorer
1st Security	2/92	8,300	7,000		258/mo	2/95	Suburu Station Wagon

Schedule E

OTHER BUSINESS INTERESTS

Business Name	Percent of Ownership	Equity Position	Personal Guaranty
S&V Builders	50%	12,000	NONE
BRF Lmtd Partnership	8%	84,000	\$35,000

Insurance Coverage Three term insurance policies - \$250,000

Building equipment inventory \$ 150,000

Ke... NA

500,000

Schedule C (continued)

Due From	Date of Obligation	Balance	Int. Rate	Due Date	Description of Collateral
	1992	20,500	8%	int. only 11/93	Lot in Hailey
Scott Straubhar	1993	3,000	10%	9/94	

RECORDED

NOV 07 1995

INDIVIDUAL OR PARTNERSHIP
FINANCIAL STATEMENT

(04-90) INV.0819

KEY BANK OF IDAHO
COMMERCIAL CREDIT

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Jerome, ID 83338	NUMBER OF DEPENDENTS 1	MARRIED ☒ UNMARRIED ☐ SEPARATED ☐	
TO KEY BANK OF IDAHO, <u>Twin Falls, CBC</u> BRANCH			
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TOTAL CURRENT ASSETS		128,302
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Office Furniture and Equipment		
Investments (Describe)		
Unlisted Securities (Book Value)		665,000
Notes Receivable (over 1 year-Schedule 1)		
Automobiles and Trucks		55,000
Personal Property (Describe)		60,000
Other Assets (Describe)		
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	Jerome Partners	130,000
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Notes Payable to This Bank		
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Unpaid Interest		
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Mortgages (Due in 1 year-Schedule 3)		
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Other Current Liabilities (Describe)		
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Other Liabilities (Describe)		
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TOTAL						

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						Present Balance	Payment Terms	
Residence + 40 Acres	1988	Self	-0-	75,000	150,000	-0-	-0-	None
Cabin (Featherville)	1991	Self	-0-	75,000	100,000	38,100	550mth	10-yr es
6.7 Acre Jerome Ind. Park	1993	Self	1,000	35,000	35,000	-0-	-0-	None
TOTAL								

No. of Shares/Bonds	Description	Stock/Bond Price	If Pledged—To Whom	Market Value
100 100%	Caribou Construction Inc.			550,000
50%	Contractors Power Group Inc.			115,000
TOTAL				665,000

Contingent Liability: As Endorser \$ _____; As Guarantor \$ 300K; Other for Caribou Construction Inc.
Life Insurance Carried 1. Allied, \$ 100,000, Beneficiary Desiree Glassinger
2. Allied, \$ 100,000, Beneficiary Caribou Construction
Are there any suits pending against you? No ☒ Yes ☐ Have you ever filed Bankruptcy? No ☒ Yes ☐
Fire Insurance: Buildings \$ Market Value Extended Coverage? _____ Public Liability \$ 5,000,000

Salary \$	120,000 /yr	Caribou Construction
Bonus or Commissions		
Dividends	12,000/yr	Jerome Partners
Real Estate Income	18,000/yr	Caribou Construction & Glassinger Farm

NOTICE: You may include income based on alimony, child support, or maintenance payments, but you are under no obligation to do so. If you do rely on income derived in whole or in part from alimony, child support, or maintenance payments, information concerning your spouse and/or former spouse may be required.

Other Income _____

Total Income \$ 150,000/yr

NOV 07 1995

Applicant Signature

NOV 07 1995

Key Bank of Idaho

A KeyCorp Bank

Commercial Banking Center
Twin Falls Office
P.O. Box 1405
103 Main Ave. East
Twin Falls, Idaho 83301
(208) 734-6000



December 2, 1993

Idaho Department of Water Resources
1301 North Orchard Street
Statehouse Mail
Boise, Id 83720

RE: Mile 28 Hydroelectric Project
Jerome County, Idaho

Gentlemen:

Contractor's Power Group, Inc., an Idaho corporation ("Assignor") owns the above-referenced hydroelectric project located in Jerome County, Idaho (the "Project"). In connection with the operation to the Project, Assignor has obtained the following water permits from the Idaho Department of Water Resources (the "Department"): Permit No. 36-08718 and all other applications, permits, licenses, and water rights of Assignor related to the Project (collectively the "Permits"). Assignor has also received certification from the Idaho Department of Health and Welfare, Division of Environmental Quality (the "DEQ") for water quality protection, as set forth more particularly in the July 6, 1992, letter from the DEQ.

Key Bank of Idaho, ("Key Bank") is making a loan to Assignor for the purpose of financing the construction of the Project (the "Loan") and, in connection with the Loan, Key Bank is requiring that Assignor execute a Collateral Assignment of Water Rights, pursuant to which Assignor is collaterally assigning the Permits to Key Bank. A fully executed and acknowledged copy of the Collateral Assignment of Water Rights is enclosed with this letter for filing with the Department pursuant to the requirements of Statue 42-207 of the Idaho Code.

Please have the Director of the Department acknowledge the filing of the enclosed Collateral Assignment of Water Rights with the Department, pursuant to Idaho Code Statue 42-207. Also, please advise us in writing, if any additional proof of compliance with Idaho Code Statues 42-206 and 42-207 will be necessary. In the event any license(s) will be issued in connection with the Permits, Key Bank hereby requests that any such license(s) be issued in the name of Key Bank, pursuant to the terms of the enclosed Assignment.

MICROFILMED

NOV 07 1993

Idaho Department of Water Resources
December 2, 1993
Page 2

We sincerely appreciate your assistance and cooperation in this matter.

Very truly yours,

KEY BANK OF IDAHO



Michael J. Meade
Vice President & Manager

MJM:pd

Compliance with Idaho Code Statue 42-206 and 42-207 is hereby acknowledged this day of _____, 1993.

Director of the State of Idaho
Department of Water Resources

MICROFILMED

NOV 07 1995

Key Bank of Idaho

A KeyCorp Bank

Commercial Banking Center
Twin Falls Office
P.O. Box 1405
103 Main Ave. East
Twin Falls, Idaho 83301
(208) 734-6000



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December 2, 1993
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KEY BANK OF IDAHO



Michael J. Meade
Vice President & Manager

MJM:pd

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Director of the State of Idaho
Department of Water Resources

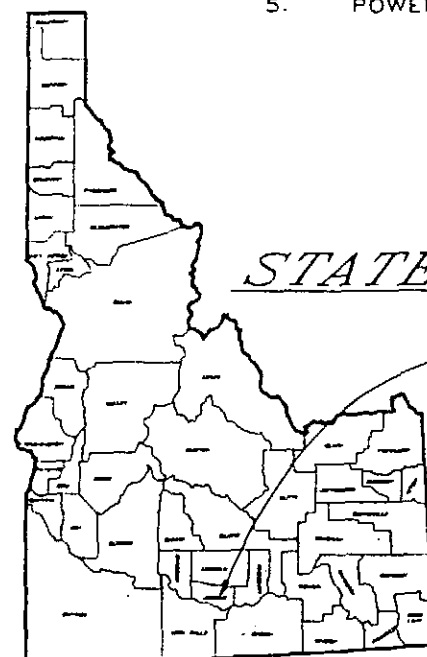
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NOV 07 1995

MILE 28

HYDROELECTRIC PROJECT

SHEET NO.	TITLE	DRAWING NO.
1.	INDEX TO DRAWINGS	154-1-01
2.	SPECIFICATIONS	154-1-02
2A.	SPECIFICATIONS	154-1-03
2B.	SPECIFICATIONS	154-1-04
2C.	SPECIFICATIONS	154-1-05
2D.	SPECIFICATIONS	154-1-06
2E.	SPECIFICATIONS	154-1-07
2F.	SPECIFICATIONS	154-1-08
2G.	SPECIFICATIONS	154-1-09
3.	PROJECT SITE PLAN/CANAL P&P	154-3-01
4.	POWERHOUSE SITE & GRADING PLAN	154-3-02
5.	POWERHOUSE GENERAL ARRANGEMENT	154-4-01

SHEET NO.	TITLE	DRAWING NO.
6.	FOOTING/FOUNDATION PLAN	154-5-01
7.	CONCRETE WALL LAYOUT PLAN	154-5-02
8.	STRUCTURAL SECTIONS	154-5-03
9.	STRUCTURAL SECTIONS	154-5-06
10.	GATE STRUCTURE & SPILLWAY WEIR	154-5-04
11.	BRIDGE ABUTMENT DETAILS	154-5-05
12.	POWERHOUSE GROUNDING GRID	154-7-01
13.	POWERHOUSE LIGHTING PLAN	154-7-02
14.	PROJECT ONE LINE DIAGRAM	154-7-03
15.	SUBSTATION PLAN & SUBSTATION GROUNDING	154-7-04



STATE of IDAHO

PROJECT LOCATION
Mile 28, Milner-Gooding Canal

ISSUED FOR CONSTRUCTION

PRINT ISSUED

DEC 2 1993

2	GENERAL REVISION	K.D.	8/9/93
1	ADDITIONAL DRAWINGS	K.D.	4/9/93
REV	DESCRIPTION	BY	DATE
INDEX TO DRAWINGS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	N.T.S.	DRAWN BY	K.D.
DATE	NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	1
Consulting Engineers		REV	2
750 WARW SPRINGS AVE. TELEPHONE (208) 338-1475 BOISE, IDAHO 83712			

SPECIFICATIONS (SHORT FORM)

DIVISION 0

Bidding & Contract Requirements

Not applicable: Contract has already been negotiated.

DIVISION 1

General Requirements

Not applicable: Contract has already been negotiated.

DIVISION 2

Site Work

Excavation

Excavation shall be to the lines and grades shown on the drawings or as directed by the Engineer. Excavated material shall be placed as shown on the plans to form the permanent site development and staging and parking areas. These areas may be used also for temporary storage of excavated material that will later be used for backfill.

Explosives

- 1) If blasting is required for rock removal a blasting plan must be submitted to the Engineer prior to blasting for approval.
- 2) Explosives will not be used to remove material from excavations, but only for loosening or shattering for later machine excavation.
- 3) All explosives shall be stored in a secure manner in compliance with all laws and ordinances, and all such storage places shall be clearly marked. Use and storage of explosives shall comply with current Bureau of Reclamation Safety Standards, Section 24.
- 4) The transportation, handling, storage and use of dynamite and other explosives shall be directed and supervised by a licensed blaster. All blasting operations shall be in accordance with applicable local, state and federal regulations.
- 5) Vibration and Damage Control: Blasting operations shall conform to USPR Construction Safety Standards, Sections 24.1.9.
- 6) The use of explosives shall be avoided as far as practicable, and in no cases shall tunnel blasting methods be used. When the use of explosives is necessary for the prosecution of the work, the Contractor shall exercise the utmost care not to endanger life or property, including new work. The Contractor shall be responsible for all damage resulting from the use of explosives.
- 7) Blasting shall be controlled in a manner which will avoid possible shattering or loosening of materials back of the slope lines to which the excavations are to be made.
- 8) Blasting may be done only to the depth, amount and extent and in such locations and times approved by the Engineer. Approval of the methods of blasting by the Engineer does not relieve the Contractor of this responsibility in blasting operations.

- 9) All blasts shall be fired electrically with an electric blasting machine. When detonating cord is used as a detonating agent, the detonation cord shall be fired with an electric blasting cap. Delay electric detonators shall be used for all delayed blasts. Blasting machines used for firing shall be known to be in good condition and of sufficient capacity to fire all charges. Rubber-covered or other

Explosives (cont.)

adequately insulated copper wires in good condition shall be used for firing lines and shall have solid cores of appropriate gauge. Sufficient firing line shall be provided to permit the blaster to be located at a safe distance from the blast. Single conductor lead lines shall be used. All operations involving the handling or use of explosives shall be discontinued during approach of a thunderstorm or while it is in progress. Blasting operations in the proximity of overhead power lines, communications lines, utility lines, buried pipe lines or other structures shall not be carried out until the operator and / or Owner of such items has been notified and precautionary measures deemed necessary have been taken.

10) Blasting will not be permitted within 100 feet of concrete that has not cured for a minimum of 7 days.

Backfill

The on-site fill material is suitable for use as backfill. However, the zone of fill within 18" of any structure or pipe should be free of any cobble larger than 6" in least dimension. Therefore, the selected material to be placed within 18" of any structure or pipe shall be screened through a 6" sieve. Backfill should be placed in maximum 12" loose lifts and compacted to a minimum of 90% of maximum density as determined by ASTM D1557 (Modified Proctor). Where fill will support structural elements or sidewalks, the minimum compaction should be increased to 95% of ASTM D1557.

Finish Grading

The project site shall be graded as shown on the drawings, and finished with a suitable road mix of earth, sand and gravel, bladed, rolled and drained to form a stable surface for low-speed vehicle travel. Permanent access roads shall be treated in the same way.

Dust & Sediment Control

The approved erosion control plan (FERC license article 401) shall be followed.

Diversion and Care of Water During Construction

All excavation for structures shall be performed in the dry. Excavations shall be protected from surface runoff by berms and/or ditching. Ground water, if encountered shall be collected in a sump and pumped away from the work site.

Riprap

Riprap shall be furnished and placed as shown on the drawings, and shall consist of locally procured hard, durable rock, quarry-run gradation with maximum dimensions as shown on the drawings. Riprap shall be placed on a rough graded base by loose dumping, followed by machine spreading, leveling, and compaction.

Trash Disposal

The project area will be kept free from accumulation of waste material or rubbish from construction of the project at all times. All waste material and rubbish will be disposed of in off site waste disposal sites. At the completion of project construction the contractor will remove all construction waste and rubbish from the project area.

DIVISION 3

Concrete

SECTION 4.5 CONCRETE, GENERAL

4.5.1. CONCRETE

a. General. The Contractor shall furnish all materials for use in concrete construction of the powerhouse, power canal and radial gate structure for the Mile 28 Hydroelectric Project, including cementitious materials, water, sand, coarse aggregate, and specified admixtures; and shall furnish all reinforcing bars and fabric and materials for curing concrete. For the purpose of these specifications, cementitious materials shall be interpreted to mean Portland cement only or Portland cement plus a pozzolan.

4.5.2. SUBMITTALS

a. General. Submittals shall be in accordance with this paragraph and paragraphs 4.5.6. (Composition), 4.5.7. (Batching, Mixing, and Transporting), 4.5.11. (Repair of Concrete), and 1.1.4. (Submittal Requirements).

Ten days prior to placement of concrete, the Contractor shall submit to the Engineer the name and manufacturer of each cementitious material, admixture, curing compound, aggregate source, and mix design. The Engineer reserves the right to require submission of manufacturer's test data and certification of compliance with specifications and to require submission of samples of all concrete materials for testing prior to or during use in concrete.

4.5.3. FORMS, PREPARATION FOR PLACING, AND PLACING

a. General. Forms shall have sufficient tightness and strength to prevent loss of mortar from the concrete, to withstand the pressure resulting from placement and vibration, and shall be maintained rigidly in position until the concrete has hardened sufficiently to prevent damage by form removal. The design of forms and placing rate of concrete shall be adjusted to compensate for the greater hydraulic pressures exerted on the forms by concrete of high fluidity.

b. Preparation. Caulking of forms may be required at the form-to-concrete contact point to prevent leakage. Chamber strips shall be placed in the corners of forms and at the lines of the wall placement to produce beveled edges on permanently exposed concrete surfaces. Edges of construction joints shall not be beveled except where indicated on the drawings.

All surfaces upon or against which concrete is to be placed shall be free from frost, ice, standing water, mud, and debris. Methods of roughing surfaces and removing latent material may include bush hammering, mechanical abrasion or cutting, sandblasting, or high-pressure water jetting of hardened (not green) concrete.

The surfaces shall be wet sandblasted, waterblasted with approved waterblasting equipment, or bush hammered. Water jetting will normally be at pressures of at least 6,000 pounds per square inch. Care shall be taken to prevent undercutting aggregate during surface preparation of the concrete. All methods are subject to approval by the Engineer. The surfaces of construction joints shall be clean, rough, and surface dry when covered with fresh concrete. Cleaning shall consist of the removal of laitance, loose or defective concrete, coatings, sand, curing compound, and other foreign material.

Concrete preparation shall be conducted in such a manner as to prevent washwater, debris, oil, and sand from entering the river. Only the time period required to prepare construction joint surfaces and bring them to a surface-dry condition shall be allowed between discontinuance of curing and placement of adjacent concrete. After initial joint cleanup, the concrete surface shall be thoroughly rewashed with water or air-water jets, and shall be uniformly surface dried just prior to placing of concrete. A mortar layer shall not be used on concrete construction joints.

Cleaning and oiling of forms shall be completed prior to commencement of the concrete placement. The surfaces of the forms shall be free from encrustation of mortar, grout, and other foreign material. Before concrete is placed, the surfaces of the forms shall be coated with a form oil that will effectively prevent sticking and will not soften or stain the concrete surfaces, or cause the surfaces to become chalky or dusty.

Form ties and form anchors for holding forms shall remain embedded and shall be terminated not less than 2 diameters or twice the minimum dimension of the tie, whichever is greater, from the formed surfaces of the

concrete. Ties shall be constructed so that removal of the ends or end fasteners can be accomplished without causing appreciable spalling at the faces. Form anchors embedded in concrete which are loosened prior to placement of adjoining concrete shall be replaced by other supports firmly embedded in the hardened concrete.

c. Placement. The concrete placement shall not commence until the Engineer has inspected and approved the forms, surface cleanup, concrete placement equipment, post curing materials including applicators and the thermal protection system. The temperature of the concrete surface upon which the placement will be made shall be maintained at 40°F for a period of 12 hours immediately prior to placement. The Contractor shall notify the Engineer of intent to order concrete prior to placing the order. All concrete placement shall be in accordance with ACI standards.

The methods and equipment used for transporting concrete and the time that elapses during transportation shall be such as will not cause appreciable segregation of concrete ingredients or slump loss in excess of 2 inches in the concrete as it is delivered to the work. Aluminum pipes and chutes shall not be used for placing of concrete or for the delivery of pumped concrete. Retempering of concrete will not be permitted. Any concrete which has become so stiff that proper placing cannot be assured shall not be used. The temperature of the concrete when it is being placed shall be not more than 90°F and not less than 50°F. The temperature will be determined by placing a thermometer in the concrete immediately after sampling at the placement site.

The Contractor shall design the concrete mix for 1 1/2 inch maximum size aggregate (MSA) concrete in accordance with these specifications. Concrete ingredients shall be heated as necessary, but shall not be heated to a temperature higher than necessary to keep the temperature of the concrete from falling below the specified minimum temperature.

Concrete consistency will be measured by slump test. The slump of the concrete at the point of discharge from the transit truck shall not exceed 4-inches. The Engineer reserves the right to require a lesser slump whenever concrete of such lesser slump can be consolidated readily into place by means of vibration. Rock pockets, surface damage and other irregularities shall be repaired by the appropriate method as determined by the Engineer. Repair in some instances may include removal of all or a portion of the previously placed concrete. The Contractor shall not be entitled to any payment for repairs that are required as a result of the Contractor's construction activity.

Additional cementitious materials may be directed to be added by the Engineer if the hours of contact between the cementitious materials and the wet aggregate exceeds the time listed in Table 4C (Additional Cementitious Material Requirements).

Concrete shall be deposited as near as practical to its final position by use of buckets, chutes, or concrete pumps. The use of aluminum pipe or aluminum chutes for delivery of concrete will not be permitted.

Concrete pumps, if used, shall be equipped with slicklines having a minimum diameter of 5-inches. Pumps and slicklines shall be capable of transporting concrete containing a maximum amount of coarse aggregate and a minimum amount of sand, cement, and water. The minimum proportion of 1/2- to 1 1/2-inch aggregate shall be 5.5 cubic feet (solid volume) per cubic yard of concrete.

Formed concrete shall be placed in continuous, approximately horizontal layers, the depths of which generally shall not exceed 20 inches. The Engineer reserves the right to require lesser depths of layers where concrete cannot otherwise be placed and consolidated in accordance with the requirements of these specifications. Concrete shall be vibrated until fully

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FIGURE F-2

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1	GENERAL REVISION	E.D.	4/8/91
REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	DRAWN BY	DRAWING NO.	
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DATE	CHECKED BY		
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has been consolidated to the maximum practicable density, is free from pockets of coarse aggregate, and closes snugly against all surfaces of forms and embedded materials. Concrete shall not be placed upon other plastic concrete until the previously placed concrete has been thoroughly consolidated. Consolidation of all concrete required for the buttress wall shall be by immersion-type vibrators. Immersion-type vibrators shall be operated at speeds of at least 7,000 vibrations per minute when immersed in concrete. The Contractor shall immediately replace improperly operating vibrators with acceptable vibrators. Prior to beginning the concrete placement, the Contractor shall make ready a sufficient number of properly operating vibrators and operators, and shall have readily available additional vibrators to replace defective ones during the progress of the placement. The Engineer may require the Contractor to delay the start of the concrete placement until the number of working vibrators available are acceptable.

d. Interruption of placement. In the event that placement operations are interrupted, a cold joint may be required. A cold joint is an unplanned joint resulting when a concrete surface hardens before the next batch is placed against it. Cold joints are undesirable and should be avoided. However, in the event of equipment breakdown or other unavoidable prolonged interruption of continuous placing when it appears that unconsolidated concrete may harden to the extent that later vibration will not fully consolidate it, the Contractor shall immediately consolidate such concrete to a stable and uniform slope. If delay of placement is then short enough to permit penetration of the underlying concrete, placement shall resume with particular care being taken to thoroughly penetrate and revibrate the concrete surface placed before the delay. If concrete cannot be penetrated with a vibrator, the cold joint shall then be treated as a construction joint. If a construction joint will impair the structural integrity, as determined by the Engineer, the concrete shall be repaired with the appropriate method directed by the Engineer. The direction may include removal of all or a portion of the previously placed concrete and the Contractor will not be entitled to any payment for such work. Surfaces of concrete floors shall be worked to a smooth, uniform, level,

steel-trowel finish, free from blemishes and trowel marks. Exposed unformed surfaces of other concrete shall be brought to level uniform surfaces and worked with suitable tools to a reasonably smooth, wood-float or steel-trowel finish, as directed. Concrete in the tops of foundations in which stub angles are embedded shall be sloped to provide drainage away from the stub angles.

4.5.4. DEVIATIONS AND SURFACE TOLERANCES FOR CONCRETE CONSTRUCTION

a. General. Structural deviations are defined as allowable variations from specified lines, grades, and dimensions. Allowable variations from specified lines, grades, and dimensions are listed in Table 4A (Deviations from Specified Lines, Grades, and Dimensions) in subparagraph b. below. Surface tolerances are the maximum allowable magnitude of the surface irregularities. Allowable magnitudes for concrete surface irregularities are specified in Table 4B (Concrete Surface Tolerances), in subparagraph d. below.

The intent of this paragraph is to establish structural deviations and surface tolerances which are consistent with modern construction practice, yet are governed by the effect that permissible variations may have upon a structure. The Engineer reserves the right to diminish the structural deviations and/or surface tolerances set forth herein if such variations impair the structural action, operational function, or architectural appearance of a structure or portion thereof.

Concrete shall be within all stated variations even though more than one may be specified for a particular concrete structure. Provided, that the specified variation for one element of a structure shall not apply when it will permit another element of the structure to exceed its allowable

variation. Where variations are not specified or shown on the drawings for a particular structure, variations shall be those specified for similar work. The Contractor shall be responsible for finishing the concrete and for setting and maintaining concrete forms within the limits necessary to ensure that the completed work will be within the variations specified. Concrete work that does not conform to the limits specified shall be remedied in accordance with subparagraphs d. and e. below.

Plumb and string lines shall be installed before, and maintained during concrete placement. These lines shall be used by the Contractor's personnel and by Engineer inspectors to determine the accurate position of forms during placement. The Contractor shall continually monitor plumb and string line positions and immediately correct deficiencies during the placement.

b. Structural deviations. Variations from specified lines, grades, and dimensions in hardened concrete structures shall be checked by the Contractor and will be subject to such inspection and measurement as needed to determine that the structures are within the tolerances specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions).

Variation is defined as the distance between the actual position of the structure or any element of the structure and the specified position in plan for the structure or the particular element. Plus or minus variations, shown as plus (+) or minus (-), indicate a permitted actual position up or down and in or out from the specified position in plan. Variations not designated as (+) or (-) indicate the maximum deviation permitted between designated successive points on the completed element of construction.

Specified position in plan is defined as the lines, grades, and dimensions described in these specifications or shown on the drawings or as otherwise prescribed by the Engineer.

Table 4A. Deviations from Specified Lines, Grades, and Dimensions

A. Structural deviations for buildings and structures.

1. Variation from plumb or specified batter for lines and surfaces of columns, piers, and walls and for arises:

(a) When overall height of line or surface is:

Less than 10 feet +1/4 inch
10 to 20 feet, inclusive +3/8 inch
More than 20 feet, but less than 40 feet +1/2 inch
40 feet or more +1 inch

(b) For any two successive intermediate points on the line or surface separated by:

10 to 20 feet, inclusive 1/4 inch
More than 20 feet 3/8 inch

c. Concrete surface irregularities.--

(1) General. Bulges, depressions, and offsets are defined as concrete surface irregularities (or roughness). Concrete surface irregularities are classified as "abrupt" or "gradual", and allowable tolerances are listed in Table 4B (Concrete Surface Tolerances). A concrete surface tolerance is designated by a capital "T" followed by a number 1 through 5. Concrete surface tolerance designations are separate from concrete surface finishes and concrete structural deviations.

(2) Abrupt surface irregularities. Abrupt surface irregularities are

defined herein as offsets such as those caused by misplaced or loose forms. Abrupt surface irregularities are further defined as isolated irregularities in which the maximum dimension of the irregularity perpendicular to the surface is greater than the maximum dimension of the irregularity in the plane of the surface. Also, abrupt surface irregularities include all incidences of isolated surface irregularities which exceed the gradual irregularity specifications set forth herein. Abrupt surface irregularities are measured as specified in subparagraph f. below.

(3) Gradual surface irregularities. Gradual surface irregularities are defined herein as bulges and depressions resulting in gradual changes on the concrete surface. Gradual surface irregularities are further defined as isolated undulations on the concrete surface. The maximum dimension of the undulation perpendicular to the surface is small relative to the maximum dimension of the undulation in the plane of the surface. Gradual surface irregularities are measured as specified in subparagraph f. below.

(4) The magnitude of surface irregularities on formwork and finished concrete surfaces shall be checked by the Contractor to ensure that the concrete surfaces are within specified tolerances. The Engineer will also make such checks of hardened concrete surfaces as determined necessary to ensure compliance with these specifications.

d. Concrete surface tolerances.--The allowable concrete surface tolerance shall be T2 as described in Table 4B (Concrete Surface Tolerances) below:

Table 4B. Concrete Surface Tolerances

Concrete surface tolerance	Maximum allowable concrete surface irregularity	
	Abrupt	Gradual
T1	1 inch	1/4 inch/inch
T2	1/2 inch	1/8 inch/inch
T3	1/4 inch	1/16 inch/inch
T4	1/8 inch	1/32 inch/inch
T5	1/32 inch	1/120 inch/inch

e. Repair of hardened concrete not within specified tolerances. Hardened concrete which is not within specified tolerances shall be repaired to bring it within those tolerances. Such repair shall be in accordance with paragraph 4.5.11, (Repair of Concrete), and shall be accomplished in a manner approved by the Engineer. Concrete repair to bring concrete within tolerances shall be done only after consultation with a Government Inspector regarding the method of repair. The Contractor shall notify the Government as to the time when repair will be performed.

Concrete which will be exposed to public view shall be repaired in a manner which will result in a concrete surface with a uniform appearance. Grinding of concrete surfaces exposed to view shall be limited in depth such that no aggregate particles are exposed more than 1/16-inch in cross-section at the finished surface. Where grinding has caused or will cause exposure of aggregate particles greater than 1/16-inch in cross-section at the finished surface, concrete shall be repaired by excavating and replacing the concrete.

f. Field verification of concrete surface tolerances. In determining compliance of a concrete surface with the surface tolerance specifications, the following evaluation and measuring techniques shall be employed:

(1) Evaluating surface roughness. The following steps describe the evaluation process for concrete surface rough-

(a) Measure the roughness height or depth and check for compliance with the values given in Tables 4A (Deviations from Specified Lines, Grades, and Dimensions) and 4B (Concrete Surface Tolerances).

(aa) If the measured height or depth of the roughness is less than the value given by the abrupt tolerance specification and if the height or depth of the roughness does not cause the structure to exceed any applicable value specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions), the surface roughness is acceptable and no further evaluation is required.

(bb) If the roughness height or depth exceeds the abrupt tolerance specification, the roughness slope must be determined for comparison to the gradual tolerance specification.

(b) Measure the roughness length and determine the roughness slope by dividing the roughness height or depth by the roughness length (see Figure 1 for details).

(aa) If the roughness slope is greater than the slope specified by the gradual tolerance specification, the roughness does not meet the specifications and shall be repaired by and at the expense of the Contractor.

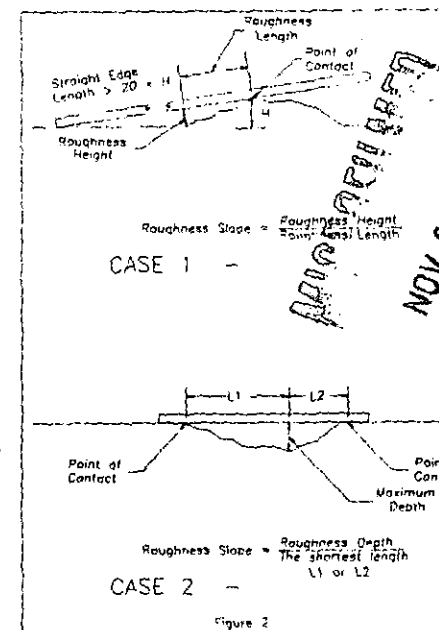
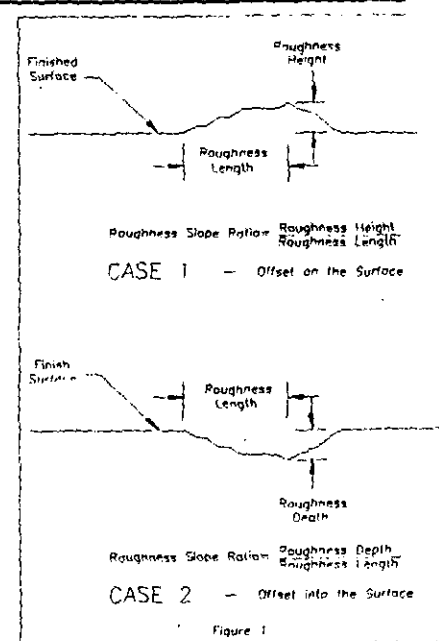
(bb) If the roughness slope is less than the gradual slope specified and if the gradual roughness does not cause the structure to exceed allowable structural deviations, as specified in Table 4A (Deviations from Specified Lines, Grades, and Dimensions), the roughness is acceptable. (2) Measuring surface roughness. Two examples illustrating how to make the necessary surface measurements for typical roughness are given below:

(a) CASE 1: Roughness protruding above the surface. A roughness protruding above the surface should be measured with a straightedge that is at least 20 times longer than the roughness height being measured. Position the straightedge with one end resting on a top of the roughness, as shown in Figure 2 (CASE 1). Determine the roughness height by measuring the maximum gap that occurs normal to the straight edge. Also, note the position on the straightedge from which the normal distance is measured. To determine the roughness length, measure the distance along the straightedge from the point where the height was measured to the point of contact between the straightedge and the top of the roughness. The roughness slope is defined as the ratio of the roughness height to the roughness length. As roughness is seldom symmetric, moving the position of the straightedge about the roughness may be necessary to locate the point where the maximum height and slope exists.

(b) CASE 2: Roughness extending below the surface. A roughness occurring as an indentation to the surface is measured by placing the straightedge across the indentation, as shown in Figure 2 (CASE 2).

Measure the maximum gap between the straightedge and the surface and note the location of the measurement on the straightedge. From the point of the depth measurement, measure along the straightedge in both directions to the point of contact with the surface. The shortest length measured is used as the roughness length. Divide the roughness depth by the roughness length to determine the roughness slope.

A simple measuring device can be constructed to perform the surface tolerance measurements and evaluation process directly and quickly. Information concerning concrete tolerance measuring devices can be obtained from the Bureau of Reclamation.



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FIGURE F-2A

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g. Prevention of repeated failure to meet tolerances.--When concrete placements result in hardened concrete that does not meet specified tolerances, the Contractor shall upon request, submit to the Government an outline of all preventive actions such as modifications to forms, modified procedure for setting screeds, and different finishing techniques to be implemented by the Contractor to avoid repeated failures. The Government reserves the right to delay concrete placements until the Contractor implements preventive actions which have been approved by the Engineer.

4.5.3. MATERIALS

a. Cementitious materials. Cementitious materials shall be furnished by the Contractor in accordance with one of the following options:

- (1) Type I Portland cement only.
- (2) Type I Portland cement plus a class N, F, or C pozzolan.

Cementitious materials shall conform to the following:

(1) Portland cement. Portland cement shall meet the requirements of ASTM C 150 for type I cement, except the maximum allowable tricalcium aluminate shall be 15 percent. The optional false-set limitation specified therein and the low-alkali limitation shall apply. However, the low-alkali limitation will be waived if the Contractor selects aggregates which are not potentially alkali reactive.

(2) Pozzolan. Pozzolan used under options 2 and 3, specified above, shall meet the requirements of ASTM C 618 for class N, F, or C, with the following additional requirements:

(a) The maximum percent of sulfur trioxide shall be 4.0 percent for classes F and C.

(b) The maximum percent loss on ignition shall be 8.0 percent for class N and 2.5 percent for classes F and C.

(c) The pozzolanic activity index with time shall be determined using 2-inch cubes and the minimum strength at 7 days shall be 900 pounds per square inch.

(d) Unless the Contractor selects aggregates which are not potentially alkali reactive, pozzolan used under option 2, specified above, shall be tested for reduction of mortar expansion at 14 days as specified for class N pozzolan under the optional physical requirements in Table 2A or ASTM C 618. However, the cement used in the test shall be low alkali. For the pozzolan to be acceptable, it shall result in an expansion reduction of zero percent or greater when compared to the control test.

Cement and pozzolan may be obtained from a Government-tested bin approved for Government use, from a commercial bin not reserved exclusively for Government use, or from a prequalified producer, as described in appendices A and B of the Department of the Army Regulation No. 1110-1-2002. If cement or pozzolan is shipped from a commercial bin, a manufacturer's certification that the material was tested during production or transfer in accordance with the reference specification, together with a report of the test results, shall be furnished at the time of shipment. Certifications and test reports shall be submitted for each lot of cement or pozzolan from which shipments are drawn and shall be delivered to the location designated by the Engineer. The Contractor shall assure that shipments accepted and used are from only those bins for which proper certification and test reports have been received. Manufacturer's certification and test reports shall in no way relieve the Contractor of the responsibility for furnishing materials meeting specifications requirements. The Contractor shall be responsible for the accuracy

and completeness of certifications and test reports furnished.

The low-alkali limitation for Portland cement and the mortar expansion limit for pozzolan and blended cement may be waived if the Contractor selects concrete aggregate sources which have previously been tested by the Bureau of Reclamation and which, as evidenced by petrographic examination or mortar bar tests, or both, do not contain potentially deleterious amounts of particles which may react with alkalis in cementitious materials. If the potential alkali reactivity of an aggregate source is unknown, the low-alkali limitation and mortar expansion limit shall be met.

b. Water. Water shall conform to ASTM C 94, paragraph 4.1.3.1, (including Table 1).

c. Sand and coarse aggregate. Sand and coarse aggregate shall consist of clean, hard, dense, durable, uncoated rock fragments which are free from injurious amounts of dirt, organic matter, and other deleterious substances. Sand and coarse aggregate shall meet all requirements of ASTM C 33. Coarse aggregate shall conform to ASTM C 33 gradings for either size No. 457 (1-1/2-inch to No. 4 United States Standard sieve), or size No. 57 (1-inch to No. 4).

The nominal maximum-size coarse aggregate to be used in concrete shall be as large as practical, consistent with required strength, spacing of reinforcement and embedded items, and placement thickness. The size of coarse aggregate to be used will be determined by the Engineer.

d. Air-entraining admixture. The air-entraining admixture shall conform to ASTM C 260. Provided, that the air-entraining admixture used with type F or G chemical admixture shall be a neutralized vinyl resin formulation.

e. Chemical admixtures. Chemical admixtures which will introduce more than 1/20 of 1 percent chloride, by weight, of cementitious materials, shall not be used in prestressed concrete, concrete for bridge decks, or concrete in which aluminum, galvanized metalwork, or dissimilar steel is to be embedded.

(1) In all other concrete, accelerator may be furnished and used during cold weather as hereinafter specified. Accelerator shall conform to ASTM C 494 for type C or E chemical admixtures. In addition, if used as an accelerator, calcium chloride shall meet requirements of ASTM D 98 and shall be no coarser than grade A, class 1 or shall be liquid. The portion of mixing water containing other admixtures shall not come in contact with the calcium chloride before entering the mixer.

(2) The Contractor may use water-reducing or water-reducing, set-controlling chemical admixtures which conform to ASTM C 494, for type A, D, F, or G.

(3) The Contractor may use chemical admixtures for producing flowing concrete which conform to ASTM C 1017 for type I or 2.

f. Reinforcing bars. Reinforcing bars shall conform to ASTM A 615 or A 617, grade 40 or 60, including supplementary requirements.

g. Curing compound. Water-emulsified, resin-based (type B) curing compounds shall conform to the requirements of Water and Power Resources Service, "Specifications for Concrete Curing Compound," dated October 1, 1980.

CRC-101 curing compound shall conform to the requirements of Water and Power Resources Service "Specifications for Clear Resin-Based Curing Compound, CRC-101," dated January 1, 1981.

h. Polyethylene film. Polyethylene film for curing concrete shall be white in color, 0.004 of an inch in thickness, and shall conform to the

requirements of ASTM C 171.

4.5.6. COMPOSITION

Pozzolan, as specified, may be used to replace 20 percent, by weight, of Portland cement. The net water-cement ratio or water-cement plus pozzolan ratio of the concrete, exclusive of water absorbed by the aggregates, shall not exceed 0.52, by weight.

Except as hereinafter specified, the slump of the concrete when placed shall not exceed 2 inches, plus or minus 1 inch for slabs and 3 inches, plus or minus 1 inch for all other concrete. The slump of the concrete when first mixed shall not exceed 5 inches.

When type 1 or 2 plasticizing admixture is used to produce flowing concrete for an unusual placing condition, the slump shall be appropriate for the placing conditions.

The compressive strength of the concrete shall be sufficient to ensure that each concrete mix meets the following minimum requirements:

- a. Ninety percent of test cylinders shall have a compressive strength at 28 days in excess of 4,000 pounds per square inch.
 - b. The average compressive strength at 28 days of any six consecutive test cylinders shall exceed 4,000 pounds per square inch.
- The Contractor's proposed mix design shall be submitted for approval in accordance with paragraph 4.5.2. (Submittals).

The compressive strength of the concrete will be determined by the Government in accordance with ASTM C 31 and C 39 for 6- by 12-inch cast cylinders and may also be determined by the Government in accordance with ASTM C 42 for concrete cores. Concrete in an area represented by core tests shall be considered structurally adequate if the average of three cores is equal to at least 3,400 pounds per square inch and if no single core is less than 3,000 pounds per square inch.

The concrete mix will be designed and adjusted by the Contractor. The proportions of ingredients will be established in accordance with the Eighth Edition - 1981 Revised Reprint of the Bureau of Reclamation "Concrete Manual." The proportions will be adjusted during the progress of the work whenever need for such adjustment is indicated by results of testing of the aggregates and concrete.

Water/cement ratios shall not exceed 0.5.

Air-entraining admixture shall be used in such amount as will effect the entrainment of from 4 to 6 percent air by volume, of the concrete as discharged at the placement.

Chemical admixtures which conform to ASTM C 494 for type C or E, including calcium chloride, shall not be used in concrete.

Prestressed concrete, concrete for bridge decks, or concrete in which aluminum, galvanized metalwork, or dissimilar steel is to be embedded, shall contain less than 1/10 of 1 percent chloride, by weight, of cementitious materials.

4.5.7. BATCHING, MIXING, AND TRANSPORTING

Concrete shall be manufactured and delivered in accordance with ASTM C 94, "Standard Specifications for Ready-Mixed Concrete."

When bulk cementitious materials and aggregates are dry batched and hauled to where mixing is accomplished, each batch shall be protected during transit to prevent loss and to limit hydration of the cementitious materials.

Separate compartments with suitable covers shall be provided to protect the cementitious materials as they shall be completely enclosed in and covered by the aggregates to prevent wind loss. If cementitious materials are enclosed in moist aggregates or otherwise exposed to moisture and delays occur between

batching and mixing, the Contractor shall, at the Contractor's expense, add extra cementitious materials to each batch in accordance with the schedule in Table 4C (Additional Cementitious Materials Requirements).

Table 4C.--Additional Cementitious Materials Requirements

Hours of contact between cementitious materials and wet aggregate	Additional cementitious materials required
0 to 2	0 percent
2 to 3	5 percent
3 to 4	10 percent
4 to 5	15 percent
5 to 6	20 percent
Over 6	Batch will be rejected

The Engineer reserves the right to require the addition of cementitious materials for shorter periods of contact during periods of hot weather and the Contractor shall be entitled to no additional compensation by reason of the shortened period of contact.

When delivered at the jobsite, each batch of concrete shall be accompanied by a batch ticket in accordance with ASTM C 94. The batch ticket shall be delivered to the Engineer at the jobsite as each batch is delivered.

4.5.8. REINFORCEMENT

Steel reinforcing bars shall be placed where shown on the drawings. Before being placed, surfaces on reinforcement shall be cleaned of heavy flaky rust, loose mill scale, dirt, grease, and other foreign substances. Reinforcement shall be placed to meet the following tolerances:

a. The amount of concrete cover protecting reinforcement shall not deviate from that specified by more than 1/2-inch if the specified cover is more than 2-1/2 inches, nor by more than 1/4-inch if the cover specified is 2-1/2 inches or less.

b. The spacing of reinforcing bars shall not deviate from the required spacing by more than 1 inch.

Reinforcement shall be accurately placed and secured in position so that it will not be displaced during the placing of the concrete. Welding or lapping of grade 60 reinforcing bars will not be permitted except at locations shown on the drawings or as approved by the Engineer.

Where portions of the reinforcement supports will be exposed to view on concrete surfaces, the exposed portion of the supports shall be galvanized or other corrosion-resistant material, except that reinforcement supports made of concrete will not be permitted. Unless otherwise shown on the drawings, the reinforcement shall be placed so that there will be a clear distance of at least 1 inch between the reinforcement and anchor bolts, form ties, or other embedded metalwork.

The Engineer will not furnish supplemental bar-placing diagrams, bar lists, and bar-bending diagrams. Supplemental diagrams and bar lists of this type which the Contractor may require to facilitate the fabrication and placement of reinforcement shall be provided by the Contractor. The cost of preparing supplemental diagrams and bar lists, if provided, shall be included in the unit price per cubic yard bid in the schedule for furnishing and placing concrete. Reinforcement will be inspected for compliance with requirements as to size, shape, length, splicing, position, and amount after it has been placed.

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FIGURE F-2B

2	GENERAL REVISION	C.F.	1/25/94
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REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	DRAWN BY	DRAWING NO.	
U.T.S.	K. DURHAM	154-1-04	
DATE	CHECKED BY		
NOV. 20, 1992			
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	REV
750 WARM SPRINGS AVE.		2B	2
BOISE, IDAHO 83712		TELEPHONE: (208) 338-1425	

4.5.9 FINISHES AND FINISHING

a. General: The classes of finish and the requirements for finishing of concrete surfaces shall be as specified in this paragraph or as otherwise

shown on the drawings. Where finishes are not specified or shown on the drawings for a particular structure or surface, the finish shall be specified for similar work. The Contractor shall notify the Engineer before finishing concrete. Unless inspection is waived in each specific case, finishing of concrete shall be performed only when a Government inspector is present. If inspection is required, adequate notice must be given to the inspector for the purpose of scheduling the onsite inspection.

Concrete surface variations will be measured by the Government in accordance with paragraph 4.5.4 (Deviations and Surface Tolerances for Concrete Construction), where necessary to verify that concrete surfaces are within the specified tolerances. Finished concrete which is not within the specified tolerances shall be repaired in accordance with paragraph 4.5.11. (Repair of Concrete).

b. Formed surfaces: The class of finish for formed concrete surfaces is designated by the symbol F2. This class of finish shall apply as follows:

- (1) F2 Finish F2 generally applies to all formed surfaces not permanently concealed by fill material, grout, or concrete.

c. Unformed surfaces: The class of finish for unformed concrete surfaces is designated by the symbol U2. Interior surfaces shall be sloped for drainage where shown on the drawings or directed. Surfaces which will be exposed to the weather and which would normally be level shall be sloped for drainage. Unless the use of other slopes or level surfaces is indicated on the drawings or directed, narrow surfaces, such as tops of walls and curbs, shall be sloped approximately 3/8-inch per foot of width; and broader surfaces, such as walks, roadways, platforms, and decks, shall be sloped approximately 1/4-inch per foot. Unless otherwise specified or indicated on the drawings, this class of finish shall apply as follows:

- (1) U2 Finish U2 (floated finish) generally applies to unformed surfaces not permanently concealed by fill material, grout, or concrete. Floating may be performed by use of hand- or power-driven equipment. Floating shall be started as soon as the screeded surface has stiffened sufficiently but before bleed water forms, and shall be the minimum necessary to produce a surface that is free from screed marks and is uniform in texture.

4.5.10 PROTECTION AND CURING

After placement of concrete, the Contractor shall protect all concrete against injury and/or freezing until final acceptance by the Government. Concrete shall be protected against freezing temperatures by being kept at a temperature not lower than 50F for at least 6 days after it is placed. As soon as any unformed concrete surface has been finished, as specified, and has attained a dull appearance free from bleed water and moist sheen, the surface shall be sprayed with a clear water emulsified resin-base curing compound or by covering with polyethylene film.

Forms shall be removed within 24 hours after the concrete has hardened sufficiently to prevent structural collapse or other damage by careful form removal. Where required, repair of all minor surface imperfections shall be completed within 2 hours after form removal and shall be immediately followed by the initiation of curing by the applicable method specified herein. Concrete surfaces shall be kept continuously moist after form removal until initiation of curing.

The wall shall be cured by use of clear water emulsified resin-based curing compound or by covering with polyethylene film.

Curing with water-emulsified, resin-base or clear resin-base (CRC-101) compound shall be by application to designated concrete surfaces to provide a water-retaining film. The curing compound shall be reapplied as necessary to maintain a continuous, water-retaining film on the surfaces for 28 days. The curing compound shall be mixed thoroughly and spray applied to the concrete surfaces in one coat to provide a continuous, uniform film over the concrete.

The coverage rate shall not exceed 150 square feet per gallon (3.7 square meters per liter) for water-emulsified, resin-base curing compound, and 200 square feet per gallon (4.9 square meters per liter) for clear resin-base (CRC-101) compound. On rough surfaces, the coverage rate shall be decreased as necessary to obtain the required continuous film. Special care shall be taken to ensure ample coverage with the compound at edges, corners, and rough surfaces; and to keep curing compound off waterstops and reinforcing bars. Equipment for applying curing compound and the method of application shall be in accordance with the provisions of Chapter VI of the Eighth Edition - 1981 Revised Reprint of the Bureau of Reclamation's "Concrete Manual."

In applying clear resin-base CRC-101 curing compound, care shall be taken to produce a uniform, continuous film and to avoid sagging and puddling of liquid compound and excessive, unsightly thickness. To prevent sagging of compound on surfaces which are not horizontal, application shall consist of two or more passes over each point on the surface using a cross-spraying technique with a time interval between passes not exceeding 30 minutes. The compound shall be applied in a manner conformed with safe control proceedings outlined in the Bureau of Reclamation Occupational Health and Safety data sheet on CRC-101 curing compound.

Spray equipment and its performance will be subject to approval; and when so directed, the Contractor shall repair or replace equipment as required to make it acceptable to the Engineer. The application shall be performed by personnel qualified, as determined by the Engineer, in using the specified spray techniques.

Polyethylene sheeting shall conform to subparagraph 4.5.5.h. (Polyethylene film). When used, polyethylene sheeting shall completely cover the concrete surfaces to be cured and shall provide an airtight, water-retaining barrier for at least 14 days. Edges of the polyethylene sheeting shall be lapped to provide a seal with adjacent sheets and will be held or fastened down tightly against the concrete surface at the extreme edge of the curing area. The poly film shall be adequately secured to withstand wind and to prevent circulation of air inside the curing film. Provided, That curing compound shall be used for curing whenever there is any possibility that freezing temperatures may prevail during the 14 days following concrete placement.

Concrete curing shall begin as soon as the concrete has hardened sufficiently to prevent damage. The concrete surface shall be maintained, if required by the Engineer, by lightly spraying water on the surface immediately prior to placing poly sheeting or curing compound on the surface.

Whenever freezing temperatures are imminent, the Contractor shall enclose exposed concrete with warmth-retaining sheets or other insulation means and maintain the concrete at a temperature of not less than 50F for 72 hours after placement. If concrete is water cured, the concrete shall be protected for an additional 72 hours above 32F. Where artificial heat is employed, special care shall be taken to prevent the concrete from drying. Use of unvented combustion heaters will not be permitted during the first 24 hours of curing unless unformed concrete surfaces are sealed from resulting carbon dioxide rich environment.

Discontinuance of protection against cold temperatures shall be such that the drop in temperature of any portion of the concrete will be gradual and will not exceed 5F per hour and 40F in 24 hours. The temperature range for wall sections greater than 36-inches will be 5F per hour and 20F in 24 hours.

When precipitation or freezing weather appears imminent, the Contractor shall immediately make ready, at the placement site, all materials which may be required for protection of concrete. The Government may delay placement of concrete until adequate provisions for protection against weather are made.

4.5.11. REPAIR OF CONCRETE

a. General: Concrete shall be repaired in accordance with this paragraph, paragraph 4.5.4. (Deviations and Surface Tolerances for Concrete

Construction), and Bureau of Reclamation "Standard Specifications for Repair of Concrete," dated March 1, 1990

b. Submittals: Submittals shall be as required for the methods of concrete repair or replacement directed by the Engineer, in accordance with the "Standard Specifications for Repair of Concrete."

c. Method of repair or replacement: The method of repair or replacement shall be as determined and directed by the Engineer in accordance with the "Standard Specifications for Repair of Concrete."

4.5.12 JOINTS

a. Construction joints.

- (1) General: Construction joints are shown on the drawings and are purposely placed in structures to facilitate construction; to reduce initial shrinkage stresses and cracks; or to allow for the subsequent placing of other concrete, backfill concrete, or second-stage concrete. A construction joint is defined as a planned joint where two placements of concrete meet, across which development and maintenance of bond is required and through which any reinforcement that is present is not interrupted. All construction joints shall be roughened and all latent material removed in preparation for placing adjoining concrete.

The location of the construction joints shall be as shown on the drawings or as directed by the Engineer. The relocation, addition, or elimination of any construction joint in any structure to facilitate construction shall be subject to written approval by the Engineer.

b. Expansion joints.

- (1) General: Expansion joints in the concrete work shall be constructed where and as shown on the drawings. Elastomeric joint filler consisting of 1-inch thick sponge rubber shall be furnished and placed in the expansion joints in concrete where shown on the drawings or as directed by the Engineer.

(2) Installation: Installation of the sponge rubber shall result in complete coverage of the wall with sheets cut to the proper size such that the joints between adjoining portions of the filler material shall be sufficiently tight to prevent concrete from seeping through. The sheets shall be secured to the concrete by application of the adhesive in accordance with the manufacturer's recommendations. The concrete to which the elastomeric sealer is to adhere shall be clean and free from foreign substances, including curing compound and standing water. The sheets shall be held in place by a method that will ensure that the sheets will not shift or move until the adhesive has completely dried.

The sheets shall be protected from damage during joint cleanup and all construction activities.

Care shall be exercised during placement of the concrete to avoid contacting the sheets with the concrete vibrators. Should the sheets be torn loose or otherwise damaged during placement, the Government reserves the right to halt the concrete placement and direct the removal of sufficient concrete to expose the damaged area and replace the sponge rubber with a new piece. Where elastomeric sealer material (caulk) is required, the joint filler shall be set back from the edge of the joint to provide the proper recess for installing elastomeric sealer. Unless otherwise shown on the drawings or directed by the Engineer, the edges of the sponge rubber filler shall be placed flush with the finished surface of the concrete or to the bottom edge of the chamfers.

(3) Materials.

- (a) Sponge rubber joint filler: Sponge rubber shall conform to requirements of ASTM D 1752, for type I joint filler. Provided, That

the load required to compress the test specimen to 50 percent of its thickness before testing shall be not less than 50 pounds per square inch nor greater than 150 pounds per square inch. Sponge rubber joint filler shall be black. The sponge rubber shall be stored in as cool place a practicable such that air temperatures does not exceed 70 of and in no case shall the joint filler be stored in the open or exposed to the direct rays of the sun.

(b) Copper nails: Copper nails may be used to pin the foam rubber sheets to the concrete wall surface. The copper nails shall conform to Federal Specification FF-N-105R for common copper wire nails.

(c) Adhesive: Adhesive shall be used to fasten the sponge rubber sheets to the concrete wall surface. The adhesive shall be a nonbituminous adhesive as recommended by the manufacturer of the filler material.

(d) Caulk: Caulk shall be an elastomeric sealer. The sealer shall conform to the Bureau Of Reclamation "Standard Specifications for Elastomeric Canal Joint Sealer," dated August 1, 1983.

4.5.13 DEFECTIVE CONCRETE

All concrete that is damaged or defective from any cause; concrete that is honeycombed, fractured, or otherwise defective; and concrete which, because of excessive surface depressions must be excavated and built up to bring the surfaces to the prescribed lines shall be removed and replaced; and imperfections and irregularities on concrete surfaces shall be corrected. The repair of damaged or defective concrete and the correction of surface imperfections and irregularities shall be made with cement mortar where and as applicable for the type of repair involved.

DIVISION 4

Masonry

Omit - not applicable

DIVISION 5

Metals

Description

Furnish and install structural steel, grating, handrail and miscellaneous metal items as shown on the drawings and as specified herein.

Standards

- A) AISC "Code of Standard Practice."
B) AWS "Code for Welding in Building Construction."

Submittals

A) Shop Drawings: Prepare and submit shop drawings as specified in the General Provisions. Identify items with location and drawing or specification reference. Show connections, anchors, anchor or fastener spacing dimensions and details.

Delivery, Storage, and Handling

Protect material from moisture with waterproof paper, tarpaulin or polyethylene sheeting.

Materials

- A) Structural Steel: ASTM A-36.
B) Bars, Flats and Rounds: Standard grade mild steel.
C) Aluminum: Alloy 5052-H32, mill finish.
D) Pipe: ASTM A-120 Galvanized Steel, standard weight.
E) Miscellaneous Bolts and Nuts: ASTM A-307.
F) High Strength Bolts and Nuts: ASTM A-325.
G) Concrete Anchors: Wedge anchors; 303 stainless steel bolts, 18-8 stainless nuts and washers.
H) Welding Rods: Uniformly heavy-coated rods of types recommended by manufacturer for use with parent metal.

Fabrication and Installation

A) Fabrication

1. Workmanship: Conform to accepted shop practices form work true to detail, with clean, straight, sharply defined profiles. Unless otherwise shown or specified, finish exposed welds flush and smooth.
2. Joints and Connections: Weld all joints, unless other fastening methods are shown, specified or specifically approved. Close fit exposed joints; make joints where least conspicuous. Unless otherwise shown or specified, use flat and countersunk headed bolts or screws in exposed connections.

3. Cutting, Drilling: Perform cutting, drilling, punching required for accurate fitting and assembly work. In addition, perform similar operations as required for attachment of work of other trades, provided that directions for such work are supplied prior to shop drawings approval.

4. Provisions for Attachment to Structure: Furnish miscellaneous metal items complete with framing, supports, hangers, bracing, anchors and other devices shown specified or necessary for reinforcement and proper, secure setting or attachment to building construction.

B) Dissimilar Materials Protection: Insulate aluminum surfaces in contact with metals other than galvanized or stainless steel, or with plaster or concrete, by means of chromate gasketing or heavy coat of alkali-resistant bituminous paint.

C) Workmanship: Fabricate all items neatly and rigidly in accordance with details in first-class finished, workmanlike manner. Form curved work neatly to radii indicated. Provide members of sizes indicated and weld, bolt or rivet securely together. Furnish bolts, nuts, washers and other fastening devices required for anchoring and securing work.

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FIGURE F-2C

3	REVISED DIV. 3, PARAGRAPH 4.5.9	P.E.	10/25/93
2	GENERAL REVISION	C.Y.	7/26/93
1	GENERAL REVISION	K.D.	4/8/93
REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	N.T.S.	DRAWN BY	K. DURHAM
DATE	NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A.		SHEET NO. REV.	
750 WARM SPRINGS AVE. BOZEL, IDAHO 83712		20 3	

DIVISION 5 (CONT.)
Doors & Windows

- D) Welding: Use electric shielded-arc process in accordance with Welding Specifications of American Welding Society. Use only welding operators properly trained and highly skilled in arc welding. Grind smooth surface welds exposed to view.
- E) Galvanizing: Galvanize all iron or steel items unless indicated otherwise. Prior to galvanizing, all items after fabrication shall be cleaned thoroughly, removing scale, flux deposits, rust, oil, dirt and other foreign matter. Except as otherwise indicated, iron or steel items specified to be galvanized shall be hot-dip galvanized after fabrication in accordance with ASTM Designation A-123. Fabricate units complete or in largest practical sections before galvanizing.

Miscellaneous Items

- A) Steel Bar Grating: Provide galvanized steel welded grating where indicated on the drawings. Unless stronger gratings are indicated on the drawings, gratings shall be constructed with 1-1/4" x 3/16" bearing bars spaced 1-3/16" O.C. and cross bars at 4" O.C. Form grating into sections of size indicated or as necessary for proper access and handling. All sides and openings shall be banded. Fasten grating into place with clips or other suitable fastenings of a type that will permit removal. Fabricate frame of galvanized iron of size noted on the drawings. Miter corners and weld. Provide galvanized support angle complete with anchor bolts where required. Provide serrated grating where shown.
- B) Pipe Railings: Pipe railings shall be fabricated of standard weight galvanized steel pipe, 1-1/4" nominal diameter, except where other sizes are indicated on the drawings. Form railings to design indicated with all turns and easings; use flush-type fittings with full welded connections for elbows, wall return and caps. Joints at tees and crosses may be formed by the use of flush-type fittings and welding or by notching ends of pipe to fit the contour of pipe to which it is joined and then welded without the use of fittings. All welds shall be dressed smooth.
- As an alternate, handrail may be fabricated of 1-1/2" schedule 40 aluminum pipe, with a clear satin anodized finish. All surfaces of the aluminum which contact other materials are to be protected with a coat of zinc chromate primer not visible when system is assembled.

Shop Finishing

- A) Shop Prime Coat: Shop prime coat shall be as specified under Painting Section of these specifications. After fabrication, clean thoroughly, removing scale, rust, flux deposits, oil, dirt, other foreign matter, and apply one shop coat of specified rust-inhibitive metal primer to all items not to be galvanized or completely embedded in concrete.

Preparation

- A) Embedded Items: Deliver miscellaneous metal items to be embedded or installed in concrete with setting instruction to concrete contractor for setting. Verify grade and line positioning of items as set, report errors or deviations in order that corrective adjustments may be made before placement of concrete or laying of masonry.

General

- Install work, other than to be embedded in concrete, in strict accordance with drawings. Perform cutting, drilling and fitting required. Accurately set, place and properly, securely attach work in true planes, alignment, plumb and level; properly, adequately reinforce and stiffen.
- B) Expansion, Contraction: Assemble and install work with adequate provisions to prevent objectionable distortion and over stressing from expansion, contraction. Where necessary, provide properly designed expansion joints, construct to be weather tight if to be exposed to the weather.
- C) Field Touch-Up: After installation of miscellaneous metal items, touch-up field bolts, fields welds, uncoated connections and abrasions with shop protective coatings. Clean items of mud, dirt, and other objectionable foreign matter.

DIVISION 6

Wood & Plastics
Omit - not applicable.

DIVISION 7

Thermal & Moisture Protection

Outside Walls Below Grade

Concrete waterproofing shall be of the cementitious crystalline type that chemically controls and permanently fixes non-soluble crystalline growth throughout the capillary voids of the concrete. All surfaces to be waterproofed shall be examined for form tie holes and structural defects such as honeycombing, rock pockets, faulty construction joints, cracks, etc. These areas shall be repaired before waterproof application.

Concrete surfaces shall have an open capillary system to provide loath and suction and shall be clean; free from scale, excess for oil, laitance, curling compounds and any other foreign matter. Smooth surfaces, caused by steel forms, etc., or surfaces covered with excess form oil or other contaminants shall be washed, lightly sandblasted, waterblasted, or acid-etched with muriatic acid, as required to provide a clean absorbent surface. Other types of waterproofing and roofing may be proposed by the Contractor. Their use is subject to the Engineer's approval.

DIVISION 8

Doors & Windows

Metal Doors

Furnish and install walk doors as shown and specified on the drawings.

Metal Windows

Furnish and install windows as shown and specified on the drawings.

DIVISION 9

Finishes

Omit - All finish and decorative work will be determined after project completion and performed after plant startup.

DIVISION 10

Specialties

Omit - not applicable.

DIVISION 11

Equipment

Turbines, Generators & Controls

The Owner has purchased under a turnkey contract the design, manufacture and delivery of the turbine, generator, and controls consisting of the following items:

1. Two (2) turbines.
2. Two (2) vertical generators with associated commissioning services.
3. Governing system.
4. Generator switchgear and control system.
5. One (1) trash rake.
6. Three (3) radial gates.

DIVISION 12

Furnishings

Omitted - NIC

DIVISION 13

Special Construction

Omitted - NIC

DIVISION 14

Conveying Systems

Omitted - NIC

DIVISION 15

Electrical Requirement for Mechanical Equipment

SUMMARY:

This section specifies the basic requirements for electrical components which are an integral part of packaged mechanical equipment. These components include, but are not limited to factory-installed motors, starters, and disconnect switches furnished as an integral part of packaged mechanical equipment.

References:

NEMA Standards MG 1: Motors and Generators.
NEMA Standard ICS 2: Industrial Control Devices, Controllers, and Assemblies.
NEMA Standard 250: Enclosures for Electrical Equipment.
NEMA Standard KS 1: Enclosed Switches.
Comply with National Electric Code (NEPA 70).

Submittals:

No separate submittal is required. Submit product data for motors, starters, and other electrical components with submittal data required for the equipment for which it serves as required by the individual equipment specification sections.

Quality Assurance:

Electrical components and materials shall be UL labeled.

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Motors:

The following are basic requirements for simple or common motors. For special motors, more detailed and specific requirements are specified in the individual equipment specifications.

Torque characteristics shall be sufficient to satisfactorily accelerate the driven loads.

Motor sizes shall be large enough so that the driven load will not require the motor to operate in the service factor range.

Temperature Rating: Rated for 40 degrees C environment with maximum 50 degrees C temperature rise for continuous duty at full load (Class A insulation).

Service Factor: 1.15 for poly-phase motors and 1.35 for single phase motors.

Motor Construction: NEMA Standard MG 1, general purpose, continuous duty, Design "B", except "C" where required for high starting torque.

Frames:

NEMA Standard No. 48 or 54; use driven equipment manufacturer's standards to suit specific application.

Bearings:

Ball or roller bearings with inner and outer shaft seals;

Re-greasable, except permanently sealed where motor is normally inaccessible for regular maintenance;

Designed to resist thrust loading where belt drives or other drives produce lateral or axial thrust in motor;

For fractional horsepower, light duty motors, sleeve type bearings are permitted.

Enclosure Type:

Explosion proof.

Overload Protection:

Built-in thermal overload protection and, where indicated, internal sensing device suitable for signaling and stopping motor at starter.

Noise Rating: "Quiet".

Nameplate: Indicate the full identification of manufacturer, ratings, characteristics, construction, special features and similar information.

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FIGURE F-2D

CHANGED FIGURE NUMBER		P.E.	1/26/93
REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	DRAWN BY	DRAWING NO.	
N.T.S.	K. DURHAM	154-1-06	
DATE	CHECKED BY		
APR. 8, 1993			
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	REV
Consulting Engineers		20	1
150 WARM SPRINGS AVE. TEL: (208) 338-1425 BOISE, IDAHO 83712			

DIVISION 15 (cont.)
Electrical Requirements For Mechanical Equipment

Motor Connections:

Flexible conduit, except where plug-in electrical cords are specifically indicated.

Drains

Drainage systems and sump pumps shall be furnished and installed as shown on the drawings.

Ventilation & Heating

Exhaust and makeup air ducts, louvers, grills, and heating systems shall be as shown and specified in the drawings.

Welding

Welding procedures for the penstock pipe and fittings shall be developed by the Contractor and submitted to the Engineer for approval. Welding shall be in accordance with the latest editions of Section IX, ASME Boiler & Pressure Vessel Code, performed by welders certified by a recognized testing laboratory within 12 months prior to employment on this project.

The Contractor shall employ, subject to approval by the Engineer, an independent and qualified testing laboratory to inspect and certify the quality of welding.

DIVISION 16
Electrical

Control Wiring

Control wiring will be installed by the electro-mechanical contractor noted in Division 11, per the single line diagram included in the drawings.

Low Voltage Power Wiring (4160 V)

Wiring between the generator, switchgear and transformer shall be installed in general accordance with the drawings and specifications shown therein. The line to the substation shall be buried.

Interconnection

The connection to the purchasing utility (Idaho Power Co.) will be at the high voltage (12.5 KV) side of the step-up transformer.

SCOPE OF WORK:

A) Furnish and install all materials and equipment and provide all work shown on the drawings and/or specified in all Sections of Division 16 and all other work and miscellaneous items, not specifically mentioned, but reasonably inferred for a complete installation including all accessories and appurtenances required for testing the system. It is the intent of the drawings and specifications that all systems be complete, and ready for operation.

CODE COMPLIANCE:

A) All work and materials shall comply with the latest rules, codes and regulations, including, but not limited to the following:
1. Occupational Safety and Health Act Standards (OSHA).
2. NFPA #70 - National Electric Code (NEC).
3. NFPA #101 - Life Safety Code.

CODE COMPLIANCE:

4. ANSI/IEEE C-2 - National Electrical Safety Code
5. NECA - Standard of Installation
6. Uniform Building Code
7. Uniform Fire Code
8. All other applicable Federal, State and local laws and regulations.

B) Work to be executed and inspected in accordance with local codes and ordinances. Permits, fees or charges for inspection or other services shall be paid for by this Contractor. Local codes and ordinances are to be considered as minimum requirements and must be properly executed without expense to the Owner; but do not relieve the Contractor from work shown that exceeds minimum requirements.

CONDITIONS AT SITE:

A) Visit to site is required of all bidders prior to submission of bid. All will be held to have familiarized themselves with all discernible conditions and no extra payment will be allowed for work required because of these conditions, whether specifically mentioned or not.
B) Lines of other services that are damaged as a result of this work shall promptly be repaired at no expense to the Owner to complete satisfaction of the Owner.

DRAWINGS AND SPECIFICATIONS:

A) All drawings and all Divisions of these specifications shall be considered as a whole and work of this Division shown anywhere therein shall be furnished under this Division.
B) Drawings are diagrammatic and indicate the general arrangement of equipment and wiring. Most direct routing of conduits and wiring is not assured. Exact requirements shall be governed by architectural, structural and mechanical conditions of the job. Consult all other drawings in preparation of the bid. Extra lengths of wiring or addition of pull or junction boxes, etc., necessitated by such conditions shall be included in the bid. Check all information and report any apparent discrepancies before submitting bid.

SAFETY AND INDEMNITY:

A) Safety: The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and properly during performance of the work. This requirement will apply continuously and not be limited to normal working hours. See also General Conditions.
B) No act, service, drawing review or construction review by the Owner, the Architect, the Engineers or their consultants is intended to include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

CONSTRUCTION OBSERVATION BY THE ENGINEER OR HIS REPRESENTATIVE:

A) Prior to Covering: any major portion of the materials installed under this section, notify the Architect or Engineer so that an observation can be made. Notification shall be made at least three (3) working days in advance of the date the items will be covered.

INSTRUCTION OF OWNER'S PERSONNEL:

A) The Contractor shall conduct an on-site instructional tour of the entire project. The personnel designated by the Owner shall be instructed in: operation of all electrical systems, elementary trouble-shooting procedures, preventive maintenance procedures, uses of Operation and Maintenance Manuals, relamping and cleaning of lighting fixtures and operation of all communication systems.

PROJECT COMPLETION:

A) Upon completion of all work and operational checks of all systems, the Contractor shall request that a final construction observation be performed.
B) The Engineer shall compile a punch list of items to be completed or corrected. The Contractor shall notify the Engineer in writing upon completion of the items.
C) Should the Engineer find the work incomplete and necessary to compile an additional punch list, the Owner shall compensate the Engineer for the additional services, and this amount shall be deducted from the final payment to the Contractor.

SUBMITTALS:

A) Submit written guarantee, operation and maintenance manuals, and record drawings.

GUARANTEE:

A) All work under this section shall be guaranteed in writing to be free of defective work, materials, or parts for a period of one (1) year, except lamps which shall be guaranteed for thirty (30) days after final acceptance of the work under the contract.
B) Repair, revision or replacement of any and all defects, failure or inoperativeness shall be done by this section at no cost to the Owner.

OPERATION AND MAINTENANCE MANUALS:

A) The Contractor shall prepare three manuals for the entire Electrical system. These manuals shall be submitted for approval at least thirty (30) days before completion of the work. Failure to submit manuals for approval will delay final inspection and acceptance of the work by the Owner.

MATERIAL APPROVAL:

A) The design, manufacturer and testing of electrical equipment and materials shall conform to or exceed latest applicable NEMA, IEEE and ANSI standards.
B) All materials must be new and be U.L. listed. Materials that are not covered by U.L. testing standards shall be tested and approved by an independent testing laboratory or a governmental agency, which laboratory shall be acceptable to the Engineer, Owner and code enforcing authority.

TEMPORARY ELECTRICAL SERVICES:

A) Temporary wiring for construction light and power for the general contractor or other subcontractors shall not be included as a part of this section of the work.

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PRODUCT DELIVERY, STORAGE AND HANDLING:

A) Deliver, store, and handle materials in a manner to prevent damage or interference with traffic conditions.
B) Protect equipment from weather and dampness.

WORKMANSHIP AND CONTRACTOR'S QUALIFICATIONS:

A) Only quality workmanship will be accepted. Haphazard or poor installation practice will be cause for rejection of work.
B) Provide foreman in charge of this work at all times.

COORDINATION:

A) Coordinate work with other trades to avoid conflict and to provide correct rough-in and connection for equipment furnished under trades that require electrical connections. Inform Contractors of other trades of the required access to and clearances around electrical equipment to maintain serviceability and code compliance.
B) Verify equipment dimensions and requirements with provisions specified under this Section. Check actual job conditions before fabricating work. Report necessary changes in time to prevent needless work. Changes or additions subject to additional compensation, which are made without written authorization and an agreed price, shall be at Contractor's risk and expense.

MANUFACTURER'S INSTRUCTIONS:

A) Where the specifications call for an installation to be made in accordance with Manufacturer's recommendations, a copy of such recommendations shall at all times be kept in the job superintendent's office and shall be available to the Owner's representative.
B) Follow manufacturer's instructions where they cover points not specifically indicated on drawings and specifications. If they are in conflict with the drawings and specifications obtain clarification from the Architect before starting work.

QUALITY ASSURANCE:

A) Provide a meaningful Quality Assurance program. To assist the Contractor in this program, the specifications contained herein are set forth as the minimum acceptable requirements. This does not relieve the Contractor from executing other Quality Assurance measures to obtain a complete operating facility within the scope of this project.
B) The Contractor shall insure that all workmanship, all materials employed, all required equipment and the manner and method of installation conforms to acceptable construction and engineering practices, and that each piece of equipment is in satisfactory working condition to satisfactorily perform its functional operation.
C) All Quality Control is the final responsibility of Contractors Power Group INC.

FIGURE F-2E

FIGURE F-2E

1	GENERAL REVISIONS	C.Y.	7/26/93
REV.	DESCRIPTION	BY	DATE

SPECIFICATIONS

MILE 28 HYDROELECTRIC PROJECT

SCALE	N.T.S.	DRAWN BY	K. DURHAM	DRAWING NO.
DATE	APR. 8, 1993	CHECKED BY		154-1-07

MYERS ENGINEERING COMPANY, P.A.

Consulting Engineers

150 WARM SPRINGS AVE.

BOISE, IDAHO 83712

TEL: (208) 338-1425

SHEET NO

REV

2E

1

SUMMARY:

This section specifies the basic requirements for electrical components which are an integral part of packaged mechanical equipment. These components include, but are not limited to factory-installed motors, starters, and disconnect switches furnished as an integral part of packaged mechanical equipment.

References:

- NEMA Standards MG 1: Motors and Generators.
- NEMA Standard ICS 2: Industrial Control Devices, Controllers, and Assemblies.
- NEMA Standard 250: Enclosures for Electrical Equipment.
- NEMA Standard KS 1: Enclosed Switches.
- Comply with National Electric Code (NFPA 70).

Submittals:

No separate submittal is required. Submit product data for motors, starters, and other electrical components with submittal data required for the equipment for which it serves as required by the individual equipment specification sections.

Quality Assurance:

Electrical components and materials shall be UL labeled.

Motors:

The following are basic requirements for simple or common motors. For special motors, more detailed and specific requirements are specified in the individual equipment specifications.

Torque characteristics shall be sufficient to satisfactorily accelerate the driven loads.

Motor sizes shall be large enough so that the driven load will not require the motor to operate in the service factor range.

Temperature Rating: Rated for 40 degrees C environment with maximum 50 degrees C temperature rise for continuous duty at full load (Class A insulation).

Service Factor: 1.15 for poly-phase motors and 1.35 for single phase motors.

Motor Construction: NEMA Standard MG 1, general purpose, continuous duty, Design "B", except "C" where required for high starting torque.

Frames: NEMA Standard No. 48 or 54; use driven equipment manufacturer's standards to suit specific application.

Bearings:

Ball or roller bearings with inner and outer shaft seals;

Re-greasable, except permanently sealed where motor is normally inaccessible for regular maintenance;

Designed to resist thrust loading where belt drives or other drives produce lateral or axial thrust in motor;

For fractional horsepower, light duty motors, sleeve type bearings are permitted.

Enclosure Type:

Explosion proof.

Overload Protection:

Built-in thermal overload protection and, where indicated, internal sensing device suitable for signaling and stopping motor at starter.

Noise Rating: "Quiet".

Nameplate: Indicate the full identification of manufacturer, ratings, characteristics, construction, special features and similar information.

Motor Connections:

Flexible conduit, except where plug-in electrical cords are specifically indicated.

Drains

Drainage systems and sump pumps shall be furnished and installed as shown on the drawings.

Ventilation & Heating

A) Conduit Clamps, Straps, and Supports: Steel or malleable iron.

CONDUIT SIZING, ARRANGEMENT, AND SUPPORT:

- A) Conduit: Rigid threaded, galvanized steel or intermediate metal conduit (steel) 3/4" minimum size; plastic conduit, 3/4" minimum size; electrical metallic tubing, 1/2" minimum size.
- B) Arrange conduit to maintain headroom and present a neat appearance.
- C) Route exposed conduit parallel and perpendicular to walls and adjacent piping.
- D) Arrange conduit supports to prevent distortion of alignment by wire pulling operations. Fasten conduit to structure using galvanized straps, lay-in adjustable hangers, clevis hangers, or bolted split stamped galvanized hangers as described in NEC articles 345-12, 346-12, 347-8 and 348-12.
- E) Group conduit in parallel runs where practical and use conduit rack constructed of steel channel with conduit straps or clamps. Provide space for 25 percent additional conduit.
- F) Do not fasten conduit with wire or perforated pipe straps. Remove all wire used for temporary conduit support during construction, before conductors are pulled.
- G) Provide 3/4" minimum size conduit on all home-runs.

CONDUIT INSTALLATION:

- A) Conduit shall not be concealed.
- B) Cut conduit square using a saw or pipecutter; de-burr cut ends.
- C) Bring conduit to the shoulder of fittings and couplings and fasten securely.
- D) Use conduit hubs for fastening conduit to cast boxes, and for fastening conduit to sheet metal boxes in damp or wet locations.
- E) Install no more than the equivalent of four 90-degree bends between boxes.
- F) Use conduit bodies to make sharp changes in direction, as around beams.
- G) Install locknuts and insulating bushings where conduit enters boxes, cabinets, or fittings.
- H) Use hydraulic one-shot conduit bender or factory elbows for bends in conduit larger than 2 inch size.
- I) Avoid moisture traps where possible; where unavoidable, provide junction box with drain fitting at conduit low point.

J) Use suitable conduit caps to protect installed conduit against entrance of dirt and moisture.

K) Install expansion-deflection joints complete with ground jumpers where conduit crosses building expansion or seismic joints.

L) Provide accessible pull or junction boxes to limit branch circuit runs to 100 feet and feeders to 150 feet.

BUILDING WIRE:

- A) Feeders and Branch Circuits Larger than 6 AWG: stranded, copper, Type THHN/THWN, 600 volt insulation.
- B) Feeders and Branch Circuits 6 AWG and Smaller: Copper conductor, 600 volt insulation, Type THHN/THWN, 6 and 8 AWG, stranded conductor; smaller than 8 AWG, solid conductor.
- C) Control Circuits: Copper, stranded conductor 600 volt insulation, Type THHN/THWN.

GENERAL WIRING METHODS:

- A) Use no wire smaller than 12 AWG for power and lighting circuits, and no smaller than 14 AWG for control wiring.
- B) Use 10 AWG conductor for 20 ampere, 120 volt branch circuit home runs longer than 75 feet, and for 20 ampere, 277 volt branch circuit home runs longer than 200 feet.
- C) Place an equal number of conductors for each phase of a circuit in same raceway or conduit.
- D) Splice only in junction or outlet boxes.
- E) Neatly train and lace wiring inside boxes, equipment, and panelboards.
- F) Make conductor lengths for parallel circuits equal.

WIRING INSTALLATION IN RACEWAYS:

- A) Pull all conductors into a raceway at the same time. Use UL listed wire pulling lubricant suitable for conductor insulation for pulling 4 AWG and larger wires.
- B) Install wire in raceway after interior of building has been physically protected from the weather and all mechanical work likely to injure conductors has been completed.
- C) Completely and thoroughly swab raceway system before installing conductors.

WIRING CONNECTIONS AND TERMINATIONS:

- A) Splice only in accessible junction boxes.
- B) Use solderless pressure connectors with insulating covers for copper wire splices and taps, 8 AWG and smaller. For 10 AWG and smaller, use insulated spring wire connectors with plastic caps.
- C) Use split bolt connectors for copper wire splices and taps, 6 AWG and larger. Tape uninsulated conductors and connectors with electrical tape to 150 percent of the insulation value of conductor.
- D) Thoroughly clean wires before installing lugs and connectors.
- E) Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.

FIELD QUALITY CONTROL:

- A) Inspect wire and cable for physical damage and proper connection.
- B) Torque test conductor connections and terminations to manufacturer's recommended values.
- C) Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.

OUTLET BOXES:

- A) Sheet Metal Outlet Boxes ANSI/NEMA OS 1; galvanized steel, with 1/2 inch male fixture studs where required.
- B) Cast Boxes: Cast iron deep type, gasketed cover, threaded hubs.

PULL AND JUNCTION BOXES:

- A) Sheet Metal Boxes: ANSI/NEMA OS 1; galvanized steel.
- B) Cast Metal Boxes for Hazardous Location Installations: NEMA 250; Type 7 flat-flanged, surface-mounted junction box, UL listed as raintight. Cast iron box and cover with ground flange, neoprene gasket, and stainless steel cover screws.
- C) Concrete Boxes for Underground Installations: size as indicated on drawings. Provide checkered steel cover suitable for area where box is installed.

COORDINATION OF BOX LOCATIONS:

- A) Provide electrical boxes as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections, and code compliance.
- B) Electrical box locations shown on Contract Drawings are approximate unless dimensioned. Verify location of floor boxes and outlets in offices and work areas prior to rough-in.
- C) Locate and install boxes to allow access.
- D) Locate and install to maintain headroom and to present a neat appearance.
- E) Support boxes independently of conduit except for cast boxes that is connected to two rigid metal conduits, both supported within inches of box.
- F) Locate pull boxes and junction boxes in accessible areas.
- G) Support pull and junction boxes independent of conduit.
- H) Label coverplate of all accessible pull and junction boxes by system served. Indicate panel circuits for power and lighting boxes.

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FIGURE F-2F

REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	N.T.S.	DRAWN BY	DRAWING NO.
DATE	APR. 8, 1993	K. DURHAM	154-1-08
MYERS ENGINEERING COMPANY, P.A.		CHECKED BY	SHEET NO. REV
150 WARM SPRINGS AVE., HOUSTON, TEXAS 77057		TELEPHONE: (281) 336-1425	2F 0

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GROUNDING

This section covers requirements for a complete grounding installation for the facility, as shown on the Drawings, which shall conform to these Specifications and all applicable codes. Grounding shall include a complete buried system and a grounding system for all ground switches, shield wires, lightning arresters, circuit breakers, meter cabinets, potential and current transformers, power transformers, structures, control building, panels, conduit bushings, cables, and other appropriate items.

INSTALLATION

- A) The buried grounding system shall be installed in conformance with the Drawings and Specifications. Below-grade connections shall utilize an approved exothermic process. Connections shall be made in conformance with the manufacturer's instructions.
- B) Grounding conductors shall be straight and free from kinks, breaks, and other damage after installation. Conductors shall be thoroughly cleaned prior to making connections. All connections shall be inspected by the Engineer prior to burial.
- C) The ground bus shall be laid slack to the depth shown on the Drawings.
- D) All equipment and all steel structures shall be connected to the ground system. This includes but is not limited to all panels, junction boxes, and auxiliary equipment.
- E) All ground bus bars in panels shall be grounded solidly to the ground grid with #6 or larger solid copper wire.
- F) The grounding system on the ladders, doors, railings, etc., shall be solidly connected to the buried ground grid.
- G) All metallic conduit and metallic cable shielding and sheath shall be effectively grounded at terminations in conformance with the National Electrical Code.

ELECTRICAL IDENTIFICATION

MATERIALS:

- A) Nameplates: Engraved three-layer laminated plastic, white letters on a black background.
- B) Tape Labels: Embossed adhesive tape, with 3/16 inch white letters on black background.
- C) Wire and Cable Markers: Cloth markers, split sleeve or tubing type.

INSTALLATION:

- A) Degrease and clean surfaces to receive nameplates and tape labels.
- B) Install nameplates and tape labels parallel to equipment lines.
- C) Secure nameplates to equipment fronts using screws or rivets. Secure nameplate to inside face of recessed panelboard doors in finished locations.
- D) Use embossed tape only for identification of individual wall switches and receptacles to show panel and circuit number to which the device is connected.

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WIRE IDENTIFICATION:

- A) All feeder and branch circuit conductors to be color coded.

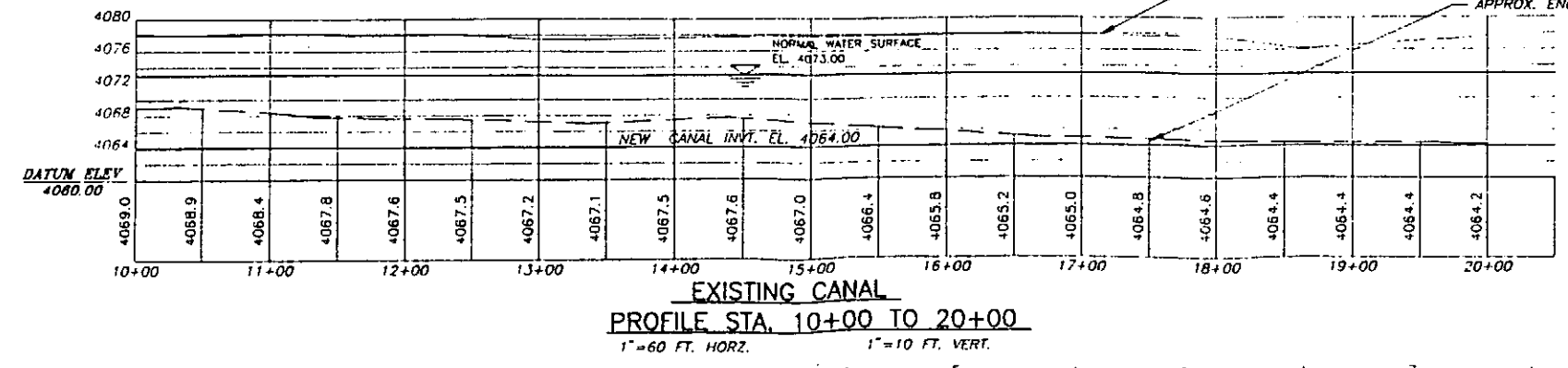
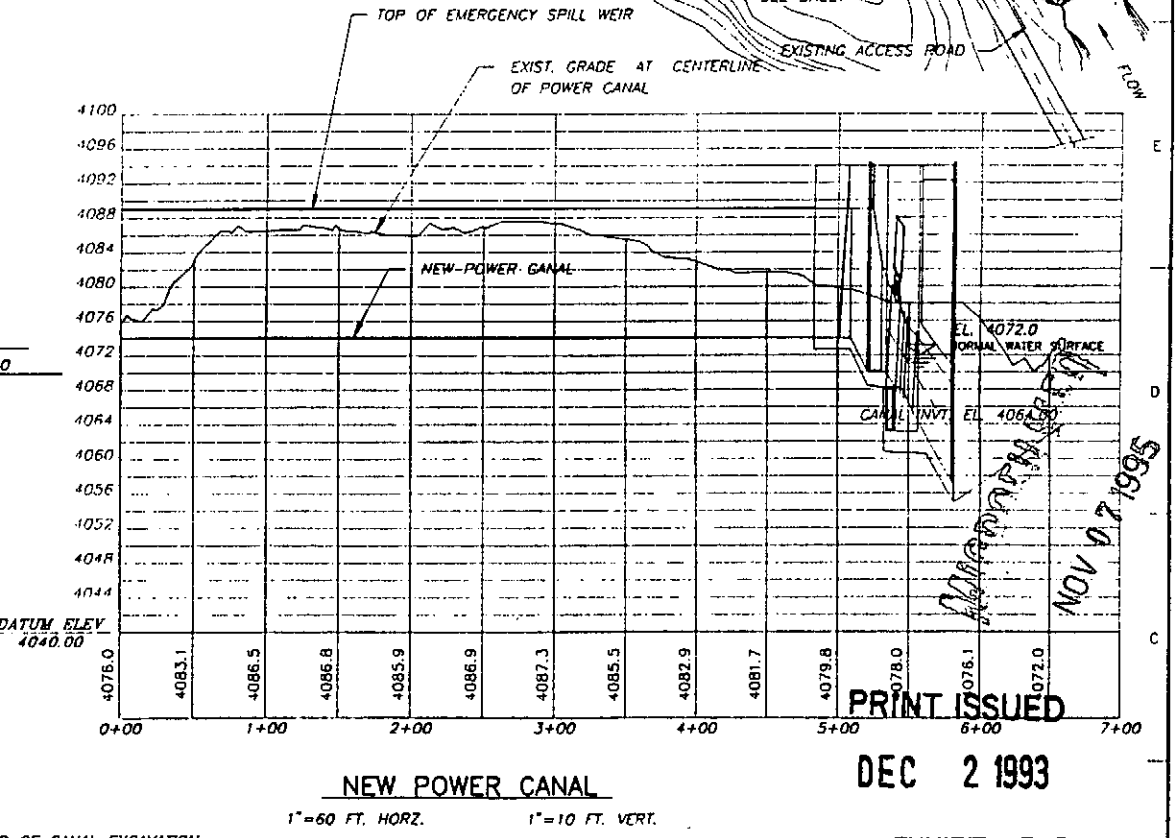
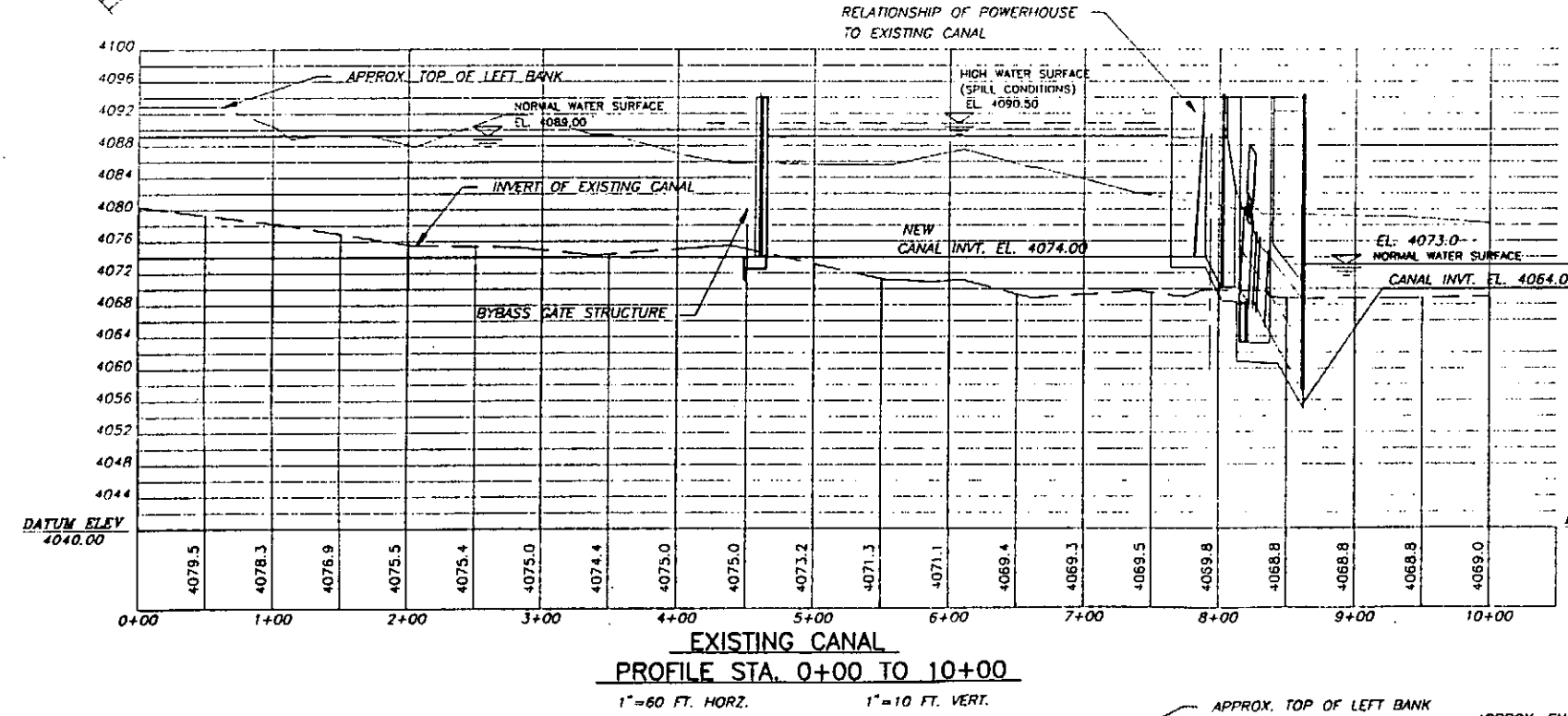
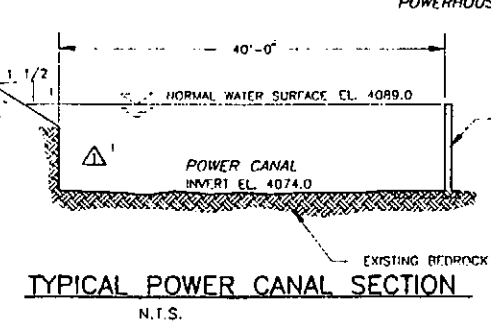
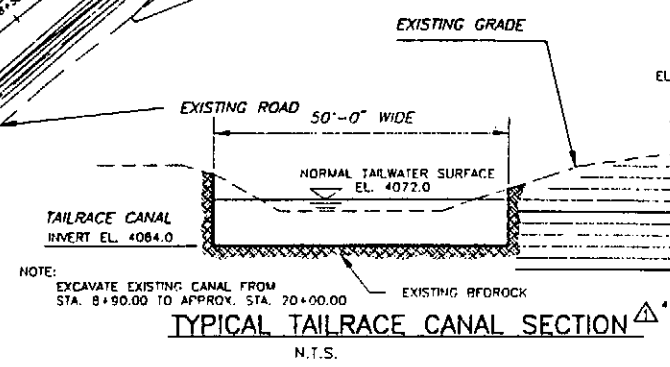
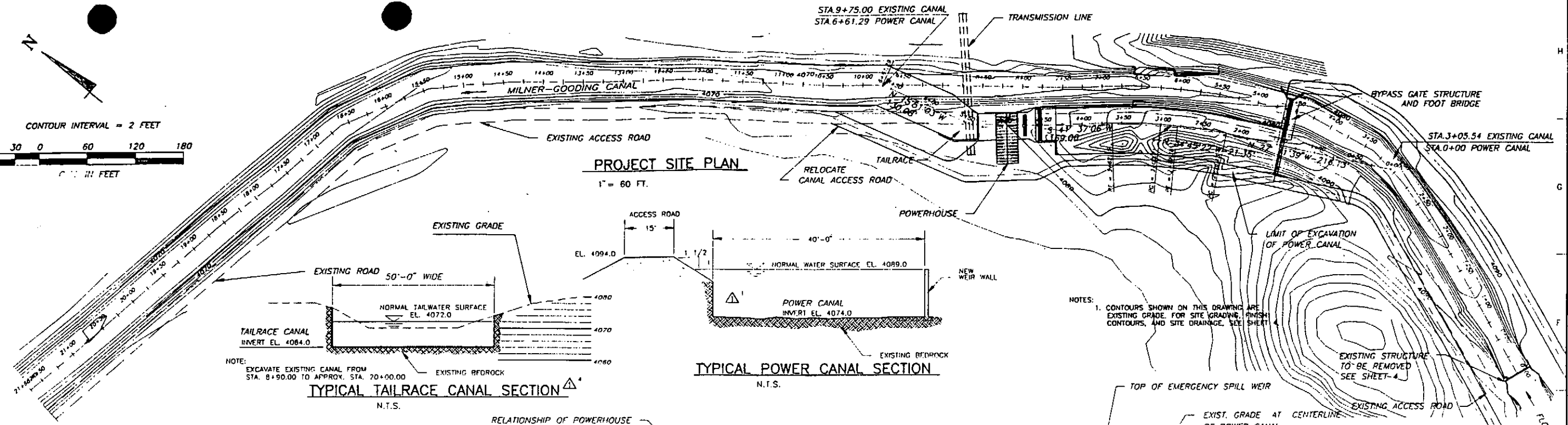
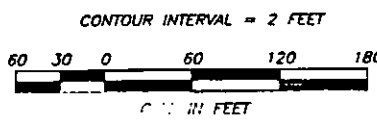
NAMEPLATE ENGRAVING SCHEDULE:

- A) Provide nameplates to identify all electrical distribution and control equipment, and loads served. Letter Height: 1/8 inch for individual switches and loads served, 1/4 inch for distribution and control equipment identification.
- B) Panelboards, Switchboards and Motor Control Centers: 1/4 inch; identify equipment designation, 1/8 inch; identify voltage rating and source.
- C) Enclosed Switches, and Motor Starters: 1/4 inch; identify load served.

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FIGURE F-2G

REV	DESCRIPTION	BY	DATE
SPECIFICATIONS			
MILE 28 HYDROELECTRIC PROJECT			
SCALE	DRAWN BY	DRAWING NO.	
N.T.S.	K. DURHAM	154-1-09	
DATE	CHECKED BY		
APR. 8, 1993			
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	REV
Consulting Engineers		2G	0
1700 WARM SPRINGS AVE. TEL: PHONE (208) 358-1425 BOISE, IDAHO 83712			



SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

SHEET ON WHICH SECTION/DETAIL IS SHOWN

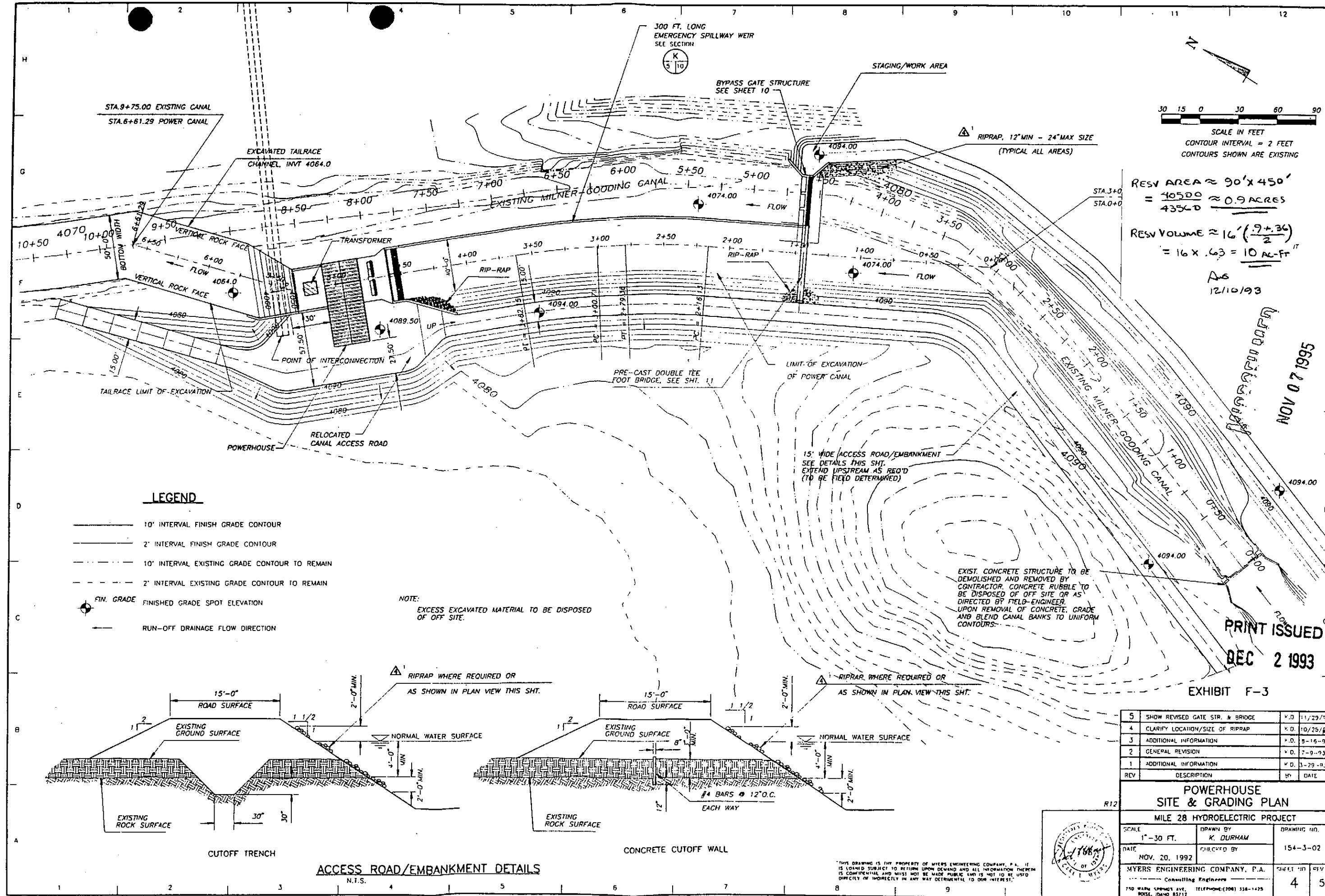
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EXHIBIT F-2

REV	DESCRIPTION	BY	DATE
3	SHOW REVISED GATE STRUCTURE, WSC, GULLIES	K.D.	11/30/93
2	GENERAL REVISION	K.D.	7/9/93
1	ADDITIONAL INFORMATION	K.D.	5/30/92
0			

PROJECT SITE PLAN CANAL PLAN & PROFILE			
MILE 28 HYDROELECTRIC PROJECT			
SCALE AS NOTED	DRAWN BY K. DURHAM	DRAWING NO. 154-3-01	
DATE NOV. 20, 1992	CHECKED BY		
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO.	REV
740 WARM SPRINGS AVE. BOISE, IDAHO 83712		3	3

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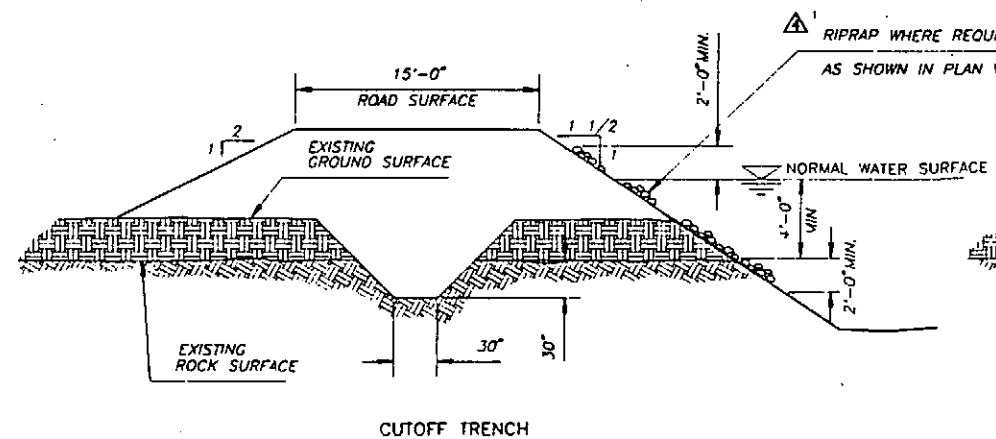
RESV AREA $\approx 90' \times 450'$
 $= \frac{40500}{43560} \approx 0.9 \text{ ACRES}$
 RESV VOLUME $\approx 16' \left(\frac{9+36}{2} \right)$
 $= 16 \times .63 = 10 \text{ AC-FT}$
 AS
 12/10/93

LEGEND

- 10' INTERVAL FINISH GRADE CONTOUR
- 2' INTERVAL FINISH GRADE CONTOUR
- 10' INTERVAL EXISTING GRADE CONTOUR TO REMAIN
- 2' INTERVAL EXISTING GRADE CONTOUR TO REMAIN
- FIN. GRADE FINISHED GRADE SPOT ELEVATION
- RUN-OFF DRAINAGE FLOW DIRECTION

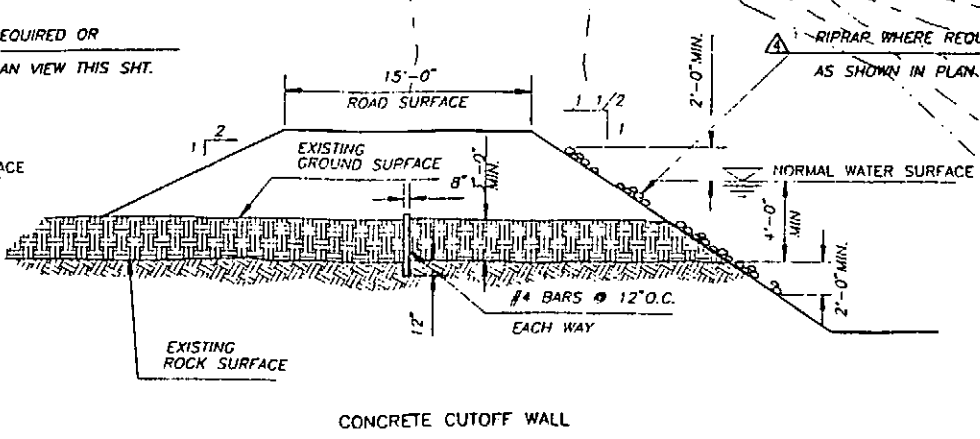
NOTE:
 EXCESS EXCAVATED MATERIAL TO BE DISPOSED
 OF OFF SITE.

EXIST. CONCRETE STRUCTURE TO BE
 DEMOLISHED AND REMOVED BY
 CONTRACTOR. CONCRETE RUBBLE TO
 BE DISPOSED OF OFF SITE OR AS
 DIRECTED BY FIELD-ENGINEER.
 UPON REMOVAL OF CONCRETE, GRADE
 AND BLEND CANAL BANKS TO UNIFORM
 CONTOURS.



ACCESS ROAD/EMBANKMENT DETAILS

N.T.S.



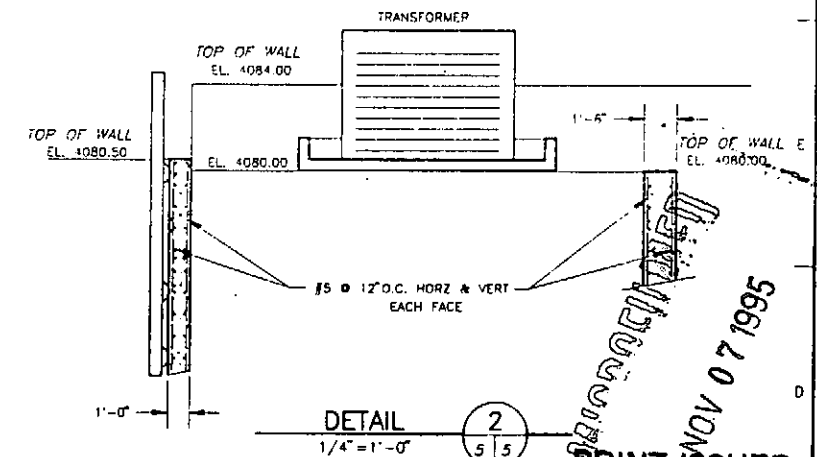
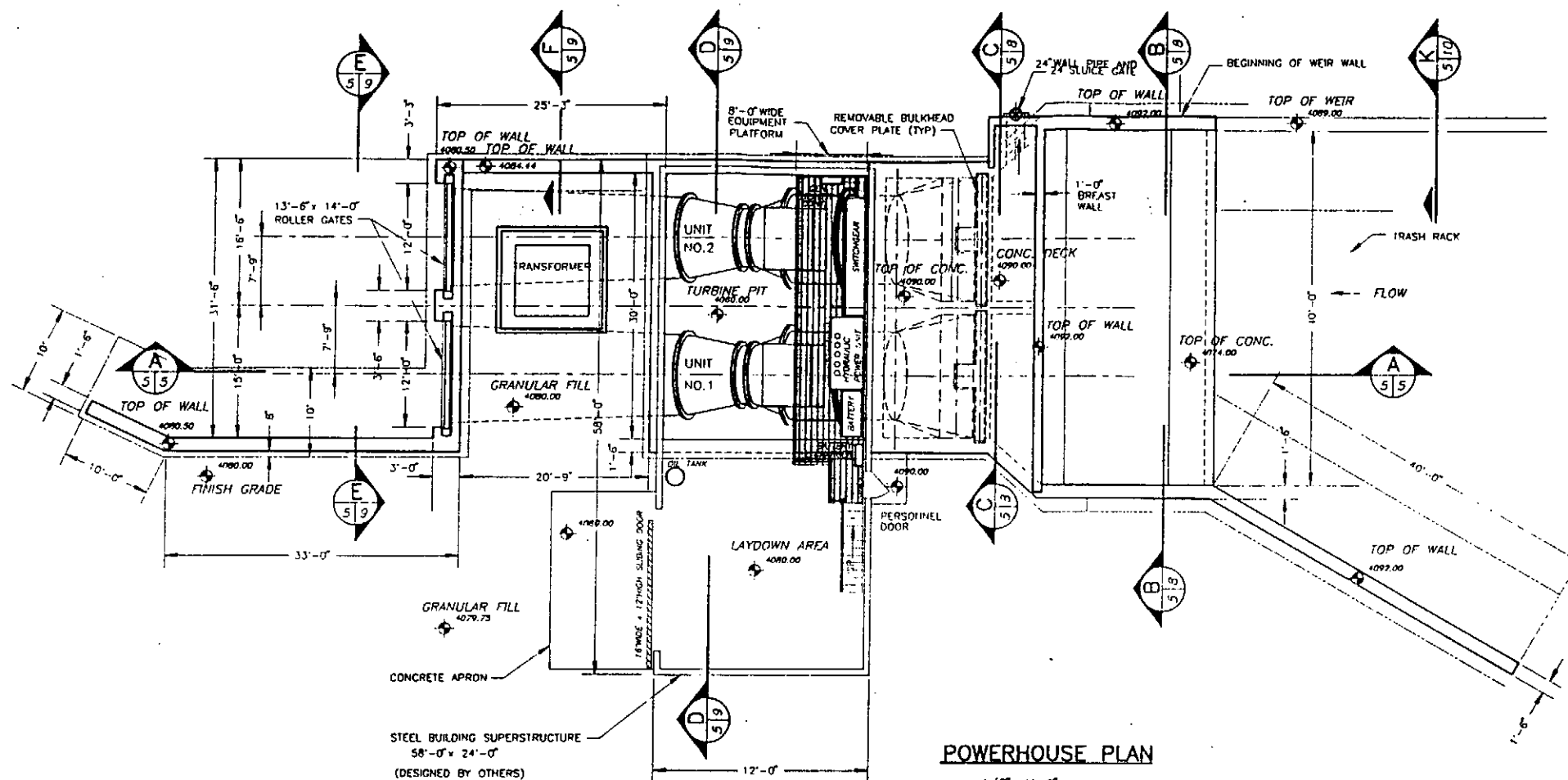
CONCRETE CUTOFF WALL

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EXHIBIT F-3

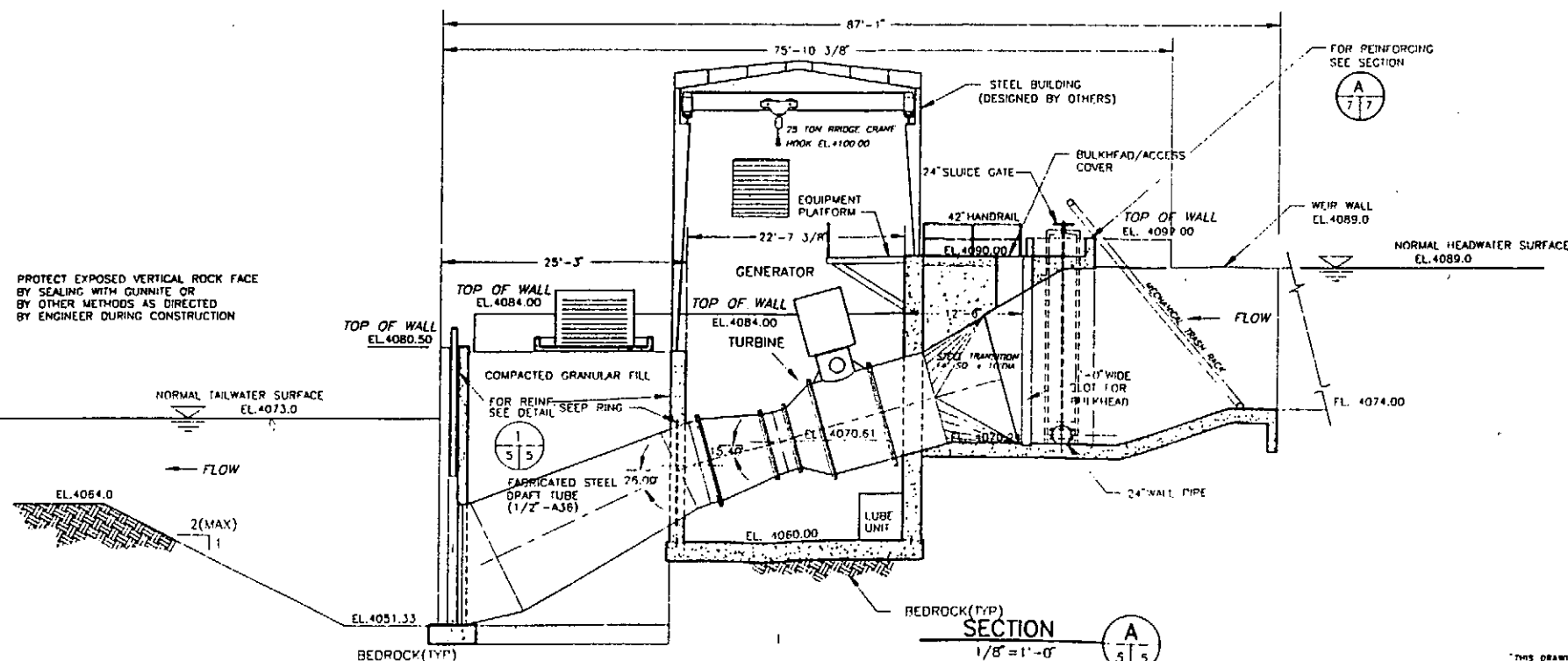
5	SHOW REVISED GATE STR. & BRIDGE	K.D.	11/29/93
4	CLARIFY LOCATION/SIZE OF RIPRAP	K.D.	10/25/93
3	ADDITIONAL INFORMATION	K.D.	8-15-93
2	GENERAL REVISION	K.D.	7-9-93
1	ADDITIONAL INFORMATION	K.D.	3-29-93
REV	DESCRIPTION	BY	DATE
POWERHOUSE SITE & GRADING PLAN MILE 28 HYDROELECTRIC PROJECT			
SCALE	1"=30 FT.	DRAWN BY	K. DURHAM
DATE	NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A.		SHEET NO.	154-3-02
Consulting Engineers		REV	4 5
750 WARM SPRINGS AVE. ROSELAND, ILLINOIS 60468-4312		TELEPHONE (708) 558-1425	



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SECTION OR ELEVATION LETTER, OR DETAIL NUMBER
SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN
SHEET ON WHICH SECTION/DETAIL IS SHOWN

EXHIBIT F-4



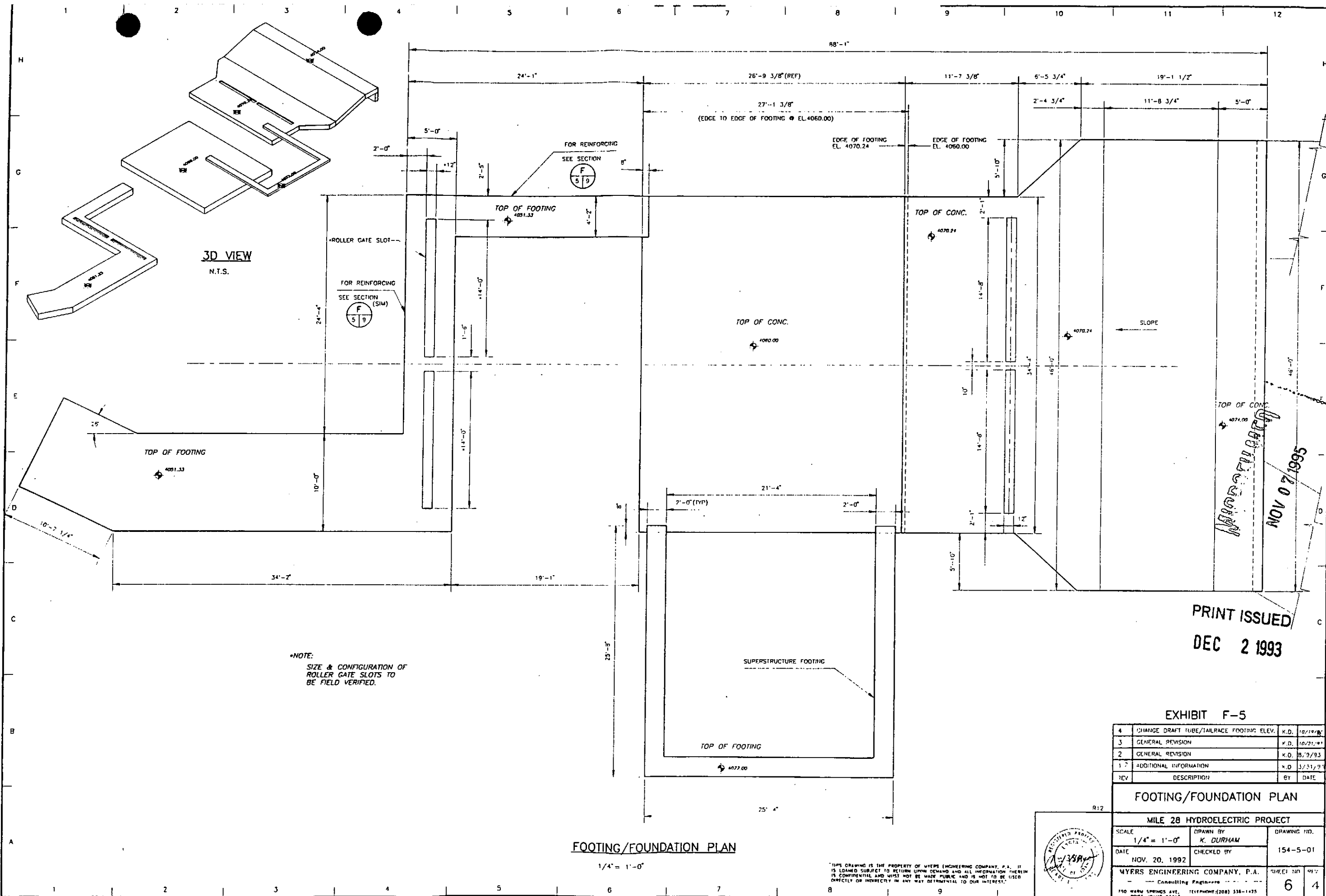
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6	REVISE INTAKE & DRAFT TUBE	K.D.	11/19/93
5	REVISE INTAKE & DRAFT TUBE	K.D.	10/28/93
4	ADDITIONAL INFORMATION	K.D.	10/22/93
3	ADDITIONAL INFORMATION	K.D.	7/11/93
2	GENERAL REVISION	K.D.	2/11/93
1	ADDITIONAL INFORMATION	K.D.	5/31/93
REV	DESCRIPTION	BY	DATE

**POWERHOUSE
GENERAL ARRANGEMENT**

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/8" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-4-01
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 150 WARM SPRINGS AVE. BOISE, IDAHO 83712	SHEET NO. 5	REV. 6



3D VIEW
N.T.S.

*NOTE:
SIZE & CONFIGURATION OF
ROLLER GATE SLOTS TO
BE FIELD VERIFIED.

FOOTING/FOUNDATION PLAN

1/4" = 1'-0"

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EXHIBIT F-5

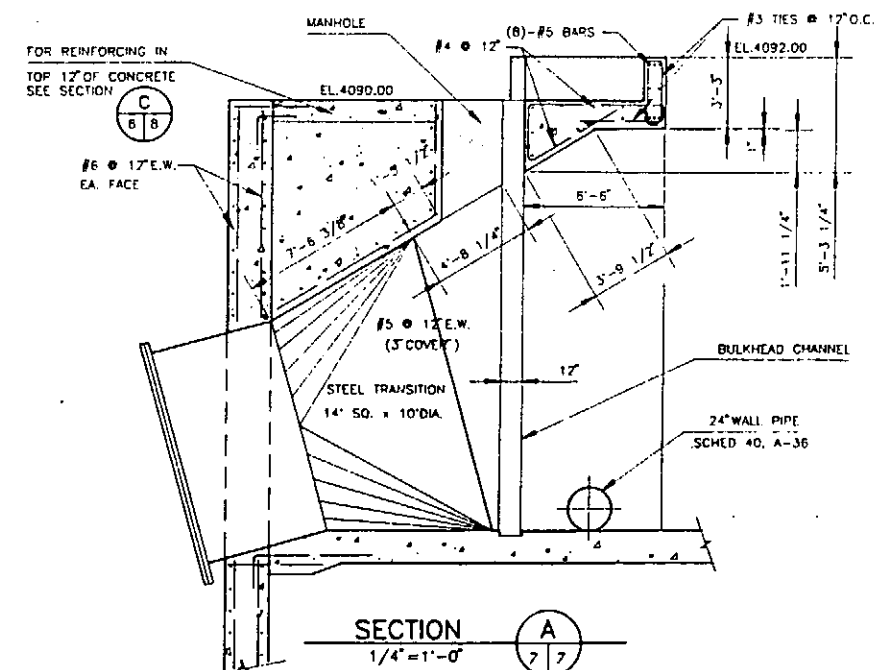
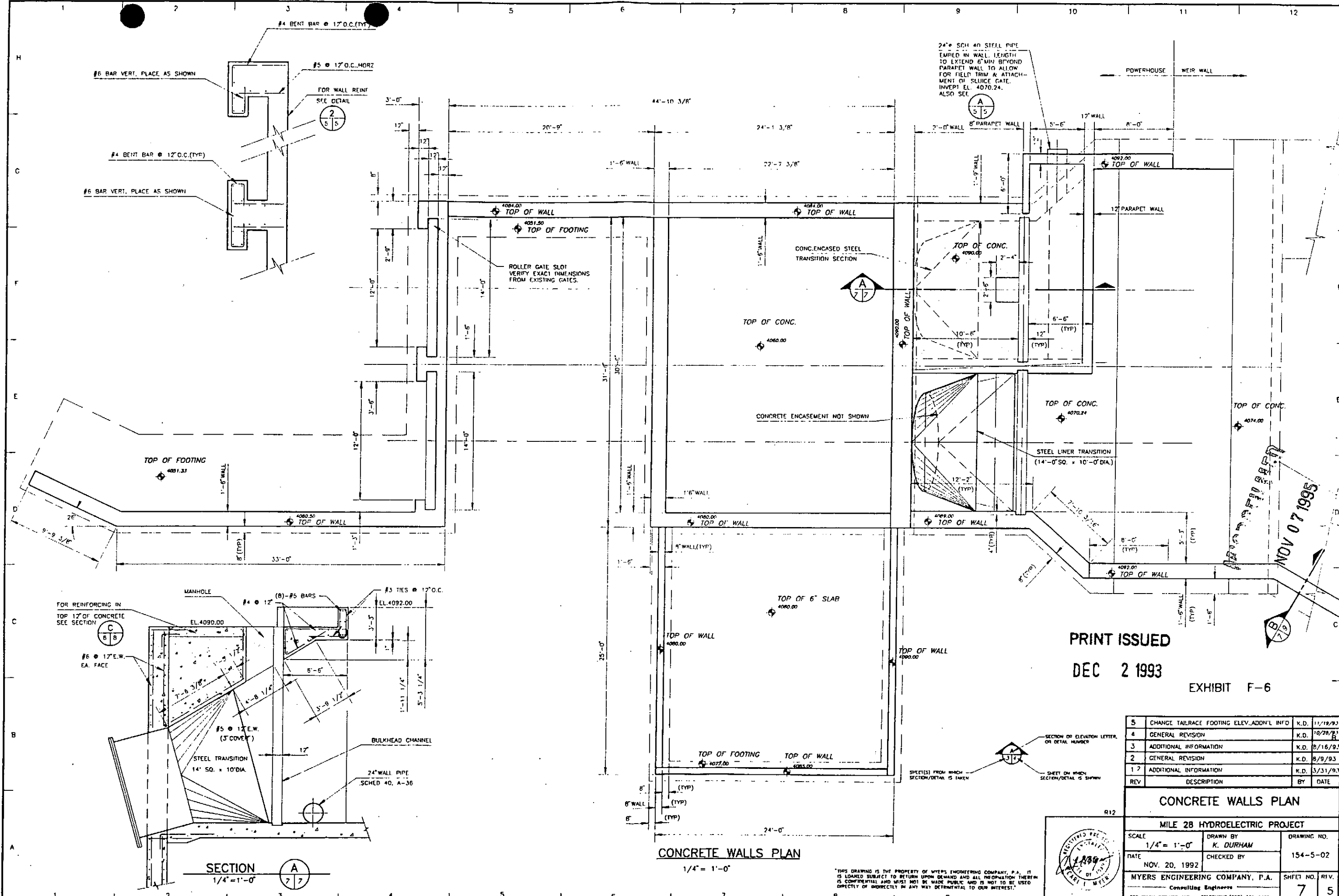
4	CHANGE DRAFT TUBE/TAIRACE FOOTING ELEV.	K.D.	10/19/93
3	GENERAL REVISION	K.D.	10/21/93
2	GENERAL REVISION	K.D.	8/9/93
1	ADDITIONAL INFORMATION	K.D.	3/31/93
REV	DESCRIPTION	BY	DATE

FOOTING/FOUNDATION PLAN

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-01
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 150 WARM SPRINGS AVE. ROSEL, IDAHO 83712		SHEET NO. 6
		4

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CONCRETE WALLS PLAN

1/4" = 1'-0"

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EXHIBIT F-6

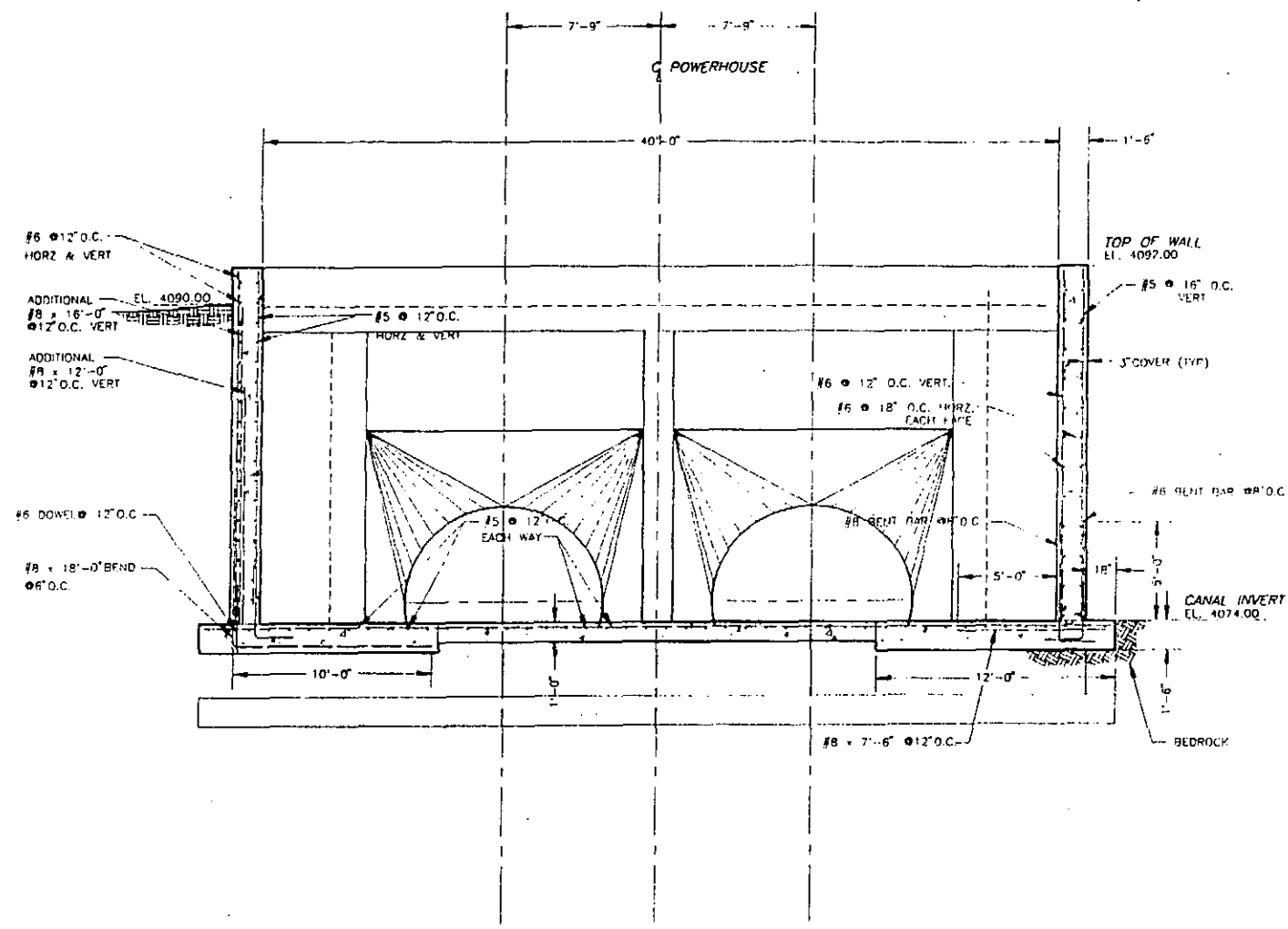
REV	DESCRIPTION	BY	DATE
5	CHANGE TAILRACE FOOTING ELEV. ADD'L INFO	K.D.	11/19/93
4	GENERAL REVISION	K.D.	10/28/93
3	ADDITIONAL INFORMATION	K.D.	8/16/93
2	GENERAL REVISION	K.D.	8/9/93
1	ADDITIONAL INFORMATION	K.D.	3/31/93

CONCRETE WALLS PLAN

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-02
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. REV. 7 5
750 WARM SPRINGS AVE. BOISE, IDAHO 83712		TELEPHONE (208) 336-1425

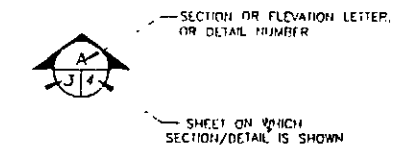
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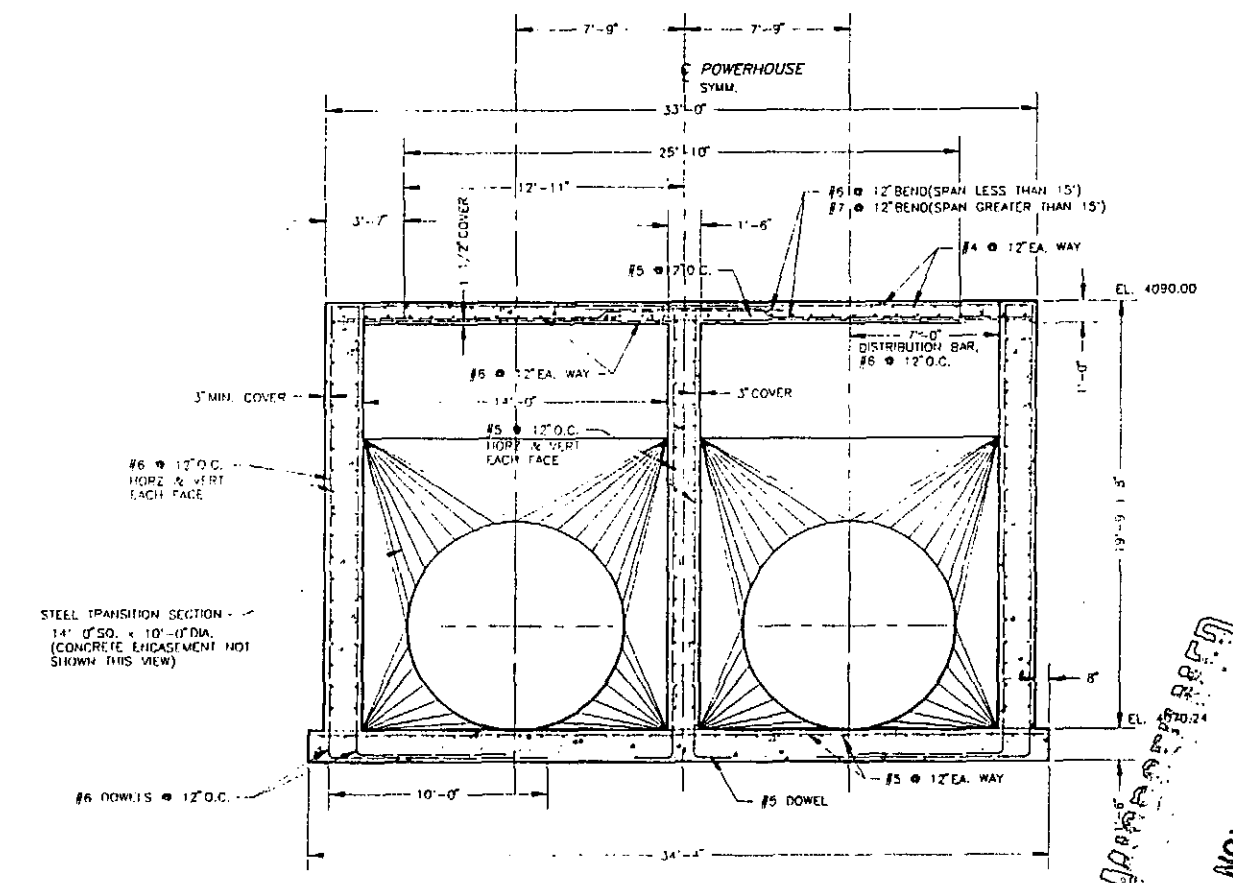
SECTION B-B
1/4" = 1'-0"

- NOTES:
1. PRIOR TO PLACING CONCRETE, CONTRACTOR SHALL OBTAIN FROM THE MANUFACTURER OF THE STEEL SUPERSTRUCTURE A CONCRETE ANCHORAGE/EMBEDMENT PLAN WHICH HAS BEEN APPROVED BY THE ENGINEER.
 2. REINFORCING TO HAVE 3" MIN. CONCRETE COVER.

SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN



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SECTION C-C
1/4" = 1'-0"

NOV 20 1993

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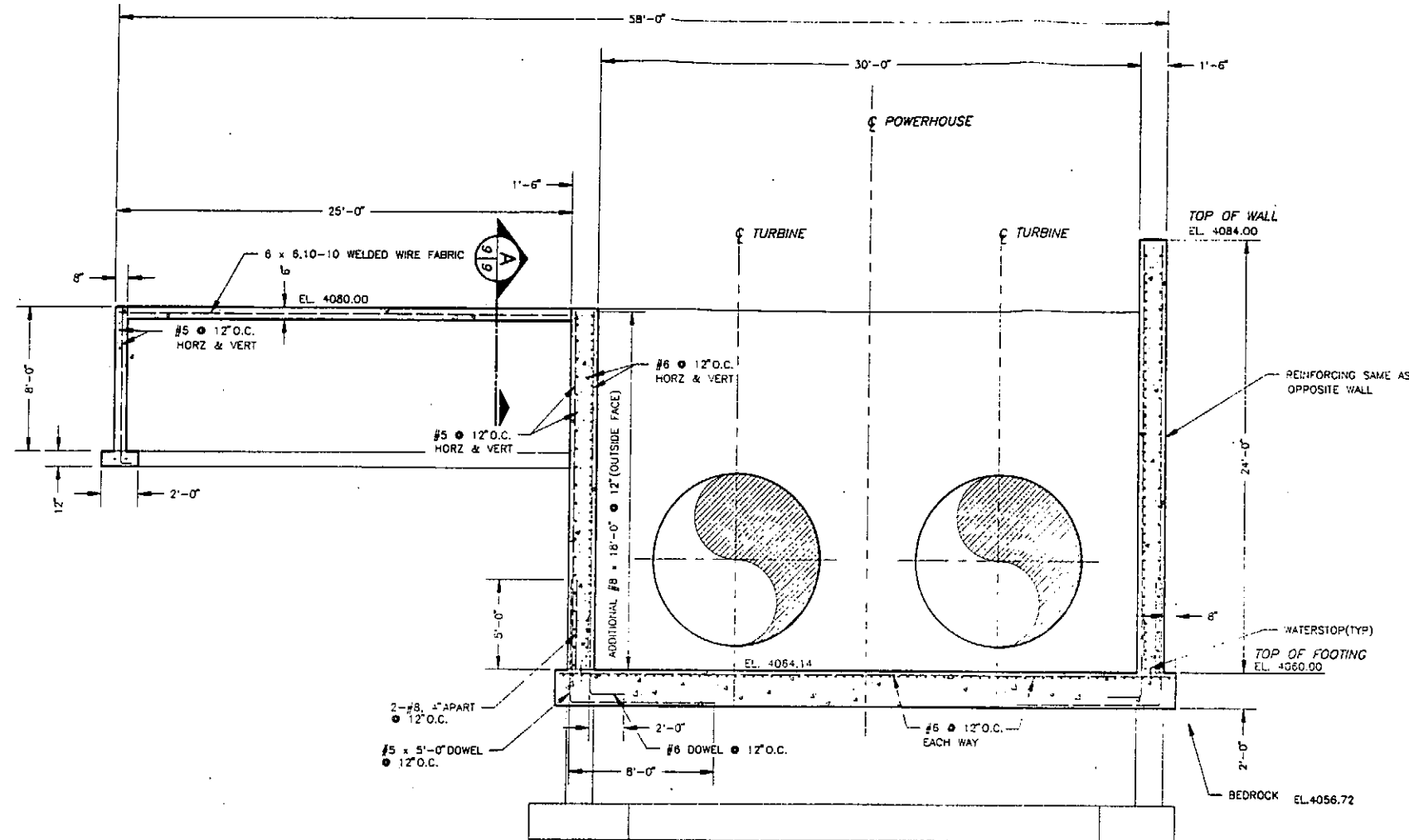
EXHIBIT F-7

REV	DESCRIPTION	BY	DATE
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4	GENERAL REVISION	K.D.	10/29/93
3	ADDITIONAL INFORMATION	K.D.	9/16/93
2	GENERAL REVISION	K.D.	8/9/93
1	ADDITIONAL INFORMATION	K.D.	4/1/93

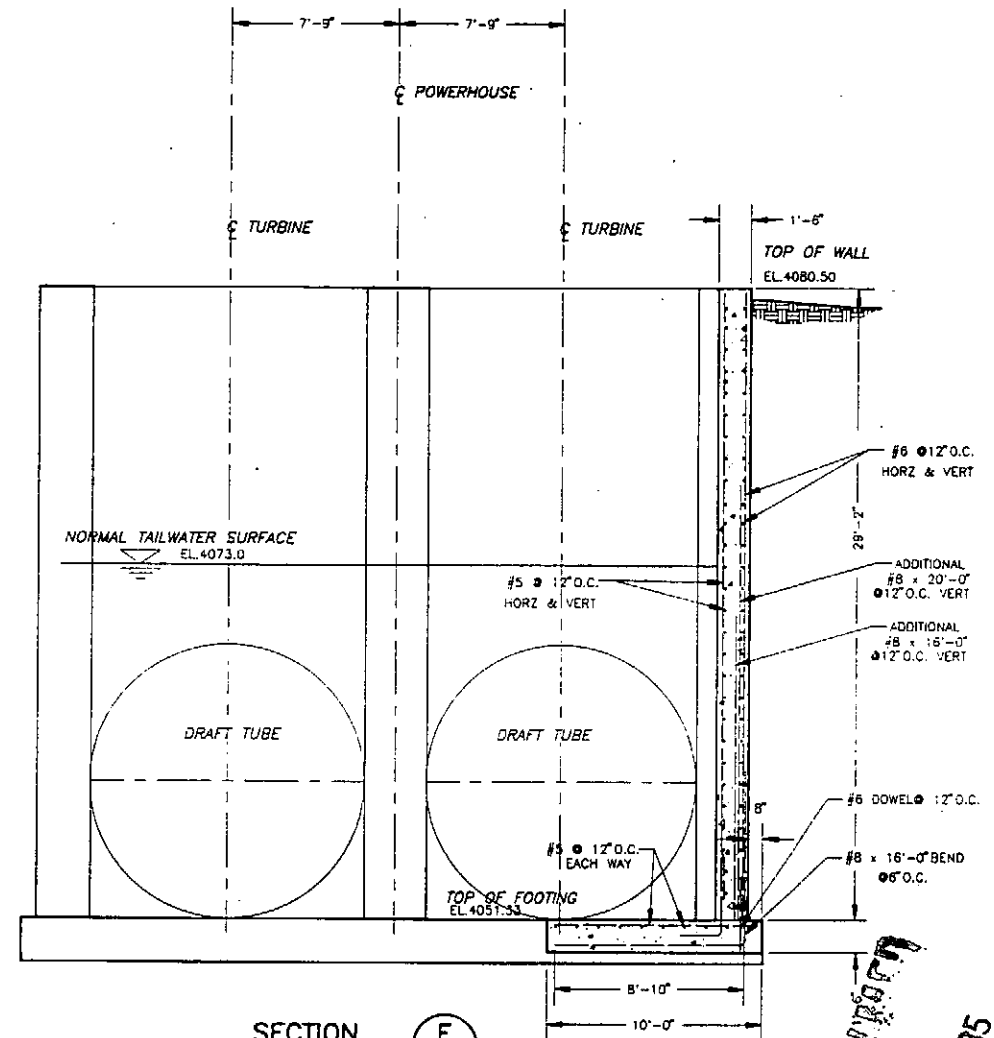
STRUCTURAL SECTIONS

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-03
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. - Consulting Engineers -		SHEET NO. 8
740 WARM SPRINGS AVE., TELEPHONE (208) 334-1425 BOISE, IDAHO 83712		5



SECTION D
1/4" = 1'-0"



SECTION E
1/4" = 1'-0"

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SECTION OR ELEVATION LETTER, OR DETAIL NUMBER

SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

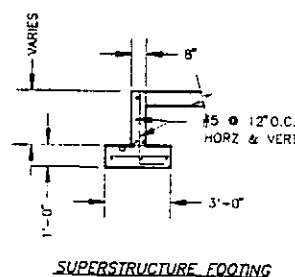
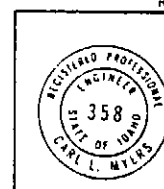
EXHIBIT F-7

REV	DESCRIPTION	BY	DATE
6	ADD SEC. B. CHANGE FTG. DEPTH TO 1'-6". SEC. E & F. ADDITIONAL CALLOUTS TO CLARIFY REBAR.	K.D.	12/2/93
5	CHANGE DRAFT TUBE FTG. EL. & WALL DIM.	K.D.	11/19/93
4	GENERAL REVISION	K.D.	10/29/93
3	SHOW DRAFT TUBE REINF. SEC'S F & G	K.D.	10/22/93
2	GENERAL REVISION	K.D.	9/9/93
1	ADDITIONAL INFORMATION	K.D.	4/1/93

STRUCTURAL SECTIONS

MILE 28 HYDROELECTRIC PROJECT

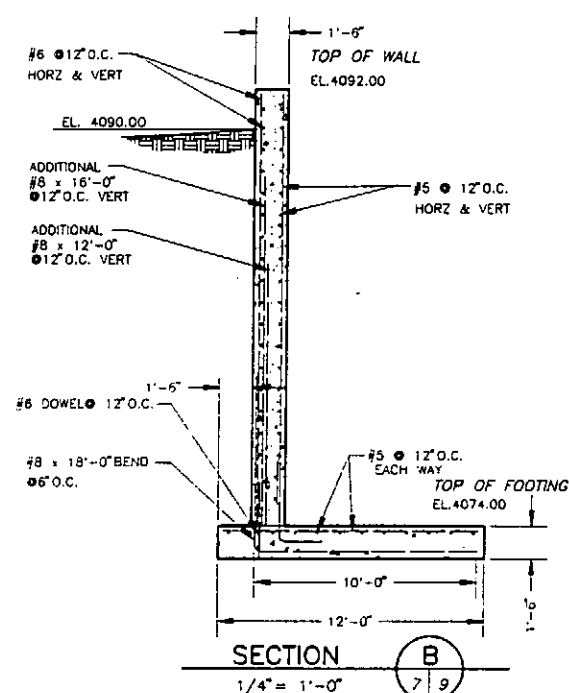
SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-06
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 750 WARM SPRINGS AVE. BOISE, IDAHO 83712		SHEET NO. REV. 9 6



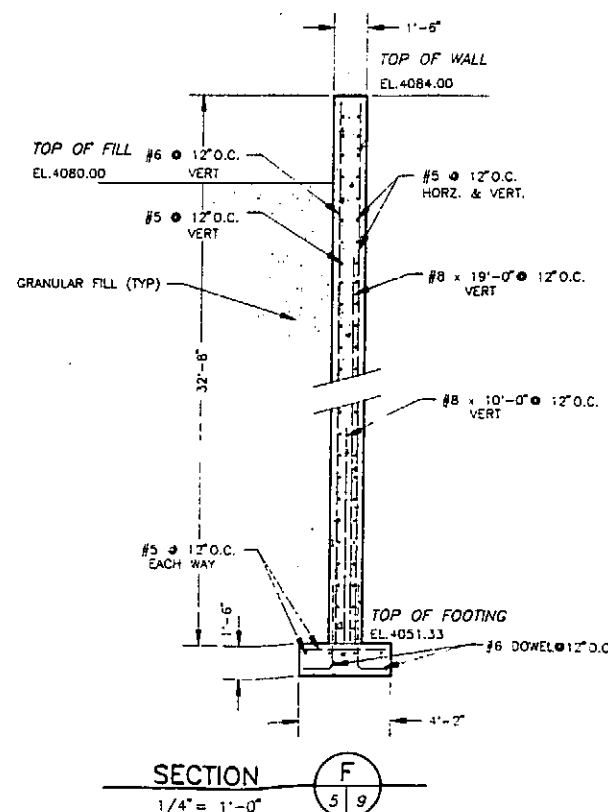
SECTION A
1/4" = 1'-0"

NOTES:

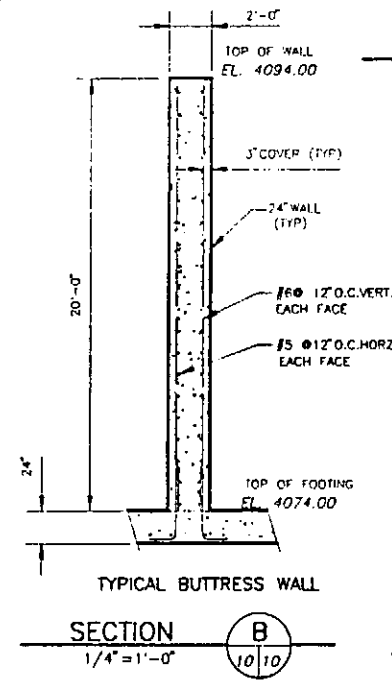
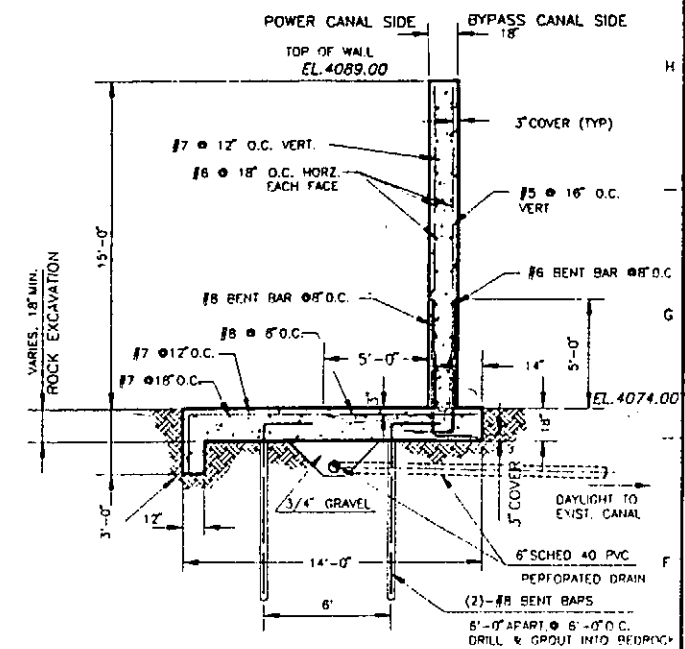
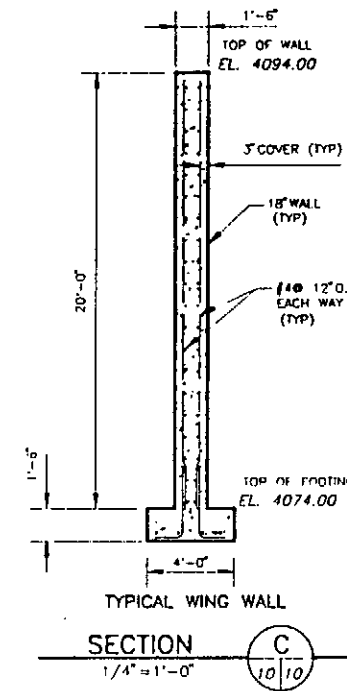
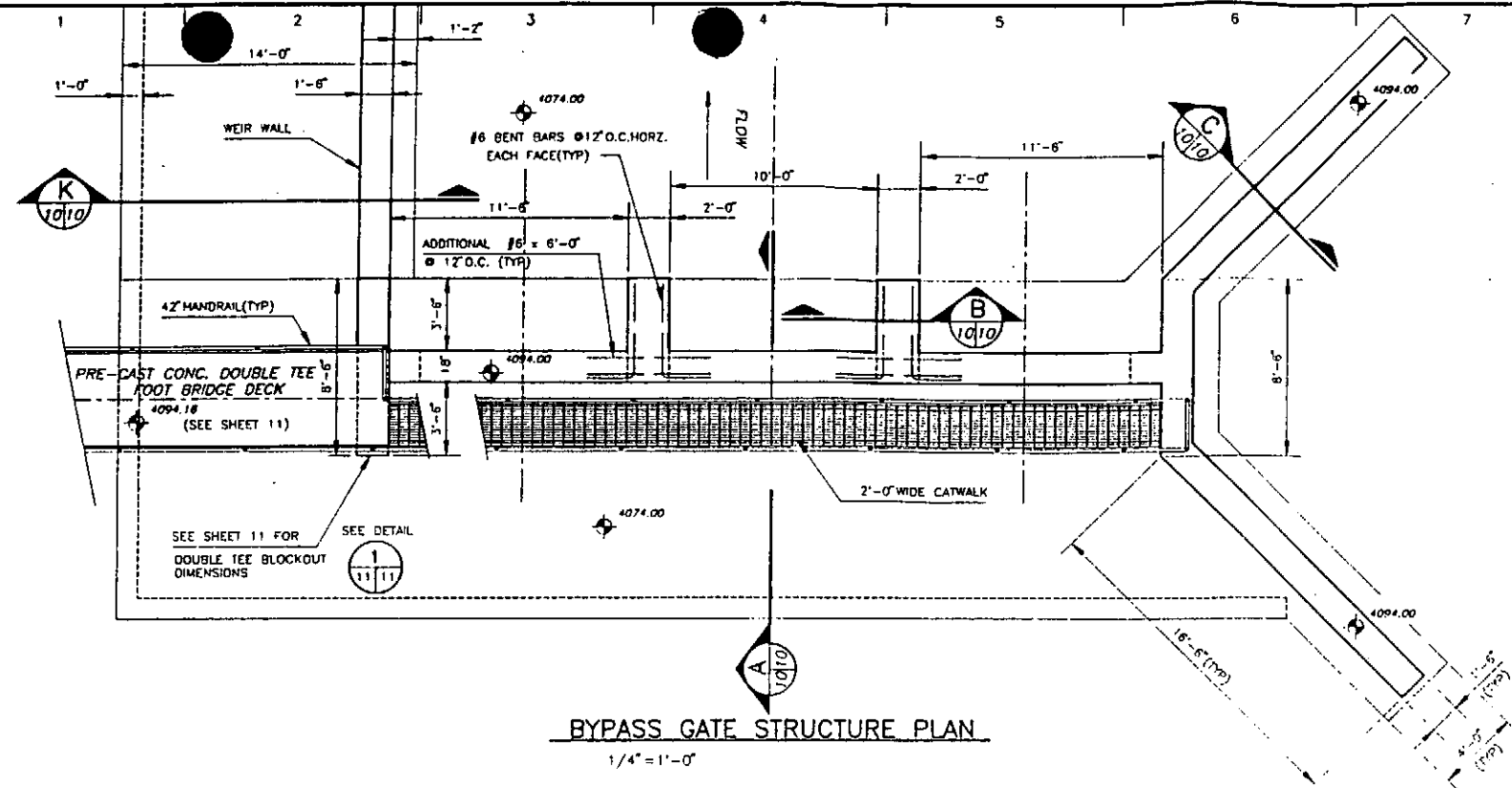
1. PRIOR TO PLACING CONCRETE, CONTRACTOR SHALL OBTAIN FROM THE MANUFACTURER OF THE STEEL SUPERSTRUCTURE A CONCRETE ANCHORAGE/EMBEDMENT PLAN WHICH HAS BEEN APPROVED BY THE ENGINEER.
2. REINFORCING TO HAVE 2" MIN. CONCRETE COVER UNLESS OTHERWISE SHOWN.



SECTION B
1/4" = 1'-0"



SECTION F
1/4" = 1'-0"



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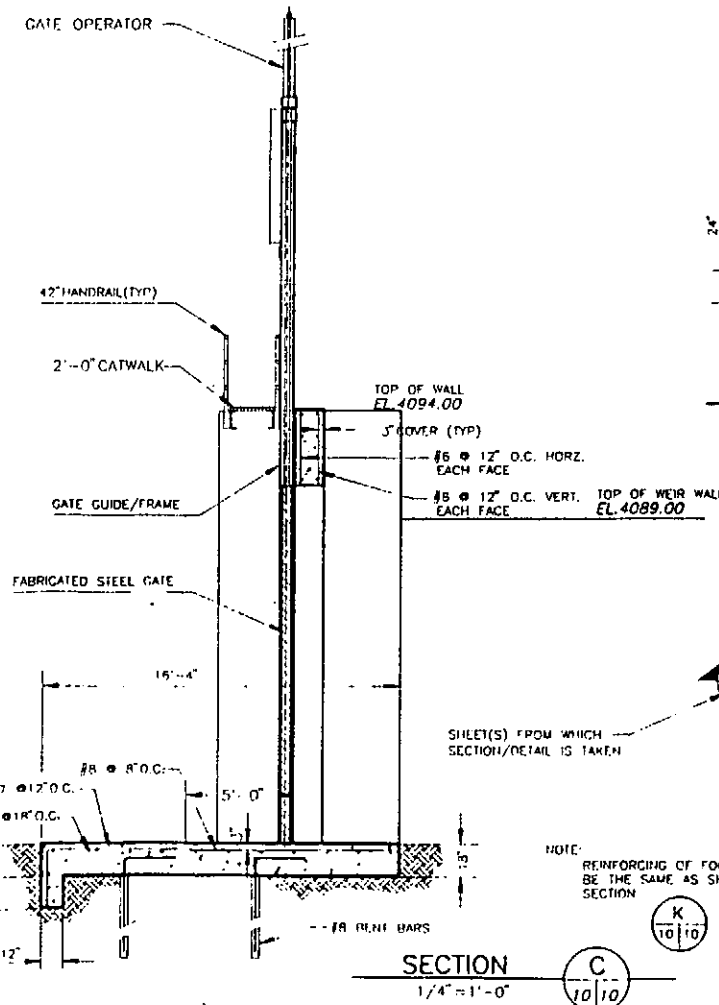
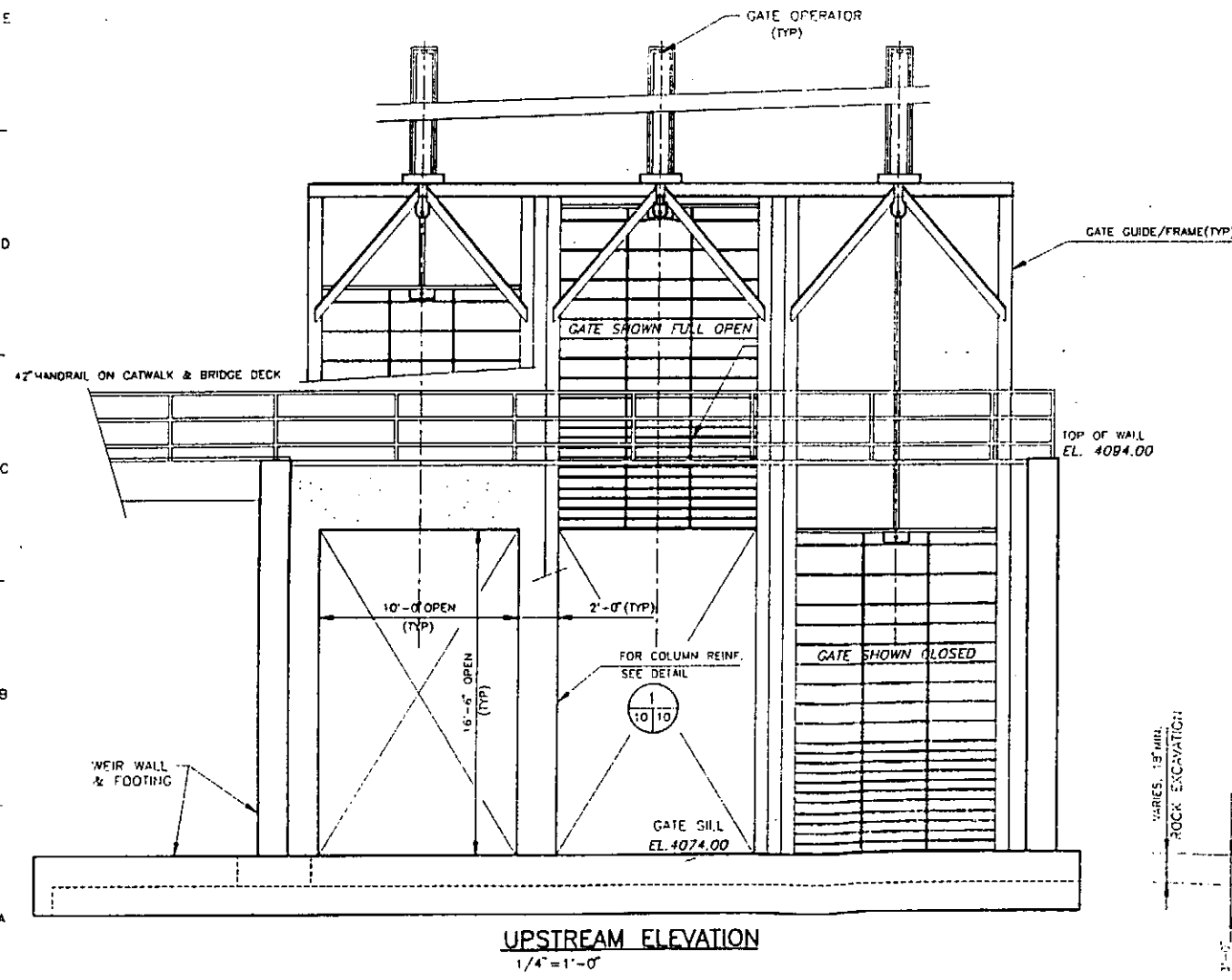
EXHIBIT F-8

REV	DESCRIPTION	BY	DATE
6	GENERAL REVISION	K.D.	11/15/93
5	ADDED REINFORCING TO GATE STRUCTURE FOOTING SEC. A. ADD REINFORCING NOTE SEC. A. EXTEND #4 BARS DEEPER SEC. K. ADD UNDERDRAIN, #8 BARS, & CUTOFF WALL	K.D.	10/21/93
4	REVISE FOOTING DIMENSIONS & BAR SIZES. CLARIFY REINFORCING SHOWN, REVISE ELEVATIONS.	K.D.	9/24/93
3	ADDITIONAL INFORMATION	K.D.	9/17/93
2	ADD BRIDGE DECK, CHANGE ELEVATIONS	K.D.	7/6/93
1	GENERAL REVISION	K.D.	4/2/93

GATE STRUCTURE AND SPILLWAY WEIR

MILE 28 HYDROELECTRIC PROJECT

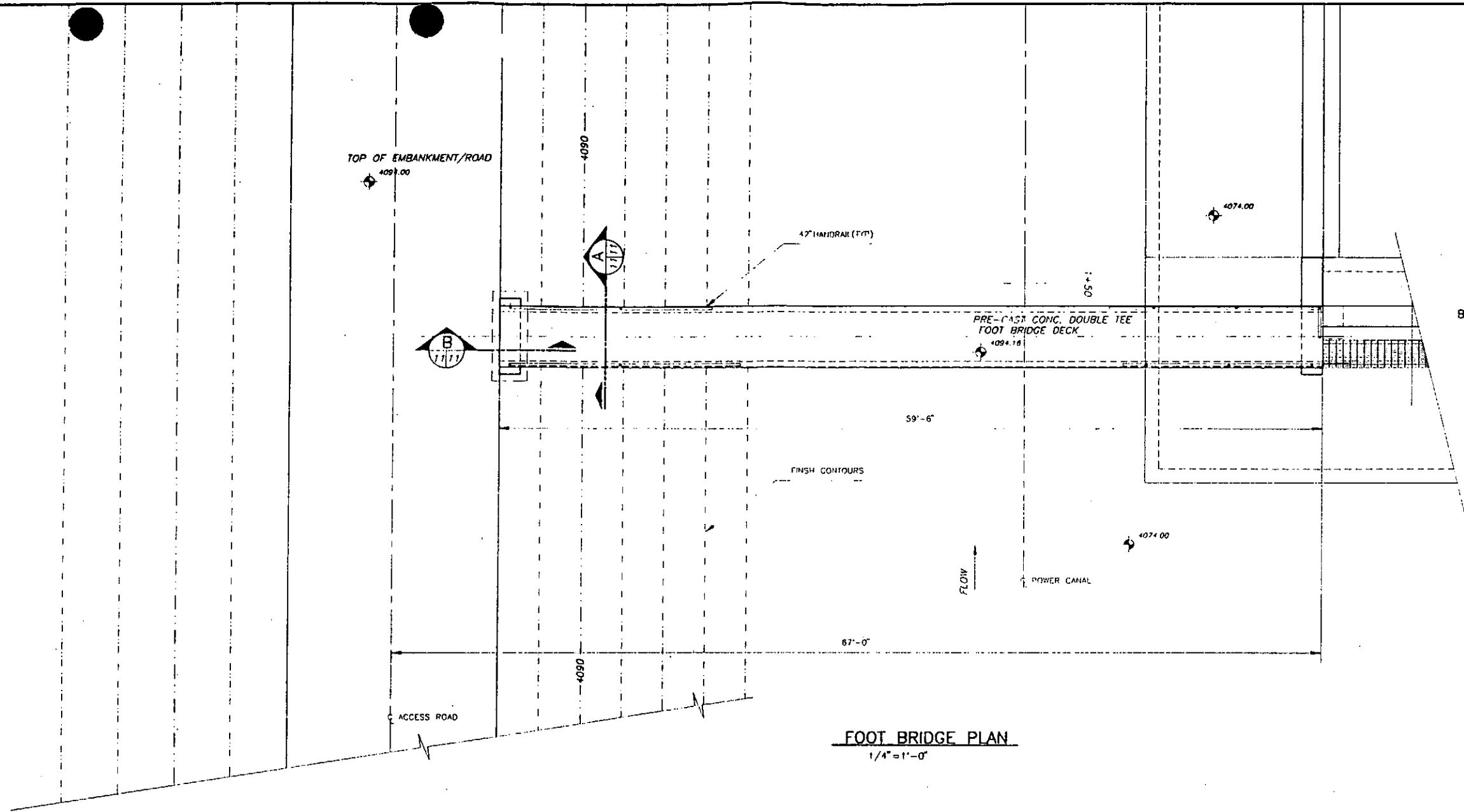
SCALE 1/4" = 1'-0"	DRAWN BY K.D.	DRAWING NO. 154-5-04
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers 750 WARM SPRINGS AVE. TELEPHONE (208) 336-1435 BOISE, IDAHO 83712		SHEET NO. 10 OF 6



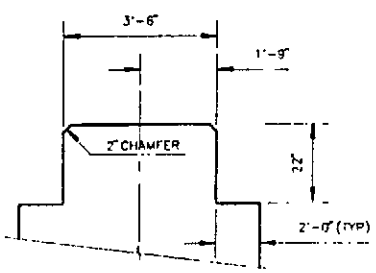
NOTE: REINFORCING OF FOOTING TO BE THE SAME AS SHOWN IN SECTION K

SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

SECTION OR ELEVATION LETTER, OR DETAIL NUMBER

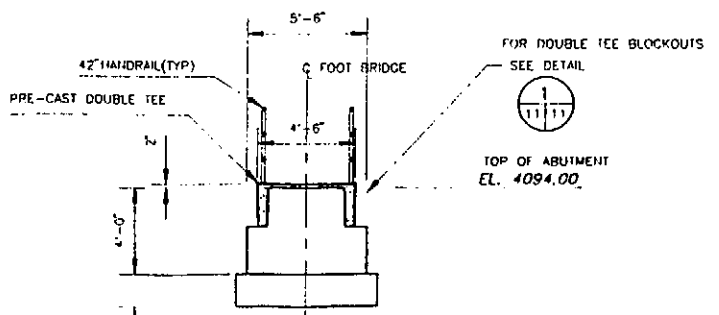


FOOT BRIDGE PLAN
1/4" = 1'-0"

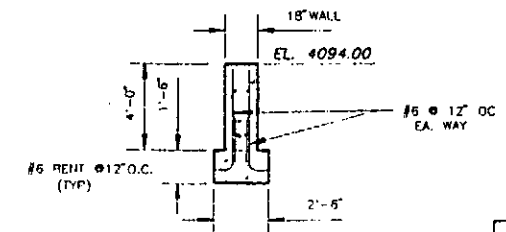


DETAIL
N.T.S.

NOTE: VERIFY WIDTH & DEPTH OF NOTCHES IN TOP OF WALL, WITH DOUBLE TEE MFR.



SECTION A
N.T.S.



SECTION B
N.T.S.

APPROVED
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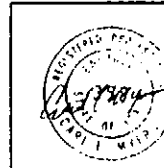
EXHIBIT F-10

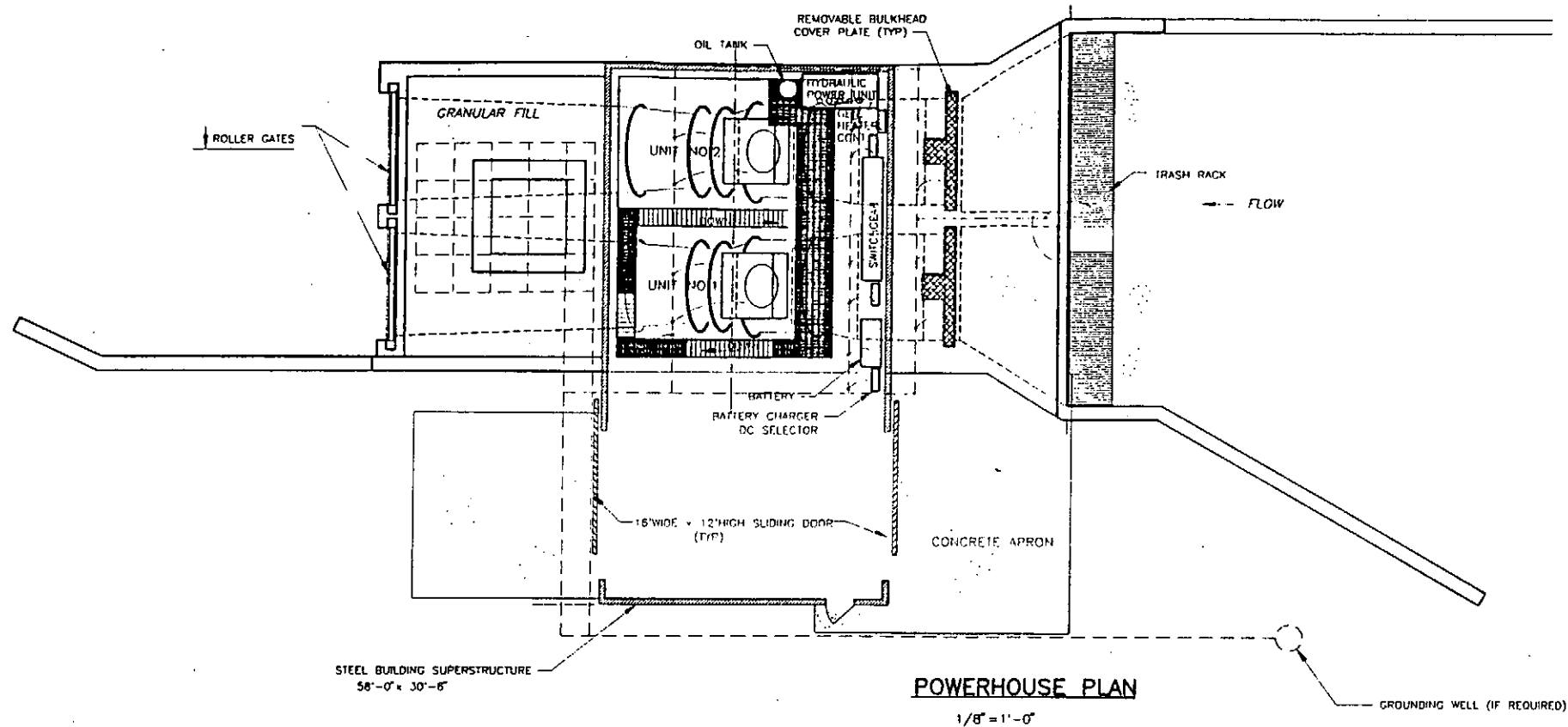
3	REVISE BRIDGE ABUTMENT	V.D.	11/29/93
2	GENERAL REVISION	K.D.	11/23/93
1	GENERAL REVISION	V.D.	8/9/93
REV	DESCRIPTION	BY	DATE

FOOT BRIDGE PLAN & SECTIONS

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/4" = 1'-0"	DRAWN BY K. DURHAM	DRAWING NO. 154-5-05
DATE APR. 6, 1993	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 11
750 WARM SPRINGS AVE. BOISE, IDAHO 83712		3





NOTES

GROUNDING CONDUCTORS TO BE #2/0 STRANDED, BARE COPPER. ALL METAL STRUCTURES CAST IN PRIMARY CONCRETE SHALL BE GROUNDING USING "CAD-WELD" DIRECT TO GROUNDING CONDUCTORS. ALL REMOVABLE METAL STRUCTURES AND EQUIPMENT SHALL BE GROUNDING USING "CAD-WELD" LUGS CAD-WELDED TO GROUNDING CONDUCTOR AND BOLTED TO GROUND PAD OF EQUIPMENT. ALL COVERED GROUND WAT CONNECTIONS SHALL BE "CAD-WELD". NO CLAMP OR COMPRESSION CONNECTIONS SHALL BE ALLOWED.

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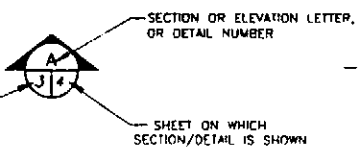


EXHIBIT F-11

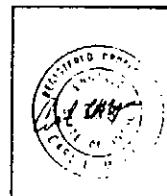
2	GENERAL REVISION	K.D.	5/11/93
1	ADDITIONAL INFORMATION	K.D.	3/21/93
RLV	DESCRIPTION	BY	DATE

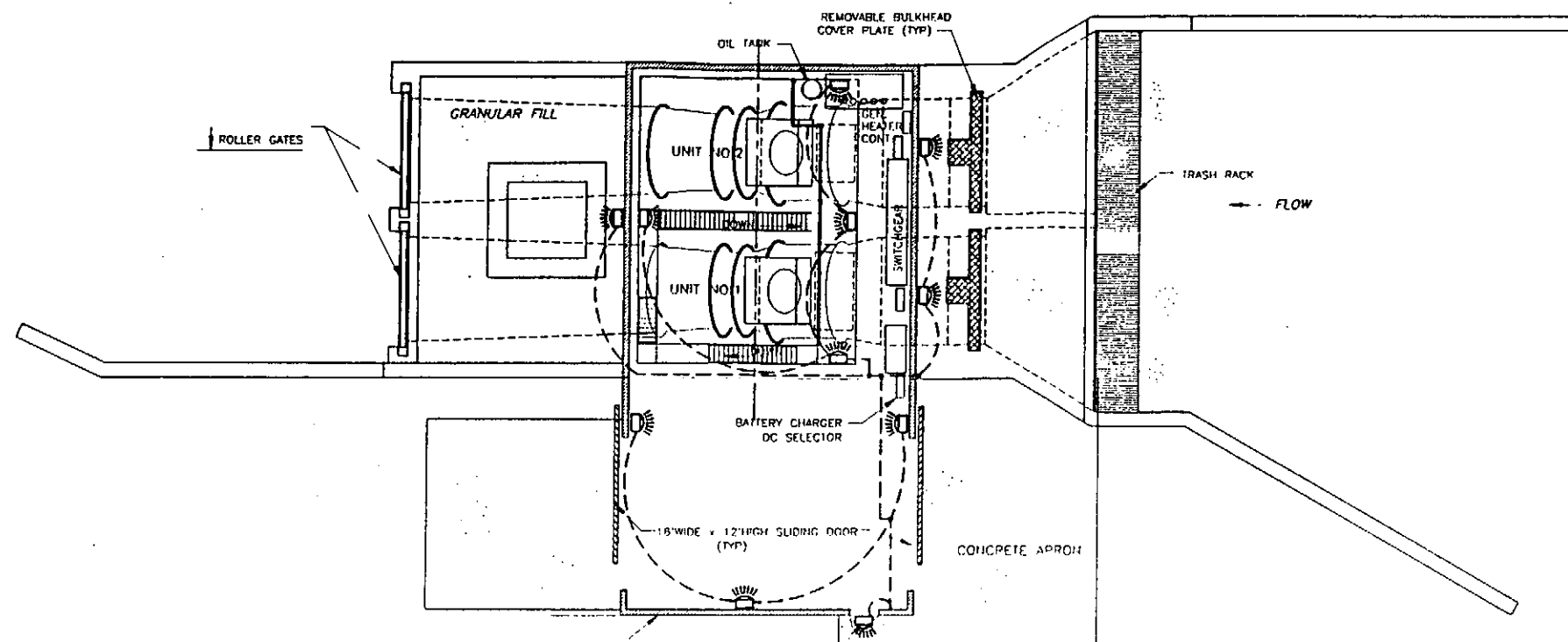
POWERHOUSE GROUNDING GRID

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/8" = 1'-0"	DRAWN BY C. YARBOROUGH	DRAWING NO. 154-7-01
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 12
750 WARM SPRINGS AVE. BOISE, IDAHO 83712		2

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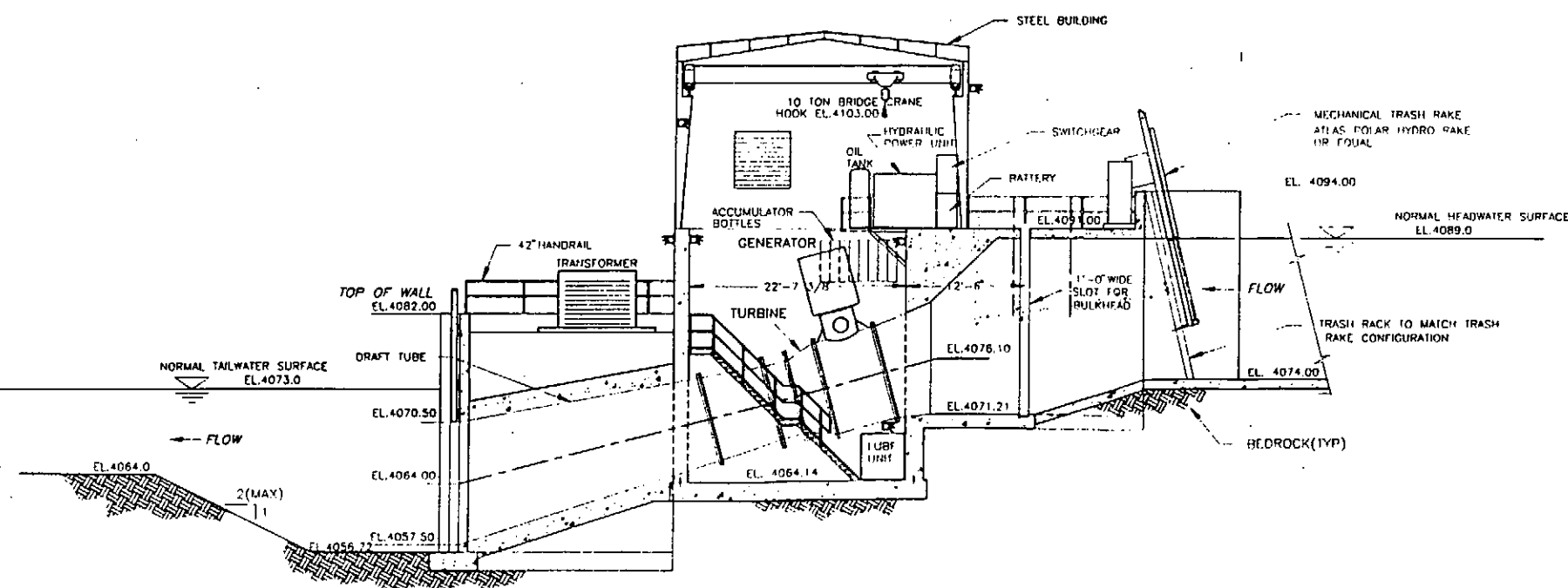
STEEL BUILDING SUPERSTRUCTURE
58'-0" x 30'-6"

POWERHOUSE PLAN

1/8" = 1'-0"

NOTE: LIGHTING FIXTURES FOR OUTDOOR MOUNTING SHALL BE HIGH PRESSURE HALIDE WITH AUTOMATIC INITIATION CIRCUITRY. INDOOR LIGHTING SHALL BE OF TYPE AND QUANTITY TO PROVIDE ADEQUATE ILLUMINATION FOR PLANT OPERATION AND MAINTENANCE. LOCATION SHOWN ON DRAWING IS APPROXIMATE.

NOTE: LIGHTING WIRING AND CONVENIENCE OUTLET CIRCUITS SHALL BE RUN IN METALLIC CONDUIT SUITABLE FOR THE LOCATION AND SERVICE.



POWERHOUSE ELEVATION

1/8" = 1'-0"

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SECTION OR ELEVATION LETTER, OR DETAIL NUMBER

SHEET(S) FROM WHICH SECTION/DETAIL IS TAKEN

SHEET ON WHICH SECTION/DETAIL IS SHOWN

EXHIBIT F-11

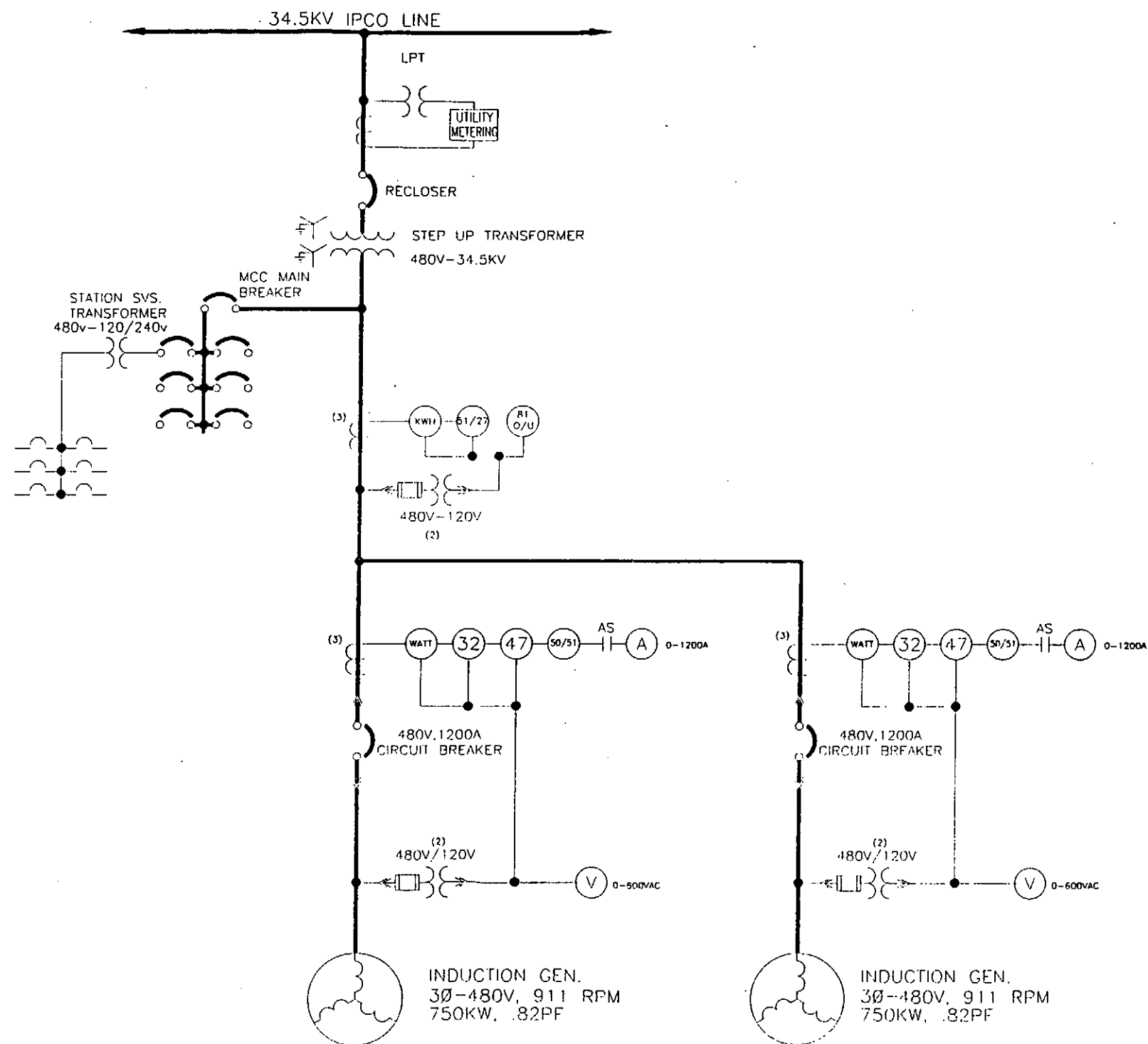
2	GENERAL REVISION	X.D.	7/11/93
1	ADDITIONAL INFORMATION	X.D.	3/31/93
REV	DESCRIPTION	BY	DATE

POWERHOUSE
LIGHTING PLAN

MILE 28 HYDROELECTRIC PROJECT

SCALE 1/8" = 1'-0"	DRAWN BY C. YARBOROUGH	DRAWING NO. 154-7-02
DATE NOV. 20, 1992	CHECKED BY	
MYERS ENGINEERING COMPANY, P.A. Consulting Engineers		SHEET NO. 13
750 WARM SPRINGS AVE. BOISE, IDAHO 83712		REV. 2

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EXHIBIT F-13

2	REVISE GENERATOR TYPE ETC.	CY	5/25
1	TRANSMISSION VOLTAGE	CY	1/14
REV	DESCRIPTION	BY	DATE
PROJECT ONE-LINE DIAGRAM			
MILE 28 HYDROELECTRIC PROJECT			
SCALE 1/8" = 1'-0"	DRAWN BY C. YARBOROUGH	DRAWING NO. 154-7-03	
DATE JUNE 25, 1993	CHECKED BY		
MYERS ENGINEERING COMPANY, P.A.		SHEET NO. 14	OF 2
750 WARM SPRINGS AVE. TELEPHONE: (208) 338-1475 BOISE, IDAHO 83712			

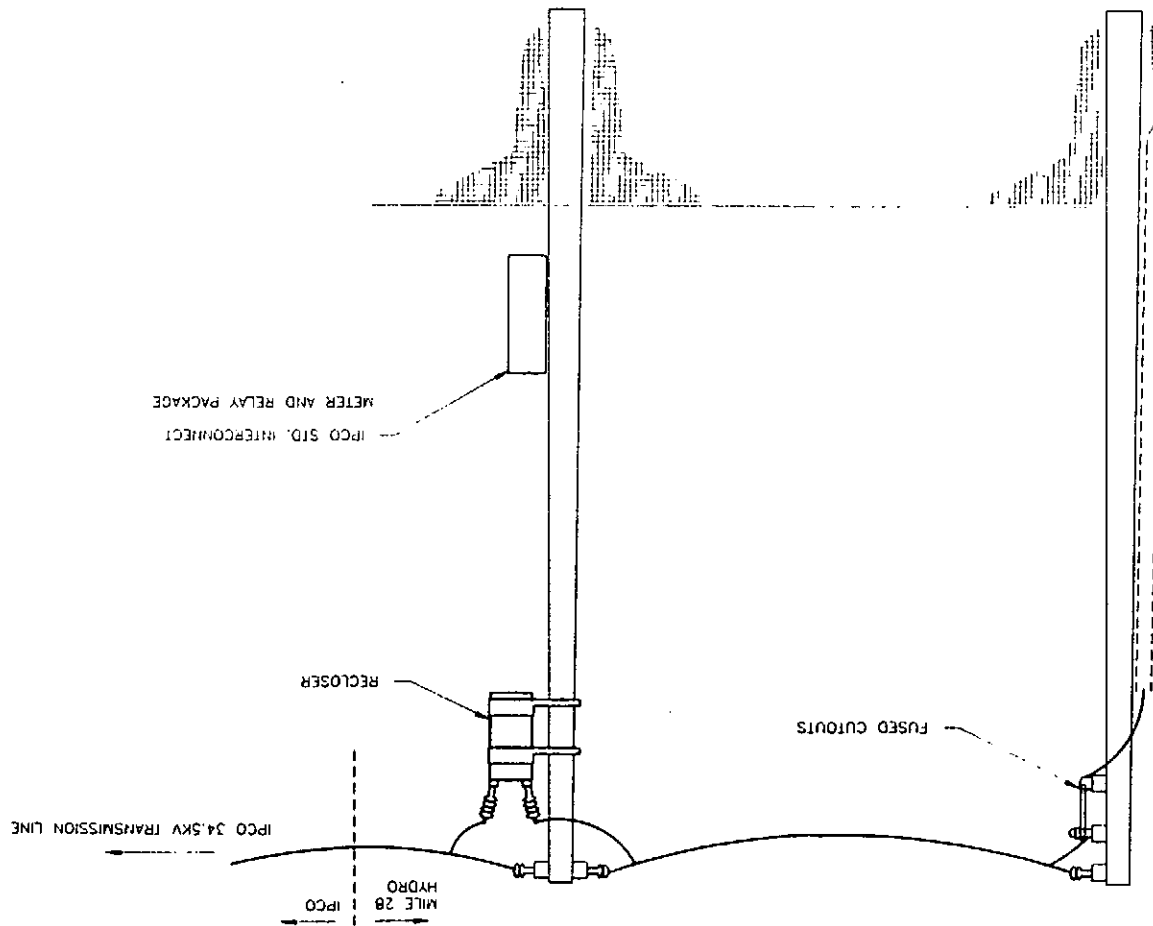
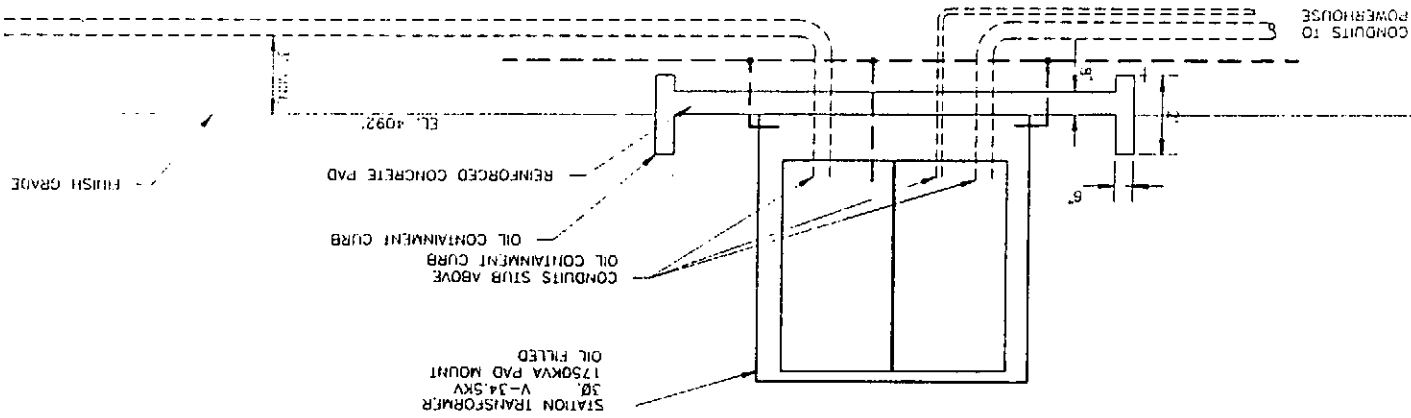
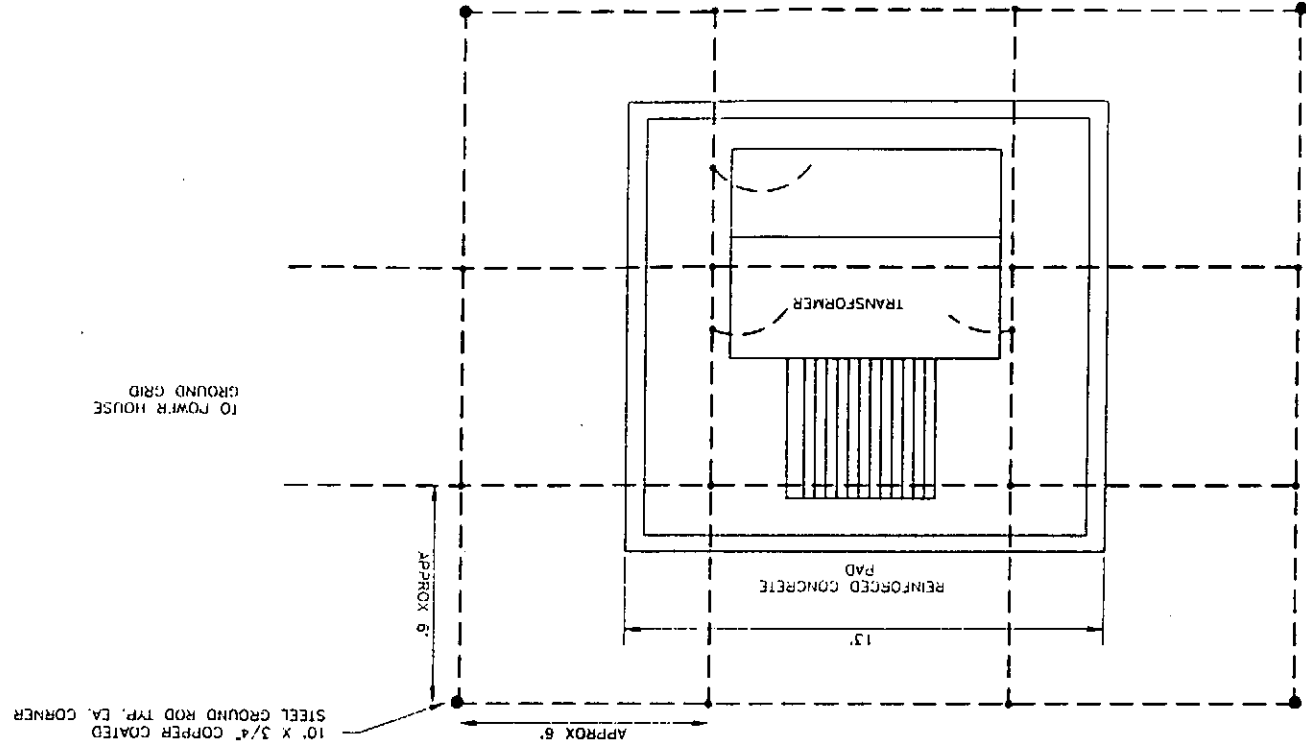
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1	15	1
MILE 28 HYDROELECTRIC PROJECT		
SUBSTATION PLAN, AND		
GROUNDING		
REV	DESCRIPTION	DATE
1	TRANSMISSION VOLTAGE	4/7/94
2	SCALE	NOT TO SCALE
3	CHECKED BY	C. YARBROUGH
4	DATE	NOV. 20, 1992
MYERS ENGINEERING COMPANY, P.A.		
CONSULTING ENGINEER		
150 WEST SPRINGS AVE. BOIST, IDAHO 83713 TELEPHONE (208) 338-1425		



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HOLES
GROUNDING CONDUCTORS TO BE #7/0 STRANDED, BARE COPPER. ALL METAL STRUCTURES CAST IN PRIMARY CONCRETE SHALL BE GROUNDING USING "CAD-WELD" METHOD TO GROUNDING CONDUCTORS. ALL REMAINING METAL STRUCTURES AND EQUIPMENT SHALL BE GROUNDING USING "CAD-WELD" TIGS CAN-WELDED TO GROUNDING CONDUCTOR AND BOLTED TO GROUND PAD OF EQUIPMENT. ALL COVERED GROUND MAT CONNECTIONS SHALL BE "CAN-WELD". NO CLAMP OR COMPRESSION CONNECTIONS SHALL BE ALLOWED.



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EXHIBIT F-14

**FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300**

P-10552 136202
JOHN J. STRAUBHAR ENGINEER
STRAUBHAR, JOHN J.
P. O. BOX 820
1061 BLUE LAKES BLVD. N.
TWIN FALLS, ID 83301



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FERC 351

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Contractor's Power Group, Inc.

Project No. 10552-002
Idaho

ORDER ISSUING LICENSE
(Minor Project)
(Issued August 12, 1992)

Contractor's Power Group, Inc. (CPG or applicant) filed a license application 1/ under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Mile 28 Hydroelectric Project, to be located on the Bureau of Reclamation's Milner-Gooding Canal, in Jerome County, Idaho.

The run-of-river project would consist of a diversion/overflow spillway, a powerhouse containing two Kaplan turbine/generator units with a total rated capacity of megawatts (MW), a tailrace channel, and a transmission line. The proposed project would produce an estimated 5.8 gigawatthours (GWh) annually and would cost about \$1.7 million to construct. The applicant plans to sell the project's energy to the Idaho Power Company (IPCO).

Notice of the application has been published. A motion to intervene was filed by the Idaho Department of Fish and Game (IDFG). IDFG is concerned about the loss of fish from the Snake River through the canal and the further impact on fish habitat in the Snake river resulting from diversions beyond the irrigation season. IDFG's concerns are addressed in the attached environmental assessment (EA) 2/, and appropriate mitigative measures are required by articles of this license. No agency objected to issuance of this license. Comments received from interested agencies and individuals have been fully considered in determining whether to issue this license.

On July 31, 1992, the National Park Service (NPS) reiterated earlier comments that, contrary to the findings of the Idaho State Historic Preservation Officer, construction of the project's diversion structure and powerhouse would have an adverse effect on the historical integrity of the Milner-Gooding Canal, a site eligible for listing in the National Register of Historic Places. 3/ The NPS recommended recording the affected portions of the canal according to the documentation standards of the Historic American Engineering Record (HAER), contained in the

- 1/ Filed May 13, 1991; Revision filed September 26, 1991.
- 2/ See section G, pp. 12 - 14, of EA (dated July 22, 1992).
- 3/ National Park Service, Western Region, letter dated July 31, 1992. See also section G(5) of the EA.

Secretary of the Interior's Standards for Archeology and Historic Preservation, to mitigate impacts. Based on staff's further discussion 4/ with the NPS, I conclude that the affected portions of the canal should be documented according to HAER standards. Article 406 requires HAER documentation.

Comprehensive Development

Sections 4(e) and 10(a)(1) of the Act require the Commission to give equal consideration to all uses of the waterway on which a project is located. When the Commission reviews a proposed project, the recreational, fish and wildlife, and other nondevelopmental values of the involved waterway are considered equally with power and other developmental values. In determining whether, and under what conditions, a hydropower license should be issued, the Commission must weigh the various economic and environmental trade-offs involved in the decision.

In the EA, the staff did the following: (1) evaluated the effects of the construction and operation of the project on the environmental resources of the project area; (2) discussed measures that should be implemented to protect and mitigate damages to these resources; and (3) evaluated the need for power in the region.

The applicant proposes to excavate the canal only in the non-irrigation season, implement a restoration plan, use low profile facilities with earth tone colors, and raptor-proof the project transmission line to prevent electrocution of raptors and other perching birds. The staff recommended in the EA that the applicant also implement procedures to avoid impacts to a historic habitation site from construction, operation, and maintenance of the project powerhouse and other associated project facilities. In addition, this order requires HAER documentation of the disturbed portions of the historic Milner-Gooding Canal. The staff estimates that, with the mitigative measures required in this order, the project has a net annual benefit of 4 mills/kilowatthour (kWh) and a rate of return of about 10 percent. The project would be marginally attractive financially.

After examining the environmental effects and economic consequences of the proposed project and the no-action alternative, I conclude that the proposed project, with the environmental measures required in this license, would give the public the greatest benefits from the waterway for the following reasons: (1) the environmental and cultural effects of the proposed project with the mitigation measures would be

- 4/ Staff's personal communication, Ron Corbyn, Archeologist, National Park Service, Western Region, July 31, 1992.

NOV 07 1995

negligible; and (2) the project would reduce the use of fossil fuels, thereby conserving nonrenewable energy resources and reducing atmospheric pollution and global warming.

Section 10(a)(2) of the Act requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project.

Under Section 10(a)(2), federal and state agencies filed 25 plans that address various resources in Idaho. Of these, staff identified and reviewed 5 plans relevant to this license. 5/ They found no conflicts.

Based on the staff's review under sections 4(e) and 10(a), and their independent analysis, I find that the Mile 28 Hydroelectric Project, with the mitigative measures required by license, is best adapted to a comprehensive plan for the Bear Gooding Canal.

Recommendations of Federal and State Fish and Wildlife Agencies

Section 10(j) of the Act requires the Commission to include license conditions, based on recommendations of federal and state fish and wildlife agencies, for the protection, mitigation of damage to, and enhancement of fish and wildlife. In Section C of the EA, the staff addresses the concerns of the fish and wildlife agencies, and this license includes conditions consistent with their recommendations.

Summary of Findings

The EA gives background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment. Issuing this license is not a major federal action significantly affecting the quality of the human environment.

The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license.

- 2/ (1) Columbia River Basin fish and wildlife program, 1987, Northwest Power Planning Council; (2) Northwest conservation and electric power plan, 1986, Northwest Power Planning Council; (3) Idaho state water plan and policies, 1986, Idaho State Water Resources Board; (4) Idaho fisheries management plan, 1986, Idaho Department of Fish and Game; and (5) Idaho state comprehensive outdoor recreation plan, 1983, Idaho Department of Parks and Recreation.

Based on the staff's analysis, I conclude that the proposed project would not conflict with any planned or authorized development, and is best adapted to comprehensive development of the waterway for beneficial public uses.

The Director orders:

(A) This license is issued to Contractor's Power Group, Inc., (licensee), for a period of 50 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Mile 28 Hydroelectric Project. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by exhibit G:

<u>Exhibit G-</u>	<u>FERC No. 10552-</u>	<u>Showing</u>
1	11	Project Location and Boundary

(2) Project works consisting of: (a) a 210-foot-long, 10 to 15-foot-high concrete diversion/overflow spillway; (b) a 34-foot-wide, 55-foot-long concrete powerhouse containing two Kaplan turbine/generator units with a total rated capacity of 1.5 MW; (c) a 1200-foot-long, 40-foot-wide (bottom width) tailrace channel; (d) a 3-mile-long, 35-kilovolt (kV) transmission line connecting to a local distribution line; and (d) appurtenant facilities.

The project works generally described above are more specifically shown and described by the following exhibits that also form a part of the application for license and that are designated and described as:

Exhibit A: Project Data

Exhibit F:

<u>Application</u> <u>Drawing No.</u>	<u>FERC No.</u>	<u>Showing</u>
Exhibit F-1	10552-1	Elevation - Powerhouse/ Spillway (Upstream)

NOV 07 1995

Exhibit F-2 6/	10552-2	Plan - Powerhouse & Spillway
Exhibit F-3	10552-3	Profiles - Powerhouse & spillway
Exhibit F-4	10552-4	Plan and Profile - Existing Water Surface
Exhibit F-5	10552-5	Section (Canal Upstream)
Exhibit F-6	10552-6	Section (Tailrace Downstream)
Exhibit F-7	10552-7	Section (at Powerhouse/Spillway) - Existing and Proposed Cut
Exhibit F-8	10552-8	Profile (at Canal Centerline) - Existing and Proposed
Exhibit F-9	10552-9	Plan - Site
Exhibit F-10	10552-10	Plan - General Topography

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) Exhibits A, F, and G, as designated in ordering paragraph (B), are approved and made part of the license.

(D) The following sections of the Act are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to

6/ On August 6, 1992, the applicant submitted a revised Exhibit F-2 showing (1) two gates in the diversion structure which will be automatically triggered to open by a plant shutdown and (2) two gates in the powerhouse to isolate turbines for maintenance.

depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is also subject to the articles set forth in Form L-17, (October 1975), entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting the Lands of the United States", except article 15, and the following additional articles:

Article 201. The licensee shall pay the United States the following annual charges as determined by the Commission, effective the first day of the month in which this license is issued for the purposes of:

a. Reimbursing the United States for the cost of administration of Part I of the Act. The authorized installed capacity for that purpose is 2,000 horsepower.

b. Recompensing the United States for utilization of surplus water or water power from a government structure.

c. Recompensing the United States for the use, occupancy and enjoyment of one acre of its lands for transmission line right-of-way.

Article 202. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which result from maintenance, operation, or alteration of the project works. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with appropriate federal, state, and local statutes and regulations.

Article 203. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for

NOV 07 1995

protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and (4) food plots and other wildlife enhancement. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or

major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application, for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

NOV 07 1995

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to insure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

Article 301. The licensee shall commence construction of the project works within 2 years from the issuance date of the license and shall complete construction of the project within 4 years from the issuance date of the license.

Article 302. Within 90 days after finishing construction, the licensee shall submit for Commission approval eight copies of revised exhibits A, F, and G describing the project as built. The licensee shall submit six copies to the Commission, one copy to the Commission's Regional Director, and one to the Director, Division of Project Compliance and Administration.

Article 303. The licensee shall, at least 60 days prior to the start of construction, submit one copy to the Commission's Regional Director and two copies to the Commission (one of these shall be a courtesy copy to the Director, Division of Dam Safety and Inspections) of the final contract drawings and specifications along with an accompanying supporting design report for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The supporting design report should be consistent with the Commission's Engineering Guidelines. The Commission may require changes in the plans and specifications to assure a safe and adequate project. If the licensee plans substantial changes to location, size, type, or purpose of the water retention structures, the plans and specifications must be accompanied by Exhibit F and G drawings, as necessary.

Article 304. The design and construction of those permanent and temporary facilities, including reservoir impounding cofferdams and deep excavations, that would be an integral part of, or that could affect the structural integrity or operation of the Government project shall be done in consultation with and subject to the review and approval of the Bureau of Reclamation (Reclamation). Reclamation's review of the cofferdams will be in addition to the licensee's review and approval of the final plans, and shall in no way relieve the licensee of responsibility and liability regarding satisfactory performance of the cofferdams. Within 90 days from the issuance date of the license, the licensee shall furnish Reclamation and the Commission's Portland Regional Director, a schedule for submission of design documents and the plans and specifications for the project. The schedule shall provide for sufficient review and approval time by Reclamation. If Reclamation does not believe sufficient time has been provided, the licensee, upon request of Reclamation, shall meet with Reclamation and the Commission's staff to revise the schedule accordingly.

Article 305. The licensee shall review and approve the design of contractor designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations are consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall file two copies with the Commission, (one of which shall be a courtesy copy to the Commission's Director, Division of Dam Safety and Inspections), and submit one copy each to the Commission.

NOV 07 1995

Regional Director and the Bureau of Reclamation, of the approved cofferdam construction drawings and specifications and the letter(s) of approval.

Article 306. Within 60 days after issuance of this license, the licensee shall contact the Regional Director, Bureau of Reclamation (Reclamation), to ascertain the necessary coordination of the plans to conclude a memorandum of agreement (MOA) as required by Reclamation for access to and site activities on lands and property administered by Reclamation, and for construction, operation, and maintenance of the licensed project so that the physical structures and authorized purposes, including operations, safety, integrity and environment of the federal facility or reservation are protected. In general, the MOA shall identify the facility, the applicable study and construction activities and schedule, and terms and conditions under which the studies and construction shall be conducted. The MOA shall include, but not be limited to, reasonable arrangements for access to the federal facility or reservation to conduct studies and construction activities, such access to be conditioned by Reclamation as may be necessary to protect the federally authorized project purposes and operations. The Commission's Portland Regional Director shall be invited to attend meetings regarding the MOA, which shall be subject to revision by mutual consent of Reclamation and the licensee as experience is gained through project operation. Should Reclamation fail to reach an agreement with the licensee, the matter will be referred to the Commission for resolution, summarizing the areas of disagreement. Two copies of the final agreement shall be filed with the Commission (one of these shall be a courtesy copy sent to the Director of the Division of Dam Safety and Inspections), and one additional copy shall be filed with the Commission's Portland Regional Director.

Article 307. The licensee's construction, operation, and maintenance of the project works and project investigations related to hydropower development, as determined by the Bureau of Reclamation (Reclamation), must not weaken, damage, or affect the structural integrity or operation of the federal facilities or reservation, or reduce or impair the capability to provide for the purposes and services of the reservation, and shall be subject to periodic or continuous inspections by Reclamation as appropriate. In those cases when a construction, operation, or maintenance practice or deficiency may result in a situation that would or could endanger the structural integrity, environmental quality, safety, or operational commitment of the federal facility or reservation, on direction by Reclamation the licensee shall stop construction, operation, or maintenance activities on the project works. The licensee shall immediately inform the Commission's Portland Regional Director of the circumstances surrounding the cessation of construction, operation, or maintenance activities. The licensee shall not resume

construction, operation or maintenance activities until notified by the Commission's Regional Director that the problem or situation has been resolved to the Regional Director's satisfaction.

Article 308. The design and construction of those facilities that would be an integral part of, or could affect the structural integrity or operation of the federal reservation, shall be done in consultation with and subject to the review and approval of the Bureau of Reclamation (Reclamation). The licensee shall submit copies of the design drawings, specifications, and design computations to the Regional Director, Reclamation, at a time which allows a sufficient review period prior to construction. The Regional Director, Reclamation, will inform the licensee of the required number of submittal copies and the Reclamation review period. Any changes in the design and construction of those facilities that would be an integral part of, or could affect the structural integrity or operation of the federal reservation must also be approved by Reclamation prior to implementation. Should the licensee and Reclamation disagree regarding any of the requirements of this article, the licensee shall refer the matter to the Commission for resolution, summarizing the areas of disagreement.

Article 309. The licensee shall have no claim against the United States arising from any future construction changes in the Bureau of Reclamation's project to meet authorized federal purposes, from the effect of any changes made in releases from or operation of the federal facility or reservation, from modifications resulting from dam safety requirements, or from any changes in reservoir levels of the Reclamation project.

Article 310. The licensee shall provide the Commission's Portland Regional Director an original and two copies of all correspondence between the licensee and the Bureau of Reclamation. The Commission's Regional Director shall not authorize construction of any project work affecting Reclamation's facilities until Reclamation's written approval of the project's: (1) construction plans and specifications; (2) quality control and inspection program; and (3) temporary emergency action plan; has been received by the Commission's Regional Director.

Article 401. At least 90 days before the start of any land-disturbing or land-clearing activities, the licensee shall file with the Commission for approval a plan to control erosion and sedimentation resulting from project construction and operation.

The plan shall be based on actual site geological, soil, and groundwater conditions and on project design, and shall include, at a minimum, the following:

566120 NOV
NOV 07 1995

- (a) A description of the actual site conditions;
- (b) The land-disturbing activities the licensee plans and how much land the licensee would disturb during construction;
- (c) Measures proposed to control erosion during construction, site access, and site restoration;
- (d) Details of spreading and leveling spoils along with revegetation measures; and
- (e) A detailed topographic map (with a scale of 1 inch equal to no more than 50 feet) showing where the licensee plans the construction and what control measures the licensee intends to use.

The licensee shall prepare the plan after consultation with the Bureau of Reclamation and the Soil Conservation Service. The licensee shall include with the plan documentation of consultation and copies of comments and recommendations on the completed plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on geological, soil, and groundwater conditions at the site.

The Commission reserves the right to require changes to the plan. No land-disturbing or land-clearing activities shall begin until the licensee is notified by the Commission that the plan is approved. Upon Commission approval, the Licensee shall implement the plan, including any changes required by the Commission.

Article 402. The licensee shall operate the project in a run-of-river mode for the protection of existing water rights in the Milner-Gooding Canal. The licensee shall at all times act to minimize the fluctuation of the forebay surface elevation by maintaining a discharge from the project so that, at any point in time, flows as measured downstream from the project tailrace approximate the inflow to the project forebay. The licensee shall not appropriate the rights to additional flows solely for the purpose of hydropower generation without (a) conducting additional studies to assess the environmental impacts from the diversion; and (b) filing an amendment of license application.

Article 401. The licensee shall design and construct the transmission line in accordance with guidelines set forth in "Suggested Practices for Raptor Protection on Power Lines--the State of the Art in 1981," by Raptor Research Foundation, Inc. Further, the licensee, after consulting with the U.S. Fish and

Wildlife Service and the Idaho Department of Fish and Game, and within 90 days of the start of construction, shall file a transmission line design plan that considers adequate separation of energized conductors, groundwires, and other metal hardware, adequate insulation, and any other measures necessary to protect raptors from electrocution hazards. Agency comments on the design plan shall be included in the filing. Unless the Commission instructs otherwise within 60 days after the filing, the licensee may begin transmission line construction at the end of the 60-day period.

Article 404. The licensee, before starting any land-clearing or land-disturbing activities in the vicinity of the historic habitation located near the Milner-Gooding Canal, shall implement a cultural resources management plan to avoid any impacts to the site from construction, operation, or maintenance activities associated with the project. The plan shall be based on the recommendations of the Idaho State Historic Preservation Officer (SHPO). Within 3 years after the date of this license, the licensee shall file for Commission approval a report documenting avoidance of the site and a plan for avoidance during project operation, and a letter from the SHPO commenting on the acceptability of the report. Commercial operation of the project may not commence until this information has been approved. The licensee shall make funds available in a reasonable amount for implementation of the plan. If the licensee and the SHPO cannot agree on the amount of money to be spent for implementation of the plan, the Commission reserves the right to require the licensee to conduct the necessary work at the licensee's own expense.

Article 405. The licensee, before starting any future land-clearing or land-disturbing activities associated with the project, other than those activities authorized in this license, shall consult with the Idaho State Historic Preservation Officer (SHPO) and shall conduct a cultural resources survey of the affected areas. Further, the licensee shall file the following: (1) a report containing the survey results; (2) a cultural resources management plan, approved by the Commission, to avoid or mitigate impacts to any significant archeological or historic sites identified during the survey; and, (3) the written comments of the SHPO on the report and the plan.

If the licensee discovers any previously unidentified archeological or historic sites during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing or land-disturbing activities in the vicinity of the sites, shall consult with the SHPO, and shall file for Commission approval a cultural resources management plan to avoid or mitigate impacts to significant resources, together with the written comments of the SHPO on the plan.

5661 20 NOV
NOV 07 1995

Upon Commission approval the licensee shall implement the plans. The survey and the plans shall be based on the recommendations of the SHPO, shall be conducted and prepared by a qualified cultural resources specialist, and shall adhere to the Secretary of the Interior's Guidelines for Archeology and Historic Preservation.

The report and plans shall contain the following: (1) a description of each discovered site, indicating whether it is listed or eligible to be listed on the National Register of Historic Places; (2) a description of the potential effect of each discovered site; (3) proposed measures for avoiding or mitigating the effects; (4) documentation of the nature and extent of consultation with the SHPO; and (5) a schedule for mitigating effects and conducting additional studies. The Commission may require changes to the plan.

The licensee shall not implement a cultural resources management plan or begin any land-clearing or land-disturbing activities until informed by the Commission that the requirements of this article have been fulfilled.

Article 406. The licensee shall, prior to starting any land-disturbing or land-clearing that affects the historical integrity of the Milner-Gooding Canal, implement a cultural resources management plan to avoid and mitigate impacts to the canal. The plan shall consist of documenting the affected portions of the canal according to the standards of the Historic American Engineering Record (HAER) of the National Park Service (NPS), and shall be based on the recommendations of the Idaho State Historic Preservation Officer (SHPO) and the HAER staff of the NPS's Western Regional Office (WRO).

Within 2 years of the date of the license, the licensee shall file, for Commission approval, a report containing: (1) the HAER documentation; and (2) letters from the SHPO and the HAER staff of the WRO commenting on this work. The Commission may require changes to the plan based on this filing. No land-disturbing or land-clearing that will affect the integrity of the Milner-Gooding Canal shall begin until the licensee is notified that the report complies with requirements of the article.

Article 407. The Commission, upon its own motion or upon the recommendation of federal or state fish and wildlife agencies affected Indian Tribes, reserves the authority to order alterations of project structures or operations to take into account to the fullest extent practicable at each stage of the decision-making process the Columbia River Basin Fish and Wildlife Program developed and amended in accordance with the Pacific Northwest Power Planning and Conservation Act.

(F) The licensee shall serve copies of any Commission

filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is issued under authority delegated to the Director and constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. 385.713.


Fred E. Springer
Director, Office of
Hydropower Licensing

NOV 27 1995

ENVIRONMENTAL ASSESSMENT
FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF HYDROPOWER LICENSING
DIVISION OF PROJECT REVIEW

July 22, 1992

Mile 28 Hydroelectric Project
FERC Project No. 10552-002

A. APPLICATION

1. Application type: Minor License
- Date filed with the Commission: May 13, 1991
Revised September 26, 1991
3. Applicant: Contractor's Power Group, Inc. (CPG)
4. Water body: Milner-Gooding Canal River basin: Snake
5. Nearest city or town: Eden (see figure 1)
6. County: Jerome County State: Idaho

B. PURPOSE AND NEED FOR ACTION

1. Purpose.

The purpose of this project is to make electric power from a renewable resource available to electric utilities. The proposed project would produce about 5.8 gigawatt-hours of energy annually and would cost about \$1.7 million to construct.

2. Need for power.

CPG proposes to sell the Mile 28 Hydroelectric Project output to the Idaho Power Company, which is a member of the Northwest Power Pool serving customers in the Northwest Power Planning Council region.

The combined effect of (1) electrical load growth and (2) a fixed or declining level of existing generation makes adding conservation or generating resources, or both, necessary if adequacy and reliability levels are to be maintained. Four aspects affect the timing for adding more resources: the rate of load growth, load characteristics, the age and condition of existing resources, and system reliability criteria.

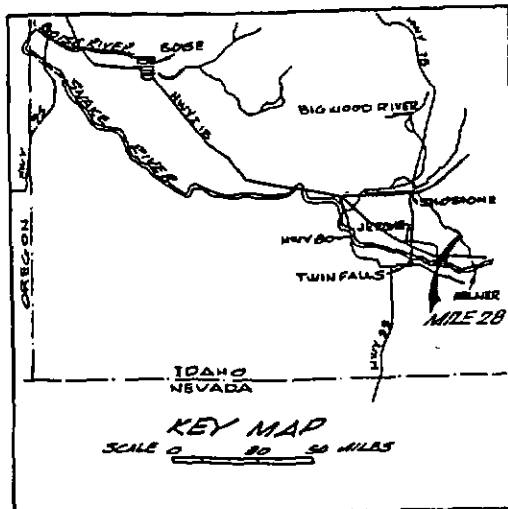
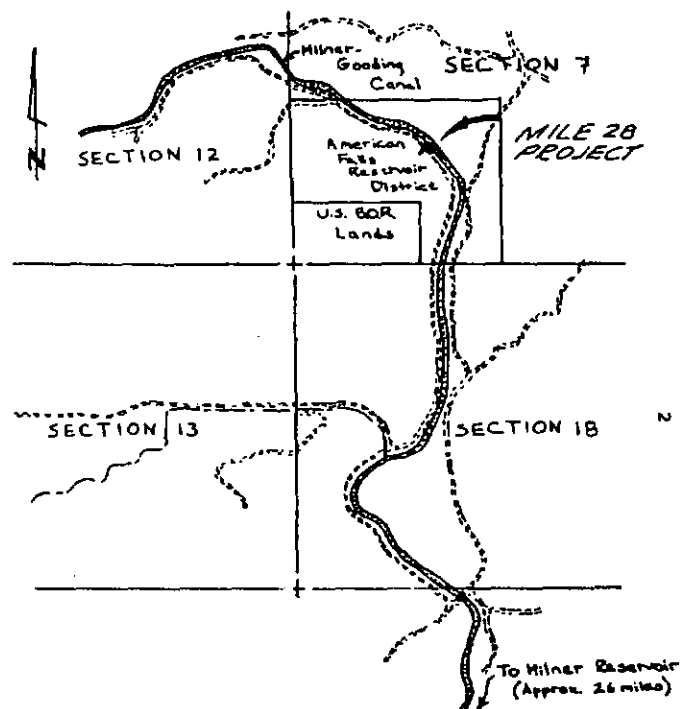


Figure 1. Location of the proposed Mile 28 Hydroelectric Project, FERC Project No. 10552, Idaho (Source: Contractor's Power Group, Inc. 1991).

NOV 07 1995

According to the Council's adopted Northwest Conservation and Electric Power Plan and the load projections and needs analyses of the Pacific Northwest Utilities Conference Committee, a need for more power is likely to occur in the Pacific Northwest starting sometime in the 1990's. Firm energy provided by the project would, depending on cost, be useful in meeting a part of the projected need.

C. PROPOSED PROJECT AND ALTERNATIVES

1. Description of the proposed action (see Figure 2).

The proposed project would be constructed on the existing Milner-Gooding Canal, approximately 28 miles from the head of the canal at the Milner Dam Reservoir on the Snake River. The project would consist of: (1) a 210-foot-long, concrete diversion/overflow spillway; (2) a 34-foot-wide, 55-foot-long powerhouse, containing two Kaplan turbine/generator units, with a rated capacity of 1.5 MW; (3) a 1,200-foot-long tailrace channel; (4) about 3 miles of 34.5-kilovolt primary transmission line, connecting to a local distribution line; and (4) apartment facilities. The mode of operation would be run-of-river.

2. Applicant's proposed mitigative measures.

a. Construction.

CPC proposes to: (1) limit excavation of the canal to the non-irrigation season; (2) prepare a site-specific restoration and stabilization plan, prior to construction; and (3) design the project structures as low-profile facilities with earth tone colors.

b. Operation.

None.

3. Federal lands affected.

☒ Yes; Bureau of Reclamation (BRL);
acres = 12.0;

☒ Conditions have not been provided.

4. Alternatives to the proposed project.

a. ☐ No reasonable action alternative has been found.

b. ☒ Staff alternative: proposed action with our recommended environmental recommendations.

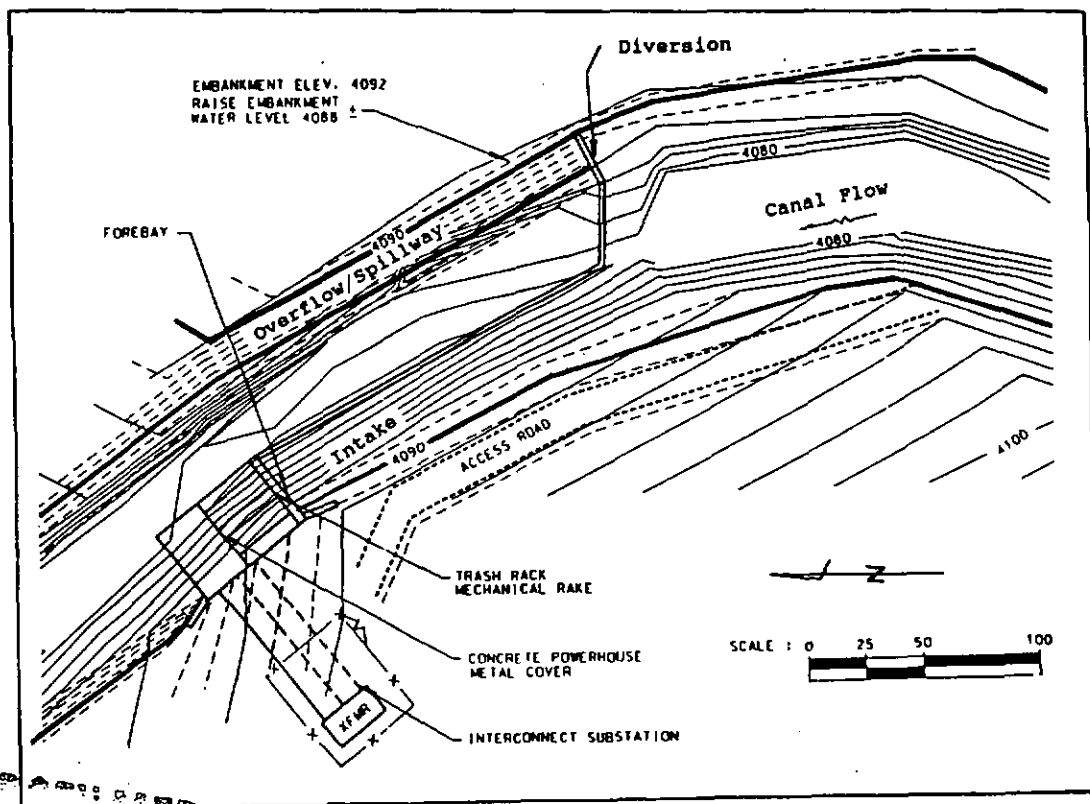


Figure 2. Location of project features for the proposed Mile 28 Hydroelectric Project, FERC Project No. 10552, Idaho (Source: Contractors Power Group, Inc. 1991).

NOV 07 1995

In addition to CPG's own measures, staff's alternative includes:

A cultural resources management plan to avoid impacts to a historic habitation site adjacent to the Milner-Gooding Canal.

b. Alternative of no action.

No action, denial of the license, would preclude CPG from developing the site. The energy that would have been produced by CPG's proposed project would not be available. No action would involve no alterations to the existing environment and would preclude CPG from producing electrical power at the site. The existing environment would not be changed.

CONSULTATION AND COMPLIANCE

1. Fish and wildlife agency consultation (Fish & Wildlife Coordination Act).

- a. U.S. Fish & Wildlife Service (FWS): ☒ Yes. ☐ No.
 b. State(s): ☒ Yes. ☐ No.
 c. National Marine Fisheries Service (NMFS): ☒ Yes. ☐ No.

2. Section 7 consultation (Endangered Species Act).

- a. Listed species: ☒ None. ☐ Present.
 b. Consultation: ☒ Not required.
☐ Required; completed: / / .

Remarks: No listed or proposed threatened or endangered species are known to occur in the project area. 1/

3. Section 401 certification (Clean Water Act).

- ☐ Not required.
☒ Required; applicant requested certification on 7/19/91.

Status: ☒ Granted by the certifying agency on 7/06/92.

Cultural resource consultation (Historic Preservation Act).

- a. State Historic Preservation Officer (SHPO): ☒ Yes. ☐ No.
 b. National Park Service (NPS): ☒ Yes. ☐ No.
 c. National Register status: ☐ None. ☒ Eligible or listed.

- 1/ Personal communication, Steve Duke, U.S. Fish and Wildlife Service, Boise, Idaho, June 25, 1992.

- d. Council: ☒ Not required. ☐ Completed: / / .
 e. Further consultation: ☒ Not required. ☐ Required.

Remarks: There are two sites in the project area that are eligible for inclusion in the National Register of Historic Places: (1) the Milner-Gooding Canal, and (2) an associated historic habitation site near the canal.

5. Recreational consultation (Federal Power Act).

- a. U.S. Owners: ☒ Yes. ☐ No.
 b. NPS: ☒ Yes. ☐ No.
 c. State(s): ☒ Yes. ☐ No.

6. Wild and scenic rivers (Wild and Scenic Rivers Act).

Status: ☒ None. ☐ Listed.

7. Land and Water Conservation Fund lands and facilities (Land and Water Conservation Fund Act).

Status: ☒ None. ☐ Designated.

B. COMMENTS

1. The following agencies and entities provided comments on the application or filed a motion to intervene in response to the public notice dated April 9, 1992.

Commenting agencies and other entities	Date of letter
Idaho Department of Health and Welfare-- Division of Environmental Quality	April 24, 1992
U.S. Department of the Interior	June 4, 1992
Idaho Department of Fish and Game	July 8, 1992*

*Late filing

Motions to intervene	Date of motion
Idaho Department of Fish and Game (IDFG)	February 13, 1992

2. ☐ The applicant responded to the comments or motion(s) to intervene by letter(s) dated / / .

☒ The applicant did not respond to the comments or motion(s) to intervene.

NOV 07 1995

7. AFFECTED ENVIRONMENT

1. General description of the locale.

a. Upper Snake River Basin.

The proposed project would be located within the upper Snake River Basin in Jerome County, Idaho, about 7 miles north of the town of Eden. The project area receives approximately 10 inches of precipitation annually and is dominated by semi-arid, desert vegetation.

The upper Snake River Basin is a large, sparsely populated area that includes most of south-central Idaho. The basin is diverse in natural resources, including spectacular natural landforms, forested mountainous regions, and extensively irrigated agriculture.

The current condition of the Snake River is a result of changing stream dynamics due to natural phenomena such as lava flows (redirecting drainage), slope failures (increased load of sediment), and climatic and weather influences (i.e. changes in annual or seasonal precipitation) and is due to the effects of water resources development, particularly that associated with irrigated agriculture and hydroelectric development (Federal Energy Regulatory Commission 1990).

Development, including agriculture, livestock raising, irrigation, human habitation, and hydroelectric power, has greatly altered water quality of the upper Snake River. Water storage, hydroelectric reservoirs, and irrigation diversions have changed flow patterns in the river. Currently, all surface flow reaching Milner reservoir during the summer is designated for irrigation diversion (Federal Energy Regulatory Commission 1990).

b. Existing licensed, exempted, or pending projects in the upper Snake River Basin, as of 7/09/92.

As of July 17, 1992, in the upper Snake River Basin, there were 50 FERC licensed hydroelectric projects. The BR operates five projects in the upper Snake River Basin with a total installed capacity of 181 MW. There are two existing nonfederal, licensed projects with a total installed capacity of 11.3 MW.

c. Pending license applications in the upper Snake River basin, as of 7/17/92.

Project No.	Project name	Water body
5090	Shelley Project	Snake River
5797	Star Falls Project	Snake River

10552	Mile 28 Project	Milner-Gooding Canal
10772	Boulder Rapids Project	Snake River
10930	Kanaka Rapids Project	Snake River
10849	Empire Rapids Project	Snake River

d. Target resources (important resources that may be cumulatively affected by multiple development within the basin).

The staff based its selection of target resources on the regional significance and geographic distribution of the resource within the river basin. Target resources for the upper Snake River Basin were identified as drainage morphology, water quality, resident trout, white sturgeon, wintering waterfowl, raptors, riparian-associated wildlife, riparian vegetation, aesthetic quality, recreation, the local economy, and cultural resources. These target resources, and how they would be affected in the basin by hydropower projects, were addressed in the Final Supplemental Environmental Impact Statement (FEIS) issued in July 1990 for the Milner, Twin Falls, Auger Falls, and Star Falls Projects, Idaho (Federal Energy Regulatory Commission 1990).

The target resources listed above are discussed below in section F(2). Impacts to target resources are discussed in section G.

e. Cumulative impacts.

The Council on Environmental Quality defines cumulative impacts as impacts on the environment that result from adding the impact of an action to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. The Council says cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR, Part 1508.7). The geographical area included in this cumulative impact analysis is limited to the upper Snake River Basin.

Cumulative impacts on target resources in the upper Snake River Basin have occurred primarily as the result of hydropower operations and extensive alteration of water resource allocations for irrigation purposes. The proposed project would be located on an existing irrigation canal far away from the natural flowage. Flows to operate the project would be available only from authorized canal users and the project would have no effect on water quality or flows. Transmission line design and routing would mitigate any minor impacts that might occur to raptors and cultural resources.

No significant adverse cumulative impacts to target resources in the upper Snake River basin would occur as a result

NOV 17 1995

of project construction or operation, if the project is constructed and operated with CPG's and our proposed mitigative measures.

2. Descriptions of the resources in the project impact area
(Source: Contractors Power Group, Inc. 1991 Application for License, and Contractors Power Group, Inc. 1992, Additional Information, unless otherwise indicated).

a. Geology and soils: CPG would construct the project using the existing canal that was constructed in the 1930's. The canal was excavated through basalt rock with a thin earth mantle. This spoil material was deposited along the canal and was left in a windrow. Therefore, the soil cover consists largely of excavated basalt with large to small rocks and a thin layer of sandy loam. The thin layer of sandy loam supports sparsely covered areas of sagebrush and rangeland grasses with outcrops of lava.

Streamflow: The Milner-Gooding canal operates as a seasonal irrigation system, with flows provided for irrigation, stock watering, and for limited groundwater recharge. Flows in the canal are typically limited to the irrigation season from April 15 to October 15. Flow records from 1980 to 1992 indicate that the canal has operated as early as April 1, and continued passing flows as late as December 5 in some years.

Historical flow data from the gauge station at mile 3, adjusted for diversions between the gauge and mile 28 (the proposed project site) show that average flows range from 608 cubic feet per second (cfs) in April to 1,490 cfs in July (table 1). Supplemental flows released in November have averaged 182 cfs for the period from 1980-1992.

Table 1. Adjusted monthly average flows in cubic feet per second (cfs) at the proposed diversion site of the Mile 28 Project (Source: Contractors Power Group, Inc. 1991).

Month	Mean Flow	Month	Mean Flow
January	-0-	July	1335
February	-0-	August	1298
March	-0-	September	1209
April	608	October	675
May	1176	November	182
June	1263	December	-0-

c. Water Rights: The existing flows in the Milner-Gooding Canal are from stored water in the American Falls Reservoir, and consist of flow rights for agricultural uses and a natural flow right for aquifer recharge near Shoshone.

CPG and the American Falls Reservoir District Two (AFRD2), which distributes water on the system, would jointly apply for a water permit to appropriate flows for hydroelectric power. The project would be a non-consumptive, run-of-river operation, and would not extend the season of irrigation diversions. Thus project operation would be entirely dependent on managed flows released into the canal by AFRD2.

CPG would use gunnite or concrete slurry to seal all cracks in the new excavation, ensuring that minimal water loss occurs in the canal at the project site and that downstream users would not be affected. Staff therefore believes that the project would not impact any existing water rights within the project area or downstream of the proposed project.

d. Water quality: Water quality in the project area is typical of irrigation flows in the canals in the project area. The water quality varies from spring to fall as a direct result of the irrigation use regime. No site-specific water quality studies of the project area have been conducted.

Reservoirs, irrigation flows, and low river flows have increased the water temperatures in the upper Snake River. Water temperature commonly exceeds 20° celsius (C) during the summer. Nutrients loads are high due to irrigation returns, livestock feedlots, and high groundwater concentrations.

e. Fisheries:

Anadromous: X Absent.

Resident: During the irrigation season some gamefish and non-gamefish that enter the canal from the Milner Dam reservoir at the Snake River probably pass through the project area. No qualitative or quantitative studies have been conducted to determine the numbers or species of fish typically transported into the system. Since the canal is a terminal irrigation canal, fish that enter into the system likely are killed from contact with pumping systems or when irrigation flows are discontinued at the end of the season.

f. Vegetation: Cover type
sagebrush-grass

Dominant species
sagebrush, bitterbrush,
rabbitbrush, cheatgrass,
wheatgrass

riparian

cattails, grasses, forbs

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NOV 07 1995

g. Wildlife: Big game animals in the project area are mule deer and pronghorn antelope. Smaller animals include coyote, badger, skunk, weasel, muskrat, red fox, raccoon, ground squirrel, and jackrabbit. Waterfowl using the Milner-Gooding Canal are mallard, blue-winged teal, green-winged teal, cinnamon teal, and common pintail. Raptors include Swainson's hawk, Northern harrier, Cooper's hawk, rough-legged hawk, ferruginous hawk, red-tailed hawk, American kestrel, great horned owl, burrowing owl, and golden eagle. Game birds using upland habitat along the canal are ring-necked pheasant and mourning dove. The canal supports very little riparian vegetation in the project reach, so riparian-associated wildlife doesn't use the project area extensively.

h. Cultural:

National Register (listed and eligible) properties have not been recorded.

X There are properties listed on, or eligible for listing on, the National Register of Historic Places in the area of the project's potential environmental impact.

Description: The historical integrity of the Milner-Gooding Canal, a National Register eligible site, would not be affected by the project (Green 1991).

The historic habitation site near the canal, the other eligible site in the project area, would not be affected by the project if construction activities are not undertaken in the vicinity of the site (Green 1992).

No other cultural resources would be affected.

i. Visual quality: The project would be located in south-central Idaho, in a semi-arid, high desert area. The region is flat desert with outcrops of basaltic lava. The dominant vegetation is sagebrush and grasses. The spoil material from the original excavation is primarily located on one side of the canal. This is the only visible man-made landform in the project area.

Recreation: Little to no recreation occurs in the project area. Recreational use of the project area is limited because the project site is in a remote area that's used primarily for ranching and agriculture. Fishing along the canal is virtually nonexistent in the project area due to annual dewatering and remoteness. Some hunting for pheasant and ducks occurs along the canal, but this activity is infrequent in the project area.

k. Land use: Livestock grazing and irrigated agriculture are the primary land uses throughout the project area. The proposed project facilities are adjacent to, and access is through, an

operating ranch. The canal is located on federal lands owned by the BR and managed by the AFRD2.

G. ENVIRONMENTAL ISSUES AND PROPOSED RESOLUTIONS

There are 6 issues addressed below.

1. Need for an erosion and sediment control plan: Soil-disturbing activities are scheduled to take place when the canal would be dry. CPG would have to remove vegetation for the construction of the diversion and powerhouse. If it were to rain with the vegetation removed, erosion and sedimentation could occur. Therefore, CPG should provide a detailed erosion and sediment control plan. The plan would provide procedures and locations of control measures CPG would use during construction, as well as actions CPG would take to prevent erosion and sedimentation if inclement weather should develop during project construction.

2. Fish screens: During project operation, there would be some entrainment of fish and possible turbine related injury or mortality. Without screening protection for fish, the diversion of flows from the Milner-Gooding Canal would pass fish from upstream of the diversion through the proposed inclined Kaplan turbines.

CPG has not proposed to construct or operate fish screens at the project intake. CPG maintains that the canal does not support an appreciable fishery, and that fish that enter the system would be killed by existing mechanisms (stream dewatering, contact with irrigation pumps, poor water quality) even if screens were provided. Fish that either avoid entrainment and remain upstream of the project, or are passed around the turbine, would be subject to mortality when the canal is dewatered.

The IDFG and AFRD2 do not favor the construction or operation of fish screens at the project site, nor do they recommend that CPG be responsible for screening the entire canal. AFRD2 states that installing a fish screen at the inlet to the canal would hinder AFRD2 from fully diverting irrigation flows. CPG estimates the cost of screening the entire canal at the headwaters (i.e. 28 miles upstream at the Milner Reservoir) as ranging from \$360,000 to \$600,000. In addition, CPG maintains that existing projects along the canal between the Milner Reservoir and the proposed project site do not have fish protection devices installed. Thus CPG states that they should not have to bear the cost of screening the entire canal.

Mortality estimates from low-head, Kaplan turbines in similar configurations have been observed to be between 8 percent and 19 percent (Electric Power Research Institute 1987). In

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addition to this moderate mortality rate, the protection that would be afforded by constructing and operating a fish screen at the proposed project intake would not result in a long-term benefit to fish that stray into the irrigation canal.

Requiring CPG to provide fish screens at the entrance to the Milner-Gooding canal would be cost-prohibitive on the project, and would unequally burden the proposed project with mitigating effects from the ongoing irrigation canal diversions. Therefore, we do not recommend that CPG install fish screens at the project site or the mouth of the Milner-Gooding Canal.

3. Seasonal availability of flows for project operation: CPG originally proposed in their application for license that additional project flows beyond the irrigation season could become available, increasing the annual generation by as much as 12 percent. Altering the current flow regime to appropriate flows above irrigation flows for power generation, would result in a change in the nature and the time of use of flows in the project area, either of which would require a new application for water right. CPG has since modified its position to state that additional flows could potentially become available if existing supplemental water agreements are enacted, but that the proposed project would not divert additional flows solely for the purpose of power generation.

Interior is concerned that the proposed project would attempt to extend the time during which supplemental irrigation flows would be released into the Milner-Gooding canal for purposes of power generation. Interior recommends that CPG operate the project in a manner consistent with the irrigation season from April 15 through October 15. Interior also recommends that if operation of the project extends beyond April 15 through October 15 for the sole purpose of power generation, that additional environmental studies and analysis be conducted. After the additional studies, Interior would recommend implementation of appropriate mitigation measures to maintain and protect aquatic resources in the Milner-Gooding Canal and in the mainstem Snake river below the point of diversion. IDFG recommends that the project be limited to diversion of water into the canal from March 15 to November 15, the normal irrigation season.

Withdrawing additional diversion flows from the Snake River into the Milner-Gooding Canal solely for power generation purposes would result in additional impacts from reduced flows beyond those which already exist in the Snake River below Milner Dam. Currently, flows in the Milner-Gooding canal are structured around the irrigation season from April 15 to October 15, with supplemental flows released in some years. Flow records from 1980 to 1992 indicate that the canal has operated as early as

April 1, and continued passing flows as late as December 5 in some years.

Since the project's operation would be entirely dependent on managed flows released into the canal by AFRD2, the only flows available to the project would be the existing flow regime, perhaps augmented in seasons of good supply, by diversions from recharge districts. The BR states that changing the nature of use of water requires an application procedure that allows the opportunity to protest to all whose rights may be affected, and would likely draw protests from other existing and pending water rights. Therefore, the proposed project would not likely be able to appropriate additional water rights beyond the non-consumptive use of flows during the normal irrigation season (Bureau of Reclamation 1990).

We agree with the agencies that if CPG draws additional flow through Milner-Gooding Canal beyond the irrigation season solely for power generation purposes, then CPG would need to conduct additional studies to assess the environmental impacts from the diversion and file an amendment of license application. We recommend therefore, that CPG operate the project with all available flows in the canal, provided that the flows are not diverted solely for hydropower generation at the proposed project.

4. Raptor protection: Raptors have been identified as a target resource for the upper Snake River Basin. Raptors found in the proposed project area include golden eagles, ferruginous hawks, and owls. Birds in the project vicinity would be expected to use the project transmission line poles for perching and roosting because of the lack of trees along the Milner-Gooding Canal and the transmission line alignment. Transmission lines may be an electrocution hazard for raptors and other birds large enough to simultaneously touch two energized wires or other hardware. CPG proposes to install a 34.5-kV transmission line, about 3 miles long.

Interior recommends that CPG prepare and implement a plan to prevent transmission line electrocution of raptors and other perching birds, in accordance with the 1981 guidelines of the Raptor Research Foundation, Inc. CPG proposes to raptor-proof the project transmission line. Raptor-proofing the transmission line according to the guidelines of the Raptor Research Foundation, Inc. would adequately protect raptors using the project area, and would prevent a cumulative impact on this target resource. Therefore, CPG should construct the 3-mile-long transmission line according to the guidelines of the Raptor Research Foundation, Inc.

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NOV 07 1995

5. NPS comments on archeological and historic sites: avoidance of the historic habitation site: The NPS has stated that the project would affect the historical integrity of the Milner-Gooding Canal, the historic habitation site near the canal, and other cultural resources along the transmission routes (Pepin-Donat 1992). We have reviewed the proposed project's effects on cultural resources and the NPS comments further with the SHPO.

The SHPO maintained that no cultural resources would be affected by the project if CPG would implement procedures to avoid the historic habitation site during construction of the project powerhouse, and would construct the transmission line along CPG's proposed route (Contractors Power Group, Inc. 1992, route identified on figure G-10). The SHPO said this transmission line route follows areas along the canal and roads for its entire length which have been disturbed by canal and road construction, and any archeological or historic site located along the route would not retain historical integrity.

The SHPO further maintained that the Milner-Gooding Canal would not be affected, because disturbance of the canal from construction of the project diversion structure, powerhouse, and transmission line would be minor given the long length and overall historical integrity of the canal. 2/

We concur with the SHPO. No further cultural resources inventory of the project area is necessary if the project transmission line follows the proposed route along disturbed areas of the Milner-Gooding Canal and existing roads.

As recommended by the SHPO, CPG should implement procedures to avoid impacts to the historic habitation site from construction and from operation and maintenance of the project powerhouse and other associated project facilities.

6. Archeological or historic sites that may be affected by any future changes to the project: The SHPO's and NPS's comments, and our findings, are based on the premise that the project would be constructed and operated as described in the application without significant changes. Changes to the project, however, are occasionally found necessary after a license has been issued. Under these circumstances, whether or not an application for amendment of license is required, our comments would no longer reliably depict the cultural resources impacts that would result from construction or operating the project.

2/ Personal communication, Dr. Thomas Green, Deputy State Historic Preservation Officer, Idaho State Historical Society, Boise, Idaho, April 16, 1992.

Therefore, before starting any future land-clearing or land-disturbing activities associated with the project, other than what is authorized in a license for this project, CPG should consult the SHPO about the need to conduct a cultural resources survey and to implement avoidance or mitigative measures. CPG should file for Commission approval a report containing the results of any survey work and a cultural resources management plan for avoiding or mitigating impacts to inventoried cultural resources, along with copies of the SHPO's written comments on the report.

Buried archeological sites are occasionally not detected during cultural resources surveys. If any such sites are discovered during any future construction, CPG should stop all land-clearing or land-disturbing activities in the vicinity of the sites, consult the SHPO, and file for Commission approval a cultural resources management plan to avoid or mitigate impacts to significant sites, together with the written comments of the SHPO on the plan.

CPG should not implement any cultural resources management plan or begin any land-clearing or land-disturbing activities until informed by the Commission that the requirements discussed above have been fulfilled. All work should be based on the recommendations of the SHPO and adhere to the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

H. DEVELOPMENTAL RESOURCES

As we said, CPG proposes to build a hydroelectric powerplant on an existing irrigation canal, to generate an average of 5.8 GWh annually. CPG proposes to excavate the canal only in the non-irrigation season, implement a restoration plan, use low-profile facilities with earth tone colors, and raptor-proof the primary transmission line. With these mitigative measures, the total cost for the proposed project would be about \$1.7 million.

If the projected levelized cost of a project is less than the long-term levelized cost of alternative energy to any utility in the region that can be served by the project, the proposed project is economically beneficial.

CPG plans to sell the project's power to Idaho Power Company (IPCO). Based on IPCO's long-term avoided cost rates, approved by the Idaho Public Service Commission, we estimate the levelized alternative energy cost for the project would be about 69 mills per kilowatthour (kWh). We assume the project would be operational in January 1996 and the cost of money would be 11 percent.

NOV 07 1995

As proposed by CPG, the project's levelized annual cost of energy would be about 65 mills/kWh; the project would be economically beneficial with a levelized net annual benefit of about 4 mills/kWh or \$19,900.

CPG doesn't have a power sales agreement for the project with IPCO. Using IPCO's long-term avoided cost rates, we find the 100-percent equity rate of return of the proposed project would be about 10 percent; therefore the proposed project would be marginally attractive financially.

I. ENVIRONMENTAL IMPACTS

1. Assessment of impacts expected from the applicant's proposed project (P), with the applicant's proposed mitigation and any conditions set by a federal land management agency; the proposed project with any additional mitigation recommended by the staff (Ps); and any action alternative considered (A). Assessment symbols indicate the following impact levels:

0 = None; 1 = Minor; 2 = Moderate; 3 = Major;
A = Adverse; B = Beneficial; L = Long-term; S = Short-term.

Resource	Impact		
	P	Ps	A
a. Geology-Soils	0	0	
b. Streamflow	0		
c. Water quality:			
Temperature	0		
Dissolved oxygen	0		
Turbidity and sedimentation	0		
d. Fisheries:			
Anadromous	0		
Resident	1AL		
e. Vegetation	1AS		

Remarks:

d. Impacts to resident fish would remain the same, even with the use of an unscreened intake, since stray fish in the canal are likely killed when the canal is dewatered.

e. Project construction would disturb 1 to 2 acres of grassland with scattered sagebrush. Revegetating disturbed areas as part of the recommended erosion and sediment control plan would speed the restoration of vegetative cover.

g. Impacts to cultural resources would be avoided if CPG implements procedures to avoid impacts to a historic site near the Milner-Gooding Canal from construction, operation, and maintenance of the project powerhouse and associated facilities.

2. Impacts of the no-action alternative.

Under the no-action alternative, there would be no construction of project facilities or changes to the existing physical, biological, or cultural components of the area. Electrical power that would be generated by the proposed hydroelectric project would have to be generated from other available sources or offset by conservation measures.

J. UNAVOIDABLE ADVERSE IMPACTS OF THE RECOMMENDED ALTERNATIVE

The project would result in minor increases in noise levels and dust during project construction. Minor impacts from project operation would occur to fish, vegetation, and wildlife resources.

K. COMPREHENSIVE DEVELOPMENT

In this environmental assessment, we evaluate the effects of project construction and operation on the resources of the project area and recommend additional measures to protect cultural resources.

The project as proposed, with the staff recommended mitigative measure, would generate about 5.8 gigawatt hours (GWh) of electrical energy per year, with net annual benefits of \$19,900 and an internal rate of return of about 10.0%. The project would displace fossil-fueled electrical generation and contribute to improved air quality.

L. Recommended Alternative

We examined the proposed project including CPG's proposed mitigation measures, the project with the staff recommended mitigation, and the no-action alternative. The recommended option is to issue a license for the project as proposed by CPG with the staff's recommended mitigation. We recommend this option because: (1) the environmental and cultural effects of the proposed project with the mitigation measures would be negligible; and (2) the project would reduce the use of fossil

NOV 29 1995

fuels, thereby conserving nonrenewable energy resources and reducing atmospheric pollution and global warming.

2. Comprehensive Plans

Section 10(a)(2) of the Act requires the Commission to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Under Section 10(a)(2), federal and state agencies filed 25 plans that address various resources in Idaho. Of these, staff identified 5 plans relevant to this project. 1/ No conflicts were found.

Based on a review of agency and public comments filed in this proceeding and on our independent analysis, the Mile 28 project is best adapted to a comprehensive plan for the Milner-Idaho Canal.

L. CONSISTENCY OF FISH AND WILDLIFE RECOMMENDATIONS WITH THE FEDERAL POWER ACT AND APPLICABLE LAW

Under the provisions of the Federal Power Act (Act), as amended by the Electric Consumers Protection Act of 1986, each hydroelectric license issued by the Commission shall include conditions based on recommendations provided by federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of such resources affected by the project.

Section 10(j) of the Act states that whenever the Commission believes that any fish and wildlife agency recommendation is inconsistent with the purposes and the requirements of the Act or other applicable law, the Commission and the agency shall attempt to resolve any such inconsistency, given due weight to the recommendations, expertise, and statutory responsibilities of such agency.

In this EA, we address the concerns of the federal and state fish and wildlife agencies and make recommendations that are consistent with those filed by the federal and state fish and wildlife agencies.

3/ Columbia River Basin fish and wildlife program, 1987, Northwest Power Planning Council; Northwest conservation and electric power plan, 1986, Northwest Power Planning Council; Idaho state water plan and policies, 1986, Idaho State Water Resources Board; Idaho fisheries management plan, 1986, Idaho Department of Fish and Game; and Idaho state comprehensive outdoor recreation plan, 1983, Idaho Department of Parks and Recreation.

M. CONCLUSION

1. X Finding of No Significant Impact. Approval of the recommended alternative (H(3)) would not constitute a major federal action significantly affecting the quality of the human environment; therefore, an environmental impact statement (EIS) will not be prepared.

Intent to Prepare an EIS. Approval of the recommended alternative (H(3)) would constitute a major federal action significantly affecting the quality of the human environment; therefore, an EIS will be prepared.

N. LITERATURE CITED

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- Electric Power Research Institute. 1987. Turbine related fish mortality: Review and evaluation of studies. Final Report EPRI AP-5480, November 1987.
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- Pepin-Donat, M. 1992. Letter from Margaret Pepin-Donat, Chief, Division of National Register Programs, National Park Service, San Francisco, California. April 14, 1992.

NOV 07 1995

O. LIST OF PREPARERS

Form L-17
(October, 1975)

<u>Name</u>	<u>Position title</u>
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Dianne Rodman	Ecologist
Edwin Slatter	Archeologist

FEDERAL ENERGY REGULATORY COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR UNCONSTRUCTED
MINOR PROJECT AFFECTING LANDS
OF THE UNITED STATES

Article 1. The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

Article 2. No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: Provided, however, That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

Article 3. The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

NOV 07 1975

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

Article 4. The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Energy Regulatory Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any features or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

Article 5. The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license,

retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

Article 6. The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

Article 7. The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

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Article 8. The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.

Article 9. The operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Commission may prescribe for the purposes hereinbefore mentioned.

Article 10. On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

Article 11. The Licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such

reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

Article 12. Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

Article 13. So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: Provided, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

Article 14. In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon the request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

Article 15. The Licensee shall consult with the appropriate State and Federal agencies and, within one year of the date of issuance of this license, shall submit for Commission approval a plan for clearing the reservoir area. Further, the Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In

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NOV 07 1995



State of Idaho
DEPARTMENT OF WATER RESOURCES

1301 North Orchard Street, Statehouse Mail, Boise, Idaho 83720-9000
Phone: (208) 327-7900 FAX: (208) 327-7866

CECIL D. ANDRUS
GOVERNOR

R. KEITH HIGGINSON
DIRECTOR

November 24, 1993

Contractors Power Group
c/o John J. Straubhar
P.O. Box 820
Twin Falls, ID 83303-0820

RE: APPLICATION FOR PERMIT NO. 01-07124

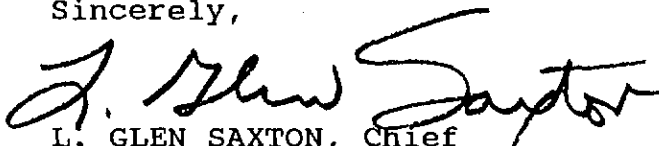
Dear Mr. Straubhar:

The state office of the Department of Water Resources is conducting a final review of the above referenced application and supporting information in the water right file. To facilitate further review of the application, please submit the following information:

1. Plans and specifications for the proposed facility.
2. A copy of the Federal Energy Regulatory Commission authorization for the proposed project.
3. Financial resource information relative to funding for the project. This information should include evidence to show contact with the "local bank" described in your earlier correspondence and the response of the bank relative to the proposed project. Financial statements of the principals of the applicant also is appropriate if the principals will provide part of the financing.

Please provide the requested information within thirty (30) days in order that the department can further consider the application.

Sincerely,


L. GLEN SAXTON, Chief
Water Allocation Bureau

c: IDWR - S. Region

RECORDED

NOV 07 1995

**APPLICATION FOR PERMIT
STATE OFFICE REVIEW**

Application #: 01-7124 Date: 11/15/93 Reviewer: Cindy Zimmerman

AREA OF CONCERN? - No/Yes E.S.R.P. Mor + trust area

SYSTEM COMPLETED:

No - 26A-~~P17~~

Complete in 1 year - P16

Yes

Proof not submitted - P16

Proof submitted - NA

GROUNDWATER:

+ 0.2 cfs <flo-ch> - 01G-P03 (new), 01C-P03 (existing), NMR

- 0.2 cfs - NMR <flow chart>

Drilling Permit:

Included w/permit - Permit No. , P99

Existing well - N/A (if drilled before 7/1/87)

No WD permit? - 046-46A<Irr>-46B-P23 (if drilled after 7/1/87)

SURFACE WATER: not in WD - 01C-P03 (+.2 w/pump), NMR <flow chart>

LOCATION:

Water District - WD No. 01

Surface water - 005 (req) 01J-P08 <flow chart>

(doesn't sink) or 01H-P01 <flow chart>; NMR

Groundwater - P05 (if well has not been drilled)

In stream channel - 030 (stream channel alteration)

Irrigation Dist. - 023

Canal Co. Areas - 023) agreement on file

Drainage Districts - 024

Flood Control Dist. - 063

Boise Front (63) - 058 (Groundwater temperature)

Swan Falls Flag - 3 <See condition code chart>

Trust - *~~051-052-053-P74~~ (Consumptive Uses), NA

Non Trust <1> - 048-049 (Consumptive Uses), NA

RIVER BASINS (Surface): Water District Control Condition (005) &....

Boise (63) - 05A (req), 11E (non-domestic use), NA

Payette (65) - 064 (consump. use), 047-P04 (Payette Lake), NA

Snake (01, 02 & 03) - 11A-P04 (01), 061-P07 (02/03 No W.D.Cond.), NA

USE:

Fish Propagation - 010/06A/09E-P10 (WQ) & 07A-042 (req)

044 (N 1000 Spr)

Irrigation - 803 (if GW use SW 1st) (+5A do POU comp.), NA

Power - 08A-17K-025-027 (req); ^{modify} 01F-P19; ^{modify} 09E-P10;

+25 cfs ~~P18~~; 17G (FERC) or 17M (FERE); ~~18B-P09~~

Mining - 06A/010/09E-P10 & 054 (req)

Storage (✓ 3 compo.) - 18A-for multi MD in WD, 18B-P09 (+10' dam), NA

Domestic (surface) - 021 (Boise R + L Peak), 27A (Payette R), NA

OWNERSHIP:

Non land owner - 004 (P/D or P/U) USB & R

PROTESTED:

Prehearing agreement - 020

OTHER CONDITIONS: -

REMARKS: - modify 01F & 09E. add conditions per GLEB memo of 12/10

BENEFICIAL USE DUE: - 12-1-1995

COMMENTS: - ① Mor t ~~to~~ exempt ② Div Desc. ③ Corp off ④ PU & PD owners.
⑤ Tw Review

WR0749NP
No. P01-07124

IDAHO DEPARTMENT OF WATER RESOURCES
WATER RIGHT PROFILE REPORT
(REGIONAL)

DATE: 12/13/93
PAGE: 1

OWNER CODE	NAME & ADDRESS	PRIORITY DATE	WATER USE	USE PERIOD FROM TO	DIVERSION RATE	DIVERSION VOLUME
C	CONTRACTORS POWER GROUP INC C/O PO BOX 820 TWIN FALLS ID 833030820 (208) 736-8255	09/01/1993	POWER	04-01 10-31	1300.00 CFS	
TOTAL DIVERSION:					1300.00 CFS	

Water Source: SNAKE RIVER

Tributary to: COLUMBIA RIVER

Stage: PERMIT

Point(s) of Diversion: T10S R21E S28 Lot 05(SW NW)

Place of Use Legal Description for: POWER

NE												NW												SW												SE											
T	R	S	NENE		NWNE		SWNE		SENE		:	NENW		NWNW		SWNW		SENW		:	NESW		NWSW		SWSW		SESW		:	NESE		NWSE		SWSE		SESE		:									
			Lt	Ac	Lt	Ac	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	Lt	Ac	:	Lt	Ac	Lt	Ac	Lt	Ac	Lt	Ac	:											
08S	20E	7	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:										

Pou County: JEROME

Conditions of Approval:

- 26A - Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which permit holder had no control.
- 08A - This right is subject to the provisions of Sections 42-205 through 42-210, Idaho Code, restricting the sale, transfer, assignment, or mortgage of this right. Failure to comply with these provisions is cause for immediate cancellation of this right.
- 17K - The water right acquired under this permit for hydropower purposes shall be junior and subordinate to all rights to the use of water, other than hydropower, within the State of Idaho that are initiated later in time than the priority of this permit and shall not give rise to any right or claim against future rights to the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this permit.
- 025 - This right does not constitute Idaho Public Utilities Commission or Federal Energy Regulatory Commission approval that may be required.
- 027 - Use of water under this right shall be non-consumptive.
- 17G - The diversion and use of water under this right and any license subsequently issued is subject to review by the Director on the date(s) of expiration of any license issued by the Federal Energy Regulatory Commission. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.
- 004 - The issuance of this right in no way grants any right-of-way or easement across the land of another.

IDAHO DEPARTMENT OF WATER RESOURCES
WATER RIGHT PROFILE REPORT
(REGIONAL)

Remarks: This permit does not convey any authority to require or demand the diversion of water into the Milner-Gooding Canal and only authorizes the use of water which has been diverted into the canal under other existing water rights. This permit does not authorize changes to the existing diversion structure where the Milner-Gooding Canal diverts water from the Snake River. The right holder shall either install a measuring device, or provide a certified measurement or computation of flow based upon system design to be prepared by a professional engineer. This measuring condition applies at the point where water is diverted from the Milner-Gooding Canal to the power use. Water used under this right shall meet Idaho Water Quality Standards and shall be returned undiminished to the canal without interfering with the operation of the canal for its primary purpose of supplying irrigation water.

Dates: App. Received: 09/01/1993 Priority Date: 09/01/1993
Proof Due Date: 12/01/1995 Proof Made Date:
Exam Made Date: Exam Sent to S.O.:
Licensed Date:

Misc: Water District Number: 01 Field Exam Fee:

Comments: Date: 09/27/1993 User-ID: BALDWIN Subject: DIVERSION DESCRIPTION
16 feet head, 1500 KW; diversion located on Milner Gooding Canal; a concrete diversion comprised of a power house, overflow weir, emergency radial gate, trash rack, trash rake, intake structure to be installed in existing canal. Forebay, bypass reach, tailrace to be constructed in existing Milner-Gooding Canal. Transmission lines to interconnect with IPCo system southeast 3-1/2 m. from project site.

Date: 11/15/1993 User-ID: ZIMMERMA Subject: MORATORIUM EXEMPTION
This permit is located within the Eastern Snake River Plain Moratorium boundary; however, its non-consumptive power use is within the acceptable parameters of the Moratorium guidelines.

Date: 11/15/1993 User-ID: ZIMMERMA Subject: TRUSTWATER REVIEW
This permit proposes to divert 1300.00 cfs of trustwater from the Snake River for power use located within the E1/2SW, S07, T08S, R20E. The diversion conveyance is the Milner-Gooding Canal with the power plant located in the existing canal. This application satisfies 42-203A & C requirements.

Date: 11/15/1993 User-ID: ZIMMERMA Subject: CORPORATE OFFICERS

WR0749NP
No. P01-07124

IDAHO DEPARTMENT OF WATER RESOURCES
WATER RIGHT PROFILE REPORT
(REGIONAL)

DATE: 12/13/93
PAGE: 3

=====

Comments: Date: 11/15/1993 User-ID: ZIMMERMA Subject: CORPORATE OFFICERS
The Board of Directors of Contractors Power Group Inc are C L
Stutzman, Thomas K Schafer, Steven K Trowbridge, Ken L Stutzman,
Harold Shetler, and Ivan M Crafton.

Date: 11/15/1993 User-ID: ZIMMERMA Subject: P/D & P/U OWNERSHIP
The point of diversion and place of use are owned by US Bureau of
Reclamation and operated by American Falls Reservoir Dist. No. 2.
Right of ways for transmission lines are owned by Idaho Power Co.
The applicant has site and ROW agreements with the USBOR and IPCo

Audit: 12/13/93 ZIMMERMA

MEMORANDUM

DATE: November 15, 1993
TO: File No. 01-07124
FROM: Cindy Zimmerman
SUBJECT: Trustwater Review

=====

This application proposes to divert 1300.00 cfs of trustwater from the Snake River for power use located within E $\frac{1}{2}$ SW, S07, T08S, R20E. The diversion conveyance is the Milner-Gooding Canal with the power plant located in the existing canal. This application satisfies 42-203A & C requirements.

RECORDED

NOV 07 1995

MTS

FORM NO.202A
REVISED 6-6-91

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR PERMIT ANALYSIS SHEET

INITIAL REVIEW BY MTS DATE 9-1-, 1993

APPLICATION NO. 30-08718
01-07124

REQUIRED INFORMATION

- ☒ Name (If applicant is a corporation or partnership, names must be provided for the director, officers, & other partners. Hand
- ☒ Address Rec 9-15 93
- ☒ Source (see USGS quad for names of water sources)
- ☒ Point of diversion (10 Acres for spring, lot & block descriptions for subdivisions, local name, flow &/or volume.
- ☒ County
- ☒ Quantity (flow &/or volume)
- ☒ Period of use
- ☒ Nature of proposed use (include description of use)
- ☒ Description of diverting works.
- ☒ Time required for beneficial use of water.
- ☒ Place of use or acres irrigated.
- ☒ Map
- ☒ Signature (If applicant is corp., partnership, or municipality, title of signator is required)
- ☒ Fee
- ☒ Yes ☐ No* In form to receipt
- ++++PROPOSED PRIORITY DATE
9-1- 1993

ADDITIONAL INFORMATION

- ☒ Overlapping place of use(Describe source & relationship to present application on the back.
- ☒ Overlapping point of diversion.
- ☐ Yes ☒ No Field check required
- ☐ Yes ☒ No Field check by
- ☐ Yes ☒ No Field report attached
- ☐ Yes ☒ No Critical Ground water area
- ☐ Yes ☒ No Groundwater management area
- * ☐ Yes ☒ No Send Dam safety information
- * ☐ Yes ☒ No Send power requirement letter
- * ☐ Yes ☒ No Send fish farm requirement letter
- * ☐ Yes ☒ No Power residency affidavit.
- * ☐ Yes ☒ No Power efficiency form
- ☒ Yes ☐ No Within trustwater boundary(If yes, attach trustwater supplementary analysis sheet.
- ☒ Yes ☐ No Diversion greater than 5 cfs or 500 acre ft. (If yes, attach large diversion supplementary analysis sheet.

See reverse side for additional information.

* REQUEST THE FOLLOWING ADDITIONAL INFORMATION FROM THE APPLICANT: _____

Date Requested _____, 19____

* Given to Jack Straybar 9-1-93 by DJ

RECEIVED

NOV 09 1993

Department of Water Resources

PROCESSING ☒ Yes ☐ No In form for Advertising
☒ Yes ☐ No ~~No~~ Statewide Advertising
☒ Yes ☐ No Fee amount, receipt date & No. recorded on app.

SEND COPIES TO: ☐ Idaho Dept of Health & Welfare ☐ USDI BLM
☐ Idaho Dept of Fish & Game ☐ USFS
☐ Idaho Dept of Lands ☐ Water Dist.
☐ Adjudication Bureau Unit ☐ Other _____

FINAL REGIONAL PROCESSING REVIEW

☒ Yes ☐ No Affidavit of publication received.
☒ Yes ☐ No Application published correctly. If not, record action taken.

☒ Yes ☐ No Publication dates and paper, recorded on App.
☐ Yes ☒ No Protests received
Final date for Protest 10/25/93
☐ Yes ☒ No Protests, dates, resolution of protest, recorded on app.
☐ Yes ☒ No Recommendations attached
☐ Yes ☒ No Measuring device required
☐ Yes ☒ No Access port required
☒ Yes ☐ No Will water be delivered by watermaster? If yes, what dist. 01
☒ Yes ☐ No Special conditions of approval or cover letter below. All Hydropower Conditions

See below for additional information

Date of priority recommended 9/17, 1993
By Loren O. Talen Date 11/5, 1993

STATE OFFICE REVIEW

See below for additional information

By _____ Date _____, 19 ____

ADDITIONAL INFORMATION:

LOCAL PUBLIC INTEREST

Comments recieved from:

_____ City	_____ Idaho Fish & Game	_____ Irrigation Dist.
_____ County	_____ Idaho Health & welfare	_____ Canal Company
_____ Reservations	_____ Div. of Enviromental Quality	_____ Other _____

PROJECT IMPACTS/IMPLICATIONS REPORT

COMMENTS:

_____ DATE _____, 19 _____

LEGAL NOTICE

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER
GROUP INC
C/O PO BOX 820
TWIN FALLS ID
83303-0820

Source: Snake River
tributary to Columbia
River

Diversion Pt: Lot 5
(SWNW), S28, T10S,
R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07,
T08S, R20E

The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec. 42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson,
Director

Affidavit of Publication

STATE OF IDAHO

COUNTY OF TWIN FALLS } SS.

RECEIVED

No 25307

OCT 28 1993

I, Linda Capps McBaine, being first duly sworn upon oath, depose and say that I am Public Clerk of the TIMES NEWS, published daily, at Twin Falls, Idaho, and do solemnly swear that a copy of the notice of advertisement, as per clipping attached, was published in the regular and entire issue of said newspaper, and not in any supplement thereof, for Two consecutive Weeks, commencing with the issue dated October 7, 1993, and ending with the issue dated October 14, 1993.

And I do further certify that said newspaper is a consolidation, effective February 16, 1942, of the Idaho Evening Times, published theretofore daily except Sunday, and the Twin Falls News, published theretofore daily except Monday, both of which newspapers prior to consolidation had been published under said names in said city and county continuously and uninterruptedly during a period of more than twelve consecutive months, and said TIMES-NEWS, since such consolidation, has been published as a daily newspaper except Saturday, until July 31, 1978, at which time said newspaper began daily publication under said name in said city and county continuously and uninterruptedly.

And I further certify that pursuant to Section 60-108 Idaho Code, Thursday of each week has been designated as the day on which legal notice by law or by order of any court of competent jurisdiction within the state of Idaho, to be published weekly, will be published; and that at the head of the editorial column of said combined newspapers, and in each issue thereof, Thursday is announced as the day on which said legal notices will be published.

STATE OF IDAHO
COUNTY OF TWIN FALLS

On this 21 day of October in the year of 1993, before me,

a Notary Public, personally appeared Linda Capps McBaine, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that he executed the same.

Debra R. Feltman
Notary Public for Idaho

Residing at

My commission expires:

Twin Falls
5/19/94

NOV 07 1995

OK
MB
10-28-93

CLASSIFIED ADVERTISING INVOICE
 TWIN FALLS TIMES NEWS
 132 3RD ST. W.
 P. O. BOX 548
 TWIN FALLS ID 83303

RECEIVED

Forwarding & address correction requested

OCT 28 1993

Department of Water Resources

RETURN THIS PORTION WITH YOUR REMITTANCE

INVOICE NO.		CLASS		BILLING DATE	
25307		543		10/22/93	
INDEXING TERM				01-07124	
START DATE		TELEPHONE NO.			
10/07/93		736-3003			
LINES/WORDS	TIMES	RATE	NET AMOUNT	GROSS AMOUNT	
39	2		42.48	42.48	
AFFIDAVI			2.00	2.00	
PAY THIS AMOUNT			44.48	44.48	

25307

4448

THIS SPACE FOR ADDRESS ONLY

IDAHO WATER RESOURCES

222 SHOSHONE EAST
 TWIN FALLS ID

83301

GROSS AMT DUE AFTER 11/93

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NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

27-Oct-1993

Earl Corless, Acting Project Manager
Bureau of Reclamation, Minidoka Project
1359 Hansen Avenue
Burley, ID 83318

Re: Application 01-07124, Contractor's Power Group, Inc.

Dear Mr. Corless:

This application is filed pursuant to the requirements of Title 42, Chapter 2 of the Idaho Code, which provides the mandatory process in Idaho law for appropriating water.

Idaho law views the establishment of a new water use as an appropriation regardless of the circumstances of the water supply.

This application seeks to appropriate the waters of the Snake River via the existing works of the Milner-Gooding canal for the purpose of power production.

Even though the operation of the canal and and flows available for power production will be controlled by irrigators in the exercise of their own rights, the application is necessary to establish a hydropower water right.

Sincerely,

Loren O. Holmes, P. E.
Southern Region Manager

MISSOURI

NOV 07 1995



United States Department of the Interior

BUREAU OF RECLAMATION

Minidoka Project Office
1359 Hansen Avenue
Burley, Idaho 83318-1821



IN REPLY
REFER TO:

609

WTR-4.10

OCT 22 1993

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OCT 25 1993

Department of Water Resources
Southern Region Office

Loren Holmes, Regional Manager
Southern Regional Office
Idaho Department of Water Resources
222 Shoshone Street East
Twin Falls ID 83301

Subject: Application for Permit (Water Rights Protest)

Dear Mr. Holmes:

The United States requests clarification on the Application for Permit filed by Contractors Power Group, Inc. received in your office September 1, 1993, and assigned identification number 01-07124. This application is the product of article 9 in Contract No. 3-07-10-P0032 between the United States, American Falls Reservoir District No. 2 (ARFD#2), and the Contractors Power Group, Inc., Federal Energy Regulatory Commission (FERC) Project No. 10552-002, article 402, FERC Environmental Assessment article 2.(b) and (c).

The existing flows in the Milner-Gooding Canal are from stored water in the American Falls Reservoir, and consist of flow rights for agricultural uses and a natural flow right for aquifer recharge. The project is a non-consumptive, run-of-river operation, and will not extend the season of irrigation diversions. The project operation is entirely dependent on managed flows released into the canal by AFRD#2.

The powerplant is subordinate to the primary purposes of the Federal facilities. The water available for the powerplant will be equal in amount and timing to that necessary only to satisfy the primary purposes.

Sincerely,

Earl M. Corless
Acting Project Manager

cc: John J. Straubhar, President, Contractors Power Group, Inc.
P. O. Box 820, Twin Falls, ID 83303-0820

NOV 07 1995

Proof of Publication
The Post-Register

RECEIVED

OCT 22 1993

Department of Water Resources
Southern Region Office

State of Idaho, }
County of Bonneville } ss

I, S. BOB BRIGHT or TED DELEZENE, first being duly sworn, depose and say: That I am the Production Supervisor or Asst. Prod. Supervisor of The Post Company, a corporation of Idaho Falls, Bonneville County, Idaho, publishers of The Post-Register, a newspaper of general circulation, published daily, except Saturday, at Idaho Falls, Idaho; said Post-Register being a consolidation of the Idaho Falls Times, established in the year 1890, The Idaho Register, established in the year 1880 and the Idaho Falls Post, established in 1903, such consolidation being made on the 1st day of November, 1931, and each of said newspapers have been published continuously and uninterruptedly, prior to consolidation, for more than seventy-eight (78) weeks and said Post-Register having been published continuously and uninterruptedly from the date of such consolidation, up to and including the last publication of notice hereinafter referred to.

That the notice, of which a copy is hereto attached and made a part of this affidavit, was published in said Post-Register for two consecutive weeks, first publication having been made on the 7th day of October, 1993, last publication having been made on the 14th day of October, 1993, and that the said notice was published in the regular and entire issue of said paper on the respective dates of publication, and that such notice was published in the newspaper and not in a supplement.

Subscribed and sworn to before me, this 20th day of October, 1993.

NOTICE OF APPLICATION FOR TRUST
WATER RIGHT

The following application has been
filed to appropriate the public
waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to
Columbia River

Diversion Pt: Lot 5 (SWNW), S28,
T10S, R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

The permit (s) will be subject to
all prior water rights. Protests
may be submitted based on the
criteria of Sec.42-203A, Idaho
Code and/or the new public
Interest criteria of Sec. 42-203C,
Idaho Code. Protests must be
filed with the applicant and with
the Director, Dept. of Water
Resources, Southern Region, 227
Shoshone Street East, Twin Falls,
ID 83301 on or before October 25,
1993.

R. Keith Higginson, Director
Pub: Oct 7, 14, 1993

MICROFILMED

NOV 07 1993

OK
MB
10-22-93

B10

STATEMENT

RECEIVED

The Post-Register

EAST IDAHO'S HOME PAPER

P.O. BOX 1800

IDAHO FALLS, IDAHO
83403

DIAL 522-1800

OCT 22 1993

Department of Water Resources
Southern Region Office

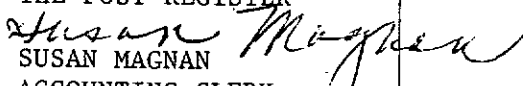
6570

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
SOUTHERN REGION
222 SHOSHONE ST. EAST
TWIN FALLS, IDAHO 83301

FEDERAL ID. #82-0220642

TEAR OFF THIS SLIP AND ENCLOSE WITH CHECK TO ASSURE PROPER CREDIT BEING GIVEN.
YOUR CANCELLED CHECK WHEN RETURNED BY YOUR BANK IS A VALID RECEIPT

\$

DATE	INCHES - LINES	WORDS	DAYS	CHARGES	✓	CREDITS	BALANCE
				BALANCE FORWARD			
10/7/93		LEGAL NOTICE: NOTICE OF APPLICATION		01-07124		CONTRACTORS	
		POWER					
		PUBLISHED: OCOTOBER 7, 14, 1993					
				36.29			36.29
I HEREBY CERTIFY THAT THE FOREGOING ACCOUNT IS CORRECT AND JUST, THAT THE SERVICES WERE ACTUALLY RENDERED AS CHARGED AND I/WE HAVE NOT RECEIVED PAYMENT THEREOF. THE POST REGISTER  SUSAN MAGNAN ACCOUNTING CLERK							
NOV 07 1995							

OK MB
10-22-93

EXPLANATION OF SYMBOLS:

DS DISPLAY ADV.
EC ENGRAVED CUTSCL CLASSIFIED ADV
CS CASHLG LEGAL ADV
AJ ADJUSTMENTSP SPECIAL ADV
RE RE-ORDER (CLASSIFIED ADV.)

DIAL 522-1800

P.O. BOX 1800

The Post-Register

IDAHO FALLS, IDAHO 83403

TRIBUNE PUBLISHING COMPANY, INC.

The Lewiston Morning Tribune
505 C St., P.O. Box 957
Lewiston, Idaho 83501
(208) 743-9411

Date 101493 INVOICE No. L00383525

Account No. 446620 01-07124

Description 83525NOTIC

Times 2 Lines 48

Tab Lines

**LEGAL ADVERTISING
INVOICE**

SOLD TO:

ID DEPT OF WATER RESOURCE
222 SHOSHONE ST. EAST
TWIN FALLS
ID 83301

RECEIVED

OCT 21 1993

54.00

Department of Water Resources

NOTICE: This is an invoice of Purchase made by you. Statement will be rendered the first of the month.
Please Retain This Invoice as Your Statement Will Refer To Invoice by No. Only.

AFFIDAVIT OF PUBLICATION

**NOTICE OF APPLICATION FOR TRUST
WATER RIGHT**

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to Columbia River

Diversion Pt: Lot 5 (SWNW), S28, T10S, R21E; Jerome County.

Use: Power (1300 cfs)
from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec.42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson, Director

Published in North Side News on 10/6 & 10/13/93; Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News on 10/7 & 10/14/93.

STATE OF IDAHO, ss.
County of Nez Perce

Karen J. Lewis, being duly sworn,

deposes and says, I am the Legal Clerk of the Tribune Publishing Company, a corporation organized and existing under and by virtue of the laws of the State of Idaho, publishers of the LEWISTON MORNING TRIBUNE, a newspaper of general circulation published at Lewiston, Nez Perce County, Idaho; That the said Lewiston Morning Tribune is an established paper and has been published regularly and issued regularly at least once a day for more than 21 consecutive years next immediately preceding the first publication of this notice, and has been so published uninterrupted for said period; that the

NOTICE OF APPLICATION FOR

attached hereto and which is made a part of this affidavit was published in the said Lewiston Morning Tribune, 2 time(s). Publication being on 100793, or once a

WEEK for 2 consecutive WEEKS, the first publication thereof being on the 100793, and the last publication thereof being on the 101493, and said

NOTICE OF APPLICATION FOR

was so published in the regular and entire issue of said newspaper and not in a supplement thereof and was so published in every issue and number of the said paper, during the period and times of publication as set forth above.

Karen J. Lewis 18a

SUBSCRIBED AND SWORN BEFORE ME THIS THE

day of October

1993

Sheryl M. Lantz

Notary Public in and for the State of Idaho, residing at Lewiston, therein.

Commission expires June 6, 97

WIRE

NOV 07 1993

The Idaho Statesman

P.O. BOX 40, BOISE, IDAHO 83707

LEGAL ADVERTISING INVOICE

Amount Due

56.04

Account Number 100632		Identification NOTICE OF APPLICATION FOR TRUST WATER RIGHT	
Ordered By Mary Baldwin	P.O. Number	Rate NT	Run Dates October 7, 14, 1993
State of Idaho Department of Water Resources Southern Region 222 Shoshone Street East Twin Falls, Idaho 83301		Estimated Inches. # Affidavits 1	Real Inches Legal Number 6051

RECEIVED

OCT 18 1993

OK
NB
10/18/93

Department of Water Resources

Southern Region Office

LEGAL NOTICE NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

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C/O PO BOX 820

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R. Keith Higginson
Director

Pub. October 7, 14, 1993 6051

CAROL PAYNE-CULPAN

, being duly

sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto; that said notice was published in The Idaho Statesman in conformity with Section 60-108, Idaho Code as amended, for TWO

☒ consecutive weekly ☐ consecutive daily ☐ single ☐ odd skip

insertion(s) beginning with the issue of OCTOBER 7, 1993

and ending with the issue of OCTOBER 14, 1993

C. Payne-Culpan

STATE OF IDAHO)

ss.

COUNTY OF ADA)

On this 14TH day of OCTOBER in the year of 1993, before me, a Notary Public, personally appeared CAROL PAYNE-CULPAN, known or identified to me to be the person whose name subscribed to the within instrument, and being by me first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

[Signature]
Notary Public for Idaho

Residing at BOISE, ID

My commission expires: 11-27-93

NOTARIES

NOV 07 1995

AFFIDAVIT of PUBLICATION

State of Idaho } ss.
County of Jerome }

RECEIVED

OCT 14 1993

Patty Nance

Department of Water Resources
Southern Region Office

sworn, deposes and says that she is the printer (publisher) of the Jerome North Side News, a newspaper published every week in Jerome, County of Jerome, State of Idaho; that said newspaper has been continuously and uninterruptedly published for a period of seventy-eight consecutive weeks prior to the first publication of the annexed notice, and is a newspaper qualified to publish legal notices as provided by act of the 1919 session of the legislature of the State of Idaho, known as House Bill 145; that the annexed advertisement was published once each week for

2 consecutive issues in said newspaper proper and not in a supplement; that the date of the first publication of said advertisement was on the 6 day of October, 1993

and the date of the last publication was on the 13 day of October, 1993

Patty Nance

Subscribed and sworn to before me this 13th day of October, 1993

(SEAL)

Norma De Voe
NOTARY PUBLIC

#5793/143

NORTH SIDE NEWS

Jerome, Idaho

COST OF PUBLICATION

Number of Picas per Line _____

Number of Lines in Notice _____

Number of Insertions 2X'S

Lines tabular at _____ 6¢/Pica

Lines straight at \$25.30 5¢/Pica

Subsequent lines at 20.24 4¢/Pica

TOTAL COST \$45.54

NOV 07 1995

COPY OF NOTICE

(Paste Here)

*Notice of Application
Trust for Water
Right*

PLAINTIFF ATTORNEY

DEFENDANT

PLAINTIFF

Dept. of Water Resources
FILE TO

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

The following application has been filed to appropriate the public waters of the State of Idaho:

01-07124

CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to Columbia River

Diversion Pt: Lot 5 (SWNW), S28, T10S, R21E; Jerome County.

Use: Power (1300 cfs) from 04/01 to 10/31

Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

The permit (s) will be subject to all prior water rights. Protests may be submitted based on the criteria of Sec.42-203A, Idaho Code and/or the new public interest criteria of Sec. 42-203C, Idaho Code. Protests must be filed with the applicant and with the Director, Dept. of Water Resources, Southern Region, 222 Shoshone Street East, Twin Falls, ID 83301 on or before October 25, 1993.

R. Keith Higginson, Director

Published in North Side News on 10/6 & 10/13/93; Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News on 10/7 & 10/14/93.

OK MB 10/18/93

NOTICE OF APPLICATION FOR TRUST WATER RIGHT

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R. Keith Higginson, Director

Published in North Side News on 10/6 & 10/13/93; Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News on 10/7 & 10/14/93.

RECORDED

NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

30-Sep-1993

R. KEITH HIGGINSON
Director

IDAHO STATESMAN
PO BOX 40
BOISE ID 83707

Gentlemen:

Enclosed you will find a legal notice which we wish to have published in your newspaper. We have inserted the required publication dates. If time allows, please submit a galley proof for review before publication.

After sending us a galley proof, proceed with the publication on the dates we have inserted, assuming the notice is correct. If we have any corrections, we will notify you before the first publication. If you cannot publish the notice on the proposed dates, please contact us immediately.

In order to receive payment, an affidavit of publication must be submitted to the Department along with the publication bill.

Very truly yours,

Mary Baldwin
Secretary/Office Coordinator

Enclosure

NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

30-Sep-1993

R. KEITH HIGGINSON
Director

POST REGISTER
PO BOX 1800
IDAHO FALLS ID 83402

Gentlemen:

Enclosed you will find a legal notice which we wish to have published in your newspaper. We have inserted the required publication dates. If time allows, please submit a galley proof for review before publication.

We have attempted to submit this legal as camera ready. Please call me at your earliest convenience and prior to your staff re-typing the legal if it does not meet your specifications so I can possibly make adjustments.

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Secretary/Office Coordinator

Enclosure

Michael W. W. W.
NOV 07 1993

NOTICE OF APPLICATION FOR TRUST
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CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Source: Snake River tributary to
Columbia River

Diversion Pt: Lot 5 (SWNW), S28,
T10S, R21E; Jerome County.

Use: Power (1300 cfs)
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Date Filed: 09/01/1993

In: E1/2SW, S07, T08S, R20E

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Idaho Code. Protests must be
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the Director, Dept. of Water
Resources, Southern Region, 222
Shoshone Street East, Twin Falls,
ID 83301 on or before October 25,
1993.

R. Keith Higginson, Director

Published in North Side News on
10/6 & 10/13/93; Idaho Statesman,
Post Register, Lewiston Morning
Tribune, Times News on 10/7 &
10/14/93.

RECEIVED

NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

30-Sep-1993

R. KEITH HIGGINSON
Director

LEWISTON MORNING TRIBUNE
505 C STREET
LEWISTON ID 83501

Gentlemen:

Enclosed you will find a legal notice which we wish to have published in your newspaper. We have inserted the required publication dates. If time allows, please submit a galley proof for review before publication.

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Secretary/Office Coordinator

Enclosure

RECEIVED
NOV 07 1993

NOTICE OF APPLICATION FOR TRUST
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CONTRACTORS POWER GROUP INC
C/O PO BOX 820
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Source: Snake River tributary
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Water Resources, Southern
Region, 222 Shoshone Street
East, Twin Falls, ID 83301 on
or before October 25, 1993.

R. Keith Higginson, Director

Published in North Side News on
10/6 & 10/13/93; Idaho
Statesman, Post Register,
Lewiston Morning Tribune, Times
News on 10/7 & 10/14/93.

RECORDED

NOV 07 1995



State of Idaho
DEPARTMENT OF WATER RESOURCES
Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

30-Sep-1993

R. KEITH HIGGINSON
Director

TIMES NEWS
PO BOX 548
TWIN FALLS ID 83301

Gentlemen:

Enclosed you will find a legal notice which we wish to have published in your newspaper. We have inserted the required publication dates. If time allows, please submit a galley proof for review before publication.

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Mary Baldwin
Secretary/Office Coordinator

Enclosure

RECEIVED

NOV 07 1995

NOTICE OF APPLICATION
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01-07124

CONTRACTORS POWER
GROUP INC
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83303-0820

Source: Snake River
tributary to Columbia
River

Diversion Pt: Lot 5
(SWNW), S28, T10S,
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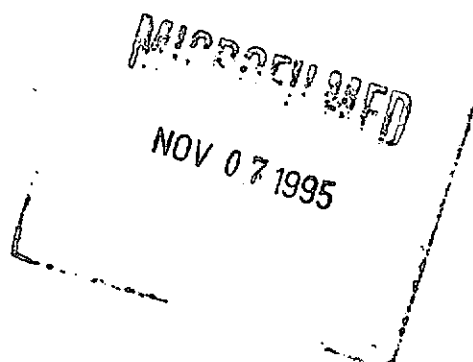
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Southern Region, 222
Shoshone Street East,
Twin Falls, ID 83301
on or before October
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R. Keith Higginson,
Director

Published in North
Side News on 10/6 &
10/13/93; Idaho
Statesman, Post
Register, Lewiston
Morning Tribune,
Times News on 10/7 &
10/14/93.





State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

CECIL D. ANDRUS
Governor

30-Sep-1993

R. KEITH HIGGINSON
Director

NORTHSIDE NEWS
PO BOX 468
JEROME ID 83338

Gentlemen:

Enclosed you will find a legal notice which we wish to have published in your newspaper. We have inserted the required publication dates. If time allows, please submit a galley proof for review before publication.

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Secretary/Office Coordinator

Enclosure

RECEIVED

NOV 07 1995

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Resources, Southern Region, 222
Shoshone Street East, Twin
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R. Keith Higginson, Director

Published in North Side News on
10/6 & 10/13/93; Idaho
Statesman, Post Register,
Lewiston Morning Tribune, Times
News on 10/7 & 10/14/93.

RECEIVED
NOV 07 1995

MEMORANDUM

TO: File 36-08718

FROM: Mary Baldwin, Southern Region

DATE: 29-Sep-1993

SUBJECT: Basin # change

It was brought to my attention on this date that this application should be Basin 01.

Telephone calls were made on this date to North Side News, Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News to cancel the advertising mailed on 9/28/93 with the WR # 36-08718.

NSN - Charleen - 9:21 a.m.
TN - Jackie - 9:20 a.m.
LT - Karen - 9:31 a.m.
IS - Donna - 9:30 a.m.
PR - Cathy - 9:32 am
ATTN } message for call back
Cathy }
(Had not received legal yet.)
10:06 am

NOV 07 1995



State of Idaho

DEPARTMENT OF WATER RESOURCES

Southern Region, 222 Shoshone St. East, Twin Falls, Idaho 83301 (208) 736-3033

28-Sep-1993

CECIL D. ANDRUS
Governor

R. KEITH HIGGINSON
Director

JOHN J STRAUBHAR PRESIDENT
CONTRACTORS POWER GROUP INC
C/O PO BOX 820
TWIN FALLS ID 83303-0820

Re: Application for Permit No. 36-08718

Dear Mr. Straubhar:

The Department of Water Resources acknowledges receipt of your water right application for permit. The application has been assigned the above referenced identification number. Please refer to this number in all further correspondence.

This office has scheduled advertising the application in the North Side News for 10/6 & 10/13/93; Idaho Statesman, Post Register, Lewiston Morning Tribune, Times News on 10/7 & 10/14/93. A period of ten days following the second publication will be allowed for the submittal of protests.

If the application is protested you will be sent a copy of the protest. The protest must be resolved before the application is approved or denied. If the protest is not resolved voluntarily, this Department will conduct a conference and/or hearing on the matter.

If the application is not protested, it will be forwarded to our State Office in about five weeks. State office personnel will conduct a complete review prior to final processing of the application and will notify you of the outcome of this review. When a permit is issued, you will be sent a copy. A typical processing time for an unprotested application is about eight weeks.

Our records show that you have been given the additional information requirements pursuant to Idaho Code provisions and the department's Rules and Regulations for Water Appropriation.

Please feel free to contact this office if you have any questions regarding this procedure.

Very truly yours,

Mel Schulte
Water Right Agent

MS:MB

MICROFILMED

NOV 07 1995

RECEIVED

SEP 15 1993

Department of Water Resources
Southern Region

State of Idaho

Department of State

CERTIFICATE OF INCORPORATION
OF

CONTRACTORS POWER GROUP, INC.

I, PETE T. CENARRUSA, Secretary of State of the State of Idaho, hereby certify that duplicate originals of Articles of Incorporation for the incorporation of the above named corporation, duly signed pursuant to the provisions of the Idaho Business Corporation Act, have been received in this office and are found to conform to law.

ACCORDINGLY and by virtue of the authority vested in me by law, I issue this Certificate of Incorporation and attach hereto a duplicate original of the Articles of Incorporation.

Dated: May 3, 1985



Pete T. Cenarrusa

SECRETARY OF STATE

by *Daura [Signature]*

NOV 07 1995

ARTICLES OF INCORPORATION
OF
CONTRACTORS POWER GROUP, INC.

The undersigned, acting as incorporators of a corporation under the Idaho Business Corporation Act, adopt the following Articles of Incorporation for such corporation:

ARTICLE I

The name of the corporation is CONTRACTORS POWER GROUP, INC.

ARTICLE II

The period of its duration is perpetual.

ARTICLE III

The purpose or purposes for which the corporation is organized are:

- (a) To carry on the general business of the acquisition, development, control, use and distribution of water; to carry on the general business of the manufacture, transmission, distribution and sale of electric current; to generate, purchase, acquire and accumulate electric energy and to transmit, distribute, furnish, sell and dispose of such electric energy.
- (b) To acquire, build, construct, own and maintain and operate all necessary and convenient lands, buildings, structures, dams and other devices, and to acquire and hold water and flowage rights, and to acquire, lease, hold or occupy lands and easements therein.

RECEIVED
db

SEP 10 1993

Department of Water Resources
Southern Region Office

- (c) To buy and sell water and water rights from and to individuals, firms, corporations, and government entities; to own, operate, maintain and control such appliances as may be necessary in the conduct of its business aforesaid, and not contrary to law.
- (d) To purchase, to receive by way of gift, subscribe for, invest in, and all other ways acquire, import, lease, possess, maintain, handle on consignment, own, hold for investment or otherwise use, enjoy, exercise, operate, manage, conduct perform, make, borrow, guarantee, contract in respect of, trade and deal in, sell, exchange, let, lend, export, mortgage, pledge, deed in trust, hypothecate, encumber, transfer, assign and in all other ways dispose of, design, develop, invent, improve, equip, repair, alter, fabricate, assemble, build, construct, operate, manufacture, plant, cultivate, produce, market, and in all other ways (whether like or unlike any of the foregoing), deal in and with property of every kind and character, real, personal or mixed, tangible or intangible, wherever situated and however held, including, but not limited to, money, credits, choses in action, securities, stocks, bonds, warrants, script, certificates, debentures, mortgages, notes, commercial paper and other obligations and evidences of interest in or indebtedness of any person, firm, or corporation, foreign or domestic, or of any government or subdivision or agency thereof, documents of title, and accompanying rights, and every other kind and character of personal property, real property (improved or unimproved), and the products and avails thereof, and every character of interest therein and appurtenance thereto, including, but not limited to, mineral, oil, gas and

db
RECORDED

NOV. 07 1995

water rights, all or any part of any going business and its incidents, franchises, subsidies, charters, concessions; grants, rights, powers or privileges, granted or conferred by any government or subdivision or agency thereof, and any interest in or part of any of the foregoing and to exercise in respect thereof all of the rights, powers, privileges, and immunities of individual owners or holders thereof.

- (e) To hire and employ agents, servants and employees, and to enter into agreements of employment and collective bargaining agreements, and to act as agent, contractor, trustee, factor or otherwise, either alone or in company with others.
- (f) To promote or aid in any manner, financially or otherwise, any person, firm, corporation or association, and to guarantee contracts and other obligations.
- (g) To let concessions to others to do any of the things that this corporation is empowered to do, and to enter into, make, perform and carry out, contracts and arrangements of every kind and character with any person, firm, association or corporation, or any government or authority or subdivision or agency thereof.
- (h) To carry on any business whatsoever that this corporation may deem proper or convenient in connection with any of the foregoing purposes or otherwise, or that it may deem calculated, directly or indirectly, to improve the interests of this corporation, and to do all things specified in Sections 30-1-3 and 30-1-4, Idaho Code, and to have and to exercise all powers conferred by the laws of the State of Idaho on corporations formed under

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the laws pursuant to which and under which this corporation is formed, as such laws are now in effect or may at any time hereafter be amended, and to do any and all things hereinabove set forth to the same extent and as fully as natural persons might or could do, either alone or in connection with other persons, firms, associations or corporations, and in any part of the world.

The foregoing statement of purposes shall be construed as a statement of both purposes and powers, shall be liberally construed in aid of the powers of this corporation, and the powers and purposes stated in each clause shall, except where otherwise stated, be in nowise limited or restricted by any term or provision of any other clause, and shall be regarded not only as independent purposes, but the purposes and powers stated shall be construed distributively as each object expressed, and the enumeration as to specific powers shall not be construed as to limit in any manner the aforesaid general powers, but are in furtherance of, and in addition to and not in limitation of said general powers.

ARTICLE IV

The aggregate number of shares which the corporation shall have authority to issue is 1,000 shares, without par value, all of one class. Said capital stock shall be nonassessible.

ARTICLE V

Provisions denying preemptive rights are: Such rights as may be adopted by the corporation and set out in its By-laws.

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ARTICLE VI

Provisions for the regulation of the internal affairs of the corporation shall be set out in the By-laws of the corporation.

ARTICLE VII

The address of the initial registered office of the corporation is Twin Falls Bank & Trust Company Building, 103 Main Avenue South, P. O. Box 83, Twin Falls, Idaho 83303, and the name of its initial registered agent at such address is Daniel A. Slavin at the Twin Falls Bank & Trust Company Building, 103 Main Avenue South, P. O. Box 83, Twin Falls, Idaho 83303.

ARTICLE VIII

The number of directors constituting the initial board of directors of the corporation is six (6), and the names and addresses of the persons who are to serve as directors until the first annual meeting of shareholders or until their successors are elected and shall qualify are:

<u>NAME</u>	<u>ADDRESS</u>
C. L. Stutzman	Route #1 Twin Falls, Idaho 83301
Thomas K. Schafer	P. O. Box 283 Twin Falls, Idaho 83303
Steven K. Trowbridge	Route #2, Box 32 Buhl, Idaho 83316
Ken L. Stutzman	Route #1 Twin Falls, Idaho 83301

Harold Shetler

Route #4
Buhl, Idaho 83316

Ivan M. Crafton

Mountain View Drive
Buhl, Idaho 83316

ARTICLE IX

The name and address of each incorporator is:

NAME

ADDRESS

C. L. Stutzman

Route #1
Twin Falls, Idaho 83301

Thomas K. Schafer

P. O. Box 283
Twin Falls, Idaho 83303

Steven K. Trowbridge

Route #2, Box 32
Buhl, Idaho 83316

Ken L. Stutzman

Route #1
Twin Falls, Idaho 83301

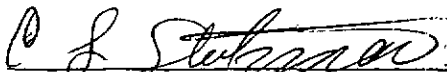
Harold Shetler

Route #4
Buhl, Idaho 83316

Ivan M. Crafton

Mountain View Drive
Buhl, Idaho 83316.

DATED This 1 day of May, 1985.

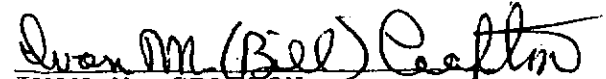

C. L. STUTZMAN


THOMAS K. SCHAFER


STEVEN K. TROWBRIDGE


KEN L. STUTZMAN


HAROLD SHETLER


IVAN M. CRAFTON

STATE OF IDAHO)

: ss.

County of Twin Falls)

On this 1 day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared C. L. STUTZMAN, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

NAME

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.


Notary Public for Idaho,
Residing at Twin Falls, Idaho.

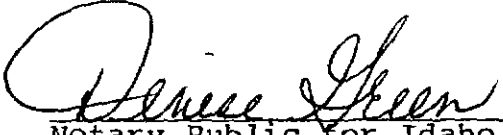
STATE OF IDAHO)

: ss.

County of Twin Falls)

On this 1 day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared THOMAS K. SCHAFER, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.


Notary Public for Idaho,
Residing at Twin Falls, Idaho.

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STATE OF IDAHO)

: ss.

County of Twin Falls)

On this 1 day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared STEVEN K. TROWBRIDGE, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Julie Stutzman
Notary Public for Idaho,
Residing at Twin Falls, Idaho.

STATE OF IDAHO)

: ss.

County of Twin Falls)

On this 1 day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared KEN L. STUTZMAN, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Julie Stutzman
Notary Public for Idaho,
Residing at Twin Falls, Idaho.

NOV 07 1985

STATE OF IDAHO)
County of Twin Falls) ss.

On this 1st day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared HAROLD SHETLER, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Denise Green
Notary Public for Idaho,
Residing at Twin Falls, Idaho.

STATE OF IDAHO)
County of Twin Falls) ss.

On this 1st day of May, 1985, before me, the undersigned, a Notary Public in and for said State, personally appeared IVAN M. CRAFTON, known or identified to me to be the person who executed the foregoing instrument, and acknowledged to me that he executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Denise Green
Notary Public for Idaho,
Residing at Twin Falls, Idaho.

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CONTRACTORS POWER GROUP, INC.
John J. Straubhar, P.E.
P. O. Box 820
Twin Falls, Idaho 83303-0820

Department of Water Resources
Southern Region Office

September 9, 1993

Loren Holmes, Manager
Southern Regional Office
Department of Water Resources
222 Shoshone Street E
Twin Falls, Idaho 83301

Re: Mi-28 Water Power Project
Water Permit Application For Power Purposes

Dear Mr. Holmes:

The following information is intended to provide the additional information required under Rule 4.5.3 of the Idaho Department of Water Resources Rules And Regulations. The Mi-28 Water Power Project is a 1.5 MW hydroelectric plant to be constructed on the Milner-Gooding Canal approximately seven miles north of Eden and Hazelton.

Rule 4.5.3.1 Information relative to effects on existing rights:

The proposed hydroelectric plant is 28 miles downstream of Milner Dam on the Milner-Gooding Canal. There is an irrigation diversion approximately one mile upstream where water is diverted into an irrigation lateral, which flows west from the canal. The lateral supplies four or five farms with irrigation water. The proposed plant will not back water far enough upstream to effect the diversion even during emergency shutdown at maximum flow (i.e. 1300 to 1400 cfs).

The nearest downstream irrigation diversion is approximately 14 miles. The Dietrich Drop hydroelectric project is approximately 12 - 13 miles downstream.

The proposed power plant has an emergency overflow weir wall and emergency bypass gates incorporated into the plant, both of which can bypass the maximum flow. This protection was at the request of the American Falls Reservoir District and Bureau of Reclamation.

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Rule 4.5.3.2 Information relative to sufficiency of water supply:

1. The power plant is designed to use up to 1500 cfs of flow, however, maximum water available for power generation in this reach is typically 1350 cfs. This is based on water records averaged for the year 1972 to 1992. Water records have been kept for over 60 years, with our data base going back to 1960.
2. The American Falls Reservoir District #2 has an upstream storage right in American Falls Reservoir diverted at Milner Dam. This water is delivered to the Shoshone and Gooding area for irrigation. Upstream diversions for irrigation at Hunt are minimal and are estimated to be 150 cfs including canal losses.

We are attaching the average estimated 20 year flow spread sheet.

Rule 4.5.3.3 Information relative to good faith, delay, or speculative purposes of the applicant:

We are submitting a copy of the U.S. Bureau of Reclamation (USBOR) Site Agreement granting permission to use the canal, land, and water which was signed by the AFRD #2. The proposed plant lies entirely on USBOR land, except a privately owned transmission line, 3.5 miles in length which is mostly on BLM land.

Rule 4.5.3.4 Information relative to financial resources:

The plant will be financed with a bank loan guaranteed by the principals of Contractors Power Group, Inc. We can supply financial statements, if necessary, which will be the personal statements of the principals. We would anticipate that these would be held in the strictest confidence.

We are submitting a construction cost estimate which includes equipment cost.

We are proposing to borrow \$850,000 from a local bank and the estimated construction cost is \$1,197,000. As you can see, the principals investment is substantial.

Rule 4.5.3.5 Information relative to conflict with the local public interest:

The USBOR has issued a site agreement.

The USBLM has issued a right-of-way agreement.

MINNIE HALL

NOV 07 1993

The two private individuals whose land we cross with the transmission line have entered R.O.W. agreements.

The AFRD#2 is a party to the "USBOR site agreement. Idaho Power Company has entered a power sales agreement. The Idaho Department of Fish & Game, U.S. Fish & Wildlife Service, Corps of Engineers, Environmental Protection Agency, Idaho Historical Society and other resource agencies have all approved the proposed project.

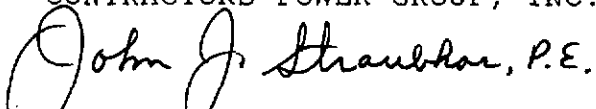
Federal Energy Regulatory Commission (FERC) has issued a minor license.

All local individuals, governments, tribal reservations, irrigation districts, or agencies listed above were requested to comment on this project. The comments were incorporated into the license as articles and subsequently approved by FERC.

Contractors Power Group, Inc. plans to start construction about October 6, 1993. The AFRD#2 plans to turn the irrigation water out October 10, 1993 and we want to immediately work in the canal. If you have questions or if we can assist you please call me at 736-8255.

Sincerely,

CONTRACTORS POWER GROUP, INC.


John J. Straubhar, P.E.
President

JJS:ss

enclosures

cc: Key Bank
USBOR - Burley
AFRD#2

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MI-28 WATER POWER PROJECT
PROPOSED HYDROELECTRIC PROJECT

HISTORICAL FLOWS

MILNER-GOODING CANAL

SEP 10 1993

Department of Water Resources
Southern Region Office

FLOW DATA (Monthly Averages Based On 20 year historical Record)

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
AVG. OPERATIONAL DAYS	31	28	31	30	31	31	31	31	30	31	23	
1992				904	1299	1321	1285	1297	1081			
1991				486	1049	1425	1673	1548				
1990				833	1299	1297	1513	1412	1189	391	128	139
1989				318	1288	1474	1575	1429	1155		180	
1988				434	1199	1430	1565	1366	1078			
1987				832	1276	1312	1324	1228	1126	218		
1986				697	1210	1425	1475	1338	1137	304	305	
1985				469	1320	1485	1511	1408	1138	583	718	84
1984				401	1094	1253	1454	1377	1212	357	76	
1983				294	963	1242	1381	1346	1175	485	93	
1982				211	986	1385	1433	1410	1230	487	224	
1981				797	1234	1344	1483	1421	1331	520	203	
1980				526	1293	1317	1468	1399	1199	445		
1979				400	1382	1511	1430	1415	1317	535	205	
1978				330	1090	1404	1521	1320	814	461	117	
1977				339	856	961	1110	1210	1040	398	103	
1976				351	1195	1479	1590	1369	1234	443	182	
1975				184	917	1413	1542	1548	1299	236	182	
1974				291	1330	1540	1573	1450	1330	513	175	
1973				669	1370	1460	1520	1440	1160	495	232	
1972				519	1429	1510	1567	1571	1300	158	219	213

TOTAL
TWENTY YEAR AVERAGE - CFS
UPSTREAM DIVERSION - CFS

10335	25079	28988	30994	29302	23545	7538	3561	436
492	1194	1380	1476	1395	1177	419	209	145
0	25	130	155	153	100	0	0	0
492	1169	1250	1321	1242	1077	419	209	145

ESTIMATED FLOW (Monthly Average) - CFS

Estimated flows have not been adjusted to reflect: 1) 30 cfs water right in April and May for aquifer recharge that may be available on high water years. 2) The canal company has an agreement with downstream power plants to enhance their flows up to 900 cfs. 3) The canal company will not run water if weather is adverse during in late October and November.

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Mi.-28 Water Power Project
Construction Cost Estimate

SEP 10 1993

Revised 7/5/93

Department of Water Resources
Southern Region Office

Item No	Item	Unit	Quantity	Unit Price \$	Amount \$
1	Structures & Improvements				
	Powerhouse				
	Clearing	Acre	5	400	2000
	Common Excavation	C.Y.	300	5	1500
	Rock Excavation	C.Y.	4333	7	30331
	Backfill	C.Y.	1500	4	6000
	Grouting	L.S.	1	5000	5000
	Site Grading	L.S.	1	1000	1000
	Miscellaneous Steel Items	L.S.	1	2000	2000
	Powerhouse Building	L.S.	1	30000	30000
					77631
2	Reinforced Concrete				
	Foundation & Below Grade	C.Y.	130	200	26000
	Floor Slabs	C.Y.	200	250	50000
	Concrete Walls	C.Y.	125	250	31250
	Concrete Weir Walls & Ftgs.	C.Y.	206	250	51500
	Concrete Bypass Structure	C.Y.	82	250	20500
	Concrete Bridge	C.Y.	39	200	7800
	Concrete for Draft Tubes	C.Y.	130	200	26000
					213050
3	Reservoir, Dams, Waterways				
	Trashrake	L.S.	1	50000	50000
	Trashrack	L.S.	1	5000	5000
	Catwalk	L.S.	1	4000	4000
	Site Grading	Acre	3	1000	3000
	Tailrace & Forebay Comm. Exc.	C.Y.	1050	4	4200
	Tailrace & Forebay Rock Exc.	C.Y.	5225	7	36575
	Tailrace Riprap	C.Y.	1200	10	12000
	Remove Check Structure	L.S.	1	20	20
	Weirwall Exavation	C.Y.	120	10	1200
	Forebay Rock Embankment	C.Y.	4600	4	18400
	Forebay Comm. Embankment	C.Y.	920	4	3680
	Forebay Riprap	C.Y.	700	10	7000
					145075
4	Waterwheels, Turbines & Generators				
	Turbines & Generators	L.S.	1	100000	100000
	T/G Base Plates & Actuators	incl.			0
	T/G Installation & Freight	L.S.	1	75000	75000
	Draft Tubes	Ea.	2	7500	15000
	Generator Rewind (optional)	L.S.	1	5000	
	Isolation Gates			10000	10000
					200000

NOV 07 1995

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5 Accessory Electrical Equipment				
Programmable Controller	L.S.	1	40000	40000
P.C. Panel	incl.			0
Gate Position	incl.			0
Switchgear	incl.			0
Conduit Runs & Cables	L.S.	1	15000	15000
Alarm	incl.			0
Area & Bldg. Lighting	L.S.	1	5000	5000
Telephone	incl.			0
Station Power Transformers	incl.			0
Fused Disconnects	incl.			0
Manual Exciter	incl.			0
Battery Bank	incl.			0
				60000
6 Miscellaneous Powerplant Equipment				
Stilling Well	L.S.	1	2000	2000
Water Sensor	L.S.	1	5000	5000
Bridge Crane	L.S.	1	30000	30000
				37000
7 Bypass Slidegates/Radial Gates				
Bypass Gates	L.S.	1	30000	30000
Hydraulic Rams	Each	2	above	0
Controls	L.S.	1	above	0
				30000
8 Roads & Bridges & Miscellaneous				
Roads 11200 ft.x12 ft.	L.S.	1	10000	10000
Bridges	L.S.	1	5000	5000
Access Roads Surface	S.Y.	15100	above	0
Parking Surface	S.Y.	4400	above	0
Protect Dump Sites	L.S.	1	1000	1000
				16000
9 Station Equipment				
Transformer	L.S.	1	20000	20000
Transformer Pad	L.S.	1	500	500
Building HVAC & Fans	L.S.	1	5000	5000
IPCO Interconnect/Protection Pack	L.S.	1	50000	50000
IPCO Meters	L.S.	1	10000	10000
				85500
10 Transmission Line				
Transmission Line 18800 ft.	Mile	3.56	35000	124600
IPCO Capacitors	L.S.	1	8000	8000
Land Aquisition/R.O.W.	L.S.	1	5000	5000
Telephone Line	L.S.	1	5000	5000

NOV 07 1995

Estimated Construction Cost	1007056
Contingency	50000
Construction Interest	36000

Total Construction Cost	<u>1093056</u>
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Engineering	
Preliminary Design	5000
Permitting & Agencies	15000
Design	25000
Power Sales Agreement	2000
Start-Up	5000
Operator Training	2000
Project Management	25000
Quality Control	20000
Surveying	5000

	<u>104000</u>
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Total Project Cost	1197056
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Resumes

Department of Water Resources
Southern Region Office

John J Straubhar

Thirty years in managing civil and building projects.
Thirty years experience in management of professional engineers,
surveyors, project managers, superintendents, architects,
accountants.
Engineering of earth fill dams
Registered engineer and land surveyor
Certified Value/Engineer
Formerly a licensed General Contractor

I feel the greatest attribute to this resume is on page three where
Straubhar lists himself as president and administrative management
for Shorock Hydro Inc. This company manages both Shoshone and Rock
Creek hydro.

Breck Glassinger

Owner of Caribou Construction
A company that specializes in building Sub Stations, Transmission,
overhead distribution, underground distribution, underground
utilities, and industrial wiring and controls.
Professional Electrical Engineer
15 years in the construction field

The two resumes provide added comfort to the officer that these two
gentlemen have the experience to construct on time, manage and
maintain the proposed hydro facility.

*This is a brief summary of the resume
of the two owners of this hydroelectric
project, prepared by a bank official
from resumes submitted.*

John J. Straubhar

9/10/93
NOV 07 1993



IN REPLY
REFER TO
PN-460

United States Department of the Interior

BUREAU OF RECLAMATION

Pacific Northwest Region
1150 North Curtis Road
Boise, Idaho 83706-1234

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SEP 10 1993

Department of Water Resources
Southern Region Office

AUG 31 1993

Contractor's Power Group
3502 N 3000 E
Twin Falls ID 83303

Subject: Site Use Agreement for Mile 28 Water Power Project (FERC No. 10552)
--Minidoka Project, Idaho (FERC)

Ladies and Gentlemen:

Enclosed is one fully executed original of Contract No. 3-07-10-P0032, the site use agreement for the subject development. We have retained one original.

It is our understanding that the American Falls Reservoir District No. 2 has also retained an original, but that original has not been furnished to us for execution. At such time as it is furnished, we will complete execution of that original and back-date it August 24, 1993, which is the same date that the other two originals have been dated.

Sincerely,

May E. Van Den Berg

Regional Supervisor of
Water, Power and Lands

Enclosure

cc: Mr. Craig D. Hobdey
Attorney
American Falls Reservoir District No. 2
PO Box 176
Gooding ID 83330

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61-07124
36-08718

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MINIDOKA PROJECT

CONTRACT
FOR CONSTRUCTION OF
MILE 28
WATER POWER PROJECT

Article Number	Table of Contents	Page Number
	Preamble	1
	Explanatory Recitals	1
1	Project Lands	2
2	Title	2
3	Construction	3
4	Borrow Material	3
5	Inspection	3
6	Use of Explosives	4
7	Payment	4
8	Construction Data	5
9	Water Supply	6
10	Safety and Health	6
11	Emergency Action Plan	8
12	Joint Inspection After Construction	8
13	Liability	8
14	Indemnity	9
15	Prior Rights	9
16	Operating Agreement	10
17	Reclamation Law	11
18	Rules, Regulations, and Determinations	11
19	Notices	11
20	Contract, Assignment - Successors and Assigns Obligated	11
21	Water and Air Pollution Control	11
22	Equal Opportunity	12
23	Certification of Nonsegregated Facilities	13
24	Compliance with Civil Rights Laws and Regulations	14
25	Officials Not to Benefit	14
26	Term of Contract	15
27	Cancellation	15
28	Amendment	15
29	Severability	15

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CONTRACT BETWEEN THE
CONTRACTOR'S POWER GROUP, INC.,

THE UNITED STATES OF AMERICA,

AND

AMERICAN FALLS RESERVOIR DISTRICT NO. 2

FOR

CONSTRUCTION OF THE MILE 28
WATER POWER PROJECT

THIS CONTRACT, entered into on this ^{24th} day of August, 1993, is between the Contractor's Power Group, a corporation organized and existing under the laws of the State of Idaho and having its principal place of business at Twin Falls, Idaho, and the United States of America, hereafter call the "United States," acting through the Regional Director, Pacific Northwest Region, Bureau of Reclamation (Reclamation), the duly authorized representative of the Secretary of the Interior, hereinafter called the "Contracting Officer", and the American Falls Reservoir District No. 2, an irrigation district organized and existing under and by virtue of the laws of the State of Idaho and having its principal place of business at Shoshone, Idaho, hereafter called the "District."

WITNESSETH THAT:

WHEREAS, the following recitals are made by way of explanation:

a. The United States pursuant to authority granted by the Federal Reclamation Laws, Act of June 17, 1902 (32 Stat. 388), as amended and supplemented, has constructed the Milner-Gooding Canal and appurtenant facilities for the purpose of furnishing irrigation water and in connection therewith has acquired and withdrawn certain lands. Said Milner-Gooding Canal is a feature of the Gooding Division of the Minidoka Project.

b. The District, pursuant to an amendatory contract with the United States, Contract No. 14-06-W-73, dated October 14, 1954, and to a company-district contract among the United States, District and Big Wood Canal Company, Contract No. 14-06-100-6031, dated June 1, 1962, is responsible for the operation and maintenance of and enjoys the benefits of, the transferred works of the Gooding Division, which includes the Milner-Gooding Canal and appurtenant facilities.

Page 1

NOV 07 1995

c. The Federal Energy Regulatory Commission (FERC) has issued a license, dated August 12, 1992, (the "License") to the Contractor's Power Group, hereinafter called the "Licensee," for the construction, operation, and maintenance of a hydroelectric powerplant with two generators of 750 kW each at Mile 28 of the Milner-Gooding Canal, FERC Project No. 10552, hereinafter called the "Powerplant," which shall utilize the head created by a drop on the said canal.

d. Pursuant to Subsection 9(c) of the Act of August 4, 1939, (53 Stat. 1187) of the Federal Reclamation Laws, the Contracting Officer, acting as the duly authorized representative of the Secretary, has determined that this contract will not impair the efficiency of the Milner-Gooding Canal for irrigation purposes.

e. Pursuant to Article 304 of the License, the Regional Director, Bureau of Reclamation of Boise, Idaho, is to review and approve design and construction of those facilities that will be an integral part of or that could effect the integrity of the Milner-Gooding Canal.

f. It is necessary for the parties hereto to enter into this agreement to accommodate the Licensee's construction of a new hydroelectric facility on the Milner-Gooding Canal, and to establish conditions for construction of the new facility.

NOW THEREFORE, Reclamation and the Licensee agree to the construction of a powerplant at Mile 28 on the Milner-Gooding Canal, subject to the terms of the License and the conditions herein set forth:

Project Lands

1. The United States hereby grants to the Licensee the right to enter upon, occupy, and use those Reclamation lands in the vicinity of the Milner-Gooding Canal and located within the project boundary as necessary for the construction of Project No. 10552, which lands are particularly described in Exhibit G, figure E-1 of the License application, and attached as Exhibit A hereof.

Title

2. Title to all lands, the Milner-Gooding Canal and existing appurtenances and equipment shall remain in the United States. The Licensee shall retain title to all facilities and equipment that they construct in accordance with the FERC license for so long as the License remains in effect. In the event Licensee ceases to operate the Powerplant, or FERC revokes the license, or this Agreement is canceled as provided herein, the facilities and equipment, or parts thereof, including such piping and control devices installed on Federal Facilities that are necessary for

Page 2

NOV 07 1995

unimpaired operation of the Federal Facilities shall be left in place and shall become the property of Reclamation. Modification of any feature of the Powerplant necessitated by cessation of operation by the Licensee may be performed by Reclamation. All costs of such modifications shall be borne by Licensee.

Construction

3. The Licensee shall not initiate construction on any of those facilities that will be an integral part of or that could affect the integrity of the Milner-Gooding Canal, as determined by the Contracting Officer, until the designs, specifications, and construction plans thereof have been reviewed and approved by the Contracting Officer in writing. The Contracting Officer shall review all materials provided by the Licensee within 45 working days after said material is received. Unresolved differences regarding said review and approval shall be handled in accordance with the provisions of Article 308 of the License. The Licensee shall have the sole responsibility to obtain any and all necessary Federal, State, and local permits and licenses. Copies of such permits and licenses shall be submitted to Reclamation prior to start of construction.

Borrow Materials

4. This contract does not provide for the acquisition of borrow material from Reclamation lands. Such authority can be granted under separate application and permitting procedures.

Inspection

5. The Contracting Officer reserves the right to require that the Licensee shall not engage in construction activities unless a Reclamation inspector is on-site. The Licensee shall provide access to the construction site for such inspection and shall provide the Contracting Officer with an up-to-date construction schedule including any modifications thereto, and agrees to otherwise facilitate the inspection activities. In the event the Licensee's construction is determined unacceptable, the Contracting Officer shall furnish the Licensee verbal or written notice to cease or to not initiate construction until the matter is resolved to the satisfaction of Reclamation in accordance with the provisions of Article 308 of the License. If verbal notice is furnished, it shall be confirmed in writing within two working days.

The Powerplant will not commence commercial operation until all equipment which may affect the Federal Facilities and water project purposes, whether identified in this Agreement or not, are satisfactorily tested in a manner acceptable to Reclamation. Reclamation reserves the right to require the Licensee to perform at the Licensee's expense such additional tests as Reclamation

NOV 07 1995

deems reasonably necessary to assure that the Powerplant is not structurally or operationally detrimental to the Federal Facilities.

Use of Explosives

6. The use of explosives is prohibited without the review and approval of the Contracting Officer.

Payment

7. The Licensee shall reimburse Reclamation for all its costs and expenses associated with the work performed under Articles 3 and 4 including an amount for administrative overhead. Such Reclamation costs and expenses include but are not limited to the following:

- a. Inspection performed by Reclamation personnel during construction of parts of the Powerplant that are identified as having significant impact on Federal Facilities;
- b. Special inspection of the Powerplant called for by Reclamation, based upon a unique problem or upon a reasonable concern for the integrity of the structure or operation of Federal Facilities, shall be at the Licensee's expense unless the unique problem is of Reclamations creation;
- c. Preparation or review or technical studies at the request of the Licensee, relating to the Powerplant;
- d. Review of designs, specifications, legal and other documents related to the Powerplant;
- e. Site visits and participation in meeting by Reclamation;
- f. Provision for copies of reports, drawings, and similar data requested by Licensee or its representatives;
- g. Consultation with Licensee;
- h. Observation, review, and comment in tests of piping, valving, automated equipment, supervisory control systems, and any and all other aspects of construction;
- i. Work necessitated by non-performance by the Licensee;
- j. The expense incurred in the event of failure of all or any part of the Federal Facilities resulting from operation or malfunction of the Powerplant.

NOV 07 1995

- k. Nothing in this paragraph is intended to limit or prohibit the Licensee from seeking review of decisions through the Administrative Procedures Act.

Upon written notice from the Contracting Officer, the Licensee shall advance the amount indicated in such notice for the next calendar quarter or portion thereof, for the estimated costs to be incurred by Reclamation for the work performed under Articles 3 and 4 above. If the amount advanced appears to be inadequate to cover the remaining work to be accomplished in any quarter, the Contracting Officer may issue a supplemental notice stating the amount required for the remainder of the quarter, and the Licensee shall advance such supplemental amount on or before the date specified in the supplemental notice. The Licensee shall submit full and proper payment for all charges to Reclamation within 30 calendar days of receipt of the billing. The developer shall pay a late payment charge on installments or charges which are received after the due date. The late payment charge percentage rate calculated by the Department of the Treasury and published quarterly in the Federal Register shall be used: Provided, That the late payment charge percentage rate will not be less than 0.5 percent per month. The late payment charge percentage rate applied on an overdue payment will remain in effect until payment is received. The late payment rate for a 30-day period will be determined on the day immediately following the due date and will be applied to the overdue payment for any portion of the 30-day period of delinquency. In the case of partial late payments, the amount received will be applied to the late charge on the overdue payment and then to the overdue payment. Any unencumbered funds at the end of each quarter shall be credited against the estimated cost for the then succeeding quarter. Upon completion of work by Reclamation on the Powerplant, any unexpended or unobligated funds previously advanced shall be returned to the Licensee.

Construction Data

8. The Licensee shall provide the Contracting Officer, without cost to the United States, full size reproducible (Mylar) "as built drawings" of the project works directly related to the safety and integrity of the Milner-Gooding Canal as determined by the Contracting Officer and such operating instructions and criteria as are required to update the Standing Operating Procedures for the facility. If the project drawings were produced with the use of a computer, a copy of the database for these drawings shall be provided to the Contracting Officer on computer media and in a format which are acceptable to the United States. The Licensee shall also provide the Contracting Officer specific construction data, such as drilling logs, upon written request from the Contracting Officer. Said "as built drawings" shall be provided within one year from the date of commercial operation of the project. Requested construction data shall be provided within 60 calendar days, provided said data are

Milner-Gooding Page 5

NOV 07 1995

completed. If requested data are not complete, the Licensee shall submit said data within a reasonable time after its completion: Provided, that all of said data shall be submitted within one year from the date of commercial operation of the project. The Licensee shall provide Reclamation with copies of any and all operating manuals of equipment as concerns any operation which could have an impact on the operation or structural integrity of the Federal Facilities.

Water Supply

9. The parties acknowledge that the construction, operation, and maintenance of the Powerplant as it relates to the Gooding Division of the Minidoka Project is subject to the primary purpose of the Milner-Gooding Canal which is to provide a water supply for the irrigation of the District, and shall not interfere with the operation of said canal for such primary purpose as determined by the Contracting Officer. Construction, operation and maintenance of the Powerplant shall be subordinate to, and occur in a manner and time consistent with, the primary purposes of the Federal Facilities and shall not interfere with vested water rights or with the normal or extraordinary operation and maintenance of the Federal Facilities. The water available for the Powerplant shall be equal in amount and timing to that necessary only to satisfy such primary purposes as the delivery of irrigation water for the District and whenever possible, secondary project interests such as aquifer recharge. Reclamation does not in any manner guarantee any quality or quantity of water for the Powerplant. Reclamation and the District shall determine the amount and timing of any and all deliveries of water. The Licensee shall obtain the State water-use permit necessary to allow its use of these flows for the generation of electricity.

Safety and Health

10. a. The Licensee shall not require any laborer or mechanic employed in the performance of the contract to work under conditions which are unsanitary, hazardous, or dangerous to the laborer's or mechanic's health or safety, as determined under Construction Safety and Health Standards promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.) as amended, and "Construction Safety Standards," published by the Bureau of Reclamation.
- b. The Licensee shall fully comply with the Bureau's "Construction Safety Standards" and amendments or revisions thereto in effect on the date of execution of this contract. One copy of this handbook will be provided at no charge. Additional copies may be obtained from the Contracting Officer at a cost of \$20 per copy. Construction Safety and Health Standards promulgated by the Secretary of Labor may be

WIP-ONCT, 8875 Page 6

NOV 07 1995

obtained from any regional or area office of the Occupational Safety and Health Administration of the U.S. Department of Labor.

c. The Licensee shall submit in writing a proposed safety program in the form and time intervals prescribed in Section 2 of the "Construction Safety Standards."

d. The Licensee is responsible for being cognizant of and ensuring compliance with the requirements set forth in subparagraphs a. and b. above. Such responsibility shall apply to both the Licensee's operations and those of the Licensee's subcontractors. When violations of the safety and health requirements contained in the standards referenced in subparagraph a. are called to the Licensees attention by the Contracting Officer or the Contracting Officer's authorized representatives, the Licensee shall immediately correct the condition to which attention has been directed. Such notice either oral or written, when served on the Licensee or the Licensee's representative, shall be deemed sufficient.

e. In the event the Licensee fails or refuses to promptly comply with the compliance directive issued under subparagraph d. above, the Contracting Officer or the Contracting Officer's authorized representative may issue an order to stop all or any part of the work. When satisfactory corrective action is taken, an order to resume work will be issued. The Licensee shall not be entitled to any claim for damage by reason of either the directive or the stop order. Failure of the Contracting Officer or the Contracting Officer's authorized representative to order discontinuance of any or all of the Licensee's operations shall not relieve the Licensee of the Licensee's responsibility for the safety of personnel and property.

f. The developer shall maintain an accurate record of, and shall report to the Contracting Officer's authorized representative in the manner prescribed by the Contracting Officer, all cases of death, occupational diseases, or traumatic injury to employees or public involved, and property damage in excess of \$2,500 incident to performance of work under this contract.

g. The rights and remedies of the Government provided in this paragraph are in addition to any other rights and remedies provided by law or under this contract.

h. In the event there is a conflict between the requirements contained in the Bureau's "Construction Safety Standards," Licensee's approved safety program, referenced safety and health codes and standards, or the U.S. Department of Labor Construction Safety and Health Standards promulgated under

NOV 07 1995

Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.), as amended, the more stringent requirement will prevail.

Emergency Action Plan

11. During the early stages of construction, the Licensee, in consultation with Reclamation, shall develop an Emergency Action Plan (EAP), consistent with FERC guidelines, setting forth the procedures to be followed in case of accident to, or failure of, the powerplant. In the event of an emergency at the Powerplant or Federal Facilities, Reclamation may take the appropriate action pursuant to the EAP or may take such further action as necessary to prevent or minimize damage to the Federal Facilities and the Powerplant.

Joint Inspection After Construction

12. The Licensee agrees to leave the construction area in a clean and orderly state. Following the completion of construction, the Licensee's and the Contracting Officer's representatives shall conduct a joint inspection of the construction area to determine that the United States-owned land used for construction has been adequately restored to preproject conditions as documented on videotape by the Contracting Officer or to such necessarily modified conditions as are acceptable to the Contracting Officer. In the event the Licensee fails to leave the area in an acceptable condition, the United States may accomplish the necessary work. Within 30 calendar days after demand is made to the Licensee for payment of the costs associated with such rectification work, the Licensee shall make payment therefor to the United States.

Liability

13. The Licensee shall have no claim against the United States and the District and releases the United States, its officers, agents or employees, and the District from any and all liability for damage or loss of generation, direct or indirect, or to the Powerplant and/or related facilities, or construction or modification thereof as a result, inter alia, of any future changes made to meet authorized federal purposes, or the failure of the facilities of the United States, or any changes made in operation of the federal reservation including, but not limited to, cessation of flows, or other aspects of the normal or extraordinary operation, maintenance, or reconstruction of the Milner-Gooding Canal and appurtenant facilities. Nevertheless, Reclamation and the District will use reasonable efforts to accommodate the Licensee's project.

NOV 07 1995

Indemnity

14. The Licensee shall hold harmless and indemnify the United States and the District, their agents and employees from any loss or damage of any nature whatsoever for which there is legal responsibility arising out of or connected with the Licensee's construction, operation, and maintenance of the Powerplant. The Licensee further agrees to indemnify the United States and the District for damages or losses to their facilities which occur as a result of the Licensee's construction, reconstruction, operation, or maintenance activities at the Powerplant. The Licensee shall name the United States insured to the Licensee's public liability insurance.

Prior Rights

15. The Licensee further agrees as follows:

a. There is reserved to the United States, its agents, and assigns the prior right to use any of the premises herein described to construct, operate, and maintain all structures and facilities, including but not limited to canals, waste-ways, laterals, ditches, pipelines, roadways, electrical transmission lines, communication structures, substation switchyards, powerplants, and any other appurtenant irrigation and power structures and facilities without any payment made by the United States or its agents for such right;

b. That if the construction, inspection, operation, and maintenance of any or all of such United States structures and facilities across, over, or upon said premises should be made more expensive by reason of the activities or works of the Licensee thereon, such additional expense, as determined by the Secretary of the Interior or his duly authorized representative, shall be reimbursed by the Licensee. As an alternative to payment, the Licensee at its sole cost and expense and within time limits established by the United States, may remove or adapt facilities constructed and operated by it on said lands to accommodate the aforementioned structures and facilities of the United States. The Licensee shall bear any costs to the United States and the District occasioned by the failure of the Licensee to remove and adapt its facilities within the time limits specified.

Further, if United States structures and facilities are damaged in any way by activities, operations, or works of the Licensee thereon, such additional expense incurred for repair or replacement, as determined by the Secretary of the Interior or his duly authorized representative, shall be reimbursed by the Licensee. Payments shall be made in accordance with

NOV 07 1995

Article 6. Nothing in this paragraph is intended to limit or prohibit the Licensee from seeking review of decisions through the Administrative Procedures Act.

c. That there is also reserved to the United States the right of its officers, agents, employees, licensees, and permittees at all proper times and places freely to have ingress to, passage over, and egress from all of said lands for the purpose of exercising, enforcing, and protecting the right reserved herein.

Operating Agreement

16. Prior to initial production of electricity at the Powerplant, and as condition precedent thereto, the Licensee and the Contracting Officer shall enter into an operating agreement covering the details of operation and maintenance of the Powerplant and the Milner-Gooding Canal.

a. Said operating agreement shall be written as an addendum to this contract with provision for future revisions of the addendum by mutual consent, without otherwise affecting this contract.

b. Said operating agreement shall include but not be limited to the following:

(1). table of contacts for both parties for normal and emergency events and procedures for updating such tables,

(2). procedures to minimize the effect of a generator shutdown on the canal,

(3). provision for the periodic inspection of the Powerplant by Reclamation to insure that the safety, operation, and maintenance of the Milner-Gooding Canal are not compromised.

Reclamation Law

17. The parties agree that the delivery of irrigation water or the use of Federal facilities pursuant to this contract is subject to Reclamation law, as amended and supplemented, including, but not limited to, the Reclamation Reform Act of 1982 (Public Law 97-293).

Rules, Regulations, and Determinations

18. The Contracting Officer shall have the right to make determinations necessary to administer this contract that are consistent with the expressed and implied provisions of this contract, the laws of the United States and the State, and the

NOV 07 1985

rules and regulations promulgated by the Secretary of the Interior. Such determinations shall be made in consultation with the Licensee, provided however, that the decision of the Contracting Officer shall be considered as final for the purpose of any appeal to the Federal Courts.

Notices

19. Any notice, demand, or request authorized or required by this contract shall be deemed to have been given, on behalf of the Licensee, when mailed, postage prepaid, or delivered to the Regional Director, PN Region, Bureau of Reclamation, Box 043, 550 West Fort Street, Boise, Idaho 83724, and on behalf of the United States, when mailed, postage prepaid, or delivered to Contractor's Power Group, 3502 N. 3000 E., Twin Falls, Idaho 83303. The designation of the addressee or the address may be changed by notice given in the same manner as provided in this article for other notices.

Contract, Assignment Limited - Successors and Assigns Obligated

20. The provisions of this contract shall apply to and bind the successors and assigns of the parties hereto, but no assignment or transfer of this contract or any right or interest therein shall be valid until approved in writing by the Contracting Officer.

Water and Air Pollution Control

21. The Licensee, in carrying out this contract, shall comply with all applicable water and air pollution laws and regulations of the United States and the State of Idaho, and shall obtain all required permits or licenses from the appropriate Federal, State, or local authorities.

Equal Opportunity

22. During the performance of this contract, the Licensee agrees as follows:

a. The Licensee will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Licensee will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Licensee agrees to post in

RECORDED

conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

b. The Licensee will, in all solicitations or advertisements for employees placed by or on behalf of the Licensee, state that all qualified applicants will receive consideration for employment without discrimination because of race, color, religion, sex, or national origin.

c. The Licensee will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the said labor union or workers' representative of the Licensee's commitments under Section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Licensee will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

e. The Licensee will furnish all information and reports required by said amended Executive Order and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Contracting Officer and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

f. In the event of the Licensee's noncompliance with the nondiscrimination clauses of this contract or with any of the such rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the Licensee may be declared ineligible for further Government contracts in accordance with procedures authorized in said amended Executive Order, and such other sanctions may be imposed and remedies invoked as provided in said Executive Order, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

g. The Licensee will include the provisions of this article in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of said amended Executive Order, so that such provisions will be binding upon each subcontractor or vendor. The Licensee will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions,

NOV 07 1995

including sanctions for noncompliance: Provided, however, That in the event the Licensee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Licensee may request the United States to enter into such litigation to protect the interests of the United States.

Certification of Nonsegregated Facilities

23. The Licensee hereby certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and it does not permit its employees to perform their services at any location, its control, where segregated facilities are maintained. It certifies further that it will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it will not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The Licensee agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The Licensee further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e, quarterly, semiannually, or annually). Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

NOV 07 1995

Compliance With Civil Rights Laws and Regulations

24. a. The Licensee shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), Section 504 of the Rehabilitation Act of 1975 (P.L. 93-112, as amended), the Age Discrimination Act of 1975 (42 U.S.C. 6101, et seq.) and any other applicable civil rights laws, as well as with their respective implementing regulations and guidelines imposed by the U.S. Department of the Interior and/or Bureau of Reclamation.
- b. These statutes require that no person in the United States shall, on the grounds of race, color, national origin, handicap, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving financial assistance from the Bureau of Reclamation. By executing this contract, the Licensee agrees to immediately take any measures necessary to implement this obligation, including permitting officials of the United States to inspect premises, programs, and documents. (c) The Licensee makes this agreement in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property discounts or other Federal financial assistance extended after the date hereof to the Licensee by the Bureau of Reclamation, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Licensee recognizes and agrees that such Federal assistance will be extended in reliance on the representations and agreements made in this article, and that the United States reserves the right to seek judicial enforcement thereof.

Officials Not To Benefit

25. No Member of or Delegate to Congress, Resident Commissioner or official of the Licensee shall benefit from this contract other than as a water user or landowner in the same manner as other water users or landowners.

Term of Contract

26. This contract shall become effective on the date first above written and shall continue for the same term as set out in Ordering Paragraph (A) of the License, through August 31, 2042, unless terminated sooner by mutual agreement of the parties. This agreement may be renewed at the end of the above-referenced license term upon terms and conditions mutually agreeable to all parties.

NOV 07 1995

Cancellation

27. In the event the Licensee breaches this Agreement, or fails (1) to comply with any written instruction of Reclamation pertaining to the structural or operational integrity of the Federal Facilities, (2) to provide insurance or indemnification, or (3) to make payments to Reclamation as provided in this Agreement, then Reclamation shall give the Licensee a ninety (90) day notice within which to commence to comply with said instruction, provide acceptable insurance or security indemnification, or make payments to Reclamation, as the case may be. In the event the Licensee fails so to do and after all legal avenues, opportunities of hearing arguments, and judicial reviews have been exhausted, Reclamation reserves the right to cancel any part of the Agreement, or all of it. Unless otherwise provided by regulations or Interior Departmental Manual, the action of the Contracting Officer, will be considered as final for the Department of the Interior for the purpose of appeal to the Federal Courts.

Amendment

28. This Agreement may not be amended, altered, or modified except by instrument in writing and signed by the parties; except for cancellation or as otherwise provided herein.

Severability

29. If any provision of this Agreement or the application thereof to any person or circumstance shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provision to other persons or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

RECEIVED

NOV 07 1995

WITNESS WHEREOF, the parties hereto have signed their names the day and year first above written.

UNITED STATES OF AMERICA

John W. Keys, III

By Regional Director,
Pacific Northwest Region
Bureau of Reclamation

CONTRACTOR'S POWER GROUP

John J. Straubhaar
President

Title

Attest:

Breck Glassinger
Sec./Treas.

Title

AMERICAN FALLS RESERVOIR DISTRICT NO. 2

Title

Waldo C. Jones
Chairman

Attest:

Laura M. Adams
Secretary

Title

RECEIVED

NOV 07 1995

STATE OF Idaho)
County of Jerome) ss

On this 26th day of July, 1993, before me, the undersigned, a Notary Public, personally appeared John J. Strachan, known to me to be the person who executed the foregoing instrument and acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Ernest Cristofel
Notary Public for Idaho

(SEAL)
My Commission Expires: April 30, 1998

STATE OF Idaho)
County of Jerome) ss

On this 26th day of July, 1993, before me, the undersigned, a Notary Public, personally appeared Breck Gleason, Jr., known to me to be the person who executed the foregoing instrument and acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned.

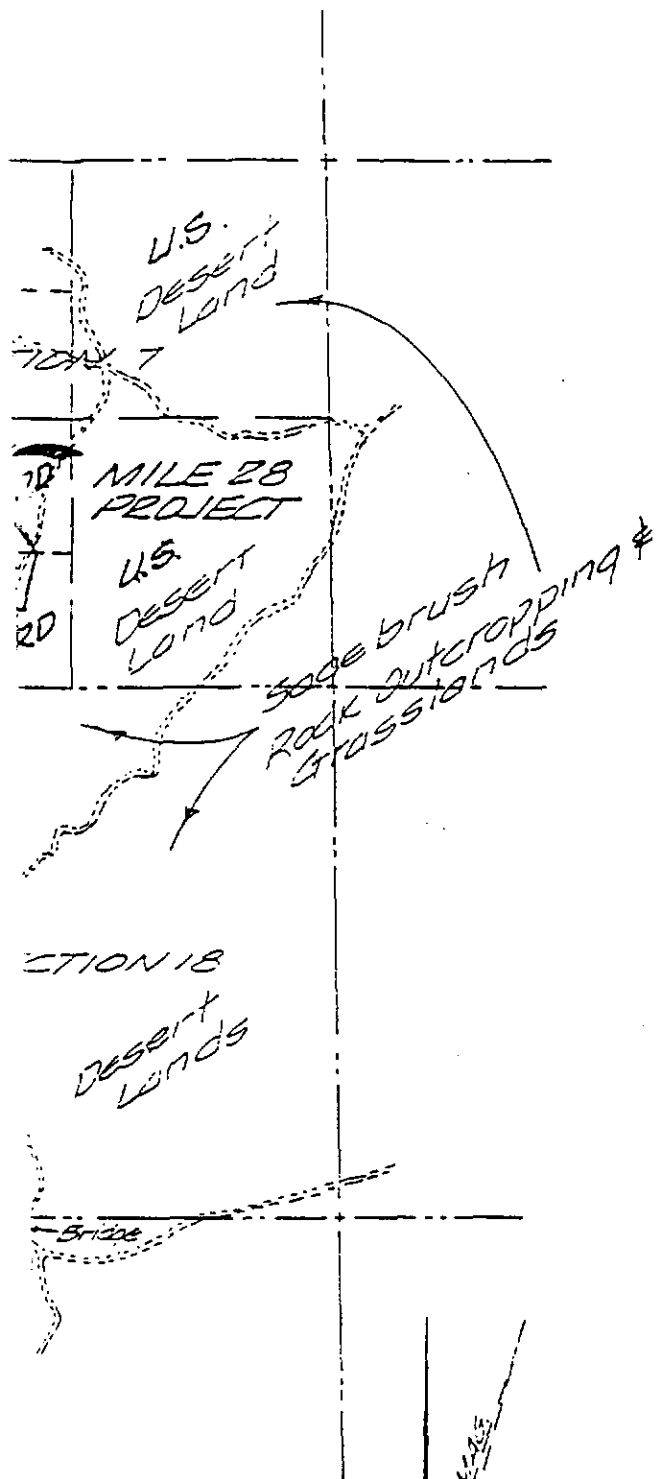
IN WITNESS WHEREOF, I hereunto set my hand and affixed my official seal, the day and year in this certificate first above written.

Ernest Cristofel
Notary Public for Idaho

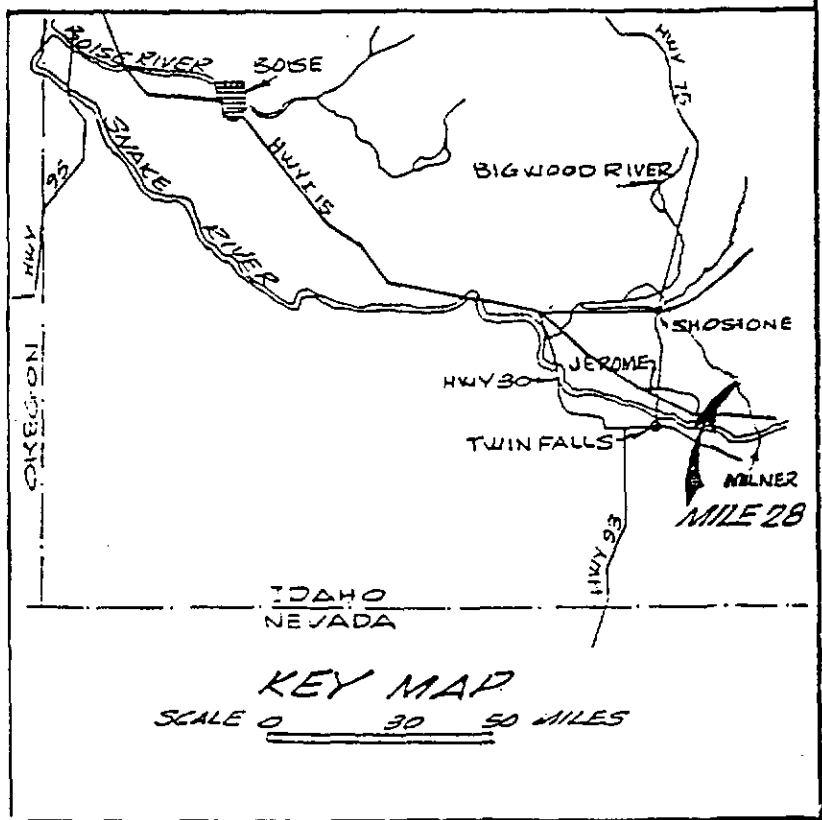
(SEAL)
My Commission Expires: April 30, 1998

T.B.S., R2DE, BM.

70



U.S. - United States
AFRD - American Falls
Reservoir District



MAP

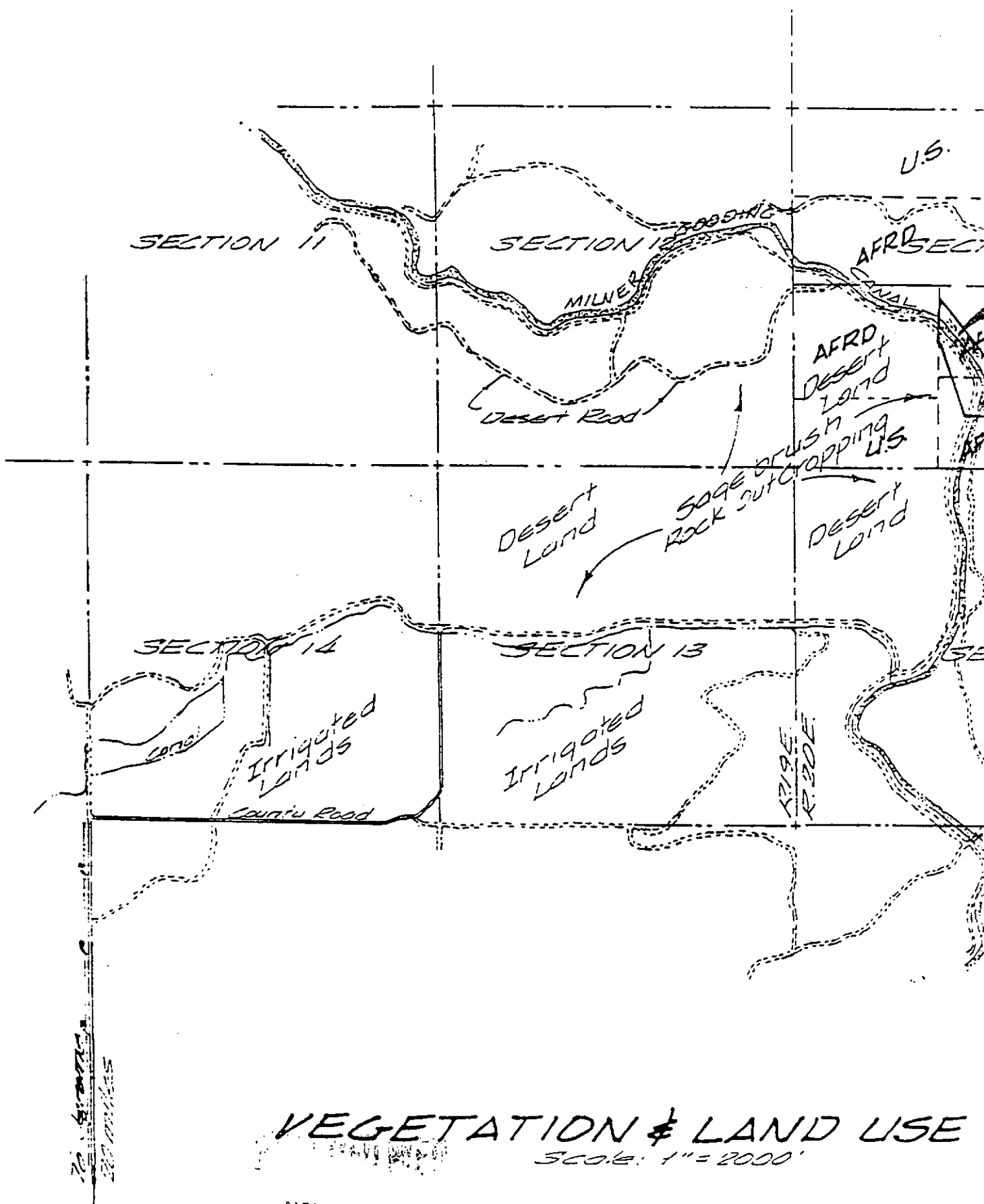
MILE 28
WATERPOWER PROJECT

NOV 0.7 1995

FIGURE E-1

T.8S., R.19E, BM.

Jerome County, Idaho



VEGETATION & LAND USE

Scale: 1" = 2000'

NOV 07 1995

S. Region
5/89

Application No. 01-07124
36-08718

ADDITIONAL INFORMATION REQUIREMENTS FOR MAJOR POWER PROJECTS
MORE THAN 25 CFS OR MORE THAN 5MW

The following additional information is required to be made part of the application file pursuant to Idaho Code provisions and the department's Rules and Regulations for Water Appropriation:

- 1) An affidavit to establish residence and indicate the ownership of any existing man-made works to be used in the project must be completed and filed with the application. (Sections 42-205 through 208, Idaho Code) A form is enclosed for your completion and return.
- 2) An Engineering plan for the project.
- 3) All information required by rule 4,5,3 of the Rules and Regulations for Water Appropriation. This requirement may be met in one of two ways:
 - A) Submit all information required by rule 4,5,3 to the department for review. The department may then act on your application independently of actions of the Federal Energy Regulatory Commission (FERC) and/or the Idaho Public Utilities Commission (PUC).
 - B) Submit all required approvals of FERC and/or PUC together with the above required engineering plan.

Attach: Copy of Rule 4,5,3

NOV 07 1989

IDAHO DEPARTMENT OF WATER RESOURCES RULES AND REGULATIONS

4,5,3. Information to be submitted

The following information shall be submitted for applications to appropriate unappropriated water or trust water and for permits being reprocessed for trust water. The additional information submittal requirements of this rule are waived for filings which seek to appropriate five (5) cfs or less or storage of five hundred acre-feet (500 A-F) or less and for filings seeking reallocation of trust water which the director determines will reduce the flow of the Snake River measured at Murphy Gauge by not more than two (2) acre-feet per day. For filings proposing irrigation as a purpose of use, the additional information is required if more than 200 acres will be irrigated. However, the director may specifically request submittal of any of the following information for any filing, as he determines necessary.

4,5,3,1. Information relative to the effect on existing water rights, Section 42-203A(5)(a), Idaho Code, shall be submitted as follows:

4,5,3,1,1. For applications appropriating springs or surface streams with 5 or fewer existing users, either the identification number, or the name and address of the user, and the location of the point of diversion and nature of use for each existing water right shall be submitted.

4,5,3,1,2. For applications appropriating groundwater, a plat shall be submitted locating the proposed well relative to all existing wells and springs and permitted wells within a one-half mile radius of the proposed well.

4,5,3,1,3. Information shall be submitted concerning any design, construction, or operation techniques which will be employed to eliminate or reduce the impact on other water rights.

4,5,3,2. Information relative to sufficiency of water supply, Section 42-203A(5)(b), Idaho Code, shall be submitted as follows:

4,5,3,2,1. Information shall be submitted on the water requirements of the proposed project, including, but not limited to, the required diversion rate during the peak use period and the average use period, the volume to be diverted per year, the period of year that water is required, and the volume of water that will be consumptively used per year.

4,5,3,2,2. Information shall be submitted on the quantity of water available from the source applied for, including, but not limited to, information concerning flow rates for surface water sources available during periods of peak and average project water demand, information concerning the properties of the aquifers that water is to be taken from for groundwater sources, and information on other sources of supply that may be used to supplement the applied for water source.

4,5,3,3. Information relative to good faith, delay, or speculative purposes of the applicant, Section 42-203A(5)(c), Idaho Code, shall be submitted as follows:

4,5,3,3,1. The applicant shall submit copies of deeds, leases, easements or applications for rights-of-way from

NOV 07 1995

federal or state agencies documenting a possessory interest in the lands necessary for all project facilities and the place of use or if such interest can be obtained by eminent domain proceedings the applicant must show that appropriate actions are being taken to obtain the interest. Applicants for hydropower uses shall also submit information required to demonstrate compliance with Sections 42-205 and 42-206, Idaho Code.

4,5,3,3,2. The applicant shall submit copies of applications for other needed permits, licenses and approvals, and must keep the department apprised of the status of the applications and any subsequent approvals or denials.

4,5,3,4. Information Relative to Financial Resources, Section 42-203A(5) (d), Idaho Code, shall be submitted as follows:

4,5,3,4,1. The applicant shall submit a current financial statement certified to show the accuracy of the information contained therein, or a financial commitment letter along with the financial statement of the lender or other evidence to show that it is reasonably probable that financing will be available to appropriate the water and apply it to the beneficial use proposed.

4,5,3,4,2. The applicant shall submit plans and specifications along with estimated construction costs for the project works. The plans shall be definite enough to allow for determination of project impacts and implications.

4,5,3,5. Information Relative to Conflict with the Local Public Interest, Section 42-203A(5) (e), Idaho Code, shall be submitted as follows:

4,5,3,5,1. The applicant shall seek comment and shall submit all letters of comment on the effects of the construction and operation of the proposed project from the governing body of the city and/or county and tribal reservation within which the point of diversion and place of use are located, the Idaho Department of Fish and Game, the Idaho Department of Health and Welfare, Division of Environment, and any irrigation district or canal company within which the proposed project is located and from other entities as determined by the director.

4,5,3,6. The following information Relative to the Public Interest Criteria of Section 42-203C(2), Idaho Code, shall be submitted by an applicant seeking reallocation of trust water for a project which the director determines will reduce the flow of the Snake River by more than two (2) acre-feet per day. For filings proposing irrigation as a purpose of use, the additional information is required if more than 200 acres will be irrigated. The director may request any or all of the following information for any filing seeking the reallocation of trust water.

4,5,3,6,1. A project design and estimate of cost of development shall be submitted. For applications appropriating more than 25 cfs, or 10,000 AF of storage, or generating more than 5 megawatts, the information shall be prepared and submitted by a qualified engineer licensed under the provisions of Chapter 12, Title 54, Idaho Code, unless waived by the director. The design shall be definite enough to reflect the project's impacts and implications as required in subsequent rules.

NOV 07 1995

4,5,3,6,2. If the project proposes development for irrigation purposes, information shall be submitted on crop rotation, including acreages, for lands when newly developed.

4,5,3,6,3. Information shall be submitted concerning the number and kinds of jobs that will be created or eliminated as a direct result of project development including both the construction and operating phases of the project. If jobs are seasonal, the estimated number of months per year of employment shall be submitted.

4,5,3,6,4. For applications or permits being reprocessed for more than 25 cfs, or more than 10,000 AF of storage, or more than 5 megawatts, information shall be submitted concerning the changes to community services that will be required during the construction and operation phases of the project including, but not limited to, changes to schools, roads, housing, public utilities and public health and safety facilities, if any.

4,5,3,6,5. Information shall be submitted concerning the source of energy for diverting and using water for the project, the estimated instantaneous demand and total amount of energy that will be used, the efficiency of use, and energy conservation methods.

4,5,3,6,6. Information shall be submitted concerning the location, amount, and quality of return flow water, and any water conservation features of the proposed project.

4,5,3,6,7. If the project proposes irrigation as a use, information shall be submitted concerning the kinship, if any, of the operator of the land to be irrigated by the project to the applicant, the location and acreage

of other irrigated lands owned, leased, or rented by the applicant, the names, addresses and number of shares held by each shareholder if the applicant is a corporation, evidence of tax-exempt status if a corporation is so claiming, a soil survey prepared in accordance with the U.S. Soil Conservation Service irrigable land classification system, and a schedule for bringing into production the project lands.

NOV 6 7 1985

Form No.
7/87

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

CHECKLIST OF REQUIREMENTS
LARGE DIVERSION SUPPLEMENTARY
ANALYSIS SHEET*

EFFECT ON EXISTING RIGHTS

- ☐ Yes ☐ No Springs/surface streams with 5 or less existing users
☐ Identify number of impacted rights
☐ Name and address of users
☐ Location of points of diversion
☐ Nature of use of the existing rights
- ☐ Yes ☐ No Groundwater
☐ Plat showing proposed well and any other wells &/or
springs within $\frac{1}{4}$ mile radius
- ☐ Yes ☐ No Statement of design construction, or operation techniques
which will be used to reduce impact on existing rights

SUFFICIENCY OF WATER SUPPLY

- Water Requirements of Proposed Project
☐ Required diversion rate during peak use (Maximum rate)
☐ Required diversion rate during average use period
☐ Annual volume
☐ Season of use
☐ Volume to be consumptively used/year
- Quantity of Water Available from Source
☐ Flow rates for surface water sources available during peak
and average water demand period
☐ Properties of aquifers
☐ Other sources available for supplementation

GOOD FAITH, DELAY OR SPECULATION

- ☐ Copies of deeds, leases, easements, and right-of-ways from _____
- ☐ Power applications affidavit form 205/206 is required
☐ Yes ☐ No Other needed permits, licenses, or approvals required. If
yes, _____

FINANCIAL RESOURCES

- ☐ Current certified financial statement
☐ Financial commitment letter/financial statement from
committed party
☐ Project design/plans along with cost estimation to
complete project

*For applications of more than 5 cfs. or more than 500 AF.

01-07124
~~36-8718~~

LOCAL PUBLIC INTEREST

Comments received from:

- | | | |
|---------------------------------------|--|--|
| ☐ City | ☐ Idaho Fish & Game | ☐ Irrigation District |
| ☐ County | ☐ Idaho Health & Welfare | ☐ Canal Company |
| ☐ Reservations | ☐ Division of Environment | ☐ Other _____ |

Project impacts/implications report

COMMENTS

Large div. info.
request sheets
handed to Jack
Strubawhr

9/1

TSJ